



TFT-LCD TV

Chassis	GBP23MLA
	GBP26MLA
	GBP32MLA
	GBP40MLA
Model	LN23R81BX
	LN26R81BX
	LN32R81BX
	LN40R81BX

SERVICE Manual

TFT-LCD TV



Feature

- RF, HDMI, PC(Analog), Component, Video, S-Video
- Brightness : 23"/26" : 450cd/m², 32"/40" : 500cd/m²
- Contrast Ratio:
23" : 4000 :1, 26" : 5000 :1, 32" 40" : 8000 :1
- Response time : 8ms
- Dynamic contrast
- PIP(on COM, PC, HDMI)

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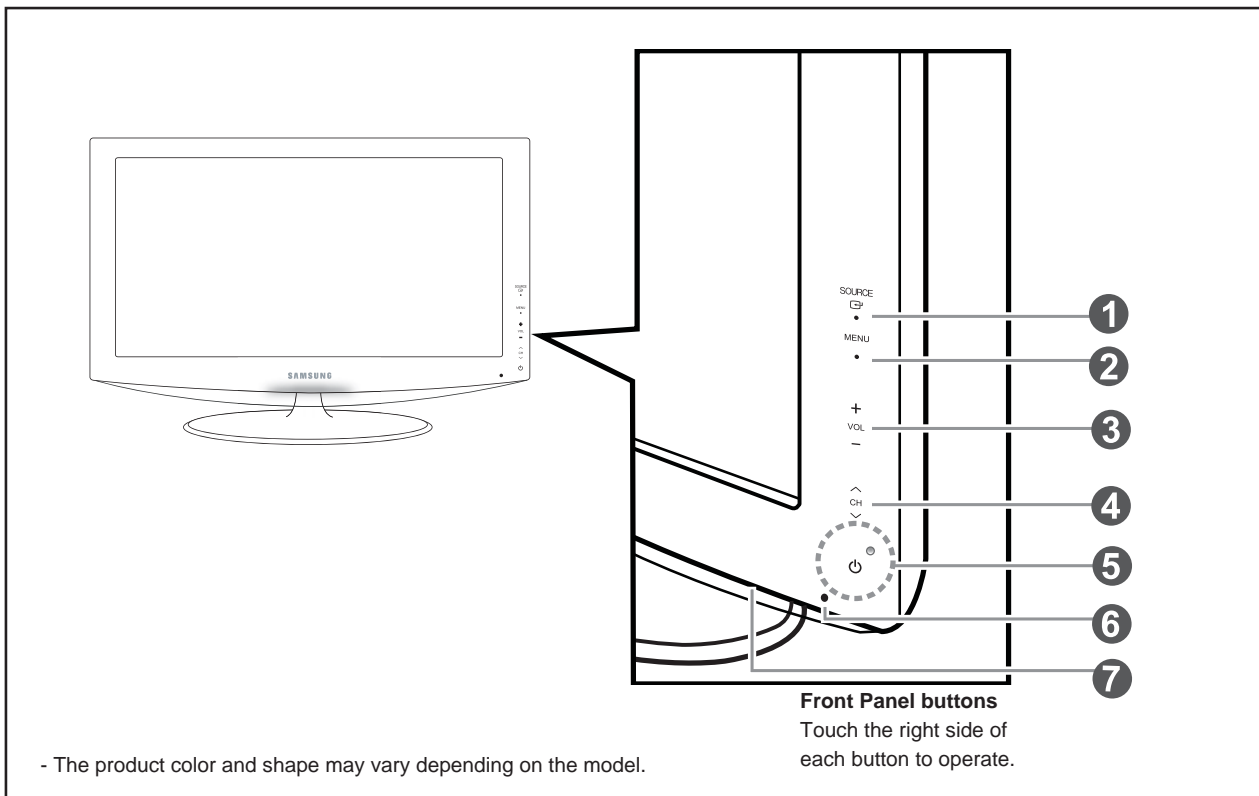


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10 Operating Instructions and Installation

10-1 Front



1. SOURCE

Toggles between all the available input sources (TV, AV1, AV2, S-Video, Component1, Component2, PC, HDMI1, HDMI2).

In the on-screen menu, use this button as you would use the **ENTER** button on the remote control.

2. MENU

Press to see an on-screen menu of your TV's features.

3. + VOL -

Press to increase or decrease the volume.

In the on-screen menu, use the + VOL - buttons as you would use the ◀ and ▶ buttons on the remote control.

4. CH

Press to change channels.

In the on-screen menu, use the buttons as you would use the ⏮ and ⏭ buttons on the remote control.

5. (Power)

Press to turn the TV on and off.

POWER INDICATOR

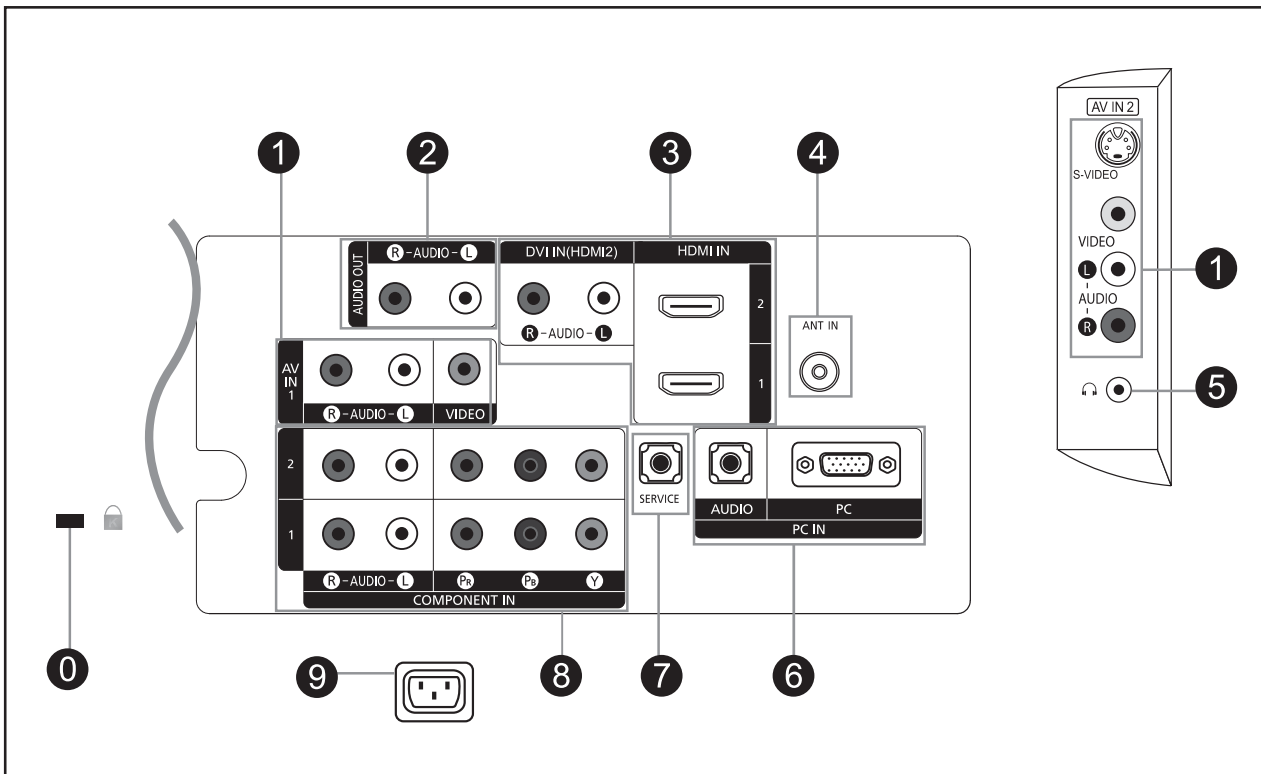
Blinks and turns off when the power is on and lights up in stand-by mode.

6. REMOTE CONTROL SENSOR

Aim the remote control towards this spot on the TV.

7. SPEAKERS

10-2 Connection Panel



1. AV IN 1, 2

Video and audio inputs for external devices, such as a camcorder or VCR.

S-VIDEO

Connects an S-Video signal from a camcorder or VCR.

2. AUDIO OUT (R/L)

Connects to the audio input jacks on your Amplifier/ Home theater.

3. HDMI 2 IN /DVI IN (AUDIO R/L)

Use the HDMI 2 IN terminal for DVI connection to an external device. You should use the DVI to HDMI cable or DVI-HDMI adapter (DVI to HDMI) for video connection, and the DVI IN 'R-AUDIO-L' terminal for audio.

- HDMI 2 IN terminal does not support PC.

HDMI 1 IN

Connect to the HDMI jack of a device with an HDMI output.

- No sound connection is needed for an HDMI to HDMI connection

4. ANT IN

Connects to an antenna or cable TV system.

5. Headphone

Connects a set of external headphones for private listening.

6. PC IN

Connects to the video and audio output jacks on your PC.

7. SERVICE

Connector for service only.

8. COMPONENT IN 1, 2

Connects Component video/audio.

9. POWER INPUT

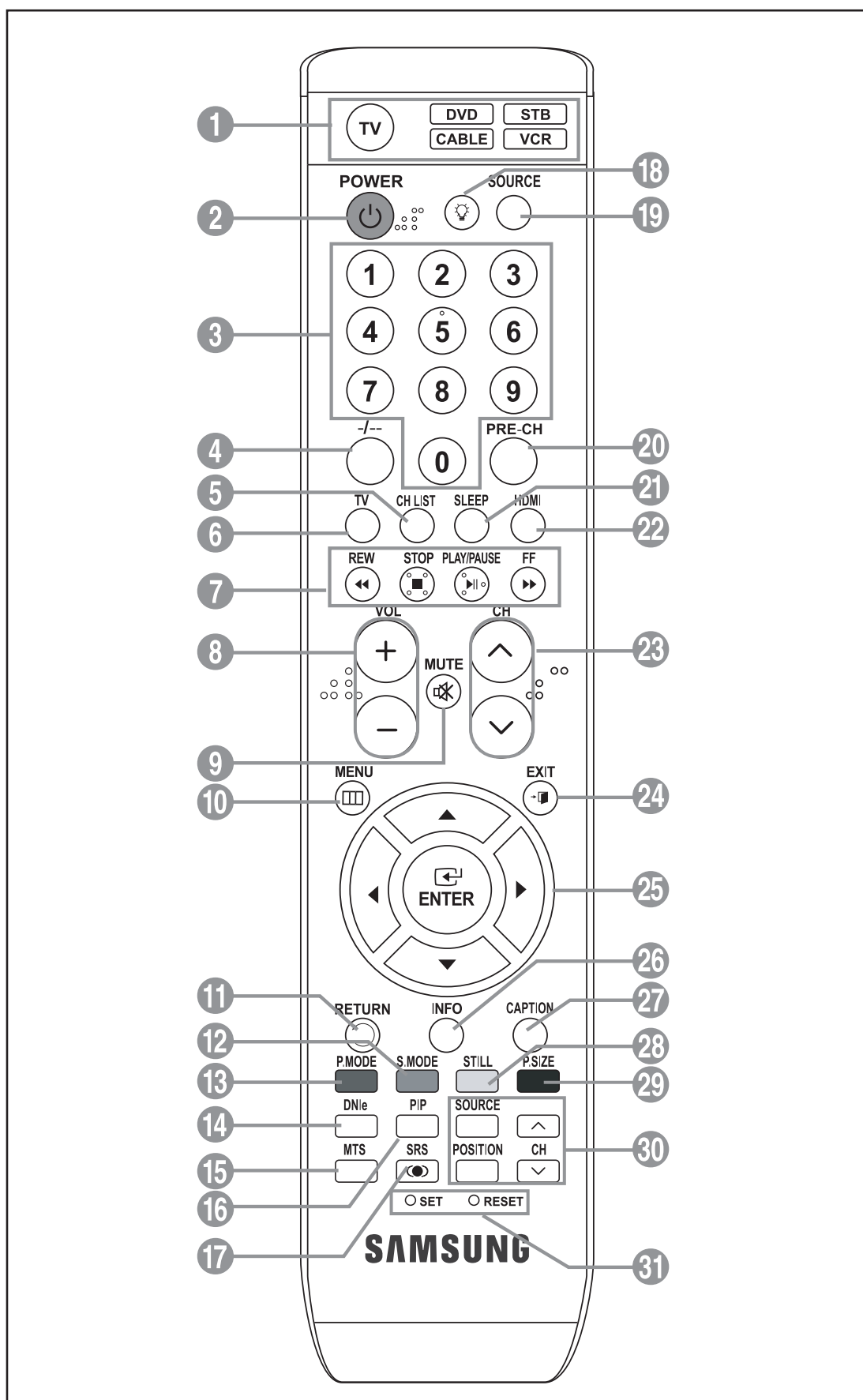
Connects the supplied power cord.

10. KENSINGTON LOCK

The Kensington lock (optional) is a device used to physically fix the system when used in a public place. If you want to use a locking device, contact the dealer where you purchased the TV.

- The place of the Kensington Lock may be different depending on its model.

10-3 Remote Control



1. TV, DVD, STB, CABLE, VCR

Press to operate your TV, DVD, STB, CABLE (box), or VCR

2. POWER

Turns the TV on and off.

3. NUMERIC BUTTONS

Press to change the channel.

4. -/--

Press to select channels over 100.

For example, to select channel 121, press " - ", then "2", then "1".

5. CH LIST

Used to display Channel Lists on the screen.

6. TV

Selects the TV mode directly

7. VCR/DVD Functions

- Rewind, Stop/Play, Pause/Fast, Forward

8. VOL \oplus / VOL \ominus

Press to increase or decrease the volume.

9. ϕ (MUTE)

Press to temporarily cut off the sound.

10. MENU

Displays the main on-screen menu.

11. RETURN

Returns to the previous menu.

12. S.MODE

Press to select the sound mode.

13. P.MODE

Press to select the picture mode.

14. DNle(Digital Natural Image engine)

DNle Demo Demo/On/Off

15. MTS

Press to choose stereo, mono or Separate Audio Program (SAP broadcast).

16. PIP

Picture-in Picture ON/OFF.

17. SRS

Selects SRS TruSurround XT mode.

18. When pressing this button, a number of buttons on the remote control (e.g. TV, DVD, STB, CABLE, VCR, MUTE, VOL and CH buttons) light up for a few seconds and then turn off to save power. This function is convenient for using the remote at night or when dark.

19. SOURCE

Press to display all of the available video sources.

20. PRE-CH

Turns to the previous channel.

21. SLEEP

Press to select a preset time interval for automatic shut off.

22. HDMI

Selects the HDMI mode directly.

23. CH \odot / CH \odot

Press to change channels.

24. EXIT

Press to exit the menu.

25. UP \blacktriangle / DOWN \blacktriangledown / LEFT \blacktriangleleft / RIGHT \blacktriangleright / ENTER

Use to select on-screen menu items and change menu values.

26. INFO

Use to see information on the current broadcast.

27. CAPTION

Controls the caption decoder.

28. STILL

Press to stop the action during a particular scene.

Press again to resume normal video.

29. P.SIZE

Picture size selection.

30. PIP FUNCTIONS

SOURCE : Press to select a signal from an external source in PIP.

POSITION : Change the position of the PIP screen.

CH : Displays the available channels in sequence. (These buttons change channels in the PIP window only.)

31. SET

Sets the remote to control your TV, VCR, Cable, DVD, or Set-Top Box

RESET

When your remote does not work, change the batteries and press the RESET button for 2-3 seconds before use.

2 Product specifications

2-1 Fashion Feature

- RF, HDMI, PC(Analog), Component, Video, S-Video
- Brightness : 23"/26" : 450cd/m², 32"/40" : 500cd/m²
- Contrast Ratio:
23" : 4000 :1, 26" : 5000 :1, 32"40" : 8000 :1
- Response time : 8ms
- Dynamic contrast
- PIP(on COM, PC, HDMI)

2-1 LN23R81BX Specifications

Item	Description	
LCD Panel	TFT-LCD panel, RGB vertical stripe, normally white, 26-Inch viewable, 0.4215(H) x 0.4215(V) mm pixel pitch	
Scanning Frequency	Horizontal : 30 kHz ~ 61 kHz (Automatic) / Vertical : 60 Hz ~ 75 Hz (Automatic)	
Display Colors	16,777,216 colours	
Maximum Resolution	Horizontal : 1360 Pixels Vertical : 768 Pixels	
Input Video Signal	Analog 0.7 Vp-p \pm 5% positive at 75 Ω , internally terminated	
Input Sync Signal	Type : Seperate H/V Level : TTL level	
Maximum Pixel Clock rate	80 MHz	
Active Display Horizontal/Vertical	514mm / 284mm	
AC power voltage & Frequency	AC 110 ~ 240 V, 60 / 50 Hz	
Power Consumption	100W < 1W	
Dimensions(W x D x H) Set	586 x 216 x 445 mm (23.07 x 8.50 x 17.51 inches)	
Weight Set(After installation Stand)	11 kg (24.2 lbs)	
TV System	Tunning	Frequency Synthesize
	System	NTSC-M, PAL-M/N
	Sound	MONO, STEREO, SAP
Environmental Considerations	Operating Temperature : 10°C ~ 40°C Operating Humidity : 10 % ~ 80 %, non-condensing Storage Temperature : -20°C ~ 45°C Storage Humidity : 5 % ~ 95 %, non-condensing	
Antena Input	75 Ω	
Sound Characteristic	-MAX Internal speaker Out : Right : 5W / Left : 5W -BASS Control Range : -8 dB ~ + 8dB -TREBLE Control Range : -8 dB ~ +8 dB -Headphone Out : 10 mW MAX -Output Frequency : RF : 80 Hz ~ 15 kHz A/V : 80 Hz ~ 20 kHz	

2-2 LN26R81BX Specifications

Item	Description	
LCD Panel	TFT-LCD panel, RGB vertical stripe, normally white, 26-Inch viewable, 0.4215(H) x 0.4215(V) mm pixel pitch	
Scanning Frequency	Horizontal : 30 kHz ~ 61 kHz (Automatic) / Vertical : 60 Hz ~ 75 Hz (Automatic)	
Display Colors	16,777,216 colours	
Maximum Resolution	Horizontal : 1360 Pixels Vertical : 768 Pixels	
Input Video Signal	Analog 0.7 Vp-p \pm 5% positive at 75 Ω , internally terminated	
Input Sync Signal	Type : Seperate H/V Level : TTL level	
Maximum Pixel Clock rate	80 MHz	
Active Display Horizontal/Vertical	575.77mm / 323.71mm	
AC power voltage & Frequency	AC 110 ~ 240 V, 60 / 50 Hz	
Power Consumption	130W < 1W	
Dimensions(W x D x H) Set	666 x 216 x 499.5 mm (26.22 x 8.50 x 19.66 inches)	
Weight Set(After installation Stand)	13.4 Kg (29.5 lbs)	
TV System	Tunning	Frequency Synthesize
	System	NTSC-M, PAL-M/N
	Sound	MONO, STEREO, SAP
Environmental Considerations	Operating Temperature : 10°C ~ 40°C Operating Humidity : 10 % ~ 80 %, non-condensing Storage Temperature : -20°C ~ 45°C Storage Humidity : 5 % ~ 95 %, non-condensing	
Antena Input	75 Ω	
Sound Characteristic	-MAX Internal speaker Out : Right : 5W / Left : 5W -BASS Control Range : -8 dB ~ + 8dB -TREBLE Control Range : -8 dB ~ +8 dB -Headphone Out : 10 mW MAX -Output Frequency : RF : 80 Hz ~ 15 kHz A/V : 80 Hz ~ 20 kHz	



2-3 LN32R81BX Specifications

Item	Description	
LCD Panel	TFT-LCD panel, RGB vertical stripe, normally white, 32-Inch viewable, 0.511 (H) x 0.511 (V) mm pixel pitch	
Scanning Frequency	Horizontal : 30 kHz ~ 61 kHz (Automatic) / Vertical : 60 Hz ~ 75 Hz (Automatic)	
Display Colors	16,777,216 colours	
Maximum Resolution	Horizontal : 1360 Pixels Vertical : 768 Pixels	
Input Video Signal	Analog 0.7 Vp-p \pm 5% positive at 75 Ω , internally terminated	
Input Sync Signal	Type : Seperate H/V Level : TTL level	
Maximum Pixel Clock rate	80 MHz	
Active Display Horizontal/Vertical	697.68mm / 392.26mm	
AC power voltage & Frequency	AC 110 ~ 240V, 60 / 50 Hz	
Power Consumption	170W < 1W	
Dimensions(W x D x H) Set	800 x 252 x 580.5 mm (31.5 x 9.92 x 22.85 inches)	
Weight Set(After installation Stand)	18.6 kg (41.0 lbs)	
TV System	Tunning	Frequency Synthesize
	System	NTSC-M, PAL-M/N
	Sound	MONO, STEREO, SAP
Environmental Considerations	Operating Temperature : 10°C ~ 40°C Operating Humidity : 10 % ~ 80 %, non-condensing Storage Temperature : -20°C ~ 45°C Storage Humidity : 5 % ~ 95 %, non-condensing	
Antena Input	75 Ω	
Sound Characteristic	-MAX Internal speaker Out : Right : 10W / Left : 10W -BASS Control Range : -8 dB ~ + 8dB -TREBLE Control Range : -8 dB ~ +8 dB -Headphone Out : 10 mW MAX -Output Frequency : RF : 80 Hz ~ 15 kHz A/V : 80 Hz ~ 20 kHz	

2-4 LN40R81BX Specifications

Item	Description	
LCD Panel	TFT-LCD panel, RGB vertical stripe, normally white, 40-Inch viewable, 0.648(H) x 0.648(V) mm pixel pitch	
Scanning Frequency	Horizontal : 30 kHz ~ 61 kHz (Automatic) / Vertical : 60 Hz ~ 75 Hz (Automatic)	
Display Colors	16,777,216 colours	
Maximum Resolution	Horizontal : 1360 Pixels Vertical : 768 Pixels	
Input Video Signal	Analog 0.7 Vp-p \pm 5% positive at 75 Ω , internally terminated	
Input Sync Signal	Type : Seperate H/V Level : TTL level	
Maximum Pixel Clock rate	80 MHz	
Active Display Horizontal/Vertical	885.17mm / 497.64mm	
AC power voltage & Frequency	AC 110 ~ 240V, 60 / 50 Hz	
Power Consumption	195W < 1W	
Dimensions(W x D x H) Set	991.5 x 300 x 697.5 mm (39.03 x 11.81 x 27.46 inches)	
Weight Set(After installation Stand)	27 kg (59.52 lbs)	
TV System	Tunning	Frequency Synthesize
	System	NTSC-M, PAL-M/N
	Sound	MONO, STEREO, SAP
Environmental Considerations	Operating Temperature : 10°C ~ 40°C Operating Humidity : 10 % ~ 80 %, non-condensing Storage Temperature : -20°C ~ 45°C Storage Humidity : 5 % ~ 95 %, non-condensing	
Antena Input	75 Ω	
Sound Characteristic	-MAX Internal speaker Out : Right : 10W / Left : 10W -BASS Control Range : -8 dB ~ + 8dB -TREBLE Control Range : -8 dB ~ +8 dB -Headphone Out : 10 mW MAX -Output Frequency : RF : 80 Hz ~ 15 kHz A/V : 80 Hz ~ 20 kHz	

2-5 Spec Comparison

Model	LN26R71BX/LN32R71BX/LN40R71BX	LN23R81BX/LN26R81BX/LN32R81BX/ LN40R81BX
Design		
Frequency Horizontal Vertical Display Color	30 ~ 61 kHz 60 ~ 75 Hz 16,777,216 colors	30 ~ 61 kHz 60 ~ 75 Hz 16,777,216 colors
PC Resolution Maximum mode	WXGA, 1360 x 768 @ 60 Hz	1360 x 768 / 60 Hz
Input Signal Sync Signal Video Signal	H/V Separate, TTL, P. or N. 0.7 Vp-p @ 75ohm	H/V Separate, TTL, P. or N. 0.7 Vp-p @ 75ohm
Power Consumption Normal Power Saving	100W / 152W / 205W < 1W	100W / 130W / 170W / 195W < 1W
Input source Difference	HDMI	2HDMI
PIP	PIP, POP	PIP, POP
Sound	3W/5W/10W	5W/10W

2-6 Option Specification

Item	Item Name	Code.No	Remark
	Remote Control & Batteries (AAA x 2)	BN59-00604A	
	Power Cord	3903-000144	
	Cleaning Cloth	BN63-001798A	
	Owner's Instructions	BN68-00998E	
	Stand	26" : BN90-00913B 32" : BN90-00842A 40" : BN90-00847A	
	Stand Screw		
	Cover-Bottom	26" : BN63-02323A 32" : BN63-02323A 40" : BN63-02366A	

Memo

1 Precautions

Follow these safety, servicing and ESD precautions to prevent damage and to protect against potential hazards such as electrical shock.

1-1 Safety Precautions

1-1-1 Warnings

1. For continued safety, do not attempt to modify the circuit board.
2. Disconnect the AC power and DC Power Jack before servicing.

1-1-2 Servicing the LCD Monitor

1. When servicing the LCD Monitor Disconnect the AC line cord from the AC outlet.
2. It is essential that service technicians have an accurate voltage meter available at all times. Check the calibration of this meter periodically.

1-1-3 Fire and Shock Hazard

Before returning the monitor to the user, perform the following safety checks:

1. Inspect each lead dress to make certain that the leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the monitor.
2. Inspect all protective devices such as nonmetallic control knobs, insulating materials, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacitor networks, mechanical insulators, etc.
3. Leakage Current Hot Check (Figure 1-1):
WARNING: Do not use an isolation transformer during this test.

Use a leakage current tester or a metering system that complies with American National Standards Institute (*ANSI C101.1, Leakage Current for Appliances*), and Underwriters Laboratories (*UL Publication UL1410, 59.7*).

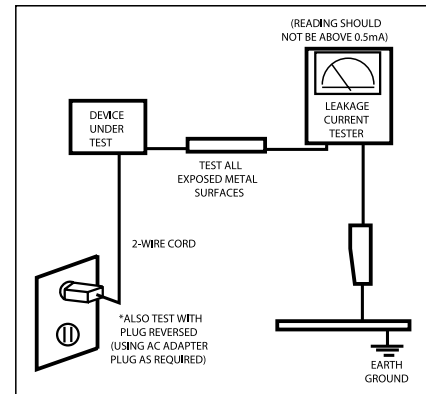


Figure 1-1. Leakage Current Test Circuit

1-1-4 Product Safety Notices

Some electrical and mechanical parts have special safety-related characteristics which are often not evident from visual inspection. The protection they give may not be obtained by replacing them with components rated for higher voltage, wattage, etc. Parts that have special safety characteristics are identified by ⚠ on schematics and parts lists. A substitute replacement that does not have the same safety characteristics as the recommended replacement part might create shock, fire and/or other hazards. Product safety is under review continuously and new instructions are issued whenever appropriate.

1 Precautions

1-2 Servicing Precautions

WARNING: An electrolytic capacitor installed with the wrong polarity might explode.

Caution: Before servicing units covered by this service manual, read and follow the Safety Precautions section of this manual.

Note: If unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions, always follow the safety precautions.

1-2-1 General Servicing

Precautions

1. Always unplug the unit's AC power cord from the AC power source and disconnect the DC Power Jack before attempting to:
(a) remove or reinstall any component or assembly, (b) disconnect PCB plugs or connectors, (c) connect a test component in parallel with an electrolytic capacitor.
2. Some components are raised above the printed circuit board for safety. An insulation tube or tape is sometimes used. The internal wiring is sometimes clamped to prevent contact with thermally hot components. Reinstall all such elements to their original position.
3. After servicing, always check that the screws, components and wiring have been correctly reinstalled. Make sure that the area around the serviced part has not been damaged.
4. Check the insulation between the blades of the AC plug and accessible conductive parts (examples: metal panels, input terminals and earphone jacks).
5. Insulation Checking Procedure: Disconnect the power cord from the AC source and turn the power switch ON. Connect an insulation resistance meter (500 V) to the blades of the AC plug.
The insulation resistance between each blade of the AC plug and accessible conductive parts (see above) should be greater than 1 megohm.
6. Always connect a test instrument's ground lead to the instrument chassis ground before connecting the positive lead; always remove the instrument's ground lead last.

1-3 Static Electricity Precautions

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

1. Immediately before handling any semiconductor components or assemblies, drain the electrostatic charge from your body by touching a known earth ground. Alternatively, wear a discharging wrist-strap device. To avoid a shock hazard, be sure to remove the wrist strap before applying power to the monitor.
2. After removing an ESD-equipped assembly, place it on a conductive surface such as aluminum foil to prevent accumulation of an electrostatic charge.
3. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ESDs.
4. Use only a grounded-tip soldering iron to solder or desolder ESDs.
5. Use only an anti-static solder removal device. Some solder removal devices not classified as anti-static can generate electrical charges sufficient to damage ESDs.
6. Do not remove a replacement ESD from its protective package until you are ready to install it. Most replacement ESDs are packaged with leads that are electrically shorted together by conductive foam, aluminum foil or other conductive materials.
7. Immediately before removing the protective material from the leads of a replacement ESD, 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 body motions when handling unpackaged replacement ESDs. Motions such as brushing clothes together, or lifting your foot from a carpeted floor can generate enough static electricity to damage an ESD.

1-4 Installation Precautions

1. For safety reasons, more than two people are required for carrying the product.
2. Keep the power cord away from any heat emitting devices, as a melted covering may cause fire or electric shock.
3. Do not place the product in areas with poor ventilation such as a bookshelf or closet. The increased internal temperature may cause fire.
4. Bend the external antenna cable when connecting it to the product. This is a measure to protect it from being exposed to moisture. Otherwise, it may cause a fire or electric shock.
5. Make sure to turn the power off and unplug the power cord from the outlet before repositioning the product. Also check the antenna cable or the external connectors if they are fully unplugged. Damage to the cord may cause fire or electric shock.
6. Keep the antenna far away from any high-voltage cables and install it firmly. Contact with the high-voltage cable or the antenna falling over may cause fire or electric shock.
7. When installing the product, leave enough space (10cm) between the product and the wall for ventilation purposes.
A rise in temperature within the product may cause fire.

1 Precautions

Memo

3 Alignments and Adjustments

3-1 Service Instruction

1. Usually, a color TV-VCR needs only slight touch-up adjustment upon installation.
Check the basic characteristics such as height, horizontal and vertical sync.
2. Use the specified test equipment or its equivalent.
3. Correct impedance matching is essential.
4. Avoid overload. Excessive signal from a sweep generator might overload the front-end of the TV. When inserting signal markers, do not allow the marker generator to distort test result.
5. Connect the TV only to an AC power source with voltage and frequency as specified on the backcover nameplate.
6. Do not attempt to connect or disconnect any wire while the TV is turned on. Make sure that the power cord is disconnected before replacing any parts.
7. To protect against shock hazard, use an isolation transform.

3-2 How to Access Service Mode

3-2-1 Entering Factory Mode

1. To enter "Service Mode" Press the remote -control keys in this sequence :

- If you do not have Factory remote - control



- If you have Factory remote - control



- The buttons are active in the service mode.

1. Remote - Control Key : Power, Arrow Up, Arrow Down, Arrow Left
Arrow Right, Menu, Enter, Number Key(0~9)
2. Function - Control Key : Power, CH +, CH -, VOL +, VOL -,
Menu, TV/VIDEO(Enter)

3-3 Factory Data

1. Calibration
2. Option Table XXXX XXXX
3. W/B
4. W/B Movie
5. MTK8202
6. FBE2 Option
7. Sound
8. YC Delay
9. Adjust
10. Bus Stop
11. Password 80 80 80 80
12. Checksum 0000
13. Dynamic Contrast
14. Spread Spectrum
15. Reset

HDCP Write Success..

T_BDPMNSA-0017 JAN 04 2007 16:48:54 ----- (Main Micom Ver)

Month/ Day / Year / Hour/ Min./Sec.

Panel On Time(Hour) XXXXX

TV Air 2 XX

1. Calibration
 - 1) AV Calibration
 - 2) DTV Calibration
 - 3) PC Calibration
 - 4) HDMI Calibration

2. Option Byte

NO	Item	AMLCD 32"(Initial)	AMLCD 40"	AUO 26" (BN07-00254A)	AUO 23" TN((BN07-00365A)
1	Panel Inch	32"	40"	26"	23"
2	Panel Vender	AMLCD_INT	AMLCD_INT	AUO_EXT_P	AUO_INT
3	Panel Type	32AMLCD	40AMLCD	26AUO	23AUOTN
4	Gamma (FBE2)	Off	Off	OFF	OFF
5	Auto Power	On	On	On	On
6	Hotel Mode	Off	Off	Off	Off
7	Shop Mode	Off	Off	Off	Off
8	High Devi	Off	Off	Off	Off
9	Carrier Mute	Off	Off	Off	Off
10	Side Jack	ON	ON	Off	Off
11	V-Chip	Off	Off	Off	Off
12	Caption	On	On	On	On
13	Volume Table	Large	Large	Large	Large
14	Sound Wattage	LCD 10W	LCD 10W	LCD 10W	LCD 10W
15	Initial Color System	Auto	Auto	Auto	Auto
16	Language	ENG	Eng	Eng	Eng
17	HP Detect	Active High	Active High	Active High	Active High
18	PC Ident	ON	ON	ON	ON
19	Sub MCUPW Down	On	On	On	On

3 Alignments and Adjustments

3. White Balance

No	Item	AMLCD 32"(Initial)	AMLCD 40"	AUO 26" (BN07-00254A)	AUO 23" TN((BN07-00365A)
1	SubBright	128	128	128	128
2	Roffset	128	128	128	128
3	Goffset	128	128	128	128
4	Boffset	128	128	128	128
5	Sub Contrast	132	135	140	128
6	RGain	128	128	128	128
7	GGain	128	128	128	128
8	BGain	128	128	128	128

4. W/B Movie

NO	Item	RF/AV/S_video	Component	DVI/HDMI	PC
1	W/B MOVIE ON/OFF	off	off	off	off
2	Service P Mode	Movie	Movie	Movie	Movie
3	Service Color Tone	Warm2	Warm2	Warm2	Warm2
4	MSub Brightness	128	128	128	128
5	MSub Contrast	128	128	128	128
6	Warm1_Red gain	156	162	159	174
7	Warm1_Blue gain	39	43	46	37
8	Warm1_Red offset	128	126	127	131
9	Warm1_Blue offset	133	133	131	128
10	Warm2_Red gain	160	158	155	173
11	Warm2_Blue gain	3	6	7	6
12	Warm2_Red offset	127	127	128	131
13	Warm2_Blue offset	136	136	135	129
14	Normal_Red gain	136	139	137	148
15	Normal_Blue gain	87	92	87	87
16	Normal_Red Offset	129	128	128	133
17	Normal_Blue offset	131	129	131	123
18	Cool2_Red gain	114	114	114	129
19	Cool2_Blue gain	149	151	148	149
20	Cool2_Red offset	129	129	129	134
21	Cool2_Blue offset	127	127	128	119
22	Mov. Contrast	80	80	80	80
23	Mov. Brightness	50	50	50	50
24	Mov. Color	55	55	55	55
25	Mov. Sharpness	45	45	45	45

5. MTK8202

1) Cal. Adjustment

NO	Item	
1	R_Offset	15
2	G_Offset	19
3	B_Offset	23
4	R_Gain	90
5	G_Gain	86
6	B_Gain	88
7	Y_Offset	2
8	Cb_Offset	33
9	Cr_Offset	28
10	Y_Gain	49
11	Cb_Gain	49
12	Cr_Gain	49
13	CVBS Offset	55
14	CVBS Gain	53
15	CVBS U	0
16	CVBS V	0
17	2nd R_Gain	129
18	2nd G_Gain	129
19	2nd B_Gain	129
20	2nd R_Offset_B	142
21	2nd G_Offset_B	141
22	2nd B_Offset_B	141
23	2nd R_Offset_A	127
24	2nd G_Offset_A	128
25	2nd B_Offset_A	128
26	LVDS Control	55

2) Cal. Target

NO	Item	
1	AV_offset Target	15
2	AV_offset Delta	1
3	AV_Gain Target	220
4	AV_Gain Delta	3
5	Component_Y_Gain Target	235
6	Component_Y_Gain Delta	3
7	Component_Y_Offset Target	16
8	Component_Pb_Offset Target	128
9	Component_Pr_Offset Target	128
10	Component_Y_Offset Delta	2
11	Component_Pb_Offset Delta	0
12	Component_Pr_Offset Delta	0
13	PC_Offset Target	1
14	PC_Offset Delta	0
15	PC_Gain Target	254
16	PC_Gain Delta	0
17	Black Target	1
18	White Target	235

3 Alignments and Adjustments

3) Picture enhance 2

NO	Item	AMLCD 32"(Initial) RF(NT/PAL-M/PAL-N)	AMLCD 40" RF(NT/PAL-M/PAL-N)	AUO 26" (BN07-00254A) RF(NT/PAL-M/PAL-N)	AUO 23" TN((BN07-00365A) RF(NT/PAL-M/PAL-N)
1	PreLGain_Main	64	64	64	64
2	PreMGain_Main	84	84	84	84
3	PreHGain_Main	84	84	84	84
4	PreLGain_Sub	0	0	0	0
5	PreMGain_Sub	0	0	0	0
6	PreHGain_Sub	0	0	0	0
7	LocalLGain	64	64	64	64
8	LocalMGain	64	64	64	64
9	LocalHGain	64	64	64	64
10	PostLGain	128	128	128	128
11	PostMGain	96	96	96	96
12	PostHgain	64	64	64	64
13	Vgain	32	32	32	32
14	Sub Color	40	40	40	40

6. FBE2 Option

NO	Item	AMLCD 32"(Initial)	AMLCD 40"	AUO 26" (BN07-00254A)	AUO 23" TN((BN07-00365A)
1	Patt-Sel	0	0	0	0
2	B-Slope gain	64	64	64	64
3	B-Tilt min	20	20	20	20
4	B-Tilt max	120	120	120	120
5	B-Tilt slope	50	50	76	50
6	Lfunc-Basis	75	75	75	75
7	Hfunc-Basis	70	70	76	50
8	Mean-Offset1	150	150	150	150
9	Mean-Offset2	43	43	54	54
10	Mean-Slope	128	128	128	128
11	Input-offset	15	15	15	15
12	Input-gain	30	30	30	30
13	ACR-Offset	100	100	130	100
14	ACR-Th1	On	On	On	On
15	ACR-Th2	140	140	143	148
16	Skin-Enable	140	140	105	148
17	Skin-Tu	128	128	128	128
18	Skin-Tv	128	128	128	128
19	M-Skin-Tu	140	140	140	140
20	M-Skin-Tv	128	128	128	128
21	Sub color	128	128	128	128
22	M-Au-Sub color	128	128	128	128
23	M-Wi-Sub color	128	128	128	128

7. Sound

NO	Item	Initial Value
1	AM_mute Th_High	9
2	AM_mute Th_Low	8
3	FM_mute Th_High	18 -> 14
4	FM_mute Th_Low	6
5	NICAM FINE VOL	20
6	FM FINE VOL	20
7	AM FINE VOL	19
8	FINE TUNE VOL	20
9	SC1 Fine Vol	20
10	SC2 Fine Vol	20
11	Output Matrix	Bypass
12	MTS Num of Check	50
13	MTS Pilot Num	35
14	MTS Pilot Low	112
15	MTS Pilot High	128
16	MTS SAP Num	20
17	MTS SAP Low	101
18	MTS SAP High	167
19	MTS SAP Mute Lvl	0
20	MTS Fine Vol	20
21	MTS SAP Fine Vol	20
22	FM Mute Th_H Hdev	57
23	FM Mute Th_L Hdev	38
24	Speaker EQ	On

8. YC Delay

NO	Item	TV/AV/S_Video	Control Addr.		
1	RF PAL-B/G	6	1+0x0054 [23..20] (U/V Delay[21..20]) (Y Delay[23..22])	1+00DC[13:8] Main (Main U Delay : [10..08]bit Main V Delay : [13..11]bit)	1+00B6[13:8] PIP (Main U Delay : [10..08]bit Main V Delay : [13..11]bit)
2	RF PAL-D/K	5			
3	RF PAL- I	5			
4	RF PAL- L/L'	5			
5	RF SECAM-B/G	7			
6	RF SECAM-D/K	5			
7	RF SECAM-I	5			
8	RF SECAM-L/L'	5			
9	RF NTSC3.58	8->5			
10	RF NTSC4.43	6			
11	RF PAL-M	7			
12	RF PAL-N	5			
13	AV PAL	3			
14	AV SECAM	7			
15	AV NTSC 3.58	6			
16	AV NTSC4.43	6			
17	AV PAL60	5			
18	AV PAL-M	7			
19	AV PAL-N	5			

3 Alignments and Adjustments

9. Adjust

1) User Control Initial

NO	Item	30
1	TTX PWM	100
2	Dyn. Contrast	45
3	Dyn. Brightness	55
4	Dyn. Color	75
5	Dyn. Sharpness	80
6	Std. Contrast	50
7	Std. Brightness	55
8	Std. Color	50
9	Std. Sharpness	20
10	Melody Volume	38
11	Contrast Gain	64
12	MTK_Dyn.Contrast	Off
13	DSP Recovery	ON
14	Channel Table	SUWON
15	Video Mute Time	10->5

2) LNA PLUS

NO	Item	
1	LNA Plus	On
2	RF_dB0_TH	5
3	RF_dB1_TH	15
4	RF_dB2_TH	43
5	RF_dB3_TH	64
6	NR1_Coring	16
7	NR2_Coring	32
8	NR3_Coring	32
9	NR4_Coring	32

3) Hotel Option

NO	Item	
1	Power On Channel	3
2	Power On Band	Air
3	Power On Volume	10
4	Max Volume	100
5	Local Key Lock	OFF
6	Power On Source	TV

4) HDMI

NO	Item	
1	Hot Plug	On
2	Clock Control	On
3	Hot Plug Dly	9

10. Bus Stop

NO	Item	
1	Main Loop	Off
2	Eeprom	Off
3	Tuner	Off
4	Normal	Off
5	Watch Dog	On

11. Checksum XXXX

12. Dynamic Contrast

NO	Item	
1	Dynamic CE	off
2	Dynamic Diming	off
3	Y_Mean_Read	Read Data

13. Spread Spectrum

NO	Item	
1	Spread Spectrum	Off
2	Step_480I/576I	40
3	Range_480I/576I	50
4	Step_480P/576P	30
5	Range_480P/576P	50
6	Step_720P	30
7	Range_720P	45->40
8	Step_1080I	30
9	Range_1080I	45
10	Step_640_480	40
11	Range_640_480	50
12	Step_800_600	40
13	Range_800_600	55
14	Step_1024_768	40
15	Range_1024_768	55
16	Step_1360_768	40
17	Range_1360_768	55
18	FBE_Spectrum	Off

14. Reset

3 Alignments and Adjustments

3-4 Service Adjustment

3-4-1 White Balance - Calibration

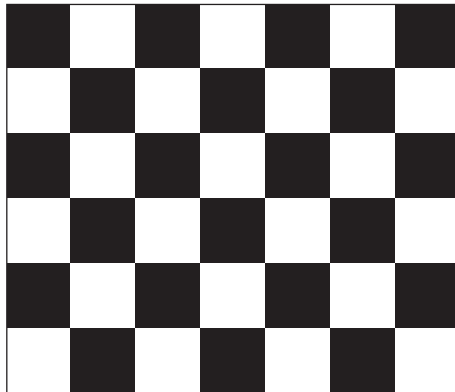
If picture color is wrong, do calibration first.

