

SET TOP BOX  
V26K CHASSIS



**MODEL**  
**HD-4001**  
RECEIVER/CONTROLLER  
FOR MODELS LT-3280 & LT-3780

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**CAUTION:**

Before servicing this chassis, it is important that the service person read the "SAFETY PRECAUTIONS" and "PRODUCT SAFETY NOTICE" contained in this manual.

## SPECIFICATIONS

- |   |  |  |
|---|--|--|
| <ul style="list-style-type: none"> <li>• <b>Power Input</b> : AC 120V, 60Hz</li> <li>• <b>Power Usage</b> : 82W</li> <li>• <b>Frequency Range</b> : VHF 54 ~ 470MHz<br/>UHF 470 ~ 806MHz<br/>Analog Cable - 1 ~ 125<br/>Digital Cable - 1 ~ 135</li> <li>• <b>Antenna Input</b> : 2 RF 75Ω unbalanced</li> <li>• <b>Tuning</b> : 1 NTSC/ATSC/QAM<br/>1 CableCARD™ Slot<br/>1 NTSC for PIP</li> <li>• <b>Cabinet Dimensions</b> : 17"(W) x 3.7"(H) x 17.25"(D)</li> <li>• <b>Weight</b> : 12.8 lbs</li> <li>• <b>Analog Input Levels</b> : VIDEO IN JACK (RCA Type)<br/>1.0Vp-p 75Ω unbalanced<br/>: AUDIO IN JACK (RCA Type)<br/>-4.7dBm 43kΩ unbalanced</li> </ul> | <ul style="list-style-type: none"> <li>• <b>Output Level</b> : VIDEO OUT JACK (RCA Type)<br/>1.0Vp-p 75Ω unbalanced<br/>: AUDIO OUT JACK (RCA Type)<br/>-4.7dBm 4.7kΩ unbalanced</li> <li>• <b>Digital Interface</b> : IEEE-1394 I/O Jacks<br/>: AC-3 Digital Audio Output<br/>: HDMI™ Input<br/>: MonitorLink™ Control/RS-232C<br/>: CableCARD™ Slot<br/>: NetCommand®</li> </ul> | <ul style="list-style-type: none"> <li>: S-VIDEO IN JACK<br/>(Y/C separate type)<br/>Y:1.0 Vp-p C:0.286Vp-p(BURST)<br/>75Ω unbalanced</li> <li>: COMP / Y, Cr, Cb (RCA Type)<br/>Y: 1.0 Vp-p Cr, Cb: 700mVp-p</li> </ul> |
|---|--|--|

• Design specifications are subject to change without notice.

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## INTRODUCTION

This service manual provides service instructions for STB model HD-4001 which uses the V26K chassis. Service personnel should read this manual thoroughly before servicing these chassis.

This service manual includes:

1. Safety Precautions
2. Assembly and disassembly instructions.
3. Servicing printed circuit boards (PCBs).
4. Electrical adjustments.
5. Chip parts replacement procedures.
6. Circuit path diagrams.

The parts list section of this service manual includes:

1. Cabinet and screen parts.
2. Electrical parts.

Schematic and block diagrams of the above listed models are included in this service manual for better understanding of the circuitry. PCB drawings are also included for easy location of parts and test points.

## PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in television receivers have special safety related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc.

Replacement parts which have special safety characteristics are identified in this service manual.

Electrical components having such features are identified by shading on the schematic diagrams and by **bold type** in the parts list of this service manual. and by marking on the supplementary sheet for this chassis to be issued subsequently. **The replacement for any safety part should be identical in value and characteristics.**

CableCARD is a trademark of Cable Television Laboratories, Inc.  
TV Guide On Screen is a registered trademark of Gemstar Development Corp.  
HDMI is a trademark of HDMI Licensing, LLC.

## SAFETY PRECAUTIONS

**NOTICE:** Observe all cautions and safety related notes located inside the receiver cabinet and on the receiver chassis.

**WARNING:**

1. Operation of this receiver outside the cabinet or with the cover removed presents a shock hazard from the receiver's power supplies. Work on the receiver should not be attempted by anyone who is not thoroughly familiar with the precautions necessary when working on high voltage equipment.
2. When service is required, observe the original lead dress. Extra precaution should be taken to assure correct lead dress in the high voltage area. Where a short-circuit has occurred, replace those components that indicate evidence of overheating.

**Leakage current check**

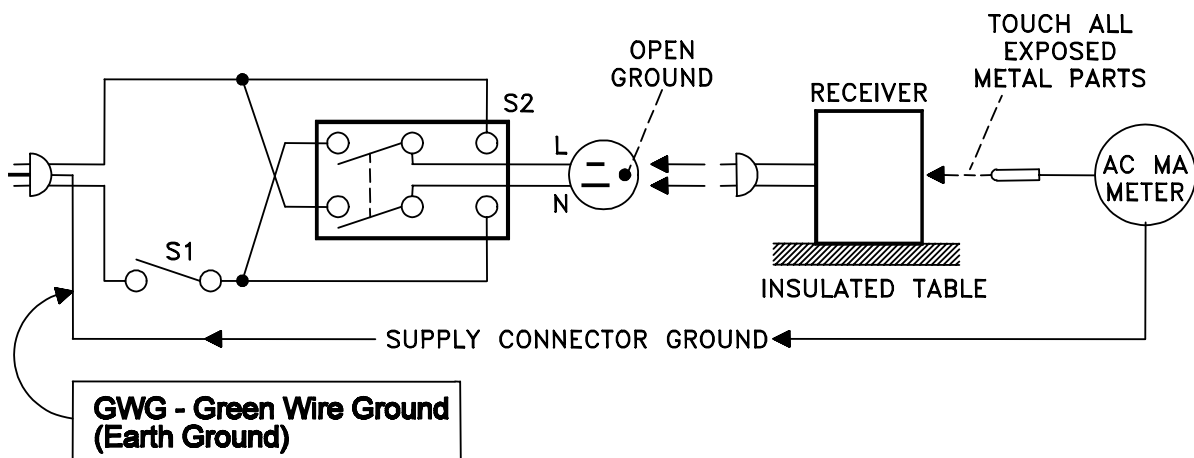
Before returning the receiver to the customer, it is recommended that leakage current be measured according to the following methods.

1. *Cold Check*

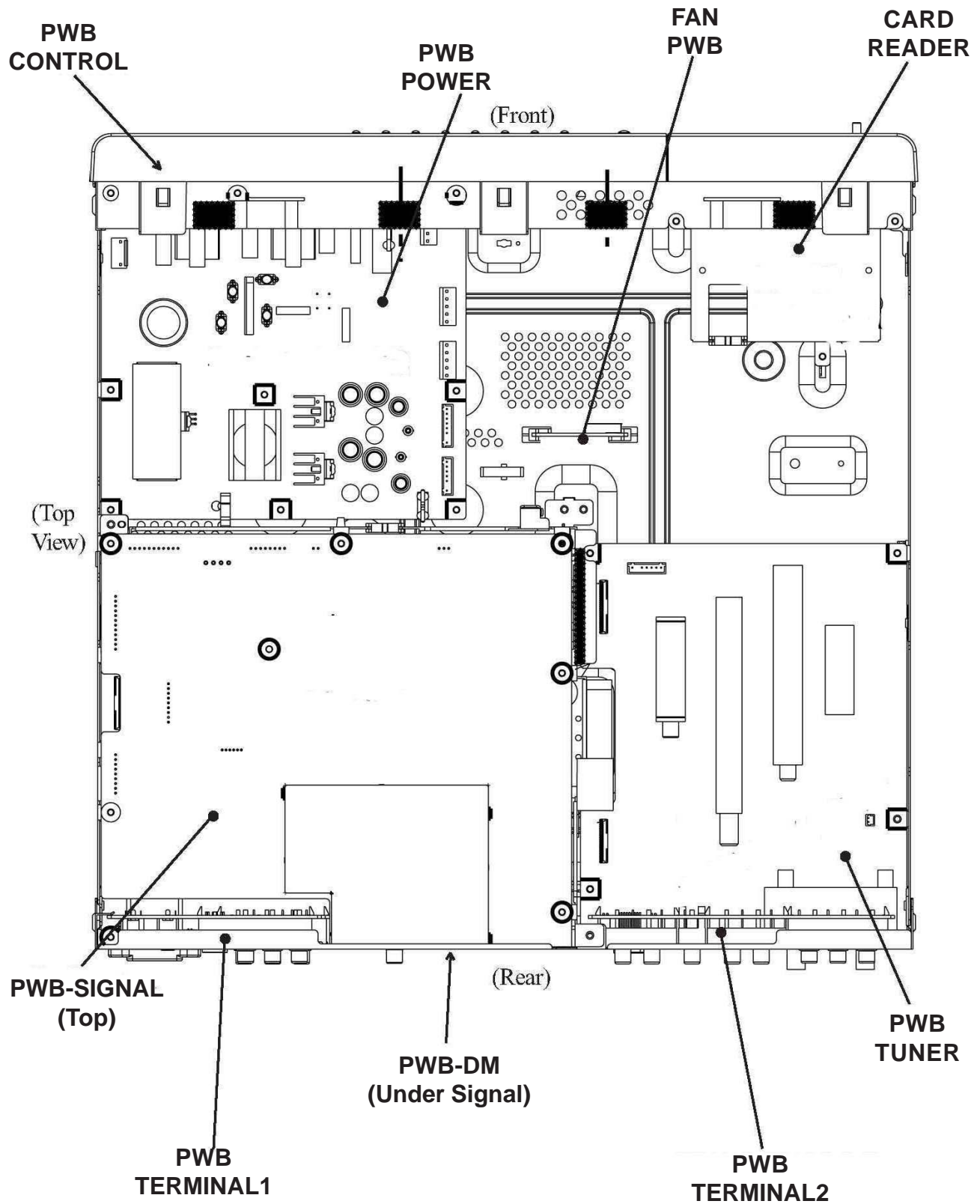
With the alternating current (AC) plug removed from the AC source, place a jumper across the two AC plug prongs. Connect one lead of an ohm meter to the AC plug and touch the other lead to each exposed metal part (i.e. antennas, handle bracket, metal cabinet, screw heads, metal overlay, control shafts, etc.), particularly any exposed metal part that has a return path to the chassis. The resistance of the exposed metal parts having a return path to the chassis **should be a minimum of 1 Mega Ohm**. Any resistance below this value indicates an abnormal condition and requires corrective action.

2. *Hot Check ...Use the circuit shown below to perform the hot check test.*

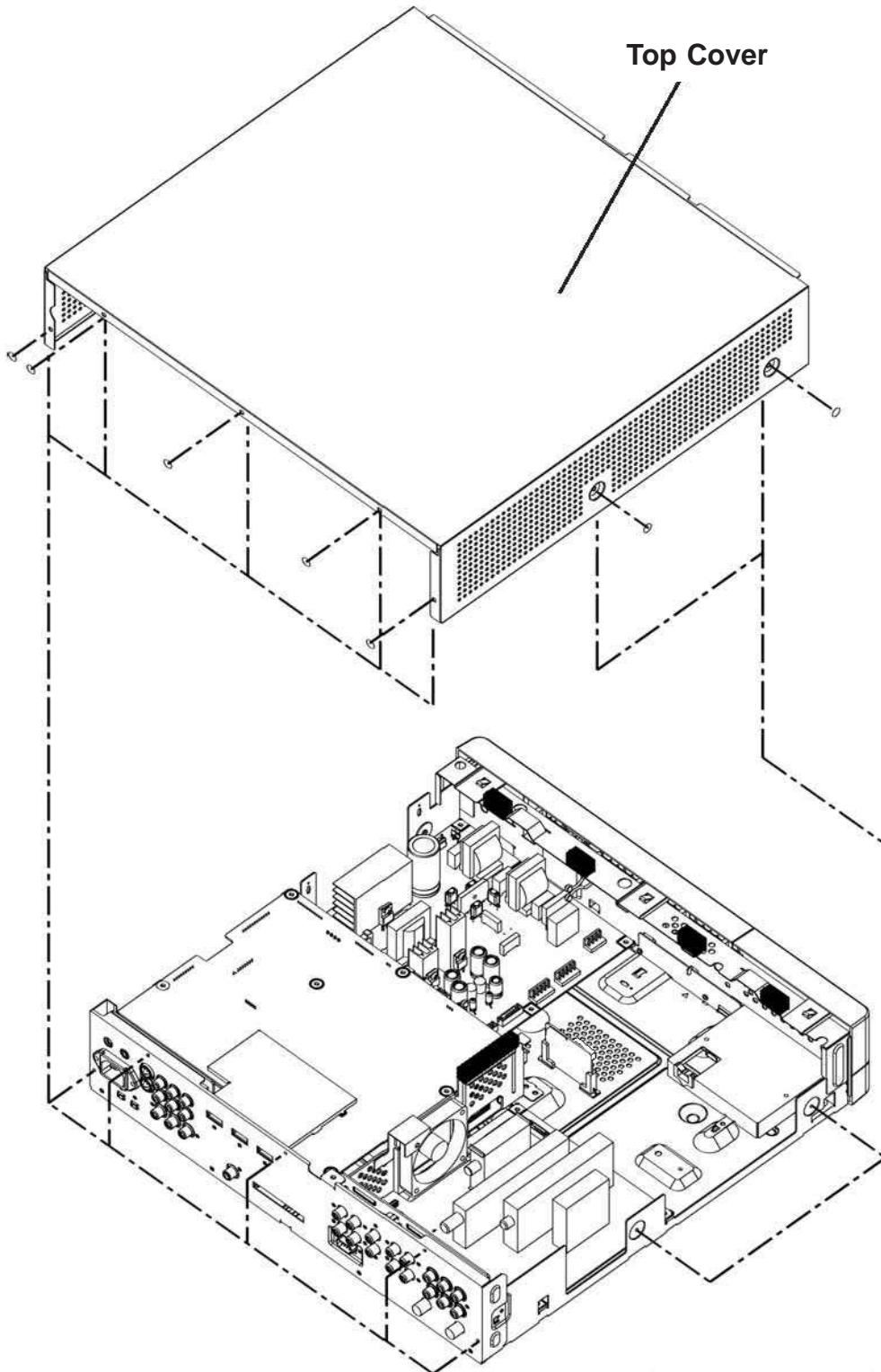
1. Keep switch S1 open and connect the receiver to the measuring circuit. Immediately after connection, and with the switching devices of the receiver in their operating positions, measure the leakage current for both positions of switch S2.
2. Close switch S1, energizing the receiver. Immediately after closing switch S1, and with the switching devices of the receiver in their operating positions, measure the leakage current for both positions of switch S2. Repeat the current measurements of items 1 and 2 after the receiver has reached thermal stabilization. **The leakage current must not exceed 0.5 milliampere (mA).**



**PWB-LOCATION**

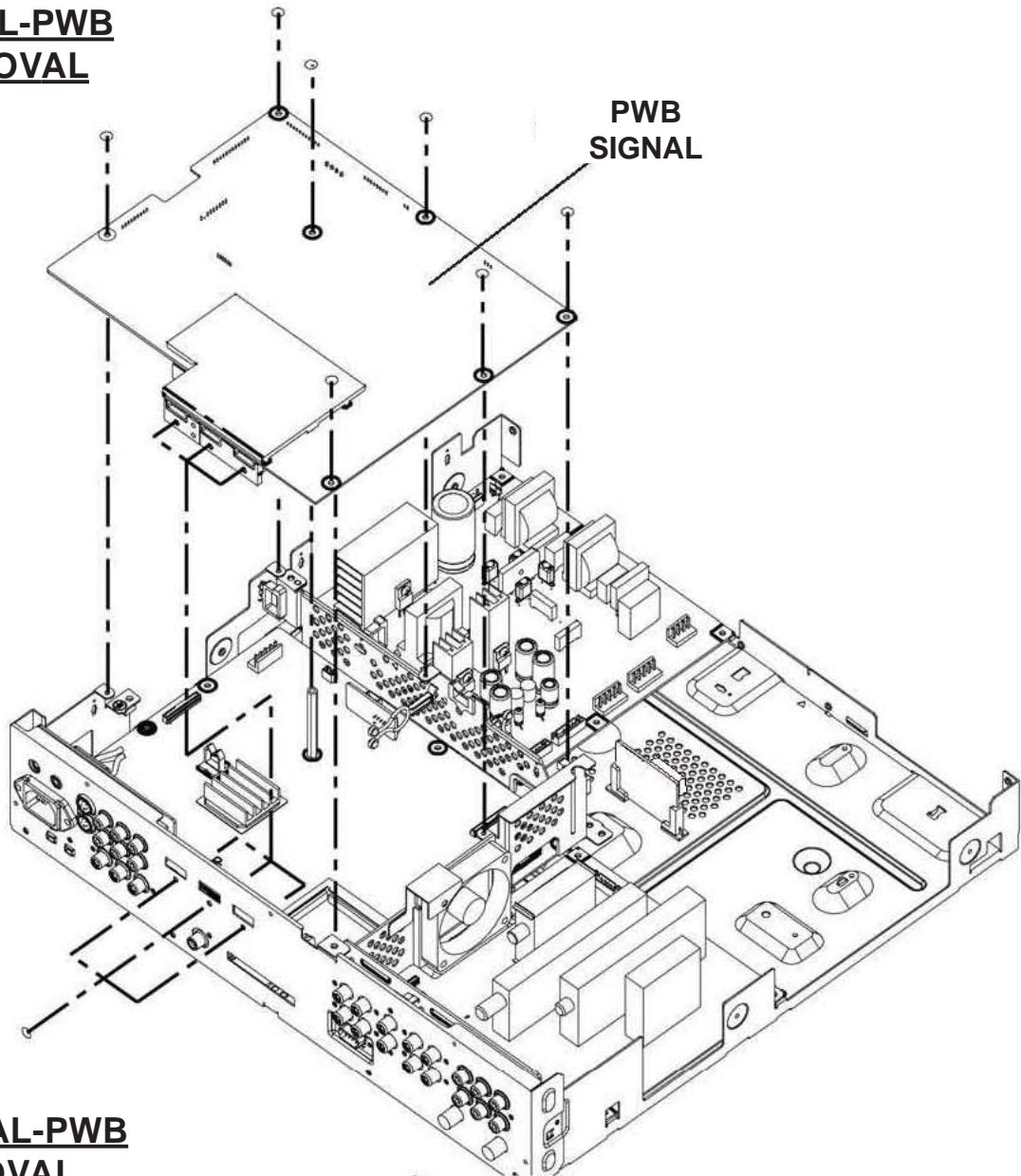


**DISASSEMBLY**  
**TOP COVER REMOVAL**

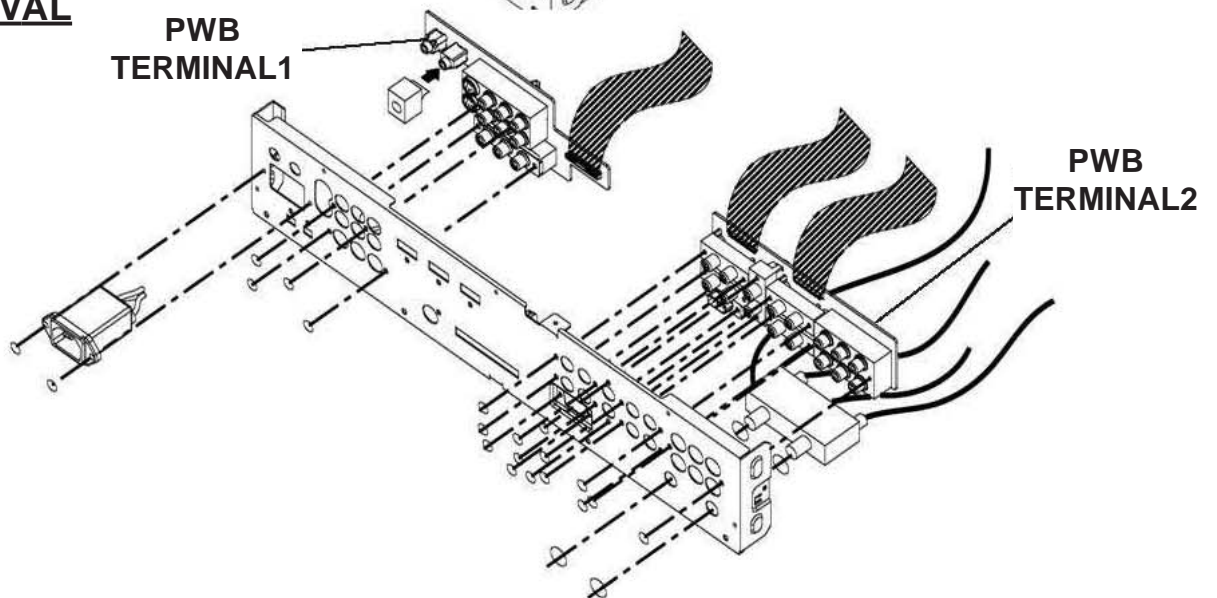




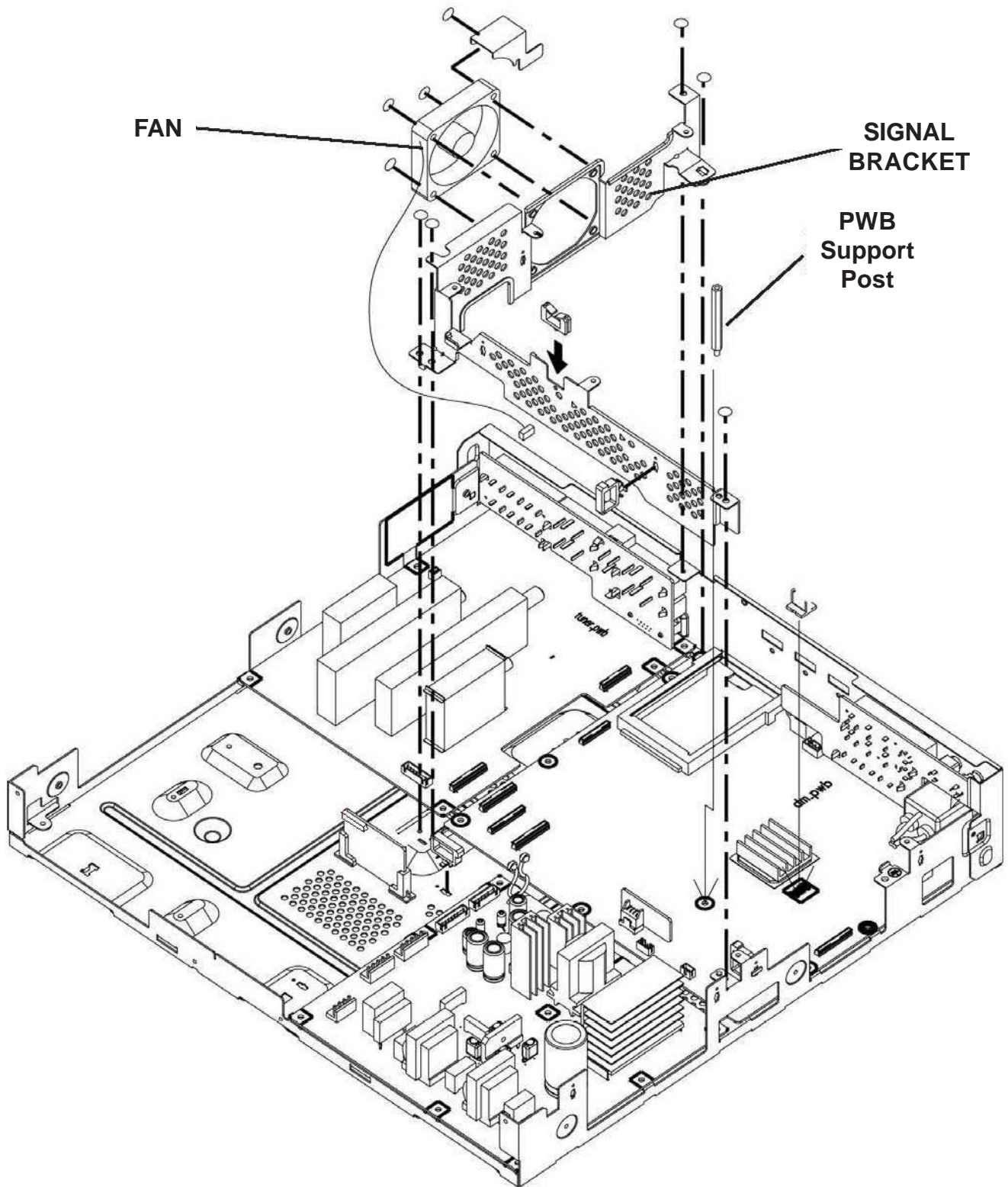
**SIGNAL-PWB**  
**REMOVAL**

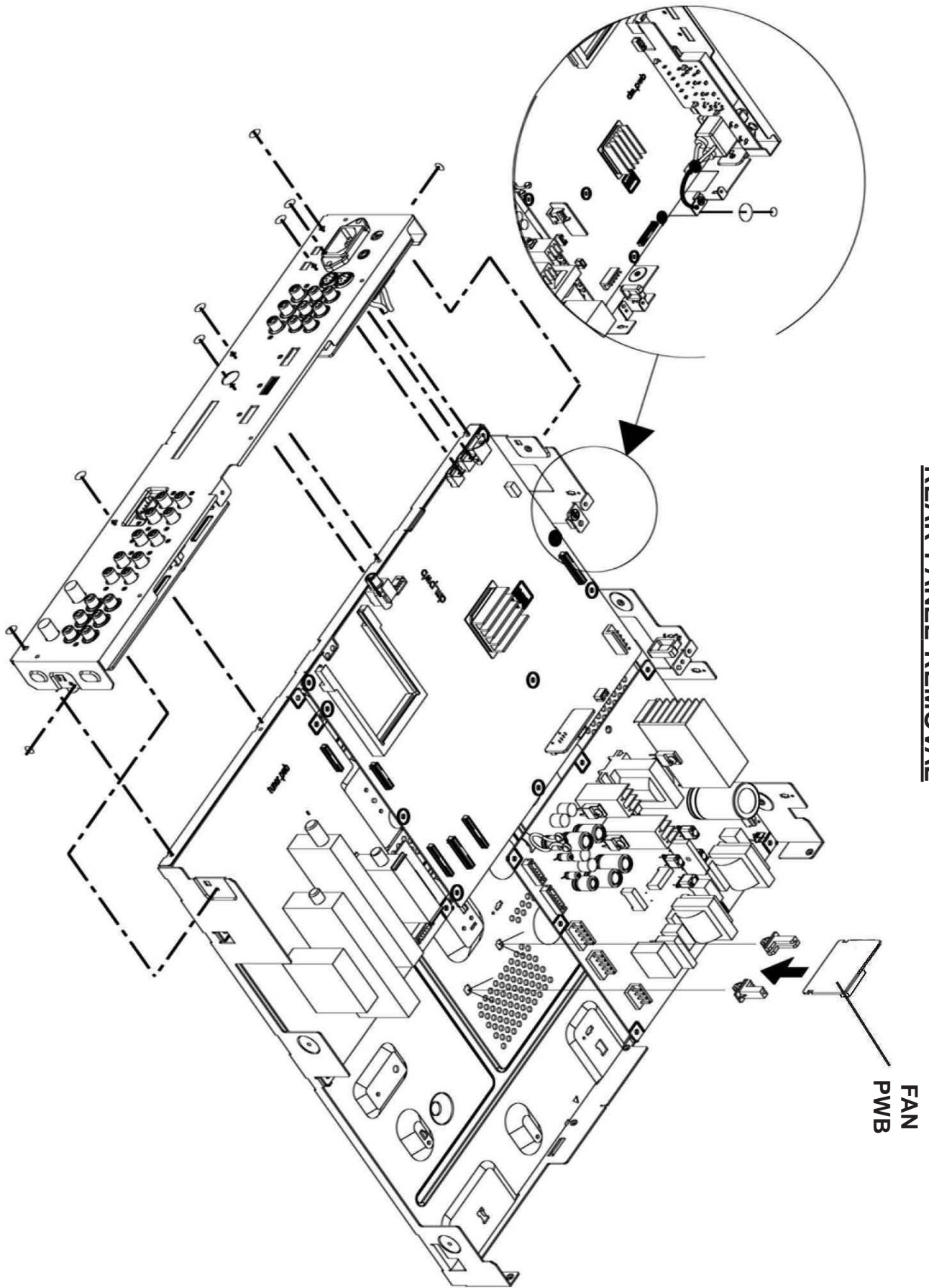


**TERMINAL-PWB**  
**REMOVAL**



**SIGNAL BRACKET REMOVAL**

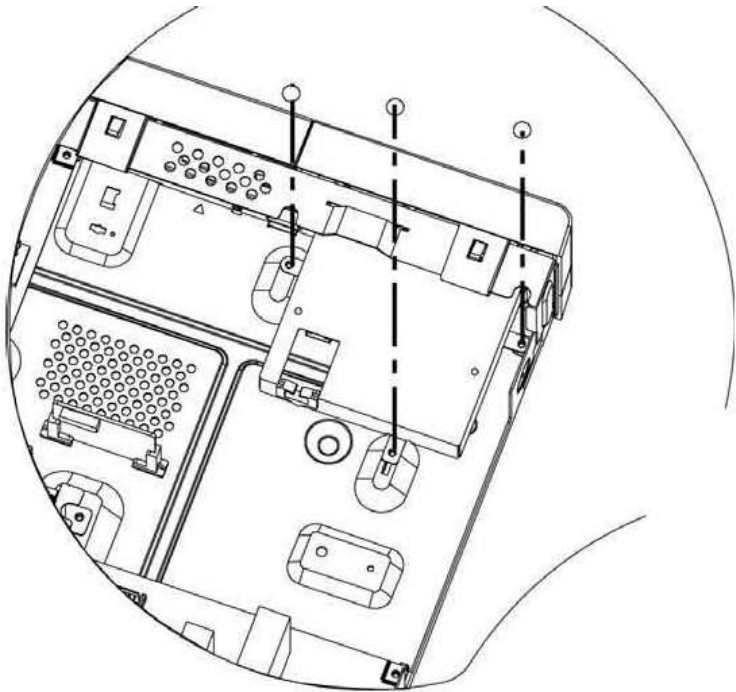




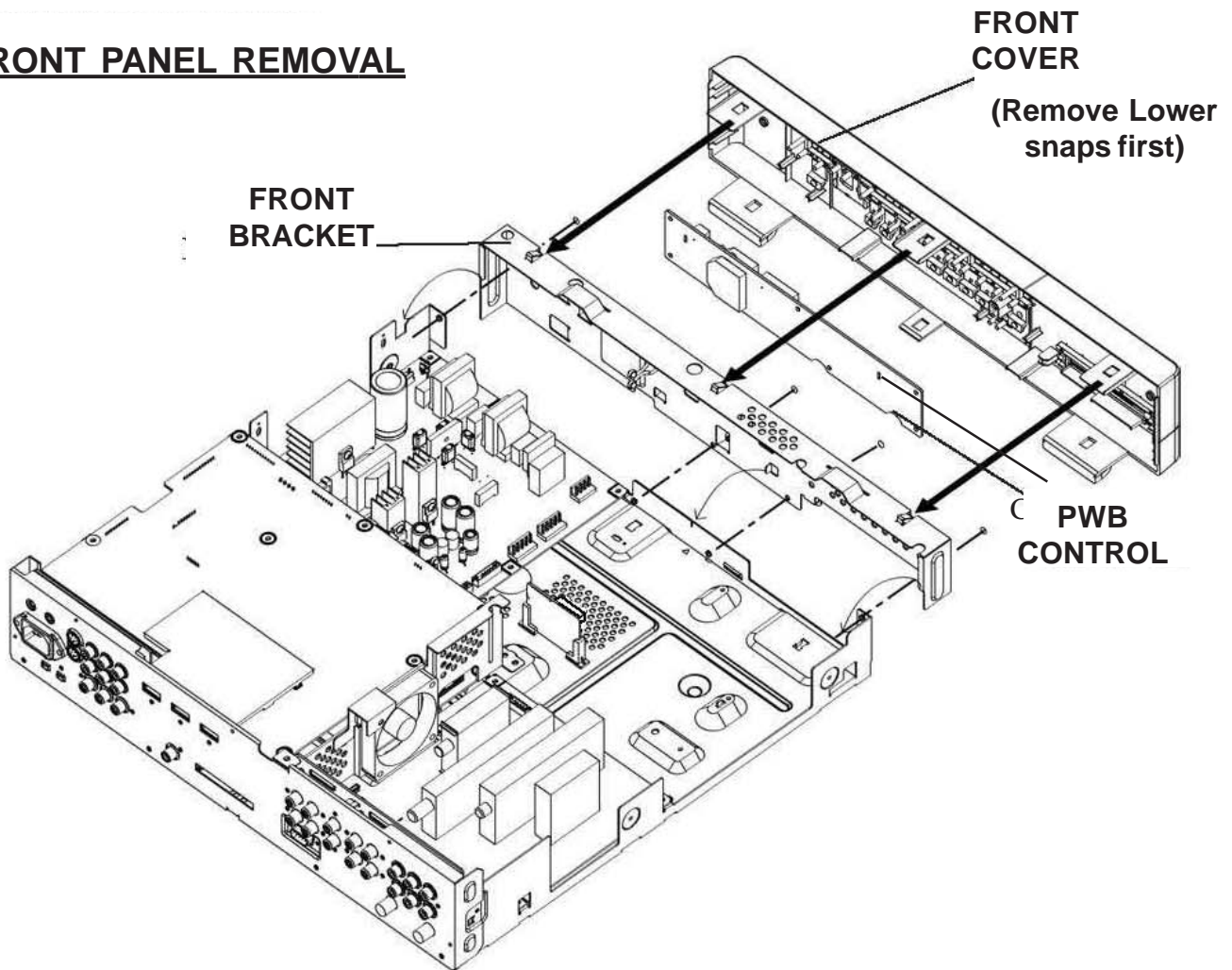
**REAR PANEL REMOVAL**

**FAN  
PWB**

**CARD READER REMOVAL**



**FRONT PANEL REMOVAL**



## ELECTRICAL ADJUSTMENTS

**Note:** Perform only the adjustments required.  
Do not attempt an alignment if proper equipment is not available.

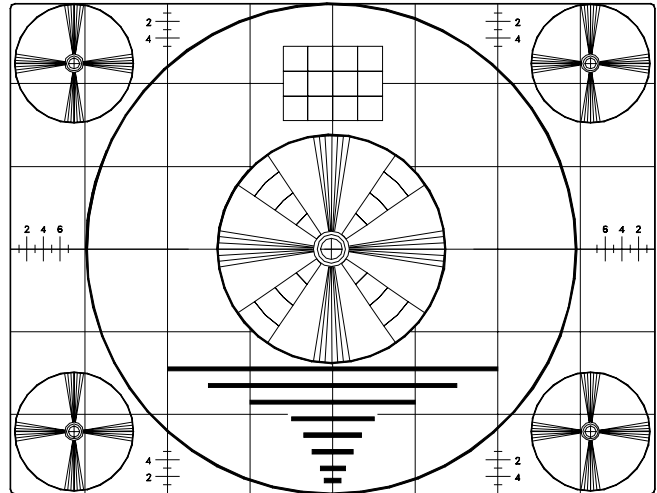
### Test Equipment

- Oscilloscope (Unless otherwise specified, use 10:1 probes)
- Signal Generator (both SD and HD capable)

