

TOSHIBA

FILE NO. 050-200234

SERVICE MANUAL

PLASMA DISPLAY MONITOR

42WP27B, 42WP27C
42WP27E, 42WP27F
42WP27R

If you need more information on Computer and Electronic Repair, please visit these websites to improve yourself.

<http://www.fastrepairguide.com>

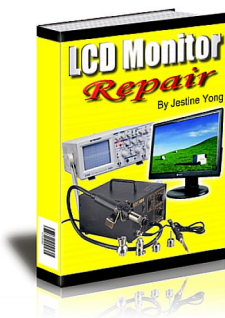
<http://www.protech2u.com>

<http://www.plasma-television-repair.com>

<http://www.lcd-television-repair.com>

Happy Repairing!!

Highly Recommended Repair Ebook:

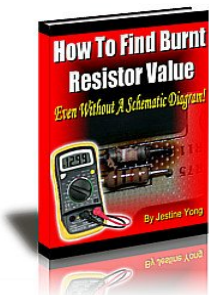


If you're a LCD Monitor repairer, then this is the best guide for you. Why? Because, the author revealed all his LCD Monitor Repairing secrets for you. I think, with just few Repair tips you learned from this guide you will get back your investment!

[Click Here to read](#) more.



This eBook will show you how to test the electronic component correctly and accurately. Some of you may say that I don't need this eBook because it is too simple! Do you know that, in fact there is lots of testing electronic components secrets I have learned from this guide? Do you know how to test a 'TRIAC' correctly and accurately? If you answer no then I guess you have to get this eBook. [Click Here to read more.](#)



Are you tired of searching the service manuals to look for the value of a burnt resistor? If the answer is YES, then this eBook is a 'must have' guide for you. You can save a lot of time and be able to repair customer's Electronic equipment with burnt resistors in it.

[Click here to read more.](#)

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

CONTENTS

	Page		Page
1 Applicable signals	3	13.14. H3, S1 and V1-Board	56
2 Safety Precautions	4	14 Block and Schematic Diagrams	57
2.1. General Guidelines	4	14.1. Schematic Diagram Notes	57
3 Prevention of Electro Static Discharge (ESD) to Electrostatically Sensitive (ES) Devices	5	14.2. Main Block Diagram	58
4 About lead free solder (PbF)	6	14.3. F-Board Schematic Diagram	59
5 PCB Structure sheet of GP5D chassis	7	14.4. Power Block Diagram	60
6 Service Hint	8	14.5. P-Board (1 of 2) Schematic Diagram	61
7 Location of Lead Wiring	9	14.6. P-Board (2 of 2) Schematic Diagram	62
8 Adjustment Procedure	10	14.7. HX-Board Block Diagram	63
8.1. +B Set-up	10	14.8. HX-Board Schematic Diagram	64
8.2. Driver Set-up	10	14.9. Option RTB421 Block Diagram	65
8.3. Initialization Pulse Adjust	11	14.10. Option RTB421 (1 of 2) Schematic Diagram	66
8.4. P.C.B. (Printed Circuit Board) exchange	12	14.11. Option RTB421 (2 of 2) Schematic Diagram	67
8.5. Adjustment Volume Location	12	14.12. D1-Board Block Diagram	68
8.6. Test Point Location	12	14.13. D1-Board (1 of 6) Schematic Diagram	69
9 Service mode	13	14.14. D1-Board (2 of 6) Schematic Diagram	70
9.1. CAT (computer Aided Test) mode	13	14.15. D1-Board (3 of 6) Schematic Diagram	71
9.2. IIC mode structure (following items value is sample data.)	15	14.16. D1-Board (4 of 6) Schematic Diagram	72
10 Alignment	16	14.17. D1-Board (5 of 6) Schematic Diagram	73
10.1. Pedestal setting	16	14.18. D1-Board (6 of 6) Schematic Diagram	74
10.2. NTSC panel white balance	17	14.19. D2-Board Block Diagram	75
10.3. PAL/SECAM panel white balance	18	14.20. D2-Board (1 of 6) Schematic Diagram	76
10.4. PC/RGB panel white balance	20	14.21. D2-Board (2 of 6) Schematic Diagram	77
10.5. HD/ 525i /525p panel white balance	22	14.22. D2-Board (3 of 6) Schematic Diagram	78
10.6. 625i panel balance	24	14.23. D2-Board (4 of 6) Schematic Diagram	79
10.7. Sub brightness setting	25	14.24. D2-Board (5 of 6) Schematic Diagram	80
11 Trouble shooting guide	27	14.25. D2-Board (6 of 6) Schematic Diagram	81
11.1. Self Check	27	14.26. C1 and C2-Board Block Diagram	82
11.2. No Power	28	14.27. C1-Board Schematic Diagram	83
11.3. No Picture	29	14.28. C2-Board Schematic Diagram	84
11.4. Local screen failure	29	14.29. SC-Board Block Diagram	85
12 Option Setting	30	14.30. SC-Board (1 of 2) Schematic Diagram	86
13 Conductor Views	33	14.31. SC-Board (2 of 2) Schematic Diagram	87
13.1. F-Board	33	14.32. SD-Board Block Diagram	88
13.2. P-Board	34	14.33. SD-Board Schematic Diagram	89
13.3. HX-Board	37	14.34. SU-Board Block Diagram	90
13.4. Option RTB421	38	14.35. SU-Board Schematic Diagram	91
13.5. D1-Board	40	14.36. SS-Board Block Diagram	92
13.6. D2-Board	42	14.37. SS, SS2, SS3 and S1-Board Schematic Diagram	93
13.7. C1-Board	45	14.38. Z-Board Block Diagram	94
13.8. C2-Board	46	14.39. H3 and Z-Board Schematic Diagram	95
13.9. SC-Board	47	15 Mechanical Parts Location	97
13.10. SU-Board	50	16 Replacement Parts List	99
13.11. SD-Board	51	16.1. Replacement Parts List Notes	99
13.12. SS, SS2, SS3-Board	52	16.2. Mechanical Replacement Parts List	100
13.13. Z-Board	55	16.3. Electrical Replacement Parts List	101
		17 Specifications	111

1 Applicable signals

VIDEO input

	signal name	horizontal frequency(kHz)	vertical frequency(Hz)
1	NTSC	15.734	59.95
2	PAL	15.625	50
3	PAL60	15.734	59.95
4	SECAM	15.625	50
5	Modified NTSC	15.734	59.95

*** Mark:**
By installing the optional Terminal Board.

COMPONENT/RGB/PC/DVI input

	signal name	horizontal frequency(kHz)	vertical frequency(Hz)	COMPONENT	RGB	PC
1	525(480)/60i	15.734	59.94	*	*	*
2	625(575)/50i	15.625	50	*	*	*
3	525(480)/60p	31.468	59.94	*	*	
4	625(575)/50p	31.25	50	*	*	*
5	750(720)/60p	45	60	*	*	*
6	1125(1080)/60i	33.75	60	*	*	*
7	1125(1080)/50i	28.125	50	*	*	*
8	1125(1080)/24p	27	24	*	*	*
9	1125(1080)/24sF	27	48	*	*	*
10	640 × 400@70	31.5	70		*	*
11	640 × 480@60	31.5	59.94		*	*
12	Macintosh13"(640 × 480)	35	67		*	*
13	640 × 480@75	37.5	75		*	*
14	852 × 480@60	31.7	60		*	*
15	800 × 600@60	37.9	60		*	*
16	800 × 600@75	46.9	75		*	*
17	800 × 600@85	53.7	85		*	*
18	Macintosh16"(832 × 624)	49.7	75		*	*
19	1,024 × 768@60	48.4	60		*	*
20	1,024 × 768@70	56.5	70		*	*
21	1,024 × 768@75	60	75		*	*
22	1,024 × 768@85	68.7	85		*	*
23	Macintosh21"(1,152 × 870)	68.7	75		*	*
24	1,280 × 1,024@60	64	60		*	*
25	1,280 × 1,024@75	80	75		*	*
26	1,280 × 1,024@85	91.1	85		*	*
27	1,600 × 1,200@60	75	60		*	*

2 Safety Precautions

2.1. General Guidelines

1. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
2. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
3. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

2.1.1. Leakage Current Cold Check

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to the chassis, the reading should be between $1M\Omega$ and $5.2M\Omega$.

When the exposed metal does not have a return path to the chassis, the reading must be ∞ .

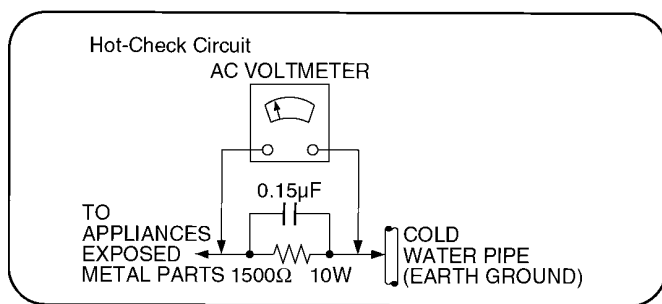


Figure 1

2.1.2. Leakage Current Hot Check (See Figure 1.)

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a $1.5k\Omega$, 10 watts resistor, in parallel with a $0.15\mu F$ capacitors, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in Figure 1.
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 0.75 volts RMS. A leakage current tester (Simpson Model 229 or equivalent) may be used to make the hot checks, leakage current must not exceed $1/2$ milliamp. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

3 Prevention of Electro Static Discharge (ESD) to Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by electro static discharge (ESD).

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static (ESD protected)" can generate electrical charge sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

Caution

Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity (ESD) sufficient to damage an ES device).

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are marked by \triangle in the schematic diagrams, Exploded Views and replacement parts list. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire, or other hazards. Do not modify the original design without permission of manufacturer.

4 About lead free solder (PbF)

Note: Lead is listed as (Pb) in the periodic table of elements.

In the information below, Pb will refer to Lead solder, and PbF will refer to Lead Free Solder.

The Lead Free Solder used in our manufacturing process and discussed below is (Sn+Ag+Cu).

That is Tin (Sn), Silver (Ag) and (Cu) although other types are available.

This model uses Pb Free solder in it's manufacture due to environmental conservation issues. For service and repair work, we'd suggest the use of Pb free solder as well, although Pb solder may be used.

PCBs manufactured using lead free solder will have the PbF within a leaf Symbol  stamped on the back of PCB.

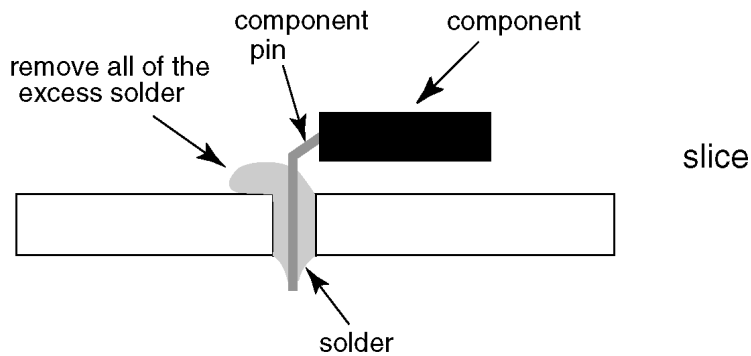
Caution

- Pb free solder has a higher melting point than standard solder. Typically the melting point is 50 ~ 70 °F (30~40 °C) higher. Please use a high temperature soldering iron and set it to 700 ± 20 °F (370 ± 10 °C).

- Pb free solder will tend to splash when heated too high (about 1100 °F or 600 °C).

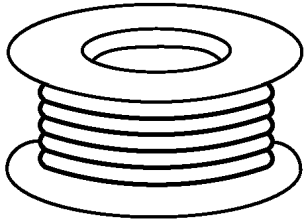
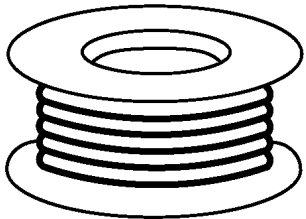
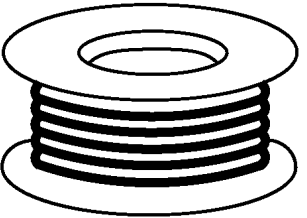
If you must use Pb solder, please completely remove all of the Pb free solder on the pins or solder area before applying Pb solder. If this is not practical, be sure to heat the Pb free solder until it melts, before applying Pb solder.

- After applying PbF solder to double layered boards, please check the component side for excess solder which may flow onto the opposite side. (see figure below)



Suggested Pb free solder

There are several kinds of Pb free solder available for purchase. This product uses Sn+Ag+Cu (tin, silver, copper) solder. However, Sn+Cu (tin, copper), Sn+Zn+Bi (tin, zinc, bismuth) solder can also be used.

0.3mm X 100g	0.6mm X 100g	1.0mm X 100g
		

5 PCB Structure sheet of GP5D chassis

Board Name	Function	Remarks
D1	Format Converter	1
D2	Plasma AI Sub-Field Processor	1
Z	Audio out	
SS	Sustain Out	1
SC	Scan out	1
SU	Sustain connection (Upper)	1
SD	Sustain connection (Lower)	1
C1	Data Drive (Lower Right)	
C2	Data Drive (Lower Left)	
H3	Speaker terminal	
S1	Power switch	
SS2	Sustain connection (Upper)	
SS3	Sustain connection (Lower)	
V1	Front SW. & Remote receiver	
F	Line filter	
P	Power supply	1
HX	PC_type_Input terminal	
RTB421	RCA type_Input terminal	

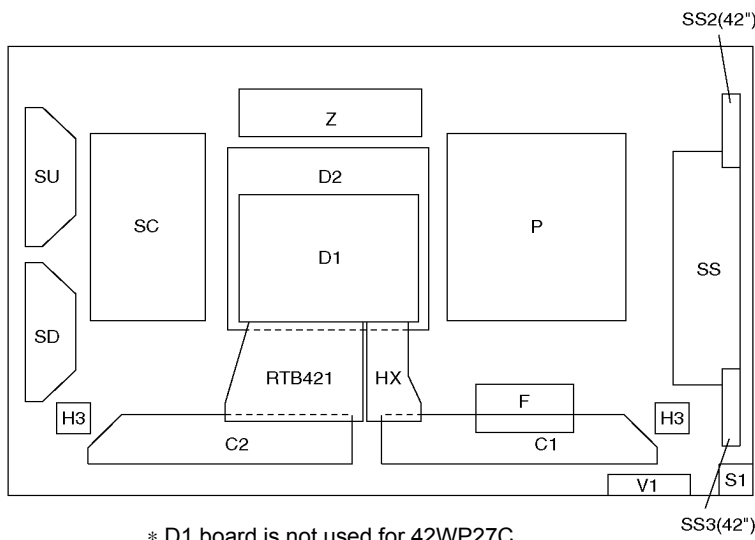
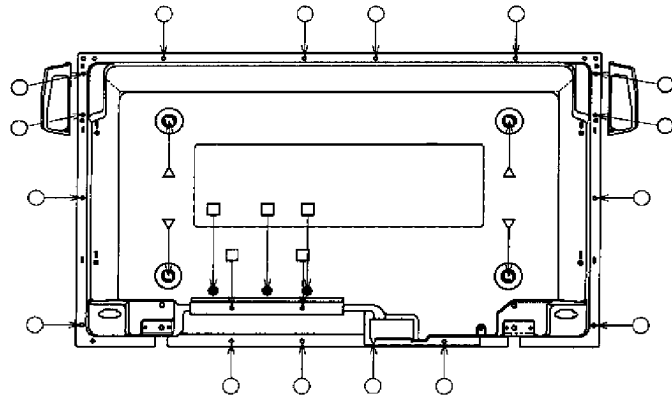
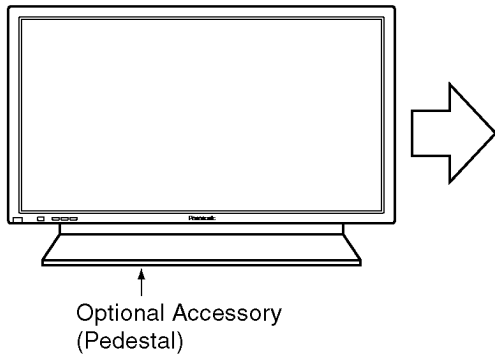
Remarks

1. Recommend PCB's for initial service for GP5D chassis.

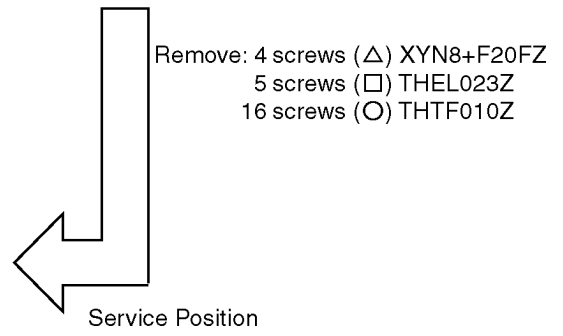
6 Service Hint

Remove the Back Cover

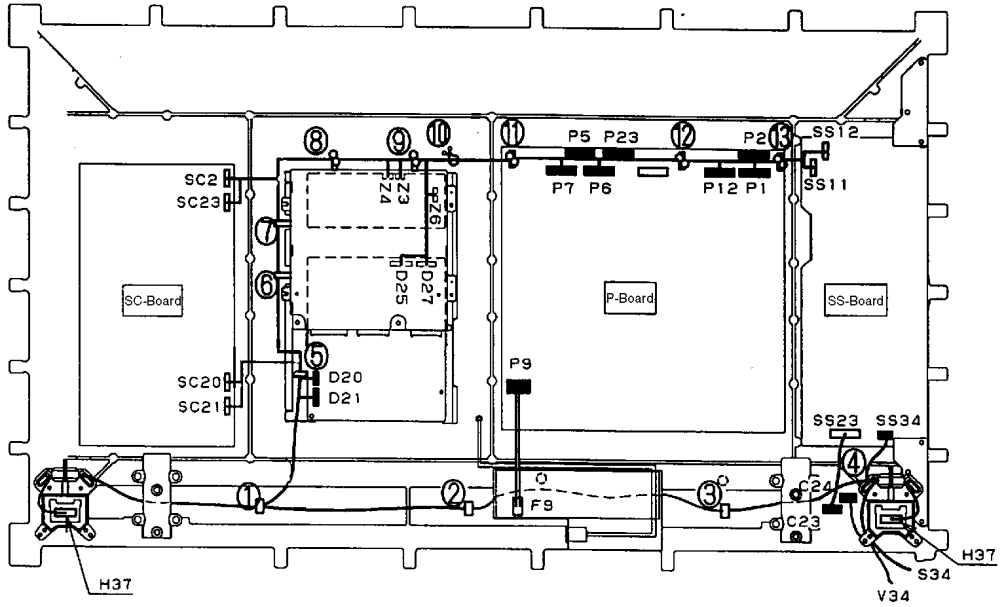
Stand the Unit used for Optional Accessory



* D1 board is not used for 42WP27C.



7 Location of Lead Wiring



CON:NO	CON:NO	1	2	3	4	5	6	7	8	9	10	11	12	13
SS12	P12													
SS11	P1													
SC2	P2													
SC23	P23													
Z6	P6													
D25	P5													
D27	P7													
F9	P9													
SC20	D20													
SC21	D21													
Z3	H37 (SC)													
Z4	H37 (SS)													
S34	SS34													
SS23	C23													
V34	C24													

Connector Connection
 P1,P2,P5,P6,P7,P9,P12,P23
 D20,D21,Z3,Z4,H37(SS · SC)
 SS34,C23,C24,AC INLET

8 Adjustment Procedure

8.1. +B Set-up

8.1.1. Item / Preparation

1. Input a Grey scale signal.
2. Set the picture controls: -
Picture mode: Normal
White balance: Normal

8.1.2. Adjustments

Adjust and confirm indicated test point for the specified voltage.

Adjust

Name	Volume	Voltage	Test Point
Vsus	R540	170V ± 1V	P1 pin 3
Vda	R537	67V ± 0.5V	P12 pin 1

Confirm

Name	Voltage	Test Point
15V	15.3V ± 0.5V	P23 pin 2
13V	13.3V ± 0.5V	P25 pin 5
15V	15.2V ± 0.5V	P25 pin 1
Audio 13V	12.5V ± 0.8V	P6 pin 1
Audio-13V	-12.5V ± 0.8V	P6 pin 3
5V	5.2V ± 0.3V	P25 pin 7
STB 5V	5.0V ± 0.3V	P27 pin 4
Fan 15V	15.0V ± 0.5V	P10 pin 1
Fan 5V	5.2V ± 0.3V	P10 pin 4
PFC	380V ± 15V	C447(+)

8.2. Driver Set-up

8.2.1. Item / Preparation

1. Input an APL 100 % white signal.
2. Set the picture controls: -
Picture mode: Normal
White balance: Cool
Aspect: 16:9

8.2.2. Adjustments

Adjust driver section voltages referring the panel data on the panel data label.

Name	Test Point	Voltage	Volume
Vsus	TPVSUS (SS)	170V ± 1V	R540 (P)
Vbk	TPVBK (SC)	155V ± 5V	R6443 (SC)
Ve	TPVE (SS)	150V ± 1V	R6774 (SS)
Vset	TPVSET (SC)	218V ± 6V	---
Vad	TPVAD (SC)	-90V ± 1V	R6477 (SC)
Vscn	TPVSCN (SC)	Vad*+118V ± 2V	---
Vda	TPVDA (SS)	67V ± 1V	R537 (P)

*See the Panel label.

Panel Label information

M * * * * *

NO. *****

Ve : **** V Vsus : **** V

Vbk : **** V Vad : **** V

* * * MADE IN JAPAN

← Adjustment voltage

Panel Production date

Panel Production date

For Example

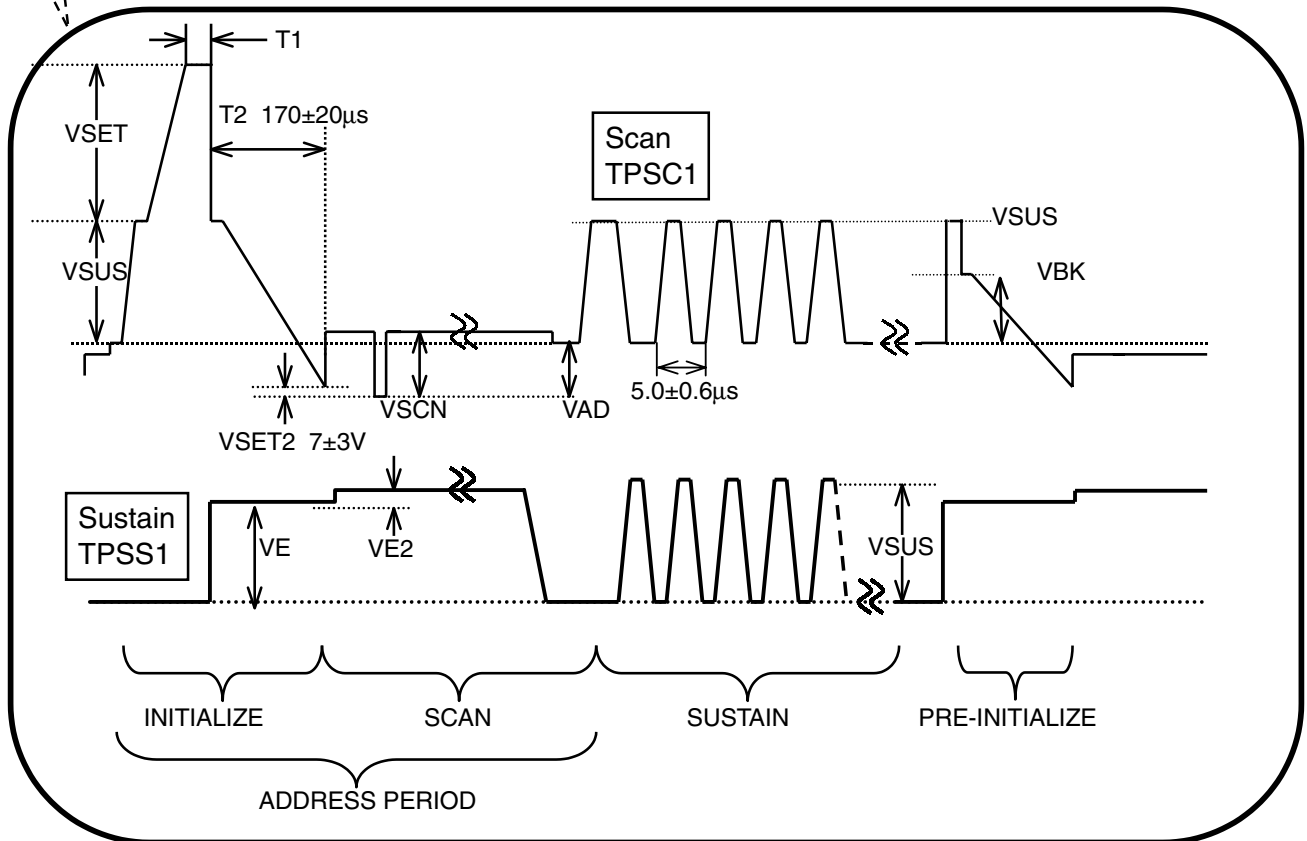
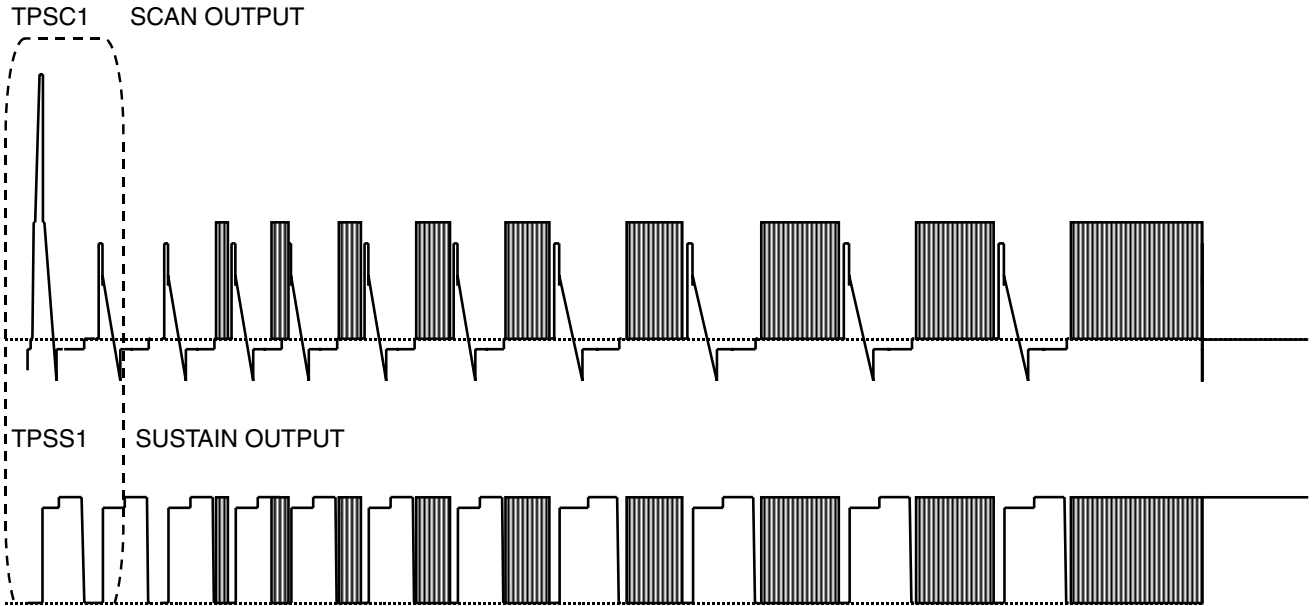
1 .	7 .	1	--> Beg. of July, 2001
Year	Month		
		1	Beginning of Month (1-10)
		2	Middle of Month (11-20)
		3	End of Month (21-31)
	1		January
	2		February
	3		March
	:		:
	9		September
	O		October
	N		November
	D		December
9	1999		
0	2000		
1	2001		
:			

8.3. Initialization Pulse Adjust

1. Input a Cross hatch signal.
2. Set the picture controls: -
 Picture mode: Normal
 White balance: Cool

Adjust the indicated test point for the specified wave form.

	Test point	Volume	Level
T1	TPSC1 (SC)	---	$20 \pm 15\mu$ Sec
T2	TPSS1 (SS)	R6557 (SC)	$170 \pm 20\mu$ Sec



8.4. P.C.B. (Printed Circuit Board) exchange

8.4.1. Caution

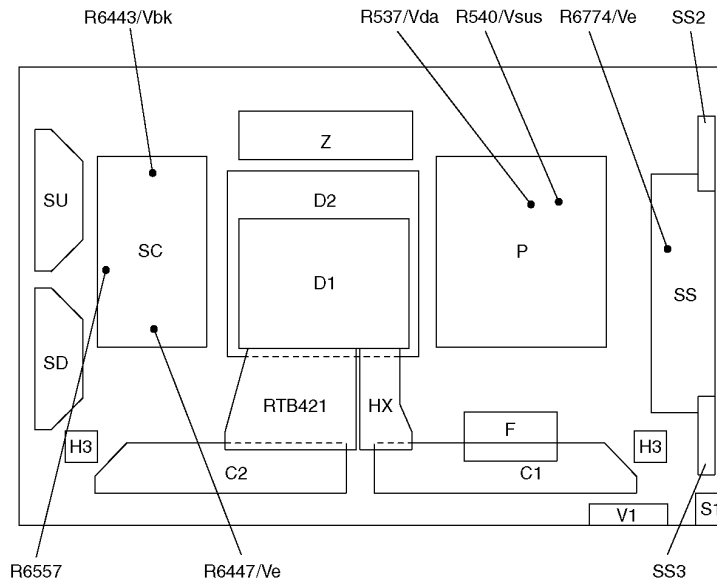
1. To remove P.C.B. , wait 1 minute after power was off for discharge from electrolysis capacitors.

8.4.2. Quick adjustment after P.C.B. exchange

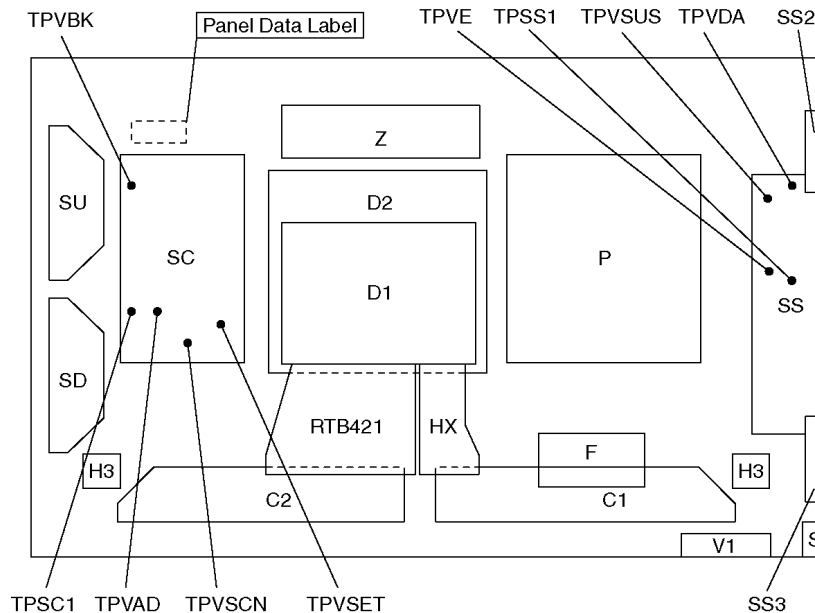
P.C.B.	Name	Test Point	Voltage	Volume
P Board	Vsus	TPVSUS (SS)	170V ± 1V	R540 (P)
	Vda	TPVDA (SS)	67V ± 1V	R537 (P)
SC Board	Vbk	TPVBK (SC)	155V ± 5V	R6443 (SC)
	Vad	TPVAD (SC)	-90V ± 1V	R6477 (SC)
SS Board	Ve	TPVE (SS)	150V ± 1V	R6774 (SS)
			153V ± 1V	
D1 Board	White blanc, Pedestal and Sub brightness for NTSC, PAL, HD, PC and 625i signals			

*See the Panel label.

8.5. Adjustment Volume Location



8.6. Test Point Location



* D1 board is not used for 42WP27C.

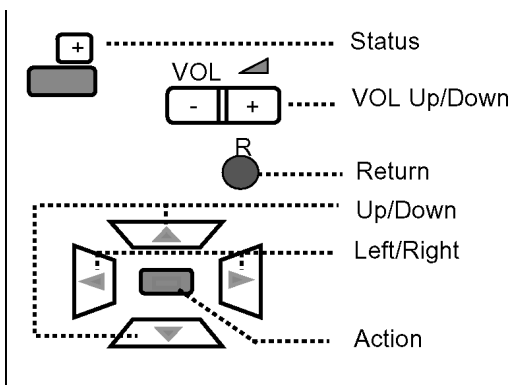
9 Service mode

9.1. CAT (computer Aided Test) mode

CAT mode menu

CAT Panel sys8.2		Mode	Function	Access button
IIC Mode	←	IIC	Service Alignment	Action
CD Mode	←	CD(Complete Diagnostics)	Software version information EEPROM edit	Mute more than 5 seconds
SD Mode	←	SD(Status Display)	MTBF parameter	Action
MS Mode	←	MS Mode	Not use	----
ID Mode	←	ID	Not use	----

Remote control



How to access the CAT mode.

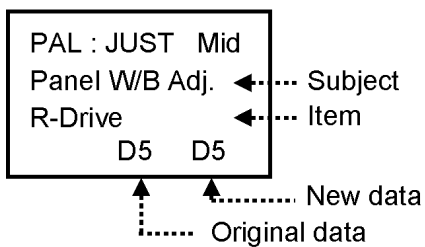
Press and the hold the Volume down / - button on the front panel of the unit and press the status button on the remote control 3 times quickly within 1 second, this will place the unit into the CAT mode.

To exit the **CAT mode**, access the **ID mode** and switch off the main power.

9.1.1. IIC mode

Select the IIC mode by **Up/Down button** on the remote control at the front page of CAT mode then press the **Action button** on the remote control.

OSD



How to use the IIC mode.

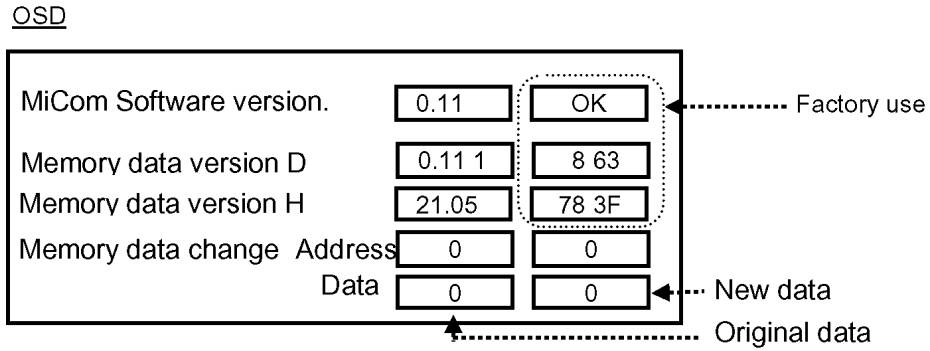
1. Select the alignment **Subject** by **Up/Down buttons** on the remote control.
2. Select the alignment **Item** by **Left/Right buttons** on the remote control.
3. Adjust **optimum setting** by **Volume Up/Down buttons** on the remote control.
4. The **data is memorized** when press the **R button** on the remote control or change the alignment Subject (or Items).

Subject and item are mentioned on page 14.

To exit the IIC mode, press the **R button** on the remote control.

9.1.2. CD mode

Select the CD mode by **Up/Down button** on the remote control at the front page of CAT mode then press the **Mute button** on the remote control more than 5 sec.

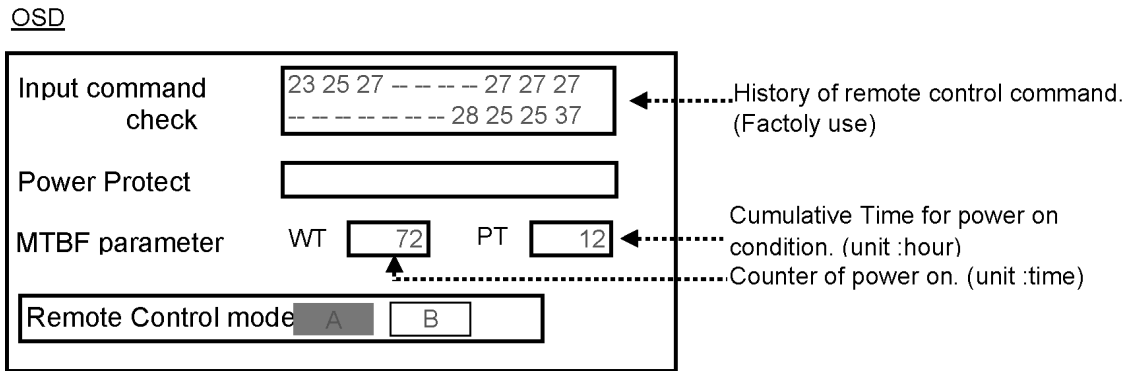


Micom software version (IC9354), this version can be upgrade by replace of new version IC.

To exit the CD mode, press the **R button** on the remote control.

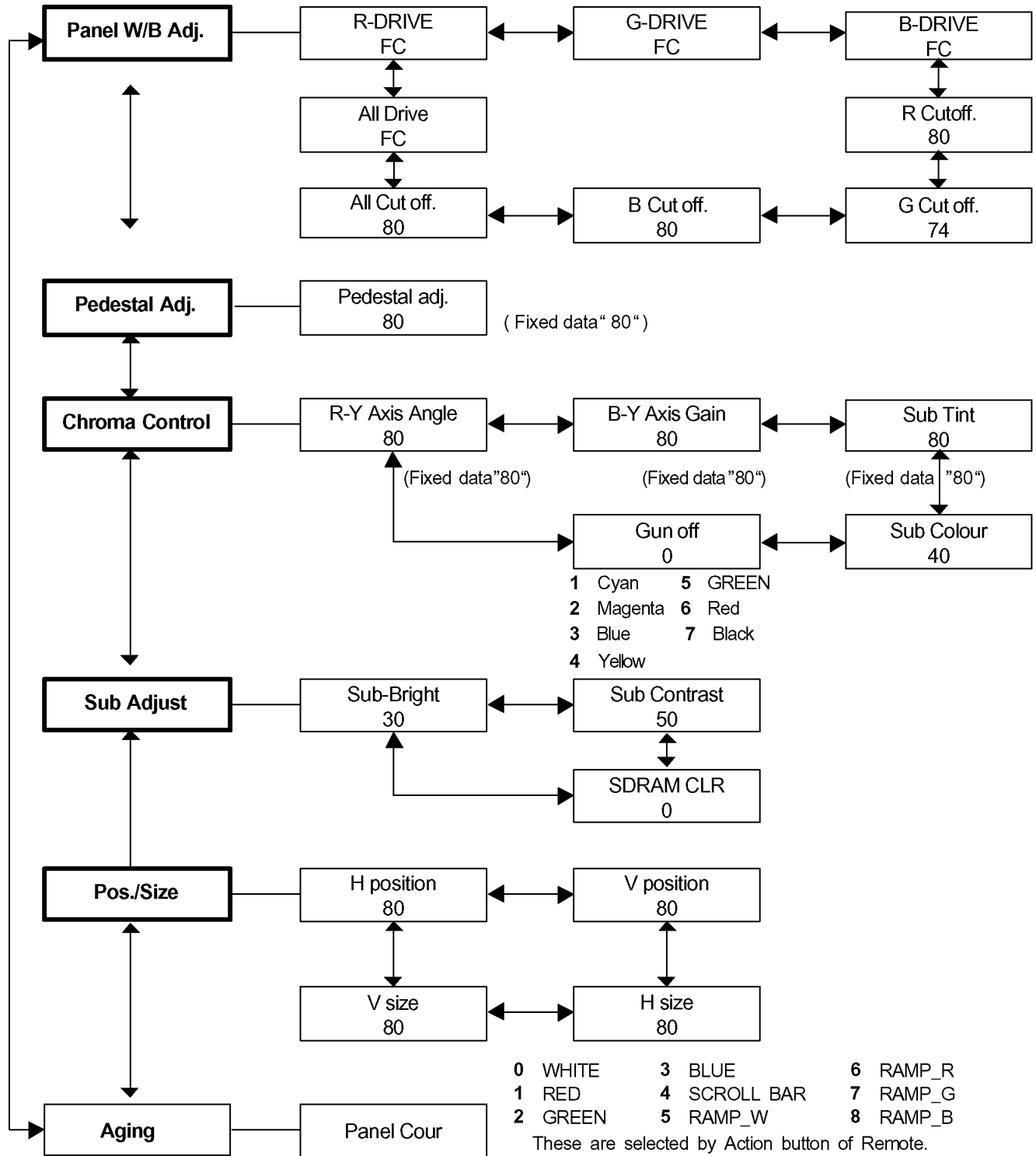
9.1.3. SD mode

Select the SD mode by Up/Down button on the remote control at the front page of CAT mode then press the Action button on the remote control.



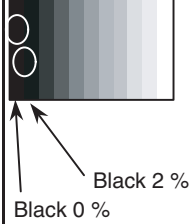
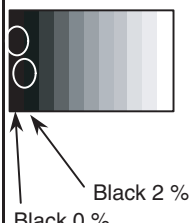
To exit the SD mode, press the **R button** on the remote control.

9.2. IIC mode structure (following items value is sample data.)

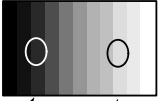


10 Alignment

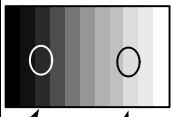
10.1. Pedestal setting

	INPUT	Equipment	Setting	Alignment menu	Procedure
1	Component (525i, 525p, 625i, 720i or 1080i) Gray Scale Pattern 		Picture: Normal White balance: Cool Aspect: 16:9	PANEL W/B R cut off G cut off B cut off Chroma Control: Gun off RGB Sub Adjust: G Sub Bright Chroma Control: Gun off RGB Sub Adjust: B Sub Bright Chroma Control: Gun off RGB Sub Adjust: R Sub Bright	** Adjust at the dark room. 1) Set R,G and B cut off to " 80 ". 2) Set Gun off to "5". (Only green pixels can emit.) 3) Adjust G Sub bright to start some of green pixels emission at black 2% area and no emission at black 0% area. 4) Set Gun off to "3". (Only blue pixels can emit.) 5) Adjust B Sub bright to start some of blue pixels emission at black 2% area and no emission at black 0% area. 6) Set Gun off to "6". (Only red pixels can emit.) 7) Adjust R Sub bright to start some of red pixels emission at black 2% area and no emission at black 0% area.
2	RGB(PC) Gray Scale Pattern 		Picture: Normal White balance: Cool Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change input to RGB signal. 2) Repeat procedure 1) to 7) of Component input signal.

10.2. NTSC panel white balance

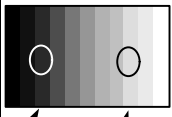
	INPUT	Equipment	Setting	Alignment menu	Procedure												
1	NTSC Gray Scale Pattern 	Color Analyzer	Picture: Normal White balance: Cool Aspect: 16:9	Sub Adjust Sub Bright PANEL W/B G cut off PANEL W/B B cut off R cut off Sub Adjust Sub Bright PANEL W/B G Drive PANEL W/B B Drive R Drive PANEL W/B R,G,B Drive R,G,B Drive PANEL W/B R,G,B cut off	1) Find the nearest area to brightness of 10 cd/m ² as Low light by color sensor. 2) Adjust Sub bright to set Low light level to 10 cd/m ² exactly. 3) Set G cut off to " 80 ". 4) Adjust B and R cut off to set color temperature as shown Fig.-01. 5) If Sub Bright is changed re-adjust it to set Low light to 10 cd/m ² . 6) Find 75% of white area by color sensor. 7) Set G Drive to " E8 ". 8) Adjust B and R Drive to set color temperature as shown Fig.-01. 9) Repeat item 4) to 7) to set both Low light and high light. 10) Increase same steps of R, G and B Drive to set largest level of 3 color drive to "FC". 11) Re-adjust Low light level again.												
					<table border="1"> <thead> <tr> <th>Color Temp.</th> <th>x</th> <th>y</th> </tr> </thead> <tbody> <tr> <td>Cool(Hi)</td> <td>0.272</td> <td>0.290</td> </tr> <tr> <td>Normal(Mid)</td> <td>0.288</td> <td>0.296</td> </tr> <tr> <td>Warm(Low)</td> <td>0.313</td> <td>0.329</td> </tr> </tbody> </table> <p>Fig. -01</p>	Color Temp.	x	y	Cool(Hi)	0.272	0.290	Normal(Mid)	0.288	0.296	Warm(Low)	0.313	0.329
Color Temp.	x	y															
Cool(Hi)	0.272	0.290															
Normal(Mid)	0.288	0.296															
Warm(Low)	0.313	0.329															
2			Picture: Normal White balance: Normal Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change white balance to "Normal". 2) Repeat procedure 3) to 11) of Cool mode.												
3			Picture: Normal White balance: Warm Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change white balance to "Warm". 2) Repeat procedure 3) to 11) of Cool mode.												
4			Picture: Normal White balance: Cool Aspect: 16:9	Picture Menu Sub Adjust Sub Bright	1) Change color templature to "Cool". 2) Re-set Sub bright to "30"												

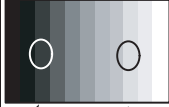
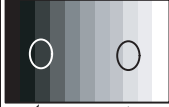
10.3. PAL/SECAM panel white balance

	INPUT	Equipment	Setting	Alignment menu	Procedure												
1	PAL Gray Scale Pattern 	Color Analyzer	Picture: Normal White balance: Cool Aspect: 16:9	Sub Adjust Sub Bright PANEL W/B G cut off PANEL W/B B cut off R cut off Sub Adjust Sub Bright PANEL W/B G Drive PANEL W/B B Drive R Drive PANEL W/B R,G,B Drive R,G,B Drive PANEL W/B R,G,B cut off	<ol style="list-style-type: none"> 1) Find the nearest area to brightness of 10 cd/m² as Low light by color sensor. 2) Adjust Sub bright to set Low light level to 10 cd/m² exactly. 3) Set G cut off to "80". 4) Adjust B and R cut off to set color temperature as shown Fig.-02. 5) If Sub Bright is changed re-adjust it to set Low light to 10 cd/m². 6) Find 75% of white area by color sensor. 7) Set G Drive to "E8". 8) Adjust B and R Drive to set color temperature as shown Fig.-02. 9) Repeat procedure 4) to 7) to set both Low light and high light. 10) Increase same steps of R, G and B Drive to set largest level of 3 color drive to "FC". 11) Re-adjust Low light level again. <table border="1" data-bbox="876 1008 1242 1123"> <thead> <tr> <th>Color Temp.</th> <th>x</th> <th>y</th> </tr> </thead> <tbody> <tr> <td>Cool(Hi)</td> <td>0.272</td> <td>0.290</td> </tr> <tr> <td>Normal(Mid)</td> <td>0.288</td> <td>0.296</td> </tr> <tr> <td>Warm(Low)</td> <td>0.313</td> <td>0.329</td> </tr> </tbody> </table> <p style="text-align: center;">Fig. -02</p>	Color Temp.	x	y	Cool(Hi)	0.272	0.290	Normal(Mid)	0.288	0.296	Warm(Low)	0.313	0.329
Color Temp.	x	y															
Cool(Hi)	0.272	0.290															
Normal(Mid)	0.288	0.296															
Warm(Low)	0.313	0.329															
2			Picture: Normal White balance: Normal Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	<ol style="list-style-type: none"> 1) Change white balance to "Normal". 2) Repeat procedure 3) to 11) of Cool mode. 												
3			Picture: Normal White balance: Warm Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	<ol style="list-style-type: none"> 1) Change white balance to "Warm". 2) Repeat procedure 3) to 11) of Cool mode. 												
4			Picture: Normal White balance: Cool Aspect: 16:9	Picture Menu Sub Adjust Sub Bright	<ol style="list-style-type: none"> 1) Change color temperature to "Cool". 2) Re-set Sub bright to "30" 												

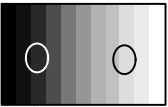
		Equipment	Setting	Alignment menu	Procedure																												
5			Picture: Normal Aspect: 16:9 White balance: Cool Normal Warm		1) Write down each color temperature of R,G,B drive and Cut off data as follows. <table border="1" data-bbox="933 262 1409 499"> <thead> <tr> <th>White Balance</th> <th>Cool</th> <th>Normal</th> <th>Warm</th> </tr> </thead> <tbody> <tr> <td>R Drive</td> <td></td> <td></td> <td></td> </tr> <tr> <td>G Drive</td> <td></td> <td></td> <td></td> </tr> <tr> <td>B Drive</td> <td></td> <td></td> <td></td> </tr> <tr> <td>R Cut off</td> <td></td> <td></td> <td></td> </tr> <tr> <td>G Cut off</td> <td></td> <td></td> <td></td> </tr> <tr> <td>B Cut off</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> 2) Input SECAM signal. 3) Copy PAL R,G,B drive and cut off data of each white balance mode to SECAM position.	White Balance	Cool	Normal	Warm	R Drive				G Drive				B Drive				R Cut off				G Cut off				B Cut off			
White Balance	Cool	Normal	Warm																														
R Drive																																	
G Drive																																	
B Drive																																	
R Cut off																																	
G Cut off																																	
B Cut off																																	
	SECAM signal																																

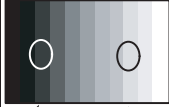
10.4. PC/RGB panel white balance

	INPUT	Equipment	Setting	Alignment menu	Procedure												
1	PC Gray Scale Pattern 	Color Analyzer	Picture: Normal White balance: Cool Aspect: 16:9	Sub Adjust Sub Bright PANEL W/B G cut off PANEL W/B B cut off R cut off Sub Adjust Sub Bright PANEL W/B G Drive PANEL W/B B Drive R Drive PANEL W/B R,G,B Drive R,G,B Drive PANEL W/B R,G,B cut off	1) Find the nearest area to brightness of 10 cd/m ² as Low light by color sensor. 2) Adjust Sub bright to set Low light level to 10 cd/m ² exactly. 3) Set G cut off to "80". 4) Adjust B and R cut off to set color temperature as shown Fig.-03. 5) If Sub Bright is changed re-adjust it to set Low light to 10 cd/m ² . 6) Find 75% of white area by color sensor. 7) Set G Drive to "E8". 8) Adjust B and R Drive to set color temperature as shown Fig.-03. 9) Repeat item 4) to 7) to set both Low light and high light. 10) Increase same steps of R, G and B Drive to set largest level of 3 color drive to "FC". 11) Re-adjust Low light level again.												
					<table border="1" data-bbox="876 1008 1242 1123"> <thead> <tr> <th>Color Temp.</th> <th>x</th> <th>y</th> </tr> </thead> <tbody> <tr> <td>Cool(Hi)</td> <td>0.272</td> <td>0.290</td> </tr> <tr> <td>Normal(Mid)</td> <td>0.288</td> <td>0.296</td> </tr> <tr> <td>Warm(Low)</td> <td>0.313</td> <td>0.329</td> </tr> </tbody> </table> <p style="text-align: center;">Fig. -03</p>	Color Temp.	x	y	Cool(Hi)	0.272	0.290	Normal(Mid)	0.288	0.296	Warm(Low)	0.313	0.329
Color Temp.	x	y															
Cool(Hi)	0.272	0.290															
Normal(Mid)	0.288	0.296															
Warm(Low)	0.313	0.329															
2			Picture: Normal White balance: Normal Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change white balance to "Normal". 2) Repeat procedure 3) to 11) of Cool mode.												
3			Picture: Normal White balance: Warm Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change white balance to "Warm". 2) Repeat procedure 3) to 11) of Cool mode.												
4			Picture: Normal White balance: Cool Aspect: 16:9	Picture Menu Sub Adjust Sub Bright	1) Change color templatue to "Cool". 2) Re-set Sub bright to "30"												

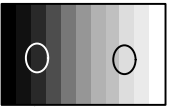
	INPUT	Equipment	Setting	Alignment menu	Procedure																												
5	RGB Gray Scale Pattern 		Picture: Normal Aspect: 16:9 White balance: Cool Normal Warm		1) Write down each color temperature of R,G,B drive and Cut off data as follows. <table border="1" data-bbox="933 306 1406 541"> <thead> <tr> <th>White Balance</th> <th>Cool</th> <th>Normal</th> <th>Warm</th> </tr> </thead> <tbody> <tr><td>R Drive</td><td></td><td></td><td></td></tr> <tr><td>G Drive</td><td></td><td></td><td></td></tr> <tr><td>B Drive</td><td></td><td></td><td></td></tr> <tr><td>R Cut off</td><td></td><td></td><td></td></tr> <tr><td>G Cut off</td><td></td><td></td><td></td></tr> <tr><td>B Cut off</td><td></td><td></td><td></td></tr> </tbody> </table> 2) Input RGB signal. 3) Copy PC R,G,B drive and cut off data of each white balance mode to RGB position.	White Balance	Cool	Normal	Warm	R Drive				G Drive				B Drive				R Cut off				G Cut off				B Cut off			
White Balance	Cool	Normal	Warm																														
R Drive																																	
G Drive																																	
B Drive																																	
R Cut off																																	
G Cut off																																	
B Cut off																																	
6	DVI Gray Scale Pattern 		Picture: Normal Aspect: 16:9 White balance: Cool Normal Warm		1) Write down each color temperature of R,G,B drive and Cut off data as follows. <table border="1" data-bbox="933 926 1406 1161"> <thead> <tr> <th>White Balance</th> <th>Cool</th> <th>Normal</th> <th>Warm</th> </tr> </thead> <tbody> <tr><td>R Drive</td><td></td><td></td><td></td></tr> <tr><td>G Drive</td><td></td><td></td><td></td></tr> <tr><td>B Drive</td><td></td><td></td><td></td></tr> <tr><td>R Cut off</td><td></td><td></td><td></td></tr> <tr><td>G Cut off</td><td></td><td></td><td></td></tr> <tr><td>B Cut off</td><td></td><td></td><td></td></tr> </tbody> </table> 2) Input DVI signal. 3) Copy PC R,G,B drive and cut off data of each white balance mode to DVI position.	White Balance	Cool	Normal	Warm	R Drive				G Drive				B Drive				R Cut off				G Cut off				B Cut off			
White Balance	Cool	Normal	Warm																														
R Drive																																	
G Drive																																	
B Drive																																	
R Cut off																																	
G Cut off																																	
B Cut off																																	

10.5. HD/ 525i /525p panel white balance

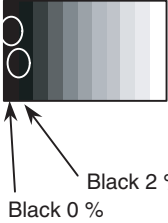
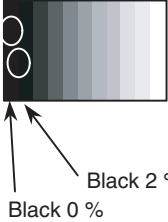
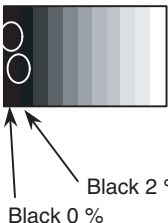
	INPUT	Equipment	Setting	Alignment menu	Procedure												
1	HD (720i or 1080i) Gray Scale Pattern 	Color Analyzer	Picture: Normal White balance: Cool Aspect: 16:9	Sub Adjust Sub Bright PANEL W/B G cut off PANEL W/B B cut off R cut off Sub Adjust Sub Bright PANEL W/B G Drive PANEL W/B B Drive R Drive PANEL W/B R,G,B Drive R,G,B Drive PANEL W/B R,G,B cut off	1) Find the nearest area to brightness of 10 cd/m ² as Low light by color sensor. 2) Adjust Sub bright to set Low light level to 10 cd/m ² exactly. 3) Set G cut off to " 80 ". 4) Adjust B and R cut off to set color temperature as shown Fig.-04. 5) If Sub Bright is changed re-adjust it to set Low light to 10 cd/m ² . 6) Find 75% of white area by color sensor. 7) Set G Drive to " E8 ". 8) Adjust B and R Drive to set color temperature as shown Fig.-04. 9) Repeat item 4) to 7) to set both Low light and high light. 10) Increase same steps of R, G and B Drive to set largest level of 3 color drive to "FC". 11) Re-adjust Low light level again. <table border="1" data-bbox="880 1039 1242 1159"> <thead> <tr> <th>Color Temp.</th> <th>x</th> <th>y</th> </tr> </thead> <tbody> <tr> <td>Cool(Hi)</td> <td>0.272</td> <td>0.290</td> </tr> <tr> <td>Normal(Mid)</td> <td>0.288</td> <td>0.296</td> </tr> <tr> <td>Warm(Low)</td> <td>0.313</td> <td>0.329</td> </tr> </tbody> </table> Fig. -04	Color Temp.	x	y	Cool(Hi)	0.272	0.290	Normal(Mid)	0.288	0.296	Warm(Low)	0.313	0.329
Color Temp.	x	y															
Cool(Hi)	0.272	0.290															
Normal(Mid)	0.288	0.296															
Warm(Low)	0.313	0.329															
2			Picture: Normal White balance: Normal Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change white balance to "Normal". 2) Repeat procedure 3) to 11) of Cool mode.												
3			Picture: Normal White balance: Warm Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change white balance to "Warm". 2) Repeat procedure 3) to 11) of Cool mode.												
4			Picture: Normal White balance: Cool Aspect: 16:9	Picture Menu Sub Adjust Sub Bright	1) Change color templatue to "Cool". 2) Re-set Sub bright to "30"												

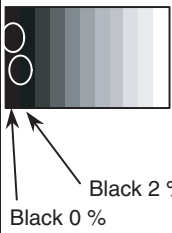
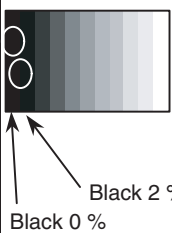
	INPUT	Equipment	Setting	Alignment menu	Procedure																												
5	RGB Gray Scale Pattern 		Picture: Normal Aspect: 16:9 White balance: Cool Normal Warm		1) Write down each color temperature of R,G,B drive and Cut off data as follows. <table border="1" data-bbox="933 262 1406 495"> <thead> <tr> <th>White Balance</th> <th>Cool</th> <th>Normal</th> <th>Warm</th> </tr> </thead> <tbody> <tr> <td>R Drive</td> <td></td> <td></td> <td></td> </tr> <tr> <td>G Drive</td> <td></td> <td></td> <td></td> </tr> <tr> <td>B Drive</td> <td></td> <td></td> <td></td> </tr> <tr> <td>R Cut off</td> <td></td> <td></td> <td></td> </tr> <tr> <td>G Cut off</td> <td></td> <td></td> <td></td> </tr> <tr> <td>B Cut off</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> 2) Change input signal to 525i and 525p. 3) Copy HD drive and cut off data of each white balance mode to each signals position.	White Balance	Cool	Normal	Warm	R Drive				G Drive				B Drive				R Cut off				G Cut off				B Cut off			
White Balance	Cool	Normal	Warm																														
R Drive																																	
G Drive																																	
B Drive																																	
R Cut off																																	
G Cut off																																	
B Cut off																																	

10.6. 625i panel balance

	INPUT	Equipment	Setting	Alignment menu	Procedure												
1	625i Gray Scale Pattern 	Color Analyzer	Picture: Normal White balance: Cool Aspect: 16:9	Sub Adjust Sub Bright PANEL W/B G cut off PANEL W/B B cut off R cut off Sub Adjust Sub Bright PANEL W/B G Drive PANEL W/B B Drive R Drive PANEL W/B R,G,B Drive R,G,B Drive PANEL W/B R,G,B cut off	1) Find the nearest area to brightness of 10 cd/m ² as Low light by color sensor. 2) Adjust Sub bright to set Low light level to 10 cd/m ² exactly. 3) Set G cut off to " 80 ". 4) Adjust B and R cut off to set color temperature as shown Fig.-05. 5) If Sub Bright is changed re-adjust it to set Low light to 10 cd/m ² . 6) Find 75% of white area by color sensor. 7) Set G Drive to " E8 ". 8) Adjust B and R Drive to set color temperature as shown Fig.-05. 9) Repeat item 4) to 7) to set both Low light and high light. 10) Increase same steps of R, G and B Drive to set largest level of 3 color drive to "FC". 11) Re-adjust Low light level again. <table border="1" data-bbox="881 1010 1240 1129"> <thead> <tr> <th>Color Temp.</th> <th>x</th> <th>y</th> </tr> </thead> <tbody> <tr> <td>Cool(Hi)</td> <td>0.272</td> <td>0.290</td> </tr> <tr> <td>Normal(Mid)</td> <td>0.288</td> <td>0.296</td> </tr> <tr> <td>Warm(Low)</td> <td>0.313</td> <td>0.329</td> </tr> </tbody> </table> Fig. -05	Color Temp.	x	y	Cool(Hi)	0.272	0.290	Normal(Mid)	0.288	0.296	Warm(Low)	0.313	0.329
Color Temp.	x	y															
Cool(Hi)	0.272	0.290															
Normal(Mid)	0.288	0.296															
Warm(Low)	0.313	0.329															
2			Picture: Normal White balance: Normal Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change white balance to "Normal". 2) Repeat procedure 3) to 11) of Cool mode.												
3			Picture: Normal White balance: Warm Aspect: 16:9	PANEL W/B R,G,B cut off PANEL W/B R,G,B Drive	1) Change white balance to "Warm". 2) Repeat procedure 3) to 11) of Cool mode.												
4			Picture: Normal White balance: Cool Aspect: 16:9	Picture Menu Sub Adjust Sub Bright	1) Change color templatue to "Cool". 2) Re-set Sub bright to "30"												

10.7. Sub brightness setting

	INPUT	Equipment	Setting	Alignment menu	Procedure
1	NTSC Gray Scale Pattern 		Picture: Normal Aspect: 16:9	PANEL W/B All cut off	** Adjust at the dark room. 1) Set white balance to Cool . 2) Adjust All cut off to start some pixels emission at black 2% area and no emission at black 0% area. 3) Write down all cut off data. 4) Set white balance to Normal . 5) Adjust All cut off to set same data of Cool mode. 6) Set white balance to warm . 7) Adjust All cut off to set same data of Cool mode.
2	PAL Gray Scale Pattern 		Picture: Normal Aspect: 16:9	PANEL W/B All cut off	** Adjust at the dark room. 1) Set white balance to Cool . 2) Adjust All cut off to start some pixels emission at black 2% area and no emission at black 0% area. 3) Write down all cut off data. 4) Set white balance to Normal . 5) Adjust All cut off to set same data of Cool mode. 6) Set white balance to warm . 7) Adjust All cut off to set same data of Cool mode. 8) Change to SECAM signal. 9) Copy PAL All cut off data to SECAM mode.
	SECAM Gray Scale Pattern				8) Change to SECAM signal. 9) Copy PAL All cut off data to SECAM mode.
3	PC Gray Scale Pattern 		Picture: Normal Aspect: 16:9	PANEL W/B All cut off	** Adjust at the dark room. 1) Set white balance to Cool . 2) Adjust All cut off to start some pixels emission at black 2% area and no emission at black 0% area. 3) Write down all cut off data. 4) Set white balance to Normal . 5) Adjust All cut off to set same data of Cool mode. 6) Set white balance to warm . 7) Adjust All cut off to set same data of Cool mode. 8) Change to RGB input signal. 9) Copy PC All cut off data to RGB mode. 10) Change to DVI input signal. 11) Copy PC All cut off data to DVI mode.
	RGB Gray Scale Pattern				8) Change to RGB input signal. 9) Copy PC All cut off data to RGB mode.
	DVI Gray Scale Pattern				10) Change to DVI input signal. 11) Copy PC All cut off data to DVI mode.

	INPUT	Equipment	Setting	Alignment menu	Procedure
4	525i Gray Scale Pattern 		Picture: Normal Aspect: 16:9	PANEL W/B All cut off	** Adjust at the dark room. 1) Set white balance to Cool . 2) Adjust All cut off to start some pixels emission at black 2% area and no emission at black 0% area. 3) Write down all cut off data. 4) Set white balance to Normal . 5) Adjust All cut off to set same data of Cool mode. 6) Set white balance to warm. 7) Adjust All cut off to set same data of Cool mode. 8) Change to 525p signal. 9) Copy 525i All cut off data to 525p mode.
	525p Gray Scale Pattern				8) Change to HD signal. 9) Copy 525i All cut off data to HD mode.
	HD (720i or 1080i) Gray Scale Pattern				
5	625i Gray Scale Pattern 		Picture: Normal Aspect: 16:9	PANEL W/B All cut off	** Adjust at the dark room. 1) Set white balance to Cool . 2) Adjust All cut off to start some pixels emission at black 2% area and no emission at black 0% area. 3) Write down all cut off data. 4) Set white balance to Normal . 5) Adjust All cut off to set same data of Cool mode. 6) Set white balance to warm. 7) Adjust All cut off to set same data of Cool mode.

11 Trouble shooting guide

11.1. Self Check

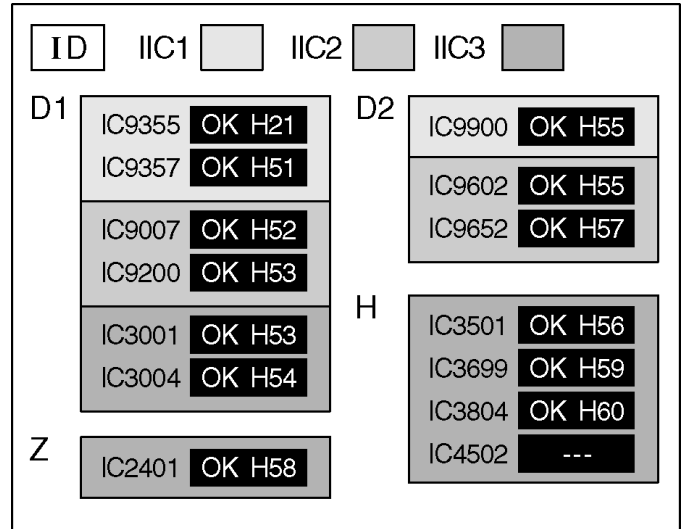
11.1.1. Display Indication

1. Self-check is used to automatically check the bus line controlled circuit of the Plasma display.
2. To get into the Self-check mode, press the **volume down** button on the customer controls at the front of the set, at the same time pressing the **OFF-TIMER** button on the remote control, and the screen will show :-

If the CCU ports have been checked and found to be incorrect Or not located then " - - " will appear in place of " OK "

Note:

In case of disconnected of RTB421 "IC3699 - -" is displayed.



11.1.2. Power LED Blinking timing chart

1. Subject

Information of LED Flashing timing chart.

