



TFT-LCD TV

Chassis	Model
GJA26TSA	LE26S81BHX
GJA32TSA	LE32S81BHX
GJA37TSA	LE37S81BHX
GJA40TSA	LE40S81BHX
GJA46TSA	LE46S81BHX

SERVICE Manual

TFT-LCD TV



Fashion Feature

- Luxurious Slim Design
- Supreme Picture Quality
- Supreme Sound Quality
- Supreme Convenience Quality
- Convenience for Users

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LE26S81BH/LE32S81BH/LE37S81BH/LE40S81BH/
LE46S81BH Service Manual

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GSPN(Global Service Partner Network)

Area	Web Site
North America	http://service.samsungportal.com
Latin America	http://latin.samsungportal.com
CIS	http://cis.samsungportal.com
Europe	http://europe.samsungportal.com
China	http://china.samsungportal.com
Asia	http://asia.samsungportal.com
Mideast & Africa	http://mea.samsungportal.com

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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*).

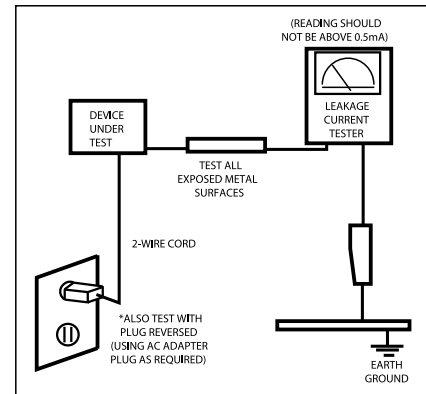


Figure 1-1. Leakage Current Test Circuit

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 \triangle 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

2 Product specifications

2-1 Fashion Feature

Supreme Digital Interface & Networking

-With a built-in HD digital tuner, it supports HD broadcasting with no particular set-top box and provides simple access with a single remote control.

Excellent Picture Quality

-DNIe technology provides life-like clear images.

Dynamic Contrast

-Automatically detects the input visual signal and adjusts to create optimum contrast.

SRS TruSurround XT

-SRS TruSurround XT provides a virtual Dolby surround system.

Convenience

-The TV utilizes the HDMI system to implement perfect digital sound and picture quality.

2-2 LE26S81BH Specifications

Item	Description	
LCD Panel	LCD Panel : TFT-LCD Panel, RGB Vertical stripe, normally black, 26-Inch viewable, 0.4215(H)*0.4215(V)mm Pixel Pitch	
Scanning Frequency	Horizontal : 30 kHz ~ 61 kHz (Automatic) / Vertical : 60 Hz ~ 75 Hz (Automatic)	
Display Colors	16.7M colors	
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	596.3 mm / 335.2 mm	
AC power voltage & Frequency	AC 220 ~ 240 V, 60/50 Hz	
Power Consumption	120W < 1W	
Dimensions(W x D x H) Set	743.8 x 232.0 x 506.5 mm (29.29 x 9.13 x 19.94 inches) After installation Stand 743.8 x 80.8 x 447.4 mm (29.29 x 3.18 x 17.61 inches) Without stand	
Weight Set(After installation Stand)	8.9 kg (10.5 kg)	
TV System	Tuning	Frequency Synthesize
	System	PAL, SECAM
	Sound	MONO, STEREO, NICAM
Environmental Considerations	Operating Temperature : 50°F ~ 104°F (10°C ~ 40°C) Operating Humidity : 10 % ~ 80 % Storage Temperature : -4°F ~ 113°F (-20°C ~ 45°C) Storage Humidity : 5 % ~ 95 %	
Antenna 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 LE32S81BH Specifications

Item	Description	
LCD Panel	TFT-LCD panel, RGB vertical stripe, normally Black, 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 colors	
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	697.68 mm / 392.26 mm	
AC power voltage & Frequency	AC 220 ~ 240V, 50 ~ 60 Hz	
Power Consumption	150 W < 1W	
Dimensions(W x D x H) Set	874.3 x 291.3 x 577.2 mm (34.42 x 11.47 x 22.72 inches)After installation Stand 874.3 x 80.8 x 530.7 mm (34.42 x 3.18 x 20.90 inches) Without stand	
Weight Set(After installation Stand)	11.7 kg (14.0 kg)	
TV System	Tuning	Frequency Synthesize
	System	PAL, SECAM
	Sound	MONO, STEREO, NICAM
Environmental Considerations	Operating Temperature : 50°F ~ 104°F (10°C ~ 40°C) Operating Humidity : 10 % ~ 80 % Storage Temperature : -4°F ~ 113°F (-20°C ~ 45°C) Storage Humidity : 5 % ~ 95 %	
Antenna 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	

2-4 LE37S81BH Specifications

Item	Description	
LCD Panel	TFT-LCD panel, RGB vertical stripe, normaly Black, 37-Inch viewable, 0.6 (H) x 0.6 (V) mm pixel pitchh	
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	819.6(H) / 460.8(V)	
AC power voltage & Frequency	AC 220 ~ 240V, 50 ~ 60 Hz	
Power Consumption	170 W < 1W	
Dimensions(W x D x H) Set	1012.8 x 300.0 x 651.7 mm (39.90 x 11.81 x 25.65 inches)After installation Stand 1012.8 x 92.9 x 602.3 mm (39.90 x 3.65 x 23.71 inches) Without stand	
Weight Set(After installation Stand)	17.2 kg (20.5 kg)	
TV System	Tuning	Frequency Synthesize
	System	PAL, SECAM
	Sound	MONO, STEREO, NICAM
Environmental Considerations	Operating Temperature : 50°F ~ 104°F (10°C ~ 40°C) Operating Humidity : 10 % ~ 80 % Storage Temperature : -4°F ~ 113°F (-20°C ~ 45°C) Storage Humidity : 5 % ~ 95 %	
Antenna 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 LE40S81BH Specifications

Item	Description	
LCD Panel	TFT-LCD panel, RGB vertical stripe, normally Black, 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 colors	
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	885.17 mm / 497.66 mm	
AC power voltage & Frequency	AC 220 ~ 240V, 50 ~ 60 Hz	
Power Consumption	190 W < 1W	
Dimensions(W x D x H) Set	1083.8 x 300.0 x 690.0 mm (42.66 x 11.81 x 27.16 inches) After installation Stand 1083.8 x 94.9 x 638.5 mm (42.66 x 3.73 x 25.13 inches) Without stand	
Weight Set(After installation Stand)	18.2 kg (21.5 kg)	
TV System	Tuning	Frequency Synthesize
	System	PAL, SECAM
	Sound	MONO, STEREO, NICAM
Environmental Considerations	Operating Temperature : 50°F ~ 104°F (10°C ~ 40°C) Operating Humidity : 10 % ~ 80 % Storage Temperature : -4°F ~ 113°F (-20°C ~ 45°C) Storage Humidity : 5 % ~ 95 %	
Antenna 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	

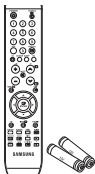

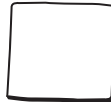

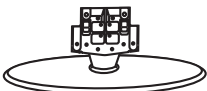
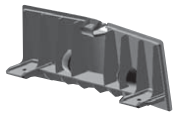
2-6 LE46S81BH Specifications

Item	Description	
LCD Panel	TFT-LCD panel, RGB vertical stripe, normaly Black, 47-Inch viewable, 0.7455(H) x 0.7455(V) mm pixel pitch	
Scanning Frequency	Horizontal : 30 kHz ~ 61 kHz (Automatic) / Vertical : 60 Hz ~ 75 Hz (Automatic)	
Display Colors	16,777,216 colors	
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	1017.353 mm / 572.544 mm	
AC power voltage & Frequency	AC 220 ~ 240V, 50 ~ 60 Hz	
Power Consumption	260 W < 1W	
Dimensions(W x D x H) Set	1220.2 x 326.0 x 776.0 mm (48.03 x 12.83 x 30.55 inches) After installation Stand 1220.2 x 110.9 x 709.0 mm (48.03 x 4.36 x 27.91 inches) Without stand	
Weight Set(After installation Stand)	24.4 kg (29.8 kg)	
TV System	Tuning	Frequency Synthesize
	System	PAL, SECAM
	Sound	MONO, STEREO, NICAM
Environmental Considerations	Operating Temperature : 50°F ~ 104°F (10°C ~ 40°C) Operating Humidity : 10 % ~ 80 % Storage Temperature : -4°F ~ 113°F (-20°C ~ 45°C) Storage Humidity : 5 % ~ 95 %	
Antenna 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	

2-7 Spec Comparison

Model	LE26S81BH / LE32S81BH / LE37S81BH / LE40S81BH / LE46S81BH	LE26R51B / LE32R51B / LE40R51B
Design		
Frequency		
Horizontal	30 ~ 61 kHz	30 ~ 61 kHz
Vertical	60 ~ 75 Hz	60 ~ 75 Hz
Display Color	16,777,216 colors	16,777,216 colors
PC Resolution		
Maximum mode	WXGA, 1360 x 768 @ 60 Hz	WXGA, 1360 x 768 @ 60 Hz
Input Signal		
Sync Signal	H/V Separate, TTL, P. or N.	H/V Separate, TTL, P. or N.
Video Signal	0.7 Vp-p @ 75ohm	0.7 Vp-p @ 75ohm
Power Consumption		
Normal	120W / 150W / 170W / 190W / 260W	140W / 184W / 285W
Power Saving	< 1W	< 1W

2-7 Option Specification

Item	Item Name	Code.No	Remark
	Remote Control & Batteries (AAA x 2)	BN59-00609A	
	Power Cord	3903-000145	
	Cleaning Cloth	BN63-001798A	
	Stand Screw x 4	26" : 6002-001294 32" : 6002-001294 37" : 6002-001294	
	Stand	26" : BN90-01212A 32" : BN90-01175A 37" : BN90-01214A 40" : BN90-01213A 46" : BN90-01215A	
	Cover-Bottom	26" : BN63-03176B 32" : BN63-03093B 37" : BN63-03127B 40" : BN63-03127B 46" : BN63-03185B	

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)

3-2-2 Panel Check

Specially for LE32S8**, You have to check Panel Maker Because of different adjustments as follows.
First of all, Check the label rating!

1) Label Rating File



If Panel Mark is "A", Set the factory mode indicating as follows.

Panel BOM(Bill of material) : BN07-00421A
Connector between Panel and Power Unit
: BN39-00603L (250mm)

* Option Byte

1. Gamma "AUO"
2. Panel Option "AUO"

If Panel Mark is "S" or not printed.
Set the factory mode indicating as follows.

Panel BOM(Bill of material) : BN07-00453A
Connector between Panel and Power Unit
: BN39-00603G (300mm)

* Option Byte

1. Gamma "AMLCD"
2. Panel Option "AMLCD_INT"

If Panel Mark is "C" , Set the Factory mode indicating as follows.

Panel BOM(Bill of Material) : BN07-00348A
Connecotor between Panel and Powe Unit :
BN39-00603L (250mm)

* Option Byte

1. Gamma " CMO "
2. Panel Option " CMO "

Others are same shown below.

3-3 Factory Data

1. Calibration
 2. Option Byte 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 70 80 75 88
 12. Checksum XXXX
 13. Dynamic Contrast
 14. Spread Spectrum
 15. Reset
 HDCP Write Success..(or Failure..)
 T_JSMMP EU-1017 (Main Micom Ver) Month/ Day / Year / Hour/ Min./Sec.
 Panel On Time(Hour) XXXXX

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

3 Alignments and Adjustments

2. Option Byte

			26
		Vendor	
NO	item	Code	BN07-00364A
		SPEC	V315B1-L01(5V,TN,72%)
1	Panel Inch	23"/26"/27"/32"/37"/40"/46"	26"
2	Panel Vender	AMLCD_INT,AMLCD_EXT,AUO_EXT_P,AUO_EXT_N,AUO_INT,CMO_EXT,CMO_INT	CMO_INT
3	Panel Type	32CMO,40AUO,37CPT,46AMLCD,26CMOTN,26AUO,23AUOTN,32AMLCD,40AMLCD,32CPT,32AUO,37AUO,32CMO,40AUO,37CPT,46AMLCD,26CMOTN,26AUO,23AUOTN,32AMLCD,40AMLCD,32CPT,32AUO,37AUO,	26CMOTN
4	Gamma	off, 0.85, 0.90, 0.92, 0.94, 0.98, 1.07, 1.10, S1, S2, S3, S4, S5, S6, S7	off
5	Auto Power	Off<->On	On
6	Hotel Mode	Off<->On	Off
7	Shop Mode	Off<->On	Off
8	High Devi	Off<->On	Off
9	Carrier Mute	Off<->On	Off
10	TTX	Off<->On	On
11	TTX List	Flof, List	Flof
12	TTX Group	UserOSD, WestEurope, EastEurope, Russian, Greek, Turkey, Arab/Hbrw, Farsian Arabic	UserOSD
13	TTX ATM	off<->on	Off
14	Side Jack	off<->on	On
15	Volume Table	Small, Large	Small
16	Sound Wattage	LCD 10W, PDP 10W, PDP 15W	LCD 10W
17	HP Position	Side Rear	Side
18	Language	English, Germany, French, Italian, Swedish, Spain, Netherlands, Portuguese, Greek, Czech, Serbian, Croatian, Romanian, Hungarian, Polish, Russian, Bulgarian, Turkish, Norwgian, Danish, Finnish	English
19	HP Detect	Active High, Active Low	Active High
20	PC Ident	Off<->On	On
21	WM Calib	Off<->On	Off
22	Uart Select	Normal<->Debug/DL	Debug/DL
23	Sub MCU PW Down	Off<->On	Off
24	Sub MCU Use	Off<->On	Off

	32	32	32
	CMO	AUO V9	AMLCD VE
item	BN07-00348A	BN07-00421A	BN07-00453A
	V315B1-L01(5V,SMVA72%)	T315XW02(V9), 8bit, 5V	5V,SMVA 72%,
Panel Inch	32"	32"	32"
Panel Vender	CMO_INT	AUO_INT	AMLCD_INT
Panel Type	32CMO	32AUO	32AMLCDV
Gamma	off	off	0.9
Auto Power	On	On	On
Hotel Mode	Off	Off	Off
Shop Mode	Off	Off	Off
High Devi	Off	Off	Off
Carrier Mute	Off	Off	Off
TTX	On	On	On
TTX List	Flof	Flof	Flof
TTX Group	UserOSD	UserOSD	UserOSD
TTX ATM	Off	Off	Off
Side Jack	On	On	On
Volume Table	Small	Small	Small
Sound Wattage	LCD 10W	LCD 10W	LCD 10W
HP Position	Side	Side	Side
Language	English	English	English
HP Detect	Active High	Active High	Active High
PC Ident	On	On	On
WM Calib	Off	Off	Off
Uart Select	Debug/DL	Debug/DL	Debug/DL
Sub MCU PW Down	Off	Off	Off
Sub MCU Use	Off	Off	Off

3 Alignments and Adjustments

	37	37
	CPT	AUO
item	BN07-00366A	BN07-00393A
	CLAA370WA03(5V,MVA,72%)	T370XW02(12V,AMVA 72%)
Panel Inch	37"	37"
Panel Vender	CPT_INT	AUO_EXT_P
Panel Type	37 CPT	37 AUO
Gamma	off	off
Auto Power	On	On
Hotel Mode	Off	Off
Shop Mode	Off	Off
High Devi	Off	Off
Carrier Mute	Off	Off
TTX	On	On
TTX List	Flof	Flof
TTX Group	UserOSD	UserOSD
TTX ATM	Off	Off
Side Jack	On	On
Volume Table	Small	Small
Sound Wattage	LCD 10W	LCD 10W
HP Position	Side	Side
Language	English	English
HP Detect	Active High	Active High
PC Ident	On	On
WM Calib	Off	Off
Uart Select	Debug/DL	Debug/DL
Sub MCU PW Down	Off	Off
Sub MCU Use	Off	Off

40	40	40	40
AUO	AMLCD	AMLCD VE	AUO VE
BN07-00370A	BN07-00387A	BN07-00451A	BN07-00448A
T400XW02(5V,AMVA,72%)	LTA400WT-L06(12V,SPVA 72%)	12V,SMVA 72%,	5V,SMVA 72%,
40"	40"	40"	40"
AUO_INT	AMLCD INT	AMLCD INT	AUO_INT
40AUO	40 AMLCD	40 AMLCDV	40 AUO
off	off	0.9	0.92
On	On	On	On
Off	Off	Off	Off
Off	Off	Off	Off
Off	Off	Off	Off
Off	Off	Off	Off
On	On	On	On
Flof	Flof	Flof	Flof
UserOSD	UserOSD	UserOSD	UserOSD
Off	Off	Off	Off
On	On	On	On
Small	Small	Small	Small
LCD 10W	LCD 10W	LCD 10W	LCD 10W
Side	Side	Side	Side
English	English	English	English
Active High	Active High	Active High	Active High
On	On	On	On
Off	Off	Off	Off
Debug/DL	Debug/DL	Debug/DL	Debug/DL
Off	Off	Off	Off
Off	Off	Off	Off

3 Alignments and Adjustments

	46	46
	AMLCD	AMLCD VE
item	BN07-00389A	BN07-00452A
	LTA460WT-L11(12V,SPVA72%)	LTA460WT-L12(12V,SMVA,72%)
Panel Inch	46"	46"
Panel Vender	AMLCD_INT	AMLCD_INT
Panel Type	46AMLCD	46AMLCDV
Gamma	off	0.9
Auto Power	On	On
Hotel Mode	Off	Off
Shop Mode	Off	Off
High Devi	Off	Off
Carrier Mute	Off	Off
TTX	On	On
TTX List	Flof	Flof
TTX Group	UserOSD	UserOSD
TTX ATM	Off	Off
Side Jack	On	On
Volume Table	Small	Small
Sound Wattage	LCD 10W	LCD 10W
HP Position	Side	Side
Language	English	English
HP Detect	Active High	Active High
PC Ident	On	On
WM Calib	Off	Off
Uart Select	Debug/DL	Debug/DL
Sub MCU PW Down	Off	Off
Sub MCU Use	Off	Off

3. White Balance

No	item	RF/AV	HDMI
1	SubBright	128	
2	Roffset	128	
3	Goffset	128	
4	Boffset	130	
5	SubContrast	145	
6	RGain	120	
7	GGain	128	
8	BGain	146	

4. W/B Movie

NO	item	RF/AV/S_video
1	W/B MOVIEOn/Off	Off
2	Service P Mode	Movie
3	Service Color Tone	Warm2
4	MSub Brightness	128
5	MSub Contrast	128
6	Warm1 Red Gain	166
7	Warm1 Blue Gain	54
8	Warm1 Red Offset	128
9	Warm1 Blue Offset	126
10	Warm2 Red Gain	171
11	Warm2 Blue Gain	36
12	Warm2 Red Offset	127
13	Warm2 Blue Offset	129
14	Normal Red Gain	137
15	Normal Blue Gain	91
16	Normal Red Offset	129
17	Normal Blue Offset	127
18	Cool2 Red Gain	114
19	Cool2 Blue Gain	146
20	Cool2 Red Offset	128
21	Cool2 Blue Offset	127
22	Mov. Contrast	80
23	Mov. Brightness	45
24	Mov. Color	55
25	Mov. Sharpness	45

3 Alignments and Adjustments

5. MTK8202

1) Cal. Adjustment

NO	item	value
1	R_Offset	30
2	G_Offset	32
3	B_Offset	23
4	R_Gain	77
5	G_Gain	85
6	B_Gain	89
7	Y_Offset	21
8	Cb_Offset	39
9	Cr_Offset	41
10	Y_Gain	41
11	Cb_Gain	41
12	Cr_Gain	41
13	CVBS Offset	55
14	CVBS Gain	52
15	CVBS U	0
16	CVBS V	0
17	HDMI R_Gain Ref.	229
18	HDMI G_Gain Ref.	229
19	HDMI B_Gain Ref.	229
20	HDMI R_Offset Ref.	16
21	HDMI G_Offset Ref.	16
22	HDMI B_Offset Ref.	16
23	2nd Cal Error AV	2
24	2nd Cal Error DTV	2
25	LVDS Control	55

2) Cal. Target

NO	item	value
1	Black Target	1
2	White Target	235

3) Scart RGB

NO	item	ALL Mode
1	SC1_R_Offset	115
2	SC1_G_Offset	115
3	SC1_B_Offset	115
4	SC1_R_Gain	70
5	SC1_G_Gain	70
6	SC1_B_Gain	70

4) Picture enhance 1

NO	item	value
1	Dynamic Contrast	on
2	Dynamic CE	on
3	Dynamic Dimming	on
4	Black_Min	14
5	Black_Middle	26
6	Black_Max	36
7	Cut Off	4
8	Upper	28
9	Center L Lmt	6
10	Center R Lmt	26
11	Ugain Max	16
12	Lgain Max	8

5) Picture enhance 2

NO	item	value
1	PreLGain_Main	64
2	PreMGain_Main	64
3	PreHGain_Main	64
4	PreLGain_Sub	64
5	PreMGain_Sub	64
6	PreHGain_Sub	64
7	LocalLGain	72
8	LocalMGain	80
9	LocalHGain	64
10	PostLGain	72
11	PostMGain	72
12	PostHGain	84
13	Vgain	0
14	Sub Color	28

3 Alignments and Adjustments

6) FBE2 option

NO	item	value
1	Patt-Sel	0
2	B-Slope gain	64
3	B-Tilt min	20
4	B-Tilt max	120
5	B-Tilt slpe	128
6	Lfunc-Basis	75
7	Hfunc-Basis	88
8	Mean-Offset1	75
9	Mean-Offset2	150
10	Mean-Slope	41
11	Input-Offset	128
12	Input-gain	128
13	ACR-Offset	30
14	ACR-Th1	30
15	ACR-Th2	100
16	Skin-Enable	On
17	Skin-Tu	22
18	Skin-Tv	22
19	M-Skin-Tu	128
20	M-Skin-Tv	128
21	Sub color	143
22	M-Au-Sub color	128
23	M-Wi-Sub color	128

7) Sound

NO	item	value
1	AM_mute Th_High	9
2	AM_mute Th_Low	8
3	FM Mute	Off
4	FM_mute Th_High	34
5	FM_mute Th_Low	32
6	Correct Threshold	6
7	Sync Loop	201
8	Error Threshold	8
9	Parity Error Thrd	48
10	Every Num Frames	512
11	Num of Check	10
12	Num of Double Chk	10
13	Mono Weight	1
14	Stereo Weight	1
15	Dual Weight	1
16	M2S Threshold	10
17	S2M Threshold	10
18	NICAM FINE VOL	20
19	FM FINE VOL	20
20	AM FINE VOL	19
21	FINE TUNE VOL	20
22	SC1 Fine Vol	21
23	SC2 Fine Vol	21
24	Output Matrix	Bypass
25	Speaker EQ	Off

3 Alignments and Adjustments

8) YC Delay

NO	item	TV/AV/S_Video
1	RF PAL-B/G	6
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	5
10	RF NTSC4.43	6
11	AV PAL	3
12	AV SECAM	7
13	AV NTSC 3.58	6
14	AV NTSC4.43	6
15	AV PAL60	5

9. Adjust

1) User Control Initial

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

2) LNA PLUS

NO	item	value
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	value
1	Power On Channel	1
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	value
1	Hot Plug	On
2	Clock Control	On
3	Hot Plug Dly	9

5) ????

10. Bus Stop

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

11. Password : 70 80 75 88

3 Alignments and Adjustments

12. Dynamic Contrast

NO	item	value
1	Dynamic CE	On
2	Dynamic Dimming	On
3	FBE2 Y_MEAN Read	50

13. Spread Spectrum

NO	input resolution	value
1	Spread Spectrum	On
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
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

14. Checksum XXXX

15. Reset

3-4 Service Adjustment

3-4-1 White Balance - Calibration

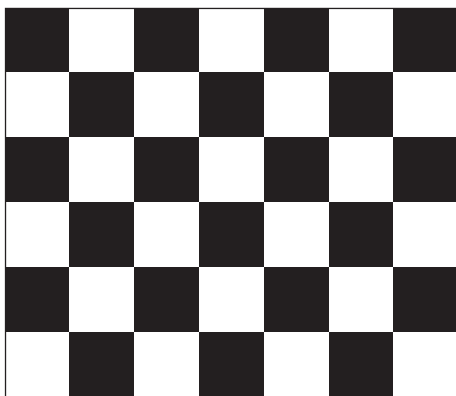
If picture color is wrong, do calibration first.

Equipment : CA210, Patten : chess pattern

Execute calibration in Factory Mode

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

PC : 1024*768/60Hz, HDMI : 1280*720/60Hz



(chess patten)

3-4-2 White Balance - Adjustment

If picture color is wrong, check White Balance condition.

Equipment : CA210, Patten : Flat W/B Pattern

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



Flat W/B Pattern

[Test Pattern : MSPG-945 Series Pattern]

*Color temperature

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

*Color coordinate

H/L : 272/278 +/- 2 35.0 Ft +/- 2.0Ft

L/L : 272/278 +/- 3 3.5 Ft +/- 0.2Ft

3 Alignments and Adjustments

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 2 : 744X484@60 Hz
 - NO 6 : 1280X720@60 Hz
 - NO 21 : 1024X768@60 Hz
 - * Pattern NO 36 : 16 Color Pattern
 - NO 92 : Flat W/B ABL Pattern
2. Optical measuring device : CA210 (FL)
 - Please use the MSPG-925 LTH generator for model LE26/32/37/40/46S81BX.

3-4-4 Method of Adjustment

1. Adjust the white balance of AV, Component and DVI Modes.
 - (AV → Component)
 - a) Set the input to the mode in which the adjustment will be made
(RF → DTV → PC → DVI).
 - * Input signal - VIDEO Mode : Model #2 (744*484 Mode), Pattern #92
 - DTV,DVI Mode : Model #6 (1280*720 Mode), Pattern #92
 - HDMI Mode: Model #6(1280*720 Mode), Pattern #92
 - 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 Flat W/B ABL Pattern



- * 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.

- 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 Toshiba ABL Pattern



3 Alignments and Adjustments

3-5 Software Upgrade

3-5-1 How to Update Flash ROM

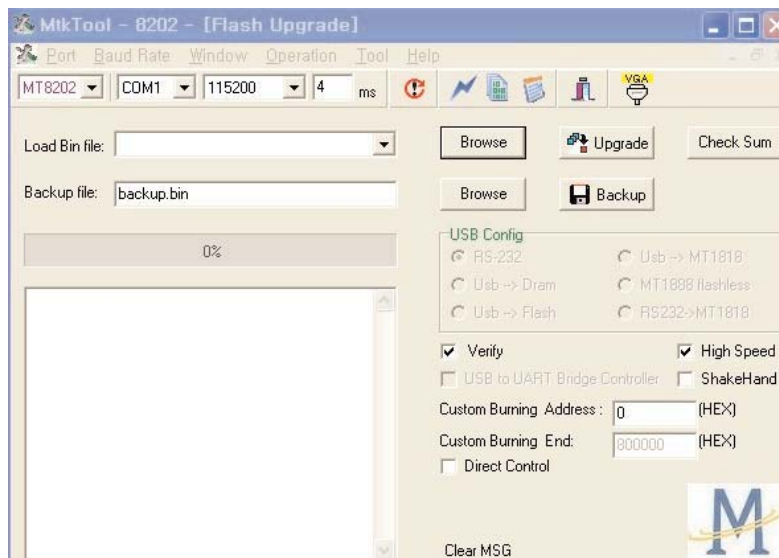
1. Install the Flash Downloader

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



2. Flash Downloader program update

- Before Turning on the set, Click "connect" which is under of OSD Screen!
- Turn on the Set.



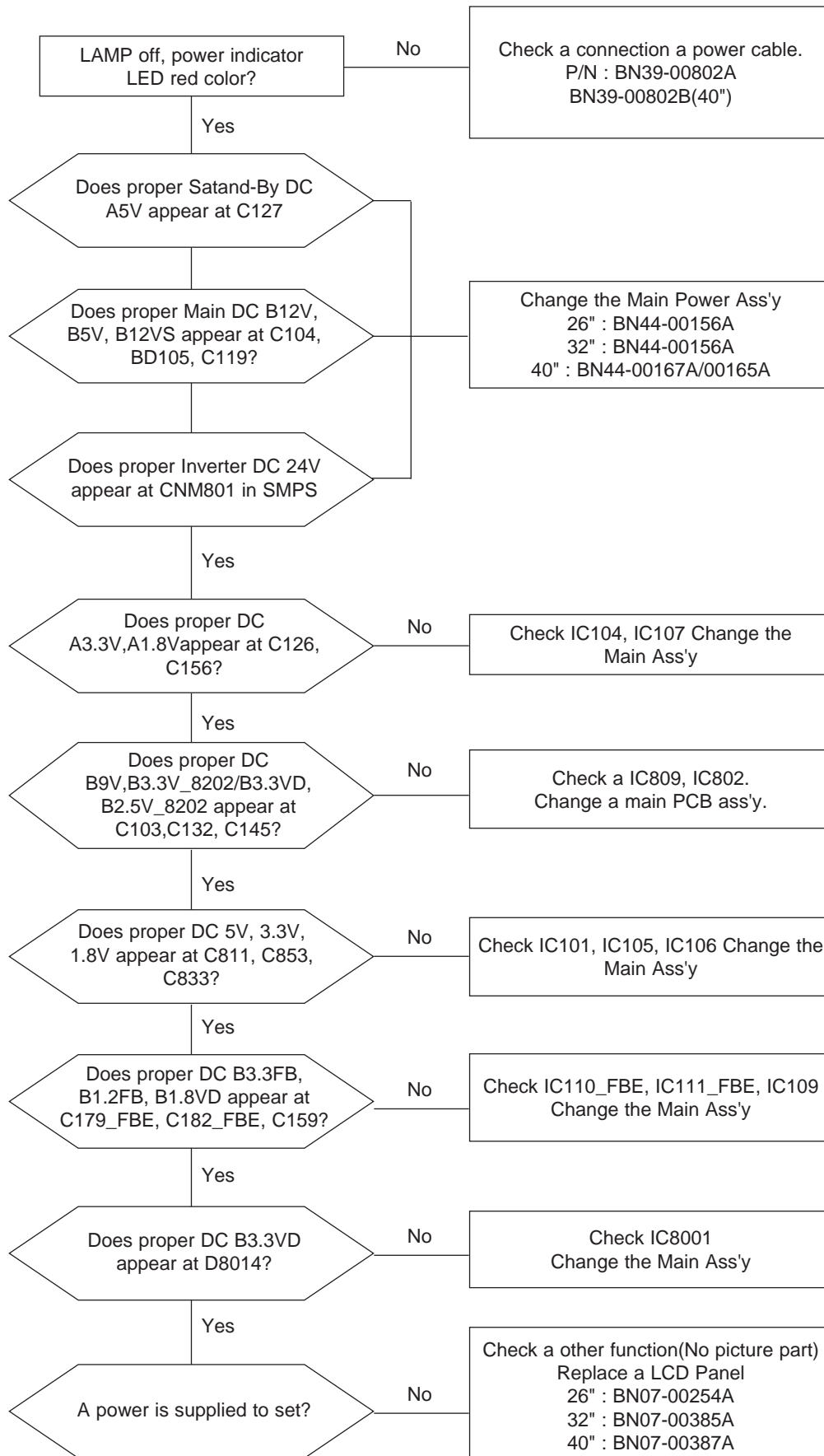
4 Troubleshooting

4-1 First Checklist for Troubleshooting

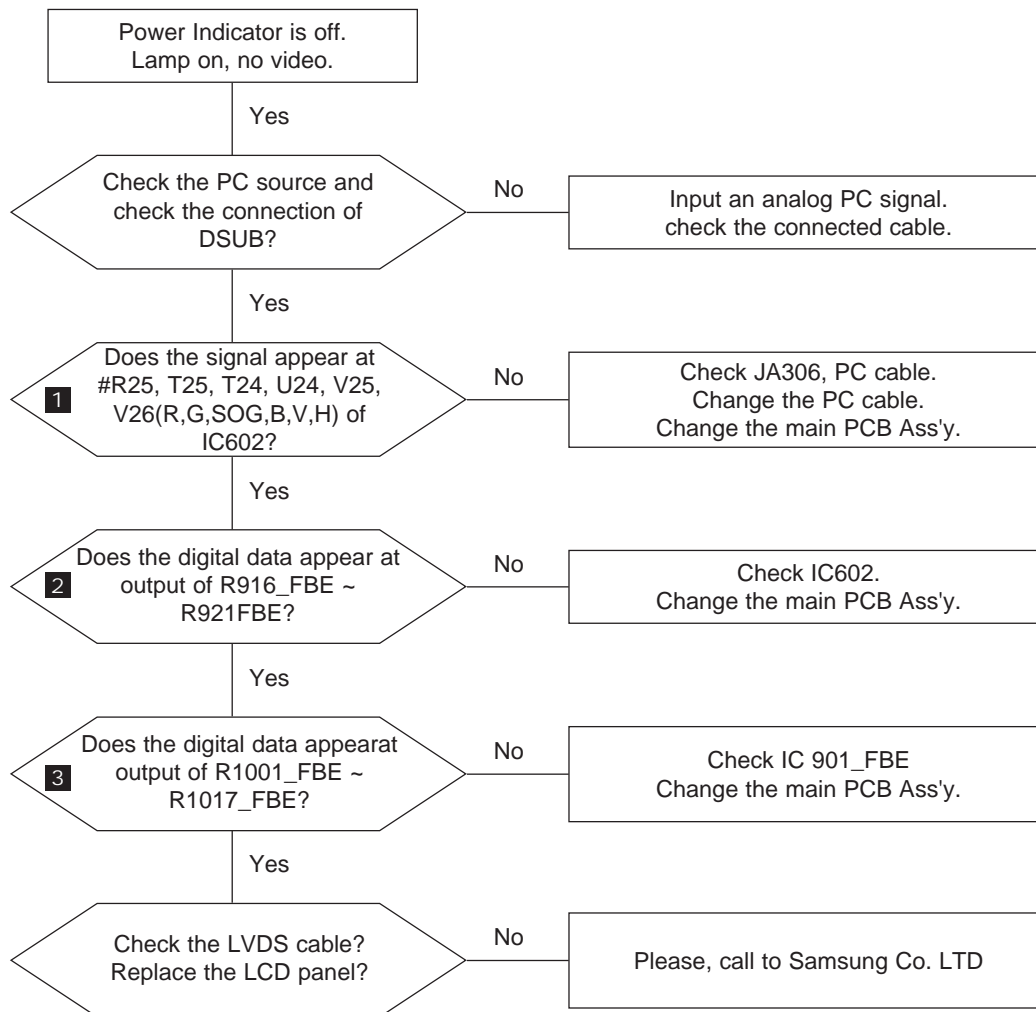
1. Check the various cable connections first.
 - Check to see if there is a burnt or damaged cable.
 - Check to see if there is a disconnected cable connection or a connection is too loose.
 - Check to see if the cables are connected according to the connection diagram.
2. Check the power input to the 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