### Test Signal

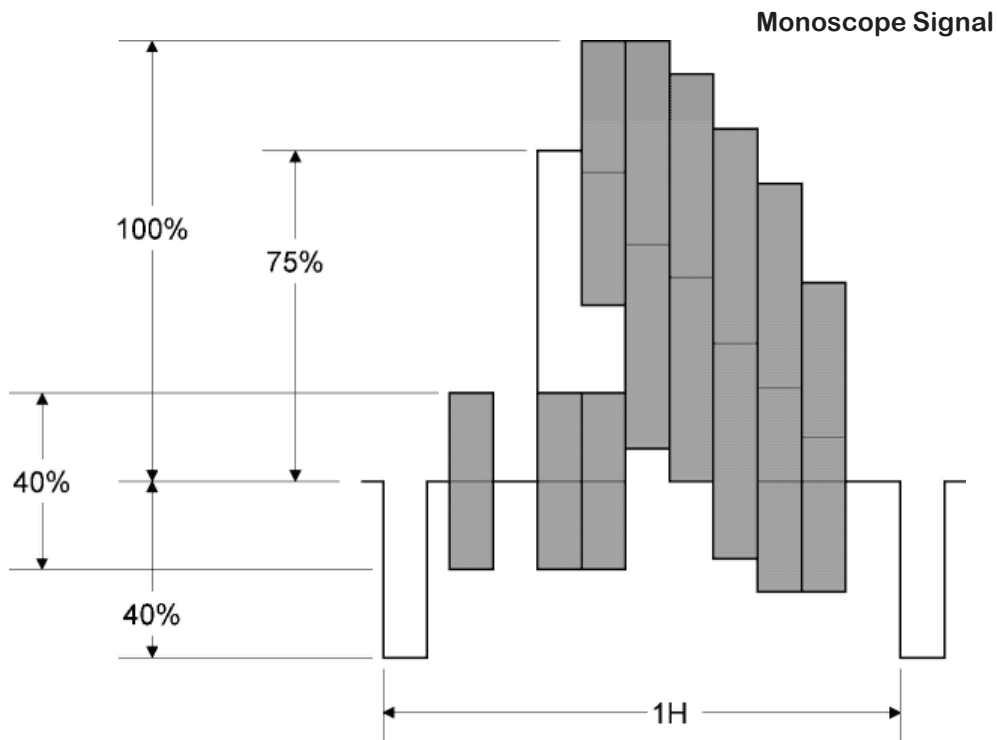
#### A. Monoscope Signal

**Note:** If you do not have a monoscope signal source, connect the unit to a VCR and play a Monoscope \*alignment tape.  
(\* Part Number: 859C568060)



#### B. Color Bar Signal

Use the color bar signal shown below, unless otherwise specified in this manual.



# OPTION MENU

1. Press the "MENU" button on the remote hand unit.
2. Press the buttons "2", "4", "7" and "0" in order.  
(The screen will change to the option menu.)

## OPTION MENU

Initial  
**Power Restore** :Off  
**Direct Key Mode** :Off  
**G-Link** :Off  
**NetCommand Software** XX  
**Digital Signal Strength** XX

# DEFAULTS

## Defaults After Initialization

<b>Setup Menu</b>		<b>Captions Menu (continued)</b>		Unlock Time :12:00pm	
Language :English		Background :Gray		<b>Audio / Video</b>	
Color Balance --		Digital Captions :On if Mute		A/V Memory Reset :Ant-1	
Side Bar Color :Gray		Appearance :Default		Audio	
<b>NetCommand Menu</b>		Digital Settings		Bass :50%	
Edit --		Font :Font 3		Treble :50%	
Transport Menu :On		Size :Large		Balance :50%	
Default PVR --		Color :White		Surround :Off	
Icon Order --		Background :Black		Listen To (Analog Only) :Stereo	
Analog Quality :High		Opacity :Translucent		Level Sound :On	
<b>Antenna Menu</b>		Background Opacity :Translucent		Language (Digital Only) :English	
Antenna :1		<b>V-Chip Lock Menu</b>		Video	
Memorize --		V-Chiip :Off		Contrast :50%	
Prefer Digital --		TV Rating :TV-PG		Brightness :50%	
Channel :3		FV-Fantasy Violence :Enable		Sharpness :50%	
Memory :Deleted		D-Sexual Dialog :Enable		Color :50%	
Name --		L-Adult Language :Enable		Tint :50%	
SQV --		S-Sexual Situations :Enable		Video noise :Standard	
<b>Time Menu</b>		V-Violence :Enable		Film Mode (Auto) :On	
Clock Setting :Manual		Programs Not Rated :Enable		Video Mute :On	
Time :12:00AM		Movie Rating :PG		Back Light :100%	
Date :1/01/00		V-Chip Time		<b>TV Volume</b> :30%	
Time Zone :Eastern		Start :12:00pm		<b>PIP Source</b> :Ant-1 003	
Daylight Savings Time :Applies		Stop :12:00pm		<b>PIP Position</b> :Lower Right	
Timer --		<b>Lock by Time</b>		<b>POP Position</b> :Right Half	
<b>Captions Menu</b>		Lock by Time :Off		<b>PIP/POP Format</b> :Double Window	
Analog Captions :On if Mute		Lock Time :12:00pm		<b>Format</b> :Stretch	

A/V Function	Ant 1/2	Input 1/2	Component 1/2	HDMI 1/2	1394
<b>Contrast</b>	Center	Center	Center	Center	Center
<b>Brightness</b>	Center	Center	Center	Center	Center
<b>Sharpness</b>	Center	Center	Center	Center	Center
<b>Color</b>	Center	Center	Center	Center	Center
<b>Tint</b>	Center	Center	Center	Center	Standard
<b>Video noise</b>	Standard	Standard	Standard	Standard	Standard
<b>Backlight</b>	Max	Max	Max	Max	Max
<b>Film Mode (Auto)</b>	On	On	On	On	On
<b>Bass</b>	Center	Center	Center	Center	Center
<b>Treble</b>	Center	Center	Center	Center	Center
<b>Balance</b>	Center	Center	Center	Center	Center
<b>Surround</b>	Off	Off	Off	Off	Off
<b>Listen To</b>	Stereo	N/A	N/A	N/A	N/A
<b>Level Sound</b>	On	On	On	On	On

NOTE: User Menu A/V Reset, resets only the selected input A/V settings.

**A. A/V Memory**

Each of the external inputs has its' own Audio/Video Memory. A change in an A/V setting at a specific input is stored in memory for that specific input.

**B. A/V Reset**

The AV Reset in the user's menu initializes only the selected input's A/V Memory.

**LED Indicator Diagnostics**

The "POWER/TIMER" LED provides an indication of the sets operation, and the possible cause of a malfunction.

**1. Initial Control Circuitry Check**

Immediately after the TV is connected to an AC power source:

LED Indications	Conditions	Probable Cause
Off	After AC is applied	Standby Power Supply or TV μPC not running
Fast Bblink for 70 sec.	After AC is applied	Normal DM μPC is booting up
Fast Blink (doesn't stop)	After AC is applied	DM μPC failed to boot up
Slow Blink	Set in Off	Normal - Timer is set for Automatic Turn ON

**2. Error Code Operational Check**

**Note:** The Set Top Box must be in "Shut Down" and not have been switched Off, to perform the Error Code Operational Check. When the unit is switched Off, the code automatically resets to "12" No Error.

Pressing the front panel "DEVICE" and "MENU" buttons at the same time, and holding for 5 seconds, activates the Error Code Mode. The LED flashes denoting a two digit Error Code, or indicating no problem has occurred since the last Initalization.

**Note:** The front panel buttons must be used, NOT those on the Remote Control.

- The number of flashes indicates the value of the MSD (tens digit) of the Error Code.
- The flashing then pauses for approximately 1/2 second.
- The LED then flashes indicating the value of the LSD (ones digit) of the Error Code.
- The Error Code is repeated a total of 5 times.

Example: If the Error Code is "23", the LED will flash two times, pause, and then flash three times.

**4. Error Codes**

The Error Code designations indicating malfunction, or no malfunction, are listed below:

Error Code	Probable Cause
12	Normal Operation - No Error Detected
35	Fan Stopped
41	Short Detected

**Remote Control Operational Modes**

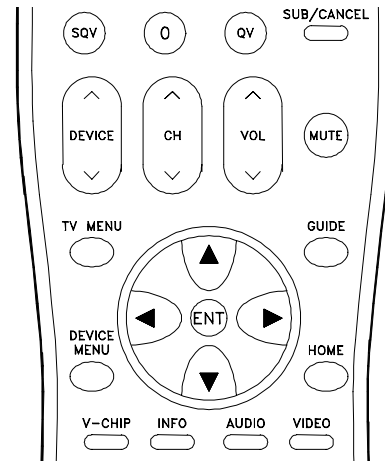
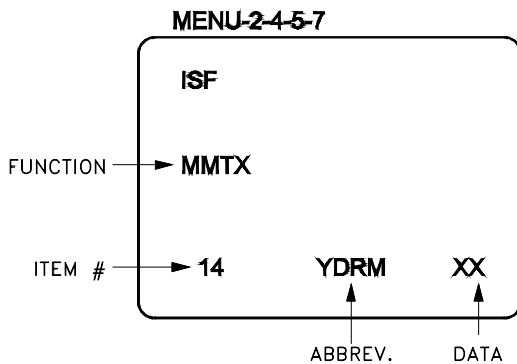
There are two Remote Hand Unit Operational Modes, "Standard" and "NetCommand™". The Remote is initially in the "Standard" mode. The "NetCommand™" mode is used when controlling Home Theater devices using NetCommand™. To change the Remote Operational Mode:

- Set the Remote to the CABLE/DBS/DTV Layer.
- Point the Remote away from the STB.
- To change to "Netcommand™" ... Hold the "Power" button and press "1-9-7" in sequence.

# CIRCUIT ADJUSTMENTS

## Electrical Adjustments

Electrical Adjustments are performed in Service Adjustment Mode.

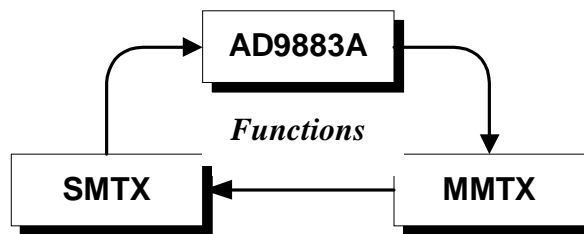


### 1. Activating the adjustment mode

1. Press the "MENU" button on a remote hand unit. (The "MENU" display will appear.)
2. Press the buttons "2", "4", "5" and "7" in that order. (The screen will change to the adjustment mode.)  
If not changed to the adjustment mode, repeat steps 1 and 2.

### 2. Adjustment Function Selection

Use the "AUDIO" button to select a specific Adjustment Function.



### 3. Adjustment Selection

Use the "VIDEO" button to select a specific electrical adjustment.

### 4. Adjusting Data

After selecting an adjustment item, use the "UP" and "DN" buttons to change adjustment data.

- <sup>a</sup> If the "UP" button is pressed, the adjustment data increases.
- <sup>a</sup> If the "DN" button is pressed, the adjustment data decreases.

### 5. Saving data

Press "ENTER" to save the adjustment data in memory.  
The display characters go red for approx. one second in this step.

**Note:** If the circuit adjustment mode is terminated without pressing "ENTER", changes in adjustment data are not saved.

### 6. Terminating the circuit adjustment mode

Press the "MENU" button on the remote hand unit twice to terminate the adjustment mode.

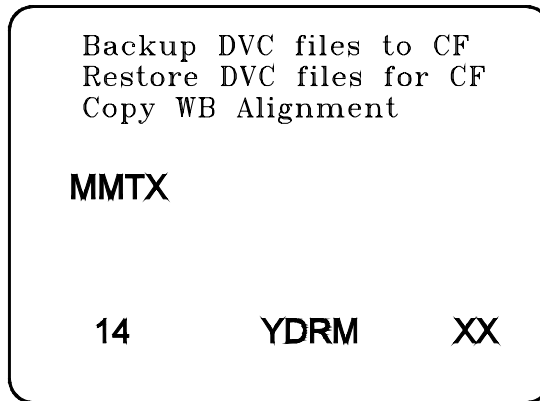
**Note:** The adjustment mode can be also terminated by turning the power off.



## Transferring Data

- 1) Enter the Service Adjustment Mode ... Press "MENU-2-4-5-7"
- 2) Press "0" when in the Service Mode ... Three choices appear at the top of the screen.
- 3) User UP & DN keys to highlight the desired choice, the Press "ENTER"

**MENU-2-4-5-7 + 0**



### Data Transfer Definitions

Display	Description
Backup DVC files to CF	Copies Alignment data to compact flash
Restore DVC files from CF	Loads Alignment data from compact flash
Copy WB Alignment	Used to transfer WB data from signal E2P to DM E2P

## SERVICE MODE - Adjustment Items and Initial Data Values

### MAIN MATRIX

Item #	Abbrev.	Description	Data Range	Initial Data
1	TNTM	Main Tint adjustment	0~63	28
4	COLM	Main Color adjustment	0~63	20
14	YDRM	Main Y gain control	0~31	5
18	UPDM	Main Pb Pedestal adjustment	0~15	7
19	VPDM	Main Pr Pedestal adjustment	0~15	7

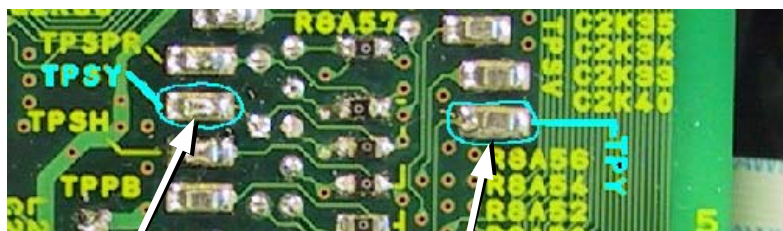
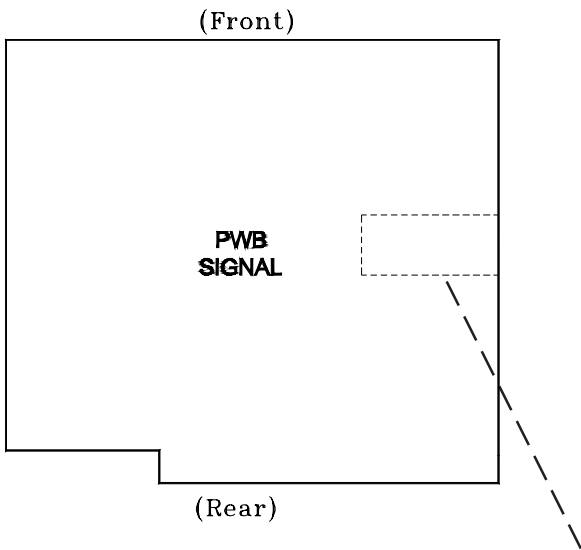
### SUB MATRIX

Item #	Abbrev.	Description	Data Range	Initial Data
1	TNTS	Sub Tint adjustment	0~63	28
4	COLS	Sub Color adjustment	0~63	18
14	YDRS	Sub Y gain control	0~31	5
18	UPDS	Sub Pb Pedestal adjustment	0~15	7
19	VPDS	Sub Pr Pedestal adjustment	0~15	7

### AD9883A

Item #	Abbrev.	Description	Data Range	Initial Data
12	ROFF	Red Offset	0~127	55
14	BOFF	Blue Offset	0~127	59

**MODEL: HD-4001**  
**TEST POINTS**

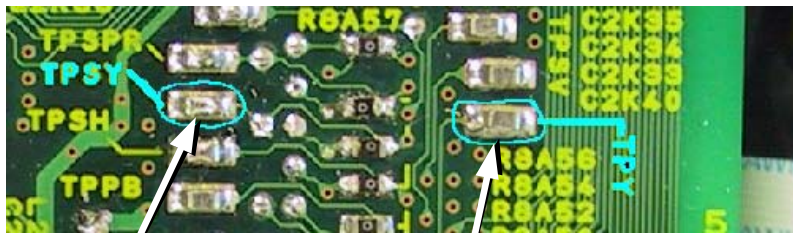


TPSY

TPY

<b>[Video Circuit]</b>		<b>Purpose:</b> To set the main picture Y level
<b>1. Main-Y Gain</b>		<b>Symptom:</b> Incorrect analog source main picture brightness level.
<b>Measuring Instrument</b>	Oscilloscope	<ol style="list-style-type: none"> <li>1. Supply a Color Bars with 100% white signal to an External Input.</li> <li>2. Connect a scope to TPY.</li> <li>3. Enter the Alignment Mode (MENU-2-4-5-7)</li> <li>4. Select the MMTX function (AUDIO button).</li> <li>5. Select adjust item #14 YDRM (VIDEO button).</li> <li>6. Set the data so the waveform at TPY is 0.7 V<sub>p-p</sub> ±0.03 V<sub>p-p</sub> (ADJUST buttons).</li> <li>7. Press “ENTER” to save data.</li> <li>8. Press “MENU” twice to exit the service mode.</li> </ol>
<b>Test Point</b>	TPMY	
<b>Ext. Trigger</b>	-----	
<b>Measuring Range</b>	-----	
<b>Input Signal</b>	Color bars	
<b>Input Terminal</b>	External Input	

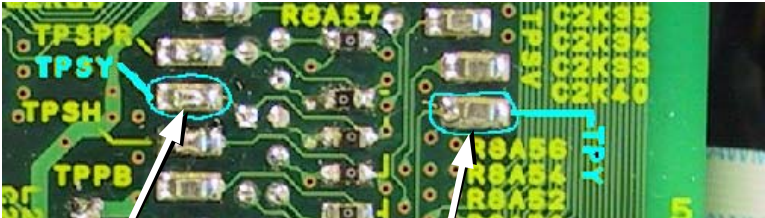
**PWB-SIGNAL (Partial)**



TPSY

TPY

**MODEL: HD-4001**

<b>[Video Circuit]</b> <b>2. Sub-Y Gain</b>		<b>Purpose:</b> To set the sub picture Y level <b>Symptom:</b> Incorret analog source sib picture brightness level.
<b>Measuring Instrument</b>	Oscilloscope	<ol style="list-style-type: none"> <li>1. Supply a Color Bars with 100% white signal to an External Input. Select this input as the sub picture source.</li> <li>2. Connect a scope to TPSY.</li> <li>3. Enter the Alignment Mode (MENU-2-4-5-7)</li> <li>4. Select the SMTX function (AUDIO button).</li> <li>5. Select adjust item #14 YDRS (VIDEO button).</li> <li>6. Set the data so the waveform at TPSY equals the main-y signal. (ADJUST buttons).</li> <li>7. Press "ENTER" to save data.</li> <li>8. Press "MENU" twice to exit the service mode.</li> </ol>
<b>Test Point</b>	TPSY	
<b>Ext. Trigger</b>	-----	
<b>Measuring Range</b>	-----	
<b>Input Signal</b>	Color bars	
<b>Input Terminal</b>	External Input	
<p><b>PWB-SIGNAL (Partial)</b></p> 		

<b>[Video Circuit]</b> <b>3. Sub Picture Offset</b>		<b>Purpose:</b> To match sub picture white to main picture white <b>Symptom:</b> Sub picture white differs from white in the main picture.
<b>Measuring Instrument</b>	----	<ol style="list-style-type: none"> <li>1. Supply a full white raster signal to an External Input.</li> <li>2. Select the white raster as the source for both the main and sub pictures.</li> <li>3. Use the PIP/POP button to select the Single PIP mode.</li> <li>4. Enter the Alignment Mode (MENU-2-4-5-7)</li> <li>4. Select the AD9883A function (AUDIO button).</li> <li>5. Select item #12 ROFF and #14 BOFF (VIDEO button).</li> <li>6. Set the data fore items #12 and #14 so the sub picture white is close to that in the main picture. (ADJUST buttons).</li> <li>7. Press "ENTER" to save data.</li> <li>8. Press "MENU" twice to exit the service mode.</li> </ol>
<b>Test Point</b>	----	
<b>Ext. Trigger</b>	-----	
<b>Measuring Range</b>	-----	
<b>Input Signal</b>	Full White Raster	
<b>Input Terminal</b>	External Input	

## CHIP PARTS REPLACEMENT

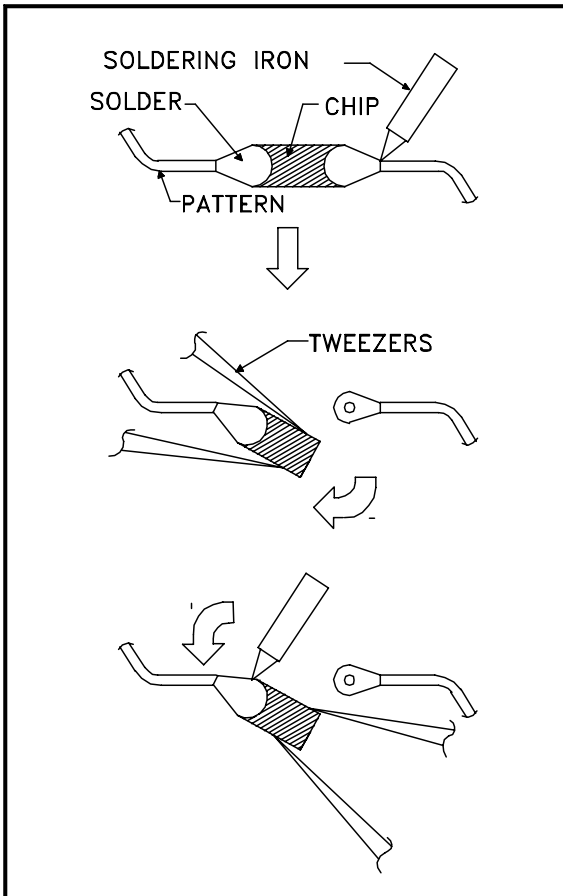
Some resistors, shorting jumpers (0 Ohm resistors), ceramic capacitors, transistors and diodes are chip parts. The following precautions should be taken when replacing these parts.

**Cautions:**

1. Use a fine tipped, well insulated soldering iron (approximately 30 watts), and tweezers.
2. Melt the solder and remove the chip parts carefully so as not to tear the copper foil from the printed circuit board.
3. Discard removed chips; do not reuse them.
4. Do not apply heat for more than 3 (three) seconds to new chip parts.
5. Avoid using a rubbing stroke when soldering.
6. Take care not to scratch, or damage the chip parts when soldering.
7. Supplementary cementing is not required.

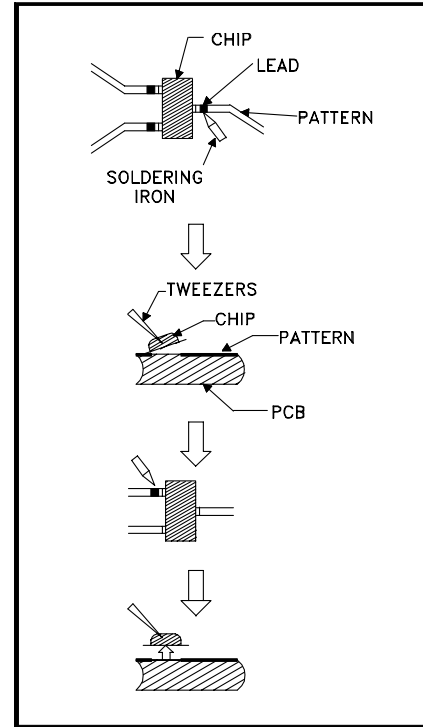
**Chip Parts Removal (Resistors, Capacitors, etc.)**

1. Grasp the part with tweezers. Melt the solder at both sides alternately, and remove one side of the part with a twisting motion.
2. Melt the solder at the other side and remove the part.



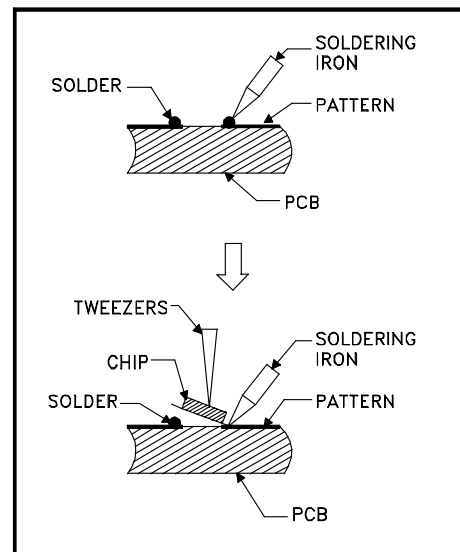
**Chip Parts Removal (Transistors)**

1. Melt the solder of one lead and lift the side of that lead upward.
2. Simultaneously melt the solder of the other two leads and lift the part from the PCB.



**Replacement**

1. Presolder the contact points on the circuit pattern.
2. Press the part downward with tweezers and apply the soldering iron as shown.



# REPLACEMENT PARTS

**Parts Ordering**

To expedite delivery of replacement parts orders, specify the following:

1. Model Number/Serial Number
2. Part Number and description
3. Quantity

**Note:** Unless complete information is supplied, delay in processing of orders will result.

**Critical and Warranty Parts Designation**

**Critical Electrical Components** are indicated by **Bold Type** in the Parts List, and in the schematic diagrams by shading.

**Warranty Return Parts** are indicated in the Parts List with an (\*).

**Parts Tolerance Codes**

Refer to the following chart for tolerance characteristics of electrical components.

