



TFT-LCD TV

Chassis	GBP23SEN
	GBP26SEN
	GBP32SEN
	GBP37SEN
	GBP40SEN

Model	LE23R86BD
	LE26R86BD
	LE32R86BD
	LE37R86BD
	LE40R86BD

SERVICE Manual

TFT-LCD TV



Fashion Feature

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

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LE23R86BD/LE26R86BD/LE32R86BD/
LE40R86BD/LE46R86BD Service Manual

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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

th
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).

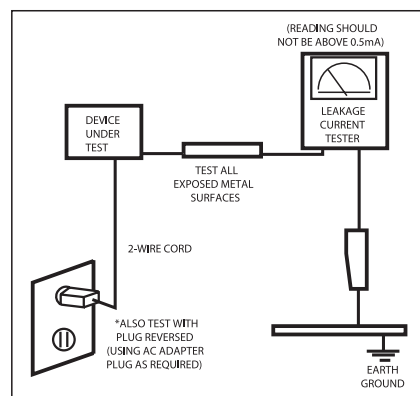


Figure 1-1. Leakage Current Test Circuit

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.

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.

My Color Control

-Colors can be set to your preference by adjusting Red, Green, Blue, Yellow, Pink and White.

Dynamic Contrast

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

Brightness Sensor

-Adjusts the screen brightness automatically depending on the brightness of the surrounding environment.

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.
The Anynet system enables you to easily control Samsung audio-video (AV) devices from this TV.

2-2 LE23R86BD Specifications

Item	Description	
LCD Panel	TFT-LCD panel, RGB vertical stripe, normally white, 23-Inch viewable, 0.4215(H) x 0.4215(V) mm pixel pitch	
Scanning Frequency	Horizontal : 30 kHz ~ 61 kHz (Automatic) / Vertical : 60 Hz ~ 75 Hz (Automatic)	
Display Colors	16,777,216 colours	
Maximum Resolution	Horizontal : 1366 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	556.4 mm / 339.8 mm	
AC power voltage & Frequency	AC 220 ~ 240 V, 60/50 Hz	
Power Consumption	90 W < 1 W	
Dimensions(W x D x H) Set	586 x 216 x 445 mm (After installation Stand) 586 x 83.5 x 405.5 mm (Without stand)	
Weight Set(After installation Stand)	8.1Kg	
TV System	Tunning	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 %	
Antena Input	75 Ω	
Sound Characteristic	-MAX Internal speaker Out : Right : 5W / Left : 5W -BASS Control Range : -8 dB ~ +8dB -TREBLE Control Range : -8 dB ~ +8 dB -Headphone Out : 10 mW MAX -Output Frequency : RF : 80 Hz ~ 15 kHz AV : 80 Hz ~ 20 kHz	

2-3 LE26R86BD Specifications

Item	Description	
LCD Panel	TFT-LCD panel, RGB vertical stripe, normally white, 26-Inch viewable, 0.4215(H) x 0.4215(V) mm pixel pitch	
Scanning Frequency	Horizontal : 30 kHz ~ 61 kHz (Automatic) / Vertical : 60 Hz ~ 75 Hz (Automatic)	
Display Colors	16,777,216 colours	
Maximum Resolution	Horizontal : 1366 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	556.4 mm / 339.8 mm	
AC power voltage & Frequency	AC 220 ~ 240 V, 60/50 Hz	
Power Consumption	135 W < 1 W	
Dimensions(W x D x H) Set	666 x 216 x 449.5 mm (After installation Stand) 666 x 85 x 460.5 mm (Without stand)	
Weight Set(After installation Stand)	9.8Kg	
TV System	Tunning	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 %	
Antena Input	75 Ω	
Sound Characteristic	-MAX Internal speaker Out : Right : 5W / Left : 5W -BASS Control Range : -8 dB ~ +8dB -TREBLE Control Range : -8 dB ~ +8 dB -Headphone Out : 10 mW MAX -Output Frequency : RF : 80 Hz ~ 15 kHz AV : 80 Hz ~ 20 kHz	

2-4 LE32R86BD Specifications

Item	Description	
LCD Panel	TFT-LCD panel, RGB vertical stripe, normally white, 32-Inch viewable, 0.511 (H) x 0.511 (V) mm pixel pitch	
Scanning Frequency	Horizontal : 30 kHz ~ 61 kHz (Automatic) / Vertical : 60 Hz ~ 75 Hz (Automatic)	
Display Colors	16,777,216 colours	
Maximum Resolution	Horizontal : 1366 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	556.4 mm / 339.8 mm	
AC power voltage & Frequency	AC 220 ~ 240 V, 60/50 Hz	
Power Consumption	155 W < 1 W	
Dimensions(W x D x H) Set	800 x 252 x 580.5 mm (After installation Stand) 800 x 91 x 541 mm (Without stand)	
Weight Set(After installation Stand)	8.1Kg	
TV System	Tunning	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 %	
Antena Input	75 Ω	
Sound Characteristic	-MAX Internal speaker Out : Right : 5W / Left : 5W -BASS Control Range : -8 dB ~ +8dB -TREBLE Control Range : -8 dB ~ +8 dB -Headphone Out : 10 mW MAX -Output Frequency : RF : 80 Hz ~ 15 kHz AV : 80 Hz ~ 20 kHz	

2-5 LE37R86BD Specifications

Item	Description	
LCD Panel	TFT-LCD panel, RGB vertical stripe, normally white, 37-Inch viewable, 0.511 (H) x 0.511 (V) mm pixel pitch	
Scanning Frequency	Horizontal : 30 kHz ~ 61 kHz (Automatic) / Vertical : 60 Hz ~ 75 Hz (Automatic)	
Display Colors	16,777,216 colours	
Maximum Resolution	Horizontal : 1366 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	556.4 mm / 339.8 mm	
AC power voltage & Frequency	AC 220 ~ 240 V, 60/50 Hz	
Power Consumption	205 W < 1W	
Dimensions(W x D x H) Set	916.5 x 300 x 660.5 mm (After installation Stand) 916.5 x 107.3 x 618.2 mm (Without stand)	
Weight Set(After installation Stand)	20.1Kg	
TV System	Tunning	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 %	
Antena Input	75 Ω	
Sound Characteristic	-MAX Internal speaker Out : Right : 5W / Left : 5W -BASS Control Range : -8 dB ~ +8dB -TREBLE Control Range : -8 dB ~ +8 dB -Headphone Out : 10 mW MAX -Output Frequency : RF : 80 Hz ~ 15 kHz AV : 80 Hz ~ 20 kHz	

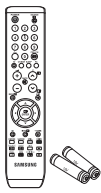
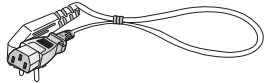
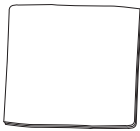
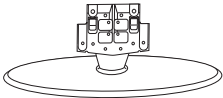
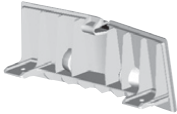
2-6 LE40R86BD Specifications

Item	Description	
LCD Panel	TFT-LCD panel, RGB vertical stripe, normally white, 40-Inch viewable, 0.648(H) x 0.216(V) mm pixel pitch	
Scanning Frequency	Horizontal : 30 kHz ~ 61 kHz (Automatic) / Vertical : 60 Hz ~ 75 Hz (Automatic)	
Display Colors	16,777,216 colours	
Maximum Resolution	Horizontal : 1366 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	556.4 mm / 339.8 mm	
AC power voltage & Frequency	AC 220 ~ 240 V, 60/50 Hz	
Power Consumption	210 W < 1W	
Dimensions(W x D x H) Set	991.5 x 300 x 697.5 mm (After installation Stand) 991.5 x 107.3 x 654.6 mm (Without stand)	
Weight Set(After installation Stand)	21.1Kg	
TV System	Tunning	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 %	
Antena Input	75 Ω	
Sound Characteristic	-MAX Internal speaker Out : Right : 5W / Left : 5W -BASS Control Range : -8 dB ~ +8dB -TREBLE Control Range : -8 dB ~ +8 dB -Headphone Out : 10 mW MAX -Output Frequency : RF : 80 Hz ~ 15 kHz AV : 80 Hz ~ 20 kHz	

2-7 Spec Comparison

Model	LE26R51B / LE32R51B / LE40R51B	LE23R86BD/LE26R86BD/ LE32R86BD/LE37R86BD/ LE40R86BD
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, 1366 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	140W / 184W / 285W	90W / 135W / 155W / 205W / 210W
Power Saving	< 1W	< 1W

2-8 Option Specification

Item	Item Name	Code.No	Remark
	Remote Control & Batteries (AAA x 2)	BN59-00603A	
	Power Cord	3903-000042	
	Cleaning Cloth	BN63-001798A	
	Stand	26" : BN90-00848A 32" : BN90-00842A 40" : BN90-00847A	
	Stand Screw		
	Cover-Bottom	26" : BN63-02323A 32" : BN63-02323A 40" : BN63-02366A	

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

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

1) Label Rating File



- LCD PANEL MARK -

A:ACER(AUO) S: SEC C: CMO

* If not printed you could consider S(sec) panel mark.

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

* Option Byte

1. Inch Option 32"
2. Gamma 32"AUO
3. Panel Option AUO

Others are same shown below.

3-3 Factory Data

1. Calibration
 2. Service
 3. White Balance
 4. SVP-UX
 5. Option Block
 6. SGT5810/NTP3000
 7. YC Delay
 8. Option Table
 9. I2C Check
 10. W/B MOVIE
 11. Checksum
 12. Reset
 13. Spread Spectrum
 T-BDPMPEUD-xxxx (Main Micom Ver)
 T-BDPMPEUS-xxxx
 BORD2_CALLA_TR-xxxx (Sub Micom Ver)
 Month / Day / Year / Hour / Min. / Sec.

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

2. Option Table XXXX XXXX

No	Item	Range	
1	Ready	ON/OFF	OFF
2	Inch Option	23"/ 26" / 32"i	32"
3	Panel Vender	AUO/CMO _i	AMLCDINT
4	Gamma	ON/OFF	OFF
5	Panel Type	Normal1/Normal2 _i	Normal1
6	Model Option	Calla/Lily/Bord Plus/Jasmine	Bord Plus
7	Tuner	SEMCO/ALPS	SEMCO
8	Tuner TOP	0~31	8
9	Auto Power	ON/OFF	ON
10	Nordic	ON/OFF	OFF
11	LNA Menu	ON/OFF	ON
12	TTX On/Off	ON/OFF	ON
13	TTX List	Flof/List	Flof
14	Carrier Mute	ON/OFF	OFF
15	High Deviation	ON/OFF	OFF
16	VOL.Curve	Small/Large	Small
17	HDMI Hotplug	1/0	1
18	HDMI Clock Ctrl	1/0	1
19	HDMI Hotplug Dly	3~50	9

3 Alignments and Adjustments

No	Item	Range	
20	Hotel Option		
	Hotel Mode	ON/OFF	OFF
	Power On Channel	1~99	1
	Power On Volume	1~100	10
	Max Volume	1~100	100
	Local Key Lock	ON/OFF	OFF
	Power On Source	RF/Ext.1;1	RF
21	Shop Mode	ON/OFF	OFF
22	Color Space	ON/OFF	ON
23	PC Ident	ON/OFF	OFF
24	Language	English/German;1	English
25	ANYNET+	ON/OFF	ON
26	Ch.Table	SUWON/SESK/SEH/TTSEC	SUWON
27	TTX Group	Auto/West Europe;1	Auto
28	iDTV_Cntry	UK/France;1	UK

3. White Balance

No	Item	Range	TV/AV/Scart	Comp/iDTV	PC	HDMI
1	Sub-Briteness	00H~FFH	128	128	128	128
2	R-offset	00H~FFH	128	128	128	128
3	G-offset	00H~FFH	128	128	128	128
4	B-offset	00H~FFH	128	128	128	128
5	Sub-Contrast	00H~FFH	128	128	128	128
6	R-Gain	00H~FFH	128	128	128	128
7	G-Gain	00H~FFH	128	128	128	128
8	B-Gain	00H~FFH	128	128	128	128

4. SVP-PX

1) ComB Filter

No	Item	Range
1	Y-Filter	00H~FFH

2) Sharpness

No	Item	Range	RF	AV	Comp480i	Comp480p	Comp720p	Comp1080i	HDMI	PC	iDTV
1	H2Gain	00 ~ 1FH	05H	05H	05H	05H	04H	04H	0AH	05H	05H
2	H4Gain	00 ~ 1FH	04H	0AH	05H	05H	02H	02H	0AH	05H	05H
3	V2Gain	00 ~ 1FH	0CH	0CH	0AH	0CH	0AH	0AH	10H	0AH	0AH
4	V4Gain	00 ~ 1FH	0CH	10H	0CH	0CH	0AH	0AH	10H	0AH	0AH
5	Sr2Gain	00 ~ 1FH	00H	00H	00H	00H	00H	00H	00H	00H	00H
6	Sr4Gain	00 ~ 1FH	00H	02H	00H	00H	02H	02H	04H	02H	02H
7	Sl2Gain	00 ~ 1FH	00H	00H	00H	00H	00H	00H	00H	00H	00H
8	Sl4Gain	00 ~ 1FH	00H	02H	00H	00H	02H	02H	04H	02H	02H
9	Peakth1	00H~FFH	06H	02H	03H	03H	03H	03H	03H	08H	04H
10	Peakth2	00H~FFH	2FH	2FH	2FH	2FH	2FH	2FH	2FH	2FH	2FH
11	Peskth3	00H~FFH	3FH	3FH	3FH	3FH	3FH	3FH	3FH	3FH	3FH

3) NR

No	Item	Range	
1	Y_NR_OFF	00H~FFH(Y_NR_OFF)	00H
2	C_NR_OFF	00H~FFH(C_NR_OFF)	00H
3	Y_NR_ON	00H~FFH(Y_NR_ON)	00H
4	C_NR_ON	00H~FFH(C_NR_ON)	00H

4) RGB Calibration

No	Item	Range	TV/AV/S_Video	Component	PC	HDMI
1	R-Offset	00H~FFH	3AH	40H	32H	82H
2	G-Offset	00H~FFH	3AH	40H	32H	82H
3	B-Offset	00H~FFH	3AH	40H	32H	82H
4	R-Gain	00H~FFH	A6H	92H	A9H	6CH
5	G-Gain	00H~FFH	A6H	92H	A9H	6CH
6	B-Gan	00H~FFH	A6H	92H	A9H	6CH

5) ADC Calibration

No	Item	Range	TV/AV/S_Video	Component	PC	HDMI
1	TCD3 Contrast	00H~FFH	79H	78H	78H	78H
2	TCD3 Brightness	00H~FFH	29H	20H	20H	20H
3	TCD3 CR	00H~FFH	80H	80H	80H	80H
4	TCD3 CB	00H~FFH	80H	80H	80H	80H
5	TCD3 Delay	00H~FFH	00H	00H	00H	00H
6	Analog Y Offset	00H~FFH	40H	3DH	44H	40H
7	Analog PB Offset	00H~FFH	80H	80H	44H	80H
8	Analog PR Offset	00H~FFH	80H	80H	44H	80H
9	Analog Y Gain	00H~FFH	D6H	B3H	A4H	80H
10	Analog PB Gain	00H~FFH	80H	B3H	ACH	80H
11	Analog PR Gain	00H~FFH	80H	B3H	A7H	80H
12	Black Level	00H~FFH	00H	00H	00H	00H
13	Svp Brightness	00H~FFH	00H	00H	00H	00H

6) Caliration Target

No	Item	Range	low	high	Delta
1	AV ADC	00H~FFH	10H	DCH	02H
2	COMP ADC	00H~FFH	10H	EBH	02H
3	PC ADC	00H~FFH	10H	DCH	04H
4	ALL RGB	00H~FFH	01H	EBH	0AH

3 Alignments and Adjustments

7) Color Management

No	Item	Range	
1	Skin Direction	Reddish/Yellowish	Reddish
2	Skin Enhance	00H~FFH	00H
3	Green Stretch	00H~FFH	00H
4	Blue Stretch	00H~FFH	00H

5. Option Block

1) FRC(Micronas)

2) FRC2X

No	Item	Range	
1	OUTCON	1~3	0
2	GAMMA	1~7	0
3	OCC_MODE	0/1	0
4	FALLBACK	0/1	0
5	DBG_MARK	0/1	0
6	SPR_CBR	0/1	0
7	BIT_EXPAND	0/1	0
8	INV_BIT_EXPAND	0/1	0
9	REPEAT_MODE	0/1	0
10	DEMO_ON_OFF	0/1	0
11	MMU_RD_START	00H~FFH	00H
12	ME_RD_START	00H~FFH	00H
13	MC_RD_START	00H~FFH	00H
14	CMZL(0x36E)	00H~0FH	0H
15	BL0L(0x2A7)	00H~0FH	0H
16	LOGO(0x2A7)	00H~0FH	0H

3) FBE2

No	Item	Range	RF	AV/ S-VIDEO	COMP (480i/576i)	COMP (480p/576p)	COMP (720p/1080i/1080p)	HDMI	DTV	DTV
1	Pattern Select	0~20	0	0	0	0	0	0	0	0
2	BS-On	0/1	1	1	1	1	1	1	1	1
3	B-Slope Gain	0~255	34	44	44	64	64	64	64	64
4	B-Tilt Min	0~255	20	20	20	20	20	20	20	20
5	B-Tilt Max	0~255	120	120	120	120	120	120	120	120
6	B-Tilt Slope	0~255	128	128	128	128	128	128	128	128
7	LFunc-Basis	0~255	30	20	20	40	70	55	75	75
8	Hfunc-Basis	0~255	30	40	40	40	75	65	88	88
9	Mean-Offset1	0~255	20	100	100	75	75	75	75	75
10	Mean Offset2	0~255	120	200	200	155	225	225	225	225
11	Mean Slope	0~255	56	56	56	45	85	85	85	85
12	Input Offset	0~255	128	128	128	128	128	128	128	128
13	Input Gain	0~255	128	128	128	128	128	128	128	128
14	ACR Offset	0~128	15	15	15	15	15	15	15	15
15	ACR Th1	0~255	30	30	30	30	30	30	30	30
16	ARC Th2	0~255	130	130	130	130	130	130	130	130
17	Skin Enable	0/1	1	1	1	1	1	1	1	1
18	Skin Tu	0~255	165	165	165	150	165	165	128	128
19	Skin Tv	0~255	140	140	140	140	128	128	128	128
20	M Skin Tu	0~255	128	128	128	128	128	128	128	128
21	M Skin TV	0~255	128	128	128	128	128	128	128	128
22	Sub Color	0~255	115	128	128	135	140	150	143	143
23	M-Au-Sub Color	0~255	128	128	128	128	128	128	128	128
24	M-Wi-Sub Color	0~255	128	128	128	128	128	128	128	128
25	MW-Skin-Tu	0~255	128	128	128	128	128	128	128	128
26	MW-Skin-Tv	0~255	128	128	128	128	128	128	128	128

3 Alignments and Adjustments

4) Pdp Logic

No	Item	Range	
1	Pattern Srlct	0~63	0
2	Data updata	ON/OFF	OFF
3	Data Type	42"EU MRT/42"EU MESH/.....	42"EU MRT
4	CDC Sw	ON/OFF	OFF
5	CDC Strenght Th	0~31	0
6	BRE Sw	ON/OFF	OFF
7	FRC Repeat Mode	ON/OFF	OFF
8	FRC CBG Mark On	0~15	0
9	ERC Bypass	ON/OFF	OFF
10	Panel Type	-	0H
11	Panel Inch	-	SD
12	Panel Version	-	
13	Logic Sw Version	-	0H 0H 0H

6. SGTV5810/NTP3000

No	Item	Range	
1	ID Tone Shift	1H~FH	01H
2	ID Tone Thresh	00H~FFH	7FH
3	Demod Prescaler	00H~20H	13H
4	Master Volume	00H~30H	13H
5	PWM Modulation	80H~F2H	F1H
6	DRC Threshold	00H~7FH	06H
7	Speaker EQ	ON/OFF	OFF

7. YC Delay

No	Item	Range	
1	RF PAL-B/G	00H~FFH	AAH
2	RF PAL - D/K	00H~FFH	99H
3	RF PAL - I	00H~FFH	99H
4	RF SECAM - B/G	00H~FFH	88H
5	RF SECAM - D/K	00H~FFH	44H
6	RF SECAM -L/L'	00H~FFH	88H
7	RF NTSC 3.58	00H~FFH	44H
8	RF NTSC 4.43	00H~FFH	CCH
9	AV PAL	00H~FFH	AAH
10	AV SECAM	00H~FFH	88H
11	AV NTSC 3.58	00H~FFH	30H
12	AV NTSC 4.43	00H~FFH	AAH
13	AV PAL60	00H~FFH	77H

8. Adjust

No	Item	Range	
1	Video Mute Time	0~255	10
2	Dynamic Contrast	ON/OFF	OFF
3	Dynamic Dimming	ON/OFF	ON
4	Dynamic CE	ON/OFF	OFF
5	LNA PLUS		
	RFDB-1 Level	0~255	2
	RFDB-2 Level	0~255	5
	RFDB-3 Level	0~255	7
	RFDB-4 Level	0~255	24
6	Magazine LNA	ON/OFF	OFF
7	PixelShift Test	ON/OFF	OFF
8	Debug	ON/OFF	OFF
9	ACR	ON/OFF	OFF
10	D-Watchdog	ON/OFF	ON
11	UART Select	MAIN / IDTV / PDP Lvds ON / PDP Lvds OFF	OFF

9. I2C Check

10. W/B MOVIE

No	Item	Range	TV/AV/S_Video	Component	PC	HDMI	Scart1/2
1	WB Movie	ON/OFF	OFF	OFF	OFF	OFF	OFF
2	Color Mode	Movie	Movie	Dynamic	Dynamic	Dynamic	Dynamic
3	Color Tone		Cool1	Cool1	Cool1	Cool1	Cool1
4	Msub Brigh	0~255	128	128	128	128	128
5	Msub Contr	0~255	128	128	128	128	128
6	W1_RGAIN	0~255	157	161	144	161	157
7	W1_BGAIN	0~255	76	74	117	76	76
8	W1_R_OFFS	0~255	119	119	127	118	119
9	W1_B_OFFS	0~255	138	140	110	141	138
10	W2_RGAIN	0~255	142	143	149	142	142
8	W2_BGAIN	0~255	48	47	93	51	48
9	W2_R_OFFS	0~255	129	127	124	128	129
10	W2_B_OFFS	0~255	143	145	110	143	143
11	NO_RGAIN	0~255	141	139	137	141	141
12	NO_BGAIN	0~255	104	102	123	104	104
13	NO_R_OFFS	0~255	126	125	126	121	126
14	NO_B_OFFS	0~255	136	133	114	133	136
15	C2_RGAIN	0~255	124	122	123	125	124
16	C2_BGAIN	0~255	142	141	156	143	142
17	C2_R_OFFS	0~255	128	129	117	128	128
18	C2_B_OFFS	0~255	128	127	116	128	128
19	Movie Contr	0~100	100	100	100	100	100
20	Movie Brigh	0~100	45	45	45	45	45
21	Movie Color	0~100	55	55	55	55	55
22	Movie Sharp	0~100	75	75	75	75	75

3 Alignments and Adjustments

11. Checksum 7A72

12. Reset

13. Spread Spectrun

No	Item	Range	
1	Spectrum	ON/OFF	ON
2	Delta	-128 ~ +128	0
3	Positive	0~99	8
4	Negative	0~99	2
5	Speed	0~7	0
6	Time	0~7	4
7	FBE Spectrum	ON/OFF	OFF
8	FEE Delta	0~5	0

3-4 Service Adjustment

3-4-1 White Balance - Calibration

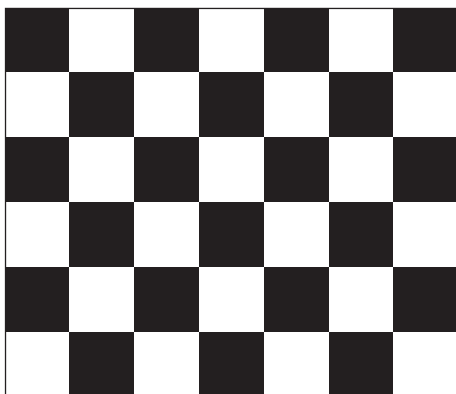
If picture color is wrong, do calibration first.