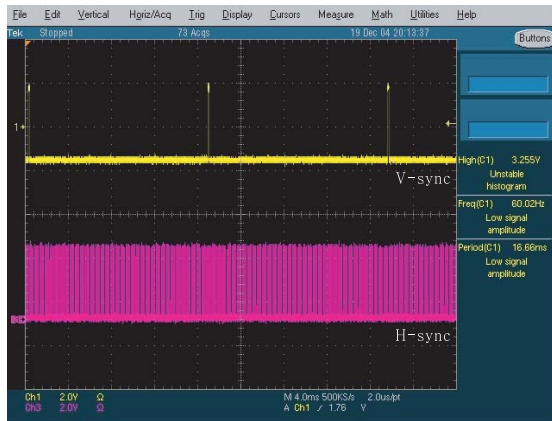


4-2-2 No Video (Analog PC Signal)



WAVEFORMS

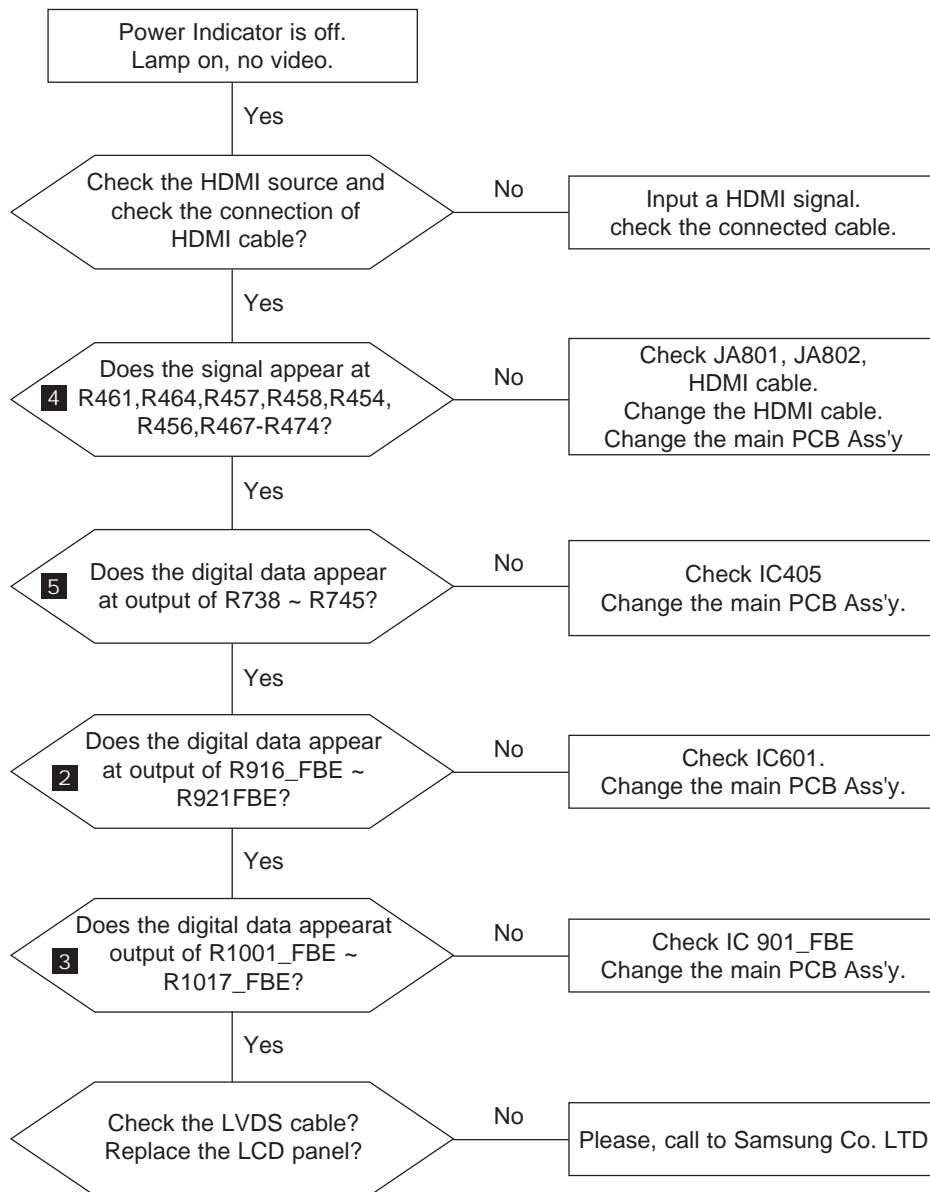
1 2 PC Input (V-Sync, H-Sync)



3 LVDS Out (CLK +/-)

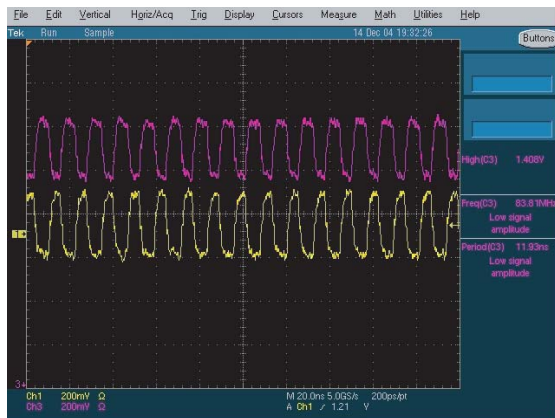


4-2-3 No Video (HDMI - Digital Signal)

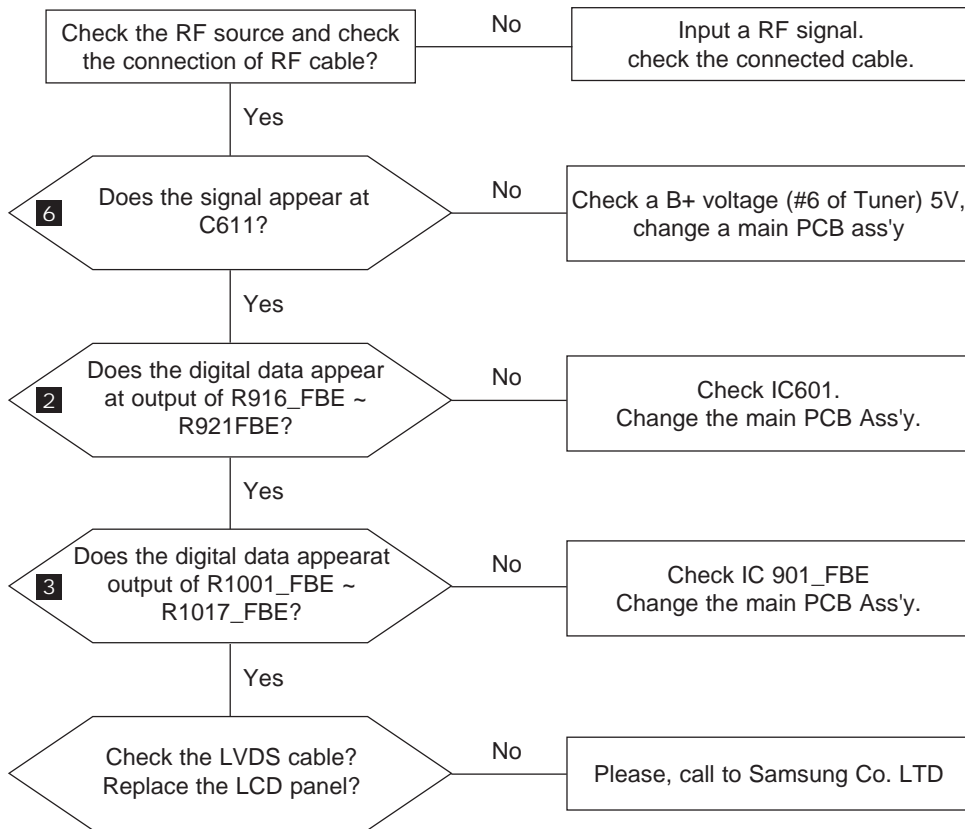


WAVEFORMS

4 5 HDMI Input (CLK +/-)

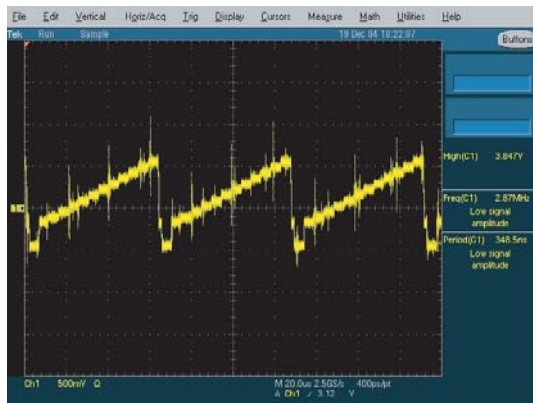


4-2-4 No Picture (Tuner_CVBS)

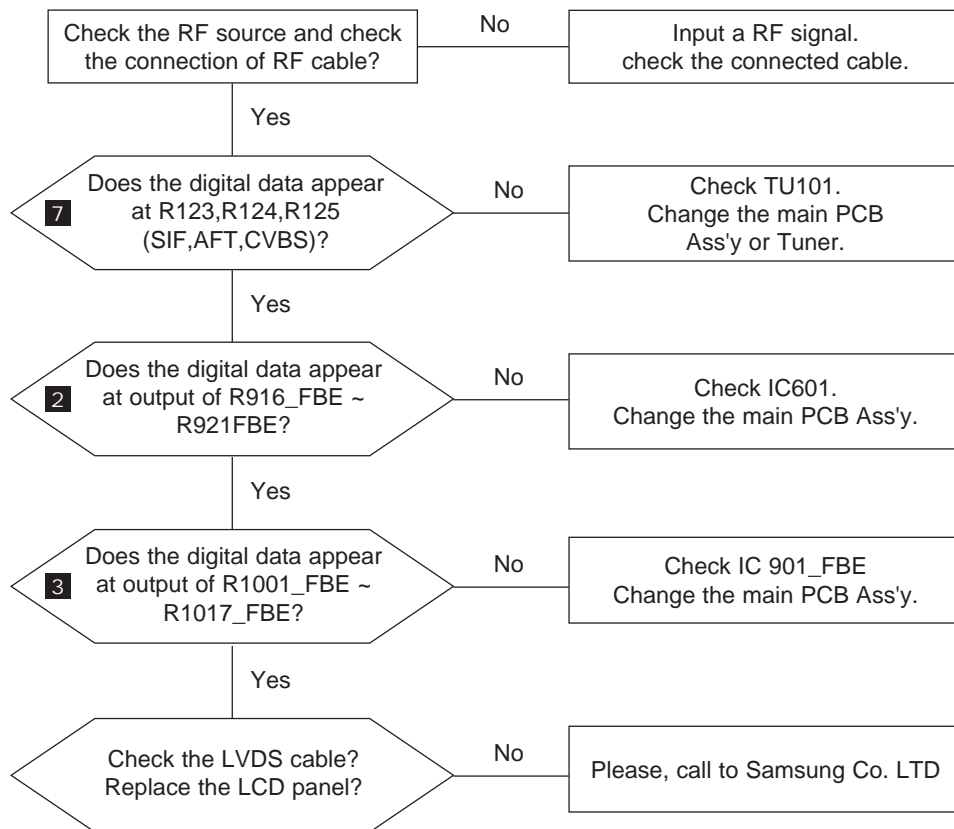


WAVEFORMS

6 Tuner CVBS Out (Pattern : Grey Bar)

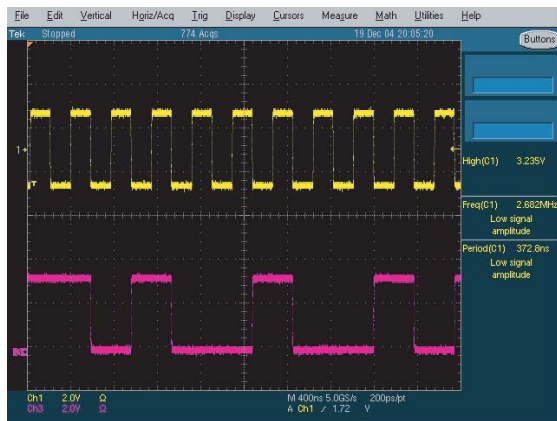


4-2-5 No Picture (Tuner DTV TS)

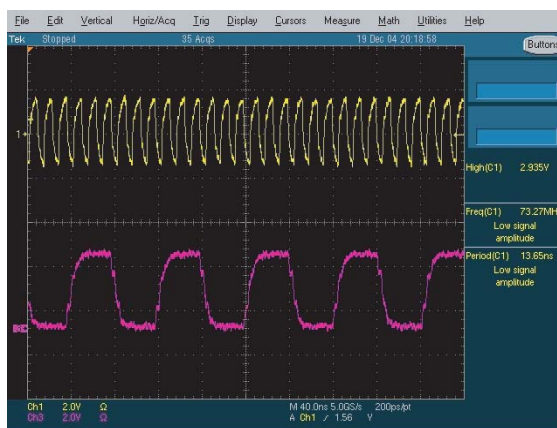


WAVEFORMS

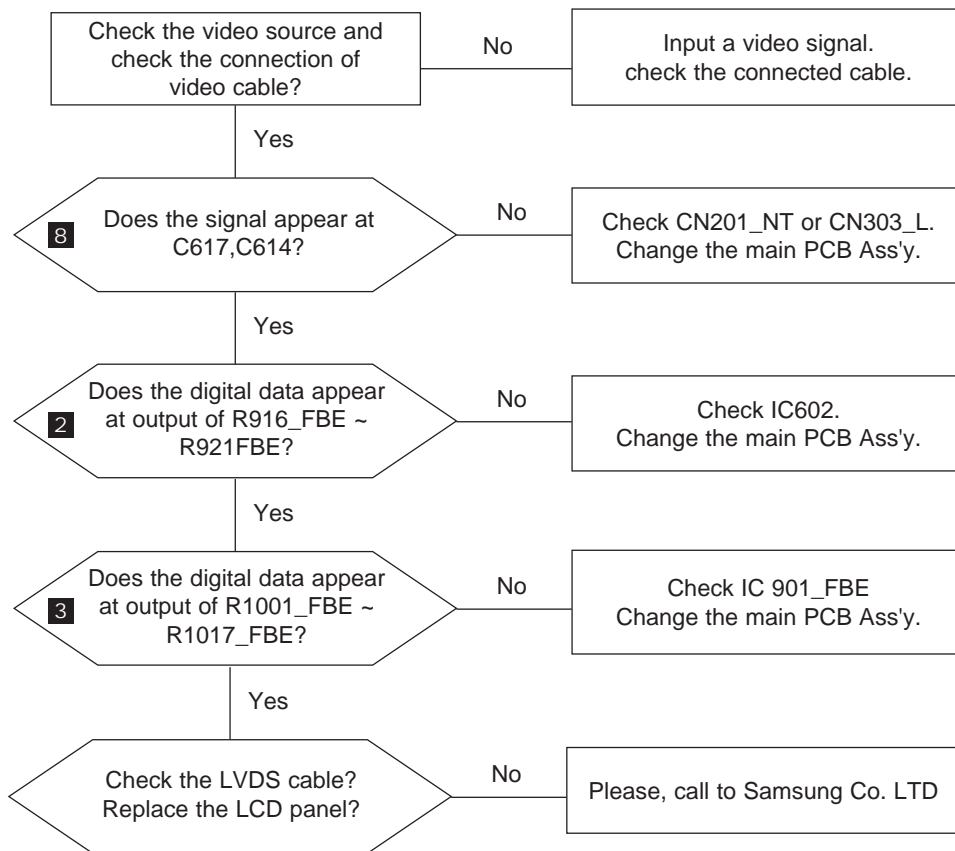
7 TS DATA Out (CLK, DATA [0])



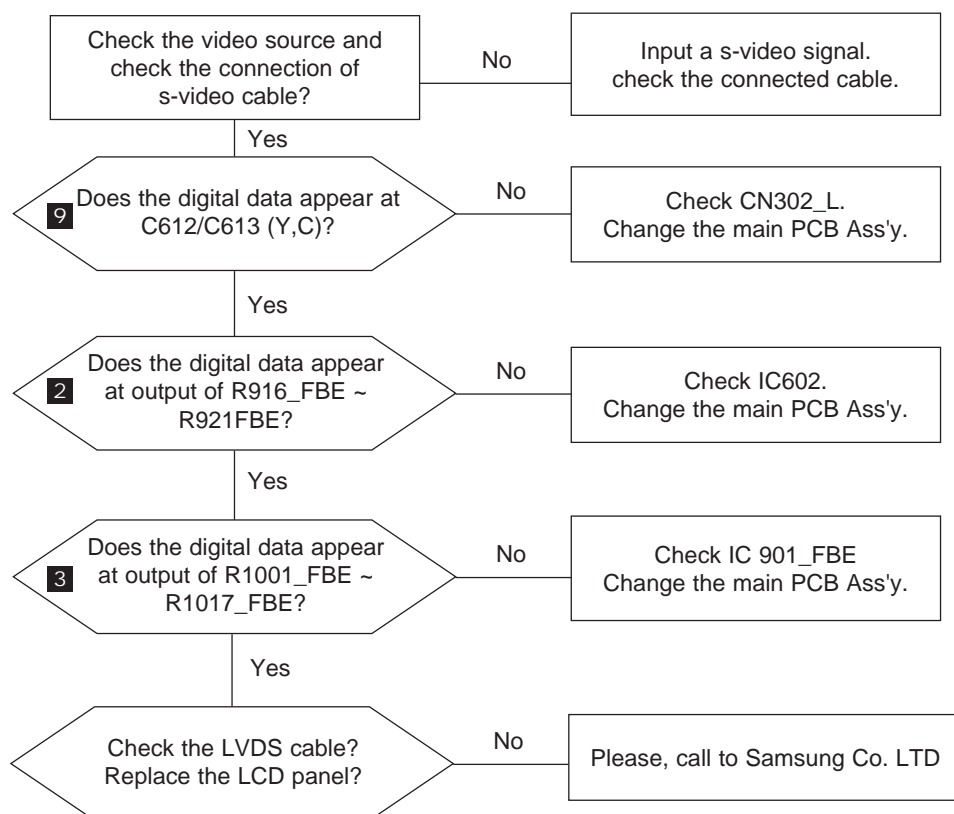
8 Eagle+ Out (CLK, H-Sync)



4-2-6 No Picture (Video_CVBS)



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

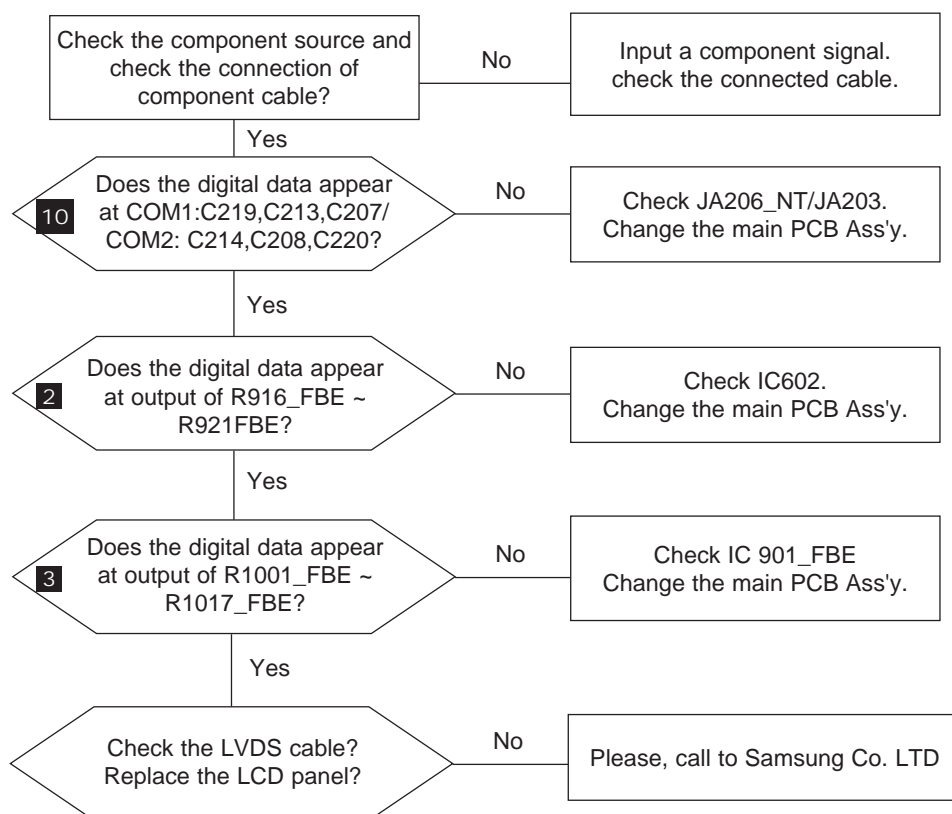


WAVEFORMS

9 S-VIDEO Input (Y/C)

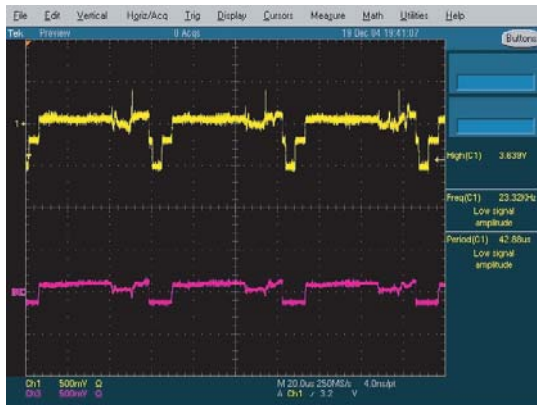


4-2-8 No Picture (Component1,2)

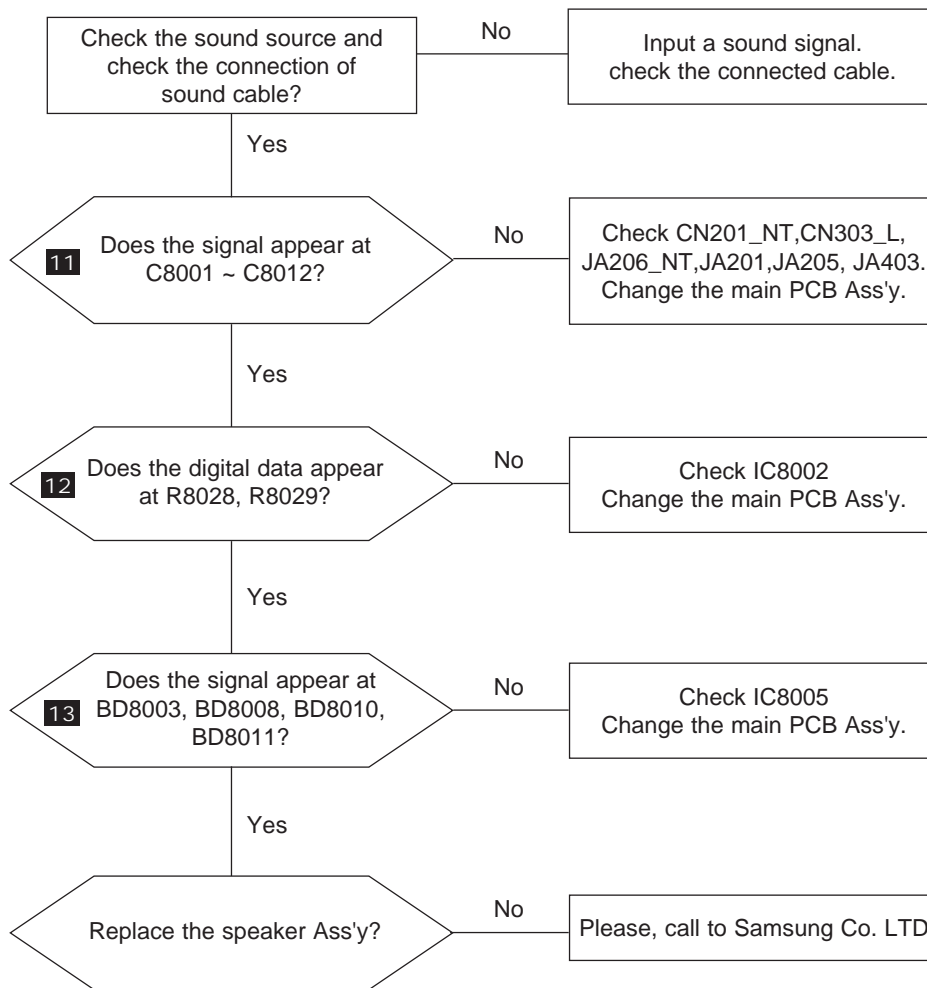


WAVEFORMS

10 Component Input (Y/Pb)

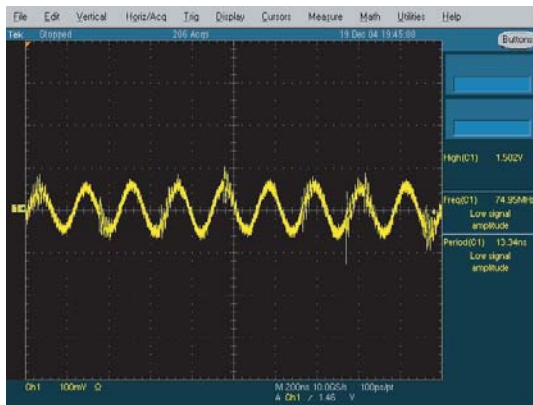


4-2-9 No Sound

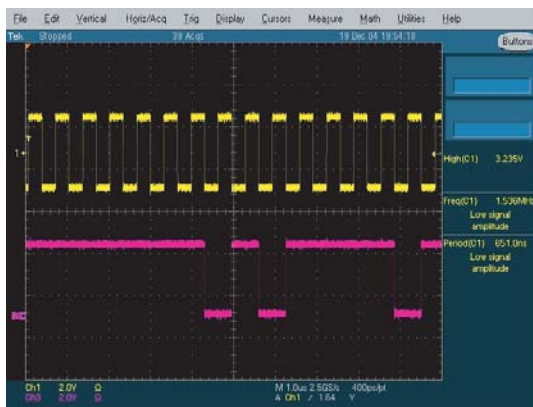


WAVEFORMS

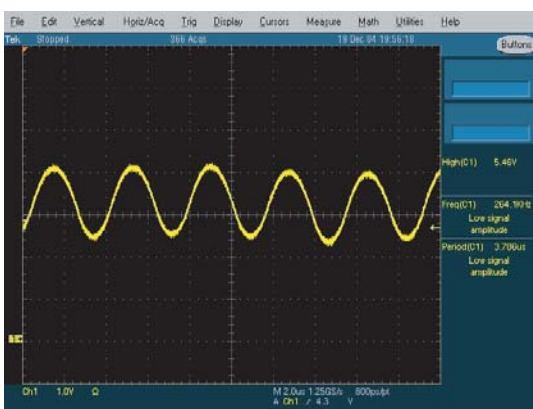
11 Audio Input (Sign Wave)



12 12S Input (CLK, DATA)



13 Audio Amp Out (Sign Wave)



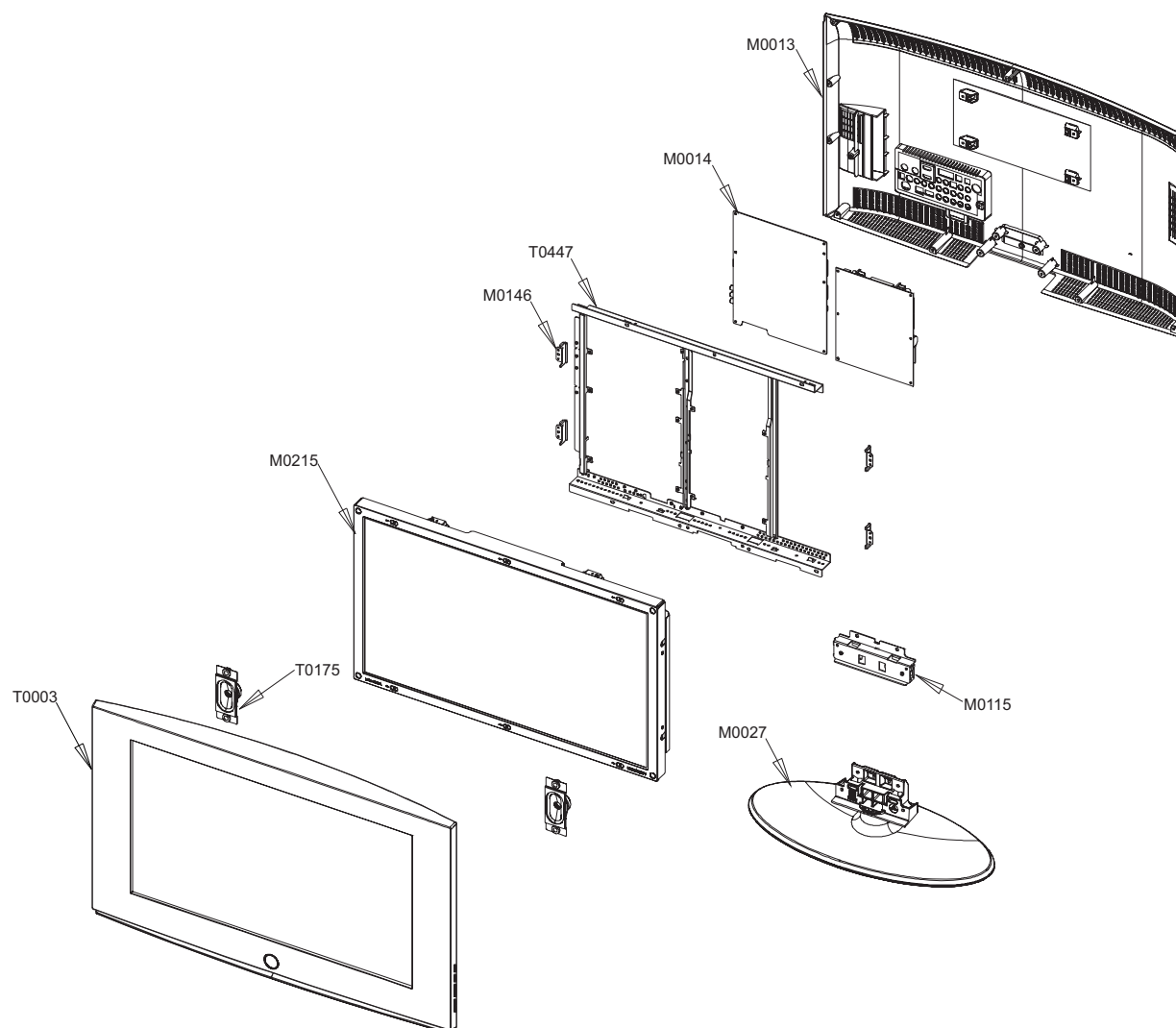
Memo

5 Exploded View and Parts List

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

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

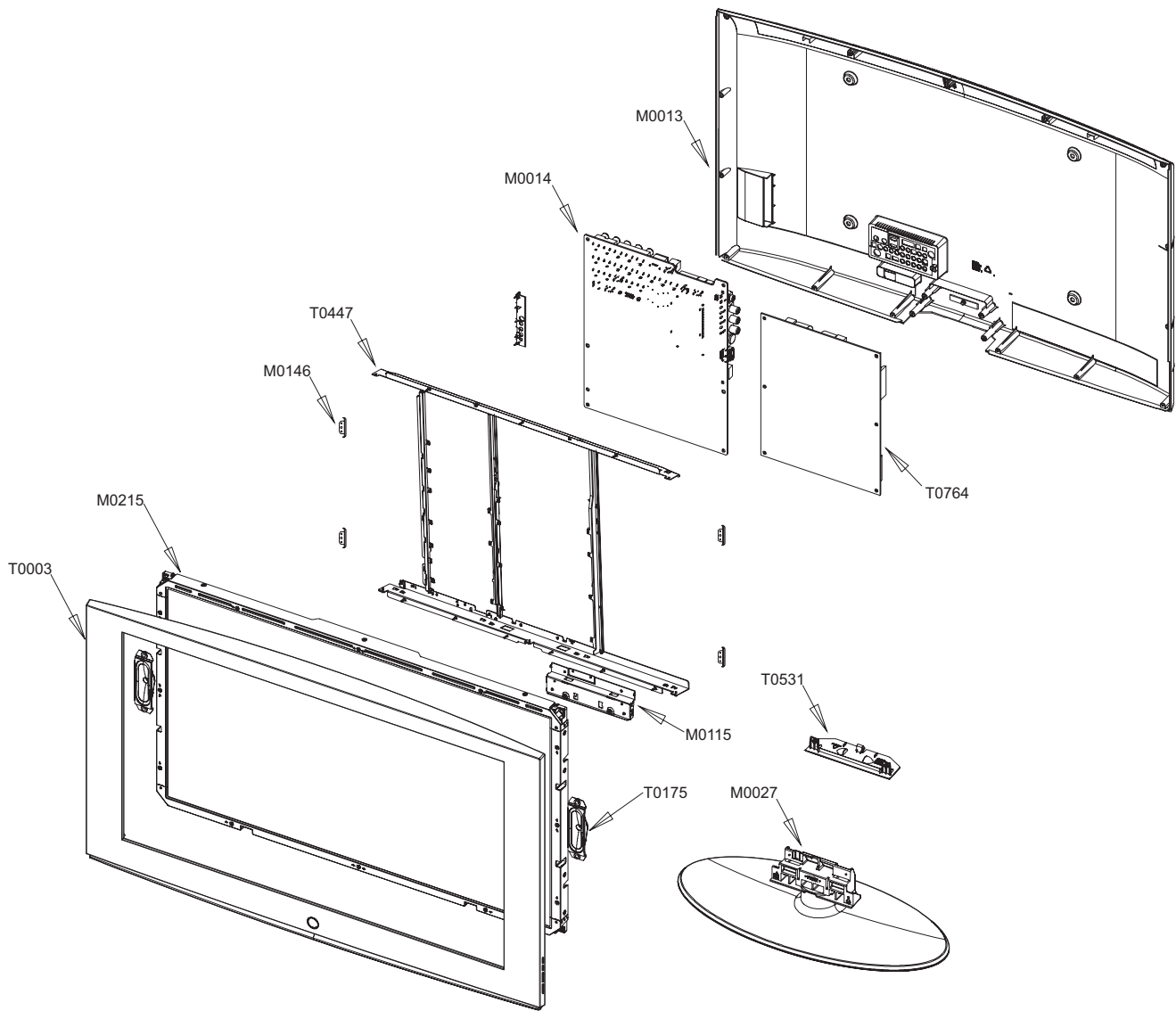
5-1 LE26S81BH Exploded View



5-2 LE26S81BH Parts list

Location	Code.No	Item & Specification	Q'ty	SA/SNA	Remark
T0003	BN96-04750F	ASSY COVER P-FRONT;26S81,EO(HOTEL),,ABS+	1	S.A	
T0175	BN96-04769A	ASSY SPEAKER P;16ohm,4pin,5W,Jasmine 23"	1	S.A	
M0215	BN07-00364A	LCD-PANEL;V260B1-L04,6bit+FRC,26inch,16.	1	S.A	
T0447	BN96-04682F	ASSY BRACKET P-PANEL;26S81,AUO,SEH	1	S.N.A	
M0146	BN61-02205B	BRACKET-PANEL TOP;Bordeaux 26,SECC,T1.2	1	S.N.A	
M0115	BN61-02931A	BRACKET-STAND LINK;JASMINE 26,SECC,T1.6	1	S.A	
M0014	BN94-01580B	ASSY PCB MAIN;Jasmine 26"	1	S.N.A	
M0027	BN96-04745A	ASSY STAND P-BASE;-;22,23,26S81,-,ABS+PM	1	S.A	
M0013	BN96-04820C	ASSY COVER P-REAR;26S81,EO(HOTEL),,HIPS,	1	S.A	

