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Service Manual

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PHILIPS

1. Technical Specifications, Connections, and Chassis Overview

Index of this chapter:

Notes:

- Figures can deviate due to the different set executions.
- Specifications are indicative (subject to change).

1.1 Technical Specifications

1.1.1 Vision

Display type	:	LCD
Screen Size	:	19"
Display area (mm)	:	408.24 (H) x 255.15(V)
Number of Pixel	:	1440(H)x900(V)
Pitch(mm)	:	0.2835x 0.2835
Color pixel arrangement	:	RGB vertical stripe
Display operating mode	:	TN Mode, Normally White
Color depth	:	16.7M colors (RGB 6-bits +HiFRC)
Brightness(cd/m^2)	:	300 cd/m2 @ 6.5mA (Typ)
Viewing angle	:	Viewing angle free(R/L 160(Typ),U/D 160(Typ)
Surface treatment	:	Anti-glare type, Hardness 3H
Electrical interface	:	Dual Channel LVDS
Response Time(ms,Typ)	:	5ms (Typ)
Contrast ratio	:	Typical 800:1
Backlight	:	8 EEFL
Support Video Formats	:	640X 480@ 60Hz
	:	800 X 600@ 60Hz
	:	1024 X 768@ 60Hz
	:	1280 X 768@ 60Hz
	:	1440X 900@ 60Hz

1.1.2 Sound

Sound systems	:	NTSC
Maximum power (W)	:	3Wx2

1.1.3 Miscellaneous

Power supply		
AC-input(v_ac)	:	100~120/60HZ
Power consumption	:	50W(Normal) for 19MF338B&19PFL3403D
	:	55W(Normal) for 19MD358B
Power indicator	:	LED(On:Green, Sleeping mode:black
Horizontal scan		
Horizontal	:	30~56kHz
Vertical	:	56~62Hz
Ambient conditions:		
Box dimension (LxWxH)	:	20.3" x 17.3" x 6.1"(19MF338B)
	:	20.2" x 17.6" x 5.9"(19PFL3403D)
	:	20.3" x 18" x 9"(19MD358B)
Product dimension (HxWxD)	:	15.12" x 18.34" x 6.61"(19MF338B)
	:	15.4" x 18.4" x 6.5"(19PFL3403D)
	:	15.62" x 18.34" x 6.85"(19MD358B)
Gross weight	:	13.38 lbs(19MF338B)
	:	12.7lbs(19PFL3403D)
	:	14.77lbs(19MD358B)
Net weight	:	11.37 lbs(19MF338B)
	:	10.7lbs(19PFL3403D)
	:	12.43lbs(19MD358B)

1.2 Connection Overview

1.2.1 Rear Connections

VGA: Video RGB - In

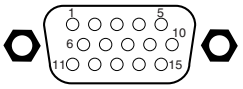

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Figure 1-1 VGA Connector

1	- Video Red	0.7 V_{PP} / 75 ohm	⊕
2	- Video Green	0.7 V_{PP} / 75 ohm	⊕
3	- Video Blue	0.7 V_{PP} / 75 ohm	⊕
4	- n.c.		
5	- Ground	Gnd	⏚
6	- Ground Red	Gnd	⏚
7	- Ground Green	Gnd	⏚
8	- Ground Blue	Gnd	⏚
9	- +5V_{DC}	+5 V	⊕
10	- Ground Sync	Gnd	⏚
11	- n.c.		
12	- DDC_SDA	DDC data	⊕
13	- H-sync	0 - 5 V	⊕
14	- V-sync	0 - 5 V	⊕
15	- DDC_SCL	DDC clock	⊕

HDMI: Digital Video, Digital Audio - In

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Figure 1-2 HDMI (type A) connector

1	- D2+	Data channel	⊕
2	- Shield	Gnd	⏚
3	- D2-	Data channel	⊕
4	- D1+	Data channel	⊕
5	- Shield	Gnd	⏚
6	- D1-	Data channel	⊕
7	- D0+	Data channel	⊕
8	- Shield	Gnd	⏚
9	- D0-	Data channel	⊕
10	- CLK+	Data channel	⊕
11	- Shield	Gnd	⏚
12	- CLK-	Data channel	⊕
13	- CEC		
14	- n.c.		
15	- DDC_SCL	DDC clock	⊕
16	- DDC_SDA	DDC data	⊕⊖
17	- Ground	Gnd	⏚
18	- +5V		⊕
19	- HPD	Hot Plug Detect	⊕
20	- Ground	Gnd	⏚

1.3 Chassis Overview

19MF338B

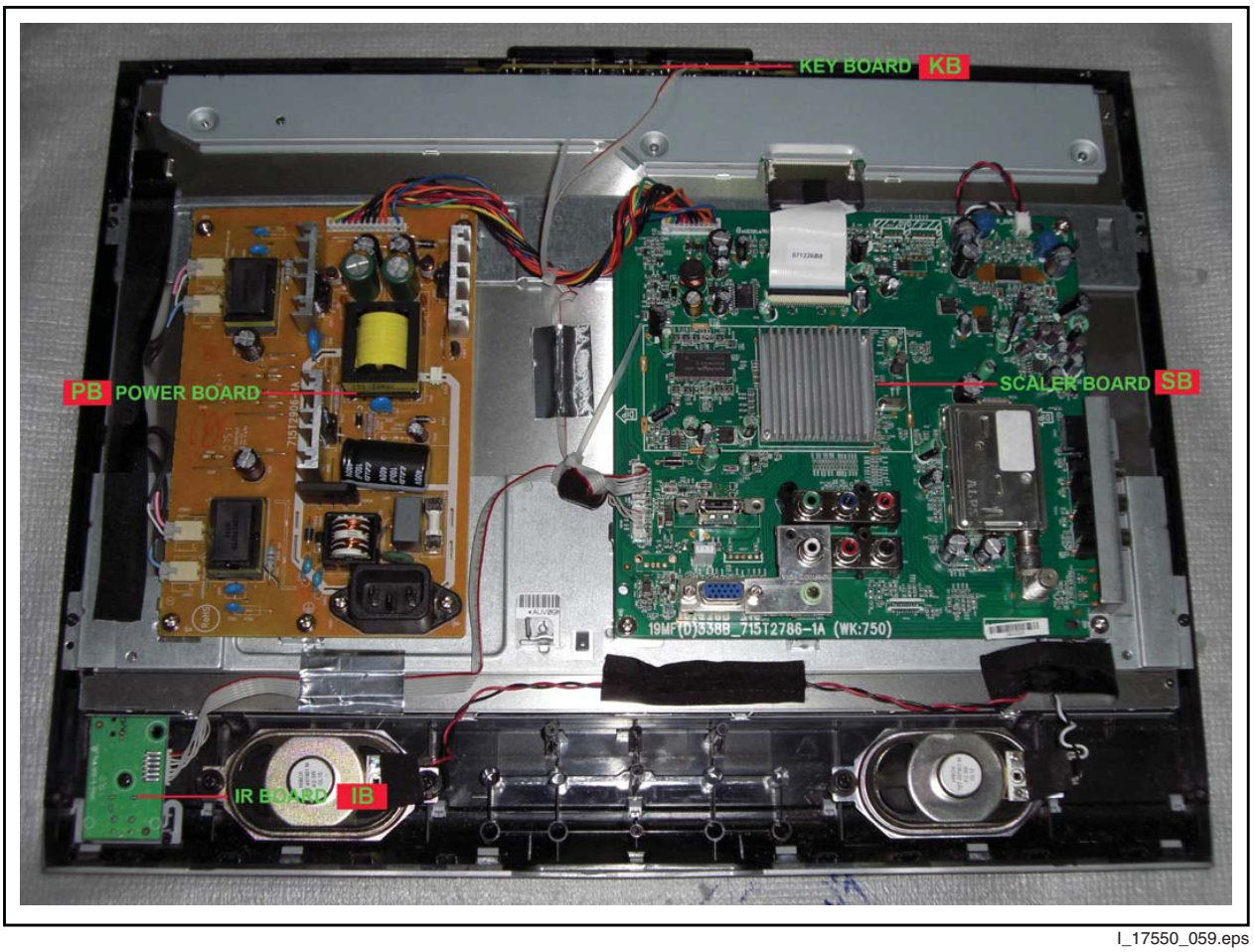

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Figure 1-3 Chassis Overview

19PF3403D

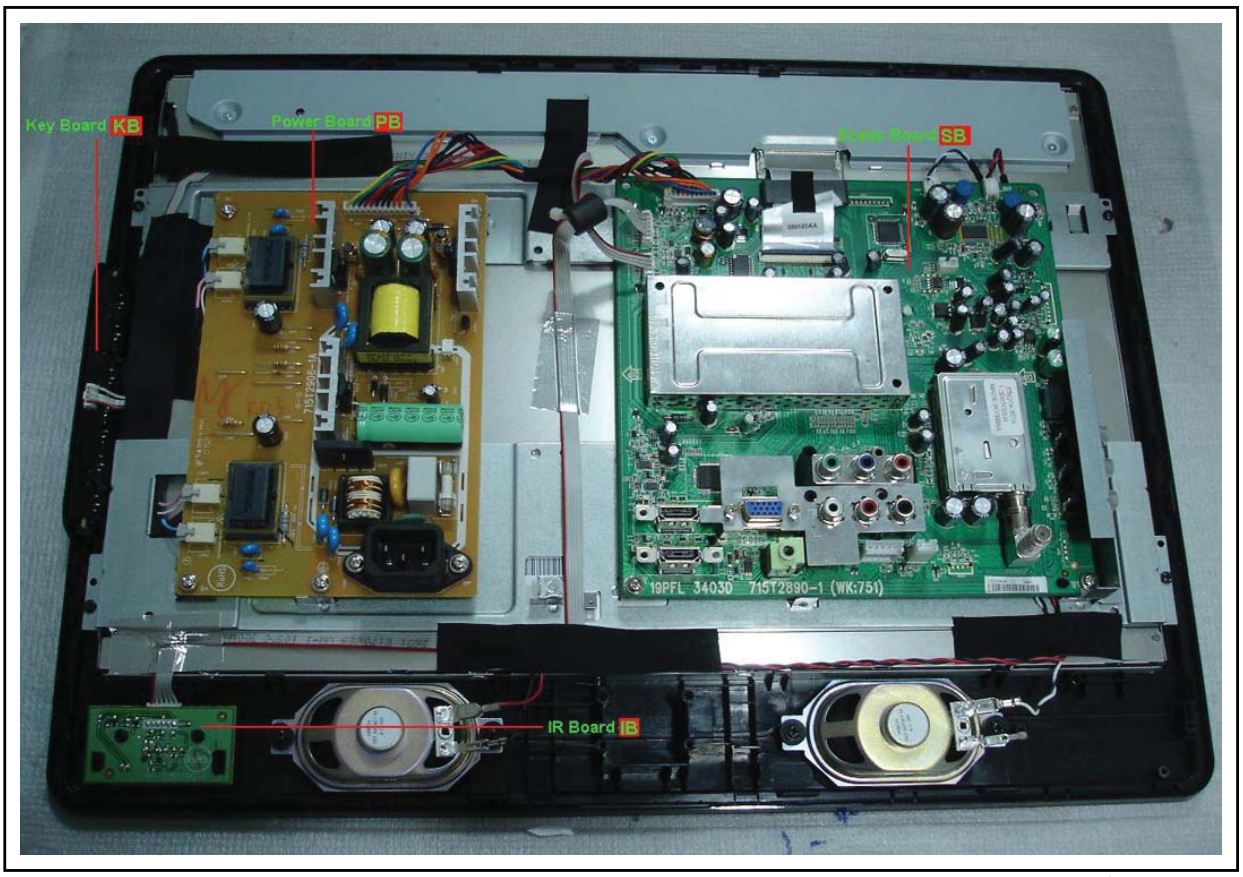

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Figure 1-4 Chassis Overview

19MD358B

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Figure 1-5 Chassis Overview

2. Safety Instructions, Warnings, and Notes

Index of this chapter:

2.1 Safety Instructions

Safety regulations require the following **during** a repair:

- Connect the set to the Mains/AC Power via an isolation transformer (> 800 VA).
- Replace safety components, indicated by the symbol ⚠, only by components identical to the original ones. Any other component substitution (other than original type) may increase risk of fire or electrical shock hazard.

Safety regulations require that **after** a repair, the set must be returned in its original condition. Pay in particular attention to the following points:

- Route the wire trees correctly and fix them with the mounted cable clamps.
- Check the insulation of the Mains/AC Power lead for external damage.
- Check the strain relief of the Mains/AC Power cord for proper function.
- Check the electrical DC resistance between the Mains/AC Power plug and the secondary side (only for sets that have a Mains/AC Power isolated power supply):
  1. Unplug the Mains/AC Power cord and connect a wire between the two pins of the Mains/AC Power plug.
  2. Set the Mains/AC Power switch to the “on” position (keep the Mains/AC Power cord unplugged!).
  3. Measure the resistance value between the pins of the Mains/AC Power plug and the metal shielding of the tuner or the aerial connection on the set. The reading should be between 4.5 Mohm and 12 Mohm.
  4. Switch “off” the set, and remove the wire between the two pins of the Mains/AC Power plug.
- Check the cabinet for defects, to prevent touching of any inner parts by the customer.

2.2 Warnings

- All ICs and many other semiconductors are susceptible to electrostatic discharges (ESD ⚠). Careless handling during repair can reduce life drastically. Make sure that, during repair, you are connected with the same potential as the mass of the set by a wristband with resistance. Keep components and tools also at this same potential.
- Be careful during measurements in the high voltage section.
- Never replace modules or other components while the unit is switched “on”.
- When you align the set, use plastic rather than metal tools. This will prevent any short circuits and the danger of a circuit becoming unstable.

2.3 Notes

2.3.1 General

- Measure the voltages and waveforms with regard to the chassis (= tuner) ground (⏚), or hot ground (⏚), depending on the tested area of circuitry. The voltages and waveforms shown in the diagrams are indicative. Measure them in the Service Default Mode (see chapter 5) with a color bar signal and stereo sound (L: 3 kHz, R: 1 kHz unless stated otherwise) and picture carrier at 475.25 MHz for PAL, or 61.25 MHz for NTSC (channel 3).
- Where necessary, measure the waveforms and voltages with (⊓) and without (⊼) aerial signal. Measure the voltages in the power supply section both in normal operation (⏻) and in stand-by (⏻). These values are indicated by means of the appropriate symbols.
- Manufactured under license from Dolby Laboratories. “Dolby”, “Pro Logic” and the “double-D symbol”, are trademarks of Dolby Laboratories.

2.3.2 Schematic Notes

- All resistor values are in ohms, and the value multiplier is often used to indicate the decimal point location (e.g. 2K2 indicates 2.2 kohm).
- Resistor values with no multiplier may be indicated with either an “E” or an “R” (e.g. 220E or 220R indicates 220 ohm).
- All capacitor values are given in micro-farads ($\mu = \times 10^{-6}$), nano-farads ($n = \times 10^{-9}$), or pico-farads ($p = \times 10^{-12}$).
- Capacitor values may also use the value multiplier as the decimal point indication (e.g. 2p2 indicates 2.2 pF).
- An “asterisk” (*) indicates component usage varies. Refer to the diversity tables for the correct values.
- The correct component values are listed in the Spare Parts List. Therefore, always check this list when there is any doubt.

2.3.3 BGA (Ball Grid Array) ICs

Introduction

For more information on how to handle BGA devices, visit this URL: *www.atyourservice.ce.philips.com* (needs subscription, not available for all regions). After login, select “Magazine”, then go to “Repair downloads”. Here you will find Information on how to deal with BGA-ICs.

BGA Temperature Profiles

For BGA-ICs, you **must** use the correct temperature-profile, which is coupled to the 12NC. For an overview of these profiles, visit the website *www.atyourservice.ce.philips.com* (needs subscription, but is not available for all regions)
You will find this and more technical information within the “Magazine”, chapter “Repair downloads”.
For additional questions please contact your local repair help desk.

2.3.4 Lead-free Soldering

Due to lead-free technology some rules have to be respected by the workshop during a repair:

- Use only lead-free soldering tin Philips SAC305 with order code 0622 149 00106. If lead-free solder paste is required, please contact the manufacturer of your soldering equipment. In general, use of solder paste within workshops should be avoided because paste is not easy to store and to handle.
- Use only adequate solder tools applicable for lead-free soldering tin. The solder tool must be able:
  - To reach a solder-tip temperature of at least 400°C.
  - To stabilize the adjusted temperature at the solder-tip.
  - To exchange solder-tips for different applications.
- Adjust your solder tool so that a temperature of around 360°C - 380°C is reached and stabilized at the solder joint. Heating time of the solder-joint should not exceed ~ 4 sec. Avoid temperatures above 400°C, otherwise wear-out of tips will increase drastically and flux-fluid will be destroyed. To avoid wear-out of tips, switch “off” unused equipment or reduce heat.
- Mix of lead-free soldering tin/parts with leaded soldering tin/parts is possible but PHILIPS recommends strongly **to**

avoid mixed regimes. If this cannot be avoided, carefully clear the solder-joint from old tin and re-solder with new tin.

2.3.5 Alternative BOM identification

The **third digit** in the serial number (example: AG**2**B0335000001) indicates the number of the alternative B.O.M. (Bill Of Materials) that has been used for producing the specific TV set. In general, it is possible that the same TV model on the market is produced with e.g. two different types of displays, coming from two different suppliers. This will then result in sets which have the same CTN (Commercial Type Number; e.g. 28PW9515/12) but which have a different B.O.M. number.
By looking at the third digit of the serial number, one can identify which B.O.M. is used for the TV set he is working with. If the third digit of the serial number contains the number “1” (example: AG**1**B033500001), then the TV set has been manufactured according to B.O.M. number 1. If the third digit is a “2” (example: AG**2**B0335000001), then the set has been produced according to B.O.M. no. 2. This is important for ordering the correct spare parts!
For the third digit, the numbers 1...9 and the characters A...Z can be used, so in total: 9 plus 26= 35 different B.O.M.s can be indicated by the third digit of the serial number.

Identification: The bottom line of a type plate gives a 14-digit serial number. Digits 1 and 2 refer to the production center (e.g. AG is Bruges), digit 3 refers to the B.O.M. code, digit 4 refers to the Service version change code, digits 5 and 6 refer to the production year, and digits 7 and 8 refer to production week (in example below it is 2006 week 17). The 6 last digits contain the serial number.

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Figure 2-1 Serial number (example)

2.3.6 Board Level Repair (BLR) or Component Level Repair (CLR)

If a board is defective, consult your repair procedure to decide if the board has to be exchanged or if it should be repaired on component level.
If your repair procedure says the board should be exchanged completely, do not solder on the defective board. Otherwise, it cannot be returned to the O.E.M. supplier for back charging!

2.3.7 Practical Service Precautions

- **It makes sense to avoid exposure to electrical shock.** While some sources are expected to have a possible dangerous impact, others of quite high potential are of limited current and are sometimes held in less regard.
- **Always respect voltages**. While some may not be dangerous in themselves, they can cause unexpected reactions that are best avoided. Before reaching into a powered TV set, it is best to test the high voltage insulation. It is easy to do, and is a good service precaution.

3. Directions for Use

You can download this information from the following websites:
http://www.philips.com/support
http://www.p4c.philips.com

4. Mechanical Instructions

Index of this chapter:
1. Cable Dressing
2. Service Positions
3. Assy/Panel Removal
4. Re-assembly

Notes:
- Figures below can deviate slightly from the actual situation, due to the different set executions.
- Follow the disassembly instructions in the described order.

4.1 Cable Dressing

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Figure 4-1 Cable dressing(19MF338B)

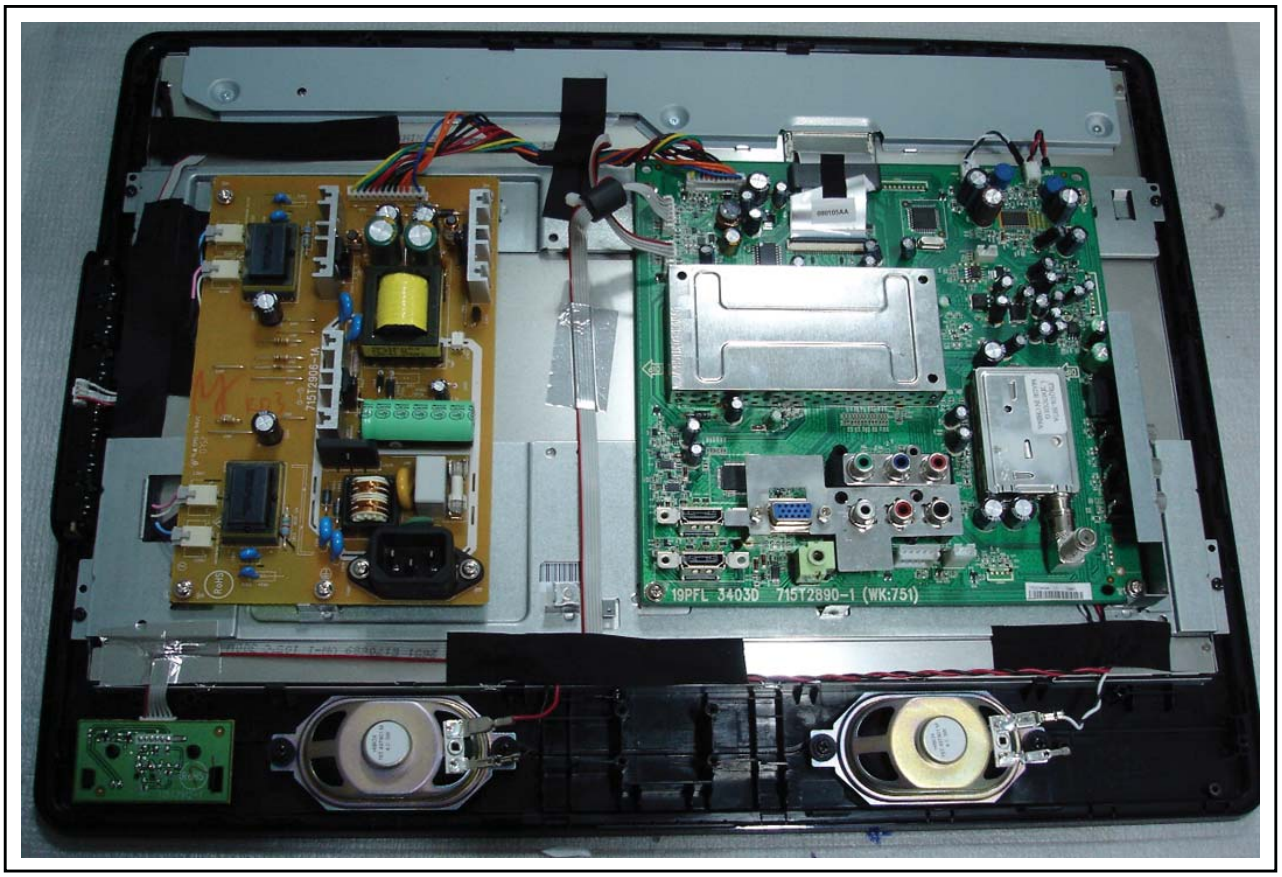

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Figure 4-2 Cable dressing(19PFL3403D)

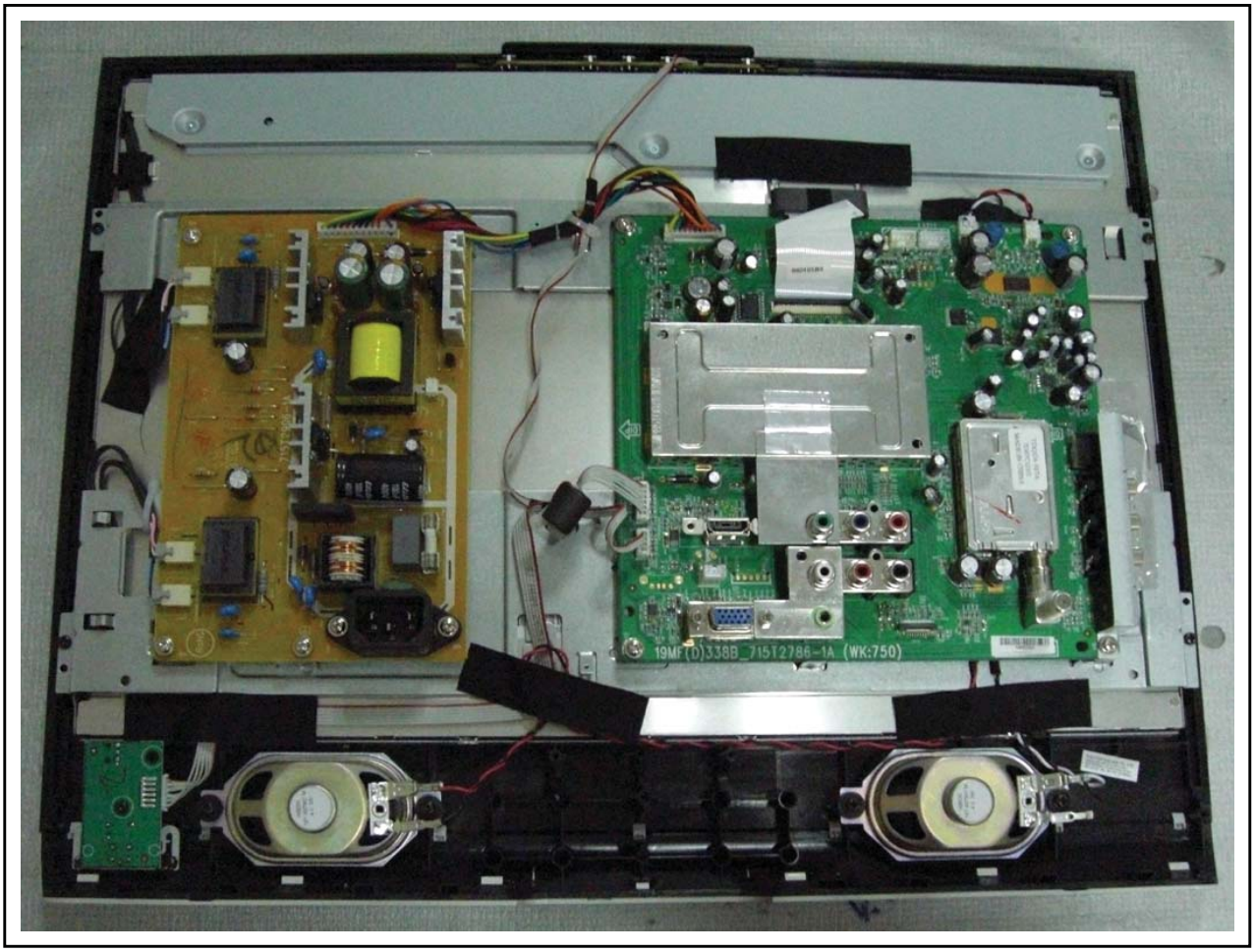

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Figure 4-3 Cable dressing (19MD358B)

4.2 Service Positions

For easy servicing of this set, there are a few possibilities created:

- The buffers from the packaging (see figure "Rear cover").
- Foam bars (created for Service).

4.2.1 Foam Bars

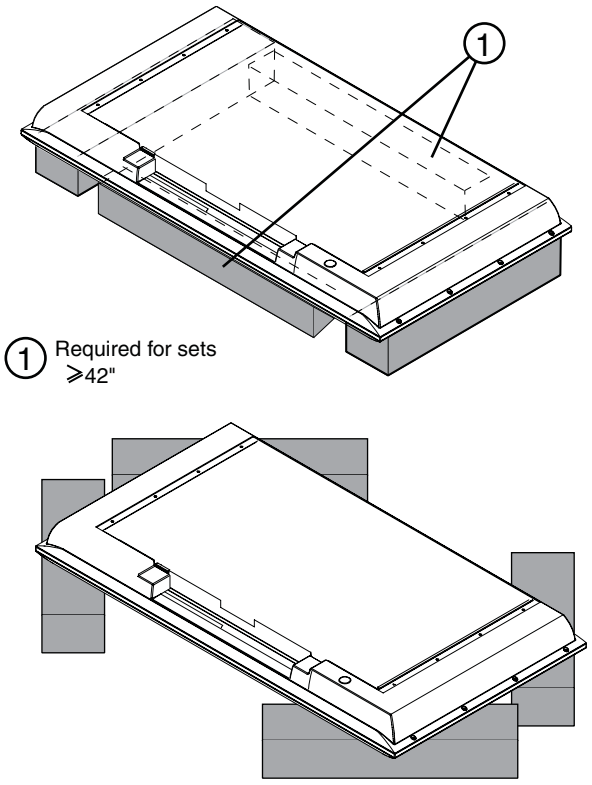

Figure 4-4 Foam bars

The foam bars (order code 3122 785 90580 for two pieces) can be used for all types and sizes of Flat TVs. See figure “Foam bars” for details. Sets with a display of 42” and larger, require **four** foam bars [1]. Ensure that the foam bars are always supporting the cabinet and **never** only the display.
Caution: Failure to follow these guidelines can seriously damage the display!
By laying the TV face down on the (ESD protective) foam bars, a stable situation is created to perform measurements and alignments. By placing a mirror under the TV, you can monitor the screen.

4.3 Assy/Panel Removal

4.3.1 Stand/Base

Remove the screws remarked in red to remove the stand or base.

19MF338B

Figure 4-5 Remove base

19PFL3403D

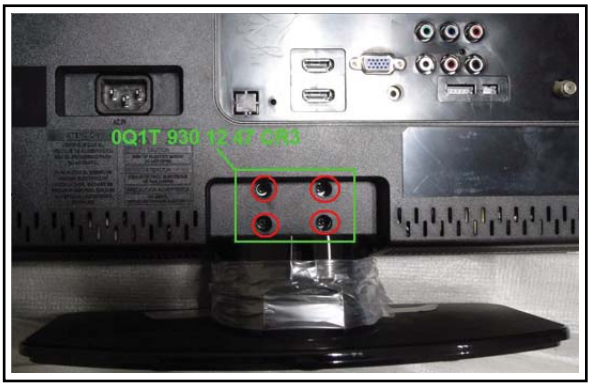

Figure 4-6 Remove base

4.3.2 Rear Cover

1. Remove the screws remarked in red, which secure the rear cover. The screws are located at the top, bottom, left and right sides.
2. Lift the rear cover from the cabinet. Make sure that wires and flat foils are not damaged during cover removal.

19MF338B

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Figure 4-7 Remove rear cover

19PFL3403D

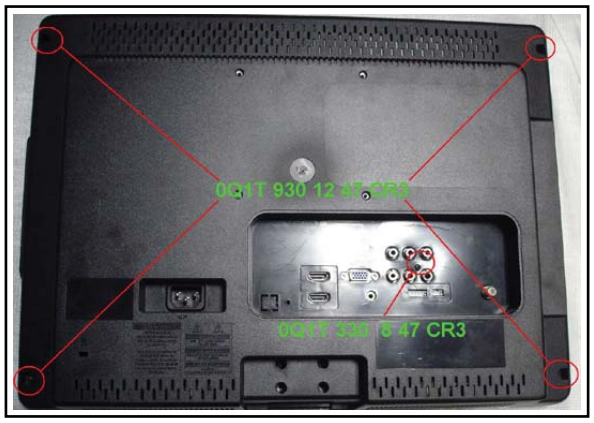

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Figure 4-8 Remove rear cover

19MD358B

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Figure 4-9 Remove rear cover

4.3.3 Power Board

1. Refer to next figure
2. Unplug connector remarked in blue.
3. Release screws(0G1T 1130 8120 and 0G1T 1130 10120)remarked in red and remove the board. When defective,replace the whole unit

19MF338B&19PFL3403D

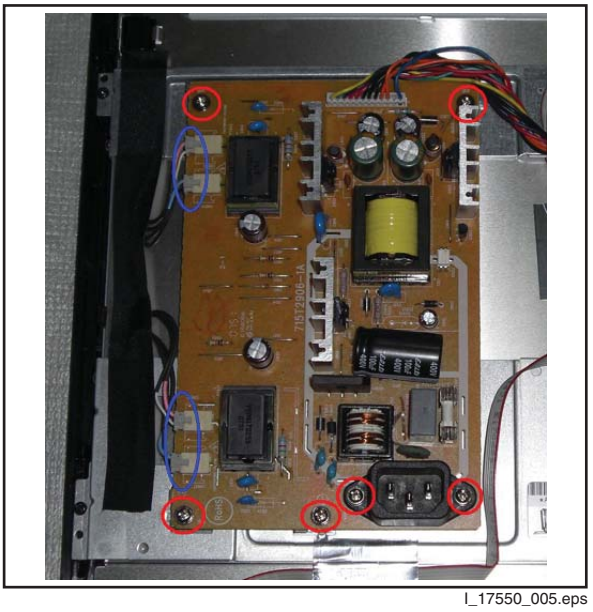

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Figure 4-10 Power Board

19MD358B

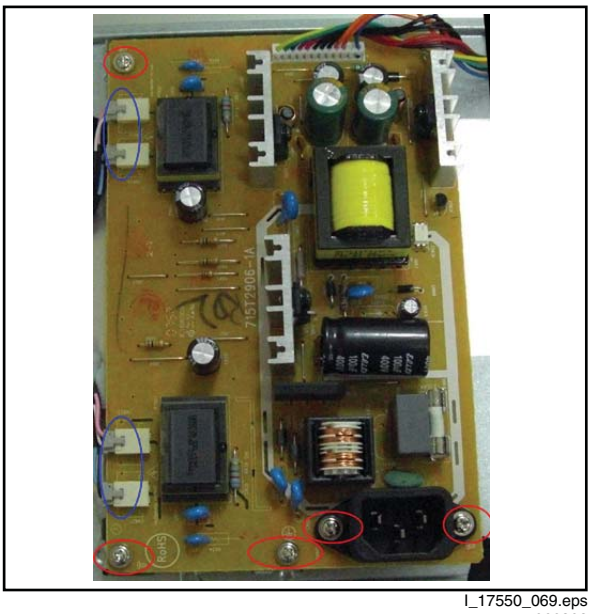

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Figure 4-11 Power Board

4.3.4 Main Board

1. Refer to next figure
2. Unplug connector remarked in blue.
3. Replease screws remarked in red and remove the board. When defective, replace the whole unit.

19MF338B

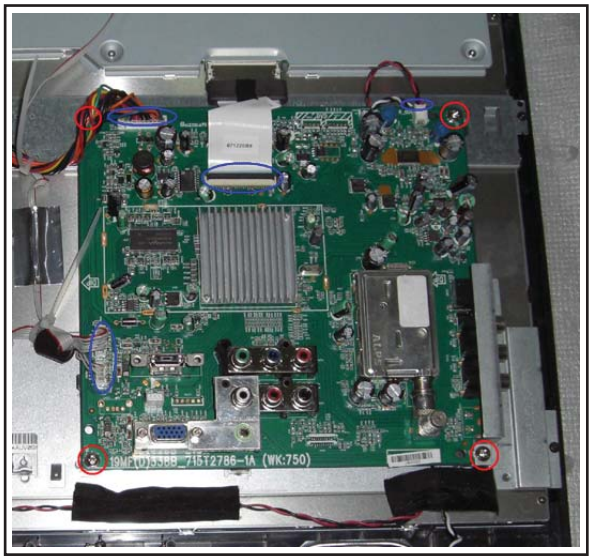

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Figure 4-12 Main Board

19PFL3403D

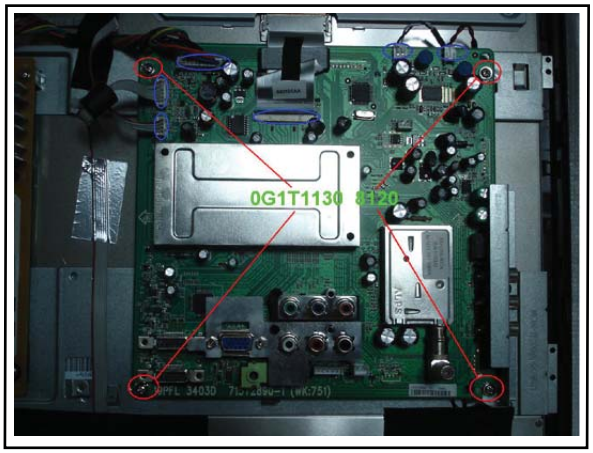

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Figure 4-13 Main Board

19MD358B

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Figure 4-14 Main Board

4.3.5 IR Board

1. Refer to next figure
2. Unplug the connector remarked in blue.
3. Remove the screws remarked in red and remove the IR board.
   When defective,replace the whole unit.

19MF338B & 19MD358B

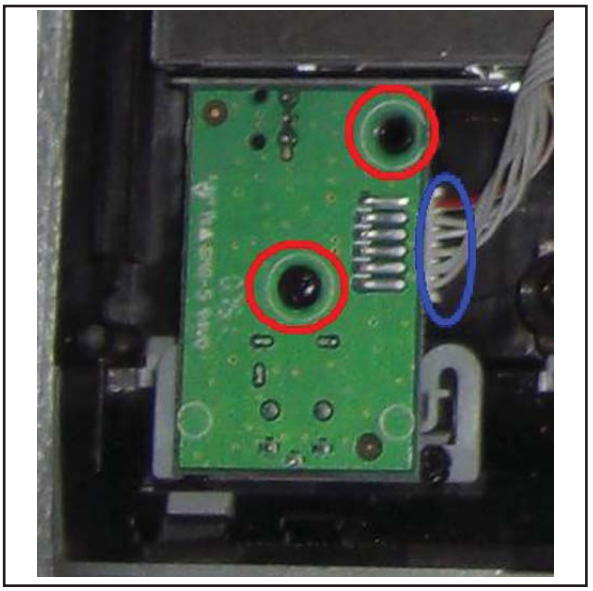

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Figure 4-15 IR Board

19PFL3403D

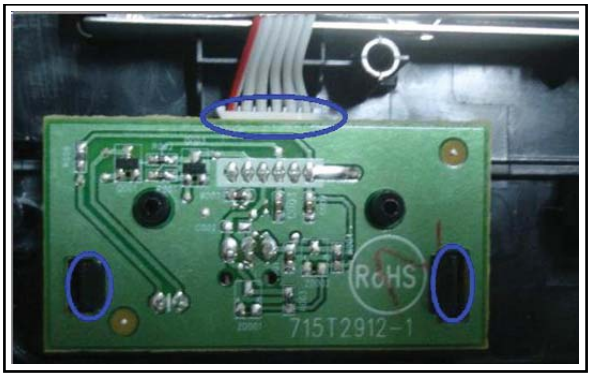

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Figure 4-16 IR Board

4.3.6 Speakers

1. Refer to next figure.
2. Remove the screws remarked in red.

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Figure 4-17 Speakers

4.3.7 Bezel

1. Refer to next two figures.
2. Remove the screws remarked in red.

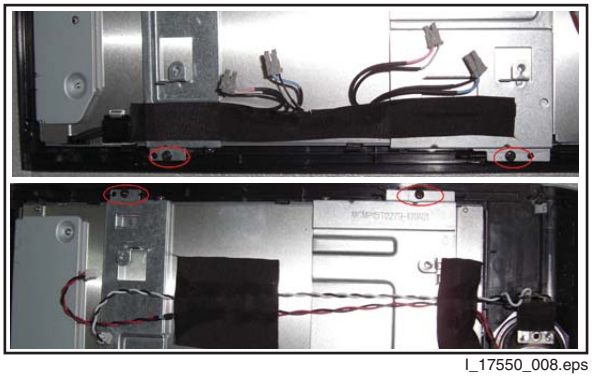

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Figure 4-18 Bezel

4.3.8 Bracket

1. Refer to next two figures.
2. Remove the screws remarked in red.

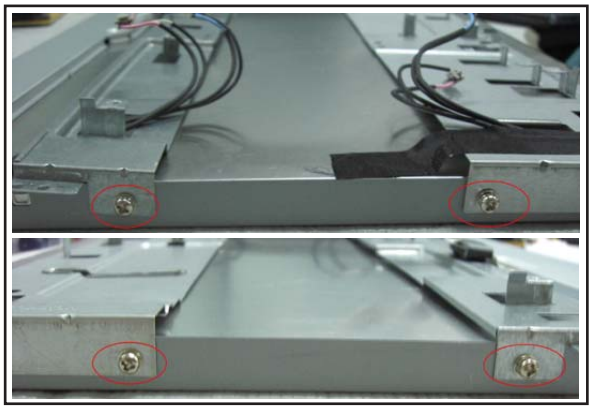

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Figure 4-19 Bracket

4.4 19MD358B DVD Base Removal

4.4.1 Cover_BOTTOM_DVD_Base

Remove the screws remarked in red to remove the Cover_BOTTOM_DVD_Base.

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Figure 4-20 Cover_BOTTOM_DVD_Base

4.4.2 QSI_SLIM_DVD_PLAYER

Remove the screws remarked in red to remove the QSI_SLIM_DVD_Player.

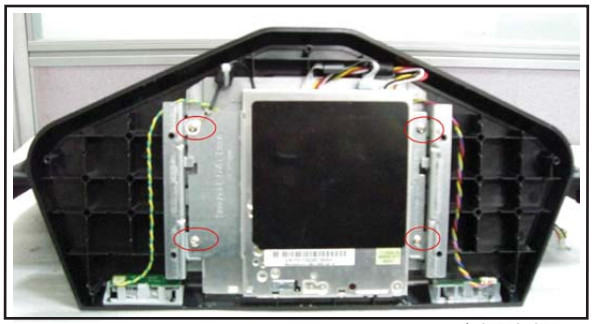

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Figure 4-21 QSI_SLIM_DVD_PLAYER

4.4.3 FRAME_DVD Base

Remove the screws remarked in red to remove the FRAME_DVD Base.

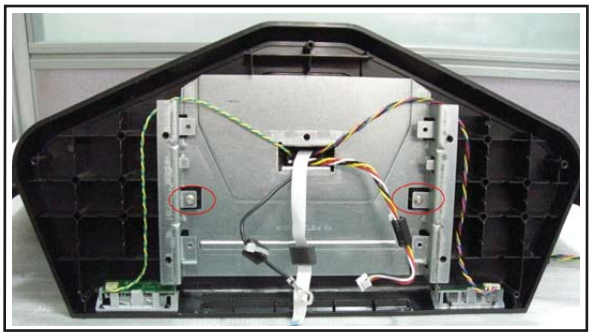

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Figure 4-22 FRAME_DVD Base

4.4.4 Rear Cover

Remove the screws remarked in red to remove the rear cover.

