Self Diagnosis Supported model

# SERVICE MANUAL

# HA3 CHASSIS

| MODEL NAME | REMOTE COMMANDER | DESTINATION | CHASSIS NO. |
|---|---|---|---|
| ***KD-34XBR2*** | *RM-Y185* | *US* | *SCC-S57A-A* |




KD-34XBR2



RM-Y185

## TRINITRON® COLOR TELEVISION

SONY®

9-965-916-03

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# SPECIFICATIONS

| | KD-34XBR2 |
|---|---|
| **Power Requirements** | 120V, 60Hz |
| **Number of Inputs/Outputs** | |
| **Video** [1] | 4 |
| **S Video** [2] | 4 |
| **Y, PB, PR** [3] | 2 |
| **Audio** [4] | 6 |
| **Audio Out** [5] | 1 |
| **Monitor Out** | 1 |
| **Control-S (in/out)** | 1 |
| **SELECT OUT** [6] | 1 Audio/1 Video |
| **Digitial Audio Optical Output Dolby Digital/PCM** [7] | 1 |
| **i.LINK S200** [8] | 2 |
| **Speaker Output (W)** | 7.5W x 4 |
| **Power Consumption (W)** | |
| **In Use (Max)** | 330W |
| **In Standby** | 2.5W |
| **In iLINK Standby** | 34W |
| **Dimensions (W x H x D)** | |
| **mm** | 994 x 622 x 591.3 mm |
| **in** | 39 3/16 x 24 1/2 x 23 5/16 in |
| **Mass** | |
| **kg** | 93 kg |
| **lbs** | 206 lbs. |

1) 1 Vp-p 75 ohms unbalanced, sync negative
2) Y: 1 Vp-p 75 ohms unbalanced, sync negative
C: 0.286 Vp-p (Burst signal), 75 ohms
3) Y: 1.0 Vp-p, 75 ohms unbalanced, sync negative;
PB: 0.7 Vp-p, 75 ohms
PR: 0.7 Vp-p, 75 ohms
4) 500 mVrms (100% modulation), Impedance: 47 kilohms
5) More than 408 mVrms at the maximum volume setting (variable)
More than 408 mVrms (fix); Impedance (output): 2 kilohms
6) 1 Vp-p, 75 ohms unbalanced, sync negative.
More than 408 mVrms (100% modulation)
Impedence (output): 2 kilohms
7) Optical rectangular (1)

**Television system**
NTSC, American TV standard, ATSC

**Channel coverage**
DTV: 1-99/ VHF: 2-13/ UHF: 14-69/ CATV: 1-125

**Picture tube**
FD Trinitron® tube

**Visible screen size**
34-inch picture measured diagonally

**Actual screen size**
36-inch measured diagonally

**Antenna**
75 ohm external terminal for VHF/UHF

**Supplied Accessories**
Remote Commander RM-Y185
Two Size AA (R6) Batteries

**Optional Accessories**
A/V Cable: VMC-810/820/830HG
Audio Cable: RKC-515HG
i.LINK Cable: VMC-IL4415 (4-pin to 4-pin, 1.5 meters)
VMC-IL4435 (4-pin to 4-pin, 3.5 meters)
Component Video Cable: VMC-10/30 HG
TV Stand: SU-34HD2

*Design and specifications are subject to change without notice.*

XBR
TruSurround™ by SRS ◉®

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**◉ SRS (SOUND RETRIEVAL SYSTEM)**

The ◉ SRS (SOUND RETRIEVAL SYSTEM) is manufactured by Sony Corporation under license from SRS Labs, Inc. It is covered by U.S. Patent No. 4,748,669. Other U.S. and foreign patents pending.

The word 'SRS' and the SRS symbol ◉ are registered trademarks of SRS Labs, Inc. BBE and BBE symbol are trademarks of BBE Sound, Inc. and are licensed by BBE Sound, Inc. under U.S. Patent No. 4,638,258 and 4,482,866.

# WARNINGS AND CAUTIONS

## CAUTION

Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield, or carbon painted on the CRT, after removing the anode.

## WARNING!!

An isolation transformer should be used during any service to avoid possible shock hazard, because of live chassis. The chassis of this receiver is directly connected to the AC power line.

## ⚠ SAFETY-RELATED COMPONENT WARNING!!

Components identified by shading and ⚠ mark on the schematic diagrams, exploded views, and in the parts list are critical for safe operation. Replace these components with Sony parts whose part numbers appear as shown in this manual or in supplements published by Sony. Circuit adjustments that are critical for safe operation are identified in this manual. Follow these procedures whenever critical components are replaced or improper operation is suspected.

---

## ATTENTION!!

Apres avoir deconnecte le cap de l'anode, court-circuiter l'anode du tube cathodique et celui de l'anode du cap au chassis metallique de l'appareil, ou la couche de carbone peinte sur le tube cathodique ou au blindage du tube cathodique.

Afin d'eviter tout risque d'electrocution provenant d'un châssis sous tension, un transformateur d'isolement doit etre utilisé lors de tout dépannage. Le châssis de ce récepteur est directement raccordé à l'alimentation du secteur.

## ⚠ ATTENTION AUX COMPOSANTS RELATIFS A LA SECURITE!!

Les composants identifies par une trame et par une marque ⚠ sur les schemas de principe, les vues explosees et les listes de pieces sont d'une importance critique pour la securite du fonctionnement. Ne les remplacer que par des composants Sony dont le numero de piece est indique dans le present manuel ou dans des supplements publies par Sony. Les reglages de circuit dont l'importance est critique pour la securite du fonctionnement sont identifies dans le present manuel. Suivre ces procedures lors de chaque remplacement de composants critiques, ou lorsqu'un mauvais fonctionnement suspecte.

# SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly soldered connections. Check the entire board surface for solder splashes and bridges.

2. Check the interboard wiring to ensure that no wires are "pinched" or touching high-wattage resistors.

3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.

4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.

5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.

6. Check the line cords for cracks and abrasion. Recommend the replacement of any such line cord to the customer.

7. Check the B+ and HV to see if they are specified values. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.

8. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

**Leakage Test**

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instructions.

2. A battery-operated AC milliampmeter. The Data Precision 245 digital multimeter is suitable for this job.

3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low voltage scale. The Simpson's 250 and Sanwa SH-63TRD are examples of passive VOMs that are suitable. Nearly all battery-operated digital multimeters that have a 2 VAC range are suitable (see Figure A).

**How to Find a Good Earth Ground**

A cold-water pipe is a guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms.

If a cold-water pipe is not accessible, connect a 60- to 100-watt trouble-light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side on the line; the lamp should light at normal brilliance if the screw is at ground potential (see Figure B).

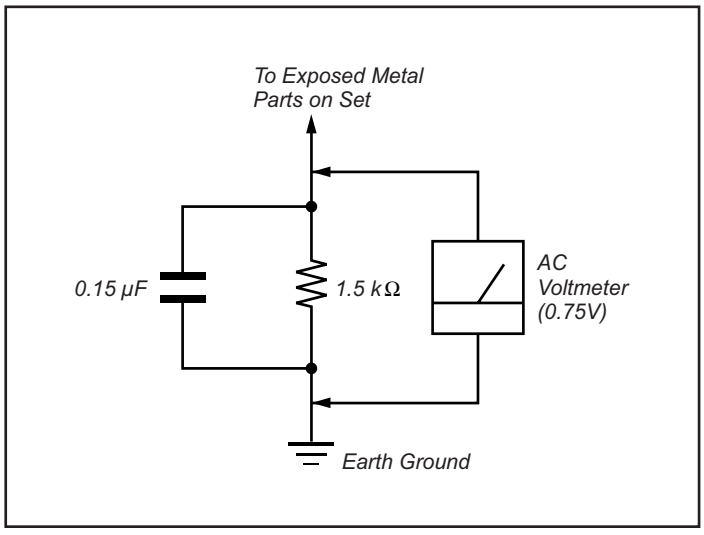



Figure A. Using an AC voltmeter to check AC leakage.

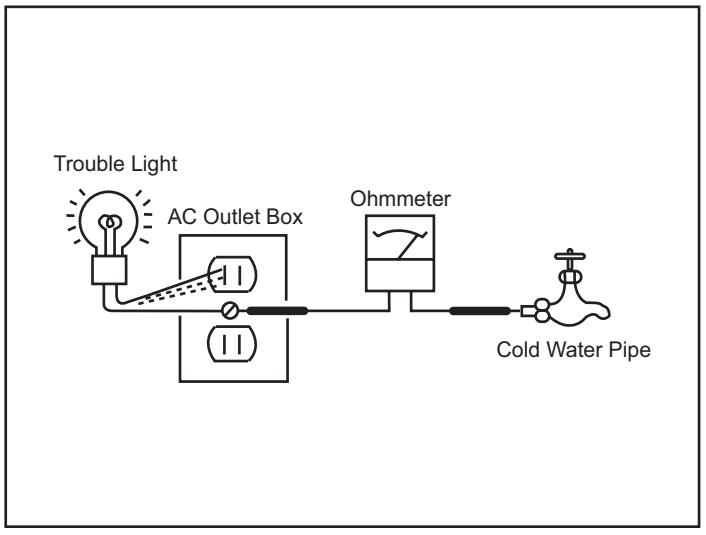



Figure B. Checking for earth ground.

# SELF-DIAGNOSTIC FUNCTION

Self Diagnosis Supported model

The units in this manual contain a self-diagnostic function. If an error occurs, the STANDBY/i.LINK STANDBY LED will automatically begin to flash. The number of times the LED flashes translates to a probable source of the problem. A definition of the STANDBY/i.LINK STANDBY LED flash indicators is listed in the instruction manual for the user's knowledge and reference. If an error symptom cannot be reproduced, the Remote Commander can be used to review the failure occurrence data stored in memory to reveal past problems and how often these problems occur.

**Diagnostic Test Indicators**

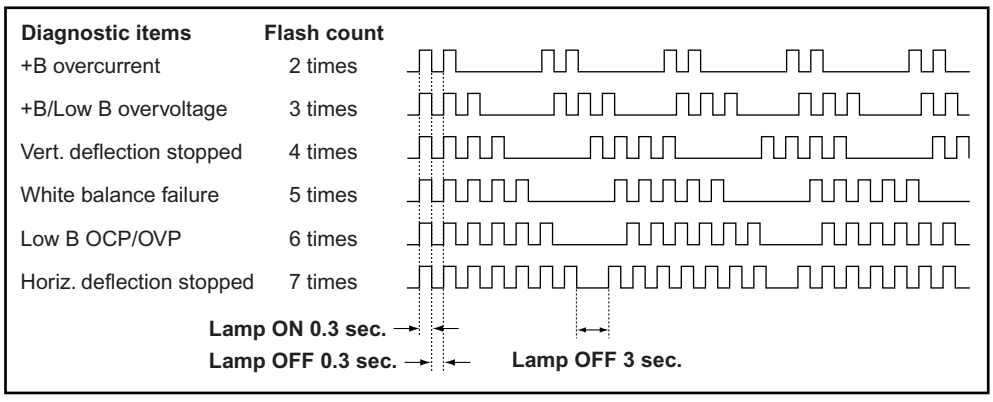
When an error occurs, the STANDBY/i.LINK STANDBY LED will flash a set number of times to indicate the possible cause of the problem. If there is more than one error, the LED will identify the first of the problem areas.

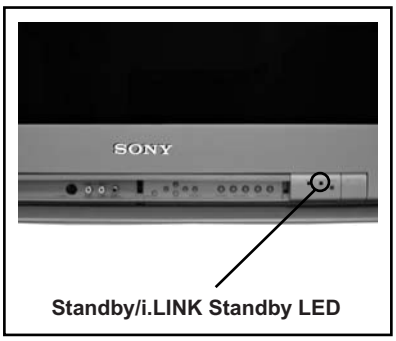
Results for all of the following diagnostic items are displayed on screen. No error has occurred if the screen displays a "0".

| Diagnostic Item | No. of times STANDBY/ i.LINK STANDBY lamp flashes | Display Result | Probable Cause Location | Detected Symptoms |
|---|---|---|---|---|
| Power does not turn on | Does not light | | • Power cord is not plugged in.<br>• Fuse is burned out (F6701). | • Power does not come on.<br>• No power is supplied to the TV.<br>• AC power supply is faulty. |
| +B overcurrent (OCP) (see Note 1) | 2 times | 2:0 or 2:1 | • H.OUT (Q5030) is shorted (D Board).<br>• +B PWM (Q5003) is shorted (D Board).<br>• IC9001, IC9002, IC9003 is shorted (C Board). | • Power does not come on.<br>• Load on power line is shorted. |
| Low +B overvoltage (OVP) | 3 times | 3:0 or 3:1 | • IC6505 is faulty (D Board). +B overvoltage. | • Has entered standby mode. |
| Vertical Deflection Stopped | 4 times | 4:0 or 4:1 | • ± 15V is not supplied (D Board).<br>• IC5004 is faulty (D Board). | • Has entered standby state after Horizontal raster.<br>• Vertical deflection pulse is stopped.<br>• Power line is shorted or power supply is stopped. |
| White Balance Failure (Not balanced) | 5 times | 5:0 or 5:1 | • Video OUT (IC9001-IC9003) is faulty (C Board).<br>• CRT drive (IC3101) is faulty (A Board).<br>• G2 is improperly adjusted (See Note 2). | • No raster is generated.<br>• CRT cathode current detection reference pulse output is small. |
| LOW +B OCP/OVP (overcurrent/overvoltage) (See Note 3) | 6 times | 6:0 or 6:1 | • +5 line is overloaded (A, B Boards).<br>• +5 line is shorted (A, B Boards). | • No picture. |
| Horizontal Deflection Stopped | 7 times | 7:0 or 7:1 | | • No picture. |

Note 1: If a +B overcurrent is detected, stoppage of the Vertical deflection is detected simultaneously. The symptom that is diagnosed first by the microcontroller is displayed on screen.
Note 2: Refer to Screen (G2) Adjustment in Section 2-5. of this manual.
Note 3: If STANDBY/i.LINK STANDBY LED flashes six (6) times, unplug the unit and wait 10 seconds before performing the adjustment

**Display of STANDBY/i.LINK Standby LED Flash Count**




* One flash count is not used for self-diagnostic.

**Stopping the STANDBY/i.LINK STANDBY LED Flash**

Turn off the power switch on the TV main unit or unplug the power cord from the outlet to stop the STANDBY/i.LINK STANDBY LAMP from flashing.

**Self-Diagnostic Screen Display**

For errors with symptoms such as "power sometimes shuts off" or "screen sometimes goes out" that cannot be confirmed, it is possible to bring up past occurrences of failure on the screen for confirmation.

**To Bring Up Screen Test**

In standby mode, press buttons on the Remote Commander sequentially, in rapid succession, as shown below:

DISPLAY ➡ Channel 5 ➡ Sound volume - ➡ Power ON.

| SELF DIAGNOSIS | |
|---|---|
| 2: +B OCP | N/A |
| 3: +B OVP | N/A |
| 4: VSTOP | 0 |
| 5: AKB | 1 |
| 6: LOWB | 0 |
| 7: H-STOP | 0 |

Numeral "0" means that no fault was detected.

Numeral "1" means a fault was detected one time only.

**Handling of Self-Diagnostic Screen Display**

Since the diagnostic results displayed on the screen are not automatically cleared, always check the self-diagnostic screen during repairs. When you have completed the repairs, clear the result display to "0". Unless the result display is cleared to "0", the self-diagnostic function will not be able to detect subsequent faults after completion of the repairs.

**Clearing the Result Display**

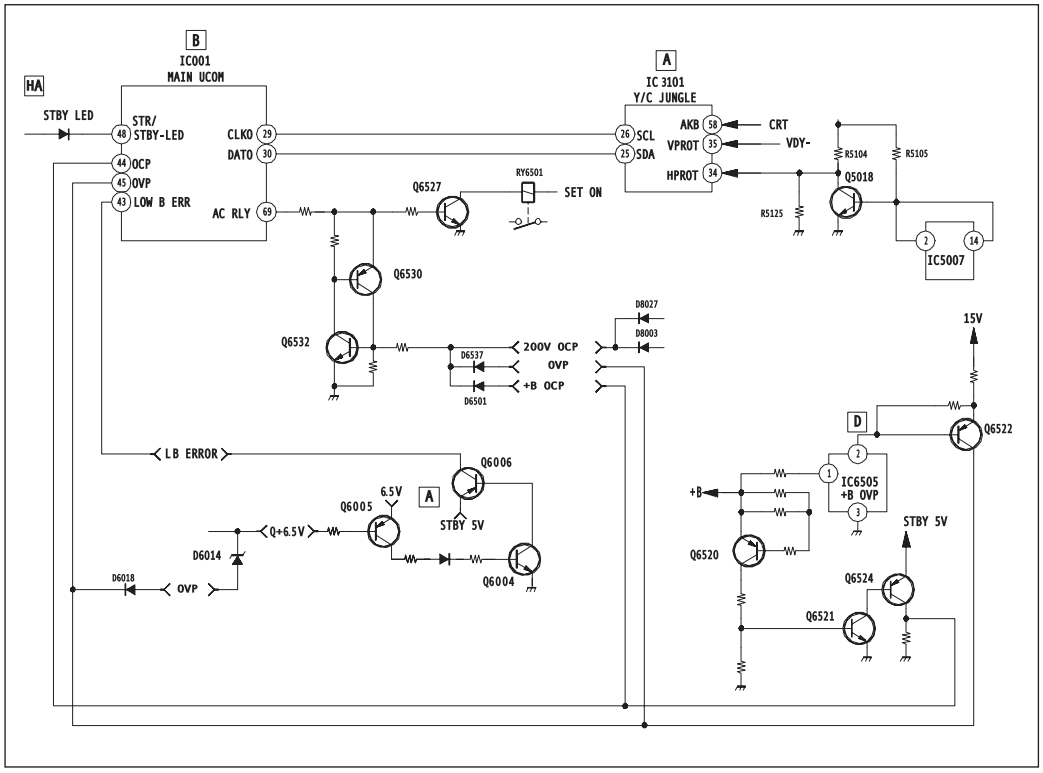
To clear the result display to "0", press buttons on the Remote Commander sequentially when the diagnostic screen is displayed, as shown below:

Channel 8 ➡ ENTER

**Quitting the Self-Diagnostic Screen**

To quit the entire self-diagnostic screen, turn off the power switch on the Remote Commander or the main unit.

**Self-Diagnostic Circuit**




**+B overcurrent (OCP)**

Occurs when an overcurrent (more than 6A) on the +B (135V) line is detected by R6598/R6591. It will cause Q6520 to turn on and force the AC relay to turn off through Q6532 and Q6530.

**+B overvoltage (OVP)**

Occurs when 1) overvoltage (more than +140V) on the +B (135V) line is detected by IC6505, or 2) an overvoltage (more than 7.5 V) on the unreg 7V line is detected by D6014. The AC relay will turn off through Q6532 and Q6530.

**Vertical Deflection Stopped**

Occurs when an absence of the Vertical deflection pulse is detected by IC201. Power supply will shut down when waveform interval exceeds 2 seconds.

**White Balance Failure**

If the RGB levels* do not balance within 2 seconds after the power is turned on, this error will be detected by IC201. TV will stay on, but there will be no picture.

*(Refers to the RGB levels of the AKB detection Ref pulse that detects 1K).

**Low B OCP/OVP**

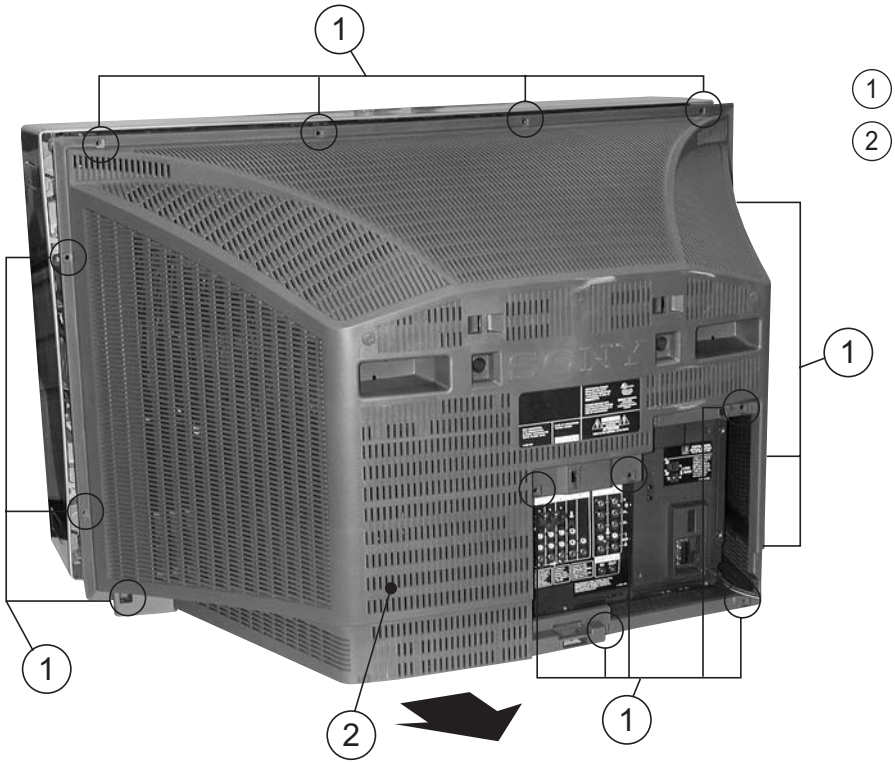
Occurs when set 5V is out.

**Horizontal Deflection Stopped**

Occurs when either: 1) a +B overcurrent is detected (IC5007), or 2) overheating is detected (Thermistor TH5002).

# SECTION 1: DISASSEMBLY

## 1-1. REAR COVER REMOVAL



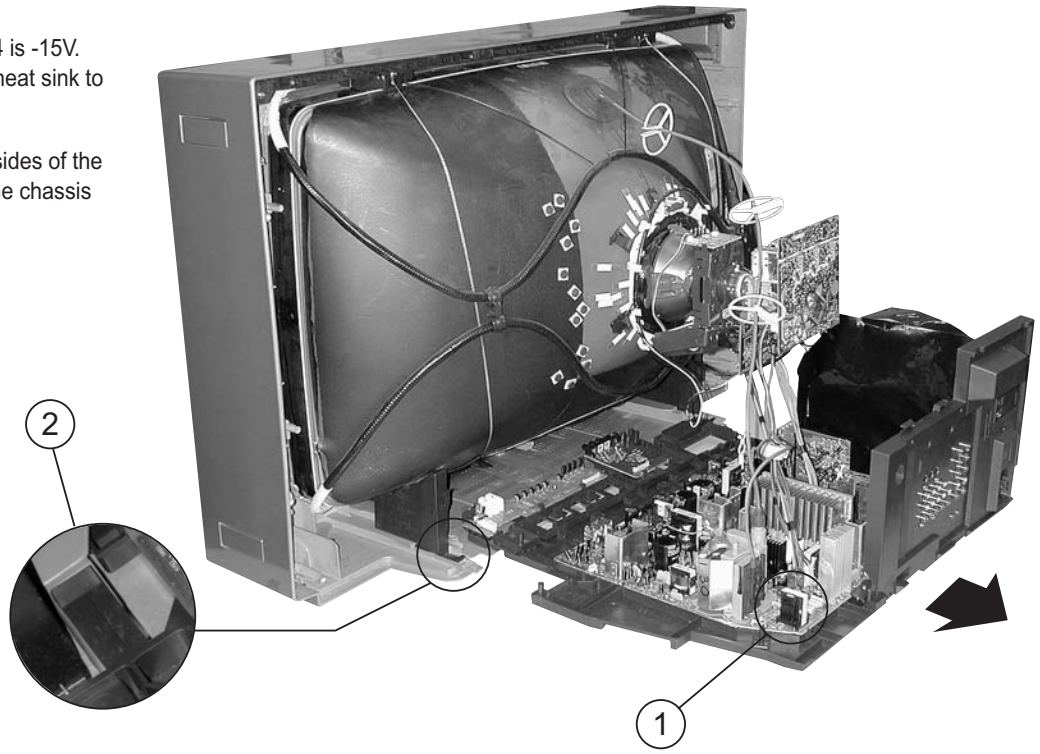

(1) Remove screws (15) from locations as marked.

(2) Gently slide the rear cover back and up to remove.

## 1-2. CHASSIS ASSEMBLY REMOVAL

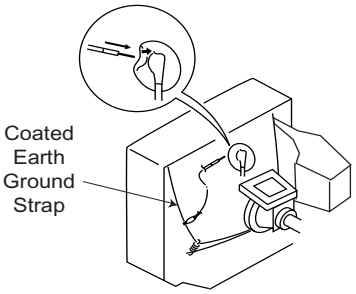
(1) **CAUTION!** - Heat sink on IC5004 is -15V. Care must be taken not to allow heat sink to touch any other components.

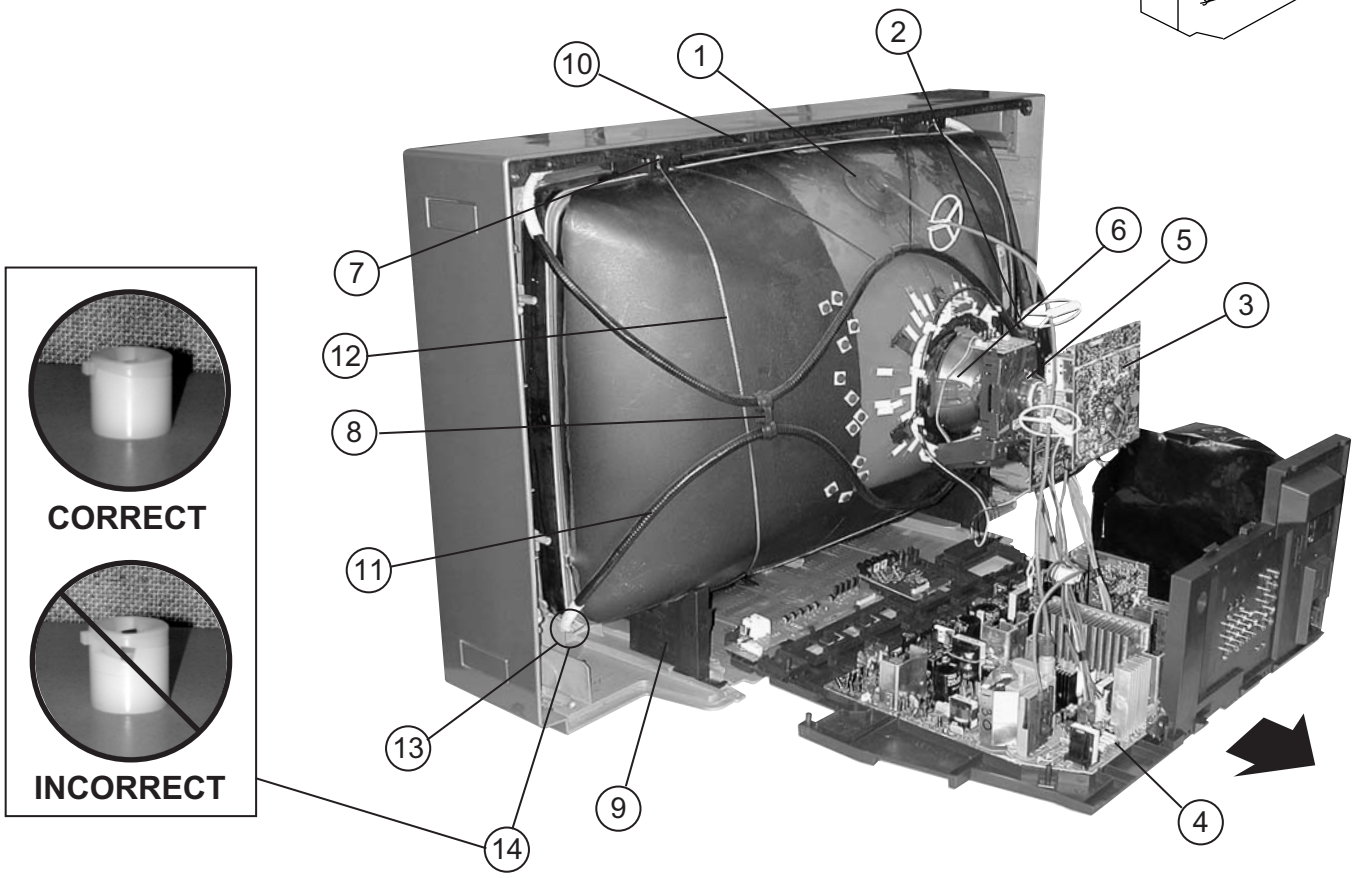
(2) Lift lever up on the right and left sides of the chassis bracket and gently pull the chassis assembly away from the beznet.



## 1-3. PICTURE TUBE REMOVAL

**WARNING: BEFORE REMOVING THE ANODE CAP**
**High voltage remains in the CRT even after the power is disconnected. To avoid electric shock, discharge CRT before attempting to remove the anode cap. Short between anode and CRT coated earth ground strap.**



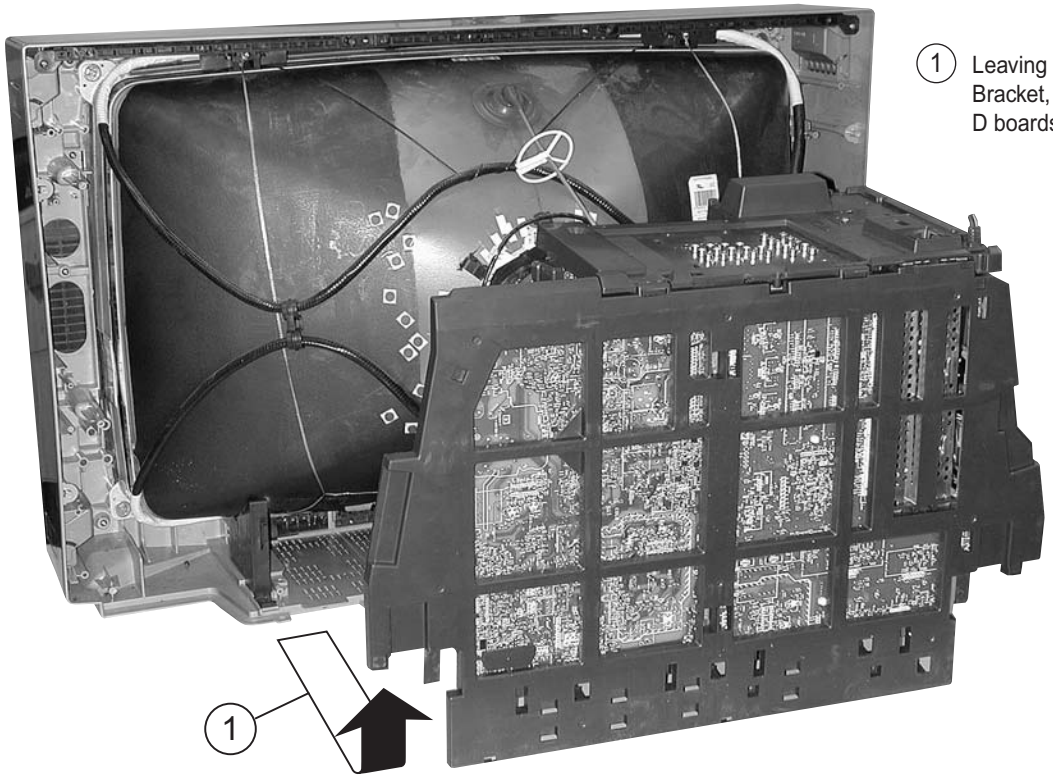

1. Discharge the anode of the CRT and remove the anode cap.
2. Unplug all interconnecting leads from the deflection yoke, neck assembly, degaussing coils and CRT grounding strap.
3. Remove the C Board from the CRT.
4. Remove the chassis assembly.
5. Loosen the neck assembly fixing screw and remove.
6. Loosen the deflection yoke fixing screw and remove.
7. Remove (2) screws from the degaussing coil holder assemblies to release the CRT grounding strap.
8. Place the set with the CRT face down on a cushion and remove the degaussing coil holders.
9. Remove the CRT supports (on both left and right sides) by lifting up on the clip and gently sliding it up and out.
10. Remove (4) screws holding in the Spacer -36 at the top of the cabinet and remove, making sure to remove the degaussing coil holders with it.
11. Remove the degaussing coil.
12. Remove the CRT grounding strap and tension springs.
13. Unscrew the four CRT fixing screws [located on each CRT corner] and remove the CRT [Take care not to handle the CRT by the neck assembly.]

**NOTE: The CRT screws used with the HA3 are specific to this unit. If replacement is necessary, these exact screws must be used. (p/n: 4-080-811-01; Desc: SCREW, TAPPING (7) + CROWN WASHER)**

14. IMPORTANT: When replacing the CRT, care must be taken in replacing the CRT spacers into the cabinet. The spacer must be completely reset prior to re-inserting the CRT screws (see figure above for proper setting of CRT spacer).

**NOTE: When removing the screws from the CRT, damage occurs to the CRT Spacer. It is necessary to replace these components after removal. (p/n: 4-080-267-01; Desc: Spacer, CRT)**

## 1-4. SERVICE POSITION



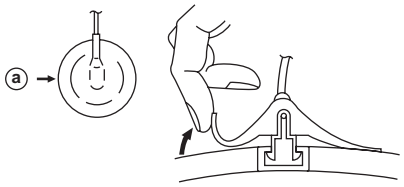

(1) Leaving the boards intact in the Main Bracket, pull up and rotate both the A and D boards in order to service the unit.

## ANODE CAP REMOVAL PROCEDURE

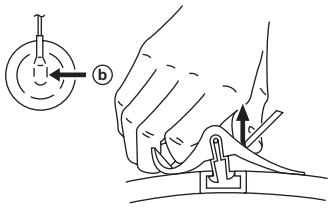
WARNING: High voltage remains in the CRT even after the power is disconnected. To avoid electric shock, discharge CRT before attempting to remove the anode cap. Short between the anode and CRT coated earth ground strap.

NOTE: After removing the anode cap, short circuit to either the metal chassis, CRT shield, or carbon painted on the CRT.

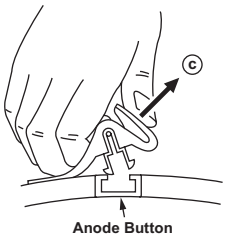
### REMOVAL PROCEDURES




Turn up one side of the rubber cap in the direction indicated by arrow ⓐ .



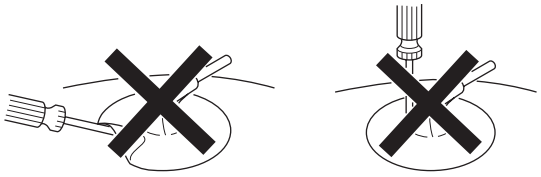

Use your thumb to pull the rubber cap firmly in the direction indicated by arrow ⓑ.




When one side of the rubber cap separates from the anode button, the anode cap can be removed by turning the rubber cap and pulling it in the direction of arrow Ⓒ.

### HOW TO HANDLE AN ANODE CAP

1. Do not use sharp objects which may cause damage to the surface of the anode cap.
2. To avoid damaging the anode cap, do not squeeze the rubber covering too hard. A material fitting called a shatter-hook terminalis built into the rubber.
3. Do not force turn the foot of the rubber cover. This may cause the shatter-hook terminal to protrude and damage the rubber.



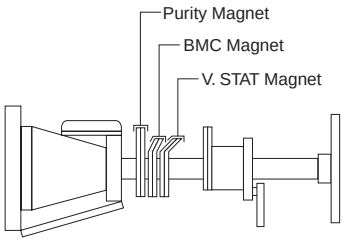
# SECTION 2: MECHANICAL PRE-ADJUSTMENTS

**IMPORTANT:**

Make sure that the following items are checked and adjusted whenever the CRT or Deflection Yoke have been replaced.

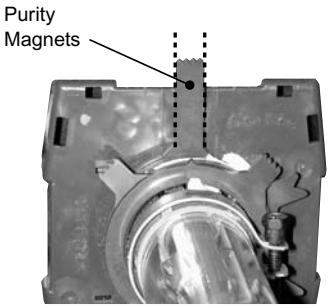
## 2-1. RING MAGNET ADJUSTMENTS

Location of ring magnets for adjustment:




**PURITY MAGNETS**

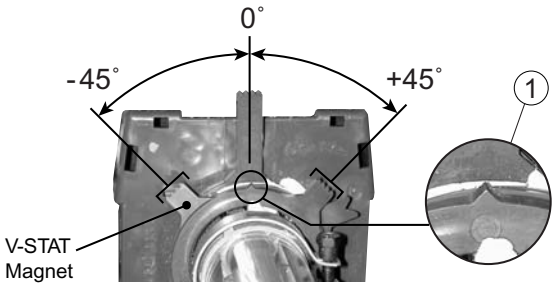
Adjust the purity magnets so that the adjusting tabs are straight up.




**V-STAT MAGNETS**

Adjust the V-Stat Magnets so that the adjustment tabs are approximately ± 45° from 0° (a total of 90° between each tab)

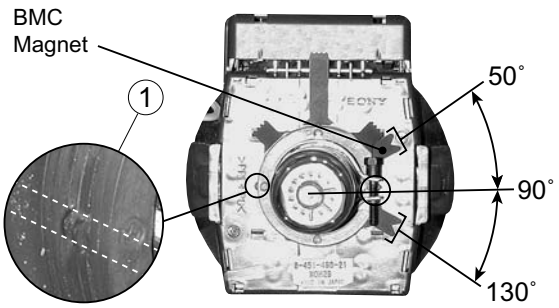
**NOTE: The points (1) on the edges of each tab should be evenly aligned (see the figure below).**




**BMC MAGNETS**

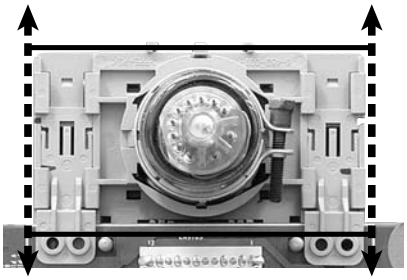
Adjust the BMC Magnets so that the adjustment tabs are approximately ± 40° from 90°.

**NOTE: The rounded points (1) on the edges of each tab should be evenly aligned (see the figure next column).**



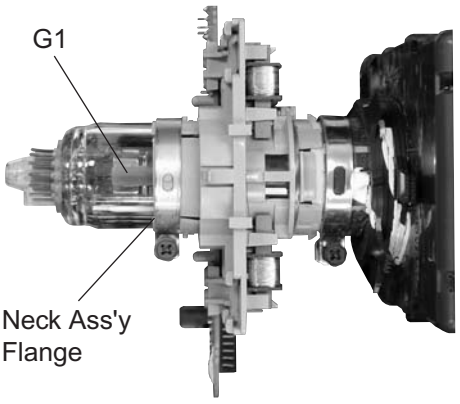

## 2-2. NECK ASSEMBLY POSITIONING

1. The left and right sides of the neck assembly must be straight up and down.

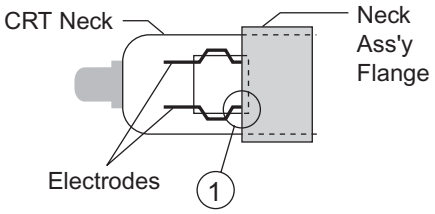


2. Make sure that the rear edge of the plastic flange on the neck assembly is positioned directly above the edge of the CRT pin electrodes that are soldered to G1 within the neck of the CRT (see (1) below)

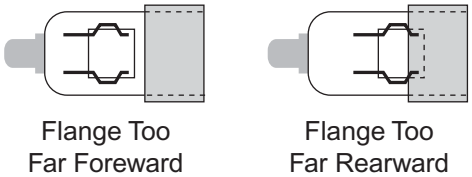
**CRT/Neck Assembly Top View**




**Proper Alignment (Top View of CRT Neck)**




**Improper Alignment**



# SECTION 3: BEAM LANDING AND RASTER CENTER ADJUSTMENTS

## 3-1. BEAM LANDING ADJUSTMENT

**REQUIRED EQUIPMENT:**

NTSC Video Pattern Generator (into VIDEO-1 input)

Landing Magnets (for correcting mislanding in the corners of the set)

**SET-UP CONDITION:**

DISPLAY MODE: FULL

VIDEO SOURCE: VIDEO-1

PICTURE MODE: STANDARD (select the STANDARD mode from the menu, then press the RESET button on the remote control to set the STANDARD settings to the factory settings.)

TILT CORRECTION: Set to 0 (Zero)

VERTICAL CORRECTION: Set to 0 (Zero)

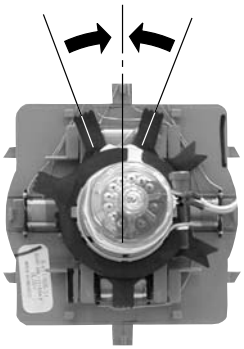
PICTURE TUBE POSITION: Face in an East or West Direction**

****Note: Typically, adjustments will be made to this unit while it is in its normal position in a customer's home. Any directional references made in this manual should only be followed when the unit is being serviced elsewhere (e.g. in a shop).**

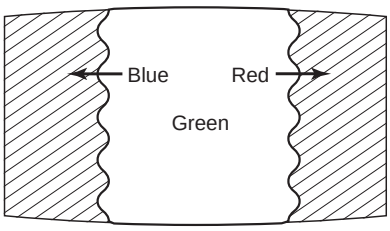
**PROCEDURE:**

1. Turn on power to the set and make sure that the degauss circuit is in working order (a brief hum will sound from the degauss coils).
2. Loosen the deflection yoke mounting screw, and set the purity magnet adjustment tabs to the center as shown below:

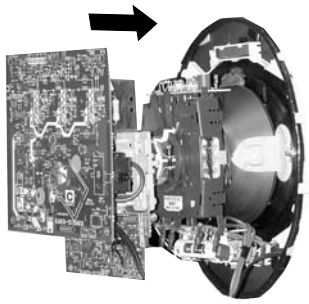
Purity Magnet Adjustment Tabs



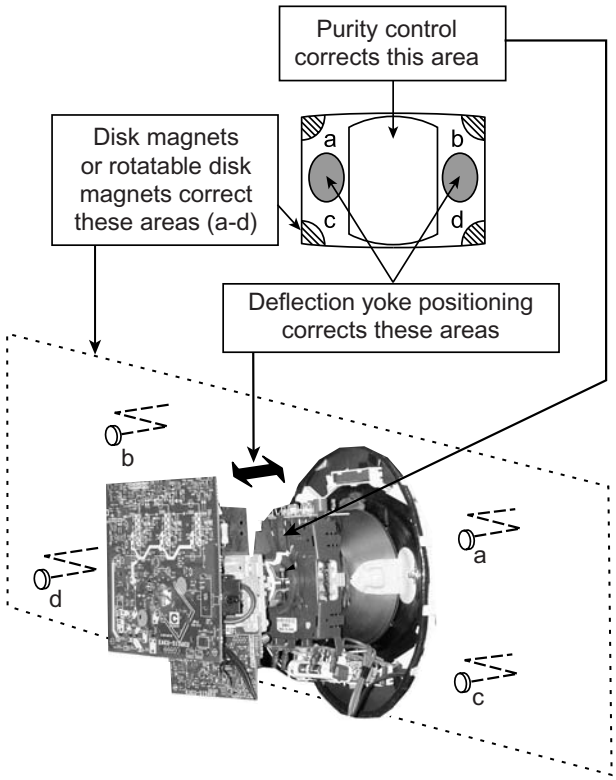
3. Input a green raster from the pattern generator.
4. Move the deflection yoke backwards, and adjust the purity ring magnets so that the center of the screen is green, and the red and blue areas on either side of the screen are approximately the same size as shown in the figure below:




5. Move the deflection yoke forward until the entire screen becomes green.



6. Confirm the purity for both the red and blue rasters.
7. Tighten the deflection yoke mounting screw just enough to keep the yoke from moving forward or backward, but not too tight as to keep it from rotating.
8. Input a crosshatch pattern from the generator. Rotate the yoke so that the crosshatch's top and bottom lines are as even with the bezel as possible. Secure the deflection yoke by fully tightening the mounting screw.
9. Use a DY Spacer (p/n: 4-053-005-01) between the deflection yoke and the CRT in order to maintain the yoke position in each axis.
10. Add disk magnets (p/n: 1-452-032-00) to the back of the CRT as necessary to correct mislanding in the corners of the screen.




**This completes the beam landing adjustment.**

## 3-2. RASTER CENTER ADJUSTMENT

**Perform this adjustment when any of the following have been replaced in the unit, CRT, Deflection Yoke or D Board.**

**EQUIPMENT:**

NTSC generator with monoscope pattern or white raster into Video-1 input.

**SET-UP CONDITION:**

Display Mode: FULL (NTSC)

Picture Mode: STANDARD (select the STANDARD mode from the menu, then press the RESET button on the remote control to set the STANDARD settings to the factory settings.)

Tilt Correction: Set to Zero (0)

Vertical Correction: Set to Zero (0)

**PROCEDURE:**

1. Enter the service mode.
2. Select the following adjustment items and set their data as follows.

   **NOTE: DO NOT WRITE THE DATA TO MEMORY! To be safe, write down the existing data values before changing them.**

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150P-2 | 6 | AGNG | 2 |
| 2150D-3 | 0 | HBLK | 0 |
| 2150D-2 | 2 | HSIZ | 20 |
| 2150D-2 | 1 | HPOS | 48 |
| 2150D-2 | 16 | LANG | 31 |
| 2150D-2 | 18 | LBOW | 31 |
| 2150D-2 | 0 | HCEN | 33 |

3. Center the raster between the left and right sides of the bezel. The sides of the shrunken raster might not be straight at this point, so use the sides of the raster at the half-way point between the top and bottom to judge when the raster is centered.

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150D-2 | 0 | HCEN | * |

* Adjust so that the raster is centered

4. Make a note of the data that was set in step 3.
5. Return all of the items adjusted in step 2 to their previous settings, as follows:
   1) Press the “0” button (“READ” appears in green letters at the top right corner of the screen).
   2) Press the “ENTER” button (“READ” changes from green to red, and “READ” will change to “SERVICE”).
6. Re-enter the horizontal centering data from step 3, then write it to memory as follows.

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150D-2 | 0 | HCEN | * |

* Use the HCEN data from step 3, and then do the following:

1) Press the “MUTE” button (“WRITE” appears in green letters at the top right corner of the screen).
2) Press the “ENTER” button (“WRITE” changes from green to red, and “WRITE” will change to “SERVICE”).

**Note: The raster horizontal centering adjustment data for the FULL mode is automatically used for the other display modes as well (NORMAL, ZOOM, WIDE ZOOM, and TWIN mode). Do not change the raster horizontal centering adjustment data in any of these display modes.**

**This completes the raster center adjustment.**

# SECTION 4. PICTURE SIZE AND GEOMETRY ADJUSTMENTS

**Perform these adjustments when any of the following are replaced: CRT, deflection yoke, D-board, and whenever touch-ups are required.**

**REQUIRED EQUIPMENT:**
NTSC generator with monoscope pattern and cross-hatch pattern. (In lieu of the monoscope pattern, the cross-hatch pattern will suffice. However, to correctly size the picture you must be able to calculate what percentage of the generator's full pattern is being displayed due to the over-scanning of the CRT.)

**NOTE: Throughout these adjustment procedures you will be instructed to "Write the data to memory". To do this, follow this procedure:**

1. **Press the "MUTE" button ("WRITE" appears in green letters at the top right corner of the screen).**
2. **Press the "ENTER" button ("WRITE" changes from green to red, then "WRITE" changes to "SERVICE").**

## 4-1. FULL MODE ADJUSTMENT

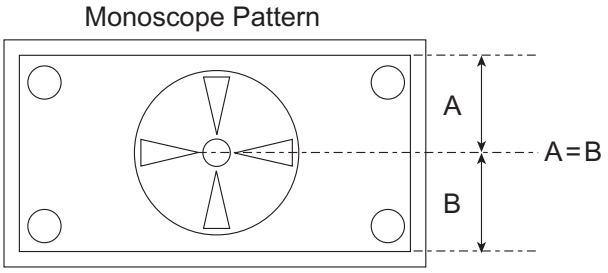
**SET-UP CONDITION:**
Display Mode: FULL (NTSC)

Picture mode: STANDARD (select the STANDARD mode from the user menu, then press the RESET button on the remote control to set the STANDARD settings to the factory settings).

TILT CORRECTION: set to zero (from the user menu).

VERTICAL CORRECTION: set to zero (from the user menu).

**PROCEDURE:**
1. Enter the service mode.
2. Display the monoscope or cross-hatch pattern.
3. Set the data for VPOS to 27, then adjust SCRL so that the pattern is centered vertically on the screen.



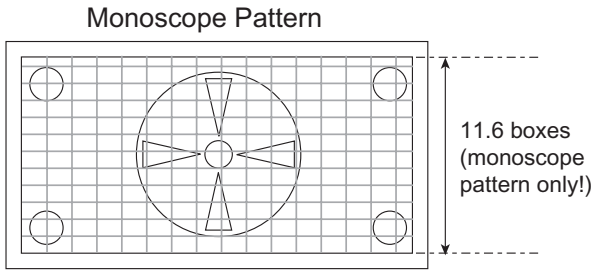

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150D-1 | 0 | VPOS | 27 |
| 2150D-1 | 12 | SCRL | * |

* Adjust as necessary to vertically center the pattern. If the monoscope pattern is not available, use the cross-hatch pattern's center dot as the reference point.

4. Write the data to memory.
5. Adjust the vertical size.

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150D-1 | 1 | VSIZ | * |

* Adjust to meet the following spec.:
Monoscope pattern: 11.6 boxes.
Cross-hatch pattern: 90% of the full pattern height.

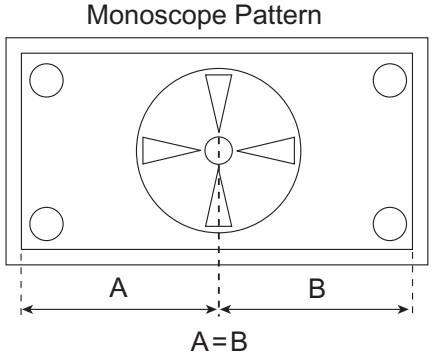



6. Write the data to memory.
7. Adjust the pattern so that it is centered on the screen horizontally.

**Do not change the HCEN data to center the pattern! Use HPOS to center the pattern. HCEN centers the raster; HPOS centers the picture on the raster.**

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150D-2 | 1 | HPOS | * |

* Adjust as necessary to horizontally center the pattern. If the monoscope pattern is not available, use the cross-hatch pattern's center dot as the reference point.



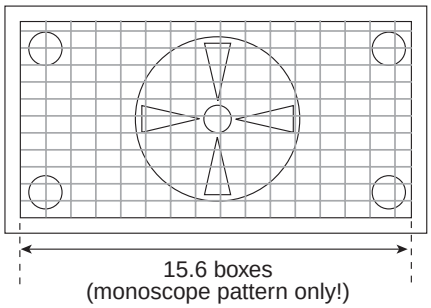

8. Write the data to memory.

9. Adjust the horizontal size.

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150D-2 | 2 | HSIZ | * |

* Adjust to meet the following spec.:
Monoscope pattern: 15.6 boxes.
Cross-hatch pattern: 92% of the full pattern width.

Monoscope Pattern



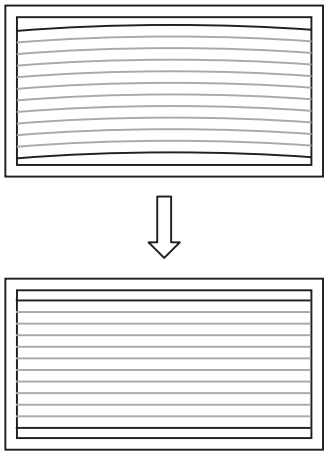

10. Write the data to memory.

11. Display a cross-hatch pattern (do not use the monoscope pattern).

12. Equalize the vertical bow at the top and bottom of the screen.

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150D-1 | 5 | VCEN | * |

* Adjust to make the bowing of the top and bottom lines equal.

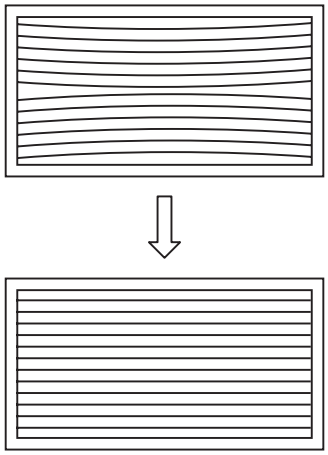


13. Write the data to memory.

14. Adjust the vertical pin cushion.

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150D-1 | 6 | VPIN | * |

* Adjust as necessary to make the horizontal lines as straight as possible.

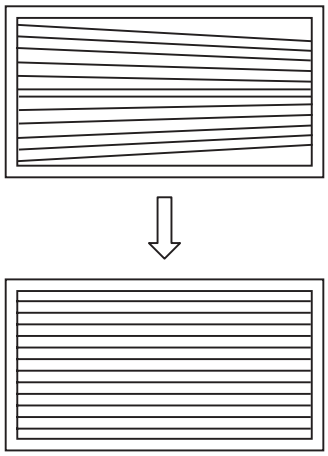


15. Write the data to memory.

16. Adjust the picture keystone.

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150D-1 | 8 | HTPZ | * |

* Adjust as necessary to make the horizontal lines as parallel as possible.



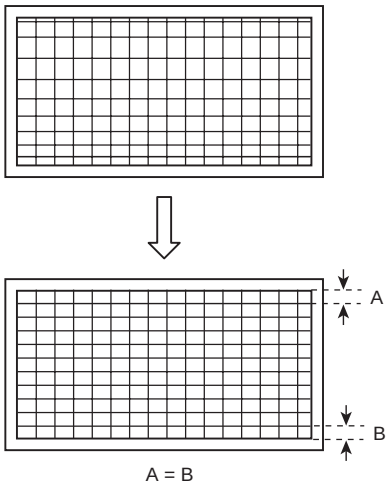
17. Write the data to memory.

18. Display a cross-hatch pattern (do not use the monoscope pattern).

19. Adjust the vertical linearity.

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150D-1 | 3 | VLIN | * |

* Adjust as necessary so that the boxes at the top of the screen are the same height as the boxes at the bottom of the screen.



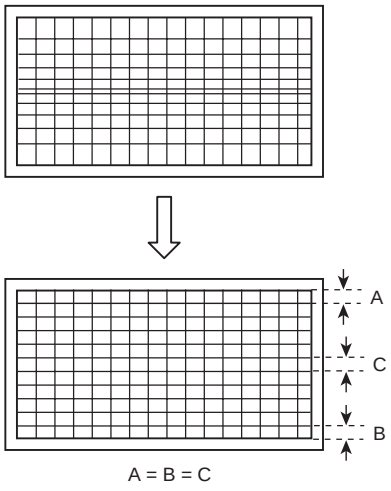

20. Write the data to memory.

21. Display a cross-hatch pattern (do not use the monoscope pattern).

22. Adjust the vertical S-correction.

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150D-1 | 4 | VSCO | * |

* Adjust as necessary so that the boxes at the top and bottom of the screen are the same height as the boxes in the middle of the screen.



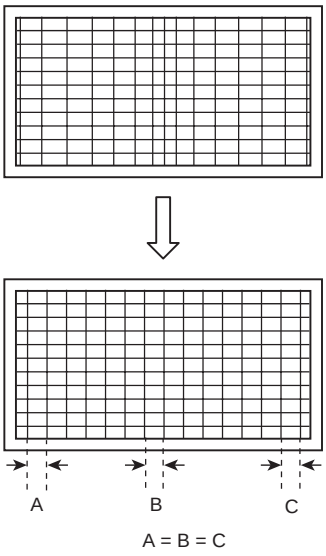

23. Write the data to memory.

24. Display a cross-hatch pattern (do not use the monoscope pattern).

25. Adjust the horizontal linearity.

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150D-2 | 3 | SLIN | * |

* Adjust as necessary so that the boxes at the left and right sides of the screen are the same width as the boxes in the middle of the screen.



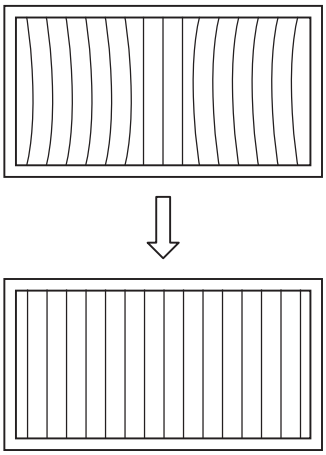

26. Write the data to memory.

27. Display a cross-hatch pattern (do not use the monoscope pattern).

28. Adjust horizontal inner and outer pin cushion.

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150D-2 | 4 | MPIN | * |

* Adjust as necessary to straighten the vertical lines of the cross-hatch pattern. The MPIN adjustment is effective in the outer and inner areas of the screen.



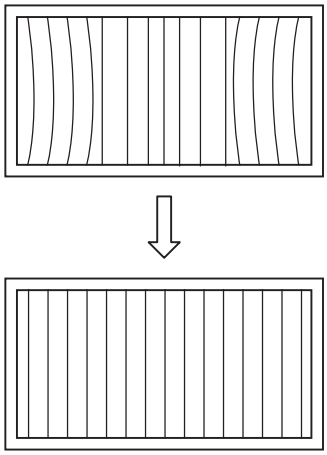
29. Write the data to memory.

30. Display a cross-hatch pattern (do not use the monoscope pattern).

31. Adjust horizontal outer pin cushion.

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150D-2 | 5 | PIN | * |

* Adjust as necessary to straighten the vertical lines of the cross-hatch pattern. The PIN adjustment is more effective in the outer areas of the screen.



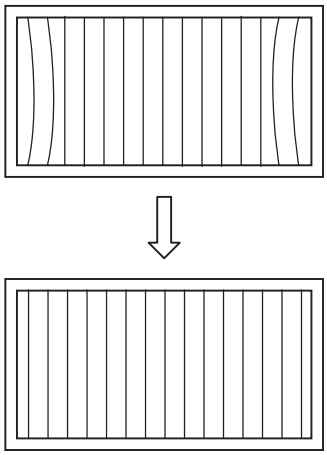
32. Write the data to memory.

33. Display a cross-hatch pattern (do not use the monoscope pattern).

34. Adjust the pincushion in the top and bottom corners of the screen.

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150D-2 | 7 | UCP | * |
| 2150D-2 | 8 | LCP | * |

* Adjust as necessary to straighten the vertical lines of the cross-hatch pattern in the top and bottom corners of the screen.



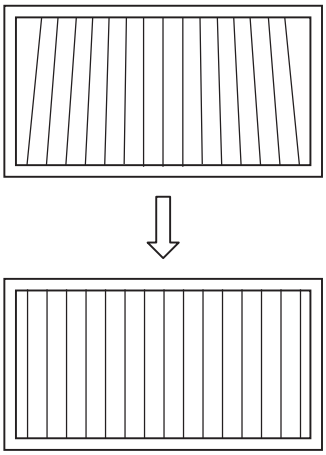
35. Write the data to memory.

36. Display a cross-hatch pattern (do not use the monoscope pattern).

37. Adjust the vertical keystone.

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150D-2 | 14 | PPHA | * |

* Adjust as necessary to remove vertical keystone.



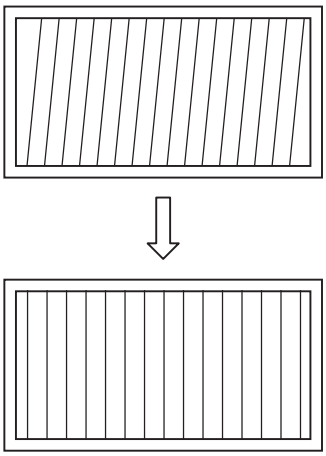
38. Write the data to memory.

39. Display a cross-hatch pattern (do not use the monoscope pattern).

40. Remove any slant from all of the vertical lines.

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150D-2 | 15 | VANG | * |

* Adjust as necessary to make all of the vertical lines straight up and down. The VANG adjustment is effective across the entire screen.



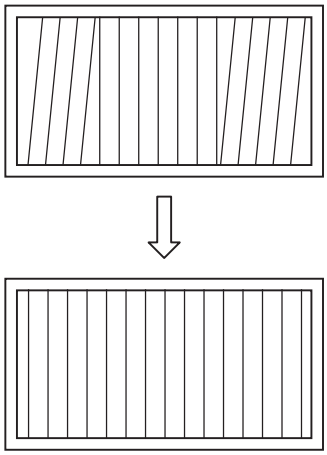
41. Write the data to memory.

42. Display a cross-hatch pattern (do not use the monoscope pattern).

43. Remove any slant from the outer vertical lines.

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150D-2 | 16 | LANG | * |

* Adjust as necessary to make the outer vertical lines straight up and down. The LANG adjustment is most effective in the outer areas of the screen.



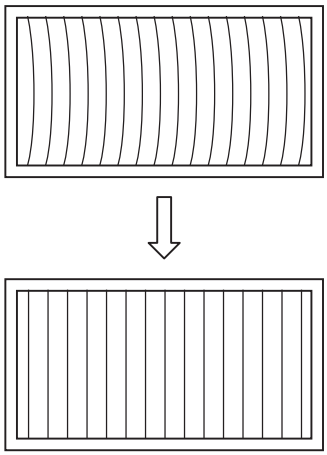
44. Write the data to memory.

45. Display a cross-hatch pattern (do not use the monoscope pattern).

46. Remove any bow from all of the vertical lines.

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150D-2 | 17 | VBOW | * |

* Adjust as necessary to make all of the vertical lines straight up and down. The VBOW adjustment is effective across the entire screen.



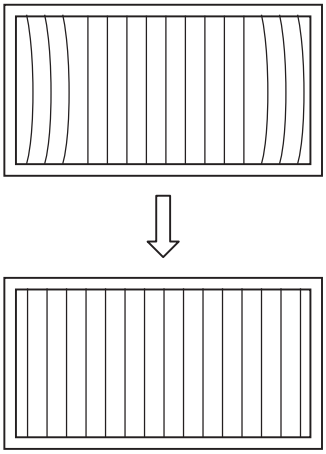
47. Write the data to memory.

48. Display a cross-hatch pattern (do not use the monoscope pattern).

49. Remove any bow from the outer vertical lines.

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150D-2 | 18 | LBOW | * |

* Adjust as necessary to make the outer vertical lines straight up and down. The LBOW adjustment is most effective in the outer areas of the screen.



50. Write the data to memory.

**This completes the FULL mode Size and Geometry adjustments.**

**Note: Many of the adjustments in this section are shared with the other display modes (NORMAL, ZOOM, WIDE ZOOM, and TWIN). When adjusting these modes as described in the following sections, be sure to adjust only those items specifically listed for each mode.**

## 4-2. NORMAL MODE GEOMETRY ADJUSTMENT

**SET-UP CONDITION:**
Display Mode: NORMAL (4:3 NTSC)

Picture mode: STANDARD (select the STANDARD mode from the user menu, then press the RESET button on the remote control to set the STANDARD settings to the factory settings).

TILT CORRECTION: set to zero (from the user menu).

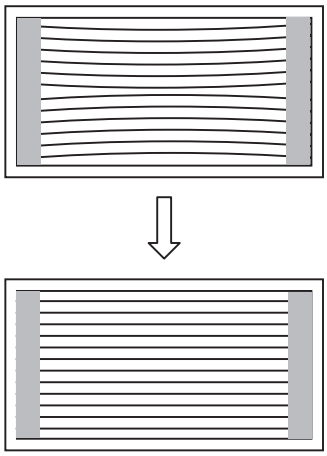
VERTICAL CORRECTION: set to zero (from the user menu).

**NOTE: The NORMAL mode shares the adjustments made in the FULL mode. As a rule you should not have to make any adjustments in NORMAL mode except the vertical pin mode which is independent of the FULL mode.**

**PROCEDURE:**
1. Enter the service mode.
2. Display the cross-hatch pattern.
3. Adjust the vertical pincushion.

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150D-1 | 6 | VPIN | * |

* Adjust as necessary to make the horizontal lines as straight as possible.



4. Write the data to memory.

**This completes the NORMAL mode geometry adjustment.**

## 4-3. ZOOM MODE GEOMETRY ADJUSTMENT

**SET-UP CONDITION:**
Display Mode: ZOOM

Picture mode: STANDARD (select the STANDARD mode from the user menu, then press the RESET button on the remote control to set the STANDARD settings to the factory settings).

TILT CORRECTION: set to zero (from the user menu).

VERTICAL CORRECTION: set to zero (from the user menu).

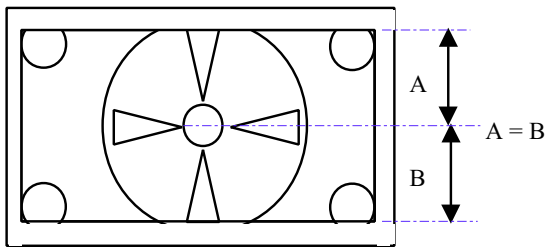
**NOTE: The ZOOM mode shares the adjustments made in the FULL mode. As a rule you should not have to make any adjustments in ZOOM mode except vertical size (ASPT) and vertical position (SCRL) which are independent of the FULL mode.**

**PROCEDURE:**
1. Enter the service mode.
2. Display the monoscope or cross-hatch pattern.
3. Adjust the pattern so that it is centered on the screen vertically.

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150D-1 | 12 | SCRL | * |

* Adjust as necessary to vertically center the pattern. If the monoscope pattern is not available, use the cross-hatch pattern's center dot as the reference point.

Monoscope Pattern

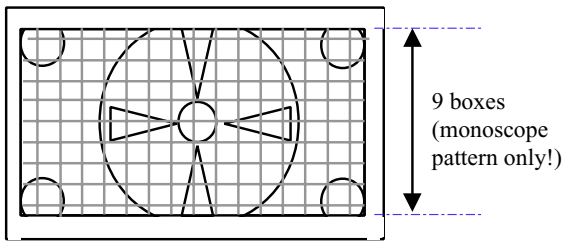



4. Write the data to memory.
5. Display the monoscope or cross-hatch pattern.
6. Adjust the vertical size.

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150D-1 | 11 | ASPT | * |

* Adjust to meet the following spec.:
Monoscope pattern: 9 boxes.
Cross-hatch pattern: 70% of the full pattern height.

Monoscope Pattern



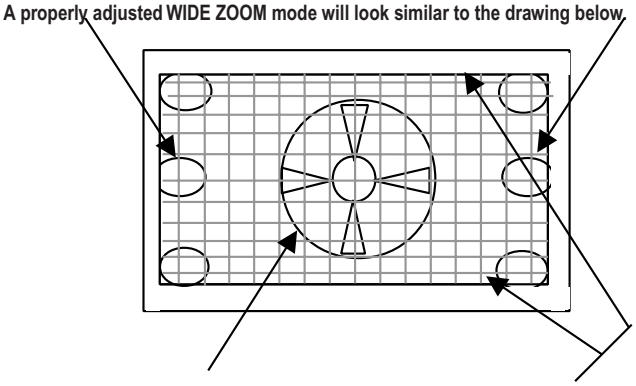

4. Write the data to memory.

**This completes the ZOOM mode geometry adjustment.**

## 4-4. WIDE ZOOM MODE GEOMETRY ADJUSTMENT

**NOTE: The WIDE ZOOM mode deliberately compresses the picture areas near the top and bottom of the screen, and stretches the picture areas at the sides of the screen. Images in the center area of the screen are neither stretched nor compressed, so they appear natural. The WIDE ZOOM mode allows the viewer to see natural images in the center of the screen where the viewer's attention is usually focused, while at the same time allowing the images to fill the entire screen area.**

**A properly adjusted WIDE ZOOM mode will look similar to the drawing below.**



Center area aspect ratio is preserved.

Top and bottom compressed.

**SET-UP CONDITION:**
Display Mode: WIDE ZOOM

Picture mode: STANDARD (select the STANDARD mode from the user menu, then press the RESET button on the remote control to set the STANDARD settings to the factory settings).

TILT CORRECTION: set to zero (from the user menu).

VERTICAL CORRECTION: set to zero (from the user menu).

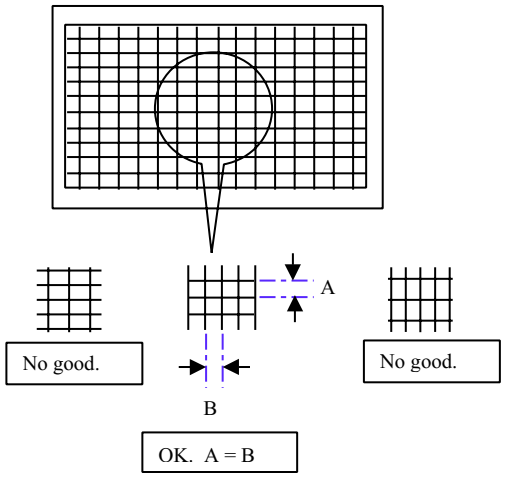
**NOTE: The WIDE ZOOM mode shares a few of the adjustments made in the FULL mode. As a rule you should not have to make any of the shared adjustments in WIDE ZOOM mode. Only the adjustments listed below are necessary.**

**PROCEDURE:**

1. Enter the service mode.
2. Display the monoscope or cross-hatch pattern.
3. Adjust the vertical s-correction and the horizontal linearity so that the boxes in the general center area of the screen have the same height and width.

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150D-1 | 4 | VSCO | 9 -11 * |
| 2150D-2 | 3 | SLIN | 9 -11 * |

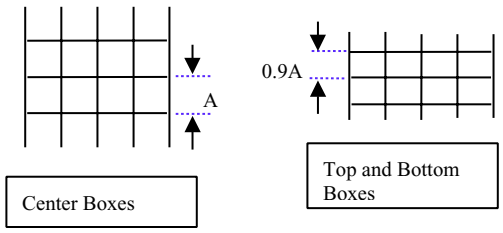
* Adjust so that the top and bottom boxes are the same height. The data must be between 9 and 11!




4. Distort the vertical linearity.

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150D-1 | 3 | VLIN | * |

* Adjust so that the height of the top and bottom boxes are about 90% of the height of the center boxes

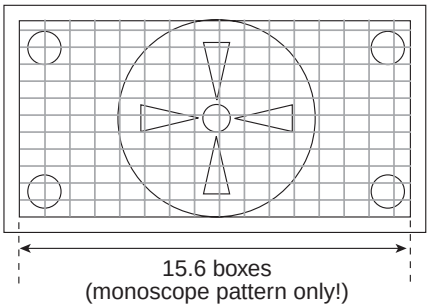



5. Write the data to memory.
6. Adjust the horizontal size.

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150D-2 | 2 | HSIZ | * |

* Adjust to meet the following spec.:
Monoscope pattern: 15.6 boxes.
Cross-hatch pattern: 92% of the full pattern width.

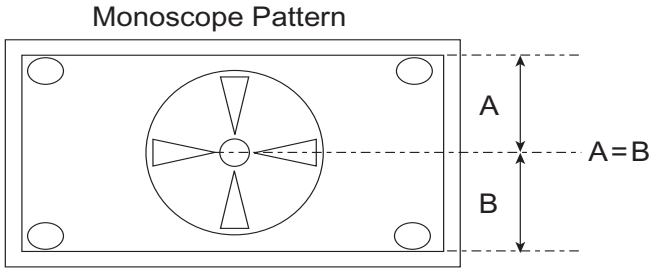
Monoscope Pattern




7. Write the data to memory.
8. Adjust the pattern so that it is centered on the screen vertically.

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150D-1 | 12 | SCRL | * |

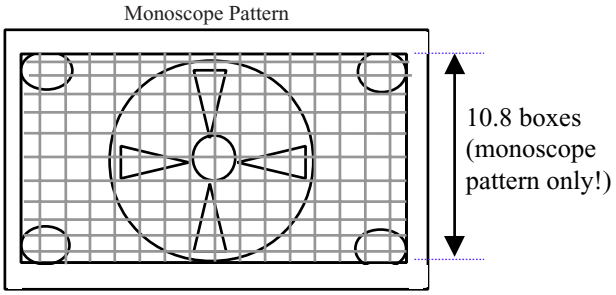
* Adjust as necessary to vertically center the pattern. If the monoscope pattern is not available, use the cross-hatch pattern's center dot as the reference point.




9. Write the data to memory.
10. Adjust the vertical size.

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150D-1 | 11 | ASPT | * |

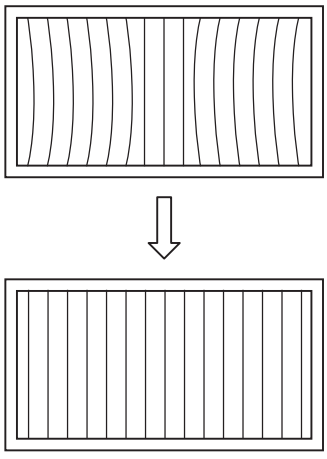
* Adjust to meet the following spec.:
Monoscope pattern: 10.8 boxes.
Cross-hatch pattern: 83% of the full pattern height.




11. Write the data to memory.
12. Display a cross-hatch pattern (do not use the monoscope pattern.
13. Adjust horizontal outer pin cushion.

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150D-2 | 5 | PIN | * |

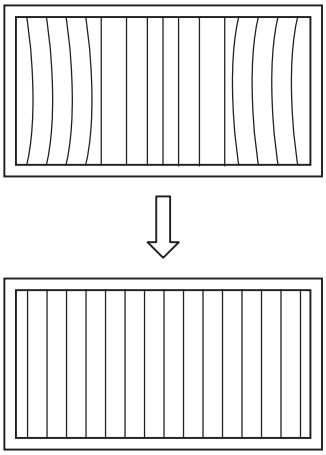
* Adjust as necessary to straighten the vertical lines of the cross-hatch pattern. The PIN adjustment is more effective in the outer areas of the screen.



14. Write the data to memory.
15. Adjust the pincushion in the top and bottom corners of the screen.

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150D-2 | 7 | UCP | * |
| 2150D-2 | 8 | LCP | * |

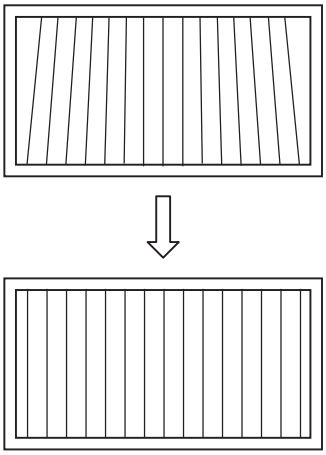
* Adjust as necessary to straighten the vertical lines of the cross-hatch pattern in the top and bottom corners of the screen



16. Write the data to memory.
17. Adjust the vertical keystone.

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150D-2 | 14 | PPHA | * |

* Adjust as necessary to remove vertical keystone.



18. Write the data to memory.

**This completes the WIDE ZOOM mode geometry adjustment.**

## 4-5. TWIN MODE GEOMETRY CONFIRMATION

The TWIN mode uses the FULL mode adjustments. You should check the geometry in TWIN mode, but it will normally be OK. Minor flaws are allowed. Anything beyond minor flaws indicates problems that will be evident in the FULL mode also. You should correct the problems in the FULL mode only, not the TWIN mode.

**This completes the TWIN mode geometry confirmation.**

## 4-6. HIGH DEFINITION 1080I MODE GEOMETRY ADJUSTMENT

The high definition 1080i mode ("HD1080i") shares many of the FULL mode adjustments. As a rule you should not have to make any adjustments in HD1080i mode except vertical size (ASPT), vertical position (SCRL), and horizontal positioning (HPOS) which are independent of the FULL mode.

**SET-UP CONDITION:**
Display Mode: HD1080i FULL (this mode is automatically selected when a 1080i video signal is displayed).

Picture mode: STANDARD (select the STANDARD mode from the user menu, then press the RESET button on the remote control to set the STANDARD settings to the factory settings).

TILT CORRECTION: set to zero (from the user menu).

VERTICAL CORRECTION: set to zero (from the user menu).

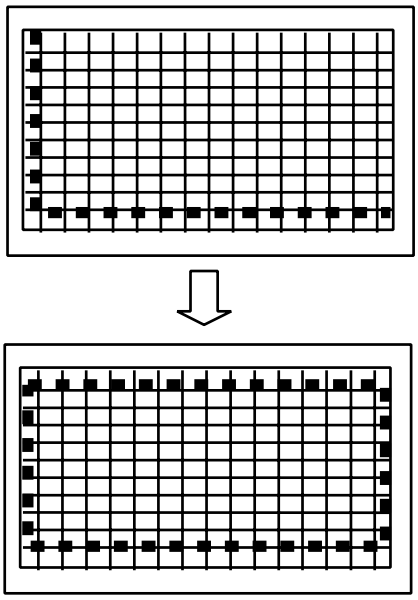
**PROCEDURE:**

1. With the set turned off, turn it on and tune a DTV channel (either standard definition or high definition is OK), then turn the set off again.
2. Enter the service mode.
3. Display the 1080i cross-hatch pattern as follows:
   a. Select adjustment category "DTV".
   b. Select adjustment item # 1 "PATN".
   c. Select the 1080i cross-hatch pattern by changing the PATN data from "0" to "1". The cross-hatch will appear after a second or two.
4. Adjust the pattern so that it is centered on the screen horizontally and vertically. Use the dots that surround the pattern to determine when it is centered.

The HPOS adjustment affects the other display modes; adjust it to find the best balance among all display mode.

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150D-1 | 12 | SCRL | * |
| 2150D-2 | 1 | HPOS | * |

* Adjust as necessary to horizontally and vertically center the pattern.

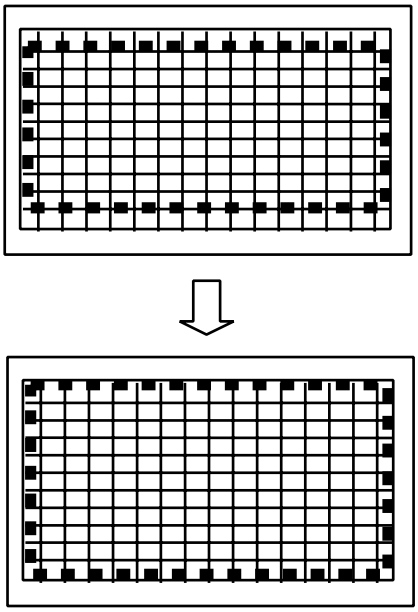


5. Write the data to memory.

6. Adjust the vertical size.

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150D-1 | 11 | ASPT | * |

* Adjust as necessary so that the horizontal dots along the top and bottom of the pattern are close to the bezel.



7. Write the data to memory.

**This completes the HD1080i mode geometry adjustment.**

# SECTION 5. STATIC CONVERGENCE ADJUSTMENTS

**Perform these adjustments when any of the following are replaced: CRT, deflection yoke, D-board, and whenever touch-ups are required.**

**REQUIRED EQUIPMENT:** NTSC generator with dot pattern and cross-hatch pattern.

**SET-UP CONDITION:**
Display Mode: FULL (NTSC)

Picture mode: STANDARD (select the STANDARD mode from the user menu, then press the RESET button on the remote control to set the STANDARD settings to the factory settings).

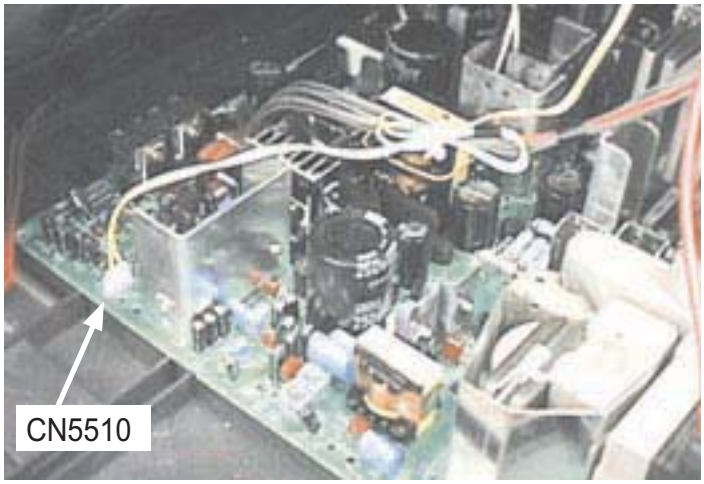
BRIGHTNESS: 50% PICTURE: 50% TILT CORRECTION: set to zero (from the user menu).

VERTICAL CORRECTION: set to zero (from the user menu).

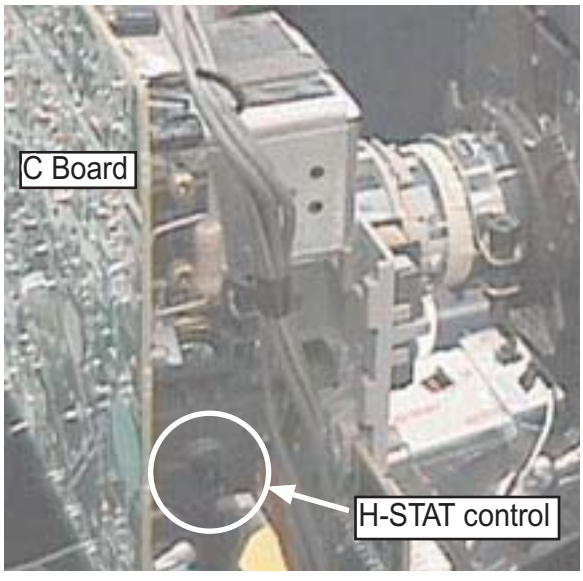
---

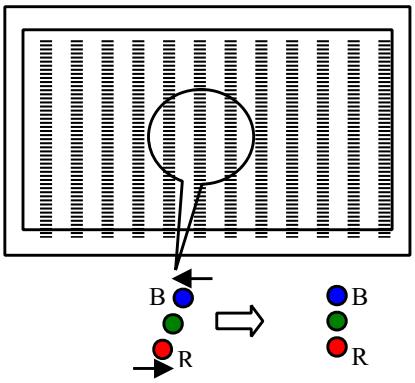
**PROCEDURE:**

1. Make sure the TV power is off, then disable the dynamic convergence circuit by unplugging CN5510 from the D-board.
2. Turn the set on and display the dot pattern.

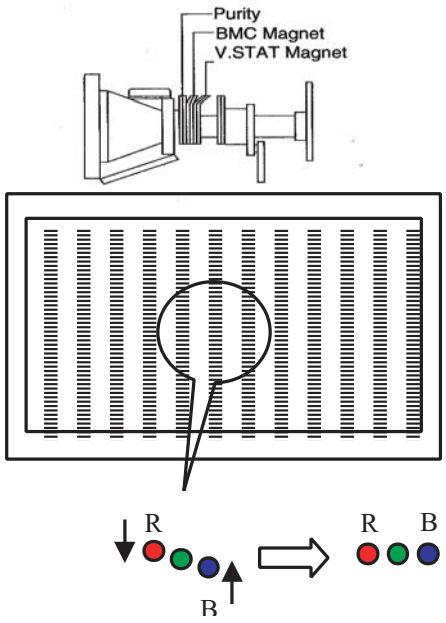



3. Adjust the H-STAT control on the C-board (RV9001) to horizontally converge the red, green, and blue dots in the center of the screen.



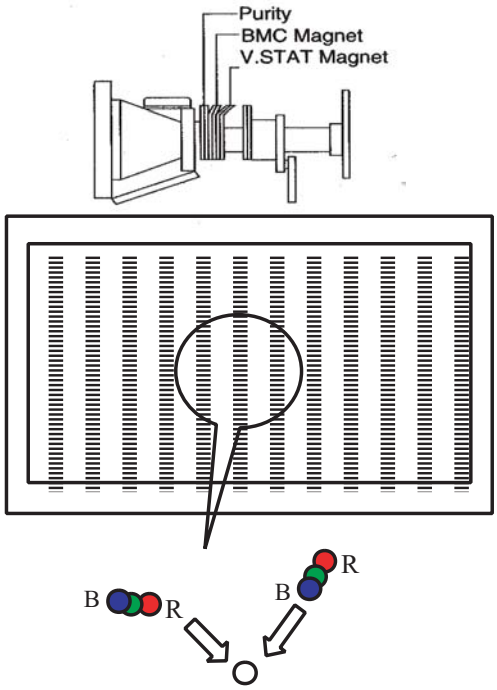




4. Lock the H-STAT control with locking paint.
5. Adjust the V-STAT magnets on the deflection yoke to vertically converge the red, green, and blue dots in the center of the screen.




6. Adjust the BMC magnets and the V-STAT magnets for the best possible alignment of the red, green, and blue dots.

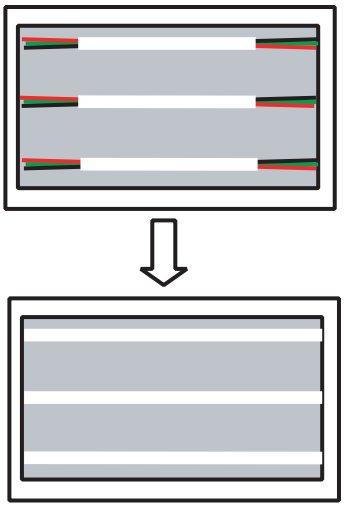
The magnets interact with each other, so you may have to alternately switch between them several times.



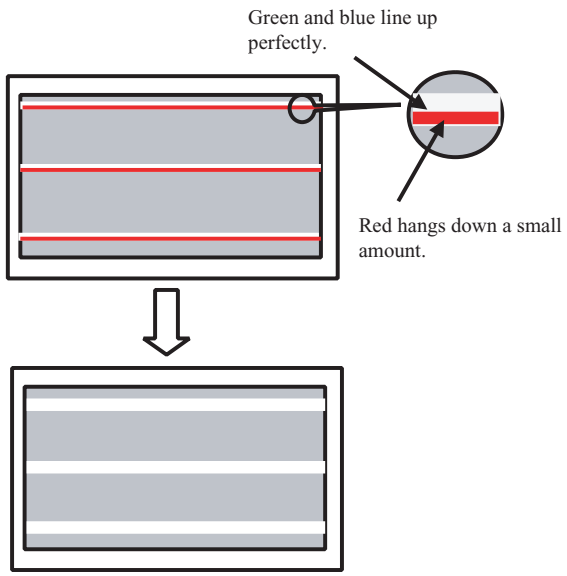

7. Secure the magnets by applying locking paint.
8. Adjust the convergence along the horizontal axis throughout the entire screen by turning the XCV core located at the bottom of the yoke assembly. A plastic tuning tool is required. Do not use a hex wrench as its magnetic properties will throw off the adjustment.




**CAUTION! Do not turn the XVC core more than two full turns in either direction.**



9. Balance any remaining misconvergence along the horizontal axis by adjusting the TLV control on the top of the yoke assembly.




10. Turn the set off, and then reconnect CN5510 on the D-board.

**This completes the static convergence adjustment.**

# 6. DYNAMIC CONVERGENCE ADJUSTMENTS

**Perform these adjustments when any of the following are replaced: CRT, deflection yoke, D-board, and whenever touch-ups are required.**

**Required equipment:**
NTSC generator with cross-hatch pattern.

**NOTE: Throughout these adjustment procedures you will be instructed to "Write the data to memory". To do this, follow this procedure:**

1. **Press the "MUTE" button ("WRITE" appears in green letters at the top right corner of the screen).**
2. **Press the "ENTER" button ("WRITE" changes from green to red, then "WRITE" changes to "SERVICE").**

**SET-UP CONDITION:**
Display Mode: FULL (NTSC)

Picture mode: STANDARD (select the STANDARD mode from the user menu, then press the RESET button on the remote control to set the STANDARD settings to the factory settings).

TILT CORRECTION: set to zero (from the user menu).

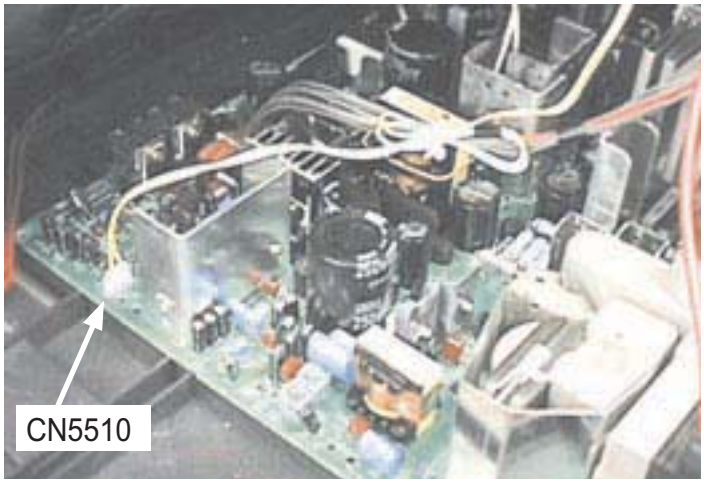
VERTICAL CORRECTION: set to zero (from the user menu).

**PROCEDURE**

1. Enter the service mode.
2. If the CRT or deflection yoke was replaced, set the data as shown below:

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| D-CONV | 0 | SBHS | 31 |
| D-CONV | 1 | YBWU | 31 |
| D-CONV | 2 | YBWL | 31 |
| D-CONV | 3 | RSAP | 31 |
| D-CONV | 4 | RUBW | 31 |
| D-CONV | 5 | RLBW | 31 |
| D-CONV | 6 | LSAP | 31 |
| D-CONV | 7 | LUBW | 31 |
| D-CONV | 8 | LLBW | 31 |

3. Display the cross-hatch pattern.
4. While observing the horizontal convergence, unplug connector CN5510 on the D-board.




The horizontal convergence should not shift. If it does shift, reconnect CN5510 and make the following adjustment:

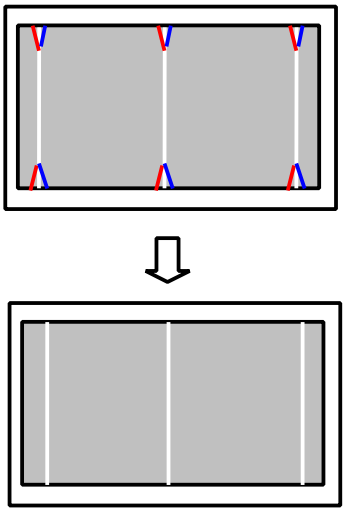
| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| D-CONV | 9 | CADJ | * |

Adjust as necessary so that the horizontal convergence is the same regardless if CN5510 is plugged in or not.

5. Write the data to memory.
6. Make sure CN5510 is plugged in.
7. Remove the bow from the top and bottom of the vertical lines in the cross-hatch pattern.

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| D-CONV | 1 | YBWU | * |
| D-CONV | 2 | YBWL | * |

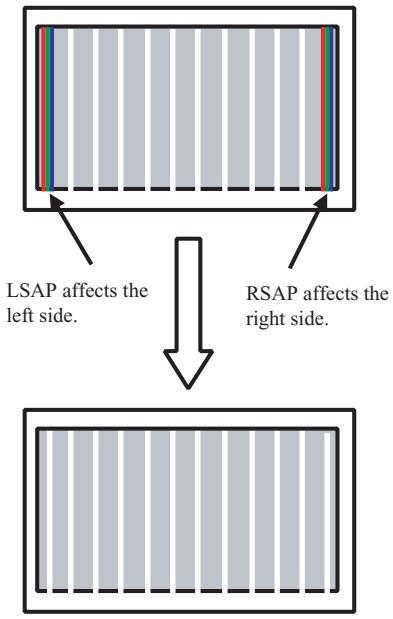
* Adjust as necessary to minimize the bow (separation).



8. Write the data to memory.

9. Converge the vertical lines at the sides of the screen.

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| D-CONV | 3 | RSAP | * |
| D-CONV | 6 | LSAP | * |



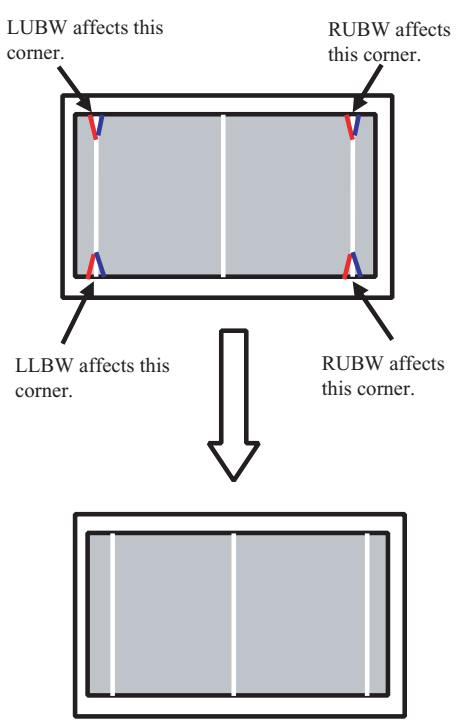

If the side horizontal convergence can't be achieved, the neck assembly may be too far forward or too far rearward. Refer to the Mechanical Pre-adjustments section.

10. Write the data to memory.

11. Remove the bow from the right and left side top and bottom of the vertical lines in the cross-hatch pattern.

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| D-CONV | 4 | RUBW | * |
| D-CONV | 5 | RLBW | * |
| D-CONV | 7 | LUBW | * |
| D-CONV | 8 | LLBW | * |

* Adjust as necessary to minimize the bow (separation).




12. Write the data to memory.

13. Check the convergence in the ZOOM, WIDE ZOOM, and HD1080i modes. Only minor touchups are allowed, as they affect the other modes. Make minor adjustments as necessary as described in the sections 5.7 to 5.12.

14. Copy the FULL mode convergence adjustments to the normal mode as follows:

    a) Select adjustment category “D-CONV”.

    b) Select adjustment item # 10 “COPY 2”.

    c) Change the data from “0” to “1”.

    d) Press “MUTING” and then press “ENTER”.

15. Select the NORMAL mode.

16. Adjust the NORMAL mode convergence as described in items 7 to 12.

**This completes the dynamic convergence adjustment.**

# SECTION 7. PICTURE QUALITY ADJUSTMENTS

**Perform these adjustments as necessary.**

**REQUIRED EQUIPMENT:** NTSC generator with 100 IRE 100% color bar pattern or 75 IRE 75% color bar pattern (composite video and RF output).

**NOTE: Throughout these adjustment procedures you will be instructed to "Write the data to memory". To do this, follow this procedure:**

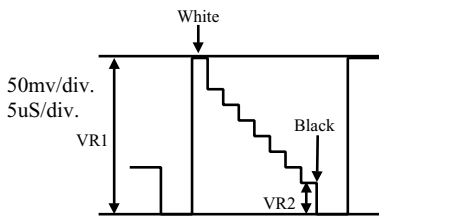
1. **Press the "MUTE" button ("WRITE" appears in green letters at the top right corner of the screen).**
2. **Press the "ENTER" button ("WRITE" changes from green to red, then "WRITE" changes to "SERVICE").**

## 7-1. DTV SUB-CONTRAST ADJUSTMENT

**SET-UP CONDITION:**
Picture mode: PRO
Color: Minimum
Picture: Maximum

**INITIAL DATA:**
Cat. 2150P-1, item #4 "RDRV", data = 45.
Cat. 2150P-1, item #7 "RCUT", data = 41.

**PROCEDURE:**
1. With set turned off, connect an oscilloscope to pin # 1 (R) of CN9001 on the C-board.
2. Display the 1080i color bar pattern from the TV's internal pattern generator as follows:
   a) Turn the set on and select the VHF-UHF antenna.
   b) Tune the TV to channel 2.1 ("two point one" not "twenty one"). Use the decimal point button on the remote. It's OK if there is no signal on channel 2.1.
   c) Turn the TV off.
   d) Enter the service mode.
   e) Select adjustment category "DTV"
   f) Select adjustment item # 1 "PATN".
   g) Change the data from "0" to "4". The 1080i color bar pattern will appear in a few seconds. The 1080i pattern automatically forces the TV into the FULL mode.
3. Select adjustment category "2150P-2", item # 1 "RGBS", and change the data from 7 to 4 (this turns off the blue and green).
4. Select adjustment category "2150P-4", item # 0 "SCON", and change the data so that the voltage difference between the peak white level and black level is 2.25 V +/- 0.05 V.




$VR1 - VR2 = \Delta VR = 2.25\ V \pm 0.05\ V_{p\text{-}p}$

5. Write the data to memory.
6. Select adjustment category "2150P-2", item # 1 "RGBS", and change the data from 4 to 7 (this turns the blue and green on).

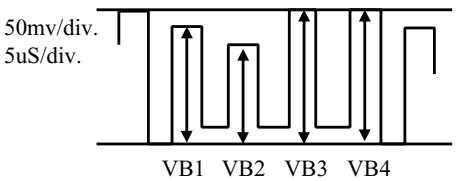
**This completes the DTV sub-contrast adjustment.**

## 7-2. DTV SUB-COLOR AND SUB-HUE ADJUSTMENT

**SET-UP CONDITION:**
Picture mode: PRO
Color: Factory default (press the RESET button while in PRO mode adjustment menu).
Picture: Maximum

**INITIAL DATA:**
Cat. 2150P-1, item #4 "RDRV", data = 45.
Cat. 2150P-1, item #7 "RCUT", data = 41.

**PROCEDURE:**
1. With set turned off, connect an oscilloscope to pin # 5 (B) of CN9001 on the C-board.
2. Display the 1080i color bar pattern from the TV's internal pattern generator (refer to section 7-1. item 2).
3. Select adjustment category "2150P-4", item # 1 "SCOL", and adjust the data so that VB1 and VB4 in the waveform meets the spec. shown below.
4. Select adjustment category "2150P-4", item # 2 "SHUE", and adjust the data so that VB2 and VB3 in the waveform meets the spec. shown below.




SCOL: VB1 ≤ VB4 (=VB1 + 0 ~ 90mV)
SHUE: VB2 ≤ VB3 (=VB2 + 0 ~ 90mV

5. Write the data to memory.

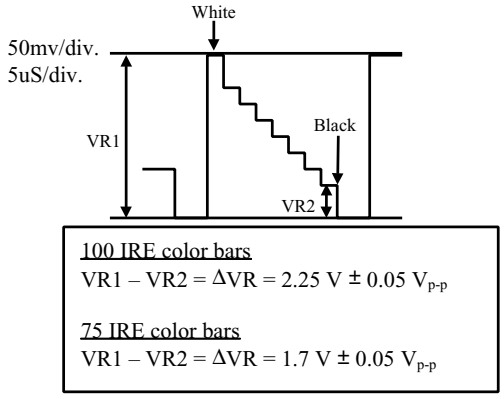
**This completes the DTV sub-color and sub-hue adjustment.**

## 7-3. ANALOG VIDEO SUB-CONTRAST ADJUSTMENT

**SET-UP CONDITION:**
Picture mode: PRO
Color: Minimum
Picture: Maximum
Display mode: FULL

**INITIAL DATA:**
Cat. 2150P-1, item #4 “RDRV”, data = 45.
Cat. 2150P-1, item #7 “RCUT”, data = 41.

**PROCEDURE:**
1. With set turned off, connect an oscilloscope to pin # 1 (R) of CN9001 on the C-board.
2. Enter the service mode.
3. Display a color bar pattern through the video-1 input.
4. Select adjustment category “2150P-2”, item # 1 “RGBS”, and change the data from 7 to 4 (this turns off the blue and green).
5. Select adjustment category “2150P-4”, item # 0 “SCON”, and change the data so that the voltage difference between the peak white level and black level is 2.25 V +/- 0.05 V for 100 IRE color bars, or 1.7 V +/- 0.05 V for 75 IRE color bars.




100 IRE color bars
$VR1 - VR2 = \Delta VR = 2.25\ V \pm 0.05\ V_{p\text{-}p}$

75 IRE color bars
$VR1 - VR2 = \Delta VR = 1.7\ V \pm 0.05\ V_{p\text{-}p}$

6. Write the data to memory.
7. Select adjustment category “2150P-2”, item # 1 “RGBS”, and change the data from 4 to 7 (this turns the blue and green on).

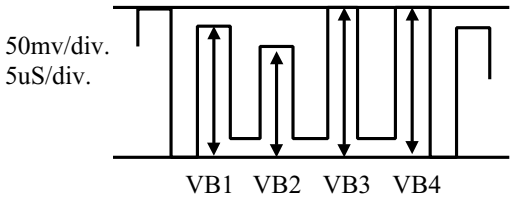
**This completes the analog video sub-contrast adjustment.**

## 7-4. ANALOG VIDEO SUB-COLOR AND SUB-HUE ADJUSTMENT

**SET-UP CONDITION:**
Picture mode: PRO
Color: Factory default (press the RESET button while in PRO mode adjustment menu).
Picture: Maximum
Display mode: FULL

**INITIAL DATA:**
Cat. 2150P-1, item #4 “RDRV”, data = 45.
Cat. 2150P-1, item #7 “RCUT”, data = 41.

**PROCEDURE:**
1. With set turned off, connect an oscilloscope to pin # 5 (B) of CN9001 on the C-board.
2. Enter the service mode.
3. Display a color bar pattern through the video-1 input.
4. Select adjustment category “2150P-4”, item # 1 “SCOL”, and adjust the data so that VB1 and VB4 in the waveform meets the spec. shown below.
5. Select adjustment category “2150P-4”, item # 2 “SHUE”, and adjust the data so that VB2 and VB3 in the waveform meets the spec. shown below.




SCOL: $VB1 \leq VB4$ (=VB1 + 0 ~ 90mV)
SHUE: $VB2 \leq VB3$ (=VB2 + 0 ~ 90mV

6. Write the data to memory.

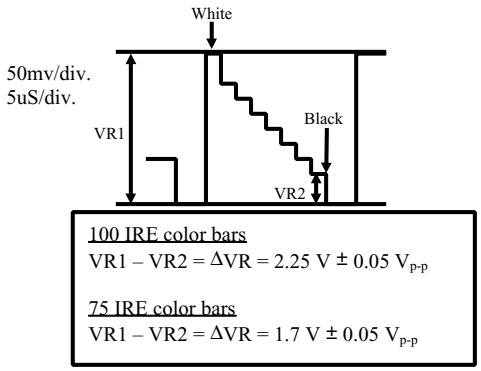
**This completes the analog video sub-color and sub-hue adjustment.**

## 7-5. RF SUB-CONTRAST ADJUSTMENT

**SET-UP CONDITION:**
Picture mode: PRO
Color: Minimum
Picture: Maximum
Display mode: TWIN mode (P&P)

**INITIAL DATA:**
Cat. 2150P-1, item #4 “RDRV”, data = 45.
Cat. 2150P-1, item #7 “RCUT”, data = 41.

**PROCEDURE:**
1. With set turned off, connect an oscilloscope to pin # 1 (R) of CN9001 on the C-board.
2. Enter the service mode.
3. Display a color bar pattern through an RF (tuner) input.
4. Select adjustment category “2150P-2”, item # 1 “RGBS”, and change the data from 7 to 4 (this turns off the blue and green).
5. Select adjustment category “2103-1”, item # 2 “SCON” (for the left side picture) and “2103-2”, item # 2 “SCON” (for the right side picture), and change the data so that the voltage difference between the peak white level and black level is 2.25 V +/- 0.05 V for 100 IRE color bars, or 1.7 V +/- 0.05 V for 75 IRE color bars.




6. Write the data to memory.
7. Select adjustment category “2150P-2”, item # 1 “RGBS”, and change the data from 4 to 7 (this turns the blue and green on).

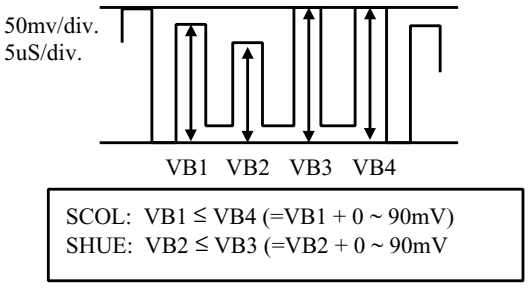
**This completes the RF sub-contrast adjustment.**

## 7-6. ANALOG VIDEO SUB-COLOR AND SUB-HUE ADJUSTMENT

**SET-UP CONDITION:**
Picture mode: PRO
Color: Factory default (press the RESET button while in PRO mode adjustment menu).
Picture: Maximum
Display mode: TWIN mode (P&P)

**INITIAL DATA:**
Cat. 2150P-1, item #4 “RDRV”, data = 45.
Cat. 2150P-1, item #7 “RCUT”, data = 41.

**PROCEDURE:**
1. With set turned off, connect an oscilloscope to pin # 5 (B) of CN9001 on the C-board.
2. Enter the service mode.
3. Display a color bar pattern through an RF (tuner) input.
4. Select adjustment category “2103-1”, item # 3 “SCOL” for the left side picture, and “2103-2”, item # 3 “SCOL” for the right side picture, and adjust the data so that VB1 and VB4 in the waveform meets the spec. shown below.
5. Select adjustment category “2103-1”, item # 4 “SHUE” for the left side picture, and “2103-2” item # 4 “SHUE” for the right side picture, and adjust the data so that VB2 and VB3 in the waveform meets the spec. shown below.




6. Write the data to memory.

**This completes the RF sub-color and sub-hue adjustment.**

# SECTION 8. WHITE BALANCE, SUB-BRIGHTNESS AND G2 ADJUSTMENTS

**Perform White Balance and Sub-brightness adjustments as necessary. Perform G2 adjustment whenever the CRT or D-board is replaced, and whenever tinting or faint lines are seen in all-black areas of the screen.**

**Required equipment:**
NTSC generator with white raster and gray-scale pattern (color bar pattern with chroma turned off is OK).

**NOTE: Throughout these adjustment procedures you will be instructed to "Write the data to memory". To do this, follow this procedure:**

1. **Press the "MUTE" button ("WRITE" appears in green letters at the top right corner of the screen).**
2. **Press the "ENTER" button ("WRITE" changes from green to red, then "WRITE" changes to "SERVICE").**

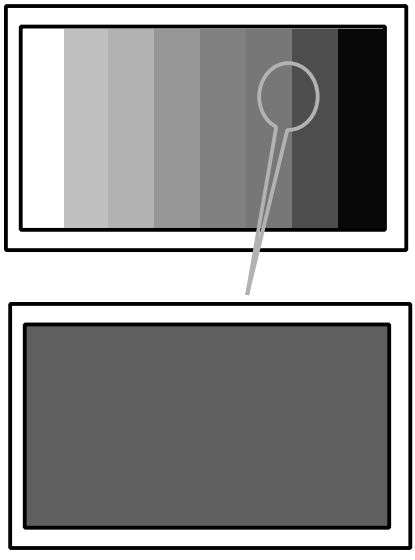
## 8-1. WHITE BALANCE ADJUSTMENT

**SET-UP CONDITION:**
Picture mode: PRO mode at factory default (press the RESET button while in PRO mode adjustment menu), then set COLOR to 50%.

**PROCEDURE:**
1. Select the video-1 input.
2. Enter the service mode.
3. Set the following initial data:

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150P-1 | 4 | RDRV | 45 |
| 2150P-1 | 7 | RCUT | 41 |
| 2150P-1 | 1 | CBOF | 34 |
| 2150P-1 | 2 | CROF | 32 |
| 2103-1 | 20 | CBOF | 34 |
| 2103-1 | 21 | CROF | 32 |
| 2103-2 | 20 | CBOF | 33 |
| 2103-2 | 21 | CROF | 33 |

4. Display a gray-scale pattern (or color bars with the chroma turned off) and closely observe the 2 darkest gray bars (not including the black bar).
5. Display a white raster again, and adjust the pattern generator's output level so that raster level is in the middle of the level of the 2 darkest gray bars observed in the previous step.



6. Alternately adjust category 2150P-1 items # 8 "GCUT" and 9 "BCUT" to obtain the purest gray (no color tint). Use the center area of the screen to make your judgment.
7. Write the data to memory.
8. Display a 480i (NTSC) white raster through the video-1 input.
9. Alternately adjust category 2150P-1 items # 5 "GDRV" and 6 "BDRV" to obtain the purest white (no color tint). Use the center area of the screen to make your judgment.
10. Write the data to memory.
11. Alternately repeat steps 6 through 9 until the dark gray and white rasters do not show any evidence of color tinting.
12. Write the data to memory.
13. Change the set from the video-1 mode to the DTV mode as follows:

    a) Turn the set on and select the VHF-UHF antenna.

    b) Tune the TV to channel 2.1 ("two point one" not "twenty one"). Use the decimal point button on the remote. It's OK if there is no signal on channel 2.1.

    c) Turn the TV off.

    d) Enter the service mode.

14. Change white balance offset data for the DTV mode as follows:

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150P-1 | 1 | CBOF | 26 |
| 2150P-1 | 2 | CROF | 26 |

15. Write the data to memory.
16. Change the set from DTV mode to TWIN (P&P) mode.
17. Change white balance offset data for the TWIN mode as follows:

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150P-1 | 1 | CBOF | 36 |
| 2150P-1 | 2 | CROF | 36 |

18. Write the data to memory.
19. Change the set from TWIN mode to video-5 mode. An input signal is not necessary.

20. Change white balance offset data for the video-5 mode as follows:

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150P-1 | 1 | CBOF | 36 |
| 2150P-1 | 2 | CROF | 36 |
| 2103-1 | 20 | CBOF | 36 |
| 2103-1 | 21 | CROF | 38 |

21. Write the data to memory.

22. Change the set from video-5 mode to video-6 mode. An input signal is not necessary.

23. Change white balance offset data for the video-6 mode as follows:

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2103-1 | 20 | CBOF | 32 |
| 2103-1 | 21 | CROF | 32 |

24. Write the data to memory.

**This completes the white balance adjustment.**

## 8-2. SUB-BRIGHTNESS ADJUSTMENT

**SET-UP CONDITION:**
Picture mode: PRO mode at factory default (press the RESET button while in PRO mode adjustment menu), then set PICTURE to minimum.

The room must be dark.

**PROCEDURE:**
1. Enter the service mode.
2. Select the video-1 input with no signal applied so that the screen is black (except for the on-screen display).
3. Set the sub-bright offset data as follows:

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150P-1 | 11 | SBOF | 7 |

4. Adjust the sub-bright data so that there is no light output from the CRT in the black areas of the screen.

| Device Name | Adj. Item # | Name | Data |
|---|---|---|---|
| 2150P-1 | 3 | SBRT | * |

* Adjust as necessary.

5. Write the data to memory.

**This completes the sub-brightness adjustment.**

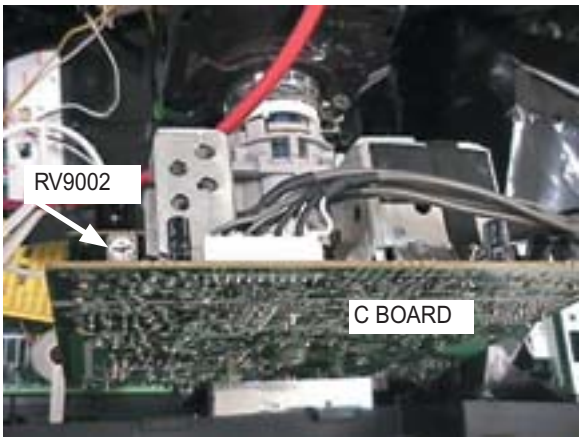
## 8-3. G2 ADJUSTMENT

**Perform this adjustment whenever the CRT or D-board is replaced, and whenever tinting or faint lines are seen in all-black areas of the screen.**

**SET-UP CONDITION:**
Display mode: FULL (NTSC)

Picture mode:STANDARD (enter the STANDARD mode adjustment menu from the user menu, then press the RESET button on the remote control to set the STANDARD settings to the factory settings).

**PROCEDURE:**
1. Select an unused input so that the screen is black except for the on-screen display.
2. Make the room as dark as possible.
3. Turn G2 RV9002 on the C-board clockwise until a slight glow is seen in the black areas of the screen.
4. Turn G2 RV9002 on the C-board counter-clockwise until the glow disappears and the black areas have no light output.




**This completes the G2 adjustment.**

# SECTION 9: SAFETY RELATED ADJUSTMENTS

## ⋈ RV8001, RV8002 CONFIRMATION METHOD AND HV SERVICE ADJUSTMENTS

### B+ MAX CONFIRMATION

Standard ..... 135.3 ± 1 VDC

Check Condition:

AC input voltage: ..... 120 (± 2) VAC at Board Adjustment Process

..... 130 (± 2) VAC at QC

... 120 (± 2) VAC at Overall Adjustment (after aging)

**Note: If using a stabilized power supply, make sure that the distortion factor is 3% or less.**

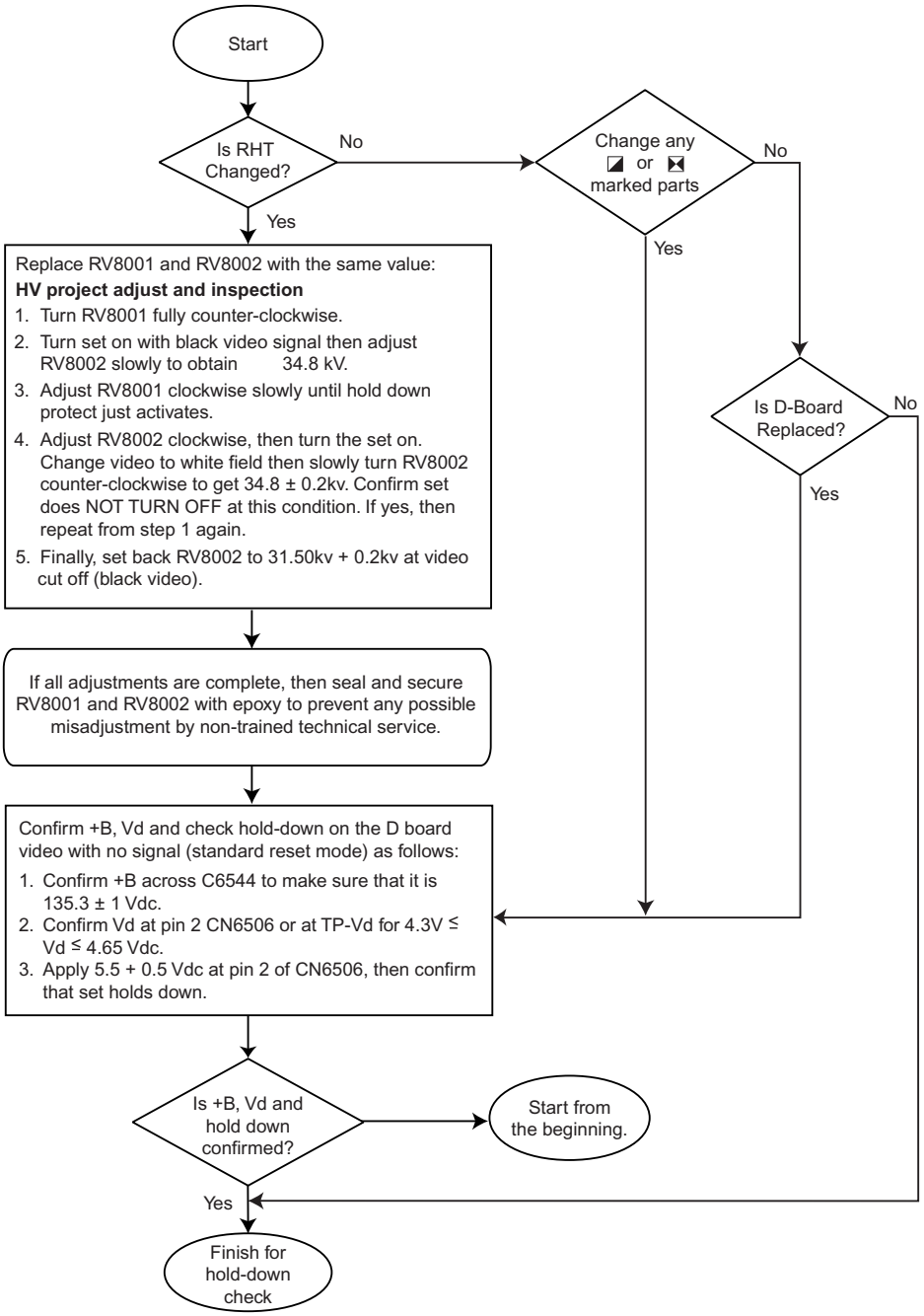
Setting mode: ..... Full mode

Signal input: ..... Cross-hatch of NTSC at QC

Initial setting: ..... Reset condition at QC

Confirm point: ..... Across C6544 for B+ of D Board

### HV SERVICE FLOWCHART



# SECTION 10: CIRCUIT ADJUSTMENTS

## ELECTRICAL ADJUSTMENTS BY REMOTE COMMANDER

Use the Remote Commander (RM-Y185) to perform the circuit adjustments in this section.

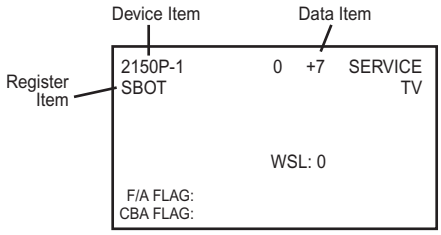
**Test Equipment Required:** 1. Pattern generator 2. Frequency counter 3. Digital multimeter 4. Audio oscillator

## 10-1. SETTING THE SERVICE ADJUSTMENT MODE

1. Standby mode (Power off).
2. Press the following buttons on the remote commander within one second of each other:

   DISPLAY → Channel 5 → Sound Volume + → Power

## SERVICE ADJUSTMENT MODE VIEW




## READING THE MEMORY

1. Enter into Service Mode.
2. Press 0 on the remote commander.
3. Press ENTER to read memory.

## ADJUSTING THE PICTURE

1. Enter into Service Mode
2. Press 2 or 5 on the remote to select the device item.
3. Press 1 or 4 on the remote to select an item.
4. Press 3 or 6 on the remote to change the data.
5. Press MUTING then ENTER to write into memory.

## RESETTING THE DATA

**Note**: Be careful when using the remote! It will clear and re-initialize ALL NVM data including deflection adjustment data if not reset properly as follows:

## RESETTING THE DEFLECTION NVM DATA

1. Enter into Service Mode.
2. Press 7, then MENU, and then press ENTER on the remote.

## RESETTING THE SYSTEM NVM DATA

1. Enter into Service Mode.
2. Press 7, then 9, and then press ENTER on the remote.

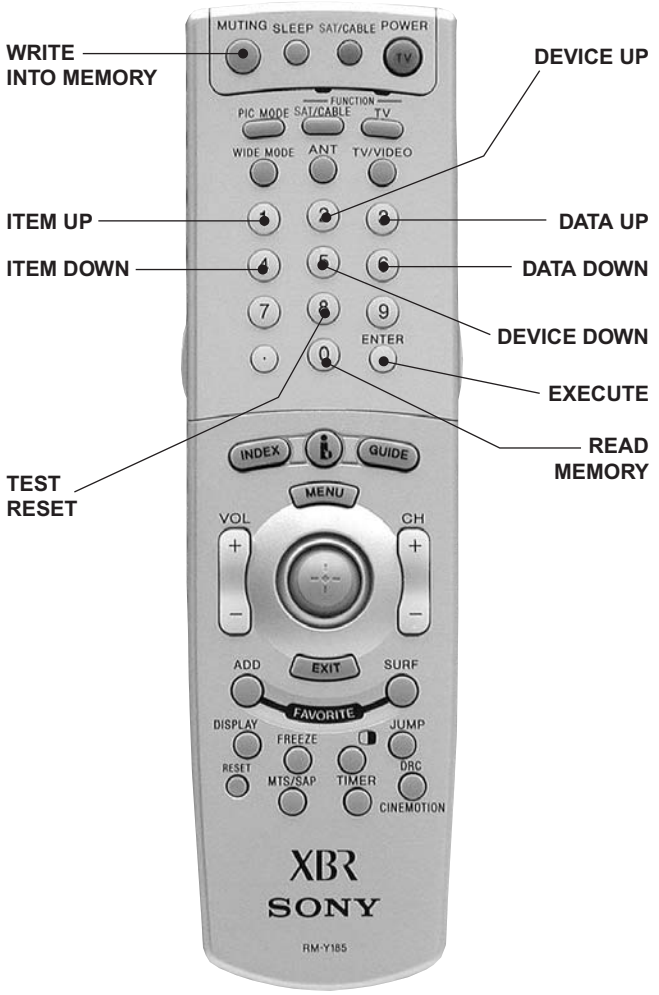
## RESETTING THE SYSTEM NVM DATA

1. Enter into Service Mode.
2. Press 8 and then press ENTER on the remote.

## 10-2. MEMORY WRITE CONFIRMATION METHOD

1. After adjustment, pull out the plug from the AC outlet, then replace the plug in the AC outlet again.
2. Turn the power switch ON and set to Service Mode.
3. Call the adjusted items again to confirm they were adjusted.