5-3 LE32S81BH Exploded View

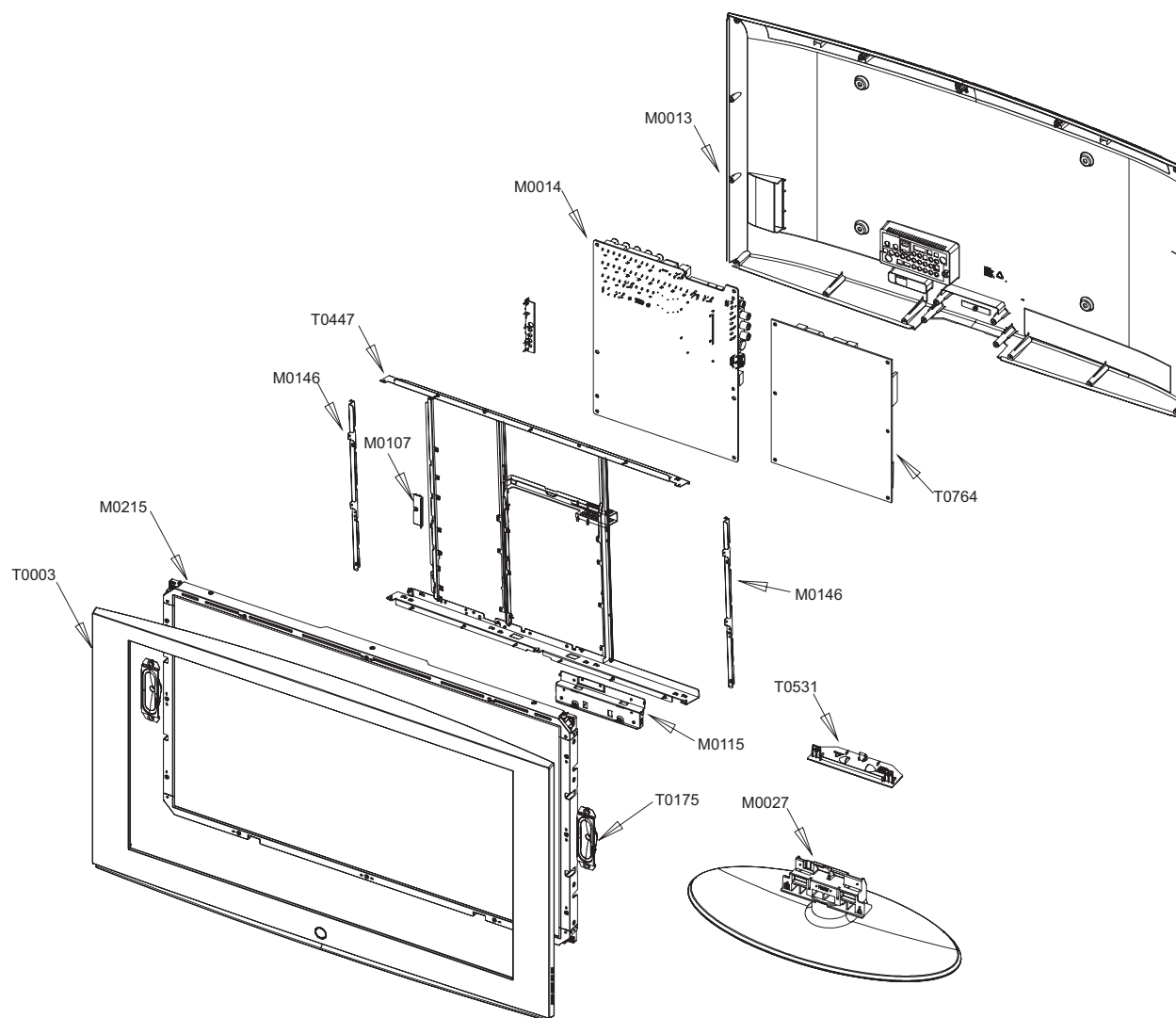


5 Exploded View & Parts List

5-4 LE32S81BH Parts list

Location	Code.No	Item & Specification	Q'ty	SA/SNA	Remark
T0003	BN96-04694N	ASSY COVER P-FRONT;32S81,EQ(HOTEL),ABS+P	1	S.N.A	
T0175	BN96-04770A	ASSY SPEAKER P;8ohm,4pin,10W,Jasmine 32"	1	S.A	
M0215	BN07-00348A	LCD-PANEL;V315B1-L01,8bit,31.5inch,16.7M	1	S.A	
AUO V9	BN07-00421A	T315XW02(V9),8bit,760.0*450.0*47.25,16.7M,16:9,0.51*0.51,0 to +50.5V, AMVA 72%,AMVA 72%			
AMLCD VE	BN07-00453A	LTA320WT-L06,8bit,32inch,16.7M,16:9,0.51075(H)*0.51075(W,0 to +50.5V,SMVA 72%,32 inch			
CPT-EMVA	BN07-00460A	CLAA320WF01SC,8bit,32inch,16.7M,16:9,0.51075(H) i 0.51075,0 to +50, 12V,EMVA 75% ZBD,32 inch HD			
T0447	BN96-04681A	ASSY BRACKET P-PANEL;- ,32R81,-,-,-,-,AM,	1	S.N.A	
M0146	BN61-02207A	BRACKET-PANEL SIDE;Bordeaux 26,SECC,T1.2	4	S.N.A	
T0764	BN44-00156A	SMPS-LCDTV;MK32P,SEM,AC/DC,180W,AC100 ~	1	S.A	
T0531	BN63-03093B	COVER-BOTTOM;32S81,HIPS,-,-,-,-,HB,-,BK500	1	S.A	
M0115	BN61-02947A	BRACKET-STAND LINK;JASMINE 32",SECC,T1.6	1	S.N.A	
M0014	BN94-01429L	ASSY PCB MAIN;BN94-01429D,839E	1	S.A	
M0027	BN96-04697B	ASSY STAND P-BASE;- ,32S8,-,ABS+PMMA,BK23	1	S.A	
M0013	BN96-04698D	ASSY COVER P-REAR;32S81,EQ(HOTEL),,HIPS,	1	S.A	

5-5 LE37S81BH Exploded View

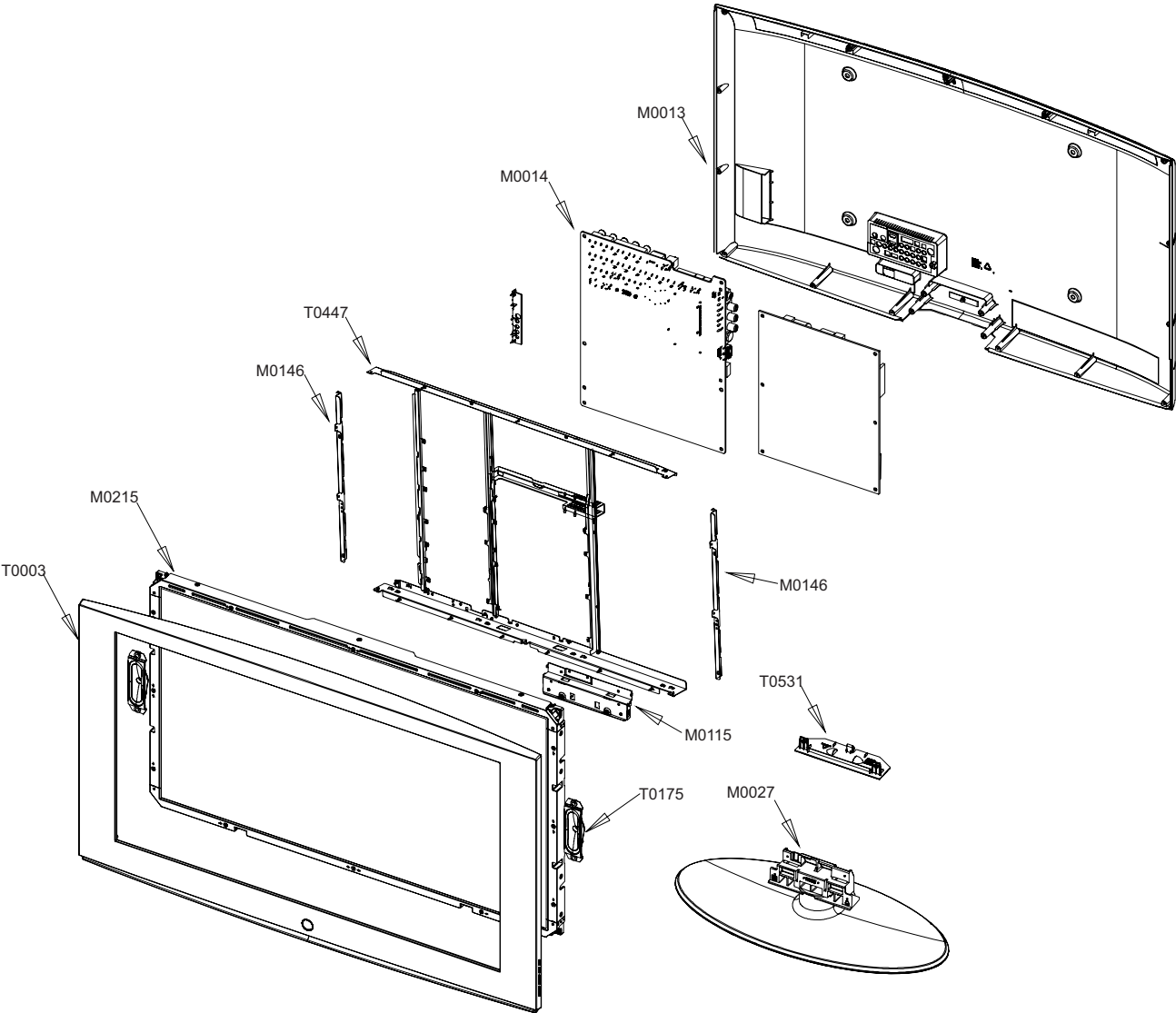


5 Exploded View & Parts List

5-6 LE37S81BH Parts list

Location	Code.No	Item & Specification	Q'ty	SA/SNA	Remark
T0003	BN96-04752H	ASSY COVER P-FRONT;37S81,EO(HOTEL),ABS+P	1	S.A	
T0175	BN96-04770B	ASSY SPEAKER P;8ohm,4pin,10W,600/1250mm,	1	S.A	
M0215	BN07-00366A	LCD-PANEL;CLAA370WA03,8bit,37inch,16.7M,	1	S.A	
AUO	BN07-00393A	T370XW02,8bit,37inch,16.7M,16:9,0.6(H)*0.6(W),0 to +50,12V,AMVA 72%,37inch			
T0447	BN96-04680E	ASSY BRACKET P-PANEL;37S86,EO	1	S.N.A	
M0146	BN61-02241A	BRACKET-PANEL SIDE;Bordeaux 37,SECC,T1.2	1	S.N.A	
M0146	BN61-02242A	BRACKET-PANEL SIDE;Bordeaux 37,SECC,T1.2	1	S.N.A	
T0764	BN44-00157A	SMPS-LCDTV;MK37,SEM,AC/DC,280W,AC100 ~ 2	1	S.A	
T0531	BN63-03127B	COVER-BOTTOM;37,40S81,HIPS,-,-,HB,-,BK	1	S.A	
M0107	BN63-03039A	SHIELD-COVER;MURANO40,PCM,T0.5,IDTV	1	S.N.A	
M0115	BN61-02882A	BRACKET-STAND LINK;TULIP,40,SECC,T1.6,-,	1	S.N.A	
M0014	BN94-01593A	ASSY PCB MAIN;37 INCH,JASMINE	1	S.A	
M0027	BN96-04754A	ASSY STAND P-BASE;-,-,37,40S81,-,ABS+PMMA,	1	S.A	
M0013	BN96-04826D	ASSY COVER P-REAR;37S81,EO(HOTEL),,HIPS,	1	S.A	

5-7 LE40S81BH Exploded View

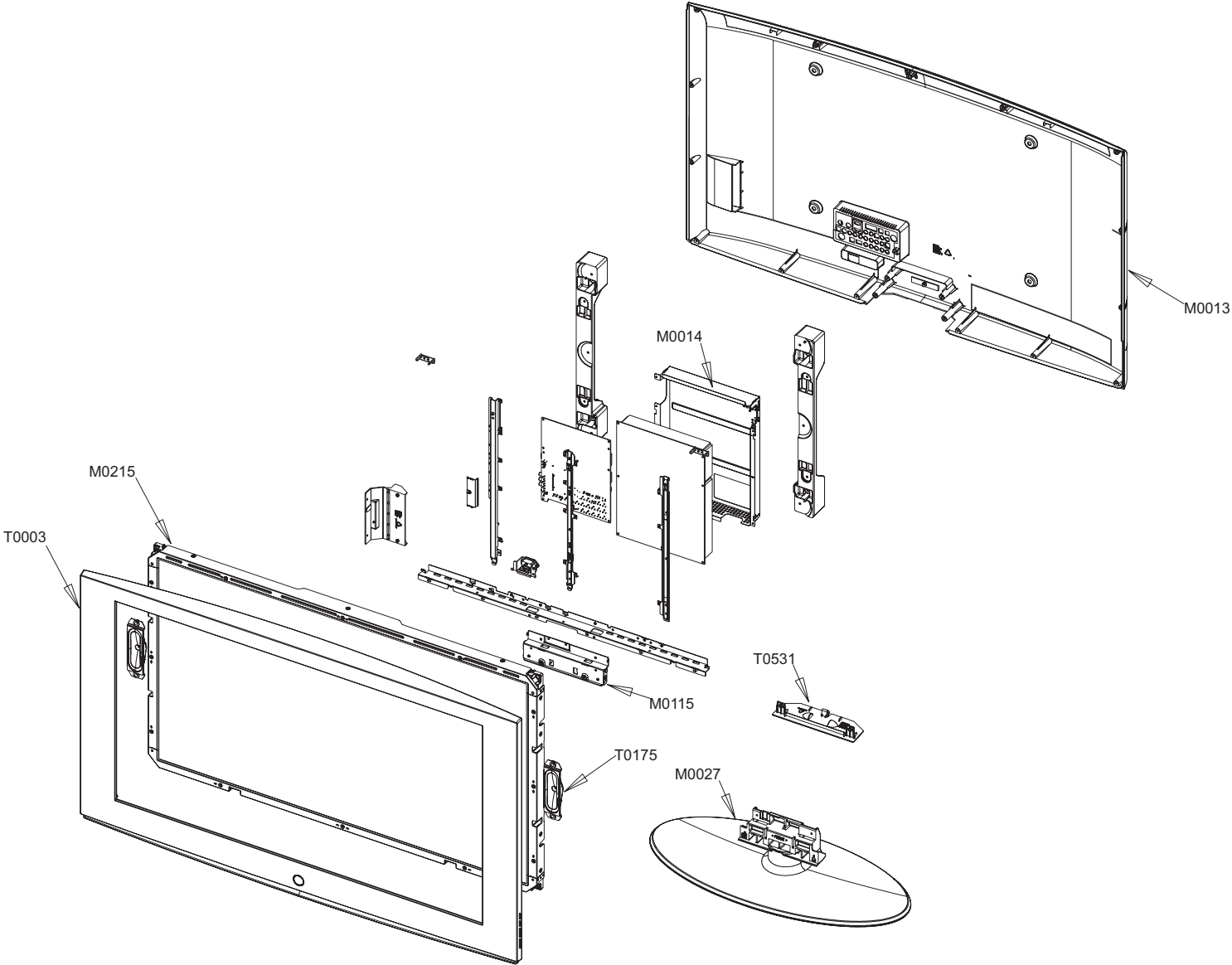


5 Exploded View & Parts List

5-8 LE40S81BH Parts list

Location	Code.No	Item & Specification	Q'ty	SA/SNA	Remark
T0003	BN96-04753C	ASSY COVER P-FRONT;40S86,EO,ABS+PMMA,HB,	1	S.A	
T0175	BN96-04770B	ASSY SPEAKER P;8ohm,4pin,10W,600/1250mm,	1	S.A	
M0215	BN07-00370A	LCD-PANEL;T400XW02,8bit,40inch,16.7M,16:	1	S.A	
AMLCD	BN07-00387A	LTA400WT-L06,8bit,40inch,16.7M,16:9,0.648(H)*0.216(W)*3,0 to +50, 12V,SPVA 72% ZBD,40 inch HD			
AUO VE	BN07-00448A	T400XW01 V1,8bit,40inch,16.7M,16:9,0.648(H)*0.648(W),0 to +50,5V,AMVA,72%,40 inch, AMVA			
AMLCD VE	BN07-00451A	LTA400WT-L07,8bit,40inch,16.7M,16:9,0.648(H)*0.648(W),0 to +50,12V,SMVA 72%,40 inch			
T0447	BN96-04679A	ASSY BRACKET P-PANEL;BORDEAUX PLUS40	1	S.N.A	
M0146	BN61-02256B	BRACKET-PANEL SIDE;Bordeaux 40,SECC,T1.2	1	S.N.A	
M0146	BN61-02257B	BRACKET-PANEL SIDE;Bordeaux 40,SECC,T1.2	1	S.N.A	
T0531	BN63-03127B	COVER-BOTTOM;37,40S81,HIPS,-,-,HB,-,BK	1	S.A	
M0115	BN61-02882A	BRACKET-STAND LINK;TULIP,40,SECC,T1.6,-,	1	S.N.A	
M0014	BN94-01193D	ASSY PCB MAIN;LE40S86BDX/*	1	S.A	
M0027	BN96-04754A	ASSY STAND P-BASE;37,40S81,ABS+PMMA,HB,B	1	S.A	
M0013	BN96-04822B	ASSY COVER P-REAR;40S86,EO,HIPS,HB,BK500	1	S.A	

5-9 LE46S81BH Exploded View



5 Exploded View & Parts List

5-10 LE46S81BH Parts list

Location	Code.No	Item & Specification	Q'ty	SA/SNA	Remark
T0003	BN96-04738B	ASSY COVER P-FRONT;46S81,EO,ABS+PMMA,HB,	1	S.A	
T0175	BN96-04770C	ASSY SPEAKER P;8ohm,4pin,10W,750/1250mm,	1	S.A	
M0215	BN07-00389A	LCD-PANEL; LTA460WT-L11,8bit,46inch,16.7	1	S.A	
AMLCD VE	BN07-00452A	LTA460WT-L12,8bit,46inch,16.7M,16:9,0.7455(H)*0.7455(W),0 to +50, 12V,SMVA 72%,46 inch			
T0447	BN96-05214D	ASSY BRACKET P-PANEL;46S81,KO	1	S.N.A	
T0531	BN63-03185B	COVER-BOTTOM;46S81,HIPS,-,-,-,HB,-,BK500	1	S.A	
M0014	BN94-01194R	ASSY PCB MAIN-AMLCD;LE46S81BX/*	1	S.A	
M0027	BN96-04743A	ASSY STAND P-BASE;46S81,ABS+PMMA,HB,BK23	1	S.A	
M0013	BN96-04825A	ASSY COVER P-REAR;46S81,EO,HIPS,HB,BK500	1	S.A	

6 Electrical Parts List

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

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

6-1 LE32S81BH Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
		LE32S81BHX/XEC	LE32S81BH,N31A/32S80-GJA,32,LCD-TV,SPAIN		
0.1	M0002	BN90-01173M	ASSY COVER REAR;LE32S81BHX/XEC	1	S.N.A
..2	T0081	6002-001294	SCREW-TAPPING;BH,+,M4,L16,ZPC(BLK)	1	S.A
..2	T0081	6002-001294	SCREW-TAPPING;BH,+,M4,L16,ZPC(BLK)	11	S.A
..2	M0081	6003-000115	SCREW-TAPTITE;BH,+,B,M3,L6,ZPC(BLK),SWRC	1	S.A
..2	M0013	BN96-04698D	ASSY COVER P-REAR;32S81,EO(HOTEL),HIPS,	1	S.A
...3	M0081	6003-001188	SCREW-TAPTITE;BH,+,B,M4,L10,ZPC(WHT),S	4	S.N.A
...3	M0125	BN61-02950A	HOLDER-WALL;COMMON,ABS,V0(NT),-,BK50	4	S.N.A
....4		BN61-00204R	RESIN;NT-7200,K2901,ABS V0,BK19,-,-	4.48	S.N.A
...3	M0006	BN63-03196A	COVER-REAR;32S81,EO,HIPS,-,-,HB,-,BK50	1	S.N.A
....4		BN81-00199H	RESIN;HIPS HB,BK500,HF-1690H,K2901	1.783	S.N.A
...3	T0071	BN64-00555E	INLAY-TERMINAL;07,COMMON,PS SHEET,T0.5,L	1	S.N.A
...3	T0064	BN65-00002A	CLAMPER CORE;BORDEAUX,LDPE,-,-,BLK,-	1	S.N.A
0.1	M0216	BN90-01175A	ASSY STAND;JASMINE32	1	S.N.A
..2	M0027	BN96-04697B	ASSY STAND P-BASE;-32S8,-,ABS+PMMA,BK23	1	S.A
...3	M0027	BN96-04697A	ASSY STAND P-BASE;-32S81,-,ABS+PMMA,HB,	1	S.A
....4	T0081	6002-001294	SCREW-TAPPING;BH,+,M4,L16,ZPC(BLK)	4	S.A
....4	M0081	6003-001239	SCREW-TAPTITE;FH,+,B,M4,L10,ZPC(WHT),S	4	S.A
....4		BN61-02232A	HOLDER-SWIVEL RING;32R71,ACETAL NATUAL,T	1	S.N.A
....4		BN61-02233A	HOLDER-SWIVEL RING;32R71,ACETAL NATUAL,B	1	S.N.A
....4		BN61-02236A	BRACKET-HINGE SWIVEL;BORDEAUX 32,SECC,T1	1	S.N.A
....4	T0920	BN61-02929A	GUIDE-STAND;JASMINE 32,ABS,V0(NT),-,,-	1	S.N.A
.....5		BN61-02967A	BRACKET-SUPPORT STAND;32 BORDEAUX PLUS,S	1	S.N.A
.....5	T0514	BN61-03046A	BRACKET-SUPPORT;32 BORDEAUX PLUS,SECC,2.	1	S.N.A
.....5		BN81-00204R	RESIN;NT-7200,K2901,ABS V0,BK19,-,-	0.25	S.N.A
....4		BN61-02945A	BRACKET-STAND BOTTOM;JASMINE 32",SECC,T1	1	S.N.A
....4	CCM1	BN63-02183D	COVER-SHEET;Rhc,PE Vinyl,T0.05,680mm,20	0.4	S.N.A
....4	T0004	BN63-03106A	COVER-STAND BASE;JASMINE 32",ABS+PMMA,HB	1	S.N.A
.....5		BN81-00204P	RESIN-HIGH GLOSS;SF-0505,K21294,ABS HB P	0.58	S.N.A
....4	T0132	BN73-00052A	RUBBER FOOT;ARES 17,CR Rubber Gray,T1.5	8	S.N.A
...3	T0524	6902-000520	BAG PE;HDPE/NITRON(DOUBLE),T0.015/T0.5(D	1	S.N.A
0.1	M0019	BN91-01180F	ASSY LCD;LE32R72BX"	1	S.N.A
..2	M0215	BN07-00348A	LCD-PANEL;V315B1-L01,8bit,31.5inch,16.7M	1	S.A
0.1		BN91-01612B	ASSY SHIELD-CME;LE32S81BHX/XEC	1	S.N.A
..2	M0081	6003-000115	SCREW-TAPTITE;BH,+,B,M3,L6,ZPC(BLK),SWRC	4	S.A
..2	M0081	6003-000115	SCREW-TAPTITE;BH,+,B,M3,L6,ZPC(BLK),SWRC	4	S.A
..2	M0081	6003-000337	SCREW-TAPTITE;BH,+,S,M4,L10,ZPC(BLK),SWR	2	S.A
..2	M0081	6003-000337	SCREW-TAPTITE;BH,+,S,M4,L10,ZPC(BLK),SWR	2	S.A
..2	M0081	6003-001188	SCREW-TAPTITE;BH,+,B,M4,L10,ZPC(WHT),S	4	S.N.A
..2	M0081	6003-001188	SCREW-TAPTITE;BH,+,B,M4,L10,ZPC(WHT),S	4	S.N.A
..2	M0081	6003-001188	SCREW-TAPTITE;BH,+,B,M4,L10,ZPC(WHT),S	4	S.N.A
..2	M0081	6003-001188	SCREW-TAPTITE;BH,+,B,M4,L10,ZPC(WHT),S	2	S.N.A
..2	M0081	6003-001439	SCREW-TAPTITE;BH,+,S,M4,L8,ZPC(WHT),SW	1	S.N.A
..2	M2893	BH39-00362B	LEAD CONNECTOR;RE32**,UL1007#26,5P,150mm	1	S.A
..2	M2893	BN39-00603L	LEAD CONNECTOR;LE32R73BDX,UL1007#26,14P,	1	S.A
..2	T0076	BN39-00615D	CBF HARNESS;BORDEAUX,1617#22,3P,1P,RING,	1	S.A
..2	M2893	BN39-00802A	LEAD CONNECTOR;LE32R86BDX,UL1007#26,UL/C	1	S.A
..2	M2893	BN39-00890A	LEAD CONNECTOR;LE32R86BDX,UL1571#30,-,30	1	S.A
..2	M0146	BN61-02419A	BRACKET-PANEL SIDE;SONOMA 32,SECC,T1.2,A	4	S.N.A
..2	M0114	BN61-02500A	HOLDER-WIRE;NYLON6.6,NATURAL	2	S.N.A
..2	M0115	BN61-02947A	BRACKET-STAND LINK;JASMINE 32",SECC,T1.6	1	S.A
..2	M0254	BN61-02952K	HOLDER-SIDE AV;32S81,EO(HOTEL),HIPS,V0,-	1	S.N.A
...3		BN81-00199H	RESIN;HIPS HB,BK500,HF-1690H,K2901	17.3	S.N.A
..2	T0447	BN96-04681A	ASSY BRACKET P-PANEL;-32R81,-,-,-,AM,	1	S.N.A
...3	M0081	6003-000115	SCREW-TAPTITE;BH,+,B,M3,L6,ZPC(BLK),SWRC	6	S.A
...3	M0131	AA63-01437A	GASKET;Bordeaux,Conductive Fabric,20mm,9	1	S.N.A
...3	M0131	AA63-01438A	GASKET;Bordeaux,Conductive Fabric,7mm,8m	1	S.N.A
...3		BN61-02199B	BRACKET-GUIDE POWER;Bordeaux 32,SECC,T1.	1	S.N.A

6 Electrical Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	S.A/S.N.A
...3	M0146	BN61-02200A	BRACKET-GUIDE POWER;Bordeaux 32,SECC,T1.	1	S.N.A
...3		BN61-02970A	BRACKET-PANEL TOP;32 BORDEAUX PLUS,SECC,	1	S.N.A
...3		BN61-02974A	BRACKET-PANEL BOTTOM;32 BORDEAUX PLUS,SE	1	S.N.A
...3		BN61-02978A	BRACKET-GUIDE MAIN;32 BORDEAUX PLUS,SECC	1	S.N.A
...3	M0131	BN63-03327A	GASKET;BORDEAUX PLUS,Conductive Fabric,2	1	S.N.A
..2	T0764	BN44-00191A	SMPS-LCDTV;MK32P3,SEM,AC/DC,180W,AC100 ~	1	S.A
0.1	M0017	BN91-01614B	ASSY CHASSIS;LE32S81BHX/XEC	1	S.N.A
..2	M0014	BN94-01429L	ASSY PCB MAIN;BN94-01429D,839E	1	S.A
...3	T0245	0202-001492	SOLDER-WIRE FLUX;HSE-02 LFM48 SR-34 S,-,	0.25	S.N.A
...3	JA1410_NSI	3701-001388	CONNECTOR-HDMI;20P,Phosphor Bronze,ANGLE	1	S.A
...3	JA1406_OP	3701-001400	CONNECTOR-DSUB;15P,3R,FEMALE,STRAIGHT,Ni	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	JA1601_EU	3722-000498	JACK-SCART;21P,-,SN,BLK,NO	1	S.A
...3	JA1608_EU	3722-000498	JACK-SCART;21P,-,SN,BLK,NO	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	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	3722-002543	JACK-PIN;3P,Sn,RED/WHT/YEL,ANGLE	1	S.A
...3	CN1604_HT	3722-002547	JACK-MODULAR;8P/4C,N,STRAIGHT,N,AU,1PORT	1	S.A
...3	CIS3	BN40-00079A	TUNER;TCPW3001PD32S(H),TCPW3001PD32S(H),	1	S.A
...3	T0603	BN63-02494A	SHIELD-PCB MAIN;MOSEL 40",SPTE,T0.3,EURO	1	S.N.A
...3	T0603	BN63-03197A	SHIELD-PCB MAIN;TULIP PAL,SPTE,T0.5	1	S.N.A
...3	M0131	BN63-03549A	GASKET;BORDEAUX PLUS,Conductive Fabric,1	1	S.N.A
...3	CCMM1	BN73-00024D	SILICON/RUBBER;BORDEAUX,SILICON,28x28XT6	1	S.N.A
...3	CCMM1	BN73-00151A	SILICON/RUBBER;GP1500 380MIL,20X20X9.5T	1	S.N.A
...3	T0510	BN97-01736L	ASSY SMD-MAIN;BN94-01429D	1	S.N.A
...4	SUB05	0202-001477	SOLDER-CREAM;LST309-M,-,D20-45##,96.5Sn/	3.778	S.N.A
...4	D1107	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	S.A
...4	D1204	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	S.A
...4	D1208	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	S.A
...4	D1209	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	S.A
...4	D1210	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	S.A
...4	D1211	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	S.A
...4	D1212	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	S.A
...4	D1213	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	S.A
...4	D1214	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	S.A
...4	D1218	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	S.A
...4	D1219	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	S.A
...4	D1640	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	S.A
...4	D1641	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	S.A
...4	D1807	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	S.A
...4	D2201_LUX	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	S.A
...4	D1101	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	D1404	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
...4	D1407	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
...4	D1410	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
...4	D1411	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
...4	D1412	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
...4	D1424	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
...4	D1425	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
...4	D1426	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
...4	D1434	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
...4	D1435	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
...4	D1450_NSID	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
...4	D1451_NSID	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
...4	D1472	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
...4	D1473	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
...4	D1474	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A