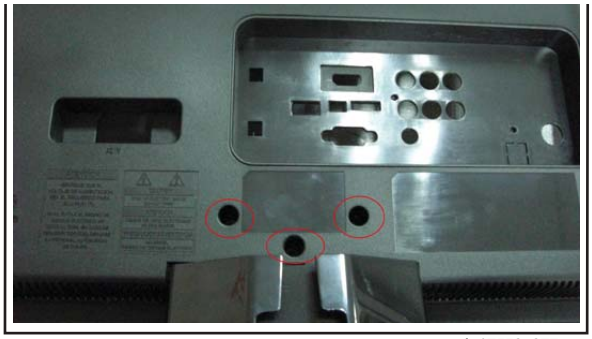

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Figure 4-23 Rear Cover(19MD358B)

4.5 Set Re-assembly

To re-assemble the whole set, execute all processes in reverse order.

Notes:

- While re-assembling, make sure that all cables are placed and connected in their original position. See figure "Cable dressing".

5. Service Modes, Error Codes, and Fault Finding

Index of this chapter:

5.1 Test Points

This chassis is NOT equipped with test points in the service printing. These test points are NOTspecifically mentioned in the service manual

5.2 Service Mode

5.2.1 Factory Mode

How to Enter

To enter the Factory mode,use one of the following methods:

- To hold"Volume+" and "Volume-" buttons,then power on while there is video signal in.Monitor will enter factory mode automatically once power is off.
- Press remote control code"062596" ,then press menu key. **Caution**: This fuctions are avaible for development and service personnal only,not for end customers.

After entering factory mode, the following screen is visible, the values can be adjusted according to the requested.

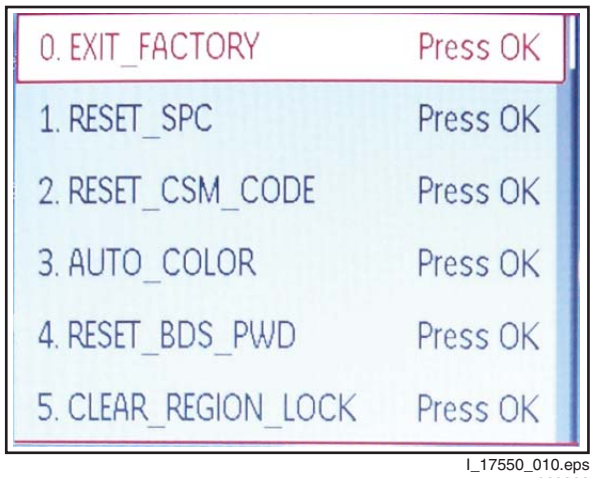

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Figure 5-1 Factory mode menu

How to EXIT

Choose 'EXIT",then press "OK" botton on remote control.

5.2.2 Customer Service Mode(CSM)

Purpose

When a customer is having problems with his TV-set,he can call his dealer or the Customer Helpdesk.The service technician can then ask the customer to actrivate the CSM in order to identify the status of the set.Now,the service technician can judge the erverity of the complain.In many cases,he can advise the customer how to solve the problem or he can decide if it is necessary to visit the customer.The mode are not possible.

When in this chassis,CSM is activated,a clour bar test pattern will be visible for 5 seconds.This test pattern is generated by the pacific 3.So if you see this test pattern you can determine that the back end video chain(pacific3,LVDS and display) is working.

Also new in this chassis:when you activate CSM and there is a USB stick connected to the TV,the software will dump the complete CSM content to the USB stick,The file(CSM.txt) will be saved in the root of your USB stick.This info can be handy if you donot have picture.

How to Activate CSM

Key in the code"123654" via the standard RC transmitter.

How to Navigate

By mean of the "CURSOR-DOWN/UP" knob on the RC-transmitter on the screen.

Contents of CSM

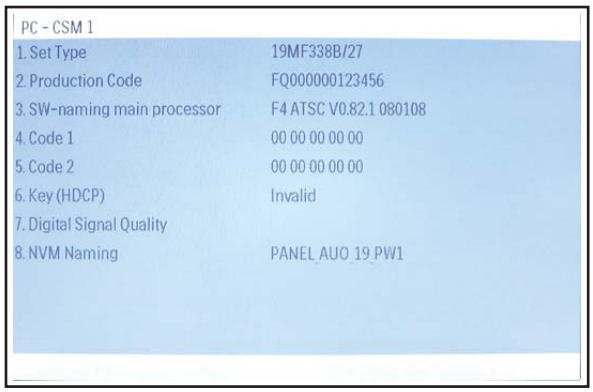

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Figure 5-2 CSM Menu(19MF338B)

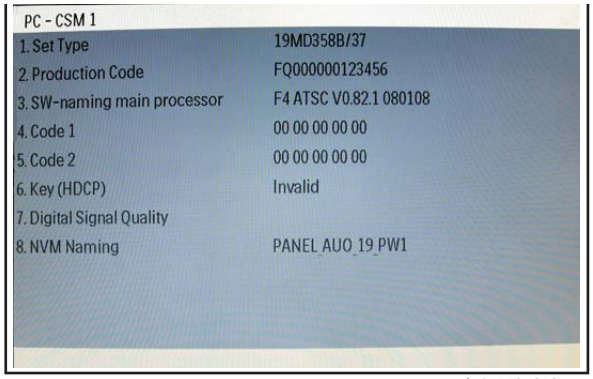

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Figure 5-3 CSM Menu(19PFL3403D)

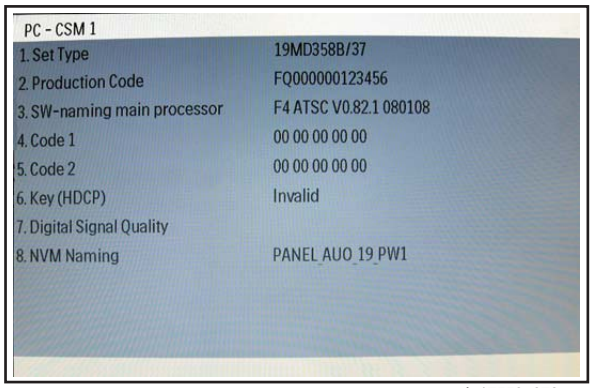

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Figure 5-4 CSM Menu(19MD358)

Menu Explanation

1. Set Type. Type number and region.
2. Production code. Product serial no.
3. SW naming main-processor. Software cluster and version is displayed.
4. Code 1. Error buffer contents.
5. Code 2. Error buffer contents.
   (for the data of code 1/2, please refer to the table below)
6. Key (HDCP): Indicates if the keys are valid.
7. Digital Signal Quantity
8. NVM-naming: Indicates the used LCD panel type and region (NVM content and main SW depend on the used LCD panel).

Error Code	Error Code Type
00	OK
01	DDR may fail
02	EEPROM may fail
03	TUNER may fail
04	MT5380ACU may fail

How to exit

Press"MENU" on the RC-transmitter.

5.3 Service Tools

5.3.1 ComPair

Introduction

ComPair (Computer Aided Repair) is a Service tool for Philips Consumer Electronics products. and offers the following:

1. ComPair helps you to quickly get an understanding on how to repair the chassis in a short and effective way.
2. ComPair allows very detailed diagnostics and is therefore capable of accurately indicating problem areas. You do not have to know anything about I^2C or UART commands yourself, because ComPair takes care of this.
3. ComPair speeds up the repair time since it can automatically communicate with the chassis (when the uP is working) and all repair information is directly available.
4. ComPair features TV software upgrade possibilities.

Specifications

ComPair consists of a Windows based fault finding program and an interface box between PC and the (defective) product. The (new) ComPair II interface box is connected **to the PC** via an USB cable. For the TV chassis, the ComPair interface box and the TV communicate via a bi-directional cable via the service connector(s).

How to Connect

This is described in the ComPair chassis fault finding database.

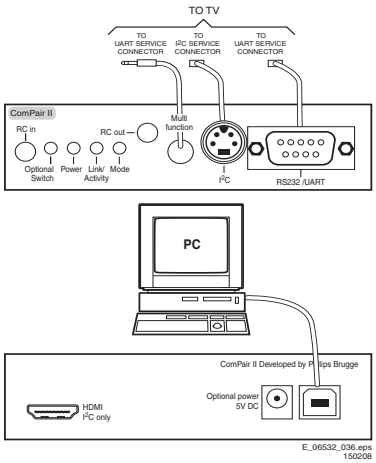


Figure 5-5 ComPair II interface connection

Caution: It is compulsory to connect the TV to the PC as shown in the picture above (with the ComPair interface in between), as the ComPair interface acts as a level shifter. If one connects the TV directly to the PC (via UART), ICs will be blown!

How to Order

ComPair II order codes:

- ComPair II interface: 3122 785 91020.
- For SW see Philips service website.
- ComPair UART interface cable: 3122 785 90630.

Note: If you encounter any problems, contact your local support desk.

5.3.2 LVDS Tool

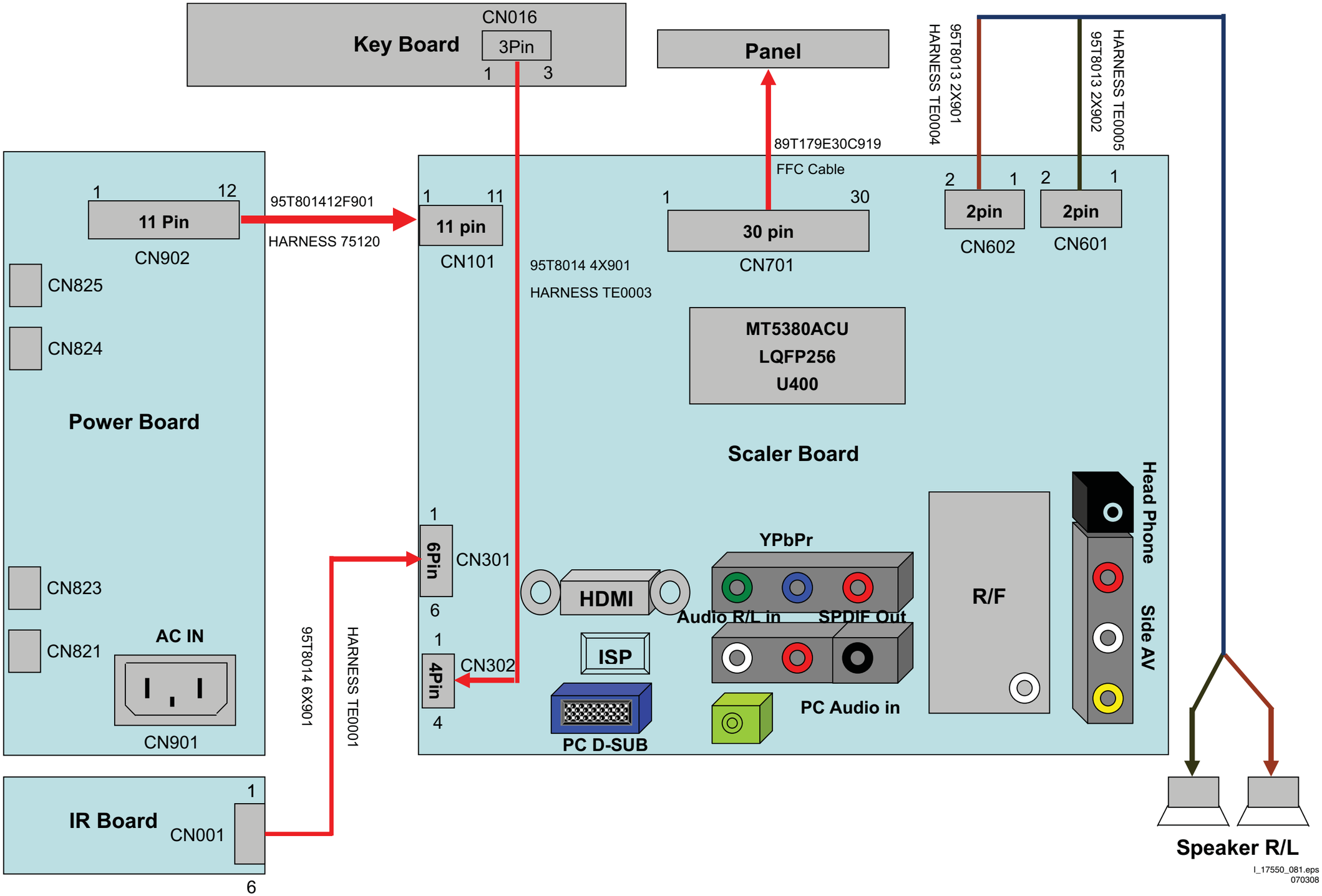
Support of the LVDS Tool has been discontinued.

Personal Notes:

6. Block Diagrams, Test Point Overview, and Waveforms

Wiring Diagram 19MF338B

WIRING DIAGRAM



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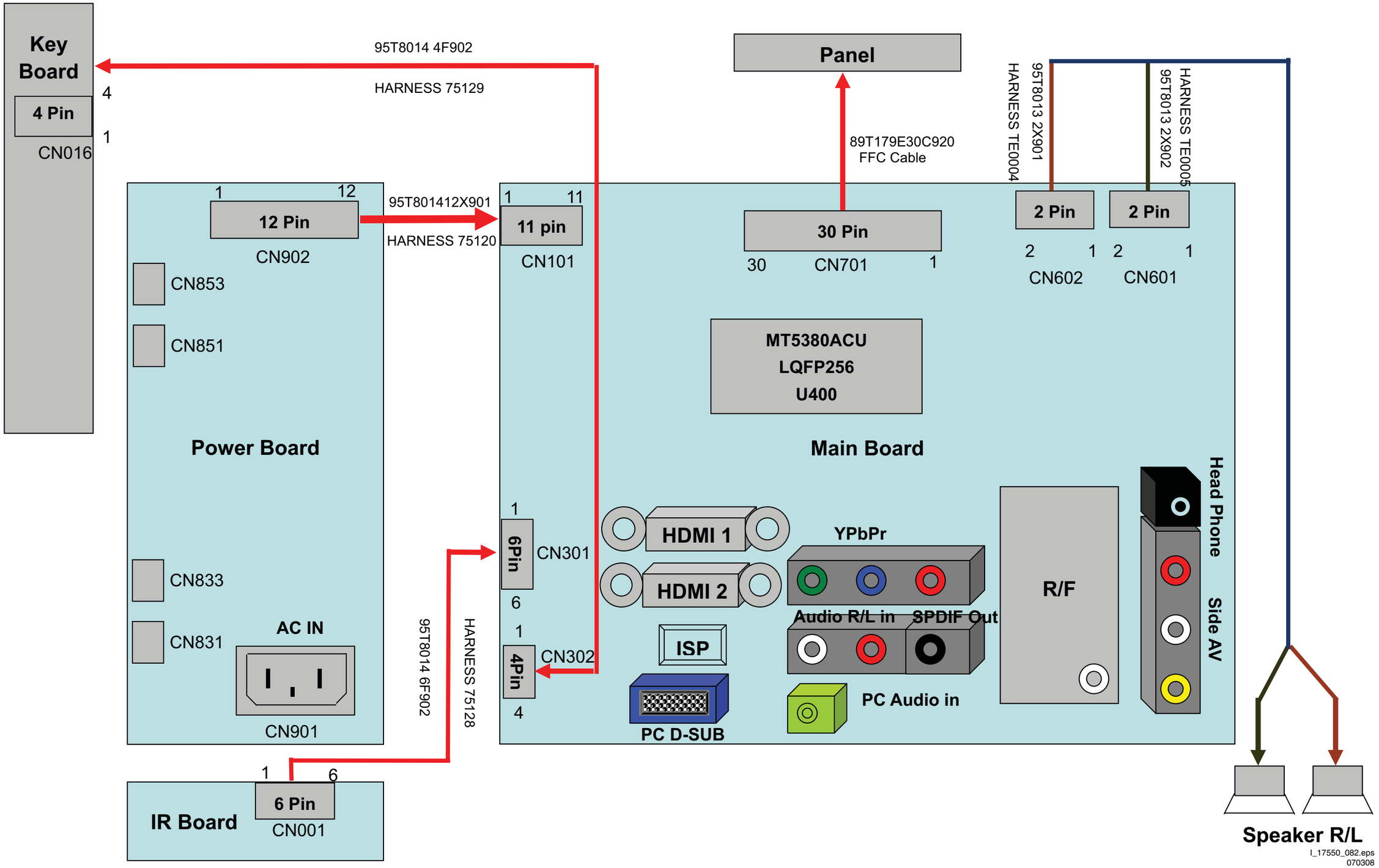
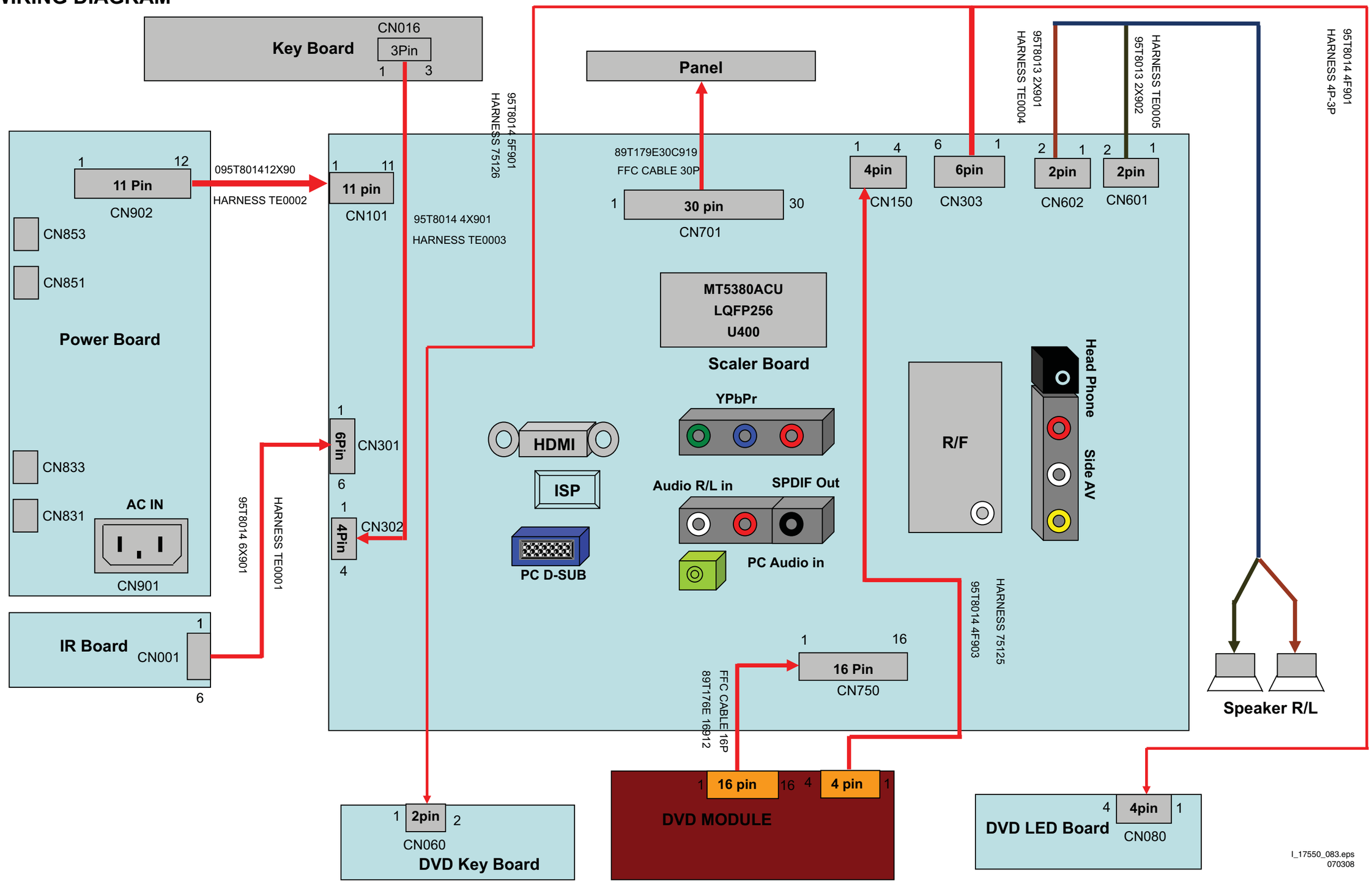
Wiring Diagram 19PFL3403D

WIRING DIAGRAM

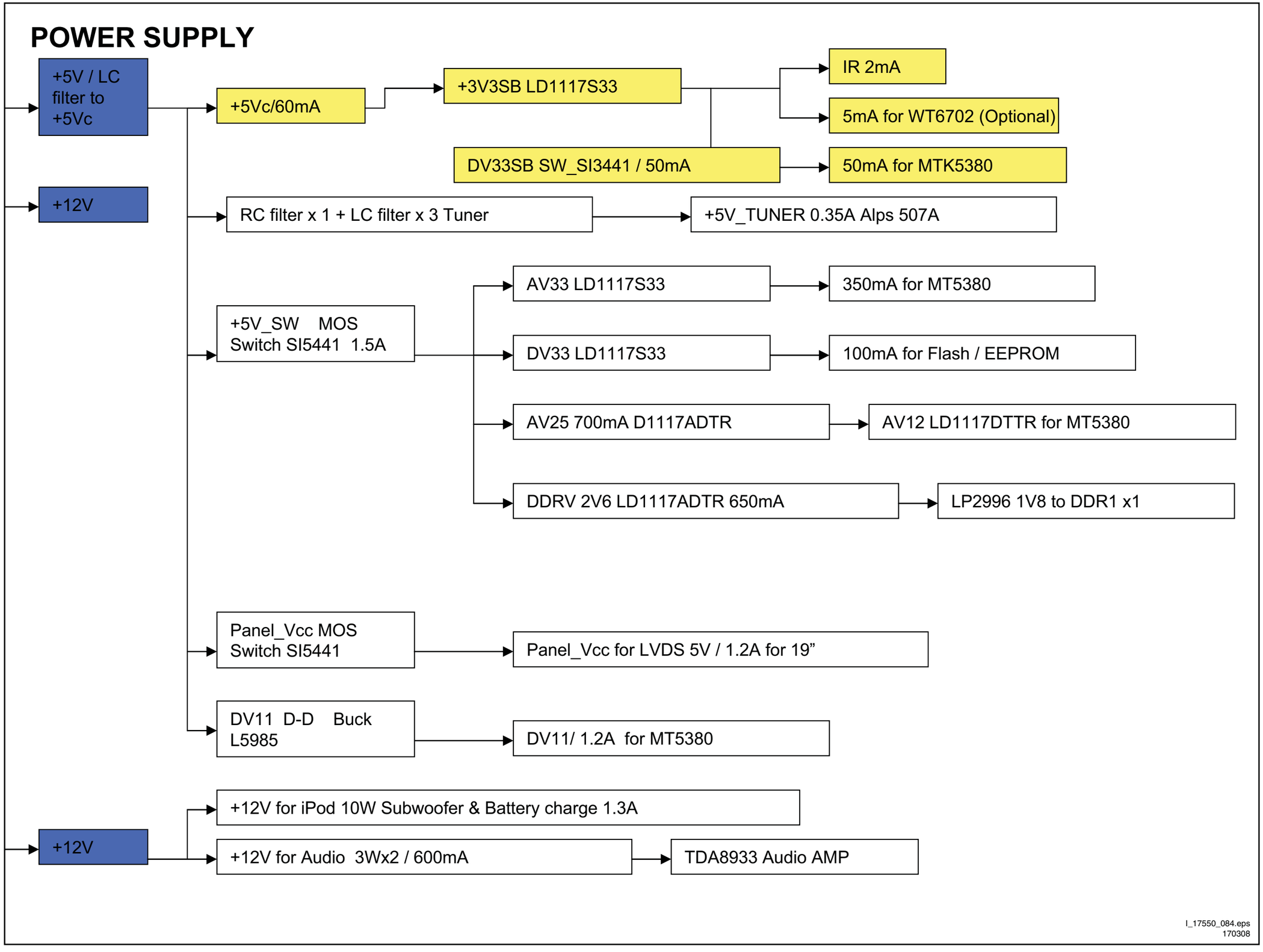


Wiring Diagram 19MD358B

WIRING DIAGRAM

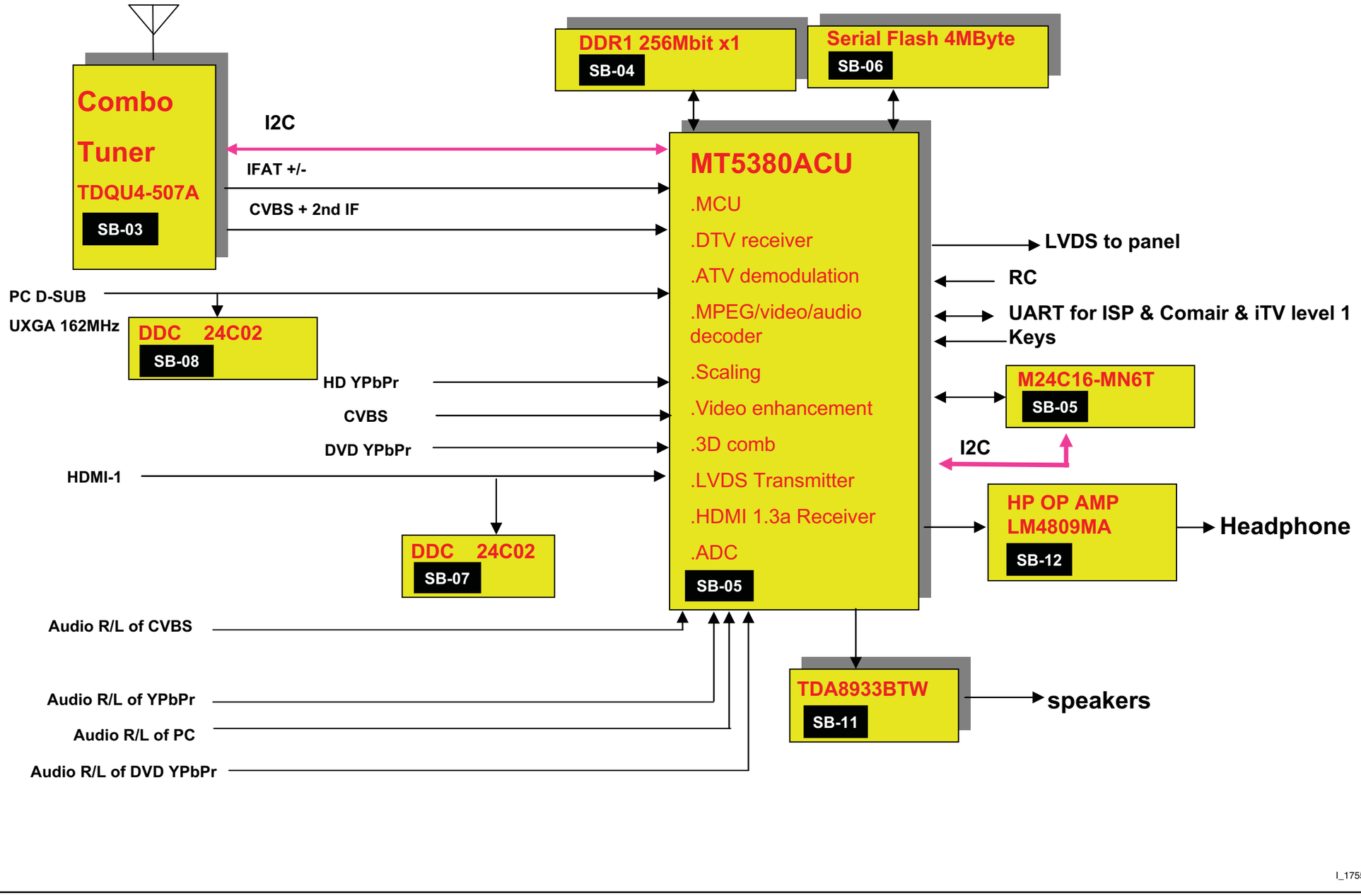


Block Diagram Power Supply



Block Diagram Scaler Board 19MF338B & 19MD358B

DS (Magnavox) Function block of main Board w/ MT5380ACU



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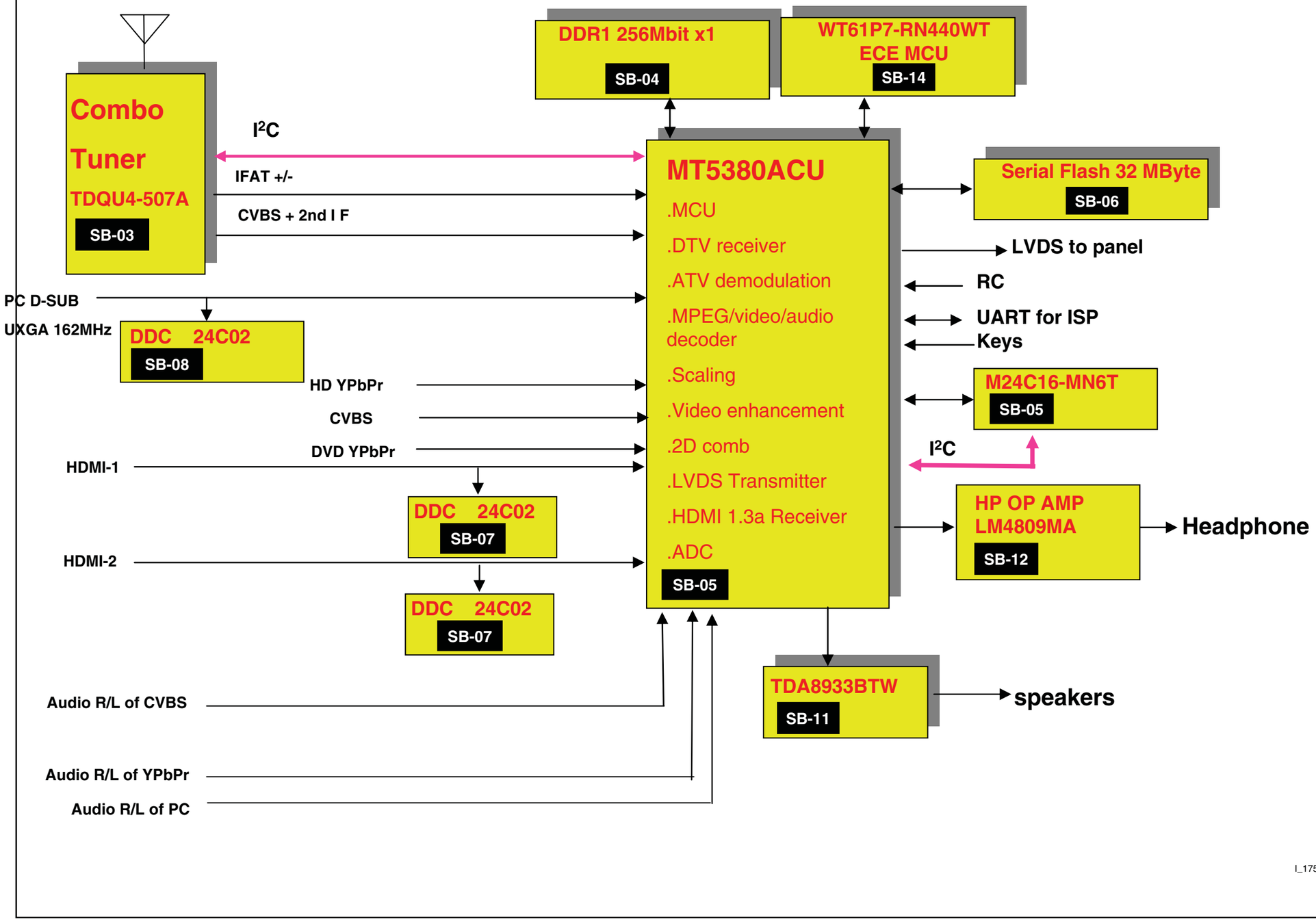
Block Diagram Scaler Board 19PFL3403D

DS (OTS) Function block of main Board w/ MT5380ACU



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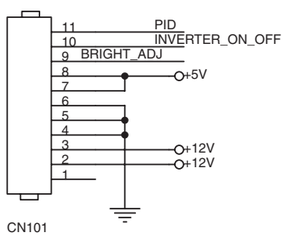
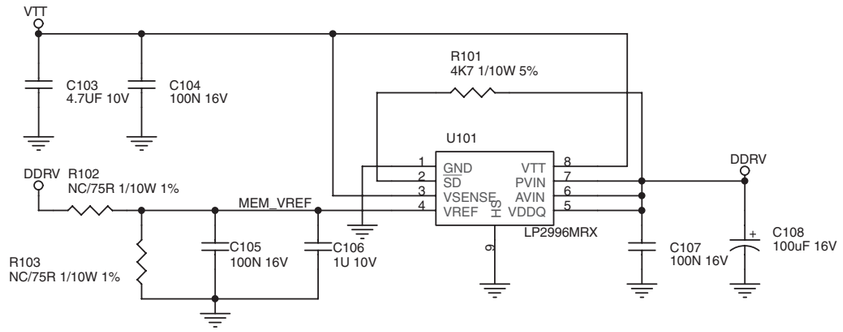
7. Circuit Diagrams and PWB Layouts

Scaler Board: Power Part 1

SB01 SCALAR BOARD: POWER 1 **SB01**

63391 11P 2.0MM

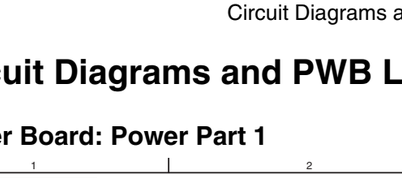


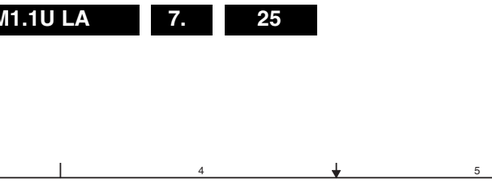


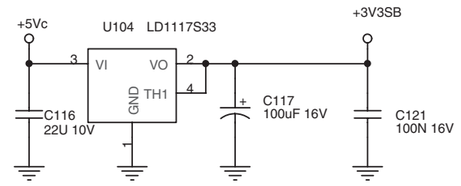
VTT FOR DDR TERMINATOR
MEM_VREF FOR DDR AND MT5381 VREF

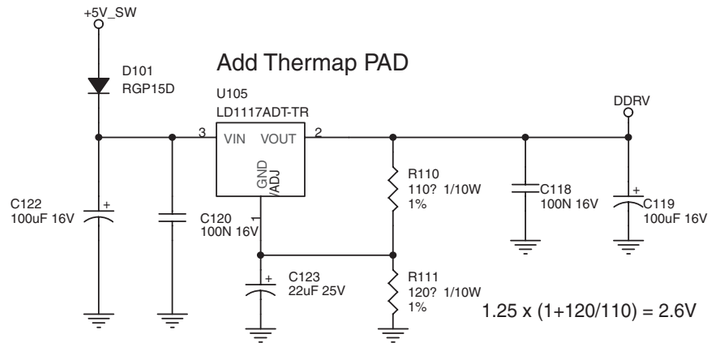
{5} MEM_VREF — MEM_VREF
{5} VTT — VTT
{5,7} DDRV — DDRV
{14} BRIGHT_ADJ — BRIGHT_ADJ
{14} INVERTER_ON_OFF — INVERTER_ON_OFF
{3,6} OPWRSB — OPWRSB
{14} PID — PID
{6,7} OPCTRL5 — OPCTRL5

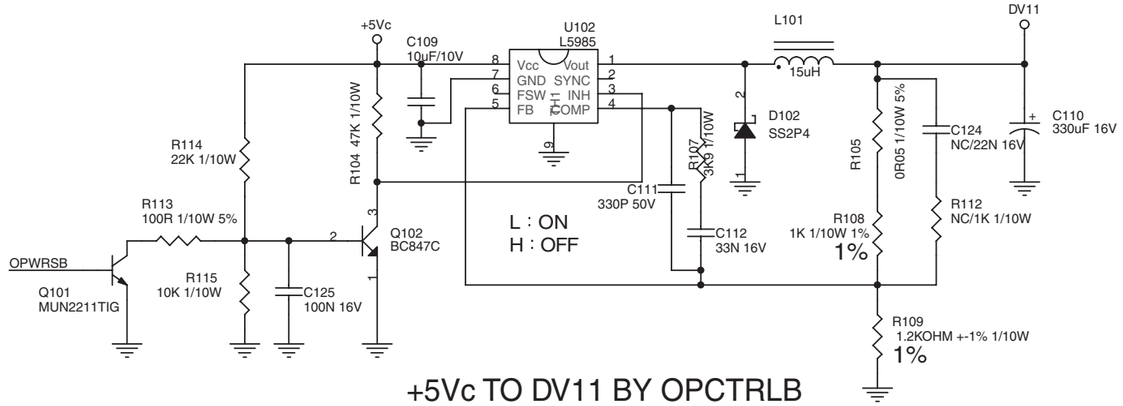
CN101	A1	C101	C2
C102	C2	C103	A3
C104	A4	C105	A4
C106	A4	C107	A5
C108	A6	C109	D6
C110	D8	C111	D6
C112	D7	C113	C5
C114	C4	C115	C4
C116	C6	C117	C7
C118	D2	C119	D3
C120	D1	C121	C7
C122	D1	C123	E1
C124	D7	C125	D5
D101	D1	D102	D7
FB101	C1	FB102	C1
L101	D7	Q101	D4
Q102	D5	R101	A5
R102	A3	R103	A4
R104	D5	R105	D7
R107	D7	R108	D7
R109	E7	R110	D2
R111	E2	R112	D7
R113	D5	R114	D5
R115	D5	U101	A5
U102	D6	U103	C4
U104	B6	U105	D1











+5Vc TO DV11 BY OPCTRLB

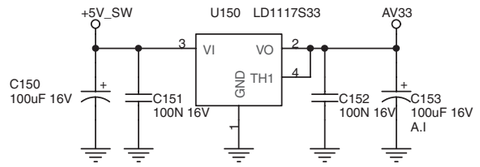
L : OFF
H : ON

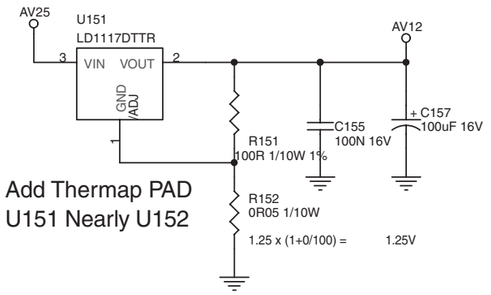
The item of page is from "100" start

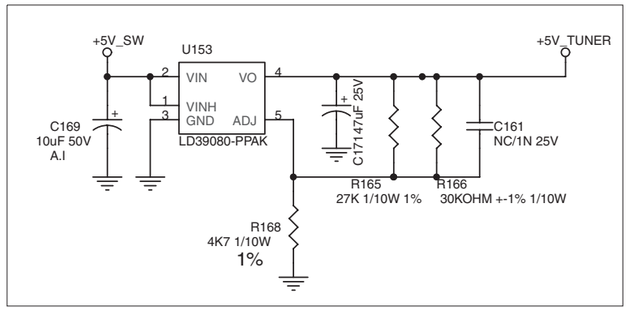
Scaler Board: Power Part 2

SB02 SCALAR BOARD: POWER 2

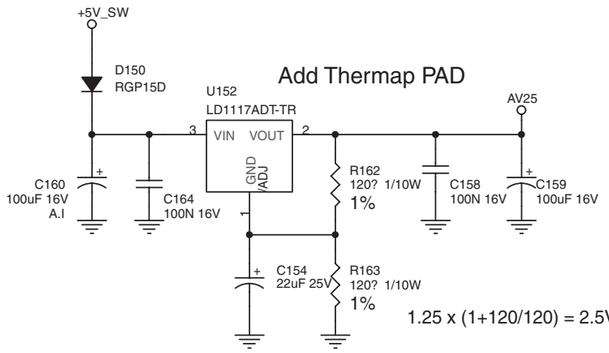
SB02

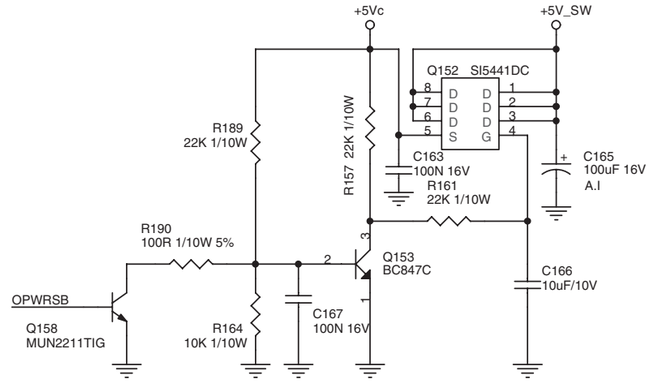


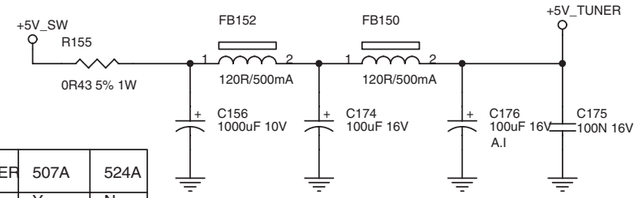




{2,6} OPWRSB — OPWRSB
{6} GPIO_3 — GPIO_3
{2,6} OPWRSB — OPWRSB
{6,7} OPCTRL4 — OPCTRL4

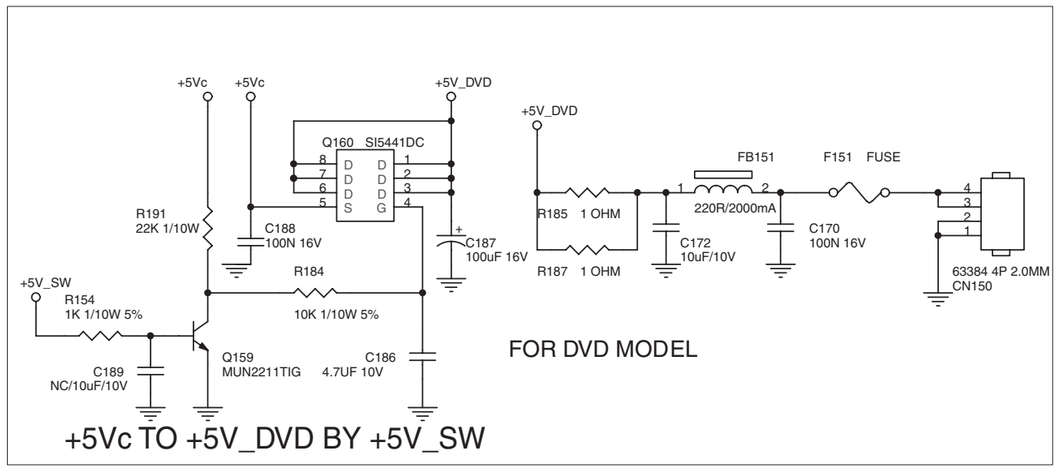






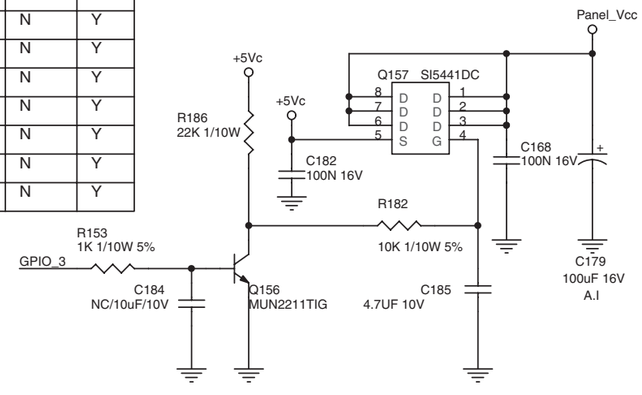
ALPS TUNER	507A	524A
R155	Y	N
FB150	Y	N
FB152	Y	N
C156	Y	N
C174	Y	N
C176	Y	N
C175	Y	N
U153	N	Y
C169	N	Y
C171	N	Y
C161	N	Y
R164	N	Y
R165	N	Y
R166	N	Y