2. Contents

When an abnormality has occurred the unit, the protection circuit operates and reset to the stand by mode. At this time, the defective block can be identified by the number of blinks of the Power LED on the front panel of the unit.

Blinking times	Blink timing	Contents & Check point
Twice	<p>3 sec Once No Light Light</p>	SC,SS,C board
Three		D board
Four		P board (Check IC508 protection circuits)
Six		Fan circuit / Fan stop Check Pin3 of P10 connectors.

3. Remarks

Above Fan function is operated during the fans are installed.

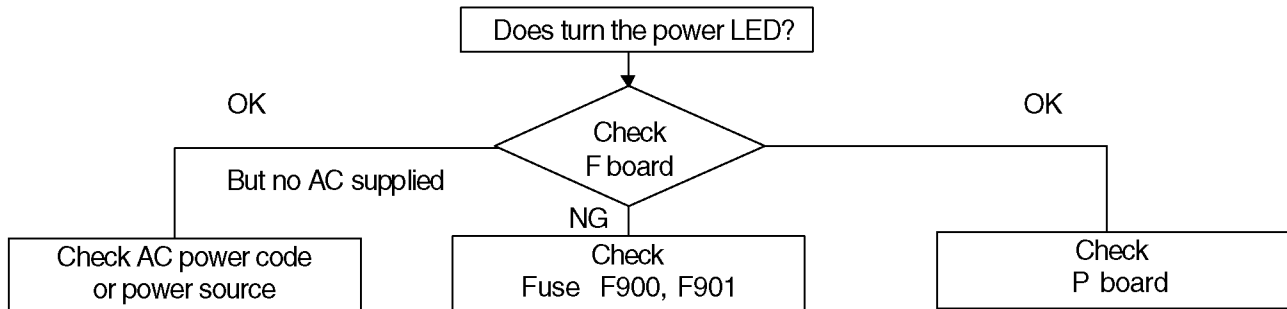
11.2. No Power

First check point

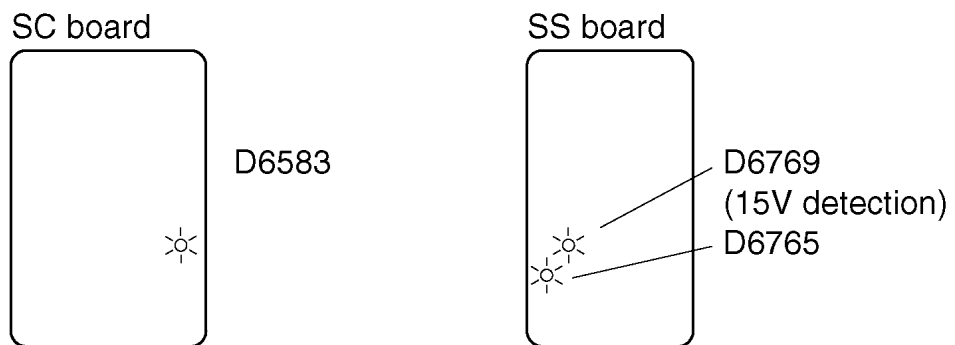
There are following 3 states of No Power indication by power LED.

1. No lit
2. Green is lit then turns red blinking a few seconds later.
3. Only red is lit.

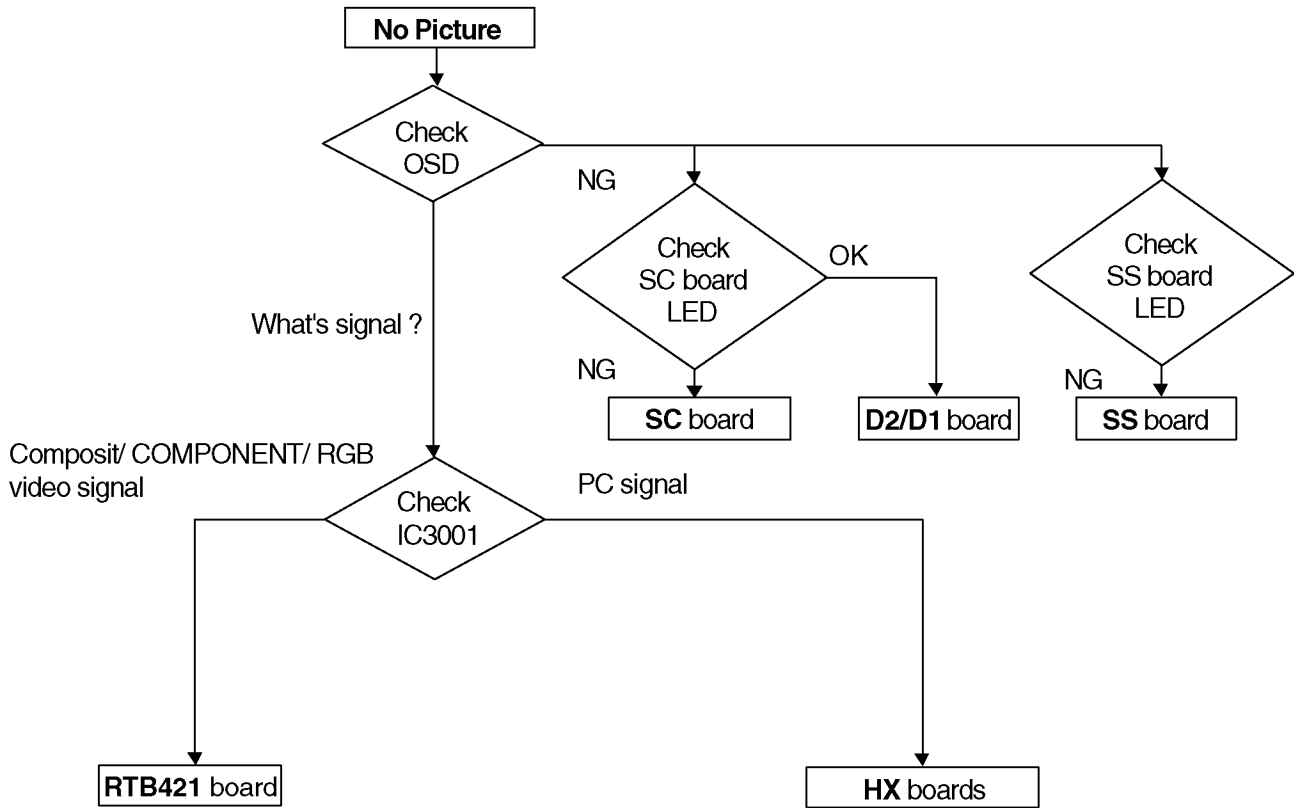
1. No lit



Drive circuits LED indicator

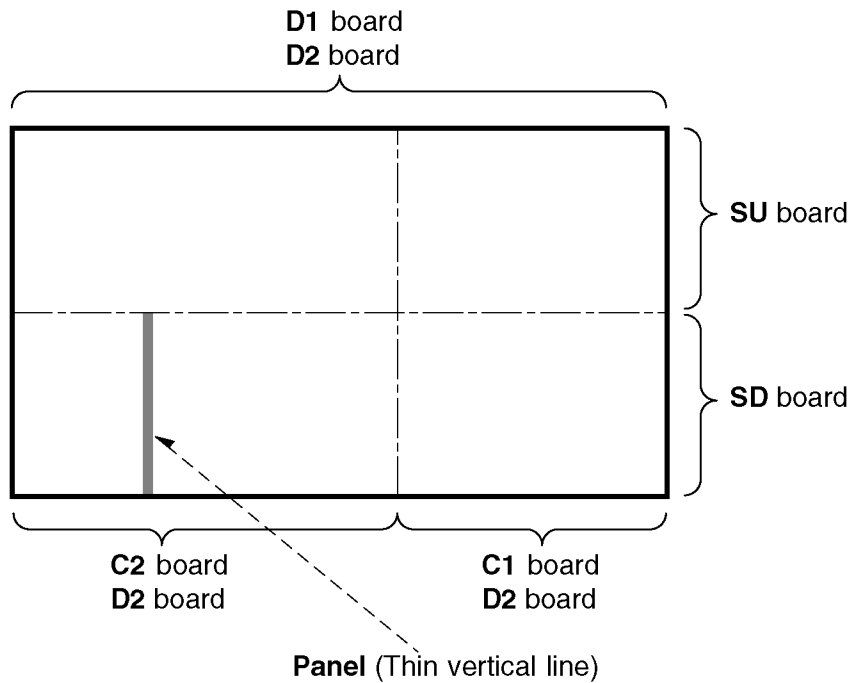


11.3. No Picture



11.4. Local screen failure

Plasma display may have local area failure on the screen. Fig - 1 is the possible defect P.C.B. for each local area.




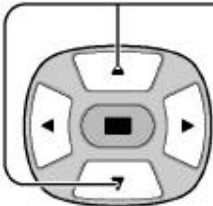
<Local screen failure chart>

Fig - 1


12 Option Setting

How to access the Option menu

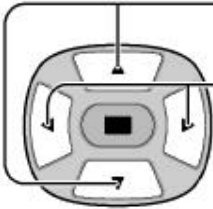
1  Press to display the Setup menu.

2  Press to select OSD Language.



3  Press down for more than 3 seconds to display the Option menu.

Setting the Option menus

1  Press to select the desired item.
Press to select the desired function.
The option menu will disappear 60 seconds after operation.

2  Press to exit Option menu.

Hidden Option Menu for GP5D series

GP5D chassis series have special function and operation setting facility called Option Menu. This Option Menu is useful for special function required customers. This should be set at the installation stage. The end user could not set or change these because of hidden On screen menu.

Option menus	default setting	Contents
Wobbling	Off	Wobbling operation On/Off. The outline of burnt image will be blurred by intermittent image sift.
Off-timer function	Enable	Off-timer operation Enable/Disable.
On Screen display	On	Enable/Disable to display input mode indication after power on and no signal indication.
Initial Input	Off	Sets the initial input mode when the power is turned on . Allow input mode selection while power is on.
Initial VOL. level	Off	Sets the initial volume level when the power is turned on. Allow Volume control while power is on.
Maximum VOL. Level	Off	Sets the maximum volume to desired level. Volume cannot exceed this level.
INPUT lock	Off	Fixes the input mode to AV, Component/RGB or PC. Can not change input mode by input selection key.
Button lock	Off	Enable/Disable front operation buttons (Input and/or volume up/down)
Studio W/B	Off	Set warm mode color temperature to 3,200 Kelvin.
Remocon User Level	Off	Remote key invalidation. Off : Valid key is all key of remote. User1 : Valid key are only Stand-by (ON/OFF), Input, Status, Surround, Sound mute On/Off, and volume adjustment. User2 : Valid key is only Stand-by (ON/OFF). User3 : All keys are null and void
ID Select	0 to 100	Set ID number from 001 to 100.
Remote ID	Off	Remote ID function On/Off. (While the Remote ID on, standard remote function can not control the unit.)
Serial	Off	Serial ID function On/Off

Note :

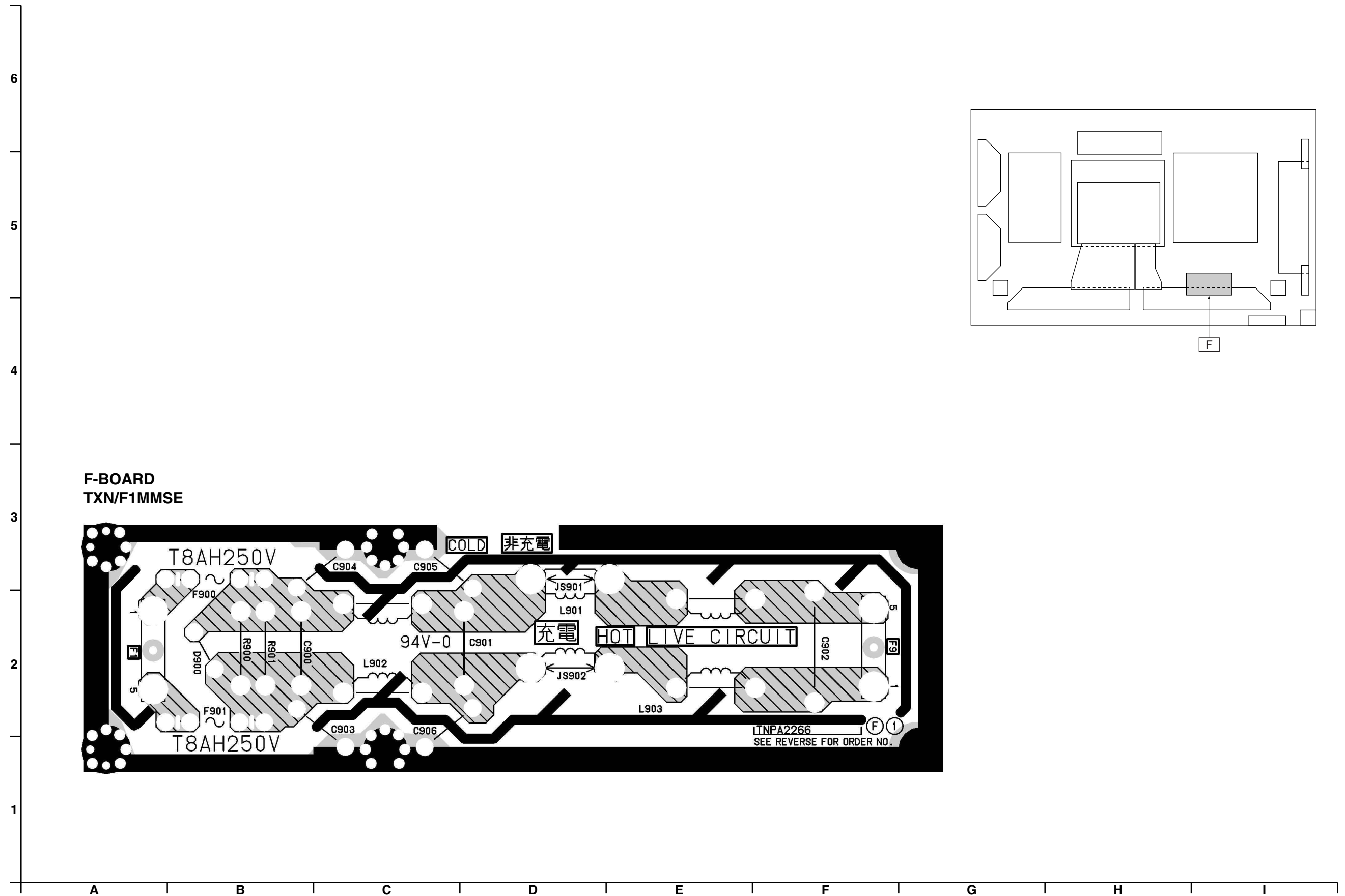
How to set Remocon User Level and Remote ID off

1. Access service mode (CAT-mode) and press SET UP key on remote.
2. Access Hidden option menu.
3. Change Remocon User Level and/ or Remote ID set to Off.

This page is not printed.

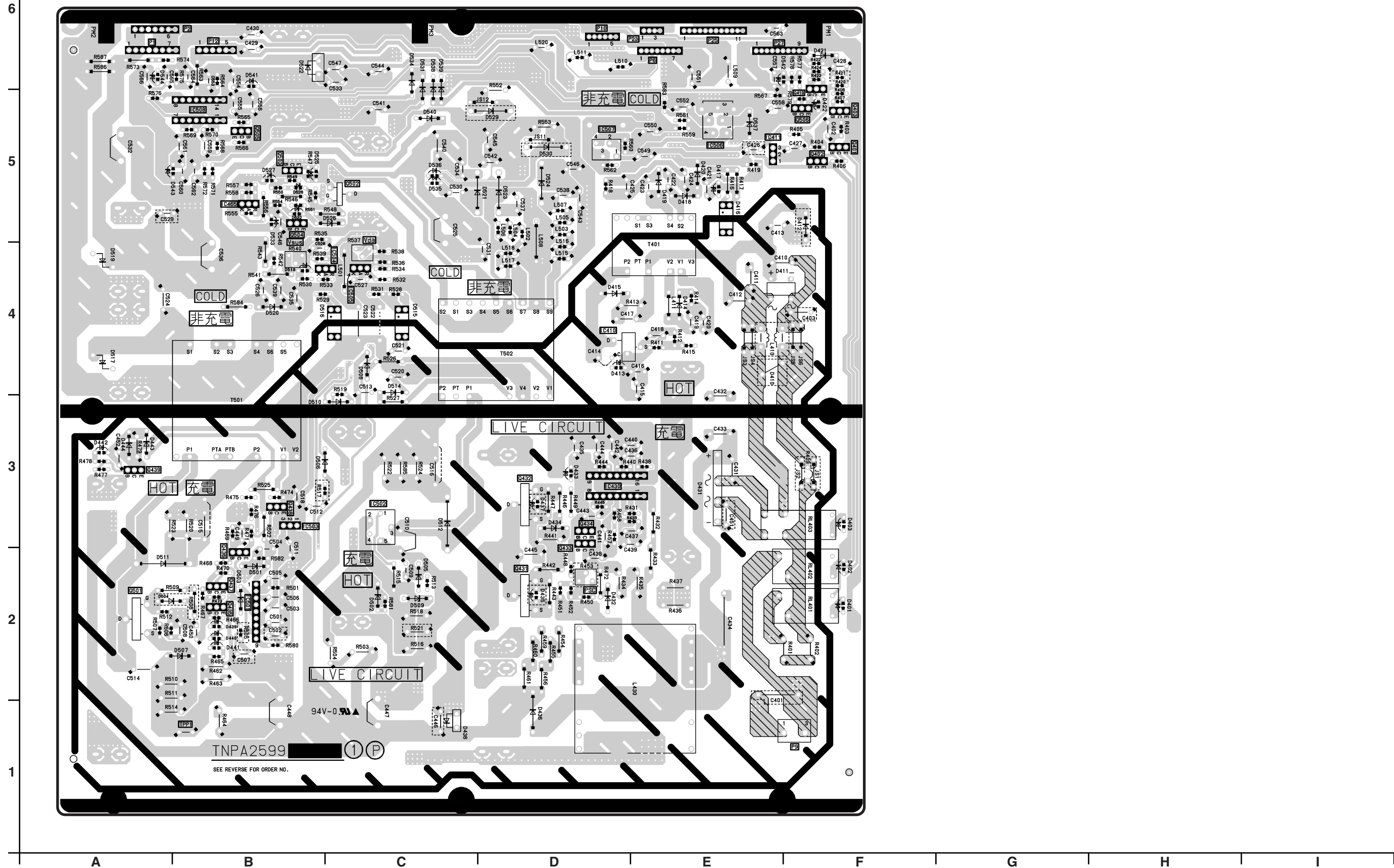
13 Conductor Views

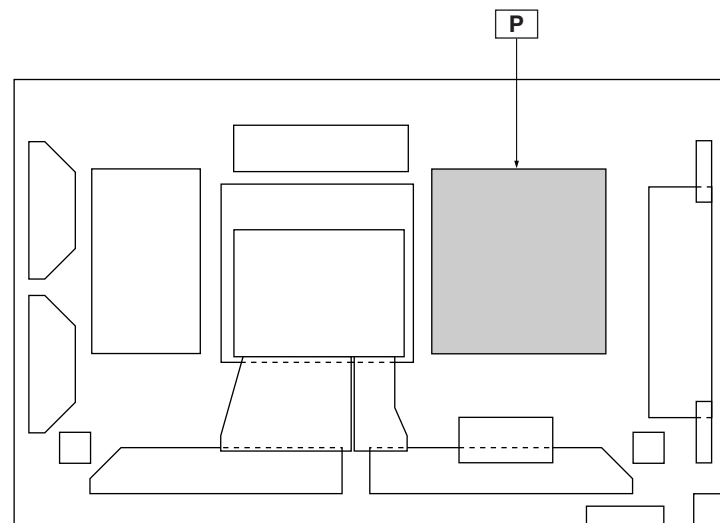
13.1. F-Board



13.2. P-Board

P-BOARD (FOIL SIDE) TNPA2599





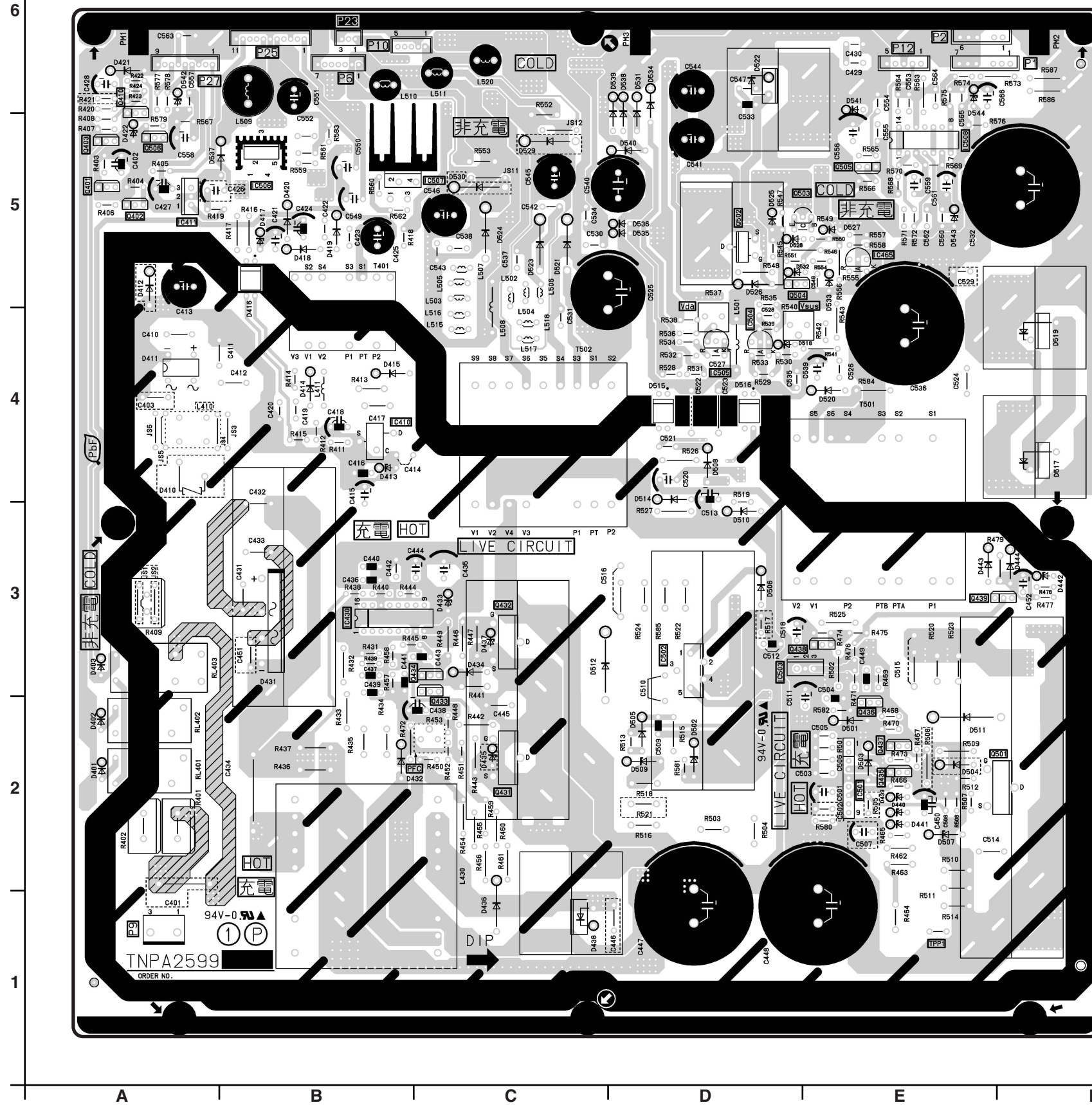
Parts Location

P-BOARD (FOIL SIDE)					
IC		TRANSISTOR		TP	
IC410	D-4	Q401	F-5	TPP1	B-1
IC411	E-5	Q402	F-5		
IC430	D-3	Q403	F-5		
IC465	B-5	Q410	F-5		
IC501	B-2	Q431	D-2		
IC502	C-3	Q432	D-3		
IC503	B-3	Q433	D-3		
IC504	C-4	Q434	D-3		
IC505	C-4	Q435	B-2		
IC506	E-5	Q436	B-2		
IC507	D-5	Q437	B-2		
IC508	B-5	Q438	B-3		
		Q439	A-3		
		Q501	A-2		
		Q502	C-5		
		Q503	B-5		
		Q504	B-5		
		Q505	B-5		
		Q506	F-5		

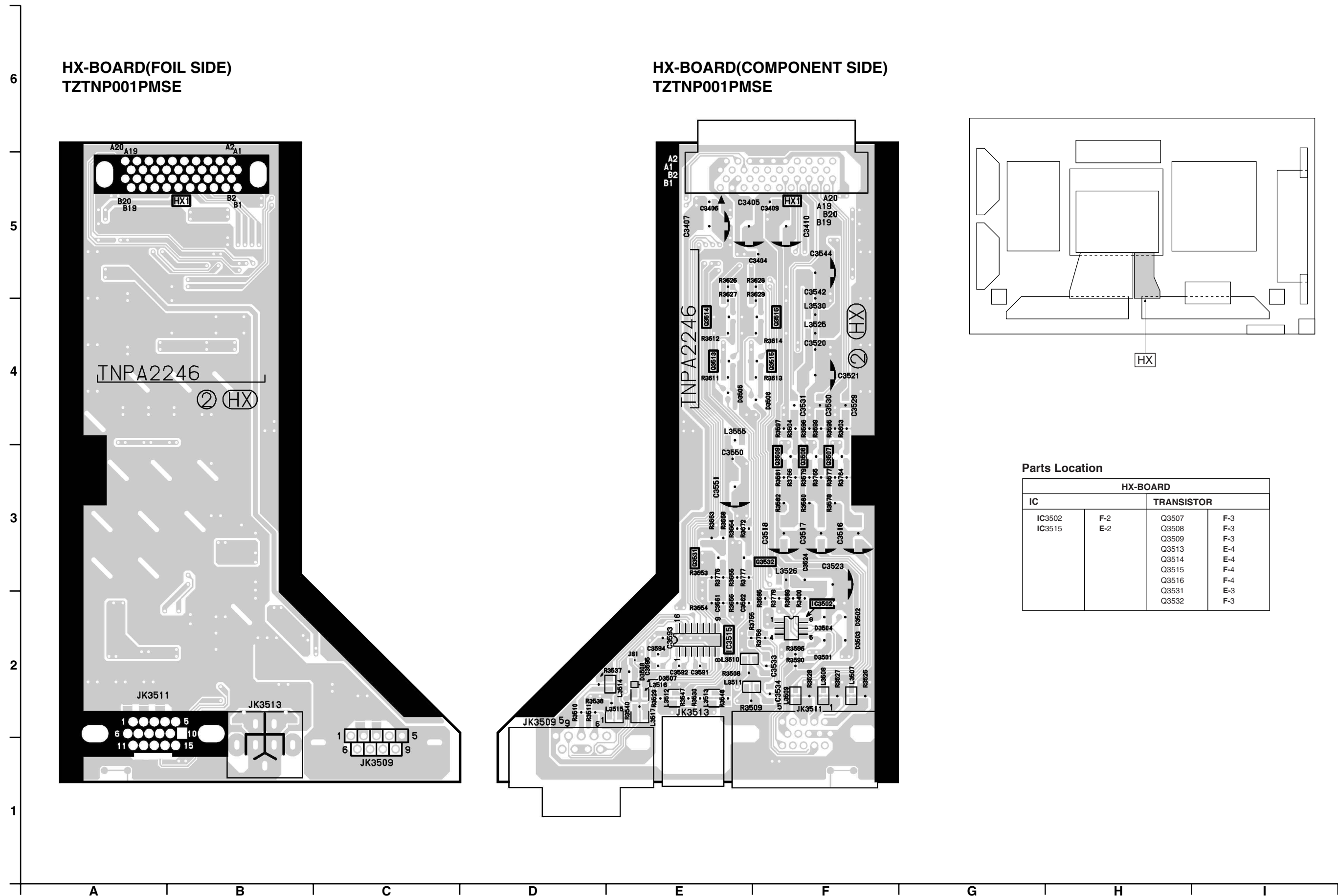
Parts Location

P-BOARD (COMPONENT SIDE)					
IC		TRANSISTOR		TP	
IC410	B-4	Q401	A-5	TPP1	E-1
IC411	A-5	Q402	A-5		
IC430	B-3	Q403	A-5		
IC465	E-5	Q410	A-6		
IC501	E-2	Q431	C-2		
IC502	D-3	Q432	C-3		
IC503	D-3	Q433	C-2		
IC504	D-4	Q434	C-3		
IC505	D-4	Q435	E-2		
IC506	B-5	Q436	E-2		
IC507	C-5	Q437	E-2		
IC508	E-5	Q438	E-3		
		Q439	E-3		
		Q501	E-2		
		Q502	D-5		
		Q503	D-5		
		Q504	D-5		
		Q505	E-5		
		Q506	A-5		

P-BOARD (COMPONENT SIDE)
TNPA2599

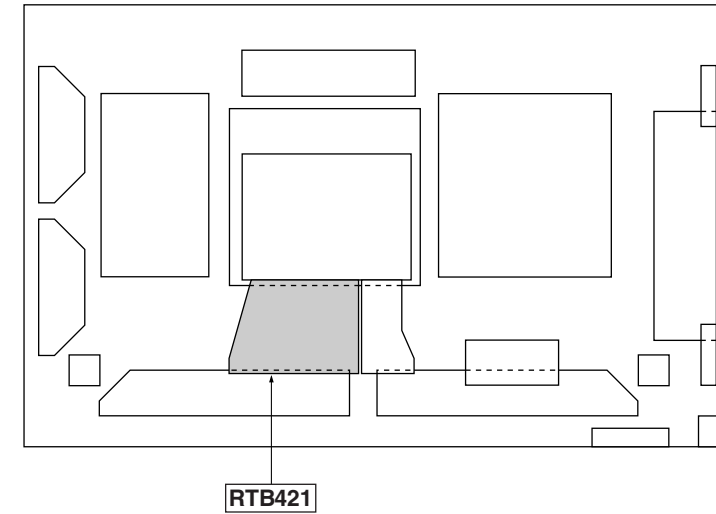
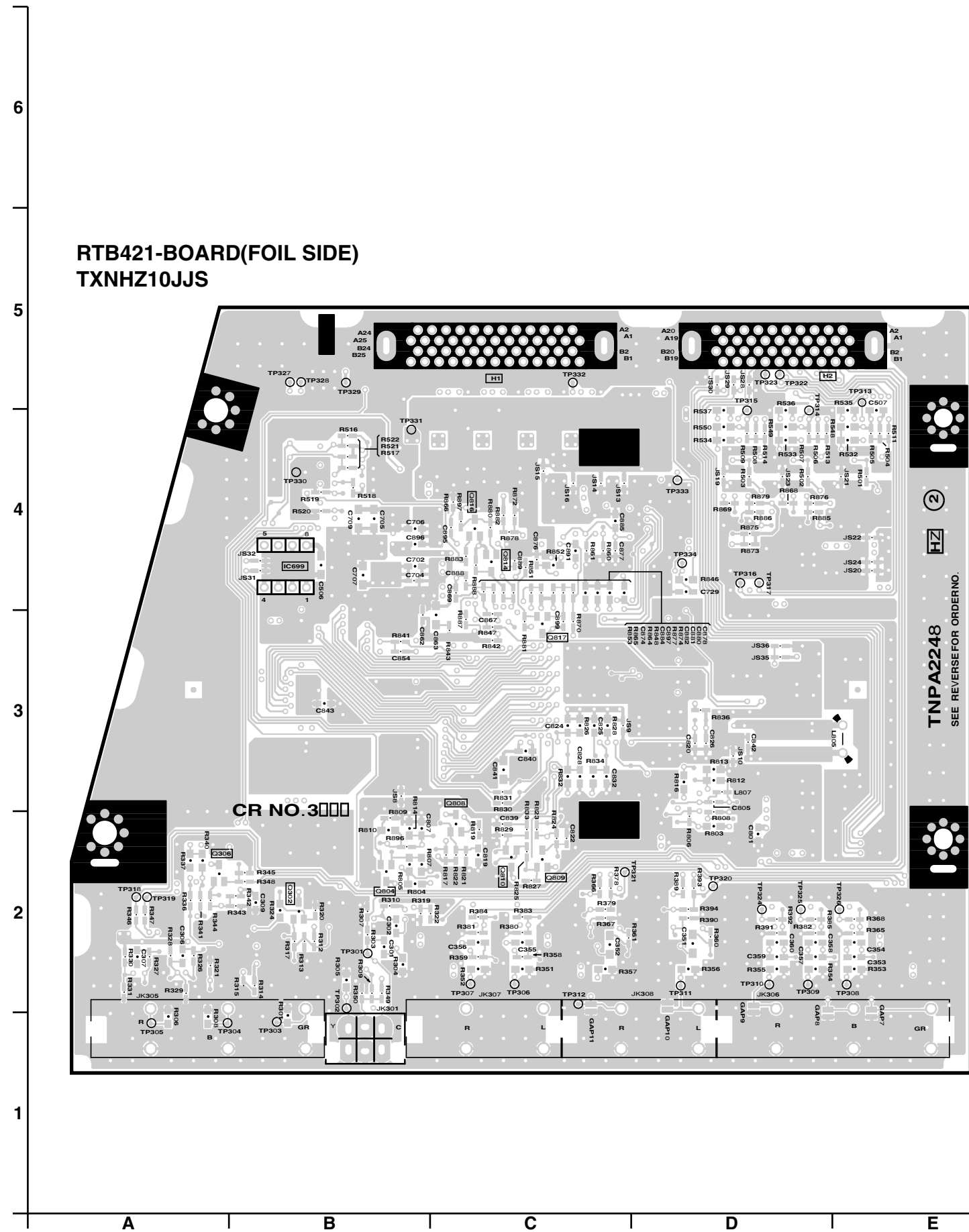


13.3. HX-Board



13.4. Option RTB421

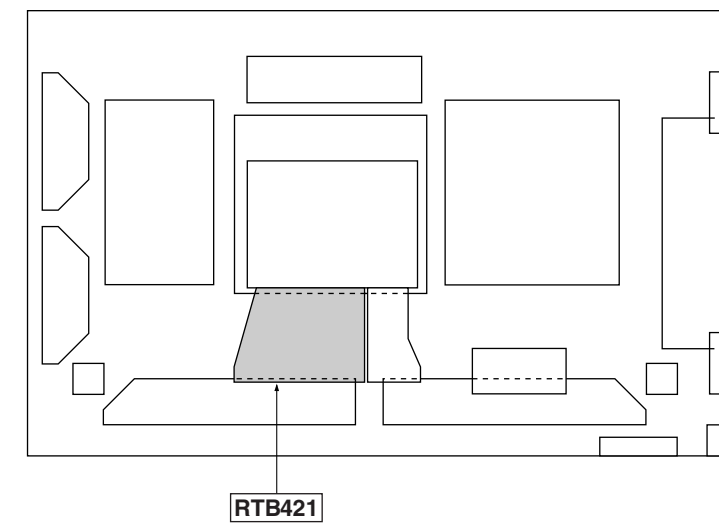
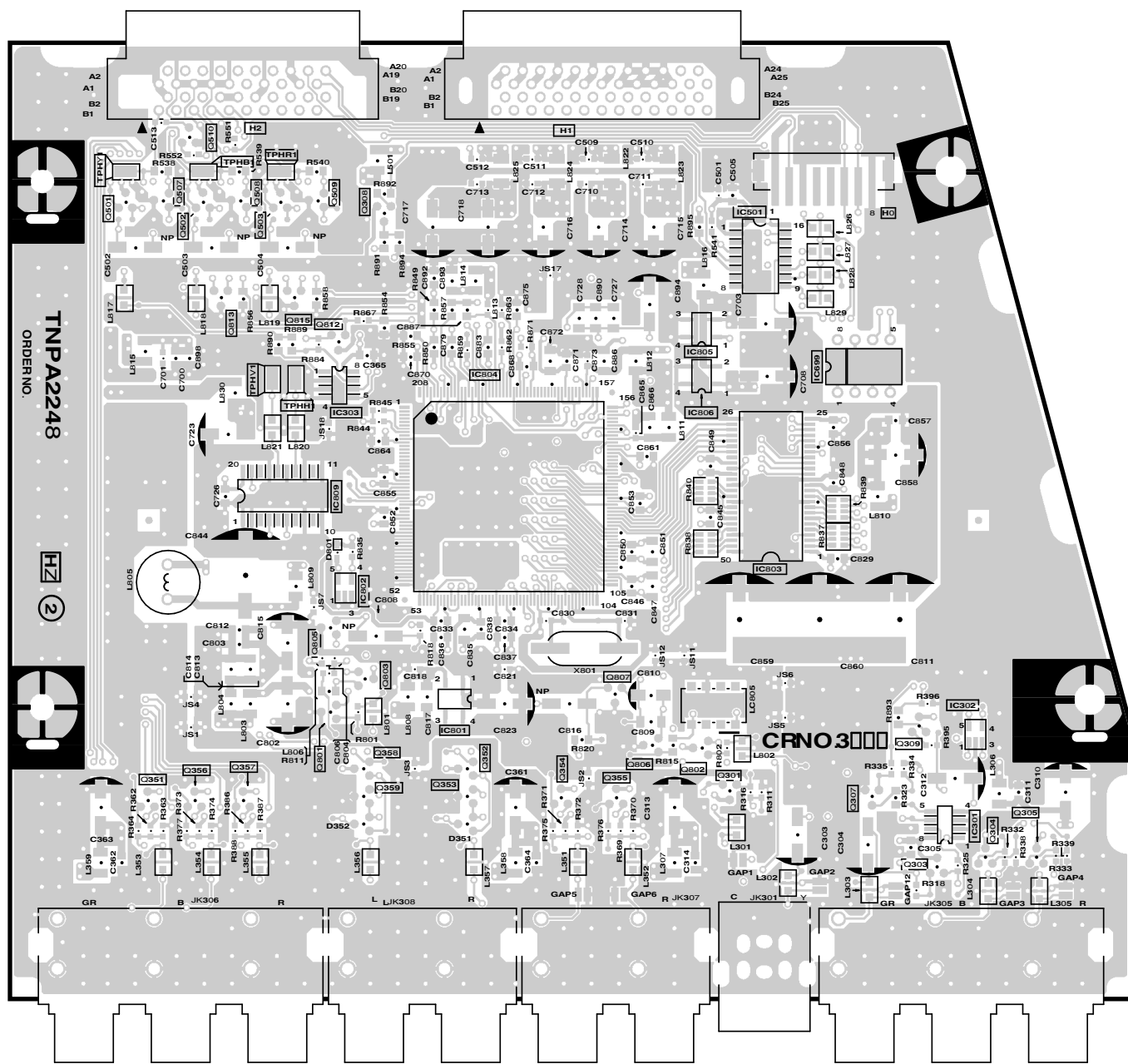
**RTB421-BOARD(FOIL SIDE)
TXNHZ10JJS**



Parts Location

RTB421-BOARD (FOIL SIDE)			
IC		TRANSISTOR	
IC3699	B-4	Q3302	B-2
		Q3306	A-2
		Q3804	B-2
		Q3808	C-3
		Q3809	C-2
		Q3810	C-2
		Q3814	C-4
		Q3816	C-4
		Q3817	C-3

RTB421-BOARD(COMPONENT SIDE)
TXNHZ10JJS

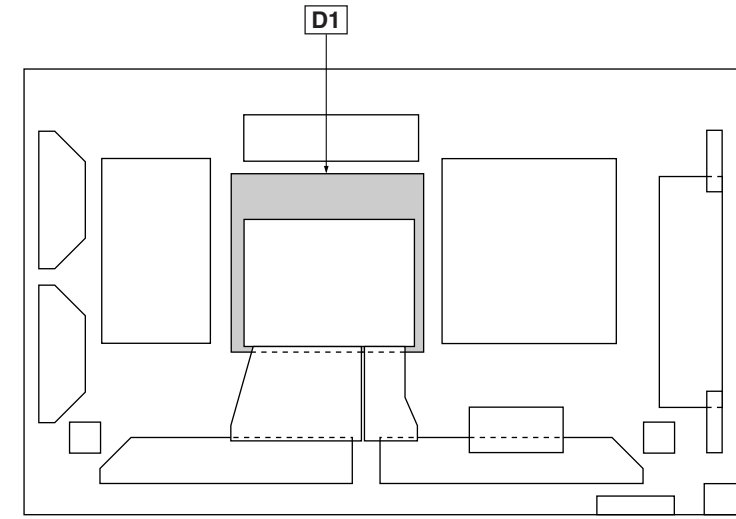
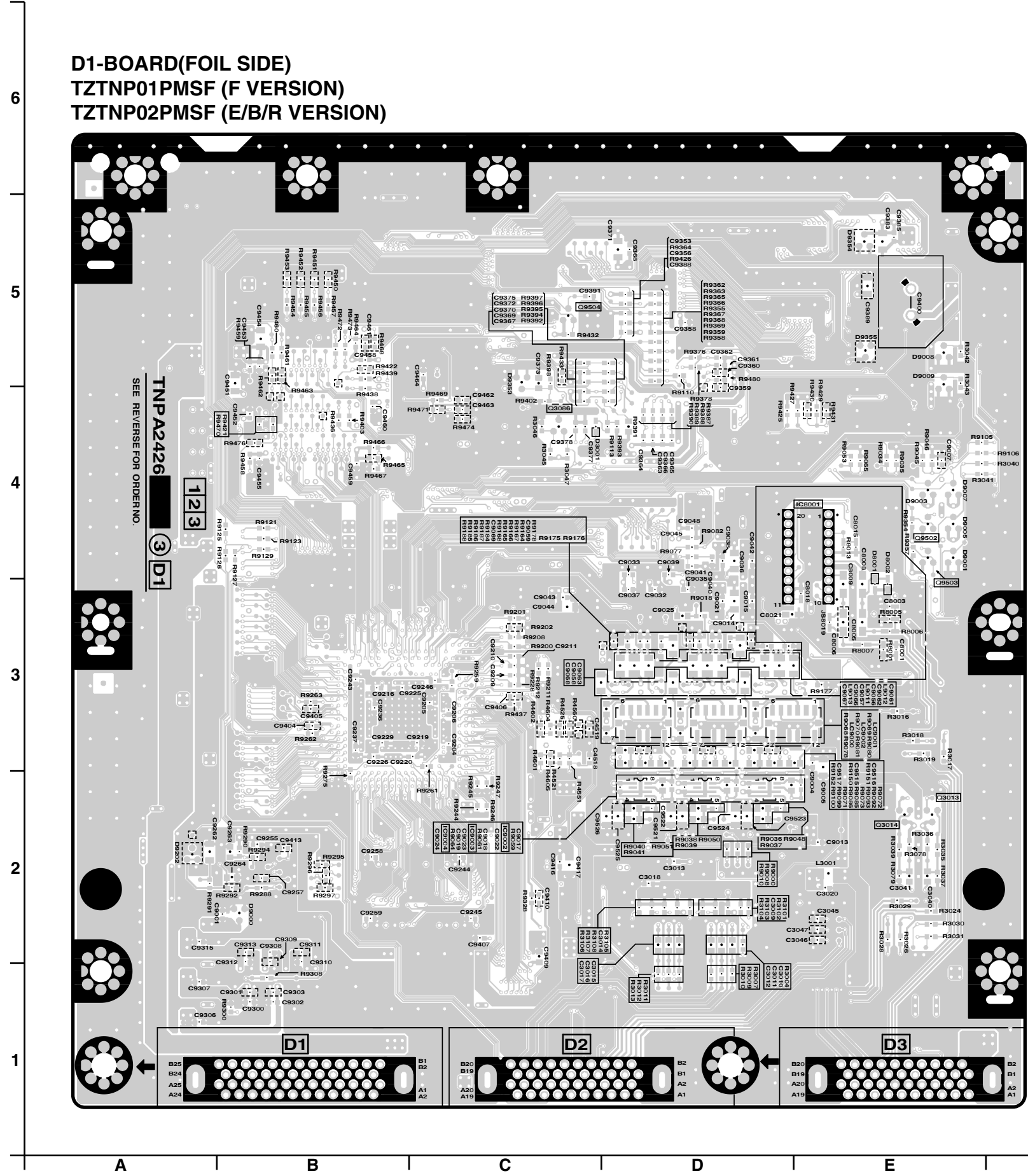


Parts Location

RTB421-BOARD (COMPONENT SIDE)					
IC	TRANSISTOR		TP		
IC3301	E-2	Q3301	D-2	Q3507	A-4
IC3302	E-2	Q3303	D-2	Q3508	B-4
IC3302	D-2	Q3304	E-2	Q3509	B-4
IC3303	B-4	Q3305	E-2	Q3510	B-5
IC3501	D-4	Q3307	D-2	Q3801	B-2
IC3699	D-4	Q3308	B-4	Q3802	C-2
IC3801	B-2	Q3309	D-2	Q3803	B-2
IC3802	B-3	Q3351	A-2	Q3805	B-3
IC3803	D-3	Q3352	C-2	Q3806	C-2
IC3804	C-4	Q3353	B-2	Q3807	C-2
IC3805	C-4	Q3354	C-2	Q3812	B-4
IC3806	C-4	Q3355	C-2	Q3813	B-4
IC3809	B-3	Q3356	A-2	Q3815	B-4
		Q3357	B-2		
		Q3358	B-2		
		Q3359	B-2		
		Q3501	A-4	TPHB1	B-5
		Q3502	A-4	TPHR1	B-5
		Q3503	B-4	TPHV1	B-4
				TPHY1	A-4

13.5. D1-Board

D1-BOARD(FOIL SIDE)
 TZTNP01PMSF (F VERSION)
 TZTNP02PMSF (E/B/R VERSION)

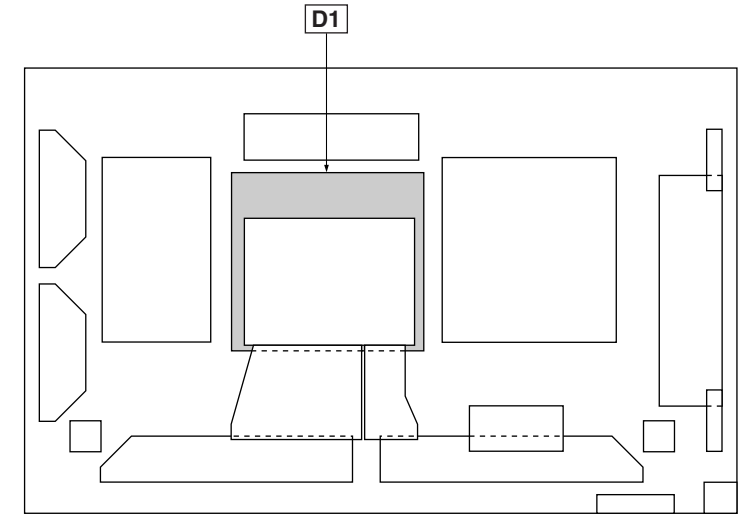
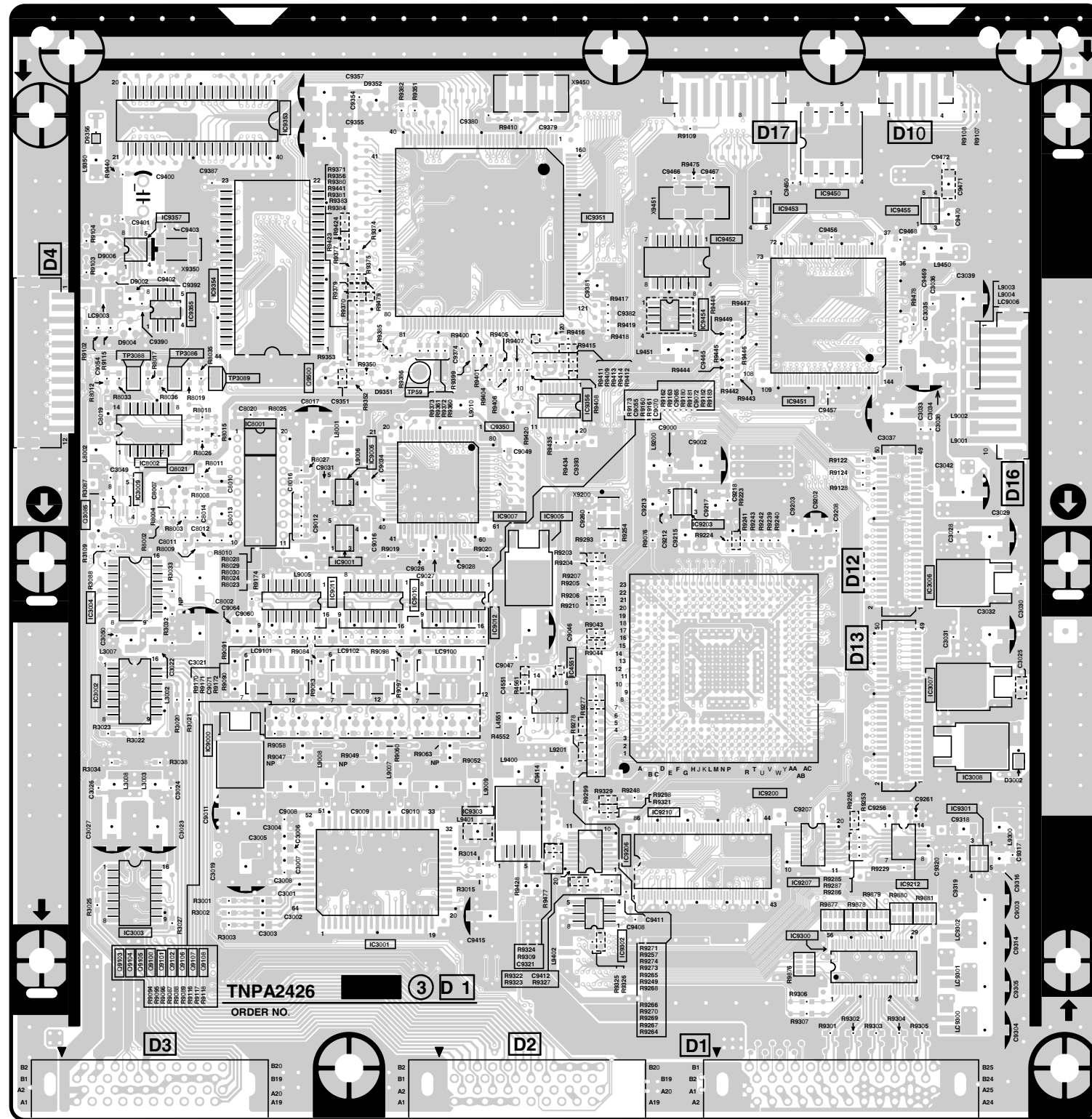


Parts Location

D1-BOARD (FOIL SIDE)			
IC	TRANSISTOR		
IC8001	E-4	Q3013	E-2
IC9002	C-2	Q3014	E-2
IC9003	C-2	Q3086	C-4
IC9004	C-2	Q9502	E-4
		Q9503	E-4
		Q9504	C-5

**D1-BOARD(COMPONENT SIDE)
TZTNP01PMSF (F VERSION)
TZTNP02PMSF (E/B/R VERSION)**

6
5
4
3
2
1

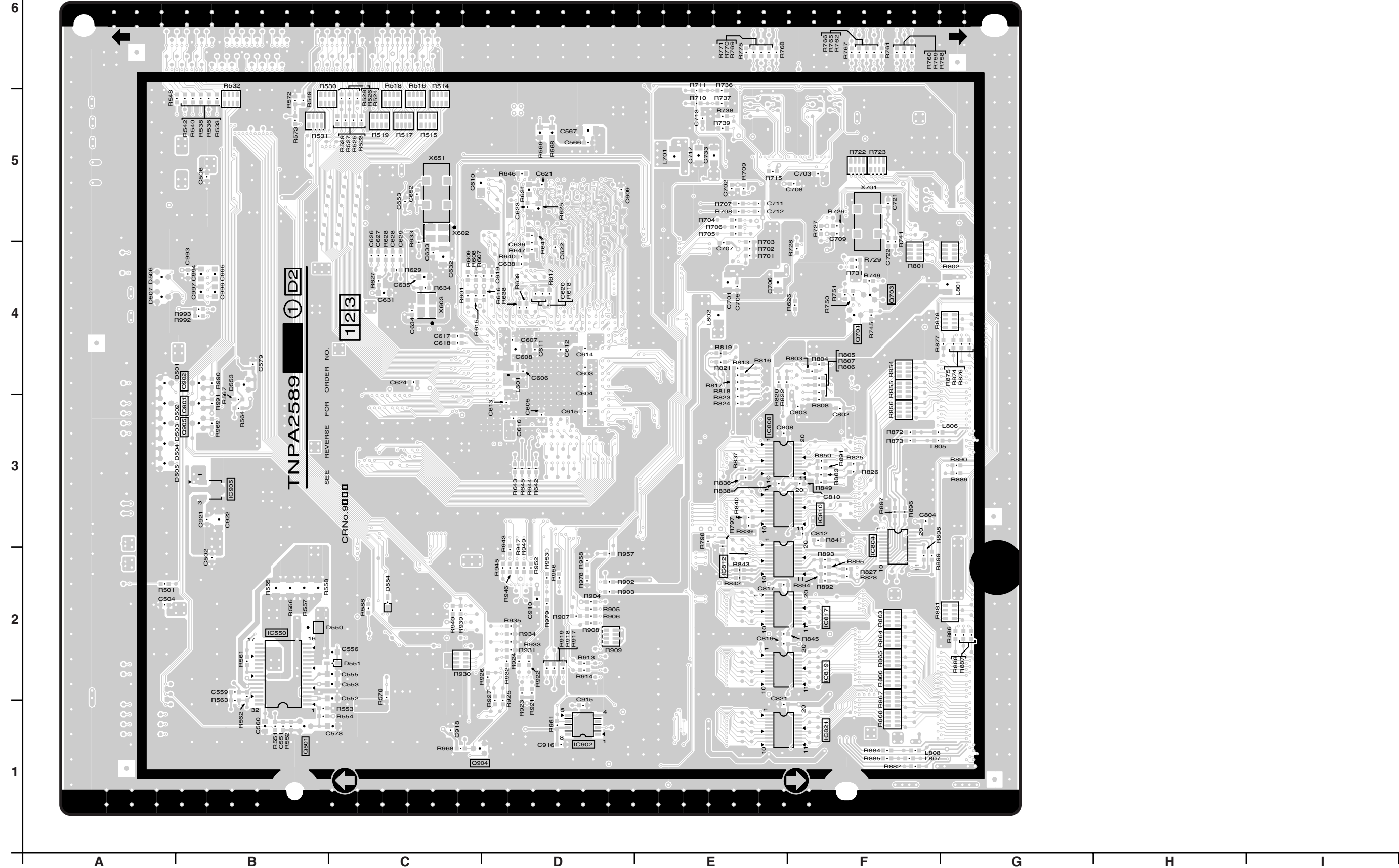


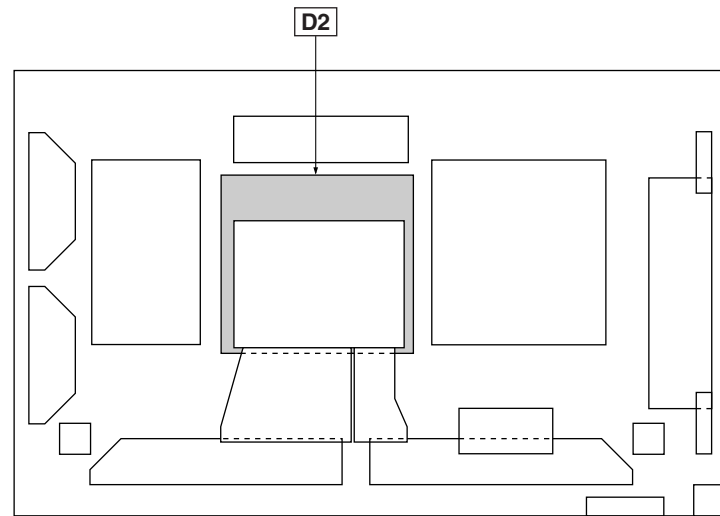
Parts Location

D1-BOARD (COMPONENT SIDE)			
IC			
IC3001	B-2	IC9354	B-5
IC3002	A-3	IC9355	B-4
IC3003	A-2	IC9356	C-4
IC3004	A-3	IC9357	A-5
IC3006	E-3	IC9450	D-5
IC3007	E-3	IC9451	D-4
IC3008	E-2	IC9452	D-5
IC3009	A-4	IC9453	D-5
IC4551	C-3	IC9454	D-4
IC8001	B-4	IC9455	E-5
IC8002	A-4		
IC9000	B-2	TRANSISTOR	
IC9001	B-3	Q3085	A-4
IC9005	C-3	Q8021	A-4
IC9006	B-4	Q9100	A-1
IC9007	C-4	Q9101	A-1
IC9010	C-3	Q9103	A-1
IC9011	B-3	Q9104	A-1
IC9012	C-3	Q9105	A-1
IC9200	D-2	Q9106	A-1
IC9203	D-3	Q9107	B-1
IC9206	D-2	Q9108	B-1
IC9207	D-2	Q9350	C-4
IC9210	D-2		
IC9212	E-2	TP	
IC9300	D-2	TP3086	A-4
IC9301	E-2	TP3088	A-4
IC9303	C-2	TP3089	B-4
IC9303	D-2	TP59	C-4
IC9351	C-5		
IC9353	B-5		

13.6. D2-Board

D2-BOARD (FOIL SIDE) TNPA2589





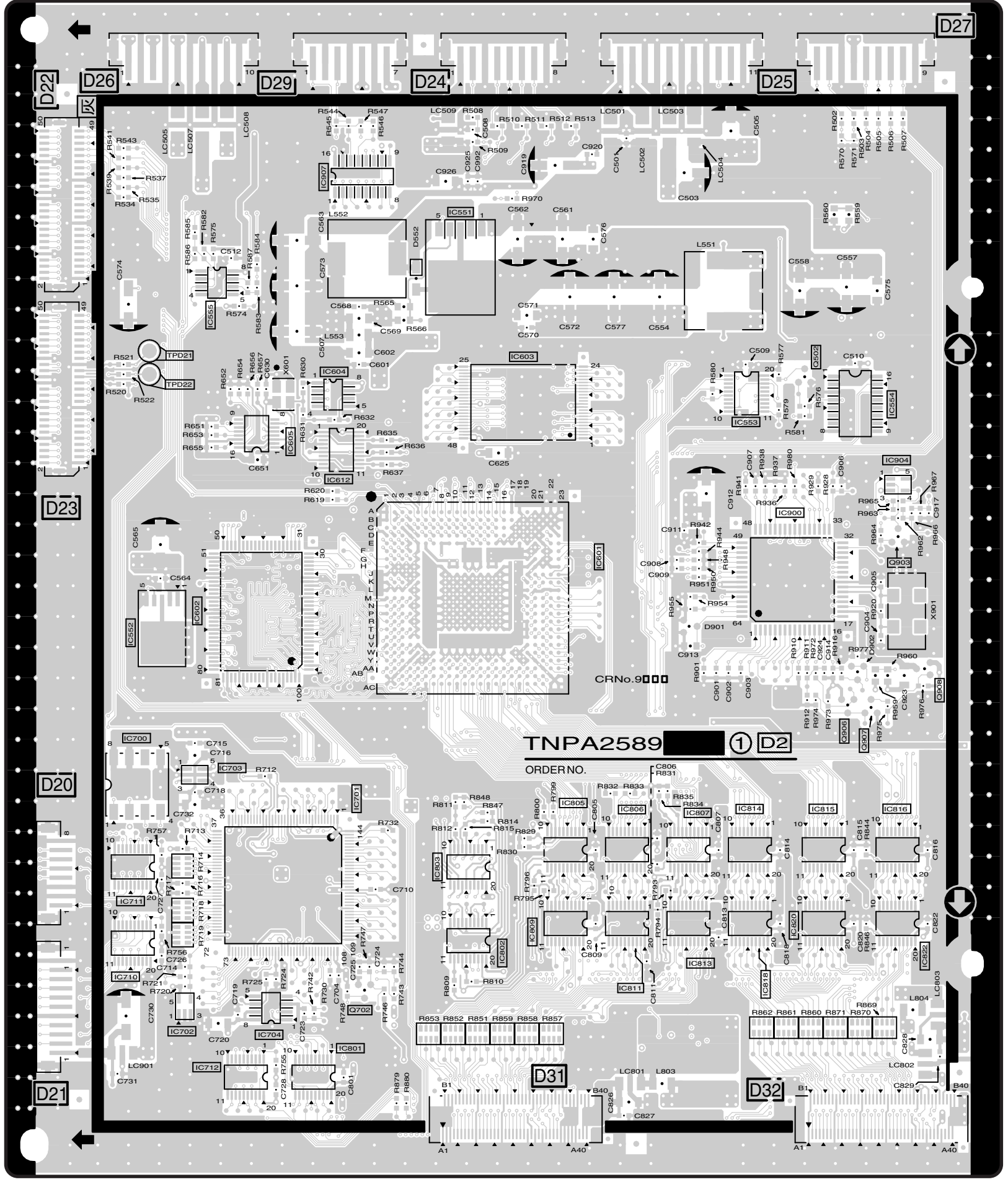
Parts Location

D2-BOARD (FOIL SIDE)			
IC		TRANSISTOR	
IC9550	B-2	Q9501	B-1
IC9804	F-3	Q9701	F-4
IC9808	E-3	Q9703	F-4
IC9810	F-2	Q9901	B-3
IC9812	E-2	Q9902	B-4
IC9817	F-2	Q9904	C-1
IC9819	F-2	Q9905	B-3
IC9821	F-1		
IC9902	D-1		
IC9905	B-3		

Parts Location

D2-BOARD (COMPONENT SIDE)					
IC		IC9802	B-3	TRANSISTOR	
IC9551	F-4	IC9803	B-4	Q9502	E-2
IC9552	D-5	IC9805	C-3	Q9702	B-4
IC9553	E-2	IC9806	C-3	Q9802	C-1
IC9554	E-1	IC9807	C-2	Q9903	D-1
IC9555	E-6	IC9809	B-3	Q9906	C-2
IC9601	D-3	IC9811	B-3	Q9907	C-1
IC9602	D-5	IC9813	B-2	Q9908	C-1
IC9603	E-3	IC9814	C-2		
IC9604	E-4	IC9815	C-2	TP	
IC9605	E-5	IC9816	C-1	TPD21	E-6
IC9612	D-4	IC9818	B-2	TPD22	E-6
IC9700	C-5	IC9820	B-2		
IC9701	C-4	IC9822	B-1		
IC9702	B-5	IC9900	D-2		
IC9703	C-5	IC9904	D-1		
IC9704	B-5	IC9907	F-4		
IC9710	B-5				
IC9711	B-5				
IC9712	A-5				
IC9801	A-4				