Level	Loc. No.	Code No.	Description & Specification	Q'ty	S.A/S.N.A
....4	D1475	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1476	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1477	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1478	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1479	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1482	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1483	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1484	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1485	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1486	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1487	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1488	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1489	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1492_NSID	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1493_NSID	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1494_NSID	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1495_NSID	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1496_NSID	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1497_NSID	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1498_NSID	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1499_NSID	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1603_LCD	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1621_LCD	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1624_LCD	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1643	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1644	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1645	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1647	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1649	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1650	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1653	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1808	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D1456	0401-001099	DIODE-SWITCHING;1N4148WS,75V,150mA,SOD-3	1	S.A
....4	D1457	0401-001099	DIODE-SWITCHING;1N4148WS,75V,150mA,SOD-3	1	S.A
....4	D1458	0401-001099	DIODE-SWITCHING;1N4148WS,75V,150mA,SOD-3	1	S.A
....4	D1507	0401-001099	DIODE-SWITCHING;1N4148WS,75V,150mA,SOD-3	1	S.A
....4	D1508	0401-001099	DIODE-SWITCHING;1N4148WS,75V,150mA,SOD-3	1	S.A
....4	D1509	0401-001099	DIODE-SWITCHING;1N4148WS,75V,150mA,SOD-3	1	S.A
....4	D1651	0401-001099	DIODE-SWITCHING;1N4148WS,75V,150mA,SOD-3	1	S.A
....4	D1652	0401-001099	DIODE-SWITCHING;1N4148WS,75V,150mA,SOD-3	1	S.A
....4	D1654	0401-001099	DIODE-SWITCHING;1N4148WS,75V,150mA,SOD-3	1	S.A
....4	D0254	0402-001019	DIODE-SCHOTTKY;MBRS340,40V,3000mA,DO-214	1	S.A
....4	D0254	0402-001019	DIODE-SCHOTTKY;MBRS340,40V,3000mA,DO-214	1	S.A
....4	D1436	0403-000258	DIODE-ZENER;BZX84C5V6,5.2-6V,225mW,SOT-2	1	S.A
....4	D1104	0403-000614	DIODE-ZENER;RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A
....4	D1217	0403-000620	DIODE-ZENER;RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A
....4	D1429	0403-000620	DIODE-ZENER;RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A
....4	D1430	0403-000620	DIODE-ZENER;RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A
....4	D1431	0403-000620	DIODE-ZENER;RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A
....4	D1432	0403-000620	DIODE-ZENER;RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A
....4	D1433	0403-000620	DIODE-ZENER;RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A
....4	D1452	0403-000620	DIODE-ZENER;RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A
....4	D1453	0403-000620	DIODE-ZENER;RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A
....4	D1454_NSID	0403-000620	DIODE-ZENER;RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A
....4	D1806	0403-000620	DIODE-ZENER;RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A
....4	D1500	0403-001016	DIODE-ZENER;RLZ6.2B,5.96-6.27V,500mW,LL-	1	S.A
....4	D1501	0403-001016	DIODE-ZENER;RLZ6.2B,5.96-6.27V,500mW,LL-	1	S.A
....4	D1502_NSID	0403-001016	DIODE-ZENER;RLZ6.2B,5.96-6.27V,500mW,LL-	1	S.A
....4	D1503	0403-001016	DIODE-ZENER;RLZ6.2B,5.96-6.27V,500mW,LL-	1	S.A
....4	D1504	0403-001016	DIODE-ZENER;RLZ6.2B,5.96-6.27V,500mW,LL-	1	S.A
....4	D1505	0403-001016	DIODE-ZENER;RLZ6.2B,5.96-6.27V,500mW,LL-	1	S.A
....4	D1506	0403-001016	DIODE-ZENER;RLZ6.2B,5.96-6.27V,500mW,LL-	1	S.A
....4	D1402	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D1428	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D1449_NSID	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D1804	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D1810	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D1608	0403-001169	DIODE-ZENER;RLZ16C,15.96-16.51V,500MW,LL	1	S.A
....4	D1636	0403-001169	DIODE-ZENER;RLZ16C,15.96-16.51V,500MW,LL	1	S.A

6 Electrical Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	S.A/S.N.A
....4	D1105	0403-001425	DIODE-ZENER;BZX84C33,31-35V,350mW,SOT-23	1	S.A
....4	D1405	0406-001172	DIODE-TVS;CDS3C30GTH,48/-50V,SMD	1	S.A
....4	D1406	0406-001172	DIODE-TVS;CDS3C30GTH,48/-50V,SMD	1	S.A
....4	D1408	0406-001172	DIODE-TVS;CDS3C30GTH,48/-50V,SMD	1	S.A
....4	D1409	0406-001172	DIODE-TVS;CDS3C30GTH,48/-50V,SMD	1	S.A
....4	D1413	0406-001172	DIODE-TVS;CDS3C30GTH,48/-50V,SMD	1	S.A
....4	D1414	0406-001172	DIODE-TVS;CDS3C30GTH,48/-50V,SMD	1	S.A
....4	D1422	0406-001172	DIODE-TVS;CDS3C30GTH,48/-50V,SMD	1	S.A
....4	D1423	0406-001172	DIODE-TVS;CDS3C30GTH,48/-50V,SMD	1	S.A
....4	D1446	0406-001172	DIODE-TVS;CDS3C30GTH,48/-50V,SMD	1	S.A
....4	D1447	0406-001172	DIODE-TVS;CDS3C30GTH,48/-50V,SMD	1	S.A
....4	D1601_LCD	0406-001172	DIODE-TVS;CDS3C30GTH,48/-50V,SMD	1	S.A
....4	D1602_LCD	0406-001172	DIODE-TVS;CDS3C30GTH,48/-50V,SMD	1	S.A
....4	D1604_EU	0406-001172	DIODE-TVS;CDS3C30GTH,48/-50V,SMD	1	S.A
....4	D1605	0406-001172	DIODE-TVS;CDS3C30GTH,48/-50V,SMD	1	S.A
....4	D1606_EU	0406-001172	DIODE-TVS;CDS3C30GTH,48/-50V,SMD	1	S.A
....4	D1607	0406-001172	DIODE-TVS;CDS3C30GTH,48/-50V,SMD	1	S.A
....4	D1615	0406-001172	DIODE-TVS;CDS3C30GTH,48/-50V,SMD	1	S.A
....4	D1616_LCD	0406-001172	DIODE-TVS;CDS3C30GTH,48/-50V,SMD	1	S.A
....4	D1617_LCD	0406-001172	DIODE-TVS;CDS3C30GTH,48/-50V,SMD	1	S.A
....4	D1618_LCD	0406-001172	DIODE-TVS;CDS3C30GTH,48/-50V,SMD	1	S.A
....4	D1619	0406-001172	DIODE-TVS;CDS3C30GTH,48/-50V,SMD	1	S.A
....4	D1620_EU	0406-001172	DIODE-TVS;CDS3C30GTH,48/-50V,SMD	1	S.A
....4	D1622_LCD	0406-001172	DIODE-TVS;CDS3C30GTH,48/-50V,SMD	1	S.A
....4	D1623_LCD	0406-001172	DIODE-TVS;CDS3C30GTH,48/-50V,SMD	1	S.A
....4	D1630	0406-001172	DIODE-TVS;CDS3C30GTH,48/-50V,SMD	1	S.A
....4	D1631	0406-001172	DIODE-TVS;CDS3C30GTH,48/-50V,SMD	1	S.A
....4	D1632	0406-001172	DIODE-TVS;CDS3C30GTH,48/-50V,SMD	1	S.A
....4	D1633	0406-001172	DIODE-TVS;CDS3C30GTH,48/-50V,SMD	1	S.A
....4	D1634	0406-001172	DIODE-TVS;CDS3C30GTH,48/-50V,SMD	1	S.A
....4	D1635_EU	0406-001172	DIODE-TVS;CDS3C30GTH,48/-50V,SMD	1	S.A
....4	D1637_HT	0406-001172	DIODE-TVS;CDS3C30GTH,48/-50V,SMD	1	S.A
....4	D1638_HT	0406-001172	DIODE-TVS;CDS3C30GTH,48/-50V,SMD	1	S.A
....4	D1639_HT	0406-001172	DIODE-TVS;CDS3C30GTH,48/-50V,SMD	1	S.A
....4	D1201	0407-000123	DIODE-ARRAY;DAN202K,80V,100mA,CA2-3,SOT-	1	S.A
....4	D1801	0407-000123	DIODE-ARRAY;DAN202K,80V,100mA,CA2-3,SOT-	1	S.A
....4	D1802	0407-000123	DIODE-ARRAY;DAN202K,80V,100mA,CA2-3,SOT-	1	S.A
....4	D1803_NSID	0407-000123	DIODE-ARRAY;DAN202K,80V,100mA,CA2-3,SOT-	1	S.A
....4	Q1101_LCD	0501-000445	TR-SMALL SIGNAL;KTC3875S-Y,NPN,150mW,SOT	1	S.A
....4	Q1102_LCD	0501-000445	TR-SMALL SIGNAL;KTC3875S-Y,NPN,150mW,SOT	1	S.A
....4	Q1104	0501-000445	TR-SMALL SIGNAL;KTC3875S-Y,NPN,150mW,SOT	1	S.A
....4	Q1203	0501-000445	TR-SMALL SIGNAL;KTC3875S-Y,NPN,150mW,SOT	1	S.A
....4	Q1204	0501-000445	TR-SMALL SIGNAL;KTC3875S-Y,NPN,150mW,SOT	1	S.A
....4	Q1205	0501-000445	TR-SMALL SIGNAL;KTC3875S-Y,NPN,150mW,SOT	1	S.A
....4	Q1206	0501-000445	TR-SMALL SIGNAL;KTC3875S-Y,NPN,150mW,SOT	1	S.A
....4	Q1207	0501-000445	TR-SMALL SIGNAL;KTC3875S-Y,NPN,150mW,SOT	1	S.A
....4	Q1208	0501-000445	TR-SMALL SIGNAL;KTC3875S-Y,NPN,150mW,SOT	1	S.A
....4	Q1209	0501-000445	TR-SMALL SIGNAL;KTC3875S-Y,NPN,150mW,SOT	1	S.A
....4	Q1210	0501-000445	TR-SMALL SIGNAL;KTC3875S-Y,NPN,150mW,SOT	1	S.A
....4	Q1211	0501-000445	TR-SMALL SIGNAL;KTC3875S-Y,NPN,150mW,SOT	1	S.A
....4	Q1602	0501-000445	TR-SMALL SIGNAL;KTC3875S-Y,NPN,150mW,SOT	1	S.A
....4	Q1603	0501-000445	TR-SMALL SIGNAL;KTC3875S-Y,NPN,150mW,SOT	1	S.A
....4	Q1604_RED	0501-000445	TR-SMALL SIGNAL;KTC3875S-Y,NPN,150mW,SOT	1	S.A
....4	Q1801	0501-000445	TR-SMALL SIGNAL;KTC3875S-Y,NPN,150mW,SOT	1	S.A
....4	Q1805	0501-000445	TR-SMALL SIGNAL;KTC3875S-Y,NPN,150mW,SOT	1	S.A
....4	Q1821	0501-000445	TR-SMALL SIGNAL;KTC3875S-Y,NPN,150mW,SOT	1	S.A
....4	Q1823	0501-000445	TR-SMALL SIGNAL;KTC3875S-Y,NPN,150mW,SOT	1	S.A
....4	Q2201_LUX	0501-000445	TR-SMALL SIGNAL;KTC3875S-Y,NPN,150mW,SOT	1	S.A
....4	Q2202_LCD	0501-000445	TR-SMALL SIGNAL;KTC3875S-Y,NPN,150mW,SOT	1	S.A
....4	Q1201	0501-000669	TR-SMALL SIGNAL;KTA1505Y,PNP,150mW,SOT-2	1	S.A
....4	Q1202	0501-000669	TR-SMALL SIGNAL;KTA1505Y,PNP,150mW,SOT-2	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	0505-000110	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

Level	Loc. No.	Code No.	Description & Specification	Q'ty	S.A/S.N.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	0505-000110	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	0505-002169	FET-SILICON;Si4435BDY-T1-E3,P,-,30V,-9.1A	1	S.N.A
....4	IC104	0801-002095	IC-CMOS LOGIC;74LCX245,TRANSCEIVER,TSSOP	1	S.A
....4	IC104	0801-002633	IC-CMOS LOGIC;7WBD3125,2bit BUS SWITCH,S	1	S.A
....4	IC1802	0903-001488	IC-MICROCOMPUTER;M308A0SGP,LQFP,100P,14x	1	S.A
....4	IC1805	1001-000164	IC-ANALOG MULTIPLEX;74HC4052,CMOS,SOP,16	1	S.A
....4	IC106	1001-001440	IC-VIDEO SWITCH;Si19185CTU,QFP,80P,3.3V,	1	S.A
....4	IC110	1006-001076	IC-DRIVER/RECEIVER;MAX232ECWE+T,SOP,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;AT24C256,256Kbit,32Kx8,SOP,8P,	1	S.A
....4	IC113	1105-001791	IC-DRAM;EM6A9320BI,DDR,128Mbit,4Mx32,FBG	1	S.A
....4	DU410	1201-000166	IC-OP AMP;LM358,SOP,ST,8P,150ML,DUAL,10	1	S.A
....4	T0124	1201-002430	IC-POWER AMP;NTP-3000,QFN,56P,8x8mm,DUAL	1	S.A
....4	IC012	1203-001519	IC-POS.ADJUST REG.;LM317,SOT223,3P,274	1	S.A
....4	T0087	1203-001815	IC-POS.FIXED REG.;78M09,TO-252,3P,-,PLA	1	S.A
....4	T0087	1203-002842	IC-POS.FIXED REG.;AP1117D-33A,TO-252,3P	1	S.A
....4	T0087	1203-002855	IC-POS.FIXED REG.;MC33269DTRK-5.0,DPRK,	1	S.A
....4	T0087	1203-002898	IC-POS.FIXED REG.;G950T48R,TO-252,3P,6.	1	S.A
....4	T0087	1203-002974	IC-POS.FIXED REG.;AP1117D-25A,TO-252,3P	1	S.A
....4	IC012	1203-002995	IC-POS.ADJUST REG.;AP1117D-A,TO-252,3P,	1	S.A
....4	T0170	1203-003059	IC-SWITCH VOL. REG.;MP1583,SOIC,8P,4.9x3	1	S.A
....4	T0087	1203-003696	IC-POS.FIXED REG.;NCP1117DT18T5G,DPAK,3	1	S.A
....4	IC1809	1203-004363	IC-VOL. DETECTOR;RT9818C-29PV,SOT-23,3P,	1	S.A
....4	IC1204	1203-004364	IC-VOL. DETECTOR;RT9818C-42PV,SOT-23,3P,	1	S.A
....4	IC1810	1203-004364	IC-VOL. DETECTOR;RT9818C-42PV,SOT-23,3P,	1	S.A
....4	IC1113	1203-004379	IC-DC/DC CONVERTER;AP1530SA,SOP,8P,5x3.9	1	S.A
....4	IC118	1204-002718	IC-VIDEO PROCESS;SVP-UX68,BGA,336P,27x27	1	S.A
....4	IC1202	1204-002719	IC-AUDIO PROCESSOR;SGTV5810,LQFP,100P,14	1	S.A
....4	IC118	1204-002729	IC-VIDEO PROCESS;S4LF119X01,PBGA,208P,17	1	S.A
....4	D1471	1405-001185	VARISTOR;24Vdc,1.6x0.8x0.36mm,TP	1	S.A
....4	D1481	1405-001185	VARISTOR;24Vdc,1.6x0.8x0.36mm,TP	1	S.A
....4	D1491_NSID	1405-001185	VARISTOR;24Vdc,1.6x0.8x0.36mm,TP	1	S.A
....4	D1612	1405-001185	VARISTOR;24Vdc,1.6x0.8x0.36mm,TP	1	S.A
....4	D1613	1405-001185	VARISTOR;24Vdc,1.6x0.8x0.36mm,TP	1	S.A
....4	D1614	1405-001185	VARISTOR;24Vdc,1.6x0.8x0.36mm,TP	1	S.A
....4	D1809	1405-001185	VARISTOR;24Vdc,1.6x0.8x0.36mm,TP	1	S.A
....4	R110	2007-000042	R-CHIP;499ohm,1%,1/10W,TP,1608	1	S.A
....4	R110	2007-000043	R-CHIP;1Kohm,1%,1/10W,TP,1608	1	S.A
....4	R110	2007-000043	R-CHIP;1Kohm,1%,1/10W,TP,1608	1	S.A
....4	R110	2007-000043	R-CHIP;1Kohm,1%,1/10W,TP,1608	1	S.A
....4	R110	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	S.A
....4	R110	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	S.A
....4	R110	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	S.A
....4	R110	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	S.A
....4	R110	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	S.A
....4	R110	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	S.A
....4	R110	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	S.A
....4	R110	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	S.A
....4	R110	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	S.A
....4	R110	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	S.A
....4	R110	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	S.A
....4	R110	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	S.A
....4	R110	2007-000060	R-CHIP;100Kohm,1%,1/10W,TP,1608	1	S.A
....4	R110	2007-000060	R-CHIP;100Kohm,1%,1/10W,TP,1608	1	S.A
....4	R110	2007-000066	R-CHIP;20Kohm,1%,1/10W,TP,1608	1	S.A
....4	R110	2007-000067	R-CHIP;15Kohm,1%,1/10W,TP,1608	1	S.A
....4	R110	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	S.A
....4	R110	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	S.A
....4	R110	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	S.A
....4	R110	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	S.A

6 Electrical Parts List

[illegible]

[illegible]

6 Electrical Parts List

[illegible]

[illegible]

6 Electrical Parts List

[illegible]

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6 Electrical Parts List

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6 Electrical Parts List

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6 Electrical Parts List

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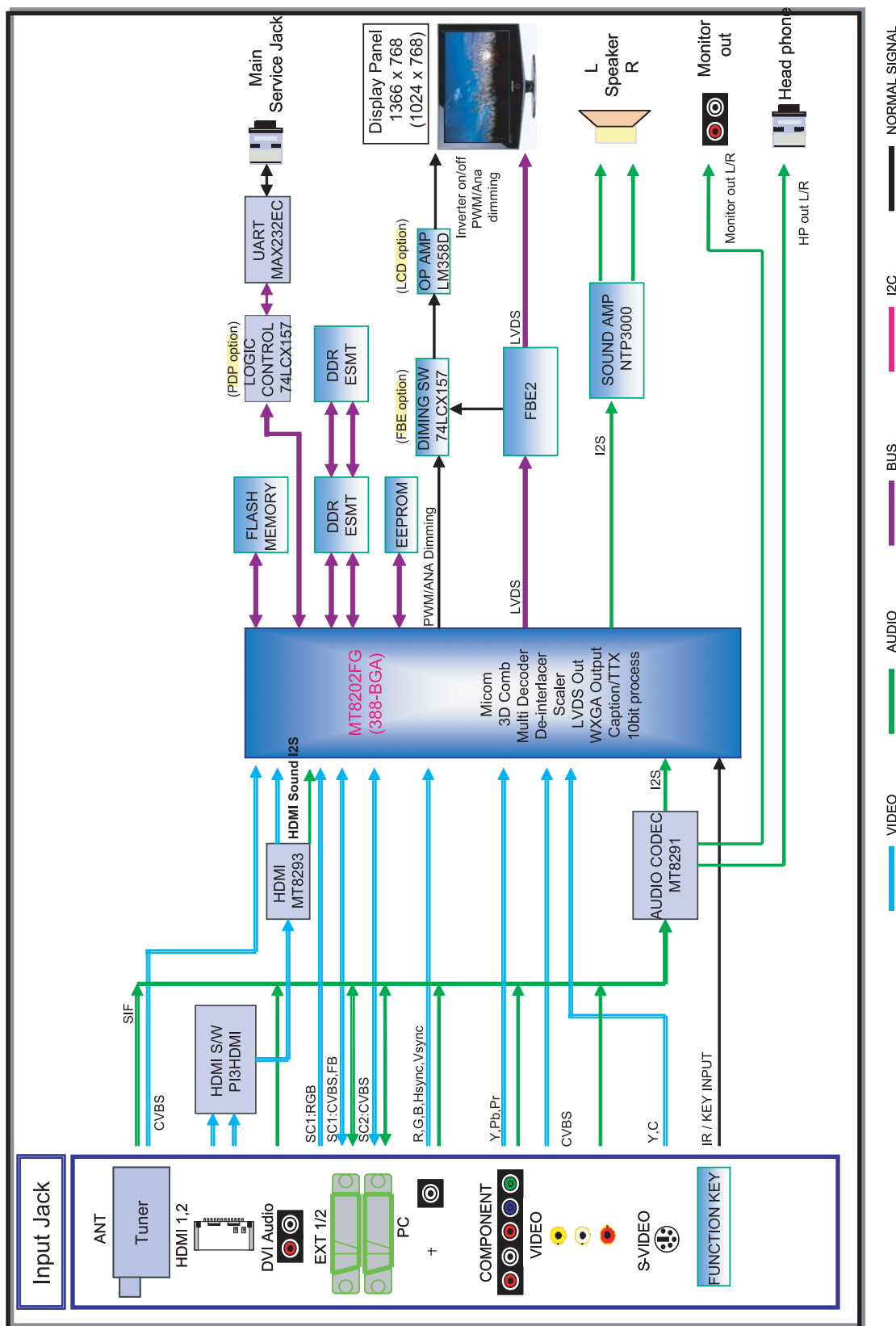
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6 Electrical Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	S.A/S.N.A
....4	T0568	3301-001404	BEAD-SMD;30ohm,2012,TP,15.9OHM/30MHz	1	S.A
....4	T0568	3301-001404	BEAD-SMD;30ohm,2012,TP,15.9OHM/30MHz	1	S.A
....4	T0568	3301-001404	BEAD-SMD;30ohm,2012,TP,15.9OHM/30MHz	1	S.A
....4	T0568	3301-001404	BEAD-SMD;30ohm,2012,TP,15.9OHM/30MHz	1	S.A
....4	T0568	3301-001428	BEAD-SMD;2000ohm,2x1.25x0.85mm,200mA,TP,	1	S.N.A
....4	T0568	3301-001428	BEAD-SMD;2000ohm,2x1.25x0.85mm,200mA,TP,	1	S.N.A
....4	T0568	3301-001428	BEAD-SMD;2000ohm,2x1.25x0.85mm,200mA,TP,	1	S.N.A
....4	JA1404	3701-001367	CONNECTOR-HDMI;19P,2R,FEMALE,SMD,AU	1	S.A
....4	JA1407	3701-001367	CONNECTOR-HDMI;19P,2R,FEMALE,SMD,AU	1	S.A
....4	T0077	BN41-00839E	PCB MAIN;READY BORDEAUX PLUS,JASMINE,TUL	1	S.N.A
....4	M0018	BN97-01688A	ASSY MICOM;T-BDPMHPEU-1005,N31A,20071115	1	S.N.A
....5	IC115	1107-001453	IC-FLASH MEMORY;-,-,16Mbit,2Mx8/1Mx16,TSOP	1	S.N.A
....4	M0018	BN97-01688B	ASSY MICOM;T-BDPMHPEUS-1005,N31A,2007012	1	S.N.A
....5	IC520	0903-001485	IC-MICROCONTROLLER;44P,12x12mm,24MHz,TR,	1	S.N.A
0.1	M0113	BN92-02372A	ASSY P/MATERIAL;32S81	1	S.N.A
..2	T0524	6902-000519	BAG PE;HDPE/NITRON(DOUBLE),T0.015/T0.05(1	S.N.A
..2	T0003	6902-000604	BAG WRAPPING;LDPE,T0.02,W500,L10000,TRP,	6.45	S.N.A
..2	T0214	BN74-00008A	TAPE-OPP MASKING;OPP-2,T0.05,W100,L800M,	2.3	S.N.A
0.1	M0019	BN92-02735A	ASSY LABEL;LE26S81BHX/*	1	S.N.A
0.1	M0045	BN92-02736B	ASSY ACCESSORY;LE32S81BHX/XEC	1	S.N.A
..2	M0045	BN96-05592A	ASSY ACCESSORY;LE23R81BHX/XEC,-,-,-,-,-	1	S.A
...3	T0268	3903-000145	CBF-POWER CORD;DT,EU,FP3/YES,U(IEC C13-R	1	S.A
...3	T0524	6902-000110	BAG PE;LDPE,T0.05,W250,L400,TRP,28,2	1	S.N.A
...3	M0521	BN39-00864A	CBF IF-MODULAR/MODULAR;Bordeaux Plus HOT	1	S.A
...3	T0511	BN68-01166B	MANUAL USERS;COMM,SAMSUNG,E/F/G/I/S/Rus/	1	S.N.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
...3	T0210	AA68-03242K	MANUAL FLYER-01,SAFETY GUIDE;comm,Samsun	1	S.N.A
...3	T0074	BN59-00609A	REMOCON;JASMINE / LILY,TM86,samsung 24p+	1	S.A
0.1	M0003	BN92-02834B	ASSY BOX;32S81,EO,HOTEL	1	S.N.A
..2	T0130	BN69-01719A	BOX-00,SET;32S8,CB,DY-01,AB,YEL,A1,W965,	1	S.N.A
0.1	M0001	BN90-01172S	ASSY COVER FRONT;32S81,EO(HOTEL),ABS+PMM	1	S.N.A
..2	T0003	BN96-04694N	ASSY COVER P-FRONT;32S81,EO(HOTEL),ABS+P	1	S.A
...3	M0081	6003-001188	SCREW-TAPTITE;BH,+,B,M4,L10,ZPC(WHT),S	2	S.N.A
...3	M0081	6003-001188	SCREW-TAPTITE;BH,+,B,M4,L10,ZPC(WHT),S	2	S.N.A
...3	M0081	6006-001096	SCREW-TAPTITE;BH,+,WP,B,M4.0,L12,ZPC(BLK	4	S.N.A
...3	M0162	6502-001067	CABLE CLAMP;DAFC-1300,ID2.2,T5.2,NYLIN6/	2	S.N.A
...3	T0060	BN61-01655A	SPRING ETC;STS-304 SUS,D8,L12,T0.5	1	S.N.A
...3		BN63-01925A	FELT-VIBRATION;42D5,FELT,T0.35,10,370	4	S.N.A
...3	CCM1	BN63-02183E	COVER-SHEET;Rham,PE Vinyl,T0.05,750mm,20	0.95	S.N.A
...3	M0112	BN63-03094B	COVER-FRONT;32S81,EO,ABS+PMMA,-,-,-,HB,-	1	S.N.A
....4		BN81-00204P	RESIN-HIGH GLOSS;SF-0505,K21294,ABS HB P	1.24	S.N.A
...3	T0059	BN64-00366A	INDICATOR LED;ROME-I,PC,CLEAR,ALL MODEL	1	S.N.A
...3	T0022	BN64-00467A	KNOB CONTROL;SONOMA26,32,40,ABS,-,-,-,V0	1	S.N.A
....4		BH83-00150P	CKD-ABS HB;HF-0680U,K2331	0.037	S.N.A
...3	T0023	BN64-00589A	KNOB POWER;32S81,PC,-,-,-,-,VIOLET,-,-	1	S.N.A
...3	T0054	BN64-00590A	KNOB-DECORATION;JASMINE 32,ABS,-,-,-,HB,	1	S.N.A
...3	M0145	BN96-03466A	ASSY BOARD P-FUNCTION;SONOMA,SJ06-01-008	1	S.A
...3	M0025	BN96-04749B	ASSY DECORATION P;32S81,-,ABS HB,NTR,3+C	1	S.N.A
...3	T0175	BN96-04770A	ASSY SPEAKER P;8ohm,4pin,10W,Jasmine 32"	1	S.A
...3	M0146	BN96-06344C	ASSY BOARD P-POWER&IR;LE37S81BHX/XEC,CT5	1	S.A

7 Block Diagram

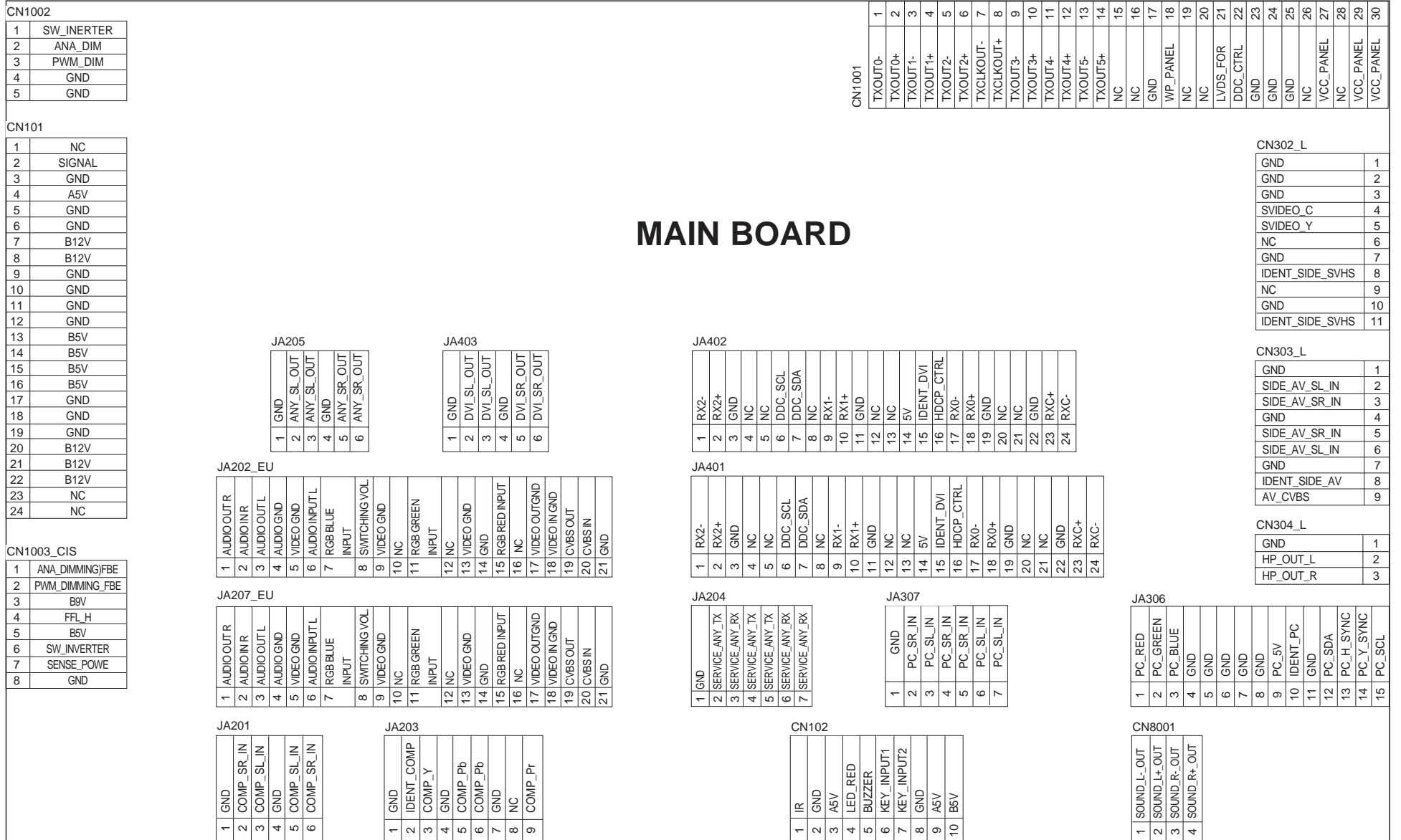
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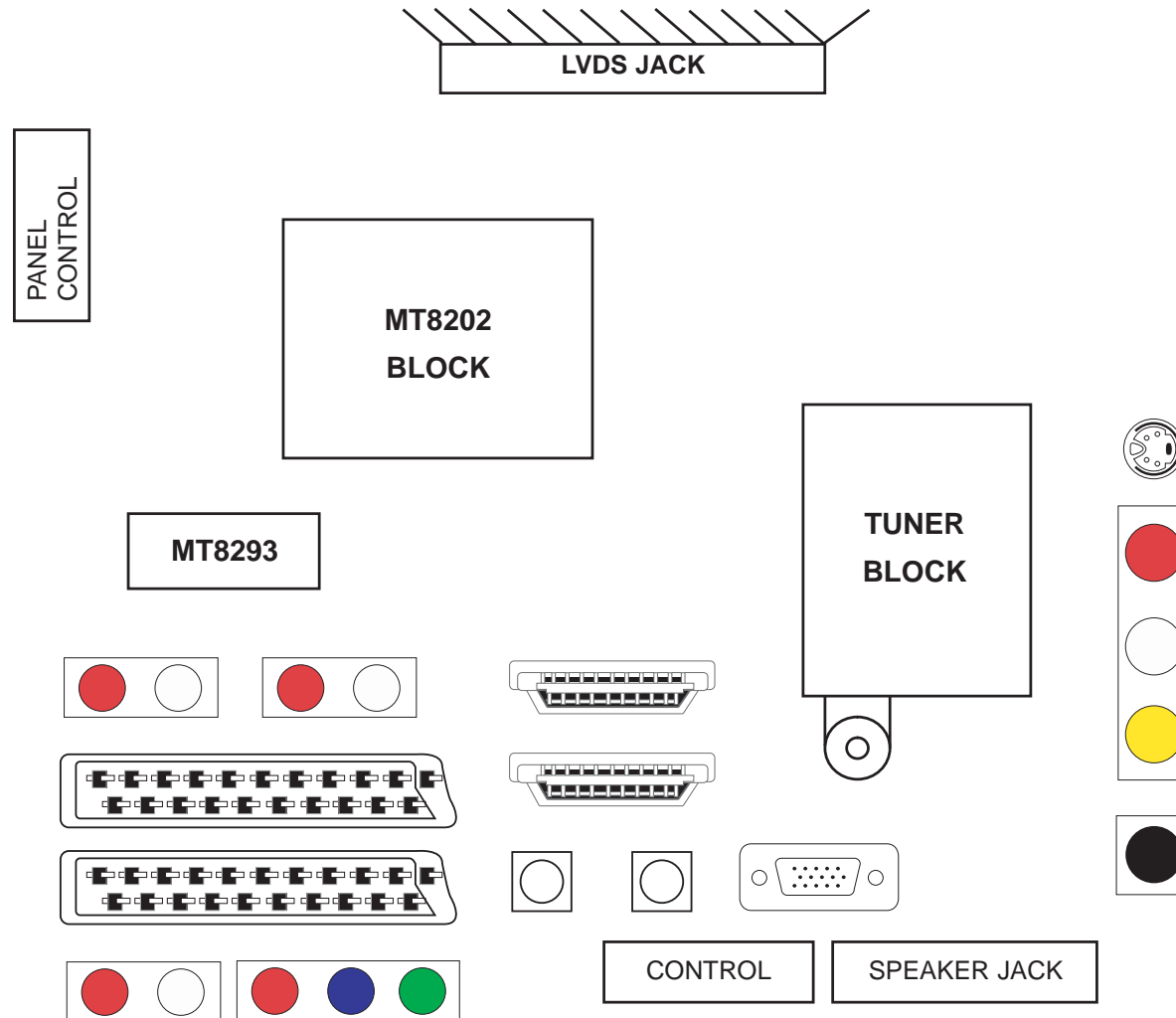
Memo