## 10-3. REMOTE ADJUSTMENT BUTTONS AND INDICATORS




RM-Y185

## 10-4. SERVICE DATA LISTS

**HA3 Main Chroma Decoder (CXA2103) Service List (1)**

| No. | ITEM | NAME / DESCRIPTION | Initial Data Settings | | | |
|---|---|---|---|---|---|---|
| | | **The Following data depends on Signal Path** | **DRC** | **VDO** | | |
| 0 | **YLEV** | Y out-level gain[0:2.9dB, 63:9.0dB] | 35 | 35 | | |
| 1 | **CLEV** | CbCr out-level gain[0:2.9dB, 63:9.0dB] | 50 | 42 | | |
| | | **The Following Data Depends on Signal Input** | **RF** | **CV/YC** | | |
| 2 | **SCON** | SUB contrast[0:-2dB, 15:+2dB] | 9 | 9 | | |
| 3 | **SCOL** | SUB color[0:-2dB, 15:+2dB] | 2 | 2 | | |
| 4 | **SHUE** | SUB hue[0:-8.8deg, 15:+8.8deg] | 11 | 5 | | |
| 5 | **YDLY** | Y/C delay[0:Ref, 1:30ns Y-delay, 2:60ns, 3:100ns] | 0 | 0 | | |
| | | **The Following Data Depends on Signal Input** | **RF** | **CV** | **V5** | **YC** |
| 6 | **SHAP** | Sharpness[0:-3dB, 15:+3dB] | 6 | 8 | 4 | 8 |
| 7 | **SHF0** | Sharpness F0[0:2.5MHz, 1:3.0MHz, 2:3.5MHz, 3:4.0MHz] | 0 | 0 | 3 | 0 |
| 8 | **PREO** | Pre.-Over ratio[0: 1.5:1, 1: 1:1, 2: 1:1.5, 3: 1:2] | 3 | 3 | 3 | 3 |
| | | **The Following Data Depends on Signal Input** | **RF** | **CV** | **YC** | |
| 9 | **BPF0** | Chroma BPF F0[0:fsc, 1:fsc+400k, 2:fsc+800k, 3:fsc+1.2M] | 3 | 0 | 0 | |
| 10 | **BPFQ** | Chroma BPF Q[0:2.0, 1:1.5, 2:1.2, 3:1.0] | 0 | 3 | 3 | |
| 11 | **BPSW** | Chroma BPF On/Off[0:Off, 1:On] | 1 | 0 | 0 | |
| 12 | **TRAP** | Chroma trap on Y On/off[0:Off, 1:On] | 0 | 0 | 0 | |
| | | **The Following Data Depends on Signal Input** | **DRC** | **VDO** | | |
| 13 | **LPF** | Output LPF(YCbCr) [0:On, 1:Off(through)] | 1 | 0 | | |

## SERVICE DATA LISTS

**HA3 Main Chroma Decoder (CXA2103) Service List (2)**

| No. | ITEM | NAME / DESCRIPTION | Initial Data Settings | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | **The Following Data Depends on Signal Input** | **RF** | **CV/YC** | **V5/V6** | | | |
| 14 | **AFCG** | PLL loop gain[0:fast, 1:slow] | 1 | 0 | 0 | | | |
| 15 | **CDMD** | Count down mode[0/1/3:CountDown, 2:H look *Tc:0>1>3] | 3 | 3 | 3 | | | |
| 16 | **SSMD** | Slice level[0:auto, 1:HV 65%, 2:H25% V65%, 3:HV25%] | 0 | 0 | 0 | | | |
| 17 | **HMSK** | Mask for MacroVision[0:Off, 1:On] | 0 | 1 | 1 | | | |
| 18 | **HALI** | Auto H alignment[0:Off, 1:On(AFC free run)] | 0 | 0 | 0 | | | |
| 19 | **PPHA** | Picture/H Tim phase[0:-0.5us, 15:+0.5us] | 7 | 7 | 7 | | | |
| | | **The Following Data Depends on Signal Input** | **RF** | **V5** | **V6** | | | |
| 20 | **CBOF** | Cb/Ext Cb offset[0:-16mV, 63:+16mV] | **34** | **36** | **32** | | | |
| 21 | **CROF** | Cr/Ext Cr offset[0:-16mV, 63:+16mV] | **32** | **38** | **32** | | | |
| | | **The Following Data Depends on CXA2150P-4 BLK** | **Single** | **BLK(0)** | **BLK(1)** | **BLK(2)** | **BLK(3)** | |
| 22 | **ATPD** | Auto pedestal point[0:Through, 1:20IRE, 2:30IRE, 3:40IRE] | 0 | 0 | 1 | 2 | 3 | |
| 23 | **DCTR** | DC transfer ratio [0:100%, 1:95%, 2:90%, 3:85%] | 0 | 0 | 1 | 1 | 1 | |
| | | **Continued** | **BLK(4)** | **BLK(5)** | **BLK(6)** | **BLK(7)** | | |
| 22 | **ATPD** | Auto pedestal point[0:Through, 1:20IRE, 2:30IRE, 3:40IRE] | **2** | 2 | 3 | 1 | | |
| 23 | **DCTR** | DC transfer ratio [0:100%, 1:95%, 2:90%, 3:85%] | **3** | 2 | 2 | 2 | | |

****Main and Sub CXA2103 share the same data for items 22 & 23**

## SERVICE DATA LISTS

**HA3 Sub Chroma Decoder (CXA2103) Service List (1)**

| No. | ITEM | NAME / DESCRIPTION | Initial Data Settings | | | |
|---|---|---|---|---|---|---|
| | | **The Following data depends on Signal Path** | **DRC** | **VDO** | | |
| 0 | **YLEV** | Y out-level gain[0:2.9dB, 63:9.0dB] | 35 | 35 | | |
| 1 | **CLEV** | CbCr out-level gain[0:2.9dB, 63:9.0dB] | 50 | 42 | | |
| | | **The Following Data Depends on Signal Input** | **RF** | **CV/YC** | | |
| 2 | **SCON** | SUB contrast[0:-2dB, 15:+2dB] | 8 | 8 | | |
| 3 | **SCOL** | SUB color[0:-2dB, 15:+2dB] | 3 | 3 | | |
| 4 | **SHUE** | SUB hue[0:-8.8deg, 15:+8.8deg] | 10 | 3 | | |
| 5 | **YDLY** | Y/C delay[0:Ref, 1:30ns Y-delay, 2:60ns, 3:100ns] | 0 | 0 | | |
| | | **The Following Data Depends on Signal Input** | **RF** | **CV** | **V5** | **YC** |
| 6 | **SHAP** | Sharpness[0:-3dB, 15:+3dB] | 2 | 2 | 7 | 2 |
| 7 | **SHF0** | Sharpness F0[0:2.5MHz, 1:3.0MHz, 2:3.5MHz, 3:4.0MHz] | 0 | 0 | 3 | 0 |
| 8 | **PREO** | Pre.-Over ratio[0: 1.5:1, 1: 1:1, 2: 1:1.5, 3: 1:2] | 3 | 3 | 1 | 3 |
| | | **The Following Data Depends on Signal Input** | **RF** | **CV** | **YC** | |
| 9 | **BPF0** | Chroma BPF F0[0:fsc, 1:fsc+400k, 2:fsc+800k, 3:fsc+1.2M] | 0 | 0 | 0 | |
| 10 | **BPFQ** | Chroma BPF Q[0:2.0, 1:1.5, 2:1.2, 3:1.0] | 3 | 3 | 3 | |
| 11 | **BPSW** | Chroma BPF On/Off[0:Off, 1:On] | 1 | 1 | 1 | |
| 12 | **TRAP** | Chroma trap on Y On/off[0:Off, 1:On] | 0 | 0 | 0 | |
| | | **The Following Data Depends on Signal Input** | **DRC** | **VDO** | | |
| 13 | **LPF** | Output LPF(YCbCr) [0:On, 1:Off(through)] | 1 | 0 | | |

## SERVICE DATA LISTS

**HA3 Sub Chroma Decoder (CXA2103) Service List (2)**

| No. | ITEM | NAME / DESCRIPTION | Initial Data Settings | | |
|---|---|---|---|---|---|
| | | **The Following Data Depends on Signal Input** | **RF** | **CV/YC** | **V5/V6** |
| 14 | **AFCG** | PLL loop gain[0:fast, 1:slow] | 1 | 0 | 0 |
| 15 | **CDMD** | Count down mode[0/1/3:CountDown, 2:H look *Tc:0>1>3] | 3 | 3 | 3 |
| 16 | **SSMD** | Slice level[0:auto, 1:HV 65%, 2:H25% V65%, 3:HV25%] | 0 | 0 | 0 |
| 17 | **HMSK** | Mask for MacroVision[0:Off, 1:On] | 0 | 1 | 1 |
| 18 | **HALI** | Auto H alignment[0:Off, 1:On(AFC free run)] | 0 | 0 | 0 |
| 19 | **PPHA** | Picture/H Tim phase[0:-0.5us, 15:+0.5us] | 7 | 7 | 7 |
| | | **The Following Data Depends on Signal Input** | **RF** | **V5** | **V6** |
| 20 | **CBOF** | Cb/Ext Cb offset[0:-16mV, 63:+16mV] | **33** | 29 | 25 |
| 21 | **CROF** | Cr/Ext Cr offset[0:-16mV, 63:+16mV] | **33** | 30 | 25 |
| 22 | **2SCO** | SCON offset of CV for 2H Comb[0:-7step, 7:+-0step, 15:+8step] | 7 | | |
| 23 | **2SCL** | SCOL offset of CV for 2H Comb[0:-7step, 7:+-0step, 15:+8step] | 7 | | |
| 24 | **2SHU** | SHUE offset of CV for 2H Comb[0:-7step, 7:+-0step, 15:+8step] | 7 | | |

## SERVICE DATA LISTS

### HA3 3DComb Filter (uPD64082) Service List (1)

| No. | ITEM | NAME / DESCRIPTION | Initial Data Settings | | | |
|---|---|---|---|---|---|---|
| 0 | **NRMD** | Noise reduction mode[0:YCS, 1:YCS+, 2:MNNR, 3:YCNR] | | | | |
| 1 | **YAPS** | Y aperture/peaking[0:OFF, 1:A-ON, 2:D-ON, 3:A/D-ON] | **3** | | | |
| | **The following data depends on NRMD data** | | **NRMD(0)** | **NRMD(1)** | **NRMD(2)** | **NRMD(3)** |
| 2 | **CLKS** | System CLK[0:Auto, 1:Forced-Burst, 2/3:Forced-H freq.] | 1 | 1 | 1 | 1 |
| 3 | **NSDS** | Signal [0:Auto, 1:F-ST, 2:F-nonST(H), 3:F-nonST(V)] | | | | |
| 4 | **MSS** | Processing [0:Auto, 1:F-Inter Frame, 2/3:F-Inter Line] | | | | |
| 5 | **KILS** | Color Killer[0:Auto, 1:PortCont. 2/3:F-Killer] | | | | |
| | **The following data depends on NRMD data** | | **NRMD(0)** | **NRMD(1)** | **NRMD(2)** | **NRMD(3)** |
| 6 | **CDL** | Chroma delay time[0:-280ns, 4:0ns, 7:+210ns] | 3 | 3 | 3 | 3 |
| 7 | **DYCO** | Y coring level[0:Coring 0, 15:Large amount of Coring] | 2 | 2 | 2 | 2 |
| 8 | **DYGA** | Y coring gain[0:0 gain, 15:Maximum gain] | 10 | 10 | 10 | 10 |
| 9 | **DCCO** | C coring level[0:Coring 0, 15:Large amount of Coring] | 5 | 5 | 5 | 5 |
| 10 | **DCGA** | C coring gain[0:0 gain, 15:Maximum gain] | 5 | 5 | 5 | 5 |
| 11 | **YNRL** | YNR limit[0:YNR off(0 LSB), 3:YNR 3LSB] | 1 | | | |
| 12 | **CNRL** | CNR limit[0:CNR off(0 LSB), 3:CNR 3LSB] | 1 | | | |
| | **The following data depends on the Video Input** | | **RF** | **CV/YC** | **V5/V6** | |
| 13 | **VTRH** | H Hysteresis of nonST signal det.[0:Hys-off, 3:Hys-high] | 1 | 1 | 1 | |
| 14 | **VTRR** | H Sensitivity of nonST signal det.[0:High, 3:Off] | 1 | 1 | 1 | |
| 15 | **LDSR** | Frame sensitivity of nonST signal det.[0:High, 3:Off] | 2 | 2 | 2 | |

## SERVICE DATA LISTS

### HA3 3DComb Filter (uPD64082) Service List (2)

| No. | ITEM | NAME / DESCRIPTION | Initial Data Settings | | | | |
|---|---|---|---|---|---|---|---|
| | | **The following data depends on Picture Pallete** | **Vivid** | **Standard** | **Movie** | **Game** | **Pro** |
| 16 | **VAPG** | Vertical aperture gain[0:Off, 7:Maximum] | 4 | 2 | 2 | 2 | 0 |
| 17 | **VAPI** | Vertical aperture conv.point[0:Off, 31:Max correction] | 4 | 4 | 4 | 4 | 0 |

| | | | **Vivid** | | **Standard** | | **Movie** | |
|---|---|---|---|---|---|---|---|---|
| | | **The following data depends on Picture Pallete and Video Input** | **RF** | **CV/YC** | **RF** | **CV/YC** | **RF** | **CV/YC** |
| 18 | **YPFT** | Y peaking freq.[0:3.58MHz, 1:3.86, 2:4.08, 3:4.22] | 3 | 3 | 3 | 3 | 3 | 3 |
| 19 | **YPFG** | Y peaking gain[0:-1times, 8:0times, 15:+0.875times] | **7** | 5 | **7** | 5 | 5 | 6 |

| | | | **Game** | | **Pro** | | **TWIN** |
|---|---|---|---|---|---|---|---|
| | | **Continued** | **RF** | **CV/YC** | **RF** | **CV/YC** | **Any** |
| 18 | **YPFT** | Y peaking freq.[0:3.58MHz, 1:3.86, 2:4.08, 3:4.22] | 3 | 3 | 3 | 3 | 3 |
| 19 | **YPFG** | Y peaking gain[0:-1times, 8:0times, 15:+0.875times] | **7** | 5 | 5 | 5 | 6 |

| | | | |
|---|---|---|---|
| 20 | **YHCO** | Y coring for y[0:Off, 1:Small, 2:Mid, 3:Large] | 1 |
| 21 | **YHCG** | Y coring gain for High frequency[0:Normal, 1:0.5gain] | 0 |
| 22 | **HSSL** | Holizontal sync slice level[0:4LSB, 15:19LSB] | 12 |
| 23 | **VSSL** | Vertical sync slice level[0:HSSL+0LSB, 15:HSSL+15LSB] | 8 |
| 24 | **ADCL** | ADC clock delay[0:0ns, 1:3ns, 2:17.5ns, 3:20.5ns] | 3 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | **The following data depends on NRMD Data** | **NRMD(0)** | **NRMD(1)** | **NRMD(2)** | **NRMD(3)** |
| 25 | **D2GA** | Motion detect gain | 4 | 4 | 4 | 4 |

## HA3 3DComb Filter (uPD64082) Service List (3)

| No. | ITEM | NAME / DESCRIPTION | Initial Data Settings | | | | |
|---|---|---|---|---|---|---|---|
| | **The following data depends on the Video Input** | | **RF** | **CV/YC** | **V5/V6** | | |
| 26 | **SEDY** | Select DY detect [0:low sensitivity, 1:high sensitivity] | 1 | 1 | 1 | | |
| 27 | **SEDC** | Select DC detect [0:low sensitivity, 1:high sensitivity] | 0 | 0 | 0 | | |
| 28 | **KILR** | Killer detector[0:off, 1:low sensitivity, 15:high sens.] | 3 | | | | |
| 29 | **OP** | NRMD for Y/C input[0:Recursive Type, 1:Comb Type] | 1 | | | | |
| | **The following data depends on the Video Input** | | **RF** | **V1-CV** | **V2-CV** | **V3-CV** | **V4-CV** |
| 30 | **NR1** | Initial setting of NR On/Off[0:On, 1:Off] | 1 | 0 | 0 | 0 | 0 |
| | | **continued** | **V1-YC** | **V2-YC** | **V3-YC** | **V4-YC** | |
| 30 | **NR1** | Initial setting of NR On/Off[0:On, 1:Off] | 0 | 0 | 0 | 0 | |
| 31 | **NR2** | S/N adaptive processing [0:On, 1:Off] | 0 | | | | |
| 32 | **HPLL** | H PLLl filter[0:Slow convergence, 1:Quick convergence] | 1 | | | | |
| 33 | **BPLL** | Burst pll filter[0:Quick convergence, 1:Slow convergence] | 1 | | | | |
| 34 | **FSCF** | Burst extraction gain[0:High gain, 1:Low gain] | 0 | | | | |
| 35 | **PLLF** | PLL loop gain[0:Low gain, 1:High gain] | 1 | | | | |
| | **The following data depends on the Video Input** | | **RF** | **CV/YC** | **V5/V6** | | |
| 36 | **CC3N** | C filter characteristic of comb filter[0:Narrow, 1:Wide] | 0 | 0 | 0 | | |

## HA3 3DComb Filter (uPD64082) Service List (4)

| No. | ITEM | NAME / DESCRIPTION | Initial Data Settings | | |
|---|---|---|---|---|---|
| | **The following data depends on the Video Input** | | **RF** | **CV/YC** | **V5/V6** |
| 36 | **CC3N** | C filter characteristic of comb filter[0:Narrow, 1:Wide] | 0 | 0 | 0 |
| 37 | **HDP** | Horizontal phase[0:-1.12us, 4:0us, 7:+0.84us] | 4 | | |
| 28 | **BGPS** | Burst gate start[0:HS center+2us, 15:HS center+5.75us] | 4 | | |
| 29 | **BGPW** | Burst gate width[0:0.5us, 15:4.25us] | 10 | | |
| 40 | **TEST** | Test bit[0:Normal, 1:Test mode] | 0 | | |
| 41 | **WSC** | Noise det. Coring[0:0LSB, 1:1LSB, 2:2LSB, 3:3LSB] | 1 | | |
| | **The following data depends on the Video Input** | | **RF** | **CV/YC** | **V5/V6** |
| 42 | **LIND** | 262P detect [xx1:non-st H, x1x:non-st V, 1xx:LD still] | 0 | 0 | 2 |

SERVICE DATA LISTS

## HA3 Video Processor (CXA2150P-1) Service List

| No. | ITEM | NAME/DESCRIPTION | Initial Data Settings | | | |
|---|---|---|---|---|---|---|
| The Following Data depends on the Signal Path & Source | | | Analog: 1080i | Analog: Other | DTV | TWIN |
| 0 | YOF | Yoffset[0:-39mV,7:0mV,15:+45mV] | 7 | 7 | 7 | 7 |
| 1 | CBOF | Cboffset[0:B-36mVG+16mV,31:B+0G+0,63:B+43G-20] | 31 | 36 | 26 | 36 |
| 2 | CROF | Croffset[0:R-46mVG+10mV,31:R+0G+0,63:R+55G-12] | 31 | 36 | 26 | 36 |
| 3 | SBRT | SUB brightness [0:-15 IRE, 31:+0 IRE, 63:+15 IRE] | 31 | | | |
| 4 | RDRV | Rdrive gain [0:-4dB, 41:+0dB, 63:+2dB] | 45 | | | |
| 5 | GDRV | Gdrive gain [0:-4dB,41:+0dB,63:+2dB] | 35 | | | |
| 6 | BDRV | Bdrive gain [0:-4dB,41:+0dB,63:+2dB] | 34 | | | |
| 7 | RCUT | Rcut-off [0:-9dB,31:+0dB,63:+4dB] | 41 | | | |
| 8 | GCUT | Gcut-off [0:-9dB,31:+0dB,63:+4dB] | 35 | | | |
| 9 | BCUT | Bcut-off[0:-9dB,31:+0dB,63:+4dB] | 18 | | | |

Used when a 1080i signal by-passes the MID

Used for Analog signals passing through the MID

| The Following Data depends on Color Temperature | | | WARM | COOL |
|---|---|---|---|---|
| 10 | WBSW | White balance offset [0:Normal, 1:R100% G90% B70%] | 1 | 0 |
| 11 | SBOF | Sub brightness offset-Color Temp.[0:-7, 7:0, 15:+8] | 7 | 7 |
| 12 | RDOF | RDRV offset [0:-15, 15:0, 31:+16] | 15 | 15 |
| 13 | GDOF | GDRV offset [0:-15, 15:0, 31:+16] | 18 | 15 |
| 14 | BDOF | BDRV offset [0:-15, 15:0 ,31:+16] | 28 | 18 |
| 15 | RCOF | RCUT offset [0:-15, 15:0, 31:+16] | 15 | 15 |
| 16 | GCOF | GCUT offset [0:-15, 15:0, 31:+16] | 18 | 15 |
| 17 | BCOF | BCUT offset [0:-15, 15:0, 31:+16] | 26 | 18 |
| 18 | DCOL | Dynamic Color, Cool [0:Off, 1:High (2025), 2:Mid (2100), 3:Low] | 3 | -- |

**Title:Video Processor Service List (CXA2150P-1)**

## SERVICE DATA LISTS

| HA3 Video Processor (CXA2150P-2) Service List | | | | |
|---|---|---|---|---|
| **No.** | **ITEM** | **NAME/DESCRIPTION** | **Initial Data Settings** | |
| 0 | **ALBK** | Picture + Ref. Pulse on/off for G2 adj. [0:RGB off, 1:RGB on] | 1 | |
| 1 | **RGBS** | [0: All off, 1:B, 2:G, 3:BG, 4:R, 5:BR, 6:GR, 7:BGR] | 7 | |
| 2 | **BLKB** | Bottom limiter level [Ref. Pulse DC voltage 0:-1.25, 3:-0.65] | 3 | |
| 3 | **LIML** | RGB limmiter level [0:115 IRE, 1:123, 2:131, 3:140] | 0 | |
| 4 | **PABL** | Peak ABL [0:4.9VDC, 15:6.8VDC] | 15 | |
| 5 | **SABL** | Signal ABL level [0:off, 3:maximum gain] | 0 | |
| 6 | **AGNG** | Black/White aging [0:Normal, 1:Black, 2:White, 3:Inhibit] | 0 | |
| 7 | **AKBO** | AKB on/off [0:on, 1:off] | 0 | |
| **The following data depends on the signal format** | | | **Analog 1080i** | **Others PT** |
| 8 | **SYPH** | HSYNC delay [0:0%, 1:-3.125%] | 0 | 0 |
| 9 | **CLPH** | Clamp pulse phase [0:+5%, 1:+4%, 2:+1%, 3:+2%] | 3 | 3 |
| 10 | **CLGA** | Clamp gate on/off [0:Not gated, 1:Gated with input HSYNC] | 0 | 0 |
| 11 | **CLSH** | Clamp pulse start shift [0:Noshift, 1:-3.125% shift from CLPH] | 0 | 0 |

Used when a 1080i signal by-passes the MID

Used for Analog signals passing through the MID

**Title:VideoProcessorServiceList (CXA2150P-2)**

## SERVICE DATA LISTS

| HA3VideoProcessor(CXA2150P-3)ServiceList(1) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | ITEM | NAME/DESCRIPTION | Initial Data Settings | | | | | | | | | |
| | | | Vivid Mode | | | | | | | | | |
| | | The Following data depends on signal format and Picture Pallet | RF | CV/YC | Comp 480i | Comp 480p | Comp 1080i | Comp 720p | DTV 480i | DTV 480p | DTV 1080i | DTV 720p | Twin |
| 0 | SYSM | Bandwidth [0:NTSC, 1:FF, 2:HD, 3:DTV] | 1 | 1 | 1 | 1 | 3 | 3 | 1 | 1 | 3 | 3 | 2 |
| 1 | VMLV | Not Used in HA3 | | | | | | | | | | | |
| 2 | VMMO | VM Mode (VM_LEV) [0:Off, 1:Low, 2:Mid, 3:High] | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 3 | VMCR | VM coring level [0:Off, 1:+-5%, 2:+-10%, 3:+-15%] | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 4 | VMLM | VM limitter level [0:Off, 1:+-83%, 2:+-67%, 3:+-50%] | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 5 | VMF0 | VM f0 [0:Low, 1:Mid, 2:High, 3:Inhibit] | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |
| 6 | VMDL | VM delay [0:short, 3:long] | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 |
| 7 | SHOF | Sharpness offset [0:+0step, 1:+4step, 2:+8step, 3:+12step] | 2 | 2 | 2 | 1 | 3 | 3 | 2 | 2 | 3 | 3 | 0 |
| 8 | SHF0 | Sharpness f0 [0:Low, 1:Mid, 2:High, 3:Inhibit] | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 9 | PROV | Pre-Over Ratio [0:1:1.5, 1:1:1, 2:1.5:1, 3:2:1] | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 |
| 10 | F1LV | Sharpness f1 [0:0db, 1:+1db, 2:+2db, 3:+3db] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11 | CDSP | Sharpness at color high [0:0db, 1:+2db, 2:+4db, 3:+6db] | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 12 | LTLV | LTI level [0:Off, 1:Low, 2:Mid, 3:High] | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 13 | LTMD | LTI mode [0:for B&W, 1:for Black, 2:for White, 3:Inhibit] | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| 14 | CTLV | CTI level [0:Off, 1:Low, 2:Mid, 3:High] | 0 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 3 | 3 | 0 |
| 15 | CTMD | CTI mode [0:for B&W, 1:for Black, for White, 3:Inhibit] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 | UBOF | User bright offset [0:BRIGHT+0,..,3:BRIGHT+6,..,7:BRIGHT+14] | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 5 |
| 17 | UCOF | User color offset [0:COLOR+0,...,3:COLOR+6,...,7:COLOR+14] | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 3 |
| 18 | UHOF | User hue offset [0:HUE+0,1:HUE+1,2:HUE+2,3:HUE+3] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 19 | MIDE | MID Enhancement setting table [0:Soft~63:Sharp] | 7 | 12 | 17 | 22 | 27 | 32 | 37 | 42 | 47 | 52 | 57 |
| | | | Title:VideoProcessorServiceList(1) (CAX2150P-3) | | | | | | | | | | |

## SERVICE DATA LISTS

| HA3 Video Processor (CXA2150P-3) Service List (2) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | ITEM | NAME / DESCRIPTION | Initial Data Settings | | | | | | | | | |
| | | | Standard Mode | | | | | | | | | |
| | | The Following data depends on signal format and Picture Pallet | RF | CV/YC | Comp 480i | Comp 480p | Comp 1080i | Comp 720p | DTV 480i | DTV 480p | DTV 1080i | DTV 720p | Twin |
| 0 | SYSM | Band width[0:NTSC, 1:FF, 2:HD, 3:DTV] | 1 | 1 | 1 | 1 | 3 | 3 | 1 | 1 | 3 | 3 | 2 |
| 1 | VMLV | Not Used in HA3 | | | | | | | | | | | |
| 2 | VMMO | VM Mode (VM_LEV) [0:Off, 1:Low, 2:Mid, 3:High] | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 3 | VMCR | VM coring level[0:Off, 1:+-5%, 2:+-10%, 3:+-15%] | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 4 | VMLM | VM limitter level[0:Off, 1:+-83%, 2:+-67%, 3:+-50%] | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 5 | VMF0 | VM f0[0:Low, 1:Mid, 2:High, 3:Inhibit] | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |
| 6 | VMDL | VM delay[0:short, 3:long] | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 |
| 7 | SHOF | Sharpness offset[0:+0step, 1:+4step, 2:+8step, 3:+12step] | 0 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 0 |
| 8 | SHF0 | Sharpness f0[0:Low, 1:Mid, 2:High, 3:Inhibit] | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 9 | PROV | Pre-Over Ratio[0: 1:1.5, 1: 1:1, 2: 1.5:1, 3: 2:1] | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 |
| 10 | F1LV | Sharpness f1[0:0db, 1:+1db, 2:+2db, 3:+3db] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11 | CDSP | Sharpness at color high[0:0db, 1:+2db, 2:+4db, 3:+6db] | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 12 | LTLV | LTI level[0:Off, 1:Low, 2:Mid, 3:High] | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 |
| 13 | LTMD | LTI mode[0:for B&W, 1:for Black, 2:for White, 3:Inhibit] | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| 14 | CTLV | CTI level[0:Off, 1:Low, 2:Mid, 3:High] | 0 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 3 | 3 | 0 |
| 15 | CTMD | CTI mode[0:for B&W, 1:for Black, for White, 3:Inhibit] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 | UBOF | User bright offset[0:BRIGHT+0,..,3:BRIGHT+6,..,7:BRIGHT+14] | 0 | 1 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 2 |
| 17 | UCOF | User color offset[0:COLOR+0,...,3:COLOR+6,...,7:COLOR+14] | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 |
| 18 | UHOF | User hue offset[0:HUE+0, 1:HUE+1 ,2:HUE+2, 3:HUE+3] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 19 | MIDE | MID Enhancement setting table [0:Soft ~ 63:Sharp] | 5 | 11 | 16 | 21 | 26 | 31 | 36 | 41 | 46 | 51 | 56 |
| | | | Title: Video Processor Service List (2) (CXA2150P-3) | | | | | | | | | | |

## SERVICE DATA LISTS

| HA3 Video Processor (CXA2150P-3) Service List (3) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | ITEM | NAME / DESCRIPTION | Initial Data Settings | | | | | | | | | |
| | | | Movie Mode | | | | | | | | | |
| | | The Following data depends on signal format and Picture Pallet | RF | CV/YC | Comp 480i | Comp 480p | Comp 1080i | Comp 720p | DTV 480i | DTV 480p | DTV 1080i | DTV 720p | Twin |
| 0 | SYSM | Band width[0:NTSC, 1:FF, 2:HD, 3:DTV] | 1 | 1 | 1 | 1 | 3 | 3 | 1 | 1 | 3 | 3 | 2 |
| 1 | VMLV | Not Used in HA3 | | | | | | | | | | | |
| 2 | VMMO | VM Mode (VM_LEV) [0:Off, 1:Low, 2:Mid, 3:High] | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 3 | VMCR | VM coring level[0:Off, 1:+-5%, 2:+-10%, 3:+-15%] | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 4 | VMLM | VM limitter level[0:Off, 1:+-83%, 2:+-67%, 3:+-50%] | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 5 | VMF0 | VM f0[0:Low, 1:Mid, 2:High, 3:Inhibit] | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |
| 6 | VMDL | VM delay[0:short, 3:long] | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 |
| 7 | SHOF | Sharpness offset[0:+0step, 1:+4step, 2:+8step, 3:+12step] | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| 8 | SHF0 | Sharpness f0[0:Low, 1:Mid, 2:High, 3:Inhibit] | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 9 | PROV | Pre-Over Ratio[0: 1:1.5, 1: 1:1, 2: 1.5:1, 3: 2:1] | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 |
| 10 | F1LV | Sharpness f1[0:0db, 1:+1db, 2:+2db, 3:+3db] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11 | CDSP | Sharpness at color high[0:0db, 1:+2db, 2:+4db, 3:+6db] | 2 | 3 | 3 | 3 | 2 | 2 | 1 | 2 | 2 | 2 | 2 |
| 12 | LTLV | LTI level[0:Off, 1:Low, 2:Mid, 3:High] | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 1 |
| 13 | LTMD | LTI mode[0:for B&W, 1:for Black, 2:for White, 3:Inhibit] | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 14 | CTLV | CTI level[0:Off, 1:Low, 2:Mid, 3:High] | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 0 |
| 15 | CTMD | CTI mode[0:for B&W, 1:for Black, for White, 3:Inhibit] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 | UBOF | User bright offset[0:BRIGHT+0,..,3:BRIGHT+6,..,7:BRIGHT+14] | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 2 | 2 | 0 |
| 17 | UCOF | User color offset[0:COLOR+0,...,3:COLOR+6,...,7:COLOR+14] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 18 | UHOF | User hue offset[0:HUE+0, 1:HUE+1 ,2:HUE+2, 3:HUE+3] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 19 | MIDE | MID Enhancement setting table [0:Soft ~ 63:Sharp] | 3 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 |
| | | | Title: Video Processor Service List (3) (CXA2150P-3) | | | | | | | | | | |

## SERVICE DATA LISTS

| HA3 Video Processor (CXA2150P-3) Service List (4) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | ITEM | NAME / DESCRIPTION | Initial Data Settings | | | | | | | | | |
| | | | Game Mode | | | | | | | | | |
| | | The Following data depends on signal format and Picture Pallet | RF | CV/YC | Comp 480i | Comp 480p | Comp 1080i | Comp 720p | DTV 480i | DTV 480p | DTV 1080i | DTV 720p | Twin |
| 0 | SYSM | Band width[0:NTSC, 1:FF, 2:HD, 3:DTV] | 1 | 1 | 1 | 1 | 3 | 3 | 1 | 1 | 3 | 3 | 2 |
| 1 | VMLV | Not Used in HA3 | | | | | | | | | | | |
| 2 | VMMO | VM Mode (VM_LEV) [0:Off, 1:Low, 2:Mid, 3:High] | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 3 | VMCR | VM coring level[0:Off, 1:+-5%, 2:+-10%, 3:+-15%] | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 4 | VMLM | VM limitter level[0:Off, 1:+-83%, 2:+-67%, 3:+-50%] | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 5 | VMF0 | VM f0[0:Low, 1:Mid, 2:High, 3:Inhibit] | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |
| 6 | VMDL | VM delay[0:short, 3:long] | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 2 | 2 |
| 7 | SHOF | Sharpness offset[0:+0step, 1:+4step, 2:+8step, 3:+12step] | 0 | 2 | 2 | 0 | 3 | 3 | 0 | 3 | 3 | 3 | 0 |
| 8 | SHF0 | Sharpness f0[0:Low, 1:Mid, 2:High, 3:Inhibit] | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 9 | PROV | Pre-Over Ratio[0: 1:1.5, 1: 1:1, 2: 1.5:1, 3: 2:1] | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 |
| 10 | F1LV | Sharpness f1[0:0db, 1:+1db, 2:+2db, 3:+3db] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11 | CDSP | Sharpness at color high[0:0db, 1:+2db, 2:+4db, 3:+6db] | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 12 | LTLV | LTI level[0:Off, 1:Low, 2:Mid, 3:High] | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 |
| 13 | LTMD | LTI mode[0:for B&W, 1:for Black, 2:for White, 3:Inhibit] | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| 14 | CTLV | CTI level[0:Off, 1:Low, 2:Mid, 3:High] | 0 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 3 | 3 | 0 |
| 15 | CTMD | CTI mode[0:for B&W, 1:for Black, for White, 3:Inhibit] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 | UBOF | User bright offset[0:BRIGHT+0,..,3:BRIGHT+6,..,7:BRIGHT+14] | 0 | 1 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 2 |
| 17 | UCOF | User color offset[0:COLOR+0,...,3:COLOR+6,...,7:COLOR+14] | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 |
| 18 | UHOF | User hue offset[0:HUE+0, 1:HUE+1 ,2:HUE+2, 3:HUE+3] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 19 | MIDE | MID Enhancement setting table [0:Soft ~ 63:Sharp] | 1 | 9 | 14 | 19 | 24 | 30 | 34 | 39 | 44 | 49 | 54 |
| | | | Title: Video Processor Service List (4) (CXA2150P-3) | | | | | | | | | | |

## SERVICE DATA LISTS

| HA3 Video Processor (CXA2150P-3) Service List (5) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | ITEM | NAME / DESCRIPTION | Initial Data Settings | | | | | | | | | |
| | | | Pro Mode | | | | | | | | | |
| | | The Following data depends on signal format and Picture Pallet | RF | CV/YC | Comp 480i | Comp 480p | Comp 1080i | Comp 720p | DTV 480i | DTV 480p | DTV 1080i | DTV 720p | Twin |
| 0 | SYSM | Band width[0:NTSC, 1:FF, 2:HD, 3:DTV] | 1 | 1 | 2 | 2 | 3 | 3 | 2 | 2 | 3 | 3 | 2 |
| 1 | VMLV | Not Used in HA3 | | | | | | | | | | | |
| 2 | VMMO | VM Mode (VM_LEV) [0:Off, 1:Low, 2:Mid, 3:High] | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 3 | VMCR | VM coring level[0:Off, 1:+-5%, 2:+-10%, 3:+-15%] | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 4 | VMLM | VM limitter level[0:Off, 1:+-83%, 2:+-67%, 3:+-50%] | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 5 | VMF0 | VM f0[0:Low, 1:Mid, 2:High, 3:Inhibit] | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6 | VMDL | VM delay[0:short, 3:long] | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 7 | SHOF | Sharpness offset[0:+0step, 1:+4step, 2:+8step, 3:+12step] | 1 | 1 | 0 | 1 | 2 | 2 | 0 | 0 | 2 | 2 | 2 |
| 8 | SHF0 | Sharpness f0[0:Low, 1:Mid, 2:High, 3:Inhibit] | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 9 | PROV | Pre-Over Ratio[0: 1:1.5, 1: 1:1, 2: 1.5:1, 3: 2:1] | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 |
| 10 | F1LV | Sharpness f1[0:0db, 1:+1db, 2:+2db, 3:+3db] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11 | CDSP | Sharpness at color high[0:0db, 1:+2db, 2:+4db, 3:+6db] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12 | LTLV | LTI level[0:Off, 1:Low, 2:Mid, 3:High] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13 | LTMD | LTI mode[0:for B&W, 1:for Black, 2:for White, 3:Inhibit] | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
| 14 | CTLV | CTI level[0:Off, 1:Low, 2:Mid, 3:High] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15 | CTMD | CTI mode[0:for B&W, 1:for Black, for White, 3:Inhibit] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 | UBOF | User bright offset[0:BRIGHT+0,..,3:BRIGHT+6,..,7:BRIGHT+14] | 0 | 0 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |
| 17 | UCOF | User color offset[0:COLOR+0,...,3:COLOR+6,...,7:COLOR+14] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 18 | UHOF | User hue offset[0:HUE+0, 1:HUE+1 ,2:HUE+2, 3:HUE+3] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 19 | MIDE | MID Enhancement setting table [0:Soft ~ 63:Sharp] | 0 | 8 | 13 | 18 | 23 | 28 | 33 | 38 | 43 | 48 | 53 |
| | | | Title: Video Processor Service List (5) (CXA2150P-3) | | | | | | | | | | |

## SERVICE DATA LISTS

| HA3Video Processor (CXA2150P-3) Service List (6) | | | | | | | |
|---|---|---|---|---|---|---|---|
| No. | ITEM | NAME / DESCRIPTION | Initial Data Settings | | | | |
| | | | Vivid | Standard | Movie | Game | Pro |
| 20 | TVVM | Initial VM level [0:VM off, 1:VM Low, 2:VM Mid, 3:VM High] | 3 | 3 | 1 | 3 | 0 |
| 21 | VM_H | VM High level asignment [0:weak ~ 7:strong] | 7 | 7 | 6 | 7 | 6 |
| 22 | VM_M | VM mid level asignment [0:weak ~ 7:strong] | 5 | 5 | 4 | 5 | 4 |
| 23 | VM_L | VM low level asignment [0:weak ~ 7:strong] | 3 | 3 | 2 | 3 | 2 |
| | | | Title: Video Processor Service List (6) (CXA2150P-3) | | | | |

| HA3Video Processor (CXA2150P-4) Service List (1) | | | | | | | |
|---|---|---|---|---|---|---|---|
| No. | ITEM | NAME / DESCRIPTION | Initial Data Settings | | | | |
| The following data depends on the signal source | | | Analog | | | Digital | |
| 0 | SCON | Sub contrast adjustment [0:-1.2dB, 7:0dB, 15:+1.5dB] | 9 | | | 4 | |
| 1 | SCOL | Sub color adjustment [0:-31step, 31:+-0step, 63:+32step] | 30 | | | 32 | |
| 2 | SHUE | Sub HUE adjustment [0:-31step, 31:+-0step, 63:+32step] | 28 | | | 28 | |
| The following data depends on the source or display mode | | | Analog: w/o 1080i | | | TWIN | |
| 3 | SCNO | Sub contrast offset from Analog [0:-7step, 7:+-0step, 15:+8step] | 7 | | | 7 | |
| 4 | SCLO | Sub color offset from Analog [0:-7step, 7:+-0step, 15:+8step] | 7 | | | 7 | |
| 5 | SHUO | Sub HUE offset from Analog [0:-7step, 7:+-0step, 15:+8step] | 7 | | | 7 | |
| The following data depends Picture Pallet | | | Vivid | Standard | Movie | Game | Pro |
| 6 | UPIC | Initial Picture gain[00:-15dB, 63:0dB] | 63 | 50 | 39 | 50 | 31 |
| 7 | UBRT | Initial Brightness[00:-15IRE, 31:+-0IRE, 63:+15IRE] | 31 | 31 | 31 | 31 | 31 |
| 8 | UCOL | Initial Color[00:Color off, 31:+-0dB, 63:+6dB] | 35 | 31 | 31 | 31 | 31 |
| 9 | UHUE | Initial Hue[00:-33deg., 31:Center, 63:+33deg.] | 31 | 31 | 31 | 31 | 31 |
| 10 | USHP | Initial Sharpness[00:-10dB, 31:+2dB, 63:+8dB] | 24 | 29 | 31 | 26 | 31 |
| 11 | UTMP | Initial Color Temp[0:Low, 1:Mid, 2:High, 3:Inhibit] | 2 | 1 | 0 | 1 | 1 |
| 12 | AXIS | Color axis[0:PJ, 1:Pal/Secam, 2:Ntsc-US, 3:Ntsc-JP] | 3 | -- | -- | -- | -- |
| | | | Title: Video Processor Service List (1) (CXA2150P-4) | | | | |

## HA3 Video Processor (CXA2150P-4) Service List (2)

| No. | ITEM | NAME / DESCRIPTION | | Initial Data Settings | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| This data depends on the signal format and picture pallet | | | | Vivid | Standard | | Movie | | Game | | Pro |
| 13 | GAMM | Initial Gamma[0:Weak, 7:Strong] ; Upper 2 bit | RF/CV/YC | 4 | 2 | | 0 | | 2 | | 0 |
| | | | 480i | 5 | 2 | | 0 | | 2 | | 0 |
| | | | 480p | 5 | 2 | | 0 | | 2 | | 0 |
| | | | 1080i | 6 | 2 | | 0 | | 2 | | 0 |
| | | | 720p | 6 | 2 | | 0 | | 2 | | 0 |
| | | | TWIN | 5 | 2 | | 0 | | 2 | | 0 |
| This data depends on the Service Item "GAMM" | | | | GAMMA (CXA2150P-4 13) | | | | | | | |
| | | | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 14 | GSBO | Sub bright offset for Gamma[0:+-0step, 3:+3step] | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15 | GCOO | Sub color offset for Gamma[0:+-0step, 3:+3step] | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 | GHUO | Sub hue offset for Gamma[0:+-0step, 3:+3step] | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| This data depends on the signal format and picture pallet | | | | Vivid | Standard | | Movie | | Game | | Pro |
| 17 | BLK | Black level [0:No Effect, 7: Max Enhance] | RF/CV/YC | 7 | 4 | | 0 | | 4 | | 0 |
| | | | 480i | 7 | 4 | | 0 | | 4 | | 1 |
| | | | 480p | 7 | 4 | | 0 | | 4 | | 0 |
| | | | 1080i | 7 | 4 | | 0 | | 4 | | 0 |
| | | | 720p | 7 | 4 | | 0 | | 4 | | 0 |
| | | | TWIN | 7 | 4 | | 0 | | 4 | | 0 |
| | | | | Title: Video Processor Service List (2) (CXA2150P-4) | | | | | | | |

## SERVICE DATA LISTS

| HA3 Video Processor (CXA2150P-4) Service List (3) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | ITEM | NAME/DESCRIPTION | Initial Data Settings | | | | | | | | |
| This data depends on the Service Item "BLK" | | | BLK (CXA2150P-417) | | | | | | | | |
| | | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| 18 | DCTR | DCtransferratio[0:103%,1:100%,2:93%,3:85%] | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 3 | |
| 19 | DPIC | Autopedestallevel[0:Off,1:30IREkneedown,2:35,3:40] | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 2 | |
| 20 | DSBO | SubbrightoffsetforUBLK[0:-7step,7:+-0step,15:+8step] | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| 21 | ABLM | ABLmode[0:PIC,1:PIC&BRT-min,2:P&B-mid,3:P&B-max] | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | |
| | | | Others | | Small Pic | | | | | | |
| 22 | ABLT | CurrentdetectionVth[0:Vth0.8V,15:Vth1.9V] | 0 | | 0 | | | | | | |
| 23 | ABLC | ABLlevel [0:Max ABL, 255:Min ABL] | 0 | | 0 | | | | | | |
| 24 | SPOF | Pictureoffsetforsmallareapicture[0:-0step,31:-(UPIC/63)x31] | 0 | | -- | | | | | | |
| This data depends on the signal format | | | RF/CV/YC | | 480i | 480p | 1080i | 720p | TWIN | | |
| 25 | PIOF | Picture offset level | 0 | | 0 | 0 | 0 | 0 | 0 | | |
| 26 | BROF | Brightness offset level | 0 | | 0 | 0 | 0 | 0 | 0 | | |
| 25 | PICL | Maximum Picture Level | 53 | | -- | -- | -- | -- | -- | | |
| 26 | BRTL | Maximum Brightness Level | 47 | | -- | -- | -- | -- | -- | | |
| | | | Title:VideoProcessorServiceList(3) (CXA2150P-4) | | | | | | | | |

Small Picture = Normal, Twin, Freeze

## SERVICE DATA LISTS

| HA3 Sync Selector (CXA2151) Service List | | | | | |
|---|---|---|---|---|---|
| **No.** | **ITEM** | **NAME / DESCRIPTION** | **Initial Data Settings** | | |
| **The following data depends on the signal format** | | | **1080i/720p** | **480p/480i** | |
| 0 | **MTRX** | Matrix[0:Through, 1:YPbPr[J], 2:YPbPr[U], 3:RGB] | 1 | 0 | This data can't be memorized, it is controlled by M16C micro |
| 1 | **GAIN** | Output gain for Video[0:6db+-2db, 1:0db, 2/3:Mute] | 0 | | |
| **The following data depends on the signal input** | | | **Video5** | **Video6** | **Chroma Dec.** |
| 2 | **FIXS** | SYNC type[0:Auto detect, 1:HS/VS, 2:CS, 3:SYNC on Y(G)] | 0 | 0 | 0 |
| **The following data depends on the signal format** | | | **Analog 1080i** | **Others** | |
| 3 | **CBGN** | Output gain for Cb[0:-2db, 7:0db, 15:+2db] | 7 | 7 | |
| 4 | **CRGN** | Output gain for Cr[0:-2db, 7:0db, 15:+2db] | 8 | 8 | |
| 5 | **YGN** | Output gain for Y[0:-2db, 7:0db, 15:+2db] | 8 | 8 | |
| 6 | **VTC** | V SYNC sep. time constant[0:6usec, 3:18usec] | 0 | -- | |
| **The following data depends on the signal format** | | | **1080i/720p** | **480p/480i** | |
| 7 | **HTC** | H SYNC sep. time constant[0:for HD, 1:for 15.75kHz] | 0 | 1 | This data can't be memorized, it is controlled by M16C micro |
| 8 | **HWID** | H SYNC width[0:Through, 1:1.4usec, 2:1.7usec, 3:3.7usec] | 1 | -- | |
| 9 | **HSEP** | SYNC sep. type[0:Voltage slice, 1:Charge/Dis-charge] | 1 | -- | |
| **The following data depends on the signal format** | | | **1080i** | **720p/480p/480i** | This data can't be memorized, it is controlled by M16C micro |
| 10 | **HMSK** | H SYNC MASK during V SYNC period[0:On, 1:Off] | 0 | 1 | |
| **The following data depends on the signal input** | | | **Video5** | **Video6** | **Chroma Dec.** |
| 11 | **FRGB** | Matrix=3:RGB [0:Micro control, 1:Forced RGB] | 0 | 0 | 0 |
| | | | **Title: Sync Selector Service List (CXA2151)** | | |

## HA3 MID Enhancement (CXD9509) Service List (1)

| No. | ITEM | NAME / DESCRIPTION | Initial Data Settings | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | POP | Service data effect (0 - 63) | Same as "MIDE" (CXA2150P-3 19) | | | | | | | |
| The following data depends on the "POP" data (MID-5 0) → | | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1 | MHLY | main h LPF y coefficient code (0 - 3) | 1 | 3 | 1 | 1 | 1 | 1 | 1 | 1 |
| 2 | MHLC | main h LPF c coefficient code (0 - 3) | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 3 | MVLY | main v LPF y coefficient code (0 - 3) | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 | MVLC | main v LPF c coefficient code (0 - 3) | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | MHYR | main h enhance y coreing code (0 - 3) | 1 | 3 | 1 | 1 | 2 | 3 | 3 | 3 |
| 6 | MHYL | main h enhance y cliping code (0 - 3) | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 2 |
| 7 | MHYE | main h enhance y level code (0 - 7) | 5 | 7 | 5 | 5 | 6 | 7 | 7 | 7 |
| 8 | MHYO | main h enhance y coefficient code (0 - 1) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 9 | MHCR | main h enhance c coreing code (0 - 3) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10 | MHCL | main h enhance c cliping code (0 - 3) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11 | MHCE | main h enhance c level code (0 - 7) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12 | MHCO | main h enhance c coefficient code (0 - 1) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13 | MVYR | main v enhance y coreing code (0 - 3) | 0 | 2 | 0 | 0 | 1 | 2 | 2 | 2 |
| 14 | MVYL | main v enhance y cliping code (0 - 3) | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 |
| 15 | MVYE | main v enhance y level code (0 - 7) | 0 | 3 | 0 | 0 | 1 | 3 | 3 | 3 |
| 16 | MVCR | main v enhance c coreing code (0 - 3) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17 | MVCL | main v enhance c cliping code (0 - 3) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 18 | MVCE | main v enhance c level code (0 - 7) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | Pro | Game | | Movie | | Stand. | | Vivid |
| | | Applicable palllet and format: | Analog Tuner | | | | | | | |
| | | | Title: MID Enhancement Service List (1) (CXD9509) | | | | | | | |

## HA3 MID Enhancement (CXD9509) Service List (2)

| No. | ITEM | NAME / DESCRIPTION | Initial Data Settings | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | The following data depends on the "POP" data (MID-5 0) → | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 1 | MHLY | main h LPF y coefficient code (0 - 3) | 1 | 3 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | 1 |
| 2 | MHLC | main h LPF c coefficient code (0 - 3) | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 3 | MVLY | main v LPF y coefficient code (0 - 3) | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 4 | MVLC | main v LPF c coefficient code (0 - 3) | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 5 | MHYR | main h enhance y coreing code (0 - 3) | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 1 | 1 |
| 6 | MHYL | main h enhance y cliping code (0 - 3) | 0 | 0 | 1 | 2 | 2 | 0 | 0 | 0 | 2 | 2 |
| 7 | MHYE | main h enhance y level code (0 - 7) | 0 | 0 | 2 | 4 | 7 | 0 | 0 | 0 | 2 | 7 |
| 8 | MHYO | main h enhance y coefficient code (0 - 1) | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| 9 | MHCR | main h enhance c coreing code (0 - 3) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10 | MHCL | main h enhance c cliping code (0 - 3) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11 | MHCE | main h enhance c level code (0 - 7) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12 | MHCO | main h enhance c coefficient code (0 - 1) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13 | MVYR | main v enhance y coreing code (0 - 3) | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 2 |
| 14 | MVYL | main v enhance y cliping code (0 - 3) | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 |
| 15 | MVYE | main v enhance y level code (0 - 7) | 0 | 0 | 3 | 3 | 3 | 0 | 0 | 0 | 3 | 5 |
| 16 | MVCR | main v enhance c coreing code (0 - 3) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17 | MVCL | main v enhance c cliping code (0 - 3) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 18 | MVCE | main v enhance c level code (0 - 7) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | Pro | Game | Movie | Stand. | Vivid | Pro | Game | Movie | Stand. | Vivid |
| | | | Video1-4 | | | | | Video 5/6 480i | | | | |
| | | | Title: MID Enhancement Service List (2) (CXD9509) | | | | | | | | | |

SERVICE DATA LISTS

| HA3 MID Enhancement (CXD9509) Service List (3) | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | ITEM | NAME / DESCRIPTION | Initial Data Settings | | | | | | | | | | |
| The following data depends on the "POP" data (MID-5 0) → | | | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 1 | MHLY | main h LPF y coefficient code (0 - 3) | 1 | 3 | 1 | 1 | 1 | 0 | 3 | 0 | 0 | 0 |
| 2 | MHLC | main h LPF c coefficient code (0 - 3) | 3 | 3 | 3 | 3 | 3 | 0 | 3 | 0 | 0 | 0 |
| 3 | MVLY | main v LPF y coefficient code (0 - 3) | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 4 | MVLC | main v LPF c coefficient code (0 - 3) | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 5 | MHYR | main h enhance y coreing code (0 - 3) | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 6 | MHYL | main h enhance y cliping code (0 - 3) | 1 | 0 | 1 | 2 | 2 | 1 | 0 | 1 | 1 | 1 |
| 7 | MHYE | main h enhance y level code (0 - 7) | 4 | 0 | 7 | 2 | 7 | 2 | 0 | 4 | 7 | 7 |
| 8 | MHYO | main h enhance y coefficient code (0 - 1) | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 9 | MHCR | main h enhance c coreing code (0 - 3) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 10 | MHCL | main h enhance c cliping code (0 - 3) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 11 | MHCE | main h enhance c level code (0 - 7) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 |
| 12 | MHCO | main h enhance c coefficient code (0 - 1) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 13 | MVYR | main v enhance y coreing code (0 - 3) | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 14 | MVYL | main v enhance y cliping code (0 - 3) | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 |
| 15 | MVYE | main v enhance y level code (0 - 7) | 0 | 0 | 3 | 3 | 5 | 0 | 0 | 0 | 4 | 4 |
| 16 | MVCR | main v enhance c coreing code (0 - 3) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 17 | MVCL | main v enhance c cliping code (0 - 3) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 18 | MVCE | main v enhance c level code (0 - 7) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 |
| | | | Pro | Game | Movie | Stand. | Vivid | Pro | Game | Movie | Stand. | Vivid |
| | | | Video 5/6 480p | | | | | Video 5/6 1080i | | | | |
| | | | Title: MID Enhancement Service List (3) (CXD9509) | | | | | | | | | |

## HA3 MID Enhancement (CXD9509) Service List (4)

| No. | ITEM | NAME / DESCRIPTION | Initial Data Settings | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| The following data depends on the "POP" data (MID-5 0) → | | | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 |
| 1 | MHLY | main h LPF y coefficient code (0 - 3) | 0 | 3 | 0 | 0 | 0 | 1 | 3 | 1 | 1 | 1 |
| 2 | MHLC | main h LPF c coefficient code (0 - 3) | 0 | 3 | 0 | 0 | 0 | 3 | 3 | 3 | 3 | 3 |
| 3 | MVLY | main v LPF y coefficient code (0 - 3) | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 4 | MVLC | main v LPF c coefficient code (0 - 3) | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 5 | MHYR | main h enhance y coreing code (0 - 3) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 6 | MHYL | main h enhance y cliping code (0 - 3) | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 2 | 2 |
| 7 | MHYE | main h enhance y level code (0 - 7) | 2 | 0 | 4 | 7 | 7 | 0 | 0 | 2 | 2 | 7 |
| 8 | MHYO | main h enhance y coefficient code (0 - 1) | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 |
| 9 | MHCR | main h enhance c coreing code (0 - 3) | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 10 | MHCL | main h enhance c cliping code (0 - 3) | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 11 | MHCE | main h enhance c level code (0 - 7) | 0 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 0 |
| 12 | MHCO | main h enhance c coefficient code (0 - 1) | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 13 | MVYR | main v enhance y coreing code (0 - 3) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| 14 | MVYL | main v enhance y cliping code (0 - 3) | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| 15 | MVYE | main v enhance y level code (0 - 7) | 0 | 0 | 0 | 4 | 4 | 0 | 0 | 5 | 7 | 5 |
| 16 | MVCR | main v enhance c coreing code (0 - 3) | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 17 | MVCL | main v enhance c cliping code (0 - 3) | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 18 | MVCE | main v enhance c level code (0 - 7) | 0 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 0 |
| | | | Pro | Game | Movie | Stand. | Vivid | Pro | Game | Movie | Stand. | Vivid |
| | | | Video 5/6 720p | | | | | Digital 480i | | | | |
| | | | Title: MID Enhancement Service List (4) (CXD9509) | | | | | | | | | |

## HA3 MID Enhancement (CXD9509) Service List (5)

| No. | ITEM | NAME / DESCRIPTION | Initial Data Settings | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| The following data depends on the "POP" data (MID-5 0) → | | | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 |
| 1 | MHLY | main h LPF y coefficient code (0 - 3) | 1 | 3 | 1 | 1 | 1 | 0 | 3 | 0 | 0 | 0 |
| 2 | MHLC | main h LPF c coefficient code (0 - 3) | 3 | 3 | 3 | 3 | 3 | 0 | 3 | 0 | 0 | 0 |
| 3 | MVLY | main v LPF y coefficient code (0 - 3) | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 4 | MVLC | main v LPF c coefficient code (0 - 3) | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 5 | MHYR | main h enhance y coreing code (0 - 3) | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 6 | MHYL | main h enhance y cliping code (0 - 3) | 1 | 0 | 1 | 2 | 2 | 1 | 0 | 1 | 1 | 1 |
| 7 | MHYE | main h enhance y level code (0 - 7) | 7 | 0 | 3 | 2 | 7 | 2 | 0 | 4 | 7 | 7 |
| 8 | MHYO | main h enhance y coefficient code (0 - 1) | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 9 | MHCR | main h enhance c coreing code (0 - 3) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 10 | MHCL | main h enhance c cliping code (0 - 3) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 11 | MHCE | main h enhance c level code (0 - 7) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 |
| 12 | MHCO | main h enhance c coefficient code (0 - 1) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 13 | MVYR | main v enhance y coreing code (0 - 3) | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 14 | MVYL | main v enhance y cliping code (0 - 3) | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| 15 | MVYE | main v enhance y level code (0 - 7) | 0 | 0 | 4 | 7 | 5 | 0 | 0 | 4 | 4 | 4 |
| 16 | MVCR | main v enhance c coreing code (0 - 3) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 17 | MVCL | main v enhance c cliping code (0 - 3) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 18 | MVCE | main v enhance c level code (0 - 7) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 |
| | | | Pro | Game | Movie | Stand. | Vivid | Pro | Game | Movie | Stand. | Vivid |
| | | | Digital 480p | | | | | Digital 1080i | | | | |
| | | | Title: MID Enhancement Service List (5) (CXD9509) | | | | | | | | | |

## HA3 MID Enhancement (CXD9509) Service List (6)

| No. | ITEM | NAME / DESCRIPTION | Initial Data Settings | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| The following data depends on the "POP" data (MID-5 0) → | | | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 |
| 1 | MHLY | main h LPF y coefficient code (0 - 3) | 0 | 3 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 |
| 2 | MHLC | main h LPF c coefficient code (0 - 3) | 0 | 3 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 |
| 3 | MVLY | main v LPF y coefficient code (0 - 3) | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 4 | MVLC | main v LPF c coefficient code (0 - 3) | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 5 | MHYR | main h enhance y coreing code (0 - 3) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6 | MHYL | main h enhance y cliping code (0 - 3) | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 7 | MHYE | main h enhance y level code (0 - 7) | 2 | 0 | 4 | 7 | 7 | 0 | 0 | 0 | 0 | 0 |
| 8 | MHYO | main h enhance y coefficient code (0 - 1) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9 | MHCR | main h enhance c coreing code (0 - 3) | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 10 | MHCL | main h enhance c cliping code (0 - 3) | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 11 | MHCE | main h enhance c level code (0 - 7) | 0 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 0 |
| 12 | MHCO | main h enhance c coefficient code (0 - 1) | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 13 | MVYR | main v enhance y coreing code (0 - 3) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14 | MVYL | main v enhance y cliping code (0 - 3) | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 15 | MVYE | main v enhance y level code (0 - 7) | 0 | 0 | 4 | 4 | 4 | 0 | 0 | 0 | 0 | 0 |
| 16 | MVCR | main v enhance c coreing code (0 - 3) | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 17 | MVCL | main v enhance c cliping code (0 - 3) | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 18 | MVCE | main v enhance c level code (0 - 7) | 0 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 0 |
| | | | Pro | Game | Movie | Stand.. | Vivid | Pro | Game | Movie | Stand.. | Vivid |
| | | | Digital 720p | | | | | Twin Mode | | | | |
| | | | Title: MID Enhancement Service List (6) (CXD9509) | | | | | | | | | |

SERVICE DATA LISTS

| HA3 MID Enhancement (CXD9509) Service List (7) | | | |
|---|---|---|---|
| No. | ITEM | NAME / DESCRIPTION | Initial Data Settings |
| The following data depends on the "POP" data (MID-5 0) → | | | 0-63 (same data) |
| 1 | SHLY | sub h LPF y coefficient code (0 - 7) | 0 |
| 2 | SHLC | sub h LPF c coefficient code (0 - 7) | 0 |
| 3 | SVLY | sub v LPF y coefficient code (0 - 7) | 0 |
| 4 | SVLC | sub v LPF c coefficient code (0 - 7) | 0 |
| 5 | SHYR | sub h enhance y coreing code (0 - 3) | 0 |
| 6 | SHYL | sub h enhance y cliping code (0 - 3) | 0 |
| 7 | SHYE | sub h enhance y level code (0 - 7) | 0 |
| 8 | SHYO | sub h enhance y coefficient code (0 - 1) | 0 |
| 9 | SHCR | sub h enhance c coreing code (0 - 3) | 0 |
| 10 | SHCL | sub h enhance c cliping code (0 - 3) | 0 |
| 11 | SHCE | sub h enhance c level code (0 - 7) | 0 |
| 12 | SHCO | sub h enhance c coefficient code (0 - 1) | 0 |
| 13 | SVYR | sub v enhance y coreing code (0 - 3) | 0 |
| 14 | SVYL | sub v enhance y cliping code (0 - 3) | 0 |
| 15 | SVYE | sub v enhance y level code (0 - 7) | 0 |
| 16 | SVCR | sub v enhance c coreing code (0 - 3) | 0 |
| 17 | SVCL | sub v enhance c cliping code (0 - 3) | 0 |
| 18 | SVCE | sub v enhance c level code (0 - 7) | 0 |
| | | Title: MID Enhancement Service List (7) (CXD9509) | |

## HA3 SNNR Service List (1)

| No. | ITEM | NAME / DESCRIPTION | Initial Data Settings | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 0 | **SNNR** | SNNR Data Label | | | | | | | |
| 1 | **SNFX** | 0:SNNR is controlled by Micro; 1:SNNR controlled by Service | 0 | | | | | | |
| | The following Data Sets the Threshold for SNNR | | A | B | C | D | E | F | G |
| 2 | **WSLT** | Threshold of SNNR | 15 | 31 | 45 | 63 | 85 | 110 | 127 |

Data is controlled by M16C Micro

Normally 0

**To choose the SNNR Level the following equations apply**

| | |
|---|---|
| 0 <= WSL < WSLT(A) | Select SNNR(0) |
| WSLT(A) <= WSL < WSLT(B) | Select SNNR(1) |
| WSLT(B) <= WSL < WSLT(C) | Select SNNR(2) |
| WSLT(C) <= WSL < WSLT(D) | Select SNNR(3) |
| WSLT(D) <= WSL < WSLT(E) | Select SNNR(4) |
| WSLT(E) <= WSL < WSLT(F) | Select SNNR(5) |
| WSLT(F) <= WSL < WSLT(G) | Select SNNR(6) |
| WSLT(G) <= WSL < 255 | Select SNNR(7) |

## HA3 SNNR Service List (2)

| No. | ITEM | NAME / DESCRIPTION | Initial Data Settings | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **SNNR Offset Data** | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3 | **CPFG** | uPD64082:YPFG (-Offset Data) | 0 | 0 | 1 | 1 | 2 | 2 | 2 | 3 |
| 4 | **CPFT** | uPD64082:YPFT (-Offset Data) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | **CCOR** | uPD64082:YHCOR (-Offset Data) | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| 6 | **CHCG** | uPD64082:YHCGAIN (-Offset Data) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 7 | **CAPG** | uPD64082:YAPGAIN (-Offset Data) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 | **3SHP** | CXA2103-M:SHAP (-Offset Data) | 0 | 0 | 1 | 1 | 2 | 2 | 2 | 3 |
| 9 | **5SHP** | CXA2150P-4:USHP (-Offset Data) | 0 | 0 | 1 | 1 | 3 | 3 | 3 | 4 |
| 10 | **5YF1** | CXA2150P-3:F1LV (-Offset Data) | 0 | 0 | 1 | 1 | 2 | 2 | 2 | 3 |
| 11 | **5CDS** | CXA2150P-3:CDSP (-Offset Data) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12 | **5LTI** | CXA2150P-3:LTLV (-Offset Data) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13 | **5CTI** | CXA2150P-3:CTLV (-Offset Data) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14 | **5VMC** | CXA2150P-3:VMCR (+Offset Data) | 0 | 0 | 1 | 1 | 2 | 2 | 2 | 3 |
| 15 | **MIDD** | CXA2150P-3:MIDE offset for SN (-Offset Data) | 0 | 0 | 1 | 1 | 2 | 2 | 2 | 3 |

**SNNR (0) uses no Offset Data**
**SNNR (1) uses Offset Data(0)**
**SNNR (2) uses Offset Data(1)**
**SNNR (3) uses Offset Data(2)**
**SNNR (4) uses Offset Data(3)**
**SNNR (5) uses Offset Data(4)**
**SNNR (6) uses Offset Data(5)**
**SNNR (7) uses Offset Data(6)**

## HA3 A/D Convertor (CXA3506) Service List

| No. | ITEM | NAME / DESCRIPTION | Initial Data Settings | |
|---|---|---|---|---|
| | | | 1080i/720p/480p | 480i (sub) |
| 0 | **MCON** | main contrast (0 - 255) | **64** | **64** |
| 1 | **SCOR** | sub contrast Y (0-255) | **108** | **113** |
| 2 | **SCOG** | sub contrast Cb (0-255) | **155** | **150** |
| 3 | **SCOB** | sub contrast Cr (0-255) | **153** | **153** |
| 4 | **RGB** | RGB out select (0 - 1) | **0** | **0** |
| | | | **Title: CXA3506 Service List** | |

## SERVICE DATA LISTS

| HA3 Deflection (CXA2150D-1) Service List | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| No. | ITEM | NAME / DESCRIPTION | | Initial Data Settings | | | | |
| | | DESIGN PRESET DATA | FACTORY ADJUSTMENT DATA | WIDE ZOOM | ZOOM | FULL/INDEX | | NORMAL |
| | | | | 960i | 960I | 960I | 1080I | 960I |
| 0 | VPOS | VERTICAL POSITION | | 31 | | | | |
| 1 | VSIZ | VERTICAL SIZE | | 22 | | | | |
| **2** | **VSIZ0** | **V SIZE OFF SET (PJ only)** | | 0 | | | | |
| 3 | VLIN | VERTICAL LINEARITY | | 7 | 7 | | | |
| 4 | VSCO | VERTICAL S CORRECTION | | 10 | 7 | | | |
| 5 | VCEN | VERTICAL CENTERING | | 31 | | | | |
| 6 | VPIN | VERTICAL PIN | | 15 | | | | 15 |
| 7 | NSCO | ROTATION | | 7 | | | | |
| 8 | HTPZ | HORIZONTAL TRAPEZOID | | 15 | | | | |
| 9 | ZOOM | ZOOM SW | | 1 | 1 | 0 | | |
| 10 | APSW | ASPECT SWITCH | | 1 | 1 | 1 | 0 | 1 |
| 11 | ASPT | ASPECT RATIO | | 24 | 48 | 0 | 3 | 0 |
| 12 | SCRL | VERTICAL SCROLL | | 31 | 31 | 31 | 31 | 31 |
| 13 | UVLN | UPPER VERTICAL LINEARITY | | 4 | 0 | 0 | | 0 |
| 14 | LVLN | LOWER VERTICAL LINEARITY | | 4 | 0 | 0 | | 0 |
| | | | | Title: Deflection Service List (CXA2150D-1) | | | | |

## HA3 Deflection (CXA2150D-2) Service List

| No. | ITEM | NAME / DESCRIPTION | | Initial Data Settings | | | | |
|---|---|---|---|---|---|---|---|---|
| | | DESIGN PRESET DATA | FACTORY ADJUSTMENT DATA | WIDE ZOOM | ZOOM | FULL/INDEX | | NORMAL |
| | | | | 960i | 960I | 960I | 1080I | 960I |
| 0 | HCNT | HORIZONTAL CENTERING | | 31 | | | | |
| 1 | HPOS | HORIZONTAL POSITION | | 31 | | | | |
| 2 | HSIZ | HORIZONTAL SIZE | | 49 | 44 | | | |
| 3 | SLIN | HORIZONTAL S CORRECTION | | 10 | 6 | | | |
| 4 | MPIN | HORIZONTAL MIDDLE PIN | | 10 | 7 | | | |
| 5 | PIN | HORIZONTAL PIN | | 40 | 31 | | | |
| **6** | **PIN0** | **PIN OFF SET (PJ only)** | | 0 | | | | |
| 7 | UCP | UPPER CORNER PIN | | 31 | 31 | | | |
| 8 | LCP | LOWER CORNER PIN | | 31 | 31 | | | |
| 9 | UXCG | UPPER EXTRA CORNER PIN GAIN | | 1 | 1 | | | |
| 10 | LXCG | LOWER EXTRA CORNER PIN GAIN | | 1 | 1 | | | |
| 11 | UXCP | UPPER EXTRA CORNER PIN POSITION | | 2 | 2 | | | |
| 12 | LXCP | LOWER EXTRA CORNER PIN POSITION | | 2 | 2 | | | |
| 13 | XCPP | EXTRA CORNER PIN POLARITY | | 0 | 0 | | | |
| 14 | PPHA | PIN PHASE | | 31 | 31 | | | |
| 15 | VANG | AFC ANGLE | | 31 | | | | |
| 16 | LANG | LINEARITY ANGLE | | 31 | | | | |
| 17 | VBOW | AFC BOW | | 31 | | | | |
| 18 | LBOW | LINEARITY BOW | | 31 | | | | |
| 19 | CPY1 | COPY FUNCTION 1 Refer to *1 | | 0 | | | | |
| | | | | Title: Deflection Service List (CXA2150D-2) | | | | |

SERVICE DATA LISTS

| HA3 Deflection (CXA2150D-3) Service List | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| No. | ITEM | NAME / DESCRIPTION | | Initial Data Settings | | | | |
| | | DESIGN PRESET DATA | FACTORY ADJUSTMENT DATA | WIDE ZOOM | ZOOM | FULL/INDEX | | NORMAL |
| | | | | 960i | 960I | 960I | 1080I | 960I |
| 0 | HBLK | HORIZONTAL BLANKING SWITCH | | 1 | | | | |
| 1 | LBLK | LEFT BLANKING | | 48 | | | | |
| 2 | RBLK | RIGHT BLANKING | | 30 | | | | |
| 3 | VBLK | VERTICAL BLANKING SWITCH | | 0 | 0 | 1 | | 1 |
| 4 | TBLK | TOP BLANKING | | 7 | 7 | 3 | 4 | 3 |
| 5 | BBLK | BOTTOM BLANKING | | 7 | 7 | 4 | 4 | 4 |
| 6 | VCMP | VERTICAL COMPENSATION | | 0 | 0 | 0 | 0 | 0 |
| 7 | HCMP | HORIZONTAL COMPENSATION | | 0 | 0 | 0 | 0 | 0 |
| 8 | ACMP | AFC COMPENSATION | | 0 | 0 | 0 | | 0 |
| 9 | PCMP | PIN COMPENSATION | | 0 | 0 | 0 | | 0 |
| 10 | AFCM | AFC LOOP GAIN | | 3 | | | 2 | |
| 11 | VFRQ | VERTICAL FREQUENCY | | 1 | | | | |
| 12 | VON | VERTICAL DRIVE ON | | 1 | | | | |
| 13 | JUMP | REFERENCE PULSE JUMP SWITCH | | 0 | | | | 0 |
| 14 | VDJP | VERTICAL DRIVE JUMP SWITCH | | 1 | 1 | 0 | 1 | 0 |
| 15 | VDST | VERTICAL DRIVE START SWITCH | | 0 | 0 | 0 | 1 | 0 |
| 16 | EWDC | PIN DC LEVEL SHIFT | | | | 0 | | 0 |
| 17 | AKBT | AKB TIMING | | 15 | 15 | 15 | 9 | 15 |
| | | | | Title: Deflection Service List (CXA2150D-3) | | | | |

SERVICE DATA LISTS

| HA3 DF/DQP (CXA2026) Service List | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| No. | ITEM | NAME / DESCRIPTION | | Initial Data Settings | | | | |
| | | DESIGN PRESET DATA | FACTORY ADJUSTMENT DATA | WIDE ZOOM | ZOOM | FULL/INDEX | | NORMAL |
| | | | | 960i | 960I | 960I | 1080I | 960I |
| 0 | DFON | DF ON/OFF SWITCH | | 0 | | | | |
| 1 | DQP | DQP PHASE | | 23 | | | | |
| 2 | DF | DF PHASE | | 119 | | | | |
| 3 | DQPD | DQP DC LEVEL | | 1 | | | | |
| 4 | QPDV | DQP DC LEVEL VERTICAL MODULATION | | 44 | | | | |
| 5 | DVS | DQP DC LEVEL TILT | | 0 | | | | |
| 6 | QPDY | DQP DC LEVEL AT TOP & BOTTOM AREA | | 12 | | | | |
| 7 | DQPA | DQP AMPLITUDE | | 7 | | | | |
| 8 | QPAV | DQP AMPLITUDE VERTICAL MODULATION | | 44 | | | | |
| 9 | AVS | DQP AMPLITUDE TILT | | 3 | | | | |
| 10 | NORM | | | 0 | | | | |
| 11 | CPY3 | COPY FUNCTION 2 Refer to *1 | | 0 | | | | |
| 12 | 200V | 200V REGULATOR ADJUSTMENT | | 31 | | | | |
| | | | | Title: DF/DQP Service List (CXA2026) | | | | |

## SERVICE DATA LISTS

| HA3 Dynamic Convergence (CXA8070) Service List | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| No. | ITEM | NAME / DESCRIPTION | | Initial Data Settings | | | | |
| | | DESIGN PRESET DATA | FACTORY ADJUSTMENT DATA | WIDE ZOOM | ZOOM | FULL/INDEX | | NORMAL |
| | | | | 960i | 960I | 960I | 1080I | 960I |
| 0 | SBHS | DC SHIFT | | 31 | | | | |
| 1 | YBWU | UPPER YBOW | | 31 | | | | |
| 2 | YBWL | LOWER YBOW | | 31 | | | | |
| 3 | RSAP | RIGHT H AMP | | 31 | | | | |
| 4 | RUBW | RIGHT UPPER BOW | | 31 | | | | |
| 5 | RLBW | RIGHT LOWER BOW | | 31 | | | | |
| 6 | LSAP | LEFT H AMP | | 31 | | | | |
| 7 | LUBW | LEFT UPPER BOW | | 31 | | | | |
| 8 | LLBW | LEFT LOWER BOW | | 31 | | | | |
| 9 | CADJ | OFFSET ADJ | | 48 | | | | |
| 10 | CPY2 | COPY FUNCTION 2 Refer to *1 | | 0 | | | | |
| | | | | Title: Dynamic Convergence Service List (CXA8070) | | | | |

### 10-5 FEATURE ID MAP

| MODEL | ID-0 | ID-1 | ID-2 | ID-3 | ID-4 | ID-5 | ID-6 | ID-7 |
|---|---|---|---|---|---|---|---|---|
| KD-34XBR2 | 89 | 255 | 111 | 106 | 203 | 177 | 62 | 24 |

# SECTION 11: FIRMWARE UPGRADES

## 11-1. OVERVIEW

From time to time the KD-34XBR2 may require an upgrade to its firmware.

The Q-box inside the set allows for upgrading the firmware via a Memory Stick® slot. At such times that upgrades are required, pre-programmed Memory Sticks will be made available to the service network. Be sure to check the Sony Service Company's web site to see if any upgrades are available for correcting the problems you are trying to resolve.

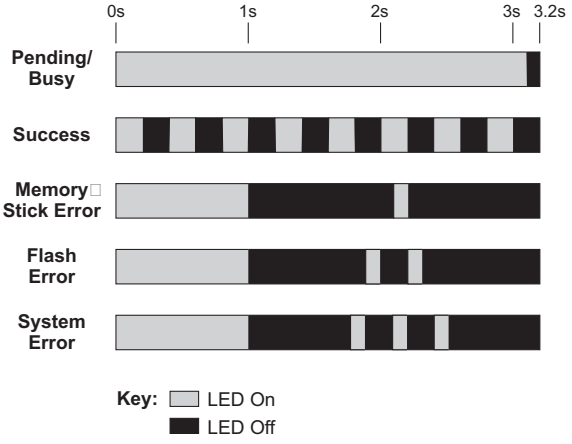
**DISCLAIMER:**

**Any use of the Memory Stick port for any reason other than a Sony authorized upgrade will void the product warranty. All related repair charges will be the responsibility of the customer.**

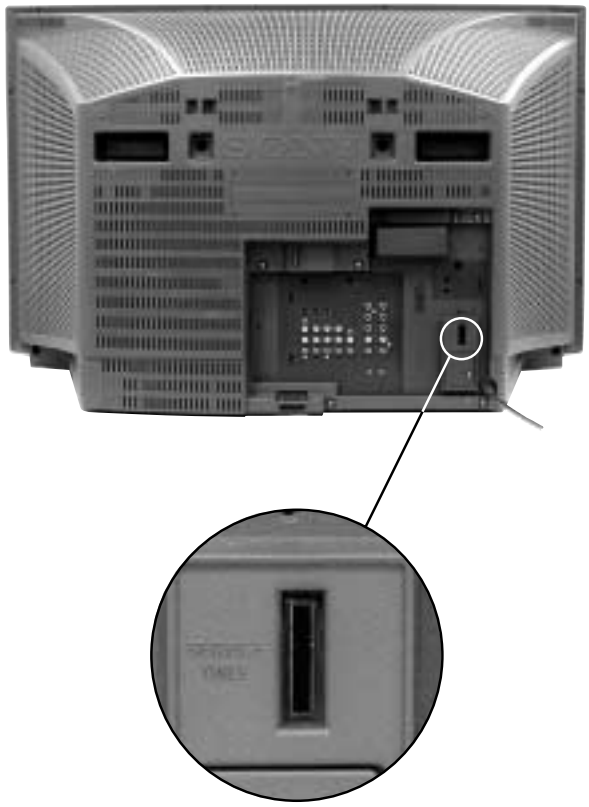
## 11-2. TRANSFERRING THE NEW FIRMWARE FROM THE MEMORY STICK TO THE Q-BOX.

1. Turn the TV on.
2. Insert the Memory Stick containing the new firmware into the Memory Stick slot on the back of the set.
3. If the inserted Memory Stick is the correct type, and its files are correct for the KD-34XBR2 and are not damaged (corrupted), the upgrade process will begin automatically. The screen will display "Memory Upgrade Mode" for 3 seconds, after which the screen will go black until the upgrade is completed.

   **NOTE: The user controls are inoperative while this upgrade is in progress.**
4. A status LED is located above the Memory Stick slot. This LED will flash in several distinct patterns dependent upon the status of the upgrade, as follows:



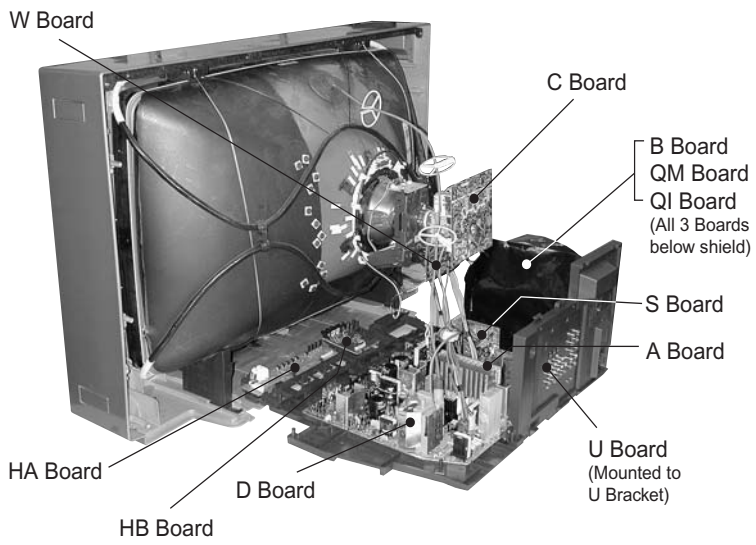

5. When the status LED flashes the "Success" pattern shown above, the upgrade has completed successfully. Remove the Memory Stick and the set will return to the operating state it was in before the upgrade began.
6. If the status LED flashes the "Flash Error" (flash memory) pattern or the "System Error" pattern shown above, remove the Memory Stick and start over again from step 1.
7. If the status LED flashes the "Memory Stick Error" pattern you must obtain a new Memory Stick and start over from step 1.
8. If the status LED flashes the "System Error" pattern the Q-Box needs repair and start over from step 1.



**Memory Stick Input Location**

# SECTION 12: DIAGRAMS

## 12-1. CIRCUIT BOARDS LOCATION




**The components identified by shading and ⚠ symbol are critical for safety. Replace only with part number specified.**

**The symbol ▬ indicates a fast operating fuse and is displayed on the component side of the board. Replace only with fuse of the same rating as marked.**

**Les composants identifies par un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.**

**Le symbole ▬ indique une fusible a action rapide. Doit etre remplace par une fusible de meme yaleur, comme maque.**

## 12-2. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

All capacitors are in µF unless otherwise noted. pF : µµF 50WV or less are not indicated except for electrolytics and tantalums.

All electrolytics are in 50V unless otherwise specified.

All resistors are in ohms. K = 1000, M = 1000K.

Indication of resistance, which does not have one for rating electrical power, is as follows: Pitch : 5mm

Rating electrical power : $^1/_4$ W

$^1/_4$ W in resistance, $^1/_{10}$ W and $^1/_8$ W in chip resistance.

: nonflammable resistor.

: fusible resistor.

△ : internal component.

▭ : panel designation and adjustment for repair.

All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

Readings are taken with a color-bar signal input.

Readings are taken with a 10MΩ digital multimeter.

Voltages are DC with respect to ground unless otherwise noted.

Voltage variations may be noted due to normal production tolerances.

All voltages are in V.

S : Measurement impossibillity.

▬ ▬ ▬ : B+line.

▬ ▬ ▭V : B-line. (Actual measured value may be different).

⇨ : signal path. (RF)

Circled numbers are waveform references.

The components identified by ⋈ in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be necessary, replace only with the value originally used (Refer to Safety Related Adjustments on page 33).

When replacing components identified by ◪, make the necessary adjustments as indicated. If the results do not meet the specified value, change the component identified by ⋈ and repeat the adjustment until the specified value is achieved.

When replacing the parts listed in the table below, it is important to perform the related adjustments.

| Part Replaced (◪) | Adjustment (⋈) |
|---|---|
| D BOARD:<br>D8004, D8014, IC6503, IC8001, IC8003, IC8004, R6590, R8016, R8021, R8028, R8041, R8042, R8044, R8072, R8073, R8074, R8077, R8078, R8080, R8081, R8082, R8091, R8095 | D BOARD:<br>RV8001, RV8002 |

## REFERENCE INFORMATION

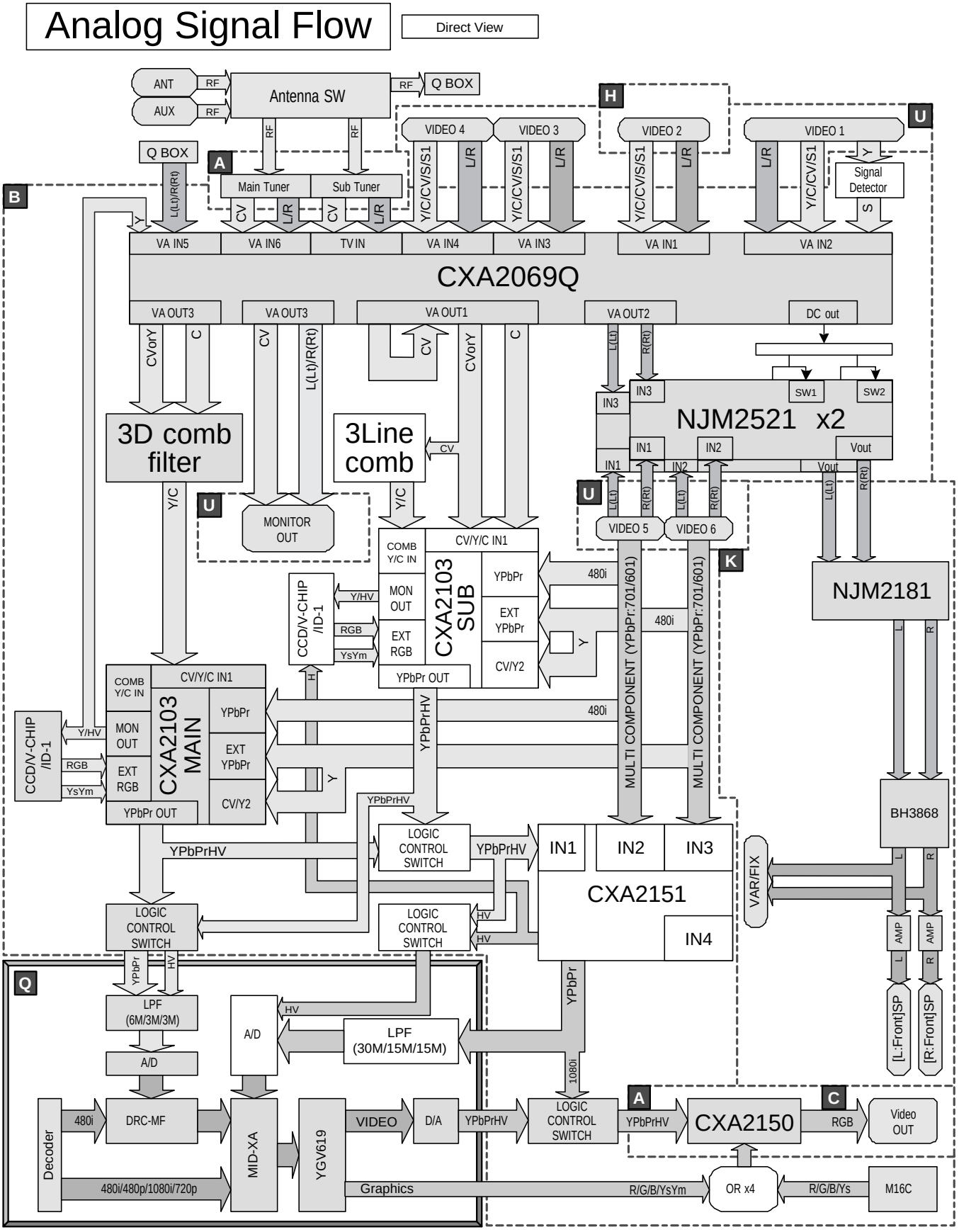
**RESISTOR**
- **: RN METAL FILM**
- **: RC SOLID**
- **: FPRD NONFLAMMABLE CARBON**
- **: FUSE NONFLAMMABLE FUSIBLE**
- **: RW NONFLAMMABLE WIREWOUND**
- **: RS NONFLAMMABLE METAL OXIDE**
- **: RB NONFLAMMABLE CEMENT**
- **: ※ ADJUSTMENT RESISTOR**

**CAPACITOR**
- **: TA TANTALUM**
- **: PS STYROL**
- **: PP POLYPROPYLENE**
- **: PT MYLAR**
- **: MPS METALIZED POLYESTER**
- **: MPP METALIZED POLYPROPYLENE**
- **: ALB BIPOLAR**
- **: ALT HIGH TEMPERATURE**
- **: ALR HIGH RIPPLE**

**COIL**
- **: LF-8L MICRO INDUCTOR**

## 12-3. BLOCK DIAGRAM & SCHEMATICS

### BLOCK DIAGRAM



## A BOARD SCHEMATIC DIAGRAM (1 OF 2)

## A BOARD WAVEFORMS

| | | | |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
| 1.9 Vp-p (H) | 1.9 Vp-p (H) | 1.4 Vp-p (H) | 0.6 Vp-p (H) |
| 5 | 6 | 7 | 8 |
| 0.5 Vp-p (H) | 3.1 Vp-p (H) | 3.5 Vp-p (H) | 3.3 Vp-p (H) |
| 9 | 10 | 11 | |
| 2.9 Vp-p (H) | 1.7 Vp-p (V) | 1.5 Vp-p (V) | |

## A BOARD: IC3101 CXA2150AQ

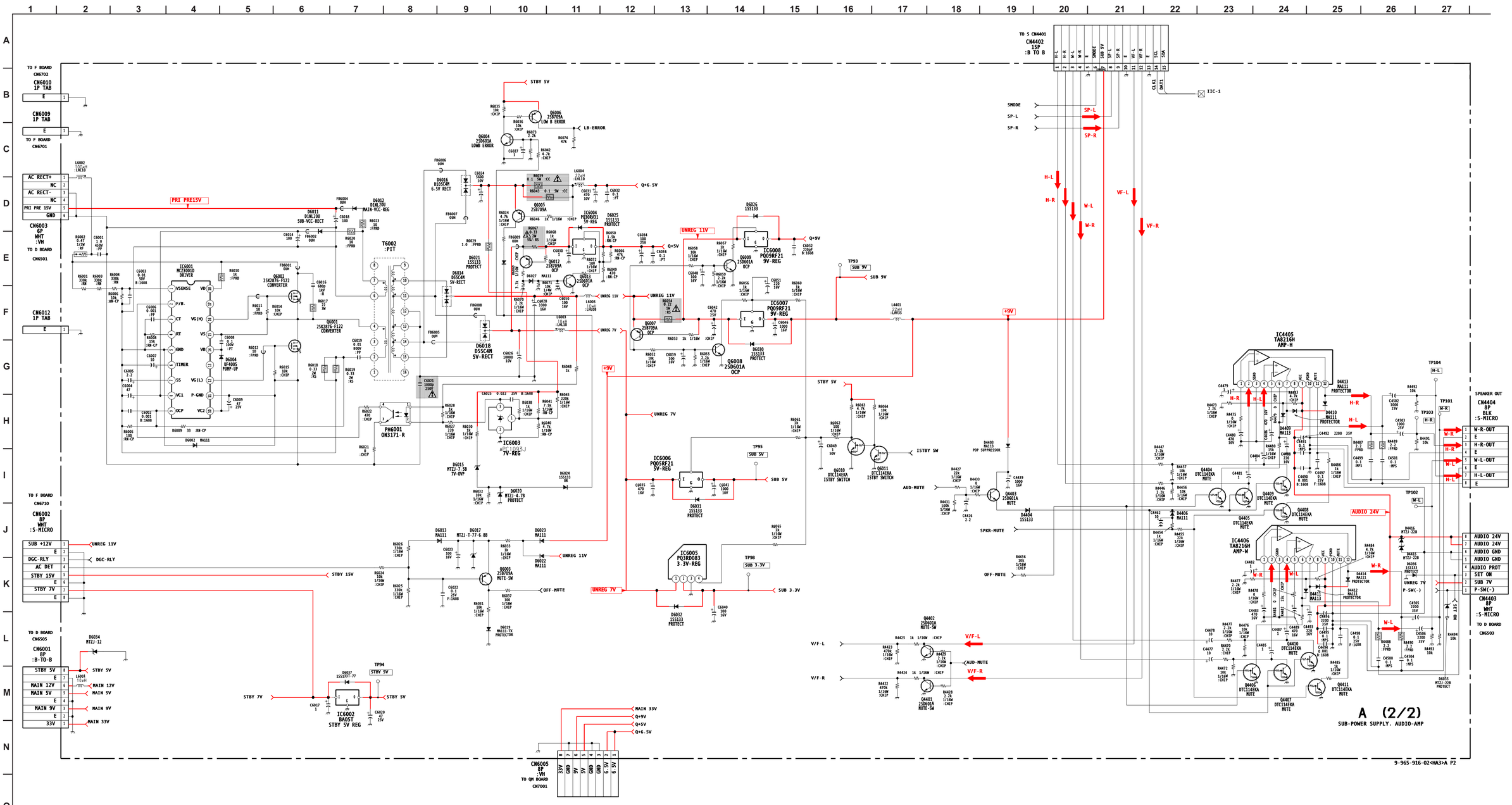



## A (1/2)

TUNER,YIV-JUNGLE

9-965-916-02<HA3>A P1

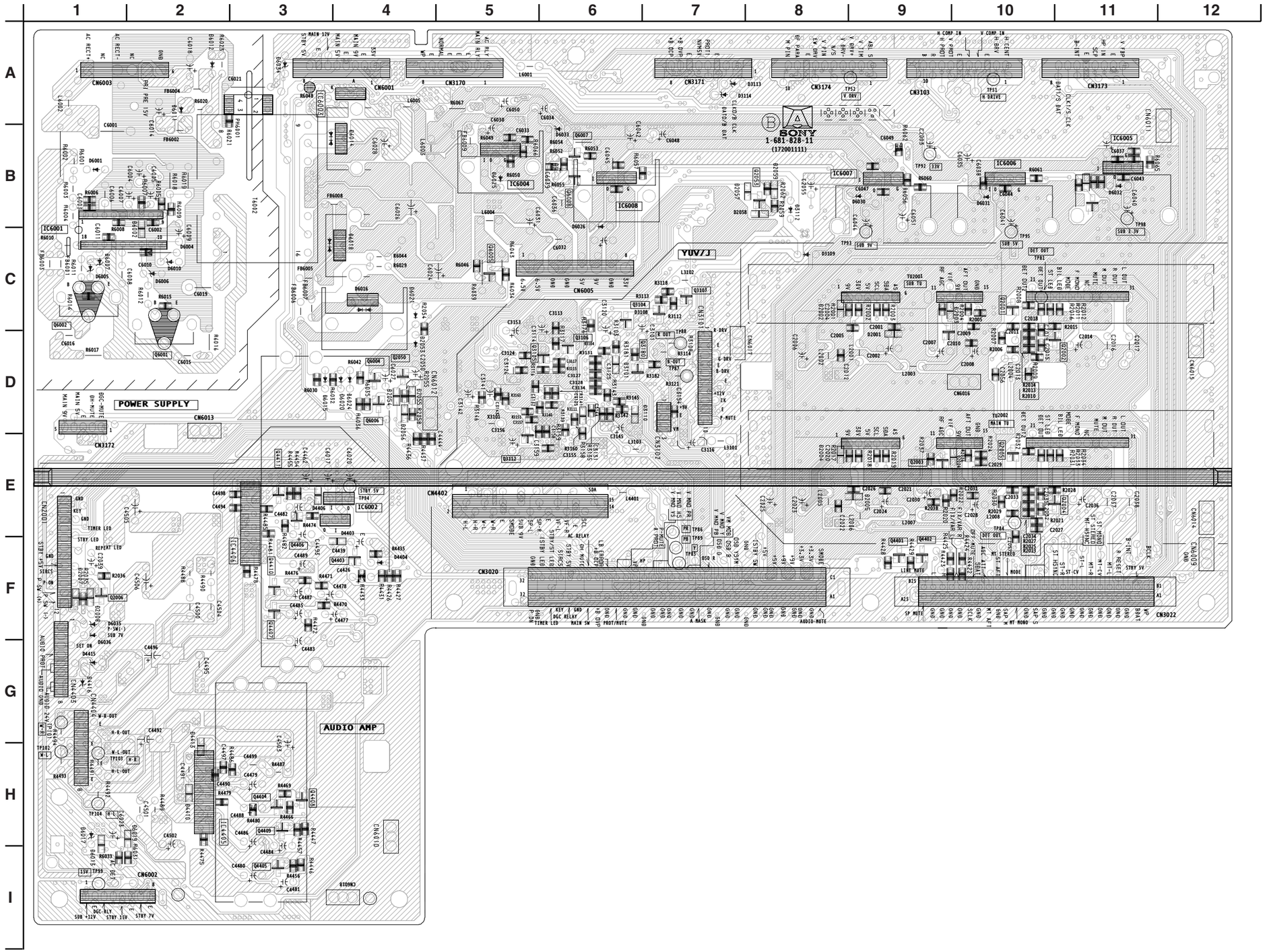
## A BOARD SCHEMATIC DIAGRAM (2 OF 2)



# A

[TUNER, YUV-JUNGLE, SUB-POWER SUPPLY, AUDIO AMP]

## COMPONENT SIDE



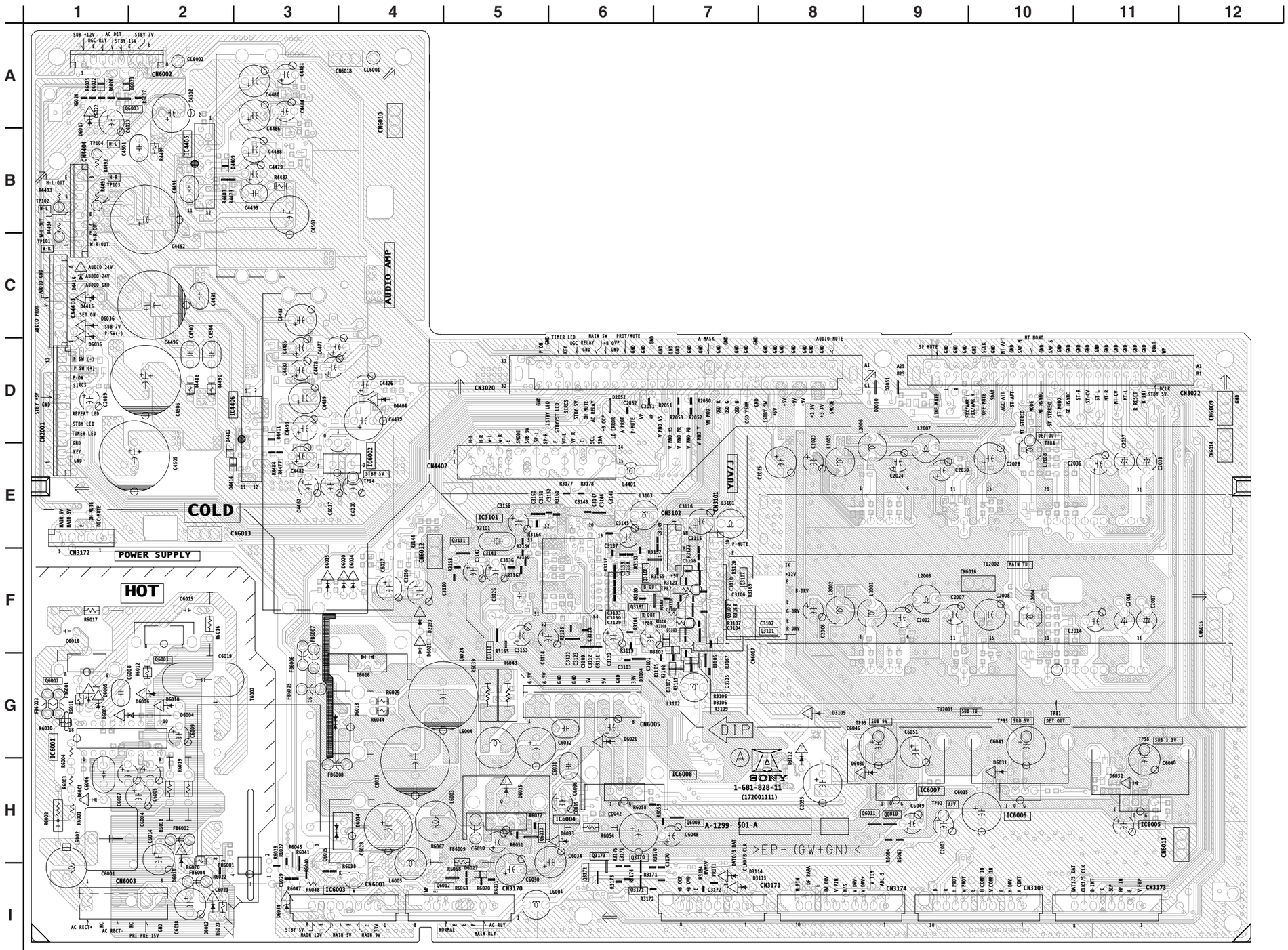

## A BOARD LOCATOR LIST (COMPONENT SIDE)

| DIODE | | TRANSISTOR | |
|---|---|---|---|
| D2007 | F-1 | Q2001 | C-10 |
| D2008 | F-1 | Q2002 | D-11 |
| D2054 | D-4 | Q2003 | E-9 |
| D2055 | D-4 | Q2004 | E-10 |
| D2056 | D-4 | Q2005 | E-10 |
| D2057 | B-7 | Q2006 | F-1 |
| D2058 | B-7 | Q2050 | D-4 |
| D2059 | B-8 | Q2053 | D-4 |
| D3109 | C-8 | Q3103 | C-7 |
| D3111 | D-6 | Q3105 | D-5 |
| D3112 | C-7 | Q3106 | D-6 |
| D3113 | A-8 | Q3112 | E-5 |
| D3114 | A-8 | Q3180 | D-6 |
| D4403 | E-4 | Q4401 | F-9 |
| D4406 | E-3 | Q4402 | F-9 |
| D4410 | H-2 | Q4403 | F-3 |
| D4413 | G-2 | Q4404 | H-3 |
| D4416 | G-1 | Q4405 | I-3 |
| D6002 | C-2 | Q4406 | F-4 |
| D6004 | C-2 | Q4407 | F-3 |
| D6016 | C-4 | Q4408 | H-3 |
| D6018 | C-4 | Q4409 | H-3 |
| D6019 | H-2 | Q4410 | F-3 |
| D6021 | C-4 | Q4411 | E-3 |
| D6026 | B-6 | Q6001 | D-2 |
| D6030 | B-9 | Q6002 | C-1 |
| D6031 | B-10 | Q6004 | D-4 |
| D6032 | B-11 | Q6005 | C-5 |
| D6034 | A-3 | Q6006 | D-4 |
| D6036 | F-1 | Q6007 | B-6 |
| | | Q6008 | B-6 |

# A

[TUNER, YUV-JUNGLE, SUB-POWER SUPPLY, AUDIO AMP]

## CONDUCTOR SIDE




## A BOARD LOCATOR LIST (CONDUCTOR SIDE)

| DIODE | | IC4405 | B-2 |
|---|---|---|---|
| D2050 | D-9 | IC4406 | D-3 |
| D2051 | D-9 | IC6001 | G-1 |
| D2052 | D-6 | IC6002 | E-4 |
| D2053 | F-4 | IC6003 | I-3 |
| D3103 | F-7 | IC6004 | H-6 |
| D3105 | G-7 | IC6005 | H-11 |
| D3106 | G-7 | IC6006 | H-10 |
| D4404 | D-4 | IC6007 | H-9 |
| D4409 | B-3 | IC6008 | H-7 |
| D4411 | D-3 | **TRANSISTOR** | |
| D4412 | D-2 | Q3101 | F-8 |
| D4414 | E-2 | Q3102 | F-8 |
| D4415 | C-1 | Q3107 | F-7 |
| D6011 | I-2 | Q3108 | F-6 |
| D6012 | I-2 | Q3110 | F-5 |
| D6013 | I-1 | Q3111 | E-5 |
| D6014 | H-4 | Q3170 | I-6 |
| D6015 | F-3 | Q3171 | I-6 |
| D6017 | A-1 | Q3172 | I-6 |
| D6020 | F-4 | Q3173 | I-6 |
| D6022 | A-1 | Q3181 | F-6 |
| D6023 | A-2 | Q6003 | A-2 |
| D6024 | F-4 | Q6009 | H-7 |
| D6025 | H-5 | Q6010 | H-9 |
| D6027 | H-5 | Q6011 | H-9 |
| D6035 | D-1 | Q6012 | I-4 |
| **IC** | | Q6013 | H-6 |
| IC3101 | E-5 | | |

## A BOARD IC VOLTAGE LIST (1 OF 2)

| IC3101 | | 14 | 2.3 | 29 | 5.0 | 44 | GND | 59 | 1.7 |
|---|---|---|---|---|---|---|---|---|---|
| pin | volt | 15 | 3.7 | 30 | 5.6 | 45 | 2.8 | 60 | 1.7 |
| 1 | GND | 16 | 2.7 | 31 | 1.3 | 46 | 3.6 | 61 | 9.0 |
| 2 | 0.0 | 17 | 2.6 | 32 | 3.0 | 47 | 3.9 | 62 | 2.3 |
| 3 | GND | 18 | 1.1 | 33 | 1.6 | 48 | 4.4 | 63 | 2.5 |
| 4 | 3.1 | 19 | 4.9 | 34 | 0.0 | 49 | 5.4 | 64 | 2.3 |
| 5 | 3.1 | 20 | 3.6 | 35 | 0.0 | 50 | 3.5 | | |
| 6 | 3.1 | 21 | 3.4 | 36 | 0.2 | 51 | 3.8 | | |
| 7 | 0.0 | 22 | 3.4 | 37 | 0.0 | 52 | 3.4 | | |
| 8 | 3.6 | 23 | GND | 38 | 3.2 | 53 | 3.5 | | |
| 9 | 3.6 | 24 | N/C | 39 | 1.1 | 54 | 1.0 | | |
| 10 | 3.6 | 25 | 4.6 | 40 | 2.8 | 55 | 9.0 | | |
| 11 | 0.0 | 26 | 4.6 | 41 | GND | 56 | 1.0 | | |
| 12 | 0.5 | 27 | 0.7 | 42 | 0.0 | 57 | 4.3 | | |
| 13 | 0.5 | 28 | 0.0 | 43 | 3.8 | 58 | 3.9 | | |

All voltages are in V.

## A BOARD TRANSISTOR VOLTAGE LIST (1 OF 2)

| | B | C | E | | B | C | E |
|---|---|---|---|---|---|---|---|
| Q2001 | 4.3 | 9.0 | 3.6 | Q3106 | 4.4 | 8.7 | 3.9 |
| Q2002 | 4.5 | 0 | 5.0 | Q3107 | 2.0 | GND | 3.2 |
| Q2003 | 0.1 | 7.5 | GND | Q3108 | 2.2 | GND | 3.2 |
| Q2004 | 4.6 | 1.1 | 5.0 | Q3110 | 2.8 | 11.5 | 0.0 |
| Q2005 | 6.2 | 9.0 | 5.5 | Q3111 | 0 | 0 | GND |
| Q2006 | 0.6 | 11.2 | 14.6 | Q3112 | 5.6 | 9.0 | 5.0 |
| Q2050 | 0.0 | 0.3 | 0.0 | Q3170 | 0.0 | 0.0 | GND |
| Q2053 | 0.0 | 0.4 | 0.0 | Q3171 | 0.0 | 0.0 | 0.0 |
| Q3101 | 2.3 | GND | 3.2 | Q3172 | 0.0 | 0.0 | 0.0 |
| Q3102 | 2.5 | GND | 3.2 | Q3173 | 0.0 | 0.0 | GND |
| Q3103 | 0.6 | 0.0 | 0.0 | Q3180 | 2.0 | GND | 7.6 |
| Q3105 | 4.5 | GND | 3.9 | Q3181 | 2.0 | GND | 7.6 |

All voltages are in V.

## A BOARD IC VOLTAGE LIST (2 OF 2)

| IC4405 | | 6 | 8.0 | 13 | N/C | IC6005 | |
|---|---|---|---|---|---|---|---|
| pin | volt | 7 | 11.1 | 14 | 160.6 | pin | volt |
| 1 | 1.5 | 8 | 5.0 | 15 | 150.4 | 1 | 6.3 |
| 2 | 0.0 | 9 | 23.8 | 16 | 154.6 | 2 | 3.3 |
| 3 | 0.0 | 10 | 0.0 | 17 | N/C | 3 | GND |
| 4 | 0.0 | 11 | 4.1 | 18 | 303.1 | 4 | 5.0 |
| 5 | 1.5 | 12 | 10.8 | IC6002 | | IC6006 | |
| 6 | 8.0 | IC6001 | | pin | volt | pin | volt |
| 7 | 11.1 | pin | volt | 1 | 7.3 | 1 | 6.3 |
| 8 | 5.0 | 1 | 3.3 | 2 | GND | 2 | 5.0 |
| 9 | 23.8 | 2 | 1.8 | 3 | 2.5 | 3 | GND |
| 10 | 0.0 | 3 | 2.2 | IC6003 | | IC6007 | |
| 11 | 4.1 | 4 | 2.5 | pin | volt | pin | volt |
| 12 | 10.8 | 5 | GND | 1 | 5.7 | 1 | 6.3 |
| IC4406 | | 6 | 0.0 | 2 | GND | 2 | GND |
| pin | volt | 7 | 4.6 | 3 | 3.3 | 3 | 5.0 |
| 1 | 1.5 | 8 | 17.3 | IC6004 | | IC6008 | |
| 2 | 0.0 | 9 | 0.0 | pin | volt | pin | volt |
| 3 | 0.0 | 10 | 10.4 | 1 | 6.0 | 1 | 9.9 |
| 4 | 0.0 | 11 | GND | 2 | GND | 2 | 9.0 |
| 5 | 1.5 | 12 | 4.7 | 3 | 5.1 | 3 | GND |
| | | | | | | 4 | 2.1 |

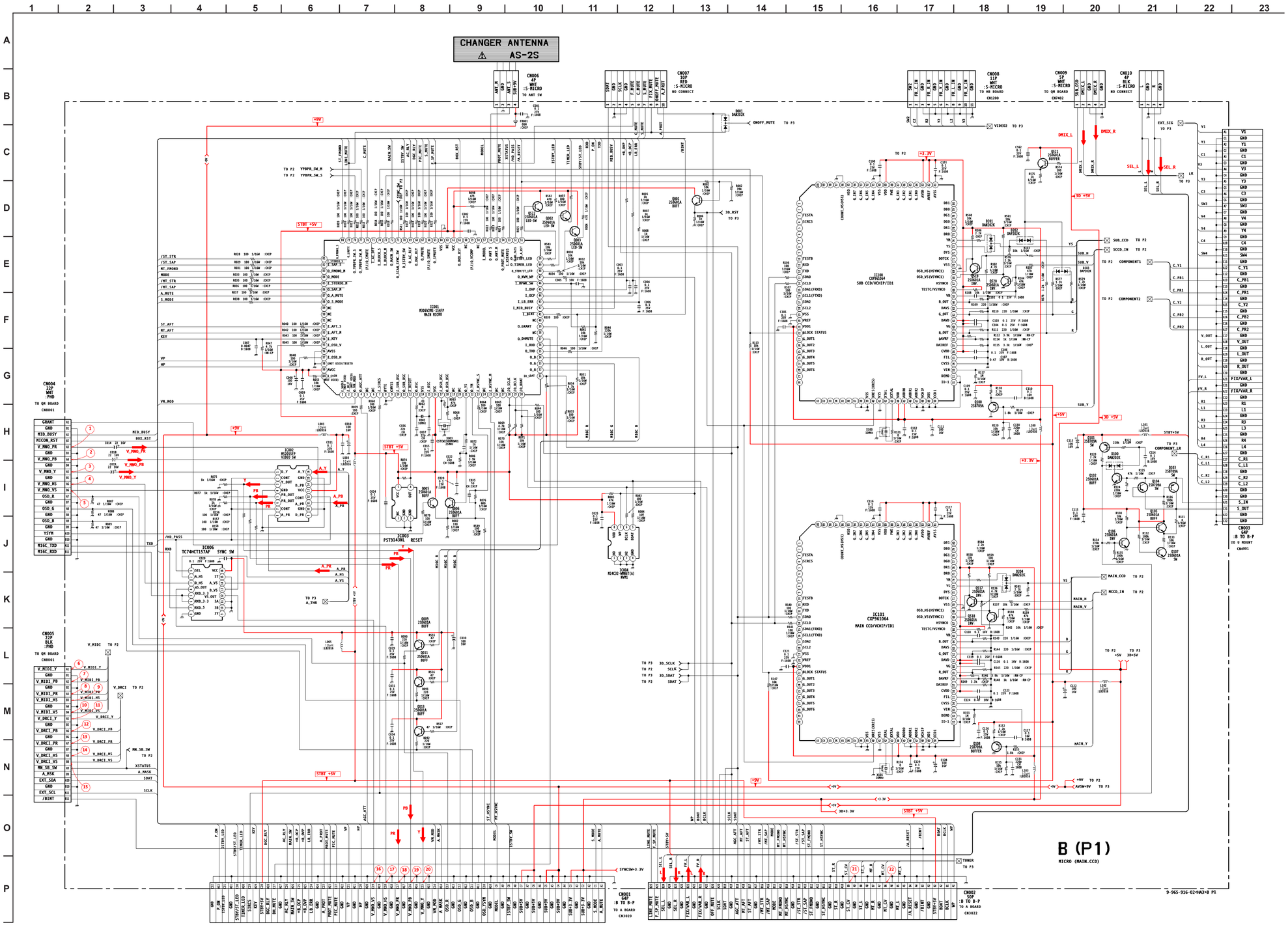
All voltages are in V.

## A BOARD TRANSISTOR VOLTAGE LIST (2 OF 2)

| | B | C | E | | B | C | E |
|---|---|---|---|---|---|---|---|
| Q4401 | 0.7 | 0.0 | GND | Q6002 | 2.6 | 151.8 | -1.5 |
| Q4402 | 0.7 | 0.0 | GND | Q6003 | 0.2 | 0.0 | 0.0 |
| Q4403 | 0.0 | 8.9 | -0.2 | Q6004 | 0.0 | 5.0 | GND |
| Q4404 | 0.0 | 0.0 | GND | Q6005 | 6.2 | -0.2 | 6.3 |
| Q4405 | 0.0 | 0.0 | GND | Q6006 | 5.0 | 0.0 | 5.0 |
| Q4406 | 0.0 | 8.0 | GND | Q6007 | 9.9 | 0.0 | 10.2 |
| Q4407 | 0.0 | 0.0 | GND | Q6008 | 0.1 | 5.0 | GND |
| Q4408 | 0.0 | 4.1 | GND | Q6009 | 9.9 | 2.1 | GND |
| Q4409 | 0.0 | 0.0 | GND | Q6010 | 0.0 | 5.0 | GND |
| Q4410 | 0.0 | 0.0 | GND | Q6011 | 5.0 | 0.0 | GND |
| Q4411 | 0.0 | 0.0 | GND | Q6012 | 6.1 | 0.0 | 6.3 |
| Q6001 | -147.8 | -1.3 | -152.2 | Q6013 | 0.0 | 2.0 | GND |

All voltages are in V.

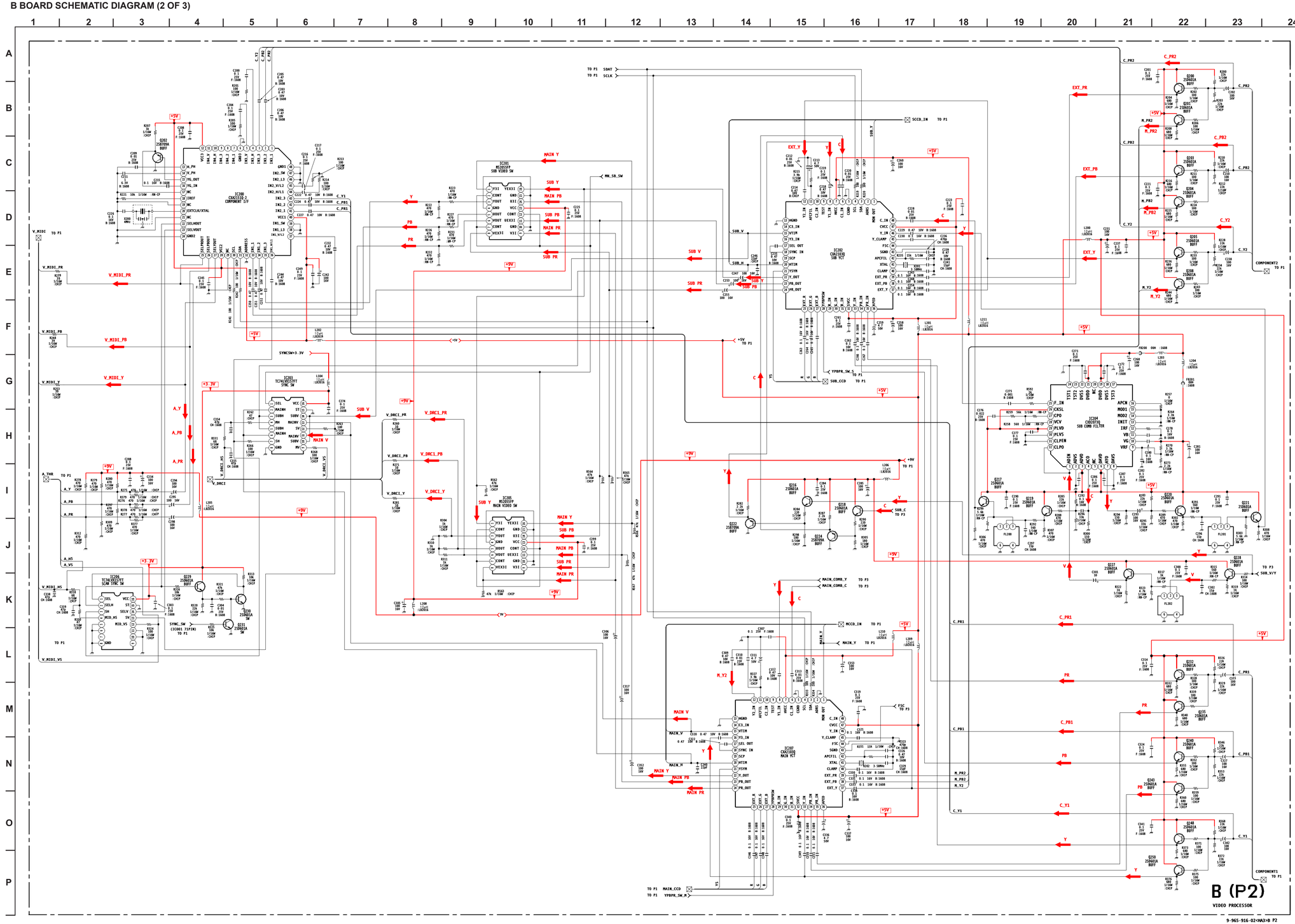
## B BOARD SCHEMATIC DIAGRAM (1 OF 3)

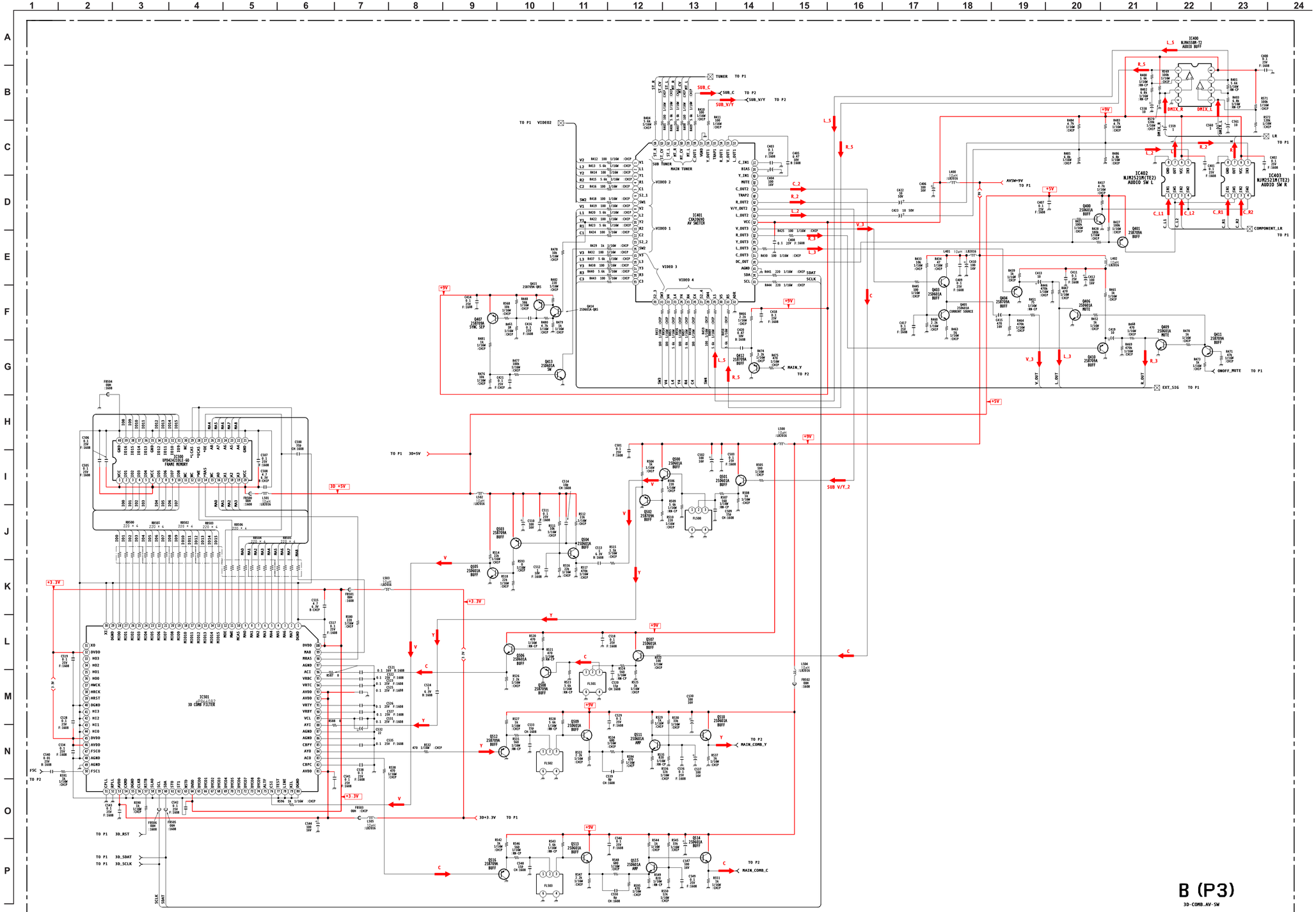



## B BOARD WAVEFORMS

| | | |
|---|---|---|
| 1 — 0.6 Vp-p (H) | 2 — 0.6 Vp-p (H) | 3 — 1.5 Vp-p (H) |
| 4 — 1.5 Vp-p (H) | 5 — 1.4 Vp-p (V) | 6 — 1.5 Vp-p (H) |
| 7 — 1.1 Vp-p (H) | 8 — 1.3 Vp-p (H) | 9 — 3.5 Vp-p (H) |
| 10 — 3.3 Vp-p (V) | 11 — 1.5 Vp-p (H) | 12 — 1.1 Vp-p (H) |
| 13 — 1.1 Vp-p (H) | 14 — 3.4 Vp-p (H) | 15 — 3.4 Vp-p (V) |
| 16 — 5.3 Vp-p (V) | 17 — 5.0 Vp-p (H) | 18 — 0.5 Vp-p (H) |
| 19 — 0.6 Vp-p (H) | 20 — 1.4 Vp-p (H) | 21 — 1.9 Vp-p (H) |
| 22 — 1.9 Vp-p (H) | | |

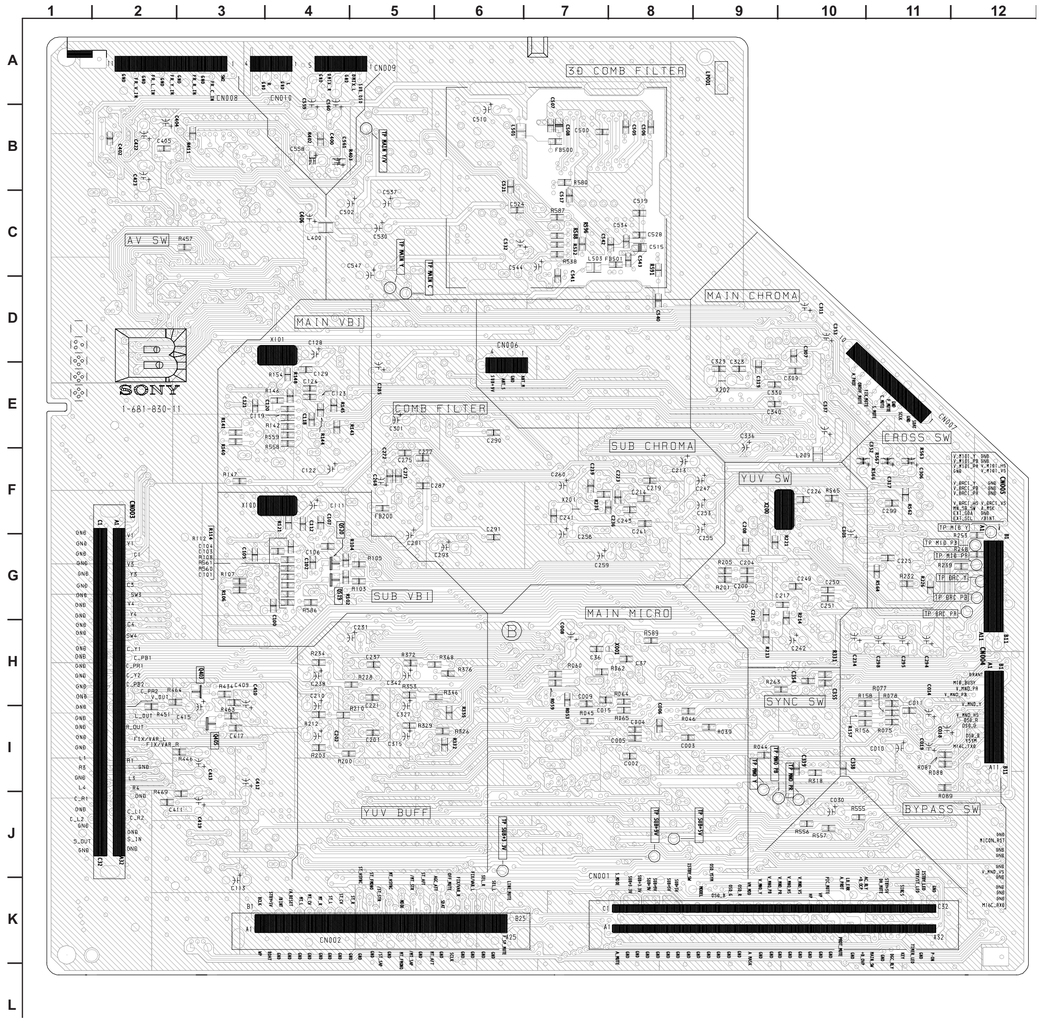
# B BOARD SCHEMATIC DIAGRAM (2 OF 3)



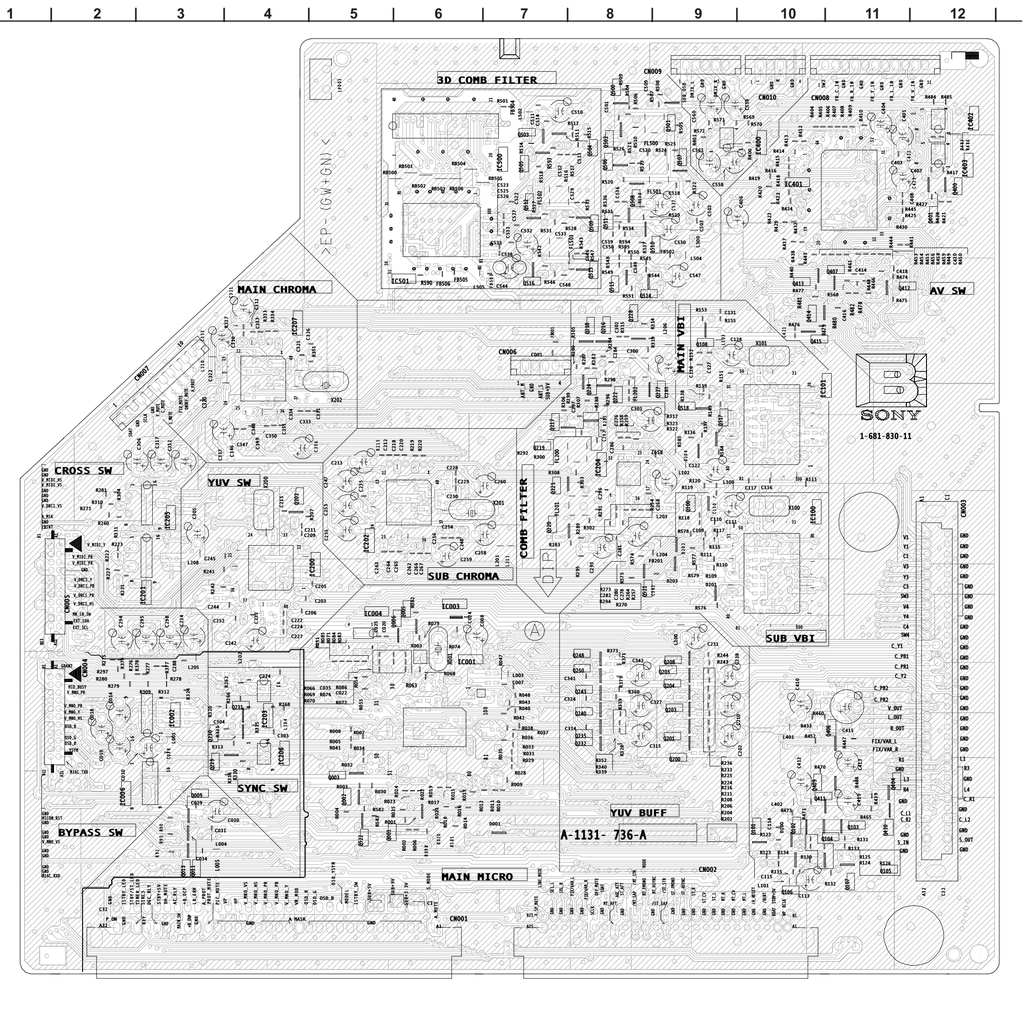

IC401
CXA2060Q
AV SWITCH
IC501
CXD2055Q
3D COMB FILTER
IC500
UPD424181E-60
FRAME MEMORY
IC400
NJM4558R-T2
AUDIO BUFF
IC402
NJM2521M(TE2)
AUDIO SW L
IC403
NJM2521M(TE2)
AUDIO SW R
MAIN TUNER
SUB TUNER
TUNER TO P1
SUB_C TO P2
SUB_V/Y TO P2
VIDEO 1
VIDEO 2
VIDEO 3
VIDEO 4
TO P1 VIDEO2
AVSW+9V TO P1
LR TO P1
COMPONENT_LR TO P1
EXT_SIG TO P1
ONOFF_MUTE TO P1
MAIN_COMB_Y TO P2
MAIN_COMB_C TO P2
MAIN_Y TO P2
TO P1 3D+5V
TO P1 3D+3.3V
TO P1 3D_RST
TO P1 3D_SDAT
TO P1 3D_SCLK
SUB V/Y_2
+9V
+5V
+3.3V
3D +5V
C_2
R_2
L_2
V_3
L_3
R_5
L_5
C_L1
C_L2
C_R1
C_R2
DM1X_R
DM1X_L
DM2X_R
DM2X_L
FSC
FSC1
B (P3)
3D-COMB.AV-SW

**B** [MICRO (MAIN, CCD), VIDEO PROCESSOR, 3D-COMB, AV-SW]

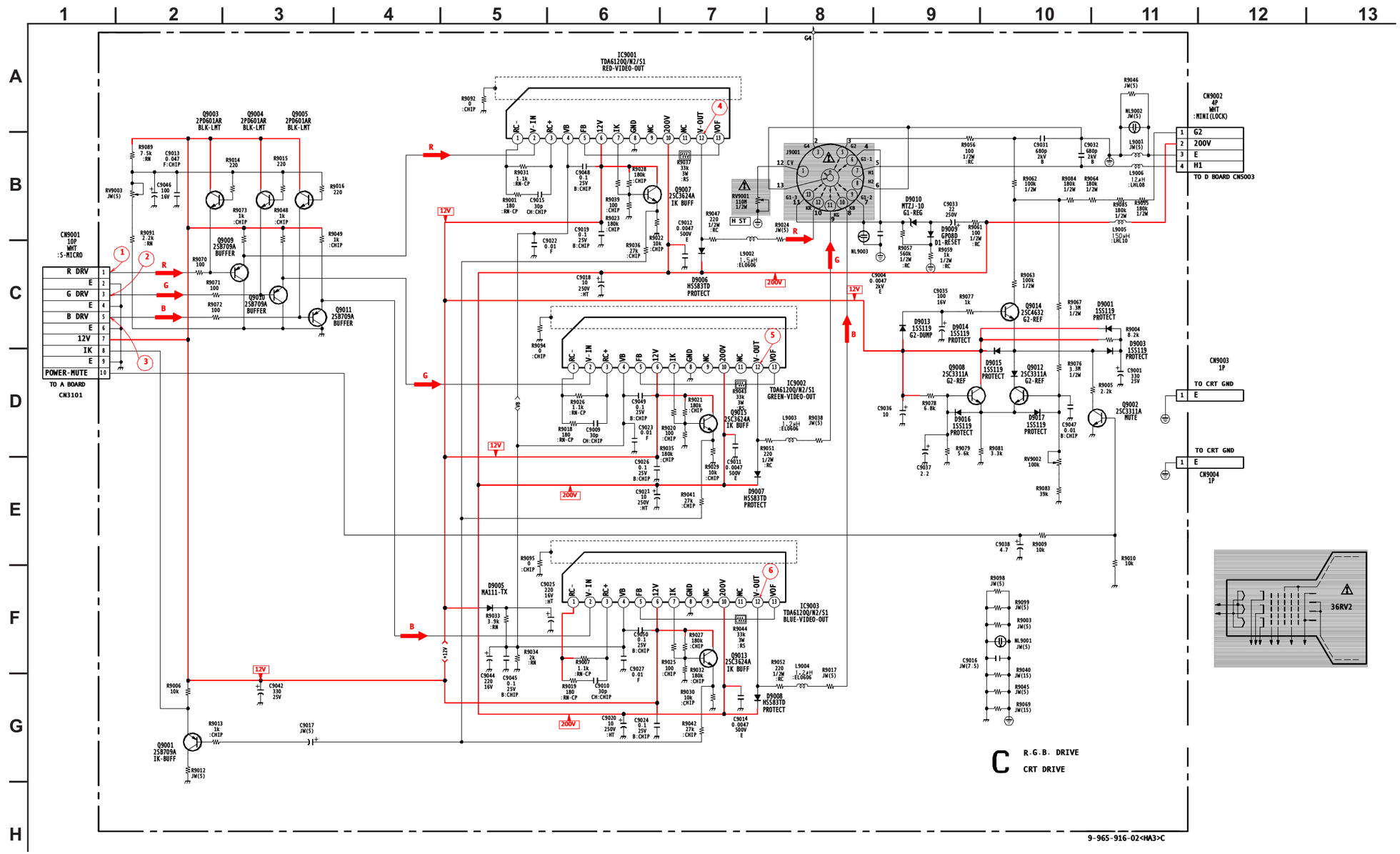
**CONDUCTOR SIDE**




**COMPONENT SIDE**



# C BOARD SCHEMATIC DIAGRAM




## C BOARD TRANSISTOR VOLTAGE LIST

| | B | C | E |
|---|---|---|---|
| Q9001 | 7.5 | GND | 3.6 |
| Q9002 | 0.2 | 11.1 | GND |
| Q9003 | 2.1 | 12.0 | 3.2 |
| Q9004 | 2.1 | 12.0 | 3.2 |
| Q9005 | 3.2 | 12.0 | 2.1 |
| Q9007 | 11.3 | 12.0 | 10.4 |
| Q9008 | 5.4 | 12.0 | 4.8 |
| Q9009 | 3.2 | GND | 3.9 |
| Q9010 | 3.2 | GND | 4.0 |
| Q9011 | 3.2 | GND | 3.9 |
| Q9012 | 5.4 | 10.5 | 4.8 |
| Q9013 | 11.6 | 12.0 | 10.9 |
| Q9014 | 11.7 | 450.0 | 11.1 |
| Q9015 | 11.0 | 12.0 | 10.2 |

All voltages are in V.