+5Vc TO +5V_SW BY OPWRSB



+5Vc TO +5V_DVD BY +5V_SW

	19MF	19MD
R185	N	Y
R187	N	Y
R154	N	Y
R184	N	Y
R191	N	Y
C186	N	Y
C187	N	Y
C188	N	Y
C189	N	Y
C170	N	Y
C172	N	Y
FB151	N	Y
F151	N	Y
CN150	N	Y



+5Vc TO Panel_Vcc BY GPIO_3

CN150 D4
C150 A1
C151 A1
C152 A2
C153 A2
C154 C1
C155 A4
C156 B6
C157 A4
C158 B2
C159 B2
C160 B1
C161 A6
C163 B4
C164 B1
C165 B5
C166 C5
C167 C4
C168 D8
C169 A5
C170 D3
C171 A5
C172 D3
C174 B7
C175 B8
C176 B7
C179 D8
C182 D7
C184 D6
C185 D7
C186 E2
C187 D2
C188 D1
C189 E1
D150 B1
FB150 B7
FB151 D3
FB152 B7
F151 D4
Q152 B5
Q153 C4
Q156 D7
Q157 C7
Q158 C3
Q159 D1
Q160 D2
R151 A3
R152 A3
R153 D6
R154 D1
R155 B6
R157 B4
R161 B4
R162 B2
R163 C2
R164 C4
R165 A6
R166 A6
R168 A5
R182 D7
R184 D2
R185 D3
R186 D7
R187 D3
R189 B4
R190 C4
R191 D1
U150 A1
U151 A3
U152 B1
U153 A5

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Scaler Board: Tuner / USB / ITV

SB03 SCALER BOARD: TUNER/USB/ITV

SB03

R202 5K1 1/10W 1%
C202 NC/100P 50V
U400D
USB_VRT 68
USB_DM 65
USB_DP 66
AVDD33_USB 67
AVDD12_USB 69
TP202 1 159
TP201 1 160
MT5380ACU
AVDD12_ADCPLL 162
AVDD12_TVDPLL 157
AVDD12_HDMIPLL 155
AVDD12_APLL 163
AVDD12_SYSPLL 161
AVDD12_DMPLL 158
AVDD12_DTDPLL 156
AVDD12_PLL

U400H
SIFP 166
SIFN 168
TP203 1 169
TUNER_DATA 197
TUNER_CLK 196
AVDD25_SADC 165
AVSS25_SADC 167
RF_AGC 195
IF_AGC 194
TP206 1
R203 10K 1/10W
C212 47N 16V
Near chip
MT5380ACU

+5V_TUNER
R204 4K7 1/10W
R205 4K7 1/10W 5%
SCL R206 100R 1/10W 5%
SDA R207 100R 1/10W 5%
TUNER_CLK
TUNER_DATA
AGC R208 4K7 1/10W IF_AGC
C201 10N 50V

AV25 FB203 120R/500mA
C208 1uF/16V
AVDD25_SADC
C209 4.7UF 10V
AVSS25_SADC
C210 10N 50V
C211 100N 16V SMD/0402

AV12 FB202 120R/500mA
C203 100uF 16V
C204 1uF/16V
AVDD12_PLL
C205 4.7UF 10V
C206 10N 50V
C207 100N 16V SMD/0402

AV12 FB205 120R/500mA
AVDD12_USB
C217 4.7UF 10V
C218 100N 16V SMD/0402

AV33 FB206 120R/500mA
AVDD33_USB
C219 4.7UF 10V
C220 100N 16V

FB201 +5V_TUNER 120R/500mA
+5V_T
C213 100N 16V
C236 1000uF 10V
C214 1000uF 10V
FB204 120R/500mA
+5V_Vs
C215 100N 16V SMD/0402
C216 10uF/10V
Nearly Tuner

ALPS TUNER	507A	524A
C214	Y	N
C226	Y	N

ALPS Tuner
TU202 TDQU4-507A
TH1 20
TH2 21
NC or OOB 1
B1_+5V 2
GND or SIF O/P 3
GND or CVBS 4
RF_AGC (Mon) 5
NC or AFT 6
NC or IF_AGC(Mon) 7
NC or B2_Ana_+5V 8
TU_+32V 9
GND 10
GND 11
SCL 12
SDA 13
AS 14
B_IF O/P 15
D_IF_AGC 16
NC 17
D_IF_O/P_1 18
D_IF_O/P_2 19
TH3 22
TH4 23

Nearly Tuner
CVBS0T R219 0R05 1/10W 5%
R220 NC/47R 1/10W
C221 47P 50V
R222 0R05 1/10W 5%
R221 100R 1/10W 5%
C222 47N 50V
CVBS0
C223 1uF/16V
GND_TUNER

+5V_T
CVBS0T
SIF
R216 330R 1/10W 5%
C224 10N 16V SMD/0402
SIFP
R213 100K 1/10W
ADIN3
R215 2K2 1/10W
R214 220K 1/10W
C200 10N 50V
R217 0R05 1/10W
SIFN
C225 10N 16V
Nearly IC
Nearly Tuner
Nearly IC

SCL
SDA
AGC
C235 1N 50V SMD/0402
R224 200 OHM 1/16W SMD/0402
C229 33P 50V SMD/0402
L210 390nH
C227 1N 50V SMD/0402
VIN_ATV
C226 33P 50V
L209 330nH
C228 1N 50V SMD/0402
VIP_ATV
C234 1N 50V SMD/0402
R225 200 OHM 1/16W SMD/0402
C230 33P 50V SMD/0402
L211 390nH
Nearly IC

NC/BAV99 D231
+5V_SW
NC/BAV99 D232
USB_DP R231 NC/0R05 1/10W 5%
USB_DM R232 NC/0R05 1/10W 5%
USB_POWER
USB_D+
USB_D-
+5Vc
TH201
NC/8V 0R4
C231 NC/47uF 25V
CN231 NC/USB CONN A TYPE
USB 2.0 Reserve

USB_POWER
CONN
USB_D-
USB_D+
RC6
C232 NC/10N 50V
C233 NC/100N 50V
CN232
ITV Reserve

{11} VIP_ATV
{11} VIN_ATV
{6} ADIN3
{11} CVBS0
{11} GND_TUNER
{7} U0TX
{7} U0RX
{6,7} RC6

CN231 C8 CN232 D8
C200 D2 C201 C1
C202 A1 C203 A5
C204 A5 C205 A6
C206 A6 C207 A6
C208 A3 C209 A4
C210 A4 C211 A4
C212 B3 C213 B4
C214 B4 C215 C4
C216 C4 C217 A6
C218 A6 C219 B6
C220 B6 C221 C3
C222 C3 C223 D3
C224 D4 C225 D4
C226 E3 C227 E3
C228 E3 C229 E2
C230 E2 C231 C6
C232 D7 C233 D8
C234 E2 C235 E2
C236 B4 D231 C6
D232 C7 FB201 B4
FB202 A5 FB203 A3
FB204 B4 FB205 A5
FB206 B5 L209 E3
L210 E3 L211 E3
R202 A1 R203 B2
R204 B2 R205 B2
R206 B1 R207 C1
R208 C1 R213 D2
R214 D2 R215 D2
R216 D3 R217 D3
R219 C2 R220 C2
R221 C3 R222 D3
R224 E2 R225 E2
R231 C6 R232 C6
TH201 C6 TP201 A2
TP202 A2 TP203 B1
TP206 B2 TU202 C1
U400D A2 U400H A1

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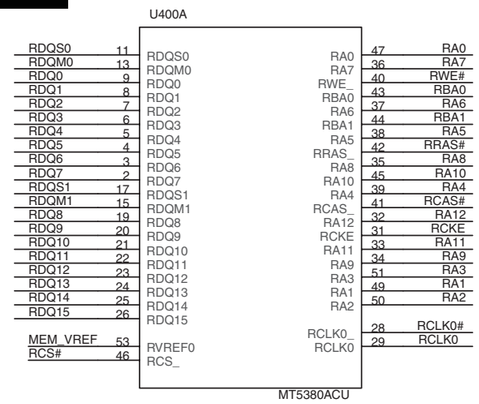
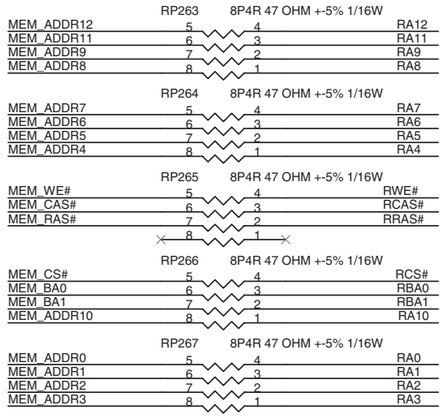
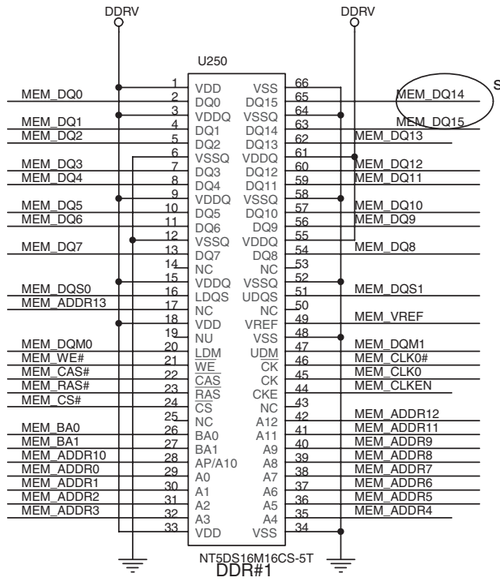
Scaler Board: DDR1 Memory

SB04 SCALER BOARD: DDR1 MEMORY

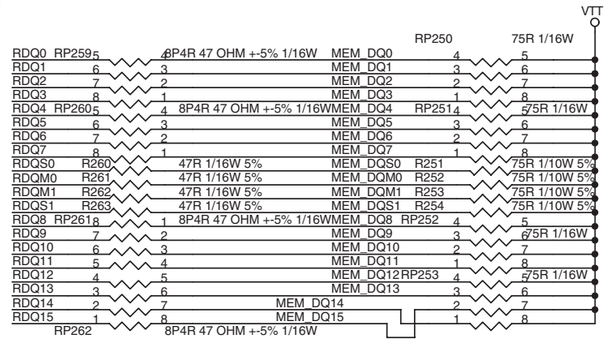
SB04

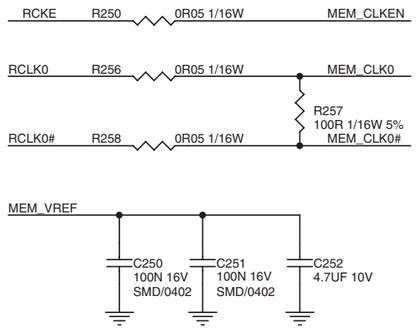


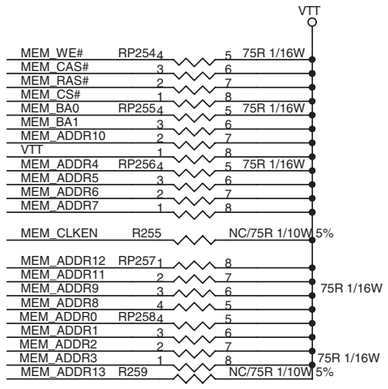


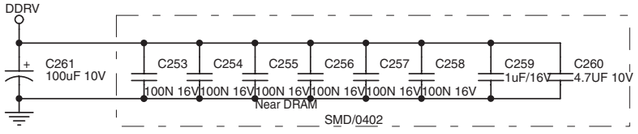


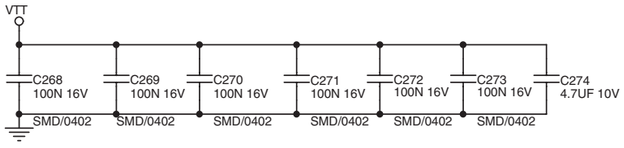
swap for layout

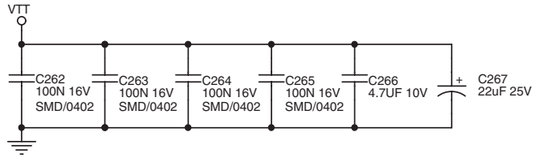


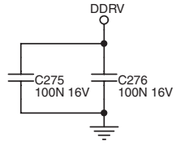












C250	D4	C251	D5
C252	D5	C253	D1
C254	D1	C255	D2
C256	D2	C257	D2
C258	D2	C259	D3
C260	D3	C261	D1
C262	E4	C263	E4
C264	E5	C265	E5
C266	E5	C267	E6
C268	E1	C269	E1
C270	E1	C271	E2
C272	E2	C273	E2
C274	E3	C275	D7
C276	D7	RP250	A8
RP251	A8	RP252	B8
RP253	B8	RP254	C7
RP255	C7	RP256	C7
RP257	C7	RP258	D7
RP259	A6	RP260	A6
RP261	B6	RP262	B6
RP263	B3	RP264	C3
RP265	C3	RP266	C3
RP267	C3	R250	C5
R251	B8	R252	B8
R253	B8	R254	B8
R255	C7	R256	C5
R257	C5	R258	C5
R259	D7	R260	B6
R261	B6	R262	B6
R263	B6	U250	A5

{2} MEM_VREF
{2,7} DDRV
{2} VTT
MEM_VREF
DDRV
VTT

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Scaler Board: MT5380 Peripheral

SB05 SCALER BOARD: MT5380PERIPHERAL

SB05

U400B

OSDA0 206 OSCL0 207 OSDA1 63 OSCL1 62 OPWM0 193 OPWM1 204 OPWM2 205 TP303 1 148 OXTALO 145 OXTALI 146 AVCC_SRV 149 AVDD33_XTAL 147

KEY_UP_DN 154 ADIN3 153 KEY_MENU_L_R 152 DVDKEY_ADC 151 PWRDET 150

AVDD33_REG 88 87 ORESET# 71 OPWRSB 72

OSDA0 OSCL0 OSDA1 OSCL1 OPWM0 OPWM1 OPWM2 VCXO XTALO XTALI AVDD33_SRV AVDD33_XTAL ADIN4 ADIN3 ADIN2 ADIN1 ADIN0 AVDD33_REG C_XREG ORESET_ OPWRSB

GPIO_0 245 GPIO_1 246 GPIO_3 209 GPIO_4 210 MUTE_ACT 211 SPDIF_SW 59 GPIO_7 60 212 GPIO_9 213 HEADPHONE MUTE 214 216 U2RX 217 U2TX 218

GPIO_0 GPIO_1 GPIO_3 GPIO_4 GPIO_5 GPIO_6 GPIO_7 GPIO_8 GPIO_9 GPIO_10 GPIO_11 GPIO_12 GPIO_13

OPCTRL0 OPCTRL1 OPCTRL2 OPCTRL3 OPCTRL4 OPCTRL5

92 OPCTRL0 CEC 91 DC_SWITCH 76 OPCTRL2 INVERTER_ON_OFF 75 MUTE_CTL 90 OPCTRL4 DVD_LED DVD_LED 89 OPCTRL5 LED_G

MT5380ACU

DV33 R301 390R 1/10W R305 NC/2K7 1/10W

+3V3SB R333 NC/150R 1/10W 1% R310 1? 1/10W 5% C301 4.7UF 10V R334 NC/100R 1/10W 1% R307 10K 1/10W R317 47K 1/10W

DV33 R308 4K7 1/10W R309 4K7 1/10W

GPIO_0 R311 10K 1/10W R312 NC/10K 1/10W Q301 MMBT3904

OSCL0 R342 33R 1/10W OSDA0 R343 100R 1/10W 5% R344 100R 1/10W 5%

U302 NC/M24C16-MN6T

U301 M24C16-WBN6P

VCC WP SCL SDA A0 A1 A2 GND NC WC SCL SDA VSS

C303 100N 50V

IIC ADDRESS "A0"

NVM_WEN(GPIO_0):
write_enable: High
write_disable: Low

+3V3SB C302 100uF 10V R303 2K7 1/10W R302 1K 1/10W Q302 MMBT3904 ORESET# D301 BAS32L R304 2K7 1/10W

R306 NC/820K? 1/10W

X301 60MHZ OXTALI OXTALO C304 10P 50V C305 10P 50V L301 820nH C308 1N 25V

X301(9P)/L301 NEW COMPONENT

TO DVD KEY PAD

DV33 +3V3SB R337 4K7 1/10W R338 2K2 1/10W R335 100R 1/10W 1% DVDKEY_ADC DVD_LED LED_R R336 100R 1/10W 1% +5V_DVD C320 100N 50V C321 100N 50V C322 100N 50V CN303 63385 5P 2.0mm

Reserve

{8} OSDA1 {8} OSCL1 {4,7} RC6 {4} ADIN3 {14} OPCTRL2 {7} OPWM2 {14} OPWM1 {14} OPWM0 {8} CEC

OSDA1 OSCL1 RC6 ADIN3 OPCTRL2 OPWM2 OPWM1 OPWM0 CEC

{7} OPCTRL4 {7} OPCTRL5 {12} MUTE_ACT {12,13} MUTE_CTL

OPCTRL4 OPCTRL5 MUTE_ACT MUTE_CTL

{2,3} OPWRSB

OPWRSB

{8,9} GPIO_1 {3} GPIO_3 {13} GPIO_4 {12,13} MUTE_CTL

GPIO_1 GPIO_3 GPIO_4 MUTE_CTL

{8} GPIO_7 {15} SPDIF_SW {15} U2RX {15} U2TX {8} GPIO_9

GPIO_7 SPDIF_SW U2RX U2TX GPIO_9

+3V3SB FB301 120R/500mA AVCC_SRV C306 1uF/16V C307 100N 16V SMD/0402

+3V3SB FB302 120R/500mA AVDD33_REG C309 1uF/16V C310 100N 16V SMD/0402

+3V3SB FB304 120R/500mA AVDD33_XTAL C312 1uF/16V C313 100N 16V SMD/0402

+5Vc FB303 600R/200mA BLM18AG601SN1D

6 : DC_SWITCH
5 : +5Vc
4 : LED_R
3 : LED_G
2 : RC6
1 : GND

63386 6P 2.0MM

+3V3SB NC/4K7 1/10W R320 NC/4K7 1/10W R321 4K7 1/10W R322

DC_SWITCH R313 100R 1/10W DC_SWITCH_POWER_ON_OFF 6
LED_R R314 100R 1/10W LED_R 4
OPCTRL5 R315 100R 1/10W LED_G 3
RC6 R316 100R 1/10W 2
1

C315 10N 50V C316 100N 50V C317 100N 50V C323 100N 50V

CN301

TO IR BOARD

+3V3SB R331 4K7 1/10W R332 4K7 1/10W 63384 4P 2.0MM

POWER_ON_OFF
KEY_MENU_L_R R329 100R 1/10W
KEY_UP_DN R330 100R 1/10W

4 3 2 1

C318 100N 50V C319 100N 50V

CN302

TO KEY PAD BOARD

CN301	D4	C	N302	D6
CN303	C7	C	301	C1
C302	A4	C	303	B3
C304	A5	C	305	A6
C306	C7	C	307	C8
C308	B6	C	309	D7
C310	D8	C	312	E7
C313	E8	C	315	E2
C316	E2	C	317	E3
C318	E6	C	319	E6
C320	C5	C	321	C6
C322	C6	C	323	E3
D301	A4	F	B301	C7
FB302	D7	F	B303	D3
FB304	D7	L	301	A6
Q301	C2	Q	302	A5
R301	A1	R	302	A5
R303	A4	R	304	A4
R305	B1	R	306	A6
R307	C2	R	308	C2
R309	C2	R	310	B1
R311	C1	R	312	C1
R313	D2	R	314	E2
R315	E2	R	316	E2
R317	B1	R	320	D2
R321	D2	R	322	D2
R329	D5	R	330	D5
R331	D6	R	332	D6
R333	B1	R	334	B1
R335	C5	R	336	C5
R337	B5	R	338	B5
R342	C2	R	343	C2
R344	C2	T	P303	A2
U301	C3	U	302	B3
U400B	A2	X	301	A6

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Scaler Board: Flash / JTAG / UART

SB06 SCALER BOARD: FLASH/JTAG/UART

SB06

U400J

POCE0# 252 — POCE0_ — U0RX 95 — U0RX
POOE# 251 — POOE_ — U0TX 94 — U0TX
PDD0 250 — PDD0 — 93 — RC6
PDD1 249 — PDD1 — OIRI
JTMS 253 — JTMS
JTRST_ 1 — JTRST#
JTCK 256 — JTCK
JTDO 255 — JTDO
JTDI 254 — JTDI

MT5380ACU

U350
MX25L3205DMI-12G

DV33 — C350 100N 16V
DV33 — HOLD 1, VCC 2, NC 3, NC 4, NC 5, NC 6, CS 7, SO/SIO1 8
SCLK 16, SI/SIO0 15, NC 14, NC 13, NC 12, NC 11, GND 10, WP /ACC 9
POCE0# — PDD0 R352 0R05 1/10W
POOE# — PDD1 — GND — FRESET#
DV33 — R350 4K7 1/10W

{6,8} OSDA1 — OSDA1
{6,8} OSCL1 — OSCL1
{2,5} DDRV — DDRV
{13} AOBCK — AOBCK
{13} AOLRCK — AOLRCK
{6} OPCTRL5 — OPCTRL5
{6} OPWM2 — OPWM2
{4,6} RC6 — RC6
{6} OPCTRL4 — OPCTRL4
{4} U0TX — U0TX
{4} U0RX — U0RX

DV33
R353 10K 1/10W, R354 10K 1/10W, R355 10K 1/10W, R356 10K 1/10W
R357 1K 1/10W — TVTREF#1
JTRST# — JTDI — JTMS — JTCK
R363 — JTDO — 33R 1/10W
J350
JTAG_DBGRQ — JTAG_DBGACK
R365 10K 1/10W 5% — R366 10K 1/10W — R367 10K 1/10W
CN254-20DSMD NC/10x2 W/HOUSING

+3V3SB
R358 4K7 1/10W — R359 4K7 1/10W
U0TX — R361 100R 1/10W
U0RX — R364 100R 1/10W
CN351
FOR CODE DOWNLOAD AND DEBUGGING
63383 3P 2.0mm

DV33
R368 NC/4K7 1/10W — OPWM2 — R369 4K7 1/10W
R370 NC/4K7 1/10W — AOBCK — R371 4K7 1/10W
R372 4K7 1/10W — AOLRCK — R373 NC/4K7 1/10W

+3V3SB — R374 4K7 1/10W — OPCTRL4 — R375 NC/4K7 1/10W
OPCTRL5
R376 NC/4K7 1/10W — R377 4K7 1/10W

U400I

DV11
VCCK 14, 48, 57, 58, 61
DVDD10 70, 164, 215
VCCK 208, 247
VCC2IO 10, 12, 16, 18, 27, 30, 52, 54, 55, 56
DDRV
VCC3IO_3 64, 199, 248
DV33
TH1 257

MT5380ACU

DV33
C352 100N 16V, C353 100N 16V, C354 100N 16V SMD/0402, C355 4.7UF 10V, C356 1uF/16V
I / O BYPASS

DV11
C357 4.7UF 10V, C358 1uF/16V, C359 100N 16V, C360 100N 16V, C361 100N 16V, C362 100N 16V, C363 100N 16V, C364 100N 16V, C365 100N 16V, C366 100N 16V, C367 100N 16V
CORE BYPASS Near IC SMD/0402

DDRV
C368 4.7UF 10V, C369 1uF/16V, C370 100N 16V, C371 100N 16V, C372 100N 16V, C373 100N 16V, C374 100N 16V, C375 100N 16V, C376 100N 16V
DDR BYPASS Near IC SMD/0402

Trap Mode	OPWM2	AOBCK	AOLRCK
Normal mode	0	0	0
ICE mode	0	0	1

Trap Mode	OPCTRL5	OPCTRL4
Core Reset 3.3V	0	1

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Scaler Board: HDMI

SB07 SCALER BOARD: HDMI

SB07

U400K

RX0_CB 79 RX0_CB
RX0_C 80 RX0_C
RX0_0B 81 RX0_0B
RX0_0 82 RX0_0
RX0_1B 83 RX0_1B
RX0_1 84 RX0_1
RX0_2B 85 RX0_2B
RX0_2 86 RX0_2

EXT_RES 77 1 TP401
OPWR0_5V 73 OPWR0_5V
AVDD33_HDMI 78 AVDD33_H
AVDD12_CVCC 74 AVDD12_CVCC

MT5380ACU

+5V_SW
D402 BAS32L
HDMI_PLUGPWR0
HDMI_PLUGPWR0
C402 100N 50V
U401
R403 10K 1/10W
1 E0 VCC 8
2 E1 WC 7 HDMIDDCWP0
3 E2 SCL 6 HDMIDDCSCL_0
4 VSS SDA 5 HDMIDDCSDA_0
M24C02-WDW6P
R408 4K7 1/10W 5%
GPIO_1
Q402 MMBT3904

EDID_WEN(GPIO_1):
write_enable: High
write_disable: Low

+3V3SB
D401 BAS32L
HDMI_PLUGPWR0
C401 100N 50V
R402 27K 1/10W
CEC
ZD401 BZX384-C5V6
TP402 1
HDMIDDCSCL_0 R404 100R 1/10W
HDMIDDCSDA_0 R405 100R 1/10W
HDMI_PLUGPWR0
HDMI_PLUGPWR0 D403
BAS32L
OPWR0_5V
HDMI_PLUGPWR0
R406 1K 1/10W
R407 20K 1/10W
HDMICAB0
GPIO_7
Q403 MMBT3904
R410 100K 1/10W
R409 1K 1/10W
NC/BAS316 D404
NC/BAS316 D405
NC/BAS316 D406
NC/BAS316 D407
+5V_SW

CN401
CON-HDMI-V-19P

D2+ 1 D2+
2 D2 Shield
D2- 3 D2-
D1+ 4 D1+
5 D1 Shield
D1- 6 D1-
D0+ 7 D0+
8 D0 Shield
D0- 9 D0-
CK+ 10 CK+
11 CK Shield
CK- 12 CK-
13 CE Remote
14 NC
15 DDC CLK TH1 20
16 DDC DATA TH2 21
17 GND TH3 22
18 +5V TH4 23
19 HP DET TH5 24

HDMI_PLUGPWR0
R411 47K 1/10W
R412 47K 1/10W
R413 0R05 1/10W
HDMIDDCSDA_0 OSDA1
HDMIDDCSCL_0 R416 0R05 1/10W OSCL1

U402
RClamp0524P.TCT
RX0_2 10 D2+
RX0_2B 9 D2-
RX0_1 7 D1+
RX0_1B 6 D1-

U403
RClamp0524P.TCT
RX0_0 10 D0+
RX0_0B 9 D0-
RX0_C 7 CK+
RX0_CB 6 CK-

{6} OSDA1 OSDA1
{6} OSCL1 OSCL1
{6} CEC CEC

{6,9} GPIO_1 GPIO_1
{6} GPIO_7 GPIO_7

AV33 FB401 AVDD33_H
120R/500mA
C405 1uF/16V
C403 4.7UF 10V
C404 100N 16V SMD/0402

AV12 FB402 AVDD12_CVCC
120R/500mA
C406 1uF/16V
C408 4.7UF 10V
C407 100N 16V SMD/0402

CN401	A5	C	401	A4
C402	B1	C	403	B8
C404	B8	C	405	B7
C406	C7	C	407	C8
C408	C8	D	401	A3
D402	B1	D	403	B4
D404	C4	D	405	C4
D406	C4	D	407	C5
FB401	B7	F	B402	C7
Q402	C2	Q	403	C4
R402	A4	R	403	B2
R404	B4	R	405	B4
R406	B4	R	407	C3
R408	C2	R	409	C3
R410	C4	R	411	D2
R412	D3	R	413	D3
R416	D3	T	P401	A2
TP402	B4	U	400K	A1
U401	B1	U	402	C5
U403	D5	Z	D401	B4

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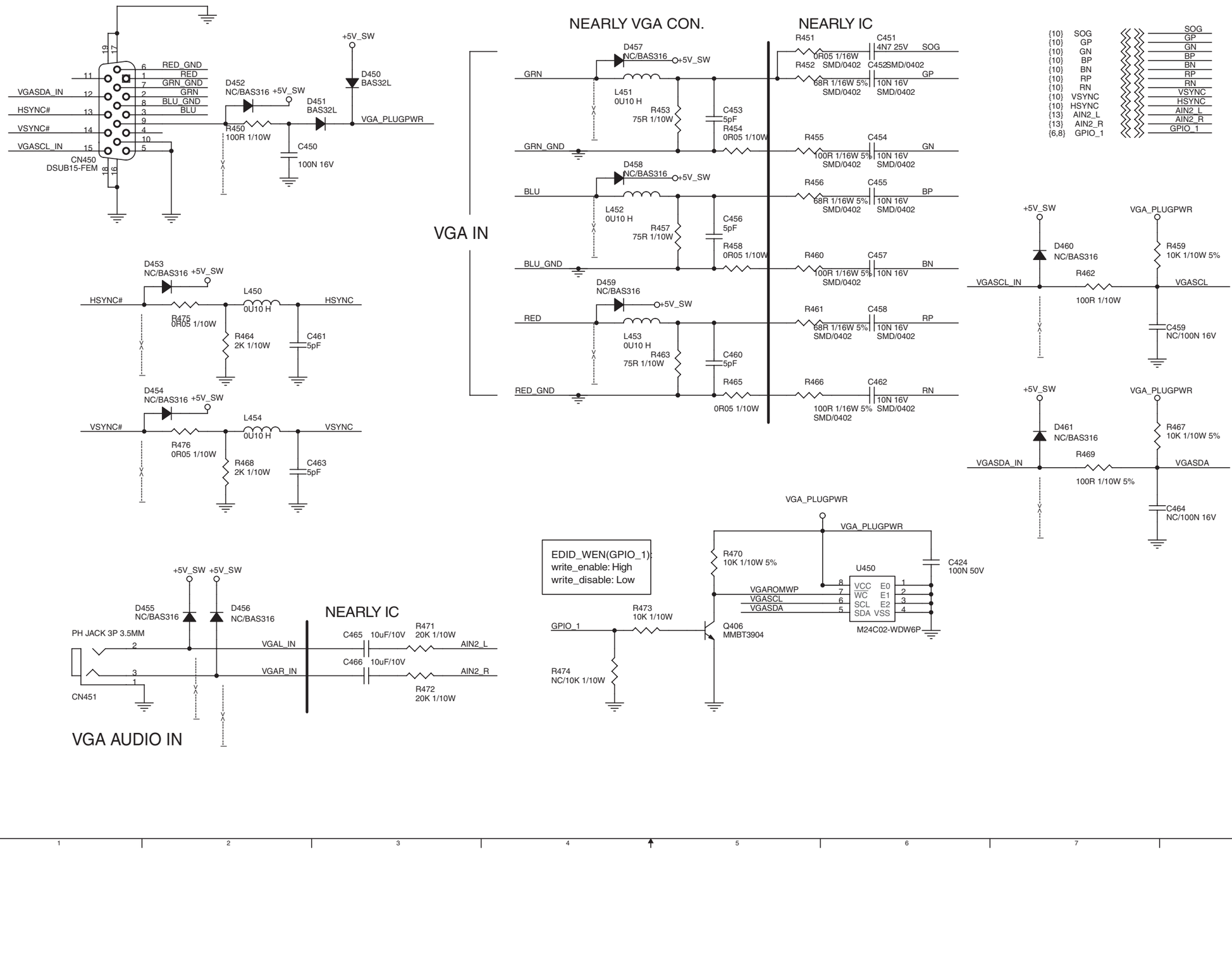
Scaler Board: VGA In / LR

SB08 SCALER BOARD: VGA IN/LR

SB08



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Scaler Board: YPbPr/L/R In

SB09 SCALER BOARD: YPBPR/L/R IN

SB09

U400E

SOY0	107	SOY0	DVDD12_VGA	117	DVDD12_VGA
Y0P	108	Y0P	AVSS12_RGBADC	113	AVSS12_RGBADC
Y0N	109	Y0N	AVDD12_RGBADC	110	AVDD12_RGBADC
PB0P	114	PB0P	AVSS12_RGBFE	105	AVSS12_RGBFE
PBR0N	115	PBR0N	AVDD12_RGBFE	101	AVDD12_RGBFE
PR0P	116	PR0P			
SOY1	118	SOY1	RP	104	RP
Y1P	119	Y1P	RN	106	RN
Y1N	120	Y1N	BP	98	BP
PB1P	121	PB1P	BN	99	BN
PBR1N	122	PBR1N	GP	102	GP
PR1P	123	PR1P	GN	103	GN
			VSYNC	96	VSYNC
TP509	1 112	TN1	HSYNC	97	HSYNC
TP510	1 111	TP1	SOG	100	SOG

MT5380ACU

AV12 FB501 120R/500mA AVDD12_RGBADC
C501 1uF/16V
C502 100N 16V
AVSS12_RGBADC

AV12 FB502 120R/500mA DVDD12_VGA
C503 1uF/16V
C504 100N 16V

AV12 FB503 120R/500mA AVDD12_RGBFE
C506 1uF/16V
C505 100N 16V
AVSS12_RGBFE

{9}	HSYNC	HSYNC
{9}	VSYNC	VSYNC
{9}	BP	BP
{9}	BN	BN
{9}	SOG	SOG
{9}	GP	GP
{9}	GN	GN
{9}	RP	RP
{9}	RN	RN
{13}	AIN1_L	AIN1_L
{13}	AIN1_R	AIN1_R

{15}	SOY1	SOY1
{15}	Y1P	Y1P
{15}	Y1N	Y1N
{15}	PB1P	PB1P
{15}	PBR1N	PBR1N
{15}	PR1P	PR1P
{15}	SPDIF	SPDIF

AV1 YPbPr INPUT

CN501
2 Y0_IN
1 Y_GND
4 PB0_IN
3 PB_GND
6 PR0_IN
5 PB_GND
JACK

AV1 AUDIO INPUT/SPDIF OUT

CN502
2 YPBPR0L_IN
1
4 YPBPR0R_IN
3
6 SPDIF_OUT
5
88T78-13-31N-GP

YPbPr INPUT

NEARLY YPBPR CONNECTOR

Y0_IN: D503 NC/BAS316, +5V_SW, L501 0U10 H, R501 75R 1/10W, C511 15P 50V, R506 0R05 1/10W, Y_GND
PB0_IN: D504 NC/BAS316, +5V_SW, L502 0U10 H, R511 75R 1/10W, C516 15P 50V, R512 0R05 1/10W, PB_GND
PR0_IN: L503 0U10 H, R514 75R 1/10W, C518 15P 50V, D505 NC/BAS316, +5V_SW

NEARLY MT5380

R504 0R05 1/16W SMD/0402 C509 4N7 25V SMD/0402 SOY0
R503 68R 1/16W 5% SMD/0402 C510 10N 16V SMD/0402 Y0P
R507 100R 1/16W 5% SMD/0402 C512 10N 16V SMD/0402 Y0N
R510 68R 1/16W 5% SMD/0402 C515 10N 16V SMD/0402 PB0P
R513 100R 1/16W 5% SMD/0402 C517 10N 16V SMD/0402 PBR0N
R515 68R 1/16W 5% SMD/0402 C519 10N 16V SMD/0402 PR0P

COAXIAL

SPDIF_OUT C513 100N 16V
C514 33P 50V
R509 NC/0R05 1/10W 5%
R508 0R05 1/10W 5% SPDIF

SPDIF OUTPUT

+5V_SW
D501 NC/BAS316
D502 NC/BAS316

NEARLY IC

YPBPR0L_IN C507 10uF/10V R502 20K 1/10W AIN1_L
YPBPR0R_IN C508 10uF/10V R503 20K 1/10W AIN1_R

AV1 AUDIO

The item of page is from "500" start

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Scaler Board: CVBS/L/R In

SB10 SCALER BOARD: CVBS/L/R IN

SB10

U400F

CVBS0 131 CVBS0
CVBS1 129 CVBS1
SY0 128 SY0
SC0 127 SC0
126 SY1
125 SC1
VIP_ATV 135 VIP_ATV
VIN_ATV 133 VIN_ATV
VINDC 134 VINDC
138 D2SA

DVDD25_VADC 141 DVDD25_VADC
DVSS25_VADC 142 DVSS25_VADC
GND_TUNER 132 GND_TUNER
GD_CVBS 130 GND_CVBS
GND_SV 124 GND_SV
AVDD25_VADC 143 AVDD25_VADC
AVSS25_VADC 144 AVSS25_VADC
AVDD25_REF 139 AVDD25_REF
AVSS25_REF 140 AVSS25_REF
AVDD25_VFE 137 AVDD25_VFE
AVSS25_VFE 136 AVSS25_VFE

MT5380ACU

C579 NC/47P 50V
C550 100N 16V SMD/0402 Near chip

AV25 FB550 120R/500mA AVDD25_VADC
C559 4.7UF 10V
C560 1uF/16V
C561 100N 16V SMD/0402 AVSS25_VADC

AV25 FB552 120R/500mA AVDD25_VFE
C570 1uF/16V
C571 100N 16V AVSS25_VFE

AV25 FB551 120R/500mA AVDD25_REF
C565 1uF/16V
C566 100N 16V SMD/0402 AVSS25_REF

AV25 FB553 120R/500mA DVDD25_VADC
C574 1uF/16V
C575 100N 16V SMD/0402 DVSS25_VADC

{13} AIN0_L — AIN0_L
{13} AIN0_R — AIN0_R

{4} VIP_ATV — VIP_ATV
{4} VIN_ATV — VIN_ATV
{4} CVBS0 — CVBS0
{4} GND_TUNER — GND_TUNER

CN550 B1 CN 551 D1
C550 B1 C552 D6
C553 D5 C554 D6
C555 D6 C556 E5
C559 A3 C560 A4
C561 A4 C562 B6
C563 B5 C564 B6
C565 B4 C566 B4
C570 A5 C571 A6
C574 B5 C575 B6
C576 C5 C577 C5
C578 C2 C579 A1
C580 D2 D550 B4
D551 B2 D552 C2
D553 C4 D554 D4
FB550 A3 FB 551 A3
FB552 A5 FB 553 A5
L550 D4 L551 D4
R550 B4 R553 B5
R554 B4 R555 B5
R556 D4 R557 D4
R558 D5 R559 D5
R560 D4 R561 E4
R562 D5 R563 C6
R564 C6 U4 00F A1

AV2 CVBS AUDIO INPUT

CN550 2 AV1_IN, 1, 4, 3, 6, 5
5105-875-212-A4

D551 NC/BAS316 +5V_SW
AV1L_IN
C578 NC/10N 50V

D552 NC/BAS316 +5V_SW
AV1R_IN
C580 NC/10N 50V

CVBS INPUT

D550 NC/BAS316 +5V_SW
AV1_IN
R550 27R 1/10W
R554 47R 1/10W
C563 47P 50V
R555 0R05 1/10W 5%

NEARLY AV CONNECTOR

NEARLY MT5380
R553 100R 1/16W 5% SMD/0402
C562 4N7 25V SMD/0402 CVBS1
C564 1U 10V GND_CVBS

AV2 AUDIO

NEARLY MT5380
AV1L_IN — C576 10uF/10V — R563 20K 1/10W — AIN0_L
AV1R_IN — C577 10uF/10V — R564 20K 1/10W — AIN0_R

S-VIDEO INPUT

CN551 1481-723-04S-61
AV3_SC_IN 8, 5 — 6 AV3_SY_IN, 3 — 1, 2, 4

S-Video

NEAR IO CONNECTOR

D553 NC/BAS316 +5V_SW
AV3_SY_IN
R556 27R 1/10W
L550 0U10 H
R557 47R 1/10W
C553 47P 50V

NEAR MT5380
R559 100R 1/16W 5% SMD/0402
C552 4N7 25V SMD/0402 SY0
R558 0R05 1/10W 5%
C554 1U 10V GND_SV

D554 NC/BAS316 +5V_SW
AV3_SC_IN
R560 27R 1/10W
L551 0U10 H
R561 47R 1/10W
C556 47P 50V

R562 100R 1/16W 5% SMD/0402
C555 4N7 25V SMD/0402 SC0

The item of page is from "550" start

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150208

Scaler Board: Audio Amplifier

SB11 SCALER BOARD: AUDIO AMP

SB11

*** PRINT "+/-" AND "R/L" IN PCB ***

Speaker L OUT

TP603 CN602 + WHITE - BLACK
L_OUT L_RETURN
69072 2P 2.5MM

Speaker R OUT

TP602 CN601 + RED - BLACK
R_RETURN R_OUT
63362 2P 2.0MM

{13} AR2 AR2
{13} AL2 AL2
{6} MUTE_ACT MUTE_ACT
{6,13} MUTE_CTL MUTE_CTL
{13} POWER_MUTE POWER_MUTE

+12V FB601 220R/2000mA VCC_AUDIO R601 10R 1/4W VCCA_AUDIO
C615 470uF 25V C617 100N 50V

ROUTE SYMMETRICALLY
AL2 R625 100R 1/16W 5% SMD/0402 C603 10N 50V R626 0R05 1/16W SMD/0402
R604 22K 1/10W 1% C606 1U 16V
R602 22K 1/10W 1% C608 1U 16V
R605 12K 1/10W 5% C607 330P 50V