MARK	B	C	D	F	G	J	K
Tolerance %	± 0.1	± 0.25	± 0.5	± 1	± 2	± 5	± 10

MARK	M	N	V	X	Z	P	Q
Tolerance %	± 20	± 30	± 10	+ 40 -20	+ 80 -20	+ 100 - 0	+ 30 -10

MARK	M	N	V	X	Z
Tolerance (pF)	± 0.1	± 0.25	± 0.5	± 1	± 2

**MODELS: HD-4001**

Ref #	Part #	Part Name & Description	[#]
<b>INTEGRATED CIRCUITS</b>			
IC2001	276P257010	IC-C-MOS - SiI9031CTU	
IC2011	261P837010	TR-CHIP - UPA672T	
IC2020	275P981010	IC-C-MOS - 24LCS22AT/SN	
IC2021	275P981010	IC-C-MOS - 24LCS22AT/SN	
IC2040	271P071010	IC - BA033SFP	
IC2051	261P837010	TR-CHIP - UPA672T	
IC2070	261P837010	TR-CHIP - UPA672T	
IC2080	271P072040	IC - LD29150DT18R	
IC2090	275P718010	IC-C-MOS - TC74HC4053FT	
IC2091	261P837010	TR-CHIP - UPA672T	
IC2092	275P718010	IC-C-MOS - TC74HC4053FT	
IC2093	261P837010	TR-CHIP - UPA672T	
IC2C00	275P989010	IC-C-MOS - MAX3223ECAP	
IC2C01	276P020010	IC-C-MOS - SN74LVC2G14DBVR	
IC2C02	276P064010	IC-C-MOS - SN74LVC1G125DBV	
IC2C03	276P064010	IC-C-MOS - SN74LVC1G125DBV	
IC2K01	271P061010	IC - CXA2189Q	
IC2L00	271P078010	IC - MM1566AJBE	
IC2L70	270P938010	IC - MC33202D	
IC2M01	275P947010	IC-C-MOS - UPD64083	
IC2M02	272P379020	IC - LM1881MX (NSC)	
IC3B01	270P938010	IC - MC33202D	
IC3C01	276P146010	IC-C-MOS - CS5340-CZR	
IC3E01	276P147010	IC-C-MOS - CS8405A-CZR	
IC3E02	276P064010	IC-C-MOS - SN74LVC1G125DBV	
IC3E03	275P356010	IC-C-MOS - TC74VHC04FT	
IC3J01	271P060010	IC - CXA2188Q	
IC54Z1	275P657050	IC-C-MOS - 24LC256T-I/SN	
IC54Z3	276P174010	IC-C-MOS - AT24C512N-10S1-2.7	
IC54Z4	270P880010	IC - 24LC64I/SN	
<b>IC5A01</b>	<b>276P114010</b>	<b>IC-C-MOS - SiI 9190</b>	
<b>IC5A03</b>	<b>261P837010</b>	<b>TR-CHIP - UPA672T</b>	
IC5G01	271P071010	IC - BA033SFP	
IC5H01	270P998010	IC-C-MOS - LM317EMP	
IC5J01	275P778010	IC-C-MOS - AD7196AKS	
IC5J10	279P069030	IC - SN74LVTH244APW	
IC5J20	276P187010	IC-C-MOS - ICS574MIT	
IC5P01	276P148010	IC-C-MOS - ispMACH -4128V-5T100C	
IC5T01	270P997010	IC-C-MOS - SM5301AS	
IC5U01	271P099010	IC - LD29150PT50R	
<b>IC7A00</b>	<b>276P244060</b>	<b>M306V7FGFP#U0-V26K1</b>	
IC7A01	275P533010	IC-C-MOS - M24C64WM6T	
IC7A02	270P706020	IC - MAX823REUK	
IC7A04	275P718010	IC-C-MOS - TC74HC4053FT	
IC7D00	275P278010	IC-C-MOS - TC74LVX14FT	
IC7D01	270P818020	IC - CXA3506R	
IC7DA1	267P176010	HIC - AF-9412	
IC7DB0	270P677010	IC - BA033FP	
IC7DC0	270P992010	IC - BA18BC0FP	
IC7E01	275P894010	IC-C-MOS - AD9883AKST-110	
IC7E02	275P663030	IC-C-MOS - M4A3-32/32-5VC-48	
IC7H00	276P106010	IC-C-MOS - MB87M1823PFV-ES-BND	
IC7K21	270P831010	IC-C-MOS - OPA2350PA	
IC7M00	276P091010	IC-C-MOS - M12L64322A-6T	
IC7N01	275P682010	IC-C-MOS - TC74VCX16244FT	
IC7N02	275P682010	IC-C-MOS - TC74VCX16244FT	
IC7P01	275P943030	IC-C-MOS - PIC18F252T-I/SO030	
IC7P03	263P154010	IC-C-MOS - SN74HC132DB	
IC7P04	271P023010	IC - SN74CBTD1G125DBVR	

Ref #	Part #	Part Name & Description	[#]
IC7P30	275P718010	IC-C-MOS - TC74HC4053FT	
IC7P31	271P023010	IC - SN74CBTD1G125DBVR	
IC8001	276P030030	IC-C-MOS - 215H31AGA12H	
IC8002	270P706020	IC - MAX823REUK	
IC8003	276P064010	IC-C-MOS - SN74LVC1G125DBV	
IC8004	276P064010	IC-C-MOS - SN74LVC1G125DBV	
IC8101	271P033010	IC - LP2996MRX	
IC8102	276P029020	IC-C-MOS - NT5DS16M16BT-5T	
IC8103	276P029020	IC-C-MOS - NT5DS16M16BT-5T	
IC8104	276P029020	IC-C-MOS - NT5DS16M16BT-5T	
IC8105	276P029020	IC-C-MOS - NT5DS16M16BT-5T	
IC81A1	270P991010	IC - IRU3037CS	
IC81A2	261P135010	FET-HEX - IRF7313	
IC81A3	270P879030	IC - SC156615M-2.5TR	
IC81A4	270P992010	IC - BA18BC0FP	
IC81A5	270P879030	IC - SC156615M-2.5TR	
IC81A6	270P037020	IC - MIC29301-5.0BU	
IC81A7	270P999010	IC - NJM2370R09	
IC8205	276P042010	IC-C-MOS - MIC2544-1BM	
IC8211	276P029020	IC-C-MOS - NT5DS16M16BT-5T	
IC8212	276P029020	IC-C-MOS - NT5DS16M16BT-5T	
IC8280	275P955010	IC-C-MOS - RTC-8564JE	
IC8301	275P677010	IC-C-MOS - SN74LVC573APWR	
IC8302	275P677010	IC-C-MOS - SN74LVC573APWR	
IC8303	275P677010	IC-C-MOS - SN74LVC573APWR	
IC8304	274D105090	D105A9	
IC8305	275P956020	IC-C-MOS - MD2811-D32-V3	
IC8307	275P983010	IC-C-MOS - XR16L2750CM	
IC8308	276P077010	IC-C-MOS - ST013T	
IC8309	275P660020	IC-C-MOS - CS4341-KSR	
IC8310	275P270010	IC-C-MOS - M66010GP	
IC8311	275P769010	IC-C-MOS - TC74AC157FT	
IC8313	276P145010	IC-C-MOS - MSP4440G QI-C13	
IC8314	275P677010	IC-C-MOS - SN74LVC573APWR	
IC8315	275P464010	IC-C-MOS - TC7WH14FK	
IC8316	276P064010	IC-C-MOS - SN74LVC1G125DBV	
IC8317	275P786010	IC-C-MOS - TC7SA08FU	
IC8401	275P624010	IC-C-MOS - TSB42AA4	
IC8402	275P686010	IC-C-MOS - TSB41AB3PFP	
IC8501	275P679010	IC-C-MOS - TC74LCX74FT	
IC8502	275P124040	IC-C-MOS - SN74LVC245APWR	
IC8503	275P677010	IC-C-MOS - SN74LVC573APWR	
IC8504	271P036020	IC - TPS2221PWPR	
IC8505	275P677010	IC-C-MOS - SN74LVC573APWR	
IC8506	276P065020	IC-C-MOS - CIMAX(103563)	
IC8507	275P680010	IC-C-MOS - TC74VCX257FT	
IC8508	275P675010	IC-C-MOS - SN74LV125APWR	
IC8509	271P036020	IC - TPS2221PWPR	
IC8600	275P983010	IC-C-MOS - XR16L2750CM	
IC8601	275P122020	IC-C-MOS - SN74LV32APWR	
IC8602	275P676010	IC-C-MOS - SN74LVC139APWR	
IC8705	275P769010	IC-C-MOS - TC74AC157FT	
IC8706	276P145010	IC-C-MOS - MSP4440G QI-C13	
IC8707	276P089010	IC-C-MOS - TC7W66FU	
IC8708	271P072030	IC - LD29150DT50	
IC8709	271P082010	IC - LD1117DT12	
IC8710	271P072010	IC - LD29150DT25	
IC8711	295P527010	TUNER-NTSC DEMODULATOR	
IC8712	276P109010	IC-C-MOS - CS4334-KS	
IC8713	270P938010	IC - MC33202D	

**MODELS: HD-4001**

Ref #	Part #	Part Name & Description	[#]
IC8719	271P023010	IC - SN74CBTD1G125DBVR	
IC8720	271P023010	IC - SN74CBTD1G125DBVR	
IC8721	270P677030	IC - BAO9FFP	
IC8722	271P064010	IC - TA75S01F	
IC8723	271P072020	IC - LD29150DT33	
IC8724	275P278010	IC-C-MOS - TC74LVX14FT	
IC8800	270P877010	IC - UPC3217GV	
IC8801	270P877010	IC - UPC3217GV	
IC8802	275P464010	IC-C-MOS - TC7WH14FK	
IC8805	270P988010	IC-OP AMP - LM358M	
IC8806	271P039010	IC-C-MOS - NXT2003 100C	
IC8A00	275P980010	IC-C-MOS - SAA7115HL	
IC8A01	275P982020	IC-C-MOS - MT48LC2M32B2P-7	
IC8A02	276P111010	IC-C-MOS - AK5353VT	
IC8A03	276P112010	IC-C-MOS - BCM7040 KQL	
IC8E00	276P175010	IC-C-MOS - SAA7119E	
IC8G00	276P254020	M306H2MC-517FP#10	
IC8G01	270P706010	IC - MAX823	
IC8G02	271P023010	IC - SN74CBTD1G125DBVR	
IC8G03	276P020010	IC-C-MOS - SN74LVC2G14DBVR	
IC8G04	271P023010	IC - SN74CBTD1G125DBVR	
IC8G05	275P443010	IC-C-MOS - TC7SET08H	
IC8G06	271P023010	IC - SN74CBTD1G125DBVR	
IC8H01	270P658030	IC - CXA2019AQ/T4	
IC8H02	271P079010	IC - CXA2181Q	
IC8H10	271P071020	IC - BA09SFP	
IC8H20	271P099010	IC - LD29150PT50R	
IC8T01	270P658030	IC - CXA2019AQ/T4	
IC8T02	271P079010	IC - CXA2181Q	
<b>IC9A20</b>	<b>267P175010</b>	<b>HIC - STR-W6735</b>	
<b>IC9A21</b>	<b>270P816010</b>	<b>IC - NJM431L</b>	
IC9C10	271P010010	IC - RT9172-18CG	
IC9C10	271P072020	IC - LD29150DT33	
IC9C21	271P072020	IC - LD29150DT33	
IC9C41	271P072030	IC - LD29150DT50	
IC9M01	270P677010	IC - BA033FP	
IC9M02	270P992020	IC - BA25BC0FP	
IC9M03	271P071020	IC - BA09SFP	
IC9M04	271P099010	IC - LD29150PT50R	
<b>TRANSISTORS</b>			
<b>CHIP Type Transistors (Listed by Part No.)</b>			
<u>Part No.</u>	<u>Description</u>		
260P806010	DTA124EK/UN2112		
260P817030	2SA1037K-S		
260P817050	2SA1037K-R,S/2SB709AI-R,S		
260P817080	2SA1037K-R,S		
260P818030	2SC2412K-S		
260P818050	2SC2412K-R,S/2SD601AI-R,S		
260P818080	2SC2412K-R,S		
260P836090	2SC3326-A,B		
260P846030	DTC143ZKAT146		
261P801010	2SA1252-5,6		
<b>Conventional Transistors (By Ref #)</b>			
<u>Ref #</u>	<u>Part #</u>	<u>Part Name &amp; Description</u>	
Q7E03	261P114010	TR - 2SA1585STPR	
Q8800	261P026010	TR - 2SC3356	

Ref #	Part #	Part Name & Description	[#]
<b>DIODES</b>			
D2301	262P805050	D-CHIP - UDZS5.1B	
D2770	262P805050	D-CHIP - UDZS5.1B	
D2H01	262P075010	DIODE - RSB6.8S	
D2H02	262P075010	DIODE - RSB6.8S	
D5A65	262P802010	D-CHIP - 1SS302	
D5A66	262P802010	D-CHIP - 1SS302	
D7A00	264P828010	D-CHIP - DAN202U/MA142WK	
D7K21	268P110010	PHOTO-DIODE - SFH2505FA	
D7K22	264P045080	DIODE - 1S2076A/1S2471OM	
D7L20	262P075010	DIODE - RSB6.8S	
D7L21	262P099010	DIODE-LE-CHIP - SML011BBT	
D81A1	264P828010	D-CHIP - DAN202U/MA142WK	
D81A2	264P828010	D-CHIP - DAN202U/MA142WK	
D81A3	264P828010	D-CHIP - DAN202U/MA142WK	
D81A4	262P090010	DIODE - M1FP3	
D81A5	264P458050	DIODE - RD3.9EB1	
D8201	264P846010	D-CHIP - MA732	
D8202	264P846010	D-CHIP - MA732	
D8203	264P846010	D-CHIP - MA732	
D8204	264P846010	D-CHIP - MA732	
D8280	264P808010	DIODE-CHIP - DAN202K	
D8701	262P132010	DIODE - MA2Z077	
D8702	262P132010	DIODE - MA2Z077	
D8703	262P132010	DIODE - MA2Z077	
D8704	262P132010	DIODE - MA2Z077	
D8800	262P089010	DIODE - MA2S728	
D8801	262P071070	DIODE-LE - SML-210FT	
D8802	262P071070	DIODE-LE - SML-210FT	
D8803	262P071070	DIODE-LE - SML-210FT	
D8H10	264P045080	DIODE - 1S2076A/1S2471OM	
<b>D9A01</b>	<b>262P031010</b>	<b>DIODE - D6SB80</b>	
D9A02	264P045080	DIODE - 1S2076A/1S2471OM	
D9A03	264P461050	DIODE - EQA02-06B/RD5.6EB3	
D9A04	264P045080	DIODE - 1S2076A/1S2471OM	
D9A20	264P045080	DIODE - 1S2076A/1S2471OM	
D9A21	264P899010	DIODE - BYV26E	
D9A23	264P045080	DIODE - 1S2076A/1S2471OM	
D9A24	264P045080	DIODE - 1S2076A/1S2471OM	
D9A25	264P045080	DIODE - 1S2076A/1S2471OM	
D9A26	262P128010	DIODE - FSH05A06	
D9A27	262P127010	DIODE - FSH05A03L	
D9A28	264P045080	DIODE - 1S2076A/1S2471OM	
D9A29	264P045080	DIODE - 1S2076A/1S2471OM	
D9A30	264P470070	DIODE - EQA02-32B/RD33EB3	
D9A41	264P045080	DIODE - 1S2076A/1S2471OM	
D9A42	264P045080	DIODE - 1S2076A/1S2471OM	
D9A44	264P045080	DIODE - 1S2076A/1S2471OM	
<b>COILS</b>			
L1H01	321C114010	COIL-RF - 2200MH-J	
L1H02	325C241030	COIL-CHIP - 10MH-K	
L1H51	321C114010	COIL-RF - 2200MH-J	
L1H52	325C241030	COIL-CHIP - 10MH-K	
L2011	409P777080	EMI-F-CHIP - BLM21P221S	
L2012	409P777080	EMI-F-CHIP - BLM21P221S	
L2061	409P777080	EMI-F-CHIP - BLM21P221S	
L2071	409P777080	EMI-F-CHIP - BLM21P221S	

MODELS: HD-4001

Ref #	Part #	Part Name & Description	[#]
L2111	409P777080	EMI-F-CHIP - BLM21P221S	
L2121	409P777080	EMI-F-CHIP - BLM21P221S	
L2141	409P777080	EMI-F-CHIP - BLM21P221S	
L2151	409P777080	EMI-F-CHIP - BLM21P221S	
L2231	325C462050	COIL-PEAKING 100uH-j	
L2311	409P777080	EMI-F-CHIP - BLM21P221S	
L2321	409P777080	EMI-F-CHIP - BLM21P221S	
L2331	409P777080	EMI-F-CHIP - BLM21P221S	
L2361	409P777080	EMI-F-CHIP - BLM21P221S	
L2371	409P777080	EMI-F-CHIP - BLM21P221S	
L2381	409P777080	EMI-F-CHIP - BLM21P221S	
L2391	409P777080	EMI-F-CHIP - BLM21P221S	
L2441	325C462050	COIL-PEAKING 100uH-j	
L2711	409P777080	EMI-F-CHIP - BLM21P221S	
L2761	409P777080	EMI-F-CHIP - BLM21P221S	
L2801	409P777080	EMI-F-CHIP - BLM21P221S	
L2821	325C461000	COIL-PEAKING 5.6uH-J	
L2831	409P777080	EMI-F-CHIP - BLM21P221S	
L2901	409P777080	EMI-F-CHIP - BLM21P221S	
L2902	409P777080	EMI-F-CHIP - BLM21P221S	
L2C03	325C146090	COIL-CHIP - 33MH-J	
L2H00	409P876040	EMI-F-CHIP - CNF20C221S/CKD510JB1H221S	
L2H01	409P876040	EMI-F-CHIP - CNF20C221S/CKD510JB1H221S	
L2J00	409P876040	EMI-F-CHIP - CNF20C221S/CKD510JB1H221S	
L2J01	409P876040	EMI-F-CHIP - CNF20C221S/CKD510JB1H221S	
L2J20	409P876040	EMI-F-CHIP - CNF20C221S/CKD510JB1H221S	
L2J21	409P876040	EMI-F-CHIP - CNF20C221S/CKD510JB1H221S	
L2J22	409P876040	EMI-F-CHIP - CNF20C221S/CKD510JB1H221S	
L2J23	409P876040	EMI-F-CHIP - CNF20C221S/CKD510JB1H221S	
L2K01	325C241030	COIL-CHIP - 10MH-K	
L2K09	325C241030	COIL-CHIP - 10MH-K	
L2K58	325C241030	COIL-CHIP - 10MH-K	
L2K67	325C241030	COIL-CHIP - 10MH-K	
L2K71	325C241030	COIL-CHIP - 10MH-K	
L2K80	409P777080	EMI-F-CHIP - BLM21P221S	
L2K81	409P777080	EMI-F-CHIP - BLM21P221S	
L2K90	325C241030	COIL-CHIP - 10MH-K	
L2K91	325C241030	COIL-CHIP - 10MH-K	
L2K99	409P777080	EMI-F-CHIP - BLM21P221S	
L2L12	409P777080	EMI-F-CHIP - BLM21P221S	
L2L13	409P777080	EMI-F-CHIP - BLM21P221S	
L2L70	409P865080	EMI-F-CHIP - BLM18PG6	
L2M21	325C241030	COIL-CHIP - 10MH-K	
L2M30	409P777080	EMI-F-CHIP - BLM21P221S	
L2M31	409P777080	EMI-F-CHIP - BLM21P221S	
L2M35	325C241050	COIL-CHIP - 15MH-K	
L2M36	325C241030	COIL-CHIP - 10MH-K	
L2M38	409P777080	EMI-F-CHIP - BLM21P221S	
L2M40	325C241030	COIL-CHIP - 10MH-K	
L2M41	325C461080	COIL-PEAKING - 27MH-K	
L2M42	325C241030	COIL-CHIP - 10MH-K	
L2M45	409P777080	EMI-F-CHIP - BLM21P221S	
L2M46	409P777080	EMI-F-CHIP - BLM21P221S	
L2M50	325C461000	COIL-PEAKING - 5.6MH-K	
L2M53	325C241030	COIL-CHIP - 10MH-K	
L2M70	325C241030	COIL-CHIP - 10MH-K	
L2M71	325C461080	COIL-PEAKING - 27MH-K	
L2M77	325C241030	COIL-CHIP - 10MH-K	
L2M81	409P777080	EMI-F-CHIP - BLM21P221S	

Ref #	Part #	Part Name & Description	[#]
L3A01	409P777080	EMI-F-CHIP - BLM21P221S	
L3A02	409P777080	EMI-F-CHIP - BLM21P221S	
L3A04	409P777080	EMI-F-CHIP - BLM21P221S	
L3A05	409P777080	EMI-F-CHIP - BLM21P221S	
L3A07	409P777080	EMI-F-CHIP - BLM21P221S	
L3A08	409P777080	EMI-F-CHIP - BLM21P221S	
L3A09	409P777080	EMI-F-CHIP - BLM21P221S	
L3J00	409P777080	EMI-F-CHIP - BLM21P221S	
L5A01	409P777080	EMI-F-CHIP - BLM21P221S	
L5A18	409P777080	EMI-F-CHIP - BLM21P221S	
L5A29	409P777080	EMI-F-CHIP - BLM21P221S	
L5A32	409P777080	EMI-F-CHIP - BLM21P221S	
L5A35	409P777080	EMI-F-CHIP - BLM21P221S	
L5G01	409P777080	EMI-F-CHIP - BLM21P221S	
L5G02	409P777080	EMI-F-CHIP - BLM21P221S	
L5H01	409P777080	EMI-F-CHIP - BLM21P221S	
L5H02	409P777080	EMI-F-CHIP - BLM21P221S	
L5H03	409P777080	EMI-F-CHIP - BLM21P221S	
L5H04	409P777080	EMI-F-CHIP - BLM21P221S	
L5H05	409P777080	EMI-F-CHIP - BLM21P221S	
L5H06	409P777080	EMI-F-CHIP - BLM21P221S	
L5H07	409P777080	EMI-F-CHIP - BLM21P221S	
L5H08	409P777080	EMI-F-CHIP - BLM21P221S	
L5H09	409P777080	EMI-F-CHIP - BLM21P221S	
L5J01	409P865090	EMI-F-CHIP - BLM11A121S	
L5J10	409P865090	EMI-F-CHIP - BLM11A121S	
L5J20	409P865090	EMI-F-CHIP - BLM11A121S	
L5J35	409P865090	EMI-F-CHIP - BLM11A121S	
L5P04	103P509050	R-M-CHIP - 1/16W 00HM	
L5P05	103P509050	R-M-CHIP - 1/16W 00HM	
L5P06	103P509050	R-M-CHIP - 1/16W 00HM	
L5P12	409P865090	EMI-F-CHIP - BLM11A121S	
L5T01	409P865090	EMI-F-CHIP - BLM11A121S	
L7A16	409P777050	EMI-F-CHIP - BLM21B201S	
L7A19	409P777050	EMI-F-CHIP - BLM21B201S	
L7A73	409P777050	EMI-F-CHIP - BLM21B201S	
L7A85	409P777050	EMI-F-CHIP - BLM21B201S	
L7A88	409P777050	EMI-F-CHIP - BLM21B201S	
L7A90	409P777050	EMI-F-CHIP - BLM21B201S	
L7A91	409P777050	EMI-F-CHIP - BLM21B201S	
L7A92	409P777050	EMI-F-CHIP - BLM21B201S	
L7A99	409P777050	EMI-F-CHIP - BLM21B201S	
L7D16	325C420070	COIL-CHIP - 10MH-K	
L7DA7	325C420070	COIL-CHIP - 10MH-K	
L7DF4	409P777080	EMI-F-CHIP - BLM21P221S	
L7DF8	325C420070	COIL-CHIP - 10MH-K	
L7E00	409P876040	EMI-F-CHIP - CNF20C221S/CKD510JB1H221S	
L7E01	409P777080	EMI-F-CHIP - BLM21P221S	
L7E01	409P876040	EMI-F-CHIP - CNF20C221S/CKD510JB1H221S	
L7E33	409P777080	EMI-F-CHIP - BLM21P221S	
L7E34	325C421030	COIL-CHIP - 100MH-K LOW-R	
L7E42	325C241050	COIL-CHIP - 15MH-K	
L7E69	325C421030	COIL-CHIP - 100MH-K LOW-R	
L7H01	409P777080	EMI-F-CHIP - BLM21P221S	
L7H04	409P777080	EMI-F-CHIP - BLM21P221S	
L7H29	409P777080	EMI-F-CHIP - BLM21P221S	
L7H49	409P777080	EMI-F-CHIP - BLM21P221S	
L7H66	409P777080	EMI-F-CHIP - BLM21P221S	
L7H73	409P777080	EMI-F-CHIP - BLM21P221S	
L7H76	409P777080	EMI-F-CHIP - BLM21P221S	



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Ref #	Part #	Part Name & Description	[#]
L7J13	409P777080	EMI-F-CHIP - BLM21P221S	
L7J38	409P777080	EMI-F-CHIP - BLM21P221S	
L7J44	409P777080	EMI-F-CHIP - BLM21P221S	
L7K01	325C421030	COIL-CHIP - 100MH-K LOW-R	
L7K02	325C421030	COIL-CHIP - 100MH-K LOW-R	
L7M90	409P777080	EMI-F-CHIP - BLM21P221S	
L7N01	409P777080	EMI-F-CHIP - BLM21P221S	
L7N41	409P955020	EMI-F-CHIP - BLM18BB220SN1	
L7N42	409P955020	EMI-F-CHIP - BLM18BB220SN1	
L7N43	409P955020	EMI-F-CHIP - BLM18BB220SN1	
L7N44	409P955020	EMI-F-CHIP - BLM18BB220SN1	
L7N45	409P955020	EMI-F-CHIP - BLM18BB220SN1	
L7N46	409P955020	EMI-F-CHIP - BLM18BB220SN1	
L7N47	409P955020	EMI-F-CHIP - BLM18BB220SN1	
L7N48	409P955020	EMI-F-CHIP - BLM18BB220SN1	
L7N49	409P955020	EMI-F-CHIP - BLM18BB220SN1	
L7N50	409P955020	EMI-F-CHIP - BLM18BB220SN1	
L7N51	409P955020	EMI-F-CHIP - BLM18BB220SN1	
L7N52	409P955020	EMI-F-CHIP - BLM18BB220SN1	
L7N53	409P955020	EMI-F-CHIP - BLM18BB220SN1	
L7N54	409P955020	EMI-F-CHIP - BLM18BB220SN1	
L7N55	409P955020	EMI-F-CHIP - BLM18BB220SN1	
L7N56	409P955020	EMI-F-CHIP - BLM18BB220SN1	
L7N57	409P955020	EMI-F-CHIP - BLM18BB220SN1	
L7N58	409P955020	EMI-F-CHIP - BLM18BB220SN1	
L7N59	409P955020	EMI-F-CHIP - BLM18BB220SN1	
L7N60	409P955020	EMI-F-CHIP - BLM18BB220SN1	
L7N61	409P955020	EMI-F-CHIP - BLM18BB220SN1	
L7N62	409P955020	EMI-F-CHIP - BLM18BB220SN1	
L7N63	409P955020	EMI-F-CHIP - BLM18BB220SN1	
L7N64	409P955020	EMI-F-CHIP - BLM18BB220SN1	
L7N65	409P955020	EMI-F-CHIP - BLM18BB220SN1	
L7N66	409P955020	EMI-F-CHIP - BLM18BB220SN1	
L7N67	409P955020	EMI-F-CHIP - BLM18BB220SN1	
L7N68	409P955020	EMI-F-CHIP - BLM18BB220SN1	
L7N70	409P955020	EMI-F-CHIP - BLM18BB220SN1	
L7N71	409P955020	EMI-F-CHIP - BLM18BB220SN1	
L7P00	409P777080	EMI-F-CHIP - BLM21P221S	
L7P14	409P777050	EMI-F-CHIP - BLM21B201S	
L7P20	409P777050	EMI-F-CHIP - BLM21B201S	
L7P30	409P777050	EMI-F-CHIP - BLM21B201S	
L8001	409P865080	EMI-F-CHIP - BLM18PG6	
L8002	409P865080	EMI-F-CHIP - BLM18PG6	
L8003	409P865080	EMI-F-CHIP - BLM18PG6	
L8004	409P865080	EMI-F-CHIP - BLM18PG6	
L8005	409P865080	EMI-F-CHIP - BLM18PG6	
L8006	409P865080	EMI-F-CHIP - BLM18PG6	
L8007	409P865080	EMI-F-CHIP - BLM18PG6	
L8008	409P865080	EMI-F-CHIP - BLM18PG6	
L8009	409P777080	EMI-F-CHIP - BLM21P221S	
L8012	409P865080	EMI-F-CHIP - BLM18PG6	
L8013	409P865080	EMI-F-CHIP - BLM18PG6	
L8017	409P865020	EMI-F-CHIP - BLM11A601S	
L8018	409P865020	EMI-F-CHIP - BLM11A601S	
L81A1	321C140060	COIL-RF - 2.7MH-M	
L81A2	351P250010	COIL-CHOKE - GSTC6018-100M	
L81A3	409P777080	EMI-F-CHIP - BLM21P221S	
L81A4	321C140060	COIL-RF - 2.7MH-M	
L81A5	321C140060	COIL-RF - 2.7MH-M	
L81A6	409P777080	EMI-F-CHIP - BLM21P221S	

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L81A7	409P865080	EMI-F-CHIP - BLM18PG6	
L81A8	409P777080	EMI-F-CHIP - BLM21P221S	
L8202	409P777080	EMI-F-CHIP - BLM21P221S	
L8203	409P777080	EMI-F-CHIP - BLM21P221S	
L8206	351P265010	COIL-CHOKE-CHIP - ACM2012	
L8280	409P865080	EMI-F-CHIP - BLM18PG6	
L8301	409P865080	EMI-F-CHIP - BLM18PG6	
L8304	325C501010	COIL-CHIP - ALQM21NNR47K10	
L8305	325C501010	COIL-CHIP - ALQM21NNR47K10	
L8307	409P865080	EMI-F-CHIP - BLM18PG6	
L8309	409P865080	EMI-F-CHIP - BLM18PG6	
L8310	409P865080	EMI-F-CHIP - BLM18PG6	
L8311	409P865080	EMI-F-CHIP - BLM18PG6	
L8312	409P865080	EMI-F-CHIP - BLM18PG6	
L8314	409P865080	EMI-F-CHIP - BLM18PG6	
L8315	409P865080	EMI-F-CHIP - BLM18PG6	
L8320	409P865080	EMI-F-CHIP - BLM18PG6	
L8321	409P865080	EMI-F-CHIP - BLM18PG6	
L8322	409P865080	EMI-F-CHIP - BLM18PG6	
L8323	409P865080	EMI-F-CHIP - BLM18PG6	
L8324	409P865080	EMI-F-CHIP - BLM18PG6	
L8326	409P865080	EMI-F-CHIP - BLM18PG6	
L8329	409P865080	EMI-F-CHIP - BLM18PG6	
L8331	409P865080	EMI-F-CHIP - BLM18PG6	
L8332	409P865080	EMI-F-CHIP - BLM18PG6	
L8333	409P865080	EMI-F-CHIP - BLM18PG6	
L8401	409P865080	EMI-F-CHIP - BLM18PG6	
L8403	409P777080	EMI-F-CHIP - BLM21P221S	
L8404	409P777080	EMI-F-CHIP - BLM21P221S	
L8411	351P265020	COIL-CHIP - ACM2012-201-2P	
L8412	351P265020	COIL-CHIP - ACM2012-201-2P	
L8413	351P265020	COIL-CHIP - ACM2012-201-2P	
L8414	351P265020	COIL-CHIP - ACM2012-201-2P	
L8415	351P265020	COIL-CHIP - ACM2012-201-2P	
L8416	351P265020	COIL-CHIP - ACM2012-201-2P	
L8501	409P865080	EMI-F-CHIP - BLM18PG6	
L8502	409P777080	EMI-F-CHIP - BLM21P221S	
L8503	409P865080	EMI-F-CHIP - BLM18PG6	
L8504	409P777080	EMI-F-CHIP - BLM21P221S	
L8505	409P865080	EMI-F-CHIP - BLM18PG6	
L8506	409P777080	EMI-F-CHIP - BLM21P221S	
L8507	409P865080	EMI-F-CHIP - BLM18PG6	
L8508	409P865080	EMI-F-CHIP - BLM18PG6	
L8509	409P865080	EMI-F-CHIP - BLM18PG6	
L8510	325C241050	COIL-CHIP - 15MH-K	
L8700	325C412050	COIL-CHIP - 100MH-J	
L8701	325C420030	COIL-CHIP - 2.2MH-M	
L8702	325C420030	COIL-CHIP - 2.2MH-M	
L8703	325C420030	COIL-CHIP - 2.2MH-M	
L8704	325C420030	COIL-CHIP - 2.2MH-M	
L8705	325C412050	COIL-CHIP - 100MH-J	
L8706	409P923060	EMI-F-CHIP - BLM21B272S	
L8707	409P923060	EMI-F-CHIP - BLM21B272S	
L8717	325C420030	COIL-CHIP - 2.2MH-M	
L8718	325C420030	COIL-CHIP - 2.2MH-M	
L8719	409P777080	EMI-F-CHIP - BLM21P221S	
L8722	325C420030	COIL-CHIP - 2.2MH-M	
L8723	409P923060	EMI-F-CHIP - BLM21B272S	
L8725	409P923060	EMI-F-CHIP - BLM21B272S	
L8726	409P923060	EMI-F-CHIP - BLM21B272S	