Equipment : CA210, Patten : chess pattern

Execute calibration in Factory Mode

Source AV : PAL composite, Component : 1280*720/60Hz

PC : 1024*768/60Hz



(chess patten)

3-4-2 White Balance - Adjustment

If picture color is wrong, check White Balance condition.

Equipment : CA210, Patten : Toshiba

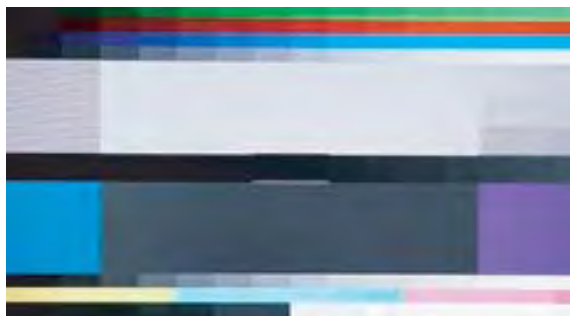
Adjust W/B in Factory Mode

Sub brightness and R/G/B Offset controls low light region

Sub contrast and R/G/B Gain controls high light region

Source AV : PAL composite, Component : 1280*720/60Hz

HDMI[DVI] : 1280*720/60Hz



[Test Pattern : MSPG-945 Series Pattern #92]

*Color temperature

1500K +/-500, -6 ~-20 MPCD

*Color coordinate

H/L : 272/278 +/- 2 55 Ft +/- 3.0Ft

L/L : 272/278 +/- 2 35 Ft +/- 0.1Ft

W/B Patten

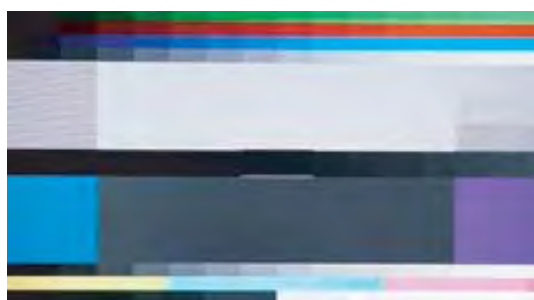
3-4-3 Conditions for Measurement

1. On the basis of toshiba ABL pattern : High Light level (57 IRE)
 - INPUT SIGNAL GENERATOR : MSPG-925LTH
 - * Mode NO 1 : 744X484@60 Hz
 - NO 2 : 744X484@60 Hz
 - NO 6 : 1280X720@60 Hz
 - NO 21 : 1024X768@60 Hz
 - * Pattern NO 36 : 16 Color Pattern
 - NO 16 : Toshiba ABL Pattern
 - NO 92 : W/B Pattern
 2. Optical measuring device : CA210 (FL)
- Please use the MSPG-925 LTH generator for model LN23R81B/LN26R81B/LN32R81B/LN40R81B.

3-4-4 Method of Adjustment

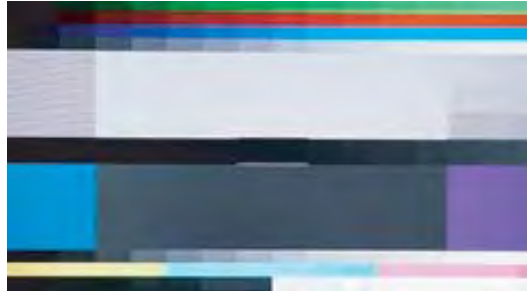
1. Adjust the white balance of AV, Component and HDMI Modes.
 - (AV → Component)
 - a) Set the input to the mode in which the adjustment will be made
(RF → DTV → PC → HDMI).
 - * Input signal - VIDEO Mode : Model #2 (744*484 Mode), Pattern #16
 - DTV, DVI Mode : Model #6 (1280*720 Mode), Pattern #16
 - HDMI Mode: Model #6(1280*720 Mode), Pattern #16
 - b) Enter factory color control, confirm the data.
 - c) Adjust the low light. (Refer to table 1, 2 in adjustment position by mode)
 - Adjust sub - Brightness to set the 'Y' value.
 - Adjust red offset ('x') and blue offset ('y') to the color coordinates.

Picture 4-2 W/B Patten



- * Do not adjust green offset data.
- d) Adjust the high light. (Refer to table 1, 2 in adjustment position by mode)
 - Adjust red gain ('x') and blue gain ('y') to the color coordinates.
 - * Do not adjust the green gain and sub-contrast (Y) data.

Picture 4-3 W/B Patten



3-5 Software Upgrade

3-5-1 How to Update Flash ROM (with RS-232C Cable)

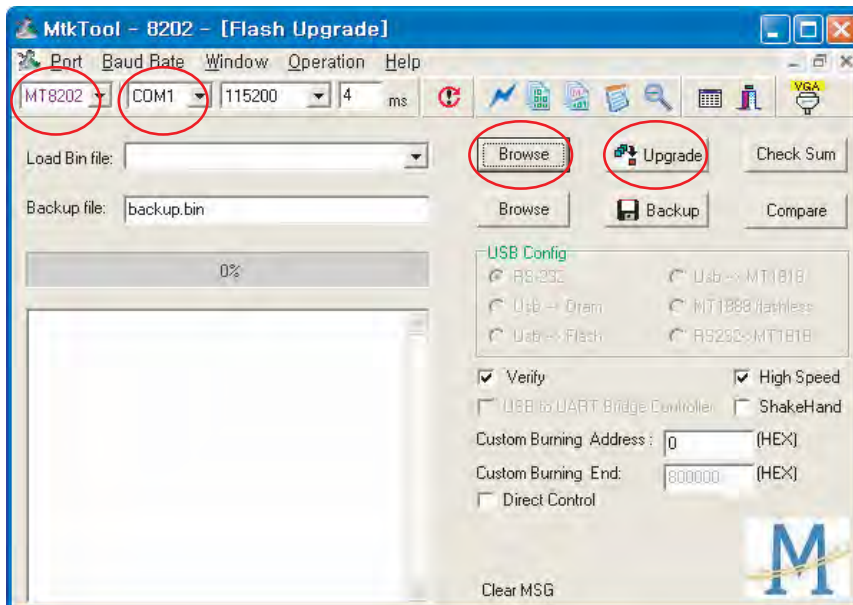
1. Install the Flash Downloader

Connect Set (Service Jack) and Jig Cable to execute Program Update.



2. Turn on the Set (or on Stand by mode)

- Run "Mtktool"



- Click Reset 

- Choose MT8202 (1)
- Select Com Port (2) (Auto Detect)
- Select Bin file, by browse (3)
- Click Upgrade button (4)

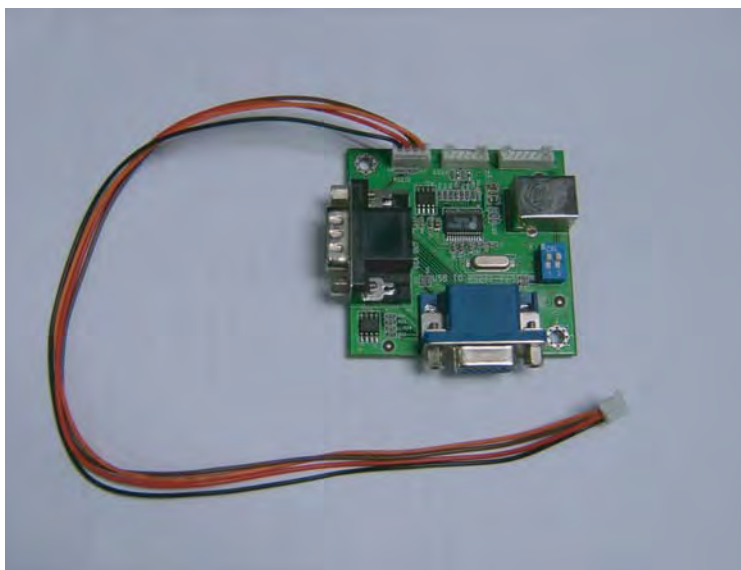
3. Turn off (= AC Power off) the Set (waiting a few seconds) and turn on again.

3 Alignments and Adjustments

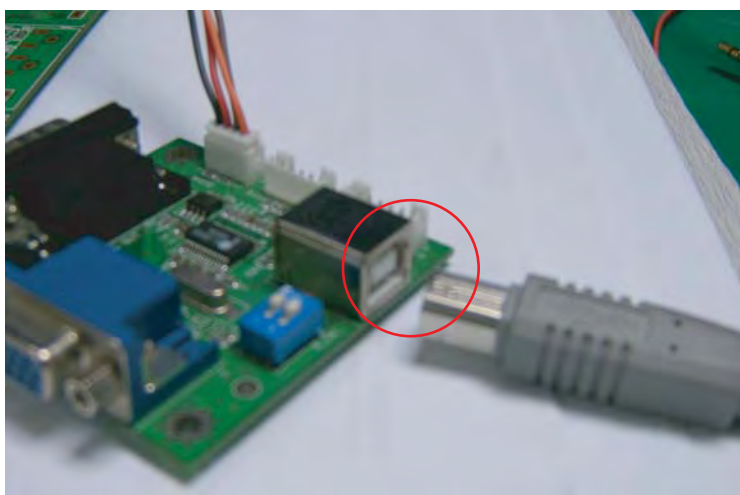
3-5-2 How to Update Flash ROM (with UART JIG)


∅ In the usual cases, Update S/W by using RS-232C Cable.

If some problems occur under this condition, update S/W by using UART JIG.

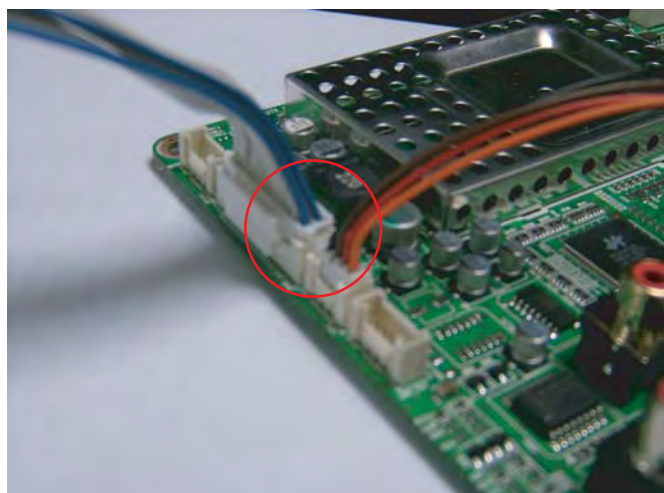


You can use UART JIG with USB Connection.

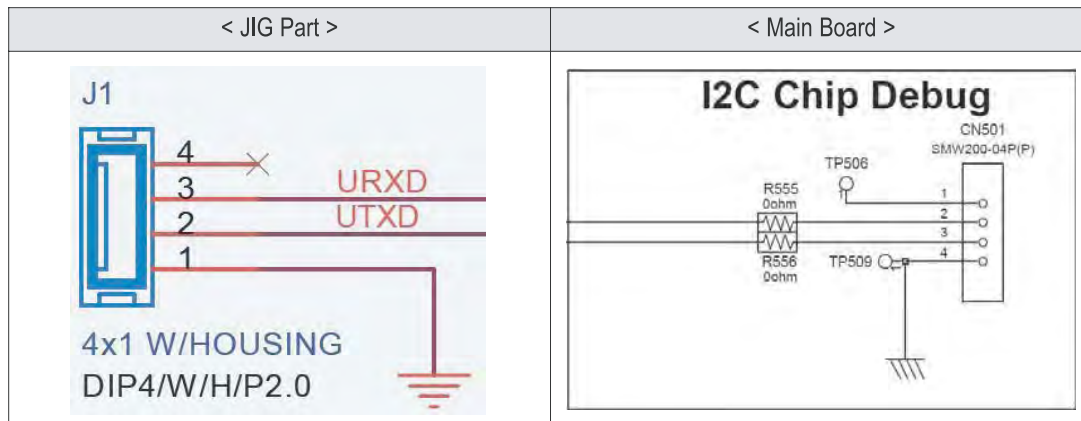


Install  PL-2303 Driver Installer in your PC before using the JIG

Connect 4P Lead connector to Main Board(CN501)

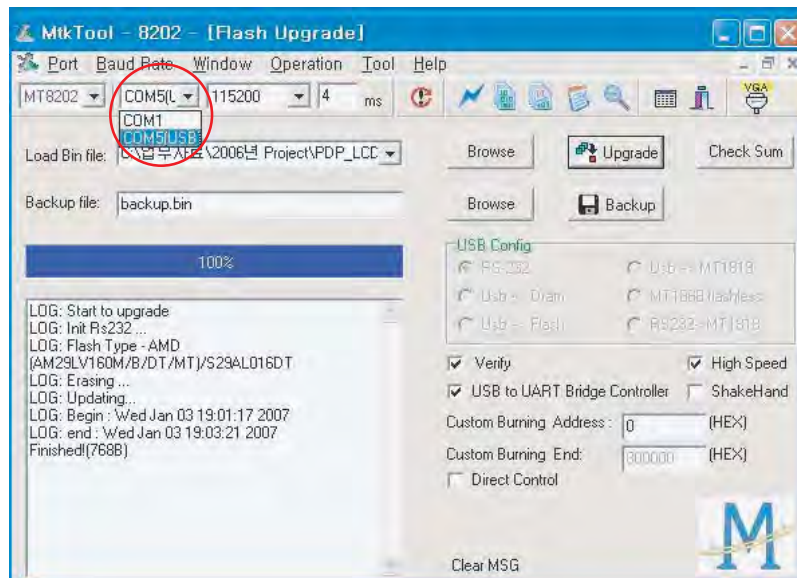


* Pin Assignment



Turn on the Set (or on Stand by mode)

- Run "MTKtool"



When you run "MTKtool", this Program can detect USB port automatically
Choose USB interface and Update S/W as RS-232C case.

Memo

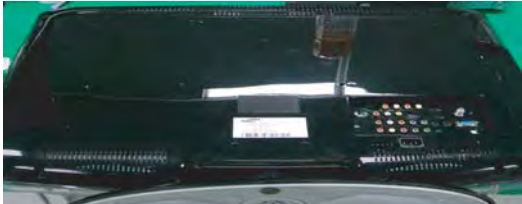
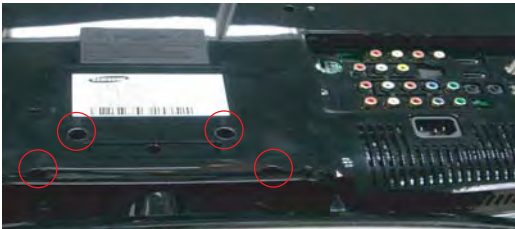

11 Disassembly and Reassembly

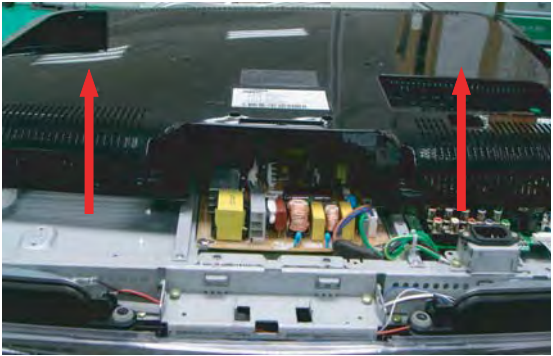
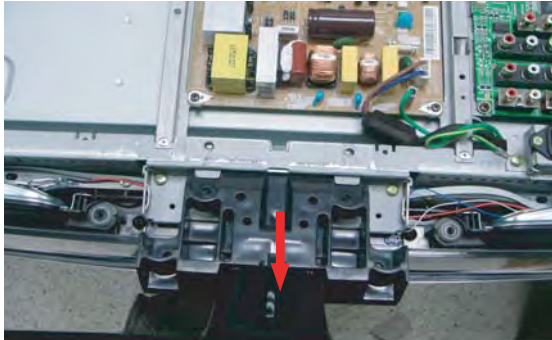


This section of the service manual describes the disassembly and reassembly procedures for the TFT-LCD TV.



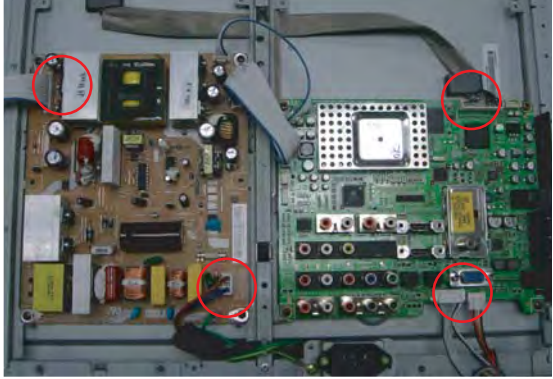
⚠ WARNING : This monitor contains electrostatically sensitive devices. Use caution when handling these components.

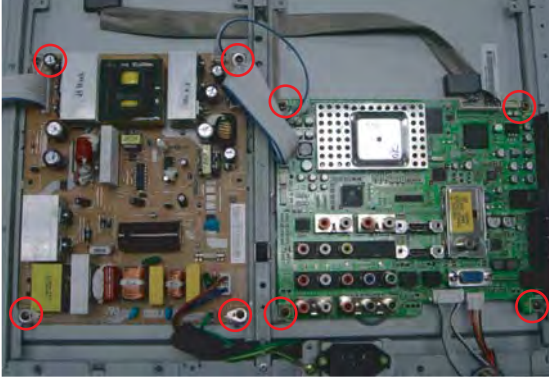

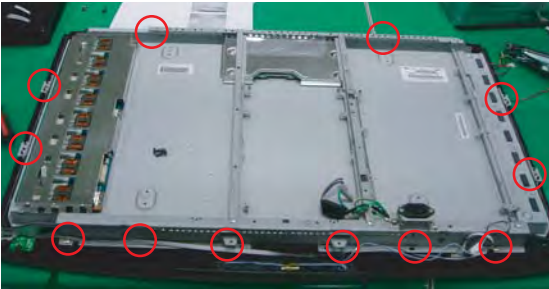
11-1 Disassembly

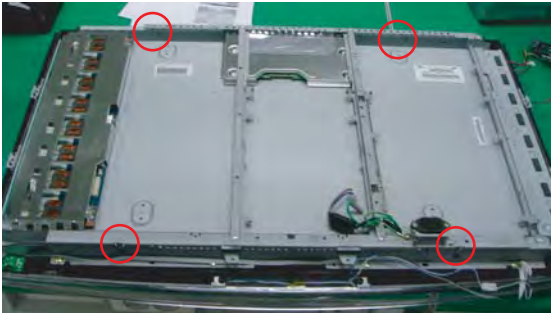
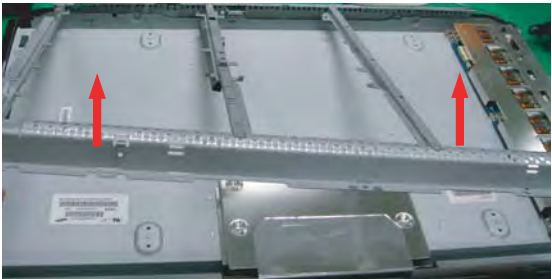


⚠ Cautions : 1. Disconnect the monitor from the power source before disassembly.
2. Follow these directions carefully; never use metal instruments to pry apart the cabinet.

Description	Picture Description
1. Place monitor face down on cushioned table. Remove 15 screws from the rear cover. Remove 4 screws from the stand.	
	
	

Description	Picture Description
<p>2. Lift up the rear cover and remove the stand.</p>	
	
<p>3. Remove screws from the stand BRKT and lift up the stand BRKT.</p>	
	

Description	Picture Description
<p>4. Remove screws from the shield and disconnect cable.</p>	
	
<p>5. Lift up the shield and disconnect cables from the boards.</p>	

Description	Picture Description
6. Remove screws from the boards and remove screw from the side connector.	 A photograph showing the internal components of a device, including a green circuit board with various electronic components and a silver metal chassis. Several screws are circled in red, indicating the locations where they should be removed. The screws are located on the top and right sides of the chassis, securing the internal boards.
7. Lift up the speakers and remove screws from the panel BRKT.	 A photograph showing the internal components of a device, similar to the previous one. Two red arrows point upwards towards the speaker locations on the left and right sides of the chassis. A screw is circled in red in the center of the chassis, indicating its removal point.
	 A photograph showing the internal components of a device, similar to the previous ones. Multiple screws are circled in red, indicating the locations where they should be removed. The screws are located on the top and bottom edges of the chassis, securing the internal boards.

Description	Picture Description
<p>8. Remove screws and lift up the BRKT.</p>	
	
<p>9. Lift up the panel.</p>	
	

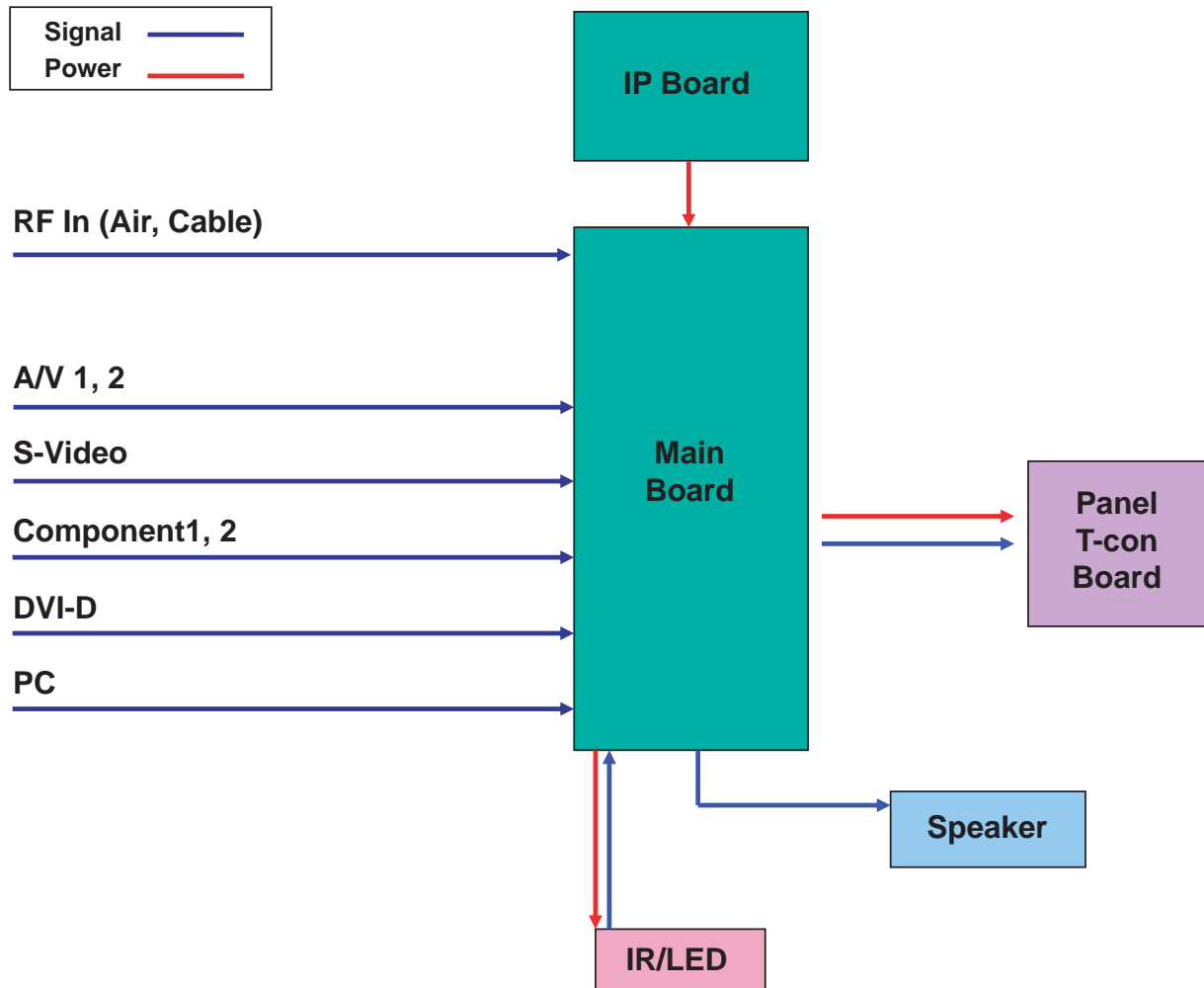
11-2 Reassembly

Reassembly procedures are in the reverse order of disassembly procedures.

13 Circuit Descriptions

13-1 Block description

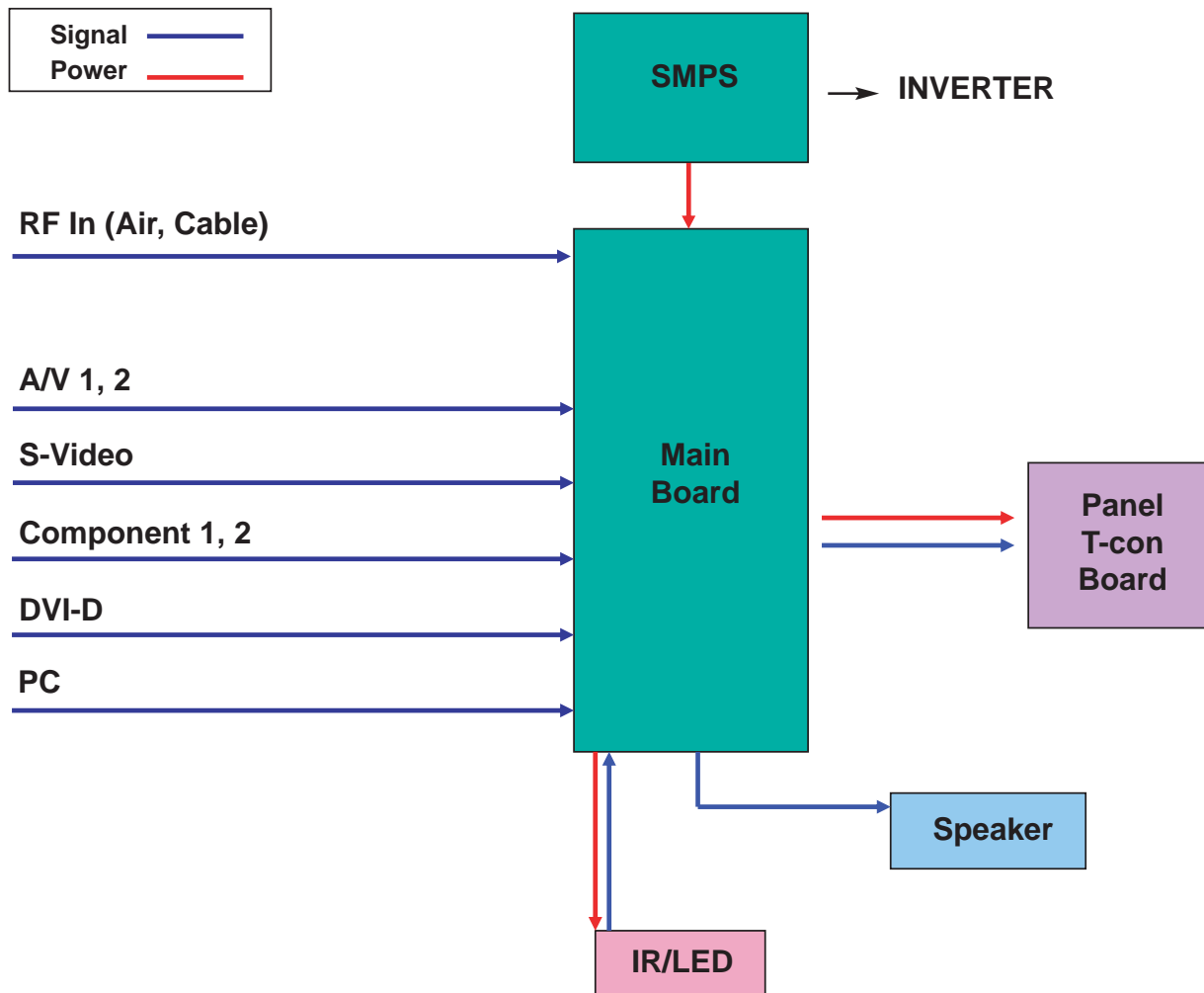
13-1-1 Block description with IP Board



Bordeaux consists of three main blocks

1. Main board : Video signal processing
2. IP board : Power supply & Inverter
3. T-con board : LCD Panel control

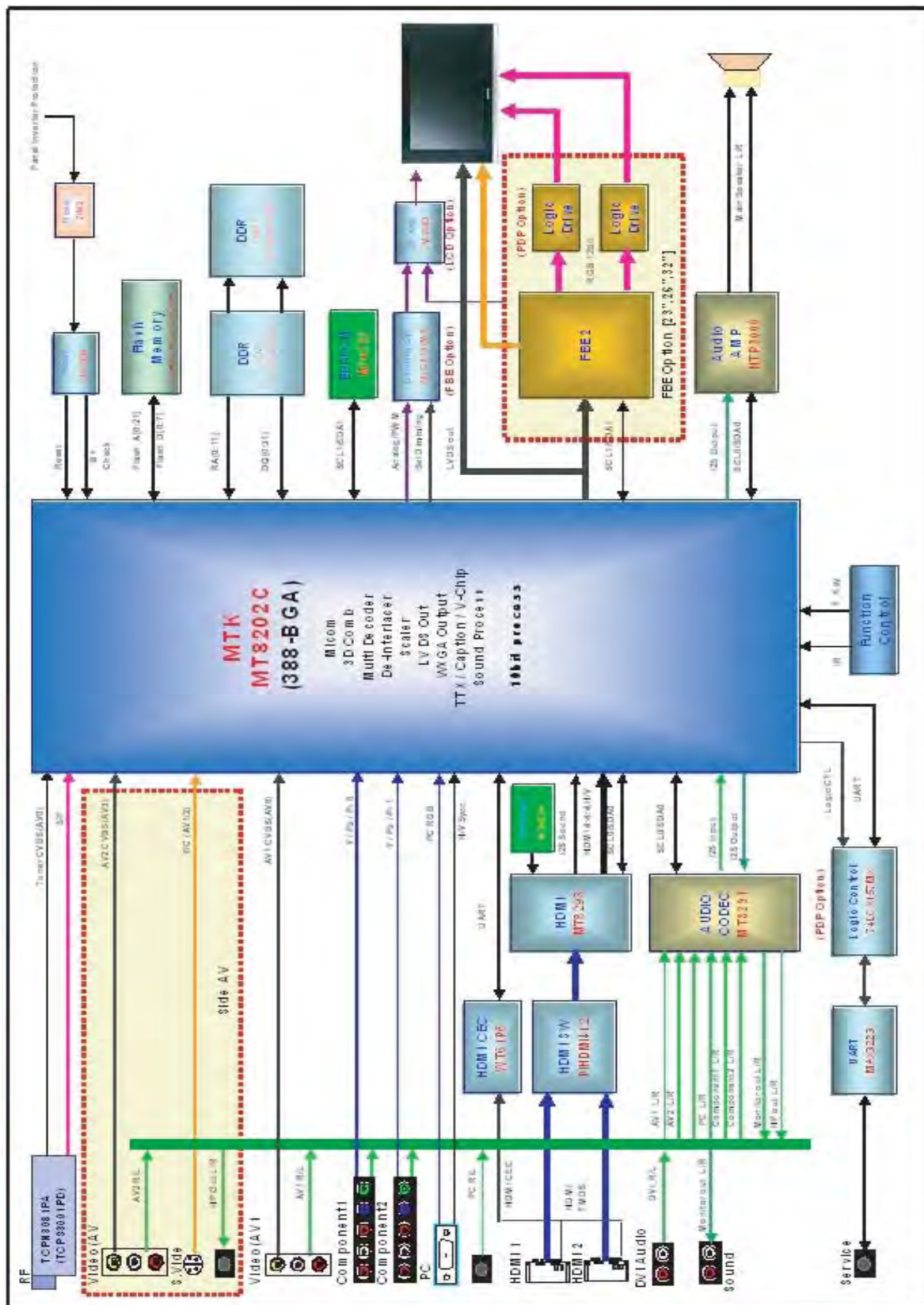
13-1-2 Block description with SMPS



Bordeaux consists of three main blocks

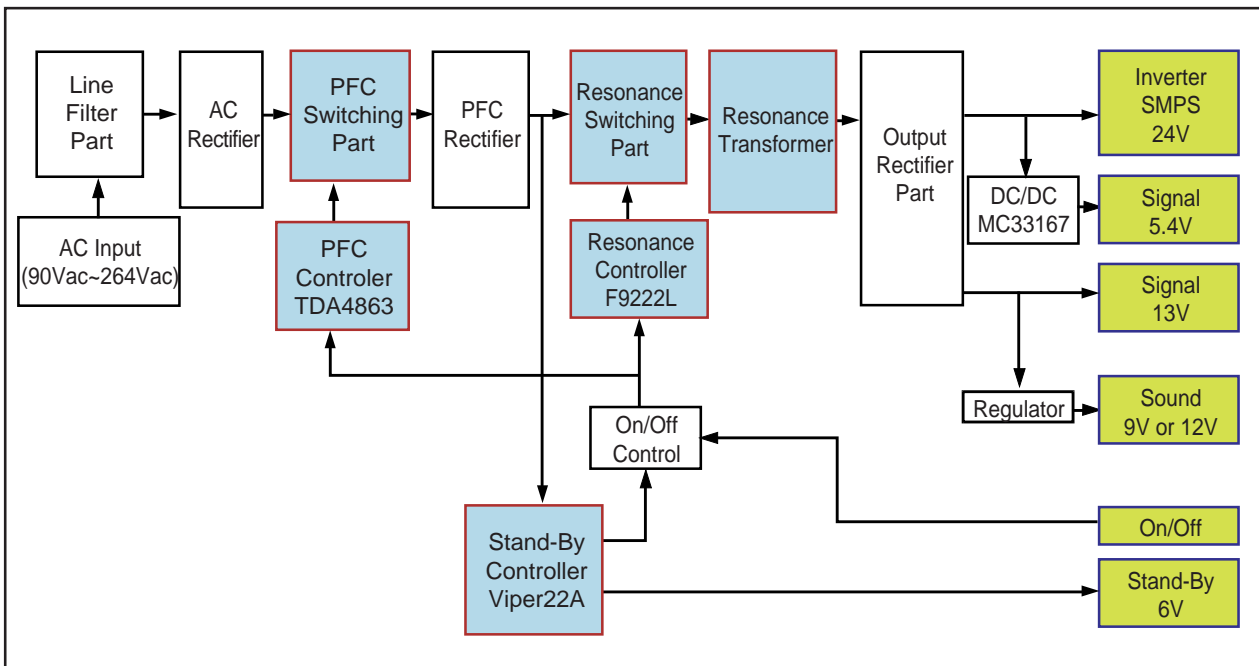
1. Main board : Video signal processing
2. SMPS : Power supply
3. T-con board : LCD Panel control