## C BOARD IC VOLTAGE LIST

| IC9001 | | IC9002 | | IC9003 | |
|---|---|---|---|---|---|
| pin | volt | pin | volt | pin | volt |
| 1 | 3.0 | 1 | 3.2 | 1 | 3.1 |
| 2 | 3.7 | 2 | 3.9 | 2 | 3.8 |
| 3 | 2.9 | 3 | 2.9 | 3 | 2.9 |
| 4 | 3.6 | 4 | 3.6 | 4 | 3.6 |
| 5 | 2.0 | 5 | 2.0 | 5 | 2.0 |
| 6 | 12.0 | 6 | 12.0 | 6 | 12.0 |
| 7 | 11.4 | 7 | 11.7 | 7 | 11.7 |
| 8 | GND | 8 | GND | 8 | GND |
| 9 | N/C | 9 | N/C | 9 | N/C |
| 10 | 200.0 | 10 | 200.0 | 10 | 200.0 |
| 11 | N/C | 11 | N/C | 11 | N/C |
| 12 | 144.0 | 12 | 155.0 | 12 | 162.0 |
| 13 | 136.0 | 13 | 129.0 | 13 | 134.0 |

All voltages are in V.

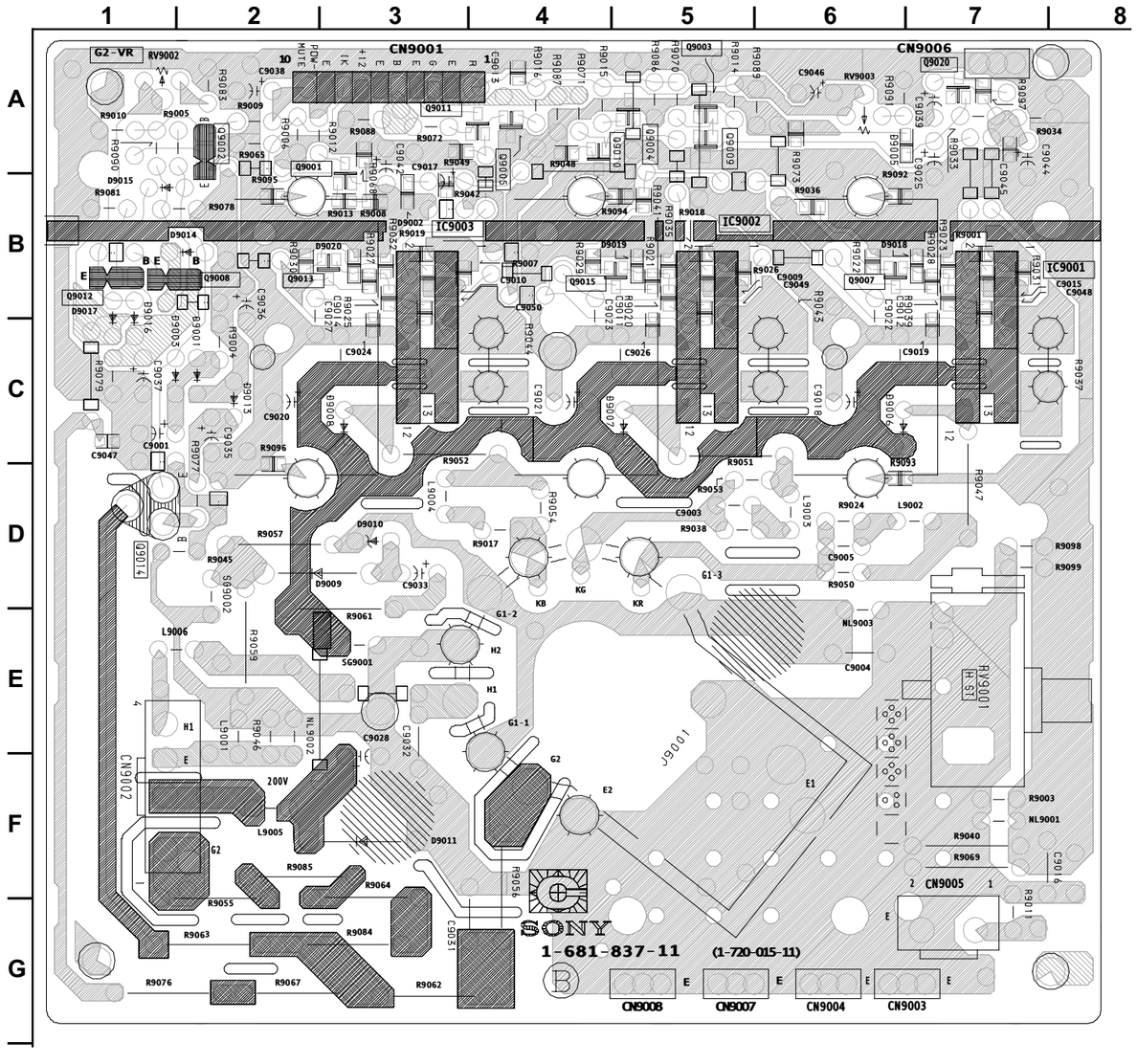
## C BOARD WAVEFORMS

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|
| 3.1 Vp-p (H) | 3.5 Vp-p (H) | 3.3 Vp-p (H) | 145.0 Vp-p (H) | 134.0 Vp-p (H) | 118.0 Vp-p (H) |

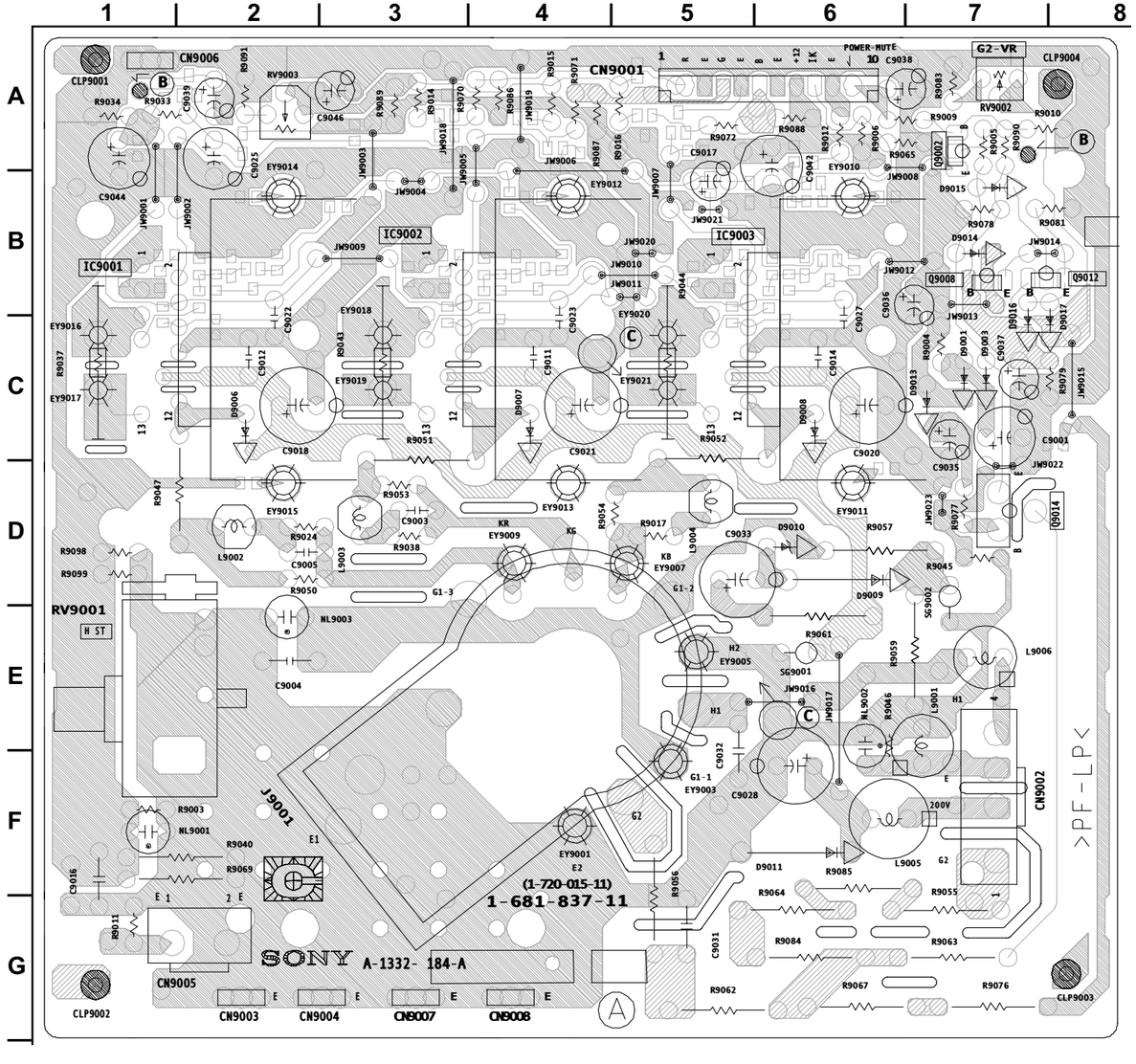
# C

[R.G.B. DRIVE, CRT DRIVE]

## COMPONENT SIDE




## CONDUCTOR SIDE



## D BOARD SCHEMATIC DIAGRAM (1 OF 3)

# D (1/3)
POWER SUPPLY
AC RECT

TO F BOARD
CN6709
CN6502
2P
WHT
:MINI(LOCK)
AC OUT 1
AC OUT 2

TO A BOARD
CN6003
AC RECT+ 1
NC 2
AC RECT- 3
NC 4
PRI 15V 5
GND 6
CN6501
6P
WHT
:YH

AC RLY 1
MAIN RLY 2
E 3
E 4
E 5
NORMAL 6
E 7
WP 8
CN6504
8P
TO A BOARD
CN3170

TO A BOARD
CN6001
CN6505
8P
STBY 5V 8
E 7
MAIN 12V 6
MAIN 5V 5
E 4
MAIN 9V 3
E 2
33V 1
CN6506
8P
TO A BOARD
CN3171
CLKO/B CLK 1
DATO/B DAT 2
E 3
PROT1 4
NVM5V 5
E 6
OVP 7
+B OCP 8

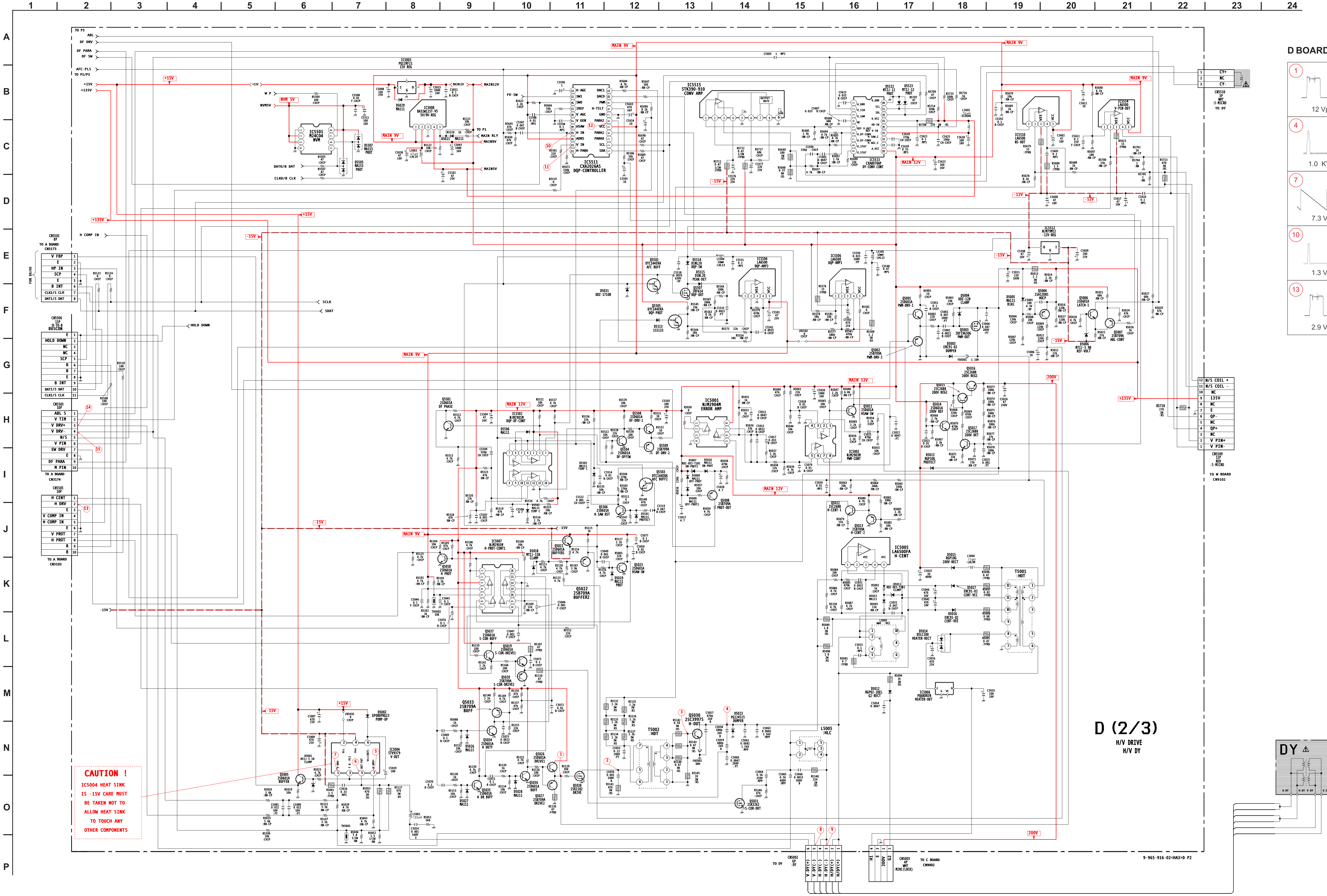
TO A BOARD
CN4403
CN6503
8P
WHT
:S-MICRO
8 AUDIO 22V
7 AUDIO 22V
6 AUDIO GND
5 AUDIO GND
4 AUDIO-PROT
3 SET ON
2 SUB 7V
1 P-SW(-)

IC6501 MC23001D DRIVER
Q6503 2SD601A
Q6507 IRFIB7N50A CONVERTER
Q6506 IRFIB7N50A CONVERTER
Q6502 UF4005 PUMP-UP
Q6507 D :CHIP
D6530 DS5860L AC-RECT
D6532 ERA22-08 STOPPER
D6534 DI840TA2
D6509 ERC04-06SE
D6510 ERC04-06SE
PH6501 OR3171-R RESISTOR SHORT
D6516 D4SB56-F AU RECT
PS6502 ICP-N70
PS6501 ICP-N70
D6515 SJ160F 200V-RECT
D6517 SJ140F 200V-RECT
D6514 D4SB56-F 15V RECT
D6513 RBC40F 135V RECT
T6501 :PIT
IC6503 DM-58 CONTROL
IC6505 SE-140N +B OVP
Q6522 2SA1309A OVP SW
D6508 MTZJ-33C
Q6520 2SA1208S +B OCP
Q6524 2SA1309A OCP LATCH
Q6521 2SC5311A OCP LATCH
PH6502 OR3171-R MAIN CONTROL
PH6503 OR3171-R MAIN SW
Q6531 2SD601A MAIN-SW
Q6526 2SB709A LATCH
Q6528 2SD601A VC-SW-2
Q6527 2SD2114 AC-RLY-DRV
Q6530 2SB709A LATCH-2
Q6532 2SD601A LATCH-1
D6501 MA111
D6537 MA111
RY6501
RY6502
JW6501 0 :CHIP
JW6503 7.5M
JW6504 7.5M
JW6505 0 :CHIP
JW6506 0 :CHIP
JW6507 0 :CHIP
JW6508 0 :CHIP
JW6509 0 :CHIP
JW6502 0 :CHIP

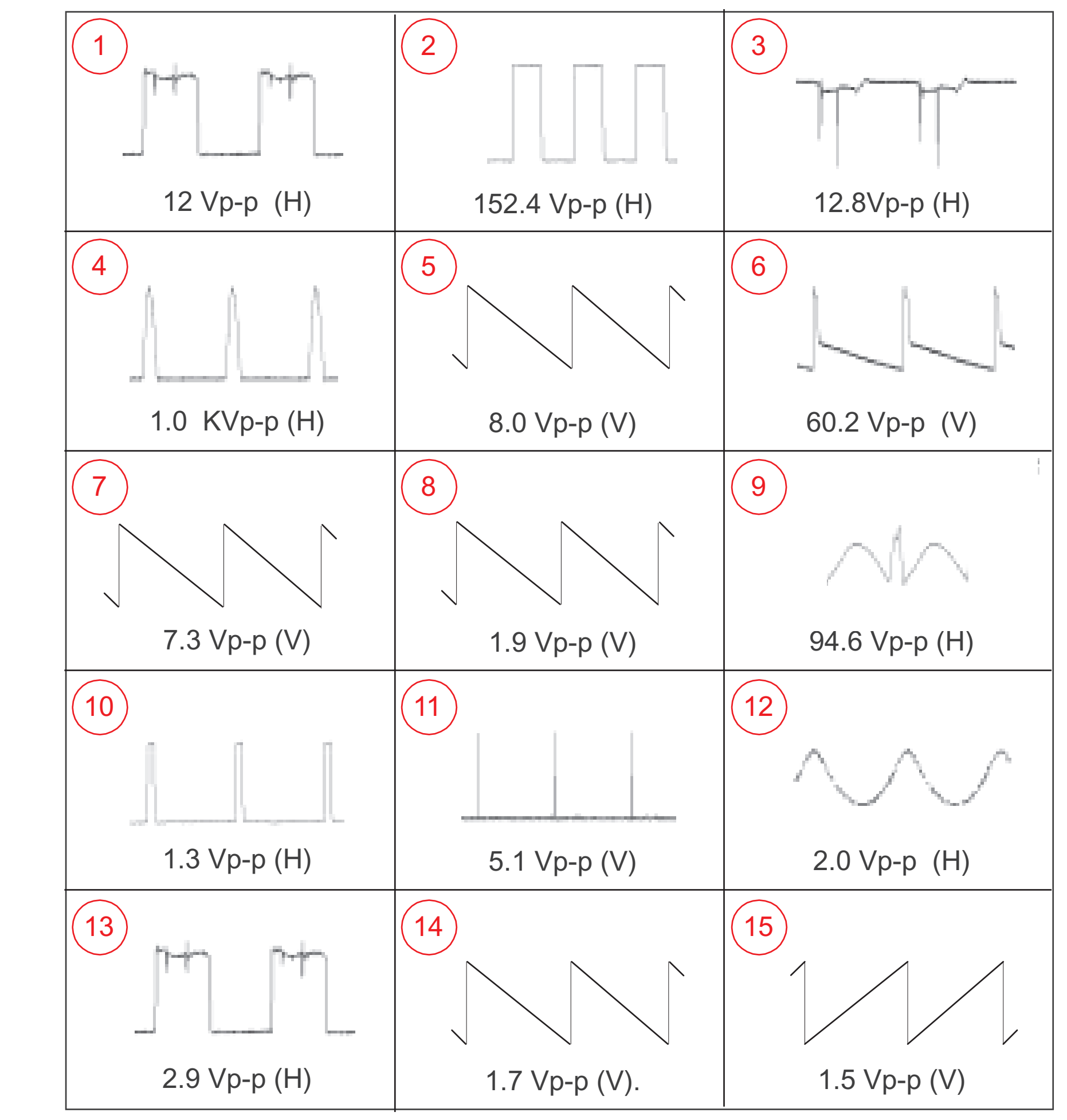
AC RECT+
PRI 15V
SUB 7V
STBY 5V
MAIN 12V
MAIN 5V
MAIN 9V
33V
200V
135V
+15V
-15V
+B OCP
200V-OCP
AU +24V
AU GND
P-SW(-)
MAIN RLY
AC RLY
CLKO/B CLK
DATO/B DAT
NVM5V
W.P
TO P2
MAIN RLY
STBYSV
MAIN12V
MAIN5V
MAIN9V

9-965-916-02<HA3>D P1

## D BOARD SCHEMATIC DIAGRAM (2 OF 3)




## D BOARD WAVEFORMS



D BOARD SCHEMATIC DIAGRAM (3 OF 3)

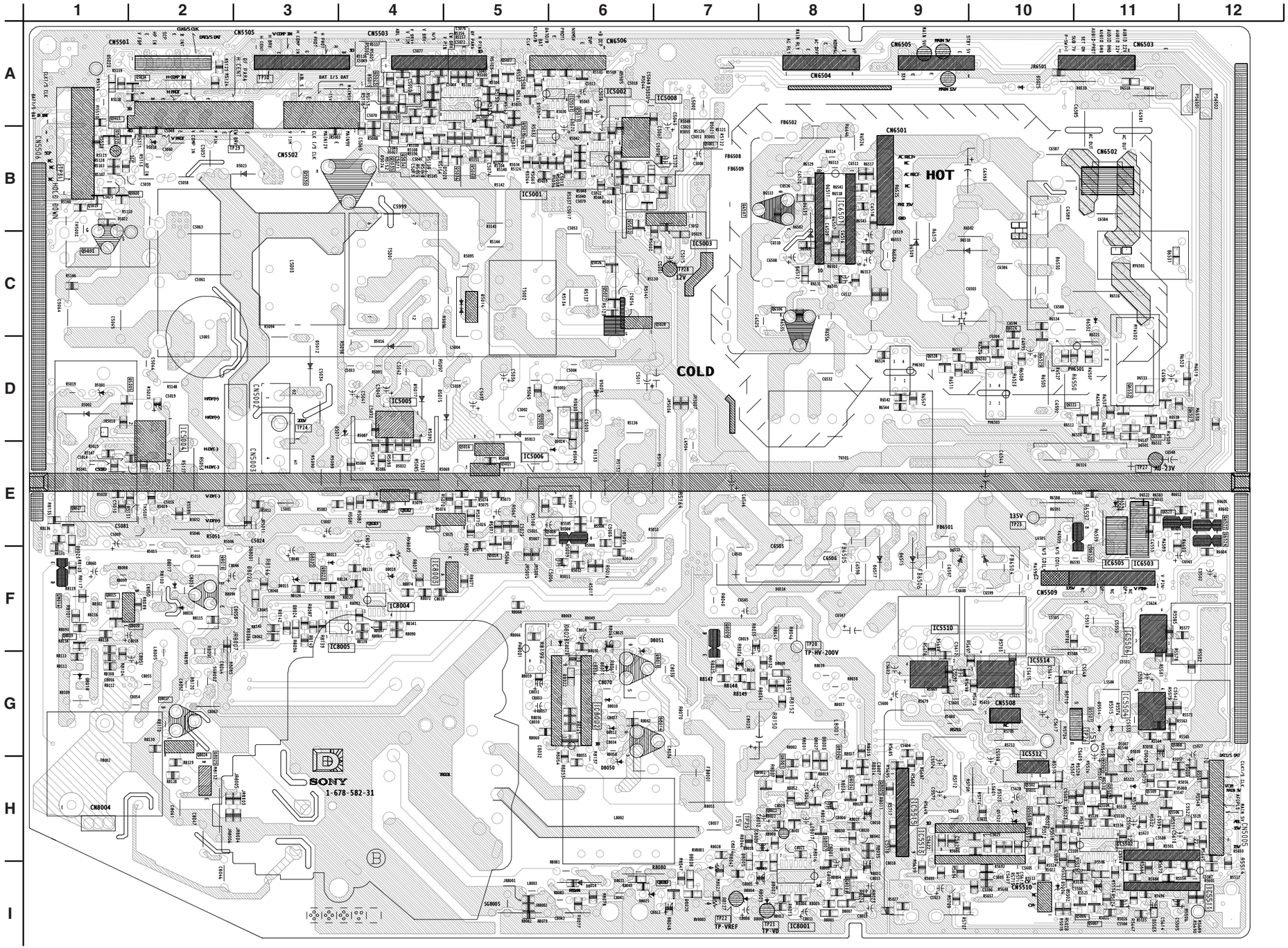
# D (3/3)
DEFLECTION

IC8001 NJM2901M PROT-DETECT-1
IC8002 MCZ3001D DRIVER
IC8003 μPC1093J-1 CONTROL
IC8004 NJM2904M BUFF
T8001 NX-6000 :RHT
T8002 :DFT
PH8001 ON3171-R HV FEEDBACK
L8001 10μH
L8002 107μH
Q8001 2SD601A BUFF
Q8002 2SD601A HV-STOP-3
Q8003 2SD601A HV-STOP-2
Q8004 2SD601A HV-STOP-4
Q8007 2SD601A IK-PROT2
Q8008 2SD601A IK-PROT1
Q8009 2SA1091 +B-OCP
Q8010 2SD601A VD PROT
Q8011 2SD601A LATCH-2
Q8013 DTA123U STOPPER
Q8014 IRF644G CONVERTER
Q8015 2SC2688 DF ON/OFF SW1
Q8016 2SA1776 DF ON/OFF SW2
Q8018 2SC3460K DF OUT
Q8019 DTC144EKA DF PROT
Q8020 2SD601A IWER
Q8021 2SD709A DF-DRV-2
Q8022 2SD601A DF-DRV-1
Q8023 2SD601A IWER
D8001 RA111 LATCH-2
D8003 RA111 STOPPER
D8004 MTZJ-5.1B IK-PROT-REF
D8005 RA111 IK-PROT2-SW
D8006 MTZJ-13C LIMIT
D8007 RA111 IK-PROT1-SW
D8010 DIM140 PWRP-DP
D8013 DTA123U STOPPER
D8014 RGP10G
D8016 ERA22-08TP3 S8908CR
D8017 ERA22-08TP3 DF SWRP
D8018 DIM140TA
D8019 MTZJ-15B
D8020 RA111
D8021 RA111
D8022 RA111
D8026 RA111
D8027 RA111
D8028 1SS133
D8029 RA111 BIAS
D8050 MTZJ-15
D8051 MTZJ-15
D8015 MTZJ-33B
D8009 25A1091 +B-OCP
FB8001 0-4500
SG8002
SG8005
RV8001 20k
RV8002 2k
+135V
+15V
200V
200V-OCP
HOLD DOWN
HV-PROT-ADJ
DF SW
DF DRV
ABL
AFC-PLS

# D

[POWER SUPPLY, AC RECT, H/V DRIVE, H/V DY, DEFLECTION]

## COMPONENT SIDE



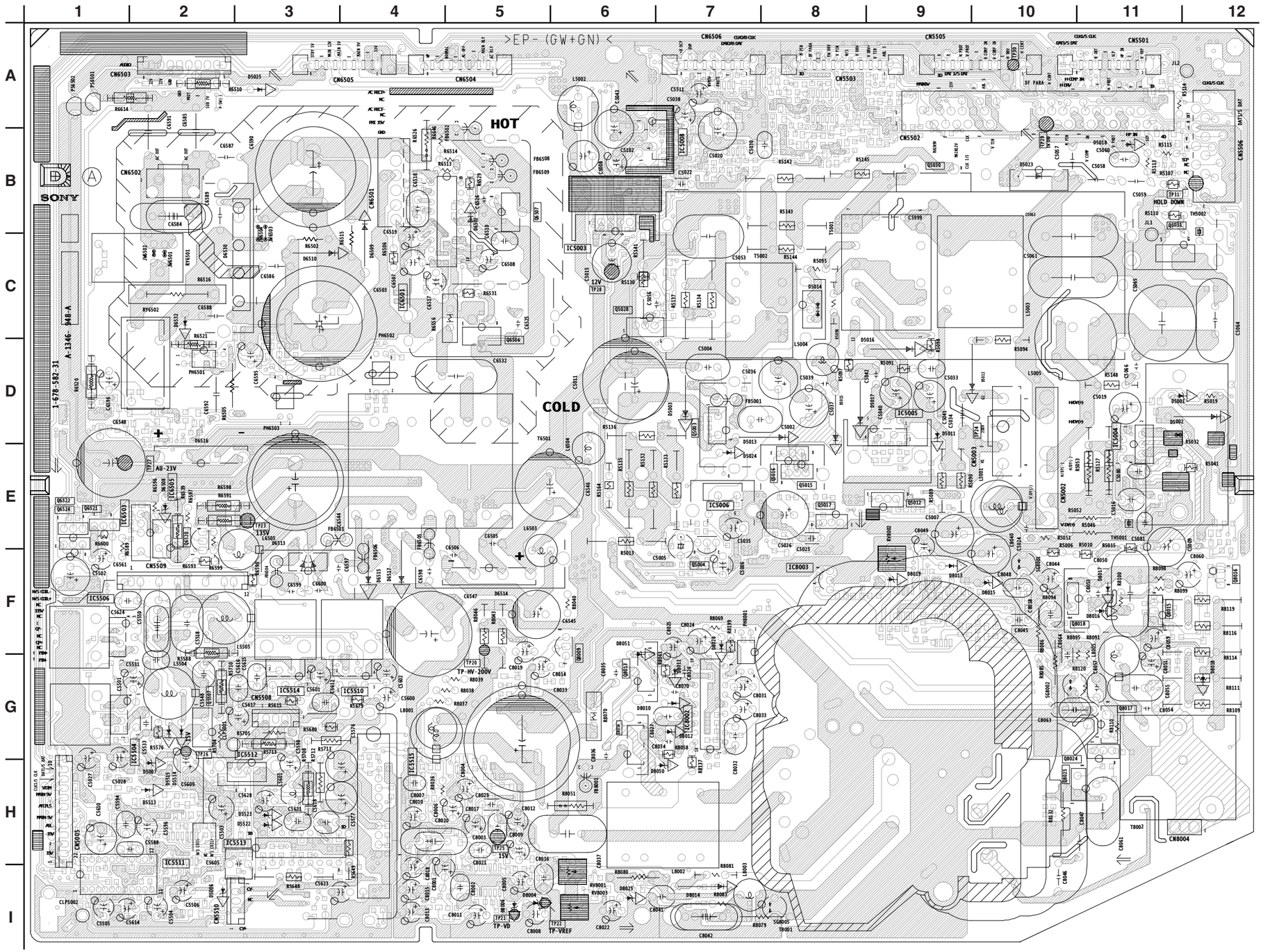

## D BOARD LOCATOR LIST (COMPONENT SIDE)

| DIODE | | IC | |
|---|---|---|---|
| D5001 | D-12 | IC5004 | D-11 |
| D5002 | D-12 | IC5005 | D-9 |
| D5003 | D-7 | IC5006 | E-7 |
| D5006 | I-2 | IC5504 | H-2 |
| D5007 | H-2 | IC5506 | F-1 |
| D5011 | D-9 | IC5510 | G-4 |
| D5012 | D-10 | IC5511 | I-2 |
| D5013 | D-7 | IC5512 | H-3 |
| D5014 | C-8 | IC5513 | H-3 |
| D5015 | D-8 | IC5514 | G-3 |
| D5016 | C-9 | IC5515 | H-4 |
| D5017 | D-9 | IC6501 | C-4 |
| D5018 | B-11 | IC6503 | E-2 |
| D5023 | B-10 | IC6505 | E-2 |
| D5024 | E-7 | IC8002 | G-7 |
| D5025 | A-3 | IC8003 | F-8 |
| D5513 | H-2 | **TRANSISTOR** | |
| D5514 | H-2 | Q5003 | D-7 |
| D5515 | H-2 | Q5004 | F-7 |
| D5522 | H-3 | Q5030 | B-9 |
| D5523 | H-3 | Q5031 | B-11 |
| D6502 | C-5 | Q5507 | G-2 |
| D6508 | E-2 | Q6507 | B-5 |
| D6509 | C-4 | Q6521 | E-1 |
| D6510 | C-3 | Q6522 | E-1 |
| D6513 | F-3 | Q6524 | E-1 |
| D6514 | G-6 | Q8009 | G-6 |
| D6515 | F-4 | Q8013 | G-6 |
| D6516 | D-2 | Q8014 | G-6 |
| D6517 | F-4 | Q8015 | F-11 |
| D6532 | C-2 | Q8018 | F-11 |
| D8004 | I-5 | | |
| D8006 | I-5 | | |
| D8017 | F-11 | | |
| D8018 | G-12 | | |
| D8019 | F-9 | | |
| D8025 | I-6 | | |

# D

[POWER SUPPLY, AC RECT, H/V DRIVE, H/V DY, DEFLECTION]

## CONDUCTOR SIDE




## D BOARD LOCATOR LIST (CONDUCTOR SIDE)

| DIODE | | D8021 | I-6 | Q5033 | B-4 |
|---|---|---|---|---|---|
| D5004 | E-6 | D8022 | G-6 | Q5034 | B-4 |
| D5005 | F-6 | D8026 | G-5 | Q5035 | B-4 |
| D5008 | H-12 | D8027 | G-8 | Q5036 | B-5 |
| D5009 | H-12 | IC | | Q5037 | A-5 |
| D5010 | H-11 | IC5001 | B-5 | Q5501 | H-10 |
| D5019 | B-3 | IC5002 | A-6 | Q5502 | H-10 |
| D5021 | B-6 | IC5003 | C-7 | Q5503 | H-10 |
| D5026 | B-4 | IC5007 | A-5 | Q5504 | H-11 |
| D5027 | B-4 | IC5008 | A-7 | Q5505 | H-11 |
| D5028 | B-4 | IC5501 | A-6 | Q5506 | H-12 |
| D5029 | C-7 | IC5502 | H-11 | Q5508 | H-11 |
| D5031 | H-10 | IC8001 | I-8 | Q5509 | H-11 |
| D5032 | E-4 | IC8004 | F-4 | Q6503 | D-10 |
| D5501 | I-12 | TRANSISTOR | | Q6506 | D-7 |
| D5502 | I-11 | Q5001 | B-7 | Q6520 | F-11 |
| D5503 | I-12 | Q5002 | B-7 | Q6526 | C-10 |
| D5505 | A-6 | Q5005 | D-2 | Q6527 | D-11 |
| D5506 | H-11 | Q5006 | I-11 | Q6528 | D-9 |
| D5507 | B-5 | Q5007 | I-11 | Q6529 | D-11 |
| D6501 | D-11 | Q5008 | G-12 | Q6530 | D-11 |
| D6507 | B-8 | Q5011 | A-6 | Q6531 | D-10 |
| D6522 | E-11 | Q5012 | E-4 | Q6532 | D-11 |
| D6530 | C-10 | Q5013 | E-4 | Q8001 | H-8 |
| D6531 | C-11 | Q5014 | E-4 | Q8002 | H-8 |
| D6533 | D-11 | Q5015 | E-5 | Q8003 | H-8 |
| D6537 | E-11 | Q5016 | E-5 | Q8004 | H-8 |
| D8002 | I-8 | Q5017 | E-4 | Q8007 | H-8 |
| D8003 | I-8 | Q5018 | B-5 | Q8008 | I-8 |
| D8005 | I-8 | Q5019 | B-1 | Q8010 | I-7 |
| D8007 | I-8 | Q5020 | B-2 | Q8016 | F-1 |
| D8009 | G-7 | Q5021 | B-2 | Q8019 | F-1 |
| D8010 | G-6 | Q5022 | B-2 | Q8020 | F-2 |
| D8013 | F-4 | Q5023 | A-4 | Q8022 | F-4 |
| D8014 | I-6 | Q5026 | C-6 | Q8023 | F-4 |
| D8016 | F-2 | Q5027 | C-6 | | |
| D8020 | I-7 | Q5028 | C-7 | | |

## D BOARD IC VOLTAGE LIST (1 OF 3)

| IC6501 | | 11 | 0.0 | 3 | 2.5 |
|---|---|---|---|---|---|
| pin | volt | 12 | 4.6 | 4 | 11.8 |
| 1 | 2.5 | 13 | N/C | 5 | GND |
| 2 | 1.8 | 14 | 163.6 | IC6505 | |
| 3 | 2.2 | 15 | 153.5 | pin | volt |
| 4 | 2.5 | 16 | 157.6 | 1 | 134.9 |
| 5 | GND | 17 | N/C | 2 | 15.7 |
| 6 | 0.0 | 18 | 1.7 | 3 | GND |
| 7 | 4.0 | IC6503 | | | |
| 8 | 17.2 | pin | volt | | |
| 9 | GND | 1 | 134.0 | | |
| 10 | 10.4 | 2 | N/C | | |

All voltages are in V.

## D BOARD TRANSISTOR VOLTAGE LIST (1 OF 3)

| | B | C | E |
|---|---|---|---|
| Q6503 | 0.0 | 2.5 | 0.0 |
| Q6520 | 131.0 | 0.0 | 132.0 |
| Q6521 | 0.0 | 2.1 | GND |
| Q6522 | 15.7 | GND | 15.7 |
| Q6524 | 2.1 | 0.4 | 4.9 |
| Q6526 | 5.9 | 0.0 | 5.9 |
| Q6527 | 0.6 | 0.0 | 0.0 |
| Q6528 | 0.6 | 0.0 | 0.0 |
| Q6529 | 0.0 | 5.9 | 0.0 |
| Q6530 | 4.7 | 0.0 | 4.7 |
| Q6531 | 0.6 | 0.0 | GND |
| Q6532 | 0.0 | 4.7 | GND |

| | D | G | S |
|---|---|---|---|
| Q6506 | 4.7 | 149.2 | 0.0 |
| Q6507 | 154.4 | 303.3 | 150.0 |

All voltages are in V.

## D BOARD IC VOLTAGE LIST (2 OF 3)

| **IC5001** | | 5 | 0.2 | 14 | 0.6 | 12 | GND | 6 | 4.2 | 8 | 5.0 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| pin | volt | 6 | 16.2 | **IC5008** | | 13 | 3.7 | 7 | GND | 9 | 5.0 |
| 1 | 11.0 | 7 | 1.2 | pin | volt | 14 | 0.0 | 8 | 4.2 | 10 | 12.1 |
| 2 | 11.0 | **IC5005** | | 1 | 9.1 | **IC5504** | | 9 | 1.9 | 11 | 4.0 |
| 3 | 1.7 | pin | volt | 2 | 12.0 | pin | volt | 10 | 4.4 | 12 | 5.0 |
| 4 | GND | 1 | 100.0 | 3 | GND | 1 | 4.2 | 11 | 4.4 | 13 | 5.0 |
| 5 | 4.0 | 2 | 99.7 | 4 | 5.0 | 2 | 4.2 | 12 | 6.4 | 14 | 0.5 |
| 6 | 4.0 | 3 | 95.3 | 5 | 5.2 | 3 | GND | 13 | N/C | 15 | 1.1 |
| 7 | 5.9 | 4 | 100.0 | **IC5501** | | 4 | 5.5 | 14 | 8.2 | 16 | 4.6 |
| 8 | 12.1 | 5 | 104.6 | pin | volt | 5 | 9.0 | 15 | 1.9 | 17 | 4.6 |
| **IC5002** | | **IC5006** | | 1 | GND | **IC5506** | | 16 | 4.0 | 18 | GND |
| pin | volt | pin | volt | 2 | 5.0 | pin | volt | 17 | 4.9 | **IC5514** | |
| 1 | 0.1 | I | 7.8 | 3 | 5.0 | 1 | 4.3 | 18 | N/C | pin | volt |
| 2 | 6.0 | G | GND | 4 | GND | 2 | 4.3 | 19 | 3.6 | 1 | 0.3 |
| 3 | 3.8 | O | 6.3 | 5 | 4.6 | 3 | -15.5 | 20 | 9.0 | 2 | 0.3 |
| 4 | GND | VCC | 2.7 | 6 | 4.6 | 4 | 4.4 | 21 | 0.9 | 3 | -12.0 |
| 5 | 2.3 | **IC5007** | | 7 | 5.0 | 5 | 9.0 | 22 | 3.4 | 4 | 0.7 |
| 6 | 3.7 | pin | volt | 8 | 5.0 | **IC5510** | | **IC5512** | | 5 | 9.0 |
| 7 | 2.9 | 1 | 3.1 | **IC5502** | | pin | volt | pin | volt | **IC5515** | |
| 8 | 12.1 | 2 | 0.6 | pin | volt | 1 | 0.6 | I | -15.8 | pin | volt |
| **IC5003** | | 3 | 12.1 | 1 | 5.4 | 2 | 0.6 | G | GND | 1 | 3.4 |
| pin | volt | 4 | 1.5 | 2 | 2.4 | 3 | -11.9 | O | -12.0 | 2 | 3.4 |
| I | 15.6 | 5 | 2.3 | 3 | 12.1 | 4 | 2.4 | **IC5513** | | 3 | -9.6 |
| G | GND | 6 | 3.9 | 4 | 3.6 | 5 | 12.1 | pin | volt | 4 | -15.3 |
| O | 12.1 | 7 | 2.8 | 5 | 3.4 | **IC5511** | | 1 | 4.5 | 5 | GND |
| **IC5004** | | 8 | 0.0 | 6 | 3.4 | pin | volt | 2 | 4.9 | 6 | 12.0 |
| pin | volt | 9 | 3.0 | 7 | 3.9 | 1 | 4.6 | 3 | 4.9 | 7 | -14.0 |
| 1 | 1.2 | 10 | 1.4 | 8 | 1.0 | 2 | 4.6 | 4 | 4.6 | 8 | 2.7 |
| 2 | 15.6 | 11 | 6.1 | 9 | 1.0 | 3 | 4.0 | 5 | 5.0 | 9 | GND |
| 3 | -12.6 | 12 | GND | 10 | 0.0 | 4 | 4.2 | 6 | 5.0 | All voltages are in V. | |
| 4 | -14.5 | 13 | 2.5 | 11 | 0.0 | 5 | 9.0 | 7 | N/C | | |

## D BOARD TRANSISTOR VOLTAGE LIST (2 OF 3)

| | **B** | **C** | **E** | | **B** | **C** | **E** | | **B** | **C** | **E** | | **B** | **C** | **E** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Q5001 | 2.9 | 12.0 | 3.3 | Q5014 | 6.6 | 12.1 | 6.1 | Q5027 | 5.2 | 0.0 | 5.2 | Q5505 | 0.0 | 4.2 | GND |
| Q5002 | 2.9 | GND | 3.3 | Q5015 | 202.8 | 212.4 | 203.2 | Q5030 | 132.0 | 0.0 | GND | Q5506 | 0.3 | 3.6 | GND |
| Q5003 | 127.4 | 134.1 | 23.3 | Q5016 | 203.2 | 212.4 | 202.6 | Q5033 | 10.0 | 1.4 | 10.5 | Q5508 | 4.0 | 12.1 | 4.6 |
| Q5004 | 132.0 | 0.0 | 133.0 | Q5017 | 6.5 | 164.8 | 6.1 | Q5034 | 0.0 | 1.4 | GND | Q5509 | 4.0 | GND | 4.6 |
| Q5005 | -0.5 | 15.6 | 0.1 | Q5018 | 0.6 | 1.9 | GND | Q5035 | 0.0 | 2.5 | GND | All voltages are in V. | | | |
| Q5006 | -12.0 | 1.0 | -12.6 | Q5019 | 3.7 | 12.1 | 2.9 | Q5036 | 0.1 | 5.2 | GND | | | | |
| Q5007 | 4.4 | -12.6 | 4.8 | Q5020 | 3.7 | GND | 2.9 | Q5037 | 3.1 | 12.1 | GND | | **D** | **G** | **S** |
| Q5008 | 11.9 | 0.0 | 10.7 | Q5021 | 0.4 | 9.0 | 0.5 | Q5501 | 2.4 | 12.1 | 3.7 | Q5028 | 5.2 | 33.5 | 0.0 |
| Q5011 | 0.1 | 3.9 | GND | Q5022 | 0.4 | GND | 1.1 | Q5502 | 0.5 | 5.4 | GND | Q5031 | 2.9 | 12.6 | GND |
| Q5012 | 3.7 | 97.7 | 3.2 | Q5023 | 0.4 | 3.9 | GND | Q5503 | 0.5 | 2.4 | GND | Q5507 | 5.4 | 6.9 | GND |
| Q5013 | 3.1 | GND | 3.7 | Q5026 | 5.2 | 12.1 | 5.2 | Q5504 | 0.0 | 4.0 | GND | All voltages are in V. | | | |

## D BOARD IC VOLTAGE LIST (3 OF 3)

| IC8001 | | 10 | 5.0 | 5 | GND | 16 | 99.0 | 2 | 0.9 |
|---|---|---|---|---|---|---|---|---|---|
| pin | volt | 11 | 0.1 | 6 | 0.0 | 17 | N/C | 3 | 0.9 |
| 1 | 0.1 | 12 | GND | 7 | 4.7 | 18 | 198.0 | 4 | GND |
| 2 | 0.0 | 13 | 0.1 | 8 | 15.6 | IC8003 | | 5 | 7.1 |
| 3 | 15.6 | 14 | 0.1 | 9 | 0.0 | pin | volt | 6 | 7.1 |
| 4 | 5.0 | IC8002 | | 10 | 10.4 | 1 | 2.4 | 7 | 7.1 |
| 5 | 0.0 | pin | volt | 11 | GND | 2 | GND | 8 | 15.2 |
| 6 | 5.0 | 1 | 1.6 | 12 | 4.5 | 3 | 11.0 | All voltages are in V. | |
| 7 | 0.0 | 2 | 1.8 | 13 | N/C | IC8004 | | | |
| 8 | 5.0 | 3 | 2.2 | 14 | 104.8 | pin | volt | | |
| 9 | 4.2 | 4 | 2.5 | 15 | 94.8 | 1 | 14.0 | | |

## D BOARD TRANSISTOR VOLTAGE LIST (3 OF 3)

| | B | C | E |
|---|---|---|---|
| Q8001 | 0.1 | 0.0 | GND |
| Q8002 | 0.0 | 1.6 | GND |
| Q8003 | 0.2 | 1.6 | GND |
| Q8004 | 0.0 | 1.6 | GND |
| Q8007 | 0.6 | 0.0 | GND |
| Q8008 | 0.6 | 0.0 | GND |
| Q8009 | 196.0 | 0.0 | 196.0 |
| Q8010 | 2.1 | 0.0 | GND |
| Q8015 | 0.5 | 0.0 | GND |
| Q8016 | 134.5 | 134.7 | 135.1 |
| Q8018 | -5.5 | 94.4 | GND |
| Q8019 | 3.5 | 0.0 | GND |
| Q8020 | 0.0 | 0.5 | GND |
| Q8022 | 4.6 | GND | 4.9 |
| Q8023 | 4.6 | 15.5 | 4.9 |

| | D | G | S |
|---|---|---|---|
| Q8013 | 4.6 | 94.8 | GND |
| Q8014 | 99.0 | 198.0 | 93.2 |

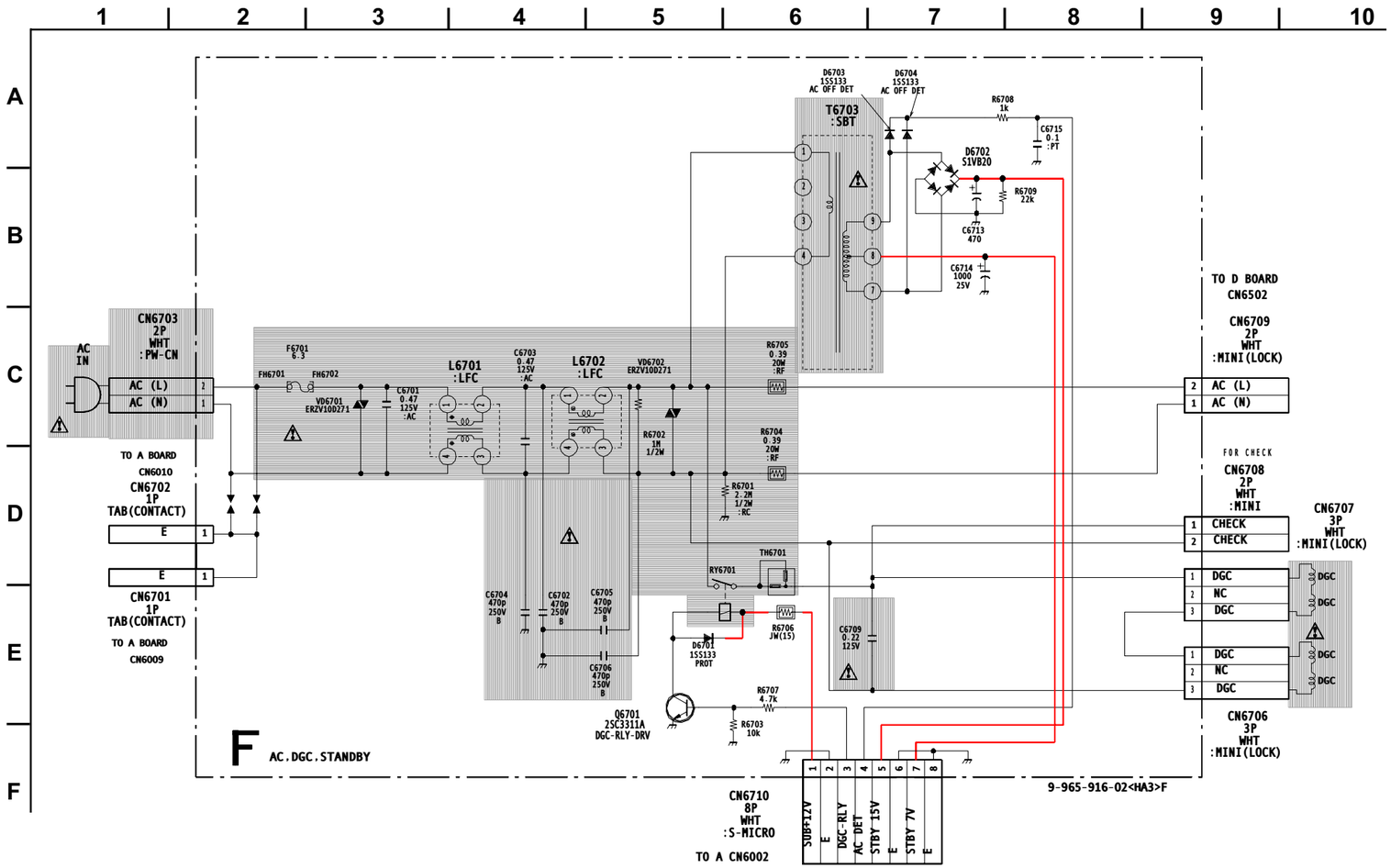
All voltages are in V.

## F BOARD TRANSISTOR VOLTAGE LIST

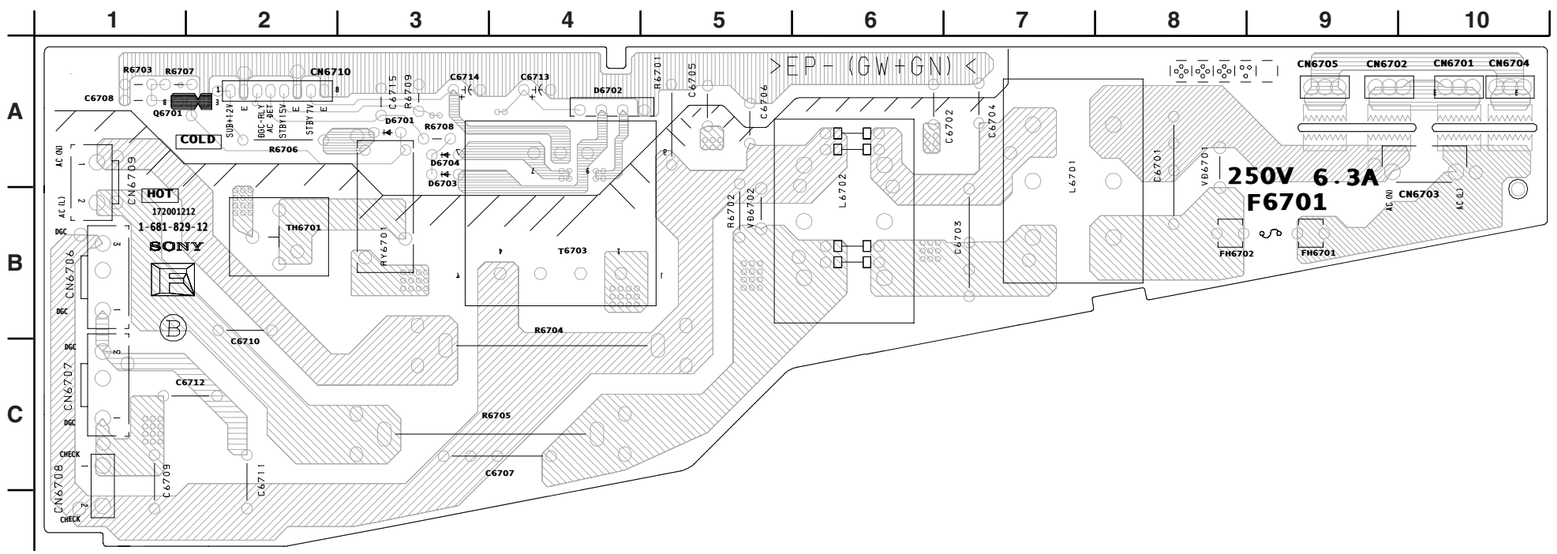
| | B | C | E |
|---|---|---|---|
| Q6701 | 0.0 | 10.2 | -0.2 |

All voltages are in V.

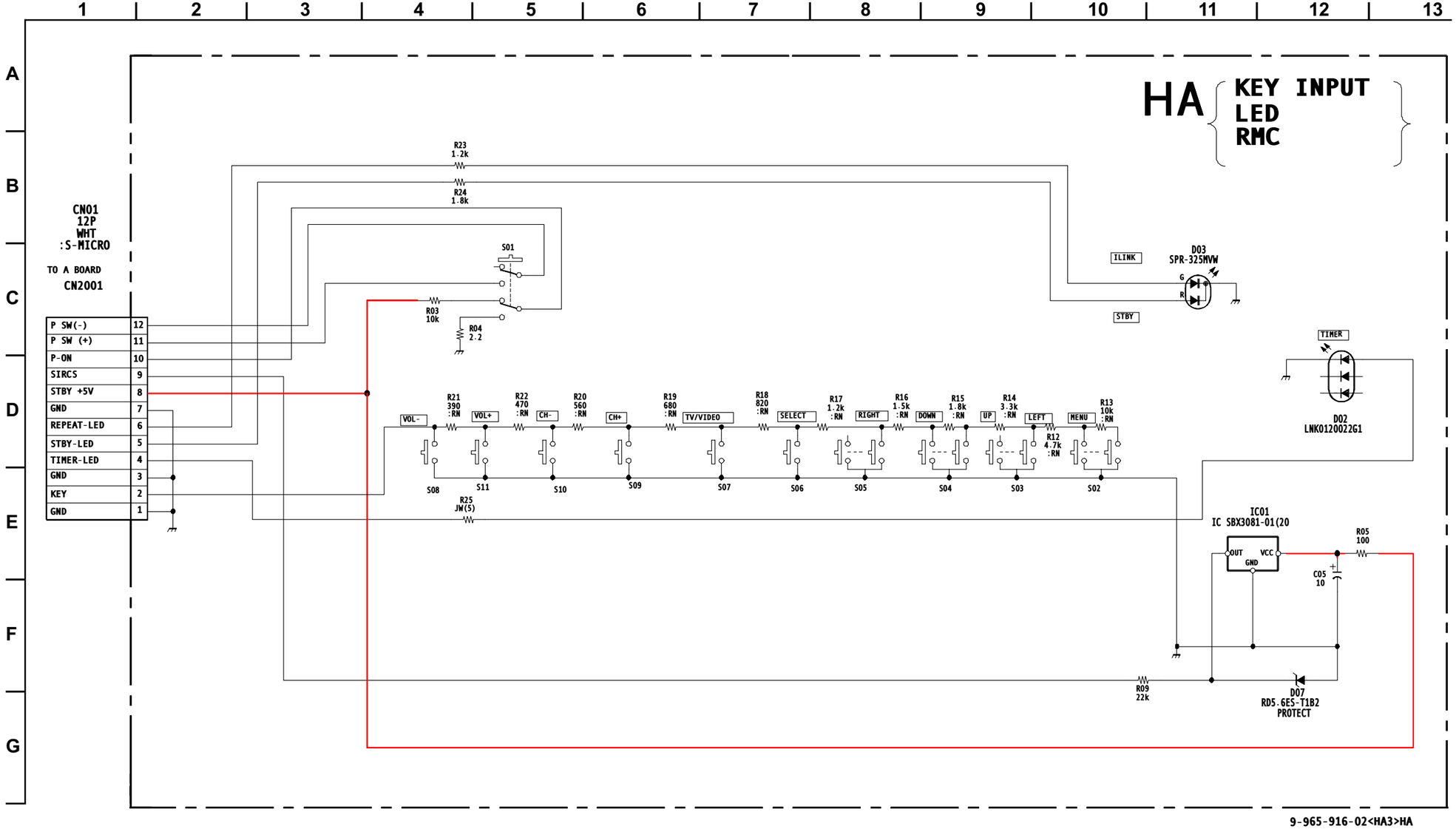
## F BOARD SCHEMATIC DIAGRAM




**F** [AC, DGC, STANDBY]



## HA BOARD SCHEMATIC DIAGRAM

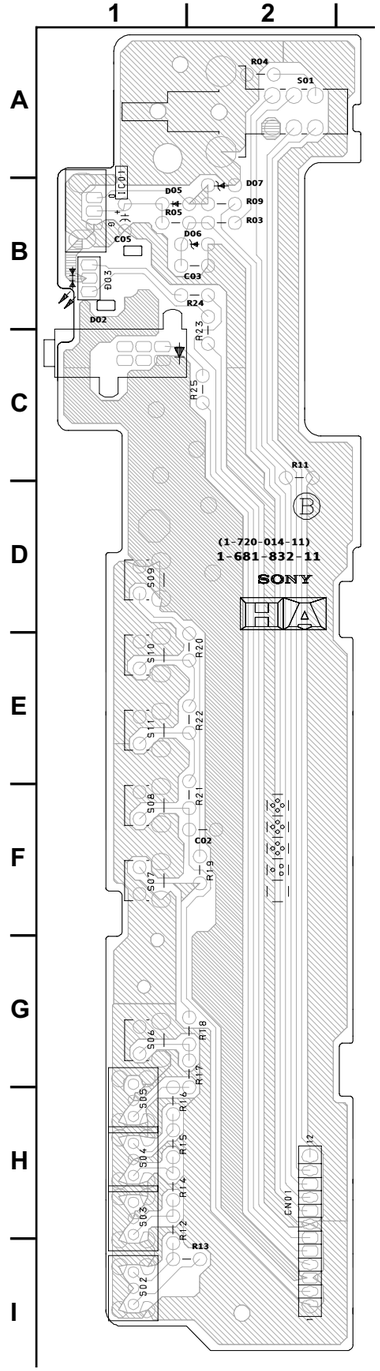



## HA BOARD IC VOLTAGELIST

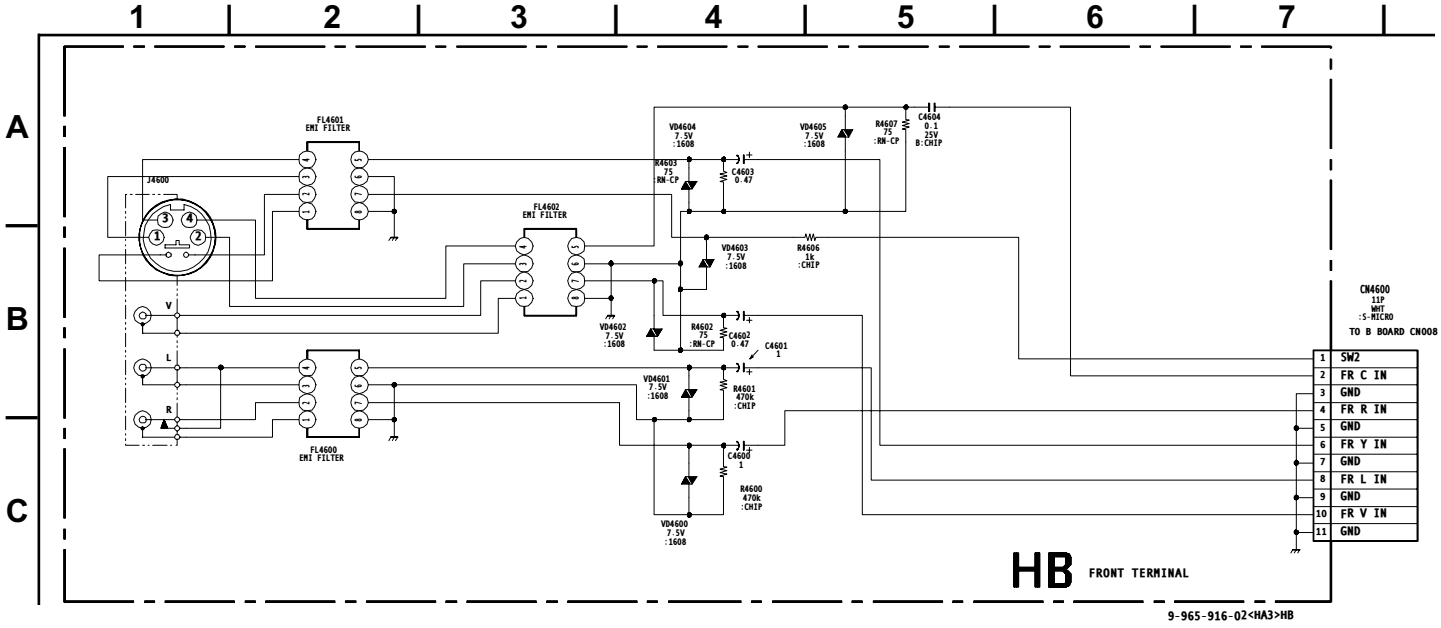
| IC01 | |
|---|---|
| pin | volt |
| 1 | 4.9 |
| 2 | 0.0 |
| 3 | 4.3 |

All voltages are in V.

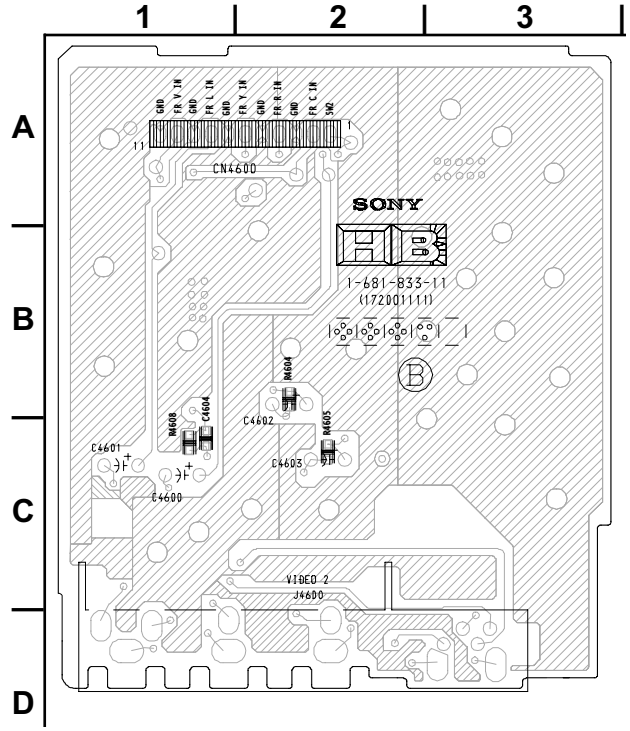
## HA [KEY INPUT, LED, RMC]



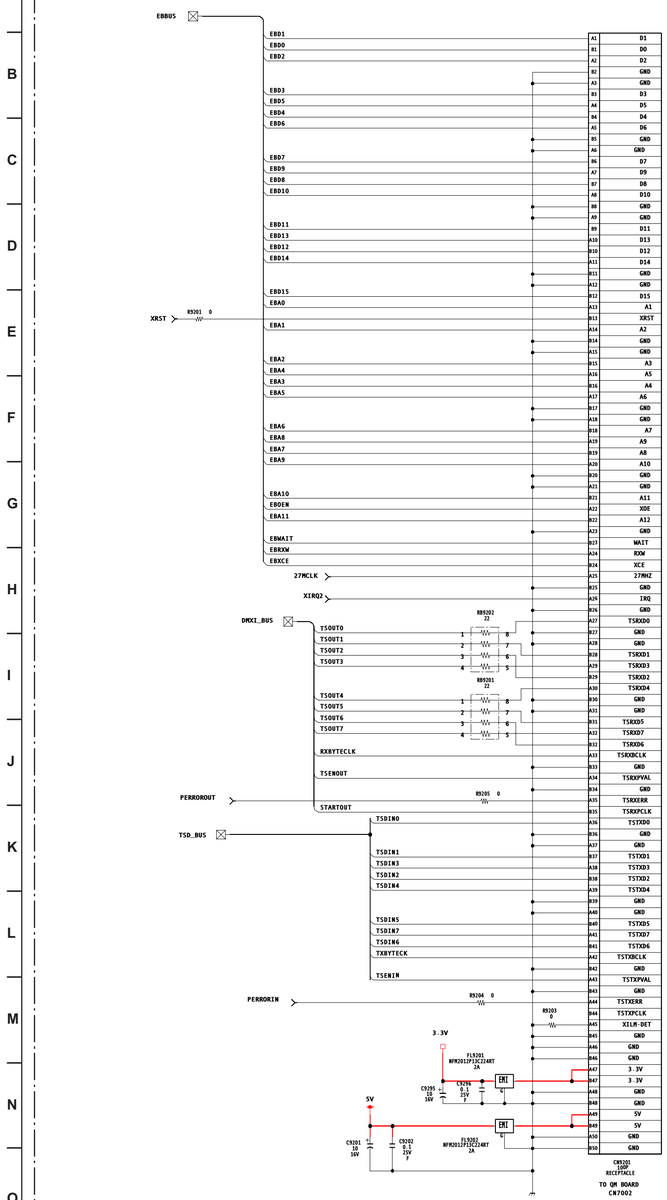
## HB BOARD SCHEMATIC DIAGRAM

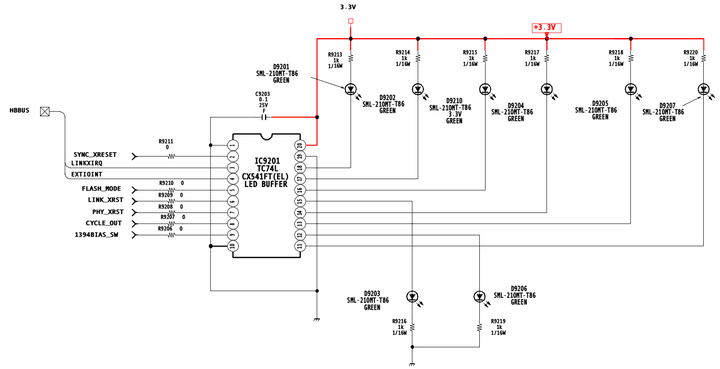



## HB [FRONT TERMINAL]



# QI BOARD SCHEMATIC DIAGRAM (1 OF 4)




## QI BOARD (1/4)

BOARD-TO-BOARD CONNECTOR

9-965-916-02<MA3>QI P1

## QI BOARD SCHEMATIC DIAGRAM (2 OF 4)

IC9202
IC CXD3203R
1.LINK
LINK LAYER LSI

IC9203
CXD1945R
1.LINK
PHYSICAL LAYER
IC

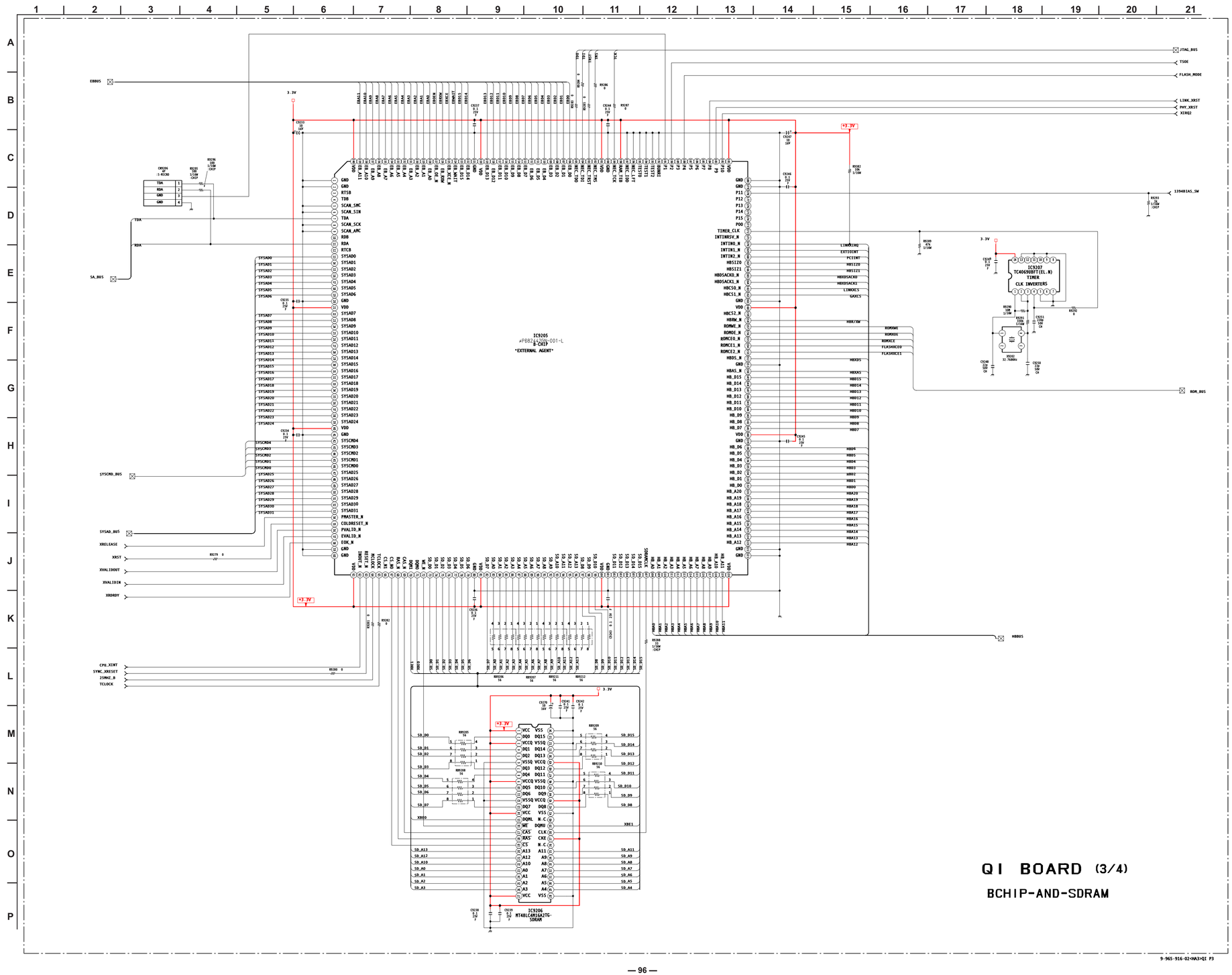
IC9204
LM358P
WR-12
CABLE BIAS
OP AMP5

ISOLATED_GND

# QI BOARD (2/4)

## LINK-AND-PHY

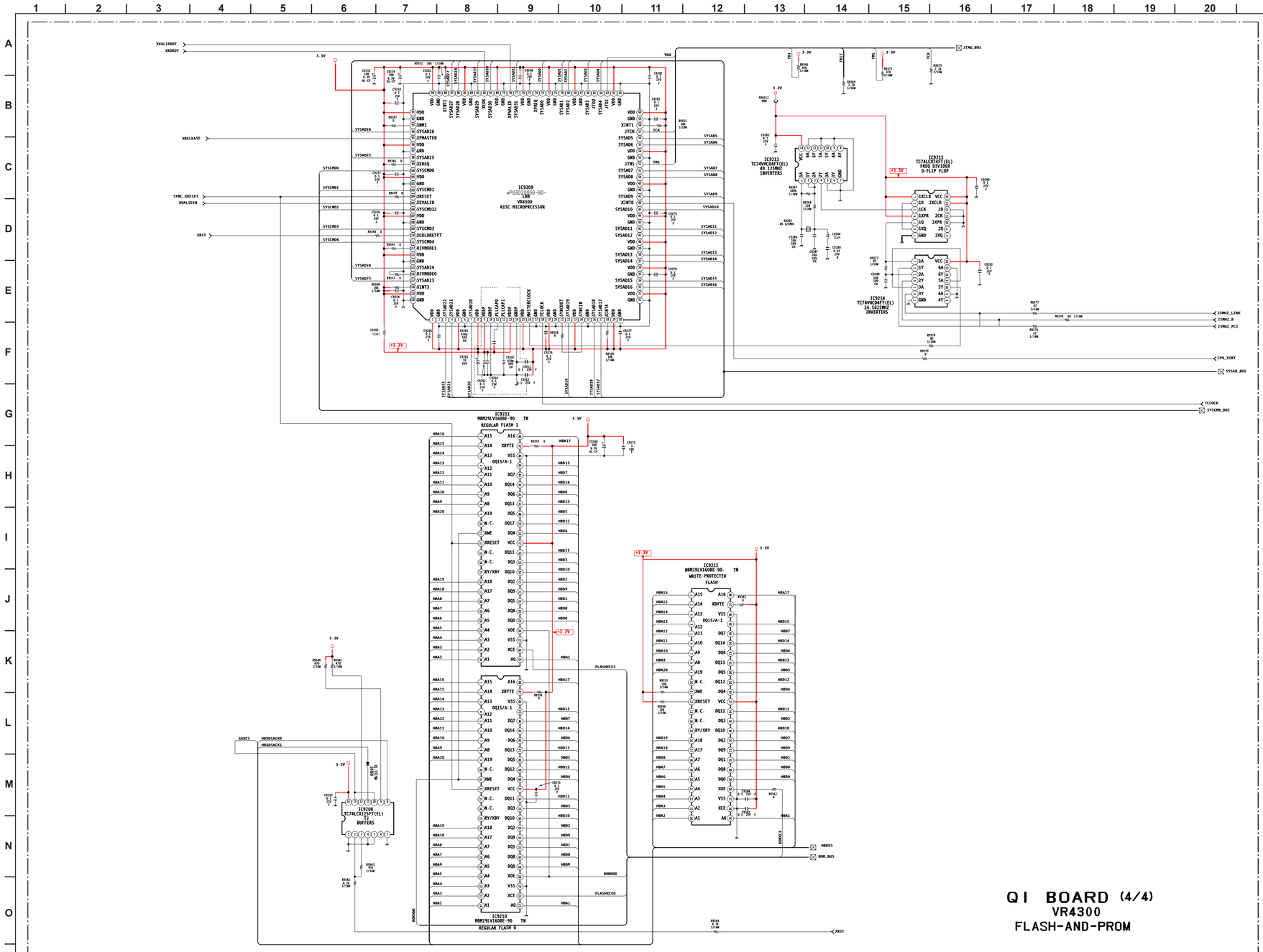
# QI BOARD SCHEMATIC DIAGRAM (3 OF 4)




## QI BOARD (3/4)

BCHIP-AND-SDRAM

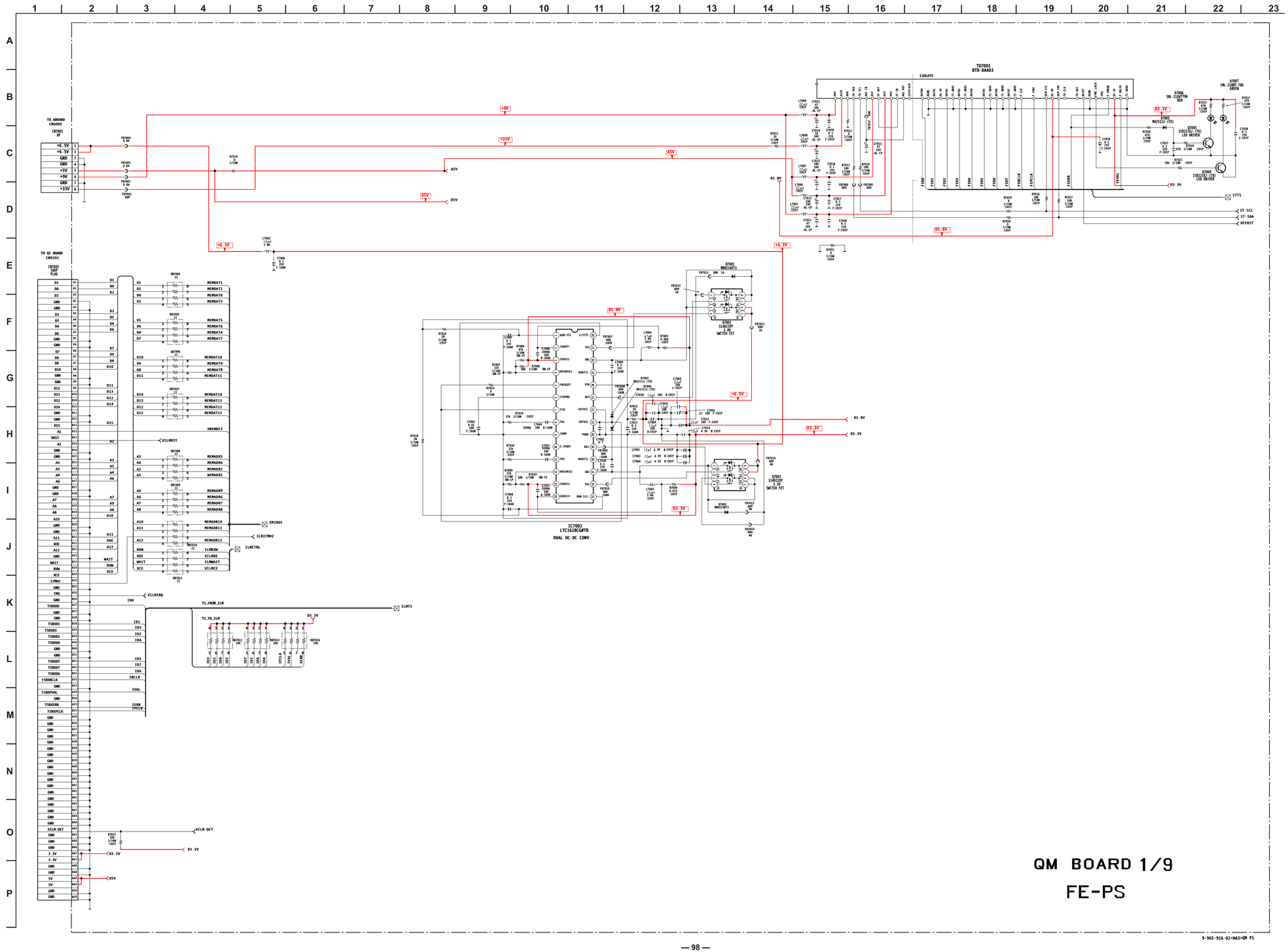
## QI BOARD SCHEMATIC DIAGRAM (4 OF 4)




# QI BOARD (4/4)
## VR4300
## FLASH-AND-PROM

9-965-916-02<MA3>Q1 P4

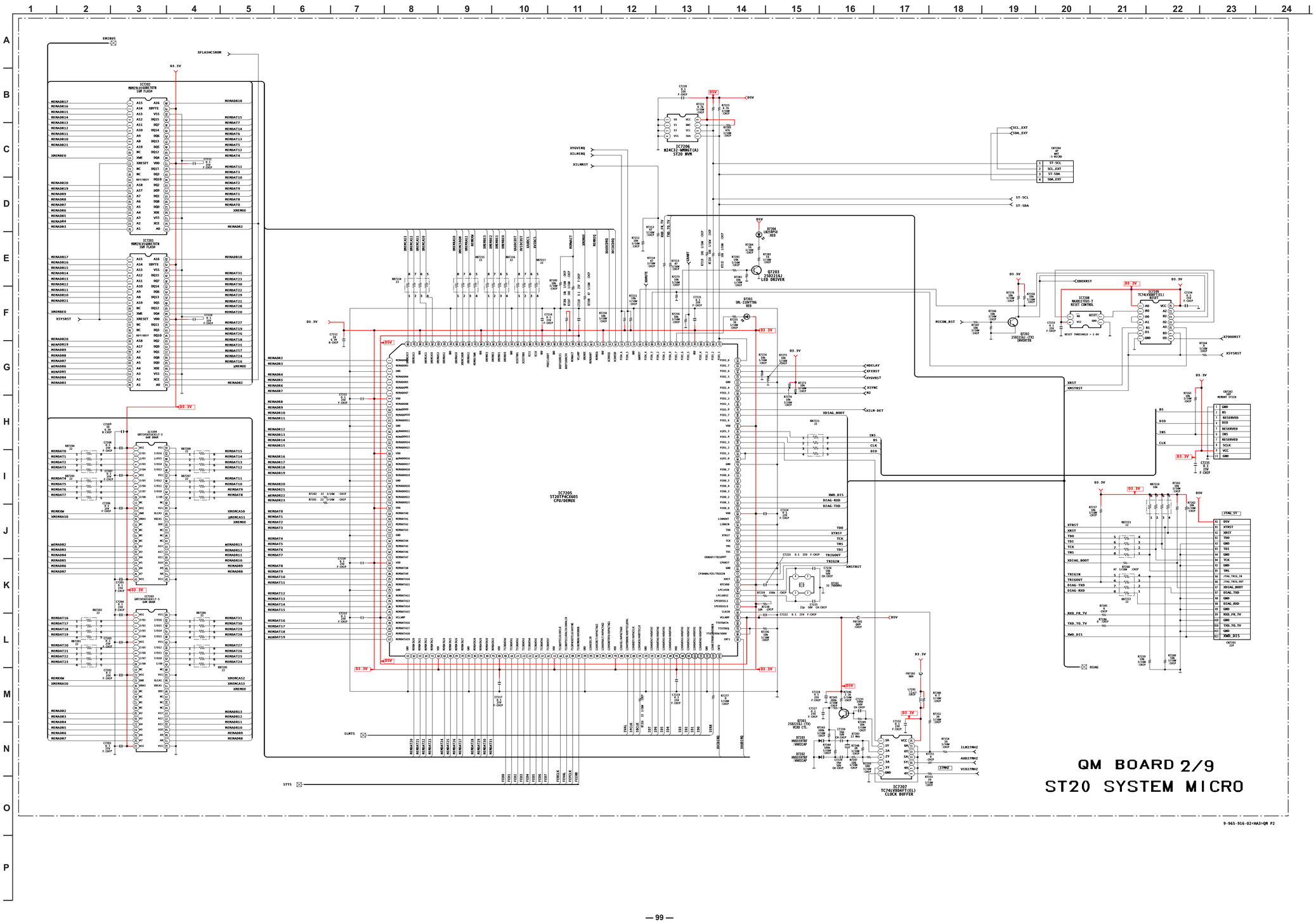
# QM BOARD SCHEMATIC DIAGRAM (1 OF 9)




QM BOARD 1/9

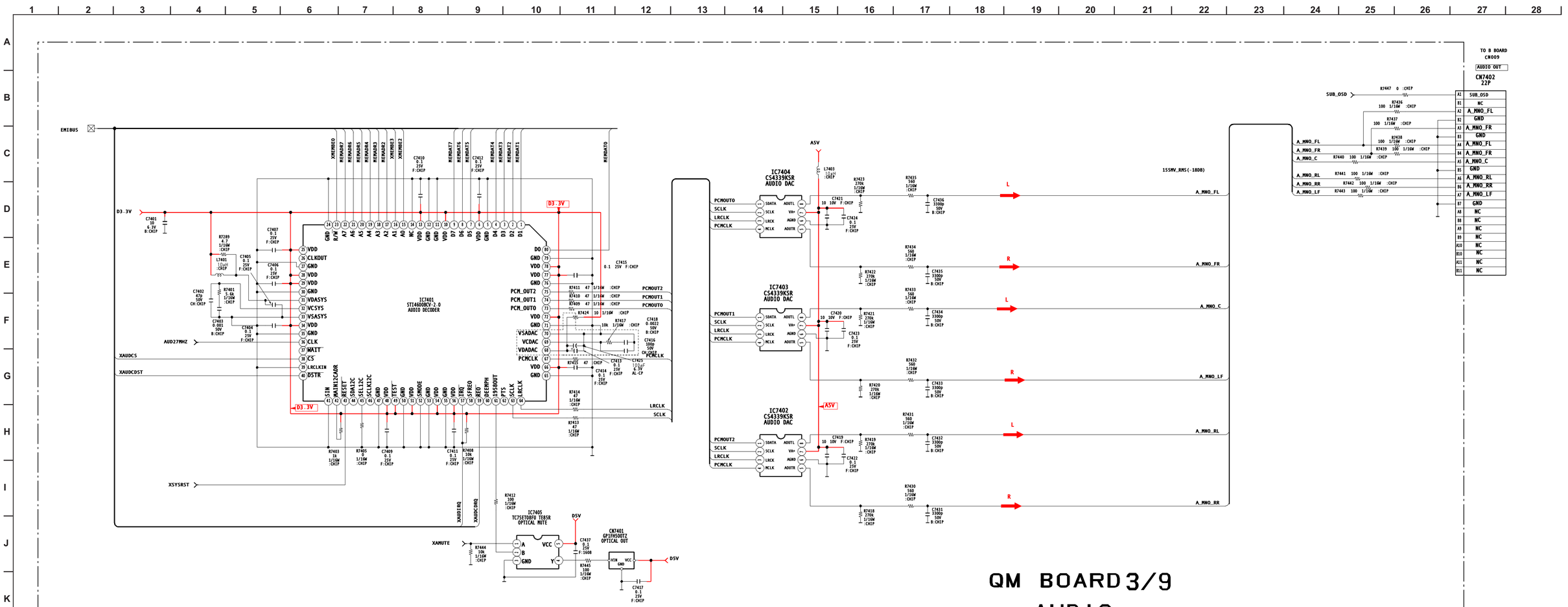
FE-PS

# QM BOARD SCHEMATIC DIAGRAM (2 OF 9)




9-965-916-02<HA3>QM P2

QM BOARD SCHEMATIC DIAGRAM (3 OF 9)




QM BOARD 3/9
AUDIO

# QM BOARD SCHEMATIC DIAGRAM (4 OF 9)

IC7602 TC59S6432CFT-80( YB) 64M-SDRAM

IC7603 STI7000AQA VIDEO DECODER

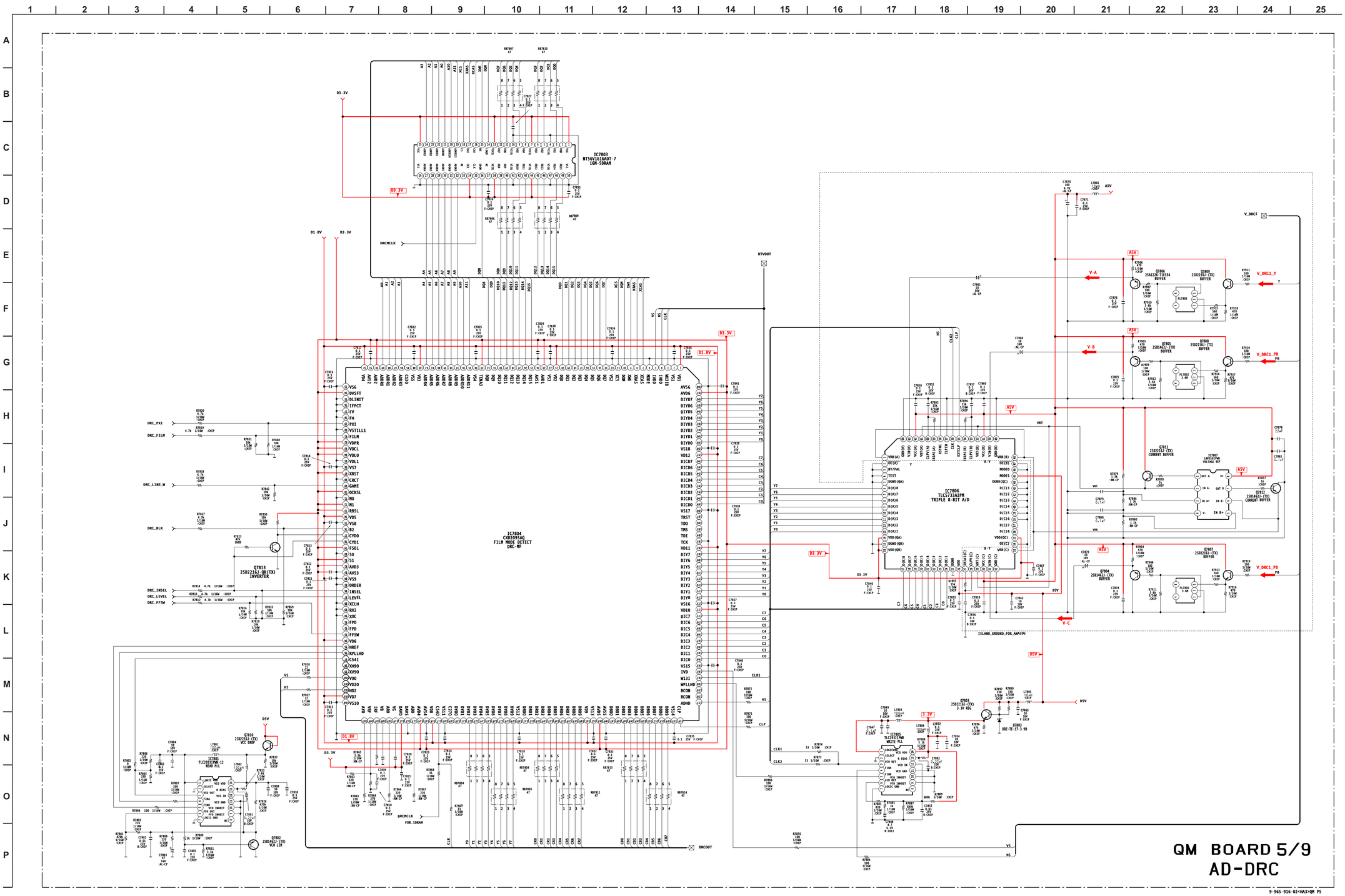
IC7604 EPM312ATC100-5 V1.0 VIDEO MUX/ CTL.PLD

XFLASHCSROM

## QM BOARD4/9
## VIDEO DECODE
## MPEG

9-965-916-02<HA3>QM P4

# QM BOARD SCHEMATIC DIAGRAM (5 OF 9)



# QM BOARD SCHEMATIC DIAGRAM (6 OF 9)

## QM BOARD WAVEFORMS (SCHEMATIC 6 OF 9)

| | |
|---|---|
| 1 — 1.5 Vp-p (H) | 2 — 1.1 Vp-p (H) |
| 3 — 1.3 Vp-p (H) | 4 — 3.5 Vp-p (H) |
| 5 — 3.3 Vp-p (V) | 6 — 1.5 Vp-p (H) |
| 7 — 1.1 Vp-p (H) | 8 — 1.1 Vp-p (H) |
| 9 — 3.4 Vp-p (H) | 10 — 3.4 Vp-p (V) |

TO B BOARD CN005 VIDEO_IN

CN8601 22P

V_MIDI_Y A1 · GND B1 · V_MIDI_PB A2 · GND B2 · V_MIDI_PR A3 · V_MIDI_HS B3 · GND A4 · V_MIDI_VS B4 · V_DRC1_Y A5 · GND B5 · V_DRC1_PB A6 · GND B6 · V_DRC1_PR A7 · GND B7 · V_DRC1_HS A8 · V_DRC1_VS B8 · MN_SB_SW A9 · A_MSK B9 · EXT_SDA A10 · GND B10 · EXT_SCL A11 · /BINT B11

V_MIDI_VS · OSD_VS · OSD_HS · V_DRC1_Y · V_DRC1_PB · V_DRC1_PR · V_DRCI

R8605 1k 1/16W :CHIP · R8604 1k 1/16W :CHIP · FB7601 00H :CHIP · FB7602 00H :CHIP · FB7601 00H :CHIP · FB7602 00H :CHIP

MN_SB_SW · A_MSK · SDA_EXT · SCL_EXT · /BINT

ASV

L8601 10uH :CHIP

R8611 100 1/16W :CHIP · R8614 820 1/16W :CHIP · R8610 100 1/16W :CHIP · R8613 820 1/16W :CHIP · R8609 100 1/16W :CHIP · R8612 820 1/16W :CHIP

C8650 47 16V :AL-CP · C8651 0.1 25V F:CHIP

Q8603 2SC2223 BUFFER · Q8602 2SC2223 BUFFER · Q8601 2SC2223 BUFFER

R8620 300 1/16W :RN-CP · R8619 300 1/16W :RN-CP · R8618 300 1/16W :RN-CP

FL8603 1kR LPF · FL8602 1kR LPF · FL8601 1kR LPF

R8628 300 1/16W :RN-CP · R8627 300 1/16W :RN-CP · R8626 300 1/16W :RN-CP

R8624 300 1/16W :RN-CP · R8623 300 1/16W :RN-CP · R8622 300 1/16W :RN-CP

R8631 1.5k 1/16W :CHIP · R8630 1.5k 1/16W :CHIP · R8629 1.5k 1/16W :CHIP

Q8608 2SA1226-T1E3E4 BUFFER · Q8607 2SA1226-T1E3E4 BUFFER · Q8606 2SA1226-T1E3E4 BUFFER

V_MIDI_Y · V_MIDI_PB · V_MIDI_PR

R8641 1k 1/16W :CHIP

C8609 1000P 50V B:CHIP · C8611 1000P 50V CH:CHIP · C8610 1000P 50V CH:CHIP · C8608 0.33 10V B:CHIP

C8622 0.1 25V F:CHIP

C8617 0.1 25V F:CHIP · C8621 0.1 25V F:CHIP · R8642 1k 1/16W :RN-CP

C8633 0.1 16V B:CHIP · C8655 0.1 25V F:CHIP · C8635 0.1 25V F:CHIP

R8638 1k 1/16W :CHIP · R8637 1k 1/16W :CHIP · R8636 1k 1/16W :CHIP

C8615 0.1 16V B:CHIP · C8656 0.1 25V F:CHIP · C8612 0.1 16V B:CHIP · C8620 0.1 25V F:CHIP · C8657 0.1 25V F:CHIP · C8613 0.1 25V F:CHIP

V_MIDI_Y · V_MIDI_PB · V_MIDI_PR

ASV

SUBAD_DXTCLP · SUBAD_FLLHOLD · SUBAD_DSYNC · SUBAD_DXTCLK · SUBAD_XDOTCLK

ADC3V · D_5V · D5V

C8632 0.1 25V F:CHIP · R8651 22 1/16W :CHIP · R8724 22 1/16W :CHIP · C8634 6.3V 0.1 B:CHIP · C8637 0.1 25V F:CHIP

R8644 150K 1/16W :CHIP · C8629 0.01 25V B:CHIP · R8649 100 1/16W :CHIP

R8603 22 · Y7 · Y6 · Y5 · Y4

IC8601 CXA3506R A/D

108 CLKIN · 110 CLKIN · 111 SYNCIN1 · 112 SYNCIN2 · 113 CLPIN · 114 DVCCPLL · 115 DGNDPLL · 116 AVCCVCO · 117 AGNDVCO · 118 RC1 · 119 RC2 · 120 AVCCIR · 121 IREF · 122 DPGND · 123 AGNDIR · 124 G/Y1N1 · 125 AVCCAMPG · 126 C/Y1N2 · 127 AGNDAMPG · 128 G/YCLP · 129 B/CbCLP · 130 R/CrCLP · 131 DPGND · 132 SOGIN1 · 133 B/Cb1N1 · 134 AVCCAMPB · 135 SOGIN2 · 136 B/Cb1N2 · 137 AGNDAMPB · 138 DPGND · 139 R/Cr1N1 · 140 AVCCAMPR · 141 R/Cr1N2 · 142 AGNDAMPR · 143 G/YOUT · 144 DAC TEST OUT

SUBAD_CLVL · Y_CL · CB_CL · CR_CL · R8608 680 1/16W :CHIP · R8607 680 1/16W :CHIP · R8606 680 1/16W :CHIP · R8616 100 1/16W :CHIP · R8615 100 1/16W :CHIP · R8617 100 1/16W :CHIP · C8604 10 6.3V B:CHIP · C8601 0.01 25V B:CHIP · C8603 0.01 25V B:CHIP · C8605 0.01 25V B:CHIP · C8602 10 6.3V B:CHIP · C8606 10 6.3V B:CHIP · C8607 0.1 25V F:CHIP

R8621 1k 1/16W :CHIP · R8625 1k 1/16W :CHIP · R8633 1k 1/16W :CHIP

Q8604 2SB1462J-(TX) BUFFER · Q8605 2SB1462J-(TX) BUFFER · Q8629 2SB1462J-(TX) BUFFER

R8648 5.6k 1/16W :CHIP · C8630 0.1 25V F:CHIP · R8643 1k 1/16W :CHIP · R8646 1k 1/16W :CHIP · R8647 10k 1/16W :CHIP · R8645 1k 1/16W :CHIP · R8650 10k 1/16W :CHIP

C8631 0.1 16V B:CHIP · R8653 10k 1/16W :CHIP · R8652 10k 1/16W :CHIP · C8633 0.1 25V F:CHIP · C8635 1 4.7V F:CHIP · C8636 0.1 25V F:CHIP · ADC3V

SDA_M3 · SCL_M3

ISOLATED_GND · DGND

R8606 22 · R8605 22 · R8604 22 · R8602 22 · R8601 22

GA4 72 · GA3 71 · GA2 70 · GA1 69 · GA0 68 · DGNDADTTL 67 · DGNDAD3 66 · DVCCADTTL 65 · BB7 64 · BB6 63 · BB5 62 · BB4 61 · BB3 60 · DGNDAD3 59 · BB2 58 · BB1 57 · BB0 56 · DGNDADTTL 55 · DVCCADTTL 54 · BA7 53 · BA6 52 · BA5 51 · DGNDAD3 50 · BA4 49 · BA3 48 · BA2 47 · BA1 46 · BA0 45 · DGNDADTTL 44 · DGNDAD3 43 · DVCCADTTL 42 · RB7 41 · RB6 40 · RB5 39 · RB4 38 · RB3 37

3.3V REG IC8709 PQ07VZ012P · D7008 1SS355TE-17 · C8654 100 6.3V :AL-CP · C8652 47 16V :AL-CP · C8653 0.1 25V F:CHIP · R8658 3.3k 1/16W :RN-CP · R8657 3.3k 1/16W :RN-CP · R8656 1k 1/16W :RN-CP · ADC3V

L8602 4.7uH :CHIP · C8618 10 10V F:CHIP · L8603 10uH :CHIP · C8619 47 16V :AL-CP · +5VA_SUBAD · D5V

C8640 10 10V F:CHIP · C8641 10 10V F:CHIP · C8643 0.1 25V F:CHIP · C8645 0.1 25V F:CHIP · C8647 0.1 25V F:CHIP · C8649 0.1 25V F:CHIP · C8642 0.1 25V F:CHIP · C8644 0.1 25V F:CHIP · C8646 0.1 25V F:CHIP · C8648 0.1 25V F:CHIP

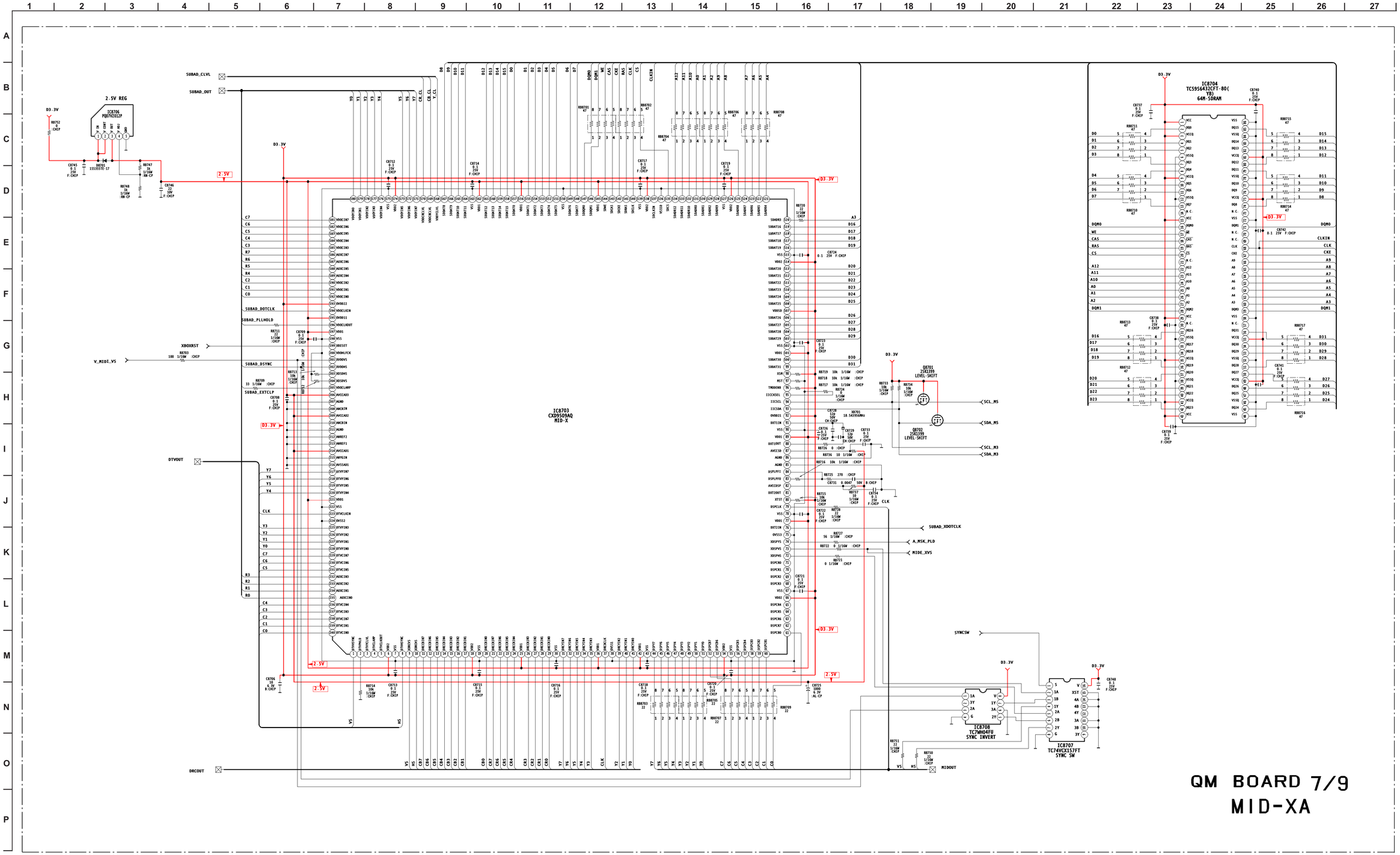
SUBAD_OUT

ASV

# QM BOARD 6/9
# HD-ADC
## QM BOARD

9-965-916-02<NA3>QM P6

# QM BOARD SCHEMATIC DIAGRAM (7 OF 9)




# QM BOARD 7/9
# MID-XA

# QM BOARD SCHEMATIC DIAGRAM (8 OF 9)

IC8801
YGV619
GRAPHICS

IC8805
THS8134BCPHP
TRIPLE
8 BIT DAC

IC8804
NT56V1616A0T-7
16 M SDRAM

IC8803
NT56V1616A0T-7
16 M SDRAM

IC8807
TC7WLVG4FT(EL)
INVERTER

CN8801
22P

QM BOARD 8/9
YGV
GRAPHICS

## QM BOARD WAVEFORMS
## (SCHEMATIC 8 OF 9)

1 — 0.6 Vp-p (H)

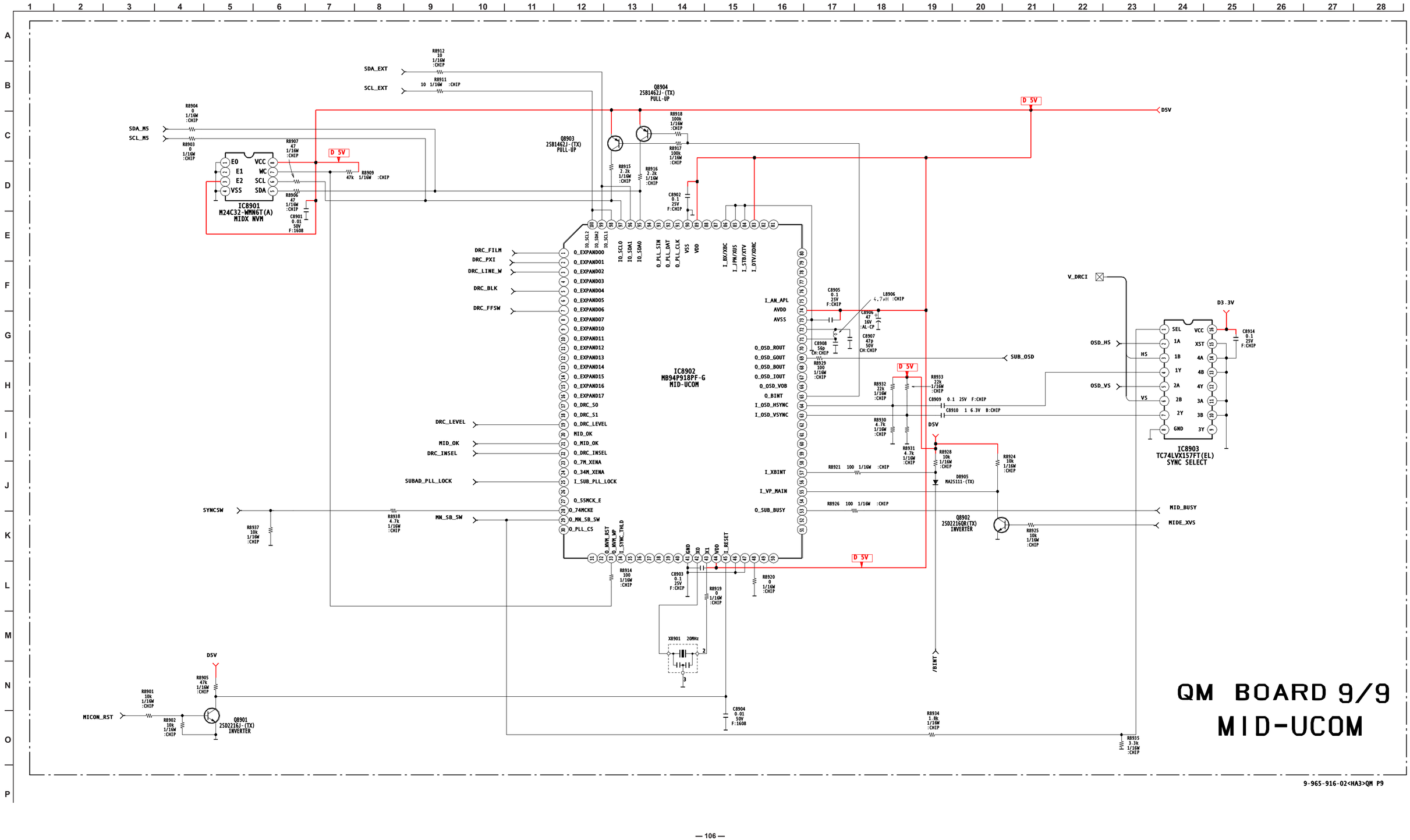
2 — 0.6 Vp-p (H)

3 — 1.5 Vp-p (H)

4 — 1.5 Vp-p (H)

5 — 1.4 Vp-p (V)

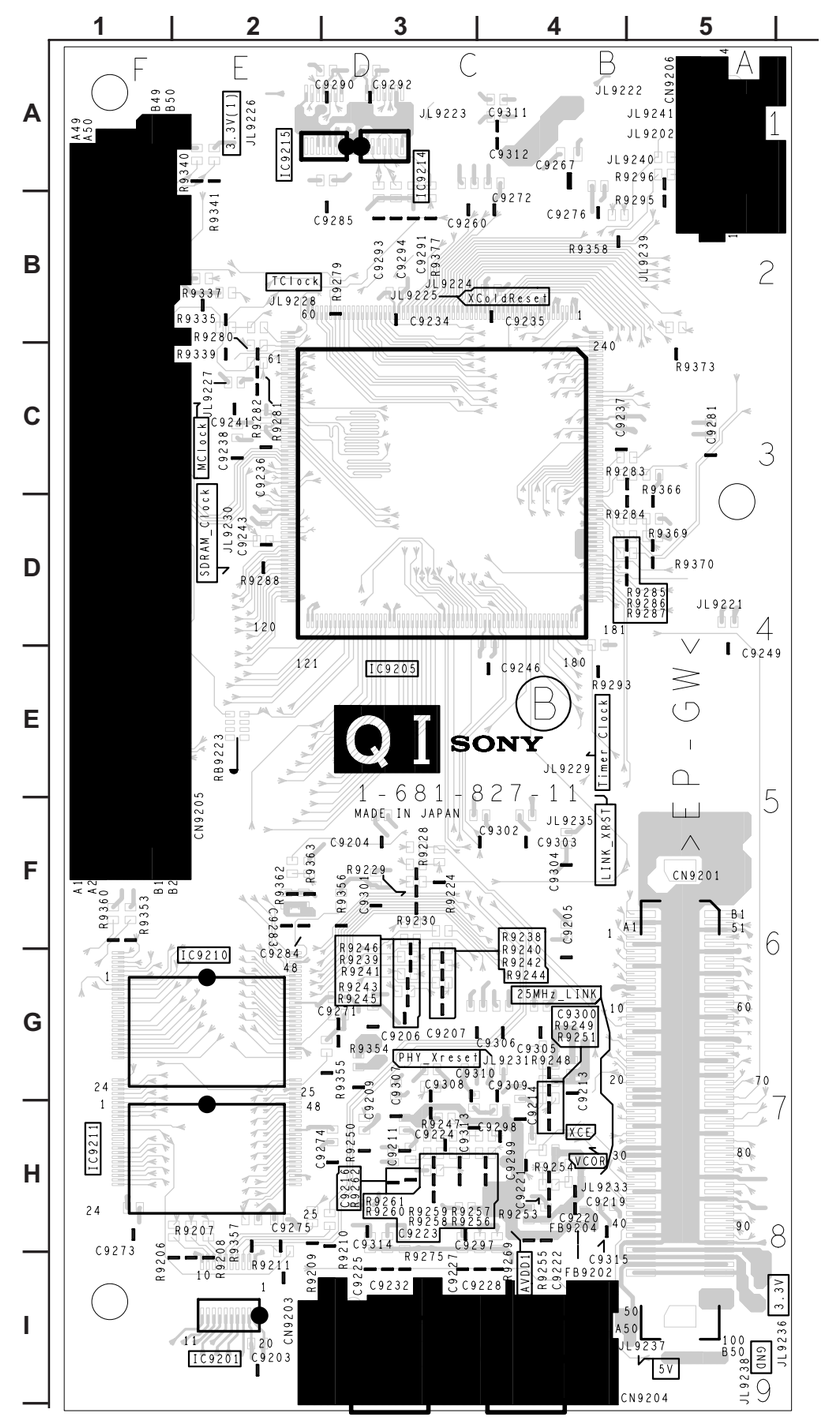
QM BOARD SCHEMATIC DIAGRAM (9 OF 9)




9-965-916-02<HA3>QM P9

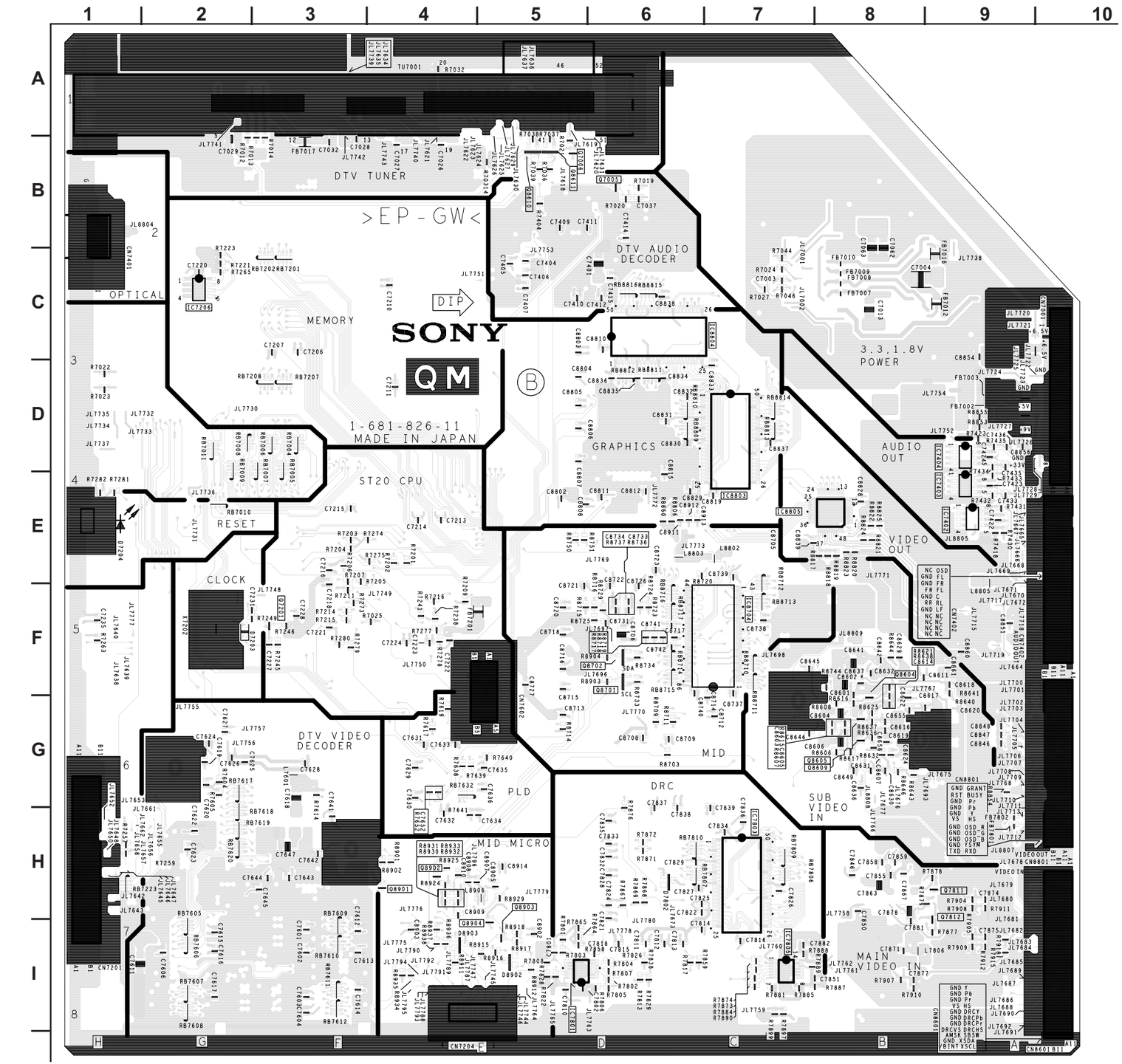
## QI [BOARD TO BOARD CONNECTOR, LINK-AND-PHY, B-CHIP-AND-SDRAM, FLASH-AND-PROM]

### COMPONENT SIDE




## QM [FE-PS, ST-20 SYSTEM MICRO, AUDIO, VIDEO DECODE, MPEG, AD-DRC, HD-ADC, MID-XA, YGV GRAPHICS, MID-UCOM]

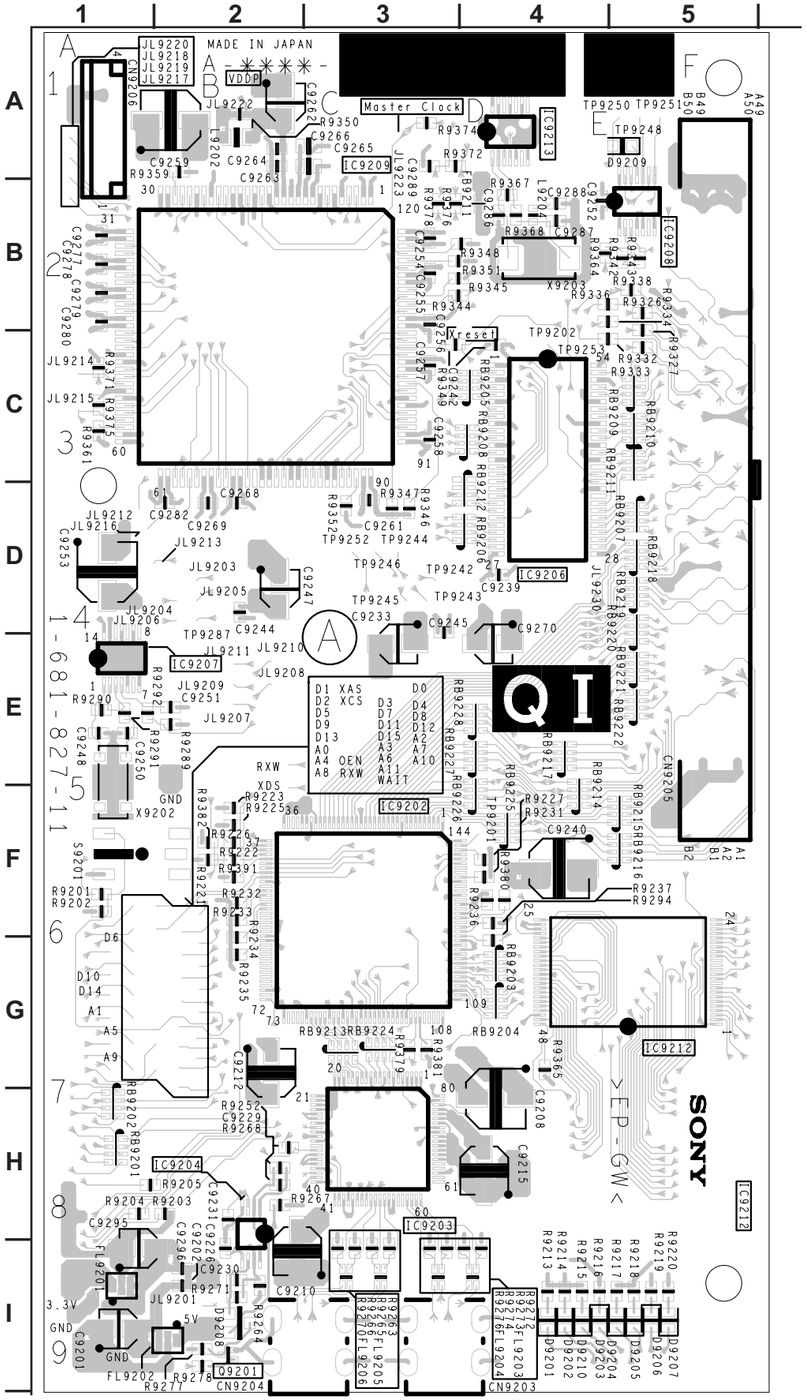
### COMPONENT SIDE



# QI

[BOARD TO BOARD CONNECTOR, LINK-AND-PHY, B-CHIP-AND-SDRAM, FLASH-AND-PROM]