30-->16

U601 TDA8932BTW

1	VSSD/HW	VSSD/HW	32
2	IN1P	OSCIO	31
3	IN1N	HVP1	30
4	DIAG	VDDP1	29
5	ENGAGE	BOOT1	28
6	POWER UP	OUT1	27
7	CGND	VSSP1	26
8	VDDA	STAB1	25
9	VSSA	STAB2	24
10	OSCREF	VSSP2	23
11	HVPREF	OUT2	22
12	INREF	BOOT2	21
13	TEST	VDDP2	20
14	IN2N	HVP2	19
15	IN2P	DREF	18
16	VSSD/HW	VSSD/HW	17
		TH+T 33	

D603 BAS32L
R603 10K 1/10W
Q601 BC847BW
C611 470N 16V
TP601
VCC_AUDIO
HVP1
C609 100N 16V
C610 100N 16V
R623 1M 1/10W 5%
L601 22uH 10%
L_OUT
C613 100N 50V
R609 10R 1/4W
C602 470P 50V
C612 15NF 25V
C614 680N 50V
C616 680uF 25V
L_RETURN
HVP1
R610 22R 1/4W
C601 100N 16V
VCCA_AUDIO
R613 39K 1/10W
C618 100N 16V
C619 47uF 25V
C621 100N 16V
C623 100N 16V
L602 22uH 10%
R_OUT
C620 15NF 25V
R624 1M 1/10W 5%
VCC_AUDIO
R614 10R 1/4W
C622 100N 50V
C624 680N 50V
C625 100N 16V
C626 470P 50V
R617 22R 1/4W
R_RETURN
HVP2
C627 680uF 25V
C633 100N 16V
HVP2
C631 100N 16V

+3V3SB
+5V_SW
R607 NC/10K 1/10W 5%
R608 20K 1/10W
MUTE_ACT
L:Sound Active
H:Sound Active
R611 4K7 1/10W 5%
R612 1K 1/10W
MUTE_CTL
R616 1K 1/10W 5%
POWER_MUTE

D601 BAS32L
R615 10K 1/10W
+12V
Q603 BC857BW
R619 1K 1/10W 5%
R618 NC/10K 1/10W
D602 BAS32L
C630 220UF/25V A.I

ROUTE SYMMETRICALLY
AR2 R627 100R 1/16W 5% SMD/0402 C604 10N 50V R628 0R05 1/16W SMD/0402
R620 22K 1/10W 1% C628 1U 16V
R622 22K 1/10W 1% C632 1U 16V
R621 12K 1/10W 5% C629 330P 50V

Fcut(H)=41.1KHz
Fcut(L)=40Hz

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150208

CN601 B6 CN602 A6
C601 D4 C602 D7
C603 B3 C604 E3
C606 B4 C607 B5
C608 B4 C609 C7
C610 C6 C611 C4
C612 C6 C613 C7
C614 C7 C615 A1
C616 C8 C617 A2
C618 D6 C619 D4
C620 D6 C621 D4
C622 D7 C623 D5
C624 D7 C625 D7
C626 D7 C627 D8
C628 D4 C629 E5
C630 D2 C631 D6
C632 E4 C633 D6
D601 D1 D602 D1
D603 C4 FB601 A1
L601 C7 L602 D7
Q601 C4 Q603 D2
R601 A2 R602 B4
R603 C4 R604 B4
R605 B4 R607 C3
R608 C4 R609 C7
R610 C7 R611 C3
R612 D3 R613 D4
R614 D7 R615 D2
R616 D3 R617 D7
R618 D2 R619 D1
R620 D4 R621 E4
R622 E4 R623 C6
R624 D6 R625 B3
R626 B3 R627 D3
R628 E3 TP601 C5
TP602 B6 TP603 A6

Scaler Board: Headphone

SB12 SCALER BOARD: HEADPHONE

SB12

U400G
MT5380ACU
AIN0_L 179
AIN0_R 178
AIN1_L 177
AIN1_R 176
AIN2_L 175
AIN2_R 174
DVDLIN 173
DVDRIN 172
AVDD33_AADC 171
AVSS33_AADC 183
VMID_AADC 181
REFP_AADC 182
REFN_AADC 180
ASPDIF 203
AOMCLK 200
AOLRCK 201
AOBCK 202
A0SDATA0 198
AL1 188
AR1 187
AL2 191
AR2 189
AVDD33_ADAC0 192
AVDD33_ADAC1 184
AVSS33_ADAC0 190
AVSS33_ADAC1 186
ADAC_VCM 185
AVDD33_DIG 170
TP650
TP651

AV33 FB650 120R/500mA AVDD33_AADC
C650 100uF 10V
C651 1uF/16V
C652 100N 16V
AVSS33_AADC

AV33 FB651 120R/500mA AVDD33_ADAC0
C653 1uF/16V
C654 100N 16V SMD/0402
AVSS33_ADAC0

AV33 FB653 120R/500mA REFP_AADC
C657 1uF/16V
C658 100N 16V SMD/0402
REFN_AADC

AV33 FB652 120R/500mA AVDD33_ADAC1
C655 1uF/16V
C656 100N 16V SMD/0402
AVSS33_ADAC1

VMID_AADC
C659 4.7UF 10V
C660 100N 16V SMD/0402

{11} AIN0_L → AIN0_L
{11} AIN0_R → AIN0_R
{10} AIN1_L → AIN1_L
{10} AIN1_R → AIN1_R
{9} AIN2_L → AIN2_L
{9} AIN2_R → AIN2_R
{12} AL2 → AL2
{12} AR2 → AR2
{15} ASPDIF → ASPDIF
{7} AOBCK → AOBCK
{7} AOLRCK → AOLRCK
{6} GPIO_4 → GPIO_4
{15} DVDLIN → DVDLIN
{15} DVDRIN → DVDRIN
{6,12} MUTE_CTL → MUTE_CTL
{12} POWER_MUTE → POWER_MUTE
{12} GPIO_9 → GPIO_9

GPIO_4 R669 0R05 1/10W HPDET#

ADAC_VCM
C680 10uF 50V
C681 100N 16V SMD/0402

AV33 FB654 120R/500mA AVDD33_DIG
C661 4.7UF 10V
C662 1uF/16V
C663 100N 16V
AVSS33_DIG

+5V_SW FB655 120R/500mA HP_OP
C666 220uF 16V
C668 100N 16V

C669 NC/820PF
R660 30K 1/10W
R654 20K 1/10W
R653 0R05 1/10W
C672 NC/150pF
C670 10uF 50V
C682 10uF 50V
R652 100R 1/16W 5% SMD/0402
AL1
C664 10N 50V
R650 10K 1/10W 5%
NEARLY MT5380C
C686 4U7 50V
C685 NC/10uF 50V
U650 LM4809MA
GND Bypass VIN1 VOUT1
Shutdown VIN2 VOUT2 VDD
C671 220uF 16V
R655 10R 1/10W 5%
R656 NC/10K 1/10W 5%
GPIO_9
R670 1K 1/10W
Q651 2SD2653K
HPOUTL

HP_OP
R651 100K 1/10W 5%
R662 1K 1/10W
POWER_MUTE
R658 1K 1/10W
MUTE_CTL
Q650 BC847BW
L:Sound Active

C673 NC/820PF
R665 0R05 1/10W
C676 NC/150pF
C675 220uF 16V
R664 10R 1/10W 5%
R667 NC/10K 1/10W 5%
R671 1K 1/10W
GPIO_9
Q652 2SD2653K
HPOUTR

R657 100R 1/16W 5% SMD/0402
AR1
C665 10N 50V
C683 10uF 50V
C674 10uF 50V
R666 10K 1/10W 5%
R663 20K 1/10W
R668 30K 1/10W
NEARLY MT5380C

Q651,Q652
New Component

+5V_SW +5V_SW
AV33
D650 NC/BAS316
D651 NC/BAS316
CN650
R659 4K7 1/10W 5%
HPOUTR
HPOUTL
HPDET#
C677 NC/10N 50V
C678 NC/47P 50V
C679 NC/47P 50V
R661 0R05 1/10W
2SJ1508-001111

HEADPHONE R/L OUTPUT

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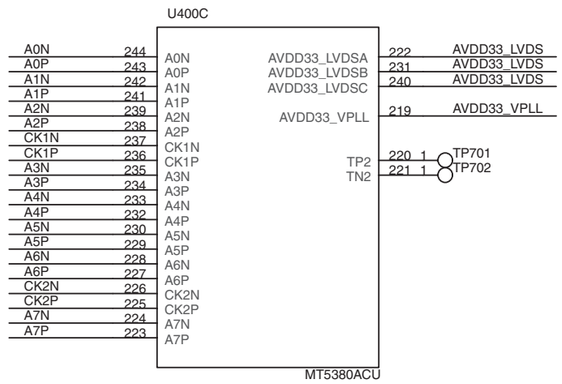
100308

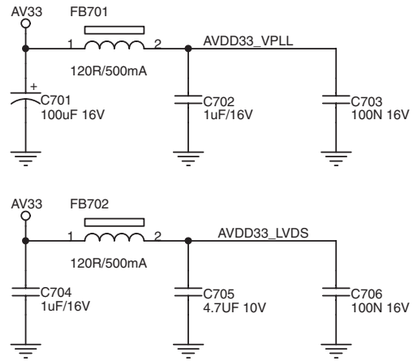
CN650 D8
C650 A4
C651 A4
C652 A5
C653 A6
C654 A6
C655 A6
C656 A6
C657 B4
C658 B5
C659 B6
C660 B6
C661 B4
C662 B5
C663 B5
C664 C2
C665 D2
C666 B2
C668 B2
C669 C3
C670 C3
C671 C4
C672 C4
C673 D3
C674 D3
C675 D4
C676 D4
C677 D7
C678 D7
C679 D7
C680 B3
C681 B3
C682 C2
C683 D2
C685 C4
C686 C3
D650 C7
D651 C7
FB650 A4
FB651 A5
FB652 A5
FB653 A4
FB654 B4
FB655 B1
Q650 D2
Q651 C6
Q652 D6
R650 C2
R651 D3
R652 C2
R653 C3
R654 C3
R655 C5
R656 C4
R657 D2
R658 D2
R659 C7
R660 C3
R661 D7
R662 D2
R663 D3
R664 D5
R665 D3
R666 D2
R667 D4
R668 D3
R669 B2
R670 C5
R671 D5
TP650 A3
U400G A1
U650 C4

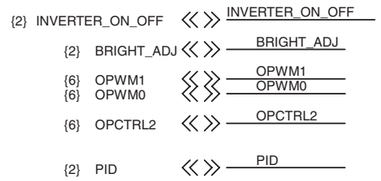
Scaler Board: LVDS Out

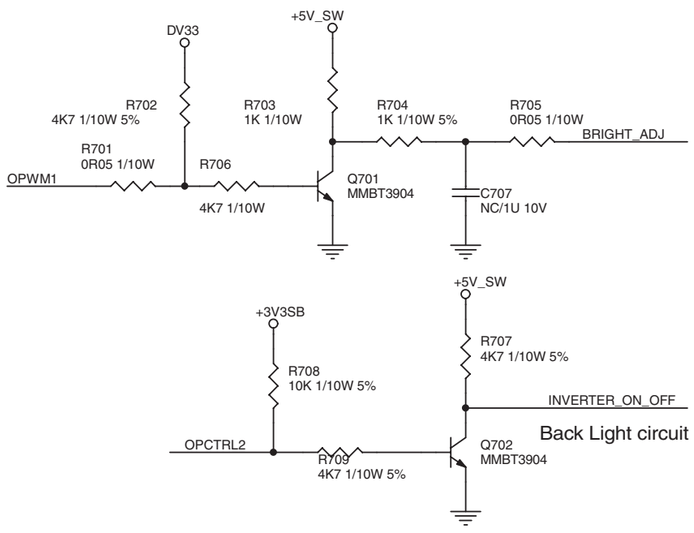
SB13 SCALER BOARD: LVDS OUT

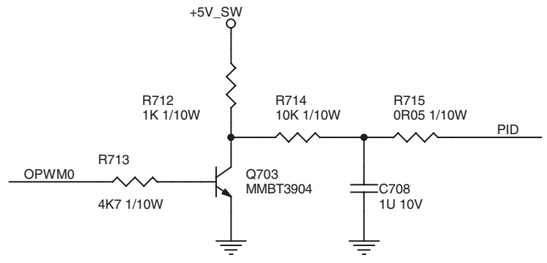
SB13

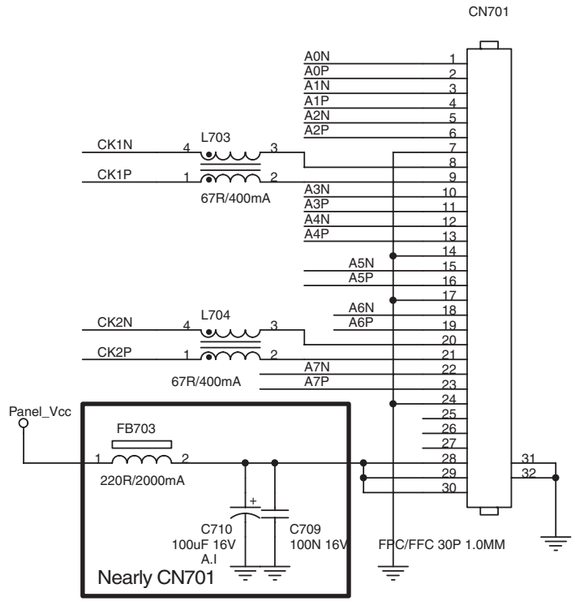












CN701 C7 C701 A3
C702 A4 C703 A4
C704 B3 C705 B4
C706 B4 C707 C2
C708 C5 C709 D6
C710 D6 FB701 A3
FB702 A3 FB703 D6
L703 C6 L704 D6
Q701 C2 Q702 D2
Q703 C4 R701 C1
R702 C1 R703 C2
R704 C2 R705 C2
R706 C1 R707 D2
R708 D2 R709 D2
R712 C4 R713 C4
R714 C4 R715 C5
TP701 A2 TP702 A2

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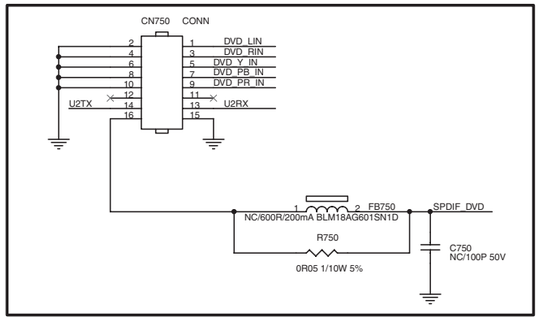
Scaler Board: DVD Interface

SB14 SCALER BOARD: DVD INTERFACE

SB14

FROM DVD AV & TX/RX

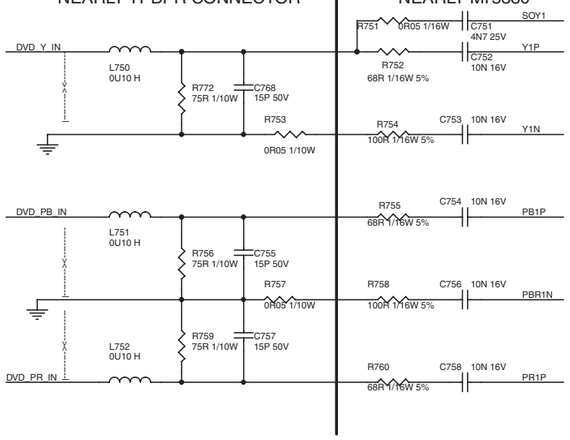


W/O DVD : R764,R765,R766 solder,Other item reserve
W/ DVD : R764 reserve,Other item solder

NEARLY YPBPR CONNECTOR

NEARLY MT5380

DVD_YPbPr



{10} SOY1 — SOY1
{10} Y1P — Y1P
{10} Y1N — Y1N
{10} PB1P — PB1P
{10} PBR1N — PBR1N
{10} PR1P — PR1P

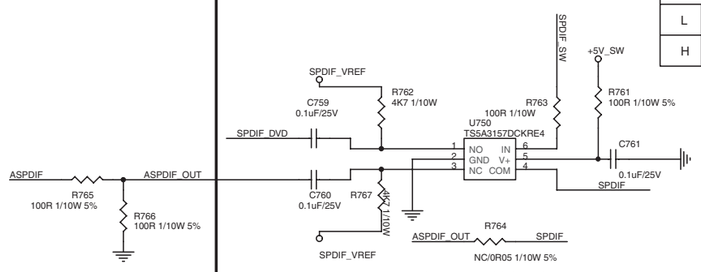
{13} ASPDIF — ASPDIF
{6} SPDIF_SW — SPDIF_SW
{10} SPDIF — SPDIF

{13} DVDRIN — DVDRIN
{13} DVDLIN — DVDLIN

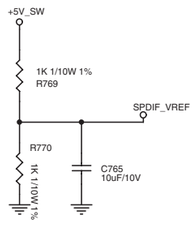
{6} U2TX — U2TX
{6} U2RX — U2RX

SPDIF_SW	
L	NC(TV)
H	NO(DVD)

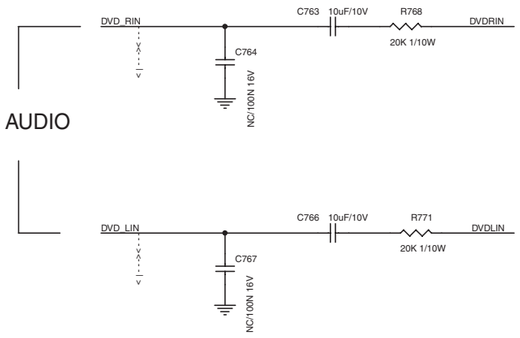
SPDIF_SW(GPIO_6):
TV: Low
DVD: High



SPDIF BYPASS SWITCH



DVD AUDIO



GPIO Definition	
GPIO_0	EEPROM Write Protect
GPIO_1	EDID Write Protect
GPIO_3	Panel_Vcc control
GPIO_4	Headphone Detect
GPIO_5	
GPIO_6	SPDIF SW
GPIO_7	HDMI HDP
GPIO_8	
GPIO_9	
GPIO_10	
GPIO_11	
GPIO_12	U2RX
GPIO_13	U2TX
OPCTRL0	CEC Function
OPCTRL1	DC_SWITCH
OPCTRL2	INVERTER_ON_OFF
OPCTRL3	MUTE CONTROL
OPCTRL4	DVD_LED
OPCTRL5	Trap LED_G
AIN1,2,4	Unused
OPWM0(GPIO 40)	KEYPAD
VCXO(GPIO 67)	Unused
RF_AGC(GPIO 62)	KEYPAD
AIN3_L(GPIO 74)	Unused
AIN3_R(GPIO 75)	Unused

CN750 B1
C750 C3
C751 A7
C752 A7
C753 B7
C754 B7
C755 B6
C756 C7
C757 C6
C758 C7
C759 D5
C760 E5
C761 D7
C763 F6
C764 F6
C765 G2
C766 G6
C767 G6
C768 B6
FB750 C2
L750 A6
L751 B6
L752 C6
R750 C2
R751 A7
R752 A7
R753 B6
R754 B7
R755 B7
R756 B6
R757 C6
R758 C7
R759 C6
R760 C7
R761 D6
R762 D5
R763 D6
R764 E6
R765 E4
R766 E4
R767 E5
R768 F7
R769 F2
R770 F2
R771 G7
R772 B6
U750 D6

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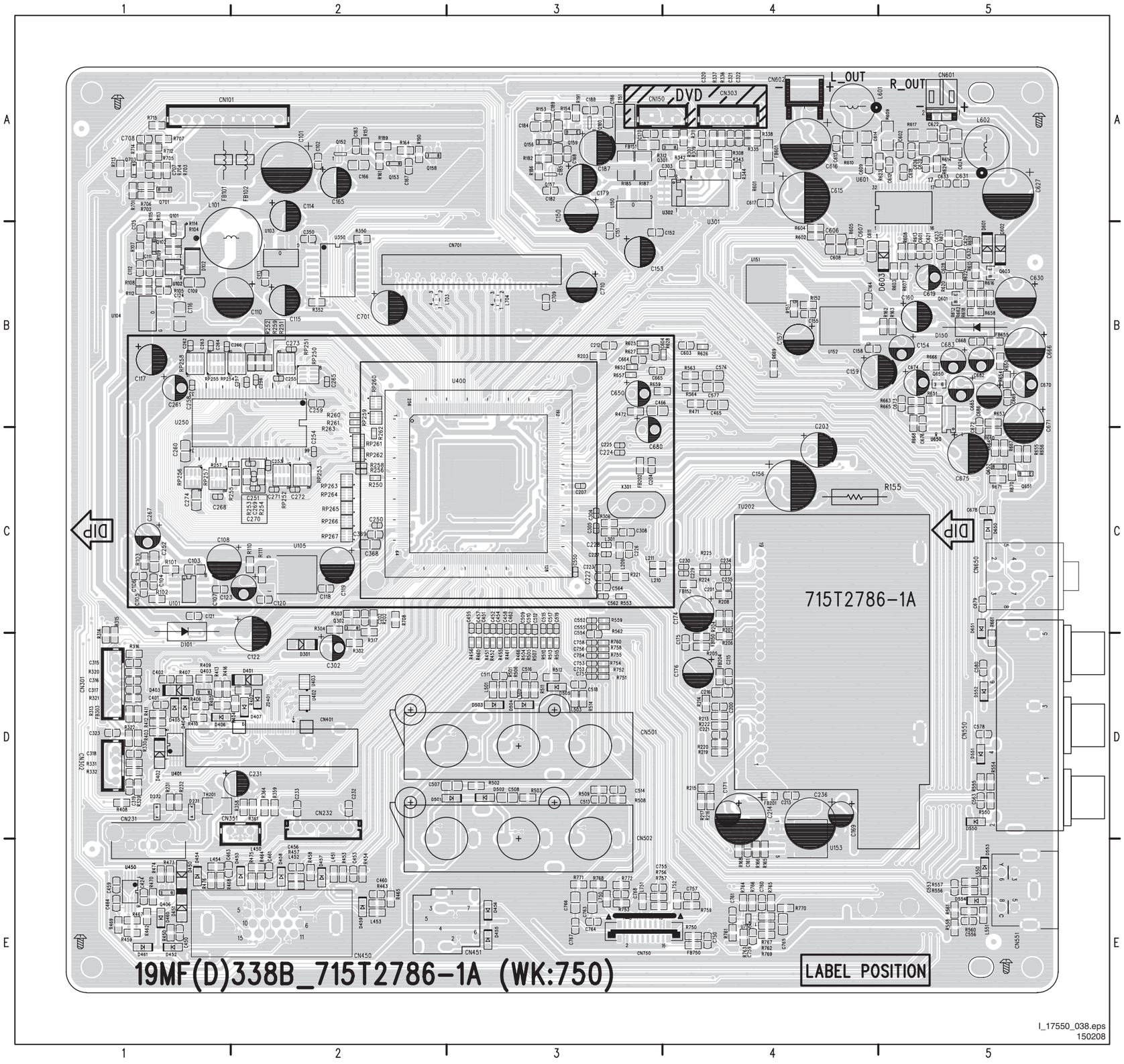
Layout Scaler Board (Top Side)



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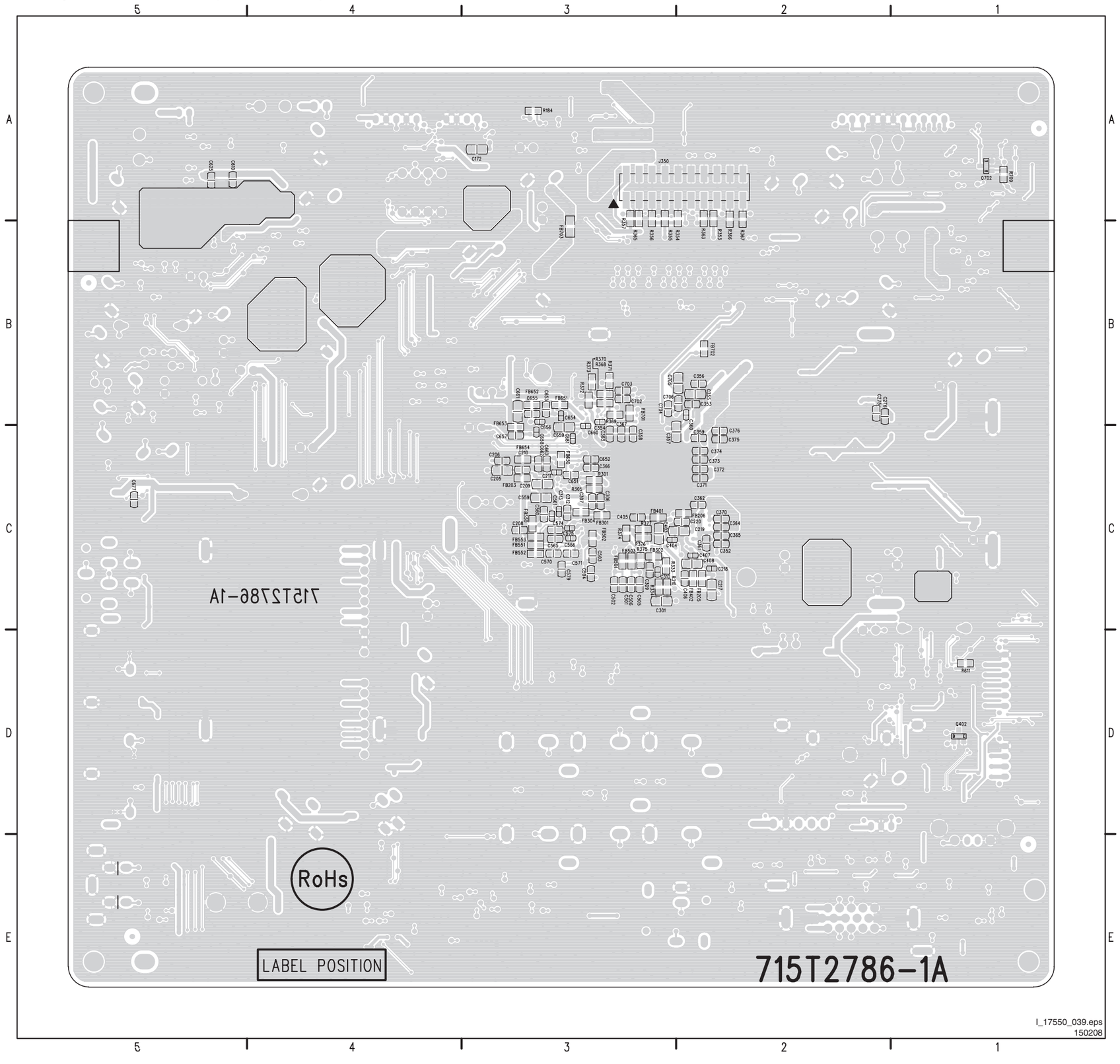
150208

C101	A2	C264	B2	C628	A5	D505	D3	R190	A3	R465	E2	R714	A1
C102	A2	C265	B2	C629	A5	D550	D5	R191	A3	R466	C3	R715	A1
C103	C1	C266	B2	C630	A5	D551	D5	R202	C2	R467	E1	R750	E4
C104	C1	C267	C1	C631	A5	D552	D5	R203	B3	R468	E2	R751	D3
C105	C1	C268	C2	C632	A5	D553	E5	R204	C4	R469	E1	R752	C3
C106	C1	C269	B2	C633	A5	D554	E5	R205	C4	R470	E1	R753	E4
C107	C2	C270	B2	C650	B4	D601	A5	R206	C4	R471	B4	R754	C3
C108	C2	C271	C2	C664	B4	D602	A5	R207	C4	R472	B4	R755	C3
C109	A1	C272	C2	C665	B4	D603	A5	R208	C4	R473	E1	R756	E4
C110	A2	C273	B2	C666	B5	D650	C5	R213	D4	R474	E1	R757	E4
C111	A1	C274	C1	C668	B5	D651	C5	R214	D4	R475	E2	R758	C3
C112	A1	C302	C2	C669	B5	F151	A4	R215	D4	R476	E1	R759	E4
C113	A2	C303	A4	C670	B5	FB101	A2	R216	D4	R501	D3	R760	C3
C114	A2	C304	C3	C671	B5	FB102	A2	R217	D4	R502	D3	R761	E4
C115	A2	C305	C3	C672	B5	FB150	C4	R219	D4	R503	D3	R762	E4
C116	B1	C308	C4	C673	B5	FB151	A4	R220	D4	R504	C3	R763	E4
C117	B1	C315	C1	C674	B5	FB152	C4	R221	C4	R505	C3	R764	E4
C118	C2	C316	D1	C675	B5	FB201	D4	R222	D4	R506	D3	R765	E4
C119	C2	C317	D1	C676	B5	FB202	B4	R224	C4	R507	C3	R766	E4
C120	C2	C318	D1	C678	C5	FB204	D4	R225	C4	R508	D4	R767	E4
C121	C1	C319	D1	C679	C5	FB303	D1	R231	D1	R509	D3	R768	E3
C122	C2	C320	A4	C680	B4	FB601	A4	R232	D1	R510	C3	R769	E4
C123	C2	C321	A4	C682	B5	FB655	B5	R250	B2	R511	D3	R770	E4
C124	A1	C322	A4	C683	B5	FB750	E4	R251	B2	R512	D3	R771	E3
C125	A1	C323	D1	C685	B5	L101	A2	R252	B2	R513	C3	R772	E4
C150	A3	C350	A2	C686	B5	L209	C4	R253	B2	R514	D3	RP250	B2
C151	A3	C368	C2	C701	B2	L210	C4	R254	B2	R515	C3	RP251	B2
C152	A4	C369	C2	C707	A1	L211	C4	R255	B2	R550	D5	RP252	B2
C153	A4	C401	D1	C708	A1	L301	C3	R256	B2	R553	C4	RP253	B2
C154	B5	C402	D1	C709	A3	L450	E2	R257	B2	R554	D5	RP254	B2
C155	B4	C424	E1	C710	A3	L451	E2	R258	B2	R555	D5	RP255	B2
C156	B4	C450	E1	C750	E4	L452	E2	R259	B2	R556	E5	RP256	B1
C157	B4	C451	C3	C751	D3	L453	E2	R260	B2	R557	E5	RP257	B2
C158	B5	C452	C3	C752	C3	L454	E2	R261	B2	R558	E5	RP258	B1
C159	B5	C453	E2	C753	C3	L501	D3	R262	B2	R559	C3	RP259	B2
C160	B5	C454	C3	C754	C3	L502	D3	R263	B2	R560	E5	RP260	B2
C161	D4	C455	C3	C755	E4	L503	D3	R302	C2	R561	E5	RP261	B2
C163	A2	C456	E2	C756	C3	L550	E5	R303	C2	R562	C3	RP262	B2
C164	A5	C457	C3	C757	E4	L551	E5	R304	C2	R563	B4	RP263	B2
C165	A2	C458	C3	C758	C3	L601	A5	R306	C3	R564	B4	RP264	C2
C166	A2	C459	E1	C759	E4	L602	A5	R307	A4	R601	A4	RP265	C2
C167	A2	C460	E2	C760	E4	L703	A3	R308	A4	R602	A5	RP266	C2
C168	A3	C461	E2	C761	E4	L704	A3	R309	A4	R603	A5	RP267	C2
C169	D5	C462	C3	C763	E3	L750	E3	R311	A4	R604	A5	TH201	D2
C170	A4	C463	E2	C764	E3	L751	E4	R312	A4	R605	A5	TU202	D5
C171	D4	C464	E1	C765	E4	L752	E4	R313	D1	R607	A5	U101	C1
C174	C4	C465	B4	C766	E3	Q101	A1	R314	C1	R608	A5	U102	A1
C175	C4	C466	B4	C767	E3	Q102	A1	R315	C1	R609	A5	U103	A2
C176	C4	C507	D3	C768	E4	Q152	A2	R316	C1	R610	A5	U104	B1
C179	A3	C508	D3	CN101	A2	Q153	A2	R317	C2	R612	A5	U105	C2
C182	A3	C509	C3	CN150	A4	Q156	A3	R320	C1	R613	A5	U150	A4
C184	A3	C510	C3	CN231	D1	Q157	A3	R321	D1	R614	A5	U151	A4
C185	A3	C511	D3	CN232	D2	Q158	A3	R322	D1	R615	A5	U152	B5
C186	A3	C512	C3	CN301	D1	Q159	A3	R329	D1	R616	A5	U153	D4
C187	A3	C513	D3	CN302	D1	Q160	A3	R330	D1	R617	A5	U250	B2
C188	A3	C514	D4	CN303	A4	Q301	A4	R331	D1	R618	A5	U301	A4
C189	A3	C515	C3	CN351	D2	Q302	C2	R332	D1	R619	A5	U302	A4
C200	D4	C516	D3	CN401	D2	Q403	D1	R335	A4	R620	A5	U350	A2
C201	C4	C517	C3	CN450	E2	Q406	E1	R336	A4	R621	A5	U400	B3
C202	C2	C518	D3	CN451	E3	Q601	A5	R337	A4	R622	A5	U401	D1
C203	B5	C519	C3	CN501	D3	Q603	A5	R338	A4	R623	A5	U402	D2
C204	B4	C550	C3	CN502	D3	Q650	B5	R342	A4	R624	A5	U403	D2
C207	B3	C552	C3	CN550	D5	Q651	B5	R343	A4	R625	B4	U450	E1
C212	B3	C553	E5	CN551	E5	Q652	B5	R344	A4	R626	B4	U601	A5
C213	D4	C554	C3	CN601	A5	Q701	A1	R350	A2	R627	B4	U650	B5
C214	D4	C555	C3	CN602	A4	Q703	A1	R352	A2	R628	B4	U750	E4
C215	D4	C556	E5	CN650	C5	R101	C1	R358	D2	R650	B5	X301	C4
C216	D4	C562	C3	CN701	A3	R102	C1	R359	D2	R651	B5	ZD401	D2
C221	D4	C563	D5	CN750	E4	R103	C1	R361	D2	R652	B4		
C222	C3	C564	C3	D101	C1	R104	A1	R364	D2	R653	B5		
C223	C3	C576	B4	D102	A1	R105	A1	R402	D2	R654	B5		
C224	B4	C577	B4	D150	B5	R107	A1	R403	D1	R655	B5		
C225	B4	C578	D5	D231	D1	R108	A1	R404	D2	R656	B5		
C226	C4	C580	C5	D232	D1	R109	A1	R405	D2	R657	B4		
C227	C3	C601	A5	D301	C2	R110	C2	R406	D1	R658	B5		
C228	C3	C602	A5	D401	D2	R111	C2	R407	D1	R659	B4		
C229	C4	C603	B4	D402	D1	R112	A1	R408	D1	R660	B5		
C230	C4	C604	B4	D403	D1	R113	A1	R409	D1	R661	C5		
C231	D2	C606	A5	D404	D1	R114	A1	R410	D1	R662	A5		
C232	D2	C607	A5	D405	D1	R115	A1	R411	D1	R663	B5		
C233	D2	C608	A5	D406	D2	R151	B4	R412	D1	R664	B5		
C234	C4	C609	A5	D407	D2	R152	B4	R413	D2	R665	B5		
C235	C4	C611	A5	D450	E1	R153	A3	R416	D2	R666	B5		
C236	D5	C612	A5	D451	E1	R154	A3	R450	E1	R667	B5		
C250	C2	C613	A5	D452	E1	R155	C5	R451	C3	R668	B5		
C251	B2	C614	A5	D453	E2	R157	A2	R452	C3	R669	B4		
C252	C1	C615	A4	D454	E1	R161	A2	R453	E2	R670	B5		
C253	B2	C616	A4	D455	E3	R162	B5	R454	E2	R671	B5		
C254	B2	C617	A4	D456	E3	R163	B5	R455	C3	R701	A1		
C255	B2	C618	A5	D457	E2	R164	A2	R456	C3	R702	A1		
C256	B2	C619	A5	D458	E2	R165	D4	R457	E2	R703	A1		
C257	B2	C620	A5	D459	E2	R166	D4	R458	E2	R704	A1		
C258	B1	C621	A5	D460	E1	R168	D4	R459	E1	R705	A1		
C259	B2	C622	A5	D461	E1	R182	A3	R460	C3	R706	A1		
C260	B1	C623	A5	D501	D3	R185	A4	R461	C3	R707	A1		
C261	B1	C624	A5	D502	D3	R186	A3	R462	E1	R708	C2		
C262	B1	C626	A5	D503	D3	R187	A4	R463	E2	R712	A1		
C263	B1	C627	A5	D504	D3	R189	A2	R464	E2	R713	A1		

Layout Scaler Board (Bottom Side)

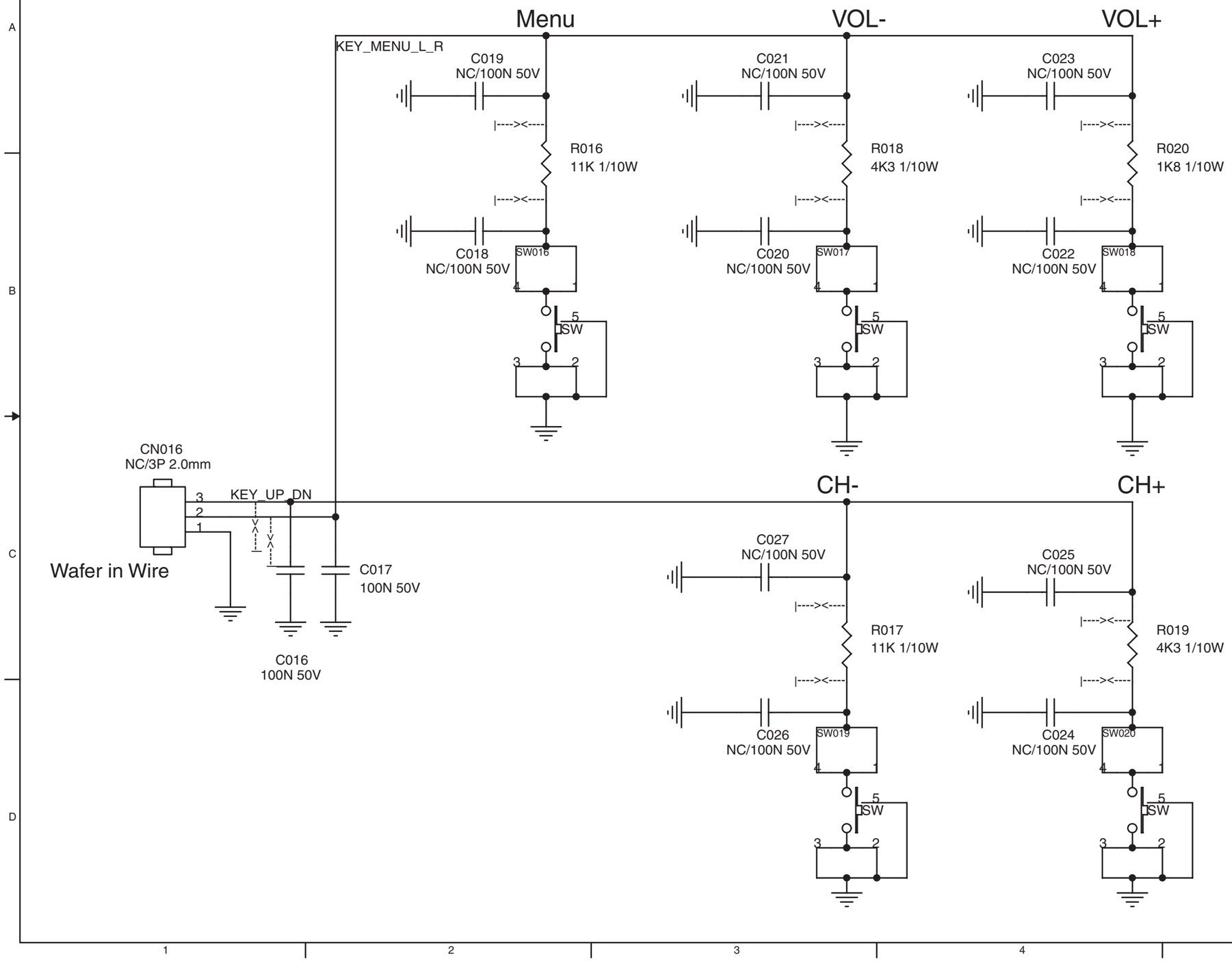


C172	A4	FB550	C3	C575	C3
C205	B4	FB551	C3	C579	C3
C206	B4	FB552	C3	C610	A5
C208	C3	FB553	C3	C625	A5
C209	B3	FB650	B3	C651	B3
C210	B3	FB651	B3	C652	B3
C211	B3	FB652	B3	C653	B3
C217	C2	FB653	B3	C654	B3
C218	C2	FB654	B3	C655	B3
C219	C3	FB701	B3	C656	B3
C220	C3	FB702	B3	C657	B3
C275	B2	FB703	A3	C658	B3
C276	B2	J350	A3	C659	B3
C301	C3	Q402	D1	C660	B3
C306	C3	Q702	A1	C661	B3
C307	C3	R184	A3	C662	B3
C309	C3	R301	B3	C663	B3
C310	C3	R305	C3	C677	C5
C312	C3	R310	C3	C681	B3
C313	C3	R333	C3	C702	B3
C352	C2	R334	C3	C703	B3
C353	B3	R353	A2	C704	B3
C354	B3	R354	A3	C705	B3
C355	B3	R355	A3	C706	B3
C356	B3	R356	A3	FB203	B3
C357	B3	R357	A3	FB205	C3
C358	B3	R363	A3	FB206	C3
C359	B3	R365	A3	FB301	C3
C360	B3	R366	A2	FB302	C3
C361	C3	R367	A2	FB304	C3
C362	C3	R368	B3	FB401	C3
C363	B3	R369	B3	FB402	C3
C364	C2	R370	B3	FB501	C3
C365	C2	R371	B3	FB502	C3
C366	B3	R372	B3	FB503	C3
C367	B3	R373	B3		
C370	C2	R374	C3		
C371	B3	R375	C3		
C372	B3	R376	C3		
C373	B3	R377	C3		
C374	B3	R611	C1		
C375	B2	R709	A1		
C376	B2				
C403	C3				
C404	C3				
C405	C3				
C406	C3				
C407	C3				
C408	C3				
C501	C3				
C502	C3				
C503	C3				
C504	C3				
C505	C3				
C506	C3				
C559	C3				
C560	C3				
C561	C3				
C565	C3				
C566	C3				
C570	C3				
C571	C3				
C574	C3				

Keyboard & Control Panel

KB01 KEYBOARD & CONTROL PANEL

KB01



CN016 B1
C016 C1
C017 C2
C018 A2
C019 A2
C020 A3
C021 A3
C022 A4
C023 A4
C024 C4
C025 C4
C026 C3
C027 C3
R016 A2
R017 C3
R018 A3
R019 C4
R020 A4
SW016 B2
SW017 B3
SW018 B4
SW019 C3
SW020 C4