13-2 Main Block

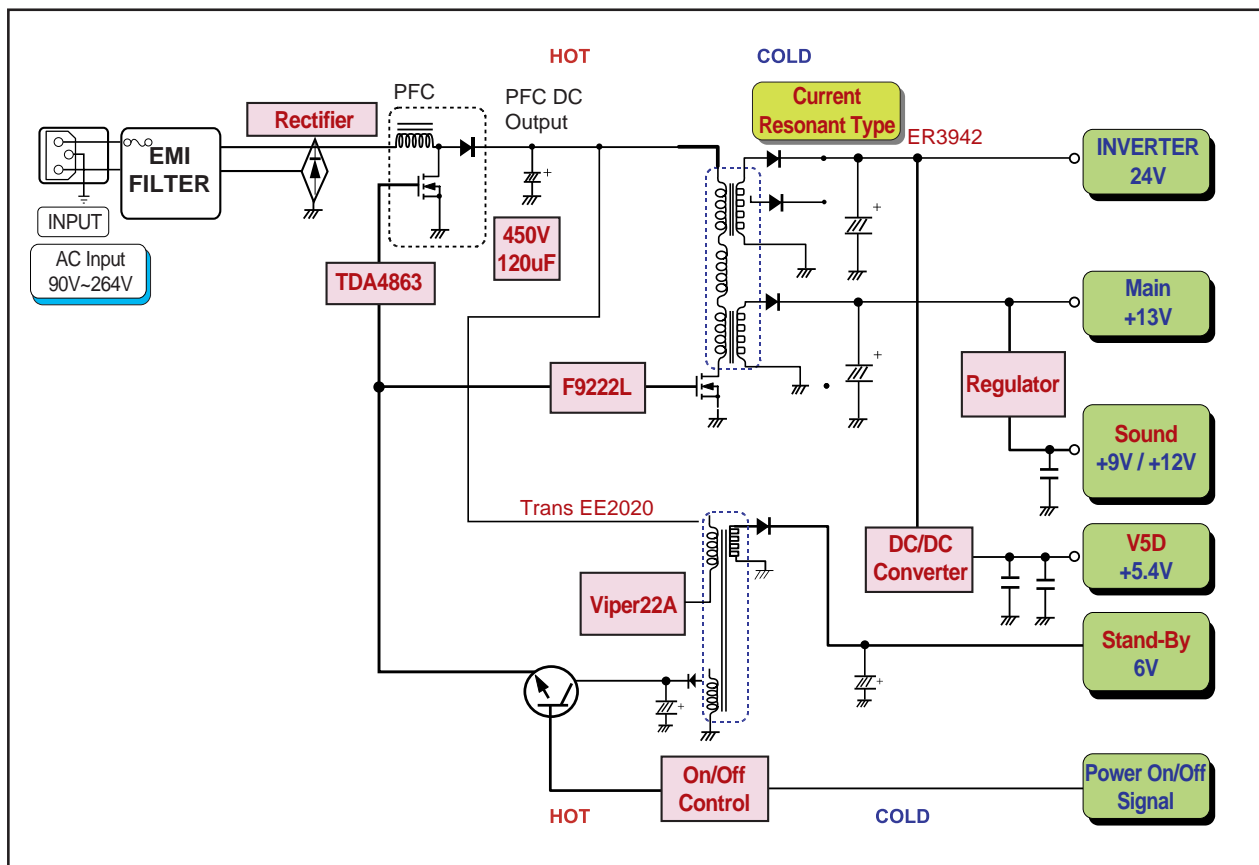


13-3 SMPS Board

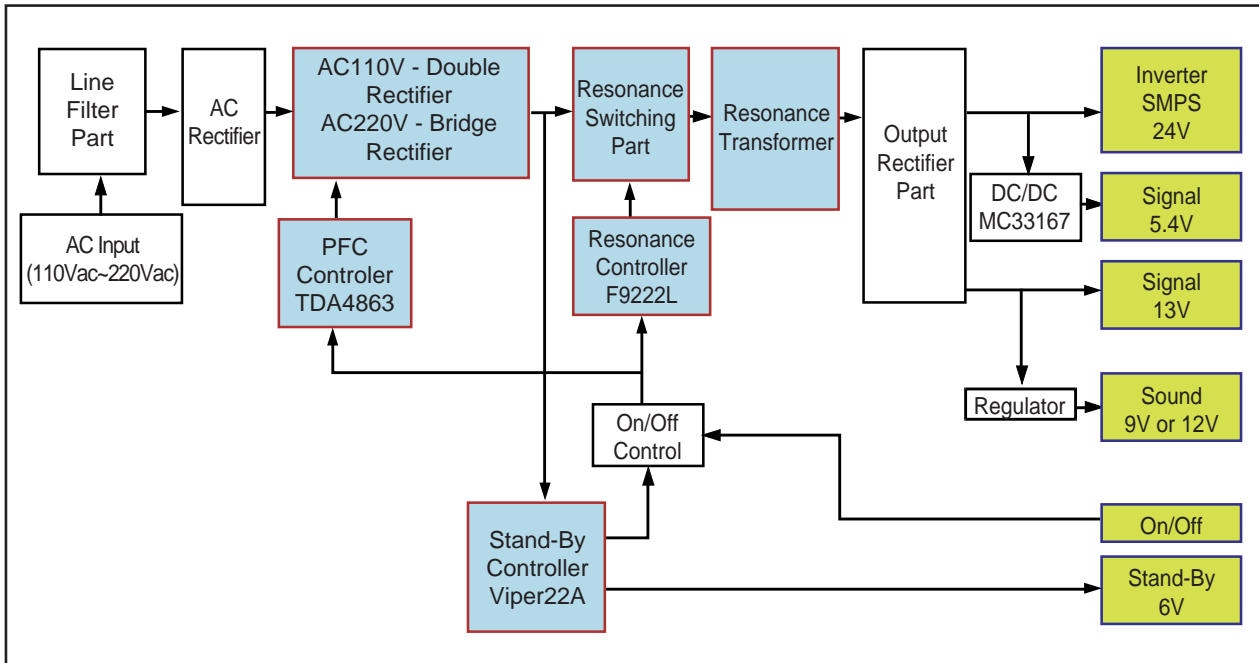
13-3-1 26", 32" SMPS Block



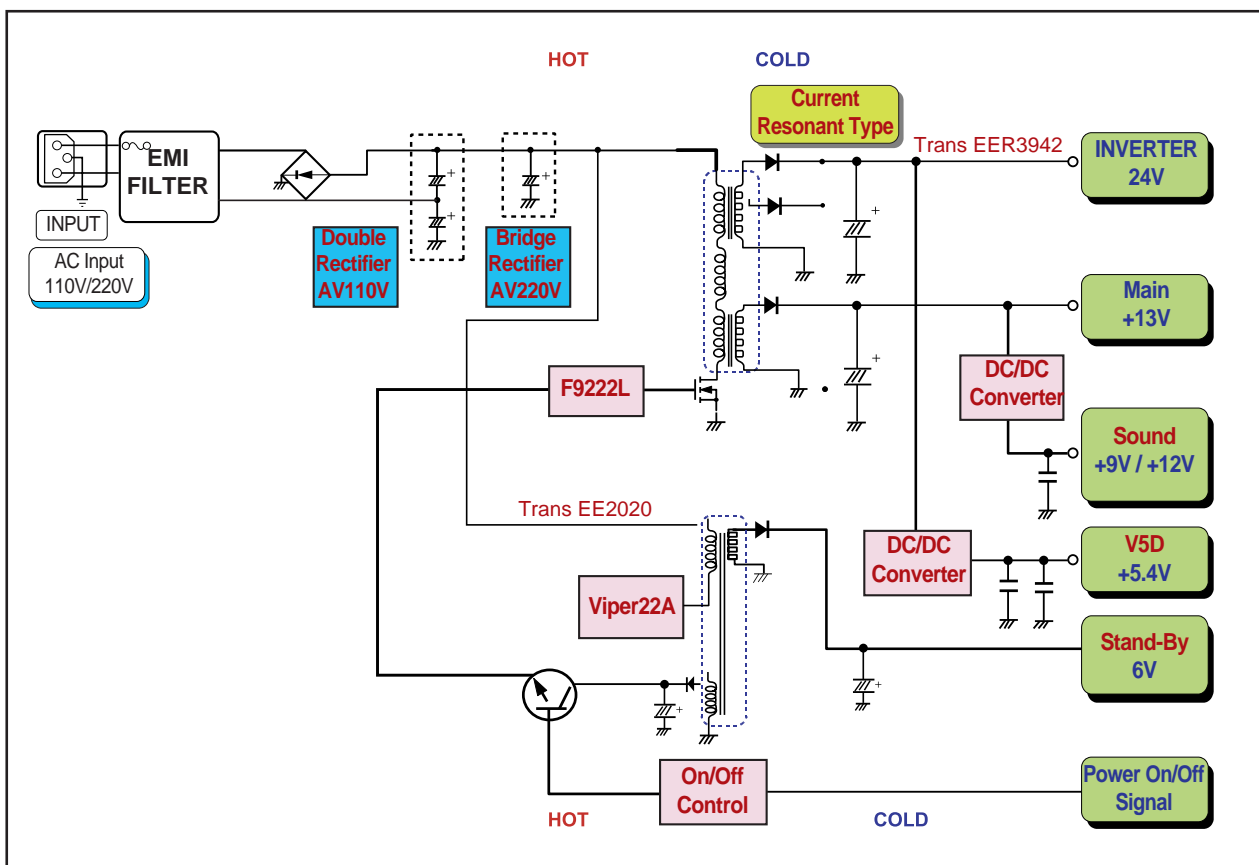
13-3-2 26", 32" SMPS Block



13-3-3 26" , 32" SMPS Block



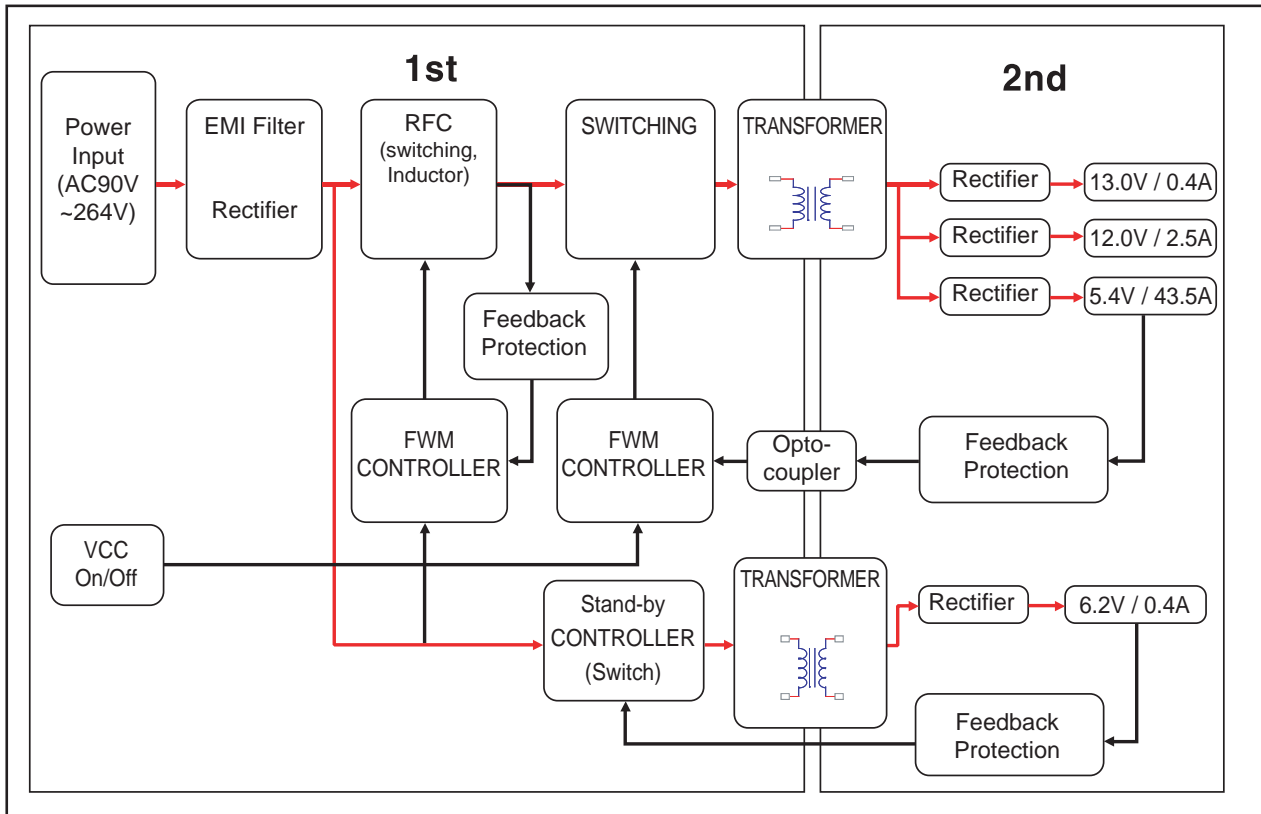
13-3-4 26" , 32" SMPS Block



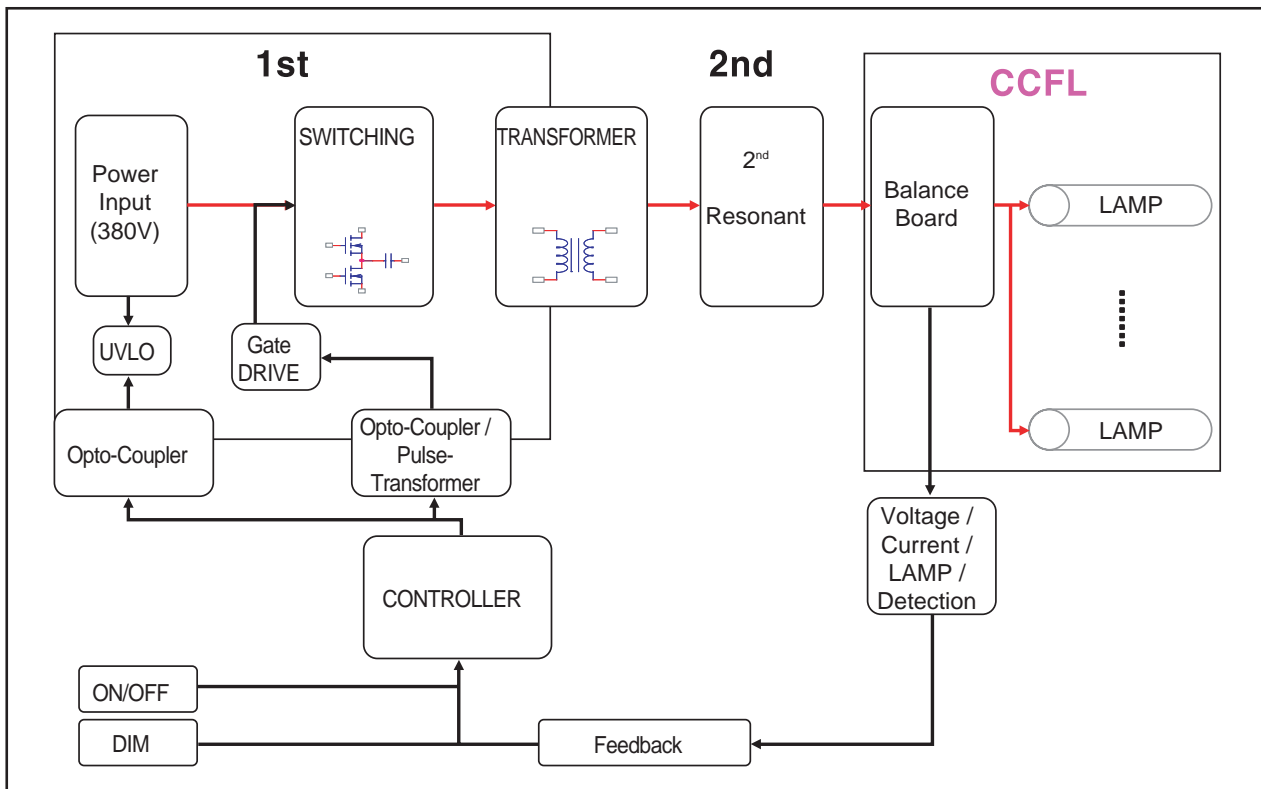
13 Circuit Descriptions

Output Name	Output Voltage			Output Current			Load Characteristics	PCB Loc.	Usage	Remark
	Normal	Regulation(%)	Variable Range	Min	Typical	Peak				
24V	24.5V	± 4	23.52V ~25.48V	0.1V	3.0V	4.0V	Pulsating	Main B'D	Drive	-
5.4V	5.4V	± 5	5.13V ~5.67V	0.1V	3.0V	5.0V	Constant	Main B'D	Drive, Logic, Buffer, Image Digital	-
13V	12.7V	± 7	11.9V ~13.7V	0.01V	0.3V	0.5V	Constant	Main B'D	Image Analog	-
Vamp	9.2V	± 4	8.83V ~9.57V	0.01V	0.3V	1.1V	Constant	Main B'D	Sound	-
ST-BY	8.0V	± 5	5.58V ~8.5V	0.1V	0.3V	0.6V	Constant	Main B'D	Stand-by	-

13-3-5 32" , 40" IP Board



13-3-6 32" , 40" IP Board



Memo

14 Reference Information

14-1 Technical Terms

- TFT-LCD

(Thin film Transistor Liquid Crystal Display)

ADC(Analog to Digital Converter)

This is a circuit that converts from analog signal to digital signals.

- PLL(Phase Locked Loop)

During progressing ADC, Device makes clock synchronizing HSYNC with Video clock

- Inverter

Device that supply Power to LCD panel lamp. this device generate about 1,500~2,000V.

- AC Adapter

Device that converts AC(90V~240V) to DC(+12V or 14V)

- SMPS(Switching Mode Power Supply)

Switching Mode Power supply. This design technology is used to step up/down the input power by switching on/off

- FRC(Frame Rate Controller)

Technology that change image frame quantity displayed on screen for one second.

Actually TFT-LCD panel require 60 pcs of frame for one second.

so, this technology is needed to convert input image to 60 pcs regardless input frame quantity.

- Image Scaler

Technology that convert various input resolution to other resolution.(ex. 640* 480 to 1024*768)

- Auto Configuration(Auto adjustment)

This is an algorithm to adjust monitor to optimum condition by pushing one key.

- OSD(On Screen Display)

On screen display. customer can control the screen easily with this.

- Image Lock

This means "Fineness adjustment" in LCD Monitor, the features are "Fine" and "Coarse"

- FINE

"Fine" adjustment is used to adjust visibility by control phase difference.

- COARSE

This is a adjustment by tuning with Video colck and PLL clock.

- DVI (Digital Visual Interface)

This provides a high speed digital connection for visual data types that is display technology independent. this interface is primarily focused at providing a connection between a computer and its display device.

- L.V.D.S.(Low Voltage Differential Signaling)

a kind of transmission method for Digital.It can be used from Main PBA to Panel.

- DVI (Digital Visual Interface)

This provides a high speed digital connection for visual data types that is display technology independent. this interface is primarily focused at providing a connection between a computer and its display device.

- T.M.D.S

(Transition minimized Differential Signaling)

a kind of transmission method for Digital.

It can be used from Video card to Main PBA.

- DDC(Display data channel)

It is a communication method between Host Computer and related equipment.

It can make it Plug and Play between PC and Monitor.

- EDID

Extended Display Identification Data PC can recognize the monitor information as Product data, Product name, Display mode, Serial number and Signal source, etc through DDC Line communicating with PC and Monitor.

- Dot Pitch

The image on a monitor is composed of red, green and blue dots. The closer the dots, the higher the resolution. The distance between two dots of the same color is called the 'Dot Pitch'. Unit: mm

- Vertical Frequency

The screen must be redrawn several times per second in order to create and display an image for the user. The frequency of this repetition per second is called Vertical Frequency or Refresh Rate. Unit: Hz

Example: If the same light repeats itself 60 times per second, this is regarded as 60 Hz.

- Horizontal Frequency

The time to scan one line connecting the right edge to the left edge of the screen horizontally is called Horizontal Cycle. The inverse number of the Horizontal Cycle is called Horizontal Frequency. Unit: kHz

- Interlace and Non-Interlace Methods

Showing the horizontal lines of the screen from the top to the bottom in order is called the Non-Interlace method while showing odd lines and then even lines in turn is called the Interlace method.

The Non-Interlace method is used for the majority of monitors to ensure a clear image. The Interlace method is the same as that used in TVs.

- Plug & Play

This is a function that provides the best quality screen for the user by allowing the computer and the monitor to exchange information automatically.

This monitor follows the international standard VESA DDC for the Plug & Play function.

- Resolution

The number of horizontal and vertical dots used to compose the screen image is called 'resolution'.

This number shows the accuracy of the display.

High resolution is good for performing multiple tasks as more image information can be shown on the screen.

Example: If the resolution is 1280 x 1024, this means the screen is composed of 1280 horizontal dots (horizontal resolution) and 1024 vertical lines (vertical resolution).

- BTSC

Broadcast Television System Committee

The stereo broadcasting system that is used in most of the countries that have adopted the NTSC system, including the United States, Canada, Chile, Venezuela and Taiwan. It also refers to the organization that has been organized to promote its development and management.

- EIAJ

Electronic Industries Association of Japan.

- RF Cable

A round signal cable generally used for TV antennas.

- Satellite Broadcasting

Broadcasting service provided via satellite. Enables high picture quality and clear sound throughout the country regardless of the location of the viewer.

- Sound Balance

Balances the levels of the sound coming from each speaker in televisions with two speakers.

- Cable TV

Whereas the terrestrial broadcasting is delivered via frequency signals through the air, cable broadcasting is transmitted via a cable network. In order to view cable TV, one must purchase a cable receiver and hook it up to the cable network.

- CATV

"CATV" refers to the broadcasting service offered at hotels, schools and other buildings through their own broadcasting system, apart from VHF or UHF broadcasting by terrestrial broadcasters. The CATV programs may include movies, entertainment and educational programs. (Different from cable TV.)

CATV can be viewed only within the area in which the CATV service is offered.

- S-Video

Short for "Super Video." S-Video allows up to 800 lines of horizontal resolution, enabling high-quality video.

- VHF/UHF

VHF indicates TV channels 2 to 13, and UHF indicates channels 14 through 69.

- Channel Fine Tuning

This feature allows the viewer to fine-tune the TV channel to obtain the best viewing conditions. The Samsung LCD TV has both automatic and manual channel fine-tuning features to enable the viewer to adjust their desired settings.

- External Device Input

External device input refers to video input from such external video devices as VCRs, camcorders and DVD players, separate from a TV broadcast.

14-2 Pin Assignments

14-2-1 DVI-D

<div>Sync Type</div> <div>Pin No.</div>	24P DVI-D			
1	Rx2-	13	NC	
2	Rx2+	14	DDC Input power (+5V)	
3	GND	15	IDENT-DVI	
4	NC	16	Output Signal (HDCP Control)	
5	NC	17	Rx0-	
6	DDC - SCL	18	Rx0+	
7	DDC - SDA	19	GND	
8	NC	20	NC	
9	Rx1-	21	NC	
10	Rx1+	22	GND	
11	GND	23	RxC+	
12	NC	24	RxC-	

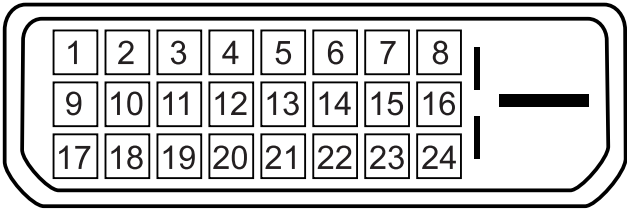


Figure 1.

14-2-2 Component

RCA Green	Y
	GND
RCA Blue	Pb (Cb)
	GND
RCA Red	Pr (Cr)
	GND
RCA White	Audio L
	GND
RCA Red	Audio R
	GND

14-2-4 A/V

RCA Yellow	CVBS
RCA White	Audio L
	GND
RCA Red	Audio R
	GND

14-2-3 S-Video

Pin	Separate
1	GND
2	Y
3	C
4	GND
5	GND

14-2-5 D-SUB

Pin	Separate
1	Red
2	Green
3	Blue
4	GND
5	GND
6	GND Red
7	GND Green
8	GND Blue
9	DDC Input power(+5V)
10	IDENT PC
11	GND
12	DDC Data(SDA)
13	H SYNC
14	V SYNC
15	DDC Clock(SCL)

14-2-6 PC Display mode

Both screen position and size will vary depending on the type of PC monitor and its resolution.

The resolutions in the table are recommended. (All resolutions between the supported limits are supported)

Mode	Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock Frequency (MHz)	Sync Polarity (H/V)
IBM	640 x 480	31.469	59.940	25.175	- / -
	720 x 400	31.469	70.087	28.322	- / +
VESA	640 x 480	37.861	72.809	31.500	- / -
	640 x 480	37.500	75.000	31.500	- / -
	800 x 600	37.879	60.317	40.000	+ / +
	800 x 600	48.077	72.188	50.000	+ / +
	800 x 600	46.875	75.000	49.500	+ / +
	1024 x 768	48.364	60.000	65.000	- / -
	1024 x 768	56.476	70.069	75.000	- / -
	1024 x 768	60.023	75.029	78.750	+ / +
	1360 x 768	47.712	60.015	85.800	+ / +

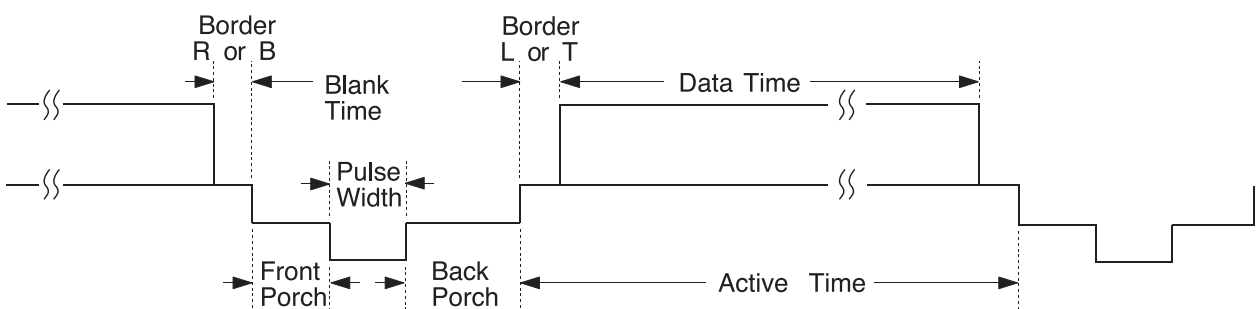
- The interlace mode is not supported.
- The set might operate abnormally if a non-standard video format is selected.
- DVI dose not support PC function.

14-3 Timing Chart

This section of the service manual describes the timing that the computer industry recognizes as standard for computer-generated video signals.

14-3-1 LCD Panel Mode1 mode

Timing No.	LTA400W2
Originator	VESA
Mode Name	1366/60Hz
Resolution (HxV)	1366x768
HORIZONTAL	
Frequency	47.712kHz
Total time	20.959 μ s
Active time	15.906 μ s
Blank time	5.053 μ s
Border(L / R)	0.000 μ s
Data time	15.906 μ s
Front porch	0.749 μ s
Sync. width	1.702 μ s
Back porch	2.994 μ s
Sync. polarity	Positive
VERTICAL	
Frequency	60.015Hz
Total time	16.662 ms
Active time	16.097 ms
Blank time	0.566 ms
Border(T / B)	0.000 ms
Data time	16.097 ms
Front porch	0.063 ms
Sync. width	0.105 ms
Back porch	0.377 ms
Sync polarity	Positive
Dot Clock	85.500MHz
Sync. Type	Separate
Scan Type	N/I



14-3-2 Supported Modes (1)

Timing No.	2	3	11	17	32
Originator	IBM	IBM	VESA	VESA	MAC
Mode Name	VGA2	VGA3	640/72Hz	640/75Hz	640/67Hz
Resolution (HxV)	720x400	640x480	640x480	640x480	640x480
HORIZONTAL					
Frequency	31.469kHz	31.469kHz	37.861kHz	37.500kHz	35.000kHz
Total time	31.777μs	31.778μs	26.413μs	26.667μs	28.571μs
Activetime	26.058μs	26.058μs	20.825μs	20.317μs	21.164μs
Blank time	5.720μs	5.720μs	5.588μs	6.350μs	7.407μs
Border(L / R)	0.318μs	0.318μs	0.254μs	0.000μs	0.000μs
Data time	25.422μs	25.422μs	20.317μs	20.317μs	21.164μs
Front porch	0.318μs	0.318μs	0.508μs	0.508μs	2.116μs
Sync. width	3.813μs	3.813μs	1.270μs	2.032μs	2.116μs
Back porch	1.589μs	1.589μs	3.810μs	3.810μs	3.175μs
Sync. polarity	Negative	Negative	Negative	Negative	Negative
VERTICAL					
Frequency	70.087Hz	59.940Hz	72.809Hz	75.000Hz	66.667Hz
Total time	14.268ms	16.683ms	13.735ms	13.333ms	15.000ms
Active time	13.155ms	15.761ms	13.100ms	12.800ms	13.714ms
Blank time	1.113ms	0.922ms	0.635ms	0.533ms	1.286ms
Border(T / B)	0.222ms	0.254ms	0.211ms	0.000ms	0.000ms
Data time	12.711ms	15.253ms	12.678ms	12.800ms	13.714ms
Front porch	0.191ms	0.064ms	0.026ms	0.027ms	0.086ms
Sync. width	0.064ms	0.064ms	0.079ms	0.080ms	0.086ms
Back porch	0.858ms	0.794ms	0.528ms	0.427ms	1.114ms
Sync polarity	Positive	Negative	Negative	Negative	Negative
Dot Clock	28.322MHz	25.175MHz	31.500MHz	31.500MHz	30.240MHz
Sync. Type	Separate	Separate	Separate	Separate	Separate
Scan Type	N/I	N/I	N/I	N/I	N/I

14-3-3 Supported Modes (2)

Timing No. Originator Mode Name Resolution (HxV)	13 VESA 800/60Hz 800x600	14 VESA 800/72Hz 800x600	18 VESA 800/75Hz 800x600
HORIZONTAL Frequency Total time Active time Blank time Border(L / R) Data time Front porch Sync. width Back porch Sync. polarity	37.879kHz 26.400 μ s 20.000 μ s 6.400 μ s 0.000 μ s 20.000 μ s 1.000 μ s 3.200 μ s 2.200 μ s Positive	48.077kHz 20.800 μ s 16.000 μ s 4.800 μ s 0.000 μ s 16.000 μ s 1.120 μ s 2.400 μ s 1.280 μ s Positive	46.875kHz 21.333 μ s 16.162 μ s 5.171 μ s 0.000 μ s 16.162 μ s 0.323 μ s 1.616 μ s 3.232 μ s Positive
VERTICAL Frequency Total time Active time Blank time Border(T / B) Data time Front porch Sync. width Back porch Sync polarity	60.317Hz 16.579ms 15.840ms 0.739ms 0.000ms 15.840ms 0.026ms 0.106ms 0.607ms Positive	72.188Hz 13.853ms 12.480ms 1.373ms 0.000ms 12.480ms 0.770ms 0.125ms 0.478ms Positive	75.000Hz 13.333ms 12.800ms 0.533ms 0.000ms 12.800ms 0.021ms 0.064ms 0.448ms Positive
Dot Clock	40.000MHz	50.000MHz	49.500MHz
Sync. Type	Separate	Separate	Separate
Scan Type	N/I	N/I	N/I

14-3-4 Supported Modes (3)

Timing No. Originator Mode Name Resolution (HxV)	15 VESA 1024/60Hz 1024x768	16 VESA 1024/70Hz 1024x768	19 VESA 1024/75Hz 1024x768	VESA 1360/60Hz 1360x768
HORIZONTAL Frequency Total time Activetime Blank time Border(L / R) Data time Front porch Sync. width Back porch Sync. polarity	48.363kHz 20.677 μ s 15.754 μ s 4.923 μ s 0.000 μ s 15.754 μ s 0.369 μ s 2.092 μ s 2.462 μ s Negative	56.476kHz 17.707 μ s 13.653 μ s 4.053 μ s 0.000 μ s 13.653 μ s 0.320 μ s 1.813 μ s 1.920 μ s Negative	60.023kHz 16.660 μ s 13.003 μ s 3.777 μ s 0.000 μ s 13.003 μ s 0.323 μ s 1.219 μ s 2.235 μ s Positive	47.712kHz 20.959 μ s 15.906 μ s 5.053 μ s 0.000 μ s 15.906 μ s 0.749 μ s 1.702 μ s 2.994 μ s Positive
VERTICAL Frequency Total time Active time Blank time Border(T / B) Data time Front porch Sync. width Back porch Sync polarity	60.004Hz 16.666ms 15.880ms 0.786ms 0.000ms 15.880ms 0.062ms 0.124ms 0.600ms Negative	70.069Hz 14.272ms 13.599ms 0.672ms 0.000ms 13.599ms 0.053ms 0.106ms 0.513ms Negative	75.029Hz 13.328ms 12.795ms 0.533ms 0.000ms 12.795ms 0.017ms 0.050ms 0.466ms Positive	60.015Hz 16.662ms 16.097ms 0.566ms 0.000ms 16.097ms 0.063ms 0.105ms 0.377ms Positive
Dot Clock	65.000MHz	75.000MHz	78.750MHz	85.500MHz
Sync. Type	Separate	Separate	Separate	Separate
Scan Type	N/I	N/I	N/I	N/I

14 Reference Information

14-4 Panel Description

Maker	VENDOR P/N	PANEL_CODE	PANEL_ABB	STICKER_CODE	Remarks
SEC	LT140X1-002	BN07-00004A	SA	BN68-00239H	-
SEC	LT150XS-L01	BN07-00009A	SB		-
SEC	LT150XS-L01-B	BN07-00022A	SC		-
SEC	LTM150XS-L02	BN07-00005A	SD		-
SEC	LT181E2-132	BN07-00001A	SE		-
SEC	LT150XS-T01	BN07-00010A	SF		-
SEC	LTM181E3-132	BN07-00019A	SG		-
SEC	LT170E2-131	BN07-10001D	SH		-
SEC	LT181E2-131	BN07-10001E	SJ		-
SEC	LTM170E4-L01	BN07-00018A	SK		-
SEC	LTM240W1-L01	BN07-00015A	SL		-
SEC	LTM213U3-L01	BN07-00016A	SM		-
SEC	LTM150XH-L01	BN07-00026A	SN		-
SEC	LTM150XH-L03	BN07-00027A	SP		-
SEC	LTM150XS-L01	BN07-00032A	SQ		DELL(ZPD)
SEC	LTM181E4-L01	BN07-00034A	SR		PVA
SEC	LTM170EH-L01	BN07-00036A	SS		TN
SEC	LTM170E5-L01	BN07-00037A	SU		PVA
SEC	LTM150XH-L11	BN07-00041A	SV		-
SEC	LTM213U4-L01	BN07-00039A	SW		PVA
SEC	LTM150XH-L01(ZPD)	BN07-00045A	SX		ZPD
SEC	LTM150XH-L04	BN07-00046A	SY		New panel with high brightness
SEC	LTM170W1-L01	BN07-00047A	SZ		Panel for TV
SEC	LTM150XH-L06	BN07-00053A	EA		Panel for TV/ High luminance for 450cd _ SONY&EOS Team Panel for TV
SEC	LTM153W1-L01	BN07-00054A	EB		Use NIKE MODEL
SEC	LTM170EH-L05	BN07-00055A	EC		Panel EOS proj. for high brightness of 17" EH-L05
SEC	LTM170E5-L03	BN07-00056A	ED		Dell 1702FP pro. E4. EH mechanical Compatible
SEC	LTM190E1-L01	BN07-00057A	EE		DELL 1900 FP
SEC	LTM181E5-L01	BN07-00061A	EF		18" narrow bezel GH18PS
SEC	LTM150XP-L01	BN07-00065A	EG		AMLCD PVA PANEL
SEC	LTM240W1-L02	BN07-00062A	EH		Panel for 15" Wide TV
SEC	LTM170EU-L01	BN07-00071A	EJ		Slim design, TN
SEC	LTM170E5-L04	BN07-00072A	EK		E5-L04 6 bits FRC... for IBM
SEC	LTA220W1-L01	BN07-00074A	EL		Panel for 22" TV
SEC	LTM170E6-L02	BN07-00075A	EM		AMLCD Narrow & slim design 17" PVA mode
SEC	LTM170W1-L01	BN07-00082A	EN		LTM170W1-L01 ZPD panel
SEC	LTM170EH-L01	BN07-00080A	EP		LTM170EH-L01 ZPD panel
SEC	LTM170E5-L01	BN07-00081A	EQ		LTM170E5-L01 ZPD panel
SEC	LTM170EH-L05	BN07-00083A	ER		LTM170EH-L05 ZPD panel
SEC	LTM170E5-L03	BN07-00084A	ES		LTM170E5-L03 ZPD panel
SEC	LTM170EU-L01	BN07-00085A	ET		LTM170EU-L01 ZPD panel
SEC	LTM170E5-L04	BN07-00086A	EU		LTM170E5-L04 ZPD panel
SEC	LTM170E6-L02	BN07-00087A	EV		LTM170E6-L02 ZPD panel
SEC	LTM150XH-L06	BN07-00091A	EW		Color coordinates change for LCD TV
SEC	LTM153W1-L01	BN07-00092A	EX		AMLCD WIDE 15",9/10
SEC	LTM170W1-L01	BN07-00100A	EY		Color Coordinates change code management
SEC	LTM170EH-L05	BN07-00097A	EZ		LTM170E5-L05 Color Coordinates Change Panel Code

Maker	VENDOR P/N	PANEL_CODE	PANEL_ABB	STICKER_CODE	Remarks
SEC	LTA400W1-L01	BN07-00109A	S1		PANEL of AMLCD 40" TV
SEC	LTM153W1-L01	BN07-00110A	S2		Color coordinates change 0.280/0.290, 10000k & ZPD Panel
SEC	LTM150XH-L06	BN07-00111A	S3		Color coordinates change 0.280/0.290, 10000k & ZPD Panel
SEC	LTM170W1-L01	BN07-00112A	S4		Color coordinates change 0.280/0.290, 10000k & ZPD Panel
SEC	LTM170EH-L05	BN07-00113A	S5		Color coordinates change 0.280/0.290, 10000k & ZPD Panel
SEC	LTM220W1-L01	BN07-00114A	S6		ZPD Panel for AMLCD 22" TV
SEC	LTM150XH-L06	BN07-00117A	S7		ZPD Panel code
SEC	LTM153W1-L01	BN07-00118A	S8		ZPD Panel code
SEC	LTM170WP-L01	BN07-00119A	S9		PVA Panel for NIKE
SEC	LTM213U4-L01	BN07-00039A	E1		21.3" NARROW
SEC	LTA260W1-L01	BN07-00121A	E2		VENUS
SEC	LTA220W1-L01	BN07-00074B	E3		"Panel B-level panel code for 22" TV Panel "
SEC	LTA320W1-L01	BN07-00108A	E4		"Panel for AMLCD 32" TV"
SEC	LTM213U4-L01	BN07-00124A	E5		NARROW BEZEL 21 " PANEL
SEC	LTM170E6-L04	BN07-00129A	E6		"HIGHLAND 17" LOW PANEL (Panel only for TCO03)"
SEC	LTM190E1-L01	BN07-00088A	E7		LTM190E1-L01 ZPD panel
SEC	M150X4-L06	BN07-00137A	E8		15" Narrow & Slim panel
SEC	LTA170V1	BN07-00139A	E9		"17" Panel for Muse 4:3 VGA TV"
SEC	LTM190E1-L02	BN07-00128A	E10		"New Panel from AMLCDI, Specification : 6bit Driver IC"
SEC	LTM170EX-L01	BN07-00143A	E11		"Development new Panel from AMLCD"
SEC	LTM170E8-L01	BN07-00144A	E12		"Development new Panel from AMLCD"
SEC	LTM170E6-L04	BN07-00129B	E13		"ZPD panel for AMLCD (Panel only for TCO03)"
SEC	LTA320W1-L02	BN07-00108B	E14		"Creat B-level Panel code for AMLCD 32" TV"
SEC	LTM190E1-L03	BN07-00151A	E15		"Development new 19" Panel form AMLCD (Panel only for TCO03)"
SEC	LTM240W1-L03	BN07-00134A	E16		"AMLCD 24" panel development"
SEC	LTM190E1-L02	BN07-00128B	E17		"New Panel from AMLCD, Specification : 6bit Driver IC(ZPD)"
SEC	LTM190E4-L01	BN07-00145A	E18		"AMLCD 24" new panel development"
SEC	LTM170E8-L01	BN07-00158A	E19		"ZPD code derivation"
SEC	LTM170EX-L01	BN07-00159A	E20		"ZPD code derivation"
SEC	LTM190E1-L03	BN07-00151B	E21		"Creat new panel code for AMLCD 19" (Panel only for TCO03)"
SEC	LTA460H1-L01	BN07-00157A	E22		"creat panel code for AMLCD 46" TV "
SEC	LTM170EU-L11	BN07-00160A	E23		"creat new panel code for AMLCD 17" (Panel only for TCO03)"
SEC	LTM240W1-L03	BN07-00134B	E24		"24" panel ZPD code derivation"
SEC	LTM190E4-L01	BN07-00145B	E25		"AMLCD 19" ZPD Panel code derivation"
SEC	LTM240W1-L03	BN07-00134B	E26		"24" panel ZPD code derivation"
SEC	LTM150XO-L01	BN07-00164A	E27		"AMLCD 15" XO-L01 new panel development"
SEC	LTM150XO-L01	BN07-00164B	E28		"AMLCD 15" XO-L01 ZPD code derivation"
SEC	LTM170EU-L11	BN07-00160B	E29		"AMLCD 17" NEW panel code derivation"
SEC	LTA320W2-L01	BN07-00172A	SPZ		AMLCD 32" NEW panel
SEC	LTM213U4-L01	BN07-00124B	SPZ		21.3" Narrow PANEL ZPD Panel derivation
SEC	LTM170EU-L11	BN07-00189A	STH		AMLCD EU-L11 Pb free panel code derivation
SEC	LTM170EU-L11	BN07-00189B	STZ		AMLCD EU-L11 Pb free panel ZPD code derivation
SEC	LTM240W1-L04	BN07-00188A	SPH		24" A-DCC new panel development
SEC	LTM240W1-L04	BN07-00188B	SPZ		24" A-DCC panel ZPD code derivation
SEC	LTM190EX-L01	BN07-00191A	STH		AMLCD 19" TN new Panel
SEC	LTM190EX-L02	BN07-00191B	STZ		AMLCD 19" TN new Panel ZPD derivation
SEC	LTA230W1-L02	BN07-00184A	SPZ		AMLCD 23" 16:9 new Panel

