

Service Service Service

TPE1.0U PA



Service Manual

Description	Page	Description	Page	Description	Page
Revision List.....	2	Display interface diagram.....	88	IR diagram.....	114
Important Safety Notice.....	3	PNX2015 supply diagram.....	89	OFPC diagram.....	115
Warning/Caution/Notice of PANEL	4	PNX2015 standby&control diagram.....	90	AC filter diagram.....	116
Technical Specification.....	8	PNX2015 DDR interface diagram.....	91	USB filter diagram.....	117
Connecting the PDP.....	14	PNX2015 Tunnelbus diagram.....	92	Image board PC B.....	118
Input interfaces.....	18	PNX2015 DV I/O diagram.....	93	Power board PC B.....	120
Top Key and Remote control	19	PNX2015 Audio/Video diagram.....	94	OFPC PC B.....	121
OSD Tree	21	Miscellaneous diagram.....	95	AC filter board PC B.....	122
OSD operation	24	EEPROM diagram.....	96	USB board P CB.....	123
Trouble shooting	44	VIPER supply diagram.....	97	Side AV board PC B.....	124
Repair flow chart	46	A/V+Tunnelbus diagram.....	98	Audio output board /Key board PC B.....	125
White-Balance adjustment	51	Main Memory diagram.....	99	IR board PC B.....	126
Software upgrade	53	Control diagram.....	100	Recommended parts list.....	127
Function block diagram	55	HDMI I/O+control diagram.....	101	Complete parts list	
Waveform of signals	60	HDMI + supply diagram.....	102	Different parts list.....	TBD
Wiring diagram.....	62	Main Tuner diagram.....	103		
Mechanical Instructions.....	63	Channel decoder diagram.....	104		
Disassembly and assembly	68	Audio amplifier diagram.....	105		
Definition of pixel defects	72	Audio Source Selection diagram.....	106		
Block diagram	75	IF + SAW filter diagram.....	107		
UART diagram.....	81	MPIF main supply diagram.....	108		
Analog I/O diagram	82	Video source selection diagram	109		
Audio diagram	83	PDC diagram.....	110		
Supply+RS232 diagram.....	85	Audio output diagram.....	111		
DC/DC diagram.....	86	Side AV diagram.....	112		
Video-DAC diagram.....	87	Key control diagram.....	113		

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Revision List

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Important Safety Notice

 [Back to cover](#)

Proper service and repair is important to the safe, reliable operation of all Equipment. The service procedures recommended by PHILIPS and described in this service manual are effective methods of performing service operations. Some of these service operations require the use of tools specially designed for the purpose. The special tools should be used when and as recommended.

It is important to note that this manual contains various CAUTIONS and NOTICES which should be carefully read in order to minimize the risk of personal injury to service personnel. The possibility exists that improper service methods may damage the equipment. It is also important to understand that these CAUTIONS and NOTICES ARE NOT EXHAUSTIVE. PHILIPS could not possibly know, evaluate and advise the service trade of all conceivable ways in which service might be done or of the possible hazardous consequences of each way. Consequently, PHILIPS has not undertaken any such broad evaluation. Accordingly, a servicer who uses a service procedure or tool which is not recommended by PHILIPS must first satisfy himself thoroughly that neither his safety nor the safe operation of the equipment will be jeopardized by the service method selected.

WARNING

Use of substitute replacement parts, which do not have the same specified safety characteristics may create shock, fire, or other hazards.

Under no circumstances should the original design be modified or altered without written permission from Philips.

Philips assumes no liability, express or implied, arising out of any unauthorized modification of design. Servicer assumes all liability.

FOR PRODUCTS CONTAINING LASER:

DANGER- Invisible laser radiation when open. AVOID DIRECT EXPOSURE TO BEAM.

CAUTION- Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

CAUTION- The use of optical instruments with this product will increase eye hazard.

TO ENSURE THE CONTINUED RELIABILITY OF THIS PRODUCT, USE ONLY ORIGINAL MANUFACTURER'S REPLACEMENT PARTS, WHICH ARE LISTED WITH THEIR PART NUMBERS IN THE PARTS LIST SECTION OF THIS SERVICE MANUAL.

WARNING

- The Module is controlled by high voltage about 350V. If you need to handle the Module during operation or just after power-off, you must take proper precautions against electric shock and must not touch the drive circuit portion and metallic part of Module within 5 minutes. The capacitors in the drive circuit portion remain temporarily charged even after the power is turned off. After turning off the power, you must be sure to wait at least one minute before touching the Module. If the remain voltage is strong enough, it could result in electric shock.
- Do not use any other power supply voltage other than the voltage specified in this product specifications. If you use power voltage deviated from the specifications, it could result in product failure.
- Do not operate or install under the deviated surroundings from the environmental specification set for the below; in moisture, rain or near water-for example, bath tub, laundry tub, kitchen sink; in a wet basement; or near a swimming pool; and also near fire or heater - for example, near or over radiator or heat resistor; or where it is exposed to direct sunlight; or somewhere like that. If you use the Module in places mentioned above, it could result in electric shock, fire hazard or product failure.
- If any foreign objects (e.g. water, liquid and metallic chip or dust) entered the Module, the power supply voltage to the Module must be turned off immediately. Also, never push objects of any kind into the Module as they may touch dangerous voltage point or make short circuits that could result in fire hazard or electric shock.
- If smoke, offensive smell or unusual noise should come from the Module, the power supply voltage to the Module must be turned off immediately. Also, when the screen fails to display any picture after the power-on or during operation, the power supply must be turned off immediately. Do not continue to operate the Module under these conditions.
- Do not disconnect or connect the Module's connector while the power supply is on, or immediately after power off. Because the Module is operated by high voltage, and the capacitors in drive circuit remain temporarily charged even after the power is turned off. If you need to disconnect or reconnect it, you have to wait at least one minute after power off.
- Do not disconnect or connect the power connector by a wet hand. The voltage of the product may be strong enough to cause an electric shock.
- Do not damage the power cable of the Module, also do not modify it.
- When the power cable or connector is damaged or frayed, do not use it.
- When the power connector is covered with dust, please wipe it out with a dry cloth before power on.

NOTICE

- To prevent defect or failure, please check the cable connections and power-supply condition before power-on.
- The Module is controlled by high voltage. Not only during operation but also immediately after power-off, do not disconnect or reconnect the Module's connector because it may result in failure. If you need to disconnect or reconnect, you have to wait at least one minute after power-off.
- The Module is equipped with various protection circuits that automatically stop the Module operation, if an interface signal or the power voltage becomes abnormal during operation. If the Module stops suddenly during operation, please check the conditions of input signal or power source before restarting.
- For the protection of the circuit, if an abnormal situation is occurred, the high output voltage will be shut down by (watching) the internal input voltage (V_s / V_a / V_{cc}). In this case, the Module power resetting is necessary to recover. There are also fuses in the V_s and V_a power supply system to prevent smoking and firing by the excessive current. The protecting function of the address driver of keeping a supervisory device for the internal current is provided in the V_a power supply system. Therefore, the number of sub-frames decreases to a proper value when the I_a current exceeds a constant value occasionally.
- If an abnormal situation such as disconnecting of the input connector occurs, this Module will be on stand-by, which the supply of high output voltage is stopped even if an external power is being supplied. If a normal signal is inputted after this, normal operation state, operations can be restarted again by re-inputting a normal signal. However, it is necessary to rest the Module power when t_{VH} and/or t_{HV} are less than the minimum value provided in the specification
- To ensure reliable operation of the Module and to protect it from overheating, do not wrap or cover it with a cloth or like a sheet during power-on period. Also, do not place the Module in a confined space or any other places of poor ventilation.
- If you continue to watch the naked screen (without filter glass) for a long time, your eyes could be fatigued. We recommend you rest your eyes occasionally. However, according to the information currently available, watching PDP module for a long time does not cause a direct harm to your eyes.
- The screen is controlled with the display-data signals and synchronized signals. If noise interferes with those signals, the screen could become unstable and, in some case, would cause a failure. Do not place any equipment that generates excessive EMI/RFI noise near the interface cable of the Module, and keep the cables as short as possible.
- Be careful not to break the glass panel when you handle the Module. Also, when handling the Module, you must wear gloves or other hand protection to prevent injuries that can occur in case when the glass panel is broken.
- The glass panel section and drive circuit section of the Module are closely connected and they function as a pair. If the Module is arbitrarily recombined, restructured, or disassembled, SDI will not be responsible for the function, quality, or operational integrity of the modified Module. Do not recombine, restructure, or disassemble it. (Only, the Module for A/S is allowed to be recombined, restructured, or disassembled.)
- To avoid a possible electric shock, you must make sure that the power supply voltage of Module is turned off before cleaning. To clean the module's glass panel, apply water or a natural detergent to a piece of soft cloth or gauze, and wring the cloth tightly before wiping the screen. Make sure that no water comes in contact with the connecting terminals on the side of the glass panel. Do not use chemical solvents, such as paint thinner or benzene, to clean the glass panel.

- The drive circuit section of Module uses C-MOS integrated circuits that must be protected from static electricity. Therefore, when transporting or delivering the Module, be sure to put the Module in an antistatic bag. When handling the Module, take adequate grounding precautions to prevent static electricity.
- When delivering or transporting the Module, you must take special precautions because excessive vibration or shock should not be applied to it. If the Module is dropped, or (if) excessive vibration/shock is applied, the glass panel of the Module may be broken and the drive circuit may be damaged. The packing for delivering or transporting should be made with strict instructions.
- The information and schematics shown in this specification are just examples of display applications; it does not mean that they must be applied to your device for the actual use. SAMSUNG SDI does not take any responsibility for the infringement of patent or any other intellectual rights arising from the use of the information or schematics in the document.
- If any part or technology of the product described in this specification become subject to restrictions on export or any related laws or regulations, a prior permission is required before exporting.
- The PDP module uses semiconductor devices. Since semiconductors are very sensitive to static electricity, the following requirements should be conformed during delivering, transferring and handling the PDP module: Remove the static electricity on your body by wearing the earth-ring which must be connected to the ground through high resistor (about 1M Ohm). It is recommended to wear the conductive clothes and shoes, use conductive floor mats, and take other measures to minimize the static electricity. All the equipments and tools must be connected to the ground and protected from static electricity. When you deliver or transfer the PDP module, always use anti-static bag.
- If any device that can generate the high-voltage is located nearby the PDP module, it could cause an abnormal operation. In such a case, you should take a countermeasure to prevent against static electricity and discharges.
- If the PDP module is exposed to corrosive gases or contacted to oil, it could cause chemical reactions and give unfavorable effects on the devices. If you intend to use the PDP module under such conditions, you must consider the ways to avoid exposure or to protect the PDP module before using it.
- The PDP module is not designed to endure radiation or cosmic radiation. Users must install the proper shielding.
- The PDP module uses thermo-plastic devices. Since these devices are easy to be damaged, do not use the PDP module nearby inflammable substances. If they are burnt, poisonous gas will be emitted.
- To ensure the normal operation of the PDP module, the recommended operating range should be required. The electrical properties of the PDP module are guaranteed only when it is used within the recommended operating range. The PDP module must be used within the range at all time. If you use it out of the range, it could give adverse effects on its reliability or cause defects.
- Flexible cables connect electrodes on the panel glass and PCBs. Thus, do not apply too much stress such as shock, vibration, pressure, or bending, to the surface of panel glass, PCBs and flexible cables.
- If there is no special notice, the contents of this specification describe the product with the initial parameters after shipment.

 [Back to cover](#)

- Even if the panel glass is cleaned before shipping, there is a possibility of particle remained on the panel. In this case, remove it prior to the usage. When you clean the surface of the panel glass, use a piece of soft cloth with detergent to wipe off. Do not use any chemical substances such as acid, alkali or organic detergent.
- The Module is composed of various kinds of materials such as glass, metals and plastics. A qualified service technician is required for the disposal of the Module.

CAUTION

- Do not set the Module on an unstable, vibrating or inclined place. The Module may fall or collapse and it may cause a serious injury to a person, and/or damage to the product.
- If you need to remove the Module to another place, you must turn off the power supply and detach the interface cable and power cable from the Module beforehand, and watch your steps not to step on the cables during the operation. If the cables are damaged during the transport, it may result in fire hazard or electric shock. Also if the Module is dropped or fallen, it may cause a serious injury to a person and /or damage to the product.
- When you draw or insert the module's cable, you must turn off the power supply and do it (with) holding the connector. If you forcibly draw the cable, the electric wire in the cable can be exposed or broken. It may result in fire hazard or electric shock.
- When you carry the Module, it should be done with at least two workers in order to avoid any unexpected accidents.
- Be careful not to touch the panel glass surface while the PDP module is operating because there is a possibility of getting a burn injury due to its very high temperature.
- The Module has a glass-plate. If the Module is inflicted with excessive stress – for example; shock, vibration, bending or heat-shock, the glass plate could be broken. It may result in a personal injury. Also, do not press or strike the glass surface.
- If the glass panel was broken, do not touch it with bare hand. It may result in a cut injury.
- Do not place any object on the glass panel. It may be the cause of the scratch or break of the glass panel.
- Do not place any object on the Module. It may result in a personal injury due to fall or drop.
- PDP is a product, which generates heat during operation. Therefore, do not use the materials which make corrode the PDP module by the chemical reaction that takes place in high temperature and humidity conditions.
- Exposing to corrosive gases or contact with the materials, which may cause corrosions, could lead to chemical reactions that will adversely affect on the device. If you were to use the PDP in such conditions, consider ways to avoid such exposure or to protect the PDP module.

General Specification

Item			Specification	
Component INPUT	Rear*2	Y	1000mV(p-p), 75 ohm	Suggested resolutions: 1080i/60Hz, 720p/60Hz, 480p, 480i
		Pr/Cr	350mV (p-p), 75 ohm	
		Pb/Cb	350mV (p-p), 75 ohm	
		AUDIO	500 mV	
HDMI INPUT	Rear*1	As in HDMI Specification 1.0		
Video INPUT	Side*1 Rear*3	Video	1000mVpp (including 300 mV sync level), 75 ohm	
		Audio	500 mV	
S-Video INPUT	Side*1 Rear*1	S-Video	Y: 1000mVpp, 75 ohm C: 300mVpp, 75 ohm	
		Audio	500 mV	
Digital out	Rear*1	Audio	Digital audio out only for ATSC mode	
Television	NTSC standard ATSC standard		TV RF input system: NTSC analog, ATSC terrestrial 8-VSB and cable 16-VSB or 256 QAM. TV RF input level: 10mV (80dBuV) typical, 25dBuV ~ 100dBuV receiving	
Audio Power	Speaker output		10w x 2 with T.H.D. < 10%	
Power	Power input sources		90~264V, 50/60±3Hz	
	Power consumption		450 W (on average) / 1W in standby mode (power cord plugged in and DC power OFF)	
Unit Dimension	Width x Height x Depth		With Stand: 1038 x 685 x 298 (mm)	
Net weight	With Stand		39 kg	
Accessory	1pcs power cord, 1pcs remote control, (with two *AAA*sized alkaline batteries)			
Choose Part	Wall Mounting Bracket			

Plasma Panel

No	Item	Rating	
1	Display Pixels	Horizontal 1,024 × Vertical 768 pixels (1 pixel = 1 R,G,B cells)	
2	Display Cells	Horizontal 3,072 × Vertical 768 cells	
3	Pixel Pitch	Horizontal 0.912 mm × Vertical 0.693 mm	
4	Cell Size	R	Horizontal 0.304 mm × Vertical 0.693 mm
		G	Horizontal 0.304 mm × Vertical 0.693 mm
		B	Horizontal 0.304 mm × Vertical 0.693 mm
5	Pixel Type	R, G, B Matrix (refer to Figure-1)	
6	Effective Display Size	Horizontal 933.89 mm × Vertical 532.22 mm	
7	Number of color	1073.7 million colors (10Bit); 16.77 million colors (8Bits)	
8	Peak Luminance *1 (peak algorithm on)	NTSC : Typical 1,100 cd/m ² , Minimum 850 cd/m ² PAL : Typical 1,000 cd/m ² , Minimum 800 cd/m ²	
9	Contrast Ratio *2 (in dark room, peak algorithm on)	NTSC : Typical 10,000:1, Minimum 5,000:1 PAL : Typical 5,000:1, Minimum 3,000:1	
10	Brightness (Full white Brightness)	NTSC : Minimum 170 cd/ m ² , Typical 200 cd/ m ² PAL : Minimum 160 cd/ m ² , Typical 200 cd/ m ²	
11	Viewing Angle *3	Over 160°	

(Note)

- * 1. Luminance and Color Coordinates are the values that were measured with 1% load ratio white pattern.
- * 2. Contrast Ratio is calculated from the display Luminance and the non-display Luminance value.
- * 3. Viewing angle is a critical angle at which the Luminance is reduced to 50% to the Luminance perpendicular to the PDP Module. The contact luminance meter CA-100+H is used to measure the Luminance.

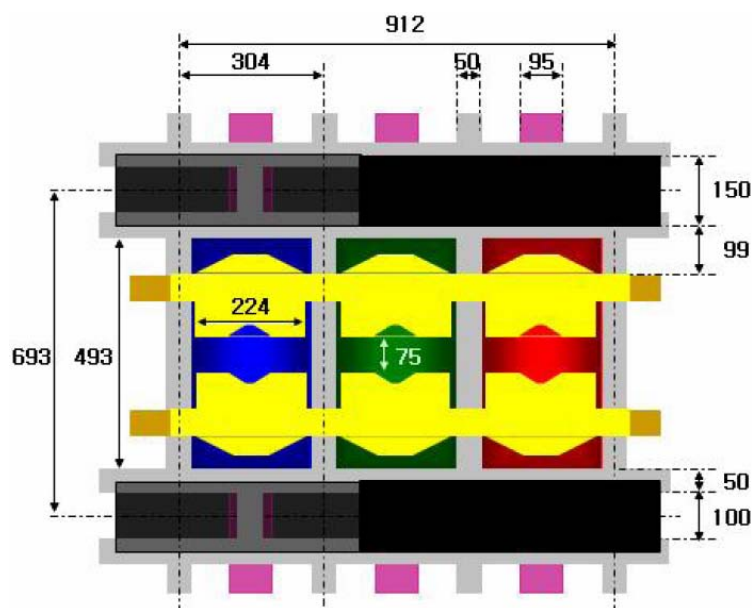


Figure-2. Display Cell Arrangement

TV Turning mode

- NAFTA NTSC system - Preset 125 cable, 69 off air.
- NAFTA ATSC system - Terrestrial 8-VSB, cable 16-VSB or 256 QAM.
- Search time - < 30 min.
- Band- Antenna and cable
- NAFTA analog antenna channels table:

Ch.	Freq.	Ch.	Freq.	Ch.	Freq.	Ch.	Freq.
		14	471.25	33	585.25	52	699.25
02	55.25	15	477.25	34	591.25	53	705.25
03	61.25	16	483.25	35	597.25	54	711.25
04	67.25	17	489.25	36	603.25	55	717.25
		18	495.25	37	609.25	56	723.25
05	77.25	19	501.25	38	615.25	57	729.25
06	83.25	20	507.25	39	621.25	58	735.25
		21	513.25	40	627.25	59	741.25
07	175.25	22	519.25	41	633.25	60	747.25
08	181.25	23	525.25	42	639.25	61	753.25
09	187.25	24	531.25	43	645.25	62	759.25
10	193.25	25	537.25	44	651.25	63	765.25
11	199.25	26	543.25	45	657.25	64	771.25
12	205.25	27	549.25	46	663.25	65	777.25
13	211.25	28	555.25	47	669.25	66	783.25
		29	561.25	48	675.25	67	789.25
		30	567.25	49	681.25	68	795.25
		31	573.25	50	687.25	69	801.25
		32	579.25	51	693.25		

- NAFTA analog cable channels table:

Ch.	Freq.	Ch.	Freq.	Ch.	Freq.	Ch.	Freq.
01	73.25	31	265.25	66	475.25	100	649.25
		32	271.25	67	481.25	101	655.25
02	55.25	33	277.25	68	487.25	102	661.25
03	61.25	34	283.25	69	493.25	103	667.25
04	67.25	35	289.25	70	499.25	104	673.25
		36	295.25	71	505.25	105	679.25
05	77.25	37	301.25	72	511.25	106	685.25
06	83.25	38	307.25	73	517.25	107	691.25
		39	313.25	74	523.25	108	697.25
07	175.25	40	319.25	75	529.25	109	703.25
08	181.25	41	325.25	76	535.25	110	709.25
09	187.25	42	331.25	77	541.25	111	715.25
10	193.25	43	337.25	78	547.25	112	721.25
11	199.25	44	343.25	79	553.25	113	727.25
12	205.25	45	349.25	80	559.25	114	733.25

[◀ Back to cover](#)

Ch.	Freq.	Ch.	Freq.	Ch.	Freq.	Ch.	Freq.
13	211.25	46	355.25	81	565.25	115	739.25
		47	361.25	82	571.25	116	745.25
14	121.25	48	367.25	83	577.25	117	751.25
15	127.25	49	373.25	84	583.25	118	757.25
16	133.25	50	379.25	85	589.25	119	763.25
17	139.25	51	385.25	86	595.25	120	769.25
18	145.25	52	391.25	87	601.25	121	775.25
19	151.25	53	397.25	88	607.25	122	781.25
20	157.25	54	403.25	89	613.25	123	787.25
21	163.25	55	409.25	90	619.25	124	793.25
22	169.25	56	415.25	91	625.25	125	799.25
		57	421.25	92	631.25		
23	217.25	58	427.25	93	637.25		
24	223.25	59	433.25	94	643.25		
25	229.25	60	439.25				
26	235.25	61	445.25	95	91.25		
27	241.25	62	451.25	96	97.25		
28	247.25	63	457.25	97	103.25		
29	253.25	64	463.25	98	109.25		
30	259.25	65	469.25	99	115.25		

HDMI display modes

- SDTV 640/720 x 480i
- EDTV 640/720 x 480p
- HDTV 1920 x1080i/1280 x 720p

YPbPr display modes

- 480i and 480p
- 720p/60Hz
- 1080i/60Hz

Electrical for AV/TV signal

While no signal on external inputs, screen goes black after 10 minutes.

- TV RF input system - NTSC analog, ATSC terrestrial 8-VSB and cable 16-VSB or 256 QAM.
- TV RF input level - 10mV (80dBuV) typical, 25dBuV ~ 100dBuV receiving capability, terminated with input impedance of 75Ω.
- CVBS input - 1000mVpp (including 300 mV sync level), terminated with input impedance of 75Ω.
- S-Video input - Y: 1000mVpp, C: 300mVpp, terminated with input impedance of 75Ω.
- Component video input - Y: 1000mVpp, PbPr: 350mVpp, terminated with input impedance of 75Ω. 480i/p, 720p/60Hz, 1080i/60Hz signal handling capability.
- HDMI input - As in HDMI Specification 1.0.
- Audio input - Sensitivity 500mV, the amplifier outputs full power when the input level reaches 500mV, terminated with input impedance of >10kΩ.
- Speaker output - 10w x 2 with T.H.D. < 10%.

Environmental Requirements

1. Temperature Ranges

Operating Temperature 0 to 40 degree C
 Storage Temperature -20 to 60 degree C
 Shipping Temperature -40 to 65 degree C

2. Humidity

Operating (non-condensing) 20% to 70%
 Storage (non-condensing) 5% to 95%
 Shipping (non-condensing) 5% to 95%

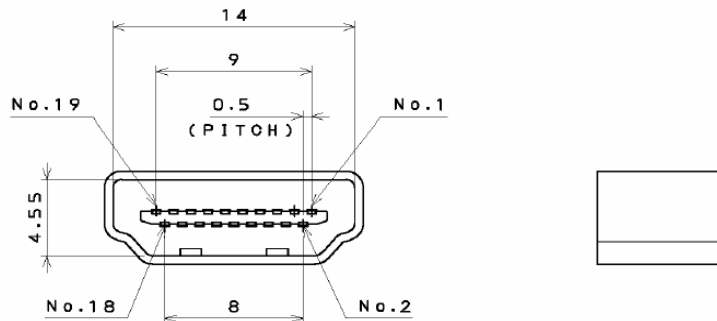
3. Altitude

Operating 0 to 2,000 m
 Storage 0 to 9,000 m
 Shipping 0 to 9,000 m

4. Air pressure

Operating 795 to 1013 mbar
 Storage 300 to 1013 mbar
 Shipping 300 to 1013 mbar

HDMI Pin Assignments



Pin	Description	Pin	Description
1	T.M.D.S Data 2 +	11	T.M.D.S Clock Shield
2	T.M.D.S Data 2 Shield	12	T.M.D.S Clock -
3	T.M.D.S Data 2 -	13	CEC
4	T.M.D.S Data 1 +	14	NC
5	T.M.D.S Data 1 Shield	15	SCL
6	T.M.D.S Data 1 -	16	SDA
7	T.M.D.S Data 0 +	17	DDC/CEC Ground
8	T.M.D.S Data 0 Shield	18	+5V Power
9	T.M.D.S Data 0 -	19	Hot Plug Detect
10	T.M.D.S Clock +		

[!\[\]\(919a2cb85b99741a73c0c31a427236a8_img.jpg\) Back to cover](#)**Power Indicator**

A delay of 5 seconds before entering the power saving state is required to avoid misunderstanding of display resolution and timing mode changes. The power states as given in the following table.

LED colors

Mode	H-Sync	V-Sync	Video	Pw-cons.	Indicator
Power-On	On	On	Active	<450W	Blue LED
Standby	Off	Off	Off	<1W	Blank LED
DC Switch-off	Off	Off	Off	<1W	Blank LED

Remote Control Receiver

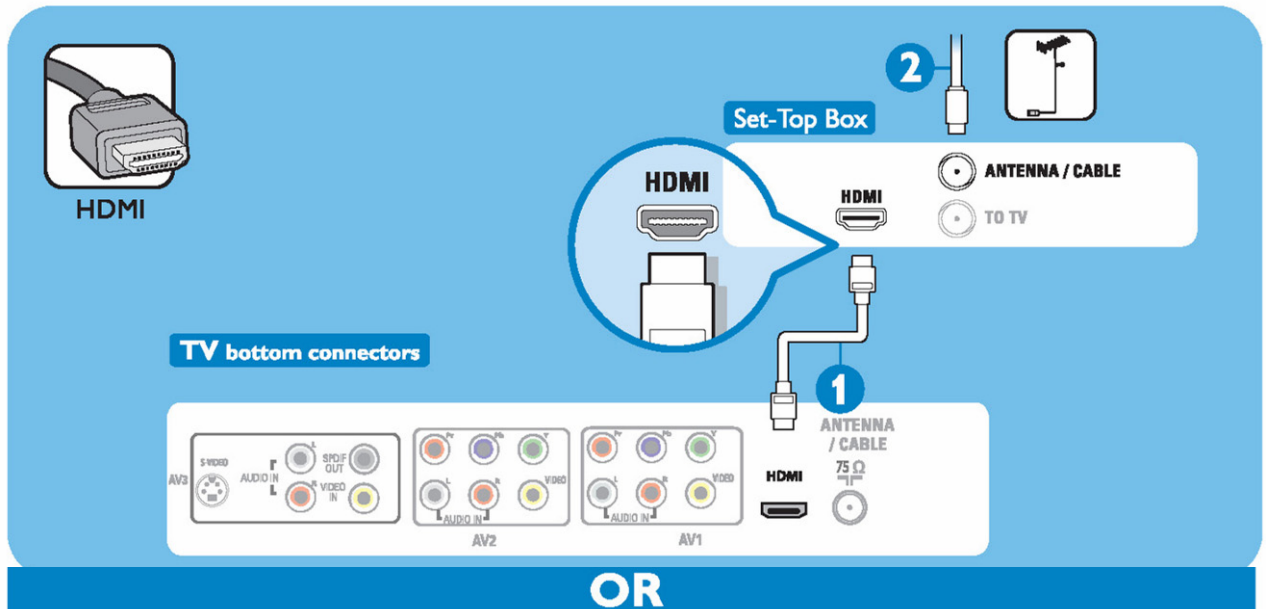
42MF231D/37 shall provide an infra-red (IR) optical detector on its front panel for use as the receiver for remote controller signal. The IR communication protocol shall conform to RC-6 standard. The required operating distance of the remote control as given in the following table.

Operation Angle	RC operational distance
0° (for H & V)	≥ 10m
30° (for H & V)	≥ 8m
45° (for H only)	≥ 6m

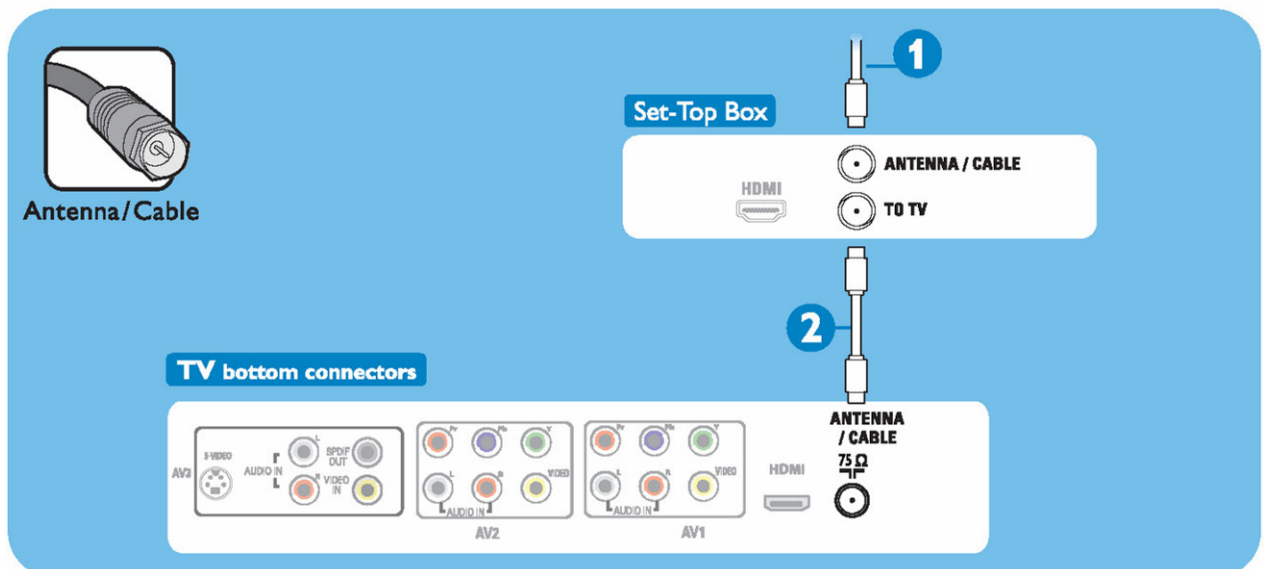


Cable or Satellite set top box

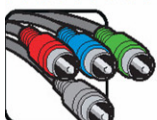
- 1 Connect the Set-Top Box to the TV using an HDMI connector cable.
- 2 Connect the antenna cable to the antenna input of the Set-Top Box.
- 3 After connecting all cables or devices switch on the TV. See user's manual p.18.



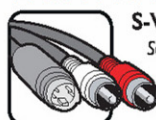
- 1 Connect the antenna cable to the antenna input of the Set-Top Box.
- 2 Connect a second antenna cable from the Set-Top Box to the TV.
- 3 After connecting all cables or devices switch on the TV.



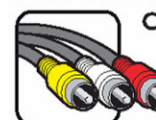
Other possible connections



Component Video Input
See DVD Recorder



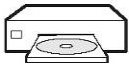
S-Video
See VCR



Composite Audio/Video
See VCR

Connecting the PDP

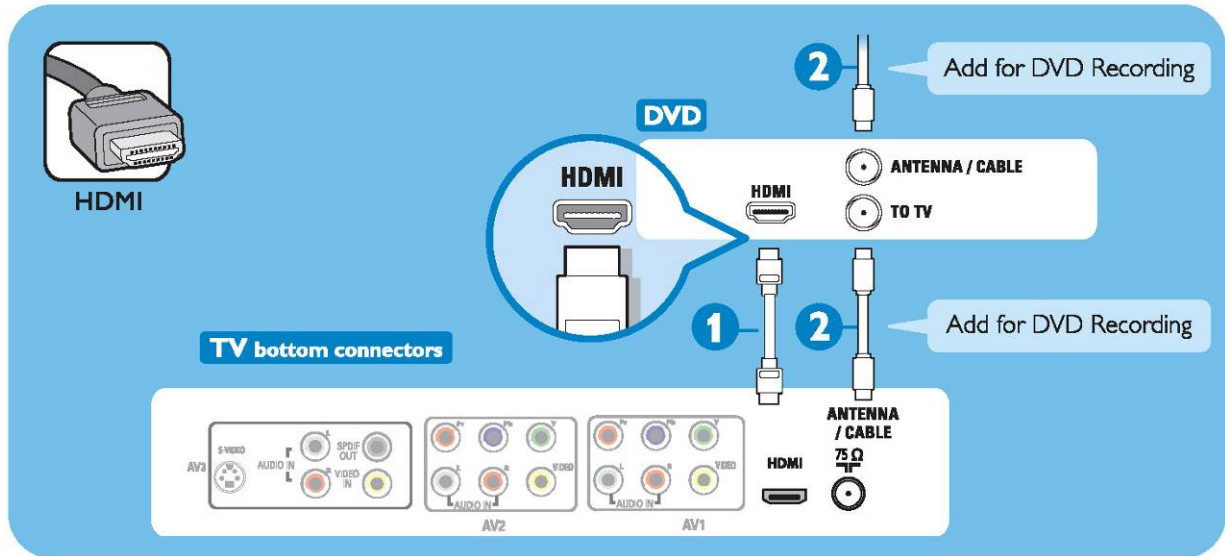
[Back to cover](#)



DVD Recorder/Player

- 1 Connect the DVD to the TV using an HDMI connector cable
- 2 Connect a two antenna cables for recording on the DVD
- 3 After connecting all cables or devices switch on the TV.

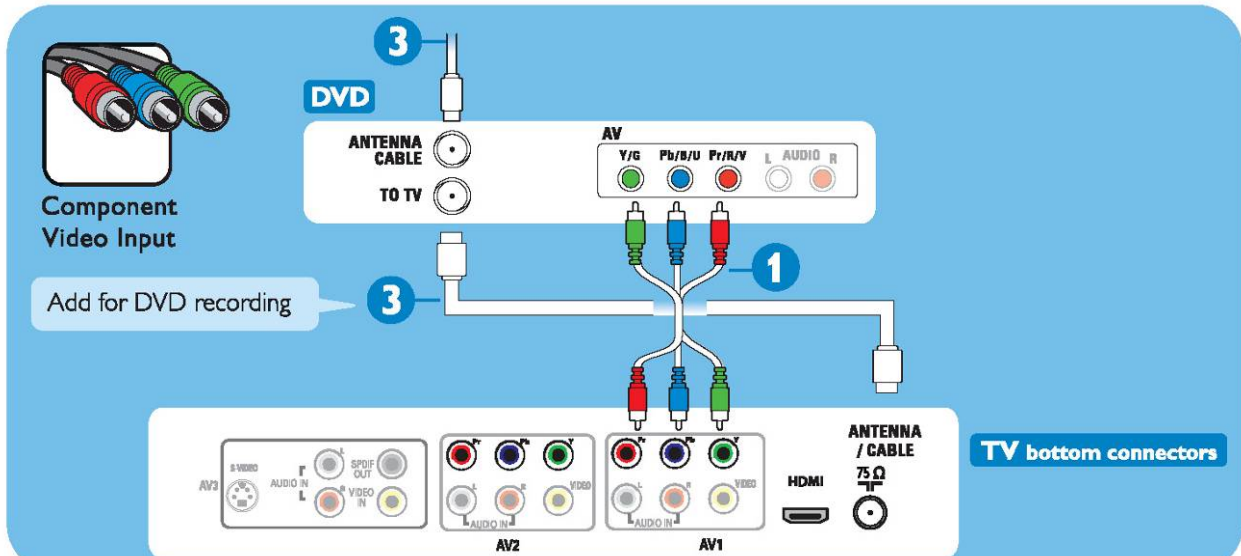
★★★★★



OR

- 1 Connect the Component Video plugs into their corresponding jacks.
- 2 For audio connect, alternatively connect red & white Audio cables.
- 3 Connect the two antenna cables for DVD Recording. After connecting all cables or devices switch on the TV.

★★★★★

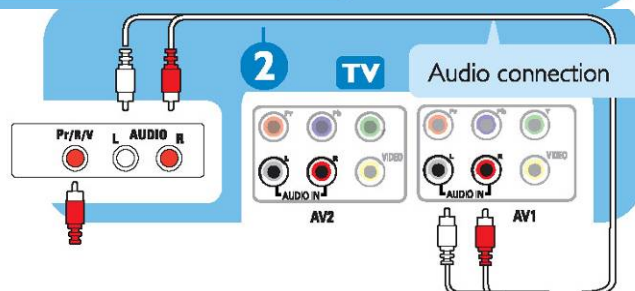


Other possible connections

★★★★★

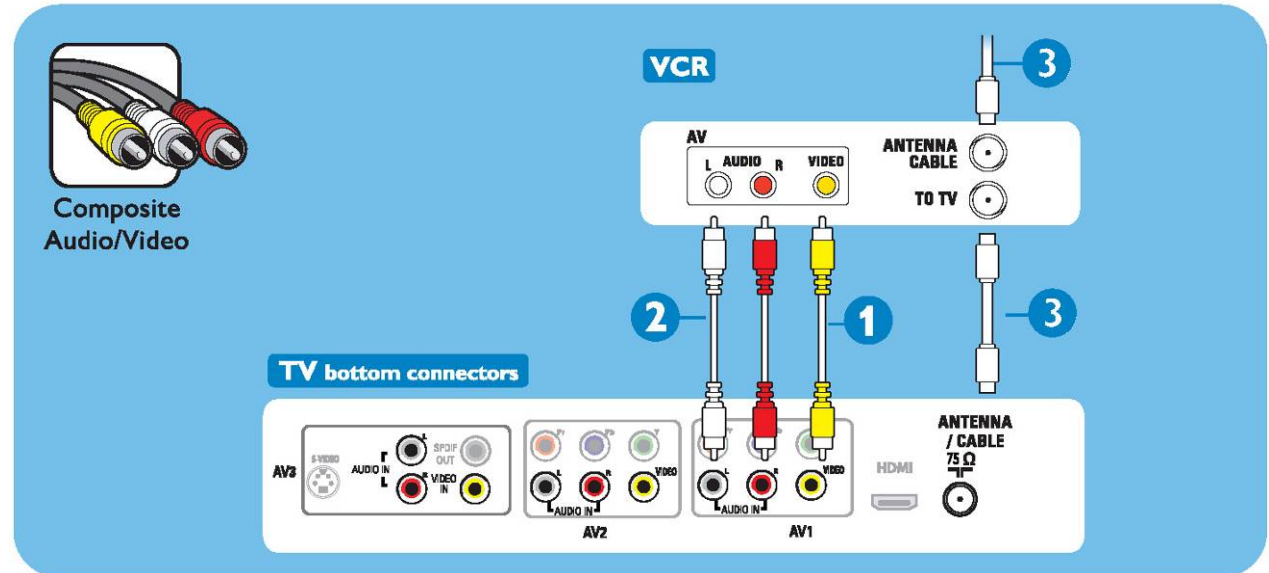


★★★★★



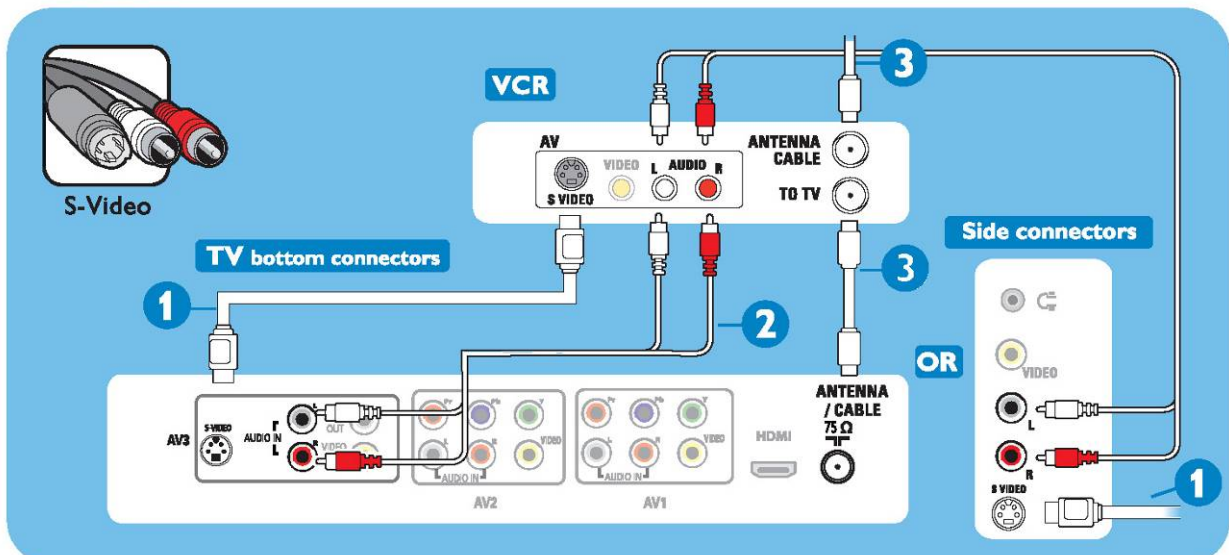
VCR

- 1 Connect the VCR with the Video cable(yellow) to the Video input of AV1,AV2 or AV3.
- 2 Connect a Audio L & R cables to the Audio L & R AV1,AV2, or AV3 input of TV.
- 3 Connect the antenna/ cable signal to the VCR and connect an antenna cable from VCR to the antenna input of TV.



OR

- 1 Connect the VCR with the S-video cable to the S-video input of AV3 or Side AV.
- 2 Connect the Audio L & R cables to the Audio L & R AV3 or Side input of TV.
- 3 Connect the antenna/ cable signal to the VCR and connect an antenna cable from VCR to the antenna input of TV.



Other possible connections



Antenna/Cable

See Cable or Satellite set top box

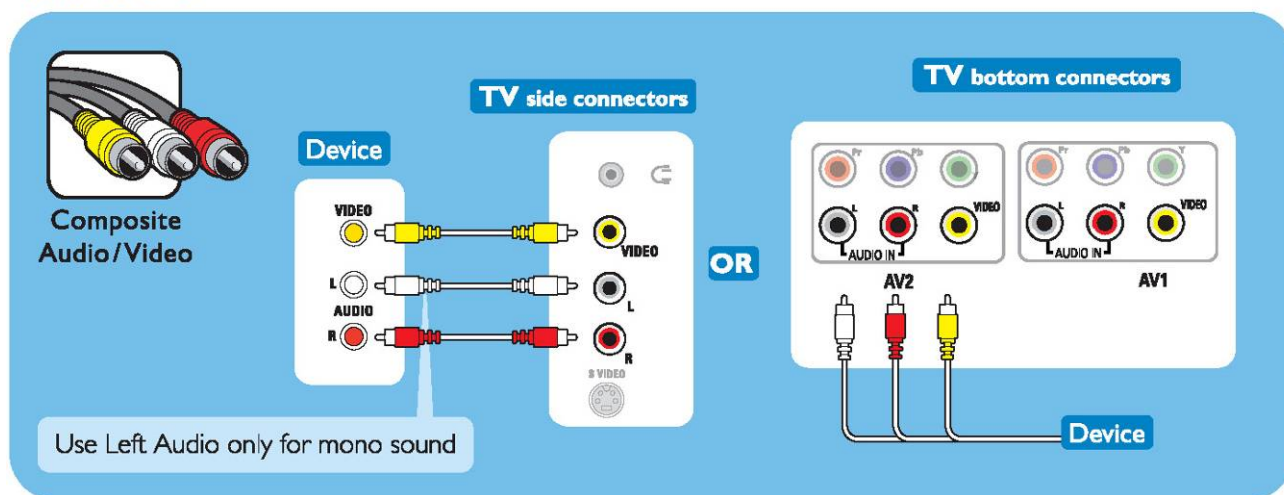
Connecting the PDP

[Back to cover](#)



Connect the Video cable from the Video output on your camera or game console to the video input located on the side of TV.

Connect the Audio L & R cables for sound.



Other possible connections



Component Video Input
See DVD Recorder



S-Video
See VCR

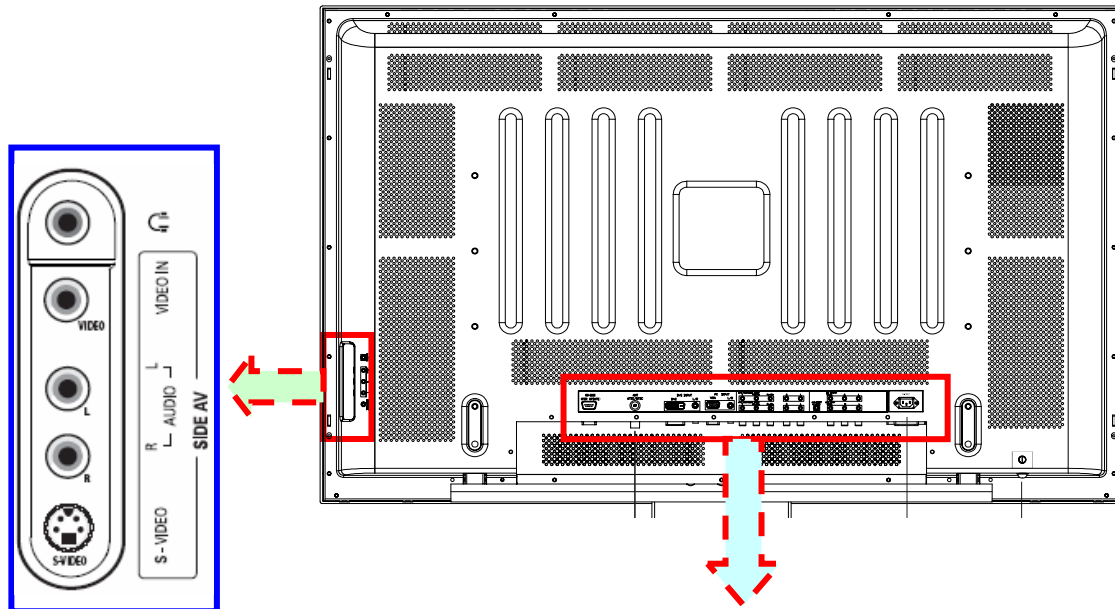
Weak channel installation

Antenna reception for broadcast channels may vary. If you are having difficulties acquiring weaker signals, we suggest you see: Weak Signal Installation feature. Here's how:

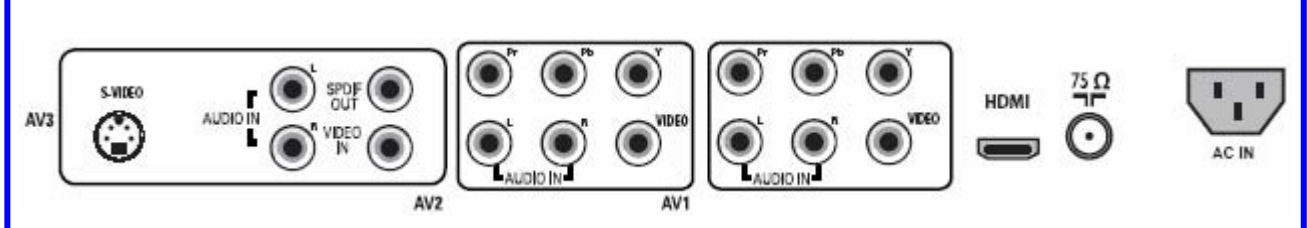
1. In the antenna mode, select a channel from the displayed list of TV channels.
Select the "start" by red button on the remote control, TV set will detect the signal.
2. The signal strength is continuously displayed and updated as the antenna rotates.
When strength is enough to identify, user can store the channel in the channel list by green button on the remote control.

For detail information please refer to user's manual.

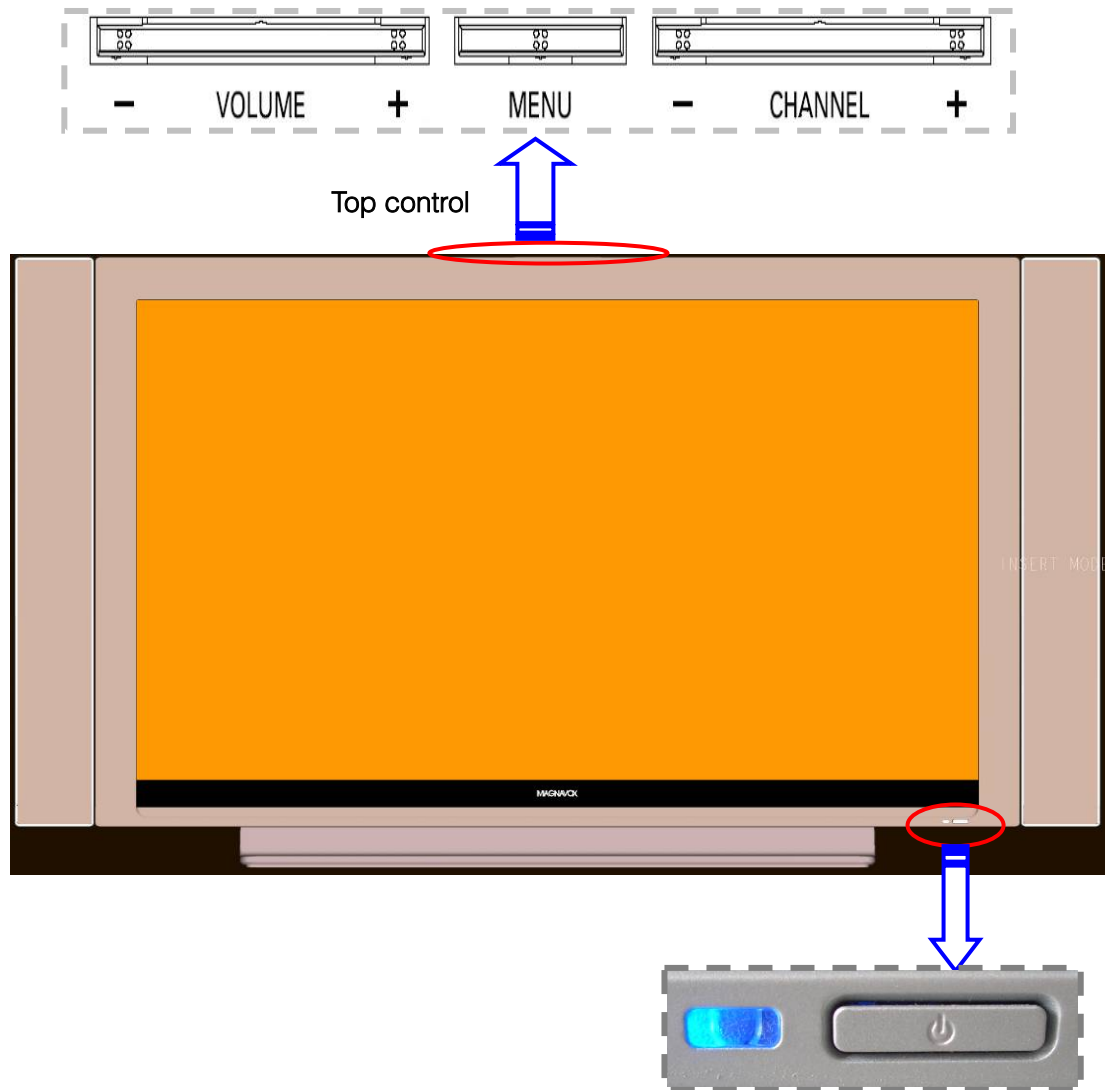
Most of these interfaces are located at the back-panel. There's also a group of connectors located on the side of this device for easier access. The following figures depict these A/V connectors.



Back Panel A/V Connectors



[Back to cover](#)



Key	PC mode	TV/video mode
"-" (Volume)	Decrease/Volume down	Decrease/Volume down
"+" (Volume)	Increase/Volume up	Increase/Volume up
Menu	Enter /Exit OSD menu	Enter /Exit OSD menu
"-" (Channel)	Menu Select Down	Menu Select Down/Channel Down
"+"(Channel)	Menu Select Up	Menu Select Up/Channel up

- Access main menu by pressing "MENU" key.
- Select function via Channel "+" / - " keys, increase/decrease via Volume "+" / - " keys.
- Volume "+" / - " are also for Volume Hot Key (both TV and PC modes).

0~9 Number keys:

1. Press number button to direct access to TV channel.
2. Press the pass code to activate the factory mode.
3. Press to activate the Channel Lock.

VOL+/-:

Press to adjust the volume.

Arrow keys:

1. Press button to navigate OSD menu.
2. Cursor right key perform confirmation and proceeds next level of OSD.
3. Can use cursor left to return previous level

OK key:

1. Press button to activate the setting/selection of OSD.
2. Press to return previous level.
3. Press to summon channel list.

MUTE:

Mute sound or restore it.

INFO:

1. Press to display information about the selected TV channel (Channel number, format, signal (Sound mode), Mode (Virtual Dolby surround), CC, Analog Lang, Rating, Sleep timer.
2. Press to proceed command for function, which require press in red.

VIEW:

1. Press to summon the favorite channel list.
2. Press to proceed command for function, which requires press in Green.

SOUND:

Press repeatedly to call for the smart sound setting.

POWER:

Press to turn on/off the TV from or to standby mode.

A/CH:

Press to alternate between the currently viewed channel and previously viewed channel. (It should return to previous view if it comes from different signal

AV:

1. Press repeatedly to select the signal source: [AV1/AV2/AV3/HDMI/Side](#).
2. The Source List should be activated and show on OSD.

CH+/-:

1. Press to browse channels
2. Press to turn on TV from stand by mode
3. The channel number should appear on the set.

MENU:

1. Press to activate OSD menu and back to previous level of OSD.
2. Exit OSD.

FORMAT:

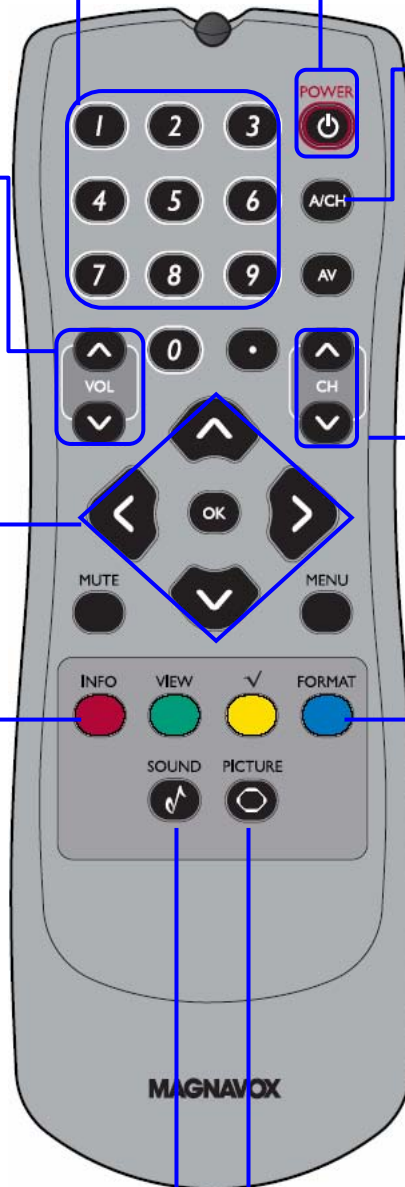
1. Press to toggle among screen Automatic / Super Room / 4:3 / Movie expand. 14:9 / Movie expand 16:9 / 16: 9 subtitle / widescreen
2. Press to proceed command for function, which require pressing blue.