Equipment : CA210, Patten : chess pattern

Execute calibration in Factory Mode

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

PC : 1024*768/60Hz



(chess patten)

3-4-2 White Balance - Adjustment

If picture color is wrong, check White Balance condition.

Equipment : CA210, Patten : Flat W/B Pattern

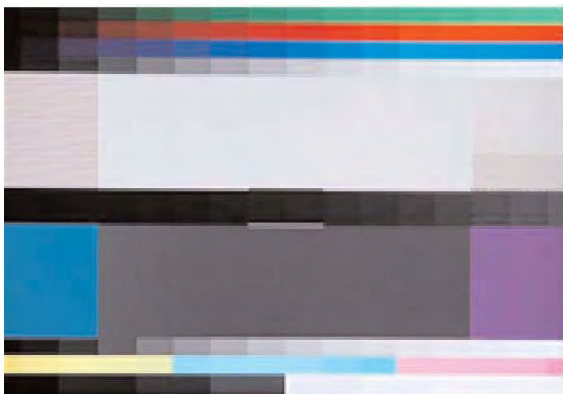
Adjust W/B in Factory Mode

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



[Test Pattern : MIK K-7256 PAttern #92]

*Color temperature

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

*Color coordinate

H/L : 267/263 +/- 2 35.0 Ft +/- 2.0Ft

L/L : 270/260 +/- 3 1.5 Ft +/- 0.2Ft

Flat W/B Pattern

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 16 : Toshiba ABL Pattern
2. Optical measuring device : CA210 (FL)
 - Please use the MSPG-925 LTH generator for model LE26M51B/LE32M51B/LE40M51B/LE46M51B.

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 #16
 - DTV,DVI Mode : Model #6 (1280*720 Mode), Pattern #16
 - HDMI Mode: Model #6(1280*720 Mode), Pattern #16
 - b) Enter factory color control, confirm the data.
 - c) Adjust the low light. (Refer to table 1, 2 in adjustment position by mode)
 - Adjust sub - Brightness to set the 'Y' value.
 - Adjust red offset ('x') and blue offset ('y') to the color coordinates.

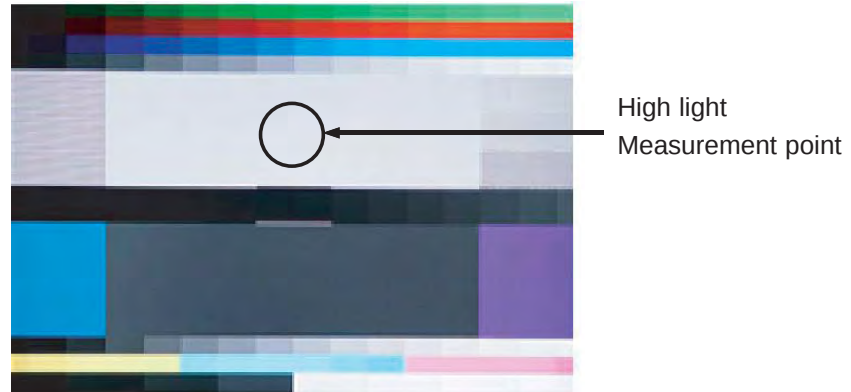
Picture 4-2 Flat W/B Pattern



- * 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 Flat W/B Pattern



3 Alignments and Adjustments

3-5 Software Upgrade

3-5-1 How to Update Flash ROM

1. Install the Flash Downloader

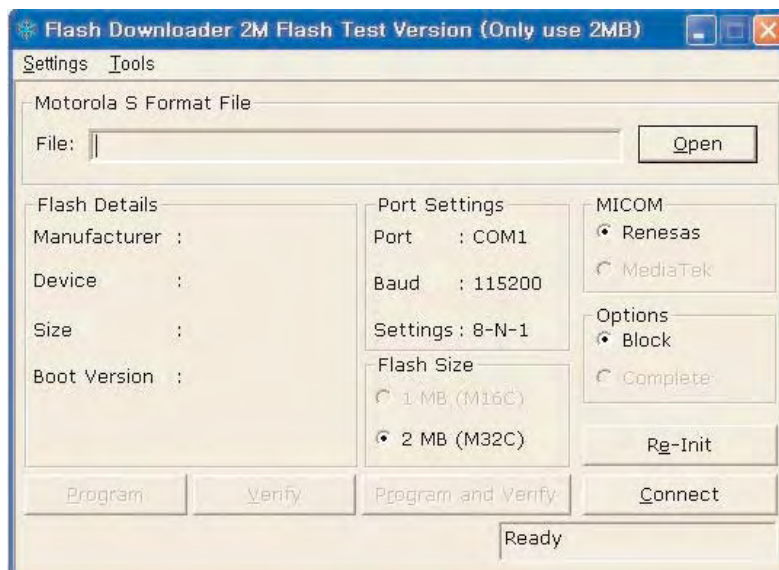
Connect Set(Service Jack)and Jig Cable to execute Program Update.



2. Flash Downloader program update

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

-Turn on the Set.



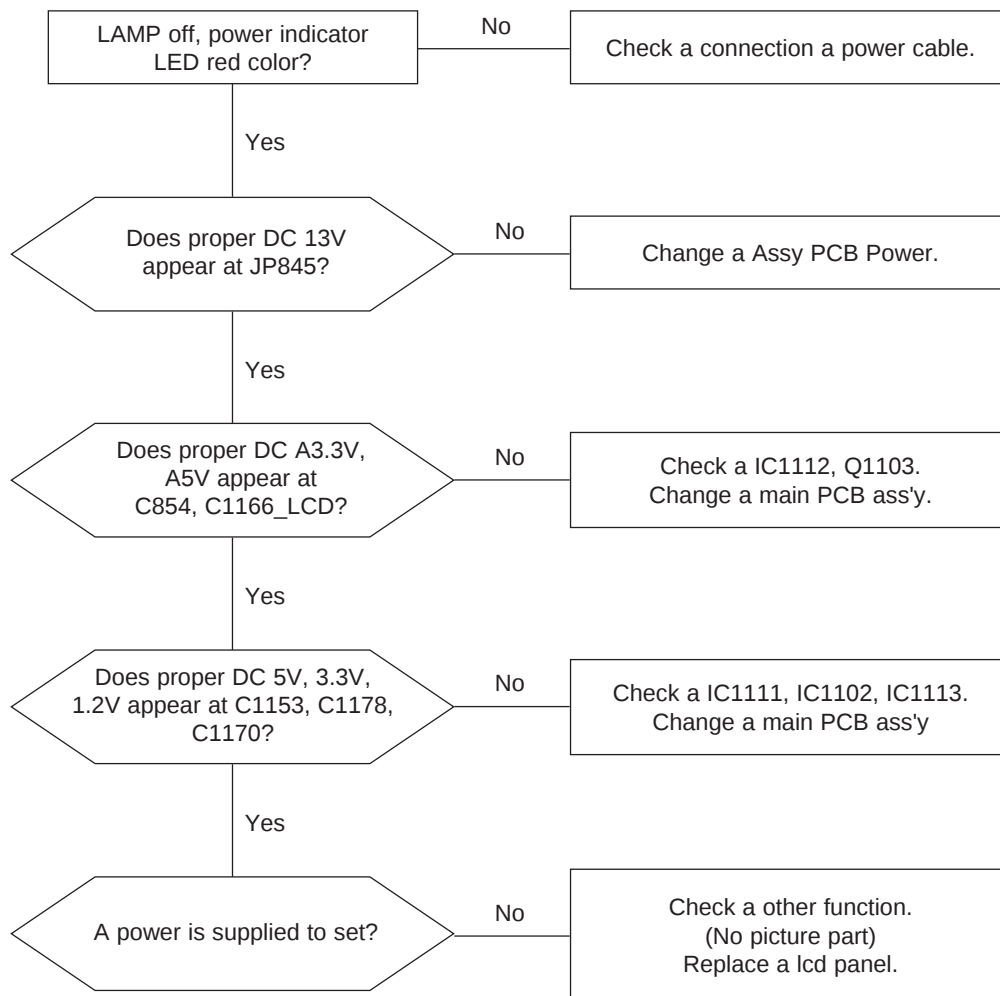
4 Troubleshooting

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

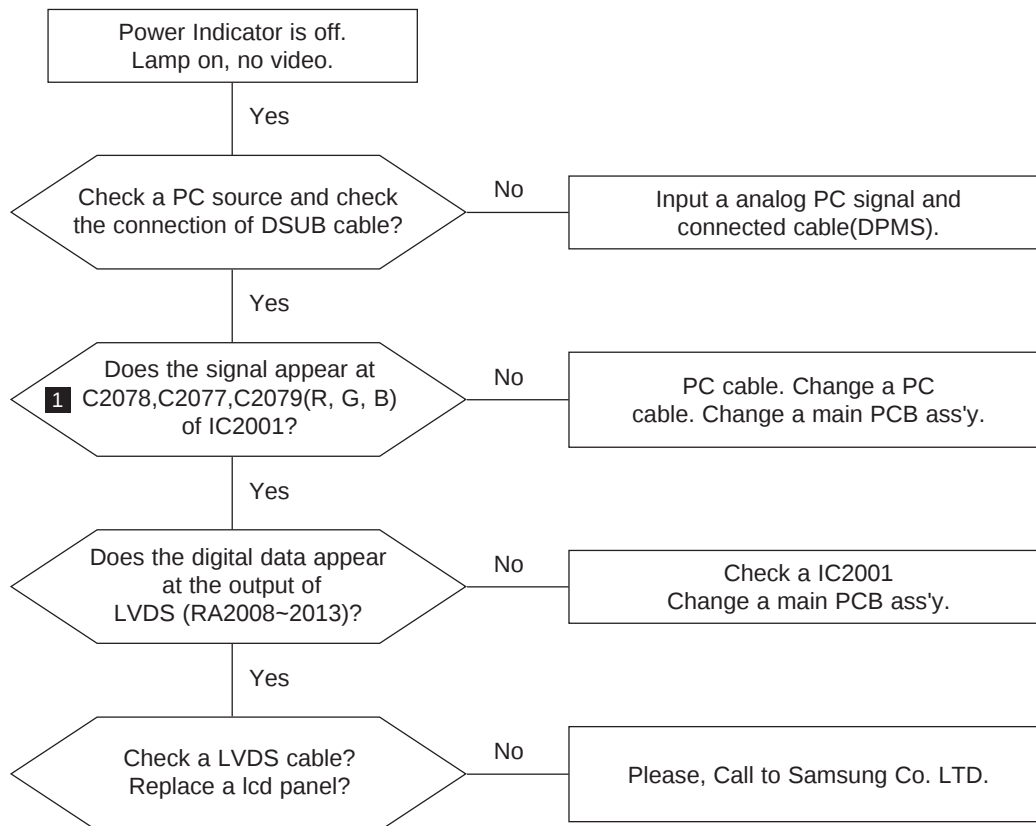
4-2-1 No Power



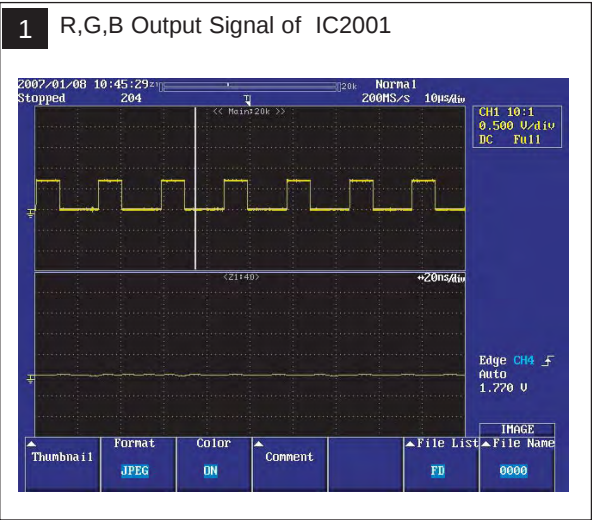
TIP: How to drive the circuit by force when LCD panel Lamp is faulty.

- It is available to drive the circuit when the pin of 2 in Main_Power_control CN1101 connect the pin of 4.

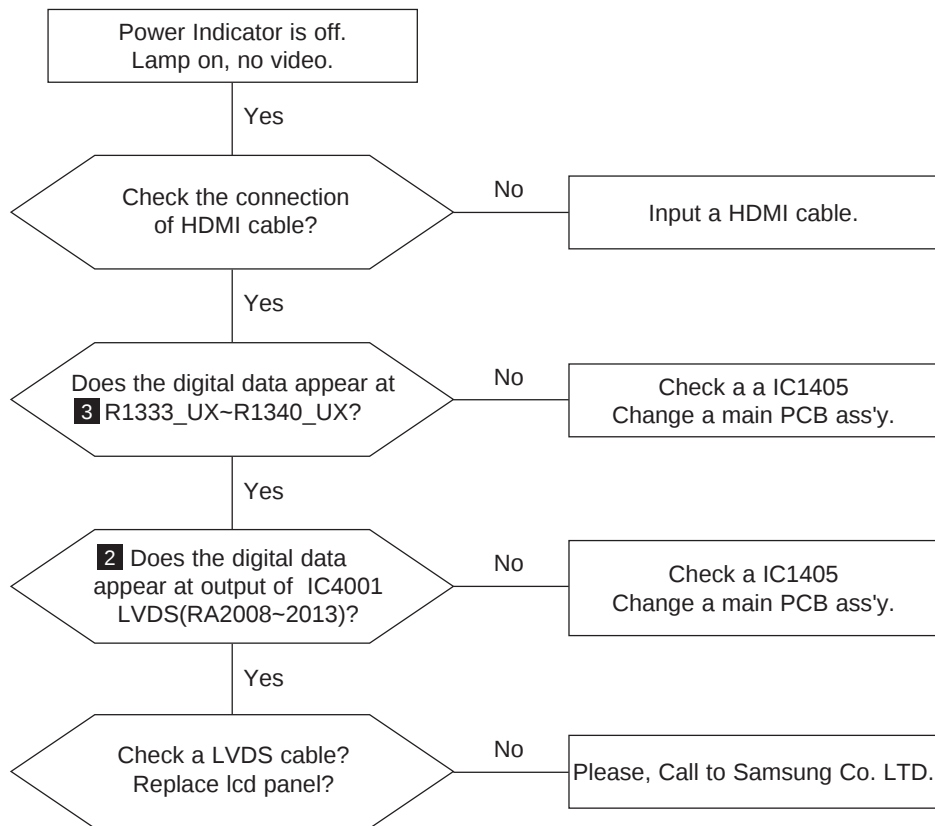
4-2-2 No Video (Analog PC)



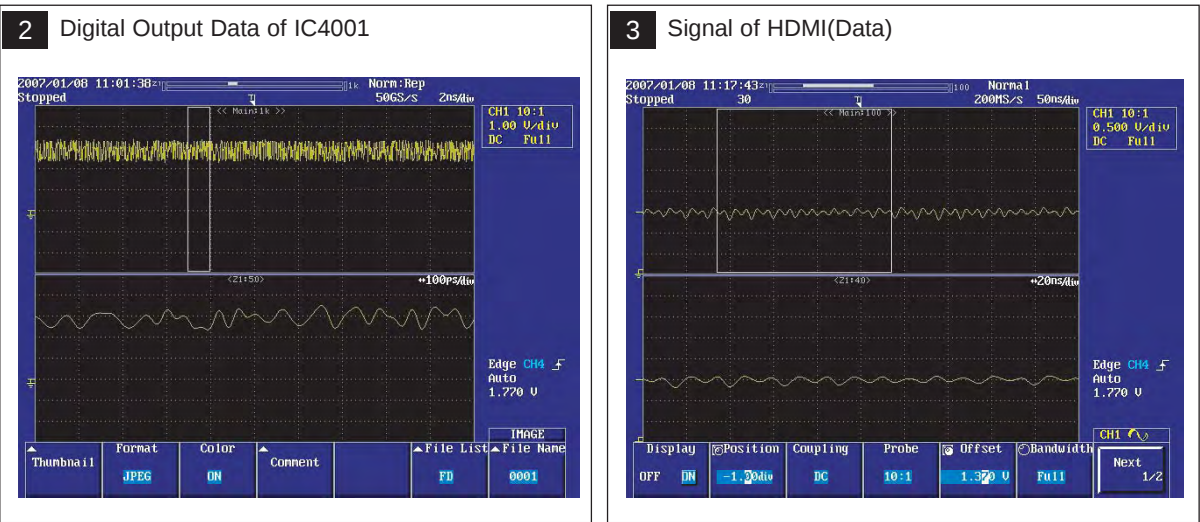
WAVEFORMS



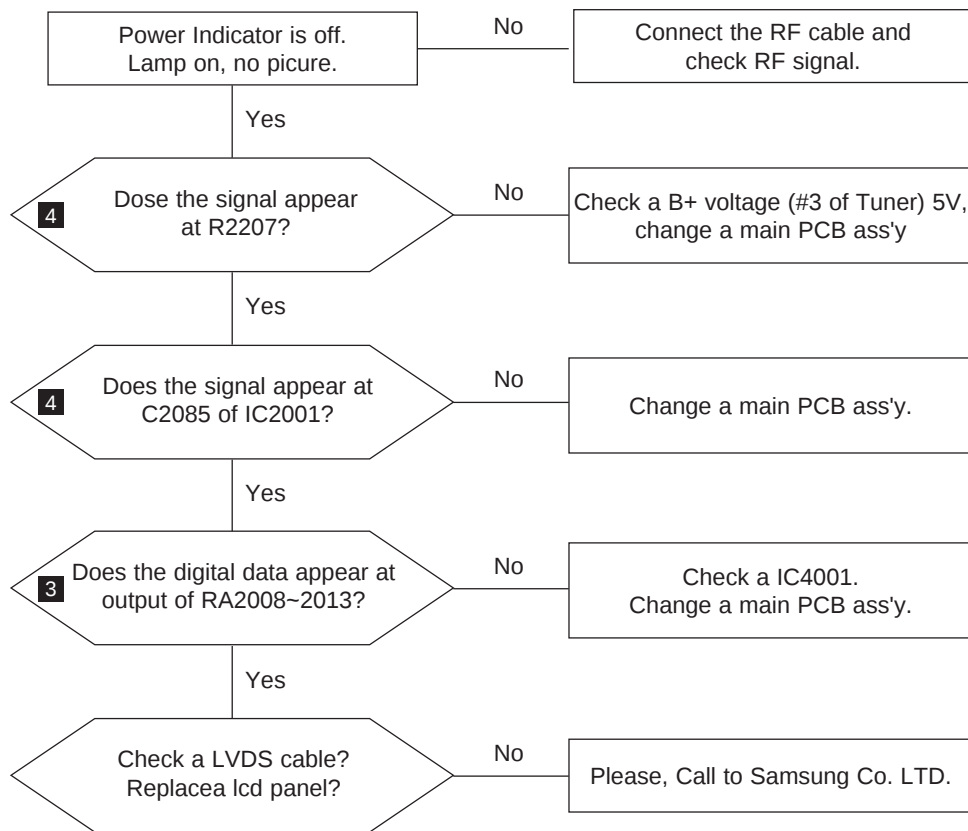
4-2-3 No Video (Digital-HDMI)



4 Troubleshooting

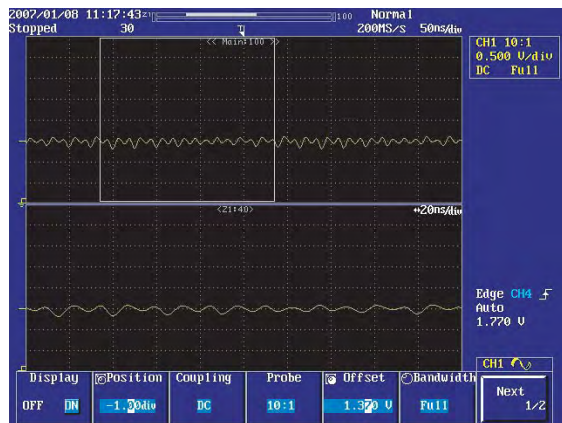


4-2-4 No Picture (Tuner_CVBS)