14 Reference Information

Maker	VENDOR P/N	PANEL_CODE	PANEL_ABB	STICKER_CODE	Remarks
SEC	LTA260W2-L01	BN07-00185A	SPZ		AMLCD 26" 16:9 new Panel
SEC	LTM240M1-L01	BN07-00195A	SPH		24" panel with high brightness development
SEC	LTA400W2-L01	BN07-00186A	SPZ		AMLCD 40" 16:9 new Panel
SEC	LTM150XO-L01	BN07-00197A	STH		AMLCD 15" XO-L01 Pb free panel code
SEC	LTM150XO-L01	BN07-00197B	STZ		AMLCD 15" XO-L01 Pb free panel ZPD code
SEC	LTM170EU-L21	BN07-00202A	STZ		AMLCD EU-L21 ZPD new code derivation
SEC	LTA460W2-L03	BN07-00187A	SPZ		BEETOVEN 46"ZPD new panel
SEC	LTM240M1-L01	BN07-00195B	SPZ		24" igh brightness panel ZPD code derivation
SEC	M170EX-L21	BN07-00206A	STZ		AMLCD LTM170EX-L21 ZPD new code derivation
SEC	LTA460H3-L01	BN07-00200A	SPZ		AMLCD 46" LED BLU panel
SEC	LTM170EU-L15	BN07-00214A	STZ		AMLCD EU-L15 TV high brightness ZPD new code derivation
SEC	LTM170E8-L21	BN07-00218A	SPZ		AMLCD LTM170E8-L21 PVA ZPD new code derivation
SEC	LTM190EX-L21	BN07-00222A	STZ		DISPLAY LCD
SEC	LTM201U1-L01	BN07-00190B	SPZ		AMLCD 20.1" Normal panel ZPD code derivation
SEC	LTM190E4-L21	BN07-00223A	SPZ		HAYDN 17" PZD code PANEL derivation
SEC	LTA570H1-L01	BN07-00196A	SPZ		AMLCD 57" new panel development
SEC	LTM150XO-L21	BN07-00229A	STZ		AMLCD 15" XO-L21 8ms panel code
SEC	LTA260W2-L11	BN07-00239A	SPZ		AMLCD 26" 16:9 7Line new Panel
SEC	LTA400WS-LH1	BN07-00245A	SPZ		AMLCD 40" 16:9 SPVA 90% new Panel
SEC	LTM213U6-L01	BN07-00231A	SPZ		AMLCD 21.3" PVA new Panel Code
SEC	LTA320WS-LH2	BN07-00244A	SPZ		AMLCD 32" 16:9 SPVA 90% new Panel
SEC	LTA400WS-LH1	BN07-00245A	SPZ		AMLCD 40" 16:9 SPVA 90% new Panel
CPT	CLAA150XG09	BN07-00141A	PA		"CPT 15"" Monitor new panel development"
CPT	CLAA170EA02	BN07-00148A	PB		"17"" CPT NEW development panel"
CPT	CLAA170EA02	BN07-00148B	PC		"17"" CPT ZPD panel code derivation"
CPT	CLAA150XG09	BN07-00141B	PTZ		"CPT 15"" panel ZPD code derivation (GOYA-PJT)"
CPT	CLAA150XP01	BN07-00173A	PTH		CPT 15" PSWG code derivation
CPT	CLAA150XP01	BN07-00173B	PTZ		CPT 15" PSWG panel ZPD code
CPT	CLAA170EA07	BN07-00174A	PTH		"CPT 17"" PSWG panel code derivation
CPT	CLAA170EA07	BN07-00174B	PTZ		CPT 17"" PSWG type new Panel code""
CPT	CLAA170EA07	BN07-00174B	PTZ		CPT 17" PSWG type new Panel code
CPT	CLAA170EA07Q	BN07-00220A	PTZ		CPT 17" PSWG R/T 8msec code derivation
CPT	CLAA170EA07Q	BN07-00220B	PTH		CPT 17" PSWG R/T 8msec HPD code derivation
CPT	CLAA150XP01F	BN07-00236A	PTZ		CPT 15" PSWG panel ZPD & Lead free code derivation
TOSHIBA	LTM15C419(A)	BN07-00002A	TA		-
TOSHIBA	LTM15C423(B)	BN07-00006A	TB		-
TOSHIBA	LTM18C161	BN07-00008A	TC		-
TOSHIBA	LTM15C443	BN07-00031A	TD		-
TOSHIBA	LTM15C458	BN07-00043A	TE		-
TOSHIBA	LTM15C458S	BN07-00077A	TF		"TSB 15"" high brightness Panel"
TOSHIBA	LTM15C458	BN07-00078A	TG		Toshiba ZPD panel
TOSHIBA	LTM15C458S	BN07-00099A	TH		TSB LTM15C458S (ZPD)
HANNSTAR	HSD150MX41A(A)	BN07-00020A	NA		"TTL type"
HANNSTAR	HSD150MX12	BN07-00030A	NB		"TTL type"
HANNSTAR	HSD170ME13	BN07-00180A	NTH		Hannstar 17" TN new panel development
HANNSTAR	HSD170ME13	BN07-00180B	NTZ		Hannstar 17" TN new panel development ZPD code derivation
HANNSTAR	HSD190ME12	BN07-00210A	NTZ		Hannstar 19" TN new panel development

Maker	VENDOR P/N	PANEL_CODE	PANEL_ABB	STICKER_CODE	Remarks
HANNSTAR	HSD150MX17-A	BN07-00226A	NTZ		Hannstar 15" slim panel ZPD code derivation
TORISAN	TM150XG-22L03(A)	BN07-00021A	RA		-
TORISAN	TM150XG-26L06	BN07-00042A	RB		-
TORISAN	TM181SX-76N01	BN07-00048A	RC		-
TORISAN	TM150XG-26L06	BN07-00059A	RD		15" XGA TN MODE(ZPD)
TORISAN	TM290WX-71N31	BN07-00063A	RE		"RS24NS (TORISAN 29"" NEW PANEL)"
TORISAN	TM396WX-71N31	BN07-00064A	RF		"RS24NS (TORISAN 40"" NEW PANEL)"
TORISAN	TM150XG-26L09	BN07-00073A	RG		"Panel for 15"" TV"
TORISAN	TM150XG-26L10	BN07-00089A	RH		"L10(change except D/IC) ZPD"
TORISAN	TM150XG-26L10	BN07-00090A	RJ		L10 NORMAL
TORISAN	TM190SX-70N01	BN07-00098A	RK		Torisan 19" Panel
TORISAN	TM181SX-76N01	BN07-00106A	RL		ZPD Panel code
TORISAN	TM190SX-70N01	BN07-00107A	RM		ZPD Panel code
TORISAN	TM290WX-71N31	BN07-00115A	RN		"Color Coordinates change panel for TORISAN 29"" TV"
TORISAN	TM396WX-71N31	BN07-00116A	RP,Q		"Color Coordinates change panel for TORISAN 40"" TV"
TORISAN	TM220WX-71N31	BN07-00125A	RR		"Development TORISAN 22"" TV PANEL (ZPD)"
TORISAN	TM220WX-71N31	BN07-00127A	RS		"Development TORISAN 22"" TV PANEL (HPD)"
TORISAN	TM396WX-71N32A	BN07-00150A	RT		120V inverter Exclusive panel
TORISAN	TM190SX-70N02	BN07-00154A	RMH		Torisan 6bit panel code Derivation
TORISAN	TM190SX-70N02	BN07-00154B	RMZ		Torisan 6bit panel code Derivation
TORISAN	TM150XG-A01	BN07-00162A	RTH		Torisan 15" Narrow & Slim panel development
TORISAN	TM150XG-A01	BN07-00162B	RTZ		Torisan 15" N&S panel ZPD code Derivation
SHARP	LQ181E1DG11(A)	BN07-10001C	PA		-
SHARP	LQ150X1LW71	BN07-00067A	PB		SHARP 15" PVA PANEL
SHARP	LQ370T3LZ41	BN07-00216A	FAZ		Rome2
HITACHI	TX38D12VC0CAA(A)	BN07-00003A	HA		-
HITACHI	TX43DVCOCAB	BN07-00060A	HB		17" SXGA PVA MODE
HITACHI	TX43D15VC0CAB	BN07-00101A	HC		ZPD Panel
HITACHI	TX51D11VC0CAB	BN07-00122A	HD		20.1" NARROW
HITACHI	TX54D11VC0CAB	BN07-00123A	HE		21.3" NARROW
HITACHI	TX80D12VC0CAB	BN07-00169A	HIZ		"Development new panel for Hitachi 32"" TV (ZPD)"
HITACHI	TX54D11VC0CAB	BN07-00123B	HIZ		Hitachi 21.3"ZPD panel
IBM	ITSX94S	BN07-00017A	IA		-
UNIPAC	UM170E0	BN07-00028A	UA		Loaded by cisdba
HYUNDAI	HT15X13	BN07-00035A	DA		-
HYUNDAI	HT17E11-200	BN07-00049A	DB		TN MODE
HYUNDAI	HT17E11-300	BN07-00093A	DC		HT17E11-300 ZPD panel
HYUNDAI	HT17E11-400	BN07-00094A	DD		HT17E11-400 normal panel
HYUNDAI	HT17E11-400	BN07-00095A	DE		HT17E11-400 ZPD panel code
HYUNDAI	HT17E12	BN07-00096A	DF		HT17E12 (Narrow & slim Design)
HYUNDAI	HT17E12	BN07-00105A	DG		ZPD Panel code
HYUNDAI	HT15X15-D00	BN07-00146A	DH		"Development for Ares 15"" Hydys TV"
HYUNDAI	HT15X15-D01	BN07-00146B	DJ		"Derivation panel HPD for Ares 15"" Hydys TV "
HYUNDAI	HT17E13-100	BN07-00167A	DTH		"PINEHURST-2(IBM) PJT 17"" HYDIS PANEL Derivation"
HYUNDAI	HT17E13-100	BN07-00167B	DTZ		"PINEHURST-2(IBM) Hydys 17"" ZPD code Derivation"
ACER	L170E3	BN07-00044A	AA		TN(ADT)
ACER	M170EN05	BN07-00076A	AB		AU 17" Panel (Narrow & slim design)

14 Reference Information

Maker	VENDOR P/N	PANEL_CODE	PANEL_ABB	STICKER_CODE	Remarks
ACER	M170EN05	BN07-00102A	AC		ZPD Panel code
ACER	M190EN02	BN07-00170A	AMH		"AU Monitor 19"" new panel development (P19-1S)"
ACER	M190EN02	BN07-00170B	AMZ		"AU 19"" ZPD code derivation (ZPD)"
ACER	M170EN06	BN07-00171A	ATH		"AU Monitor 17"" New panel development "
ACER	T260XW01	BN07-00163A	AMZ		"AU 26"" new panel development (NF26EO)"
ACER	A201SN01	BN07-00177A	ATZ		"AU TV panel 20.1"" TN SVGA new panel development"
ACER	M170EN06	BN07-00171B	ATZ		AU Monitor 17" ZPD code derivation
ACER	T315XW01	BN07-00194A	AMZ		AU 32" new
ACER	M170EG01	BN07-00192A	ATH		AU TN PSWG type new Panel code
ACER	M170EG01	BN07-00192B	ATZ		AU TN PSWG type NEW panel code derivation
ACER	M190EN04	BN07-00203A	ATH		AU Monitor 19" ZPD new Panel code
ACER	T260XW02	BN07-00208A	AMZ		AUO 26" ZPD panel
ACER	M170EG01 V8	BN07-00221A	ATZ		AU TN PSWG type new Panel (8msec) ZPD code derivation
ACER	T260XW02	BN07-00233A	AMZ		AUO 26" Panel new (Cosmetic spec down grade)
ACER	T315XW01	BN07-00234A	AMZ		AUO 32" Grade new (Cosmetic spec down grade)
ACER	M190EN03	BN07-00224A	AMZ		AU Monitor 19" MVA new code derivation
ACER	T315XW01	BN07-00237A	AMZ		LCD TV VE project new
ACER	T315XW01	BN07-00238A	AMZ		LCD TV VE project new
ACER	M201UN02 V3	BN07-00168A	AMZ		
CHIMEI	M170E3-L01	BN07-00050A	CA		TN PANEL
CHIMEI	M150X3-L01	BN07-00051A	CB		COMPATIBLE
CHIMEI	M170E4-L01	BN07-00052A	CC		MVA PANEL
CHIMEI	M150X2-L01	BN07-00066A	CD		CHIMEI 15" PVA PANEL
CHIMEI	M150X3-L01	BN07-00079A	CE		Chimei ZPD panel
CHIMEI	M170E3-L01	BN07-00103A	CF		ZPD Panel code
CHIMEI	M170E4-L01	BN07-00104A	CG		ZPD Panel code
CHIMEI	V296W1-L01	BN07-00120A	CH		MVA
CHIMEI	M170E6-L02	BN07-00126A	CJ		HIGHLAND 17" LOW PANEL
CHIMEI	M190E2-L01	BN07-00131A	CK		GH19AS,BS CHIMEI PANEL
CHIMEI	M150X4-L06	BN07-00137A	CL		15" Narrow & Slim panel
CHIMEI	M170E6-L01	BN07-00133A	CM		"2003-03-11 vendor change"
CHIMEI	M170E6-L01	BN07-00133B	CN		ZPD derivation panel
CHIMEI	V201V1-T01	BN07-00135A	CP		CHIMEI 20.1" panel development
CHIMEI	M170E6-L02	BN07-00126B	CQ		"HIGHLAND 17"" LOW PANEL ZPD derivation panel"
CHIMEI	M170E6-L05	BN07-00152A	CR		"CMO 17"" new panel development code"
CHIMEI	M170E6-L05	BN07-00152B	CS		"CMO 17"" ZPD panel code derivation"
CHIMEI	M150X4-L06	BN07-00137B	CT		Chimei 15" Narrow & Slim panel ZPD derivation
CHIMEI	M170E5-L05	BN07-00165A	CTH		CMO 17" new panel development code (GOYA2-PJT)
CHIMEI	M170E5-L05	BN07-00165B	CTZ		CMO 17" ZPD panel(GOYA2-PJT)
CHIMEI	V230W1-L02	BN07-00209A	CMZ		CMO 23" development
CHIMEI	V320B1-L01	BN07-00207A	CMZ		CMO 32" development
CHIMEI	V270W1-L01	BN07-00136A	CMZ		CHI MEI 27" panel development
NEC	SVA150XG04TB	BN07-00225A	BTZ		SVA NEC 15" panel ZPD code

6 Electrical Parts List

-You can search for updated part codes through ITSELF web site.

URL : <http://itself.sec.samsung.co.kr/>

6-1 LN26R81BDX Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
		LN26R81BDX/XAX	LN26R81BD,N36A/26R80-GBP,26,LCD-TV,MEXIC		
0.1	M0001	BN90-01146A	ASSY COVER FRONT;26R81,UO,-,PC,V0,BK27,S	1	S.N.A
..2	T0003	BN96-04659A	ASSY COVER P-FRONT;26R81,UO,-,PC,V0,BK27	1	S.A
...3	T0081	6002-001294	SCREW-TAPPING;BH,+,M4,L16,ZPC(BLK)	2	S.A
...3	M0081	6003-001188	SCREW-TAPTITE;BH,+,B,M4,L10,ZPC(WHT),S	1	S.N.A
...3	CCM1	BN63-02183F	COVER-SHEET;Rhcm,PE Vinyl,T0.05,900mm,20	1.118	S.N.A
...3	M0112	BN63-03110A	COVER-FRONT;26R81,UO,PC,-,-,V0,-,BK27,	1	S.N.A
...3	T0603	BN64-00588A	WINDOW-RMC;32,BORDEAUX PLUS,PC,-,-,HB,	1	S.N.A
...3		BN96-04702B	ASSY HOLDER P-BOSS;23,26R81,-,HIPS,V0,-,	1	S.N.A
....4		BN61-02957B	HOLDER-BOSS BOTTOM;23,26R81,HIPS,V0,-,	1	S.N.A
....4		BN61-03261A	BOSS-TAPE;Tulip,ACRYL,T1.1,W12mm,GRAY,TA	0.8	S.N.A
...3		BN96-04848A	ASSY MISC P-BLU;Bordeaux Plus,BACK LIGHT	1	S.N.A
...3	M0145	BN96-04809B	ASSY BOARD P-FUNCTION&R;LE23R81BDX,CT50	1	S.A
...3	T0056	BN63-03414A	COVER-DECORATION;26 BORDEAUX PLUS,PC,CLE	1	S.N.A
..2	T0175	BN96-04767A	ASSY SPEAKER P;16ohm,4pin,5W,Bordeaux PI	2	S.A
0.1	M0216	BN90-01150A	ASSY STAND;23,26R81,NORMAL,-,-,-	1	S.N.A
..2	T0524	6902-000561	BAG PE;HDPE+NITRON(DOUBLE),T0.015+T0.5,W	1	S.N.A
..2	M0027	BN96-04663A	ASSY STAND P-BASE;23,26R81,NORMAL,-,ABS+	1	S.A
...3	T0081	6002-001294	SCREW-TAPPING;BH,+,M4,L16,ZPC(BLK)	4	S.A
...3	M0081	6003-001239	SCREW-TAPTITE;FH,+,B,M4,L10,ZPC(WHT),S	4	S.A
...3		BN61-02954A	BRACKET-STAND BOTTOM;23,26 BORDEAUX PLUS	1	S.N.A
...3	T0920	BN61-02955A	GUIDE-STAND;23,26R81,ABS,-,-,BK500,V0	1	S.N.A
...3	CCM1	BN63-02183D	COVER-SHEET;Rhcm,PE Vinyl,T0.05,680mm,20	0.4	S.N.A
...3	T0004	BN63-03122A	COVER-STAND BASE;23,26R81,ABS+PMMA,-,-,-	1	S.N.A
...3	T0132	BN73-00052A	RUBBER FOOT;ARES 17,CR Rubber Gray,T1.5	4	S.N.A
0.1	M0002	BN90-01154A	ASSY COVER REAR;26R81,UO,-,PC+ABS,V0,BK2	1	S.N.A
..2	T0081	6002-001294	SCREW-TAPPING;BH,+,M4,L16,ZPC(BLK)	2	S.A
..2	T0081	6002-001294	SCREW-TAPPING;BH,+,M4,L16,ZPC(BLK)	13	S.A
..2	M0013	BN96-04667A	ASSY COVER P-REAR;26R81,UO,-,PC+ABS,V0,B	1	S.A
...3	M0081	6003-001188	SCREW-TAPTITE;BH,+,B,M4,L10,ZPC(WHT),S	4	S.N.A
...3	CCM1	BN63-02183F	COVER-SHEET;Rhcm,PE Vinyl,T0.05,900mm,20	0.6	S.N.A
...3	M0006	BN63-03117A	COVER-REAR;26R81,UO,PC+ABS,-,-,V0,-,BK	1	S.N.A
...3	T0071	BN64-00554A	INLAY-TERMINAL;07,COMMON,UO,PS SHEET,T0.	1	S.N.A
...3	T0064	BN65-00002A	CLAMPER CORE;BORDEAUX,PP,V0,BLK	1	S.N.A
...3	T0101	BN61-03346A	BRACKET-WALL;LCD TV,SECC,T1.2	4	S.N.A
0.1	MP1.0	BN91-01017C	ASSY LCD-AMZ;LE26R71BX/*	1	S.N.A
..2	M0215	BN07-00254A	LCD-PANEL;T260XW02,8bit,626.0*373.0*50.0	1	S.A
0.1	M0017	BN91-01326B	ASSY CHASSIS;LNT2653HX/*	1	S.N.A
..2	M0014	BN94-01183B	ASSY PCB MAIN;LNT2653HX/*	1	S.A
...3	T0245	0202-001492	SOLDER-WIRE FLUX;HSE-02 LFM48 SR-34 S,-,	0.25	S.N.A
...3	CN906	3707-001081	CONNECTOR-OPTICAL;STRAIGHT,SPDIF	1	S.A
...3	CN330	3711-000058	HEADER-BOARD TO CABLE;BOX,4P,1R,2.5MM,AN	1	S.A
...3	CN330	3711-004484	HEADER-BOARD TO CABLE;BOX,5P,1R,2mm,STRA	1	S.A
...3	CN330	3711-004531	HEADER-BOARD TO CABLE;BOX,10P,1R,2mm,ANG	1	S.A
...3	CN330	3711-005606	HEADER-BOARD TO CABLE;BOX,30P,2R,2mm,STR	1	S.A
...3	CN330	3711-005842	HEADER-BOARD TO CABLE;BOX,24P,2R,2MM,STR	1	S.A
...3	JA330	3722-000143	JACK-PHONE;1P(VER),AG,BLK,ANGLE	1	S.A
...3	JA330	3722-001061	JACK-PHONE;1P,3.6PI,AG,BLK,N	1	S.A
...3	JA330	3722-001061	JACK-PHONE;1P,3.6PI,AG,BLK,N	1	S.A
...3	JA332	3722-001163	JACK-VHS;4P,AU,BLK,ANGLE	1	S.A
...3	JA332	3722-001734	JACK-VHS;4P,SN,BLK,STRAIGHT	1	S.A
...3	JA333	3722-002360	JACK-PIN;3P,AU,GRN/BLU/RED,STRAIGHT	1	S.A
...3	JA333	3722-002360	JACK-PIN;3P,AU,GRN/BLU/RED,STRAIGHT	1	S.A
...3	JA333	3722-002362	JACK-PIN;2P,Sn,WHT/RED,STRAIGHT	1	S.A
...3	JA333	3722-002362	JACK-PIN;2P,Sn,WHT/RED,STRAIGHT	1	S.A
...3	JA333	3722-002362	JACK-PIN;2P,Sn,WHT/RED,STRAIGHT	1	S.A
...3	JA333	3722-002362	JACK-PIN;2P,Sn,WHT/RED,STRAIGHT	1	S.A
...3	JA333	3722-002363	JACK-PIN;3P,Sn,YEL/WHT/RED,STRAIGHT	1	S.A
...3	CN700	3722-002516	JACK-USB;4P/1C,AU30U,BLK,STRAIGHT,A TYPE	1	S.A

6 Electrical Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
...3	JA333	3722-002543	JACK-PIN;3P,Sn,RED/WHT/YEL,ANGLE	1	S.A
...3	T0603	BN63-03210A	SHIELD-PCB MAIN;BORDEAUX PLUS,SPTe,T0.3,	1	S.N.A
...3	CCMM1	BN73-00024D	SILICON/RUBBER;BORDEAUX,SILICON,28x28XT6	1	S.N.A
...3	T0174	BN97-01372B	ASSY SMD;LNT2653HX/*	1	S.N.A
....4	SUB05	0202-001477	SOLDER-CREAM;LST309-M,-,D20-45\$,96.5Sn/	3.861	S.N.A
....4	D728	0401-000132	DIODE-SWITCHING;BAV99,70V,50mA,SOT-23,TP	1	S.A
....4	D729	0401-000132	DIODE-SWITCHING;BAV99,70V,50mA,SOT-23,TP	1	S.A
....4	D100	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	S.A
....4	D1000	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	S.A
....4	D101	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	S.A
....4	D1102	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	S.A
....4	D1103	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	S.A
....4	D300	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	S.A
....4	D1401	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1402	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1403	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1404A	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1405	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1406	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D500	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D700	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D701	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D702	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D703	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D704	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D711	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D712	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D713	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D714	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D715	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D716	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D717	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D718	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D724	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D725	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D730	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D731	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D732	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D733	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D734	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D735	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D736	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D737	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1101	0401-001099	DIODE-SWITCHING;1N4148WS,75V,150mA,SOD-3	1	S.A
....4	D1104	0401-001099	DIODE-SWITCHING;1N4148WS,75V,150mA,SOD-3	1	S.A
....4	D1105	0401-001099	DIODE-SWITCHING;1N4148WS,75V,150mA,SOD-3	1	S.A
....4	D1106	0401-001099	DIODE-SWITCHING;1N4148WS,75V,150mA,SOD-3	1	S.A
....4	D1107	0401-001099	DIODE-SWITCHING;1N4148WS,75V,150mA,SOD-3	1	S.A
....4	D600D	0401-001099	DIODE-SWITCHING;1N4148WS,75V,150mA,SOD-3	1	S.A
....4	D602D	0401-001099	DIODE-SWITCHING;1N4148WS,75V,150mA,SOD-3	1	S.A
....4	D603	0401-001099	DIODE-SWITCHING;1N4148WS,75V,150mA,SOD-3	1	S.A
....4	D746	0401-001099	DIODE-SWITCHING;1N4148WS,75V,150mA,SOD-3	1	S.A
....4	D747	0401-001099	DIODE-SWITCHING;1N4148WS,75V,150mA,SOD-3	1	S.A
....4	D930	0401-001099	DIODE-SWITCHING;1N4148WS,75V,150mA,SOD-3	1	S.A
....4	D0254	0402-000553	DIODE-SCHOTTKY;SS24/B240,40V,200mA,DO-2	1	S.A
....4	D102	0402-001098	DIODE-RECTIFIER;SK34,40V,3A,SMC,TP	1	S.A
....4	D601	0403-000620	DIODE-ZENER;RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A
....4	D609	0403-000620	DIODE-ZENER;RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A
....4	D719	0403-000620	DIODE-ZENER;RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A
....4	D739	0403-000620	DIODE-ZENER;RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A
....4	D705	0403-001016	DIODE-ZENER;RLZ6.2B,5.96-6.27V,500mW,LL-	1	S.A
....4	D726	0403-001016	DIODE-ZENER;RLZ6.2B,5.96-6.27V,500mW,LL-	1	S.A
....4	D744	0403-001016	DIODE-ZENER;RLZ6.2B,5.96-6.27V,500mW,LL-	1	S.A
....4	D745	0403-001016	DIODE-ZENER;RLZ6.2B,5.96-6.27V,500mW,LL-	1	S.A
....4	D706	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D707	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D708	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D709	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D710	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D720	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D721	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D722	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	D723	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D727	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D740	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D741	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D742	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D743	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D800	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D801	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D802	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D803	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D804	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D805	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D806	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D807	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D808	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D809	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D810	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D811	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D812	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D813	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D816	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D817	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D818	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D819	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D820	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D821	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D824	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D825	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D826	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D827	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D828	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D829	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D830	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D831	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D832	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D833	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D834	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D835	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D836	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D837	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D914S	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D915S	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D916S	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D917S	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D918S	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D919S	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D920S	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D921S	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D922S	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D923S	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D924S	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D925S	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D928S	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D929S	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D501	0403-001425	DIODE-ZENER;BZX84C33,31-35V,350mW,SOT-23	1	S.A
....4	D814	0406-001172	DIODE-TVS;CDS3C30GTH,48V,SMD	1	S.A
....4	D815	0406-001172	DIODE-TVS;CDS3C30GTH,48V,SMD	1	S.A
....4	D1100	0407-000123	DIODE-ARRAY;DAN202K,80V,100mA,CA2-3,SOT-	1	S.A
....4	D604	0407-000123	DIODE-ARRAY;DAN202K,80V,100mA,CA2-3,SOT-	1	S.A
....4	D605	0407-000123	DIODE-ARRAY;DAN202K,80V,100mA,CA2-3,SOT-	1	S.A
....4	D608	0407-000123	DIODE-ARRAY;DAN202K,80V,100mA,CA2-3,SOT-	1	S.A
....4	Q1000	0501-000280	TR-SMALL SIGNAL;KSA1182,P.NP,150MW,SOT-23	1	S.A
....4	Q1102	0501-000280	TR-SMALL SIGNAL;KSA1182,P.NP,150MW,SOT-23	1	S.A
....4	Q1106	0501-000280	TR-SMALL SIGNAL;KSA1182,P.NP,150MW,SOT-23	1	S.A
....4	Q100	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	S.A
....4	Q101	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	S.A
....4	Q1100	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	S.A
....4	Q1103	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	S.A
....4	Q1104	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	S.A
....4	Q1105	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	S.A
....4	Q1300L	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	S.A
....4	Q1400	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	S.A

6 Electrical Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	Q500	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	S.A
....4	Q602	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	S.A
....4	Q409	0505-000110	FET-SILICON;2N7002,N,60V,115mA,7.5ohm,0.	1	S.A
....4	Q409	0505-000110	FET-SILICON;2N7002,N,60V,115mA,7.5ohm,0.	1	S.A
....4	Q409	0505-000110	FET-SILICON;2N7002,N,60V,115mA,7.5ohm,0.	1	S.A
....4	Q409	0505-000110	FET-SILICON;2N7002,N,60V,115mA,7.5ohm,0.	1	S.A
....4	Q409	0505-000110	FET-SILICON;2N7002,N,60V,115mA,7.5ohm,0.	1	S.A
....4	Q409	0505-000110	FET-SILICON;2N7002,N,60V,115mA,7.5ohm,0.	1	S.A
....4	Q409	0505-000275	FET-SILICON;SI4435DY,P,-30V,+8.0A,0.014	1	S.A
....4	IC104	0801-002270	IC-CMOS LOGIC;74LCX16373,LATCH,TSSOP,48P	1	S.A
....4	IC104	0801-002270	IC-CMOS LOGIC;74LCX16373,LATCH,TSSOP,48P	1	S.A
....4	IC306	0904-001838	IC-BUS SWITCH;PCA9546APW,TSSOP,16P,5.1x4	1	S.A
....4	IC307	0904-001838	IC-BUS SWITCH;PCA9546APW,TSSOP,16P,5.1x4	1	S.A
....4	IC1001	1001-000164	IC-ANALOG MULTIPLEX;74HC4052,CMOS,SOP,16	1	S.A
....4	IC603	1001-001109	IC-ANALOG SWITCH;FST3125M,BUS SWITCH & C	1	S.A
....4	IC801	1001-001155	IC-ANALOG MULTIPLEX;NC7SB3157P6X,CMOS,SC	1	S.A
....4	IC106	1001-001440	IC-VIDEO SWITCH;SiI9185CTU,QFP,80P,3.3V,	1	S.A
....4	IC800	1006-001266	IC-LINE TRANSCEIVER;SP3232EEY,TSSOP,16P,	1	S.A
....4	IC112	1103-000129	IC-EEPROM;24C02,2Kbit,256x8Bit,SOP,8P,5x	1	S.A
....4	IC112	1103-000129	IC-EEPROM;24C02,2Kbit,256x8Bit,SOP,8P,5x	1	S.A
....4	IC112	1103-000129	IC-EEPROM;24C02,2Kbit,256x8Bit,SOP,8P,5x	1	S.A
....4	IC112	1103-000129	IC-EEPROM;24C02,2Kbit,256x8Bit,SOP,8P,5x	1	S.A
....4	IC112	1103-001385	IC-EEPROM;24C256,256Kbit,32Kx8,SOP,8P,5x	1	S.A
....4	IC113	1105-001780	IC-DRAM;HYB18T512161BF,DDR2,512Mbit,32Mx	1	S.A
....4	DU410	1201-000166	IC-OP AMP;LM358,SOP,ST,8P,150MIL,DUAL,10	1	S.A
....4	T0085	1201-002136	IC-AUDIO AMP;LM4810,MSOP,8P,3x3mm,DUAL,-	1	S.A
....4	T0124	1201-002430	IC-POWER AMP;NTP-3000,QFN,56P,8x8mm,DUAL	1	S.A
....4	T0087	1203-001815	IC-POSIFIXED REG.;78M09,TO-252,3P,-,PLA	1	S.A
....4	T0087	1203-002074	IC-POSIFIXED REG.;MIC39150,TO-263,3P,-,	1	S.A
....4	T0087	1203-002842	IC-POSIFIXED REG.;AP1117D-33A,TO-252,3P	1	S.A
....4	T0170	1203-003059	IC-SWITCH VOL. REG.;MP1583,SOIC,8P,4.9x3	1	S.A
....4	T0087	1203-003121	IC-POSIFIXED REG.;FAN1112,SOT-223,3P,6	1	S.A
....4	IC062	1203-003183	IC-MULTI REG.;SI-3002KWM-TL,DPAK,5P,6.6X	1	S.A
....4	T0087	1203-003696	IC-POSIFIXED REG.;NCP1117DT18T5G,DPAK,3	1	S.A
....4	T0087	1203-003703	IC-POSIFIXED REG.;AP1117E-18A,SOT-223,3	1	S.A
....4	IC102	1203-004268	IC-DC/DC CONVERTER;SC4521SETRT,SOIC,8P,4	1	S.N.A
....4	IC600	1203-004364	IC-VOL. DETECTOR;RT9818C-42PV,SOT-23,3P,	1	S.A
....4	IC601	1203-004364	IC-VOL. DETECTOR;RT9818C-42PV,SOT-23,3P,	1	S.A
....4	IC202	1204-002648	IC-DECODER;215H4AALA11HG,BGA,444P,27x27m	1	S.A
....4	IC1002	1204-002708	IC-AUDIO PROCESSOR;MSP4450K-VK-E8-500,PM	1	S.A
....4	IC118	1204-002729	IC-VIDEO PROCESS;S4LF119X01,PBGA,208P,17	1	S.A
....4	IC1201	1205-003149	IC-RECEIVER;MST3388MK-LF-110,PQFP,128P,2	1	S.A
....4	R1244	2007-000042	R-CHIP;499ohm,1%,1/10W,TP,1608	1	S.A
....4	R286	2007-000043	R-CHIP;1Kohm,1%,1/10W,TP,1608	1	S.A
....4	R295	2007-000043	R-CHIP;1Kohm,1%,1/10W,TP,1608	1	S.A
....4	R296	2007-000043	R-CHIP;1Kohm,1%,1/10W,TP,1608	1	S.A
....4	R297	2007-000043	R-CHIP;1Kohm,1%,1/10W,TP,1608	1	S.A
....4	R298	2007-000043	R-CHIP;1Kohm,1%,1/10W,TP,1608	1	S.A
....4	R299	2007-000043	R-CHIP;1Kohm,1%,1/10W,TP,1608	1	S.A
....4	R1236	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	S.A
....4	R1319	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	S.A
....4	R602	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	S.A
....4	R500	2007-000060	R-CHIP;100Kohm,1%,1/10W,TP,1608	1	S.A
....4	R504	2007-000060	R-CHIP;100Kohm,1%,1/10W,TP,1608	1	S.A
....4	R1117	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	S.A
....4	R1238	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	S.A
....4	R1240	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	S.A
....4	R1243	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	S.A
....4	R1245	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	S.A
....4	R1250	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	S.A
....4	R1251	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	S.A
....4	R1321	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	S.A
....4	R1322	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	S.A
....4	R1323	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	S.A
....4	R1325	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	S.A
....4	R1327	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	S.A
....4	R1328	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	S.A
....4	R1329	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	S.A
....4	R1330	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	S.A
....4	R1332	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	S.A
....4	R1333	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	S.A
....4	R1334	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	S.A
....4	R1335	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	S.A

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6 Electrical Parts List

[illegible]

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6 Electrical Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	R817	2007-000075	R-CHIP;220ohm,5%,1/10W,TP,1608	1	S.A
....4	R834	2007-000075	R-CHIP;220ohm,5%,1/10W,TP,1608	1	S.A
....4	R835	2007-000075	R-CHIP;220ohm,5%,1/10W,TP,1608	1	S.A
....4	R943S	2007-000075	R-CHIP;220ohm,5%,1/10W,TP,1608	1	S.A
....4	R944S	2007-000075	R-CHIP;220ohm,5%,1/10W,TP,1608	1	S.A
....4	R507	2007-000076	R-CHIP;330ohm,5%,1/10W,TP,1608	1	S.A
....4	R1363L	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	S.A
....4	R738	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	S.A
....4	R739	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	S.A
....4	R772	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	S.A
....4	R773	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	S.A
....4	R1044	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1052	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1053	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R114	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1200	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1202	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1303L	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1360L	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1370L	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1405A	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1409A	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R306	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R336	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R383	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R384	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R503	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R629	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R651	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R711	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R731	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R746	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R800	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R802	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R818	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R823	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R915	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R929S	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R938S	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R949S	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R106	2007-000081	R-CHIP;2.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1380G	2007-000081	R-CHIP;2.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1119	2007-000082	R-CHIP;3.3Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1364L	2007-000082	R-CHIP;3.3Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1365L	2007-000082	R-CHIP;3.3Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1054	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1109	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1111	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1115	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1118	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1122	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R116L	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1239	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1247	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1305	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1306L	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1310	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1316	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1317	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1357L	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1362L	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1404	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R300	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R301	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R302	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R337	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R338	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R339	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R340	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R342	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R343	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R676	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A

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6 Electrical Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	R741	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R752	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R109	2007-000092	R-CHIP;15Kohm,5%,1/10W,TP,1608	1	S.A
....4	R764	2007-000092	R-CHIP;15Kohm,5%,1/10W,TP,1608	1	S.A
....4	R765	2007-000092	R-CHIP;15Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1047	2007-000093	R-CHIP;20Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1050	2007-000093	R-CHIP;20Kohm,5%,1/10W,TP,1608	1	S.A
....4	R508	2007-000094	R-CHIP;22Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1038	2007-000097	R-CHIP;47Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1039	2007-000097	R-CHIP;47Kohm,5%,1/10W,TP,1608	1	S.A
....4	R832	2007-000097	R-CHIP;47Kohm,5%,1/10W,TP,1608	1	S.A
....4	R833	2007-000097	R-CHIP;47Kohm,5%,1/10W,TP,1608	1	S.A
....4	R100	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1000	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1001	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1002	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1003	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1004	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1005	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1006	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1007	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1024	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1025	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1026	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1027	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1028	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1029	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1030	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1031	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1045	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1056	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1407A	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	S.A
....4	R510	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1051	2007-000107	R-CHIP;470Kohm,5%,1/10W,TP,1608	1	S.A
....4	R305	2007-000109	R-CHIP;1Mohm,5%,1/10W,TP,1608	1	S.A
....4	R1204	2007-000113	R-CHIP;33ohm,5%,1/10W,TP,1608	1	S.A
....4	R1207	2007-000113	R-CHIP;33ohm,5%,1/10W,TP,1608	1	S.A
....4	R1209	2007-000113	R-CHIP;33ohm,5%,1/10W,TP,1608	1	S.A
....4	R1213	2007-000113	R-CHIP;33ohm,5%,1/10W,TP,1608	1	S.A
....4	R1216	2007-000113	R-CHIP;33ohm,5%,1/10W,TP,1608	1	S.A
....4	R1218	2007-000113	R-CHIP;33ohm,5%,1/10W,TP,1608	1	S.A
....4	R1220	2007-000113	R-CHIP;33ohm,5%,1/10W,TP,1608	1	S.A
....4	R1223	2007-000113	R-CHIP;33ohm,5%,1/10W,TP,1608	1	S.A
....4	R1225	2007-000113	R-CHIP;33ohm,5%,1/10W,TP,1608	1	S.A
....4	R1406A	2007-000113	R-CHIP;33ohm,5%,1/10W,TP,1608	1	S.A
....4	R1408A	2007-000113	R-CHIP;33ohm,5%,1/10W,TP,1608	1	S.A
....4	R270	2007-000113	R-CHIP;33ohm,5%,1/10W,TP,1608	1	S.A
....4	R285	2007-000113	R-CHIP;33ohm,5%,1/10W,TP,1608	1	S.A
....4	R288	2007-000113	R-CHIP;33ohm,5%,1/10W,TP,1608	1	S.A
....4	R290	2007-000113	R-CHIP;33ohm,5%,1/10W,TP,1608	1	S.A
....4	R292	2007-000113	R-CHIP;33ohm,5%,1/10W,TP,1608	1	S.A
....4	R294	2007-000113	R-CHIP;33ohm,5%,1/10W,TP,1608	1	S.A
....4	R628	2007-000113	R-CHIP;33ohm,5%,1/10W,TP,1608	1	S.A
....4	R1206	2007-000118	R-CHIP;390ohm,5%,1/10W,TP,1608	1	S.A
....4	R1215	2007-000118	R-CHIP;390ohm,5%,1/10W,TP,1608	1	S.A
....4	R1222	2007-000118	R-CHIP;390ohm,5%,1/10W,TP,1608	1	S.A
....4	R511	2007-000118	R-CHIP;390ohm,5%,1/10W,TP,1608	1	S.A
....4	R1401	2007-000123	R-CHIP;1.5Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1402	2007-000123	R-CHIP;1.5Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1403	2007-000123	R-CHIP;1.5Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1105	2007-000124	R-CHIP;2.2Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1106	2007-000124	R-CHIP;2.2Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1201	2007-000124	R-CHIP;2.2Kohm,5%,1/10W,TP,1608	1	S.A
....4	R601	2007-000124	R-CHIP;2.2Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1307L	2007-000129	R-CHIP;27Kohm,5%,1/10W,TP,1608	1	S.A
....4	R509	2007-000287	R-CHIP;100OHM,1%,1/10W,TP,1608	1	S.A
....4	R512	2007-000287	R-CHIP;100OHM,1%,1/10W,TP,1608	1	S.A
....4	R1227	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	S.A
....4	R1228	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	S.A
....4	R1229	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	S.A
....4	R1230	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	S.A
....4	R1232	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	S.A