8 Wiring Diagram

8-1 Wiring Diagram



8-2 Main Board Layout



8-3 PIN characteristic

CN101- Main Board power supply

PIN	1	2	3	4	5	6	7	8	9	10	11	12
NAME	NC	SIGNAL	GND	A5V	GND	GND	B12V	B12V	GND	GND	GND	GND
PIN	13	14	15	16	17	18	19	20	21	22	23	24
NAME	B5V	B5V	B5V	B5V	GND	GND	GND	B12V	B12V	B12V	NC	NC

CN8001-SPEAKER CONNECTOR

PIN	1	2	3	4
NAME	SOUND_L-_OUT	SOUND_L+_OUT	SOUND_R-_OUT	SOUND_R+_OUT

CN102-Front control

PIN	1	2	3	4	5
NAME	IR	GND	A5V	LED_RED	BUZZER
PIN	6	7	8	9	10
NAME	KEY_INPUT1	KEY_INPUT2	GND	A5V	B5V

Function Define

- A5V Front control board power supply
- KEY INPUT1,2 Key control, from the menu, change up/down Etc.
- IR Remote control signal
- LED_RED Control the timing and standby LED color

CN501-panel control

PIN	1	2	3	4	5
NAME	SW_inverter	Ana_dimming	PWM_dimming	GND	GND

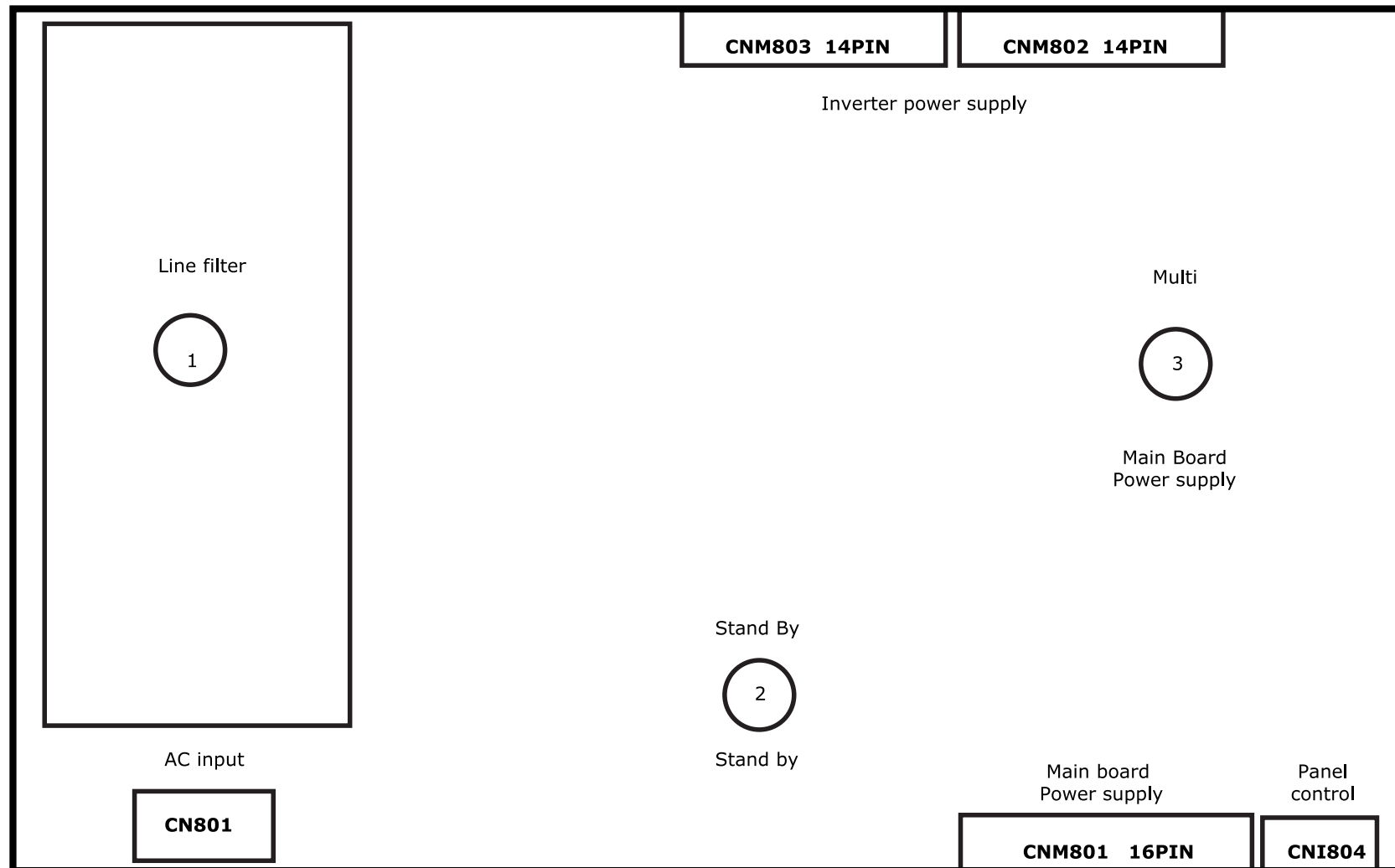
Function Define

- SW_inverter panel inverter control, about 5V
- Ana_dimming panel dimming control
- PWM_dimming panel PWM control, duty 40% ~ 90%

CN1001-LVDS Signal

PIN	1	2	3	4	5	6
NAME	TXOUT0-	TXOUT0+	TXOUT1-	TXOUT1+	TXOUT2-	TXOUT2+
PIN	7	8	9	10	11	12
NAME	TXCLKOUT-	TXCLKOUT+	TXOUT3-	TXOUT3+	TXOUT4-	TXOUT4+
PIN	13	14	15	16	17	18
NAME	TXOUT5-	TXOUT5+	NC	NC	GND	WP_PANEL
PIN	19	20	21	22	23	24
NAME	NC	NC	LVDS_FORMAL	DDC_CTRL	GND	GND
PIN	25	26	27	28	29	30
NAME	GND	NC	VCC_PANEL	NC	VCC_PANEL	VCC_PANEL

8-4 Power Board Layout



CN801 - AC Input

PIN	I	2
NAME	Live	Netural
VOLTAGE	AC	AC

Functioning Define
 - Refer to : AC Input

CN801 - Main Board power supply

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
NAME	13V	GND	5.4V	5.4V	5.4V	GND	GND	GND	12V	12V	12V	GND	GND	GND	ST7V	PWR

Functioning Define
 - ST7V Stand-By Output
 - PWR Power On/Off Control

 - Refer to : CN801 function define

CNM804 - Panel control

PIN	1	2	3	4	5
NAME	SW_inverter	Ana_dimming	PWM_dimming	GND	SENSOR POWER

Functioning Define
 - Refer to : CN815 function define

CN802 - Inverter power supply

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14
NAME	24V	24V	24V	24V	24V	GND	GND	GND	GND	GND	GND	B/L	A_D	P_D

Functioning Define

- AMLCD Panel Inverter Power
- 24V LAMP INVERTER Voltage
- B/L Brightness sensor power
- A_D ANA_DIMMING
- P_D PWM_DIMMING

CN803 - Inverter power supply

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14
NAME	24V	24V	24V	24V	24V	GND	GND	GND	GND	GND	A_D	B/L	P_D	GND

Functioning Define

- AUO Panel Inverter Power
- 24V LAMP INVERTER Voltage
- B/L Brightness sensor power
- A_D ANA_DIMMING
- P_D PWM_DIMMING

Memo

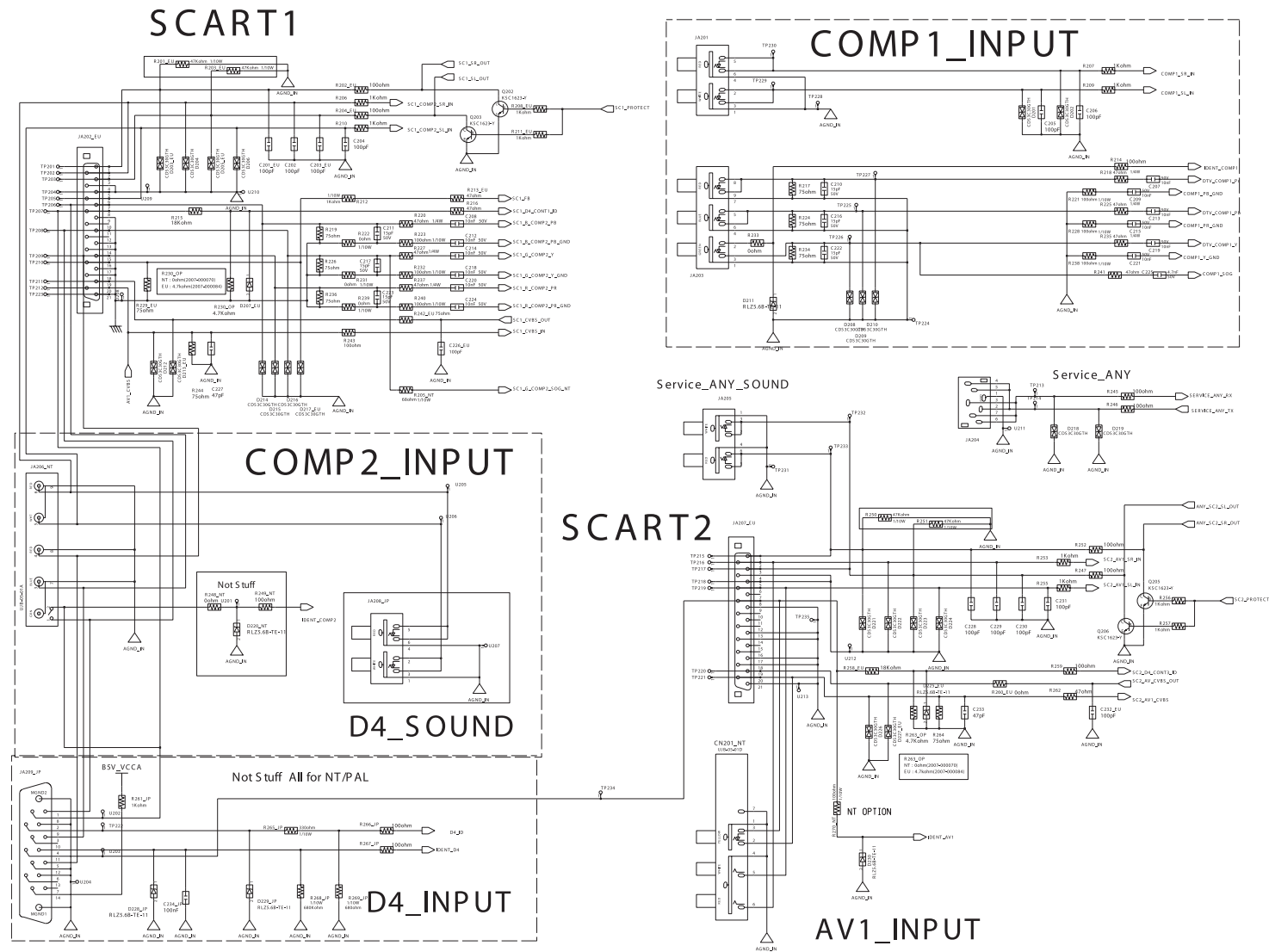
9-1 Power_Function Schematic Diagram



9 Schematic Diagrams

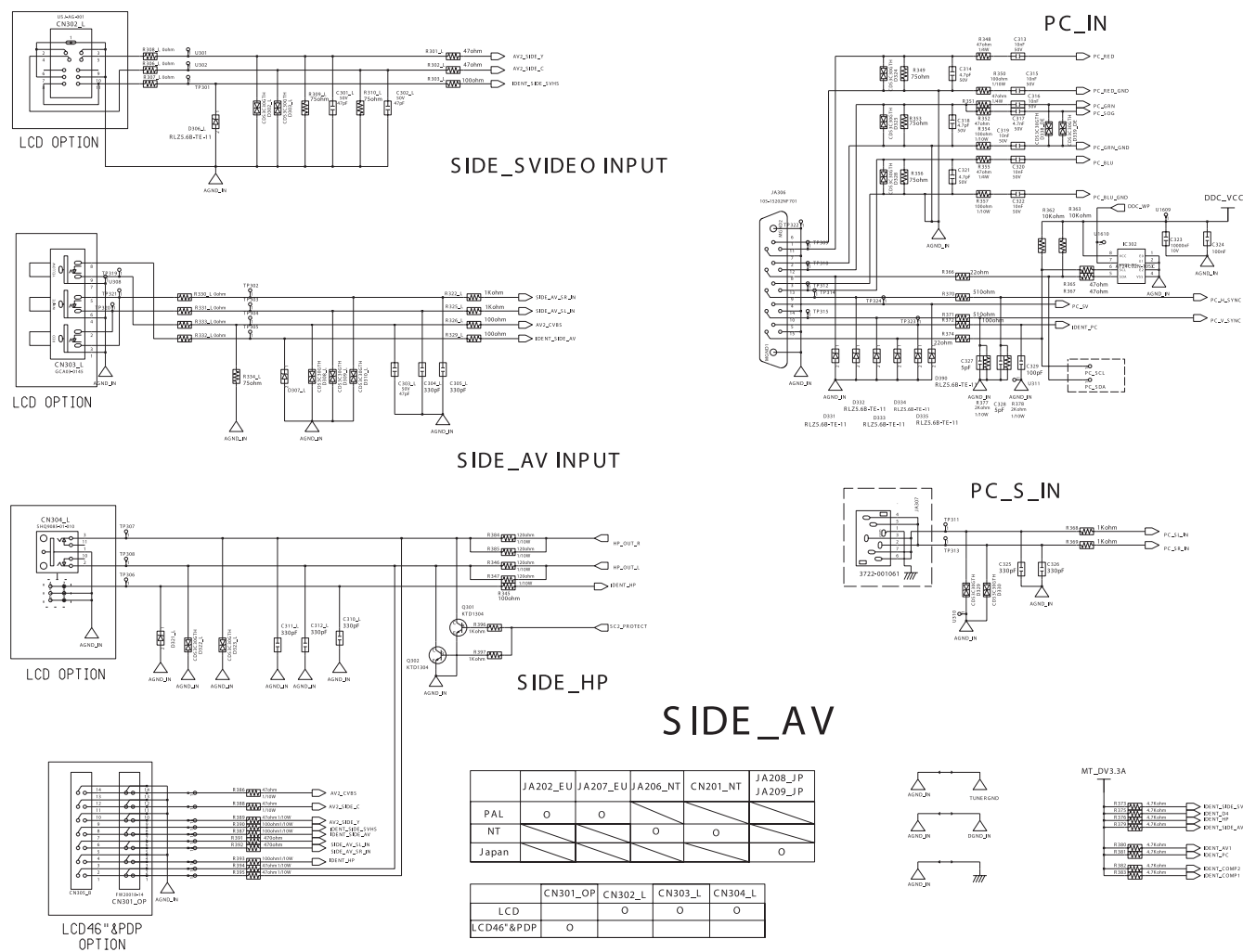
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9-2 Schematic Diagram



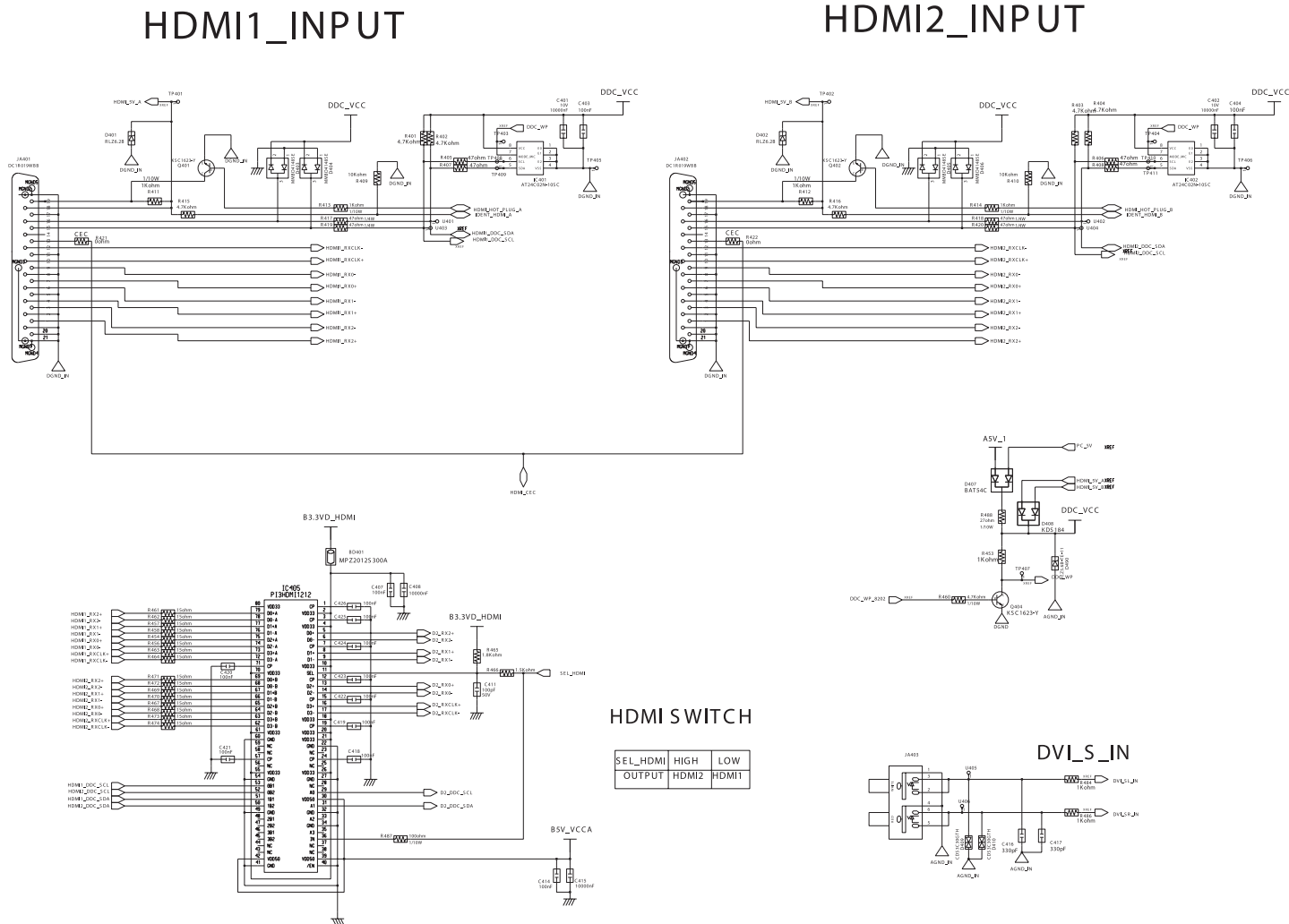
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9-3 SIDE_AV Schematic Diagram



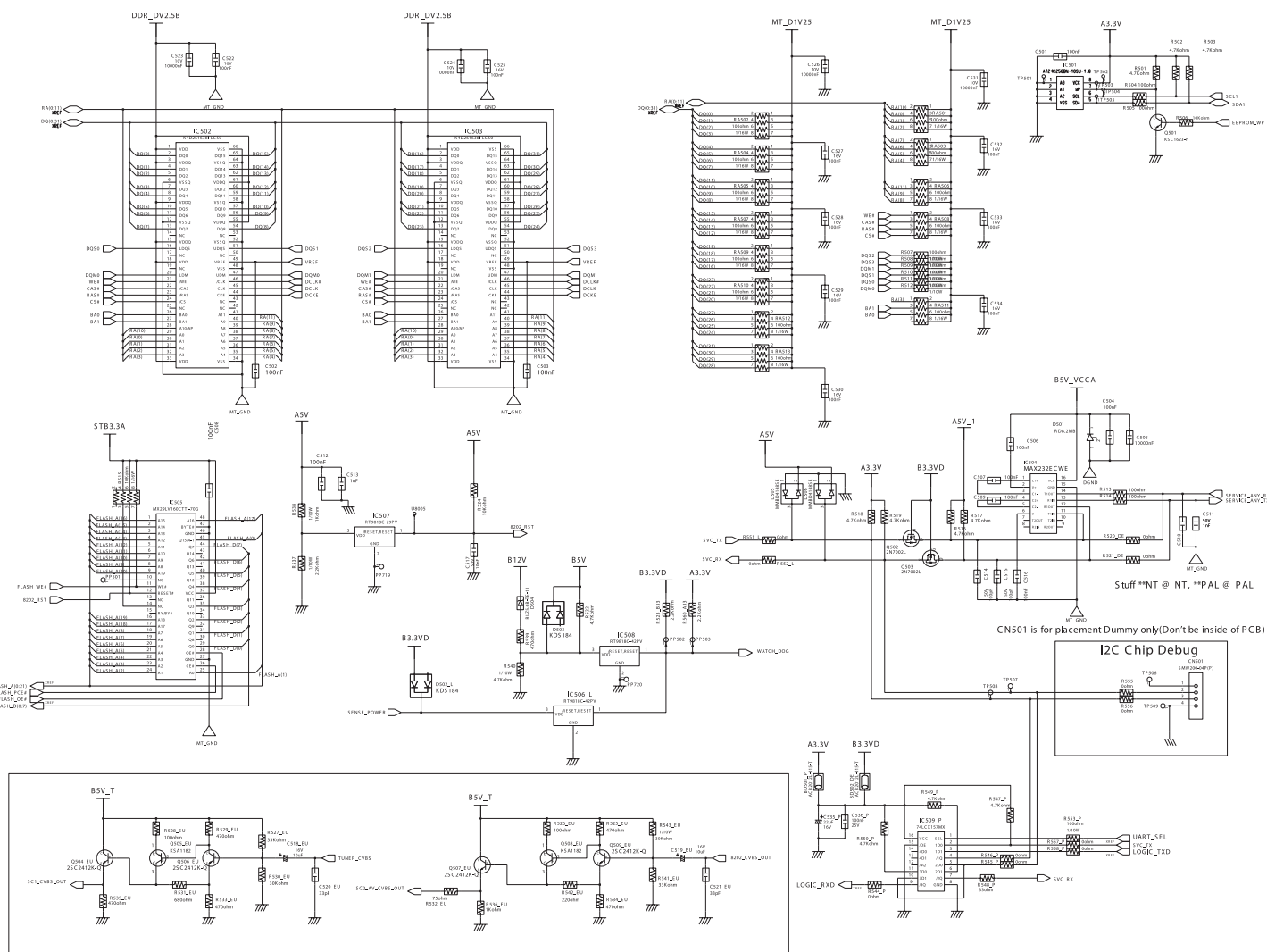
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9-4 HDMI_INPUT Schematic Diagram



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9-5 Scart Option Schematic Diagram

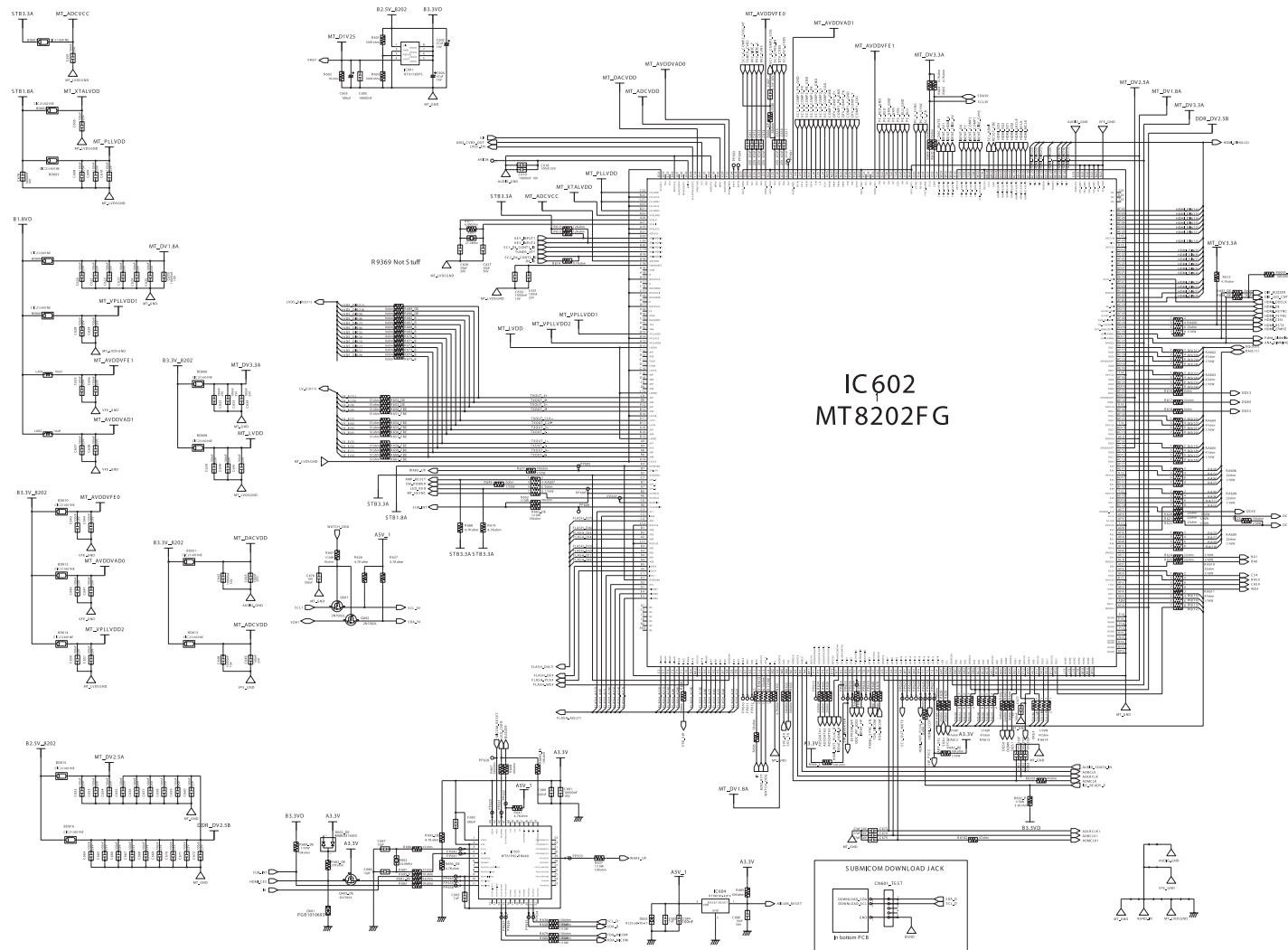


Scart Option

9 Schematic Diagrams

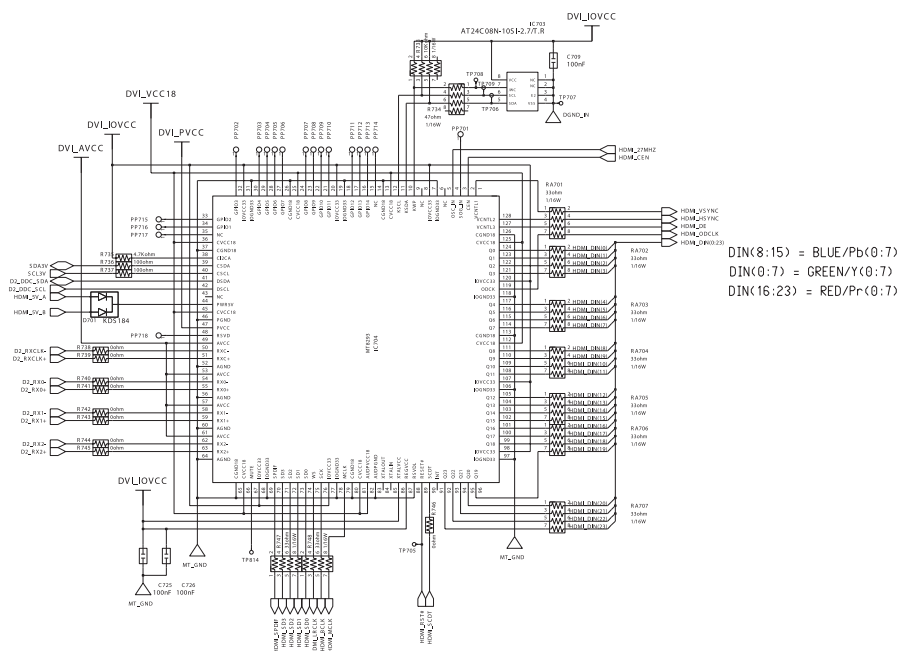
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9-6 Application Schematic Diagram

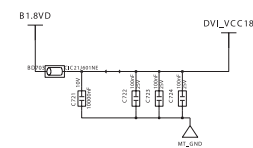
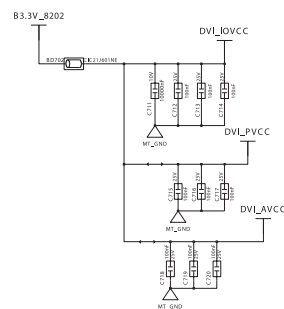


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9-7 Application Schematic Diagram



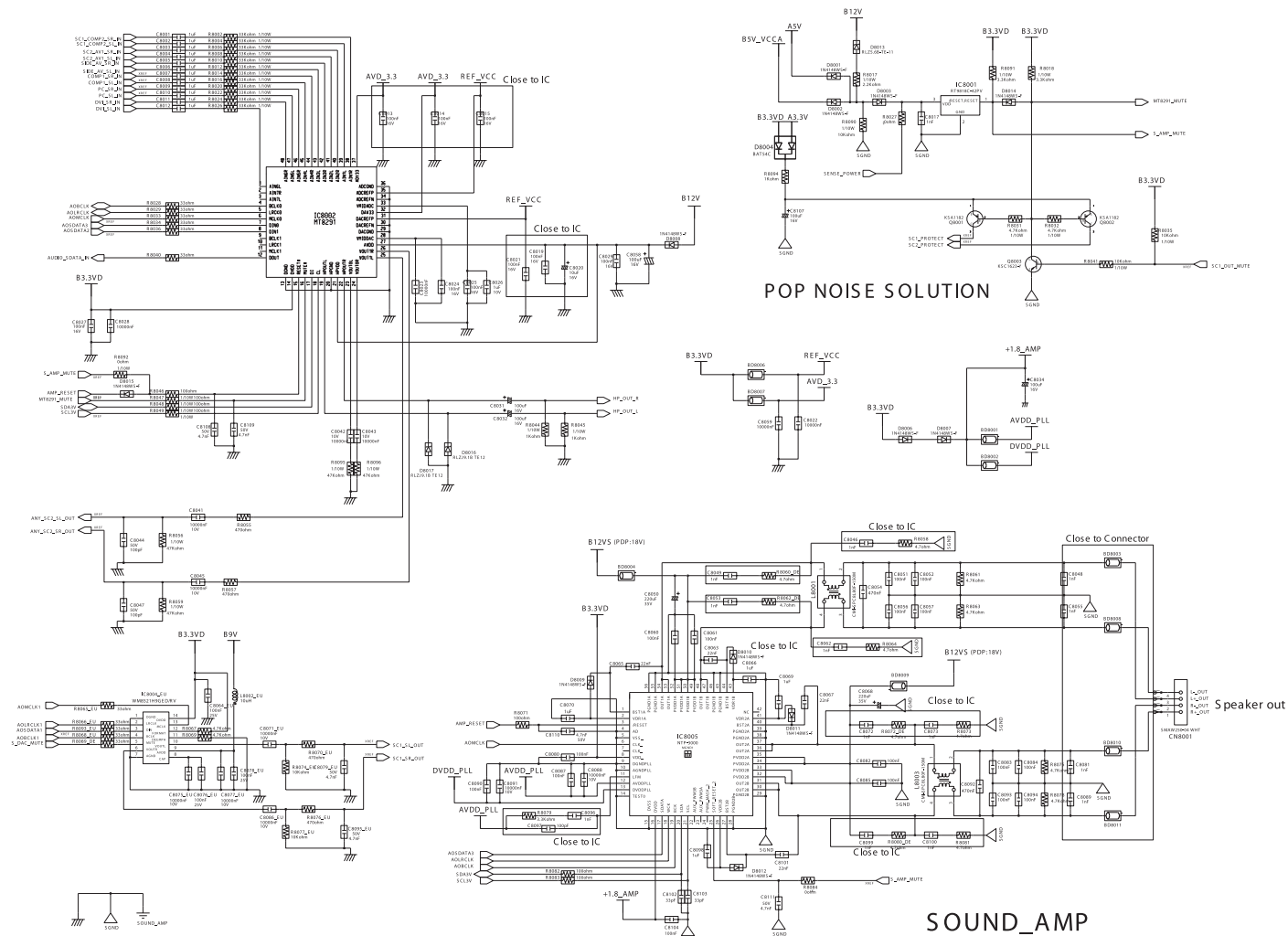
Near to Connector



9 Schematic Diagrams

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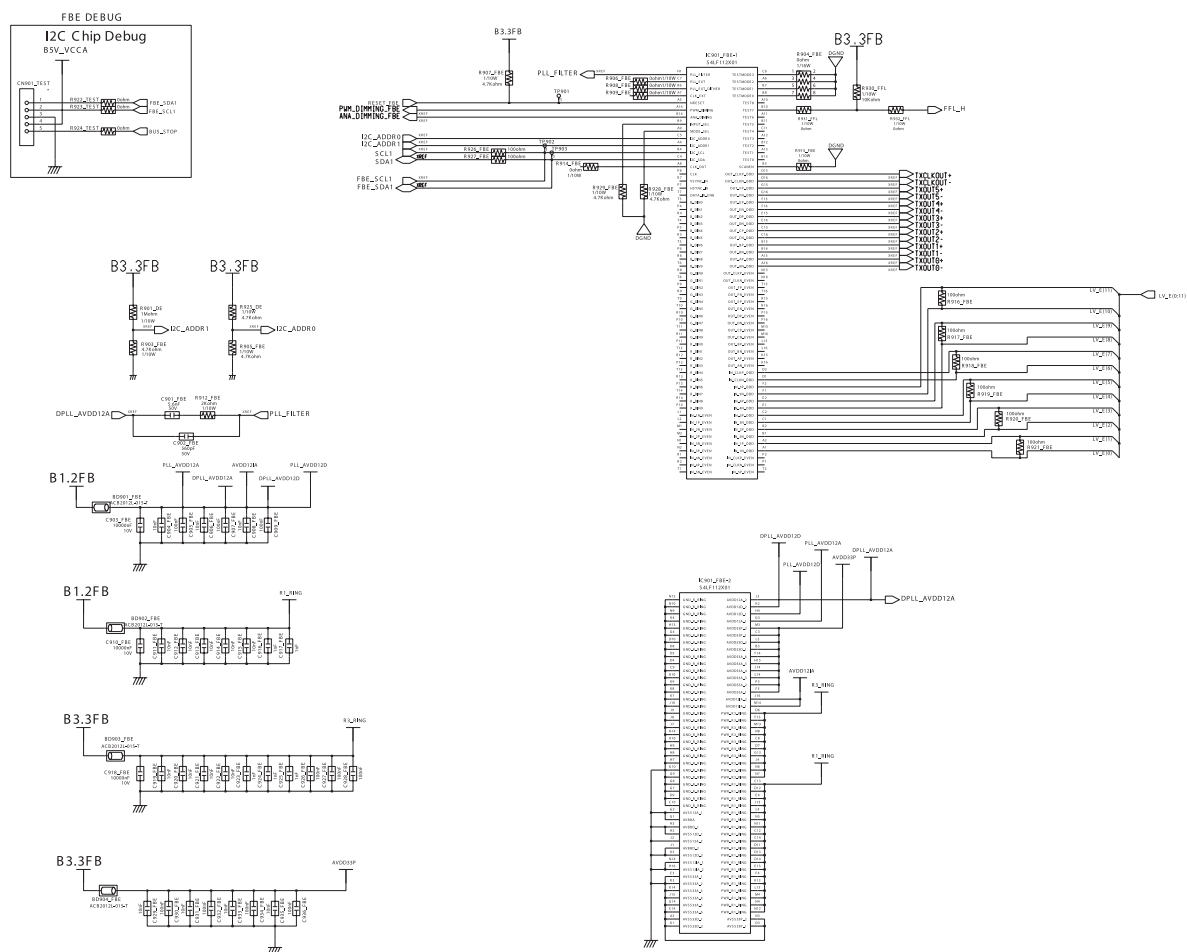
9-8 Application Schematic Diagram