D2-BOARD (COMPONENT SIDE)
TNPA2589



6

5

4

3

2

1

A

B

C

D

E

F

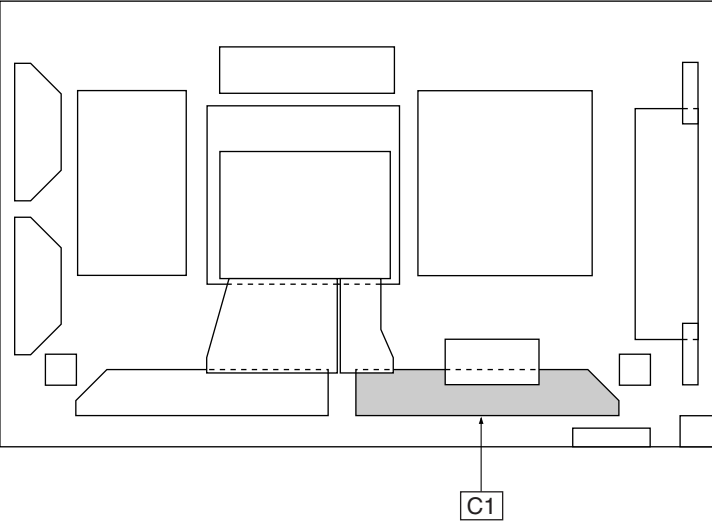
G

H

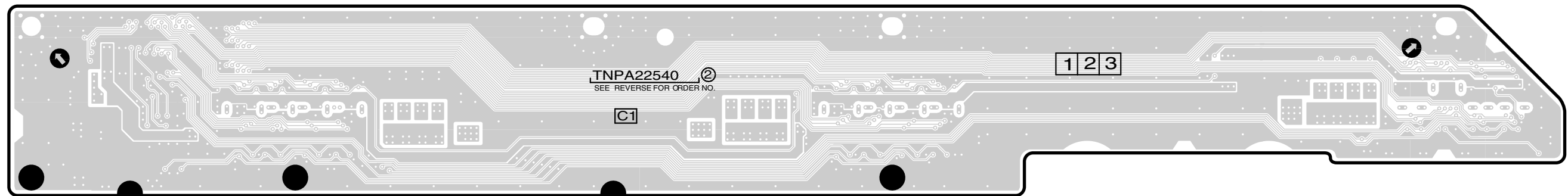
I

13.7. C1-Board

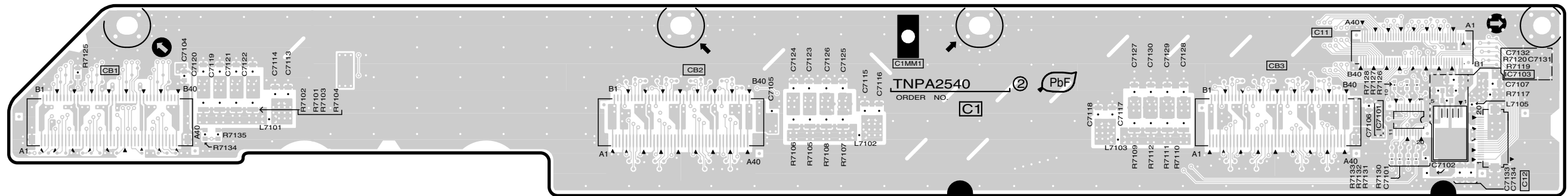
6
5
4
3
2
1
A B C D E F G H I



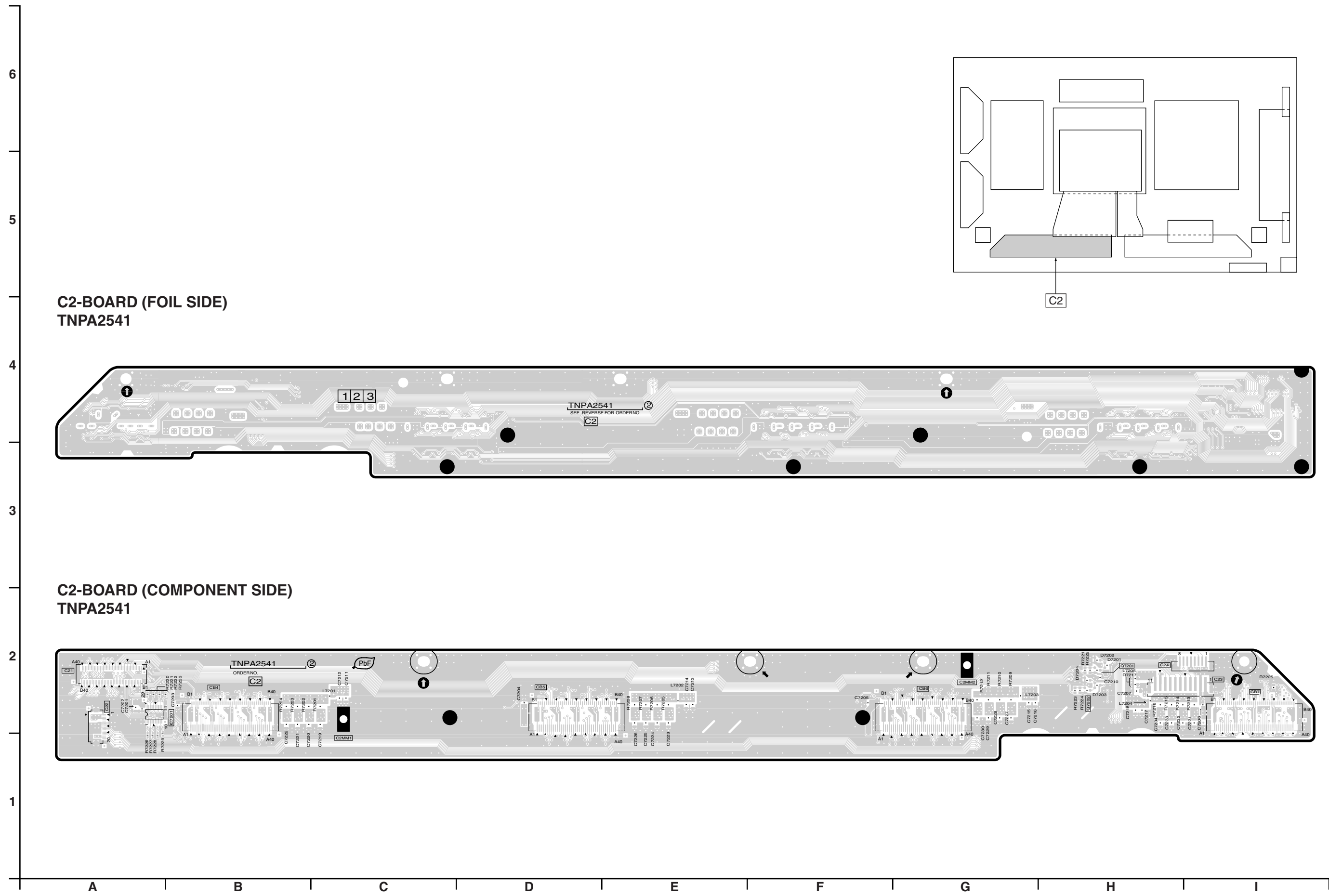
C1-BOARD (FOIL SIDE)
TNPA2540



C1-BOARD (COMPONENT SIDE)
TNPA2540

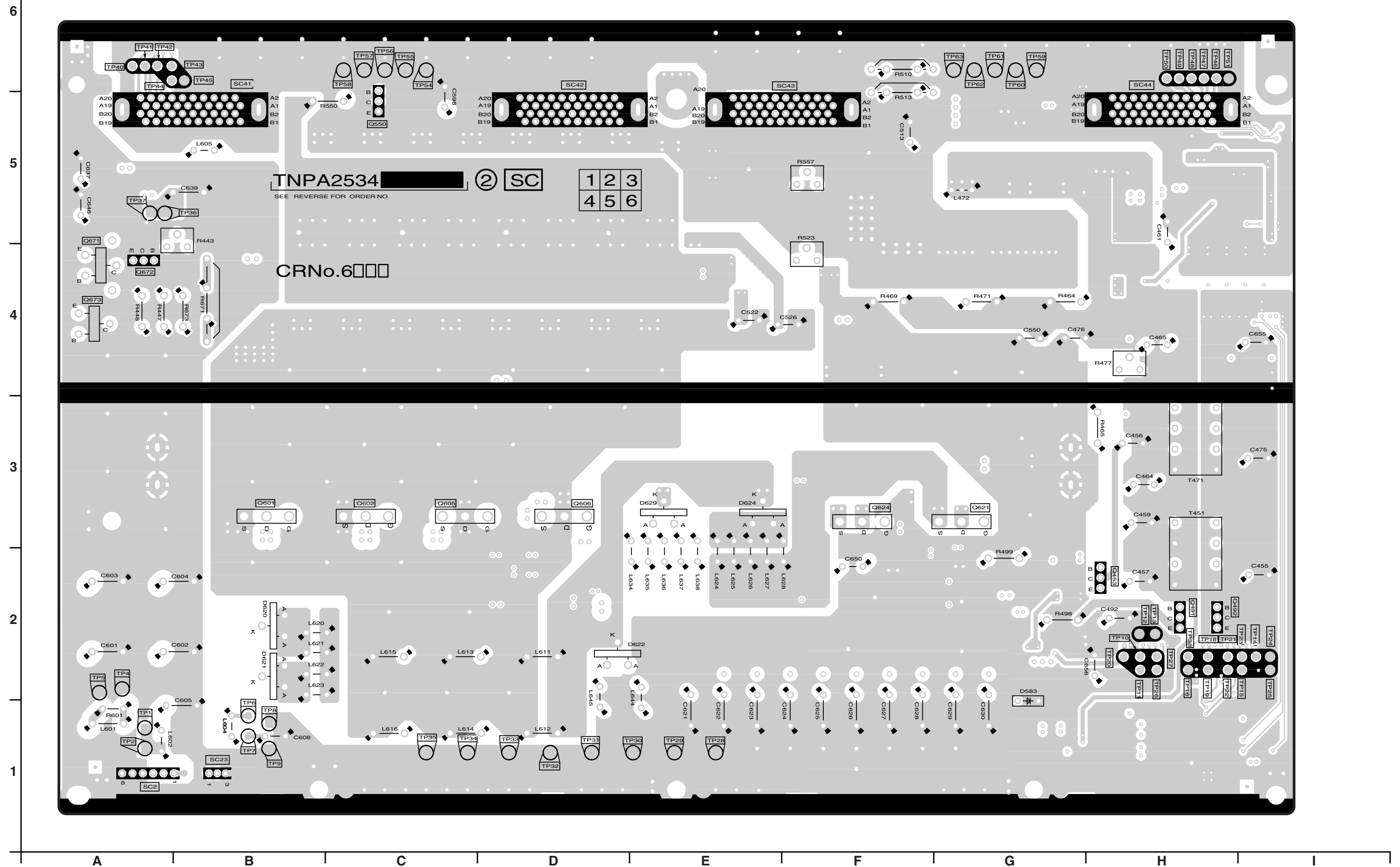


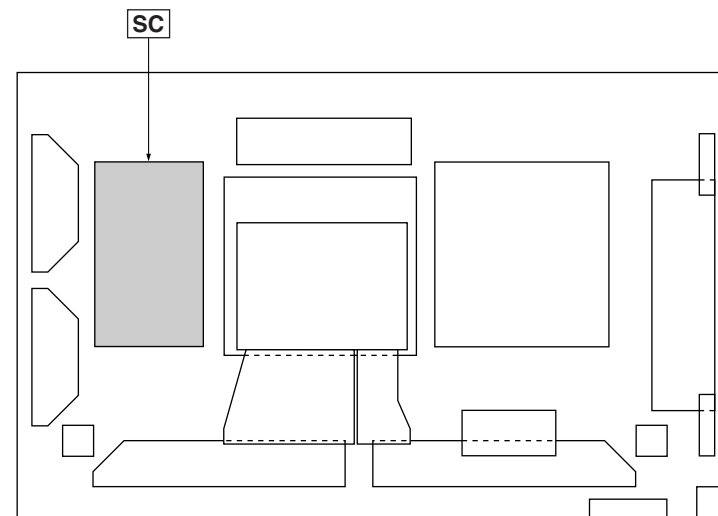
13.8. C2-Board



13.9. SC-Board

SC-BOARD (FOIL SIDE)
TNPA2534





Parts Location

SC-BOARD (FOIL SIDE)					
TRANSISTOR		TP		TP33	D-1
Q6453	H-2	TP1	A-1	TP34	C-1
Q6491	H-2	TP2	A-1	TP35	C-1
Q6492	H-2	TP4	A-2	TP36	A-5
Q6550	C-5	TP5	A-2	TP37	A-5
Q6601	B-3	TP6	B-1	TP38	H-2
Q6602	C-3	TP7	B-1	TP46	H-6
Q6605	C-3	TP8	B-1	TP47	H-6
Q6606	D-3	TP9	B-1	TP48	H-6
Q6621	G-3	TP10	H-2	TP49	H-6
Q6624	F-3	TP11	H-2	TP50	H-6
Q6671	A-4	TP12	H-2	TP51	H-6
Q6672	A-4	TP13	H-2	TP54	C-6
Q6673	A-4	TP14	I-2	TP55	C-6
		TP15	I-2	TP56	C-6
		TP16	H-2	TP57	C-6
		TP18	H-2	TP58	C-6
		TP19	H-2	TP59	G-6
		TP20	H-2	TP60	G-6
		TP21	H-2	TP61	G-6
		TP22	H-2	TP62	G-6
		TP23	I-2	TP63	G-6
		TP24	I-2		
		TP25	I-2		
		TP26	H-2		
		TP27	H-2		
		TP28	E-1		
		TP29	E-1		
		TP30	E-1		
		TP31	D-1		
		TP32	D-1		

Parts Location

SC-BOARD (COMPONENT SIDE)							
IC		TRANSISTOR		Q6547	G-5	TP	
IC6451	B-3	Q6451	A-3	Q6548	G-5	TP15V	H-1
IC6452	B-2	Q6452	A-3	Q6549	G-5	TPVAD	C-5
IC6453	A-5	Q6453	B-2	Q6550	G-6	TPVBK	H-5
IC6454	A-5	Q6454	B-3	Q6551	D-5	TPVSCN	B-3
IC6471	B-4	Q6471	A-3	Q6552	C-5	TPVSET	B-2
IC6491	A-2	Q6472	A-4	Q6553	B-5		
IC6501	A-5	Q6474	B-4	Q6555	C-5		
IC6502	A-5	Q6476	A-5	Q6556	B-4		
IC6511	B-5	Q6477	A-5	Q6581	B-1		
IC6541	E-5	Q6491	A-2	Q6601	G-3		
IC6542	B-5	Q6492	A-2	Q6602	G-3		
IC6581	B-1	Q6511	C-6	Q6605	F-3		
IC6601	F-2	Q6512	C-5	Q6606	E-3		
IC6602	C-2	Q6520	D-4	Q6611	F-2		
IC6603	I-5	Q6521	E-5	Q6612	F-2		
IC6604	H-5	Q6522	E-5	Q6613	F-2		
IC6605	B-1	Q6523	E-5	Q6614	F-3		
		Q6524	F-5	Q6621	C-3		
		Q6525	F-5	Q6624	D-3		
		Q6526	F-5	Q6641	H-5		
		Q6527	G-5	Q6642	H-4		
		Q6528	G-5	Q6671	I-4		
		Q6529	G-5	Q6672	H-4		
		Q6530	E-4	Q6673	I-4		
		Q6541	E-5				
		Q6542	E-5				
		Q6543	E-5				
		Q6544	F-5				
		Q6545	F-5				
		Q6546	F-5				

**SC-BEARD (COMPONENT SIDE)
TNPA2534**

6

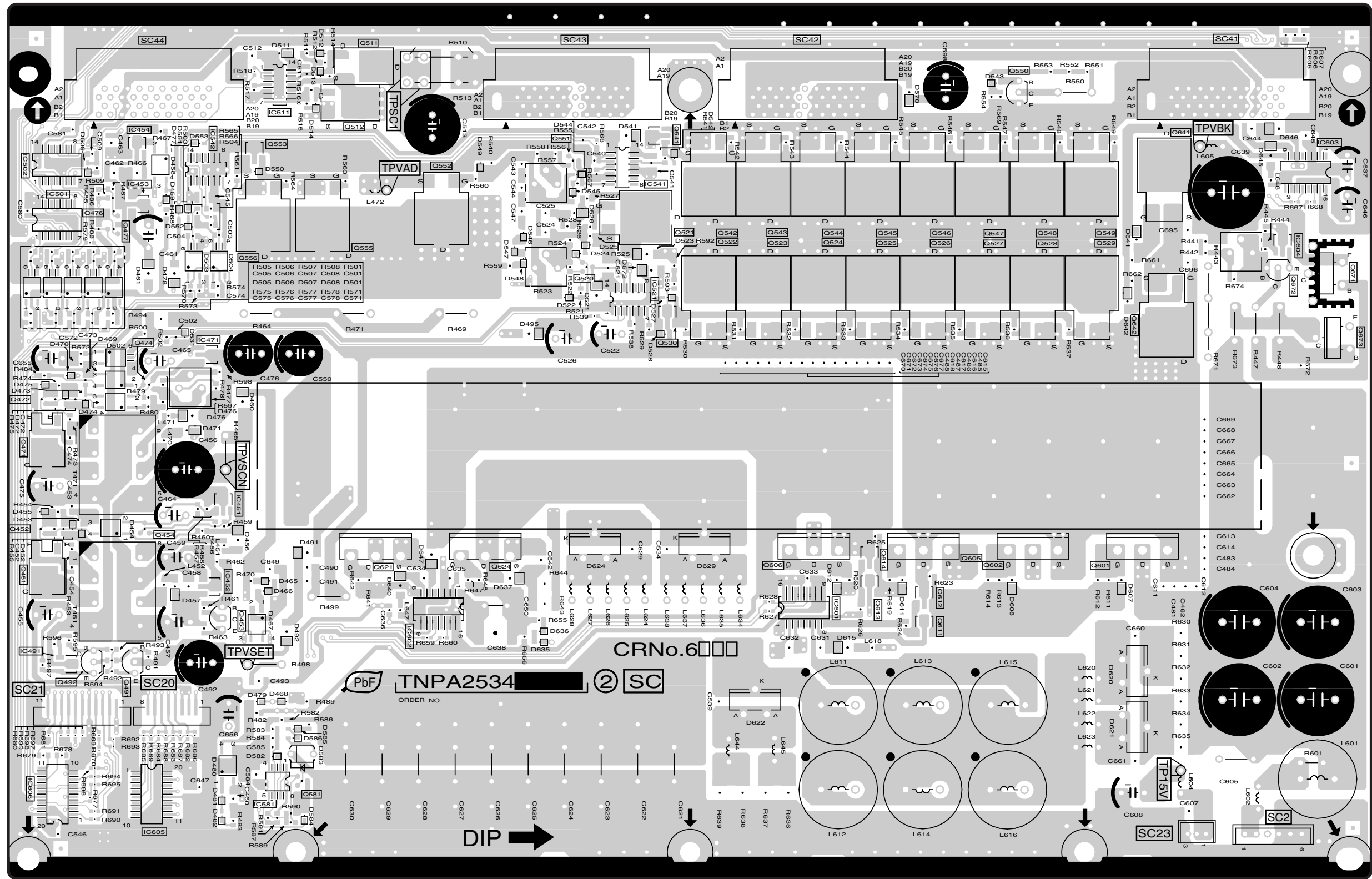
5

4

3

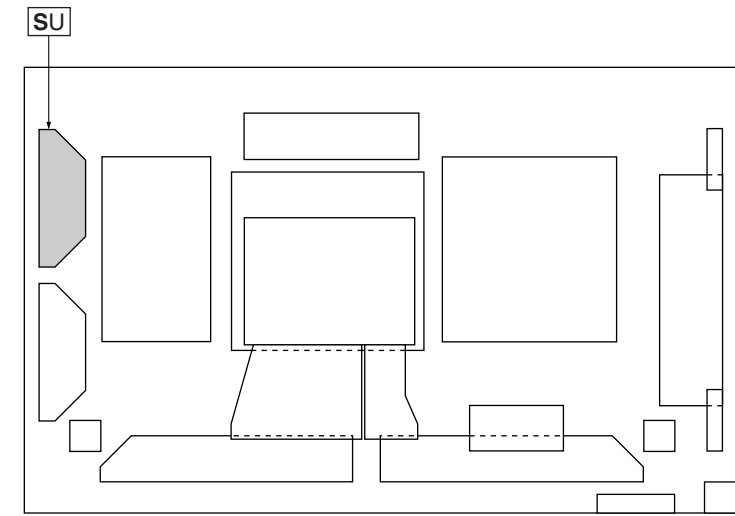
2

1

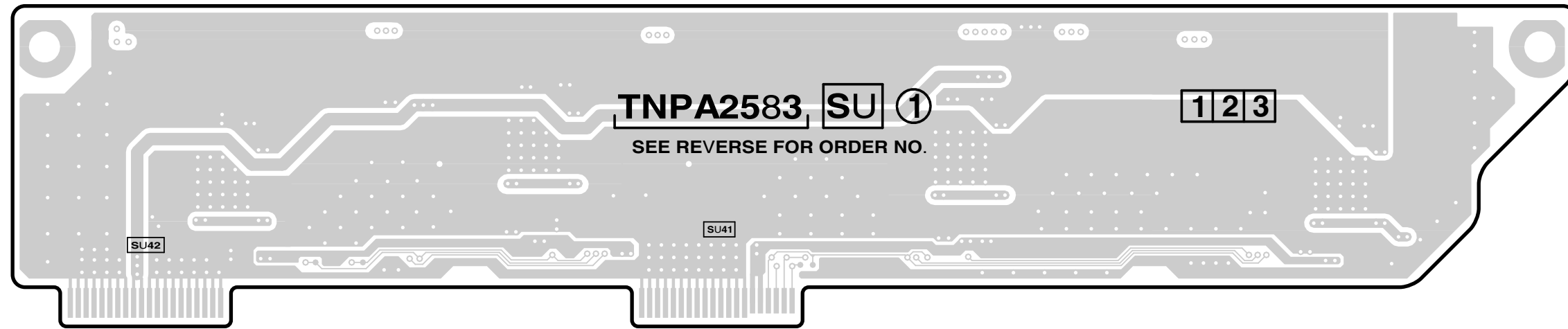


A B C D E F G H I

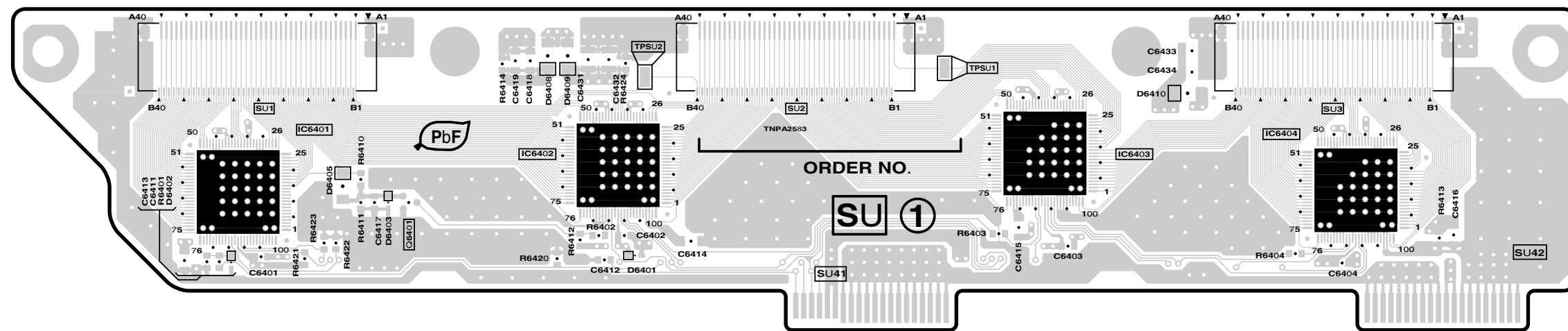
13.10. SU-Board



SU-BOARD (FOIL SIDE)
TNPA2583

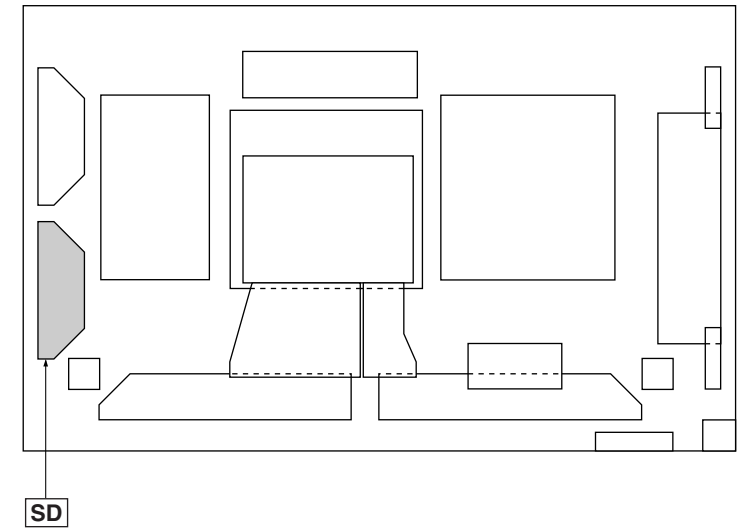


SU-BOARD (COMPONENT SIDE)
TNPA2583

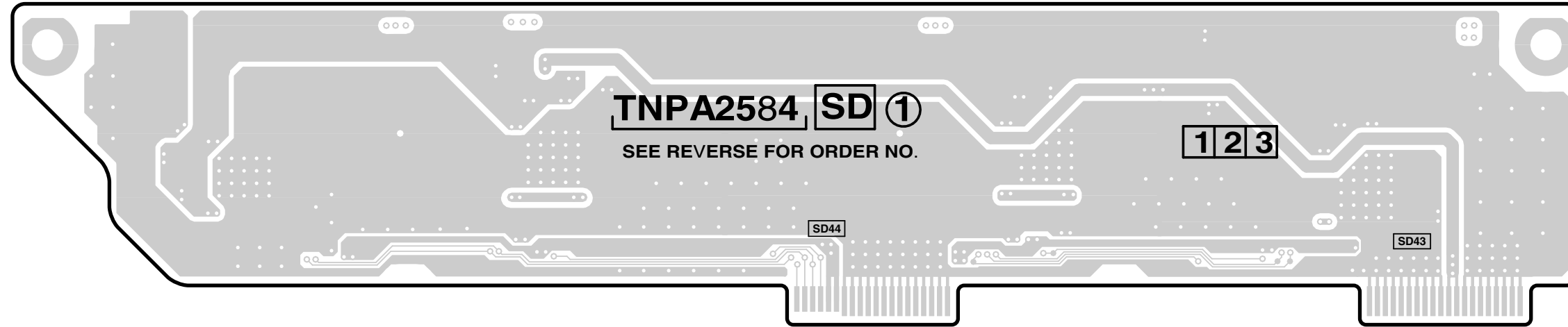


13.11. SD-Board

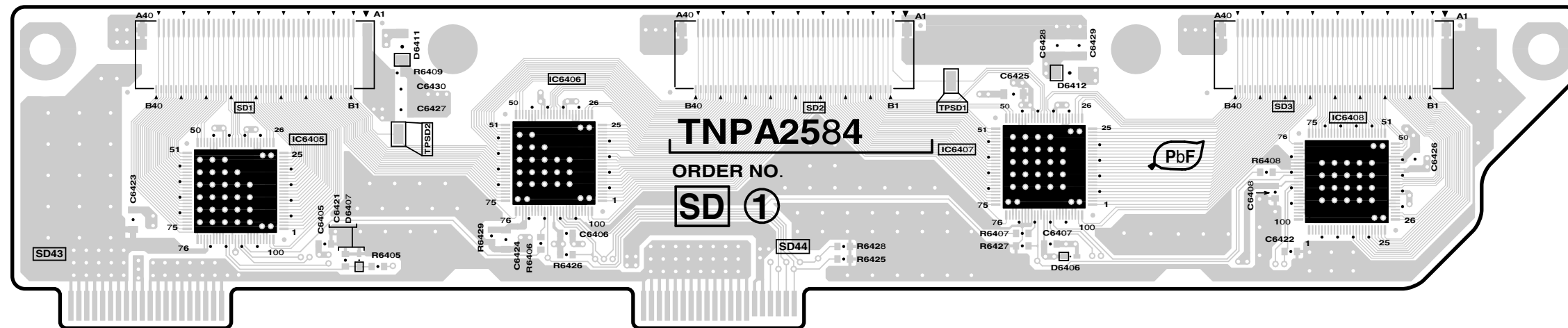
6
5
4
3
2
1
A B C D E F G H I



SD-BOARD (FOIL SIDE)
TNPA2584

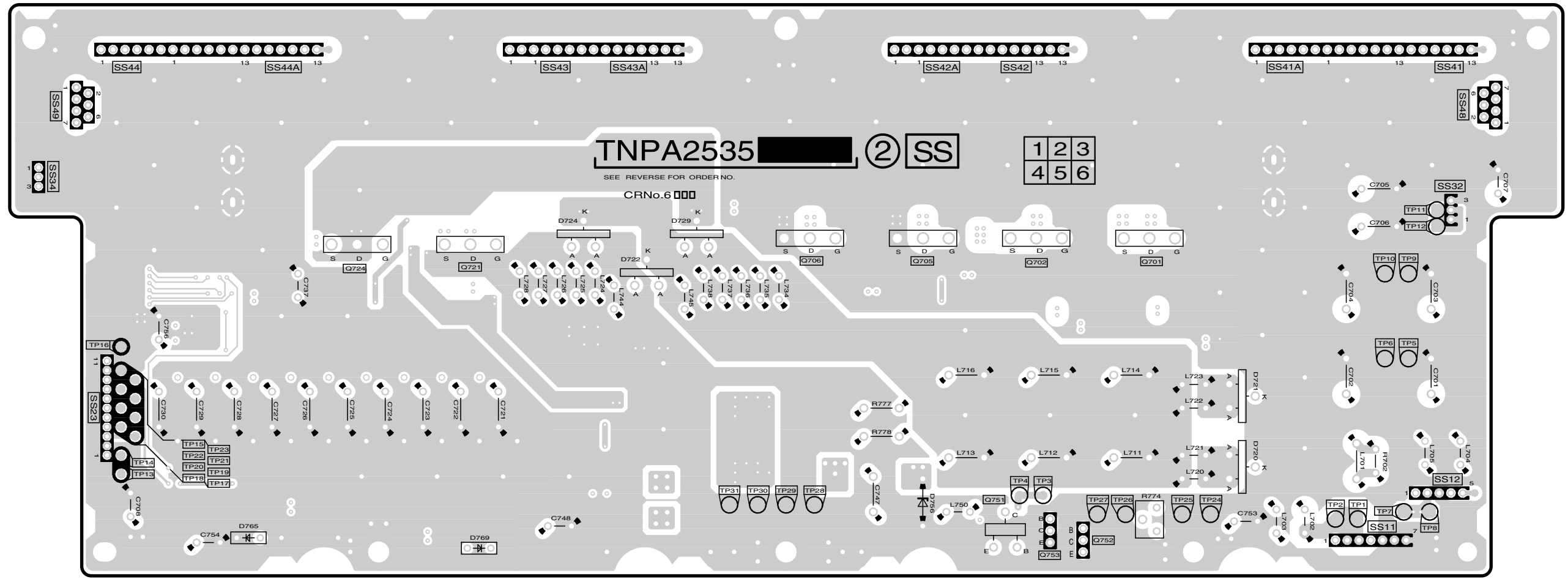


SD-BOARD (COMPONENT SIDE)
TNPA2584

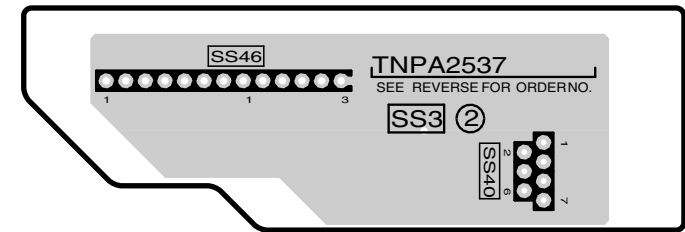


13.12. SS, SS2, SS3-Board

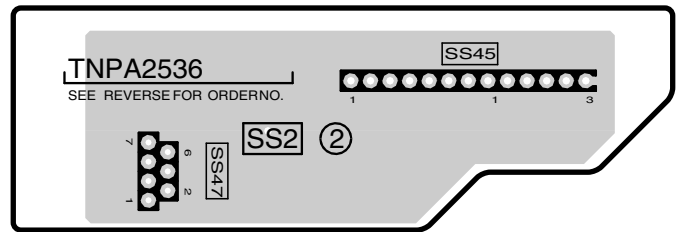
SS-BOARD (FOIL SIDE)
TNPA2535



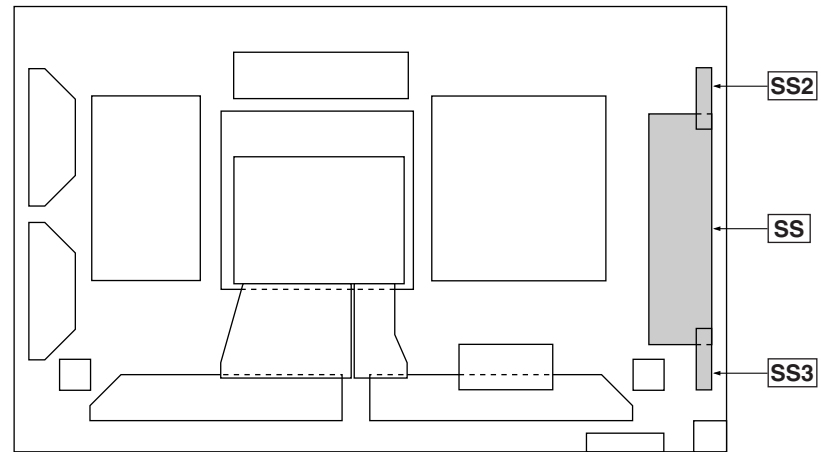
SS3-BOARD
(COMPONENT SIDE)
TNPA2537



SS2-BOARD
(COMPONENT SIDE)
TNPA2536



A B C D E F G H I



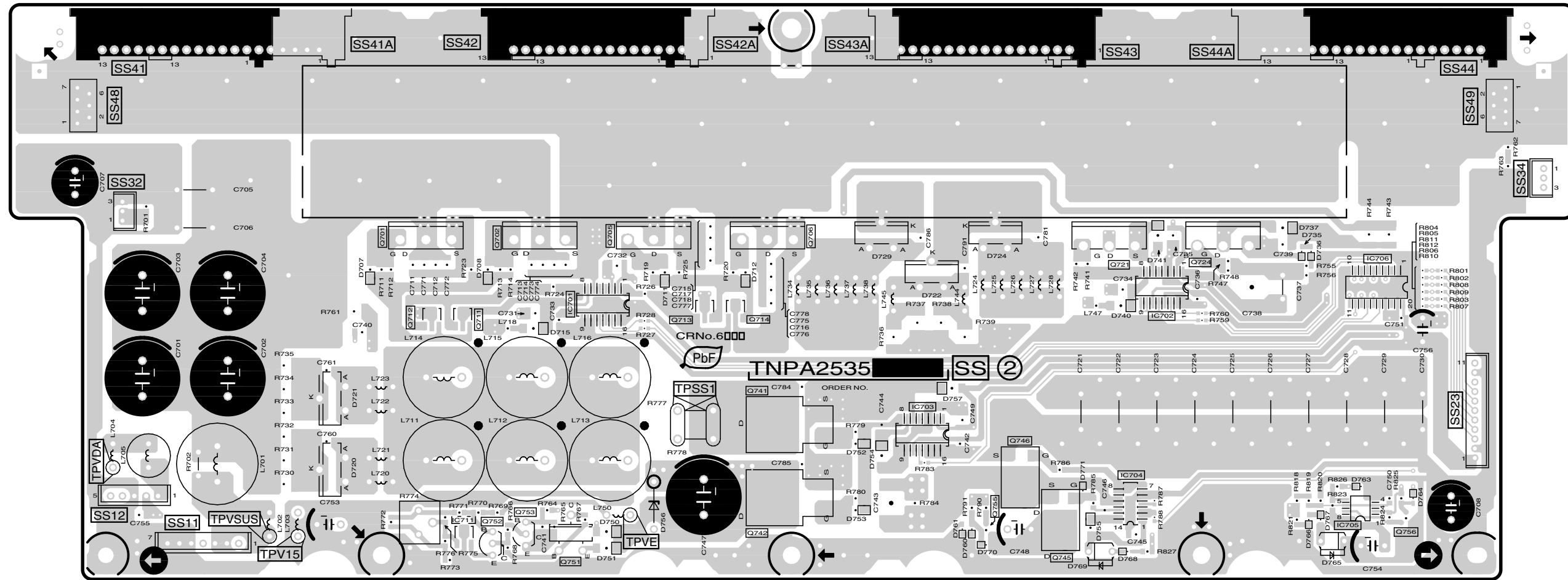
Parts Location

SS-BOARD (FOIL SIDE)					
TRANSISTOR		TP		TP16	A-4
Q6701	G-4	TP1	H-3	TP17	B-3
Q6702	F-4	TP2	H-3	TP18	B-3
Q6705	F-4	TP3	F-3	TP19	B-3
Q6706	E-4	TP4	F-3	TP20	B-3
Q6721	C-4	TP5	H-4	TP21	B-3
Q6724	C-4	TP6	H-4	TP22	B-3
Q6751	F-3	TP7	H-3	TP23	B-3
Q6752	G-3	TP8	H-3	TP24	G-3
Q6753	F-3	TP9	H-4	TP25	G-3
		TP10	H-4	TP26	G-3
		TP11	H-5	TP27	G-3
		TP12	H-4	TP28	E-3
		TP13	A-3	TP29	E-3
		TP14	A-3	TP30	E-3
		TP15	B-3	TP31	E-3

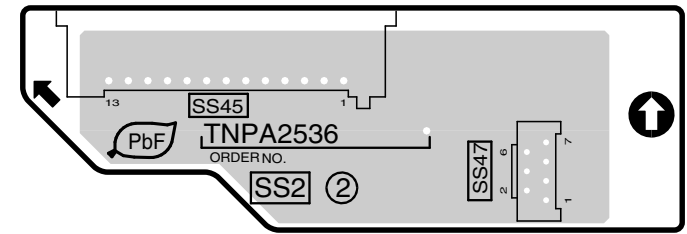
Parts Location

SS-BOARD (COMPONENT SIDE)					
IC		TRANSISTOR		TP	
IC6701	D-4	Q6701	C-4	TPSS1	D-4
IC6702	G-4	Q6702	C-4	TPV15	B-3
IC6703	F-3	Q6705	D-4	TPVDA	A-3
IC6704	G-3	Q6706	E-4	TPVE	D-3
IC6705	H-3	Q6711	C-4	TPVSUS	B-3
IC6706	H-4	Q6712	C-4		
IC6711	C-3	Q6713	D-4		
		Q6714	E-4		
		Q6721	G-4		
		Q6724	G-4		
		Q6741	E-3		
		Q6742	E-3		
		Q6745	F-3		
		Q6746	F-3		
		Q6751	D-3		
		Q6752	C-3		
		Q6753	D-3		
		Q6755	F-3		
		Q6756	H-3		

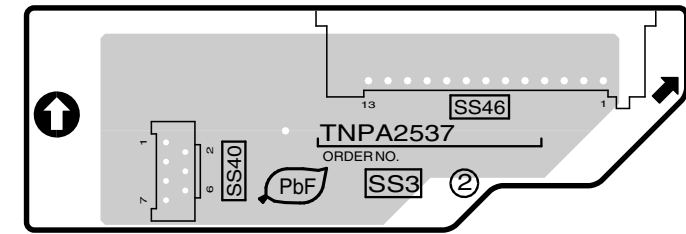
SS-BOARD (COMPONENT SIDE)
TNPA2535



SS2-BOARD
(COMPONENT SIDE)
TNPA2536

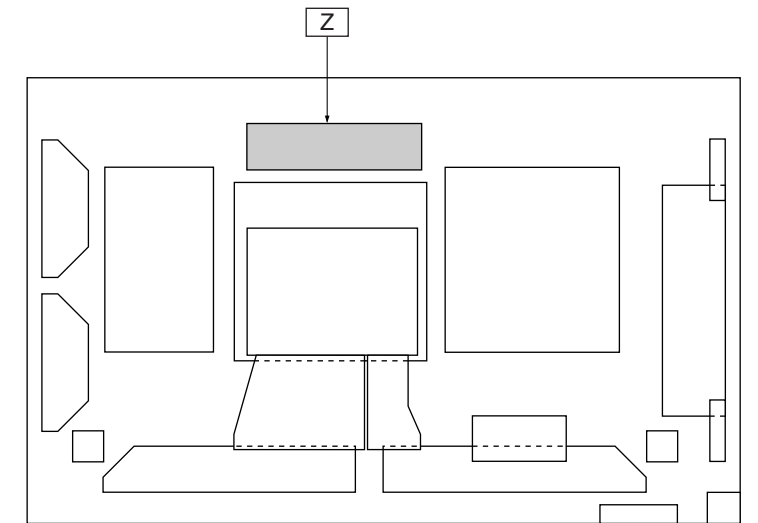
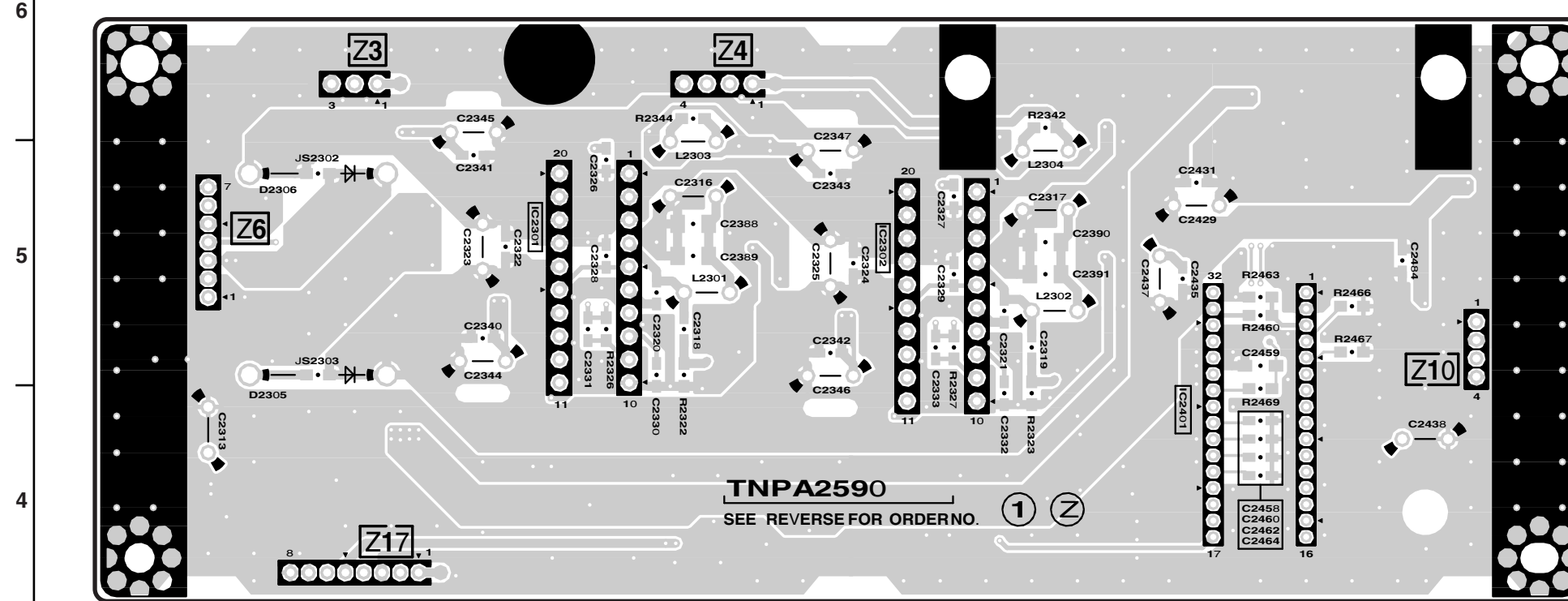


SS3-BOARD
(COMPONENT SIDE)
TNPA2537

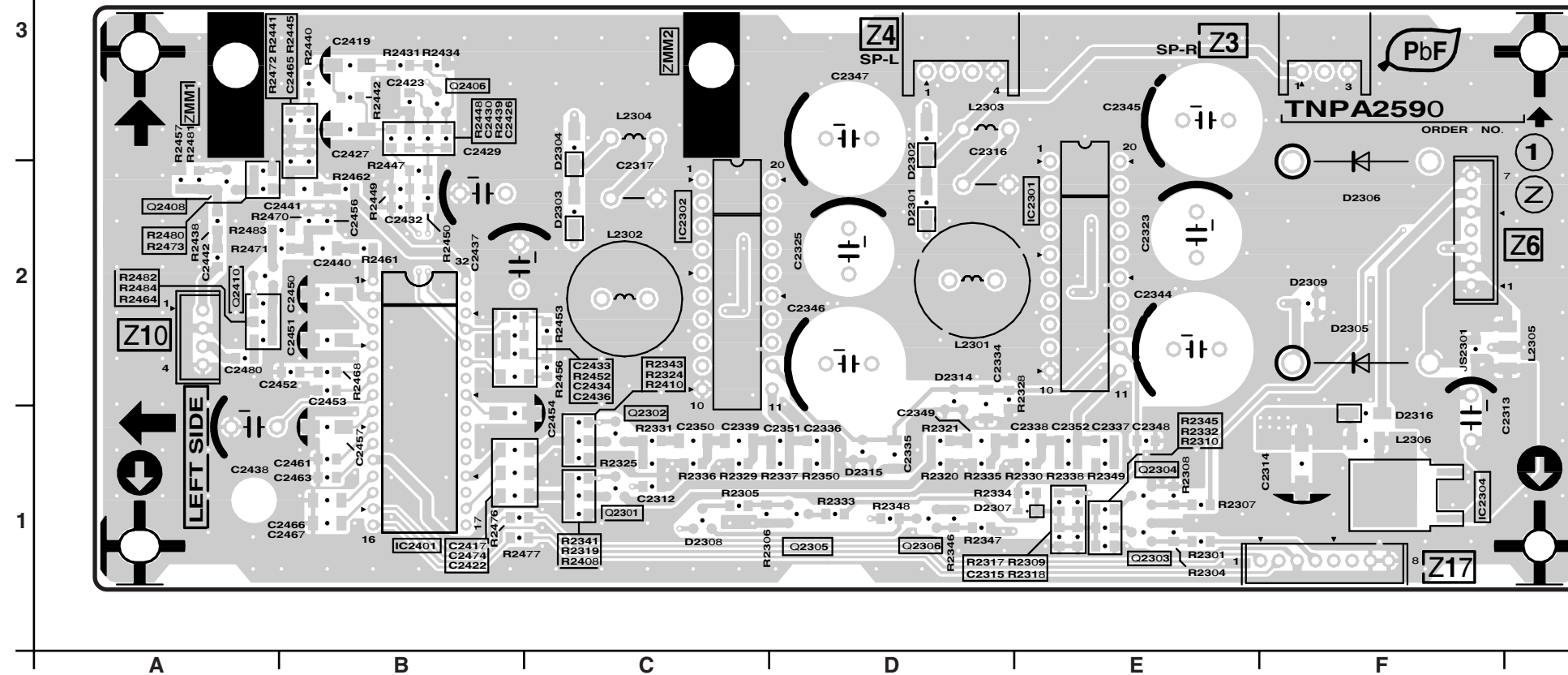


13.13. Z-Board

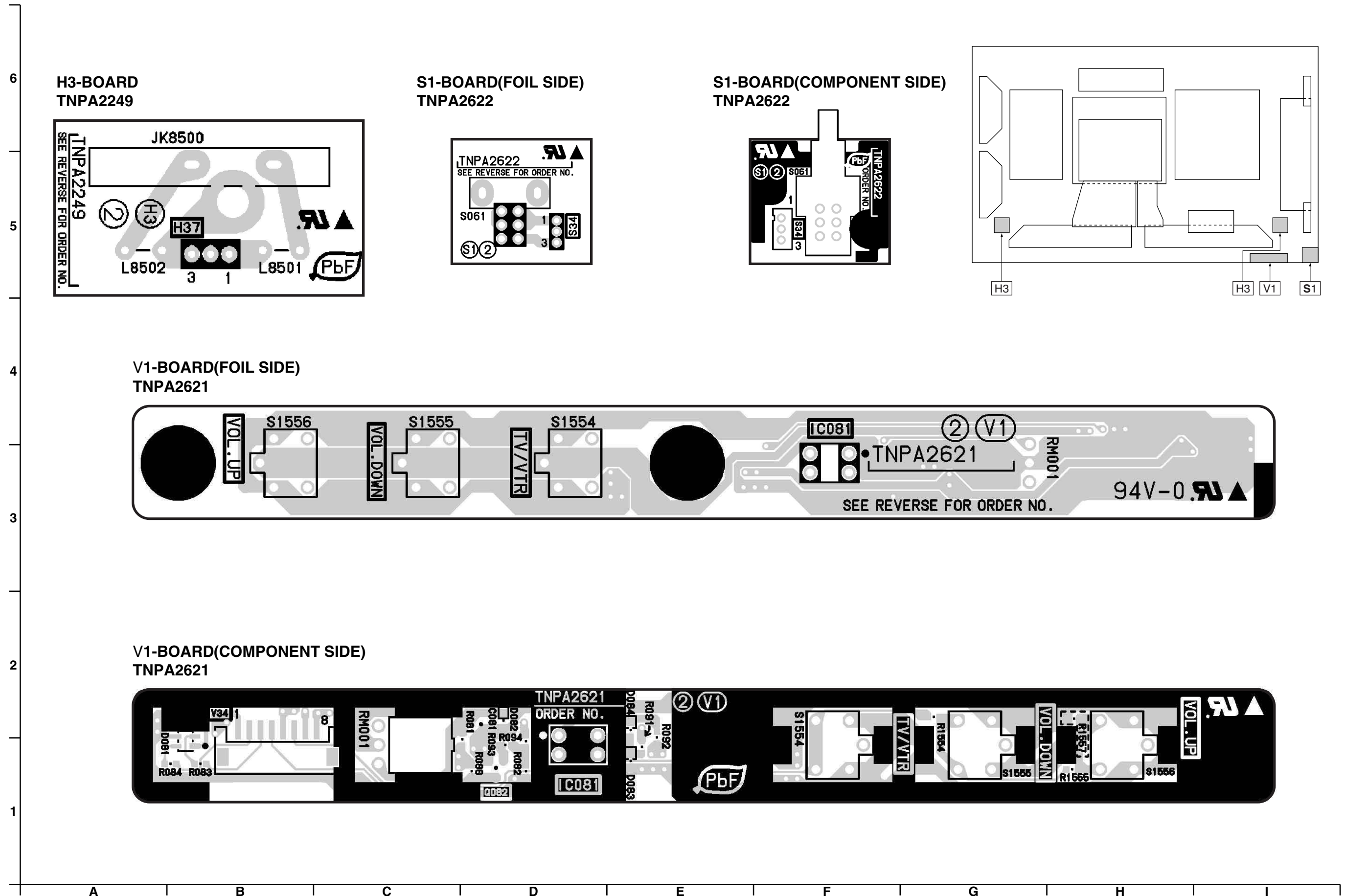
Z-BOARD (FOIL SIDE)
TNPA2590



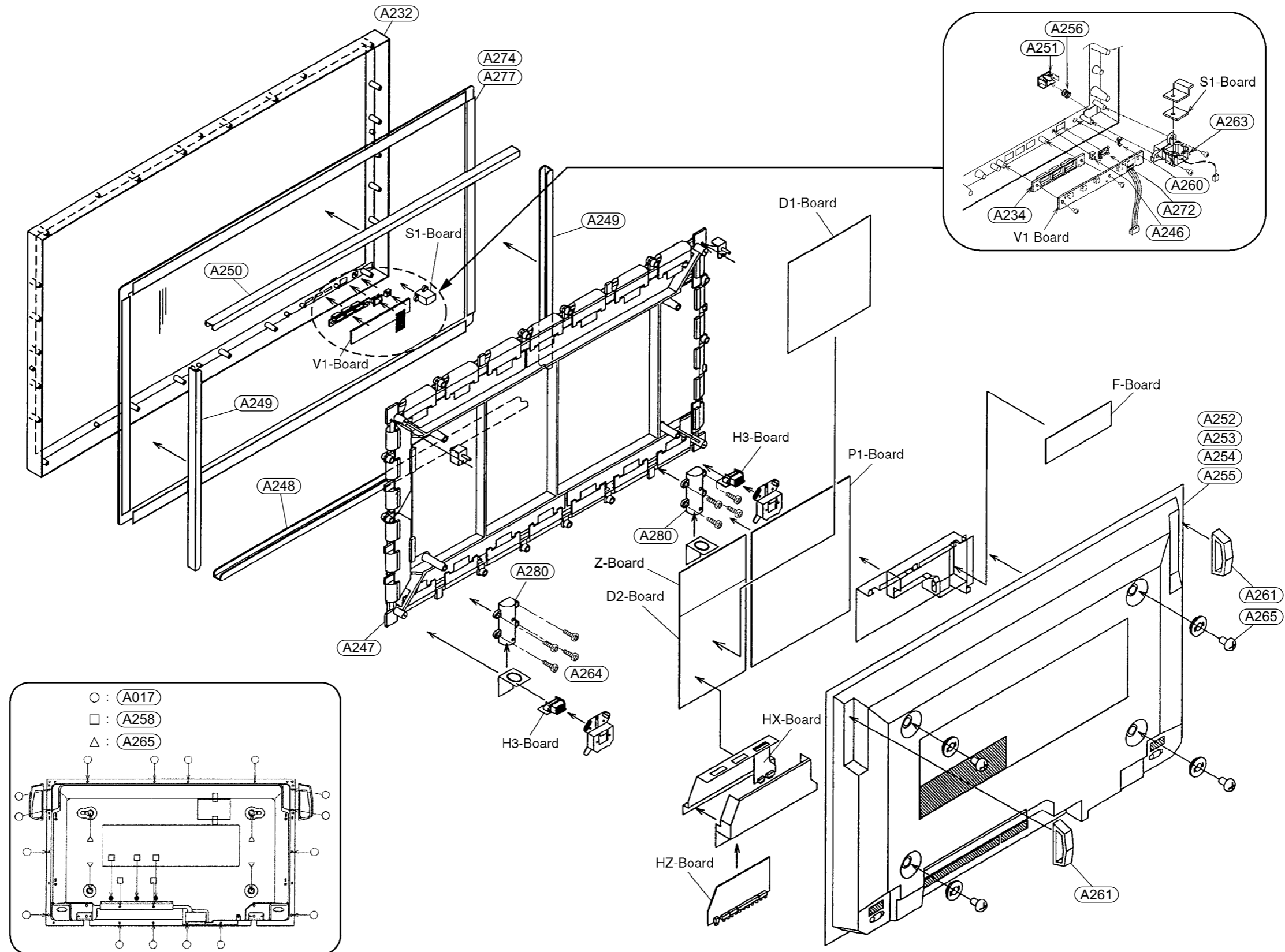
Z-BOARD (COMPONENT SIDE)
TNPA2590

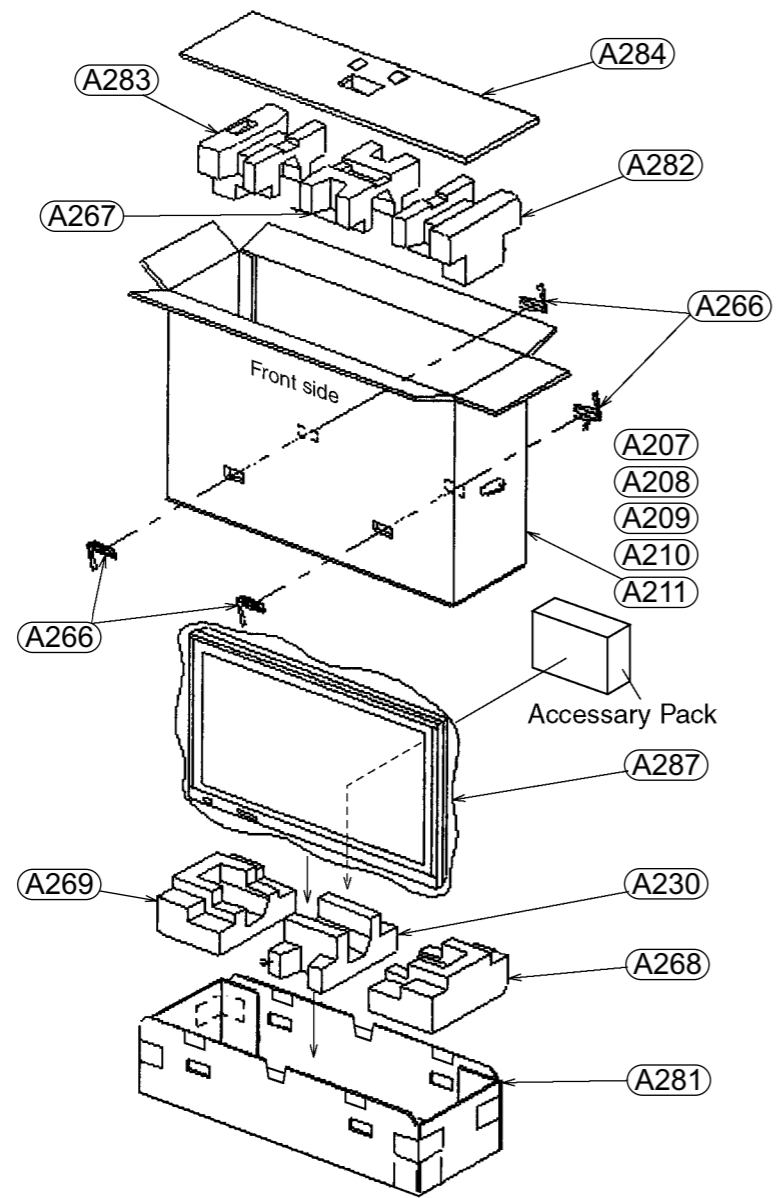


13.14. H3, S1 and V1-Board

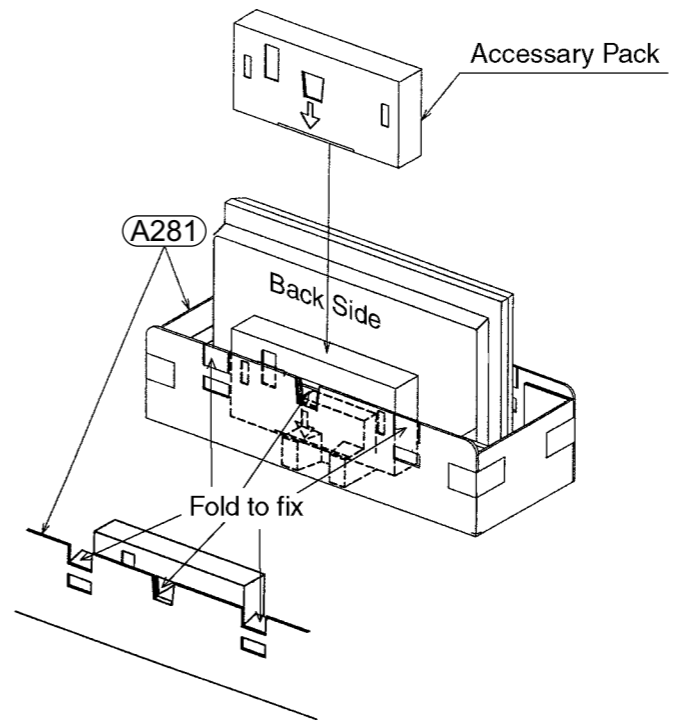
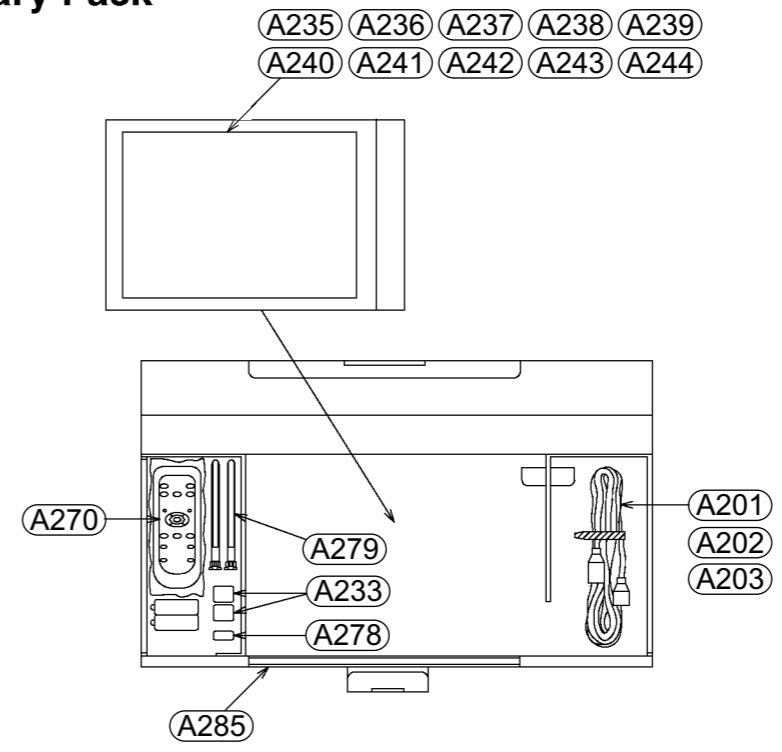


15 Mechanical Parts Location





•Accessory Pack



16 Replacement Parts List

16.1 Replacement parts List Notes

Important Safety Notice

Components identified by Δ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

Abbreviation of part name and description

1. Resistor

Example:

ERD25TJ104 C 100KOHM, J, 1/4W
 Type Allowance

2. Capacitor

Example:

ECKF1H103ZF C 0.01UF, Z, 50V
 Type Allowance

Type	Allowance
C : Carbon	F : $\pm 1\%$
F : Fuse	G : $\pm 2\%$
M : Metal Oxide Metal Film	J : $\pm 5\%$
S : Solid	K : $\pm 10\%$
W : Wire Wound	M : $\pm 20\%$

Type	Allowance
C : Ceramic	C : $\pm 0.25\text{pF}$
E : Electrolytic	D : $\pm 0.5\text{pF}$
P : Polyester	F : $\pm 1\text{pF}$
Polypropylene	G : $\pm 3\text{pF}$
J : $\pm 5\text{pF}$	
T : Tantalum	K : $\pm 10\text{pF}$
	L : $\pm 15\text{pF}$
	M : $\pm 20\text{pF}$
	P : +100%, -0%
	Z : +80%, -20%

16.2. Mechanical Replacement Parts List

Loc. No.	Part No.	Description	Reference No.	Remarks	Loc. No.	Part No.	Description	Reference No.	Remarks
A201	72790352	AC CORD	K2CT3DH00013	42WP27B	A251	72790402	POWER BUTTON	TBXA28205A	
A202	72790353	AC CORD	K2CN3DH00004	42WP27E/ F/R	A252	72790403	REAR COVER	TTUA0631	42WP27B/E
A203	72790354	AC CORD	K2CN3DH00007	42WP27C	A253	72790404	REAR COVER	TTUA0632	42WP27C
A204	72790355	AC INLET	TXAJS010MMS		A254	72790405	REAR COVER	TTUA0633	42WP27F
A207	72790358	CARTON BOX	TPCA95891	42WP27B	A255	72790406	REAR COVER	TTUA0634	42WP27R
A208	72790359	CARTON BOX	TPCA95892	42WP27R	A256	72000661	SPRING	TESD031	
A209	72790360	CARTON BOX	TPCA95893	42WP27F	A257	72000662	SCREW	THEA068N	
A210	72790361	CARTON BOX	TPCA95894	42WP27C	A258	72000663	SCREW	THEL023Z	
A211	72790362	CARTON BOX	TPCA95890	42WP27E	A259	72000663	SCREW	THEL023Z	
A212	72790363	CIRCUIT BOARD C, TNPA2540	TNPA2540		A260	72000664	LED PANEL	TKKC5105	
A213	72790364	CIRCUIT BOARD C2, TNPA2541	TNPA2541		A261	72000665	HANDLE	TKRA20501	
A214	72790365	CIRCUIT BOARD D1, TZTNP01PMSF	TZTNP01PMSF	42WP27F	A263	72000672	POWER BUTTON BRACKET	TMWC006-1	
A215	72790366	CIRCUIT BOARD D1, TZTNP02PMSE	TZTNP02PMSE	42WP27B/ E/R	A264	72000678	SCREW	XYN5+C20	
A216	72790367	CIRCUIT BOARD D2, TNPA2589	TNPA2589		A265	72000679	SCREW	XYN8+F20FZ	
A217	72790368	CIRCUIT BOARD F, TXN-F1MMSE	TXN/F1MMSE		A266	72000681	JOINT	TPD169487	
A218	72790369	CIRCUIT BOARD HX, TZTNP001PMSE	TZTNP001PMSE		A267	72000684	CUSHION, UPPER, CENTER	TPDA0512	
A219	72790370	CIRCUIT BOARD P, TNPA2599	TNPA2599		A268	72000685	CUSHION, BOTTOM, RIGHT	TPDA0513	
A220	72790371	CIRCUIT BOARD S1, TNPA2622	TNPA2622		A269	72000686	CUSHION, BOTTOM, LEFT	TPDA0514	
A221	72790372	CIRCUIT BOARD SC, TNPA2534AD	TNPA2534AD		A270	72000703	REMOCON HAND UNIT	EUR646527	
A222	72790373	CIRCUIT BOARD SD, TNPA2584	TNPA2584		A271	72000705	POLY BAG	XZBT6506	
A223	72790374	CIRCUIT BOARD SS, TNPA2535AD	TNPA2535AD		A272	72000710	REMOCON RECEIVE PANEL	TKPA43801	
A224	72790375	CIRCUIT BOARD SS2, TNPA2536	TNPA2536		A273	72000743	FUSE, 250V 8A	K5Y802B00001	
A225	72790376	CIRCUIT BOARD SS3, TNPA2537	TNPA2537		A274	72790515	FRONT GLASS	TKGA5066	42WP27B
A226	72790377	CIRCUIT BOARD SU, TNPA2583	TNPA2583		A274	72790516	FRONT GLASS	TKGA5066	42WP27E
A227	72790378	CIRCUIT BOARD V1, TNPA2621	TNPA2621		A274	72790518	FRONT GLASS	TKGA5066	42WP27F
A228	72790379	CIRCUIT BOARD Z, TNPA2590	TNPA2590		A274	72790517	FRONT GLASS	TKGA5066	42WP27R
A286	72701227	CIRCUIT BOARD, H3, TNPA2249	TNPA2249		A277	72790519	FRONT GLASS	TKGA5067	42WP27C
A230	72790381	CUSHION, BOTTOM, CENTER	TPDA0515-2		A278	72001049	FERRITE CORE	J0KF00000018	
A232	72790383	ESCUTCHEON	TTEA0117		A279	72001052	FIXING BAND	TMME187	
A233	72790384	FILTER, NOISE	J0KG00000054		A280	72001053	STAND BRACKET	TXFM2010JAS	
A234	72790385	HINGE BUTTON	TBXA35903		A281	72001054	CARTON BOX, BOTTOM	TPCA95901A	
A235	72790386	INSTRUCTION BOOK (ARABIC)	TQZW282	42WP27R	A282	72001055	CUSHION, UPPER, RIGHT	TPDA0510-1	
A236	72790387	INSTRUCTION BOOK (CHINA)	TQZW278	42WP27C	A283	72001056	CUSHION, UPPER, LEFT	TPDA0511-1	
A237	72790388	INSTRUCTION BOOK (ENGLISH)	TQZW273	42WP27B	A284	72001058	CUSHION	TPDF0596	
A238	72790389	INSTRUCTION BOOK (ENGLISH)	TQZW279	42WP27R	A285	72001059	PAPER BOX	TPDF0737	
A239	72790390	INSTRUCTION BOOK (FRENCH)	TQZW274	42WP27E	A287	72790116	PROTECT COVER	TPEH170	
A240	72790391	INSTRUCTION BOOK (GERMAN)	TQZW275	42WP27E	A288	72790088	SCREW	XTV3+10J	
A241	72790392	INSTRUCTION BOOK (ITALIAN)	TOZW276	42WP27E	A289	72790088	SCREW	XTV3+10J	
A242	72790393	INSTRUCTION BOOK (KOREA)	TQZW281	42WP27F	A290	72790089	SCREW	XYN3+F8	
A243	72790394	INSTRUCTION BOOK (RUSSIAN)	TOZW280	42WP27R	A291	72790089	SCREW	XYN3+F8	
A244	72790395	INSTRUCTION BOOK (SPANISH)	TQZW277	42WP27E	A292	72790089	SCREW	XYN3+F8	
A245	72790396	INSTRUCTION SHEET	TQZH337		A293	72790089	SCREW	XYN3+F8	
A246	72790397	PANEL, IC RECEIVE	TKPA63401		A294	72790089	SCREW	XYN3+F8	
A247	72790398	PANEL, PLASMA DISPLAY	MD42S05A1J						
A248	72790399	PLATE, GLASS/BOTTOM	TXFMX030MMS						
A249	72790400	PLATE, GLASS/R,L	TXFMX040MMS						
A250	72790401	PLATE, GLASS/UPPER	TXFMX020MMS						