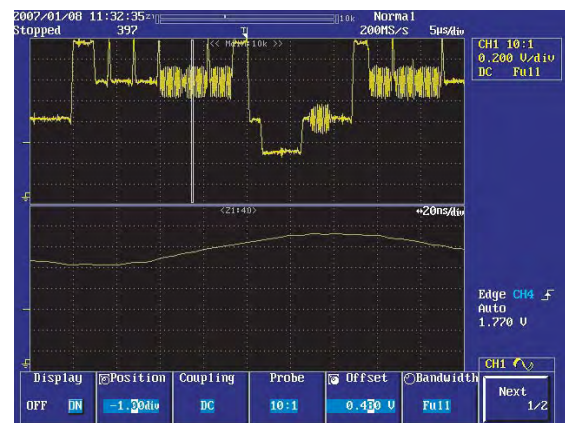


WAVEFORMS

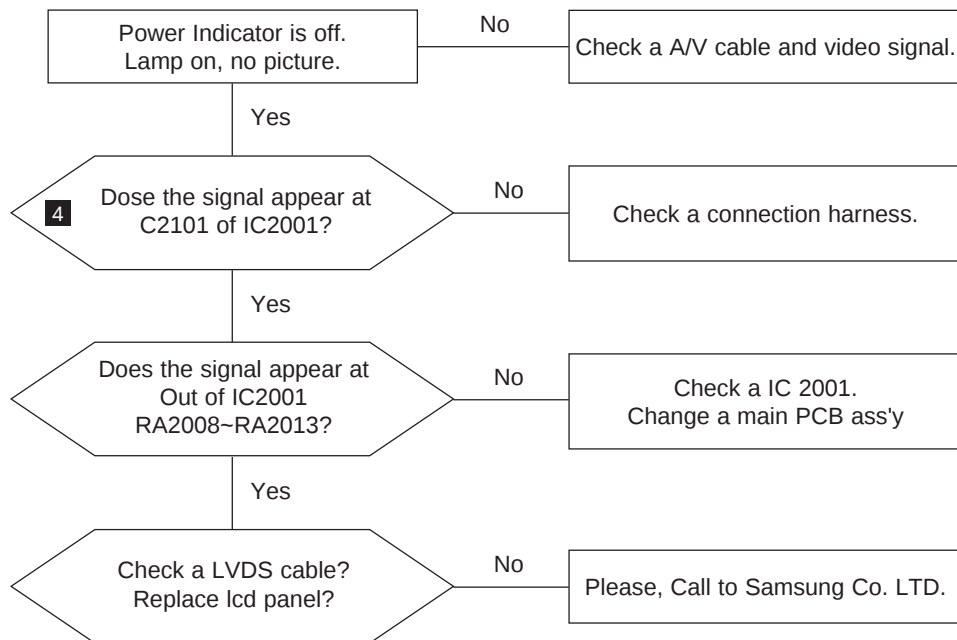
3 CVBS Output Signal



4 Tuner_CVBS Output Signal

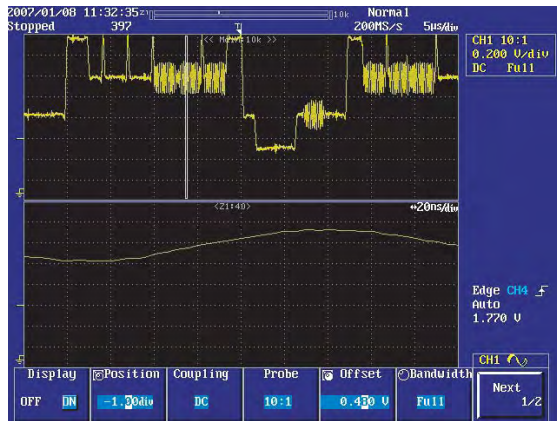


4-2-5 No Picture (Video_CVBS)

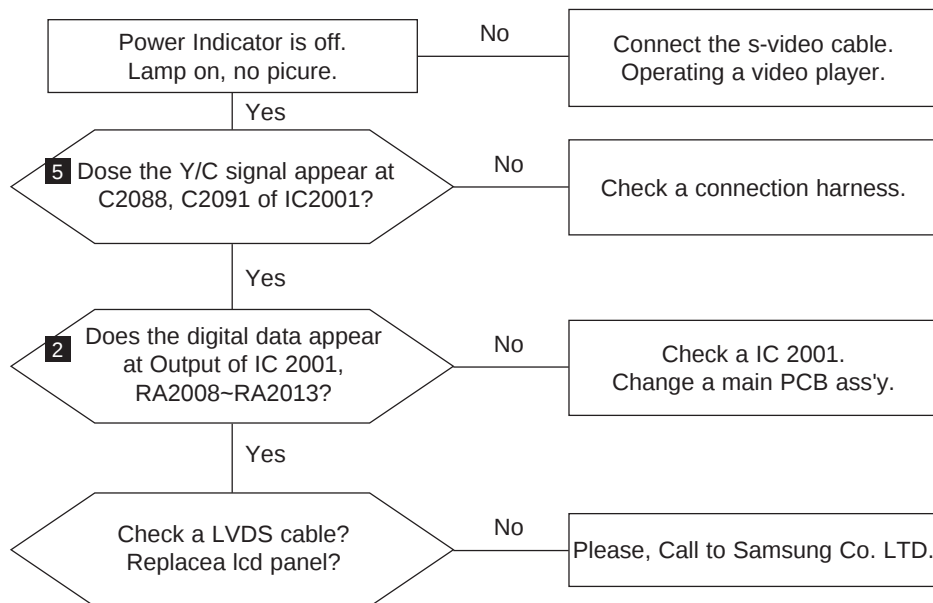


WAVEFORMS

4 CVBS Output Signal

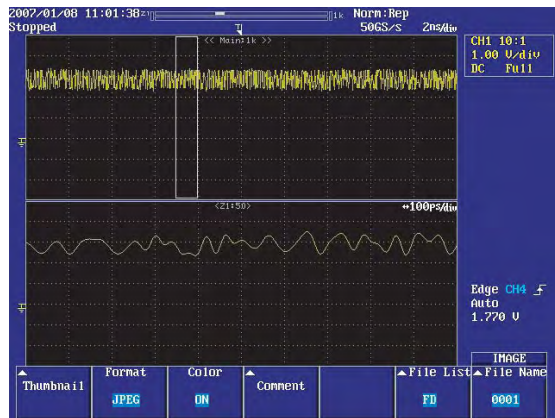


4-2-6 No Picture (S-VIDEO_Y,C)



WAVEFORMS

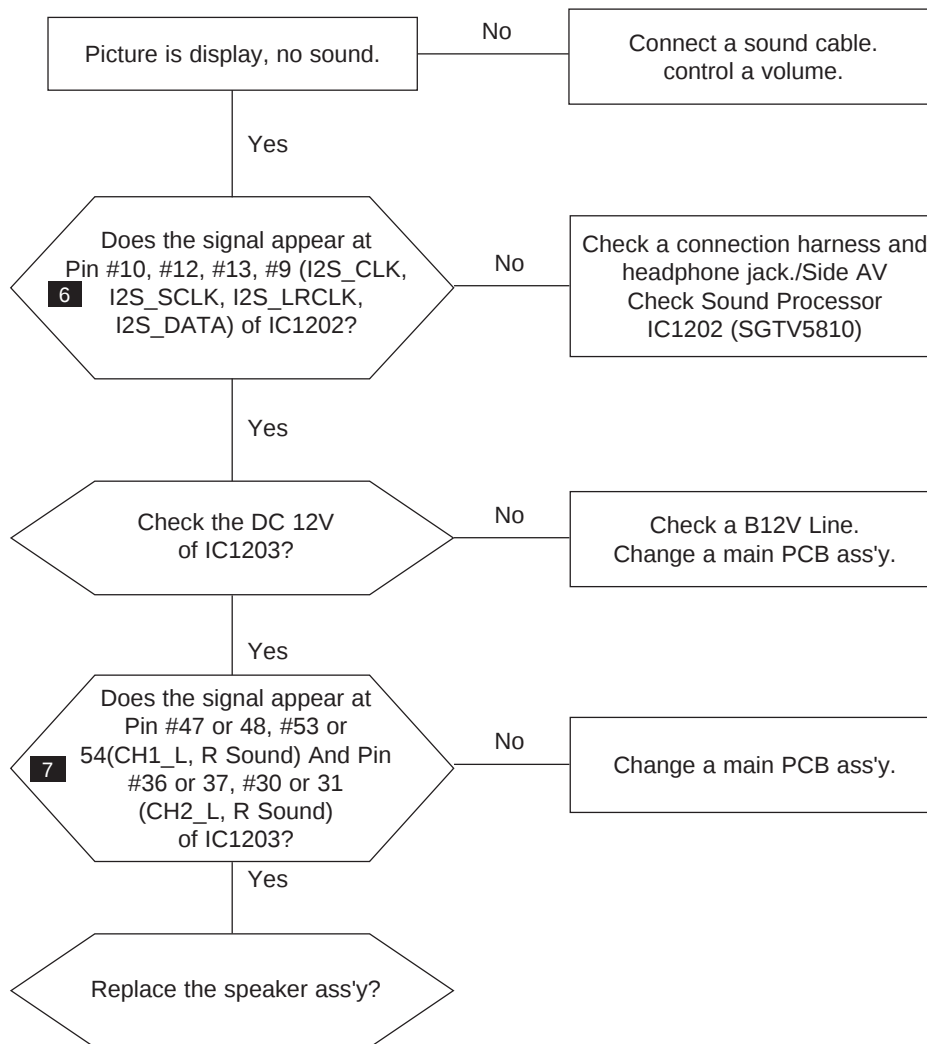
2 Digital Output Data of IC2001



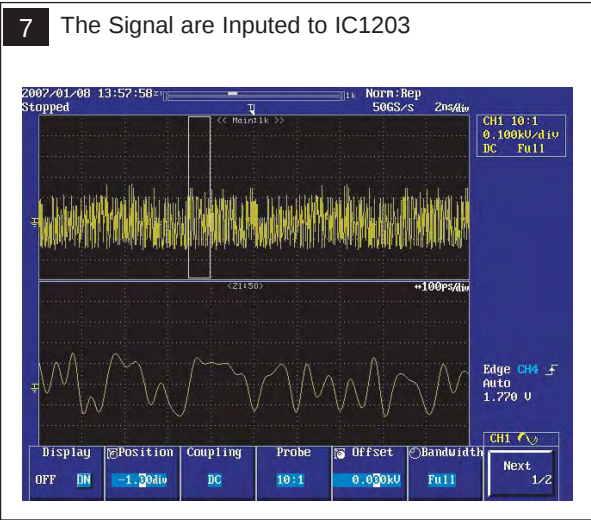
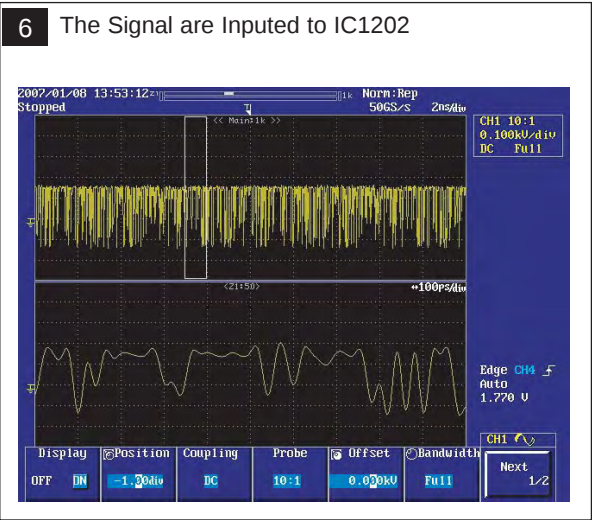
5 Analog Signal(Y,C) to IC2001



4-2-7 No Sound



WAVEFORMS

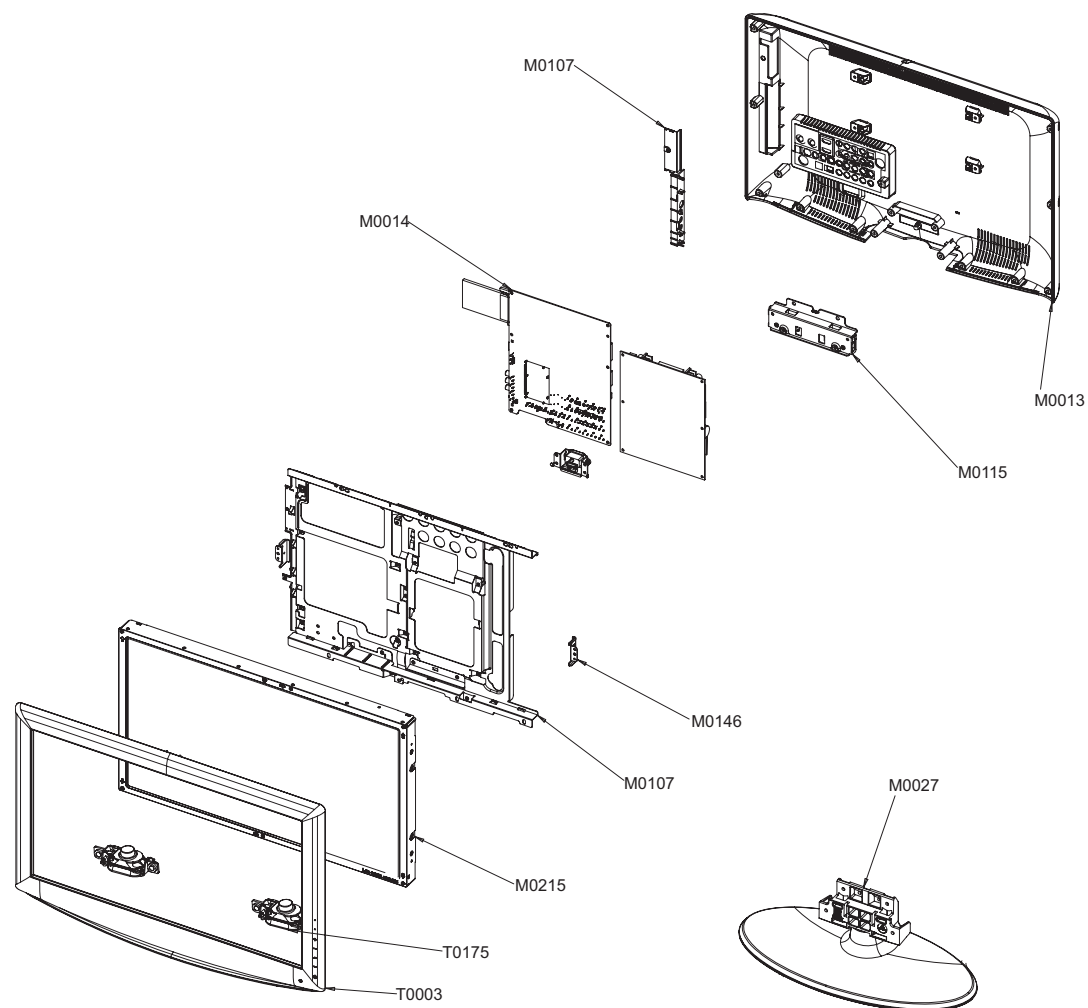


5 Exploded View and Parts List

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

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

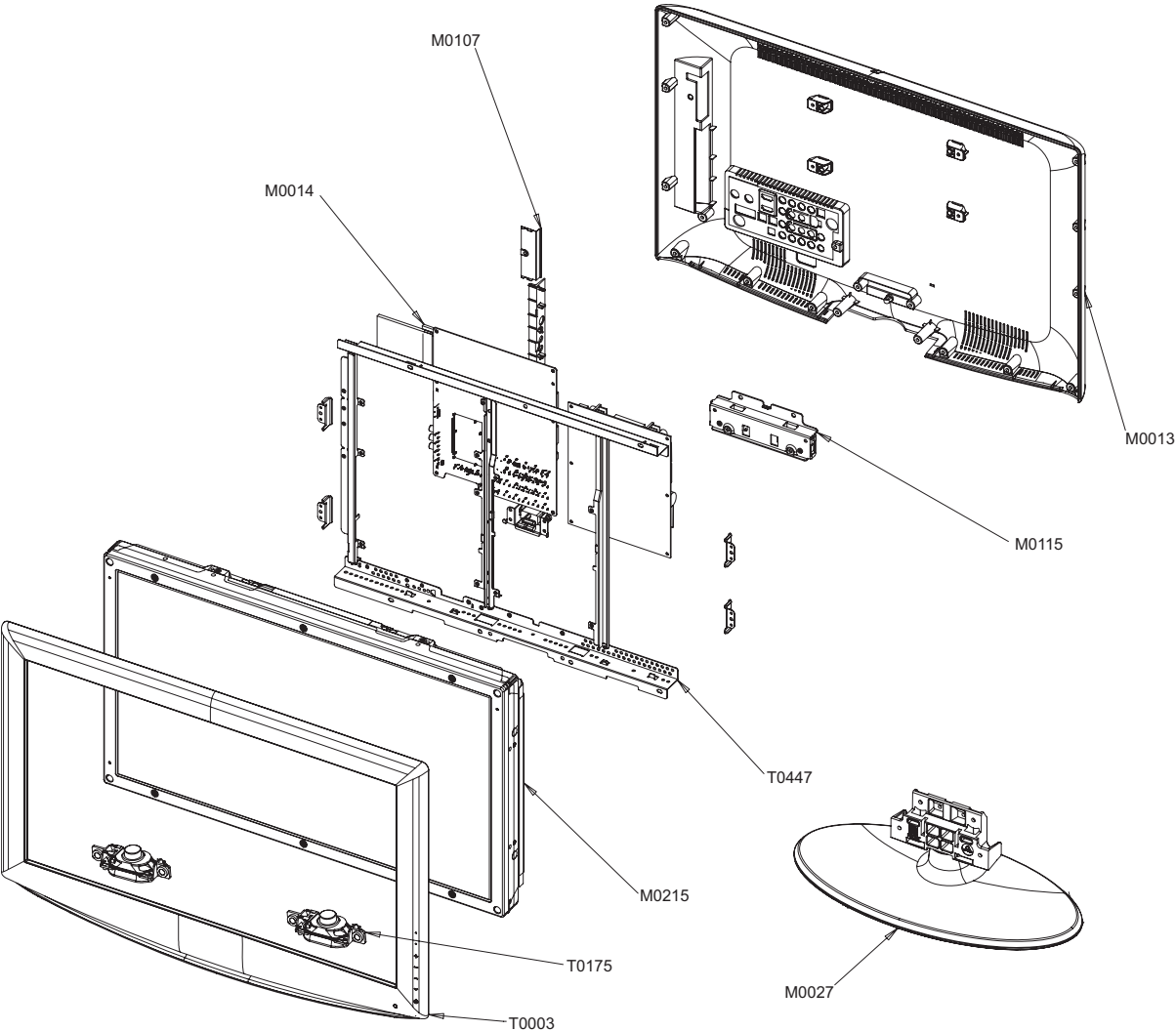
5-1 LE23R86BDX/LE23R86BCX Exploded View



5-2 LE23R86BCX/LE23R86BCX Parts list

Location	Code.No	Item & Specification	Q'ty	SA/SNA	Remark
T0003	BN96-04660B	ASSY COVER P-FRONT;23R81,EO(IDTV),-,ABS+	1	S.A	
T0175	BN96-04767A	ASSY SPEAKER P;16ohm,4pin,5W,Bordeaux PI	1	S.A	
M0215	BN07-00365A	LCD-PANEL;T230XW01,8bit,23inch,16.7M,16:	1	S.A	
M0107	BN63-03039A	SHIELD-COVER;MURANO40,PCM,T0.5,IDTV	1	S.N.A	
M0107	BN61-03037A	BRACKET-PCB;23 BORDEAUX PLUS,SECC,T1.0	1	S.N.A	
M0146	BN61-03060A	BRACKET-PANEL SIDE;BORDEAUX PLUS 23,SECC	2	S.N.A	
M0115	BN61-02965A	BRACKET-STAND LINK;32 BORDEAUX PLUS,SECC	1	S.N.A	
M0014	BN94-01121E	ASSY PCB MAIN;LE23R86BDX/*	1	S.A	
M0013	BN96-04663A	ASSY STAND P-BASE;23,26R81,NORMAL,-,ABS+	1	S.A	
M0013	BN96-04673A	ASSY COVER P-REAR;23R81,EO(IDTV),-,ABS+P	1	S.A	

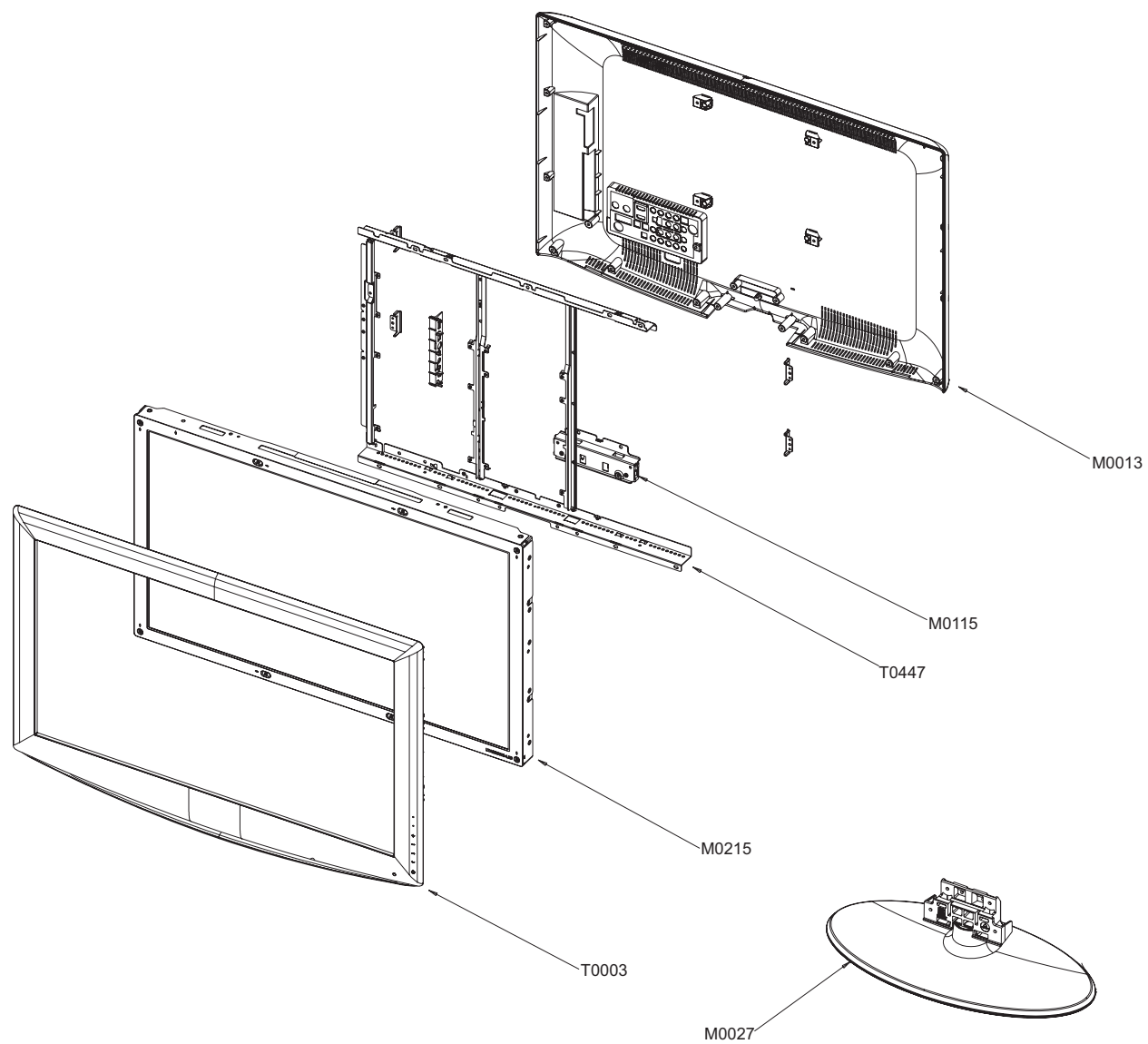
5-3 LE26R86BDX/LE26R86BCX Exploded View



5-4 LE26R86BDX/LE26R86BCX Parts list

Location	Code.No	Item & Specification	Q'ty	SA/SNA	Remark
T0003	BN96-05171C	ASSY COVER P-FRONT;26R89,EQ(IDTV),ABS+PM	1	S.A	
T0175	BN96-04767A	ASSY SPEAKER P;16ohm,4pin,5W,Bordeaux Pl	1	S.A	
M0215	BN07-00367A	LCD-PANEL;LTA260W2-L13,-,8bit,26inch,16.	1	S.A	
T0447	BN96-04682A	ASSY BRACKET P-PANEL;26R81,AMLCD,-,-,-,-	1	S.N.A	
M0115	BN61-02965A	BRACKET-STAND LINK;32 BORDEAUX PLUS,SECC	1	S.N.A	
M0014	BN94-01121B	ASSY PCB MAIN;LE26R86BDX/*	1	S.A	
M0107	BN63-03039A	SHIELD-COVER;MURANO40,PCM,T0.5,IDTV	1	S.N.A	
M0013	BN96-04663A	ASSY STAND P-BASE;23,26R81,NORMAL,-,ABS+	1	S.A	
M0013	BN96-04672A	ASSY COVER P-REAR;26R81,EQ(IDTV),-,ABS+P	1	S.A	