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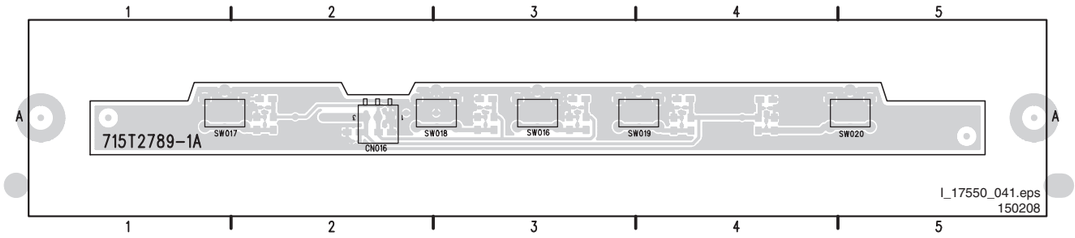
150208

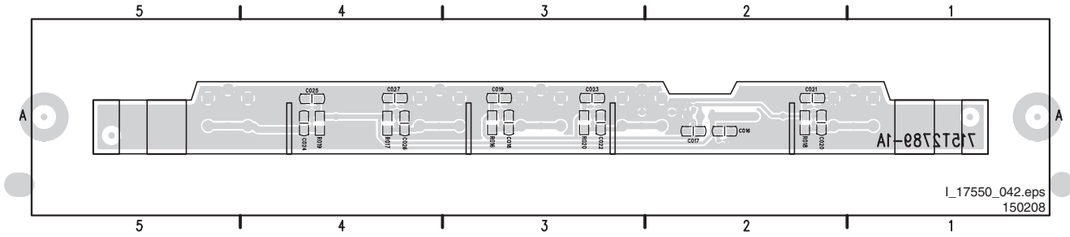
Layout Keyboard & Control Panel (Top Side)

CN016 A2 SW016 A3 SW017 A2 SW018 A3 SW019 A4 SW020 A5



Layout Keyboard & Control Panel (Bottom Side)

C016 A2
C017 A2
C018 A4
C019 A4
C020 A2
C021 A2
C022 A3
C023 A3
C024 A5
C025 A5
C026 A4
C027 A4
R016 A4
R017 A4
R018 A2
R019 A5
R020 A3



Personal Notes:

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131004

IR & LED Panel

IB01 IR & LED PANEL

IB01

CN001 B1
C001 D4
C002 D4
C003 C2
C004 C3
C005 C2
LED001 B5
Q001 B5
R001 A5
R002 B5
R003 C4
R004 C4
SW001 A3
U001 C5
ZD001 C5
ZD002 C5

MAGNAVOX LED state		
NET / state	LED_G	LED_R
Power on(Green)	High	
Standby(blank)	LOW	
Pause Blank	LOW	
LED Green Flash Fuction use LED_G pin control		

POWER

SW
SW001

SPARK GAP CLOSE TO SW001

+5V_STB

R001
150R 1/10W 1%

LED001
KPTR-3216CGCK

R002
2K2 1/10W

Q001
BC847C

63366 6P 2.0MM

CN001

CAP&SPARK GAP CLOSE TO CN001

POWER_ON/OFF

LED_G
RC6

C005
100N 50V

C003
10N 50V

C004
10N 50V

NC/BAV99
ZD001

NC/BAV99
ZD002

R003
10K 1/10W

R004
100R 1/10W

C002
10N 50V

C001
1U 10V

U001
TSOP34136SB1

IR Holder => *P1 1T0012**1

VS
OUT
GND

SPARK GAP CLOSE TO U001

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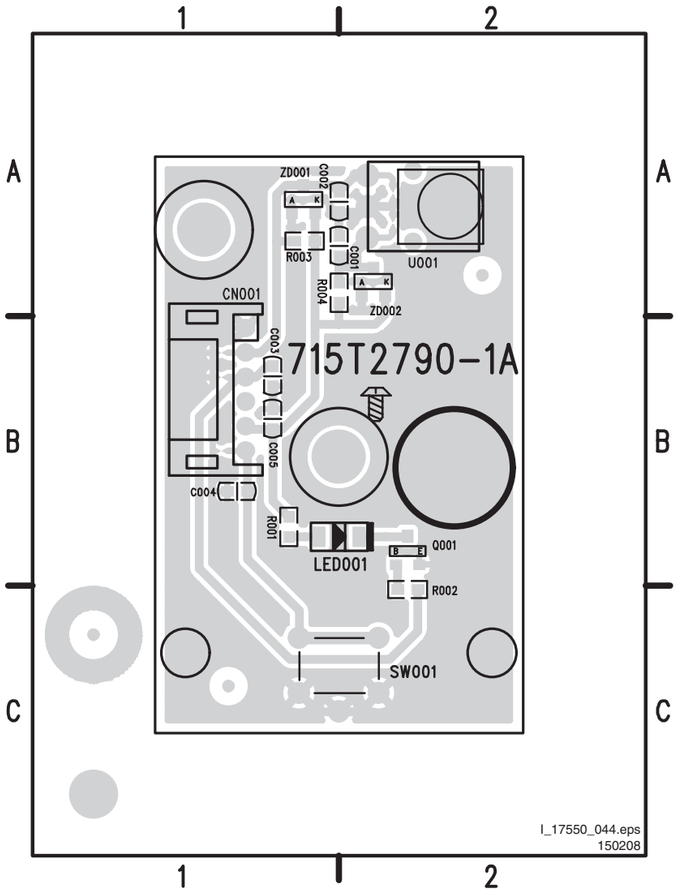
150208

Layout IR & LED Panel (Top Side)

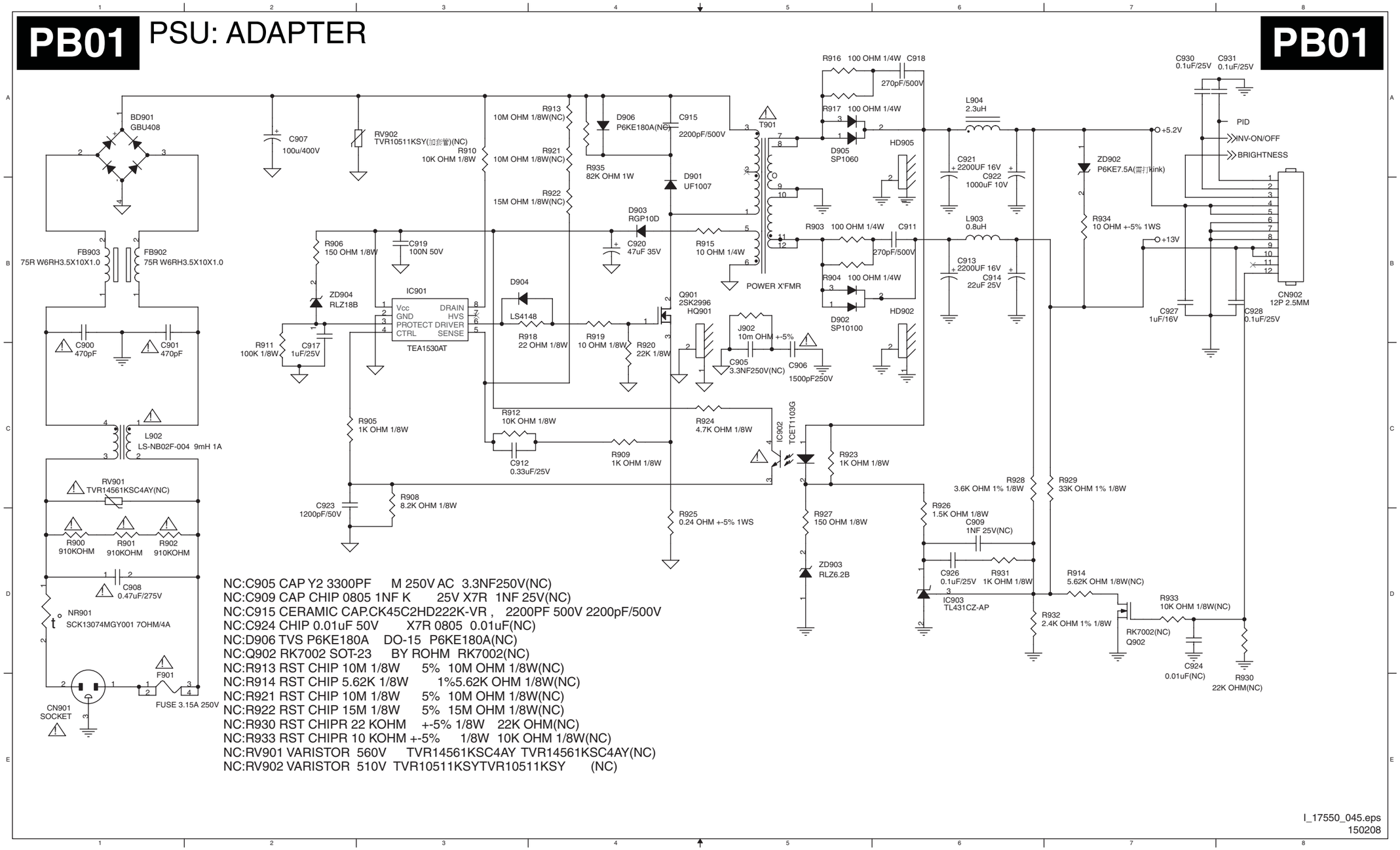


C001	A2
C002	A2
C003	B1
C004	B1
C005	B1
CN001	B1
LED001	B2
Q001	B2
R001	B1
R002	B2
R003	A1
R004	A2
SW001	C2
U001	A2
ZD001	A1
ZD002	A2

Personal Notes:

E_06532_012.eps
131004

Power Supply Panel: Adapter



NC:C905 CAP Y2 3300PF M 250V AC 3.3NF250V(NC)
NC:C909 CAP CHIP 0805 1NF K 25V X7R 1NF 25V(NC)
NC:C915 CERAMIC CAP.CK45C2HD222K-VR , 2200PF 500V 2200pF/500V
NC:C924 CHIP 0.01uF 50V X7R 0805 0.01uF(NC)
NC:D906 TVS P6KE180A DO-15 P6KE180A(NC)
NC:Q902 RK7002 SOT-23 BY ROHM RK7002(NC)
NC:R913 RST CHIP 10M 1/8W 5% 10M OHM 1/8W(NC)
NC:R914 RST CHIP 5.62K 1/8W 1%5.62K OHM 1/8W(NC)
NC:R921 RST CHIP 10M 1/8W 5% 10M OHM 1/8W(NC)
NC:R922 RST CHIP 15M 1/8W 5% 15M OHM 1/8W(NC)
NC:R930 RST CHIPR 22 KOHM +-5% 1/8W 22K OHM(NC)
NC:R933 RST CHIPR 10 KOHM +-5% 1/8W 10K OHM 1/8W(NC)
NC:RV901 VARISTOR 560V TVR14561KSC4AY TVR14561KSC4AY(NC)
NC:RV902 VARISTOR 510V TVR10511KSYTVR10511KSY (NC)

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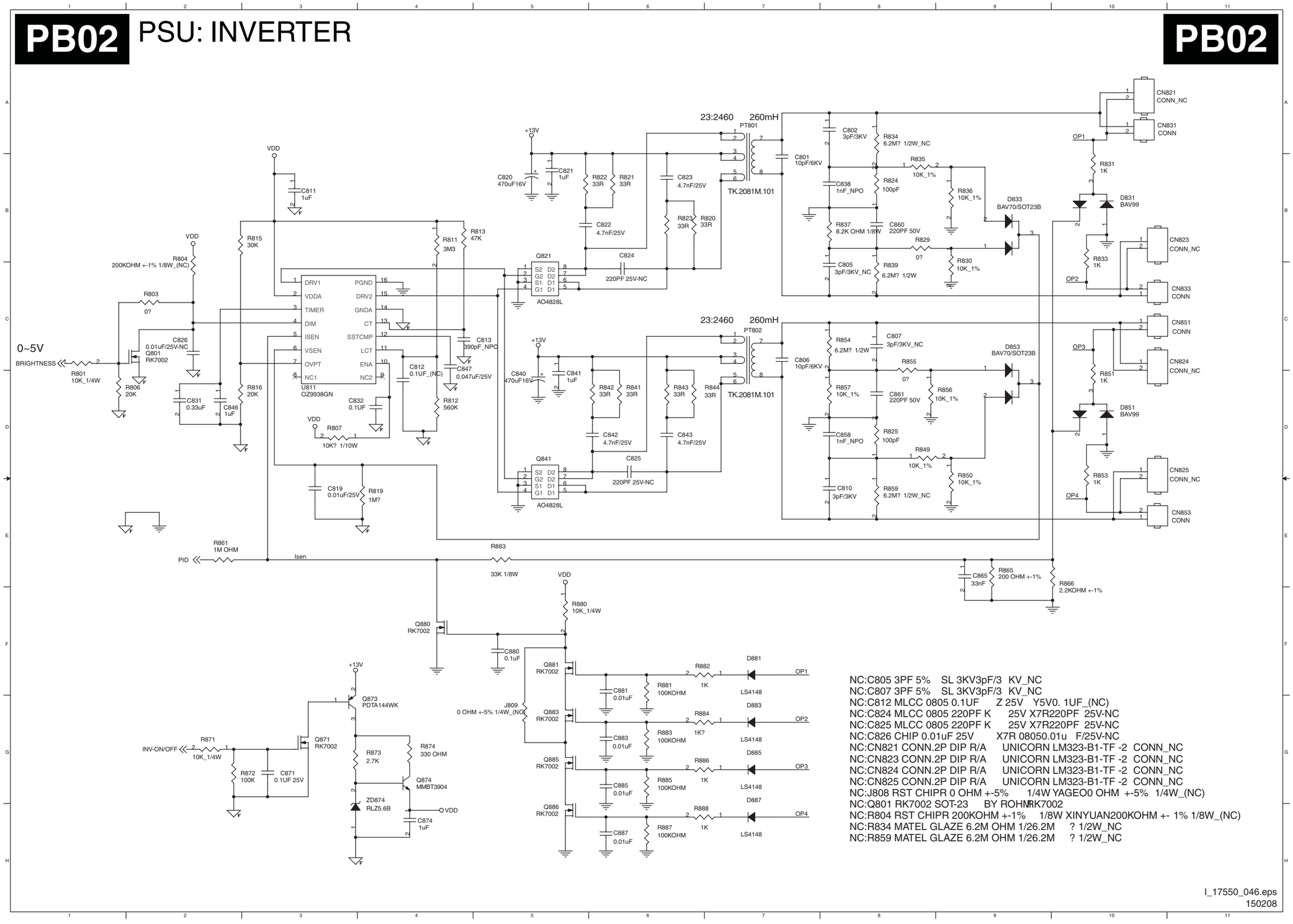
150208

BD901 A1 CN901 E1
CN902 A8 C900 B1
C901 B1 C905 C5
C906 C5 C907 A2
C908 D1 C909 D7
C911 B6 C912 C4
C913 B6 C914 B7
C915 A5 C917 B2
C918 A6 C919 B3
C920 B4 C921 A6
C922 A7 C923 C3
C924 D8 C926 D6
C927 B8 C928 B8
C930 A8 C931 A8
D901 A5 D902 B6
D903 B4 D904 B4
D905 A6 D906 A4
FB902 B1 FB903 B1
F901 E1 HD902 B6
HD905 A6 HQ901 B5
IC901 B3 IC902 C5
IC903 D6 J902 B5
L902 C1 L903 B6
L904 A6 NR901 D1
Q901 B5 Q902 D7
RV901 C1 RV902 A3
R900 D1 R901 D1
R902 D1 R903 B6
R904 B6 R905 C3
R906 B2 R908 C3
R909 C4 R910 A3
R911 B2 R912 C4
R913 A4 R914 D7
R915 B5 R916 A6
R917 A6 R918 B4
R919 B4 R920 C4
R921 A4 R922 B4
R923 C6 R924 C5
R925 D5 R926 C6
R927 D5 R928 C7
R929 C7 R930 D8
R931 D7 R932 D7
R933 D8 R934 B7
R935 A4 T901 A5
ZD902 A7 ZD904 B2
ZD903 D5

Power Supply Panel: Inverter

PB02 PSU: INVERTER

PB02



NC:C805 3PF 5% SL 3KV3pF/3 KV_NC
NC:C807 3PF 5% SL 3KV3pF/3 KV_NC
NC:C812 MLCC 0805 0.1UF Z 25V Y5V0. 1UF_(NC)
NC:C824 MLCC 0805 220PF K 25V X7R220PF 25V-NC
NC:C825 MLCC 0805 220PF K 25V X7R220PF 25V-NC
NC:C826 CHIP 0.01uF 25V X7R 08050.01u F/25V-NC
NC:CN821 CONN.2P DIP R/A UNICORN LM323-B1-TF -2 CONN_NC
NC:CN823 CONN.2P DIP R/A UNICORN LM323-B1-TF -2 CONN_NC
NC:CN824 CONN.2P DIP R/A UNICORN LM323-B1-TF -2 CONN_NC
NC:CN825 CONN.2P DIP R/A UNICORN LM323-B1-TF -2 CONN_NC
NC:J808 RST CHIPR 0 OHM +-5% 1/4W YAGEO0 OHM +-5% 1/4W_(NC)
NC:Q801 RK7002 SOT-23 BY ROHM RK7002
NC:R804 RST CHIPR 200KOHM +-1% 1/8W XINYUAN200KOHM +- 1% 1/8W_(NC)
NC:R834 MATEL GLAZE 6.2M OHM 1/26.2M ? 1/2W_NC
NC:R859 MATEL GLAZE 6.2M OHM 1/26.2M ? 1/2W_NC

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150208

Power Supply Panel: Jumper

PB03 PSU: JUMPER

PB03

J901
10m OHM +-5%

J903
10m OHM +-5%

J904
10m OHM +-5%

J905
10m OHM +-5%

J906
10m OHM +-5%

J907
10m OHM +-5%

J908
10m OHM +-5%

J909
10m OHM +-5%

J801
10m OHM +-5%

J802
10m OHM +-5%

J803
10m OHM +-5%

J804
10m OHM +-5%

J805
0 OHM 1/8W

J806
10m OHM +-5%

J807
10m OHM +-5%

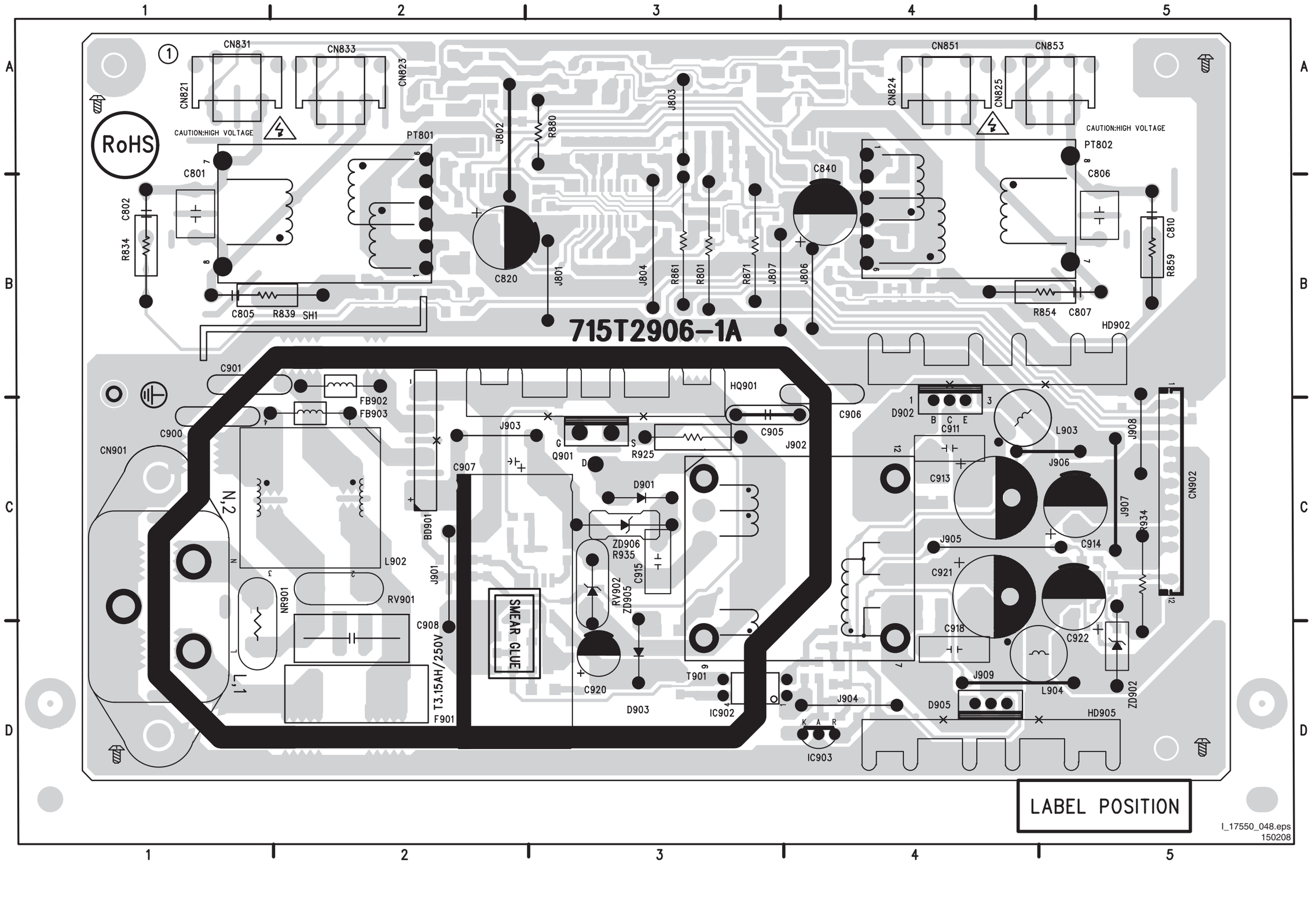
F901
FUSE CLIP

F901 B1
J801 B1
J802 B1
J803 B1
J804 B2
J805 B2
J806 B2
J807 B3
J901 A1
J903 A2
J904 A2
J905 A3
J906 A3
J907 A3
J908 A4
J909 A4

I_17550_047.eps
150208

Layout Power Supply Panel (Top Side)

BD901	B2	C806	A5	C840	A4	C906	B4	C913	C5	C920	C3	CN823	A2	CN833	A2	CN902	C5	D905	D5	HD902	B5	IC903	D4	J804	B3	J902	B4	J906	B5	L902	C2	PT801	A2	R834	A1	R861	A3	R934	C5	T901	C4
C801	A1	C807	B5	C900	B1	C907	B3	C914	C5	C921	C5	CN824	A5	CN851	A5	D901	C3	F901	D2	HD905	D5	J801	B3	J806	B4	J903	B3	J907	C5	L903	C5	PT802	A5	R839	B2	R871	A4	R935	C3	ZD902	C5
C802	A1	C810	A5	C901	B2	C908	C2	C915	C3	C922	C5	CN825	A5	CN853	A5	D902	B5	FB902	B2	HQ901	B3	J802	A3	J807	A4	J904	D4	J908	C5	L904	C5	Q901	B3	R854	B5	R880	A3	RV901	C2	ZD905	C3
C805	B1	C820	A3	C905	B4	C911	B5	C918	C5	CN821	A1	CN831	A1	CN901	C1	D903	C3	FB903	B2	IC902	D4	J803	A3	J901	C2	J905	C4	J909	D5	NR901	C2	R801	B4	R859	B5	R925	B3	RV902	C3	ZD906	C3



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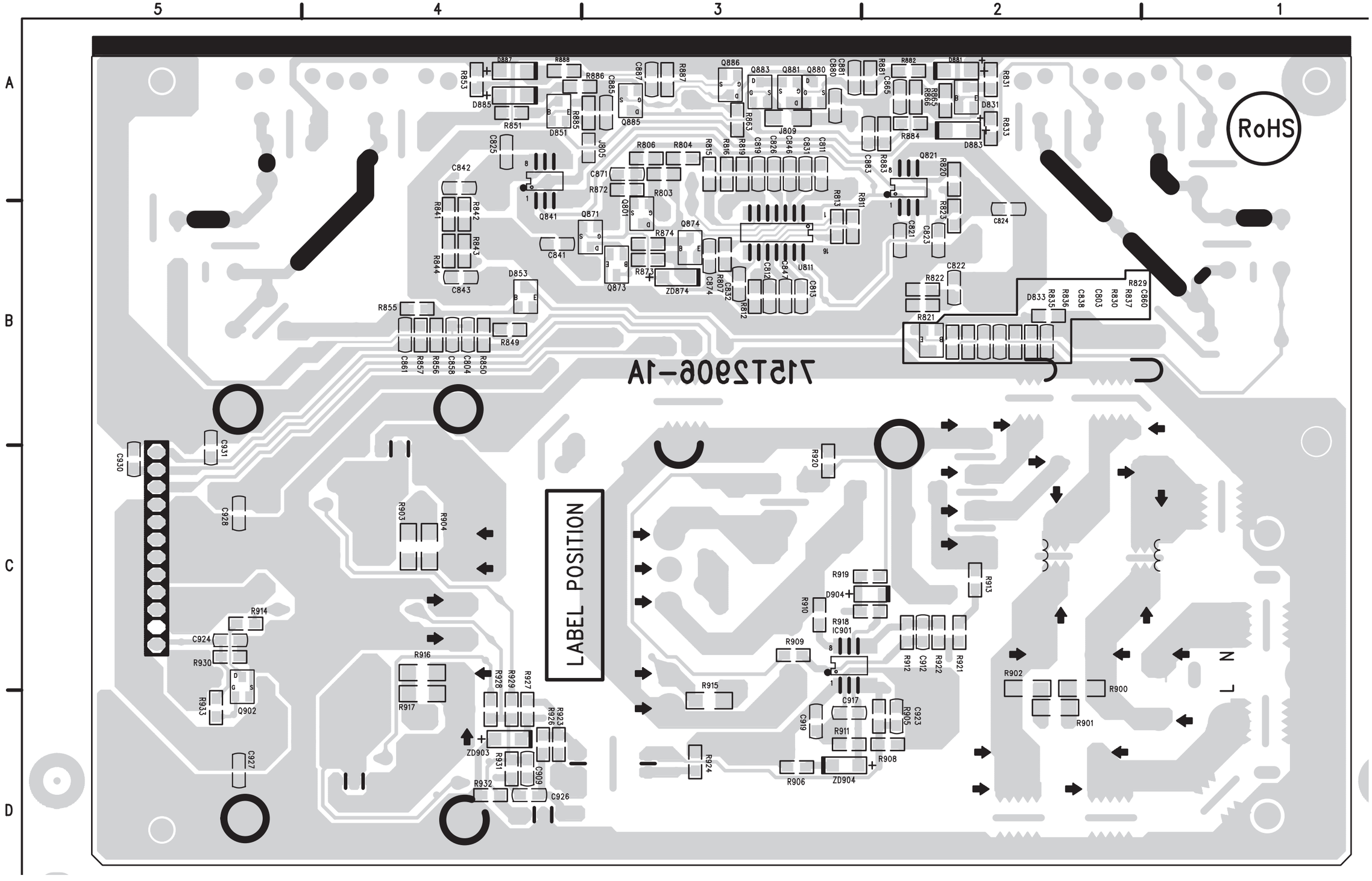
Layout Power Supply Panel (Bottom Side)

C803	B2	C822	A2	C838	B2	C860	B2	C883	A3	C923	C3	D831	A2	D887	A4	Q841	A4	Q885	A4	R811	A3	R821	A2	R835	B2	R849	B4	R863	A3	R882	A3	R900	C2	R908	D3	R915	C3	R922	C2	R930	C5	SG13	B2	SG20	C2	SG27	C1	S
C804	B4	C823	A2	C841	A4	C861	B5	C885	A4	C924	C5	D833	B2	D904	C3	Q871	A4	Q886	A3	R812	A3	R822	A2	R836	B2	R850	B4	R865	A2	R883	A3	R901	C2	R909	C3	R916	C4	R923	D4	R931	D4	SG14	B1	SG21	B1	SG28	C1	S
C811	A3	C824	A2	C842	A4	C865	A3	C887	A4	C926	D4	D851	A4	IC901	C3	Q873	A4	Q902	C5	R813	A3	R823	A2	R837	B2	R851	A4	R866	A3	R884	A3	R902	C2	R910	C3	R917	C4	R924	D3	R932	D4	SG15	B1	SG22	B3	SG29	D2	S
C812	A3	C825	A4	C843	A4	C871	A4	C909	D4	C927	D5	D853	A4	J805	A4	Q874	A3	R803	A4	R815	A3	R829	A2	R841	A4	R853	A4	R872	A4	R885	A4	R903	C5	R911	D3	R918	C3	R926	D4	R933	C5	SG16	B2	SG23	B1	SG30	D2	U
C813	A3	C826	A3	C846	A3	C874	A3	C912	C2	C928	B5	D881	A2	J809	A3	Q880	A3	R804	A3	R816	A3	R830	B2	R842	A4	R855	A4	R873	A4	R886	A4	R904	C4	R912	C3	R919	C3	R927	C4	SG10	D2	SG17	C2	SG24	D1	SG31	D2	Z
C819	A3	C831	A3	C847	A3	C880	A3	C917	C3	C930	B5	D883	A2	Q801	A4	Q881	A3	R806	A4	R819	A3	R831	A2	R843	A4	R856	B4	R874	A4	R887	A3	R905	C3	R913	C2	R920	B3	R928	C4	SG11	D2	SG18	C2	SG25	C1	SG32	D2	Z
C821	A3	C832	A3	C858	B4	C881	A3	C919	C3	C931	B5	D885	A4	Q821	A3	Q883	A3	R807	A3	R820	A2	R833	A2	R844	A4	R857	B4	R881	A3	R888	A4	R906	D3	R914	C5	R921	C2	R929	C4	SG12	D2	SG19	C2	SG26	C1	SG33	B3	Z



Personal Notes:

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8. Alignments

Index of this chapter:

Note: . The Service Mode are describe in chapter 5.Menu navigation is done with the CURSOR UP, DOWN, LEFT or RIGHT keys of the remote control transmitter.

8.1 Electrical Instructions

8.1.1 AV-1(YpbPr) mode Display adjustment

White balance adjustment (B)
19MF338B&19MD358B
General set-up:
Equipment Requirements: Quantum Data Pattern Generator or Chroma2229/MTTK8256A Apply 1080i,SMPTE color pattern. Pattern 27.

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Figure 8-1 Pattern 27

Table 8-2 CLR_TEMP ADJUSTMENT

Panel ID:89	For S/W	YPbPr	ATV	DTV	CVBS/S-Video	HDMI	PC(VGA)
Normal	CLR_TEMP R	0	0	0	0	0	0
	CLR_TEMP G	0	-6	-6	-6	-5	-6
	CLR_TEMP B	0	-8	-9	-5	-7	-11
Warm	CLR_TEMP R	0	0	0	0	0	0
	CLR_TEMP G	-5	-11	-11	-11	-11	-12
	CLR_TEMP B	-16	-25	-25	-21	-24	-31
Cool	CLR_TEMP R	-1	0	0	0	0	-1
	CLR_TEMP G	11	8	8	8	7	6
	CLR_TEMP B	44	40	37	40	36	44

1. Check the gray pattern should be distinguished and color bar is correct.
Check Luminance Note:
Use Minolta CA-210 for colour coordinates and luminance check.

Table 8-3 Reading with Minolta CA-210.

	Normal	Cool	Warm
CCT	**9300K**	**11500K**	**6500K**
x	0.283 ± 0.015	0.273± 0.015	0.314± 0.015
y	0.297 ± 0.015	0.280± 0.015	0.324± 0.015

2. Check the gray pattern should be distinguished and color bar is correct.
Check Luminance Note:
Use Minolta CA-210 for colour coordinates and luminance check.
Luminance typical 300 Nits , Min. > 230 Nits
In the center of the screen when 'Smart picture' at 'PERSONAL',and Brightness and Contrast control set at 100%.

19PFL3403D

Equipment Requirements:Minolta CA-110 or CA-210 or Equivalent Color analyzer.Quantum Data Pattern Generator 802G, 802BT, 881 or equivalent instrument.
Input requirements:
Input Signal Type : YPbPr signal
1. 1080i mode, TVBar100 pattern by 802G or 802BT or 881.
2. Select Smart picture to Personal mode and check the x, y data.
Input Signal Strength : 1000mVpp for Y signal ; +/-350mV for Pb & Pr signal
Inital Set-up:Set Smart picure as"Personal",Brightness=50,Color=50,Contrast=50.Then run factory "AUTO-COLOR" proces.
Alignment method:
Initial Set-up:Set Smart picture as"Personal"(Brightness=50,Color=50,Contrast=50) and check Factory "SP_MODE_PWM" for Personal/sports/ Standard/Movie=20 Power Saver=100.
Alignment:Adjust the factory "CLR_TEMP_R/CLR_TEMP_G/ CLR_TEMP_B" to meet NORMAL color temperature requirement and check COOL WARM of color temp.
[Enter factory key 062596 by remoted number key then press Info key]
Output Detection Points:Screen center.

Table 8-1 Check (X,Y) coordinates as belows

	Normal/ (7500K)	Cool(9300K)	Warm(6500K)
x(center)	0.300 ± 0.005	X'= x± a	x'=x± c
y(center)	0.310 ± 0.005	Y'=y± b	y'=± d
Y(center)	200±20		

If out of specification then fine-tune factory "CLR_TEMP_R/ CLR_TEMP_G/CLR_TEMP_B" for Normal temperature.Other modes pls. refer to below form (for reference).
Remark:a,b,c,d are offset refer to Normal dada and build in firmware to close warm x=0.314, y=0.324
and Cool x=0.285,y=0.293 as posible.If out of x,y in warm/cool define tolerance 0.015 then fine-tune the offset value is needed.

Input Injection Point : AV1 YPbPr (RAC jack) 1080i, TVBar100 pattern.

Alignment method:

1.Initial Set-up:Select source as AV1

2. Set Smart picture as “Personal” and Contrast =50, Brightness=50, Color=50

3.Apply “SMPTE color” pattern or “color bar with black & white”pattern by signal generator.

4. Enter factory mode menu: press MENU + Numeric keys “062596” + INFO key (FAC mode menu). Then select “Factory” item.

Output Detection Points:Screen center.

Table 8-4 Check (X,Y) coordinates as belows

	Normal/ (7500K)	Cool(9300K)	Warm(6500K)
x(center)	0.300 ± 0.005	0.314±0.005	0.285±0.005
y(center)	0.310 ± 0.005	0.324±0.005	0.293±0.005
Y(center)			

Check grayscale

Check the gray pattern should be distinguished and color bar is correct.

Check Luminance Note:Use Minolta CA-110 or CA-210 for colour coordinates and luminance check.

Luminance typical 300 Nits , Min. > 250 Nits

In the center of the screen when “Smart picture” at “PERSONAL”,

and Brightness and Contrast control set at 100%.

These CLR TEMP R, CLR TEMP G, CLR TEMP B setting values of AV1 should be auto copied to the TV mode and Side AV mode and HDMI1 / 2 all deviation values based on the PQ table.

8.1.2 TV Mode

19MF338B&19MD358B

Color temperature Normal/Warm/Cool DAC dada same as AV1 mode.

Check chromaticity (X, Y) co-ordinates specification.

General set-up :

Equipment Requirements: Color analyzer.

Input requirements:

Input Signal Type : CVBS-NTSC signal.

Frequency = 187.25 MHz (CH9).

Input Signal Strength: 10mV (80 dBuV) terminal voltage.

Input Injection Point : TV Tuner input

Remark : TV mode all color temp data will refer to HD Normal and auto adjusted by TV self to close above table as possible, if out of x,y spec 0.015 then fine-tune the offset table is needed.

All offset values build in in firmware.

Output Detection Points: Screen center.

Table 8-5 Check (X, Y) co-ordinates as belows:

	Normal/ (7500 K)	Warm/(6500 K)	Cool/(9300 K)
x (center)	0.300± 0.010	0.314 ± 0.010	0.285± 0.010
y (center)	0.310± 0.010	0.324± 0.010	0.293± 0.010
Y (center)	200		

Table 8-6 Reading with Minolta CA-210.

	Normal	Cool	Warm
CCT	**9300K**	**11500K**	**6500K**
x	0.283 ± 0.015	0.273± 0.015	0.314± 0.015
y	0.297 ± 0.015	0.280± 0.015	0.324± 0.015

Check the gray pattern should be distinguished and color bar is correct.

Check Luminance Note:

Use Minolta CA-210 for colour coordinates and luminance check.

Luminance typical 300 Nits , Min. > 230 Nits

In the center of the screen when 'Smart picture' at 'PERSONAL', and Brightness and Contrast control set at 100%.

19PFL3403D

Equipment Requirements: Minolta CA-110 or or CA-210 or Equivalent Color analyzer,Fluke 54200 or equivalent TV RF signal generator

Input requirements:

Input Signal Type: RF signal

1. Set to NTSC system, frequency=187.25MHZ (for NAFTA model), with White pattern of 100%

2. Select Smart picture to Personal mode and check the x, y data.

Input Signal Strength : 10mV (80 dBuV) terminal voltage.

Input Injection Point : TV Tuner input

Initial Set-up:

1. Select source as “TV”.

2. Set Smart picture as “Personal”and Contrast =50, Brightness=50, Color=50

3. Apply “100IRE White” pattern by TV pattern generator.

Table 8-7 Check (X, Y) co-ordinates as belows:

	Normal/ (7500 K)	Warm/(6500 K)	Cool/(9300 K)
x (center)	0.300± 0.005	0.314 ± 0.005	0.285± 0.005
y (center)	0.310± 0.005	0.324± 0.005	0.293± 0.005
Y (center)			

Check the gray pattern should be distinguished and color bar is correct

Check Luminance Note:Use Minolta CA-110 or CA-210 for colour coordinates and luminance check.

Luminance typical 300 Nits , Min. > 250 Nits

In the center of the screen when “Smart picture” at “PERSONAL”, and Brightness and Contrast control set at 100%.

8.1.3 PC Mode Adjustment

White balance adjustment (B)

19MF338B&19MD358B

General set-up :

Equipment Requirements: PC signal / Color analyzer.

Input requirements:

Input Signal Type : PC R/G/B analog TTL separate Sync signal.

Timing = 1024x768/60Hz.

Input Signal Strength : 700mV.

Input Injection Point : D-Sub.

Alignment method :

Initial setting : Check factory " VGA_PWM_MIN " =15 and " VGA_PWM_MAX "= 103, then run Factory" AUTO_COLOR" with 5 white block pattern. (see pattern-1)

Check : Check Factory " CLR_TEMP_R / CLR_TEMP_G / CLR_TEMP_B " whether to met specification of Normal/Warm/ Cool .

Table 8-8 Reading in Minolta CA-210.

	Normal/ (7500 K)	Warm/(6500 K)	Cool/(9300 K)
x (center)	0.300 ± 0.010	0.314 ± 0.010	0.285 ± 0.010
y (center)	0.310 ± 0.010	0.324 ± 0.010	0.293 ± 0.010
Y (center)	180		

19PFL3403D
Equipment Requirements: Minolta CA-110 or CA-210 or Equivalent Color analyzer Chroma 2250 or equivalent PC signal generator
Input requirements:
Input Signal Type: PC VGA signal
1. 1024X768/60Hz PC mode with 5 white block pattern. (see pattern-1)
2. Select Color temperature to Normal and check the x, y data.
Input Signal Strength : 0.7 Vp-p linear voltage.
Input Injection Point : PC D-SUB input
Alignment method :
Initial Set-up:
1. Select source as “PC”.
2. Set Contrast=50, Brightness=50, Color temperature= Normal and Picture format= Full screen.
3. Apply “5 white block” pattern by VGA pattern generator.
4. Enter factory mode menu: press MENU + Numeric keys “062596” + INFO key (FAC mode menu). Then select “Factory” item.
5. Check Factory setting should be follow up the item10. Preset NVM data.

Table 8-9 Reading in Minolta CA-110 or CA-210.

	Normal/ (7500 K)	Warm/(6500 K)	Cool/(9300 K)
x (center)	0.300 ± 0.005	0.314 ± 0.005	0.285 ± 0.005
y (center)	0.310 ± 0.005	0.324 ± 0.005	0.293 ± 0.005
Y (center)			

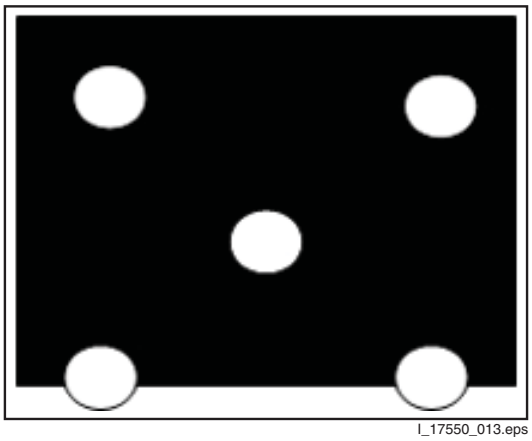
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Figure 8-2 "AUTO_COLOR" with five white block pattern.

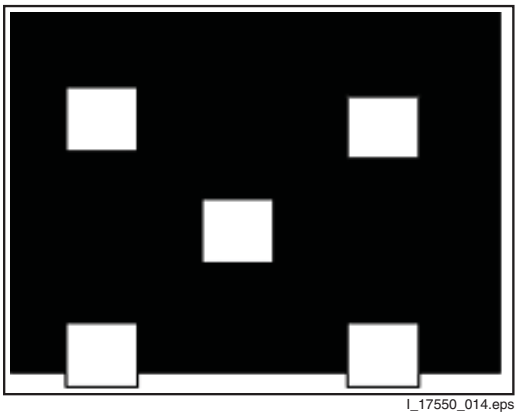
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Figure 8-3 "AUTO_COLOR" with five white block pattern.

8.1.4 HDMI MODE ADJUSTMENT(19PFL3403D)

White balance adjustment (B)
Equipment Requirement: Minolta CA-110 or CA-210 or Equivalent Color analyzer,Quantum Data Pattern Generator 802BT or 881.
Input requirements:
Input Signal Type: HDMI signal
1. 1080i mode, full white pattern.
2. Select Smart picture to Personal mode and check the x, y data.
Input Signal Strength : 4 channels TMDS signal
Input Injection Point : HDMI input
Initial Set-up:
1. Select source as “HDMI1 or HDMI2”.
2. Set Smart picture as “Personal” and Contrast =50, Brightness=50, Color=50
3. Apply full white pattern by Quantum Data signal generator.