✓ Check Mark:

1. Press to add or remove a channel in favorite list.
2. Press to proceed command for function, which requires press in yellow.

PICTURE:

Press repeatedly to call for the smart picture setting.



OSD Tree

[Back to cover](#)

OSD Layer 1	2	3	4
TV	Picture	Smart picture	Personal→Rich→Natural →Soft→Multimedia→ECO
		Contrast	
		Brightness	
		Color	
		Sharpness	
		Color temperature	Normal→Warm→Cool
		Tint	Slider
		Picture format	Automatic→Super zoom→4:3→Movie expand 14:9→Movie expand 16:9→16:9 subtitle→Wide screen
	Sound	Smart sound	Personal→Speech→Music→Movies→Multimedia
		Volume	
		Balance	
		Headphone volume	
		Sound mode	Stereo→Virtual Dolby Surround
		Alternate audio	Main→SAP
		Digital audio language	English→French (Canadian) →Spanish
		Mono/Stereo	Stereo→ Mono
		AVL	Off→ On
		Delta volume	
	Features	Closed captions	Off→On→On during mute
		Sleep timer	
	Channels	Lock after	
		Channel lock	
		TV ratings lock	
		Movie ratings lock	
		Preferred channels	

Layer 1	2	3	4	5		
S E T U P	Preferences	Sound preferences	Auto surround	Off→On		
		Features preferences	Caption service	CC-1~4→T-1~4		
			Digital caption service	CS-1~6		
			Digital caption options	Reset to default	Reset to default	
				Size	Default→Small→Standard→Large	
				Style	Default→Mono spaced serif→Serif→Mono spaced sans serif→Sans serif→Casual→Cursive→Small caps	
				Text	Color	Default→Black→White→Red→Green→Blue→Yellow→Magenta→Cyan
					Opacity	Default→Solid→Transparent→Translucent→Flashing
				Background	Color	Default→Black→White→Red→Green→Blue→Yellow→Magenta→Cyan
					Opacity	Default→Solid→Transparent→Translucent→Flashing
				Menu preferences	OSD	Normal→Min.
					Show emergency alerts	Always→Skip low priority→Skip medium/low
					Change PIN	
			Reset AV settings	Start now		
			Source	AV1	None →Recorder→DVD→SAT→Game→Digital STB→PVR→HD→Cable→Other	
		AV2				
		AV3				
		HDMI				
		Side		None →Camera→Game→Recorder→Other		
	Analog Audio in	AV1→HDMI				
	Clock	Auto clock mode	Automatic →Manual			
		Auto clock channel				
		Time				
		Day	Sun→Mon→Tue→Wed→Thu→Fri→Sat			
		Time zone	Atlantic→Eastern→Central→Mountain→Pacific→Alaska→Hawaii			
		Daylight saving	Automatic →Off			

[Back to cover](#)

OSD Layer 1	2	3	4
Installation	Language	English→Francais→ Espanol	
	Auto program	Start now	Antenna→Cable
	Weak channel Installation		
	Software upgrade	Current software Info→ Local Upgrades / applications	

OSD MENU Description

The OSD display should ensure that no burn-in or image sticking occurs by having timeout of no more than 10 min. Timeout definition: 10 min. for menu, 30 seconds for OSD icons (i.e. Channel no., mute, info, AV selected), 5 seconds for channel & AV background, view, format, sound, picture, favorite.

How to navigate through the Settings menus

The Settings menu allows you to access and change settings and preferences settings.

Settings	TV
TV	Picture
Setup	Sound
Installation	Features
Exit	Channels
Info	

- Press the **MENU** button on the remote control to display the Settings menu.

- Use cursor up/down to highlight and select a menu item on the left panel.

The right panel shows the content of the menu you have highlighted in the left panel.

Note: Sometimes not all the menu items are visible on the screen. Use cursor down to scroll down to additional items.

- Use the cursor right to enter the right panel.

The content of the right panel is moved to the left panel and the right panel shows the content of the newly highlighted item in the left panel.

Note: In some cases, you will want to watch the picture on your screen while adjusting settings. This means that when the highlight is on the right side panel, the other menu items are hidden. When the cursor left is pressed again, the hidden menu items re-appear and the highlight moves to the left panel.

Settings	Picture
TV	Smart Picture
Picture	Contrast
Sound	Brightness
Features	Color
Channels	Sharpness
	Color temperature
	Tint
	Picture format
Info	

- Press the cursor left to go one menu level up again.

- Press the **OK** button on the highlighted item to activate and to dismiss the menu.

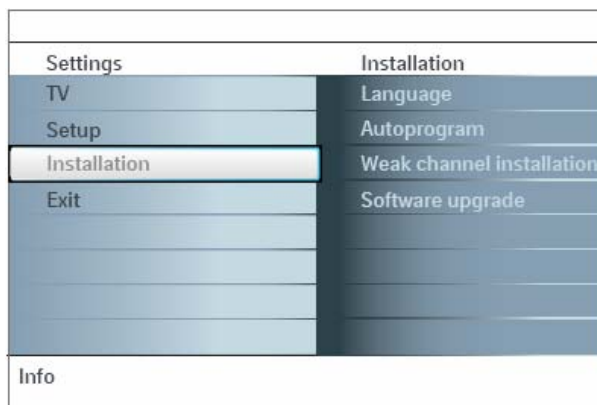
- Press the **MENU** button again to exit the Settings menu.

Note: The menu is also dismissed by pressing one of the color buttons (if present) referring to certain actions which may be executed.

[Back to cover](#)

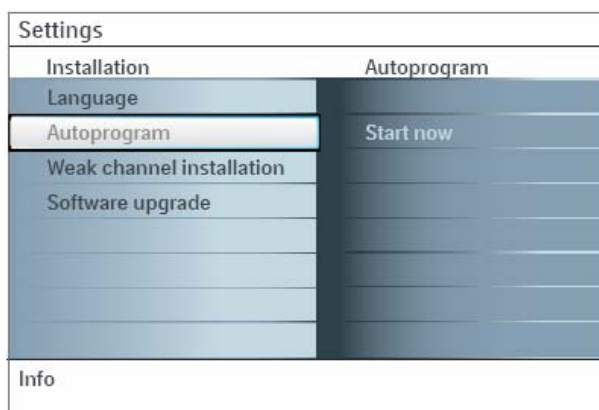
Installation MENU

1. Select the menu language



- 1) Press the **MENU** button on the remote control.
- 2) Use the cursor down to select **Installation** in the Settings menu.
- 3) Use the cursor right to enter the Installation menu.
- 4) Select **Language** and enter the list of available languages with the cursor right.
- 5) Select your preferred language with the cursor up/down and press the **OK** button to confirm your selection.
- 6) Proceed with the Installation menu.

2. Store TV channels

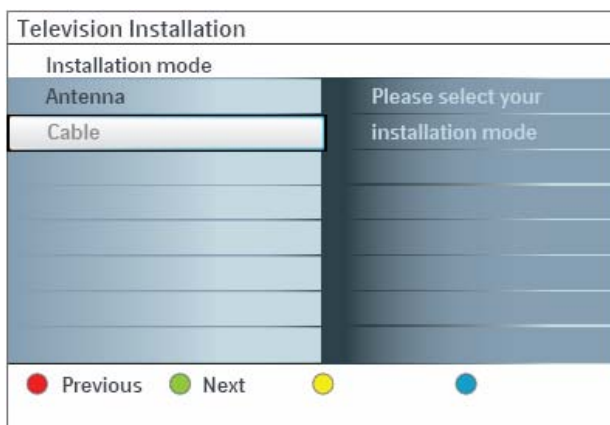


- 1) Select **Auto-program** in the Installation menu.
- 2) Use the cursor right to enter the Auto-program menu.
- 3) Press the **OK** button.
- 4) Select **Cable** or **Antenna** in the Installation mode.

When **Antenna** is selected, the TV will detect antenna signals and will search for antenna TV (NTSC and ATSC) channels available in your local area.

When **Cable** is selected, the TV will detect cable company supplied signal sand will search for cable TV (NTSC, ATSC, QAM modulated) channels available in your area.

Make sure that registration with your cable TV provider and connection of equipment are completed.



- 5) Press the green button "**Next**" on the remote control.

Note: All channels must be unlocked in order to auto-program. If requested, enter your PIN code to unlock all channels. See Menu preferences in the Settings, TV menu.
- 6) Press the green button "**Start**" to start auto-programming. The menu screen disappears and the progress of auto-programming is displayed. The progress bar indicates the number of analog and digital TV channels found. When auto-programming is complete, a message appears confirming the completion and the TV switches to the first installed TV channel.

Notes:

- When you have locked TV channels before initiating Autoprogram, a message appears asking to enter your PIN code in order to complete Autoprogramming.
- ATSC channel information is updated automatically when the TV is in standby after 3 minutes and every 3 hours thereafter.
- When channel update is interrupted, the new updated channel information is retained along with the old un-updated channel information.
- Background Autoprogramming occurs only when the TV is turned on.
- Channel information about an ATSC channel is updated only for the ATSC channel currently tuned.
- If an NTSC channel is tuned, then in Background Autoprogramming the TV shall scan all the possible ATSC frequencies and update information.
- Weak channel installation allows you to manually tune weak ATSC channels in order to adjust the antenna and thus optimize signal quality for that channel. (See Installation menu, Weak channel installation)
- Once you have searched for the available Antenna as well as the Cable TV channels, they are stored in the memory.
- If Antenna/cable signal is interrupted more than ten minutes, TV will go into off mode. You are requested to press **Power** button or **CH \wedge /V** button to turn on the TV.

3. Channel turning

Available channels:

- Cable (analog NTSC or digital QAM)
- Terrestrial (analog NTSC or digital ATSC)

If a tuned channel is not yet in the master channel map, the TV will attempt to tune to the channel and it will be added to the map.

If the channel is not acquired, a message will appear reporting that the channel is not available. When you tune an audio-only digital subchannel, a display appears with the message Audio only.

Note: Subchannel selections

The new standards employed with digital broadcasting make it possible to receive multiple program channels under a single major channel number which can be selected by pressing the digit remote control direct-access channel number entry.

Important:

After the installation of the TV channels is completed, always make a selection in the Installation menu between Antenna or Cable whether you want to watch Antenna TV channels or Cable TV channels. If you make use of a signal splitter do not forget to put the switch in the corresponding position.

Note: Digital Channel selection delay

Due to the tuning complexity of subchannel digital programming, the time to select and view a digital channel may take slightly longer than what the viewer is normally accustomed to (as compared to analog channel programs).

Digital channel broadcasts contain program and system data information that must be processed before the channel selection can be displayed.

[Back to cover](#)

4. Weak channel installation

Antenna reception for broadcast channels may vary. If you are having difficulties acquiring weaker signals, we suggest you use: Weak Signal Installation feature.

Here's how:

- 1) In the antenna mode, select a channel from the displayed list of TV channels. Select the “Start” by red button on the remote control; TV set will detect the signal.
- 2) The signal strength is continuously displayed and updated as the antenna rotates.
When strength is enough to identify, user can store the channel in the channel list by green button on the remote control.

5. Software upgrade

This menu allows you to upgrade your TV software using a USB device.

Settings	Installation
TV	Language
Setup	Autoprogram
Installation	Weak channel installation
Exit	Software upgrade
Info	

USB upgrade

It is possible to initiate an upgrade procedure from a USB portable memory (not supplied). The memory device must be filled with the appropriate upgrade image (and structure) which can be found on the www.usasupport.magnavox.com website. How to upload a new software version on your portable memory device (not supplied), see the chapter of “software upgrade”,

Setup MENU

Settings	
Setting	Setup
TV	Preferences
Setup	Source
Installation	Clock
Exit	
Info	

- This menu is used to control the settings of special TV functions, features and accessory devices.
- The **Preferences menu** allows you to change settings that will typically be accessed only occasionally.
- The **Source** menu allows you to select a source.
- The **Clock** menu allows you to use your TV as a clock. This setup is necessary for the correct working of the **Lock after** feature.

1. Preferences

[illegible]

- 1). Press the **MENU** button.
- 2). Select **Setup** with the cursor down key and press the cursor right key to select the **Preferences** menu.
- 3). Press the cursor right key again to select **Sound preferences**.
- 4). Press the cursor right key once more to enter the Sound preferences menu.

➤ Sound Preferences

Sometimes the broadcaster transmits special signals for Surround sound encoded programs. The TV automatically switches to the best surround sound mode when **Auto surround** is switched **On**

Settings	
Preferences	Sound preferences
Sound preferences	Auto surround
Features preferences	
Menu preferences	
Reset AV settings	
Info	

➤ Features Preferences

[illegible]

1). Caption service

This allows you to select the Closed Captions service levels of analog broadcasting to be displayed. Closed Captioning allows you to read the voice content of television programs on the TV screen. Designed to help the hearing impaired, this feature uses on-screen 'text boxes' to show dialogue and conversations while the TV program is in progress.

Captions will appear on the screen during captioned broadcasts.

- ①. Select **Captions service**.
- ②. Press the cursor right key.
- ③. Select the desired Caption service:
 - CC 1,2,3 or 4

Dialogue (and descriptions) for the action on the captioned TV program shows on screen. Usually CC1 is the most used. CC 2 may be used for alternate languages if they are being transmitted.

- T 1,2,3 or 4

Often used for channel guide, schedules, bulletin board information for Closed Captions programs, news, weather informations or stock market reports.

Not all Caption services are necessarily being used by a TV channel during the transmission of a Closed Caption program.

- ④. See Closed Caption in the TV, Features menu, to turn the Caption service On or Off.

Note: The captions do not always use correct spelling and grammar. Not all TV programs and product commercials are made for broadcast with Closed Caption information included. Refer to your area's TV program listings for the TV channels and times of Closed Caption programming. Captioned programs are usually noted in the TV listings with service marks such as 'CC'.

2). Digital caption service

This allows you to configure the way you choose to view digital captioning. Select one of the digital service channels made available by the caption provider.

There are six standard services. Service 1 is designated as the Primary Caption Service. This service contains the verbatim, or near-verbatim captions for the primary language being spoken in the accompanying program audio.

Service 2 is designated as the Secondary Language Service. This service contains captions in a secondary language, which is a translation of the captions in the primary Caption Service. The other service subchannels are not pre-assigned. It is up to the discretion of the individual caption provider to utilize the remaining service channels.

3). Digital caption options

This allows you to modify how digital captions are displayed on your TV. Select from the following options to change the visual characteristics of your TV's digital captioning.

- **Reset to default**

Select this option to reset the digital caption options to the captions provider default settings. Press the **OK** button to confirm.

- **Size**

Select this option to choose a caption display size according to your own preference. Select **Default (Automatic)**, **Small**, **Standard** or **Large** and press the **OK** button to confirm.

- **Style**

Select this option to choose a caption display font style according to your own preference. Select **Default**, **Mono spaced serif**, **Serif**, **Monospaced sans serif**, **Sans serif**, **Casual**, **Cursive** or **Small caps**.

- **Text**

Select this option to choose caption display text box, text color and/or the opacity according to your own preference. Select a color and an opacity option.

- **Background**

Select this option to choose caption display character back ground color or one of the background opacity options according to your own preference. Select a color and one of the opacity options.

➤ **MENU Preferences**

Settings	
Preferences	Menu preferences
Sound preferences	OSD
Features preferences	Show emergency alerts
Menu preferences	Change PIN
Reset AV settings	

Info

1). OSD

- ①. Select OSD.
- ②. Press the cursor right key to select **Normal** or **Minimum**. **Normal** activates a continuous display of the channel number for a maximum of 10 minutes and extended display of TV channel and program information on screen. For example, information on the main or auxiliary program, input signal quality of connected accessory devices, the display format, sound mode, availability of Closed Caption service, the audio language, the rating, sleep timer setup is displayed.

Minimum activates the display of reduced channel information.

Note: 1. When Closed Captions is switched on, continuous display of the channel number and clock is not possible.

2. *Emergency Alert Signalling is not possible:*

- when content browsing;
- with analogue video sources.

2). Show emergency alerts (EAS)

This allows you to select the alert priority level of the information disseminated by the cable operator. The standard SCTE18 defines an Emergency Alert signalling method for use by cable TV systems to signal emergencies to digital devices such as digital set-top boxes, digital TVs and digital VCRs.

The Emergency alert signalling scheme defined in the standard allows a cable operator to disseminate emergency alert information related to state and local-level emergencies and warnings in a cost-effective and efficient way, while minimizing disruption of programming.

An Emergency alert message will have one of the following priorities: **Low**, **Medium**, **High** or **Maximum**.

The Emergency alert message with priority **High** or **Maximum** will always be presented. **Low** or **Medium** will be present or ignored depending on the setting you select.

Important: When the TV clock is undefined (See Setup menu, Clock), the Emergency Alerts will be ignored.

The Emergency Alert message display will contain following information:

- The Emergency Alert text
 - The start time + date
 - The end time + date.
- ①. Select **Show Emergency Alerts** in the Menu preferences menu.
 - ②. Press the cursor right key and select one of the Emergency alerts options:
 - Always: You always want available Emergency alert messages to be displayed;
 - Skip low priority: You want low level messages to be ignored;
 - Skip low/medium priority: You only want the high priority message to be displayed.

Notes:

- *You always have the possibility to remove the message from the screen.*
- *The message display will overlap whatever menu element or other message is on the screen.*

3). Set/Change PIN

- ①. Select **Set** or **Change PIN** with the cursor down.
- ②. If no PIN-code exists, the menu item is set to **Set PIN**.
Follow the instructions on screen. If a PIN-code has previously been entered, the menu item is set to **Change PIN**. Follow the instructions on screen. All number combinations from 0000 to 9999 are valid numbers.
- ③. The **Menu preferences menu** reappears with a message confirming that the PIN has been created.

Important: you have forgotten your PIN!

- ①. *Select Change PIN in the Menu preferences menu and press the cursor right key.*
- ②. *Press the cursor right key to enter the overriding PIN code 0-7-1-1.*
- ③. *Press the cursor again and enter a new personal 4-digit PIN code. The previous code is erased and your new PIN-code is stored.*

[Back to cover](#)

➤ Reset AV settings

Settings	
Preferences	Reset AV settings
Sound preferences	Start now
Features preferences	
Menu preferences	
Reset AV settings	
Info	

This function allows you to reset most of the picture and sound settings to their default factory levels.

- ①. Select **Reset AV settings** with the cursor down key.
- ②. Press the cursor right key.
- ③. Press the **OK** button to erase settings and reset them to their default values.

2. Source

This menu allows you to identify the accessory devices you have connected to the external inputs /outputs.

Settings	
Setup	Source
Preferences	AV1
Source	AV2
Clock	AV3
	HDMI
	Side
	Analog Audio In
Info	

➤ Source(AV1,AV2,AV3,HDMI,Side)

- ①. Select **Source** in the Setup menu.
- ②. Press the cursor right to enter the list of types of devices connected to the selected input.
- ③. Select the accessory device with the cursor up/down.

When you select AV1, AV2, AV3, HDMI1, Side or Analog Audio In, a list appears allowing you to identify which type of accessory device is attached to this input. The TV detects the presence of the connected device and the signal is routed appropriately.

➤ Analog Audio In

If your accessory device has a DVI output connector, only the video signal is transmitted in digital format. To input an audio signal, please connect the analog audio L and R outputs to the TV's L and R AV1 audio input plugs. To activate the audio function, select HDMI from the Analog Audio In menu to activate.

➤ Digital Audio Out

In addition to accepting audio input through **HDMI**, the TV can output Digital audio through the **DIGITAL AUDIO OUT (SPDIF OUT)** connector to an external amplifier or receiver. If your amplifier or receiver has a matching connector for Digital Audio In, you can connect it with a single cable to the TV's DIGITAL AUDIO OUT (SPDIF OUT).

3. Clock

This allows you to use your TV as a clock.

Note: Adjusting the clock is necessary for the correct operation of Lock after (See TV settings, Channels) features.

Settings	
Setup	Clock
Preferences	Auto clock mode
Source	Auto clock channel
Clock	Time
	Day
	Time zone
	Daylight saving
Info	

Most TV channels do not transmit clock information. A few cable channels do, but they are at the end of the channel ring. Antenna channels do not transmit clock information. If clock information does not appear, you can assume that either clock extraction is taking a long time or that there is no clock.

➤ Auto clock mode

- ①. Select **Clock** in the Setup menu.
- ②. Press the cursor right key to select the **Auto clock mode**.
- ③. Press the cursor right key to instruct the TV to get the time automatically or manually.

➤ Auto clock channel *(only available when Auto clock mode is set to Automatic)*

With the cursor buttons, select the channel number where time can be found by the TV. Typically time can be found on PBS as well as some other channels.

Note: If Manual has been selected in the Auto clock mode, the Auto clock channel menu item can not be selected.

➤ Time - Day *(only available when Auto clock mode is set to Manual)*

With the cursor buttons, select and enter the correct time and day. If **Auto clock mode Manual** has been selected, and no clock search has been done, the system will keep the entered time and day.

➤ Time Zone *(only available when Auto clock mode is set to Automatic)*

- ①. This function allows you to select your local time zone.
- ②. Broadcasted time information will correct the clock display for your local time.
Select **Time zone** with the cursor down.
Press the cursor right to select your local time zone.

[Back to cover](#)

➤ **Daylight saving** *(only available when Auto clock mode is set to Automatic)*

Daylight saving time is automatically set by specially broadcasted signals. This menu item allows you to disable the automatic setting of daylight saving time. This is useful if you live in an area or state where daylight saving is not applied, but you receive channels from other areas where daylight saving signals are broadcasted.

- ①. Select **Daylight saving** with the cursor down.
- ②. Press the cursor right key to select **Automatic** for automatic clock correction for daylight saving time, based on specially broadcasted signals.
- ③. Select **Off** to disable automatic clock correction based on the specially broadcasted signals.

TV MENU

Press the **MENU** button on the remote control to display the Settings menu. The TV menu gives you an overview of the menus you can select.

Settings	TV
TV	Picture
Setup	Sound
Installation	Features
Exit	Channels
Info	

Note: Depending on the input signal, one or more menu items may not be selectable.

1. Picture

Note: Some menu items are not available in case of HD sources.

Settings	
TV	Picture
Picture	Smart Picture
Sound	Contrast
Features	Brightness
Channels	Color
	Sharpness
	Color temperature
	Tint
	Picture format
Info	

- ①. Press the cursor right key to select **Picture**.
- ②. Press the cursor right key again to enter the Picture menu.
- ③. Select the menu items with the cursor up/down key.
- ④. Adjust the settings with the cursor left/right key or enter the list of submenu items with the cursor right key. Select a submenu item with the cursor up/down key.

➤ Smart Picture

- ①. Select **Smart picture** to display a list of predefined picture settings, each corresponding with specific factory settings. **Personal** refers to the personal preference settings of picture in the picture menu.

*Note: This Magnavox TV has been set at the factory to look best in bright store environments, which typically use fluorescent lighting. As your home will likely not be as well lit as a store, we recommend that you cycle through the various smart picture modes to find the one that best suits your own viewing conditions. Most consumers will find that **Natural** is the correct choice.*

- ②. You can press the **Smart picture** button repeatedly to select either Personal, Rich, Natural, Soft, Multimedia or Eco picture settings.

*Note: When you watch programs using VCR, it's recommended to select **Soft** Mode via smart picture.*

➤ Contrast

This will adjust the intensity of bright parts in the picture but keep the dark parts unchanged.

➤ Brightness

This will adjust the light output of the complete picture, which will mainly affect the darker areas of the picture.

➤ Color

This will adjust the saturation level of the colors to suit your personal preference.

➤ Sharpness

This will adjust the sharpness of fine details in the picture.

➤ Color temperature

This will increase or decrease **Warm** (red) and **Cool** (blue) colors to suit personal preferences.

Select **Cool** to give the white colors a blue tint, **Normal** to give the white colors a neutral tint, **Warm** to give the white colors a red tint.

➤ Tint

Allows you to select the picture 's color mix or hue.

➤ Picture format

This menu item performs the same as the FORMAT button on the remote control.

[Back to cover](#)

2. Sound

Settings	
TV	Sound
Picture	Smart Sound
Sound	Volume
Features	Balance
Channels	Headphone volume
	Sound mode
	Alternate audio
	Digital audio language
	Mono/Stereo
Info	

- ①. Select Sound in the TV Settings menu.
- ②. Press the cursor right key to enter the sound menu.
- ③. Select the menu items with the cursor up/down key and adjust the settings with the cursor left/right key.
- ④. Remember, control settings are at normal mid-range levels when the bar scale is entered.

➤ Smart sound

Select Smart sound to display a list of predefined sound settings, each corresponding with specific factory settings of Treble and Bass. Press the cursor right key to enter the list.

- ①. Press the cursor up/down key to select a predefined sound setting.
- ②. Personal refers to the personal preference sound settings in the sound menu.

Note: The moment you are in a predefined Smart sound setting and you modify a setting in the Sound menu, all values of the menu will overwrite the previously made personal setting.

➤ Volume

This will adjust the sound output level.

➤ Balance

This will adjust the output of the right and left speakers to obtain the best stereo reproduction for your listening position.

➤ Headphone volume

This controls the level of sound through the headphones.

➤ Sound mode

This select the modes for more spatial or surround sound reproduction dependent on the broadcast signals or signals from external inputs received.

➤ Alternate audio (only selectable with analog broadcast signals)

This gives you the possibility to swap between the Main and Second Audio Program (SAP) when it is available.

➤ **Digital audio language** *(only selectable with digital broadcast signals)*

Selects your language preference when digital broadcast signal multilingual audio track programs are available.

Note: The default language for the digital channels is the installed menu language.

➤ **Mono/Stereo**

Selects per TV channel, Mono or Stereo sound when analog stereo broadcasts are available.

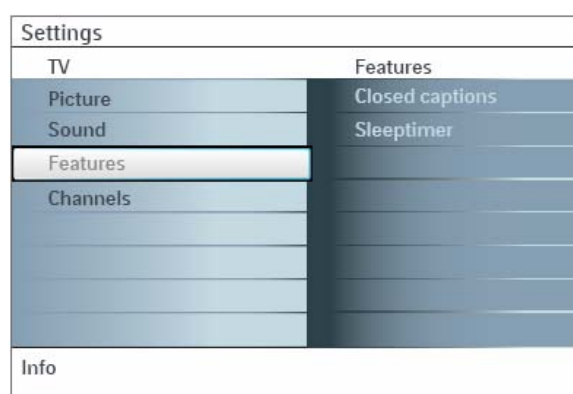
➤ **AVL(Automatic Volume Leveler)** *(only available with analog broadcast and non-Digital signals)*

Automatically reduces the volume differences between channels and programs, providing a more constant overall level. This will also reduce the dynamics of sound.

➤ **Delta volume**

Corrects for any permanent volume differences between TV channels or external sources.

3. Features



- ①. Select **Features** in the TV Settings menu. Press the cursor right key to enter the features menu.
- ②. Select the menu items with the cursor up/down key and adjust the settings with the cursor left/right key.

➤ **Closed captions**

This displays the transmitted CC- or CS-text on the screen according to your chosen CC or CS service in the Setup menu, Features preferences menu. This text can either be permanently displayed (assuming that the service is available in the broadcast) or only when mute is active.

- ①. Press the cursor right key after having selected Closed captions.
- ②. Select On, Off or On during mute.

➤ **Sleeptimer**

This sets a time period after which the TV automatically turns to standby.

- ①. Select **Sleeptimer**.
- ②. Press the cursor right key.
- ③. Select a value with the cursor up/down key. The list will have values from Off to 180 minutes. When **Off** is selected, the sleeptimer is turned off.
You can always turn off your TV earlier or select another time set.

[Back to cover](#)

4. Channels

This menu can control special functions for the TV channels.

Settings	
TV	Channels
Picture	Lock after
Sound	Channel lock
Features	TV ratings lock
Channels	Movie ratings lock
	Preferred channels
	Region ratings lock
	Clear region ratings
Info	

- ①. Select **Channels** in the TV settings menu with the cursor up/down key.
- ②. Press the cursor right to enter the channels menu.
- ③. Press the cursor up/down key to select a channels menu item.

➤ Lock after

Note: Lock after is only selectable if time and date are known. See Setup, Clock menu.

This allows you to prevent the viewing of the channels after a selectable time delay. Locked channels can still be tuned, but the picture is blanked and the audio is muted.

Settings/TV	
Channels	Lock after
Lock after	Timer
Channel lock	Time
TV ratings lock	
Movie ratings lock	
Preferred channels	
Region ratings lock	
Clear region ratings	
Info	

- ①. Press the cursor right and select **Timer On** or **Off**.
When set to **On** this allows you to set the clock.
When having selected **Timer On**, you will be asked to enter your PIN (See Set/Change PIN). Follow the instructions on screen.
- ②. Select **Time** and press the cursor right. This allows you to set the time after which the lock is set.
- ③. Select **AM** or **PM** to select the correct period of the day.
- ④. Enter the time with the digit or the cursor buttons and press **OK** to confirm.

➤ Channel lock

This allows you to completely lock a certain TV channel or external source. Select the channels or subchannels you want to lock and press **OK** to confirm.

➤ TV ratings lock

Your TV is equipped with a V-chip. This allows you to control access to individual programs based on their movie and TV ratings. All settings apply to all AV inputs, except HDMI. The program content advisory data are sent by the broadcaster or program provider.

- ①. Select **TV ratings** lock with the cursor down. A list appears, showing the age-based TV ratings and a corresponding content-based ratings list.
- ②. Press the cursor right to enter the list.
- ③. Select an age-based TV rating with the cursor up/down, and enter, if present, the list with content-based ratings with the cursor right, and select one content-based rating.
- ④. Press **OK** to activate/de-activate the selected rating. You are asked to enter your PIN-code (see Set/Change PIN, p. 18). If the code is correct, the TV ratings lock menu reappears.
- ⑤. Select another content-based rating if you like and press **OK** again.

You need only enter your PIN-code once while the menu is active. You can lock/unlock any number of ratings on the list without re-entering your code.

Each ratings item has a box-graphic in front of it to indicate whether or not programs carrying that rating are currently locked:

- ☒: all items in the contents-based list are locked as well;
- ☐: the item is unselected;
- ☒: some content-based ratings are selected/unselected.

When **All** has been selected, all items in the age-based and in the contents-based lists are locked. If, while **All** is selected, any other item, either an age-based or content-based item, is unselected, then All is automatically unselected.

None is the selection for items that either have rating information or have a rating of **None**. Both will be locked. When an item on the age-based list is selected, all items below that item of the same group are locked as well. When you select a content-based rating, all identical content-based ratings in the younger age-based categories are also selected.

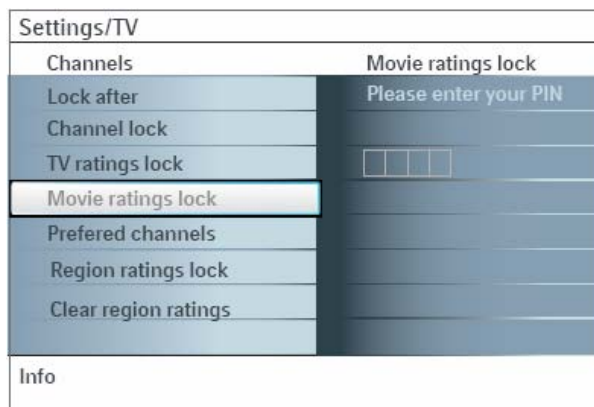
Age-based Rating	Content-based Rating
All	none
None	none
TV-Y	none
TV-Y7	(FV) Fantasy Violence
TV-G	none
TV-PG	(D) Dialog (L) Language (S) Sex (V) Violence
TV-14	(D) Dialog (L) Language (S) Sex (V) Violence
TV-MA	(D) Dialog (L) Language (S) Sex

no

TV-Y	appropriate for children of all ages with themes and elements suitable for children aged 2-6
TV-Y7	programs designed for children age 7 and older
TV-Y7-FV	programs include fantasy violence more intense than other programs in the TV-Y7 category
TV-G	programs suitable for all ages. These programs contain little or no violence, no strong language and little or no sexual dialogue or situations
TV-PG	programs contain elements that some parents may find unsuitable for younger children and which may need parental guidance. The program may contain moderate violence, sexual dialogue and/or situations and some strong language.
TV-14	programs contain elements that may not be suitable for children under 14 years of age. These programs include one or more of the following: intense violence, intense sexual situations, suggestive dialogue and strong language.
TV-MA	programs are designed to be viewed by adults and may be unsuitable for children under the age of 17. These programs may contain graphic violence, explicit sexual activity and/or crude or indecent language.

➤ Movie ratings lock

This function allows you to control access to individual movies based on their MPAA ratings (Motion Picture Association of America).



- ①. Select Movie ratings lock with the cursor down. A list appears, showing all valid MPAA content ratings.
- ②. Press the cursor right to enter the list. You are asked to enter your code. (See Set/Change PIN) If the code is correct, the Movie ratings lock menu reappears.
- ③. Select a movie rating with the cursor up/down.
- ④. Press OK to activate/de-activate the selected rating.

Each rating item has a box-graphic in front of it to indicate whether or not programs carrying that rating are currently locked:

- ☒: movies with this rating are locked;
- ☐: movies with this rating are unlocked.

When **All** has been selected, all items on the movie ratings list become selected. (**All** movies are locked.) If, while **All** is selected, any other item is unselected, then **All** is automatically unselected.

When **NR** has been selected, no other item is selected.

When any other item has been selected, all ratings below are selected as well, thus all movies with those ratings will be locked.

NR not rated

G movies with a mild content, suitable for all ages

PG movies for which parental guidance is recommended. They may contain a few racy or violent scenes or maybe some bad language

PG-13R movies for which parental guidance may be recommended if under age 13

R restricted. The movies usually contain offensive sex or bad language and may be unsuitable for children under the age of 17. Parental guidance or permission needed.

NC-17 even with parental permission, forbidden under age 17. More offensive sex, violence or bad language.

X movies which generally focus on sex, violence and/or bad language. Also known as pornography.

➤ Preferred channels

A channel, when installed, is marked as preferred by default and added to the channel list. This feature provides the ability to remove a channel number from the channel list.

Settings/TV	
Channels	Preferred channels
Lock after	Channel 1
Channel lock	Channel 2
TV ratings lock
Movie ratings lock	
Preferred channels	
Region ratings lock	
Clear region ratings	
Info	

- ①. Select **Preferred channels** with the cursor down key.
- ②. Press the cursor right key to enter a list with all stored channel numbers.
- ③. Select the channel you want to remove with the cursor down key.
- ④. Press **OK**.
- ⑤. Repeat to remove other channels.

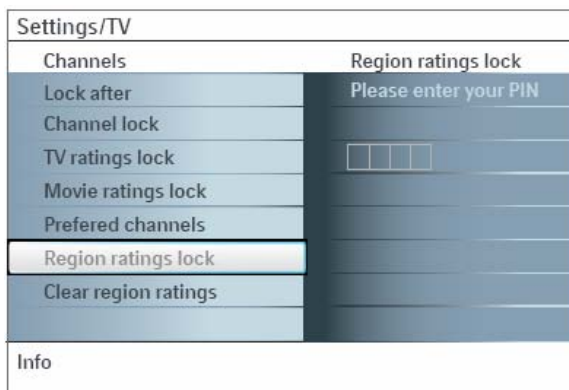
Note:

Region ratings lock: This allows you to control access to individual programs base on their broadcasted regional rating. Clear region ratings: This allows you to clear all the locks that you have set in the Region ratings lock table.

[Back to cover](#)

➤ Region ratings lock

This allows you to control access to individual programs base on their broadcasted regional rating.



- ①. Select **Region ratings lock** with the cursor down. A list appears, showing the age-based Region ratings and a corresponding contentbased ratings list.
- ②. Press the cursor right to enter the list.
- ③. Select an age-based Region rating with the cursor up/down, and enter, if present, the list with content-based ratings with the cursor right, and select one content-based rating.
- ④. Press **OK** to activate/de-activate the selected rating. You are asked to enter your PIN-code (see Set/Change PIN, p. 17). If the code is correct, the Region ratings lock menu reappears.
- ⑤. Select another content-based rating if you like and press **OK** again.

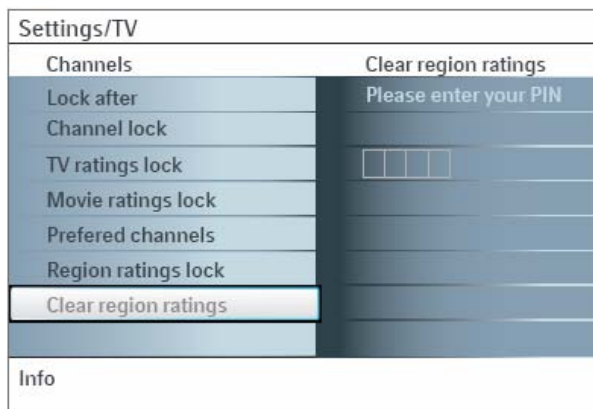
You need only enter your PIN-code once while the menu is active. You can lock/unlock any number of ratings on the list without re-entering your code.

Each ratings item has a box-graphic in front of it to indicate whether or not programs carrying that rating are currently locked:

- ☒: all items in the contents-based list are locked as well;
- ☐: the item is unselected;
- ☒: some content-based ratings are selected/unselected.

➤ Clear region ratings

This allows you to clear all the locks that you have set in the Region ratings lock table.




- ①. Select **Clear region ratings** with the cursor down.
- ②. Enter your PIN-code to clear all region ratings' status.

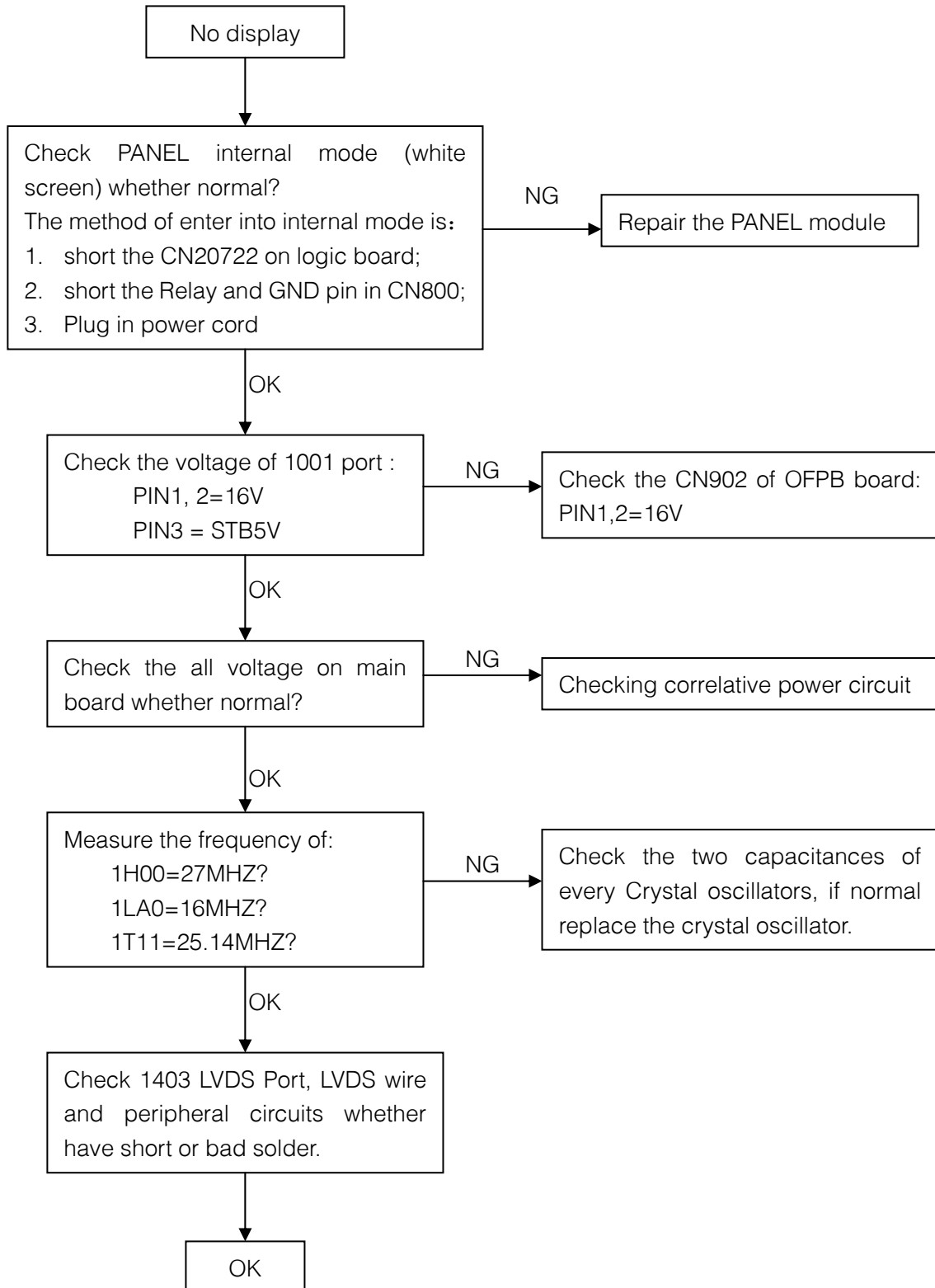
Symptoms	Items to Check and Actions to follow
"Ghost" or double images	<ul style="list-style-type: none"> ● This may be caused by obstruction to the antenna due to high rise buildings or hills. Using a highly directional antenna may improve the picture.
No power	<ul style="list-style-type: none"> ● Check that the TV's AC power cord is plugged into the mains socket. ● Unplug the television, wait for 60 seconds. Then re-insert plug into the mains socket and turn on the television again.
No picture	<ul style="list-style-type: none"> ● Check antenna connections at the bottom of the TV to see if they are properly connected to the TV. ● Possible broadcast station trouble. Try another channel. ● Adjust the contrast and brightness settings. Try another auto picture setting. ● Check the Closed Captions control. Some TEXT modes could block the screen. ● Check if you selected the correct AV source.
No picture And power switched on	<ul style="list-style-type: none"> ● Your TV has a protective mode in case there is too much heat build-up. Check the clearance around the vents of the device to be certain there are no blocking walls or cabinets which would limit the air flow.
Picture position adjustment	<p>When displaying a High Definition signal from the YPbPr inputs or HDMI input, if necessary, you can adjust the picture position to the center of the screen with the cursor left/right or up/down buttons on the remote control. This may be needed due to slight differences in output signals from different brands and types of HD sources boxes.</p> <p><i>Notes: Most High Definition receiver boxes also have picture-positioning controls in their menu systems. If the TV cursor controls run out of range before the picture is correctly positioned, the receiver box controls will need to be adjusted.</i></p>
No photo, music or video play or in poor quality only	<ul style="list-style-type: none"> ● Check if the source complies with a supported code.
No sound	<ul style="list-style-type: none"> ● Increase the VOLUME. ● Check that the TV is not muted, press the MUTE button on the remote control. ● When no signal is detected, the TV automatically switches off the sound. This is proper operation and does not indicate a malfunction.
Good sound but poor color or no picture	<ul style="list-style-type: none"> ● Adjust the contrast, color, tint and brightness setting. Try another auto picture setting.
Snowish picture and noise	<ul style="list-style-type: none"> ● Check the antenna connection.
Television not responding to remote control	<ul style="list-style-type: none"> ● Check whether the batteries are working. Replace if necessary. ● Clean the remote control sensor lens on the monitor. ● Operating range between TV and the remote control should not be more than approximately twenty feet. ● You can still use the buttons on the right side of your TV. ● Check if the remote control is in the correct mode.

Trouble shooting

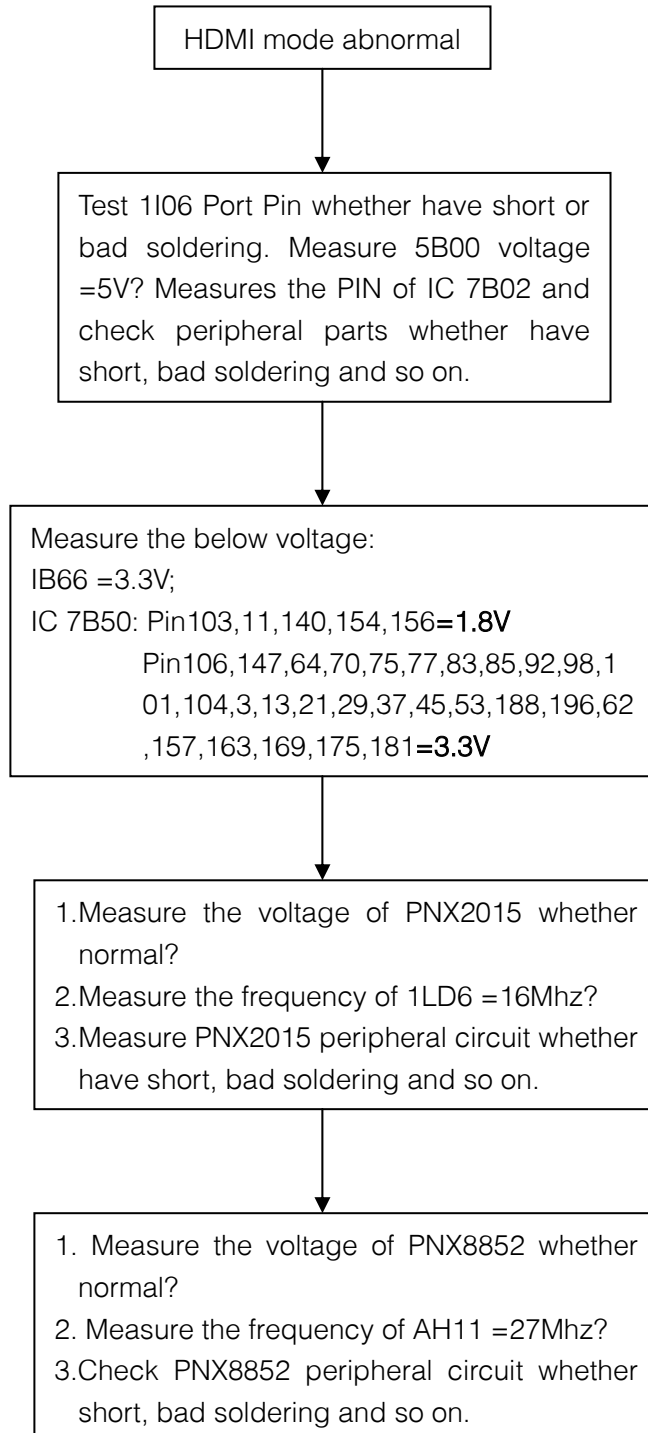
[Back to cover](#)

Control of accessory devices	The infrared signals of the screen may influence the reception sensibility of other peripherals Solution: replace the batteries of the remote control of other devices. E.g. keep away a wireless headphone from within a radius of approximately four feet.
The software will not install	Possibly the operating system is wrong. Go to www.usasupport.magnavox.com to see which operating systems are supported.
<p>After-images appear</p> 	<p>Do not allow a still picture to be displayed for an extended period, as this can cause a permanent after-image to remain on the Plasma TV.</p> <p>Examples of still pictures include logos, video games, computer images, and Teletext.</p> <p>Note:</p> <p>The permanent after-image on the Plasma TV resulting from fixed image use is not an operating defect and as such is not covered by the Warranty.</p> <p>This product is not designed to display fixed images for extended periods of time.</p>

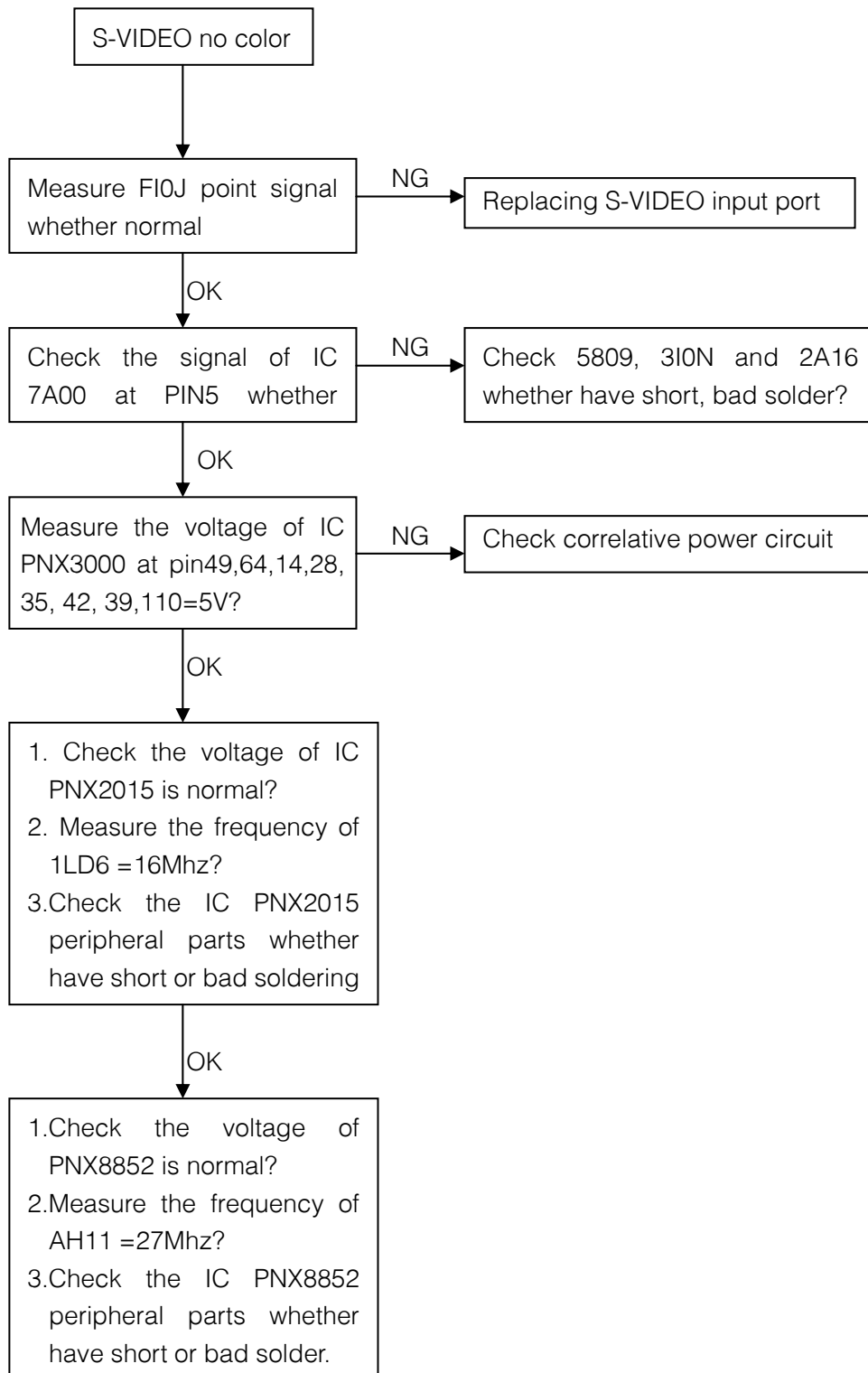
No display



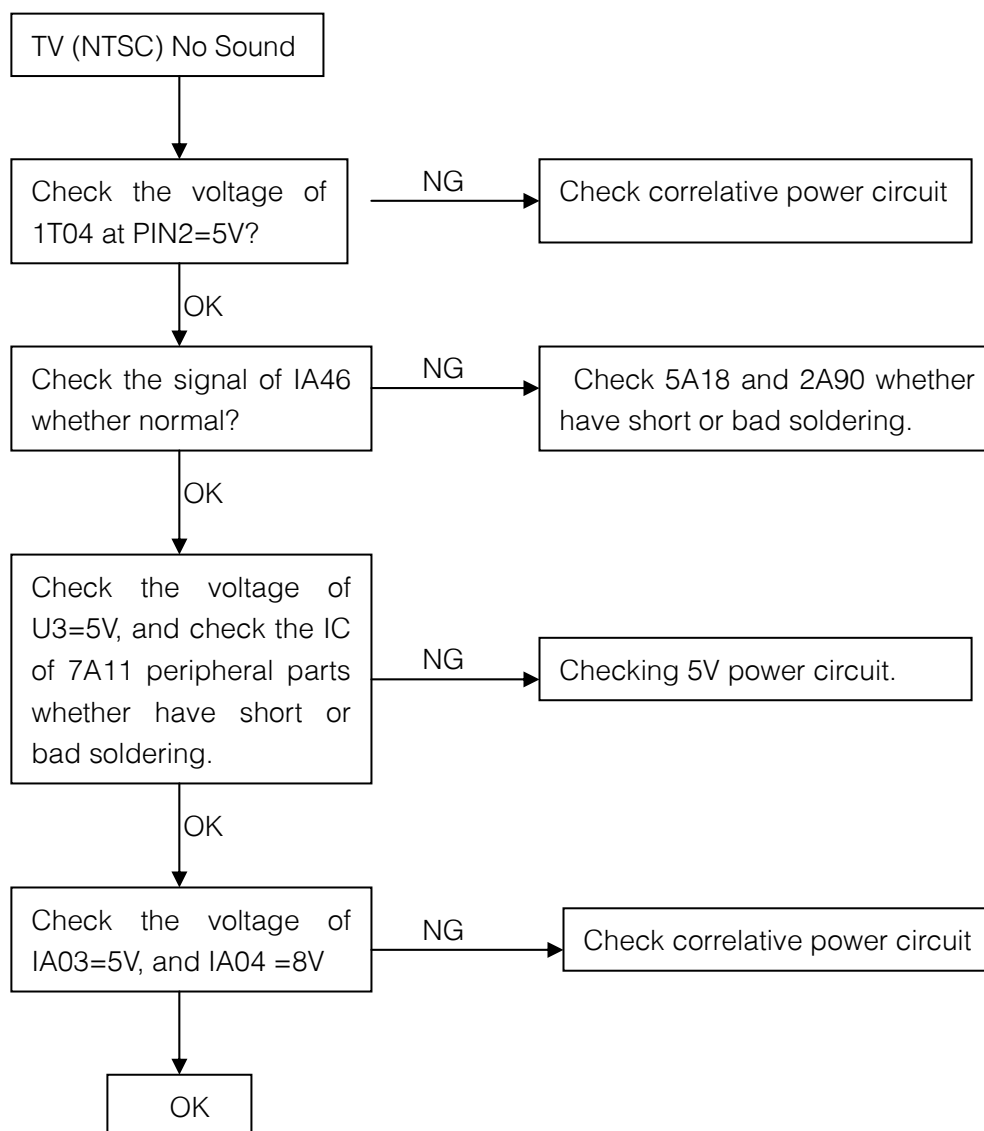
HDMI block



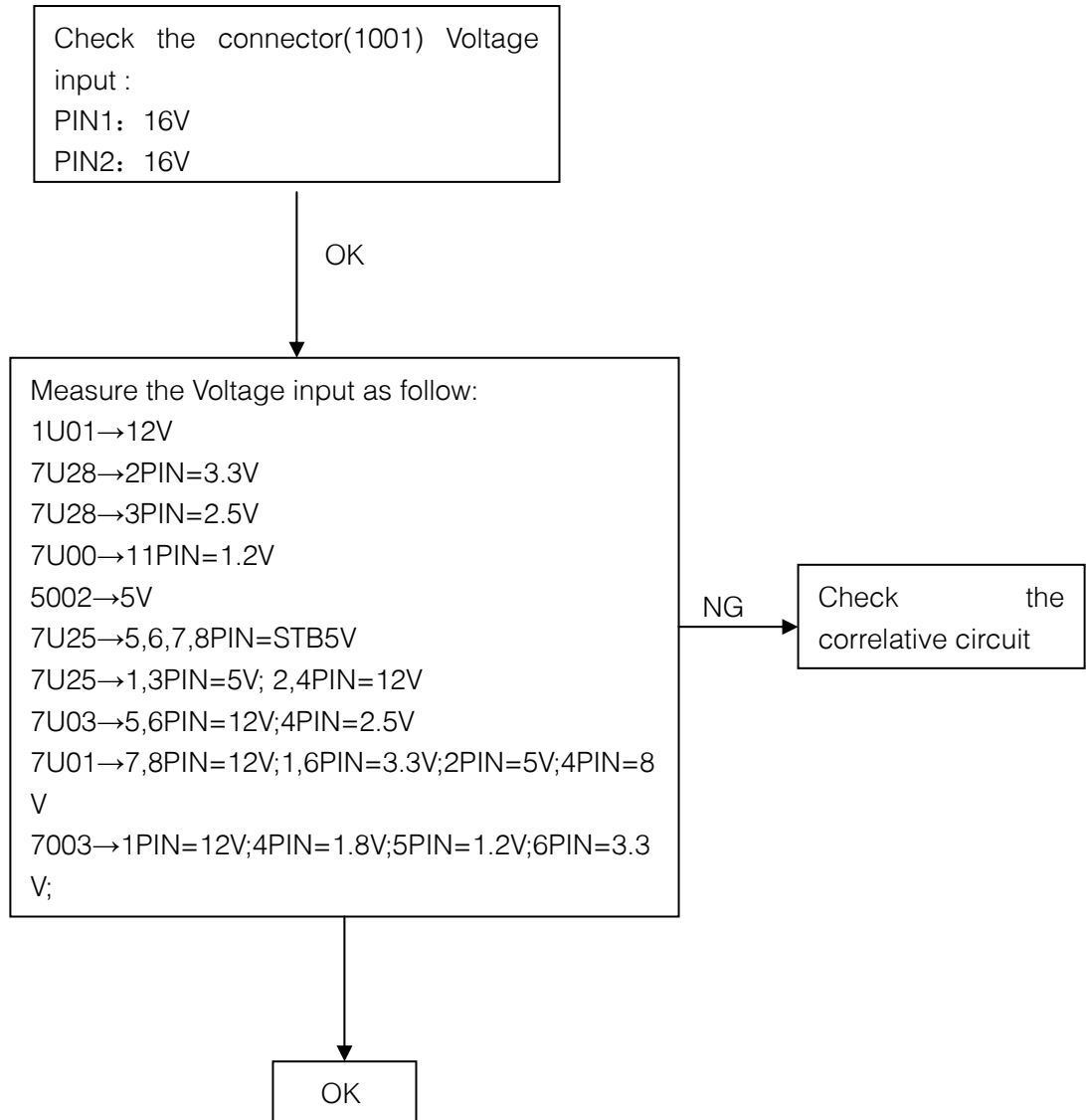
Video block



TV block



DC power block



White-Balance adjustment

[Back to cover](#)

In case the white-balance data memory IC or main EEPROM which storage all factory settings were replaced due to a defect, the data have to be re-adjust.