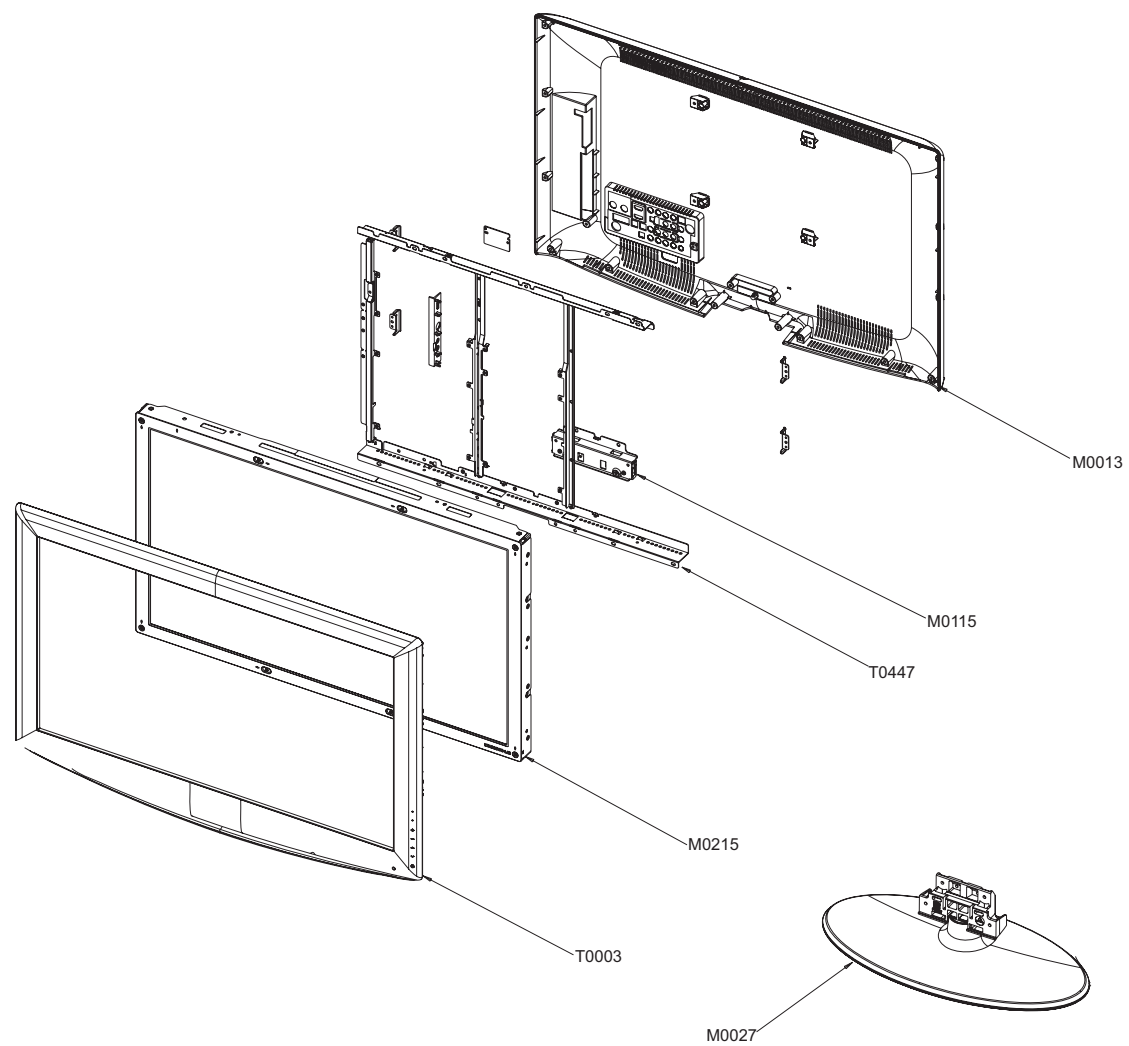
5-5 LE32R86BDX/LE32R86BCX Exploded View



5-6 LE32R86BDX/LE32R86BCX Parts list

Location	Code.No	Item & Specification	Q'ty	SA/SNA	Remark
T0003	BN96-04658D	ASSY COVER P-FRONT;32R81,EO,-,ABS+PMMA,H	1	S.A	
T0175	BN96-04768B	ASSY SPEAKER P;8ohm,4pin,10W,150/650,Bor	1	S.A	
M0215	BN07-00348A	LCD-PANEL;V315B1-L01,8bit,31.5inch,16.7M	1	S.A	
T0447	BN96-04681G	ASSY BRACKET P-PANEL;32R81,CMO,PAL,SPACE	1	S.N.A	
M0115	BN61-02965A	BRACKET-STAND LINK;32 BORDEAUX PLUS,SECC	1	S.N.A	
M0014	BN94-01325A	ASSY PCB MAIN-CMO;LE32R81BX/*	1	S.N.A	
M0013	BN96-04662A	ASSY STAND P-BASE;32R81,M81,SWIVEL,-,ABS	1	S.A	
M0013	BN96-04671B	ASSY COVER P-REAR;32R81,EO,ABS+PMMA,HB,B	1	S.A	

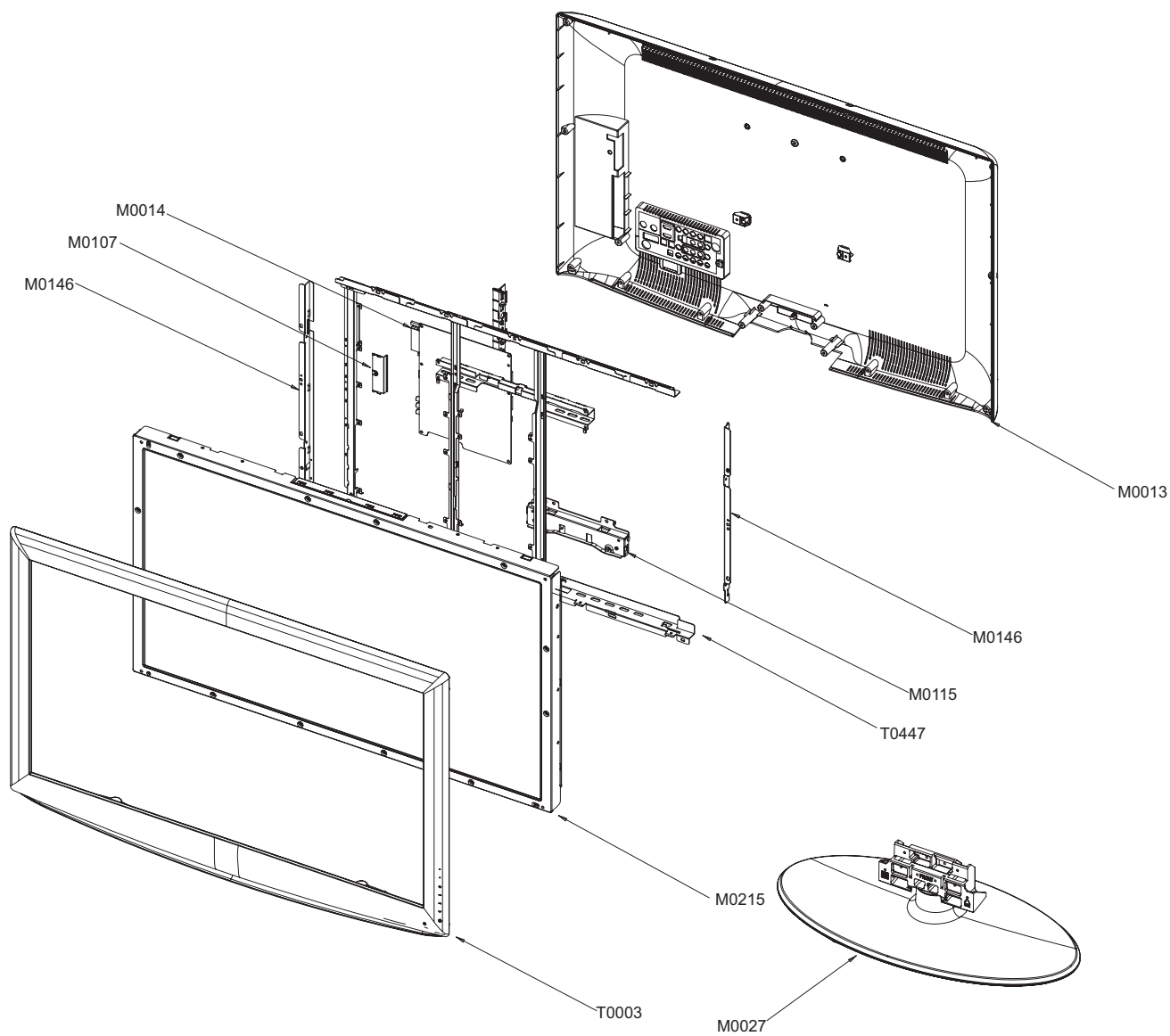
5-7 LE32R81BX Exploded View



5-8 LE32R81BX Parts list

Location	Code.No	Item & Specification	Q'ty	SA/SNA	Remark
T0003	BN96-04658V	ASSY COVER P-FRONT;32R81,EO,-,ABS+PMMA,H	1	S.A	
T0175	BN96-04768B	ASSY SPEAKER P;8ohm,4pin,10W,150/650,Bor	1	S.A	
M0215	BN07-00385A	LCD-PANEL;LTA320WT-L07,8bit,32inch,16.7M	1	S.A	
T0447	BN96-04681A	ASSY BRACKET P-PANEL;32R81,-,-,-,AM,CM	1	S.N.A	
M0115	BN61-02965A	BRACKET-STAND LINK;32 BORDEAUX PLUS,SECC	1	S.N.A	
M0014	BN94-01184Y	ASSY PCB MAIN-AMLCD;LE32R81BX/*	1	S.N.A	
M0027	BN96-04662A	ASSY STAND P-BASE;32R81,M81,SWIVEL,-,ABS	1	S.A	
M0013	BN96-04671B	ASSY COVER P-REAR;32R81,EO,ABS+PMMA,HB,B	1	S.A	

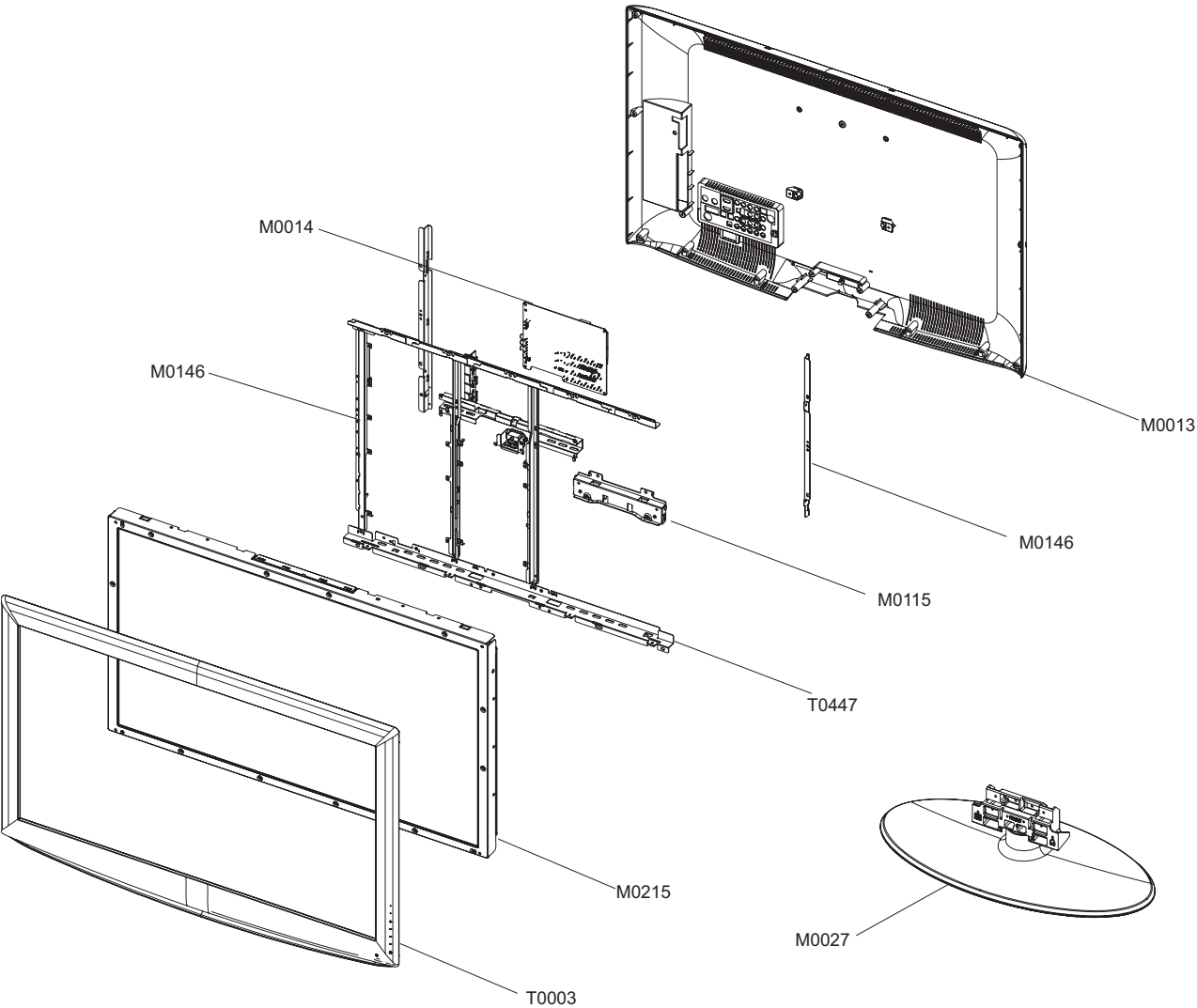
5-9 LE37R86BDX/LE37R86BCX Exploded View



5-10 LE37R86BDX/LE37R86BCX Parts list

Location	Code.No	Item & Specification	Q'ty	SA/SNA	Remark
T0003	BN96-04657A	ASSY COVER P-FRONT;37R81,EO(IDTV),-,ABS+	1	S.A	
T0175	BN96-04768A	ASSY SPEAKER P;8ohm,4pin,10W,Bordeaux PI	1	S.A	
M0215	BN07-00393A	LCD-PANEL;T370XW02,8bit,37inch,16.7M,16:	1	S.A	
T0447	BN96-04680A	ASSY BRACKET P-PANEL;BORDEAUX PLUS37	1	S.N.A	
M0115	BN61-02882A	BRACKET-STAND LINK;TULIP,40,SECC,T1.6,-,	1	S.N.A	
M0014	BN94-01121C	ASSY PCB MAIN;LE37R86BDX/*	1	S.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	
M0013	BN96-04661A	ASSY STAND P-BASE;37,40R81,SWIVEL,-,ABS+	1	S.A	
M0013	BN96-04670A	ASSY COVER P-REAR;37R81,EO(IDTV),-,ABS+P	1	S.A	

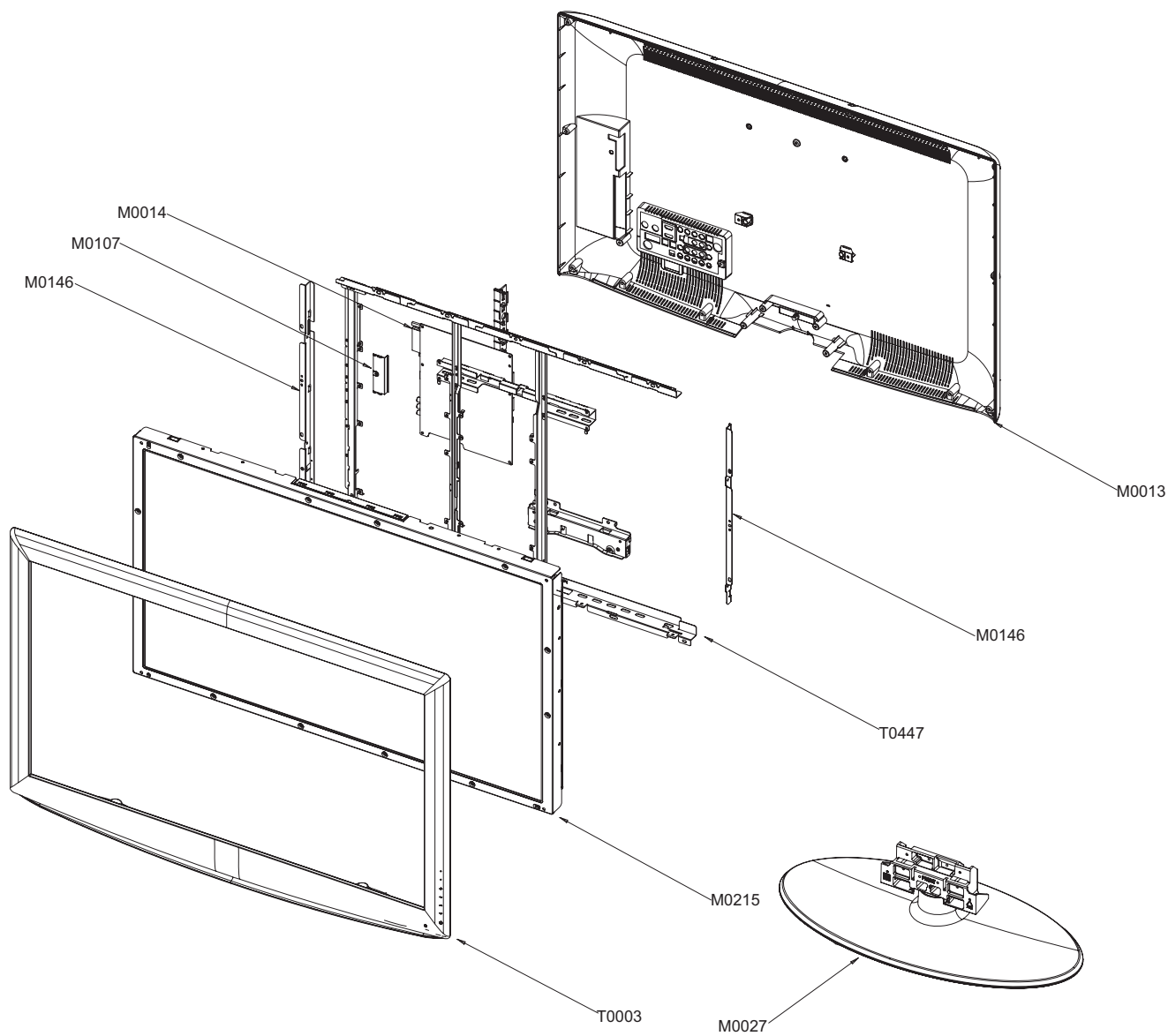
5-11 LE37R81BX Exploded View



5-12 LE37R81BX Parts list

Location	Code.No	Item & Specification	Q'ty	SA/SNA	Remark
T0003	BN96-04657A	ASSY COVER P-FRONT;37R81,EO(IDTV),-,ABS+	1	S.A	
T0175	BN96-04768A	ASSY SPEAKER P;8ohm,4pin,10W,Bordeaux PI	1	S.A	
M0215	BN07-00393A	LCD-PANEL;T370XW02,8bit,37inch,16.7M,16:	1	S.A	
T0447	BN96-04680A	ASSY BRACKET P-PANEL;BORDEAUX PLUS37	1	S.N.A	
M0115	BN61-02882A	BRACKET-STAND LINK;TULIP,40,SECC,T1.6,-,	1	S.N.A	
M0014	BN94-01121C	ASSY PCB MAIN;LE37R86BDX/*	1	S.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	
M0013	BN96-04661A	ASSY STAND P-BASE;37,40R81,SWIVEL,-,ABS+	1	S.A	
M0013	BN96-04670A	ASSY COVER P-REAR;37R81,EO(IDTV),-,ABS+P	1	S.A	