Table 8-10 Check (X, Y) co-ordinates as belows:

	Normal/ (7500 K)	**Warm /(6500 K)**	Cool/ (9300 K)
x (center)	0.300 ± 0.005	0.314 ± 0.005	0.285 ± 0.005
y (center)	0.310 ± 0.005	0.324 ± 0.005	0.293 ± 0.005
Y (center)			

Check the gray pattern should be distinguished and color bar is correct
Check Luminance Note:Use Minolta CA-110 or CA-210 for colour coordinates and luminance check.
Luminance typical 300 Nits , Min. > 250 Nits
In the center of the screen when “Smart picture” at “PERSONAL”, and Brightness and Contrast control set at 100%

8.2 Serial Number Definition

BOM Code:

Table 8-11 Panel type

PANEL SUPPLIER	Code
AU	1
CPT	2
LPL(LG)	3
QDI	4
CMO	5
HSD	6
SVA	7

9. Circuit Descriptions, Abbreviation List, and IC Data Sheets

Index of this chapter:

Notes:

- Only **new** circuits (circuits that are not published recently) are described.
- Figures can deviate slightly from the actual situation, due to different set executions.
- For a good understanding of the following circuit descriptions, please use the Wiring, Block (chapter 6) and Circuit Diagrams (chapter 7). Where necessary, you will find a separate drawing for clarification.

9.1 Introduction

This TV 19MF338B & 19PFL3403D &19MD358B use 1440x900 WXGA panel.Support PC analog and DVI(HDMI port) digital input up to 1440x900 60Hz model,and support Y/C,CVBS.Also for Y pb signal input from SDTV to HDTV(480i,480p,720p60Hz,1080i 60Hz) digital port for HDMI(480i, 480p,720p60Hz,1080i60Hz).
This LCD-Monitor use MediaTek MT5380ACU scalar IC,which has embedded ADC for HDTV/Analog D-sub input up to 54MHz/10bit,digital port for CVBS and Y/C input,TXT decoder and built-in dual 6/8/10-bit LVDS transmitter scaler.
There are video processing and some audio function in scaler board.The 19MF338B & 19PFL3403D &19MD358B uses MediaTek MT5380ACU as scaler engine,which has embedded Analog D-SUB,digital HDMI receiver,scaling input signal to panel OSD mapping and simple 3D de-interlacer.The extra DDR is to accomplish video frame rate conversion and to provide OSD and de-interlacer with enough memory.
The video processing and some audio functions is done on the Scaler board.
The MediaTek MT5380ACU consists of a DTV frontend demodulator, a backend decoder and a TV controller and offers high integration for advanced applications. It combines a transport demultiplexer, a high definition MPEG 2 video decoder, an AC3 audio decoder, an LVDS transmitter, and an NTSC/PAL/SECAM TV decoder with a 3D comb filter.
The MT5380C enables consumer electronics manufactures to build high quality, low cost and feature rich iDTVs. World Leading Audio/Video Technology: The MT5380ACU has built in high resolution and high quality audio codec. It includes MediaTek MDDiTM deinterlace solution to generate very smooth picture quality for motions. A 3D comb filter added to the TV decoder recovers great detail for still pictures. The special color processing technology provides natural, deep colors and true studio quality graphics. Rich Features for High Value Products: The MT5380ACU enables a true single chip experience. It integrates high quality HDMI1.3, high speed VGA ADC, dual channel LVDS, USB2.0 receiver and multimedia decoder. Reliable Frontend Receiving Capability: Excellent adjacent and cochannel rejection capability grants customers never miss any wonderful stream. Professional error concealment provides stable, smooth and mosaic free video quality.

9.2 Block Diagram

19MF338B & 19MD358B

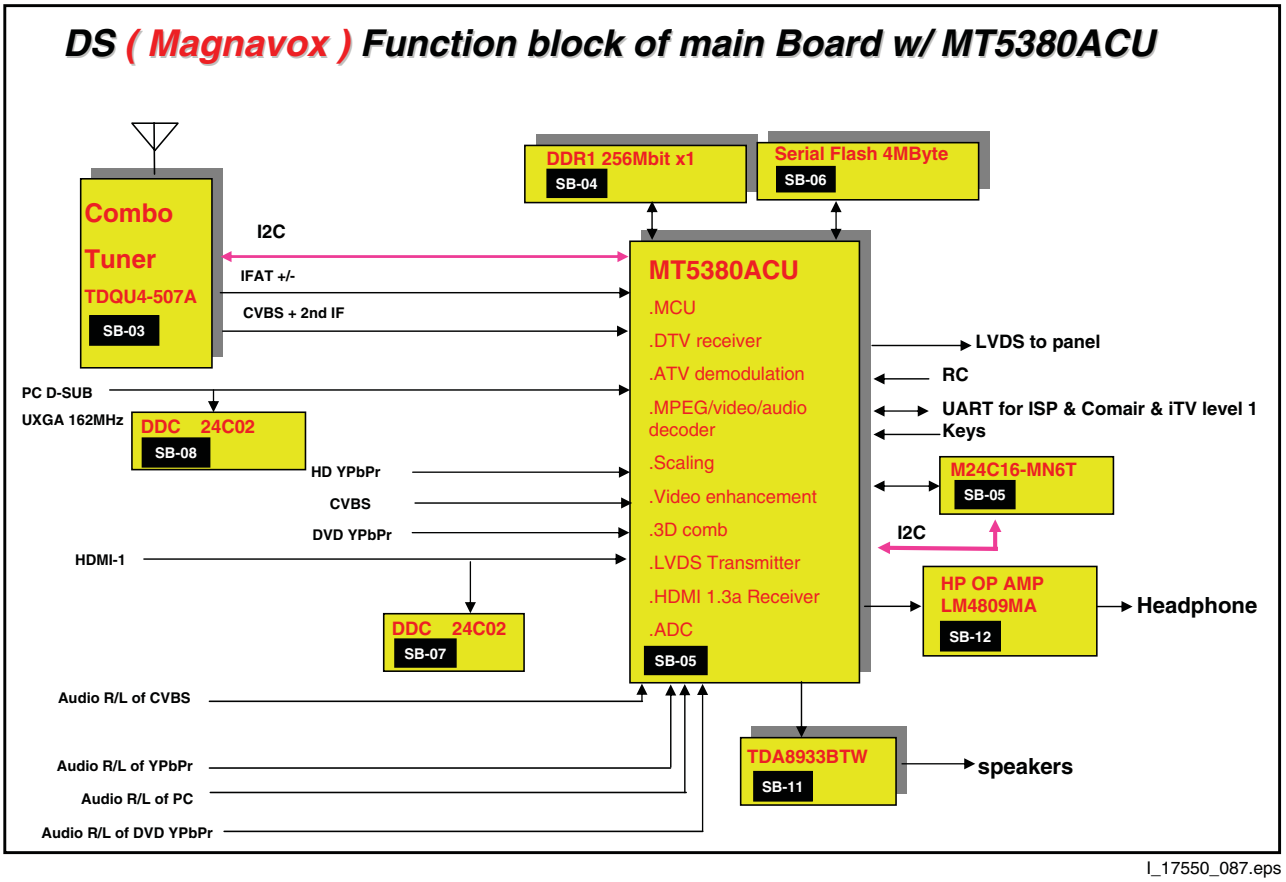

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Figure 9-1 Scaler board block diagram

19PFL3403D

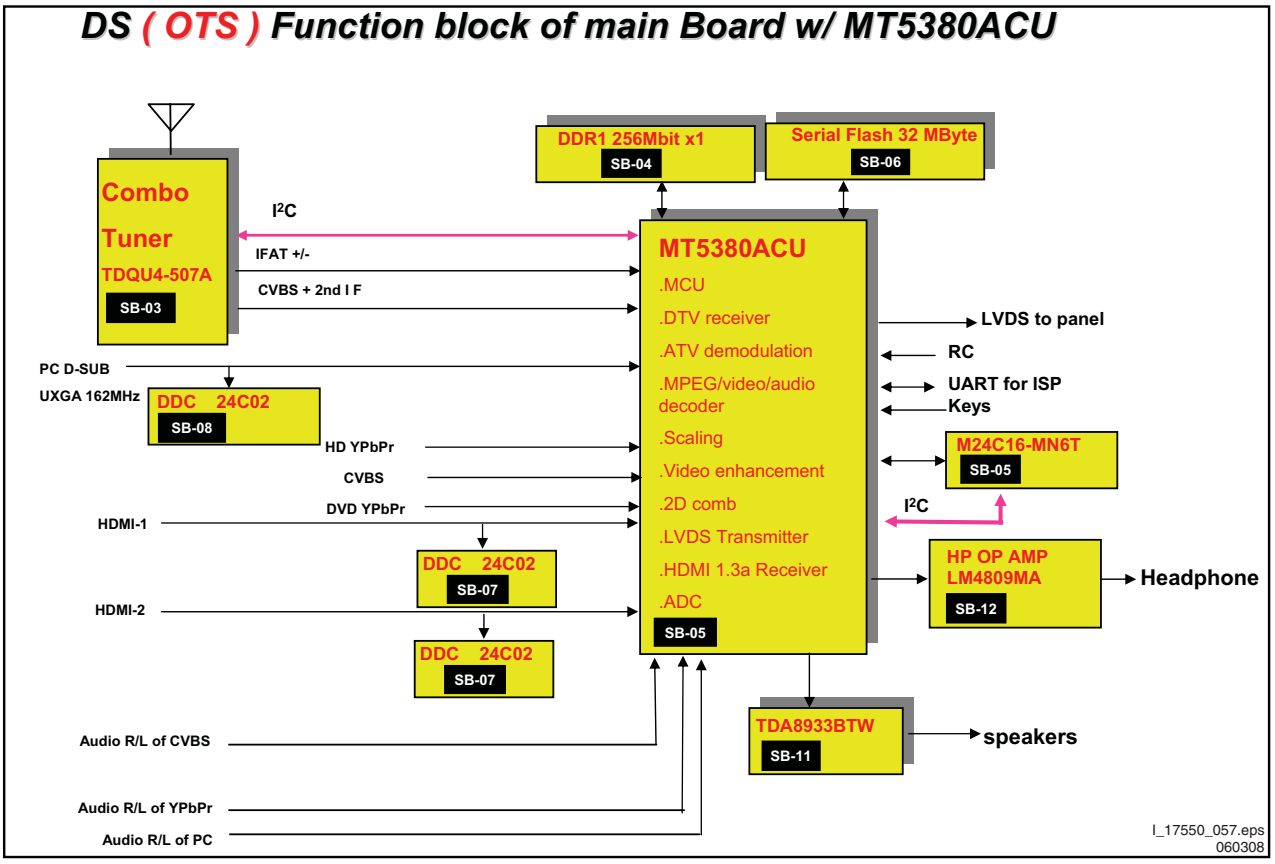


Figure 9-2 Scaler board block diagram

9.3 Abbreviation List

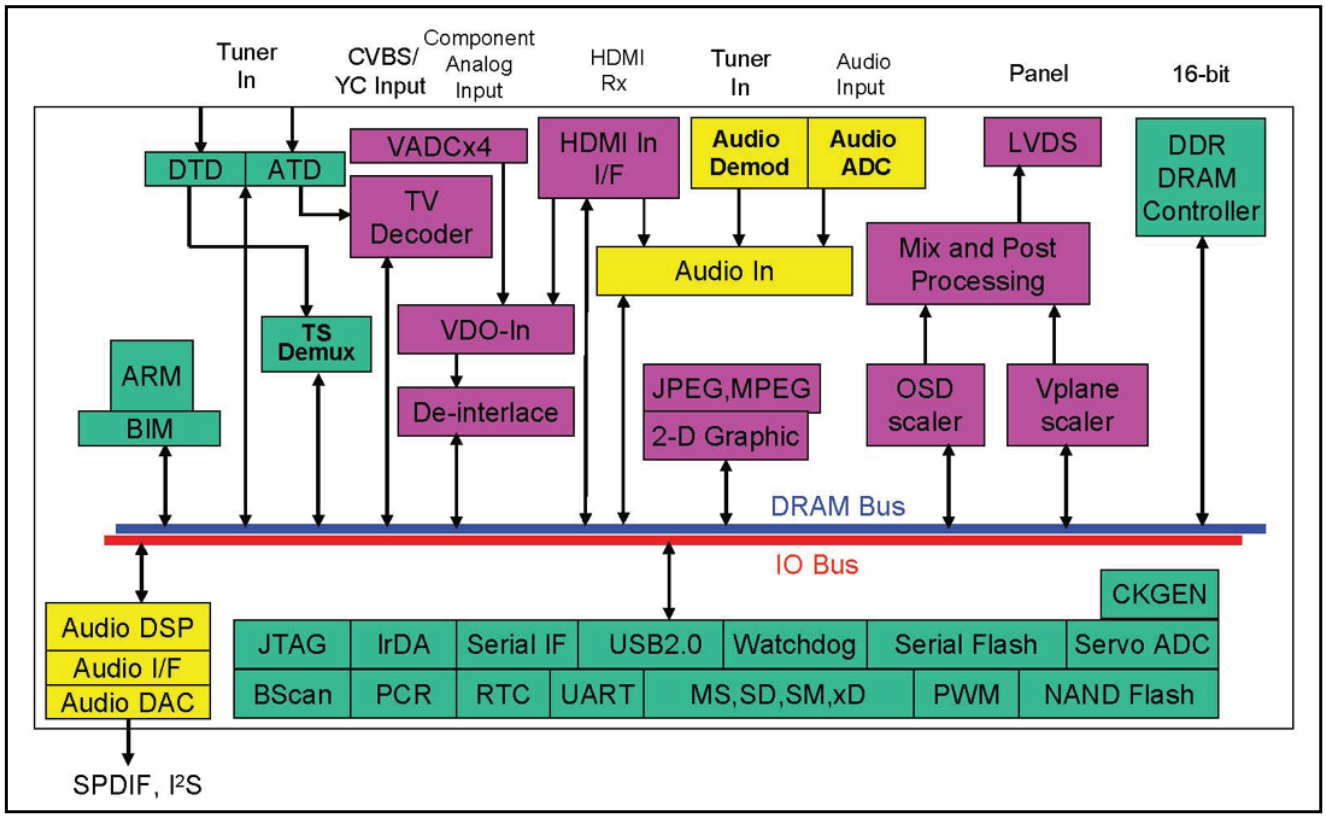
1080i	1080 visible lines, interlaced
1080p	1080 visible lines, progressive scan
480i	480 visible lines, interlaced
480p	480 visible lines, progressive scan
AARA	Automatic Aspect Ratio Adaptation: algorithm that adapts aspect ratio to remove horizontal black bars; keeping up the original aspect ratio
ACI	Automatic Channel Installation: algorithm that installs TV channels directly from a cable network by means of a predefined TXT page
ADC	Analogue to Digital Converter
AFC	Automatic Frequency Control: control signal used to tune to the correct frequency
AGC	Automatic Gain Control: algorithm that controls the video input of the feature box
AM	Amplitude Modulation
AUO	Acer Unipack Optronics
AP	Asia Pacific
AR	Aspect Ratio: 4 by 3 or 16 by 9
ASD	Automatic Standard Detection
AV	Audio Video
B-TXT	Blue teletext
BTSC	Broadcast Television System Committee
C-FRONT	Chrominance front input
CBA	Circuit Board Assembly (or PWB)
CL	Constant Level: audio output to connect with an external amplifier
CLUT	Colour Look Up Table
ComPair	Computer aided rePair
CSM	Customer Service Mode
CVBS	Composite Video Blanking and Synchronisation
CVBS-EXT	CVBS signal from external source (VCR, VCD, etc.)
CVBS-INT	CVBS signal from Tuner
CVBS-MON	CVBS monitor signal
CVBS-TER-OUT	CVBS terrestrial out
DAC	Digital to Analogue Converter
DBE	Dynamic Bass Enhancement: extra low frequency amplification
DFU	Directions For Use: owner's manual
DNR	Dynamic Noise Reduction
DRAM	Dynamic RAM
DSP	Digital Signal Processing
DST	Dealer Service Tool: special (European) remote control designed for service technicians
DTS	Digital Theatre Sound
DVD	Digital Versatile Disc
DVI	Digital Visual Interface
DW	Double Window
ED	Enhanced Definition: 480p, 576p
EEPROM	Electrically Erasable and Programmable Read Only Memory
EXT	EXTernal (source), entering the set by SCART or by cinches (jacks)
FBL	Fast Blanking: DC signal accompanying RGB signals
FBL-TXT	Fast Blanking Teletext
FLASH	FLASH memory
FM	Field Memory / Frequency Modulation
FMR	FM Radio
FRONT-C	Front input chrominance (SVHS)
FRONT-DETECT	Front input detection
FRONT-Y_CVBS	Front input luminance or CVBS (SVHS)
FTV	Flat TeleVision
G-TXT	Green teletext
H	H_sync to the module
HD	High Definition: 720p, 1080i, 1080p
HDMI	High Definition Multimedia Interface, digital audio and video interface
HP	Head Phone
I	Monochrome TV system. Sound carrier distance is 6.0 MHz
I2C	Integrated IC bus
I2S	Integrated IC Sound bus
IC	Integrated Circuit
IF	Intermediate Frequency
Interlaced	Scan mode where two fields are used to form one frame. Each field contains half the number of the total amount of lines. The fields are written in "pairs", causing line flicker.
IR	Infra Red
IRQ	Interrupt ReQuest
Last Status	The settings last chosen by the customer and read and stored in RAM or in the NVM. They are called at start-up of the set to configure it according the customers wishes
LATAM	LATin AMerica
LC04	Philips chassis name for LCD TV 2004 project
LCD	Liquid Crystal Display
LED	Light Emitting Diode
L/L'	Monochrome TV system. Sound carrier distance is 6.5 MHz. L' is Band I, L is all bands except for Band I
LPL	LG Philips LCD
LS	Loud Speaker
LVDS	Low Voltage Differential Signalling, data transmission system for high speed and low EMI communication.
M/N	Monochrome TV system. Sound carrier distance is 4.5 MHz
MOSFET	Metal Oxide Semiconductor Field Effect Transistor
MPEG	Motion Pictures Experts Group
MSP	Multi-standard Sound Processor: ITT sound decoder
MUTE	MUTE Line
NAFTA	North American Free Trade Association: Trade agreement between Canada, USA and Mexico
NC	Not Connected
NICAM	Near Instantaneous Compounded Audio Multiplexing. This is a digital sound system, used mainly in Europe.
NTSC	National Television Standard Committee. Colour system used mainly in North America and Japan. Colour carrier NTSC M/N = 3.579545 MHz, NTSC 4.43 = 4.433619 MHz (this is a VCR norm, it is not transmitted off-air)
NVM	Non Volatile Memory: IC containing TV related data (for example, options)
O/C	Open Circuit
ON/OFF LED	On/Off control signal for the LED
OSD	On Screen Display
PAL	Phase Alternating Line. Colour system used mainly in Western Europe (colour carrier = 4.433619 MHz) and South America (colour carrier PAL M = 3.575612 MHz and PAL N = 3.582056 MHz)
PC	Personal Computer
PCB	Printed Circuit Board (or PWB)
PDP	Plasma Display Panel
PIG	Picture In Graphic
PIP	Picture In Picture

PLL	Phase Locked Loop. Used, for example, in FST tuning systems. The customer can directly provide the desired frequency
Progressive Scan	Scan mode where all scan lines are displayed in one frame at the same time, creating a double vertical resolution.
PWB	Printed Wiring Board (or PCB)
RAM	Random Access Memory
RC	Remote Control transmitter
RC5 (6)	Remote Control system 5 (6), the signal from the remote control receiver
RGB	Red, Green, and Blue. The primary colour signals for TV. By mixing levels of R, G, and B, all colours (Y/C) are reproduced.
RGBHV	Red, Green, Blue, Horizontal sync, and Vertical sync
ROM	Read Only Memory
SAM	Service Alignment Mode
SC	SandCastle: two-level pulse derived from sync signals
S/C	Short Circuit
SCL	Clock signal on I2C bus
SD	Standard Definition: 480i, 576i
SDA	Data signal on I2C bus
SDI	Samsung Display Industry
SDM	Service Default Mode
SDRAM	Synchronous DRAM
SECAM	SEequence Couleur Avec Memoire. Colour system used mainly in France and Eastern Europe. Colour carriers = 4.406250 MHz and 4.250000 MHz
SIF	Sound Intermediate Frequency
SMPS	Switch Mode Power Supply
SND	SouND
SNDS-VL-OUT	Surround sound left variable level out
SNDS-VR-OUT	Surround sound right variable level out
SOPS	Self Oscillating Power Supply
S/PDIF	Sony Philips Digital InterFace
SRAM	Static RAM
STBY	Stand-by
SVHS	Super Video Home System
SW	Sub Woofer / SoftWare
THD	Total Harmonic Distortion
TXT	TeleteXT
uP	Microprocessor
VL	Variable Level out: processed audio output toward external amplifier
VCR	Video Cassette Recorder
VGA	Video Graphics Array
WD	Watch Dog
WYSIWYR	What You See Is What You Record: record selection that follows main picture and sound
XTAL	Quartz crystal
YPbPr	Component video (Y= Luminance, Pb/Pr= Colour difference signals B-Y and R-Y, other amplitudes w.r.t. to YUV)
Y/C	Video related signals: Y consists of luminance signal, blanking level and sync; C consists of colour signal.
Y-OUT	Luminance-signal
YUV	Baseband component video (Y= Luminance, U/V= Colour difference signals)

9.4 IC Data Sheets

This section shows the internal block diagrams and pin layouts of ICs that are drawn as "black boxes" in the electrical diagrams (with the exception of "memory" and "logic" ICs).

9.4.1 Diagram B1A, MT5380ACU



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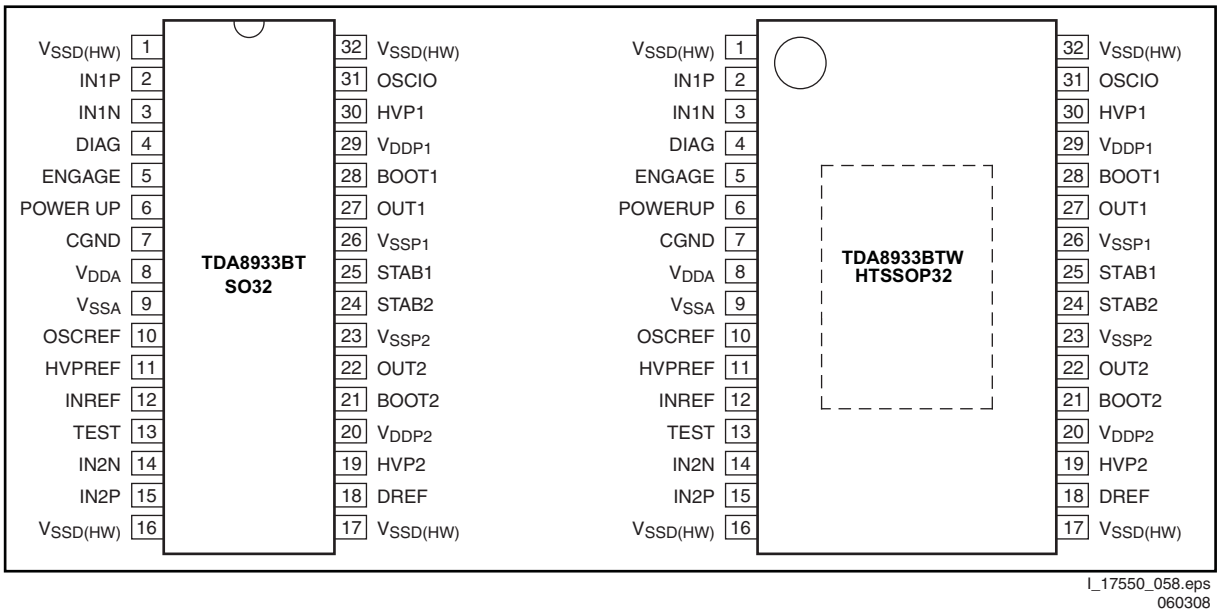
060308

Figure 9-3 Function Block Diagram

9.4.2 Diagram B2A, TDA8933BTW



I_17550_058.eps
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Figure 9-4 TDA8933BTW Pin configuration

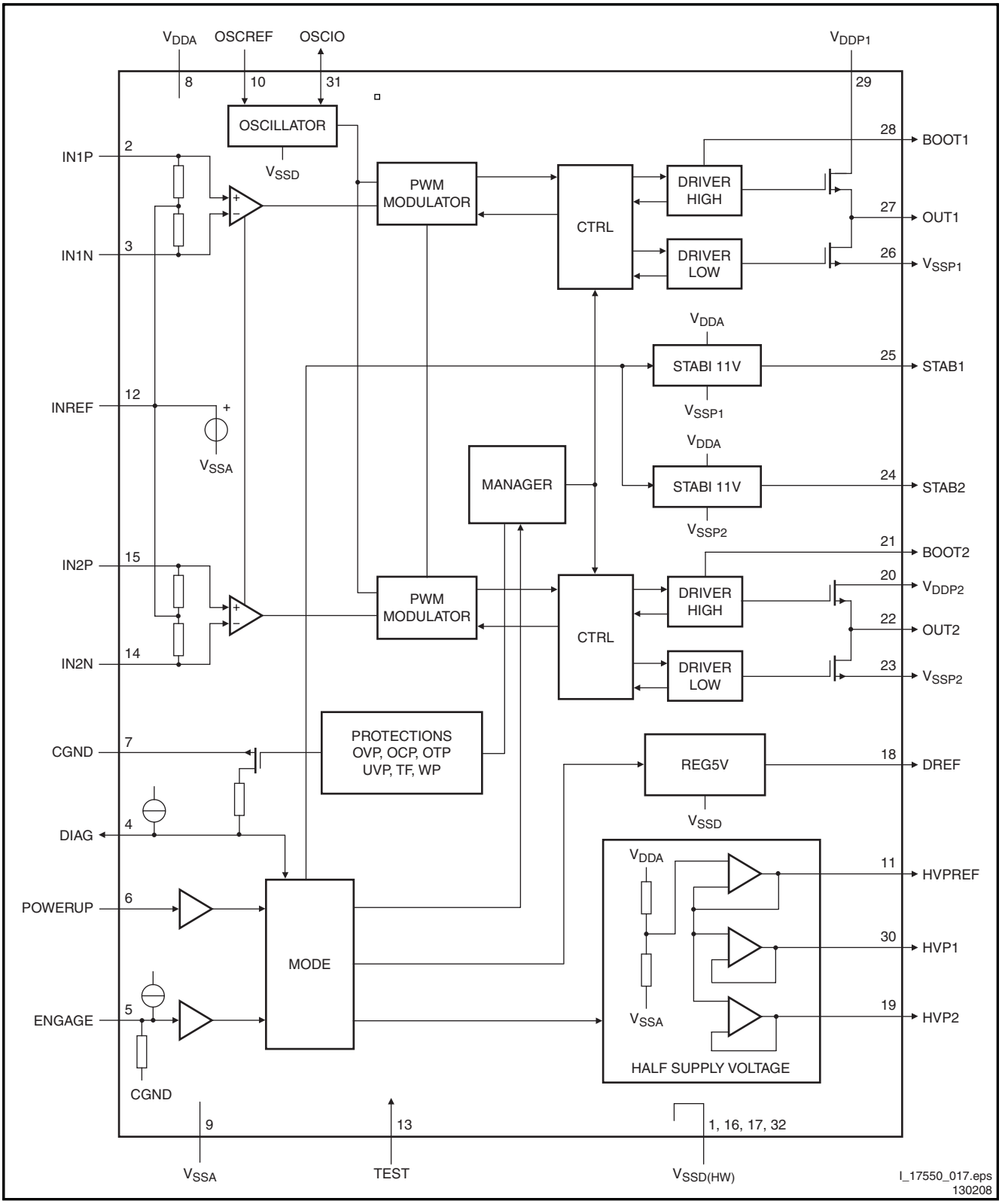
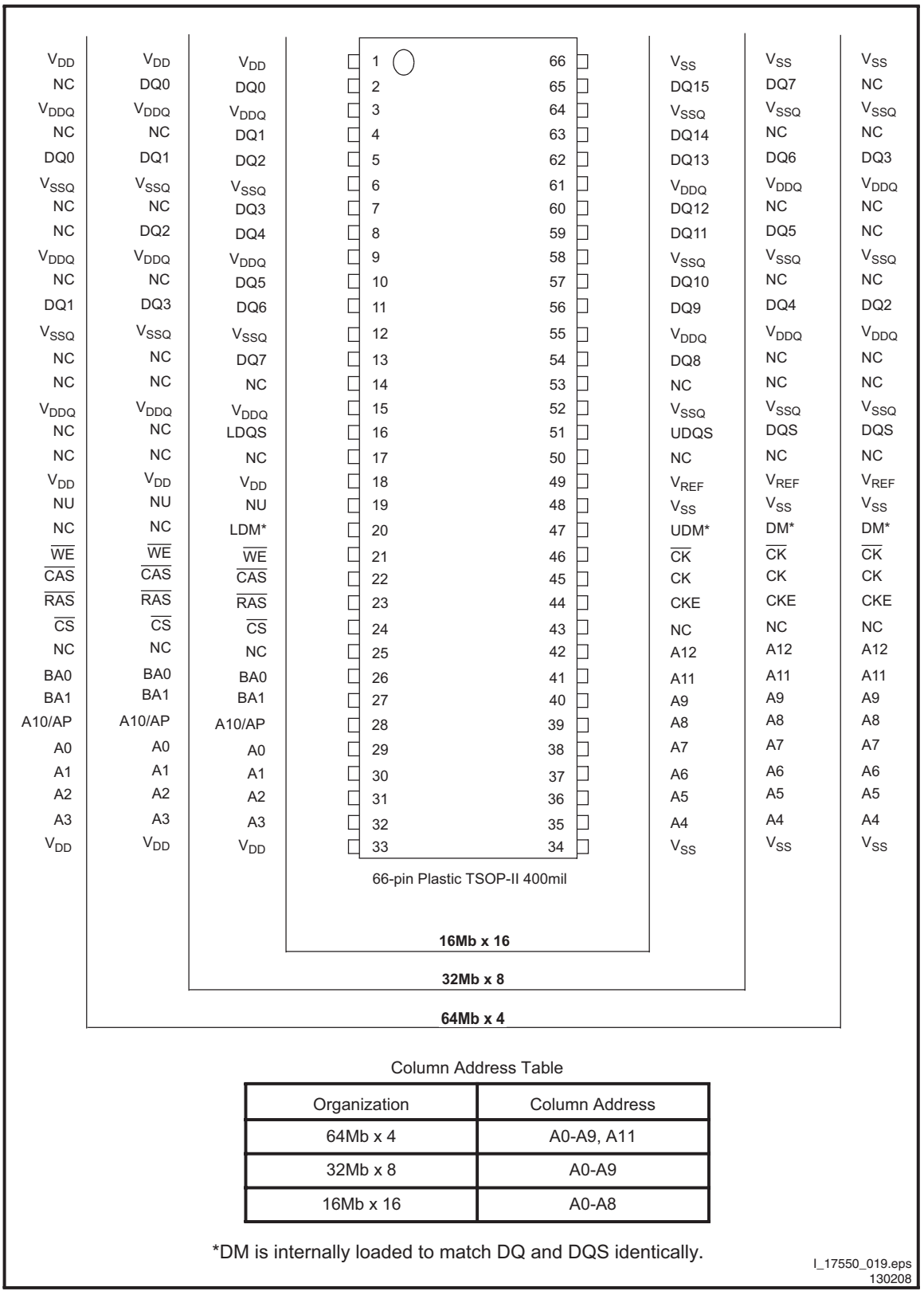


Figure 9-5 TDA8933BTW Block Diagram

9.4.3 Diagram B3A, NT5DS16M16CS-5T



Column Address Table

Organization	Column Address
64Mb x 4	A0-A9, A11
32Mb x 8	A0-A9
16Mb x 16	A0-A8

*DM is internally loaded to match DQ and DQS identically.

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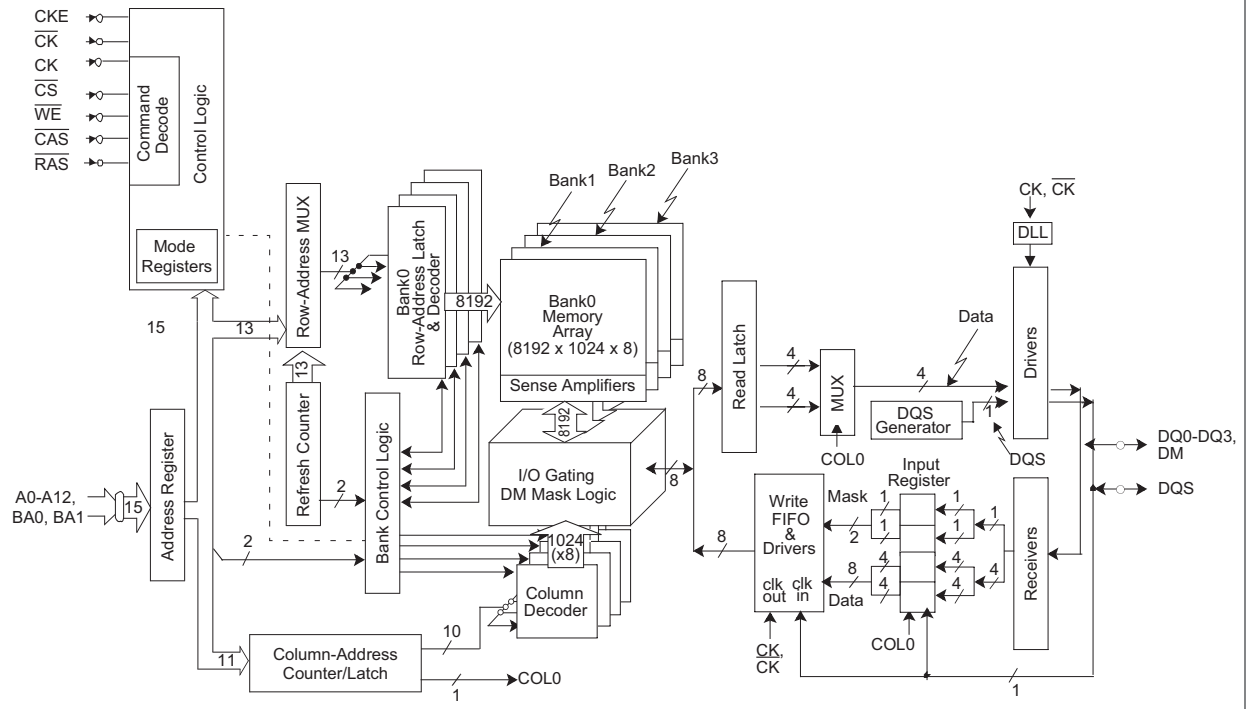
Figure 9-6 Internal pin configuration

9.4.4 Diagram B4A,NT5DS16M16CS-5T



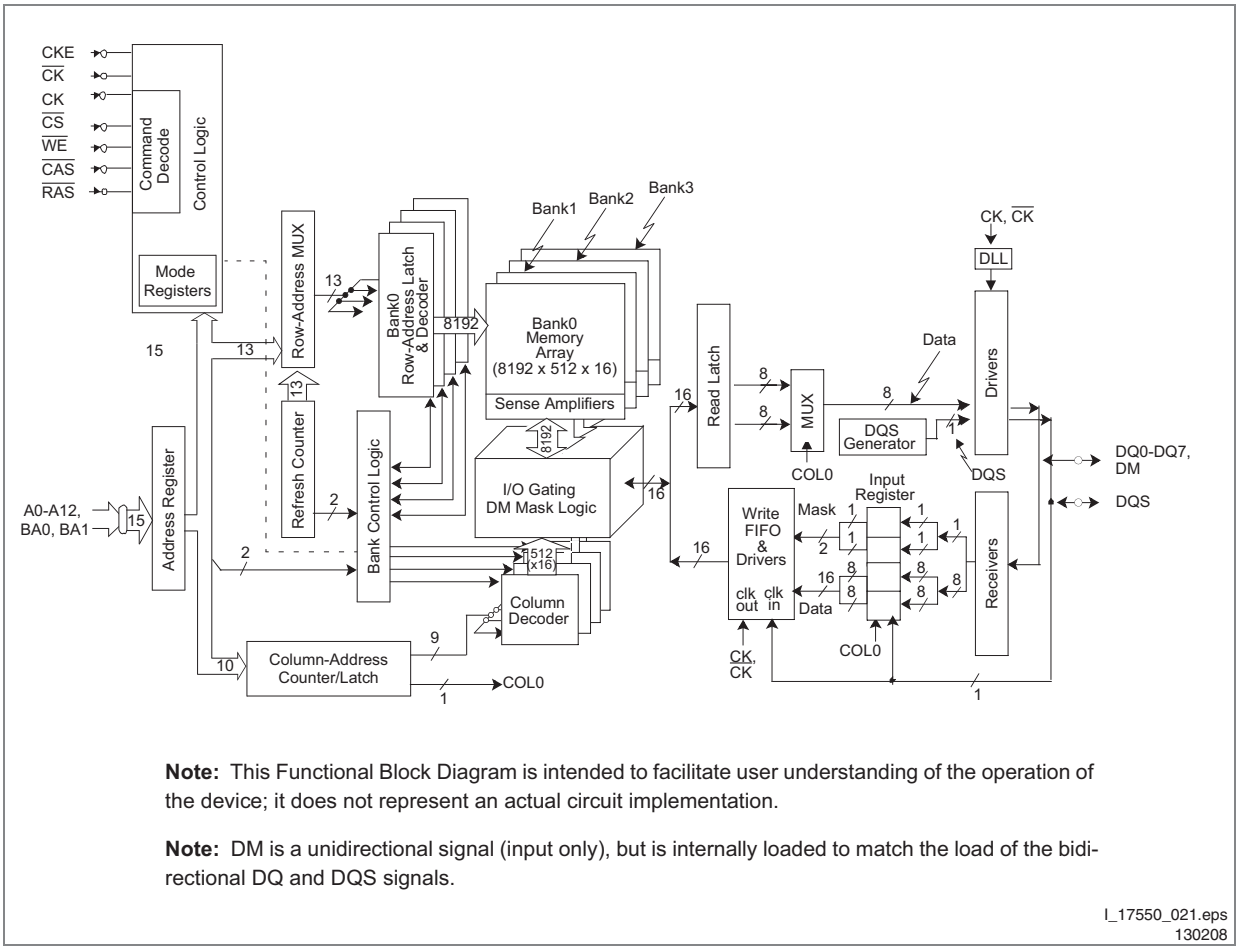
Note: This Functional Block Diagram is intended to facilitate user understanding of the operation of the device; it does not represent an actual circuit implementation.

Note: DM is a unidirectional signal (input only), but is internally loaded to match the load of the bidirectional DQ and DQS signals.

I_17550_020.eps
130208

Figure 9-7 Internal Block Diagram (64Mb x 4)

9.4.5 Diagram B5A, NT5DS16M16CS-5T



Note: This Functional Block Diagram is intended to facilitate user understanding of the operation of the device; it does not represent an actual circuit implementation.

Note: DM is a unidirectional signal (input only), but is internally loaded to match the load of the bidirectional DQ and DQS signals.

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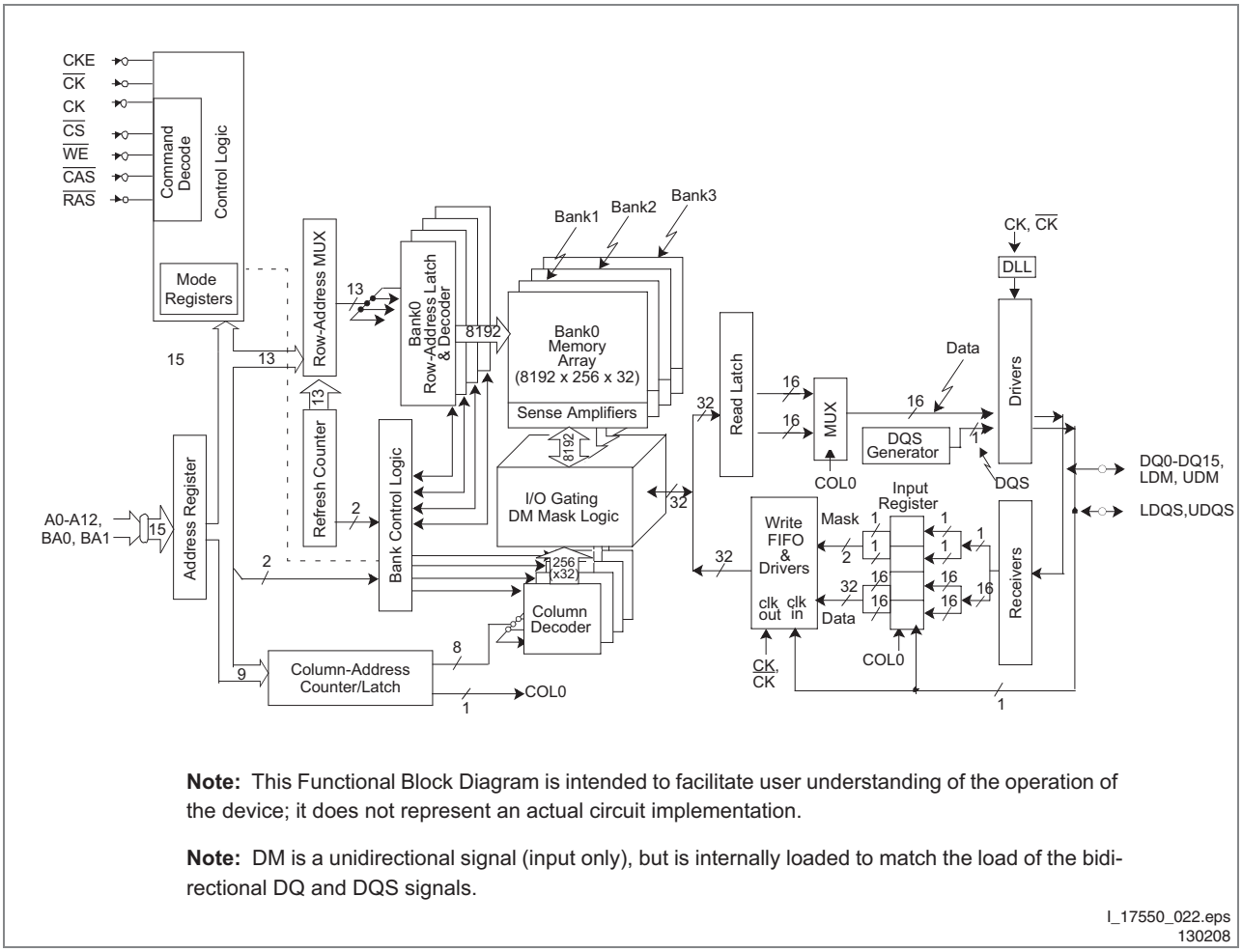
Figure 9-8 Internal Block Diagram (32Mb x 8)

9.4.6 Diagram B6A, NT5DS16M16CS-5T



Note: This Functional Block Diagram is intended to facilitate user understanding of the operation of the device; it does not represent an actual circuit implementation.