16.3. Electrical Replacement Parts List

Loc. No.	Part No.	Description	Reference No.	Remarks
C081	72000190	CAPACITOR, C, 10UF, M, 6V	ECJ3XB0J106M	
C2312	72000191	CAPACITOR, C, 0.01UF	ECJ2VF1H103Z	
C2313	72000192	CAPACITOR, E, 47UF	ECA1HHG470	
C2314	72000907	CAPACITOR, E, 47UF, 16V	EEVHB1C470	
C2316	72000194	CAPACITOR, P, 0.47UF	ECQV1H474JM	
C2317	72000194	CAPACITOR, P, 0.47UF	ECQV1H474JM	
C2318	72000195	CAPACITOR, C, 560PF	ECJ2XC1H561J	
C2319	72000195	CAPACITOR, C, 560PF	ECJ2XC1H561J	
C2320	72000196	CAPACITOR, C, 0.1UF	ECJ2VF1H104Z	
C2321	72000196	CAPACITOR, C, 0.1UF	ECJ2VF1H104Z	
C2322	72000196	CAPACITOR, C, 0.1UF	ECJ2VF1H104Z	
C2323	72000908	CAPACITOR, E, 220UF, 50V	ECA1HHG221	
C2324	72000196	CAPACITOR, C, 0.1UF	ECJ2VF1H104Z	
C2325	72000908	CAPACITOR, E, 220UF, 50V	ECA1HHG221	
C2326	72000198	CAPACITOR, C, 220PF	ECJ2XC1H221J	
C2327	72000198	CAPACITOR, C, 220PF	ECJ2XC1H221J	
C2328	72000196	CAPACITOR, C, 0.1UF	ECJ2VF1H104Z	
C2329	72000196	CAPACITOR, C, 0.1UF	ECJ2VF1H104Z	
C2330	72000199	CAPACITOR, C, 4700PF	ECJ2XB1H472K	
C2331	72000200	CAPACITOR, C, 100PF	ECJ2XC1H101J	
C2332	72000199	CAPACITOR, C, 4700PF	ECJ2XB1H472K	
C2333	72000200	CAPACITOR, C, 100PF	ECJ2XC1H101J	
C2334	72000201	CAPACITOR, C, 2.2UF	TCUY1C225KBM	
C2335	72000201	CAPACITOR, C, 2.2UF	TCUY1C225KBM	
C2336	72000202	CAPACITOR, C, 0.047UF	ECJ2XB1H473K	
C2337	72000202	CAPACITOR, C, 0.047UF	ECJ2XB1H473K	
C2338	72000203	CAPACITOR, C, 4.7UF	ECJ3XF1C475Z	
C2339	72000203	CAPACITOR, C, 4.7UF	ECJ3XF1C475Z	
C2340	72000196	CAPACITOR, C, 0.1UF	ECJ2VF1H104Z	
C2341	72000196	CAPACITOR, C, 0.1UF	ECJ2VF1H104Z	
C2342	72000196	CAPACITOR, C, 0.1UF	ECJ2VF1H104Z	
C2343	72000196	CAPACITOR, C, 0.1UF	ECJ2VF1H104Z	
C2344	72000204	CAPACITOR, E, 1000UF	EEUG21D102SB	
C2345	72000204	CAPACITOR, E, 1000UF	EEUG21D102SB	
C2346	72000204	CAPACITOR, E, 1000UF	EEUG21D102SB	
C2347	72000204	CAPACITOR, E, 1000UF	EEUG21D102SB	
C2348	72000191	CAPACITOR, C, 0.01UF	ECJ2VF1H103Z	
C2349	72000203	CAPACITOR, C, 4.7UF	ECJ3XF1C475Z	
C2350	72000203	CAPACITOR, C, 4.7UF	ECJ3XF1C475Z	
C2417	72000203	CAPACITOR, C, 4.7UF	ECJ3XF1C475Z	
C2419	72000212	CAPACITOR, E, 10UF	EEVHB1C100	
C2422	72000203	CAPACITOR, C, 4.7UF	ECJ3XF1C475Z	
C2423	72000205	CAPACITOR, C, 0.01UF	ECJ2XB1H103K	
C2426	72000209	CAPACITOR, C, 0.015UF	ECJ2XB1H153K	
C2427	72000212	CAPACITOR, E, 10UF	EEVHB1C100	
C2429	72790716	CAPACITOR, E, 100UF, 16V	EEAGA1C101	
C2431	72000191	CAPACITOR, C, 0.01UF	ECJ2VF1H103Z	

Loc. No.	Part No.	Description	Reference No.	Remarks
C2433	72000215	CAPACITOR, C, 0.039UF	ECJ2XB1H393K	
C2434	72000216	CAPACITOR, C, 0.022UF	ECJ2XB1H223K	
C2435	72000205	CAPACITOR, C, 0.01UF	ECJ2XB1H103K	
C2436	72790717	CAPACITOR, C, 0.10UF, K, 16V	ECJ3VB1C104K	
C2437	72790716	CAPACITOR, E, 100UF, 16V	EEAGA1C101	
C2438	72790716	CAPACITOR, E, 100UF, 16V	EEAGA1C101	
C2440	72000203	CAPACITOR, C, 4.7UF	ECJ3XF1C475Z	
C2441	72000203	CAPACITOR, C, 4.7UF	ECJ3XF1C475Z	
C2442	72000225	CAPACITOR, C, 1UF, Z, 16V	ECJ2VF1C105Z	
C2450	72000212	CAPACITOR, E, 10UF	EEVHB1C100	
C2451	72000218	CAPACITOR, E, 4.7UF	EEVHB1E4R7	
C2452	72000219	CAPACITOR, C, 5600PF, K, 50V	ECJ2XB1H562K	
C2453	72000196	CAPACITOR, C, 0.1UF	ECJ2VF1H104Z	
C2454	72000218	CAPACITOR, E, 4.7UF	EEVHB1E4R7	
C2457	72000218	CAPACITOR, E, 4.7UF	EEVHB1E4R7	
C2458	72000220	CAPACITOR, C, 1000PF, J, 50V	ECJ2XC1H102J	
C2459	72790717	CAPACITOR, C, 0.10UF, K, 16V	ECJ3VB1C104K	
C2460	72000202	CAPACITOR, C, 0.047UF	ECJ2XB1H473K	
C2461	72000220	CAPACITOR, C, 1000PF, J, 50V	ECJ2XC1H102J	
C2463	72000202	CAPACITOR, C, 0.047UF	ECJ2XB1H473K	
C2466	72790717	CAPACITOR, C, 0.10UF, K, 16V	ECJ3VB1C104K	
C2467	72790717	CAPACITOR, C, 0.10UF, K, 16V	ECJ3VB1C104K	
C2480	72000225	CAPACITOR, C, 1UF, Z, 16V	ECJ2VF1C105Z	
C2484	72000191	CAPACITOR, C, 0.01UF	ECJ2VF1H103Z	
C3001	72000225	CAPACITOR, C, 1UF, Z, 16V	ECJ2VF1C105Z	
C3002	72000225	CAPACITOR, C, 1UF, Z, 16V	ECJ2VF1C105Z	
C3003	72000225	CAPACITOR, C, 1UF, Z, 16V	ECJ2VF1C105Z	
C3004	72000804	CAPACITOR, C, 0.01UF, Z, 50V	ECJ1VF1H103Z	
C3005	72000225	CAPACITOR, C, 1UF, Z, 16V	ECJ2VF1C105Z	
C3006	72000225	CAPACITOR, C, 1UF, Z, 16V	ECJ2VF1C105Z	
C3007	72000225	CAPACITOR, C, 1UF, Z, 16V	ECJ2VF1C105Z	
C3008	72000804	CAPACITOR, C, 0.01UF, Z, 50V	ECJ1VF1H103Z	
C3009	72000804	CAPACITOR, C, 0.01UF, Z, 50V	ECJ1VF1H103Z	
C3010	72000225	CAPACITOR, C, 1UF, Z, 16V	ECJ2VF1C105Z	
C3011	72000225	CAPACITOR, C, 1UF, Z, 16V	ECJ2VF1C105Z	
C3012	72000225	CAPACITOR, C, 1UF, Z, 16V	ECJ2VF1C105Z	
C3013	72000804	CAPACITOR, C, 0.01UF, Z, 50V	ECJ1VF1H103Z	
C3014	72000804	CAPACITOR, C, 0.01UF, Z, 50V	ECJ1VF1H103Z	
C3015	72000225	CAPACITOR, C, 1UF, Z, 16V	ECJ2VF1C105Z	
C3016	72000225	CAPACITOR, C, 1UF, Z, 16V	ECJ2VF1C105Z	
C3017	72000225	CAPACITOR, C, 1UF, Z, 16V	ECJ2VF1C105Z	
C3018	72000804	CAPACITOR, C, 0.01UF, Z, 50V	ECJ1VF1H103Z	
C3019	72000907	CAPACITOR, E, 47UF, 16V	EEVHB1C470	
C3020	72790718	CAPACITOR, C, 0.1UF, Z, 16V	ECJ1XF1C104Z	
C3021	72000907	CAPACITOR, E, 47UF, 16V	EEVHB1C470	
C3022	72790719	CAPACITOR, C, 0.1UF, Z, 50V	ECJ1VF1H104Z	
C3023	72000907	CAPACITOR, E, 47UF, 16V	EEVHB1C470	

Loc. No.	Part No.	Description	Reference No.	Remarks
C3024	72790719	CAPACITOR, C, 0.1UF, Z, 50V	ECJ1VF1H104Z	
C3026	72000804	CAPACITOR, C, 0.01UF, Z, 50V	ECJ1VF1H103Z	
C3027	72000907	CAPACITOR, E, 47UF, 16V	EEVHB1C470	
C3028	72000804	CAPACITOR, C, 0.01UF, Z, 50V	ECJ1VF1H103Z	
C3029	72000907	CAPACITOR, E, 47UF, 16V	EEVHB1C470	
C3030	72000804	CAPACITOR, C, 0.01UF, Z, 50V	ECJ1VF1H103Z	
C3031	72000804	CAPACITOR, C, 0.01UF, Z, 50V	ECJ1VF1H103Z	
C3032	72000907	CAPACITOR, E, 47UF, 16V	EEVHB1C470	
C3033	72790718	CAPACITOR, C, 0.1UF, Z, 16V	ECJ1XF1C104Z	
C3034	72790718	CAPACITOR, C, 0.1UF, Z, 16V	ECJ1XF1C104Z	
C3035	72790718	CAPACITOR, C, 0.1UF, Z, 16V	ECJ1XF1C104Z	
C3036	72000804	CAPACITOR, C, 0.01UF, Z, 50V	ECJ1VF1H103Z	
C3037	72000907	CAPACITOR, E, 47UF, 16V	EEVHB1C470	
C3038	72000907	CAPACITOR, E, 47UF, 16V	EEVHB1C470	
C3039	72000907	CAPACITOR, E, 47UF, 16V	EEVHB1C470	
C3040	72000225	CAPACITOR, C, 1UF, Z, 16V	ECJ2VF1C105Z	
C3041	72000225	CAPACITOR, C, 1UF, Z, 16V	ECJ2VF1C105Z	
C3042	72000907	CAPACITOR, E, 47UF, 16V	EEVHB1C470	
C3049	72790720	CAPACITOR, C, 0.1UF, Z, 16V	ECJ1XB1C104K	
C3050	72790720	CAPACITOR, C, 0.1UF, Z, 16V	ECJ1XB1C104K	
C3404	72000224	CAPACITOR, C, 0.1UF, Z, 16V	ECJ2VF1C104Z	
C3405	72000907	CAPACITOR, E, 47UF, 16V	EEVHB1C470	
C3406	72000224	CAPACITOR, C, 0.1UF, Z, 16V	ECJ2VF1C104Z	
C3407	72000907	CAPACITOR, E, 47UF, 16V	EEVHB1C470	
C3409	72000224	CAPACITOR, C, 0.1UF, Z, 16V	ECJ2VF1C104Z	
C3410	72000907	CAPACITOR, E, 47UF, 16V	EEVHB1C470	
C3516	72000907	CAPACITOR, E, 47UF, 16V	EEVHB1C470	
C3517	72000907	CAPACITOR, E, 47UF, 16V	EEVHB1C470	
C3518	72000907	CAPACITOR, E, 47UF, 16V	EEVHB1C470	
C3520	72000191	CAPACITOR, C, 0.01UF	ECJ2VF1H103Z	
C3521	72000907	CAPACITOR, E, 47UF, 16V	EEVHB1C470	
C3523	72000907	CAPACITOR, E, 47UF, 16V	EEVHB1C470	
C3524	72000191	CAPACITOR, C, 0.01UF	ECJ2VF1H103Z	
C3529	72000190	CAPACITOR, C, 10UF, M, 6	ECJ3XB0J106M	
C3530	72000190	CAPACITOR, C, 10UF, M, 6	ECJ3XB0J106M	
C3531	72000190	CAPACITOR, C, 10UF, M, 6	ECJ3XB0J106M	
C3533	72000190	CAPACITOR, C, 10UF, M, 6	ECJ3XB0J106M	
C3534	72000190	CAPACITOR, C, 10UF, M, 6	ECJ3XB0J106M	
C3542	72000224	CAPACITOR, C, 0.1UF, Z, 16V	ECJ2VF1C104Z	
C3544	72000907	CAPACITOR, E, 47UF, 16V	EEVHB1C470	
C3550	72000191	CAPACITOR, C, 0.01UF	ECJ2VF1H103Z	
C3551	72000907	CAPACITOR, E, 47UF, 16V	EEVHB1C470	
C3561	72000225	CAPACITOR, C, 1UF, Z, 16V	ECJ2VF1C105Z	
C3562	72000225	CAPACITOR, C, 1UF, Z, 16V	ECJ2VF1C105Z	
C3591	72000913	CAPACITOR, C, 1UF, 16V	TCUY1C105ZFN	
C3592	72000913	CAPACITOR, C, 1UF, 16V	TCUY1C105ZFN	
C3593	72000226	CAPACITOR, C, 0.1UF, Z, 25V	ECJ2VF1E104Z	

Loc. No.	Part No.	Description	Reference No.	Remarks
C3594	72000913	CAPACITOR, C, 1UF, 16V	TCUY1C105ZFN	
C3595	72000913	CAPACITOR, C, 1UF, 16V	TCUY1C105ZFN	
C402	72000292	CAPACITOR, E, 100UF, 25V	ECA1EHG101	
C410	72790809	CAPACITOR, C, 4700PF, Z	ECKDAE472ZE	
C411	72790809	CAPACITOR, C, 4700PF, Z	ECKDAE472ZE	
C412	72790809	CAPACITOR, C, 4700PF, Z	ECKDAE472ZE	
C413	72000314	CAPACITOR, E, 10UF, 450V	ECA2WHG100	
C415	72000243	CAPACITOR, E, 22UF, 50V	ECA1HHG220	
C416	72000244	CAPACITOR, P, 0.1UF, J, 50V	ECQV1H104JM	
C417	72000240	CAPACITOR, C, 3900PF, K, 2KV	ECKD3D392KBP	
C418	72000245	CAPACITOR, E, 47UF, 25V	ECA1EHG470	
C419	72000246	CAPACITOR, C, 820PF, K, 500V	ECKD2H821KB2	
C420	72000244	CAPACITOR, P, 0.1UF, J, 50V	ECQV1H104JM	
C421	72000245	CAPACITOR, E, 47UF, 25V	ECA1EHG470	
C422	72000249	CAPACITOR, C, 560PF, K, 500V	ECKD2H561KB2	
C423	72000249	CAPACITOR, C, 560PF, K, 500V	ECKD2H561KB2	
C424	72000830	CAPACITOR, E, 470UF, 16V	EEUFC1C471	
C425	72000911	CAPACITOR, E, 1000UF, 25V	ECA1EHG102	
C427	72000792	CAPACITOR, E, 4700UF, 10V	ECA1AHG471	
C428	72000245	CAPACITOR, E, 47UF, 25V	ECA1EHG470	
C429	72000274	CAPACITOR, C, 0.022UF, Z, 50V	ECKF1H223ZF	
C430	72000274	CAPACITOR, C, 0.022UF, Z, 50V	ECKF1H223ZF	
C431	72790809	CAPACITOR, C, 4700PF, Z	ECKDAE472ZE	
C432	72790809	CAPACITOR, C, 4700PF, Z	ECKDAE472ZE	
C433	72790809	CAPACITOR, C, 4700PF, Z	ECKDAE472ZE	
C434	72000271	CAPACITOR, P, 1UF, J, 630V	ECQ6E105JF	
C435	72790810	CAPACITOR, E, 220UF, 35V	EEUFC1V331	
C436	72000252	CAPACITOR, P, 0.01UF, J, 50V	ECQB1H103JF	
C437	72000317	CAPACITOR, P, 820PF, J, 50V	ECQB1H821JF	
C438	72000273	CAPACITOR, E, 33UF, 50V	EEUFC1H330	
C439	72790811	CAPACITOR, P, 100UF, K, 50V	ECQB1H101KF	
C440	72790812	CAPACITOR, P, 330UF, K, 50V	ECQB1H331JF	
C441	72000252	CAPACITOR, P, 0.01UF, J, 50V	ECQB1H103JF	
C442	72790813	CAPACITOR, P, 0.1UF, J, 50V	ECQB1H104JF	
C443	72790814	CAPACITOR, P, 0.56UF, J, 50V	ECQV1H564JM	
C444	72000283	CAPACITOR, E, 1UF, 50V	ECA1HHG010	
C445	72000817	CAPACITOR, C, 100PF, K, 2KV	ECKD3D101KBP	
C447	72000236	CAPACITOR, E, 330UF, 450V	EETHC2W331L	
C448	72000236	CAPACITOR, E, 330UF, 450V	EETHC2W331L	
C449	72790813	CAPACITOR, P, 0.1UF, J, 50V	ECQB1H104JF	
C450	72790815	CAPACITOR, E, 330UF, 25V	ECA1EHG331	
C452	72790093	CAPACITOR, E, 22UF, 50V	EEUEB1H220	
C501	72000280	CAPACITOR, E, 10UF, 50V	ECA1HHG100	
C503	72000252	CAPACITOR, P, 0.01UF, J, 50V	ECQB1H103JF	
C504	72000282	CAPACITOR, C, 100PF, K, 50V	ECKF1H101KB	
C505	72000284	CAPACITOR, P, 1000PF, J, 50V	ECQB1H102JF	
C506	72000818	CAPACITOR, P, 1200PF, J, 50V	ECQB1H122JF	

Loc. No.	Part No.	Description	Reference No.	Remarks
C508	72000284	CAPACITOR, P, 1000PF, J, 50V	ECQB1H102JF	
C509	72000268	CAPACITOR, C, 470PF, K, 50V	ECKF1H471KB	
C510	72790816	CAPACITOR, C, 220PF, K, 2KV	ECKD3D221KBP	
C511	72790817	CAPACITOR, E, 220UF, 25V	ECA1EHG221	
C512	72000284	CAPACITOR, P, 1000PF, J, 50V	ECQB1H102JF	
C513	72790092	CAPACITOR, E, 100UF, 25V	EEUEB1E101	
C514	72000817	CAPACITOR, C, 100PF, K, 2KV	ECKD3D101KBP	
C515	72790818	CAPACITOR, P, 0.047UF, K, 630V	ECQE6473KF	
C516	72790818	CAPACITOR, P, 0.047UF, K, 630V	ECQE6473KF	
C518	72000292	CAPACITOR, E, 100UF, 25V	ECA1EHG101	
C520	72790819	CAPACITOR, E, 220UF, 25V	EEUEB1E221SB	
C521	72000252	CAPACITOR, P, 0.01UF, J, 50V	ECQB1H103JF	
A C523	72790820	CAPACITOR, C, 1000PF, Z	ECKCNA102MBB	
C524	72000248	CAPACITOR, C, 1000PF, K, 2KV	ECKD3D102KBP	
C525	72790821	CAPACITOR, E, 820UF, 160V	EETHC2C821H	
C526	72000234	CAPACITOR, C, 100PF, K, 1KV	ECKD3A101KBP	
C527	72000906	CAPACITOR, C, 0.01UF, Z, 50V	ECKF1H103ZF	
C528	72000906	CAPACITOR, C, 0.01UF, Z, 50V	ECKF1H103ZF	
C530	72000234	CAPACITOR, C, 100PF, K, 1KV	ECKD3A101KBP	
C531	72000257	CAPACITOR, C, 0.01UF, Z, 500V	ECKD2H103ZU	
C532	72790822	CAPACITOR, E, 1800UF, 200V	EETHC2D182L	
C533	72790823	CAPACITOR, C, 470PF, K, 1KV	ECKD3A471KBP	
C534	72000252	CAPACITOR, P, 0.01UF, J, 50V	ECQB1H103JF	
C535	72000252	CAPACITOR, P, 0.01UF, J, 50V	ECQB1H103JF	
C536	72790822	CAPACITOR, E, 1800UF, 200V	EETHC2D182L	
C537	72000234	CAPACITOR, C, 100PF, K, 1KV	ECKD3A101KBP	
C538	72000234	CAPACITOR, C, 100PF, K, 1KV	ECKD3A101KBP	
C539	72790093	CAPACITOR, E, 22UF, 50V	EEUEB1H220	
C540	72000793	CAPACITOR, E, 4700UF, 25V	ECA1EHG472	
C541	72000256	CAPACITOR, E, 2200UF, 25V	ECA1EHG222	
C542	72000252	CAPACITOR, P, 0.01UF, J, 50V	ECQB1H103JF	
C543	72000252	CAPACITOR, P, 0.01UF, J, 50V	ECQB1H103JF	
C544	72000256	CAPACITOR, E, 2200UF, 25V	ECA1EHG222	
C545	72000256	CAPACITOR, E, 2200UF, 25V	ECA1EHG222	
C546	72000256	CAPACITOR, E, 2200UF, 25V	ECA1EHG222	
C547	72000252	CAPACITOR, P, 0.01UF, J, 50V	ECQB1H103JF	
C548	72790734	CAPACITOR, P, 3300PF, J, 50V	ECQB1H332JF	
A C549	72790825	CAPACITOR, E, 150UF, 35V	EEUFC1V151	
A C550	72790825	CAPACITOR, E, 150UF, 35V	EEUFC1V151	
A C551	72790826	CAPACITOR, E, 1200UF, 6.3V	EEUFC0J122	
C552	72000265	CAPACITOR, P, 1UF, J, 50V	ECQV1H105JM	
C553	72000906	CAPACITOR, C, 0.01UF, Z, 50V	ECKF1H103ZF	
C554	72000906	CAPACITOR, C, 0.01UF, Z, 50V	ECKF1H103ZF	
C555	72000906	CAPACITOR, C, 0.01UF, Z, 50V	ECKF1H103ZF	
C556	72000915	CAPACITOR, E, 470UF, 25V	ECA1EHG471	
C557	72000906	CAPACITOR, C, 0.01UF, Z, 50V	ECKF1H103ZF	
C558	72000794	CAPACITOR, E, 100UF, 50V	ECA1HHG101	

Loc. No.	Part No.	Description	Reference No.	Remarks
C559	72000292	CAPACITOR, E, 100UF, 25V	ECA1EHG101	
C560	72000906	CAPACITOR, C, 0.01UF, Z, 50V	ECKF1H103ZF	
C561	72000292	CAPACITOR, E, 100UF, 25V	ECA1EHG101	
C562	72000906	CAPACITOR, C, 0.01UF, Z, 50V	ECKF1H103ZF	
C563	72000906	CAPACITOR, C, 0.01UF, Z, 50V	ECKF1H103ZF	
C564	72000906	CAPACITOR, C, 0.01UF, Z, 50V	ECKF1H103ZF	
C565	72000906	CAPACITOR, C, 0.01UF, Z, 50V	ECKF1H103ZF	
C566	72000292	CAPACITOR, E, 100UF, 25V	ECA1EHG101	
C8001	72000804	CAPACITOR, C, 0.01UF, Z, 50V	ECJ1VF1H103Z	
C8002	72000299	CAPACITOR, E, 22UF, 25V	EEVHP1E220	
C8003	72790827	CAPACITOR, C, 470PF, K, 50V	ECJ1VB1H471K	
C8005	72000190	CAPACITOR, C, 10UF, M, 6	ECJ3XB0J106M	
C8007	72790718	CAPACITOR, C, 0.1UF, Z, 16V	ECJ1XF1C104Z	
C8008	72000190	CAPACITOR, C, 10UF, M, 6	ECJ3XB0J106M	
C8009	72000217	CAPACITOR, C, 437UF	TCUY1C475ZFM	
C8010	72000201	CAPACITOR, C, 2.2UF	TCUY1C225KBM	
C8011	72790718	CAPACITOR, C, 0.1UF, Z, 16V	ECJ1XF1C104Z	
C8012	72000799	CAPACITOR, C, 0.01UF, K, 50V	ECJ1VB1H103K	
C8013	72000303	CAPACITOR, C, 0.47UF, K, 16V	ECJ3VB1C474K	
C8014	72000799	CAPACITOR, C, 0.01UF, K, 50V	ECJ1VB1H103K	
C8015	72000799	CAPACITOR, C, 0.01UF, K, 50V	ECJ1VB1H103K	
C8016	72000804	CAPACITOR, C, 0.01UF, Z, 50V	ECJ1VF1H103Z	
C8017	72000907	CAPACITOR, E, 47UF, 16V	EEVHB1C470	
C8018	72790828	CAPACITOR, C, 1000PF, J, 50V	ECJ1XC1H102J	
C8019	72000225	CAPACITOR, C, 1UF, Z, 16V	ECJ2VF1C105Z	
C8020	72000805	CAPACITOR, C, 100PF, J, 50V	ECJ1XC1H101J	
C8021	72790829	CAPACITOR, C, 2200PF, J, 50V	ECJ2XC1H222J	
A C900	72000823	CAPACITOR, P, 0.22UF, 250V	ECQU2A224BN9	
A C901	72000823	CAPACITOR, P, 0.22UF, 250V	ECQU2A224BN9	
A C902	72000822	CAPACITOR, P, 1UF, 250V	ECQU2A105BN9	
D081	72000323	LED, LNJ107W5PRW	LNJ107W5PRW	
D082	72000324	DIODE, MA8056M, ZENER	MA8056M	
D2301	72000325	DIODE, M1FS4	M1FS4	
D2302	72000325	DIODE, M1FS4	M1FS4	
D2303	72000325	DIODE, M1FS4	M1FS4	
D2304	72000325	DIODE, M1FS4	M1FS4	
D2305	72000326	DIODE, RU4AM	RU4AM	
D2306	72000326	DIODE, RU4AM	RU4AM	
D2307	72000615	DIODE, MA111	MA111	
D2308	72790407	DIODE, MA152	MA152	
D2316	72000325	DIODE, M1FS4	M1FS4	
D3001	72000615	DIODE, MA111	MA111	
D3002	72000325	DIODE, M1FS4	M1FS4	
D3501	72000330	DIODE, MA3056M, ZENER	MA3056M	
D3502	72000330	DIODE, MA3056M, ZENER	MA3056M	
D3503	72000330	DIODE, MA3056M, ZENER	MA3056M	
D3504	72000330	DIODE, MA3056M, ZENER	MA3056M	

Loc. No.	Part No.	Description	Reference No.	Remarks
D3505	72000331	DIODE, MA153	MA153	
D3506	72000331	DIODE, MA153	MA153	
D3507	72000615	DIODE, MA111	MA111	
D401	72000338	DIODE, MA165	MA165	
D402	72000338	DIODE, MA165	MA165	
D403	72000338	DIODE, MA165	MA165	
A D411	72000341	DIODE, S1WBA80	S1WBA80	
D413	72000359	DIODE, MA4082L, ZENER	MA4082L	
D414	72000353	DIODE, D1NL40V70	D1NL40V70	
D415	72000343	DIODE, ERA22-10	ERA22-10	
A D416	72000346	PHOTO COUPLER, PC123FY2	PC123FY2	
D417	72000352	DIODE, MA4051M, ZENER	MA4051M	
D418	72000349	DIODE, EU02	EU02	
D419	72000349	DIODE, EU02	EU02	
D420	72000843	DIODE, ERA22-04	ERA22-04	
D421	72000357	DIODE, ERA15-02	ERA15-02	
D422	72000355	DIODE, MA4056M, ZENER	MA4056M	
A D431	72790408	DIODE, B0FBBR000019	B0FBBR000019	
D432	72000335	DIODE, D1NL20UV70	D1NL20UV70	
D433	72790409	DIODE, MA4270L, ZENER	MA4270L	
D434	72000335	DIODE, D1NL20UV70	D1NL20UV70	
D436	72790410	DIODE, TVSRM10B	TVSRM10B	
A D438	72000791	DIODE, D5L60F4015	D5L60F4015	
D439	72790411	DIODE, MA4100M, ZENER	MA4100M	
D440	72790412	DIODE, MA4270M, ZENE R	MA4270M	
D441	72790412	DIODE, MA4270M, ZENE R	MA4270M	
D442	72000364	DIODE, MA4150M, ZENER	MA4150M	
D443	72000843	DIODE, ERA22-04	ERA22-04	
D444	72000843	DIODE, ERA22-04	ERA22-04	
D501	72000342	DIODE, AK04	AK04	
D502	72000787	DIODE, B0BA02700021	B0BA02700021	
D503	72000342	DIODE, AK04	AK04	
D505	72000843	DIODE, ERA22-04	ERA22-04	
D506	72000843	DIODE, ERA22-04	ERA22-04	
D507	72000361	DIODE, TMPG10G3	TMPG10G3	
D508	72000843	DIODE, ERA22-04	ERA22-04	
D509	72000361	DIODE, TMPG10G3	TMPG10G3	
D510	72000843	DIODE, ERA22-04	ERA22-04	
D511	72000344	DIODE, RC3B2LFU1	RC3B2LFU1	
D512	72000344	DIODE, RC3B2LFU1	RC3B2LFU1	
D514	72000843	DIODE, ERA22-04	ERA22-04	
A D515	72000346	PHOTO COUPLER, PC123FY2	PC123FY2	
A D516	72000346	PHOTO COUPLER, PC123FY2	PC123FY2	
D517	72000354	DIODE, FMLG16S	FMLG16S	
D518	72000355	DIODE, MA4056M, ZENER	MA4056M	
D519	72000354	DIODE, FMLG16S	FMLG16S	
D520	72000843	DIODE, ERA22-04	ERA22-04	

Loc. No.	Part No.	Description	Reference No.	Remarks
D521	72000350	DIODE, ERC91-02	ERC91-02	
D522	72000351	DIODE, FML-G12S	FML-G12S	
D523	72000350	DIODE, ERC91-02	ERC91-02	
D524	72000350	DIODE, ERC91-02	ERC91-02	
D525	72000336	DIODE, MA700A	MA700A	
D526	72000353	DIODE, D1NL40V70	D1NL40V70	
D527	72000348	DIODE, MA167	MA167	
D528	72000348	DIODE, MA167	MA167	
D531	72000843	DIODE, ERA22-04	ERA22-04	
D532	72000348	DIODE, MA167	MA167	
D533	72000348	DIODE, MA167	MA167	
D534	72000843	DIODE, ERA22-04	ERA22-04	
D535	72000338	DIODE, MA165	MA165	
D536	72000338	DIODE, MA165	MA165	
D537	72000342	DIODE, AK04	AK04	
D538	72000843	DIODE, ERA22-04	ERA22-04	
D539	72000843	DIODE, ERA22-04	ERA22-04	
D540	72000843	DIODE, ERA22-04	ERA22-04	
D541	72000338	DIODE, MA165	MA165	
D542	72000358	DIODE, MA4047H, ZENER	MA4047H	
D543	72790413	DIODE, MA4039H, ZENER	MA4039H	
D544	72790414	DIODE, MA4056H, ZENER	MA4056H	
D8001	72000615	DIODE, MA111	MA111	
D8002	72000615	DIODE, MA111	MA111	
A D900	72000340	VARISTOR, ERZV10V621P2	ERZV10V621P2	
I081	72790415	IC, B3L000000020	B3L000000020	
I2301	72000381	IC, TDA7480, LINEAR	TDA7480	
I2302	72000381	IC, TDA7480, LINEAR	TDA7480	
I2304	72000382	IC, PQ09SZ1T	PQ09SZ1T	
I2401	72000939	IC, BH3865S, LINEAR	BH3865S	
I3001	72000941	IC, MM1519XQ C1AB00001139	MM1519XQ	
I3002	72000387	IC, MC14052BF, GATE ARRAY	MC14052BF	
I3003	72000387	IC, MC14052BF, GATE ARRAY	MC14052BF	
I3004	72000389	IC, CXA1315M, LINEAR	CXA1315M	
I3006	72000382	IC, PQ09SZ1T	PQ09SZ1T	
I3007	72000924	IC, PQ12SZ1T	PQ12SZ1T	
I3008	72000924	IC, PQ12SZ1T	PQ12SZ1T	
I3009	72000783	IC, SN74AHC2G66HDCR	SN74AHC2G66H	
I3502	72790416	IC, TVRJ901, ROM	TVRJ901	
I3515	72790417	IC, C0ZBZ0000205	C0ZBZ0000205	
I410	72000395	IC, MIP0210SY1TV, LOGIC	MIP0210SY1TV	
I411	72790418	IC, AN7705F, LINEAR	AN7705F	
I430	72790419	IC, C0DABZG00001	C0DABZG00001	
I465	72790420	IC, AN1431T, LINEAR	AN1431T	
I501	72000404	IC, AN8026, LINEAR	AN8026	
I502	72790421	IC, C5HABZ200080	C5HABZ200080	
I503	72000785	IC, AN7718F, LINEAR	AN7718F	

Loc. No.	Part No.	Description	Reference No.	Remarks
I504	72790420	IC, AN1431T, LINEAR	AN1431T	
I505	72790420	IC, AN1431T, LINEAR	AN1431T	
I506	72790423	IC, CODAAHG00007	CODAAHG00007	
I507	72000400	IC, PQ30RV21A, LINEAR	PQ30RV21A	
I508	72000406	IC, AN6912, LINEAR	AN6912	
I8001	72790424	IC, M52346SP, LINEAR	M52346SP	
I8002	72000414	IC, TC74HC14AF	TC74HC14AF	
J3509	72000429	CONNECTOR, K1FB109B0058	K1FB109B0058	
J3511	72000430	CONNECTOR, TJS8A9880	TJS8A9880	
J3513	72000925	JACK,	K2HC103B0105	
J8500	72000433	TERMINAL, K4BC02B00013	K4BC02B00013	
L2301	72790425	COIL, G0ZZ00002023	G0ZZ00002023	
L2302	72790425	COIL, G0ZZ00002023	G0ZZ00002023	
L2303	72000434	BEAD CHOKE, EXCELD35C	EXCELD35C	
L2304	72000434	BEAD CHOKE, EXCELD35C	EXCELD35C	
L2306	72000435	CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L3001	72000435	CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L3002	72000435	CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L3003	72000435	CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L3007	72000435	CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L3008	72000435	CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L3507	72000436	EMI FILTER, TLK20LFA224M	TLK20LFA224M	
L3508	72000436	EMI FILTER, TLK20LFA224M	TLK20LFA224M	
L3509	72000436	EMI FILTER, TLK20LFA224M	TLK20LFA224M	
L3510	72000437	EMI FILTER, TLK212T256AL	TLK212T256AL	
L3511	72000437	EMI FILTER, TLK212T256AL	TLK212T256AL	
L3512	72000437	EMI FILTER, TLK212T256AL	TLK212T256AL	
L3513	72000437	EMI FILTER, TLK212T256AL	TLK212T256AL	
L3525	72000435	CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L3526	72000435	CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L3530	72000435	CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L3555	72000435	CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L411	72790426	COIL-PEAKING, ELEXT100KA	ELEXT100KA	
L430	72790427	TRANSFORMER-SW, G4D4A0000048	G4D4A0000048	
L501	72000442	BEAD CHOKE, EXCELSA39	EXCELSA39	
L502	72790428	RESISTOR, C, 0 OHM, 1/4W	ERDS2TC0	
L503	72790428	RESISTOR, C, 0 OHM, 1/4W	ERDS2TC0	
L504	72790428	RESISTOR, C, 0 OHM, 1/4W	ERDS2TC0	
L505	72790428	RESISTOR, C, 0 OHM, 1/4W	ERDS2TC0	
L506	72790428	RESISTOR, C, 0 OHM, 1/4W	ERDS2TC0	
L507	72790428	RESISTOR, C, 0 OHM, 1/4W	ERDS2TC0	
L508	72000442	BEAD CHOKE, EXCELSA39	EXCELSA39	
L509	72790429	COIL-INDUCTION, TALFP15B221K	TALFP15B221K	
L510	72790428	RESISTOR, C, 0 OHM, 1/4W	ERDS2TC0	
L511	72790428	RESISTOR, C, 0 OHM, 1/4W	ERDS2TC0	
L515	72790428	RESISTOR, C, 0 OHM, 1/4W	ERDS2TC0	
L516	72790428	RESISTOR, C, 0 OHM, 1/4W	ERDS2TC0	

Loc. No.	Part No.	Description	Reference No.	Remarks
L517	72790428	RESISTOR, C, 0 OHM, 1/4W	ERDS2TC0	
L518	72790428	RESISTOR, C, 0 OHM, 1/4W	ERDS2TC0	
L520	72790430	COIL-INDUCTION, TALL08N101KA	TALL08N101KA	
L8001	72000435	CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L8002	72000435	CHIP INDUCTOR, ELJPA100KB	ELJPA100KB	
L8501	72000446	LINE FILTER, TLPD061	TLPD061	
L8502	72000446	LINE FILTER, TLPD061	TLPD061	
L901	72000992	CHOKE COIL, G0A143K00001	G0A143K00001	
L902	72001008	LINE FILTER, TLPD048	TLPD048	
L903	72001008	LINE FILTER, TLPD048	TLPD048	
Q082	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q2301	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q2302	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q2303	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q2305	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q2306	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q2406	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q2408	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q2410	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3013	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3014	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3085	72000453	TRANSISTOR, 2SB709A	2SB709A	
Q3086	72000453	TRANSISTOR, 2SB709A	2SB709A	
Q3507	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3508	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3509	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3513	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3514	72000453	TRANSISTOR, 2SB709A	2SB709A	
Q3515	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3516	72000453	TRANSISTOR, 2SB709A	2SB709A	
Q3531	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q3532	72000452	TRANSISTOR, 2SD601A	2SD601A	
Q401	72000460	TRANSISTOR, 2SC3311A	2SC3311A	
Q402	72000460	TRANSISTOR, 2SC3311A	2SC3311A	
Q403	72000460	TRANSISTOR, 2SC3311A	2SC3311A	
Q410	72000460	TRANSISTOR, 2SC3311A	2SC3311A	
Q431	72790431	TRANSISTOR, 2SK2917, FET	2SK2917	
Q432	72790431	TRANSISTOR, 2SK2917, FET	2SK2917	
Q433	72000461	TRANSISTOR, 2SD2177R	2SD2177R	
Q434	72000779	TRANSISTOR, 2SB1434R	2SB1434R	
Q435	72000460	TRANSISTOR, 2SC3311A	2SC3311A	
Q436	72000462	TRANSISTOR, 2SA1309A	2SA1309A	
Q437	72000460	TRANSISTOR, 2SC3311A	2SC3311A	
Q438	72000460	TRANSISTOR, 2SC3311A	2SC3311A	
Q439	72000460	TRANSISTOR, 2SC3311A	2SC3311A	
Q501	72000459	TRANSISTOR, 2SK2847, FET	2SK2847	
Q502	72790432	TRANSISTOR, B1DEGQ000019, FET	B1DEGQ000019	

Loc. No.	Part No.	Description	Reference No.	Remarks
Q503	72000463	TRANSISTOR, 2SB621A	2SB621A	
Q504	72000460	TRANSISTOR, 2SC3311A	2SC3311A	
Q505	72000462	TRANSISTOR, 2SA1309A	2SA1309A	
Q506	72000460	TRANSISTOR, 2SC3311A	2SC3311A	
Q8021	72000452	TRANSISTOR, 2SD601A	2SD601A	
R081	72790832	RESISTOR, M, 47 OHM, J, 1/16W	TAJAAH0470JV	
R082	72790830	RESISTOR, M, 220KOHM, J, 1/16W	ERJ3GEYJ224	
R083	72000892	RESISTOR, M, 470 OHM, J, 1/16W	ERJ3GEYJ471	
R084	72790831	RESISTOR, M, 270 OHM, J, 1/16W	ERJ3GEYJ271	
R088	72000874	RESISTOR, M, 1KOHM, J, 1/16W	ERJ3GEYJ102	
R091	72790832	RESISTOR, M, 47 OHM, J, 1/16W	TAJAAH0470JV	
R092	72790832	RESISTOR, M, 47 OHM, J, 1/16W	TAJAAH0470JV	
R093	72000872	RESISTOR, M, 0 OHM, 1/16W	ERJ3GEY0R00	
R094	72000872	RESISTOR, M, 0 OHM, 1/16W	ERJ3GEY0R00	
R1554	72000884	RESISTOR, M, 2.2KOHM, J, 1/16W	ERJ3GEYJ222	
R1555	72000884	RESISTOR, M, 2.2KOHM, J, 1/16W	ERJ3GEYJ222	
R2301	72000476	RESISTOR, M, 4.7KOHM, J	ERJ6GEYJ472	
R2304	72000477	RESISTOR, M, 47KOHM, J	ERJ6GEYJ473	
R2305	72000478	RESISTOR, M, 22KOHM, J	ERJ6GEYJ223	
R2306	72000478	RESISTOR, M, 22KOHM, J	ERJ6GEYJ223	
R2309	72000476	RESISTOR, M, 4.7KOHM, J	ERJ6GEYJ472	
R2310	72000480	RESISTOR, M, 5.6KOHM, J	ERJ6GEYJ562	
R2319	72000481	RESISTOR, M, 560 OHM, J	ERJ6GEYJ561	
R2320	72000481	RESISTOR, M, 560 OHM, J	ERJ6GEYJ561	
R2321	72000473	RESISTOR, M, 0 OHM, J	ERJ6GEY0R00	
R2322	72000474	RESISTOR, M, 1KOHM, J	ERJ6GEYJ102	
R2323	72000474	RESISTOR, M, 1KOHM, J	ERJ6GEYJ102	
R2324	72000481	RESISTOR, M, 560 OHM, J	ERJ6GEYJ561	
R2325	72000481	RESISTOR, M, 560 OHM, J	ERJ6GEYJ561	
R2326	72000482	RESISTOR, M, 12KOHM, J	ERJ6GEYJ123	
R2327	72000483	RESISTOR, M, 7.5KOHM, J	ERJ6GEYJ752	
R2328	72000479	RESISTOR, M, 68KOHM, J	ERJ6GEYJ683	
R2329	72000484	RESISTOR, M, 3.3KOHM, J	ERJ6GEYJ332	
R2330	72000484	RESISTOR, M, 3.3KOHM, J	ERJ6GEYJ332	
R2331	72000473	RESISTOR, M, 0 OHM, J	ERJ6GEY0R00	
R2332	72000485	RESISTOR, M, 1.8KOHM, J	ERJ6GEYJ182	
R2333	72000471	RESISTOR, M, 470 OHM, J	ERJ6GEYJ471	
R2334	72000476	RESISTOR, M, 4.7KOHM, J	ERJ6GEYJ472	
R2335	72000482	RESISTOR, M, 12KOHM, J	ERJ6GEYJ123	
R2336	72000482	RESISTOR, M, 12KOHM, J	ERJ6GEYJ123	
R2337	72000473	RESISTOR, M, 0 OHM, J	ERJ6GEY0R00	
R2338	72000473	RESISTOR, M, 0 OHM, J	ERJ6GEY0R00	
R2341	72000486	RESISTOR, M, 10KOHM, J	ERJ6GEYJ103	
R2343	72000486	RESISTOR, M, 10KOHM, J	ERJ6GEYJ103	
R2346	72000482	RESISTOR, M, 12KOHM, J	ERJ6GEYJ123	
R2347	72000477	RESISTOR, M, 47KOHM, J	ERJ6GEYJ473	
R2348	72000486	RESISTOR, M, 10KOHM, J	ERJ6GEYJ103	

Loc. No.	Part No.	Description	Reference No.	Remarks
R2349	72000473	RESISTOR, M, 0 OHM, J	ERJ6GEY0R00	
R2350	72000473	RESISTOR, M, 0 OHM, J	ERJ6GEY0R00	
R2408	72000486	RESISTOR, M, 10KOHM, J	ERJ6GEYJ103	
R2410	72000486	RESISTOR, M, 10KOHM, J	ERJ6GEYJ103	
R2431	72000482	RESISTOR, M, 12KOHM, J	ERJ6GEYJ123	
R2434	72000476	RESISTOR, M, 4.7KOHM, J	ERJ6GEYJ472	
R2438	72000495	RESISTOR, M, 100 OHM, J	ERJ6GEYJ101	
R2439	72000492	RESISTOR, M, 56KOHM, J	ERJ6GEYJ563	
R2440	72000473	RESISTOR, M, 0 OHM, J	ERJ6GEY0R00	
R2441	72000482	RESISTOR, M, 12KOHM, J	ERJ6GEYJ123	
R2445	72000473	RESISTOR, M, 0 OHM, J	ERJ6GEY0R00	
R2448	72000474	RESISTOR, M, 1KOHM, J	ERJ6GEYJ102	
R2450	72000492	RESISTOR, M, 56KOHM, J	ERJ6GEYJ563	
R2452	72000477	RESISTOR, M, 47KOHM, J	ERJ6GEYJ473	
R2453	72000486	RESISTOR, M, 10KOHM, J	ERJ6GEYJ103	
R2456	72000486	RESISTOR, M, 10KOHM, J	ERJ6GEYJ103	
R2457	72000493	RESISTOR, M, 33KOHM, J	ERJ6GEYJ333	
R2460	72000494	RESISTOR, M, 18KOHM	ERJ6ENF1802	
R2461	72000495	RESISTOR, M, 100 OHM, J	ERJ6GEYJ101	
R2462	72000495	RESISTOR, M, 100 OHM, J	ERJ6GEYJ101	
R2463	72000496	RESISTOR, M, 15KOHM	ERJ6ENF1502	
R2464	72000495	RESISTOR, M, 100 OHM, J	ERJ6GEYJ101	
R2466	72000490	RESISTOR, M, 100KOHM, J	ERJ6GEYJ104	
R2467	72000470	RESISTOR, M, 220KOHM, J	ERJ6GEYJ224	
R2468	72000476	RESISTOR, M, 4.7KOHM, J	ERJ6GEYJ472	
R2469	72000490	RESISTOR, M, 100KOHM, J	ERJ6GEYJ104	
R2470	72000476	RESISTOR, M, 4.7KOHM, J	ERJ6GEYJ472	
R2471	72000485	RESISTOR, M, 1.8KOHM, J	ERJ6GEYJ182	
R2472	72000476	RESISTOR, M, 4.7KOHM, J	ERJ6GEYJ472	
R2473	72000485	RESISTOR, M, 1.8KOHM, J	ERJ6GEYJ182	
R2476	72000497	RESISTOR, M, 22 OHM, J	ERJ6GEYJ220	
R2477	72000497	RESISTOR, M, 22 OHM, J	ERJ6GEYJ220	
R2480	72000474	RESISTOR, M, 1KOHM, J	ERJ6GEYJ102	
R2481	72000930	RESISTOR, M, 15KOHM, J, 1/10W	ERJ6GEYJ153	
R2482	72000930	RESISTOR, M, 15KOHM, J, 1/10W	ERJ6GEYJ153	
R2483	72000474	RESISTOR, M, 1KOHM, J	ERJ6GEYJ102	
R2484	72000493	RESISTOR, M, 33KOHM, J	ERJ6GEYJ333	
R3001	72790757	RESISTOR, M, 56 OHM, J, 1/16W	ERJ3GEYJ560	
R3002	72790757	RESISTOR, M, 56 OHM, J, 1/16W	ERJ3GEYJ560	
R3003	72790757	RESISTOR, M, 56 OHM, J, 1/16W	ERJ3GEYJ560	
R3004	72790757	RESISTOR, M, 56 OHM, J, 1/16W	ERJ3GEYJ560	
R3007	72790757	RESISTOR, M, 56 OHM, J, 1/16W	ERJ3GEYJ560	
R3009	72790757	RESISTOR, M, 56 OHM, J, 1/16W	ERJ3GEYJ560	
R3010	72790757	RESISTOR, M, 56 OHM, J, 1/16W	ERJ3GEYJ560	
R3011	72790757	RESISTOR, M, 56 OHM, J, 1/16W	ERJ3GEYJ560	
R3012	72790757	RESISTOR, M, 56 OHM, J, 1/16W	ERJ3GEYJ560	
R3013	72790757	RESISTOR, M, 56 OHM, J, 1/16W	ERJ3GEYJ560	

Loc. No.	Part No.	Description	Reference No.	Remarks
R3014	72790757	RESISTOR, M, 56 OHM, J, 1/16W	ERJ3GEYJ560	
R3015	72790757	RESISTOR, M, 56 OHM, J, 1/16W	ERJ3GEYJ560	
R3016	72000872	RESISTOR, M, 0 OHM, 1/16W	ERJ3GEY0R00	
R3017	72000872	RESISTOR, M, 0 OHM, 1/16W	ERJ3GEY0R00	
R3018	72000872	RESISTOR, M, 0 OHM, 1/16W	ERJ3GEY0R00	
R3019	72000872	RESISTOR, M, 0 OHM, 1/16W	ERJ3GEY0R00	
R3020	72000872	RESISTOR, M, 0 OHM, 1/16W	ERJ3GEY0R00	
R3021	72000872	RESISTOR, M, 0 OHM, 1/16W	ERJ3GEY0R00	
R3022	72790758	RESISTOR, M, 5.6 KOHM, J, 1/16W	ERJ3GEYJ562	
R3023	72790758	RESISTOR, M, 5.6 KOHM, J, 1/16W	ERJ3GEYJ562	
R3024	72000872	RESISTOR, M, 0 OHM, 1/16W	ERJ3GEY0R00	
R3025	72000872	RESISTOR, M, 0 OHM, 1/16W	ERJ3GEY0R00	
R3026	72000872	RESISTOR, M, 0 OHM, 1/16W	ERJ3GEY0R00	
R3027	72000872	RESISTOR, M, 0 OHM, 1/16W	ERJ3GEY0R00	
R3028	72000872	RESISTOR, M, 0 OHM, 1/16W	ERJ3GEY0R00	
R3029	72000872	RESISTOR, M, 0 OHM, 1/16W	ERJ3GEY0R00	
R3030	72790758	RESISTOR, M, 5.6 KOHM, J, 1/16W	ERJ3GEYJ562	
R3031	72790758	RESISTOR, M, 5.6 KOHM, J, 1/16W	ERJ3GEYJ562	
R3032	72000886	RESISTOR, M, 330 OHM, J, 1/16W	ERJ3GEYJ331	
R3033	72000886	RESISTOR, M, 330 OHM, J, 1/16W	ERJ3GEYJ331	
R3034	72000874	RESISTOR, M, 1 KOHM, J, 1/16W	ERJ3GEYJ102	
R3035	72790078	RESISTOR, M, 100 OHM, J, 1/16W	TAJAAH0101JV	
R3036	72000880	RESISTOR, M, 15 KOHM, J, 1/16W	ERJ3GEYJ153	
R3037	72000888	RESISTOR, M, 33 KOHM, J, 1/16W	ERJ3GEYJ333	
R3038	72000874	RESISTOR, M, 1 KOHM, J, 1/16W	ERJ3GEYJ102	
R3039	72790078	RESISTOR, M, 100 OHM, J, 1/16W	TAJAAH0101JV	
R3040	72790078	RESISTOR, M, 100 OHM, J, 1/16W	TAJAAH0101JV	
R3041	72790078	RESISTOR, M, 100 OHM, J, 1/16W	TAJAAH0101JV	
R3042	72790078	RESISTOR, M, 100 OHM, J, 1/16W	TAJAAH0101JV	
R3043	72790078	RESISTOR, M, 100 OHM, J, 1/16W	TAJAAH0101JV	
R3045	72000874	RESISTOR, M, 1 KOHM, J, 1/16W	ERJ3GEYJ102	
R3046	72000894	RESISTOR, M, 47 KOHM, J, 1/16W	ERJ3GEYJ473	
R3047	72000875	RESISTOR, M, 10 KOHM, J, 1/16W	ERJ3GEYJ103	
R3078	72000880	RESISTOR, M, 15 KOHM, J, 1/16W	ERJ3GEYJ153	
R3079	72000888	RESISTOR, M, 33 KOHM, J, 1/16W	ERJ3GEYJ333	
R3087	72000875	RESISTOR, M, 10 KOHM, J, 1/16W	ERJ3GEYJ103	
R3088	72000875	RESISTOR, M, 10 KOHM, J, 1/16W	ERJ3GEYJ103	
R3101	72790759	RESISTOR, M, 330 KOHM, J, 1/16W	ERJ3GEYJ334	
R3102	72790759	RESISTOR, M, 330 KOHM, J, 1/16W	ERJ3GEYJ334	
R3103	72790759	RESISTOR, M, 330 KOHM, J, 1/16W	ERJ3GEYJ334	
R3104	72790759	RESISTOR, M, 330 KOHM, J, 1/16W	ERJ3GEYJ334	
R3105	72790759	RESISTOR, M, 330 KOHM, J, 1/16W	ERJ3GEYJ334	
R3106	72790759	RESISTOR, M, 330 KOHM, J, 1/16W	ERJ3GEYJ334	
R3107	72790759	RESISTOR, M, 330 KOHM, J, 1/16W	ERJ3GEYJ334	
R3108	72790759	RESISTOR, M, 330 KOHM, J, 1/16W	ERJ3GEYJ334	
R3109	72000894	RESISTOR, M, 47 KOHM, J, 1/16W	ERJ3GEYJ473	
R3400	72000486	RESISTOR, M, 10 KOHM, J	ERJ6GEYJ103	

Loc. No.	Part No.	Description	Reference No.	Remarks
R3508	72000476	RESISTOR, M, 4.7 KOHM, J	ERJ6GEYJ472	
R3509	72000476	RESISTOR, M, 4.7 KOHM, J	ERJ6GEYJ472	
R3510	72000495	RESISTOR, M, 100 OHM, J	ERJ6GEYJ101	
R3511	72000495	RESISTOR, M, 100 OHM, J	ERJ6GEYJ101	
R3526	72000499	RESISTOR, M, 75 OHM	ERJ6ENF75R0	
R3527	72000499	RESISTOR, M, 75 OHM	ERJ6ENF75R0	
R3528	72000499	RESISTOR, M, 75 OHM	ERJ6ENF75R0	
R3529	72000498	RESISTOR, M, 180 KOHM, J	ERJ6GEYJ184	
R3530	72000498	RESISTOR, M, 180 KOHM, J	ERJ6GEYJ184	
R3537	72000473	RESISTOR, M, 0 OHM, J	ERJ6GEY0R00	
R3538	72000473	RESISTOR, M, 0 OHM, J	ERJ6GEY0R00	
R3540	72000473	RESISTOR, M, 0 OHM, J	ERJ6GEY0R00	
R3547	72000495	RESISTOR, M, 100 OHM, J	ERJ6GEYJ101	
R3548	72000495	RESISTOR, M, 100 OHM, J	ERJ6GEYJ101	
R3577	72000930	RESISTOR, M, 15 KOHM, J, 1/10W	ERJ6GEYJ153	
R3578	72000493	RESISTOR, M, 33 KOHM, J	ERJ6GEYJ333	
R3579	72000930	RESISTOR, M, 15 KOHM, J, 1/10W	ERJ6GEYJ153	
R3580	72000493	RESISTOR, M, 33 KOHM, J	ERJ6GEYJ333	
R3581	72000930	RESISTOR, M, 15 KOHM, J, 1/10W	ERJ6GEYJ153	
R3582	72000493	RESISTOR, M, 33 KOHM, J	ERJ6GEYJ333	
R3585	72000500	RESISTOR, M, 56 OHM, J	ERJ6GEYJ560	
R3586	72000500	RESISTOR, M, 56 OHM, J	ERJ6GEYJ560	
R3589	72000477	RESISTOR, M, 47 KOHM, J	ERJ6GEYJ473	
R3590	72000500	RESISTOR, M, 56 OHM, J	ERJ6GEYJ560	
R3595	72000474	RESISTOR, M, 1 KOHM, J	ERJ6GEYJ102	
R3596	72000474	RESISTOR, M, 1 KOHM, J	ERJ6GEYJ102	
R3597	72000474	RESISTOR, M, 1 KOHM, J	ERJ6GEYJ102	
R3599	72000495	RESISTOR, M, 100 OHM, J	ERJ6GEYJ101	
R3603	72000495	RESISTOR, M, 100 OHM, J	ERJ6GEYJ101	
R3604	72000495	RESISTOR, M, 100 OHM, J	ERJ6GEYJ101	
R3611	72000476	RESISTOR, M, 4.7 KOHM, J	ERJ6GEYJ472	
R3612	72000476	RESISTOR, M, 4.7 KOHM, J	ERJ6GEYJ472	
R3613	72000476	RESISTOR, M, 4.7 KOHM, J	ERJ6GEYJ472	
R3614	72000476	RESISTOR, M, 4.7 KOHM, J	ERJ6GEYJ472	
R3626	72000929	RESISTOR, M, 3.3 KOHM, J, 1/10W	ERJ6GEYJ3R3	
R3627	72000929	RESISTOR, M, 3.3 KOHM, J, 1/10W	ERJ6GEYJ3R3	
R3628	72000929	RESISTOR, M, 3.3 KOHM, J, 1/10W	ERJ6GEYJ3R3	
R3629	72000929	RESISTOR, M, 3.3 KOHM, J, 1/10W	ERJ6GEYJ3R3	
R3653	72000930	RESISTOR, M, 15 KOHM, J, 1/10W	ERJ6GEYJ153	
R3654	72000493	RESISTOR, M, 33 KOHM, J	ERJ6GEYJ333	
R3655	72000930	RESISTOR, M, 15 KOHM, J, 1/10W	ERJ6GEYJ153	
R3656	72000493	RESISTOR, M, 33 KOHM, J	ERJ6GEYJ333	
R3663	72000474	RESISTOR, M, 1 KOHM, J	ERJ6GEYJ102	
R3664	72000474	RESISTOR, M, 1 KOHM, J	ERJ6GEYJ102	
R3668	72000495	RESISTOR, M, 100 OHM, J	ERJ6GEYJ101	
R3672	72000495	RESISTOR, M, 100 OHM, J	ERJ6GEYJ101	
R3755	72000495	RESISTOR, M, 100 OHM, J	ERJ6GEYJ101	

Loc. No.	Part No.	Description	Reference No.	Remarks
R3756	72000495	RESISTOR, M, 100 OHM, J	ERJ6GEYJ101	
R3764	72000495	RESISTOR, M, 100 OHM, J	ERJ6GEYJ101	
R3765	72000495	RESISTOR, M, 100 OHM, J	ERJ6GEYJ101	
R3766	72000495	RESISTOR, M, 100 OHM, J	ERJ6GEYJ101	
R3776	72000495	RESISTOR, M, 100 OHM, J	ERJ6GEYJ101	
R3777	72000495	RESISTOR, M, 100 OHM, J	ERJ6GEYJ101	
R3778	72000477	RESISTOR, M, 47KOHM, J	ERJ6GEYJ473	
R401	72790833	RESISTOR, W, 3.3 OHM, 10W	ERF10TK3R3	
R402	72790833	RESISTOR, W, 3.3 OHM, 10W	ERF10TK3R3	
R403	72000535	RESISTOR, C, 22KOHM, J	ERDS2TJ223	
R404	72000565	RESISTOR, C, 47 KOHM, J	ERDS2TJ473	
R405	72000536	RESISTOR, C, 4.7KOHM, J	ERDS2TJ472	
R406	72000544	RESISTOR, C, 68 KOHM, J	ERDS2TJ683	
R407	72000565	RESISTOR, C, 47 KOHM, J	ERDS2TJ473	
R408	72000536	RESISTOR, C, 4.7KOHM, J	ERDS2TJ472	
R409	72790762	RESISTOR, F, 15 OHM, 5W	ERU5TAJ150	
R411	72000529	RESISTOR, C, 100KOHM, J	ERDS2TJ101	
R412	72000531	RESISTOR, C, 0.68 OHM, J	ERDS2TJ6R8	
R413	72000528	RESISTOR, M, 100KOHM, J	ERG1FJS104D	
R414	72000564	RESISTOR, C, 560 OHM, J	ERDS2TJ561	
R415	72000531	RESISTOR, C, 0.68 OHM, J	ERDS2TJ6R8	
R416	72790834	RESISTOR, C, 220 OHM, J, 1/2W	ERDS1TJ221	
R417	72790835	RESISTOR, C, 390 OHM, J, 1/2W	ERDS1TJ391	
R418	72000534	RESISTOR, C, 100KOHM, J	ERDS2TJ104	
R419	72000534	RESISTOR, C, 100KOHM, J	ERDS2TJ104	
R420	72000532	RESISTOR, C, 1KOHM, J	ERDS2TJ102	
R422	72000525	RESISTOR, C, 10KOHM, J	ERDS2TJ103	
R423	72000525	RESISTOR, C, 10KOHM, J	ERDS2TJ103	
R424	72000525	RESISTOR, C, 10KOHM, J	ERDS2TJ103	
R431	72000861	RESISTOR, C, 2.7KOHM, J, 1/4W	ERDS2TJ272	
R432	72790836	RESISTOR, C, 220KOHM, J, 1/2W	ERDS1FJ224	
R433	72790837	RESISTOR, C, 270KOHM, J, 1/2W	ERDS1FJ274	
R434	72000510	RESISTOR, M, 33KOHM, J	ERG3FJS333D	
R435	72000510	RESISTOR, M, 33KOHM, J	ERG3FJS333D	
R436	72000517	RESISTOR, W, 0.15OHM	ERF5EKR15	
R437	72000517	RESISTOR, W, 0.15OHM	ERF5EKR15	
R438	72790838	RESISTOR, C, 27 OHM, J, 1/4W	ERDS2TJ270	
R439	72000525	RESISTOR, C, 10KOHM, J	ERDS2TJ103	
R440	72000841	RESISTOR, M, 56KOHM, F, 1/4W	ER0S2CKF5602	
R441	72000864	RESISTOR, M, 10 OHM, J, 1W	ERG1FJS100D	
R442	72000513	RESISTOR, C, 10 OHM, J	ERDS1FJ100	
R443	72000511	RESISTOR, C, 10KOHM, J	ERDS1FJ103	
R444	72000534	RESISTOR, C, 100KOHM, J	ERDS2TJ104	
R445	72790839	RESISTOR, C, 64KOHM, J, 1/4W	ERDS2TJ684	
R446	72000513	RESISTOR, C, 10 OHM, J	ERDS1FJ100	
R447	72000511	RESISTOR, C, 10KOHM, J	ERDS1FJ103	
R448	72000570	RESISTOR, C, 33 KOHM, J	ERDS2TJ333	

Loc. No.	Part No.	Description	Reference No.	Remarks
R449	72000515	RESISTOR, C, 220 OHM, J	ERDS1FJ221	
R450	72790428	RESISTOR, C 0 OHM, 1/4W	ERDS2TC0	
R451	72790428	RESISTOR, C 0 OHM, 1/4W	ERDS2TC0	
R452	72790840	RESISTOR, M, 2.7KOHM, F, 1/4W	ER0S2CKF2701	
R4521	72000882	RESISTOR, M, 22 OHM, J, 1/16W	ERJ3GEYJ220	
R454	72790841	RESISTOR, M, 220KOHM, F, 1/4W	ER0S2CKF2203	
R455	72790841	RESISTOR, M, 220KOHM, F, 1/4W	ER0S2CKF2203	
R4551	72000875	RESISTOR, M, 10KOHM, J, 1/16W	ERJ3GEYJ103	
R4552	72790758	RESISTOR, M, 5.6KOHM, J, 1/16W	ERJ3GEYJ562	
R456	72790841	RESISTOR, M, 220KOHM, F, 1/4W	ER0S2CKF2203	
R457	72790842	RESISTOR, M, 680OHM, F, 1/4W	ER0S2CKF6800	
R458	72790843	RESISTOR, M, 1.8KOHM, F, 1/4W	ER0S2CKF1801	
R459	72790841	RESISTOR, M, 220KOHM, F, 1/4W	ER0S2CKF2203	
R460	72790841	RESISTOR, M, 220KOHM, F, 1/4W	ER0S2CKF2203	
R4601	72790845	RESISTOR, M, 33 OHM, J, 1/16W	ERJ3GEYJ330	
R4604	72790845	RESISTOR, M, 33 OHM, J, 1/16W	ERJ3GEYJ330	
R461	72790841	RESISTOR, M, 220KOHM, F, 1/4W	ER0S2CKF2203	
R462	72790846	RESISTOR, M, 39KOHM, J, 3W	ERGLFJS393D	
R463	72790847	RESISTOR, M, 47KOHM, J, 3W	ERGLFJS473D	
R464	72000868	RESISTOR, M, 82KOHM, J, 3W	ERGFJS823D	
R465	72000535	RESISTOR, C, 22KOHM, J	ERDS2TJ223	
R466	72000565	RESISTOR, C, 47 KOHM, J	ERDS2TJ473	
R467	72000554	RESISTOR, C, 15 KOHM, J	ERDS2TJ153	
R468	72000535	RESISTOR, C, 22KOHM, J	ERDS2TJ223	
R469	72000535	RESISTOR, C, 22KOHM, J	ERDS2TJ223	
R470	72000861	RESISTOR, C, 2.7KOHM, J, 1/4W	ERDS2TJ272	
R471	72000529	RESISTOR, C, 100KOHM, J	ERDS2TJ101	
R472	72790848	RESISTOR, C, 2.7 OHM, J, 1/2W	ERDS1FJ2R7	
R473	72000529	RESISTOR, C, 100KOHM, J	ERDS2TJ101	
R474	72000565	RESISTOR, C, 47 KOHM, J	ERDS2TJ473	
R475	72000863	RESISTOR, C, 56 OHM, J, 1/4W	ERDS2TJ560	
R476	72000536	RESISTOR, C, 4.7KOHM, J	ERDS2TJ472	
R477	72000931	RESISTOR, C, 2.2KOHM, J, 1/4W	ERDS2TJ222	
R478	72000931	RESISTOR, C, 2.2KOHM, J, 1/4W	ERDS2TJ222	
R479	72790849	RESISTOR, M, 2.2KOHM, J, 1W	ERGLFJS222D	
R501	72000542	RESISTOR, C, 1.5 KOHM, J	ERDS2TJ152	
R502	72000525	RESISTOR, C, 10KOHM, J	ERDS2TJ103	
R503	72000636	RESISTOR, M, 100 KOHM, J	ERG2FJS104D	
R504	72000636	RESISTOR, M, 100 KOHM, J	ERG2FJS104D	
R506	72790843	RESISTOR, M, 1.8KOHM, F, 1/4W	ER0S2CKF1801	
R507	72790851	RESISTOR, M, 430 OHM, F, 1/4W	ER0S2CKF4300	
R509	72000513	RESISTOR, C, 10 OHM, J	ERDS1FJ100	
R510	72790852	RESISTOR, M, 0.47OHM, J, 2W	ERX2FJSR47D	
R511	72790852	RESISTOR, M, 0.47OHM, J, 2W	ERX2FJSR47D	
R512	72000525	RESISTOR, C, 10KOHM, J	ERDS2TJ103	
R513	72000555	RESISTOR, C, 3.3 KOHM, J	ERDS2TJ332	
R514	72790852	RESISTOR, M, 0.47OHM, J, 2W	ERX2FJSR47D	