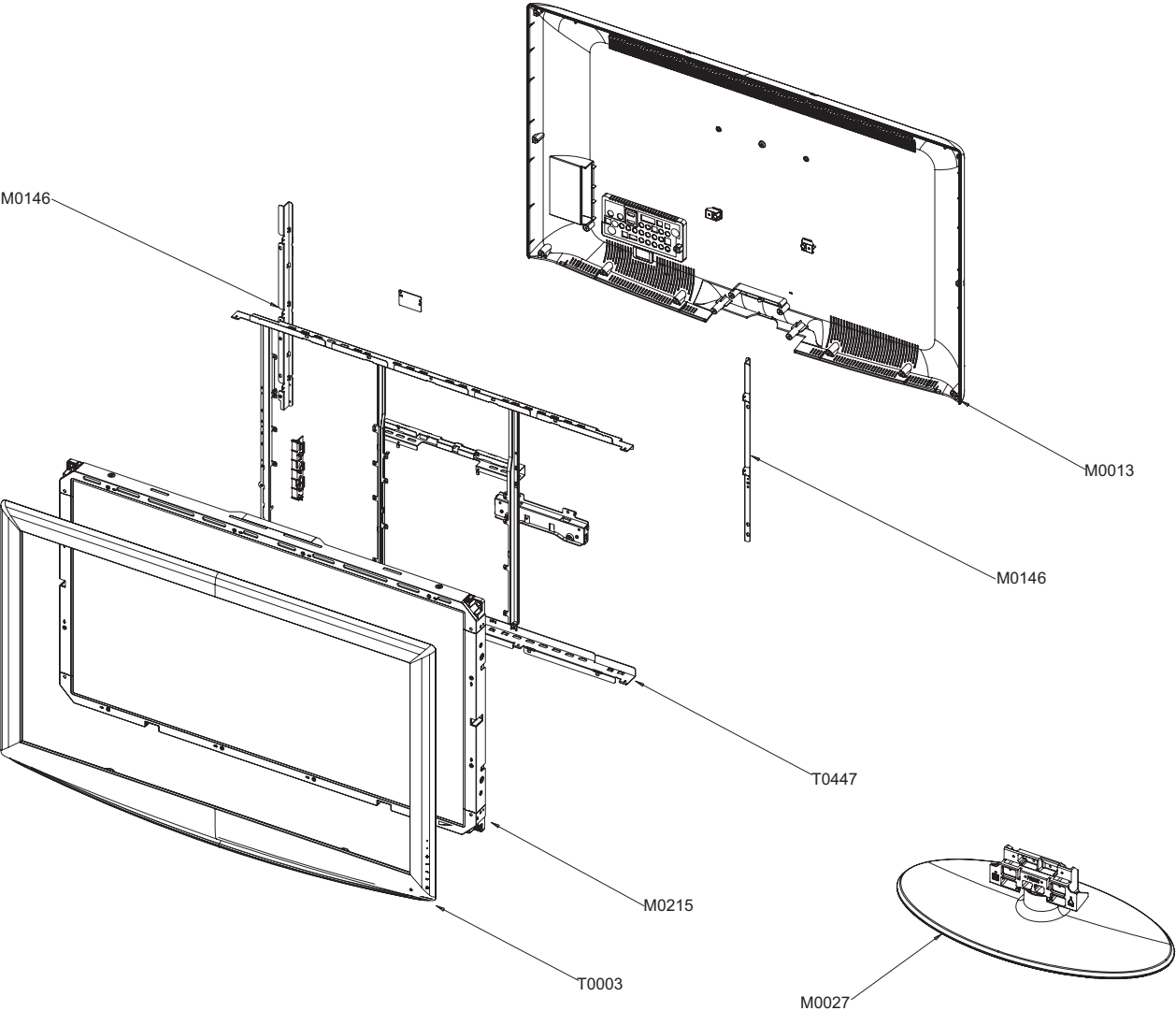
5-13 LE40R86BDX/LE40R86BCX Exploded View



5-14 LE40R86BDX/LE40R86BCX Parts list

Location	Code.No	Item & Specification	Q'ty	SA/SNA	Remark
T0003	BN96-04656B	ASSY COVER P-FRONT;40R81,EO(IDTV),-,ABS+	1	S.A	
T0175	BN96-04768A	ASSY SPEAKER P;8ohm,4pin,10W,Bordeaux PI	1	S.A	
M0215	BN07-00387A	LCD-PANEL; LTA400WT-L06,8bit,40inch,16.7	1	S.A	
T0447	BN96-04679A	ASSY BRACKET P-PANEL;BORDEAUX PLUS40	1	S.N.A	
M0107	BN63-03039A	SHIELD-COVER;MURANO40,PCM,T0.5,IDTV	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	
M0013	BN96-04661A	ASSY STAND P-BASE;37,40R81,SWIVEL,-,ABS+	1	S.A	
M0013	BN96-04669A	ASSY COVER P-REAR;40R81,EO(IDTV),-,ABS+P	1	S.A	

5-15 LE40R81WX Exploded View



5-16 LE40R81WX Parts list

Location	Code.No	Item & Specification	Q'ty	SA/SNA	Remark
T0003	BN96-04656L	ASSY COVER P-FRONT;40R81,EO,ABS+PMMA,HB,	1	S.A	
T0175	BN96-04768A	ASSY SPEAKER P;8ohm,4pin,10W,Bordeaux PI	1	S.A	
M0215	BN07-00387A	LCD-PANEL; LTA400WT-L06,8bit,40inch,16.7	1	S.A	
T0447	BN96-04679D	ASSY BRACKET P-PANEL;40R81,IP BOARD,SPAC	1	S.N.A	
M0107	BN61-03036A	BRACKET-PCB;40 BORDEAUX PLUS,SECC,T1.2,S	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	
M0027	BN96-04661B	ASSY STAND P-BASE;40R81,WHITE,SWIVEL,-,A	1	S.A	
M0013	BN96-04669D	ASSY COVER P-REAR;40R81,EO,-,ABS+PMMA,HB	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 LE32R81BX Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
		LE32R81BX/XEC	LE32R81B,N31A/32R80-GBP,32,LCD-TV,SPAIN		
0.1	M0001	BN90-01145Z	ASSY COVER FRONT;32R81,EO,-,ABS+PMMA,HB,	1	S.N.A
..2	T0003	BN96-04658V	ASSY COVER P-FRONT;32R81,EO,-,ABS+PMMA,H	1	S.A
...3	T0081	6002-001294	SCREW-TAPPING;BH,+,-,M4,L16,ZPC(BLK)	2	S.A
...3	M0081	6003-001188	SCREW-TAPTITE;BH,+,-,B,M4,L10,ZPC(WHT),S	1	S.N.A
...3	T0069	AA60-00091G	SPACER-FELT;-FELT,200X10,-,-,BLK,T0.5,-	1	S.N.A
...3	T0069	BN60-00051C	SPACER-FELT;FELT,L70,BLK,T0.5,W4	2	S.N.A
...3		BN63-01151A	FELT-NON WOVEN;MM17NS,T0.5,393,10,BLACK	2	S.N.A
...3	CCM1	BN63-02183F	COVER-SHEET;Rhcm,PE Vinyl,T0.05,900mm,20	1.48	S.N.A
...3	M0112	BN63-03099D	COVER-FRONT;32R81,EO,ABS+PMMA,-,-,-,HB,-	1	S.N.A
...3	T0056	BN63-03415A	COVER-DECORATION;32 BORDEAUX PLUS,PC,CLE	1	S.N.A
...3	T0603	BN64-00588A	WINDOW-RMC;32,BORDEAUX PLUS,PC,-,-,-,HB,	1	S.N.A
...3		BN96-04701A	ASSY HOLDER P-BOSS;32R81,-,HIPS,HB,-,BK5	1	S.N.A
...4		BN61-02944A	HOLDER-BOSS BOTTOM;32R81,HIPS,HB,-,-,-,B	1	S.N.A
...4		BN61-03261A	BOSS-TAPE;Tulip,ACRYL,T1.1,W12mm,GRAY,TA	1.17	S.N.A
...3		BN96-04802A	ASSY MISC P-BLU;Bordeaux Plus,BACK LIGHT	1	S.N.A
...3	M0145	BN96-04809A	ASSY BOARD P-FUNCTION&IR&800/1;LE32R86BD	1	S.A
..2	T0175	BN96-04768B	ASSY SPEAKER P;8ohm,4pin,10W,150/650,Bor	1	S.A
0.1	M0216	BN90-01149A	ASSY STAND;32R81,M81,SWIVEL,-,-,-,-	1	S.N.A
..2	T0524	6902-000241	BAG PE;NITRON/HDPE,T0.5/T0.012,W600,L600	1	S.N.A
..2	M0027	BN96-04662A	ASSY STAND P-BASE;32R81,M81,SWIVEL,-,ABS	1	S.A
...3	T0081	6002-001294	SCREW-TAPPING;BH,+,-,M4,L16,ZPC(BLK)	4	S.A
...3	M0081	6003-001239	SCREW-TAPTITE;FH,+,-,B,M4,L10,ZPC(WHT),S	4	S.A
...3		BN61-02232A	HOLDER-SWIVEL RING;32R71,ACETAL NATUAL,T	1	S.N.A
...3		BN61-02233A	HOLDER-SWIVEL RING;32R71,ACETAL NATUAL,B	1	S.N.A
...3		BN61-02236A	BRACKET-HINGE SWIVEL;BORDEAUX 32,SECC,T1	1	S.N.A
...3		BN61-02942A	BRACKET-STAND BOTTOM;32,BORDEAUX PLUS,SE	1	S.N.A
...3	T0920	BN61-02943A	GUIDE-STAND;32R81,ABS,V0,-,-,-,BK500,-	1	S.N.A
...4		BN61-02967A	BRACKET-SUPPORT STAND;32 BORDEAUX PLUS,S	1	S.N.A
...4	T0514	BN61-03046A	BRACKET-SUPPORT;32 BORDEAUX PLUS,SECC.2	1	S.N.A
...3	CCM1	BN63-02183D	COVER-SHEET;Rhcm,PE Vinyl,T0.05,680mm,20	0.4	S.N.A
...3	T0004	BN63-03102A	COVER-STAND BASE;32R81,ABS+PMMA,-,-,-,HB	1	S.N.A
...3	T0132	BN73-00052A	RUBBER FOOT;ARES 17,SILICON,DIA 17 * T1.	4	S.N.A
0.1	M0002	BN90-01153D	ASSY COVER REAR;32R81,EO,-,ABS+PMMA,HB,B	1	S.N.A
..2	T0081	6002-001294	SCREW-TAPPING;BH,+,-,M4,L16,ZPC(BLK)	2	S.A
..2	T0081	6002-001294	SCREW-TAPPING;BH,+,-,M4,L16,ZPC(BLK)	13	S.A
..2	M0013	BN96-04671B	ASSY COVER P-REAR;32R81,EO,ABS+PMMA,HB,B	1	S.A
...3	M0081	6003-001188	SCREW-TAPTITE;BH,+,-,B,M4,L10,ZPC(WHT),S	4	S.N.A
...3	CCM1	BN63-02183F	COVER-SHEET;Rhcm,PE Vinyl,T0.05,900mm,20	0.7	S.N.A
...3	M0006	BN63-03167B	COVER-REAR;32R81,EO,ABS+PMMA,-,-,-,HB,-	1	S.N.A
...3	T0071	BN64-00555A	INLAY-TERMINAL;07,COMMON,EO,PS SHEET,T0.	1	S.N.A
...3	T0064	BN65-00002A	CLAMPER CORE;BORDEAUX,PP,V0,BLK	1	S.N.A
...3	T0101	BN61-03348A	BRACKET-WALL;LCD TV 32",SECC T1.6	4	S.N.A
0.1		BN91-01332M	ASSY SHIELD-SPE;LE32R81BX/*	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	4	S.A
..2	M0081	6003-001188	SCREW-TAPTITE;BH,+,-,B,M4,L10,ZPC(WHT),S	2	S.N.A
..2	M0081	6003-001188	SCREW-TAPTITE;BH,+,-,B,M4,L10,ZPC(WHT),S	8	S.N.A
..2	M0081	6003-001439	SCREW-TAPTITE;BH,+,-,S,M4,L8,ZPC(WHT),SW	1	S.N.A
..2	T0073	AA63-01200A	GASKET-EMI;42S5,Ni,T0.1,W40,L70,Fabric	2	S.N.A
..2	M2893	BN39-00603M	LEAD CONNECTOR;LE40R73BDX,UL1007#26,UL/C	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#30,30P,	1	S.A
..2	M2893	BN39-00918B	LEAD CONNECTOR;BORDEAUX PLUS,UL1007#26,U	1	S.A
..2	T0764	BN44-00156A	SMPS-LCDTV;MK32P,SEM,AC/DC,180W,AC100 ~	1	S.A
..2	M0146	BN61-02419A	BRACKET-PANEL SIDE;SONOMA 32,SECC,T1.2,A	4	S.N.A

6 Electrical Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
..2	M0114	BN61-02500A	HOLDER-WIRE;NYLON6.6,NATURAL	2	S.N.A
..2		BN61-02952B	HOLDER-SIDE AV;07 COMMON,E0,ABS+PMMA,HB,	1	S.N.A
..2	M0115	BN61-02965A	BRACKET-STAND LINK;32 BORDEAUX PLUS,SECC	1	S.N.A
..2	T0447	BN96-04681A	ASSY BRACKET P-PANEL;32R81,-,-,-,AM,CM	1	S.N.A
...3	M0131	AA63-01437A	GASKET;Bordeaux,Conductive Fabric,20mm,9	1	S.N.A
...3		BN61-02200A	BRACKET-GUIDE POWER;Bordeaux 32,SECC,T1.	1	S.N.A
...3	M0146	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	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
...3	M0131	BN63-03327A	GASKET;BORDEAUX PLUS,Conductive Fabric,2	1	S.N.A
0.1		BN91-01342B	ASSY LCD-AMLCD;LNT3253HX/*	1	S.N.A
..2	M0215	BN07-00385A	LCD-PANEL;LTA320WT-L07,8bit,32inch,16.7M	1	SA
0.1	M0017	BN91-01367M	ASSY CHASSIS;LE32R81BX/*	1	S.N.A
..2	M0014	BN94-01184Y	ASSY PCB MAIN-AMLCD;LE32R81BX/*	1	S.N.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	SA
...3	JA1406_OP	3701-001400	CONNECTOR-DSUB;15P,3R,FEMALE,STRAIGHT,Ni	1	SA
...3	CN330	3711-000058	HEADER-BOARD TO CABLE;BOX,4P,1R,2.5MM,AN	1	SA
...3	CN330	3711-004484	HEADER-BOARD TO CABLE;BOX,5P,1R,2mm,STRA	1	SA
...3	CN330	3711-004531	HEADER-BOARD TO CABLE;BOX,10P,1R,2mm,ANG	1	SA
...3	CN330	3711-005606	HEADER-BOARD TO CABLE;BOX,30P,2R,2mm,STR	1	SA
...3	CN330	3711-005842	HEADER-BOARD TO CABLE;BOX,24P,2R,2MM,STR	1	SA
...3	JA330	3722-000143	JACK-PHONE;1P(VER),AG,BLK,ANGLE	1	SA
...3	JA1601_EU	3722-000498	JACK-SCART;21P,-,SN,BLK,NO	1	SA
...3	JA1608_EU	3722-000498	JACK-SCART;21P,-,SN,BLK,NO	1	SA
...3	JA330	3722-001061	JACK-PHONE;1P,3.6PI,AG,BLK,N	1	SA
...3	JA330	3722-001061	JACK-PHONE;1P,3.6PI,AG,BLK,N	1	SA
...3	JA332	3722-001163	JACK-VHS;4P,AU,BLK,ANGLE	1	SA
...3	JA333	3722-002360	JACK-PIN;3P,AU,GRN/BLU/RED,STRAIGHT	1	SA
...3	JA333	3722-002362	JACK-PIN;2P,Sn,WHT/RED,STRAIGHT	1	SA
...3	JA333	3722-002362	JACK-PIN;2P,Sn,WHT/RED,STRAIGHT	1	SA
...3	JA333	3722-002362	JACK-PIN;2P,Sn,WHT/RED,STRAIGHT	1	SA
...3	JA333	3722-002543	JACK-PIN;3P,Sn,RED/WHT/YEL,ANGLE	1	SA
...3	CIS3	BN40-00079A	TUNER;TCPW3001PD32S(H),TCPW3001PD32S(H),	1	SA
...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	T0174	BN97-01399Y	ASSY SMD;LE32R81BX/*	1	S.N.A
....4	SUB05	0202-001477	SOLDER-CREAM;LST309-M,-,D20-45\$,96.5Sn/	4.559	S.N.A
....4	D1107	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	SA
....4	D1204	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	SA
....4	D1208	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	SA
....4	D1209	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	SA
....4	D1210	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	SA
....4	D1211	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	SA
....4	D1212	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	SA
....4	D1213	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	SA
....4	D1214	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	SA
....4	D1218	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	SA
....4	D1219	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	SA
....4	D1640	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	SA
....4	D1641	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	SA
....4	D1807	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	SA
....4	D2201_LUX	0401-000133	DIODE-SWITCHING;RLS4148,75V,150mA,LL-34,	1	SA
....4	D1101	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	SA
....4	D1403	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	SA
....4	D1404	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	SA
....4	D1407	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	SA
....4	D1410	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	SA
....4	D1411	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	SA
....4	D1412	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	SA
....4	D1424	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	SA
....4	D1425	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	SA

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....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
....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	D1646_PAD	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	D1648_LAMP	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	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

6 Electrical Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	D1402	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	SA
....4	D1428	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	SA
....4	D1449_NSID	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	SA
....4	D1804	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	SA
....4	D1810	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	SA
....4	D1608	0403-001169	DIODE-ZENER;RLZ16C,15.96-16.51V,500MW,LL	1	SA
....4	D1636	0403-001169	DIODE-ZENER;RLZ16C,15.96-16.51V,500MW,LL	1	SA
....4	D1105	0403-001425	DIODE-ZENER;BZX84C33,31-35V,350mW,SOT-23	1	SA
....4	D1405	0406-001172	DIODE-TVS;CDS3C30GTH,48V,SMD	1	SA
....4	D1406	0406-001172	DIODE-TVS;CDS3C30GTH,48V,SMD	1	SA
....4	D1408	0406-001172	DIODE-TVS;CDS3C30GTH,48V,SMD	1	SA
....4	D1409	0406-001172	DIODE-TVS;CDS3C30GTH,48V,SMD	1	SA
....4	D1413	0406-001172	DIODE-TVS;CDS3C30GTH,48V,SMD	1	SA
....4	D1414	0406-001172	DIODE-TVS;CDS3C30GTH,48V,SMD	1	SA
....4	D1422	0406-001172	DIODE-TVS;CDS3C30GTH,48V,SMD	1	SA
....4	D1423	0406-001172	DIODE-TVS;CDS3C30GTH,48V,SMD	1	SA
....4	D1446	0406-001172	DIODE-TVS;CDS3C30GTH,48V,SMD	1	SA
....4	D1447	0406-001172	DIODE-TVS;CDS3C30GTH,48V,SMD	1	SA
....4	D1601_LCD	0406-001172	DIODE-TVS;CDS3C30GTH,48V,SMD	1	SA
....4	D1602_LCD	0406-001172	DIODE-TVS;CDS3C30GTH,48V,SMD	1	SA
....4	D1604_EU	0406-001172	DIODE-TVS;CDS3C30GTH,48V,SMD	1	SA
....4	D1605	0406-001172	DIODE-TVS;CDS3C30GTH,48V,SMD	1	SA
....4	D1606_EU	0406-001172	DIODE-TVS;CDS3C30GTH,48V,SMD	1	SA
....4	D1607	0406-001172	DIODE-TVS;CDS3C30GTH,48V,SMD	1	SA
....4	D1615	0406-001172	DIODE-TVS;CDS3C30GTH,48V,SMD	1	SA
....4	D1616_LCD	0406-001172	DIODE-TVS;CDS3C30GTH,48V,SMD	1	SA
....4	D1617_LCD	0406-001172	DIODE-TVS;CDS3C30GTH,48V,SMD	1	SA
....4	D1618_LCD	0406-001172	DIODE-TVS;CDS3C30GTH,48V,SMD	1	SA
....4	D1619	0406-001172	DIODE-TVS;CDS3C30GTH,48V,SMD	1	SA
....4	D1620_EU	0406-001172	DIODE-TVS;CDS3C30GTH,48V,SMD	1	SA
....4	D1622_LCD	0406-001172	DIODE-TVS;CDS3C30GTH,48V,SMD	1	SA
....4	D1623_LCD	0406-001172	DIODE-TVS;CDS3C30GTH,48V,SMD	1	SA
....4	D1630	0406-001172	DIODE-TVS;CDS3C30GTH,48V,SMD	1	SA
....4	D1631	0406-001172	DIODE-TVS;CDS3C30GTH,48V,SMD	1	SA
....4	D1632	0406-001172	DIODE-TVS;CDS3C30GTH,48V,SMD	1	SA
....4	D1633	0406-001172	DIODE-TVS;CDS3C30GTH,48V,SMD	1	SA
....4	D1634	0406-001172	DIODE-TVS;CDS3C30GTH,48V,SMD	1	SA
....4	D1635_EU	0406-001172	DIODE-TVS;CDS3C30GTH,48V,SMD	1	SA
....4	D1201	0407-000123	DIODE-ARRAY;DAN202K,80V,100mA,CA2-3,SOT-	1	SA
....4	D1801	0407-000123	DIODE-ARRAY;DAN202K,80V,100mA,CA2-3,SOT-	1	SA
....4	D1802	0407-000123	DIODE-ARRAY;DAN202K,80V,100mA,CA2-3,SOT-	1	SA
....4	D1803_NSID	0407-000123	DIODE-ARRAY;DAN202K,80V,100mA,CA2-3,SOT-	1	SA
....4	Q1201	0501-000280	TR-SMALL SIGNAL;KSA1182,PNP,150MW,SOT-23	1	SA
....4	Q1202	0501-000280	TR-SMALL SIGNAL;KSA1182,PNP,150MW,SOT-23	1	SA
....4	Q1101_LCD	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
....4	Q1102_LCD	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
....4	Q1104	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
....4	Q1203	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
....4	Q1204	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
....4	Q1205	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
....4	Q1206	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
....4	Q1207	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
....4	Q1208	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
....4	Q1209	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
....4	Q1210	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
....4	Q1211	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
....4	Q1602	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
....4	Q1603	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
....4	Q1604_RED	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
....4	Q1801	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
....4	Q1805	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
....4	Q1821	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
....4	Q1823	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
....4	Q2201_LUX	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
....4	Q2202_LCD	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
....4	Q409	0505-000110	FET-SILICON;2N7002,N,60V,115mA,7.5ohm,0.	1	SA
....4	Q409	0505-000110	FET-SILICON;2N7002,N,60V,115mA,7.5ohm,0.	1	SA
....4	Q409	0505-000110	FET-SILICON;2N7002,N,60V,115mA,7.5ohm,0.	1	SA
....4	Q409	0505-000110	FET-SILICON;2N7002,N,60V,115mA,7.5ohm,0.	1	SA