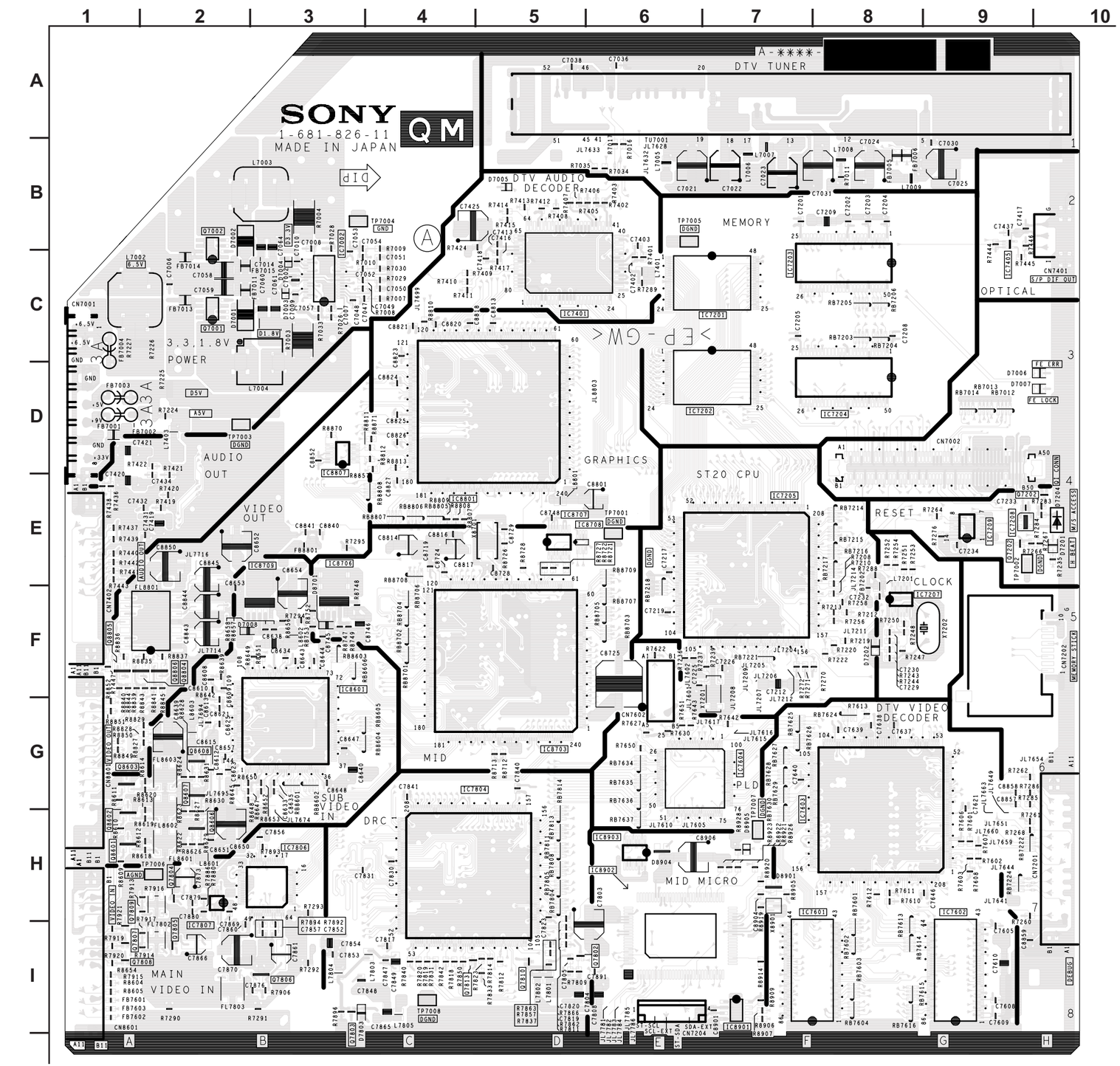
## CONDUCTOR SIDE



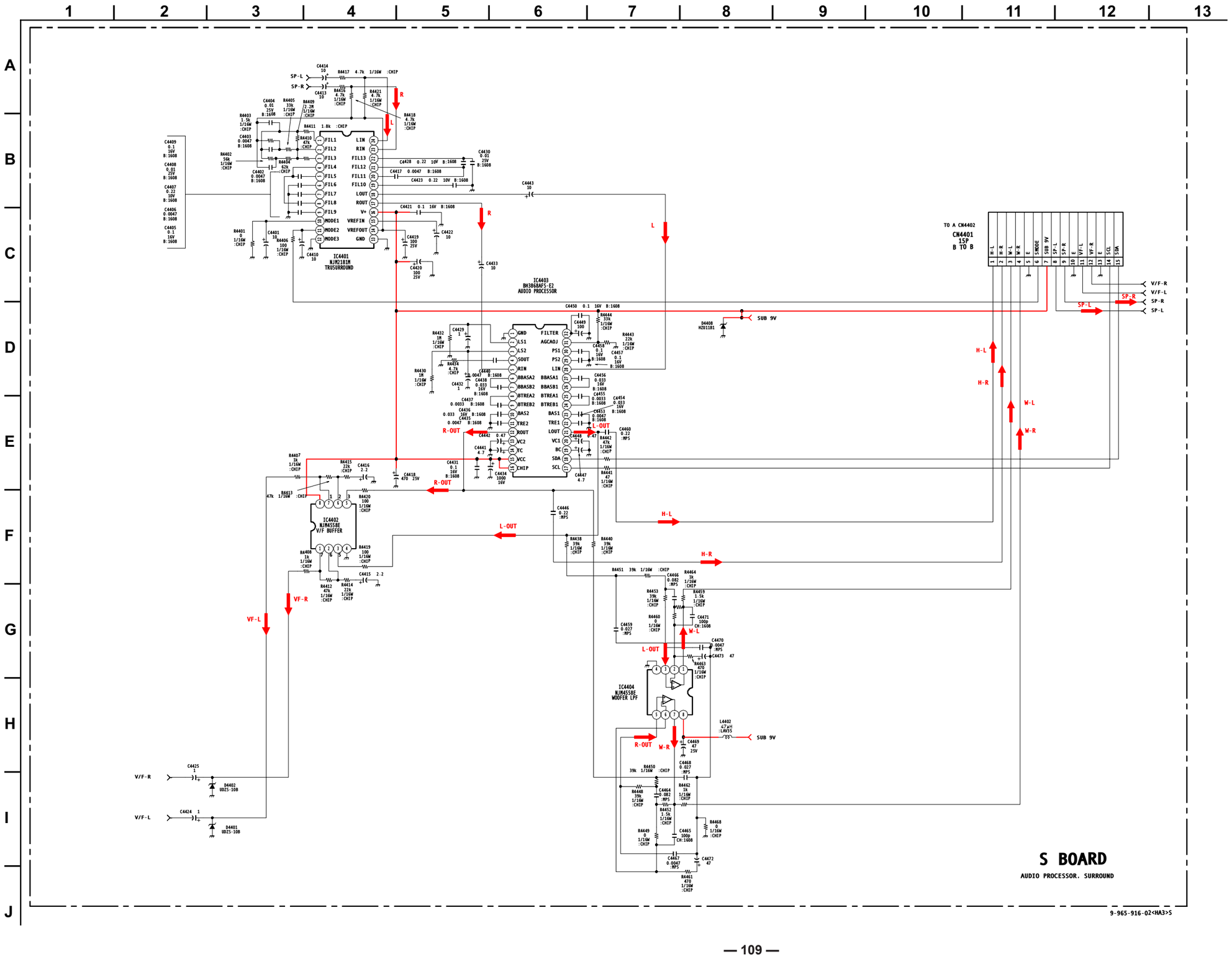

# QM

[FE-PS, ST-20 SYSTEM MICRO, AUDIO, VIDEO DECODE, MPEG, AD-DRC, HD-ADC, MID-XA, YGV GRAPHICS, MID-UCOM]

## CONDUCTOR SIDE



# S BOARD SCHEMATIC DIAGRAM

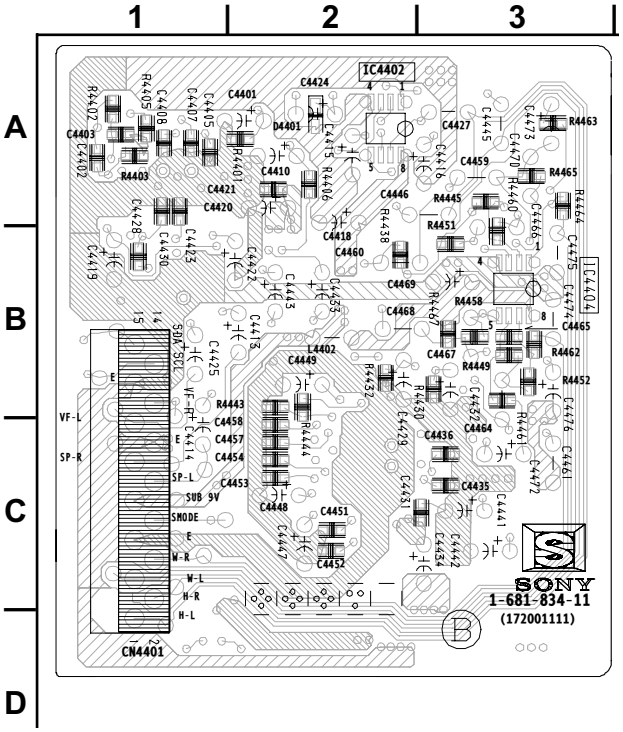



## S BOARD IC VOLTAGE LIST

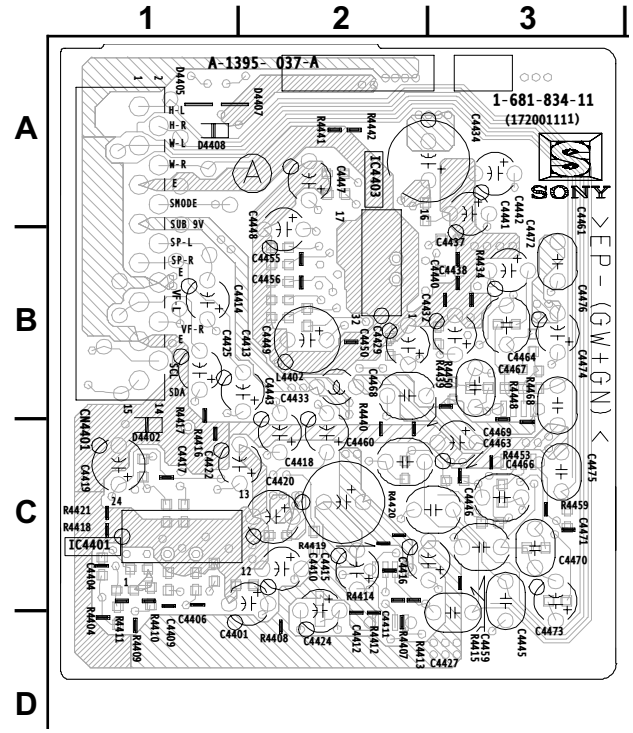
| IC4101 | | 5 | 4.5 | 27 | 4.5 |
|---|---|---|---|---|---|
| pin | volt | 6 | 4.5 | 28 | 4.5 |
| 1 | 4.5 | 7 | 4.5 | 29 | 4.5 |
| 2 | 4.3 | 8 | 9.0 | 30 | 4.5 |
| 3 | 4.5 | IC4103 | | 31 | 3.6 |
| 4 | 4.5 | pin | volt | 32 | 4.5 |
| 5 | 4.5 | 1 | GND | IC4104 | |
| 6 | 4.5 | 2 | 0.0 | pin | volt |
| 7 | 4.5 | 3 | 0.0 | 1 | 4.5 |
| 8 | 4.5 | 4 | 4.5 | 2 | 4.5 |
| 9 | 4.5 | 5 | 4.5 | 3 | 4.5 |
| 10 | 0.0 | 6 | 4.5 | 4 | GND |
| 11 | 0.0 | 7 | 4.5 | 5 | 4.5 |
| 12 | GND | 8 | 4.5 | 6 | 4.5 |
| 13 | GND | 9 | 4.5 | 7 | 4.5 |
| 14 | 4.5 | 10 | 4.5 | 8 | 9.0 |
| 15 | 4.5 | 11 | 4.5 | All voltages are in V. | |
| 16 | 9.0 | 12 | 4.5 | | |
| 17 | 4.5 | 13 | 1.6 | | |
| 18 | 4.5 | 14 | 2.0 | | |
| 19 | 4.5 | 15 | 9.0 | | |
| 20 | 4.5 | 16 | 9.0 | | |
| 21 | 4.5 | 17 | 4.6 | | |
| 22 | 4.5 | 18 | 4.5 | | |
| 23 | 4.5 | 19 | 2.0 | | |
| 24 | 4.5 | 20 | 1.5 | | |
| IC4102 | | 21 | 4.5 | | |
| pin | volt | 22 | 4.5 | | |
| 1 | 4.5 | 23 | 4.5 | | |
| 2 | 4.5 | 24 | 4.5 | | |
| 3 | 4.5 | 25 | 4.5 | | |
| 4 | GND | 26 | 4.5 | | |

# S [AUDIO PROCESSOR, SURROUND]

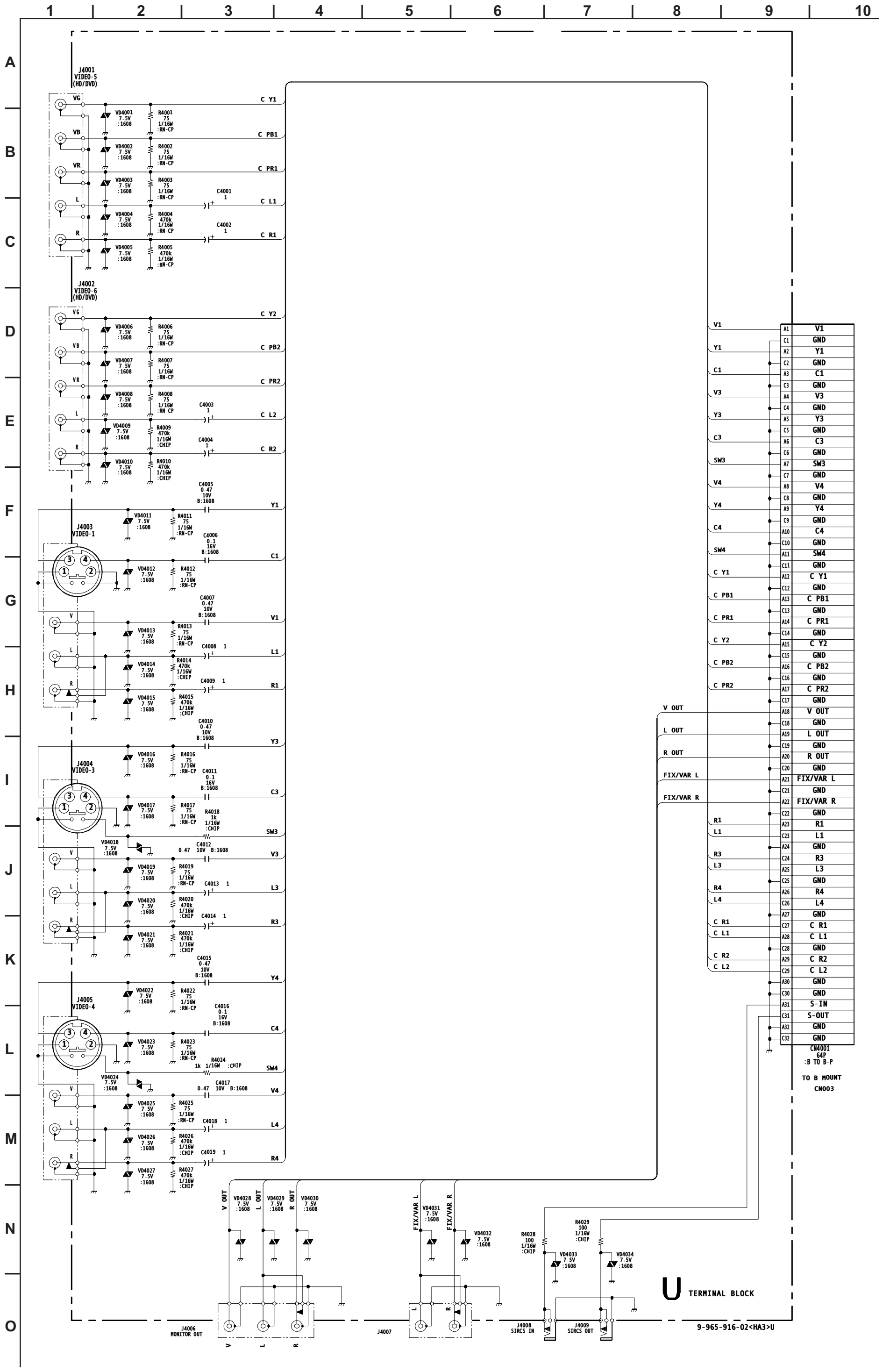
## COMPONENT SIDE




## CONDUCTOR SIDE

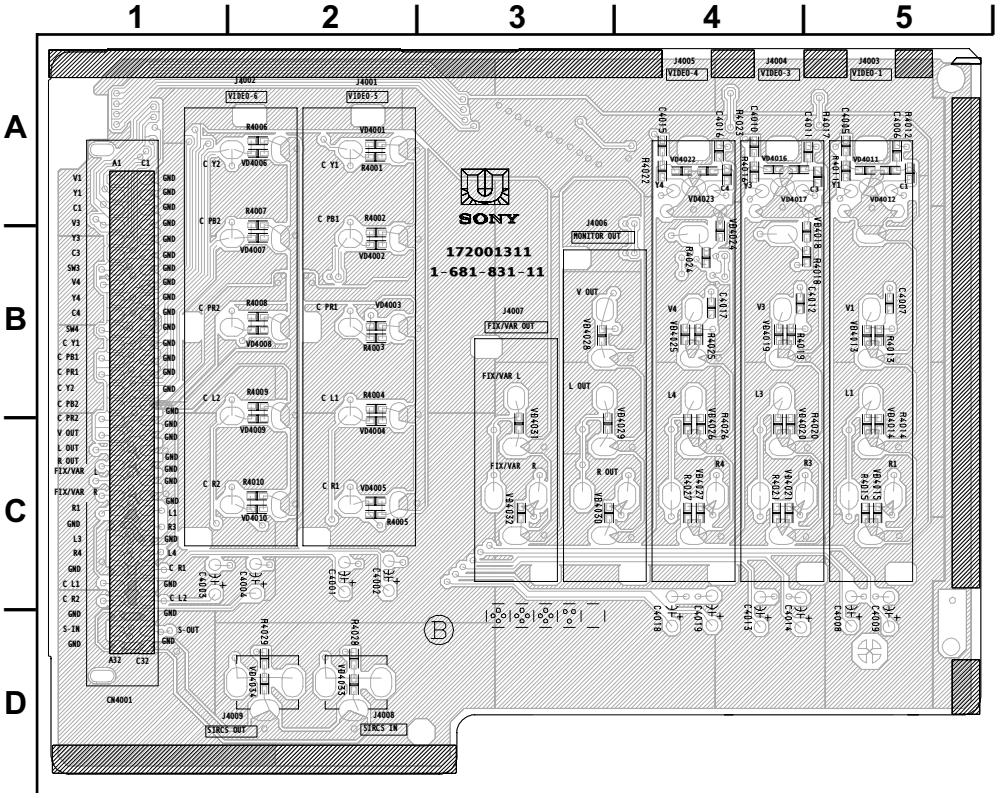


# U BOARD SCHEMATIC DIAGRAM

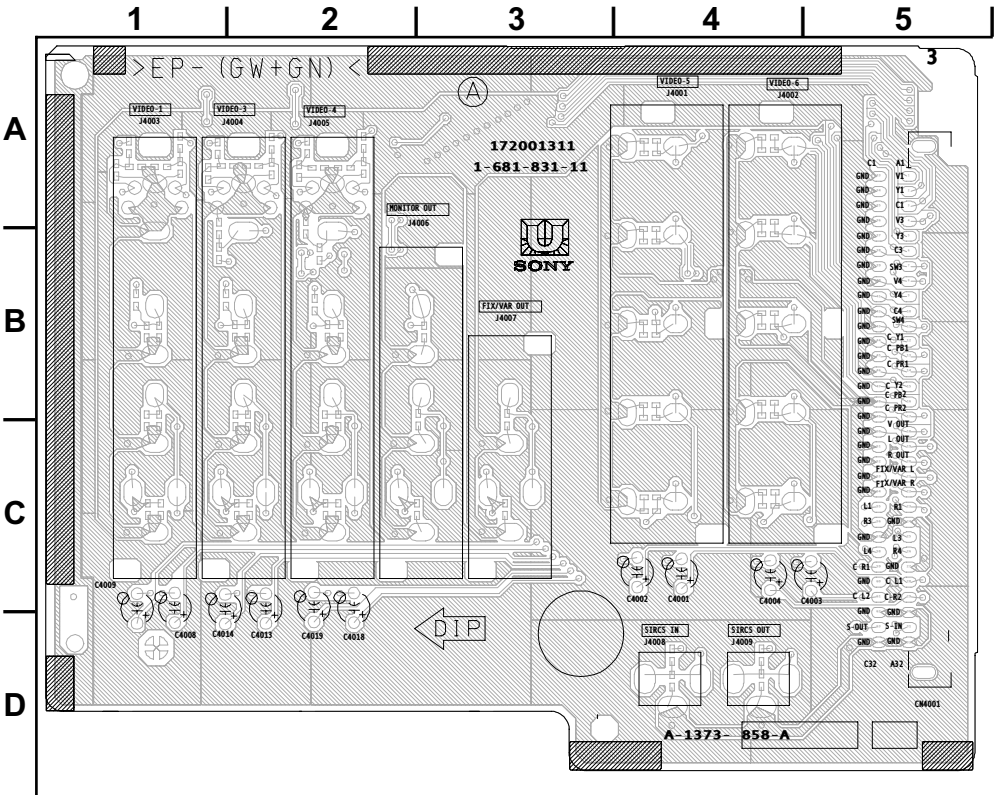


# U [TERMINAL BLOCK]

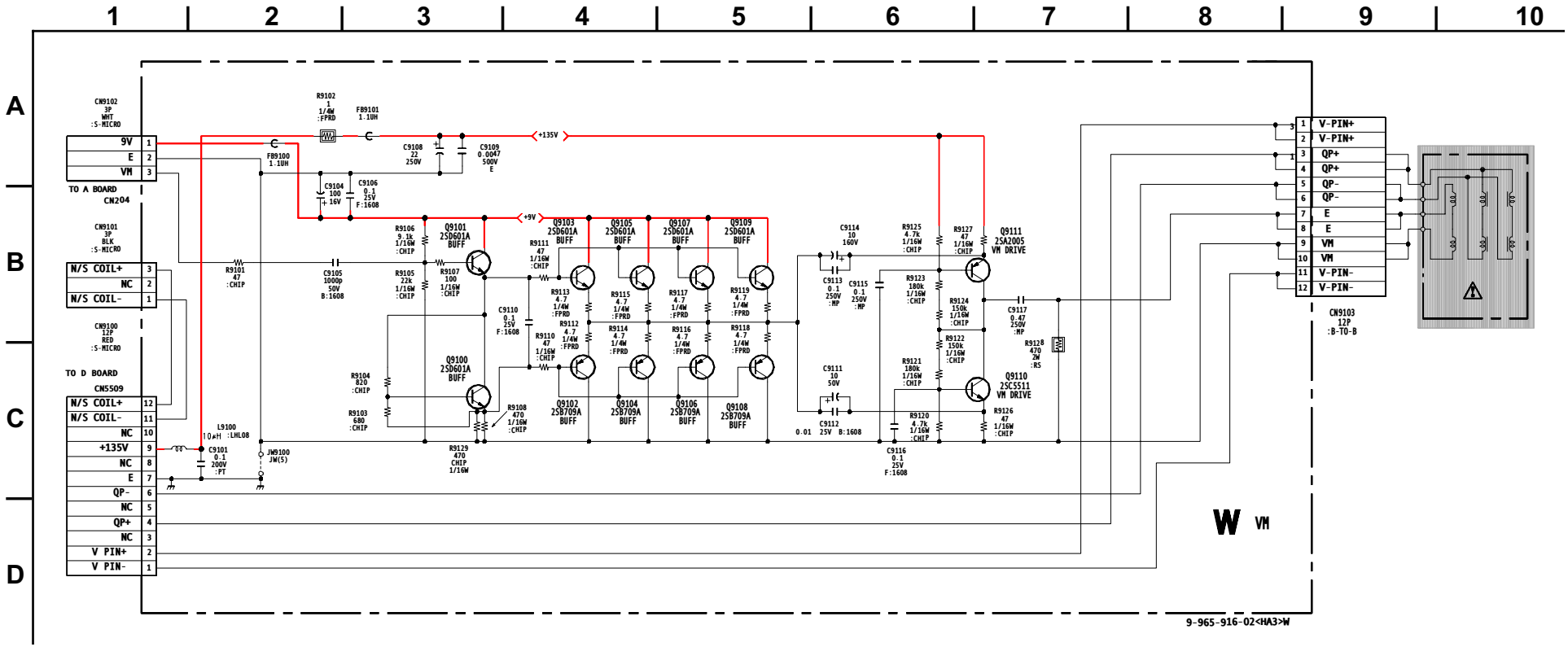
## COMPONENT SIDE




## CONDUCTOR SIDE



## W BOARD SCHEMATIC DIAGRAM



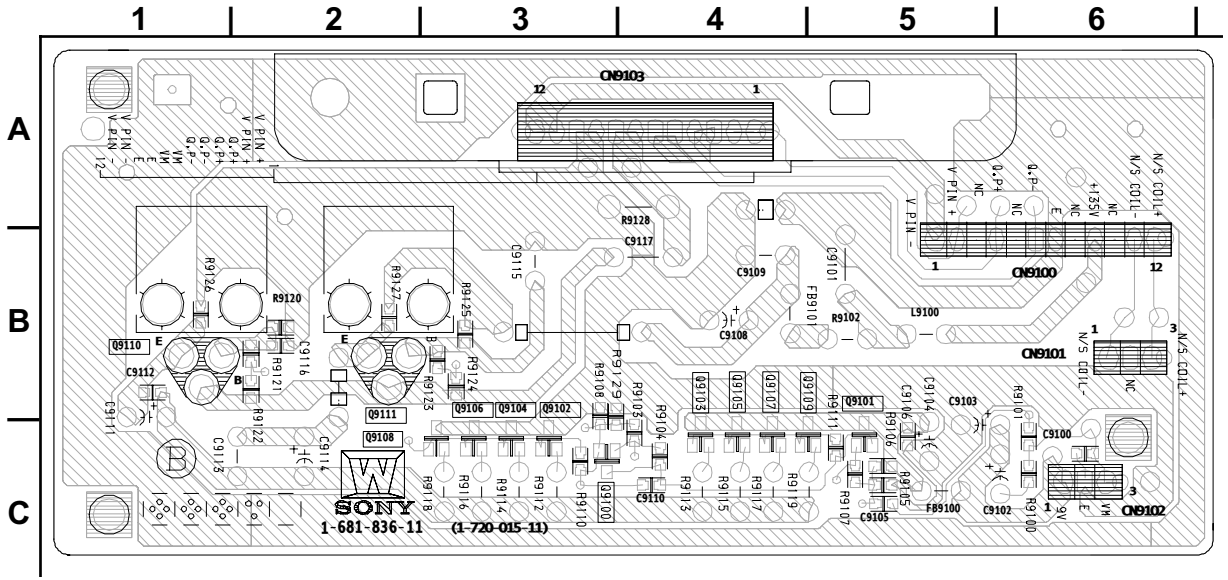

## W BOARD TRANSISTOR VOLTAGE LIST

| | | | |
|---|---|---|---|
| Q9102 | 3.6 | GND | 4.3 |
| Q9103 | 5.5 | 9.0 | 4.9 |
| Q9104 | 3.6 | GND | 4.3 |
| Q9105 | 5.5 | 9.0 | 4.9 |
| Q9106 | 3.6 | GND | 4.3 |
| Q9107 | 5.5 | 9.0 | 4.9 |
| Q9108 | 3.6 | GND | 4.3 |
| Q9109 | 5.5 | 9.0 | 4.9 |
| Q9110 | 0.6 | 68.9 | 0.0 |
| Q9111 | 133.7 | 68.9 | 134.2 |

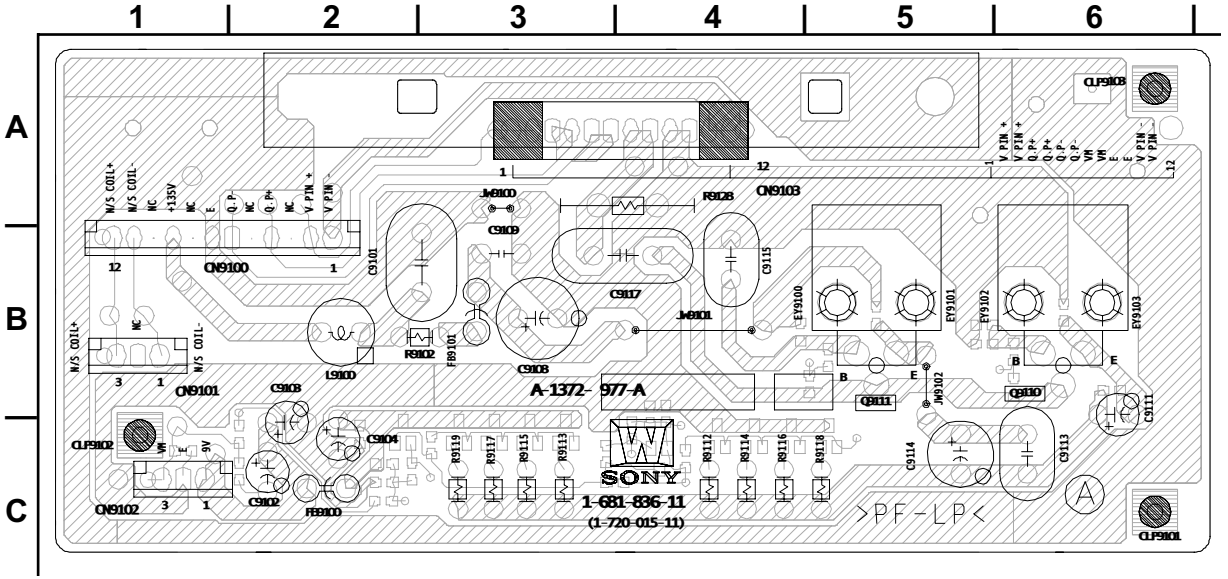
All voltages are in V.

**W** [VM]

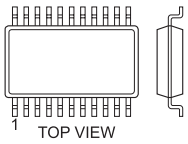
## COMPONENT SIDE




## CONDUCTOR SIDE

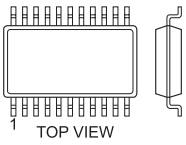


## 12-4. SEMICONDUCTORS



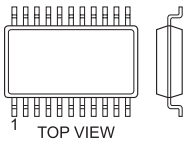

8pin

BR24C04F-WE2
BR24C08
NJM2901M-TE2
NJM2903M
NJM2904M
NJM4558E(TE2)
TC7WU04FU(TE12R)
TDA2822D



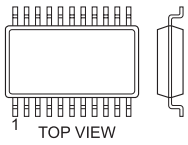

14pin

M52055FP
MC74HC4066F
TLC2932IPW
TLC2933IPWR-12



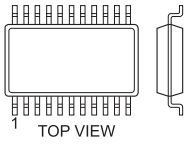

16pin

CXD2085M-T4
SN74LV4053ANSR



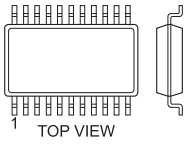

28pin

CXD2057M-T6
TEA6422DT



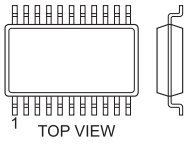

32pin

BH3868AFS-E2



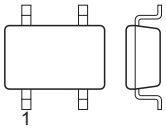

50pin

MSM56V16160F-10TS-K



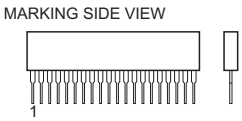

86pin

MB81F643242B-10FN




5pin

PST9120NL
PST9145NL
TC7SET08FU(TE85L)




8pin

UPC1406HA




14pin

IR2112



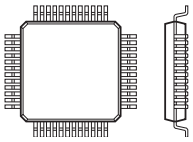

18pin

MCZ3001D



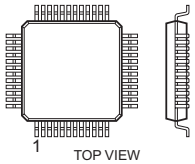

22pin

CXA2026AS



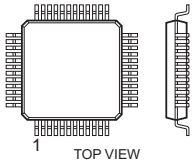
32pin

CXD2073Q-T4



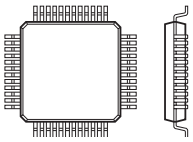

48pin

CXA2103Q
CXA2150Q
CXD2309Q



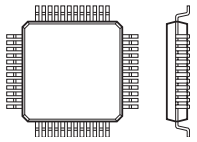

64pin

TLC5733AIPM



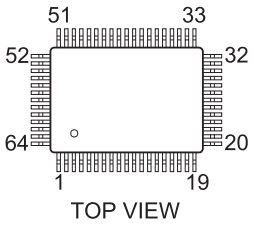
208pin

CXD2090Q

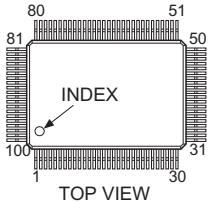


240pin

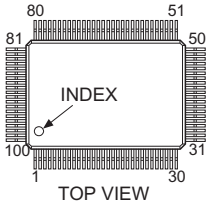
CXD9509AQ




CXA2069Q

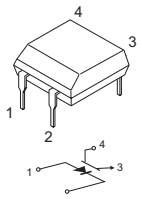



CXA2150Q

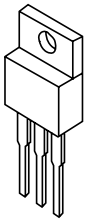



MB94918-DX1MID
M306V2ME-102FP

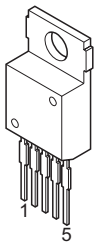
## SEMICONDUCTORS (continued)



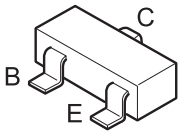

PC123FV2



NJM79M12FA

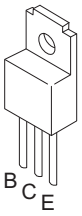



LA6500-FA

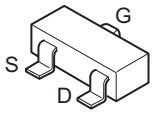



DTA114EKA-T146
DTA143EK
DTA144EKA-T146
DTC114EK

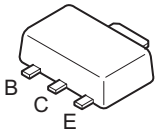
DTC114TKA-T146
DTC143EKA-T146
DTC144EKA-T146
2SA1162-G
2SA1226
2SC1623-L5L6
2SC4081-R
2SD601A-Q
2SD601A-Q-TX
2SD601A-S



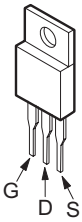

2SA2005
2SC5511



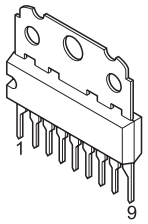

2SK1572S



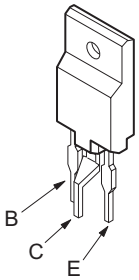

2SK2036(TE85L)



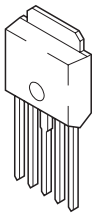

IRF614
IRFI644
IMB12-140-F153A



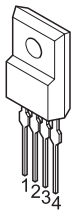

TDA6111Q/N4



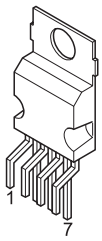

2SC4632LS-CB7



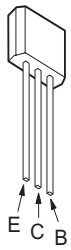
PQ07VZ012P



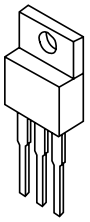

PQ09RD21
PQ05RF21
PQ09RF21
PQ12RF21
PQ30RF21



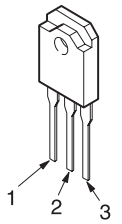

STV9379



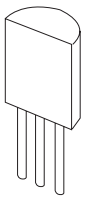

2SA1776TV2Q



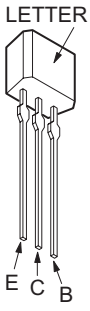
UPC2412AHF



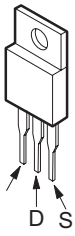

2SC3997S-SONY



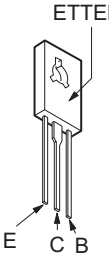
UPC1093J



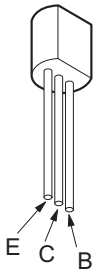

2SA1175-HFE
2SC3311A-QRSTA




IRFI9630GS




2SC2688-LK
2SC3840(3)




2SA1208S-TP

# SECTION 13: EXPLODED VIEWS

**Components not identified by a part number or description are not stocked because they are seldom required for routine service.**

**The component parts of an assembly are indicated by the reference numbers in the far right column of the parts list and within the dotted lines of the diagram.**

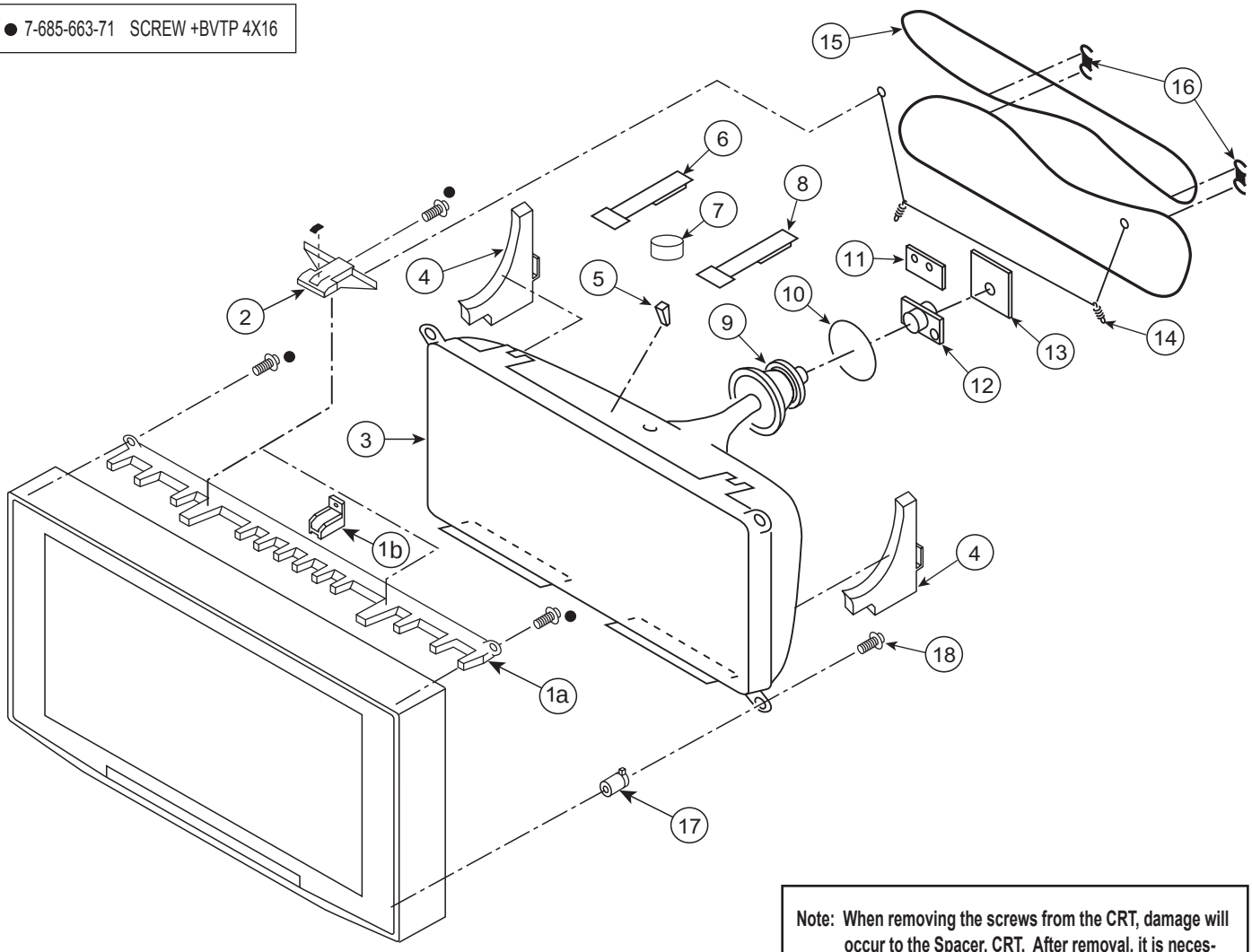
*** Items marked with an asterisk are not stocked since they are seldom required for routine service. Expect some delay when ordering these components.**

**NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.**

**NOTE: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.**

## 13-1. PICTURE TUBE

● 7-685-663-71 SCREW +BVTP 4X16




**Note: When removing the screws from the CRT, damage will occur to the Spacer, CRT. After removal, it is necessary to replace these components. (See 17, below)**

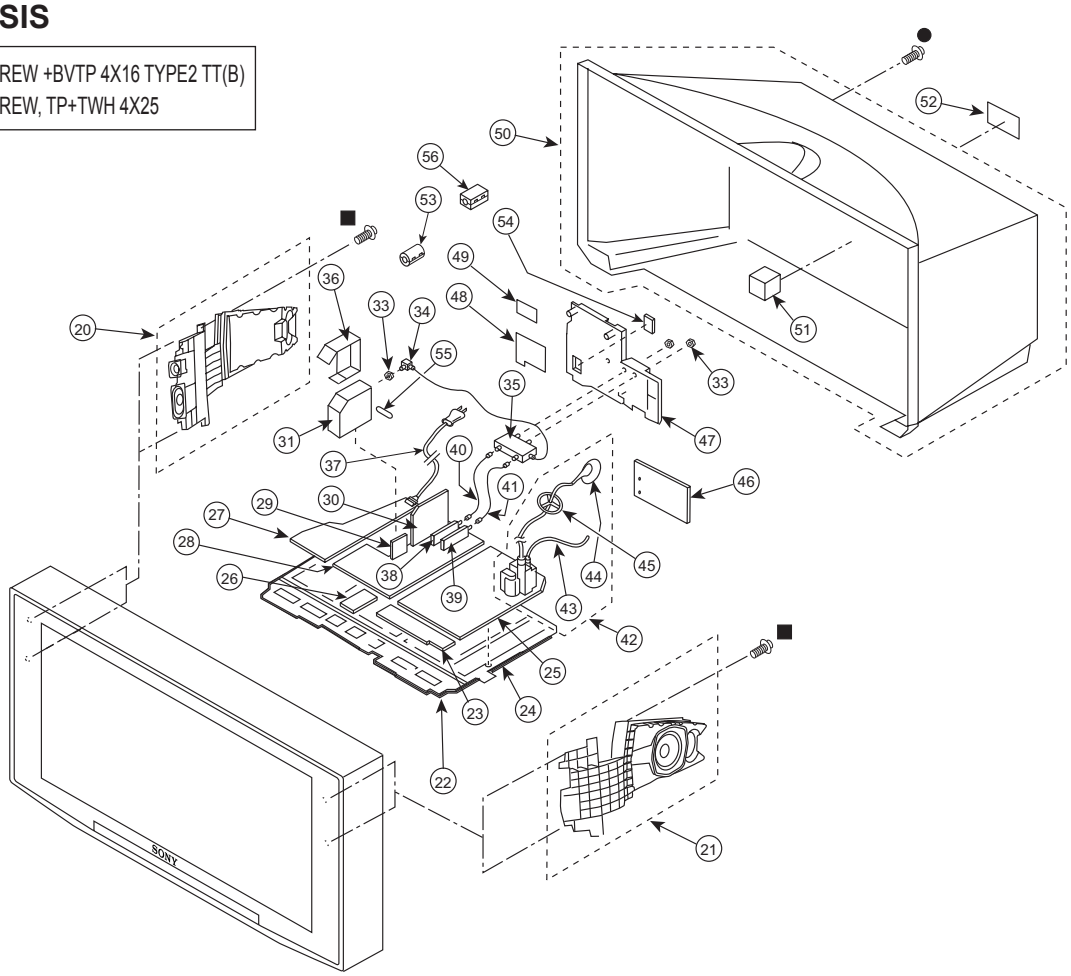
| | REF.NO. | PART NO. | DESCRIPTION |
|---|---|---|---|
| | 1a | 4-080-281-04 | BEAM |
| | 1b | X-4038-679-3 | SPACER -36 ASSY |
| | 2 | X-4038-670-2 | HOLDER, DGC ASSY |
| ⚠ | 3 | 8-735-060-05 | CRT 36RV2 |
| | 4 | 4-064-944-01 | SUPPORTER, CRT |
| | 5 | 4-053-005-01 | SPACER, DY |
| | 6 | 4-083-414-01 | PIECE A(110), CONV CORRECT |
| | 7 | 1-452-032-00 | MAGNET,DISC |
| | 8 | 4-051-734-21 | PIECE B(120), CONV. CORRECT |
| ⚠ | 9 | 8-451-498-22 | DY Y36RVC-M2 |
| | 10 | 1-451-498-31 | COIL, NA ROTATION |
| * | 11 | A-1372-977-A | W BOARD, MOUNTED |
| ⚠ | 12 | 8-453-009-21 | NA325-M2 (NECK ASSEMBLY) |
| * | 13 | A-1332-184-A | C BOARD, MOUNTED |
| | 14 | 4-065-852-01 | SPRING, EXTENSION |
| ⚠ | 15 | 1-416-837-11 | COIL, DEGAUSSING |
| | 16 | 4-066-488-03 | HOLDER (M), DGC |
| ⚠ | 17 | 4-080-267-01 | SPACER, CRT |
| ⚠ | 18 | 4-080-811-01 | SCREW, TAPPING (7) + CROWN WASHER |

**NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.**

**NOTE: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.**

## 13-2. CHASSIS

● 7-685-663-79 SCREW +BVTP 4X16 TYPE2 TT(B)
■ 4-064-929-02 SCREW, TP+TWH 4X25




| | REF.NO. | PART NO. | DESCRIPTION |
|---|---|---|---|
| | 20 | 1-544-883-11 | SPEAKER BOX (LEFT) |
| | 21 | 1-544-883-21 | SPEAKER BOX (RIGHT) |
| * | 22 | 4-075-830-03 | BRACKET, H |
| * | 23 | A-1372-978-A | HA BOARD, MOUNTED |
| * | 24 | 4-081-596-01 | BRACKET, MAIN |
| * | 25 | A-1348-066-A | D BOARD, COMPLETE |
| | | The high voltage leads associated with the FBT on this board are not included and must be ordered separately (see 43-44). | |
| * | 26 | A-1372-979-A | HB BOARD, MOUNTED |
| * | 27 | A-1241-489-A | F BOARD, MOUNTED |
| * | 28 | A-1299-501-A | A BOARD, COMPLETE |
| * | 29 | A-1395-037-A | S BOARD, COMPLETE |
| * | 30 | SEE SUPPLEMENT-1 | |
| * | 31 | SEE SUPPLEMENT-1 | |
| | 33 | 3-682-691-00 | NUT, WASHER HEXAGON |
| | 34 | 1-757-970-11 | CORD WITH CONNECTOR (F-TYPE) |
| ⚠ | 35 | 1-786-183-11 | SWITCH, ANTENNA |
| | 36 | 4-083-269-01 | SHIELD, Q-B |
| ⚠ | 37 | 1-790-316-21 | CORD, AC POWER (WITH CONNECTOR) |
| | 38 | 8-598-542-20 | TUNER, FSS BTF-WA412 |
| | 39 | 8-598-542-20 | TUNER, FSS BTF-WA412 |
| * | 40 | 1-555-400-00 | CABLE, PIN |

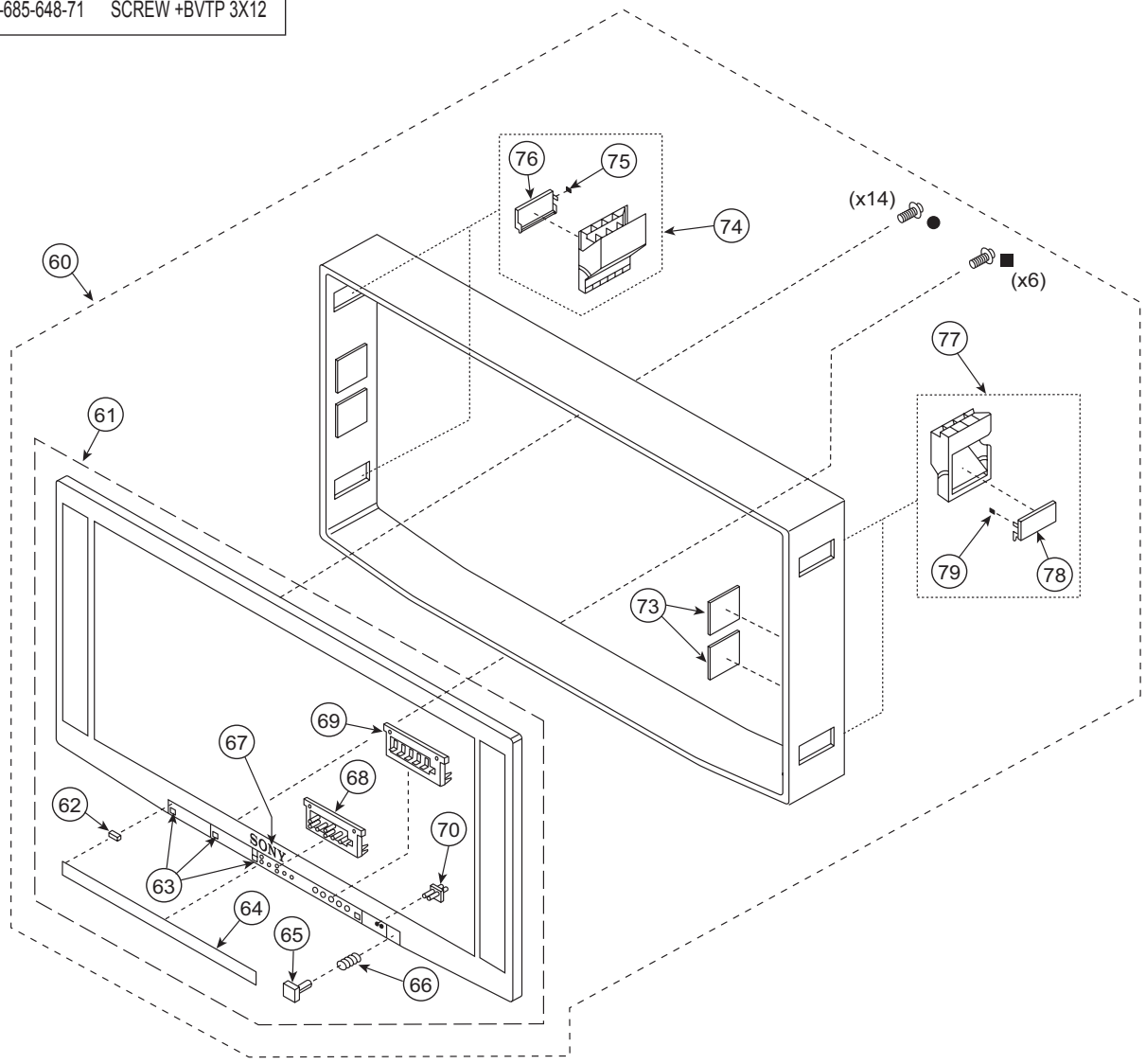
| | REF.NO. | PART NO. | DESCRIPTION | [Assembly Includes] |
|---|---|---|---|---|
| * | 41 | 1-557-056-31 | CABLE, P-P | |
| ⚠ | 42 | 1-453-346-11 | FBT ASSY NX-6000//JIJ4 | [43-44] |
| ⚠ | 43 | 1-900-805-19 | WIRE ASSY, FOCUS HV | |
| ⚠ | 44 | 1-251-715-12 | CAP ASSY, HIGH-VOLTAGE | |
| | 45 | 3-704-372-31 | HOLDER, HV CABLE | |
| * | 46 | A-1395-038-A | U BOARD, COMPLETE | |
| *⚠ | 47 | 4-081-597-02 | BRACKET, U | |
| | | The labels associated with the U Bracket are not included and must be ordered separately (see 48-49). | | |
| | 48 | 4-083-094-01 | LABEL, TERMINAL (A) | |
| | 49 | 4-083-095-01 | LABEL, TERMINAL (B) | |
| | 50 | X-4039-221-1 | COVER ASSY, REAR | [51] |
| | | The label associated with the Rear Cover is not included and must be ordered separately (see 52). | | |
| | 51 | 4-079-345-02 | CUSHION, REAR COVER (18 X 18) | |
| | 52 | 4-083-096-01 | LABEL, SERIAL NUMBER | |
| | 53 | 1-500-386-11 | FILTER, CLAMP | |
| | 54 | 4-081-602-01 | COVER, U BRACKET | |
| * | 55 | 4-385-948-01 | HOLDER, PWB | |
| | 56 | 1-500-082-11 | CLAMP, SLEEVE FERRITE | |

**NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.**

**NOTE: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.**

## 13-3. BEZNET

● 7-685-663-71 SCREW +BVTP 4X16
■ 7-685-648-71 SCREW +BVTP 3X12




| REF.NO. | PART NO. | DESCRIPTION | [Assembly Includes] |
|---|---|---|---|
| 60 | X-4038-596-1 | BEZNET ASSY | [61-79] |
| 61 | X-4038-597-1 | BEZEL ASSY | [62-70] |
| 62 | 4-076-673-03 | DAMPER, DOOR | |
| 63 | 4-072-630-01 | CUSHION, DOOR | |
| 64 | 4-080-379-31 | DOOR | |
| 65 | 4-080-364-11 | BUTTON, POWER | |
| 66 | 4-042-593-01 | SPRING, COMPRESSION | |
| 67 | 3-704-179-01 | EMBLEM (NO.9), SONY | |
| 68 | 4-080-363-11 | BUTTON, MENU | |
| 69 | 4-080-362-11 | BUTTON, MULTI | |
| 70 | 4-080-361-11 | GUIDE, LED | |
| 73 | 4-081-324-01 | DAMPER (DT) | |
| 74 | X-4039-164-1 | HANDLE ASSY, LEFT | [75-76] |
| 75 | 4-081-009-01 | TAPE (D) | |
| 76 | 4-064-943-11 | COVER, HANDLE | |
| 77 | X-4039-165-1 | HANDLE ASSY, RIGHT | [78-79] |
| 78 | 4-064-943-11 | COVER, HANDLE | |
| 79 | 4-081-009-01 | TAPE (D) | |

# SECTION 14: ELECTRICAL PARTS LIST

**NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.**

**NOTE: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.**

**The components in this manual identified by the following symbol: ⋈ indicate parts that have been carefully factory-selected to satisfy regulations regarding X-ray radiation for each set.**

**Should replacement be required for one of these components, replace only with the value originally used.**

*** Items marked with an asterisk are not stocked since they are seldom required for routine service. Expect some delay when ordering these components.**

B

**RESISTORS**
- **All resistors are in ohms**
- **F : nonflammable**
- **All variable and adjustable resistors have characteristic curve B, unless otherwise noted.**

**When ordering parts by reference number, please include the board name.**

B

* **SEE SUPPLEMENT-1 B BOARD, COMPLETE**

**CAPACITOR**

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| C001 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C002 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C003 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C004 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C005 | 1-115-156-11 | CERAMIC CHIP | 1µF | | 10V |
| C006 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C007 | 1-162-968-11 | CERAMIC CHIP | .0047µF | 10% | 50V |
| C008 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C009 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C010 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C011 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C014 | 1-107-715-11 | ELECT | 22µF | 20% | 16V |
| C015 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C018 | 1-107-715-11 | ELECT | 22µF | 20% | 16V |
| C019 | 1-107-715-11 | ELECT | 22µF | 20% | 16V |
| C020 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C022 | 1-162-919-11 | CERAMIC CHIP | 22pF | 5% | 50V |
| C024 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C025 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C028 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C029 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C030 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C031 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C034 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C035 | 1-162-910-11 | CERAMIC CHIP | 5pF | 0.25pF | 50V |
| C036 | 1-162-919-11 | CERAMIC CHIP | 22pF | 5% | 50V |
| C037 | 1-162-919-11 | CERAMIC CHIP | 22pF | 5% | 50V |
| C100 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C101 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C102 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C103 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C104 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C105 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C106 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C107 | 1-125-891-11 | CERAMIC CHIP | 0.47µF | 10% | 10V |
| C109 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C110 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C111 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C112 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C113 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C114 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C115 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C116 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C117 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C118 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C119 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C120 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C121 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C122 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C123 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C124 | 1-125-891-11 | CERAMIC CHIP | 0.47µF | 10% | 10V |
| C126 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C127 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C128 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C129 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C130 | 1-164-230-11 | CERAMIC CHIP | 220pF | 5% | 50V |
| C131 | 1-164-230-11 | CERAMIC CHIP | 220pF | 5% | 50V |
| C200 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C201 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C202 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C203 | 1-125-891-11 | CERAMIC CHIP | 0.47µF | 10% | 10V |
| C204 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C205 | 1-125-891-11 | CERAMIC CHIP | 0.47µF | 10% | 10V |
| C206 | 1-125-891-11 | CERAMIC CHIP | 0.47µF | 10% | 10V |
| C208 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C209 | 1-162-970-11 | CERAMIC CHIP | 0.01µF | 10% | 25V |
| C210 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C211 | 1-125-837-91 | CERAMIC CHIP | 1µF | 10% | 6.3V |
| C212 | 1-162-970-11 | CERAMIC CHIP | 0.01µF | 10% | 25V |
| C213 | 1-126-963-11 | ELECT | 4.7µF | 20% | 50V |

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| C214 | 1-125-891-11 | CERAMIC CHIP | 0.47µF | 10% | 10V |
| C215 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C216 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C217 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C218 | 1-125-891-11 | CERAMIC CHIP | 0.47µF | 10% | 10V |
| C219 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C220 | 1-162-970-11 | CERAMIC CHIP | 0.01µF | 10% | 25V |
| C221 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C222 | 1-125-891-11 | CERAMIC CHIP | 0.47µF | 10% | 10V |
| C223 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C224 | 1-125-891-11 | CERAMIC CHIP | 0.47µF | 10% | 10V |
| C225 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C226 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C227 | 1-125-891-11 | CERAMIC CHIP | 0.47µF | 10% | 10V |
| C228 | 1-162-970-11 | CERAMIC CHIP | 0.01µF | 10% | 25V |
| C229 | 1-125-891-11 | CERAMIC CHIP | 0.47µF | 10% | 10V |
| C230 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C231 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C232 | 1-125-891-11 | CERAMIC CHIP | 0.47µF | 10% | 10V |
| C234 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C235 | 1-125-891-11 | CERAMIC CHIP | 0.47µF | 10% | 10V |
| C236 | 1-164-315-11 | CERAMIC CHIP | 470pF | 5% | 50V |
| C237 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C238 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C239 | 1-125-891-11 | CERAMIC CHIP | 0.47µF | 10% | 10V |
| C240 | 1-162-919-11 | CERAMIC CHIP | 22pF | 5% | 50V |
| C241 | 1-162-917-11 | CERAMIC CHIP | 15pF | 5% | 50V |
| C242 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C243 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C244 | 1-125-891-11 | CERAMIC CHIP | 0.47µF | 10% | 10V |
| C245 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C246 | 1-162-919-11 | CERAMIC CHIP | 22pF | 5% | 50V |
| C247 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C248 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C249 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C250 | 1-125-891-11 | CERAMIC CHIP | 0.47µF | 10% | 10V |
| C251 | 1-125-891-11 | CERAMIC CHIP | 0.47µF | 10% | 10V |
| C252 | 1-125-891-11 | CERAMIC CHIP | 0.47µF | 10% | 10V |
| C253 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C254 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C255 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C256 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C258 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C259 | 1-126-963-11 | ELECT | 4.7µF | 20% | 50V |
| C260 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C261 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C262 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C263 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C264 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C265 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C266 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C267 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C268 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C271 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C272 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C274 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C275 | 1-162-964-11 | CERAMIC CHIP | 0.001µF | 10% | 50V |
| C276 | 1-164-227-11 | CERAMIC CHIP | 0.022µF | 10% | 25V |
| C277 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C278 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C280 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C281 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C282 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C284 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C285 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C286 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C287 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C288 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C290 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C291 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C292 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C293 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C294 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C295 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C296 | 1-162-917-11 | CERAMIC CHIP | 15pF | 5% | 50V |
| C297 | 1-162-917-11 | CERAMIC CHIP | 15pF | 5% | 50V |
| C298 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C299 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C300 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C301 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| C302 | 1-162-917-11 | CERAMIC CHIP | 15pF | 5% | 50V |
| C303 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C304 | 1-162-970-11 | CERAMIC CHIP | 0.01µF | 10% | 25V |
| C305 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C306 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C307 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C309 | 1-125-891-11 | CERAMIC CHIP | 0.47µF | 10% | 10V |
| C310 | 1-162-970-11 | CERAMIC CHIP | 0.01µF | 10% | 25V |
| C311 | 1-126-963-11 | ELECT | 4.7µF | 20% | 50V |
| C312 | 1-125-891-11 | CERAMIC CHIP | 0.47µF | 10% | 10V |
| C313 | 1-162-970-11 | CERAMIC CHIP | 0.01µF | 10% | 25V |
| C314 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C315 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C317 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| C319 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C320 | 1-125-891-11 | CERAMIC CHIP | 0.47µF | 10% | 10V |
| C321 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C322 | 1-125-891-11 | CERAMIC CHIP | 0.47µF | 10% | 10V |
| C323 | 1-164-315-11 | CERAMIC CHIP | 470pF | 5% | 50V |
| C324 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C326 | 1-125-891-11 | CERAMIC CHIP | 0.47µF | 10% | 10V |
| C327 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C329 | 1-162-917-11 | CERAMIC CHIP | 15pF | 5% | 50V |
| C330 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C331 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C333 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C334 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C336 | 1-126-963-11 | ELECT | 4.7µF | 20% | 50V |
| C337 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C338 | 1-162-923-11 | CERAMIC CHIP | 47pF | 5% | 50V |
| C339 | 1-162-923-11 | CERAMIC CHIP | 47pF | 5% | 50V |
| C340 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C341 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C342 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C346 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C347 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C348 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C349 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C350 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C351 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C352 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C353 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C354 | 1-162-923-11 | CERAMIC CHIP | 47pF | 5% | 50V |
| C355 | 1-162-923-11 | CERAMIC CHIP | 47pF | 5% | 50V |
| C400 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C401 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C402 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C403 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C404 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C405 | 1-125-891-11 | CERAMIC CHIP | 0.47µF | 10% | 10V |
| C406 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C407 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C408 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C409 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C410 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C411 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C412 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C413 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| C414 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C415 | 1-126-935-11 | ELECT | 470µF | 20% | 16V |
| C416 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C417 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C418 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C419 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| C420 | 1-125-891-11 | CERAMIC CHIP | 0.47µF | 10% | 10V |
| C421 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C422 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| C423 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| C500 | 1-162-921-11 | CERAMIC CHIP | 33pF | 5% | 50V |
| C501 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C502 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C503 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C505 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C506 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C507 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C508 | 1-127-760-11 | CERAMIC CHIP | 4.7µF | 10% | 6.3V |
| C509 | 1-162-917-11 | CERAMIC CHIP | 15pF | 5% | 50V |
| C510 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C511 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C512 | 1-115-156-11 | CERAMIC CHIP | 1µF | 10V | |
| C513 | 1-125-837-91 | CERAMIC CHIP | 1µF | 10% | 6.3V |
| C514 | 1-162-915-11 | CERAMIC CHIP | 10pF | 0.50pF | 50V |
| C515 | 1-127-760-11 | CERAMIC CHIP | 4.7µF | 10% | 6.3V |
| C517 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C518 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C519 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C520 | 1-162-917-11 | CERAMIC CHIP | 15pF | 5% | 50V |
| C521 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C522 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C523 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C524 | 1-125-837-91 | CERAMIC CHIP | 1µF | 10% | 6.3V |
| C525 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C526 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C527 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C528 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C529 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C530 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C531 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C532 | 1-126-965-91 | ELECT | 22µF | 20% | 50V |
| C533 | 1-162-917-11 | CERAMIC CHIP | 15pF | 5% | 50V |
| C534 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C535 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C536 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C537 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C538 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C539 | 1-162-913-11 | CERAMIC CHIP | 8pF | 0.50pF | 50V |
| C540 | 1-162-970-11 | CERAMIC CHIP | 0.01µF | 10% | 25V |
| C541 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |

| | REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|---|
| | C542 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| | C543 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| | C544 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| | C546 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| | C547 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| | C548 | 1-162-917-11 | CERAMIC CHIP | 15pF | 5% | 50V |
| | C549 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| | C550 | 1-162-913-11 | CERAMIC CHIP | 8pF | 0.50pF | 50V |
| | C558 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| | C559 | 1-136-177-00 | FILM | 1µF | 5% | 50V |
| | C560 | 1-136-177-00 | FILM | 1µF | 5% | 50V |
| | C561 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| | C562 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| | | **CONNECTOR** | | | | |
| * | CN001 | 1-793-923-11 | CONNECTOR, DIN (PLUG) | 64P | | |
| | CN002 | 1-793-173-11 | PIN, PCCONNECTOR(PC BOARD) | 50P | | |
| * | CN003 | 1-793-922-11 | CONNECTOR, DIN (RECEPTACLE) | 64P | | |
| * | CN006 | 1-564-507-11 | PLUG,CONNECTOR | 4P | | |
| * | CN007 | 1-764-333-11 | PLUG,CONNECTOR | 10P | | |
| | CN008 | 1-764-334-11 | PLUG,CONNECTOR | 11P | | |
| * | CN009 | 1-564-508-11 | PLUG,CONNECTOR | 5P | | |
| * | CN010 | 1-564-507-11 | PLUG,CONNECTOR | 4P | | |
| | | **DIODE** | | | | |
| | D001 | 8-719-914-43 | DIODE DAN202K-T-146 | | | |
| | D100 | 8-719-914-43 | DIODE DAN202K-T-146 | | | |
| | D201 | 8-719-914-43 | DIODE DAN202K-T-146 | | | |
| | D202 | 8-719-914-44 | DIODE DAP202K-T-146 | | | |
| | D203 | 8-719-914-44 | DIODE DAP202K-T-146 | | | |
| | D204 | 8-719-914-43 | DIODE DAN202K-T-146 | | | |
| | | **FERRITE BEAD** | | | | |
| | FB001 | 1-469-981-21 | FERRITE | 0µH | | |
| | FB200 | 1-414-229-11 | FERRITE | 0µH | | |
| | FB201 | 1-414-229-11 | FERRITE | 0µH | | |
| | FB500 | 1-469-179-21 | FERRITE | 0µH | | |
| | FB501 | 1-469-179-21 | FERRITE | 0µH | | |
| | FB502 | 1-414-229-11 | FERRITE | 0µH | | |
| | FB503 | 1-414-229-11 | FERRITE | 0µH | | |
| | FB504 | 1-469-835-21 | FERRITE | 0µH | | |
| | FB505 | 1-469-179-21 | FERRITE | 0µH | | |
| | FB506 | 1-469-179-21 | FERRITE | 0µH | | |
| | | **FILTER** | | | | |
| | FL200 | 1-239-848-21 | FILTER, LOW PASS | | | |
| | FL201 | 1-239-848-21 | FILTER, LOW PASS | | | |
| | FL202 | 1-239-848-21 | FILTER, LOW PASS | | | |
| | FL500 | 1-239-848-21 | FILTER, LOW PASS | | | |
| | FL501 | 1-239-848-21 | FILTER, LOW PASS | | | |

| REF.NO. | PART NO. | DESCRIPTION | VALUES |
|---|---|---|---|
| FL502 | 1-239-848-21 | FILTER, LOW PASS | |
| FL503 | 1-239-848-21 | FILTER, LOW PASS | |
| | **IC** | | |
| IC001 | **SEE SUPPLEMENT-1** | | |
| IC002 | 8-759-548-56 | IC M52055FP | |
| IC003 | 8-759-352-91 | IC PST9143NL | |
| IC004 | 8-759-682-41 | IC M24C32-WMN6T(A) | |
| IC006 | 8-759-240-87 | IC TC74HCT157AF(EL) | |
| IC100 | 8-752-927-57 | IC CXP961064-002Q | |
| IC101 | 8-752-927-57 | IC CXP961064-002Q | |
| IC200 | 8-752-093-84 | IC CXA2151Q | |
| IC201 | 8-759-548-56 | IC M52055FP | |
| IC202 | 8-752-089-50 | IC CXA2103Q | |
| IC203 | 6-700-205-01 | IC TC74LVX157FT(EL) | |
| IC204 | 8-752-394-69 | IC CXD2073Q-T4 | |
| IC205 | 8-759-548-56 | IC M52055FP | |
| IC206 | 6-700-205-01 | IC TC74LVX157FT(EL) | |
| IC207 | 8-752-089-50 | IC CXA2103Q | |
| IC400 | 8-759-100-96 | IC NJM4558M-T2 | |
| IC401 | 8-752-080-04 | IC CXA2069Q | |
| IC402 | 8-759-526-64 | IC NJM2521M(TE2) | |
| IC403 | 8-759-526-64 | IC NJM2521M(TE2) | |
| IC500 | 8-759-568-27 | IC UPD424210LE-60-E2 | |
| IC501 | 8-759-594-44 | IC UPD64082GF-3BA | |
| | **COIL** | | |
| L001 | 1-469-555-21 | INDUCTOR | 10µH |
| L003 | 1-469-555-21 | INDUCTOR | 10µH |
| L005 | 1-469-555-21 | INDUCTOR | 10µH |
| L100 | 1-469-555-21 | INDUCTOR | 10µH |
| L101 | 1-469-555-21 | INDUCTOR | 10µH |
| L102 | 1-469-555-21 | INDUCTOR | 10µH |
| L103 | 1-469-555-21 | INDUCTOR | 10µH |
| L104 | 1-469-555-21 | INDUCTOR | 10µH |
| L200 | 1-469-555-21 | INDUCTOR | 10µH |
| L201 | 1-469-555-21 | INDUCTOR | 10µH |
| L202 | 1-469-555-21 | INDUCTOR | 10µH |
| L203 | 1-469-555-21 | INDUCTOR | 10µH |
| L204 | 1-469-555-21 | INDUCTOR | 10µH |
| L205 | 1-469-555-21 | INDUCTOR | 10µH |
| L206 | 1-469-555-21 | INDUCTOR | 10µH |
| L208 | 1-469-555-21 | INDUCTOR | 10µH |
| L209 | 1-469-555-21 | INDUCTOR | 10µH |
| L210 | 1-469-555-21 | INDUCTOR | 10µH |
| L211 | 1-469-555-21 | INDUCTOR | 10µH |
| L400 | 1-469-555-21 | INDUCTOR | 10µH |

| REF.NO. | PART NO. | DESCRIPTION | VALUES |
|---|---|---|---|
| L401 | 1-469-555-21 | INDUCTOR | 10µH |
| L402 | 1-469-555-21 | INDUCTOR | 10µH |
| L500 | 1-469-555-21 | INDUCTOR | 10µH |
| L501 | 1-469-555-21 | INDUCTOR | 10µH |
| L502 | 1-469-555-21 | INDUCTOR | 10µH |
| L503 | 1-469-555-21 | INDUCTOR | 10µH |
| L504 | 1-469-555-21 | INDUCTOR | 10µH |
| L505 | 1-469-555-21 | INDUCTOR | 10µH |
| | **TRANSISTOR** | | |
| Q001 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q002 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q003 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q005 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q006 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q009 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q011 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q013 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q100 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q101 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q102 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q103 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q104 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q105 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q106 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q107 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q108 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q200 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q201 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q202 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q203 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q204 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q205 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q208 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q216 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q217 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q218 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q219 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q220 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q221 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q222 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q224 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q227 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q228 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q229 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q230 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q231 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q232 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q235 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q240 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q243 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q248 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q250 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q400 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q401 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q403 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q404 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q405 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q406 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q407 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q409 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q410 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q411 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q412 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q413 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q414 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q415 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q500 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q501 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q502 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q503 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q504 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q505 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q506 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q507 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q508 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q509 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q510 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q511 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q512 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q513 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q514 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q515 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q516 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q517 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q518 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q519 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q520 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q521 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q522 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| | **RESISTOR** | | |
| R001 | 1-216-833-11 | RES-CHIP | 10K 5% 1/16W |
| R002 | 1-216-840-11 | RES-CHIP | 39K 5% 1/16W |
| R003 | 1-216-809-11 | RES-CHIP | 100 5% 1/16W |
| R004 | 1-216-817-11 | RES-CHIP | 470 5% 1/16W |

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| R005 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R006 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R007 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R008 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R009 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R010 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R011 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R012 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R013 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R014 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R015 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R016 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R017 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R018 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R019 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R020 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R021 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R022 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R023 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R024 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R025 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R028 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R029 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R030 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R031 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R032 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R033 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R034 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R035 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R036 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R037 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R038 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R039 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R040 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R041 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R042 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R043 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R044 | 1-216-849-11 | RES-CHIP | 220K | 5% | 1/16W |
| R045 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R046 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R047 | 1-218-708-11 | METAL CHIP | 4.7K | 0.50% | 1/16W |
| R048 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R051 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R053 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R054 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R055 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R059 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R060 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R062 | 1-216-864-11 | SHORT | | | |
| R063 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R064 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R065 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R066 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R068 | 1-216-864-11 | SHORT | | | |
| R069 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R070 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R071 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R072 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R074 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R075 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R076 | 1-216-819-11 | RES-CHIP | 680 | 5% | 1/16W |
| R077 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R078 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R079 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R082 | 1-216-815-11 | RES-CHIP | 330 | 5% | 1/16W |
| R083 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R084 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R085 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R086 | 1-216-828-11 | RES-CHIP | 3.9K | 5% | 1/16W |
| R087 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R088 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R089 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R090 | 1-216-813-11 | RES-CHIP | 220 | 5% | 1/16W |
| R091 | 1-216-813-11 | RES-CHIP | 220 | 5% | 1/16W |
| R092 | 1-216-813-11 | RES-CHIP | 220 | 5% | 1/16W |
| R098 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R102 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R103 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R104 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R105 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R106 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R107 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R108 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R109 | 1-216-813-11 | RES-CHIP | 220 | 5% | 1/16W |
| R110 | 1-216-813-11 | RES-CHIP | 220 | 5% | 1/16W |
| R111 | 1-216-813-11 | RES-CHIP | 220 | 5% | 1/16W |
| R112 | 1-218-706-11 | METAL CHIP | 3.9K | 0.50% | 1/16W |
| R113 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R114 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R115 | 1-216-827-11 | RES-CHIP | 3.3K | 5% | 1/16W |
| R117 | 1-216-857-11 | RES-CHIP | 1M | 5% | 1/16W |
| R118 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R119 | 1-216-824-11 | RES-CHIP | 1.8K | 5% | 1/16W |
| R120 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| R121 | 1-216-864-11 | SHORT | | | |
| R122 | 1-216-849-11 | RES-CHIP | 220K | 5% | 1/16W |
| R123 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R124 | 1-216-849-11 | RES-CHIP | 220K | 5% | 1/16W |
| R125 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R126 | 1-216-845-11 | RES-CHIP | 100K | 5% | 1/16W |
| R130 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R131 | 1-216-864-11 | SHORT | | | |
| R132 | 1-216-845-11 | RES-CHIP | 100K | 5% | 1/16W |
| R133 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R134 | 1-216-849-11 | RES-CHIP | 220K | 5% | 1/16W |
| R135 | 1-216-845-11 | RES-CHIP | 100K | 5% | 1/16W |
| R136 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R137 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R138 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R139 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R140 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R141 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R142 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R143 | 1-216-813-11 | RES-CHIP | 220 | 5% | 1/16W |
| R144 | 1-216-813-11 | RES-CHIP | 220 | 5% | 1/16W |
| R145 | 1-216-813-11 | RES-CHIP | 220 | 5% | 1/16W |
| R146 | 1-218-706-11 | METAL CHIP | 3.9K | 0.50% | 1/16W |
| R147 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R148 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R149 | 1-216-827-11 | RES-CHIP | 3.3K | 5% | 1/16W |
| R151 | 1-216-857-11 | RES-CHIP | 1M | 5% | 1/16W |
| R152 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R153 | 1-216-824-11 | RES-CHIP | 1.8K | 5% | 1/16W |
| R154 | 1-216-864-11 | SHORT | | | |
| R155 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R156 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R157 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R158 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R200 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R201 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R202 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R203 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R204 | 1-216-819-11 | RES-CHIP | 680 | 5% | 1/16W |
| R205 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R206 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R207 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R208 | 1-216-819-11 | RES-CHIP | 680 | 5% | 1/16W |
| R210 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R211 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R212 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R213 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R214 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R215 | 1-216-828-11 | RES-CHIP | 3.9K | 5% | 1/16W |
| R216 | 1-216-819-11 | RES-CHIP | 680 | 5% | 1/16W |
| R219 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R220 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R221 | 1-218-716-11 | METAL CHIP | 10K | 0.50% | 1/16W |
| R222 | 1-218-684-11 | METAL CHIP | 470 | 0.50% | 1/16W |
| R223 | 1-218-684-11 | METAL CHIP | 470 | 0.50% | 1/16W |
| R224 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R225 | 1-216-819-11 | RES-CHIP | 680 | 5% | 1/16W |
| R226 | 1-218-684-11 | METAL CHIP | 470 | 0.50% | 1/16W |
| R227 | 1-218-684-11 | METAL CHIP | 470 | 0.50% | 1/16W |
| R228 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R231 | 1-218-684-11 | METAL CHIP | 470 | 0.50% | 1/16W |
| R232 | 1-218-684-11 | METAL CHIP | 470 | 0.50% | 1/16W |
| R233 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R234 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R235 | 1-216-835-11 | RES-CHIP | 15K | 5% | 1/16W |
| R236 | 1-216-819-11 | RES-CHIP | 680 | 5% | 1/16W |
| R239 | 1-216-804-11 | RES-CHIP | 39 | 5% | 1/16W |
| R241 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R242 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R243 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R244 | 1-216-819-11 | RES-CHIP | 680 | 5% | 1/16W |
| R248 | 1-216-804-11 | RES-CHIP | 39 | 5% | 1/16W |
| R253 | 1-216-804-11 | RES-CHIP | 39 | 5% | 1/16W |
| R257 | 1-216-864-11 | SHORT | | | |
| R258 | 1-218-686-11 | METAL CHIP | 560 | 0.50% | 1/16W |
| R259 | 1-218-734-11 | METAL CHIP | 56K | 0.50% | 1/16W |
| R260 | 1-216-797-11 | RES-CHIP | 10 | 5% | 1/16W |
| R262 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R263 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R264 | 1-218-704-11 | METAL CHIP | 3.3K | 0.50% | 1/16W |
| R266 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R268 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R270 | 1-218-704-11 | METAL CHIP | 3.3K | 0.50% | 1/16W |
| R271 | 1-216-797-11 | RES-CHIP | 10 | 5% | 1/16W |
| R273 | 1-218-700-11 | METAL CHIP | 2.2K | 0.50% | 1/16W |
| R275 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R276 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R277 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R278 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R279 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R280 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R281 | 1-216-797-11 | RES-CHIP | 10 | 5% | 1/16W |
| R282 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R283 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| R284 | 1-216-813-11 | RES-CHIP | 220 | 5% | 1/16W |
| R285 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R287 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R288 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R289 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R290 | 1-216-813-11 | RES-CHIP | 220 | 5% | 1/16W |
| R291 | 1-218-686-11 | METAL CHIP | 560 | 0.50% | 1/16W |
| R292 | 1-218-686-11 | METAL CHIP | 560 | 0.50% | 1/16W |
| R294 | 1-216-811-11 | RES-CHIP | 150 | 5% | 1/16W |
| R295 | 1-216-839-11 | RES-CHIP | 33K | 5% | 1/16W |
| R296 | 1-216-839-11 | RES-CHIP | 33K | 5% | 1/16W |
| R297 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R298 | 1-216-812-11 | RES-CHIP | 180 | 5% | 1/16W |
| R299 | 1-218-710-11 | METAL CHIP | 5.6K | 0.50% | 1/16W |
| R300 | 1-216-811-11 | RES-CHIP | 150 | 5% | 1/16W |
| R302 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R303 | 1-218-710-11 | METAL CHIP | 5.6K | 0.50% | 1/16W |
| R304 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R305 | 1-216-812-11 | RES-CHIP | 180 | 5% | 1/16W |
| R306 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R307 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R308 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R309 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R310 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R311 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R312 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R313 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R314 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R315 | 1-218-686-11 | METAL CHIP | 560 | 0.50% | 1/16W |
| R316 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R317 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R318 | 1-216-807-11 | RES-CHIP | 68 | 5% | 1/16W |
| R319 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R320 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R321 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R322 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R323 | 1-218-708-11 | METAL CHIP | 4.7K | 0.50% | 1/16W |
| R324 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R325 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R326 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R327 | 1-216-828-11 | RES-CHIP | 3.9K | 5% | 1/16W |
| R328 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R329 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R330 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R331 | 1-216-807-11 | RES-CHIP | 68 | 5% | 1/16W |
| R332 | 1-216-819-11 | RES-CHIP | 680 | 5% | 1/16W |
| R333 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R334 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R339 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R340 | 1-216-819-11 | RES-CHIP | 680 | 5% | 1/16W |
| R346 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R351 | 1-216-835-11 | RES-CHIP | 15K | 5% | 1/16W |
| R352 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R353 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R355 | 1-216-819-11 | RES-CHIP | 680 | 5% | 1/16W |
| R359 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R360 | 1-216-819-11 | RES-CHIP | 680 | 5% | 1/16W |
| R368 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R371 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R372 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R373 | 1-216-819-11 | RES-CHIP | 680 | 5% | 1/16W |
| R375 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R376 | 1-216-819-11 | RES-CHIP | 680 | 5% | 1/16W |
| R377 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R378 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R379 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R400 | 1-218-710-11 | METAL CHIP | 5.6K | 0.50% | 1/16W |
| R401 | 1-218-710-11 | METAL CHIP | 5.6K | 0.50% | 1/16W |
| R402 | 1-218-712-11 | METAL CHIP | 6.8K | 0.50% | 1/16W |
| R403 | 1-218-712-11 | METAL CHIP | 6.8K | 0.50% | 1/16W |
| R404 | 1-216-830-11 | RES-CHIP | 5.6K | 5% | 1/16W |
| R405 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R406 | 1-216-830-11 | RES-CHIP | 5.6K | 5% | 1/16W |
| R407 | 1-216-830-11 | RES-CHIP | 5.6K | 5% | 1/16W |
| R408 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R409 | 1-216-830-11 | RES-CHIP | 5.6K | 5% | 1/16W |
| R410 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R411 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R412 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R413 | 1-216-830-11 | RES-CHIP | 5.6K | 5% | 1/16W |
| R414 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R415 | 1-216-830-11 | RES-CHIP | 5.6K | 5% | 1/16W |
| R416 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R417 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R418 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R419 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R420 | 1-216-830-11 | RES-CHIP | 5.6K | 5% | 1/16W |
| R421 | 1-216-845-11 | RES-CHIP | 100K | 5% | 1/16W |
| R422 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R423 | 1-216-830-11 | RES-CHIP | 5.6K | 5% | 1/16W |
| R424 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R425 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R427 | 1-216-845-11 | RES-CHIP | 100K | 5% | 1/16W |
| R428 | 1-216-848-11 | RES-CHIP | 180K | 5% | 1/16W |

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| R429 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R430 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R432 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R433 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R434 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R437 | 1-216-830-11 | RES-CHIP | 5.6K | 5% | 1/16W |
| R438 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R439 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R440 | 1-216-830-11 | RES-CHIP | 5.6K | 5% | 1/16W |
| R441 | 1-216-813-11 | RES-CHIP | 220 | 5% | 1/16W |
| R443 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R444 | 1-216-813-11 | RES-CHIP | 220 | 5% | 1/16W |
| R445 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R446 | 1-216-853-11 | RES-CHIP | 470K | 5% | 1/16W |
| R447 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R448 | 1-216-842-11 | RES-CHIP | 56K | 5% | 1/16W |
| R449 | 1-216-830-11 | RES-CHIP | 5.6K | 5% | 1/16W |
| R450 | 1-216-830-11 | RES-CHIP | 5.6K | 5% | 1/16W |
| R451 | 1-218-665-11 | METAL CHIP | 75 | 0.50% | 1/16W |
| R452 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R453 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R454 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R455 | 1-216-830-11 | RES-CHIP | 5.6K | 5% | 1/16W |
| R456 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R457 | 1-216-830-11 | RES-CHIP | 5.6K | 5% | 1/16W |
| R458 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R459 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R460 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R461 | 1-216-857-11 | RES-CHIP | 1M | 5% | 1/16W |
| R463 | 1-216-806-11 | RES-CHIP | 56 | 5% | 1/16W |
| R464 | 1-216-853-11 | RES-CHIP | 470K | 5% | 1/16W |
| R465 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R466 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R468 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R469 | 1-216-853-11 | RES-CHIP | 470K | 5% | 1/16W |
| R470 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R471 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R473 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R474 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R475 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R476 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R477 | 1-216-845-11 | RES-CHIP | 100K | 5% | 1/16W |
| R478 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R479 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R480 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R481 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R482 | 1-216-813-11 | RES-CHIP | 220 | 5% | 1/16W |
| R483 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R484 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R485 | 1-216-831-11 | RES-CHIP | 6.8K | 5% | 1/16W |
| R486 | 1-216-831-11 | RES-CHIP | 6.8K | 5% | 1/16W |
| R504 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R505 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R506 | 1-216-813-11 | RES-CHIP | 220 | 5% | 1/16W |
| R507 | 1-218-686-11 | METAL CHIP | 560 | 0.50% | 1/16W |
| R508 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R509 | 1-218-710-11 | METAL CHIP | 5.6K | 0.50% | 1/16W |
| R510 | 1-216-813-11 | RES-CHIP | 220 | 5% | 1/16W |
| R511 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R512 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R514 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R515 | 1-216-823-11 | RES-CHIP | 1.5K | 5% | 1/16W |
| R516 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R517 | 1-216-853-11 | RES-CHIP | 470K | 5% | 1/16W |
| R518 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R520 | 1-218-684-11 | METAL CHIP | 470 | 0.50% | 1/16W |
| R521 | 1-218-684-11 | METAL CHIP | 470 | 0.50% | 1/16W |
| R522 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R523 | 1-218-710-11 | METAL CHIP | 5.6K | 0.50% | 1/16W |
| R524 | 1-218-686-11 | METAL CHIP | 560 | 0.50% | 1/16W |
| R525 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R526 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R527 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R528 | 1-218-710-11 | METAL CHIP | 5.6K | 0.50% | 1/16W |
| R529 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R530 | 1-216-839-11 | RES-CHIP | 33K | 5% | 1/16W |
| R531 | 1-218-686-11 | METAL CHIP | 560 | 0.50% | 1/16W |
| R532 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R533 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R534 | 1-216-819-11 | RES-CHIP | 680 | 5% | 1/16W |
| R535 | 1-218-690-11 | METAL CHIP | 820 | 0.50% | 1/16W |
| R536 | 1-216-834-11 | RES-CHIP | 12K | 5% | 1/16W |
| R537 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R538 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R542 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R543 | 1-218-710-11 | METAL CHIP | 5.6K | 0.50% | 1/16W |
| R544 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R545 | 1-216-839-11 | RES-CHIP | 33K | 5% | 1/16W |
| R546 | 1-218-686-11 | METAL CHIP | 560 | 0.50% | 1/16W |
| R547 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R548 | 1-216-819-11 | RES-CHIP | 680 | 5% | 1/16W |
| R549 | 1-218-690-11 | METAL CHIP | 820 | 0.50% | 1/16W |
| R550 | 1-216-834-11 | RES-CHIP | 12K | 5% | 1/16W |
| R551 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |

**NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.**

**NOTE: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.**

B F

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| R555 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R556 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R557 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R558 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R559 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R560 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R561 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R562 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R563 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R564 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R565 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R566 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R567 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R568 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R569 | 1-218-740-11 | METAL CHIP | 100K | 0.50% | 1/16W |
| R570 | 1-218-742-11 | METAL CHIP | 120K | 0.50% | 1/16W |
| R571 | 1-218-740-11 | METAL CHIP | 100K | 0.50% | 1/16W |
| R572 | 1-218-742-11 | METAL CHIP | 120K | 0.50% | 1/16W |
| R574 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R575 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R576 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R577 | 1-216-822-11 | RES-CHIP | 1.2K | 5% | 1/16W |
| R578 | 1-216-822-11 | RES-CHIP | 1.2K | 5% | 1/16W |
| R579 | 1-216-822-11 | RES-CHIP | 1.2K | 5% | 1/16W |
| R580 | 1-216-813-11 | RES-CHIP | 220 | 5% | 1/16W |
| R581 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R582 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R583 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R584 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R585 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R586 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R587 | 1-216-864-11 | SHORT | | | |
| R588 | 1-216-864-11 | SHORT | | | |
| R589 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R590 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R591 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R592 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R593 | 1-216-864-11 | SHORT | | | |
| R594 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R595 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R596 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |

**RESISTOR BRIDGE**

| | | | | |
|---|---|---|---|---|
| RB500 | 1-233-411-21 | RES, CHIP NETWORK | 220 | -3216 |
| RB501 | 1-233-411-21 | RES, CHIP NETWORK | 220 | -3216 |
| RB502 | 1-233-411-21 | RES, CHIP NETWORK | 220 | -3216 |
| RB503 | 1-233-411-21 | RES, CHIP NETWORK | 220 | -3216 |
| RB504 | 1-233-411-21 | RES, CHIP NETWORK | 220 | -3216 |
| RB505 | 1-233-411-21 | RES, CHIP NETWORK | 220 | -3216 |
| RB506 | 1-233-411-21 | RES, CHIP NETWORK | 220 | -3216 |

**CRYSTAL**

| | | | |
|---|---|---|---|
| X001 | 1-781-931-21 | VIBRATOR, CRYSTAL | |
| X003 | 1-795-371-21 | VIBRATOR, CERAMIC | |
| X100 | 1-579-175-11 | VIBRATOR, CERAMIC | |
| X101 | 1-579-175-11 | VIBRATOR, CERAMIC | |
| X200 | 1-577-358-21 | VIBRATOR, CERAMIC | |
| X201 | 1-567-505-11 | OSCILLATOR, CRYSTAL | |
| X202 | 1-567-505-11 | OSCILLATOR, CRYSTAL | |

F

| | | | |
|---|---|---|---|
| * | **A-1241-489-A** | **F BOARD, MOUNTED** | |

**CAPACITOR**

| | | | | | |
|---|---|---|---|---|---|
| ⚠ | C6701 | 1-136-311-11 | MYLAR | 0.47µF | 20% 125V |
| ⚠ | C6702 | 1-113-910-11 | CERAMIC | 470pF | 10% 250V |
| ⚠ | C6703 | 1-136-311-11 | MYLAR | 0.47µF | 20% 125V |
| ⚠ | C6704 | 1-113-910-11 | CERAMIC | 470pF | 10% 250V |
| ⚠ | C6705 | 1-113-910-11 | CERAMIC | 470pF | 10% 250V |
| ⚠ | C6706 | 1-113-910-11 | CERAMIC | 470pF | 10% 250V |
| ⚠ | C6709 | 1-136-346-21 | MYLAR | 0.22µF | 20% 125V |
| | C6713 | 1-126-971-11 | ELECT | 470µF | 20% 50V |
| | C6714 | 1-126-942-61 | ELECT | 1000µF | 20% 25V |
| | C6715 | 1-130-495-00 | MYLAR | 0.1µF | 5% 50V |

**CONNECTOR**

| | | | | |
|---|---|---|---|---|
| | CN6701 | 1-695-915-11 | TAB (CONTACT) | |
| | CN6702 | 1-695-915-11 | TAB (CONTACT) | |
| ⚠ | CN6703 | 1-580-843-11 | PIN,CONNECTOR | (POWER) |
| * | CN6706 | 1-766-241-11 | PIN,CONNECTOR | (PC BOARD) 3P |
| * | CN6707 | 1-766-241-11 | PIN,CONNECTOR | (PC BOARD) 3P |
| * | CN6708 | 1-508-786-00 | PIN,CONNECTOR | (5MM PITCH) 2P |
| * | CN6709 | 1-766-240-11 | PIN,CONNECTOR | (PC BOARD) 2P |
| * | CN6710 | 1-564-511-11 | PLUG,CONNECTOR | 8P |

**DIODE**

| | | |
|---|---|---|
| D6701 | 8-719-991-33 | DIODE 1SS133T-77 |
| D6702 | 8-719-511-40 | DIODE S1VB20 |
| D6703 | 8-719-991-33 | DIODE 1SS133T-77 |
| D6704 | 8-719-991-33 | DIODE 1SS133T-77 |

**FUSE**

| | | | | |
|---|---|---|---|---|
| ⚠ | F6701 | 1-532-506-51 | FUSE | 6.3A/250V |

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**NOTE: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.**

F A

| | REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|---|
| | | **FUSE HOLDER** | | | | |
| | FH6701 | 1-533-223-11 | HOLDER, FUSE | | | |
| | FH6702 | 1-533-223-11 | HOLDER, FUSE | | | |
| | | **COIL** | | | | |
| ⚠ | L6701 | 1-423-835-11 | TRANSFORMER, LINE FILTER (LFT) | | | |
| ⚠ | L6702 | 1-423-835-11 | TRANSFORMER, LINE FILTER (LFT) | | | |
| | | **TRANSISTOR** | | | | |
| | Q6701 | 8-729-423-33 | TRANSISTOR 2SC3311A-QRSTA | | | |
| | | **RESISTOR** | | | | |
| ⚠ | R6701 | 1-219-776-11 | CARBON | 2.2M | 10% | 1/2W |
| ⚠ | R6702 | 1-260-135-11 | CARBON | 1M | 5% | 1/2W |
| | R6703 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| ⚠ | R6704 | 1-244-155-11 | CEMENTED | 0.39 | 5% | 20W |
| ⚠ | R6705 | 1-244-155-11 | CEMENTED | 0.39 | 5% | 20W |
| | R6707 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W |
| | R6708 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| | R6709 | 1-249-433-11 | CARBON | 22K | 5% | 1/4W |
| | | **RELAY** | | | | |
| ⚠ | RY6701 | 1-755-178-11 | RELAY, AC POWER | | | |
| | | **TRANSFORMER** | | | | |
| ⚠ | T6703 | 1-435-675-11 | TRANSFORMER, STANDBY | | | |
| | | **THERMISTOR** | | | | |
| ⚠ | TH6701 | 1-803-629-11 | THERMISTOR, POSITIVE | | | |
| | | **VARISTOR** | | | | |
| ⚠ | VD6701 | 1-801-074-41 | VARISTOR | ERZV10D271 | | |
| ⚠ | VD6702 | 1-801-074-41 | VARISTOR | ERZV10D271 | | |

A

| | | | | | | |
|---|---|---|---|---|---|---|
| * | **A-1299-501-A** | **A BOARD, COMPLETE** | | | | |
| | 4-382-854-11 | SCREW (M3X10), P, SW (+) | | | | |
| | | **CAPACITOR** | | | | |
| | C2001 | 1-162-966-11 | CERAMIC CHIP | 0.0022µF | 10% | 50V |
| | C2002 | 1-104-665-11 | ELECT | 100µF | 20% | 10V |
| | C2003 | 1-126-967-11 | ELECT | 47µF | 20% | 50V |
| | C2004 | 1-162-966-11 | CERAMIC CHIP | 0.0022µF | 10% | 50V |
| | C2005 | 1-162-966-11 | CERAMIC CHIP | 0.0022µF | 10% | 50V |
| | C2006 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| | C2007 | 1-126-965-91 | ELECT | 22µF | 20% | 50V |
| | C2008 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| | C2009 | 1-162-970-11 | CERAMIC CHIP | 0.01µF | 10% | 25V |
| | C2010 | 1-162-966-11 | CERAMIC CHIP | 0.0022µF | 10% | 50V |
| | C2012 | 1-162-966-11 | CERAMIC CHIP | 0.0022µF | 10% | 50V |
| | C2014 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| | C2015 | 1-164-346-11 | CERAMIC CHIP | 1µF | | 16V |
| | C2016 | 1-107-714-11 | ELECT | 10µF | 20% | 16V |
| | C2017 | 1-107-714-11 | ELECT | 10µF | 20% | 16V |
| | C2018 | 1-162-960-11 | CERAMIC CHIP | 220pF | 10% | 50V |
| | C2019 | 1-165-176-11 | CERAMIC CHIP | 0.047µF | 10% | 16V |
| | C2020 | 1-162-966-11 | CERAMIC CHIP | 0.0022µF | 10% | 50V |
| | C2021 | 1-162-966-11 | CERAMIC CHIP | 0.0022µF | 10% | 50V |
| | C2022 | 1-162-966-11 | CERAMIC CHIP | 0.0022µF | 10% | 50V |
| | C2023 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| | C2024 | 1-104-665-11 | ELECT | 100µF | 20% | 10V |
| | C2025 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| | C2026 | 1-162-966-11 | CERAMIC CHIP | 0.0022µF | 10% | 50V |
| | C2028 | 1-126-935-11 | ELECT | 470µF | 20% | 16V |
| | C2029 | 1-162-970-11 | CERAMIC CHIP | 0.01µF | 10% | 25V |
| | C2030 | 1-126-965-91 | ELECT | 22µF | 20% | 50V |
| | C2031 | 1-162-966-11 | CERAMIC CHIP | 0.0022µF | 10% | 50V |
| | C2032 | 1-164-346-11 | CERAMIC CHIP | 1µF | | 16V |
| | C2034 | 1-162-960-11 | CERAMIC CHIP | 220pF | 10% | 50V |
| | C2035 | 1-165-176-11 | CERAMIC CHIP | 0.047µF | 10% | 16V |
| | C2036 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| | C2037 | 1-107-714-11 | ELECT | 10µF | 20% | 16V |
| | C2038 | 1-107-714-11 | ELECT | 10µF | 20% | 16V |
| | C2039 | 1-126-961-11 | ELECT | 2.2µF | 20% | 50V |
| | C2050 | 1-126-935-11 | ELECT | 470µF | 20% | 16V |
| | C2055 | 1-126-767-11 | ELECT | 1000µF | 20% | 16V |
| | C2056 | 1-107-823-11 | CERAMIC CHIP | 0.47µF | 10% | 16V |
| | C2057 | 1-107-823-11 | CERAMIC CHIP | 0.47µF | 10% | 16V |
| | C3101 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| | C3105 | 1-127-715-91 | CERAMIC CHIP | 0.22µF | 10% | 16V |
| | C3109 | 1-127-760-11 | CERAMIC CHIP | 4.7µF | 10% | 6.3V |
| | C3111 | 1-127-760-11 | CERAMIC CHIP | 4.7µF | 10% | 6.3V |
| | C3112 | 1-127-760-11 | CERAMIC CHIP | 4.7µF | 10% | 6.3V |
| | C3113 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| | C3114 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| | C3115 | 1-162-966-11 | CERAMIC CHIP | 0.0022µF | 10% | 50V |
| | C3116 | 1-126-967-11 | ELECT | 47µF | 20% | 50V |
| | C3117 | 1-110-563-11 | CERAMIC CHIP | 0.068µF | 10% | 16V |
| | C3118 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| | C3120 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| | C3122 | 1-107-823-11 | CERAMIC CHIP | 0.47µF | 10% | 16V |

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**NOTE: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.**

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| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| C3123 | 1-107-823-11 | CERAMIC CHIP | 0.47µF | 10% | 16V |
| C3124 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C3125 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C3126 | 1-136-244-11 | FILM | 0.1µF | 5% | 50V |
| C3127 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C3128 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C3129 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C3130 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C3133 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C3134 | 1-107-823-11 | CERAMIC CHIP | 0.47µF | 10% | 16V |
| C3136 | 1-162-970-11 | CERAMIC CHIP | 0.01µF | 10% | 25V |
| C3137 | 1-164-492-11 | CERAMIC CHIP | 0.15µF | 10% | 16V |
| C3138 | 1-164-346-11 | CERAMIC CHIP | 1µF | | 16V |
| C3139 | 1-125-838-11 | CERAMIC CHIP | 2.2µF | 10% | 6.3V |
| C3140 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C3141 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| C3142 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| C3143 | 1-162-970-11 | CERAMIC CHIP | 0.01µF | 10% | 25V |
| C3144 | 1-162-923-11 | CERAMIC CHIP | 47pF | 5% | 50V |
| C3145 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C3146 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C3147 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C3148 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C3149 | 1-107-823-11 | CERAMIC CHIP | 0.47µF | 10% | 16V |
| C3150 | 1-162-968-11 | CERAMIC CHIP | .0047µF | 10% | 50V |
| C3151 | 1-107-823-11 | CERAMIC CHIP | 0.47µF | 10% | 16V |
| C3152 | 1-127-715-91 | CERAMIC CHIP | 0.22µF | 10% | 16V |
| C3153 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C3154 | 1-162-970-11 | CERAMIC CHIP | 0.01µF | 10% | 25V |
| C3155 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C3156 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C3157 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C3158 | 1-115-467-11 | CERAMIC CHIP | 0.22µF | 10% | 10V |
| C3159 | 1-107-823-11 | CERAMIC CHIP | 0.47µF | 10% | 16V |
| C3160 | 1-162-964-11 | CERAMIC CHIP | 0.001µF | 10% | 50V |
| C3170 | 1-164-346-11 | CERAMIC CHIP | 1µF | | 16V |
| C3171 | 1-164-346-11 | CERAMIC CHIP | 1µF | | 16V |
| C3172 | 1-162-966-11 | CERAMIC CHIP | 0.0022µF | 10% | 50V |
| C4426 | 1-126-961-11 | ELECT | 2.2µF | 20% | 50V |
| C4439 | 1-126-767-11 | ELECT | 1000µF | 20% | 16V |
| C4462 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| C4477 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| C4478 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| C4479 | 1-126-960-11 | ELECT | 1µF | 20% | 50V |
| C4480 | 1-126-935-11 | ELECT | 470µF | 20% | 16V |
| C4481 | 1-126-960-11 | ELECT | 1µF | 20% | 50V |
| C4482 | 1-126-960-11 | ELECT | 1µF | 20% | 50V |

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| C4483 | 1-126-935-11 | ELECT | 470µF | 20% | 16V |
| C4484 | 1-126-960-11 | ELECT | 1µF | 20% | 50V |
| C4485 | 1-126-960-11 | ELECT | 1µF | 20% | 50V |
| C4486 | 1-126-935-11 | ELECT | 470µF | 20% | 16V |
| C4487 | 1-126-960-11 | ELECT | 1µF | 20% | 50V |
| C4488 | 1-126-934-11 | ELECT | 220µF | 20% | 16V |
| C4489 | 1-126-935-11 | ELECT | 470µF | 20% | 16V |
| C4490 | 1-162-964-11 | CERAMIC CHIP | 0.001µF | 10% | 50V |
| C4491 | 1-136-165-00 | FILM | 0.1µF | 5% | 50V |
| C4492 | 1-126-953-11 | ELECT | 2200µF | 20% | 35V |
| C4493 | 1-126-934-11 | ELECT | 220µF | 20% | 16V |
| C4494 | 1-162-964-11 | CERAMIC CHIP | 0.001µF | 10% | 50V |
| C4495 | 1-136-165-00 | FILM | 0.1µF | 5% | 50V |
| C4496 | 1-126-953-11 | ELECT | 2200µF | 20% | 35V |
| C4497 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C4498 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C4499 | 1-136-165-00 | FILM | 0.1µF | 5% | 50V |
| C4500 | 1-136-165-00 | FILM | 0.1µF | 5% | 50V |
| C4501 | 1-136-165-00 | FILM | 0.1µF | 5% | 50V |
| C4502 | 1-126-942-61 | ELECT | 1000µF | 20% | 25V |
| C4503 | 1-126-942-61 | ELECT | 1000µF | 20% | 25V |
| C4504 | 1-136-165-00 | FILM | 0.1µF | 5% | 50V |
| C4505 | 1-126-953-11 | ELECT | 2200µF | 20% | 35V |
| C4506 | 1-126-953-11 | ELECT | 2200µF | 20% | 35V |
| C6001 | 1-117-227-11 | MYLAR | 1µF | 10% | 450V |
| C6002 | 1-163-009-91 | CERAMIC CHIP | 0.001µF | 10% | 50V |
| C6003 | 1-163-021-91 | CERAMIC CHIP | 0.01µF | 10% | 50V |
| C6004 | 1-126-967-11 | ELECT | 47µF | 20% | 50V |
| C6005 | 1-126-961-11 | ELECT | 2.2µF | 20% | 50V |
| C6006 | 1-136-479-11 | FILM | 0.001µF | 2% | 50V |
| C6007 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| C6008 | 1-130-777-00 | MYLAR | 0.1µF | 5% | 100V |
| C6009 | 1-126-947-11 | ELECT | 47µF | 20% | 25V |
| C6014 | 1-126-968-11 | ELECT | 100µF | 20% | 50V |
| C6016 | 1-125-969-91 | CERAMIC | 680pF | 10% | 1KV |
| C6017 | 1-126-960-11 | ELECT | 1µF | 20% | 50V |
| C6018 | 1-126-968-11 | ELECT | 100µF | 20% | 50V |
| C6019 | 1-135-945-21 | FILM | 10000pF | 3% | 800V |
| C6020 | 1-126-947-11 | ELECT | 47µF | 20% | 25V |
| ⚠ C6021 | 1-119-887-51 | CERAMIC | 1000pF | 20% | 250V |
| C6022 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C6023 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C6024 | 1-115-746-11 | ELECT | 0.0056F | 20% | 10V |
| C6025 | 1-163-037-11 | CERAMIC CHIP | 0.022µF | 10% | 50V |
| C6026 | 1-128-546-11 | ELECT | 10000µF | 20% | 10V |
| C6027 | 1-126-960-11 | ELECT | 1µF | 20% | 50V |
| C6028 | 1-126-936-11 | ELECT | 3300µF | 20% | 16V |

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| | REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|---|
| | C6030 | 1-126-960-11 | ELECT | 1µF | 20% | 50V |
| | C6031 | 1-126-935-11 | ELECT | 470µF | 20% | 10V |
| | C6032 | 1-130-495-00 | MYLAR | 0.1µF | 5% | 50V |
| | C6034 | 1-104-665-11 | ELECT | 100µF | 20% | 25V |
| | C6035 | 1-126-935-11 | ELECT | 470µF | 20% | 16V |
| | C6036 | 1-130-495-00 | MYLAR | 0.1µF | 5% | 50V |
| | C6039 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| | C6040 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| | C6041 | 1-126-926-11 | ELECT | 1000µF | 20% | 10V |
| | C6042 | 1-126-941-11 | ELECT | 470µF | 20% | 25V |
| | C6046 | 1-126-767-11 | ELECT | 1000µF | 20% | 16V |
| | C6048 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| | C6049 | 1-126-960-11 | ELECT | 1µF | 20% | 50V |
| | C6050 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| | C6051 | 1-126-934-11 | ELECT | 220µF | 20% | 16V |
| | C6052 | 1-162-960-11 | CERAMIC CHIP | 220pF | 10% | 50V |
| | | **CONNECTOR** | | | | |
| * | CN2001 | 1-564-515-11 | PLUG,CONNECTOR | | | 12P |
| * | CN3020 | 1-793-922-11 | CONNECTOR, DIN (RECEPTACLE) | | | 64P |
| | CN3022 | 1-793-174-11 | SOCKET,PCCONNECTOR (PC BOARD) | | | |
| * | CN3101 | 1-764-333-11 | PLUG,CONNECTOR | | | 10P |
| * | CN3102 | 1-564-506-11 | PLUG,CONNECTOR | | | 3P |
| * | CN3103 | 1-779-892-11 | CONNECTOR, BOARD TO BOARD | | | 10P |
| * | CN3170 | 1-779-891-11 | CONNECTOR, BOARD TO BOARD | | | 8P |
| * | CN3171 | 1-779-891-11 | CONNECTOR, BOARD TO BOARD | | | 8P |
| * | CN3173 | 1-779-891-11 | CONNECTOR, BOARD TO BOARD | | | 8P |
| * | CN3174 | 1-779-892-11 | CONNECTOR, BOARD TO BOARD | | | 10P |
| * | CN4402 | 1-691-616-21 | CONNECTOR, BOARD TO BOARD | | | 15P |
| * | CN4403 | 1-564-511-11 | PLUG,CONNECTOR | | | 8P |
| * | CN4404 | 1-564-511-61 | PLUG,CONNECTOR | | | 8P |
| * | CN6001 | 1-779-891-11 | CONNECTOR, BOARD TO BOARD | | | 8P |
| * | CN6002 | 1-564-511-11 | PLUG,CONNECTOR | | | 8P |
| * | CN6003 | 1-766-176-11 | PIN,CONNECTOR (PC BOARD) | | | 6P |
| * | CN6005 | 1-691-757-11 | PIN,CONNECTOR (PC BOARD) | | | 8P |
| | CN6009 | 1-695-915-11 | TAB (CONTACT) | | | |
| | CN6010 | 1-695-915-11 | TAB (CONTACT) | | | |
| | CN6012 | 1-695-915-11 | TAB (CONTACT) | | | |
| | | **DIODE** | | | | |
| | D2007 | 8-719-404-50 | DIODE MA111-TX | | | |
| | D2008 | 8-719-404-50 | DIODE MA111-TX | | | |
| | D2050 | 8-719-914-43 | DIODE DAN202K-T-146 | | | |
| | D2051 | 8-719-914-43 | DIODE DAN202K-T-146 | | | |
| | D2052 | 8-719-914-43 | DIODE DAN202K-T-146 | | | |
| | D2053 | 8-719-991-33 | DIODE 1SS133T-77 | | | |
| | D2054 | 8-719-404-50 | DIODE MA111-TX | | | |
| | D2055 | 8-719-404-50 | DIODE MA111-TX | | | |
| | D2056 | 8-719-404-50 | DIODE MA111-TX | | | |

| REF.NO. | PART NO. | DESCRIPTION | VALUES |
|---|---|---|---|
| D2057 | 8-719-404-50 | DIODE MA111-TX | |
| D2058 | 8-719-404-50 | DIODE MA111-TX | |
| D2059 | 8-719-404-50 | DIODE MA111-TX | |
| D3103 | 8-719-404-50 | DIODE MA111-TX | |
| D3105 | 8-719-025-31 | DIODE 02CZ5.6-TE85L | |
| D3106 | 8-719-404-50 | DIODE MA111-TX | |
| D3109 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D3111 | 1-216-864-11 | SHORT | |
| D3112 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D3113 | 8-719-109-97 | DIODE MTZJ-T-77-6.8B | |
| D3114 | 8-719-109-97 | DIODE MTZJ-T-77-6.8B | |
| D4403 | 8-719-041-97 | DIODE MA113-(TX) | |
| D4404 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D4406 | 8-719-404-50 | DIODE MA111-TX | |
| D4409 | 8-719-041-97 | DIODE MA113-(TX) | |
| D4410 | 8-719-404-50 | DIODE MA111-TX | |
| D4411 | 8-719-041-97 | DIODE MA113-(TX) | |
| D4412 | 8-719-404-50 | DIODE MA111-TX | |
| D4413 | 8-719-404-50 | DIODE MA111-TX | |
| D4414 | 8-719-404-50 | DIODE MA111-TX | |
| D4415 | 8-719-924-13 | DIODE MTZJ-T-77-22B | |
| D4416 | 8-719-924-13 | DIODE MTZJ-T-77-22B | |
| D6002 | 8-719-404-50 | DIODE MA111-TX | |
| D6004 | 8-719-979-64 | DIODE µF4005PKG23 | |
| D6011 | 8-719-063-73 | DIODE D1NL20U-TR | |
| D6012 | 8-719-063-73 | DIODE D1NL20U-TR | |
| D6013 | 8-719-404-50 | DIODE MA111-TX | |
| D6014 | 8-719-031-79 | DIODE D5SC4M | |
| D6015 | 8-719-921-63 | DIODE MTZJ-T-77-7.5B | |
| D6016 | 8-719-510-12 | DIODE D10SC4M | |
| D6017 | 8-719-109-97 | DIODE MTZJ-T-77-6.8B | |
| D6018 | 8-719-031-79 | DIODE D5SC4M | |
| D6019 | 8-719-404-50 | DIODE MA111-TX | |
| D6020 | 8-719-921-40 | DIODE MTZJ-T-77-4.7B | |
| D6021 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D6022 | 8-719-404-50 | DIODE MA111-TX | |
| D6023 | 8-719-404-50 | DIODE MA111-TX | |
| D6024 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D6025 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D6026 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D6027 | 8-719-404-50 | DIODE MA111-TX | |
| D6030 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D6031 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D6032 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D6034 | 8-719-923-78 | DIODE MTZJ-T-77-12 | |
| D6035 | 8-719-924-13 | DIODE MTZJ-T-77-22B | |
| D6036 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D6037 | 8-719-991-33 | DIODE 1SS133T-77 | |

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| REF.NO. | PART NO. | DESCRIPTION | VALUES |
|---|---|---|---|
| | **FERRITE BEAD** | | |
| FB6001 | 1-412-911-11 | FERRITE | 0µH |
| FB6002 | 1-412-911-11 | FERRITE | 0µH |
| FB6004 | 1-412-911-11 | FERRITE | 0µH |
| FB6005 | 1-412-911-11 | FERRITE | 0µH |
| FB6006 | 1-412-911-11 | FERRITE | 0µH |
| FB6007 | 1-412-911-11 | FERRITE | 0µH |
| FB6008 | 1-412-911-11 | FERRITE | 0µH |
| FB6009 | 1-412-911-11 | FERRITE | 0µH |
| | **IC** | | |
| IC3101 | 8-752-100-25 | IC CXA2150AQ | |
| IC4405 | 8-759-246-70 | IC TA8216H | |
| IC4406 | 8-759-246-70 | IC TA8216H | |
| IC6001 | 8-759-670-30 | IC MCZ3001D | |
| IC6002 | 8-759-450-47 | IC BA05T | |
| IC6003 | 8-759-140-85 | IC UPC1093J-T | |
| IC6004 | 8-759-284-06 | IC PQ30RV31 | |
| IC6005 | 8-759-648-72 | IC PQ3RD083 | |
| IC6006 | 8-759-513-71 | IC PQ05RF21 | |
| IC6007 | 8-759-198-03 | IC PQ09RF21 | |
| IC6008 | 8-759-198-03 | IC PQ09RF21 | |
| | **COIL** | | |
| L2001 | 1-469-320-21 | INDUCTOR | 100µH |
| L2002 | 1-469-320-21 | INDUCTOR | 100µH |
| L2003 | 1-469-317-21 | INDUCTOR | 10µH |
| L2005 | 1-469-320-21 | INDUCTOR | 100µH |
| L2006 | 1-469-320-21 | INDUCTOR | 100µH |
| L2007 | 1-469-317-21 | INDUCTOR | 10µH |
| L3101 | 1-469-317-21 | INDUCTOR | 10µH |
| L3102 | 1-469-317-21 | INDUCTOR | 10µH |
| L3103 | 1-469-317-21 | INDUCTOR | 10µH |
| L4401 | 1-414-185-41 | INDUCTOR | 22µH |
| L6001 | 1-469-317-21 | INDUCTOR | 10µH |
| L6002 | 1-406-665-11 | INDUCTOR | 100µH |
| L6003 | 1-406-659-11 | INDUCTOR | 10µH |
| L6004 | 1-406-661-11 | INDUCTOR | 22µH |
| L6005 | 1-412-525-31 | INDUCTOR | 10µH |
| | **PHOTO COUPLER** | | |
| PH6001 | 8-749-924-35 | PHOTO COUPLER | ON3171-R |
| | **TRANSISTOR** | | |
| Q2001 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q2002 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q2003 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q2004 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q2005 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q2006 | 8-729-027-23 | TRANSISTOR DTA114EKA-T146 | |
| Q2050 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q2053 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q3101 | 8-729-122-63 | TRANSISTOR 2SA1226-T1E4 | |
| Q3102 | 8-729-122-63 | TRANSISTOR 2SA1226-T1E4 | |
| Q3103 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q3105 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q3106 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q3107 | 8-729-122-63 | TRANSISTOR 2SA1226-T1E4 | |
| Q3108 | 8-729-122-63 | TRANSISTOR 2SA1226-T1E4 | |
| Q3110 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q3111 | 1-801-806-11 | TRANSISTOR DTC144EKA-T146 | |
| Q3112 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q3170 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q3171 | 8-729-901-47 | TRANSISTOR DTA143EKA-T146 | |
| Q3172 | 8-729-901-47 | TRANSISTOR DTA143EKA-T146 | |
| Q3173 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q3180 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q3181 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q4401 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q4402 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q4403 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q4404 | 8-729-900-53 | TRANSISTOR DTC114EKA-T146 | |
| Q4405 | 8-729-900-53 | TRANSISTOR DTC114EKA-T146 | |
| Q4406 | 8-729-900-53 | TRANSISTOR DTC114EKA-T146 | |
| Q4407 | 8-729-900-53 | TRANSISTOR DTC114EKA-T146 | |
| Q4408 | 8-729-900-53 | TRANSISTOR DTC114EKA-T146 | |
| Q4409 | 8-729-900-53 | TRANSISTOR DTC114EKA-T146 | |
| Q4410 | 8-729-900-53 | TRANSISTOR DTC114EKA-T146 | |
| Q4411 | 8-729-900-53 | TRANSISTOR DTC114EKA-T146 | |
| Q6001 | 8-729-052-29 | TRANSISTOR 2SK2876-01MR-F122 | |
| Q6002 | 8-729-052-29 | TRANSISTOR 2SK2876-01MR-F122 | |
| Q6003 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q6004 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q6005 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q6006 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q6007 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q6008 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q6009 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q6010 | 8-729-900-53 | TRANSISTOR DTC114EKA-T146 | |
| Q6011 | 8-729-900-53 | TRANSISTOR DTC114EKA-T146 | |
| Q6012 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q6013 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| | **RESISTOR** | | |
| R2001 | 1-216-864-11 | SHORT | |
| R2002 | 1-216-805-11 | RES-CHIP | 47 5% 1/16W |

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| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| R2003 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R2004 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R2005 | 1-216-839-11 | RES-CHIP | 33K | 5% | 1/16W |
| R2006 | 1-218-688-11 | METAL CHIP | 680 | 0.50% | 1/16W |
| R2007 | 1-218-686-11 | METAL CHIP | 560 | 0.50% | 1/16W |
| R2008 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R2009 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R2010 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R2011 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R2012 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R2013 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R2014 | 1-216-857-11 | RES-CHIP | 1M | 5% | 1/16W |
| R2015 | 1-216-845-11 | RES-CHIP | 100K | 5% | 1/16W |
| R2016 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R2017 | 1-216-864-11 | SHORT | | | |
| R2018 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R2019 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R2020 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R2021 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R2022 | 1-216-864-11 | SHORT | | | |
| R2023 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R2024 | 1-216-839-11 | RES-CHIP | 33K | 5% | 1/16W |
| R2025 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R2026 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R2027 | 1-216-857-11 | RES-CHIP | 1M | 5% | 1/16W |
| R2028 | 1-216-845-11 | RES-CHIP | 100K | 5% | 1/16W |
| R2029 | 1-218-688-11 | METAL CHIP | 680 | 0.50% | 1/16W |
| R2030 | 1-218-686-11 | METAL CHIP | 560 | 0.50% | 1/16W |
| R2031 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R2032 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R2033 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R2034 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R2036 | 1-216-857-11 | RES-CHIP | 1M | 5% | 1/16W |
| R2037 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R2038 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R2051 | 1-216-864-11 | SHORT | | | |
| R2053 | 1-216-864-11 | SHORT | | | |
| R2054 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R2055 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R2058 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R2059 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R2062 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R3101 | 1-216-815-11 | RES-CHIP | 330 | 5% | 1/16W |
| R3104 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R3106 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R3107 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R3108 | 1-249-412-11 | CARBON | 390 | 5% | 1/4W |
| R3109 | 1-216-864-11 | SHORT | | | |
| R3110 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R3111 | 1-216-864-11 | SHORT | | | |
| R3112 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R3113 | 1-216-845-11 | RES-CHIP | 100K | 5% | 1/16W |
| R3114 | 1-249-412-11 | CARBON | 390 | 5% | 1/4W |
| R3115 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R3116 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R3117 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R3118 | 1-216-845-11 | RES-CHIP | 100K | 5% | 1/16W |
| R3120 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R3121 | 1-249-412-11 | CARBON | 390 | 5% | 1/4W |
| R3122 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R3125 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R3131 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R3135 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R3137 | 1-216-863-11 | RES-CHIP | 3.3M | 5% | 1/16W |
| R3139 | 1-216-827-11 | RES-CHIP | 3.3K | 5% | 1/16W |
| R3140 | 1-216-826-11 | RES-CHIP | 2.7K | 5% | 1/16W |
| R3141 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R3143 | 1-216-834-11 | RES-CHIP | 12K | 5% | 1/16W |
| R3144 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R3145 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R3146 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R3150 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R3151 | 1-216-845-11 | RES-CHIP | 100K | 5% | 1/16W |
| R3152 | 1-218-708-11 | METAL CHIP | 4.7K | 0.50% | 1/16W |
| R3153 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R3154 | 1-216-818-11 | RES-CHIP | 560 | 5% | 1/16W |
| R3155 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R3157 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R3158 | 1-216-828-11 | RES-CHIP | 3.9K | 5% | 1/16W |
| R3159 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R3160 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R3161 | 1-218-716-11 | METAL CHIP | 10K | 0.50% | 1/16W |
| R3162 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R3164 | 1-216-832-11 | RES-CHIP | 8.2K | 5% | 1/16W |
| R3165 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R3167 | 1-218-662-11 | METAL CHIP | 56 | 0.50% | 1/16W |
| R3168 | 1-218-662-11 | METAL CHIP | 56 | 0.50% | 1/16W |
| R3169 | 1-218-662-11 | METAL CHIP | 56 | 0.50% | 1/16W |
| R3170 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R3171 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R3172 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R3173 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R3174 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R3175 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |

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A

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| R3176 | 1-216-813-11 | RES-CHIP | 220 | 5% | 1/16W |
| R3177 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R3178 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R3180 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R3181 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R3182 | 1-216-827-11 | RES-CHIP | 3.3K | 5% | 1/16W |
| R3183 | 1-216-827-11 | RES-CHIP | 3.3K | 5% | 1/16W |
| R3184 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R4422 | 1-216-853-11 | RES-CHIP | 470K | 5% | 1/16W |
| R4423 | 1-216-853-11 | RES-CHIP | 470K | 5% | 1/16W |
| R4424 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R4425 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R4427 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R4428 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R4429 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R4431 | 1-216-845-11 | RES-CHIP | 100K | 5% | 1/16W |
| R4433 | 1-216-864-11 | SHORT | | | |
| R4436 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R4446 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R4447 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R4454 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R4455 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R4456 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R4457 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R4470 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R4471 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R4472 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R4473 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R4475 | 1-216-864-11 | SHORT | | | |
| R4476 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R4477 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R4478 | 1-216-864-11 | SHORT | | | |
| R4479 | 1-216-864-11 | SHORT | | | |
| R4480 | 1-216-835-11 | RES-CHIP | 15K | 5% | 1/16W |
| R4481 | 1-216-864-11 | SHORT | | | |
| R4482 | 1-216-835-11 | RES-CHIP | 15K | 5% | 1/16W |
| R4483 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R4484 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R4485 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R4486 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R4487 | 1-249-385-11 | CARBON | 2.2 | 5% | 1/4W |
| R4488 | 1-249-385-11 | CARBON | 2.2 | 5% | 1/4W |
| R4489 | 1-249-385-11 | CARBON | 2.2 | 5% | 1/4W |
| R4490 | 1-249-385-11 | CARBON | 2.2 | 5% | 1/4W |
| R4491 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R4492 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R4493 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| R4494 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R6001 | 1-215-481-00 | METAL | 330K | 1% | 1/4W |
| R6002 | 1-220-926-11 | FUSIBLE | 0.47 | 10% | 1/2W |
| R6003 | 1-215-481-00 | METAL | 330K | 1% | 1/4W |
| R6004 | 1-215-481-00 | METAL | 330K | 1% | 1/4W |
| R6005 | 1-216-627-11 | METAL CHIP | 100 | 0.50% | 1/10W |
| R6006 | 1-216-675-91 | METAL CHIP | 10K | 0.50% | 1/10W |
| R6008 | 1-216-679-11 | METAL CHIP | 15K | 0.50% | 1/10W |
| R6009 | 1-216-615-91 | METAL CHIP | 33 | 0.50% | 1/10W |
| R6010 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R6011 | 1-249-393-11 | CARBON | 10 | 5% | 1/4W |
| R6012 | 1-249-393-11 | CARBON | 10 | 5% | 1/4W |
| R6014 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6015 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6017 | 1-215-907-11 | METAL OXIDE | 22 | 5% | 3W |
| R6018 | 1-216-363-00 | METAL OXIDE | 0.33 | 5% | 2W |
| R6019 | 1-216-363-00 | METAL OXIDE | 0.33 | 5% | 2W |
| R6020 | 1-249-393-11 | CARBON | 10 | 5% | 1/4W |
| R6021 | 1-216-295-91 | SHORT | | | |
| R6022 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R6023 | 1-249-393-11 | CARBON | 10 | 5% | 1/4W |
| R6024 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R6025 | 1-216-851-11 | RES-CHIP | 330K | 5% | 1/16W |
| R6026 | 1-216-851-11 | RES-CHIP | 330K | 5% | 1/16W |
| R6027 | 1-216-033-00 | RES-CHIP | 220 | 5% | 1/10W |
| R6028 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R6029 | 1-249-381-11 | CARBON | 1 | 5% | 1/4W |
| R6030 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R6031 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R6032 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R6033 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R6034 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R6035 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R6036 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R6037 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R6038 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| ⚠ R6039 | 1-219-718-11 | CEMENTED | 0.1 | 10% | 5W |
| R6040 | 1-218-708-11 | METAL CHIP | 4.7K | 0.50% | 1/16W |
| R6041 | 1-218-713-11 | METAL CHIP | 7.5K | 0.50% | 1/16W |
| R6042 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| ⚠ R6043 | 1-219-718-11 | CEMENTED | 0.1 | 10% | 5W |
| R6045 | 1-216-849-11 | RES-CHIP | 220K | 5% | 1/16W |
| R6046 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R6048 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R6049 | 1-218-684-11 | METAL CHIP | 470 | 0.50% | 1/16W |
| R6050 | 1-218-696-11 | METAL CHIP | 1.5K | 0.50% | 1/16W |
| R6052 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |

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A C

| | REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|---|
| | R6053 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| ⚠ | R6054 | 1-216-341-11 | METAL OXIDE | 0.22 | 5% | 1W |
| | R6055 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| | R6056 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| | R6057 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| | R6058 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| | R6059 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| | R6060 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| | R6061 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| | R6062 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| | R6063 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| | R6064 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| | R6065 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| | R6066 | 1-218-732-11 | METAL CHIP | 47K | 0.50% | 1/16W |
| ⚠ | R6067 | 1-216-363-00 | METAL OXIDE | 0.33 | 5% | 2W |
| | R6068 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| | R6069 | 1-216-827-11 | RES-CHIP | 3.3K | 5% | 1/16W |
| | R6070 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| | R6071 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| | R6072 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| | R6073 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W |
| | R6074 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W |
| | | **TRANSFORMER** | | | | |
| | T6002 | 1-435-577-11 | TRANSFORMER, CONVERTER (PIT) | | | |
| | | **TUNER** | | | | |
| | TU2001 | 8-598-542-20 | TUNER, FSS BTF-WA412 | | | |
| | TU2002 | 8-598-542-20 | TUNER, FSS BTF-WA412 | | | |
| | | **CRYSTAL** | | | | |
| | X3101 | 1-760-895-21 | VIBRATOR, CERAMIC | | | |
| C | | | | | | |
| * | | **A-1332-184-A** | **C BOARD, MOUNTED** | | | |
| | | 4-382-854-11 | SCREW (M3X10), P, SW (+) | | | |
| | | **CAPACITOR** | | | | |
| | C9001 | 1-126-940-11 | ELECT | 330µF | 20% | 25V |
| | C9004 | 1-162-114-00 | CERAMIC | .0047µF | | 2KV |
| | C9009 | 1-163-104-00 | CERAMIC CHIP | 30pF | 5% | 50V |
| | C9010 | 1-163-104-00 | CERAMIC CHIP | 30pF | 5% | 50V |
| | C9011 | 1-161-830-00 | CERAMIC | .0047µF | | 500V |
| | C9012 | 1-161-830-00 | CERAMIC | .0047µF | | 500V |
| | C9013 | 1-163-035-00 | CERAMIC CHIP | 0.047µF | | 50V |
| | C9014 | 1-161-830-00 | CERAMIC | .0047µF | | 500V |
| | C9015 | 1-163-104-00 | CERAMIC CHIP | 30pF | 5% | 50V |
| | C9018 | 1-107-961-91 | ELECT | 10µF | 20% | 250V |
| | C9019 | 1-164-004-11 | CERAMIC CHIP | 0.1µF | 10% | 25V |
| | C9020 | 1-107-961-91 | ELECT | 10µF | 20% | 250V |
| | C9021 | 1-107-961-91 | ELECT | 10µF | 20% | 250V |
| | C9022 | 1-101-004-00 | CERAMIC | 0.01µF | | 50V |
| | C9023 | 1-101-004-00 | CERAMIC | 0.01µF | | 50V |
| | C9024 | 1-164-004-11 | CERAMIC CHIP | 0.1µF | 10% | 25V |
| | C9025 | 1-104-653-11 | ELECT | 220µF | 20% | 16V |
| | C9026 | 1-164-004-11 | CERAMIC CHIP | 0.1µF | 10% | 25V |
| | C9027 | 1-101-004-00 | CERAMIC | 0.01µF | | 50V |
| | C9031 | 1-162-116-00 | CERAMIC | 680pF | 10% | 2KV |
| | C9032 | 1-162-116-00 | CERAMIC | 680pF | 10% | 2KV |
| | C9033 | 1-107-662-11 | ELECT | 22µF | 20% | 250V |
| | C9035 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| | C9036 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| | C9037 | 1-126-961-11 | ELECT | 2.2µF | 20% | 50V |
| | C9038 | 1-126-963-11 | ELECT | 4.7µF | 20% | 50V |
| | C9042 | 1-126-940-11 | ELECT | 330µF | 20% | 25V |
| | C9044 | 1-126-934-11 | ELECT | 220µF | 20% | 16V |
| | C9045 | 1-164-004-11 | CERAMIC CHIP | 0.1µF | 10% | 25V |
| | C9046 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| | C9047 | 1-163-021-91 | CERAMIC CHIP | 0.01µF | 10% | 50V |
| | C9048 | 1-164-004-11 | CERAMIC CHIP | 0.1µF | 10% | 25V |
| | C9049 | 1-164-004-11 | CERAMIC CHIP | 0.1µF | 10% | 25V |
| | C9050 | 1-164-004-11 | CERAMIC CHIP | 0.1µF | 10% | 25V |
| | | **CONNECTOR** | | | | |
| * | CN9001 | 1-764-333-11 | PLUG,CONNECTOR | | | 10P |
| * | CN9002 | 1-766-242-11 | PIN,CONNECTOR (PC BOARD) | | | 4P |
| | CN9003 | 1-695-915-11 | TAB (CONTACT) | | | |
| | CN9004 | 1-695-915-11 | TAB (CONTACT) | | | |
| | | **DIODE** | | | | |
| | D9001 | 8-719-911-19 | DIODE 1SS119-25TD | | | |
| | D9003 | 8-719-911-19 | DIODE 1SS119-25TD | | | |
| | D9005 | 8-719-404-50 | DIODE MA111-TX | | | |
| | D9006 | 8-719-051-85 | DIODE HSS83TD | | | |
| | D9007 | 8-719-051-85 | DIODE HSS83TD | | | |
| | D9008 | 8-719-051-85 | DIODE HSS83TD | | | |
| | D9009 | 8-719-908-03 | DIODE GP08DPKG23 | | | |
| | D9010 | 8-719-110-17 | DIODE MTZJ-T-77-10 | | | |
| | D9013 | 8-719-911-19 | DIODE 1SS119-25TD | | | |
| | D9014 | 8-719-911-19 | DIODE 1SS119-25TD | | | |
| | D9015 | 8-719-911-19 | DIODE 1SS119-25TD | | | |
| | D9016 | 8-719-911-19 | DIODE 1SS119-25TD | | | |
| | D9017 | 8-719-911-19 | DIODE 1SS119-25TD | | | |

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C

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| | **IC** | | | | |
| IC9001 | 8-759-680-01 | IC TDA6120Q/N2/S1 | | | |
| IC9002 | 8-759-680-01 | IC TDA6120Q/N2/S1 | | | |
| IC9003 | 8-759-680-01 | IC TDA6120Q/N2/S1 | | | |
| | **JACK** | | | | |
| ⚠ J9001 | 1-451-470-21 | SOCKET, CRT | | | |
| | **COIL** | | | | |
| L9002 | 1-408-399-00 | INDUCTOR | 1.5µH | | |
| L9003 | 1-408-592-11 | INDUCTOR | 1.2µH | | |
| L9004 | 1-408-592-11 | INDUCTOR | 1.2µH | | |
| L9005 | 1-406-666-21 | INDUCTOR | 150µH | | |
| L9006 | 1-412-526-11 | INDUCTOR | 12µH | | |
| | **NEON LAMP** | | | | |
| NL9003 | 1-519-421-11 | GAP, DISCHARGE | | | |
| | **TRANSISTOR** | | | | |
| Q9001 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | | | |
| Q9002 | 8-729-423-33 | TRANSISTOR 2SC3311A-QRSTA | | | |
| Q9003 | 8-729-422-33 | TRANSISTOR 2PD601AR-115 | | | |
| Q9004 | 8-729-422-33 | TRANSISTOR 2PD601AR-115 | | | |
| Q9005 | 8-729-422-33 | TRANSISTOR 2PD601AR-115 | | | |
| Q9007 | 8-729-141-73 | TRANSISTOR 2SC3624A-T1L15L16 | | | |
| Q9008 | 8-729-423-33 | TRANSISTOR 2SC3311A-QRSTA | | | |
| Q9009 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | | | |
| Q9010 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | | | |
| Q9011 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | | | |
| Q9012 | 8-729-423-33 | TRANSISTOR 2SC3311A-QRSTA | | | |
| Q9013 | 8-729-141-73 | TRANSISTOR 2SC3624A-T1L15L16 | | | |
| Q9014 | 8-729-823-81 | TRANSISTOR 2SC4632LS-CB7 | | | |
| Q9015 | 8-729-141-73 | TRANSISTOR 2SC3624A-T1L15L16 | | | |
| | **RESISTOR** | | | | |
| R9001 | 1-216-633-11 | METAL CHIP | 180 | 0.50% | 1/10W |
| R9004 | 1-249-428-11 | CARBON | 8.2K | 5% | 1/4W |
| R9005 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W |
| R9006 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R9007 | 1-216-652-11 | METAL CHIP | 1.1K | 0.50% | 1/10W |
| R9009 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R9010 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R9013 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R9014 | 1-249-409-11 | CARBON | 220 | 5% | 1/4W |
| R9015 | 1-249-409-11 | CARBON | 220 | 5% | 1/4W |
| R9016 | 1-249-409-11 | CARBON | 220 | 5% | 1/4W |
| R9018 | 1-216-633-11 | METAL CHIP | 180 | 0.50% | 1/10W |
| R9019 | 1-216-633-11 | METAL CHIP | 180 | 0.50% | 1/10W |
| R9020 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R9021 | 1-216-103-00 | RES-CHIP | 180K | 5% | 1/10W |
| R9022 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R9023 | 1-216-103-00 | RES-CHIP | 180K | 5% | 1/10W |
| R9025 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R9026 | 1-216-652-11 | METAL CHIP | 1.1K | 0.50% | 1/10W |
| R9027 | 1-216-103-00 | RES-CHIP | 180K | 5% | 1/10W |
| R9028 | 1-216-103-00 | RES-CHIP | 180K | 5% | 1/10W |
| R9029 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R9030 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R9031 | 1-216-652-11 | METAL CHIP | 1.1K | 0.50% | 1/10W |
| R9032 | 1-216-103-00 | RES-CHIP | 180K | 5% | 1/10W |
| R9033 | 1-215-435-00 | METAL | 3.9K | 1% | 1/4W |
| R9034 | 1-215-428-00 | METAL | 2K | 1% | 1/4W |
| R9035 | 1-216-103-00 | RES-CHIP | 180K | 5% | 1/10W |
| R9036 | 1-216-083-00 | RES-CHIP | 27K | 5% | 1/10W |
| R9037 | 1-215-926-00 | METAL OXIDE | 33K | 5% | 3W |
| R9039 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R9041 | 1-216-083-00 | RES-CHIP | 27K | 5% | 1/10W |
| R9042 | 1-216-083-00 | RES-CHIP | 27K | 5% | 1/10W |
| R9043 | 1-215-926-00 | METAL OXIDE | 33K | 5% | 3W |
| R9044 | 1-215-926-00 | METAL OXIDE | 33K | 5% | 3W |
| R9047 | 1-202-557-00 | SOLID | 220 | 20% | 1/2W |
| R9048 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R9049 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R9051 | 1-202-557-00 | SOLID | 220 | 20% | 1/2W |
| R9052 | 1-202-557-00 | SOLID | 220 | 20% | 1/2W |
| R9055 | 1-260-126-81 | CARBON | 180K | 5% | 1/2W |
| R9056 | 1-202-549-00 | SOLID | 100 | 20% | 1/2W |
| R9057 | 1-202-847-00 | SOLID | 560K | 20% | 1/2W |
| R9059 | 1-202-818-00 | SOLID | 1K | 20% | 1/2W |
| R9061 | 1-202-549-00 | SOLID | 100 | 20% | 1/2W |
| R9062 | 1-260-123-11 | CARBON | 100K | 5% | 1/2W |
| R9063 | 1-260-123-11 | CARBON | 100K | 5% | 1/2W |
| R9064 | 1-260-126-81 | CARBON | 180K | 5% | 1/2W |
| R9067 | 1-219-769-11 | CARBON | 3.3M | 5% | 1/2W |
| R9070 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R9071 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R9072 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R9073 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R9076 | 1-219-769-11 | CARBON | 3.3M | 5% | 1/2W |
| R9077 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R9078 | 1-249-427-11 | CARBON | 6.8K | 5% | 1/4W |
| R9079 | 1-249-426-11 | CARBON | 5.6K | 5% | 1/4W |
| R9081 | 1-247-843-11 | CARBON | 3.3K | 5% | 1/4W |
| R9083 | 1-249-436-11 | CARBON | 39K | 5% | 1/4W |

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**NOTE: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.**

C D

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| R9084 | 1-260-126-81 | CARBON | 180K | 5% | 1/2W |
| R9085 | 1-260-126-81 | CARBON | 180K | 5% | 1/2W |
| R9089 | 1-215-442-00 | METAL | 7.5K | 1% | 1/4W |
| R9091 | 1-215-429-00 | METAL | 2.2K | 1% | 1/4W |
| R9092 | 1-216-295-91 | SHORT | | | |
| R9094 | 1-216-295-91 | SHORT | | | |
| R9095 | 1-216-295-91 | SHORT | | | |
| | | **VARIABLE RESISTOR** | | | |
| ⚠ RV9001 | 1-241-714-11 | RES, ADJ, METAL FILM | 110M | | |
| RV9002 | 1-241-788-11 | RES, ADJ, CARBON | 100K | | |

D

* **A-1348-066-A** **D BOARD, COMPLETE**

The high voltage leads associated with the FBT on this board are not included and must be ordered separately. Order the following leads when requesting this board.

| | | | |
|---|---|---|---|
| ⚠ | 1-251-715-12 | CAP ASSY, HIGH-VOLTAGE | |
| ⚠ | 1-900-805-19 | WIRE ASSY, FOCUS HV | |
| | 4-047-285-01 | SHEET, INSULATING | |
| | 4-382-854-01 | SCREW (M3X8), P, SW (+) | |
| | 4-382-854-21 | SCREW (M3X14), P, SW (+) | |
| | | **SILICONE** | |
| * A5004 | 7-322-065-48 | RUBBER, SILICONE RTV (KE-3490) | |
| | | **CAPACITOR** | |

| | | | | | |
|---|---|---|---|---|---|
| C5001 | 1-164-161-11 | CERAMIC CHIP | 0.0022µF | 10% | 50V |
| C5002 | 1-106-383-00 | MYLAR | 0.047µF | 10% | 200V |
| C5004 | 1-106-383-00 | MYLAR | 0.047µF | 10% | 200V |
| C5005 | 1-126-235-11 | ELECT | 100µF | 20% | 6.3V |
| C5006 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| C5007 | 1-126-941-11 | ELECT | 470µF | 20% | 25V |
| C5008 | 1-126-940-11 | ELECT | 330µF | 20% | 25V |
| C5009 | 1-126-941-11 | ELECT | 470µF | 20% | 25V |
| C5011 | 1-107-641-11 | ELECT | 220µF | 20% | 160V |
| C5012 | 1-163-017-00 | CERAMIC CHIP | .0047µF | 10% | 50V |
| C5013 | 1-164-161-11 | CERAMIC CHIP | 0.0022µF | 10% | 50V |
| C5015 | 1-107-884-11 | ELECT | 1000µF | 20% | 16V |
| C5016 | 1-136-171-00 | FILM | 0.33µF | 5% | 50V |
| C5017 | 1-115-185-11 | CERAMIC CHIP | 0.033µF | 10% | 50V |
| C5018 | 1-163-021-91 | CERAMIC CHIP | 0.01µF | 10% | 50V |
| C5019 | 1-126-968-11 | ELECT | 100µF | 20% | 50V |
| C5020 | 1-126-767-11 | ELECT | 1000µF | 20% | 16V |
| C5021 | 1-163-133-00 | CERAMIC CHIP | 470pF | 5% | 50V |

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| C5022 | 1-137-368-11 | MYLAR | .0047µF | 5% | 50V |
| C5023 | 1-163-021-91 | CERAMIC CHIP | 0.01µF | 10% | 50V |
| C5024 | 1-102-038-00 | CERAMIC | 0.001µF | | 500V |
| C5025 | 1-130-471-00 | MYLAR | 0.001µF | 5% | 50V |
| C5026 | 1-107-655-11 | ELECT | 47µF | 20% | 250V |
| C5027 | 1-126-963-11 | ELECT | 4.7µF | 20% | 50V |
| C5028 | 1-126-963-11 | ELECT | 4.7µF | 20% | 50V |
| C5030 | 1-136-153-00 | FILM | 0.01µF | 5% | 50V |
| C5031 | 1-163-011-11 | CERAMIC CHIP | 0.0015µF | 10% | 50V |
| C5032 | 1-104-760-11 | CERAMIC CHIP | 0.047µF | 10% | 50V |
| C5033 | 1-136-165-00 | FILM | 0.1µF | 5% | 50V |
| C5034 | 1-162-114-00 | CERAMIC | .0047µF | | 2KV |
| C5035 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C5036 | 1-126-941-11 | ELECT | 470µF | 20% | 25V |
| C5037 | 1-107-670-11 | ELECT | 10µF | 20% | 400V |
| C5038 | 1-126-947-11 | ELECT | 47µF | 20% | 16V |
| C5040 | 1-126-935-11 | ELECT | 470µF | 20% | 16V |
| C5041 | 1-126-935-11 | ELECT | 470µF | 20% | 16V |
| C5043 | 1-126-767-11 | ELECT | 1000µF | 20% | 16V |
| C5044 | 1-165-319-11 | CERAMIC CHIP | 0.1µF | | 50V |
| C5045 | 1-165-319-11 | CERAMIC CHIP | 0.1µF | | 50V |
| C5046 | 1-163-025-11 | CERAMIC CHIP | 0.001µF | | 50V |
| C5047 | 1-163-025-11 | CERAMIC CHIP | 0.001µF | | 50V |
| C5049 | 1-163-009-91 | CERAMIC CHIP | 0.001µF | 10% | 50V |
| C5050 | 1-163-021-91 | CERAMIC CHIP | 0.01µF | 10% | 50V |
| C5051 | 1-115-339-11 | CERAMIC CHIP | 0.1µF | 10% | 50V |
| C5052 | 1-115-339-11 | CERAMIC CHIP | 0.1µF | 10% | 50V |
| C5053 | 1-107-372-11 | MYLAR | 0.22µF | 10% | 200V |
| C5056 | 1-162-318-11 | CERAMIC | 0.001µF | 10% | 500V |
| C5057 | 1-162-134-11 | CERAMIC | 470pF | 10% | 2KV |
| C5058 | 1-162-116-00 | CERAMIC | 680pF | 10% | 2KV |
| C5059 | 1-162-116-00 | CERAMIC | 680pF | 10% | 2KV |
| C5060 | 1-137-417-11 | MYLAR | .0047µF | 10% | 200V |
| C5061 | 1-117-838-11 | FILM | 8200pF | 3% | 1.5KV |
| C5063 | 1-117-838-11 | FILM | 8200pF | 3% | 1.5KV |
| C5064 | 1-117-668-31 | FILM | 0.56µF | 5% | 250V |
| C5065 | 1-109-837-11 | FILM | 0.56µF | 5% | 400V |
| C5066 | 1-109-921-11 | CERAMIC | 0.0015µF | 10% | 500V |
| C5069 | 1-115-339-11 | CERAMIC CHIP | 0.1µF | 10% | 50V |
| C5070 | 1-115-339-11 | CERAMIC CHIP | 0.1µF | 10% | 50V |
| C5071 | 1-115-339-11 | CERAMIC CHIP | 0.1µF | 10% | 50V |
| C5072 | 1-163-021-91 | CERAMIC CHIP | 0.01µF | 10% | 50V |
| C5073 | 1-164-161-11 | CERAMIC CHIP | 0.0022µF | 10% | 50V |
| C5075 | 1-115-339-11 | CERAMIC CHIP | 0.1µF | 10% | 50V |
| C5076 | 1-115-339-11 | CERAMIC CHIP | 0.1µF | 10% | 50V |
| C5077 | 1-115-339-11 | CERAMIC CHIP | 0.1µF | 10% | 50V |
| C5079 | 1-163-021-91 | CERAMIC CHIP | 0.01µF | 10% | 50V |
| C5080 | 1-137-372-11 | MYLAR | 0.022µF | 5% | 50V |

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**NOTE: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.**

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| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| C5081 | 1-137-372-11 | MYLAR | 0.022µF | 5% | 50V |
| C5102 | 1-107-888-11 | ELECT | 47µF | 20% | 25V |
| C5501 | 1-107-888-11 | ELECT | 47µF | 20% | 25V |
| C5502 | 1-126-941-11 | ELECT | 470µF | 20% | 25V |
| C5503 | 1-104-665-11 | ELECT | 100µF | 20% | 25V |
| C5504 | 1-126-947-11 | ELECT | 47µF | 20% | 16V |
| C5505 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| C5506 | 1-126-963-11 | ELECT | 4.7µF | 20% | 50V |
| C5507 | 1-163-141-00 | CERAMIC CHIP | 0.001µF | 5% | 50V |
| C5508 | 1-163-031-91 | CERAMIC CHIP | 0.01µF | | 50V |
| C5509 | 1-163-263-11 | CERAMIC CHIP | 330pF | 5% | 50V |
| C5511 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C5514 | 1-163-021-91 | CERAMIC CHIP | 0.01µF | 10% | 50V |
| C5518 | 1-129-709-61 | FILM | 0.0039µF | 5% | 630V |
| C5519 | 1-104-760-11 | CERAMIC CHIP | 0.047µF | 10% | 50V |
| C5522 | 1-163-275-11 | CERAMIC CHIP | 0.001µF | 5% | 50V |
| C5531 | 1-136-165-00 | FILM | 0.1µF | 5% | 50V |
| C5533 | 1-137-366-11 | MYLAR | 0.0022µF | 5% | 50V |
| C5542 | 1-164-182-11 | CERAMIC CHIP | 0.0033µF | 10% | 50V |
| C5548 | 1-137-194-81 | FILM | 0.47µF | 5% | 50V |
| C5550 | 1-129-716-00 | FILM | 0.015µF | 5% | 200V |
| C5576 | 1-104-666-11 | ELECT | 220µF | 20% | 25V |
| C5577 | 1-104-666-11 | ELECT | 220µF | 20% | 25V |
| C5587 | 1-104-760-11 | CERAMIC CHIP | 0.047µF | 10% | 50V |
| C5588 | 1-136-153-00 | FILM | 0.01µF | 5% | 50V |
| C5590 | 1-163-263-11 | CERAMIC CHIP | 330pF | 5% | 50V |
| C5592 | 1-115-339-11 | CERAMIC CHIP | 0.1µF | 10% | 50V |
| C5594 | 1-136-165-00 | FILM | 0.1µF | 5% | 50V |
| C5596 | 1-126-960-11 | ELECT | 1µF | 20% | 50V |
| C5598 | 1-126-947-11 | ELECT | 47µF | 20% | 16V |
| C5600 | 1-126-947-11 | ELECT | 47µF | 20% | 16V |
| C5601 | 1-136-165-00 | FILM | 0.1µF | 5% | 50V |
| C5602 | 1-126-947-11 | ELECT | 47µF | 20% | 16V |
| C5603 | 1-163-017-00 | CERAMIC CHIP | .0047µF | 10% | 50V |
| C5605 | 1-136-177-00 | FILM | 1µF | 5% | 50V |
| C5607 | 1-115-185-11 | CERAMIC CHIP | 0.033µF | 10% | 50V |
| C5609 | 1-104-665-11 | ELECT | 100µF | 20% | 25V |
| C5610 | 1-126-935-11 | ELECT | 470µF | 20% | 16V |
| C5611 | 1-163-038-91 | CERAMIC CHIP | 0.1µF | | 25V |
| C5612 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| C5613 | 1-115-185-11 | CERAMIC CHIP | 0.033µF | 10% | 50V |
| C5614 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| C5616 | 1-136-165-00 | FILM | 0.1µF | 5% | 50V |
| C5617 | 1-126-947-11 | ELECT | 47µF | 20% | 16V |
| C5618 | 1-136-171-00 | FILM | 0.33µF | 5% | 50V |
| C5619 | 1-163-127-00 | CERAMIC CHIP | 270pF | 5% | 50V |
| C5621 | 1-136-165-00 | FILM | 0.1µF | 5% | 50V |

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| C5623 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C5625 | 1-163-251-11 | CERAMIC CHIP | 100pF | 5% | 50V |
| C5628 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C6503 | 1-131-940-11 | ELECT | 1200µF | 20% | 250V |
| C6504 | 1-163-021-91 | CERAMIC CHIP | 0.01µF | 10% | 50V |
| C6505 | 1-165-127-11 | CERAMIC | 470pF | 10% | 500V |
| C6506 | 1-165-127-11 | CERAMIC | 470pF | 10% | 500V |
| C6507 | 1-126-967-11 | ELECT | 47µF | 20% | 50V |
| C6508 | 1-126-947-11 | ELECT | 47µF | 20% | 25V |
| C6510 | 1-130-495-00 | MYLAR | 0.1µF | 5% | 50V |
| C6511 | 1-163-021-91 | CERAMIC CHIP | 0.01µF | 10% | 50V |
| C6516 | 1-163-009-91 | CERAMIC CHIP | 0.001µF | 10% | 50V |
| C6517 | 1-126-963-11 | ELECT | 4.7µF | 20% | 50V |
| C6518 | 1-136-479-11 | FILM | 0.001µF | 2% | 50V |
| C6519 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| C6525 | 1-164-143-11 | CERAMIC | 0.001µF | 10% | 1KV |
| C6526 | 1-164-143-11 | CERAMIC | 0.001µF | 10% | 1KV |
| C6532 | 1-135-998-21 | FILM | 56000pF | 3% | 800V |
| C6544 | 1-107-855-12 | ELECT(BLOCK) | 330µF | | 160V |
| C6545 | 1-126-943-11 | ELECT | 2200µF | 20% | 25V |
| C6546 | 1-128-548-11 | ELECT | 4700µF | 20% | 25V |
| C6547 | 1-113-610-11 | ELECT(BLOCK) | 220µF | 20% | 250V |
| C6548 | 1-128-549-11 | ELECT | 3300µF | 20% | 35V |
| C6551 | 1-163-037-11 | CERAMIC CHIP | 0.022µF | 10% | 50V |
| C6561 | 1-126-960-11 | ELECT | 1µF | 20% | 50V |
| ⚠ C6584 | 1-136-344-11 | MYLAR | 0.047µF | 20% | 125V |
| ⚠ C6585 | 1-119-899-51 | CERAMIC | 1000pF | 10% | 250V |
| C6586 | 1-113-924-11 | CERAMIC | .0047µF | 20% | 125V |
| C6587 | 1-113-924-11 | CERAMIC | .0047µF | 20% | 125V |
| C6588 | 1-113-924-11 | CERAMIC | .0047µF | 20% | 125V |
| C6589 | 1-113-924-11 | CERAMIC | .0047µF | 20% | 125V |
| C6590 | 1-131-940-11 | ELECT | 1200µF | 20% | 250V |
| ⚠ C6591 | 1-119-899-51 | CERAMIC | 1000pF | 10% | 250V |
| C6594 | 1-164-004-11 | CERAMIC CHIP | 0.1µF | 10% | 25V |
| C6595 | 1-104-665-11 | ELECT | 100µF | 20% | 25V |
| C6596 | 1-126-960-11 | ELECT | 1µF | 20% | 50V |
| C8002 | 1-136-169-00 | FILM | 0.22µF | 5% | 50V |
| C8004 | 1-104-665-11 | ELECT | 100µF | 20% | 10V |
| C8005 | 1-126-947-11 | ELECT | 47µF | 20% | 25V |
| C8006 | 1-126-960-11 | ELECT | 1µF | 20% | 50V |
| C8007 | 1-137-150-11 | MYLAR | 0.01µF | 5% | 50V |
| C8009 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| C8011 | 1-126-961-11 | ELECT | 2.2µF | 20% | 50V |
| C8012 | 1-126-966-11 | ELECT | 33µF | 20% | 50V |
| C8013 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| C8014 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| C8015 | 1-126-966-11 | ELECT | 33µF | 20% | 50V |

| | REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|---|
| | C8016 | 1-130-495-00 | MYLAR | 0.1µF | 5% | 50V |
| | C8017 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| | C8018 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| | C8019 | 1-104-665-11 | ELECT | 100µF | 20% | 10V |
| | C8020 | 1-136-103-00 | FILM | 0.1µF | 5% | 200V |
| | C8021 | 1-137-150-11 | MYLAR | 0.01µF | 5% | 50V |
| | C8022 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| | C8023 | 1-113-611-11 | ELECT(BLOCK) | 820µF | 20% | 250V |
| | C8024 | 1-126-967-11 | ELECT | 47µF | 20% | 50V |
| | C8025 | 1-126-947-11 | ELECT | 47µF | 20% | 25V |
| | C8027 | 1-130-495-00 | MYLAR | 0.1µF | 5% | 50V |
| | C8028 | 1-164-161-11 | CERAMIC CHIP | 0.0022µF | 10% | 50V |
| | C8030 | 1-163-809-11 | CERAMIC CHIP | 0.047µF | 10% | 25V |
| | C8031 | 1-128-551-11 | ELECT | 22µF | 20% | 25V |
| | C8032 | 1-136-813-11 | FILM | 680pF | 2% | 50V |
| | C8033 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| | C8035 | 1-125-969-91 | CERAMIC | 680pF | 10% | 1KV |
| | C8036 | 1-125-969-91 | CERAMIC | 680pF | 10% | 1KV |
| | C8037 | 1-135-946-21 | FILM | 47000pF | 3% | 800V |
| | C8039 | 1-163-021-91 | CERAMIC CHIP | 0.01µF | 10% | 50V |
| | C8040 | 1-126-969-11 | ELECT | 220µF | 20% | 50V |
| | C8041 | 1-137-194-81 | FILM | 0.47µF | 5% | 50V |
| | C8042 | 1-136-103-00 | FILM | 0.1µF | 5% | 200V |
| | C8045 | 1-130-471-00 | MYLAR | 0.001µF | 5% | 50V |
| | C8046 | 1-107-444-11 | CERAMIC | 100pF | 10% | 2KV |
| | C8047 | 1-162-130-11 | CERAMIC | 180pF | 10% | 2KV |
| | C8048 | 1-130-495-00 | MYLAR | 0.1µF | 5% | 50V |
| | C8050 | 1-129-718-61 | FILM | 0.022µF | 5% | 630V |
| | C8051 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| | C8053 | 1-162-117-00 | CERAMIC | 100pF | 10% | 500V |
| | C8054 | 1-102-244-00 | CERAMIC | 220pF | 10% | 500V |
| | C8055 | 1-136-535-61 | FILM | 0.0018µF | 5% | 630V |
| | C8056 | 1-163-021-91 | CERAMIC CHIP | 0.01µF | 10% | 50V |
| | C8058 | 1-137-194-81 | FILM | 0.47µF | 5% | 50V |
| | C8059 | 1-126-947-11 | ELECT | 47µF | 20% | 10V |
| | C8060 | 1-107-635-11 | ELECT | 4.7µF | 20% | 160V |
| | C8063 | 1-136-203-11 | MYLAR | 0.01µF | 10% | 630V |

**CONNECTOR**

| | | | | |
|---|---|---|---|---|
| * | CN5002 | 1-580-798-11 | CONNECTOR PIN (DY) | 6P |
| * | CN5003 | 1-766-242-11 | PIN,CONNECTOR (PC BOARD) | 4P |
| * | CN5501 | 1-779-889-11 | CONNECTOR, BOARD TO BOARD | 8P |
| * | CN5503 | 1-779-890-11 | CONNECTOR, BOARD TO BOARD | 10P |
| * | CN5505 | 1-779-890-11 | CONNECTOR, BOARD TO BOARD | 10P |
| | CN5506 | 1-573-979-21 | CONNECTOR, BOARD TO BOARD | 11P |
| * | CN5509 | 1-564-515-11 | PLUG,CONNECTOR | 12P |
| * | CN5510 | 1-564-506-11 | PLUG,CONNECTOR | 3P |
| * | CN6501 | 1-766-176-11 | PIN,CONNECTOR (PC BOARD) | 6P |
| * | CN6502 | 1-766-240-11 | PIN,CONNECTOR (PC BOARD) | 2P |
| * | CN6503 | 1-564-511-11 | PLUG,CONNECTOR | 8P |
| * | CN6504 | 1-779-889-11 | CONNECTOR, BOARD TO BOARD | 8P |
| * | CN6505 | 1-779-889-11 | CONNECTOR, BOARD TO BOARD | 8P |
| * | CN6506 | 1-779-889-11 | CONNECTOR, BOARD TO BOARD | 8P |

**DIODE**

| | | |
|---|---|---|
| D5001 | 8-719-109-85 | DIODE MTZJ-T-77-5.1B |
| D5002 | 8-719-908-03 | DIODE GP08DPKG23 |
| D5003 | 8-719-920-67 | DIODE ERC91-02E |
| D5004 | 8-719-083-82 | DIODE UDZS-TE17-12B |
| D5005 | 8-719-404-50 | DIODE MA111-TX |
| D5006 | 8-719-109-72 | DIODE MTZJ-T-77-3.9B |
| D5007 | 8-719-109-51 | DIODE RD2.0ES-T1B1 |
| D5008 | 8-719-404-50 | DIODE MA111-TX |
| D5009 | 8-719-404-50 | DIODE MA111-TX |
| D5010 | 8-719-404-50 | DIODE MA111-TX |
| D5011 | 8-719-109-63 | DIODE RD3.0ES-T1B2 |
| D5012 | 8-719-018-82 | DIODE RGP02-20EL-6394 |
| D5013 | 8-719-302-43 | DIODE RGP10GPKG23 |
| D5014 | 8-719-510-37 | DIODE D5LC20U |
| D5015 | 8-719-302-43 | DIODE RGP10GPKG23 |
| D5016 | 8-719-920-67 | DIODE ERC91-02E |
| D5017 | 8-719-920-67 | DIODE ERC91-02E |
| D5018 | 8-719-110-41 | DIODE MTZJ-T-77-15B |
| D5019 | 8-719-404-50 | DIODE MA111-TX |
| D5021 | 8-719-404-50 | DIODE MA111-TX |
| D5023 | 8-719-061-21 | DIODE PG124S15 |
| D5026 | 8-719-404-50 | DIODE MA111-TX |
| D5027 | 8-719-404-50 | DIODE MA111-TX |
| D5028 | 8-719-404-50 | DIODE MA111-TX |
| D5029 | 8-719-404-50 | DIODE MA111-TX |
| D5031 | 8-719-977-28 | DIODE UDZSTE-1710B |
| D5032 | 8-719-404-50 | DIODE MA111-TX |
| D5501 | 8-719-404-50 | DIODE MA111-TX |
| D5502 | 8-719-404-50 | DIODE MA111-TX |
| D5503 | 8-719-404-50 | DIODE MA111-TX |
| D5505 | 8-719-800-76 | DIODE MA153-TX |
| D5506 | 8-719-404-50 | DIODE MA111-TX |
| D5507 | 8-719-800-76 | DIODE MA153-TX |
| D5513 | 8-719-991-33 | DIODE 1SS133T-77 |
| D5514 | 8-719-063-70 | DIODE D1NL20U-TA2 |
| D5515 | 8-719-063-70 | DIODE D1NL20U-TA2 |
| D5522 | 8-719-923-78 | DIODE MTZJ-T-77-12 |
| D5523 | 8-719-923-78 | DIODE MTZJ-T-77-12 |
| D6501 | 8-719-404-50 | DIODE MA111-TX |
| D6502 | 8-719-979-64 | DIODE µF4005PKG23 |

| REF.NO. | PART NO. | DESCRIPTION | VALUES |
|---|---|---|---|
| D6507 | 1-216-295-91 | SHORT | |
| D6508 | 8-719-982-27 | DIODE MTZJ-T-77-33C | |
| D6509 | 8-719-068-00 | DIODE ERC04-06SE | |
| D6510 | 8-719-068-00 | DIODE ERC04-06SE | |
| D6513 | 8-719-500-71 | DIODE D8LC40F | |
| D6514 | 8-719-060-89 | DIODE D4SBS6-F | |
| D6515 | 8-719-060-90 | DIODE S2L60F | |
| D6516 | 8-719-060-89 | DIODE D4SBS6-F | |
| D6517 | 8-719-060-90 | DIODE S2L60F | |
| D6522 | 8-719-404-50 | DIODE MA111-TX | |
| D6530 | 8-719-022-99 | DIODE D6SB60L | |
| D6532 | 8-719-948-45 | DIODE ERA22-08TP3 | |
| D6533 | 8-719-404-50 | DIODE MA111-TX | |
| D6534 | 8-719-052-90 | DIODE D1NL40-TA2 | |
| D6537 | 8-719-404-50 | DIODE MA111-TX | |
| D8002 | 8-719-404-50 | DIODE MA111-TX | |
| D8003 | 8-719-404-50 | DIODE MA111-TX | |
| D8004 | 8-719-109-85 | DIODE MTZJ-T-77-5.1B | |
| D8005 | 8-719-404-50 | DIODE MA111-TX | |
| D8006 | 8-719-921-89 | DIODE MTZJ-T-77-13C | |
| D8007 | 8-719-404-50 | DIODE MA111-TX | |
| D8009 | 8-719-404-50 | DIODE MA111-TX | |
| D8010 | 8-719-052-90 | DIODE D1NL40-TA2 | |
| D8013 | 8-719-063-70 | DIODE D1NL20U-TA2 | |
| D8014 | 8-719-302-43 | DIODE RGP10GPKG23 | |
| D8016 | 8-719-948-45 | DIODE ERA22-08TP3 | |
| D8017 | 8-719-948-45 | DIODE ERA22-08TP3 | |
| D8018 | 8-719-052-90 | DIODE D1NL40-TA2 | |
| D8019 | 8-719-110-41 | DIODE MTZJ-T-77-15B | |
| D8020 | 8-719-404-50 | DIODE MA111-TX | |
| D8021 | 8-719-404-50 | DIODE MA111-TX | |
| D8022 | 8-719-404-50 | DIODE MA111-TX | |
| D8025 | 8-719-982-26 | DIODE MTZJ-T-77-33B | |
| D8026 | 8-719-404-50 | DIODE MA111-TX | |
| D8027 | 8-719-404-50 | DIODE MA111-TX | |
| D8028 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D8050 | 8-719-923-86 | DIODE MTZJ-T-77-15 | |
| D8051 | 8-719-923-86 | DIODE MTZJ-T-77-15 | |

**FERRITE BEAD**

| | | | |
|---|---|---|---|
| FB5001 | 1-410-397-21 | FERRITE | 1.1µH |
| FB5002 | 1-543-298-11 | FERRITE | 0µH |
| FB6501 | 1-410-397-21 | FERRITE | 1.1µH |
| FB6502 | 1-410-396-41 | FERRITE | 0.45µH |
| FB6504 | 1-410-397-21 | FERRITE | 1.1µH |
| FB6505 | 1-412-911-11 | FERRITE | 0µH |
| FB6506 | 1-412-911-11 | FERRITE | 0µH |
| FB6508 | 1-410-396-41 | FERRITE | 0.45µH |
| FB6509 | 1-410-396-41 | FERRITE | 0.45µH |
| FB8001 | 1-410-396-41 | FERRITE | 0.45µH |

**IC**

| | | | |
|---|---|---|---|
| IC5001 | 8-759-701-01 | IC NJM2904M(TE2) | |
| IC5002 | 8-759-700-07 | IC NJM2903M-TE2 | |
| IC5003 | 8-759-518-68 | IC PQ12RF21 | |
| IC5004 | 8-759-192-71 | IC STV9379 | |
| IC5005 | 8-759-803-42 | IC LA6500-FA | |
| IC5006 | 8-749-013-76 | IC PQ6RD83B | |
| IC5007 | 8-759-981-61 | IC NJM2901M-TE2 | |
| IC5008 | 8-759-675-90 | IC BA51W12ST-V5 | |
| IC5501 | 6-700-149-01 | IC M24C04-MN6T(A) | |
| IC5502 | 8-759-981-61 | IC NJM2901M-TE2 | |
| IC5504 | 8-759-803-42 | IC LA6500-FA | |
| IC5506 | 8-759-803-42 | IC LA6500-FA | |
| IC5510 | 8-759-803-42 | IC LA6500-FA | |
| IC5511 | 8-752-074-64 | IC CXA2026AS | |
| IC5512 | 8-759-929-65 | IC NJM79M12FA | |
| IC5513 | 8-759-595-52 | IC CXA8070AP | |
| IC5514 | 8-759-803-42 | IC LA6500-FA | |
| IC5515 | 8-749-016-08 | IC STK390-910 | |
| IC6501 | 8-759-670-30 | IC MCZ3001D | |
| IC6503 | 8-749-012-13 | IC DM-58 | |
| IC6505 | 8-749-921-86 | IC SE-140N | |
| IC8001 | 8-759-981-61 | IC NJM2901M-TE2 | |
| IC8002 | 8-759-670-30 | IC MCZ3001D | |
| IC8003 | 8-759-198-31 | IC UPC1093J-1-T | |
| IC8004 | 8-759-701-01 | IC NJM2904M(TE2) | |

**CHIP CONDUCTOR**

| | | | |
|---|---|---|---|
| JR5006 | 1-216-295-91 | SHORT | |
| JR5007 | 1-216-295-91 | SHORT | |
| JR5010 | 1-216-295-91 | SHORT | |
| JR5502 | 1-216-295-91 | SHORT | |
| JR6501 | 1-216-295-91 | SHORT | |
| JR8001 | 1-216-295-91 | SHORT | |
| JR8002 | 1-216-295-91 | SHORT | |
| JR8003 | 1-216-295-91 | SHORT | |
| JR8004 | 1-216-295-91 | SHORT | |
| JR8005 | 1-216-295-91 | SHORT | |
| JR8006 | 1-216-295-91 | SHORT | |
| JR8007 | 1-216-295-91 | SHORT | |
| JR8050 | 1-216-295-91 | SHORT | |
| JR8051 | 1-216-295-91 | SHORT | |

D

**NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.**

**NOTE: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.**

| REF.NO. | PART NO. | DESCRIPTION | VALUES |
|---|---|---|---|
| | **COIL** | | |
| L5001 | 1-406-665-11 | INDUCTOR | 100µH |
| L5002 | 1-406-663-21 | INDUCTOR | 47µH |
| L5003 | 1-406-892-21 | INDUCTOR | 4MH |
| L5004 | 1-412-525-31 | INDUCTOR | 10µH |
| L5005 | 1-419-181-11 | COIL, HORIZONTAL LINEARITY | |
| L5504 | 1-406-989-21 | INDUCTOR | 10MH |
| L5505 | 1-406-989-21 | INDUCTOR | 10MH |
| L5601 | 1-408-612-31 | INDUCTOR | 56µH |
| L6503 | 1-412-525-31 | INDUCTOR | 10µH |
| L6504 | 1-412-525-31 | INDUCTOR | 10µH |
| L6505 | 1-406-665-11 | INDUCTOR | 100µH |
| L8001 | 1-406-670-11 | INDUCTOR | 680µH |
| L8002 | 1-419-658-11 | INDUCTOR | 107µH |
| L8005 | 1-406-674-11 | INDUCTOR | 3.3MH |
| | **PHOTO COUPLER** | | |
| PH6501 | 8-749-924-35 | PHOTO COUPLER | ON3171-R |
| ⚠ PH6502 | 8-749-924-35 | PHOTO COUPLER | ON3171-R |
| ⚠ PH6503 | 8-749-924-35 | PHOTO COUPLER | ON3171-R |
| PH8001 | 8-749-924-35 | PHOTO COUPLER | ON3171-R |
| | **IC LINK** | | |
| ⚠ PS6501 | 1-576-390-91 | LINK, IC | |
| ⚠ PS6502 | 1-576-390-91 | LINK, IC | |
| | **TRANSISTOR** | | |
| Q5001 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q5002 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q5003 | 8-729-015-28 | TRANSISTOR IRFI9630G | |
| Q5004 | 8-729-019-57 | TRANSISTOR 2SA1208S-TP | |
| Q5005 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q5006 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q5007 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q5008 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q5011 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q5012 | 8-729-119-80 | TRANSISTOR 2SC2688-LK | |
| Q5013 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q5014 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q5015 | 8-729-119-80 | TRANSISTOR 2SC2688-LK | |
| Q5016 | 8-729-119-80 | TRANSISTOR 2SC2688-LK | |
| Q5017 | 8-729-119-80 | TRANSISTOR 2SC2688-LK | |
| Q5018 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q5019 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q5020 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q5021 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q5022 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q5023 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q5026 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q5027 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q5028 | 8-729-322-27 | TRANSISTOR 2SK2182 | |
| Q5030 | 8-729-052-71 | TRANSISTOR 2SC3997S-SONY-RA | |
| Q5031 | 8-729-053-24 | TRANSISTOR 2SK3262-01MR | |
| Q5033 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q5034 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q5035 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q5036 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q5037 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q5501 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q5502 | 1-801-806-11 | TRANSISTOR DTC144EKA-T146 | |
| Q5503 | 1-801-806-11 | TRANSISTOR DTC144EKA-T146 | |
| Q5504 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q5505 | 1-801-806-11 | TRANSISTOR DTC144EKA-T146 | |
| Q5506 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q5507 | 8-729-931-45 | TRANSISTOR IRF614 | |
| Q5508 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q5509 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q6503 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q6506 | 8-729-052-32 | TRANSISTOR IRFIB7N50A-LF31 | |
| Q6507 | 8-729-052-32 | TRANSISTOR IRFIB7N50A-LF31 | |
| Q6520 | 8-729-019-57 | TRANSISTOR 2SA1208S-TP | |
| Q6521 | 8-729-423-33 | TRANSISTOR 2SC3311A-QRSTA | |
| Q6522 | 8-729-119-76 | TRANSISTOR 2SA1309A-QRSTA | |
| Q6524 | 8-729-119-76 | TRANSISTOR 2SA1309A-QRSTA | |
| Q6526 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q6527 | 8-729-023-22 | TRANSISTOR 2SD2114KT146 | |
| Q6528 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q6529 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q6530 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | |
| Q6531 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q6532 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q8001 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q8002 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q8003 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q8004 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q8007 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q8008 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q8009 | 8-729-200-17 | TRANSISTOR 2SA1091O-TPE2 | |
| Q8010 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q8013 | 8-729-044-42 | TRANSISTOR IRFI644G-LF36 | |
| Q8014 | 8-729-044-42 | TRANSISTOR IRFI644G-LF36 | |
| Q8015 | 8-729-119-80 | TRANSISTOR 2SC2688-LK | |
| Q8016 | 8-729-045-65 | TRANSISTOR 2SA1776TV2Q | |
| Q8018 | 8-729-043-95 | TRANSISTOR 2SC3840K | |
| Q8019 | 1-801-806-11 | TRANSISTOR DTC144EKA-T146 | |

D

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| Q8020 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | | | |
| Q8022 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | | | |
| Q8023 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | | | |
| | **RESISTOR** | | | | |
| R5001 | 1-216-001-00 | RES-CHIP | 10 | 5% | 1/10W |
| R5002 | 1-216-033-00 | RES-CHIP | 220 | 5% | 1/10W |
| R5003 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R5004 | 1-216-099-00 | RES-CHIP | 120K | 5% | 1/10W |
| R5005 | 1-216-033-00 | RES-CHIP | 220 | 5% | 1/10W |
| R5007 | 1-216-099-00 | RES-CHIP | 120K | 5% | 1/10W |
| R5008 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R5009 | 1-216-099-00 | RES-CHIP | 120K | 5% | 1/10W |
| R5011 | 1-216-099-00 | RES-CHIP | 120K | 5% | 1/10W |
| R5012 | 1-208-814-91 | METAL CHIP | 22K | 0.50% | 1/10W |
| R5013 | 1-216-393-00 | METAL OXIDE | 2.2 | 5% | 3W |
| R5014 | 1-208-790-11 | METAL CHIP | 2.2K | 0.50% | 1/10W |
| R5016 | 1-208-832-11 | METAL CHIP | 120K | 0.50% | 1/10W |
| R5017 | 1-208-832-11 | METAL CHIP | 120K | 0.50% | 1/10W |
| R5018 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R5019 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R5020 | 1-208-800-11 | METAL CHIP | 5.6K | 0.50% | 1/10W |
| R5021 | 1-208-826-11 | METAL CHIP | 68K | 0.50% | 1/10W |
| R5022 | 1-216-685-11 | METAL CHIP | 27K | 0.50% | 1/10W |
| R5023 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R5024 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R5025 | 1-208-800-11 | METAL CHIP | 5.6K | 0.50% | 1/10W |
| R5026 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R5027 | 1-208-826-11 | METAL CHIP | 68K | 0.50% | 1/10W |
| R5028 | 1-208-822-11 | METAL CHIP | 47K | 0.50% | 1/10W |
| R5029 | 1-208-798-11 | METAL CHIP | 4.7K | 0.50% | 1/10W |
| R5030 | 1-216-295-91 | SHORT | | | |
| R5031 | 1-208-782-11 | METAL CHIP | 1K | 0.50% | 1/10W |
| R5033 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R5036 | 1-216-085-91 | RES-CHIP | 33K | 5% | 1/10W |
| R5037 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R5038 | 1-216-075-00 | RES-CHIP | 12K | 5% | 1/10W |
| R5039 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R5040 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R5041 | 1-249-383-11 | CARBON | 1.5 | 5% | 1/4W |
| R5042 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W |
| R5043 | 1-208-798-11 | METAL CHIP | 4.7K | 0.50% | 1/10W |
| R5044 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R5045 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R5046 | 1-214-798-21 | METAL | 1.8 | 1% | 1/2W |
| R5047 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R5048 | 1-216-671-11 | METAL CHIP | 6.8K | 0.50% | 1/10W |
| R5049 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| R5050 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R5051 | 1-249-414-11 | CARBON | 560 | 5% | 1/4W |
| R5052 | 1-214-796-00 | METAL | 1.5 | 1% | 1/2W |
| R5053 | 1-215-890-11 | METAL OXIDE | 470 | 5% | 2W |
| R5054 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R5055 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R5056 | 1-216-105-91 | RES-CHIP | 220K | 5% | 1/10W |
| R5057 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R5058 | 1-216-113-00 | RES-CHIP | 470K | 5% | 1/10W |
| R5059 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R5063 | 1-208-813-11 | METAL CHIP | 20K | 0.50% | 1/10W |
| R5064 | 1-218-761-11 | METAL CHIP | 240K | 0.50% | 1/10W |
| R5065 | 1-218-761-11 | METAL CHIP | 240K | 0.50% | 1/10W |
| R5066 | 1-208-792-11 | METAL CHIP | 2.7K | 0.50% | 1/10W |
| R5067 | 1-208-794-11 | METAL CHIP | 3.3K | 0.50% | 1/10W |
| R5068 | 1-216-105-91 | RES-CHIP | 220K | 5% | 1/10W |
| R5069 | 1-216-113-00 | RES-CHIP | 470K | 5% | 1/10W |
| R5070 | 1-216-113-00 | RES-CHIP | 470K | 5% | 1/10W |
| R5071 | 1-208-810-11 | METAL CHIP | 15K | 0.50% | 1/10W |
| R5072 | 1-208-810-11 | METAL CHIP | 15K | 0.50% | 1/10W |
| R5073 | 1-208-830-11 | METAL CHIP | 100K | 0.50% | 1/10W |
| R5074 | 1-208-830-11 | METAL CHIP | 100K | 0.50% | 1/10W |
| R5075 | 1-208-830-11 | METAL CHIP | 100K | 0.50% | 1/10W |
| R5076 | 1-208-830-11 | METAL CHIP | 100K | 0.50% | 1/10W |
| R5077 | 1-216-685-11 | METAL CHIP | 27K | 0.50% | 1/10W |
| R5078 | 1-208-830-11 | METAL CHIP | 100K | 0.50% | 1/10W |
| R5079 | 1-208-810-11 | METAL CHIP | 15K | 0.50% | 1/10W |
| R5080 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R5081 | 1-208-830-11 | METAL CHIP | 100K | 0.50% | 1/10W |
| R5082 | 1-208-806-11 | METAL CHIP | 10K | 0.50% | 1/10W |
| R5083 | 1-208-790-11 | METAL CHIP | 2.2K | 0.50% | 1/10W |
| R5084 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R5085 | 1-216-113-00 | RES-CHIP | 470K | 5% | 1/10W |
| R5086 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R5087 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R5088 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R5089 | 1-216-372-11 | METAL OXIDE | 1.8 | 5% | 2W |
| R5090 | 1-216-372-11 | METAL OXIDE | 1.8 | 5% | 2W |
| R5091 | 1-249-389-11 | CARBON | 4.7 | 5% | 1/4W |
| R5092 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R5093 | 1-208-807-11 | METAL CHIP | 11K | 0.50% | 1/10W |
| R5094 | 1-215-869-11 | METAL OXIDE | 1K | 5% | 1W |
| R5095 | 1-249-443-11 | CARBON | 0.47 | 5% | 1/4W |
| R5096 | 1-249-443-11 | CARBON | 0.47 | 5% | 1/4W |
| R5097 | 1-249-380-11 | CARBON | 0.82 | 5% | 1/4W |
| R5098 | 1-249-379-11 | CARBON | 0.68 | 5% | 1/4W |
| R5101 | 1-208-798-11 | METAL CHIP | 4.7K | 0.50% | 1/10W |
| R5102 | 1-208-782-11 | METAL CHIP | 1K | 0.50% | 1/10W |

D

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| R5103 | 1-208-790-11 | METAL CHIP | 2.2K | 0.50% | 1/10W |
| R5104 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R5105 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R5106 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R5107 | 1-249-401-11 | CARBON | 47 | 5% | 1/4W |
| R5108 | 1-208-819-11 | METAL CHIP | 36K | 0.50% | 1/10W |
| R5109 | 1-208-808-11 | METAL CHIP | 12K | 0.50% | 1/10W |
| R5110 | 1-249-401-11 | CARBON | 47 | 5% | 1/4W |
| R5111 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R5112 | 1-216-033-00 | RES-CHIP | 220 | 5% | 1/10W |
| R5113 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W |
| R5114 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W |
| R5115 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R5116 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R5117 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R5120 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R5121 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R5122 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R5123 | 1-216-295-91 | SHORT | | | |
| R5124 | 1-216-295-91 | SHORT | | | |
| R5125 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R5126 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R5127 | 1-215-890-11 | METAL OXIDE | 470 | 5% | 2W |
| R5128 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R5129 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R5130 | 1-249-401-11 | CARBON | 47 | 5% | 1/4W |
| R5131 | 1-208-794-11 | METAL CHIP | 3.3K | 0.50% | 1/10W |
| R5132 | 1-216-481-11 | METAL OXIDE | 1.2K | 5% | 3W |
| R5133 | 1-216-481-11 | METAL OXIDE | 1.2K | 5% | 3W |
| R5134 | 1-216-481-11 | METAL OXIDE | 1.2K | 5% | 3W |
| R5135 | 1-216-481-11 | METAL OXIDE | 1.2K | 5% | 3W |
| R5136 | 1-216-481-11 | METAL OXIDE | 1.2K | 5% | 3W |
| R5137 | 1-216-481-11 | METAL OXIDE | 1.2K | 5% | 3W |
| R5138 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R5139 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R5140 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R5141 | 1-215-915-11 | METAL OXIDE | 470 | 5% | 3W |
| R5142 | 1-216-386-11 | METAL OXIDE | 0.56 | 5% | 3W |
| R5143 | 1-216-385-11 | METAL OXIDE | 0.47 | 5% | 3W |
| R5144 | 1-216-385-11 | METAL OXIDE | 0.47 | 5% | 3W |
| R5145 | 1-215-880-00 | METAL OXIDE | 10 | 5% | 2W |
| R5146 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R5147 | 1-208-794-11 | METAL CHIP | 3.3K | 0.50% | 1/10W |
| R5148 | 1-215-865-11 | METAL OXIDE | 220 | 5% | 1W |
| R5149 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R5150 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R5151 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| R5152 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R5153 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R5154 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R5155 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W |
| R5156 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R5157 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R5158 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R5159 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R5160 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R5161 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R5163 | 1-216-063-91 | RES-CHIP | 3.9K | 5% | 1/10W |
| R5501 | 1-216-033-00 | RES-CHIP | 220 | 5% | 1/10W |
| R5502 | 1-216-295-91 | SHORT | | | |
| R5503 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R5504 | 1-208-840-11 | METAL CHIP | 270K | 0.50% | 1/10W |
| R5505 | 1-208-840-11 | METAL CHIP | 270K | 0.50% | 1/10W |
| R5506 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R5507 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R5508 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R5509 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R5510 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R5511 | 1-216-295-91 | SHORT | | | |
| R5512 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R5513 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R5514 | 1-216-295-91 | SHORT | | | |
| R5516 | 1-208-792-11 | METAL CHIP | 2.7K | 0.50% | 1/10W |
| R5518 | 1-208-822-11 | METAL CHIP | 47K | 0.50% | 1/10W |
| R5519 | 1-208-822-11 | METAL CHIP | 47K | 0.50% | 1/10W |
| R5520 | 1-216-685-11 | METAL CHIP | 27K | 0.50% | 1/10W |
| R5521 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R5522 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R5523 | 1-208-822-11 | METAL CHIP | 47K | 0.50% | 1/10W |
| R5525 | 1-208-806-11 | METAL CHIP | 10K | 0.50% | 1/10W |
| R5526 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R5527 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R5528 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W |
| R5529 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R5530 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R5531 | 1-216-001-00 | RES-CHIP | 10 | 5% | 1/10W |
| R5532 | 1-216-001-00 | RES-CHIP | 10 | 5% | 1/10W |
| R5535 | 1-208-806-11 | METAL CHIP | 10K | 0.50% | 1/10W |
| R5536 | 1-208-810-11 | METAL CHIP | 15K | 0.50% | 1/10W |
| R5544 | 1-208-812-11 | METAL CHIP | 18K | 0.50% | 1/10W |
| R5545 | 1-208-818-11 | METAL CHIP | 33K | 0.50% | 1/10W |
| R5547 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W |
| R5548 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R5554 | 1-208-812-11 | METAL CHIP | 18K | 0.50% | 1/10W |

**NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.**

**NOTE: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.**

D

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| R5563 | 1-208-801-11 | METAL CHIP | 6.2K | 0.50% | 1/10W |
| R5564 | 1-208-830-11 | METAL CHIP | 100K | 0.50% | 1/10W |
| R5565 | 1-208-830-11 | METAL CHIP | 100K | 0.50% | 1/10W |
| R5573 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W |
| R5576 | 1-249-395-11 | CARBON | 15 | 5% | 1/4W |
| R5577 | 1-208-836-11 | METAL CHIP | 180K | 0.50% | 1/10W |
| R5578 | 1-208-812-11 | METAL CHIP | 18K | 0.50% | 1/10W |
| R5579 | 1-216-113-00 | RES-CHIP | 470K | 5% | 1/10W |
| R5581 | 1-208-806-11 | METAL CHIP | 10K | 0.50% | 1/10W |
| R5585 | 1-208-846-11 | METAL CHIP | 470K | 0.50% | 1/10W |
| R5588 | 1-216-353-00 | METAL OXIDE | 2.2 | 5% | 1W |
| R5599 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R5615 | 1-249-395-11 | CARBON | 15 | 5% | 1/4W |
| R5623 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R5645 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R5647 | 1-208-758-11 | METAL CHIP | 100 | 0.50% | 1/10W |
| R5648 | 1-216-383-11 | METAL OXIDE | 0.33 | 5% | 3W |
| R5649 | 1-215-886-11 | METAL OXIDE | 100 | 5% | 2W |
| R5650 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R5657 | 1-208-798-11 | METAL CHIP | 4.7K | 0.50% | 1/10W |
| R5666 | 1-216-091-00 | RES-CHIP | 56K | 5% | 1/10W |
| R5669 | 1-208-789-11 | METAL CHIP | 2K | 0.50% | 1/10W |
| R5670 | 1-208-820-11 | METAL CHIP | 39K | 0.50% | 1/10W |
| R5672 | 1-216-109-00 | RES-CHIP | 330K | 5% | 1/10W |
| R5678 | 1-208-804-11 | METAL CHIP | 8.2K | 0.50% | 1/10W |
| R5679 | 1-249-395-11 | CARBON | 15 | 5% | 1/4W |
| R5680 | 1-249-383-11 | CARBON | 1.5 | 5% | 1/4W |
| R5684 | 1-208-798-11 | METAL CHIP | 4.7K | 0.50% | 1/10W |
| R5685 | 1-216-655-11 | METAL CHIP | 1.5K | 0.50% | 1/10W |
| R5686 | 1-208-778-11 | METAL CHIP | 680 | 0.50% | 1/10W |
| R5688 | 1-208-782-11 | METAL CHIP | 1K | 0.50% | 1/10W |
| R5689 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R5690 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R5692 | 1-216-655-11 | METAL CHIP | 1.5K | 0.50% | 1/10W |
| R5693 | 1-208-798-11 | METAL CHIP | 4.7K | 0.50% | 1/10W |
| R5694 | 1-208-798-11 | METAL CHIP | 4.7K | 0.50% | 1/10W |
| R5696 | 1-208-804-11 | METAL CHIP | 8.2K | 0.50% | 1/10W |
| R5697 | 1-208-764-11 | METAL CHIP | 180 | 0.50% | 1/10W |
| R5698 | 1-208-801-11 | METAL CHIP | 6.2K | 0.50% | 1/10W |
| R5699 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W |
| R5700 | 1-208-810-11 | METAL CHIP | 15K | 0.50% | 1/10W |
| R5702 | 1-208-782-11 | METAL CHIP | 1K | 0.50% | 1/10W |
| R5704 | 1-214-657-11 | METAL | 1 | 1% | 1/4W |
| R5705 | 1-214-657-11 | METAL | 1 | 1% | 1/4W |
| R5707 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R5708 | 1-216-429-00 | METAL OXIDE | 270 | 5% | 1W |
| R5709 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R5710 | 1-216-429-00 | METAL OXIDE | 270 | 5% | 1W |
| R5711 | 1-260-288-11 | CARBON | 0.47 | 5% | 1/2W |
| R5712 | 1-260-288-11 | CARBON | 0.47 | 5% | 1/2W |
| R5713 | 1-215-867-00 | METAL OXIDE | 470 | 5% | 1W |
| R5714 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W |
| R5715 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W |
| R5716 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R5717 | 1-216-093-91 | RES-CHIP | 68K | 5% | 1/10W |
| R6501 | 1-208-757-11 | METAL CHIP | 91 | 0.50% | 1/10W |
| R6502 | 1-260-131-11 | CARBON | 470K | 5% | 1/2W |
| R6503 | 1-208-758-11 | METAL CHIP | 100 | 0.50% | 1/10W |
| R6504 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6506 | 1-249-377-11 | CARBON | 0.47 | 5% | 1/4W |
| R6507 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R6508 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6509 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R6510 | 1-215-859-00 | METAL OXIDE | 22 | 5% | 1W |
| R6511 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6512 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6513 | 1-215-481-00 | METAL | 330K | 1% | 1/4W |
| R6514 | 1-215-481-00 | METAL | 330K | 1% | 1/4W |
| R6515 | 1-260-131-11 | CARBON | 470K | 5% | 1/2W |
| ⚠ R6516 | 1-202-962-11 | CEMENTED | 3.3 | 5% | 10W |
| R6517 | 1-208-804-11 | METAL CHIP | 8.2K | 0.50% | 1/10W |
| R6518 | 1-208-810-11 | METAL CHIP | 15K | 0.50% | 1/10W |
| R6519 | 1-216-295-91 | SHORT | | | |
| R6521 | 1-260-328-11 | CARBON | 1K | 5% | 1/2W |
| R6522 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6523 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W |
| R6524 | 1-216-295-91 | SHORT | | | |
| R6525 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R6526 | 1-202-933-61 | FUSIBLE | 0.1 | 10% | 1/2W |
| R6527 | 1-216-093-91 | RES-CHIP | 68K | 5% | 1/10W |
| R6528 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R6529 | 1-249-393-11 | CARBON | 10 | 5% | 1/4W |
| R6530 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R6531 | 1-249-393-11 | CARBON | 10 | 5% | 1/4W |
| R6532 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6533 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6534 | 1-216-085-91 | RES-CHIP | 33K | 5% | 1/10W |
| R6535 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6536 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6537 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6538 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6539 | 1-215-877-11 | METAL OXIDE | 22K | 5% | 1W |
| R6540 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R6541 | 1-216-077-91 | RES-CHIP | 15K | 5% | 1/10W |

**NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.**

**NOTE: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.**

D

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| R6542 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R6543 | 1-208-842-11 | METAL CHIP | 330K | 0.50% | 1/10W |
| R6544 | 1-216-295-91 | SHORT | | | |
| R6547 | 1-216-053-00 | RES-CHIP | 1.5K | 5% | 1/10W |
| R6550 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R6552 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W |
| R6553 | 1-216-109-00 | RES-CHIP | 330K | 5% | 1/10W |
| R6556 | 1-217-625-00 | METAL | 0.05 | 10% | 2W |
| R6557 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W |
| R6583 | 1-216-077-91 | RES-CHIP | 15K | 5% | 1/10W |
| ⚠ R6590 | 1-249-415-11 | CARBON | 680 | 5% | 1/4W |
| R6591 | 1-216-341-11 | METAL OXIDE | 0.22 | 5% | 1W |
| R6593 | 1-249-405-11 | CARBON | 100 | 5% | 1/4W |
| R6596 | 1-215-445-00 | METAL | 10K | 1% | 1/4W |
| R6597 | 1-215-469-00 | METAL | 100K | 1% | 1/4W |
| R6598 | 1-216-342-21 | METAL OXIDE | 0.27 | 5% | 1W |
| R6599 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R6600 | 1-215-445-00 | METAL | 10K | 1% | 1/4W |
| R6602 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R6603 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6604 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6605 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R6612 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R6614 | 1-260-298-51 | CARBON | 3.3 | 5% | 1/2W |
| R6646 | 1-215-481-00 | METAL | 330K | 1% | 1/4W |
| R8001 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R8002 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R8003 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W |
| R8004 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W |
| R8005 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W |
| R8006 | 1-216-105-91 | RES-CHIP | 220K | 5% | 1/10W |
| R8007 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R8008 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W |
| R8009 | 1-216-105-91 | RES-CHIP | 220K | 5% | 1/10W |
| R8010 | 1-216-105-91 | RES-CHIP | 220K | 5% | 1/10W |
| R8011 | 1-216-105-91 | RES-CHIP | 220K | 5% | 1/10W |
| R8013 | 1-216-295-91 | SHORT | | | |
| R8016 | 1-216-061-91 | RES-CHIP | 3.3K | 5% | 1/10W |
| R8017 | 1-216-295-91 | SHORT | | | |
| R8018 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W |
| R8019 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R8020 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W |
| R8021 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R8022 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R8023 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W |
| R8024 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R8025 | 1-208-826-11 | METAL CHIP | 68K | 0.50% | 1/10W |

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| R8026 | 1-216-105-91 | RES-CHIP | 220K | 5% | 1/10W |
| R8027 | 1-208-826-11 | METAL CHIP | 68K | 0.50% | 1/10W |
| R8028 | 1-208-818-11 | METAL CHIP | 33K | 0.50% | 1/10W |
| R8029 | 1-208-826-11 | METAL CHIP | 68K | 0.50% | 1/10W |
| R8030 | 1-208-830-11 | METAL CHIP | 100K | 0.50% | 1/10W |
| R8031 | 1-208-830-11 | METAL CHIP | 100K | 0.50% | 1/10W |
| R8032 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R8033 | 1-208-781-11 | METAL CHIP | 910 | 0.50% | 1/10W |
| R8034 | 1-216-091-00 | RES-CHIP | 56K | 5% | 1/10W |
| ⚠ R8035 | 1-208-804-11 | METAL CHIP | 8.2K | 0.50% | 1/10W |
| ⚠ R8036 | 1-215-444-00 | METAL | 9.1K | 1% | 1/4W |
| ⚠ R8037 | 1-215-444-00 | METAL | 9.1K | 1% | 1/4W |
| ⚠ R8038 | 1-215-444-00 | METAL | 9.1K | 1% | 1/4W |
| ⚠ R8039 | 1-215-444-00 | METAL | 9.1K | 1% | 1/4W |
| ⚠ R8040 | 1-215-444-00 | METAL | 9.1K | 1% | 1/4W |
| R8041 | 1-208-782-11 | METAL CHIP | 1K | 0.50% | 1/10W |
| R8042 | 1-208-806-11 | METAL CHIP | 10K | 0.50% | 1/10W |
| R8043 | 1-216-349-00 | METAL OXIDE | 1 | 5% | 1W |
| R8044 | 1-208-837-11 | METAL CHIP | 200K | 0.50% | 1/10W |
| R8047 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W |
| R8049 | 1-208-758-11 | METAL CHIP | 100 | 0.50% | 1/10W |
| R8050 | 1-216-615-11 | METAL CHIP | 33 | 0.50% | 1/10W |
| R8051 | 1-220-926-11 | FUSIBLE | 0.47 | 10% | 1/2W |
| R8053 | 1-208-842-11 | METAL CHIP | 330K | 0.50% | 1/10W |
| R8054 | 1-208-842-11 | METAL CHIP | 330K | 0.50% | 1/10W |
| R8055 | 1-208-842-11 | METAL CHIP | 330K | 0.50% | 1/10W |
| R8056 | 1-208-804-11 | METAL CHIP | 8.2K | 0.50% | 1/10W |
| R8057 | 1-208-809-11 | METAL CHIP | 13K | 0.50% | 1/10W |
| R8058 | 1-249-393-11 | CARBON | 10 | 5% | 1/4W |
| R8059 | 1-216-295-91 | SHORT | | | |
| R8060 | 1-208-774-11 | METAL CHIP | 470 | 0.50% | 1/10W |
| R8061 | 1-249-393-11 | CARBON | 10 | 5% | 1/4W |
| R8062 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R8063 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R8065 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R8066 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R8068 | 1-216-295-91 | SHORT | | | |
| R8069 | 1-249-419-11 | CARBON | 1.5K | 5% | 1/4W |
| R8070 | 1-217-611-00 | METAL | 0.1 | 10% | 2W |
| R8071 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R8072 | 1-208-782-11 | METAL CHIP | 1K | 0.50% | 1/10W |
| R8073 | 1-208-790-11 | METAL CHIP | 2.2K | 0.50% | 1/10W |
| R8074 | 1-208-793-11 | METAL CHIP | 3K | 0.50% | 1/10W |
| R8077 | 1-218-760-11 | METAL CHIP | 220K | 0.50% | 1/10W |
| R8078 | 1-218-760-11 | METAL CHIP | 220K | 0.50% | 1/10W |
| R8080 | 1-249-431-11 | CARBON | 15K | 5% | 1/4W |
| R8081 | 1-249-377-11 | CARBON | 0.47 | 5% | 1/4W |

**NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.**

**A component identified by this ⋈ symbol indicates that it has been carefully factory-selected to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.**

D HA

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| R8082 | 1-216-133-91 | RES-CHIP | 3.3M | 5% | 1/10W |
| R8085 | 1-219-749-91 | CARBON | 10K | 5% | 1/2W |
| R8086 | 1-219-751-91 | CARBON | 47K | 5% | 1/2W |
| R8087 | 1-216-295-91 | SHORT | | | |
| R8089 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R8091 | 1-215-485-00 | METAL | 470K | 1% | 1/4W |
| R8093 | 1-216-101-00 | RES-CHIP | 150K | 5% | 1/10W |
| R8095 | 1-215-485-00 | METAL | 470K | 1% | 1/4W |
| R8096 | 1-216-295-91 | SHORT | | | |
| R8098 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R8099 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R8100 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R8101 | 1-216-101-00 | RES-CHIP | 150K | 5% | 1/10W |
| R8102 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W |
| R8103 | 1-216-069-00 | RES-CHIP | 6.8K | 5% | 1/10W |
| R8104 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R8108 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W |
| R8109 | 1-215-922-11 | METAL OXIDE | 6.8K | 5% | 3W |
| R8111 | 1-215-922-11 | METAL OXIDE | 6.8K | 5% | 3W |
| R8112 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W |
| R8113 | 1-216-117-00 | RES-CHIP | 680K | 5% | 1/10W |
| R8114 | 1-215-922-11 | METAL OXIDE | 6.8K | 5% | 3W |
| R8115 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R8116 | 1-216-485-11 | METAL OXIDE | 5.6K | 5% | 3W |
| R8117 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W |
| R8118 | 1-216-085-91 | RES-CHIP | 33K | 5% | 1/10W |
| R8119 | 1-216-485-11 | METAL OXIDE | 5.6K | 5% | 3W |
| R8123 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8124 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R8125 | 1-216-001-00 | RES-CHIP | 10 | 5% | 1/10W |
| R8126 | 1-216-001-00 | RES-CHIP | 10 | 5% | 1/10W |
| R8127 | 1-216-295-91 | SHORT | | | |
| R8137 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R8144 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8145 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8146 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R8147 | 1-208-826-11 | METAL CHIP | 68K | 0.50% | 1/10W |
| R8148 | 1-208-826-11 | METAL CHIP | 68K | 0.50% | 1/10W |
| R8149 | 1-208-822-11 | METAL CHIP | 47K | 0.50% | 1/10W |
| R8150 | 1-216-091-00 | RES-CHIP | 56K | 5% | 1/10W |
| R8151 | 1-216-091-00 | RES-CHIP | 56K | 5% | 1/10W |
| R8152 | 1-216-091-00 | RES-CHIP | 56K | 5% | 1/10W |
| R8199 | 1-249-389-11 | CARBON | 4.7 | 5% | 1/4W |

**VARIABLE RESISTOR**

| | | | | |
|---|---|---|---|---|
| ⋈⚠RV8001 | 1-225-630-91 | RES, VAR, ADJ, CERMET | 20K | |
| ⋈⚠RV8002 | 1-225-627-91 | RES, VAR, ADJ, CERMET | 2K | |

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| | | **RELAY** | | | |
| ⚠ RY6501 | 1-755-395-11 | RELAY (AC POWER) | | | |
| ⚠ RY6502 | 1-755-214-11 | RELAY, AC POWER | | | |
| | | **SPARK GAP** | | | |
| SG8002 | 1-517-499-21 | GAP, SPARK | | | |
| SG8005 | 1-517-499-21 | GAP, SPARK | | | |
| | | **TRANSFORMER** | | | |
| T5001 | 1-435-621-11 | TRANSFORMER, HORIZONTAL OUTPUT | | | |
| T5002 | 1-435-636-11 | TRANSFORMER, HORIZONTAL DRIVE | | | |
| ⚠ T6501 | 1-435-576-12 | TRANSFORMER, CONVERTER (PIT) | | | |
| ⚠ T8001 | 1-453-346-11 | FBT ASSY NX-6000//JIJ4 | | | |
| T8002 | 1-433-934-11 | TRANSFORMER, FERRITE (DFT) | | | |
| | | **THERMISTOR** | | | |
| TH5001 | 1-800-193-00 | THERMISTOR | | | |
| TH5002 | 1-807-796-11 | THERMISTOR | | | |

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|---|---|---|---|---|---|
| * | **A-1372-978-A** | **HA BOARD, MOUNTED** | | | |
| | 4-081-603-01 | HOLDER, LED | | | |
| | | **CAPACITOR** | | | |
| C05 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| | | **CONNECTOR** | | | |
| * CN01 | 1-564-515-11 | PLUG,CONNECTOR | 12P | | |
| | | **DIODE** | | | |
| D02 | 8-719-074-84 | DIODE LNK0120022G1 | | | |
| D03 | 8-719-064-11 | DIODE SPR-325MVW | | | |
| D07 | 8-719-109-89 | DIODE RD5.6ES-T1B2 | | | |
| | | **IC** | | | |
| IC01 | 8-742-212-20 | HYB IC SBX3081-71 | | | |
| | | **RESISTOR** | | | |
| R03 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R04 | 1-249-385-11 | CARBON | 2.2 | 5% | 1/4W |
| R05 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R09 | 1-249-433-11 | CARBON | 22K | 5% | 1/4W |
| R12 | 1-215-437-00 | METAL | 4.7K | 1% | 1/4W |
| R13 | 1-215-445-00 | METAL | 10K | 1% | 1/4W |
| R14 | 1-215-433-00 | METAL | 3.3K | 1% | 1/4W |

HA HB S

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| R15 | 1-215-427-00 | METAL | 1.8K | 1% | 1/4W |
| R16 | 1-215-425-00 | METAL | 1.5K | 1% | 1/4W |
| R17 | 1-215-423-00 | METAL | 1.2K | 1% | 1/4W |
| R18 | 1-215-419-00 | METAL | 820 | 1% | 1/4W |
| R19 | 1-215-417-00 | METAL | 680 | 1% | 1/4W |
| R20 | 1-215-415-00 | METAL | 560 | 1% | 1/4W |
| R21 | 1-215-411-00 | METAL | 390 | 1% | 1/4W |
| R22 | 1-215-413-00 | METAL | 470 | 1% | 1/4W |
| R23 | 1-215-423-00 | METAL | 1.2K | 1% | 1/4W |
| R24 | 1-215-427-00 | METAL | 1.8K | 1% | 1/4W |
| | **SWITCH** | | | | |
| S01 | 1-571-032-11 | SWITCH PUSH (1 KEY) | | | |
| S02 | 1-762-837-11 | SWITCH TACTILE | | | |
| S03 | 1-762-837-11 | SWITCH TACTILE | | | |
| S04 | 1-762-837-11 | SWITCH TACTILE | | | |
| S05 | 1-762-837-11 | SWITCH TACTILE | | | |
| S06 | 1-692-431-21 | SWITCH TACTILE | | | |
| S07 | 1-692-431-21 | SWITCH TACTILE | | | |
| S08 | 1-692-431-21 | SWITCH TACTILE | | | |
| S09 | 1-692-431-21 | SWITCH TACTILE | | | |
| S10 | 1-692-431-21 | SWITCH TACTILE | | | |
| S11 | 1-692-431-21 | SWITCH TACTILE | | | |

HB

| | | | | | |
|---|---|---|---|---|---|
| * | **A-1372-979-A** | **HB BOARD, MOUNTED** | | | |
| | **CAPACITOR** | | | | |
| C4600 | 1-126-960-11 | ELECT | 1µF | 20% | 50V |
| C4601 | 1-126-960-11 | ELECT | 1µF | 20% | 50V |
| C4602 | 1-126-959-11 | ELECT | 0.47µF | 20% | 50V |
| C4603 | 1-126-959-11 | ELECT | 0.47µF | 20% | 50V |
| C4604 | 1-164-004-11 | CERAMIC CHIP | 0.1µF | 10% | 25V |
| | **CONNECTOR** | | | | |
| CN4600 | 1-764-334-11 | PLUG,CONNECTOR | 11P | | |
| | **FILTER** | | | | |
| FL4600 | 1-239-583-21 | FILTER, EMI | | | |
| FL4601 | 1-239-583-21 | FILTER, EMI | | | |
| FL4602 | 1-239-583-21 | FILTER, EMI | | | |
| | **JACK** | | | | |
| J4600 | 1-770-053-11 | TERMINAL BLOCK, S (LIGHT ANGLE) | | | |
| | **RESISTOR** | | | | |
| R4600 | 1-216-113-00 | RES-CHIP | 470K | 5% | 1/10W |
| R4601 | 1-216-113-00 | RES-CHIP | 470K | 5% | 1/10W |
| R4602 | 1-216-022-00 | RES-CHIP | 75 | 5% | 1/10W |
| R4603 | 1-216-022-00 | RES-CHIP | 75 | 5% | 1/10W |
| R4606 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R4607 | 1-216-022-00 | RES-CHIP | 75 | 5% | 1/10W |
| | **VARISTOR** | | | | |
| VD4600 | 1-803-974-21 | VARISTOR, CHIP | | | |
| VD4601 | 1-803-974-21 | VARISTOR, CHIP | | | |
| VD4602 | 1-803-974-21 | VARISTOR, CHIP | | | |
| VD4603 | 1-803-974-21 | VARISTOR, CHIP | | | |
| VD4604 | 1-803-974-21 | VARISTOR, CHIP | | | |
| VD4605 | 1-803-974-21 | VARISTOR, CHIP | | | |

S

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|---|---|---|---|---|---|
| * | **A-1395-037-A** | **S BOARD, COMPLETE** | | | |
| | **CAPACITOR** | | | | |
| C4401 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| C4402 | 1-162-968-11 | CERAMIC CHIP | .0047µF | 10% | 50V |
| C4403 | 1-162-968-11 | CERAMIC CHIP | .0047µF | 10% | 50V |
| C4404 | 1-162-970-11 | CERAMIC CHIP | 0.01µF | 10% | 25V |
| C4405 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C4406 | 1-162-968-11 | CERAMIC CHIP | .0047µF | 10% | 50V |
| C4407 | 1-115-467-11 | CERAMIC CHIP | 0.22µF | 10% | 10V |
| C4408 | 1-162-970-11 | CERAMIC CHIP | 0.01µF | 10% | 25V |
| C4409 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C4410 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| C4413 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| C4414 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| C4415 | 1-126-961-11 | ELECT | 2.2µF | 20% | 50V |
| C4416 | 1-126-961-11 | ELECT | 2.2µF | 20% | 50V |
| C4417 | 1-162-968-11 | CERAMIC CHIP | .0047µF | 10% | 50V |
| C4418 | 1-126-941-11 | ELECT | 470µF | 20% | 25V |
| C4419 | 1-104-665-11 | ELECT | 100µF | 20% | 25V |
| C4420 | 1-104-665-11 | ELECT | 100µF | 20% | 25V |
| C4421 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C4422 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| C4423 | 1-115-467-11 | CERAMIC CHIP | 0.22µF | 10% | 10V |
| C4424 | 1-126-960-11 | ELECT | 1µF | 20% | 50V |
| C4425 | 1-126-960-11 | ELECT | 1µF | 20% | 50V |
| C4428 | 1-115-467-11 | CERAMIC CHIP | 0.22µF | 10% | 10V |
| C4429 | 1-126-960-11 | ELECT | 1µF | 20% | 50V |
| C4430 | 1-162-970-11 | CERAMIC CHIP | 0.01µF | 10% | 25V |
| C4431 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C4432 | 1-126-960-11 | ELECT | 1µF | 20% | 50V |
| C4433 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| C4434 | 1-126-767-11 | ELECT | 1000µF | 20% | 16V |

S

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| C4435 | 1-162-968-11 | CERAMIC CHIP | .0047µF | 10% | 50V |
| C4436 | 1-164-677-11 | CERAMIC CHIP | 0.033µF | 10% | 16V |
| C4437 | 1-162-967-11 | CERAMIC CHIP | 0.0033µF | 10% | 50V |
| C4438 | 1-164-677-11 | CERAMIC CHIP | 0.033µF | 10% | 16V |
| C4440 | 1-162-968-11 | CERAMIC CHIP | .0047µF | 10% | 50V |
| C4441 | 1-126-963-11 | ELECT | 4.7µF | 20% | 50V |
| C4442 | 1-126-959-11 | ELECT | 0.47µF | 20% | 50V |
| C4443 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| C4446 | 1-136-169-00 | FILM | 0.22µF | 5% | 50V |
| C4447 | 1-126-963-11 | ELECT | 4.7µF | 20% | 50V |
| C4448 | 1-126-959-11 | ELECT | 0.47µF | 20% | 50V |
| C4449 | 1-126-968-11 | ELECT | 100µF | 20% | 50V |
| C4450 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C4453 | 1-162-968-11 | CERAMIC CHIP | .0047µF | 10% | 50V |
| C4454 | 1-164-677-11 | CERAMIC CHIP | 0.033µF | 10% | 16V |
| C4455 | 1-162-967-11 | CERAMIC CHIP | 0.0033µF | 10% | 50V |
| C4456 | 1-164-677-11 | CERAMIC CHIP | 0.033µF | 10% | 16V |
| C4457 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C4458 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C4459 | 1-136-158-00 | FILM | 0.027µF | 5% | 50V |
| C4460 | 1-136-169-00 | FILM | 0.22µF | 5% | 50V |
| C4464 | 1-136-164-00 | FILM | 0.082µF | 5% | 50V |
| C4465 | 1-162-927-11 | CERAMIC CHIP | 100pF | 5% | 50V |
| C4466 | 1-136-164-00 | FILM | 0.082µF | 5% | 50V |
| C4467 | 1-137-368-11 | MYLAR | .0047µF | 5% | 50V |
| C4468 | 1-136-158-00 | FILM | 0.027µF | 5% | 50V |
| C4469 | 1-126-947-11 | ELECT | 47µF | 20% | 25V |
| C4470 | 1-137-368-11 | MYLAR | .0047µF | 5% | 50V |
| C4471 | 1-162-927-11 | CERAMIC CHIP | 100pF | 5% | 50V |
| C4472 | 1-126-967-11 | ELECT | 47µF | 20% | 50V |
| C4473 | 1-126-967-11 | ELECT | 47µF | 20% | 50V |

**CONNECTOR**

| | | | |
|---|---|---|---|
| * CN4401 | 1-691-632-21 | CONNECTOR, BOARD TO BOARD 15P | |

**DIODE**

| | | |
|---|---|---|
| D4401 | 8-719-977-28 | DIODE UDZSTE-1710B |
| D4402 | 8-719-977-28 | DIODE UDZSTE-1710B |
| D4408 | 8-719-071-74 | DIODE HZU11B1TRF |

**IC**

| | | |
|---|---|---|
| IC4401 | 8-759-828-60 | IC NJM2181M |
| IC4402 | 8-759-331-71 | IC NJM4558E(TE2) |
| IC4403 | 8-759-678-92 | IC BH3868AFS-E2 |
| IC4404 | 8-759-331-71 | IC NJM4558E(TE2) |

**COIL**

| | | | |
|---|---|---|---|
| L4402 | 1-414-187-11 | INDUCTOR | 47µH |

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|

**RESISTOR**

| | | | | | |
|---|---|---|---|---|---|
| R4401 | 1-216-864-11 | SHORT | | | |
| R4402 | 1-216-842-11 | RES-CHIP | 56K | 5% | 1/16W |
| R4403 | 1-216-823-11 | RES-CHIP | 1.5K | 5% | 1/16W |
| R4404 | 1-216-092-00 | RES-CHIP | 62K | 5% | 1/10W |
| R4405 | 1-216-839-11 | RES-CHIP | 33K | 5% | 1/16W |
| R4406 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R4407 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R4408 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R4409 | 1-216-861-11 | RES-CHIP | 2.2M | 5% | 1/16W |
| R4410 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R4411 | 1-216-824-11 | RES-CHIP | 1.8K | 5% | 1/16W |
| R4412 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R4413 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R4414 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R4415 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R4416 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R4417 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R4418 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R4419 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R4420 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R4421 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R4430 | 1-216-857-11 | RES-CHIP | 1M | 5% | 1/16W |
| R4432 | 1-216-857-11 | RES-CHIP | 1M | 5% | 1/16W |
| R4434 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R4438 | 1-216-840-11 | RES-CHIP | 39K | 5% | 1/16W |
| R4440 | 1-216-840-11 | RES-CHIP | 39K | 5% | 1/16W |
| R4441 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R4442 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R4443 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R4444 | 1-216-839-11 | RES-CHIP | 33K | 5% | 1/16W |
| R4448 | 1-216-840-11 | RES-CHIP | 39K | 5% | 1/16W |
| R4449 | 1-216-864-11 | SHORT | | | |
| R4450 | 1-216-840-11 | RES-CHIP | 39K | 5% | 1/16W |
| R4451 | 1-216-840-11 | RES-CHIP | 39K | 5% | 1/16W |
| R4452 | 1-216-823-11 | RES-CHIP | 1.5K | 5% | 1/16W |
| R4453 | 1-216-840-11 | RES-CHIP | 39K | 5% | 1/16W |
| R4459 | 1-216-823-11 | RES-CHIP | 1.5K | 5% | 1/16W |
| R4460 | 1-216-864-11 | SHORT | | | |
| R4461 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R4462 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R4463 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R4464 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R4468 | 1-216-864-11 | SHORT | | | |

U

U

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| * | A-1395-038-A | U BOARD, COMPLETE | | | |
| | **CAPACITOR** | | | | |
| C4001 | 1-126-960-11 | ELECT | 1µF | 20% | 50V |
| C4002 | 1-126-960-11 | ELECT | 1µF | 20% | 50V |
| C4003 | 1-126-960-11 | ELECT | 1µF | 20% | 50V |
| C4004 | 1-126-960-11 | ELECT | 1µF | 20% | 50V |
| C4005 | 1-125-891-11 | CERAMIC CHIP | 0.47µF | 10% | 10V |
| C4006 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C4007 | 1-125-891-11 | CERAMIC CHIP | 0.47µF | 10% | 10V |
| C4008 | 1-126-960-11 | ELECT | 1µF | 20% | 50V |
| C4009 | 1-126-960-11 | ELECT | 1µF | 20% | 50V |
| C4010 | 1-125-891-11 | CERAMIC CHIP | 0.47µF | 10% | 10V |
| C4011 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C4012 | 1-125-891-11 | CERAMIC CHIP | 0.47µF | 10% | 10V |
| C4013 | 1-126-960-11 | ELECT | 1µF | 20% | 50V |
| C4014 | 1-126-960-11 | ELECT | 1µF | 20% | 50V |
| C4015 | 1-125-891-11 | CERAMIC CHIP | 0.47µF | 10% | 10V |
| C4016 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C4017 | 1-125-891-11 | CERAMIC CHIP | 0.47µF | 10% | 10V |
| C4018 | 1-126-960-11 | ELECT | 1µF | 20% | 50V |
| C4019 | 1-126-960-11 | ELECT | 1µF | 20% | 50V |
| | **CONNECTOR** | | | | |
| * CN4001 | 1-793-923-11 | CONNECTOR, DIN (PLUG) | | 64P | |
| | **JACK** | | | | |
| J4001 | 1-774-358-11 | JACK BLOCK, PIN | | | |
| J4002 | 1-774-358-11 | JACK BLOCK, PIN | | | |
| J4003 | 1-750-515-11 | TERMINAL BLOCK, S | 3P | | |
| J4004 | 1-750-515-11 | TERMINAL BLOCK, S | 3P | | |
| J4005 | 1-750-515-11 | TERMINAL BLOCK, S | 3P | | |
| J4006 | 1-750-517-11 | JACK BLOCK, PIN | 3P | | |
| J4007 | 1-750-516-21 | JACK BLOCK, PIN | 2P | | |
| J4008 | 1-764-143-11 | JACK | | | |
| J4009 | 1-764-143-11 | JACK | | | |
| | **RESISTOR** | | | | |
| R4001 | 1-218-665-11 | METAL CHIP | 75 | 0.50% | 1/16W |
| R4002 | 1-218-665-11 | METAL CHIP | 75 | 0.50% | 1/16W |
| R4003 | 1-218-665-11 | METAL CHIP | 75 | 0.50% | 1/16W |
| R4004 | 1-216-853-11 | RES-CHIP | 470K | 5% | 1/16W |
| R4005 | 1-216-853-11 | RES-CHIP | 470K | 5% | 1/16W |
| R4006 | 1-218-665-11 | METAL CHIP | 75 | 0.50% | 1/16W |
| R4007 | 1-218-665-11 | METAL CHIP | 75 | 0.50% | 1/16W |
| R4008 | 1-218-665-11 | METAL CHIP | 75 | 0.50% | 1/16W |
| R4009 | 1-216-853-11 | RES-CHIP | 470K | 5% | 1/16W |
| R4010 | 1-216-853-11 | RES-CHIP | 470K | 5% | 1/16W |
| R4011 | 1-218-665-11 | METAL CHIP | 75 | 0.50% | 1/16W |
| R4012 | 1-218-665-11 | METAL CHIP | 75 | 0.50% | 1/16W |
| R4013 | 1-218-665-11 | METAL CHIP | 75 | 0.50% | 1/16W |
| R4014 | 1-216-853-11 | RES-CHIP | 470K | 5% | 1/16W |
| R4015 | 1-216-853-11 | RES-CHIP | 470K | 5% | 1/16W |
| R4016 | 1-218-665-11 | METAL CHIP | 75 | 0.50% | 1/16W |
| R4017 | 1-218-665-11 | METAL CHIP | 75 | 0.50% | 1/16W |
| R4018 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R4019 | 1-218-665-11 | METAL CHIP | 75 | 0.50% | 1/16W |
| R4020 | 1-216-853-11 | RES-CHIP | 470K | 5% | 1/16W |
| R4021 | 1-216-853-11 | RES-CHIP | 470K | 5% | 1/16W |
| R4022 | 1-218-665-11 | METAL CHIP | 75 | 0.50% | 1/16W |
| R4023 | 1-218-665-11 | METAL CHIP | 75 | 0.50% | 1/16W |
| R4024 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R4025 | 1-218-665-11 | METAL CHIP | 75 | 0.50% | 1/16W |
| R4026 | 1-216-853-11 | RES-CHIP | 470K | 5% | 1/16W |
| R4027 | 1-216-853-11 | RES-CHIP | 470K | 5% | 1/16W |
| R4028 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R4029 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| | **VARISTOR** | | | | |
| VD4001 | 1-803-974-21 | VARISTOR, CHIP | | | |
| VD4002 | 1-803-974-21 | VARISTOR, CHIP | | | |
| VD4003 | 1-803-974-21 | VARISTOR, CHIP | | | |
| VD4004 | 1-803-974-21 | VARISTOR, CHIP | | | |
| VD4005 | 1-803-974-21 | VARISTOR, CHIP | | | |
| VD4006 | 1-803-974-21 | VARISTOR, CHIP | | | |
| VD4007 | 1-803-974-21 | VARISTOR, CHIP | | | |
| VD4008 | 1-803-974-21 | VARISTOR, CHIP | | | |
| VD4009 | 1-803-974-21 | VARISTOR, CHIP | | | |
| VD4010 | 1-803-974-21 | VARISTOR, CHIP | | | |
| VD4011 | 1-803-974-21 | VARISTOR, CHIP | | | |
| VD4012 | 1-803-974-21 | VARISTOR, CHIP | | | |
| VD4013 | 1-803-974-21 | VARISTOR, CHIP | | | |
| VD4014 | 1-803-974-21 | VARISTOR, CHIP | | | |
| VD4015 | 1-803-974-21 | VARISTOR, CHIP | | | |
| VD4016 | 1-803-974-21 | VARISTOR, CHIP | | | |
| VD4017 | 1-803-974-21 | VARISTOR, CHIP | | | |
| VD4018 | 1-803-974-21 | VARISTOR, CHIP | | | |
| VD4019 | 1-803-974-21 | VARISTOR, CHIP | | | |
| VD4020 | 1-803-974-21 | VARISTOR, CHIP | | | |
| VD4021 | 1-803-974-21 | VARISTOR, CHIP | | | |
| VD4022 | 1-803-974-21 | VARISTOR, CHIP | | | |
| VD4023 | 1-803-974-21 | VARISTOR, CHIP | | | |
| VD4024 | 1-803-974-21 | VARISTOR, CHIP | | | |

U QM

| REF.NO. | PART NO. | DESCRIPTION | VALUES |
|---|---|---|---|
| VD4025 | 1-803-974-21 | VARISTOR, CHIP | |
| VD4026 | 1-803-974-21 | VARISTOR, CHIP | |
| VD4027 | 1-803-974-21 | VARISTOR, CHIP | |
| VD4028 | 1-803-974-21 | VARISTOR, CHIP | |
| VD4029 | 1-803-974-21 | VARISTOR, CHIP | |
| VD4030 | 1-803-974-21 | VARISTOR, CHIP | |
| VD4031 | 1-803-974-21 | VARISTOR, CHIP | |
| VD4032 | 1-803-974-21 | VARISTOR, CHIP | |
| VD4033 | 1-803-974-21 | VARISTOR, CHIP | |
| VD4034 | 1-803-974-21 | VARISTOR, CHIP | |

## QM

**The QM board is not field repairable and cannot be ordered independently. If service is required, use the following part number to order a replacement Q-box which includes the complete QM and QI board assemblies.**

| | | | |
|---|---|---|---|
| * | **SEE SUPPLEMENT-1** | **Q-BOX, COMPLETE** | |
| * | 7-322-065-48 | RUBBER, SILICONE RTV (KE-3490) | |

**CAPACITOR**

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| C7002 | 1-127-760-11 | CERAMIC CHIP | 4.7µF | 10% | 6.3V |
| C7003 | 1-162-974-11 | CERAMIC CHIP | 0.01µF | | 50V |
| C7004 | 1-117-808-91 | CERAMIC CHIP | 10µF | 10% | 10V |
| C7006 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7007 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C7008 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C7009 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7010 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7013 | 1-119-667-11 | CERAMIC CHIP | 22µF | | 10V |
| C7014 | 1-127-692-11 | CERAMIC CHIP | 10µF | 10% | 6.3V |
| C7021 | 1-126-204-11 | ELECT CHIP | 47µF | 20% | 16V |
| C7022 | 1-128-393-11 | ELECT CHIP | 100µF | 20% | 10V |
| C7023 | 1-128-393-11 | ELECT CHIP | 100µF | 20% | 10V |
| C7024 | 1-126-197-11 | ELECT CHIP | 10µF | 20% | 50V |
| C7025 | 1-126-204-11 | ELECT CHIP | 47µF | 20% | 16V |
| C7026 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7027 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7028 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7030 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7031 | 1-126-204-11 | ELECT CHIP | 47µF | 20% | 16V |
| C7036 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7037 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7038 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7048 | 1-162-964-11 | CERAMIC CHIP | 0.001µF | 10% | 50V |
| C7049 | 1-162-964-11 | CERAMIC CHIP | 0.001µF | 10% | 50V |
| C7052 | 1-162-964-11 | CERAMIC CHIP | 0.001µF | 10% | 50V |
| C7053 | 1-162-964-11 | CERAMIC CHIP | 0.001µF | 10% | 50V |
| C7057 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7058 | 1-117-808-91 | CERAMIC CHIP | 10µF | 10% | 10V |
| C7059 | 1-117-808-91 | CERAMIC CHIP | 10µF | 10% | 10V |
| C7060 | 1-119-667-11 | CERAMIC CHIP | 22µF | | 10V |
| C7061 | 1-119-667-11 | CERAMIC CHIP | 22µF | | 10V |
| C7062 | 1-127-692-11 | CERAMIC CHIP | 10µF | 10% | 6.3V |
| C7063 | 1-127-692-11 | CERAMIC CHIP | 10µF | 10% | 6.3V |
| C7064 | 1-127-692-11 | CERAMIC CHIP | 10µF | 10% | 6.3V |
| C7201 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7202 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7203 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7204 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7205 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7206 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7207 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7208 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7209 | 1-127-692-11 | CERAMIC CHIP | 10µF | 10% | 6.3V |
| C7210 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7211 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7212 | 1-127-692-11 | CERAMIC CHIP | 10µF | 10% | 6.3V |
| C7213 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7214 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7215 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7216 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7217 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7218 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7219 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7220 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7221 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7222 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7223 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7224 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7225 | 1-162-919-11 | CERAMIC CHIP | 22pF | 5% | 50V |
| C7226 | 1-162-915-11 | CERAMIC CHIP | 10pF | 0.50pF | 50V |
| C7227 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7228 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7229 | 1-162-924-11 | CERAMIC CHIP | 56pF | 5% | 50V |
| C7230 | 1-162-924-11 | CERAMIC CHIP | 56pF | 5% | 50V |
| C7231 | 1-162-927-11 | CERAMIC CHIP | 100pF | 5% | 50V |
| C7232 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7233 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7234 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7235 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7401 | 1-127-692-11 | CERAMIC CHIP | 10µF | 10% | 6.3V |
| C7402 | 1-162-923-11 | CERAMIC CHIP | 47pF | 5% | 50V |
| C7403 | 1-162-964-11 | CERAMIC CHIP | 0.001µF | 10% | 50V |
| C7404 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7405 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | | REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| C7406 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C7624 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7407 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C7625 | 1-125-837-91 | CERAMIC CHIP | 1µF | 10% | 6.3V |
| C7409 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C7626 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7410 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C7627 | 1-162-915-11 | CERAMIC CHIP | 10pF | 0.50pF | 50V |
| C7411 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C7628 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7412 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C7629 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7413 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C7630 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7414 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C7631 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7415 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C7632 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7416 | 1-162-927-11 | CERAMIC CHIP | 100pF | 5% | 50V | C7633 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7417 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C7634 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7418 | 1-162-966-11 | CERAMIC CHIP | 0.0022µF | 10% | 50V | C7635 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7419 | 1-117-370-11 | CERAMIC CHIP | 10µF | | 10V | C7636 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7420 | 1-117-370-11 | CERAMIC CHIP | 10µF | | 10V | C7637 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7421 | 1-117-370-11 | CERAMIC CHIP | 10µF | | 10V | C7638 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7422 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C7639 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7423 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C7640 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7424 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C7641 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7425 | 1-126-206-11 | ELECT CHIP | 100µF | 20% | 6.3V | C7642 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7431 | 1-162-967-11 | CERAMIC CHIP | 0.0033µF | 10% | 50V | C7643 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7432 | 1-162-967-11 | CERAMIC CHIP | 0.0033µF | 10% | 50V | C7644 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7433 | 1-162-967-11 | CERAMIC CHIP | 0.0033µF | 10% | 50V | C7645 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7434 | 1-162-967-11 | CERAMIC CHIP | 0.0033µF | 10% | 50V | C7646 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7435 | 1-162-967-11 | CERAMIC CHIP | 0.0033µF | 10% | 50V | C7647 | 1-127-692-11 | CERAMIC CHIP | 10µF | 10% | 6.3V |
| C7436 | 1-162-967-11 | CERAMIC CHIP | 0.0033µF | 10% | 50V | C7801 | 1-162-970-11 | CERAMIC CHIP | 0.01µF | 10% | 25V |
| C7437 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C7802 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7601 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C7803 | 1-126-204-11 | ELECT CHIP | 47µF | 20% | 16V |
| C7602 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C7804 | 1-117-370-11 | CERAMIC CHIP | 10µF | | 10V |
| C7603 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C7805 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7604 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C7808 | 1-117-370-11 | CERAMIC CHIP | 10µF | | 10V |
| C7605 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C7810 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7606 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C7811 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7608 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C7812 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7609 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C7813 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7610 | 1-127-692-11 | CERAMIC CHIP | 10µF | 10% | 6.3V | C7814 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7611 | 1-127-692-11 | CERAMIC CHIP | 10µF | 10% | 6.3V | C7815 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7612 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C7816 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7613 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C7817 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7614 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C7818 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7615 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C7819 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7616 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C7820 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7617 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C7821 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7618 | 1-119-667-11 | CERAMIC CHIP | 22µF | | 10V | C7822 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7619 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C7823 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7620 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C7824 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7621 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C7825 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7622 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C7826 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7623 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C7827 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | | REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| C7828 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C8603 | 1-162-970-11 | CERAMIC CHIP | 0.01µF | 10% | 25V |
| C7829 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C8604 | 1-127-692-11 | CERAMIC CHIP | 10µF | 10% | 6.3V |
| C7830 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C8605 | 1-162-970-11 | CERAMIC CHIP | 0.01µF | 10% | 25V |
| C7831 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C8606 | 1-127-692-11 | CERAMIC CHIP | 10µF | 10% | 6.3V |
| C7832 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C8607 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7833 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C8608 | 1-128-934-91 | CERAMIC CHIP | 0.33µF | 20% | 10V |
| C7834 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C8609 | 1-162-967-11 | CERAMIC CHIP | 0.0033µF | 10% | 50V |
| C7835 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C8610 | 1-162-927-11 | CERAMIC CHIP | 100pF | 5% | 50V |
| C7836 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C8611 | 1-162-927-11 | CERAMIC CHIP | 100pF | 5% | 50V |
| C7837 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C8612 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C7838 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C8613 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C7839 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C8615 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V |
| C7840 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C8617 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7841 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C8621 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7846 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C8622 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7847 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C8623 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7848 | 1-127-760-11 | CERAMIC CHIP | 4.7µF | 10% | 6.3V | C8624 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7849 | 1-117-370-11 | CERAMIC CHIP | 10µF | | 10V | C8625 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7850 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C8629 | 1-162-970-11 | CERAMIC CHIP | 0.01µF | 10% | 25V |
| C7851 | 1-162-970-11 | CERAMIC CHIP | 0.01µF | 10% | 25V | C8630 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7852 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V | C8631 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7853 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C8632 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7854 | 1-117-370-11 | CERAMIC CHIP | 10µF | | 10V | C8633 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7855 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C8634 | 1-125-837-91 | CERAMIC CHIP | 1µF | 10% | 6.3V |
| C7856 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V | C8635 | 1-125-837-91 | CERAMIC CHIP | 1µF | 10% | 6.3V |
| C7857 | 1-107-826-11 | CERAMIC CHIP | 0.1µF | 10% | 16V | C8636 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7859 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C8637 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7860 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C8638 | 1-119-667-11 | CERAMIC CHIP | 22µF | | 10V |
| C7861 | 1-124-779-00 | ELECT CHIP | 10µF | 20% | 16V | C8639 | 1-126-204-11 | ELECT CHIP | 47µF | 20% | 16V |
| C7863 | 1-117-370-11 | CERAMIC CHIP | 10µF | | 10V | C8640 | 1-117-370-11 | CERAMIC CHIP | 10µF | | 10V |
| C7865 | 1-117-370-11 | CERAMIC CHIP | 10µF | | 10V | C8641 | 1-117-370-11 | CERAMIC CHIP | 10µF | | 10V |
| C7866 | 1-124-779-00 | ELECT CHIP | 10µF | 20% | 16V | C8642 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7867 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C8643 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7870 | 1-126-206-11 | ELECT CHIP | 100µF | 20% | 6.3V | C8644 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7871 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C8645 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7873 | 1-124-779-00 | ELECT CHIP | 10µF | 20% | 16V | C8646 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7874 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C8647 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7875 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C8648 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7876 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C8649 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7878 | 1-119-667-11 | CERAMIC CHIP | 22µF | | 10V | C8650 | 1-126-204-11 | ELECT CHIP | 47µF | 20% | 16V |
| C7879 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C8651 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7880 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C8652 | 1-126-204-11 | ELECT CHIP | 47µF | 20% | 16V |
| C7881 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V | C8653 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C7882 | 1-115-467-11 | CERAMIC CHIP | 0.22µF | 10% | 10V | C8654 | 1-126-206-11 | ELECT CHIP | 100µF | 20% | 6.3V |
| C7891 | 1-115-467-11 | CERAMIC CHIP | 0.22µF | 10% | 10V | C8655 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8601 | 1-162-970-11 | CERAMIC CHIP | 0.01µF | 10% | 25V | C8656 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8602 | 1-127-692-11 | CERAMIC CHIP | 10µF | 10% | 6.3V | C8657 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |

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| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| C8706 | 1-127-692-11 | CERAMIC CHIP | 10µF | 10% | 6.3V |
| C8708 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8709 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8712 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8713 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8714 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8715 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8716 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8717 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8718 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8719 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8720 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8721 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8722 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8723 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8724 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8725 | 1-110-530-11 | ELECT CHIP | 1000µF | 20% | 6.3V |
| C8726 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8728 | 1-162-916-11 | CERAMIC CHIP | 12pF | 5% | 50V |
| C8729 | 1-162-916-11 | CERAMIC CHIP | 12pF | 5% | 50V |
| C8731 | 1-162-968-11 | CERAMIC CHIP | .0047µF | 10% | 50V |
| C8733 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8734 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8737 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8738 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8739 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8740 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8741 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8742 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8745 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8746 | 1-119-667-11 | CERAMIC CHIP | 22µF | | 10V |
| C8748 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8801 | 1-124-779-00 | ELECT CHIP | 10µF | 20% | 16V |
| C8802 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8803 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8804 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8805 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8806 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8807 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8808 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8810 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8811 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8812 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8813 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8814 | 1-124-779-00 | ELECT CHIP | 10µF | 20% | 16V |
| C8815 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8816 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8817 | 1-124-779-00 | ELECT CHIP | 10µF | 20% | 16V |
| C8818 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8819 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8820 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8821 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8823 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8824 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8825 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8826 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8827 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8828 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8829 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8830 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8831 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8832 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8833 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8834 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8835 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8836 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8837 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8838 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8839 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8840 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8841 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8843 | 1-126-205-11 | ELECT CHIP | 47µF | 20% | 6.3V |
| C8844 | 1-126-205-11 | ELECT CHIP | 47µF | 20% | 6.3V |
| C8845 | 1-126-205-11 | ELECT CHIP | 47µF | 20% | 6.3V |
| C8850 | 1-126-204-11 | ELECT CHIP | 47µF | 20% | 16V |
| C8851 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8852 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8860 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8861 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8901 | 1-162-974-11 | CERAMIC CHIP | 0.01µF | | 50V |
| C8902 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8903 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8904 | 1-162-974-11 | CERAMIC CHIP | 0.01µF | | 50V |
| C8905 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8906 | 1-126-204-11 | ELECT CHIP | 47µF | 20% | 16V |
| C8907 | 1-162-923-11 | CERAMIC CHIP | 47pF | 5% | 50V |
| C8908 | 1-162-924-11 | CERAMIC CHIP | 56pF | 5% | 50V |
| C8909 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C8910 | 1-125-837-91 | CERAMIC CHIP | 1µF | 10% | 6.3V |
| C8911 | 1-162-927-11 | CERAMIC CHIP | 100pF | 5% | 50V |
| C8912 | 1-162-927-11 | CERAMIC CHIP | 100pF | 5% | 50V |
| C8913 | 1-162-927-11 | CERAMIC CHIP | 100pF | 5% | 50V |
| C8914 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |

| | REF.NO. | PART NO. | DESCRIPTION | VALUES |
|---|---|---|---|---|
| | | **CONNECTOR** | | |
| * | CN7001 | 1-794-660-11 | PIN,CONNECTOR (WITH SHIELD) | 8P |
| * | CN7201 | 1-815-176-11 | PIN,CONNECTOR(WITH SHIELD) | 22P |
| * | CN7202 | 1-793-150-12 | CONNECTOR, MEMORY STICK | |
| * | CN7204 | 1-564-507-11 | PLUG,CONNECTOR | 4P |
| | CN7401 | 8-749-019-67 | IC GP1FH500TZ | |
| * | CN7402 | 1-815-178-11 | PIN,CONNECTOR(WITH SHIELD) | 22P |
| * | CN8601 | 1-815-176-11 | PIN,CONNECTOR(WITH SHIELD) | 22P |
| * | CN8801 | 1-815-177-11 | PIN,CONNECTOR(WITH SHIELD) | 22P |
| | | **DIODE** | | |
| | D7001 | 8-719-048-40 | DIODE MBRS140T3 | |
| | D7002 | 8-719-048-40 | DIODE MBRS140T3 | |
| | D7003 | 8-719-046-91 | DIODE MA2S111-TX | |
| | D7004 | 8-719-046-91 | DIODE MA2S111-TX | |
| | D7005 | 8-719-046-91 | DIODE MA2S111-TX | |
| | D7006 | 8-719-066-99 | DIODE SML-210VTT86 | |
| | D7007 | 8-719-060-99 | DIODE SML-210MT-T86 | |
| | D7008 | 8-719-988-61 | DIODE 1SS355TE-17 | |
| | D7201 | 8-719-066-99 | DIODE SML-210VTT86 | |
| | D7202 | 8-719-031-68 | DIODE HVU359TRF | |
| | D7203 | 8-719-031-68 | DIODE HVU359TRF | |
| | D7204 | 8-719-820-12 | DIODE LN25RP | |
| | D7803 | 8-719-056-77 | DIODE UDZ-TE-17-3.9B | |
| | D8701 | 8-719-988-61 | DIODE 1SS355TE-17 | |
| | D8905 | 8-719-046-91 | DIODE MA2S111-TX | |
| | | **FERRITE BEAD** | | |
| | FB7001 | 1-500-241-22 | FERRITE | 0µH |
| | FB7002 | 1-412-911-11 | FERRITE | 0µH |
| | FB7003 | 1-412-911-11 | FERRITE | 0µH |
| | FB7004 | 1-412-911-11 | FERRITE | 0µH |
| | FB7005 | 1-500-241-22 | FERRITE | 0µH |
| | FB7006 | 1-500-241-22 | FERRITE | 0µH |
| | FB7007 | 1-469-835-21 | FERRITE | 0µH |
| | FB7008 | 1-469-835-21 | FERRITE | 0µH |
| | FB7009 | 1-469-835-21 | FERRITE | 0µH |
| | FB7010 | 1-469-835-21 | FERRITE | 0µH |
| | FB7011 | 1-469-869-21 | FERRITE | 0µH |
| | FB7012 | 1-469-869-21 | FERRITE | 0µH |
| | FB7013 | 1-469-869-21 | FERRITE | 0µH |
| | FB7014 | 1-400-089-21 | FERRITE | 0µH |
| | FB7015 | 1-400-089-21 | FERRITE | 0µH |
| | FB7016 | 1-400-089-21 | FERRITE | 0µH |
| | FB7017 | 1-500-241-22 | FERRITE | 0µH |
| | FB7201 | 1-414-231-22 | FERRITE | 0µH |
| | FB7202 | 1-414-229-11 | FERRITE | 0µH |
| | FB7601 | 1-414-229-11 | FERRITE | 0µH |
| | FB7602 | 1-414-229-11 | FERRITE | 0µH |
| | FB7603 | 1-414-229-11 | FERRITE | 0µH |
| | FB7801 | 1-414-229-11 | FERRITE | 0µH |
| | FB7802 | 1-414-229-11 | FERRITE | 0µH |
| | FB8801 | 1-469-835-21 | FERRITE | 0µH |
| | | **FILTER** | | |
| | FL7801 | 1-234-557-21 | FILTER, LOW PASS | |
| | FL7802 | 1-234-557-21 | FILTER, LOW PASS | |
| | FL7803 | 1-234-558-21 | FILTER, LOW PASS | |
| | FL8601 | 1-234-559-21 | FILTER, LOW PASS | |
| | FL8602 | 1-234-559-21 | FILTER, LOW PASS | |
| | FL8603 | 1-234-560-21 | FILTER, LOW PASS | |
| | FL8801 | 1-781-923-21 | FILTER, LOW PASS (SMD) | |
| | | **IC** | | |
| | IC7002 | 8-759-597-57 | IC LTC1628CG#TR | |
| | IC7201 | 6-700-201-01 | IC MBM29LV160BE70TN | |
| | IC7202 | 6-700-201-01 | IC MBM29LV160BE70TN | |
| | IC7203 | 8-759-679-88 | IC GM71VS65163CLT-5 | |
| | IC7204 | 8-759-679-88 | IC GM71VS65163CLT-5 | |
| | IC7205 | 8-759-712-93 | IC ST20TP4CX60S | |
| | IC7206 | 8-759-682-41 | IC M24C32-WMN6T(A) | |
| | IC7207 | 6-700-226-01 | IC TC74LVX04FT(EL) | |
| | IC7208 | 6-700-202-01 | IC MAX811TEUS-T | |
| | IC7209 | 8-759-538-95 | IC TC74LVX08FT(EL) | |
| | IC7401 | 8-759-698-88 | IC STI4600BCV-2.0 | |
| | IC7402 | 6-700-203-01 | IC CS4339KSR | |
| | IC7403 | 6-700-203-01 | IC CS4339KSR | |
| | IC7404 | 6-700-203-01 | IC CS4339KSR | |
| | IC7405 | 8-759-485-79 | IC TC7SET08FU(TE85L) | |
| | IC7601 | 8-759-675-89 | IC TC59S6432CFT-80(YB) | |
| | IC7602 | 8-759-675-89 | IC TC59S6432CFT-80(YB) | |
| | IC7603 | 6-700-087-01 | IC STI7000AQA | |
| | IC7604 | 6-700-273-01 | IC EPM3128ATC100-5-V1.0 | |
| | IC7801 | 8-759-669-78 | IC TLC2933IPWR-12 | |
| | IC7803 | 6-700-134-01 | IC NT56V1616A0T-7-T&R | |
| | IC7804 | 8-752-409-78 | IC CXD2095AQ | |
| | IC7805 | 8-759-669-75 | IC TLC2932IPWR | |
| | IC7806 | 8-759-447-90 | IC TLC5733AIPM | |
| | IC7807 | 6-700-274-01 | IC LMV358IPWR | |
| | IC8601 | 8-752-093-03 | IC CXA3506R | |
| | IC8703 | 8-759-672-57 | IC CXD9509AQ | |
| | IC8704 | 8-759-675-89 | IC TC59S6432CFT-80(YB) | |
| | IC8706 | 8-749-015-18 | IC PQ07VZ012ZP | |
| | IC8707 | 6-700-225-01 | IC TC74VCX157FT(EL) | |
| | IC8708 | 8-759-531-92 | IC TC7WH04FU(TE12R) | |
| | IC8709 | 8-749-015-18 | IC PQ07VZ012ZP | |

| REF.NO. | PART NO. | DESCRIPTION | VALUES |
|---|---|---|---|
| IC8801 | 6-700-321-01 | IC YGV619 | |
| IC8803 | 6-700-134-01 | IC NT56V1616A0T-7-T&R | |
| IC8804 | 6-700-134-01 | IC NT56V1616A0T-7-T&R | |
| IC8805 | 6-700-248-01 | IC THS8134BCPHP | |
| IC8807 | 6-700-226-01 | IC TC74LVX04FT(EL) | |
| IC8901 | 8-759-682-41 | IC M24C32-WMN6T(A) | |
| IC8902 | 6-800-514-01 | IC MB94918RpF-G-141-BND | |
| IC8903 | 6-700-205-01 | IC TC74LVX157FT(EL) | |
| | **COIL** | | |
| L7002 | 1-469-848-21 | INDUCTOR | 10µH |
| L7003 | 1-469-848-21 | INDUCTOR | 10µH |
| L7004 | 1-416-606-11 | INDUCTOR | 47µH |
| L7005 | 1-414-755-11 | INDUCTOR | 22µH |
| L7006 | 1-414-755-11 | INDUCTOR | 22µH |
| L7007 | 1-414-755-11 | INDUCTOR | 22µH |
| L7008 | 1-414-755-11 | INDUCTOR | 22µH |
| L7009 | 1-414-755-11 | INDUCTOR | 22µH |
| L7201 | 1-469-555-21 | INDUCTOR | 10µH |
| L7401 | 1-469-555-21 | INDUCTOR | 10µH |
| L7403 | 1-469-555-21 | INDUCTOR | 10µH |
| L7601 | 1-469-555-21 | INDUCTOR | 10µH |
| L7801 | 1-469-561-21 | INDUCTOR | 100µH |
| L7802 | 1-469-561-21 | INDUCTOR | 100µH |
| L7803 | 1-469-561-21 | INDUCTOR | 100µH |
| L7804 | 1-469-561-21 | INDUCTOR | 100µH |
| L7805 | 1-469-555-21 | INDUCTOR | 10µH |
| L7806 | 1-469-555-21 | INDUCTOR | 10µH |
| L8601 | 1-469-555-21 | INDUCTOR | 10µH |
| L8602 | 1-469-553-21 | INDUCTOR | 4.7µH |
| L8603 | 1-469-555-21 | INDUCTOR | 10µH |
| L8801 | 1-469-555-21 | INDUCTOR | 10µH |
| L8802 | 1-469-555-21 | INDUCTOR | 10µH |
| L8803 | 1-469-555-21 | INDUCTOR | 10µH |
| L8805 | 1-469-555-21 | INDUCTOR | 10µH |
| L8906 | 1-469-553-21 | INDUCTOR | 4.7µH |
| | **TRANSISTOR** | | |
| Q7001 | 8-729-056-25 | TRANSISTOR SI4922DY | |
| Q7002 | 8-729-056-25 | TRANSISTOR SI4922DY | |
| Q7005 | 8-729-037-52 | TRANSISTOR 2SD2216J-QR(TX).SO | |
| Q7006 | 8-729-037-52 | TRANSISTOR 2SD2216J-QR(TX).SO | |
| Q7201 | 8-729-037-52 | TRANSISTOR 2SD2216J-QR(TX).SO | |
| Q7202 | 8-729-037-52 | TRANSISTOR 2SD2216J-QR(TX).SO | |
| Q7203 | 8-729-037-52 | TRANSISTOR 2SD2216J-QR(TX).SO | |
| Q7802 | 8-729-037-53 | TRANSISTOR 2SB1462J-QR(TX).SO | |
| Q7803 | 8-729-037-52 | TRANSISTOR 2SD2216J-QR(TX).SO | |
| Q7804 | 8-729-037-53 | TRANSISTOR 2SB1462J-QR(TX).SO | |

| REF.NO. | PART NO. | DESCRIPTION | VALUES |
|---|---|---|---|
| Q7805 | 8-729-037-53 | TRANSISTOR 2SB1462J-QR(TX).SO | |
| Q7806 | 8-729-122-63 | TRANSISTOR 2SA1226-T1E3E4 | |
| Q7807 | 8-729-037-52 | TRANSISTOR 2SD2216J-QR(TX).SO | |
| Q7808 | 8-729-037-52 | TRANSISTOR 2SD2216J-QR(TX).SO | |
| Q7809 | 8-729-037-52 | TRANSISTOR 2SD2216J-QR(TX).SO | |
| Q7810 | 8-729-037-52 | TRANSISTOR 2SD2216J-QR(TX).SO | |
| Q7811 | 8-729-037-52 | TRANSISTOR 2SD2216J-QR(TX).SO | |
| Q7812 | 8-729-037-53 | TRANSISTOR 2SB1462J-QR(TX).SO | |
| Q7813 | 8-729-037-52 | TRANSISTOR 2SD2216J-QR(TX).SO | |
| Q8601 | 8-729-102-07 | TRANSISTOR 2SC2223-T1F13F14 | |
| Q8602 | 8-729-102-07 | TRANSISTOR 2SC2223-T1F13F14 | |
| Q8603 | 8-729-102-07 | TRANSISTOR 2SC2223-T1F13F14 | |
| Q8604 | 8-729-037-53 | TRANSISTOR 2SB1462J-QR(TX).SO | |
| Q8605 | 8-729-037-53 | TRANSISTOR 2SB1462J-QR(TX).SO | |
| Q8606 | 8-729-122-63 | TRANSISTOR 2SA1226-T1E3E4 | |
| Q8607 | 8-729-122-63 | TRANSISTOR 2SA1226-T1E3E4 | |
| Q8608 | 8-729-122-63 | TRANSISTOR 2SA1226-T1E3E4 | |
| Q8609 | 8-729-037-53 | TRANSISTOR 2SB1462J-QR(TX).SO | |
| Q8701 | 8-719-012-57 | TRANSISTOR 2SK1399-T1B | |
| Q8702 | 8-719-012-57 | TRANSISTOR 2SK1399-T1B | |
| Q8804 | 8-729-102-07 | TRANSISTOR 2SC2223-T1F13F14 | |
| Q8805 | 8-729-102-07 | TRANSISTOR 2SC2223-T1F13F14 | |
| Q8806 | 8-729-102-07 | TRANSISTOR 2SC2223-T1F13F14 | |
| Q8901 | 8-729-037-52 | TRANSISTOR 2SD2216J-QR(TX).SO | |
| Q8902 | 8-729-037-52 | TRANSISTOR 2SD2216J-QR(TX).SO | |
| Q8903 | 8-729-037-53 | TRANSISTOR 2SB1462J-QR(TX).SO | |
| Q8904 | 8-729-037-53 | TRANSISTOR 2SB1462J-QR(TX).SO | |
| | **RESISTOR** | | |
| R7003 | 1-220-994-21 | RES-CHIP | 0.06 1% 1W |
| R7004 | 1-220-851-21 | RES-CHIP | 0.015 1% 1W |
| R7007 | 1-218-724-11 | METAL CHIP | 22K 0.50% 1/16W |
| R7008 | 1-218-732-11 | METAL CHIP | 47K 0.50% 1/16W |
| R7009 | 1-218-724-11 | METAL CHIP | 22K 0.50% 1/16W |
| R7010 | 1-218-736-11 | METAL CHIP | 68K 0.50% 1/16W |
| R7011 | 1-216-821-11 | RES-CHIP | 1K 5% 1/16W |
| R7012 | 1-216-864-11 | SHORT | |
| R7013 | 1-216-809-11 | RES-CHIP | 100 5% 1/16W |
| R7014 | 1-216-809-11 | RES-CHIP | 100 5% 1/16W |
| R7016 | 1-216-809-11 | RES-CHIP | 100 5% 1/16W |
| R7017 | 1-216-809-11 | RES-CHIP | 100 5% 1/16W |
| R7019 | 1-216-817-11 | RES-CHIP | 470 5% 1/16W |
| R7020 | 1-216-841-11 | RES-CHIP | 47K 5% 1/16W |
| R7021 | 1-216-833-11 | RES-CHIP | 10K 5% 1/16W |
| R7022 | 1-216-817-11 | RES-CHIP | 470 5% 1/16W |
| R7023 | 1-216-817-11 | RES-CHIP | 470 5% 1/16W |
| R7024 | 1-216-864-11 | SHORT | |
| R7025 | 1-216-833-11 | RES-CHIP | 10K 5% 1/16W |