Loc. No.	Part No.	Description	Reference No.	Remarks
R515	72790853	RESISTOR, C, 680 OHM, J, 1/2W	ERDS1FJ681	
R516	72790852	RESISTOR, M, 0.47OHM, J, 2W	ERX2FJSR47D	
R518	72790852	RESISTOR, M, 0.47OHM, J, 2W	ERX2FJSR47D	
R519	72790854	RESISTOR, C, 1.2KOHM, J, 1/4W	ERDS2TJ122	
R520	72790855	RESISTOR, M, 68KOHM, J, 3W	ERG3FJS683D	
R522	72790855	RESISTOR, M, 68KOHM, J, 3W	ERG3FJS683D	
R523	72790855	RESISTOR, M, 68KOHM, J, 3W	ERG3FJS683D	
R524	72790855	RESISTOR, M, 68KOHM, J, 3W	ERG3FJS683D	
R525	72000522	RESISTOR, C, 22 OHM, J	ERDS1FJ220	
R526	72000522	RESISTOR, C, 22 OHM, J	ERDS1FJ220	
R527	72790856	RESISTOR, C, 3.3 OHM, J, 1/2W	ERDS1FJ3R3	
R528	72000532	RESISTOR, C, 1KOHM, J	ERDS2TJ102	
R529	72000532	RESISTOR, C, 1KOHM, J	ERDS2TJ102	
R530	72000931	RESISTOR, C, 2.2KOHM, J, 1/4W	ERDS2TJ222	
R531	72000931	RESISTOR, C, 2.2KOHM, J, 1/4W	ERDS2TJ222	
R532	72000529	RESISTOR, C, 100KOHM, J	ERDS2TJ101	
R533	72000529	RESISTOR, C, 100KOHM, J	ERDS2TJ101	
R534	72000565	RESISTOR, C, 47 KOHM, J	ERDS2TJ473	
R535	72000565	RESISTOR, C, 47 KOHM, J	ERDS2TJ473	
R536	72000545	RESISTOR, M, 2.55KOHM, F	ER0S2CKF2551	
R537	72000552	RESISTOR, CONTROL 10 KOHM	EVMEASA00B14	
R538	72790772	RESISTOR, M, 61.9KOHM, F, 1/4W	ER0S2CKF6192	
R539	72000545	RESISTOR, M, 2.55KOHM, F	ER0S2CKF2551	
R540	72000548	RESISTOR, CONTROL 50KOHM	EVMEASA00B54	
R541	72790857	RESISTOR, M, 49.9KOHM, F, 1/4W	ER0S2CKF4992	
R542	72790857	RESISTOR, M, 49.9KOHM, F, 1/4W	ER0S2CKF4992	
R543	72790858	RESISTOR, M, 46.4KOHM, F, 1/4W	ER0S2CKF4642	
R545	72000534	RESISTOR, C, 100KOHM, J	ERDS2TJ104	
R546	72000522	RESISTOR, C, 22 OHM, J	ERDS1FJ220	
R547	72000543	RESISTOR, C, 6.8 KOHM, J	ERDS2TJ682	
R548	72000539	RESISTOR, C, 470 OHM, J	ERDS1FJ471	
R549	72000536	RESISTOR, C, 4.7KOHM, J	ERDS2TJ472	
R550	72000543	RESISTOR, C, 6.8 KOHM, J	ERDS2TJ682	
R551	72000557	RESISTOR, C, 150 OHM, J	ERDS2TJ151	
R552	72000566	RESISTOR, M, 470 OHM, J	ERG2FJS471D	
R553	72000566	RESISTOR, M, 470 OHM, J	ERG2FJS471D	
R554	72000543	RESISTOR, C, 6.8 KOHM, J	ERDS2TJ682	
R555	72790859	RESISTOR, M, 12.1KOHM, F, 1/4W	ER0S2CKF1212	
R556	72000555	RESISTOR, C, 3.3 KOHM, J	ERDS2TJ332	
R557	72000545	RESISTOR, M, 2.55KOHM, F	ER0S2CKF2551	
R558	72790860	RESISTOR, M, 1.50KOHM, F, 1/4W	ER0S2CKF1501	
R559	72000532	RESISTOR, C, 1KOHM, J	ERDS2TJ102	
R560	72790861	RESISTOR, M, 3.74KOHM, F, 1/4W	ER0S2CKF3741	
R561	72000553	RESISTOR, C, 68 OHM, J	ERDS2TJ680	
R562	72000562	RESISTOR, M, 383 OHM, F	ER0S2CKF3830	
R563	72790862	RESISTOR, M, 121KOHM, F, 1/4W	ER0S2CKF1213	
R564	72790863	RESISTOR, M, 10KOHM, F, 1/4W	ER0S2CKF1002	

Loc. No.	Part No.	Description	Reference No.	Remarks
R565	72000532	RESISTOR, C, 1KOHM, J	ERDS2TJ102	
R566	72000525	RESISTOR, C, 10KOHM, J	ERDS2TJ103	
R567	72000534	RESISTOR, C, 100KOHM, J	ERDS2TJ104	
R568	72000525	RESISTOR, C, 10KOHM, J	ERDS2TJ103	
R569	72000931	RESISTOR, C, 2.2KOHM, J, 1/4W	ERDS2TJ222	
R570	72000565	RESISTOR, C, 47 KOHM, J	ERDS2TJ473	
R571	72790864	RESISTOR, C, 27KOH, M, J, 1/4W	ERDS2TJ273	
R572	72000535	RESISTOR, C, 22KOHM, J	ERDS2TJ223	
R573	72790865	RESISTOR, M, 180KOHM, F, 1/4W	ER0S2CKF1803	
R574	72790865	RESISTOR, M, 180KOHM, F, 1/4W	ER0S2CKF1803	
R575	72790863	RESISTOR, M, 10KOHM, F, 1/4W	ER0S2CKF1002	
R576	72000931	RESISTOR, C, 2.2KOHM, J, 1/4W	ERDS2TJ222	
R577	72000538	RESISTOR, C, 47 OHM, J	ERDS2TJ470	
R578	72000536	RESISTOR, C, 4.7KOHM, J	ERDS2TJ472	
R579	72000534	RESISTOR, C, 100KOHM, J	ERDS2TJ104	
R580	72000540	RESISTOR, C, 470 OHM, J	ERDS2TJ471	
R581	72790867	RESISTOR, C, 12KOHM, J, 1/4W	ERDS2TJ123	
R582	72000536	RESISTOR, C, 4.7KOHM, J	ERDS2TJ472	
R583	72000553	RESISTOR, C, 68 OHM, J	ERDS2TJ680	
R584	72790856	RESISTOR, C, 3.3 OHM, J, 1/2W	ERDS1FJ3R3	
R585	72790855	RESISTOR, M, 68KOHM, J, 3W	ERG3FJS683D	
R586	72790836	RESISTOR, C, 220KOHM, J, 1/2W	ERDS1FJ224	
R587	72790836	RESISTOR, C, 220KOHM, J, 1/2W	ERDS1FJ224	
R8002	72000875	RESISTOR, M, 10KOHM, J, 1/16W	ERJ3GEYJ103	
R8003	72000880	RESISTOR, M, 15KOHM, J, 1/16W	ERJ3GEYJ153	
R8004	72790831	RESISTOR, M, 270 OHM, J, 1/16W	ERJ3GEYJ271	
R8006	72000886	RESISTOR, M, 330 OHM, J, 1/16W	ERJ3GEYJ331	
R8007	72000886	RESISTOR, M, 330 OHM, J, 1/16W	ERJ3GEYJ331	
R8008	72790831	RESISTOR, M, 270 OHM, J, 1/16W	ERJ3GEYJ271	
R8009	72000887	RESISTOR, M, 3.3KOHM, J, 1/10W	ERJ3GEYJ332	
R8010	72000884	RESISTOR, M, 2.2KOHM, J, 1/16W	ERJ3GEYJ222	
R8011	72000886	RESISTOR, M, 330 OHM, J, 1/16W	ERJ3GEYJ331	
R8012	72790078	RESISTOR, M, 100 OHM, J, 1/16W	TAJAAH0101JV	
R8013	72000876	RESISTOR, M, 100KOHM, J, 1/16W	ERJ3GEYJ104	
R8015	72790078	RESISTOR, M, 100 OHM, J, 1/16W	TAJAAH0101JV	
R8017	72790078	RESISTOR, M, 100 OHM, J, 1/16W	TAJAAH0101JV	
R8018	72790078	RESISTOR, M, 100 OHM, J, 1/16W	TAJAAH0101JV	
R8019	72790078	RESISTOR, M, 100 OHM, J, 1/16W	TAJAAH0101JV	
R8023	72000893	RESISTOR, M, 4.7KOHM, J, 1/16W	ERJ3GEYJ472	
R8024	72000893	RESISTOR, M, 4.7KOHM, J, 1/16W	ERJ3GEYJ472	
R8025	72000881	RESISTOR, M, 18KOHM, J, 1/16W	ERJ3GEYJ183	
R8026	72790078	RESISTOR, M, 100 OHM, J, 1/16W	TAJAAH0101JV	
R8027	72000874	RESISTOR, M, 1KOHM, J, 1/16W	ERJ3GEYJ102	
R8028	72000884	RESISTOR, M, 2.2KOHM, J, 1/16W	ERJ3GEYJ222	
R8029	72000884	RESISTOR, M, 2.2KOHM, J, 1/16W	ERJ3GEYJ222	
R8030	72000884	RESISTOR, M, 2.2KOHM, J, 1/16W	ERJ3GEYJ222	
R8033	72790845	RESISTOR, M, 33 OHM, J, 1/16W	ERJ3GEYJ330	

Loc. No.	Part No.	Description	Reference No.	Remarks
R8035	72790078	RESISTOR, M, 100 OHM, J, 1/16W	TAJAAH0101JV	
R8036	72790845	RESISTOR, M, 33 OHM, J, 1/16W	ERJ3GEYJ330	
▲ R900	72000631	RESISTOR, S, 1MOHM, K	ERC12ZGK105	
▲ R901	72000631	RESISTOR, S, 1MOHM, K	ERC12ZGK105	
▲ RL401	72790422	RELAY, TSEH0005	TSEH0005	
▲ RL402	72790422	RELAY, TSEH0005	TSEH0005	
▲ RL403	72001009	RELAY, TSE10801	TSE10801	
RM001	72000649	REMOCO RECEIVER, PNA4601M05TV	PNA4601M05TV	
S061	72000650	POWER SWITCH	TSE4GD0001	
S1554	72000651	SWITCH, EVQPBD05R	EVQPBD05R	
S1555	72000651	SWITCH, EVQPBD05R	EVQPBD05R	
S1556	72000651	SWITCH, EVQPBD05R	EVQPBD05R	
▲ T401	72790433	TRANSFORMER-SW, ETS25AD1C3AG	ETS25AD1C3AG	
▲ T501	72790434	TRANSFORMER-SW, G4D4A0000051	G4D4A0000051	
▲ T502	72790435	TRANSFORMER-SW, G4D4A0000052	G4D4A0000052	
T6451	72790436	TRANSFORMER-SW, G4D1A0000055	G4D1A0000055	
T6471	72790436	TRANSFORMER-SW, G4D1A0000055	G4D1A0000055	

17 Specifications

Power Source:	AC220-240V 50/60Hz
Power Consumption:	295 W 2.8 W (stand-by condition) 1.5 W (Power off condition)
Plasma Display panel:	Drive method AC type
	16:9 aspect ratio
Contrast Ratio	3000:1
Screen size:	818 mm (W) × 461 mm (H) 939 mm (diagonal) (37 inch) 920 mm (W) × 518 mm (H) 1,056 mm (diagonal) No. of pixels 408,960 (852 (W) × 480 (H)) [2,556 × 480 dots]
Operating condition:	
Temperature	34 °F - 104 °F (0 °C - 40 °C)
Humidity	20 % - 80 % Horizontal scanning frequency 15.6 - 110kHz Vertical scanning frequency 48 - 120Hz
Connection terminals:	
AV	
Video in	1.0 Vp-p (75-ohm)
S-VIDEO IN (MINI DIN 4PIN)	Y: 1 Vp-p (75-ohm), C: 0.286 Vp-p (75-ohm)
AUDIO IN (RCA PIN JACK × 2)	0.5 Vrms (high impedance)
COMPONENT/RGB	
Y/G	1.0 Vp-p/composite (75-ohm) 0.7 Vp-p/non-composite (75-ohm)
P _B /B	0.7 Vp-p (75-ohm)
P _R /R	0.7 Vp-p (75-ohm)
HD	1.0 - 5.0 Vp-p (high impedance)
VD	1.0 - 5.0 Vp-p (high impedance)
AUDIO IN (RCA PIN JACK×2)	0.5 Vrms (high impedance)
PC	
(HIGH-DENSITY D-SUB15PIN)	R,G,B/0.7 Vp-p (75-ohm) HD, VD/1.0 - 5.0 Vp-p (high impedance)
AUDIO IN (M3 JACK)	0.5Vrms (high impedance)
SERIAL	
EXTERNAL CONTROL TERMINAL (D-SUB9PIN)	RS-232C COMPATIBLE
SPEAKERS (External speakers) (6Ω)	16W [8W+8W] (10% THD)
Dimensions (W×H×D):	1,020 mm × 610 mm 89 mm)
Weight (Mass)	approx. 28.0 kg net (main unit only) approx. 32.2 kg net (with speakers)

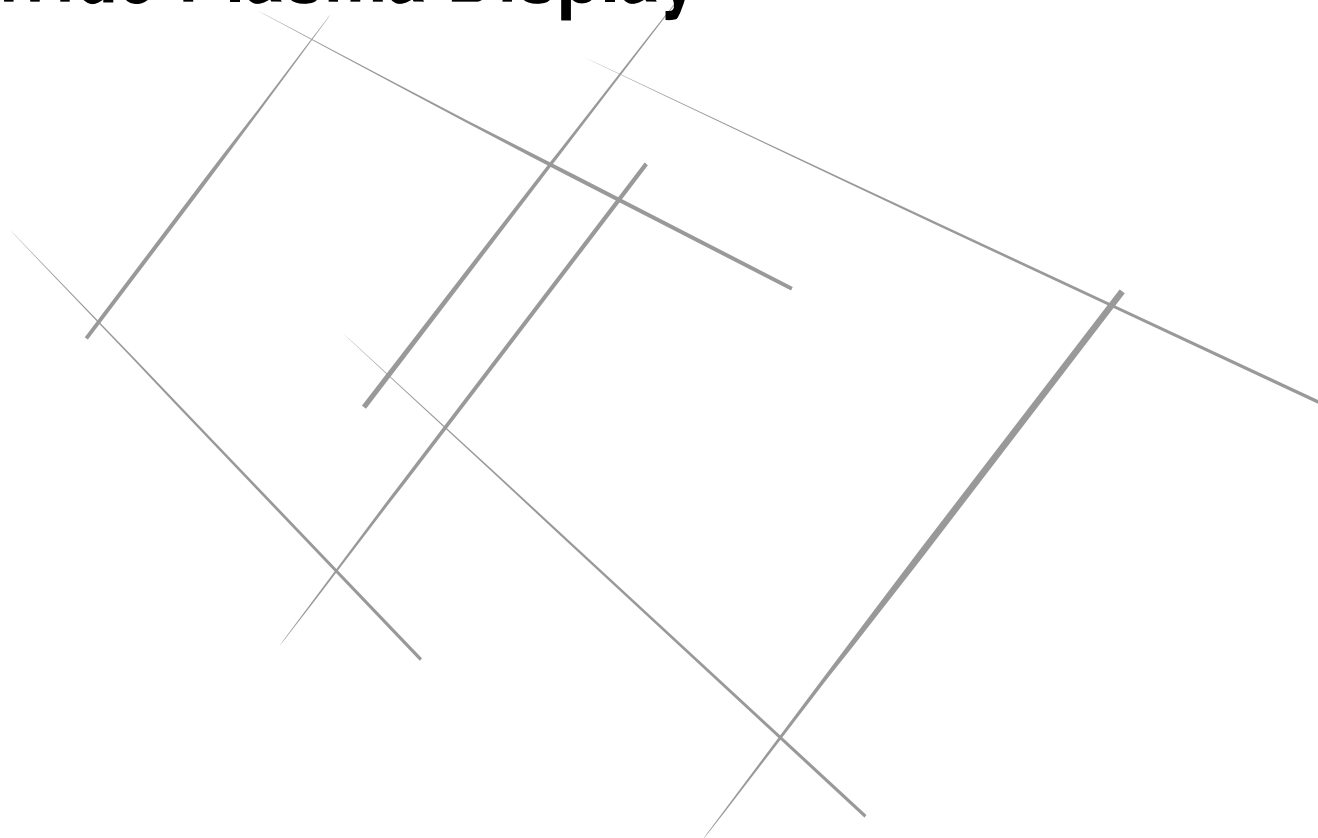
TOSHIBA CORPORATION

1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001, JAPAN

TOSHIBA

OWNER'S MANUAL

Wide Plasma Display



42WP27

Owner's Record

The model number and serial number are on the back of your display. Record these numbers in the spaces below. Refer to these numbers whenever you communicate with your Toshiba dealer about this display.

Model number:

Serial number:

Dear TOSHIBA Customer

Welcome to the TOSHIBA family of customers. We hope that you will have many years of enjoyment from your new Plasma Display.

To obtain maximum benefit from your set, please read these Instructions before making any adjustments, and retain them for future reference.

Retain your purchase receipt also, and note down the model number and serial number of your set in the space provided on the cover of these instructions.

Table of Contents

Basic

Important Safety Notice	3	Remote Control Batteries	8
Safety Precautions	5	Connections	9
Accessories	7	PC Input Terminals connection	10
Accessories Supply	7	SERIAL Terminals connection	12
Optional Accessories	7		

With Optional RCA Terminal Board

Basic Controls	13	Setup of Screensaver Time	27
Power On/Off and input signal selection	14	Side Panel Adjustment	27
AC cord connection	14	Setup for Input Signals	28
Power On/Off	14	Component/RGB-in Select	28
Select the input signal	15	3D Y/C Filter – For NTSC AV images	28
Selecting the On-Screen Menu Language	15	Colour system / Aspect Auto	29
On-Screen Menu Display from Remote Control	16	3:2 Pulldown	29
ASPECT Controls	18	Sync	30
Adjusting Picture Pos./Size	20	H-Freq. (kHz)/V-Freq. (Hz)	30
Sound Adjustment	22	Troubleshooting	31
Mute	22	Connections	32
Surround Controls	23	AV Input Terminals connection	33
Picture Adjustments	24	Component/RGB Input connection	34
Advanced Settings	25	Input signal can be displayed	36
Screensaver(For preventing after-images)	26	Specifications	38

Important Safety Notice

WARNING: To prevent damage which may result in fire or shock hazard, do not expose this appliance to rain or moisture.

Do not place containers with water (flower vase, cups, cosmetics, etc.) above the set. (including on shelves above, etc.)

WARNING: 1) To prevent electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.

2) Do not remove the earthing pin on the power plug. This apparatus is equipped with a three pin earthing-type power plug. This plug will only fit an earthing-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact an electrician.

Do not defeat the purpose of the earthing plug.

WARNING

This is a class A product. In a domestic environment this product may cause radio interference in which case you may be required to take adequate measures.

CAUTION

This appliance is intended for use in environments which are relatively free of electromagnetic fields.

Using this appliance near sources of strong electromagnetic fields or where electrical noise may overlap with the input signals could cause the picture and sound to wobble or cause interference such as noise to appear.

To avoid the possibility of harm to this appliance, keep it away from sources of strong electromagnetic fields.

To prevent electric shock, ensure the grounding pin on the AC cord power plug is securely connected.

Trademark Credits

- VGA is a trademark of International Business Machines Corporation.
- Macintosh is a registered trademark of Apple Computer, USA.
- S-VGA is a registered trademark of the Video Electronics Standard Association.

Even if no special notation has been made of company or product trademarks, these trademarks have been fully respected.

Note:

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 Display.

Examples of still pictures include logos, video games, computer images, teletext and images displayed in 4:3 mode.

Important Safety Notice

FOR UK ONLY

IMPORTANT: THE MOULDED PLUG

FOR YOUR SAFETY, PLEASE READ THE FOLLOWING TEXT CAREFULLY.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience. A 5 amp fuse is fitted in this plug. Shall the fuse need to be replaced, please ensure that the replacement fuse has a rating of 5 amps and that it is approved by ASTA or BSI to BS1362.

Check for the ASTA mark  or the BSI mark  on the body of the fuse.

If the plug contains a removable fuse cover, you must ensure that it is refitted when the fuse is replaced. If you lose the fuse cover the plug must not be used until a replacement cover is obtained. A replacement fuse cover can be purchased from your local TOSHIBA Dealer.

If the fitted moulded plug is unsuitable for the socket outlet in your home, then the fuse shall be removed and the plug cut off and disposed of safely. There is a danger of severe electrical shock if the cut off plug is inserted into any 13 amp socket.


If a new plug is to be fitted, please observe the wiring code as shown below. If in any doubt, please consult a qualified electrician.

WARNING: — THIS APPARATUS MUST BE EARTHED.

IMPORTANT: — The wires in this mains lead are coloured in accordance with the following code: —

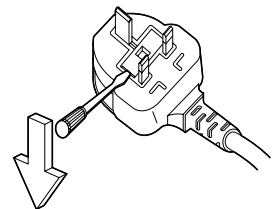
Green-and-Yellow:	Earth
Blue:	Neutral
Brown:	Live

As the colours of the wire in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows.

The wire which is coloured GREEN-AND-YELLOW must be connected to the terminal in the plug which is marked with the letter E or by the Earth symbol  or coloured GREEN or GREEN-AND-YELLOW.

The wire which is coloured BLUE must be connected to the terminal in the plug which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal in the plug which is marked with the letter L or coloured RED.



How to replace the fuse. Open the fuse compartment with a screwdriver and replace the fuse.

Safety Precautions

WARNING

Setup

This Plasma Display is for use only with the following optional accessories. Use with any other type of optional accessories may cause instability which could result in the possibility of injury.

(All of the following accessories are manufactured by TOSHIBA CORPORATION)

- Speakers PSS421S
- Pedestal PTS501S
- RCA Terminal Board RTB421
- Wall-hanging bracket (vertical) PWB501
- Wall-hanging bracket (angled) PWB502

Always be sure to ask a qualified technician to carry out set-up.

Do not place the Plasma Display on sloped or unstable surfaces.

- The Plasma Display may fall off or tip over.

Do not place any objects on top of the Plasma Display.

- If water is spilled onto the Plasma Display or foreign objects get inside it, a short-circuit may occur which could result in fire or electric shock. If any foreign objects get inside the Plasma Display, please consult your local TOSHIBA dealer.

If using the pedestal (optional accessory), leave a space of at least 10 cm at the top, left and right, at least 6 cm at the bottom, and at least 7 cm at the rear. If using some other setting-up method, leave a space of at least 10 cm at the top, bottom, left and right, and at least 1.9 cm at the rear.

Avoid installing this product near electronic equipment that is easy to receive electromagnetic waves.

- It may cause interference in image, sound, etc. In particular, keep video equipment away from this product.

When using the Plasma Display

The Plasma Display is designed to operate on 220 - 240 V AC, 50/60 Hz.

Do not cover the ventilation holes.

- Doing so may cause the Plasma Display to overheat, which can cause fire or damage to the Plasma Display.

Do not stick any foreign objects into the Plasma Display.

- Do not insert any metal or flammable objects into the ventilation holes or drop them onto the Plasma Display, as doing so can cause fire or electric shock.

Do not remove the cover or modify it in any way.

- High voltages which can cause severe electric shocks are present inside the Plasma Display. For any inspection, adjustment and repair work, please contact your local TOSHIBA dealer.

Securely insert the power cord plug as far as it will go.

- If the plug is not fully inserted, heat may be generated which could cause fire. If the plug is damaged or the wall socket plate is loose, they shall not be used.

Do not handle the power cord plug with wet hands.

- Doing so may cause electric shocks.

Do not do anything that may damage the power cable. When disconnecting the power cable, pull on the plug body, not the cable.

- Do not damage the cable, make any modifications to it, place heavy objects on top of it, heat it, place it near any hot objects, twist it, bend it excessively or pull it. To do so may cause fire and electric shock. If the power cable is damaged, have it repaired at your local TOSHIBA dealer.

If the Plasma Display is not going to be used for any prolonged length of time, unplug the power cord plug from the wall outlet.

Safety Precautions

If problems occur during use

If a problem occurs (such as no picture or no sound), or if smoke or an abnormal odour starts to come out from the Plasma Display, immediately unplug the power cord plug from the wall outlet.

- If you continue to use the Plasma Display in this condition, fire or electric shock could result. After checking that the smoke has stopped, contact your local TOSHIBA dealer so that the necessary repairs can be made. Repairing the Plasma Display yourself is extremely dangerous, and shall never be done.

If water or foreign objects get inside the Plasma Display, if the Plasma Display is dropped, or if the cabinet becomes damaged, disconnect the power cord plug immediately.

- A short circuit may occur, which could cause fire. Contact your local TOSHIBA dealer for any repairs that need to be made.

CAUTION

When using the Plasma Display

Do not bring your hands, face or objects close to the ventilation holes of the Plasma Display.

- Heated air comes out from the ventilation holes at the top of Plasma Display will be hot. Do not bring your hands or face, or objects which cannot withstand heat, close to this port, otherwise burns or deformation could result.

Be sure to disconnect all cables before moving the Plasma Display.

- If the Plasma Display is moved while some of the cables are still connected, the cables may become damaged, and fire or electric shock could result.

Disconnect the power cord plug from the wall socket as a safety precaution before carrying out any cleaning.

- Electric shocks can result if this is not done.

Clean the power cable regularly to prevent it becoming dusty.

- If dust built up on the power cord plug, the resultant humidity can damage the insulation, which could result in fire. Pull the power cord plug out from the wall outlet and wipe the mains lead with a dry cloth.

This Plasma Display radiates infrared rays, therefore it may affect other infrared communication equipment.

Install your infrared sensor in a place away from direct or reflected light from your Plasma Display.

Cleaning and maintenance

The front of the display panel has been specially treated. Wipe the panel surface gently using only a cleaning cloth or a soft, lint-free cloth.

- If the surface is particularly dirty, wipe with a soft, lint-free cloth which has been soaked in pure water or water to which a small amount of neutral detergent has been added, and then wipe it evenly with a dry cloth of the same type until the surface is dry.
- Do not scratch or hit the surface of the panel with fingernails or other hard objects, otherwise the surface may become damaged. Furthermore, avoid contact with volatile substances such as insect sprays, solvents and thinner, otherwise the quality of the surface may be adversely affected.

If the cabinet becomes dirty, wipe it with a soft, dry cloth.

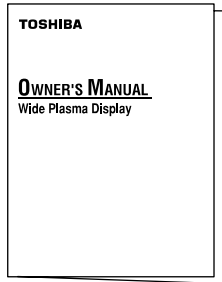
- If the cabinet is particularly dirty, soak the cloth in water to which a small amount of neutral detergent has been added and then wring the cloth dry. Use this cloth to wipe the cabinet, and then wipe it dry with a dry cloth.
- Do not allow any detergent to come into direct contact with the surface of the Plasma Display. If water droplets get inside the unit, operating problems may result.
- Avoid contact with volatile substances such as insect sprays, solvents and thinner, otherwise the quality of the cabinet surface may be adversely affected or the coating may peel off. Furthermore, do not leave it for long periods in contact with articles made from rubber or PVC.

Accessories

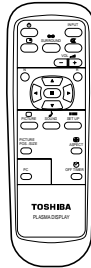
Accessories Supply

Check that you have the accessories and items shown

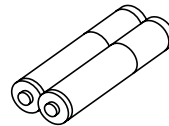
Owner's Manual



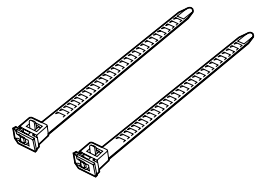
Remote Control Transmitter



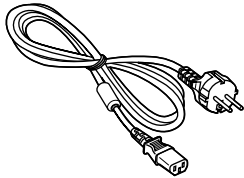
Batteries for the Remote Control Transmitter (2 × R6 Size)



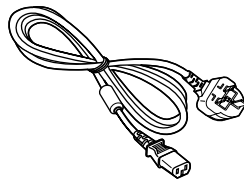
Fixing bands 2 pcs



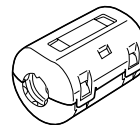
AC cord



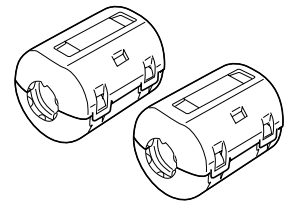
AC cord (UK)



Ferrite core (small size) × 1

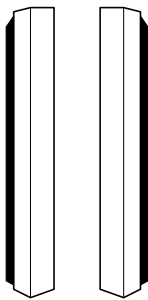


Ferrite core (large size) × 2

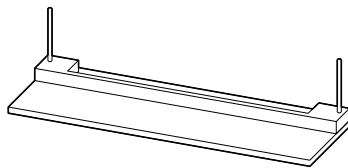


Optional Accessories

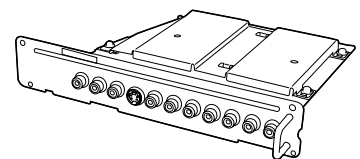
- Speakers PSS421S



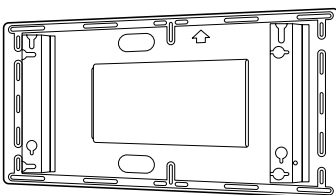
- Pedestal PTS501S



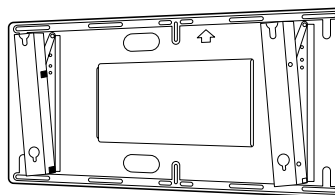
- RCA Terminal Board RTB421



- Wall-hanging bracket (vertical) PWB501



- Wall-hanging bracket (angled) PWB502



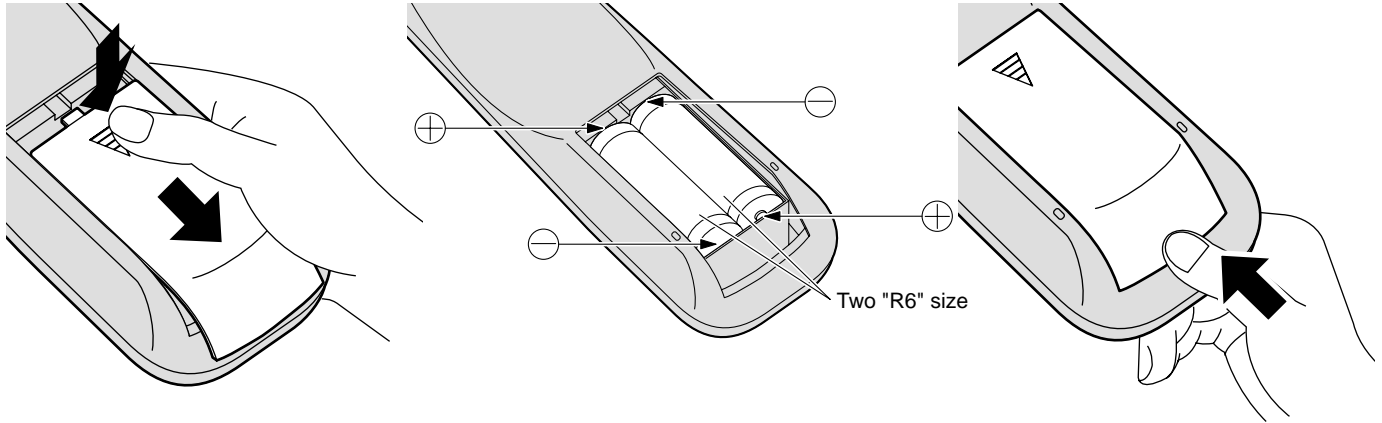
For assembling

Full instructions are supplied with each optional accessory for use with this Plasma Display.

Remote Control Batteries

Requires two R6 batteries.

1. Turn the transmitter face down. Press and slide off the battery cover.
2. Install the batteries as shown in the battery compartment. (Polarity + or – must match the markings in the compartment.)
3. Replace the cover and slide in reverse until the lock snaps.



Helpful Hint:

For frequent remote control users, replace old batteries with Alkaline batteries for longer life.

⚠ Precaution on battery use

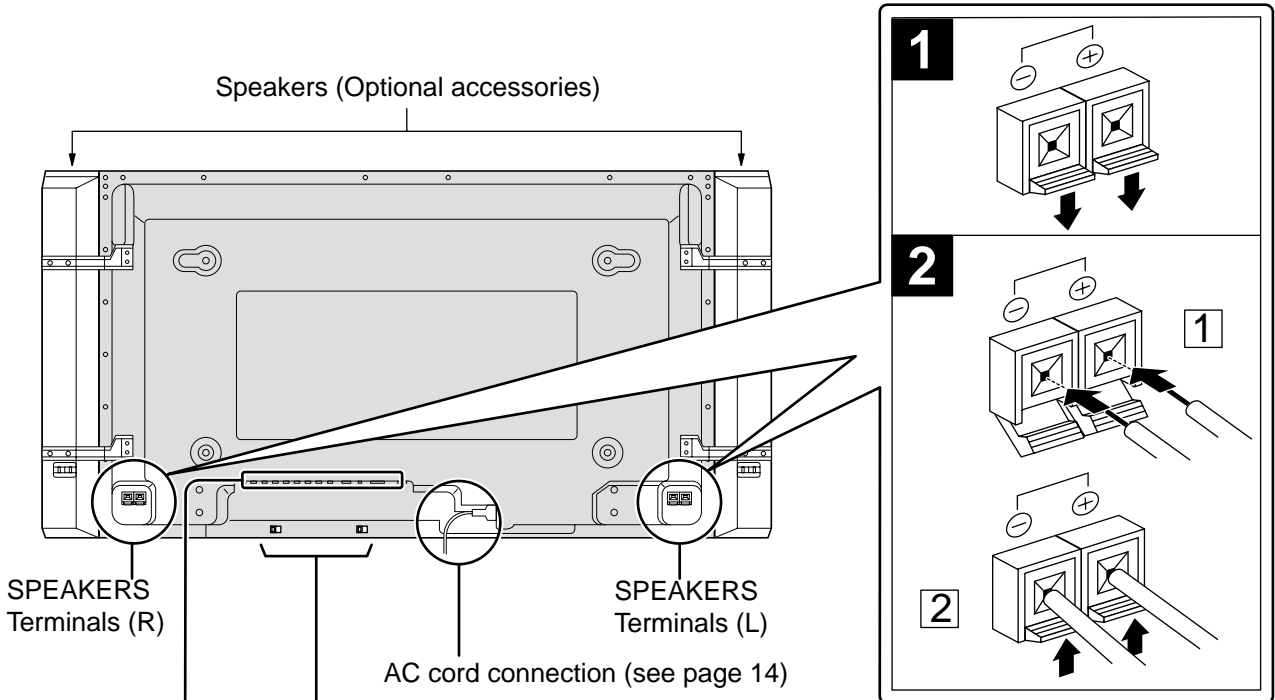
Incorrect installation can cause battery leakage and corrosion that will damage the remote control transmitter.

Observe the following precaution:

1. Batteries shall always be replaced as a pair. Always use new batteries when replacing the old set.
2. Do not combine a used battery with a new one.
3. Do not mix battery types (example: "Zinc Carbon" with "Alkaline").
4. Do not attempt to charge, short-circuit, disassemble, heat or burn used batteries.
5. Battery replacement is necessary when remote control acts sporadically or stops operating the Plasma Display set.

Connections

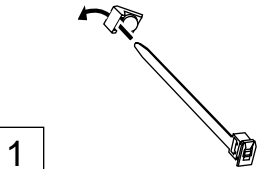
When connecting the speakers, be sure to use only the optional accessory speakers. Refer to the speaker's Installation Manual for details on speaker installation.



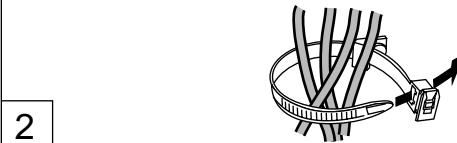
- Cable fixing bands

Secure any excess cables with bands as required.

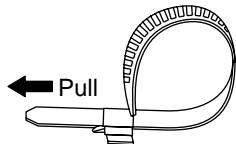
Pass the attached cable fixing band through the clip as shown in the figure.



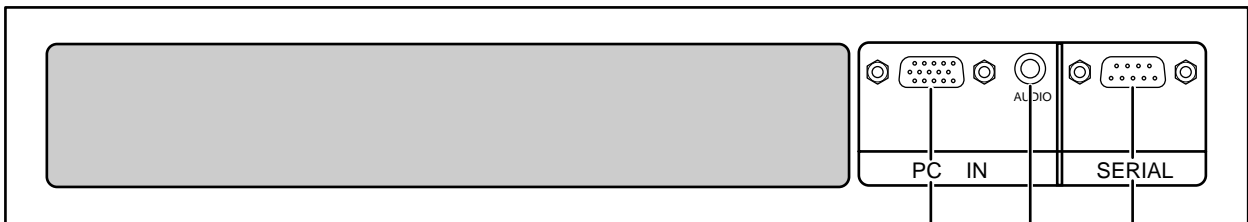
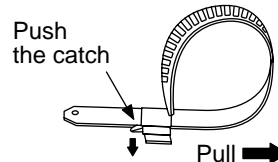
To secure cables connected to Terminals, wrap the cable fixing band around them then pass the pointed end through the locking block, as shown in the figure. **While ensuring there is sufficient slack in cables to minimize stress (especially in the power cord), firmly bind all cables with the supplied fixing band.**



To tighten:



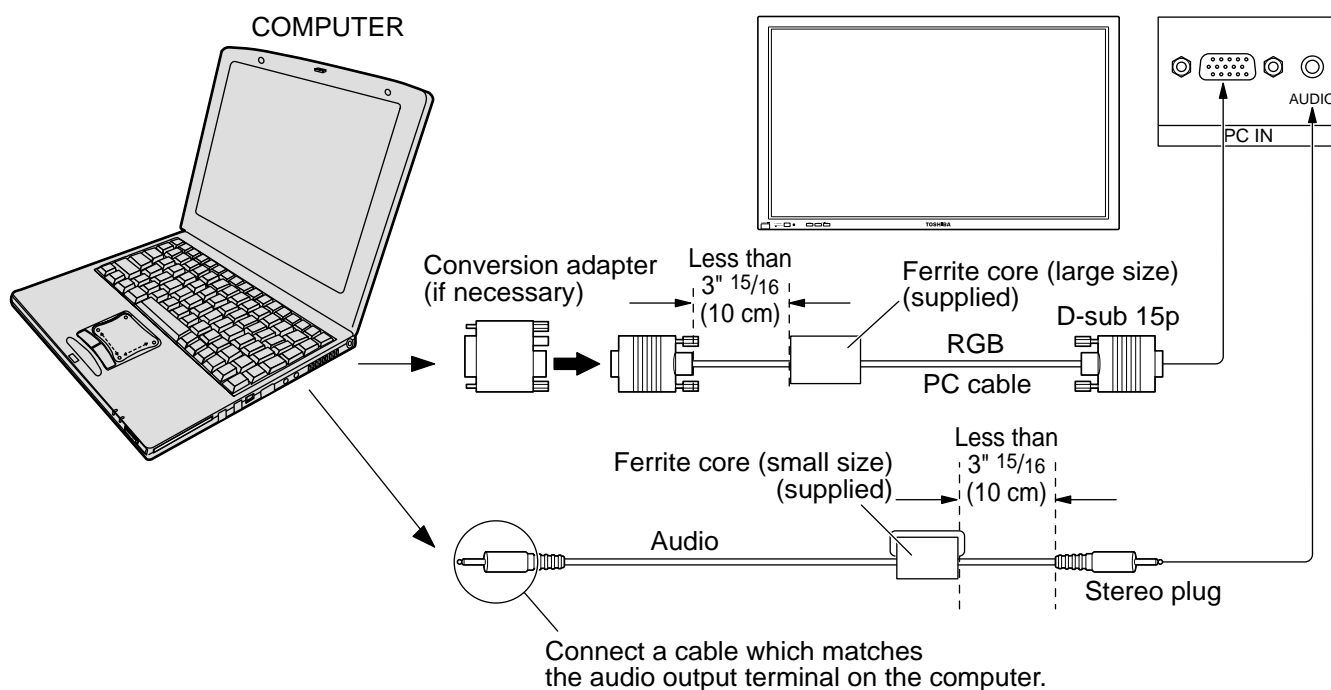
To loosen:



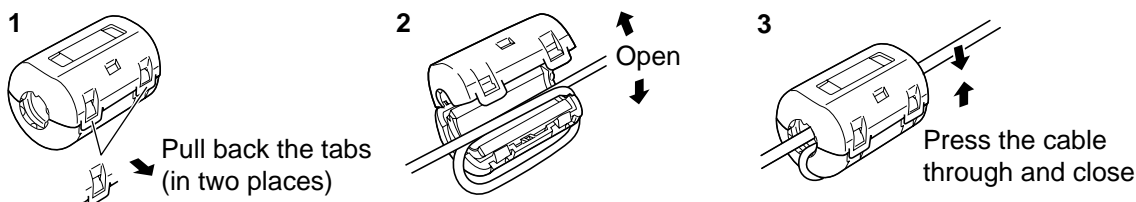
From EXIT monitor terminal on Computer (see page 10)

From SERIAL Terminal on Computer (see page 12)

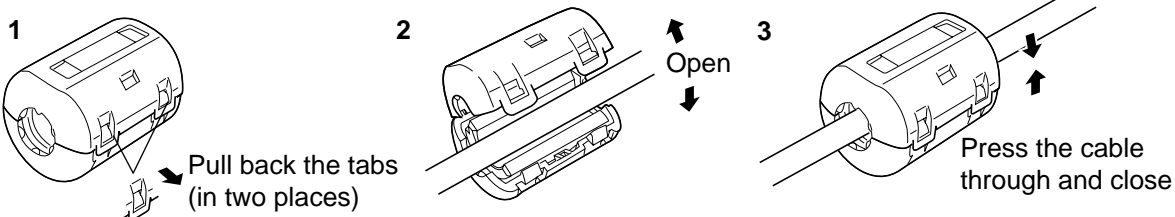
PC Input Terminals connection



Installing the ferrite core (Small size)



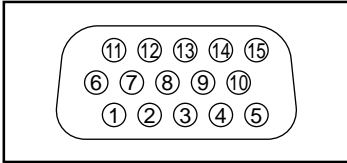
Installing the ferrite core (Large size)



Notes:

- (1) Computer signals which can be input are those with a horizontal scanning frequency of 15.6 to 110 kHz and vertical scanning frequency of 48 to 120 Hz. (However, the image will not be displayed properly if the signals exceed 1,200 lines.)
- (2) The display resolution is a maximum of 640 × 480 dots when the aspect mode is set to "4:3", and 852 × 480 dots when the aspect mode is set to "16:9". If the display resolution exceeds these maximums, it may not be possible to show fine detail with sufficient clarity.
- (3) The PC input terminals are DDC1/2B-compatible. If the computer being connected is not DDC1/2B-compatible, you will need to make setting changes to the computer at the time of connection.
- (4) Some PC models cannot be connected to the set.
- (5) There is no need to use an adapter for computers with DOS/V compatible D-sub 15P terminal.
- (6) The computer shown in the illustration is for example purposes only.
- (7) Additional equipment and cables shown are not supplied with this set.
- (8) Do not set the horizontal and vertical scanning frequencies for PC signals which are above or below the specified frequency range.

Signal Names for D-sub 15P Connector

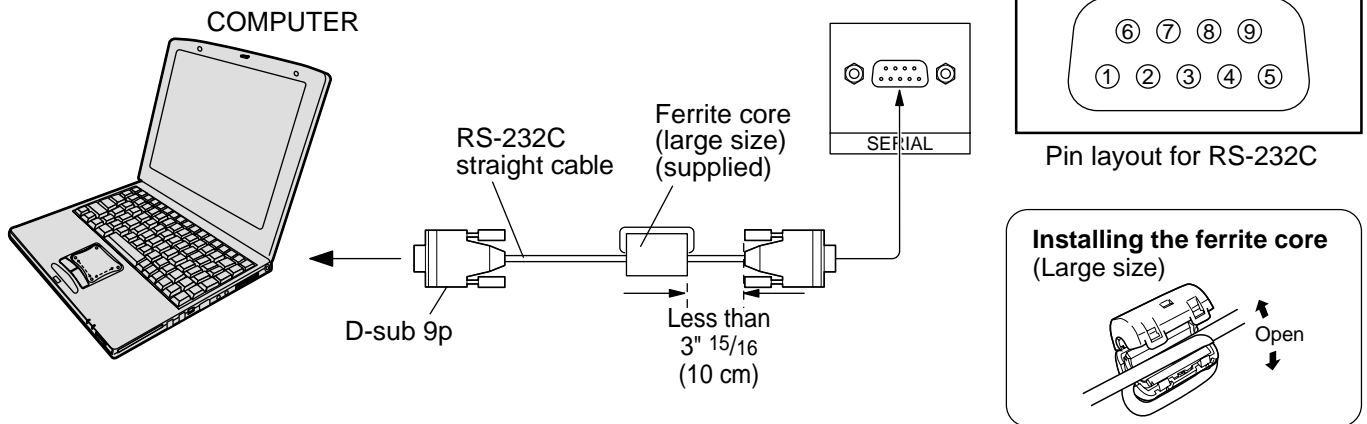


Pin Layout for PC Input Terminal

Pin No.	Signal Name	Pin No.	Signal Name	Pin No.	Signal Name
①	R	⑥	GND (Ground)	⑪	GND (Ground)
②	G	⑦	GND (Ground)	⑫	SDA
③	B	⑧	GND (Ground)	⑬	HD/SYNC
④	GND (Ground)	⑨	NC (not connected)	⑭	VD
⑤	GND (Ground)	⑩	GND (Ground)	⑮	SCL

SERIAL Terminals connection

The SERIAL terminal is used when the Plasma Display is controlled by a computer.



Notes:

- (1) Use the RS-232C cable to connect the computer to the Plasma Display.
- (2) The computer shown is for example purposes only.
- (3) Additional equipment and cables shown are not supplied with this set.

The SERIAL terminal conforms to the RS-232C interface specification, so that the Plasma Display can be controlled by a computer which is connected to this terminal.

The computer will require software which allows the sending and receiving of control data which satisfies the conditions given below. Use a computer application such as programming language software. Refer to the documentation for the computer application for details.

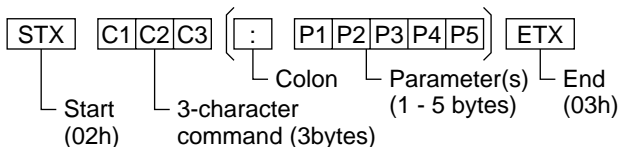
Communication parameters

Signal level	RS-232C compliant
Synchronization method	Asynchronous
Baud rate	9600 bps
Parity	None
Character length	8 bits
Stop bit	1 bit
Flow control	—

RS-232C Conversion cable	
D-sub 9-pin female	Details
②	R X D
③	T X D
⑤	GND
④ • ⑥	Non use
⑦	Shorted
⑧	
① • ⑨	NC

Basic format for control data

The transmission of control data from the computer starts with a STX signal, followed by the command, the parameters, and lastly an ETX signal in that order. If there are no parameters, then the parameter signal does not need to be sent.



Notes:

- (1) If multiple commands are transmitted, be sure to wait for the response for the first command to come from this unit before sending the next command.
- (2) If an incorrect command is sent by mistake, this unit will send an "ER401" command back to the computer.

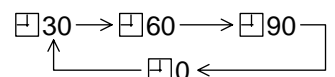
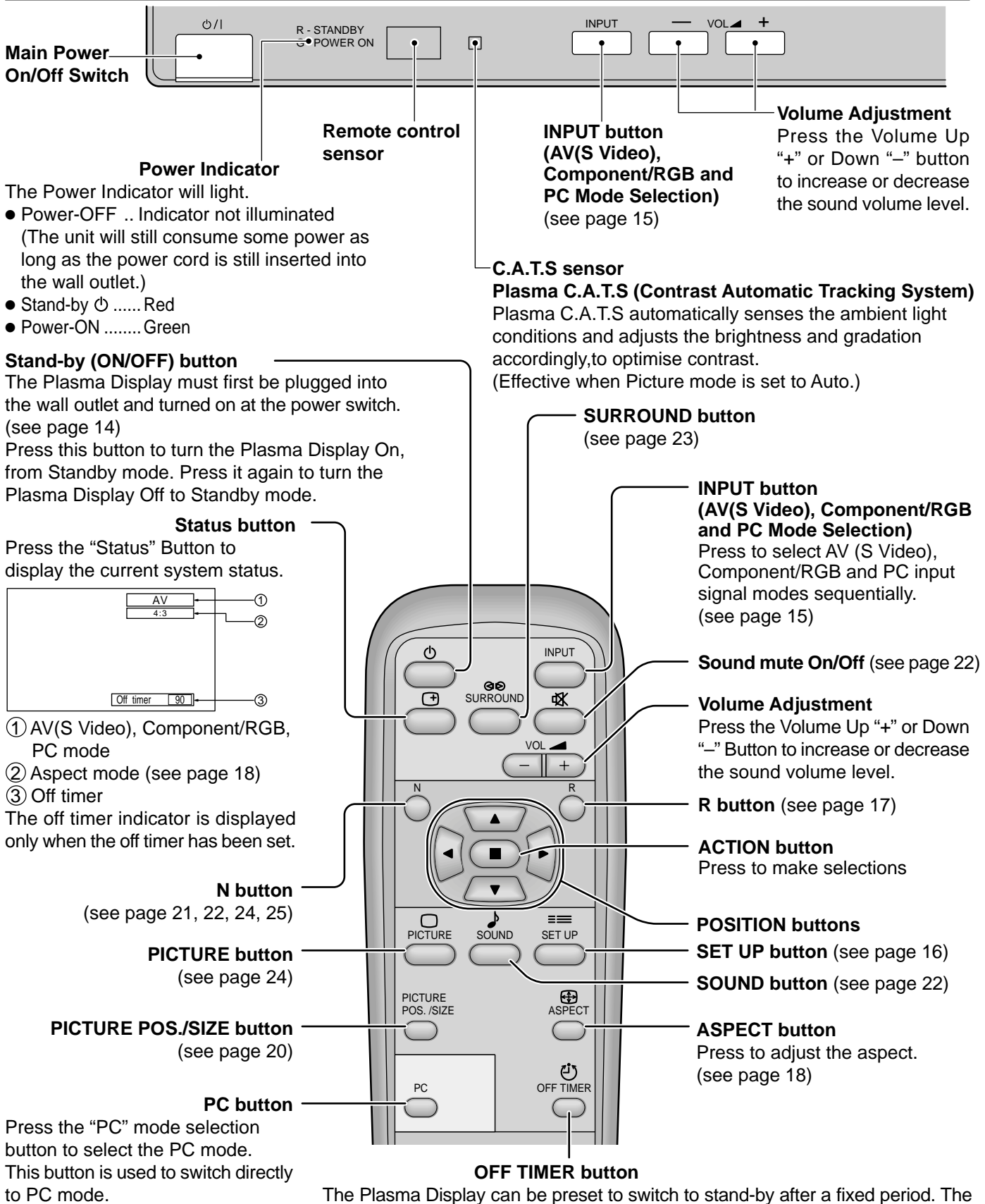
Command

Command	Parameter	Control details
PON	None	Power ON
POF	None	Power OFF
AVL	**	Volume 00 - 63
AMT	0	Audio mute OFF
	1	Audio mute ON
IIS (When used RCA Terminal Board)	None	Input select (toggle)
	VID	AV Mode
	YP1	Component / RGB mode (processed as a Y/Pb/Pr or RGB signals as set by this unit)
DAM	RG1	PC Mode
	None	Screen mode select (toggle)
	NORM	4 : 3
	ZOOM	Zoom
	FULL	16 : 9
	JUST	Just
	SELF	Auto

With the power off, this display responds to PON command only.

Basic Controls

Explanations from here onward describe the functions when the optional RCA Terminal Board is installed.

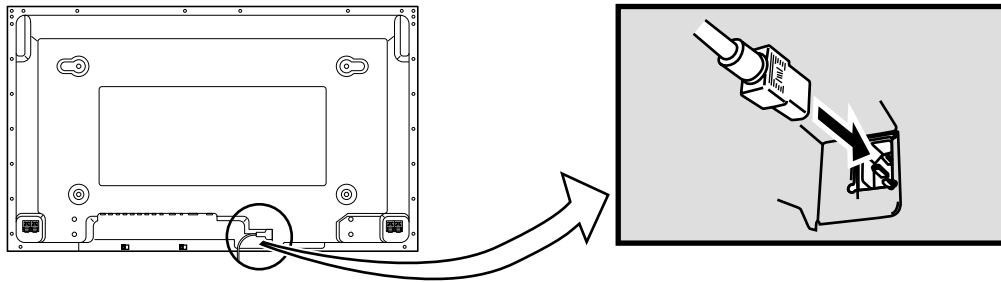


When three minutes remain, “Off timer 3” will flash.
The off timer is cancelled if a power interruption occurs.

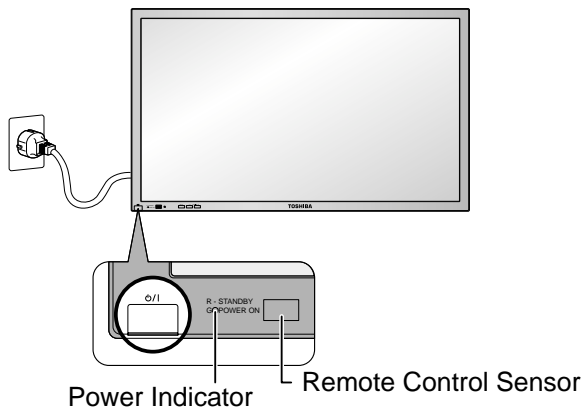
Power On/Off and input signal selection

AC cord connection

Connecting the AC cord plug to the Plasma Display.



Power On/Off



Connecting the plug to the Wall Outlet

Note:

Main plug types vary between countries. The power plug shown at left may, therefore, not be the type fitted to your set.

Press the Power switch on the Plasma Display to turn the set on Power-On.

Power Indicator: Green

Example: The screen below is displayed for a while after the Plasma Display is turned on. (setting condition is an example.)

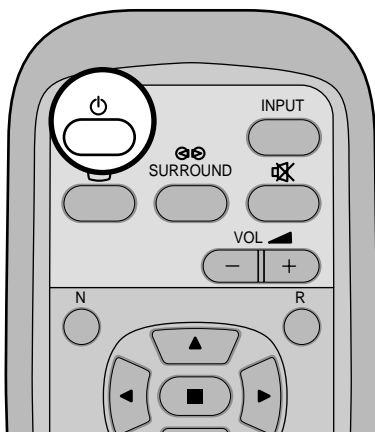
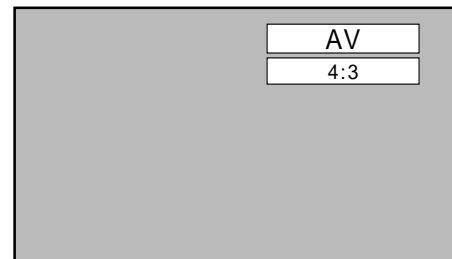
When the Power is turned on for the first time, the Language selection screen is displayed.


From the second time on, language selection can be done from the setup menu. (see page 15)

Select the desired language using the ▲ and ▼ keys and press the ACTION button.




From the second time on, the below screen is displayed for a while (setting condition is an example).




Press the  button on the remote control to turn the Plasma Display off.

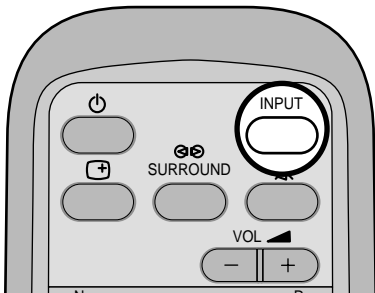
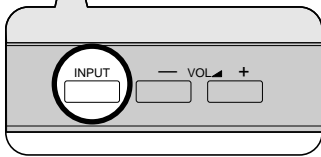
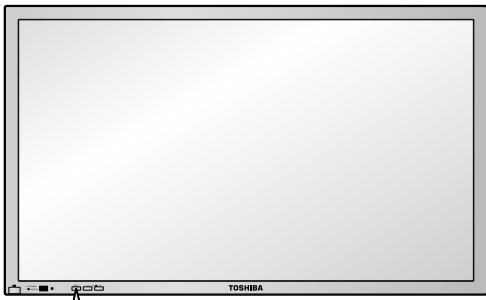
Power Indicator: Red (standby)

Press the  button on the remote control to turn the Plasma Display on.

Power Indicator: Green

Turn the power to the Plasma Display set off by pressing the  switch on the Plasma Display, when the Plasma Display is on or in standby mode.

Select the input signal



Press the INPUT button to select the input signal to be played back from the equipment which has been connected to the Plasma Display.

Select the input signals to be connected by installing the optional Terminal Board. (see page 32)

Input signals will change as follows:

For Component Input



For RGB Input



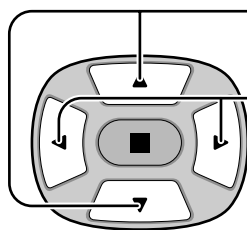
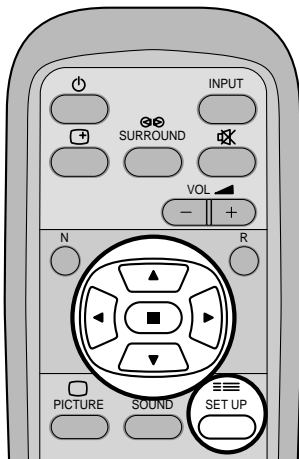
Note:

Input buttons do not work if no optional Terminal Board is installed.

Selecting the On-Screen Menu Language



Press to display the Setup menu.

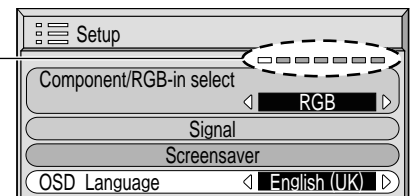


Press to select the OSD Language.

Press to select your preferred language.

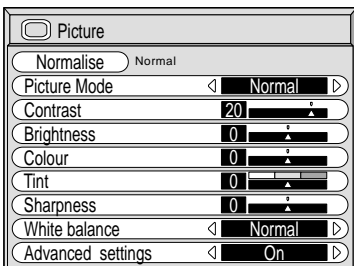
Selectable languages

- English(UK)
- Deutsch
- Français
- Italiano
- Español
- ENGLISH(US)
- 中文(Chinese)

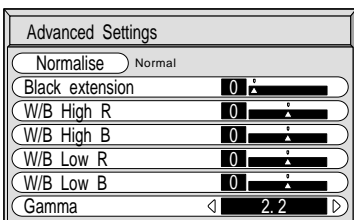


On-Screen Menu Display from Remote Control

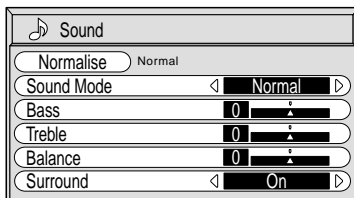
To Picture adjust menu
(see page 24)



To Advanced Settings
(see page 24, 25)

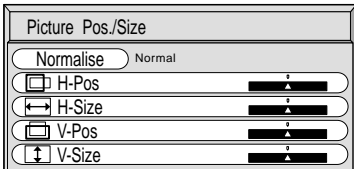


To Sound adjust menu
(see page 22)

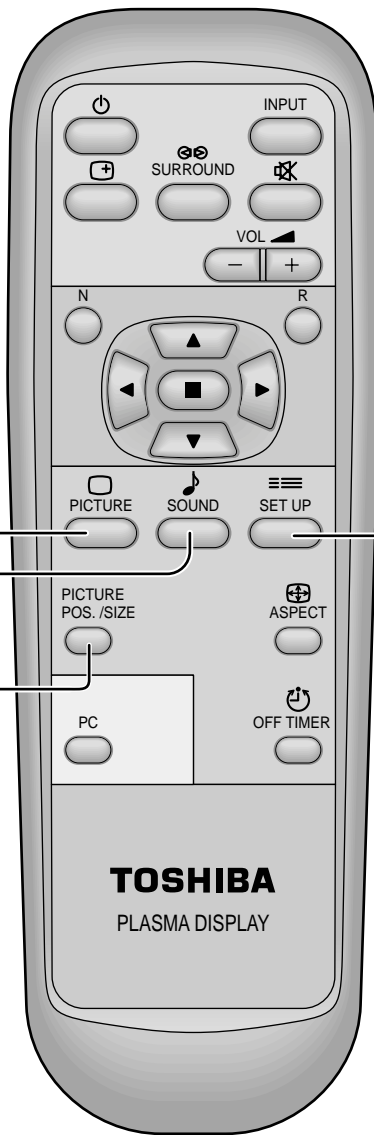
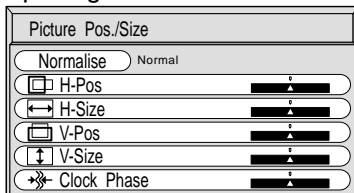


To Picture Pos./Size adjust menu
(see page 20)

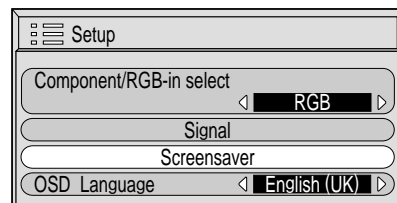
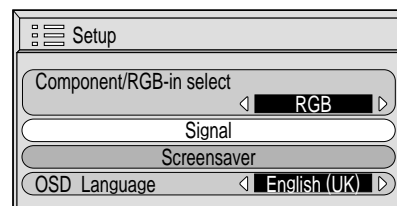
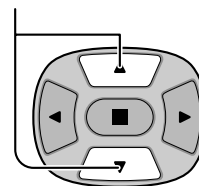
During "AV(S Video)" and
"Component" input signal modes.

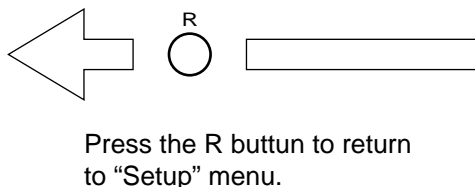
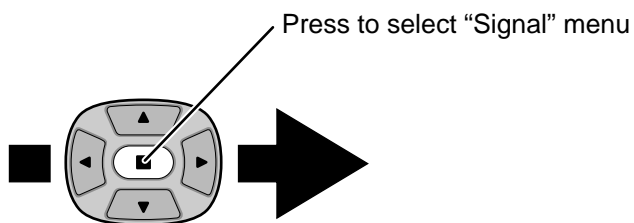


During "RGB" and "PC"
input signal modes.

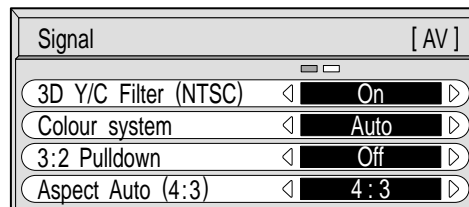


Press to select each item.

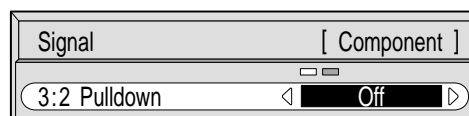




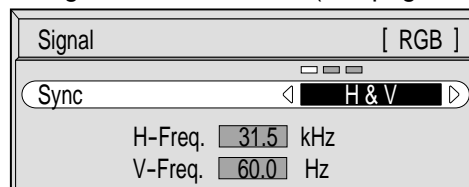
To Signal screen for AV (see page 29)



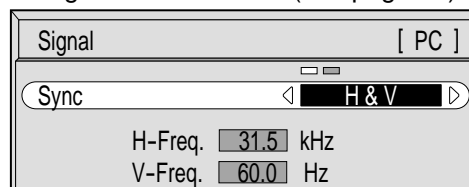
To Signal screen for Component (see page 29)



To Signal screen for RGB (see page 30)

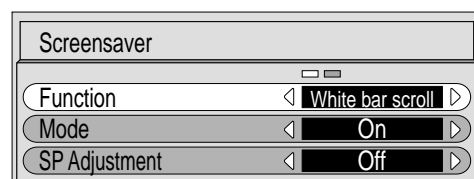
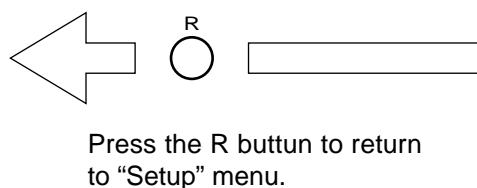
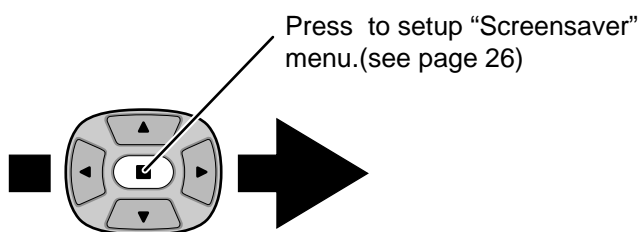


To Signal screen for PC (see page 30)



Note:

"Signal" setup menu displays different setting condition for each input signals. (see page 15)



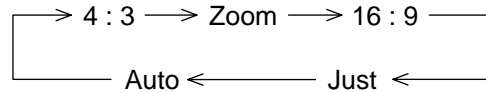
ASPECT Controls

The Plasma Display will allow you to enjoy viewing the picture at its maximum size, including wide screen cinema format picture.