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....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	0505-000110	FET-SILICON;2N7002,N,60V,115mA,7.5ohm,0.	1	S.A
....4	Q409	0505-000110	FET-SILICON;2N7002,N,60V,115mA,7.5ohm,0.	1	S.A
....4	Q409	0505-000275	FET-SILICON;SI4435DY,P,-30V,+8.0A,0.014	1	S.A
....4	IC104	0801-002095	IC-CMOS LOGIC;74LCX245,TRANSCEIVER,TSSOP	1	S.A
....4	IC104	0801-002633	IC-CMOS LOGIC;NC7WBD3125,2BIT BUS SWITCH	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;SI9185CTU,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;24C256,256Kbit,32Kx8,SOP,8P,5x	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-POSI.ADJUST REG.;LM317,SOT223,3P,274	1	S.A
....4	T0087	1203-001815	IC-POSI.FIXED REG.;78M09,TO-252,3P,-,PLA	1	S.A
....4	T0087	1203-002842	IC-POSI.FIXED REG.;AP1117D-33A,TO-252,3P	1	S.A
....4	T0087	1203-002855	IC-POSI.FIXED REG.;MC33269DTRK-5.0,DPRK,	1	S.A
....4	T0087	1203-002898	IC-POSI.FIXED REG.;G950T45R,TO-252,3P,6.	1	S.A
....4	T0087	1203-002974	IC-POSI.FIXED REG.;AP1117D-25A,TO-252,3P	1	S.A
....4	IC012	1203-002995	IC-POSI.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-POSI.FIXED REG.;NCP1117DT18T5G,DPAK,3	1	S.A
....4	IC1809	1203-004363	IC-VOL. DETECTOR;RT9818C-29PV,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	VARIATOR;24Vdc,1.6x0.8x0.36mm,TP	1	S.A
....4	D1481	1405-001185	VARIATOR;24Vdc,1.6x0.8x0.36mm,TP	1	S.A
....4	D1491_NSID	1405-001185	VARIATOR;24Vdc,1.6x0.8x0.36mm,TP	1	S.A
....4	D1612	1405-001185	VARIATOR;24Vdc,1.6x0.8x0.36mm,TP	1	S.A
....4	D1613	1405-001185	VARIATOR;24Vdc,1.6x0.8x0.36mm,TP	1	S.A
....4	D1614	1405-001185	VARIATOR;24Vdc,1.6x0.8x0.36mm,TP	1	S.A
....4	D1809	1405-001185	VARIATOR;24Vdc,1.6x0.8x0.36mm,TP	1	S.A
....4	R1527	2007-000042	R-CHIP;499ohm,1%,1/10W,TP,1608	1	S.A
....4	R2139	2007-000043	R-CHIP;1Kohm,1%,1/10W,TP,1608	1	S.A
....4	R2226	2007-000043	R-CHIP;1Kohm,1%,1/10W,TP,1608	1	S.A
....4	R2227	2007-000043	R-CHIP;1Kohm,1%,1/10W,TP,1608	1	S.A
....4	R1903	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	S.A
....4	R1904	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	S.A
....4	R1905	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	S.A
....4	R1906	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	S.A
....4	R1907	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	S.A
....4	R1908	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	S.A
....4	R1909	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	S.A
....4	R1910	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	S.A
....4	R1941	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	S.A
....4	R1944	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	S.A
....4	R1993_LCD	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	S.A
....4	R1111	2007-000060	R-CHIP;100Kohm,1%,1/10W,TP,1608	1	S.A
....4	R2205	2007-000060	R-CHIP;100Kohm,1%,1/10W,TP,1608	1	S.A
....4	R1117	2007-000066	R-CHIP;20Kohm,1%,1/10W,TP,1608	1	S.A
....4	R1118	2007-000067	R-CHIP;15Kohm,1%,1/10W,TP,1608	1	S.A
....4	R1266	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	S.A
....4	R1333_UX	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	S.A
....4	R1334_UX	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	S.A
....4	R1335_UX	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	S.A

6 Electrical Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	R1336_UX	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1337_UX	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1338_UX	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1339_UX	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1340_UX	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1418	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1456	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1464	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1501_HDMI	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1502	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1507_HDMI	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1519	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1524	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1525	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1542	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1543	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1547	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1550	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1553	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1554	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1555	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1556	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1557	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1558	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1559	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1560	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1561	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1574	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1575	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1576	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1578	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1581_NSID	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1584	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1585	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1586_HDMI	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1587_HDMI	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1621_EU	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1655	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1708_NMMS	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1709_NMMS	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1710_NMMS	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1805	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1826	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1828	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1830	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1831	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1834	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1837	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1838	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1839	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1840	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1844	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1879	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1895	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1927	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1932	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1934	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1935	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1936	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1937	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1957	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1975	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1976	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2001_TEST	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2002_TEST	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2003_TEST	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2004	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2007	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2011	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	R2014_UX	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2015_UX	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2022_FBE	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2023_FBE	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2024_FBE	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2028_FBE	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2029_FBE	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2031_FBE	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2032_UX	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2033_UX	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2039_FBE	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2040_FBE	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2041_FBE	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2053	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2054_FBE	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2057_FBE	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2058_FBE	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2059	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2066	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2067	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2068	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2070_FBE	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2072_FBE	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2074_FBE	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2076_FBE	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2078_FBE	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2080_FBE	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2082_FBE	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2084_FBE	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2086_FBE	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2088_FBE	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2090_FBE	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2092_FBE	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2255_LCD	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2257_LCD	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2260_LCD	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2279_LCD	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2291_FBE	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2302_LCD	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2303_OP	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2304_OP	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2306_LCD	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2364_FBE	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2366_FBE	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2379_FBE	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R2380_FBE	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R1413	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	SA
....4	R1414	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	SA
....4	R1451	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	SA
....4	R1462	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	SA
....4	R1468	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	SA
....4	R1469	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	SA
....4	R1498_OP	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	SA
....4	R1499_OP	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	SA
....4	R1700_LAMP	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	SA
....4	R1701_LAMP	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	SA
....4	R2063	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	SA
....4	R2149	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	SA
....4	R2228	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	SA
....4	R2229	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	SA
....4	R2230	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	SA
....4	R2231	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	SA
....4	R2281_OP	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	SA
....4	R1205	2007-000072	R-CHIP;47ohm,5%,1/10W,TP,1608	1	SA
....4	R1206	2007-000072	R-CHIP;47ohm,5%,1/10W,TP,1608	1	SA
....4	R1405	2007-000072	R-CHIP;47ohm,5%,1/10W,TP,1608	1	SA
....4	R1406	2007-000072	R-CHIP;47ohm,5%,1/10W,TP,1608	1	SA
....4	R1450	2007-000072	R-CHIP;47ohm,5%,1/10W,TP,1608	1	SA
....4	R1452	2007-000072	R-CHIP;47ohm,5%,1/10W,TP,1608	1	SA

6 Electrical Parts List

[illegible]

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	R2285_LCD	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R2292_LCD	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R2381_FBE	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R2382_FBE	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R2383_FBE	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R2384_FBE	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R2385_FBE	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R2386_FBE	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R2387_FBE	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R2388_FBE	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R2389_FBE	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R2390_FBE	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R2391_FBE	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R2392_FBE	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R1101	2007-000076	R-CHIP;330ohm,5%,1/10W,TP,1608	1	S.A
....4	R1267	2007-000076	R-CHIP;330ohm,5%,1/10W,TP,1608	1	S.A
....4	R1268	2007-000076	R-CHIP;330ohm,5%,1/10W,TP,1608	1	S.A
....4	R1582	2007-000076	R-CHIP;330ohm,5%,1/10W,TP,1608	1	S.A
....4	R1583	2007-000076	R-CHIP;330ohm,5%,1/10W,TP,1608	1	S.A
....4	R1604_EU	2007-000076	R-CHIP;330ohm,5%,1/10W,TP,1608	1	S.A
....4	R1607_EU	2007-000076	R-CHIP;330ohm,5%,1/10W,TP,1608	1	S.A
....4	R1654	2007-000076	R-CHIP;330ohm,5%,1/10W,TP,1608	1	S.A
....4	R1659	2007-000076	R-CHIP;330ohm,5%,1/10W,TP,1608	1	S.A
....4	R1891	2007-000076	R-CHIP;330ohm,5%,1/10W,TP,1608	1	S.A
....4	R1403	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	S.A
....4	R1404	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	S.A
....4	R1407	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	S.A
....4	R1412	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	S.A
....4	R1442	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	S.A
....4	R1444	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	S.A
....4	R1605	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	S.A
....4	R1613	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	S.A
....4	R1628_LCD	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	S.A
....4	R1629_LCD	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	S.A
....4	R1657	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	S.A
....4	R1661	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	S.A
....4	R1688	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	S.A
....4	R1691	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	S.A
....4	R1958	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	S.A
....4	R2052	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	S.A
....4	R2246_LCD	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	S.A
....4	R2287_LCD	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	S.A
....4	R1265	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1408	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1416	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1463	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1470	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1495_NSID	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1500_HDMI	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1640_LCD	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1641_LCD	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1698_PAD	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1702_LAMP	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1823	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1829	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1833	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1845	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1846	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1915_LCD	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1929	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1939	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1951	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R2008	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R2061	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R2210	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R2252_LCD	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R2284_LCD	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R2293_LCD	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1816	2007-000082	R-CHIP;3.3Kohm,5%,1/10W,TP,1608	1	S.A

6 Electrical Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	R1820	2007-000082	R-CHIP;3.3Kohm,5%,1/10W,TP,1608	1	SA
....4	R1821	2007-000082	R-CHIP;3.3Kohm,5%,1/10W,TP,1608	1	SA
....4	R1851	2007-000082	R-CHIP;3.3Kohm,5%,1/10W,TP,1608	1	SA
....4	R1866	2007-000082	R-CHIP;3.3Kohm,5%,1/10W,TP,1608	1	SA
....4	R1867	2007-000082	R-CHIP;3.3Kohm,5%,1/10W,TP,1608	1	SA
....4	R1894	2007-000082	R-CHIP;3.3Kohm,5%,1/10W,TP,1608	1	SA
....4	R2288_LCD	2007-000082	R-CHIP;3.3Kohm,5%,1/10W,TP,1608	1	SA
....4	R2289_LCD	2007-000082	R-CHIP;3.3Kohm,5%,1/10W,TP,1608	1	SA
....4	R1109_LCD	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1248	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1250	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1256	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1257	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1411	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1467	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1497_HDMI	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1520	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1521	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1523	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1552	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1697_RED	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1802	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1803	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1807	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1818	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1819	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1824	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1825	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1865	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1885	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1886	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1887	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1888	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1892	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1893	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1902	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1912	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1913	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1917	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1918	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1923	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1925	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1930	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1954	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1959	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1974	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1989	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1991	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1992	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1994_PAD	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1995	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1997	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1998	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1999	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R2254_LCD	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R2286_LCD	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R2294_LUX	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R2295_LCD	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R2371_FBE	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R2372_FBE	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R2373_FBE	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R2374_HD	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
....4	R1114	2007-000086	R-CHIP;5.6Kohm,5%,1/10W,TP,1608	1	SA
....4	R1121	2007-000086	R-CHIP;5.6Kohm,5%,1/10W,TP,1608	1	SA
....4	R1627	2007-000087	R-CHIP;6.8Kohm,5%,1/10W,TP,1608	1	SA
....4	R1669	2007-000087	R-CHIP;6.8Kohm,5%,1/10W,TP,1608	1	SA
....4	R1106_LCD	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	SA
....4	R1107_LCD	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	SA
....4	R1119	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	SA

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	R1204	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1207	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1208	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1209	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1212	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1401	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1402	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1409	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1445	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1446	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1453	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1454	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1457	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1465	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1466	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1490_HDMI	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1491_HDMI	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1496_HDMI	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1588	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1801	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1813	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1814	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1815	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1876	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1880	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1881	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1882	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1883	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1889	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1896	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1931_2M	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1938_2M	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1972	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1996	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R2013	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R2150	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R2151	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R2152	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R2290_FBE	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1126	2007-000092	R-CHIP;15Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1104	2007-000094	R-CHIP;22Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1201	2007-000094	R-CHIP;22Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1202	2007-000094	R-CHIP;22Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1221	2007-000094	R-CHIP;22Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1223	2007-000094	R-CHIP;22Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1224	2007-000094	R-CHIP;22Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1227	2007-000094	R-CHIP;22Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1242	2007-000094	R-CHIP;22Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1245	2007-000094	R-CHIP;22Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1687	2007-000094	R-CHIP;22Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1690	2007-000094	R-CHIP;22Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1812	2007-000094	R-CHIP;22Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1540	2007-000097	R-CHIP;47Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1541	2007-000097	R-CHIP;47Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1614_EU	2007-000097	R-CHIP;47Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1615_EU	2007-000097	R-CHIP;47Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1684_EU	2007-000097	R-CHIP;47Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1685_EU	2007-000097	R-CHIP;47Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1102_LCD	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1103	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1699_LAMP	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	S.A
....4	R2203	2007-000106	R-CHIP;220Kohm,5%,1/10W,TP,1608	1	S.A
....4	R2207	2007-000106	R-CHIP;220Kohm,5%,1/10W,TP,1608	1	S.A
....4	R2209	2007-000106	R-CHIP;220Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1990	2007-000107	R-CHIP;470Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1271	2007-000113	R-CHIP;33ohm,5%,1/10W,TP,1608	1	S.A
....4	R1272	2007-000113	R-CHIP;33ohm,5%,1/10W,TP,1608	1	S.A
....4	R2017_UX	2007-000113	R-CHIP;33ohm,5%,1/10W,TP,1608	1	S.A
....4	R2019_UX	2007-000113	R-CHIP;33ohm,5%,1/10W,TP,1608	1	S.A

6 Electrical Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	R2020_UX	2007-000113	R-CHIP;33ohm,5%,1/10W,TP,1608	1	SA
....4	R2025	2007-000113	R-CHIP;33ohm,5%,1/10W,TP,1608	1	SA
....4	R1128	2007-000116	R-CHIP;120ohm,5%,1/10W,TP,1608	1	SA
....4	R2148	2007-000118	R-CHIP;390ohm,5%,1/10W,TP,1608	1	SA
....4	R1350	2007-000119	R-CHIP;560ohm,5%,1/10W,TP,1608	1	SA
....4	R1940	2007-000120	R-CHIP;680ohm,5%,1/10W,TP,1608	1	SA
....4	R1108_LCD	2007-000124	R-CHIP;2.2Kohm,5%,1/10W,TP,1608	1	SA
....4	R1349	2007-000124	R-CHIP;2.2Kohm,5%,1/10W,TP,1608	1	SA
....4	R1694_RED	2007-000124	R-CHIP;2.2Kohm,5%,1/10W,TP,1608	1	SA
....4	R1695_RED	2007-000124	R-CHIP;2.2Kohm,5%,1/10W,TP,1608	1	SA
....4	R1696_RED	2007-000124	R-CHIP;2.2Kohm,5%,1/10W,TP,1608	1	SA
....4	R1942	2007-000124	R-CHIP;2.2Kohm,5%,1/10W,TP,1608	1	SA
....4	R1973	2007-000129	R-CHIP;27Kohm,5%,1/10W,TP,1608	1	SA
....4	R1124	2007-000208	R-CHIP;1.1Kohm,1%,1/10W,TP,1608	1	SA
....4	R1113	2007-000219	R-CHIP;1.2Kohm,1%,1/10W,TP,1608	1	SA
....4	R1420	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1421	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1423	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1424	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1428	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1429	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1430	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1431	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1432	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1433	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1434	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1435	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1436	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1437	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1438	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1439	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1472	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1473	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1474	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1475	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1476	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1477	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1478	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1479	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1480	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1481	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1482	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1483	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1484	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1485	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1486	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1487	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1504_HDMI	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1506_HDMI	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1508_HDMI	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1509_HDMI	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1510_HDMI	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1511_HDMI	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1512_HDMI	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1513_HDMI	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1514_HDMI	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1515_HDMI	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1516_HDMI	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1518_HDMI	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1538_HDMI	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1539_HDMI	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1544_HDMI	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1546_HDMI	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1577	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1579	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1580	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1841	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1842	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
....4	R1847	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	R1848_1M2M	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	S.A
....4	R1849_1M2M	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	S.A
....4	R1857	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	S.A
....4	R1859	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	S.A
....4	R1860	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	S.A
....4	R1863	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	S.A
....4	R1869	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	S.A
....4	R1871	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	S.A
....4	R1872	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	S.A
....4	R1873	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	S.A
....4	R1953_2M	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	S.A
....4	R1637_LCD	2007-000312	R-CHIP;10ohm,5%,1/4W,TP,3216	1	S.A
....4	R1638_LCD	2007-000312	R-CHIP;10ohm,5%,1/4W,TP,3216	1	S.A
....4	R1112	2007-000402	R-CHIP;150ohm,5%,1/10W,TP,1608	1	S.A
....4	R1616	2007-000458	R-CHIP;18Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1665	2007-000458	R-CHIP;18Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1686	2007-000458	R-CHIP;18Kohm,5%,1/10W,TP,1608	1	S.A
....4	R1689	2007-000458	R-CHIP;18Kohm,5%,1/10W,TP,1608	1	S.A
....4	R2021	2007-000475	R-CHIP;1Mohm,1%,1/10W,TP,1608	1	S.A
....4	R1123	2007-000640	R-CHIP;270ohm,1%,1/10W,TP,1608	1	S.A
....4	R2318_FBE	2007-000669	R-CHIP;2Kohm,1%,1/10W,TP,1608	1	S.A
....4	R1258	2007-000683	R-CHIP;3.3Kohm,1%,1/10W,TP,1608	1	S.A
....4	R1269	2007-000869	R-CHIP;4.7Kohm,1%,1/10W,TP,1608	1	S.A
....4	R1246	2007-000882	R-CHIP;4.7ohm,5%,1/10W,TP,1608	1	S.A
....4	R1247	2007-000882	R-CHIP;4.7ohm,5%,1/10W,TP,1608	1	S.A
....4	R1249	2007-000882	R-CHIP;4.7ohm,5%,1/10W,TP,1608	1	S.A
....4	R1251	2007-000882	R-CHIP;4.7ohm,5%,1/10W,TP,1608	1	S.A
....4	R1252	2007-000882	R-CHIP;4.7ohm,5%,1/10W,TP,1608	1	S.A
....4	R1253	2007-000882	R-CHIP;4.7ohm,5%,1/10W,TP,1608	1	S.A
....4	R1259	2007-000882	R-CHIP;4.7ohm,5%,1/10W,TP,1608	1	S.A
....4	R1260	2007-000882	R-CHIP;4.7ohm,5%,1/10W,TP,1608	1	S.A
....4	R1410	2007-000950	R-CHIP;47ohm,5%,1/4W,TP,3216	1	S.A
....4	R1415	2007-000950	R-CHIP;47ohm,5%,1/4W,TP,3216	1	S.A
....4	R1422	2007-000950	R-CHIP;47ohm,5%,1/4W,TP,3216	1	S.A
....4	R1601_LCD	2007-000950	R-CHIP;47ohm,5%,1/4W,TP,3216	1	S.A
....4	R1602_LCD	2007-000950	R-CHIP;47ohm,5%,1/4W,TP,3216	1	S.A
....4	R1618	2007-000950	R-CHIP;47ohm,5%,1/4W,TP,3216	1	S.A
....4	R1619	2007-000950	R-CHIP;47ohm,5%,1/4W,TP,3216	1	S.A
....4	R1620	2007-000950	R-CHIP;47ohm,5%,1/4W,TP,3216	1	S.A
....4	R1633_LCD	2007-000950	R-CHIP;47ohm,5%,1/4W,TP,3216	1	S.A
....4	R1125	2007-000962	R-CHIP;5.1Kohm,1%,1/10W,TP,1608	1	S.A
....4	R1115	2007-000979	R-CHIP;5.6Kohm,1%,1/10W,TP,1608	1	S.A
....4	R2233	2007-001014	R-CHIP;51OHM,5%,1/10W,TP,1608	1	S.A
....4	R2237	2007-001014	R-CHIP;51OHM,5%,1/10W,TP,1608	1	S.A
....4	R1131	2007-001135	R-CHIP;68ohm,5%,1/4W,TP,3216	1	S.A
....4	R1132	2007-001135	R-CHIP;68ohm,5%,1/4W,TP,3216	1	S.A
....4	R1425	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	S.A
....4	R1426	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	S.A
....4	R1427	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	S.A
....4	R1611_LCD	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	S.A
....4	R1612_LCD	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	S.A
....4	R1623	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	S.A
....4	R1624	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	S.A
....4	R1625	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	S.A
....4	R1626	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	S.A
....4	R1632_EU	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	S.A
....4	R1635_LCD	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	S.A
....4	R1636	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	S.A
....4	R1667_EU	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	S.A
....4	R1670	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	S.A
....4	R2206	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	S.A
....4	R1440	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	S.A
....4	R1441	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	S.A
....4	R1443	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	S.A
....4	R1447	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	S.A
....4	R1448	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	S.A
....4	R1449	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	S.A
....4	R1455	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	S.A
....4	R1458	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	S.A