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L8727	409P923060	EMI-F-CHIP - BLM21B272S	
L8729	409P923060	EMI-F-CHIP - BLM21B272S	
L8730	409P923060	EMI-F-CHIP - BLM21B272S	
L8736	409P923060	EMI-F-CHIP - BLM21B272S	
L8737	409P865080	EMI-F-CHIP - BLM18PG6	
L8738	409P777080	EMI-F-CHIP - BLM21P221S	
L8739	409P923060	EMI-F-CHIP - BLM21B272S	
L8800	409P936050	EMI-F-CHIP - HS800	
L8801	409P936050	EMI-F-CHIP - HS800	
L8802	409P936050	EMI-F-CHIP - HS800	
L8803	409P936050	EMI-F-CHIP - HS800	
L8804	409P936050	EMI-F-CHIP - HS800	
L8807	325C414090	COIL-CHIP - 0.68MH-J	
L8809	325C410040	COIL-CHIP - 1.8MH-J	
L8914	409P923060	EMI-F-CHIP - BLM21B272S	
L8915	409P865060	EMI-F-CHIP - BLM11B141S	
L8A00	409P777080	EMI-F-CHIP - BLM21P221S	
L8A02	409P777080	EMI-F-CHIP - BLM21P221S	
L8A04	409P777080	EMI-F-CHIP - BLM21P221S	
L8A05	409P777080	EMI-F-CHIP - BLM21P221S	
L8A06	409P777080	EMI-F-CHIP - BLM21P221S	
L8A07	409P777080	EMI-F-CHIP - BLM21P221S	
L8A08	409P777080	EMI-F-CHIP - BLM21P221S	
L8A10	409P777080	EMI-F-CHIP - BLM21P221S	
L8A11	325C241030	COIL-CHIP - 10MH-K	
L8A99	409P777080	EMI-F-CHIP - BLM21P221S	
L8E00	409P777080	EMI-F-CHIP - BLM21P221S	
L8E01	409P777080	EMI-F-CHIP - BLM21P221S	
L8E02	409P777080	EMI-F-CHIP - BLM21P221S	
L8E03	409P777080	EMI-F-CHIP - BLM21P221S	
L8G00	409P777080	EMI-F-CHIP - BLM21P221S	
L8G01	409P777080	EMI-F-CHIP - BLM21P221S	
L8H00	409P777080	EMI-F-CHIP - BLM21P221S	
L8H01	409P777080	EMI-F-CHIP - BLM21P221S	
L8H03	409P777080	EMI-F-CHIP - BLM21P221S	
L8H05	409P777080	EMI-F-CHIP - BLM21P221S	
L8H13	409P777080	EMI-F-CHIP - BLM21P221S	
L8H24	409P777080	EMI-F-CHIP - BLM21P221S	
L8H25	409P777080	EMI-F-CHIP - BLM21P221S	
L8H32	409P777080	EMI-F-CHIP - BLM21P221S	
L8H82	409P777080	EMI-F-CHIP - BLM21P221S	
L8H83	409P777080	EMI-F-CHIP - BLM21P221S	
L8H84	409P777080	EMI-F-CHIP - BLM21P221S	
L8H85	409P777080	EMI-F-CHIP - BLM21P221S	
L8H87	409P777080	EMI-F-CHIP - BLM21P221S	
L8H88	409P777080	EMI-F-CHIP - BLM21P221S	
L8H90	409P777080	EMI-F-CHIP - BLM21P221S	
L8H91	409P777080	EMI-F-CHIP - BLM21P221S	
L8T03	409P777080	EMI-F-CHIP - BLM21P221S	
L8T05	409P777080	EMI-F-CHIP - BLM21P221S	
L8T13	409P777080	EMI-F-CHIP - BLM21P221S	
L8T24	409P777080	EMI-F-CHIP - BLM21P221S	
L8T25	409P777080	EMI-F-CHIP - BLM21P221S	
L8T32	409P777080	EMI-F-CHIP - BLM21P221S	
L9A20	321C141030	COIL-RF - 10MH-K	
L9A21	321C141030	COIL-RF - 10MH-K	
L9A22	321C141030	COIL-RF - 10MH-K	
L9A23	321C141030	COIL-RF - 10MH-K	
<b>L9D00</b>	<b>351P266010</b>	<b>LINE-FILTER - ELF22V050BN</b>	
<b>L9D01</b>	<b>351P266020</b>	<b>LINE-FILTER - ELF22V025A</b>	

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LC202	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
LC203	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
LC208	409P876020	EMI-F-CHIP - CNF20C470S/CKD510JB1H470S	
LC8001	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8002	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC81A1	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8300	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8301	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8302	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8303	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8304	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8305	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8306	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8307	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8308	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8309	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8310	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8312	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8313	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8314	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8315	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8316	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8317	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8318	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8319	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8320	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8321	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8322	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8323	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8501	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8502	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8503	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8504	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8505	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8506	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8507	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8508	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8509	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8511	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8512	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8514	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8515	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8516	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8517	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8518	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8519	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8520	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8521	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8522	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8523	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8524	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8525	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8526	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8527	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8528	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8529	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8530	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8531	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8603	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8604	409P945010	EMI-F-CHIP - NFL21SP506X13CD	

**MODELS: HD-4001**

Ref #	Part #	Part Name & Description	[#]
LC8605	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LC8606	409P945010	EMI-F-CHIP - NFL21SP506X13CD	
LF7D02	409P944010	EMI-F-CHIP - NFL21SP107X1	
LF7D04	409P944010	EMI-F-CHIP - NFL21SP107X1	
LF7D06	409P944010	EMI-F-CHIP - NFL21SP107X1	
LF7D08	409P944010	EMI-F-CHIP - NFL21SP107X1	
LF7D10	409P944010	EMI-F-CHIP - NFL21SP107X1	
LF7D12	409P944010	EMI-F-CHIP - NFL21SP107X1	
LF7D14	409P944010	EMI-F-CHIP - NFL21SP107X1	
LF7D16	409P945020	EMI-F-CHIP - NFL21SP106X1C3D	
LF7D18	409P945020	EMI-F-CHIP - NFL21SP106X1C3D	
LF7D20	409P945020	EMI-F-CHIP - NFL21SP106X1C3D	
LF7D22	409P944010	EMI-F-CHIP - NFL21SP107X1	
LF7D24	409P944010	EMI-F-CHIP - NFL21SP107X1	
LF7H13	409P865020	EMI-F-CHIP - BLM11A601S	
LF7H14	409P865020	EMI-F-CHIP - BLM11A601S	
LF7H22	409P865020	EMI-F-CHIP - BLM11A601S	
LF7H24	409P865020	EMI-F-CHIP - BLM11A601S	
<b>TRANSFORMERS</b>			
T2310	409P961010	CHIP-FILTER - ACM2012D-9002P	
T2320	409P961010	CHIP-FILTER - ACM2012D-9002P	
T2330	409P961010	CHIP-FILTER - ACM2012D-9002P	
T2340	409P961010	CHIP-FILTER - ACM2012D-9002P	
T2830	409P961010	CHIP-FILTER - ACM2012D-9002P	
T2860	409P961010	CHIP-FILTER - ACM2012D-9002P	
T2910	409P961010	CHIP-FILTER - ACM2012D-9002P	
T2961	409P961010	CHIP-FILTER - ACM2012D-9002P	
T5A21	409P961010	CHIP-FILTER - ACM2012D-9002P	
T5A24	409P961010	CHIP-FILTER - ACM2012D-9002P	
T5A27	409P961010	CHIP-FILTER - ACM2012D-9002P	
T5A30	409P961010	CHIP-FILTER - ACM2012D-9002P	
<b>T9A20</b>	<b>350P824010</b>	<b>TRANS-PWR - ER35TM075</b>	
<b>VARIABLE RESISTORS</b>			
RV2311	265P804010	VARISTOR-CHIP - 0603 PULSE GUARD	
RV2321	265P804010	VARISTOR-CHIP - 0603 PULSE GUARD	
RV2331	265P804010	VARISTOR-CHIP - 0603 PULSE GUARD	
RV2341	265P804010	VARISTOR-CHIP - 0603 PULSE GUARD	
RV2351	265P804010	VARISTOR-CHIP - 0603 PULSE GUARD	
RV2361	265P804010	VARISTOR-CHIP - 0603 PULSE GUARD	
RV2371	265P804010	VARISTOR-CHIP - 0603 PULSE GUARD	
RV2381	265P804010	VARISTOR-CHIP - 0603 PULSE GUARD	
RV2401	265P804010	VARISTOR-CHIP - 0603 PULSE GUARD	
RV2411	265P804010	VARISTOR-CHIP - 0603 PULSE GUARD	
RV2761	265P804010	VARISTOR-CHIP - 0603 PULSE GUARD	
RV2771	265P804010	VARISTOR-CHIP - 0603 PULSE GUARD	
RV2831	265P804010	VARISTOR-CHIP - 0603 PULSE GUARD	
RV2841	265P804010	VARISTOR-CHIP - 0603 PULSE GUARD	
RV2861	265P804010	VARISTOR-CHIP - 0603 PULSE GUARD	
RV2871	265P804010	VARISTOR-CHIP - 0603 PULSE GUARD	
RV2911	265P804010	VARISTOR-CHIP - 0603 PULSE GUARD	
RV2921	265P804010	VARISTOR-CHIP - 0603 PULSE GUARD	
RV2961	265P804010	VARISTOR-CHIP - 0603 PULSE GUARD	
RV2971	265P804010	VARISTOR-CHIP - 0603 PULSE GUARD	
RV5A21	265P804010	VARISTOR-CHIP - 0603 PULSE GUARD	
RV5A22	265P804010	VARISTOR-CHIP - 0603 PULSE GUARD	
RV5A24	265P804010	VARISTOR-CHIP - 0603 PULSE GUARD	
RV5A25	265P804010	VARISTOR-CHIP - 0603 PULSE GUARD	
RV5A27	265P804010	VARISTOR-CHIP - 0603 PULSE GUARD	

Ref #	Part #	Part Name & Description	[#]
RV5A28	265P804010	VARISTOR-CHIP - 0603 PULSE GUARD	
RV5A30	265P804010	VARISTOR-CHIP - 0603 PULSE GUARD	
RV5A31	265P804010	VARISTOR-CHIP - 0603 PULSE GUARD	
<b>RV9D00</b>	<b>265P100020</b>	<b>VAR - ERZV10D271CS</b>	
<b>RESISTORS</b>			
<b>CHIP Type Resistors (Listed by Value)</b>			
<u>Part No.</u>	<u>Value</u>	<u>Part No.</u>	<u>Value</u>
103P509050	1/16W 00HM	103P502060	1/16W 1.2K-J
103P409050	1/8W 00HM	103P492080	1/16W 1.3K-F
103P489050	1/4W 00HM	103P492090	1/16W 1.5K-F
103P508040	1/16W 2.2-J	103P502070	1/16W 1.5K-J
103P508080	1/16W 4.7-J	103P472090	1/8W 1.5K-F
103P509000	1/16W 6.8-J	103P493010	1/16W 1.8K-F
103P500010	1/16W 10-J	103P502080	1/16W 1.8K-J
103P793000	1/16W 16-F	103P493020	1/16W 2K-F
103P910040	1/16W 18-J	103P493030	1/16W 2.2K-F
103P400050	1/10W 22-J	103P502090	1/16W 2.2K-J
103P500050	1/16W 22-J	103P402090	1/8W 2.2K-J
103P910050	1/16W 22-Jx4	103P493040	1/16W 2.4K-F
103P500060	1/16W 27-J	103P493050	1/16W 2.7K-F
103P400070	1/10W 33-J	103P503000	1/16W 2.7K-J
103P500070	1/16W 33-J	103P493060	1/16W 3K-F
103P910070	1/16W 33-Jx4	103P493070	1/16W 3.3K-F
103P793080	1/16W 36F	103P503010	1/16W 3.3K-J
103P500080	1/16W 39-J	103P503020	1/16W 3.9K-J
103P794010	1/16W 47-F	103P494000	1/16W 4.3K-F
103P500090	1/16W 47-J	103P494010	1/16W 4.7K-F
103P844030	1/16W 56-D	103P503030	1/16W 4.7K-J
103P501000	1/16W 56-J	103P494020	1/16W 5.1K-F
103P911000	1/16W 56-Jx4	103P494030	1/16W 5.6K-F
103P401000	1/10W 56-J	103P503040	1/16W 5.6K-J
103P501010	1/16W 68-J	103P814040	1/16W 6.2K-D
103P489090	1/4W 75-J	103P494050	1/16W 6.8K-F
103P794060	1/16W 75-F	103P503050	1/16W 6.8K-J
103P509090	1/16W 75-J	103P494070	1/16W 8.2K-F
103P501020	1/16W 82-J	103P503060	1/16W 8.2K-J
103P401030	1/10W 100-J	103P494090	1/16W 10K-F
103P501030	1/16W 100-J	103P503070	1/16W 10K-J
103P501040	1/16W 120-J	103P913070	1/16W 10K-Jx4
103P810050	1/16W 150-D	103P495010	1/16W 12K-F
103P490050	1/16W 150-F	103P503080	1/16W 12K-J
103P501050	1/16W 150-J	103P495020	1/16W 13K-F
103P490070	1/16W 180-F	103P495030	1/16W 15K-F
103P490080	1/16W 200-F	103P503090	1/16W 15K-J
103P490090	1/16W 220-F	103P495050	1/16W 18K-F
103P501070	1/16W 220-J	103P504000	1/16W 18K-J
103P481070	1/4W 220-J	103P504010	1/16W 22K-J
103P491000	1/16W 240-F	103P495080	1/16W 24K-F
103P501080	1/16W 270-J	103P495090	1/16W 27K-F
103P471010	1/8W 270-F	103P504030	1/16W 33K-J
103P491020	1/16W 300-F	103P496010	1/16W 33K-F
103P491030	1/16W 330-F	103P504040	1/16W 39K-J
103P501090	1/16W 330-J	103P504050	1/16W 47K-J
103P491040	1/16W 360-F	103P496060	1/16W 51K-F
103P491050	1/16W 390-F	103P496070	1/16W 56K-F
103P502000	1/16W 390-J	103P504060	1/16W 56K-J
103P491070	1/16W 470-F	103P504070	1/16W 68K-J
103P502010	1/16W 470-J	103P497030	1/16W 100K-F

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Ref #	Part #	Part Name & Description	Value	Part No.	Value
	<u>Part No.</u>	<u>Value</u>	<u>Part No.</u>	<u>Value</u>	
	103P491080	1/16W 510-F	103P504090	1/16W 100K-J	
	103P491090	1/16W 560-F	103P497050	1/16W 120K-F	
	103P502020	1/16W 560-J	103P505000	1/16W 120K-J	
	103P492010	1/16W 680-F	103P505030	1/16W 220K-J	
	103P502030	1/16W 680-J	103P498020	1/16W 240K-F	
	103P492030	1/16W 820-F	103P505050	1/16W 330K-J	
	103P502040	1/16W 820-J	103P505090	1/16W 680K-J	
	103P492050	1/16W 1K-F	103P506000	1/16W 820K-J	
	103P502050	1/16W 1K-J	103P506010	1/16W 1M-J	
	103P492070	1/16W 1.2K-F			

RESISTORS

Conventional Resistors (By Ref #)

Ref #	Part #	Part Name & Description
R2814	103C398040	R-METAL-P - 3W 2.2-K
R2816	103C298010	R-METAL-CP - 3W 1.2-J
R2817	103C288040	R-METAL-CP - 2W 2.2-J
R2H15	103C180020	R-METAL - 2W 12-J
R2H16	103C180020	R-METAL - 2W 12-J
R5G01	103C398050	R-METAL-P - 3W 2.7-K
R7E12	103C178010	R-METAL - 1W 1.2-J
R7K36	103P710090	R-CARBON - 1/4W 47-J
R8798	103C288040	R-METAL-CP - 2W 2.2-J
R8H10	103C298050	R-METAL-CP - 3W 2.7-J
R8H20	103P719050	R-CARBON - 1/4W 00HM (MAX 3A)
R9A02	109P179010	R-CEMENT-PLATE - 6.8-J
<b>R9A03</b>	<b>109C010010</b>	<b>R-COMP - 1/2W 1M-K</b>
<b>R9A05</b>	<b>109C010010</b>	<b>R-COMP - 1/2W 1M-K</b>
<b>R9A06</b>	<b>109C010010</b>	<b>R-COMP - 1/2W 1M-K</b>
R9A09	103P145030	R-CARBON - 1/2W 220K-J
R9A11	103P145030	R-CARBON - 1/2W 220K-J
R9A18	103P145020	R-CARBON - 1/2W 180K-J
R9A20	103P144020	R-CARBON - 1/2W 27K-J
R9A21	103P144020	R-CARBON - 1/2W 27K-J
R9A22	103C187030	R-METAL - 2W 0.27-J
R9A25	103P142050	R-CARBON - 1/2W 1K-J
R9A26	109D151090	R-CARBON - 1/4W 33-J
R9A27	109D151050	R-CARBON - 1/4W 75-J
R9A38	103P144090	R-CARBON - 1/2W 100K-J
<b>R9D00</b>	<b>109D036020</b>	<b>R-COMP - 1/2W 4.7M-K</b>
R9M00	103C288030	R-METAL-CP - 2W 1.8-J

CAPACITORS

CHIP Type Capacitors (Listed by Value)

Part No.	Value	Part No.	Value
154P340010	CK50V 1P-C	141P142050	B25V 0.022M-K
154P340030	CK50V 2P-C	141P142090	B25V 0.047M-K
154P340060	CK50V 5P-C	141P143020	B16V 0.082M-K
154P340080	CH50V 7P-C	141P143030	B16V 0.1M-K
154P341010	CH50V 10P-C	141P139030	B25V 0.1M-K
154P341030	CH50V 12P-J	141P144020	F25V 0.1M-Z
154P341050	CH50V 15P-J	141P134090	F50V 0.1M-Z
154P341070	CH50V 18P-J	141P135080	F50V/25V 0.1M-Z
154P341090	CH50V 22P-J	141P138080	B25V 0.33M-K
154P342010	CH50V 27P-J	141P146080	B10V 0.47M-K
154P352020	SL50V 27P-J	141P139090	B16V 0.47M-K
154P342030	CH50V 33P-J	181P526010	50V 1M-M

Ref #	Part #	Part Name & Description	Value	Part No.	Value
	<u>Part No.</u>	<u>Value</u>	<u>Part No.</u>	<u>Value</u>	
	154P342050	CH50V 39P-J	141P134070	B16V 1M-K	
	154P342070	CH50V 47P-J	141P135070	F16V 1M-Z	
	154P342070	CH50V 47P-J	141P142020	B50V 0.012M-K	
	154P342090	CH50V 56P-J	141P144060	F25V 1M-Z	
	154P343010	CH50V 68P-J	141P147020	B10V/6.3V 1M-K	
	154P343050	CH50V 100P-J	181P526020	50V 2.2M-M	
	154P343070	CH50V 120P-J	141P147040	B6.3V 2.2M-K	
	154P344010	CH50V 180P-J	141P133010	B10V 3.3M-M	
	141P140010	B50V 220P-K	181P808070	16V 4.7M-M	
	154P344030	CH50V 220P-J	181P532020	16V 4.7M-M 105C	
	154P354040	SL50V 220P-J	181P524090	35V 4.7M-M 105C	
	154P344050	CH50V 270P-J	141P147060	B6.3V 4.7M-K	
	141P140050	B50V 470P-K	181P508080	16V 10M-M	
	154P345010	CH50V 470P-J	181P522030	16V 10M-M 105C	
	154P345030	CH25V 560P-J	181P532030	BP16V 10M-M 105C	
	154P345050	CH25V 680P-J	181P525000	35V 10M-M 105C	
	154P345070	CH25V 820P-J	181P522040	16V 22M-M 105C	
	141P140090	B50V 1000P-K	181P520010	6.3V 22M-M 105C	
	141P143050	F50V 1000P-Z	181P502060	16V 47M-M	
		/B50V 1000P-K	181P500030	6.3V 47M-M	
	154P345090	CH25V 1000P-J	181P520030	6.3V 47M-M	
	141P141010	B50V 1500P-K	181P522060	6V 47M-M	
	141P141030	B50V 2200P-K	181P502070	16V 100M-M	
	141P141050	B50V 3300P-K	181P520040	6.3V 100M-M	
	141P141070	B50V 4700P-K	181P528010	4V 220M-M 105C	
	141P142000	B50V 8200P-K	181P500060	6.3V 220M-M	
	141P143080	F50V 0.01M-Z	181P520050	6.3V 220M-M 105C	
	141P142010	B50V 0.01M-K			
	141P133080	B50V 0.01M-Z			

CAPACITORS AND TRIMMERS

Conventional Capacitors (By Ref #)

Ref #	Part #	Part Name & Description
C1H05	172P262010	C-M-POLY - 50V 0.047M-J
C1H55	172P262010	C-M-POLY - 50V 0.047M-J
C2L03	181P351080	C-ELEC - 10V 1000M-M
C2M28	181P351080	C-ELEC - 10V 1000M-M
C2M29	181P351080	C-ELEC - 10V 1000M-M
C2824	181P351050	C-ELEC 10V 220M-M
<b>C5A01</b>	<b>141P140090</b>	<b>C-CER-CHIP - B50V 1000P-K</b>
<b>C7A00</b>	<b>154P345050</b>	<b>C-CER-CHIP - CH25V 680P-J</b>
C81A2	181P182030	C-ELEC - 16V 1000M-M 105C
C81A3	181P182030	C-ELEC - 16V 1000M-M 105C
C81B3	181P182030	C-ELEC - 16V 1000M-M 105C
C81B4	181P182030	C-ELEC - 16V 1000M-M 105C
C8281	189P197020	C-ELE-DBL-LA - FM0H473Z/EECS5R5T473Z
C8702	181P355090	C-ELEC - 50V 100M-M
C8703	181P185060	C-ELEC - 50V 10M-M 105C
C8705	181P184020	C-ELEC - 35V 100M-M
C8708	181P185090	C-ELEC - 50V 47M-M 105C
C8710	181P181000	C-ELEC - 10V 330M-M 105C
C8717	181P352060	C-ELEC - 16V 330M-M
C8719	181P352060	C-ELEC - 16V 330M-M
C8720	181P185060	C-ELEC - 50V 10M-M 105C
C8725	181P352060	C-ELEC - 16V 330M-M
C8727	181P181000	C-ELEC - 10V 330M-M 105C
C8729	181P352060	C-ELEC - 16V 330M-M
C8733	181P352060	C-ELEC - 16V 330M-M

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Ref #	Part #	Part Name & Description	[#]
C8736	181P185060	C-ELEC - 50V 10M-M 105C	
C8738	181P352060	C-ELEC - 16V 330M-M	
C8742	181P185060	C-ELEC - 50V 10M-M 105C	
C8748	181P185060	C-ELEC - 50V 10M-M 105C	
C8749	181P184020	C-ELEC - 35V 100M-M	
C8751	181P185060	C-ELEC - 50V 10M-M 105C	
C8754	181P184020	C-ELEC - 35V 100M-M	
C8760	181P352030	C-ELEC - 16V 47M-M	
C8761	181P352060	C-ELEC - 16V 330M-M	
C8765	181P352030	C-ELEC - 16V 47M-M	
C8772	181P181000	C-ELEC - 10V 330M-M 105C	
C8773	181P353020	C-ELEC - 25V 10M-M	
C8780	181P353060	C-ELEC - 25V 330M-M	
C8786	181P352030	C-ELEC - 16V 47M-M	
C8788	181P352060	C-ELEC - 16V 330M-M	
C8790	181P355030	C-ELEC - 50V 3.3M-M	
C8792	181P353020	C-ELEC - 25V 10M-M	
C8795	181P352030	C-ELEC - 16V 47M-M	
C8797	181P353060	C-ELEC - 25V 330M-M	
C8798	181P353060	C-ELEC - 25V 330M-M	
C87A0	181P353060	C-ELEC - 25V 330M-M	
C87A1	181P353060	C-ELEC - 25V 330M-M	
C87A3	181P353060	C-ELEC - 25V 330M-M	
C87A4	181P353060	C-ELEC - 25V 330M-M	
C87A7	181P353060	C-ELEC - 25V 330M-M	
C87C1	181P184020	C-ELEC - 35V 100M-M	
C87C4	181P350050	C-ELEC - 6.3V 470M-M	
C8840	181P185060	C-ELEC - 50V 10M-M 105C	
C8844	181P185060	C-ELEC - 50V 10M-M 105C	
C8845	181P185060	C-ELEC - 50V 10M-M 105C	
C8847	181P185060	C-ELEC - 50V 10M-M 105C	
C8848	181P185060	C-ELEC - 50V 10M-M 105C	
C8852	181P185060	C-ELEC - 50V 10M-M 105C	
C8853	181P185060	C-ELEC - 50V 10M-M 105C	
<b>C9A08</b>	<b>189P185090</b>	<b>C-CER - AC250V E2200P-M</b>	
<b>C9A09</b>	<b>189P185090</b>	<b>C-CER - AC250V E2200P-M</b>	
<b>C9A10</b>	<b>189P185090</b>	<b>C-CER - AC250V E2200P-M</b>	
<b>C9A11</b>	<b>189P185090</b>	<b>C-CER - AC250V E2200P-M</b>	
<b>C9A13</b>	<b>189P152070</b>	<b>C-M-POLY - 250VAC 0.01M-M</b>	
<b>C9A14</b>	<b>189P152050</b>	<b>C-M-POLY - 250VAC 4700P-M</b>	
<b>C9A20</b>	<b>154P232020</b>	<b>C-CER - B1KV 1000P-K</b>	
<b>C9A21</b>	<b>181P355050</b>	<b>C-ELEC - 50V 10M-M</b>	
C9A25	172P138010	C-POLY - 50V 4700P-J	
C9A26	185D122050	C-ELEC - H200V 1000M-M	
C9A29	181P355050	C-ELEC - 50V 10M-M	
C9A30	181P355050	C-ELEC - 50V 10M-M	
C9A32	181P735040	C-ELEC - 25V 1500M-M	
C9A33	181P735040	C-ELEC - 25V 1500M-M	
C9A34	154P400050	C-CER - B1KV 1000P-K	
C9A35	181P735010	C-ELEC - 25V 470M-M	
C9A37	181P734000	C-ELEC - 16V 2200M-M 105C	
C9A38	181P734000	C-ELEC - 16V 2200M-M 105C	
C9A41	181P732010	C-ELEC - 10V 1000M-M 105C	
C9A43	172P262050	C-M-POLY - 50V 0.1M-J	
<b>C9D00</b>	<b>189P153040</b>	<b>C-M-POLY - 250VAC 0.1M-M</b>	
C9D01	189P153040	C-M-POLY - 250VAC 0.1M-M	
<b>CF9D02</b>	<b>189P153040</b>	<b>C-M-POLY - 250VAC 0.1M-M</b>	
CF8H01	299P128010	OSC-CERAMIC - CSB500F2	
CF8T01	299P128010	OSC-CERAMIC - CSB500F2	

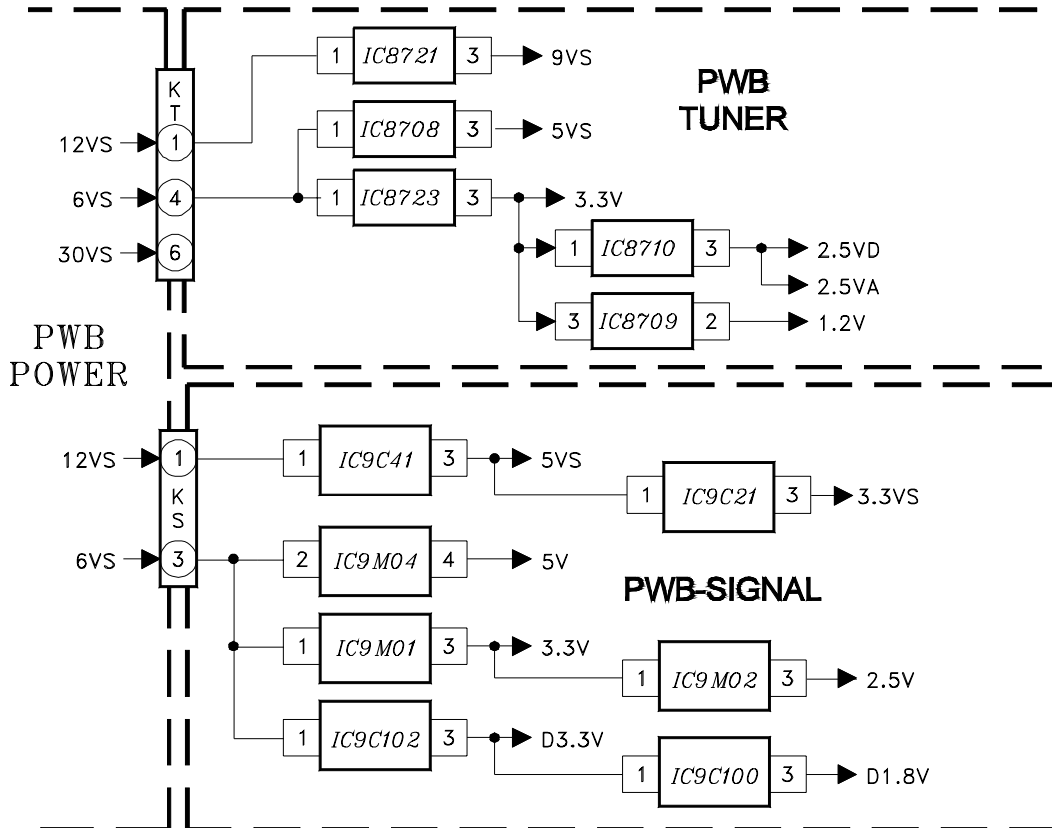
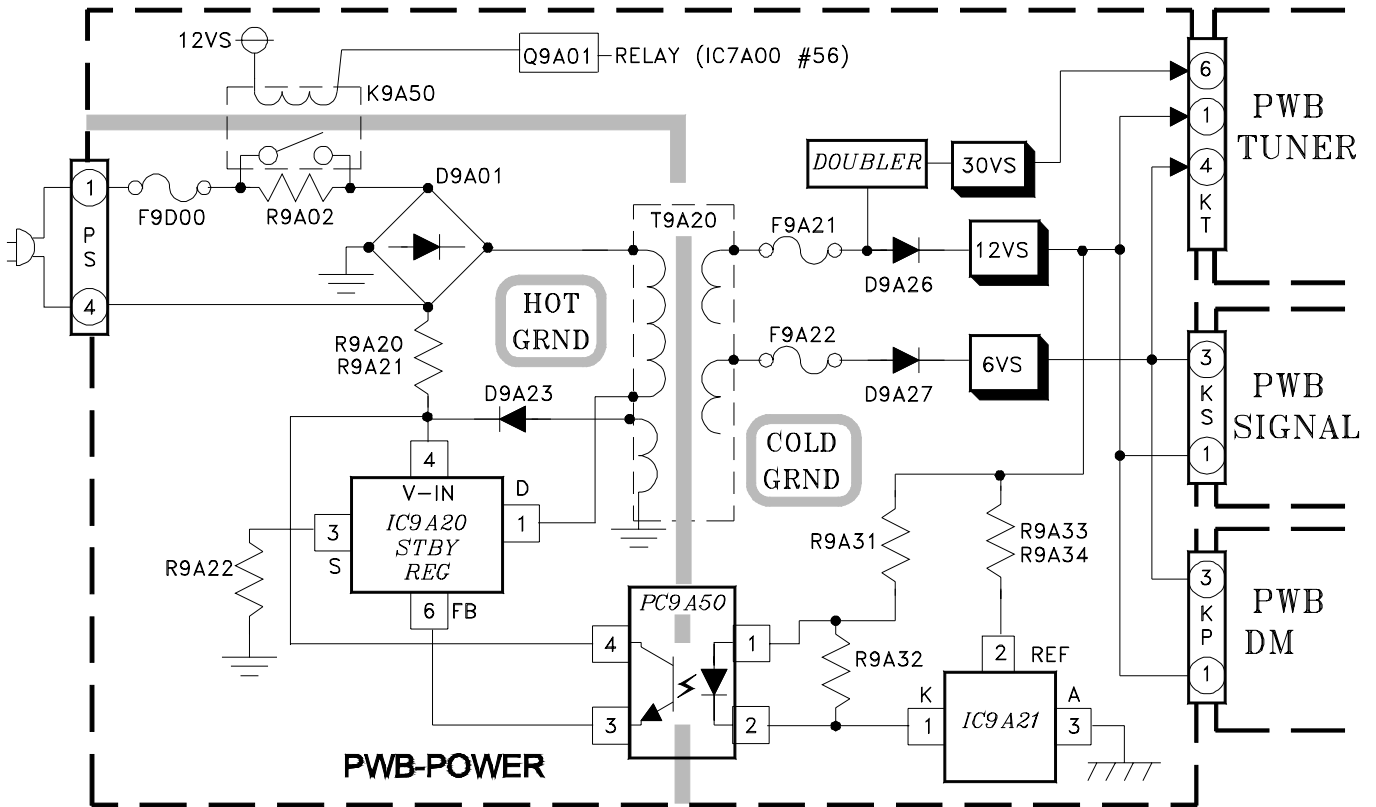
Ref #	Part #	Part Name & Description	[#]
<b>SWITCHES</b>			
S7L20	432P109010	SW-KEY BOARD - KSHS611BT	
S7L21	432P109010	SW-KEY BOARD - KSHS611BT	
S7L22	432P109010	SW-KEY BOARD - KSHS611BT	
S7L23	432P109010	SW-KEY BOARD - KSHS611BT	
S7L24	432P109010	SW-KEY BOARD - KSHS611BT	
S7L25	432P109010	SW-KEY BOARD - KSHS611BT	
S7L26	432P109010	SW-KEY BOARD - KSHS611BT	
S7L27	432P109010	SW-KEY BOARD - KSHS611BT	
S7L28	432P109010	SW-KEY BOARD - KSHS611BT	
S7L29	432P109010	SW-KEY BOARD - KSHS611BT	
SF8800	296P171010	SAW-FILTER - X6892D	
SF8801	296P172010	SAW-FILTER - X7303P	
<b>MISCELLANEOUS</b>			
242D540040		CABLE - RF PIN-PLUG 150mm	
242D540050		CABLE - RF PIN-PLUG 100mm	
242D540060		CABLE - RF F-TYPE 160mm	
246C468020		AC-INLET	
299P254020		IR-EMITTER, 4-HEAD - T-IR-02 W/	
299P278020		FAN EFB0612LA-R00	
305P703010		2RF-SWITCH	
411D064010		FERRITE CORE - HF57SH35X0.8	
938P038010		CARD-READER-UNIT	
<b>F9A01</b>	<b>283P144080</b>	<b>FUSE - 125V 5A</b>	
<b>F9A21</b>	<b>283P144090</b>	<b>FUSE - 125V 10A</b>	
<b>F9A22</b>	<b>283P144090</b>	<b>FUSE - 125V 10A</b>	
<b>F9D00</b>	<b>283D131040</b>	<b>FUSE - S10A 125A</b>	
HR1	452C410010	CONNECTOR-HDMI	
HR2	452C410010	CONNECTOR-HDMI	
HT	452C410010	CONNECTOR-HDMI	
J8301	440C393030	PIN-JACK-BOARD-1P	
J8402	451P246010	JACK-1394 - MINI	
J8403	451P246010	JACK-1394 - MINI	
<b>K9A50</b>	<b>287P111030</b>	<b>RELAY-POWER - LKS1AF-12V</b>	
PB	452C411020	CONNECTOR-PCCARD	
<b>PC9A21</b>	<b>268P058020</b>	<b>PHOTO-COUPLER - ON3131-R/</b>	
		<b>ON3161-R</b>	
<b>PC9A50</b>	<b>268P058020</b>	<b>PHOTO-COUPLER - ON3131-R/</b>	
		<b>ON3161-R</b>	
PJ2J00	440C438010	PIN-JACK-BOARD	
PJ2J01	440C438020	PIN-JACK-BOARD	
PJ2J04	440C433020	PIN-JACK-BOARD	
PJ2J05	440C433010	PIN JACK BOARD	
PJ2J09	440C433020	PIN-JACK-BOARD	
PJ2J10	440C433020	PIN-JACK-BOARD	
PJ2J11	440C433020	PIN-JACK-BOARD	
PJ2J14	452C393010	CONNECTOR-DSUB	
PJ2J20	440C433020	PIN-JACK-BOARD	
PJ2J21	451C269010	AUDIO-JACK	
PJ2J22	451C242010	JACK-MICROPHONE	
<b>TU8700</b>	<b>295P490040</b>	<b>TUNER-TV - ENA46914P4A</b>	
<b>TU8701</b>	<b>295P523020</b>	<b>TUNER-NOTSC/ATSC</b>	
<b>TU8702</b>	<b>295P524010</b>	<b>TUNER-OOB</b>	
X2001	285P457010	QUARTZ-CRYSTAL-UNIT	
X2K51	285P029030	QTZ-CRYST - 4.000 MHZ	
X2M47	285P374050	QTZ-CRYST - 20.000MHZ	
X3E51	285P451010	QTZ-CRYST - 12.288MHZ	
X7A13	285P434020	QTZ-CRYST - 16.000MHZ	