It is advised to re-soldered DDC IC and main EEPROM from the old board onto the new board if circuit board have been replaced, in this case the white-balance data does not need to be re-adjust.

Equipments list

Chroma7100	1set
Fluck54200 video signal generator	1set
RF cable	1pcs

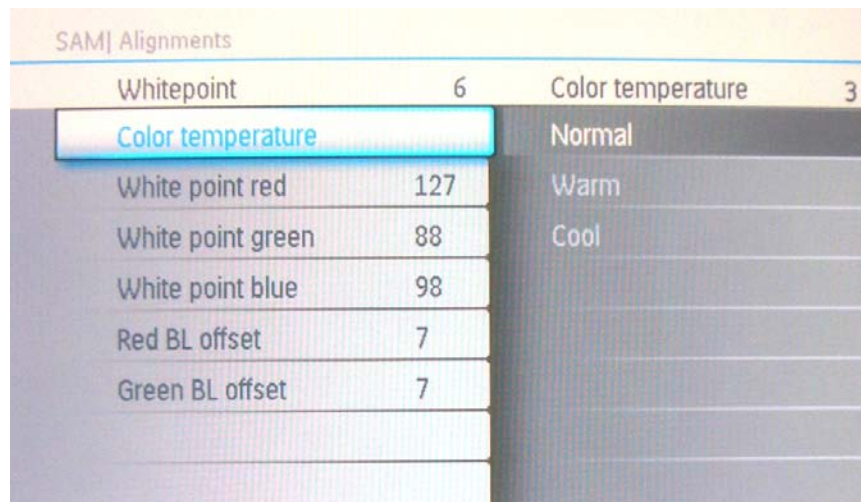
Preparation and Adjustment process

1. Preparation:

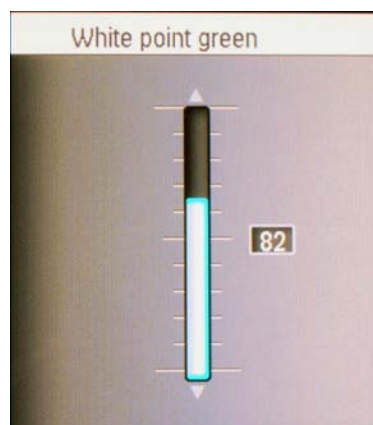
- Connect rear RF port of PDP with Fluck54200.
- The setting of Fluck54200 is 187.25Mhz(80db, White pattern).
- Turn power of PDP and test instrument on.
- Before open lens, Press O-CAL of Chrom-7100 and revise lens.

2. Adjustment process

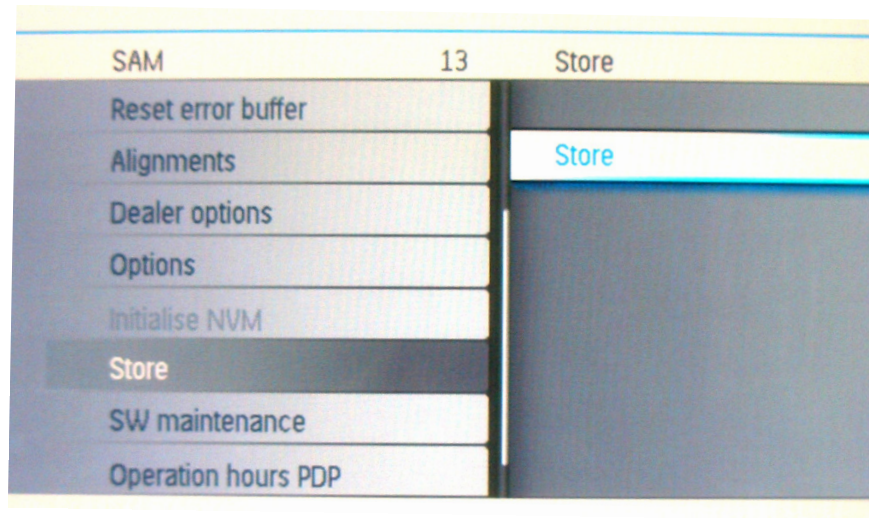
- a). Press the "062596" and INFO key(Red key) with IR Remoter in TV mode, there is a warning OSD displayed.
- b). In the factory menu, select "Alignments -> Whitepoint"



- c). There are "Color temperature", "White point red", "White point green", "White point blue", "Red BL offset" and "Green BL offset" items which can be adjusted.



- d). After adjust the items, go back to the factory main menu, press DOWN to next page, and select "Store", press "OK" key, then the OSD will show "store completed".



- e). Reboot the TV set, the white balance setting is changed.

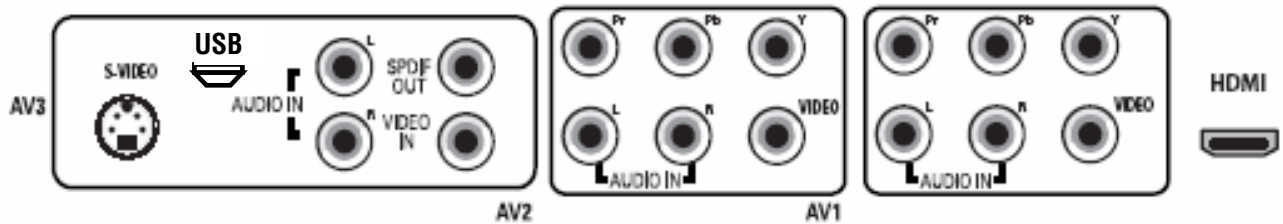
Adjustment stand of white Balance:

	<i>Normal</i>	<i>Cool</i>	<i>Warm</i>
CCT	10900° K	13500° K	6500° K
x	276 ± 5	267 ± 5	314 ± 5
y	283 ±.5	272 ± 5	324 ± 5

[Back to cover](#)

Interface

x : Not support ✓ : Supported 1. RS232 [x] 2. USB [✓] 3. RF [x]



USB interface is on the back bottom or right bottom of the set.

Software upgrade

There are main application software and parameter need to be updated for the new set.

Main Application Software upgrade

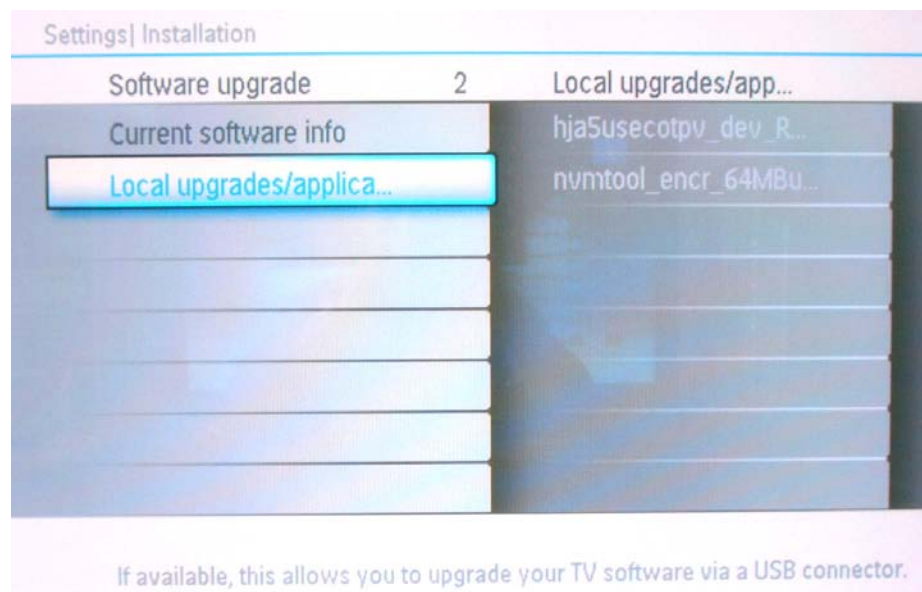
The main application software is copied to Nand Flash via USB.

1. File for the main application software upgrade

The upg file which you want to be upgraded should be copied to the folder “upgrades” in the root of USB, the file which is named as “hja5usecotpv_dev_RXX.upg”(the ‘XX’ of the filename is the revision of the software), and the file size is about 9875K.

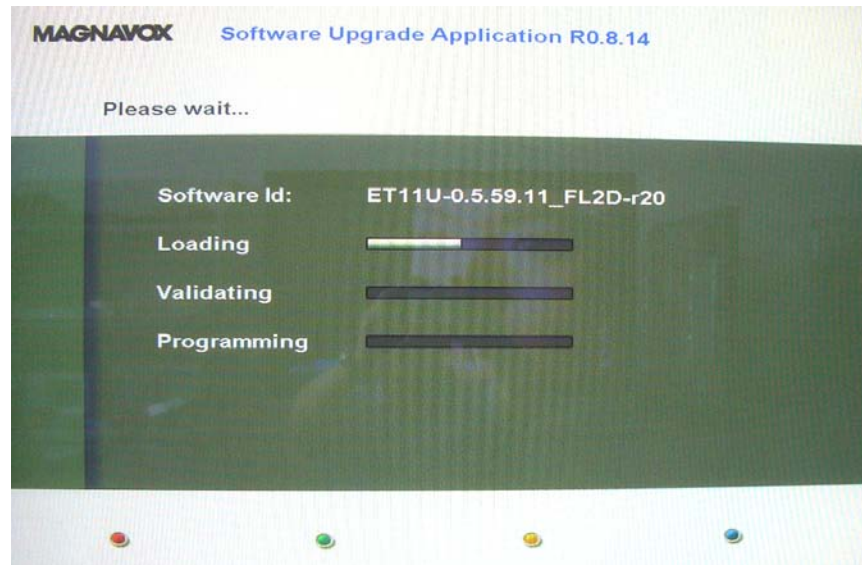
2. Upgrade the main application software in normal mode

- Push the USB in the USB interface of the PDP TV set.
- The PDP TV set is in power on mode (normal mode) .
- Enter the user menu, select “Installation->software upgrade->Local upgrades/application” with IR Remoter, the application will check the software from USB automatically.

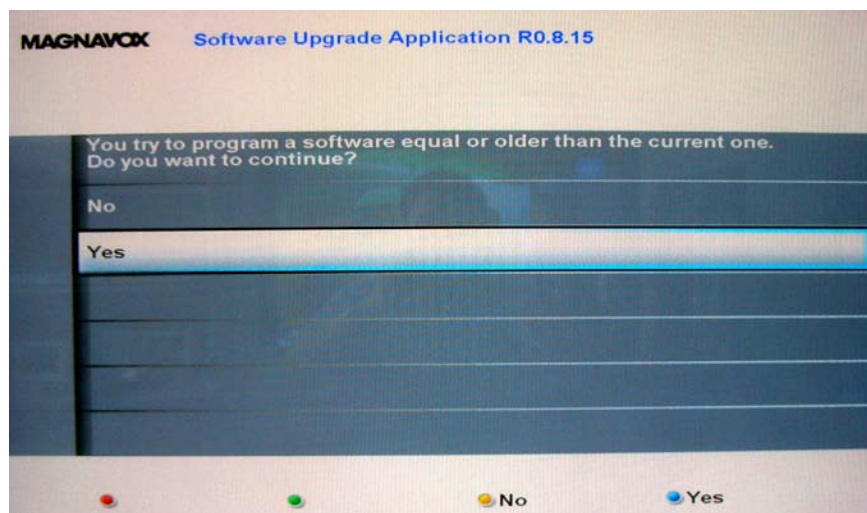


[Back to cover](#)

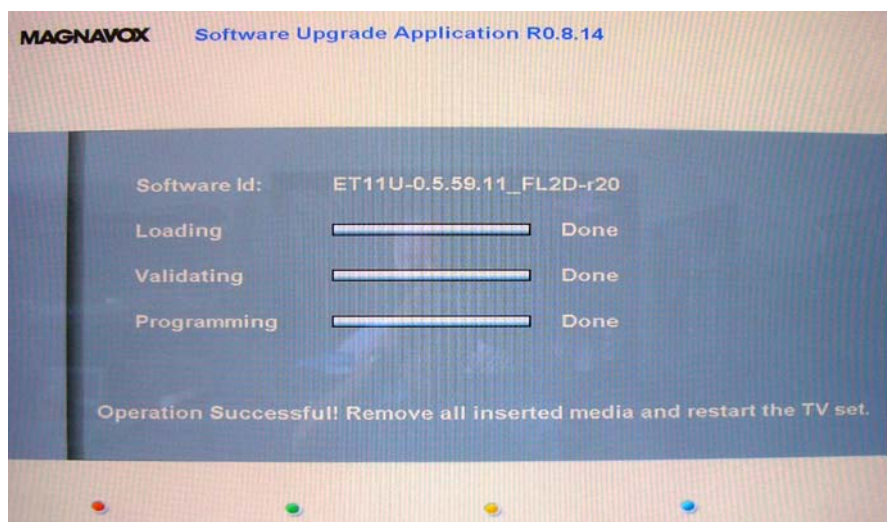
- d) Select the file you want to update to the TV set and use INFO key with IR Remoter to do “Upgrade now”.



- e) If the software version you selected is equal or older than current one, the OSD for confirmation will be displayed, choose YES (FORMAT key) to upgrade and No (✓ key) to cancel the upgrade; else the software will be upgraded automatically.



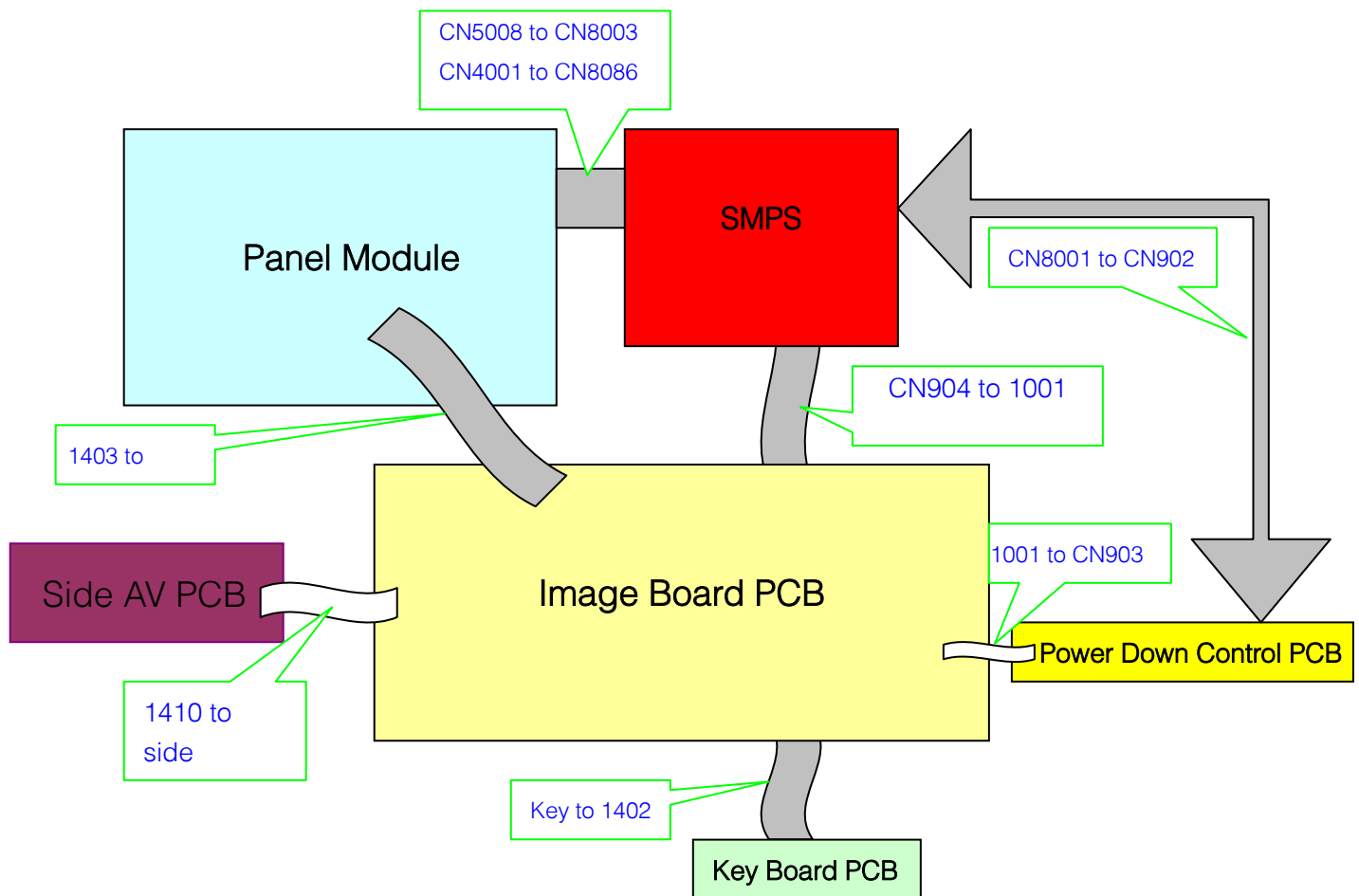
- f) When the upgrade is finished automatically, reboot the set



Function block diagram

[Back to cover](#)

PDP unit block diagram and functions



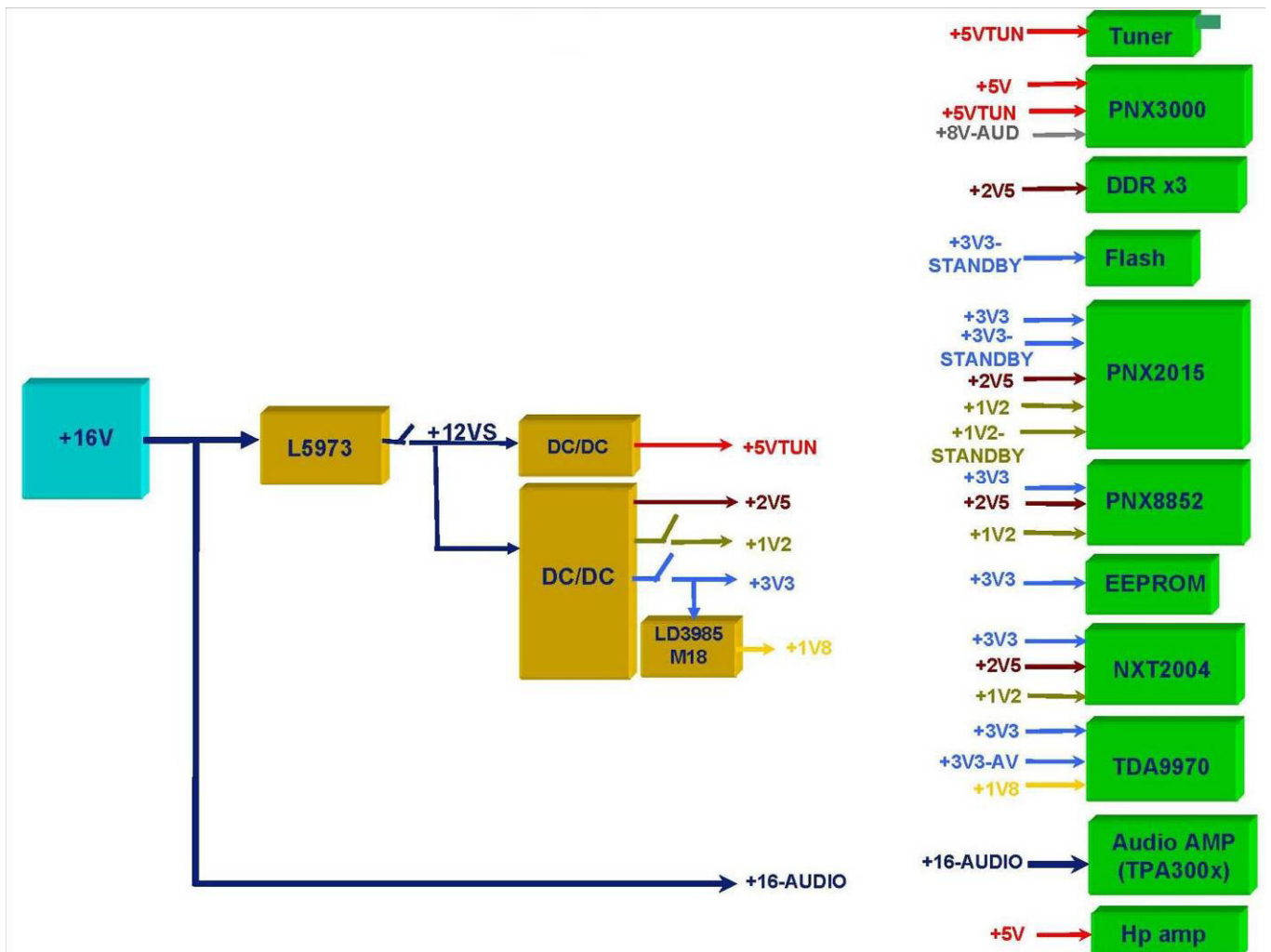
Function of Boards:

- 1) IMAGE Board : Control all input signals, Decode the video signal, De-interlace, and send digital signals (LVDS signal) sent from image Board and display
- 2) PDC Board: Power Down Control Board
- 3) SIDE AV Board: The input signal interface
- 4) Power Board: Supply Power for Panel and Image Board
- 5) KEY Board: POWER, Signal Source, MENU, CH+, CH - / VOL +, VOL -

Part apt to decrease:

- 1) BEZEL, REAR COVER, STAND& GLASS FILTER
- 2) Panel and its boards
- 3) RCA plug

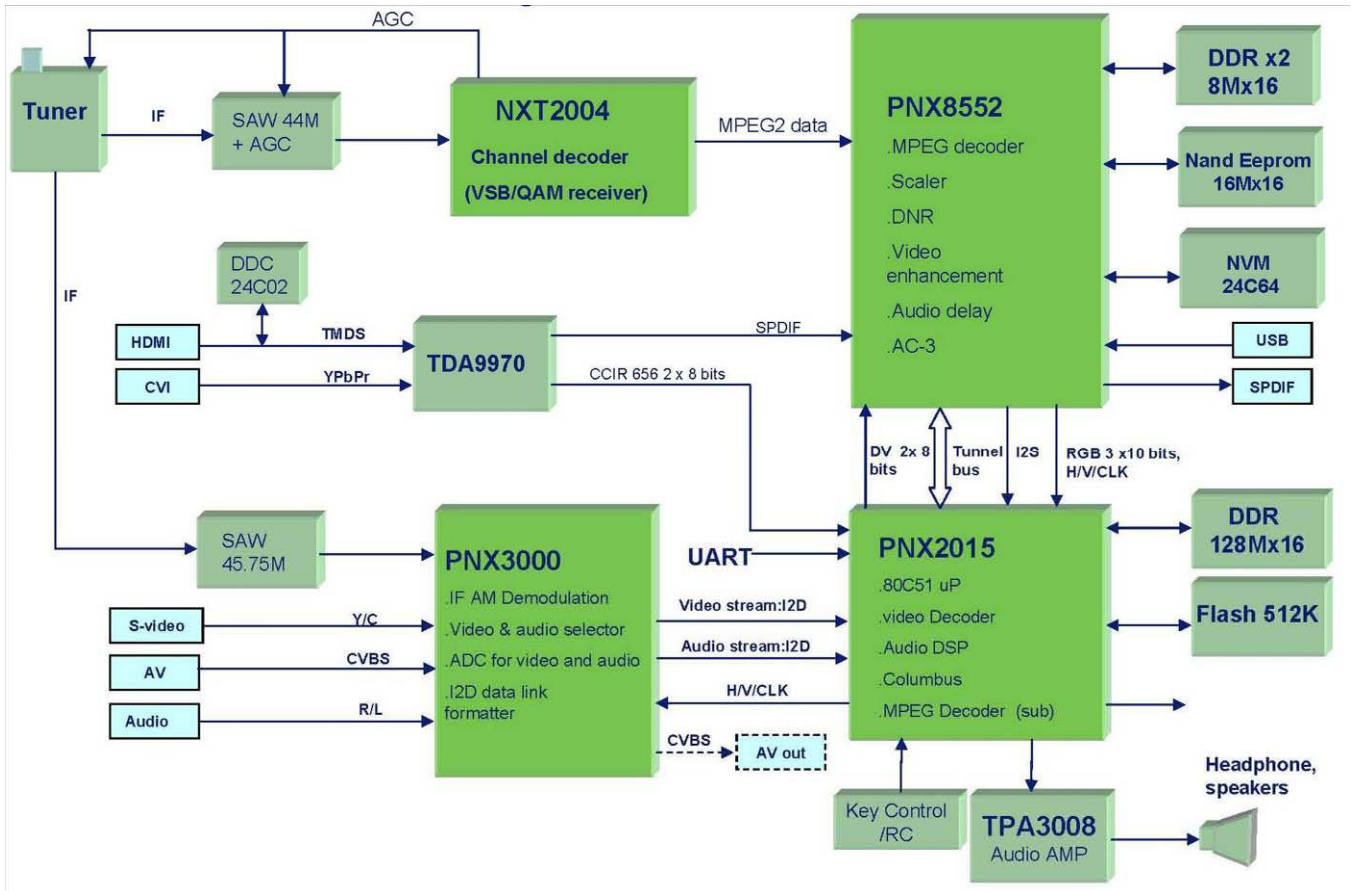
Power management



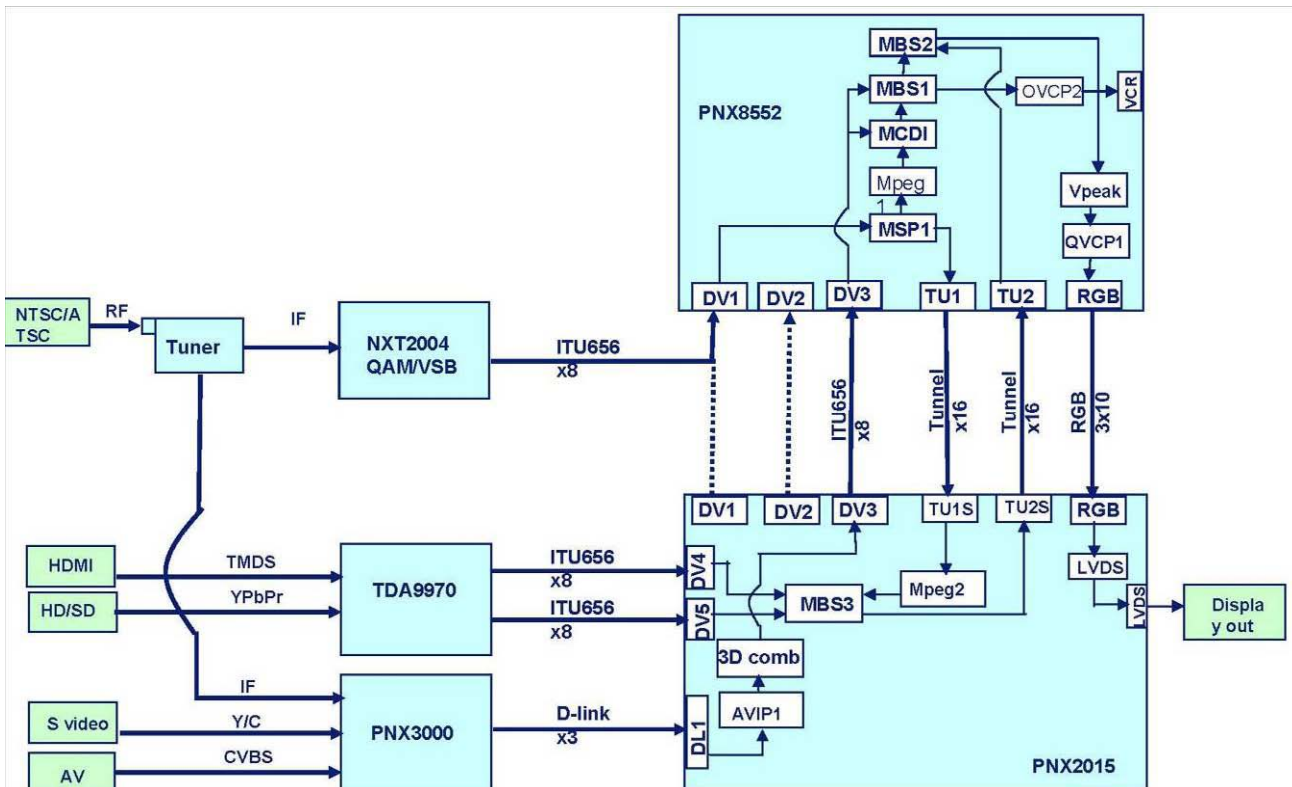
Function block diagram

[Back to cover](#)

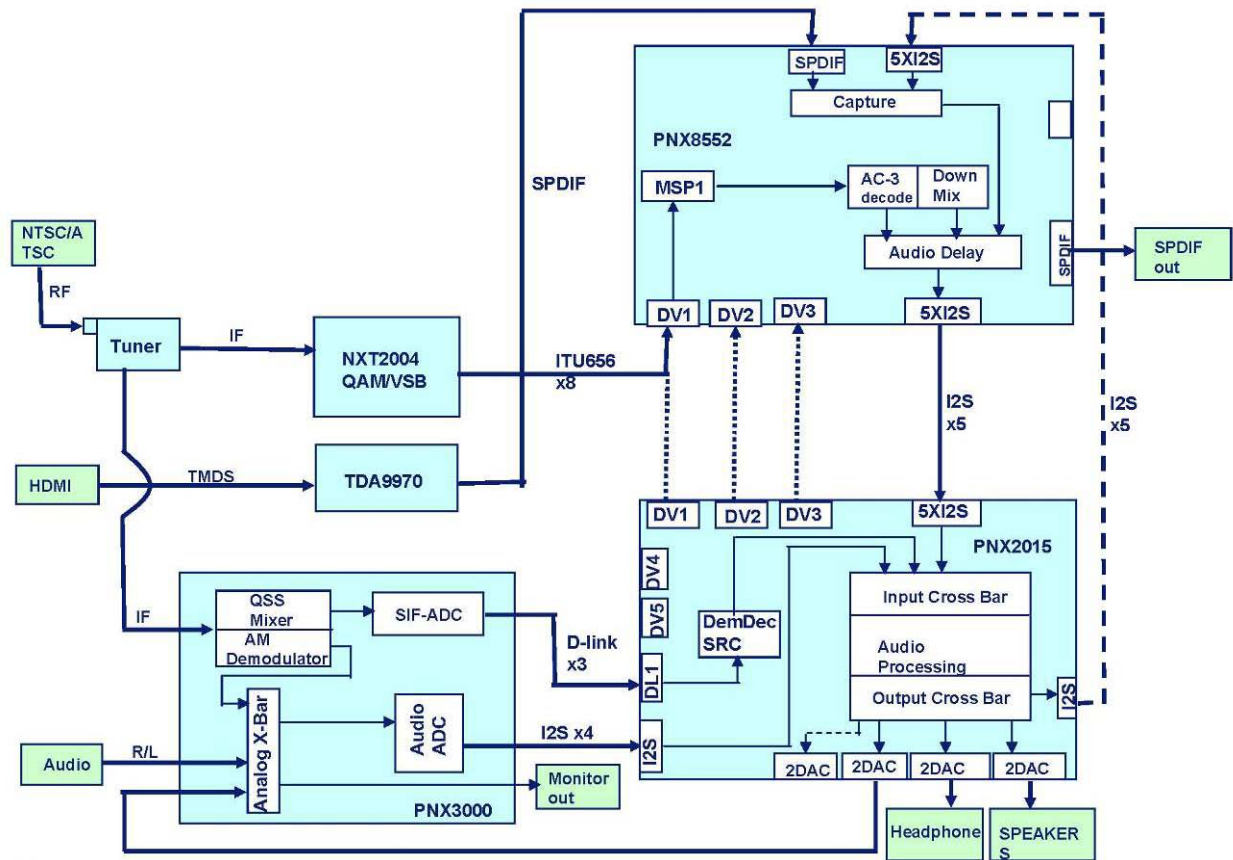
Function block



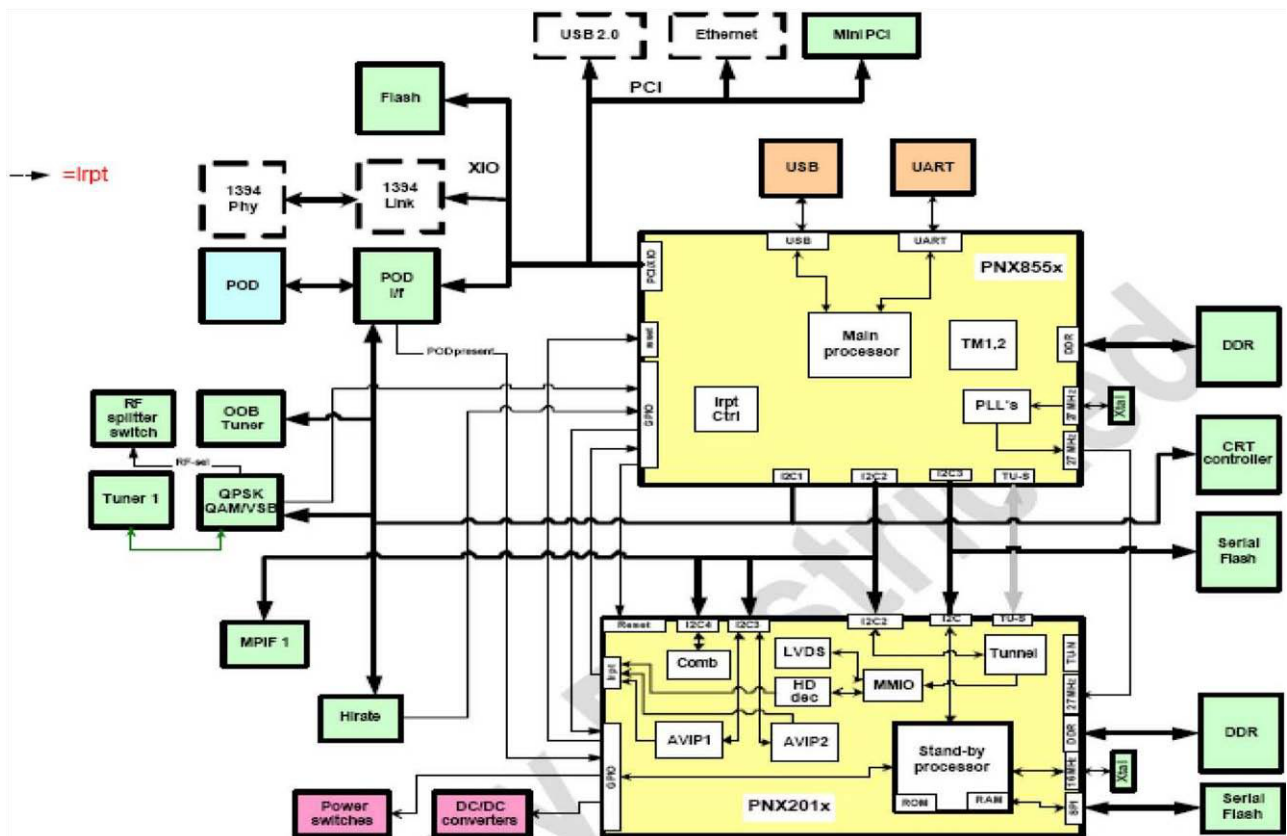
Video Function block



Audio Function block



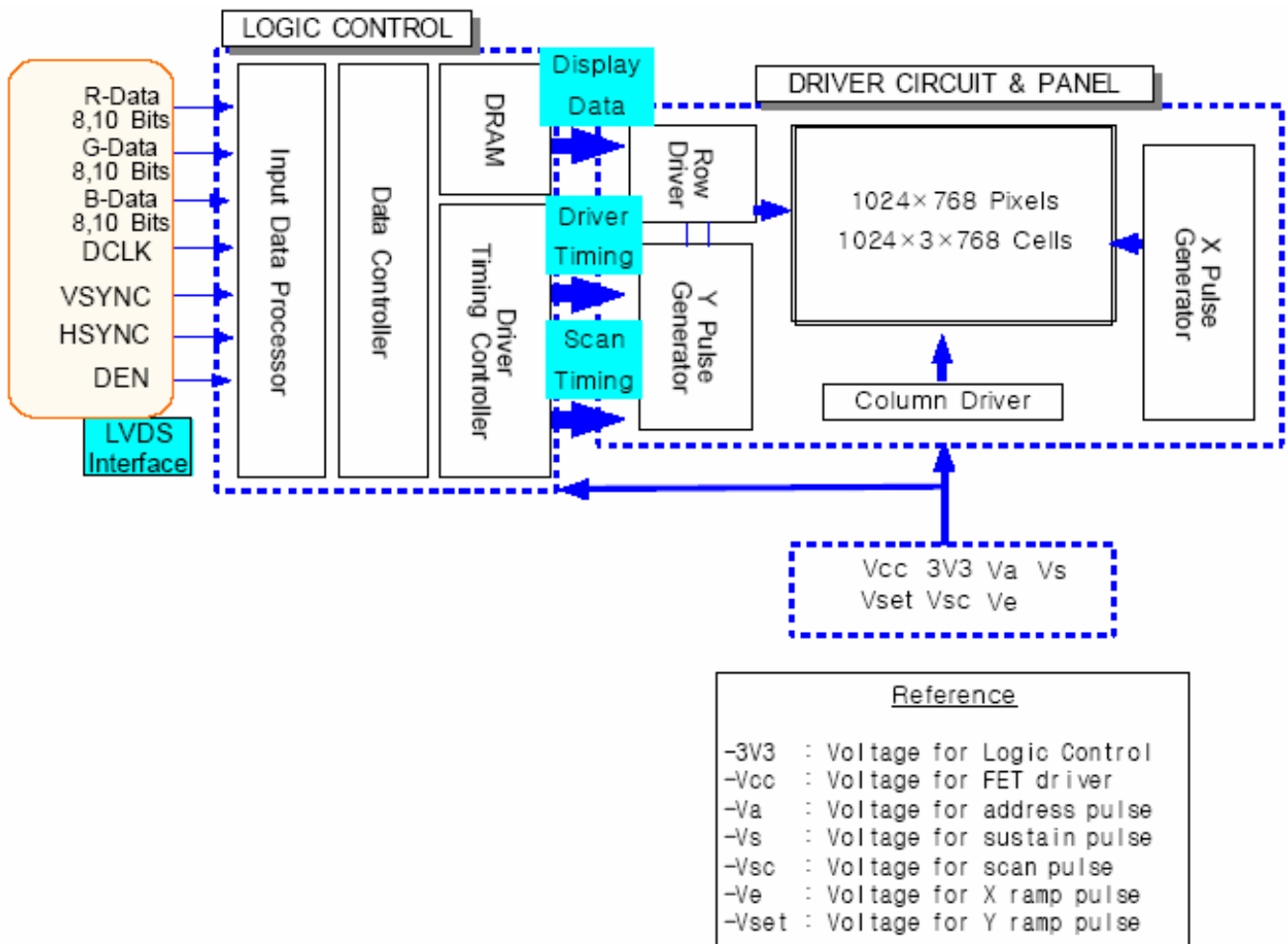
Control Function block



Function block diagram

[Back to cover](#)

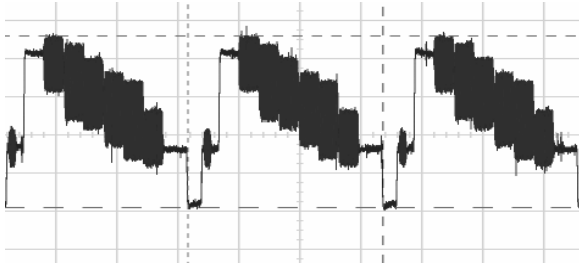
Block diagram of PDP PANEL module



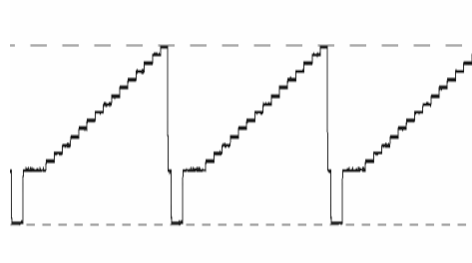
The wave of the video signal form

1. CVBS input

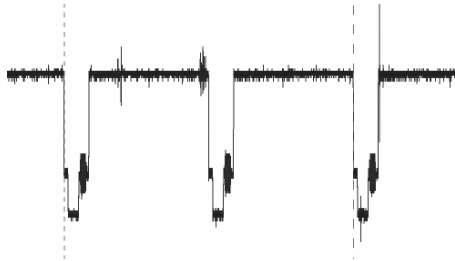
8COLOR BAR OF (CVBS) (I117)



16 GARY STAIR OF (CVBS) (I117)

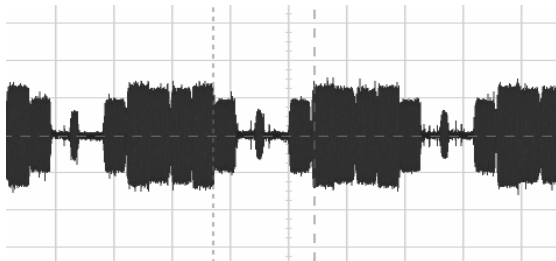


WHITE SCREEN SIGNAL OF (CVBS) (I117)

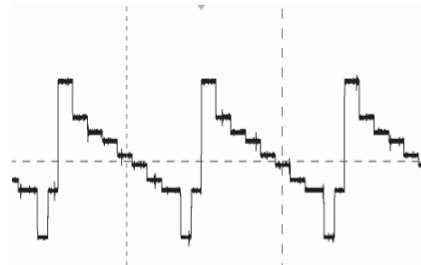


2. S- VIDEO

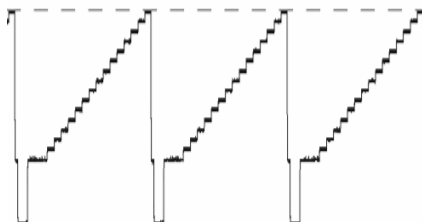
8 COLOR BAR OF S-VIDEO (C) SIGNAL (I809)



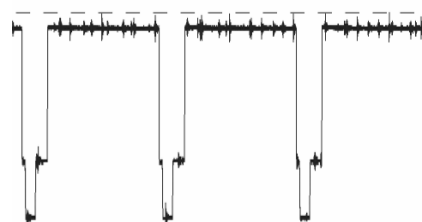
8 COLOR BAR OF S-VIDEO (Y) SIGNAL (I810)



16 GARY STAIR OF S-VIDEO (Y) SIGNAL (I810)



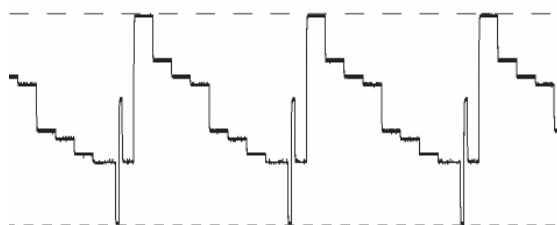
WHITE SCREEN OF S-VIDEO (Y) SIGNAL (I810)



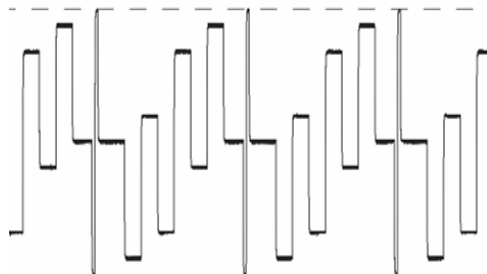
[Back to cover](#)

3. YPbPr (COMPONENT) SIGNAL

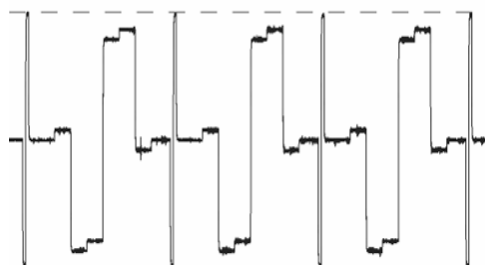
8 COLOR BAR OF YpbPr(720P) (Y) SIGNAL(I805)



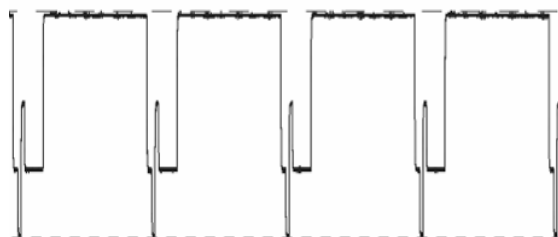
8 COLOR BAR OF YpbPr(720p) (Pb) SIGNAL(I807)



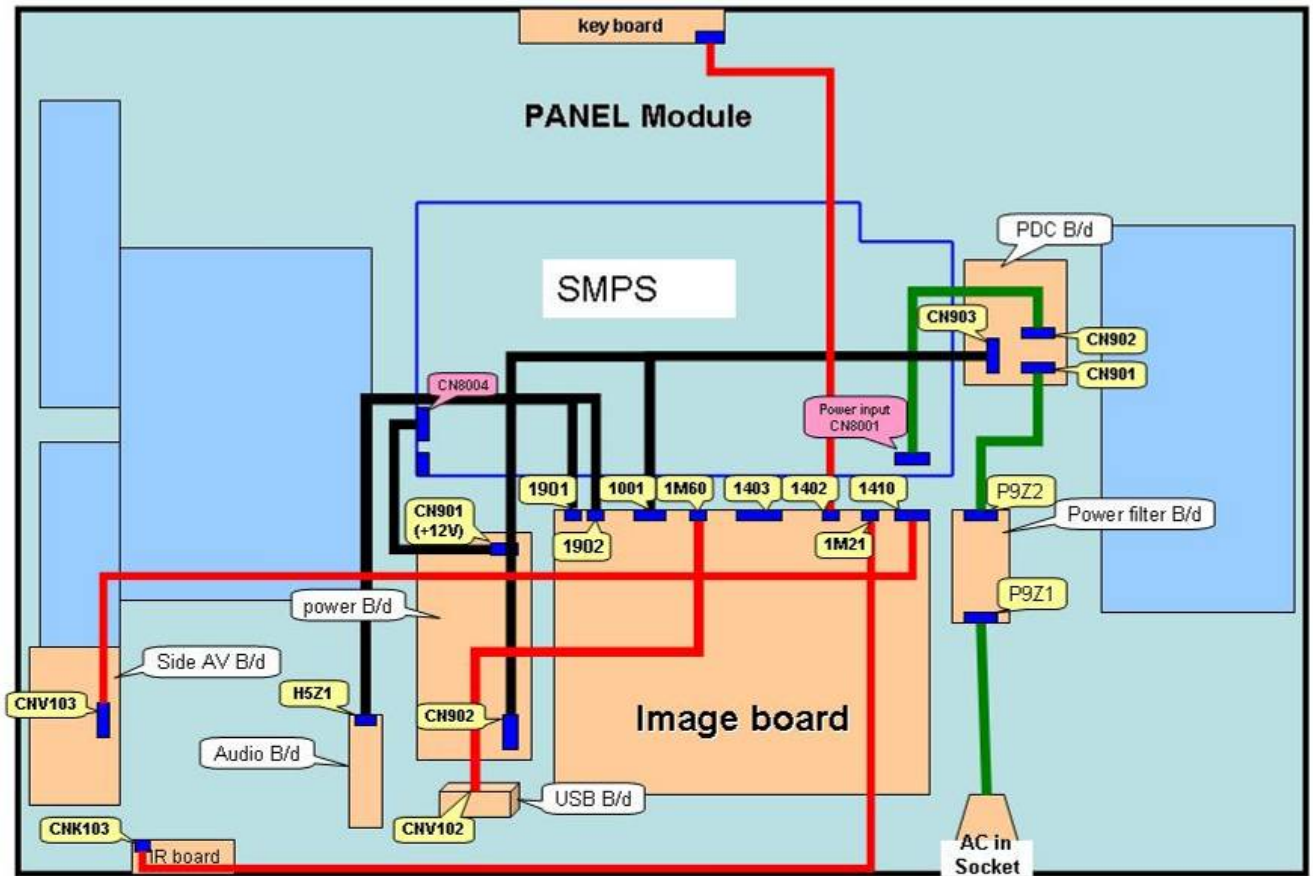
8 COLOR BAR OF YpbPr(720p) (Pr) SIGNAL(I804)



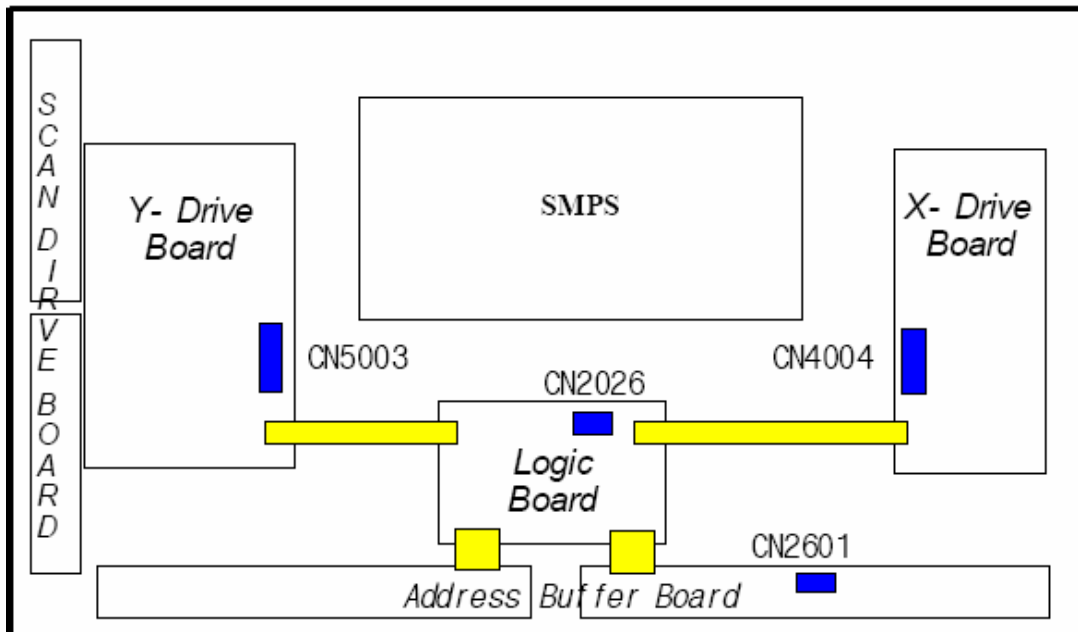
WHITE SCREEN OF YpbPr(720p) (Y) SIGNAL(I805)



Wiring diagram of PDP



Wiring diagram of PANEL power input

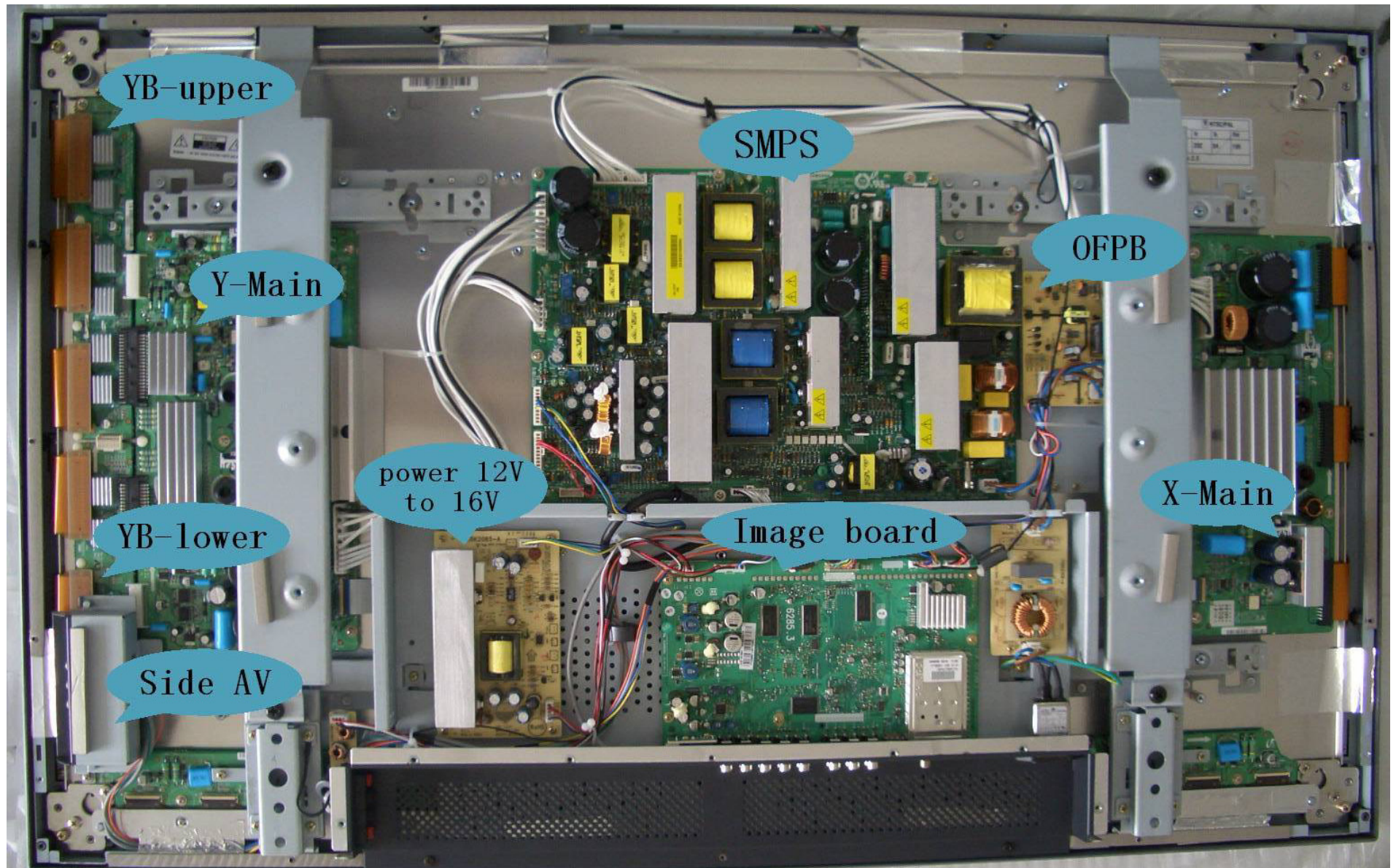


1. The Input Power Connector in Y-Drive Board is named as " CN5003".
2. The Input Power Connector in X-Drive Board is named as " CN4004".
3. The Input Power Connector in Logic Board is named as " CN2026".
4. The Input Power Connector in Address Buffer Board is named as " CN2601".