6 Electrical Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	R2055	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	SA
....4	R2056	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	SA
....4	RA2201	2011-000002	R-NET;22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
....4	RA2202	2011-000002	R-NET;22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
....4	RA2203	2011-000002	R-NET;22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
....4	RA2204	2011-000002	R-NET;22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
....4	RA2205	2011-000002	R-NET;22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
....4	RA2206	2011-000002	R-NET;22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
....4	RA2207	2011-000002	R-NET;22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
....4	RA2208	2011-000002	R-NET;22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
....4	RA1803	2011-000651	R-NET;10ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
....4	RA1804	2011-000651	R-NET;10ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
....4	RA1807	2011-000651	R-NET;10ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
....4	RA1808	2011-000651	R-NET;10ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
....4	RA1809	2011-000651	R-NET;10ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
....4	RA1811	2011-000651	R-NET;10ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
....4	RA1814	2011-000881	R-NET;33ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.6	1	SA
....4	RA1401_NSI	2011-001001	R-NET;0ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.6	1	SA
....4	RA1402_NSI	2011-001001	R-NET;0ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.6	1	SA
....4	RA1403_NSI	2011-001001	R-NET;0ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.6	1	SA
....4	RA2209_FBE	2011-001001	R-NET;0ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.6	1	SA
....4	RA2212	2011-001001	R-NET;0ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.6	1	SA
....4	RA2213	2011-001001	R-NET;0ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.6	1	SA
....4	RA2214	2011-001001	R-NET;0ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.6	1	SA
....4	RA2215	2011-001001	R-NET;0ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.6	1	SA
....4	RA2216	2011-001001	R-NET;0ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.6	1	SA
....4	RA2217	2011-001001	R-NET;0ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.6	1	SA
....4	RA2218	2011-001001	R-NET;0ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.6	1	SA
....4	RA1801	2011-001093	R-NET;100OHM,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
....4	RA1802	2011-001093	R-NET;100OHM,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
....4	RA1806	2011-001093	R-NET;100OHM,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
....4	RA1810	2011-001093	R-NET;100OHM,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
....4	RA1812	2011-001093	R-NET;100OHM,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
....4	RA1813	2011-001093	R-NET;100OHM,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
....4	RA1815	2011-001093	R-NET;100OHM,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
....4	RA1816	2011-001093	R-NET;100OHM,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
....4	RA1818	2011-001093	R-NET;100OHM,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
....4	RA1820	2011-001093	R-NET;100OHM,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
....4	RA1821	2011-001093	R-NET;100OHM,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
....4	RA1822	2011-001093	R-NET;100OHM,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
....4	RA1823	2011-001093	R-NET;100OHM,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
....4	C1106	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1111	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1118	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1120	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1122	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1129	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1143	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1144	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1151	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1168	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1170	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1178	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1214	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1216	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1217	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1218	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1219	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1220	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1221	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1231	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1232	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1256	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1281	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1282	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1295	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1296	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1298	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1300	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	C1303	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1319	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1339	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1402	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1414	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1416	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1423_NSID	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1427	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1428	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1429	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1430	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1445	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1446	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1448	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1449	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1450	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1451	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1452	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1453	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1454	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1645	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1648	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1819	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1820	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C1851	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C2074	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C2077_UX	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C2078_UX	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C2079_UX	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C2085	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C2086	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C2087	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C2088	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C2091	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C2092	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C2093	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C2095	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C2096	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C2097	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C2098	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C2101	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C2121	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C2272_FBE	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C2273_FBE	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C2274_FBE	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C2281_FBE	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C2282_FBE	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C2283_FBE	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C2302_FBE	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C2304_FBE	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C2305_FBE	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C2316_FBE	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C2409	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C2227	2203-000204	C-CER,CHIP;100nF,10%,25V,X7R,2012	1	SA
....4	C2228	2203-000204	C-CER,CHIP;100nF,10%,25V,X7R,2012	1	SA
....4	C1293	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
....4	C1309	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
....4	C1408	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
....4	C1409	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
....4	C1417	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
....4	C1418	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
....4	C1419	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
....4	C1420	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
....4	C1601_LCD	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
....4	C1605	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
....4	C1607	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
....4	C1608_LCD	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
....4	C1611_EU	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
....4	C1620	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA

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Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	C1622	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
....4	C1623_EU	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
....4	C2406	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
....4	C2407	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
....4	C1101	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C1116	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C1121	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C1130	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C1138	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C1148	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C1155	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C1164	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C1173	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C1174	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C1647	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C1652	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C1653	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C1654_PAD	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C1655	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C1656_LAMP	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C1853	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2027	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2032	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2033	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2034	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2035	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2043	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2044	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2045	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2105	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2106	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2107	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2108	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2109	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2110	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2111	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2112	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2113	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2114	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2115	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2116	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2117	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2118	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2119	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2120	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2206	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2207	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2208	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2209	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2210	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2221	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2231	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2268_LCD	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2269_LCD	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2275_FBE	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2276_FBE	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2277_FBE	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2284_FBE	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2285_FBE	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2286_FBE	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2293_FBE	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2294_FBE	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2295_FBE	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2296_FBE	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2297_FBE	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2312_FBE	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2313_FBE	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2314_FBE	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C2315_FBE	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	C2317_FBE	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	S.A
....4	C1855	2203-000332	C-CER,CHIP;0.012nF,5%,50V,C0G,1608	1	S.A
....4	C1856	2203-000332	C-CER,CHIP;0.012nF,5%,50V,C0G,1608	1	S.A
....4	C1112	2203-000405	C-CER,CHIP;0.18nF,5%,50V,C0G,1608	1	S.A
....4	C1205	2203-000426	C-CER,CHIP;0.018nF,5%,50V,C0G,1608	1	S.A
....4	C1206	2203-000426	C-CER,CHIP;0.018nF,5%,50V,C0G,1608	1	S.A
....4	C2080	2203-000426	C-CER,CHIP;0.018nF,5%,50V,C0G,1608	1	S.A
....4	C2082	2203-000426	C-CER,CHIP;0.018nF,5%,50V,C0G,1608	1	S.A
....4	C1215	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	S.A
....4	C1230	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	S.A
....4	C1272	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	S.A
....4	C1273	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	S.A
....4	C1274	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	S.A
....4	C1277	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	S.A
....4	C1279	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	S.A
....4	C1283	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	S.A
....4	C1291	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	S.A
....4	C1292	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	S.A
....4	C1294	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	S.A
....4	C1299	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	S.A
....4	C1308	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	S.A
....4	C1310	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	S.A
....4	C1311	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	S.A
....4	C1816	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	S.A
....4	C1818	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	S.A
....4	C1823	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	S.A
....4	C1843	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	S.A
....4	C2257_LCD	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	S.A
....4	C2288_FBE	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	S.A
....4	C2289_FBE	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	S.A
....4	C2299_FBE	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	S.A
....4	C2300_FBE	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	S.A
....4	C2301_FBE	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	S.A
....4	C1105	2203-000491	C-CER,CHIP;2.2nF,10%,50V,X7R,1608	1	S.A
....4	C2019	2203-000531	C-CER,CHIP;2.7nF,10%,50V,X7R,1608	1	S.A
....4	C2030	2203-000531	C-CER,CHIP;2.7nF,10%,50V,X7R,1608	1	S.A
....4	C1824	2203-000626	C-CER,CHIP;0.022nF,5%,50V,C0G,1608	1	S.A
....4	C1825	2203-000626	C-CER,CHIP;0.022nF,5%,50V,C0G,1608	1	S.A
....4	C1134	2203-000715	C-CER,CHIP;3.3nF,10%,50V,X7R,1608	1	S.A
....4	C1403	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	S.A
....4	C1404	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	S.A
....4	C1411	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	S.A
....4	C1412	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	S.A
....4	C1457	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	S.A
....4	C1458	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	S.A
....4	C1603_LCD	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	S.A
....4	C1604_EU	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	S.A
....4	C1606_EU	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	S.A
....4	C1609_LCD	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	S.A
....4	C1610_LCD	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	S.A
....4	C1613_LCD	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	S.A
....4	C1614_LCD	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	S.A
....4	C1615_LCD	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	S.A
....4	C1619	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	S.A
....4	C1621	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	S.A
....4	C1317	2203-000815	C-CER,CHIP;0.033nF,5%,50V,C0G,1608	1	S.A
....4	C1318	2203-000815	C-CER,CHIP;0.033nF,5%,50V,C0G,1608	1	S.A
....4	C1107	2203-000888	C-CER,CHIP;4.7nF,10%,50V,X7R,1608	1	S.A
....4	C1233	2203-000888	C-CER,CHIP;4.7nF,10%,50V,X7R,1608	1	S.A
....4	C1234	2203-000888	C-CER,CHIP;4.7nF,10%,50V,X7R,1608	1	S.A
....4	C1235	2203-000888	C-CER,CHIP;4.7nF,10%,50V,X7R,1608	1	S.A
....4	C1236	2203-000888	C-CER,CHIP;4.7nF,10%,50V,X7R,1608	1	S.A
....4	C1259	2203-000888	C-CER,CHIP;4.7nF,10%,50V,X7R,1608	1	S.A
....4	C1260	2203-000888	C-CER,CHIP;4.7nF,10%,50V,X7R,1608	1	S.A
....4	C1261	2203-000888	C-CER,CHIP;4.7nF,10%,50V,X7R,1608	1	S.A
....4	C1262	2203-000888	C-CER,CHIP;4.7nF,10%,50V,X7R,1608	1	S.A
....4	C1263	2203-000888	C-CER,CHIP;4.7nF,10%,50V,X7R,1608	1	S.A
....4	C1264	2203-000888	C-CER,CHIP;4.7nF,10%,50V,X7R,1608	1	S.A
....4	C1265	2203-000888	C-CER,CHIP;4.7nF,10%,50V,X7R,1608	1	S.A

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Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	C1266	2203-000888	C-CER,CHIP;4.7nF,10%,50V,X7R,1608	1	SA
....4	C1267	2203-000888	C-CER,CHIP;4.7nF,10%,50V,X7R,1608	1	SA
....4	C1268	2203-000888	C-CER,CHIP;4.7nF,10%,50V,X7R,1608	1	SA
....4	C2203	2203-000888	C-CER,CHIP;4.7nF,10%,50V,X7R,1608	1	SA
....4	C2204	2203-000888	C-CER,CHIP;4.7nF,10%,50V,X7R,1608	1	SA
....4	C1278	2203-000925	C-CER,CHIP;470nF,+80-20%,50V,Y5V,2012	1	SA
....4	C1302	2203-000925	C-CER,CHIP;470nF,+80-20%,50V,Y5V,2012	1	SA
....4	C1136	2203-000972	C-CER,CHIP;47nF,10%,16V,X7R,1608	1	SA
....4	C1612	2203-000998	C-CER,CHIP;0.047nF,5%,50V,COG,1608	1	SA
....4	C1624	2203-000998	C-CER,CHIP;0.047nF,5%,50V,COG,1608	1	SA
....4	C1651	2203-000998	C-CER,CHIP;0.047nF,5%,50V,COG,1608	1	SA
....4	C1800	2203-000998	C-CER,CHIP;0.047nF,5%,50V,COG,1608	1	SA
....4	C1801	2203-000998	C-CER,CHIP;0.047nF,5%,50V,COG,1608	1	SA
....4	C2319_FBE	2203-001034	C-CER,CHIP;5.6nF,10%,50V,X7R,1608	1	SA
....4	C2320_FBE	2203-001052	C-CER,CHIP;0.56nF,10%,50V,X7R,TP,1608	1	SA
....4	C1203	2203-001222	C-CER,CHIP;0.82nF,10%,50V,X7R,1608	1	SA
....4	C1226	2203-001222	C-CER,CHIP;0.82nF,10%,50V,X7R,1608	1	SA
....4	C1227	2203-001222	C-CER,CHIP;0.82nF,10%,50V,X7R,1608	1	SA
....4	C1202	2203-001402	C-CER,CHIP;220nF,+80-20%,16V,Y5V,TP,1608	1	SA
....4	C1139	2203-001607	C-CER,CHIP;0.22nF,5%,50V,NPO,1608	1	SA
....4	C1284	2203-002398	C-CER,CHIP;22nF,10%,50V,X7R,1608	1	SA
....4	C1285	2203-002398	C-CER,CHIP;22nF,10%,50V,X7R,1608	1	SA
....4	C1290	2203-002398	C-CER,CHIP;22nF,10%,50V,X7R,1608	1	SA
....4	C1316	2203-002398	C-CER,CHIP;22nF,10%,50V,X7R,1608	1	SA
....4	C1128	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1146	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1147	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1153	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1154	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1157	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1159	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1161_LCD	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1162	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1171	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1425	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1650_RED	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1826	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1827	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1829	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1830	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1831	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1836	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1837	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1838	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1847	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1849	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1854	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C2201	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C2202	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C2214	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C2215	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C2253_LCD	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C2265_LCD	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C2404	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C2405	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C1132	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C1135_LCD	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C1201	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C1286	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C1288	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C1289	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C1312	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C1852	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C2003	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C2004	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C2006	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C2008	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C2011	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C2014	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	C2016	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C2017	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C2020	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C2022	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C2023	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C2024	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C2031	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C2039	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C2040	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C2041	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C2042	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C2052	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C2055	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C2056	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C2059	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C2060	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C2061	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C2062	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C2070	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C2071	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C2072	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C2073	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C2075	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C2076	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C2255_LCD	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C2256_LCD	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C1210	2203-005249	C-CER,CHIP;100nF,10%,50V,X7R,1608	1	SA
....4	C1276	2203-005249	C-CER,CHIP;100nF,10%,50V,X7R,1608	1	SA
....4	C1280	2203-005249	C-CER,CHIP;100nF,10%,50V,X7R,1608	1	SA
....4	C1297	2203-005249	C-CER,CHIP;100nF,10%,50V,X7R,1608	1	SA
....4	C1305	2203-005249	C-CER,CHIP;100nF,10%,50V,X7R,1608	1	SA
....4	C1321	2203-005249	C-CER,CHIP;100nF,10%,50V,X7R,1608	1	SA
....4	C1322	2203-005249	C-CER,CHIP;100nF,10%,50V,X7R,1608	1	SA
....4	C1323	2203-005249	C-CER,CHIP;100nF,10%,50V,X7R,1608	1	SA
....4	C1324	2203-005249	C-CER,CHIP;100nF,10%,50V,X7R,1608	1	SA
....4	C1102	2203-005809	C-CER,CHIP;1000nF,10%,16V,X7R,-,2012	1	SA
....4	C2266_LCD	2203-005809	C-CER,CHIP;1000nF,10%,16V,X7R,-,2012	1	SA
....4	C1222	2203-005918	C-CER,CHIP;1000nF,10%,6.3V,X7R,1608	1	SA
....4	C1223	2203-005918	C-CER,CHIP;1000nF,10%,6.3V,X7R,1608	1	SA
....4	C1224	2203-005918	C-CER,CHIP;1000nF,10%,6.3V,X7R,1608	1	SA
....4	C1225	2203-005918	C-CER,CHIP;1000nF,10%,6.3V,X7R,1608	1	SA
....4	C1237	2203-005918	C-CER,CHIP;1000nF,10%,6.3V,X7R,1608	1	SA
....4	C1238	2203-005918	C-CER,CHIP;1000nF,10%,6.3V,X7R,1608	1	SA
....4	C1239	2203-005918	C-CER,CHIP;1000nF,10%,6.3V,X7R,1608	1	SA
....4	C1240	2203-005918	C-CER,CHIP;1000nF,10%,6.3V,X7R,1608	1	SA
....4	C1241	2203-005918	C-CER,CHIP;1000nF,10%,6.3V,X7R,1608	1	SA
....4	C1242	2203-005918	C-CER,CHIP;1000nF,10%,6.3V,X7R,1608	1	SA
....4	C1243	2203-005918	C-CER,CHIP;1000nF,10%,6.3V,X7R,1608	1	SA
....4	C1244	2203-005918	C-CER,CHIP;1000nF,10%,6.3V,X7R,1608	1	SA
....4	C1245	2203-005918	C-CER,CHIP;1000nF,10%,6.3V,X7R,1608	1	SA
....4	C1247	2203-005918	C-CER,CHIP;1000nF,10%,6.3V,X7R,1608	1	SA
....4	C1103	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1145	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1160_LCD	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1166_LCD	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1208	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1211	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1212	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1213	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1228	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1229	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1246	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1248	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1251	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1252	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1253	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1254	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1255	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1271	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA

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Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	C1301	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1304	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1401	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1413	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1415	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1422_NSID	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1426	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1431	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1432	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1435	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1447	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1455	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1456	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1459	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1460	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1461	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1646	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1821	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1822	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1828	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1839	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1840	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1846	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1850	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C2089	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C2090	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C2211	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C2212	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C2213	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C2220	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C2280_FBE	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C2287_FBE	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C2298_FBE	2203-006361	C-CER,CHIP;10000nF,10%,10V,X5R,2012	1	SA
....4	C1424	2402-001086	C-AL,SMD;100UF,20%,16V,WT,TP,6.6X6.6X5.3	1	SA
....4	C1117	2402-001128	C-AL,SMD;100UF,20%,16V,-,TP,6.3X5.7mm	1	SA
....4	C1123	2402-001128	C-AL,SMD;100UF,20%,16V,-,TP,6.3X5.7mm	1	SA
....4	C1127	2402-001128	C-AL,SMD;100UF,20%,16V,-,TP,6.3X5.7mm	1	SA
....4	C1131	2402-001128	C-AL,SMD;100UF,20%,16V,-,TP,6.3X5.7mm	1	SA
....4	C1140	2402-001128	C-AL,SMD;100UF,20%,16V,-,TP,6.3X5.7mm	1	SA
....4	C1150	2402-001128	C-AL,SMD;100UF,20%,16V,-,TP,6.3X5.7mm	1	SA
....4	C1158	2402-001128	C-AL,SMD;100UF,20%,16V,-,TP,6.3X5.7mm	1	SA
....4	C1204	2402-001128	C-AL,SMD;100UF,20%,16V,-,TP,6.3X5.7mm	1	SA
....4	C1269	2402-001128	C-AL,SMD;100UF,20%,16V,-,TP,6.3X5.7mm	1	SA
....4	C1270	2402-001128	C-AL,SMD;100UF,20%,16V,-,TP,6.3X5.7mm	1	SA
....4	C2267_LCD	2402-001128	C-AL,SMD;100UF,20%,16V,-,TP,6.3X5.7mm	1	SA
....4	C1149	2402-001129	C-AL,SMD;47UF,20%,16V,WT,TP,6.3X5.2MM	1	SA
....4	C1179	2402-001129	C-AL,SMD;47UF,20%,16V,WT,TP,6.3X5.2MM	1	SA
....4	C1649	2402-001129	C-AL,SMD;47UF,20%,16V,WT,TP,6.3X5.2MM	1	SA
....4	C2408	2402-001129	C-AL,SMD;47UF,20%,16V,WT,TP,6.3X5.2MM	1	SA
....4	C1137	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA
....4	C1209	2402-001226	C-AL,SMD;4.7UF,20%,35V,HR,TP,4.3X4.3X5.8	1	SA
....4	C1104	2402-001238	C-AL,SMD;1uF,20%,50V,HR,TP,4.3x4.3x5.2mm	1	SA
....4	C1110	2402-001263	C-AL,SMD;1000uF,20%,10V,WT,SMD,10x10	1	SA
....4	C1165	2402-001263	C-AL,SMD;1000uF,20%,10V,WT,SMD,10x10	1	SA
....4	C1167	2402-001263	C-AL,SMD;1000uF,20%,10V,WT,SMD,10x10	1	SA
....4	C1177	2402-001263	C-AL,SMD;1000uF,20%,10V,WT,SMD,10x10	1	SA
....4	C1275	2402-001273	C-AL,SMD;220uF,20%,35V,WT,REEL,10X10mm	1	SA
....4	C1287	2402-001273	C-AL,SMD;220uF,20%,35V,WT,REEL,10X10mm	1	SA
....4	C1108	2409-001051	C-ORGANIC;82UF,20%,6.3V,WT,TP,6.3*5.9MM,	1	SA
....4	C1141	2409-001051	C-ORGANIC;82UF,20%,6.3V,WT,TP,6.3*5.9MM,	1	SA
....4	C1172	2409-001051	C-ORGANIC;82UF,20%,6.3V,WT,TP,6.3*5.9MM,	1	SA
....4	C1175	2409-001051	C-ORGANIC;82UF,20%,6.3V,WT,TP,6.3*5.9MM,	1	SA
....4	C2046	2409-001051	C-ORGANIC;82UF,20%,6.3V,WT,TP,6.3*5.9MM,	1	SA
....4	C2099	2409-001051	C-ORGANIC;82UF,20%,6.3V,WT,TP,6.3*5.9MM,	1	SA
....4	T0052	2703-000274	INDUCTOR-SMD;2.2uH,10%,2012	1	SA
....4	T0052	2703-000398	INDUCTOR-SMD;10uH,10%,3225	1	SA
....4	T0052	2703-000398	INDUCTOR-SMD;10uH,10%,3225	1	SA
....4	T0052	2703-000398	INDUCTOR-SMD;10uH,10%,3225	1	SA
....4	T0052	2703-000398	INDUCTOR-SMD;10uH,10%,3225	1	SA