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| R7026 | 1-216-857-11 | RES-CHIP | 1M | 5% | 1/16W |
| R7028 | 1-216-857-11 | RES-CHIP | 1M | 5% | 1/16W |
| R7029 | 1-216-835-11 | RES-CHIP | 15K | 5% | 1/16W |
| R7030 | 1-216-835-11 | RES-CHIP | 15K | 5% | 1/16W |
| R7031 | 1-216-864-11 | SHORT | | | |
| R7033 | 1-216-797-11 | RES-CHIP | 10 | 5% | 1/16W |
| R7036 | 1-216-864-11 | SHORT | | | |
| R7039 | 1-216-864-11 | SHORT | | | |
| R7046 | 1-218-736-11 | METAL CHIP | 68K | 0.50% | 1/16W |
| R7201 | 1-216-801-11 | RES-CHIP | 22 | 5% | 1/16W |
| R7202 | 1-216-801-11 | RES-CHIP | 22 | 5% | 1/16W |
| R7205 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7206 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7207 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R7208 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R7210 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7211 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7212 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7213 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R7214 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R7215 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R7216 | 1-216-803-11 | RES-CHIP | 33 | 5% | 1/16W |
| R7219 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R7220 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R7221 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R7222 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R7223 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R7224 | 1-216-864-11 | SHORT | | | |
| R7235 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R7236 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7238 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7239 | 1-216-851-11 | RES-CHIP | 330K | 5% | 1/16W |
| R7243 | 1-216-845-11 | RES-CHIP | 100K | 5% | 1/16W |
| R7244 | 1-216-845-11 | RES-CHIP | 100K | 5% | 1/16W |
| R7245 | 1-216-845-11 | RES-CHIP | 100K | 5% | 1/16W |
| R7246 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R7247 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R7248 | 1-216-857-11 | RES-CHIP | 1M | 5% | 1/16W |
| R7249 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7250 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R7251 | 1-216-864-11 | SHORT | | | |
| R7252 | 1-216-804-11 | RES-CHIP | 39 | 5% | 1/16W |
| R7253 | 1-216-804-11 | RES-CHIP | 39 | 5% | 1/16W |
| R7254 | 1-216-804-11 | RES-CHIP | 39 | 5% | 1/16W |
| R7256 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7257 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7258 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7259 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7260 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7261 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7262 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7263 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7264 | 1-216-864-11 | SHORT | | | |
| R7265 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R7266 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7267 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7268 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R7270 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7271 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7273 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7274 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7275 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7276 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7277 | 1-216-864-11 | SHORT | | | |
| R7281 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7282 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7283 | 1-216-806-11 | RES-CHIP | 56 | 5% | 1/16W |
| R7284 | 1-216-806-11 | RES-CHIP | 56 | 5% | 1/16W |
| R7285 | 1-216-864-11 | SHORT | | | |
| R7286 | 1-216-864-11 | SHORT | | | |
| R7288 | 1-216-793-11 | RES-CHIP | 4.7 | 5% | 1/16W |
| R7289 | 1-216-793-11 | RES-CHIP | 4.7 | 5% | 1/16W |
| R7401 | 1-216-830-11 | RES-CHIP | 5.6K | 5% | 1/16W |
| R7403 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R7405 | 1-216-864-11 | SHORT | | | |
| R7408 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7409 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R7410 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R7411 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R7412 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R7413 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R7414 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R7415 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R7417 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7418 | 1-216-850-11 | RES-CHIP | 270K | 5% | 1/16W |
| R7419 | 1-216-850-11 | RES-CHIP | 270K | 5% | 1/16W |
| R7420 | 1-216-850-11 | RES-CHIP | 270K | 5% | 1/16W |
| R7421 | 1-216-850-11 | RES-CHIP | 270K | 5% | 1/16W |
| R7422 | 1-216-850-11 | RES-CHIP | 270K | 5% | 1/16W |
| R7423 | 1-216-850-11 | RES-CHIP | 270K | 5% | 1/16W |
| R7424 | 1-216-797-11 | RES-CHIP | 10 | 5% | 1/16W |
| R7430 | 1-216-818-11 | RES-CHIP | 560 | 5% | 1/16W |
| R7431 | 1-216-818-11 | RES-CHIP | 560 | 5% | 1/16W |
| R7432 | 1-216-818-11 | RES-CHIP | 560 | 5% | 1/16W |

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| R7433 | 1-216-818-11 | RES-CHIP | 560 | 5% | 1/16W |
| R7434 | 1-216-818-11 | RES-CHIP | 560 | 5% | 1/16W |
| R7435 | 1-216-818-11 | RES-CHIP | 560 | 5% | 1/16W |
| R7436 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R7437 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R7438 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R7439 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R7440 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R7441 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R7442 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R7443 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R7444 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7445 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R7447 | 1-216-864-11 | SHORT | | | |
| R7601 | 1-216-804-11 | RES-CHIP | 39 | 5% | 1/16W |
| R7602 | 1-216-804-11 | RES-CHIP | 39 | 5% | 1/16W |
| R7603 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R7604 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7605 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7606 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7607 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7608 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7610 | 1-216-810-11 | RES-CHIP | 120 | 5% | 1/16W |
| R7611 | 1-216-811-11 | RES-CHIP | 150 | 5% | 1/16W |
| R7612 | 1-216-797-11 | RES-CHIP | 10 | 5% | 1/16W |
| R7613 | 1-216-864-11 | SHORT | | | |
| R7614 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7617 | 1-216-806-11 | RES-CHIP | 56 | 5% | 1/16W |
| R7619 | 1-216-806-11 | RES-CHIP | 56 | 5% | 1/16W |
| R7622 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R7627 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R7630 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R7638 | 1-216-806-11 | RES-CHIP | 56 | 5% | 1/16W |
| R7639 | 1-216-806-11 | RES-CHIP | 56 | 5% | 1/16W |
| R7640 | 1-216-806-11 | RES-CHIP | 56 | 5% | 1/16W |
| R7641 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7642 | 1-216-806-11 | RES-CHIP | 56 | 5% | 1/16W |
| R7643 | 1-216-806-11 | RES-CHIP | 56 | 5% | 1/16W |
| R7650 | 1-216-801-11 | RES-CHIP | 22 | 5% | 1/16W |
| R7651 | 1-216-806-11 | RES-CHIP | 56 | 5% | 1/16W |
| R7652 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R7801 | 1-216-853-11 | RES-CHIP | 470K | 5% | 1/16W |
| R7802 | 1-216-864-11 | SHORT | | | |
| R7803 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R7804 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R7805 | 1-216-815-11 | RES-CHIP | 330 | 5% | 1/16W |
| R7806 | 1-216-813-11 | RES-CHIP | 220 | 5% | 1/16W |
| R7807 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R7808 | 1-216-813-11 | RES-CHIP | 220 | 5% | 1/16W |
| R7809 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R7811 | 1-216-827-11 | RES-CHIP | 3.3K | 5% | 1/16W |
| R7812 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R7813 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R7814 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R7817 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R7818 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R7819 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R7820 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R7822 | 1-218-705-11 | METAL CHIP | 3.6K | 0.50% | 1/16W |
| R7823 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R7826 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7828 | 1-216-853-11 | RES-CHIP | 470K | 5% | 1/16W |
| R7829 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7831 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7833 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7837 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7840 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7842 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7850 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7857 | 1-216-801-11 | RES-CHIP | 22 | 5% | 1/16W |
| R7858 | 1-216-801-11 | RES-CHIP | 22 | 5% | 1/16W |
| R7859 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R7862 | 1-218-687-11 | METAL CHIP | 620 | 0.50% | 1/16W |
| R7863 | 1-218-676-11 | METAL CHIP | 220 | 0.50% | 1/16W |
| R7864 | 1-216-814-11 | RES-CHIP | 270 | 5% | 1/16W |
| R7865 | 1-218-704-11 | METAL CHIP | 3.3K | 0.50% | 1/16W |
| R7866 | 1-218-676-11 | METAL CHIP | 220 | 0.50% | 1/16W |
| R7867 | 1-218-676-11 | METAL CHIP | 220 | 0.50% | 1/16W |
| R7868 | 1-216-803-11 | RES-CHIP | 33 | 5% | 1/16W |
| R7869 | 1-216-803-11 | RES-CHIP | 33 | 5% | 1/16W |
| R7871 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R7872 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R7873 | 1-216-803-11 | RES-CHIP | 33 | 5% | 1/16W |
| R7874 | 1-216-803-11 | RES-CHIP | 33 | 5% | 1/16W |
| R7876 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R7877 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R7878 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R7879 | 1-218-695-11 | METAL CHIP | 1.3K | 0.50% | 1/16W |
| R7880 | 1-218-695-11 | METAL CHIP | 1.3K | 0.50% | 1/16W |
| R7881 | 1-216-820-11 | RES-CHIP | 820 | 5% | 1/16W |
| R7884 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R7885 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R7886 | 1-218-694-11 | METAL CHIP | 1.2K | 0.50% | 1/16W |
| R7887 | 1-216-855-11 | RES-CHIP | 680K | 5% | 1/16W |

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| R7888 | 1-218-709-11 | METAL CHIP | 5.1K | 0.50% | 1/16W |
| R7889 | 1-216-855-11 | RES-CHIP | 680K | 5% | 1/16W |
| R7890 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R7892 | 1-218-720-11 | METAL CHIP | 15K | 0.50% | 1/16W |
| R7893 | 1-218-720-11 | METAL CHIP | 15K | 0.50% | 1/16W |
| R7894 | 1-218-720-11 | METAL CHIP | 15K | 0.50% | 1/16W |
| R7896 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R7897 | 1-216-815-11 | RES-CHIP | 330 | 5% | 1/16W |
| R7899 | 1-216-815-11 | RES-CHIP | 330 | 5% | 1/16W |
| R7904 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R7905 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R7906 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R7907 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R7908 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R7909 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R7910 | 1-216-830-11 | RES-CHIP | 5.6K | 5% | 1/16W |
| R7911 | 1-216-830-11 | RES-CHIP | 5.6K | 5% | 1/16W |
| R7912 | 1-216-830-11 | RES-CHIP | 5.6K | 5% | 1/16W |
| R7913 | 1-216-818-11 | RES-CHIP | 560 | 5% | 1/16W |
| R7914 | 1-216-818-11 | RES-CHIP | 560 | 5% | 1/16W |
| R7915 | 1-216-818-11 | RES-CHIP | 560 | 5% | 1/16W |
| R7916 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R7917 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R7918 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R7919 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R7920 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R7921 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R8604 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R8605 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R8606 | 1-216-819-11 | RES-CHIP | 680 | 5% | 1/16W |
| R8607 | 1-216-819-11 | RES-CHIP | 680 | 5% | 1/16W |
| R8608 | 1-216-819-11 | RES-CHIP | 680 | 5% | 1/16W |
| R8609 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R8610 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R8611 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R8612 | 1-216-820-11 | RES-CHIP | 820 | 5% | 1/16W |
| R8613 | 1-216-820-11 | RES-CHIP | 820 | 5% | 1/16W |
| R8614 | 1-216-820-11 | RES-CHIP | 820 | 5% | 1/16W |
| R8615 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R8616 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R8617 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R8618 | 1-218-679-11 | METAL CHIP | 300 | 0.50% | 1/16W |
| R8619 | 1-218-679-11 | METAL CHIP | 300 | 0.50% | 1/16W |
| R8620 | 1-218-675-11 | METAL CHIP | 200 | 0.50% | 1/16W |
| R8621 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R8622 | 1-218-679-11 | METAL CHIP | 300 | 0.50% | 1/16W |
| R8623 | 1-218-679-11 | METAL CHIP | 300 | 0.50% | 1/16W |
| R8624 | 1-218-675-11 | METAL CHIP | 200 | 0.50% | 1/16W |
| R8625 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R8626 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R8627 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R8628 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R8629 | 1-216-823-11 | RES-CHIP | 1.5K | 5% | 1/16W |
| R8630 | 1-216-823-11 | RES-CHIP | 1.5K | 5% | 1/16W |
| R8631 | 1-216-823-11 | RES-CHIP | 1.5K | 5% | 1/16W |
| R8632 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R8636 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R8637 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R8638 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R8639 | 1-218-704-11 | METAL CHIP | 3.3K | 0.50% | 1/16W |
| R8641 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R8642 | 1-218-703-11 | METAL CHIP | 3K | 0.50% | 1/16W |
| R8643 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R8644 | 1-216-845-11 | RES-CHIP | 100K | 5% | 1/16W |
| R8645 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R8646 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R8647 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R8648 | 1-216-830-11 | RES-CHIP | 5.6K | 5% | 1/16W |
| R8649 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R8650 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R8651 | 1-216-801-11 | RES-CHIP | 22 | 5% | 1/16W |
| R8652 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R8653 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R8656 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R8657 | 1-218-704-11 | METAL CHIP | 3.3K | 0.50% | 1/16W |
| R8658 | 1-218-704-11 | METAL CHIP | 3.3K | 0.50% | 1/16W |
| R8703 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R8709 | 1-216-803-11 | RES-CHIP | 33 | 5% | 1/16W |
| R8711 | 1-216-801-11 | RES-CHIP | 22 | 5% | 1/16W |
| R8712 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R8713 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R8714 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R8715 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R8716 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R8717 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R8718 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R8719 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R8720 | 1-216-801-11 | RES-CHIP | 22 | 5% | 1/16W |
| R8721 | 1-216-864-11 | SHORT | | | |
| R8722 | 1-216-864-11 | SHORT | | | |
| R8724 | 1-216-864-11 | SHORT | | | |
| R8725 | 1-216-814-11 | RES-CHIP | 270 | 5% | 1/16W |
| R8726 | 1-216-864-11 | SHORT | | | |
| R8727 | 1-216-806-11 | RES-CHIP | 56 | 5% | 1/16W |

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| R8728 | 1-216-801-11 | RES-CHIP | 22 | 5% | 1/16W |
| R8733 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R8734 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R8736 | 1-216-797-11 | RES-CHIP | 10 | 5% | 1/16W |
| R8737 | 1-216-797-11 | RES-CHIP | 10 | 5% | 1/16W |
| R8744 | 1-216-801-11 | RES-CHIP | 22 | 5% | 1/16W |
| R8747 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R8748 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R8750 | 1-216-801-11 | RES-CHIP | 22 | 5% | 1/16W |
| R8751 | 1-216-801-11 | RES-CHIP | 22 | 5% | 1/16W |
| R8752 | 1-216-864-11 | SHORT | | | |
| R8806 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R8807 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R8808 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R8809 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R8810 | 1-216-801-11 | RES-CHIP | 22 | 5% | 1/16W |
| R8811 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R8813 | 1-216-801-11 | RES-CHIP | 22 | 5% | 1/16W |
| R8817 | 1-218-712-11 | METAL CHIP | 6.8K | 0.50% | 1/16W |
| R8818 | 1-218-688-11 | METAL CHIP | 680 | 0.50% | 1/16W |
| R8819 | 1-218-740-11 | METAL CHIP | 100K | 0.50% | 1/16W |
| R8820 | 1-218-664-11 | METAL CHIP | 68 | 0.50% | 1/16W |
| R8821 | 1-218-664-11 | METAL CHIP | 68 | 0.50% | 1/16W |
| R8822 | 1-218-664-11 | METAL CHIP | 68 | 0.50% | 1/16W |
| R8827 | 1-216-864-11 | SHORT | | | |
| R8828 | 1-216-864-11 | SHORT | | | |
| R8829 | 1-216-864-11 | SHORT | | | |
| R8835 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R8836 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R8837 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R8839 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R8840 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R8841 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R8843 | 1-216-801-11 | RES-CHIP | 22 | 5% | 1/16W |
| R8844 | 1-216-801-11 | RES-CHIP | 22 | 5% | 1/16W |
| R8845 | 1-216-801-11 | RES-CHIP | 22 | 5% | 1/16W |
| R8849 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R8850 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R8851 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R8852 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R8854 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R8857 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R8860 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R8870 | 1-216-801-11 | RES-CHIP | 22 | 5% | 1/16W |
| R8871 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R8901 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R8902 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R8903 | 1-216-864-11 | SHORT | | | |
| R8904 | 1-216-864-11 | SHORT | | | |
| R8905 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R8906 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R8907 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R8909 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R8911 | 1-216-797-11 | RES-CHIP | 10 | 5% | 1/16W |
| R8912 | 1-216-797-11 | RES-CHIP | 10 | 5% | 1/16W |
| R8914 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R8915 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R8916 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R8917 | 1-216-845-11 | RES-CHIP | 100K | 5% | 1/16W |
| R8918 | 1-216-845-11 | RES-CHIP | 100K | 5% | 1/16W |
| R8919 | 1-216-864-11 | SHORT | | | |
| R8920 | 1-216-864-11 | SHORT | | | |
| R8921 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R8924 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R8925 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R8926 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R8928 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R8929 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R8930 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R8931 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R8932 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R8933 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R8934 | 1-216-824-11 | RES-CHIP | 1.8K | 5% | 1/16W |
| R8935 | 1-216-827-11 | RES-CHIP | 3.3K | 5% | 1/16W |
| R8937 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R8938 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |

**RESISTOR BRIDGE**

| | | | | |
|---|---|---|---|---|
| RB7004 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB7005 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB7006 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB7007 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB7008 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB7009 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB7010 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB7011 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB7012 | 1-236-908-11 | RES, CHIP NETWORK | 10K | -3216 |
| RB7013 | 1-236-908-11 | RES, CHIP NETWORK | 10K | -3216 |
| RB7014 | 1-236-908-11 | RES, CHIP NETWORK | 10K | -3216 |
| RB7201 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB7202 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB7203 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB7204 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB7205 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB7206 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |

| REF.NO. | PART NO. | DESCRIPTION | VALUES | |
|---|---|---|---|---|
| RB7207 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB7208 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB7214 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB7215 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB7216 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB7217 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB7221 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB7222 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB7223 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB7224 | 1-236-908-11 | RES, CHIP NETWORK | 10K | -3216 |
| RB7601 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7602 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7603 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7604 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7605 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7606 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7607 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7608 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7609 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7610 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7611 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7612 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7613 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7614 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7615 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7616 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7617 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7618 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7619 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7620 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7624 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7625 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7626 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7627 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7628 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7629 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7630 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7632 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB7634 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB7635 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB7636 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB7637 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB7804 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7805 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7806 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7807 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7808 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7809 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7810 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7811 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7813 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB7814 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB8601 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB8602 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB8603 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB8604 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB8605 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB8606 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB8701 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB8702 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB8703 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB8704 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB8705 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB8706 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB8707 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB8708 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB8709 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB8710 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB8711 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB8712 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB8713 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB8714 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB8715 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB8716 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB8717 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB8805 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB8806 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB8807 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB8808 | 1-233-575-11 | RES, CHIP NETWORK | 22 | |
| RB8809 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB8810 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB8811 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB8812 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB8813 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB8814 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB8815 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |
| RB8816 | 1-239-409-11 | RES, CHIP NETWORK | 47 | -3216 |

**TUNER**

| | | | |
|---|---|---|---|
| TU7001 | 8-598-583-00 | UNIT, DIGITAL TUNER | BTD-DA403 |

QM QI

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| | **CRYSTAL** | | | | |
| X7201 | 1-579-886-21 | VIBRATOR, CRYSTAL | | | |
| X7202 | 1-767-262-31 | VIBRATOR, CRYSTAL | | | |
| X8701 | 1-781-887-21 | VIBRATOR, CRYSTAL | | | |
| X8901 | 1-781-945-21 | VIBRATOR, CERAMIC | | | |

QI

**The QM board is not field repairable and cannot be ordered independently. If service is required, use the following part number to order a replacement Q-box which includes the complete QM and QI board assemblies.**

| | | | | | |
|---|---|---|---|---|---|
| * | **SEE SUPPLEMENT-1** | **Q-BOX, COMPLETE** | | | |
| | **CAPACITOR** | | | | |
| C9201 | 1-124-779-00 | ELECT CHIP | 10µF | 20% | 16V |
| C9202 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9203 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9204 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9205 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9206 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9207 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9208 | 1-126-204-11 | ELECT CHIP | 47µF | 20% | 16V |
| C9209 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9210 | 1-126-395-11 | ELECT CHIP | 22µF | 20% | 16V |
| C9211 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9212 | 1-126-395-11 | ELECT CHIP | 22µF | 20% | 16V |
| C9213 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9214 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9215 | 1-126-395-11 | ELECT CHIP | 22µF | 20% | 16V |
| C9216 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9219 | 1-162-923-11 | CERAMIC CHIP | 47pF | 5% | 50V |
| C9220 | 1-162-926-11 | CERAMIC CHIP | 82pF | 5% | 50V |
| C9221 | 1-162-919-11 | CERAMIC CHIP | 22pF | 5% | 50V |
| C9222 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9223 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9224 | 1-162-970-11 | CERAMIC CHIP | 0.01µF | 10% | 25V |
| C9225 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9226 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9227 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9228 | 1-164-388-91 | CERAMIC CHIP | 270pF | 5% | 50V |
| C9229 | 1-162-964-11 | CERAMIC CHIP | 0.001µF | 10% | 50V |
| C9230 | 1-162-964-11 | CERAMIC CHIP | 0.001µF | 10% | 50V |
| C9231 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9232 | 1-164-388-91 | CERAMIC CHIP | 270pF | 5% | 50V |
| C9233 | 1-124-779-00 | ELECT CHIP | 10µF | 20% | 16V |
| C9234 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9235 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| C9236 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9237 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9238 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9239 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9240 | 1-126-206-11 | ELECT CHIP | 100µF | 20% | 6.3V |
| C9241 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9242 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9243 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9244 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9245 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9246 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9247 | 1-124-779-00 | ELECT CHIP | 10µF | 20% | 16V |
| C9248 | 1-162-919-11 | CERAMIC CHIP | 22pF | 5% | 50V |
| C9249 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9250 | 1-162-919-11 | CERAMIC CHIP | 22pF | 5% | 50V |
| C9251 | 1-164-230-11 | CERAMIC CHIP | 220pF | 5% | 50V |
| C9252 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9253 | 1-126-206-11 | ELECT CHIP | 100µF | 20% | 6.3V |
| C9254 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9256 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9257 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9258 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9259 | 1-126-206-11 | ELECT CHIP | 100µF | 20% | 6.3V |
| C9260 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9261 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9262 | 1-124-779-00 | ELECT CHIP | 10µF | 20% | 16V |
| C9263 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9264 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9265 | 1-164-188-11 | CERAMIC CHIP | 470pF | 2% | 50V |
| C9267 | 1-164-188-11 | CERAMIC CHIP | 470pF | 2% | 50V |
| C9268 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9270 | 1-124-779-00 | ELECT CHIP | 10µF | 20% | 16V |
| C9271 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9273 | 1-115-156-11 | CERAMIC CHIP | 1µF | | 10V |
| C9276 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9277 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9278 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9279 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9281 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9282 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9283 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9284 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9285 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9286 | 1-162-915-11 | CERAMIC CHIP | 10pF | 0.50pF | 50V |
| C9287 | 1-162-915-11 | CERAMIC CHIP | 10pF | 0.50pF | 50V |
| C9288 | 1-162-970-11 | CERAMIC CHIP | 0.01µF | 10% | 25V |
| C9289 | 1-162-915-11 | CERAMIC CHIP | 10pF | 0.50pF | 50V |

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| C9290 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9292 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9295 | 1-124-779-00 | ELECT CHIP | 10µF | 20% | 16V |
| C9296 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9297 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9298 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9299 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9301 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9302 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9303 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9304 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9305 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9306 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9307 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9308 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9309 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9310 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9311 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9312 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9313 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9314 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9315 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |

**CONNECTOR**

| | | | | |
|---|---|---|---|---|
| * | CN9203 | 1-815-164-11 | CONNECTOR, I LINK (FLANGE TYPE) | |
| * | CN9204 | 1-815-164-11 | CONNECTOR, I LINK (FLANGE TYPE) | |
| * | CN9206 | 1-564-507-11 | PLUG,CONNECTOR | 4P |

**DIODE**

| | | | |
|---|---|---|---|
| D9201 | 8-719-060-99 | DIODE SML-210MT-T86 | |
| D9202 | 8-719-060-99 | DIODE SML-210MT-T86 | |
| D9203 | 8-719-060-99 | DIODE SML-210MT-T86 | |
| D9204 | 8-719-060-99 | DIODE SML-210MT-T86 | |
| D9205 | 8-719-060-99 | DIODE SML-210MT-T86 | |
| D9206 | 8-719-060-99 | DIODE SML-210MT-T86 | |
| D9207 | 8-719-060-99 | DIODE SML-210MT-T86 | |
| D9208 | 8-719-820-05 | DIODE MA152WA-TX | |
| D9209 | 8-719-404-50 | DIODE MA111-TX | |
| D9210 | 8-719-060-99 | DIODE SML-210MT-T86 | |

**FERRITE BEAD**

| | | | |
|---|---|---|---|
| FB9202 | 1-414-760-21 | FERRITE | 0µH |
| FB9204 | 1-414-760-21 | FERRITE | 0µH |
| FB9211 | 1-414-760-21 | FERRITE | 0µH |

**FILTER**

| | | | |
|---|---|---|---|
| FL9201 | 1-400-087-21 | FILTER, EMI REMOVAL | (SMD) |
| FL9202 | 1-400-087-21 | FILTER, EMI REMOVAL | (SMD) |
| FL9203 | 1-781-667-21 | INDUCTOR | 0µH |
| FL9204 | 1-781-667-21 | INDUCTOR | 0µH |
| FL9205 | 1-781-667-21 | INDUCTOR | 0µH |
| FL9206 | 1-781-667-21 | INDUCTOR | 0µH |

**IC**

| | | | |
|---|---|---|---|
| IC9201 | 8-759-475-53 | IC TC74LCX541FT(EL) | |
| IC9202 | 8-752-400-16 | IC CXD3203R | |
| IC9203 | 8-752-396-41 | IC CXD1945R | |
| IC9204 | 8-759-669-46 | IC LM358PWR-12 | |
| IC9205 | 8-759-680-30 | IC UPD82442GN-001-LMU | |
| IC9206 | 8-759-589-36 | IC MT48LC4M16A2TG-75 | |
| IC9207 | 8-759-530-29 | IC TC4069UBFT(EL,N) | |
| IC9208 | 8-759-475-43 | IC TC74LCX125FT(EL) | |
| IC9209 | 6-700-335-01 | IC UPD30200GD-80-LBB | |
| IC9210 | 8-759-689-92 | IC MBM29LV160BE-90TN | |
| IC9211 | 8-759-689-92 | IC MBM29LV160BE-90TN | |
| IC9212 | 6-800-499-01 | IC MBM29LV160BE-90TN-V1.0 | |
| IC9213 | 8-759-491-46 | IC TC74VHC04FT(EL) | |
| IC9214 | 8-759-491-46 | IC TC74VHC04FT(EL) | |
| IC9215 | 8-759-475-39 | IC TC74LCX74FT(EL) | |

**COIL**

| | | | |
|---|---|---|---|
| L9202 | 1-414-078-11 | INDUCTOR | 10µH |
| L9204 | 1-543-949-22 | FERRITE | 0µH |

**TRANSISTOR**

| | | |
|---|---|---|
| Q9201 | 8-729-037-52 | TRANSISTOR 2SD2216J-QR(TX).SO |

**RESISTOR**

| | | | | | |
|---|---|---|---|---|---|
| R9201 | 1-216-864-11 | SHORT | | | |
| R9203 | 1-216-864-11 | SHORT | | | |
| R9204 | 1-216-864-11 | SHORT | | | |
| R9205 | 1-216-864-11 | SHORT | | | |
| R9206 | 1-216-864-11 | SHORT | | | |
| R9207 | 1-216-864-11 | SHORT | | | |
| R9208 | 1-216-864-11 | SHORT | | | |
| R9209 | 1-216-864-11 | SHORT | | | |
| R9210 | 1-216-864-11 | SHORT | | | |
| R9211 | 1-216-864-11 | SHORT | | | |
| R9213 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R9214 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R9215 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R9216 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R9217 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R9218 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R9219 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R9220 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| R9222 | 1-216-864-11 | SHORT | | | |
| R9223 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R9226 | 1-216-864-11 | SHORT | | | |
| R9228 | 1-216-864-11 | SHORT | | | |
| R9229 | 1-216-864-11 | SHORT | | | |
| R9231 | 1-216-864-11 | SHORT | | | |
| R9232 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R9233 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R9234 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R9235 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R9236 | 1-216-864-11 | SHORT | | | |
| R9237 | 1-216-864-11 | SHORT | | | |
| R9247 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R9250 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R9251 | 1-216-864-11 | SHORT | | | |
| R9252 | 1-216-813-11 | RES-CHIP | 220 | 5% | 1/16W |
| R9253 | 1-216-824-11 | RES-CHIP | 1.8K | 5% | 1/16W |
| R9254 | 1-216-822-11 | RES-CHIP | 1.2K | 5% | 1/16W |
| R9256 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R9257 | 1-216-836-11 | RES-CHIP | 18K | 5% | 1/16W |
| R9258 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R9259 | 1-216-815-11 | RES-CHIP | 330 | 5% | 1/16W |
| R9260 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R9261 | 1-216-812-11 | RES-CHIP | 180 | 5% | 1/16W |
| R9262 | 1-216-811-11 | RES-CHIP | 150 | 5% | 1/16W |
| R9263 | 1-216-806-11 | RES-CHIP | 56 | 5% | 1/16W |
| R9264 | 1-216-810-11 | RES-CHIP | 120 | 5% | 1/16W |
| R9265 | 1-216-806-11 | RES-CHIP | 56 | 5% | 1/16W |
| R9266 | 1-216-806-11 | RES-CHIP | 56 | 5% | 1/16W |
| R9267 | 1-216-810-11 | RES-CHIP | 120 | 5% | 1/16W |
| R9268 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R9269 | 1-218-272-11 | RES-CHIP | 5.1K | 5% | 1/16W |
| R9270 | 1-216-806-11 | RES-CHIP | 56 | 5% | 1/16W |
| R9271 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R9272 | 1-216-806-11 | RES-CHIP | 56 | 5% | 1/16W |
| R9273 | 1-216-806-11 | RES-CHIP | 56 | 5% | 1/16W |
| R9274 | 1-216-806-11 | RES-CHIP | 56 | 5% | 1/16W |
| R9275 | 1-218-272-11 | RES-CHIP | 5.1K | 5% | 1/16W |
| R9276 | 1-216-806-11 | RES-CHIP | 56 | 5% | 1/16W |
| R9277 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R9278 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R9279 | 1-216-864-11 | SHORT | | | |
| R9280 | 1-216-864-11 | SHORT | | | |
| R9281 | 1-216-864-11 | SHORT | | | |
| R9282 | 1-216-864-11 | SHORT | | | |
| R9283 | 1-216-864-11 | SHORT | | | |
| R9284 | 1-216-864-11 | SHORT | | | |
| R9285 | 1-216-864-11 | SHORT | | | |
| R9286 | 1-216-864-11 | SHORT | | | |
| R9287 | 1-216-864-11 | SHORT | | | |
| R9288 | 1-216-803-11 | RES-CHIP | 33 | 5% | 1/16W |
| R9289 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R9290 | 1-219-570-11 | RES-CHIP | 10M | 5% | 1/16W |
| R9291 | 1-216-851-11 | RES-CHIP | 330K | 5% | 1/16W |
| R9292 | 1-216-864-11 | SHORT | | | |
| R9293 | 1-216-821-11 | RES-CHIP | 1K | 5% | 1/16W |
| R9295 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R9296 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R9340 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R9341 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R9342 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R9343 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R9344 | 1-216-864-11 | SHORT | | | |
| R9345 | 1-216-864-11 | SHORT | | | |
| R9346 | 1-216-864-11 | SHORT | | | |
| R9347 | 1-216-864-11 | SHORT | | | |
| R9348 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R9349 | 1-216-864-11 | SHORT | | | |
| R9351 | 1-216-864-11 | SHORT | | | |
| R9352 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R9353 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R9355 | 1-216-864-11 | SHORT | | | |
| R9356 | 1-216-864-11 | SHORT | | | |
| R9358 | 1-216-864-11 | SHORT | | | |
| R9359 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R9360 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R9361 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R9362 | 1-216-864-11 | SHORT | | | |
| R9364 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R9365 | 1-216-864-11 | SHORT | | | |
| R9366 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R9367 | 1-216-845-11 | RES-CHIP | 100K | 5% | 1/16W |
| R9368 | 1-216-813-11 | RES-CHIP | 220 | 5% | 1/16W |
| R9369 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R9371 | 1-216-841-11 | RES-CHIP | 47K | 5% | 1/16W |
| R9372 | 1-216-808-11 | RES-CHIP | 82 | 5% | 1/16W |
| R9373 | 1-216-864-11 | SHORT | | | |
| R9374 | 1-216-808-11 | RES-CHIP | 82 | 5% | 1/16W |
| R9375 | 1-216-825-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R9376 | 1-216-801-11 | RES-CHIP | 22 | 5% | 1/16W |
| R9377 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R9378 | 1-216-807-11 | RES-CHIP | 68 | 5% | 1/16W |
| R9379 | 1-216-864-11 | SHORT | | | |
| R9381 | 1-216-864-11 | SHORT | | | |

QI W

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| R9382 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| R9391 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/16W |
| | **RESISTOR BRIDGE** | | | | |
| RB9201 | 1-233-575-11 | RES, CHIP NETWORK | 22 | | |
| RB9202 | 1-233-575-11 | RES, CHIP NETWORK | 22 | | |
| RB9203 | 1-233-575-11 | RES, CHIP NETWORK | 22 | | |
| RB9204 | 1-233-575-11 | RES, CHIP NETWORK | 22 | | |
| RB9205 | 1-234-525-21 | RES, CHIP NETWORK | 56 | | |
| RB9206 | 1-234-525-21 | RES, CHIP NETWORK | 56 | | |
| RB9207 | 1-234-525-21 | RES, CHIP NETWORK | 56 | | |
| RB9208 | 1-234-525-21 | RES, CHIP NETWORK | 56 | | |
| RB9209 | 1-234-525-21 | RES, CHIP NETWORK | 56 | | |
| RB9210 | 1-234-525-21 | RES, CHIP NETWORK | 56 | | |
| RB9211 | 1-234-525-21 | RES, CHIP NETWORK | 56 | | |
| RB9212 | 1-234-525-21 | RES, CHIP NETWORK | 56 | | |
| RB9213 | 1-234-525-21 | RES, CHIP NETWORK | 56 | | |
| RB9224 | 1-234-525-21 | RES, CHIP NETWORK | 56 | | |
| RB9225 | 1-233-575-11 | RES, CHIP NETWORK | 22 | | |
| RB9226 | 1-233-575-11 | RES, CHIP NETWORK | 22 | | |
| RB9227 | 1-233-575-11 | RES, CHIP NETWORK | 22 | | |
| RB9228 | 1-233-575-11 | RES, CHIP NETWORK | 22 | | |
| | **CRYSTAL** | | | | |
| X9202 | 1-579-886-21 | VIBRATOR, CRYSTAL | | | |
| X9203 | 1-767-779-21 | VIBRATOR, CRYSTAL | | | |
| W | | | | | |
| * | **A-1372-977-A** | **W BOARD, MOUNTED** | | | |
| | 4-382-854-01 | SCREW (M3X8), P, SW (+) | | | |
| | **CAPACITOR** | | | | |
| C9101 | 1-104-999-11 | MYLAR | 0.1µF | 10% | 200V |
| C9104 | 1-126-933-11 | ELECT | 100µF | 20% | 16V |
| C9105 | 1-162-964-11 | CERAMIC CHIP | 0.001µF | 10% | 50V |
| C9106 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9108 | 1-107-662-11 | ELECT | 22µF | 20% | 250V |
| C9109 | 1-161-830-00 | CERAMIC | .0047µF | | 500V |
| C9110 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9111 | 1-126-964-11 | ELECT | 10µF | 20% | 50V |
| C9112 | 1-162-970-11 | CERAMIC CHIP | 0.01µF | 10% | 25V |
| C9113 | 1-137-528-11 | MYLAR | 0.1µF | 10% | 250V |
| C9114 | 1-107-636-11 | ELECT | 10µF | 20% | 160V |
| C9115 | 1-137-528-11 | MYLAR | 0.1µF | 10% | 250V |
| C9116 | 1-164-156-11 | CERAMIC CHIP | 0.1µF | | 25V |
| C9117 | 1-117-450-11 | MYLAR | 0.47µF | 10% | 250V |

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| | **CONNECTOR** | | | | |
| * CN9100 | 1-564-515-11 | PLUG,CONNECTOR | 12P | | |
| * CN9101 | 1-564-506-11 | PLUG,CONNECTOR | 3P | | |
| * CN9102 | 1-564-506-11 | PLUG,CONNECTOR | 3P | | |
| * CN9103 | 1-770-747-11 | CONNECTOR, BOARD TO BOARD | 12P | | |
| | **FERRITE BEAD** | | | | |
| FB9100 | 1-410-397-21 | FERRITE | 1.1µH | | |
| FB9101 | 1-410-397-21 | FERRITE | 1.1µH | | |
| | **COIL** | | | | |
| L9100 | 1-412-525-31 | INDUCTOR | 10µH | | |
| | **TRANSISTOR** | | | | |
| Q9100 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | | | |
| Q9101 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | | | |
| Q9102 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | | | |
| Q9103 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | | | |
| Q9104 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | | | |
| Q9105 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | | | |
| Q9106 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | | | |
| Q9107 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | | | |
| Q9108 | 8-729-424-02 | TRANSISTOR 2SB709A-QRS-TX | | | |
| Q9109 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | | | |
| Q9110 | 8-729-045-04 | TRANSISTOR 2SC5511 | | | |
| Q9111 | 8-729-045-05 | TRANSISTOR 2SA2005 | | | |
| | **RESISTOR** | | | | |
| R9101 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R9102 | 1-249-381-11 | CARBON | 1 | 5% | 1/4W |
| R9103 | 1-216-819-11 | RES-CHIP | 680 | 5% | 1/16W |
| R9104 | 1-216-820-11 | RES-CHIP | 820 | 5% | 1/16W |
| R9105 | 1-216-837-11 | RES-CHIP | 22K | 5% | 1/16W |
| R9106 | 1-218-715-11 | METAL CHIP | 9.1K | 0.50% | 1/16W |
| R9107 | 1-216-809-11 | RES-CHIP | 100 | 5% | 1/16W |
| R9108 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |
| R9110 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R9111 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R9112 | 1-249-389-11 | CARBON | 4.7 | 5% | 1/4W |
| R9113 | 1-249-389-11 | CARBON | 4.7 | 5% | 1/4W |
| R9114 | 1-249-389-11 | CARBON | 4.7 | 5% | 1/4W |
| R9115 | 1-249-389-11 | CARBON | 4.7 | 5% | 1/4W |
| R9116 | 1-249-389-11 | CARBON | 4.7 | 5% | 1/4W |
| R9117 | 1-249-389-11 | CARBON | 4.7 | 5% | 1/4W |
| R9118 | 1-249-389-11 | CARBON | 4.7 | 5% | 1/4W |
| R9119 | 1-249-389-11 | CARBON | 4.7 | 5% | 1/4W |

W

| REF.NO. | PART NO. | DESCRIPTION | VALUES | | |
|---|---|---|---|---|---|
| R9120 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R9121 | 1-216-848-11 | RES-CHIP | 180K | 5% | 1/16W |
| R9122 | 1-216-847-11 | RES-CHIP | 150K | 5% | 1/16W |
| R9123 | 1-216-848-11 | RES-CHIP | 180K | 5% | 1/16W |
| R9124 | 1-216-847-11 | RES-CHIP | 150K | 5% | 1/16W |
| R9125 | 1-216-829-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R9126 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R9127 | 1-216-805-11 | RES-CHIP | 47 | 5% | 1/16W |
| R9128 | 1-215-890-11 | METAL OXIDE | 470 | 5% | 2W |
| R9129 | 1-216-817-11 | RES-CHIP | 470 | 5% | 1/16W |

| REF.NO. | PART NO. | DESCRIPTION | VALUES |
|---|---|---|---|

**ACCESSORIES AND PACKING MATERIALS**

| | | |
|---|---|---|
| * | 4-066-845-02 | BAG, PROTECTION |
| * | 4-081-507-02 | CARTON, HSC |
| * | 4-081-640-02 | CUSION, UPPER |
| * | 4-081-641-01 | CUSION, LOWER |
| | 4-084-766-01 | CUSHION, CENTER SUPPORT |
| * | 4-396-077-01 | JOINT |
| | 4-083-273-22 | MANUAL, INSTRUCTION |
| | 4-083-273-31 | MANUAL, INSTRUCTION |

**REMOTE COMMANDER**

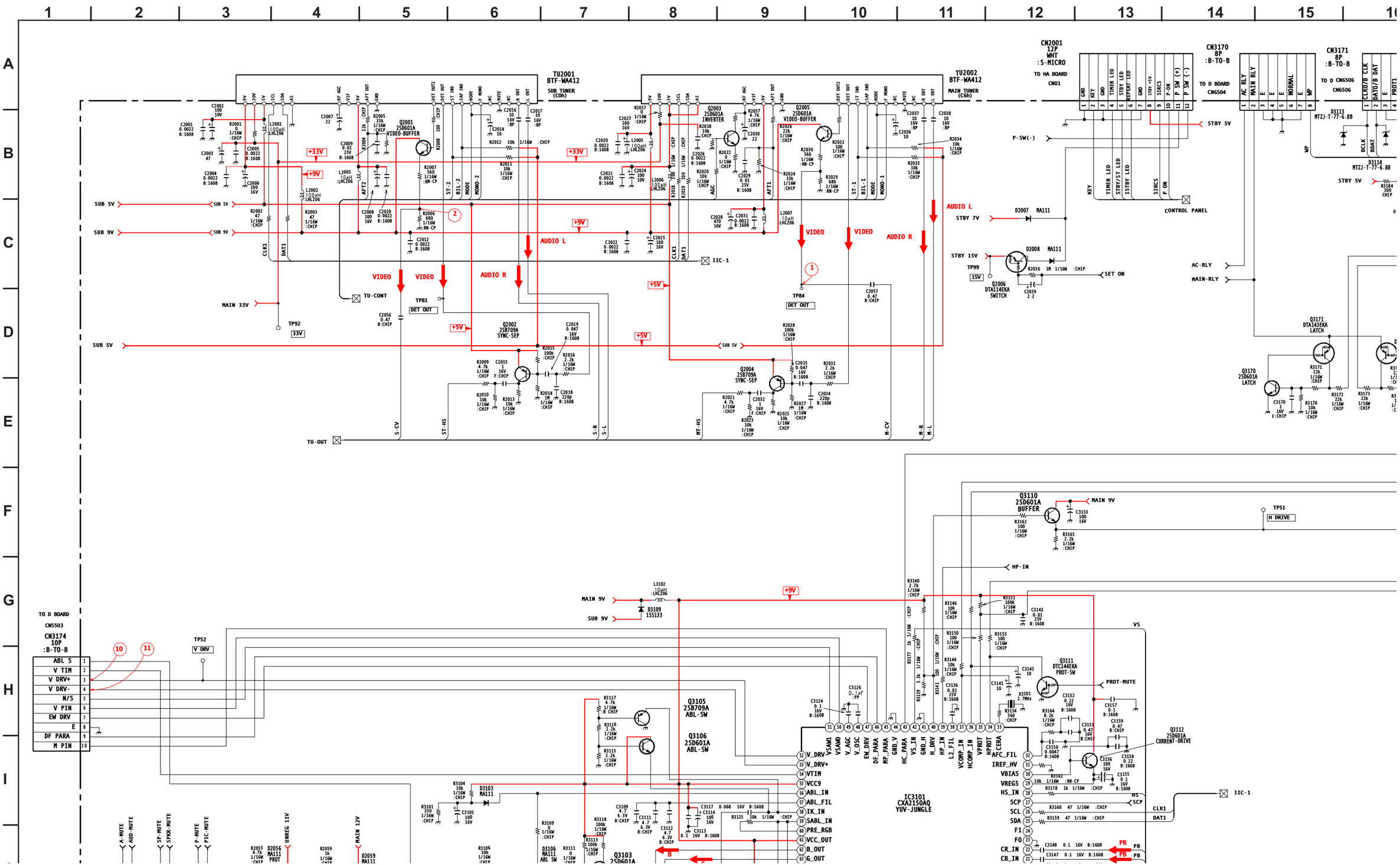
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|---|---|
| 1-476-689-11 | REMOTE COMMANDER (RM-Y185) |
| 4-081-888-01 | BATTERY COVER FOR RM-Y185 |

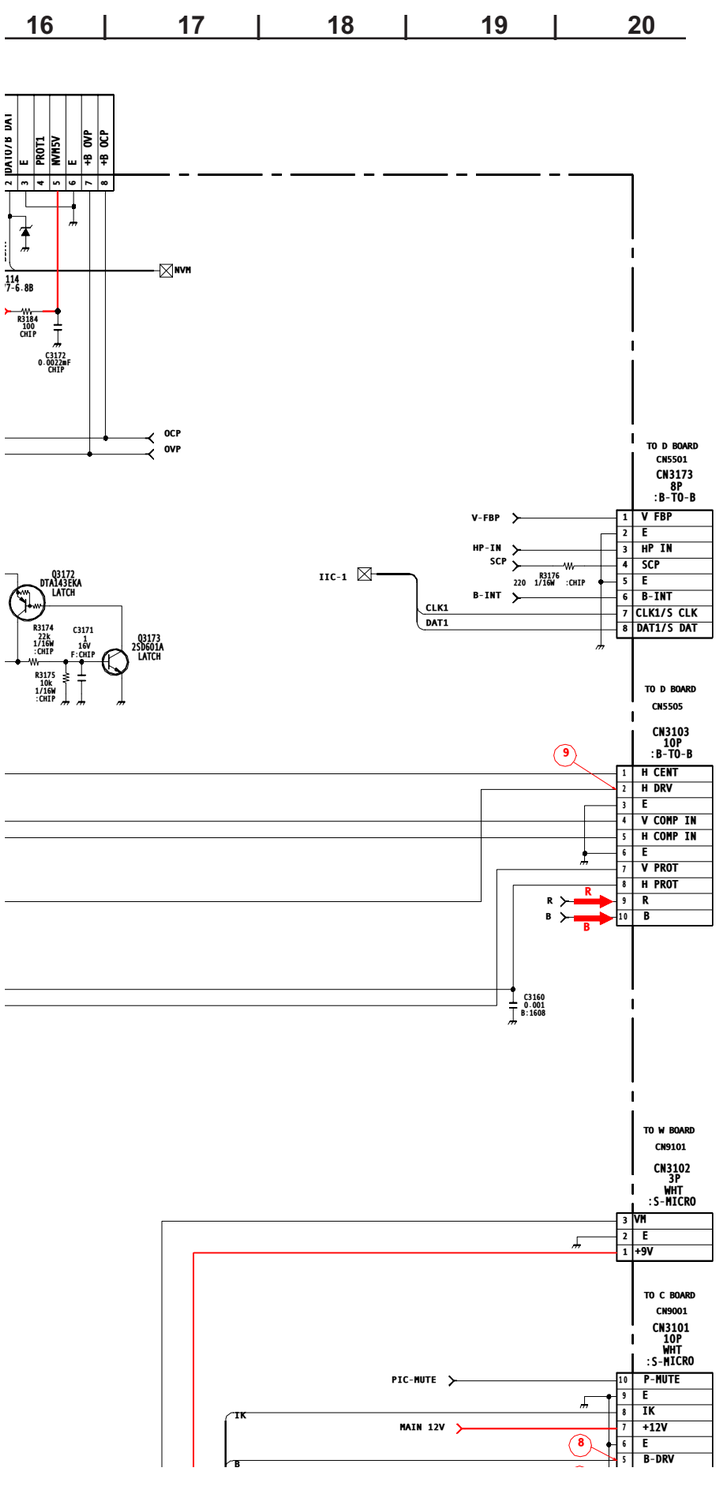
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Sony Technology Center
Technical Services
Service Promotion Department

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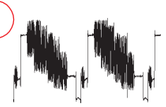
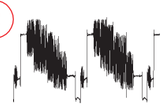
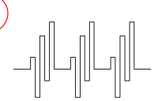
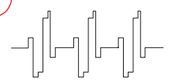
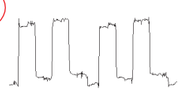
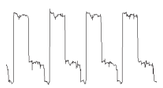
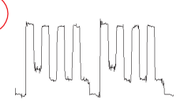
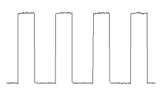
9-965-916-03

# A BOARD SCHEMATIC DIAGRAM (1 OF 2)

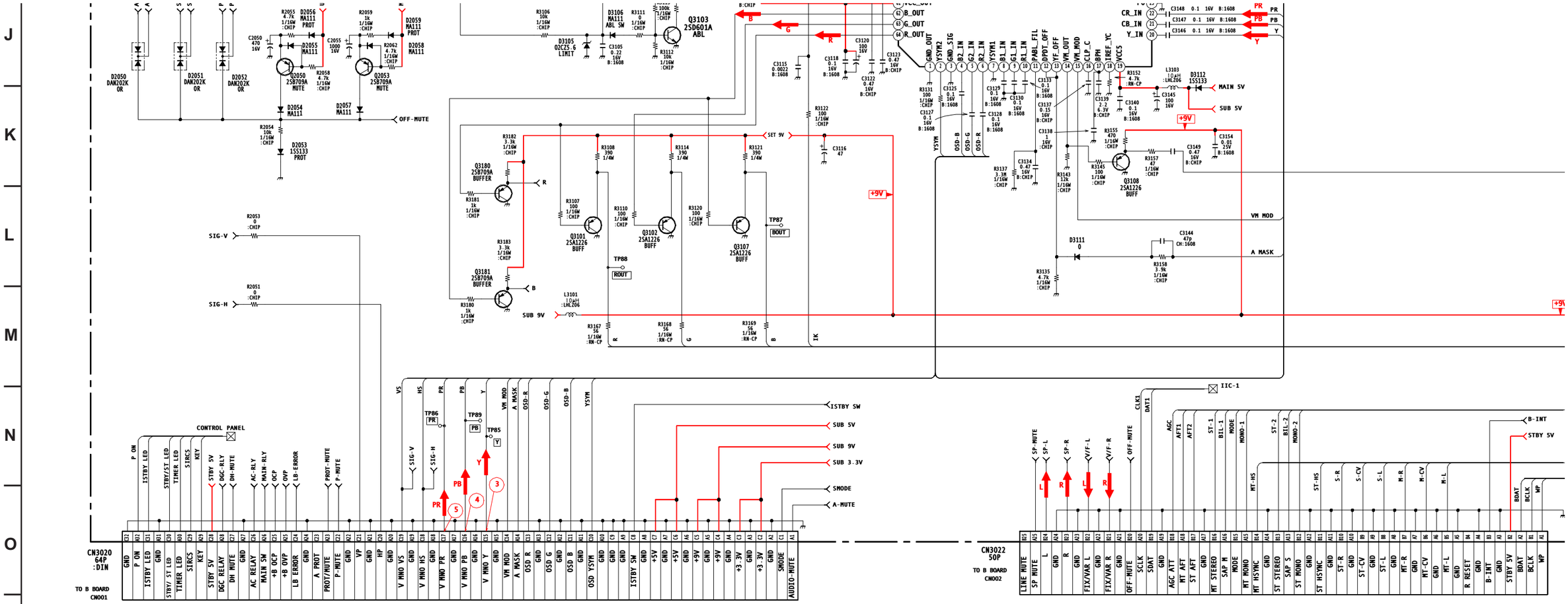


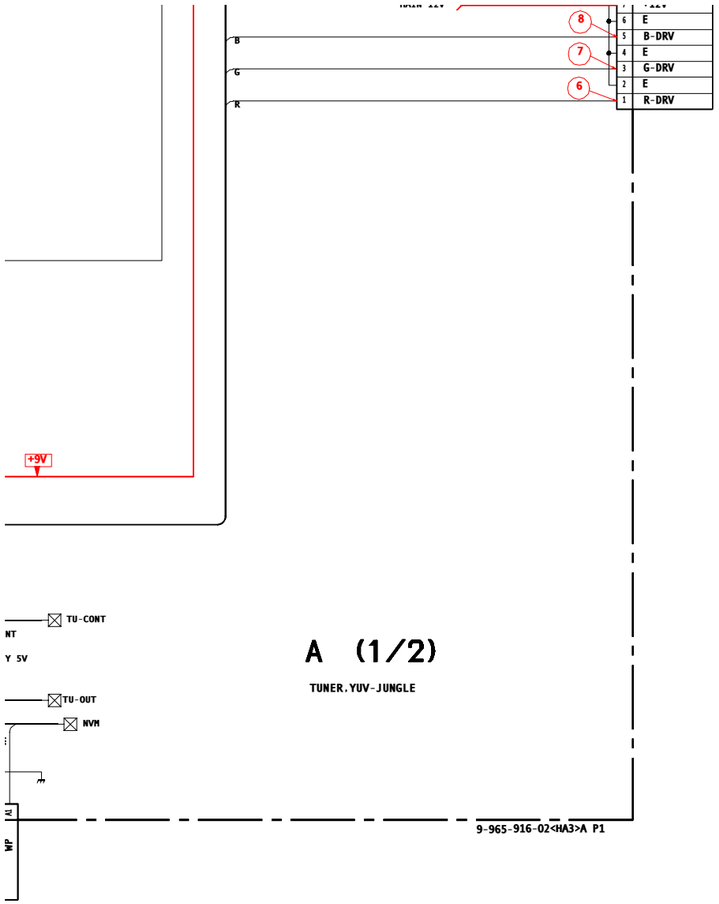


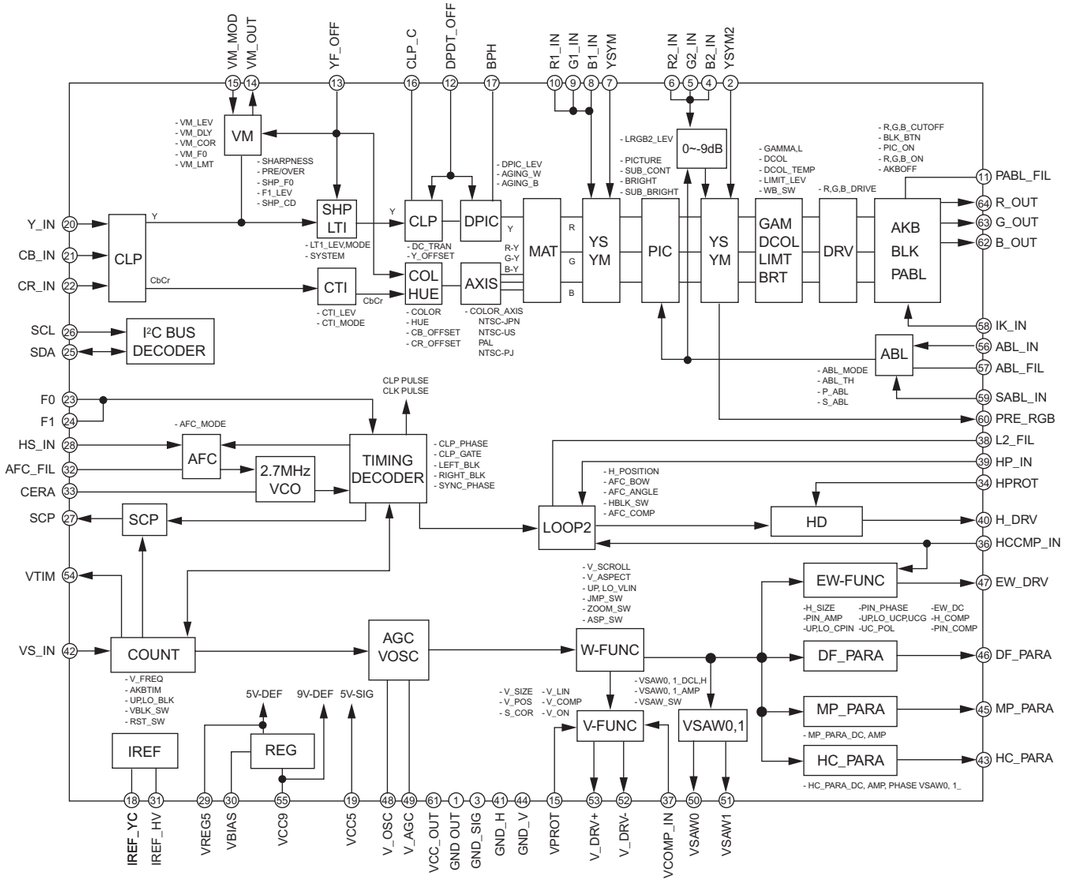

## A BOARD WAVEFORMS

| | | | |
|---|---|---|---|
| 1  1.9 Vp-p (H) | 2  1.9 Vp-p (H) | 3  1.4 Vp-p (H) | 4  0.6 Vp-p (H) |
| 5  0.5 Vp-p (H) | 6  3.1 Vp-p (H) | 7  3.5 Vp-p (H) | 8  3.3 Vp-p (H) |
| 9  2.9 Vp-p (H) | 10  1.7 Vp-p (V) | 11  1.5 Vp-p (V) | |

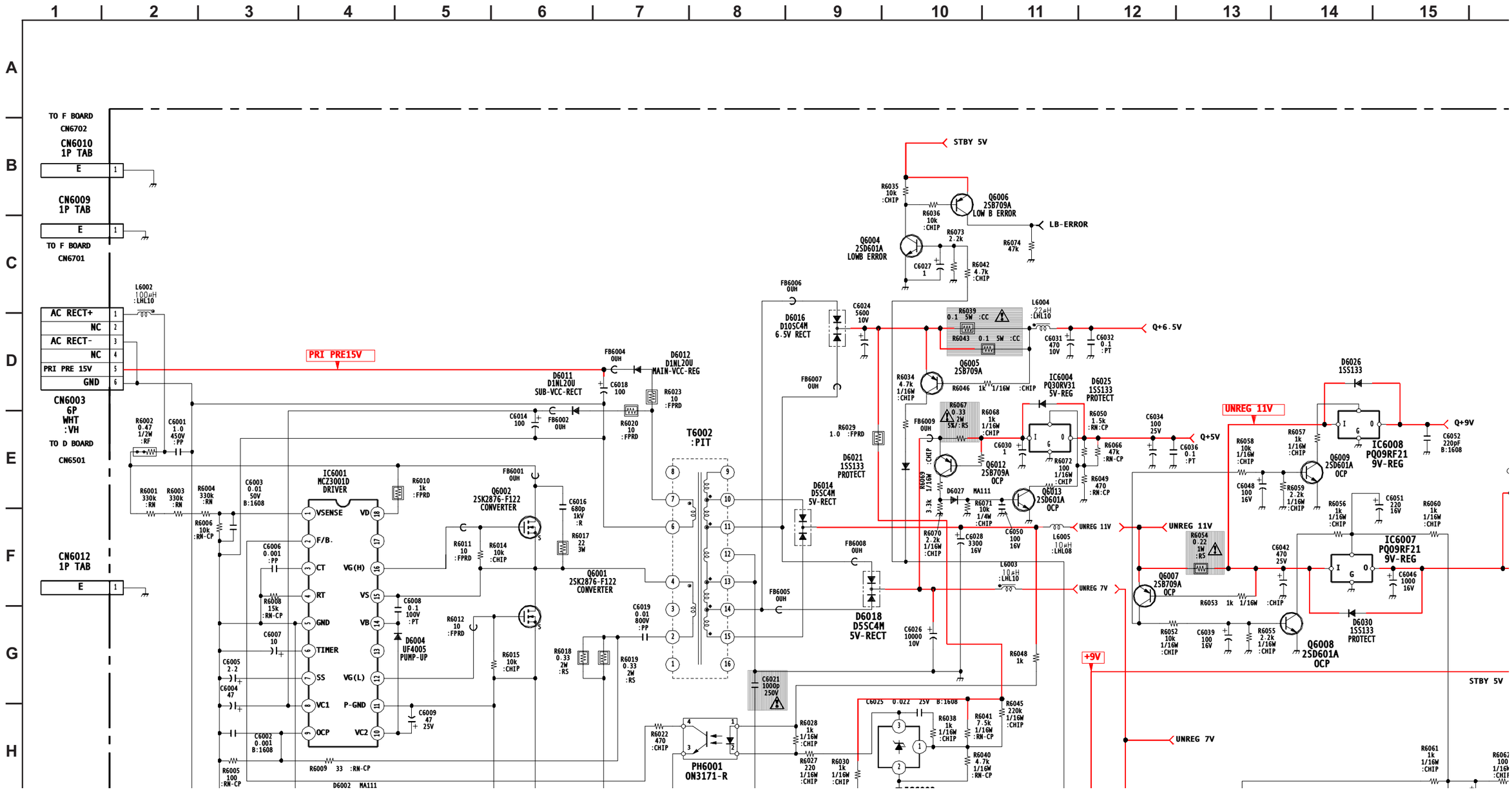
## A BOARD: IC3101 CXA2150AQ


D2050 DAN202K OR
D2051 DAN202K OR
D2052 DAN202K OR
D2056 MA111 PROT
D2055 MA111
Q2050 2SB709A MUTE
D2054 MA111
D2053 1SS133 PROT
D2057 MA111
D2059 MA111 PROT
D2058 MA111
Q2053 2SB709A MUTE
OFF-MUTE
D3105 DZ2S.6 LIMIT
D3106 MA111 ABL SW
Q3103 2SD601A ABL
B_OUT
G_OUT
R_OUT
GND_OUT
YSYM2
GND_SIG
B2_IN
G2_IN
R2_IN
YSYM1
B1_IN
G1_IN
R1_IN
PABL_FIL
DPDT_OFF
VF_OFF
VM_OUT
VM_MOD
CLP_C
BPM
IREF_YC
VCC5
CR_IN
CB_IN
Y_IN
PR
PB
Y
MAIN 5V
SUB 5V
+9V
SET 9V
Q3180 2SB709A BUFFER
Q3181 2SB709A BUFFER
Q3101 2SA1226 BUFF
Q3102 2SA1226 BUFF
Q3107 2SA1226 BUFF
Q3108 2SA1226 BUFF
TP87 BOUT
TP88 ROUT
SUB 9V
VM MOD
A MASK
SIG-V
SIG-H
IK
CONTROL PANEL
P ON
ISTBY LED
STBY/ST LED
TIMER LED
SIRCS
KEY
STBY 5V
DGC-RLY
DH-MUTE
AC-RLY
MAIN-RLY
OCP
OVP
LB-ERROR
PROT-MUTE
P-MUTE
TP86 PR
TP89 PB
TP85 Y
VS
HS
SIG-V
SIG-H
ISTBY SW
SUB 5V
SUB 9V
SUB 3.3V
SMODE
A-MUTE
IIC-1
CLK1
DAT1
SP-MUTE
SP-L
SP-R
V/F-L
V/F-R
OFF-MUTE
AGC
AFT1
AFT2
ST-1
BIL-1
MODE
MONO-1
ST-2
BIL-2
MONO-2
MT-HS
ST-HS
S-R
S-CV
S-L
M-R
M-CV
M-L
B-INT
STBY 5V
BOAT
BCLK
WP
CN3020 64P :DIN
TO B BOARD CN001
CN3022 50P
TO B BOARD CN002


8
7
6
6 E
5 B-DRV
4 E
3 G-DRV
2 E
1 R-DRV
B
G
R
+9V
TU-CONT
NT
Y 5V
TU-OUT
NVM
A (1/2)
TUNER.YUV-JUNGLE
9-965-916-02<HA3>A P1


VM_MOD
VM_OUT
YF_OFF
CLP_C
DPDT_OFF
BPH
R1_IN
G1_IN
B1_IN
YSYM
R2_IN
G2_IN
B2_IN
YSYM2
VM
- VM_LEV
- VM_DLY
- VM_COR
- VM_F0
- VM_LMT
- SHARPNESS
- PRE/OVER
- SHP_F0
- F1_LEV
- SHP_CD
SHP LTI
- LT1_LEV,MODE
- SYSTEM
CLP
- DC_TRAN
- Y_OFFSET
DPIC
- DPIC_LEV
- AGING_W
- AGING_B
MAT
YS YM
PIC
- PICTURE
- SUB_CONT
- BRIGHT
- SUB_BRIGHT
0~-9dB
- LRGB2_LEV
YS YM
- GAMMA,L
- DCOL
- DCOL_TEMP
- LIMIT_LEV
- WB_SW
GAM DCOL LIMT BRT
- R,G,B_DRIVE
DRV
- R,G,B_CUTOFF
- BLK_BTN
- PIC_ON
- R,G,B_ON
- AKBOFF
AKB BLK PABL
PABL_FIL
R_OUT
G_OUT
B_OUT
Y_IN
CB_IN
CR_IN
CLP
CbCr
CTI
- CTI_LEV
- CTI_MODE
COL HUE
- COLOR
- HUE
- CB_OFFSET
- CR_OFFSET
AXIS
- COLOR_AXIS
NTSC-JPN
NTSC-US
PAL
NTSC-PJ
SCL
SDA
I²C BUS DECODER
ABL
- ABL_MODE
- ABL_TH
- P_ABL
- S_ABL
IK_IN
ABL_IN
ABL_FIL
SABL_IN
PRE_RGB
F0
F1
HS_IN
AFC_FIL
CERA
SCP
VTIM
VS_IN
CLP PULSE
CLK PULSE
- AFC_MODE
AFC
2.7MHz VCO
TIMING DECODER
- CLP_PHASE
- CLP_GATE
- LEFT_BLK
- RIGHT_BLK
- SYNC_PHASE
LOOP2
- H_POSITION
- AFC_BOW
- AFC_ANGLE
- HBLK_SW
- AFC_COMP
HD
L2_FIL
HP_IN
HPROT
H_DRV
HCCMP_IN
- V_SCROLL
- V_ASPECT
- UP_LO_VLIN
- JMP_SW
- ZOOM_SW
- ASP_SW
EW-FUNC
-H_SIZE
-PIN_AMP
-UPLO_CPIN
-PIN_PHASE
-UPLO_UCP,UCG
-UC_POL
-EW_DC
-H_COMP
-PIN_COMP
EW_DRV
COUNT
- V_FREQ
- AKBTIM
- UPLO_BLK
- VBLK_SW
- RST_SW
AGC VOSC
W-FUNC
DF_PARA
DF_PARA
- V_SIZE
- V_POS
- S_COR
- V_LIN
- V_COMP
- V_ON
V-FUNC
- VSAW0, 1_DCL,H
- VSAW0, 1_AMP
- VSAW_SW
VSAW0,1
MP_PARA
MP_PARA
- MP_PARA_DC, AMP
HC_PARA
HC_PARA
- HC_PARA_DC, AMP, PHASE VSAW0, 1_
5V-DEF
9V-DEF
5V-SIG
IREF
REG
IREF_YC
IREF_HV
VREG5
VBIAS
VCC9
VCC5
V_OSC
V_AGC
VCC_OUT
GND OUT
GND_SIG
GND_H
GND_V
VPROT
V_DRV+
V_DRV-
VCOMP_IN
VSAW0
VSAW1

## A BOARD SCHEMATIC DIAGRAM (2 OF 2)



16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27

TO S CN4401

CN4402
15P
:B TO B

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| H-L | H-R | W-L | W-R | E | SMODE | SUB 9V | SP-L | SP-R | E | VF-L | VF-R | E | SCL | SDA |

SMODE

CLK1

DAT1

IIC-1

SMODE

SP-L

SP-R

H-L

H-R

W-L

W-R

VF-L

VF-R

TP93

SUB 9V

SUB 9V

L4401
22µH
:LAV35

+9V

Y 5V

R6063
4.7k
1/16W
:CHIP

R6064
10k
1/16W
:CHIP

R6062
100
1/16W
:CHIP

IC4405
TA8216H
AMP-H

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | SGND | | | | | | VCC | PGND | MUTE | | |

C4479
1

R4473
2.2k
1/16W
:CHIP

R4475
0
1/16W
:CHIP

C4480
470

R4483
4.7k
:CHIP

R4479
0
:CHIP

C4486
470
16V

D4409
MA113

D4413
MA111
PROTECTOR

D4410
MA111
PROTECTOR

C4492
2200
35V

H-R

H-L

TP104
H-L

R4492
10k

C4502
1000
25V

C4503
1000
25V

TP103
H-R

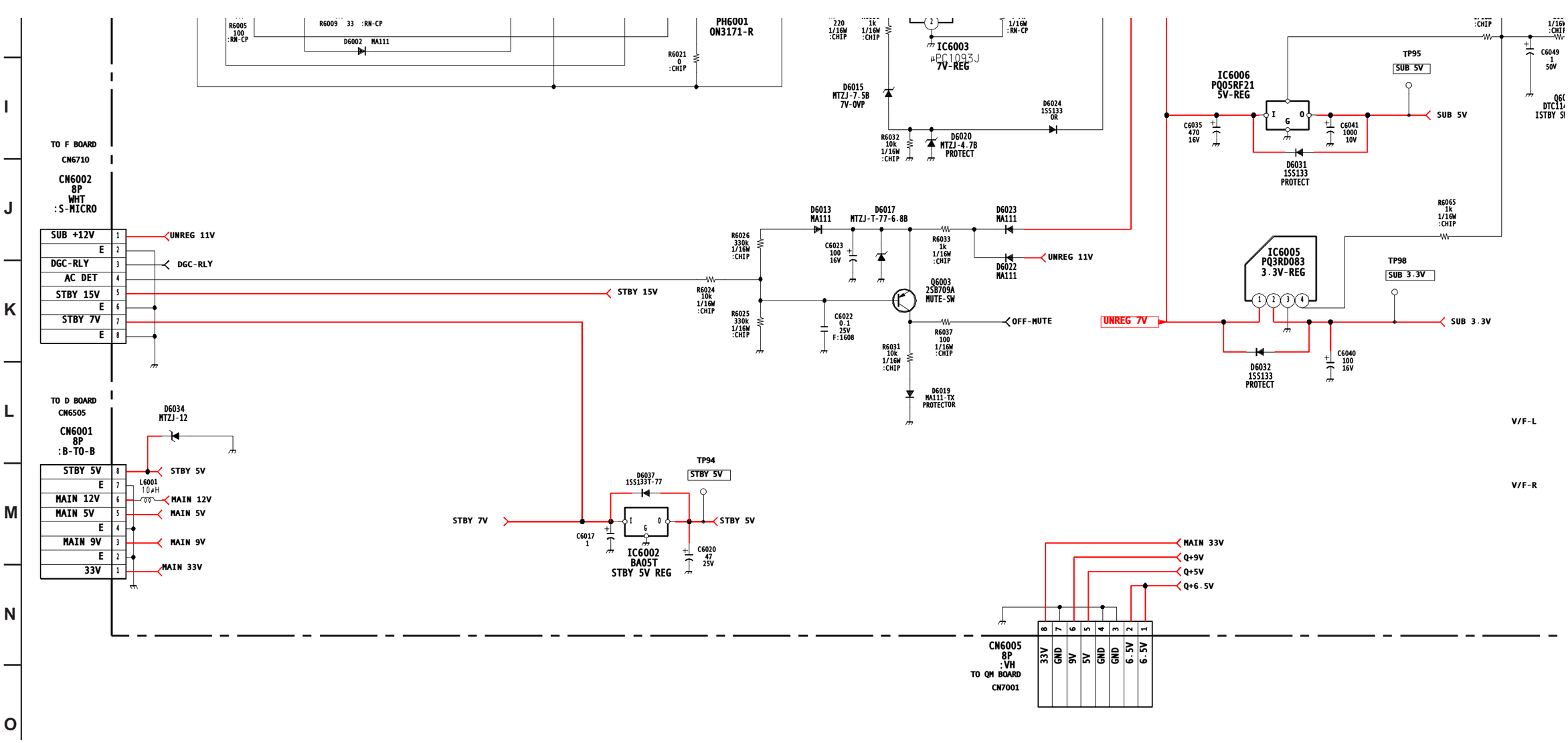
R4491

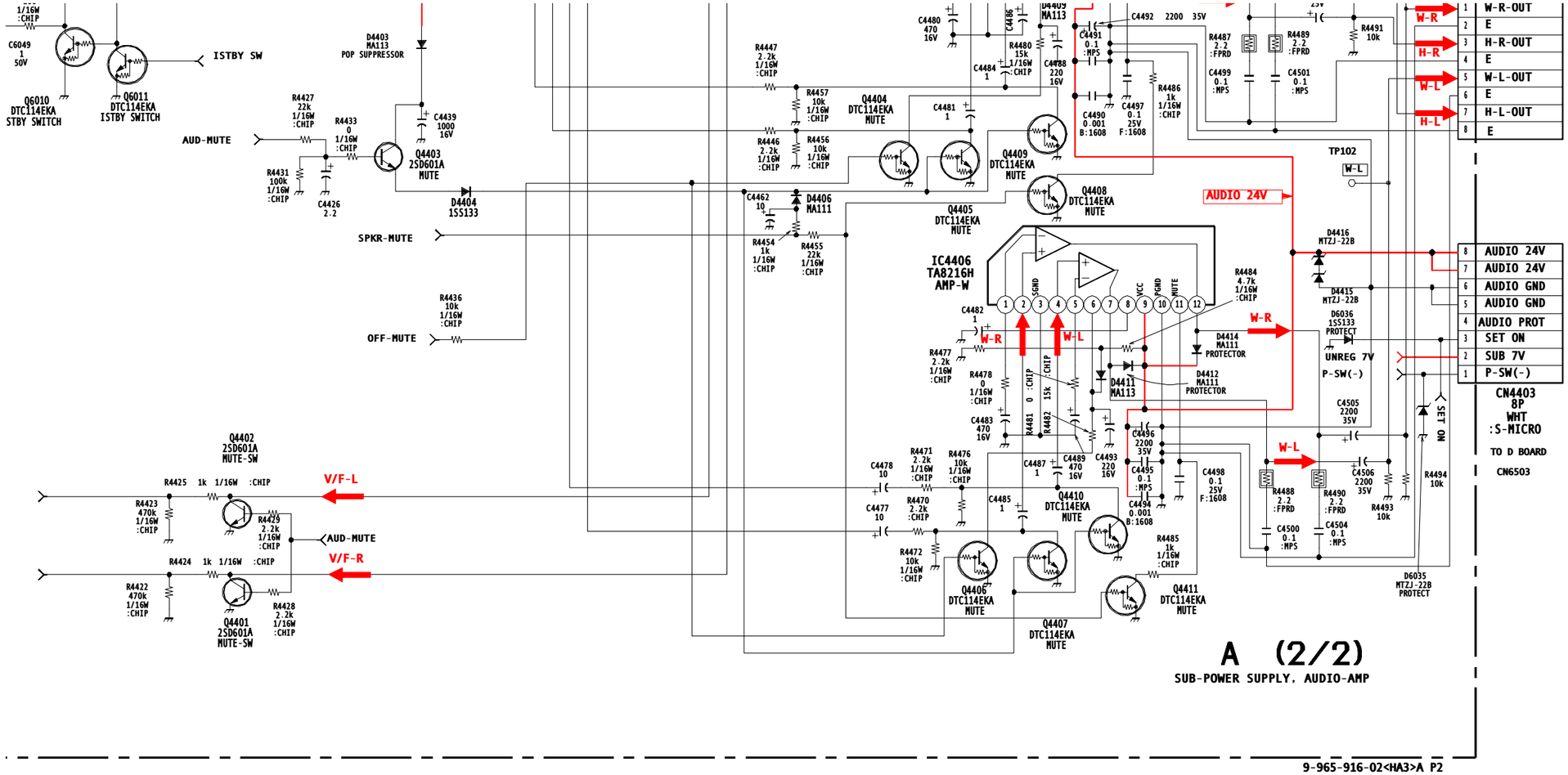
TP101
W-R

SPEAKER OUT

CN4404
8P
BLK
:S-MICRO

| 1 | W-R-OUT |
|---|---|
| 2 | E |


R6005 100 :RN-CP
R6009 33 :RN-CP
D6002 MA111
R6021 0 :CHIP
PH6001 ON3171-R
220 1/16W :CHIP
1k 1/16W :CHIP
IC6003 μPC1093J 7V-REG
1/16W :RN-CP
D6015 MTZJ-7.5B 7V-OVP
D6024 1SS133 OR
R6032 10k 1/16W :CHIP
D6020 MTZJ-4.7B PROTECT
IC6006 PQ05RF21 5V-REG
TP95 SUB 5V
C6035 470 16V
C6041 1000 10V
D6031 1SS133 PROTECT
C6049 1 50V
TO F BOARD CN6710
CN6002 8P WHT :S-MICRO
SUB +12V 1
E 2
DGC-RLY 3
AC DET 4
STBY 15V 5
E 6
STBY 7V 7
E 8
UNREG 11V
DGC-RLY
STBY 15V
D6013 MA111
D6017 MTZJ-T-77-6.8B
D6023 MA111
R6026 330k 1/16W :CHIP
C6023 100 16V
R6033 1k 1/16W :CHIP
D6022 MA111
UNREG 11V
R6024 10k 1/16W :CHIP
R6025 330k 1/16W :CHIP
C6022 0.1 25V F:1608
Q6003 2SB709A MUTE-SW
OFF-MUTE
R6037 100 1/16W :CHIP
R6031 10k 1/16W :CHIP
D6019 MA111-TX PROTECTOR
R6065 1k 1/16W :CHIP
IC6005 PQ3RD083 3.3V-REG
TP98 SUB 3.3V
UNREG 7V
SUB 3.3V
D6032 1SS133 PROTECT
C6040 100 16V
V/F-L
V/F-R
TO D BOARD CN6505
CN6001 8P :B-TO-B
D6034 MTZJ-12
STBY 5V 8
E 7
MAIN 12V 6
MAIN 5V 5
E 4
MAIN 9V 3
E 2
33V 1
L6001 10μH
STBY 5V
MAIN 12V
MAIN 5V
MAIN 9V
MAIN 33V
STBY 7V
D6037 1SS133T-77
TP94 STBY 5V
C6017 1
IC6002 BA05T STBY 5V REG
C6020 47 25V
MAIN 33V
Q+9V
Q+5V
Q+6.5V
CN6005 8P :VH
TO QM BOARD CN7001
33V GND 9V 5V GND GND 6.5V 6.5V




A (2/2)

SUB-POWER SUPPLY, AUDIO-AMP

# B BOARD SCHEMATIC DIAGRAM (1 OF 3)

CHANGER ANTENNA
⚠ AS-2S

CN006
4P
WHT
:S-MICRO
TO ANT SW

CN007
10P
RED
:S-MICRO
NO CONNECT

CN004
22P
WHT
:PHD
TO QM BOARD
CN8801

IC001
M306V2ME-154FP
MAIN MICRO

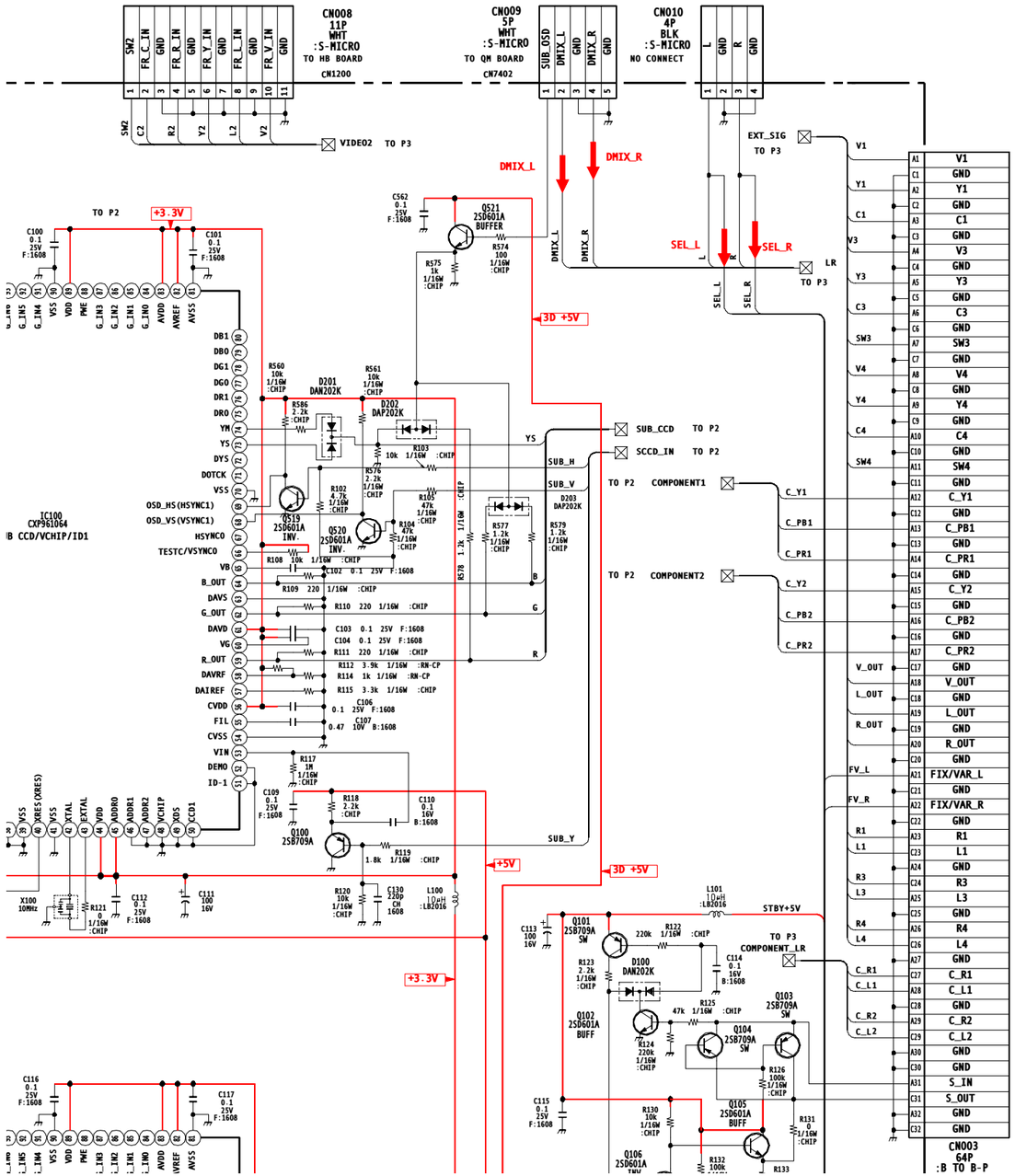
IC002
M52055FP
VIDEO SW

IC003

Q001 2SD601A BUFF
Q002 2SD601A LED-SW
Q003 2SD601A LED-SW
Q005 2SD601A BUFF
Q006 2SD601A BUFF
Q522 2SD601A LED-SW

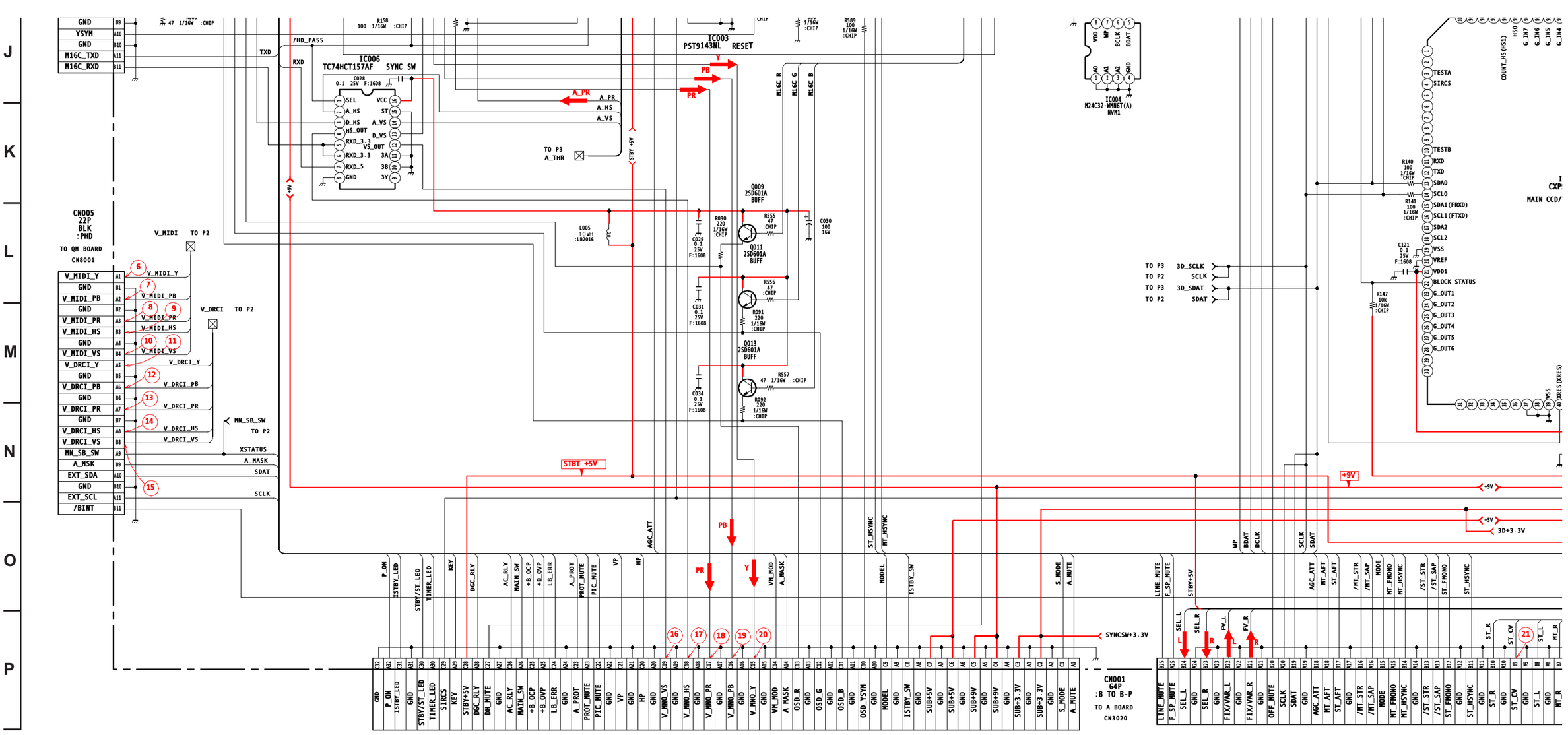
D001 DAN202K

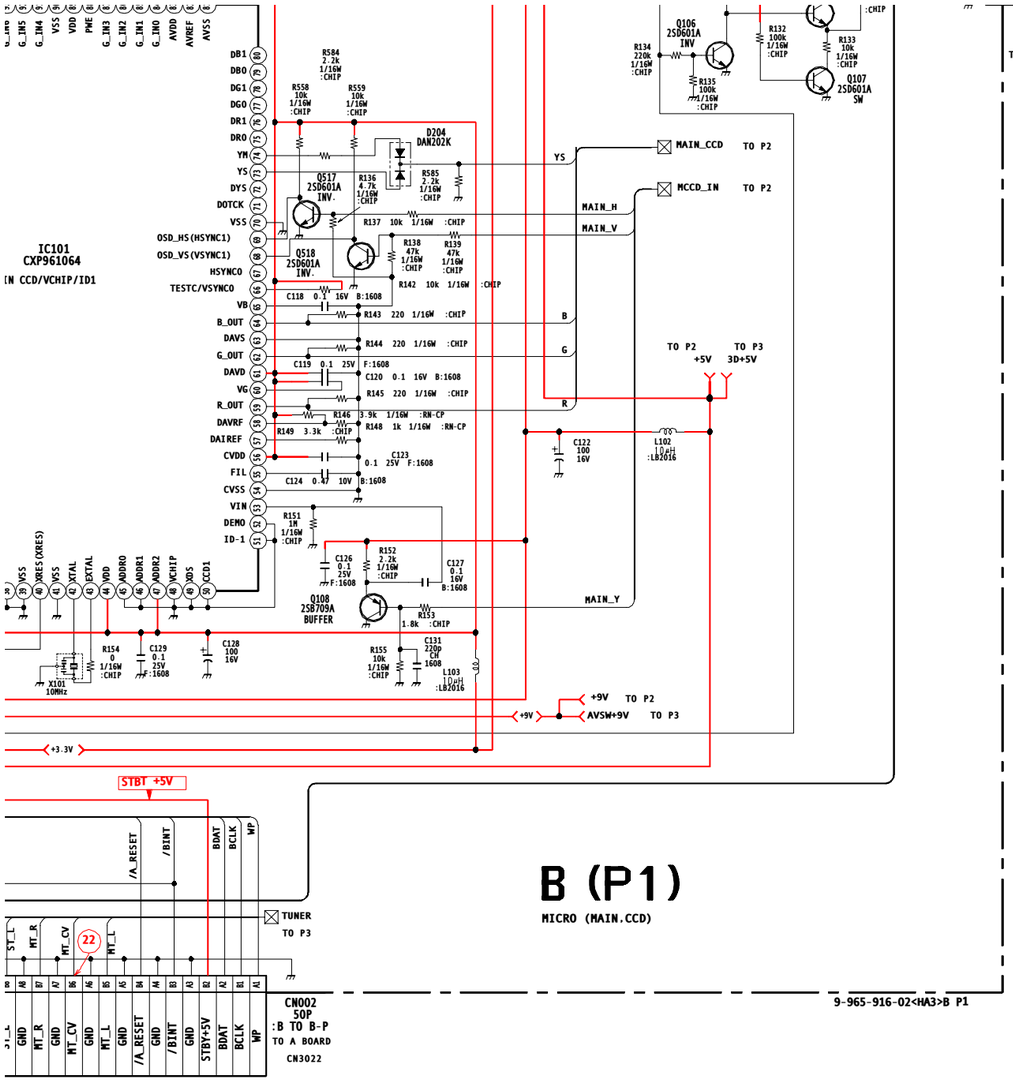
+9V
STBT +5V
ONOFF_MUTE TO P3
3D_RST TO P3
TO P2 YPBPR_SW_M
TO P2 YPBPR_SW_S
SYNC_SW TO P2
V_MNO_PR
V_MNO_PB
V_MNO_Y
MID_BUSY
BOX_RST
/HD_PASS
A_Y
A_PB
A_PR
Y
PB
PR
VM_MOD
M16C R
M16C G
M16C B
X001 10MHz
X003 CSTCW2500MX0M01 25MHz
X100 10MHz
CXP SUB CCD/V

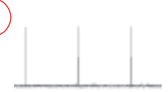
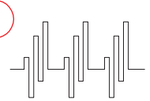
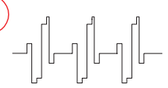
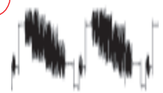
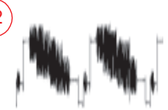



## B BOARD WAVEFORMS

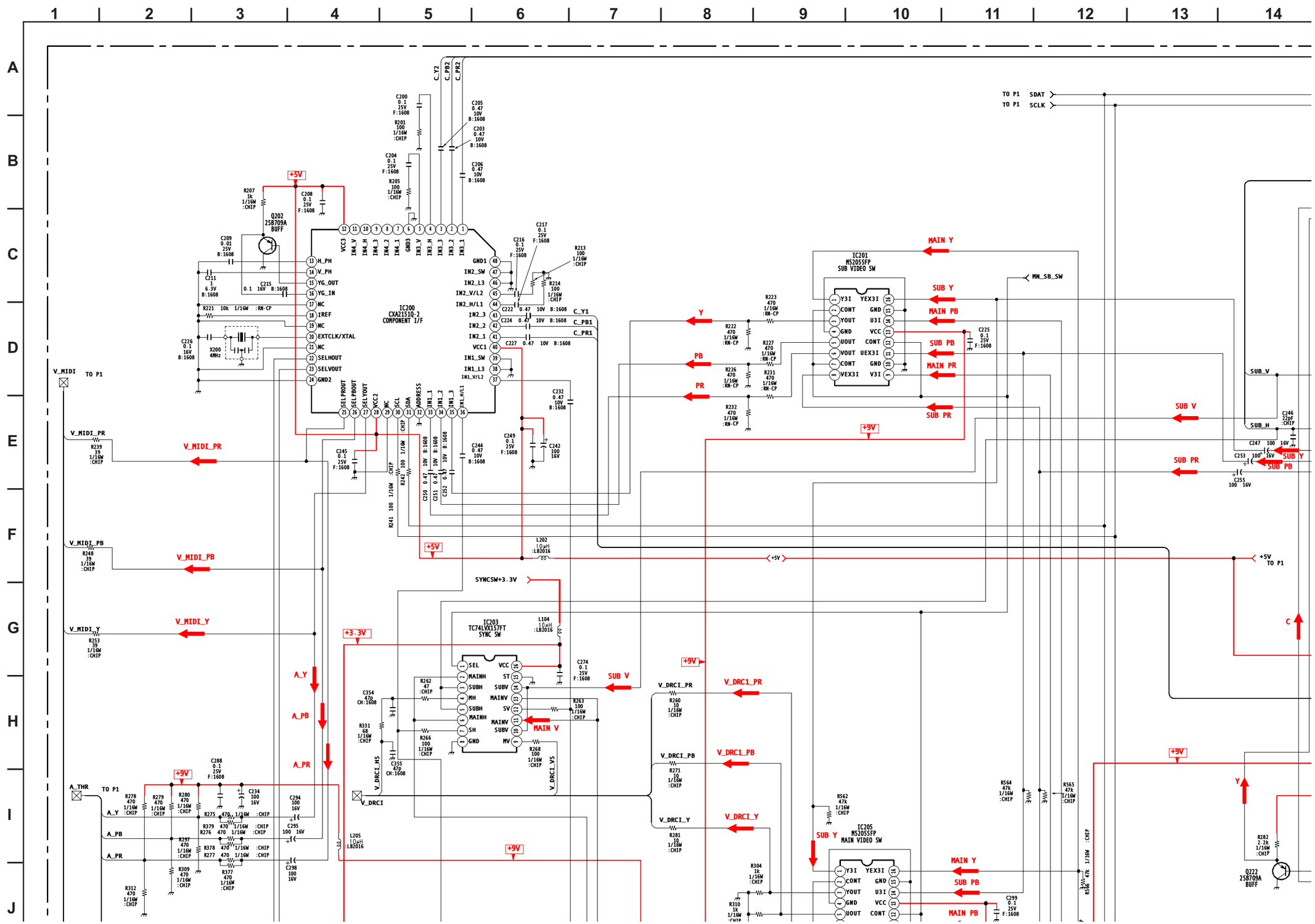
| | | |
|---|---|---|
| 1  0.6 Vp-p (H) | 2  0.6 Vp-p (H) | 3  1.5 Vp-p (H) |
| 4 | 5 | 6 |


IC003
PST9143NL RESET
IC006
TC74HCT157AF SYNC SW
IC004
M24C32-WMNGT(A)
NVM1
CN005
22P
BLK
:PHD
TO QM BOARD
CN8001
V_MIDI_Y
GND
V_MIDI_PB
GND
V_MIDI_PR
V_MIDI_HS
GND
V_MIDI_VS
V_DRCI_Y
GND
V_DRCI_PB
GND
V_DRCI_PR
GND
V_DRCI_HS
V_DRCI_VS
MN_SB_SW
A_MSK
EXT_SDA
GND
EXT_SCL
/BINT
TO P2
XSTATUS
A_MASK
SDAT
SCLK
/HD_PASS
TXD
RXD
A_PR
A_HS
A_VS
TO P3
A_THR
STBY +5V
+9V
+5V
3D+3.3V
SYNCSW+3.3V
PB
PR
Y
Q009
2SD601A
BUFF
Q011
2SD601A
BUFF
Q013
2SD601A
BUFF
L005
10μH
:LB2016
TESTA
SIRCS
TESTB
RXD
TXD
SDAO
SCLO
SDA1(FRXD)
SCL1(FTXD)
SDA2
SCL2
VSS
VREF
VDD1
BLOCK STATUS
G_OUT1
G_OUT2
G_OUT3
G_OUT4
G_OUT5
G_OUT6
XRES(XRES)
TO P3 3D_SCLK
TO P2 SCLK
TO P3 3D_SDAT
TO P2 SDAT
CN001
64P
:B TO B-P
TO A BOARD
CN3020
P_ON
ISTBY_LED
STBY/ST_LED
TIMER_LED
KEY
DGC_RLY
AC_RLY
MAIN_SW
+B_OCP
+B_OVP
LB_ERR
A_PROT
PROT_MUTE
PIC_MUTE
VP
HP
V_MNO_VS
V_MNO_HS
V_MNO_PR
V_MNO_PB
V_MNO_Y
VM_MOD
A_MASK
OSD_R
OSD_G
OSD_B
OSD_YSYM
MODEL
ISTBY_SW
S_MODE
A_MUTE
AGC_ATT
ST_HSYNC
MT_HSYNC
LINE_MUTE
F_SP_MUTE
STBY+5V
SEL_L
SEL_R
FV_L
FV_R
OFF_MUTE
SCLK
SDAT
MT_AFT
ST_AFT
/MT_STR
/MT_SAP
MODE
MT_FMONO
/ST_STR
/ST_SAP
ST_FMONO
ST_R
ST_CV
ST_L
MT_R



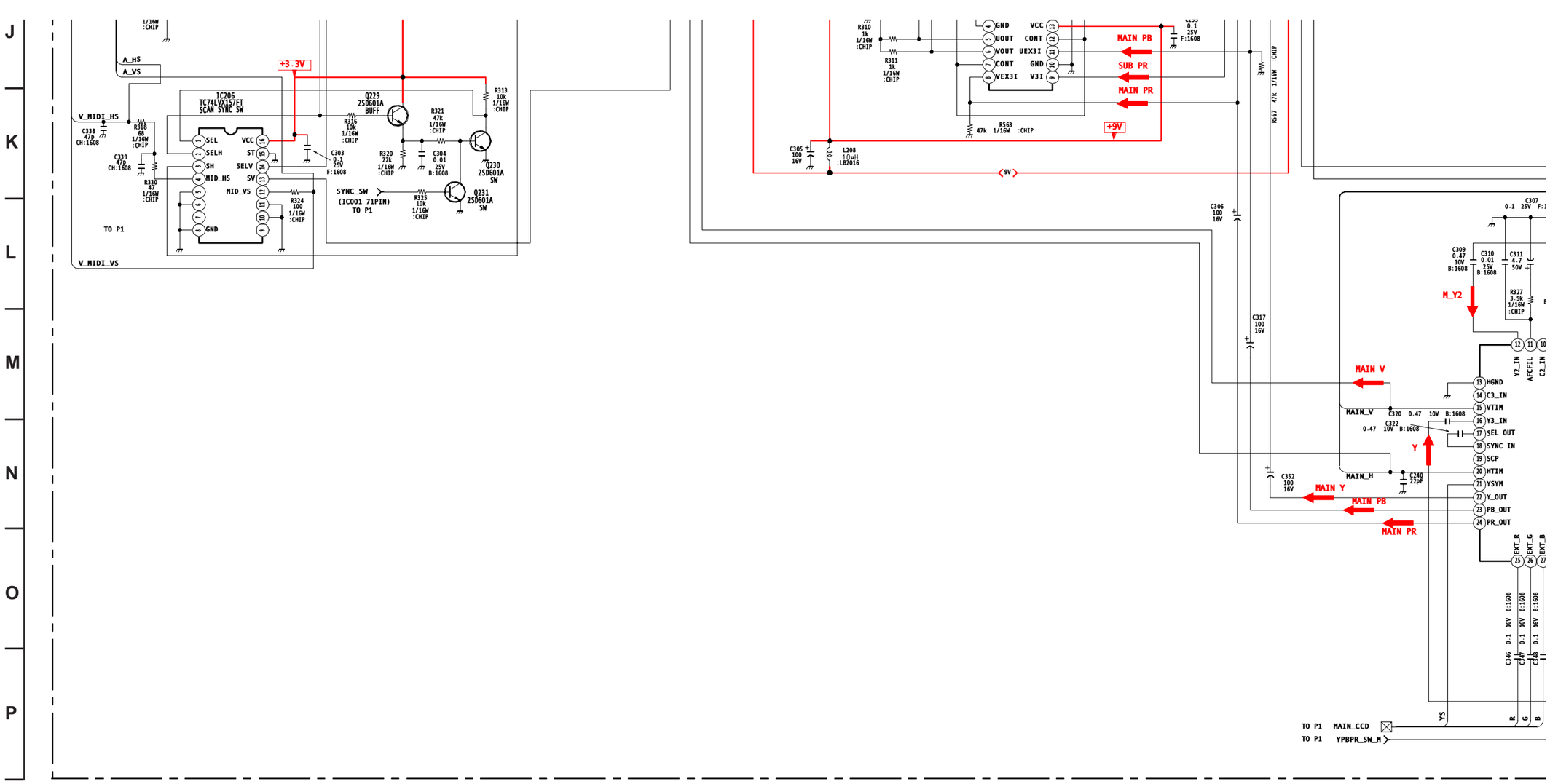

| | | |
|---|---|---|
| 4  1.5 Vp-p (H) | 5  1.4 Vp-p (V) | 6  1.5 Vp-p (H) |
| 7  1.1 Vp-p (H) | 8  1.3 Vp-p (H) | 9  3.5 Vp-p (H) |
| 10  3.3 Vp-p (V) | 11  1.5 Vp-p (H) | 12  1.1 Vp-p (H) |
| 13  1.1 Vp-p (H) | 14  3.4 Vp-p (H) | 15  3.4 Vp-p (V) |
| 16  5.3 Vp-p (V) | 17  5.0 Vp-p (H) | 18  0.5 Vp-p (H) |
| 19  0.6 Vp-p (H) | 20  1.4 Vp-p (H) | 21  1.9 Vp-p (H) |
| 22  1.9 Vp-p (H) | | |

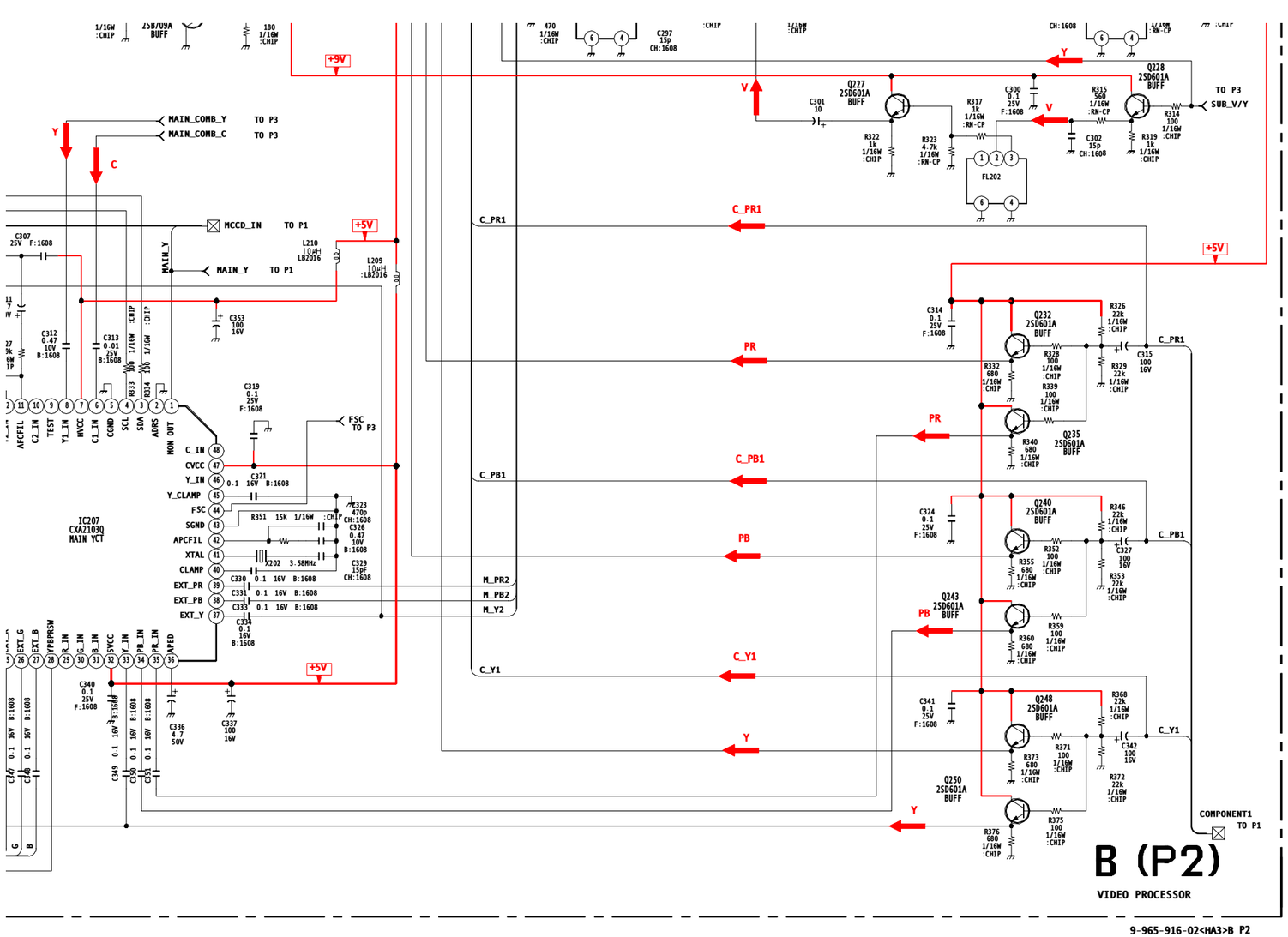
# B BOARD SCHEMATIC DIAGRAM (2 OF 3)



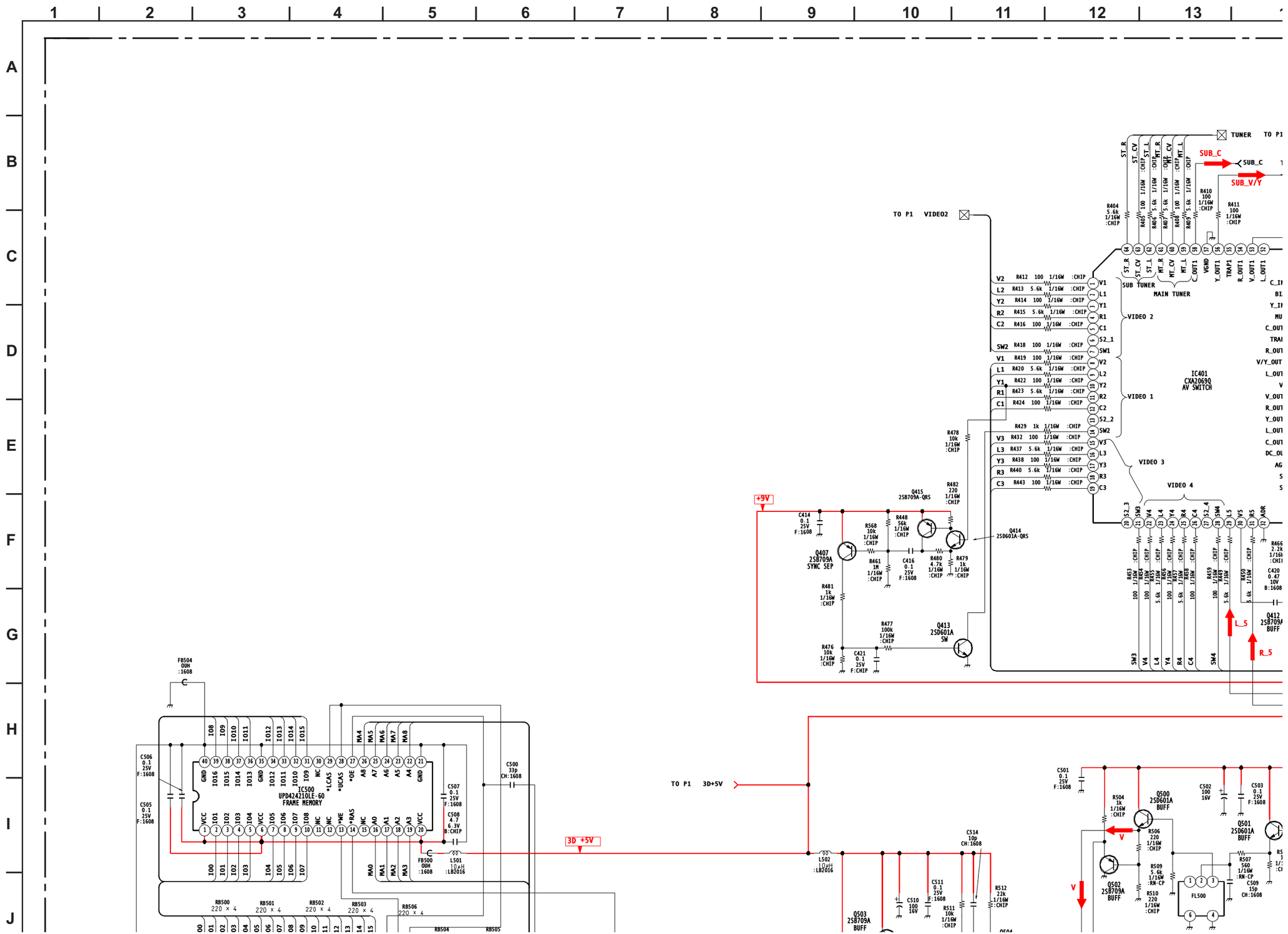
15 16 17 18 19 20 21 22 23 24

SCCD_IN TO P1
SUB_Y
EXT_Y
Y
C
+5V
C212 0.01 25V B:1608
C213 4.7 50V
C219 0.1 25V F:1608
C220 0.01 25V B:1608
C214 0.47 10V B:CHIP
C218 0.47 10V B:1608
R215 3.9k 1/16W :CHIP
R219 100 1/16W :CHIP
R220 100 1/16W :CHIP
C260 100 16V
C223 0.1 25V F:1608
C228 0.01 25V B:1608
C229 0.47 10V B:1608
C230 0.1 16V B:1608
C236 470p CH:1608
C239 0.47 10V B:1608
C241 15pF CH:1608
C243 0.1 16V B:1608
C248 0.1 16V B:1608
C254 0.1 16V B:1608
C256 0.1 16V B:1608
R235 15k 1/16W :CHIP
X201 3.58MHz
IC202 CXA2103Q SUB YCT
Y2_IN APCFIL C2_IN TEST Y1_IN HVCC C1_IN CGND SCL SDA ADRS MON OUT
HGND C3_IN VTIM Y3_IN SEL OUT SYNC IN SCP HTIM YSYM Y_OUT PB_OUT PR_OUT
C_IN CVCC Y_IN Y_CLAMP FSC SGND APCFIL XTAL CLAMP EXT_PR EXT_PB EXT_Y
EXT_R EXT_G EXT_B YPBPRSW R_IN G_IN B_IN SYCC Y_IN PB_IN PR_IN APED
C235 0.47 10V B:1608
C261 0.1 25V F:1608
C259 4.7 50V
C258 100 16V
L201 10μH :LB2016
L211 10μH LB2016
C262 0.1 16V B:1608
C263 0.1 16V B:1608
C264 0.1 16V B:1608
C265 0.1 16V B:1608
C266 0.1 16V B:1608
C267 0.1 16V B:1608
YPBPR_SW_S TO P1
SUB_CCD TO P1
R G B
YS
EXT_PR
EXT_PB
EXT_Y
L200 10μH :LB2016
C231 100 16V
C237 0.1 25V F:1608
C_PR2
C_PB2
C_Y2
M_PR2
M_PB2
M_Y2
Q200 2SD601A BUFF
Q201 2SD601A BUFF
Q203 2SD601A BUFF
Q204 2SD601A BUFF
Q205 2SD601A BUFF
Q208 2SD601A BUFF
C201 0.1 25V F:1608
C221 0.1 25V F:1608
R200 22k 1/16W :CHIP
R202 100 1/16W :CHIP
R203 22k 1/16W :CHIP
R204 680 1/16W :CHIP
R205 100 1/16W :CHIP
R208 680 1/16W :CHIP
C202 100 16V
R210 22k 1/16W :CHIP
R211 100 1/16W :CHIP
R212 22k 1/16W :CHIP
R216 680 1/16W :CHIP
R224 100 1/16W :CHIP
R225 680 1/16W :CHIP
C210 100 16V
R228 22k 1/16W :CHIP
R233 100 1/16W :CHIP
R234 22k 1/16W :CHIP
R236 680 1/16W :CHIP
R243 100 1/16W :CHIP
R244 680 1/16W :CHIP
C238 100 16V
COMPONENT2 TO P1
FB200 OUH :1608
L203 10μH :LB2016
L204 10μH :LB2016
FB201 OUH :1608
C268 100 16V
C271 0.1 25V F:1608
C272 0.1 25V F:1608
TST1 TST2 DVSS DVDD NC DVDD DVSS TST3
F_IN CKSL CPO VCV PLVD PLVS CLPEN CLPO
APCN MOD1 MOD2 INIT IRF VB VG VRF
ADIN ADVS ADVO ACO NC DAVD AVO DAVS
IC204 CXD2073Q SUB COMB FILTER
C275 0.001 B:1608
R592 1k 1/16W :CHIP
C276 0.022 25V B:1608
R259 56k 1/16W :RN-CP
R258 560 1/16W :RN-CP
C277 0.1 25V F:1608
R257 0 1/16W :CHIP
R264 3.3k 1/16W :RN-CP
C278 0.1 16V B:1608
R270 3.3k 1/16W :RN-CP
R273 2.2k 1/16W :RN-CP
C280 0.1 16V B:1608
C281 100 16V
C282 0.1 25V F:1608
C286 0.1 25V F:1608
C287 0.1 25V F:1608
V
Y
C
+9V
L206 10μH :LB2016
TO P1
Q216 2SD601A BUFF
Q217 2SD601A BUFF
Q218 2SD601A BUFF
Q219 2SD601A BUFF
Q220 2SD601A BUFF
Q221 2SD601A BUFF
Q224 2SB709A BUFF
C284 0.1 25V F:1608
C285 100 16V
C290 0.1 25V F:1608
C292 0.1 16V B:1608
C293 100 16V
C296 15p CH:1608
C297 15p CH:1608
R284 220 1/16W :CHIP
R285 22k 1/16W :CHIP
R287 2.2k 1/16W :CHIP
R288 470 1/16W :CHIP
R289 470 1/16W :CHIP
R290 220 1/16W :CHIP
R291 560 1/16W :RN-CP
R292 560 1/16W :RN-CP
R294 150 1/16W :CHIP
R295 33k 1/16W :CHIP
R296 33k 1/16W :CHIP
R298 180 1/16W :CHIP
R299 5.6k 1/16W :RN-CP
R300 150 1/16W :CHIP
R302 470 1/16W :CHIP
R303 5.6k 1/16W :RN-CP
R305 180 1/16W :CHIP
R306 470 1/16W :CHIP
R307 470 1/16W :CHIP
R308 470 1/16W :CHIP
R283 22k 1/16W :CHIP
FL200
FL201
SUB_C TO P3

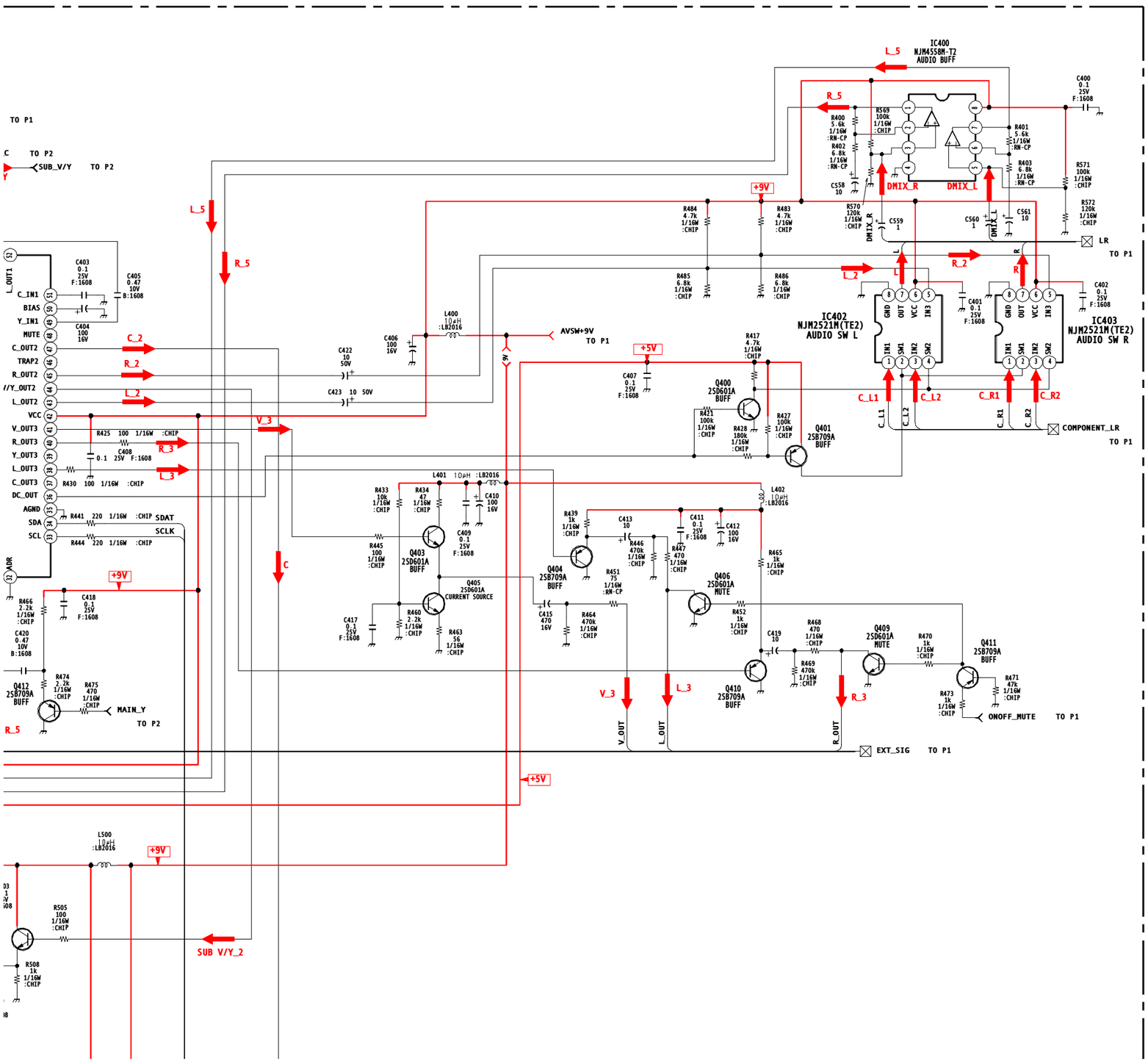

A_HS
A_VS
V_MIDI_HS
V_MIDI_VS
TO P1
IC206
TC74LVX157FT
SCAN SYNC SW
SEL
SELH
SH
MID_HS
GND
VCC
ST
SELV
SV
MID_VS
+3.3V
Q229
2SD601A
BUFF
Q230
2SD601A
SW
Q231
2SD601A
SW
SYNC_SW
(ICO01 71PIN)
TO P1
R310
R311
R313
R316
R320
R321
R324
R325
R330
R563
C303
C304
C305
C306
C307
C309
C310
C311
C317
C320
C322
C352
C240
L208
10μH
:LB2016
MAIN PB
SUB PR
MAIN PR
+9V
9V
M_Y2
MAIN V
MAIN_V
MAIN_H
MAIN Y
MAIN PB
MAIN PR
Y
HGND
C3_IN
VTIM
Y3_IN
SEL OUT
SYNC IN
SCP
HTIM
YSYM
Y_OUT
PB_OUT
PR_OUT
EXT_R
EXT_G
EXT_B
Y2_IN
AFCFIL
C2_IN
YS
R
G
B
TO P1 MAIN_CCD
TO P1 YPBPR_SW_M

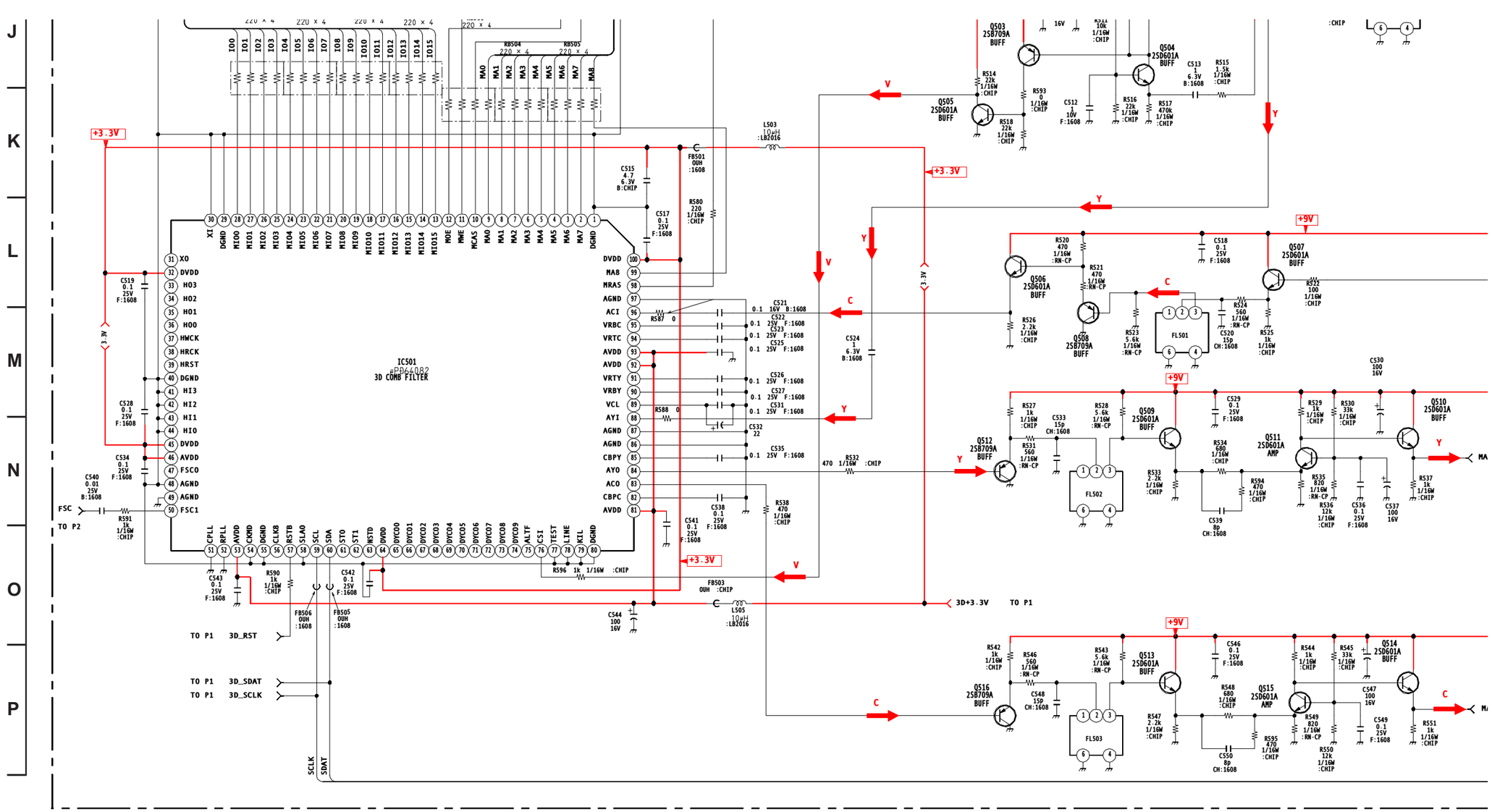

MAIN_COMB_Y TO P3
MAIN_COMB_C TO P3
MCCD_IN TO P1
MAIN_Y TO P1
+9V
+5V
C_PR1
PR
C_PB1
PB
C_Y1
Y
M_PR2
M_PB2
M_Y2
FSC TO P3
IC207
CXA2103Q
MAIN YCT
Q227 2SD601A BUFF
Q228 2SD601A BUFF
Q232 2SD601A BUFF
Q235 2SD601A BUFF
Q240 2SD601A BUFF
Q243 2SD601A BUFF
Q248 2SD601A BUFF
Q250 2SD601A BUFF
FL202
TO P3 SUB_V/Y
COMPONENT1 TO P1
B (P2)
VIDEO PROCESSOR
9-965-916-02<HA3>B P2