MODELS: HD-4001

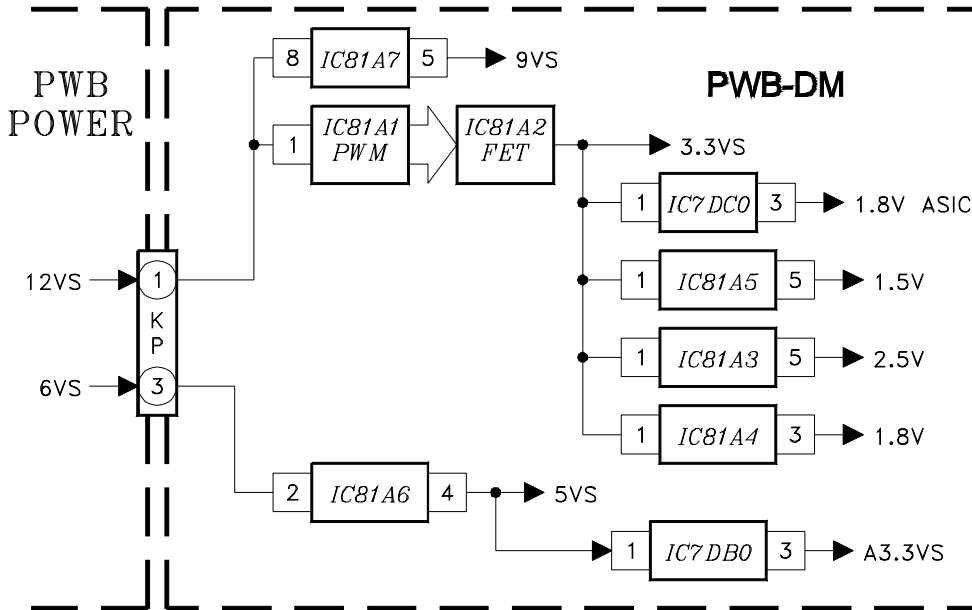
Ref #	Part #	Part Name & Description	[#]
X7J10	285P335050	QTZ-CRYST - 80.000MHZ	
X7P09	285P434010	QTZ-CRYST - 8.000MHZ	
X8001	285P441040	QTZ-CRYST - 26.1621MHZ	
X8301	285P434060	QTZ-CRYST - 14.7456MHZ	
X8302	285P441030	QTZ-CRYST - 14.31818MHZ	
X8303	285P413010	QTZ-CRYST - 18.432MHZ	
X8401	285P431020	QTZ-CRYST - 54.000MHZ	
X8402	285P410020	QTZ-CRYST - 24.576MHZ	
X8613	285P434060	QTZ-CRYST - 14.7456MHZ	
X8701	285P413010	QTZ-CRYST - 18.432MHZ	
X8800	285P453010	QTZ-CRYST - 25.140MHZ	
X8A00	285P387010	QTZ-CRYST - 24.576MHz	
X8A01	285P446010	QTZ-CRYST - 83.33MHZ	
X8E00	285P387010	QTZ-CRYST - 24.576MHz	
X8G00	285P374040	QTZ-CRYST - 10.000MHZ	
X8G01	285P374020	QTZ-CRYST - 3.579545MHZ	
X8H12	299P259010	OSC-CERAMIC - CSALA2M6964ZF01-B0	
X8H14	285P029030	QTZ-CRYST - 4.000 MHZ	
X8H26	285P374020	QTZ-CRYST - 3.579545MHZ	
X8T12	299P259010	OSC-CERAMIC - CSALA2M6964ZF01-B0	
X8T14	285P029030	QTZ-CRYST - 4.000 MHZ	
X8T26	285P374020	QTZ-CRYST - 3.579545MHZ	
Z7K02	938P031010	UNIT-PREAMP - GP1UM263RK	
<b>Z81A1</b>	<b>283P128050</b>	<b>FUSE-CHIP - AC125/100V 4A</b>	
<b>Z81A2</b>	<b>283P128050</b>	<b>FUSE-CHIP - AC125/100V 4A</b>	
<b>Z81A3</b>	<b>283P128050</b>	<b>FUSE-CHIP - AC125/100V 4A</b>	
<b>Z81A4</b>	<b>283P128050</b>	<b>FUSE-CHIP - AC125/100V 4A</b>	
<b>PRINTED CIRCUIT BOARDS</b>			
934C127001		ASSY-PWB-TUNER	
934C171001		ASSY-PWB-POWER	
934C172001		ASSY-PWB-TERMINAL1	
934C173001		ASSY-PWB-TERMINAL2	
934C174001		ASSY-PWB-CONTROL	
934C175001		ASSY-PWB-DM	
934C176001		ASSY-PWB-E2P	
934C177001		ASSY-PWB-SIGNAL	
934C215001		ASSY-PWB-FAN	
<b>COSMETIC PARTS</b>			
701B531020		PANEL-FRONT	
710A145020		PANEL-TOP	
<b>ACCESSORIES</b>			
242D525010		CABLE - AUDIO - AC3	
246C293010		CORD - AC-POWER	
290P118020		REMOTE CONTROL	
I/QR HD4001		GUIDE - QR	
I/B HD4001		IB PCTV	
246C472010		CABLE - 9P SUB	
246C505020		CABLE - HDMI	

Ref #	Part #	Part Name & Description	[#]
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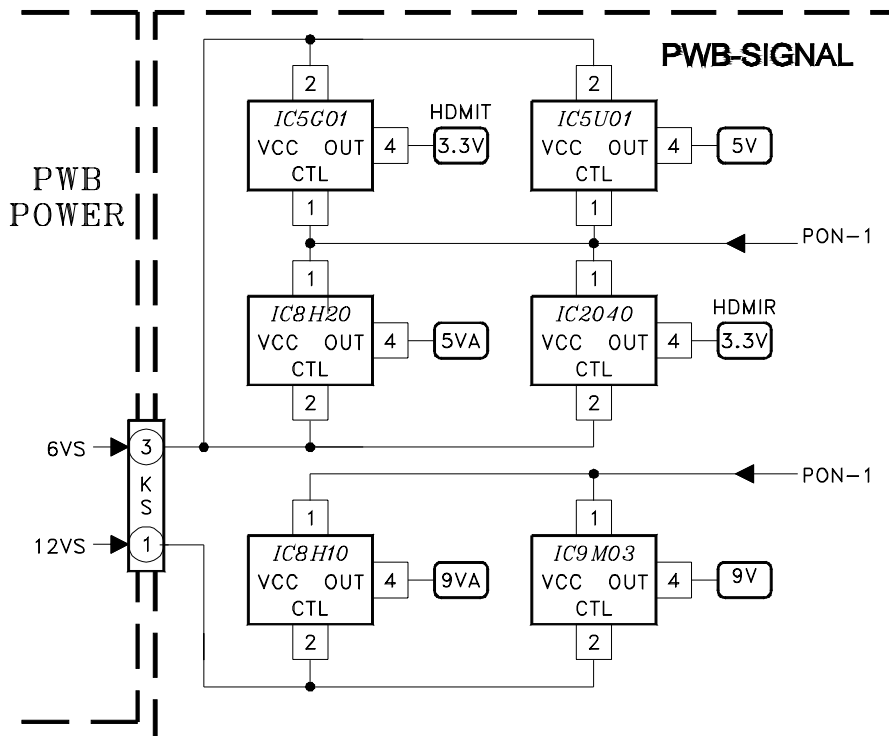
# Standby Supplies