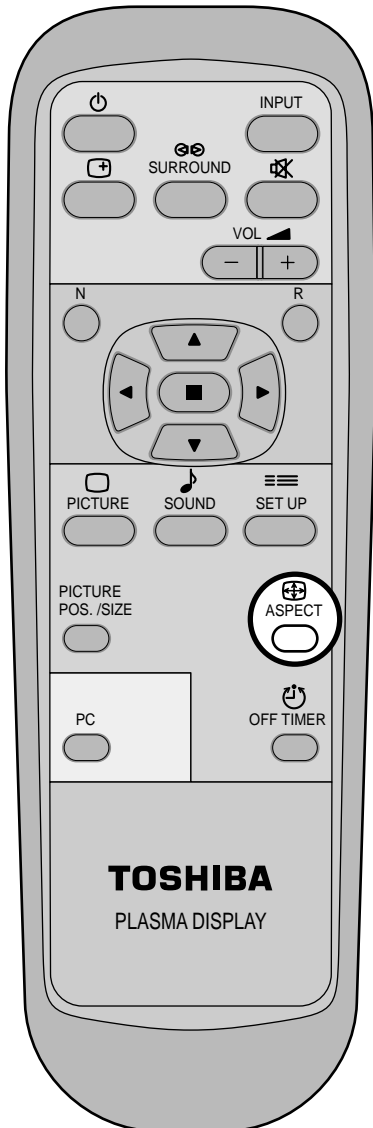
ASPECT button

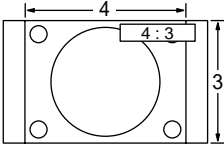
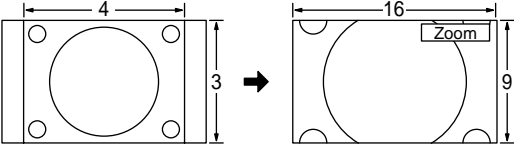
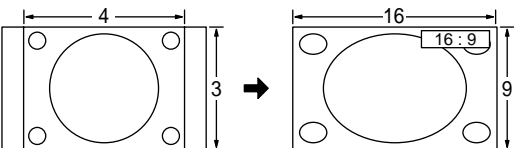
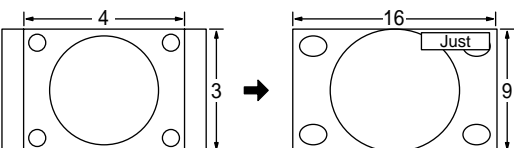
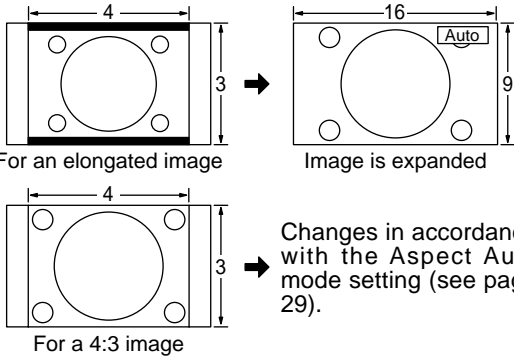
The aspect mode changes each time the ASPECT button is pressed.



Notes:

- (1) During RGB and PC input signal modes, the mode switches between "4:3", "Zoom" and "16:9" only.
- (2) For a 1,125i (1,080i), 750p (720p) signal input during "Component" input signal mode, the mode is set to "16:9" mode, and switching is not possible.
For a 525i (480i), 625i (575i), 525p (480p) and 625p (575p) signal input during "Component" input signal mode, "Auto" can not be selected.
- (3) The aspect mode is memorized separately for each input terminal (AV(S Video), Component, RGB and PC).




Mode	Picture	Explanation
4 : 3		4:3 will display a 4:3 picture at its standard 4:3 size.
Zoom		Zoom mode magnifies the central section of the picture.
16 : 9		16:9 will display the picture at its maximum size but with sight elongation.
Just		Just mode will display a 4:3 picture at its maximum size but with aspect correction applied to the center of the screen so that elongation is only apparent at the left and right edges of the screen. The size of the picture will depend on the original signal.
Auto	 <p>For an elongated image → Image is expanded</p> <p>For a 4:3 image → Changes in accordance with the Aspect Auto mode setting (see page 29).</p>	<p>The display will automatically become enlarged (depending on the picture source), allowing you to view the picture at its maximum size.</p> <p>Note: Auto mode is designed to automatically adjust the aspect ratio to handle a mix of 16:9 and 4:3 program material. Certain 4:3 program material, such as stock market data screens, may occasionally cause the image size to change unexpectedly. When viewing such programs, it is recommended that the ASPECT be set to 4:3.</p>

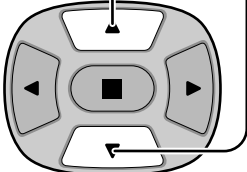
Note:

Do not allow 4:3 mode to be displayed for an extended period, as this can cause a permanent after-image to remain on the Plasma Display Panel.

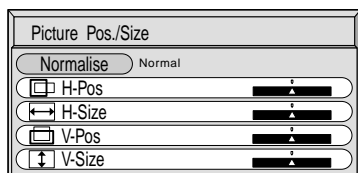
Adjusting Picture Pos./Size

Adjusting screen

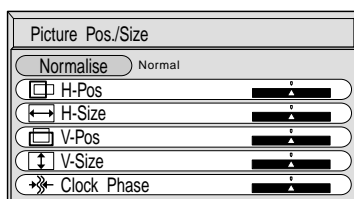
- 1**  Press to display the Picture Pos./Size menu.

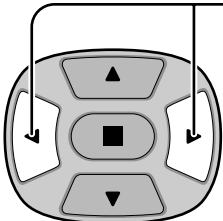
- 2**  Press to select H-Pos/H-Size/V-Pos/V-Size/Clock Phase.


During "AV(S Video)" and "Component" input signal modes.

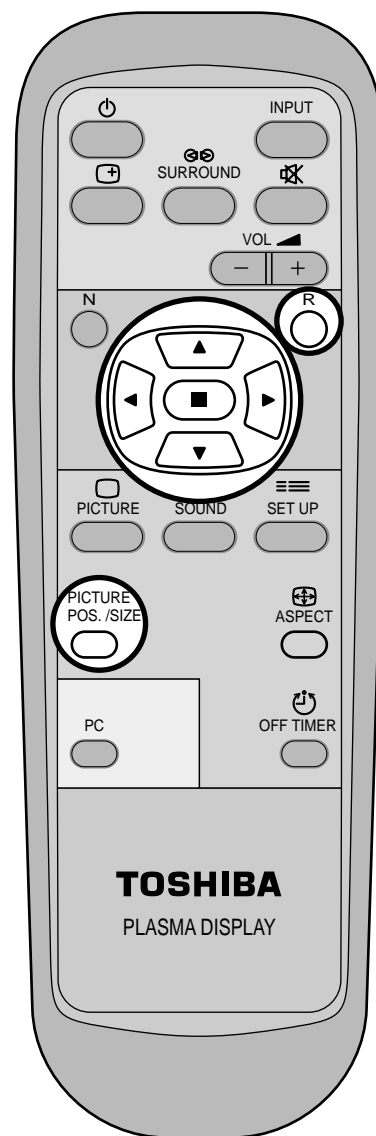


During "RGB" and "PC" input signal modes.



- 3**  Press to adjust Pos./Size.

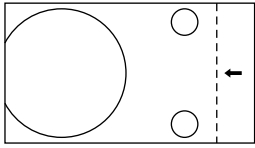
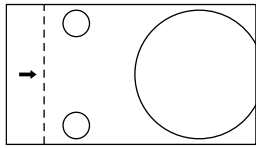
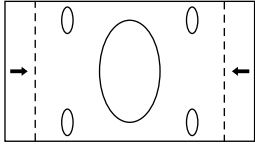
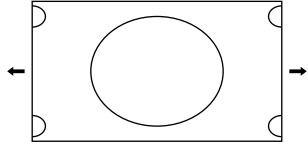
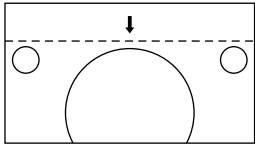
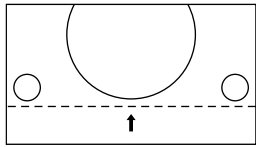
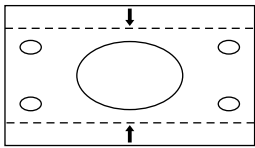
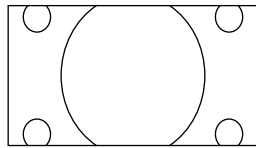
-  Press to exit from adjust mode.



Notes:


- (1) Adjustment details are memorized separately for different input signal formats (Adjustments for component signals are memorized for 525i (480i), 625i (575i), 525p (480p), 1,125i (1,080i) and 625p (575p), 750p (720p) each, and RGB/PC signals are memorized for each frequency.)
- (2) If a "Cue" or "Rew" signal from a VCR or DVD player is received, the picture position will shift up or down. This picture position movement cannot be controlled by the Picture Pos./Size function.

Adjusting Picture Pos./Size


H-Pos	When the Position Left “◀” button is pressed. 	When the Position Right “▶” button is pressed. 
H-Size	When the Position Left “◀” button is pressed. 	When the Position Right “▶” button is pressed. 
V-Pos	When the Position Left “◀” button is pressed. 	When the Position Right “▶” button is pressed. 
V-Size	When the Position Left “◀” button is pressed. 	When the Position Right “▶” button is pressed. 
Clock Phase (RGB/PC in Mode)	Flickering and distortion can be eliminated by using the Position Left “◀” or Right “▶” button to carry out adjustment.	



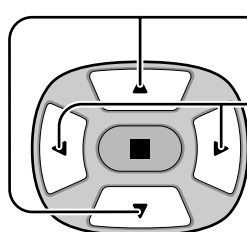
Helpful Hint (/ Normalisation)

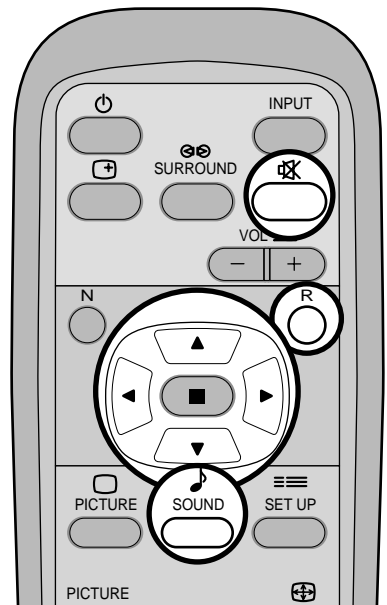
While the Picture Pos./Size display is active, if either the N button on the remote control is pressed at any time or the  (ACTION button) is pressed during “Normalise”, then all adjustment values are returned to the factory settings.

Sound Adjustment

1  Press to display the Sound menu.

2 Select to adjust each item.

 Press to select the desired adjustment menu.
Select the desired level by listening to the sound.

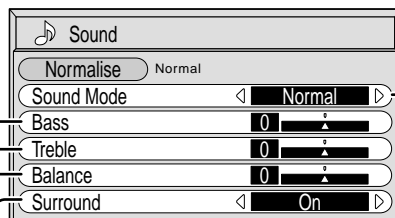


Bass
Adjusts low sounds

Treble
Adjusts high sounds

Balance
Adjusts left and right volumes

Surround (see next page)
Select On or Off




Normal Emits the original sound.



Auto Automatically controls proper volume level.


• To end adjustments

 Press the R button

Note:


Press the SURROUND button to directly turn the surround effect On and Off. (see next page)
Bass, Treble and Surround settings are memorized separately for each Sound mode (Normal, Auto).

Helpful Hint (N / Normalise) **Normalisation**

While the "Sound" menu is displayed, if either the N button on the remote control is pressed at any time or the  (ACTION button) is pressed during "Normalise", then all adjustment values are returned to the factory settings.

Mute

Useful when answering the phone or receiving unexpected visitors.

 Press this button to mute the sound.
Press again to reactivate sound. Sound is also reactivated when power is turned off or volume level is changed.

Surround Controls

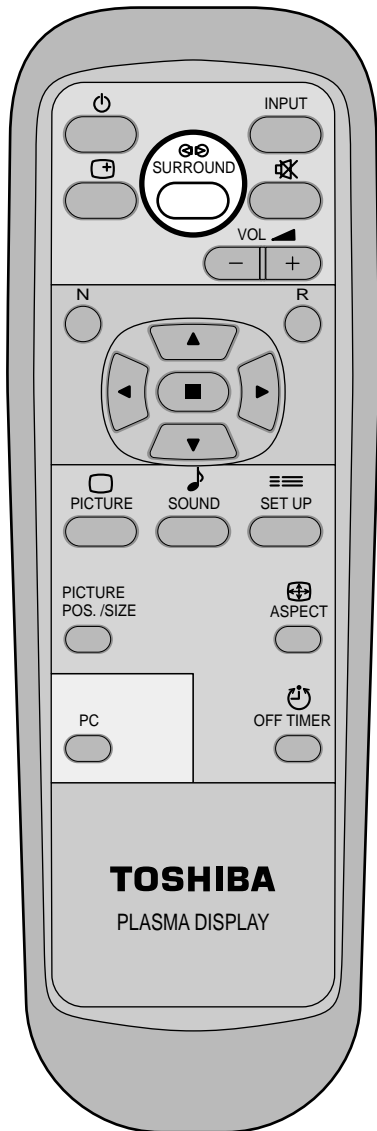
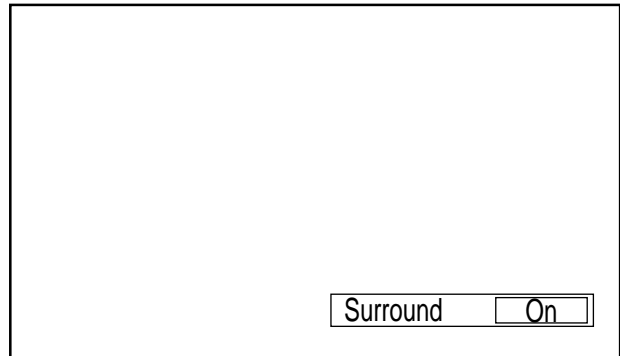


SURROUND Button

The benefits of surround sound are enormous. You can be completely enveloped in sound; just as if you were at a concert hall or cinema.

The surround setting switches on and off each time the SURROUND button is pressed.

On \longleftrightarrow Off



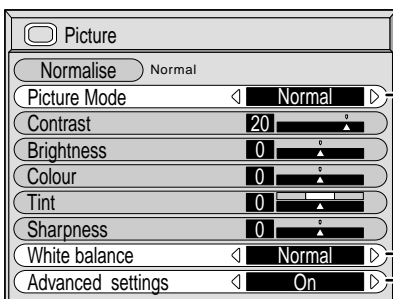
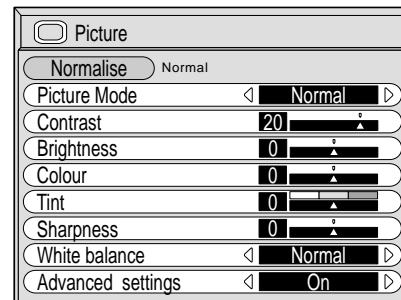
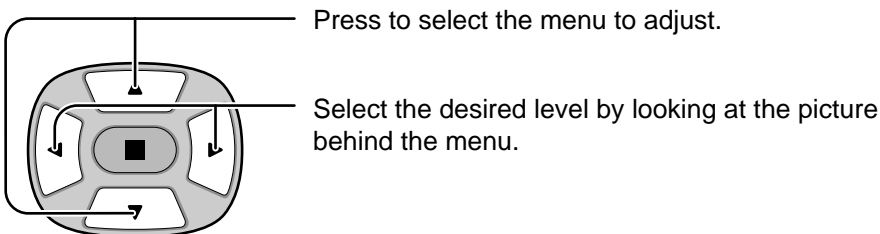
Note:

The surround settings are memorized separately for each Sound mode (Normal, Auto).

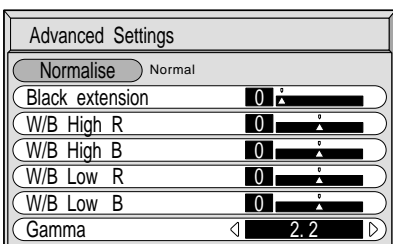
Picture Adjustments

1  Press to display the Picture menu.

2 Select to adjust each item.

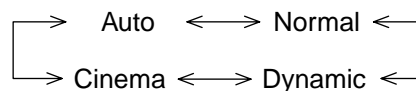


Press the left ◀ or right ▶ button to select "On". Press the down ▼ button to enter Advanced Settings mode. Advanced Settings On Enables fine picture adjustment at a professional level (see next page).



Advanced Settings Off Displays images with settings of the Picture menu.

Press the left ◀ or right ▶ button to switch between modes.



Auto

Automatically selects the mode that best suits the brightness of the environment.

Normal

For viewing in standard (evening lighting) environments.

This menu selects the normal levels of Brightness and Contrast.

Dynamic

For viewing in brighter environments.

This menu selects higher than normal levels of Brightness and Contrast.

Cinema

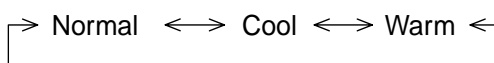
Ideal for movies.

- Can be selected for AV/Component.


Note:

If you would like to change the picture and colour of the selected Picture menu to something else, adjust using the items in the Picture menu. (see next page)

Press the left ◀ or right ▶ button to switch between modes.



Helpful Hint (/ Normalisation)

While the "Picture" menu is displayed, if either the N button on the remote control is pressed at any time or the  (ACTION button) is pressed during "Normalise", then all adjustment values are returned to the factory settings.

Item	Effect	Adjustments
Contrast	Less More	Selects the proper brightness and density for the room.
Brightness	Darker Brighter	Adjusts for easier viewing of dark pictures such as night scenes and black hair.
Colour	Less More	Adjusts colour saturation.
Tint (NTSC only)	Reddish Greenish	Adjust for nice skin colour.
Sharpness	Less More	Adjusts picture sharpness.

Notes:

- (1) "Colour" and "Tint" settings cannot be adjusted for "RGB" and "PC" input signal modes.
- (2) You can change the level of each function (Contrast, Brightness, Colour, Tint, Sharpness) for each Picture menu.
- (3) The setting details for normal, dynamic and cinema respectively are memorized separately for each input mode (AV(S Video), Component, RGB and PC).
- (4) The "Tint" setting can be adjusted for NTSC signal only during "AV (S Video)" input signal.

Note:

In PICTURE, there is not a noticeable change even when contrast is increased with a bright picture or reduced with a dark picture.

Advanced Settings

Item	Effect	Details
Black extension	Less More	Adjusts the dark shades of the image in gradation.
W/B High R	Less More	Adjusts the white balance for light red areas.
W/B High B	Less More	Adjusts the white balance for light blue areas.
W/B Low R	Less More	Adjusts the white balance for dark red areas.
W/B Low B	Less More	Adjusts the white balance for dark blue areas.
Gamma	Down Up	2.0 ↔ 2.2 ↔ 2.5

Notes:


- (1) Carry out "W/B" adjustment as follows.
 - Ⓐ Adjust the white balance of the bright sections using the "W/B High R" and "W/B High B" settings.
 - Ⓑ Adjust the white balance of the dark sections using the "W/B Low R" and "W/B Low B" settings.
 - Ⓒ Repeat steps Ⓐ and Ⓑ to adjust.
 Steps Ⓐ and Ⓑ affect each other's settings, so repeat each step in turn to make the adjustment.
- (2) The adjustment values are memorized separately for each input mode (AV(S Video), Component, RGB and PC).
- (3) The adjustment range values should be used as an adjustment reference.

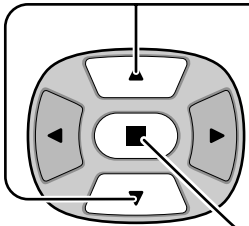

Helpful Hint (/ Normalise Normalisation)

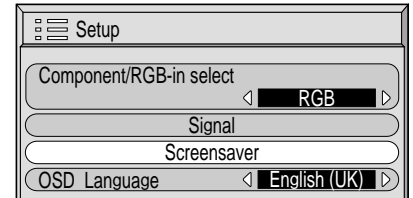
On the remote control unit, while the "Advanced settings" menu is displayed, if either the N button is pressed at any time or the (ACTION button) is pressed during "Normalise", then all adjustment values are returned to the factory settings.

Screensaver (For preventing after-images)

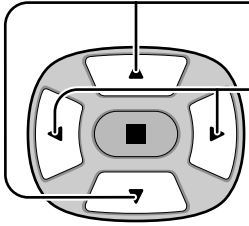

Do not display a still picture, especially in 4:3 mode, for any length of time.
If the display must remain on, a Screensaver should be used.

1  Press to display the Setup menu screen.

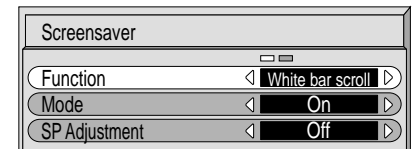
2  Press to select the Screensaver.
 Press to select the Screensaver screen.



Reversal / Scroll selection

3  Press to select the Function.
 Press to select the desired function.

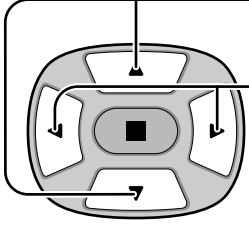

→ White bar scroll ←
→ Image Reversal ←

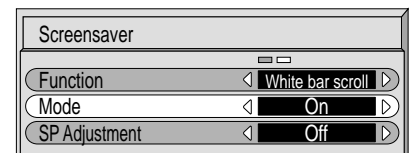


White bar scroll : The white bar will scroll from left to right.

Image Reversal : Negative image will be displayed on the screen.

On / Off selection

4  Press to select the Mode.
 Press to select On or Off.



If the mode is at On, the menu screen will disappear and the Screensaver will be activated.

To stop the Screensaver under On, press the  button.

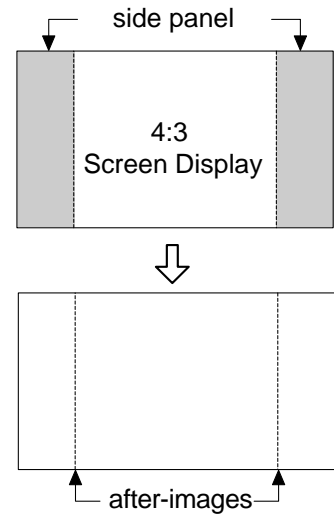
Side Panel Adjustment

Do not display a picture in 4:3 mode for an extended period, as this can cause an after-image to remain on the side panels either side of the display field.

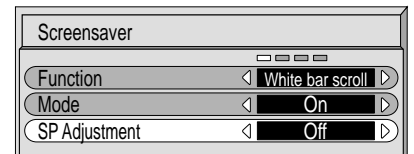
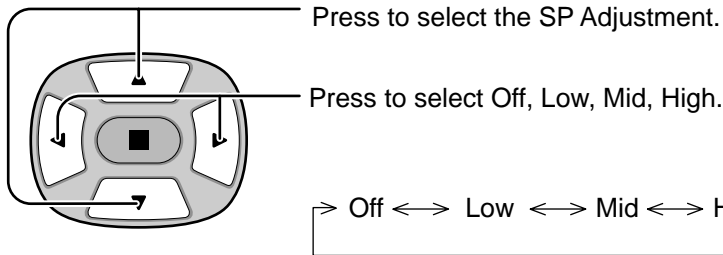
To prevent the appearance of such an after-image, illuminate the side panels.

1

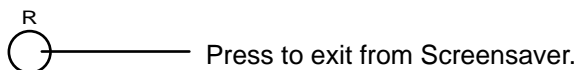
To display the Screensaver screen.
(Refer to the previous page, operation guide steps 1 and 2)



2



3



Notes:

- (1) Setting the side panel to High mode for an extended period may result in occurrence of after-images.
- (2) The side panels may flash (alternate black/white) depending on the picture being shown on the screen. In such an occurrence, use the Cinema mode.

Setup for Input Signals

Component/RGB-in Select

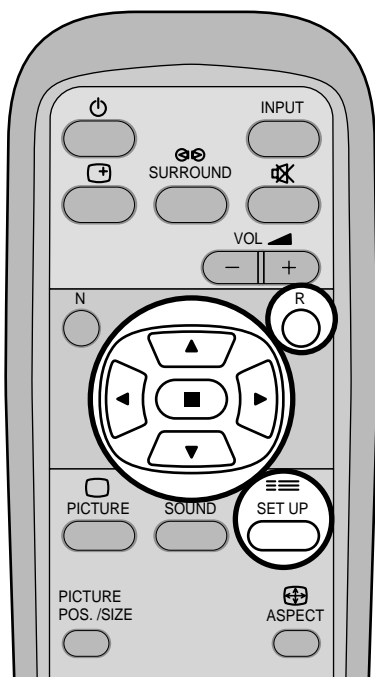
Select the input signals to be connected by installing the Optional Terminal Board.

(Refer to the service manual for the optional Terminal Board.)

Select to match the signals from the source connected to the Component/RGB input terminals.

Y, P_B, P_R signals ⇨ "Component"

R, G, B, HD, VD signals ⇨ "RGB"

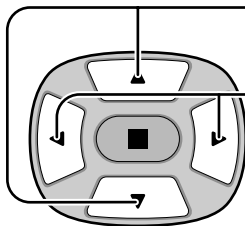


1



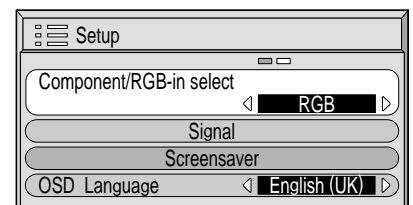
Press to display the Setup menu screen.

2



Press to select the "Component/RGB-in Select".

Press to select the desired mode.



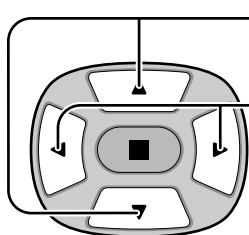
Component ←→ RGB



Press to exit from adjust mode.

3D Y/C Filter – For NTSC AV images

Select "Signal" from the "Setup" menu during AV(S Video) input signal mode. ("Signal [AV]" menu is displayed.)

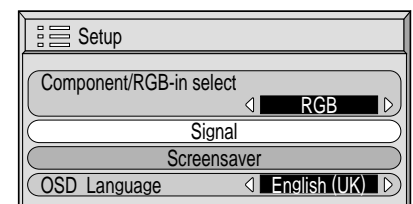



Press to select the "3D Y/C Filter (NTSC)"

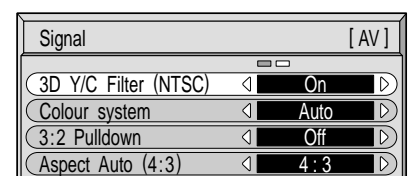
Press to set On/Off.



Press to exit from adjust mode.



↓ Press  (ACTION) button

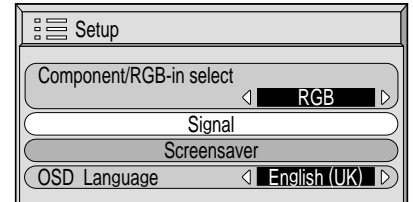
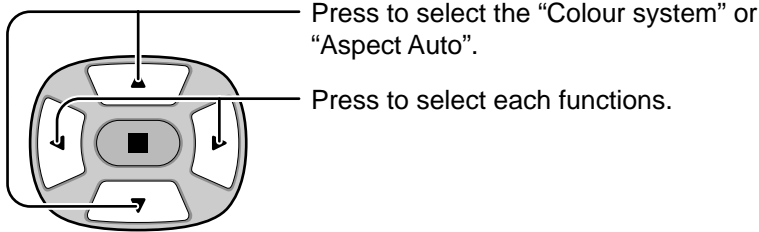


Note:

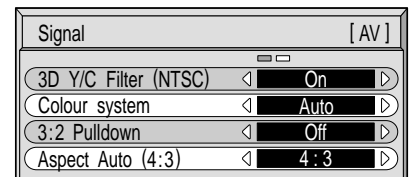
When On, this setting only affects NTSC input signals.

Colour system / Aspect Auto

Select Signal from the "Setup" menu during AV(S Video) input signal mode. ("Signal [AV]" menu is displayed.)



Press (ACTION) button



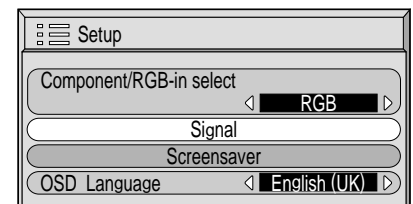
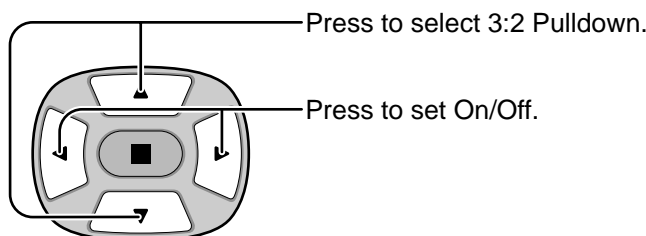
If the picture image becomes unstable:
With the system set on Auto, under conditions of low level or noisy input signals the image may in rare cases become unstable. Should this occur, set the system to match the format of the input signal.

Mode	Function
Colour system	Set the colour system to match the input signal. If set to "Auto", the colour system is determined automatically. <div style="text-align: center;"> > Auto <-> PAL <-> SECAM <-> M.NTSC <-> NTSC < </div>
Aspect Auto (4:3)	Set to "4 : 3" to view 4:3 images in an unchanged format when Aspect Auto is selected. If you would like to view 4:3 images in "Just" format, set to "Just".

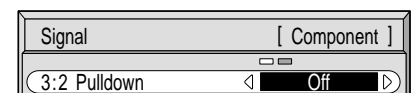
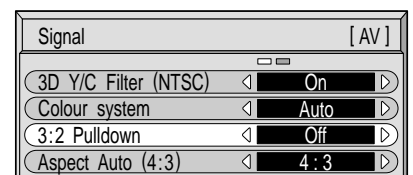
3:2 Pulldown

When on, the display attempts to reproduce a more natural interpretation of sources such as movie pictures, which are recorded at 24 frames per second.
If the picture is not stable, turn the setting to off.

Select "Signal" from the "Setup" menu during AV(S Video) or Component input signal mode. ("Signal [AV]" menu is displayed.)



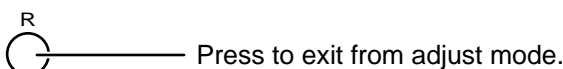
Press (ACTION) button



Note:

When On, this setting only affects the following signal input.

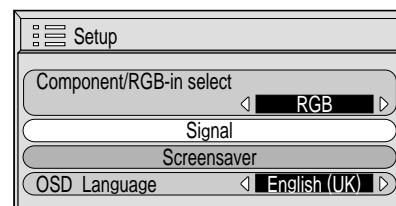
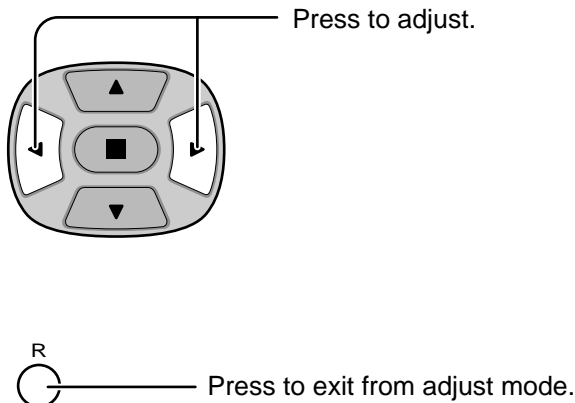
- NTSC signal input during "AV(S Video)" input signal mode.
- 525i(480i) signal input during "Component" input signal mode.



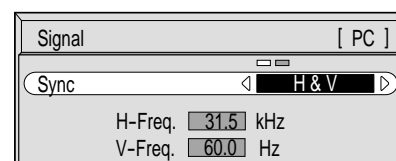
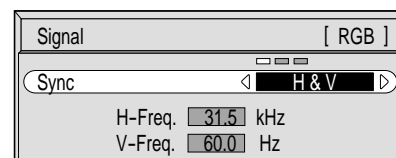
Setup for input signals

Sync

Select Signal from the "Setup" menu during RGB or PC input signal mode.



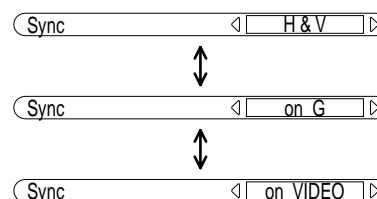
↓ Press (ACTION) button



Setting RGB sync signal:

Confirm that the input is set to RGB input (this setting is valid only for RGB input).

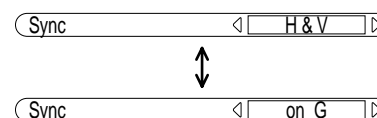
- H & V: The H and V sync signals are input from the HD/VD connector.
- on G: Uses a synchronized signal on the Video G signal, which is input from the G connector.
- on VIDEO: Compatible with the scart plug (Europe)
The composite video signal input from the VIDEO input terminal is used by dividing the sync signals.



Setting PC sync signal:

Confirm that the input is set to PC input (this setting is valid only for PC input).

- H & V: The H and V sync signals are input from the HD/VD connector.
- on G: Uses a synchronized signal on the Video G signal, which is input from the G connector.



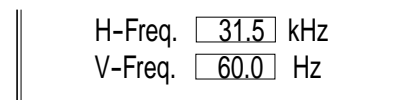
H-Freq. (kHz)/V-Freq. (Hz)

Displays the H (Horizontal)/V (Vertical) frequencies.

This display is valid only for RGB input and PC input.

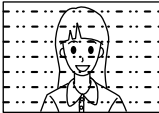


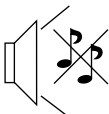

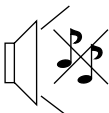

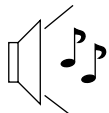

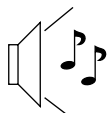
Display range:

- Horizontal 15.6 - 110 kHz
- Vertical 48 - 120 Hz




Troubleshooting

Before you call for service, determine the symptoms and make a few simple checks as shown below.

Symptoms		Checks
Picture	Sound	
 <p>Interference</p>	 <p>Noisy Sound</p>	Electrical Appliances Cars/Motorcycles Fluorescent light
 <p>Normal Picture</p>	 <p>No Sound</p>	Volume (Check whether the mute function has been activated on the remote control.)
 <p>No Picture</p>	 <p>No Sound</p>	Not plugged into AC outlet Not switched on Picture and Brightness/Volume setting (Check by pressing the power switch or stand-by button on the remote control.)
 <p>No Picture</p>	 <p>Normal Sound</p>	If a signal with a non-applicable colour system format, or frequency is input, only the input terminal indication is displayed.
 <p>No Colour</p>	 <p>Normal Sound</p>	Colour controls set at minimum level (see page 24, 25) Colour system (see page 29)

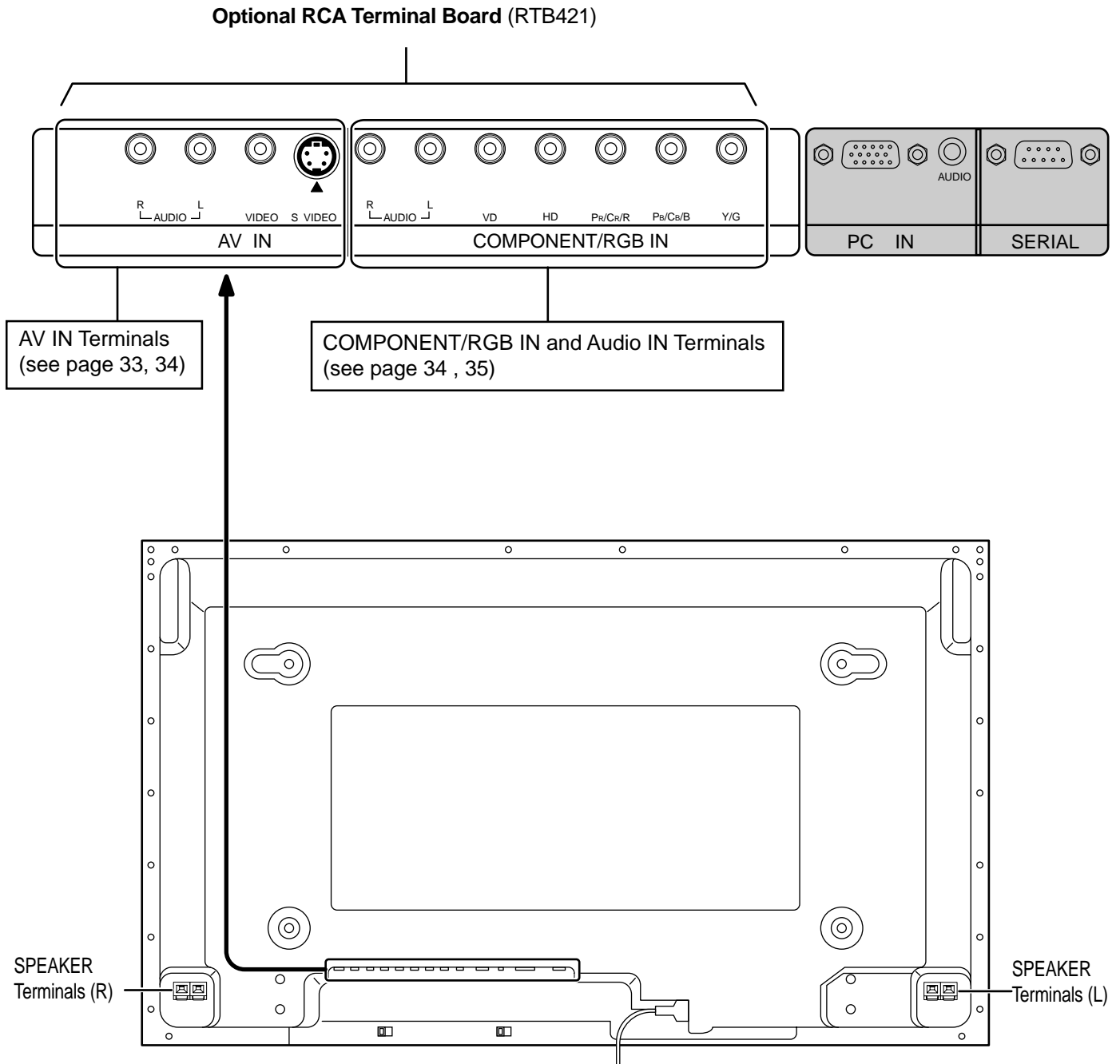
Plasma Display panel

Symptoms	Check
Some parts of the screen do not light up.	The plasma display panel is manufactured using an extremely high level of precision technology, however, sometimes some parts of the screen may be missing picture elements or have luminous spots. This is not a malfunction.
 <p>After-images appear</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 Display. Examples of still pictures include logos, video games, computer images, teletext and images displayed in 4:3 mode. Note: The permanent after-image on the Plasma Display resulting from fixed image use is not an operating defect and as such is not covered by the Warranty. This product is not designed to display fixed images for extended periods of time.

Connections

Connection to the Optional Terminal Board

By installing the optional RCA Terminal Board, the Plasma Display can handle high quality input signals such as AV (S Video), DVD, and RGB. Below is the connecting method when the optional RCA Terminal Board is installed.



Notes:

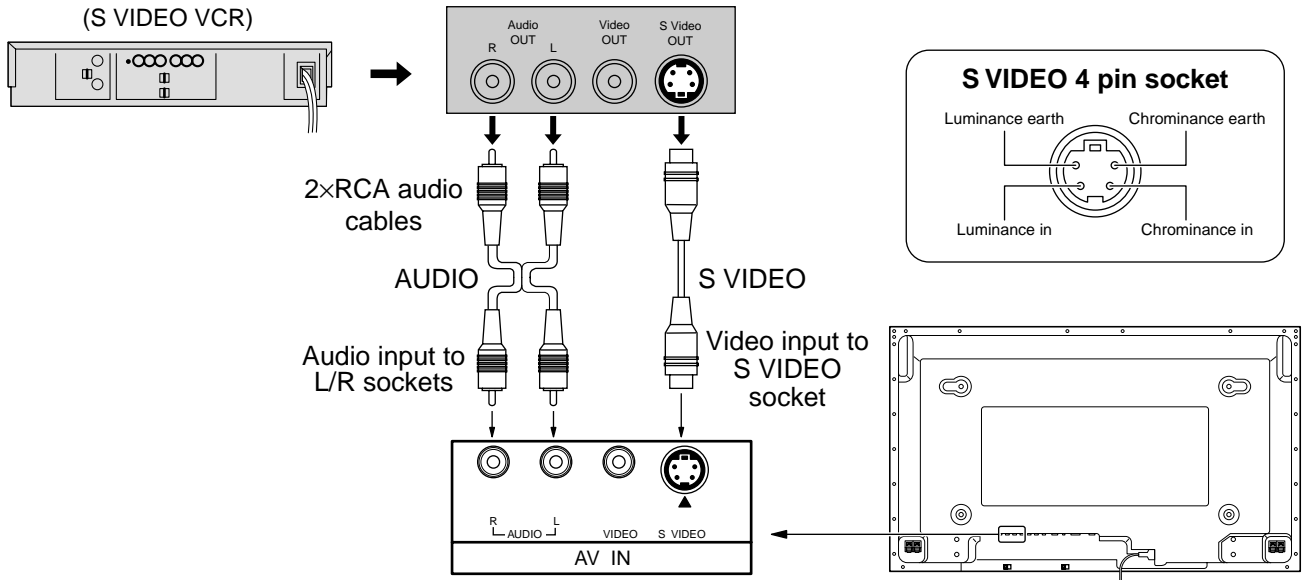
After installing the Optional Terminal Board, the Setup menu screen on the Plasma Display will change. (The input signal cables should be connected to the relevant terminals).

- The input signals that may be selected by the INPUT button will change.
- The required mode, either "Component" or "RGB" and "Component/RGB-In Select", will be available for selection.
- On the Setup menu screen, the setting contents under Signal will change.

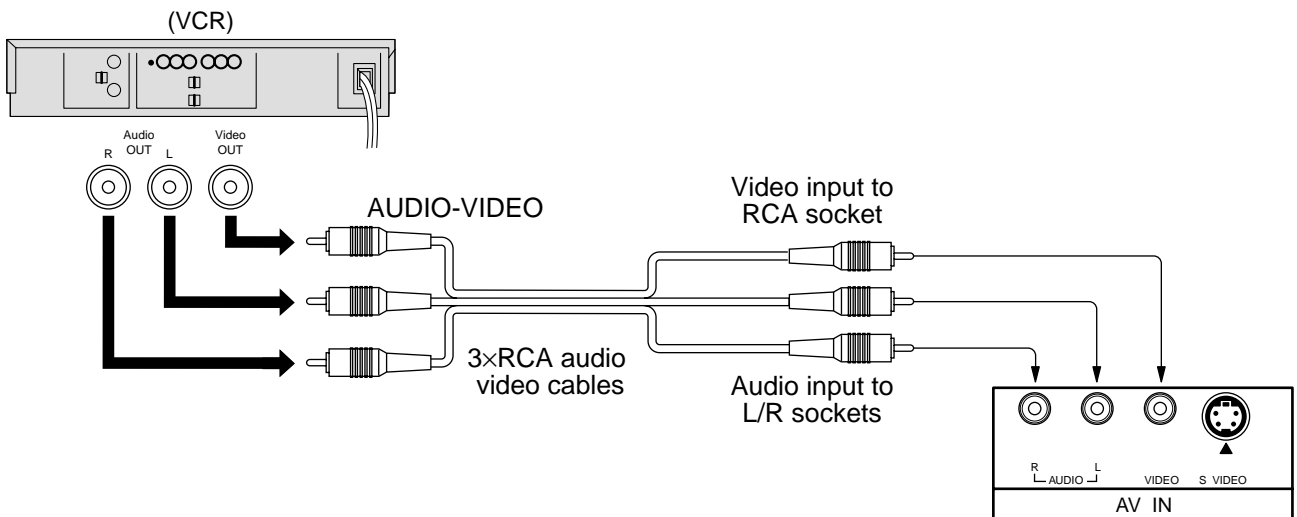
AV Input Terminals connection

Connect the signal source equipment.

(Example) When connecting an S VIDEO VCR.



(Example) When connecting 3xRCA audio video cables.

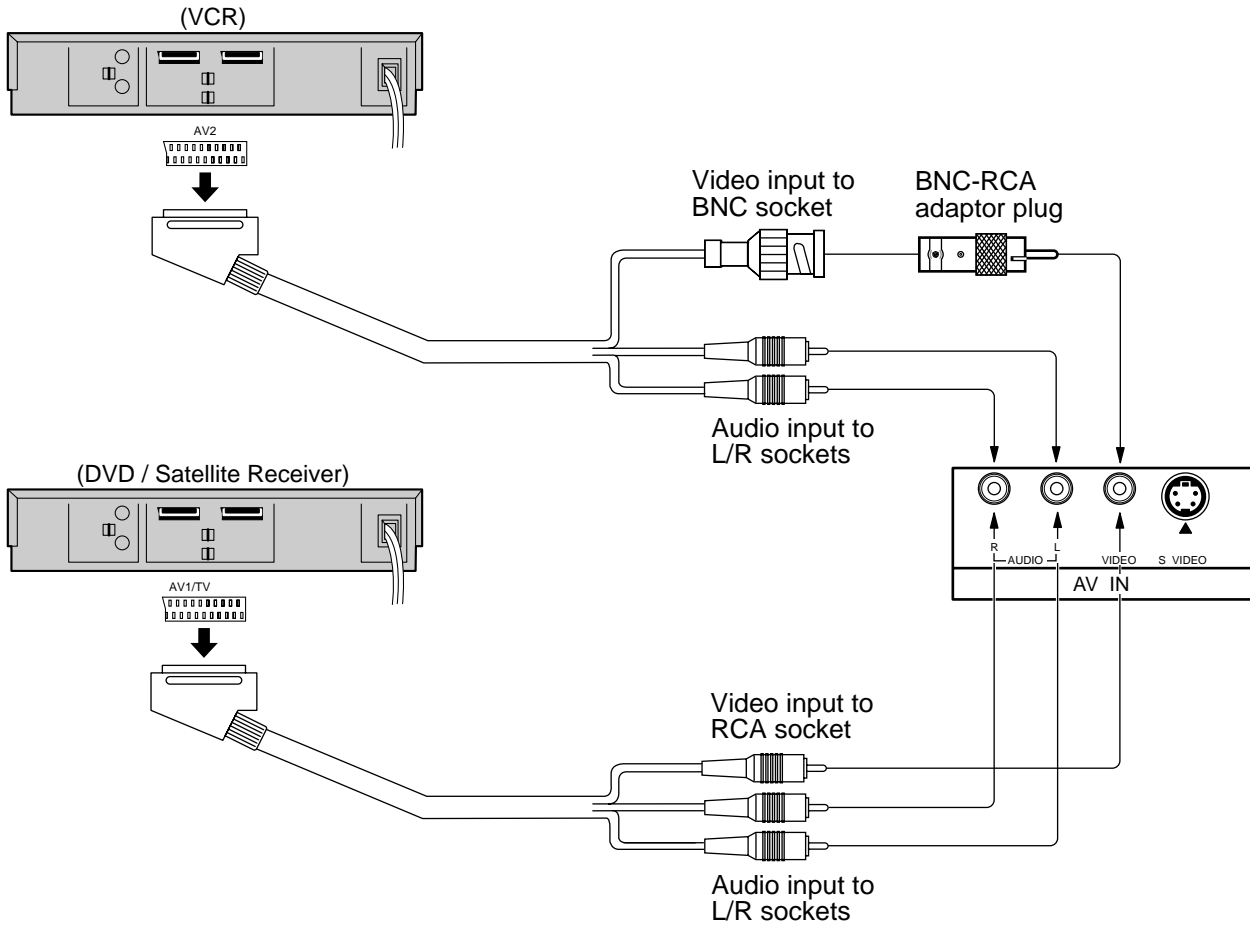


Notes:

- (1) S-Video input will override the composite video signal when S-Video lead is connected.
- (2) Additional equipment and cables shown are not supplied with this set.

Connections

(Example) When connecting 21 pin scart cables.

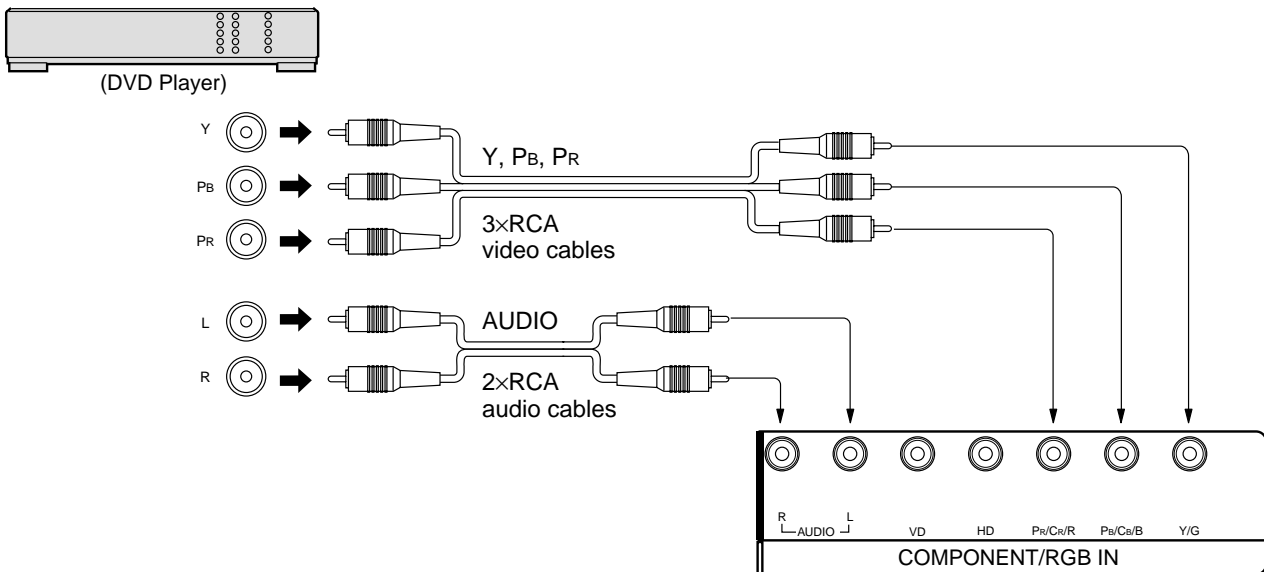


Notes:

- (1) Additional equipment, cables and an adaptor plug shown are not supplied with this set.
- (2) 21 pin connectors and 21 pin scart plugs are connectors used in Europe.

Component/RGB Input connection

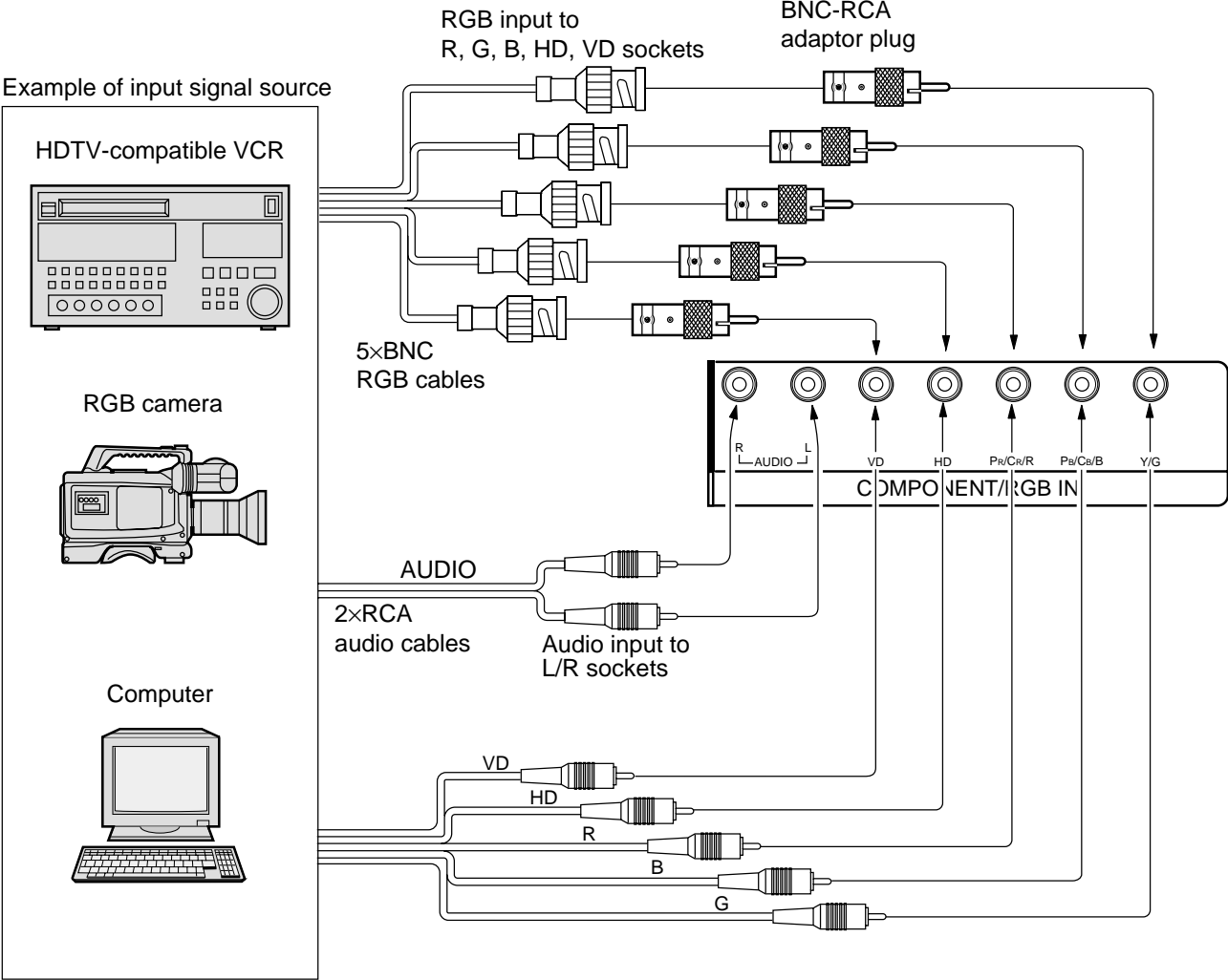
Component signals (Y, P_B, P_R) connection



Notes:

- (1) Change the "Component/RGB-in" setting in the "Setup" menu to "Component". (see page 28)
- (2) Additional equipment and cables shown are not supplied with this set.

RGB signal (R, G, B, HD, VD) connection

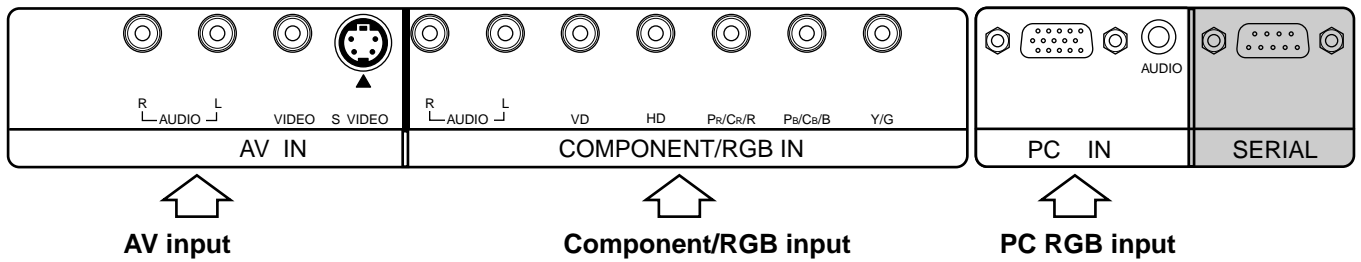


Notes:

- (1) Change the "Component/RGB-in" setting in the "Setup" menu to "RGB". (see page 28)
- (2) Additional equipment, cables and adaptor plugs shown are not supplied with this set.

Input signal can be displayed

AV/Component /RGB/PC input signals



AV input

	signal name	horizontal frequency(kHz)	vertical frequency(Hz)
1	NTSC	15.734	59.95
2	PAL	15.625	50
3	PAL60	15.734	59.95
4	SECAM	15.625	50
5	Modified NTSC	15.734	59.95

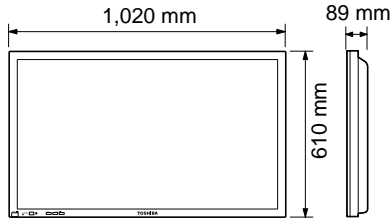
* Mark:
Input signal can be displayed.

Component /RGB/PC input

	signal name	horizontal frequency(kHz)	vertical frequency(Hz)	Component	RGB	PC
1	525 (480) /60i	15.734	59.94	*	*	*
2	625 (575) /50i	15.625	50	*	*	*
3	525 (480) /60p	31.468	59.94	*	*	
4	625 (575) /50p	31.25	50	*	*	*
5	750 (720) /60p	45	60	*	*	*
6	1,125 (1,080) /60i	33.75	60	*	*	*
7	1,125 (1,080) /50i	28.125	50	*	*	*
8	1,125 (1,080) /24p	27	24	*	*	*
9	1,125 (1,080) /24sF	27	48	*	*	*
10	640 × 400 @70	31.5	70		*	*
11	640 × 480 @60	31.5	59.94		*	*
12	Macintosh13" (640 × 480)	35	67		*	*
13	640 × 480 @75	37.5	75		*	*
14	852 × 480 @60	31.7	60		*	*
15	800 × 600 @60	37.9	60		*	*
16	800 × 600 @75	46.9	75		*	*
17	800 × 600 @85	53.7	85		*	*
18	Macintosh16" (832 × 624)	49.7	75		*	*
19	1,024 × 768 @60	48.4	60		*	*
20	1,024 × 768 @70	56.5	70		*	*
21	1,024 × 768 @75	60	75		*	*
22	1,024 × 768 @85	68.7	85		*	*
23	Macintosh21" (1,152 × 870)	68.7	75		*	*
24	1,280 × 1,024 @60	64	60		*	*
25	1,280 × 1,024 @75	80	75		*	*
26	1,280 × 1,024 @85	91.1	85		*	*
27	1,600 × 1,200 @60	75	60		*	*

Specifications

		42WP27	
Power Source	220 - 240 V AC, 50/60 Hz		
Power Consumption			
Normal use	295 W		
Stand-by condition	2.8 W		
Power off condition	1.5 W		
Plasma Display panel	Drive method AC type 42-inch, 16:9 aspect ratio		
Contrast Ratio	3000:1		
Screen size	920 mm (W) × 518 mm (H) × 1,056 mm (diagonal) No. of pixels 408,960 (852 (W) × 480 (H)) [2,556 × 480 dots]		
Operating condition			
Temperature	0 °C - 40 °C		
Humidity	20 % - 80 %		
Applicable signals			
Colour System	NTSC, PAL, PAL60, SECAM, Modified NTSC		
Scanning format	525i (480i), 625i (575i), 525p (480p), 625p (575p), 750p (720p), 1,125/60i, 50i, 24p, 24sF (1,080/60i, 50i, 24p, 24sF) SMPTE 274M		
PC signals	VGA display VGA SVGA, XGA, SXGA, UXGA (compressed) Horizontal scanning frequency 15.6 - 110 kHz Vertical scanning frequency 48 - 120 Hz		
Connection terminals			
PC	(HIGH-DENSITY D-SUB 15PIN)	R,G,B/0.7 Vp-p (75-ohm) HD, VD/1.0 - 5.0 Vp-p (high impedance)	
	AUDIO IN (M3 JACK)	0.5 Vrms (high impedance)	
SERIAL	EXTERNAL CONTROL TERMINAL (D-SUB 9PIN)	RS-232C COMPATIBLE	
SPEAKERS (6 Ω)	16W [8 W + 8 W] (10 % THD) For PSS421S only		
Accessories Supplied			
Remote Control Transmitter	EUR646527		
Batteries	2 × R6 Size		
Fixing bands	(TMME203 or TMME187) × 2		
Ferrite core	J0KF00000018 × 1, J0KG00000054 × 2		

42WP27	
Optional Supplied	
Speakers	PSS421S
Pedestal	PTS501S
RCA Terminal Board	RTB421
Wall-hanging bracket (vertical)	PWB501
Wall-hanging bracket (angled)	PWB502
Dimensions (W × H × D)	<p style="text-align: center;">1,020 mm × 610 mm × 89 mm</p>  <p>The drawing shows a rectangular unit with a width of 1,020 mm, a height of 610 mm, and a depth of 89 mm. The dimensions are indicated with arrows and labels.</p>
Mass (Weight)	<p style="text-align: center;">approx. 28.0 kg net (main unit only) approx. 32.2 kg (with speakers)</p>

Notes:

- (1) Design and specifications are subject to change without notice. Weight and dimensions shown are approximate.
- (2) This equipment complies with the EMC standards listed below.
EN55022, EN61000-3-2, EN61000-3-3, EN61000-6-2.

TOSHIBA CORPORATION

PRINTED IN JAPAN
(02-09)
TQZW273

TOSHIBA

TOSHIBA

FILE NO. 050-200234

SERVICE MANUAL

PLASMA DISPLAY MONITOR

42WP27B, 42WP27C
42WP27E, 42WP27F
42WP27R

14 Block and Schematic Diagrams

14.1. Schematic Diagram Notes

Important Safety Notice

Components identified by Δ mark have special characteristics important for safety. When replacing any of these components, use only manufacture's specified parts.

Notes:

1. Resistor

All resistors are cabon 1/4W resistor, unless marked as follows:
Unit of resistance is **OHM** [ω] (K=1,000, M=1,000,000).

- | | |
|-------------------------|---------------------------|
| \circ : Nonflammable | \boxtimes : Metal Oxide |
| Δ : Solid | \odot : Metal Film |
| \boxplus : Wire Wound | \otimes : Fuse: |

2. Capacitor

All capacitors are ceramic 50V capacitor, unless marked as follows:
Unit of capacitance is **mF**, unless otherwise noted.

- | | |
|---|--|
| \otimes : Temperature Compensation | $\overset{+}{\text{H}}\text{---}$: Electrolytic |
| \textcircled{M} : Polyester | $\overset{NP}{\text{H}}\text{---}$: Bipolar |
| \textcircled{m} : Metalized Polyester | \textcircled{T} : Dipped Tantalum |
| \boxtimes : Polypropylene | \textcircled{Z} : Z-Type |

3. Coil

Unit of inductance is **mF**, unless otherwise noted.

4. Test Point

- \circ : Test Point position

5. Earth Symbol

- | | |
|---|---------------------------------|
| $\text{---}\text{H}$: Chassis Earth (Cold) | \downarrow : Line Earth (Hot) |
|---|---------------------------------|

6. Voltage Measurement

Voltage is measured by a **DC** voltmeter.

Conditions of the measurement are the following:

- | | |
|-------------------------------|------------------------|
| Power Source | AC220-240V, 50/60Hz |
| Receiving Signal | Colour Bar signal (RF) |
| All customer's controls | Maximum positions |

7. Number in red circle indicates waveform number.

(See waveform pattern table.)