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6 Electrical Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	R1112	2007-000882	R-CHIP;4.7ohm,5%,1/10W,TP,1608	1	S.A
....4	R1113	2007-000882	R-CHIP;4.7ohm,5%,1/10W,TP,1608	1	S.A
....4	R1114	2007-000882	R-CHIP;4.7ohm,5%,1/10W,TP,1608	1	S.A
....4	R1121	2007-000882	R-CHIP;4.7ohm,5%,1/10W,TP,1608	1	S.A
....4	R1125	2007-000882	R-CHIP;4.7ohm,5%,1/10W,TP,1608	1	S.A
....4	R1205	2007-001134	R-CHIP;68ohm,5%,1/10W,TP,1608	1	S.A
....4	R1208	2007-001134	R-CHIP;68ohm,5%,1/10W,TP,1608	1	S.A
....4	R1211	2007-001134	R-CHIP;68ohm,5%,1/10W,TP,1608	1	S.A
....4	R1214	2007-001134	R-CHIP;68ohm,5%,1/10W,TP,1608	1	S.A
....4	R1217	2007-001134	R-CHIP;68ohm,5%,1/10W,TP,1608	1	S.A
....4	R1219	2007-001134	R-CHIP;68ohm,5%,1/10W,TP,1608	1	S.A
....4	R1221	2007-001134	R-CHIP;68ohm,5%,1/10W,TP,1608	1	S.A
....4	R1224	2007-001134	R-CHIP;68ohm,5%,1/10W,TP,1608	1	S.A
....4	R1226	2007-001134	R-CHIP;68ohm,5%,1/10W,TP,1608	1	S.A
....4	R807	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	S.A
....4	R809	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	S.A
....4	R810	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	S.A
....4	R811	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	S.A
....4	R821	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	S.A
....4	R822	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	S.A
....4	R827	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	S.A
....4	R828	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	S.A
....4	R829	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	S.A
....4	R933S	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	S.A
....4	R934S	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	S.A
....4	R945S	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	S.A
....4	R206	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	S.A
....4	R208	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	S.A
....4	R232	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	S.A
....4	R712	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	S.A
....4	R713	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	S.A
....4	R714	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	S.A
....4	R726	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	S.A
....4	R730	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	S.A
....4	R105	2007-002768	R-CHIP;6.2Kohm,1%,1/10W,TP,1608	1	S.A
....4	R505	2007-002906	R-CHIP;200Kohm,1%,1/10W,TP,1608	1	S.A
....4	R506	2007-002906	R-CHIP;200Kohm,1%,1/10W,TP,1608	1	S.A
....4	R272	2007-007797	R-CHIP;44.2ohm,1%,1/10W,TP,1608	1	S.A
....4	RA200	2011-000002	R-NET;22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	S.A
....4	RA201	2011-000002	R-NET;22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	S.A
....4	RA202	2011-000002	R-NET;22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	S.A
....4	RA203	2011-000002	R-NET;22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	S.A
....4	RA204	2011-000002	R-NET;22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	S.A
....4	RA205	2011-000002	R-NET;22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	S.A
....4	RA308	2011-000002	R-NET;22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	S.A
....4	RA309	2011-000002	R-NET;22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	S.A
....4	RA311	2011-000002	R-NET;22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	S.A
....4	RA312	2011-000002	R-NET;22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	S.A
....4	RA313	2011-000002	R-NET;22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	S.A
....4	RA314	2011-000002	R-NET;22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	S.A
....4	RA315	2011-000002	R-NET;22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	S.A
....4	RA300	2011-000515	R-NET;4.7Kohm,5%,1/16W,L,CHIP,8P,TP,3.2x	1	S.A
....4	RA301	2011-000515	R-NET;4.7Kohm,5%,1/16W,L,CHIP,8P,TP,3.2x	1	S.A
....4	RA316	2011-000515	R-NET;4.7Kohm,5%,1/16W,L,CHIP,8P,TP,3.2x	1	S.A
....4	RA317	2011-000515	R-NET;4.7Kohm,5%,1/16W,L,CHIP,8P,TP,3.2x	1	S.A
....4	RA318	2011-000515	R-NET;4.7Kohm,5%,1/16W,L,CHIP,8P,TP,3.2x	1	S.A
....4	RA319	2011-000515	R-NET;4.7Kohm,5%,1/16W,L,CHIP,8P,TP,3.2x	1	S.A
....4	RA1201	2011-000585	R-NET;47ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.	1	S.A
....4	RA1202	2011-000585	R-NET;47ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.	1	S.A
....4	RA1203	2011-000585	R-NET;47ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.	1	S.A
....4	RA1204	2011-000585	R-NET;47ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.	1	S.A
....4	RA1205	2011-000585	R-NET;47ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.	1	S.A
....4	RA1206	2011-000585	R-NET;47ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.	1	S.A
....4	RA1200	2011-000881	R-NET;33ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.	1	S.A
....4	RA302	2011-000881	R-NET;33ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.	1	S.A
....4	RA303	2011-000881	R-NET;33ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.	1	S.A
....4	RA304	2011-000881	R-NET;33ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.	1	S.A
....4	RA305	2011-000881	R-NET;33ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.	1	S.A
....4	RA306	2011-000881	R-NET;33ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.	1	S.A
....4	RA307	2011-000881	R-NET;33ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.	1	S.A
....4	RA310	2011-000881	R-NET;33ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.	1	S.A
....4	R1320	2011-001001	R-NET;0ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.6	1	S.A

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	C1032	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	S.A
....4	C1045	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	S.A
....4	C1064	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	S.A
....4	C1065	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	S.A
....4	C1052	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1063	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1112	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1113	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1116	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1126	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1129	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1130	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1133	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1145	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1260	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1261	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1262	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1263	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1267	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1268	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1272	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1273	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1274	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1275	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1276	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1277	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1278	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1281	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1282	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1302	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1304	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1306	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1308	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1319	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1320	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1321	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1331	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1333	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1335	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1401	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C200	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C201	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C206	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C209	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C210	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C217	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C218	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C219	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C220	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C221	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C227	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C229	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C231	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C234	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C236	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C237	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C238	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C240	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C241	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C242	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C243	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C244	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C245	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C246	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C247	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C248	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C249	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C250	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C252	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C253	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C302	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C303	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A

6 Electrical Parts List

[illegible]

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	C466	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C467	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C468	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C469	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C470	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C472	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C473	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C474	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C477	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C478	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C479	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C480	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C481	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C482	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C483	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C484	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C485	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C486	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C512	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C528	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C534	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C605	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C701	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C703	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C711	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C715	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C716	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C808	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C809	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C810	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C811	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C826	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C1121	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	S.A
....4	C1137	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	S.A
....4	C506	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	S.A
....4	C704	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	S.A
....4	C705	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	S.A
....4	C706	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	S.A
....4	C707	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	S.A
....4	C800	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	S.A
....4	C814	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	S.A
....4	C902S	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	S.A
....4	C904S	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	S.A
....4	C100	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	S.A
....4	C101	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	S.A
....4	C112	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	S.A
....4	C116	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	S.A
....4	C130	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	S.A
....4	C1303	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	S.A
....4	C1305	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	S.A
....4	C1307	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	S.A
....4	C1309	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	S.A
....4	C1312	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	S.A
....4	C1313	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	S.A
....4	C1314	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	S.A
....4	C1315	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	S.A
....4	C1323	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	S.A
....4	C1324	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	S.A
....4	C1325	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	S.A
....4	C1326	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	S.A
....4	C1327	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	S.A
....4	C1330	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	S.A
....4	C1332	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	S.A
....4	C1334	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	S.A
....4	C1342L	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	S.A
....4	C1343L	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	S.A
....4	C1400	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	S.A
....4	C1405	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	S.A
....4	C1406A	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	S.A
....4	C1407A	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	S.A
....4	C1408	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	S.A
....4	C1409A	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	S.A

6 Electrical Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	C308	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C507	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C510	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C511	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C513	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C515	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C518	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C522	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C602	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C135	2203-000405	C-CER,CHIP;0.18nF,5%,50V,C0G,1608	1	SA
....4	C1066	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C1067	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C1102	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C1103	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C1105	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C1108	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C1109	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C1115	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C1122	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C1123	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C1125	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C1127	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C1135	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C1136	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C1138	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C1142	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C1212	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C1230	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C1242	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C1316	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C1317	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C1318	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C1328	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C1329	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C1340L	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C306	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C508	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C608	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C535	2203-000491	C-CER,CHIP;2.2nF,10%,50V,X7R,1608	1	SA
....4	C1251	2203-000626	C-CER,CHIP;0.022nF,5%,50V,C0G,1608	1	SA
....4	C1252	2203-000626	C-CER,CHIP;0.022nF,5%,50V,C0G,1608	1	SA
....4	C527	2203-000626	C-CER,CHIP;0.022nF,5%,50V,C0G,1608	1	SA
....4	C533	2203-000626	C-CER,CHIP;0.022nF,5%,50V,C0G,1608	1	SA
....4	C606	2203-000626	C-CER,CHIP;0.022nF,5%,50V,C0G,1608	1	SA
....4	C607	2203-000626	C-CER,CHIP;0.022nF,5%,50V,C0G,1608	1	SA
....4	C300	2203-000681	C-CER,CHIP;0.027nF,5%,50V,C0G,1608	1	SA
....4	C301	2203-000681	C-CER,CHIP;0.027nF,5%,50V,C0G,1608	1	SA
....4	C1069	2203-000715	C-CER,CHIP;3.3nF,10%,50V,X7R,1608	1	SA
....4	C136	2203-000715	C-CER,CHIP;3.3nF,10%,50V,X7R,1608	1	SA
....4	C708	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	SA
....4	C709	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	SA
....4	C717	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	SA
....4	C718	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	SA
....4	C801	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	SA
....4	C802	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	SA
....4	C812	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	SA
....4	C813	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	SA
....4	C815	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	SA
....4	C819	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	SA
....4	C820	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	SA
....4	C821	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	SA
....4	C822	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	SA
....4	C903S	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	SA
....4	C905	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	SA
....4	C906S	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	SA
....4	C907S	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	SA
....4	C908S	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	SA
....4	C1200	2203-000815	C-CER,CHIP;0.033nF,5%,50V,C0G,1608	1	SA
....4	C525	2203-000815	C-CER,CHIP;0.033nF,5%,50V,C0G,1608	1	SA
....4	C531	2203-000815	C-CER,CHIP;0.033nF,5%,50V,C0G,1608	1	SA
....4	C805	2203-000815	C-CER,CHIP;0.033nF,5%,50V,C0G,1608	1	SA
....4	C806	2203-000815	C-CER,CHIP;0.033nF,5%,50V,C0G,1608	1	SA

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	C807	2203-000815	C-CER,CHIP;0.033nF,5%,50V,C0G,1608	1	S.A
....4	C816	2203-000815	C-CER,CHIP;0.033nF,5%,50V,C0G,1608	1	S.A
....4	C817	2203-000815	C-CER,CHIP;0.033nF,5%,50V,C0G,1608	1	S.A
....4	C818	2203-000815	C-CER,CHIP;0.033nF,5%,50V,C0G,1608	1	S.A
....4	C1049	2203-000872	C-CER,CHIP;0.0030nF,0.25pF,50V,C0G,1608	1	S.A
....4	C1051	2203-000872	C-CER,CHIP;0.0030nF,0.25pF,50V,C0G,1608	1	S.A
....4	C536	2203-000888	C-CER,CHIP;4.7nF,10%,50V,X7R,1608	1	S.A
....4	C1043	2203-000972	C-CER,CHIP;47nF,10%,16V,X7R,1608	1	S.A
....4	C519	2203-000972	C-CER,CHIP;47nF,10%,16V,X7R,1608	1	S.A
....4	C1210	2203-000975	C-CER,CHIP;47nF,10%,25V,X7R,TP,1608,-	1	S.A
....4	C1211	2203-000975	C-CER,CHIP;47nF,10%,25V,X7R,TP,1608,-	1	S.A
....4	C1213	2203-000975	C-CER,CHIP;47nF,10%,25V,X7R,TP,1608,-	1	S.A
....4	C1217	2203-000975	C-CER,CHIP;47nF,10%,25V,X7R,TP,1608,-	1	S.A
....4	C1218	2203-000975	C-CER,CHIP;47nF,10%,25V,X7R,TP,1608,-	1	S.A
....4	C1220	2203-000975	C-CER,CHIP;47nF,10%,25V,X7R,TP,1608,-	1	S.A
....4	C1223	2203-000975	C-CER,CHIP;47nF,10%,25V,X7R,TP,1608,-	1	S.A
....4	C1228	2203-000975	C-CER,CHIP;47nF,10%,25V,X7R,TP,1608,-	1	S.A
....4	C1232	2203-000975	C-CER,CHIP;47nF,10%,25V,X7R,TP,1608,-	1	S.A
....4	C1235	2203-000975	C-CER,CHIP;47nF,10%,25V,X7R,TP,1608,-	1	S.A
....4	C1236	2203-000975	C-CER,CHIP;47nF,10%,25V,X7R,TP,1608,-	1	S.A
....4	C1239	2203-000975	C-CER,CHIP;47nF,10%,25V,X7R,TP,1608,-	1	S.A
....4	C1240	2203-000975	C-CER,CHIP;47nF,10%,25V,X7R,TP,1608,-	1	S.A
....4	C1241	2203-000975	C-CER,CHIP;47nF,10%,25V,X7R,TP,1608,-	1	S.A
....4	C1247	2203-000975	C-CER,CHIP;47nF,10%,25V,X7R,TP,1608,-	1	S.A
....4	C1248	2203-000975	C-CER,CHIP;47nF,10%,25V,X7R,TP,1608,-	1	S.A
....4	C1249	2203-000975	C-CER,CHIP;47nF,10%,25V,X7R,TP,1608,-	1	S.A
....4	C1250	2203-000975	C-CER,CHIP;47nF,10%,25V,X7R,TP,1608,-	1	S.A
....4	C1404	2203-000998	C-CER,CHIP;0.047nF,5%,50V,C0G,1608	1	S.A
....4	C211	2203-000998	C-CER,CHIP;0.047nF,5%,50V,C0G,1608	1	S.A
....4	C1300	2203-001034	C-CER,CHIP;5.6nF,10%,50V,X7R,1608	1	S.A
....4	C128	2203-001052	C-CER,CHIP;0.56nF,10%,50V,X7R,TP,1608	1	S.A
....4	C1310	2203-001052	C-CER,CHIP;0.56nF,10%,50V,X7R,TP,1608	1	S.A
....4	C1035	2203-001071	C-CER,CHIP;0.056nF,5%,50V,C0G,1608	1	S.A
....4	C1039	2203-001071	C-CER,CHIP;0.056nF,5%,50V,C0G,1608	1	S.A
....4	C1047	2203-001071	C-CER,CHIP;0.056nF,5%,50V,C0G,1608	1	S.A
....4	C526	2203-001071	C-CER,CHIP;0.056nF,5%,50V,C0G,1608	1	S.A
....4	C529	2203-001071	C-CER,CHIP;0.056nF,5%,50V,C0G,1608	1	S.A
....4	C530	2203-001071	C-CER,CHIP;0.056nF,5%,50V,C0G,1608	1	S.A
....4	C532	2203-001071	C-CER,CHIP;0.056nF,5%,50V,C0G,1608	1	S.A
....4	C1038	2203-001155	C-CER,CHIP;0.068nF,5%,50V,NP0,TP,1608	1	S.A
....4	C1201	2203-001607	C-CER,CHIP;0.22nF,5%,50V,NP0,1608	1	S.A
....4	C521	2203-001607	C-CER,CHIP;0.22nF,5%,50V,NP0,1608	1	S.A
....4	C1031	2203-001656	C-CER,CHIP;0.47nF,5%,50V,NP0,1608	1	S.A
....4	C1046	2203-001656	C-CER,CHIP;0.47nF,5%,50V,NP0,1608	1	S.A
....4	C126	2203-002392	C-CER,CHIP;220nF,+80-20%,50V,Y5V,2012	1	S.A
....4	C1111	2203-002398	C-CER,CHIP;22nF,10%,50V,X7R,1608	1	S.A
....4	C1114	2203-002398	C-CER,CHIP;22nF,10%,50V,X7R,1608	1	S.A
....4	C1124	2203-002398	C-CER,CHIP;22nF,10%,50V,X7R,1608	1	S.A
....4	C1141	2203-002398	C-CER,CHIP;22nF,10%,50V,X7R,1608	1	S.A
....4	C1005	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	S.A
....4	C102	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	S.A
....4	C1034	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	S.A
....4	C104	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	S.A
....4	C106	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	S.A
....4	C1068	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	S.A
....4	C108	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	S.A
....4	C111	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	S.A
....4	C114	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	S.A
....4	C115	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	S.A
....4	C120	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	S.A
....4	C1203	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	S.A
....4	C1204	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	S.A
....4	C1205	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	S.A
....4	C1207	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	S.A
....4	C1208	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	S.A
....4	C1209	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	S.A
....4	C1215	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	S.A
....4	C1216	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	S.A
....4	C1219	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	S.A
....4	C122	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	S.A
....4	C1221	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	S.A
....4	C1222	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	S.A

6 Electrical Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	C1224	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1227	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1229	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1233	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1234	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1238	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1244	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1245	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1246	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1254	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1255	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1256	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1257	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1259	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C127	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1271	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C132	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1336L	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C134	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1345L	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C138	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1403	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C145	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C149	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C314	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C502	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C601	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C604	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C609	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C803	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C823	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1117	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C1118	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C1119	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C1139	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C1338L	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C1339L	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C251	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C400	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C488	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C600	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C124	2203-005221	C-CER,CHIP;15nF,10%,50V,X7R,1608	1	SA
....4	C1106	2203-005249	C-CER,CHIP;100nF,10%,50V,X7R,1608	1	SA
....4	C1107	2203-005249	C-CER,CHIP;100nF,10%,50V,X7R,1608	1	SA
....4	C1110	2203-005249	C-CER,CHIP;100nF,10%,50V,X7R,1608	1	SA
....4	C1128	2203-005249	C-CER,CHIP;100nF,10%,50V,X7R,1608	1	SA
....4	C1134	2203-005249	C-CER,CHIP;100nF,10%,50V,X7R,1608	1	SA
....4	C1140	2203-005249	C-CER,CHIP;100nF,10%,50V,X7R,1608	1	SA
....4	C1146	2203-005249	C-CER,CHIP;100nF,10%,50V,X7R,1608	1	SA
....4	C1147	2203-005249	C-CER,CHIP;100nF,10%,50V,X7R,1608	1	SA
....4	C1148	2203-005249	C-CER,CHIP;100nF,10%,50V,X7R,1608	1	SA
....4	C1149	2203-005249	C-CER,CHIP;100nF,10%,50V,X7R,1608	1	SA
....4	C500	2203-005249	C-CER,CHIP;100nF,10%,50V,X7R,1608	1	SA
....4	C504	2203-005249	C-CER,CHIP;100nF,10%,50V,X7R,1608	1	SA
....4	C509	2203-005249	C-CER,CHIP;100nF,10%,50V,X7R,1608	1	SA
....4	C520	2203-005249	C-CER,CHIP;100nF,10%,50V,X7R,1608	1	SA
....4	C523	2203-005249	C-CER,CHIP;100nF,10%,50V,X7R,1608	1	SA
....4	C1007	2203-005533	C-CER,CHIP;1000nF,20%,6.3V,X7R,TP,1608	1	SA
....4	C1009	2203-005533	C-CER,CHIP;1000nF,20%,6.3V,X7R,TP,1608	1	SA
....4	C1011	2203-005533	C-CER,CHIP;1000nF,20%,6.3V,X7R,TP,1608	1	SA
....4	C1012	2203-005533	C-CER,CHIP;1000nF,20%,6.3V,X7R,TP,1608	1	SA
....4	C1016	2203-005533	C-CER,CHIP;1000nF,20%,6.3V,X7R,TP,1608	1	SA
....4	C1017	2203-005533	C-CER,CHIP;1000nF,20%,6.3V,X7R,TP,1608	1	SA
....4	C1018	2203-005533	C-CER,CHIP;1000nF,20%,6.3V,X7R,TP,1608	1	SA
....4	C1020	2203-005533	C-CER,CHIP;1000nF,20%,6.3V,X7R,TP,1608	1	SA
....4	C1023	2203-005533	C-CER,CHIP;1000nF,20%,6.3V,X7R,TP,1608	1	SA
....4	C1025	2203-005533	C-CER,CHIP;1000nF,20%,6.3V,X7R,TP,1608	1	SA
....4	C1027	2203-005533	C-CER,CHIP;1000nF,20%,6.3V,X7R,TP,1608	1	SA
....4	C1028	2203-005533	C-CER,CHIP;1000nF,20%,6.3V,X7R,TP,1608	1	SA
....4	C1057	2203-005533	C-CER,CHIP;1000nF,20%,6.3V,X7R,TP,1608	1	SA
....4	C1061	2203-005533	C-CER,CHIP;1000nF,20%,6.3V,X7R,TP,1608	1	SA
....4	C118	2203-006104	C-CER,CHIP;1000nF,10%,50V,X7R,3225	1	SA

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	C503	2203-006104	C-CER,CHIP;1000nF,10%,50V,X7R,3225	1	S.A
....4	C1019	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	1	S.A
....4	C1021	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	1	S.A
....4	C1036	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	1	S.A
....4	C1040	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	1	S.A
....4	C1048	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	1	S.A
....4	C1050	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	1	S.A
....4	C1202	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	1	S.A
....4	C1206	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	1	S.A
....4	C1214	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	1	S.A
....4	C1226	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	1	S.A
....4	C1237	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	1	S.A
....4	C1243	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	1	S.A
....4	C1253	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	1	S.A
....4	C1258	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	1	S.A
....4	C1264	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	1	S.A
....4	C1265	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	1	S.A
....4	C1269	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	1	S.A
....4	C1279	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	1	S.A
....4	C1280	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	1	S.A
....4	C1283	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	1	S.A
....4	C1301	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	1	S.A
....4	C1346L	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	1	S.A
....4	C222	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	1	S.A
....4	C228	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	1	S.A
....4	C239	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	1	S.A
....4	C505	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	1	S.A
....4	C514	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	1	S.A
....4	C603	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	1	S.A
....4	C700	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	1	S.A
....4	C702	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	1	S.A
....4	C710	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	1	S.A
....4	C804	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	1	S.A
....4	C824	2203-006333	C-CER,CHIP;10000nF,20%,16V,X5R,TP,3216	1	S.A
....4	C1030	2402-000108	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.2mm	1	S.A
....4	C1053	2402-000108	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.2mm	1	S.A
....4	C1062	2402-000108	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.2mm	1	S.A
....4	C1100	2402-000108	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.2mm	1	S.A
....4	C1131	2402-000108	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.2mm	1	S.A
....4	C1132	2402-000108	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.2mm	1	S.A
....4	C825	2402-000108	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.2mm	1	S.A
....4	C1029	2402-001006	C-AL,SMD;4.7uF,20%,25V,GP,TP,3.6x6.3x3	1	S.A
....4	C1033	2402-001086	C-AL,SMD;100UF,20%,16V,WT,TP,6.6X6.6X5.3	1	S.A
....4	C1054	2402-001086	C-AL,SMD;100UF,20%,16V,WT,TP,6.6X6.6X5.3	1	S.A
....4	C1055	2402-001086	C-AL,SMD;100UF,20%,16V,WT,TP,6.6X6.6X5.3	1	S.A
....4	C1058	2402-001086	C-AL,SMD;100UF,20%,16V,WT,TP,6.6X6.6X5.3	1	S.A
....4	C110	2402-001086	C-AL,SMD;100UF,20%,16V,WT,TP,6.6X6.6X5.3	1	S.A
....4	C113	2402-001086	C-AL,SMD;100UF,20%,16V,WT,TP,6.6X6.6X5.3	1	S.A
....4	C1225	2402-001086	C-AL,SMD;100UF,20%,16V,WT,TP,6.6X6.6X5.3	1	S.A
....4	C1231	2402-001086	C-AL,SMD;100UF,20%,16V,WT,TP,6.6X6.6X5.3	1	S.A
....4	C1266	2402-001086	C-AL,SMD;100UF,20%,16V,WT,TP,6.6X6.6X5.3	1	S.A
....4	C1270	2402-001086	C-AL,SMD;100UF,20%,16V,WT,TP,6.6X6.6X5.3	1	S.A
....4	C129	2402-001086	C-AL,SMD;100UF,20%,16V,WT,TP,6.6X6.6X5.3	1	S.A
....4	C230	2402-001086	C-AL,SMD;100UF,20%,16V,WT,TP,6.6X6.6X5.3	1	S.A
....4	C232	2402-001086	C-AL,SMD;100UF,20%,16V,WT,TP,6.6X6.6X5.3	1	S.A
....4	C254	2402-001086	C-AL,SMD;100UF,20%,16V,WT,TP,6.6X6.6X5.3	1	S.A
....4	C315	2402-001086	C-AL,SMD;100UF,20%,16V,WT,TP,6.6X6.6X5.3	1	S.A
....4	C450	2402-001086	C-AL,SMD;100UF,20%,16V,WT,TP,6.6X6.6X5.3	1	S.A
....4	C487	2402-001086	C-AL,SMD;100UF,20%,16V,WT,TP,6.6X6.6X5.3	1	S.A
....4	C489	2402-001086	C-AL,SMD;100UF,20%,16V,WT,TP,6.6X6.6X5.3	1	S.A
....4	C490	2402-001086	C-AL,SMD;100UF,20%,16V,WT,TP,6.6X6.6X5.3	1	S.A
....4	C501	2402-001086	C-AL,SMD;100UF,20%,16V,WT,TP,6.6X6.6X5.3	1	S.A
....4	C517	2402-001086	C-AL,SMD;100UF,20%,16V,WT,TP,6.6X6.6X5.3	1	S.A
....4	C537	2402-001086	C-AL,SMD;100UF,20%,16V,WT,TP,6.6X6.6X5.3	1	S.A
....4	C123	2402-001100	C-AL,SMD;0.1uF,20%,50V,GP,TP,4.3x4.3x5.2	1	S.A
....4	C1101	2402-001128	C-AL,SMD;100uF,20%,16V,-,TP,6.3X5.7mm	1	S.A
....4	C524	2402-001147	C-AL,SMD;3.3UF,20%,50V,WT,TP,4X5.8MM	1	S.A
....4	C1006	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	S.A
....4	C1044	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	S.A
....4	C105	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	S.A
....4	C107	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	S.A
....4	C516	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	S.A

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Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	C146	2402-001260	C-AL,SMD;100uF,20%,10V,WT,REEL,6.3X5.7	1	S.A
....4	C103	2402-001268	C-AL,SMD;100uF,+20%,25V,WT,REEL,8x6.3	1	S.A
....4	C109	2402-001268	C-AL,SMD;100uF,+20%,25V,WT,REEL,8x6.3	1	S.A
....4	C117	2402-001268	C-AL,SMD;100uF,+20%,25V,WT,REEL,8x6.3	1	S.A
....4	C119	2402-001268	C-AL,SMD;100uF,+20%,25V,WT,REEL,8x6.3	1	S.A
....4	C121	2402-001268	C-AL,SMD;100uF,+20%,25V,WT,REEL,8x6.3	1	S.A
....4	C133	2402-001268	C-AL,SMD;100uF,+20%,25V,WT,REEL,8x6.3	1	S.A
....4	C1104	2402-001273	C-AL,SMD;220uF,20%,35V,WT,REEL,10X10mm	1	S.A
....4	C1120	2402-001273	C-AL,SMD;220uF,20%,35V,WT,REEL,10X10mm	1	S.A
....4	C125	2409-001029	C-ORGANIC,SMD;120uF,20%,6.3V,WT,TP,8.3x	1	S.A
....4	C131	2409-001029	C-ORGANIC,SMD;120uF,20%,6.3V,WT,TP,8.3x	1	S.A
....4	C1341L	2409-001065	C-ORGANIC;82uF,20%,16V,WT,TP,8X6.9mm,-	1	S.A
....4	T0052	2703-000222	INDUCTOR-SMD;560nH,10%,2012	1	S.A
....4	T0052	2703-000222	INDUCTOR-SMD;560nH,10%,2012	1	S.A
....4	T0052	2703-000398	INDUCTOR-SMD;10uH,10%,3225	1	S.A
....4	T0052	2703-000398	INDUCTOR-SMD;10uH,10%,3225	1	S.A
....4	T0052	2703-000398	INDUCTOR-SMD;10uH,10%,3225	1	S.A
....4	T0052	2703-000398	INDUCTOR-SMD;10uH,10%,3225	1	S.A
....4	T0052	2703-000398	INDUCTOR-SMD;10uH,10%,3225	1	S.A
....4	T0052	2703-000398	INDUCTOR-SMD;10uH,10%,3225	1	S.A
....4	T0052	2703-000398	INDUCTOR-SMD;10uH,10%,3225	1	S.A
....4	T0052	2703-000398	INDUCTOR-SMD;10uH,10%,3225	1	S.A
....4	T0052	2703-000398	INDUCTOR-SMD;10uH,10%,3225	1	S.A
....4	T0052	2703-000398	INDUCTOR-SMD;10uH,10%,3225	1	S.A
....4	T0052	2703-000398	INDUCTOR-SMD;10uH,10%,3225	1	S.A
....4	T0052	2703-000398	INDUCTOR-SMD;10uH,10%,3225	1	S.A
....4	T0052	2703-000398	INDUCTOR-SMD;10uH,10%,3225	1	S.A
....4	T0052	2703-000398	INDUCTOR-SMD;10uH,10%,3225	1	S.A
....4	T0052	2703-000398	INDUCTOR-SMD;10uH,10%,3225	1	S.A
....4	T0052	2703-000398	INDUCTOR-SMD;10uH,10%,3225	1	S.A
....4	T0052	2703-000398	INDUCTOR-SMD;10uH,10%,3225	1	S.A
....4	T0052	2703-000398	INDUCTOR-SMD;10uH,10%,3225	1	S.A
....4	T0052	2703-000417	INDUCTOR-SMD;220uH,5%,3225	1	S.A
....4	T0052	2703-001079	INDUCTOR-SMD;220nH,5%,2012	1	S.A
....4	T0052	2703-001079	INDUCTOR-SMD;220nH,5%,2012	1	S.A
....4	T0052	2703-001079	INDUCTOR-SMD;220nH,5%,2012	1	S.A
....4	T0052	2703-001079	INDUCTOR-SMD;220nH,5%,2012	1	S.A
....4	T0052	2703-001426	INDUCTOR-SMD;680uH,20%,7070	1	S.A
....4	T0052	2703-001778	INDUCTOR-SMD;3.3uH,20%,3225	1	S.A
....4	T0052	2703-001778	INDUCTOR-SMD;3.3uH,20%,3225	1	S.A
....4	T0052	2703-001778	INDUCTOR-SMD;3.3uH,20%,3225	1	S.A
....4	T0052	2703-001778	INDUCTOR-SMD;3.3uH,20%,3225	1	S.A
....4	T0052	2703-001778	INDUCTOR-SMD;3.3uH,20%,3225	1	S.A
....4	T0052	2703-002275	INDUCTOR-SMD;470nH,5%,2012	1	S.A
....4	T0052	2703-002275	INDUCTOR-SMD;470nH,5%,2012	1	S.A
....4	L1101	2704-000018	INDUCTOR-SMD-ARRAY;15uH,2000mA,2,0.124oh	1	S.N.A
....4	L1104	2704-000018	INDUCTOR-SMD-ARRAY;15uH,2000mA,2,0.124oh	1	S.N.A
....4	X600	2801-003326	CRYSTAL-SMD;24MHz,30PPM,28-ABX,20PF,50OH	1	S.A
....4	X1200	2801-003667	CRYSTAL-SMD;14.31818MHz,30ppm,28-AAN,16p	1	S.A
....4	X300	2801-004224	CRYSTAL-SMD;25.14MHz,0ppm,20pF,50ohm,TP	1	S.A
....4	X1000	2801-004300	CRYSTAL-SMD;18.432MHz,30ppm,28-ABX,13pF,	1	S.A
....4	T0568	3301-000314	BEAD-SMD;120ohm,1.6x0.8x0.8mm,-,-,-	1	S.N.A
....4	T0568	3301-000314	BEAD-SMD;120ohm,1.6x0.8x0.8mm,-,-,-	1	S.N.A
....4	T0568	3301-001145	BEAD-SMD;60ohm,4516,TP,70ohm/45MHz,82ohm	1	S.N.A
....4	T0568	3301-001145	BEAD-SMD;60ohm,4516,TP,70ohm/45MHz,82ohm	1	S.N.A
....4	T0568	3301-001145	BEAD-SMD;60ohm,4516,TP,70ohm/45MHz,82ohm	1	S.N.A
....4	T0568	3301-001145	BEAD-SMD;60ohm,4516,TP,70ohm/45MHz,82ohm	1	S.N.A
....4	T0568	3301-001145	BEAD-SMD;60ohm,4516,TP,70ohm/45MHz,82ohm	1	S.N.A
....4	T0568	3301-001145	BEAD-SMD;60ohm,4516,TP,70ohm/45MHz,82ohm	1	S.N.A
....4	T0568	3301-001145	BEAD-SMD;60ohm,4516,TP,70ohm/45MHz,82ohm	1	S.N.A
....4	T0568	3301-001145	BEAD-SMD;60ohm,4516,TP,70ohm/45MHz,82ohm	1	S.N.A
....4	T0568	3301-001145	BEAD-SMD;60ohm,4516,TP,70ohm/45MHz,82ohm	1	S.N.A
....4	T0568	3301-001145	BEAD-SMD;60ohm,4516,TP,70ohm/45MHz,82ohm	1	S.N.A
....4	T0568	3301-001145	BEAD-SMD;60ohm,4516,TP,70ohm/45MHz,82ohm	1	S.N.A
....4	T0568	3301-001145	BEAD-SMD;60ohm,4516,TP,70ohm/45MHz,82ohm	1	S.N.A
....4	T0568	3301-001145	BEAD-SMD;60ohm,4516,TP,70ohm/45MHz,82ohm	1	S.N.A
....4	T0568	3301-001145	BEAD-SMD;60ohm,4516,TP,70ohm/45MHz,82ohm	1	S.N.A
....4	T0568	3301-001145	BEAD-SMD;60ohm,4516,TP,70ohm/45MHz,82ohm	1	S.N.A
....4	T0568	3301-001148	BEAD-SMD;60ohm,1608,TP,-,-,-	1	S.N.A
....4	T0568	3301-001236	BEAD-SMD;60ohm,1608,-,-,-	1	S.N.A
....4	T0568	3301-001236	BEAD-SMD;60ohm,1608,-,-,-	1	S.N.A
....4	T0568	3301-001236	BEAD-SMD;60ohm,1608,-,-,-	1	S.N.A
....4	T0568	3301-001236	BEAD-SMD;60ohm,1608,-,-,-	1	S.N.A

[illegible]

6 Electrical Parts List

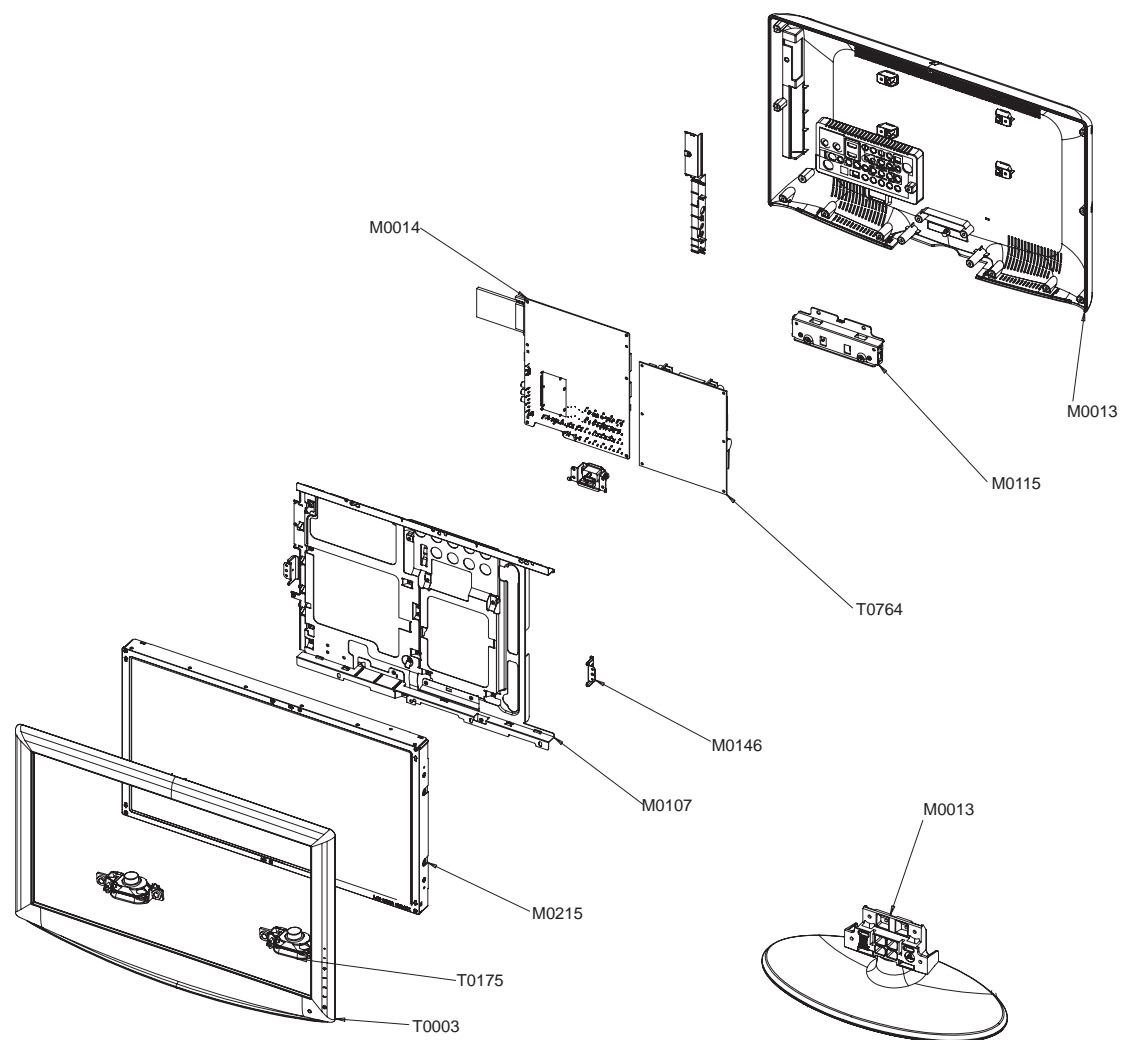
Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
..2	M2893	BN39-00836A	LEAD CONNECTOR;LVDS;LNT2342HX,UL1571#30,	1	S.A
..2	M2893	BN39-00603E	LEAD CONNECTOR;RE26**AU,UL1007#26,14P,15	1	S.A
..2	M2893	BN39-00802B	LEAD CONNECTOR;LE40R86BDX,UL1007#26,24PI	1	S.A
0.1	M0003	BN92-02379N	ASSY BOX;26R81,UO(XAX)	1	S.N.A
..2	T0130	BN69-01730G	BOX-00,SET;26R8,CB,SY-05,A,YEL,A1,EXPORT	1.01	S.N.A
0.1	M0113	BN92-02380B	ASSY P/MATERIAL;26R71,UO	1	S.N.A
..2	T0376	6902-000061	BAG AIR;LDPE,T0.2,L1000,W500,TRP,,,	0.016	S.N.A
..2	T0376	6902-000379	BAG AIR;LDPE,T0.2,W1000,L1800,TRP,-,-	0.004	S.N.A
..2	T0003	6902-000604	BAG WRAPPING;LDPE,T0.02,W500,L10000,TRP,	3.2	S.N.A
..2	T0524	6902-000737	BAG PE;HDPE/HDPE/NITRON (DOUBLE),T0.015/	1	S.N.A
0.1	M0045	BN92-02605A	ASSY ACCESSORY;LN23R81BDX/XAX	1	S.N.A
..2	M0045	BN96-04790D	ASSY ACCESSORY;LNT2353HX/XAA	1	S.A
...3	T0268	3903-000144	CBF-POWER CORD;DT,US,BP3/Y,U(IEC C13-RA)	1	S.A
...3	T0524	6902-000110	BAG PE;LDPE,T0.05,W250,L400,TRP,28,2	1	S.N.A
...3	T0074	BN59-00598A	REMOCON;JASMINE,TM87C,SAMSUNG28P+EEPROM,	1	S.A
...3	ACCESSORY	BN63-01798A	CLOTH-CLEAN;RE40**CLOTH,180,200,RHCM	1	S.N.A
...3	T0531	BN63-03221B	COVER-BOTTOM;23,26R81,HIPS,-,-,V0,-,BK	1	S.A
...3	M0045	BN96-01800A	ASSY ACCESSORY;ROME32,SCREW	1	S.A
....4	T0081	6002-001294	SCREW-TAPPING;BH,+,M4,L16,ZPC(BLK)	4	S.A
....4	ACCESSORY	6902-000128	BAG ZIPPER;LDPE,T0.05,W200,L150,TRP,8,2-	1	S.N.A
..2	M0045	BN96-05362A	ASSY ACCESSORY;LN23R81BDX/XAX	1	S.A
...3	T0524	6902-000110	BAG PE;LDPE,T0.05,W250,L400,TRP,28,2	1	S.N.A
...3	ACCESSORY	BN68-00797A	MANUAL FLYER-03,WARRANT CARD,SAMEX BASIC	1	S.N.A
...3	M0156	BN68-01156C	MANUAL USERS-01;COMM,SAMSUNG,Eng/Spa,S.A	1	S.N.A
...3	T0238	BP68-00515A	MANUAL FLYER-REGISTRATION CARD;PRC CARD,	1	S.N.A
...3	T0511	AA68-03242L	MANUAL FLYER-SAFETY GUIDE;comm,Samsung,E	1	S.N.A
0.1	M0019	BN92-02400T	ASSY LABEL;LN26R81BDX/XAX	1	S.N.A

5 Exploded View and Parts List

- You can search for updated part codes through ITSELF web site.