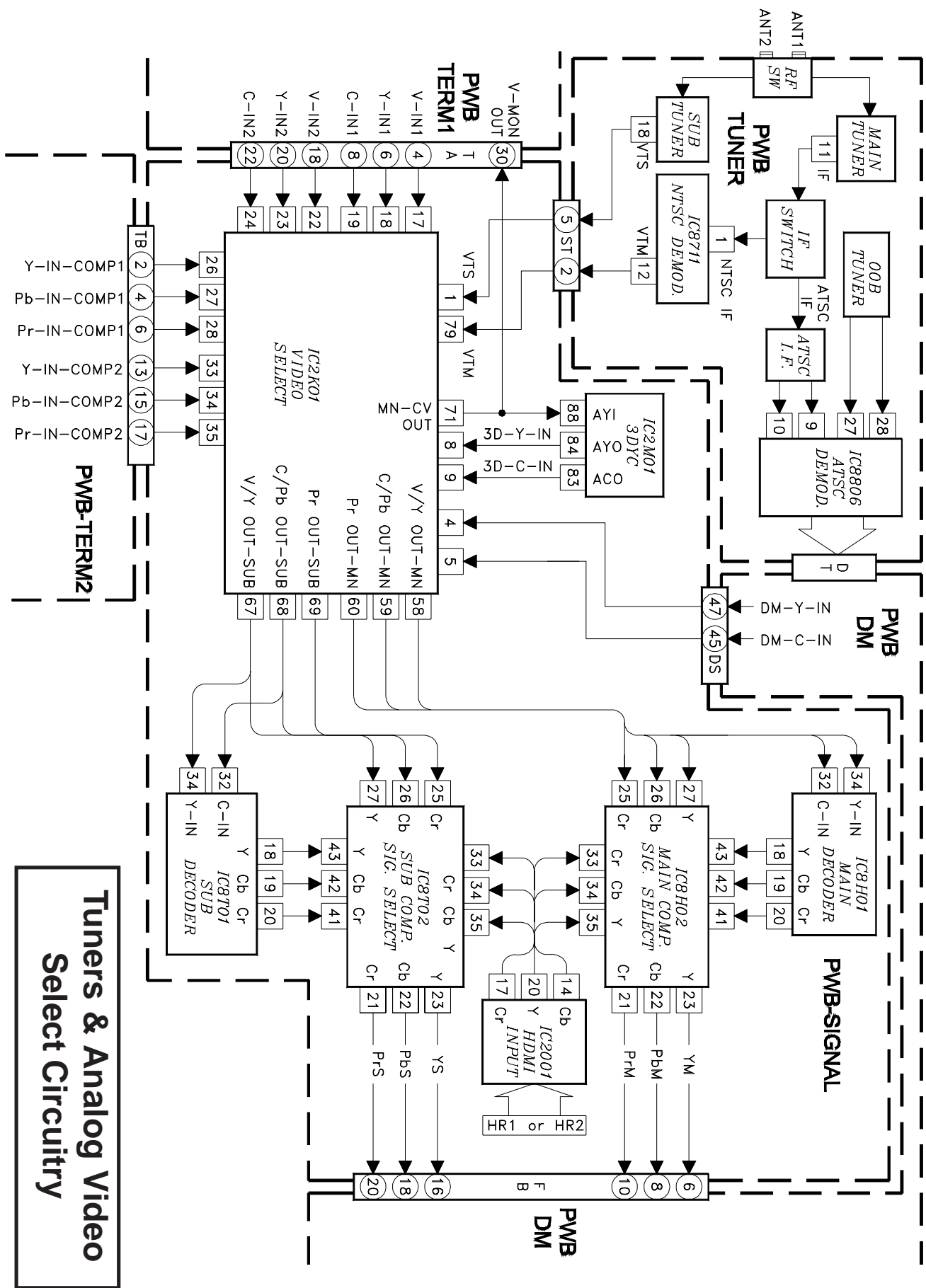
## PWB-DM Power Supplies



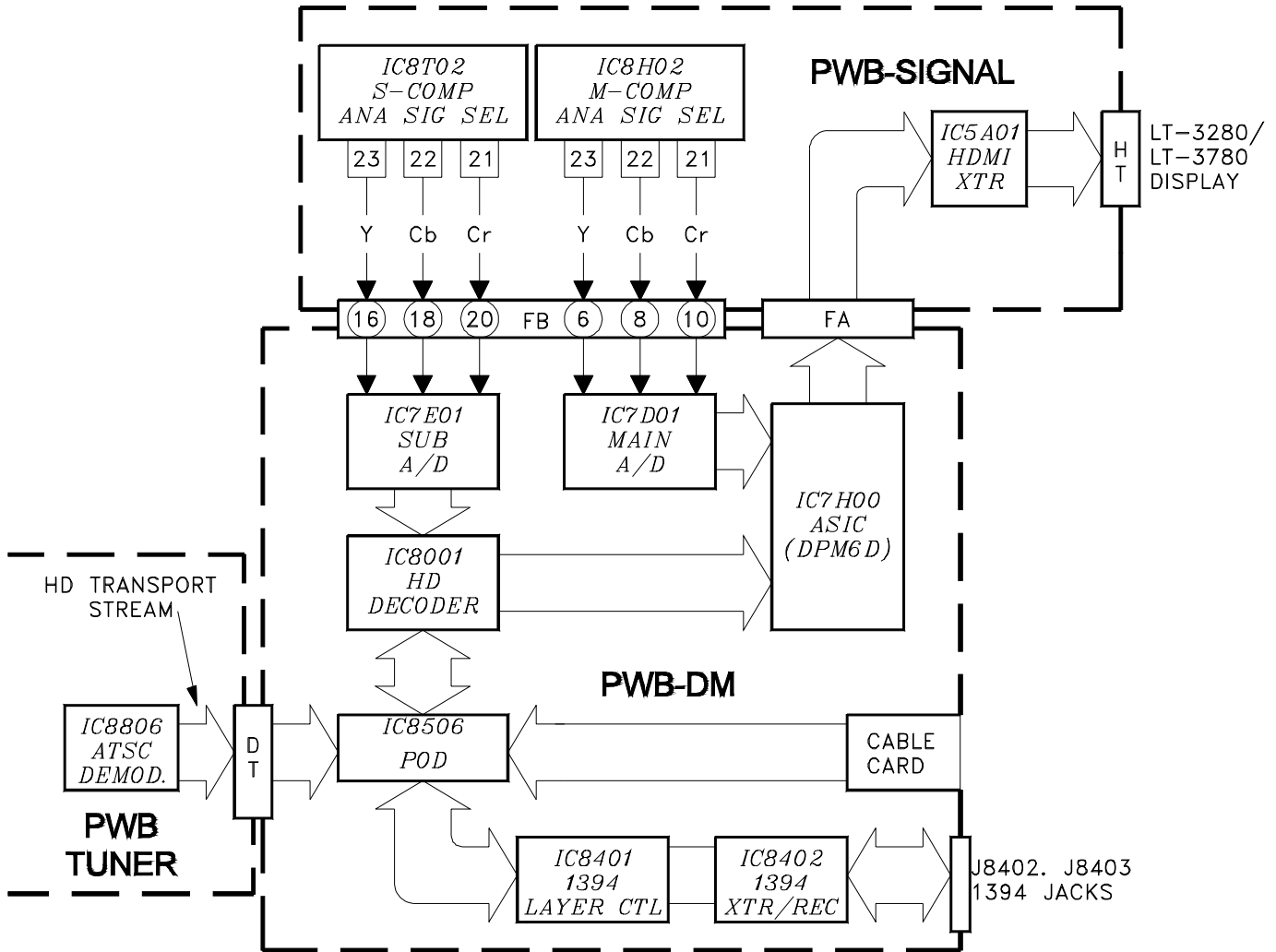
## PWB-SIGNAL Switched Supplies



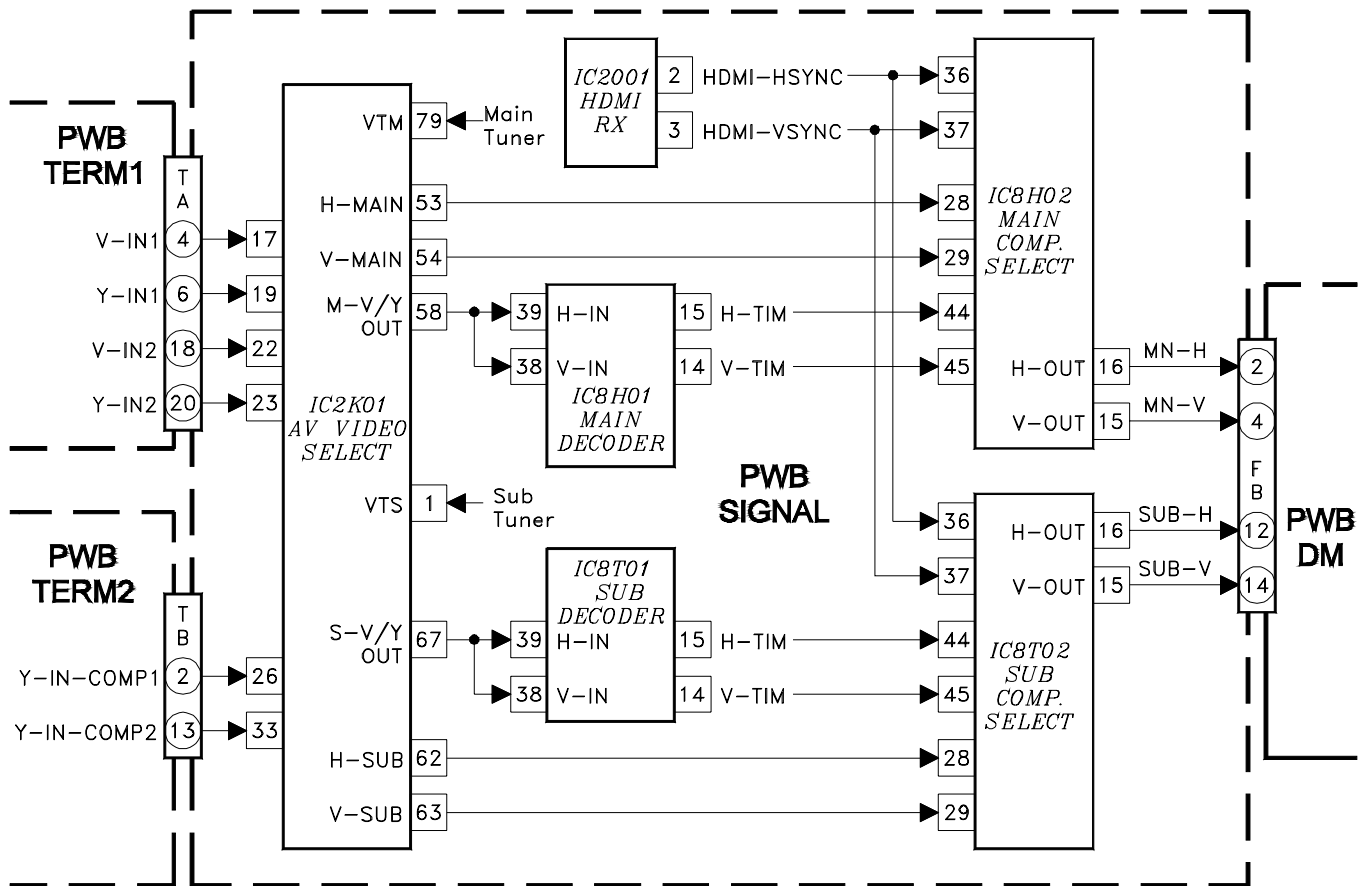




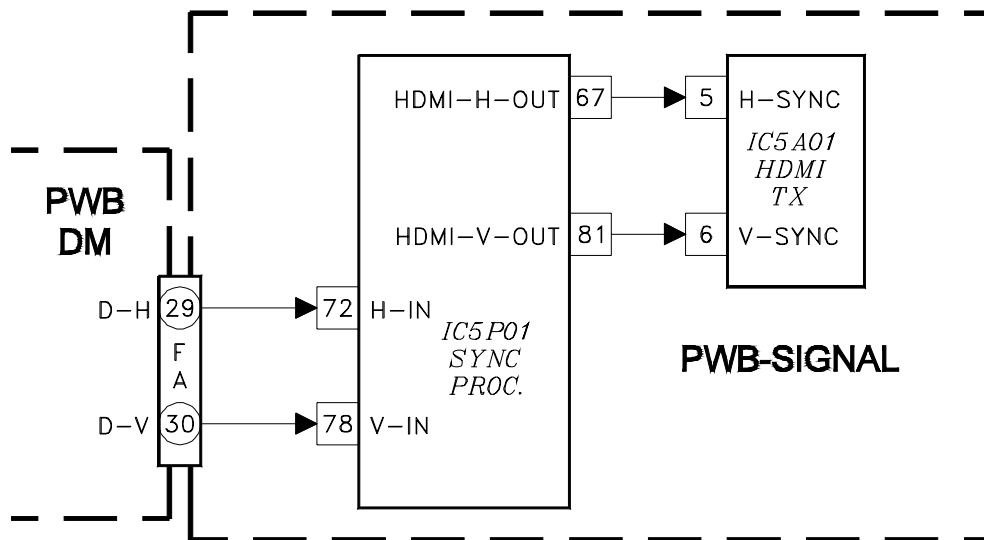
## Digital Video Signal Path



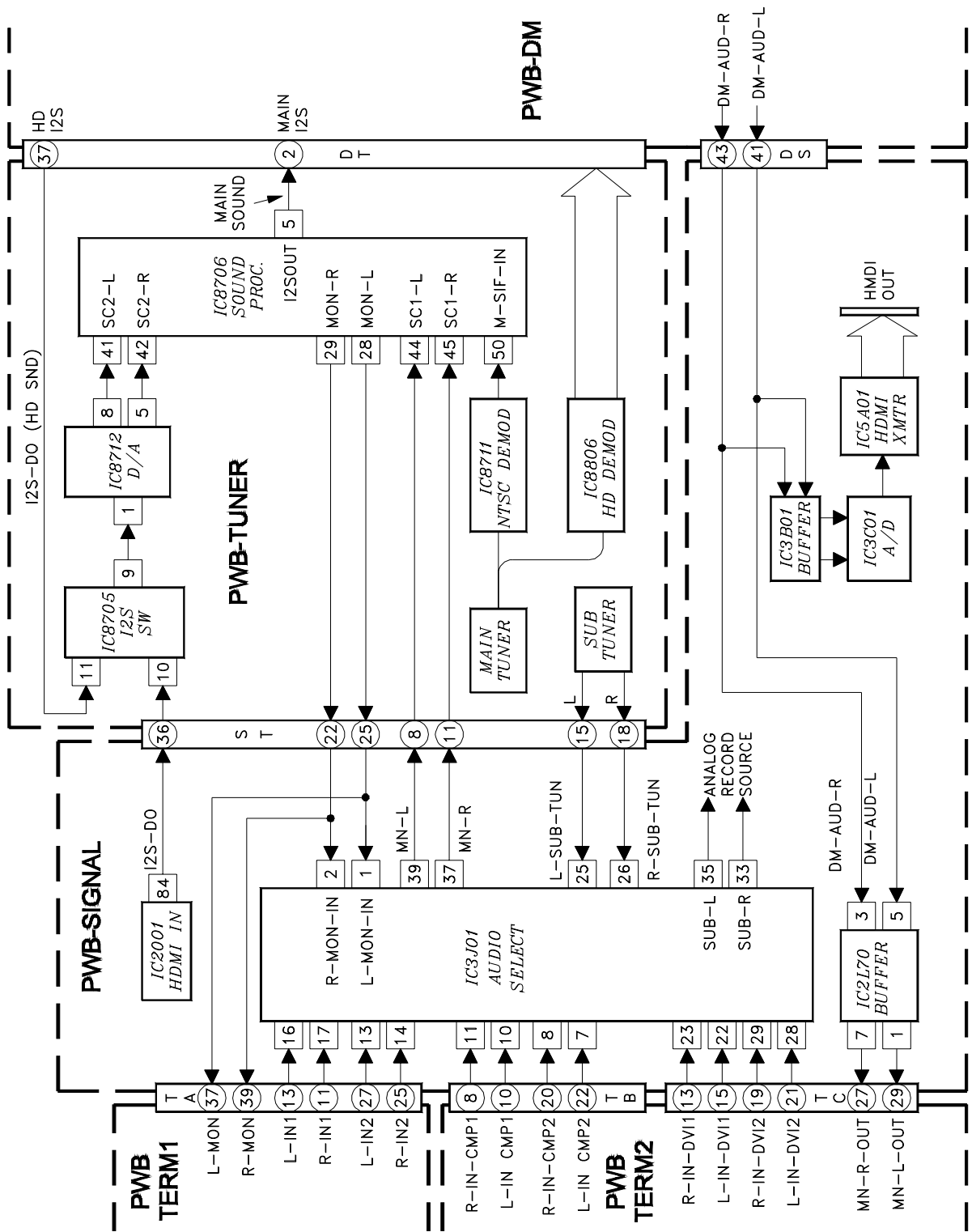
## Sync Signal Selection



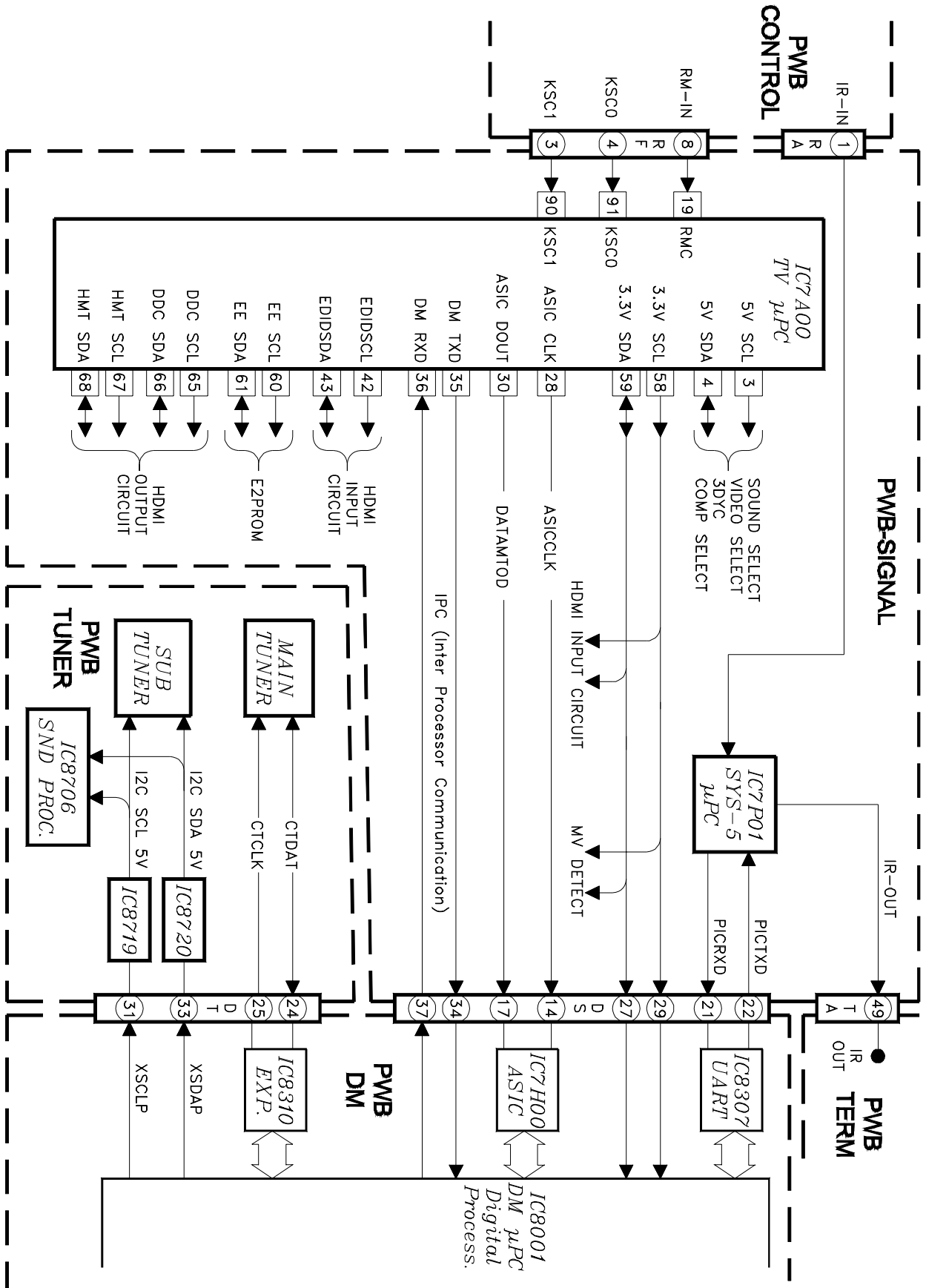
## Sync Output Path



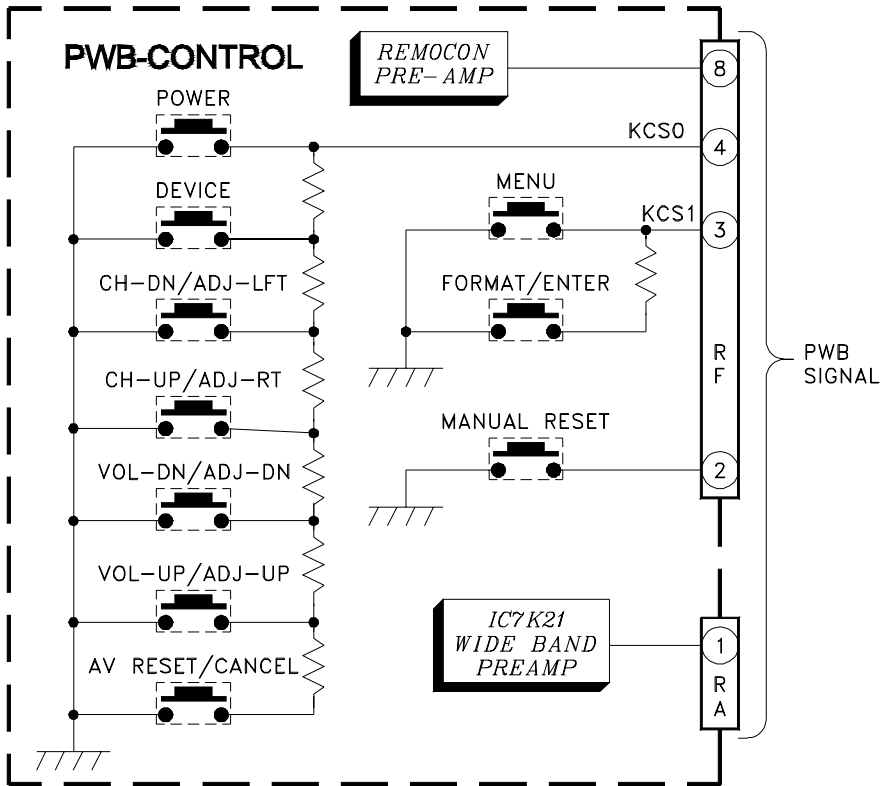
# Sound Signal Path



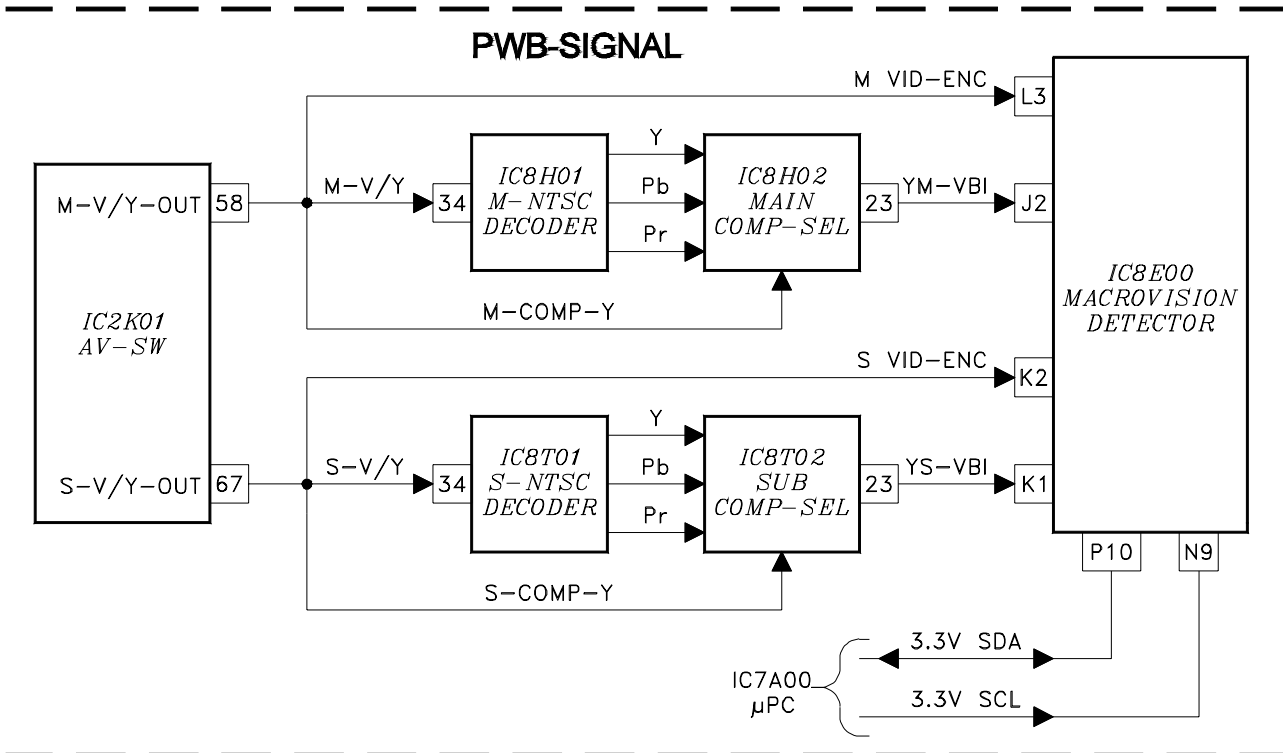
# Control Circuitry

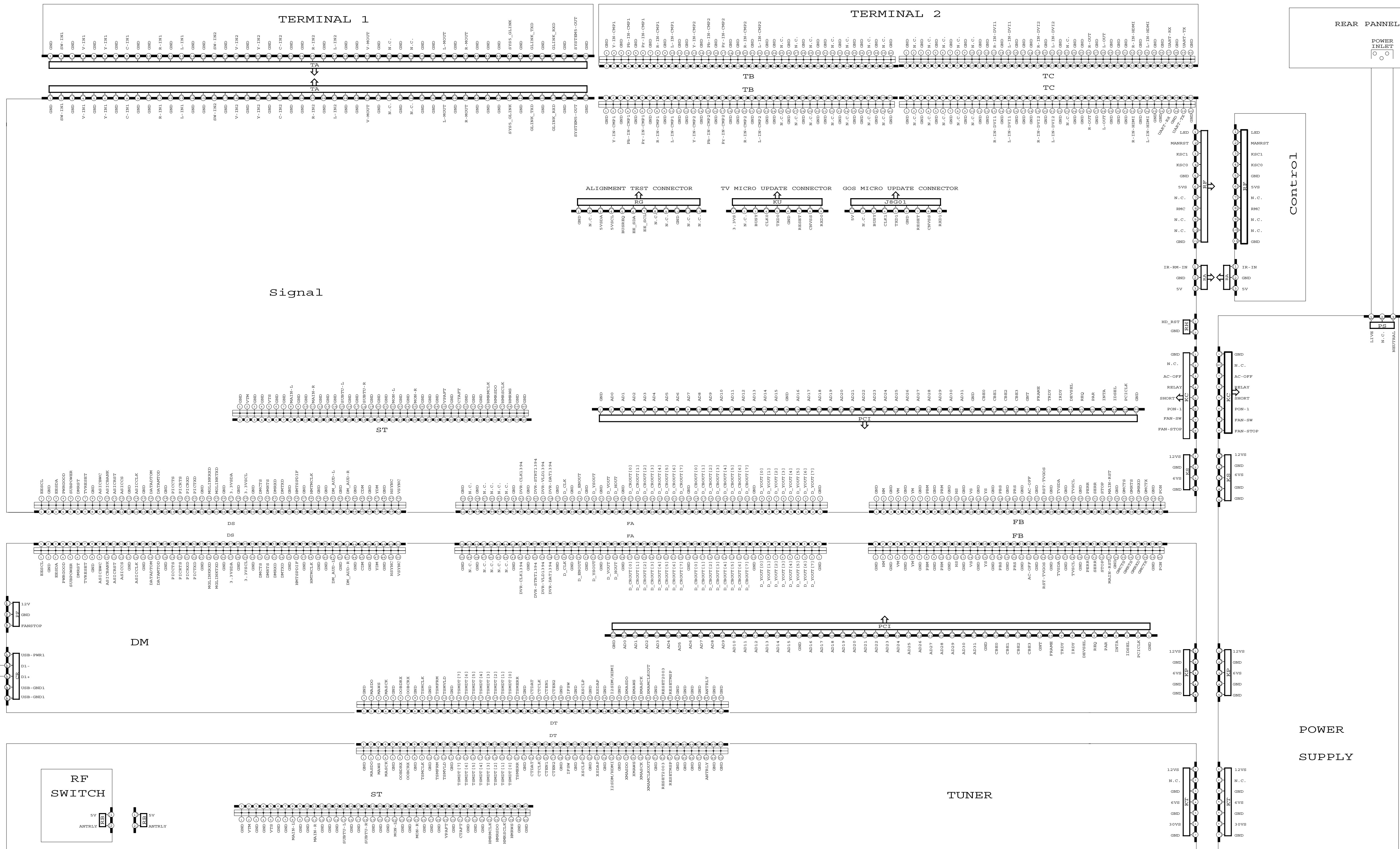


## Command Input Circuitry



## Macrovision Detection





**\* NOTES**

1. DC voltages were measured from points indicated to the circuit ground with a high-Z voltmeter.
2. Wave form were taken with standard color bar signal.
3. TP13, etc. show test points.
4. CAPACITOR

Value	Not indicated	PP, for numbers more than 1 UF, for numbers less than 1
Dielectric strength	Not indicated	50V
Tolerance	Not indicated = +/- 10%	No tolerance is indicated and +/- 20%
Type	Parts except for chips	[Symbol] : Ceramic capacitor [Symbol] : Polyester capacitor [Symbol] : Polypropylene film capacitor [Symbol] : Aluminum electrolytic capacitor [Symbol] : Twin film capacitor [Symbol] : Semiconductor Ceramic capacitor [Symbol] : Metallized paper [Symbol] : Metallized plastic film capacitor [Symbol] : Polyester polypropylene film capacitor [Symbol] : Styrol capacitor [Symbol] : Tantalum capacitor [Symbol] : Electrolytic capacitor [Symbol] : Non polarized electrolytic capacitor
	II chips	[Symbol] : Not indicated Ceramic capacitor chip [Symbol] : Electrolytic capacitor [Symbol] : Non polarized electrolytic capacitor chip
	Characteristic (only ceramic capacitor)	Not indicated
	CM, SL, etc.	F or B (high dielectric percentage) Temperature compensating types

**5. RESISTOR**

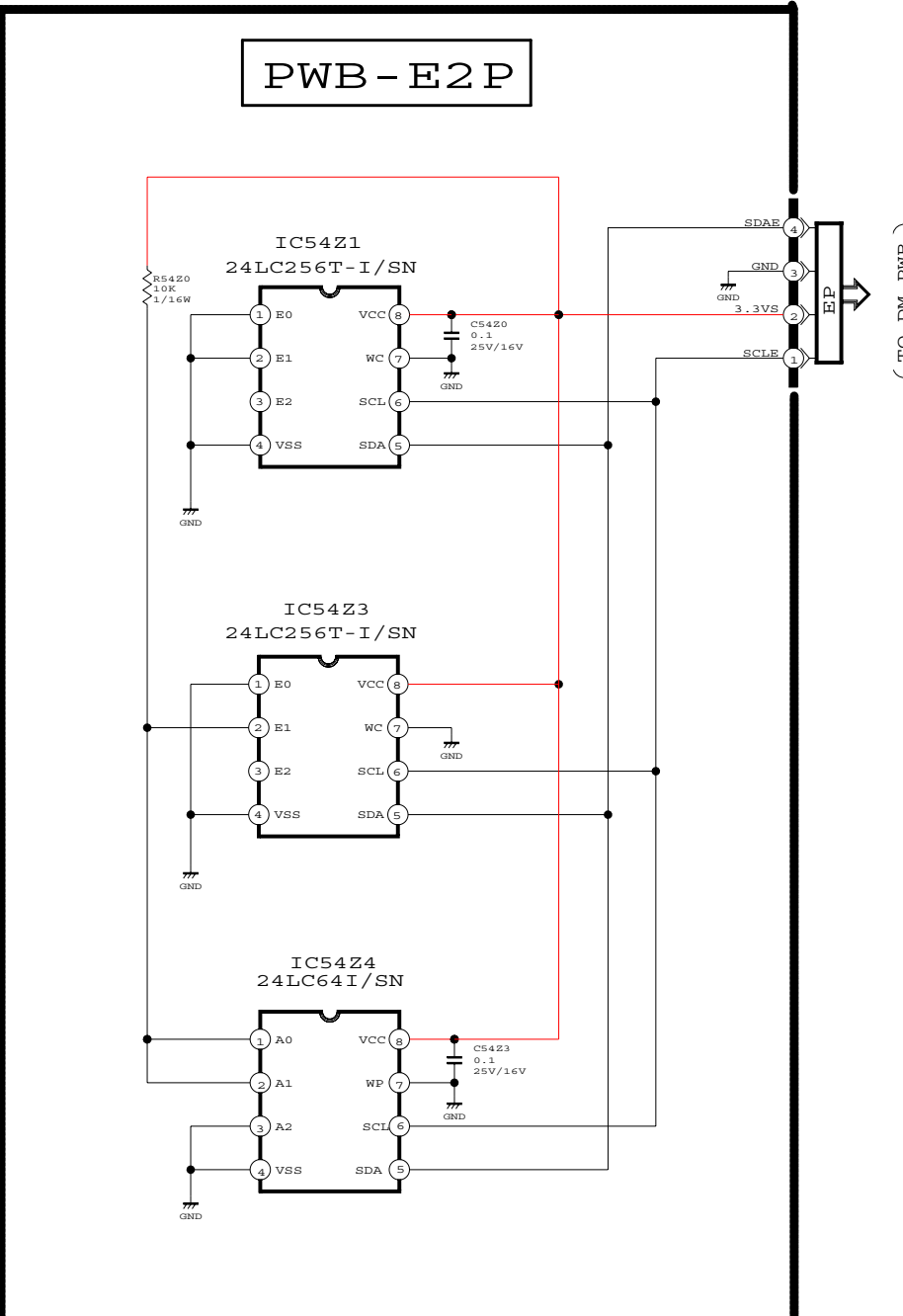
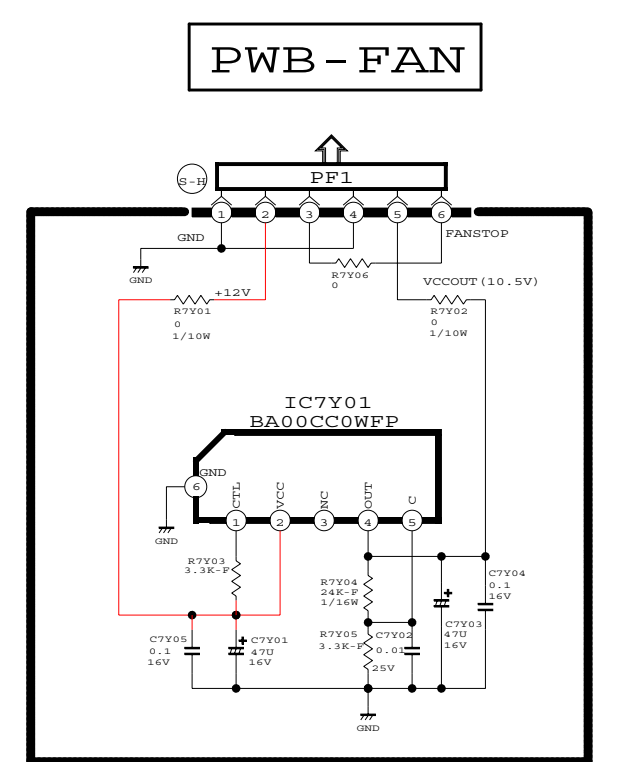
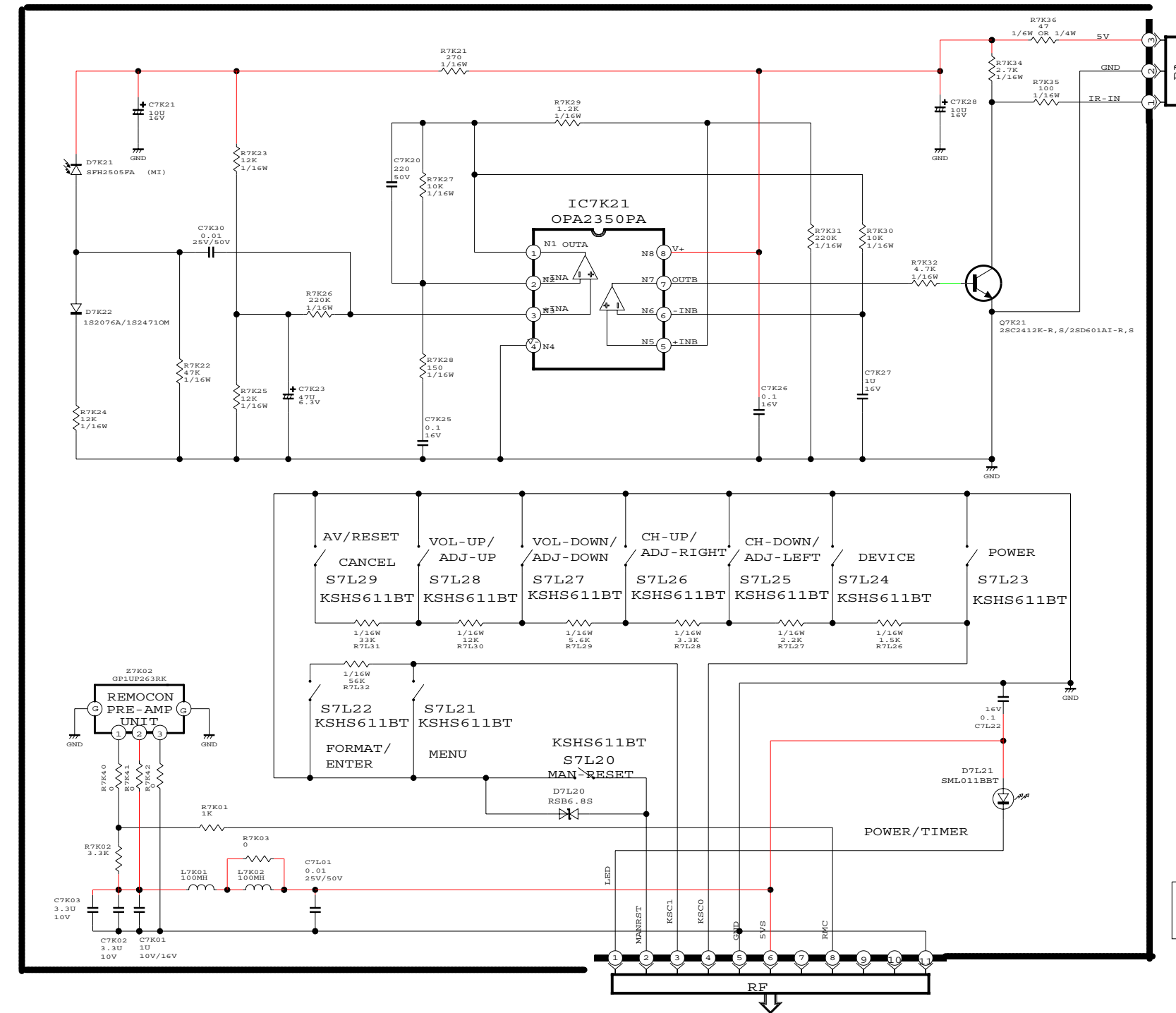
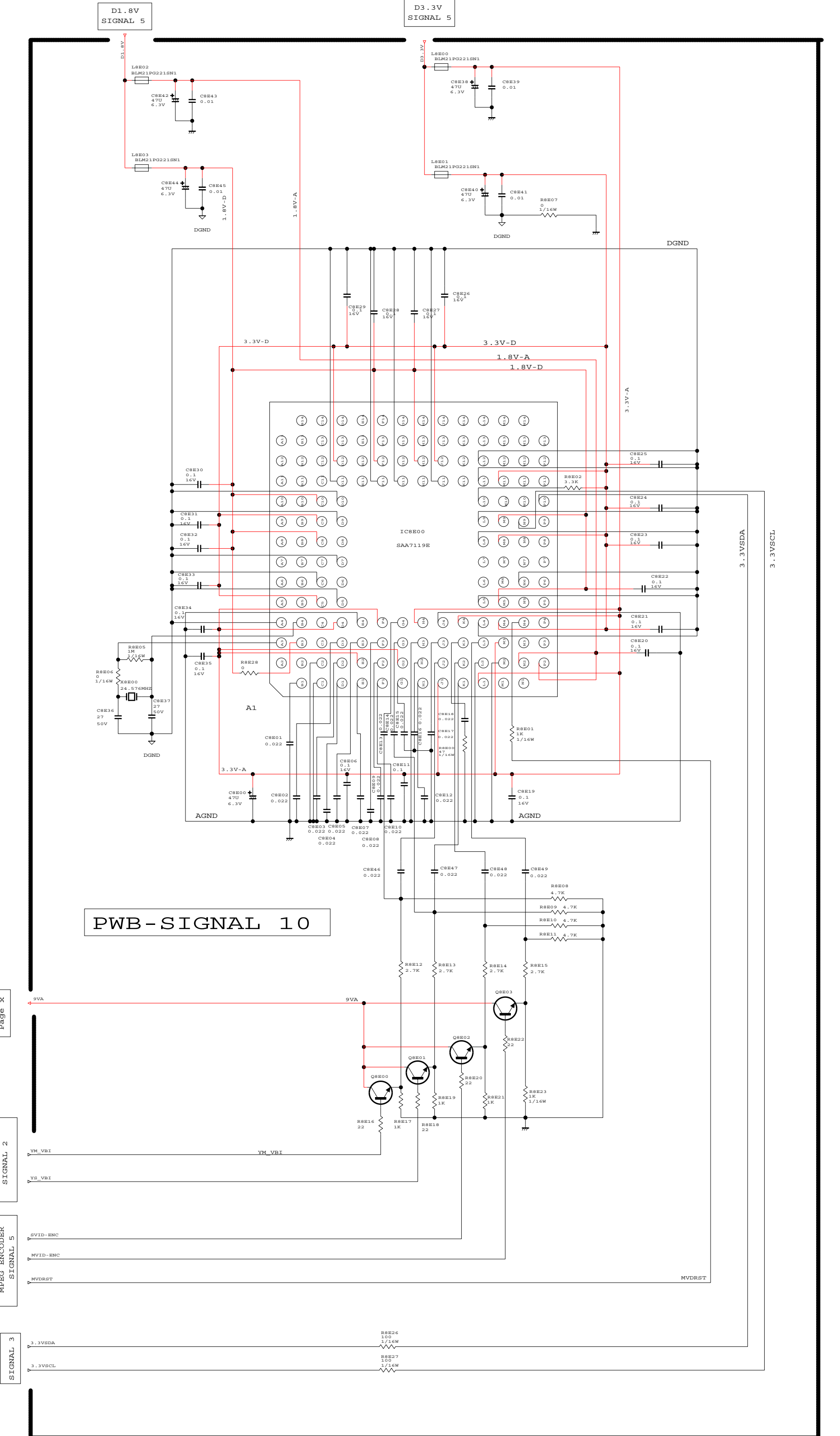
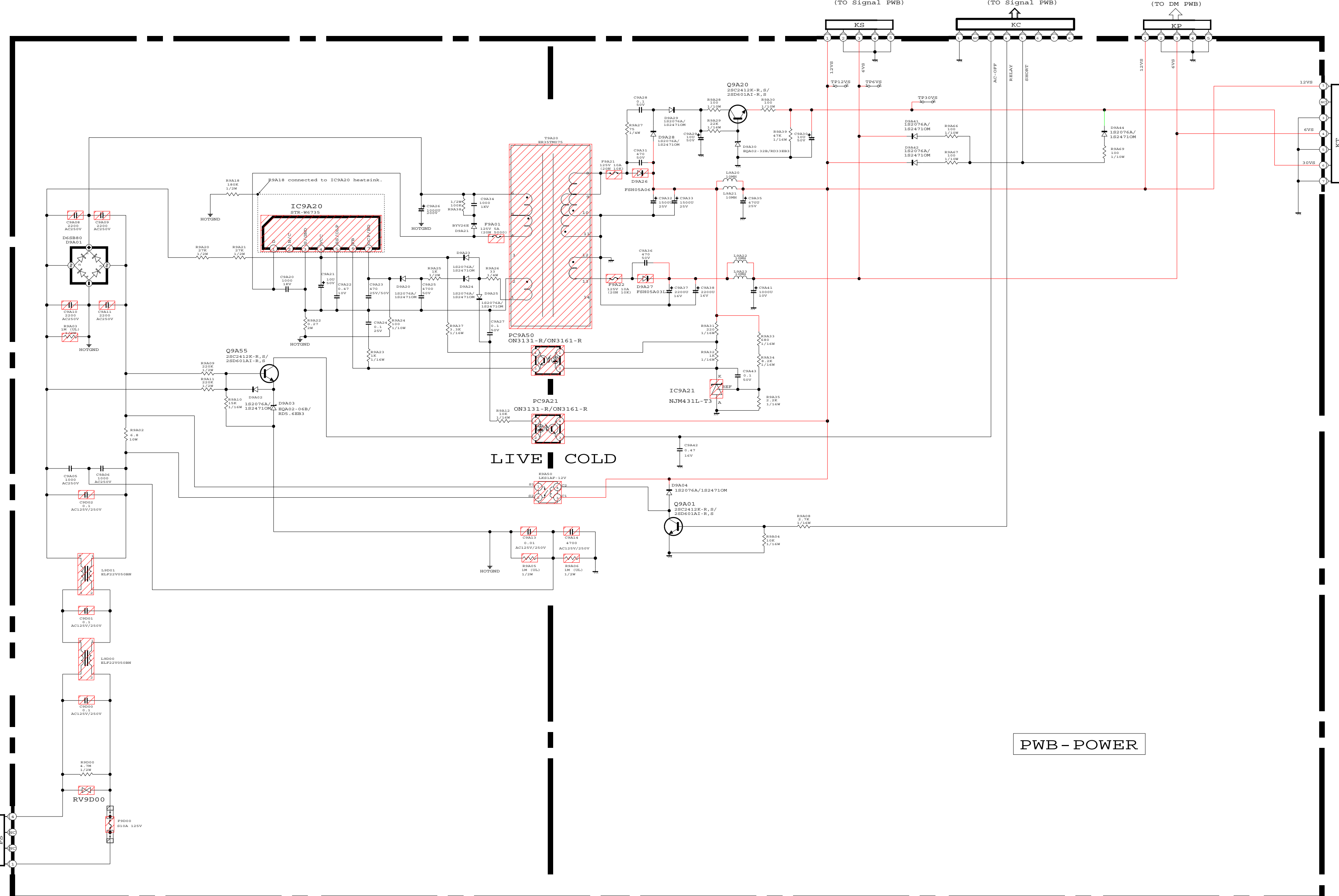
Value	Not indicated = Ohm	K = 1,000 Ohm M = 1,000,000 Ohm
Wattage	Parts except for chips	Not indicated = 1/4W or 1/6W
Tolerance	Not indicated	Not indicated = 1/10M
Type	Parts except for chips	[Symbol] : Carbon resistor [Symbol] : Fixed composition resistor [Symbol] : Metal oxide film resistor (Type B) [Symbol] : Wire wound resistor [Symbol] : Metal film resistor [Symbol] : Metal plate cement resistor [Symbol] : Metal liner resistor
	II chips	Not indicated : chip resistor

6. This is a basic schematic diagram. Some sets may be subject to modification according to engineering improvement

**SHADED COMPONENTS HAVE SPECIAL CHARACTERISTICS IMPORTANT TO SAFETY. BEFORE REPLACING ANY OF THESE COMPONENTS, READ CAREFULLY THE PRODUCT SAFETY NOTICE IN THE SERVICE MANUAL. DON'T DEGRADE THE SAFETY OF THE RECEIVERS THROUGH IMPROPER SERVICING.**

**SERVICE TECHNICIAN WARNING;**  
X-RADIATION PRECAUTION  
THIS PRODUCT INCLUDES CRITICAL ELECTRICAL AND MECHANICAL PARTS ESSENTIAL FOR X-RADIATION PROTECTION TO AVOID POSSIBLE TO X-RADIATION TAKE RADIATION PROTECTIVE MEASURE FOR PERSONNEL DURING SERVICING.  
SEE SERVICE INSTRUCTION FOR SPECIFIED REPLACEMENT PARTS AND SERVICE ADJUSTMENTS.