Note: DM is a unidirectional signal (input only), but is internally loaded to match the load of the bidirectional DQ and DQS signals.

I_17550_022.eps
130208

Figure 9-9 Internal Block Diagram (16Mb x 16)

10. Spare Parts List

Position/Item	PCM codes	Philips 12NCs	Description
E07801	078T 497900 Z	996510011419	SPEAKER 4 OHM 3W 41x92mm
E07801	078T 497901 M	996510011420	SPEAKER 4 OHM 3W 42x90mm
E08901	089T402A18N IS	996510011422	POWER CORD
E08901	089T402A18N LS	996510011423	POWER CORD
E08901	089T402A18N YH	996510011424	POWER CORD
E09502	095T8013 2F901	996510011425	HARNESS 2P 280mm 75121
E09502	095T8013 2X901	996510011427	HARNESS 2P 280mm LCDXXTE0004
E09503	095T8013 2F902	996510011426	HARNESS 2P 520mm 75122
E09503	095T8013 2X902	996510011428	HARNESS 2P 520mm LCDXXTE0005
E09504	095T8014 6F901	996510011429	HARNESS 6P-6P 300mm 75124
E09504	095T8014 6X901	996510011430	HARNESS 6P-6P 300mm
FQ001	089T179E30C919	996510011421	FFC CABLE 30P 100mm P1.0
FQ002	098TRABD4BEPHR	996510011431	REMOTE CONTROL RC2023624/01B
FQ003	0Q1T 330 8 47 CR3	996510011432	SCREW
FQ004	0Q1T 330 10 47 CR3	996510011433	SCREW
FQ005	0Q1T1030 8 47 CR3	996510011434	screw
FQ006	705TP734064	996510011435	REAR COVER ASSY
FQ007	705TP734065	996510011436	BEZEL ASSY
FQ008	750TVU90W101CN	996510011437	PANEL M190PW01 V000 AUO
FQ009	Q45T 88609 89	996520033053	EPE BAG FOR MONITOR
FQ010	P40T9V0081321A	996520033052	RATING LABEL
FQ017	705TP737003	996510011717	BASE ASSY
FQ018	0Q1T 340 8120	996510011718	T4X8 SCREW
FQ019	P37T0079011ACN	996510011719	BASE ASSY
FQ020	P34T0244ACN 1L0100	996510011720	STAND
FQ021	P34T0245PAA 1L0100	996510011721	BASE
FQ022	P37T0077011	996510011722	BASE HINGE
FQ012	CBPF72MKPK	996510011438	SCALER ASSY
C101	067T215H102 2C	996510011446	EC 1000uF 10V LZ 10x12.5mm
C101	067T215H102 2E	996510011447	EC 1000uF 10V RXZ 10x12mm
C101	067T215H102 2K	996510011448	EC 1000uF 10V EB 10x12mm
C102	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C103	065T0805475 A2	996510011582	CHIP 0805 4.7UF K 10V X7R
C103	065T0805475A2K 3	996510011583	CAP CHIP 4.7UF 10V X7R +/- 10%
C104	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C105	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C106	065T0603105A7Z Y	996510011566	CAP CHIP 0603 1U 10V Y5V
C107	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C108	067T 305101 3C	996510011442	EC 100uF 16V KM 6.3x11mm
C108	067T 305101 3E	996510011443	EC 100uF 16V RGA 6.3x11mm
C109	065T0805106A7Z Y	996510011581	CAP CHIP 0805 10UF Z 10V Y5V
C110	067T215H3313CT	996510011482	EC 330uF 16V LZ 8x11.5mm
C110	067T215H3313ET	996510011483	EC 330uF 16V RXZ 8x11.5mm
C111	065T060333031J Y	996510011570	CAP CHIP 0603 33PF J 50V NPO
C112	065T060333312K Y	996510011572	CAP CHIP 0603 33N 16V X7R
C113	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C114	067T 3051013CT	996510011473	EC 100uF 16V KM 6.3x11mm
C114	067T 3051013KT	996510011474	EC 100uF 16V PF 6.3x11mm
C115	067T 3051013CT	996510011473	EC 100uF 16V KM 6.3x11mm
C115	067T 3051013KT	996510011474	EC 100uF 16V PF 6.3x11mm
C116	065T1206226A7Z Y	996510011584	CER 1206 22U 10V Y5V -20%+80%
C117	067T 3051013CT	996510011473	EC 100uF 16V KM 6.3x11mm
C117	067T 3051013KT	996510011474	EC 100uF 16V PF 6.3x11mm
C118	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C119	067T 305101 3C	996510011442	EC 100uF 16V KM 6.3x11mm
C119	067T 305101 3E	996510011443	EC 100uF 16V RGA 6.3x11mm
C120	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C121	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R

C122	067T 305101 3C	996510011442	EC 100uF 16V KM 6.3x11mm
C122	067T 305101 3E	996510011443	EC 100uF 16V RGA 6.3x11mm
C123	067T 305220 4C	996510011444	EC 22uF 25V KM 5x11mm
C125	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C150	067T 305101 3C	996510011442	EC 100uF 16V KM 6.3x11mm
C150	067T 305101 3E	996510011443	EC 100uF 16V RGA 6.3x11mm
C151	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C152	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C153	067T 3051013CT	996510011473	EC 100uF 16V KM 6.3x11mm
C153	067T 3051013KT	996510011474	EC 100uF 16V PF 6.3x11mm
C154	067T 305220 4C	996510011444	EC 22uF 25V KM 5x11mm
C155	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C156	067T215H102 2C	996510011446	EC 1000uF 10V LZ 10x12.5mm
C156	067T215H102 2E	996510011447	EC 1000uF 10V RXZ 10x12mm
C156	067T215H102 2K	996510011448	EC 1000uF 10V EB 10x12mm
C157	067T 305101 3T	996510011472	100UF 16V 105C
C157	067T 3051013CT	996510011473	EC 100uF 16V KM 6.3x11mm
C157	067T 3051013KT	996510011474	EC 100uF 16V PF 6.3x11mm
C158	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C159	067T 305101 3C	996510011442	EC 100uF 16V KM 6.3x11mm
C159	067T 305101 3E	996510011443	EC 100uF 16V RGA 6.3x11mm
C160	067T 305101 3T	996510011472	100UF 16V 105C
C160	067T 3051013CT	996510011473	EC 100uF 16V KM 6.3x11mm
C160	067T 3051013KT	996510011474	EC 100uF 16V PF 6.3x11mm
C163	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C164	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C165	067T 305101 3T	996510011472	100UF 16V 105C
C165	067T 3051013CT	996510011473	EC 100uF 16V KM 6.3x11mm
C165	067T 3051013KT	996510011474	EC 100uF 16V PF 6.3x11mm
C166	065T0805106A7Z Y	996510011581	CAP CHIP 0805 10UF Z 10V Y5V
C167	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C168	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C174	067T 305101 3C	996510011442	EC 100uF 16V KM 6.3x11mm
C174	067T 305101 3E	996510011443	EC 100uF 16V RGA 6.3x11mm
C175	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C176	067T 3051013CT	996510011473	EC 100uF 16V KM 6.3x11mm
C176	067T 3051013KT	996510011474	EC 100uF 16V PF 6.3x11mm
C179	067T 3051013CT	996510011473	EC 100uF 16V KM 6.3x11mm
C179	067T 3051013KT	996510011474	EC 100uF 16V PF 6.3x11mm
C182	065T0603104 12	996510011561	MLCC 0603 0.1UF K 16V X7R
C182	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C185	065T0805475 A2	996510011582	CHIP 0805 4.7UF K 10V X7R
C185	065T0805475A2K 3	996510011583	CAP CHIP 4.7UF 10V X7R +/- 10%
C200	065T0603103 32	996510011559	CHIP 0.01UF 50V X7R
C200	065T060310332K Y	996510011560	CAP CHIP 0603 10NF K 50V X7R
C201	065T060310332K Y	996510011560	CAP CHIP 0603 10NF K 50V X7R
C203	067T 305101 3C	996510011442	EC 100uF 16V KM 6.3x11mm
C203	067T 305101 3E	996510011443	EC 100uF 16V RGA 6.3x11mm
C204	065T0603105 12	996510011565	CHIP 1UF 16V X7R
C205	065T0805475 A2	996510011582	CHIP 0805 4.7UF K 10V X7R
C205	065T0805475A2K 3	996510011583	CAP CHIP 4.7UF 10V X7R +/- 10%
C206	065T0603103 32	996510011559	CHIP 0.01UF 50V X7R
C206	065T060310332K Y	996510011560	CAP CHIP 0603 10NF K 50V X7R
C207	065T0402104 12	996510011551	CAP CHIP 0402 0.1UF 16V X7R
C207	065T040210412K Y	996510011553	CAP CHIP 0402 100N 16V X7R
C208	065T0603105 12	996510011565	CHIP 1UF 16V X7R
C209	065T0805475 A2	996510011582	CHIP 0805 4.7UF K 10V X7R
C209	065T0805475A2K 3	996510011583	CAP CHIP 4.7UF 10V X7R +/- 10%
C210	065T0603103 32	996510011559	CHIP 0.01UF 50V X7R
C210	065T060310332K Y	996510011560	CAP CHIP 0603 10NF K 50V X7R
C211	065T0402104 12	996510011551	CAP CHIP 0402 0.1UF 16V X7R

C211	065T040210412K Y	996510011553	CAP CHIP 0402 100N 16V X7R
C212	065T0603473 12	996510011575	CHIP 0603 47nF K 16V X7R
C212	065T060347312K Y	996510011576	CAP CHIP 0603 47N 16V X7R
C213	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C214	067T215H102 2C	996510011446	EC 1000uF 10V LZ 10x12.5mm
C214	067T215H102 2E	996510011447	EC 1000uF 10V RXZ 10x12mm
C214	067T215H102 2K	996510011448	EC 1000uF 10V EB 10x12mm
C215	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C216	065T0805106A7Z Y	996510011581	CAP CHIP 0805 10UF Z 10V Y5V
C217	065T0805475 A2	996510011582	CHIP 0805 4.7UF K 10V X7R
C217	065T0805475A2K 3	996510011583	CAP CHIP 4.7UF 10V X7R +/- 10%
C218	065T0402104 12	996510011551	CAP CHIP 0402 0.1UF 16V X7R
C218	065T040210412K Y	996510011553	CAP CHIP 0402 100N 16V X7R
C219	065T0805475 A2	996510011582	CHIP 0805 4.7UF K 10V X7R
C219	065T0805475A2K 3	996510011583	CAP CHIP 4.7UF 10V X7R +/- 10%
C220	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C221	065T060347031J Y	996510011573	CAP CHIP 0603 47PF J 50V NPO
C222	065T060347337Z Y	996510011577	CAP CHIP 0603 47N 50V Y5V
C223	065T0603105 12	996510011565	CHIP 1UF 16V X7R
C224	065T040210312K Y	996510011550	CAP CHIP 0402 10N 16V X7R
C225	065T040210312K Y	996510011550	CAP CHIP 0402 10N 16V X7R
C226	065T0603330 31	996510011569	CHIP 33PF 50V NPO
C226	065T060333031J Y	996510011570	CAP CHIP 0603 33PF J 50V NPO
C227	065T040210232K Y	996510011549	CAP CHIP 0402 1N 50V X7R
C228	065T040210232K Y	996510011549	CAP CHIP 0402 1N 50V X7R
C229	065T040233031J Y	996510011555	CAP CHIP 0402 33P 50V NPO
C230	065T0402330 31	996510011554	33PF +-50% 50V NPO
C230	065T040233031J Y	996510011555	CAP CHIP 0402 33P 50V NPO
C234	065T040210232K Y	996510011549	CAP CHIP 0402 1N 50V X7R
C235	065T040210232K Y	996510011549	CAP CHIP 0402 1N 50V X7R
C236	067T215H102 2C	996510011446	EC 1000uF 10V LZ 10x12.5mm
C236	067T215H102 2E	996510011447	EC 1000uF 10V RXZ 10x12mm
C236	067T215H102 2K	996510011448	EC 1000uF 10V EB 10x12mm
C250	065T040210412K	996510011552	CAP CHIP 0402 100N 16V X7R
C251	065T040210412K Y	996510011553	CAP CHIP 0402 100N 16V X7R
C252	065T0805475 A2	996510011582	CHIP 0805 4.7UF K 10V X7R
C252	065T0805475A2K 3	996510011583	CAP CHIP 4.7UF 10V X7R +/- 10%
C253	065T040210412K Y	996510011553	CAP CHIP 0402 100N 16V X7R
C254	065T040210412K Y	996510011553	CAP CHIP 0402 100N 16V X7R
C255	065T0402104 12	996510011551	CAP CHIP 0402 0.1UF 16V X7R
C255	065T040210412K Y	996510011553	CAP CHIP 0402 100N 16V X7R
C256	065T0402104 12	996510011551	CAP CHIP 0402 0.1UF 16V X7R
C256	065T040210412K Y	996510011553	CAP CHIP 0402 100N 16V X7R
C257	065T0402104 12	996510011551	CAP CHIP 0402 0.1UF 16V X7R
C257	065T040210412K Y	996510011553	CAP CHIP 0402 100N 16V X7R
C258	065T0402104 12	996510011551	CAP CHIP 0402 0.1UF 16V X7R
C258	065T040210412K Y	996510011553	CAP CHIP 0402 100N 16V X7R
C259	065T0603105 12	996510011565	CHIP 1UF 16V X7R
C260	065T0805475 A2	996510011582	CHIP 0805 4.7UF K 10V X7R
C260	065T0805475A2K 3	996510011583	CAP CHIP 4.7UF 10V X7R +/- 10%
C261	067T 305101 2C	996510011440	EC 100uF 10V KM 5x11mm
C261	067T 305101 2E	996510011441	EC 100uF 10V RGA 5x11mm
C262	065T0402104 12	996510011551	CAP CHIP 0402 0.1UF 16V X7R
C262	065T040210412K Y	996510011553	CAP CHIP 0402 100N 16V X7R
C263	065T0402104 12	996510011551	CAP CHIP 0402 0.1UF 16V X7R
C263	065T040210412K Y	996510011553	CAP CHIP 0402 100N 16V X7R
C264	065T0402104 12	996510011551	CAP CHIP 0402 0.1UF 16V X7R
C264	065T040210412K Y	996510011553	CAP CHIP 0402 100N 16V X7R
C265	065T0402104 12	996510011551	CAP CHIP 0402 0.1UF 16V X7R
C265	065T040210412K Y	996510011553	CAP CHIP 0402 100N 16V X7R
C266	065T0805475 A2	996510011582	CHIP 0805 4.7UF K 10V X7R

C266	065T0805475A2K 3	996510011583	CAP CHIP 4.7UF 10V X7R +/- 10%
C267	067T 305220 4C	996510011444	EC 22uF 25V KM 5x11mm
C268	065T040210412K Y	996510011553	CAP CHIP 0402 100N 16V X7R
C269	065T040210412K Y	996510011553	CAP CHIP 0402 100N 16V X7R
C270	065T0402104 12	996510011551	CAP CHIP 0402 0.1UF 16V X7R
C270	065T040210412K Y	996510011553	CAP CHIP 0402 100N 16V X7R
C271	065T040210412K Y	996510011553	CAP CHIP 0402 100N 16V X7R
C272	065T040210412K Y	996510011553	CAP CHIP 0402 100N 16V X7R
C273	065T040210412K Y	996510011553	CAP CHIP 0402 100N 16V X7R
C274	065T0805475 A2	996510011582	CHIP 0805 4.7UF K 10V X7R
C274	065T0805475A2K 3	996510011583	CAP CHIP 4.7UF 10V X7R +/- 10%
C275	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C276	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C301	065T0805475 A2	996510011582	CHIP 0805 4.7UF K 10V X7R
C301	065T0805475A2K 3	996510011583	CAP CHIP 4.7UF 10V X7R +/- 10%
C302	067T 305101 2C	996510011440	EC 100uF 10V KM 5x11mm
C302	067T 305101 2E	996510011441	EC 100uF 10V RGA 5x11mm
C303	065T060310437Z Y	996510011564	CAP CHIP 0603 0.1UF Z 50V Y5V
C304	065T0402100 31	996510011547	CAP 0402 10PF J 50V NPO
C304	065T040210031J Y	996510011548	CAP CHIP 0402 10P 50V NPO
C305	065T0402100 31	996510011547	CAP 0402 10PF J 50V NPO
C305	065T040210031J Y	996510011548	CAP CHIP 0402 10P 50V NPO
C306	065T0603105 12	996510011565	CHIP 1UF 16V X7R
C307	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C308	065T060310221J Y	996510011558	CAP CHIP 0603 1NF J 25V MPO
C309	065T0603105 12	996510011565	CHIP 1UF 16V X7R
C310	065T0402104 12	996510011551	CAP CHIP 0402 0.1UF 16V X7R
C310	065T040210412K Y	996510011553	CAP CHIP 0402 100N 16V X7R
C312	065T0603105 12	996510011565	CHIP 1UF 16V X7R
C313	065T0402104 12	996510011551	CAP CHIP 0402 0.1UF 16V X7R
C313	065T040210412K Y	996510011553	CAP CHIP 0402 100N 16V X7R
C316	065T0603104 37	996510011562	CHIP 0.1UF 50V/Y5V
C316	065T060310437Z Y	996510011564	CAP CHIP 0603 0.1UF Z 50V Y5V
C317	065T0603104 37	996510011562	CHIP 0.1UF 50V/Y5V
C317	065T060310437Z Y	996510011564	CAP CHIP 0603 0.1UF Z 50V Y5V
C318	065T0603104 37	996510011562	CHIP 0.1UF 50V/Y5V
C318	065T060310437Z Y	996510011564	CAP CHIP 0603 0.1UF Z 50V Y5V
C319	065T0603104 37	996510011562	CHIP 0.1UF 50V/Y5V
C319	065T060310437Z Y	996510011564	CAP CHIP 0603 0.1UF Z 50V Y5V
C323	065T060310437Z Y	996510011564	CAP CHIP 0603 0.1UF Z 50V Y5V
C350	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C352	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C353	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C354	065T040210412K Y	996510011553	CAP CHIP 0402 100N 16V X7R
C355	065T0805475 A2	996510011582	CHIP 0805 4.7UF K 10V X7R
C355	065T0805475A2K 3	996510011583	CAP CHIP 4.7UF 10V X7R +/- 10%
C356	065T0603105 12	996510011565	CHIP 1UF 16V X7R
C357	065T0805475 A2	996510011582	CHIP 0805 4.7UF K 10V X7R
C357	065T0805475A2K 3	996510011583	CAP CHIP 4.7UF 10V X7R +/- 10%
C358	065T0603105 12	996510011565	CHIP 1UF 16V X7R
C359	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C360	065T040210412K Y	996510011553	CAP CHIP 0402 100N 16V X7R
C361	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C362	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C363	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C364	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C365	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C366	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C367	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C368	065T0805475 A2	996510011582	CHIP 0805 4.7UF K 10V X7R
C368	065T0805475A2K 3	996510011583	CAP CHIP 4.7UF 10V X7R +/- 10%

C369	065T0603105 12	996510011565	CHIP 1UF 16V X7R
C370	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C371	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C372	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C373	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C374	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C375	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C376	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C401	065T060310437Z Y	996510011564	CAP CHIP 0603 0.1UF Z 50V Y5V
C402	065T060310437Z Y	996510011564	CAP CHIP 0603 0.1UF Z 50V Y5V
C403	065T0805475 A2	996510011582	CHIP 0805 4.7UF K 10V X7R
C403	065T0805475A2K 3	996510011583	CAP CHIP 4.7UF 10V X7R +/- 10%
C404	065T0402104 12	996510011551	CAP CHIP 0402 0.1UF 16V X7R
C404	065T040210412K Y	996510011553	CAP CHIP 0402 100N 16V X7R
C405	065T0603105 12	996510011565	CHIP 1UF 16V X7R
C406	065T0603105 12	996510011565	CHIP 1UF 16V X7R
C407	065T0402104 12	996510011551	CAP CHIP 0402 0.1UF 16V X7R
C407	065T040210412K Y	996510011553	CAP CHIP 0402 100N 16V X7R
C408	065T0805475 A2	996510011582	CHIP 0805 4.7UF K 10V X7R
C408	065T0805475A2K 3	996510011583	CAP CHIP 4.7UF 10V X7R +/- 10%
C424	065T060310437Z Y	996510011564	CAP CHIP 0603 0.1UF Z 50V Y5V
C450	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C451	065T040247222K Y	996510011557	CAP CHIP 0402 4N7 25V X7R
C452	065T040210312K Y	996510011550	CAP CHIP 0402 10N 16V X7R
C453	065T0603509 31	996510011578	CHIP 5PF 50V NPO
C454	065T040210312K Y	996510011550	CAP CHIP 0402 10N 16V X7R
C455	065T040210312K Y	996510011550	CAP CHIP 0402 10N 16V X7R
C456	065T0603509 31	996510011578	CHIP 5PF 50V NPO
C457	065T040210312K Y	996510011550	CAP CHIP 0402 10N 16V X7R
C458	065T040210312K Y	996510011550	CAP CHIP 0402 10N 16V X7R
C460	065T0603509 31	996510011578	CHIP 5PF 50V NPO
C461	065T0603509 31	996510011578	CHIP 5PF 50V NPO
C462	065T040210312K Y	996510011550	CAP CHIP 0402 10N 16V X7R
C463	065T0603509 31	996510011578	CHIP 5PF 50V NPO
C465	065T0805106A7Z Y	996510011581	CAP CHIP 0805 10UF Z 10V Y5V
C466	065T0805106A7Z Y	996510011581	CAP CHIP 0805 10UF Z 10V Y5V
C501	065T0603105 12	996510011565	CHIP 1UF 16V X7R
C502	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C503	065T0603105 12	996510011565	CHIP 1UF 16V X7R
C504	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C505	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C506	065T0603105 12	996510011565	CHIP 1UF 16V X7R
C507	065T0805106A7Z Y	996510011581	CAP CHIP 0805 10UF Z 10V Y5V
C508	065T0805106A7Z Y	996510011581	CAP CHIP 0805 10UF Z 10V Y5V
C509	065T040247222K Y	996510011557	CAP CHIP 0402 4N7 25V X7R
C510	065T040210312K Y	996510011550	CAP CHIP 0402 10N 16V X7R
C511	065T060315031J Y	996510011567	CAP CHIP 0603 15PF J 50V NPO
C512	065T040210312K Y	996510011550	CAP CHIP 0402 10N 16V X7R
C513	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C514	065T060333031J Y	996510011570	CAP CHIP 0603 33PF J 50V NPO
C515	065T040210312K Y	996510011550	CAP CHIP 0402 10N 16V X7R
C516	065T060315031J Y	996510011567	CAP CHIP 0603 15PF J 50V NPO
C517	065T040210312K Y	996510011550	CAP CHIP 0402 10N 16V X7R
C518	065T060315031J Y	996510011567	CAP CHIP 0603 15PF J 50V NPO
C519	065T040210312K Y	996510011550	CAP CHIP 0402 10N 16V X7R
C550	065T0402104 12	996510011551	CAP CHIP 0402 0.1UF 16V X7R
C550	065T040210412K Y	996510011553	CAP CHIP 0402 100N 16V X7R
C554	065T0603105 A7	996500044780	CHIP 1uF 10V Y5V
C554	065T0603105A7Z Y	996510011566	CAP CHIP 0603 1U 10V Y5V
C559	065T0805475 A2	996510011582	CHIP 0805 4.7UF K 10V X7R
C559	065T0805475A2K 3	996510011583	CAP CHIP 4.7UF 10V X7R +/- 10%

C560	065T0603105 12	996510011565	CHIP 1UF 16V X7R
C561	065T040210412K Y	996510011553	CAP CHIP 0402 100N 16V X7R
C562	065T0402472 22	996510011556	CHIP 4700pF 25V X7R
C562	065T040247222K Y	996510011557	CAP CHIP 0402 4N7 25V X7R
C563	065T060347031J Y	996510011573	CAP CHIP 0603 47PF J 50V NPO
C564	065T0603105A7Z Y	996510011566	CAP CHIP 0603 1U 10V Y5V
C565	065T0603105 12	996510011565	CHIP 1UF 16V X7R
C566	065T0402104 12	996510011551	CAP CHIP 0402 0.1UF 16V X7R
C566	065T040210412K Y	996510011553	CAP CHIP 0402 100N 16V X7R
C570	065T0603105 12	996510011565	CHIP 1UF 16V X7R
C571	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C574	065T0603105 12	996510011565	CHIP 1UF 16V X7R
C575	065T0402104 12	996510011551	CAP CHIP 0402 0.1UF 16V X7R
C575	065T040210412K Y	996510011553	CAP CHIP 0402 100N 16V X7R
C576	065T0805106A7Z Y	996510011581	CAP CHIP 0805 10UF Z 10V Y5V
C577	065T0805106A7Z Y	996510011581	CAP CHIP 0805 10UF Z 10V Y5V
C601	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C602	065T060347131J Y	996510011574	CAP CHIP 0603 470PF J 50V NPO
C603	065T060310332K Y	996510011560	CAP CHIP 0603 10NF K 50V X7R
C604	065T060310332K Y	996510011560	CAP CHIP 0603 10NF K 50V X7R
C606	065T0805105 12	996510011579	1UF +-10% 16V X7R
C606	065T080510512K Y	996510011580	CAP CHIP 0805 1UF K 16V X7R
C607	065T060333131J Y	996510011571	CAP CHIP 0603 330PF J 50V NPO
C608	065T0805105 12	996510011579	1UF +-10% 16V X7R
C608	065T080510512K Y	996510011580	CAP CHIP 0805 1UF K 16V X7R
C609	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C610	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C611	065G080547412K	996510004369	CAP 0805 470N 16V X7R +/-10%
C612	065T060315322K Y	996510011568	CAP CHIP 0603 15NF K 25V X7R
C613	065T060310437Z Y	996510011564	CAP CHIP 0603 0.1UF Z 50V Y5V
C614	065T120668437M Y	996510011585	CER 1206 680N 50V Y5V +/-20%
C615	067T305V471 4	996510011452	EC 470uF 25V KM 10x16mm V
C616	067T 3056814CT	996510011445	EC 680uF 25V KM 10x16mm
C617	065T060310437Z Y	996510011564	CAP CHIP 0603 0.1UF Z 50V Y5V
C618	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C619	067T305V470 4C	996510011450	EC 47uF 25V KM 5x11mm
C619	067T305V470 4K	996510011451	EC 47uF 25V PF 5x11mm
C620	065T060315322K Y	996510011568	CAP CHIP 0603 15NF K 25V X7R
C621	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C622	065T060310437Z Y	996510011564	CAP CHIP 0603 0.1UF Z 50V Y5V
C623	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C624	065T120668437M Y	996510011585	CER 1206 680N 50V Y5V +/-20%
C625	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C626	065T060347131J Y	996510011574	CAP CHIP 0603 470PF J 50V NPO
C627	067T 3056814CT	996510011445	EC 680uF 25V KM 10x16mm
C628	065T0805105 12	996510011579	1UF +-10% 16V X7R
C628	065T080510512K Y	996510011580	CAP CHIP 0805 1UF K 16V X7R
C629	065T060333131J Y	996510011571	CAP CHIP 0603 330PF J 50V NPO
C630	067T 305221 4T	996510011476	105 J RADIALE-CAPACTOR
C630	067T 3052214CT	996510011479	EC 220UF/25V KM 8*11mm
C631	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C632	065G080510512K	996500042264	CAP CHIP 0805 1U 16V X7R
C632	065T0805105 12	996510011579	1UF +-10% 16V X7R
C633	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C650	067T 305101 2C	996510011440	EC 100uF 10V KM 5x11mm
C650	067T 305101 2E	996510011441	EC 100uF 10V RGA 5x11mm
C651	065T0603105 12	996510011565	CHIP 1UF 16V X7R
C652	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C653	065T0603105 12	996510011565	CHIP 1UF 16V X7R
C654	065T040210412K Y	996510011553	CAP CHIP 0402 100N 16V X7R
C655	065T0603105 12	996510011565	CHIP 1UF 16V X7R

C656	065T0402104 12	996510011551	CAP CHIP 0402 0.1UF 16V X7R
C656	065T040210412K Y	996510011553	CAP CHIP 0402 100N 16V X7R
C657	065T0603105 12	996510011565	CHIP 1UF 16V X7R
C658	065T0402104 12	996510011551	CAP CHIP 0402 0.1UF 16V X7R
C658	065T040210412K Y	996510011553	CAP CHIP 0402 100N 16V X7R
C659	065T0805475A2K 3	996510011583	CAP CHIP 4.7UF 10V X7R +/- 10%
C660	065T0402104 12	996510011551	CAP CHIP 0402 0.1UF 16V X7R
C660	065T040210412K Y	996510011553	CAP CHIP 0402 100N 16V X7R
C661	065T0805475A2K 3	996510011583	CAP CHIP 4.7UF 10V X7R +/- 10%
C662	065T0603105 12	996510011565	CHIP 1UF 16V X7R
C663	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C664	065T060310332K Y	996510011560	CAP CHIP 0603 10NF K 50V X7R
C665	065T060310332K Y	996510011560	CAP CHIP 0603 10NF K 50V X7R
C666	067T 3052213CT	996510011477	EC 220uF 16V KM 8x12mm
C666	067T 3052213LT	996510011478	EC 220uF 16V RGA 8x11.5mm
C668	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C670	067T305V100 7	996510011449	10UF +-20% 50V
C671	067T 3052213CT	996510011477	EC 220uF 16V KM 8x12mm
C671	067T 3052213LT	996510011478	EC 220uF 16V RGA 8x11.5mm
C674	067T305V100 7	996510011449	10UF +-20% 50V
C675	067T 3052213CT	996510011477	EC 220uF 16V KM 8x12mm
C675	067T 3052213LT	996510011478	EC 220uF 16V RGA 8x11.5mm
C680	067T305V100 7	996510011449	10UF +-20% 50V
C681	065T0402104 12	996510011551	CAP CHIP 0402 0.1UF 16V X7R
C681	065T040210412K Y	996510011553	CAP CHIP 0402 100N 16V X7R
C682	067T305V100 7	996510011449	10UF +-20% 50V
C683	067T305V100 7	996510011449	10UF +-20% 50V
C686	067T 309479 4T	996510011480	85 J RADIAL E-CAPACTOR
C686	067T 5154797CT	996510011481	EC 4U7 50V GF 5*11mm
C701	067T 305101 3C	996510011442	EC 100uF 16V KM 6.3x11mm
C701	067T 305101 3E	996510011443	EC 100uF 16V RGA 6.3x11mm
C702	065T0603105 12	996510011565	CHIP 1UF 16V X7R
C703	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C704	065T0603105 12	996510011565	CHIP 1UF 16V X7R
C705	065T0805475 A2	996510011582	CHIP 0805 4.7UF K 10V X7R
C705	065T0805475A2K 3	996510011583	CAP CHIP 4.7UF 10V X7R +/- 10%
C706	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C708	065T0603105A7Z Y	996510011566	CAP CHIP 0603 1U 10V Y5V
C709	065T060310412K Y	996510011563	CAP CHIP 0603 0.1UF K 16V X7R
C710	067T 305101 3T	996510011472	100UF 16V 105C
C710	067T 3051013CT	996510011473	EC 100uF 16V KM 6.3x11mm
C710	067T 3051013KT	996510011474	EC 100uF 16V PF 6.3x11mm
C710	067T 3051013LT	996510011475	EC 100uF 16V RGA 6.3x11mm
CN401	088T 340 19TNS	996510011596	HEADER 19P 5300-519-441-72
CN450	088T 35315F FX	996510011468	D-SUB 15PIN FEMALE VERTICAL
CN450	088T 35315FTNA	996510011469	D-SUB CONN V 15P F
CN451	088T 30252S	996510011464	PHONE JACK 3.5mm 3P V/A GREEN
CN451	088T 302917 TN	996510011466	PHONE JACK 3.5mm 3P V/T GREEN
CN501	088T 78 1360S	996510011458	RCA JACK 1*3 G/B/R V/A
CN501	088T 78 13936 TN	996510011463	RCA JACK 1*3 G/BL/R V/A
CN502	088T 78 13935 S	996510011461	RCA JACK 1*3 W/R/B V/A
CN502	088T 78 13935 TN	996510011462	RCA JACK 1*3 W/R/B V/A
CN550	088T 78 13934 S	996510011459	RCA JACK 1*3 Y/W/R
CN550	088T 78 13934 TN	996510011460	RCA JACK 1*3 Y/W/R
CN650	088T 302912 S	996510005113	JACK 3.5mm 7P 2SJ1508-001111
CN650	088T 302912 TN	996510011465	PHONE JACK 3.5mm 7P BLACK
CN701	033T801930Q	996510011484	CONNECTOR
D101	093T 6490452T	996510011471	DIODE RGP15D DO-41
D102	093T 60S905 T	996510011598	DIODE 2A/40V SS2P4 DO-220AA
D150	093T 6490452T	996510011471	DIODE RGP15D DO-41
D301	093T 64S3PH	996510011599	BAS32L SOD80C

D401	093T 64S3PH	996510011599	BAS32L SOD80C
D402	093T 64S3PH	996510011599	BAS32L SOD80C
D403	093T 64S3PH	996510011599	BAS32L SOD80C
D450	093T 64S3PH	996510011599	BAS32L SOD80C
D451	093T 64S3PH	996510011599	BAS32L SOD80C
D601	093T 64S3PH	996510011599	BAS32L SOD80C
D602	093T 64S3PH	996510011599	BAS32L SOD80C
D603	093T 64S3PH	996510011599	BAS32L SOD80C
FB101	071T 55 29	996510011453	BEAD
FB102	071T 55 29	996510011453	BEAD
FB150	071T 59Q121 T	996510011589	CHIP BEAD 120R/500mA
FB152	071T 59Q121 T	996510011589	CHIP BEAD 120R/500mA
FB201	071T 59Q121 T	996510011589	CHIP BEAD 120R/500mA
FB202	071T 59Q121 T	996510011589	CHIP BEAD 120R/500mA
FB203	071T 59Q121 T	996510011589	CHIP BEAD 120R/500mA
FB204	071T 59Q121 T	996510011589	CHIP BEAD 120R/500mA
FB205	071T 59Q121 T	996510011589	CHIP BEAD 120R/500mA
FB206	071T 59Q121 T	996510011589	CHIP BEAD 120R/500mA
FB301	071T 59Q121 T	996510011589	CHIP BEAD 120R/500mA
FB302	071T 59Q121 T	996510011589	CHIP BEAD 120R/500mA
FB303	071T 59C601 TA	996510011587	CHIP BEAD 600R/200mA
FB304	071T 59Q121 T	996510011589	CHIP BEAD 120R/500mA
FB401	071T 59Q121 T	996510011589	CHIP BEAD 120R/500mA
FB402	071T 59Q121 T	996510011589	CHIP BEAD 120R/500mA
FB501	071T 59Q121 T	996510011589	CHIP BEAD 120R/500mA
FB502	071T 59Q121 T	996510011589	CHIP BEAD 120R/500mA
FB503	071T 59Q121 T	996510011589	CHIP BEAD 120R/500mA
FB550	071T 59Q121 T	996510011589	CHIP BEAD 120R/500mA
FB551	071T 59Q121 T	996510011589	CHIP BEAD 120R/500mA
FB552	071T 59Q121 T	996510011589	CHIP BEAD 120R/500mA
FB553	071T 59Q121 T	996510011589	CHIP BEAD 120R/500mA
FB601	071T 56A221 TA	996510011586	CHIP BEAD 0805 220R/2000mA
FB650	071T 59Q121 T	996510011589	CHIP BEAD 120R/500mA
FB651	071T 59Q121 T	996510011589	CHIP BEAD 120R/500mA
FB652	071T 59Q121 T	996510011589	CHIP BEAD 120R/500mA
FB653	071T 59Q121 T	996510011589	CHIP BEAD 120R/500mA
FB654	071T 59Q121 T	996510011589	CHIP BEAD 120R/500mA
FB655	071T 59Q121 T	996510011589	CHIP BEAD 120R/500mA
FB701	071T 59Q121 T	996510011589	CHIP BEAD 120R/500mA
FB702	071T 59Q121 T	996510011589	CHIP BEAD 120R/500mA
FB703	071T 56A221 TA	996510011586	CHIP BEAD 0805 220R/2000mA
FQ013	088T 303903 LS	996510011467	ADAPTOR(F MALE TO F FEMALE)
L101	073T 253916 L	996510011454	CHOKE COIL
L101	073T 253916 LS	996510011455	CHOKE COIL
L209	073T 63338 5T	996510011591	CHIP INDUCROR 0U33 5%
L210	073T 63398 5T	996510011592	CHIP INDUCROR 0U33 5%
L211	073T 63398 5T	996510011592	CHIP INDUCROR 0U33 5%
L301	073T 63828 T	996510011593	CHIP INDUCROR 0U82 10%
L301	073T 63828 TA	996510011594	CHIP INDUCROR 0U82 10%
L450	073T 63108 T	996510011590	CHIP INDUCROR 0U10 10%
L451	073T 63108 T	996510011590	CHIP INDUCROR 0U10 10%
L452	073T 63108 T	996510011590	CHIP INDUCROR 0U10 10%
L453	073T 63108 T	996510011590	CHIP INDUCROR 0U10 10%
L454	073T 63108 T	996510011590	CHIP INDUCROR 0U10 10%
L501	073T 63108 T	996510011590	CHIP INDUCROR 0U10 10%
L502	073T 63108 T	996510011590	CHIP INDUCROR 0U10 10%
L503	073T 63108 T	996510011590	CHIP INDUCROR 0U10 10%
L601	073T 259901 T	996510011456	CHOKE 22uH
L602	073T 259901 T	996510011456	CHOKE 22uH
L703	073T253S900 TA	996510011595	SMD CHOKE 67R/400mA
L704	073T253S900 TA	996510011595	SMD CHOKE 67R/400mA

Q101	057T 7601PH	996510002846	MUN2211TIG SC-59
Q102	057T 477900 T	996510011509	TRA BC847C 100mA/50V SOT-23
Q152	057T 7631PH	996510005852	SI5441DC 1206-8
Q153	057T 477900 T	996510011509	TRA BC847C 100mA/50V SOT-23
Q156	057T 7601PH	996510002846	MUN2211TIG SC-59
Q157	057T 7631PH	996510005852	SI5441DC 1206-8
Q158	057T 7601PH	996510002846	MUN2211TIG SC-59
Q301	057T 417903 T	996510011507	TRA MMBT3904 200mA/40V SOT-23
Q302	057T 417903 T	996510011507	TRA MMBT3904 200mA/40V SOT-23
Q402	057T 417903 T	996510011507	TRA MMBT3904 200mA/40V SOT-23
Q403	057T 417903 T	996510011507	TRA MMBT3904 200mA/40V SOT-23
Q406	057T 417903 T	996510011507	TRA MMBT3904 200mA/40V SOT-23
Q601	057T 477904 T	996510011510	TRA BC847BW 100mA/45V SOT-323
Q603	057T 761902 T	996510011511	TRA BC857BW 100mA/50V SOT-323
Q650	057T 477904 T	996510011510	TRA BC847BW 100mA/45V SOT-323
Q651	057T 419911 T	996510011508	TRA 2A/12V 2SD2653K SOT-346
Q652	057T 419911 T	996510011508	TRA 2A/12V 2SD2653K SOT-346
Q701	057T 417903 T	996510011507	TRA MMBT3904 200mA/40V SOT-23
Q702	057T 417903 T	996510011507	TRA MMBT3904 200mA/40V SOT-23
Q703	057T 417903 T	996510011507	TRA MMBT3904 200mA/40V SOT-23
R101	061T0603472 Y	996510011540	RST CHIPR 4.7KOHM +-5% 1/10W
R104	061T0603473 Y	996510011541	RST CHIPR 47KOHM +-5% 1/10W
R105	061T0603750 9F	996510011544	CHIP 75OHM 1/16W 1%
R107	061T0603392 Y	996510011537	RST CHIPR 3.9KOHM +-5% 1/10W
R108	061T06031001FY	996510011488	RST CHIPR 100 OHM +-1% 1/10W
R109	061T06031201FY	996510011497	RST CHIPR 1.2KOHM +-1% 1/10W
R110	061T06031100FY	996510011495	RST CHIP 110R 1% 1/10W
R111	061T06031200FY	996510011496	RST CHIPR 120 OHM +-1% 1/10W
R113	061T0603101 Y	996510011489	RST CHIPR 100 OHM +-5% 1/10W
R114	061T0603223 Y	996510011528	RST CHIPR 22KOHM +-5% 1/10W
R115	061T0603103 Y	996510011491	RST CHIPR 10KOHM +-5% 1/10W
R151	061T06031000FY	996510011521	RST CHIPR 100 OHM +-1% 1/10W
R152	061T0603000 Y	996510011519	RST CHIPR 0 OHM +-5% 1/10W
R153	061T0603102 Y	996510011490	RST CHIPR 1KOHM +-5% 1/10W
R155	061T208M43852T	996510011439	RST MOF 0R43 5% 1W
R157	061T0603223 Y	996510011528	RST CHIPR 22KOHM +-5% 1/10W
R161	061T0603223 Y	996510011528	RST CHIPR 22KOHM +-5% 1/10W
R162	061T06031200FY	996510011496	RST CHIPR 120 OHM +-1% 1/10W
R163	061T06031200FY	996510011496	RST CHIPR 120 OHM +-1% 1/10W
R164	061T0603103 Y	996510011491	RST CHIPR 10KOHM +-5% 1/10W
R182	061T0603103 Y	996510011491	RST CHIPR 10KOHM +-5% 1/10W
R186	061T0603223 Y	996510011528	RST CHIPR 22KOHM +-5% 1/10W
R189	061T0603223 Y	996510011528	RST CHIPR 22KOHM +-5% 1/10W
R190	061T0603101 Y	996510011489	RST CHIPR 100 OHM +-5% 1/10W
R202	061T06035101FY	996510011542	RST CHIPR 5.1KOHM +-1% 1/10W
R203	061T0603103 Y	996510011491	RST CHIPR 10KOHM +-5% 1/10W
R204	061T0603472 Y	996510011540	RST CHIPR 4.7KOHM +-5% 1/10W
R205	061T0603472 Y	996510011540	RST CHIPR 4.7KOHM +-5% 1/10W
R206	061T0603101 Y	996510011489	RST CHIPR 100 OHM +-5% 1/10W
R207	061T0603101 Y	996510011489	RST CHIPR 100 OHM +-5% 1/10W
R208	061T0603472 Y	996510011540	RST CHIPR 4.7KOHM +-5% 1/10W
R213	061T0603104 Y	996510011492	RST CHIPR 100KOHM +-5% 1/10W
R214	061T0603224 Y	996510011529	RST CHIPR 220KOHM +-5% 1/10W
R215	061T0603222 Y	996510011527	RST CHIPR 2.2KOHM +-5% 1/10W
R216	061T0603331 Y	996510011535	RST CHIPR 330 OHM +-5% 1/10W
R217	061T0603000 Y	996510011519	RST CHIPR 0 OHM +-5% 1/10W
R219	061T0603000 Y	996510011519	RST CHIPR 0 OHM +-5% 1/10W
R221	061T0603101 Y	996510011489	RST CHIPR 100 OHM +-5% 1/10W
R222	061T0603000 Y	996510011519	RST CHIPR 0 OHM +-5% 1/10W
R224	061T0402201 Y	996510011516	RST CHIP 200R 1/16W 5%
R225	061T0402201 Y	996510011516	RST CHIP 200R 1/16W 5%