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9-9 Application Schematic Diagram

F B E 2

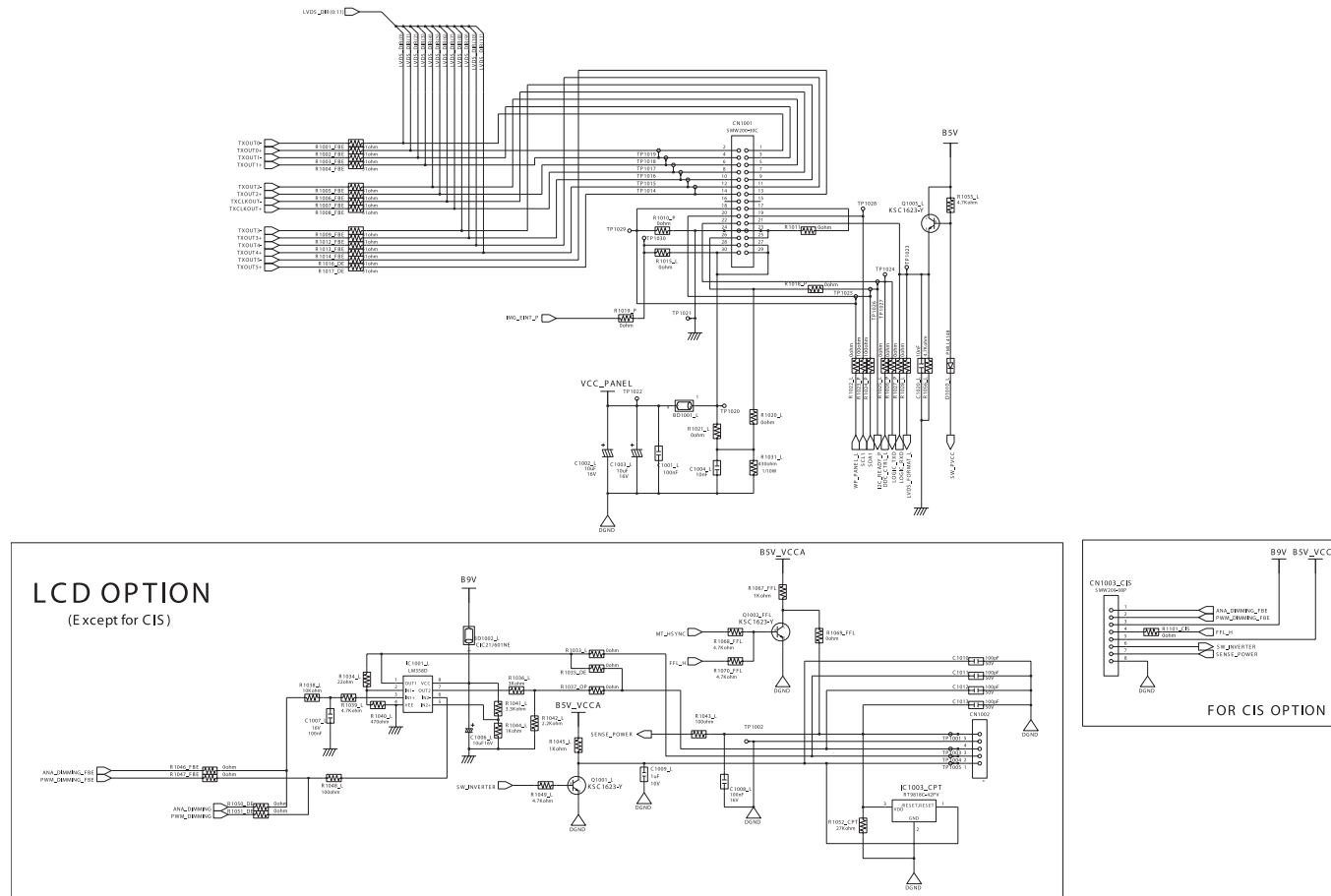


9 Schematic Diagrams

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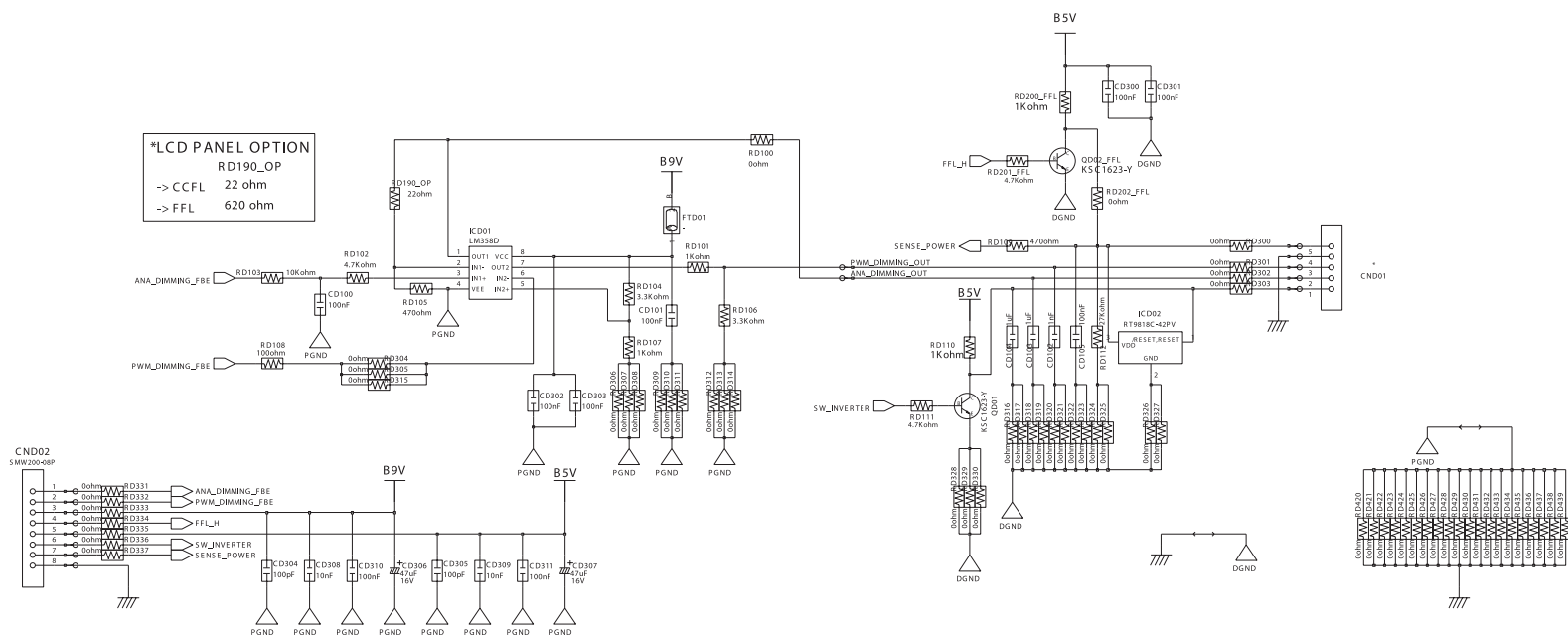
9-10 Application Schematic Diagram

LVDS&Dimming



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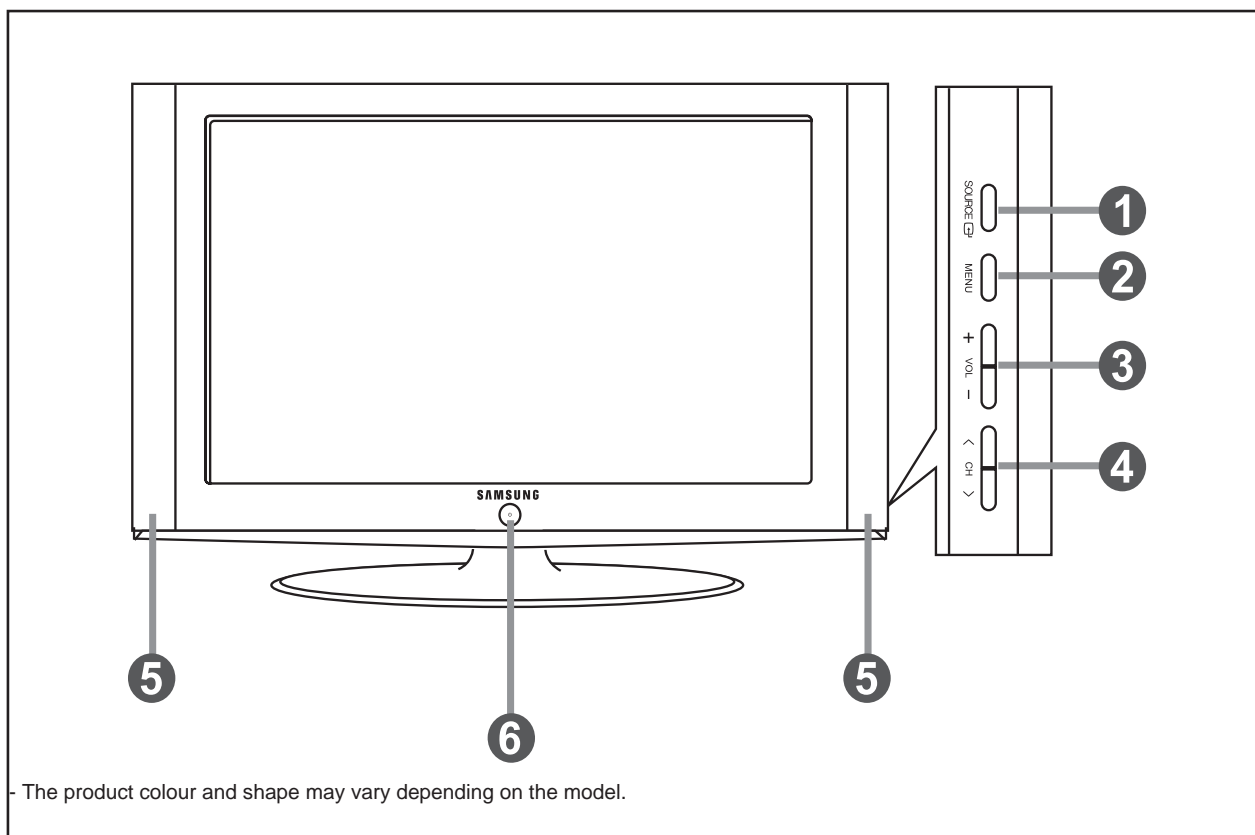
9-11 DIMMING BOARD Schematic Diagram



Memo

10 Operating Instructions and Installation

10-1 Front



1. SOURCE

Toggles between all the available input sources (TV, Ext.1, Ext.2, AV, S-Video, Component, PC, HDMI1, HDMI2).

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

2. MENU

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

In case of DTV mode, the DTV menu appears.

3. + ▴ -

Press to decrease or increase the volume.

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

4. < C/P. ⏻ >

Press to change channels.

In the on-screen menu, use the < C/P. ⏻ > buttons as you use the ▼ and ▲ buttons on the remote control. (Without the Remote Control, you can turn on the TV by using the Channel buttons.)

5. Speakers

6. ⏻ (Power)

Press to turn the TV on and off.

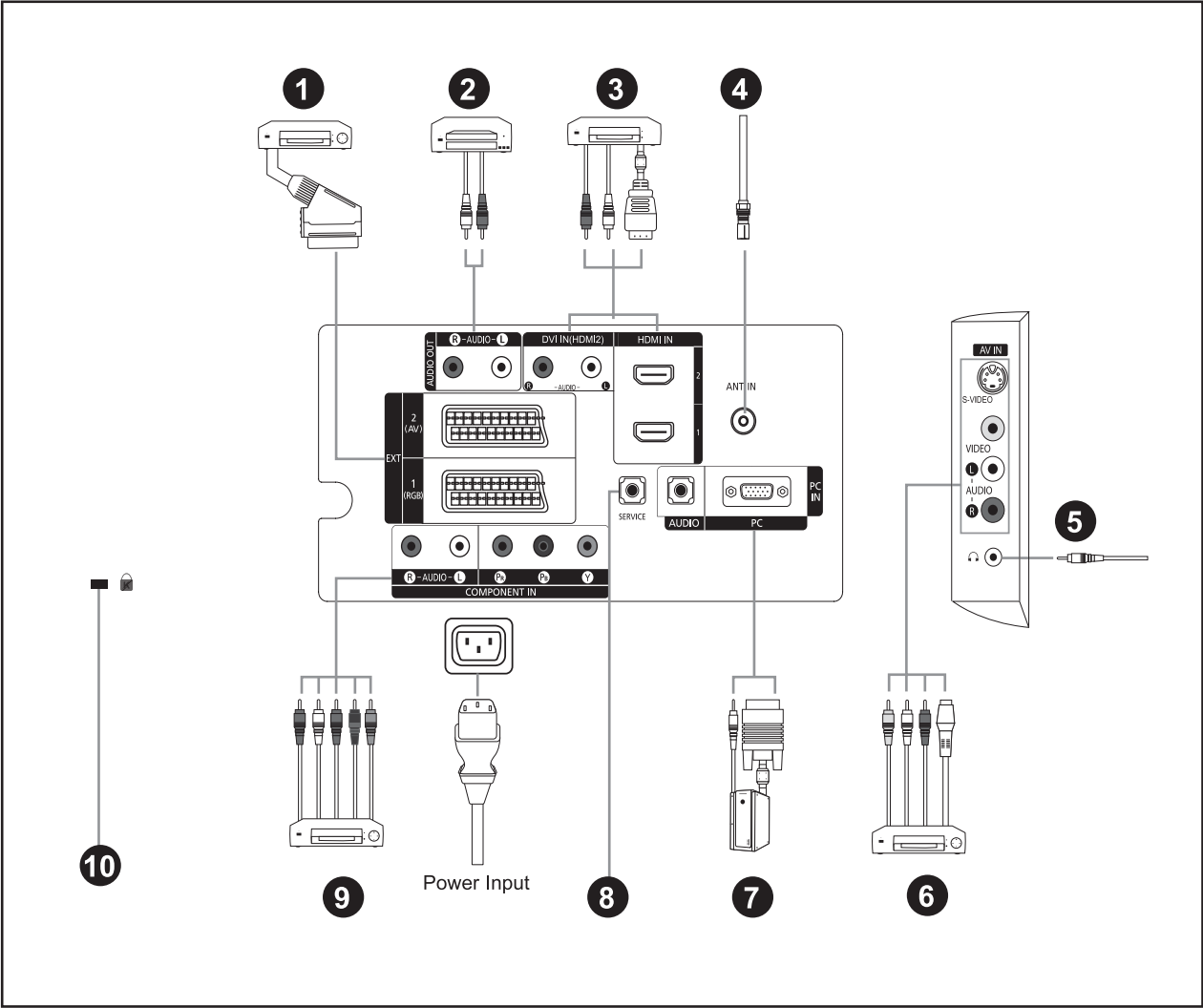
Power Indicator

and turns off when the power is on and lights up in stand-by mode. Remote Control Sensor Aim the remote control towards this spot on the TV.

Remote Control Sensor

Aim the remote control towards this spot on the TV.

10-2 Connection Panel



- Whenever you connect an external device to your TV, make sure that power on the unit is turned off.
- When connecting an external device, match the colour of the connection terminal to the cable.

1. Connecting Set-Top Box, VCR or DVD

Connector	Input			Output
	Video	Audio (L/R)	RGB	Video + Audio (L/R)
EXT 1	✓	✓	✓	Only TV or DTV output is available.
EXT 2	✓	✓		Output you can choose.

- Inputs or outputs for external devices, such as VCR, DVD, video game device or video disc players.

2. Connecting AUDIO

Connect RCA audio cables to "R - AUDIO - L" on the rear of your set and the other ends to corresponding audio in connectors on the Amplifier or DVD Home Theater.

3. HDMI IN 1, HDMI IN 2

- Supports connections between HDMI-connection-enabled AV devices (Set-Top Boxes, DVD players).
- No additional Audio connection is needed for an HDMI to HDMI connection.
 - ▶ What is HDMI?
 - "High Definition Multimedia interface" allows the transmission of high definition digital video data and multiple channels of digital audio (5.1 channels).
 - The HDMI/DVI terminal supports DVI connection to an extended device with the appropriate cable (not supplied). The difference between HDMI and DVI is that the HDMI device is smaller in size, has the HDCP (High Bandwidth Digital Copy Protection) coding feature installed, and supports multi - channel digital audio.

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

- When connecting this product via HDMI or DVI to a Set Top Box, DVD Player or Games Console etc, make sure that it has been set to a compatible video output mode as shown in the table below. Failure to observe this may result in picture distortion, image breakup or no picture.
- When using an HDMI/DVI cable connection, it is only possible from the HDMI 2 IN terminal.
 - ▶ You should use the DVI-to-HDMI cable or DVI-HDMI Adapter for the connection, and the "R- AUDIO - L" terminal on DVI for sound output.
 - ▶ Supported modes for HDMI/DVI and Component

	480i	480p	576i	576p	720p	1080i
HDMI/DVI 50Hz	X	X	X	O	O	O
HDMI/DVI 60Hz	X	O	X	X	O	O
Component	O	O	O	O	O	O

4. Connecting an Aerial or Cable Television Network

To view television channels correctly, a signal must be received by the set from one of the following sources:

- An outdoor aerial / A cable television network / A satellite network

6. Connecting External A/V Devices

- Connect RCA or S-VIDEO cable to an appropriate external A/V device such as VCR, DVD or Camcorder.
- Connect RCA audio cables to "R - AUDIO - L" on the rear of your set and the other ends to corresponding audio out connectors on the A/V device.
- Headphone may be connected to the headphone output (**5**) on the rear of your set. While the headphone is connected, the sound from the built-in speakers will be disabled.

7. Connecting Computer

- Connect the D- Sub cable (optional) to "PC (PC IN)" on the rear of your set and the other end to the Video Card of your computer.
- Connect the stereo audio cable (optional) to "AUDIO (PC IN)" on the rear of your set and the other end to "Audio Out" of the sound card on your computer.

8. SERVICE

- Service connection for qualified service engineer.

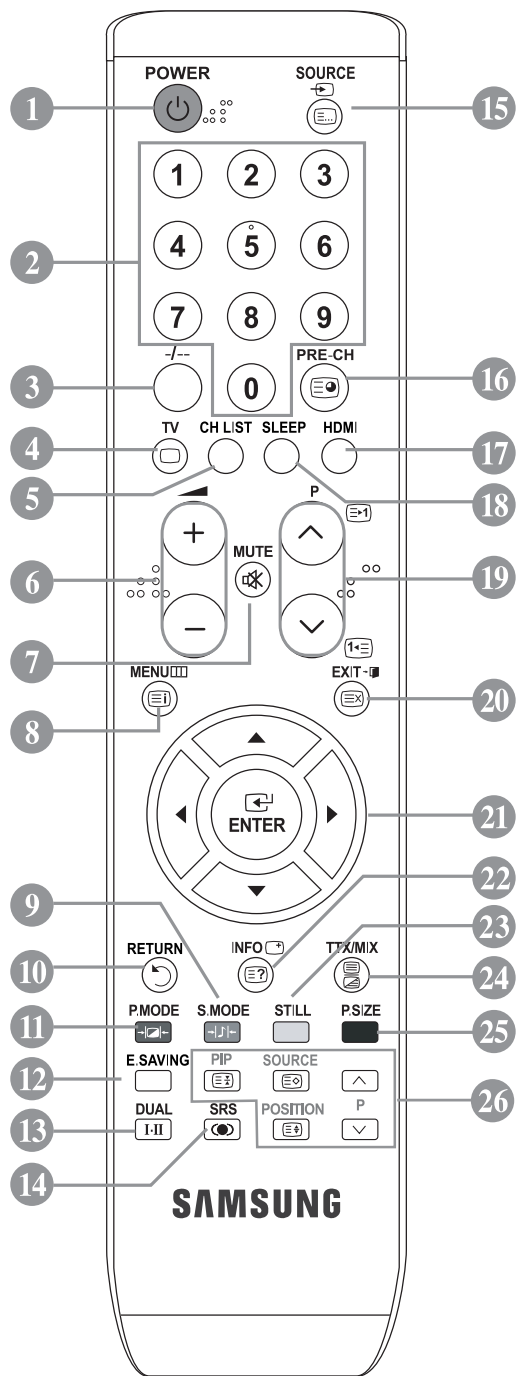
9. Connecting Component Devices (DTV/DVD)

- Connect component video cables (optional) to component connector ("Pr", "Pb", "Y") on the rear of your set and the other ends to corresponding component video out connectors on the DTV or DVD.
- If you wish to connect both the Set-Top Box and DTV (or DVD), you should connect the Set-Top Box to the DTV (or DVD) and connect the DTV (or DVD) to component connector ("Pr", "Pb", "Y") on your set.
- The PR, PB and Y connectors on your component devices (DTV or DVD) are sometimes labeled Y, B-Y and R-Y or Y, Cb and Cr.
- Connect RCA audio cables (optional) to "R - AUDIO - L" on the rear of your set and the other ends to corresponding audio out connectors on the DTV or DVD.
- This LCD TV displays its optimum picture resolution in 720p mode.
- This LCD TV displays its maximum picture resolution in 1 080i mode.

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.

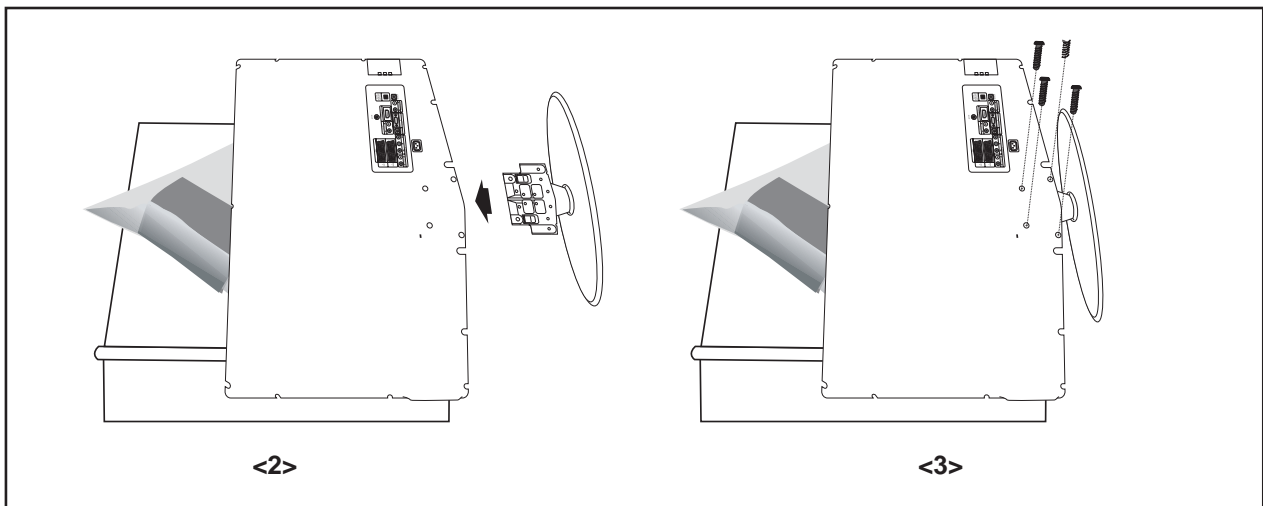
10-3 Remote Control



1. Television Standby button
 2. Number buttons for direct channel access
 3. One/Two-digit channel selection
 4. Selects the TV mode directly
 5. Used to display Channel Lists on the screen.
 6. ⊕ Volume increase
⊖ Volume decrease
 7. Temporary sound switch-off
 8. Menu display and change confirmation
 9. Sound mode selection
 10. Returns to the previous menu.
 11. Picture effect selection
 12. Adjusts screen brightness to save energy.
 13. Sound effect selection
 14. SRS TSXT selection
 15. Available source selection
 16. Previous channel
 17. Selects the HDMI mode directly.
 18. Automatic Power-off
 19. P ⊙ : Next channel
P ⊙ : Previous channel
 20. Exit the OSD
 21. Control the cursor in the menu
 22. Use to see information on the current broadcast
 23. Picture freeze
 25. Picture size selection
 26. **PIP: Picture-In-Picture On / Off**
SOURCE: Input source selection
POSITION: PIP position selection
P ⊙ : Next channel
P ⊙ : Previous channel
- Teletext Functions**
4. Exit from the teletext display
 8. Teletext index
 15. Teletext mode selection (LIST/FLOF)
 16. Teletext sub pag
 19. P ⊙ : Teletext next page
P ⊙ : Teletext previous page
 20. Teletext cancel
 22. Teletext reveal
 24. Alternately select Teletext, Double, or Mix.
 9. 11. 23. 25 Fastext topic selection
 26. **PIP: Teletext Hold**
SOURCE: Teletext Store
POSITION: Teletext size selection

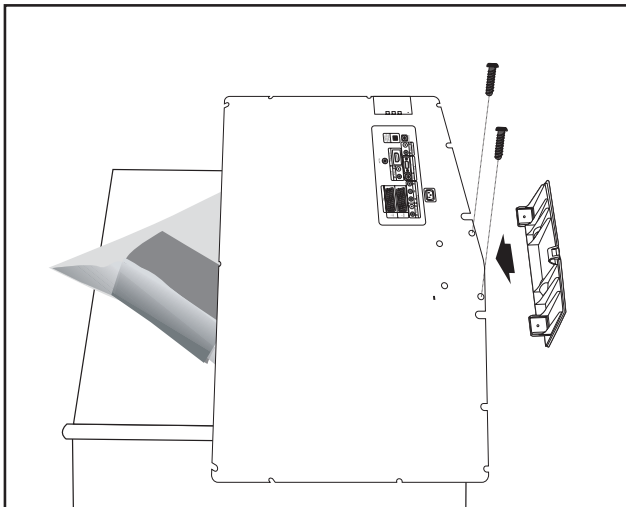
- ▶ The performance of the remote control may be affected by bright light.
- ▶ This is a special remote control for the visually impaired, and has Braille points on the Power, Channel and Volume buttons.

10-4 Installing the Stand



1. Place the TV fdown on a soft cloth or cushion on a table.
2. Put the stand into the hole at the bottom of the TV.
3. Insert screw into the hole indicated and tighten.
 - ▶ The stand is installed for models with the screen size of 40 inch and above.

10-5 Installing the Wall Mount Kit



Wall mount items (sold separately) allow you to mount the TV on the wall.

For detailed information on installing the wall mount, see the instructions provided with the Wall Mount items. Contact a technician for assistance when installing the wall mounted bracket.

Samsung Electronics is not responsible for any damage to the product or injury to yourself or others if you elect to install the TV on your own.

- ▶ Remove the stand and cover the bottom hole with a cap and fasten with two screws.

Memo



11 Disassembly and Reassembly



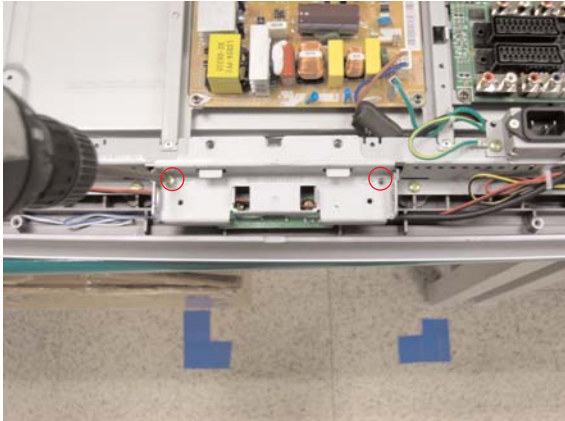
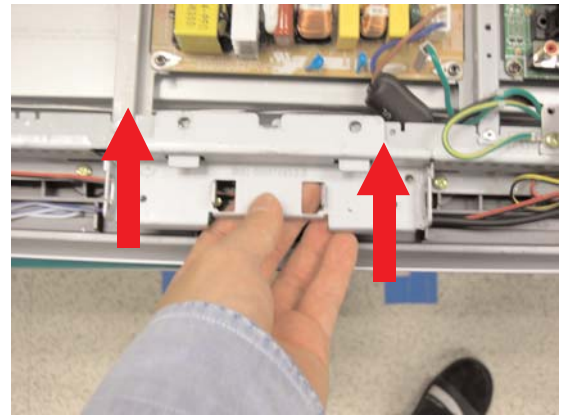
This section of the service manual describes the disassembly and reassembly procedures for the TFT-LCD TV.

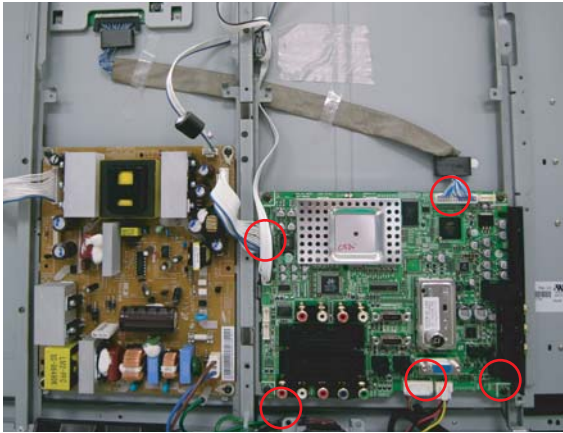
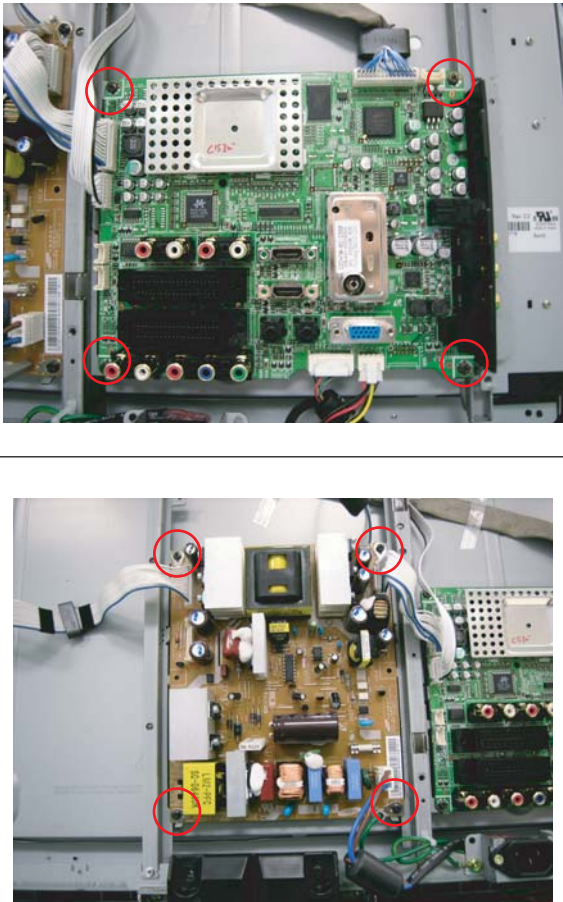
⚠ WARNING : This monitor contains electrostatically sensitive devices. Use caution when handling these components.