<b>CONTENTS</b>	<b>HD-4001 V26K</b>
PG 1.....BLOCK	
PG 2.....POWER / E2P / CONTROL / SIGNAL 10 (MV DECODER)	
PG 3.....TERMINAL1 / TERMINAL 2	
PG 4.....SIGNAL1 [VIDEO SWITCH]	
PG 5.....SIGNAL2 [DECODER / SWITCH]	
PG 6.....SIGNAL3 [MCCKO]	
PG 7.....SIGNAL4 [TVGO]	
PG 8.....SIGNAL5 [MPEO ENCODER]	
PG 9.....SIGNAL6 [HDMI RX]	
PG 10.....SIGNAL7 [HDMI TX]	
PG 11.....SIGNAL8 [VIDEO OUTPUT]	
PG 12.....SIGNAL9 [IR232]	
PG 13.....TUNER1 [ATSC/NTSC TUNER]	
PG 14.....TUNER2 [MAIN ATSC/NTSC DEMOD]	

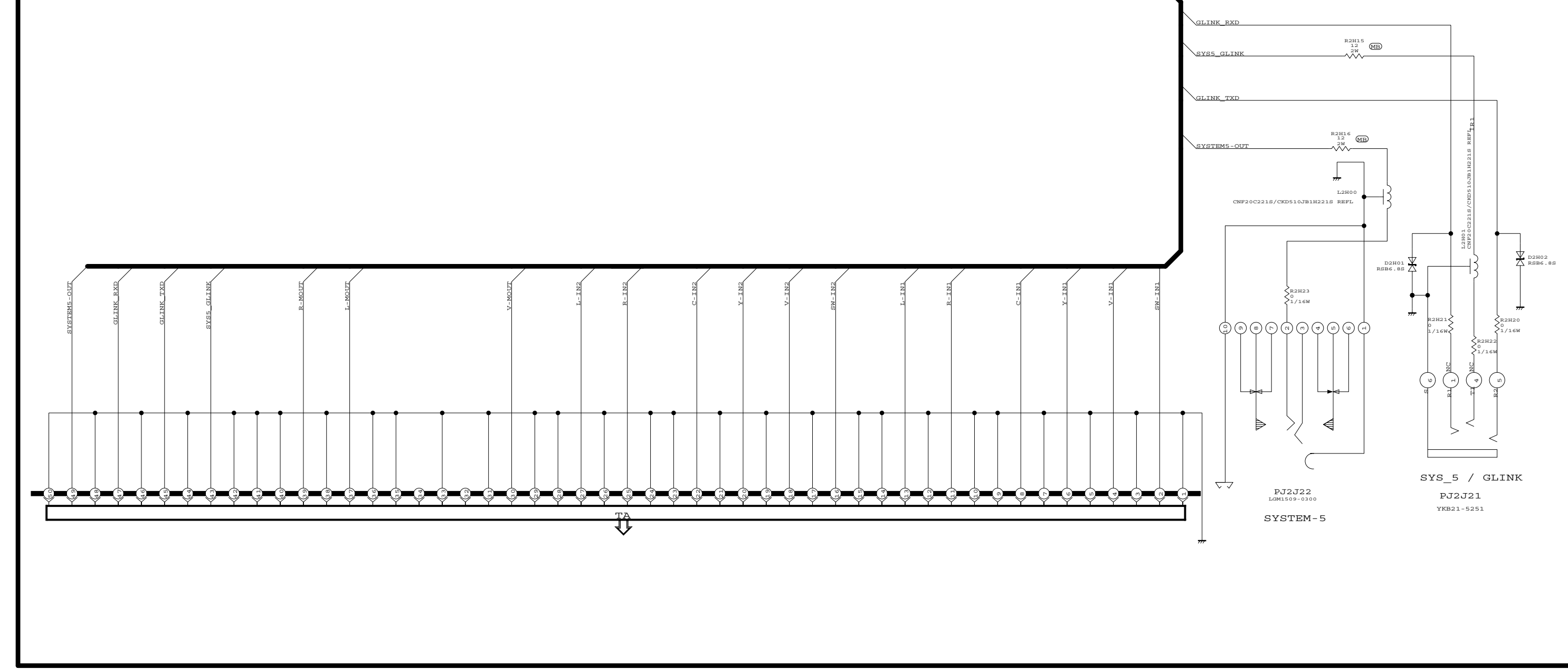
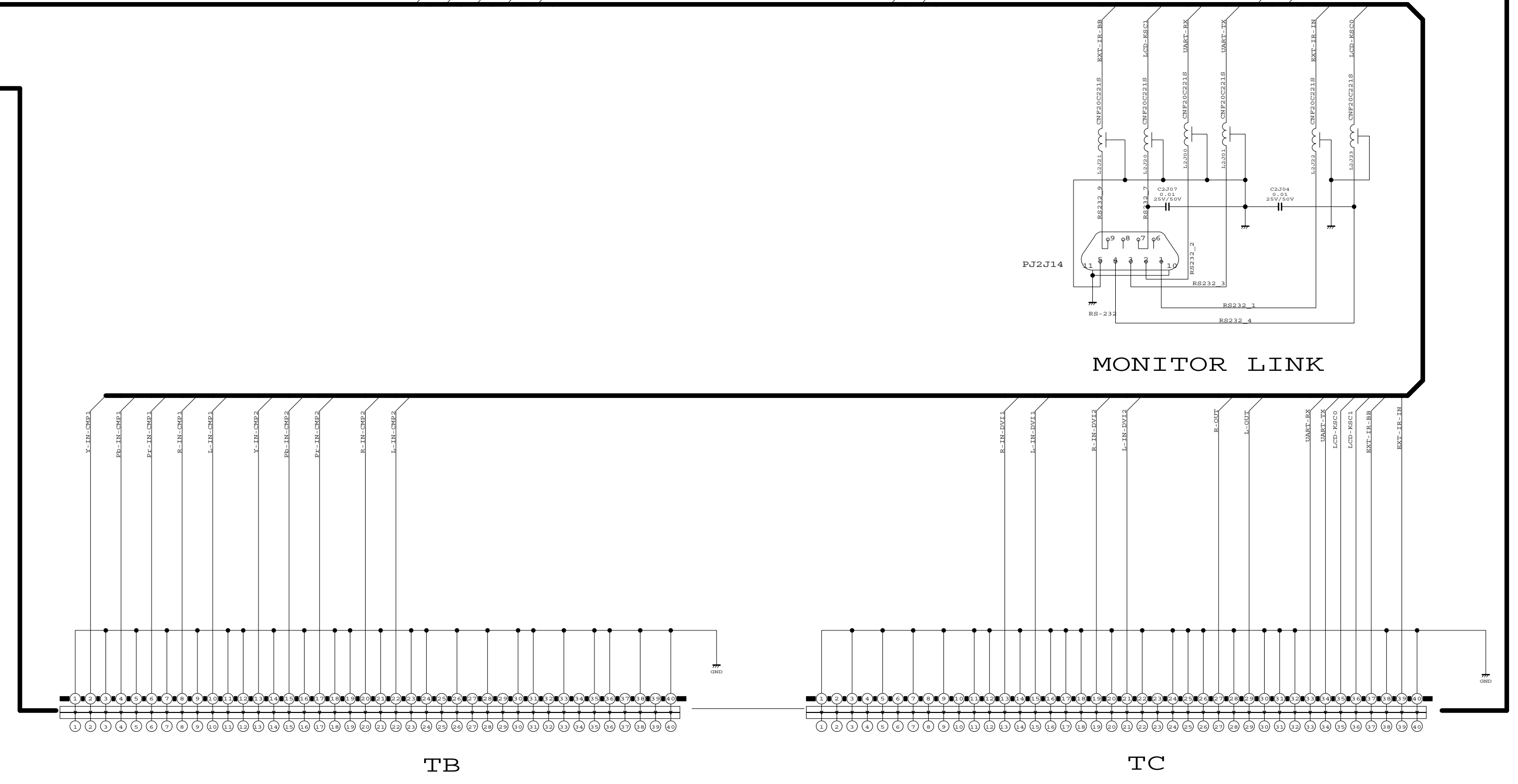
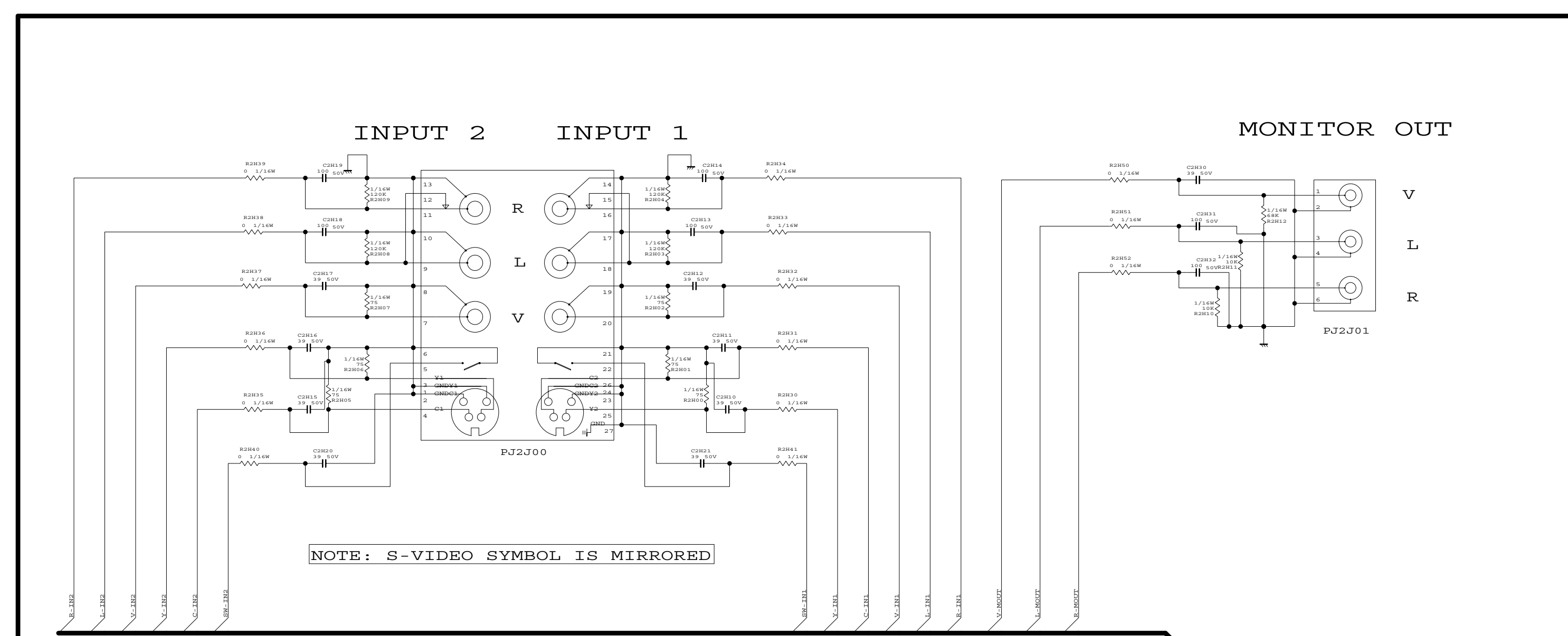
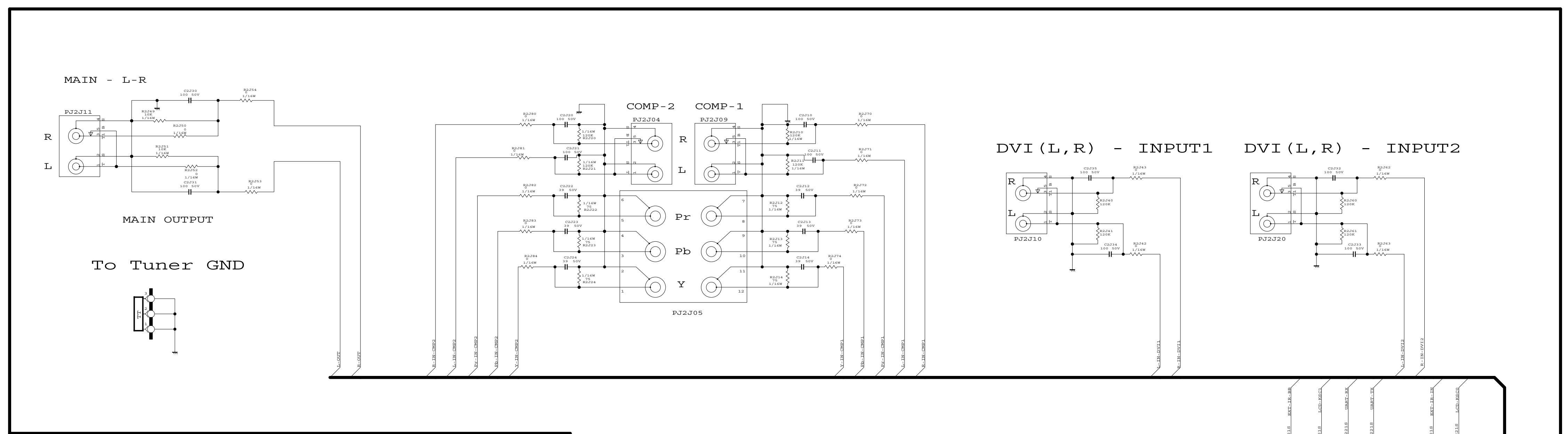


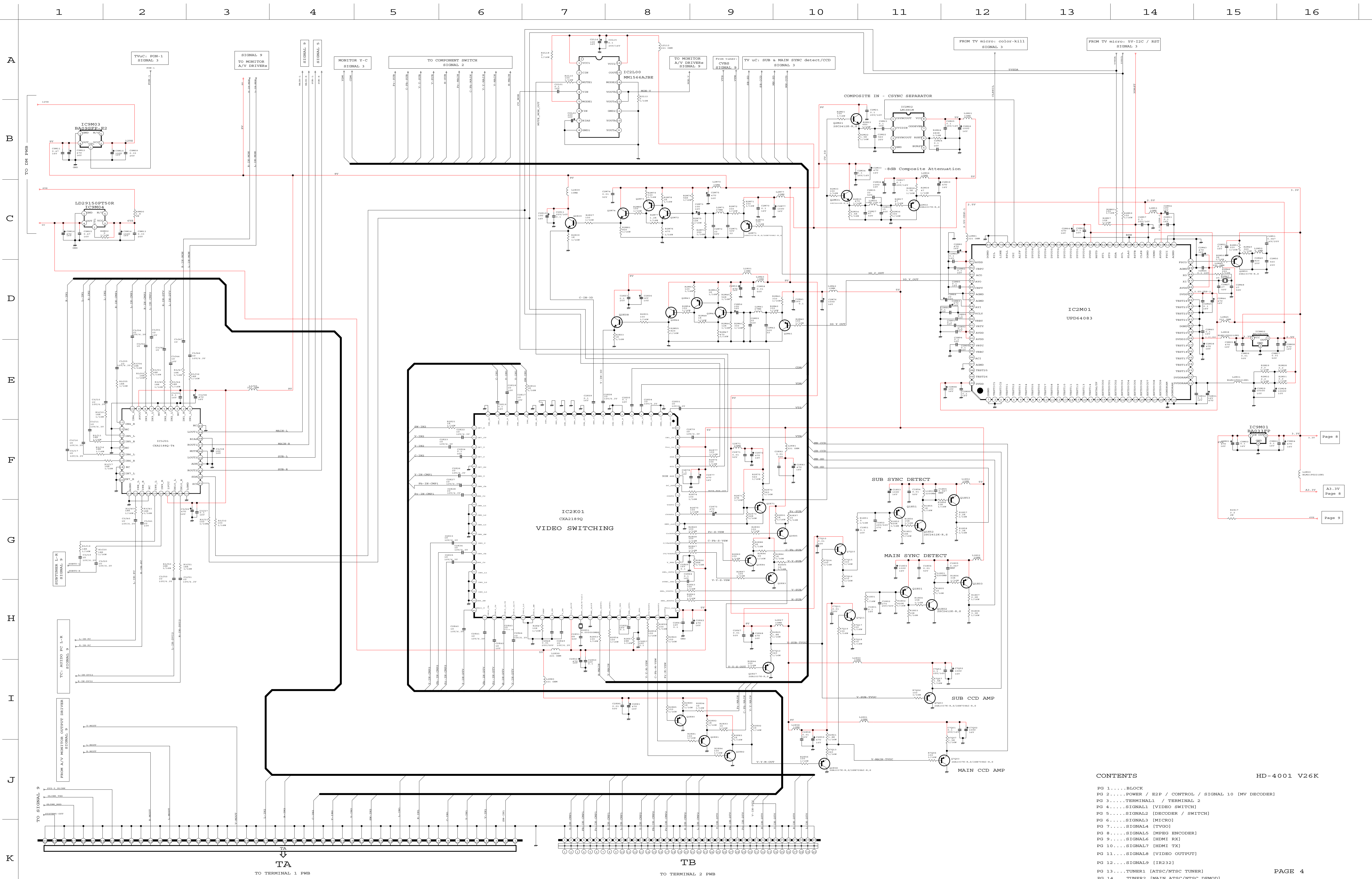
**CONTENTS** HD-4001 V26K

- PG 1....BLOCK
- PG 2....POWER / E2P / CONTROL / SIGNAL 10 (MV DECODER)
- PG 3.... TERMINAL1 / TERMINAL 2
- PG 4....SIGNAL1 [VIDEO SWITCH]
- PG 5....SIGNAL2 [DECODER / SWITCH]
- PG 6....SIGNAL3 [MICRO]
- PG 7....SIGNAL4 [TVGO]
- PG 8....SIGNAL5 [MPEG ENCODER]
- PG 9....SIGNAL6 [HDMI RX]
- PG 10....SIGNAL7 [HDMI TX]
- PG 11....SIGNAL8 [VIDEO OUTPUT]
- PG 12....SIGNAL9 [IR232]
- PG 13....TUNER1 [ATSC/NTSC TUNER]
- PG 14....TUNER2 [MAIN ATSC/NTSC DEMOD]

**PAGE 2**



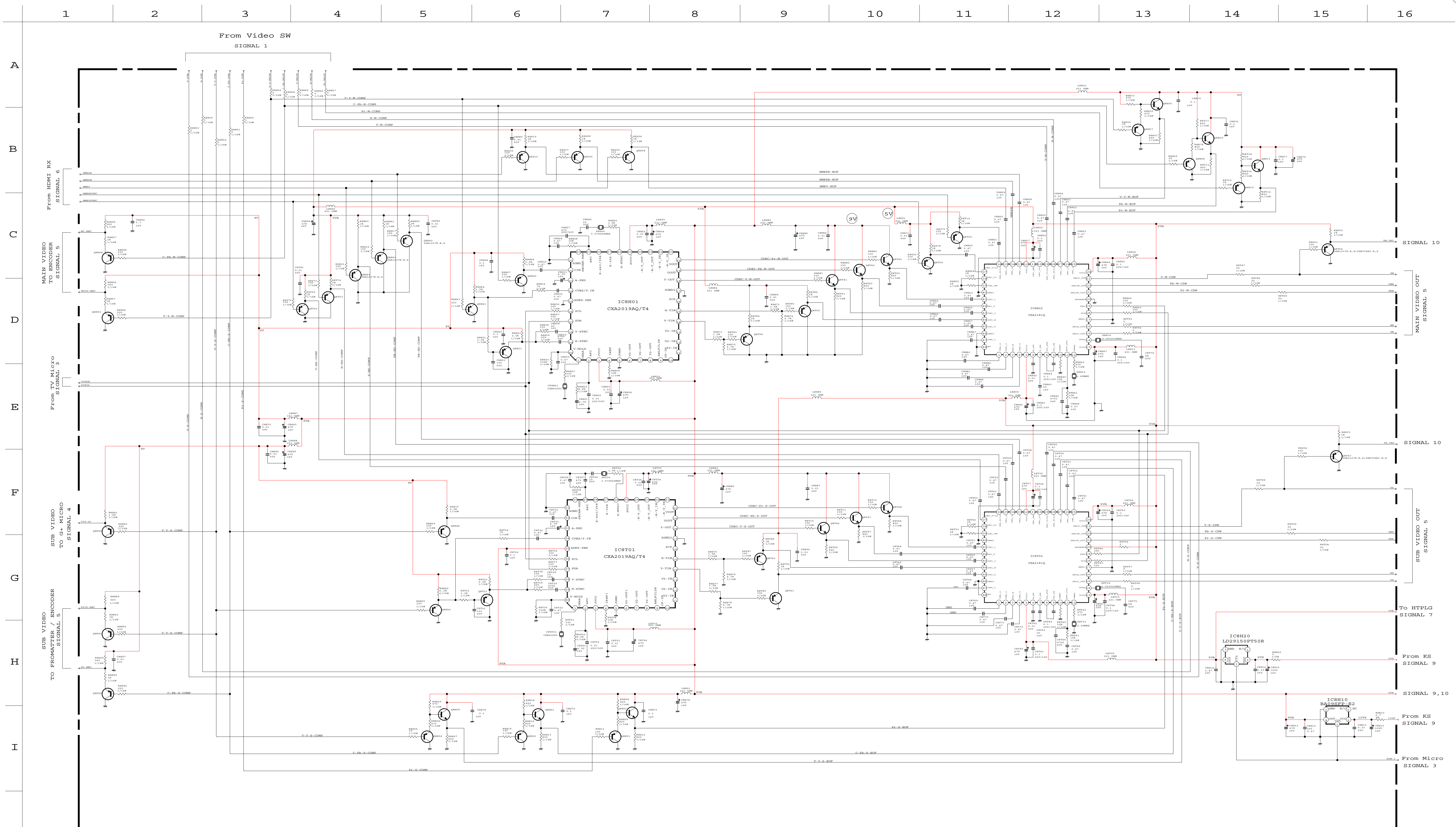




CONTENTS

HD-4001 V26K

PG 1....	BLOCK
PG 2....	POWER / E2P / CONTROL / SIGNAL 10 [MV DECODER]
PG 3....	TERMINAL1 / TERMINAL 2
PG 4....	SIGNAL1 [VIDEO SWITCH]
PG 5....	SIGNAL2 [DECODER / SWITCH]
PG 6....	SIGNAL3 [MICRO]
PG 7....	SIGNAL4 [TVGO]
PG 8....	SIGNAL5 [MPEG ENCODER]
PG 9....	SIGNAL6 [HDMI RX]
PG 10....	SIGNAL7 [HDMI TX]
PG 11....	SIGNAL8 [VIDBO OUTPUT]
PG 12....	SIGNAL9 [1R232]
PG 13....	TUNER1 [ATSC/NTSC TUNER]
PG 14....	TUNER2 [MAIN ATSC/NTSC DEMOD]



HD-4001 V26K

CONTENTS

PG 1....BLOCK

PG 2....POWER / E2P / CONTROL / SIGNAL 10 (MV DECODER)

PG 3....TERMINAL1 / TERMINAL 2

PG 4....SIGNAL1 [VIDEO SWITCH]

PG 5....SIGNAL2 [DECODER / SWITCH]

PG 6....SIGNAL3 [MICRO]

PG 7....SIGNAL4 [TVGO]

PG 8....SIGNAL5 [MPBG ENCODER]

PG 9....SIGNAL6 [HDMI RX]

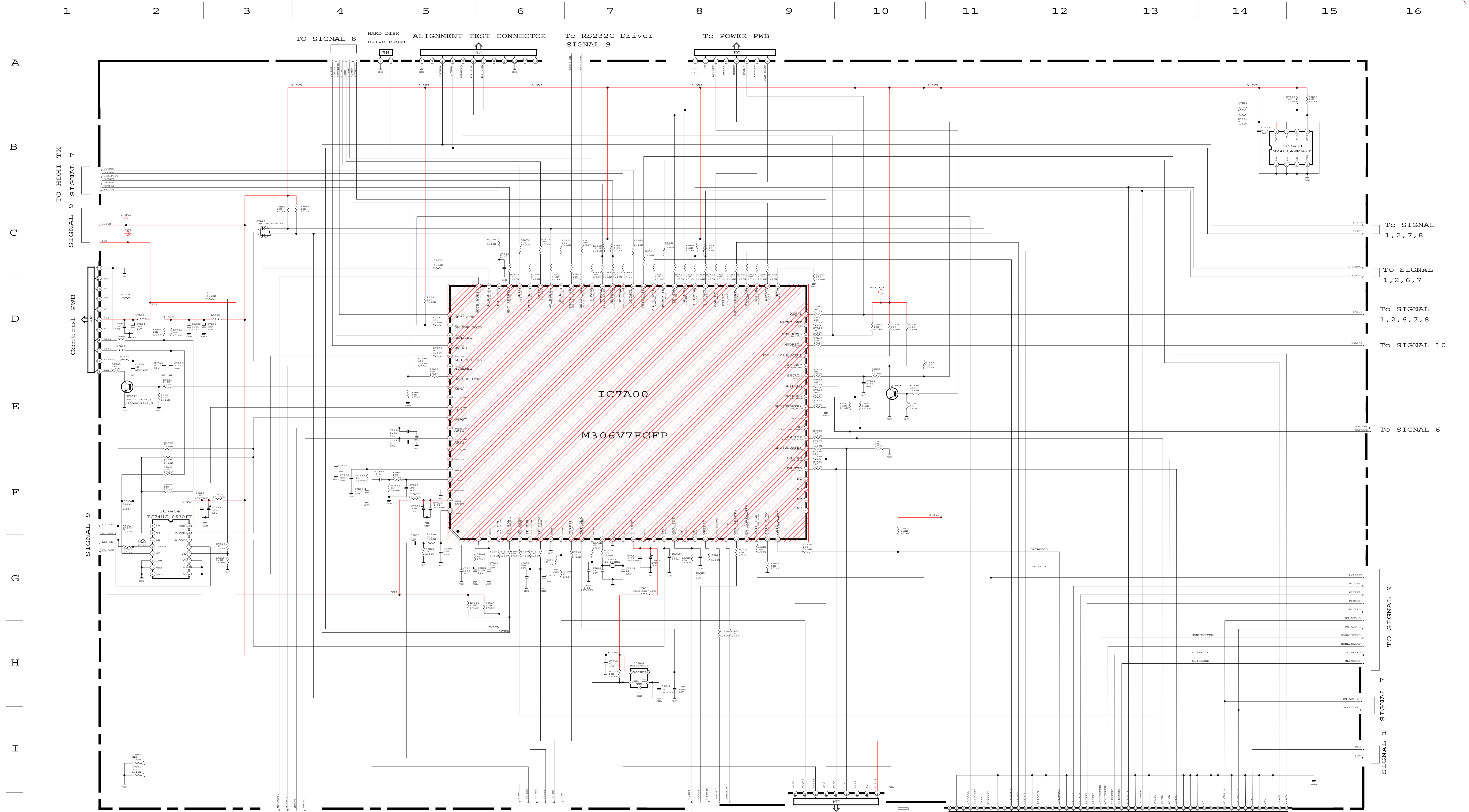
PG 10....SIGNAL7 [HDMI TX]

PG 11....SIGNAL8 [VIDEO OUTPUT]

PG 12....SIGNAL9 [TR32]

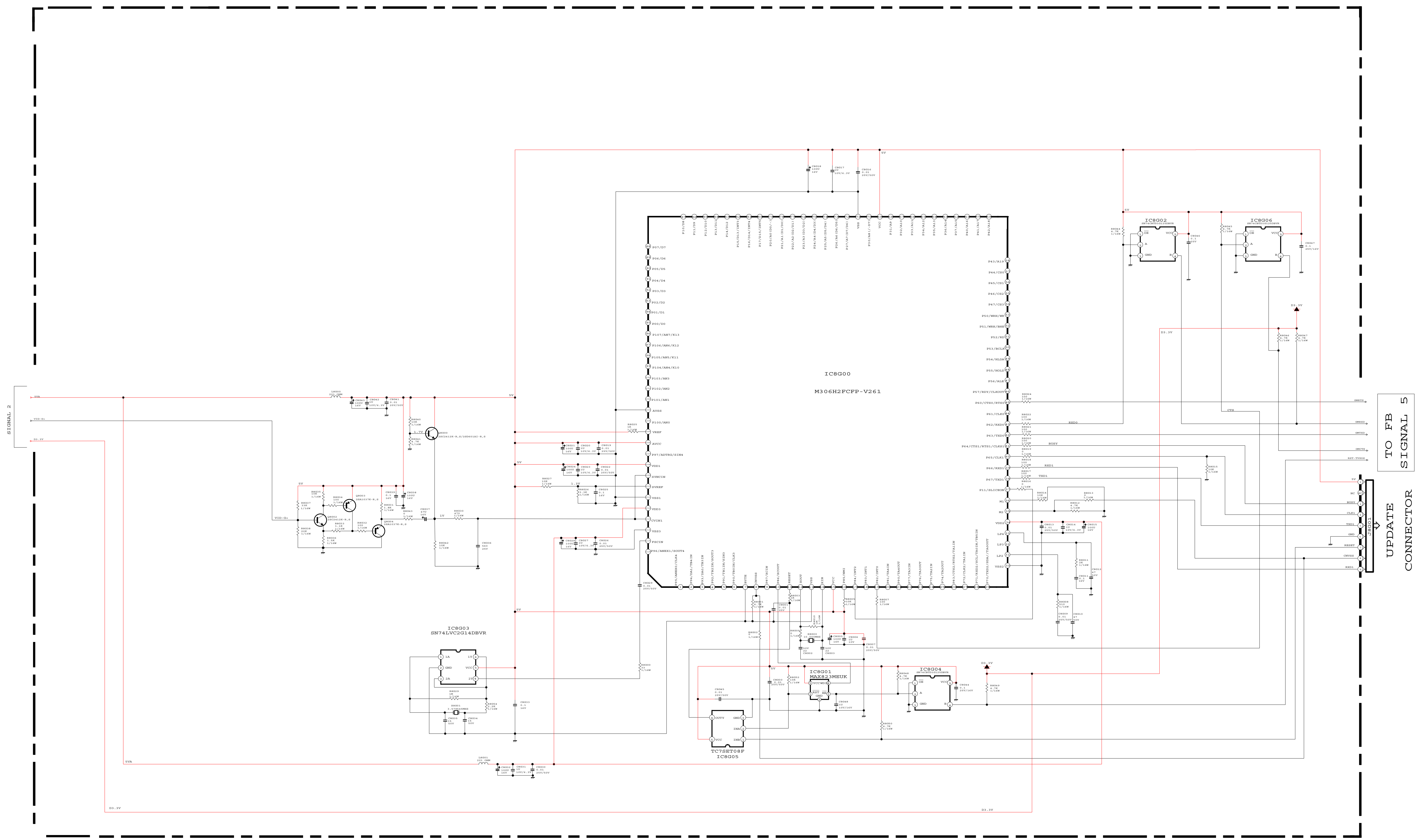
PG 13....TUNER1 [ATSC/NTSC TUNER]

PG 14....TUNER2 [MAIN ATSC/NTSC DEMOD]



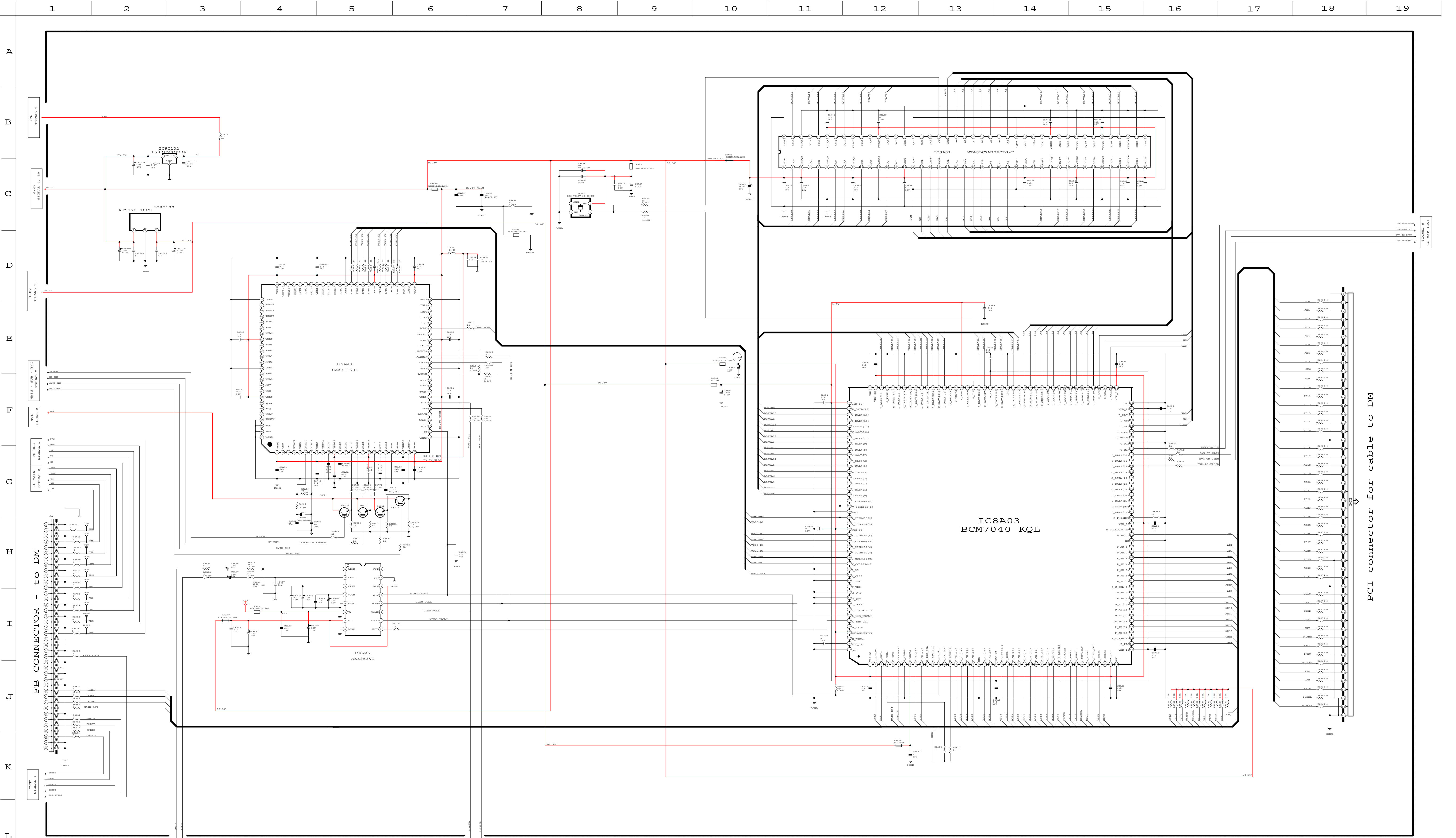
HD-4001 V26K

PG 1.....BLOCK
PG 2.....POWER / E2P / CONTROL / SIGNAL 10 [MV DECODER]
PG 3.....TERMINAL1 / TERMINAL 2
PG 4.....SIGNAL1 [VIDEO SWITCH]
PG 5.....SIGNAL2 [DECODER / SWITCH]
PG 6.....SIGNAL3 [MICRO]
PG 7.....SIGNAL4 [TVGO]
PG 8.....SIGNAL5 [MPG ENCODER]
PG 9.....SIGNAL6 [HDMI RX]
PG 10.....SIGNAL7 [HDMI TX]
PG 11.....SIGNAL8 [VIDEO OUTPUT]
PG 12.....SIGNAL9 [IR32]
PG 13.....TUNER1 [ATSC/NTSC TUNER]
PG 14.....TUNER2 [MAIN ATSC/NTSC DEMOD]