8. When arrow mark () is found, connection is easily found from the direction of arrow

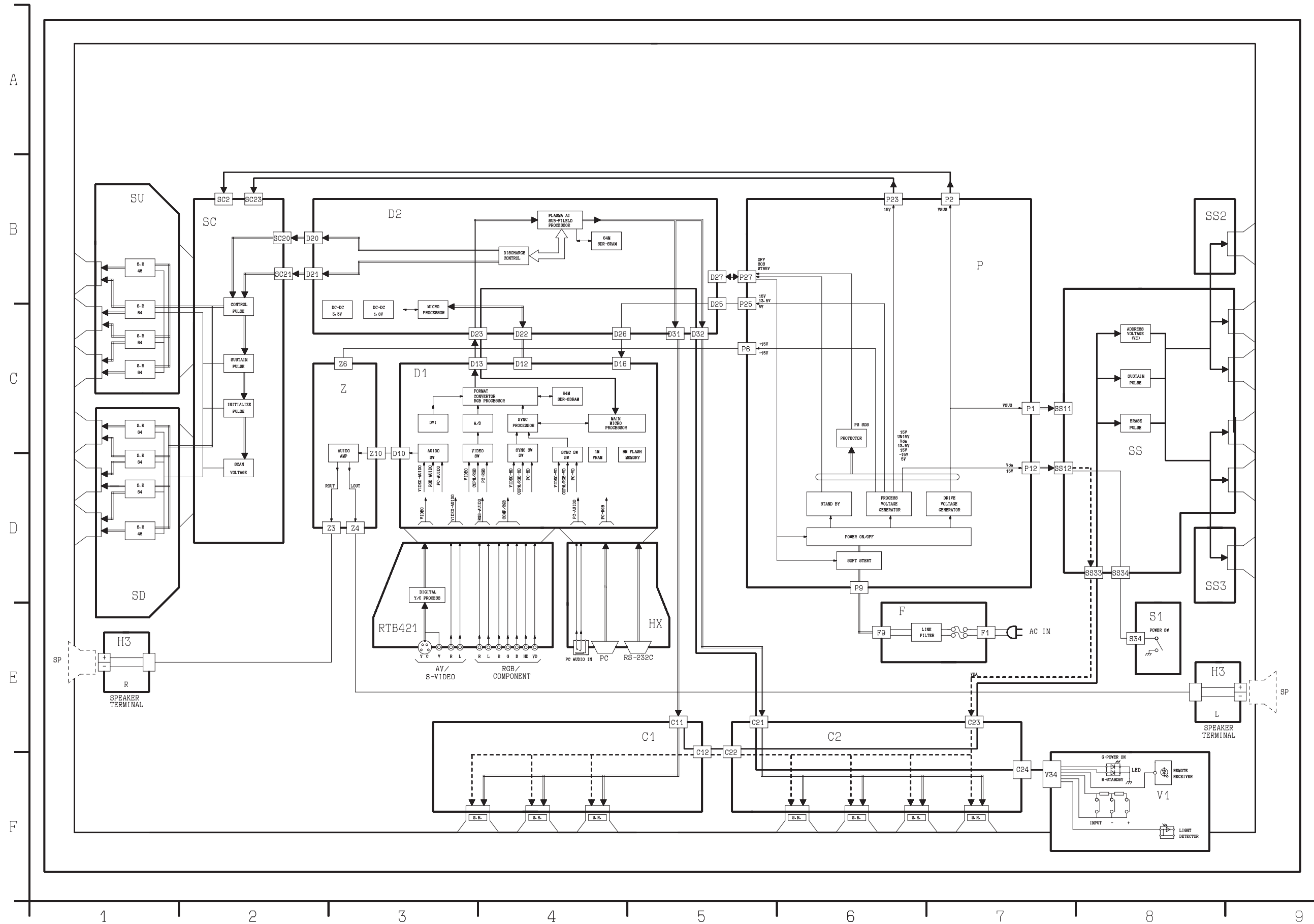
9. Indicates the major signal flow. : Video \Rightarrow Audio \Leftrightarrow

10. This schematic diagram is the latest at the time of printing and subject to change without notice.

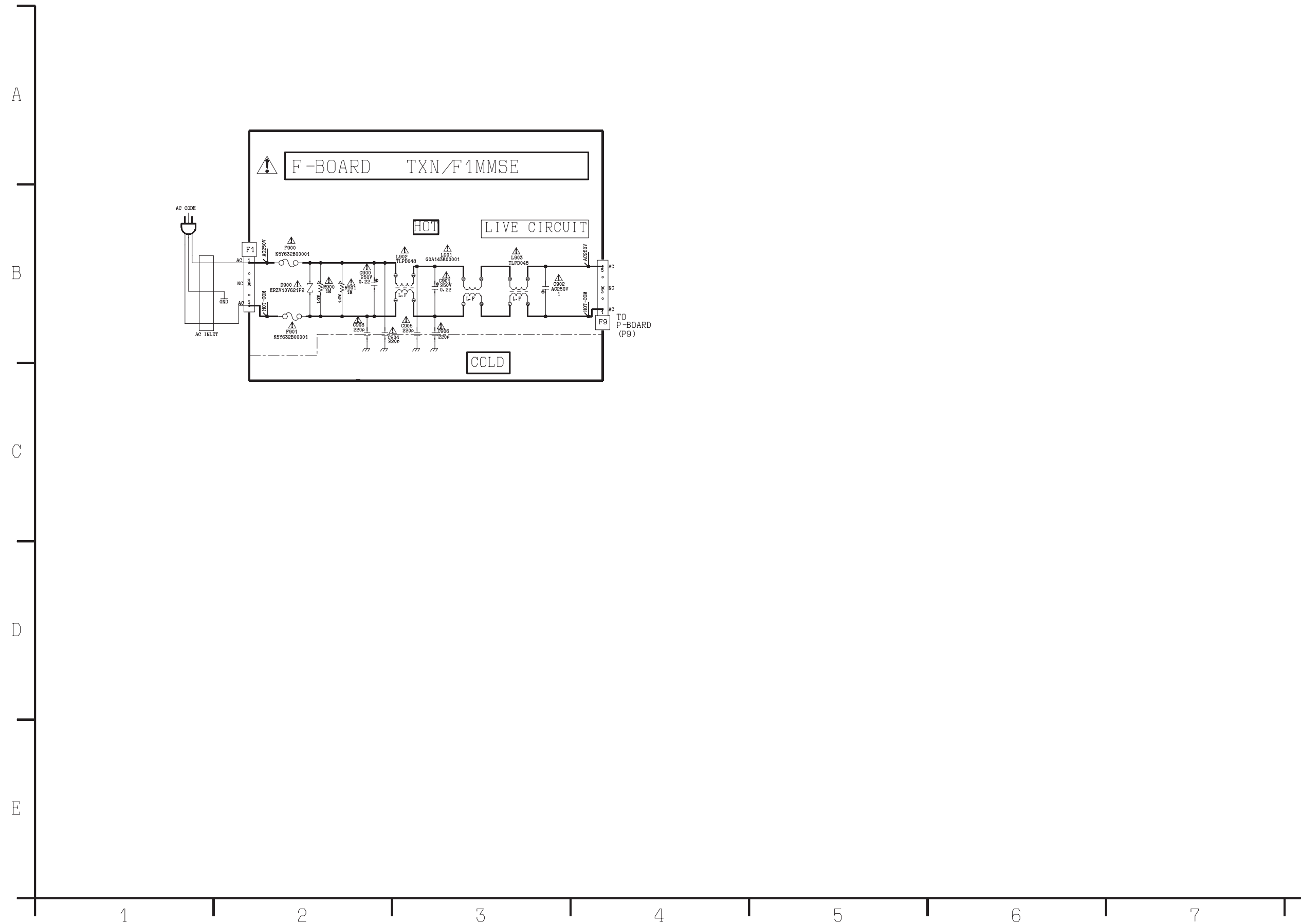
Remarks:

1. The **Power Circuit** contains a circuit area which uses a separate power supply to isolate the earth connection.
The circuit is defined by **HOT** and **COLD** indications in the schematic diagram. Take the following precautions.
All circuits, except the **Power Circuit**, are cold.
Precautions
 - a. Do not touch the hot part or the hot and cold parts at the same time or you may be shocked.
 - b. Do not short- circuit the hot and cold circuits or a fuse may blow and parts may break.
 - c. Do not connect an instrument, such as an oscilloscope, to the hot and cold circuits simultaneously or a fuse may blow.
Connect the earth of instruments to the earth connection of the circuit being measured.
 - d. Make sure to disconnect the power plug before removing the chassis.
2. Following diodes are interchangeable.
MA150- MA162 (Replacement part)

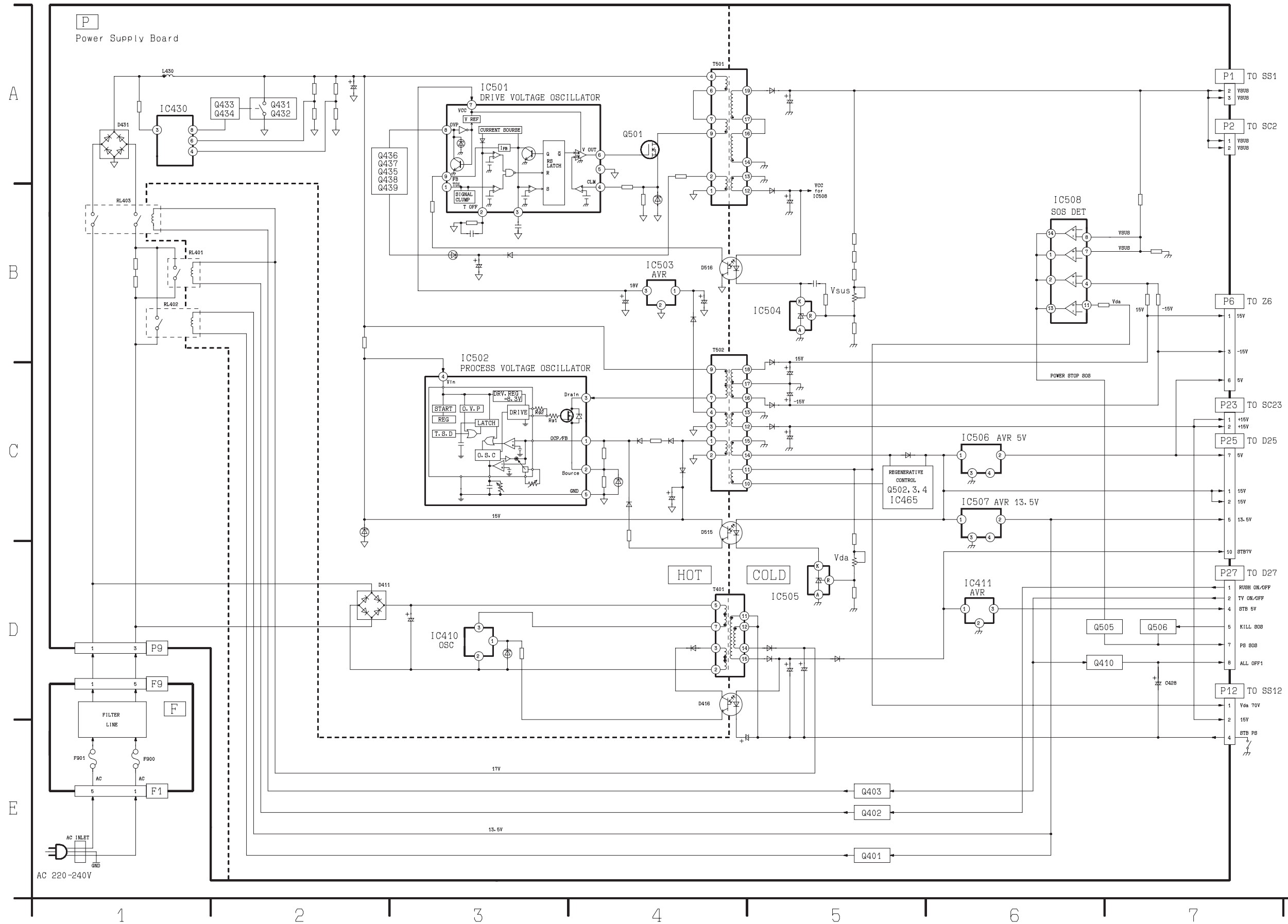
14.2. Main Block Diagram



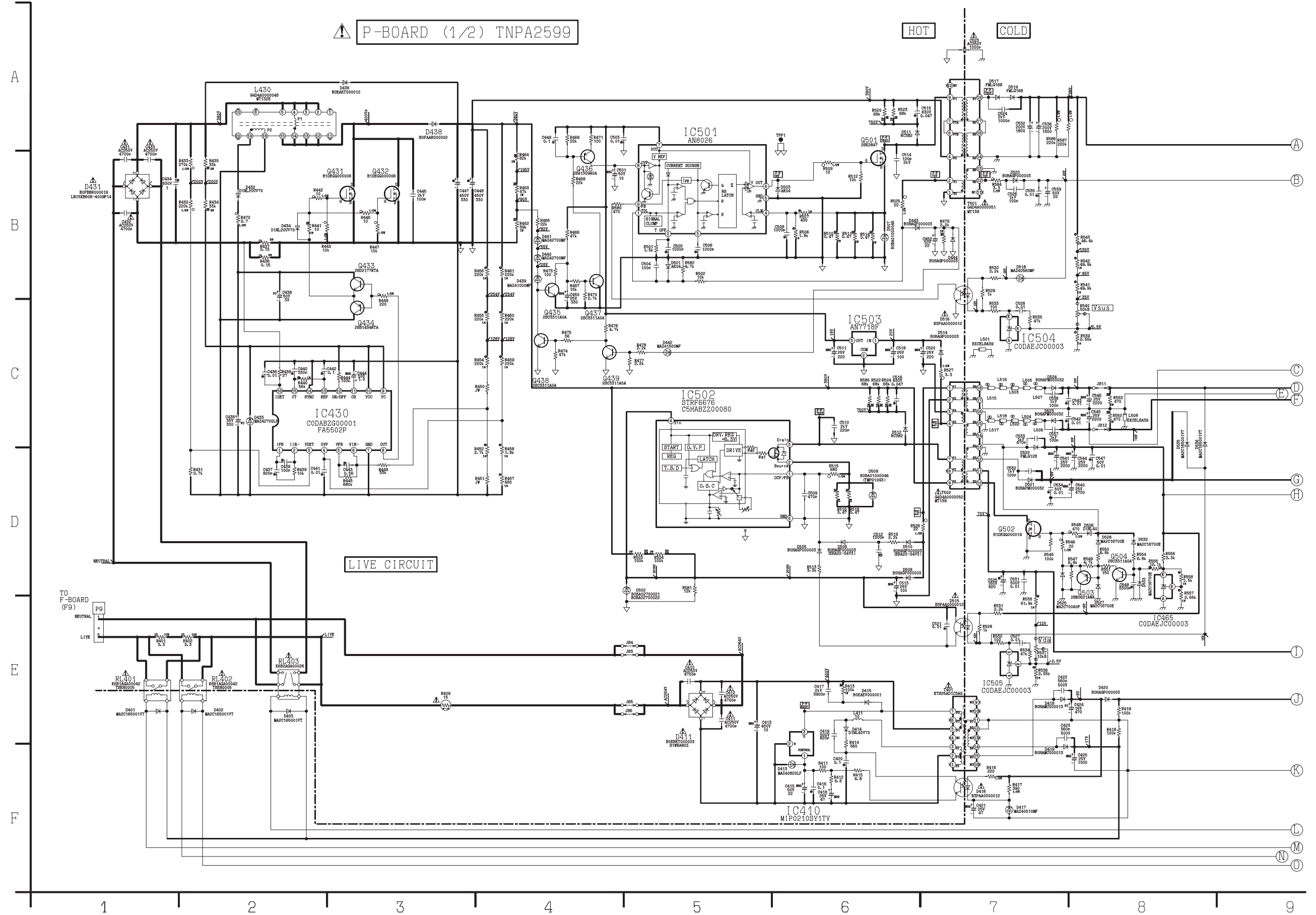
14.3. F-Board Schematic Diagram



14.4. Power Block Diagram

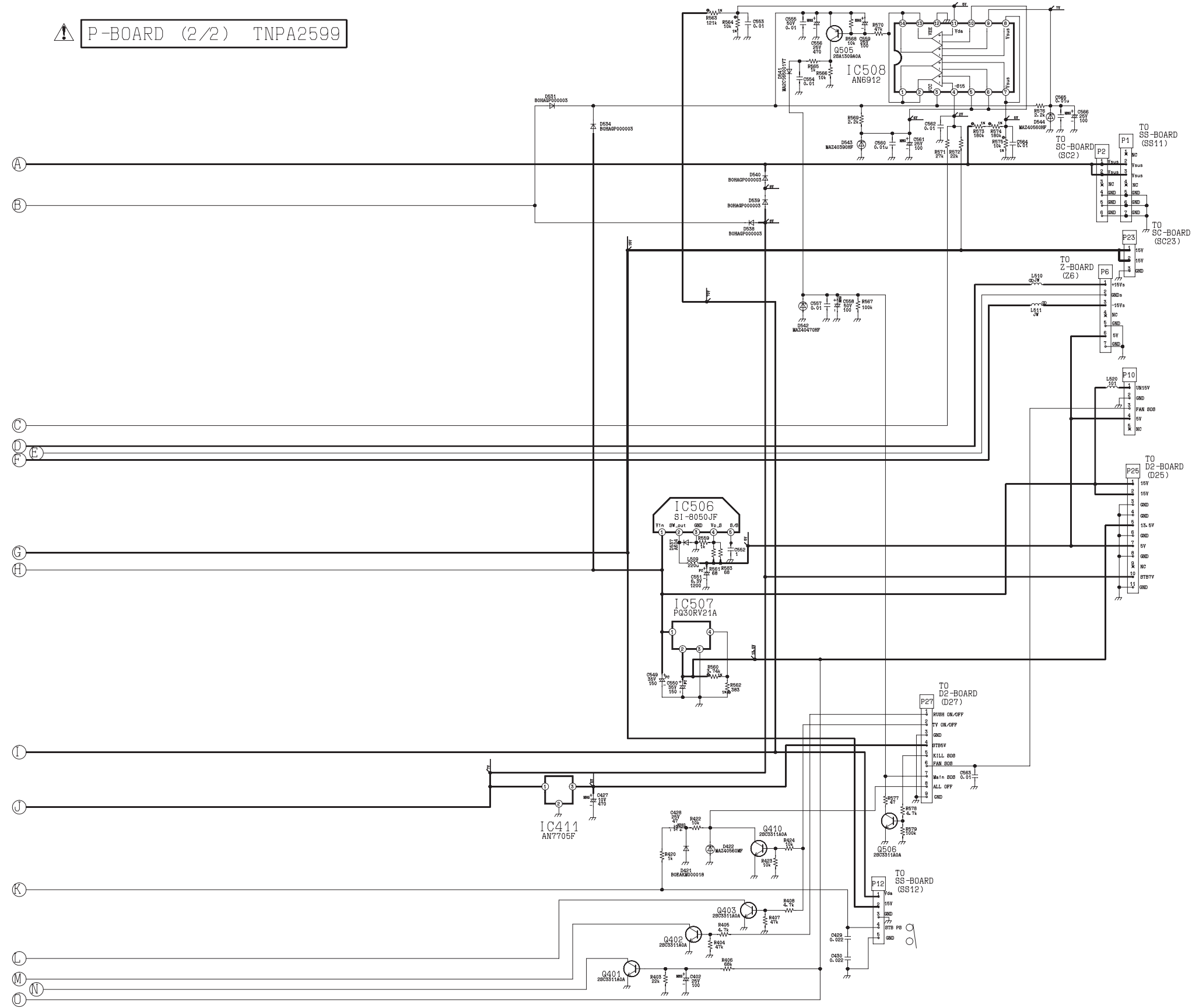


14.5. P-Board (1 of 2) Schematic Diagram



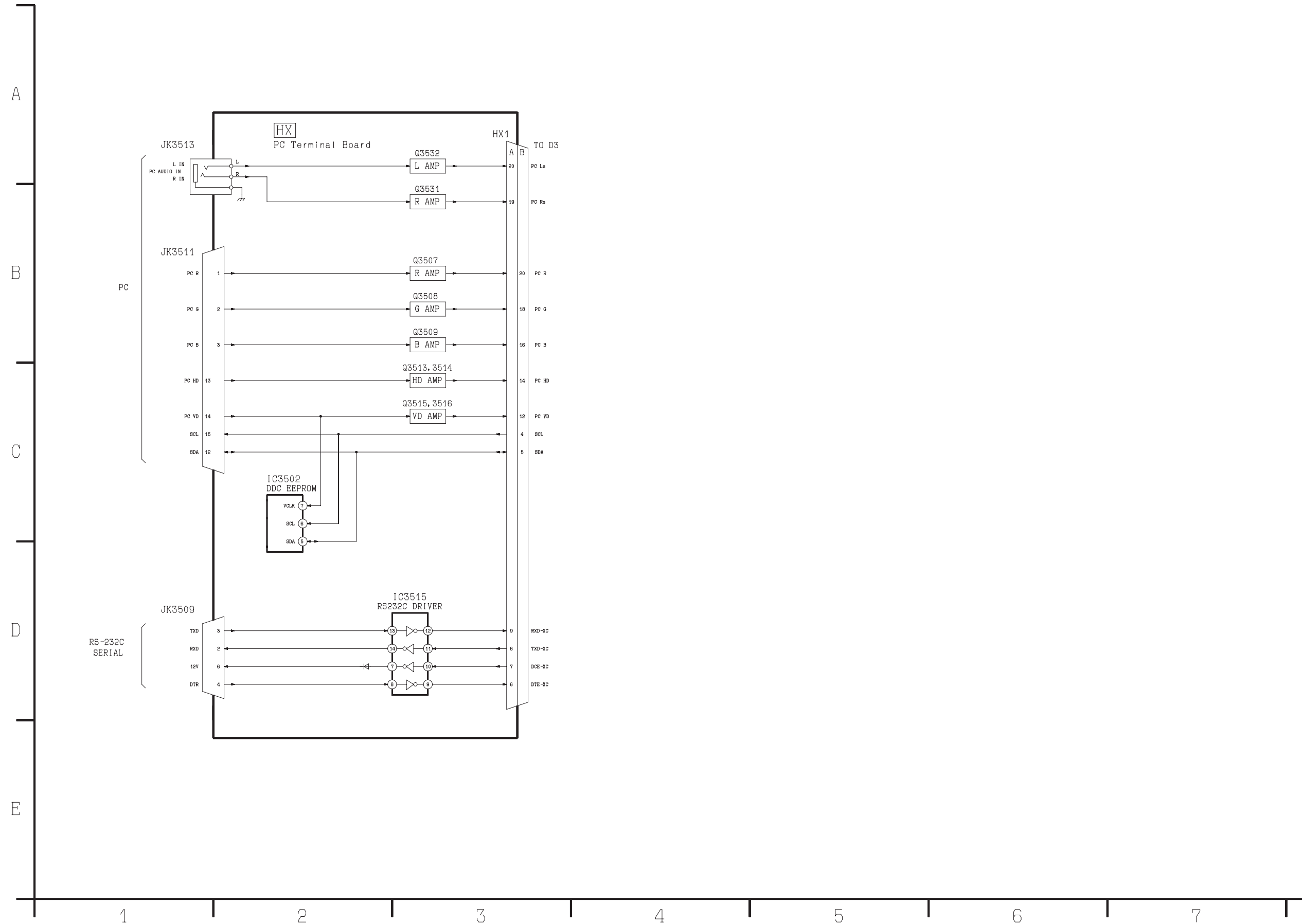
14.6. P-Board (2 of 2) Schematic Diagram

⚠ P-BOARD (2/2) TNPA2599

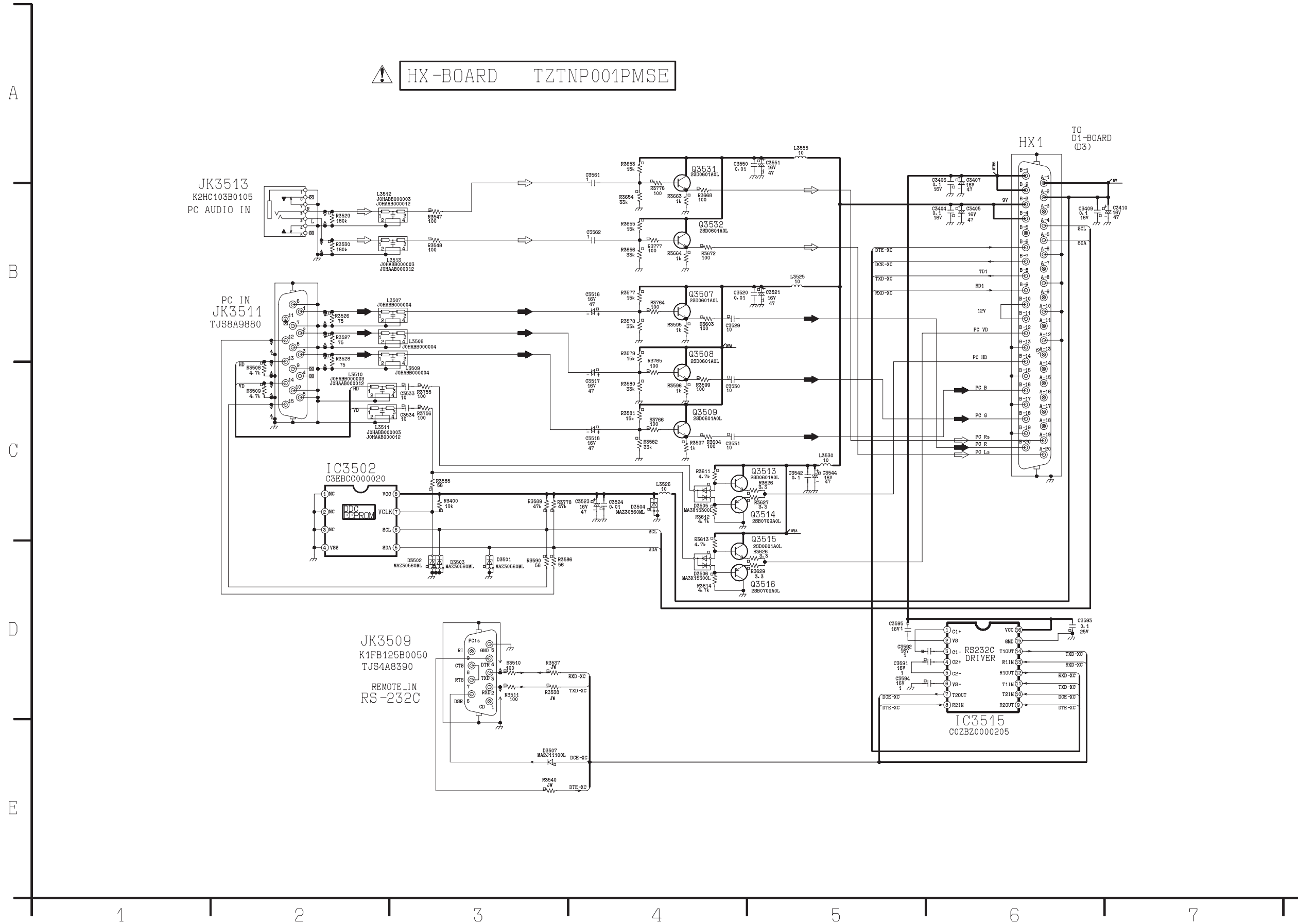


9 10 11 12 13 14 15 16 17

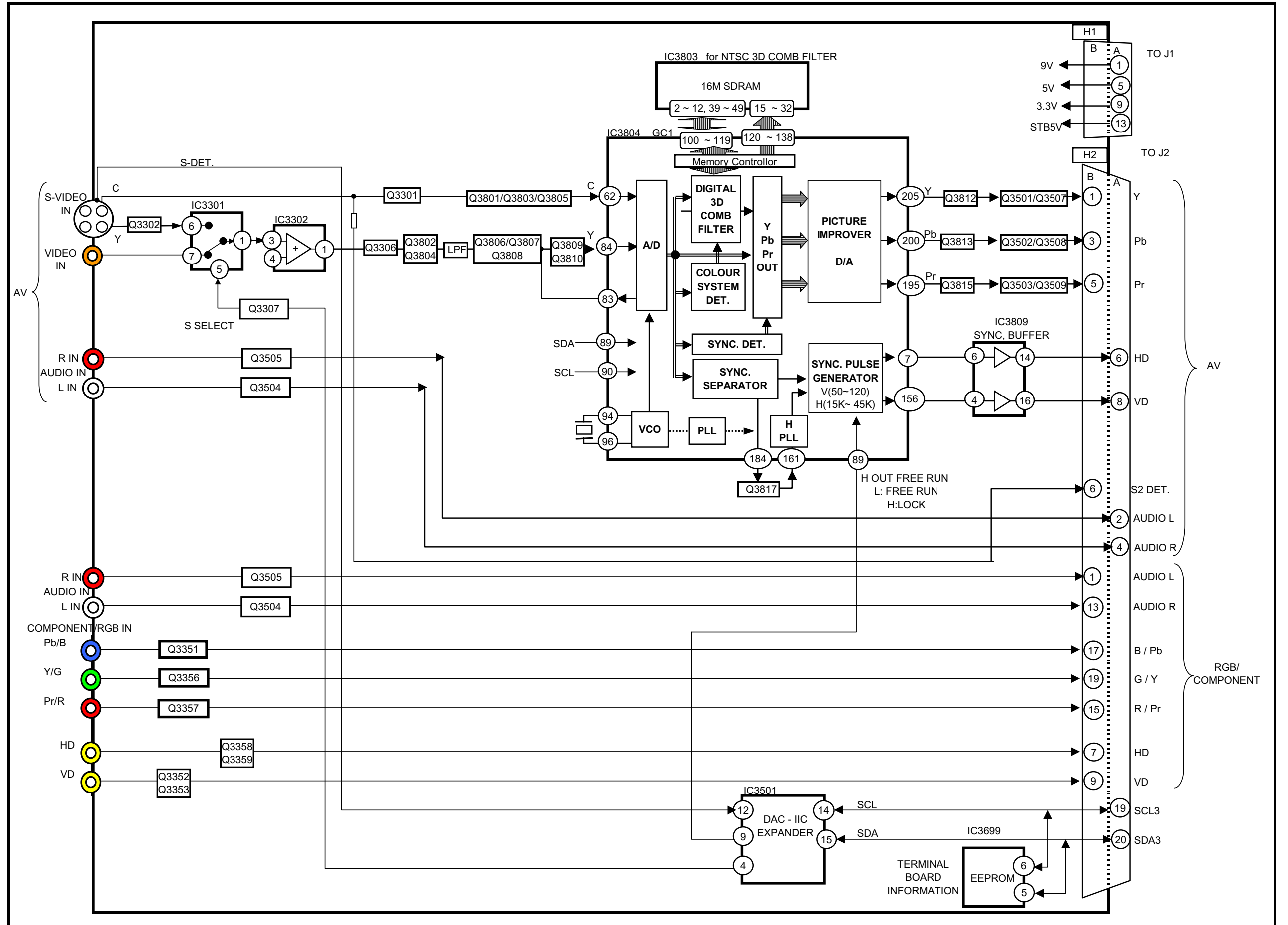
14.7. HX-Board Block Diagram



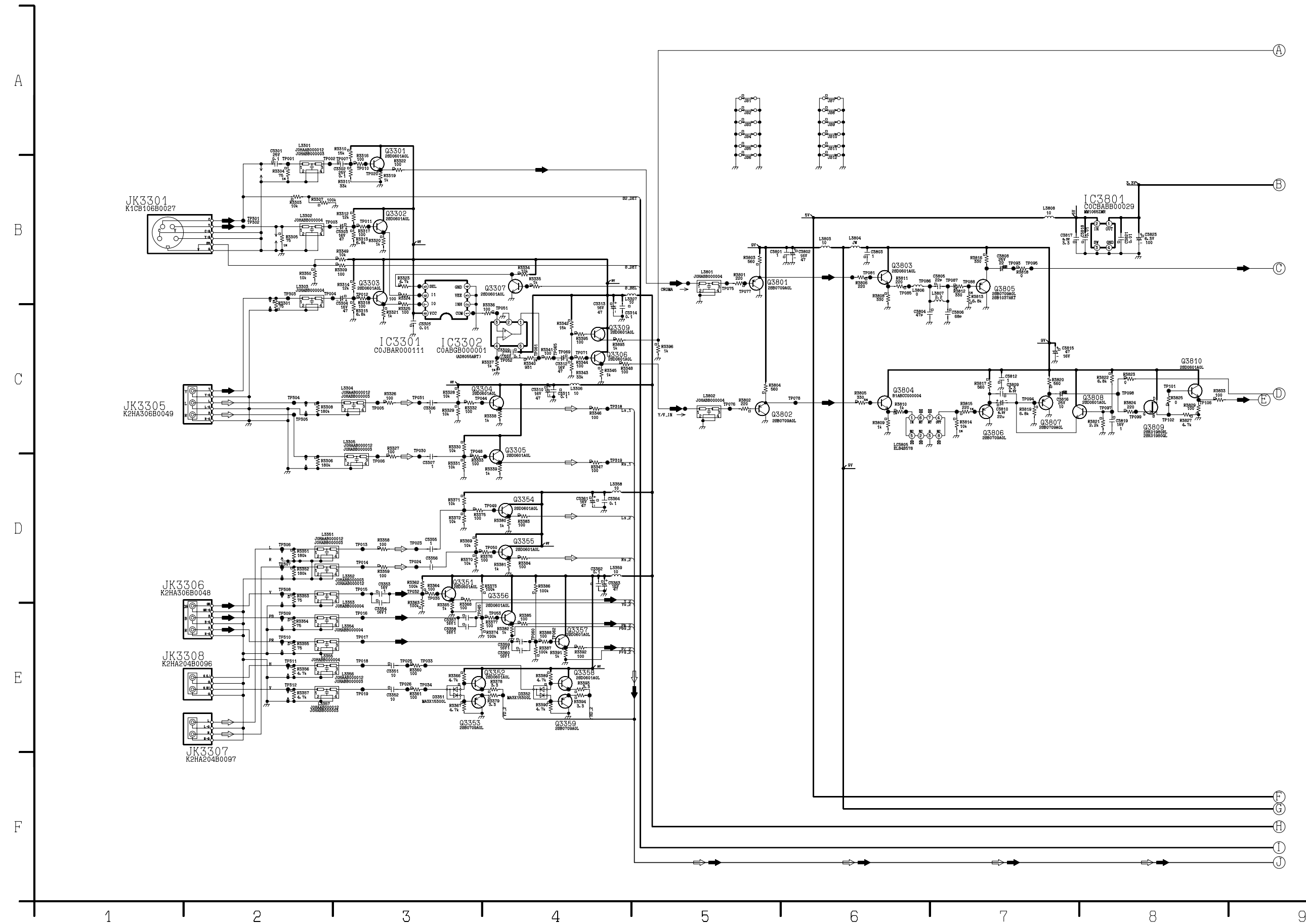
14.8. HX-Board Schematic Diagram



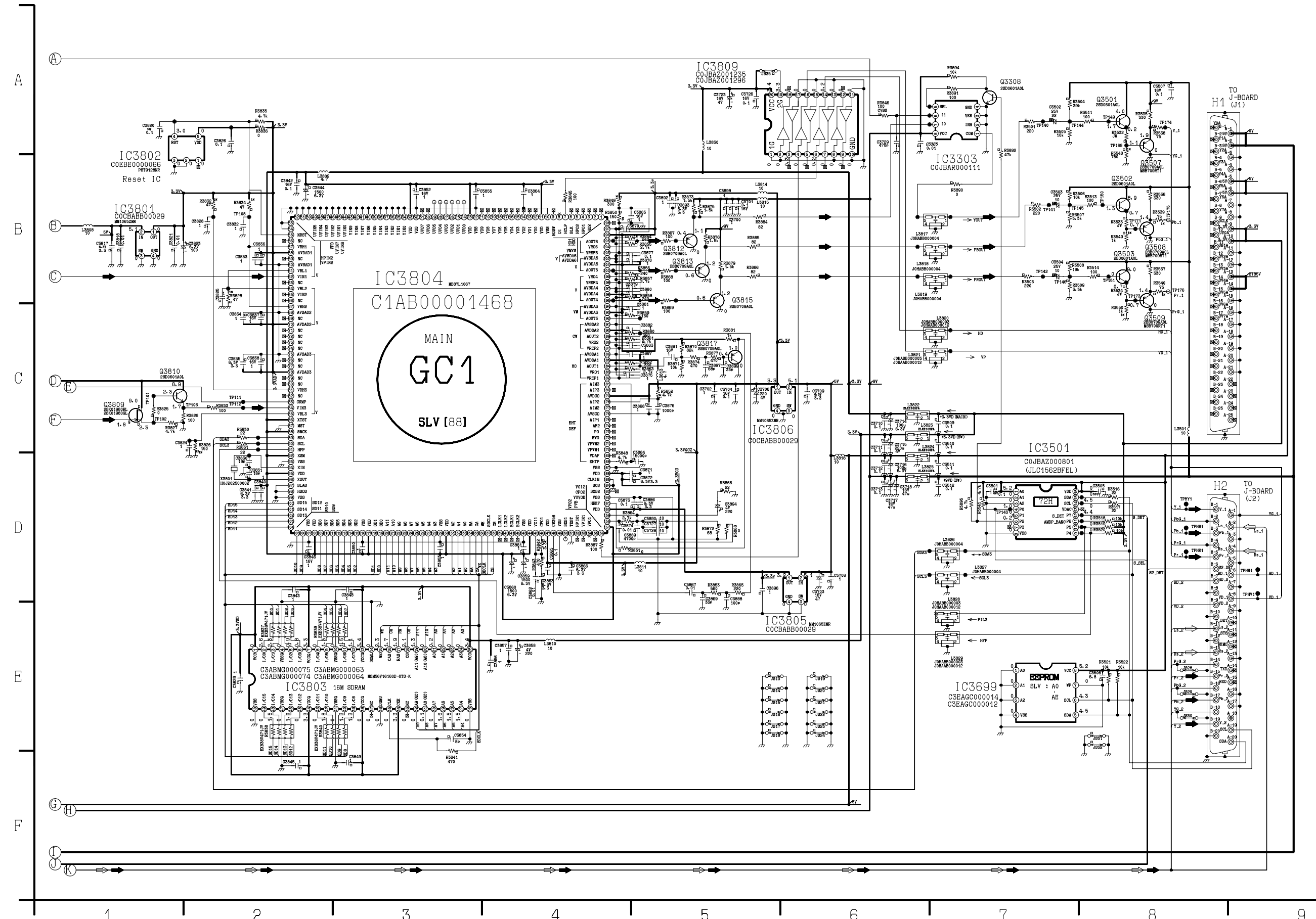
14.9. Option RTB421 Block Diagram



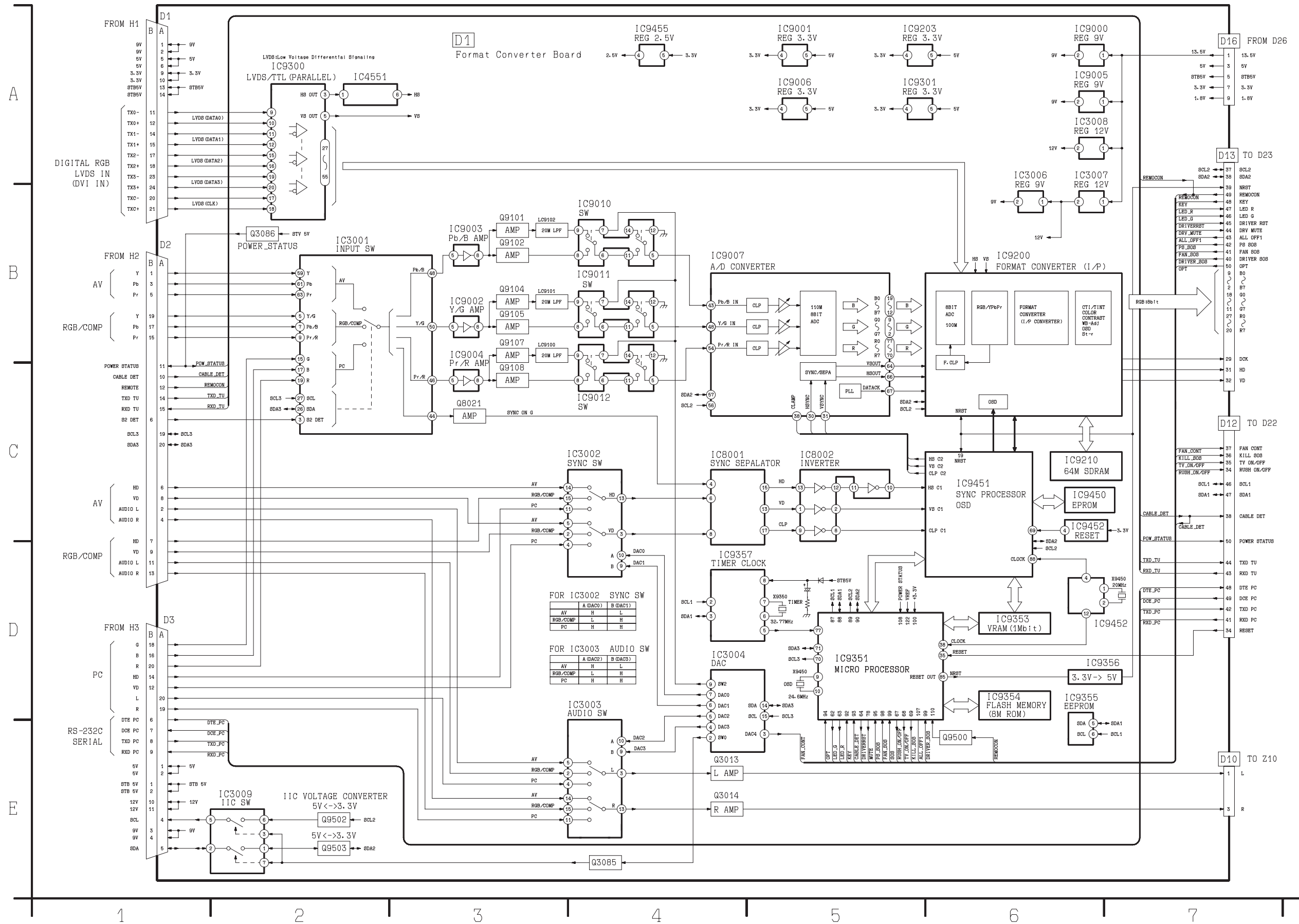
14.10. Option RTB421 (1 of 2) Schematic Diagram



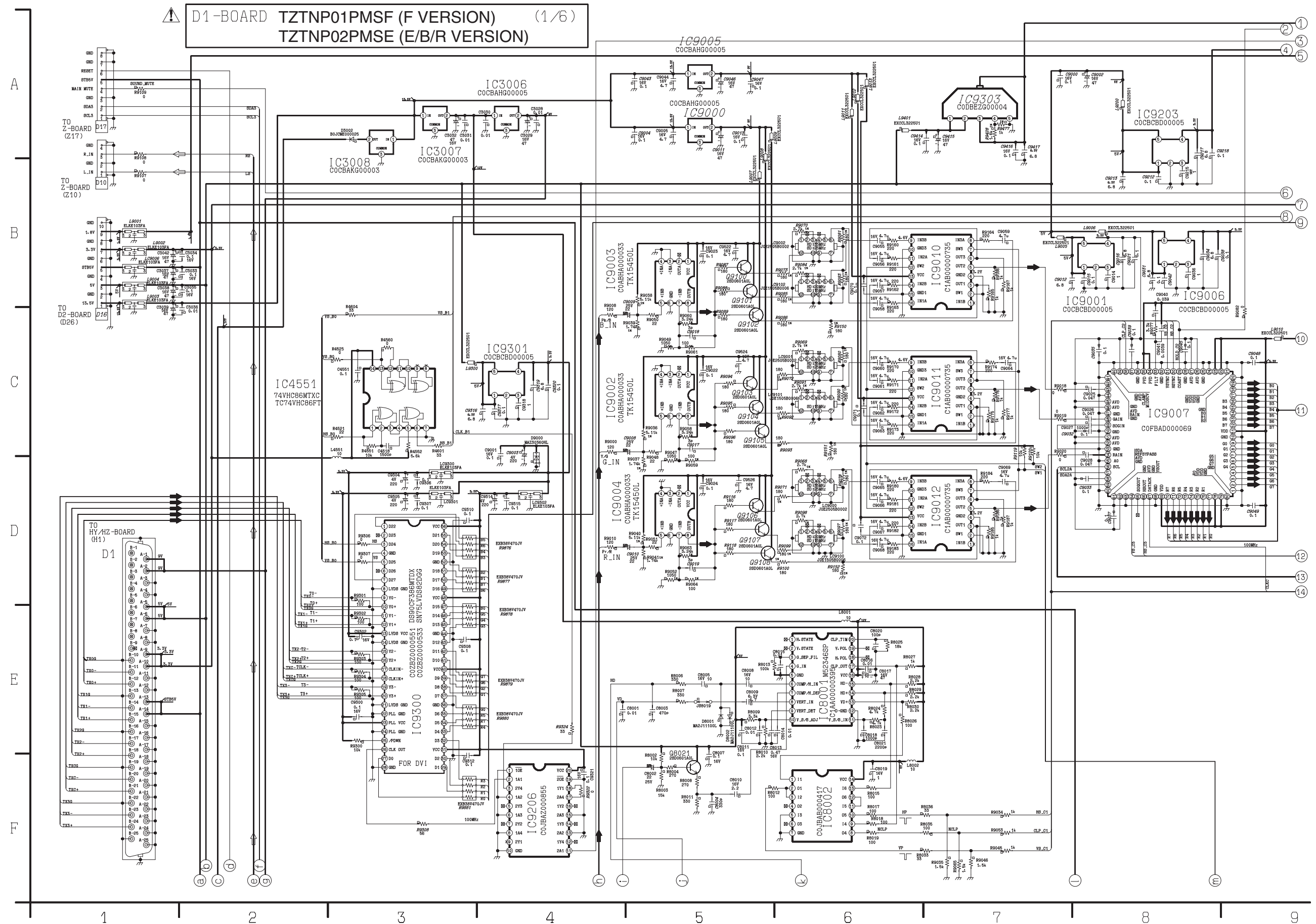
14.11. Option RTB421 (2 of 2) Schematic Diagram



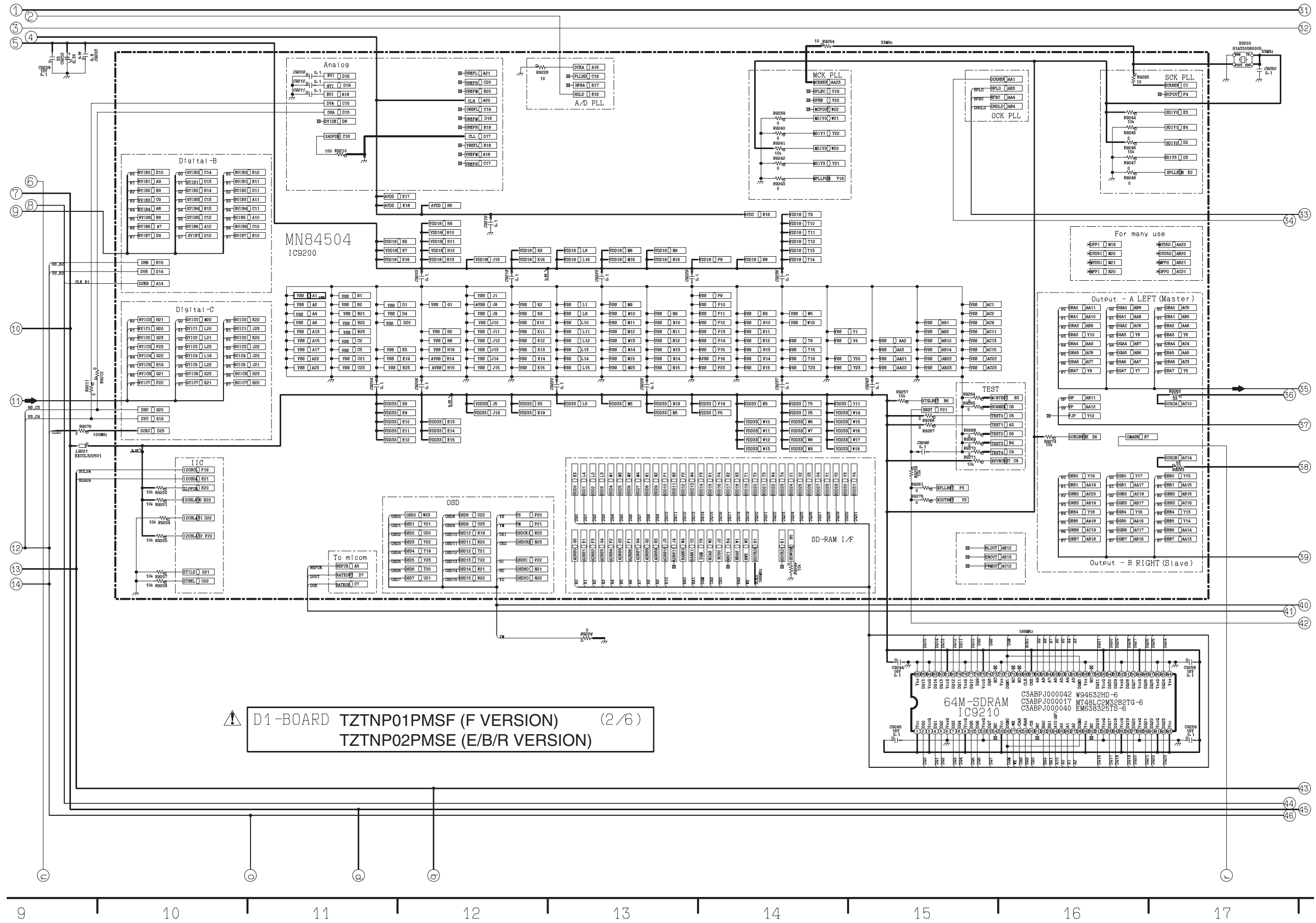
14.12. D1-Board Block Diagram



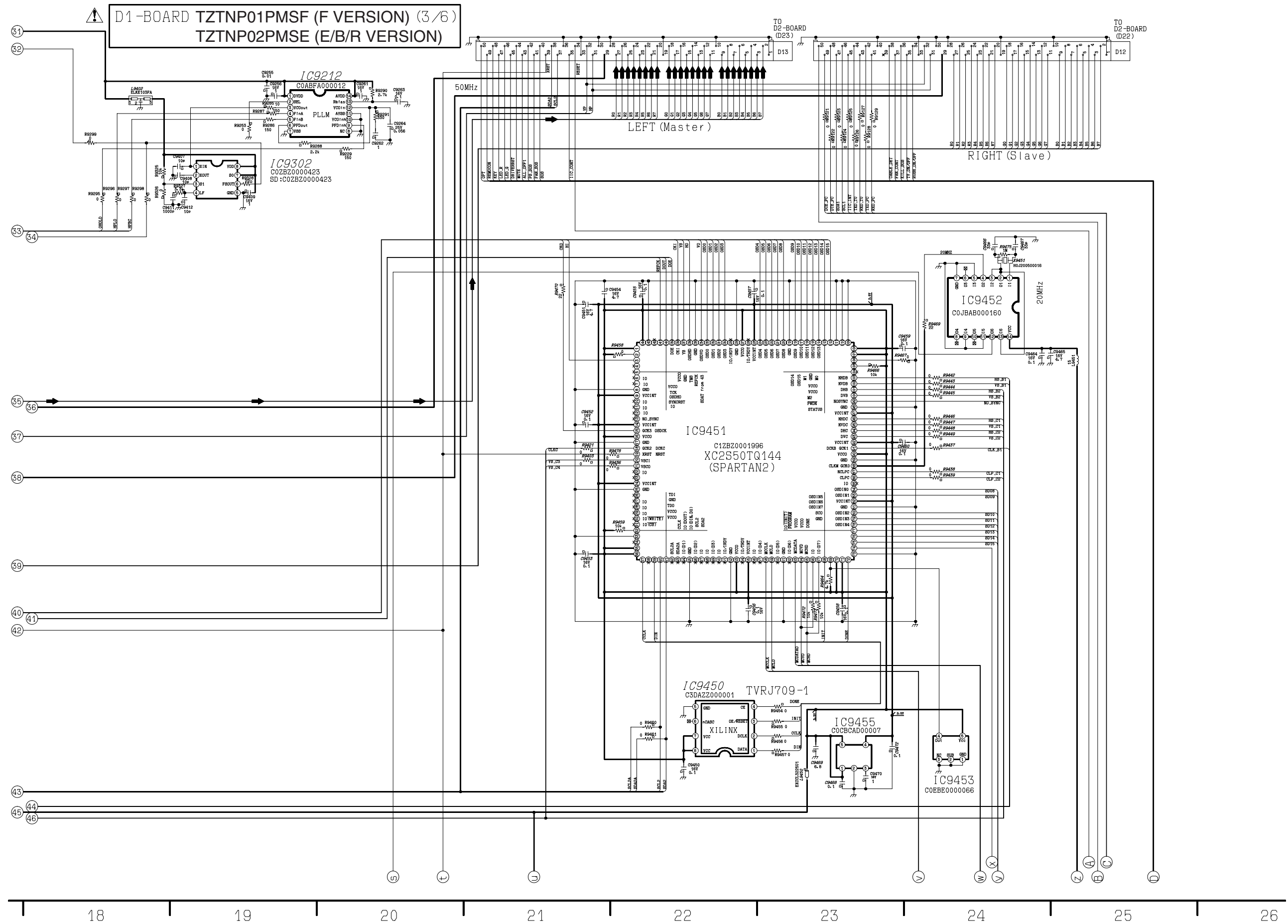
14.13. D1-Board (1 of 6) Schematic Diagram



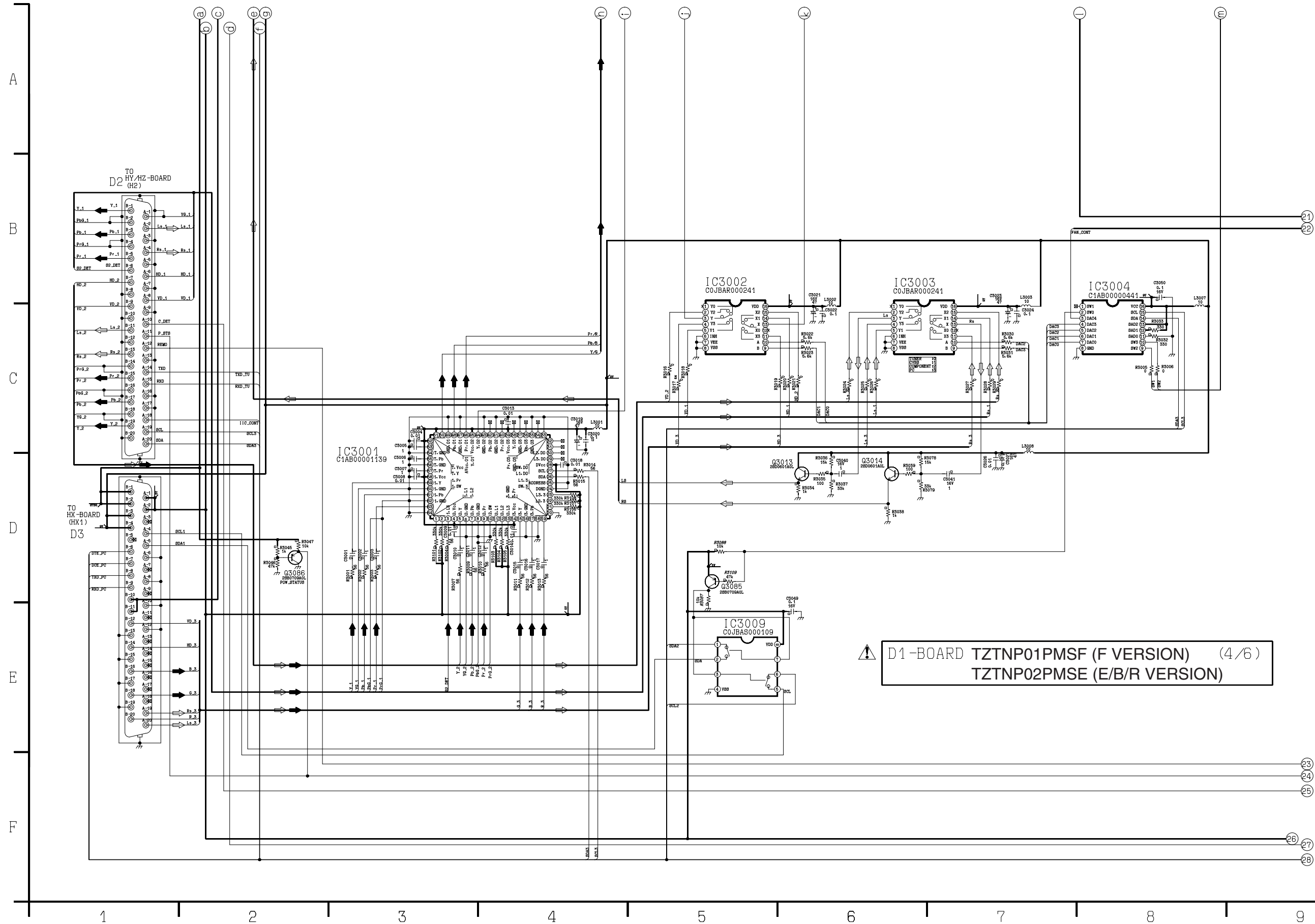
14.14. D1-Board (2 of 6) Schematic Diagram



14.15. D1-Board (3 of 6) Schematic Diagram



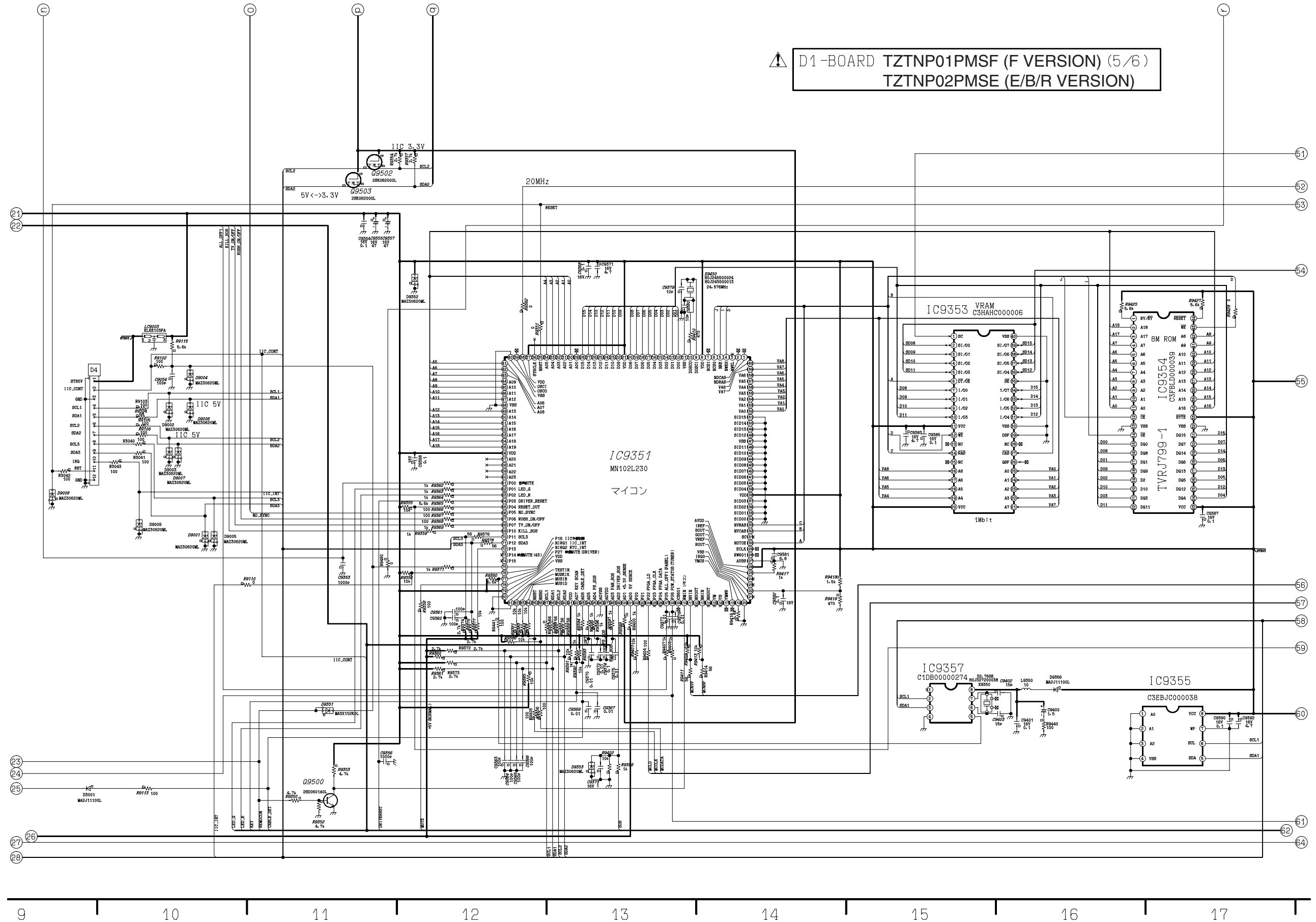
14.16. D1-Board (4 of 6) Schematic Diagram



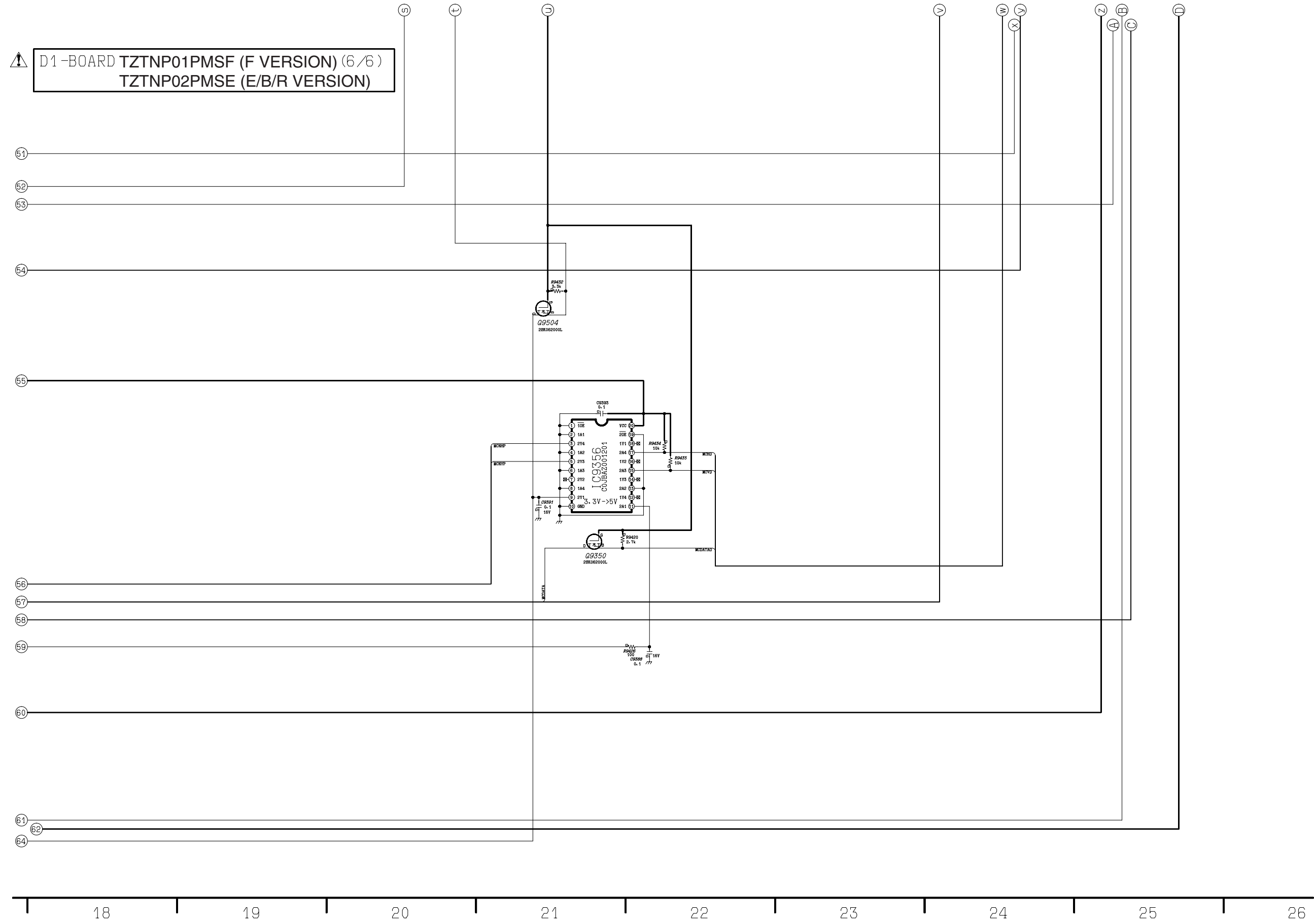
⚠ D1-BOARD TZTNP01PMSF (F VERSION) (4/6)
TZTNP02PMSE (E/B/R VERSION)

14.17. D1-Board (5 of 6) Schematic Diagram

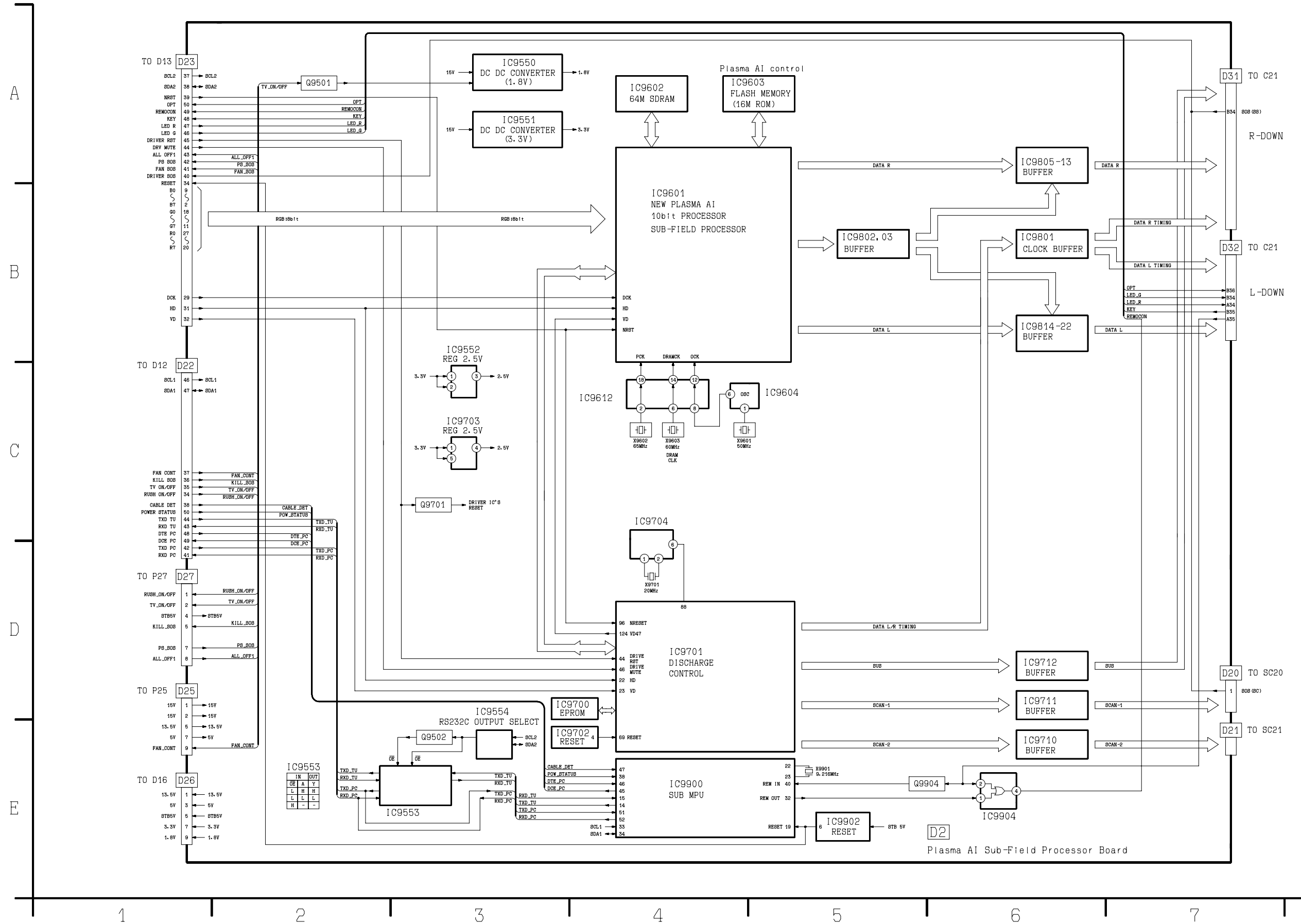
⚠ D1-BOARD TZTNP01PMSF (F VERSION) (5/6)
TZTNP02PMSE (E/B/R VERSION)