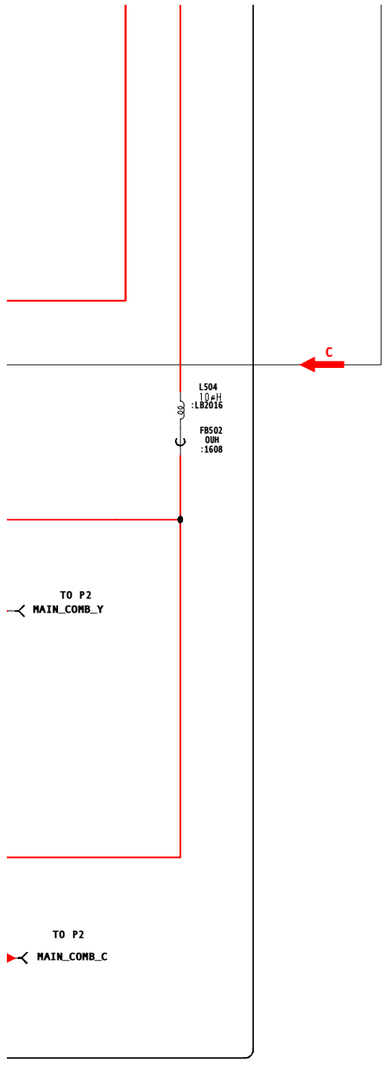
# B BOARD SCHEMATIC DIAGRAM (3 OF 3)



14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24




IC501
μPD64082
3D COMB FILTER
+3.3V
+9V
TO P1 3D_RST
TO P1 3D_SDAT
TO P1 3D_SCLK
3D+3.3V TO P1
SCLK
SDAT
FSC
TO P2



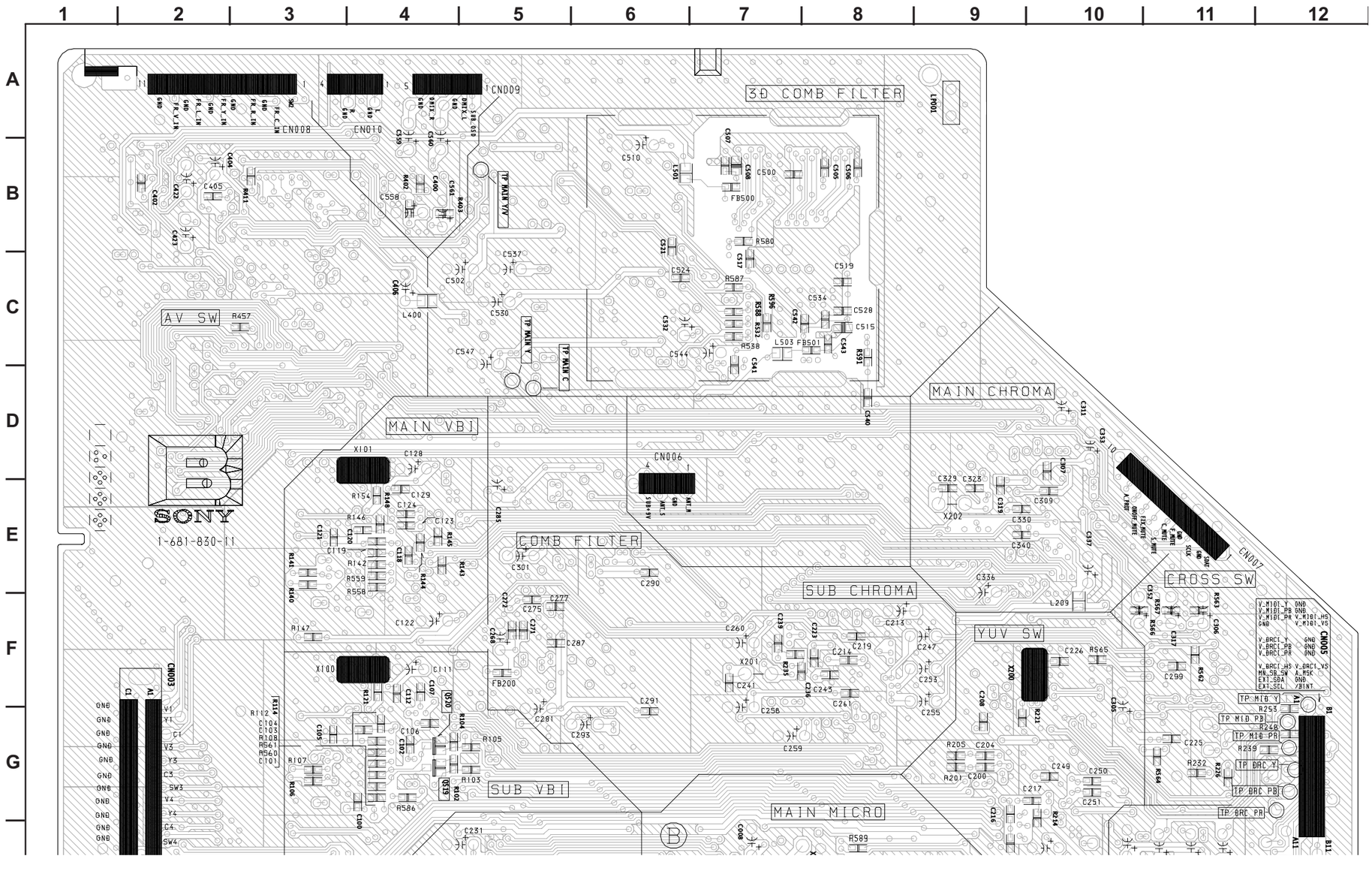

B (P3)

3D-COMB.AV-SW

9-965-916-02<HA3>B P3

**B** [MICRO (MAIN, CCD), VIDEO PROCESSOR, 3D-COMB, AV-SW]

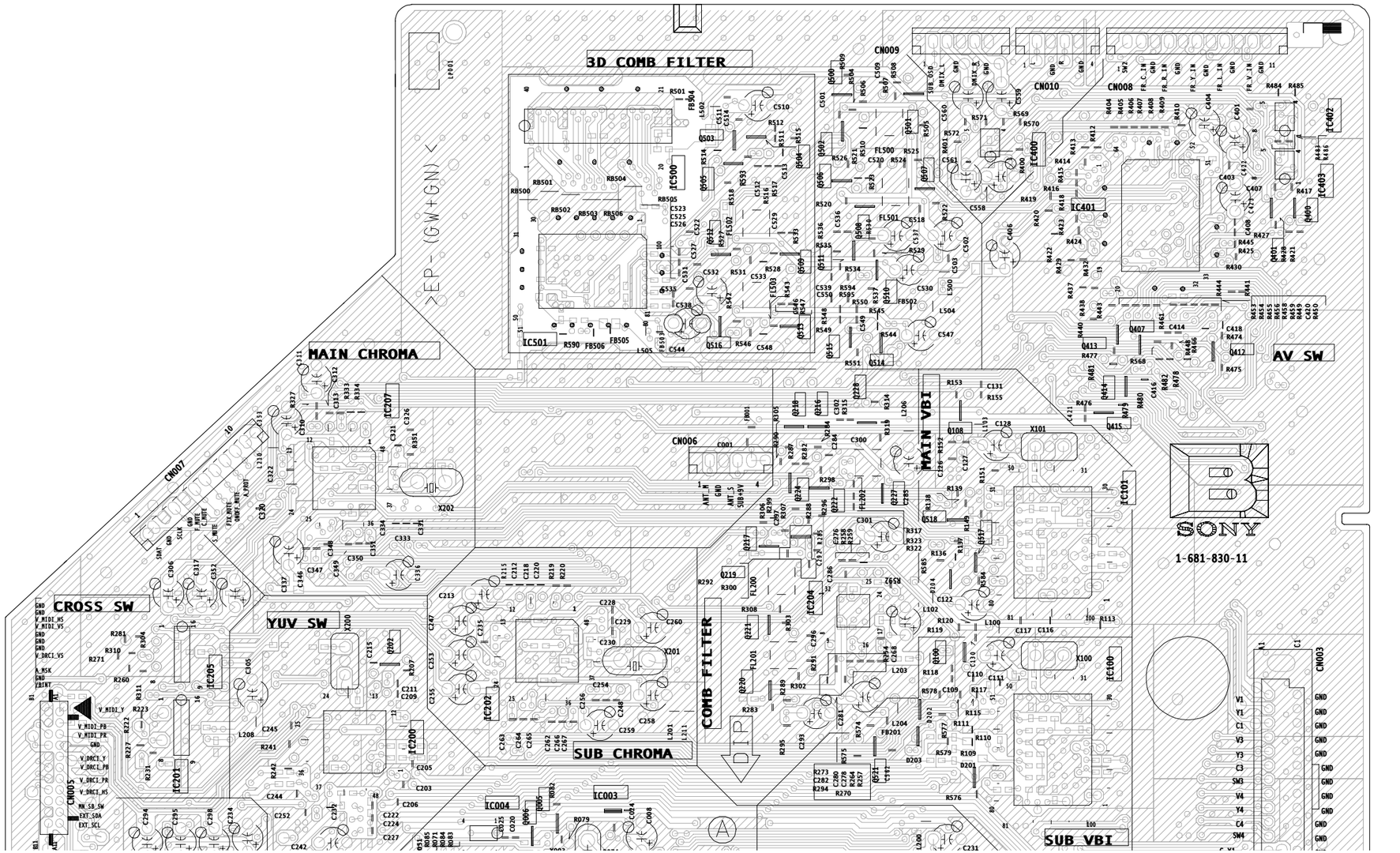
## CONDUCTOR SIDE

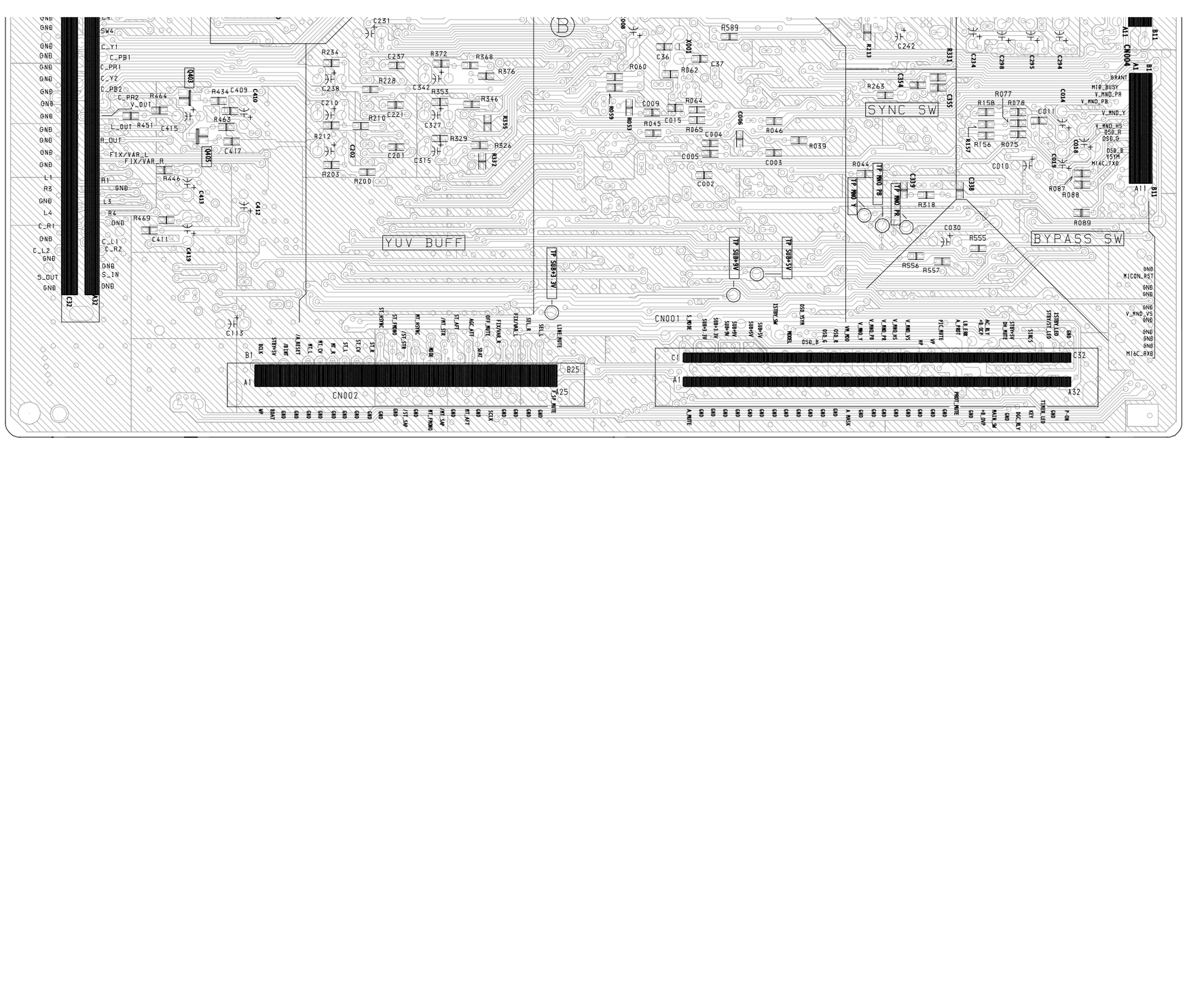


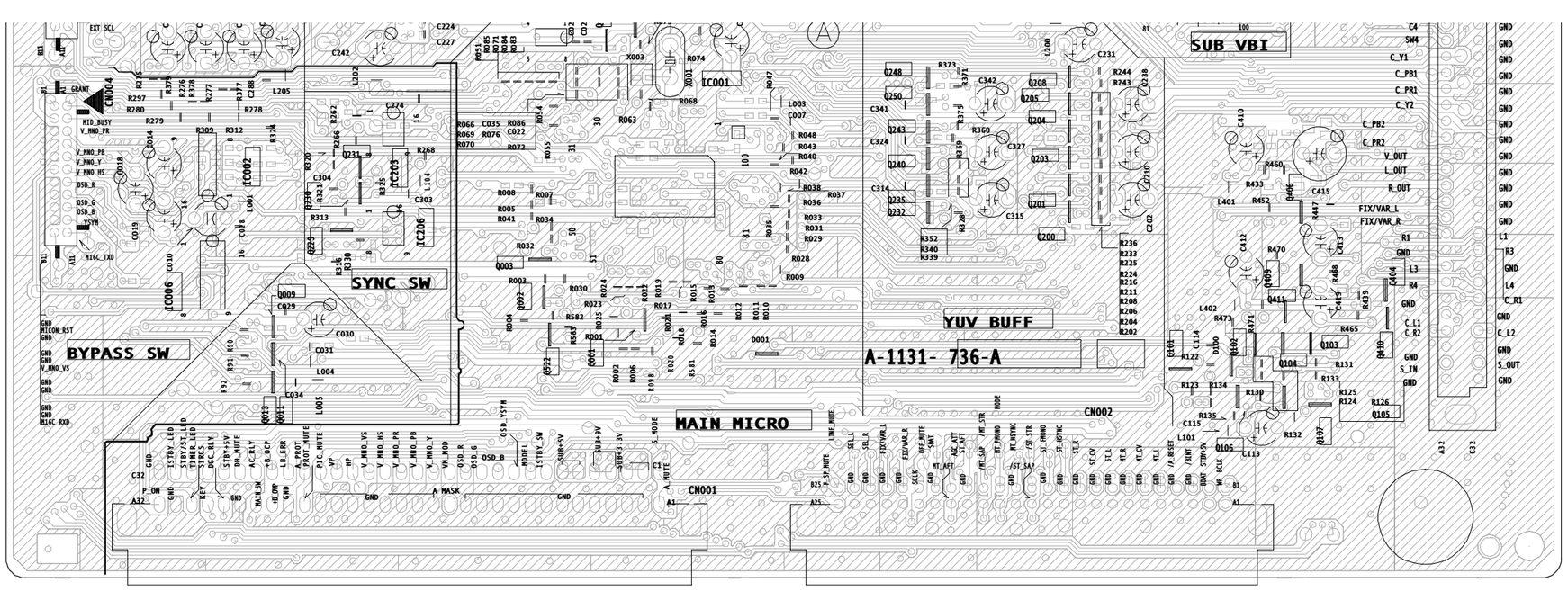

## COMPON

## 'ONENT SIDE

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12




YUV BUFF
SYNC SW
BYPASS SW
CN001
CN002
CN004
TP 5DB+3.3V
TP 5DB+5V
TP MNO PB
TP MNO PR
TP MNO Y
GND
S_IN
S_OUT
C_Y1
C_PB1
C_PR1
C_Y2
C_PB2
C_PR2
V_OUT
L_OUT
R_OUT
FIX/VAR_L
FIX/VAR_R
C_R1
C_L1
C_R2
C_L2
L1
R1
L3
R3
L4
R4
SW4
S_MODE
5DB+3.3V
5DB+5V
MODEL
DSO_R
DSO_G
DSO_B
V_MNO_PB
V_MNO_Y
V_MNO_PR
V_MNO_HS
V_MNO_VS
PIC_MUTE
A_MUT
LR_ERR
AC_ALT
+5.0V
DK_MUTE
STBY5V
STBY_LED
KEY
DAC_ALT
TIMER_LED
P_ON
MAIN_SW
A_MUTE
A_MUS
PORT_MUTE
MICON_RST
M16C_RXD
M16_BUSY
V_MNO_PR
V_MNO_Y
V_MNO_HS
DSO_R
DSO_G
DSO_B
V5YM
M16C_TXD
BRANT
MP
OFF_MUTE
FIXVAR_L
FIXVAR_R
SEL_L
SEL_R
LINE_MUTE
ST_MONO
ST_ASYNC
MT_ASYNC
MUTE
JST_STR
ST_ALT
MAC_ALT
SEAT
SCLK
SDA
SCL
BCLK
STBY5V
BRANT
MT_L
MT_R
MT_O
JA_RESET
ANT_STR
ANT_SW
JST_SW
MT_MONO
MT_ALT
SCLK
GND
3.3V_MUTE


SUB VBI
SYNC SW
BYPASS SW
YUV BUFF
A-1131- 736-A
MAIN MICRO
IC001
CN004
CN002
CN001
IC002
IC203
IC206
IC006
Q009
Q029
C030
C031
L004
C034
L005
Q013
Q011
R313
R324
R330
R334
Q024
C303
C304
R268
Q231
R262
R266
R320
R323
Q230
C274
L202
C242
L205
C208
R297
R280
R279
R309
R312
R278
R277
R376
R378
R276
R379
R377
R275
C224
C227
R074
X003
X001
R068
R063
R066
R069
R070
C035
R076
R086
C022
R072
R054
R055
R047
L003
C007
R048
R043
R040
R042
R038
R037
R033
R031
R029
R028
R009
R035
R036
R007
R008
R005
R041
R034
R032
Q003
R003
Q002
R004
R030
R024
R023
R582
R025
R587
Q001
Q522
R019
R022
R017
R021
R028
R018
R027
R020
R026
R015
R016
R014
R012
R011
R010
D001
R006
R581
R002
C002
C001
L100
C231
R244
R243
C238
C342
Q208
Q205
Q204
C327
Q203
C315
Q201
Q200
C210
C202
Q248
Q250
C341
Q243
C324
Q240
C314
Q235
Q232
R373
R374
R375
R359
R360
R320
R352
R340
R339
R236
R233
R225
R224
R216
R211
R208
R206
R204
R202
C410
C412
R460
R433
L401
R452
C415
R447
R406
R470
R403
R411
R488
C413
C414
R439
C404
L402
R473
R471
R465
Q103
Q104
R131
R133
Q410
R125
R124
R126
Q105
R130
R123
R134
R135
C115
R132
L101
Q106
C113
R122
R100
R101
R102
C4
SW4
C_Y1
C_PB1
C_PR1
C_Y2
C_PB2
C_PR2
V_OUT
L_OUT
R_OUT
FIX/VAR_L
FIX/VAR_R
R1
R3
L3
R4
C_L1
C_R2
S_IN
L1
L4
C_R1
C_L2
S_OUT
GND
GRANT
REQ
MID_BUSY
V_MNO_PR
V_MNO_PB
V_MNO_Y
V_MNO_HS
OSD_R
OSD_G
OSD_B
TSYN
R16C_TXD
R16C_RXD
MICOM_RST
V_MNO_VS
EXT_SCL
P_ON
STBY_LED
STBY/ST_LED
TIMER_LED
STRCS
MUTE_ALM
STBY+5V
CHA_MUTE
AC_FLY
LB_OCP
LB_ERR
A_PROT
PROT_MUTE
P.C._MUTE
VP
HP
MAIN_SW
+B_OUT
A_MASK
A_MUTE
S_MODE
MODEL
SYSTEM_SW
+B0+5V
+B0+3.3V
LINE_MUTE
SP_MUTE
SCL_L
SDA_L
FIX/VAR_L
FIX/VAR_R
SCLK
OFF_TIME
SDAT
MT_AFT
ST_AFT
/MT_STR
MT_PWMD
MT_HSYNC
/ST_STR
ST_PWMD
ST_HSYNC
SCL_C
SDA_C
SCL_L
SDA_L
SCL_R
SDA_R
MT_L
MT_C
MT_R
/A_RESET
/RMT
STBY+5V
+B
RCLK
B1
A1
A32
C32
C12

-

D BOARD SCHEMATIC DIAGRAM (1 OF 3)

# D (1/3)

POWER SUPPLY
AC RECT

JR6501
0
:CHIP

TO F BOARD
CN6709
CN6502
2P
WHT
:MINI(LOCK)

| | |
|---|---|
| AC OUT | 1 |
| AC OUT | 2 |

TO A BOARD
CN6003

| | |
|---|---|
| AC RECT+ | 1 |
| NC | 2 |
| AC RECT- | 3 |
| NC | 4 |
| PRI 15V | 5 |
| GND | 6 |

CN6501
6P
WHT
:VH

| | |
|---|---|
| AC RLY | 1 |
| MAIN RLY | 2 |
| E | 3 |
| E | 4 |
| E | 5 |
| NORMAL | 6 |

TO P2
MAIN RLY

C6584 0.047 125V
C6585 0.001 250V B
C6591 0.001 250V B
RY6501
R6516 3.3 10W :RB
RY6502
D6534 DIN40TA2
R6519 0 :CHIP
D6533 MA111 PROTECT
C6586 0.0047 250V F
C6588 0.0047 250V F
D6530 D6SB60L AC-RECT
C6587 0.0047 250V F
C6589 0.0047 250V F
JW6503 7.5MM
JW6504 7.5MM
C6590 1200 250V
C6503 1200 250V
R6515 470k 1/2W
R6502 470k 1/2W
D6509 ERC04-06SE
D6510 ERC04-06SE
D6532 ERA22-08 STOPPER
R6521 1k 1/2W :FPRD
R6507 4.7k :CHIP
PH6501 ON3171-R RESISTOR SHORT
R6510 22 1W :RS
SUB 7V
AC RECT+
PRI 15V

AC

IC6501
MCZ3001D
DRIVER

Q6503
2SD601A

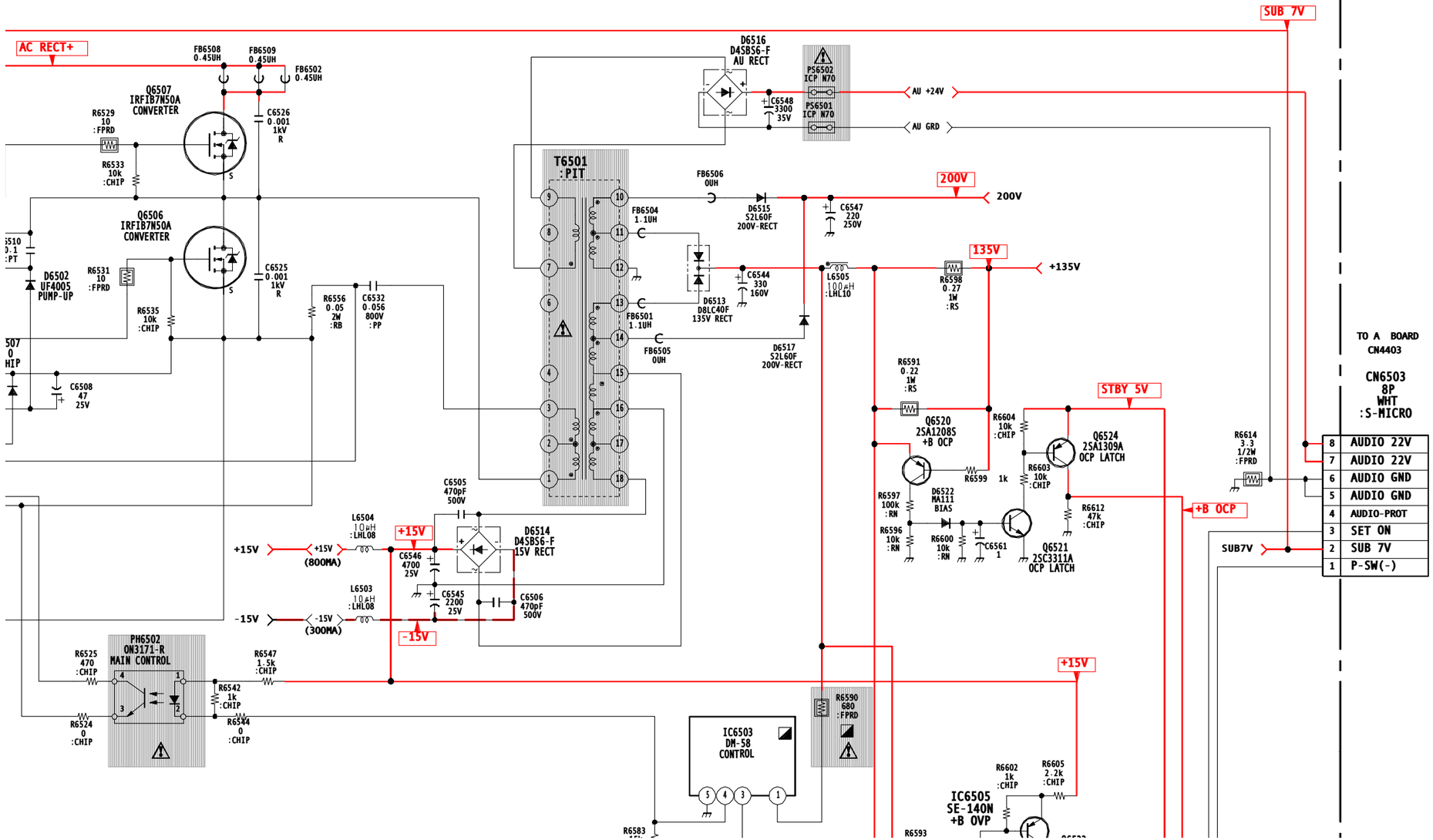
R6646 330k :RN
R6514 330k :RN
R6513 330k :RN
R6517 8.2k :RN-CP
C6511 0.01 B:CHIP
R6504 10k :CHIP
C6504 0.01 B:CHIP
C6518 0.001 :PP
R6541 15k :CHIP
R6518 15k :RN-CP
R6543 330k :RN-CP
R6553 330k :CHIP
C6519 10
C6517 4.7
C6507 47
C6516 0.001 B:CHIP
R6503 100 :RN-CP
R6501 91 :RN-CP
R6526 0.1 1/2W :RF
R6552 22k :CHIP
R6557 100k :CHIP

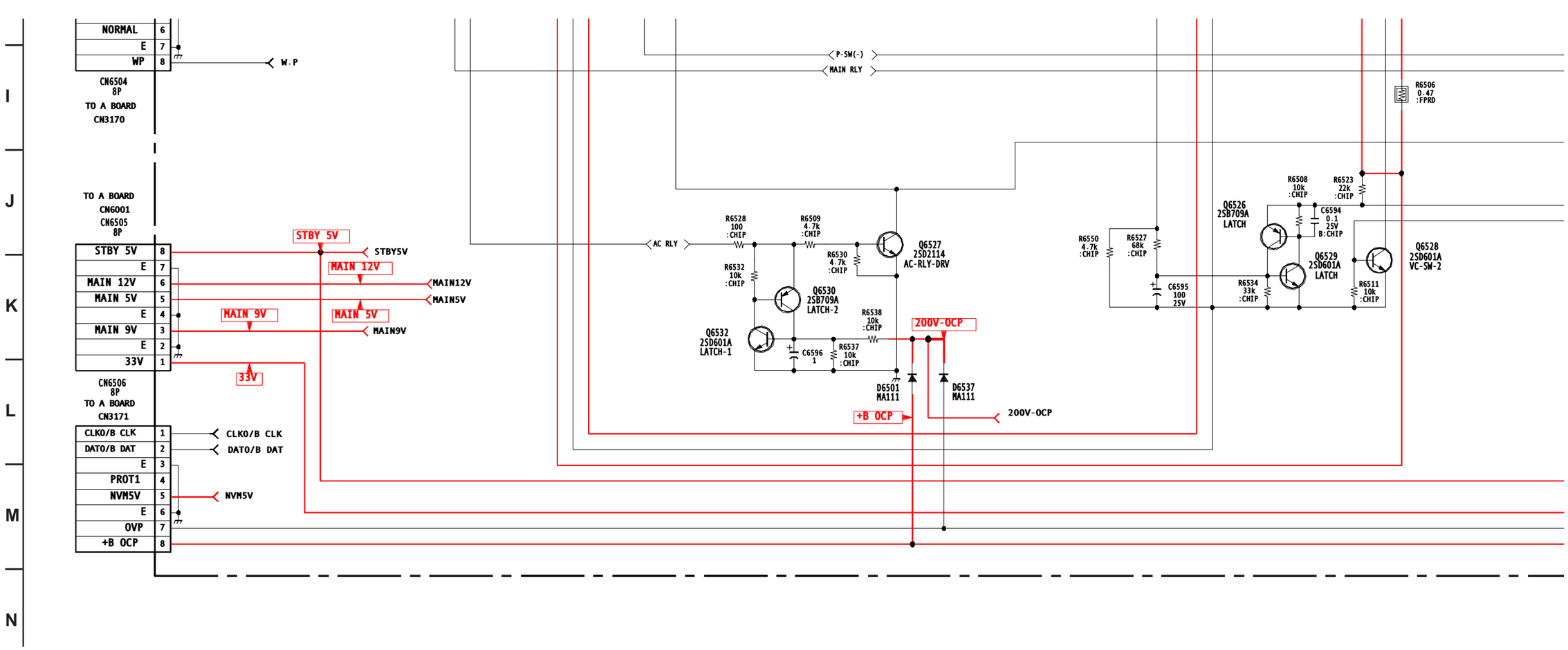
| | | | |
|---|---|---|---|
| 1 | VSENSE | VD | 18 |
| 2 | F/B. | | 17 |
| 3 | CT | VG(H) | 16 |
| 4 | RT | VS | 15 |
| 5 | GND | VB | 14 |
| 6 | TIMER | | 13 |
| 7 | SS | VG(L) | 12 |
| 8 | VC1 | P-GND | 11 |
| 9 | OCP | VC2 | 10 |

D6507
0
:CHIP

C6510 0.1 :PT

5 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28




I
J
K
L
M
N
NORMAL 6
E 7
WP 8
W.P
CN6504
8P
TO A BOARD
CN3170
TO A BOARD
CN6001
CN6505
8P
STBY 5V 8
E 7
MAIN 12V 6
MAIN 5V 5
E 4
MAIN 9V 3
E 2
33V 1
STBY 5V
STBY5V
MAIN 12V
MAIN12V
MAIN 9V
MAIN 5V
MAIN5V
MAIN9V
33V
CN6506
8P
TO A BOARD
CN3171
CLK0/B CLK 1
DAT0/B DAT 2
E 3
PROT1 4
NVM5V 5
E 6
OVP 7
+B OCP 8
CLK0/B CLK
DAT0/B DAT
NVM5V
P-SW(-)
MAIN RLY
AC RLY
R6528 100 :CHIP
R6509 4.7k :CHIP
R6530 4.7k :CHIP
Q6527 2SD2114 AC-RLY-DRV
R6532 10k :CHIP
Q6530 2SB709A LATCH-2
Q6532 2SD601A LATCH-1
R6538 10k :CHIP
C6596 1
R6537 10k :CHIP
D6501 MA111
D6537 MA111
200V-OCP
+B OCP
200V-OCP
R6506 0.47 :FPRD
R6550 4.7k :CHIP
R6527 68k :CHIP
C6595 100 25V
R6508 10k :CHIP
R6523 22k :CHIP
Q6526 2SB709A LATCH
C6594 0.1 25V B:CHIP
Q6529 2SD601A LATCH
R6534 33k :CHIP
R6511 10k :CHIP
Q6528 2SD601A VC-SW-2

R6583
15k
:CHIP

C6551
0.022
B:CHIP

SE-140N
+B OVP

R6593
100
:FPRD

Q6522
2SA1309A
OVP SW

R6539
22k
3W
:RS

D6508
MTZJ-33C

PH6503
ON3171-R
MAIN SW

R6540
1k
:CHIP

R6522
10k
:CHIP

Q6531
2SD601A
MAIN-SW

R6536
10k
:CHIP

R6512
10k
:CHIP

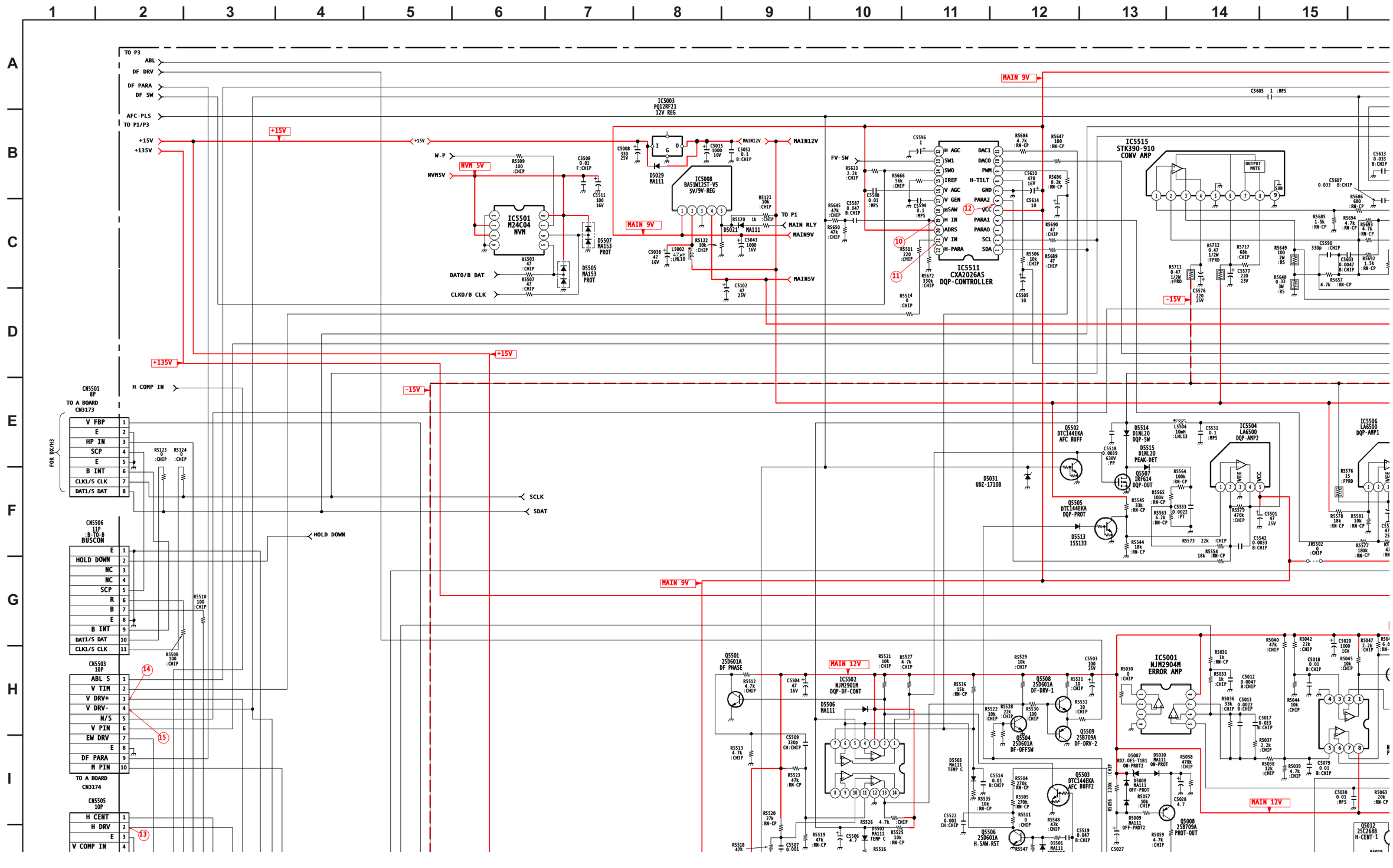
STBY 5V

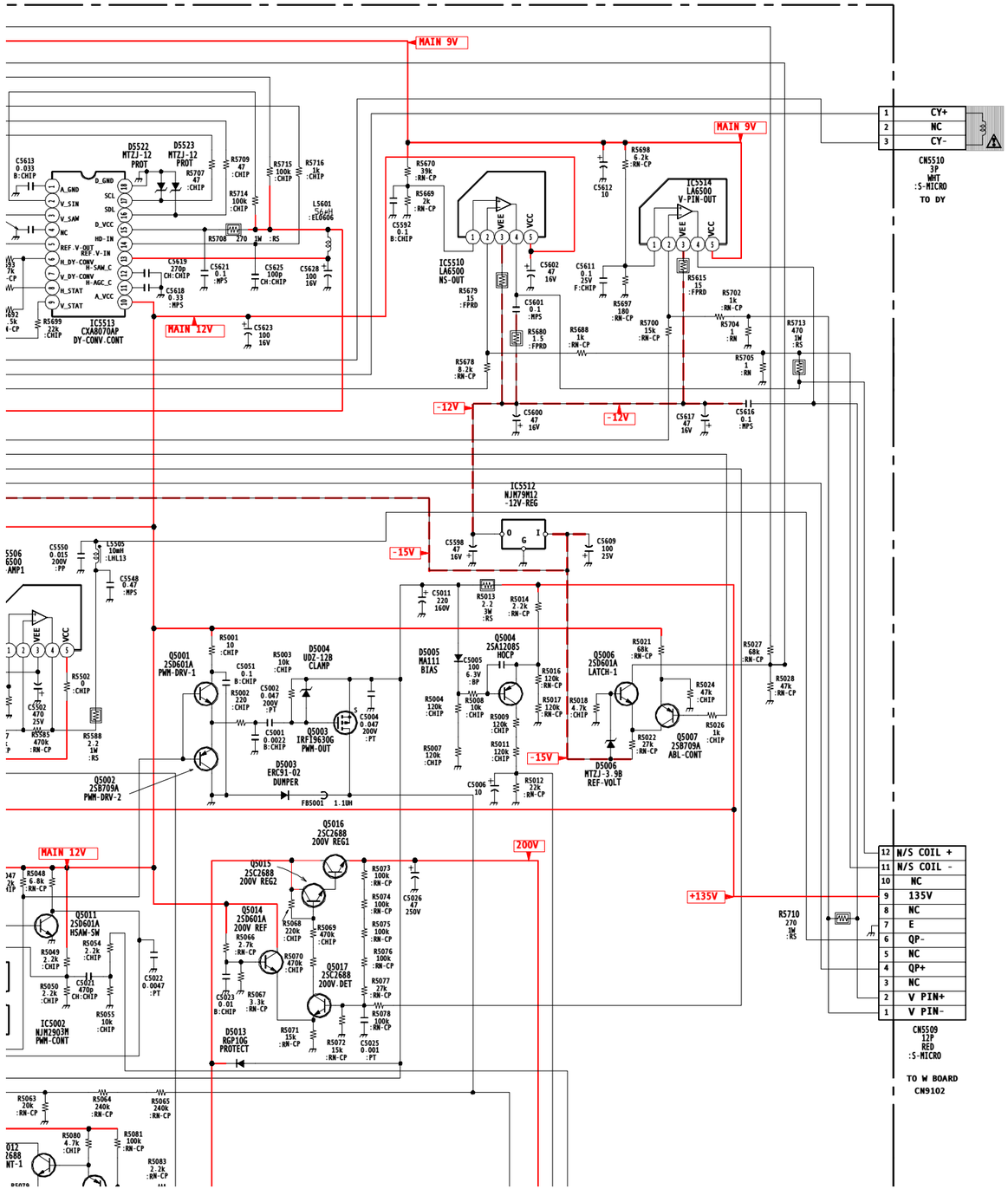
33V

33V

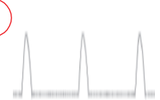
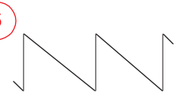
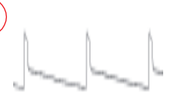
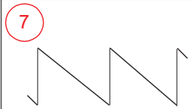
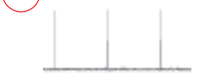
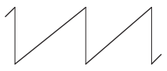
+B OCP

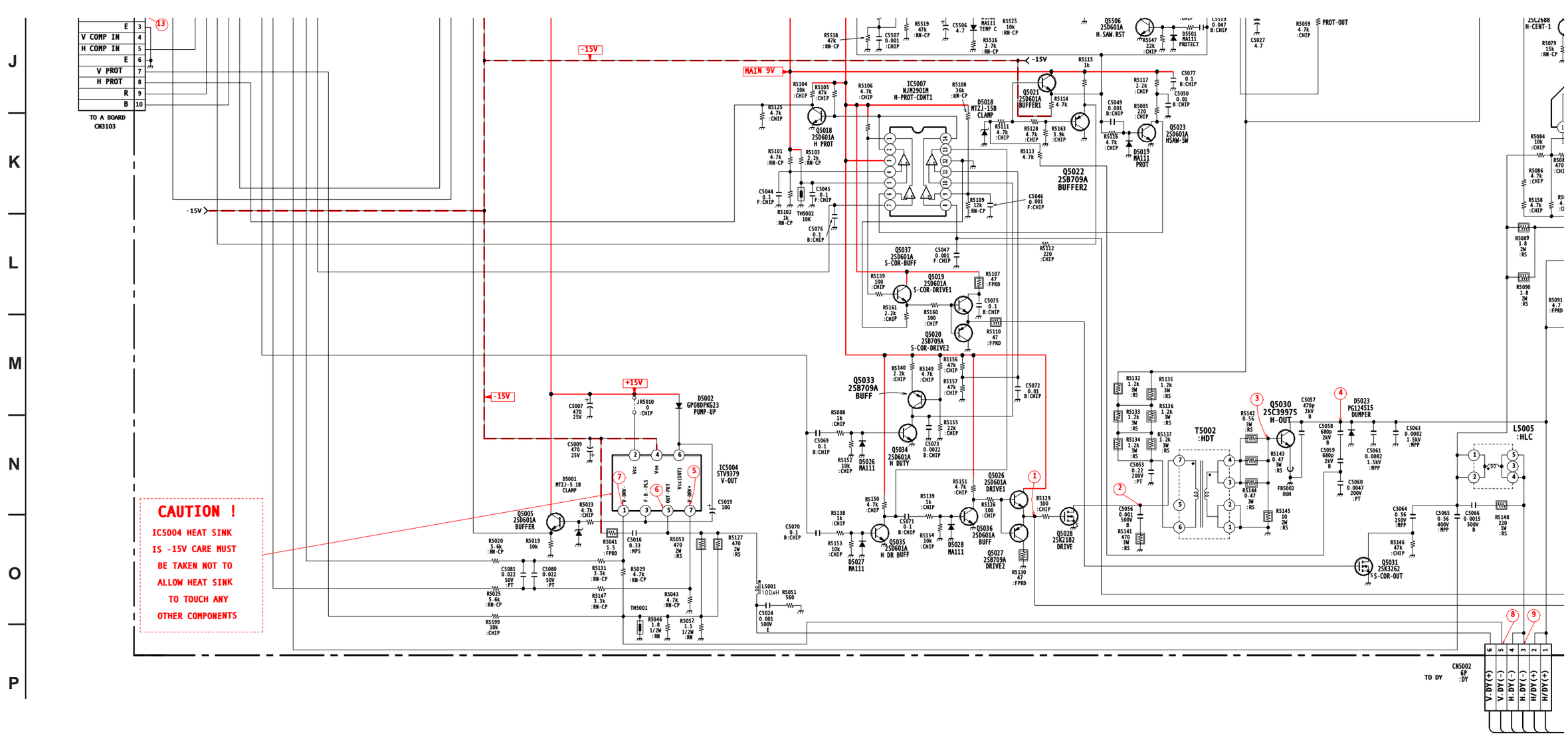
# D BOARD SCHEMATIC DIAGRAM (2 OF 3)





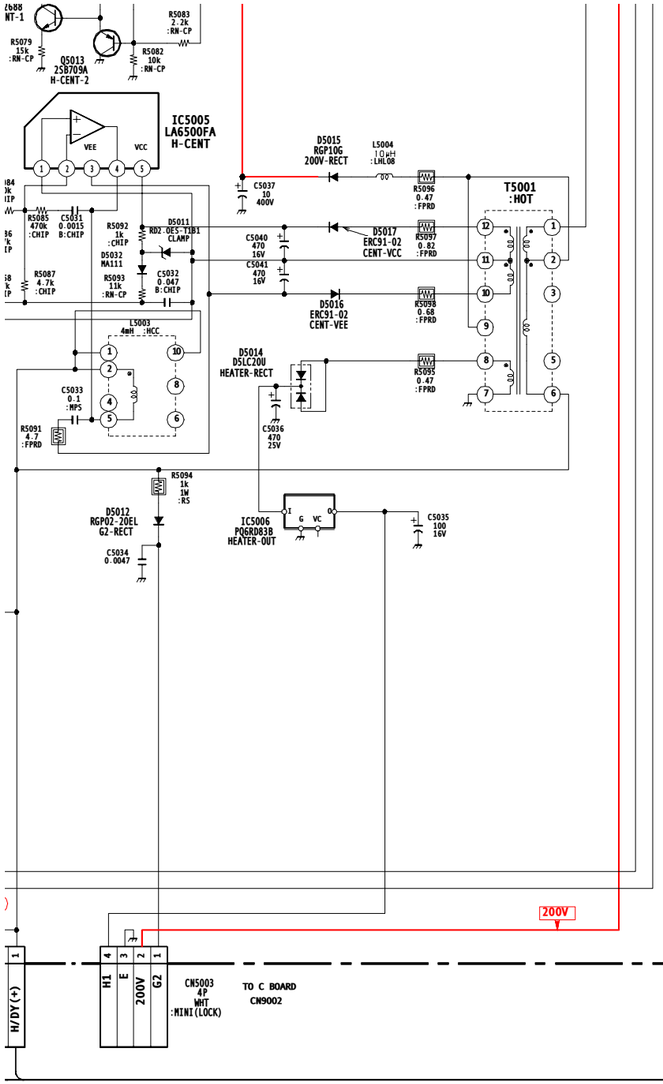

## D BOARD WAVEFORMS

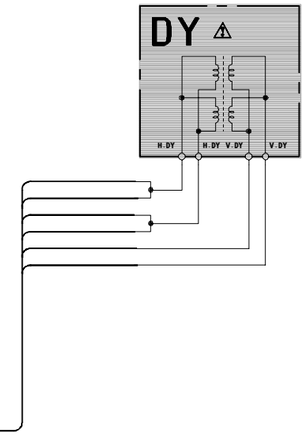
| | | |
|---|---|---|
| 1  12 Vp-p (H) | 2  152.4 Vp-p (H) | 3  12.8Vp-p (H) |
| 4  1.0 KVp-p (H) | 5  8.0 Vp-p (V) | 6  60.2 Vp-p (V) |
| 7  7.3 Vp-p (V) | 8  1.9 Vp-p (V) | 9  94.6 Vp-p (H) |
| 10  1.3 Vp-p (H) | 11  5.1 Vp-p (V) | 12  2.0 Vp-p (H) |
| 13  2.9 Vp-p (H) | 14  1.7 Vp-p (V). | 15  1.5 Vp-p (V) |


TO A BOARD CN3103
E 3
V COMP IN 4
H COMP IN 5
E 6
V PROT 7
H PROT 8
R 9
B 10
13
-15V
MAIN 9V
+15V
Q5021 2SD601A BUFFER1
Q5022 2SB709A BUFFER2
Q5018 2SD601A H PROT
Q5023 2SD601A HSAW-SW
Q5037 2SD601A S-COR-BUFF
Q5019 2SD601A S-COR-DRIVE1
Q5020 2SB709A S-COR-DRIVE2
Q5033 2SB709A BUFF
Q5034 2SD601A H DUTY
Q5026 2SD601A DRIVE1
Q5035 2SD601A H DR BUFF
Q5036 2SD601A BUFF
Q5027 2SB709A DRIVE2
Q5028 2SK2182 DRIVE
Q5030 2SC3997S H-OUT
Q5031 2SK3262 S-COR-OUT
Q5005 2SD601A BUFFER
Q5506 2SD601A H.SAW.RST
IC5007 NJM2901M H-PROT-CONT1
IC5004 STV9379 V-OUT
D5002 GP08DPKG23 PUMP-UP
D5018 MTZJ-15B CLAMP
D5001 MTZJ-5.1B CLAMP
D5019 MA111 PROT
D5023 PG124515 DUMPER
T5002 :HDT
L5005 :HLC
L5001 100uH
TH5001
PROT-OUT
CAUTION !
IC5004 HEAT SINK IS -15V CARE MUST BE TAKEN NOT TO ALLOW HEAT SINK TO TOUCH ANY OTHER COMPONENTS
CN5002 6P :DY
TO DY
V. DY (+)
V. DY (-)
H. DY (-)
H. DY (+)
H/DY (+)
H/DY (+)

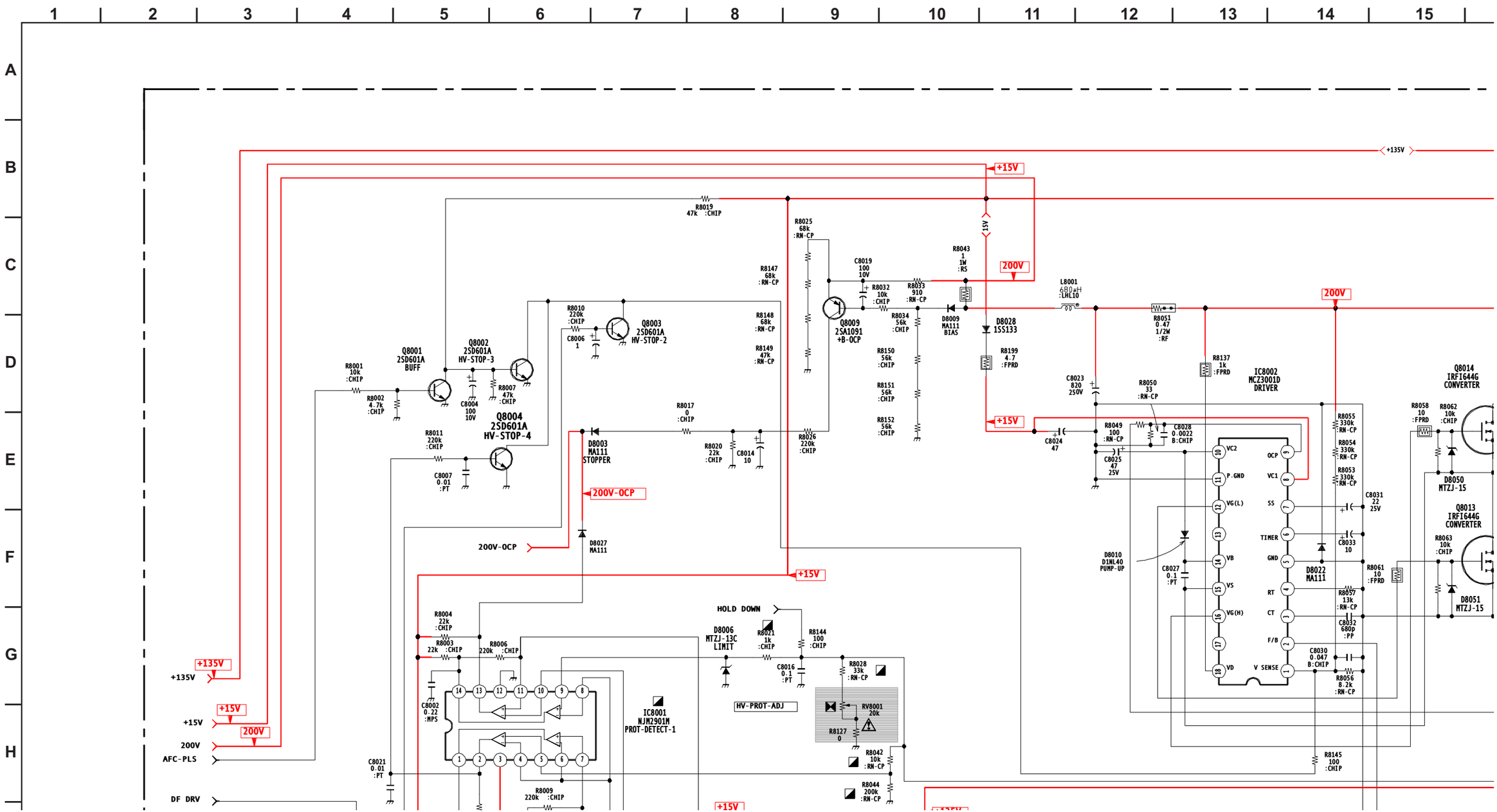
# D (2/3)

H/V DRIVE
H/V DY



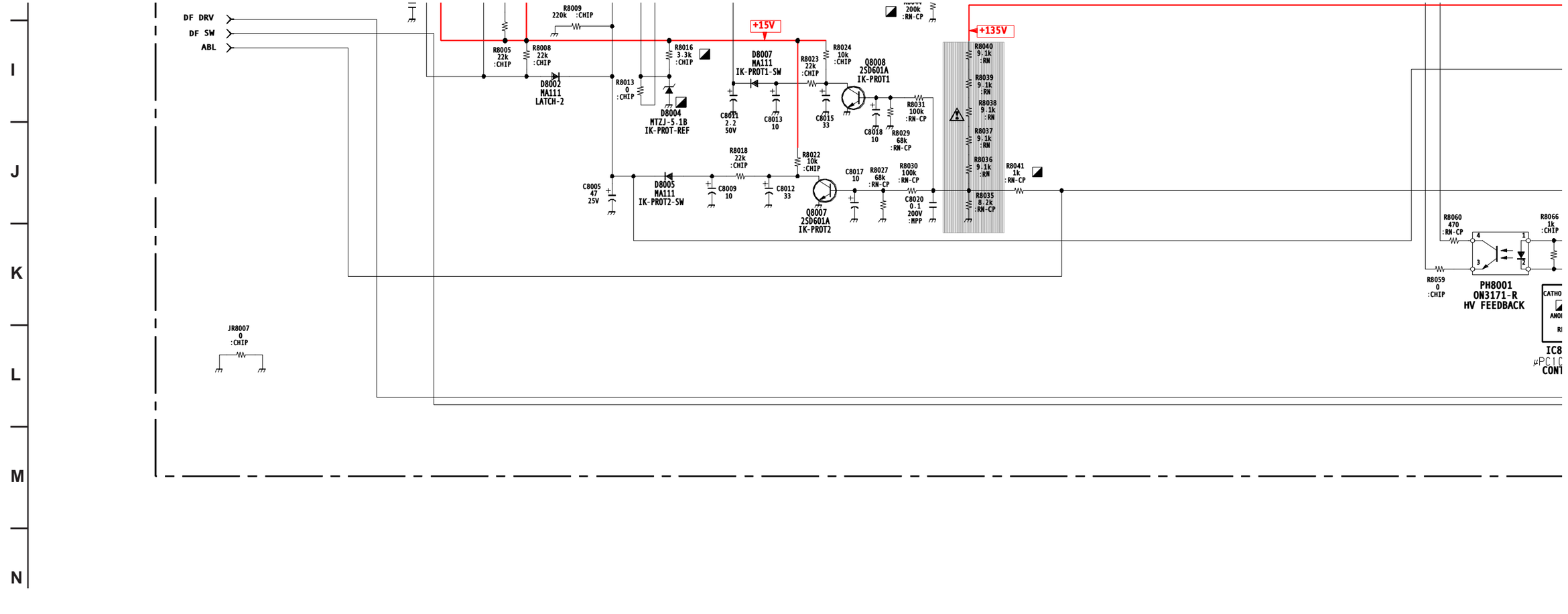
## D BOARD SCHEMATIC DIAGRAM (3 OF 3)

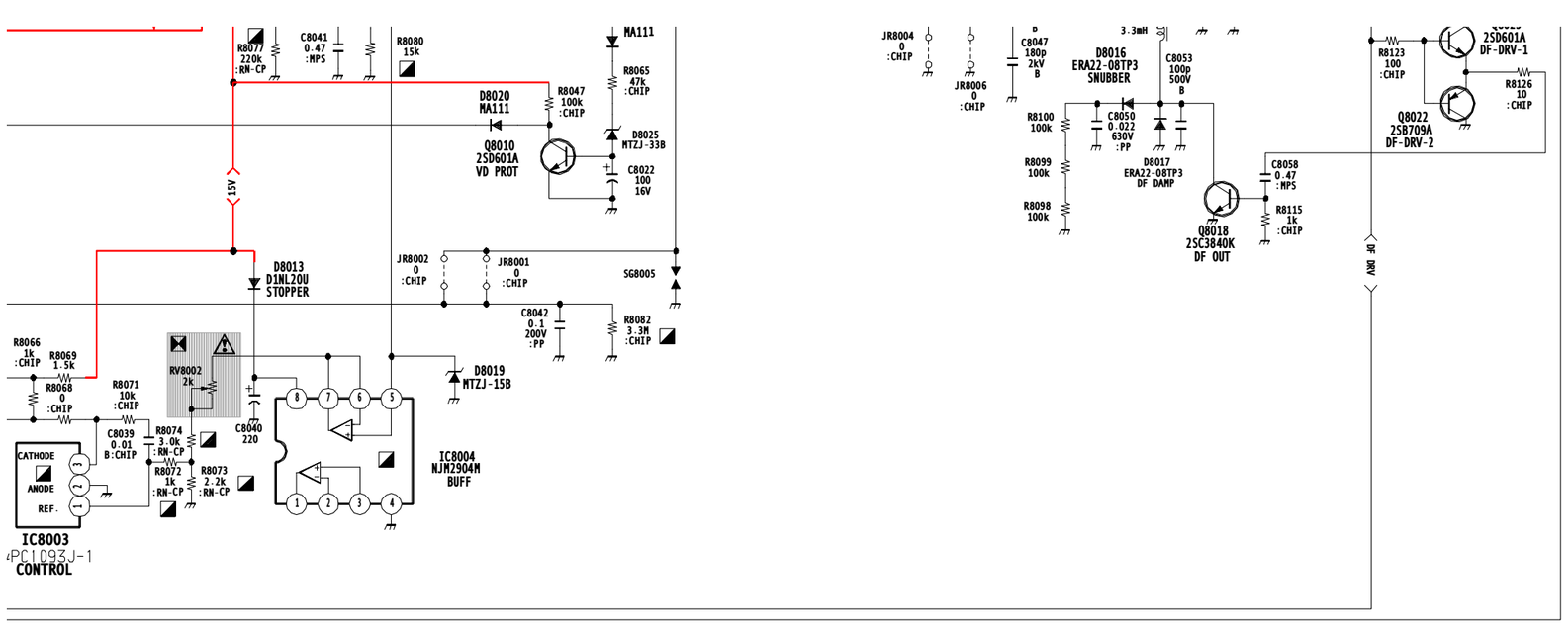


16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28

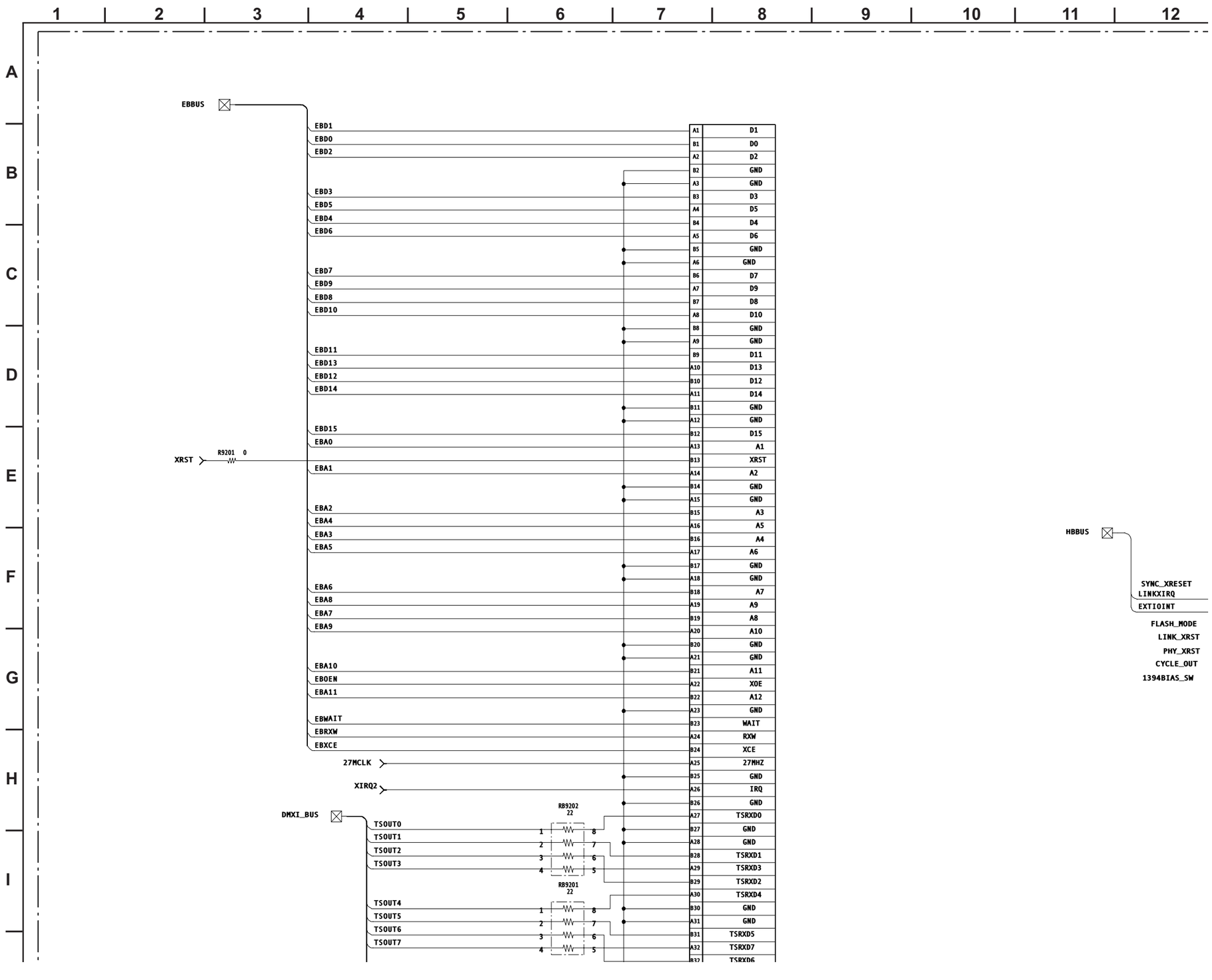
# D (3/3)
DEFLECTION

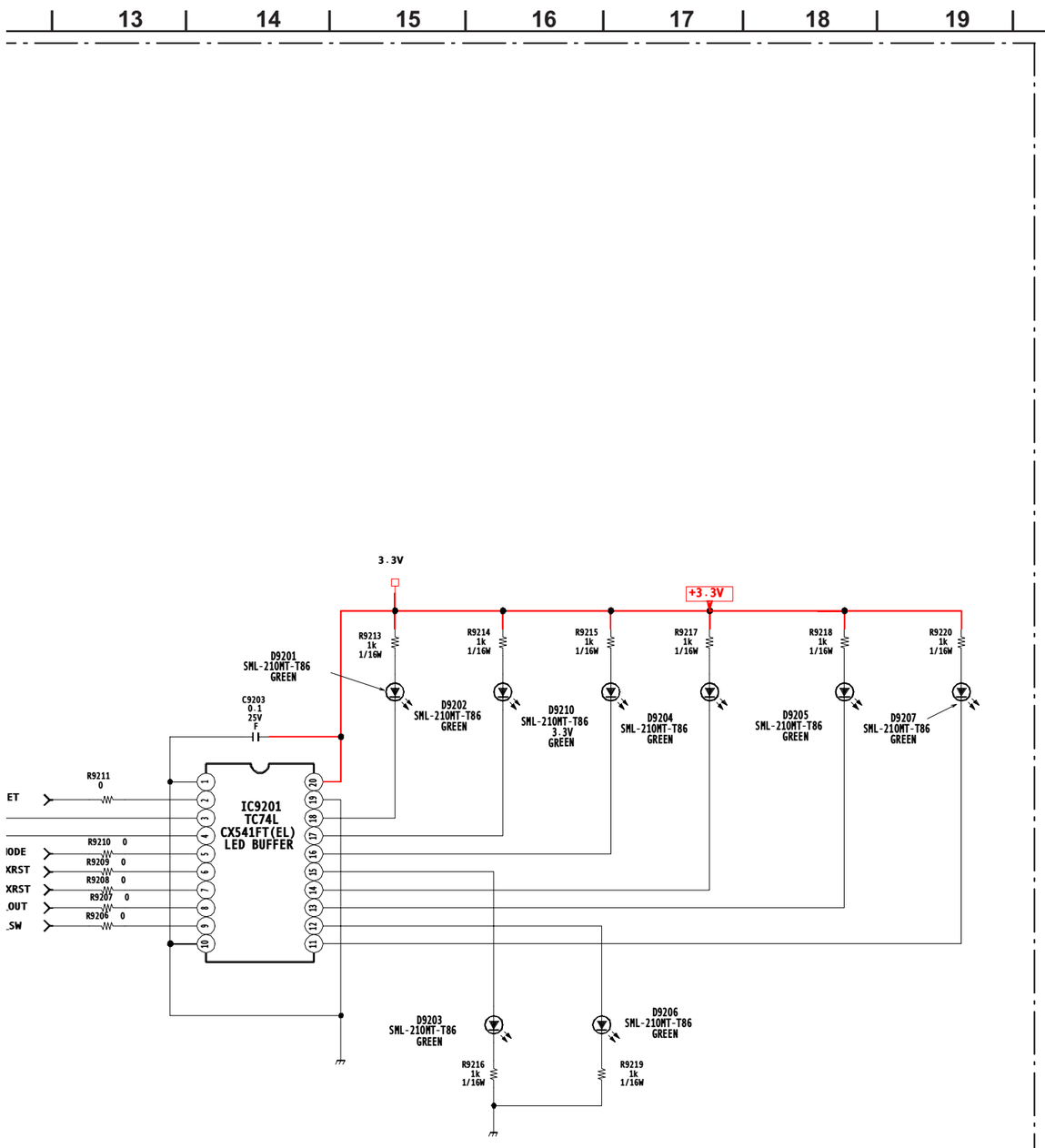
+135V
+15V
L8002 107µH
FB8001 0.45UH
C8036 680p 1kV :R
C8035 680p 1kV :R
C8037 47000p 800V :MPP
R8070 0.1 2W :RB
T8001 NX-6000 :RHT
R8081 0.47 :FPRD
R8078 220k :RN-CP
D8014 RGP10G
R8077 220k
C8041 0.47 :MPS
R8080 15k
D8021 MA111
SG8002
C8063 0.01 630V :MPS
R8085 10k 1/2W
R8086 47k 1/2W
R8087 0 :CHIP
C8045 1000p
R8096 0 :CHIP
R8146 1k :CHIP
C8048 0.1 :PT
D8026 MA111
R8091 470k :RN
R8095 470k :RN
DF SW
C8051 10
R8102 22k :CHIP
R8108 100k :CHIP
R8104 47k :CHIP
C8056 0.01 B:CHIP
R8112 100k :CHIP
R8113 680k :CHIP
R8117 100k :CHIP
R8118 33k :CHIP
C8059 47 10V
Q8020 2SD601A INVER
Q8019 DTC144EKA DF PROT
Q8015 2SC2688 DF ON/OFF SW1
R8093 150k :CHIP
R8101 150k :CHIP
R8103 6.8k :CHIP
Q8016 2SA1776 DF ON/OFF SW2
R8089 47k :CHIP
T8002 :DFT
D8018 D1NL40TA
R8109 6.8k 3W :RS
R8111 6.8k 3W :RS
R8114 6.8k 3W :RS
R8116 5.6k 3W :RS
R8119 5.6k 3W :RS
C8060 4.7 160V
JR8005 0 :CHIP
JR8003 0 :CHIP
JR8004 0 :CHIP
C8046 100p 2kV B
C8047 180p 2kV
L8005 3.3mH
C8054 220p 500V B
C8055 0.0018 :PP
C8053
D8016
R8124 10k :CHIP
R8125 10 :CHIP
R8123
Q8023 2SD601A DF-DRV-1

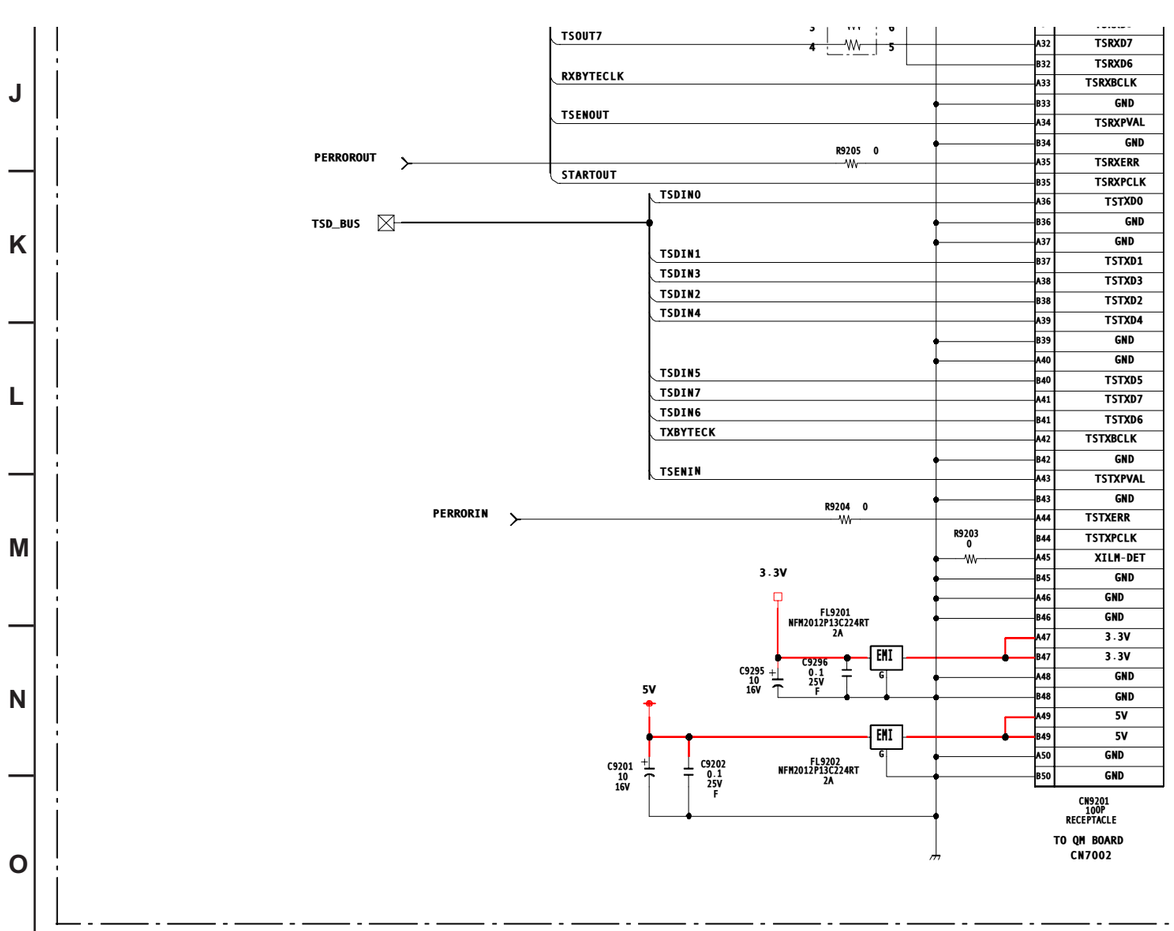

I
J
K
L
M
N
DF DRV
DF SW
ABL
R8009
220k :CHIP
R8005
22k
:CHIP
R8008
22k
:CHIP
D8002
MA111
LATCH-2
R8013
0
:CHIP
R8016
3.3k
:CHIP
D8004
MTZJ-5.1B
IK-PROT-REF
+15V
D8007
MA111
IK-PROT1-SW
C8011
2.2
50V
C8013
10
R8023
22k
:CHIP
R8024
10k
:CHIP
Q8008
2SD601A
IK-PROT1
C8015
33
C8018
10
R8031
100k
:RN-CP
R8029
68k
:RN-CP
R8047
200k
:RN-CP
+135V
R8040
9.1k
:RN
R8039
9.1k
:RN
R8038
9.1k
:RN
R8037
9.1k
:RN
R8036
9.1k
:RN
R8035
8.2k
:RN-CP
R8041
1k
:RN-CP
R8018
22k
:CHIP
R8022
10k
:CHIP
C8005
47
25V
D8005
MA111
IK-PROT2-SW
C8009
10
C8012
33
C8017
10
R8027
68k
:RN-CP
R8030
100k
:RN-CP
C8020
0.1
200V
:MPP
Q8007
2SD601A
IK-PROT2
JR8007
0
:CHIP
R8060
470
:RN-CP
R8066
1k
:CHIP
R8059
0
:CHIP
PH8001
ON3171-R
HV FEEDBACK
CATHO
ANOI
RI
IC8
μPC1
CONT


R8077 220k :RN-CP
C8041 0.47 :MPS
R8080 15k
MA111
R8065 47k :CHIP
R8047 100k :CHIP
D8020 MA111
D8025 MTZJ-33B
Q8010 2SD601A VD PROT
C8022 100 16V
15V
D8013 D1NL20U STOPPER
JR8002 0 :CHIP
JR8001 0 :CHIP
SG8005
C8042 0.1 200V :PP
R8082 3.3M :CHIP
R8066 1k :CHIP
R8069 1.5k
R8068 0 :CHIP
R8071 10k :CHIP
RV8002 2k
C8040 220
D8019 MTZJ-15B
C8039 0.01 B:CHIP
R8074 3.0k :RN-CP
R8072 1k :RN-CP
R8073 2.2k :RN-CP
CATHODE
ANODE
REF.
IC8004 NJM2904M BUFF
IC8003
PC1093J-1
CONTROL
JR8004 0 :CHIP
JR8006 0 :CHIP
C8047 180p 2kV B
3.3mH
D8016 ERA22-08TP3 SNUBBER
C8053 100p 500V B
R8100 100k
C8050 0.022 630V :PP
R8099 100k
D8017 ERA22-08TP3 DF DAMP
R8098 100k
Q8018 2SC3840K DF OUT
C8058 0.47 :MPS
R8115 1k :CHIP
DF ADV
R8123 100 :CHIP
2SD601A DF-DRV-1
R8126 10 :CHIP
Q8022 2SB709A DF-DRV-2

# QI BOARD SCHEMATIC DIAGRAM (1 OF 4)




13
14
15
16
17
18
19
20
21
3.3V
+3.3V
R9213 1k 1/16W
R9214 1k 1/16W
R9215 1k 1/16W
R9217 1k 1/16W
R9218 1k 1/16W
R9220 1k 1/16W
D9201 SML-210MT-T86 GREEN
D9202 SML-210MT-T86 GREEN
D9210 SML-210MT-T86 3.3V GREEN
D9204 SML-210MT-T86 GREEN
D9205 SML-210MT-T86 GREEN
D9207 SML-210MT-T86 GREEN
C9203 0.1 25V F
R9211 0
IC9201 TC74L CX541FT(EL) LED BUFFER
R9210 0
R9209 0
R9208 0
R9207 0
R9206 0
ET
ODE
KRST
XRST
OUT
SW
D9203 SML-210MT-T86 GREEN
D9206 SML-210MT-T86 GREEN
R9216 1k 1/16W
R9219 1k 1/16W


TSOUT7
RXBYTECLK
TSENOUT
PERROROUT
R9205 0
STARTOUT
TSDIN0
TSD_BUS
TSDIN1
TSDIN3
TSDIN2
TSDIN4
TSDIN5
TSDIN7
TSDIN6
TXBYTECK
TSENIN
PERRORIN
R9204 0
R9203 0
3.3V
FL9201 NFM2012P13C224RT 2A
C9295 10 16V
C9296 0.1 25V F
EMI
5V
C9201 10 16V
C9202 0.1 25V F
FL9202 NFM2012P13C224RT 2A
A32 TSRXD7
B32 TSRXD6
A33 TSRXBCLK
B33 GND
A34 TSRXPVAL
B34 GND
A35 TSRXERR
B35 TSRXPCLK
A36 TSTXD0
B36 GND
A37 GND
B37 TSTXD1
A38 TSTXD3
B38 TSTXD2
A39 TSTXD4
B39 GND
A40 GND
B40 TSTXD5
A41 TSTXD7
B41 TSTXD6
A42 TSTXBCLK
B42 GND
A43 TSTXPVAL
B43 GND
A44 TSTXERR
B44 TSTXPCLK
A45 XILM-DET
B45 GND
A46 GND
B46 GND
A47 3.3V
B47 3.3V
A48 GND
B48 GND
A49 5V
B49 5V
A50 GND
B50 GND
CN9201 100P RECEPTACLE
TO QM BOARD CN7002

J

K

L

M

N

O

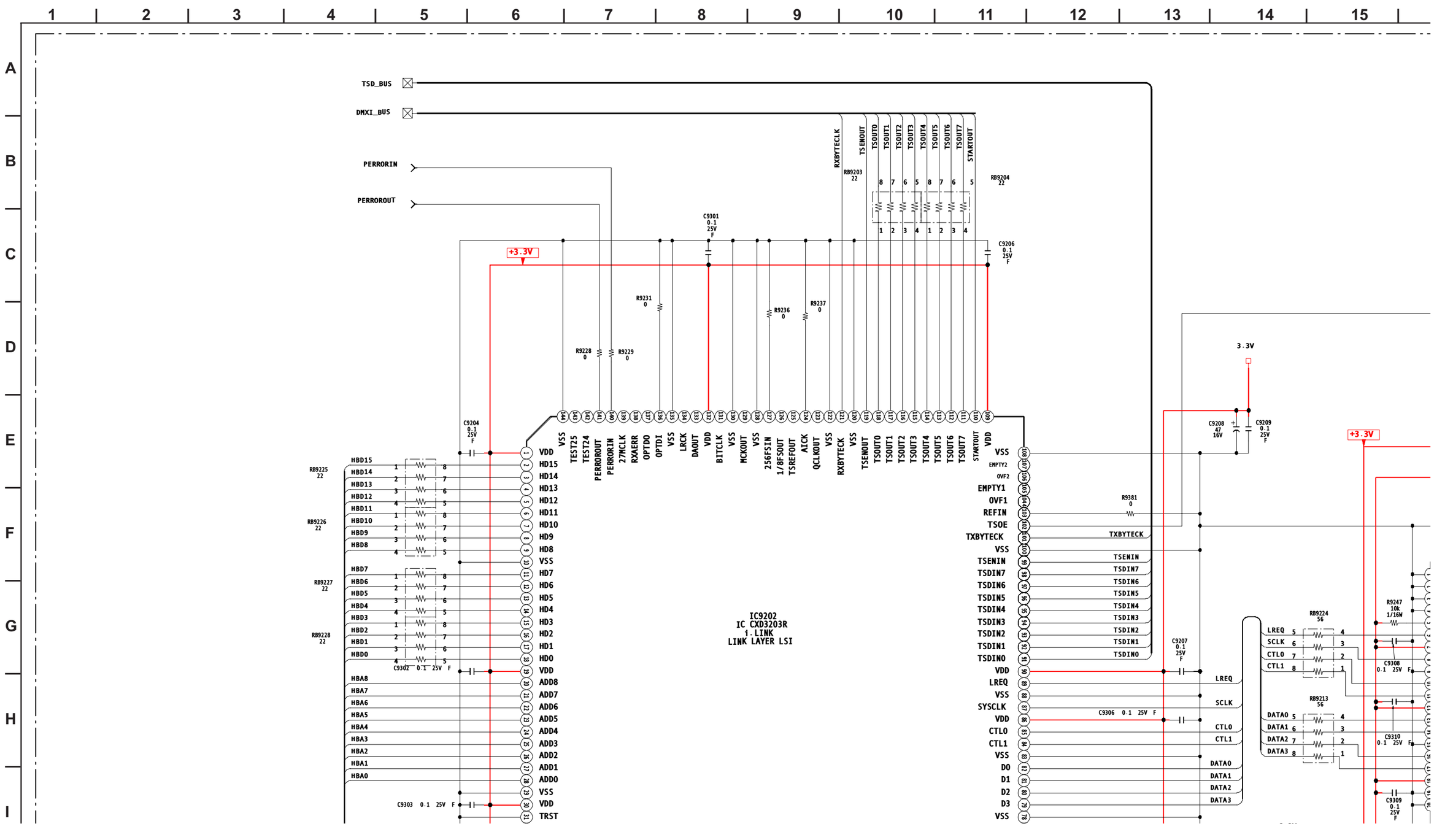
P

# QI BOARD (1/4)

## BOARD-TO-BOARD CONNECTOR

9-965-916-02<HA3>QI P1

## QI BOARD SCHEMATIC DIAGRAM (2 OF 4)



16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28

R9379 0

TSOE

C9307 0.1 25V F

R9250 10k 1/16W

C9215 22 16V

C9216 0.1 25V F

+3.3V

IC9203
CXD1945R
i.LINK
PHYSICAL LAYER
IC

PC1 PC2 DVSS DVSS LPS LREQ DVDD SCLK DVSS CTL0 CTL1 DVDD D0 D1 DVSS D2 D3 DVDD DVSS DVSS

DVDD PCO CMC/LINK ON DIRECT TESTO TEST1 DVSS AVDD2 AVSS DVSS DVSS DVSS DVSS DVSS DVSS NC NC DVDD NC NC

TPAOP TPAON TPBOP TPBON TPA1P TPA1N TPB1P TPB1N TPA2P TPA2N TPB2P TPB2N TPBIAS0 TPBIAS1 TPBIAS2 AVDD1 AVSS CPS REXT VREF

R9272 56 1/16W

R9273 56 1/16W

FL9203 ACM2012-201-2P

CN9203

R9274 56 1/16W

R9276 56 1/16W

C9232 270p 50V CH

R9275 5.1k 1/16W

FL9204 ACM2012-201-2P

C9225 0.1 25V F

FL9205 ACM2012-201-2P

CN9204

R9263 56 1/16W

R9265 56 1/16W

R9266 56 1/16W

R9270 56 1/16W

C9227 0.1 25V F

C9228 270p 50V CH

R9269 5.1k 1/16W

FL9206 ACM2012-201-2P

C9223 0.1 25V F

C9297 0.1 25V F

R9258 1k 1/16W

R9260 470 1/16W

R9262 150 1/16W

R9256 10k 1/16W

C9224 0.01 25V B

R9271 47k 1/16W

D9208 MA152WA-TX

R9264 120 1/16W

C9230 1000 50V

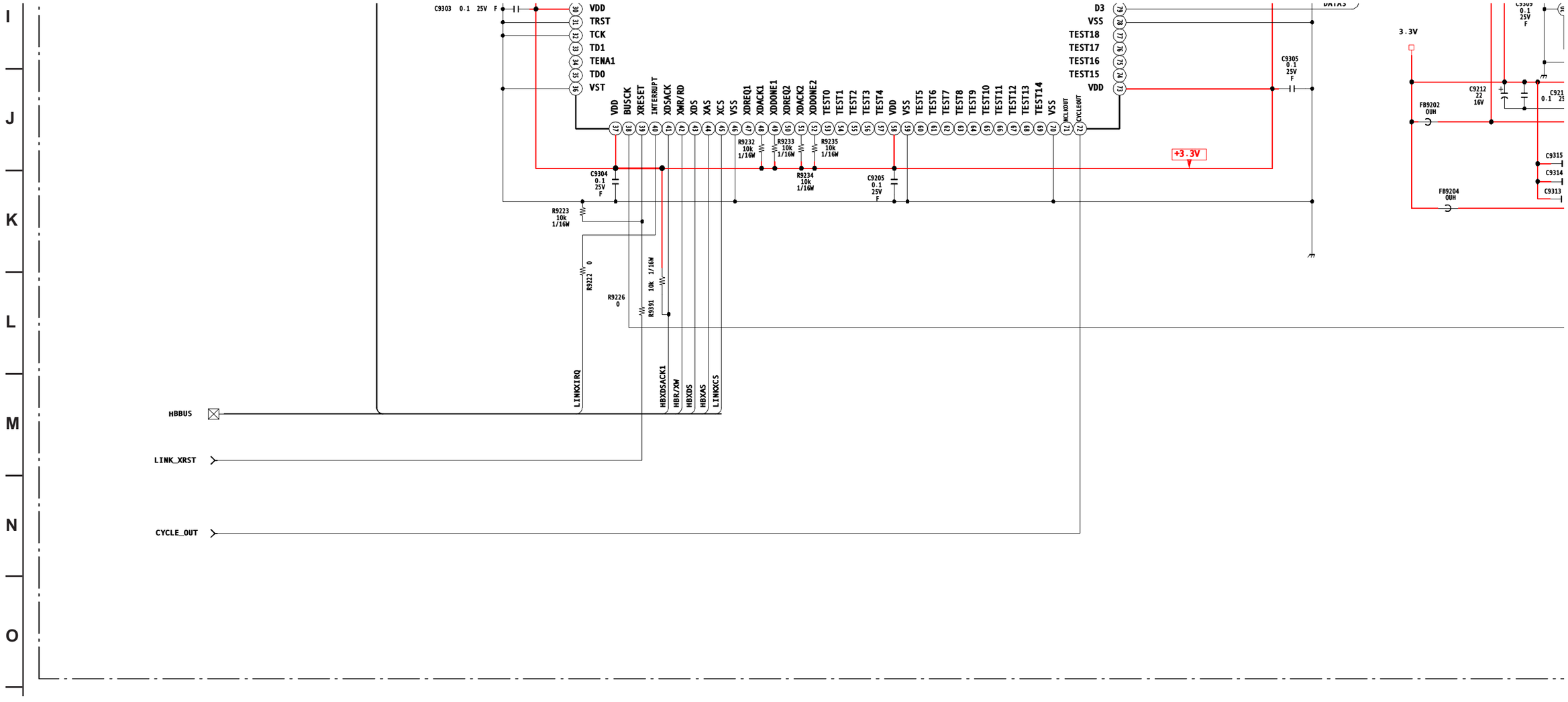
5V

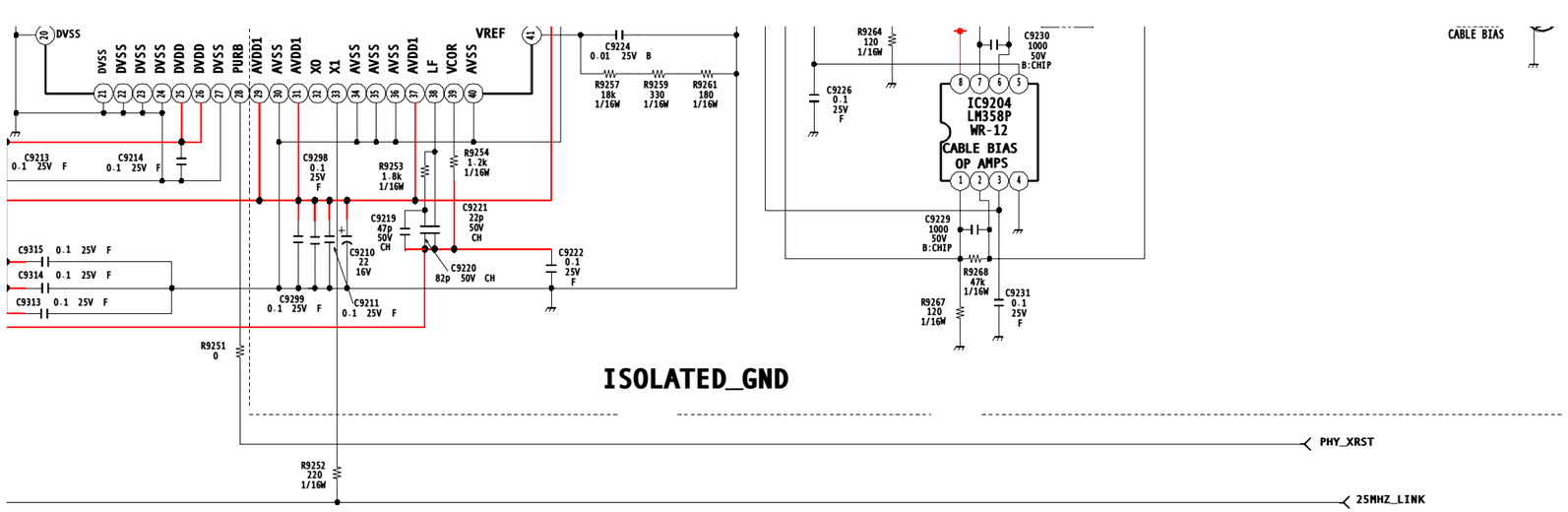
R9277 10k 1/16W

R9278 10k 1/16W

Q9201 2SD2216J CABLE BIAS

1394BIAS_SW

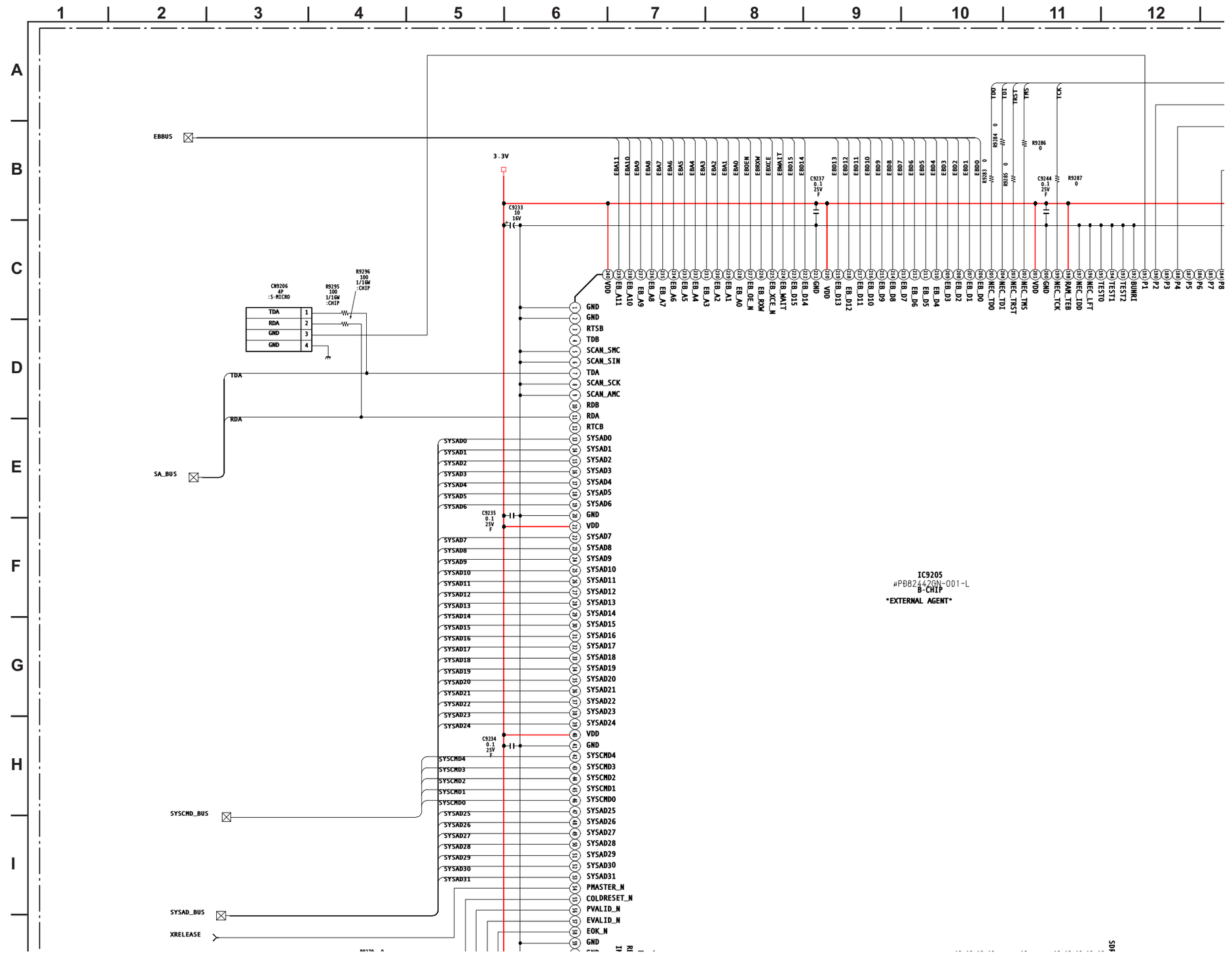

C9303 0.1 25V F
VDD
TRST
TCK
TD1
TENA1
TDO
VST
VDD BUSCK XRESET INTERRUPT XDSACK XWR/RD XDS XAS XCS VSS XDREQ1 XDACK1 XDDONE1 XDREQ2 XDACK2 XDDONE2 TEST0 TEST1 TEST2 TEST3 TEST4 VDD VSS TEST5 TEST6 TEST7 TEST8 TEST9 TEST10 TEST11 TEST12 TEST13 TEST14 VSS MCLKOUT CYCLEOUT
D3
VSS
TEST18
TEST17
TEST16
TEST15
VDD
C9305 0.1 25V F
R9232 10k 1/16W
R9233 10k 1/16W
R9235 10k 1/16W
R9234 10k 1/16W
C9304 0.1 25V F
C9205 0.1 25V F
+3.3V
R9223 10k 1/16W
R9222 0
R9226 0
R9391 10k 1/16W
LINKXIRQ
HBXDSACK1
HBR/XW
HBXDS
HBXAS
LINKXCS
HBBUS
LINK_XRST
CYCLE_OUT
3.3V
FB9202 0UH
C9212 22 16V
FB9204 0UH
C9315
C9314
C9313




# QI BOARD (2/4)

## LINK-AND-PHY

# QI BOARD SCHEMATIC DIAGRAM (3 OF 4)



13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21

JTAG_BUS
TSOE
FLASH_MODE
LINK_XRST
PHY_XRST
XIRQ2

+3.3V
C9247 10 16V
R9382 10K 1/16W
C9246 0.1 25V F
C9245 0.1 25V F

P7
P8
P9
P10
VDD
GND
GND
P11
P12
P13
P14
P15
P00
TIMER_CLK
INTINRSV_N
INTIN0_N
INTIN1_N
INTIN2_N
HBSIZ0
HBSIZ1
HBDSACK0_N
HBDSACK1_N
HBCS0_N
HBCS1_N
GND
VDD
HBCS2_N
HBRW_N
ROMWE_N
ROMOE_N
ROMCE0_N
ROMCE1_N
ROMCE2_N
HBDS_N
GND
HBAS_N
HB_D15
HB_D14
HB_D13
HB_D12
HB_D11
HB_D10
HB_D9
HB_D8
HB_D7
VDD
GND
HB_D6
HB_D5
HB_D4
HB_D3
HB_D2
HB_D1
HB_D0
HB_A20
HB_A19
HB_A18
HB_A17
HB_A16
HB_A15
HB_A14
HB_A13
HB_A12
GND

1394BIAS_SW
R9293 1k 1/16W :CHIP

R9289 47k 1/16W

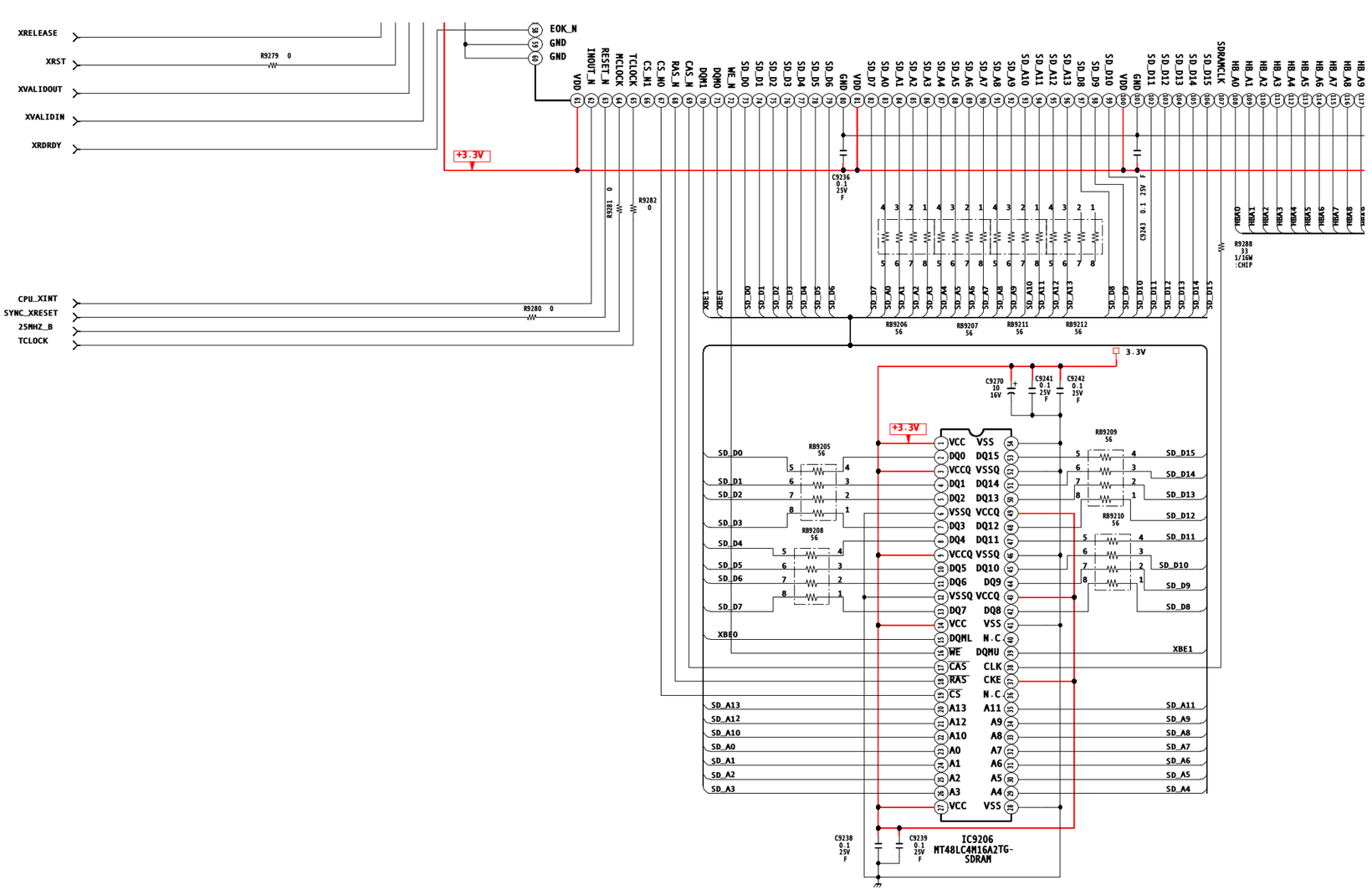
LINKXIRQ
EXTIOINT
PCIINT
HBSIZ0
HBSIZ1
HBXDSACK0
HBXDSACK1
LINKXCS
GAXCS
HBR/XW
ROMXWE
ROMXOE
ROMXCE
FLASHXCE0
FLASHXCE1
HBXDS
HBXAS
HBD15
HBD14
HBD13
HBD12
HBD11
HBD10
HBD9
HBD8
HBD7
HBD6
HBD5
HBD4
HBD3
HBD2
HBD1
HBD0
HBA20
HBA19
HBA18
HBA17
HBA16
HBA15
HBA14
HBA13
HBA12

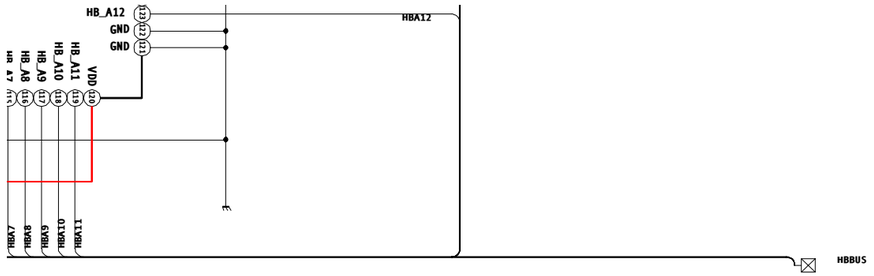
3.3V
C9249 0.1 25V F

IC9207
TC4069UBFT(EL.N)
TIMER
CLK INVERTERS

R9290 10M 1/16W
R9291 330k 1/16W
R9292 0
C9251 220p 50V CH
X9202 32.768KHz
C9248 22p 50V CH
C9250 22p 50V CH

ROM_BUS

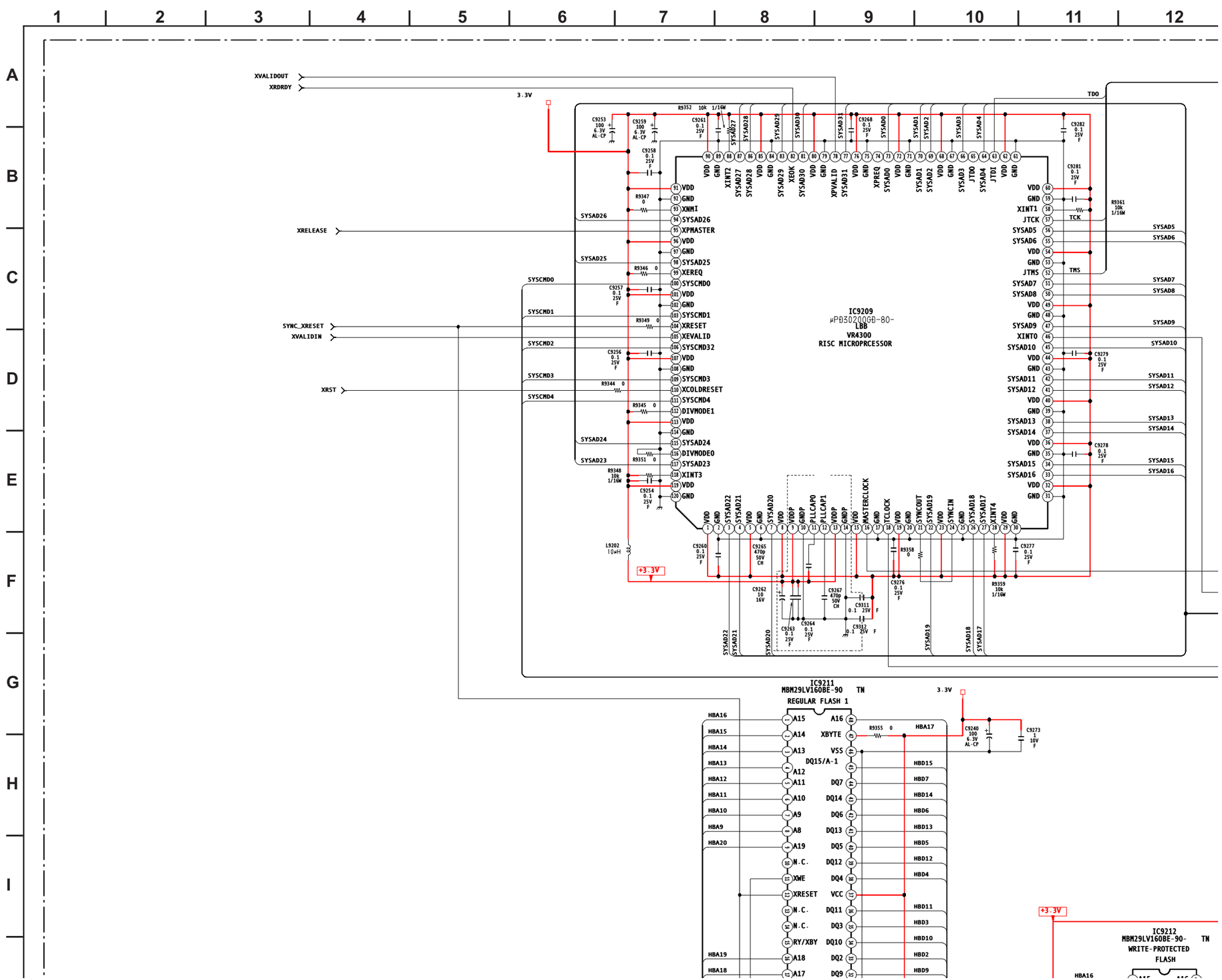

XRELEASE
XRST
XVALIDOUT
XVALIDIN
XRDRDY
R9279 0
EOK_N
GND
GND
+3.3V
C9236 0.1 25V F
C9243 0.1 25V F
R9288 33 1/10W :CHIP
R9281 0
R9282 0
CPU_XINT
SYNC_XRESET
25MHZ_B
TCLOCK
R9280 0
RB9206 56
RB9207 56
RB9211 56
RB9212 56
3.3V
C9270 10 16V
C9241 0.1 25V F
C9242 0.1 25V F
RB9205 56
RB9208 56
RB9209 56
RB9210 56
SD_D0
SD_D1
SD_D2
SD_D3
SD_D4
SD_D5
SD_D6
SD_D7
XBE0
XBE1
SD_A13
SD_A12
SD_A10
SD_A0
SD_A1
SD_A2
SD_A3
SD_D15
SD_D14
SD_D13
SD_D12
SD_D11
SD_D10
SD_D9
SD_D8
SD_A11
SD_A9
SD_A8
SD_A7
SD_A6
SD_A5
SD_A4
C9238 0.1 25V F
C9239 0.1 25V F
IC9206
MT48LC4M16A2TG-
SDRAM



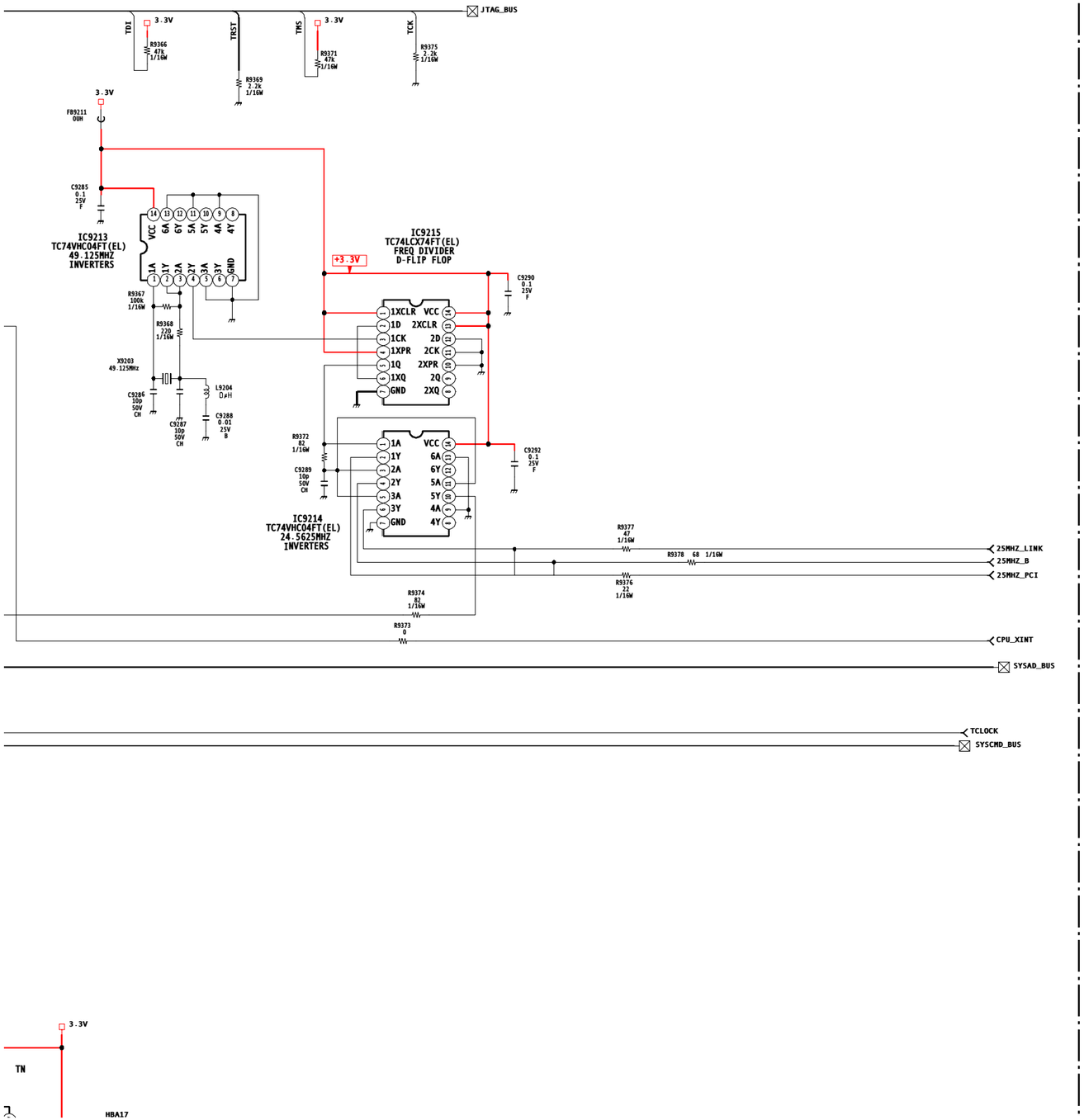

# QI BOARD (3/4)

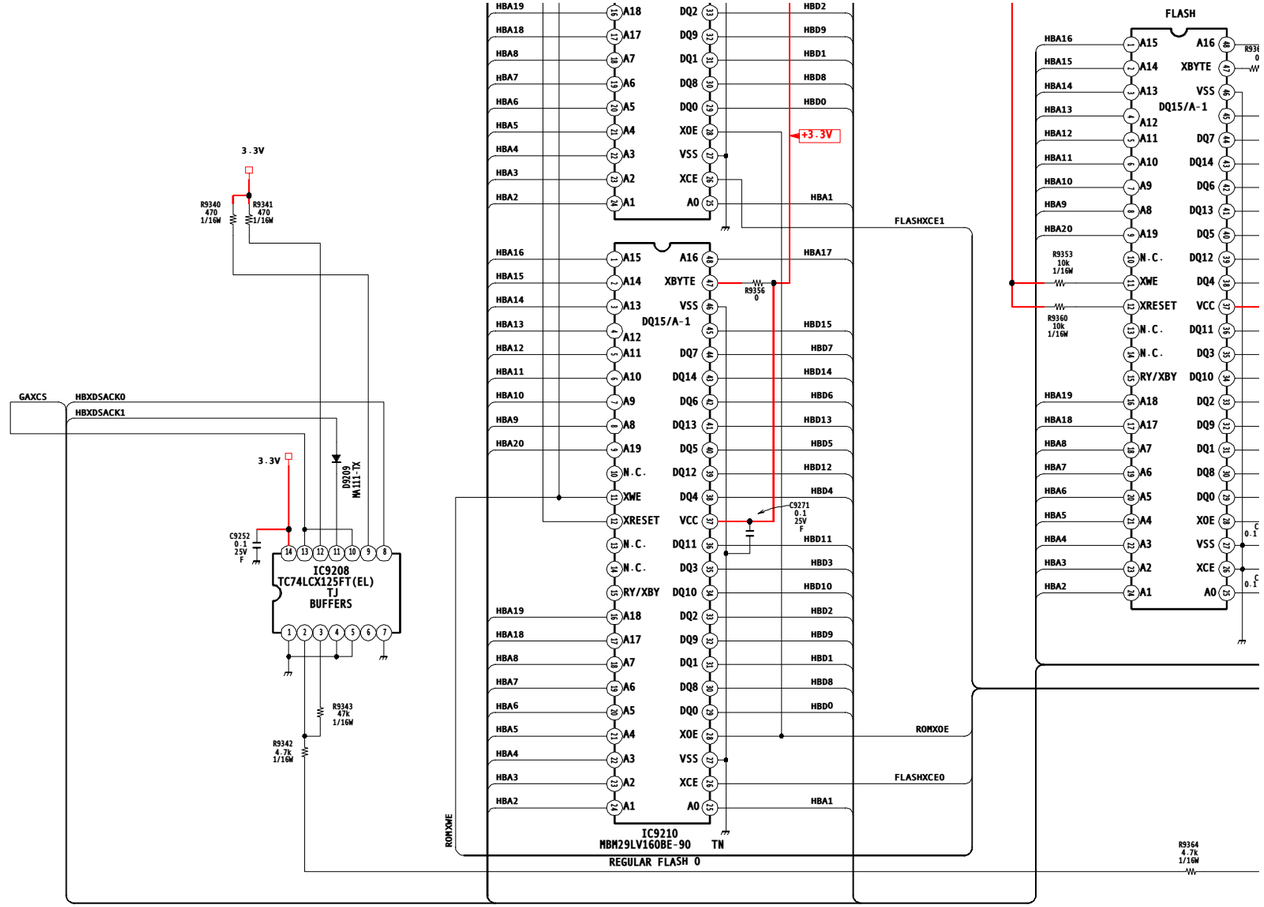
## BCHIP-AND-SDRAM

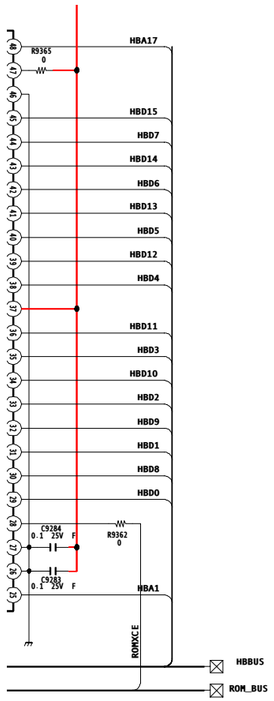
# QI BOARD SCHEMATIC DIAGRAM (4 OF 4)



13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21




3.3V
R9340 470 1/16W
R9341 470 1/16W
GAXCS
HBXDSACK0
HBXDSACK1
3.3V
C9252 0.1 25V F
DSD09 MA111-TX
IC9208
TC74LCX125FT(EL)
TJ
BUFFERS
R9343 47K 1/16W
R9342 4.7K 1/16W
HBA19
HBA18
HBA8
HBA7
HBA6
HBA5
HBA4
HBA3
HBA2
HBA16
HBA15
HBA14
HBA13
HBA12
HBA11
HBA10
HBA9
HBA20
A18
A17
A7
A6
A5
A4
A3
A2
A1
A15
A14
A13
A12
A11
A10
A9
A8
A19
N.C.
XWE
XRESET
N.C.
N.C.
RY/XBY
DQ2
DQ9
DQ1
DQ8
DQ0
XOE
VSS
XCE
A0
DQ15/A-1
DQ7
DQ14
DQ6
DQ13
DQ5
DQ12
DQ4
VCC
DQ11
DQ3
DQ10
HBD2
HBD9
HBD1
HBD8
HBD0
HBA17
HBD15
HBD7
HBD14
HBD6
HBD13
HBD5
HBD12
HBD4
HBD11
HBD3
HBD10
+3.3V
HBA1
FLASHXCE1
C9271 0.1 25V F
ROMXOE
FLASHXCE0
ROMXWE
IC9210
MBM29LV160BE-90 TN
REGULAR FLASH 0
FLASH
XBYTE
VSS
DQ15/A-1
N.C.
XWE
XRESET
N.C.
N.C.
RY/XBY
R9353 10k 1/16W
R9360 10k 1/16W
R9364 4.7k 1/16W

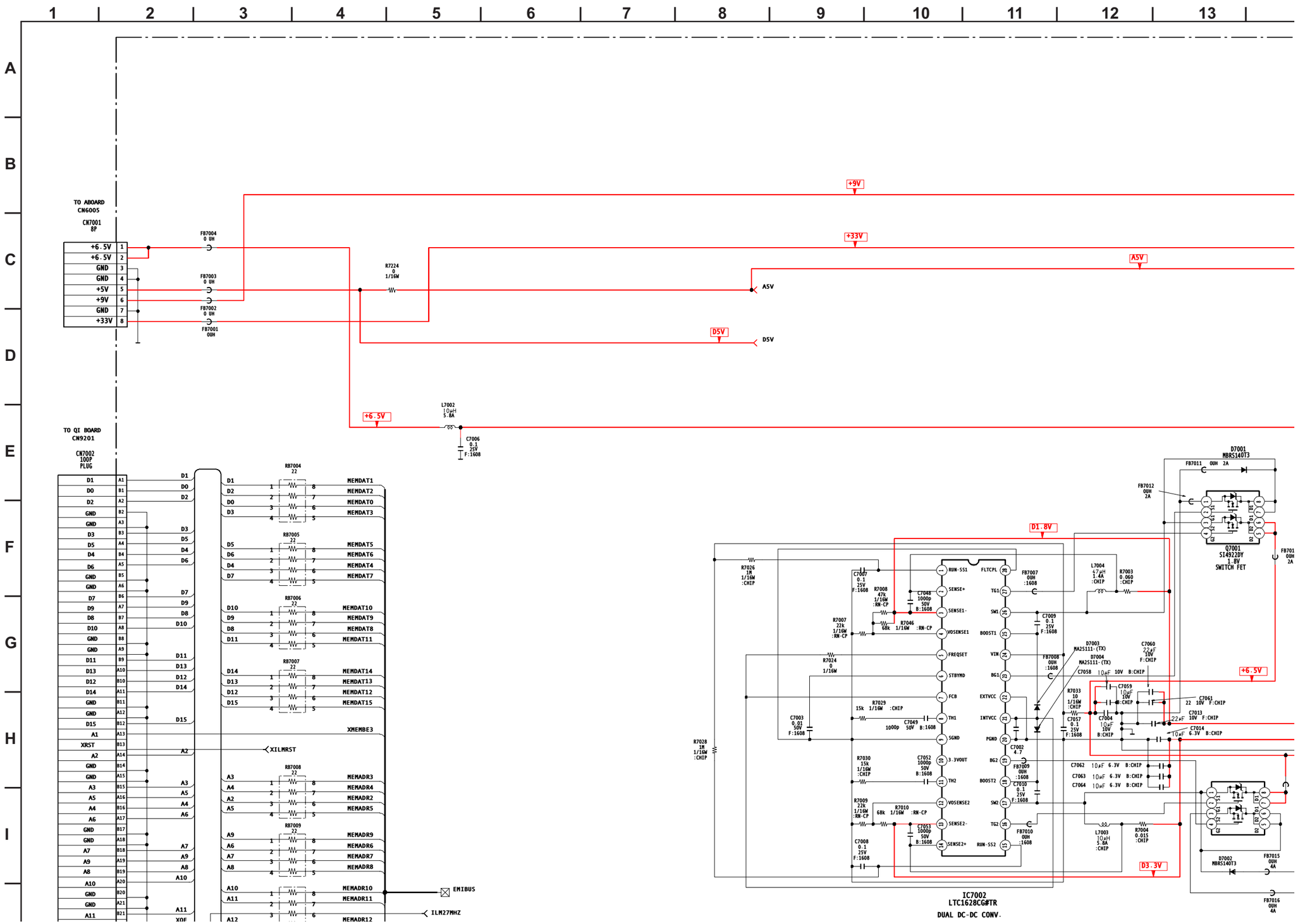


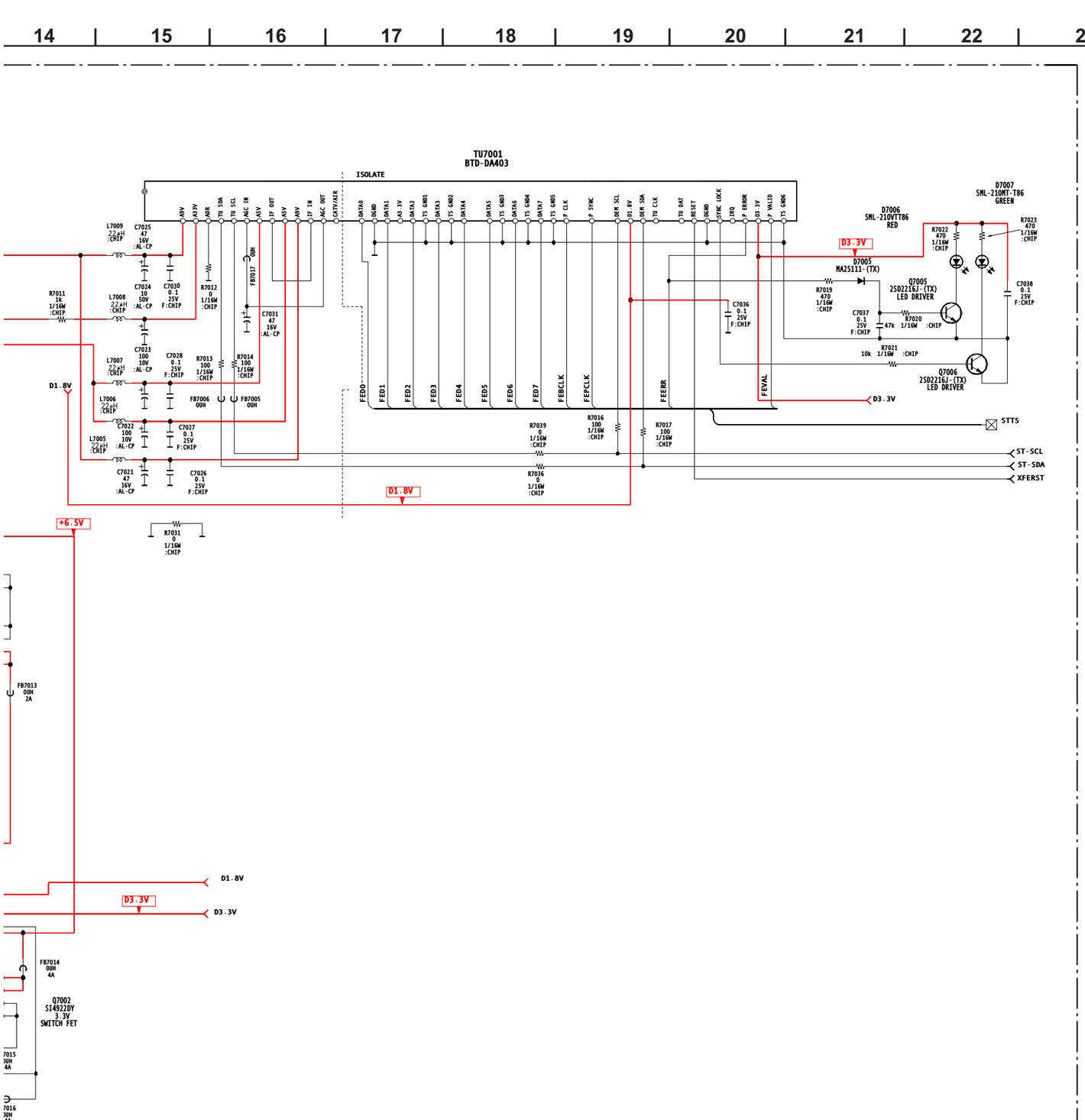

# QI BOARD (4/4)

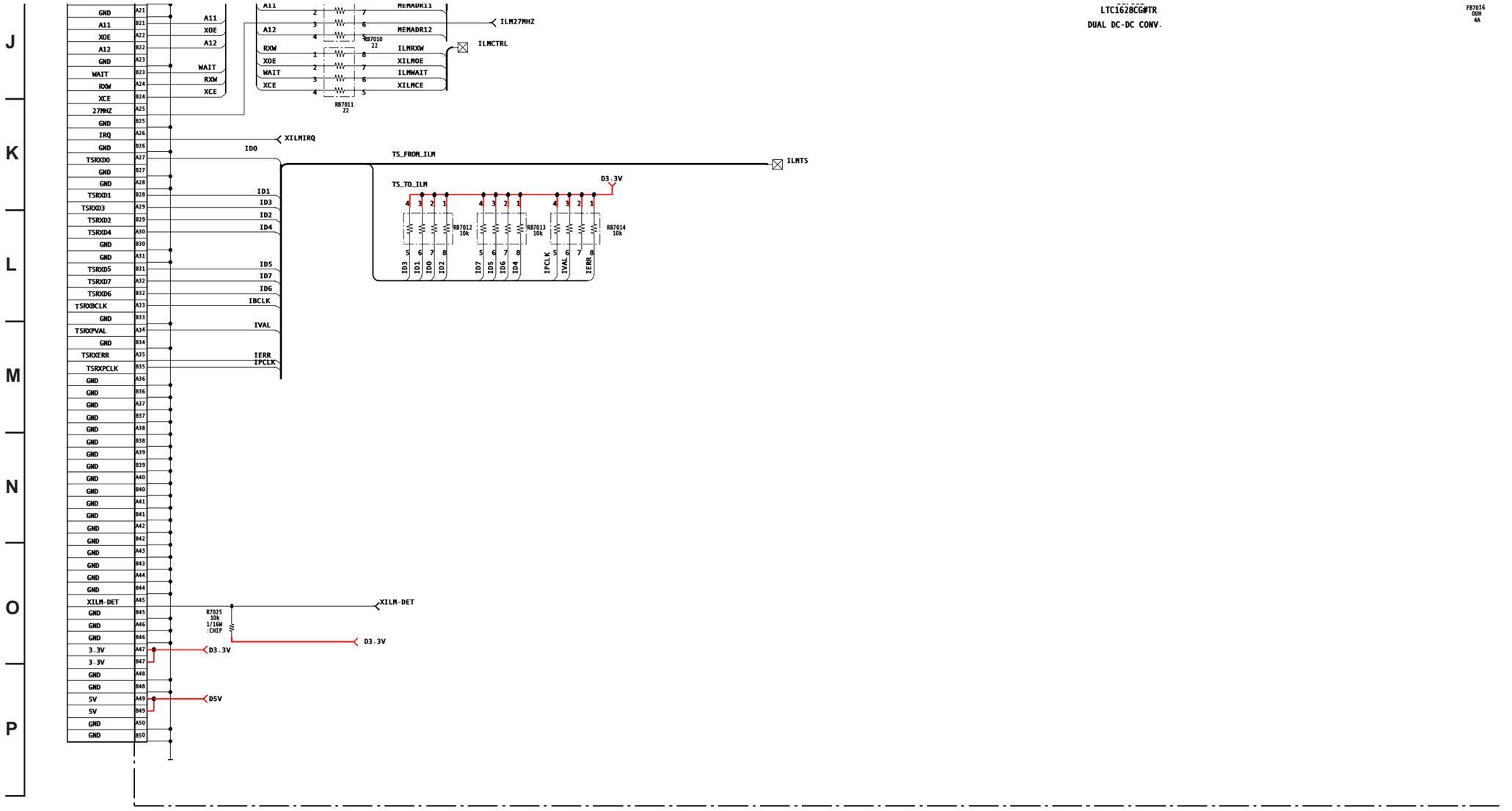
## VR4300

## FLASH-AND-PROM

# QM BOARD SCHEMATIC DIAGRAM (1 OF 9)




14
15
16
17
18
19
20
21
22
23
TU7001
BTD-DA403
ISOLATE
D7007
SML-210MT-T86
GREEN
D7006
SML-210VTT86
RED
D3.3V
D7005
MA2S111-(TX)
Q7005
2SD2216J-(TX)
LED DRIVER
Q7006
2SD2216J-(TX)
LED DRIVER
D1.8V
+6.5V
STTS
ST-SCL
ST-SDA
XFERST
FED0
FED1
FED2
FED3
FED4
FED5
FED6
FED7
FEBCLK
FEPCLK
FEERR
FEVAL
Q7002
SI4922DY
3.3V
SWITCH FET