URL : <http://itself.sec.samsung.co.kr/>

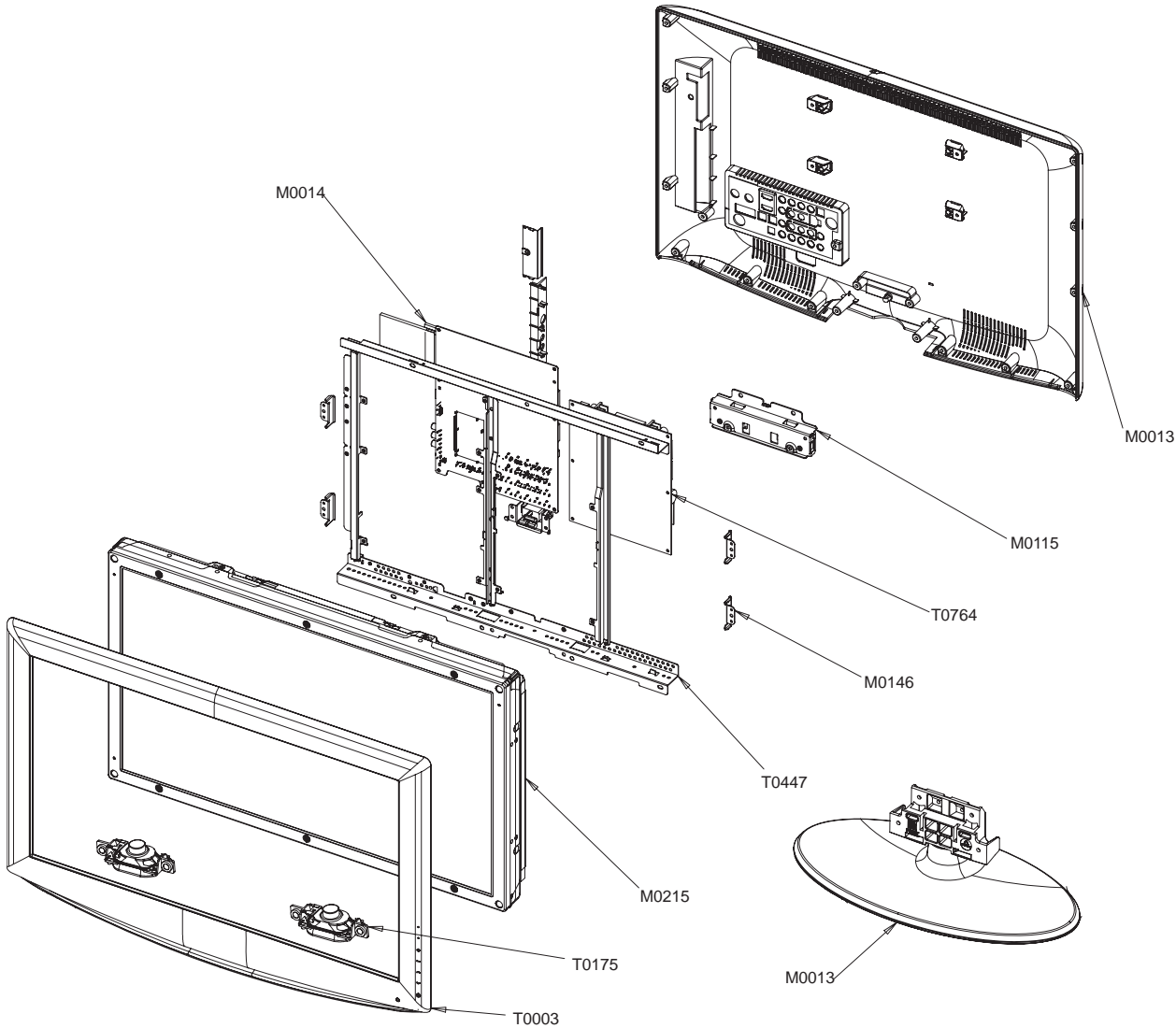
5-1 LN23R81BDX Exploded View



5-2 LN23R81BDX Parts list

Location	Code.No	Item & Specification	Q'ty	SA/SNA	Remark
T0003	BN96-04660A	ASSY COVER P-FRONT;23R81,UO,-,PC,V0,BK27	1	S.A	
M0215	BN07-00365A	LCD-PANEL;T230XW01,8bit,23inch,16.7M,16:	1	S.A	
M0107	BN61-03037A	BRACKET-PCB;23 BORDEAUX PLUS,SECC,T1.0	1	S.N.A	
M0146	BN61-03060A	BRACKET-PANEL SIDE;BORDEAUX PLUS 23,SECC	2	S.N.A	
M0115	BN61-02965A	BRACKET-STAND LINK;32 BORDEAUX PLUS,SECC	1	S.N.A	
M0014	BN94-01183D	ASSY PCB MAIN;LNT2353HX/"	1	S.A	
M0027	BN96-04663A	ASSY STAND P-BASE;23,26R81,NORMAL,-,ABS+	1	S.A	
M0013	BN96-04668A	ASSY COVER P-REAR;23R81,UO,-,PC+ABS,V0,B	1	S.A	

5-3 LN26R81BDX Exploded View



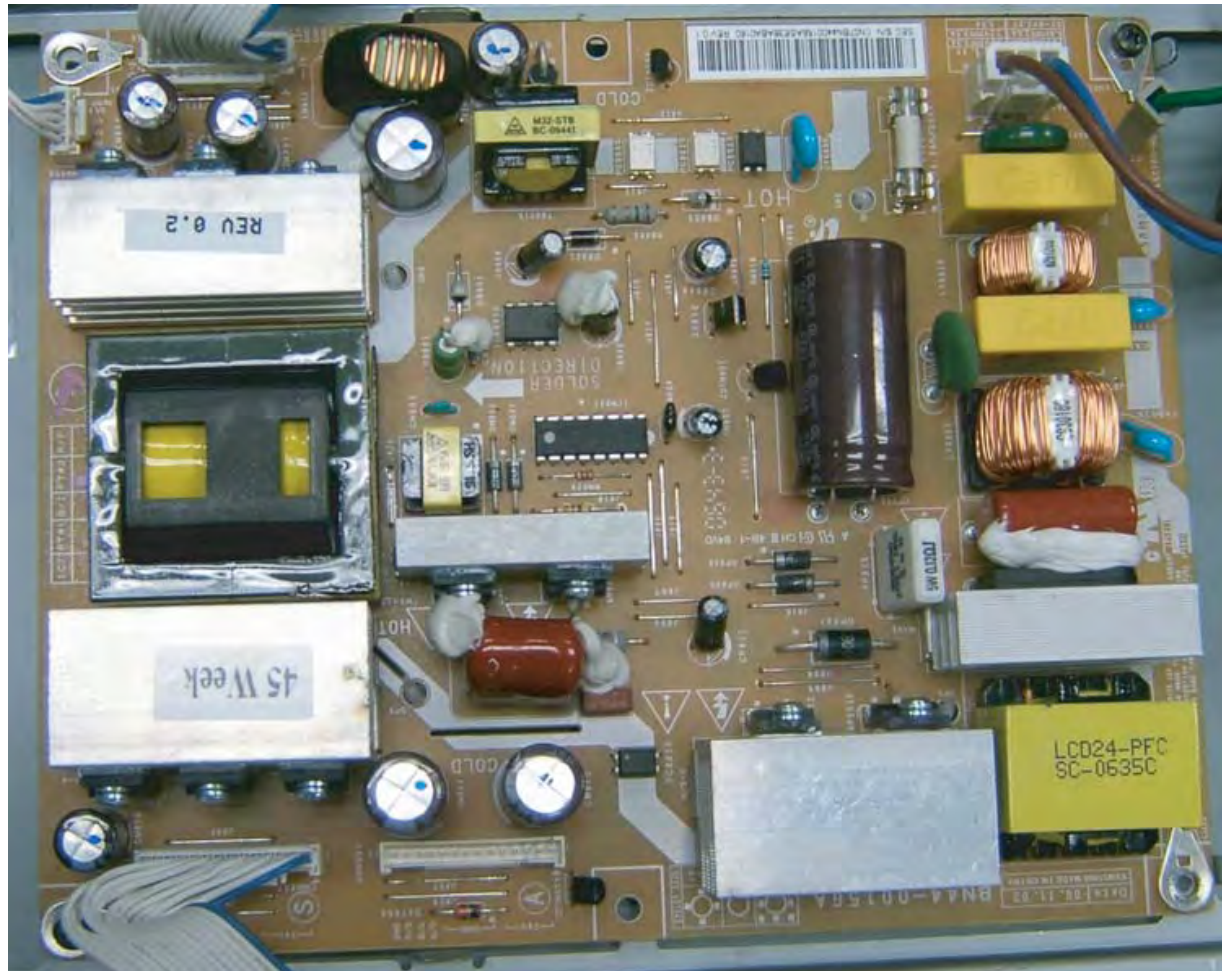
5-4 LN26R81BDX Parts list

Location	Code.No	Item & Specification	Q'ty	SA/SNA	Remark
T0003	BN96-04659A	ASSY COVER P-FRONT;26R81,UO,-,PC,V0,BK27	1	S.A	
T0175	BN96-04767A	ASSY SPEAKER P;16ohm,4pin,5W,Bordeaux PI	2	S.A	
M0215	BN07-00254A	LCD-PANEL;T260XW02,8bit,626.0*373.0*50.0	1	S.A	
T0447	BN96-04682B	ASSY BRACKET P-PANEL;26R81,AUO	1	S.N.A	
M0115	BN61-02965A	BRACKET-STAND LINK;32 BORDEAUX PLUS,SECC	1	S.N.A	
M0146	BN61-02207A	BRACKET-PANEL SIDE;Bordeaux 26,SECC,T1.2	4	S.N.A	
M0014	BN94-01183B	ASSY PCB MAIN;LNT2653HX/*	1	S.A	
M0027	BN96-04663A	ASSY STAND P-BASE;23,26R81,NORMAL,-,ABS+	1	S.A	
M0013	BN96-04667A	ASSY COVER P-REAR;26R81,UO,-,PC+ABS,V0,B	1	S.A	

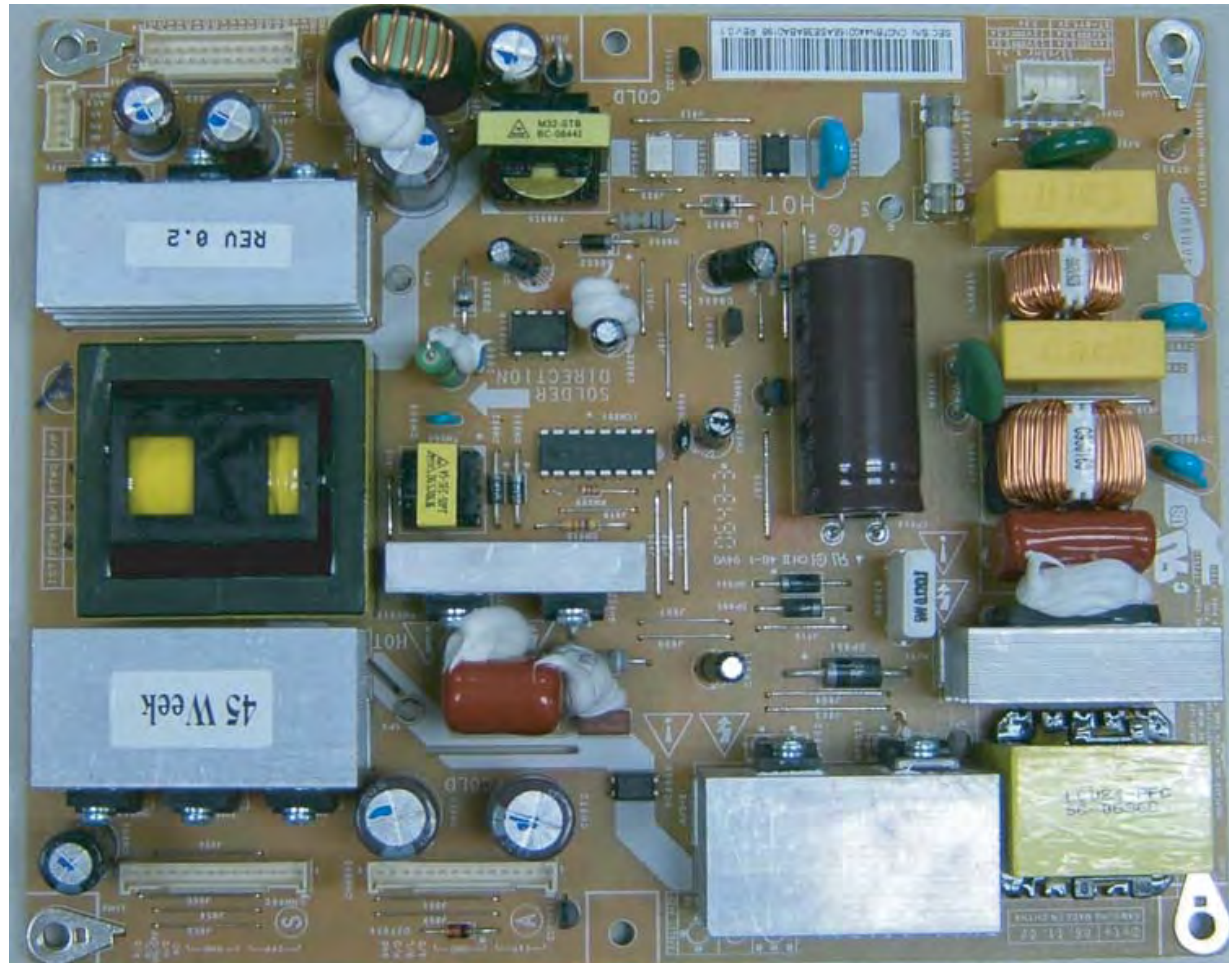
12 PCB Diagram

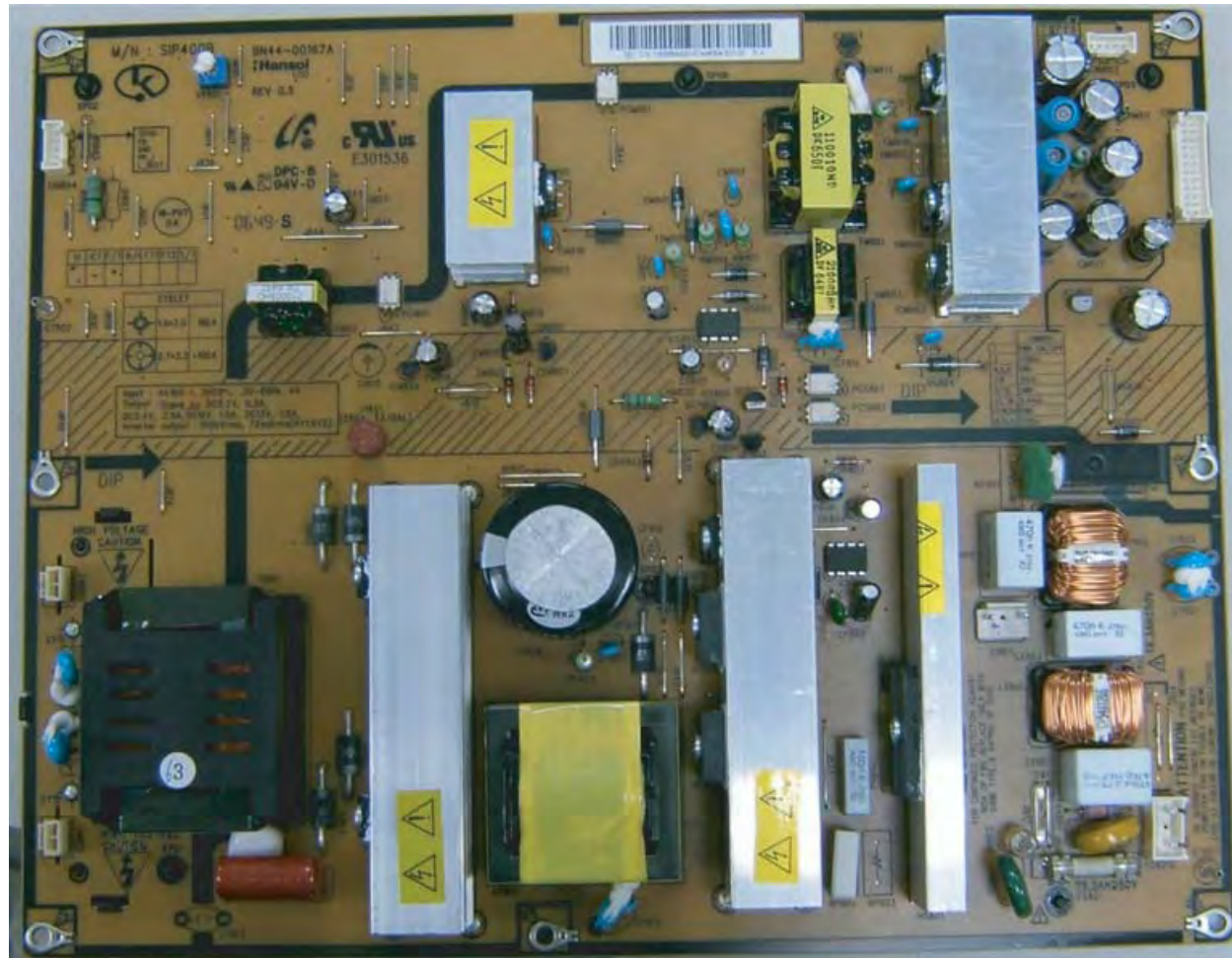
12-1 Main PCB Diagram





12-3 Power PCB Diagram 26", 32"





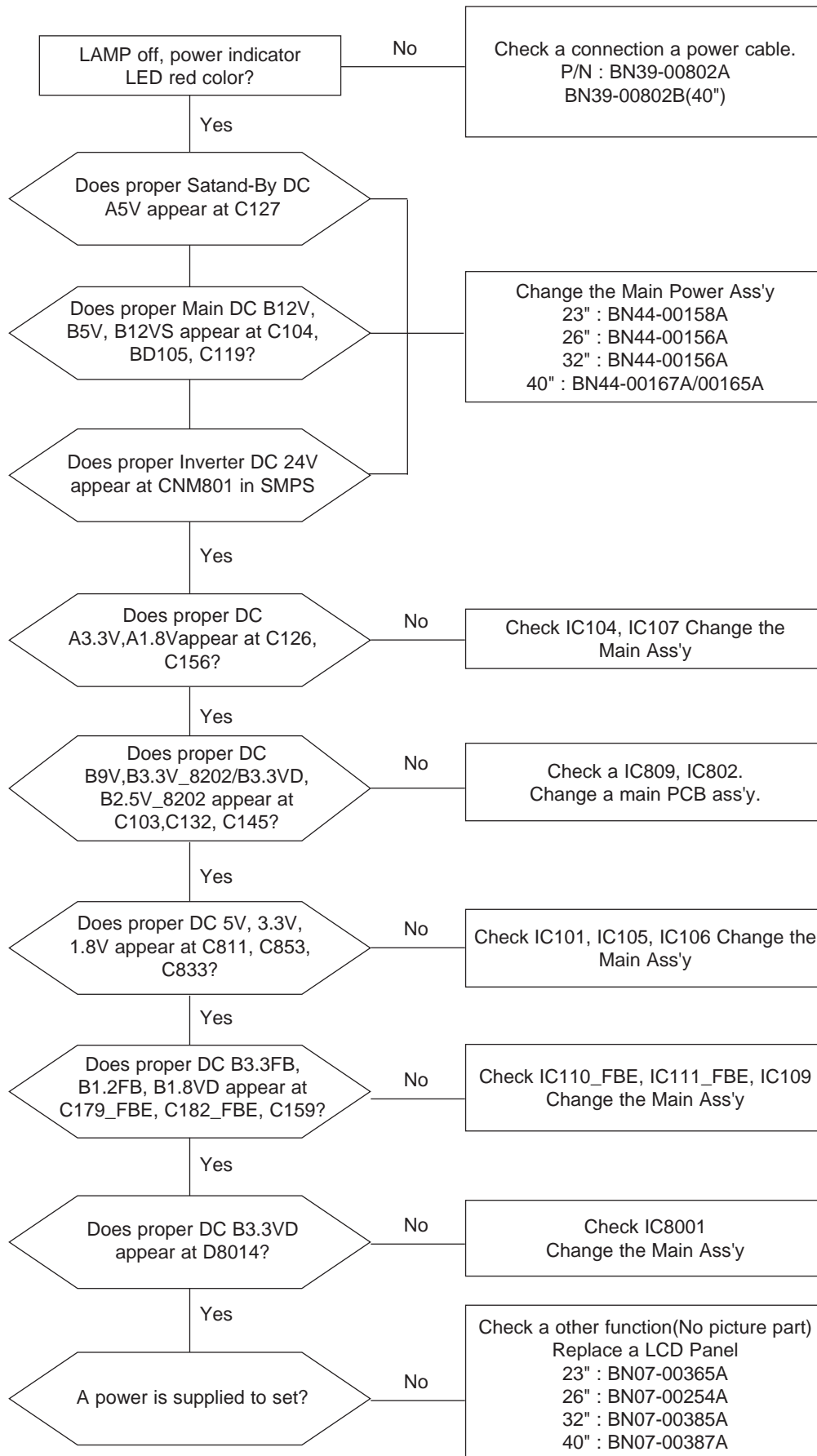
4 Troubleshooting

4-1 First Checklist for Troubleshooting

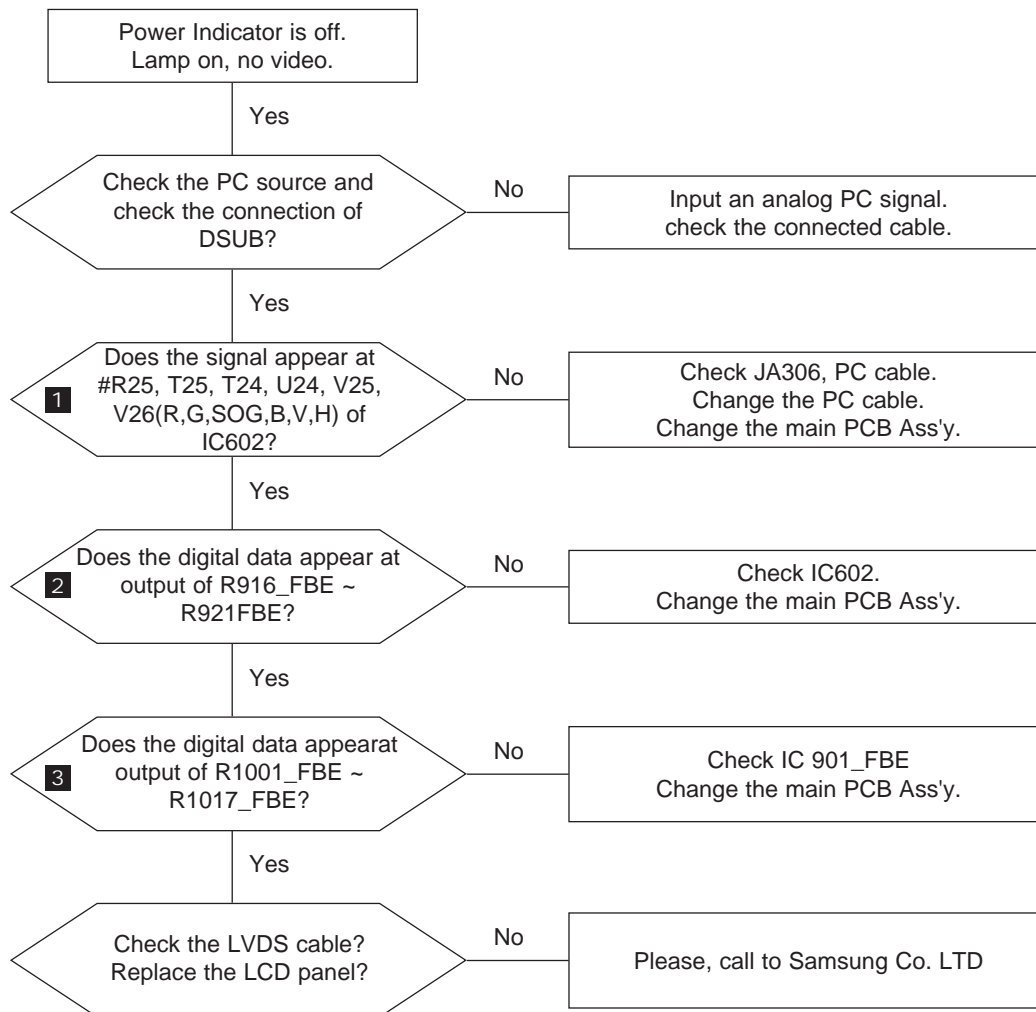
1. Check the various cable connections first.
 - Check to see if there is a burnt or damaged cable.
 - Check to see if there is a disconnected cable connection or a connection is too loose.
 - Check to see if the cables are connected according to the connection diagram.
2. Check the power input to the Main Board.
3. Check the voltage in and out between the SMPS ↔ Main Board, between the SMPS ↔ INVERTER Board, and between the Main LVDS Boards.

4-2 Checkpoints by Error Mode

4-2-1 No Power

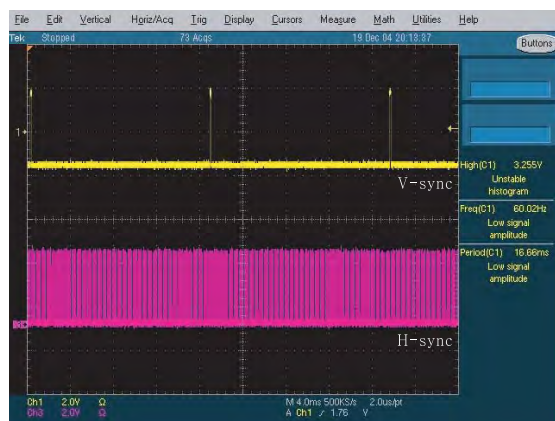


4-2-2 No Video (Analog PC Signal)



WAVEFORMS

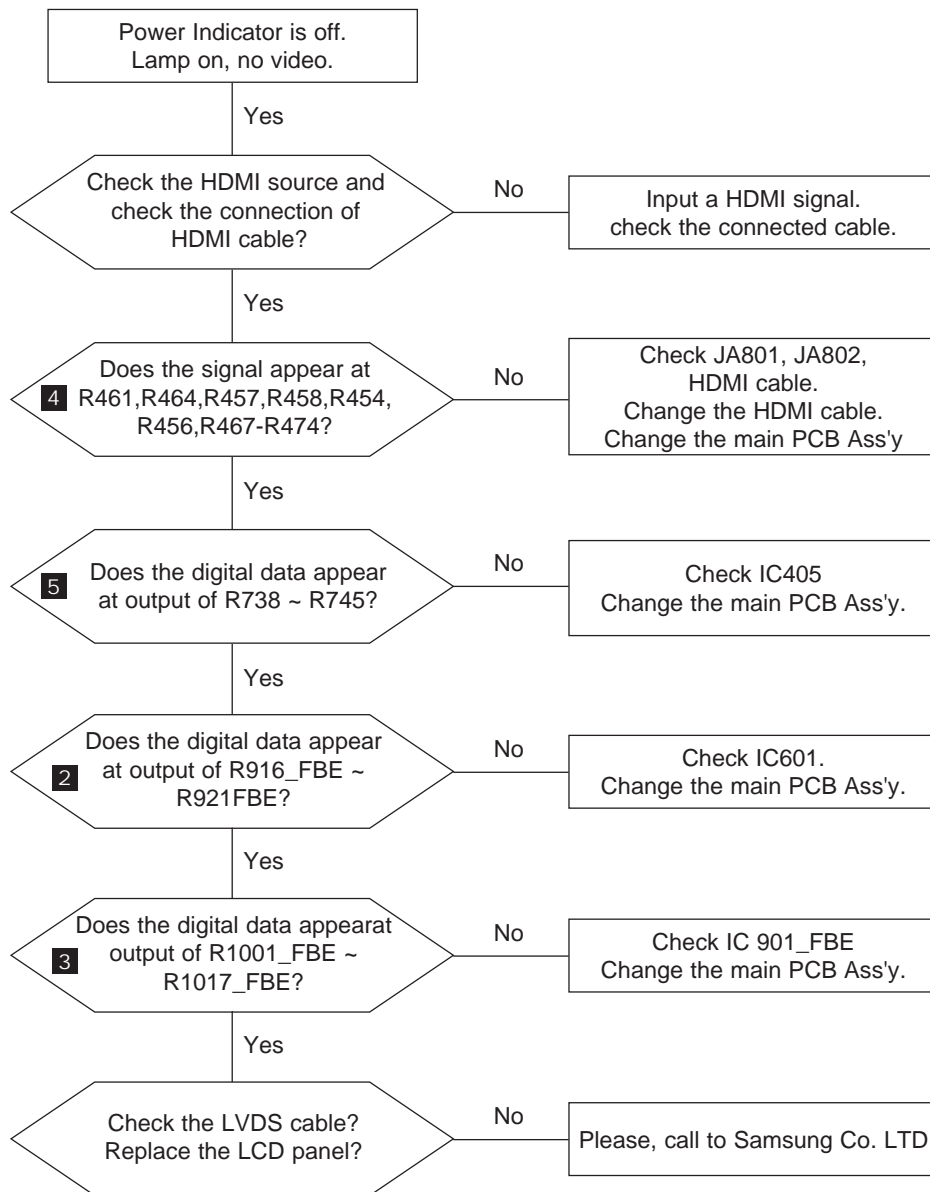
1 2 PC Input (V-Sync, H-Sync)



3 LVDS Out (CLK +/-)

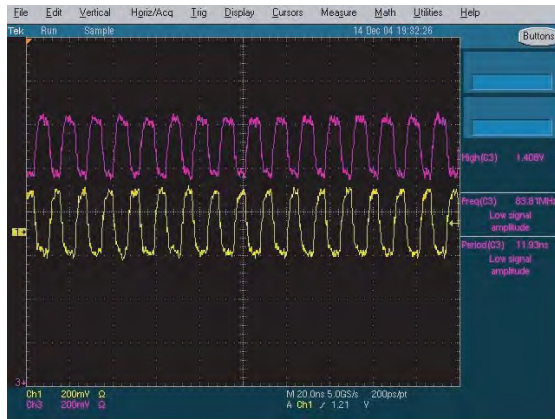


4-2-3 No Video (HDMI - Digital Signal)

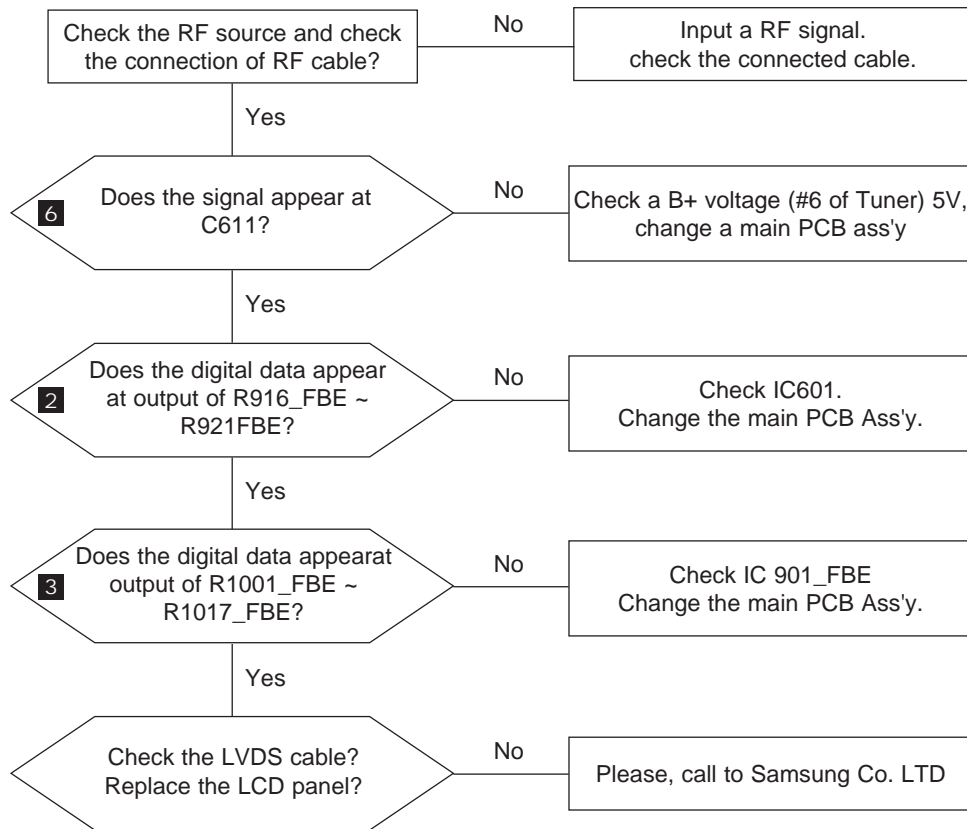


WAVEFORMS

4 5 HDMI Input (CLK +/-)

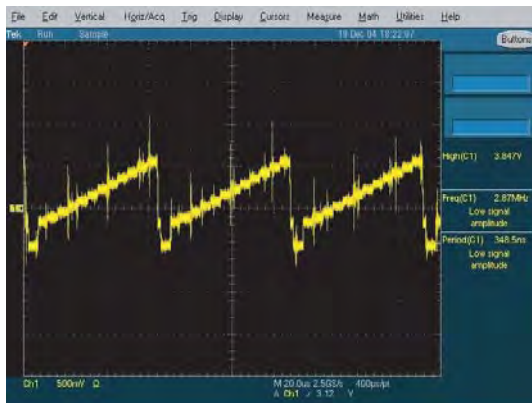


4-2-4 No Picture (Tuner_CVBS)

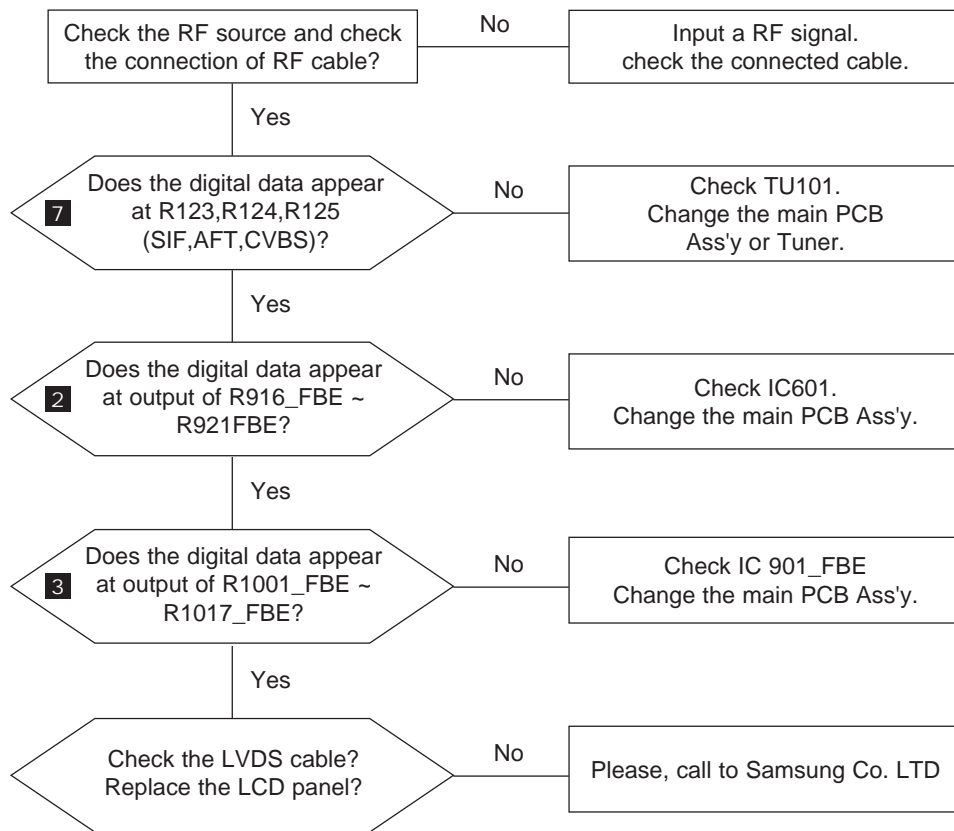


WAVEFORMS

6 Tuner CVBS Out (Pattern : Grey Bar)

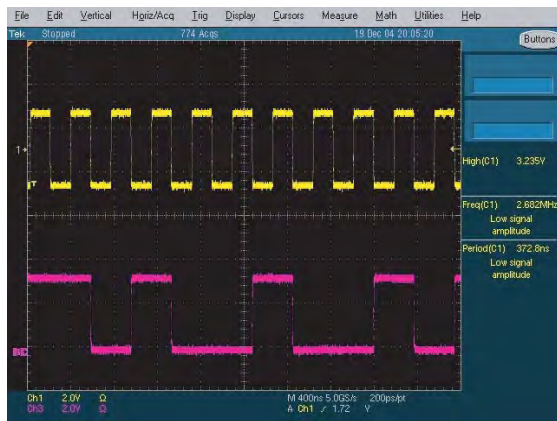


4-2-5 No Picture (Tuner DTV TS)

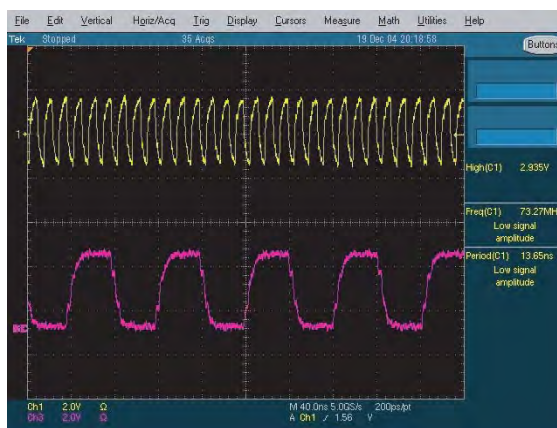


WAVEFORMS

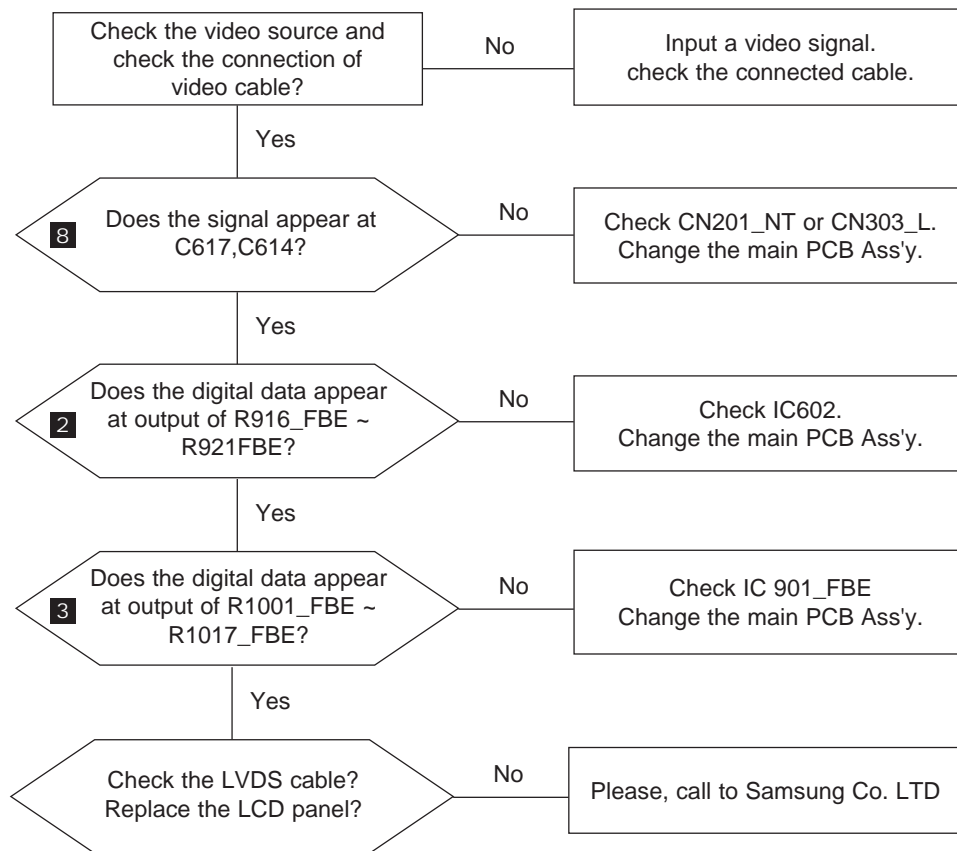
7 TS DATA Out (CLK, DATA [0])