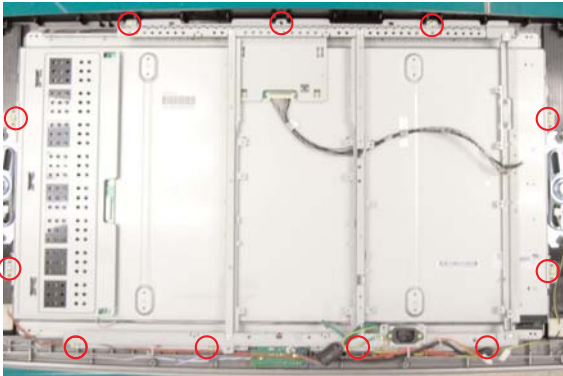
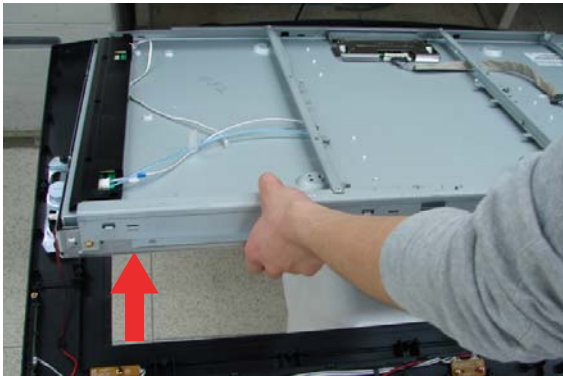
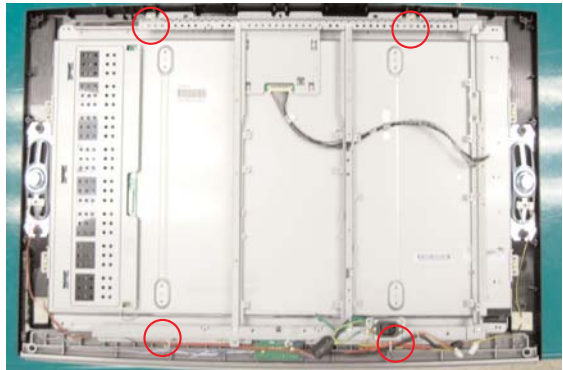
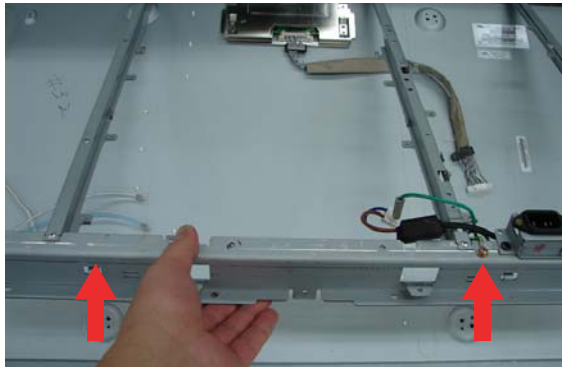
11-1 Disassembly


- ⚠ 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 screws from the rear cover. Remove screws from the stand.	
	

Description	Picture Description
2. Lift up the rear cover and remove the stand.	
	
3. Remove Screws from the stand BRKT and lift up the stand BRKT.	
	

Description	Picture Description
<p>4. Disconnect cable from the boards.</p>	 <p>The image shows the internal components of a device. A green main board is visible with various components like a CPU, memory, and connectors. A yellow power board is also present. Red circles highlight specific connection points on the green board where cables are attached.</p>
<p>5. Remove screws from the boards and lift up the boards.</p>	 <p>The top image shows the green main board with red circles highlighting screws being removed from its edges. The bottom image shows the yellow power board with red circles highlighting screws being removed from its edges.</p>

Description	Description Picture
<p>6. Remove screws and Lift up the Lcd panel.</p>	
	
<p>7. Remove 5 screws from the BRKT. Lift up the BRKT.</p>	
	

Description	Description Picture
	

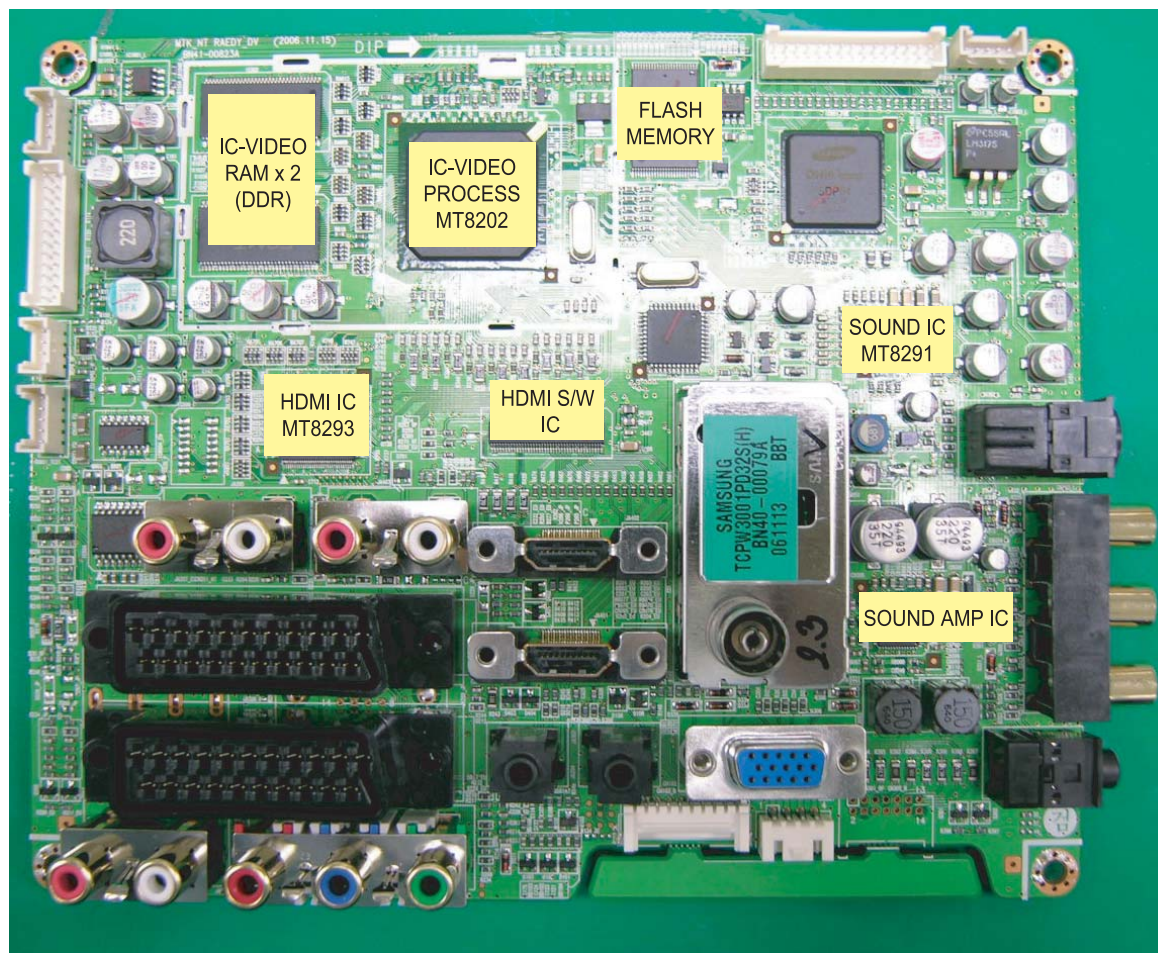
11-2 Reassembly

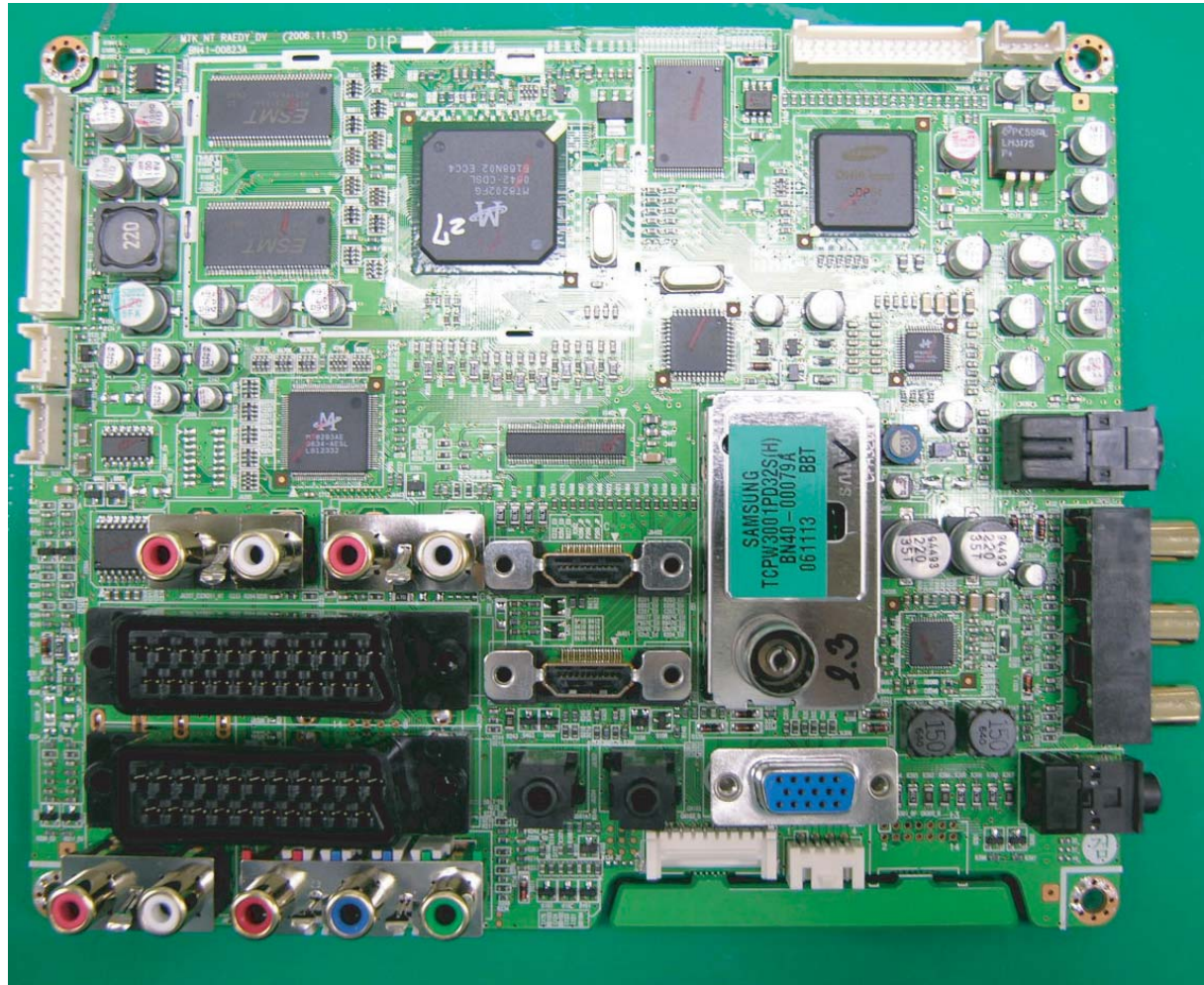
Reassembly procedures are in the reverse order of disassembly procedures.

Memo

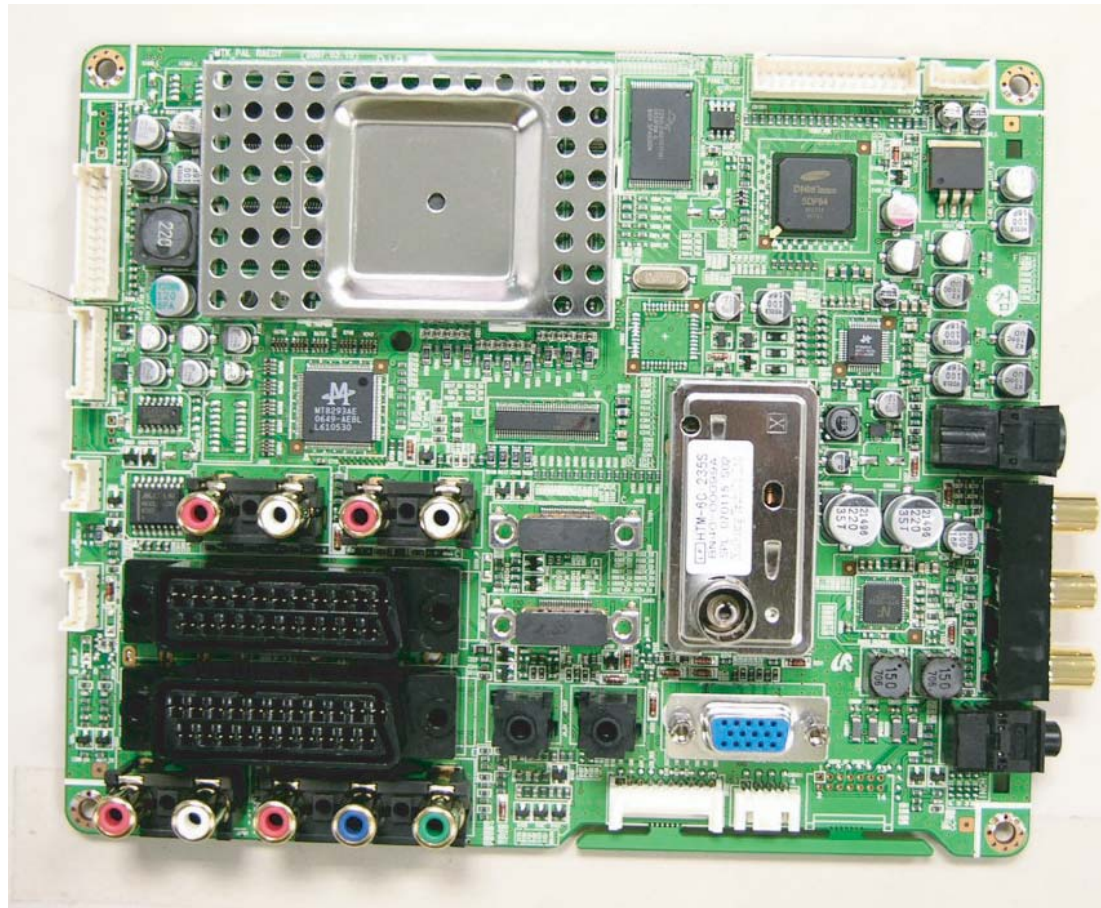
12 PCB Diagram

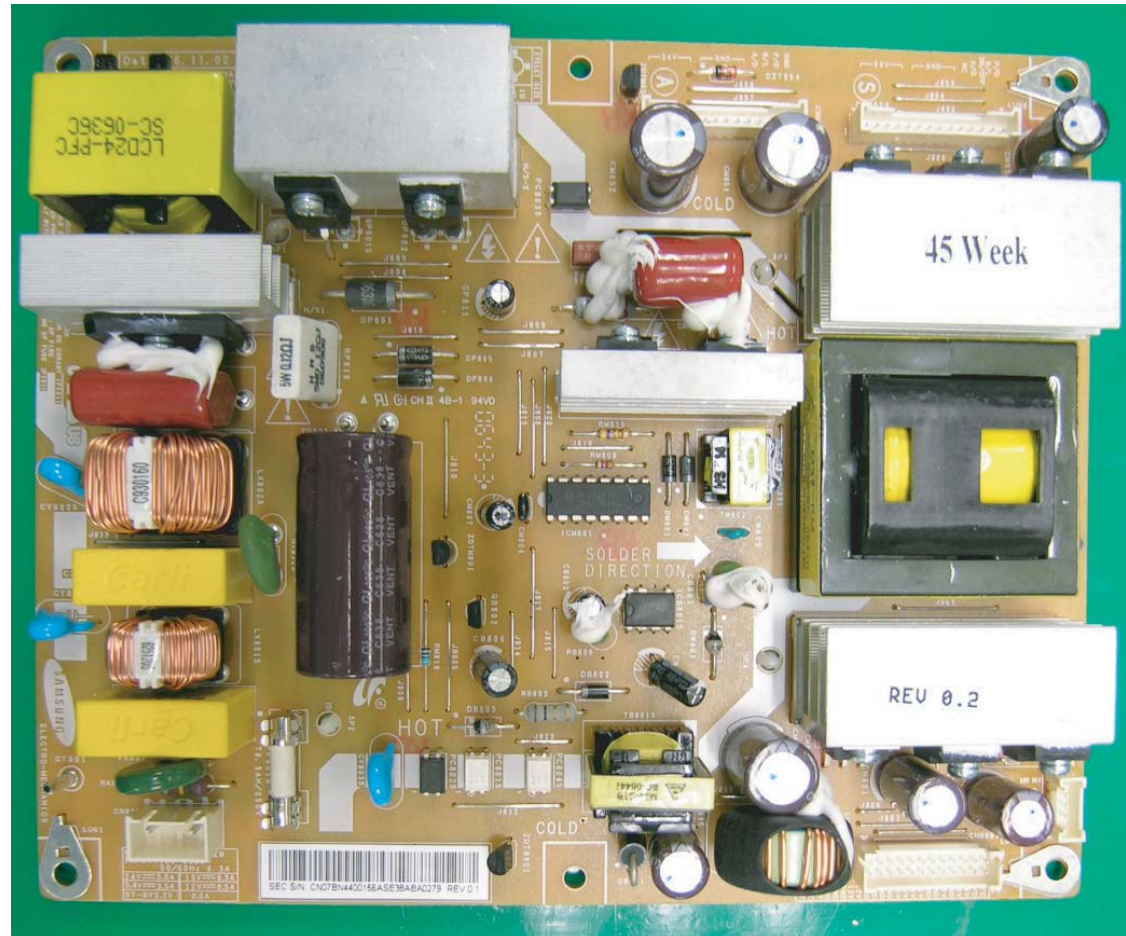
12-1 26", 32", 37", 40", 46" Main PCB Diagram



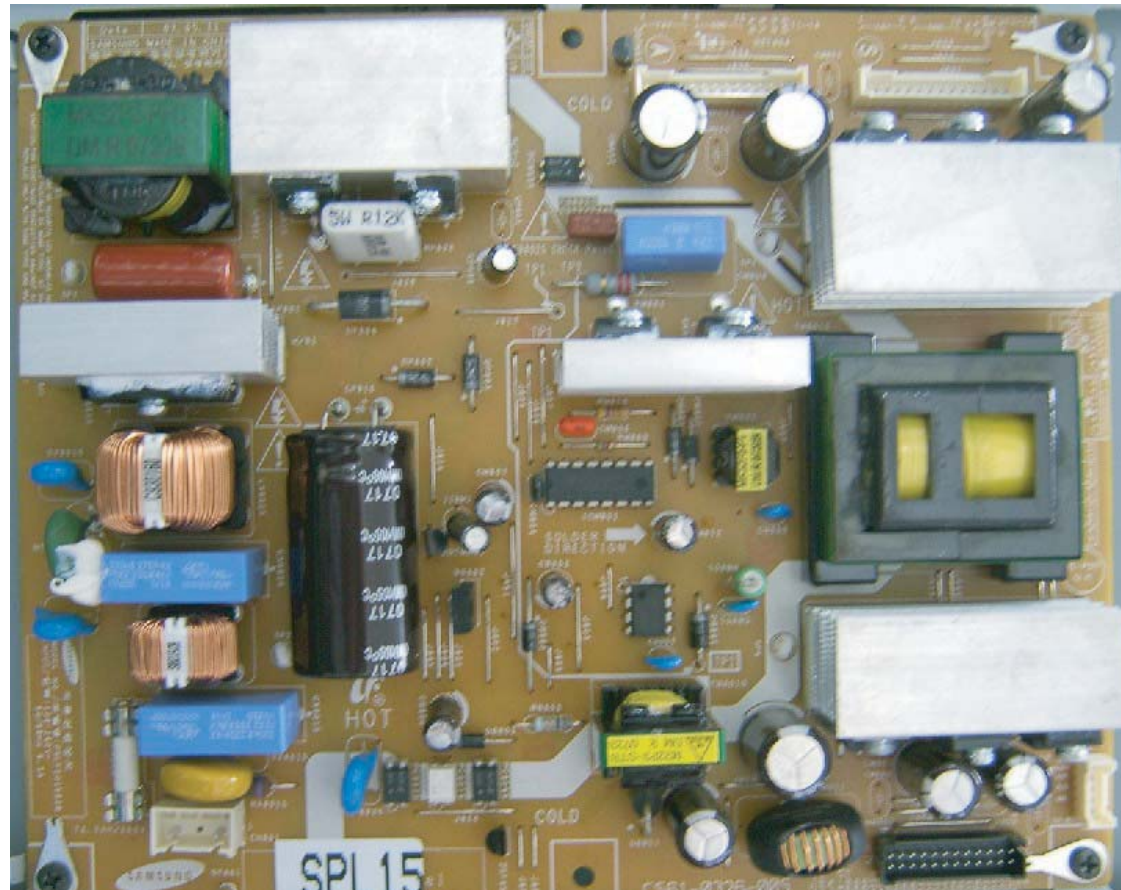


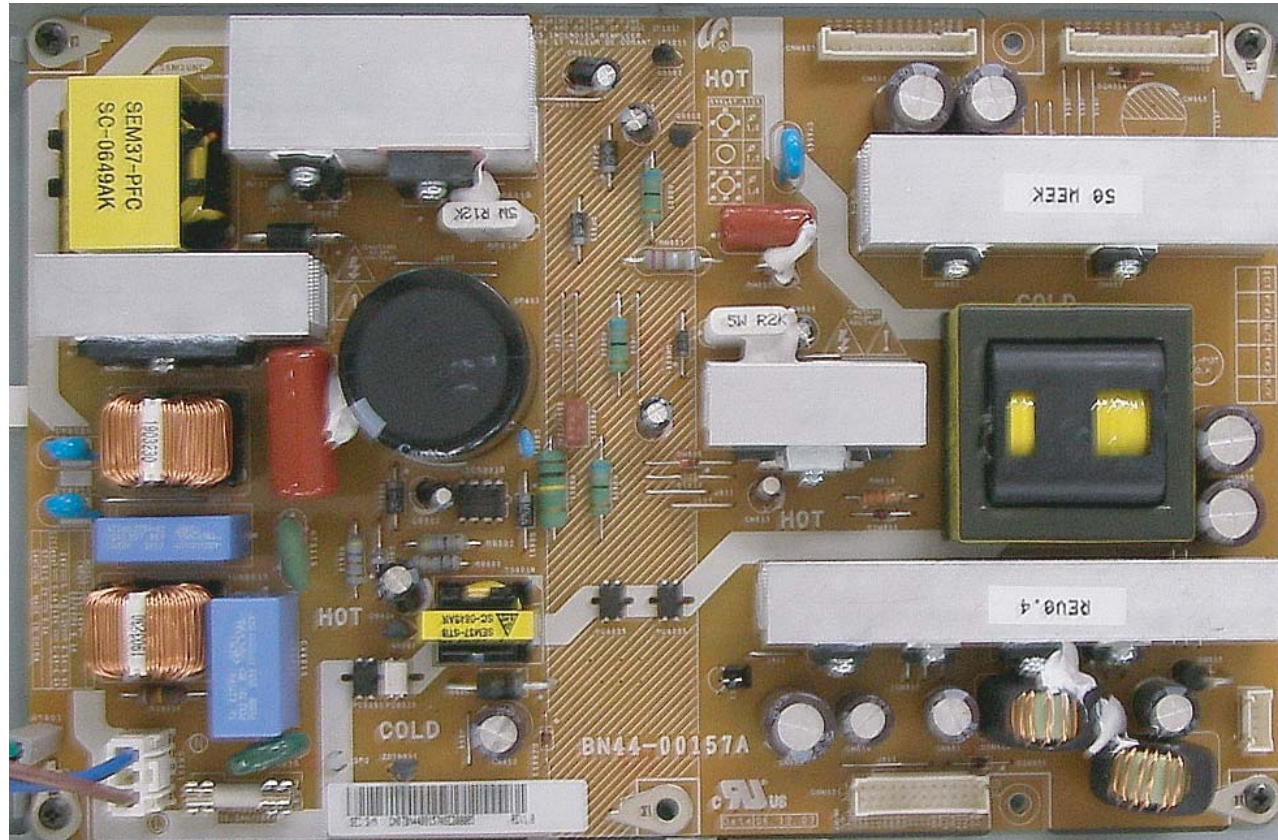
12-3 26", 32", 37", 40", 46" Main PCB Diagram(CIS)