J
K
L
M
N
O
P
GND A21
A11 B21
XOE A22
A12 B22
GND A23
WAIT B23
RXW A24
XCE B24
27MHZ A25
GND B25
IRQ A26
GND B26
TSRXD0 A27
GND B27
GND A28
TSRXD1 B28
TSRXD3 A29
TSRXD2 B29
TSRXD4 A30
GND B30
GND A31
TSRXD5 B31
TSRXD7 A32
TSRXD6 B32
TSRXBCLK A33
GND B33
TSRXPVAL A34
GND B34
TSRXERR A35
TSRXPCLK B35
GND A36
GND B36
GND A37
GND B37
GND A38
GND B38
GND A39
GND B39
GND A40
GND B40
GND A41
GND B41
GND A42
GND B42
GND A43
GND B43
GND A44
GND B44
XILM-DET A45
GND B45
GND A46
GND B46
3.3V A47
3.3V B47
GND A48
GND B48
5V A49
5V B49
GND A50
GND B50
A11
XOE
A12
WAIT
RXW
XCE
A11
A12
RXW
XOE
WAIT
XCE
MEMADR11
MEMADR12
ILMRXW
XILMOE
ILMWAIT
XILMCE
RB7010 22
RB7011 22
ILM27MHZ
ILMCTRL
XILMIRQ
ID0
ID1
ID3
ID2
ID4
ID5
ID7
ID6
IBCLK
IVAL
IERR
IPCLK
TS_FROM_ILM
ILMTS
TS_TO_ILM
D3.3V
RB7012 10k
RB7013 10k
RB7014 10k
ID3 ID1 ID0 ID2
ID7 ID5 ID6 ID4
IPCLK IVAL IERR
R7025 10k 1/16W :CHIP
XILM-DET
D3.3V
D5V

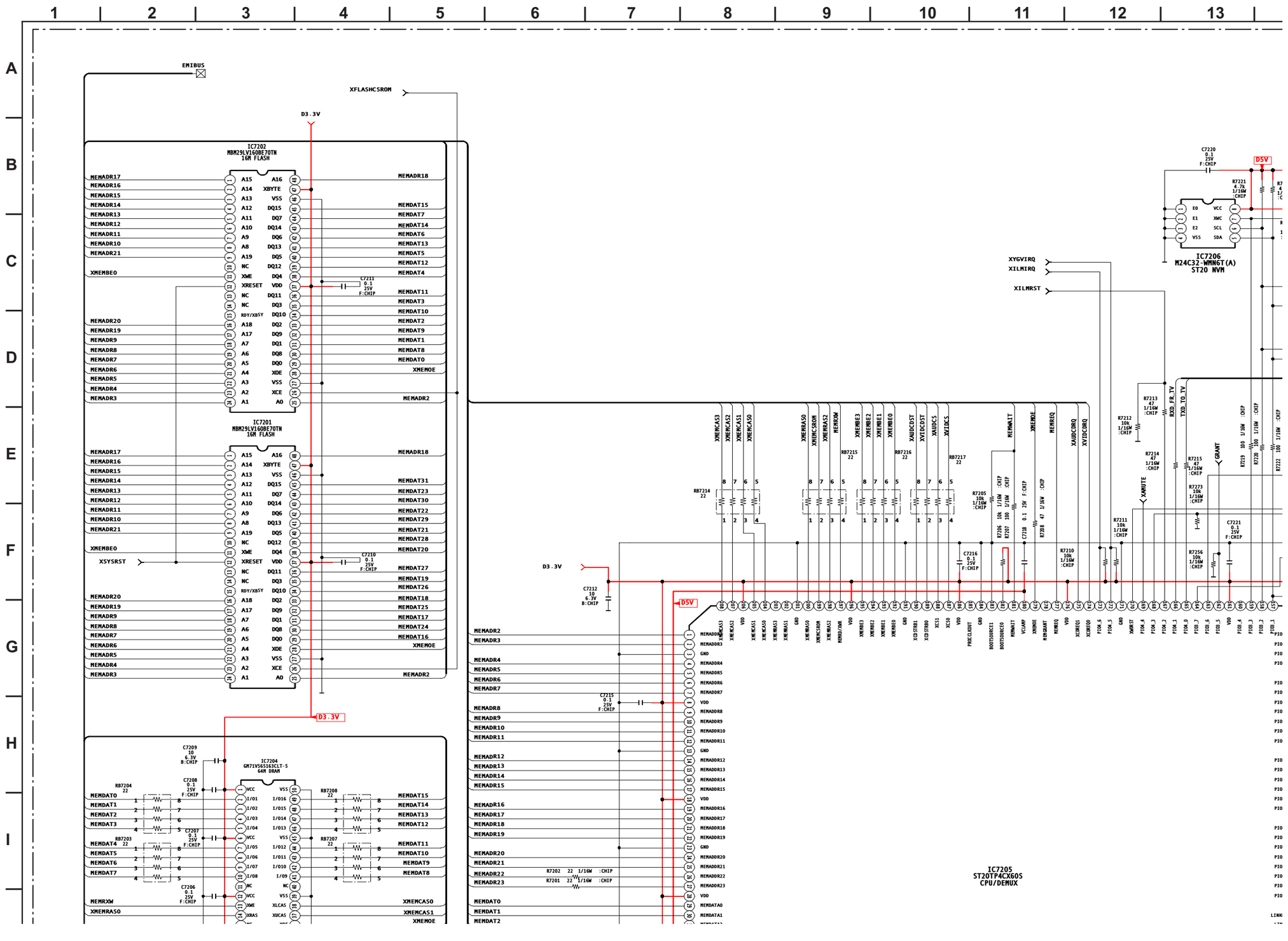
7016
XUH
4A

# QM BOARD 1/9

# FE-PS

9-965-916-02<HA3>QM P1

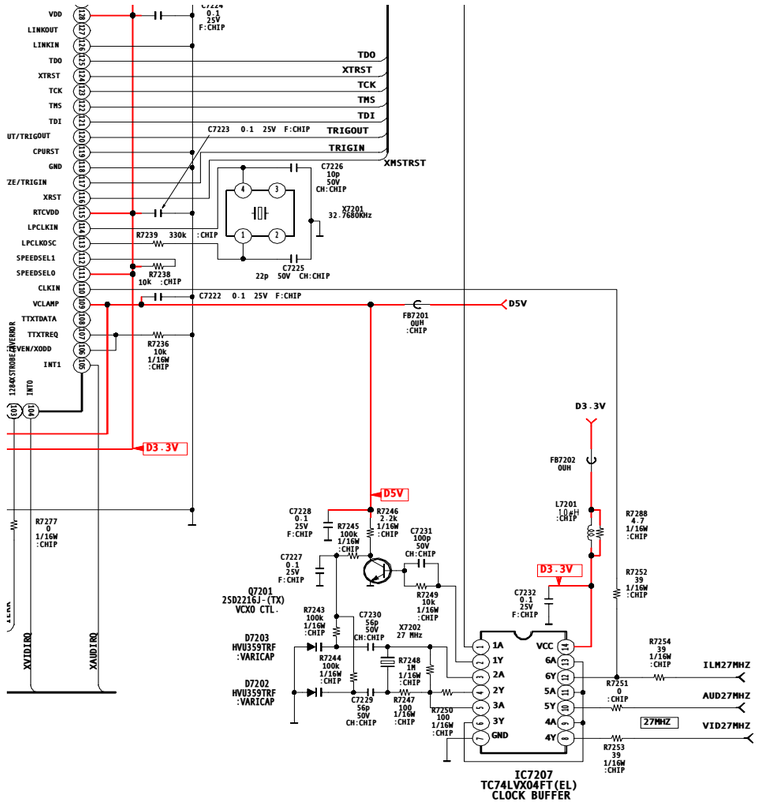
# QM BOARD SCHEMATIC DIAGRAM (2 OF 9)

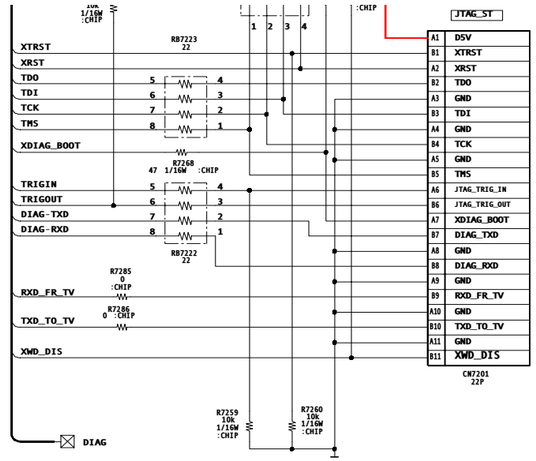

1 2 3 4 5 6 7 8 9 10 11 12 13
A B C D E F G H I
EMIBUS
XFLASHCSROM
D3.3V
IC7202
MBM29LV160BE70TN
16M FLASH
MEMADR17 MEMADR16 MEMADR15 MEMADR14 MEMADR13 MEMADR12 MEMADR11 MEMADR10 MEMADR21 XMEMBEO XSYSRST MEMADR20 MEMADR19 MEMADR9 MEMADR8 MEMADR7 MEMADR6 MEMADR5 MEMADR4 MEMADR3
A15 A14 A13 A12 A11 A10 A9 A8 A19 NC XWE XRESET NC NC RDY/XBSY A18 A17 A7 A6 A5 A4 A3 A2 A1
A16 XBYTE VSS DQ15 DQ7 DQ14 DQ6 DQ13 DQ5 DQ12 DQ4 VDD DQ11 DQ3 DQ10 DQ2 DQ9 DQ1 DQ8 DQ0 XDE VSS XCE AO
MEMADR18 MEMDAT15 MEMDAT7 MEMDAT14 MEMDAT6 MEMDAT13 MEMDAT5 MEMDAT12 MEMDAT4 MEMDAT11 MEMDAT3 MEMDAT10 MEMDAT2 MEMDAT9 MEMDAT1 MEMDAT8 MEMDAT0 XMEMOE MEMADR2
C7211 0.1 25V F:CHIP
IC7201
MBM29LV160BE70TN
16M FLASH
MEMADR17 MEMADR16 MEMADR15 MEMADR14 MEMADR13 MEMADR12 MEMADR11 MEMADR10 MEMADR21 XMEMBEO XSYSRST MEMADR20 MEMADR19 MEMADR9 MEMADR8 MEMADR7 MEMADR6 MEMADR5 MEMADR4 MEMADR3
A15 A14 A13 A12 A11 A10 A9 A8 A19 NC XWE XRESET NC NC RDY/XBSY A18 A17 A7 A6 A5 A4 A3 A2 A1
A16 XBYTE VSS DQ15 DQ7 DQ14 DQ6 DQ13 DQ5 DQ12 DQ4 VDD DQ11 DQ3 DQ10 DQ2 DQ9 DQ1 DQ8 DQ0 XDE VSS XCE AO
MEMADR18 MEMDAT31 MEMDAT23 MEMDAT30 MEMDAT22 MEMDAT29 MEMDAT21 MEMDAT28 MEMDAT20 MEMDAT27 MEMDAT19 MEMDAT26 MEMDAT18 MEMDAT25 MEMDAT17 MEMDAT24 MEMDAT16 XMEMOE MEMADR2
C7210 0.1 25V F:CHIP
D3.3V
C7209 10 6.3V B:CHIP
IC7204
GM71VS65163CLT-5
64M DRAM
R87204 22
MEMDAT0 MEMDAT1 MEMDAT2 MEMDAT3
C7208 0.1 25V F:CHIP
R87203 22
MEMDAT4 MEMDAT5 MEMDAT6 MEMDAT7
C7207 0.1 25V F:CHIP
C7206 0.1 25V F:CHIP
MEMRXW XMEMRAS0
VCC I/01 I/02 I/03 I/04 VCC I/05 I/06 I/07 I/08 NC VCC XWE XRAS
VSS I/016 I/015 I/014 I/013 VSS I/012 I/011 I/010 I/09 NC VSS XLCAS XUCAS
R87208 22
MEMDAT15 MEMDAT14 MEMDAT13 MEMDAT12
R87207 22
MEMDAT11 MEMDAT10 MEMDAT9 MEMDAT8
XMEMCAS0 XMEMCAS1 XMEMOE
C7220 0.1 25V F:CHIP
D5V
R7221 4.7K 1/10W :CHIP
IC7206
M24C32-WMN6T(A)
ST20 NVM
E0 E1 E2 VSS VCC XWC SCL SDA
XYGVIRQ XILMIRQ XILMRST
R7213 47 1/16W :CHIP
R7212 10k 1/16W :CHIP
RXD_FR_TV TXD_TO_TV
R7214 47 1/16W :CHIP
R7215 47 1/16W :CHIP
GRANT
XAMUTE
R7273 10k 1/16W :CHIP
R7211 10k 1/16W :CHIP
C7221 0.1 25V F:CHIP
R7256 10k 1/16W :CHIP
XMEMCAS3 XMEMCAS2 XMEMCAS1 XMEMCAS0
R87214 22
XMEMRAS0 XMEMCSROM XMEMRAS2 MEMROM
XMEMBE3 XMEMBE2 XMEMBE1 XMEMBE0
R87215 22
XAUDCOST XVIDCOST XAUDCS XVIDCS
R87216 22
R87217 22
MEMWAIT XMEMOE MEMREQ XAUDCDRQ XVIDCDRQ
R7205 10k 1/16W :CHIP
R7206 10k 1/16W :CHIP
R7207 100 1/16W :CHIP
C7216 0.1 25V F:CHIP
C7218 0.1 25V F:CHIP
R7208 47 1/16W :CHIP
R7210 10k 1/16W :CHIP
D3.3V
C7212 10 6.3V B:CHIP
D5V
C7215 0.1 25V F:CHIP
R7202 22 1/16W :CHIP
R7201 22 1/16W :CHIP
IC7205
ST20TP4CX60S
CPU/DEMUX
MEMADR2 MEMADR3 MEMADR4 MEMADR5 MEMADR6 MEMADR7 MEMADR8 MEMADR9 MEMADR10 MEMADR11 MEMADR12 MEMADR13 MEMADR14 MEMADR15 MEMADR16 MEMADR17 MEMADR18 MEMADR19 MEMADR20 MEMADR21 MEMADR22 MEMADR23 MEMDAT0 MEMDAT1 MEMDAT2
MEMADR2 MEMADR3 GND MEMADR4 MEMADR5 MEMADR6 MEMADR7 VDD MEMADR8 MEMADR9 MEMADR10 MEMADR11 GND MEMADR12 MEMADR13 MEMADR14 MEMADR15 VDD MEMADR16 MEMADR17 MEMADR18 MEMADR19 GND MEMADR20 MEMADR21 MEMADR22 MEMADR23 VDD MEMDATA0 MEMDATA1
XMEMCAS3 XMEMCAS2 VDD XMEMCAS1 XMEMCAS0 XMEMRAS3 XMEMRAS1 GND XMEMRAS0 XMEMCSROM XMEMRAS2 MEMROM/XWR VDD XMEMBE3 XMEMBE2 XMEMBE1 XMEMBE0 GND XCDSTRB1 XCDSTRB0 XCS1 XCS0 VDD PROCCLKOUT GND BOOTSSOURCE1 BOOTSSOURCE0 MEMWAIT VCLAMP XMEMOE MEMGRANT MEMREQ VDD XCDRQ1 XCDRQ0 XCDBEQ0 PIO4_6 PIO4_5 GND XWRST PIO4_4 PIO4_3 PIO4_2 PIO4_1 PIO4_0 PIO3_7 PIO3_6 PIO3_5 VDD PIO3_4 PIO3_3 PIO3_2 PIO3_1 PIO
PIO PIO PIO

14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24

D5V
D5V
R7223 4.7k 1/16W :CHIP
R7285 47k 1/10W :CHIP
SCL_EXT
SDA_EXT
CN7204 4P WHT :S-MICRO
1 ST-SCL
2 SCL_EXT
3 ST-SDA
4 SDA_EXT
ST-SCL
ST-SDA
D5V
D7204 LN25RP50 :RED
R7284 56 1/16W :CHIP
R7283 56 1/16W :CHIP
R7281 10k 1/16W :CHIP
Q7203 2SD2216J LED DRIVER
R7282 10k 1/16W :CHIP
R7222 100 1/16W :CHIP
D3.3V
R7276 10k 1/16W :CHIP
R7258 10k 1/16W :CHIP
XB0XRST
D3.3V
D3.3V
IC7209 TC74LVX08FT(EL) RESET
C7234 0.1 25V F:CHIP
IC7208 MAX811TEUS-T RESET CONTROL
MICON_RST
R7266 10k 1/16W :CHIP
R7267 10k 1/16W :CHIP
Q7202 2SD2216J-(TX) INVERTER
C7233 0.1 25V F:CHIP
RESET THRESHOLD = 3.0V
X7000RST
R7264 0 1/16W :CHIP
XSYSRST
D7201 SML-210VTT86 RED
R7235 1k 1/16W :CHIP
D3.3V
D3.3V
R7274 10k 1/16W :CHIP
R7275 10k 1/16W :CHIP
HDELAY
XFERST
XYGVRST
R7271 10k 1/16W :CHIP
XSYNC
M2
R7270 10k 1/16W :CHIP
XILM-DET
XDIAG_BOOT
RB7221 22
INS
BS
CLK
DIO
XWD_DIS
DIAG-RXD
DIAG-TXD
C7224 0.1 25V F:CHIP
XRST
XMSTRST
D3.3V
R7263 10k 1/16W :CHIP
CN7202 10P MEMORY STICK
1 GND
2 BS
3 RESERVED
4 DIO
5 RESERVED
6 INS
7 RESERVED
8 SCLK
9 VCC
10 GND
BS
DIO
INS
CLK
D3.3V
C7235 0.1 25V F:CHIP
D3.3V
D3.3V
RB7224 10k
R7261 10k 1/16W :CHIP
R7257 10k 1/16W :CHIP
D5V
R7262 10k 1/16W :CHIP
JTAG_ST
A1 D5V
RB7223

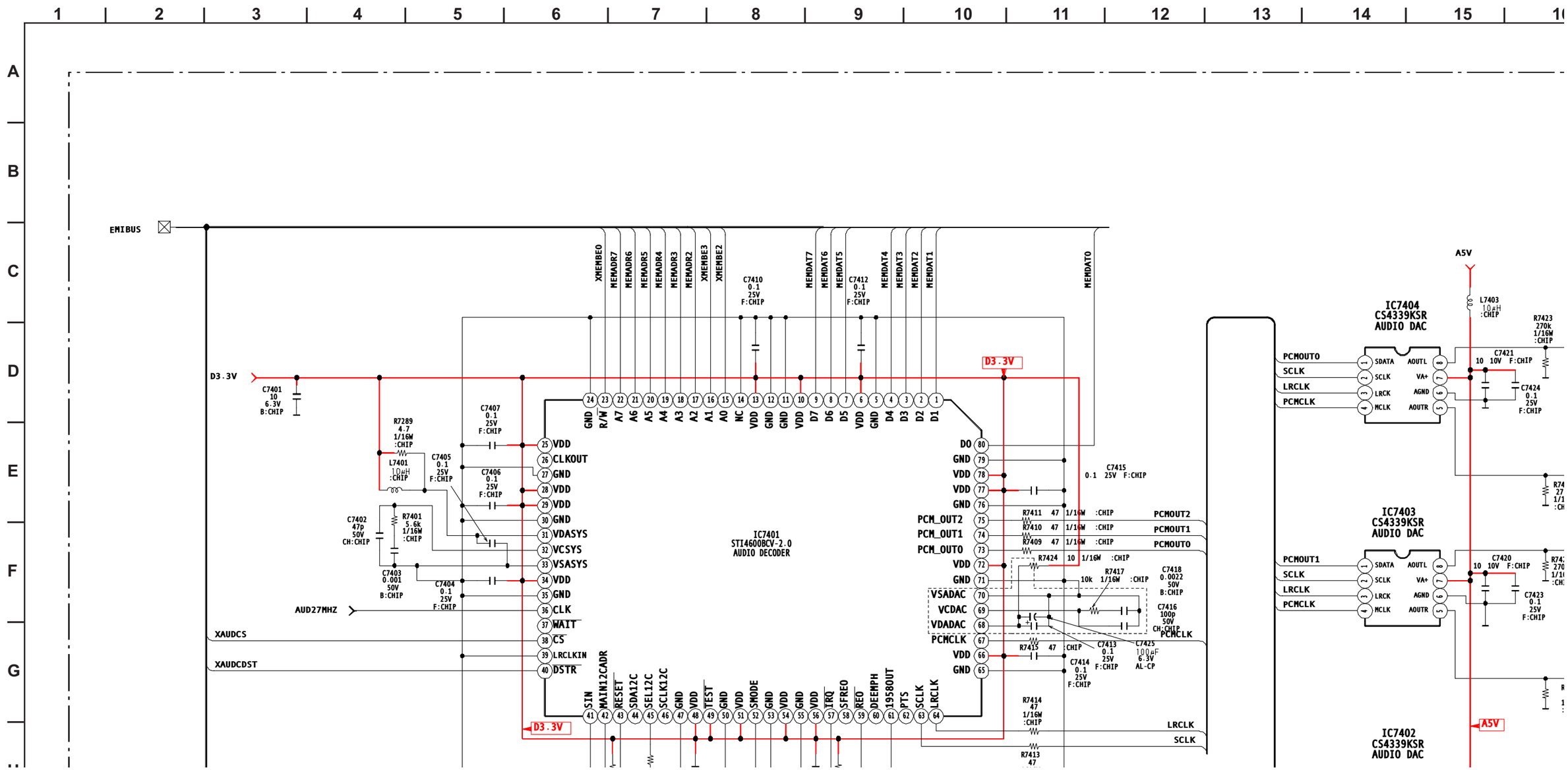
J
K
L
M
N
O
P
MEMRXW
XMEMRAS0
MEMADR2
MEMADR3
MEMADR4
MEMADR5
MEMADR6
MEMADR7
MEMDAT16
MEMDAT17
MEMDAT18
MEMDAT19
MEMDAT20
MEMDAT21
MEMDAT22
MEMDAT23
F:CHIP
C7205 0.1 25V F:CHIP
C7204 0.1 25V F:CHIP
C7203 0.1 25V F:CHIP
C7202 0.1 25V F:CHIP
C7201 0.1 25V F:CHIP
RB7202 22
RB7203 22
D3.3V
IC7203
GM71VS65163CLT-5
64M DRAM
XWE
XRAS
XCAS
NC
A2
A3
A4
A5
A6
A7
VCC
I/O1
I/O2
I/O3
I/O4
I/O5
I/O6
I/O7
I/O8
XLCAS
XUCAS
XOE
A13
A12
A11
A10
A9
A8
VSS
I/O16
I/O15
I/O14
I/O13
I/O12
I/O11
I/O10
I/O9
RB7206 22
RB7205 22
XMEMCAS0
XMEMCAS1
XMEMOE
MEMADR13
MEMADR12
MEMADR11
MEMADR10
MEMADR9
MEMADR8
MEMDAT31
MEMDAT30
MEMDAT29
MEMDAT28
MEMDAT27
MEMDAT26
MEMDAT25
MEMDAT24
XMEMCAS2
XMEMCAS3
XMEMOE
MEMADR13
MEMADR12
MEMADR11
MEMADR10
MEMADR9
MEMADR8
MEMDAT0
MEMDAT1
MEMDAT2
MEMDAT3
MEMDAT4
MEMDAT5
MEMDAT6
MEMDAT7
MEMDAT8
MEMDAT9
MEMDAT10
MEMDAT11
MEMDAT12
MEMDAT13
MEMDAT14
MEMDAT15
MEMDAT16
MEMDAT17
MEMDAT18
MEMDAT19
C7214 0.1 25V F:CHIP
C7213 0.1 25V F:CHIP
D5V
D3.3V
C7217 0.1 25V F:CHIP
C7219 0.1 25V F:CHIP
ILMTS
STTS
LINK
LIN
XI
ERROUT/TRIGOU
CPU
CPUANALYZE/TRIGIN
RTC
LPCL
LPCLKC
SPEEDSE
SPEEDSE
CL
VCL
TTXTDA
TTXT
TTXCEVEN/XOE
INTO
XVIDIRQ




# QM BOARD 2/9
# ST20 SYSTEM MICRO

QM BOARD SCHEMATIC DIAGRAM (3 OF 9)



16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28

TO B BOARD
CN009

AUDIO OUT

CN7402
22P

| | |
|---|---|
| A1 | SUB_OSD |
| B1 | NC |
| A2 | A_MNO_FL |
| B2 | GND |
| A3 | A_MNO_FR |
| B3 | GND |
| A4 | A_MNO_FL |
| B4 | A_MNO_FR |
| A5 | A_MNO_C |
| B5 | GND |
| A6 | A_MNO_RL |
| B6 | A_MNO_RR |
| A7 | A_MNO_LF |
| B7 | GND |
| A8 | NC |
| B8 | NC |
| A9 | NC |
| B9 | NC |
| A10 | NC |
| B10 | NC |
| A11 | NC |
| B11 | NC |

SUB_OSD — R7447 0 :CHIP

A_MNO_FL — R7436 100 1/16W :CHIP

A_MNO_FR — R7437 100 1/16W :CHIP

A_MNO_C — R7438 100 1/16W :CHIP

A_MNO_RL — R7439 100 1/16W :CHIP

A_MNO_RR — R7440 100 1/16W :CHIP

A_MNO_LF — R7441 100 1/16W :CHIP

R7442 100 1/16W :CHIP

R7443 100 1/16W :CHIP

155MV_RMS(-18DB)

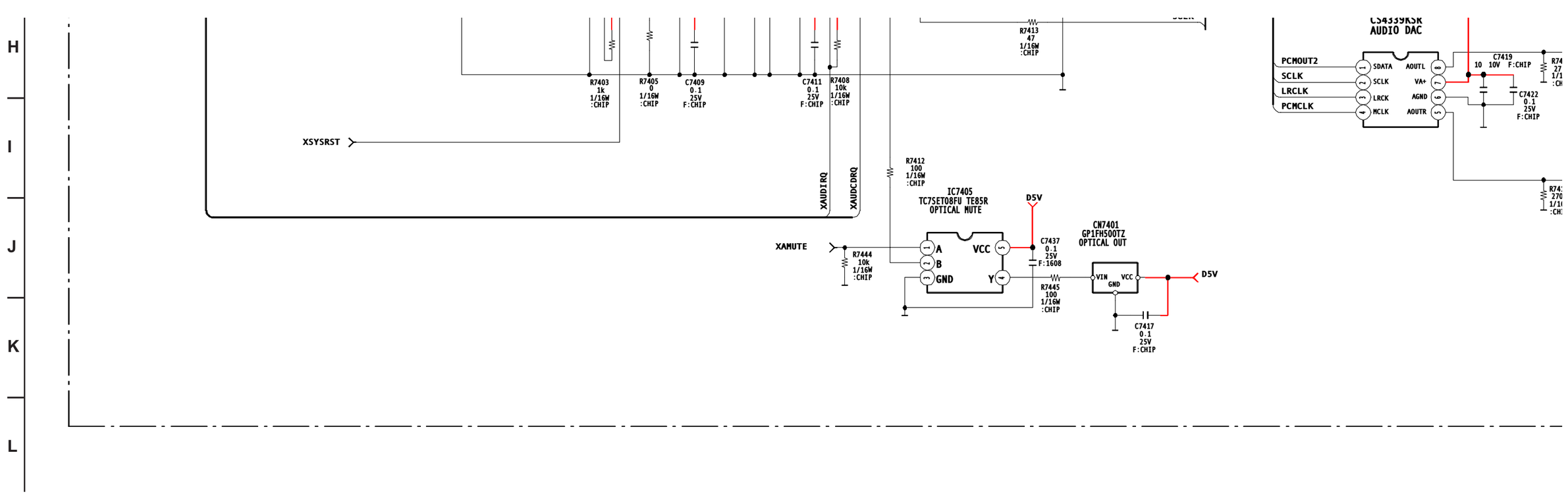
R7435 560 1/16W :CHIP — L — C7436 3300p 50V B:CHIP — A_MNO_FL

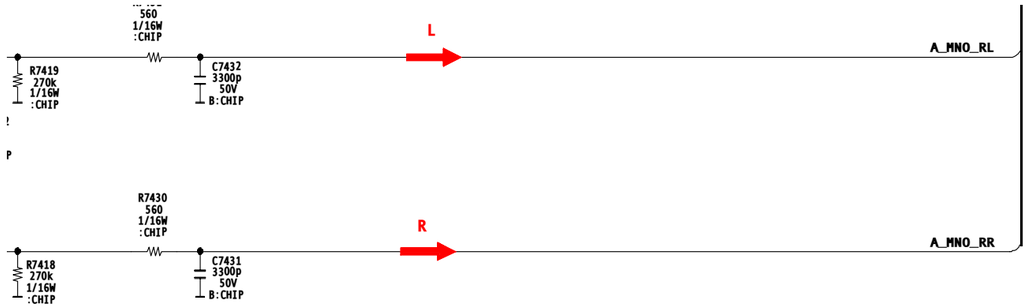
R7434 560 1/16W :CHIP — R — C7435 3300p 50V B:CHIP — A_MNO_FR
R7422 270k 1/16W :CHIP

R7433 560 1/16W :CHIP — L — C7434 3300p 50V B:CHIP — A_MNO_C
R7421 270k 1/16W :CHIP

R7432 560 1/16W :CHIP — R — C7433 3300p 50V B:CHIP — A_MNO_LF
R7420 270k 1/16W :CHIP

R7431 560 1/16W :CHIP — L

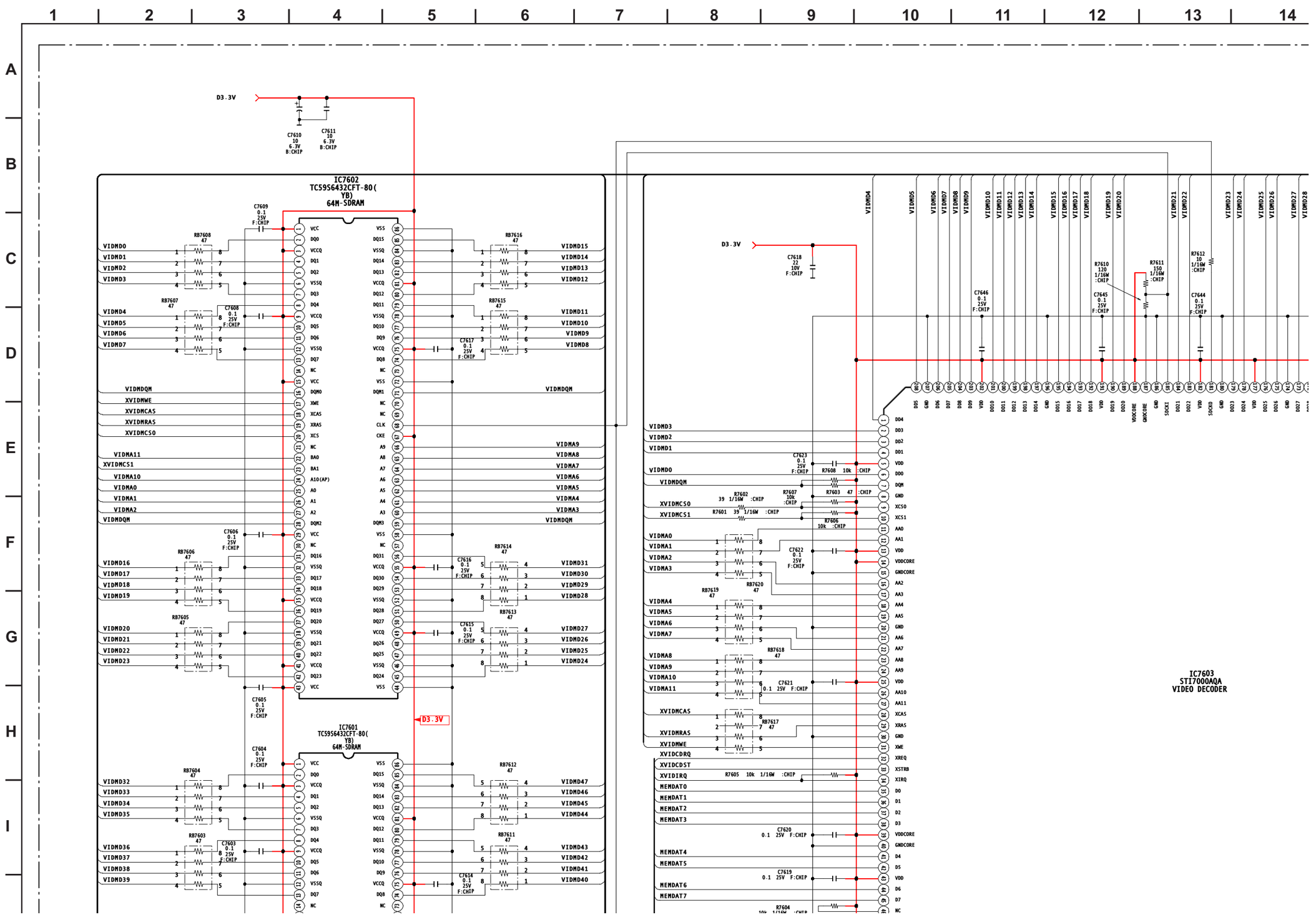

H
I
J
K
L
XSYSRST
R7403
1k
1/16W
:CHIP
R7405
0
1/16W
:CHIP
C7409
0.1
25V
F:CHIP
C7411
0.1
25V
F:CHIP
R7408
10k
1/16W
:CHIP
R7413
47
1/16W
:CHIP
XAUDIRQ
XAUDCDRQ
R7412
100
1/16W
:CHIP
IC7405
TC7SET08FU TE85R
OPTICAL MUTE
D5V
XAMUTE
R7444
10k
1/16W
:CHIP
A
B
GND
VCC
Y
C7437
0.1
25V
F:1608
R7445
100
1/16W
:CHIP
CN7401
GP1FH500TZ
OPTICAL OUT
VIN
GND
VCC
C7417
0.1
25V
F:CHIP
CS4339KSK
AUDIO DAC
PCMOUT2
SCLK
LRCLK
PCMCLK
SDATA
SCLK
LRCK
MCLK
AOUTL
VA+
AGND
AOUTR
C7419
10
10V
F:CHIP
C7422
0.1
25V
F:CHIP

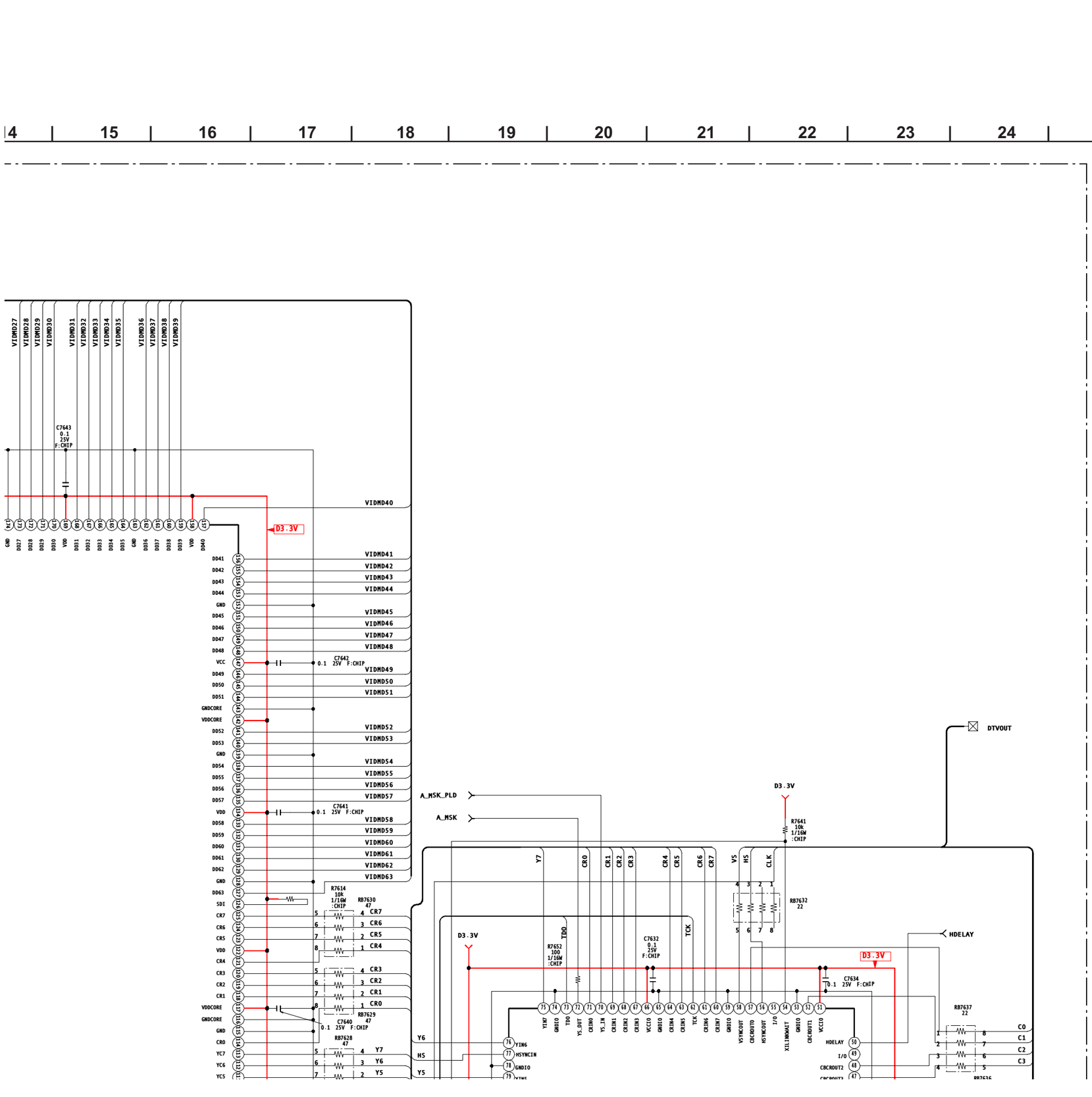


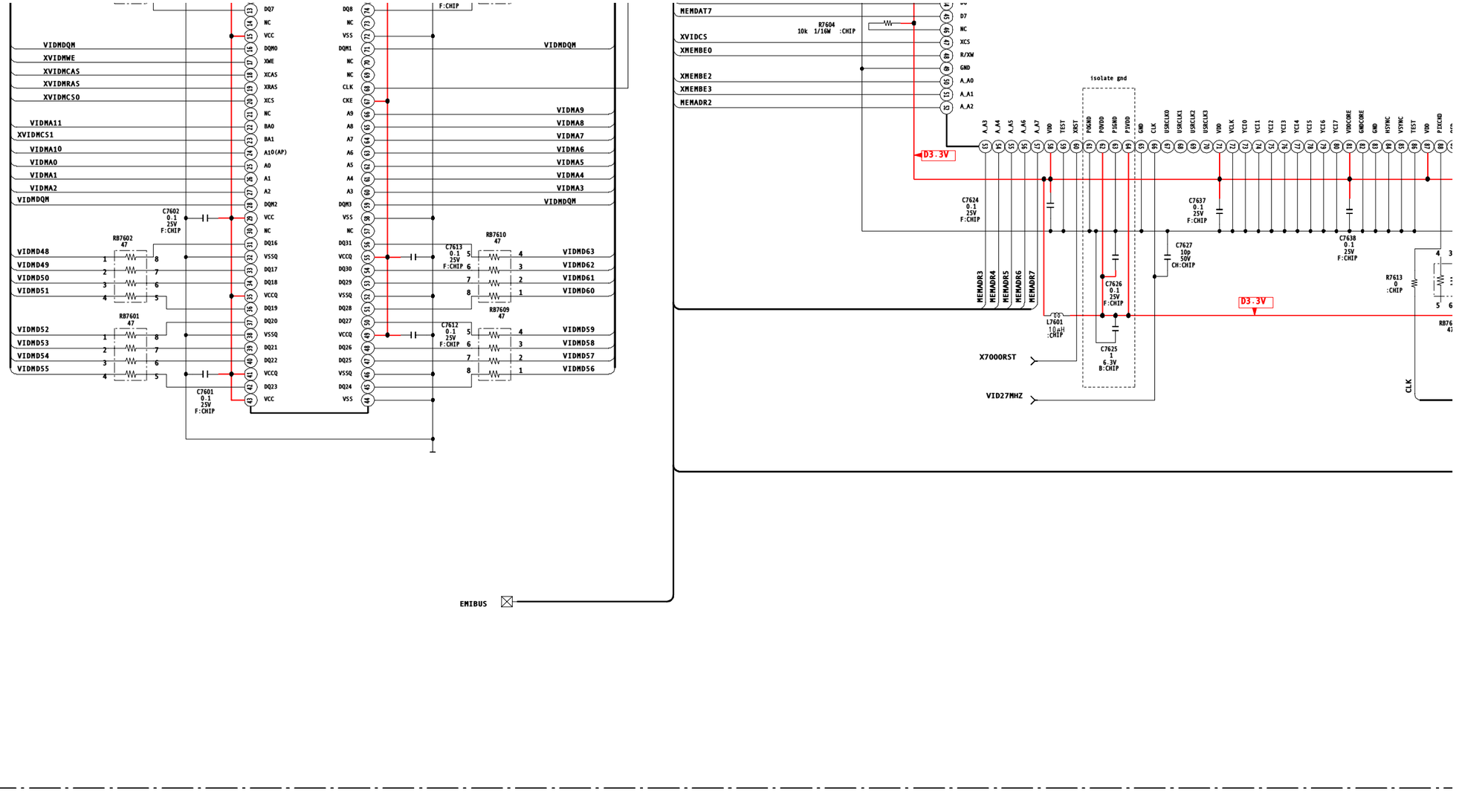

# QM BOARD 3/9

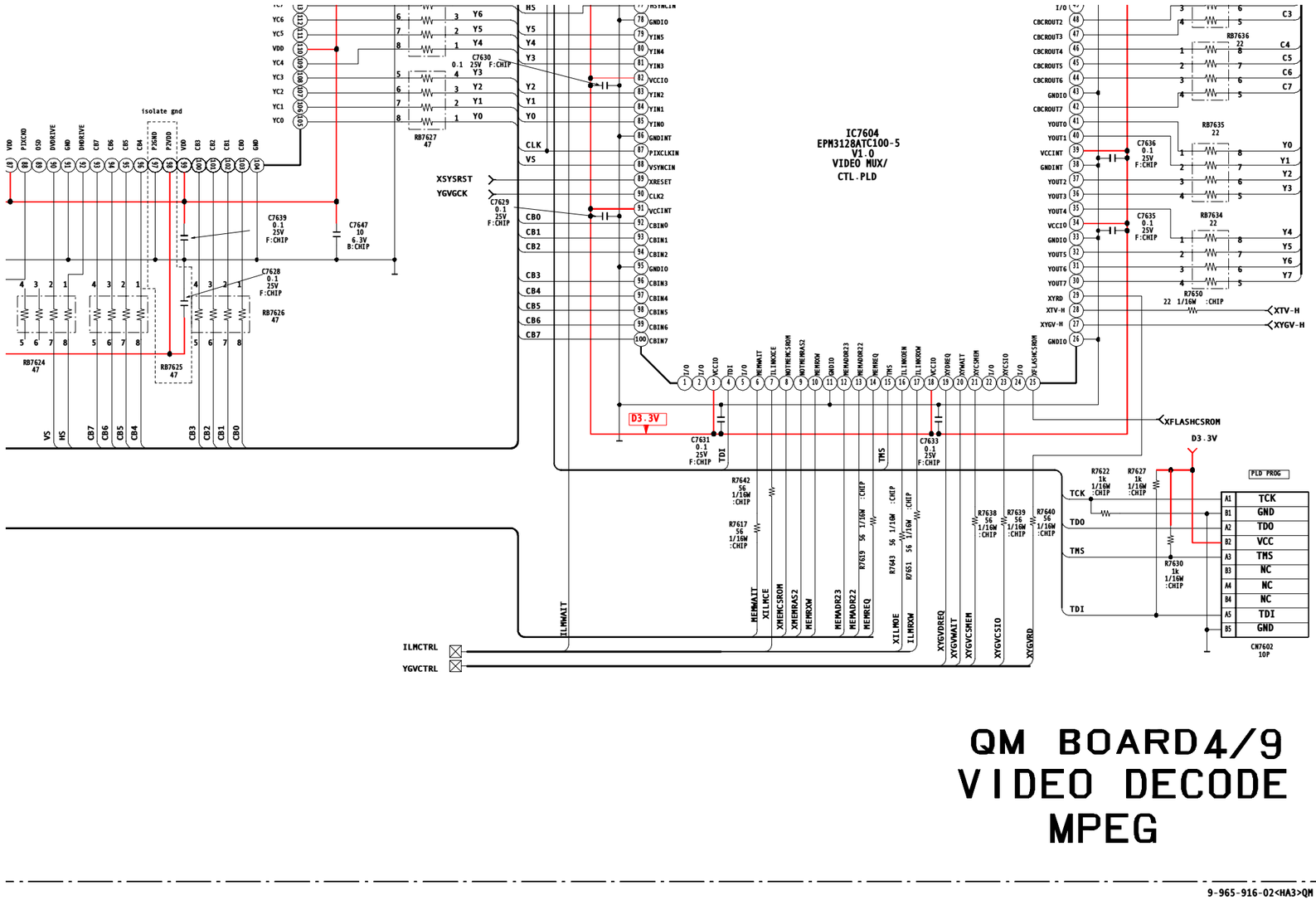
# AUDIO

# QM BOARD SCHEMATIC DIAGRAM (4 OF 9)



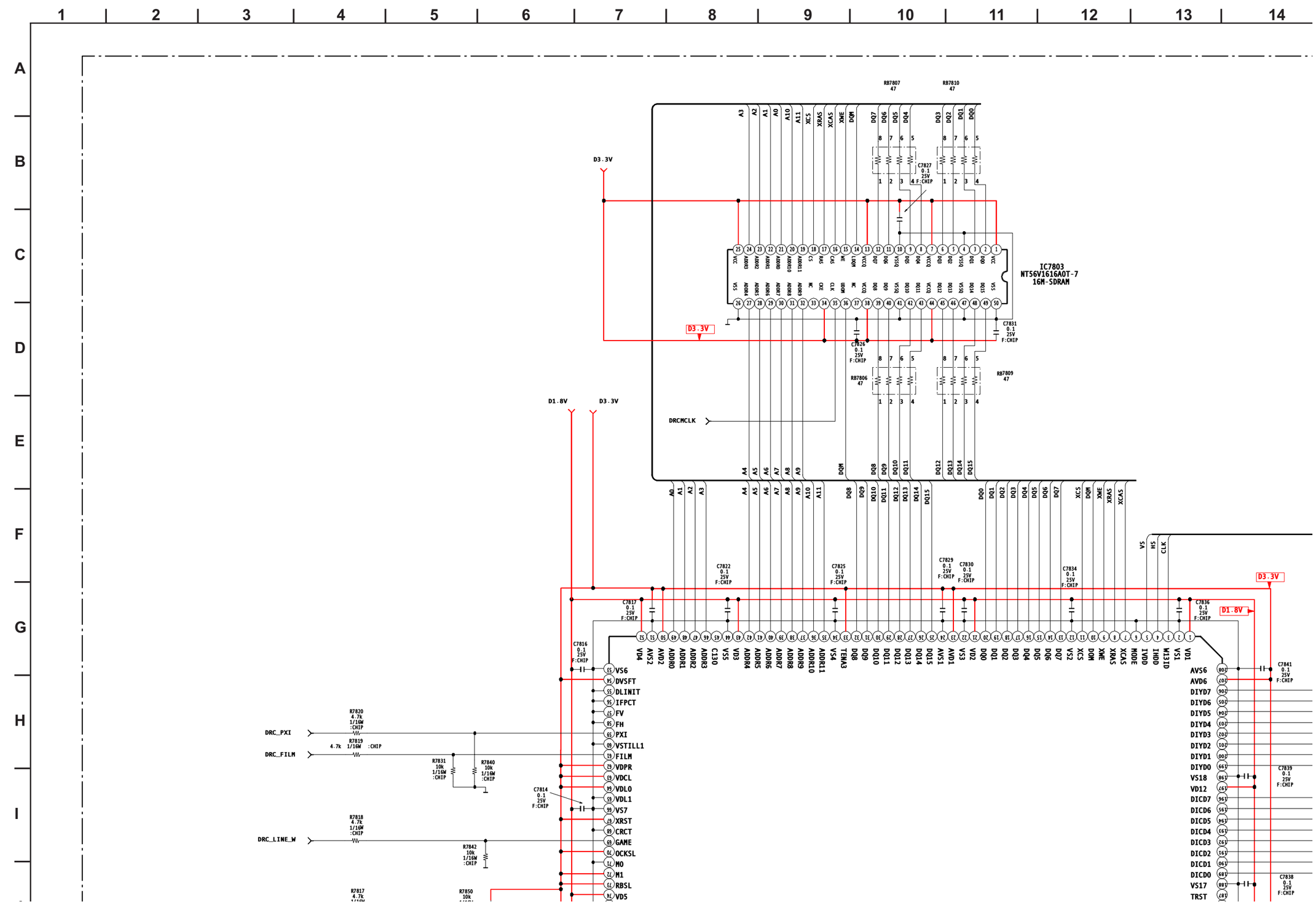

4
15
16
17
18
19
20
21
22
23
24
25
VIDMD27
VIDMD28
VIDMD29
VIDMD30
VIDMD31
VIDMD32
VIDMD33
VIDMD34
VIDMD35
VIDMD36
VIDMD37
VIDMD38
VIDMD39
C7643
0.1
25V
F:CHIP
VIDMD40
D3.3V
VIDMD41
VIDMD42
VIDMD43
VIDMD44
VIDMD45
VIDMD46
VIDMD47
VIDMD48
C7642
0.1 25V F:CHIP
VIDMD49
VIDMD50
VIDMD51
VIDMD52
VIDMD53
VIDMD54
VIDMD55
VIDMD56
VIDMD57
C7641
0.1 25V F:CHIP
VIDMD58
VIDMD59
VIDMD60
VIDMD61
VIDMD62
VIDMD63
R7614
10K
1/16W
:CHIP
RB7630
47
RB7628
47
C7640
0.1 25V F:CHIP
RB7629
47
DTVOUT
A_MSK_PLD
A_MSK
D3.3V
R7641
10k
1/16W
:CHIP
RB7632
22
R7652
100
1/16W
:CHIP
C7632
0.1
25V
F:CHIP
C7634
0.1 25V F:CHIP
HDELAY
RB7637
22
Y6
HS
Y5


VIDMDQM
XVIDMWE
XVIDMCAS
XVIDMRAS
XVIDMCS0
VIDMA11
XVIDMCS1
VIDMA10
VIDMA0
VIDMA1
VIDMA2
VIDMDQM
VIDMD48
VIDMD49
VIDMD50
VIDMD51
VIDMD52
VIDMD53
VIDMD54
VIDMD55
DQ7
NC
VCC
DQM0
XWE
XCAS
XRAS
XCS
NC
BA0
BA1
A10(AP)
A0
A1
A2
DQM2
VCC
NC
DQ16
VSSQ
DQ17
DQ18
VCCQ
DQ19
DQ20
VSSQ
DQ21
DQ22
VCCQ
DQ23
VCC
C7602 0.1 25V F:CHIP
C7601 0.1 25V F:CHIP
RB7602 47
RB7601 47
DQ8
NC
VSS
DQM1
NC
NC
CLK
CKE
A9
A8
A7
A6
A5
A4
A3
DQM3
VSS
NC
DQ31
VCCQ
DQ30
DQ29
VSSQ
DQ28
DQ27
VCCQ
DQ26
DQ25
VSSQ
DQ24
VSS
F:CHIP
VIDMDQM
VIDMA9
VIDMA8
VIDMA7
VIDMA6
VIDMA5
VIDMA4
VIDMA3
VIDMDQM
C7613 0.1 25V F:CHIP
C7612 0.1 25V F:CHIP
RB7610 47
RB7609 47
VIDMD63
VIDMD62
VIDMD61
VIDMD60
VIDMD59
VIDMD58
VIDMD57
VIDMD56
EMIBUS
MEMDAT7
XVIDCS
XMEMBE0
XMEMBE2
XMEMBE3
MEMADR2
R7604 10k 1/16W :CHIP
D7
NC
XCS
R/XW
GND
A_A0
A_A1
A_A2
D3.3V
isolate gnd
A_A3
A_A4
A_A5
A_A6
A_A7
VDD
TEST
XRST
PGND
PVDD
PGND
PVDD
GND
CLK
USBCLK0
USBCLK1
USBCLK2
USBCLK3
VDD
VCLK
YC10
YC11
YC12
YC13
YC14
YC15
YC16
YC17
VDDCORE
GNDCORE
GND
HSYNC
VSYNC
TEST
VDD
PIXCKO
C7624 0.1 25V F:CHIP
C7637 0.1 25V F:CHIP
C7638 0.1 25V F:CHIP
C7627 10p 50V CH:CHIP
C7626 0.1 25V F:CHIP
C7625 1 6.3V B:CHIP
L7601 10uH :CHIP
R7613 0 :CHIP
MEMADR3
MEMADR4
MEMADR5
MEMADR6
MEMADR7
X7000RST
VID27MHZ
CLK

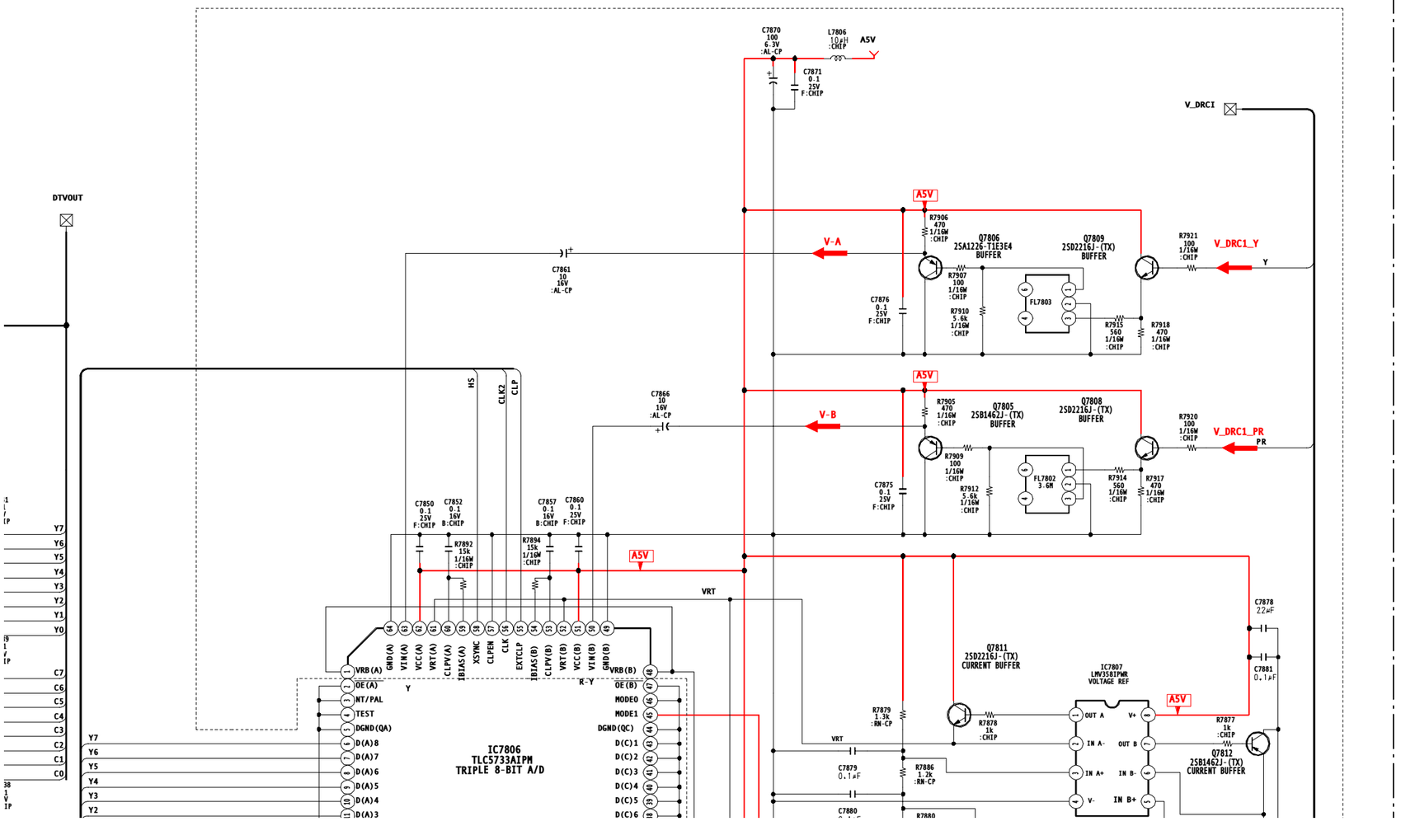


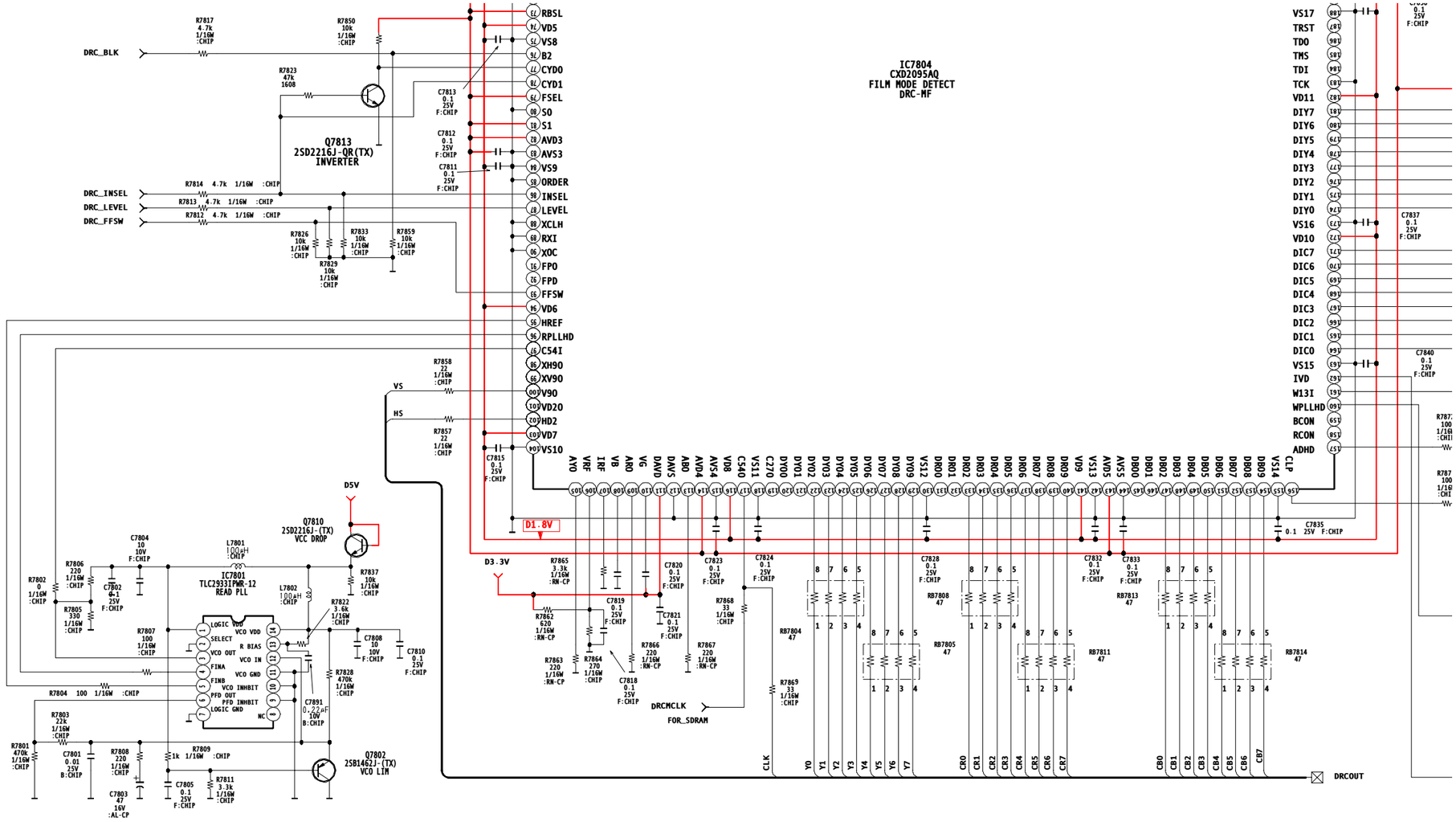

# QM BOARD4/9
# VIDEO DECODE
# MPEG

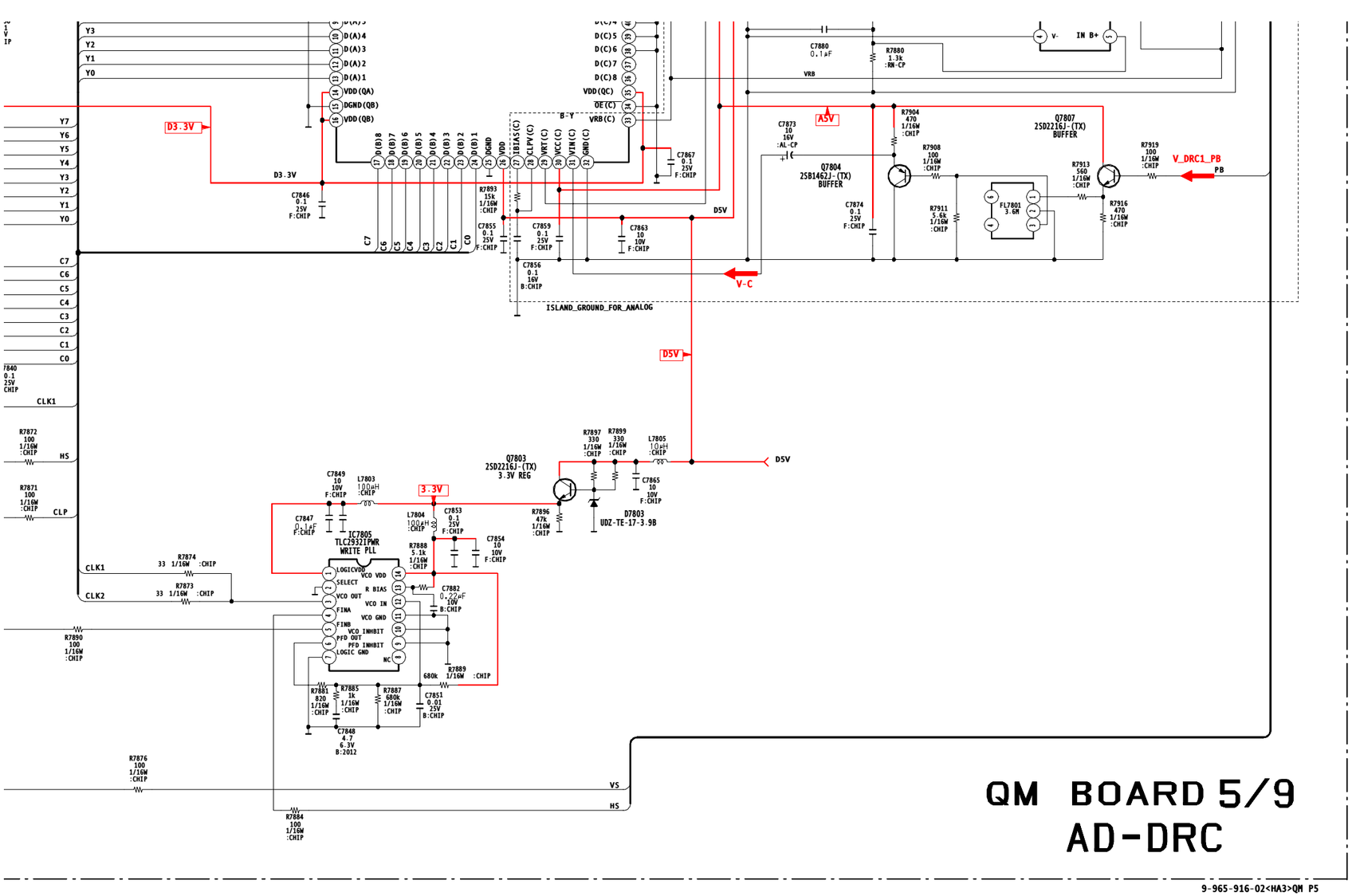
# QM BOARD SCHEMATIC DIAGRAM (5 OF 9)



15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25




IC7804
CXD2095AQ
FILM MODE DETECT
DRC-MF
Q7813
2SD2216J-QR(TX)
INVERTER
Q7810
2SD2216J-(TX)
VCC DROP
IC7801
TLC2933IPWR-12
READ PLL
Q7802
2SB1462J-(TX)
VCO LIM
D5V
D3.3V
D1.8V
DRCMCLK
FOR_SDRAM
DRCOUT
DRC_BLK
DRC_INSEL
DRC_LEVEL
DRC_FFSW
RBSL
VD5
VS8
B2
CYD0
CYD1
FSEL
S0
S1
AVD3
AVS3
VS9
ORDER
INSEL
LEVEL
XCLH
RXI
XOC
FPO
FPD
FFSW
VD6
HREF
RPLLHD
C54I
XH90
XV90
V90
VD20
HD2
VD7
VS10
VS17
TRST
TDO
TMS
TDI
TCK
VD11
DIY7
DIY6
DIY5
DIY4
DIY3
DIY2
DIY1
DIY0
VS16
VD10
DIC7
DIC6
DIC5
DIC4
DIC3
DIC2
DIC1
DIC0
VS15
IVD
W13I
WPLLHD
BCON
RCON
ADHD
CLP
VS
HS
CLK
Y0
Y1
Y2
Y3
Y4
Y5
Y6
Y7
CR0
CR1
CR2
CR3
CR4
CR5
CR6
CR7
CB0
CB1
CB2
CB3
CB4
CB5
CB6
CB7




# QM BOARD 5/9
# AD-DRC

# QM BOARD SCHEMATIC DIAGRAM (6 OF 9)

TO B BOARD
CN005
VIDEO_IN

CN8601
22P

| | | |
|---|---|---|
| V_MIDI_Y | A1 | 1 |
| GND | B1 | |
| V_MIDI_PB | A2 | 2 |
| GND | B2 | |
| V_MIDI_PR | A3 | 3 |
| V_MIDI_HS | B3 | 4 |
| GND | A4 | |
| V_MIDI_VS | B4 | 5 |
| V_DRCI_Y | A5 | 6 |
| GND | B5 | |
| V_DRCI_PB | A6 | |
| GND | B6 | 8 |
| V_DRCI_PR | A7 | 7 |
| GND | B7 | |
| V_DRCI_HS | A8 | 9 |
| V_DRCI_VS | B8 | 10 |
| MN_SB_SW | A9 | |
| A_MSK | B9 | |
| EXT_SDA | A10 | |
| GND | B10 | |
| EXT_SCL | A11 | |
| /BINT | B11 | |

V_MIDI_VS
OSD_VS
OSD_HS
R8605 1k 1/16W :CHIP
R8604 1k 1/16W :CHIP
FB7601 0UH :CHIP
FB7602 0UH :CHIP
FB7603 0UH :CHIP
MN_SB_SW
A_MSK
SDA_EXT
SCL_EXT
/BINT

V_DRC1_Y
V_DRC1_PB
V_DRC1_PR
Y
PB
PR
HS
VS
V_DRCI

V_MIDI_Y
V_MIDI_PB
V_MIDI_PR

A5V

L8601 10uH :CHIP
C8651 0.1 25V F:CHIP
C8650 47 16V :AL-CP

Q8603 2SC2223 BUFFER
R8611 100 1/16W :CHIP
R8614 820 1/16W :CHIP
R8620 200 1/16W :RN-CP
FL8603 34M LPF
R8628 100 1/16W :CHIP
R8624 200 1/16W :RN-CP
R8631 1.5k 1/16W :CHIP
Q8608 2SA1226-T1E3E4 BUFFER
V_MIDI_Y

Q8602 2SC2223 BUFFER
R8610 100 1/16W :CHIP
R8613 820 1/16W :CHIP
R8619 300 1/16W :RN-CP
FL8602 17M LPF
R8627 100 1/16W :CHIP
R8623 300 1/16W :RN-CP
R8630 1.5k 1/16W :CHIP
Q8607 2SA1226-T1E3E4 BUFFER
V_MIDI_PB

A5V
Q8601 2SC2223 BUFFER
R8609 100 1/16W :CHIP
R8618 300 1/16W :RN-CP
R8612 820 1/16W :CHIP
FL8601 17M LPF
R8626 100 1/16W :CHIP
R8622 300 1/16W :RN-CP
R8629 1.5k 1/16W :CHIP
Q8606 2SA1226-T1E3E4 BUFFER
V_MIDI_PR

SUBAD_EXTCLP

D_5V
R8644 100k 1/16W :CHIP
C8629 0.01 25V B:CHIP

EVEN/ODD
VCLK

| | |
|---|---|
| 108 | |
| 109 | XCLKIN |
| 110 | CLKIN |
| 111 | SYNCIN1 |
| 112 | SYNCIN2 |
| 113 | CLPIN |
| 114 | DVCCPLL |
| 115 | DGNDPLL |
| 116 | AVCCVCO |
| 117 | AGNDVCO |
| 118 | RC1 |
| 119 | RC2 |
| 120 | AVCCIR |
| 121 | IREF |
| 122 | DPGND |
| 123 | AGNDIR |
| 124 | G/YIN1 |
| 125 | AVCCAMPG |
| 126 | C/YIN2 |
| 127 | AGNDAMPG |
| 128 | G/YCLP |
| 129 | B/CbCLP |
| 130 | R/CrCLP |
| 131 | DPGND |
| 132 | SOGIN1 |
| 133 | B/CbIN1 |
| 134 | AVCCAMPB |
| 135 | SOGIN2 |

R8641 1k 1/16W :CHIP
C8609 3300p 50V B:CHIP
C8611 100p 50V CH:CHIP
C8610 100p 50V CH:CHIP
C8622 0.1 25V F:CHIP
R8639 3.3k 1/16W :RN-CP
C8608 0.33 10V B:CHIP
C8617 0.1 25V F:CHIP
C8621 0.1 25V F:CHIP
R8642 3k 1/16W :RN-CP
V_MIDI_Y
C8613 0.1 16V B:CHIP
C8655 0.1 25V F:CHIP
R8638 1K 1/16W :CHIP
R8637 1k 1/16W :CHIP
C8625 0.1 25V F:CHIP
R8636 1K 1/16W :CHIP
V_MIDI_PB
C8615 0.1 16V B:CHIP
C8656

## QM BOARD WAVEFORMS (SCHEMATIC 6 OF 9)

1 — 1.5 Vp-p (H)

2 — 1.1 Vp-p (H)

3

4

16 17 18 19 20 21 22 23 24 25 26 27

3.3V REG

IC8709
PQ07VZ012P

V IN 1 | V CONT 2 | V OUT 3 | V ADJ 4 | GND 5

A5V

C8652 47 16V :AL-CP

C8653 0.1 25V F:CHIP

D7008 1SS355TE-17

R8658 3.3k 1/16W RN:CP

R8657 3.3k 1/16W RN:CP

R8656 1k 1/16W RN:CP

C8654 100 6.3V :AL-CP

ADC3V

L8602 4.7μH :CHIP

C8638 22 10V F:CHIP

L8603 10μH :CHIP

A5V

+5VA_SUBAD

C8639 47 16V :AL-CP

D5V

C8640 10 10V F:CHIP

C8641 10 10V F:CHIP

C8642 0.1 25V F:CHIP

C8643 0.1 25V F:CHIP

C8644 0.1 25V F:CHIP

C8645 0.1 25V F:CHIP

C8646 0.1 25V F:CHIP

C8647 0.1 25V F:CHIP

C8648 0.1 25V F:CHIP

C8649 0.1 25V F:CHIP

SUBAD_P.LLHOLD

SUBAD_DSYNC

SUBAD_DOTCLK

SUBAD_XDOTCLK

ADC3V

R8651 22 1/16W :CHIP

R8744 22 1/16W :CHIP

C8632 0.1 25V F:CHIP

C8634 1 6.3V B:CHIP

C8637 0.1 25V F:CHIP

D5V

R8649 100 1/16W :CHIP

SUBAD_PLL_LOCK

Y7 Y6 Y5 Y4

RB8603 22

8 7 6 5

1 2 3 4

108 EVEN/ODD
107 XTLOAD
106 HOLD
105 SOGOUT
104 XUNLOCK
103 DSYNC/DIVOUT
102 DPGND
101 1/2CLK
100 1/2XCLK
99 CLK
98 XCLK
97 DGNDPLLTTL
96 DVCCPLLTTL
95 AGNDADREF
94 AVCCAD3
93 VRB
92 DVCCAD3
91 DVCCAD
90 DVCCADTTL
89 DGNDADTTL
88 GB7
87 GB6
86 DGNDAD3
85 GB5
84 GB4
83 GB3
82 GB2
81 GB1
80 AGNDAD3
79 DGNDAD3
78 GB0
77 DGNDADTTL
76 DVCCADTTL
75 GA7
74 GA6
73 GA5

IC8601
CXA3506R
A/D

GA4 72
GA3 71
GA2 70
GA1 69
GA0 68
DGNDADTTL 67
DGNDAD3 66
DVCCADTTL 65
BB7 64
BB6 63
BB5 62
BB4 61
BB3 60
DGNDAD3 59
BB2 58
BB1 57
BB0 56
DGNDADTTL 55
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BA4 49
BA3 48
BA2 47
BA1 46

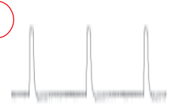
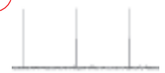
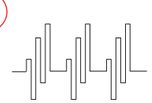
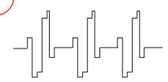
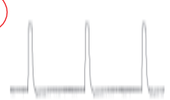
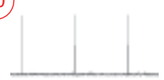
RB8606 22

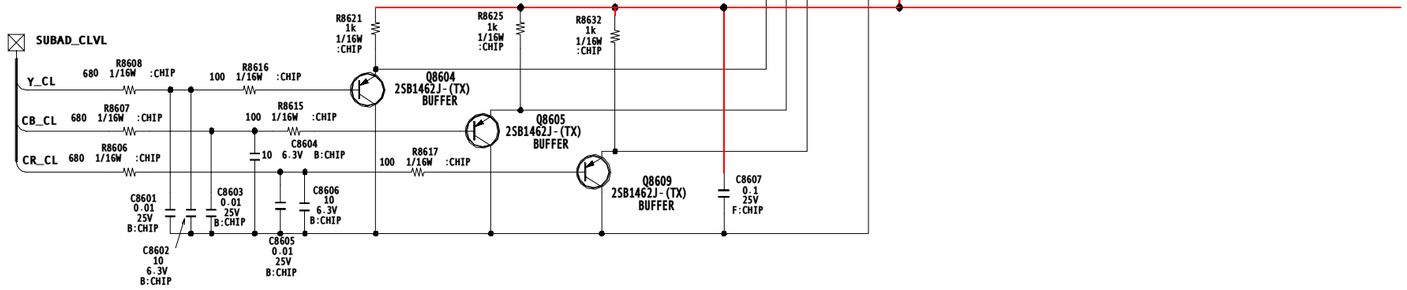
5 6 7 8 | 4 3 2 1 | Y3 Y2 Y1 Y0

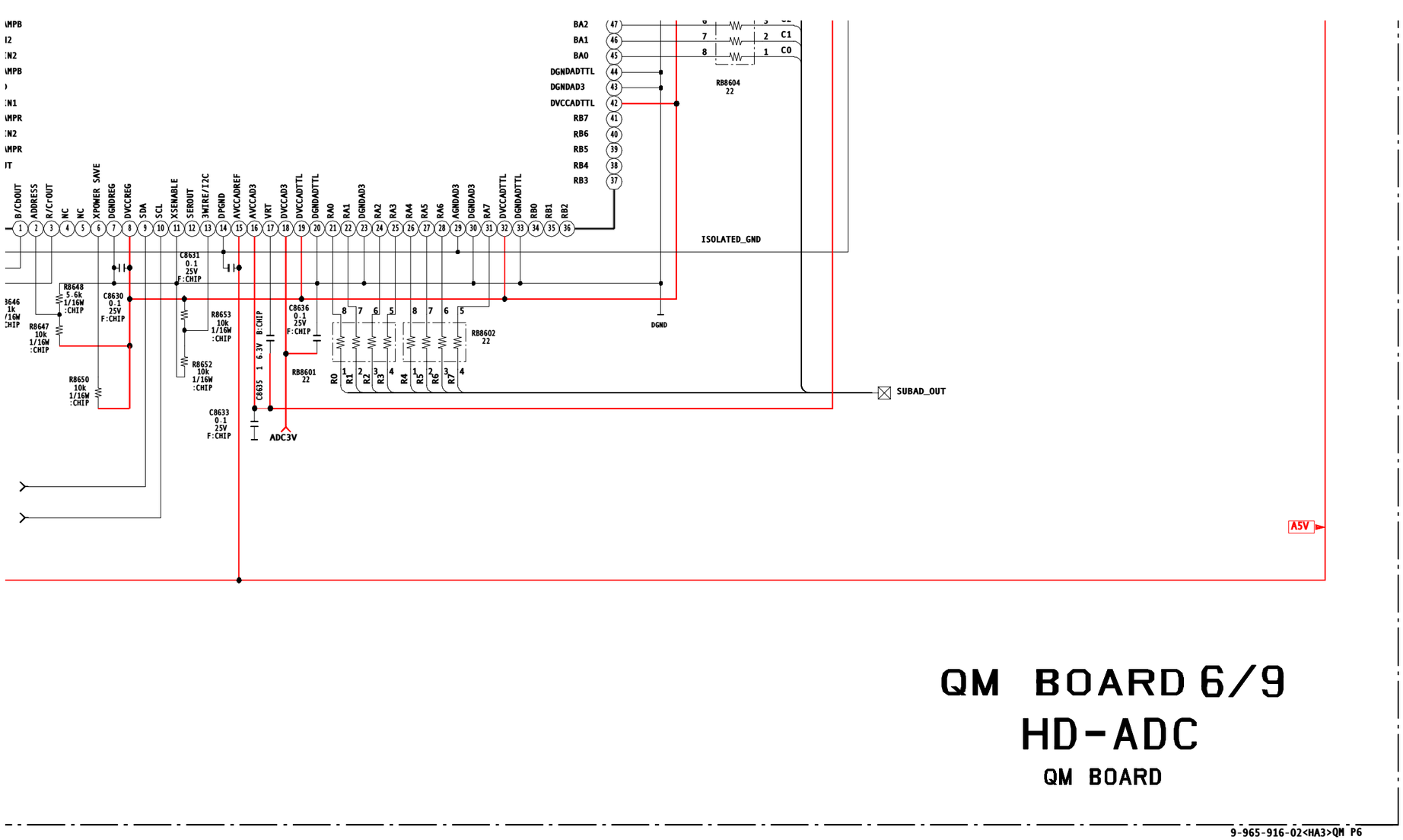
RB8605 22

5 6 7 8 | 4 3 2 1 | C7 C6 C5 C4

5 6 7 | 4 3 2 | C3 C2 C1

| | |
|---|---|
| 3<br>  <br>1.3 Vp-p (H) | 4<br>  <br>3.5 Vp-p (H) |
| 5<br>  <br>3.3 Vp-p (V) | 6<br>  <br>1.5 Vp-p (H) |
| 7<br>  <br>1.1 Vp-p (H) | 8<br>  <br>1.1 Vp-p (H) |
| 9<br>  <br>3.4 Vp-p (H) | 10<br>  <br>3.4 Vp-p (V) |



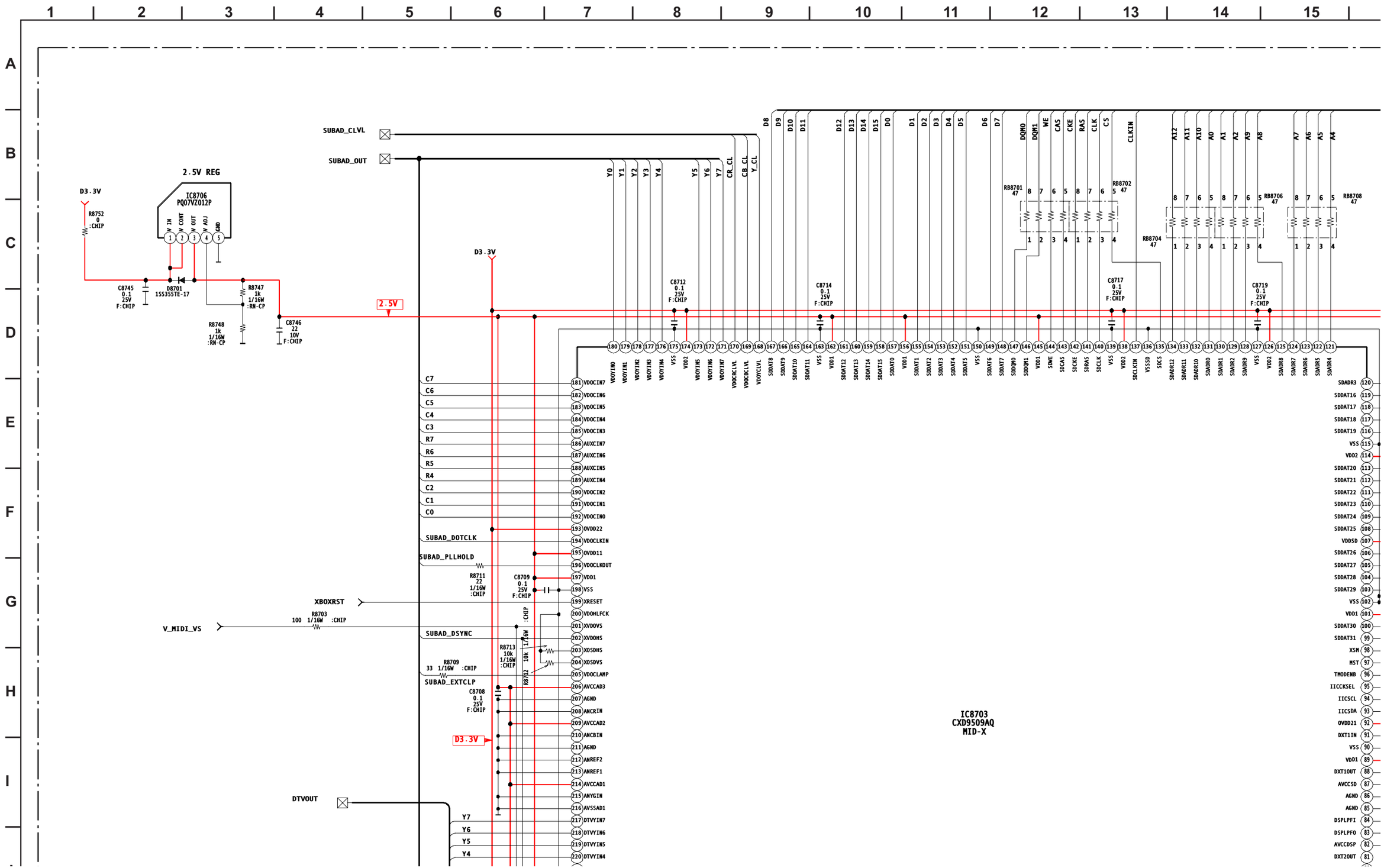



# QM BOARD 6/9

# HD-ADC

## QM BOARD

# QM BOARD SCHEMATIC DIAGRAM (7 OF 9)



16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27

D3.3V

R8720 22 1/16W :CHIP

A3
D16
D17
D18
D19

C8724 0.1 25V F:CHIP

D20
D21
D22
D23
D24
D25
D26
D27
D28
D29

C8723 0.1 25V F:CHIP

D30
D31

R8719 10k 1/16W :CHIP
R8718 10k 1/16W :CHIP
R8717 10k 1/16W :CHIP
R8724 0 1/16W :CHIP

D3.3V

R8733 10k 1/16W :CHIP
R8734 10k 1/16W :CHIP

Q8701 2SK1399 LEVEL-SHIFT

SCL_M5

C8728 12p 50V CH:CHIP
X8701 18.543956MHz

Q8702 2SK1399 LEVEL-SHIFT

SDA_M5

C8726 0.1 25V F:CHIP
C8729 12p 50V CH:CHIP
C8733 0.1 25V F:CHIP

SCL_M3

R8726 0 :CHIP
R8736 10 1/16W :CHIP

SDA_M3

R8716 10k 1/16W :CHIP
R8725 270 :CHIP
C8731 0.0047 50V B:CHIP
R8737 10
C8734 0.1
R8715 10k

D3.3V

IC8704
TC59S6432CFT-80( YB)
64M-SDRAM

C8737 0.1 25V F:CHIP
C8740 0.1 25V F:CHIP

RB8711 47
RB8710 47
RB8715 47
RB8714 47

| | | | |
|---|---|---|---|
| D0 | 5 | 4 | D15 |
| D1 | 6 | 3 | D14 |
| D2 | 7 | 2 | D13 |
| D3 | 8 | 1 | D12 |
| D4 | 5 | 4 | D11 |
| D5 | 6 | 3 | D10 |
| D6 | 7 | 2 | D9 |
| D7 | 1 | 1 | D8 |

| | | |
|---|---|---|
| 1 | VCC | |
| 2 | DQ0 | |
| 3 | VCCQ | |
| 4 | DQ1 | |
| 5 | DQ2 | |
| 6 | VSSQ | |
| 7 | DQ3 | |
| 8 | DQ4 | |
| 9 | VCCQ | |
| 10 | DQ5 | |
| 11 | DQ6 | |
| 12 | VSSQ | |
| 13 | DQ7 | |
| 14 | N.C. | |
| 15 | VCC | |
| 16 | DQM0 | DQM0 |
| 17 | WE | WE |
| 18 | CAS | CAS |
| 19 | RAS | RAS |
| 20 | CS | CS |
| 21 | N.C. | |
| 22 | A12 | A12 |
| 23 | A11 | A11 |
| 24 | A10 | A10 |
| 25 | A0 | A0 |
| 26 | A1 | A1 |
| 27 | A2 | A2 |
| 28 | DQM2 | DQM1 |
| 29 | VCC | |
| 30 | N.C. | |
| 31 | DQ16 | |
| 32 | VSSQ | |
| 33 | DQ17 | |
| 34 | DQ18 | |
| 35 | VCCQ | |
| 36 | DQ19 | |
| 37 | DQ20 | |
| 38 | VSSQ | |
| 39 | DQ21 | |
| 40 | DQ22 | |
| 41 | VCCQ | |
| 42 | DQ23 | |
| 43 | VCC | |

| | | |
|---|---|---|
| 86 | VSS | |
| 85 | DQ15 | |
| 84 | VSSQ | |
| 83 | DQ14 | |
| 82 | DQ13 | |
| 81 | VCCQ | |
| 80 | DQ12 | |
| 79 | DQ11 | |
| 78 | VSSQ | |
| 77 | DQ10 | |
| 76 | DQ9 | |
| 75 | VCCQ | |
| 74 | DQ8 | |
| 73 | N.C. | |
| 72 | VSS | |
| 71 | DQM1 | DQM0 |
| 70 | N.C. | |
| 69 | N.C. | |
| 68 | CLK | CLKIN |
| 67 | CKE | CLK |
| 66 | A9 | CKE |
| 65 | A8 | A9 |
| 64 | A7 | A8 |
| 63 | A6 | A7 |
| 62 | A5 | A6 |
| 61 | A4 | A5 |
| 60 | A3 | A4 |
| 59 | DQM3 | A3 |
| 58 | VSS | DQM1 |
| 57 | N.C. | |
| 56 | DQ31 | |
| 55 | VCCQ | |
| 54 | DQ30 | |
| 53 | DQ29 | |
| 52 | VSSQ | |
| 51 | DQ28 | |
| 50 | DQ27 | |
| 49 | VCCQ | |
| 48 | DQ26 | |
| 47 | DQ25 | |
| 46 | VSSQ | |
| 45 | DQ24 | |
| 44 | VSS | |

D3.3V

C8742 0.1 25V F:CHIP

C8738 0.1 25V F:CHIP

RB8713 47
RB8712 47
RB8717 47
RB8716 47

| | | | |
|---|---|---|---|
| D16 | 5 | 4 | D31 |
| D17 | 6 | 3 | D30 |
| D18 | 7 | 2 | D29 |
| D19 | 8 | 1 | D28 |
| D20 | 5 | 4 | D27 |
| D21 | 6 | 3 | D26 |
| D22 | 7 | 2 | D25 |
| D23 | 8 | 1 | D24 |

C8741 0.1 25V F:CHIP

C8739 0.1 25V F:CHIP

J

K

L

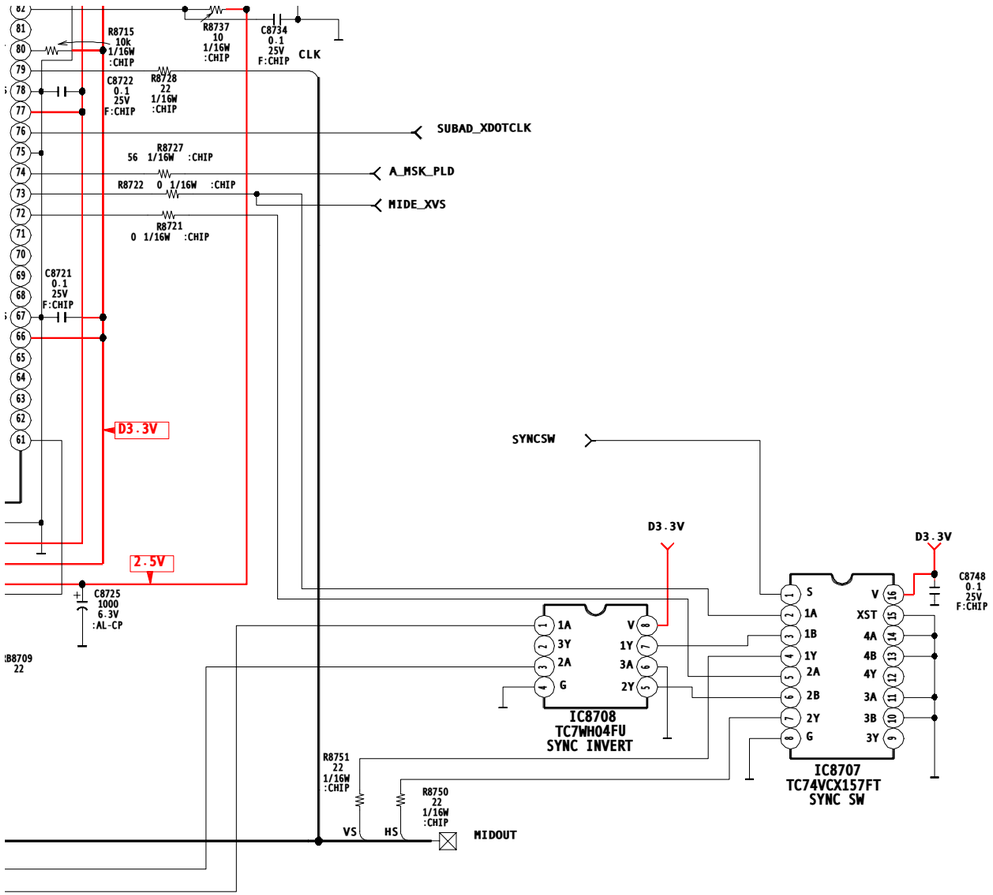
M

N

O

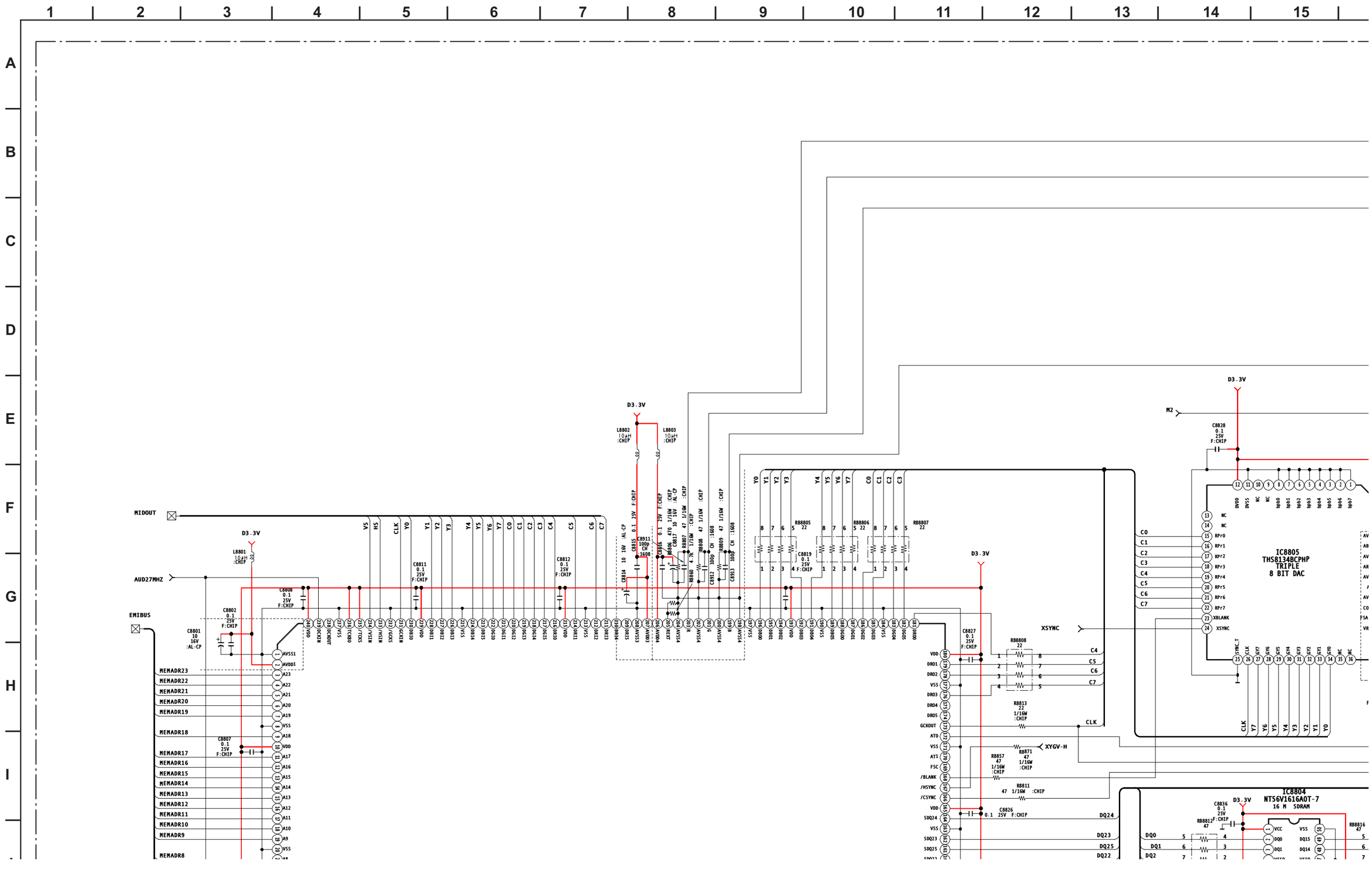
P


Y4
CLK
Y3
Y2
Y1
Y0
C7
C6
C5
R3
R2
R1
R0
C4
C3
C2
C1
C0
DTVYIN4
VDD1
VSS
DTVCLKIN
OVSS2
DTVYIN3
DTVYIN2
DTVYIN1
DTVYIN0
DTVCIN7
DTVCIN6
DTVCIN5
AUXCIN3
AUXCIN2
AUXCIN1
AUXCIN0
DTVCIN4
DTVCIN3
DTVCIN2
DTVCIN1
DTVCIN0
2.5V
C8706 10 6.3V B:CHIP
R8714 10k 1/16W :CHIP
C8713 0.1 25V F:CHIP
C8715 0.1 25V F:CHIP
C8716 0.1 25V F:CHIP
C8718 0.1 25V F:CHIP
C8720 0.1 25V F:CHIP
RB8703 22
RB8705 22
RB8707 22
RB8709 22
VS
HS
DRCOUT




# QM BOARD 7/9
# MID-XA

QM BOARD SCHEMATIC DIAGRAM (8 OF 9)



16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25

R8829 0 1/16W :1608
R8828 0 1/16W :1608
R8827 0 1/16W :1608
OSD_R
OSD_G
OSD_B
MID_BUSY
GRANT
R8852 1k 1/16W :CHIP
R8851 1k 1/16W :CHIP
MICON_RST
V_MNO_PR
V_MNO_PB
V_MNO_Y
R8850 100 1/16W :CHIP
V_MNO_HS
R8849 100 1/16W :CHIP
V_MNO_VS
OSD_R
OSD_G
OSD_B

VIDEO OUT
TO B BOARD
CN004
CN8801
22P

| | |
|---|---|
| A1 | GRANT |
| B1 | GND |
| A2 | MID_BUSY |
| B2 | BOX_RST |
| A3 | V_MNO_PR |
| B3 | GND |
| A4 | V_MNO_PB |
| B4 | GND |
| A5 | V_MNO_Y |
| B5 | GND |
| A6 | V_MNO_HS |
| B6 | V_MNO_VS |
| A7 | OSD_R |
| B7 | GND |
| A8 | OSD_G |
| B8 | GND |
| A9 | OSD_B |
| B9 | GND |
| A10 | YSYM |
| B10 | GND |
| A11 | M16C_RXD |
| B11 | M16C_TXD |

A5V
L8805 10uH :CHIP
FB8801 0UH
C8860 0.1 25V F:CHIP
C8861 0.1 25V F:CHIP
C8841 0.1 25V F:CHIP
C8850 47 16V :AL-CP
C8851 0.1 25V F:CHIP
R8837 100 1/16W :CHIP
Q8806 2SC2223 BUFFER
R8845 22 1/16W :CHIP
R8841 470 1/16W :CHIP
V_MNO_PB
V_MNO_Y
R8822 68 1/16W :CHIP
C8845 47 6.3V :AL-CP
R8854 100 1/16W :CHIP
RXD_FR_TV
TXD_TO_TV
FB7802 0UH :CHIP
FB7801 0UH :CHIP
DIAG
Y
PR
PB
FL8801 AF9309
R8836 100 1/16W :CHIP
Q8805 2SC2223 BUFFER
R8844 22 1/16W :CHIP
R8840 470 1/16W :CHIP
V_MNO_PR
V_MNO_PR
A5V
R8821 68 1/16W :CHIP
C8844 47 6.3V :AL-CP
C8840 0.1 25V F:CHIP
R8818 680 1/16W :CHIP
R8819 100k 1/16W :CHIP
C8843 47 6.3V :AL-CP
V_MNO_Y
R8820 68 1/16W :CHIP
R8835 100 1/16W :CHIP
Q8804 2SC2223 BUFFER
R8843 22 1/16W :CHIP
R8839 470 1/16W :CHIP
V_MNO_PB
V_MNO_PB
C8839 0.1 25V F:CHIP
R8817 6.8k :CHIP
ISLAND_GROUND_FOR_ANALOG

M2 48
M1 47
AVSS 46
ABPB 45
AVDD 44
ARPR 43
AVSS 42
AGY 41
AVDD 40
COMP 39
FSADJ 38
VREF 37
WC 36

XTV-H
RB8816 47
DQ15
DQ14
DQ13
IC8807 TC74LVX04FT(EL)
D3.3V

IC8801
YGV619
GRAPHICS

YGVCTRL

MEMADR8 MEMADR7 MEMADR6 MEMADR5 MEMADR4 MEMADR3 MEMADR2 XMEMBE3 XMEMBE2 XMEMBE1 XMEMBE0 XYGVRD XYGVRST XYGVCSIO XYGVCSMEM XYGVDREQ XYGVWAIT XYGVIRQ MEMDAT31 MEMDAT30 MEMDAT29 MEMDAT28 MEMDAT27 MEMDAT26 MEMDAT25 MEMDAT24 MEMDAT23 MEMDAT22 MEMDAT21

C8806 0.1 25V F:CHIP
C8805 0.1 25V F:CHIP
C8804 0.1 25V F:CHIP
C8803 0.1 25V F:CHIP
C8810 0.1 25V F:CHIP
C8813 0.1 25V F:CHIP
C8818 0.1 25V F:CHIP
C8820 0.1 25V F:CHIP
C8821 0.1 25V F:CHIP
C8825 0.1 25V F:CHIP
C8824 0.1 25V F:CHIP
C8823 0.1 25V F:CHIP

D3.3V

R8810 22 1/16W :CHIP

MEMDAT20 MEMDAT19 MEMDAT18 MEMDAT17 MEMDAT16 MEMDAT15 MEMDAT14 MEMDAT13 MEMDAT12 MEMDAT11 MEMDAT10 MEMDAT9 MEMDAT8 MEMDAT7 MEMDAT6 MEMDAT5 MEMDAT4 MEMDAT3 MEMDAT2 MEMDAT1 MEMDAT0

DQ0 DQ15 DQ1 DQ14 DQ2 DQ13 DQ3 DQ12 DQ4 DQ11 DQ5 DQ10 DQ6 DQ9 DQ7 DQ8 DQM0 WE DQM1 CAS CLK

DQ25 DQ22 DQ26 DQ21 DQ27 DQ20 DQ28 DQ19 DQ29 DQ18 DQ30 DQ17 DQ31 DQ16 DQM3 DQM2 SA4 SA3 SA5 SA2 SA7 SA6 SA1 SA0 SA8 SA10 SA9 SA11 CS RAS

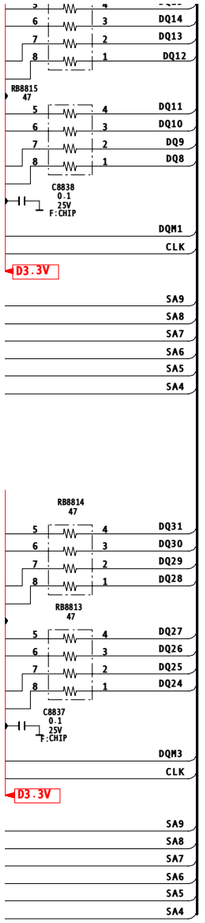
IC8803
NT56V1616AAOT-7
16 M SDRAM

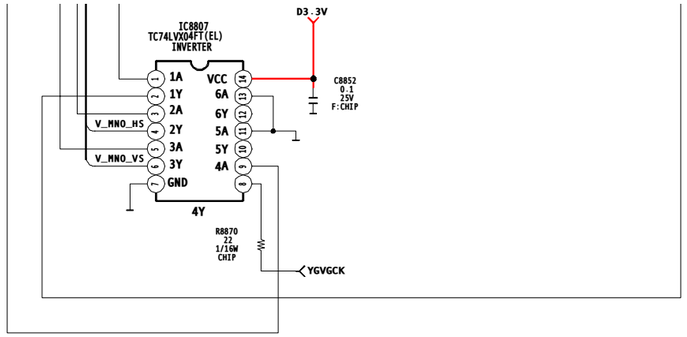
R88810 47
R88809 47
R88811 47
R88815 47

C8832 0.1 25V F:CHIP
C8831 0.1 25V F:CHIP
C8830 0.1 25V F:CHIP
C8835 0.1 25V F:CHIP
C8834 0.1 25V F:CHIP
C8833 0.1 25V F:CHIP
C8829 0.1 25V F:CHIP

DQ16 DQ17 DQ18 DQ19 DQ20 DQ21 DQ22 DQ23 DQM2 WE CAS RAS CS SA11 SA10 SA0 SA1 SA2 SA3

DQ1 DQ2 DQ3 DQ4 DQ5 DQ6 DQ7 DQM0 WE CAS RAS CS SA11 SA10 SA0 SA1 SA2 SA3



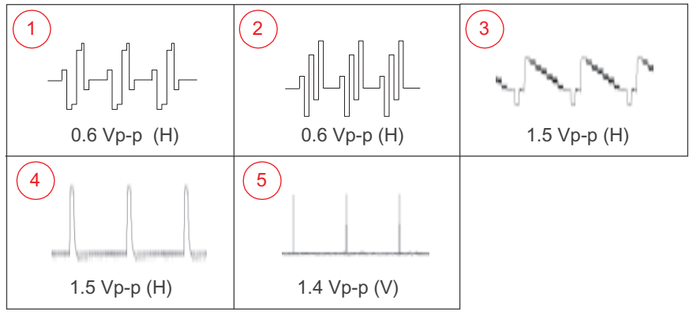




# QM BOARD 8/9

# YGV

## GRAPHICS

## QM BOARD WAVEFORMS (SCHEMATIC 8 OF 9)



QM BOARD SCHEMATIC DIAGRAM (9 OF 9)

SDA_EXT
SCL_EXT
R8912 10 1/16W :CHIP
R8911 10 1/16W :CHIP
SDA_M5
SCL_M5
R8904 0 1/16W :CHIP
R8903 0 1/16W :CHIP
R8907 47 1/16W :CHIP
R8906 47 1/16W :CHIP
D 5V
R8909 47k 1/16W :CHIP
C8901 0.01 50V F:1608
IC8901 M24C32-WMN6T(A) MIDX NVM
E0 E1 E2 VSS VCC WC SCL SDA
Q8904 2SB1462J-(TX) PULL-UP
Q8903 2SB1462J-(TX) PULL-UP
R8918 100k 1/16W :CHIP
R8917 100k 1/16W :CHIP
R8915 2.2k 1/16W :CHIP
R8916 2.2k 1/16W :CHIP
C8902 0.1 25V F:CHIP
IC8902 MB94P918PF-G MID-UCOM
IO_SCL2 IO_SDA2 IO_SCL1 IO_SCL0 IO_SDA1 IO_SDA0 O_PLL_SIN O_PLL_DAT O_PLL_CLK VSS VDD I_BX/XBC I_JPN/XUS I_STB/XTV I_DTV/XDRC
DRC_FILM
DRC_PXI
DRC_LINE_W
DRC_BLK
DRC_FFSW
DRC_LEVEL
MID_OK
DRC_INSEL
O_EXPAND00
O_EXPAND01
O_EXPAND02
O_EXPAND03
O_EXPAND04
O_EXPAND05
O_EXPAND06
O_EXPAND07
O_EXPAND10
O_EXPAND11
O_EXPAND12
O_EXPAND13
O_EXPAND14
O_EXPAND15
O_EXPAND16
O_EXPAND17
O_DRC_S0
O_DRC_S1
O_DRC_LEVEL
MID_OK
O_MID_OK
O_DRC_INSEL
O_7M_XENA
O_34M_XENA

16 17 18 19 20 21 22 23 24 25 26 27 28

D 5V

D5V

82 81 80 79 78 77 76 75 74 73 72 71 70 69 68 67 66 65 64 63 62 61 60 59 58 57

I_AN_APL
AVDD
AVSS
I_OSD_ROUT
I_OSD_GOUT
I_OSD_BOUT
I_OSD_IOUT
O_OSD_VOB
O_BINT
_OSD_HSYNC
_OSD_VSYNC
I_XBINT

C8905 0.1 25V F:CHIP
L8906 4.7μH :CHIP
C8906 47 16V :AL-CP
C8907 47p 50V CH:CHIP
C8908 56p CH:CHIP
R8929 100 1/16W :CHIP

SUB_OSD

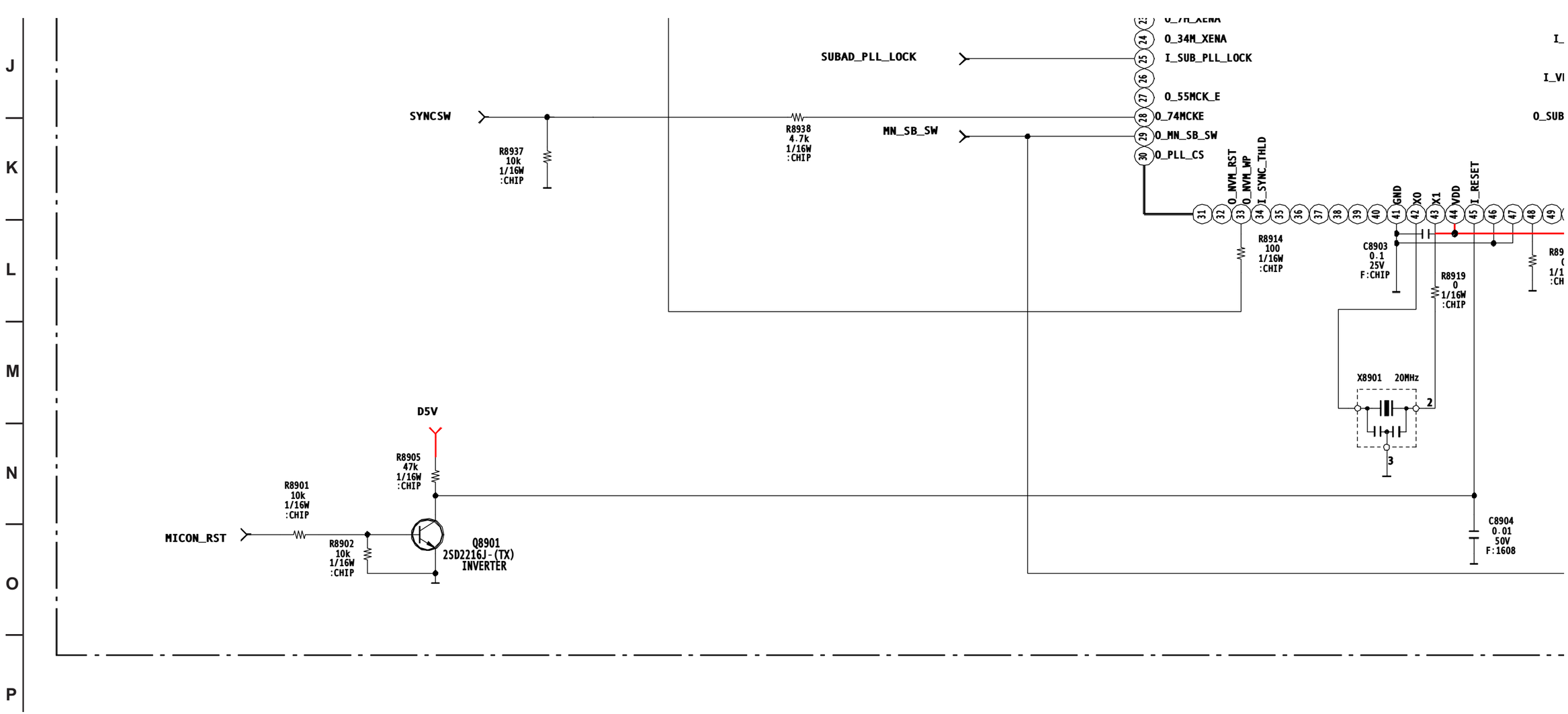
D 5V
R8932 22k 1/16W :CHIP
R8933 22k 1/16W :CHIP
C8909 0.1 25V F:CHIP
C8910 1 6.3V B:CHIP
R8930 4.7k 1/16W :CHIP
R8931 4.7k 1/16W :CHIP
D5V
R8928 10k 1/16W :CHIP
R8924 10k 1/16W :CHIP
R8921 100 1/16W :CHIP

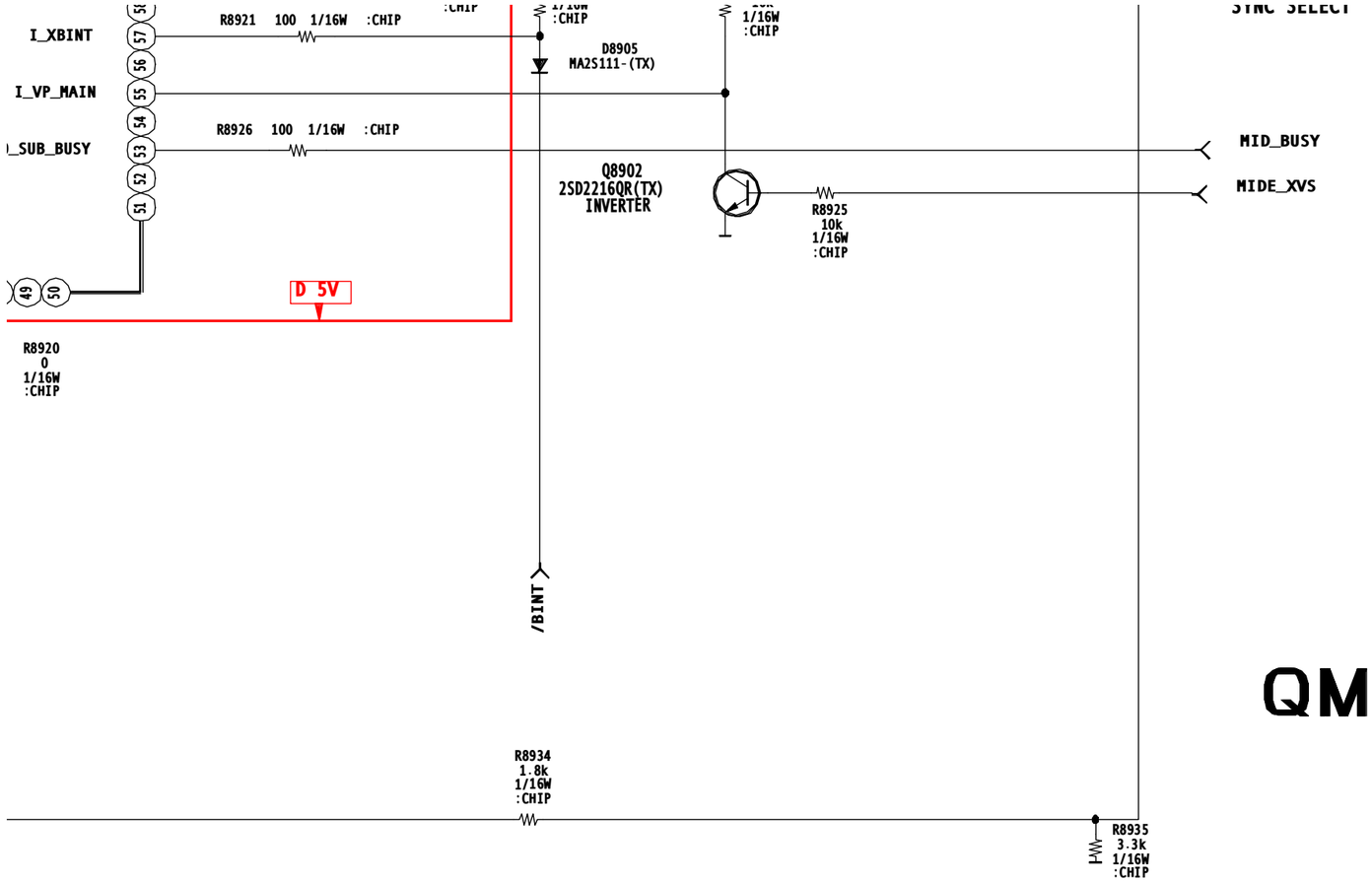
V_DRCI
OSD_HS
HS
OSD_VS
VS

D3.3V
C8914 0.1 25V F:CHIP

| | | | |
|---|---|---|---|
| 1 | SEL | VCC | 16 |
| 2 | 1A | XST | 15 |
| 3 | 1B | 4A | 14 |
| 4 | 1Y | 4B | 13 |
| 5 | 2A | 4Y | 12 |
| 6 | 2B | 3A | 11 |
| 7 | 2Y | 3B | 10 |
| 8 | GND | 3Y | 9 |

IC8903
TC74LVX157FT(EL)
SYNC SELECT


SUBAD_PLL_LOCK
SYNCSW
MN_SB_SW
R8937
10k
1/16W
:CHIP
R8938
4.7k
1/16W
:CHIP
24 O_34M_XENA
25 I_SUB_PLL_LOCK
26
27 O_55MCK_E
28 O_74MCKE
29 O_MN_SB_SW
30 O_PLL_CS
31 32 33 O_NVM_RST
O_NVM_WP
34 I_SYNC_THLD
35 36 37 38 39 40 41 GND
42 XO
43 X1
44 VDD
45 I_RESET
46 47 48 49
R8914
100
1/16W
:CHIP
C8903
0.1
25V
F:CHIP
R8919
0
1/16W
:CHIP
X8901 20MHz
2
3
C8904
0.01
50V
F:1608
D5V
R8905
47k
1/16W
:CHIP
R8901
10k
1/16W
:CHIP
MICON_RST
R8902
10k
1/16W
:CHIP
Q8901
2SD2216J-(TX)
INVERTER




# QM BOARD 9/9
# MID-UCOM

# PRINTING THE SERVICE MANUAL

The PDF of this service manual is not designed to be printed from cover to cover. The pages vary in size, and must therefore be printed in sections based on page dimensions.

## NON-SCHEMATIC PAGES

Data that does NOT INCLUDE schematic diagrams are formatted to 8.5 x 11 inches and can be printed on standard letter-size and/or A4-sized paper.

## SCHEMATIC DIAGRAMS

The schematic diagram pages are provided in two ways, full size and tiled. The full-sized schematic diagrams are formatted on paper sizes between 8.5" x 11" and 18" x 30" depending upon each individual diagram size. Those diagrams that are LARGER than 11" x 17" in full-size mode have been tiled for your convience and can be printed on standard 11" x 17" (tabloid-size) paper, and reassembled.

### TO PRINT FULL SIZE SCHEMATIC DIAGRAMS

If you have access to a large paper plotter or printer capable of outputting the full-sized diagrams, output as follows:

1) Note the page size(s) of the schematics you want to output as indicated in the middle window at the bottom of the viewing screen.

2) Go to the File menu and select Print Set-up. Choose the printer name and driver for your large format printer. Confirm that the printer settings are set to output the indicated page size or larger.

3) Close the Print Set Up screen and return to the File menu. Select "Print..." Input the page number of the schematic(s) you want to print in the print range window. Choose OK.

### TO PRINT TILED VERSION OF SCHEMATICS

Schematic pages that are larger than 11" x 17" full-size are provided in a 11" x 17" printable tiled format near the end of the document. These can be printed to tabloid-sized paper and assembled to full-size for easy viewing.

If you have access to a printer capable of outputting the tabloid size (11" x 17") paper, then output the tiled version of the diagram as follows:

1) Note the page number(s) of the schematics you want to output as indicated in the middle window at the bottom of the viewing screen.

2) Go to the File menu and select Print Set-up. Choose the printer name and driver for your printer. Confirm that the plotter settings are set to output 11" x 17", or tabloid size paper in landscape ( ▭ ) mode.

3) Close the Print Set Up screen and return to the File menu. Select "Print..." Input the page number of the schematic(s) you want to print in the print range window. Choose OK.

### TO PRINT SPECIFIC SECTIONS OF A SCHEMATIC

To print just a particular section of a PDF, rather than a full page, access the Graphics Select tool in the Acrobat Reader tool bar.

1) To view the Graphics Select Tool, press and HOLD the mouse button over the Text Select Tool which looks like: 
This tool will expand to reveal to additional tools.
Choose the Graphics Select tool by placing the cursor over the button on of the far right that looks like: 

2) After selecting the Graphics Select Tool, place your cursor in the document window and the cursor will change to a plus (+) symbol. Click and drag the cursor over the area you want to print. When you release the mouse button, a marquee (or dotted lined box) will be displayed outlining the area you selected.

3) With the marquee in place, go to the file menu and select the "Print..." option. When the print window appears, choose the option under the section called "Print Range" which says "Selected Graphic".

Select OK and the output will print only the area that you outlined with the marquee. 

(continued >)

# ON-SCREEN SEARCH OPTION

All of the text within the service manual PDF is content searchable. This means that you can enter any text, word, phrase or reference number that appears in the manual, and the PDF software will search, find and move the cursor to the location where you requested text first appears. This feature can be particularly useful in locating components on a specific schematic or printed wire circuit board (PWB) diagrams.

Follow these steps to effectively locate a component on a schematic diagram:

1) Locate the schematic you want to search by clicking on the corresponding bookmark on the left side of the screen. The view on the right of the screen will then jump to the desired schematic page.

2) Magnify the diagram to at least 400% before conducting a component search. This will enable you to easily view the reference number when it is highlighted on screen. To do this, click on the magnifying glass button on the tool bar at the top of the screen. Move the cursor over the diagram and RIGHT click you mouse. Select the 400% magnification option on the pop-up menu. Click on the button with the icon of the open hand to deactivate the magnification tool

3) Search the diagram (or the entire manual) by clicking on the binocular button tool at the top of the screen. The “Find” window will appear and allow you to type in your desired text. Type in a reference designator, such as R502, and click on the “Find” button. If the component is not on the diagram, but is listed anywhere else in the manual, the cursor will jump to the first location the text is found in the file. To find another instance of that same text, click on the binocular button again and select “Find Again.”