Mechanical Instructions

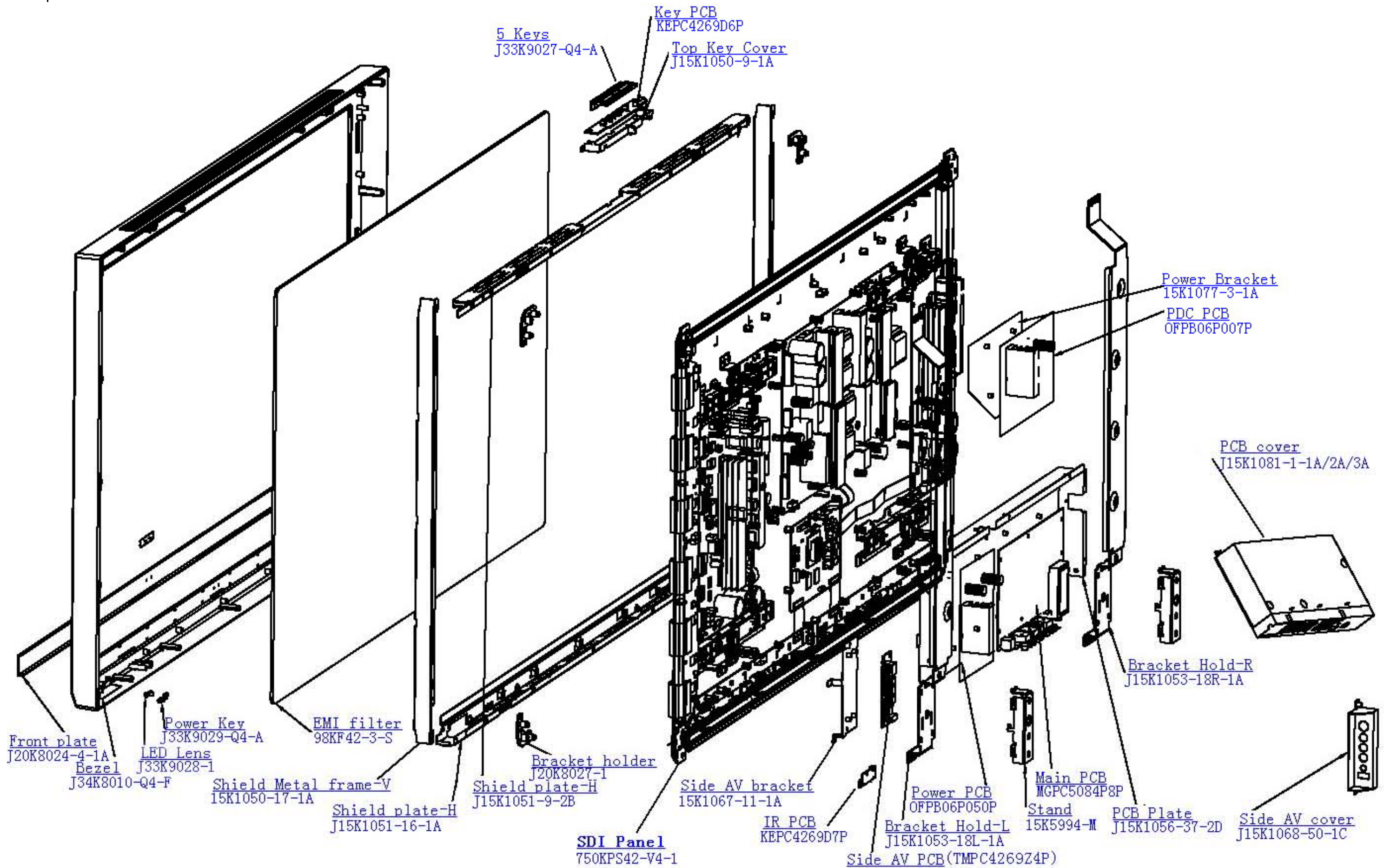
[Back to cover](#)

PDP Internal view



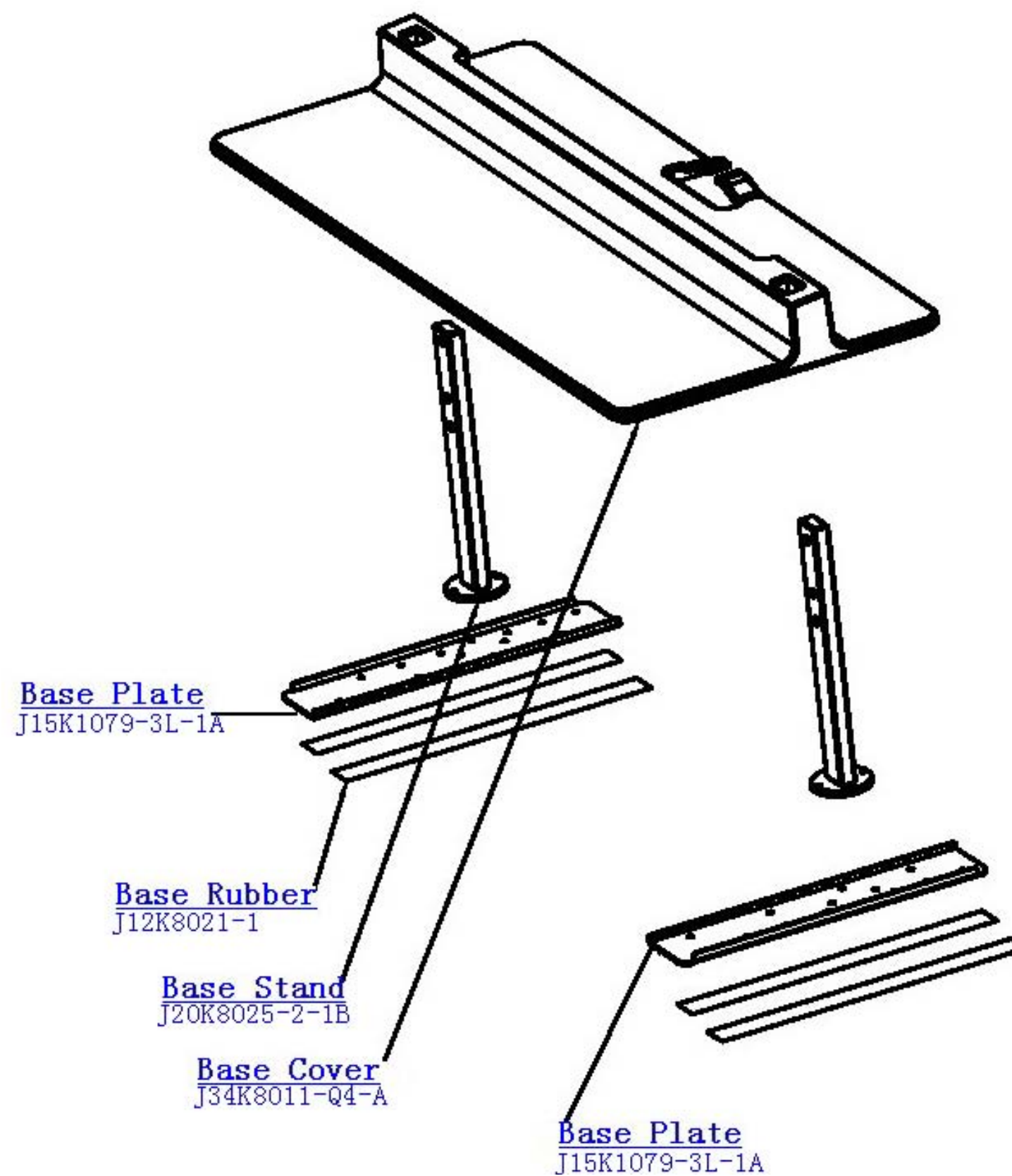
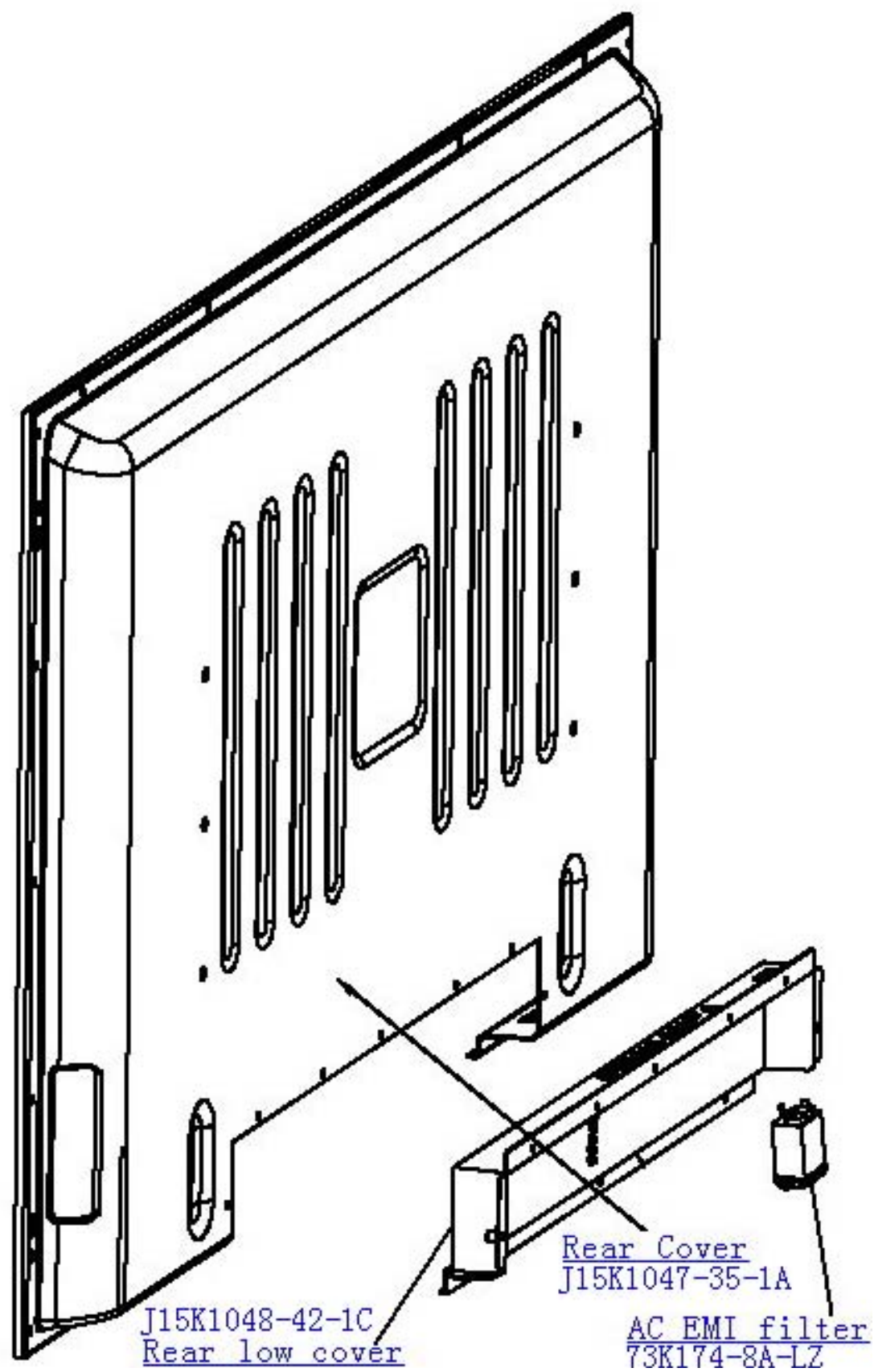
Mechanical Instructions

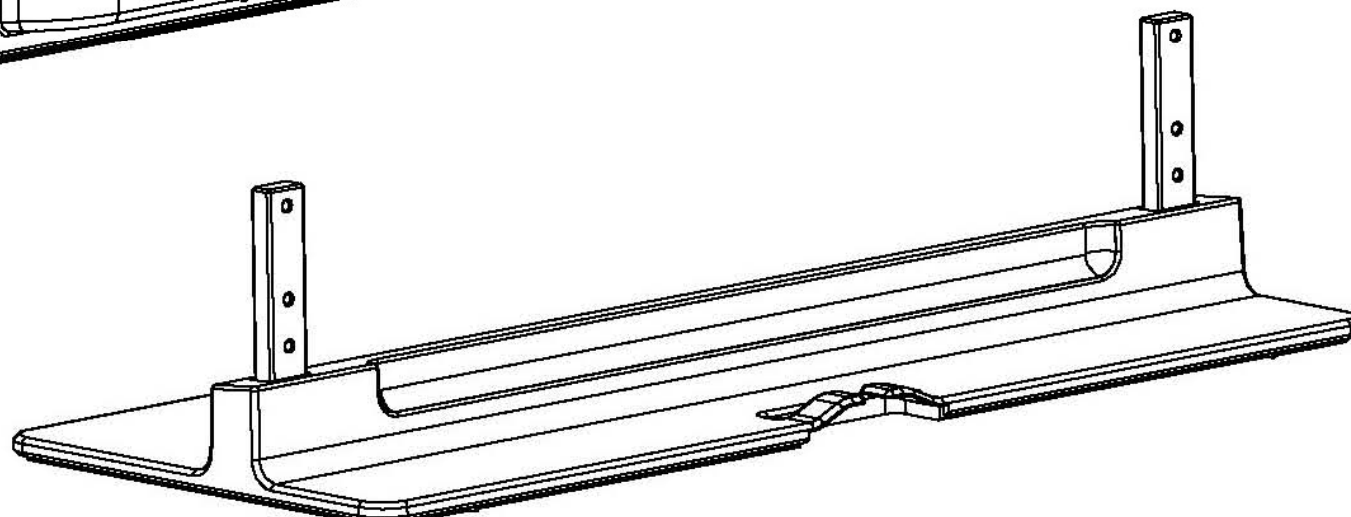
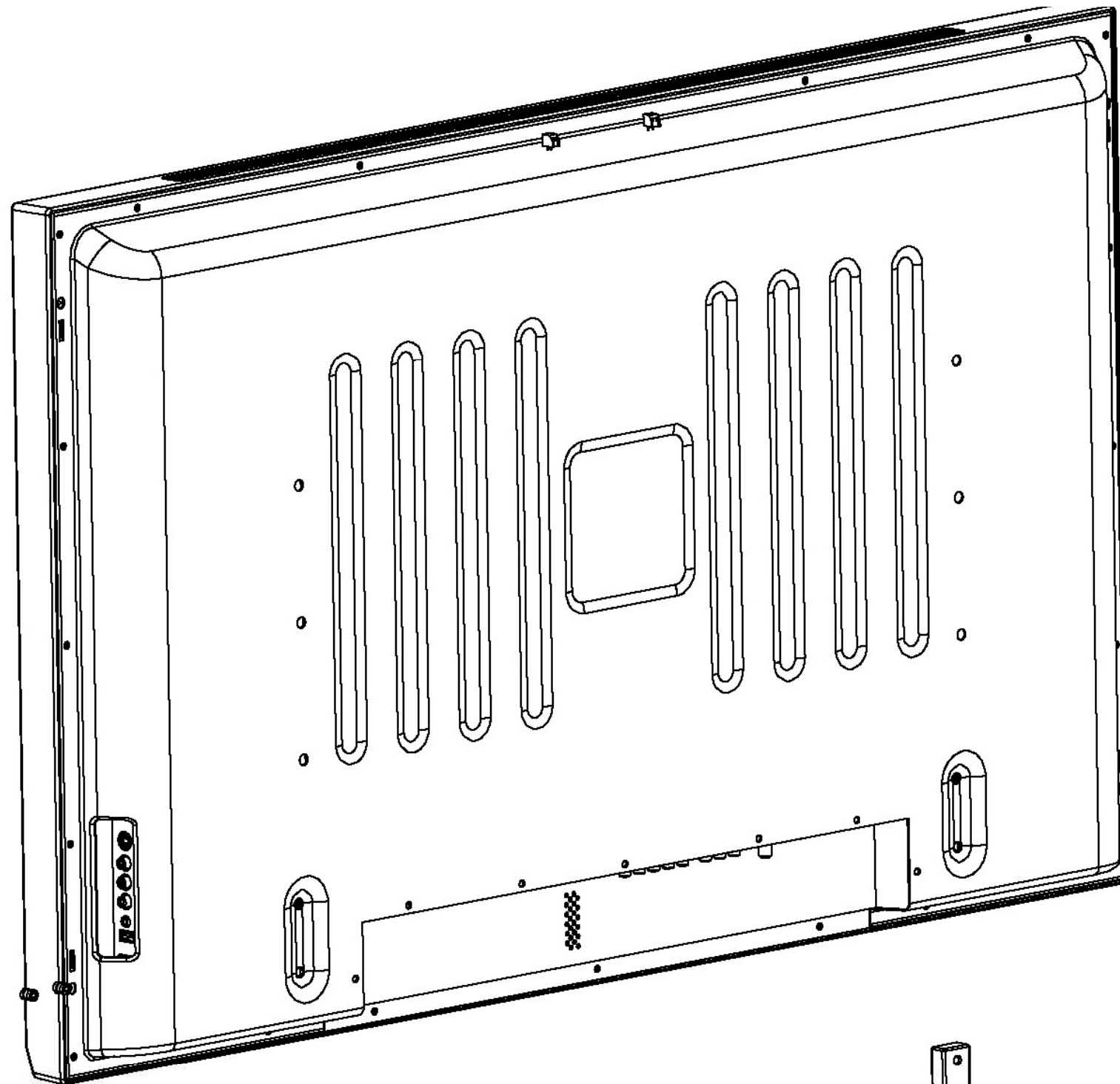
Explode view



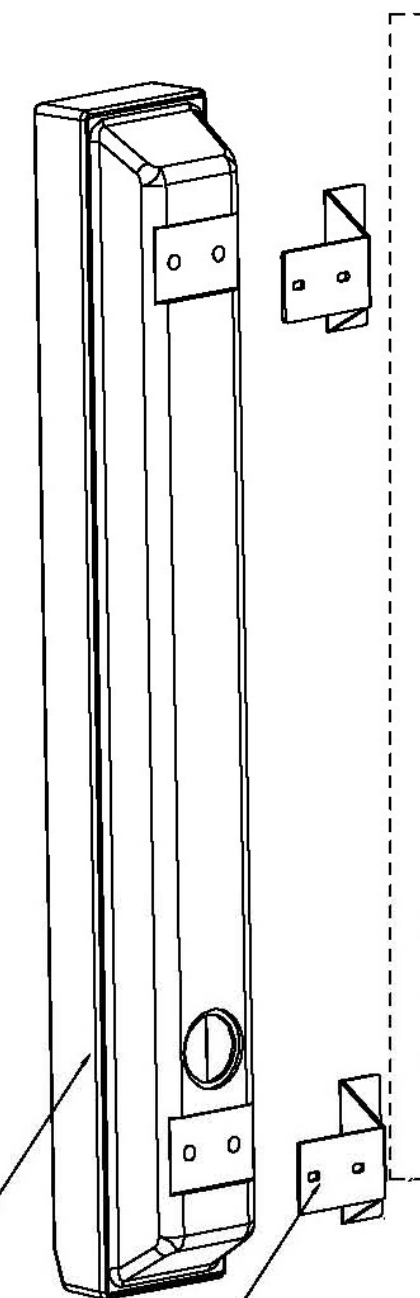
Mechanical Instructions

[Back to cover](#)



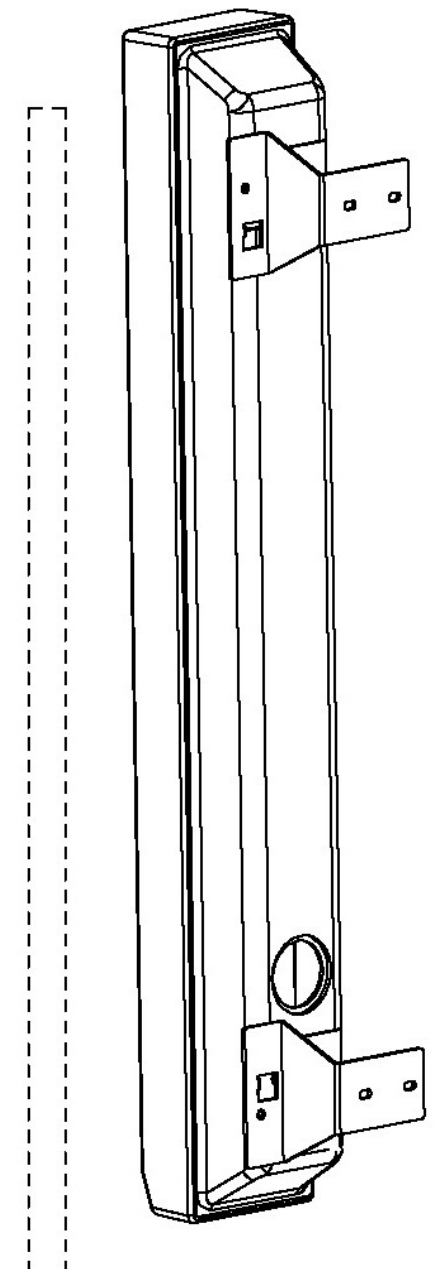


Side Speaker
78K542-1-8P



Speaker Bracket
J15K1080-2-1B/2B/3B/4B

Speaker Underlay
J12K8023-1



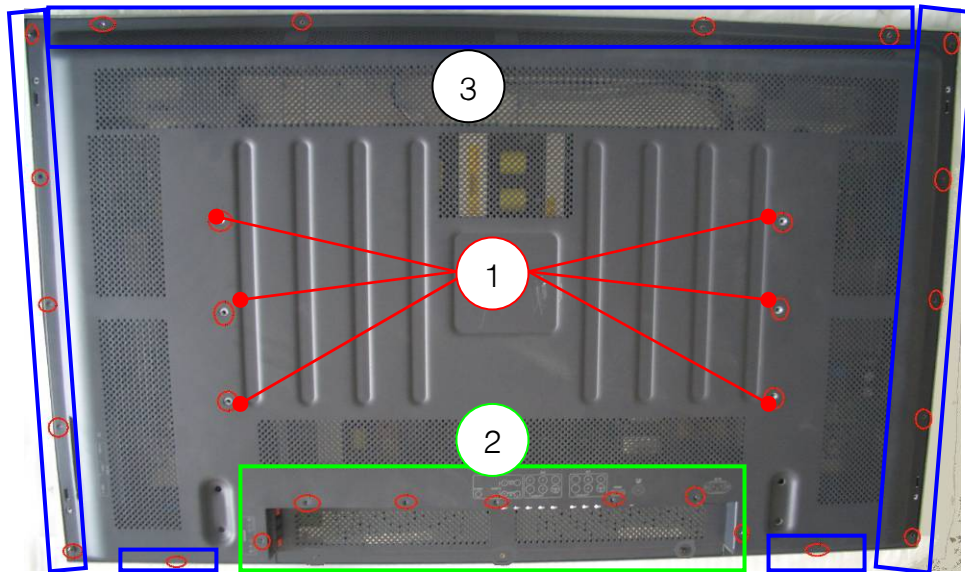
Mechanical Instructions

 [Back to cover](#)

Parts list of explode view

12NC	TPV part no.	Q'ty	Description
Need update	J20K8024-4-1A	1	Front Plate
9965 000 39200	J34K8010-Q4-F	1	Bezel
9965 000 39198	J33K9028-1	1	LED Lens
9965 000 39199	J33K9029-Q4-A	1	Power Key
9965 000 34086	98K F42-3-S	1	EMI Conductive Filter
Need update	15K1050-17-1A	2	Shield Metal Frame-V
Need update	J15K1051-16-1A	1	Shield Plate-H
Need update	J15K1051-9-2B	1	Shield Plate-H
Need update	J20K8027-1	4	Bracket Holder
9965 000 39197	J33K9027-Q4-A	1	5 KEY for Top Key
9965 000 39177	715K1973-1	1	KEY PCB
Need update	J15K1050-9-1A	1	Top Key Cover
Need update	15K1077-3-1A	1	Power Bracket
9965 000 39180	715K1380-3	1	PDC PCB
9965 000 39175	PANEL	1	SDI PANEL
Need update	15K1067-11-1A	1	Side AV Bracket
9965 000 39178	715K1974-1	1	IR PCB
9965 000 39184	715K1891-1	1	Side AV PCB
Need update	J15K1053-18L-1A	1	Bracket Hold-L
9965 000 39181	715K2085-2	1	Power PCB
Need update	15K5994-M	2	Stand Cover
9965 000 39179	715K3138-158-662-7103	1	Main board PCB
Need update	J15K1056-37-2D	1	PCB Plate
Need update	J15K1053-18R-1A	1	Bracket Hold-R
Need update	J15K1081-1-1A /2A/3A	1/1/1	PCB Cover
9965 000 39203	J15K1068-50-1C	1	Side AV Cover
9965 000 39201	J15K1047-35-1A	1	Rear Cover
9965 000 39202	J15K1048-42-1C	1	Rear Low Cover
Need update	73K 174-8A-LZ	1	AC EMI Filter
Need update	J15K1079-3L-1A	1	BASE Plate
Need update	J12K8021-1	4	BASE Rubber
Need update	J20K8025-2-1B	2	BASE Stand
Need update	J34K8011-Q4-A	1	BASE Cover
Need update	J15K1079-3R-1A	1	BASE Plate
Need update	78K S42-1-8P	2	Side Speaker
Need update	J15K1080-2-1B/2B/3B/4B	1/1/1/1	Bracket Speaker
Need update	J12K8023-1	2	Speaker Underlay

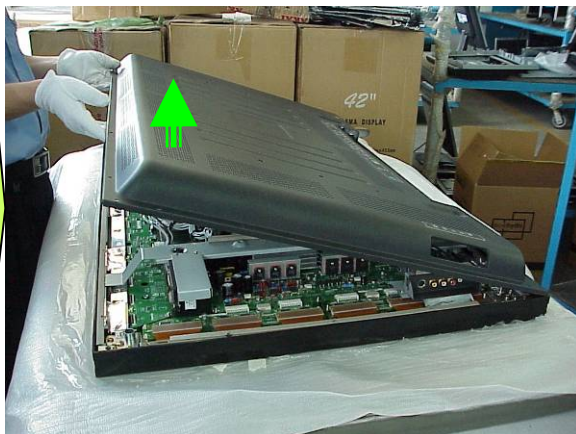
Back Cover Removal



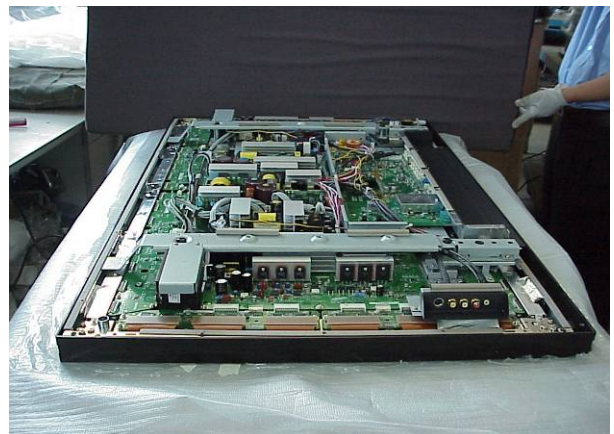
- 1) Remove the six big black colored screws in the panel holder as the red-circle showed (1).
- 2) Remove the seven black colored screws around the terminals as the green-pane showed (2).
- 3) Remove the Sixteen black colored screws around the back cover as the blue-pane showed (3).



- 4) Carefully prize up the back cover from the left of the PDP (5).



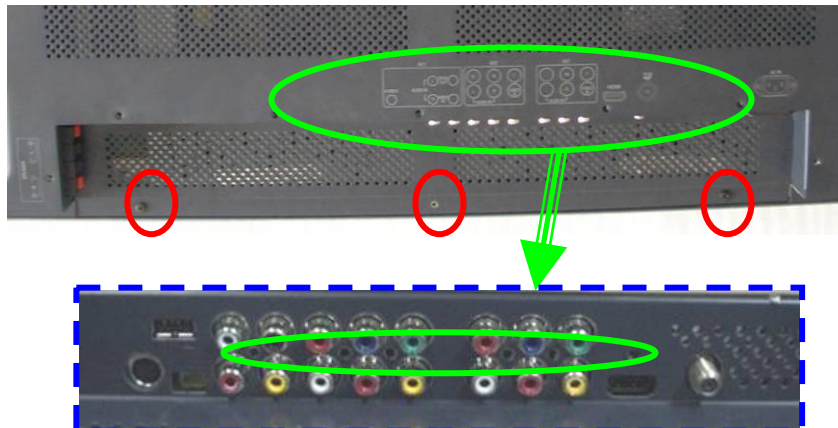
- 5) Carefully remove the Back Cover from the top of the PDP, and store in a safe place.



- 6) Done.

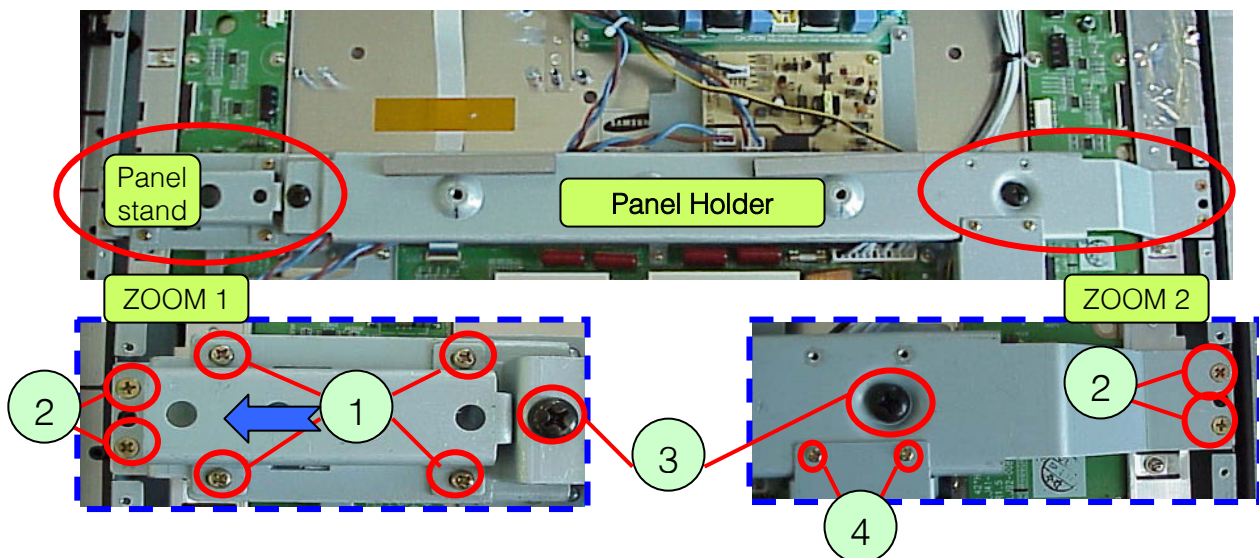
[Back to cover](#)

Rear Low Cover removal

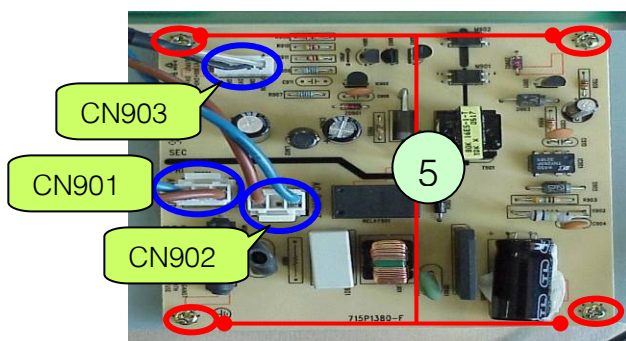


- 1) Remove the three black screws in Rear low cover.
- 2) Remove the six black screws .

PDC Board (power down control) Removal

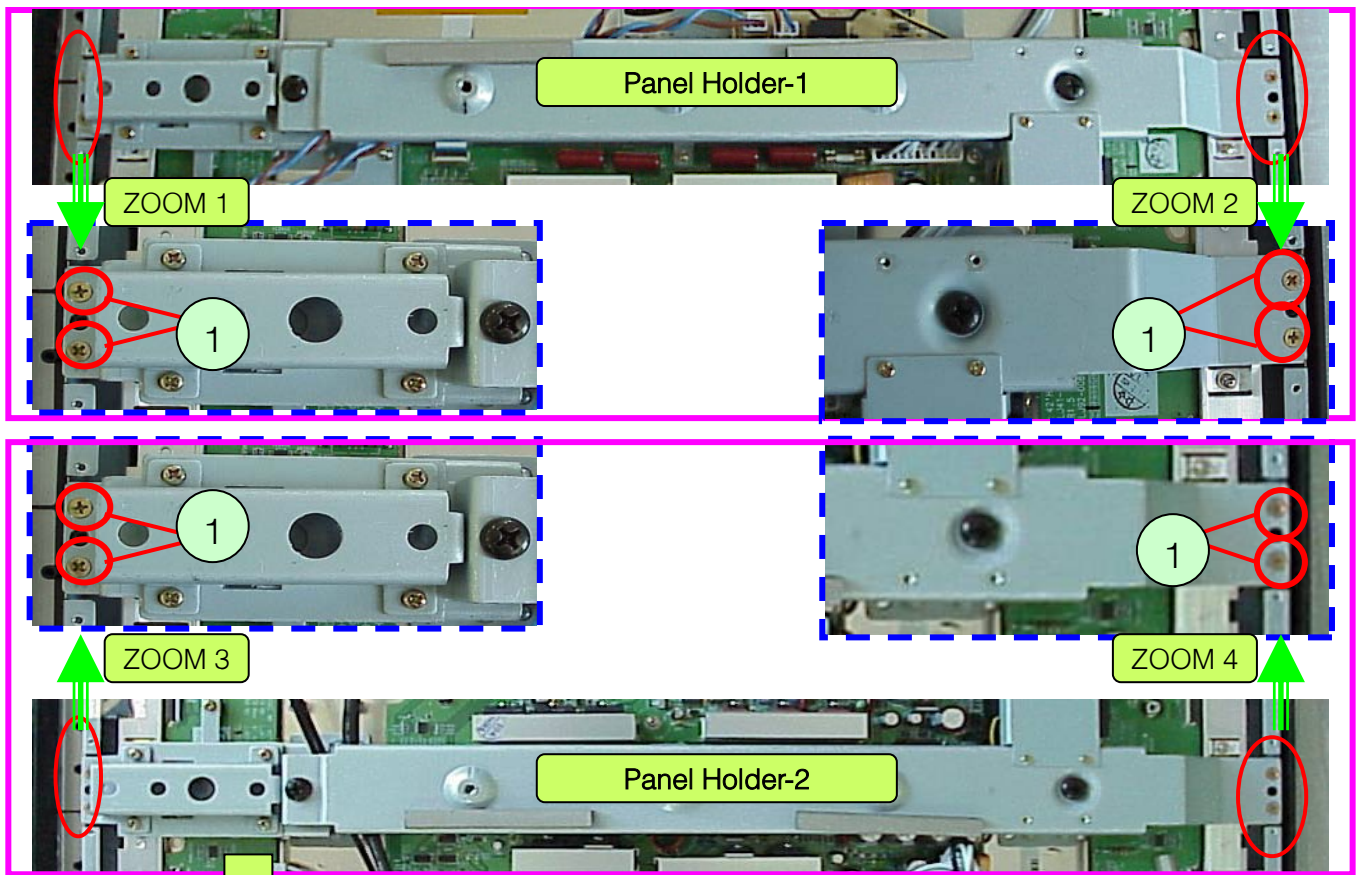


- 1) Remove the four silver screws (1) and remove the panel stand from panel holder as the direction arrowed showed.
- 2) Remove the four silver flat screws (2).
- 3) Remove the two black screws (3)
- 4) Remove the two silver screws (4)
- 5) Remove the panel holder from PDP.

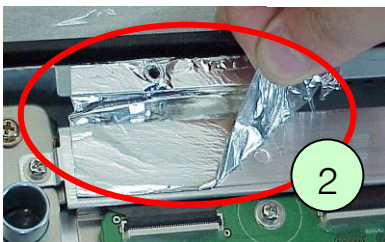


- 6) Disconnect CN901, CN902 and CN903 from PDC board.
- 7) Remove the four silver screws (5), and remove the PDC board.

Panel Module Removal



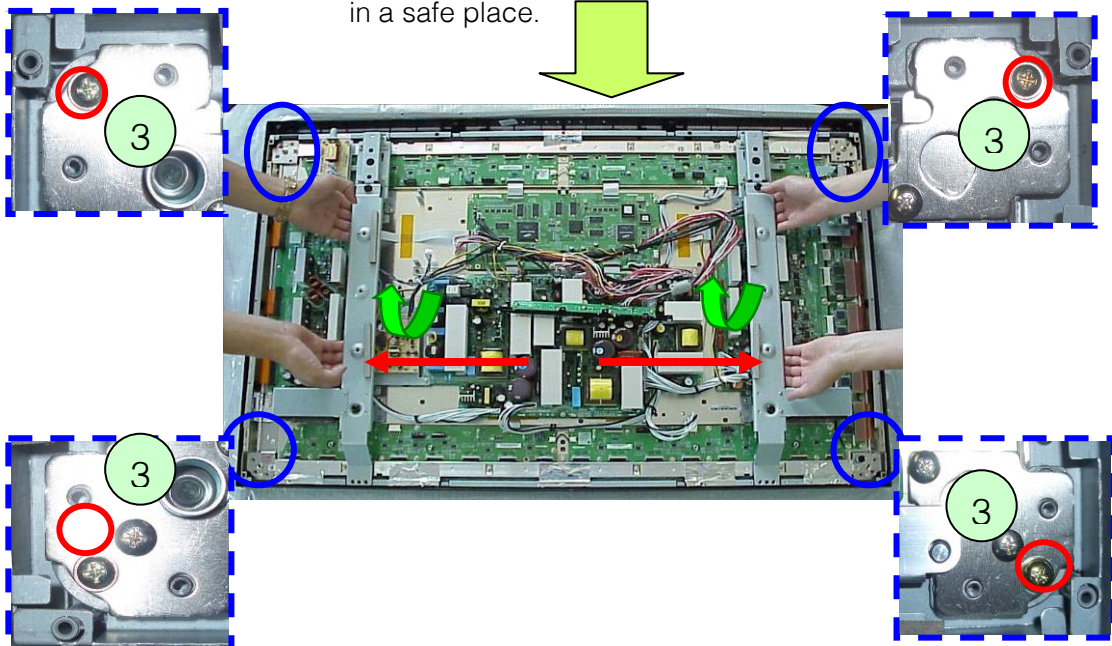
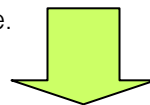
1) Remove the eight silver flat screws around the two panel holder (1).



2) Remove all the aluminum foil around the panel (2), after assemble the new panel, must re-affix the aluminum foil, if it's broken must change a new one, otherwise, the EMI can be affected.

3) Remove the four silver screw around the PANEL corner (3).

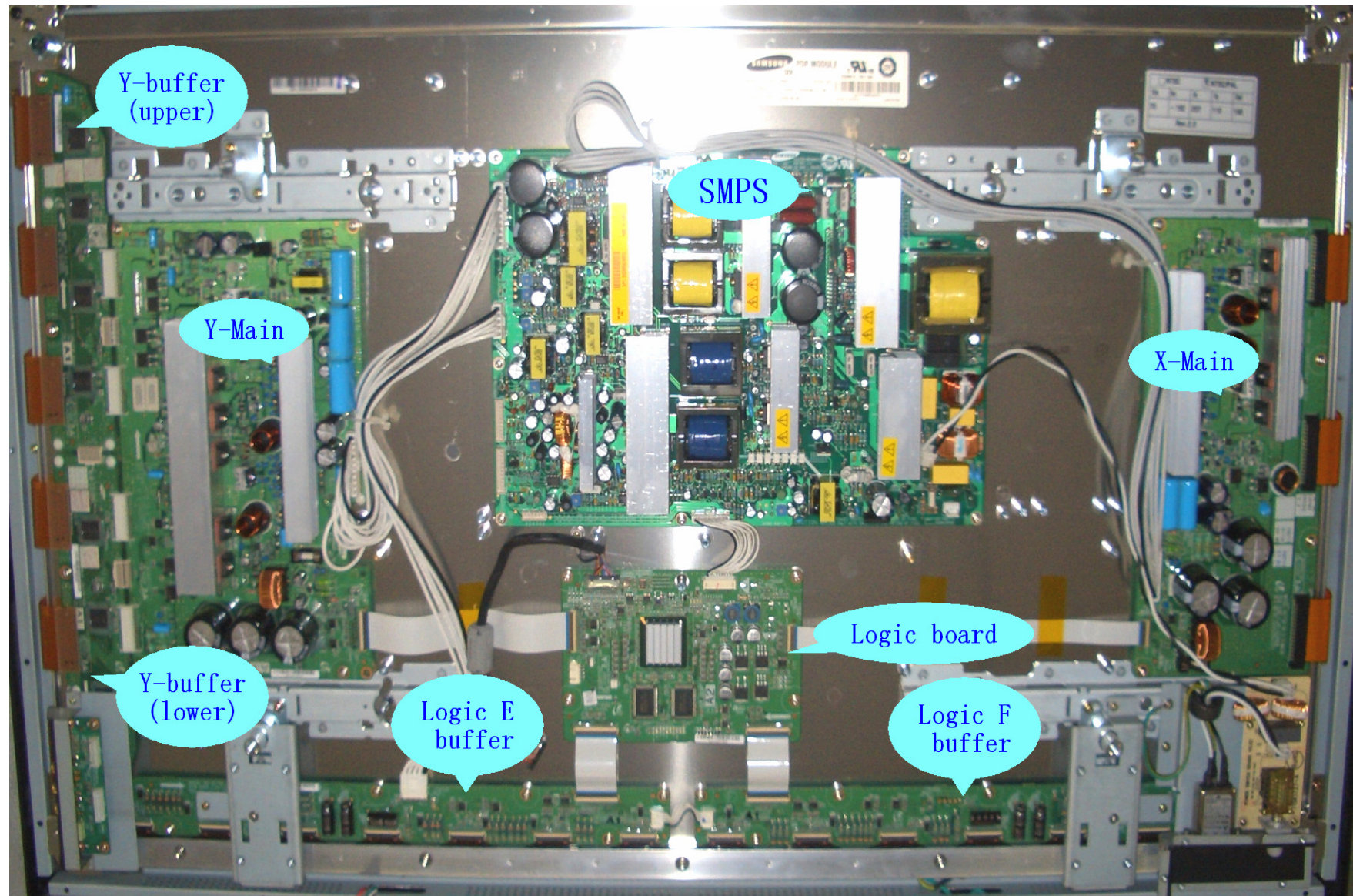
4) Two people hold the panel holder 1 and 2 respectively, then uplift the panel module and move it out form the front cover(Bezel), and store in a safe place.



Disassembly and Assembly

[Back to cover](#)

PANEL Internal view

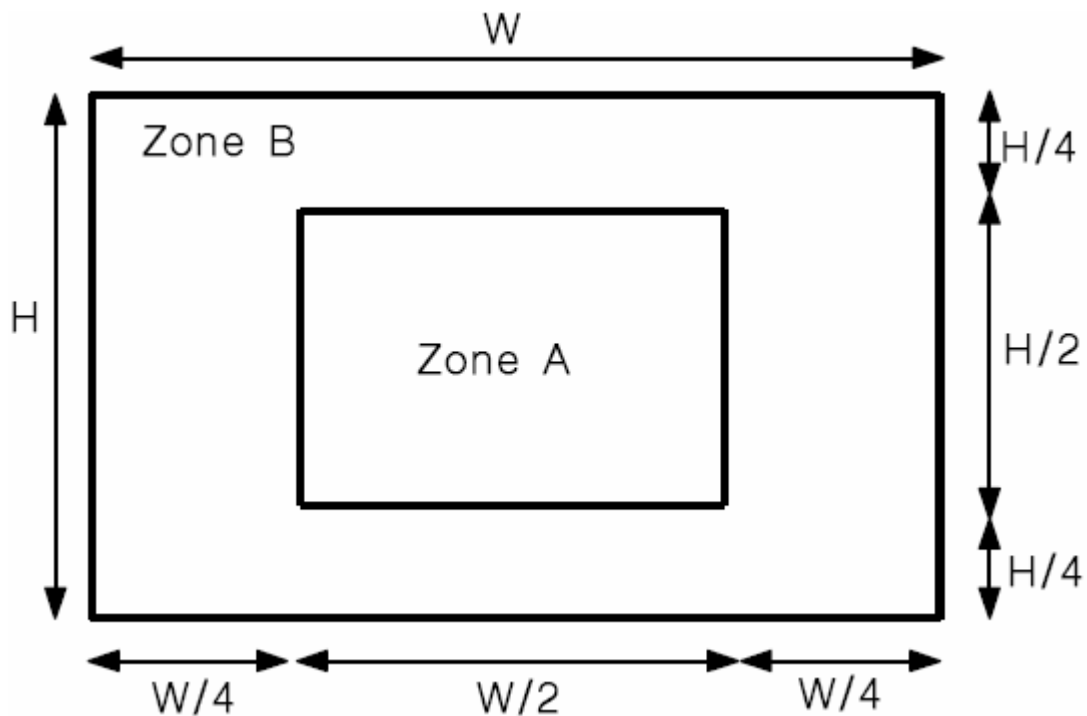


Cell Defect of PANEL

A panel may have defective cells that cannot be controlled. These defective cells can be categorized into three types;

- (1) **Non-lighting** cell defect: defect in which the cell is always off
- (2) **Non-extinguishing** cell defect: defect in which the cell is always on.
- (3) **Flickering** cell defect: defect in which the cell is flickering.
- (4) Test Pattern: Full White, Full Red, Full Green and Full Blue with 1023(10Bit) gray level.

The display cell defect specifications define the allowed limits for display cell defects and are used as the criteria in determining whether a panel should be allowed.