CONTENTS HD-4001 V26K

PG 1	...	BLOCK
PG 2	...	POWER / E2P / CONTROL / SIGNAL 10 (MV DECODER)
PG 3	...	TERMINAL1 / TERMINAL 2
PG 4	...	SIGNAL1 (VIDEO SWITCH)
PG 5	...	SIGNAL2 (DECODER / SWITCH)
PG 6	...	SIGNAL3 (MICRO)
PG 7	...	SIGNAL4 (TVGO)
PG 8	...	SIGNAL5 (MPDG ENCODER)
PG 9	...	SIGNAL6 (HDMI RX)
PG 10	...	SIGNAL7 (HDMI TX)
PG 11	...	SIGNAL8 (VIDEO OUTPUT)
PG 12	...	SIGNAL9 (IR32)
PG 13	...	TUNER1 (ATSC/NTSC TUNER)
PG 14	...	TUNER2 (MAIN ATSC/NTSC DEMOD)

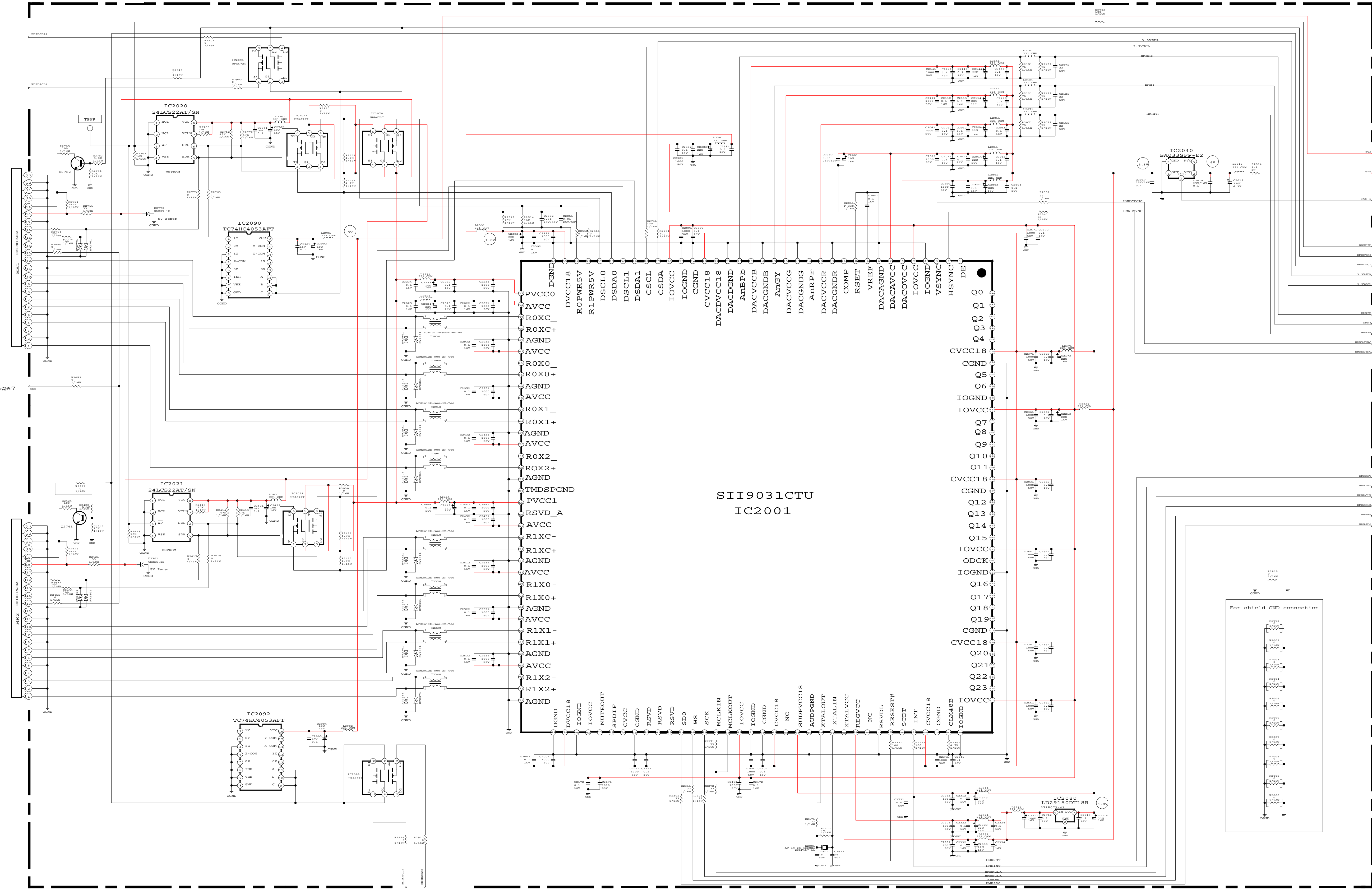


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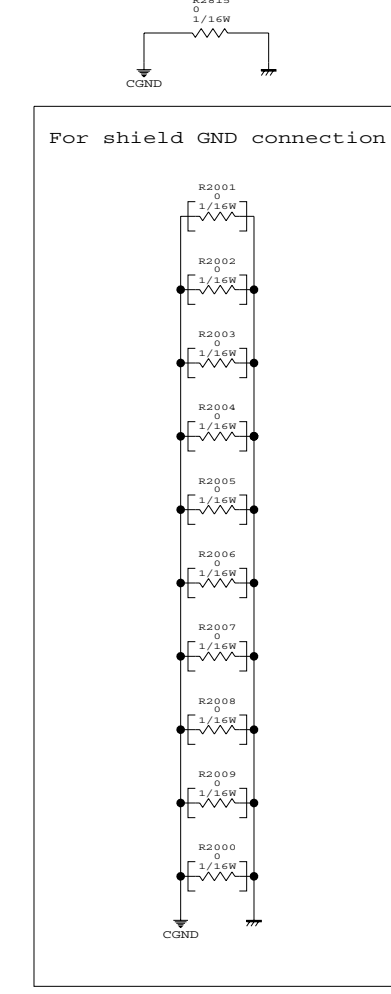
HD-4001 V26K

PG 1	....BLOCK
PG 2	....POWER / ESD / CONTROL / SIGNAL 10 [MV DECODER]
PG 3	....TERMINAL1 / TERMINAL 2
PG 4	....SIGNAL1 [VIDEO SWITCH]
PG 5	....SIGNAL2 [DECODER / SWITCH]
PG 6	....SIGNAL3 [MICRO]
PG 7	....SIGNAL4 [TVDD]
PG 8	....SIGNAL5 [MPEG ENCODER]
PG 9	....SIGNAL6 [HDMI RX]
PG 10	....SIGNAL7 [HDMI TX]
PG 11	....SIGNAL8 [VIDEO OUTPUT]
PG 12	....SIGNAL9 [IR332]
PG 13	....TUNER1 [ATSC/NTSC TUNER]
PG 14	....TUNER2 [MAIN ATSC/NTSC DEMOD]

PIN	Signal Assignment
1	T.M.D.S. Data 2+
2	T.M.D.S. Data 2 Shield
3	T.M.D.S. Data 2-
4	T.M.D.S. Data 1+
5	T.M.D.S. Data 1 Shield
6	T.M.D.S. Data 1-
7	T.M.D.S. Data 0+
8	T.M.D.S. Data 0 Shield
9	T.M.D.S. Data 0-
10	T.M.D.S. Clock
11	T.M.D.S. Clock Shield
12	T.M.D.S. Clock
13	CBC
14	Reserve
15	BDC Clock
16	BDC Data
17	Ground (return for +5V)
18	+5V Power
19	Hot Plug Detect
Shell	PG
(20)	Location Post (GND)
(21)	Location Post (GND)
(22)	Location Post (GND)
(23)	Location Post (GND)



From Page 9  
 From Page 9  
 From MICRO Page 3  
 From MICRO Page 3  
 To Video SW Page 2  
 From/To Micro Page 3  
 To Tuner Board thru SA Connector on Page 3



CONTENTS

PG 1.....BLOCK

PG 2.....POWER / E2P / CONTROL / SIGNAL 10 (MV DECODER)

PG 3.....TERMINAL1 / TERMINAL 2

PG 4.....SIGNAL1 (VIDEO SWITCH)

PG 5.....SIGNAL2 (DECODER / SWITCH)

PG 6.....SIGNAL3 (MICRO)

PG 7.....SIGNAL4 (TVGO)

PG 8.....SIGNAL5 (MPRG ENCODER)

PG 9.....SIGNAL6 (HDMI RX)

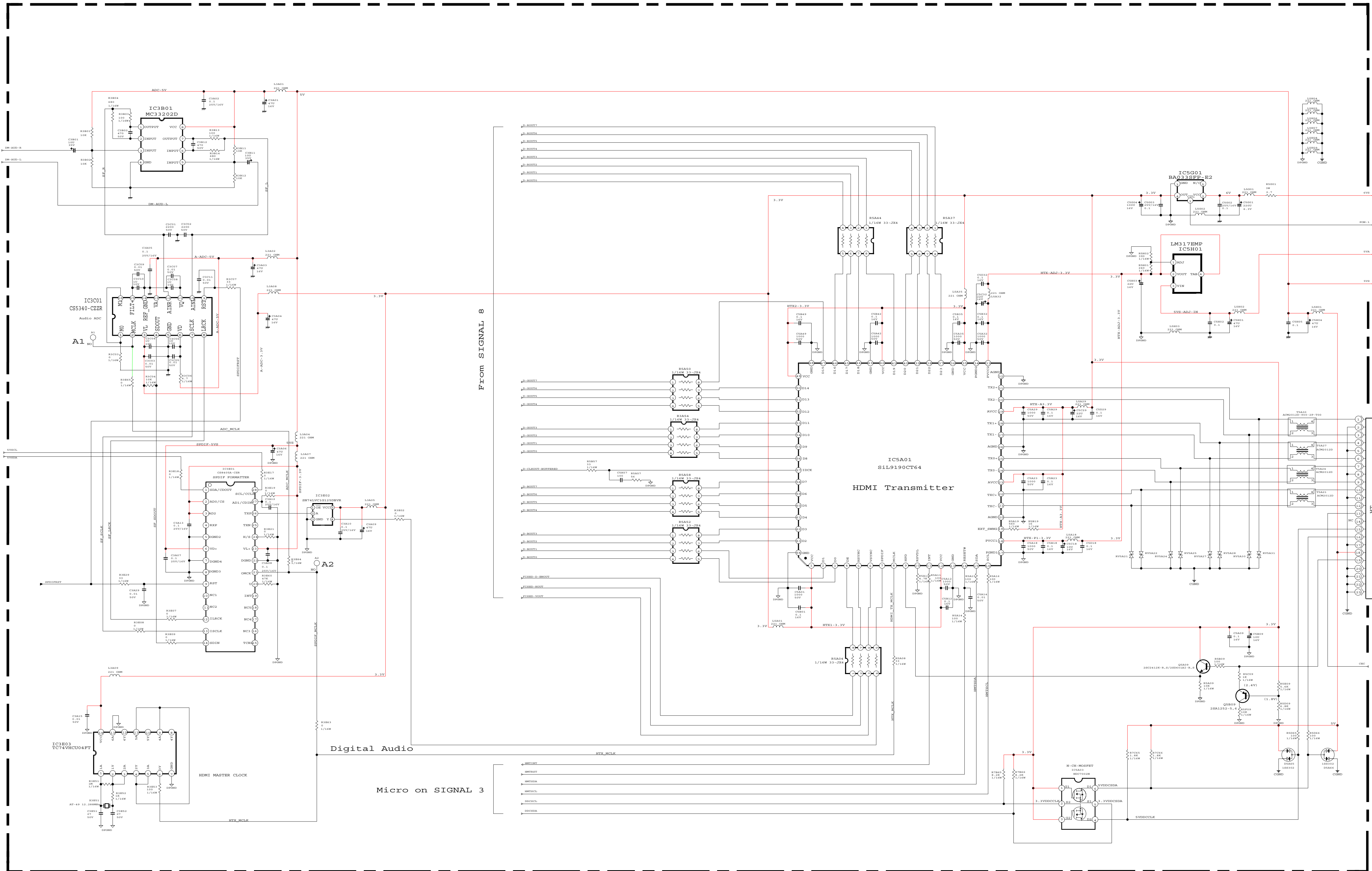
PG 10.....SIGNAL7 (HDMI TX)

PG 11.....SIGNAL8 (VIDEO OUTPUT)

PG 12.....SIGNAL9 (IR232)

PG 13.....TUNNR1 (ATSC/NTSC TUNNR)

PG 14.....TUNNR2 (MAIN ATSC/NTSC DEMOD)

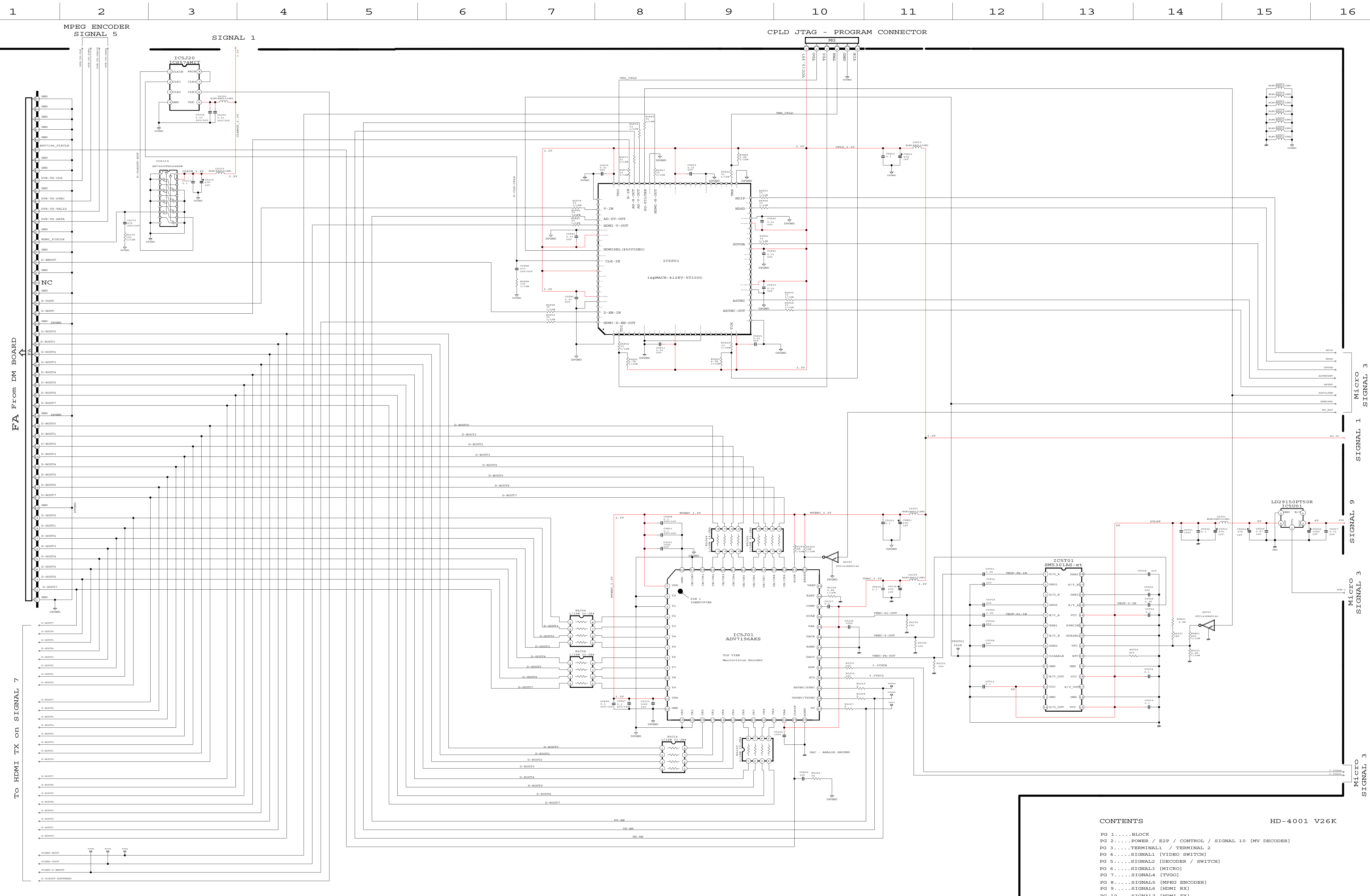


From SIGNAL 9  
From Micro SIGNAL 3  
From SIGNAL 2  
From SIGNAL 9

PIN	Signal assignment
1	T.M.D.S. Data 2+
2	T.M.D.S. Data 2 Shield
3	T.M.D.S. Data 2-
4	T.M.D.S. Data 1+
5	T.M.D.S. Data 1 Shield
6	T.M.D.S. Data 1-
7	T.M.D.S. Data 0+
8	T.M.D.S. Data 0 Shield
9	T.M.D.S. Data 0-
10	T.M.D.S. Clock+
11	T.M.D.S. Clock Shield
12	T.M.D.S. Clock-
13	CNC
14	Reserve
15	DDC Clock
16	DDC Data
17	Ground (return for +5V, +5V Power)
18	+5V Power
19	Hot Plug Detect
Shell PG	
(20)	Location Post (GND)
(21)	Location Post (GND)
(22)	Location Post (GND)
(23)	Location Post (GND)

SIGNAL 6

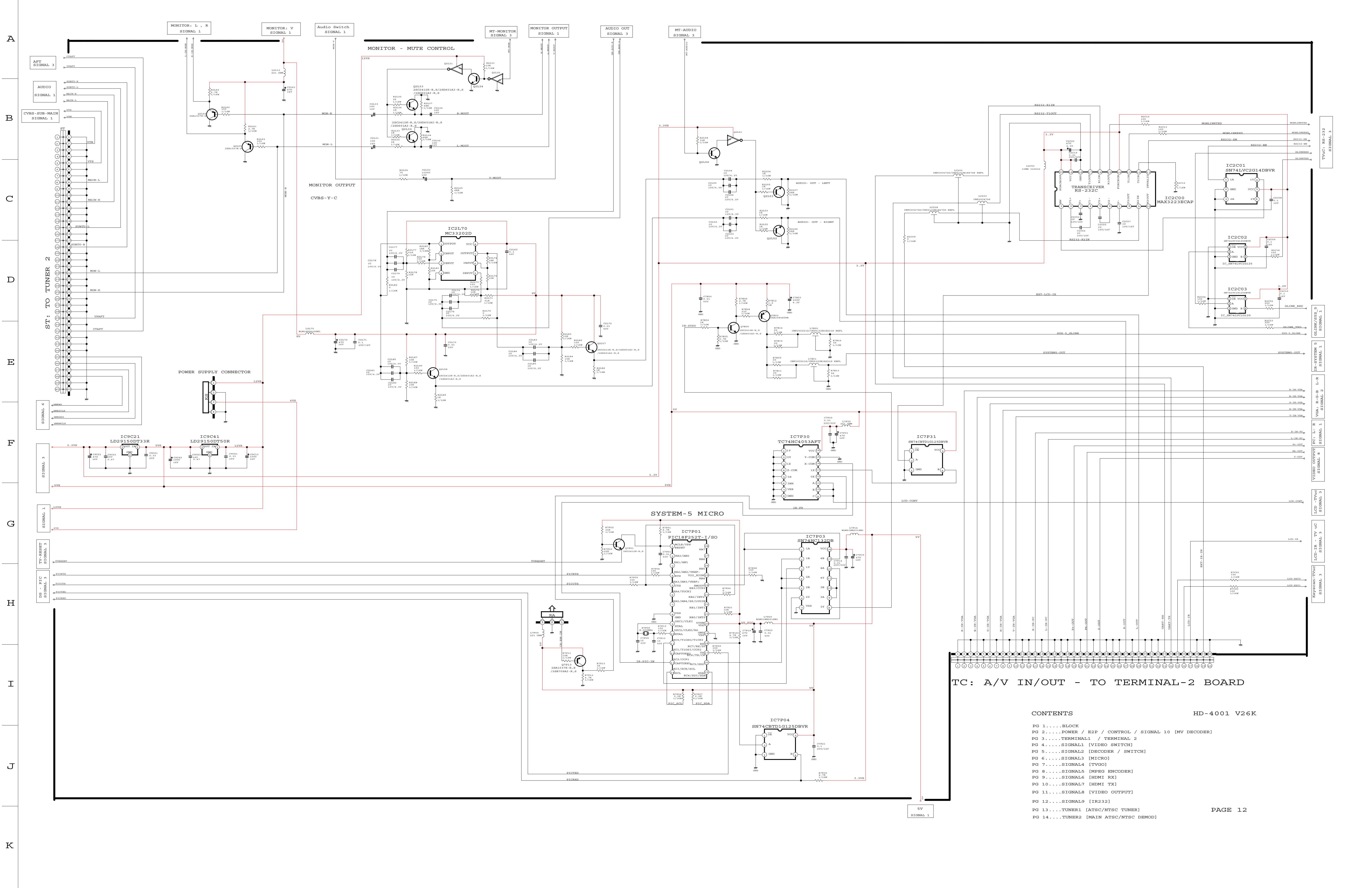




**HD-4001 V26K**

**CONTENTS**

- PG 1....BLOCK
- PG 2....POWER / E2P / CONTROL / SIGNAL 10 (MV DECODER)
- PG 3....TERMINAL1 / TERMINAL 2
- PG 4....SIGNAL1 [VIDEO SWITCH]
- PG 5....SIGNAL2 [DECODER / SWITCH]
- PG 6....SIGNAL3 [MICRO]
- PG 7....SIGNAL4 [TVCO]
- PG 8....SIGNAL5 [MPEG ENCODER]
- PG 9....SIGNAL6 [HDMI RX]
- PG 10....SIGNAL7 [HDMI TX]
- PG 11....SIGNAL8 [VIDEO OUTPUT]
- PG 12....SIGNAL9 [IR232]
- PG 13....TUNER1 [ATSC/NTSC TUNER]
- PG 14....TUNER2 [MAIN ATSC/NTSC DEMOD]



TC: A/V IN/OUT - TO TERMINAL-2 BOARD

**CONTENTS**

HD-4001 V26K

PG 1.....BLOCK

PG 2.....POWER / E2P / CONTROL / SIGNAL 10 [MV DECODER]

PG 3.....TERMINAL1 / TERMINAL 2

PG 4.....SIGNAL1 [VIDEO SWITCH]

PG 5.....SIGNAL2 [DECODER / SWITCH]

PG 6.....SIGNAL3 [MICRO]

PG 7.....SIGNAL4 [TVGO]

PG 8.....SIGNAL5 [MISO ENCODER]

PG 9.....SIGNAL6 [HDMI RX]

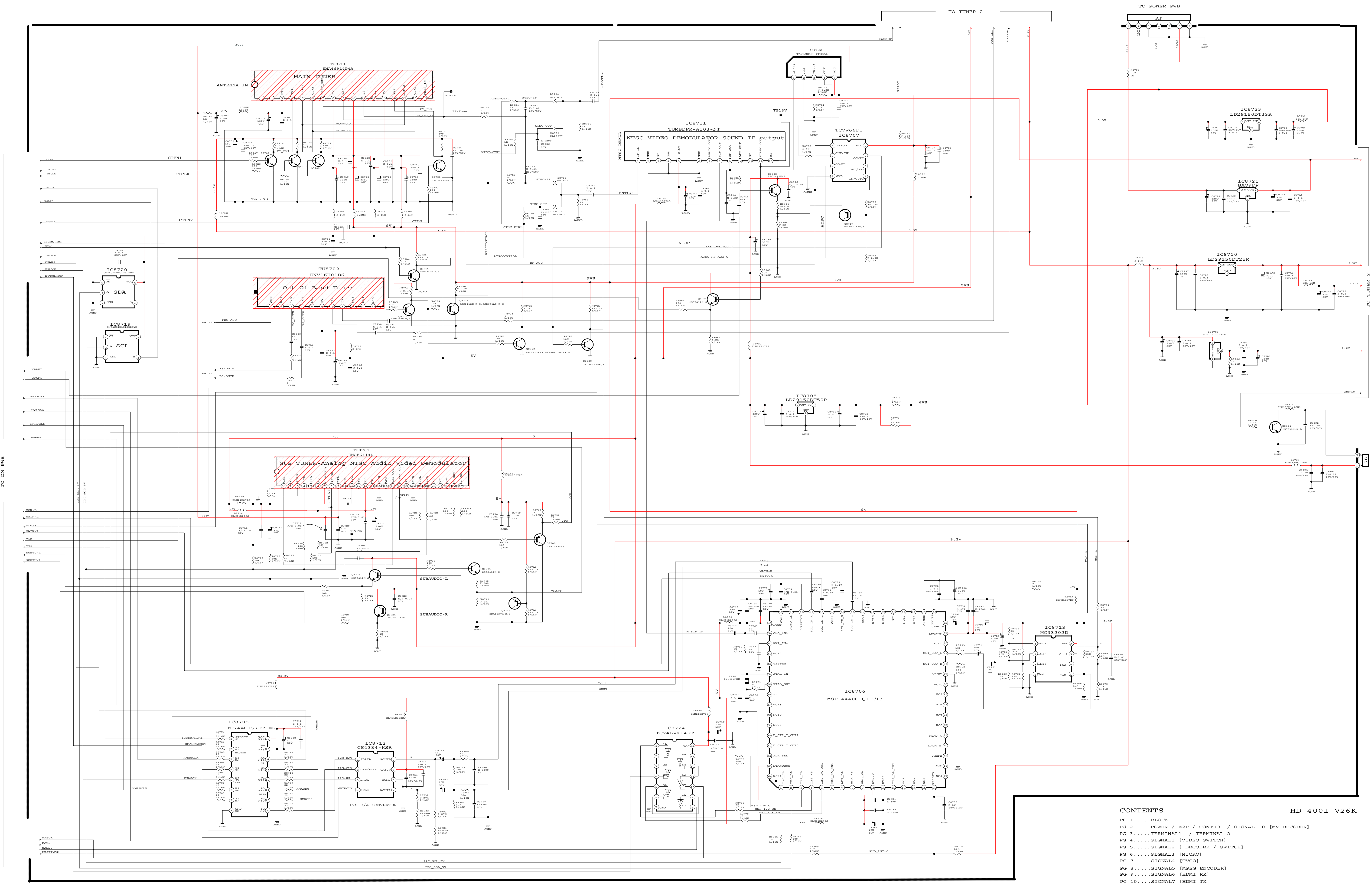
PG 10.....SIGNAL7 [HDMI TX]

PG 11.....SIGNAL8 [VIDEO OUTPUT]

PG 12.....SIGNAL9 [IR232]

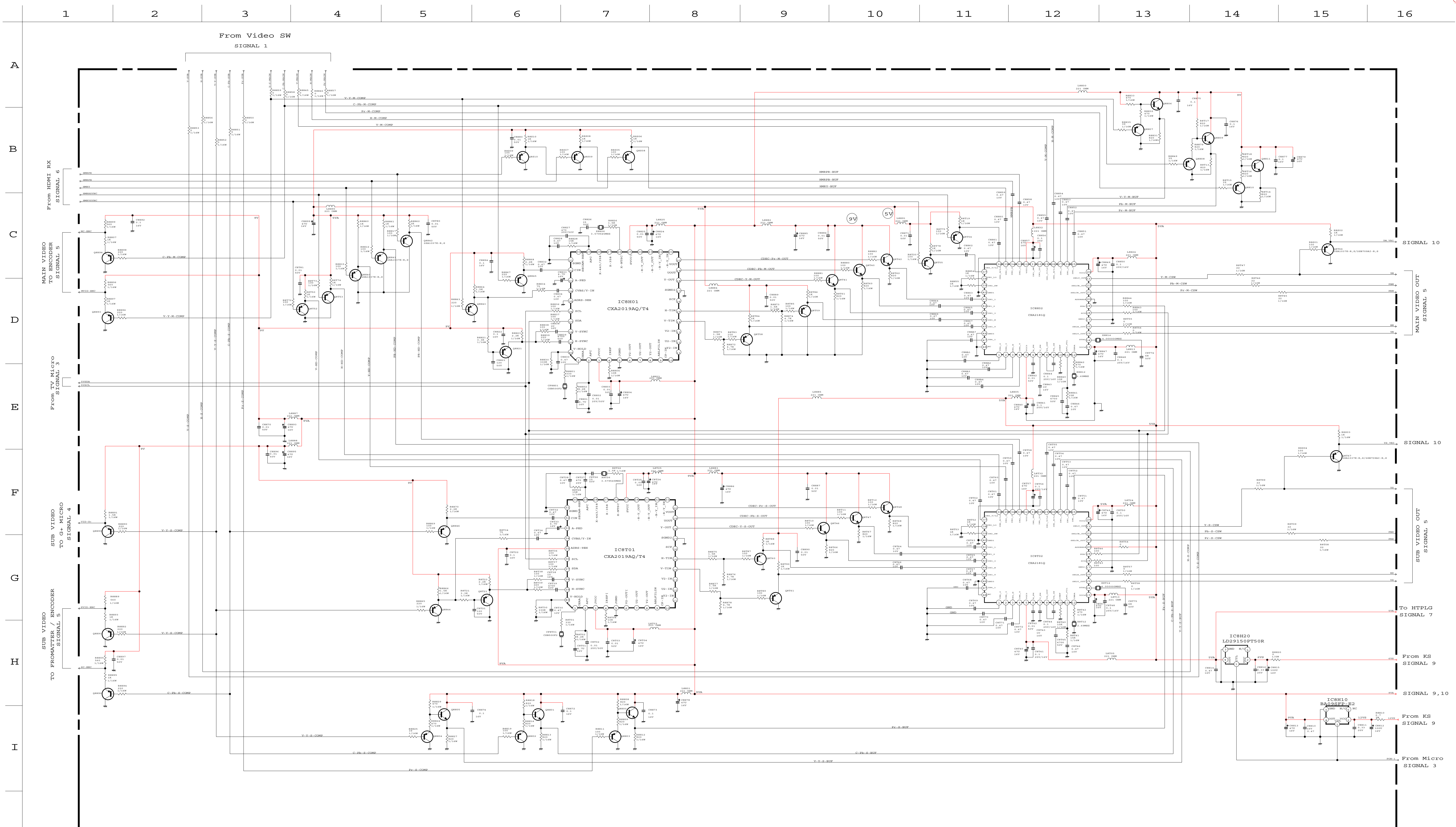
PG 13.....TUNER1 [ATSC/NTSC]

PG 14.....TUNER2 [MAIN ATSC/NTSC DEMOD]



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PG 1	....BLOCK
PG 2	....POWER / E2P / CONTROL / SIGNAL 10 (MV DECODER)
PG 3	....TERMINAL1 / TERMINAL 2
PG 4	....SIGNAL1 (VIDEO SWITCH)
PG 5	....SIGNAL2 ( DECODER / SWITCH)
PG 6	....SIGNAL3 (MICRO)
PG 7	....SIGNAL4 (TVGO)
PG 8	....SIGNAL5 (MPBG ENCODER)
PG 9	....SIGNAL6 (HDMI RX)
PG 10	....SIGNAL7 (HDMI TX)
PG 11	....SIGNAL8 (VIDEO OUTPUT)
PG 12	....SIGNAL9 (IR232)
PG 13	....TUNER1 [ATSC/NTSC TUNER]
PG 14	....TUNER2 [MAIN ATSC/NTSC DSMOD]



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CONTENTS

- PG 1....BLOCK
- PG 2....POWER / E2P / CONTROL / SIGNAL 10 (MV DECODER)
- PG 3....TERMINAL1 / TERMINAL 2
- PG 4....SIGNAL1 [VIDEO SWITCH]
- PG 5....SIGNAL2 [DECODER / SWITCH]
- PG 6....SIGNAL3 [MICRO]
- PG 7....SIGNAL4 [TVGO]
- PG 8....SIGNAL5 [MPBG ENCODER]
- PG 9....SIGNAL6 [HDMI RX]
- PG 10....SIGNAL7 [HDMI TX]
- PG 11....SIGNAL8 [VIDEO OUTPUT]
- PG 12....SIGNAL9 [TR32]
- PG 13....TUNER1 [ATSC/NTSC TUNER]
- PG 14....TUNER2 [MAIN ATSC/NTSC DEMOD]