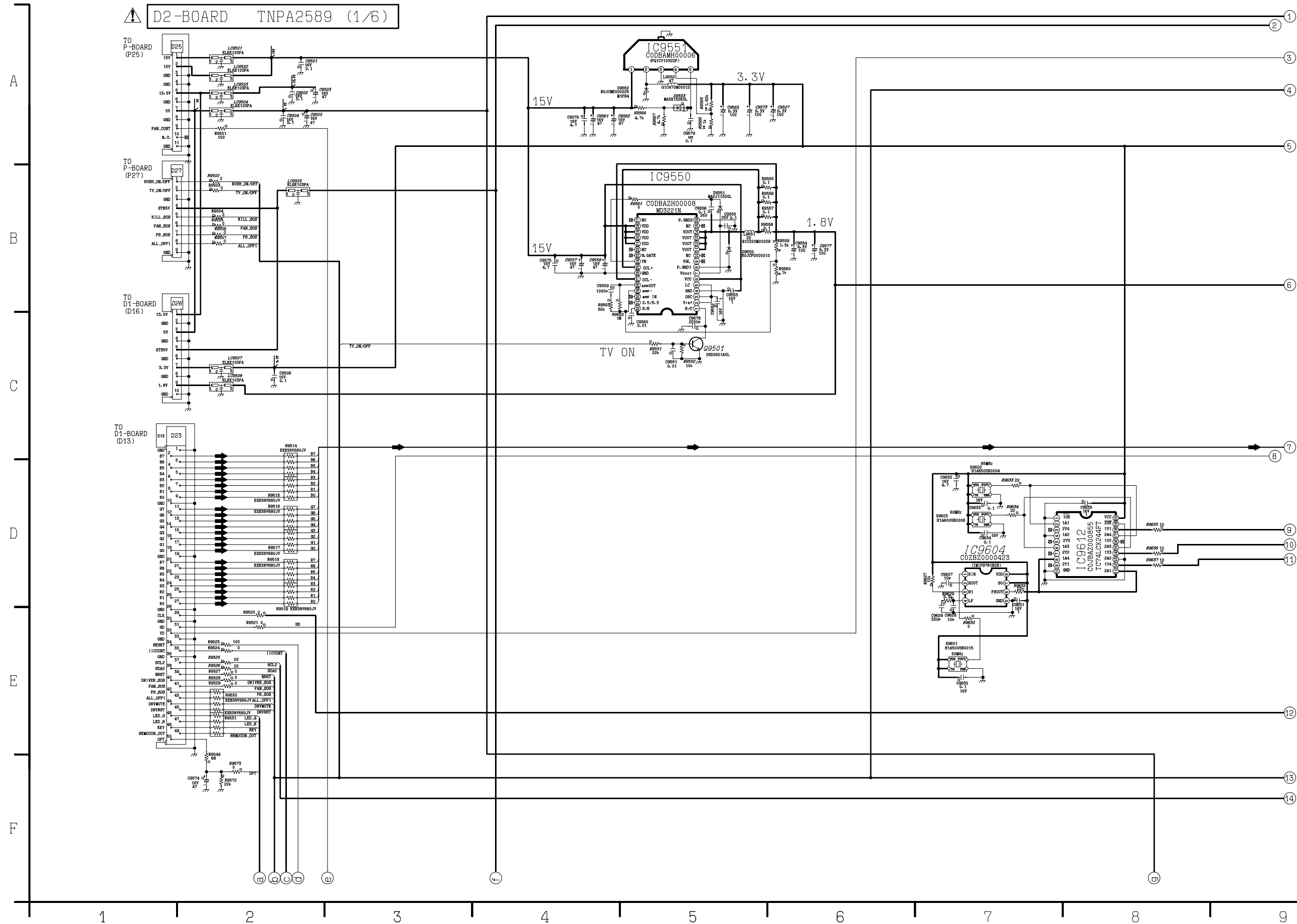
14.18. D1-Board (6 of 6) Schematic Diagram



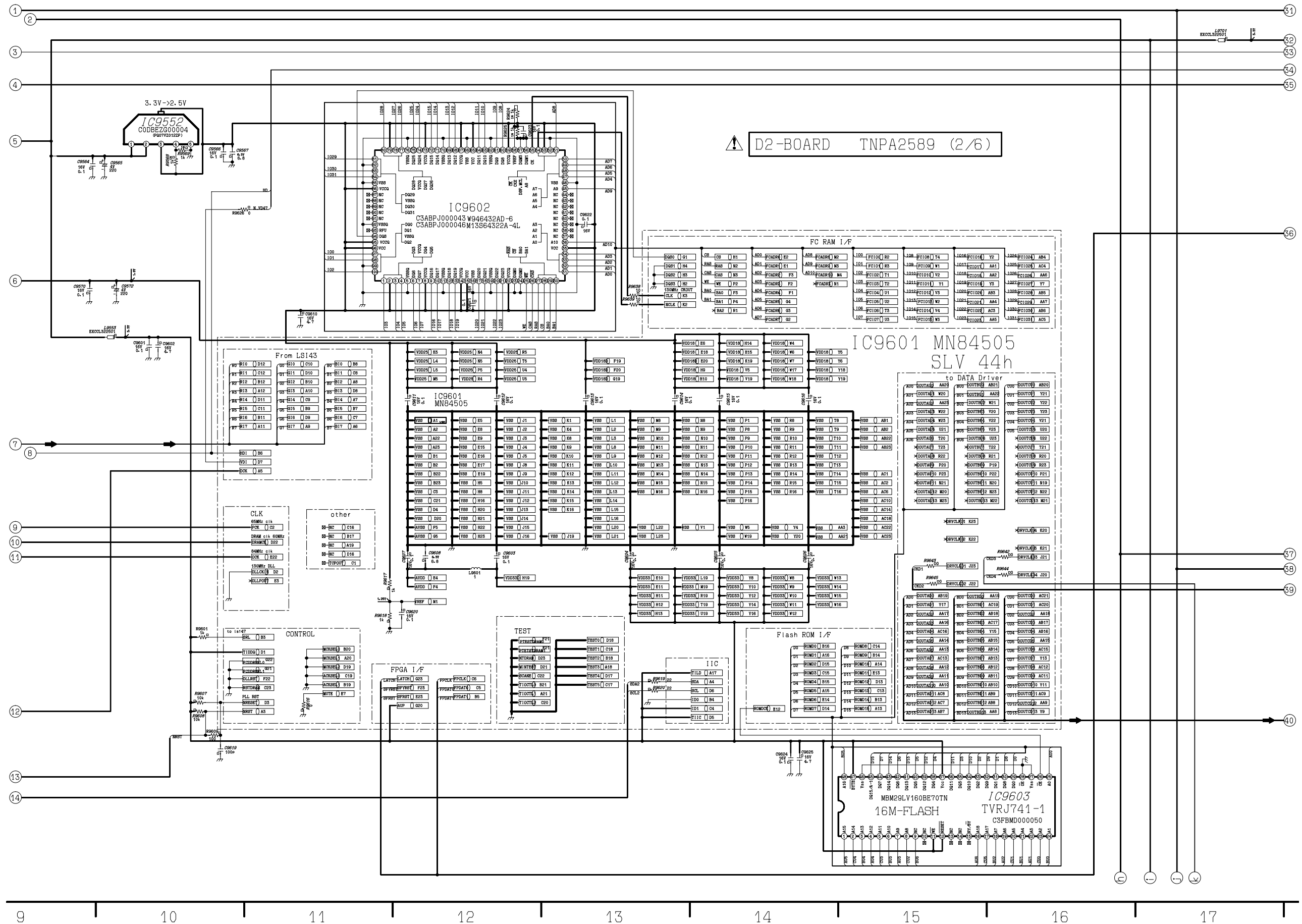
14.19. D2-Board Block Diagram



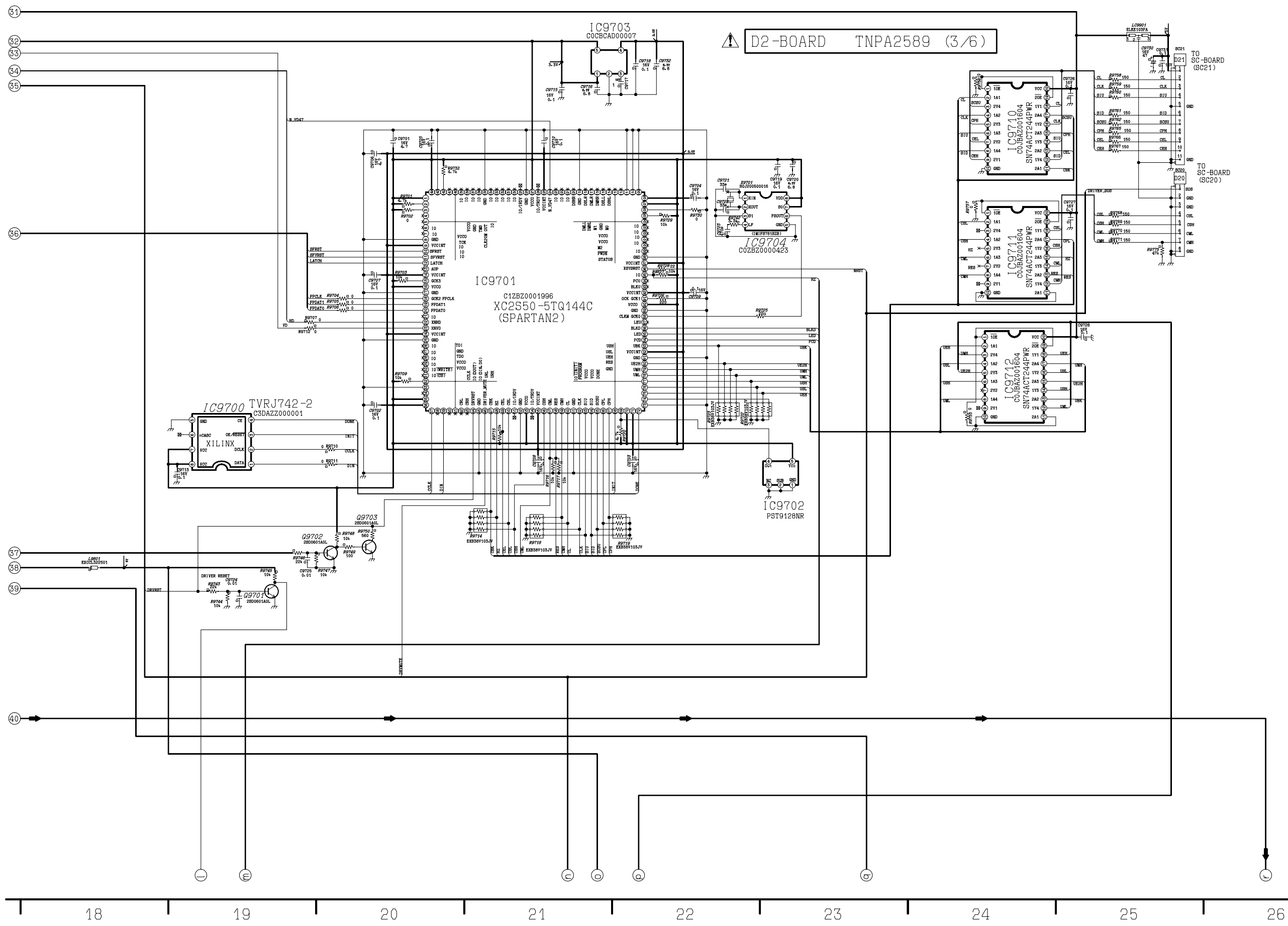
14.20. D2-Board (1 of 6) Schematic Diagram



14.21. D2-Board (2 of 6) Schematic Diagram

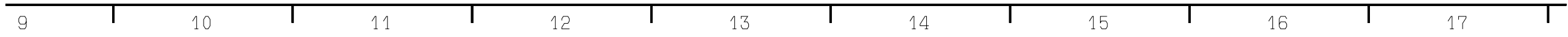


14.22. D2-Board (3 of 6) Schematic Diagram

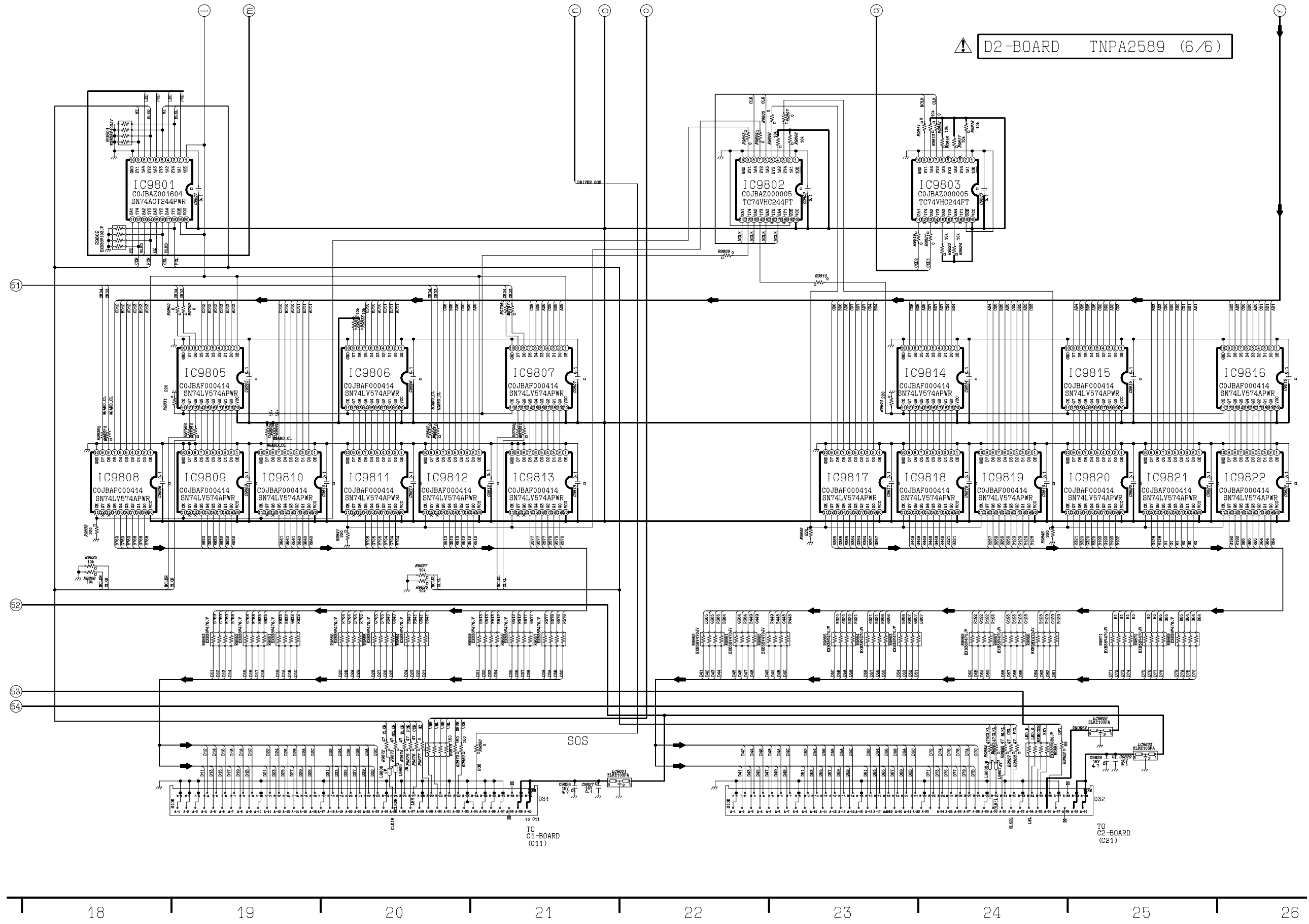


14.24. D2-Board (5 of 6) Schematic Diagram

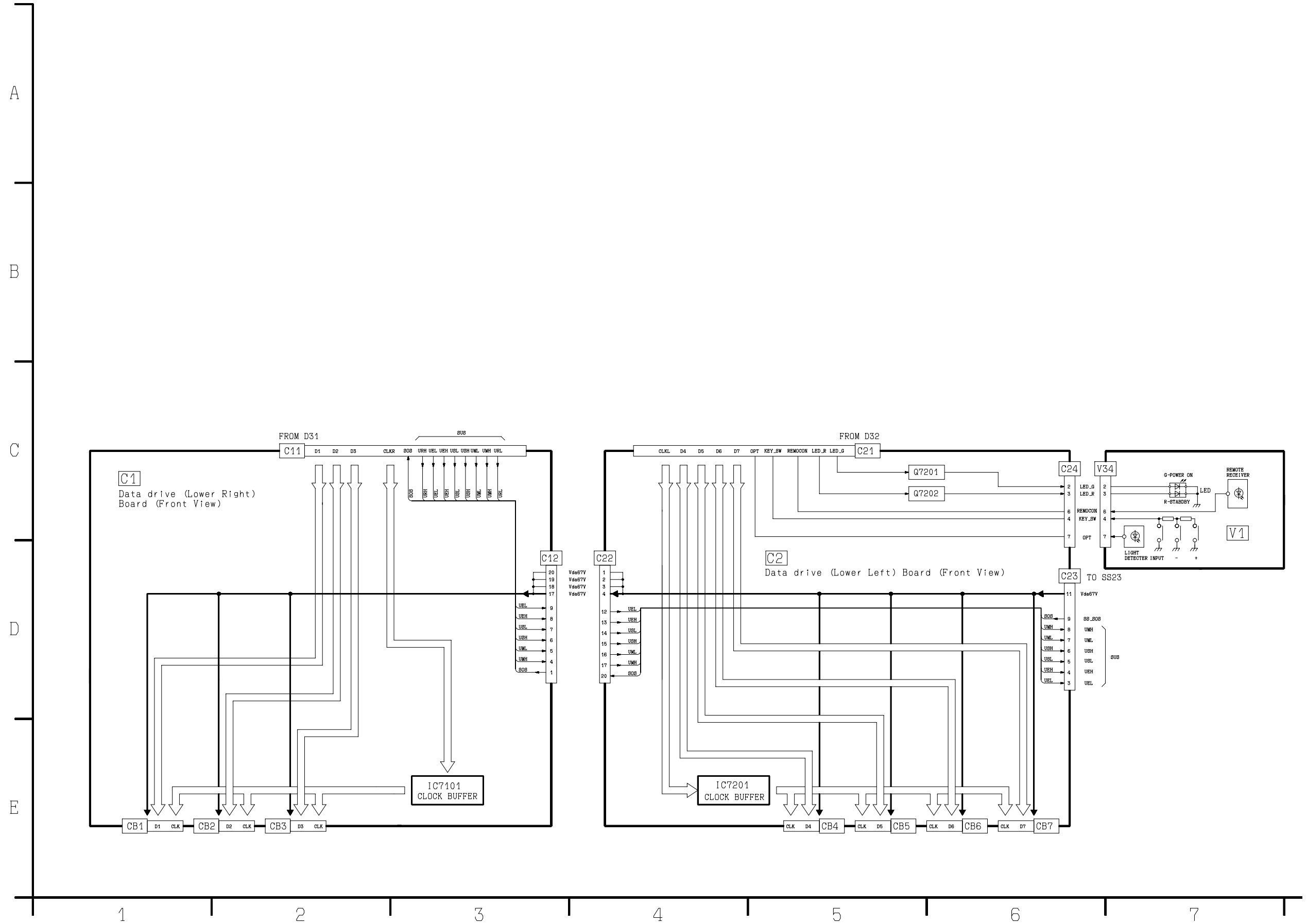
⚠ D2-BOARD TNPA2589 (5/6)



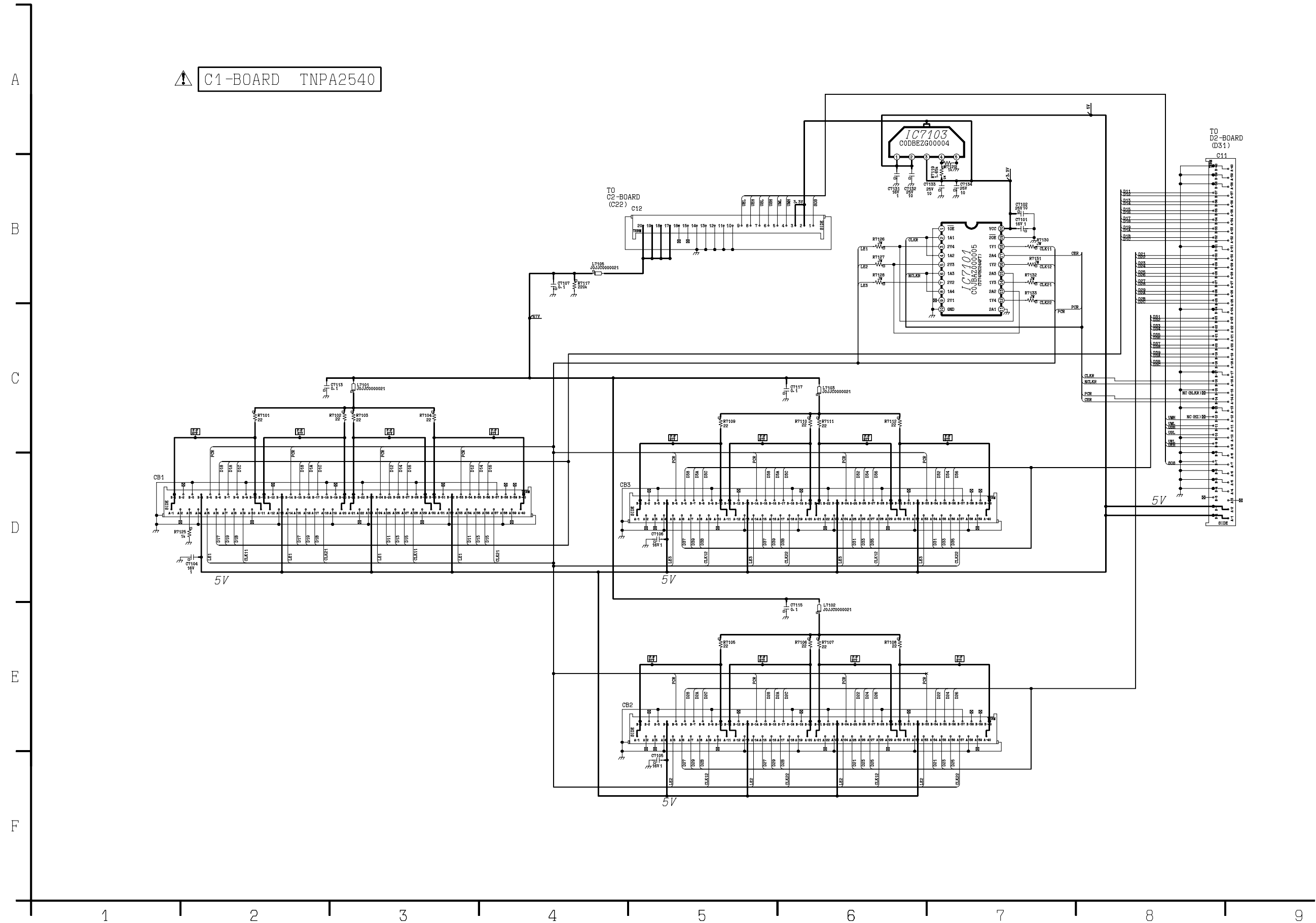
14.25. D2-Board (6 of 6) Schematic Diagram



14.26. C1 and C2-Board Block Diagram



14.27. C1-Board Schematic Diagram



14.28. C2-Board Schematic Diagram

A

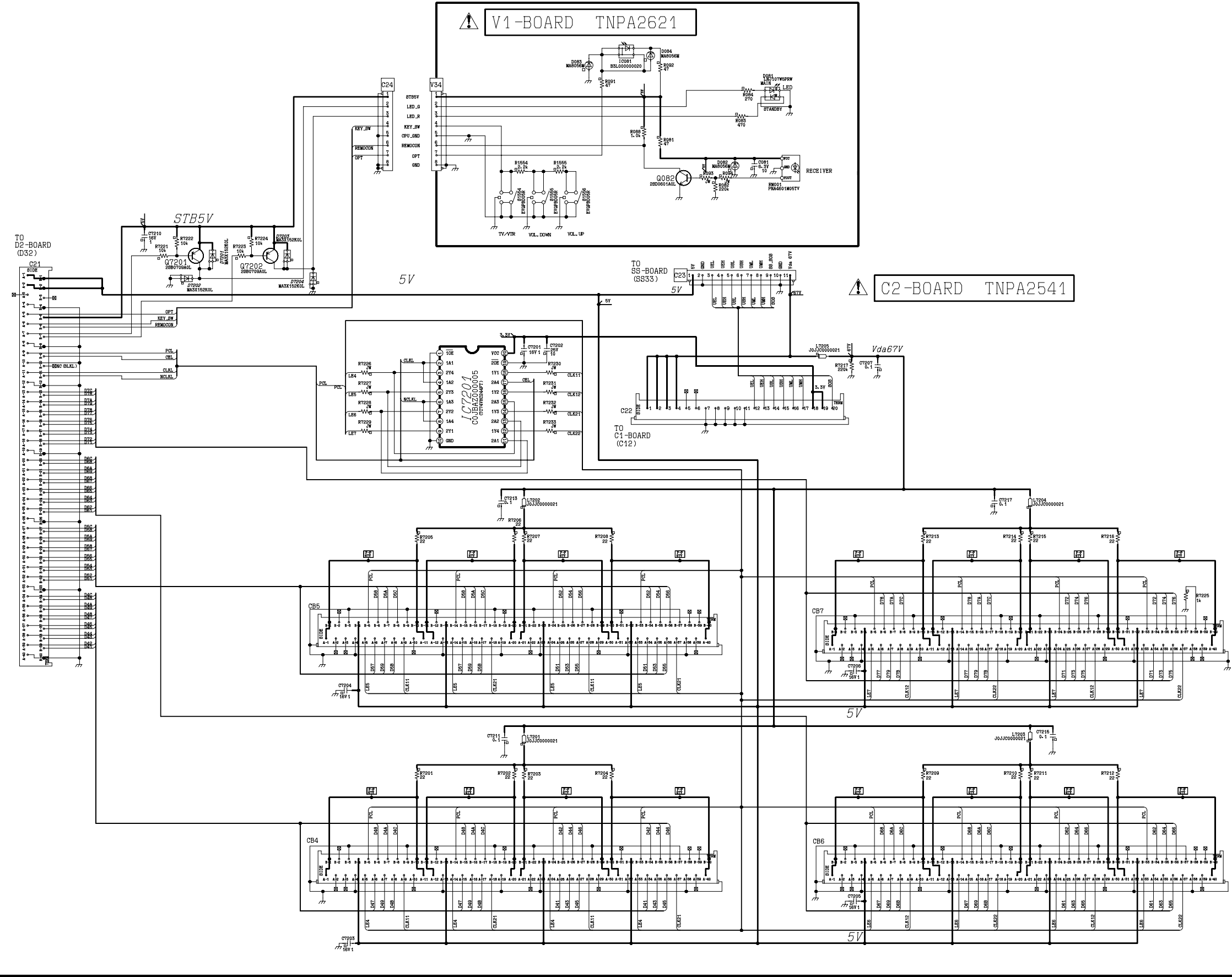
B

C

D

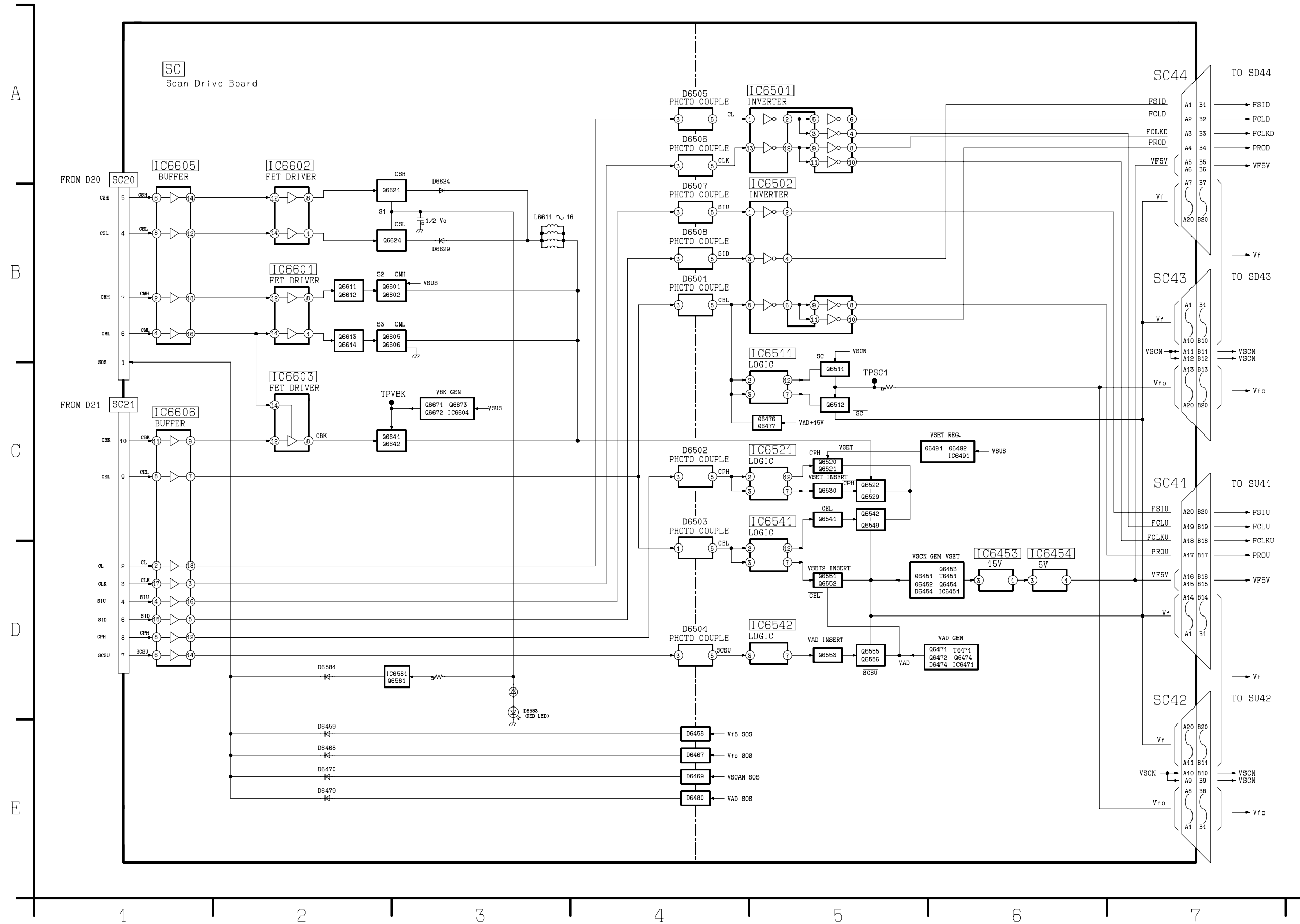
E

F



1 2 3 4 5 6 7 8 9

14.29. SC-Board Block Diagram



14.30. SC-Board (1 of 2) Schematic Diagram

⚠ SC-BOARD TNPA2534 (1/2)

A

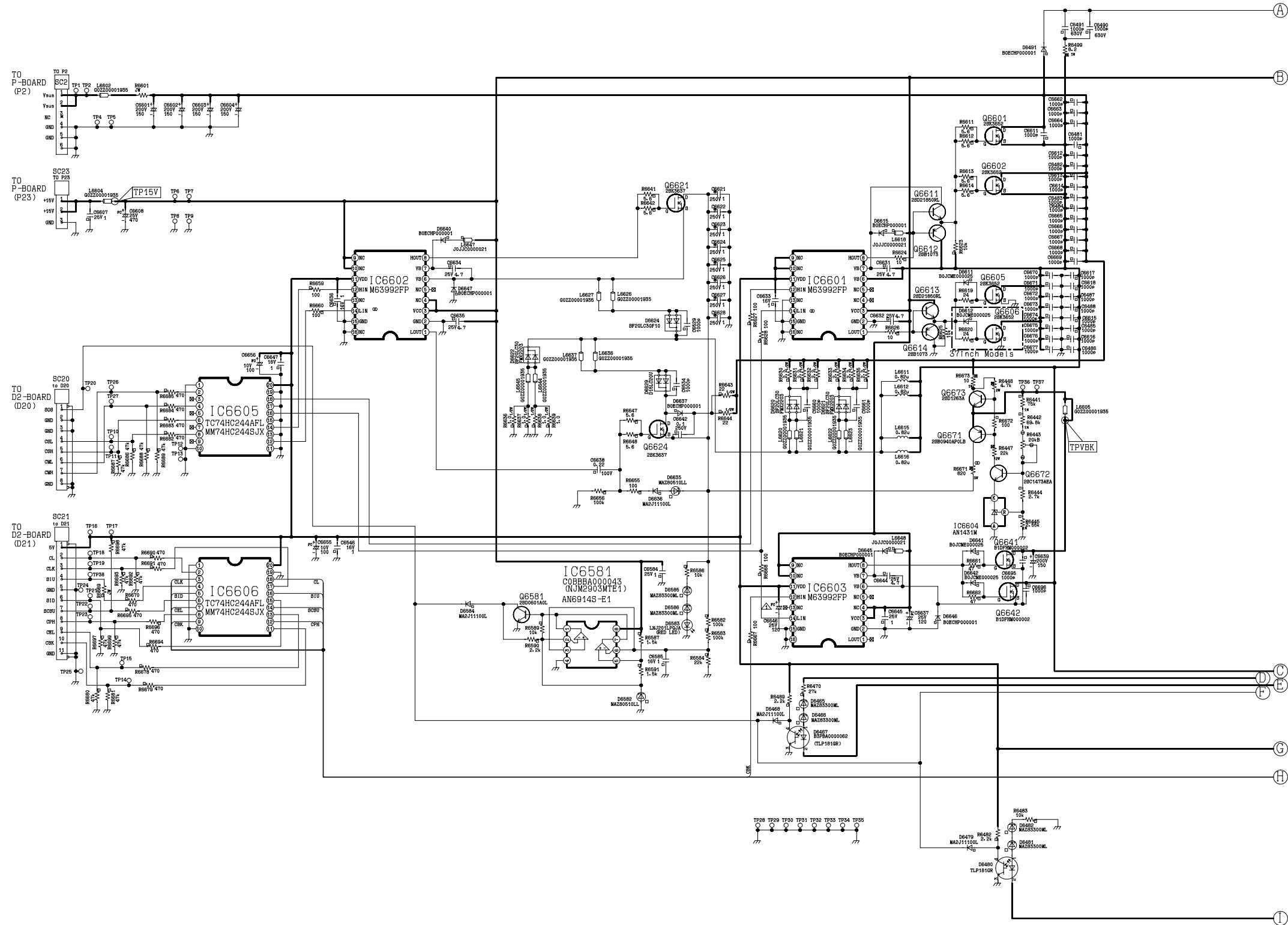
B

C

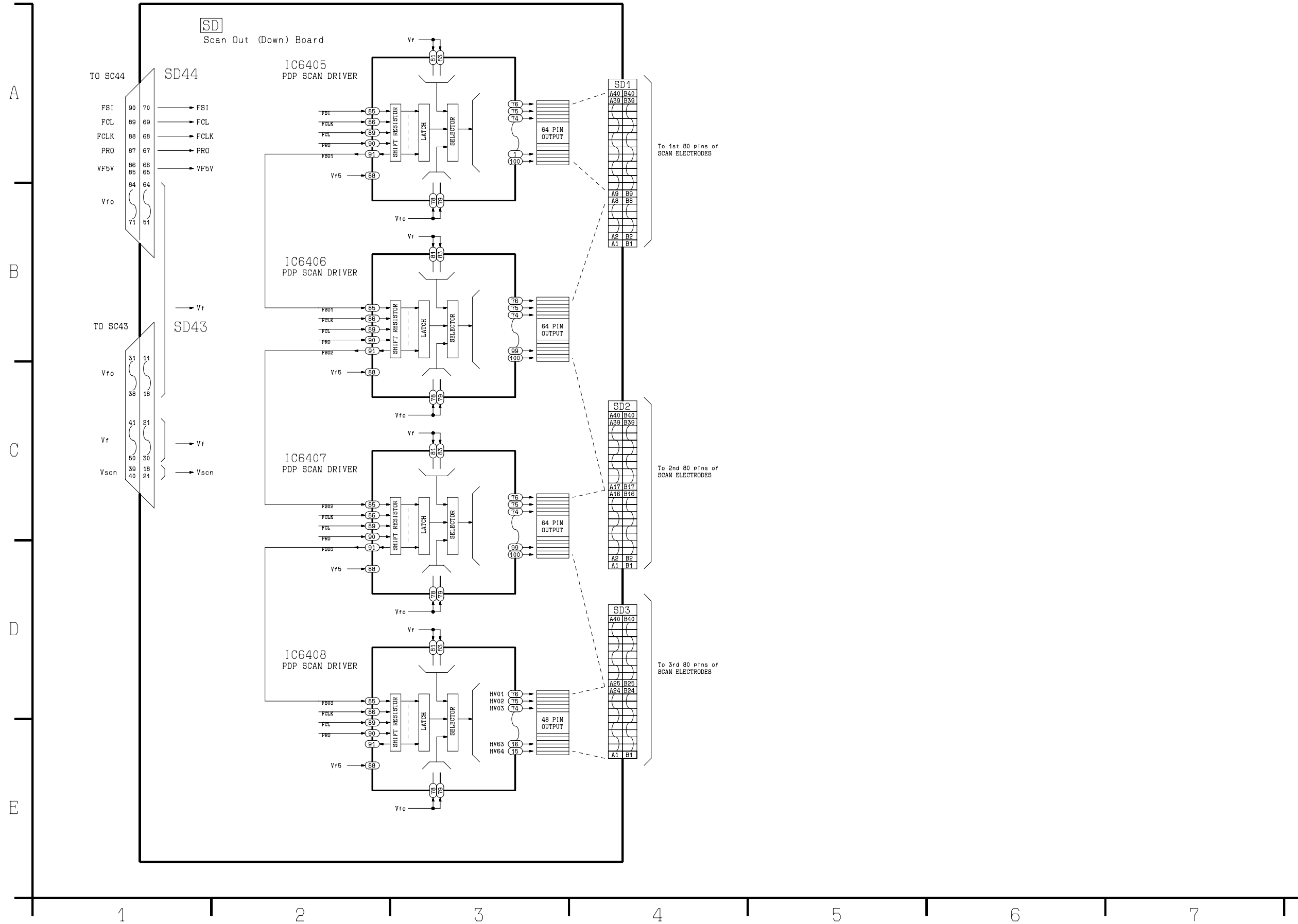
D

E

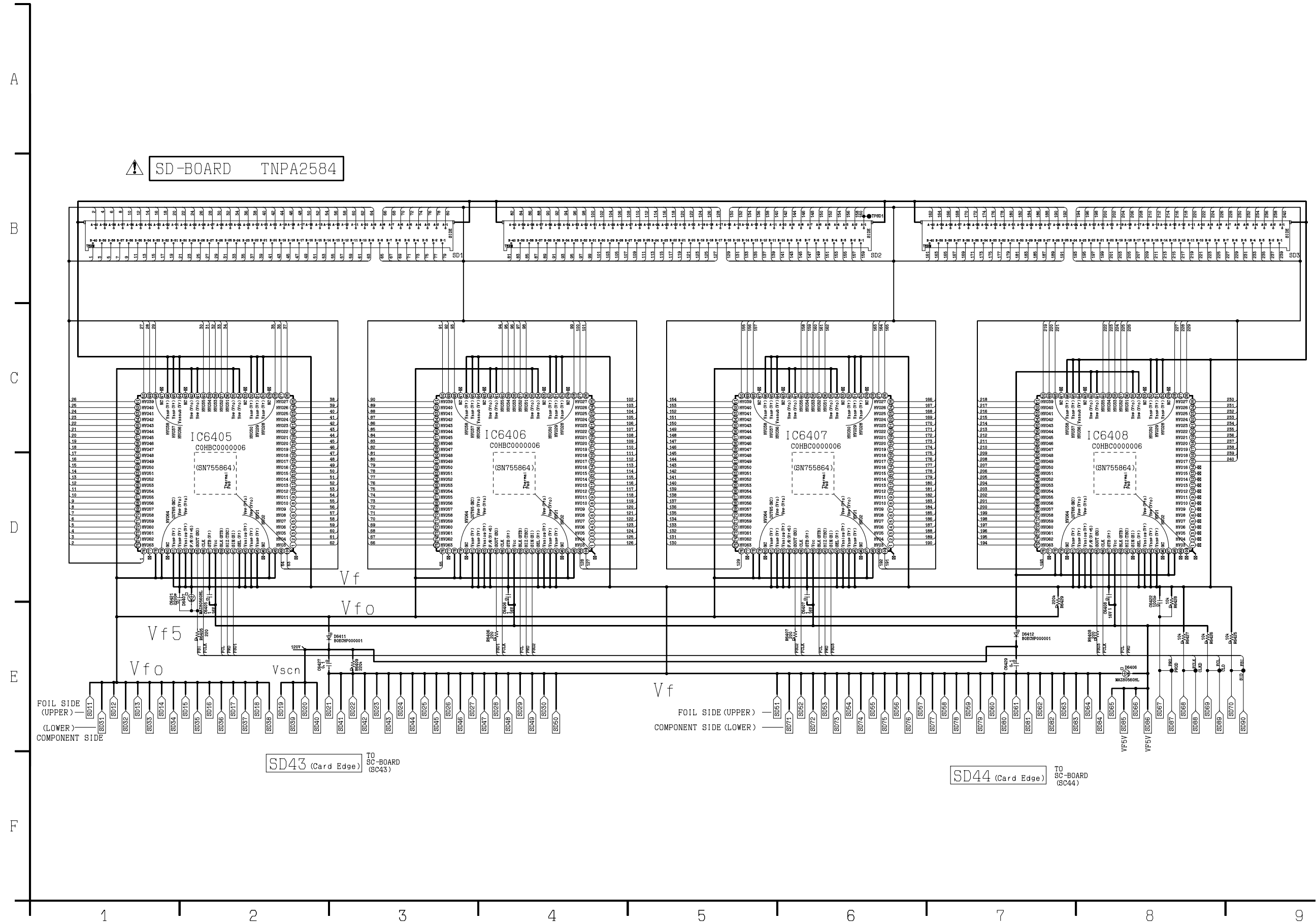
F



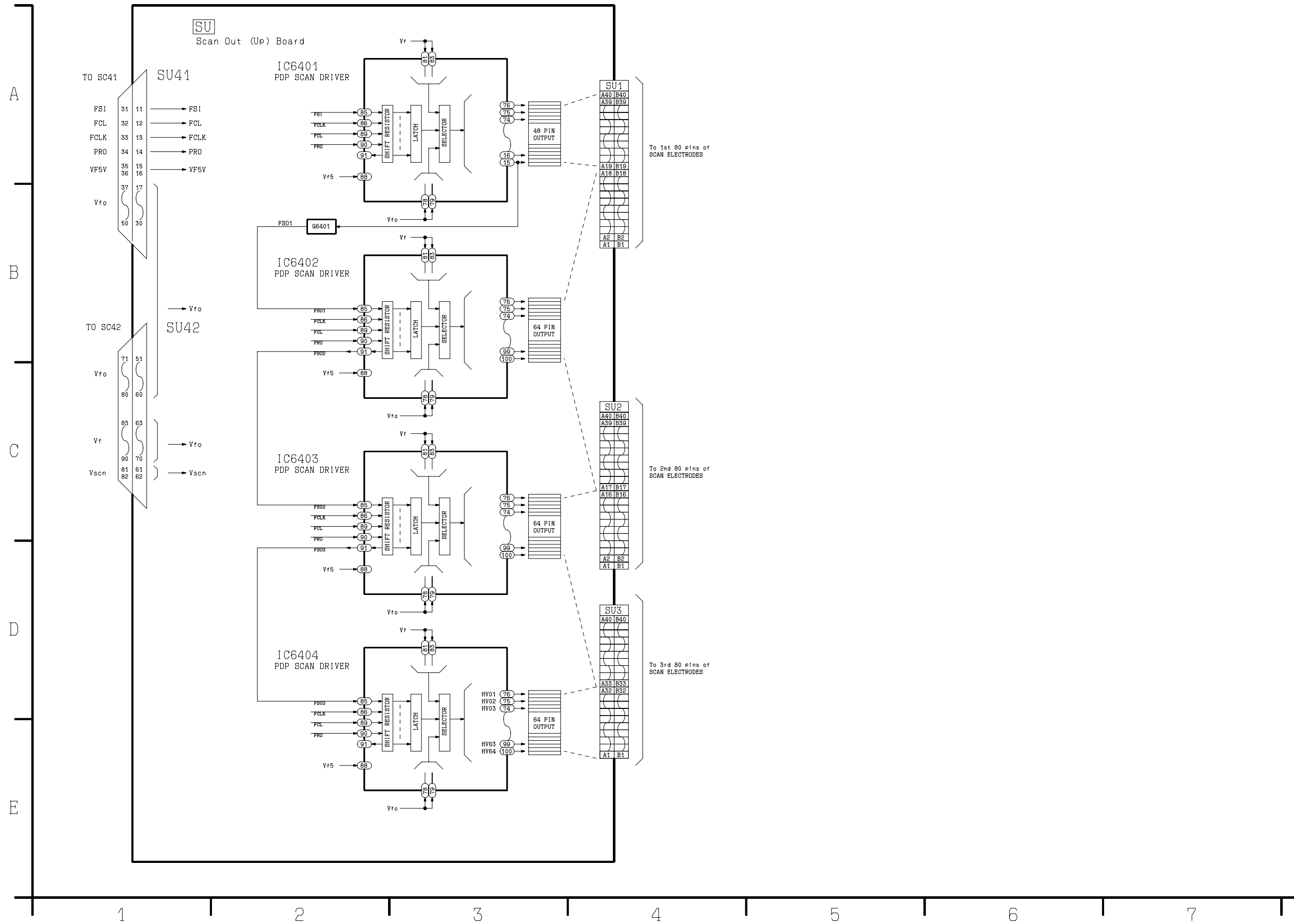
14.32. SD-Board Block Diagram



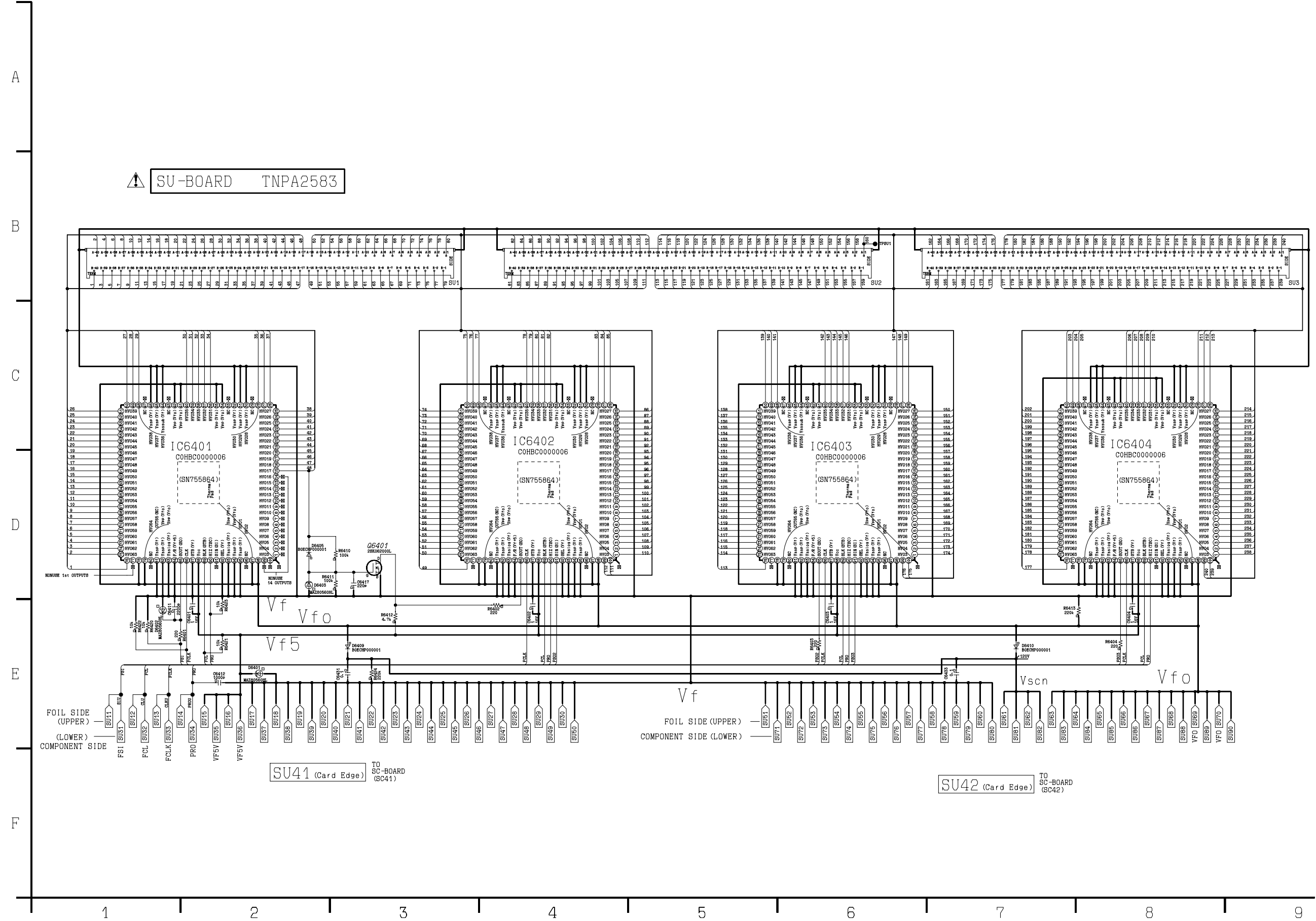
14.33. SD-Board Schematic Diagram



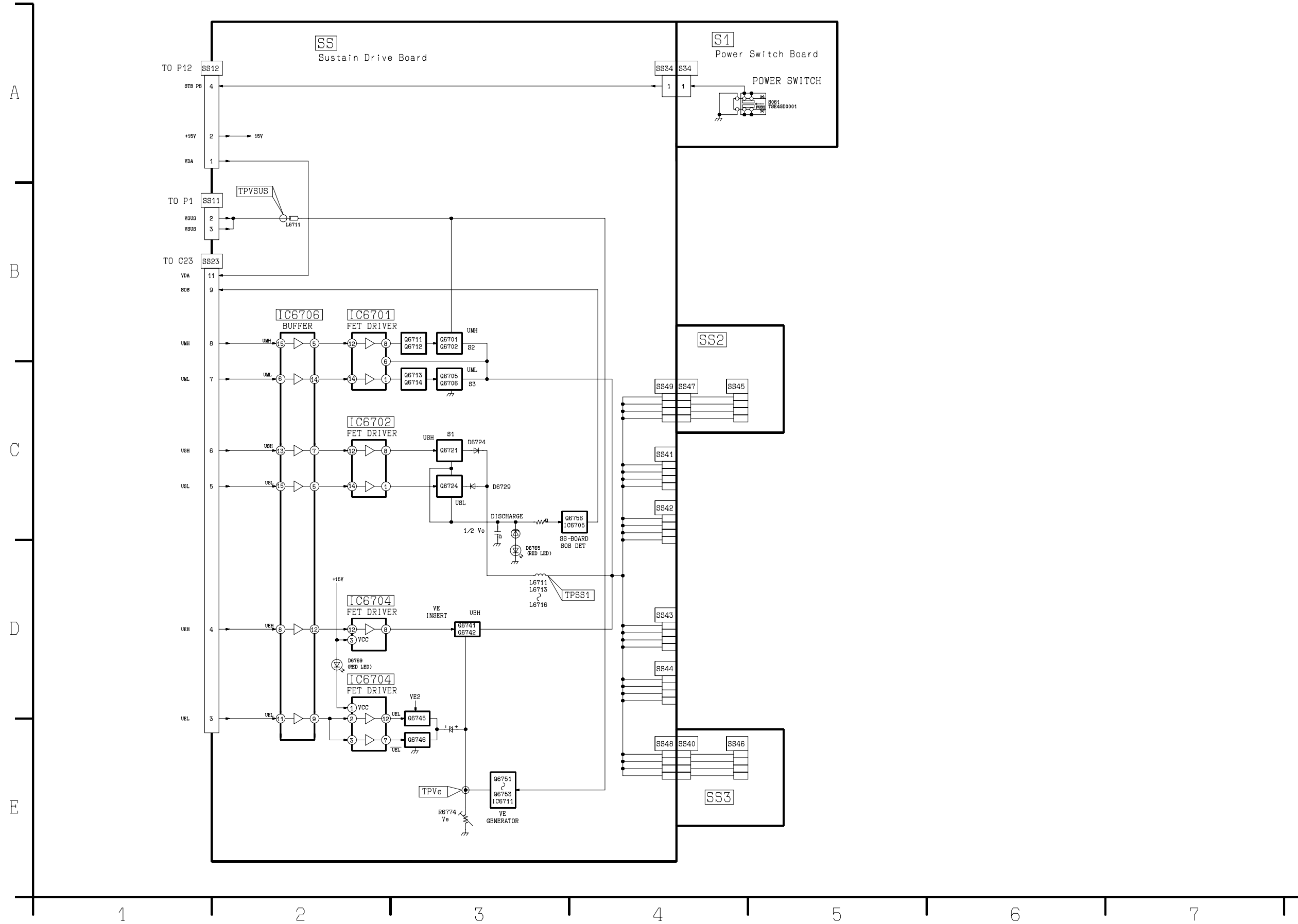
14.34. SU-Board Block Diagram



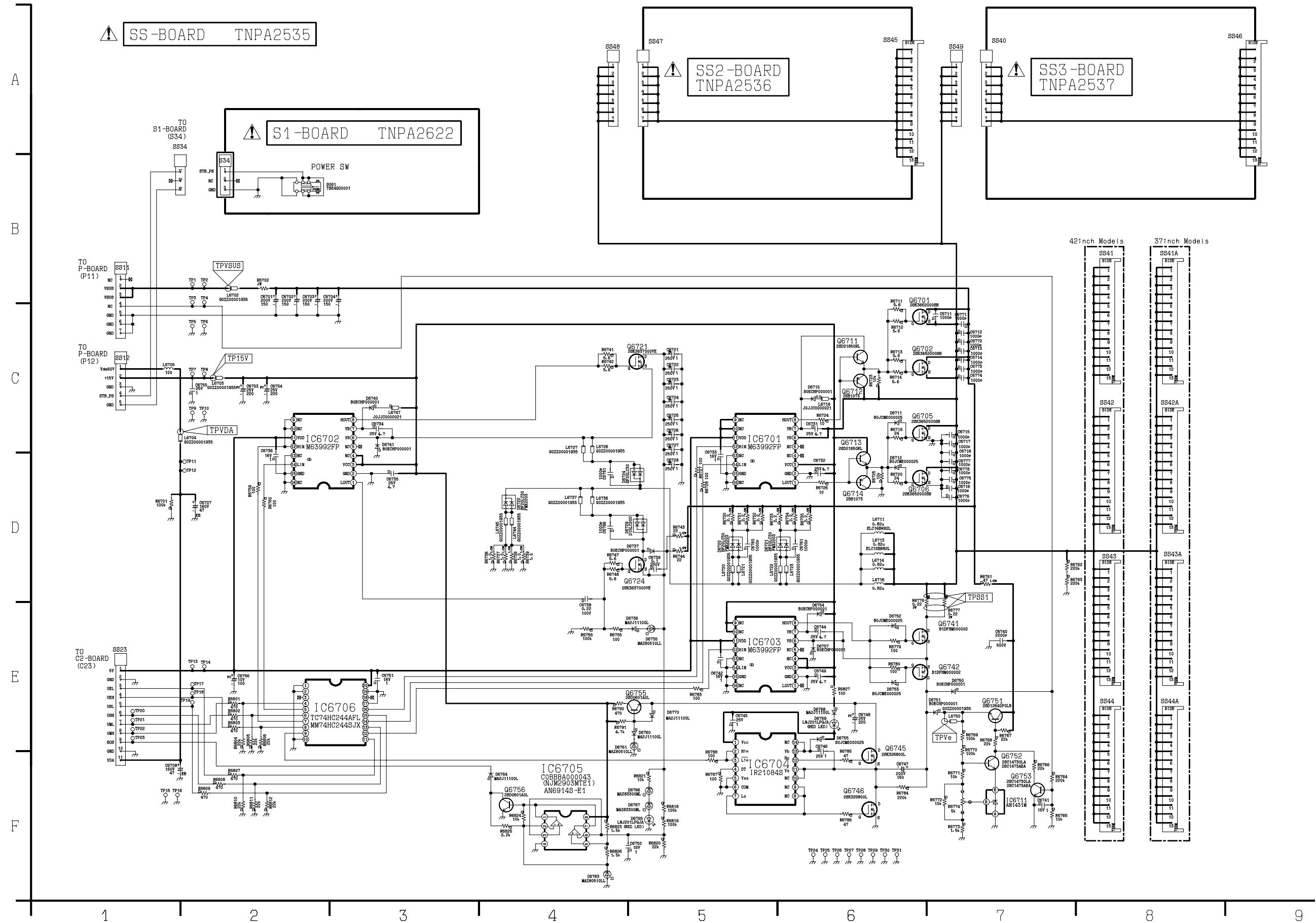
14.35. SU-Board Schematic Diagram



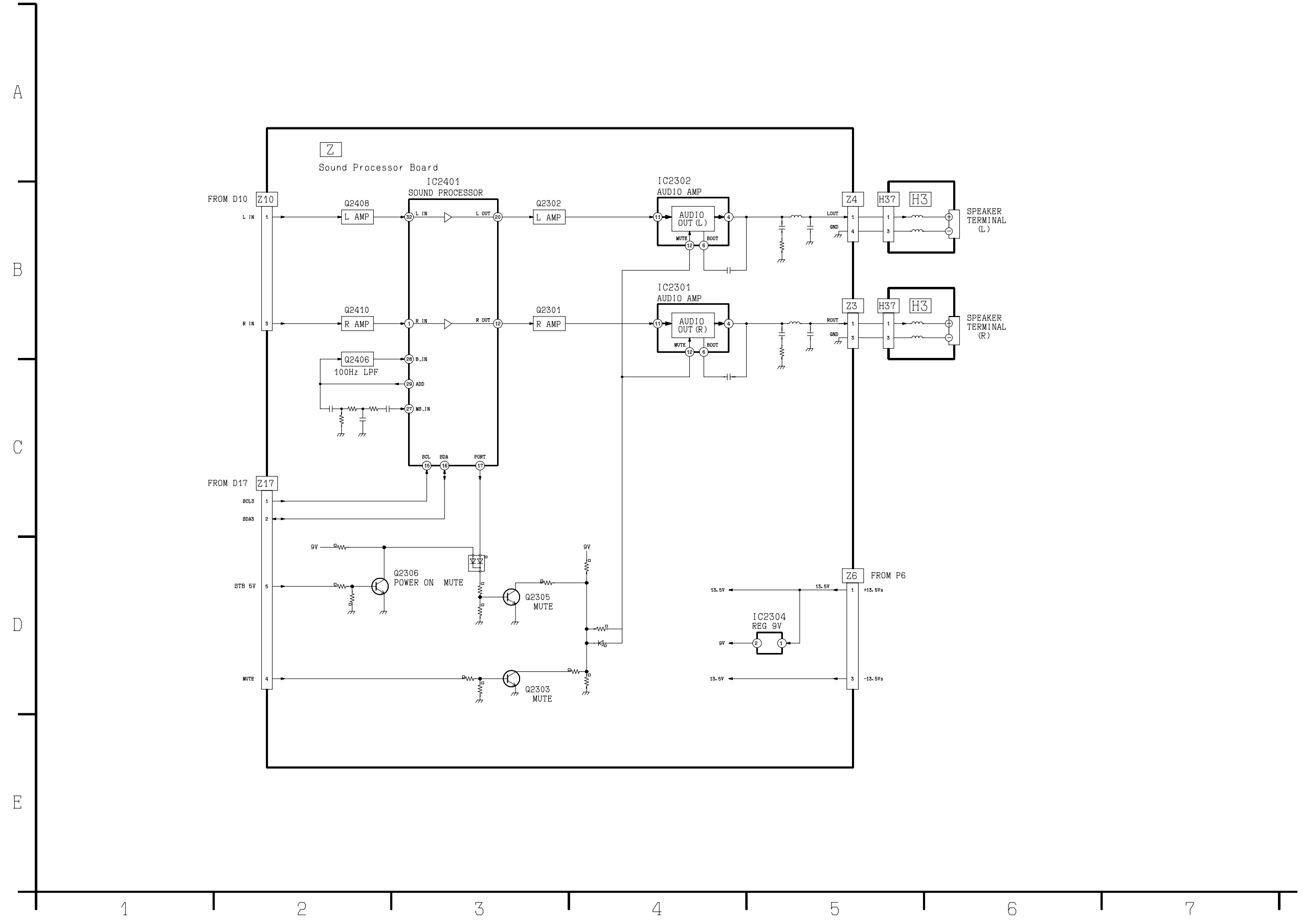
14.36. SS-Board Block Diagram



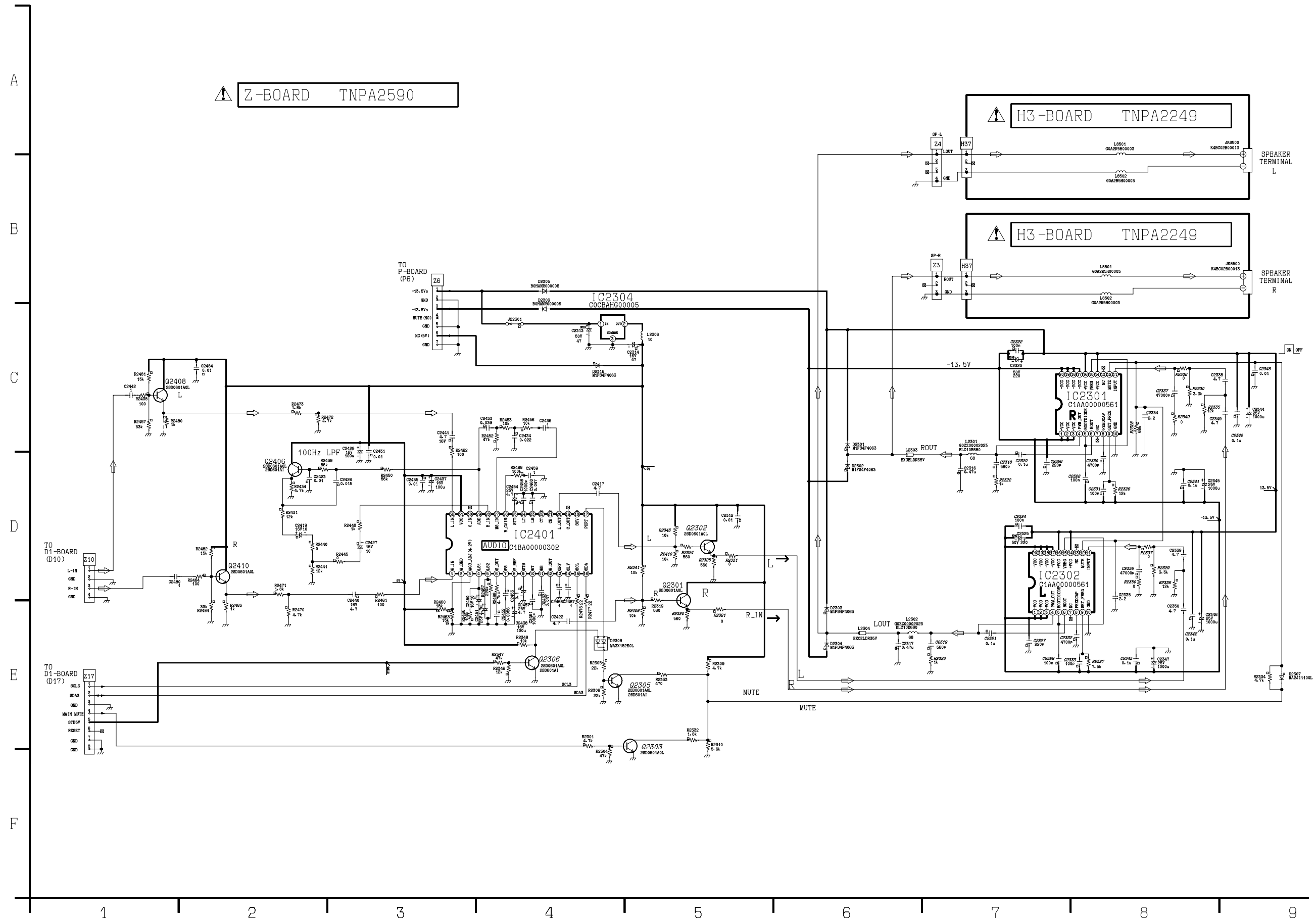
14.37. SS, SS2, SS3 and S1-Board Schematic Diagram



14.38. Z-Board Block Diagram



14.39. H3 and Z-Board Schematic Diagram



This page is not printed.

TOSHIBA CORPORATION

1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001, JAPAN

If you need more information on Computer and Electronic Repair, please visit these websites to improve yourself.

<http://www.fastrepairguide.com>

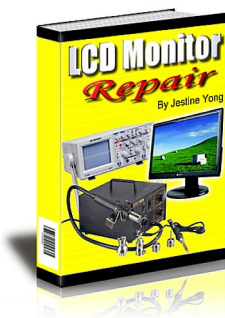
<http://www.protech2u.com>

<http://www.plasma-television-repair.com>

<http://www.lcd-television-repair.com>

Happy Repairing!!

Highly Recommended Repair Ebook:

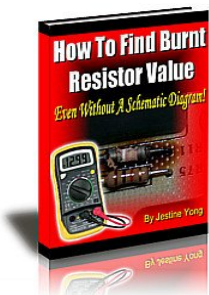


If you're a LCD Monitor repairer, then this is the best guide for you. Why? Because, the author revealed all his LCD Monitor Repairing secrets for you. I think, with just few Repair tips you learned from this guide you will get back your investment!

[Click Here to read](#) more.



This eBook will show you how to test the electronic component correctly and accurately. Some of you may say that I don't need this eBook because it is too simple! Do you know that, in fact there is lots of testing electronic components secrets I have learned from this guide? Do you know how to test a 'TRIAC' correctly and accurately? If you answer no then I guess you have to get this eBook. [Click Here to read more.](#)



Are you tired of searching the service manuals to look for the value of a burnt resistor? If the answer is YES, then this eBook is a 'must have' guide for you. You can save a lot of time and be able to repair customer's Electronic equipment with burnt resistors in it.

[Click here to read more.](#)