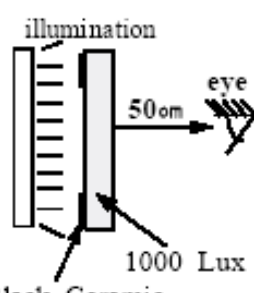
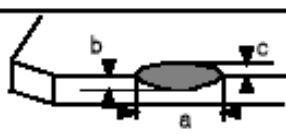
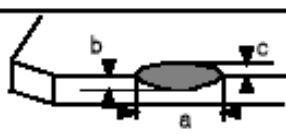
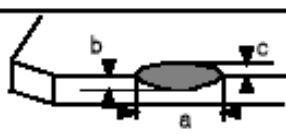


Item	Specification	
	Number of cell defects	Distance between cell defects
Non-lighting cell defect	Zone A: 3 and less Zone B: 8 and less	Regardless of A and B zone, -Distance between the cells is over 15mm
Non-extinguishing cell defect	Zone A: 0 Zone B: 1 and less	
Flickering cell defect	Zone A: 0 Zone B: 1 and less	
Total Defect	Total number of cell defects in Zone A and B is 8 and less	

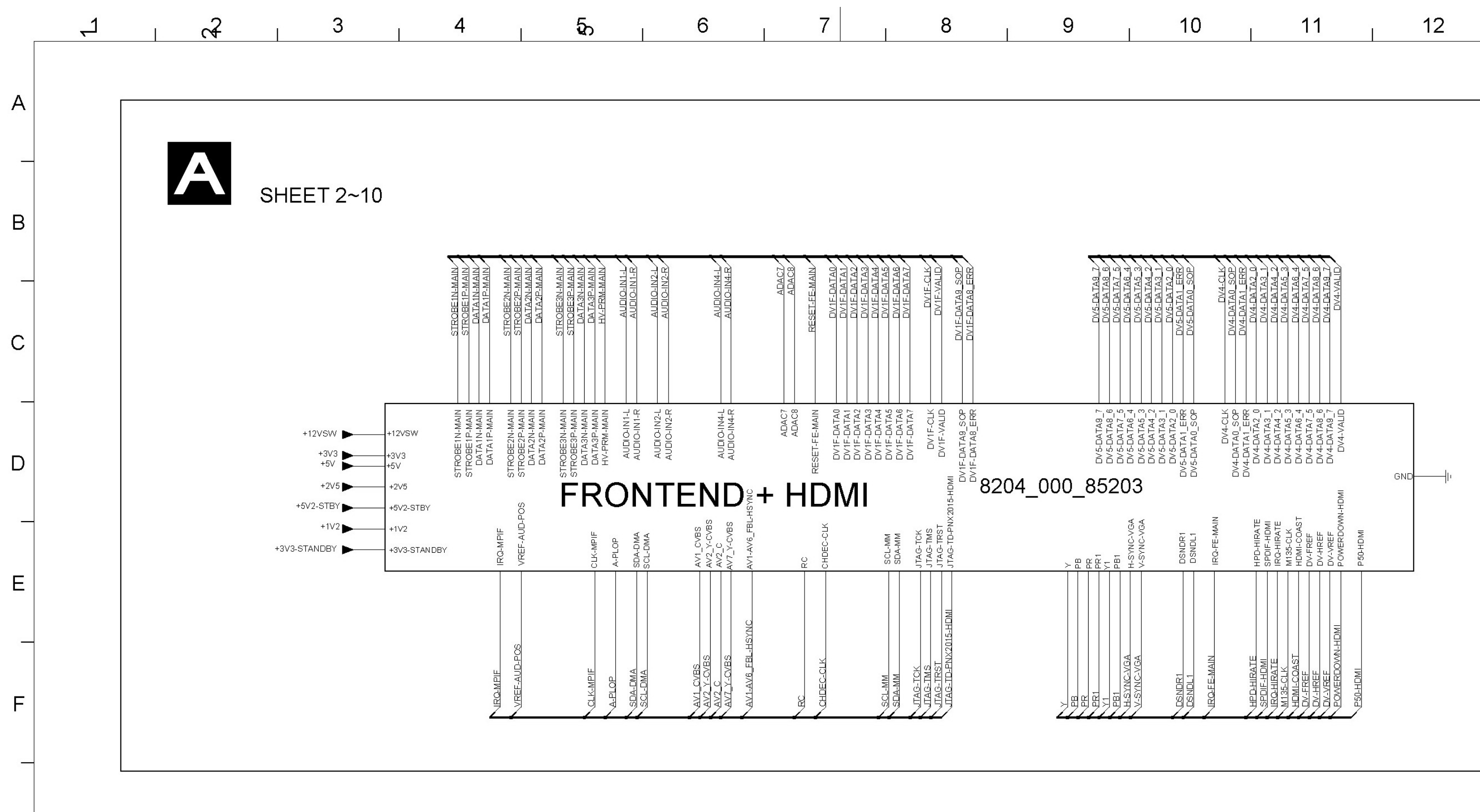
Definition of Pixel defects

[Back to cover](#)

Defects of Glass filter

Items	Standard			Condition and Process																																																																																			
Linear defect	Width(mm)	Length(mm)	Allow defects	<div>- Method</div>  <tr><td>$0.05 \leq W < 0.1$</td><td>$10 < L \leq 20$</td><td>10</td></tr> <tr><td>$0.05 \leq W < 0.1$ $W < 0.05$</td><td>$L < 10$ $10 < L \leq 20$</td><td>15</td></tr> <tr><td>$W < 0.05$</td><td>$L < 10$</td><td>Allowed</td></tr> <tr><td rowspan="13">Point defect</td><td>Type</td><td>Size(mm)</td><td>Allow defects</td><td rowspan="13"><div>- Defect size : (long side+short side)/2</div></td></tr> <tr><td rowspan="4">White spot (Film bubble)</td><td>$1.5 < \phi \leq 2.0$</td><td>2</td></tr> <tr><td>$1.0 < \phi \leq 1.5$</td><td>5</td></tr> <tr><td>$0.5 < \phi \leq 1.0$</td><td>15</td></tr> <tr><td>$\phi \leq 0.5$</td><td>Allowed</td></tr> <tr><td rowspan="2">Glass bubble</td><td>$0.5 < \phi \leq 1.0$</td><td>2</td></tr> <tr><td>$\phi \leq 0.5$</td><td>20</td></tr> <tr><td rowspan="3">Black spot (foreign material)</td><td>$0.5 < \phi \leq 1.0$</td><td>5</td></tr> <tr><td>$0.3 < \phi \leq 0.5$</td><td>15</td></tr> <tr><td>$\phi \leq 0.3$</td><td>Allowed</td></tr> <tr><td rowspan="3">Colord spot (Film)</td><td>$2.0 < \phi \leq 2.5$</td><td>2</td></tr> <tr><td>$1.0 < \phi \leq 2.0$</td><td>15</td></tr> <tr><td>$\phi \leq 1.0$</td><td>Allowed</td></tr> <tr><td rowspan="5">Mesh Defect</td><td colspan="2">Lattice Opem</td><td colspan="2">Lattice close</td></tr> <tr><td>Lattice #</td><td>Allowed #</td><td>Size(mm)</td><td>Allowed #</td></tr> <tr><td>≤ 10</td><td>Ignored</td><td>$\phi < 0.5$</td><td>Ignored</td></tr> <tr><td>10~30</td><td>5</td><td>$0.5 \leq \phi \leq 1.0$</td><td>1</td></tr> <tr><td>≥ 31</td><td>0</td><td>$1.0 < \phi$</td><td>0</td></tr> <tr><td>Film de-lamination</td><td colspan="3">No peeling off over 2mm at the edge of Film.</td><td>- Naked-eye inspection</td></tr> <tr><td>Chip</td><td colspan="3">* $a \leq 2.0\text{mm}$ * $b \leq 1.0\text{mm}$ * $c \leq 1.0\text{mm}$</td><td></td></tr> <tr><td>Crack</td><td colspan="3">No admission</td><td></td></tr> <tr><td>Contamin ation</td><td colspan="3">Allowed if wiped off with dry cloth.</td><td></td></tr>	$0.05 \leq W < 0.1$	$10 < L \leq 20$	10	$0.05 \leq W < 0.1$ $W < 0.05$	$L < 10$ $10 < L \leq 20$	15	$W < 0.05$	$L < 10$	Allowed	Point defect	Type	Size(mm)	Allow defects	<div>- Defect size : (long side+short side)/2</div>	White spot (Film bubble)	$1.5 < \phi \leq 2.0$	2	$1.0 < \phi \leq 1.5$	5	$0.5 < \phi \leq 1.0$	15	$\phi \leq 0.5$	Allowed	Glass bubble	$0.5 < \phi \leq 1.0$	2	$\phi \leq 0.5$	20	Black spot (foreign material)	$0.5 < \phi \leq 1.0$	5	$0.3 < \phi \leq 0.5$	15	$\phi \leq 0.3$	Allowed	Colord spot (Film)	$2.0 < \phi \leq 2.5$	2	$1.0 < \phi \leq 2.0$	15	$\phi \leq 1.0$	Allowed	Mesh Defect	Lattice Opem		Lattice close		Lattice #	Allowed #	Size(mm)	Allowed #	≤ 10	Ignored	$\phi < 0.5$	Ignored	10~30	5	$0.5 \leq \phi \leq 1.0$	1	≥ 31	0	$1.0 < \phi$	0	Film de-lamination	No peeling off over 2mm at the edge of Film.			- Naked-eye inspection	Chip	* $a \leq 2.0\text{mm}$ * $b \leq 1.0\text{mm}$ * $c \leq 1.0\text{mm}$				Crack	No admission				Contamin ation	Allowed if wiped off with dry cloth.			
	$0.05 \leq W < 0.1$	$10 < L \leq 20$	10																																																																																				
	$0.05 \leq W < 0.1$ $W < 0.05$	$L < 10$ $10 < L \leq 20$	15																																																																																				
	$W < 0.05$	$L < 10$	Allowed																																																																																				
Point defect	Type	Size(mm)	Allow defects	<div>- Defect size : (long side+short side)/2</div>																																																																																			
	White spot (Film bubble)	$1.5 < \phi \leq 2.0$	2																																																																																				
		$1.0 < \phi \leq 1.5$	5																																																																																				
		$0.5 < \phi \leq 1.0$	15																																																																																				
		$\phi \leq 0.5$	Allowed																																																																																				
	Glass bubble	$0.5 < \phi \leq 1.0$	2																																																																																				
		$\phi \leq 0.5$	20																																																																																				
	Black spot (foreign material)	$0.5 < \phi \leq 1.0$	5																																																																																				
		$0.3 < \phi \leq 0.5$	15																																																																																				
		$\phi \leq 0.3$	Allowed																																																																																				
	Colord spot (Film)	$2.0 < \phi \leq 2.5$	2																																																																																				
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Mesh Defect	Lattice Opem		Lattice close																																																																																				
	Lattice #	Allowed #	Size(mm)	Allowed #																																																																																			
	≤ 10	Ignored	$\phi < 0.5$	Ignored																																																																																			
	10~30	5	$0.5 \leq \phi \leq 1.0$	1																																																																																			
	≥ 31	0	$1.0 < \phi$	0																																																																																			
Film de-lamination	No peeling off over 2mm at the edge of Film.			- Naked-eye inspection																																																																																			
Chip	* $a \leq 2.0\text{mm}$ * $b \leq 1.0\text{mm}$ * $c \leq 1.0\text{mm}$																																																																																						
Crack	No admission																																																																																						
Contamin ation	Allowed if wiped off with dry cloth.																																																																																						

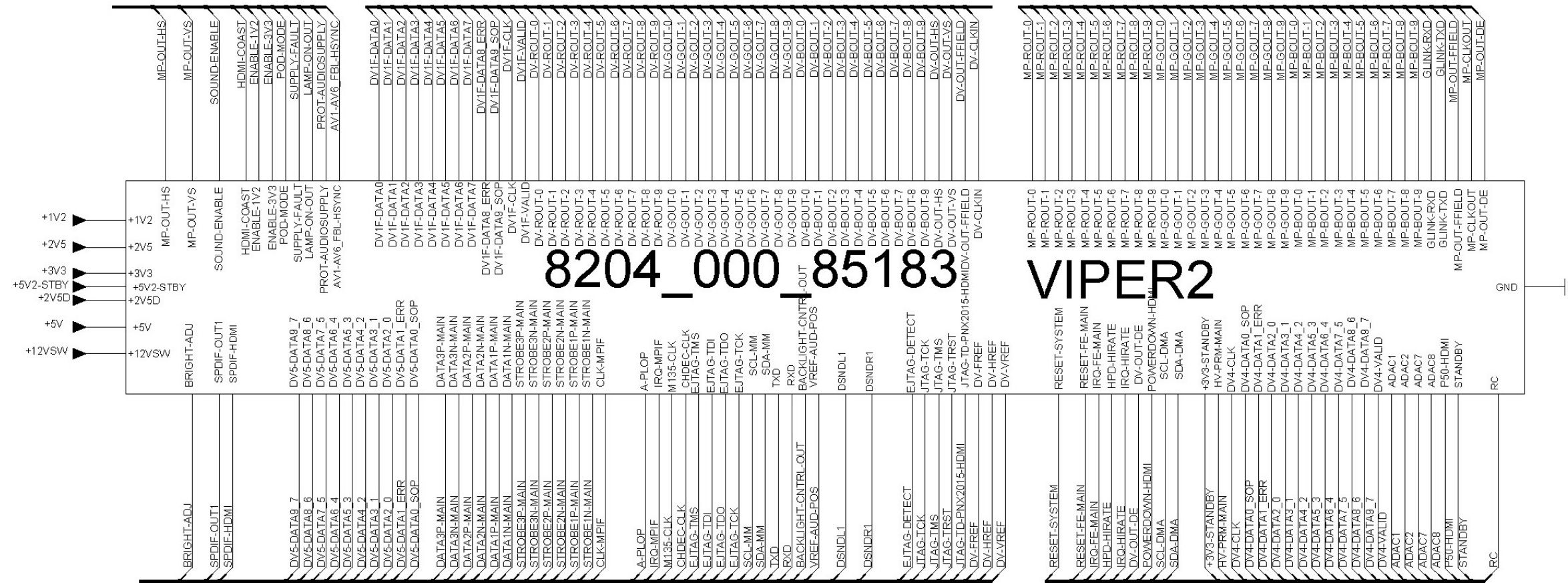
- But, the distance between defects must be over 30mm.
- Any defect without prescribed contents on the specifications shall be settled on deliberation by both parties.



A

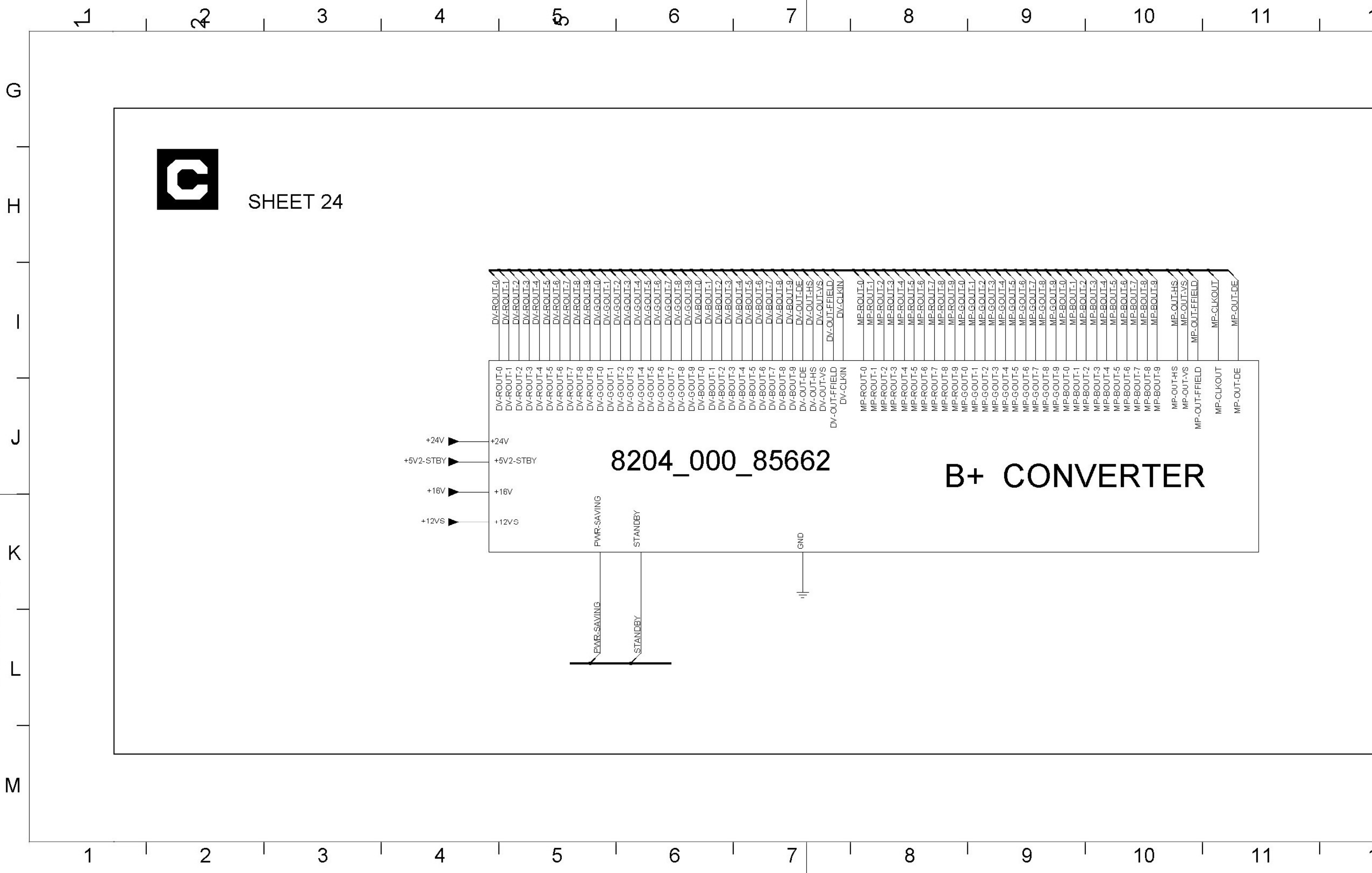
C

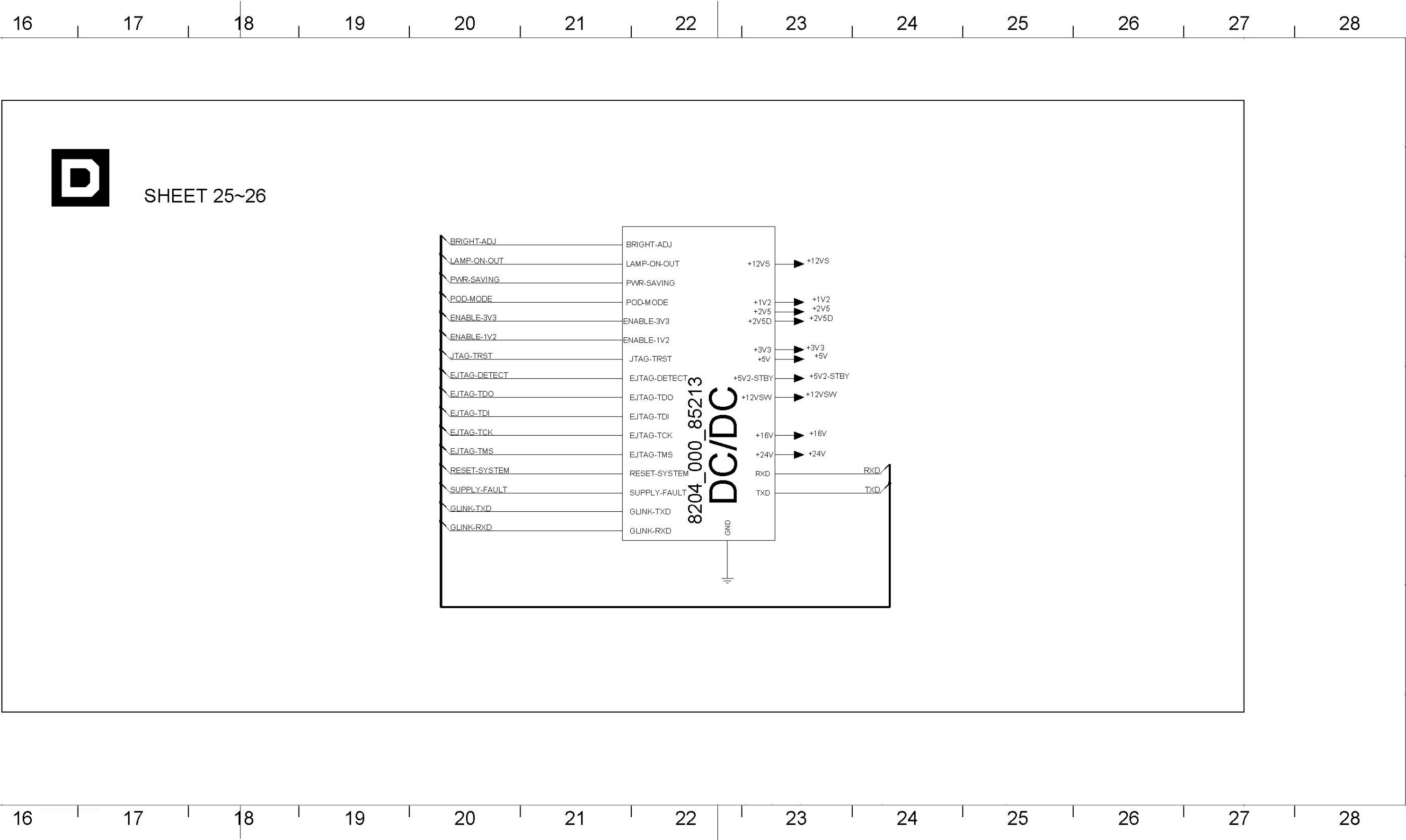
E



Block diagram

PHILIPS





N

O

P

Q

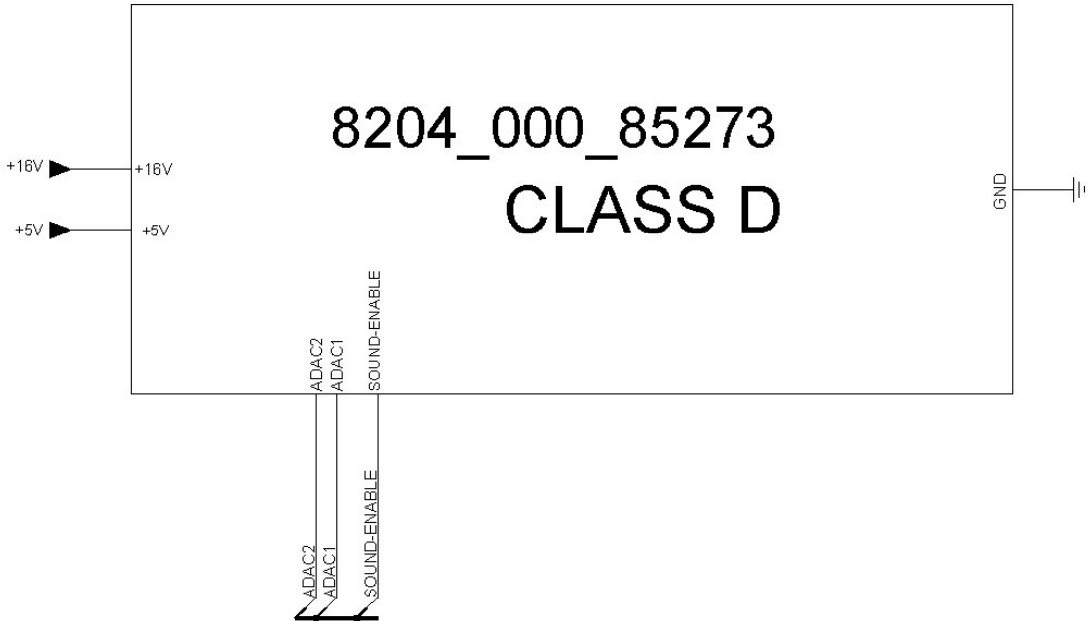
R

S

T



SHEET 27~28



SCALER BOARD

SB: 62841 x2
PB: 62851

1

2

3

4

5

6

7

8

9

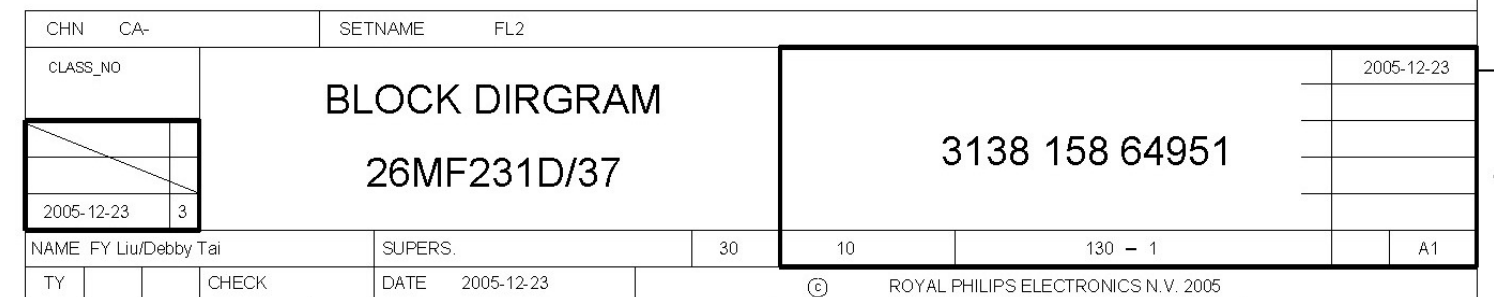
10

11

12

[!\[\]\(38961669a3562c85e60c4f915eb97306_img.jpg\) Back to cover](#)

SHEET 29~30



A horizontal number line with major tick marks labeled 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, and 28. A vertical line is drawn at the number 22.

UART diagram

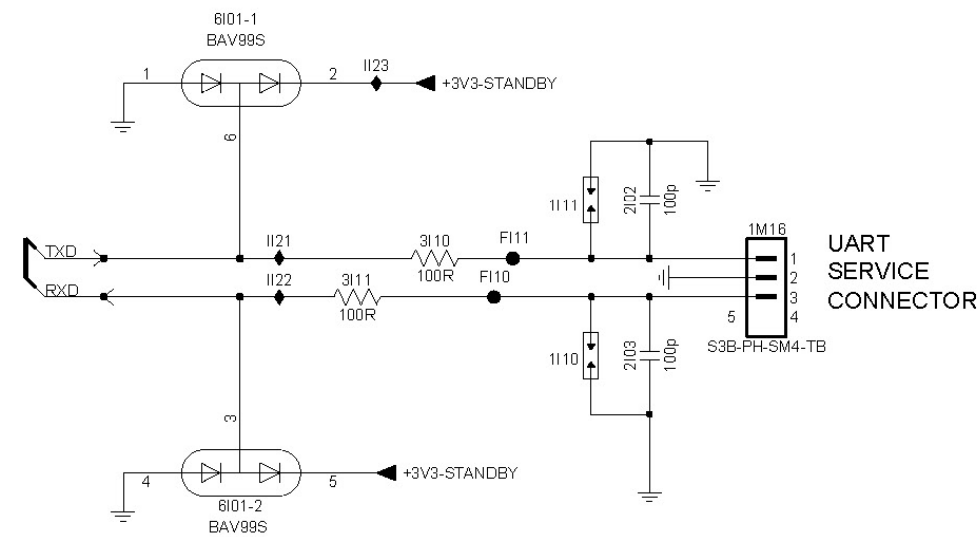
[Back to cover](#)

F 3 Ø

UART

SCALER BOARD

SB: 62841 x2
PB: 62851

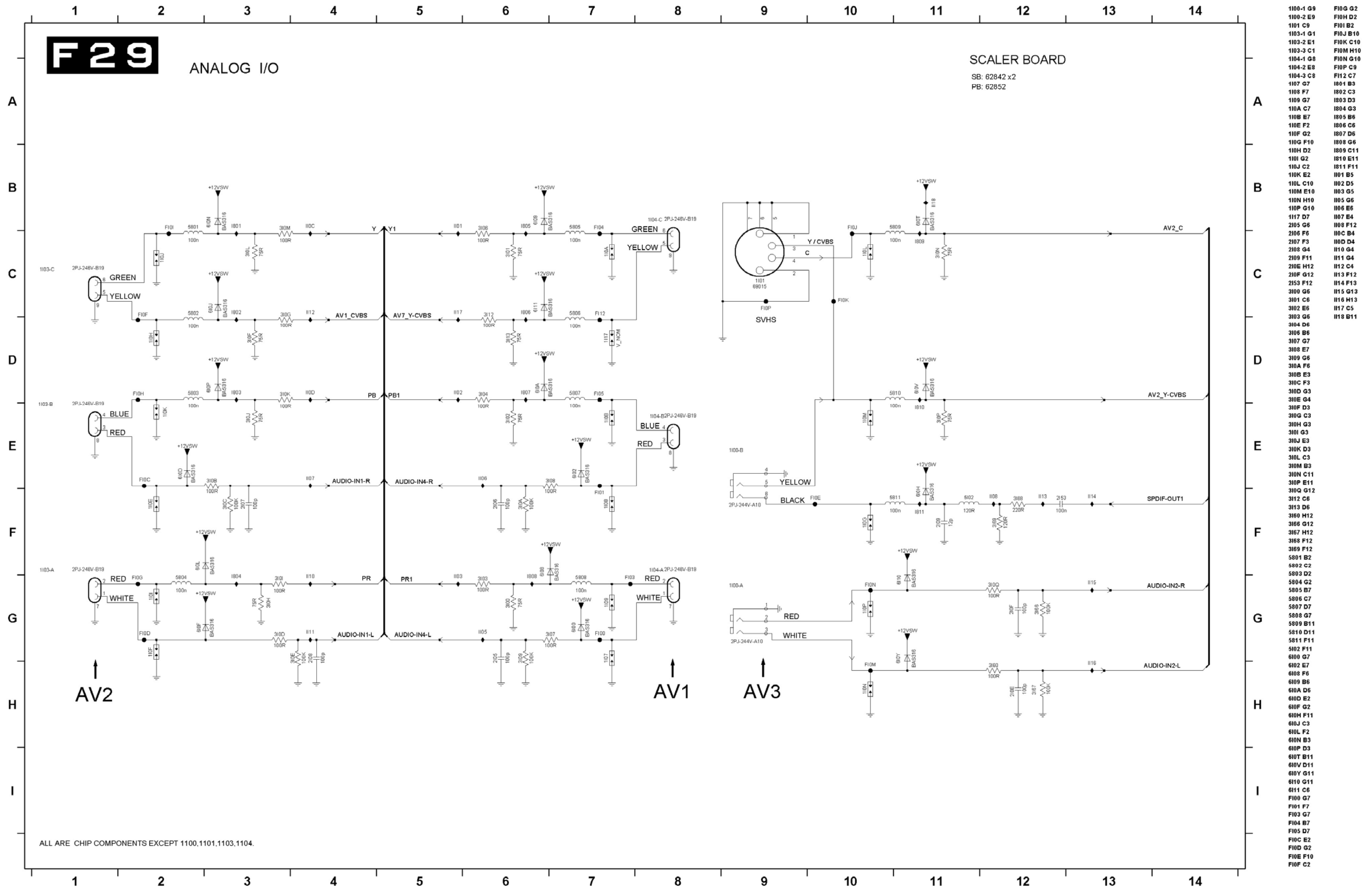


1I10 E5
1I11 D5
1M16 D6
2I02 D5
2I03 E5
3I10 D4
3I11 E4
6I01-1 D4
6I01-2 E4
FI10 E5
FI11 D5
II21 D4
II22 D4
II23 D4

Analog-I/O diagram

-82- 42MF231D/37

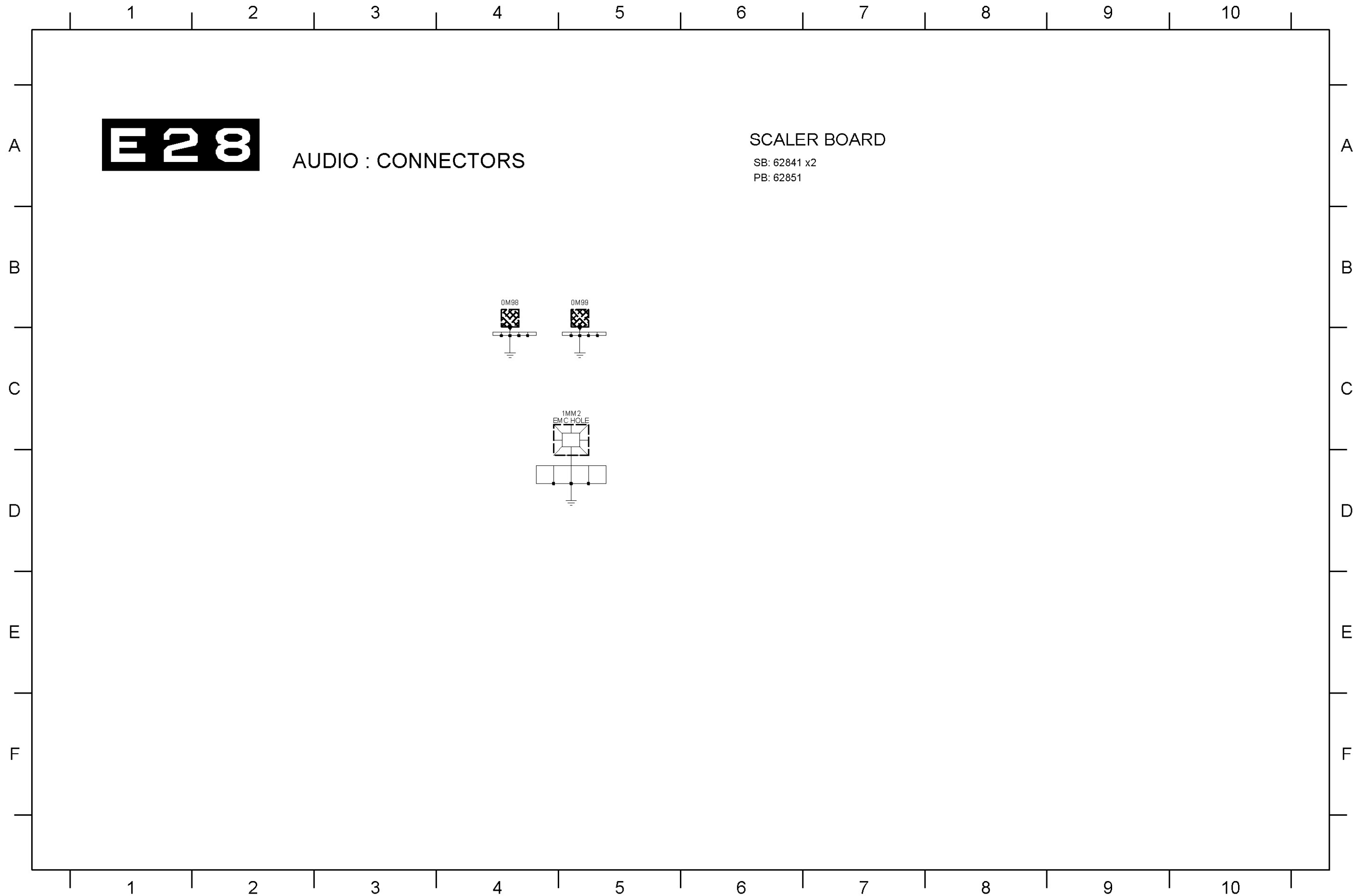
[Back to cover](#)



Audio diagram

[◀ Back to cover](#)

0M98 B4
0M99 B5
1MM2 C5





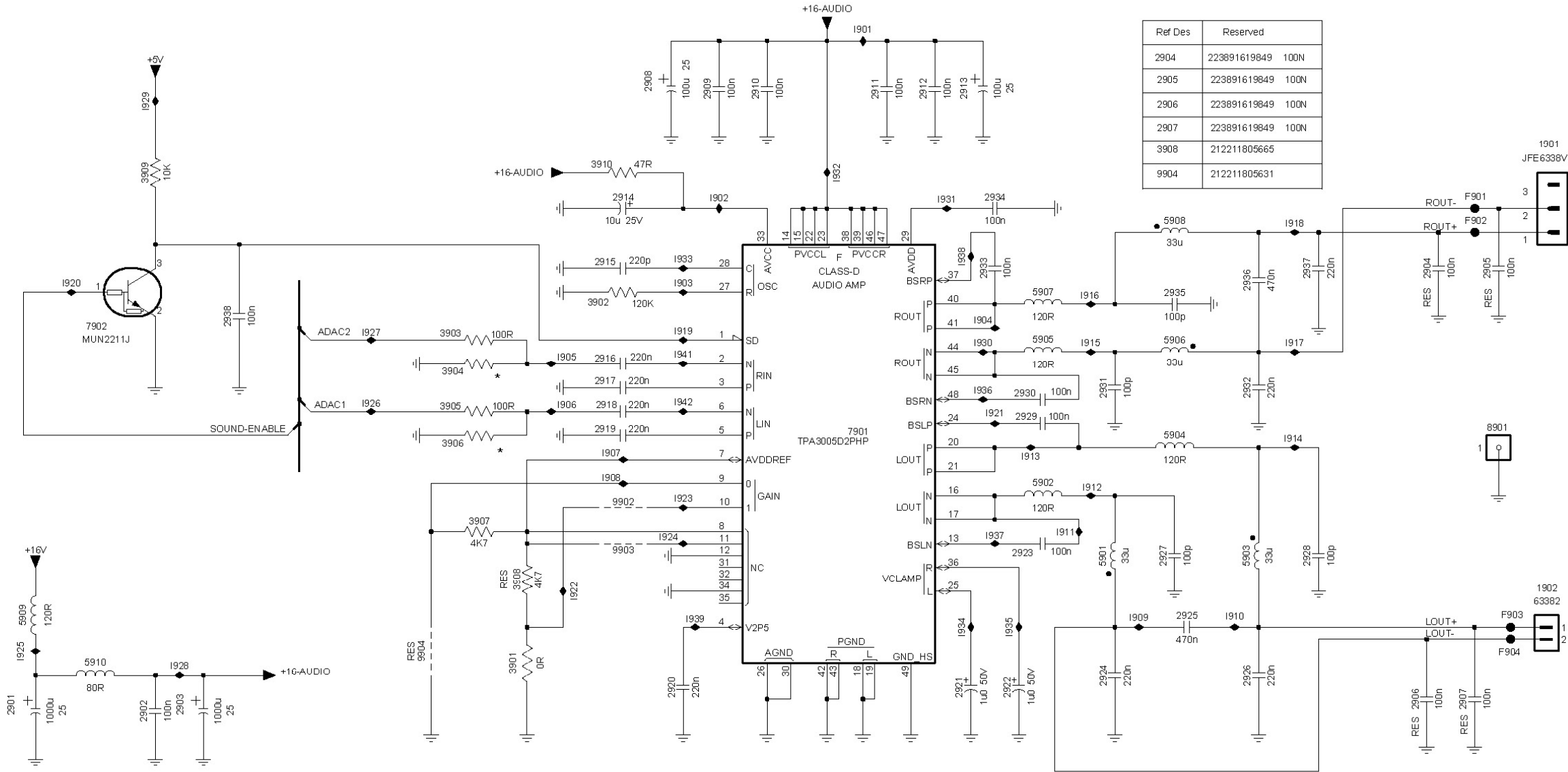
AUDIO : AMPLIFIER

SCALER BOARD

SB: 62842 x2
PB: 62852

REF.	26"	32"/37"
7901	TPA3005	TPA3008
3904	1K8	6K8
3906	1K8	6K8

Ref Des	Reserved
2904	223891619849 100N
2905	223891619849 100N
2906	223891619849 100N
2907	223891619849 100N
3908	212211805665
9904	212211805631

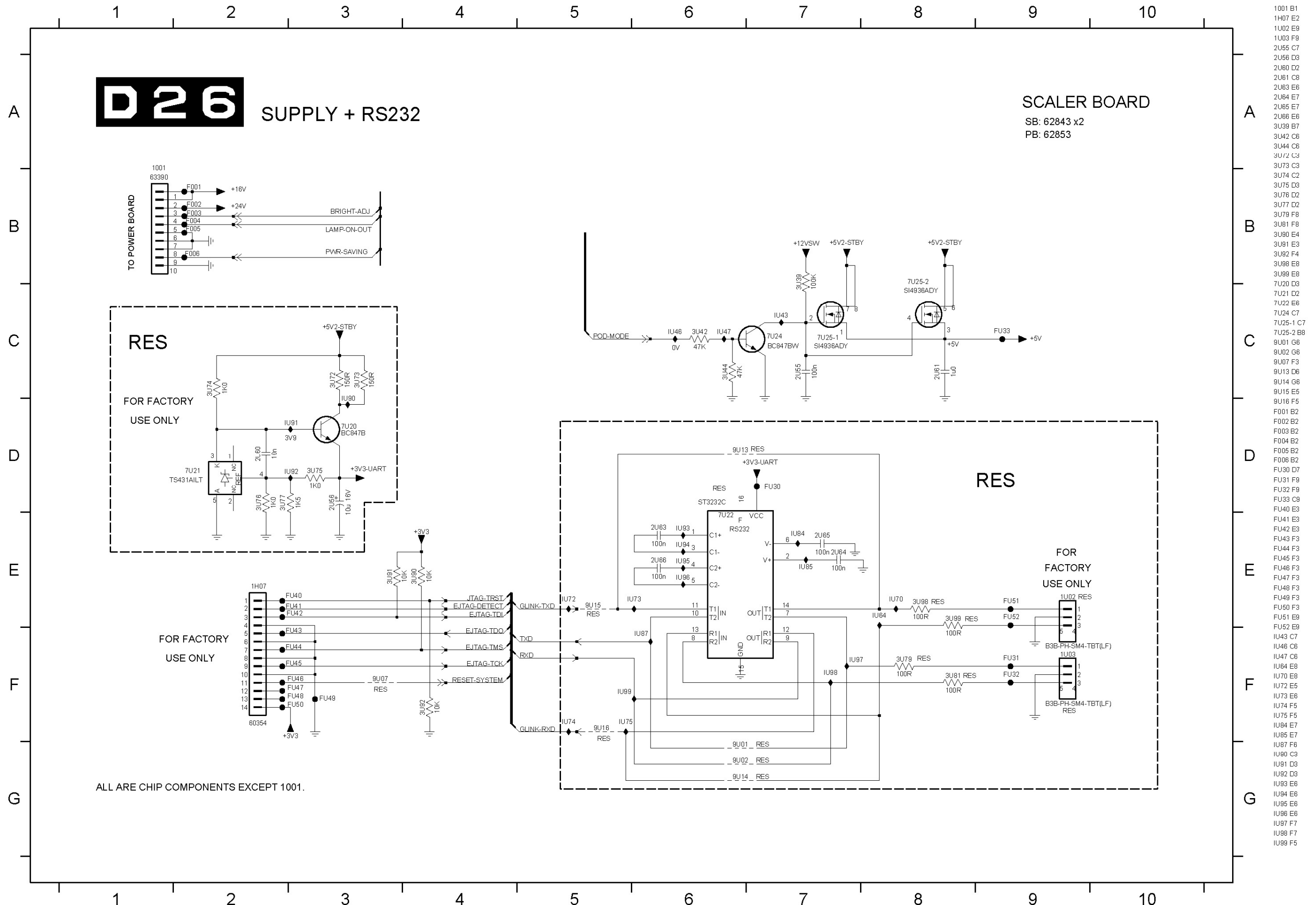


ALL ARE CHIP COMPONENTS EXCEPT 1901,1902,2901,2903,5901,5903,5906,5908,5910,8901.

- 1901 C10
- 1902 E10
- 2901 F1
- 2902 F1
- 2903 F2
- 2904 C9
- 2905 C9
- 2906 F9
- 2907 F9
- 2908 B4
- 2909 B5
- 2910 B5
- 2911 B6
- 2912 B6
- 2913 B6
- 2914 C4
- 2915 C4
- 2916 D4
- 2917 D4
- 2918 D4
- 2919 D4
- 2920 F5
- 2921 F6
- 2922 F7
- 2923 E7
- 2924 F7
- 2925 F8
- 2926 F8
- 2927 E8
- 2928 E8
- 2929 D7
- 2930 D7
- 2931 D7
- 2932 D8
- 2933 C6
- 2934 C6
- 2935 D8
- 2936 D8
- 2937 C8
- 2938 D2
- 3901 F4
- 3902 D4
- 3903 D3
- 3904 D3
- 3905 D3
- 3906 D3
- 3907 E3
- 3908 E4
- 3909 C1
- 3910 C4
- 5901 E7
- 5902 E7
- 5903 E8
- 5904 D8
- 5905 D7
- 5906 D8
- 5907 D7
- 5908 C8
- 5909 F1
- 5910 F1
- 7901 D6
- 7902 D1
- 8901 D9
- 9902 E4
- 9903 E4
- 9904 F3
- F901 C9
- F902 C9
- F903 F10
- F904 F10
- I901 B6
- I902 C5
- I903 D5
- I904 D6
- I905 D4
- I906 D4
- I907 E4
- I908 E4
- I909 F7
- I910 F8
- I911 E7
- I912 E7
- I913 E7
- I914 D8
- I915 D7
- I916 D7
- I917 D8
- I918 C8
- I919 D5
- I920 D1
- I921 D6
- I922 E4
- I923 E5
- I924 E5
- I925 F1
- I926 D3
- I927 D3
- I928 F2
- I929 B1
- I930 D6
- I931 C6
- I932 C6
- I933 C5
- I934 F6
- I935 F7
- I936 D6
- I937 E6
- I938 C6
- I939 F5
- I941 D5
- I942 D5

Supply+RS232 diagram

[Back to cover](#)



DC/DC diagram

-86- 42MF231D/37

[Back to cover](#)

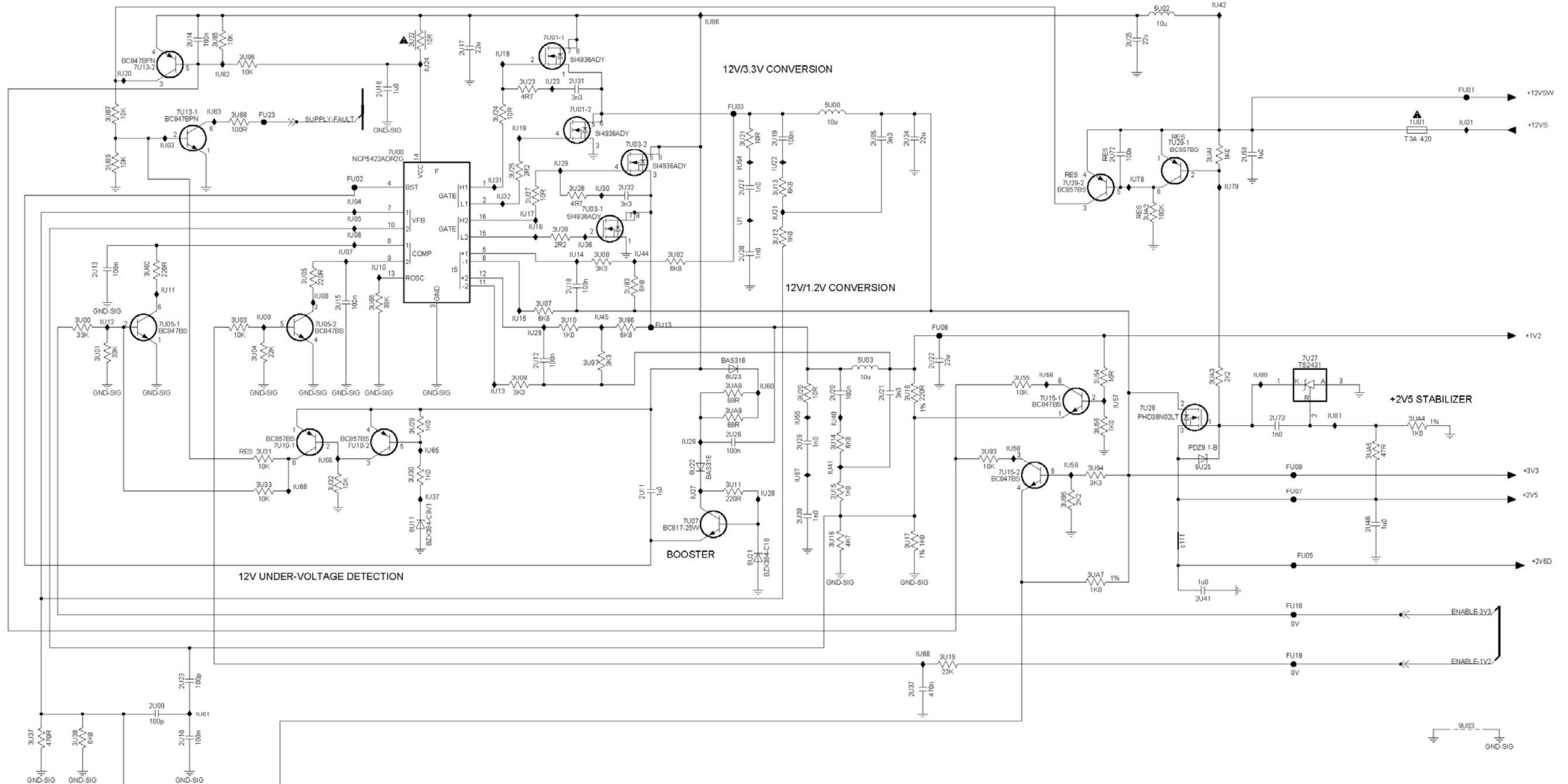
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1U01 C14	2U15 D4	2U22 E9	2U29 F8	2U58 C12	3U03 E3	3U10 E6	3U17 F9	3U24 C6	3U31 F4	3U56 E11	3U89 C2	3UA2 D11	5U00 C9	6U25 F12	7U05-2 E4	7U15-2 F10	FU02 C4	FU18 G13	IU06 D4	IU13 E6	IU20 B2	IU27 F7	IU37 F5	IU55 E8	IU62 B3	IU79 C12
2U09 H3	2U16 C5	2U23 H3	2U30 F8	2U72 C11	3U04 E4	3U11 F8	3U18 E9	3U25 C6	3U32 F4	3U82 D7	3U93 F10	3UA3 E12	5U02 B11	7U00 C5	7U07 F7	7U27 E13	FU03 C8	FU19 G13	IU07 D4	IU14 D6	IU21 D8	IU28 F8	IU40 E9	IU56 E10	IU63 C3	IU80 E12
2U10 H3	2U17 B5	2U24 C9	2U31 B6	2U73 E12	3U05 D4	3U12 D8	3U19 G10	3U26 C6	3U33 F4	3U83 D7	3U94 F11	3UA4 E14	5U03 E9	7U01-1 B6	7U10-1 F4	7U28 E11	FU05 G13	FU23 C4	IU08 D4	IU15 E6	IU22 C8	IU29 C6	IU41 F9	IU57 E11	IU65 F5	IU81 E13
2U11 F7	2U18 D6	2U25 B11	2U32 C7	2U85 C9	3U06 D5	3U13 C8	3U20 E8	3U27 C6	3U37 H2	3U85 B3	3U95 F11	3UA5 F13	6U11 F5	7U01-2 C6	7U10-2 F5	7U29-1 C12	FU06 E10	IU01 C14	IU09 E4	IU16 D6	IU23 B6	IU30 C7	IU42 B12	IU58 F10	IU66 F4	IU86 B8
2U12 E6	2U19 C8	2U26 F8	2U37 H9	3U00 E2	3U07 D6	3U14 F9	3U21 C8	3U28 D6	3U38 H2	3U86 B4	3U96 E7	3UA7 G11	6U21 G8	7U03-1 D7	7U13-1 C3	7U29-2 C11	FU07 F13	IU03 C3	IU10 D5	IU17 D6	IU24 B5	IU31 C6	IU44 D7	IU59 F11	IU67 F8	IU88 G9
2U13 D2	2U20 E9	2U27 C8	2U41 G12	3U01 E2	3U08 D7	3U15 F9	3U22 B5	3U29 E5	3U54 E11	3U87 C2	3U97 E6	3UA8 E8	6U22 F7	7U03-2 C7	7U13-2 B3	9U03 H14	FU08 F13	IU04 D4	IU11 D3	IU18 B6	IU25 E6	IU32 C6	IU45 E7	IU60 E8	IU68 F4	c111 F12

D25

DC / DC

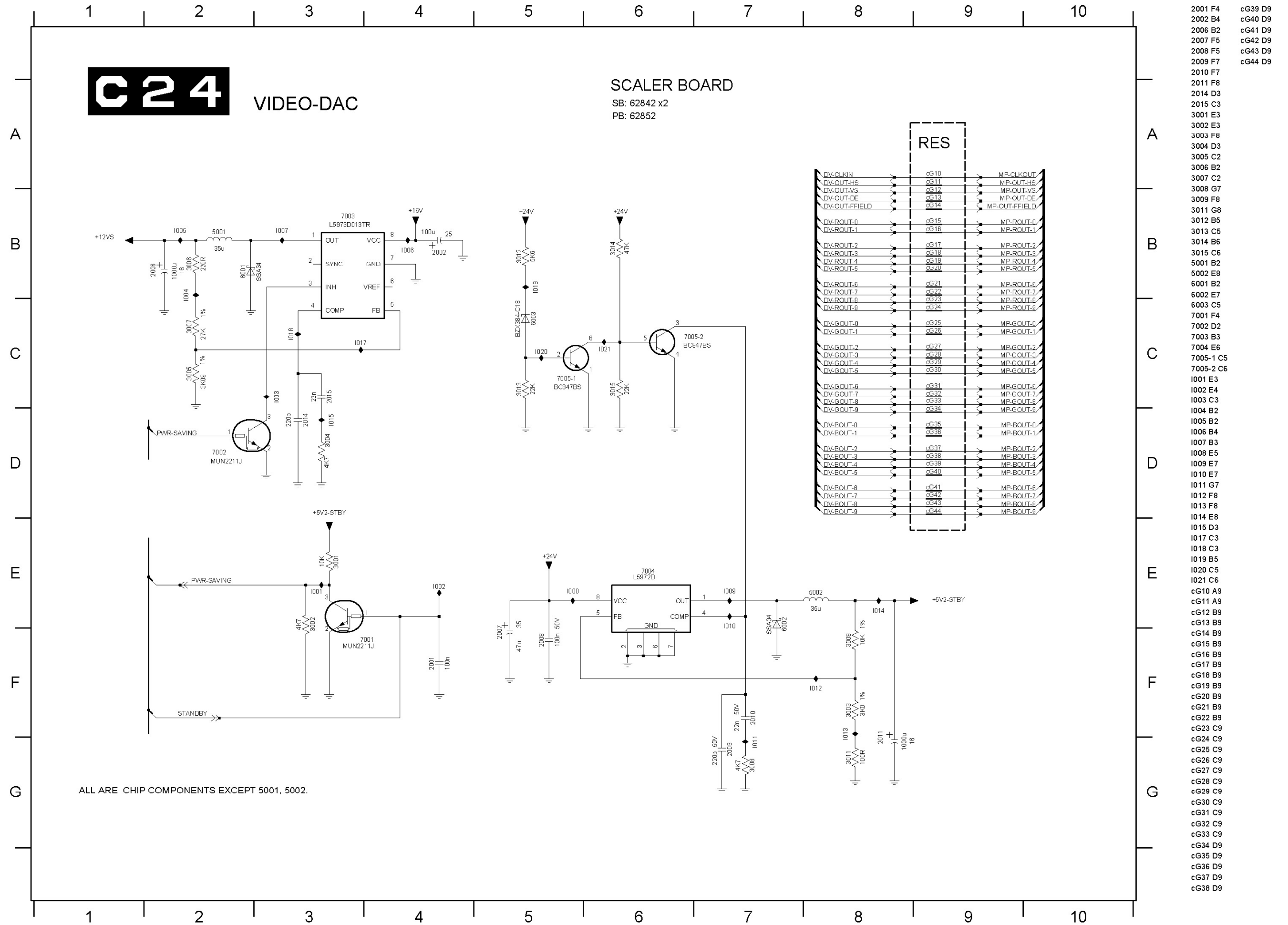
SCALER BOARD

SB: 62841 x2
PB: 62851

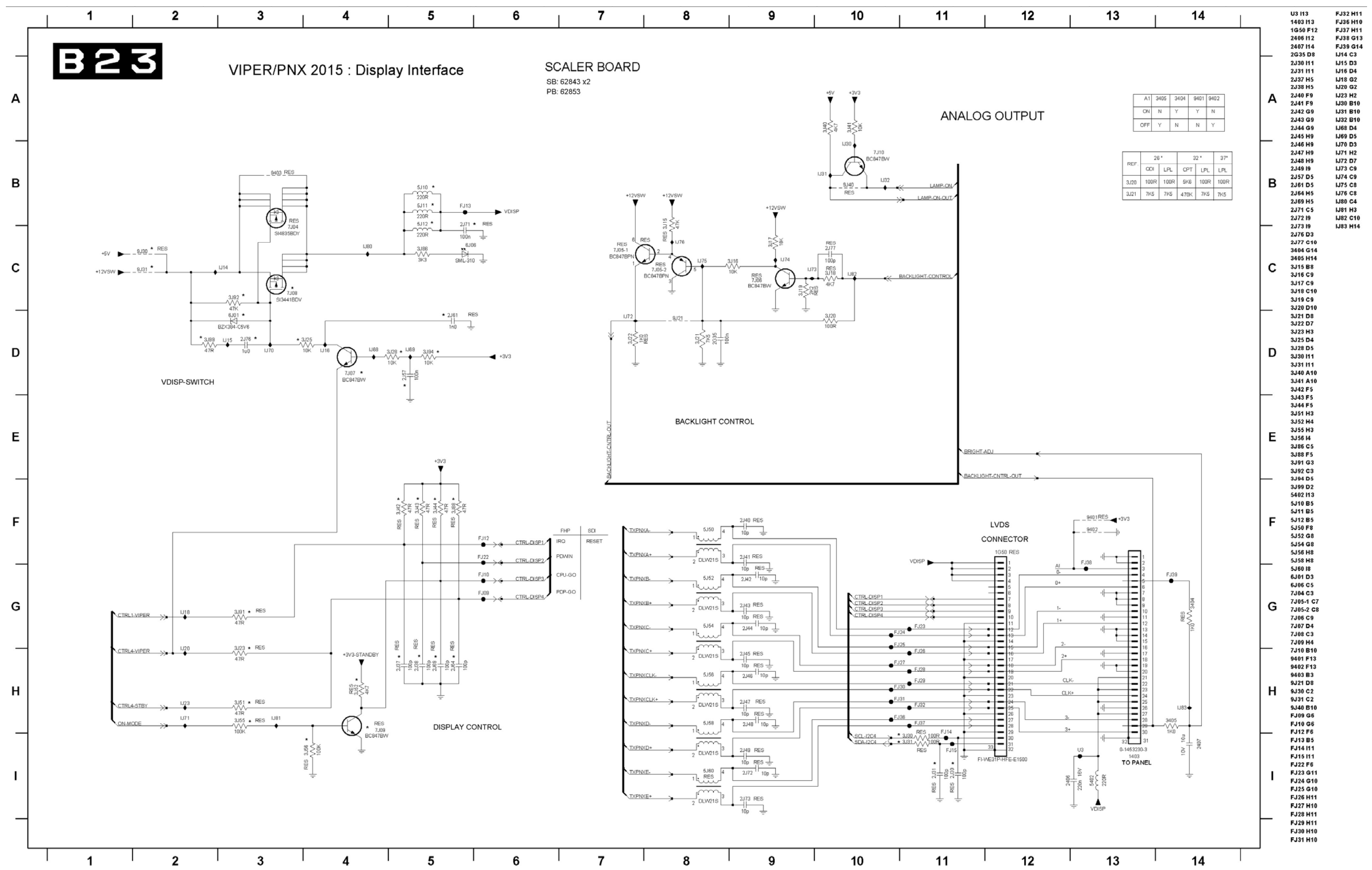


Video-DAC diagram

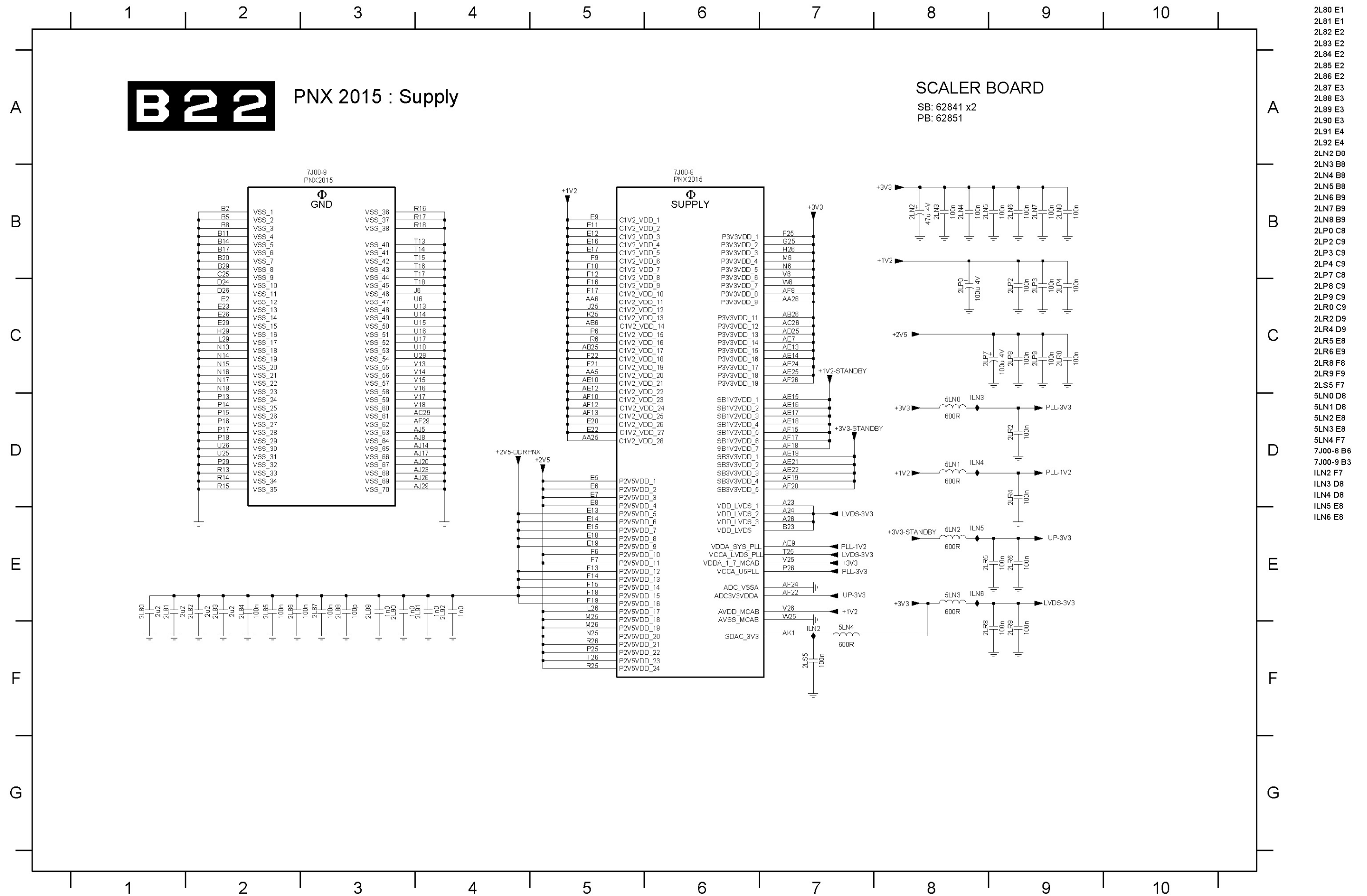
[Back to cover](#)