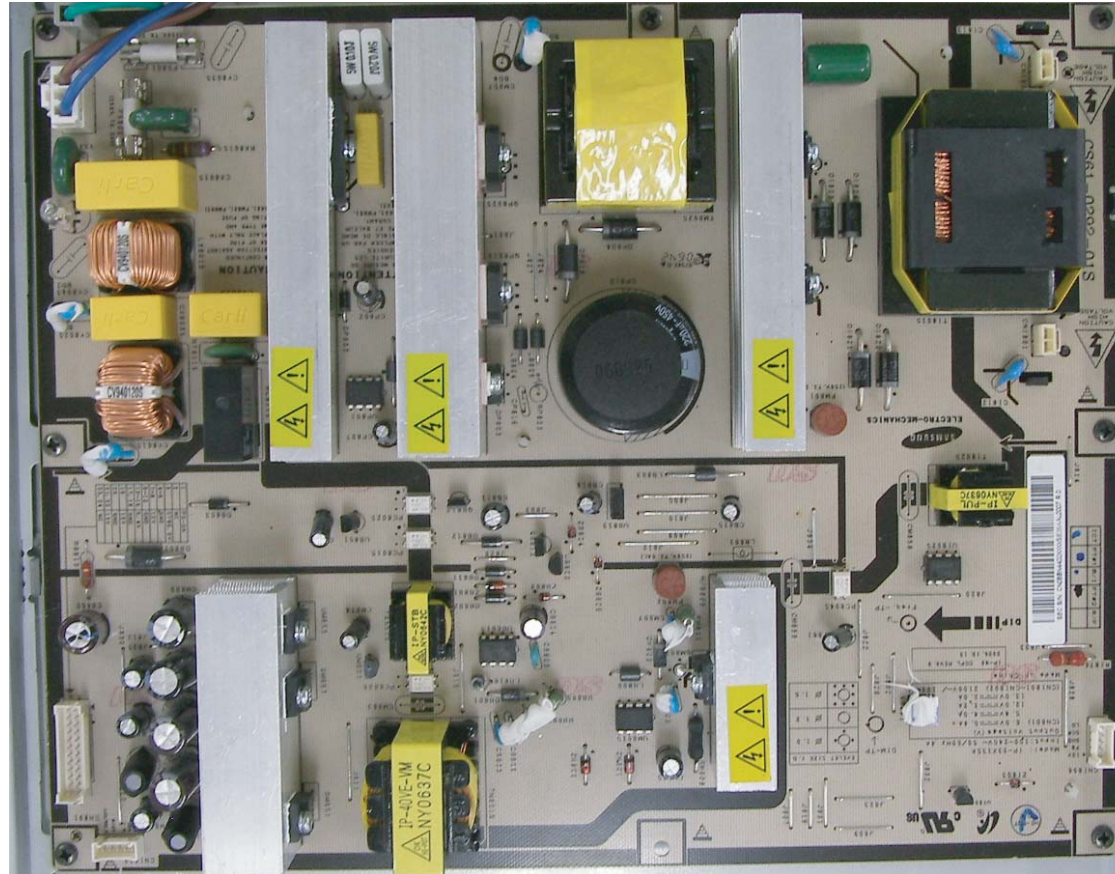


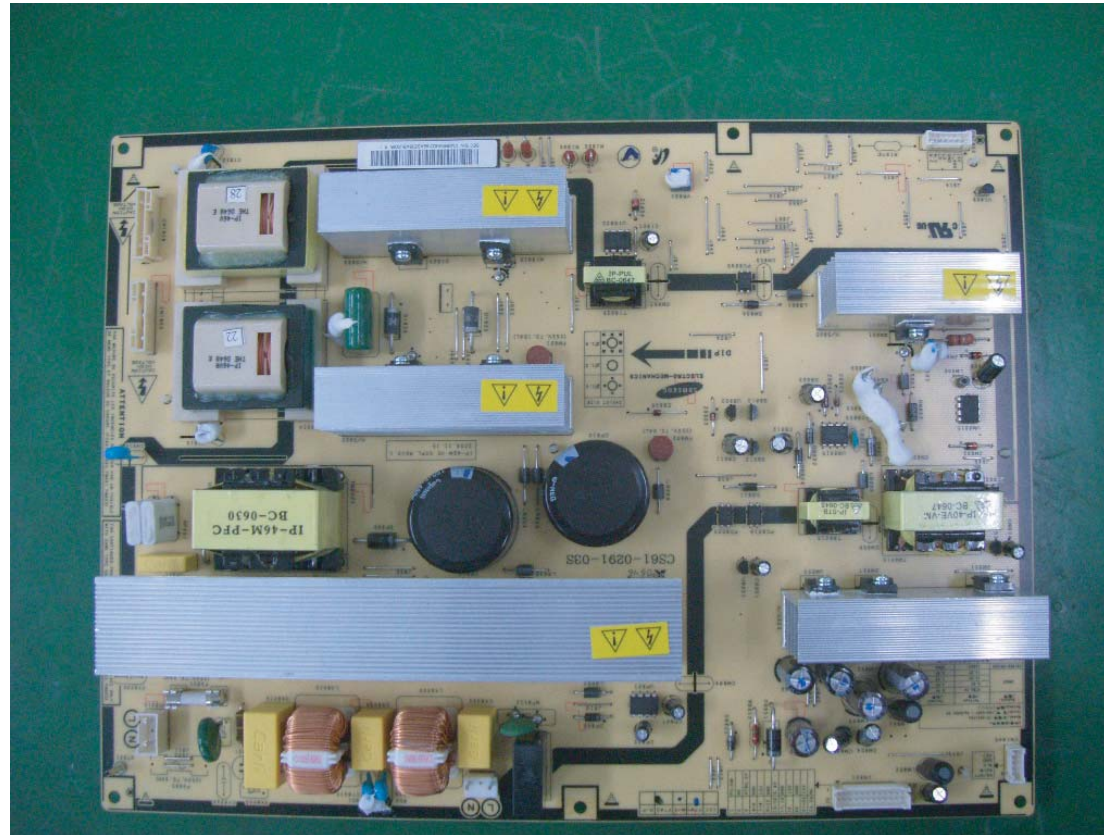
12-5 32" SMPS VE



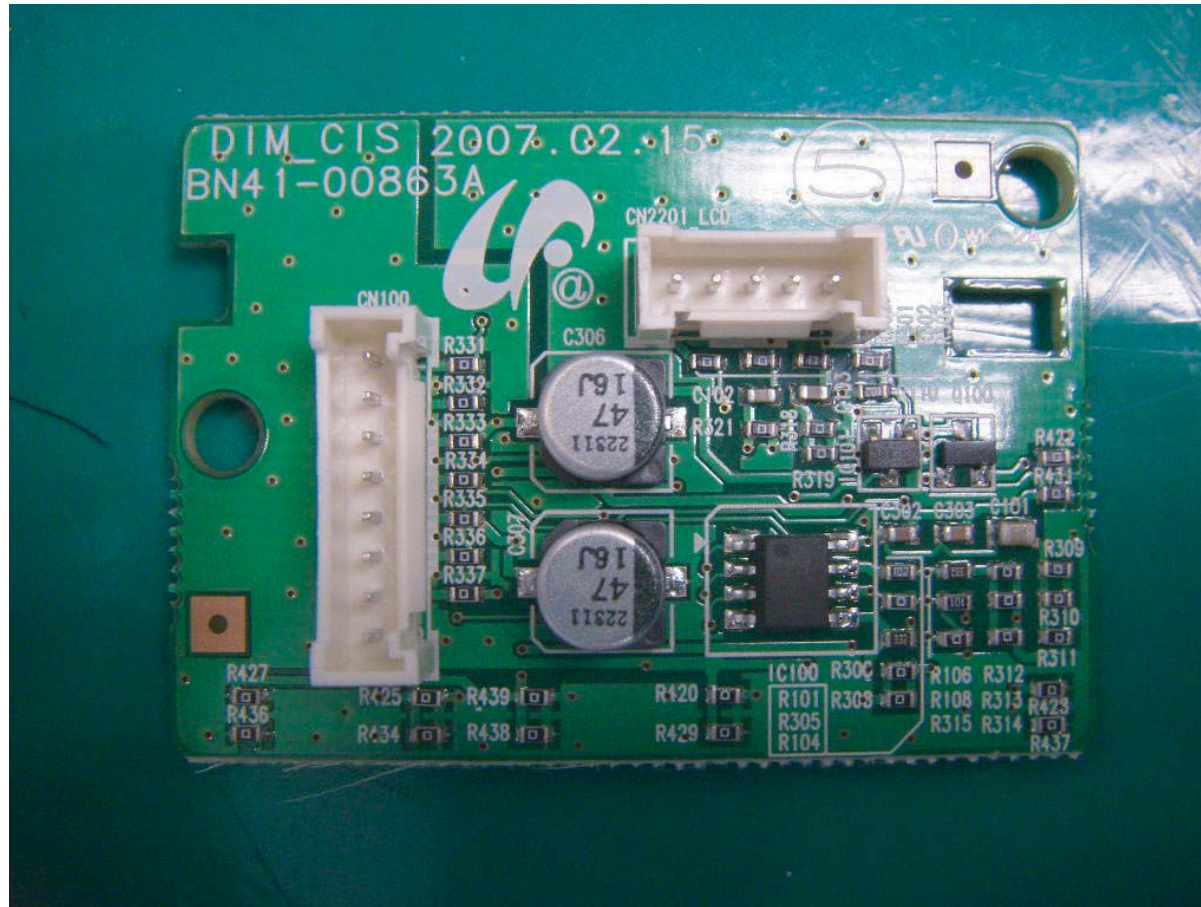


12-7 40" SMPS





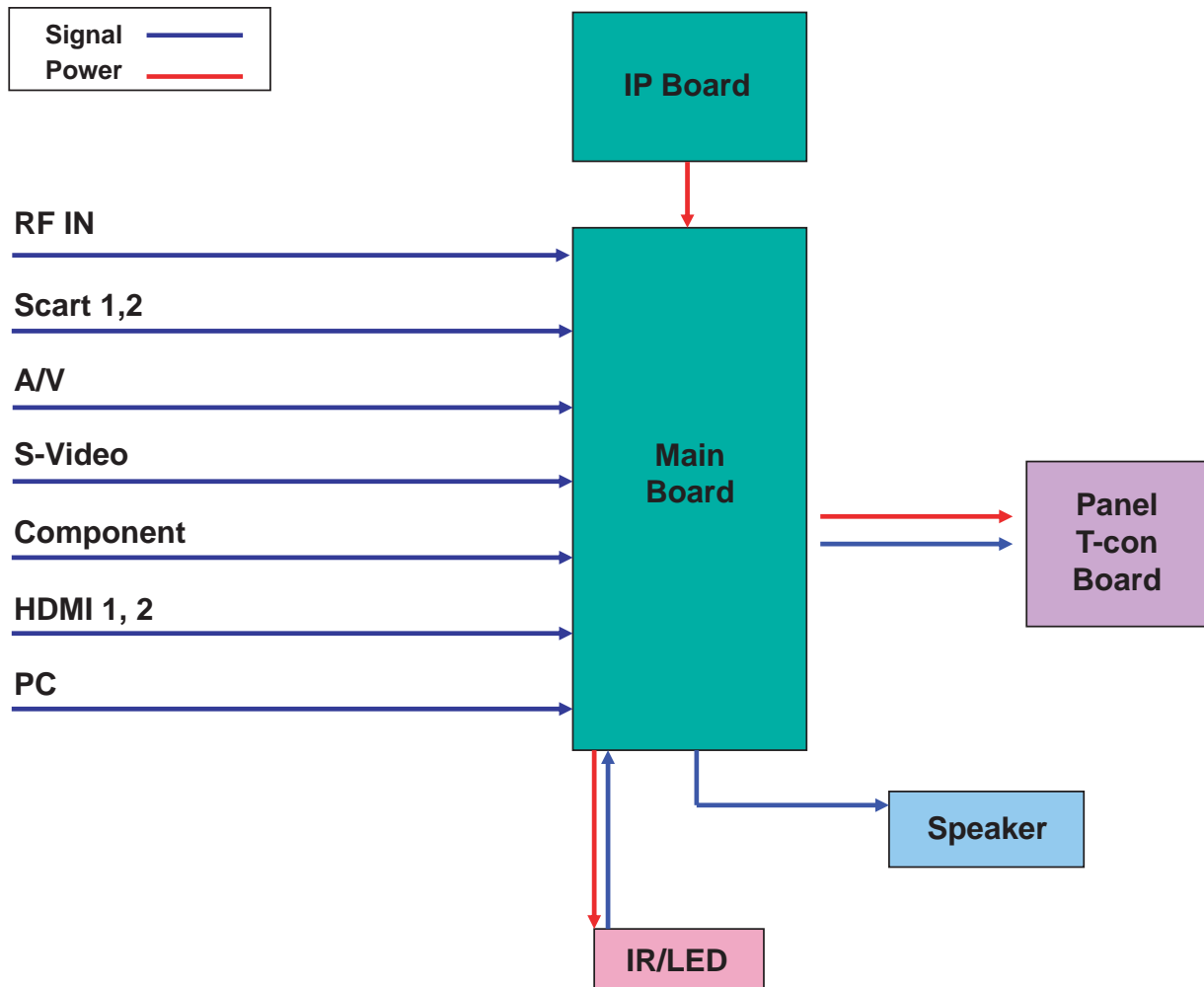
12-9 DIMMING BOARD



Memo

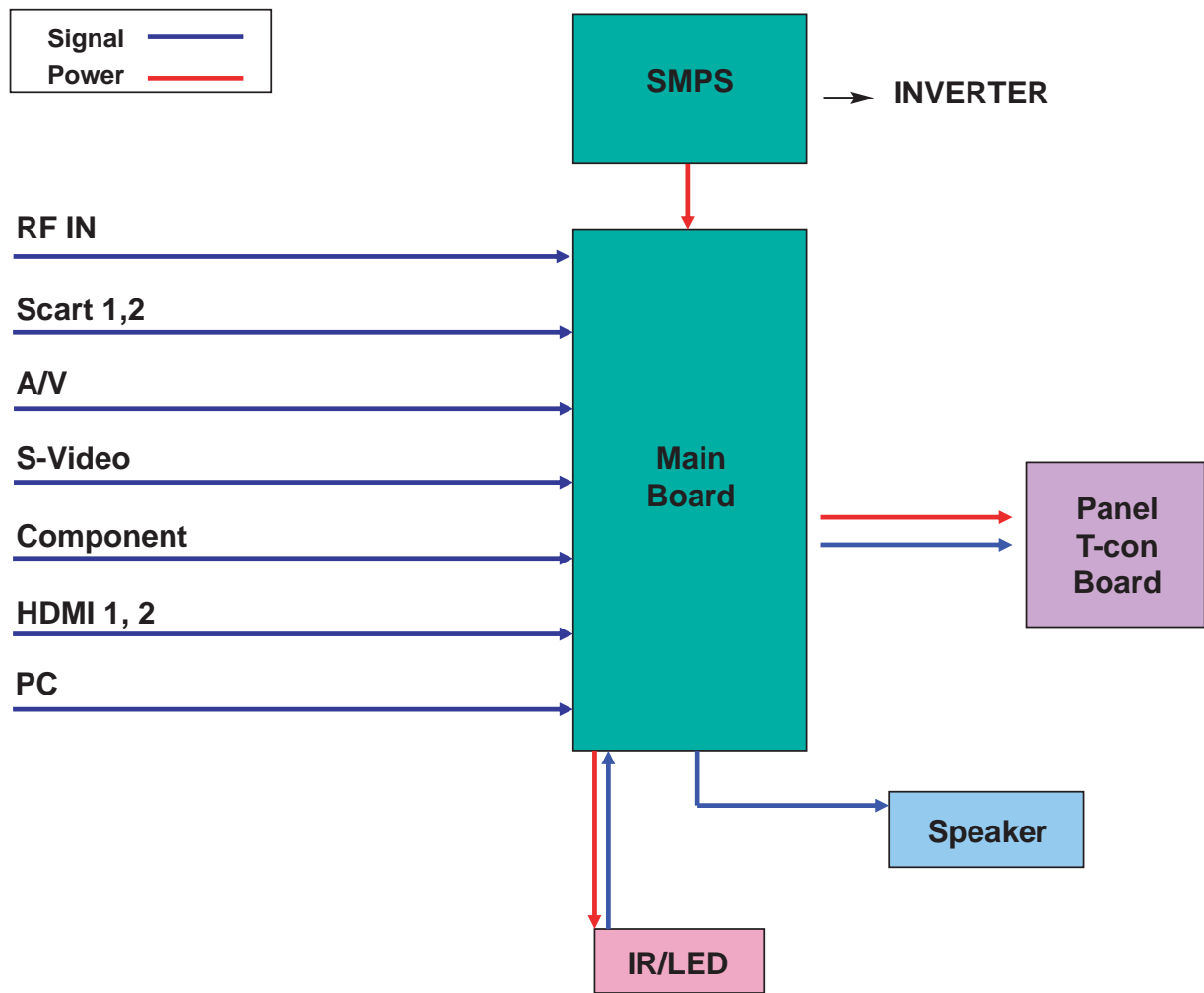
13 Circuit Descriptions

13-1 Block description



Bordeaux consists of three main blocks

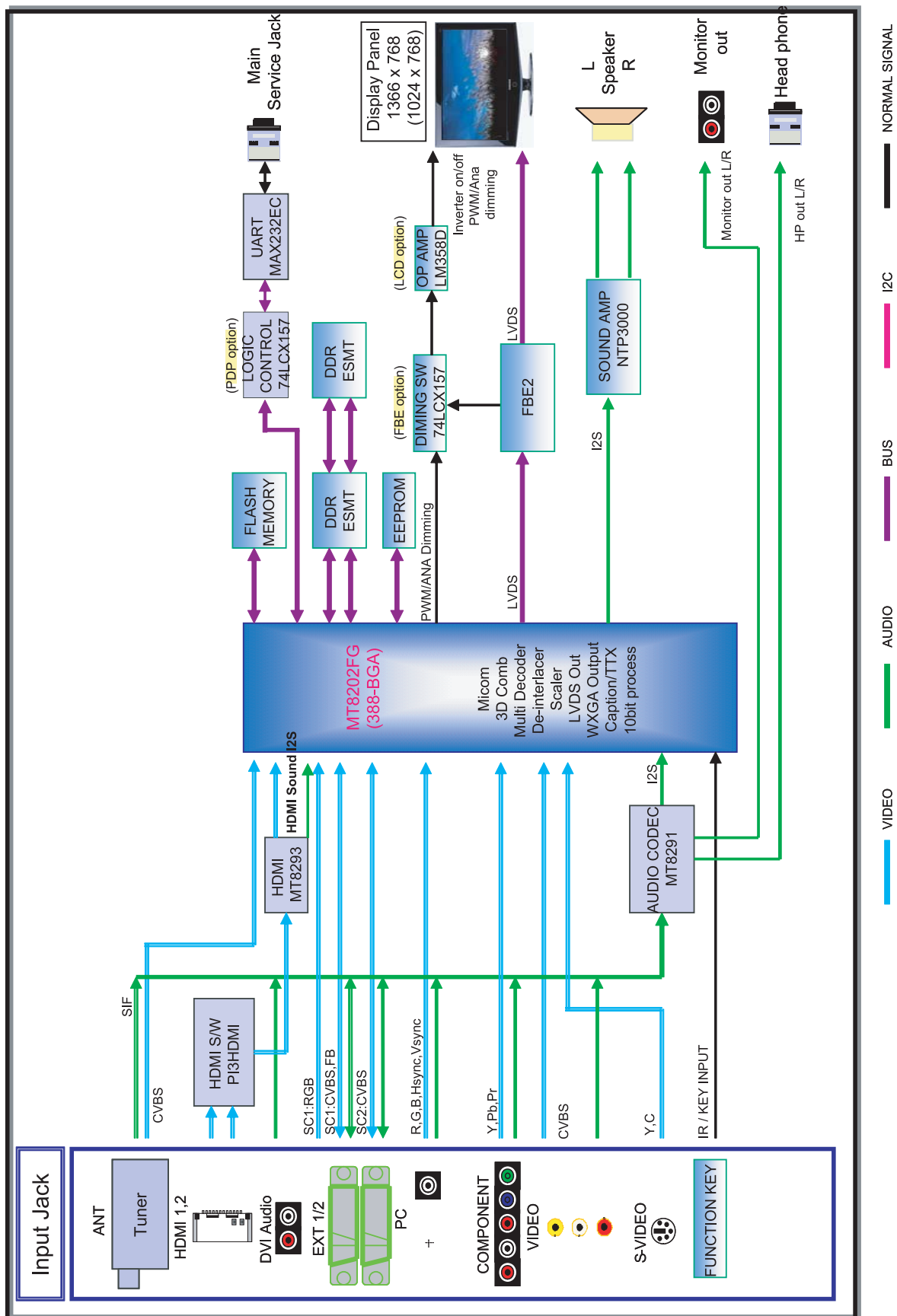
1. Main board : Video signal processing
2. IP board : Power supply & Inverter
3. T-con board : LCD Panel control



Bordeaux consists of three main blocks

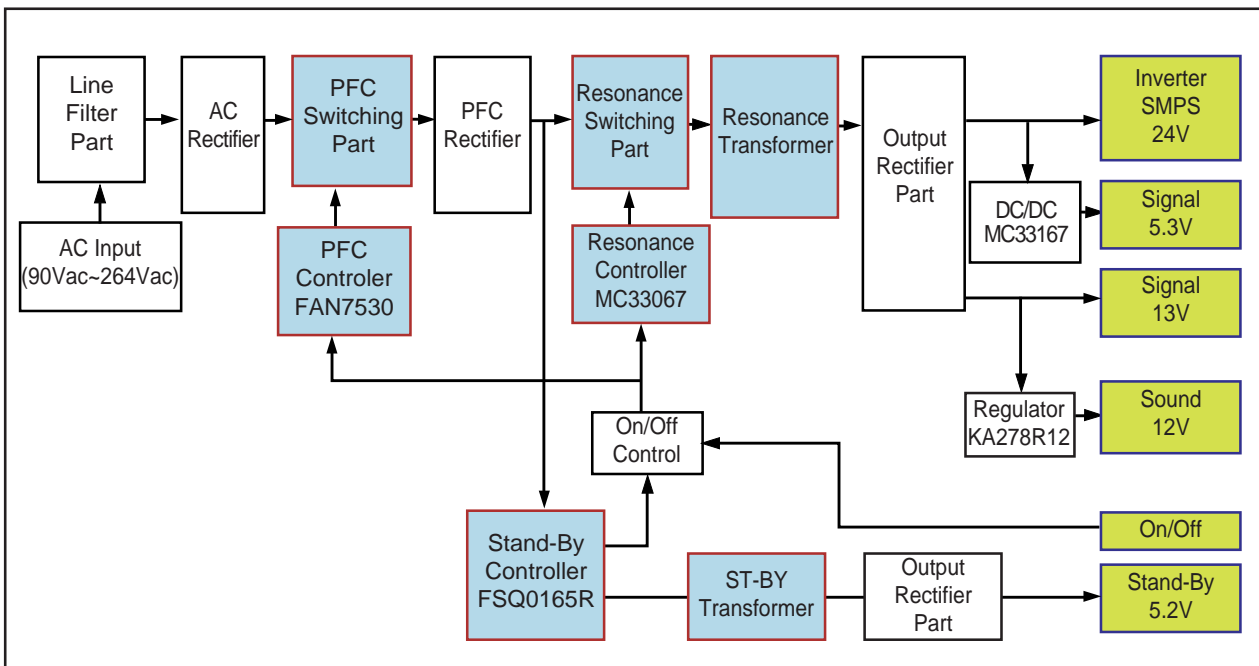
1. Main board : Video signal processing
2. SMPS : Power supply
3. T-con board : LCD Panel control

13-2 Main Block

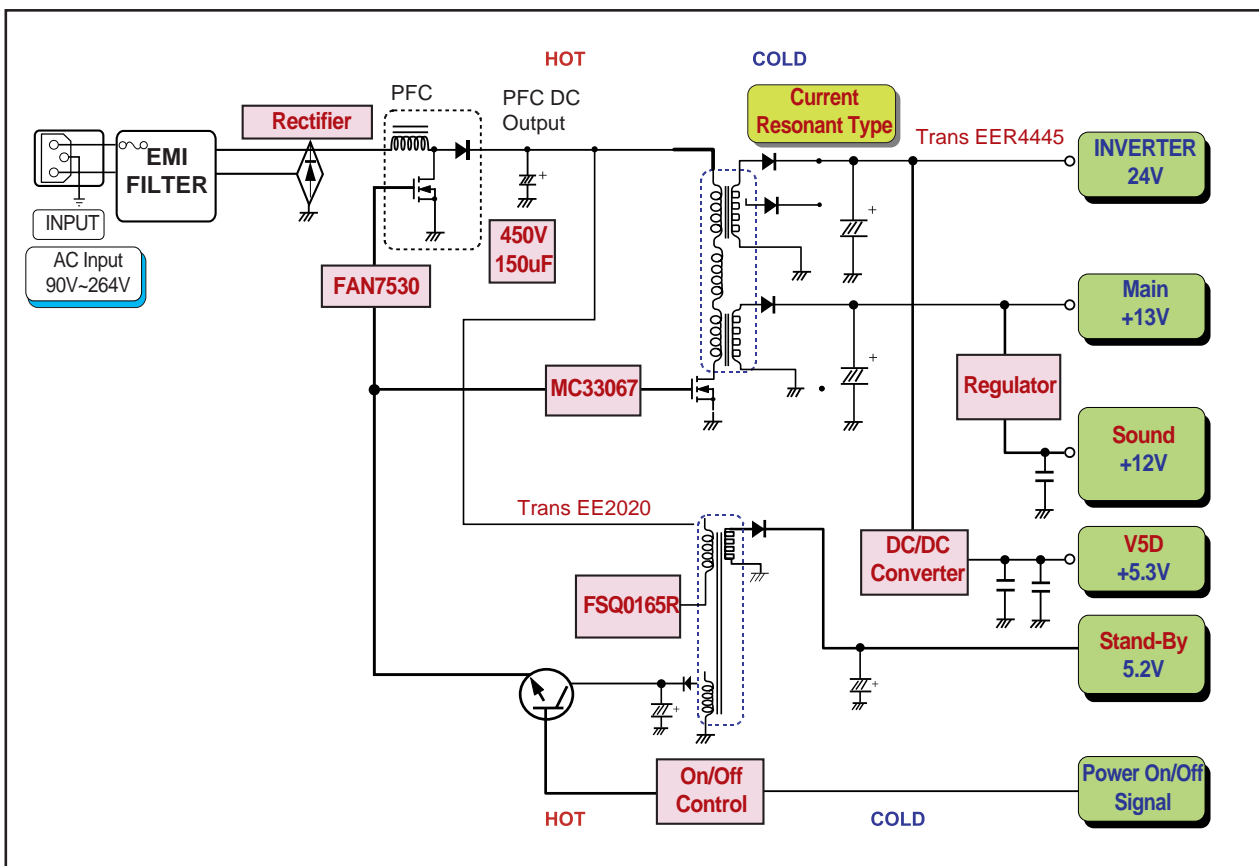


13-3 SMPS Board

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

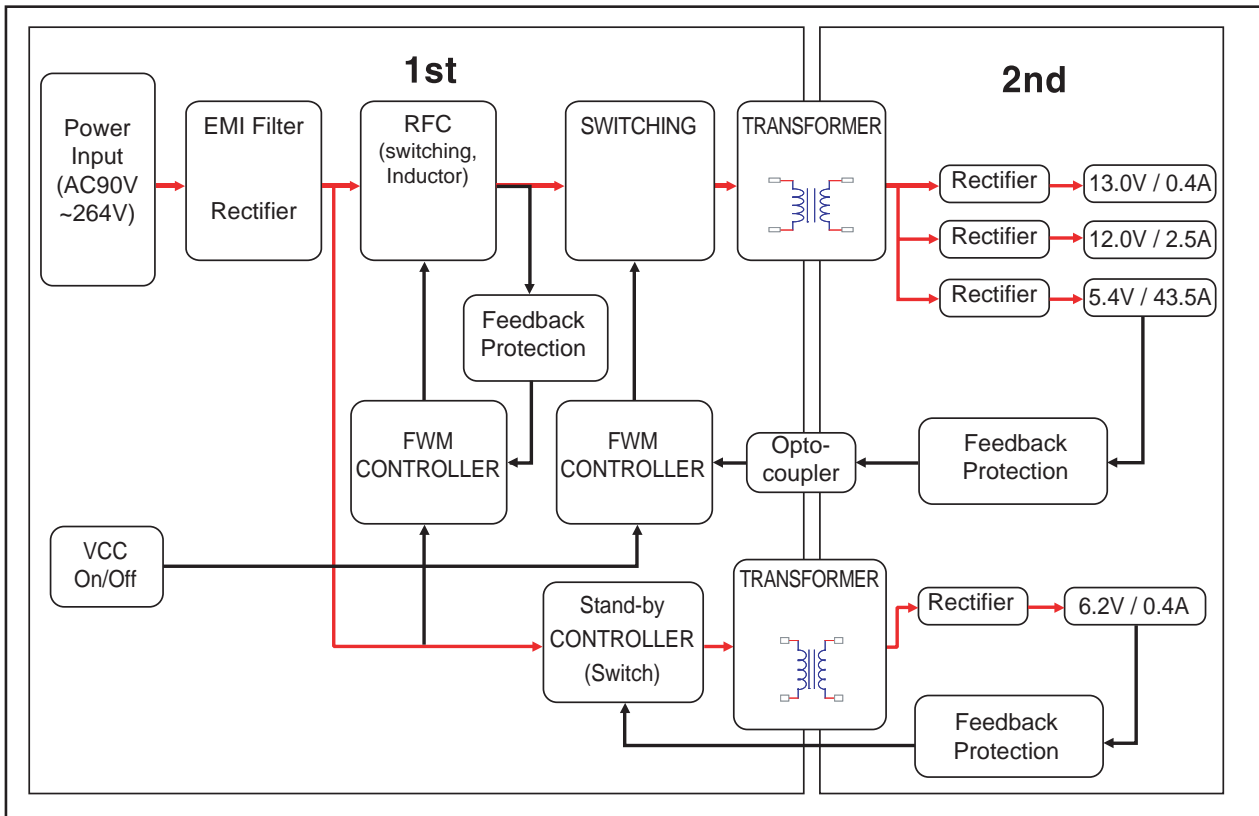


13-3-2 26", 32" SMPS Diagram

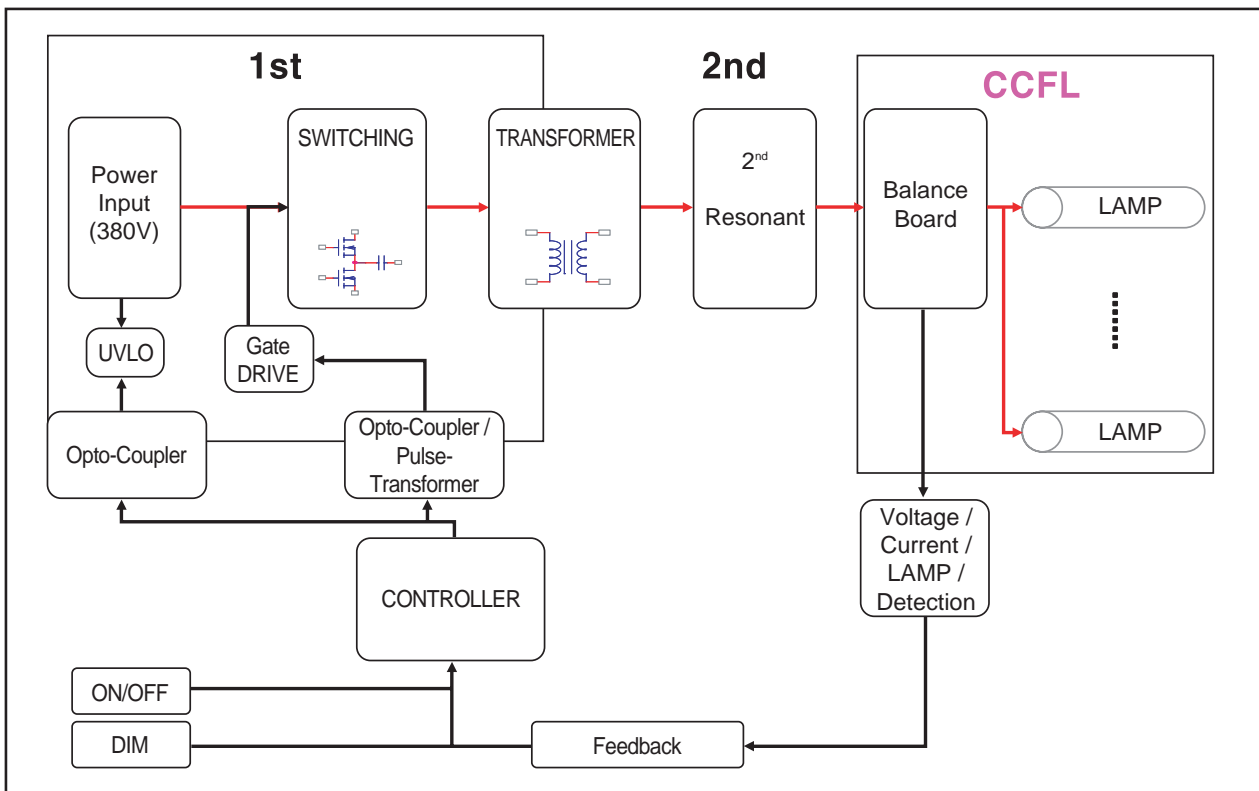


Output Name	Output Voltage			Output Current			Load Characteristics	PCB Loc.	Usage	Remark
	Normal	Regulation(%)	Variable Range	Min	Typical	Peak				
24V	24.5V	± 4	23.52V ~25.48V	0.1V	3.0V	4.0V	Pulsating	Main B'D	Drive	-
5.3V	5.3V	± 5	5.13V ~5.67V	0.1V	3.0V	5.0V	Constant	Main B'D	Drive, Logic, Buffer, Image 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	-

13-3-7 40, 46" IP Board



13-3-8 40, 46" 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-	

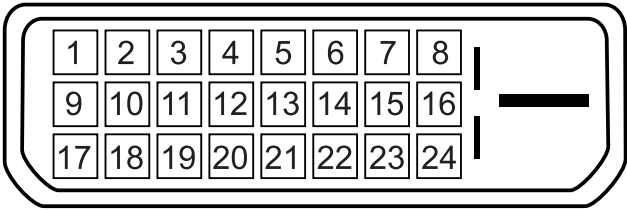


Figure 1.

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	37.864	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	+ / +

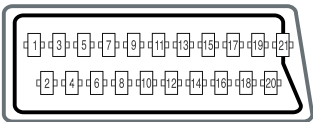
- The interlace mode is not supported.

- The set might operate abnormally if a non-standard video format is selected.

- DVI dose not support PC function.

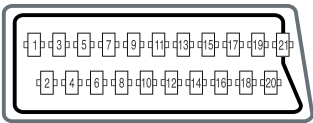
14 Reference Information

14-2-7 Scart 1



Pin	Signal	Pin	Signal
1	Audio output R	12	NC
2	Audio input R	13	Video GND (RGB red)
3	Audio output L	14	GND
4	Audio common GND	15	RGB red input
5	Video GND (RGB blue)	16	Fast Blanking signal (RGB switching)
6	Audio input L	17	Video output GND
7	RGB blue input	18	Video input GND
8	Switching voltage	19	Video output (CVBS out)
9	Video GND (RGB green)	20	Video input (CVBS in)
10	NC	21	Common GND
11	RGB green input		

14-2-8 Scart 2



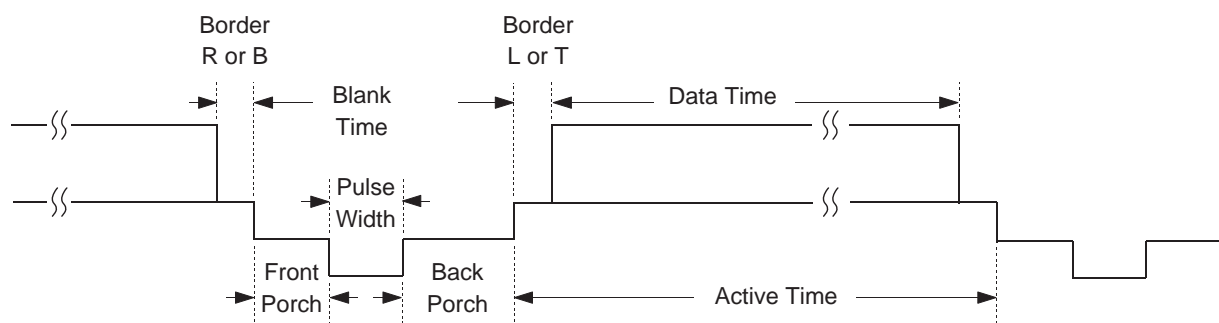
Pin	Signal	Pin	Signal
1	Audio output R	12	NC
2	Audio input R	13	Video GND (RGB red)
3	Audio output L	14	GND
4	Audio common GND	15	RGB red input
5	Video GND (RGB blue)	16	NC
6	Audio input L	17	Video output GND
7	RGB blue input	18	Video input GND
8	Switching voltage	19	Video output (CVBS out)
9	Video GND (RGB green)	20	Video input (CVBS in)
10	NC	21	Common GND
11	RGB green input		

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 (H x V)	1366 x 768
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	60.015kHz
Total time	16.662ms
Active time	16.097ms
Blank time	0.566ms
Border (L / R)	0.000ms
Data time	16.097ms
Front porch	0.063ms
Sync.width	0.105ms
Back porch	0.377ms
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 (H x V)	720 x 400	640 x 480	720 x 400	720 x 400	640 x 480
HORIZONTAL					
Frequency	31.169kHz	31.469kHz	37.861kHz	37.500kHz	37.000kHz
Total time	31.777 μ s	31.778 μ s	26.413 μ s	26.667 μ s	28.571 μ s
Active time	26.058 μ s	26.058 μ s	20.825 μ s	20.317 μ s	21.164 μ s
Blank time	5.720 μ s	5.720 μ s	5.588 μ s	6.350 μ s	7.407 μ s
Border (L / R)	0.318 μ s	0.318 μ s	0.254 μ s	0.000 μ s	0.000 μ s
Data time	25.422 μ s	25.422 μ s	20.317 μ s	20.317 μ s	21.164 μ s
Front porch	0.318 μ s	0.318 μ s	0.508 μ s	0.508 μ s	2.116 μ s
Sync.width	3.813 μ s	3.813 μ s	1.270 μ s	2.032 μ s	2.116 μ s
Back porch	1.589 μ s	1.589 μ s	3.810 μ s	3.810 μ s	3.175 μ s
Sync. polarity	Negative	Negative	Negative	Negative	Negative
VERTICAL					
Frequency	70.087kHz	59.940kHz	72.809kHz	75.000kHz	66.667kHz
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 (L / R)	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.	13	14	18
Originator	VESA	VESA	VESA
Mode Name	800/60Hz	800/72Hz	800/75Hz
Resolution (H x V)	800 x 600	800 x 600	800 x 600
HORIZONTAL			
Frequency	37.879kHz	48.077kHz	46.875kHz
Total time	26.400 μ s	20.800 μ s	21.333 μ s
Active time	20.000 μ s	16.000 μ s	16.162 μ s
Blank time	6.400 μ s	4.800 μ s	5.171 μ s
Border (L / R)	0.000 μ s	0.000 μ s	0.000 μ s
Data time	20.000 μ s	16.000 μ s	16.162 μ s
Front porch	1.000 μ s	1.120 μ s	0.323 μ s
Sync.width	3.200 μ s	2.400 μ s	1.616 μ s
Back porch	3.200 μ s	1.280 μ s	3.232 μ s
Sync. polarity	Positive	Positive	Positive
VERTICAL			
Frequency	60.317kHz	72.188kHz	75.000kHz
Total time	16.579ms	13.853ms	13.333ms
Active time	15.840ms	12.480ms	12.800ms
Blank time	0.739ms	1.373ms	0.533ms
Border (L / R)	0.000ms	0.000ms	0.000ms
Data time	15.840ms	12.480ms	12.800ms
Front porch	0.026ms	0.770ms	0.021ms
Sync.width	0.106ms	0.125ms	0.064ms
Back porch	0.607ms	0.478ms	0.448ms
Sync. polarity	Positive	Positive	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.	15	16	19	
Originator	VESA	VESA	VESA	VESA
Mode Name	1024/60Hz	1024/70Hz	1024/75Hz	1360/60Hz
Resolution (H x V)	1024 x 768	1024 x 768	1024 x 768	1360 x 768
HORIZONTAL				
Frequency	48.363kHz	56.476kHz	60.023kHz	47.712kHz
Total time	20.677 μ s	17.707 μ s	16.660 μ s	20.959 μ s
Active time	15.754 μ s	13.653 μ s	13.003 μ s	15.906 μ s
Blank time	4.923 μ s	4.053 μ s	3.777 μ s	5.053 μ s
Border (L / R)	0.000 μ s	0.000 μ s	0.000 μ s	0.000 μ s
Data time	15.754 μ s	13.653 μ s	13.003 μ s	15.906 μ s
Front porch	0.369 μ s	0.320 μ s	0.323 μ s	0.749 μ s
Sync.width	2.092 μ s	1.813 μ s	1.219 μ s	1.702 μ s
Back porch	2.462 μ s	1.920 μ s	2.235 μ s	2.994 μ s
Sync. polarity	Negative	Negative	Positive	Positive
VERTICAL				
Frequency	60.004kHz	70.069kHz	75.029kHz	60.015kHz
Total time	16.666ms	14.272ms	13.328ms	16.662ms
Active time	15.880ms	13.599ms	12.795ms	16.097ms
Blank time	0.786ms	0.672ms	0.533ms	0.566ms
Border (L / R)	0.000ms	0.000ms	0.000ms	0.000ms
Data time	15.880ms	13.599ms	12.795ms	16.097ms
Front porch	0.062ms	0.053ms	0.017ms	0.063ms
Sync.width	0.124ms	0.106ms	0.050ms	0.105ms
Back porch	0.600ms	0.513ms	0.466ms	0.377ms
Sync. polarity	Negative	Negative	Positive	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

14-4 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
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

14 Reference Information

Maker	VENDOR P/N	PANEL_CODE	PANEL_ABB	STICKER_CODE	Remarks
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
SEC	LTA260W2-L01	BN07-00185A	SPZ		AMLCD 26" 16:9 new Panel
SEC	LTM240M1-L01	BN07-00195A	SPH		24" panel with high brightness deveipment
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

Maker	VENDOR P/N	PANEL_CODE	PANEL_ABB	STICKER_CODE	Remarks
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
SEC	LTA320WT-L06	BN07-00453A	SPZ		16:9 SMVA 72% New Panel
SEC	LTA400WT-L07	BN07-00451A	SPZ		16:9 SMVA 72% 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
CPT	CLAA370WA03SC	BN07-00446A	PTZ		CPT EMVE 37"
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
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)"

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Maker	VENDOR P/N	PANEL_CODE	PANEL_ABB	STICKER_CODE	Remarks
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)
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

Maker	VENDOR P/N	PANEL_CODE	PANEL_ABB	STICKER_CODE	Remarks
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		
ACER	T400XW01 V1	BN07-00448A	AMZ		16:9 AMVA 72% New Panel
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
CHIMEI	CLAA320WF01SC	BN07-00460A	CMZ		CPT EMVA 32"
NEC	SVA150XG04TB	BN07-00225A	BTZ		SVA NEC 15" panel ZPD code
		BN44-00192A			MK32P3,DYREL,AC/DC,180W AC100 ~ 240V,50Hz/60Hz,197(L)*160(W)*25(H),-20 to + 70,24V/5A

Memo