R250	061T0402000 Y	996510011514	RST CHIPR 0 OHM +-5% 1/16W
R251	061T0603750 Y	996510011543	RST CHIPR 75 OHM +-5% 1/10W
R252	061T0603750 Y	996510011543	RST CHIPR 75 OHM +-5% 1/10W
R253	061T0603750 Y	996510011543	RST CHIPR 75 OHM +-5% 1/10W
R254	061T0603750 Y	996510011543	RST CHIPR 75 OHM +-5% 1/10W
R256	061T0402000 Y	996510011514	RST CHIPR 0 OHM +-5% 1/16W
R257	061T0402101 Y	996510011515	RST CHIP 100R 1/16W 5%
R258	061T0402000 Y	996510011514	RST CHIPR 0 OHM +-5% 1/16W
R260	061T0402470 Y	996510011517	RST CHIP 47R 1/16W 5%
R261	061T0402470 Y	996510011517	RST CHIP 47R 1/16W 5%
R262	061T0402470 Y	996510011517	RST CHIP 47R 1/16W 5%
R263	061T0402470 Y	996510011517	RST CHIP 47R 1/16W 5%
R301	061T0603391 Y	996510011536	RST CHIPR 390 OHM +-5% 1/10W
R302	061T0603102 Y	996510011490	RST CHIPR 1KOHM +-5% 1/10W
R303	061T0603272 Y	996510011531	RST CHIPR 2.7KOHM +-5% 1/10W
R304	061T0603272 Y	996510011531	RST CHIPR 2.7KOHM +-5% 1/10W
R307	061T0603103 Y	996510011491	RST CHIPR 10KOHM +-5% 1/10W
R308	061T0603472 Y	996510011540	RST CHIPR 4.7KOHM +-5% 1/10W
R309	061T0603472 Y	996510011540	RST CHIPR 4.7KOHM +-5% 1/10W
R310	061T0603109 Y	996510011494	RST CHIPR 1 OHM +-5% 1/10W
R311	061T0603103 Y	996510011491	RST CHIPR 10KOHM +-5% 1/10W
R313	061T0603101 Y	996510011489	RST CHIPR 100 OHM +-5% 1/10W
R314	061T0603101 Y	996510011489	RST CHIPR 100 OHM +-5% 1/10W
R315	061T0603101 Y	996510011489	RST CHIPR 100 OHM +-5% 1/10W
R316	061T0603101 Y	996510011489	RST CHIPR 100 OHM +-5% 1/10W
R317	061T0603473 Y	996510011541	RST CHIPR 47KOHM +-5% 1/10W
R322	061T0603472 Y	996510011540	RST CHIPR 4.7KOHM +-5% 1/10W
R329	061T0603101 Y	996510011489	RST CHIPR 100 OHM +-5% 1/10W
R330	061T0603101 Y	996510011489	RST CHIPR 100 OHM +-5% 1/10W
R331	061T0603472 Y	996510011540	RST CHIPR 4.7KOHM +-5% 1/10W
R332	061T0603472 Y	996510011540	RST CHIPR 4.7KOHM +-5% 1/10W
R342	061T0603330 Y	996510011534	RST CHIPR 33 OHM +-5% 1/10W
R343	061T0603101 Y	996510011489	RST CHIPR 100 OHM +-5% 1/10W
R344	061T0603101 Y	996510011489	RST CHIPR 100 OHM +-5% 1/10W
R350	061T0603472 Y	996510011540	RST CHIPR 4.7KOHM +-5% 1/10W
R352	061T0603000 Y	996510011519	RST CHIPR 0 OHM +-5% 1/10W
R358	061T0603472 Y	996510011540	RST CHIPR 4.7KOHM +-5% 1/10W
R359	061T0603472 Y	996510011540	RST CHIPR 4.7KOHM +-5% 1/10W
R361	061T0603101 Y	996510011489	RST CHIPR 100 OHM +-5% 1/10W
R364	061T0603101 Y	996510011489	RST CHIPR 100 OHM +-5% 1/10W
R365	061T0603103 Y	996510011491	RST CHIPR 10KOHM +-5% 1/10W
R369	061T0603472 Y	996510011540	RST CHIPR 4.7KOHM +-5% 1/10W
R371	061T0603472 Y	996510011540	RST CHIPR 4.7KOHM +-5% 1/10W
R372	061T0603472 Y	996510011540	RST CHIPR 4.7KOHM +-5% 1/10W
R374	061T0603472 Y	996510011540	RST CHIPR 4.7KOHM +-5% 1/10W
R377	061T0603472 Y	996510011540	RST CHIPR 4.7KOHM +-5% 1/10W
R402	061T0603273 Y	996510011532	RST CHIPR 27KOHM +-5% 1/10W
R403	061T0603103 Y	996510011491	RST CHIPR 10KOHM +-5% 1/10W
R404	061T0603101 Y	996510011489	RST CHIPR 100 OHM +-5% 1/10W
R405	061T0603101 Y	996510011489	RST CHIPR 100 OHM +-5% 1/10W
R406	061T0603102 Y	996510011490	RST CHIPR 1KOHM +-5% 1/10W
R407	061T0603203 Y	996510011525	RST CHIPR 20KOHM +-5% 1/10W
R408	061T0603472 Y	996510011540	RST CHIPR 4.7KOHM +-5% 1/10W
R409	061T0603102 Y	996510011490	RST CHIPR 1KOHM +-5% 1/10W
R410	061T0603104 Y	996510011492	RST CHIPR 100KOHM +-5% 1/10W
R411	061T0603473 Y	996510011541	RST CHIPR 47KOHM +-5% 1/10W
R412	061T0603473 Y	996510011541	RST CHIPR 47KOHM +-5% 1/10W
R413	061T0603000 Y	996510011519	RST CHIPR 0 OHM +-5% 1/10W
R416	061T0603000 Y	996510011519	RST CHIPR 0 OHM +-5% 1/10W
R450	061T0603101 Y	996510011489	RST CHIPR 100 OHM +-5% 1/10W
R451	061T0402000 Y	996510011514	RST CHIPR 0 OHM +-5% 1/16W

R452	061T0402680 Y	996510011518	RST CHIP 68R 1/16W 5%
R453	061T0603750 Y	996510011543	RST CHIPR 75 OHM +-5% 1/10W
R454	061T0603000 Y	996510011519	RST CHIPR 0 OHM +-5% 1/10W
R455	061T0402101 Y	996510011515	RST CHIP 100R 1/16W 5%
R456	061T0402680 Y	996510011518	RST CHIP 68R 1/16W 5%
R457	061T0603750 Y	996510011543	RST CHIPR 75 OHM +-5% 1/10W
R458	061T0603000 Y	996510011519	RST CHIPR 0 OHM +-5% 1/10W
R459	061T0603103 Y	996510011491	RST CHIPR 10KOHM +-5% 1/10W
R460	061T0402101 Y	996510011515	RST CHIP 100R 1/16W 5%
R461	061T0402680 Y	996510011518	RST CHIP 68R 1/16W 5%
R462	061T0603101 Y	996510011489	RST CHIPR 100 OHM +-5% 1/10W
R463	061T0603750 Y	996510011543	RST CHIPR 75 OHM +-5% 1/10W
R464	061T0603202 Y	996510011524	RST CHIPR 2KOHM +-5% 1/10W
R465	061T0603000 Y	996510011519	RST CHIPR 0 OHM +-5% 1/10W
R466	061T0402101 Y	996510011515	RST CHIP 100R 1/16W 5%
R467	061T0603103 Y	996510011491	RST CHIPR 10KOHM +-5% 1/10W
R468	061T0603202 Y	996510011524	RST CHIPR 2KOHM +-5% 1/10W
R469	061T0603101 Y	996510011489	RST CHIPR 100 OHM +-5% 1/10W
R470	061T0603103 Y	996510011491	RST CHIPR 10KOHM +-5% 1/10W
R471	061T0603203 Y	996510011525	RST CHIPR 20KOHM +-5% 1/10W
R472	061T0603203 Y	996510011525	RST CHIPR 20KOHM +-5% 1/10W
R473	061T0603103 Y	996510011491	RST CHIPR 10KOHM +-5% 1/10W
R475	061T0603000 Y	996510011519	RST CHIPR 0 OHM +-5% 1/10W
R476	061T0603000 Y	996510011519	RST CHIPR 0 OHM +-5% 1/10W
R501	061T0603750 Y	996510011543	RST CHIPR 75 OHM +-5% 1/10W
R502	061T0603203 Y	996510011525	RST CHIPR 20KOHM +-5% 1/10W
R503	061T0603203 Y	996510011525	RST CHIPR 20KOHM +-5% 1/10W
R504	061T0402000 Y	996510011514	RST CHIPR 0 OHM +-5% 1/16W
R505	061T0402680 Y	996510011518	RST CHIP 68R 1/16W 5%
R506	061T0603000 Y	996510011519	RST CHIPR 0 OHM +-5% 1/10W
R507	061T0402101 Y	996510011515	RST CHIP 100R 1/16W 5%
R508	061T0603000 Y	996510011519	RST CHIPR 0 OHM +-5% 1/10W
R510	061T0402680 Y	996510011518	RST CHIP 68R 1/16W 5%
R511	061T0603750 Y	996510011543	RST CHIPR 75 OHM +-5% 1/10W
R512	061T0603000 Y	996510011519	RST CHIPR 0 OHM +-5% 1/10W
R513	061T0402101 Y	996510011515	RST CHIP 100R 1/16W 5%
R514	061T0603750 Y	996510011543	RST CHIPR 75 OHM +-5% 1/10W
R515	061T0402680 Y	996510011518	RST CHIP 68R 1/16W 5%
R550	061T0603270 Y	996510011530	RST CHIPR 27 OHM +-5% 1/10W
R553	061T0402101 Y	996510011515	RST CHIP 100R 1/16W 5%
R554	061T0603470 Y	996510011539	RST CHIPR 47 OHM +-5% 1/10W
R555	061T0603000 Y	996510011519	RST CHIPR 0 OHM +-5% 1/10W
R558	061T0603000 Y	996510011519	RST CHIPR 0 OHM +-5% 1/10W
R563	061T0603203 Y	996510011525	RST CHIPR 20KOHM +-5% 1/10W
R564	061T0603203 Y	996510011525	RST CHIPR 20KOHM +-5% 1/10W
R601	061T1206100 Y	996510011545	RST CHIPR 10 OHM +-5% 1/4W
R602	061T06032202FY	996510011526	RST CHIPR 22KOHM +-1% 1/10W
R603	061T0603103 Y	996510011491	RST CHIPR 10KOHM +-5% 1/10W
R604	061T06032202FY	996510011526	RST CHIPR 22KOHM +-1% 1/10W
R605	061T06031202FY	996510011523	RST CHIPR 12KOHM +-1% 1/10W
R608	061T0603203 Y	996510011525	RST CHIPR 20KOHM +-5% 1/10W
R609	061T1206100 Y	996510011545	RST CHIPR 10 OHM +-5% 1/4W
R610	061T1206220 Y	996510011546	RST CHIPR 22 OHM +-5% 1/4W
R611	061T0603472 Y	996510011540	RST CHIPR 4.7KOHM +-5% 1/10W
R612	061T0603102 Y	996510011490	RST CHIPR 1KOHM +-5% 1/10W
R613	061T0603393 Y	996510011538	RST CHIPR 39KOHM +-5% 1/10W
R614	061T1206100 Y	996510011545	RST CHIPR 10 OHM +-5% 1/4W
R615	061T0603103 Y	996510011491	RST CHIPR 10KOHM +-5% 1/10W
R616	061T0603102 Y	996510011490	RST CHIPR 1KOHM +-5% 1/10W
R617	061T1206220 Y	996510011546	RST CHIPR 22 OHM +-5% 1/4W
R619	061T0603102 Y	996510011490	RST CHIPR 1KOHM +-5% 1/10W

R620	061T06032202FY	996510011526	RST CHIPR 22KOHM +-1% 1/10W
R621	061T0603123 Y	996510011522	RST CHIPR 12KOHM +-5% 1/10W
R622	061T06032202FY	996510011526	RST CHIPR 22KOHM +-1% 1/10W
R623	061T0603105 Y	996510011493	RST CHIPR 1MOHM +-5% 1/10W
R624	061T0603105 Y	996510011493	RST CHIPR 1MOHM +-5% 1/10W
R625	061T0402101 Y	996510011515	RST CHIP 100R 1/16W 5%
R626	061T0402000 Y	996510011514	RST CHIPR 0 OHM +-5% 1/16W
R627	061T0402101 Y	996510011515	RST CHIP 100R 1/16W 5%
R628	061T0402000 Y	996510011514	RST CHIPR 0 OHM +-5% 1/16W
R650	061T0603103 Y	996510011491	RST CHIPR 10KOHM +-5% 1/10W
R651	061T0603104 Y	996510011492	RST CHIPR 100KOHM +-5% 1/10W
R652	061T0402101 Y	996510011515	RST CHIP 100R 1/16W 5%
R653	061T0603000 Y	996510011519	RST CHIPR 0 OHM +-5% 1/10W
R654	061T0603203 Y	996510011525	RST CHIPR 20KOHM +-5% 1/10W
R655	061T0603100 Y	996510011520	RST CHIPR 0 OHM +-5% 1/10W
R657	061T0402101 Y	996510011515	RST CHIP 100R 1/16W 5%
R658	061T0603102 Y	996510011490	RST CHIPR 1KOHM +-5% 1/10W
R659	061T0603472 Y	996510011540	RST CHIPR 4.7KOHM +-5% 1/10W
R660	061T0603303 Y	996510011533	RST CHIPR 30KOHM +-5% 1/10W
R661	061T0603000 Y	996510011519	RST CHIPR 0 OHM +-5% 1/10W
R662	061T0603102 Y	996510011490	RST CHIPR 1KOHM +-5% 1/10W
R663	061T0603203 Y	996510011525	RST CHIPR 20KOHM +-5% 1/10W
R664	061T0603100 Y	996510011520	RST CHIPR 0 OHM +-5% 1/10W
R665	061T0603000 Y	996510011519	RST CHIPR 0 OHM +-5% 1/10W
R666	061T0603103 Y	996510011491	RST CHIPR 10KOHM +-5% 1/10W
R668	061T0603303 Y	996510011533	RST CHIPR 30KOHM +-5% 1/10W
R669	061T0603000 Y	996510011519	RST CHIPR 0 OHM +-5% 1/10W
R670	061T0603102 Y	996510011490	RST CHIPR 1KOHM +-5% 1/10W
R671	061T0603102 Y	996510011490	RST CHIPR 1KOHM +-5% 1/10W
R701	061T0603000 Y	996510011519	RST CHIPR 0 OHM +-5% 1/10W
R702	061T0603472 Y	996510011540	RST CHIPR 4.7KOHM +-5% 1/10W
R703	061T0603102 Y	996510011490	RST CHIPR 1KOHM +-5% 1/10W
R704	061T0603102 Y	996510011490	RST CHIPR 1KOHM +-5% 1/10W
R705	061T0603000 Y	996510011519	RST CHIPR 0 OHM +-5% 1/10W
R706	061T0603472 Y	996510011540	RST CHIPR 4.7KOHM +-5% 1/10W
R707	061T0603472 Y	996510011540	RST CHIPR 4.7KOHM +-5% 1/10W
R708	061T0603103 Y	996510011491	RST CHIPR 10KOHM +-5% 1/10W
R709	061T0603472 Y	996510011540	RST CHIPR 4.7KOHM +-5% 1/10W
R712	061T0603102 Y	996510011490	RST CHIPR 1KOHM +-5% 1/10W
R713	061T0603472 Y	996510011540	RST CHIPR 4.7KOHM +-5% 1/10W
R714	061T0603103 Y	996510011491	RST CHIPR 10KOHM +-5% 1/10W
R715	061T0603000 Y	996510011519	RST CHIPR 0 OHM +-5% 1/10W
R764	061T0603000 Y	996510011519	RST CHIPR 0 OHM +-5% 1/10W
R765	061T0603101 Y	996510011489	RST CHIPR 100 OHM +-5% 1/10W
R766	061T0603101 Y	996510011489	RST CHIPR 100 OHM +-5% 1/10W
RP250	061T 125750 8Y	996510011512	RST CHIP AR 8P4R 75 OHM +-5%
RP251	061T 125750 8Y	996510011512	RST CHIP AR 8P4R 75 OHM +-5%
RP252	061T 125750 8Y	996510011512	RST CHIP AR 8P4R 75 OHM +-5%
RP253	061T 125750 8Y	996510011512	RST CHIP AR 8P4R 75 OHM +-5%
RP254	061T 125750 8Y	996510011512	RST CHIP AR 8P4R 75 OHM +-5%
RP255	061T 125750 8Y	996510011512	RST CHIP AR 8P4R 75 OHM +-5%
RP256	061T 125750 8Y	996510011512	RST CHIP AR 8P4R 75 OHM +-5%
RP257	061T 125750 8Y	996510011512	RST CHIP AR 8P4R 75 OHM +-5%
RP258	061T 125750 8Y	996510011512	RST CHIP AR 8P4R 75 OHM +-5%
RP259	061T 126470 8Y	996510011513	RST CHIP AR 8P4R 75 OHM +-5%
RP260	061T 126470 8Y	996510011513	RST CHIP AR 8P4R 75 OHM +-5%
RP261	061T 126470 8Y	996510011513	RST CHIP AR 8P4R 75 OHM +-5%
RP262	061T 126470 8Y	996510011513	RST CHIP AR 8P4R 75 OHM +-5%
RP263	061T 126470 8Y	996510011513	RST CHIP AR 8P4R 75 OHM +-5%
RP264	061T 126470 8Y	996510011513	RST CHIP AR 8P4R 75 OHM +-5%
RP265	061T 126470 8Y	996510011513	RST CHIP AR 8P4R 75 OHM +-5%

RP266	061T 126470 8Y	996510011513	RST CHIP AR 8P4R 75 OHM +-5%
RP267	061T 126470 8Y	996510011513	RST CHIP AR 8P4R 75 OHM +-5%
TU202	094TNTAT MA 1A	996510002821	TUNER TDQU4-507A
U101	056T 563928	996500043934	IC LP2996MRX PSOP-8
U102	056T 563948	996510011457	IC L5985 VFQFPN8
U103	056T 1334PH	996510011485	IC LD1117S33TR SOT-223
U104	056T 1334PH	996510011485	IC LD1117S33TR SOT-223
U105	056T 563951	996510011498	IC LD1117ADT-TR DPAK
U150	056T 1334PH	996510011485	IC LD1117S33TR SOT-223
U151	056T 563906	996510011487	IC LD1117DTTR DPAK(T&R)
U152	056T 563951	996510011498	IC LD1117ADT-TR DPAK
U250	056T 61550C	996510011499	NT5DS16M16CS-5T
U250	056T 615904	996510011500	IC HY5DU561622ETP-5-C
U250	056T1133925	996510011506	IC HYB25DC256160CE-5 TSOP 66
U400	056T 562923	996510011486	IC MT5380ACU LQFP256
U401	056T1133913	996500042746	IC SM SST39VF088 TSOP-48
U402	056T 662 10	996510011505	IC RClamp0524P.TCT
U403	056T 662 10	996510011505	IC RClamp0524P.TCT
U450	056T1133913	996500042746	IC SM SST39VF088 TSOP-48
U601	056T 616912	996510011503	IC TDA8933BTW HTSSOP32
U601	056T 616913	996510011504	IC TDA8932BTW HTSSOP32
U650	056T 616 13	996510011501	IC LM4809MA NOPB SO-8
U650	056T 616911	996510011502	IC LM4809MAXNOPB SO8-NARROW
X301	093T 22902 C	996510011470	CRYSTAL 60MHz 9P HC-49/S
ZD401	093T 39S902	996510011597	DIODE BZX384-C5V6 SOD-323
FQ014	PWTV8942APR1	996510011600	POWER BOARD ASSY
BD901	093T 50460900	996510011623	BRIDGE GBU408 LITEON
BD901	093T 50460901	996510011624	BRIDGE 4A/800V GBU4K VISHAY
C801	065T 6J1006ET	996510011606	CAP CER 10PF J 6KV
C802	065T 3J3096ET	996510011605	3PF 5% SL 3KV
C803	065T0805101 31	996510011670	CHIP 100PF 50V NPD 0805
C804	065T0805101 31	996510011670	CHIP 100PF 50V NPD 0805
C806	065T 6J1006ET	996510011606	CAP CER 10PF J 6KV
C810	065T 3J3096ET	996510011605	3PF 5% SL 3KV
C811	065T0805105 22	996510011678	CHIP 1UF 25V X7R 0805
C813	065T080539131J	996510011682	CAP CHIP 0805 390P 50V NPO
C819	065T0805103 22 GP	996510011673	CHIP 0.01UF 25V X7R 0805
C820	067T215S4713KV	996510011615	EC 105 J CAP 470UF M 16V
C821	065T0805105 22	996510011678	CHIP 1UF 25V X7R 0805
C822	065T0805472 21	996510011683	4700pF/25V/NPO
C823	065T0805472 21	996510011683	4700pF/25V/NPO
C831	065T0805334 22	996500044874	CHIP 0.33UF -10% 25V X7R 0805
C832	065T080510427Y	996510011675	MLCC 0805 0.1UF Z 25V Y5V
C838	065T0805102 31	996510011671	1000PF 50V NPO
C840	067T215S4713KV	996510011615	EC 105 J CAP 470UF M 16V
C841	065T0805105 22	996510011678	CHIP 1UF 25V X7R 0805
C842	065T0805472 21	996510011683	4700pF/25V/NPO
C843	065T0805472 21	996510011683	4700pF/25V/NPO
C846	065T0805105 22	996510011678	CHIP 1UF 25V X7R 0805
C847	065T0805473 21	996510011684	CHIP 47nF 25V Y5V
C858	065T0805102 31	996510011671	1000PF 50V NPO
C860	065T080522131T	996510011680	MLCC 0805 220PF J 50V NPO
C861	065T080522131T	996510011680	MLCC 0805 220PF J 50V NPO
C865	065T0805333 32	996510011681	MLCC 0805 CAP 3300PF K 50V X7R
C871	065T080510427Z Y	996510011676	CAP CHIP 0805 0.1UF Z 25V Y5V
C874	065T0805105 22	996510011678	CHIP 1UF 25V X7R 0805
C880	065T0805104 32	996500044292	CHIP 0.1uF 50V X7R 0805
C881	065T0805103 22	996510011672	CHIP 0.01UF 25V X7R 0805
C883	065T0805103 22	996510011672	CHIP 0.01UF 25V X7R 0805
C885	065T0805103 22	996510011672	CHIP 0.01UF 25V X7R 0805
C887	065T0805103 22	996510011672	CHIP 0.01UF 25V X7R 0805

C900	065T305K4712EM	996510011607	470PF 10% 250V BY MURATA
C900	065T306K4712B3 GP	996510011608	Y1CAP 470PF +-10% 250VAC
C901	065T305K4712EM	996510011607	470PF 10% 250V BY MURATA
C901	065T306K4712B3 GP	996510011608	Y1CAP 470PF +-10% 250VAC
C906	065T306M1522B3	996510011609	Y1 CAP 1500pF / 250V.
C906	065T306M1522BM	996510011610	Y1 CAP 1N5 +-20% 250V AC KX
C907	067T 30510114E	996510011611	EC 100uF 400V RGA 18x32mm
C907	067T 30510114K	996510011612	EC 100uF 400V PW 18x32mm
C908	063T 10747410S	996510011604	0.47UF 275VAC ARCO
C911	065T517K2714AT	996510011699	C CAP 270pF 500V PITCH 5.0 mm
C912	065T0805334 22	996500044874	CHIP 0.33UF -10% 25V X7R 0805
C913	067T 515222 3C	996510011613	EC 2200UF 16V GF 13*25mm
C914	067T305V471 4E	996510011616	EC 470uF 25V RGA 10x16mm
C914	067T305V471 4K	996510011617	EC 470uF 25V PF 10x16mm
C915	065T517K2224AT	996500044620	C CAP.2200PF 500V 10% RC
C917	065T0805105 22	996510011678	CHIP 1UF 25V X7R 0805
C918	065T517K2714AT	996510011699	C CAP 270pF 500V PITCH 5.0 mm
C919	065T080510432K	996510011677	CAP CHIP 0805 100N 50V X7R
C920	067T215Y4707KT	996510011700	47UF 50V
C921	067T 515222 3C	996510011613	EC 2200UF 16V GF 13*25mm
C922	067T215H102 3K	996510011614	EC 1000uF 16V EB 10x16mm
C923	065T0805122 31	996510011679	CAP 0805 1200PF J 50V NPO
C926	065T0805104 22	996510011674	0.1UF +-10% 25V X7R 0805
C927	065T0805105 12	996510011579	1UF +-10% 16V X7R
C928	065T0805104 22	996510011674	0.1UF +-10% 25V X7R 0805
C930	065T0805104 22	996510011674	0.1UF +-10% 25V X7R 0805
C931	065T0805104 22	996510011674	0.1UF +-10% 25V X7R 0805
CN831	033G8021 2E XY	996510011601	CONNECTOR
CN833	033G8021 2E XY	996510011601	CONNECTOR
CN851	033G8021 2E XY	996510011601	CONNECTOR
CN853	033G8021 2E XY	996510011601	CONNECTOR
CN902	095T801412F901	996510011625	HARNESS 12P-11P 190mm 75120
CN902	095T801412X901	996510011626	HARNESS 12P-11P 190mm
D831	093T 64S 8	996510002757	DIODE BAV99PT CHENMKO
D831	093T 64 33	996510011685	BAV99 SOT-23
D833	093T 64S 9	996510002715	DIODE BAV70PT CHENMKO
D833	093T 64 42 PP	996510011686	BAV70
D851	093T 64S 8	996510002757	DIODE BAV99PT CHENMKO
D851	093T 64 33	996510011685	BAV99 SOT-23
D853	093T 64S 9	996510002715	DIODE BAV70PT CHENMKO
D853	093T 64 42 PP	996510011686	BAV70
D881	093T 64S901 T	996510011691	DIODE LS4148
D883	093T 64S901 T	996510011691	DIODE LS4148
D885	093T 64S901 T	996510011691	DIODE LS4148
D887	093T 64S901 T	996510011691	DIODE LS4148
D901	093T110090052T	996510011705	DIODE UG1007 1A 1000V DO-41
D902	093T 60250	996510011631	NIHON FCH10U10
D902	093T 60267	996510011632	SP10100
D903	093T 5247T52T	996510011704	1N4004 DO-14 400V/1A
D904	093T 64S 11	996510011690	DIODE LL4148PT Mini-Melf
D904	093T 64S901 T	996510011691	DIODE LS4148
D905	093T 60240	996510011633	YG802C06R TO-220F15
D905	093T 60251	996510011634	DIODE FCQ10U06 NIHON INTER
D905	093T 60278	996510011635	DIODE SP1060 10A/60V_ITO-220
F901	084T 41 3	996510011629	FUSE 3.15A 250V LITTELFUSE
F901	084T 41 3 C	996510011630	FUSE 3.15A 250V,Time Lag Fuse
FB902	071T 55907	996510011701	FERRITE CORE 3.5 4.7 1
FB902	071T 55907 H	996510011702	FERRITE CORE 3.5 4.7 1
FB903	071T 55907	996510011701	FERRITE CORE 3.5 4.7 1
FB903	071T 55907 H	996510011702	FERRITE CORE 3.5 4.7 1
IC901	056T 379 71	996510011636	IC TEA1530AT/N2 SO-8 PHILIPS

IC902	056T 139 5A	996510011602	TCET1103G
IC903	056T 158900	996510011692	IC TL431CZ-AP TO92 ST
J805	061T0805000	996510011644	RST CHIPR 0 OHM +-5% 1/8W
L902	073T 174900 L	996510011618	LINE FILTER 9mH 1A LF-009561
L902	073T 174900 LS	996510011619	FILTER 9mH 1A LS-NB02F-004
L903	073T 253902 H	996510011620	IND CHOKE 0.8uH MIN DADON
L903	073T 253902 L	996510011621	IND CHOKE 0.8uH MIN LITAI
L904	073T 253910 HJ	996500044635	CHOKE COIL 2.3uH /-20% 7.2mohm
L904	073T 253910 L	996510004989	COIL 2.3uH+/-20% 7.2mohm R4*15
NR901	061T 58907 W	996510011603	NTC 4A/7R 20% SCK13074MGY001
PT801	080TL19T914 DN	996510011588	XFMR 95uH TK.2081M.101
PT802	080TL19T914 DN	996510011588	XFMR 95uH TK.2081M.101
Q821	057T 763 6	996510002742	AO4828L SOIC-8 BY AOS
Q821	057T 600 55	996510011639	P5506HVG SO-8 NIKO-SEM
Q821	057T 763 14	996510011642	AM9945N-T1-PF
Q841	057T 763 6	996510002742	AO4828L SOIC-8 BY AOS
Q841	057T 600 55	996510011639	P5506HVG SO-8 NIKO-SEM
Q841	057T 763 14	996510011642	AM9945N-T1-PF
Q871	057T 759 2	996500044975	RK7002
Q871	057T 763 53	996510011643	FET 2N7002ESPT 0.3A/60V SOT-23
Q873	057T 760 4A	996510011640	DTA144WN3/S SOT-23
Q873	057T 760 4B	996510011641	PDTA144WK SOT346
Q874	057T 417 4	996500044974	CHIP PMBS3904 BY PHILIPS
Q874	057T 417511	996510011638	TRA MMBT3904 BLUE ROKET
Q880	057T 759 2	996500044975	RK7002
Q880	057T 763 53	996510011643	FET 2N7002ESPT 0.3A/60V SOT-23
Q881	057T 759 2	996500044975	RK7002
Q881	057T 763 53	996510011643	FET 2N7002ESPT 0.3A/60V SOT-23
Q883	057T 759 2	996500044975	RK7002
Q883	057T 763 53	996510011643	FET 2N7002ESPT 0.3A/60V SOT-23
Q885	057T 759 2	996500044975	RK7002
Q885	057T 763 53	996510011643	FET 2N7002ESPT 0.3A/60V SOT-23
Q886	057T 759 2	996500044975	RK7002
Q886	057T 763 53	996510011643	FET 2N7002ESPT 0.3A/60V SOT-23
Q901	057T 724 4	996510011627	2SK2996
Q901	057T 724 4A	996510011628	FET STP9NK60ZFP ST
R801	061T 17210352T	996510011693	CFR 10KOHM +-5% 1/4W
R803	061T0805000	996510011644	RST CHIPR 0 OHM +-5% 1/8W
R806	061T0805203	996510011653	RST CHIPR 20 KOHM +-5% 1/8W
R807	061T0805103	996500044297	RST CHIPR 10 KOHM -5% 1/8W
R811	061T0805335	996510011662	RST CHIPR 3.3 MOHM +-5% 1/8W
R812	061T0805564	996510011665	RST CHIPR 560 KOHM +-5% 1/8W
R813	061T0805470 2F	996510011663	RST CHIPR 47 KOHM +-1% 1/8W
R815	061T0805303	996510011658	RST CHIPR 30 KOHM +-5% 1/8W
R816	061T0805203	996510011653	RST CHIPR 20 KOHM +-5% 1/8W
R819	061T0805105	996510011650	RST CHIPR 1 MOHM +-5% 1/8W
R820	061T0805330	996510011659	RST CHIPR 33 OHM +-5% 1/8W
R821	061T0805330	996510011659	RST CHIPR 33 OHM +-5% 1/8W
R822	061T0805330	996510011659	RST CHIPR 33 OHM +-5% 1/8W
R823	061T0805330	996510011659	RST CHIPR 33 OHM +-5% 1/8W
R829	061T0805000	996510011644	RST CHIPR 0 OHM +-5% 1/8W
R830	061T0805100 2F	996510011646	RST CHIPR 10 KOHM +-1% 1/8W
R831	061T0805102	996510011648	RST CHIPR 1KOHM +-5% 1/4W
R833	061T0805102	996510011648	RST CHIPR 1KOHM +-5% 1/4W
R835	061T0805100 2F	996510011646	RST CHIPR 10 KOHM +-1% 1/8W
R836	061T0805100 2F	996510011646	RST CHIPR 10 KOHM +-1% 1/8W
R837	061T0805822	996510011666	RST CHIPR 8.2KOHM +-5% 1/8W
R839	061T212Y625 KT	996510011698	RST MGFR 6.2MOHM +-5% 1/2W
R841	061T0805330	996510011659	RST CHIPR 33 OHM +-5% 1/8W
R842	061T0805330	996510011659	RST CHIPR 33 OHM +-5% 1/8W
R843	061T0805330	996510011659	RST CHIPR 33 OHM +-5% 1/8W

R844	061T0805330	996510011659	RST CHIPR 33 OHM +-5% 1/8W
R849	061T0805100 2F	996510011646	RST CHIPR 10 KOHM +-1% 1/8W
R850	061T0805100 2F	996510011646	RST CHIPR 10 KOHM +-1% 1/8W
R851	061T0805102	996510011648	RST CHIPR 1KOHM +-5% 1/4W
R853	061T0805102	996510011648	RST CHIPR 1KOHM +-5% 1/4W
R854	061T212Y625 KT	996510011698	RST MGFR 6.2MOHM +-5% 1/2W
R855	061T0805000	996510011644	RST CHIPR 0 OHM +-5% 1/8W
R856	061T0805100 2F	996510011646	RST CHIPR 10 KOHM +-1% 1/8W
R857	061T0805100 2F	996510011646	RST CHIPR 10 KOHM +-1% 1/8W
R861	061T 60210552T	996510011694	RST CFR 1MOHM +-5% 1/6W
R863	061T0805330 2F	996510011660	RST CHIPR 33 KOHM +-1% 1/8W
R865	061T08052000FY	996510011652	RST CHIP 200R 1/8W 1%
R866	061T08052201FY	996510011654	RST CHIPR 2.2KOHM +-1% 1/8W
R871	061T 17210352T	996510011693	CFR 10KOHM +-5% 1/4W
R872	061T0805100 3F	996510011647	RST CHIPR 100 KOHM +-1% 1/8W
R873	061T0805272	996510011657	RST CHIPR 2.7 KOHM +-5% 1/8W
R874	061T0805331	996510011661	RST CHIPR 330 OHM +-5% 1/8W
R880	061T 17210352T	996510011693	CFR 10KOHM +-5% 1/4W
R881	061T0805100 3F	996510011647	RST CHIPR 100 KOHM +-1% 1/8W
R882	061T0805102	996510011648	RST CHIPR 1KOHM +-5% 1/4W
R883	061T0805100 3F	996510011647	RST CHIPR 100 KOHM +-1% 1/8W
R884	061T0805102	996510011648	RST CHIPR 1KOHM +-5% 1/4W
R885	061T0805100 3F	996510011647	RST CHIPR 100 KOHM +-1% 1/8W
R886	061T0805102	996510011648	RST CHIPR 1KOHM +-5% 1/4W
R887	061T0805100 3F	996510011647	RST CHIPR 100 KOHM +-1% 1/8W
R888	061T0805102	996510011648	RST CHIPR 1KOHM +-5% 1/4W
R900	061T1206914 Y	996510011669	RST CHIP 910K 1/4W 5%
R901	061T1206914 Y	996510011669	RST CHIP 910K 1/4W 5%
R902	061T1206914 Y	996510011669	RST CHIP 910K 1/4W 5%
R903	061T1206101	996510011668	RST CHIPR 100 OHM +-5% 1/4W
R904	061T1206101	996510011668	RST CHIPR 100 OHM +-5% 1/4W
R905	061T0805102	996510011648	RST CHIPR 1KOHM +-5% 1/4W
R906	061T0805151	996500044295	RST CHIPR 150 OHM -5% 1/8W
R908	061T0805822	996510011666	RST CHIPR 8.2KOHM +-5% 1/8W
R909	061T0805102	996510011648	RST CHIPR 1KOHM +-5% 1/4W
R910	061T0805103	996500044297	RST CHIPR 10 KOHM -5% 1/8W
R911	061T0805104	996510011649	RST CHIPR 100 KOHM +-5% 1/8W
R912	061T0805103	996500044297	RST CHIPR 10 KOHM -5% 1/8W
R915	061T1206100	996510011667	RST CHIPR 10 OHM +-5% 1/4W
R916	061T1206101	996510011668	RST CHIPR 100 OHM +-5% 1/4W
R917	061T1206101	996510011668	RST CHIPR 100 OHM +-5% 1/4W
R918	061T0805470	996500044294	RST CHIPR 47 OHM -5% 1/8W
R919	061T0805100	996510011645	RST CHIPR 10 OHM +-5% 1/8W
R920	061T0805223	996510011655	RST CHIPR 22 KOHM +-5% 1/8W
R923	061T0805102	996510011648	RST CHIPR 1KOHM +-5% 1/4W
R924	061T0805472	996510011664	RST CHIPR 4.7 KOHM +-5% 1/8W
R925	061T208M24852T SY	996510011696	RST MOF 0R24 1W 5%
R926	061T0805152	996510011651	RST CHIPR 1.5 KOHM +-5% 1/8W
R927	061T0805151	996500044295	RST CHIPR 150 OHM -5% 1/8W
R928	061T0805360 1F	996510002492	RST CHIPR 3.6 KOHM +-1% 1/8W
R929	061T0805330 2F	996510011660	RST CHIPR 33 KOHM +-1% 1/8W
R931	061T0805102	996510011648	RST CHIPR 1KOHM +-5% 1/4W
R932	061T0805240 1F	996510011656	RST CHIPR 2.4 KOHM +-1% 1/8W
R934	061T203S43952T TZ	996510011695	RST MFLM 4R3 0.6W 1%
R935	061T208M82352T SY	996510011697	RST MOF 82K 5% 1W
T901	080TL19T915 LS	996510011622	XFMR 750uH PPH7018AL
U811	056T 608 10	996510011637	0Z9938GN
ZD874	093T 39S 24 T	996510011687	RLZ 5.6B LLDS
ZD902	093T 3992752T	996510011703	DIODE P6KE7.5A DO-15
ZD903	093T 39S 48 T	996510011689	diode zener rlz6.2b rohm
ZD904	093T 39S 44 T	996510011688	RLZ18B

FQ015	KEPF7PB3	996510011706	KEY BOARD ASSY
C016	065T0603104 37	996510011562	CHIP 0.1UF 50V/Y5V
C017	065T0603104 37	996510011562	CHIP 0.1UF 50V/Y5V
CN016	095T8014 4F901	996510011707	HARNESS 4P-3P 280mm 75123
CN016	095T8014 4X901	996510011708	HARNESS 4P-3P 280mm
R016	061T0603113 Y	996510011709	RST CHIPR 11KOHM +-5% 1/10W
R017	061T0603113 Y	996510011709	RST CHIPR 11KOHM +-5% 1/10W
R018	061T0603432 Y	996510011711	RST CHIPR 4.3KOHM +-5% 1/10W
R019	061T0603432 Y	996510011711	RST CHIPR 4.3KOHM +-5% 1/10W
R020	061T0603182 Y	996510011710	RST CHIPR 1.8KOHM +-5% 1/10W
SW016	077T 605902 FD	996500044878	TACT SW H=5 GY SFKHHPM25C0-PL
SW016	077T 600 1GCJ	996510002794	TACT SWITCH
SW017	077T 605902 FD	996500044878	TACT SW H=5 GY SFKHHPM25C0-PL
SW017	077T 600 1GCJ	996510002794	TACT SWITCH
SW018	077T 605902 FD	996500044878	TACT SW H=5 GY SFKHHPM25C0-PL
SW018	077T 600 1GCJ	996510002794	TACT SWITCH
SW019	077T 605902 FD	996500044878	TACT SW H=5 GY SFKHHPM25C0-PL
SW019	077T 600 1GCJ	996510002794	TACT SWITCH
SW020	077T 605902 FD	996500044878	TACT SW H=5 GY SFKHHPM25C0-PL
SW020	077T 600 1GCJ	996510002794	TACT SWITCH
FQ016	IRPF7PB5	996510011712	IR BOARD ASSY
C001	065T0603105 A7	996500044780	CHIP 1uF 10V Y5V
C003	065T060310337Z Y	996510011715	CAP CHIP 0603 10N 50V Y5V
C004	065T060310337Z Y	996510011715	CAP CHIP 0603 10N 50V Y5V
C005	065T0603104 37	996510011562	CHIP 0.1UF 50V/Y5V
LED001	081T 14907 KB	996510011716	LED SM KPTR-3016CGCK
Q001	057T 477900 T	996510011509	TRA BC847C 100mA/50V SOT-23
R001	061T06031500FY	996510011714	RST CHIPR 150 OHM +-1% 1/10W
R002	061T0603222 Y	996510011527	RST CHIPR 2.2KOHM +-5% 1/10W
R003	061T0603103 Y	996510011491	RST CHIPR 10KOHM +-5% 1/10W
R004	061T0603101 Y	996510011489	RST CHIPR 100 OHM +-5% 1/10W
SW001	077T 605902 FD	996500044878	TACT SW H=5 GY SFKHHPM25C0-PL
SW001	077T 600 1GCJ	996510002794	TACT SWITCH
U001	056T 627801	996510011713	IC TSOP34136SB1

11. Revision List

Manual xxxx xxx xxxx.0

- First release.

Manual xxxx xxx xxxx.1

- **All chapters:** 19PL3403D/19MD358B added.