PNX2015 Display interface diagram



PNX2015 Supply diagram



PNX2015 Standby&control diagram

-90- 42MF231D/37

[Back to cover](#)

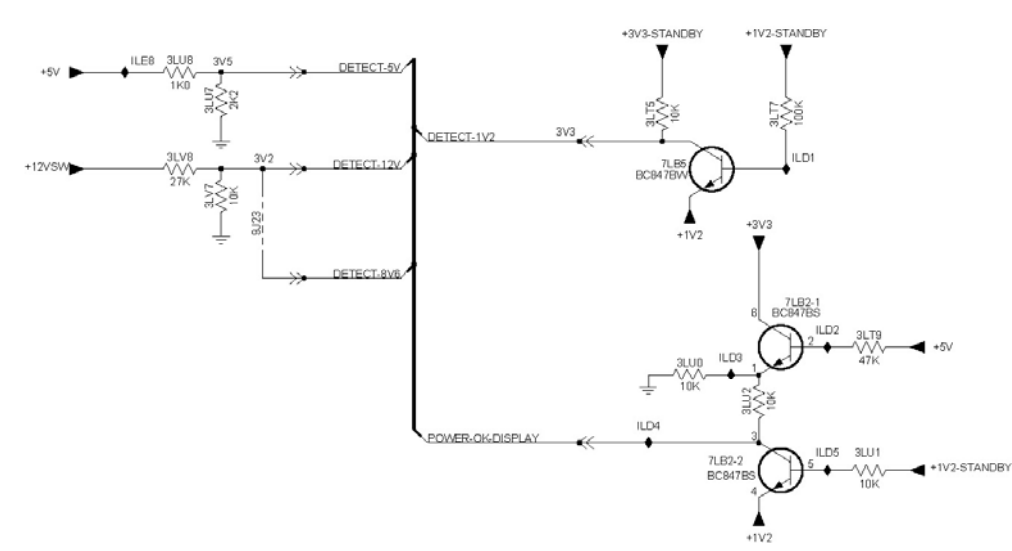
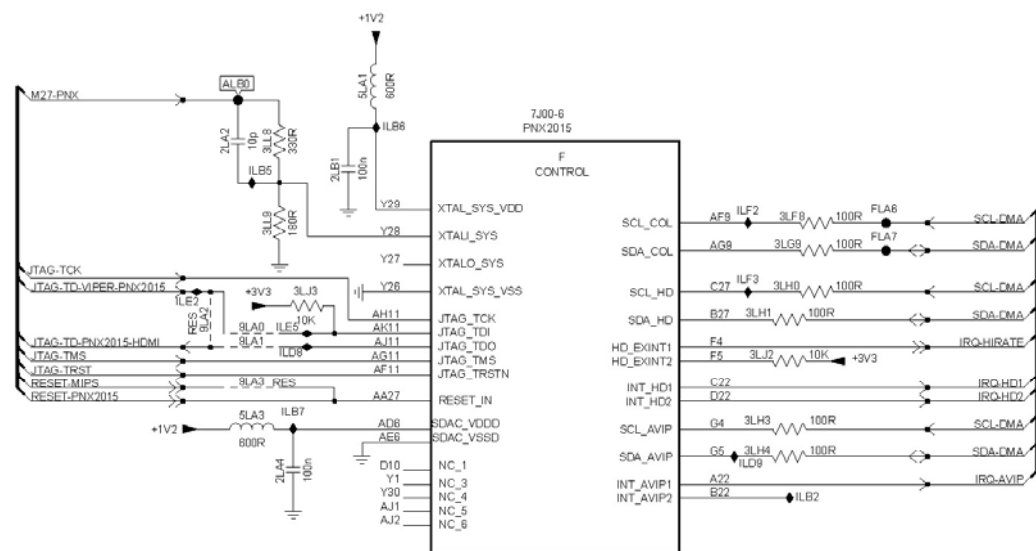
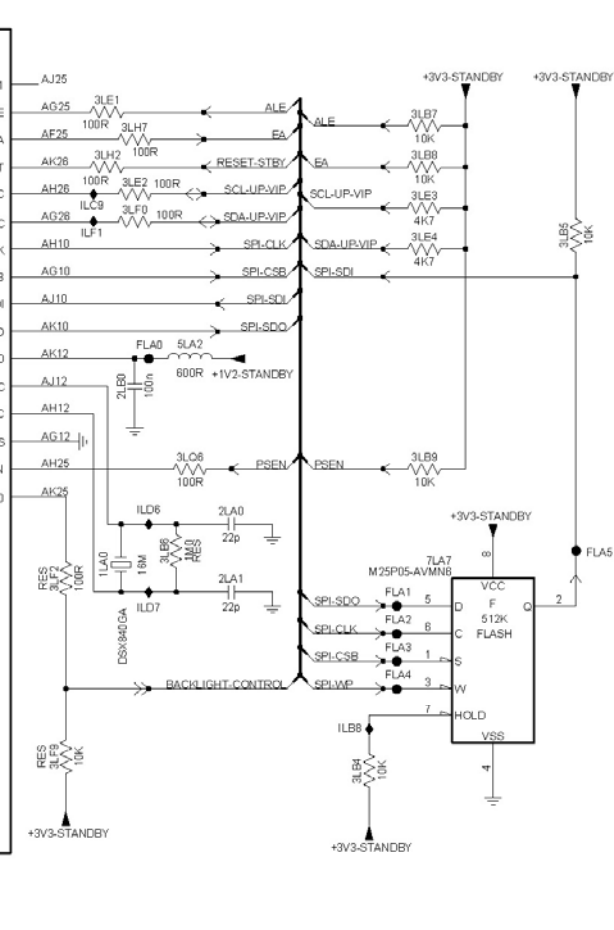
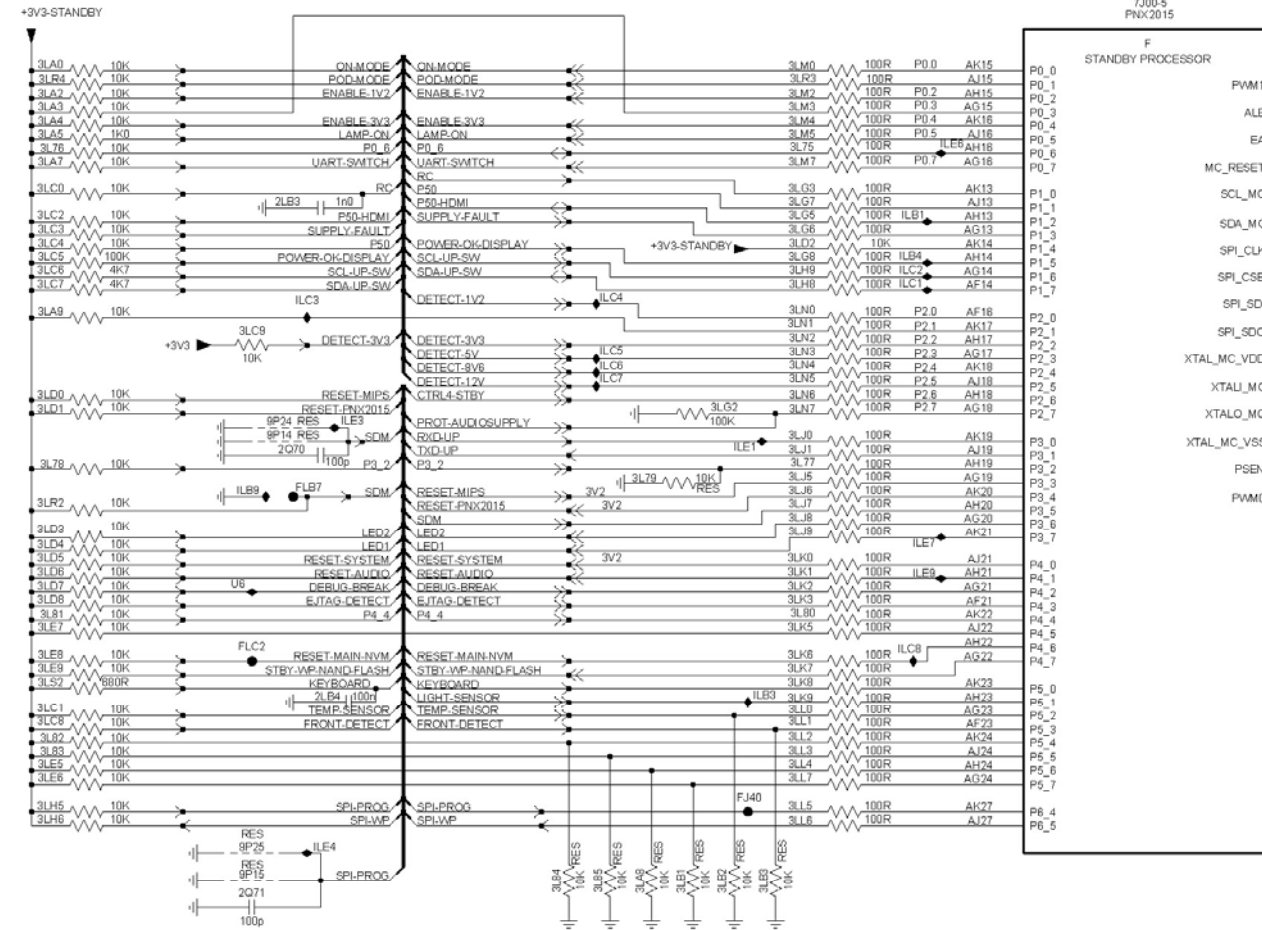
B21

PNX 2015 : Standby & Control

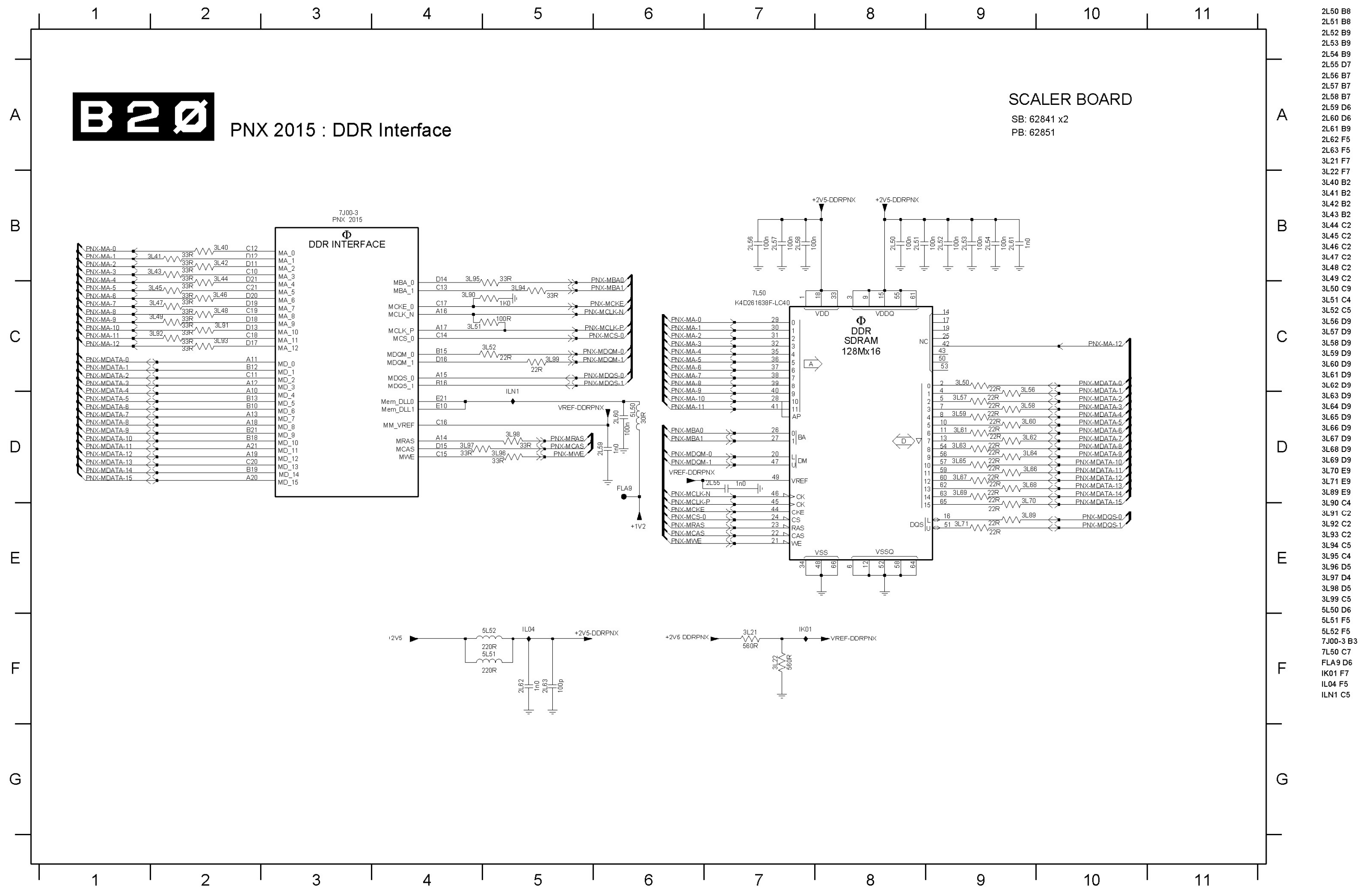
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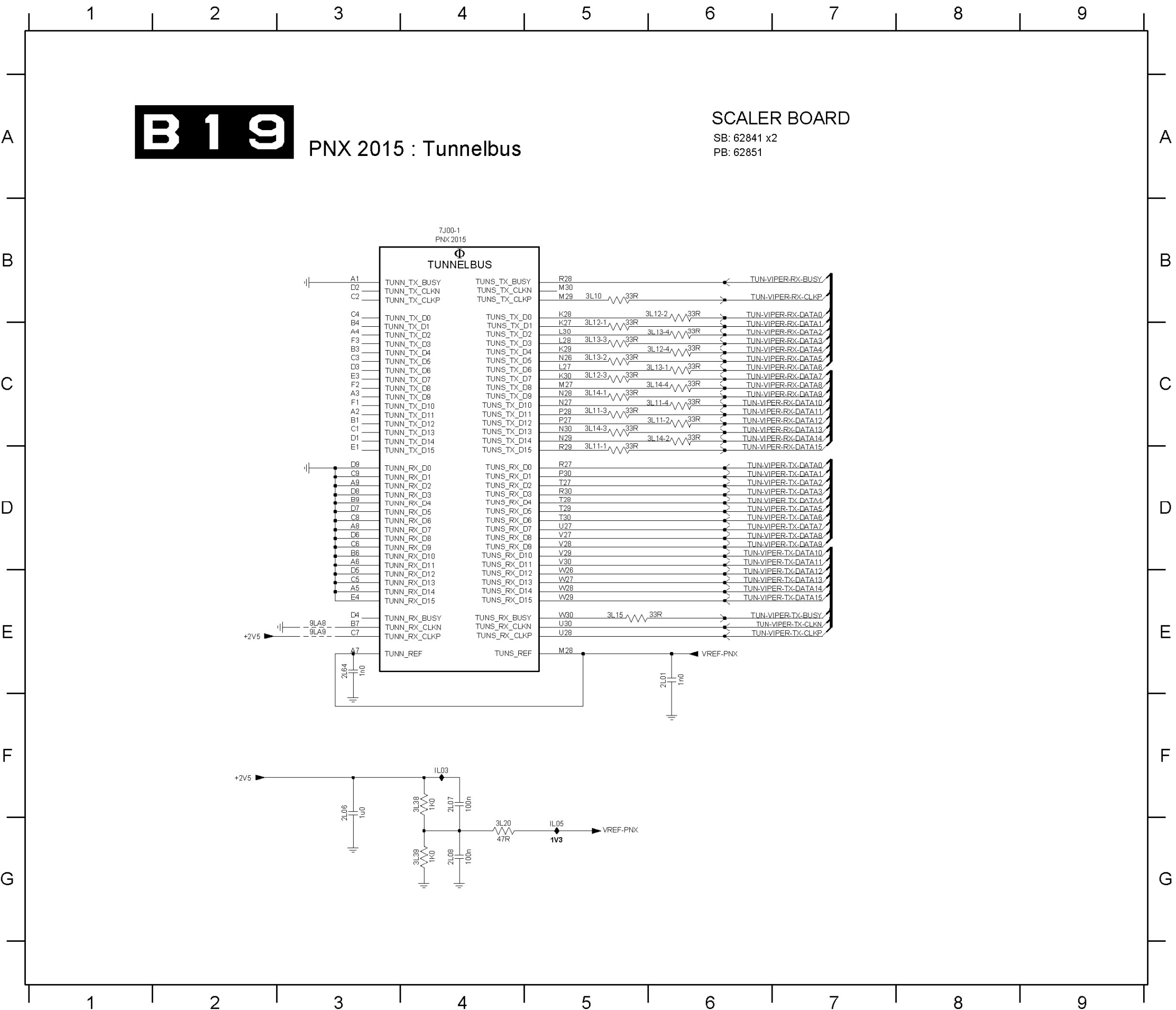
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PB: 62851

1LA0 D9 3LK5 D6 ILE1 C5
2LA0 D9 3LK6 D6 ILE2 H3
2LA1 D9 3LK7 D6 ILE3 C3
2LA2 G3 3LK8 D6 ILE4 E3
2LA4 I3 3LK9 E6 ILE5 H3
2LB0 C9 3LL0 E6 ILE6 D3
2LB1 G3 3LL1 E6 ILE6 B7
2LB3 B3 3LL2 E6 ILE7 D6
2LB4 E3 3LL3 E6 ILE8 G9
2Q70 C3 3LL4 E6 ILE9 D6
2Q71 F3 3LL5 E6 ILF1 B9
3L75 B6 3LL6 E6 ILF2 G5
3L76 B2 3LL7 E6 ILF3 H5
3L77 C6 3LL8 G3
3L78 C2 3LL9 G3
3L79 C5 3LM0 A6
3L80 D6 3LM2 A6
3L81 D2 3LM3 A6
3L82 E2 3LM4 B6
3L83 E2 3LM5 B6
3L84 E5 3LM7 B6
3L85 E5 3LN0 C6
3LA0 A2 3LN1 C6
3LA2 A2 3LN2 C6
3LA3 A2 3LN3 C6
3LA4 B2 3LN4 C6
3LA5 B2 3LN5 C6
3LA7 B2 3LN6 C6
3LA8 E5 3LN7 C6
3LA9 C2 3LQ6 C9
3LB1 E5 3LR2 D2
3LB2 E5 3LR3 A6
3LB3 E6 3LR4 A2
3LB4 E10 3LS2 D2
3LB5 B11 3LT5 G12
3LB6 D9 3LT7 G13
3LB7 A10 3LT9 H13
3LB8 D10 3LU0 H12
3LB9 C10 3LU1 H13
3LC0 B2 3LU2 H12
3LC1 E2 3LU7 G10
3LC2 B2 3LU8 G9
3LC3 B2 3LV7 G10
3LC4 B2 3LV8 G9
3LC5 B2 5LA1 G4
3LC6 B2 5LA2 C9
3LC7 B2 5LA3 H3
3LC8 E2 7J00-5 A8
3LC9 C3 7J00-6 G5
3LD0 C2 7LA7 D10
3LD1 C2 7LB2-1 H13
3LD2 B6 7LB2-2 H12
3LD3 D2 7LB5 G12
3LD4 D2 9J23 G10
3LD5 D2 9LA0 H3
3LD6 D2 9LA1 H3
3LD7 D2 9LA2 H3
3LD8 D2 9LA3 H3
3LE1 A9 9P14 C3
3LE2 B9 9P15 E3
3LE3 B10 9P24 C3
3LE4 B10 9P25 E3
3LE5 E2 ALB0 G3
3LE6 E2 FJ40 E5
3LE7 D2 FLA0 C9
3LE8 D2 FLA1 D10
3LE9 D2 FLA2 D10
3LF0 B9 FLA3 D10
3LF2 D8 FLA4 D10
3LF8 G6 FLA5 D11
3LF9 E8 FLA6 G6
3LG2 C5 FLA7 G6
3LG3 B6 FLB7 C3
3LG5 B6 FLC2 D3
3LG6 B6 ILB1 B6
3LG7 B6 ILB2 I6
3LG8 B6 ILB3 D6
3LG9 H6 ILB4 B6
3LH0 H6 ILB5 G3
3LH1 H6 ILB6 G4
3LH2 B9 ILB7 H3
3LH3 H6 ILB8 E10
3LH4 I6 ILB9 C3
3LH5 E2 ILC1 B6
3LH6 E2 ILC2 B6
3LH7 B9 ILC3 B3
3LH8 B6 ILC4 B5
3LH9 B6 ILC5 C5
3LJ0 C6 ILC6 C5
3LJ1 C6 ILC7 C5
3LJ2 H6 ILC8 D6
3LJ3 H3 ILC9 B9
3LJ5 C6 ILD1 G13
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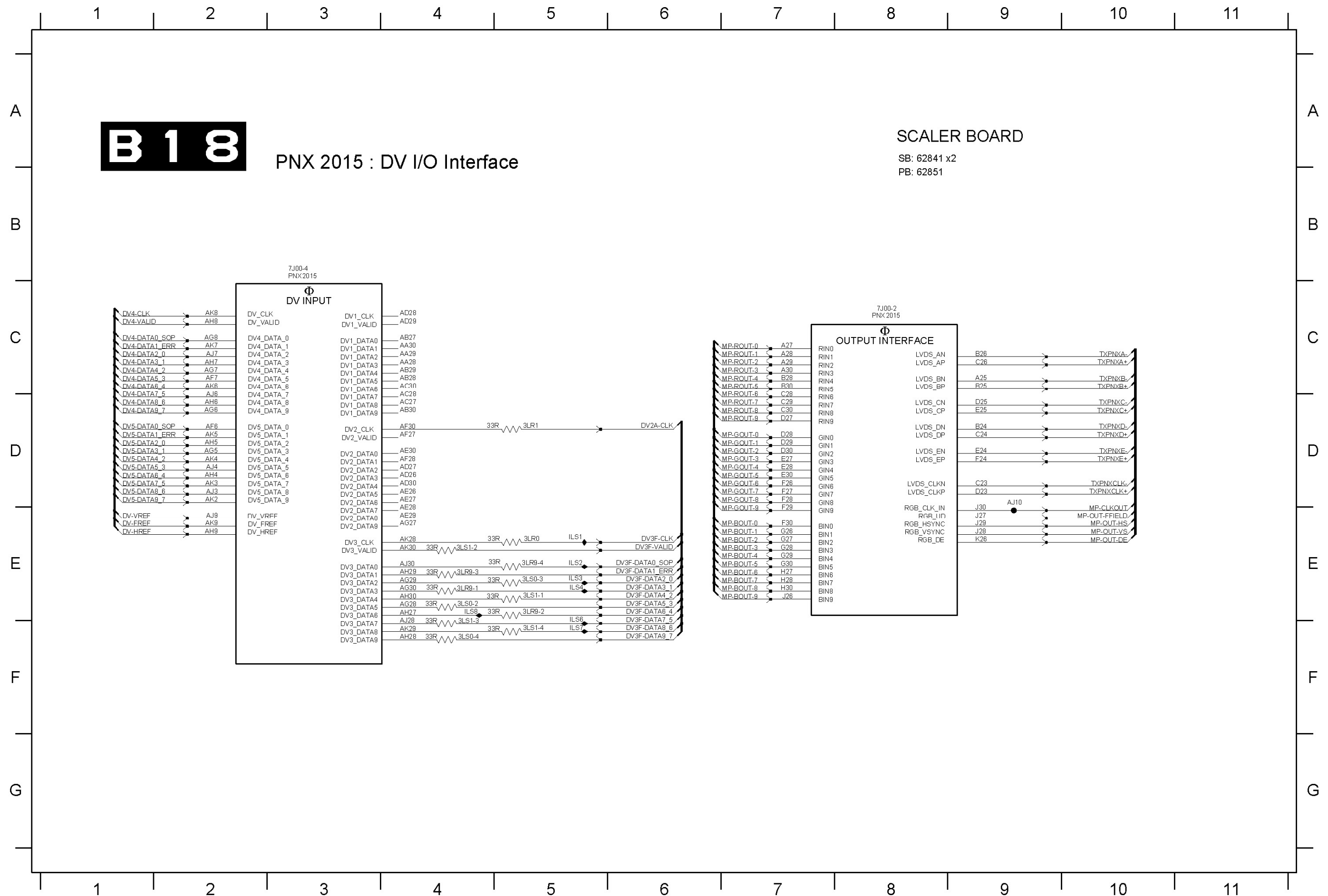


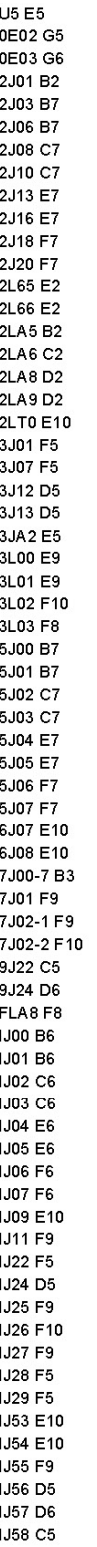
PNX2015 DDR interface diagram



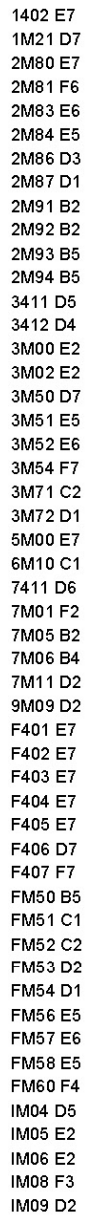


- 2L01 E6
- 2L06 F3
- 2L07 F4
- 2L08 G4
- 2L64 E3
- 3L10 B5
- 3L11-1 D5
- 3L11-2 C6
- 3L11-3 C5
- 3L11-4 C6
- 3L12-1 C5
- 3L12-2 B6
- 3L12-3 C5
- 3L12-4 C6
- 3L13-1 C6
- 3L13-2 C5
- 3L13-3 C5
- 3L13-4 C6
- 3L14-1 C5
- 3L14-2 C6
- 3L14-3 C5
- 3L14-4 C6
- 3L15 E5
- 3L20 G4
- 3L38 F4
- 3L39 G4
- 7J00-1 B4
- 9LA8 E3
- 9LA9 E3
- IL03 F4
- IL05 G5





Miscellaneous diagram



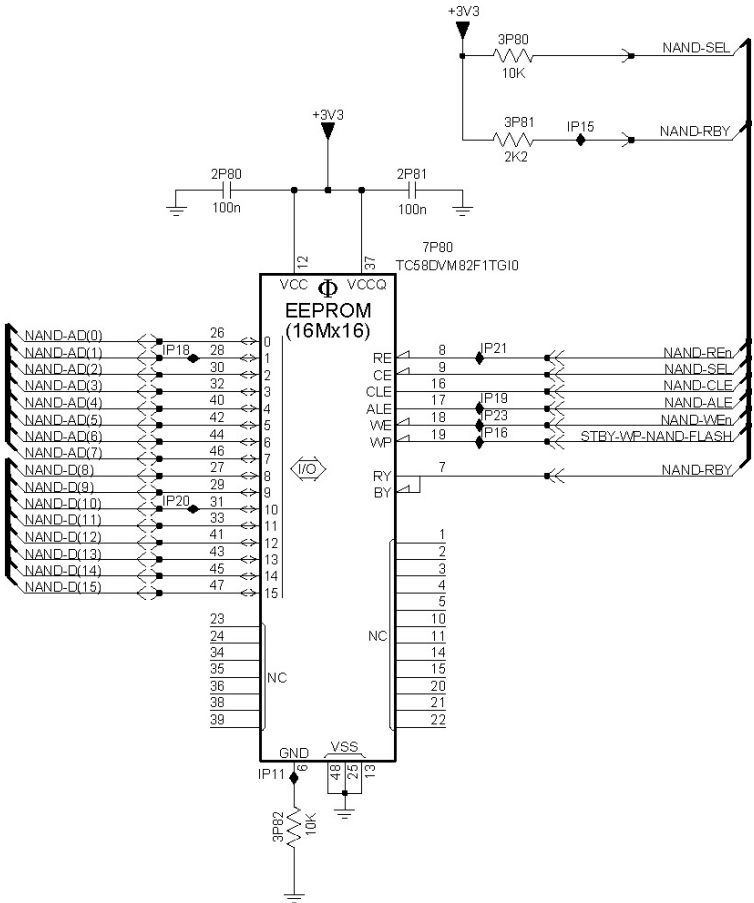
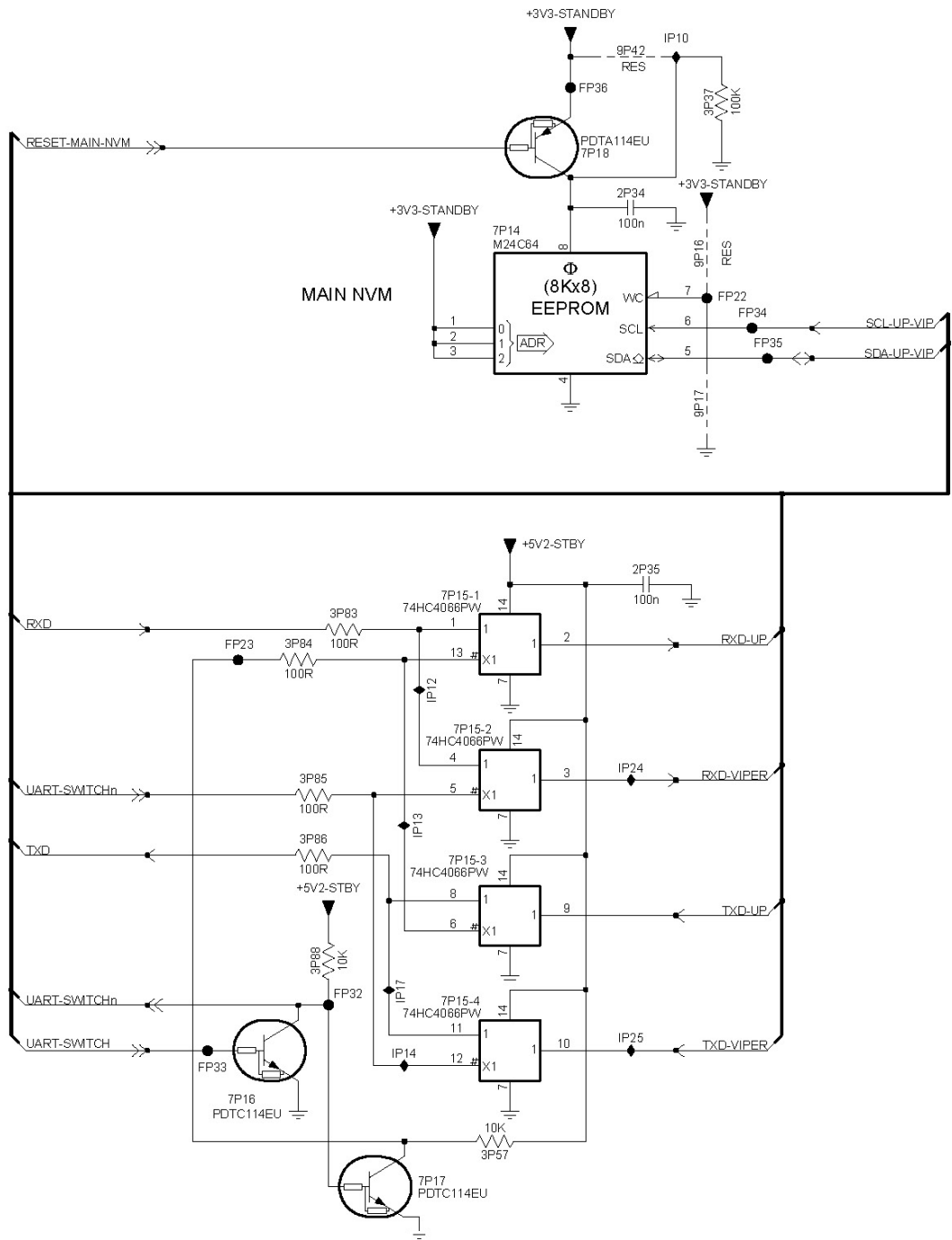
- 2P34 B4
- 2P35 D4
- 2P80 C8
- 2P81 C8
- 3P37 B4
- 3P57 G3
- 3P80 C9
- 3P81 C9
- 3P82 F8
- 3P83 D2
- 3P84 D2
- 3P85 E2
- 3P86 E2
- 3P88 F2
- 7P14 B3
- 7P15-1 D3
- 7P15-2 E3
- 7P15-3 E3
- 7P15-4 F3
- 7P17 G3
- 7P18 B3
- 7P80 D8
- 9P16 B4
- 9P17 C4
- 9P42 A4
- FP22 C4
- FP23 D2
- FP32 F2
- FP33 F2
- FP34 C4
- FP35 C4
- FP36 B4
- IP10 A4
- IP11 F8
- IP12 D3
- IP13 E3
- IP14 F3
- IP15 C9
- IP16 D9
- IP17 F3
- IP18 D7
- IP19 D9
- IP20 E7
- IP21 D9
- IP23 D9
- IP24 E4
- IP25 F4

B 1 5

VIPER: EEPROM

SCALER BOARD

SB: 62841 x2
PB: 62851



2Q00 D10	2Q05 D12	2Q08 D12	2Q11 D13	2Q14 D14	2Q17 D15	2Q20 E10	2Q26 E12	2Q30 E12	2Q34 E13	2Q38 E14	2Q42 D11	2Q45 D12	2Q48 D12	2Q51 D13	2Q54 D14	2Q57 D15	2Q60 F10	2Q63 C8	2Q66 C10	2Q77 C9	2Q80 D11	2Q83 E11	2Q86 F14	2Q89 F15	5Q01 B8	5Q04 B10	7V00-3 C1	IQ09 C8
2Q02 D11	2Q06 D12	2Q09 D13	2Q12 D13	2Q15 D14	2Q18 D15	2Q22 E11	2Q27 E12	2Q32 E13	2Q35 E14	2Q39 E14	2Q43 D11	2Q46 D12	2Q49 D13	2Q52 D13	2Q55 D14	2Q58 D15	2Q61 F11	2Q64 C8	2Q67 C9	2Q78 C9	2Q81 D10	2Q84 F13	2Q87 F14	2Q90 F15	5Q02 B8	5Q07 F11	IQ07 C9	IQ10 B8
2Q04 D11	2Q07 D12	2Q10 D13	2Q13 D14	2Q16 D14	2Q19 D15	2Q24 E11	2Q28 E12	2Q33 E13	2Q37 E14	2Q40 D10	2Q44 D11	2Q47 D12	2Q50 D13	2Q53 D14	2Q56 D14	2Q59 D15	2Q62 F11	2Q65 C9	2Q76 C8	2Q79 D10	2Q82 E10	2Q85 F14	2Q88 F14	2Q91 F13	5Q03 B9	5Q08 F11	IQ08 C10	IQ11 F11

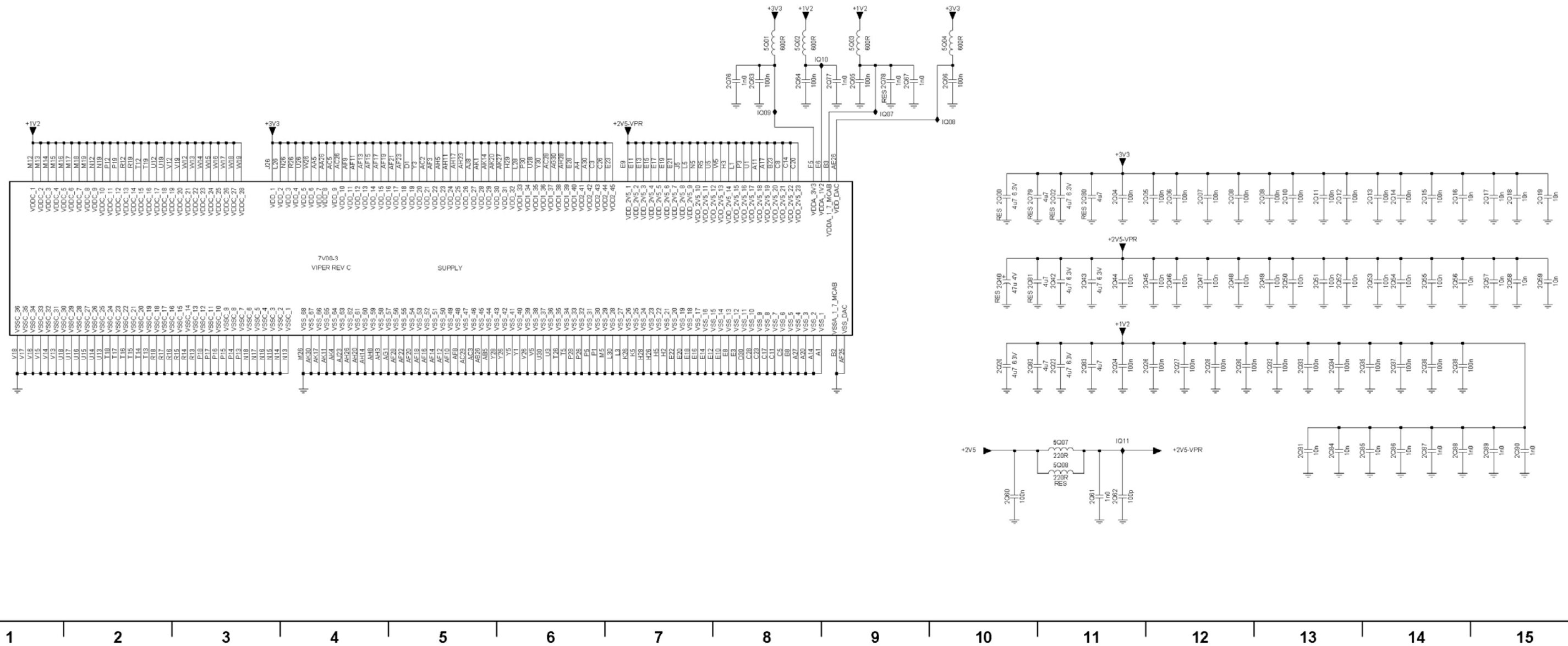
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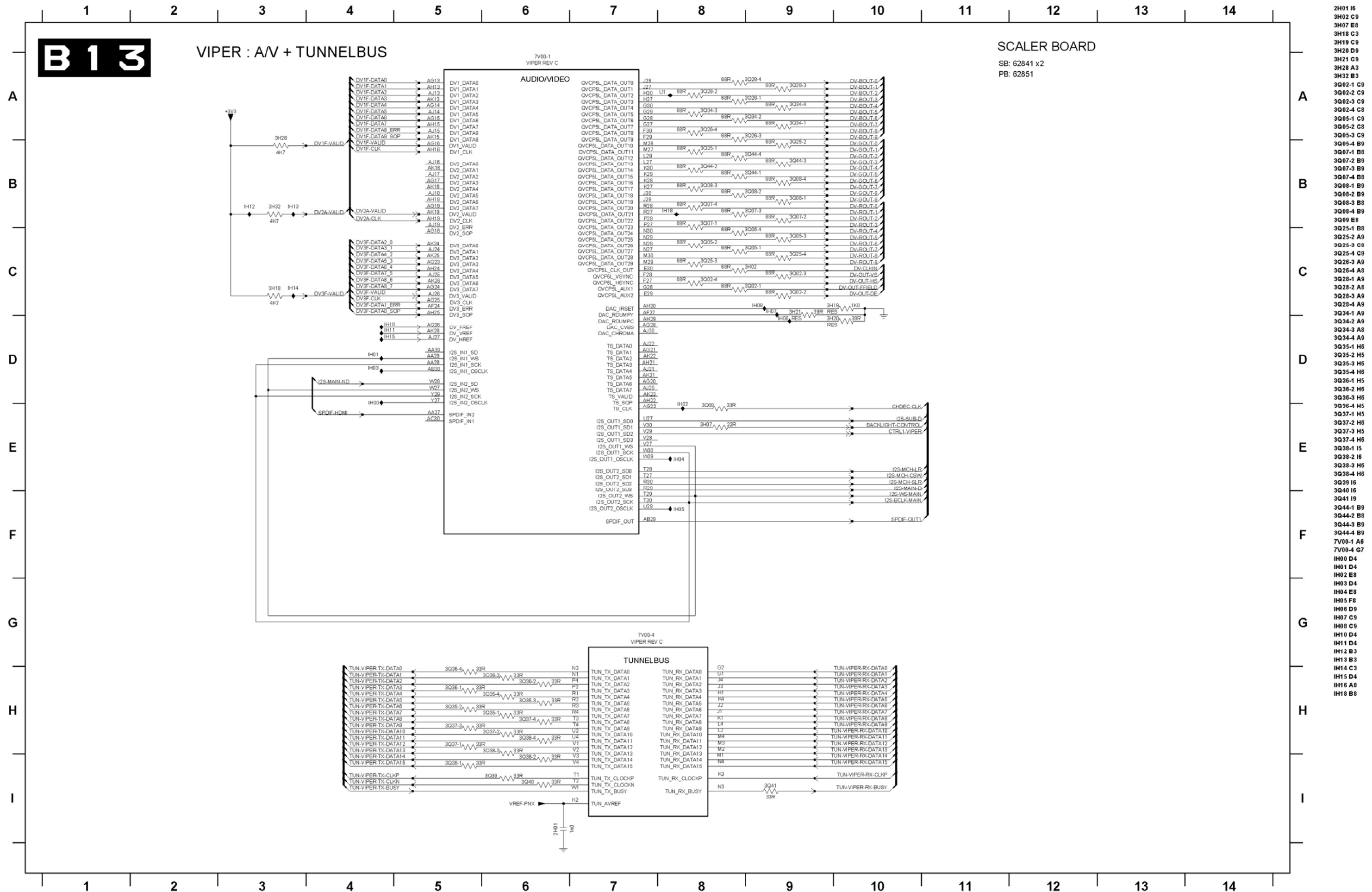
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VIPER : SUPPLY

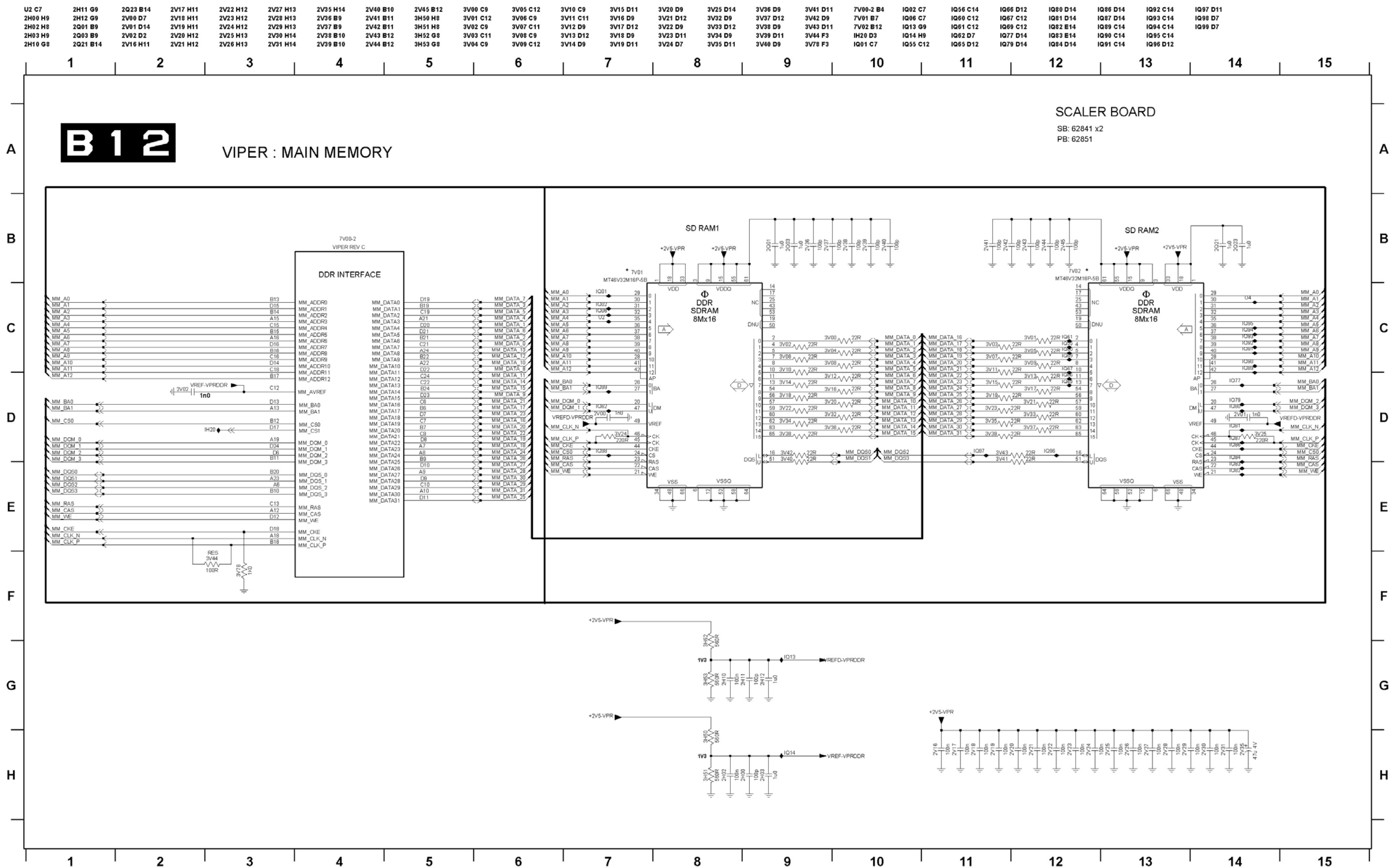
SCALER BOARD

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PB: 62851



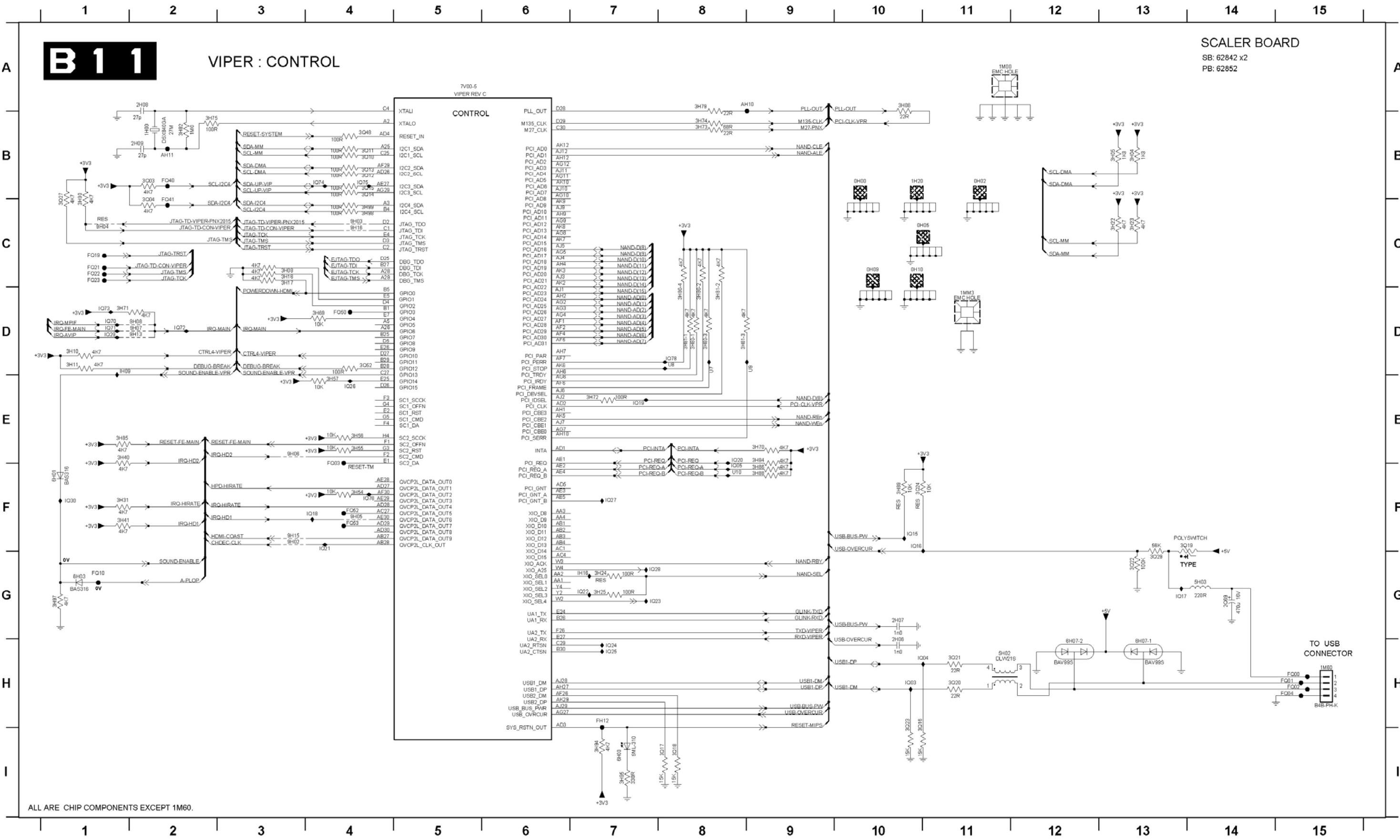


Main memory diagram

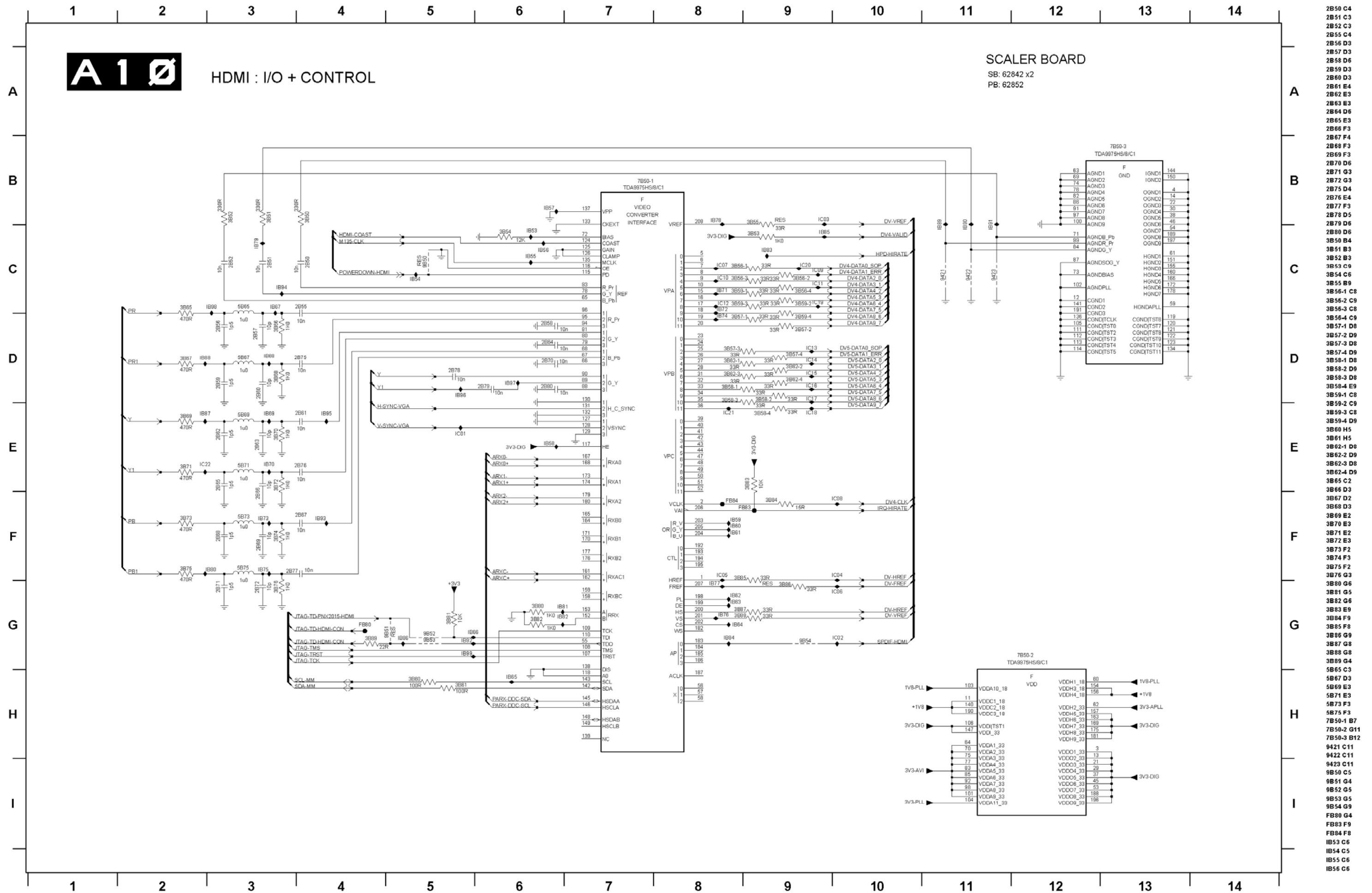


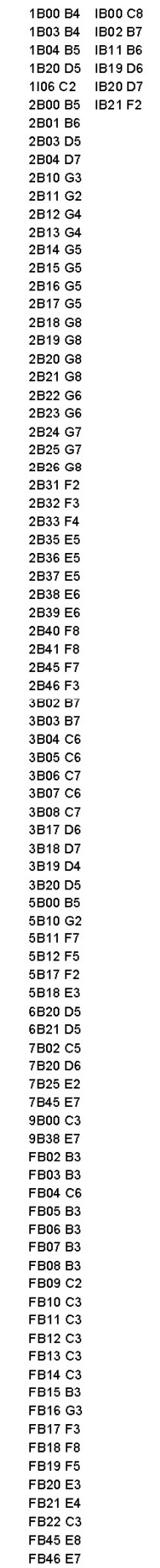
Control diagram

U7 D8	0H05 C11	1M60 H15	2Q69 G14	3H11 D1	3H25 G7	3H56 E4	3H73 B8	3H80-3 D8	3H84 E9	3H94 I7	3Q04 C2	3Q15 B4	3Q21 H11	3Q48 B4	6H03 G1	9H04 C1	9H15 F3	FQ01 H15	FQ21 C1	FQ52 F4	IQ05 F8	IQ20 E8	IQ26 E4	IQ71 D1	IQ78 D8
U8 D8	0H09 C10	1M63 D11	3H04 B13	3H16 C3	3H31 F1	3H57 E4	3H74 B8	3H80-4 D8	3H85 E1	3H95 I7	3Q10 B4	3Q16 H10	3Q22 G13	3Q52 D4	6H07-1 H13	9H05 F4	9H16 C4	FQ02 H15	FQ22 C1	FQ53 F4	IQ15 F10	IQ21 F4	IQ27 F7	IQ72 D2	
U9 D9	0H10 C10	2H06 H10	3H05 B13	3H17 C3	3H40 E1	3H68 D4	3H75 B2	3H81-1 D8	3H86 F9	3H97 G1	3Q11 B4	3Q17 H8	3Q23 H10	3H02 H11	6H07-2 H12	9H06 E3	9H10 A9	FQ03 F4	FQ23 C1	FQ54 D1	IQ16 F10	IQ22 G7	IQ28 G7	IQ73 D1	
U10 F8	1H00 B2	2H07 G10	3H06 A10	3H22 C13	3H41 F1	3H70 E9	3H79 A8	3H81-2 D8	3H88 F9	3H98 C4	3Q12 B4	3Q18 I8	3Q24 F10	3H03 G14	7V00-5 A5	9H07 D2	9H11 B2	FQ04 H15	FQ40 B2	IH16 G7	IQ17 G13	IQ23 G7	IQ29 D1	IQ74 B4	
0H00 B10	1H20 B10	2H08 A2	3H08 C3	3H23 C13	3H54 F4	3H71 D1	3H80-1 D8	3H81-3 D8	3H89 F10	3H99 C4	3Q13 B4	3Q19 F13	3Q27 B1	6H00 I7	9H02 F3	9H08 D2	FH12 H7	FQ10 G1	FQ41 C2	IQ03 H10	IQ18 F4	IQ24 H7	IQ30 F1	IQ75 B4	
0H02 B11	1M00 A11	2H09 B2	3H10 D1	3H24 G7	3H55 E4	3H72 E7	3H80-2 D8	3H82 B2	3H90 B1	3Q03 B2	3Q14 B4	3Q20 H11	3Q29 G13	6H01 F1	9H03 C4	9H13 D2	FQ00 H15	FQ19 C1	FQ50 D4	IQ04 H11	IQ19 E7	IQ25 H7	IQ70 D1	IQ76 F4	