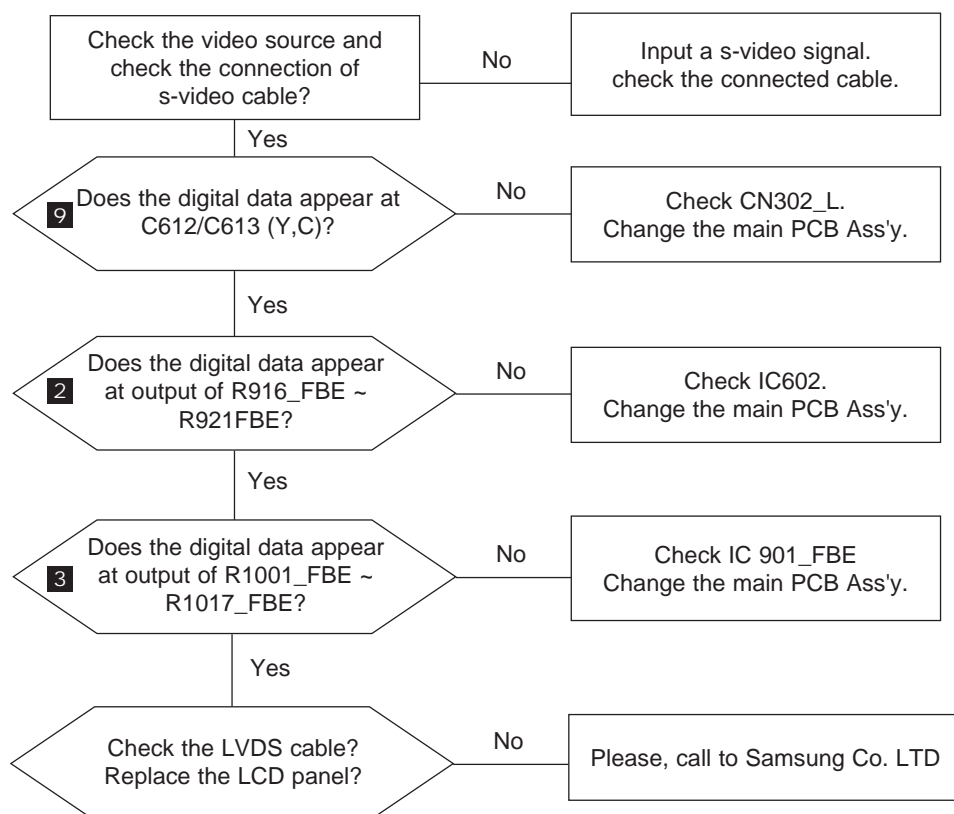
8 Eagle+ Out (CLK, H-Sync)



4-2-6 No Picture (Video_CVBS)



4-2-7 No Picture (S-VIDEO Y/C)

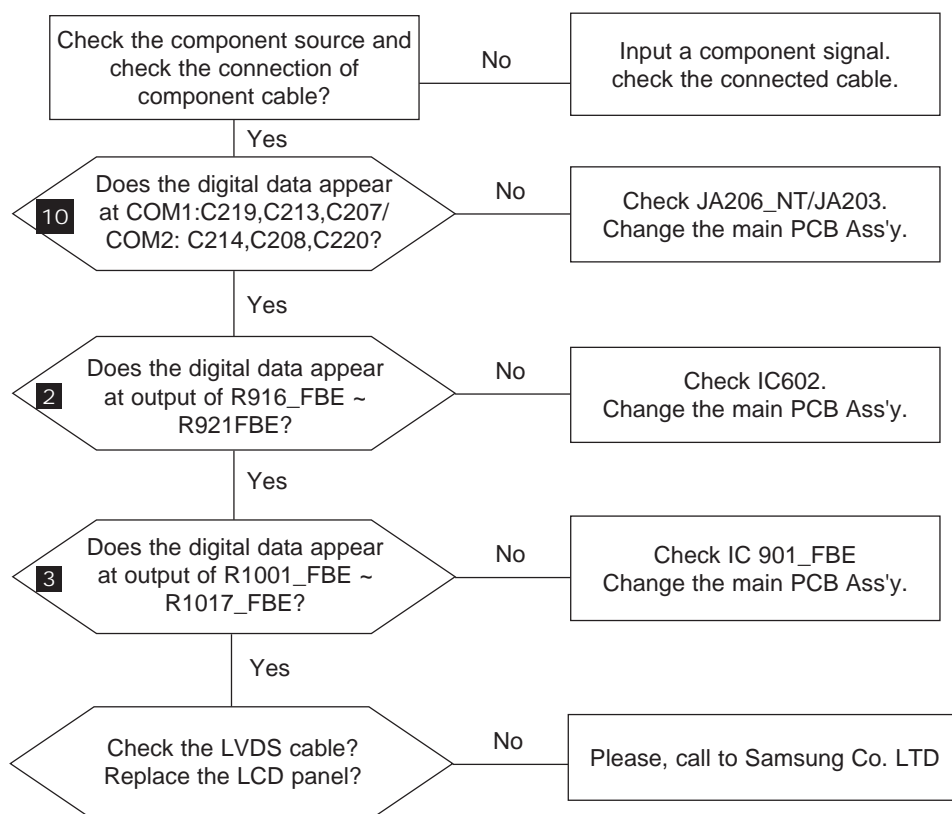


WAVEFORMS

9 S-VIDEO Input (Y/C)

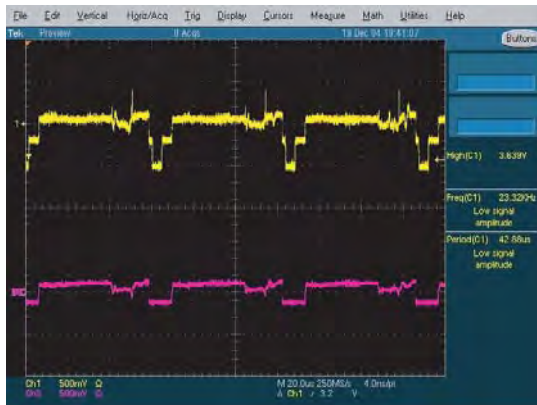


4-2-8 No Picture (Component1,2)

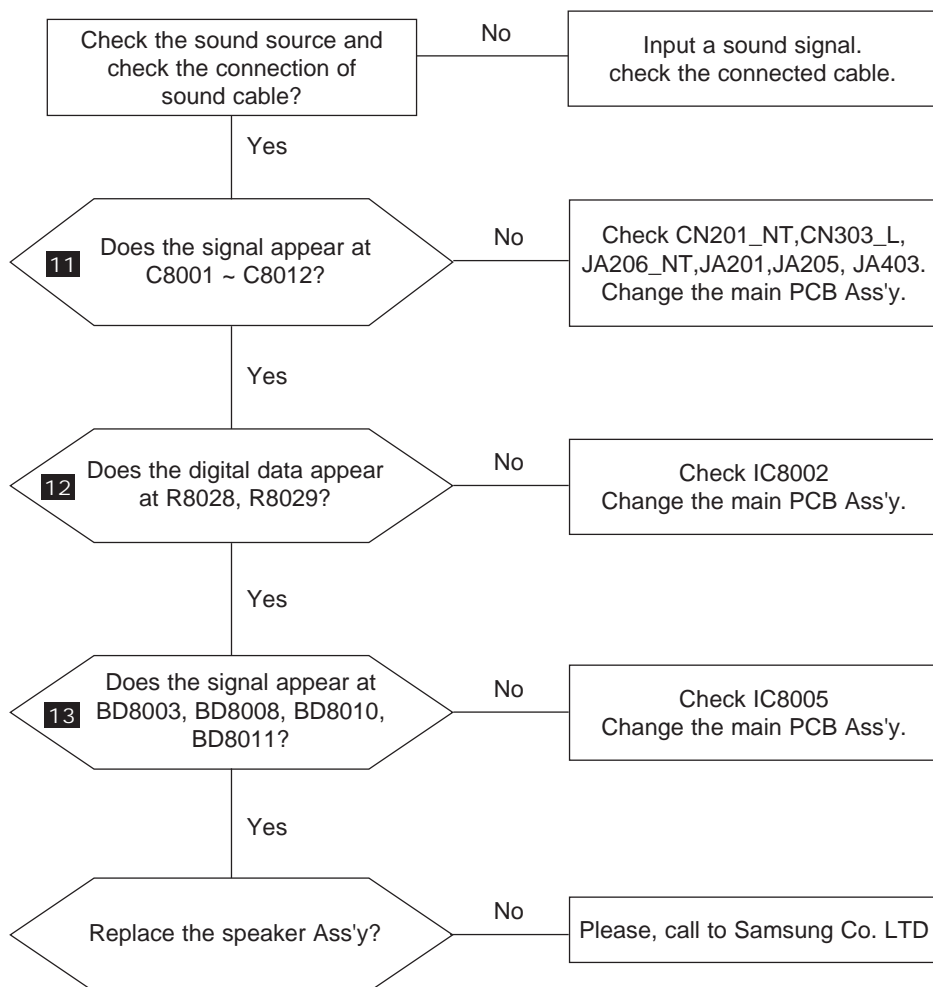


WAVEFORMS

10 Component Input (Y/Pb)

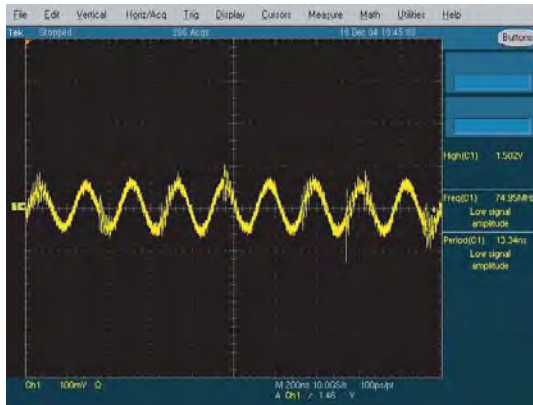


4-2-9 No Sound

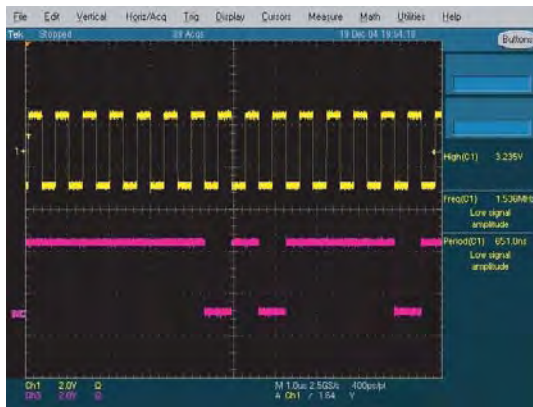


WAVEFORMS

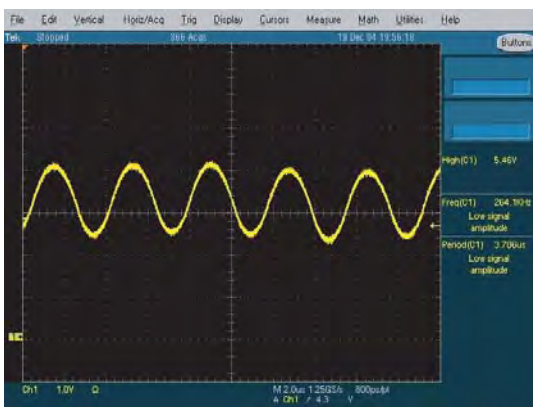
11 Audio Input (Sign Wave)



12 12S Input (CLK, DATA)



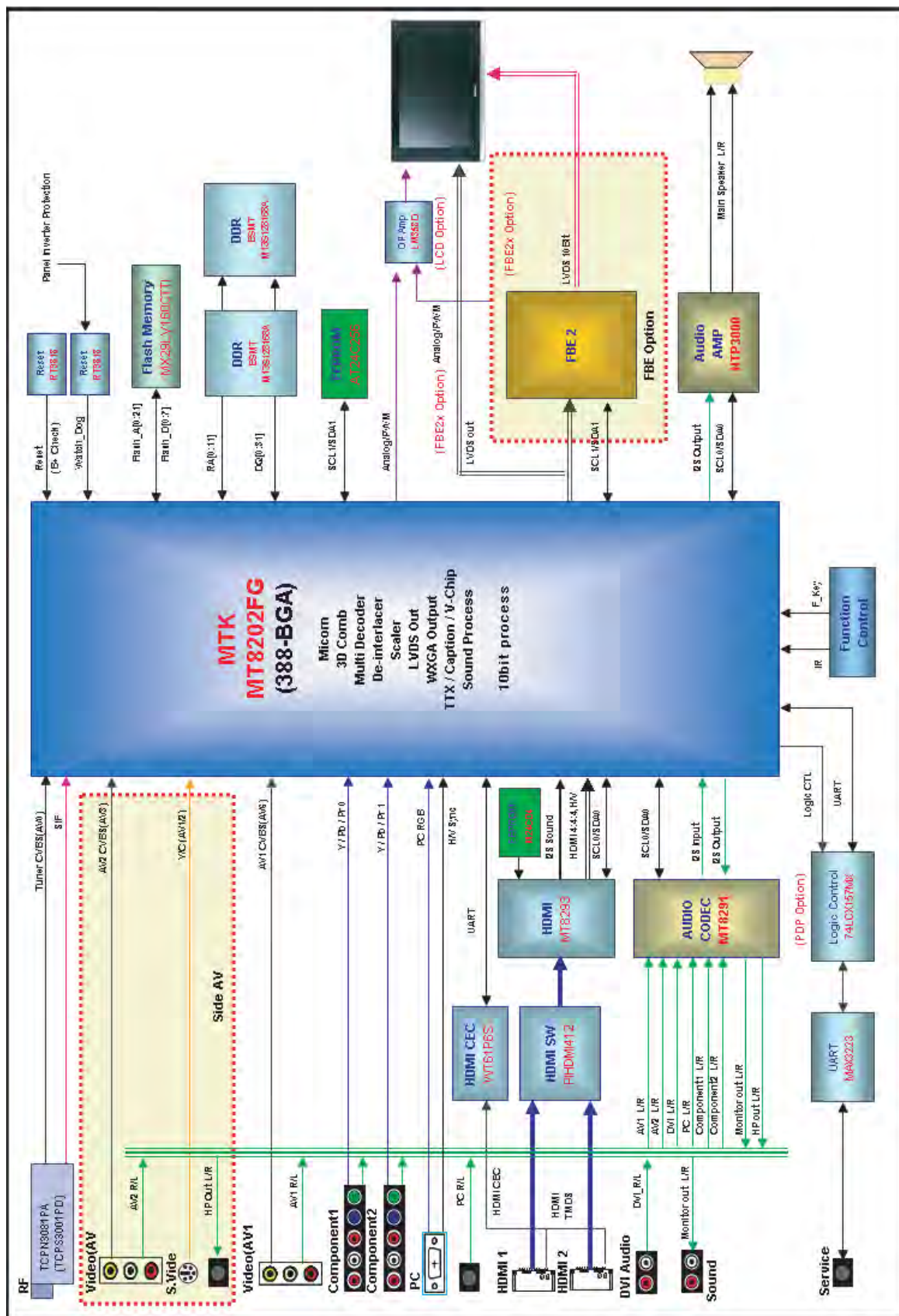
13 Audio Amp Out (Sign Wave)



Memo

7 Block Diagram

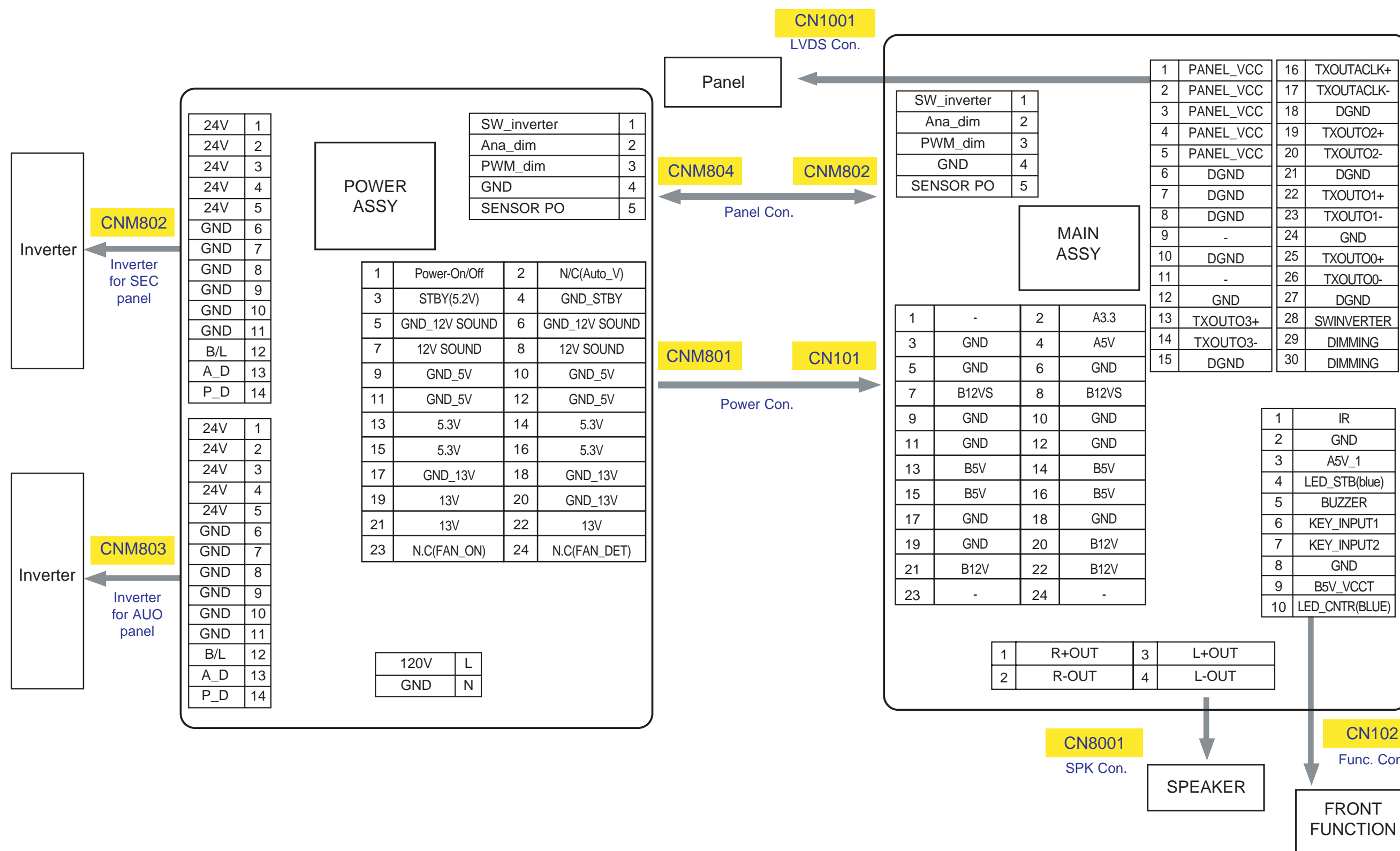
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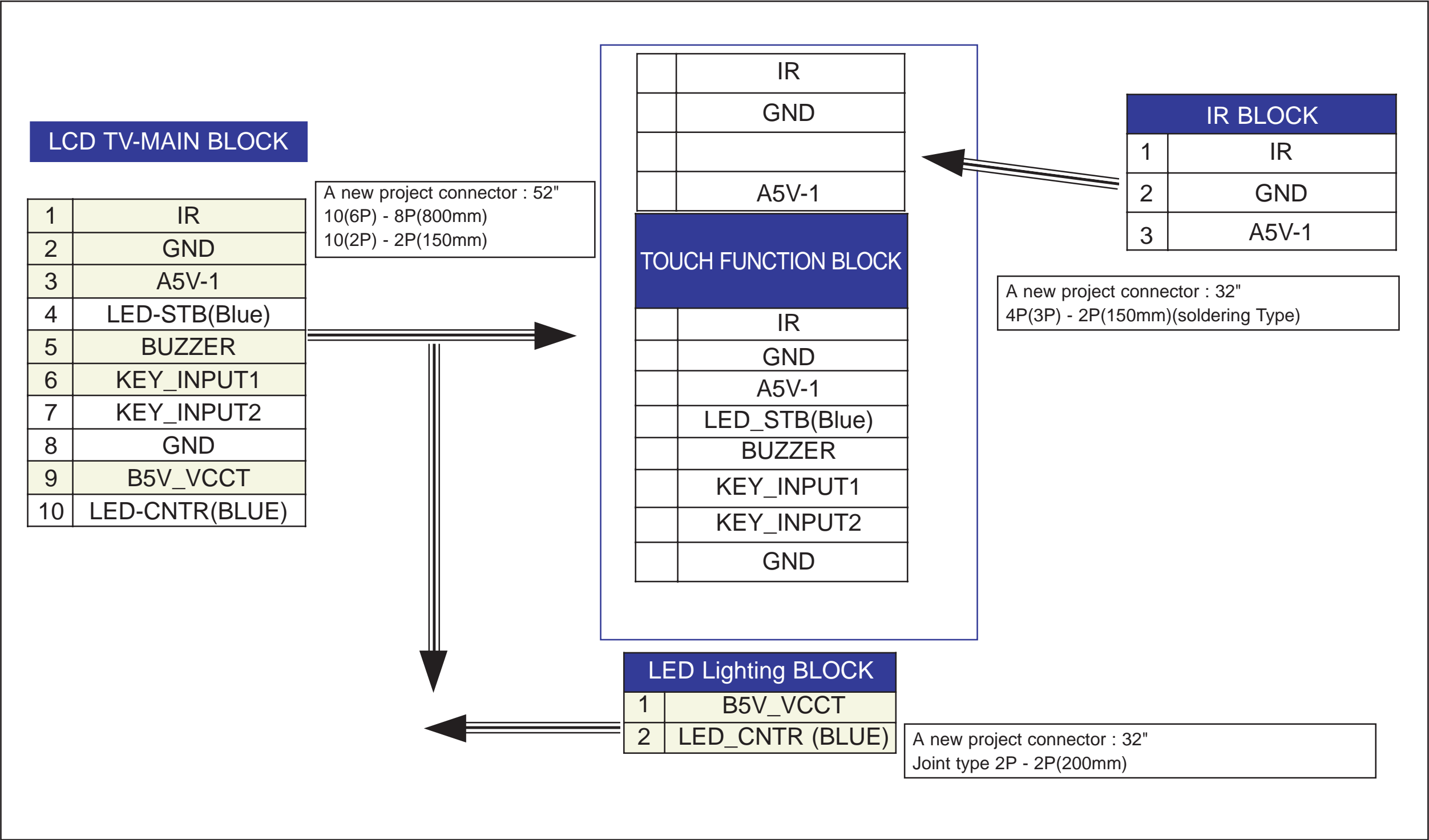
Memo

8 Wiring Diagram

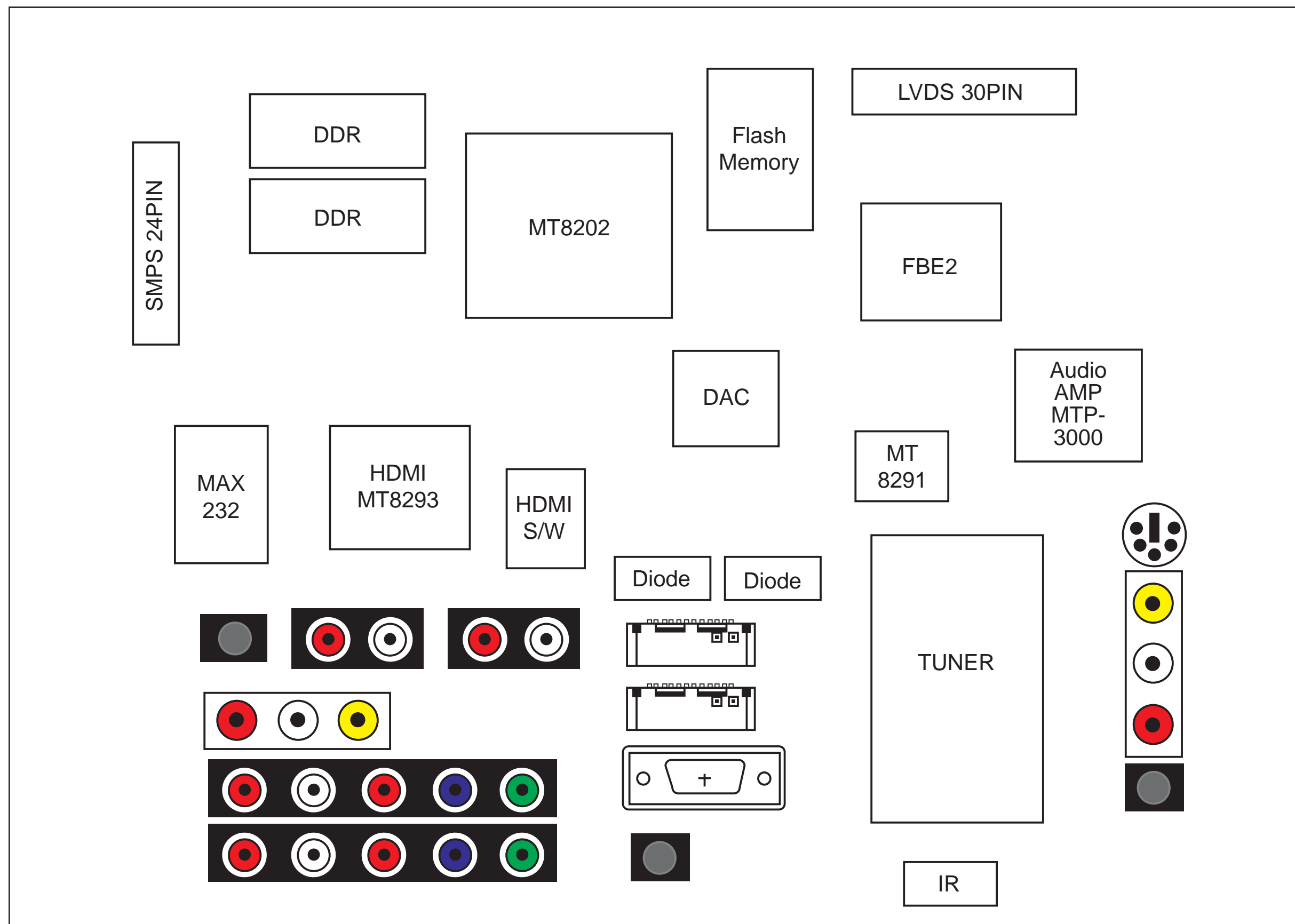
8-1 Wiring Diagram



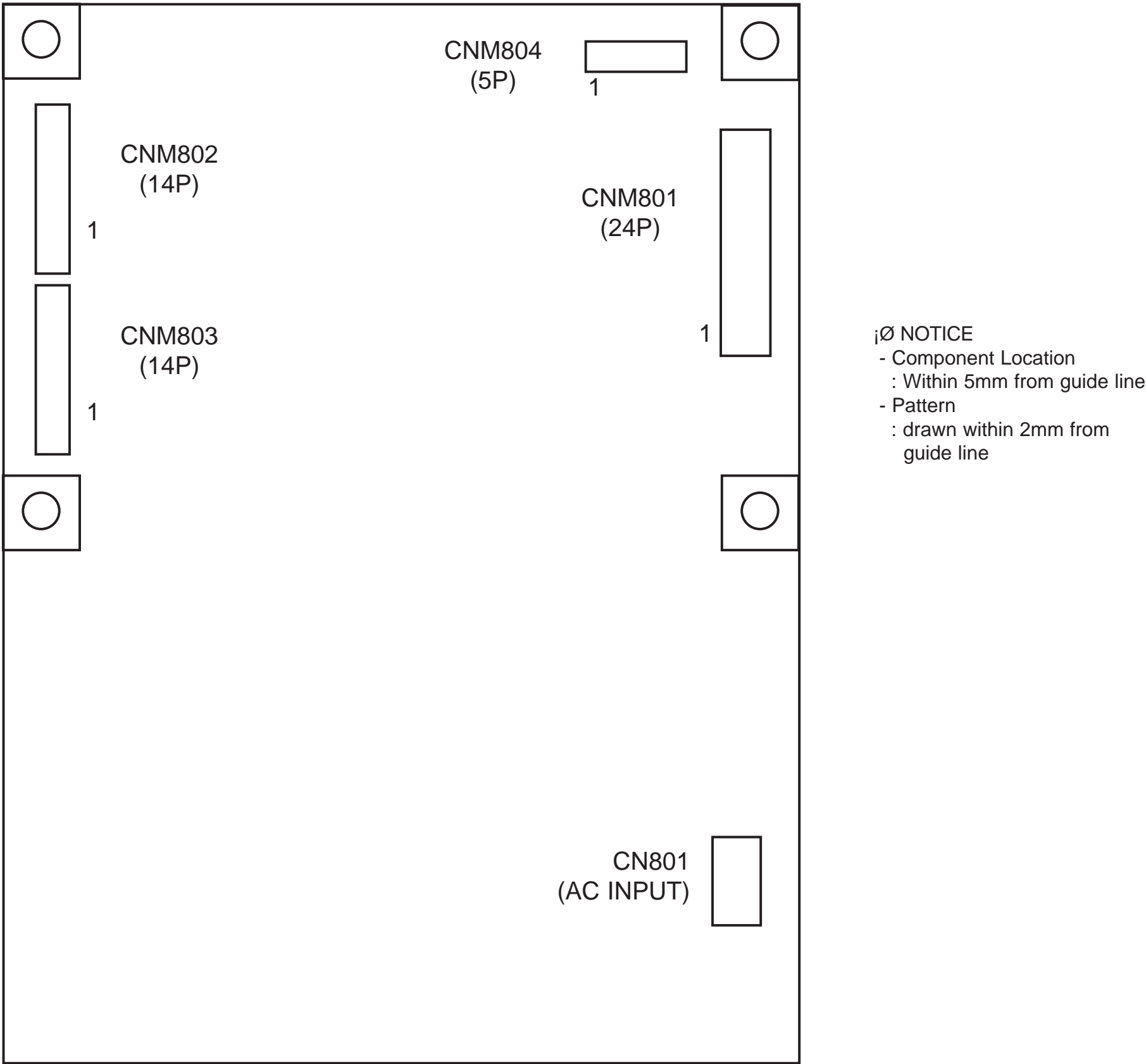
8-2 CN102 - Funtion & IR control



8-3 Main Board Layout



8-4 Connector Location and PCB outline figure



8-5 Outout Connector

8-5-1 AC INPUT CONNECTORS

CN801 - AC Input

CONNECTOR-HEADER, 2P, 7.92mm, 1R, BOX, STRAIGHT TYPE
INSULATOR : NYLON66(UL 94V-0) G10%
VENDOR : MOLEX KOREA, 35328-0210

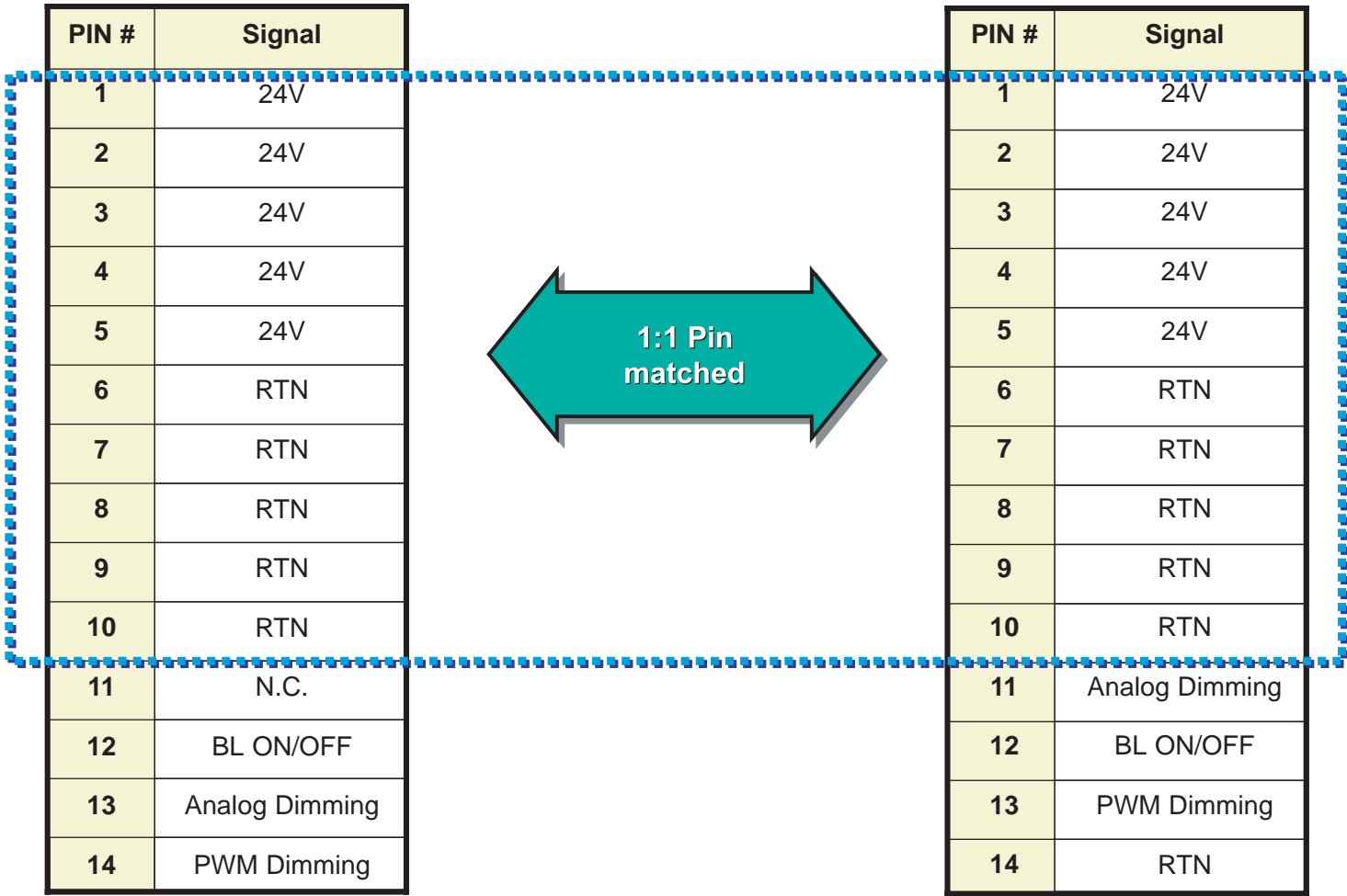
PIN #	Signal
1	AC_L
2	AC_N

8-5-2 Connector - S (CNM802)

CONNECTOR-HEADER(STRAIGHT) 14P, 1R,
2.0MM PITCH STRAIGHT
INSULATOR : NYLON66(UL 94V-0) G10%
CONTACT : BRASS(TIN-PLATED)
VENDOR : YEONHO ELECTRONICS, SMW200-14P

8-5-3 Connector - A (CNM803)

CONNECTOR-HEADER(STRAIGHT) 14P, 1R,
2.0MM PITCH STRAIGHT
INSULATOR : NYLON66(UL 94V-0) G10%
CONTACT : BRASS(TIN-PLATED)
VENDOR : YEONHO ELECTRONICS, SMW200-14P



8-5-4 Image_Analog (CNM801)

CONNECTOR-HEADER(STRAIGHT) 24P, 1R,
2.0MM PITCH STRAIGHT
INSULATOR : NYLON66(UL 94V-0) G10%
CONTACT : BRASS(TIN-PLATED)
VENDOR : YEONHO ELECTRONICS, SMW200-05P

PIN	Description	PIN	Description
1	Power-On/Off	2	N/C(Auto_V)
3	STBY(5.2V)	4	GND_STBY
5	GND_12V SOUND	6	GND_12V SOUND
7	12V SOUND	8	12V SOUND
9	GND_5V	10	GND_5V
11	GND_5V	12	GND_5V
13	5.3V	14	5.3V
15	5.3V	16	5.3V
17	GND_13V	18	GND_13V
19	13V	20	GND_13V
21	13V	22	13V
23	N.C(FAN_ON)	24	N.C(FAN_DET)

8-4-5 Image_Analog (CNM804)

CONNECTOR-HEADER(STRAIGHT) 05P, 1R,
2.0MM PITCH STRAIGHT
INSULATOR : NYLON66(UL 94V-0) G10%
CONTACT : BRASS(TIN-PLATED)
VENDOR : YEONHO ELECTRONICS, SMW200-05P

PIN	Description
1	BL ON/OFF
2	Analog Dimming
3	PWM Dimming
4	RTN
5	24V Detection(5V)

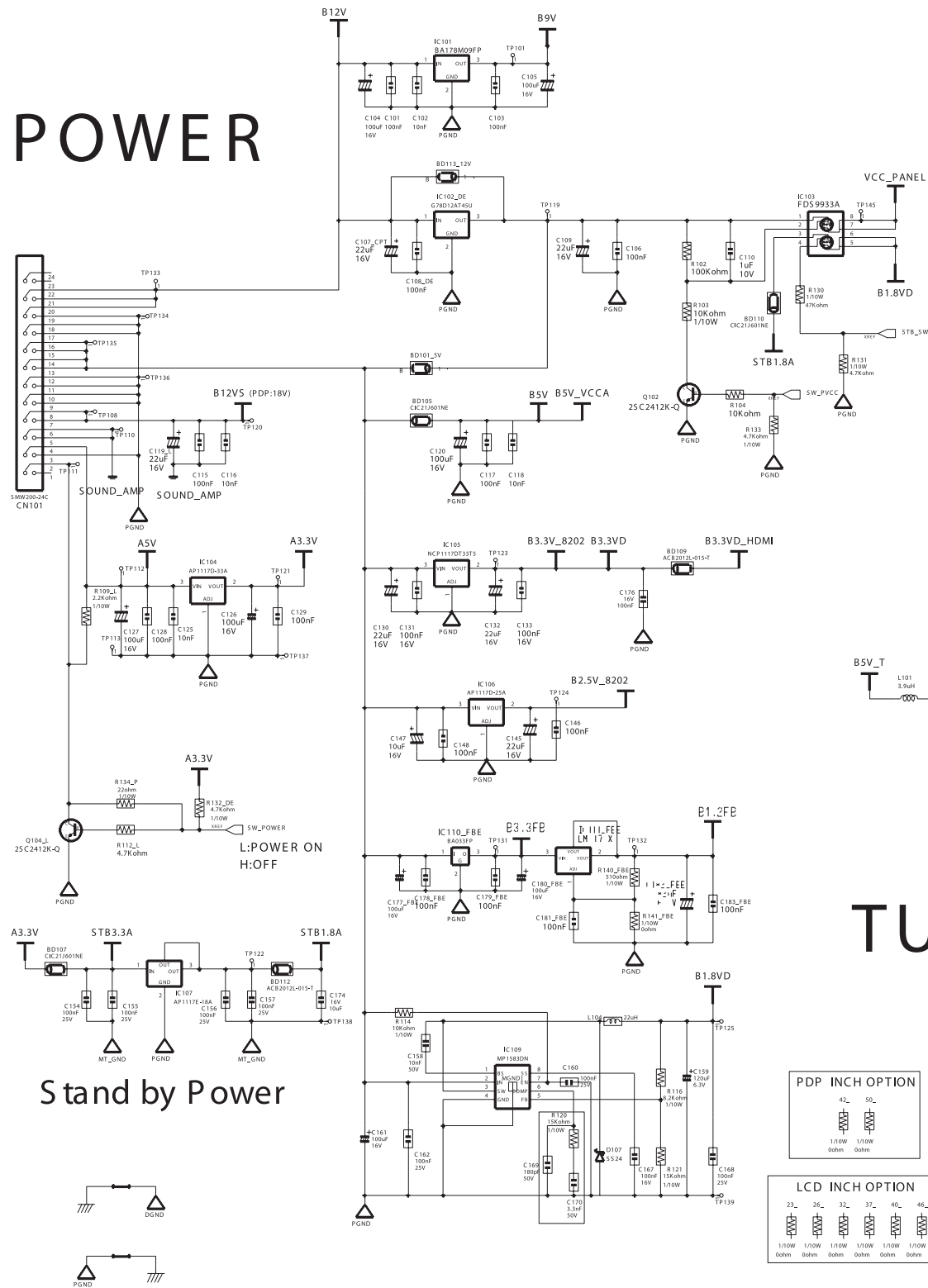
Memo

9 Schematic Diagrams

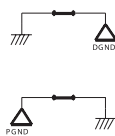
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9-1 Power Schematic Diagram