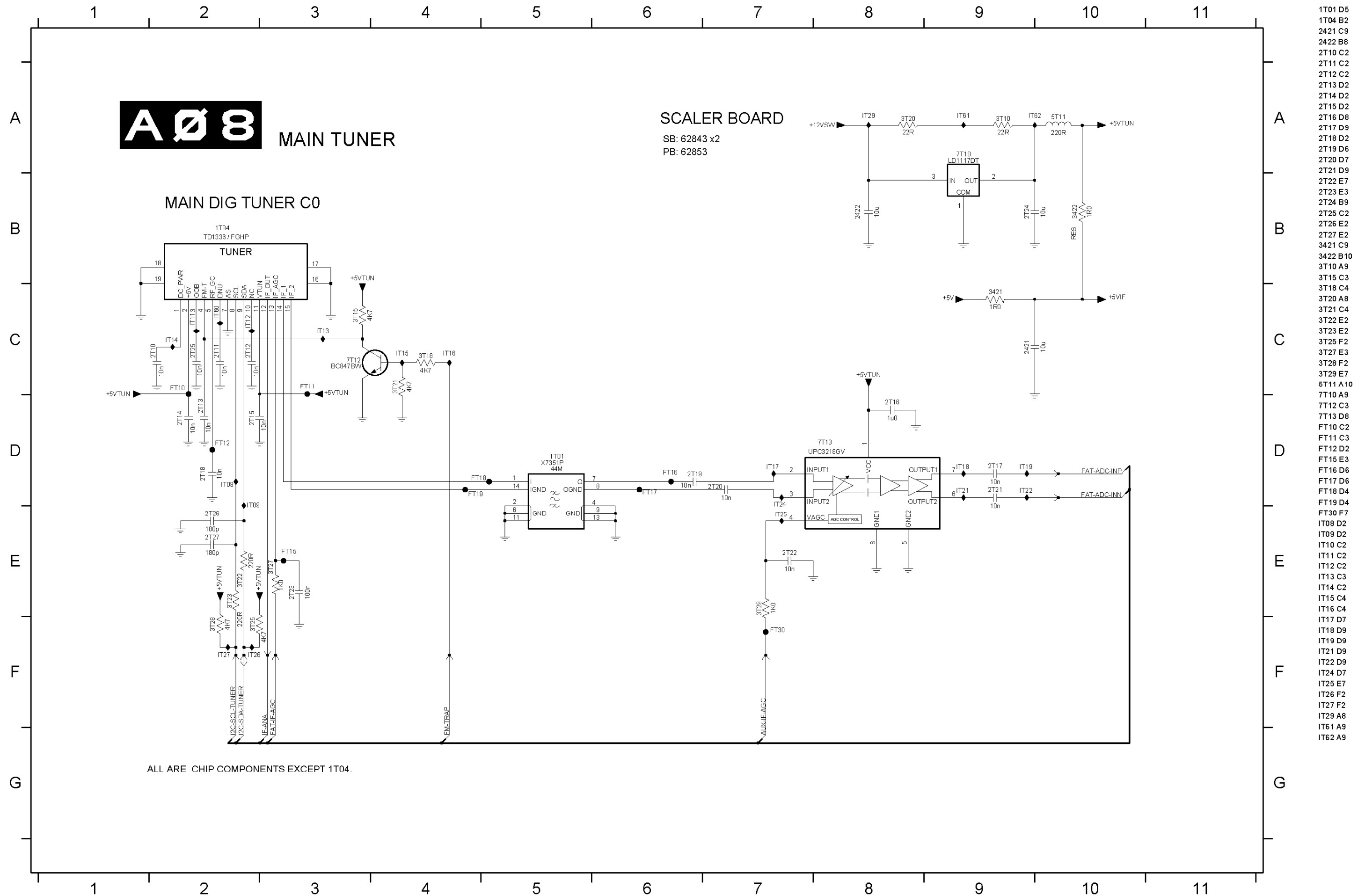
[Back to cover](#)





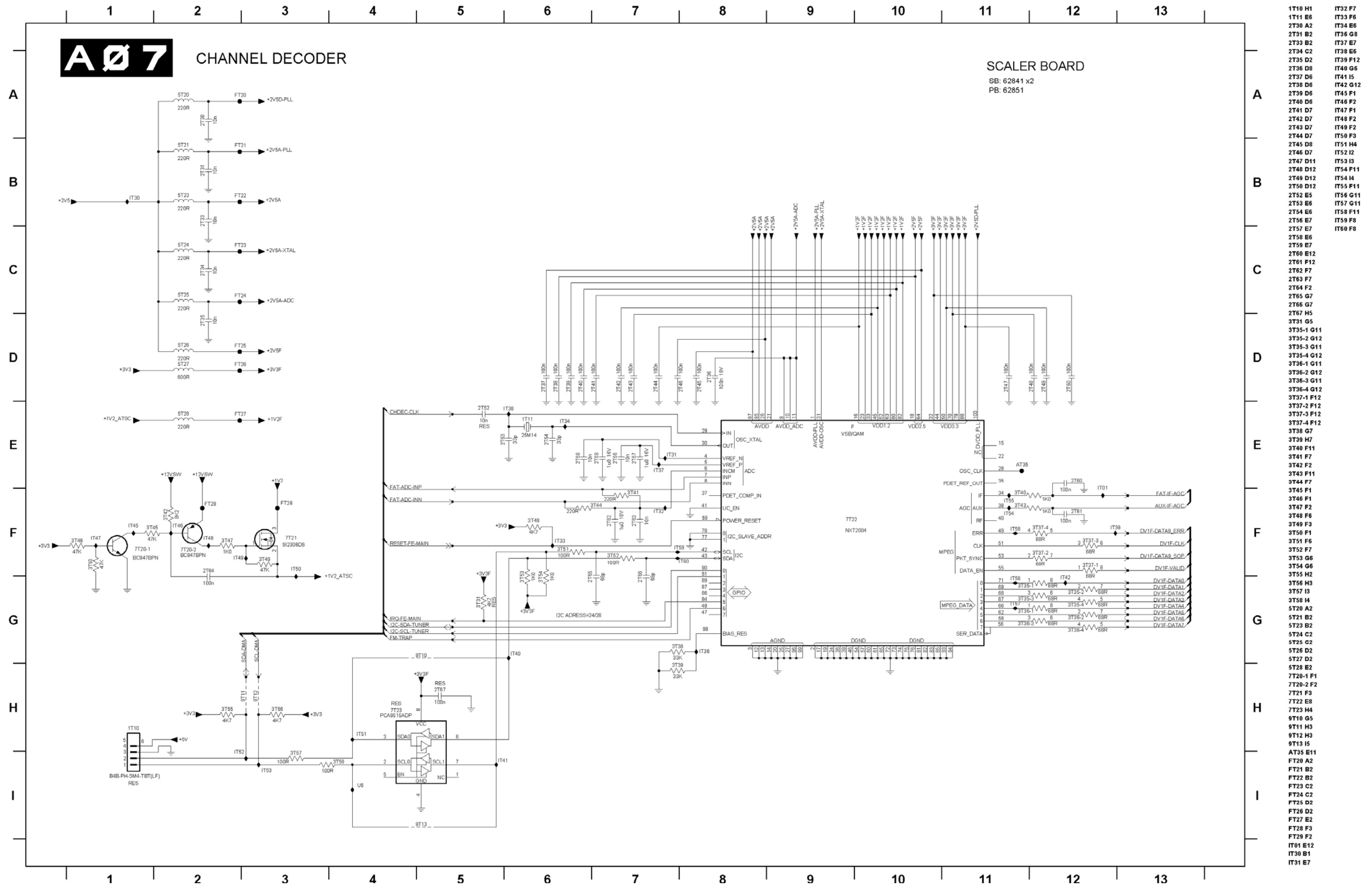
Main tuner diagram

[Back to cover](#)

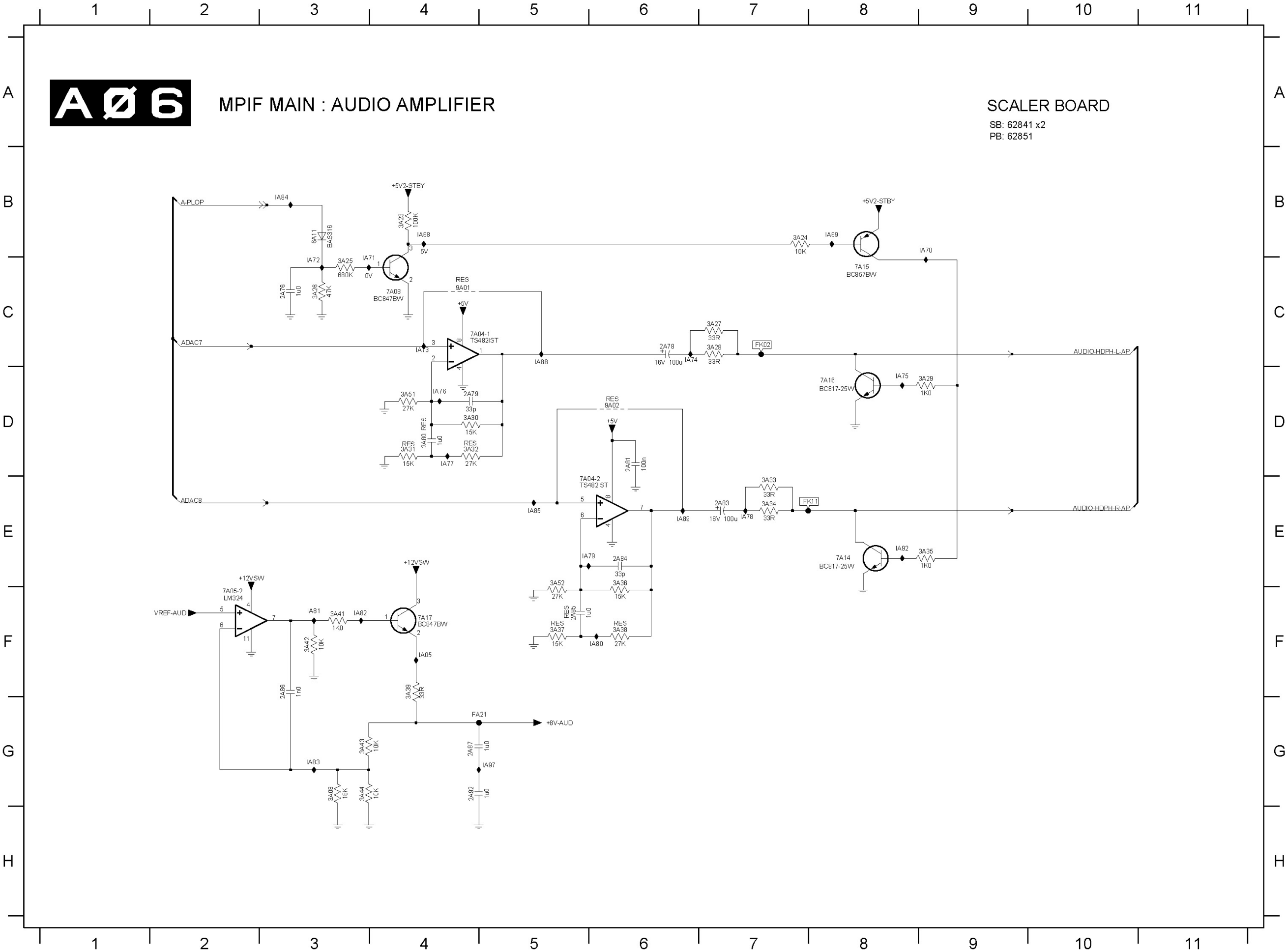


SCALER BOARD

+1V2_ATSC 5T28 FT27 +1V2F



[Back to cover](#)



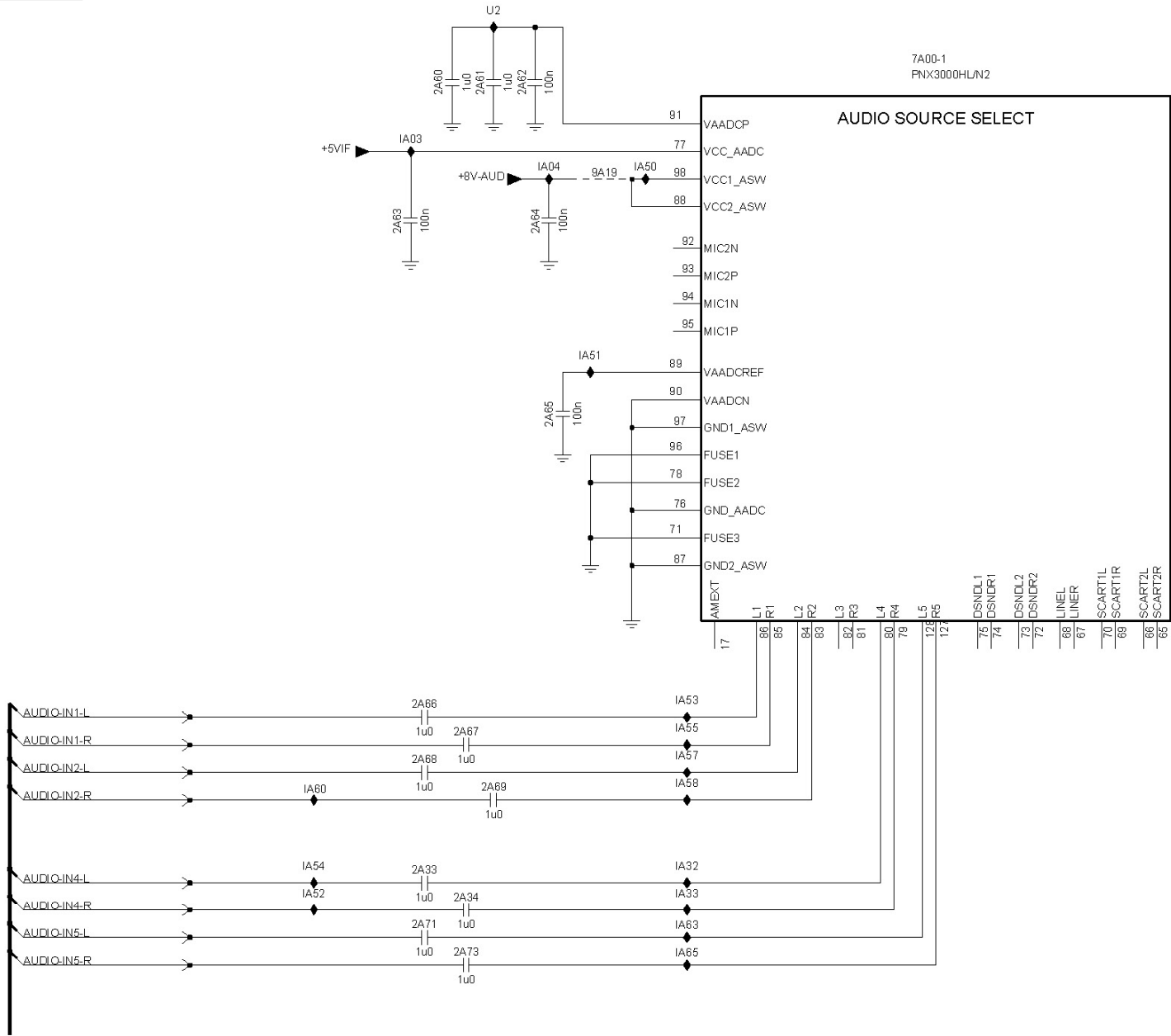
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- 2A78 C6
- 2A79 D4
- 2A80 D4
- 2A81 D6
- 2A83 E7
- 2A84 E6
- 2A85 F5
- 2A86 F3
- 2A87 G4
- 2A92 G4
- 3A08 G3
- 3A23 B4
- 3A24 B7
- 3A25 C3
- 3A26 C3
- 3A27 C7
- 3A28 C7
- 3A29 D9
- 3A30 D4
- 3A31 D4
- 3A32 D4
- 3A33 E7
- 3A34 E7
- 3A35 E9
- 3A36 E6
- 3A37 F5
- 3A38 F6
- 3A39 F4
- 3A41 F3
- 3A42 F3
- 3A43 G3
- 3A44 G3
- 3A51 D4
- 3A52 E5
- 6A11 B3
- 7A04-1 C4
- 7A04-2 E5
- 7A05-2 F2
- 7A08 C4
- 7A14 E8
- 7A15 C8
- 7A16 D8
- 7A17 F4
- 9A01 C4
- 9A02 D6
- FA21 G5
- FK02 C7
- FK11 E8
- IA05 F4
- IA68 B4
- IA69 B8
- IA70 B9
- IA71 C3
- IA72 C3
- IA73 C4
- IA74 C6
- IA75 D8
- IA76 D4
- IA77 D4
- IA78 E7
- IA79 E5
- IA80 F6
- IA81 F3
- IA82 F3
- IA83 G3
- IA84 B3
- IA85 E5
- IA88 C5
- IA89 E6
- IA92 E8
- IA97 G5

A05

MPIF MAIN : AUDIO SOURCE SELECTION

SCALER BOARD

SB: 62842 x2
PB: 62852



- U2 A4
- 2A33 F4
- 2A34 F4
- 2A60 B4
- 2A61 B4
- 2A62 B4
- 2A63 B4
- 2A64 B4
- 2A65 C4
- 2A66 E4
- 2A67 E4
- 2A68 E4
- 2A69 E4
- 2A71 F4
- 2A73 F4
- 7A00-1 A6
- 9A19 B5
- IA03 B4
- IA04 B4
- IA32 F5
- IA33 F5
- IA50 B5
- IA51 C5
- IA52 F3
- IA53 E5
- IA54 F3
- IA55 E5
- IA57 E5
- IA58 E5
- IA60 E3
- IA63 F5
- IA65 F5

IF+SAW filter diagram

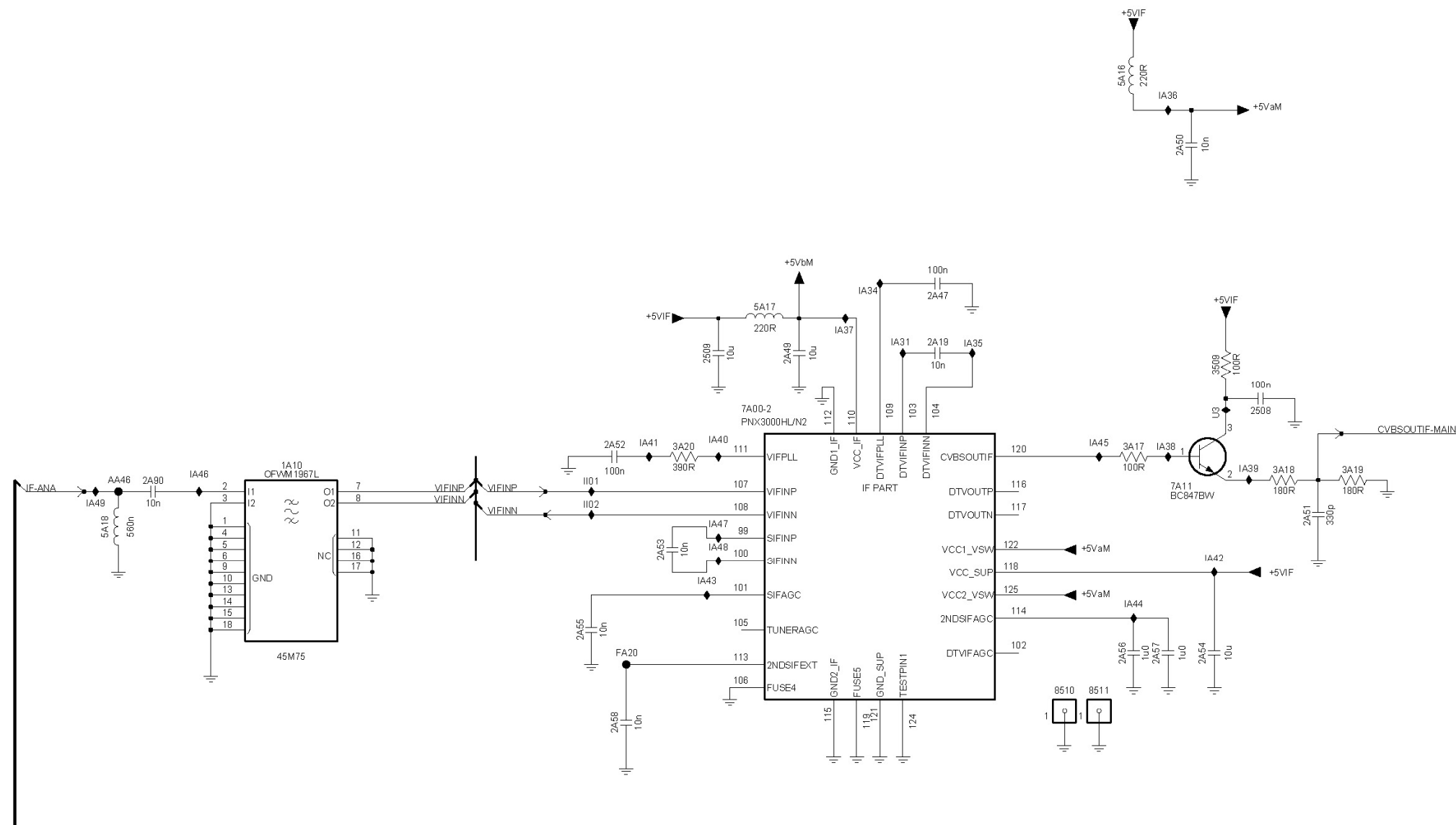
[Back to cover](#)

A04

MPIF MAIN : IF + SAW FILTER

SCALER BOARD

SB: 62843 x2
PB: 62853



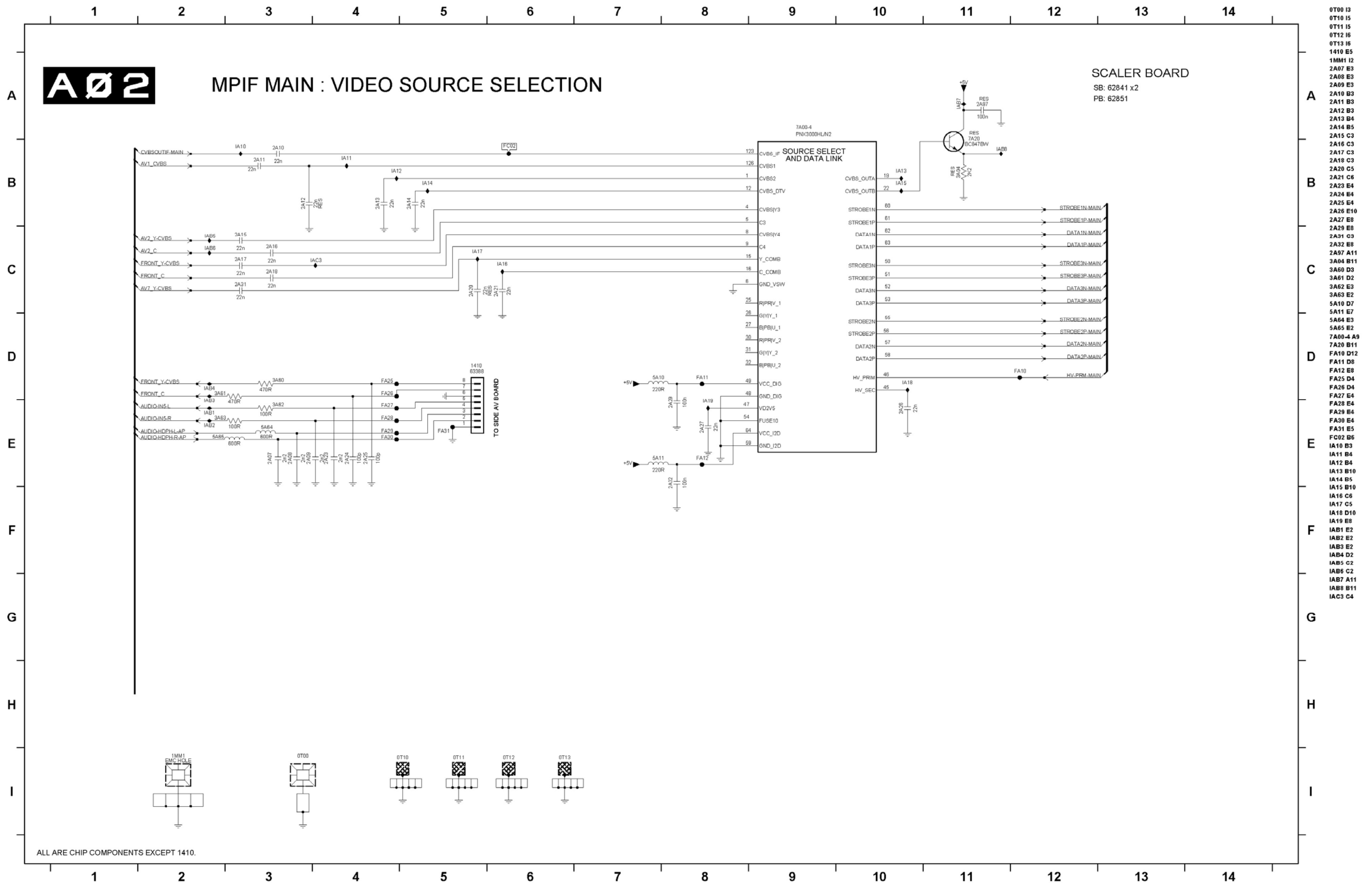
ALL ARE CHIP COMPONENTS EXCEPT 8510, 8511.

U3 E8
1A10 E3
2508 E9
2509 D5
2A19 D7
2A47 D7
2A49 D6
2A50 C8
2A51 E9
2A52 E5
2A53 F5
2A54 F8
2A55 F5
2A56 F8
2A57 F8
2A58 G5
2A90 E2
3509 D9
3A17 E8
3A18 E9
3A19 E9
3A20 E5
5A16 C8
5A17 D6
5A18 E2
7A00-2 E6
7A11 E8
8510 F7
8511 F8
AA46 E2
FA20 F5
IA31 D7
IA34 D6
IA35 D7
IA36 C8
IA37 D6
IA38 E8
IA39 E9
IA40 E5
IA41 E5
IA42 F8
IA43 F5
IA44 F8
IA45 E8
IA46 E2
IA47 E5
IA48 E5
IA49 E2
II01 E5
II02 E5



Video source selection diagram

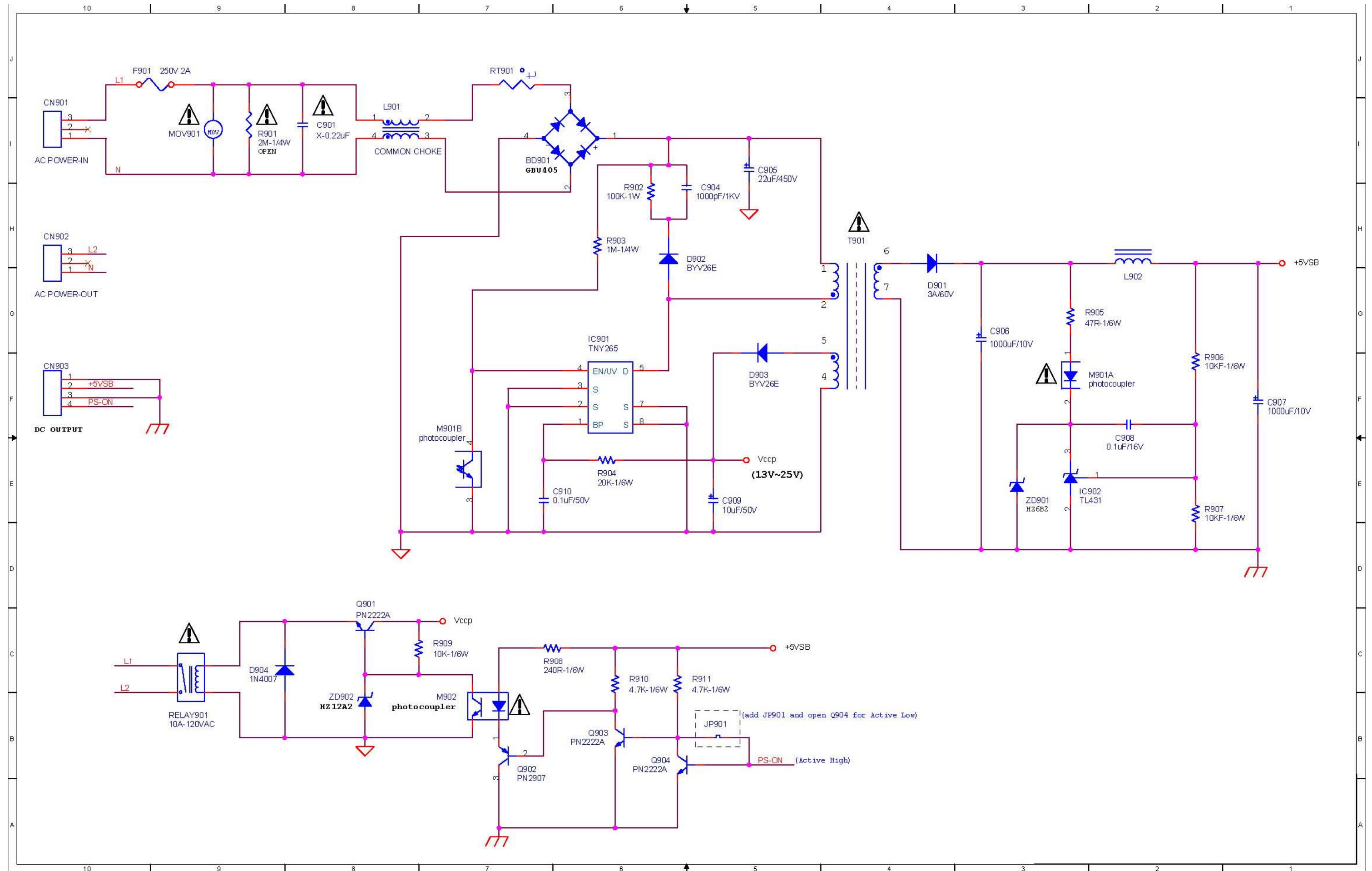
[Back to cover](#)



Power down control board diagram

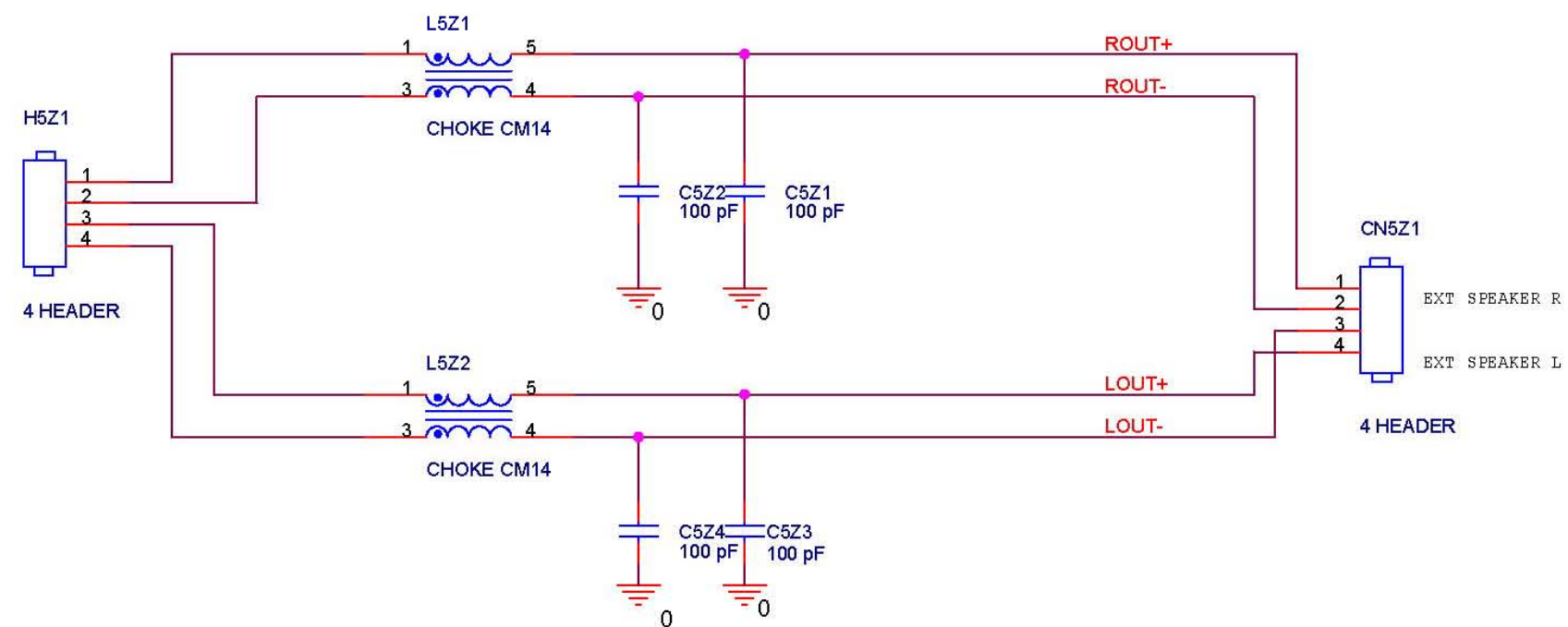
-110- 42MF231D/37

[Back to cover](#)

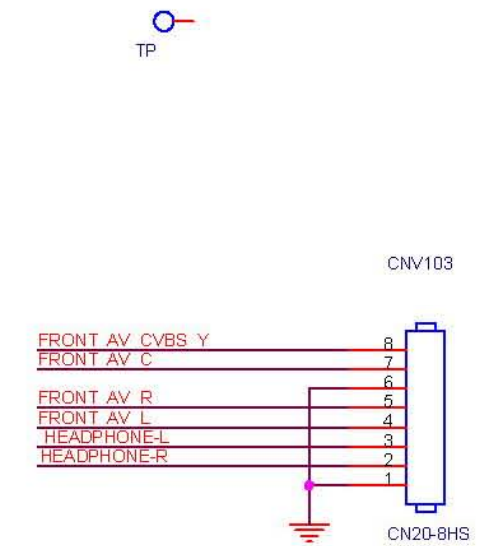
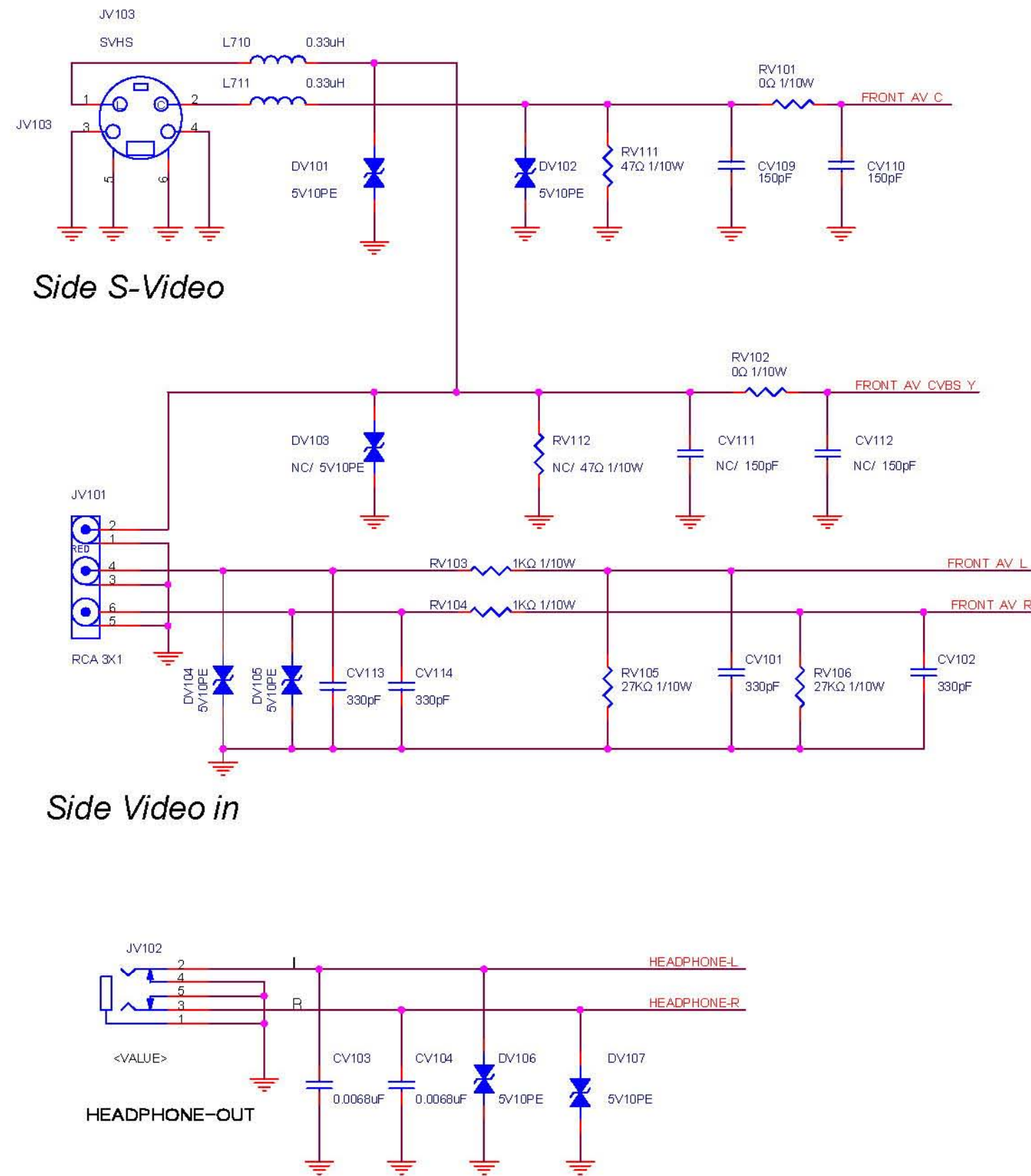


Audio output diagram

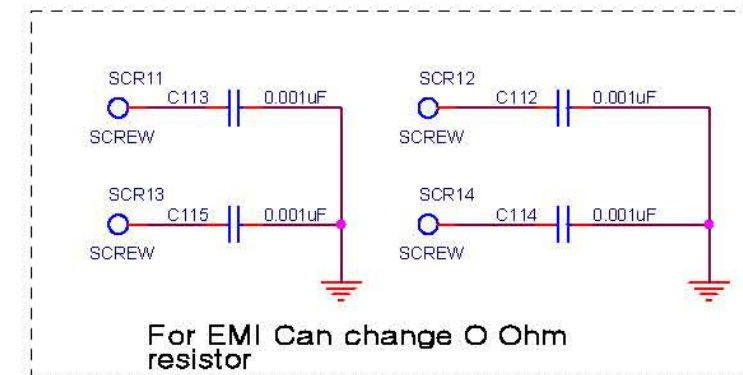
[Back to cover](#)



AUDIO OUTPUT FILTER

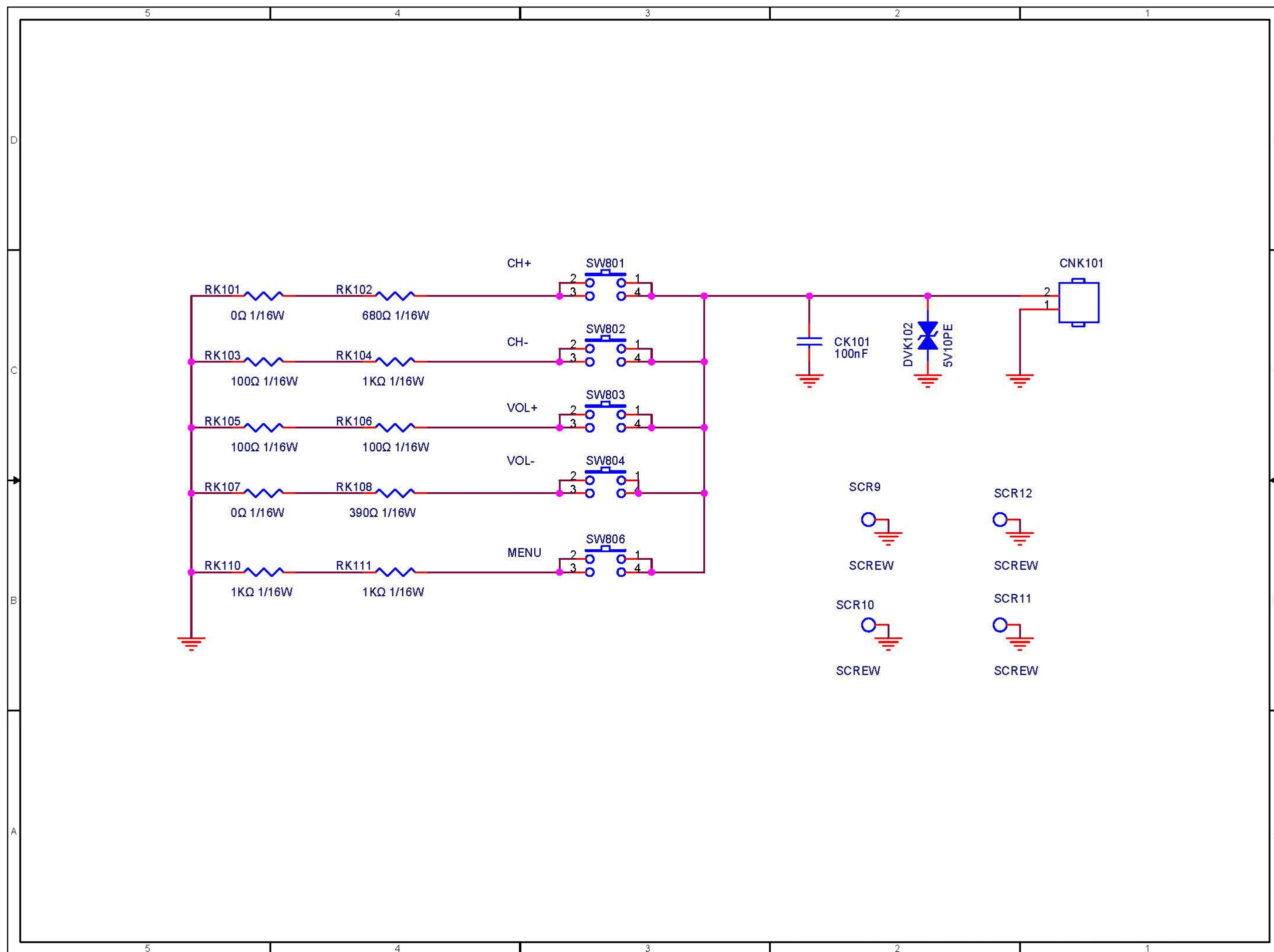


From main board



Key control diagram

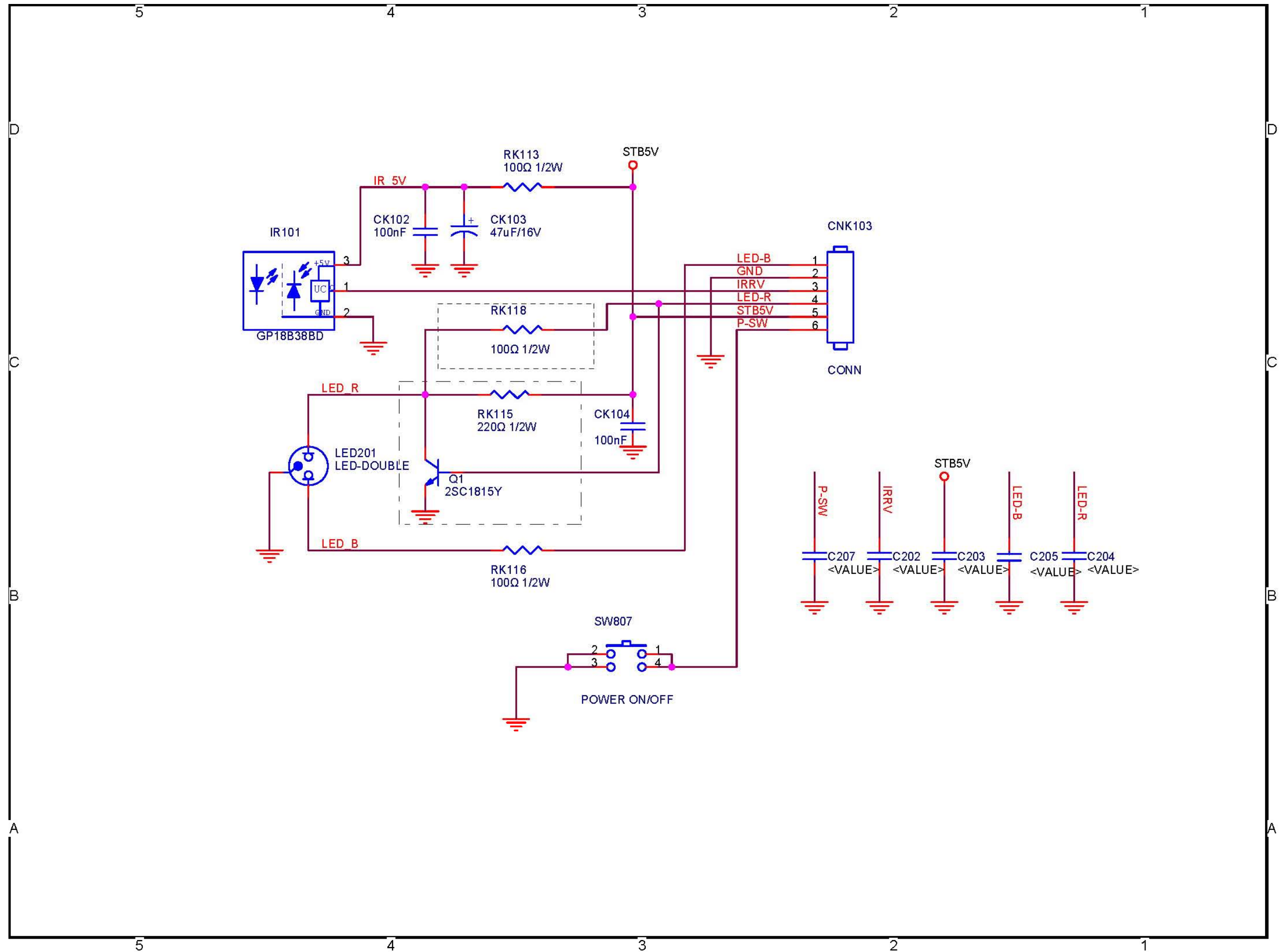
[Back to cover](#)



IR board diagram

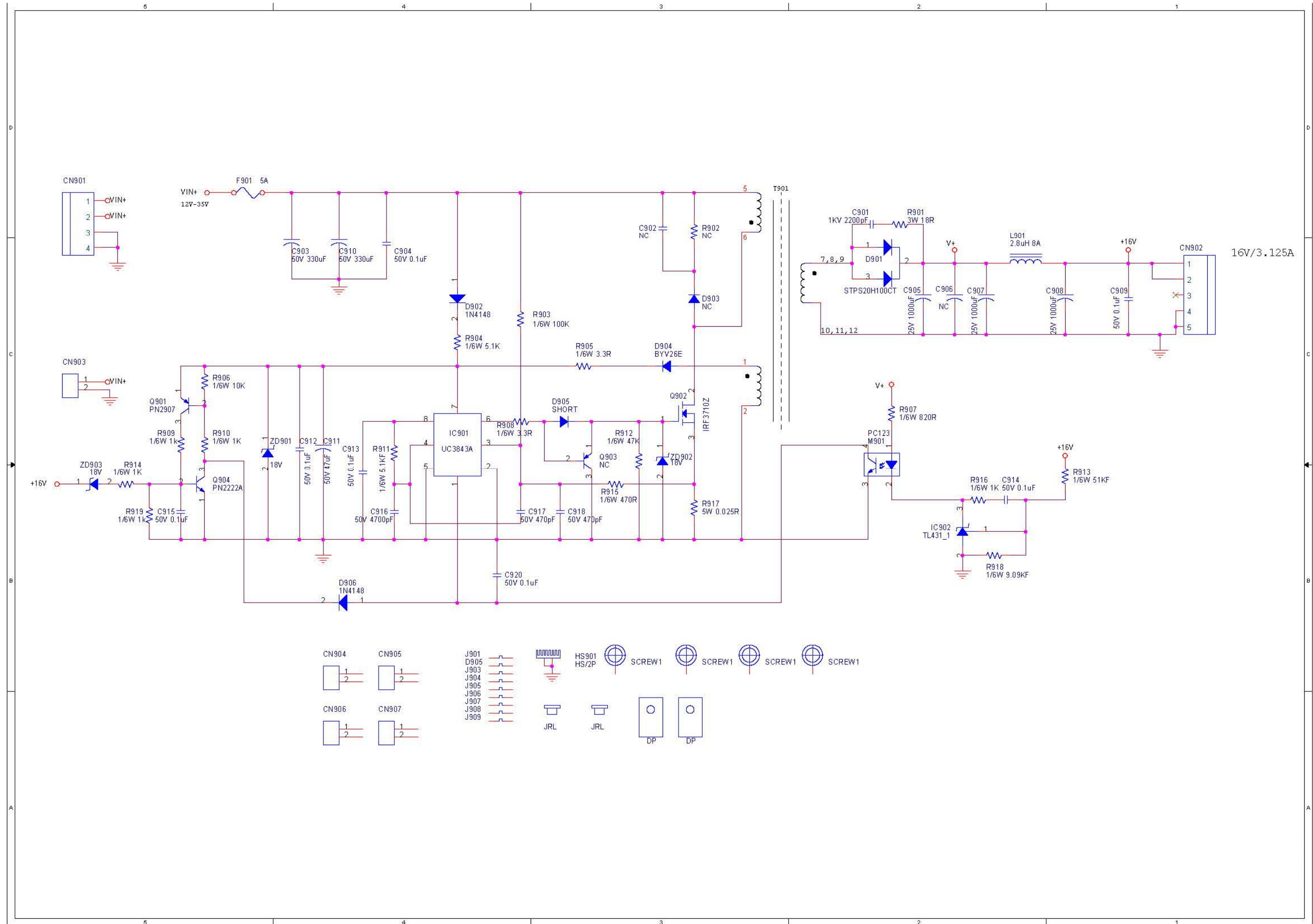
-114- 42MF231D/37

[Back to cover](#)



OFPC diagram

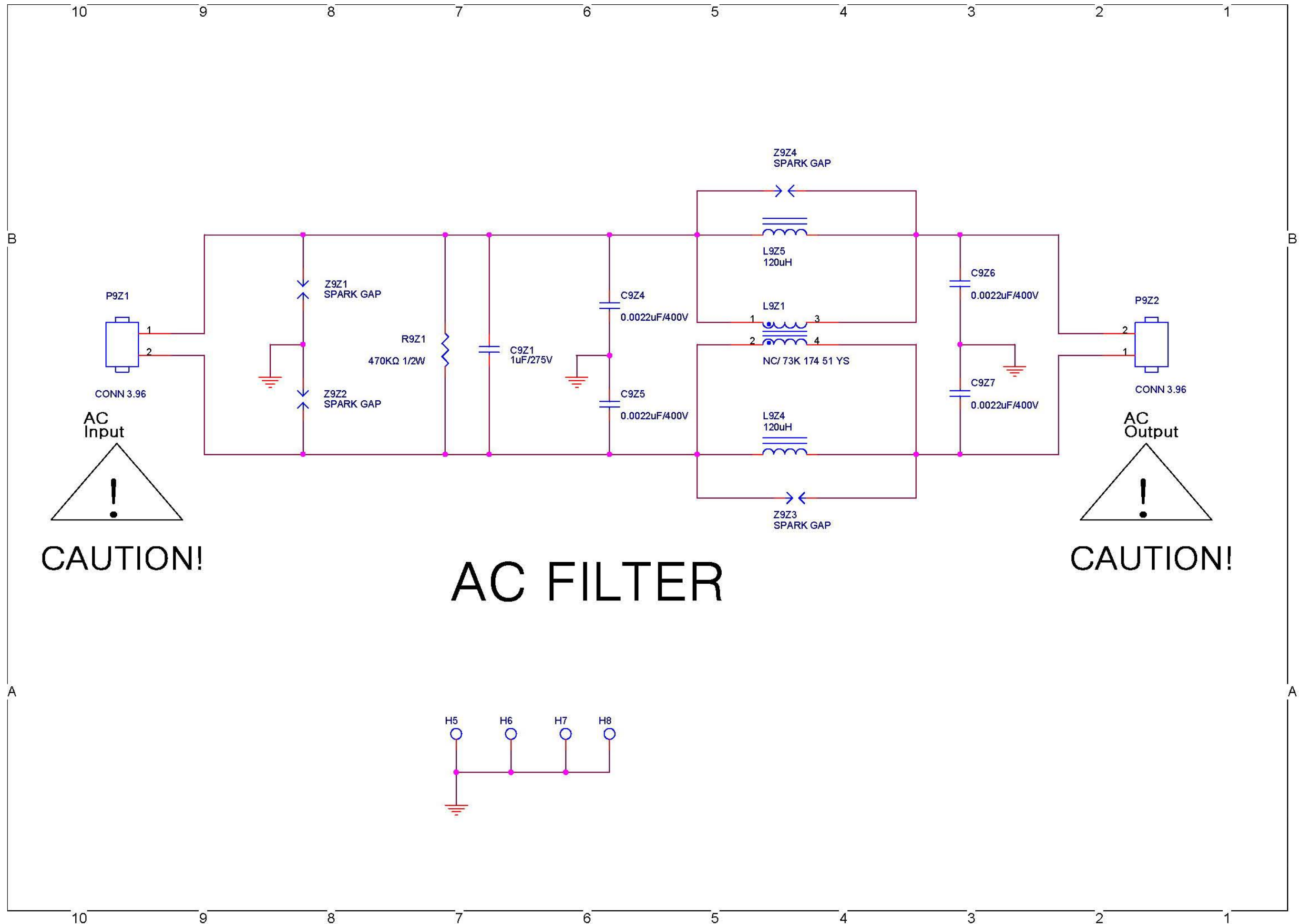
[Back to cover](#)



AC filter diagram

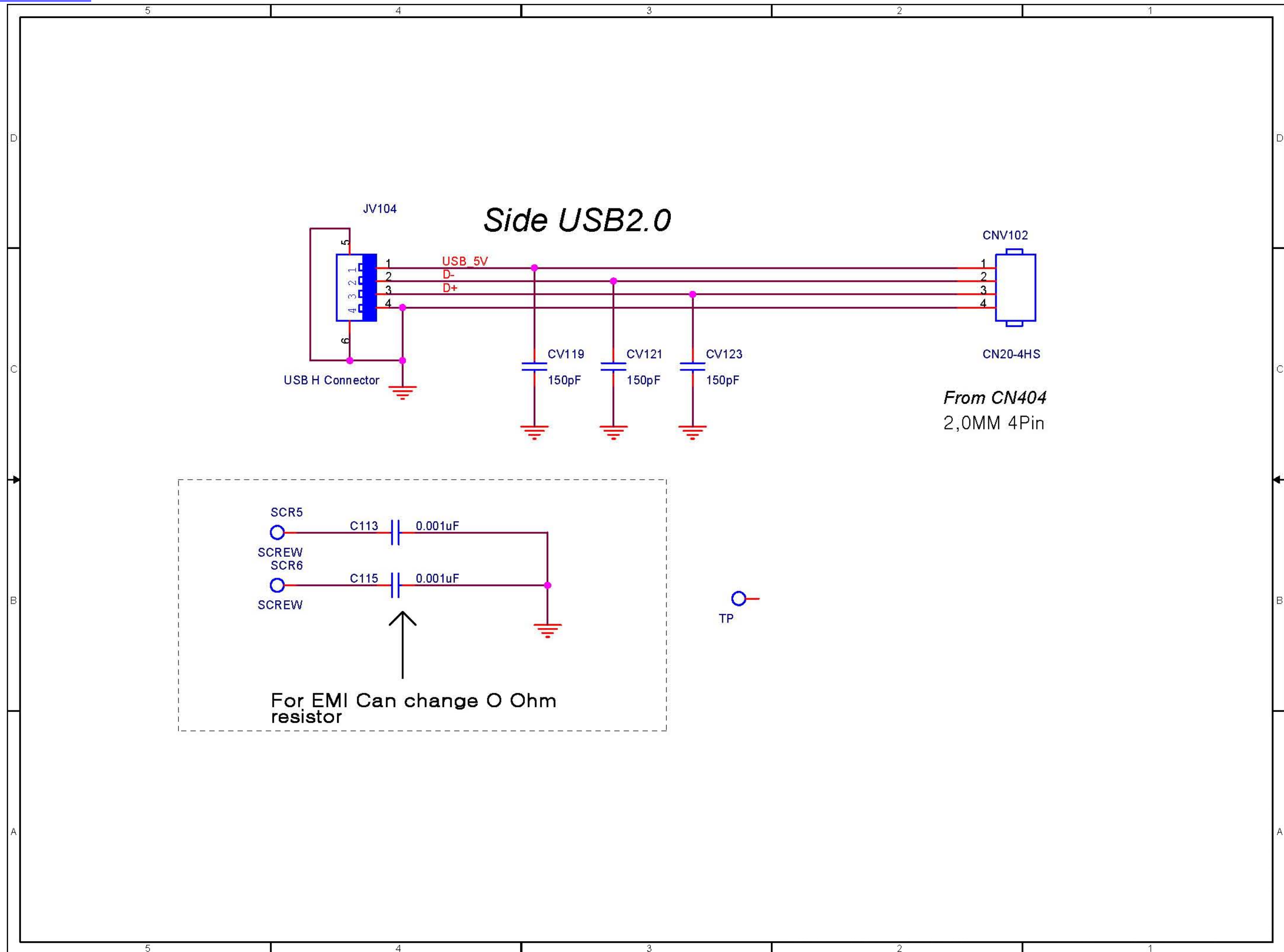
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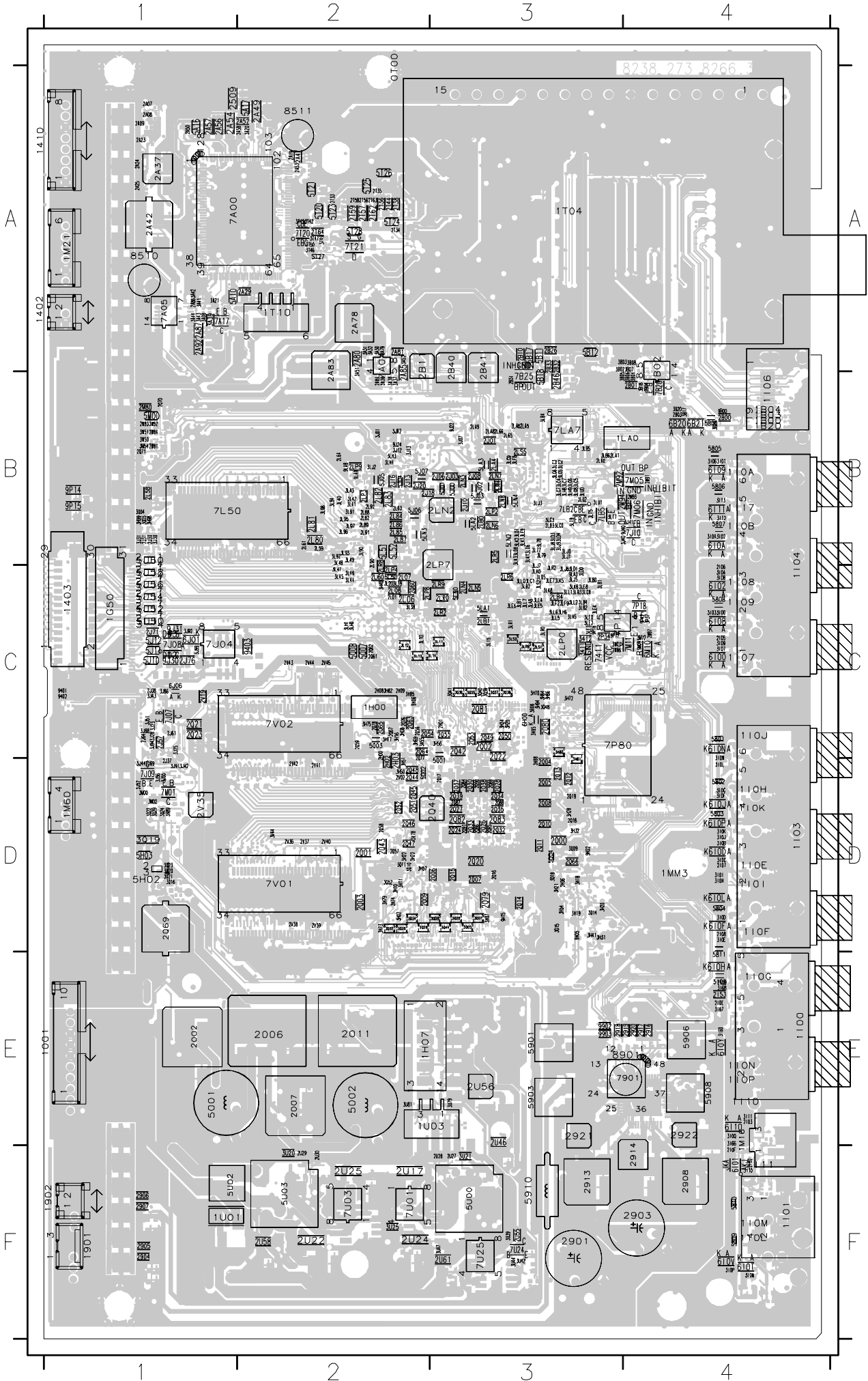
[Back to cover](#)



USB diagram

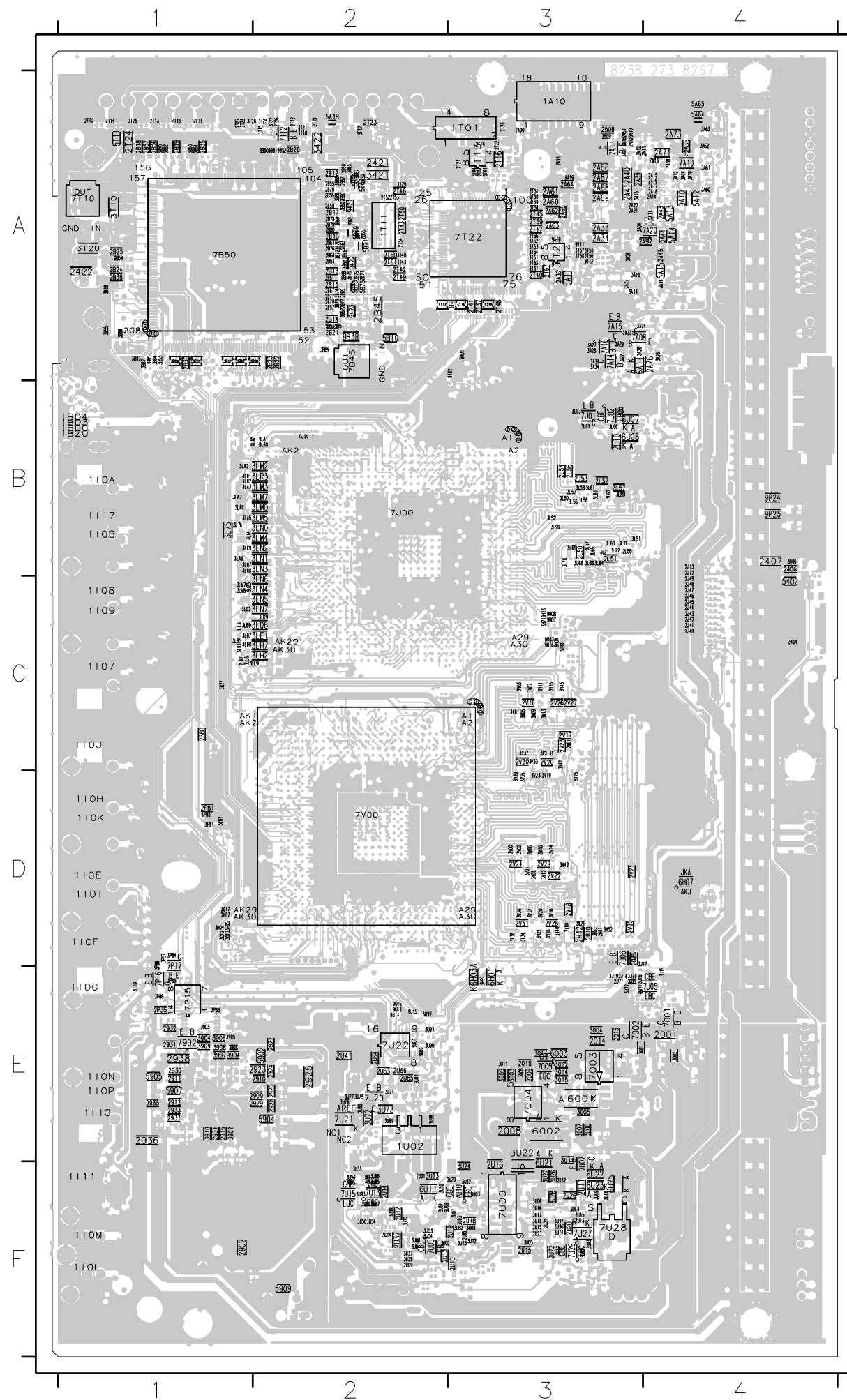
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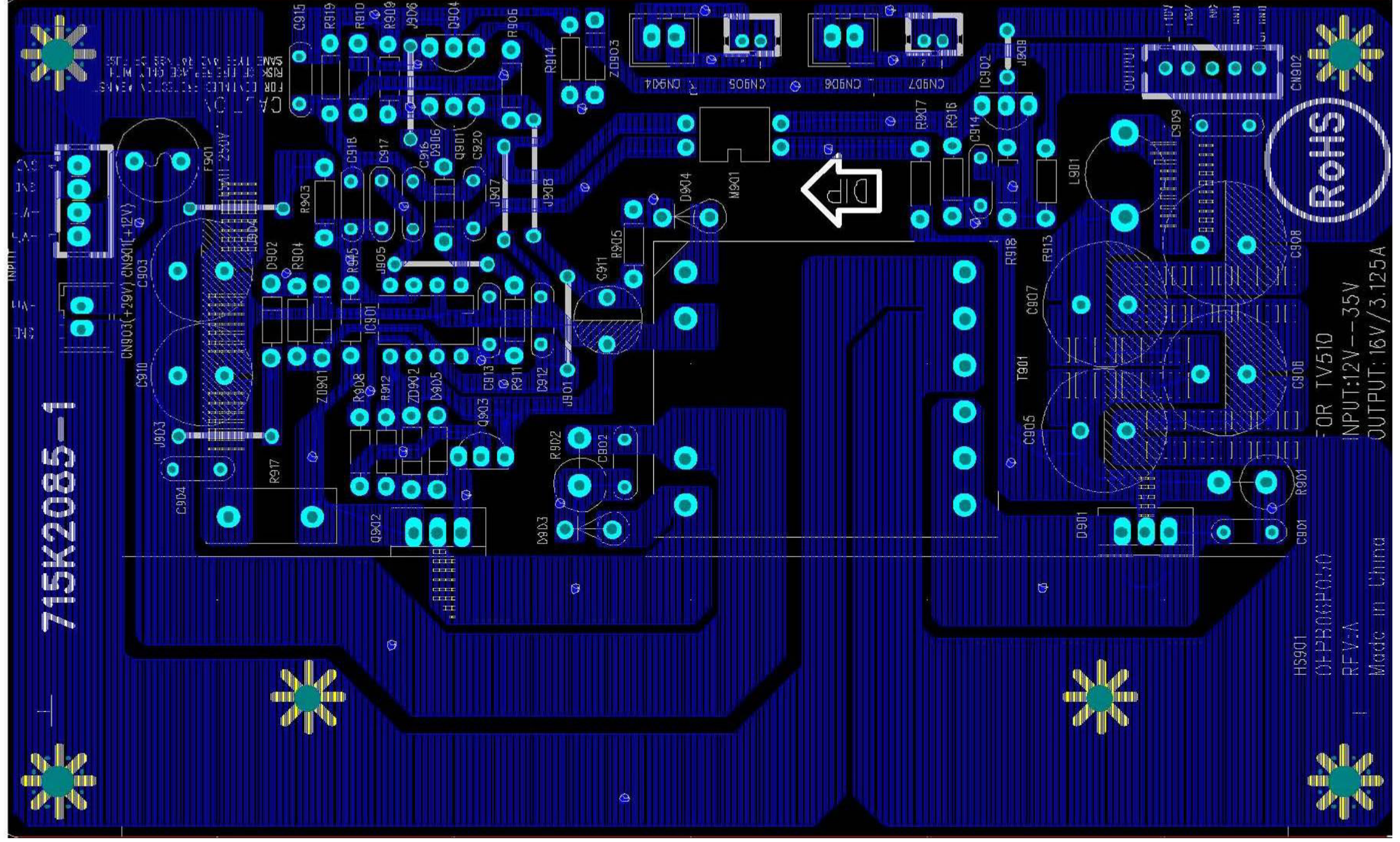


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1403	C1	2105	C4	2019	D3	3A43	A1	3J94	D1	3LS0	C3	5L51	B2
1410	F1	2106	C4	2020	D3	3A44	A1	3J99	C1	3LS1	C3	5L52	B2
1901	F1	2107	D4	2021	C1	3A51	B2	3JA2	B2	3LS2	C3	5LA1	C3
1902	F1	2108	E4	2022	D3	3A52	A2	3L10	C3	3LT5	B3	5LA2	B3
1B00	B4	2109	E4	2023	C1	3B02	B4	3L11	C3	3LT7	B4	5LA3	B3
1B03	B4	210E	F4	2024	D3	3B03	A4	3L12	C2	3LT9	B3	5LN0	C3
1B04	B4	210F	F4	2026	D3	3B04	B4	3L13	C3	3LU0	B3	5LN1	B3
1B20	B4	2153	F4	2027	D3	3B05	B4	3L14	C3	3LU1	B3	5LN2	B3
1G50	C1	2U01	B3	2028	D3	3B06	B4	3L15	C3	3LU2	B3	5LN3	B3
1H00	C2	2U03	B3	2030	D3	3B07	B4	3L20	C2	3M00	D1	5LN4	B3
1H07	F3	2U06	B3	2032	D3	3B08	B4	3L38	C2	3M02	D1	5M00	B1
100	F4	2U08	B3	2033	D3	3B17	B4	3L39	C2	3M50	B1	5001	D3
101	F4	2U10	B3	2034	D3	3B18	B4	3L40	B2	3M51	B1	5002	D3
103	D4	2U13	B2	2035	D3	3B19	B4	3L41	B2	3M52	B1	5003	D2
104	C4	2U16	B2	2037	D3	3B20	B4	3L42	B2	3M54	B1	5004	D3
106	B4	2U18	B3	2038	D3	3H02	D2	3L43	B2	3M71	C4	5007	C2
107	C4	2U20	B3	2039	D3	3H06	C3	3L44	C2	3M72	C4	5008	C2
108	C4	2U30	B1	2040	D3	3H07	D3	3L45	C2	3P37	C4	5T20	A2
109	C4	2U31	B1	2042	D3	3H08	C2	3L46	C2	3002	D2	5T21	A2
10A	B4	2U37	D1	2043	D2	3H10	D2	3L47	C2	3003	B1	5T23	A2
10B	B4	2U38	C1	2044	D2	3H11	D2	3L48	C2	3004	B1	5T24	A2
10E	F4	2U57	D1	2045	D2	3H16	C2	3L49	C2	3005	D3	5T25	A2
10F	F4	2U61	C1	2046	D2	3H17	C2	3L77	B3	3007	D3	5T26	A2
10F	F4	2U64	C1	2047	D2	3H18	D3	3L78	B3	3008	D3	5T27	A2
10G	F4	2U69	D1	2048	D2	3H19	D3	3L79	C3	3009	D3	5T28	A2
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10I	D4	2U76	C1	2050	C3	3H21	D3	3L81	C3	3011	D2	5U02	F2
10J	C4	2L01	C2	2051	D2	3H22	D2	3L82	C3	3014	D3	5U03	F2
10K	D4	2L06	C2	2052	D2	3H23	D2	3L84	C3	3015	D3	6B20	B4
10L	F4	2L07	C2	2053	C3	3H24	C3	3L90	B2	3016	D1	6B21	B4
10M	F4	2L08	C2	2054	C3	3H25	C3	3L91	B2	3018	D3	6H00	C3
10N	F4	2L58	B1	2055	C3	3H28	D3	3L92	C2	3019	D1	6I00	C4
10P	F4	2L59	B2	2056	C3	3H31	E3	3L93	C2	3020	D1	6I01	F4
110	F4	2L60	C2	2057	D2	3H32	D3	3L94	B2	3021	D1	6I02	C4
111	F4	2L61	B2	2058	D2	3H40	C2	3L95	B2	3022	D1	6I08	C4
117	B4	2L62	B2	2059	D2	3H41	E3	3L96	B2	3023	D1	6I09	B4
1LA0	B4	2L63	B2	2060	C2	3H50	D2	3L97	B2	3024	D1	6I0A	B4
1M16	F4	2L64	B2	2061	C2	3H51	D2	3L98	B2	3025	D3	6I0D	D4
1M21	A1	2L65	B3	2062	C2	3H54	D3	3LA8	C3	3026	D2	6I0F	D4
1M60	D1	2L66	B3	2063	C2	3H55	D3	3LB1	C3	3028	D3	6I0H	F4
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1U01	F2	2L82	B2	2066	D3	3H69	C3	3LB4	B3	3035	C3	6I0N	D4
1U03	F3	2L83	B2	2067	C2	3H70	C3	3LB5	C3	3036	C3	6I0P	D4
2002	E1	2L84	B2	2069	D1	3H72	C3	3LB6	B4	3037	C3	6I0T	F4
2006	E2	2L85	B2	2070	B1	3H73	D2	3LC0	B3	3038	C3	6I0V	F4
2007	E2	2L86	B2	2071	B1	3H74	D2	3LC1	C3	3039	C3	6I0Y	F4
2011	F2	2L87	B2	2076	C2	3H75	C2	3LC2	B3	3040	C3	6I10	F4
2509	A2	2L88	B2	2077	D3	3H79	D2	3LC3	B3	3041	C3	6I11	B4
2901	F3	2L89	B2	2078	C2	3H80	D3	3LC4	B3	3044	D3	6J01	C1
2903	F4	2L90	C2	2079	D3	3H81	D3	3LC5	B3	3048	C3	6J06	C1
2904	F1	2L91	B2	2080	C3	3H82	C2	3LC6	B3	3052	D2	6M10	C4
2905	F1	2L92	B2	2081	C3	3H84	C3	3LC7	B3	3T42	A2	7411	C3
2906	F1	2LA0	B3	2082	D3	3H85	C2	3LC8	C3	3T45	A2	7901	F4
2907	F1	2LA1	B4	2083	D3	3H86	C3	3LD0	C3	3T46	A2	7A00	A2
2908	F4	2LA4	B3	2084	D3	3H88	D3	3LD1	C3	3T47	A2	7A04	B2
2913	F3	2LA5	B3	2085	D3	3H89	D1	3LD3	B3	3T49	A2	7A05	A1
2914	F4	2LA6	B3	2086	D3	3H94	C3	3LD4	B3	3T50	A2	7A17	A1
2916	F4	2LA8	B3	2087	D3	3H95	C3	3LD5	C3	3U20	F2	7B02	B4
2917	F4	2LA9	B3	2088	D3	3H98	B1	3LD6	B3	3U21	F3	7B20	B4
2918	F4	2LB0	B3	2089	D3	3H99	B1	3LD7	B3	3U25	F2	7B25	B3
2919	F4	2LB1	C3	2090	D3	3I00	C4	3LD8	B3	3U39	F3	7J04	C1
2920	F4	2LB3	C3	2091	D3	3I01	B4	3LE2	C3	3U42	F3	7J07	C1
2921	F3	2LB4	C3	2T33	A2	3I02	B4	3LE3	C3	3U44	F3	7J08	C1
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2A07	A1	2LN3	B3	2T35	A2	3I04	B4	3LE5	C3	3U81	F2	7J10	B4
2A08	A1	2LN4	C3	2T36	A2	3I06	B4	3LE6	C3	3UA7	F3	7L50	B2
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2B00	B4	2M93	B4	2V38	D2	3J01	B2	3LJ7	C3	3B18	B3	9H02	D3
2B01	B4	2M94	B4	2V39	D2	3J07	B3	3LJ8	B3	3H02	D1	9H05	F3
2B03	B4	2P34	C3	2V40	D2	3J12	B2	3LJ9	B3	3H03	D1	9H06	C2
2B04	B4	2P40	C3	2V41	D2	3J13	B2	3LK0	C3	3I02	F4	9H15	D3
2B10	A3	2001	D2	2V42	D2	3J23	C1	3LK1	C3	3J00	B		
2B11	B3	2002	D3	2V43	C2	3J25	D1	3LK2	B3	3J01	B		
2B26	A3	2003	D2	2V44	C2	3J28	C1	3LK3	C3	3J02	B		
2B31	B3	2004	D3	2V45	C2	3J30	B1	3LK5	C3	3J03	B		
2B32	B3	2005	D3	3412	C3	3J31	B1	3LK6	C3	3J04	B		
2B33	B3	2006	D3	3418	C3	3J40	B4	3LK7	B3	3J05	B		
2B40	B3	2007	D3	3A08	A1	3J41	D1	3LK8	C3	3J06	B		
2B41	B3	2008	D3	3A20	A2	3J42	D1	3LL0	C3	3J07	B		
2B46	B3	2009	D3	3A21	A1	3J43	C1	3LL1	C3	3J10	C1		
2H00	D2	2100	D3	3A30	A2	3J44	D1	3LL2	C3	3J11	C1		
2H01	C3	2111	D3	3A31	A2	3J51	C1	3LL4	C3	3J12	C1		
2H02	D2	2112	D3	3A32	A2	3J52	D1	3LL5	C3	3J50	C1		
2H03	D2	2113	D3	3A36	B2	3J55	D1	3LL6	C3	3J52	C1		
2H06	D3	2114	D3	3A37	B2	3J56	D1	3LL7	C3	3J54	C1		
2H08	C2	2115	D3	3A38	B2	3J86	C1	3LR0	C3	3J56	C1		
2H09	C2	2116	D3	3A39	A1	3J88	C1	3LR1	C3	3J58	C1		
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[Back to cover](#)

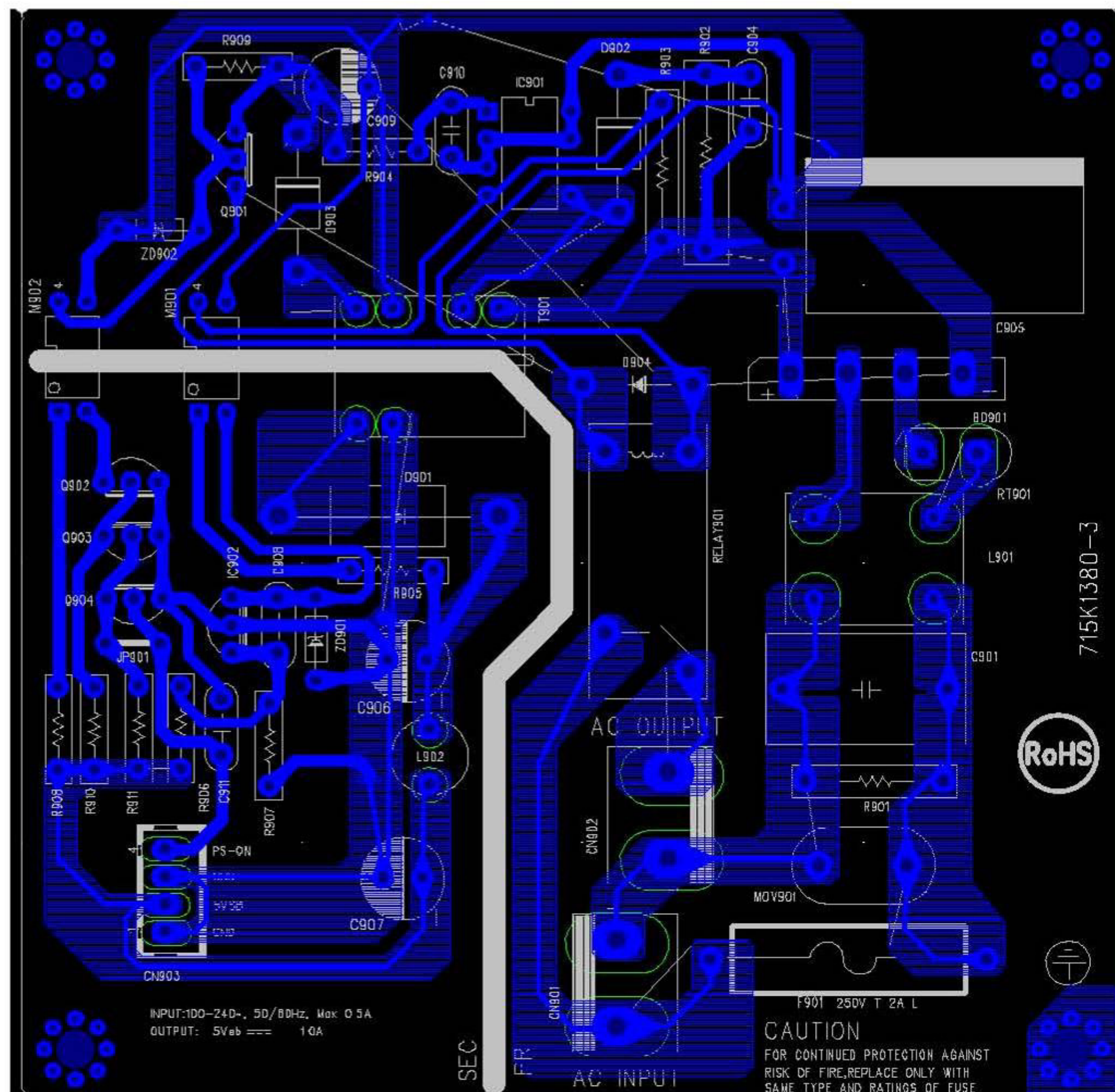


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2009	E3	2B77	A2	2V30	D3	3L56	B3	3U10	F2	6001	E3
2010	E3	2B78	A2	2V31	D3	3L57	B3	3U11	F3	6002	E3
2014	E3	2B79	A2	3001	E4	3L58	B3	3U12	F3	6003	E3
2015	E3	2B80	A2	3002	E4	3L59	B3	3U13	F3	6A11	A4
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2407	C4	2H07	D1	3004	E3	3L61	B3	3U15	F3	6H03	E3
2421	A2	2H10	D3	3005	E3	3L62	B3	3U16	F3	6H07	D4
2422	A1	2H11	D3	3006	E3	3L63	B3	3U17	F3	6J07	B4
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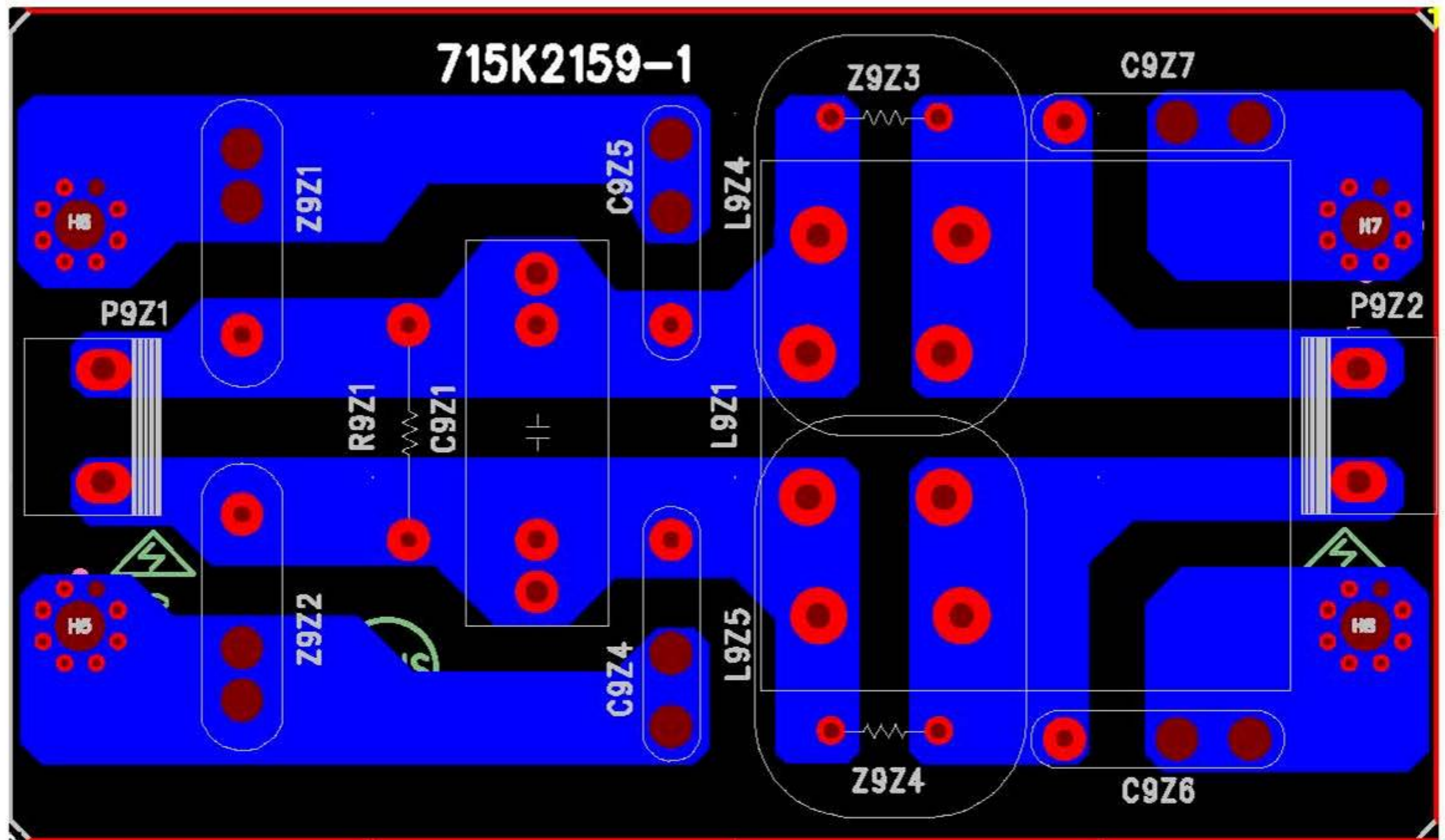


OFPC PCB

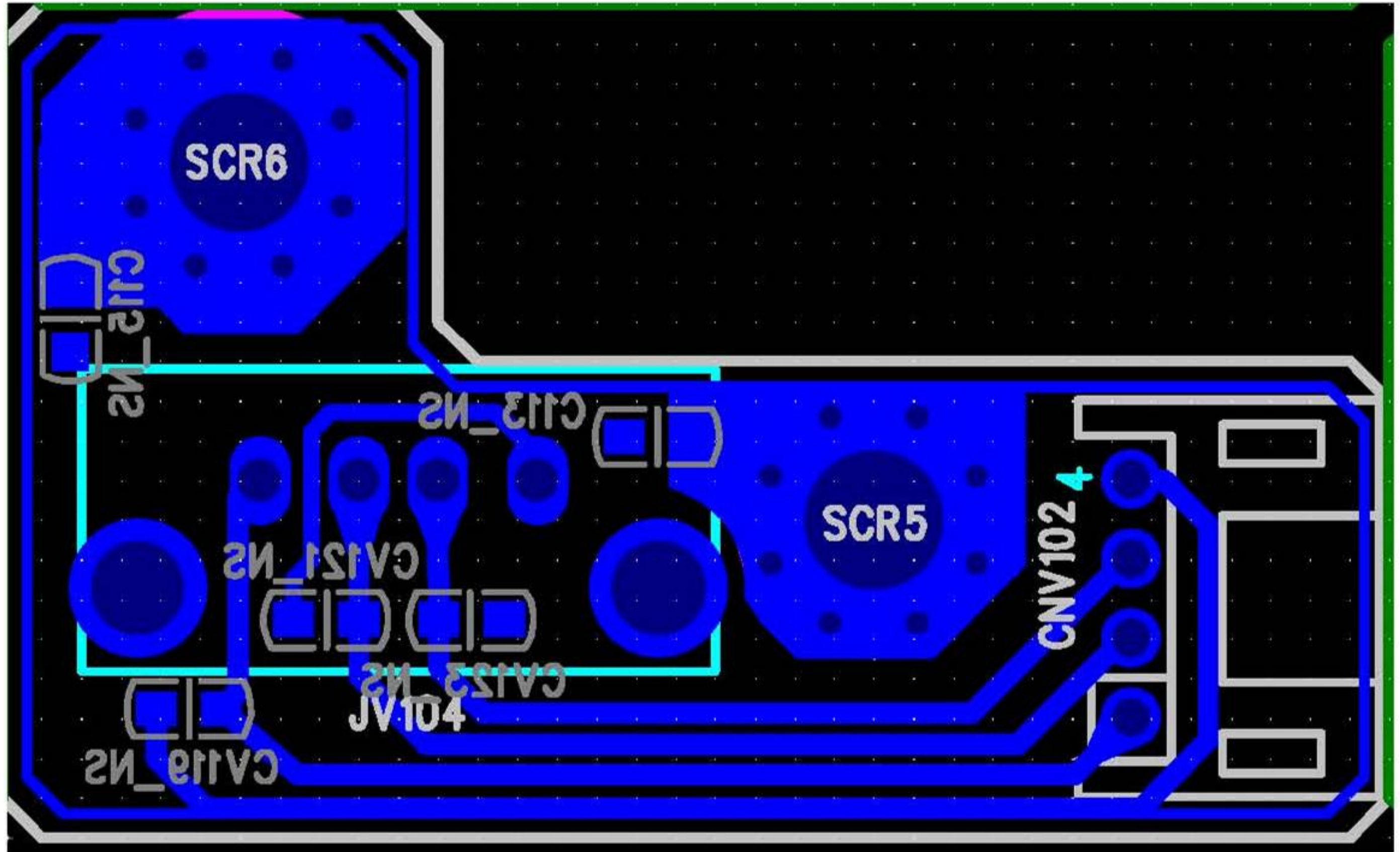
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PSPC4265P7P 715K2159-1

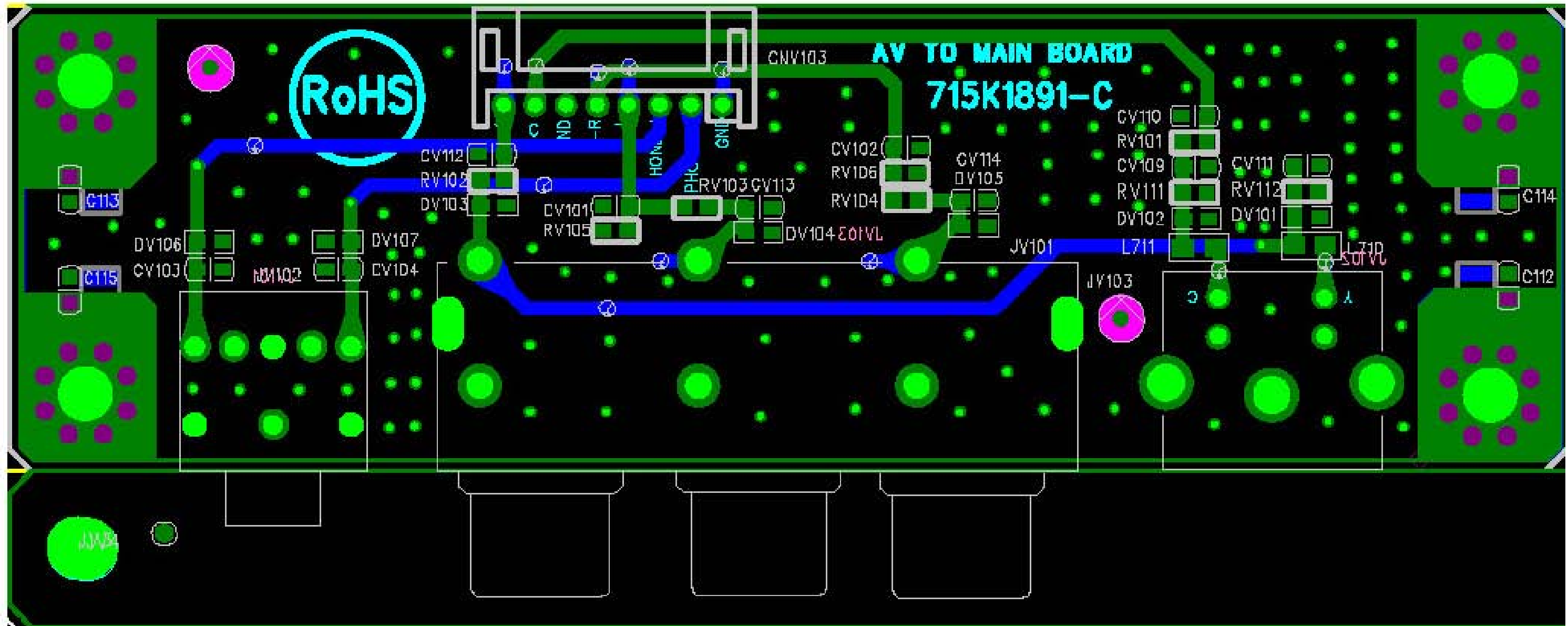


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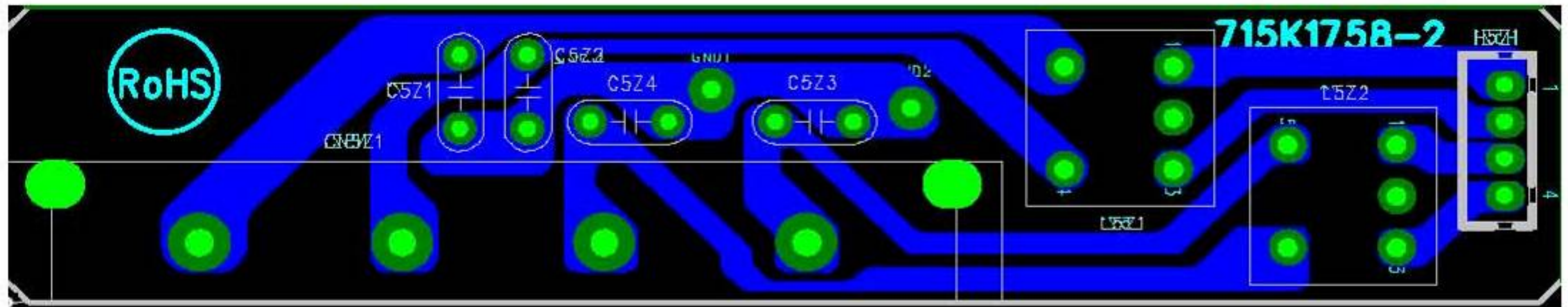


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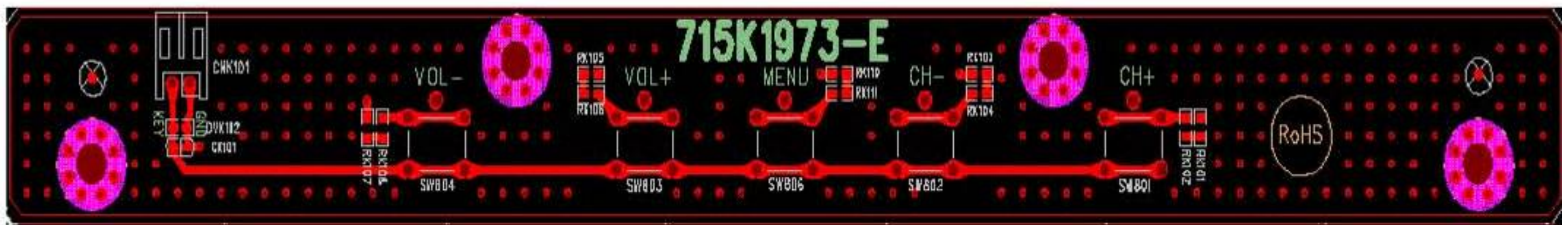
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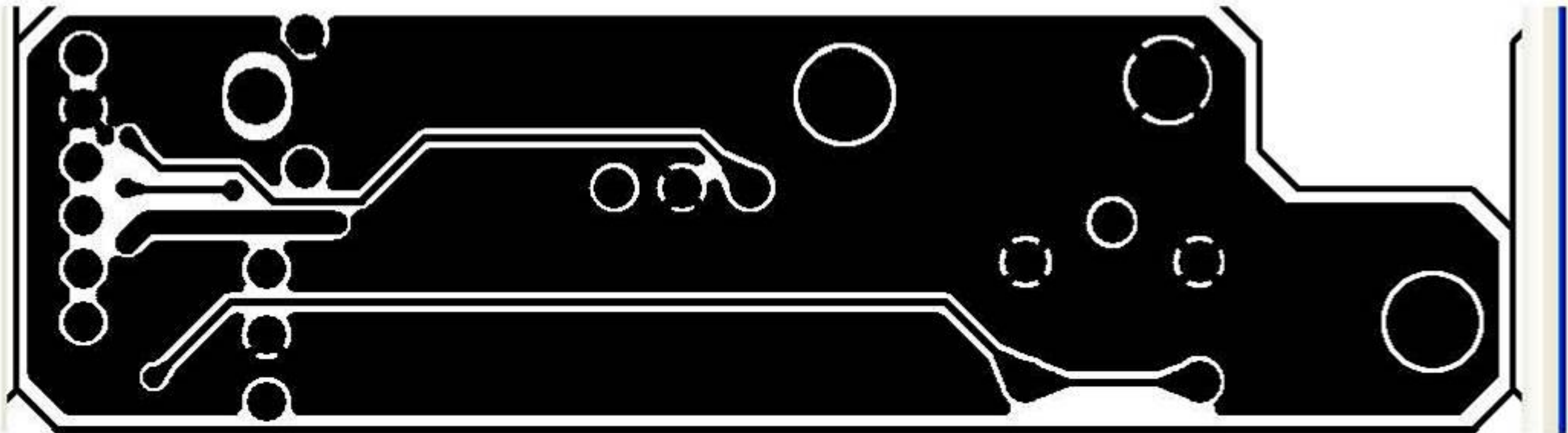
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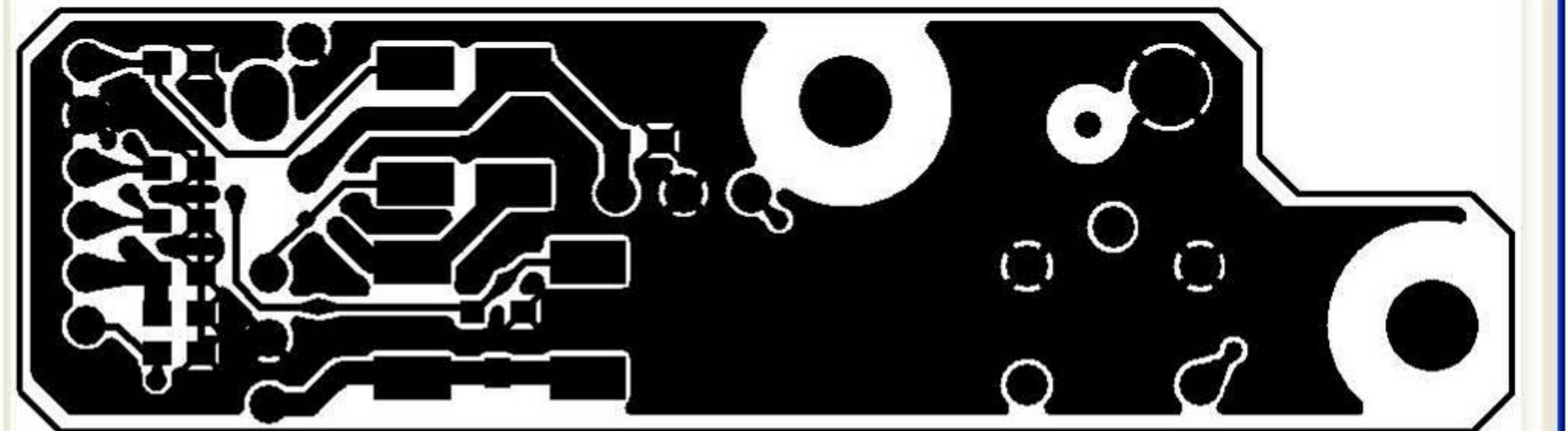
KEPC4269D6P 715K1973-1



KEPC4269D7P 715K1974-E(TOP)



KEPC4269D7P 715K1974-E(BOTTOM)



Recommended parts list

[!\[\]\(919a2cb85b99741a73c0c31a427236a8_img.jpg\) Back to cover](#)

TPV part no.	12NC	Description
750KPS42-V4-1	9965 000 39175	SDI 42" V4 PSP PANEL
98K F42-3-S	9965 000 34086	FILTER
AUPC4269A8P	9965 000 39176	EXTERNAL AUDIO SPEAKER
KEPC4269D6P	9965 000 39177	KEY BOARD
KEPC4269D7P	9965 000 39178	IR BOARD
MGPC5084P8P	9965 000 39179	TV510 MAIN BOARD
OFPB06P007P	9965 000 39180	POWER DOWN CONROL STANDB
OFPB06P050P	9965 000 39181	12V TO 16V POWER BOARD
PSPC4265P7P	9965 000 39182	PFPC
TMPC4269A8P	9965 000 39183	USB TERMINAL BOARD
TMPC4269Z4P	9965 000 39184	SIDE AV BOARD
73K 174-8A-LZ	9965 000 34116	AC EMI FILTER
95K 900-906	9965 000 34137	AC INPUT SOCKET TO EMI BOARD
95K205S-354-033	9965 000 39185	WIRE HARNESS
95K8013-2701-JT	9965 000 39186	KEY CABLE 600MM
95K8013-4701-JT	9965 000 39187	USB CABLE 360MM
95K8013-4702-JT	9965 000 39188	AUDIO CABLE 400MM
95K8013-6701-JT	9965 000 39189	IR CABLE 750MM
95K8013-8701-JT	9965 000 39190	SIDE AV CABLE 970MM
95K8013-1070-1JT	9965 000 39191	12V TO 16V POWER CABLE
95K8013-1070-2JT	9965 000 39192	16V- 5V POWER CABLE
95K8013-1170-2JT	9965 000 39193	2 PIN CABLE
95K8021-370-3JT	9965 000 39194	SHIELD WIRE HARNESS
95K8021-3-911	9965 000 34094	AC CABLE(3PIN 2LINES)
95K8022-31-703-D	9965 000 39195	LVDS CABLE
705KJ4K0-S34-001	9965 000 39196	BASE ASSEMBLY(SIDE SPK)
J33K9027-Q4-A	9965 000 39197	TOP KEY FOR MAG7
J33K9028-1	9965 000 39198	JENS FOR MAG7
J33K9029-Q4-A	9965 000 39199	POWER KEY
J34K8010-Q4-F	9965 000 39200	MAG7 BEZEL
J15K1047-35-1A	9965 000 39201	REAR COVER
J15K1048-42-1D	9965 000 39202	REAR LOW COVER
J15K1068-50-1C	9965 000 39203	SIDE AV COVER
J41K3401-510-2A	9965 000 39204	MANUAL
89K402A-18N-LS	9965 000 39205	POWER CORD
98KRAGD-1BE-PHR	9965 000 39206	REMOTE CONTROL

Recommended parts list

-128-

42MF231D/37



[Back to cover](#)

Panel assy (9965 000 39175)

705PS42-V4-11	9965 000 39207	ASSY PCB BUFFER(E)
705PS42-V4-12	9965 000 39208	ASSY PCB BUFFER(F)
705PS42-V4-13	9965 000 39209	ASSY PCB BUFFER(Y-UPER)
705PS42-V4-14	9965 000 39210	ASSY PCB BUFFER(Y-LOWER)
705PS42-V4-15	9965 000 39211	ASSY PCB LOGIC BOARD
705PS42-V4-16	9965 000 39212	ASSY PCB Y MAIN
705PS42-V4-17	9965 000 39213	ASSY PCB X MAIN
705PS42-V4-18	9965 000 39214	SMPS