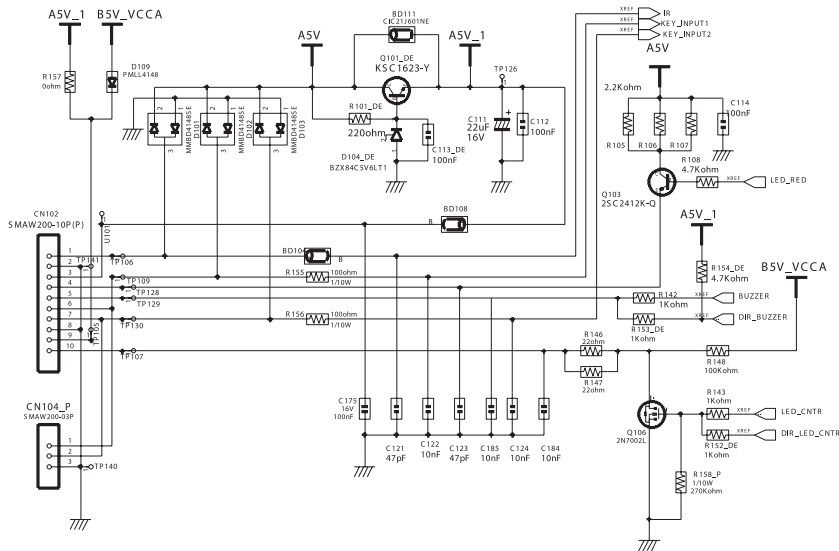
POWER



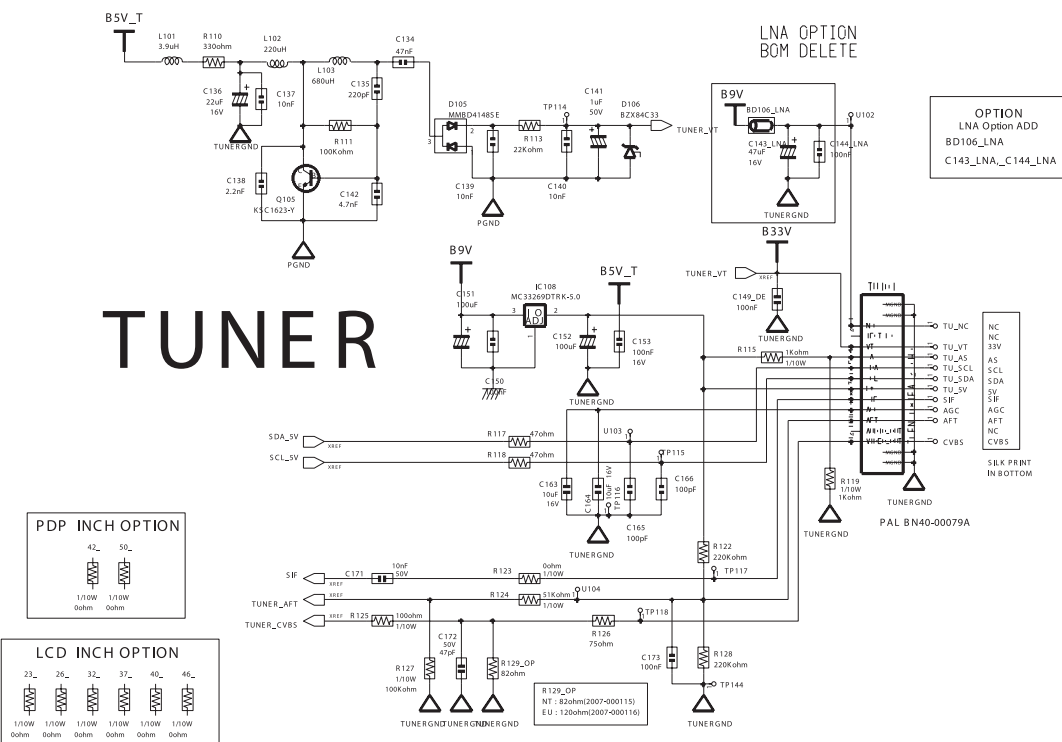
Stand by Power



Function

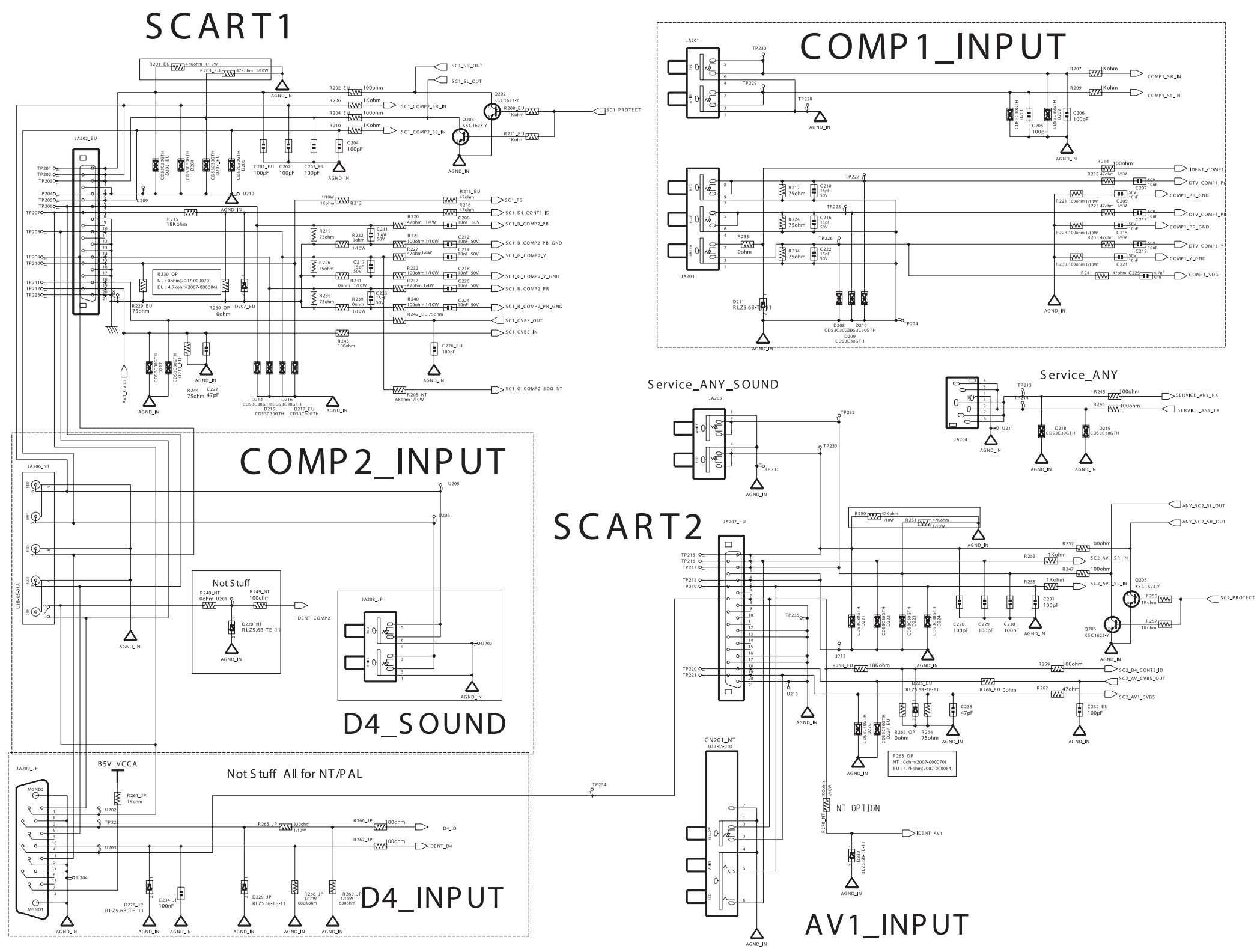


TUNER



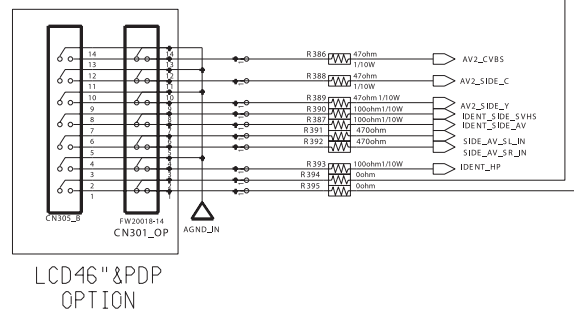
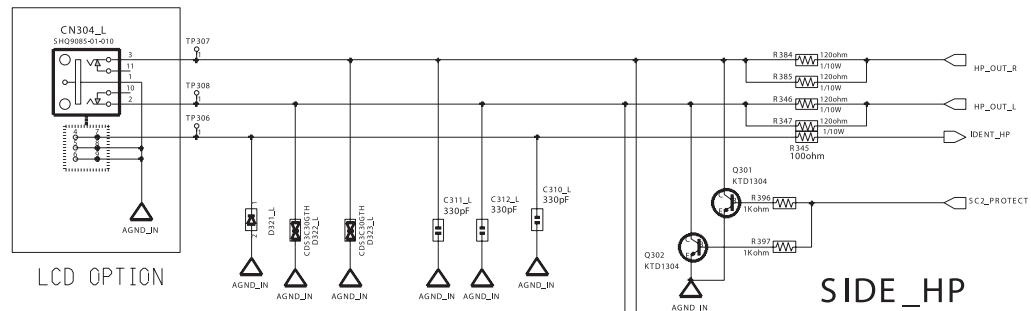
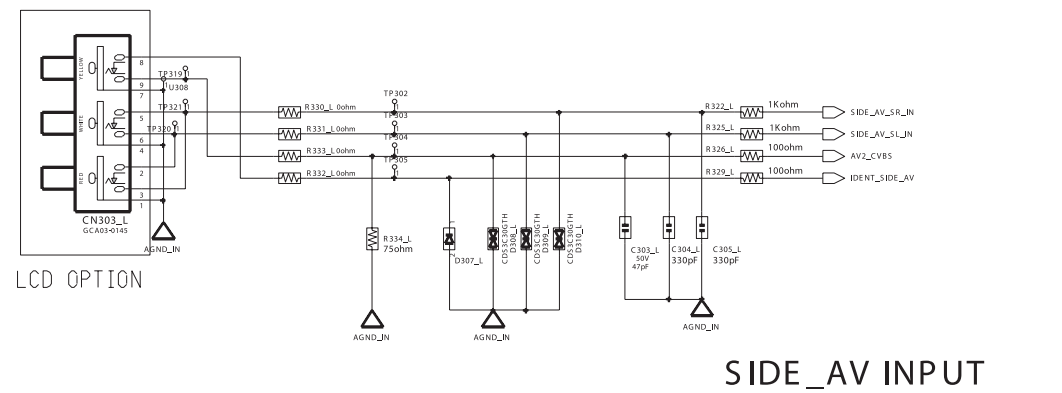
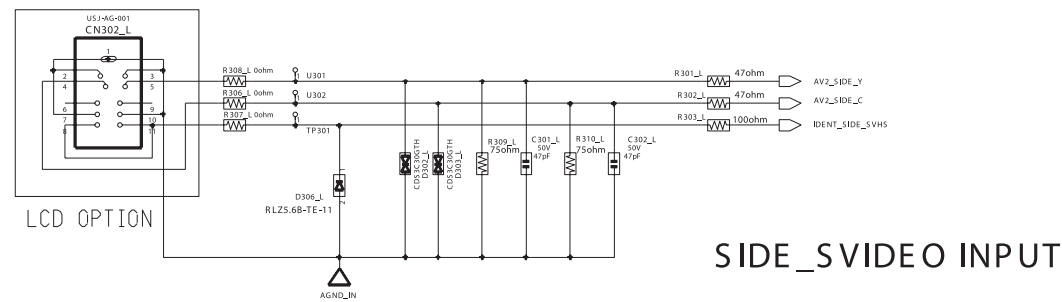
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9-2 Sound Schematic Diagram



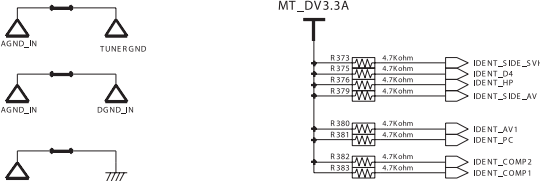
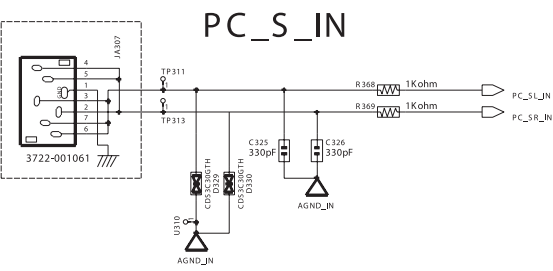
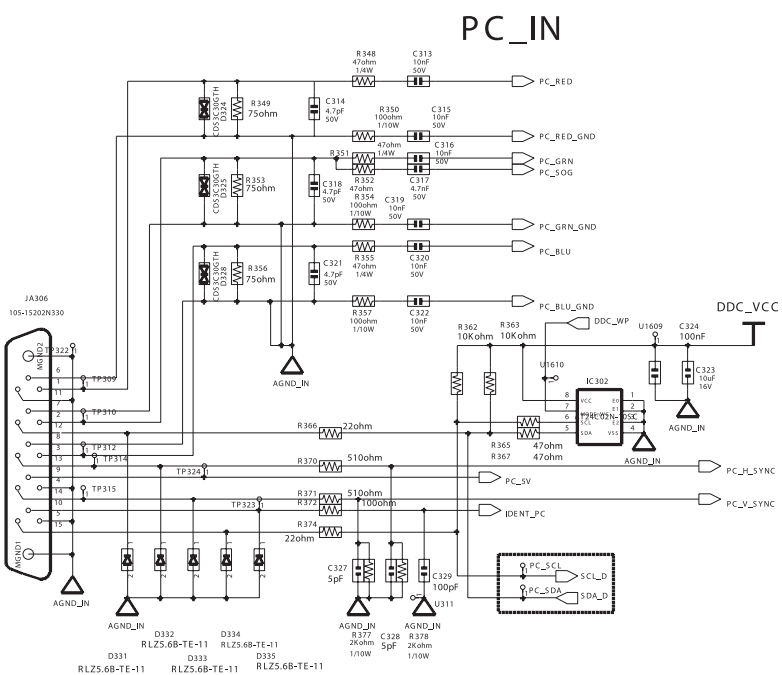
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9-3 SIDE_AV Schematic Diagram



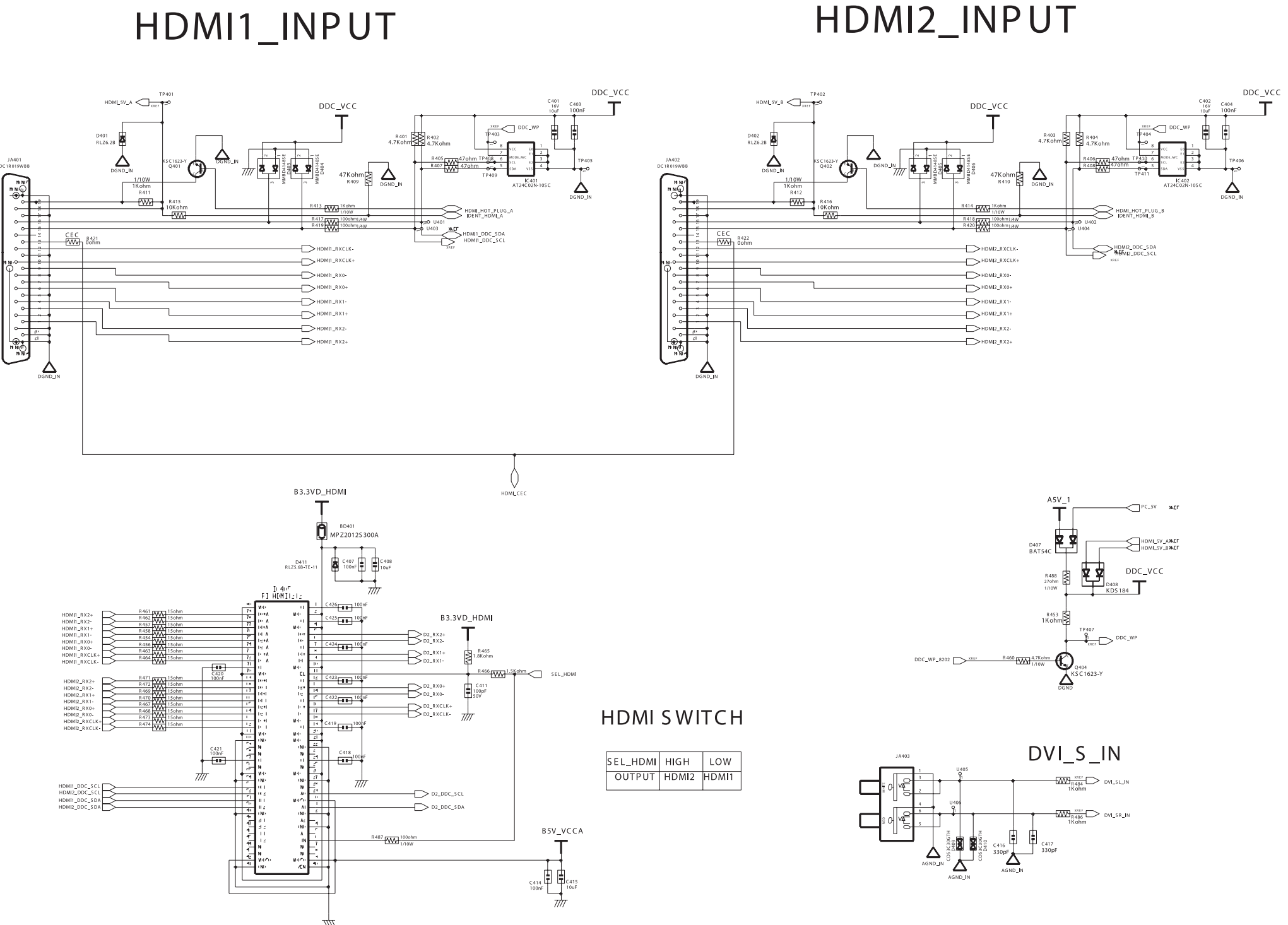
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PAL	O	O			
NT			O	O	
Japan					O

	CN301_OP	CN302_L	CN303_L	CN304_L
LCD		O	O	O
LCD46" & PDP	O			



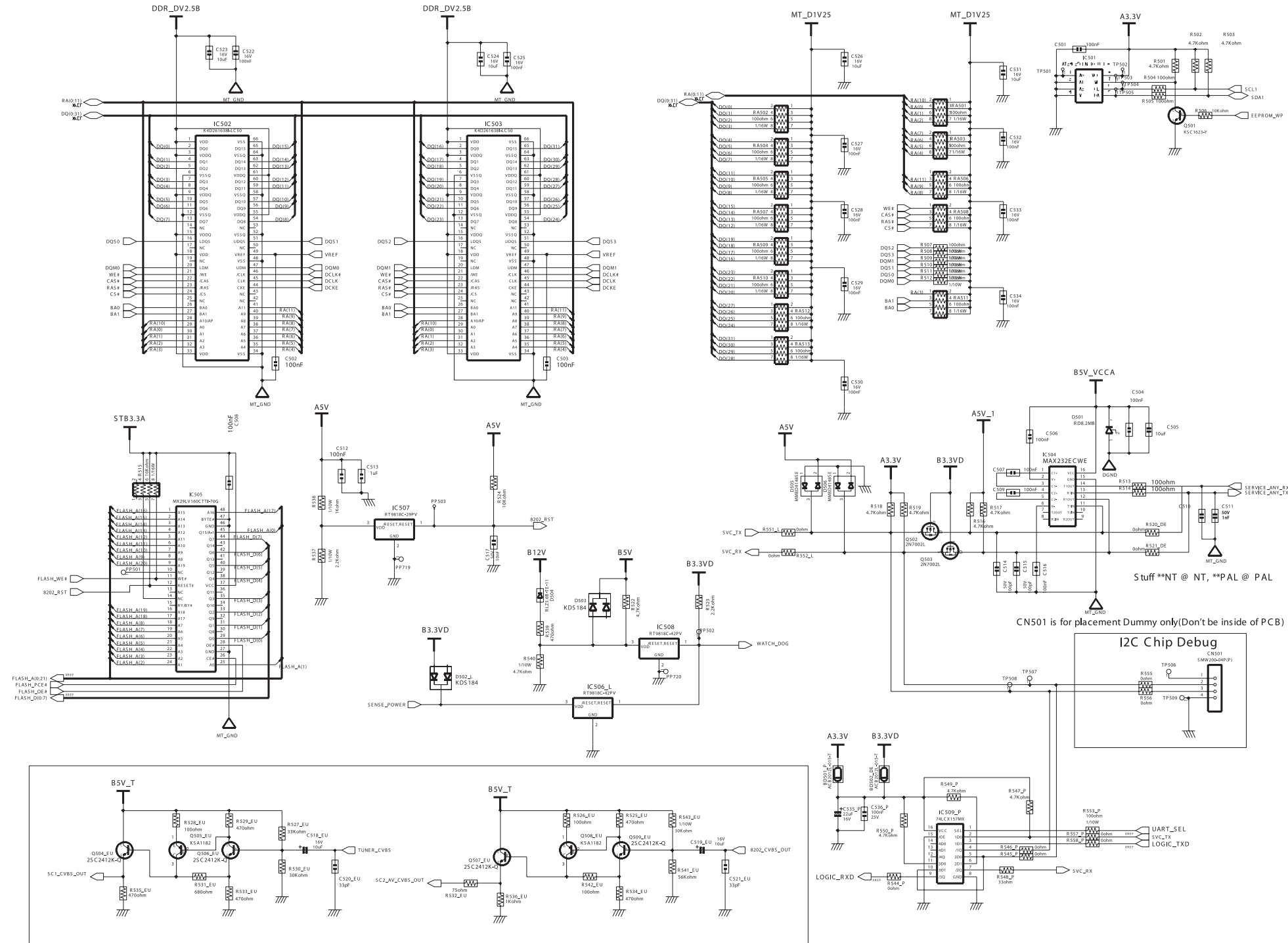
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9-4 HDMI_INPUT Schematic Diagram



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9-5 Scart Option Schematic Diagram

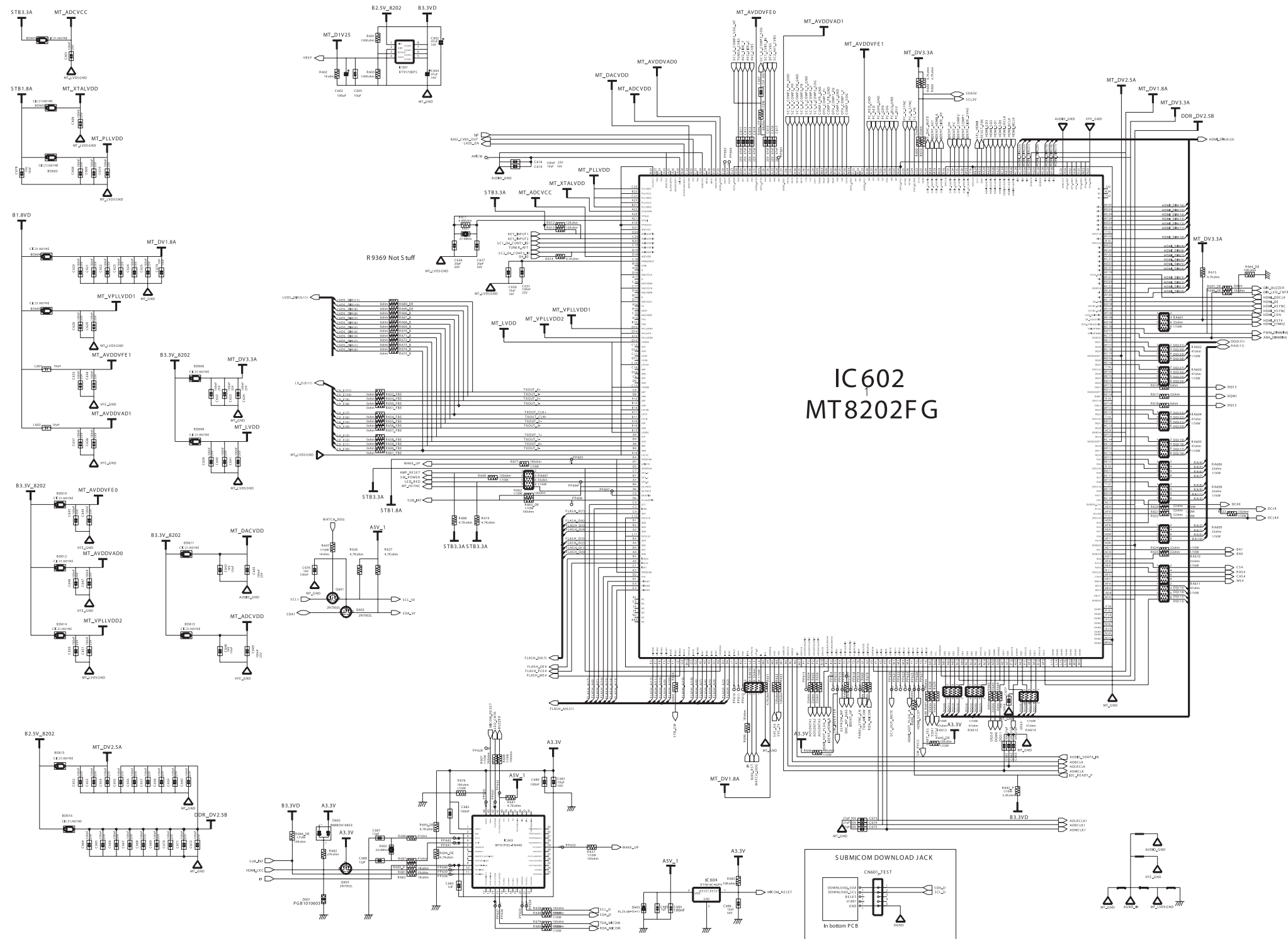


Scart Option

9 Schematic Diagrams

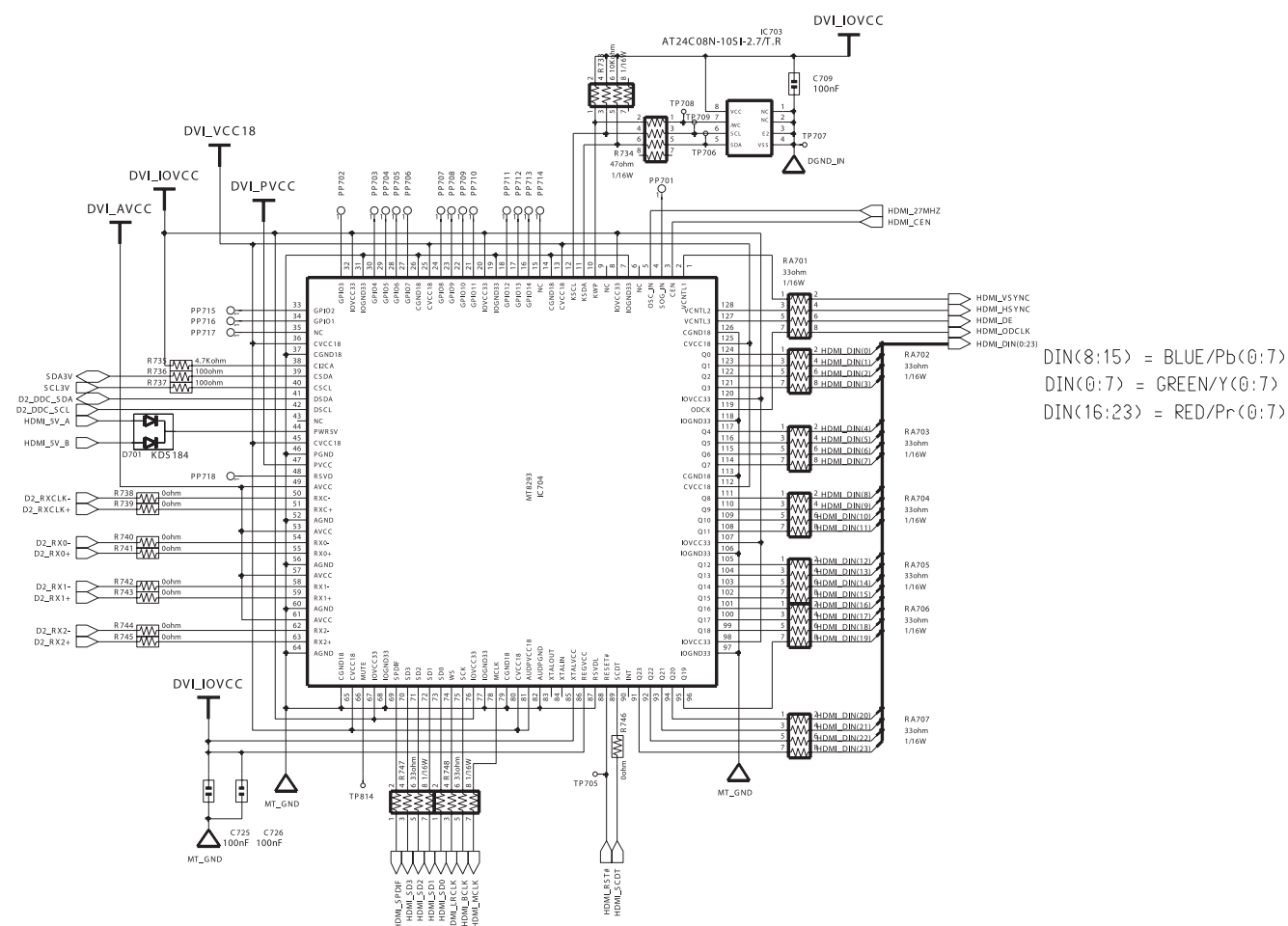
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9-6 IC602 MT8202FG Schematic Diagram

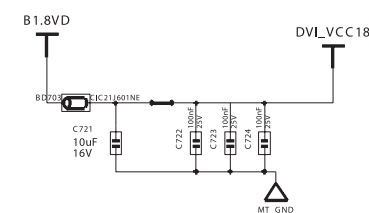
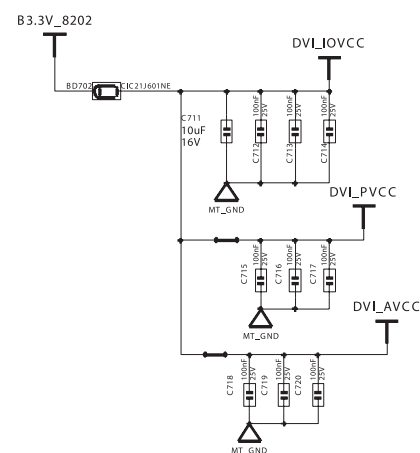


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9-7 Near to Connector Schematic Diagram



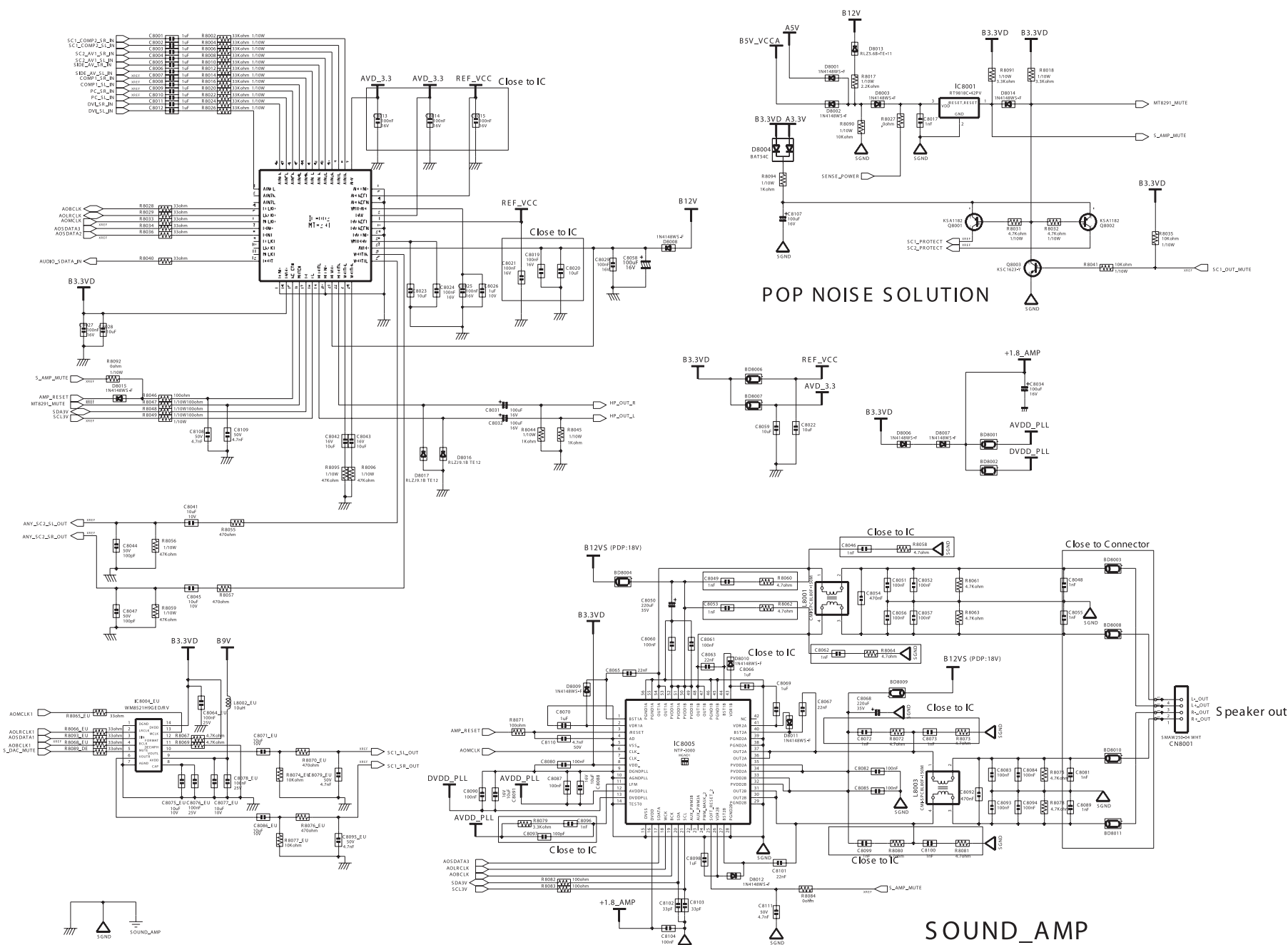
Near to Connector



9 Schematic Diagrams

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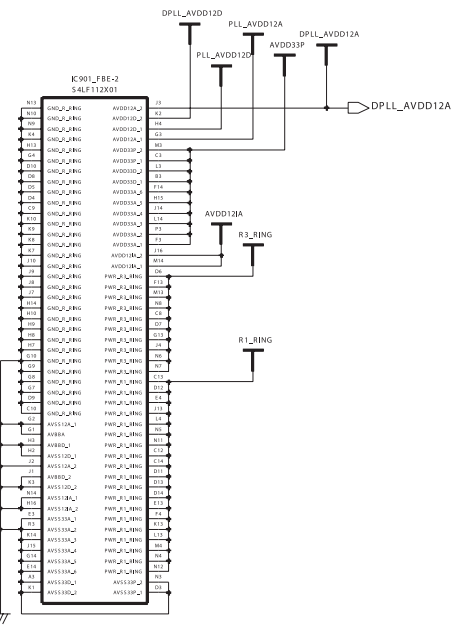
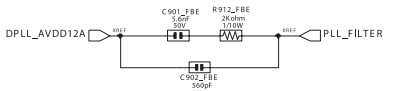
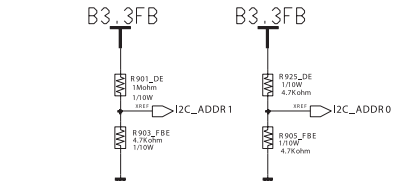
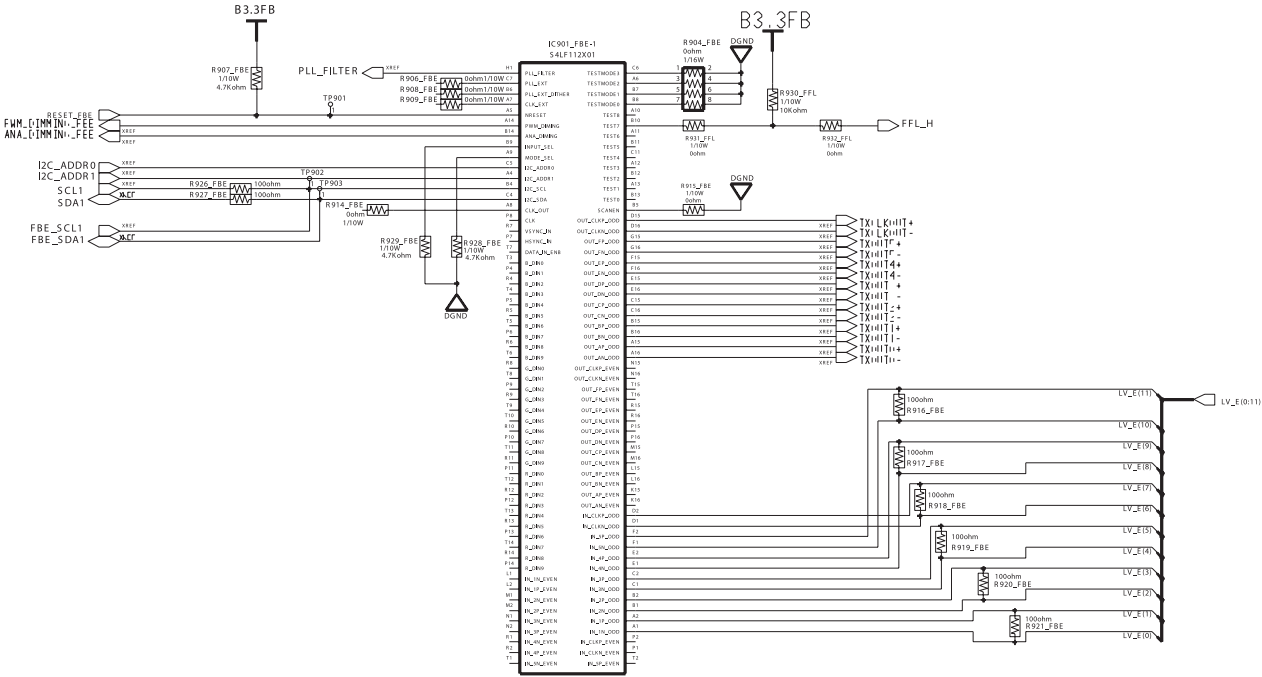
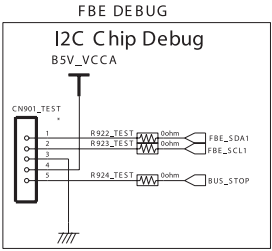
9-8 SOUND_AMP Schematic Diagram



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9-9 F B E 2 Schematic Diagram

F B E 2



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9-10 LVDS & Dimming Schematic Diagram

LVDS & Dimming