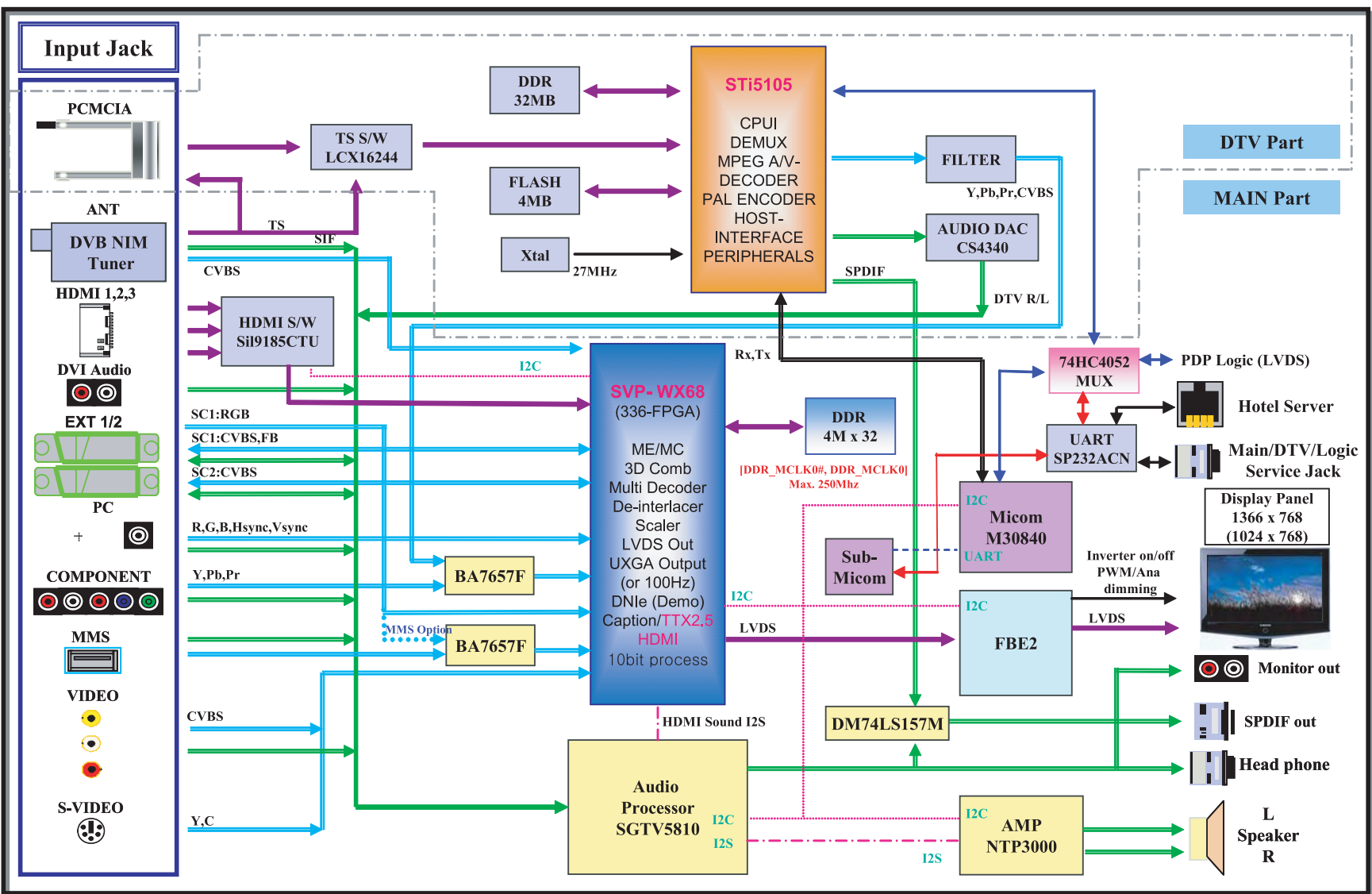
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6 Electrical Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....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	BN41-00839D	PCB MAIN;BORDEAUX PLUS READY,FR-4,4,RD3,	1	S.N.A
....4	M0018	BN97-01388B	ASSY MICOM;T-BDPPEUMD-2001,N30A,2007.6.0	1	S.N.A
....5	IC115	1107-001453	IC-FLASH MEMORY;29W160E,16Mbit,2Mx8/1Mx1	1	S.N.A
....4	M0018	BN97-01388C	ASSY MICOM;T-BDPMPEUS-1004,N30A,T-CALMPE	1	S.N.A
....5	IC520	0903-001485	IC-MICROCONTROLLER;44P,12x12mm,24MHz,TR,	1	S.N.A
0.1	M0003	BN92-02375B	ASSY BOX;32R81,UO,EQ,LO,-,-,-	1	S.N.A
..2	T0130	BN69-01708A	BOX-00,SET;32R8,CB,DY-06,AB,YEL,A1,W899,	1.02	S.N.A
0.1	M0113	BN92-02376A	ASSY P/MATERIAL;32R81,EQ,SO,LO,-,-,-,-	1	S.N.A
..2	T0376	6902-000061	BAG AIR;LDPE,T0.2,L1000,W500,TRP,..	0.017	S.N.A
..2	T0376	6902-000379	BAG AIR;LDPE,T0.2,W1000,L1800,TRP,-,-	0.006	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,	5.7	S.N.A
0.1	M0045	BN92-02381A	ASSY ACCESSORY;LE32R81BX/XEC	1	S.N.A
..2	M0045	BN96-04791A	ASSY ACCESSORY;LE32R81BX/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	T0074	BN59-00602A	REMOCON;BORDEAUX PLUS,TM87C,samsung 28p+	1	S.A
...3	ACCESSORY	BN63-01798A	CLOTH-CLEAN;RE40**,CLOTH,180,200,RHCM	1	S.N.A
...3	T0531	BN63-03103A	COVER-BOTTOM;32R81,M81,HIPS,-,-,-,HB,-,B	1	S.A
...3	M0045	BN96-01800A	ASSY ACCESSORY;ROME32,SCREW	1	S.A
....4	T0081	6002-001294	SCREW-TAPPING;BH,+,M4,L16,ZPC(BLK)	4	S.A
....4	ACCESSORY	6902-000128	BAG ZIPPER;LDPE,T0.05,W200,L150,TRP,8,2-	1	S.N.A
..2	M0045	BN96-04791B	ASSY ACCESSORY;LE32R81BX/XEC	1	S.A
...3	T0524	6902-000110	BAG PE;LDPE,T0.05,W250,L400,TRP,28,2	1	S.N.A
...3	ACCESSORY	AA68-03575A	MANUAL FLYER-02,REGISTRATION C;XEU,ENG,U	1	S.N.A
...3	ACCESSORY	AA68-03575B	MANUAL FLYER-02,REGISTRATION C;XEG,GERMA	1	S.N.A
...3	ACCESSORY	AA68-03575C	MANUAL FLYER-02,REGISTRATION C;XEF,FRENC	1	S.N.A
...3	ACCESSORY	AA68-03575D	MANUAL FLYER-03,REGISTRATION C;XEC,SPANI	1	S.N.A
...3	ACCESSORY	AA68-03575E	MANUAL FLYER-04,REGISTRATION C;XET,ITALY	1	S.N.A
...3	ACCESSORY	AA68-03575F	MANUAL FLYER-02,REGISTRATION C;XEN,DUTCH	1	S.N.A
...3	ACCESSORY	AA68-03575G	MANUAL FLYER-02,REGISTRATION C;XEP,PORTU	1	S.N.A
...3	M0156	BN68-01166A	MANUAL USERS-01;COMM,SAMSUNG,E/F/G/D/I/S	1	S.N.A
...3	ACCESSORY	AA68-03575H	MANUAL-02,REGISTRATION CARD;XEH,Hungaria	1	S.N.A
...3	ACCESSORY	BN68-00514E	MANUAL FLYER-00,WARRANTY CARD;comm,Samsu	1	S.N.A
...3	T0511	AA68-03242K	MANUAL FLYER-SAFETY GUIDE;comm,Samsung,8	1	S.N.A
0.1	M0019	BN92-02596K	ASSY LABEL;LE32R81BX/XEC	1	S.N.A

7 Block Diagram

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8 Wiring Diagram

8-1 LE23R86BD/LE26R86BD/LE32R86BD/LE37R86BD/LE40R86BD Wiring Diagram

1	RxIN0-	SW_INVERTER	1	ErrorOut_Trigin	1	SDA1	1	SDA_D	1	RX2+	1
2	RxIN0+	ANA_DIM	2	GND	2	SCL1	2	SCL_D	2	GND	2
3	RxIN1-	PWM_DIM	3	GND	3	GND	3	MICOM_RESET	3	RX2-	3
4	RxIN1+	GND	4	DP_TMS	4	B5V_VCCA	4	SW_POWER	4	RX1+	4
5	RxIN2-	GND	5	DP_TCK	5	BUS_STOP	5	GND	5	GND	5
6	RxIN2+			DP_TDI	6					RX1-	6
7	RxINCLK-			DP_TDO	7					RX0+	7
8	RxINCLK+			nRESET	8					GND	8
9	RxIN3-			nTRst	9					RX0-	9
10	RxIN3+			GND	10					RXCLK+	10
11	NC									GND	11
12	NC									RXCLK-	12
13	NC									CEC	13
14	NC									N.C	14
15	NC									DDC_SCL	15
16	NC									DDC_SDA	16
17	GND									GND	17
18	WP									IDENT_HDMI	18
19	SCL									DDC_WP	19
20	SDA									GND	20
21	LVDS Opt									GND	21
22	DCC Opt										
23	GND										
24	GND										
25	GND										
26	Vdd										
27	Vdd										
28	Vdd										
29	Vdd										
30	Vdd										

MAIN BOARD

1	N.C										
2	Main_PWR_CTRL										
3	GND										
4	A5V										
5	Sound_AMP										
6	Sound_AMP										
7	B12VS										
8	B12VS										
9	GND										
10	GND										
11	GND										
12	GND										
13	B5V										
14	B5V										
15	B5V										
16	B5V										
17	GND										
18	GND										
19	GND										
20	B13V										
21	B13V										
22	B13V										
23	N.C										
24	N.C										

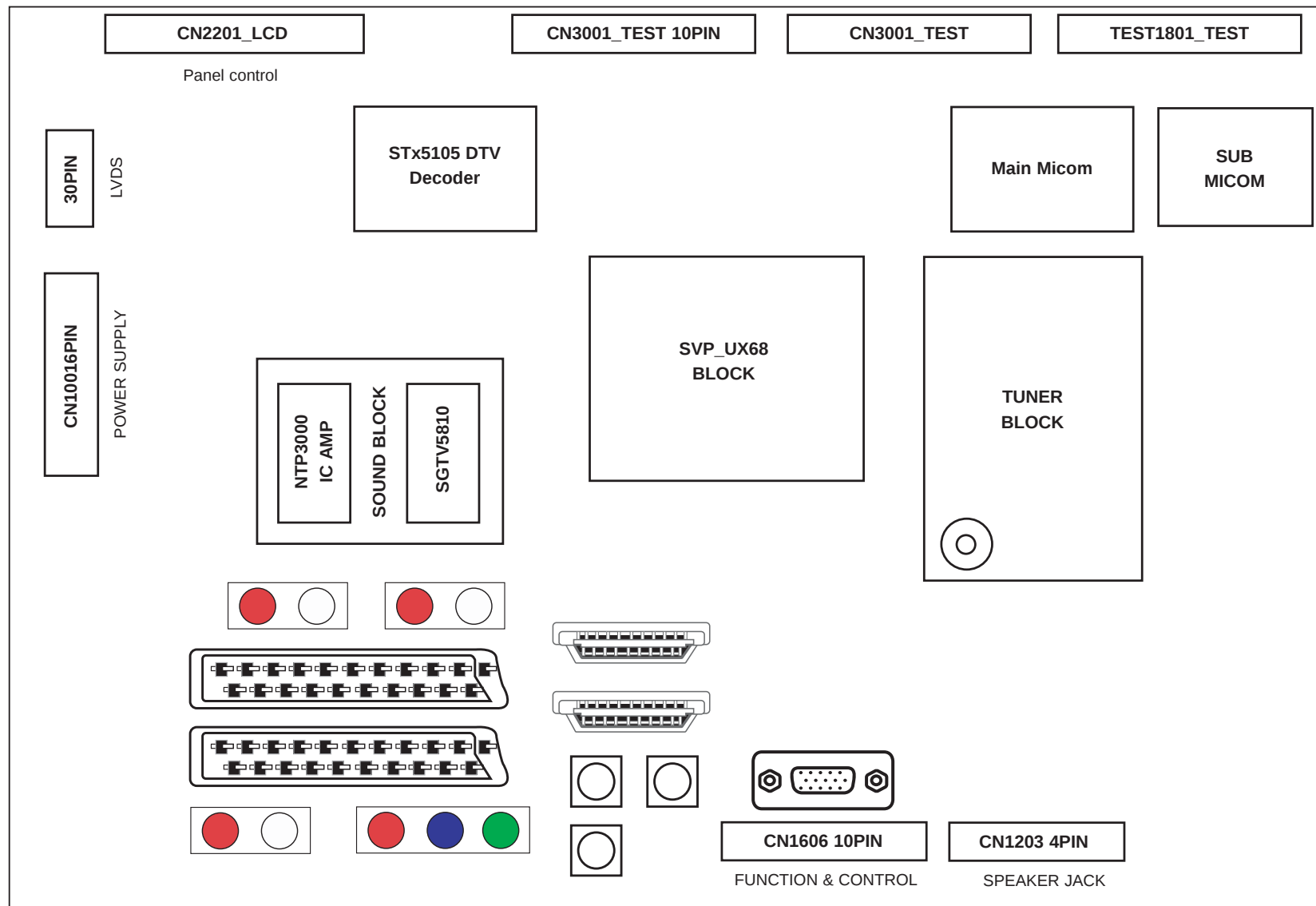
1	GND										
2	DVI_SR_IN										
3	DVI_SL_IN										
4	GND										
5	DVI_SL_IN										
6	DVI_SR_IN										

1	RX2+										
2	GND										
3	RX2-										
4	RX1+										
5	GND										
6	RX1-										
7	RX0+										
8	GND										
9	RX0-										
10	RXCLK+										
11	GND										
12	RXCLK-										
13	CEC										
14	N.C										
15	DDC_SCL										
16	DDC_SDA										
17	GND										
18	IDENT_HDMI										
19	DDC_WP										
20	GND										
21	GND										

4	GND										
5	PC_SR-IN										
6	PC_SL-IN										
7	PC_SL-IN										
8	PC_SL-IN										
9	PC_SR-IN										
10	PC_SR-IN										

1	PC_RED										
2	PC_GREEN										
3	PC_BLUE										
4	GND										
5	GND										
6	GND										
7	GND										
8	GND										
9	PC_5V										
10	INDET_PC										
11	GND										
12	PC_SDA										
13	PC_H_SYNC										
14	PC_Y_SYNC										
15	PC_SCL										

8-2 Main Board Layout



8-3 PIN characteristic

CN1101 - Main Board power supply

PIN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
NAME	N.C	Main_PWR_CTRL	GND	A5V	Sound_AMP	Sound_AMP	B12VS	B12VS	GND	GND	GND	GND	B5V	B5V	B5V	B5V	GND	GND	GND	B13V	B13V	B13V	N.C	N.C

Function Define

- 13V B5V_VCCA, B5V_VCCB, IC611 POWER SUPPERLY
- 5V B5V, B3.3V, B2.5V_VDD, B3.3VD, VCC50
- 12VS B12VS

CN1203 - SPEAKER CONNECTOR

PIN	1	2	3	4
NAME	R+_OUT	R-_OUT	L+_OUT	L-_OUT

CN1606 - Front control

PIN	1	2	3	4	5	6	7	8	9	10
NAME	IR	GND	A5V_1	LED_STB	BUZZER	KEY_INPUT1	KEY_INPUT2	GND	B5V	LED_CTRL

Function Define

- A5V Front control board poewr supply
- KEY INPUT1,2 Key control, from the memu, change up/down Etc.
- IR Remote control signal
- LED_CTRL Control the timing and stand by LED color

CN2201_LCD - Panel control

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

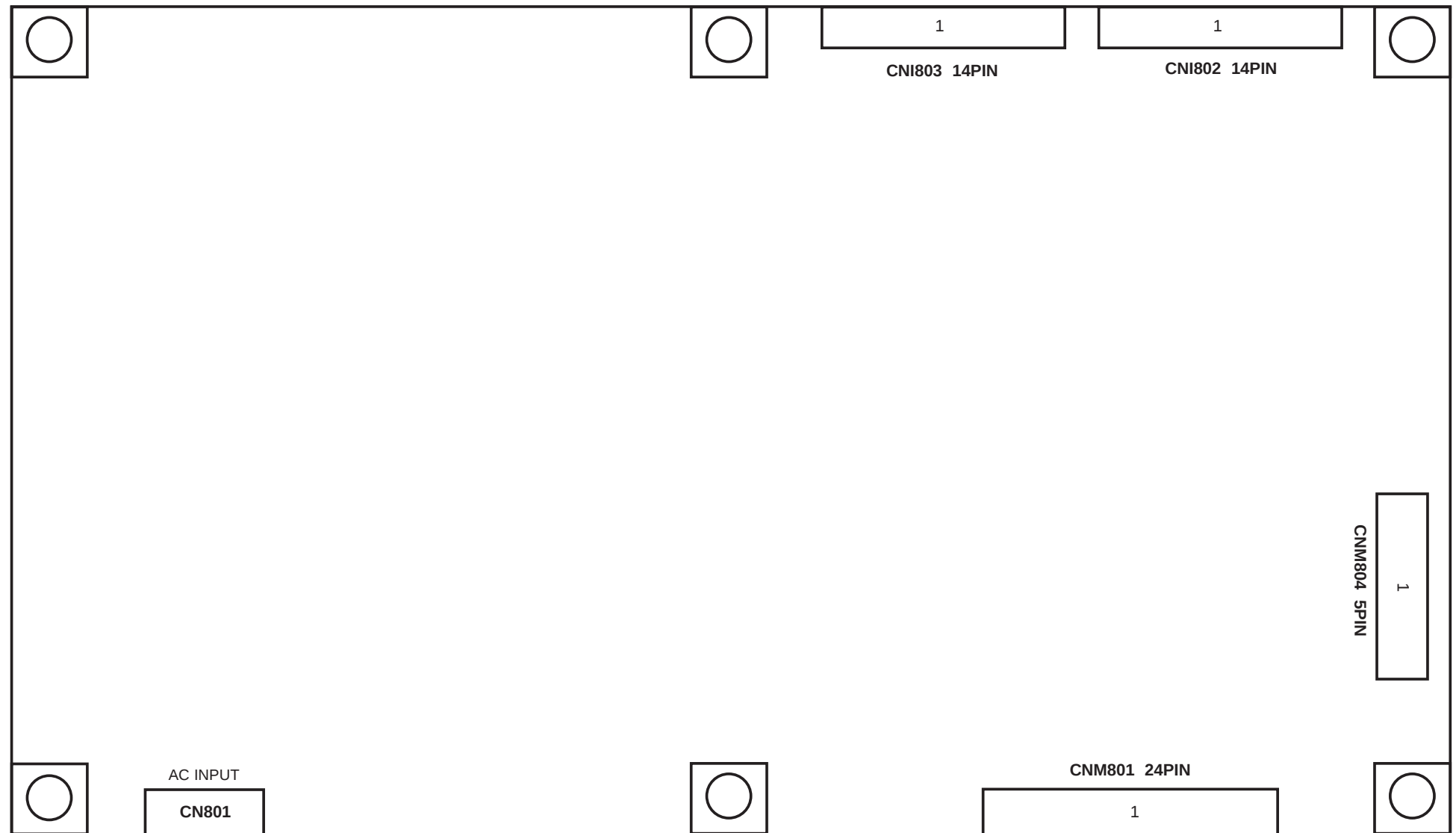
Function Define

- SW_inverter panel inverter control, about 5V
- Ana_dimming panel dimming control
- PWM_dimming panel PWM control, duty 40% ~ 90%
- SENSOR POWER brightness sensor power supply

CN2202-HD LVDS SIGNAL

PIN	NAME	PIN	NAME
1	RxIN0-	16	NC
2	RxIN0+	17	GND
3	RxIN1-	18	WP
4	RxIN1+	19	SCL
5	RxIN2-	20	SDA
6	RxIN2+	21	LVDS Opt
7	RxINCLK-	22	DCC Opt
8	RxINCLK+	23	GND
9	RxIN3-	24	GND
10	RxIN3+	25	GND
11	NC	26	Vdd
12	NC	27	Vdd
13	NC	28	Vdd
14	NC	29	Vdd
15	NC	30	Vdd

8-4 Connector Location and PCB outline figure



¡Ø NOTICE

- Component Location: Within 5mm from guide line
- Pattern : drawn within 2mm from guide line

8-5 Output Connector

8-5-1 AC_INPUT connector (CN801)

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

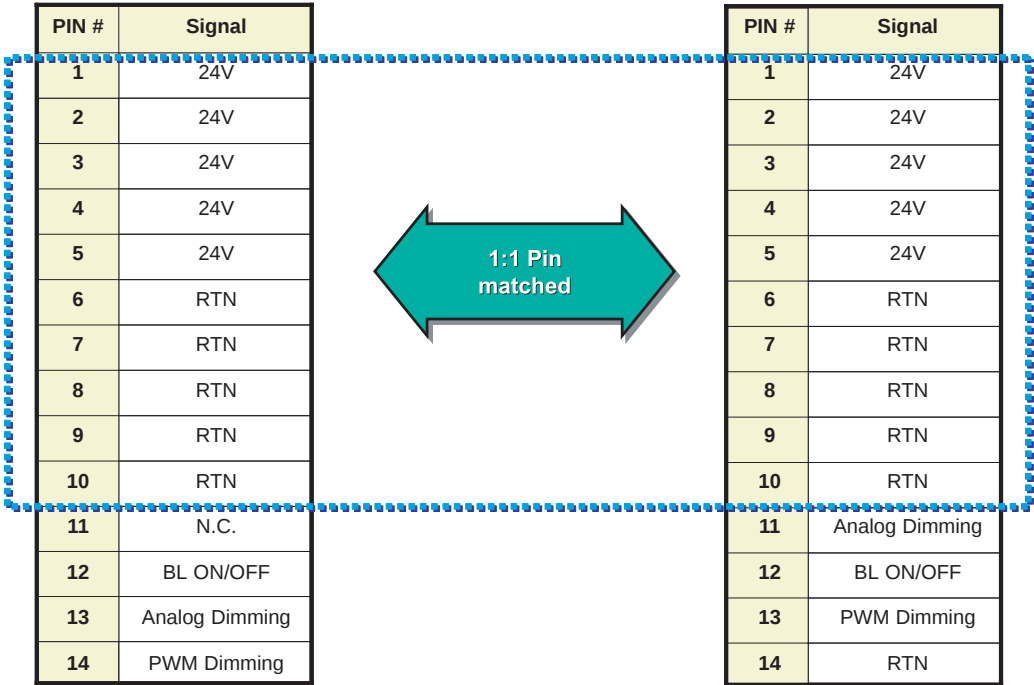
PIN	Signal
1	AC_L
2	AC_N

8-5-2 Connector - S (CNM802)

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

8-5-3 Connector - A (CNM803)

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



8-5-4 Image_Analog (CNM801)

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

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

8-5-5 Image_Analog (CNM804)

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

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

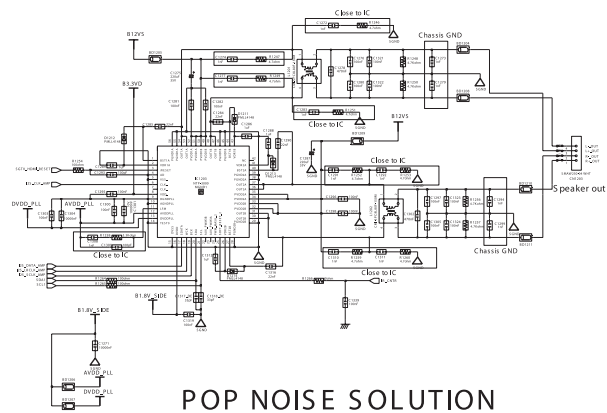
9-1 Power Schematic Diagram

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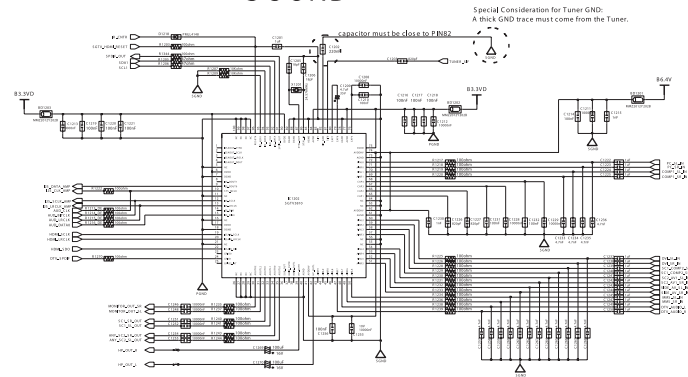
9-2 Sound Processing Schematic Diagram

Reference : 1201~

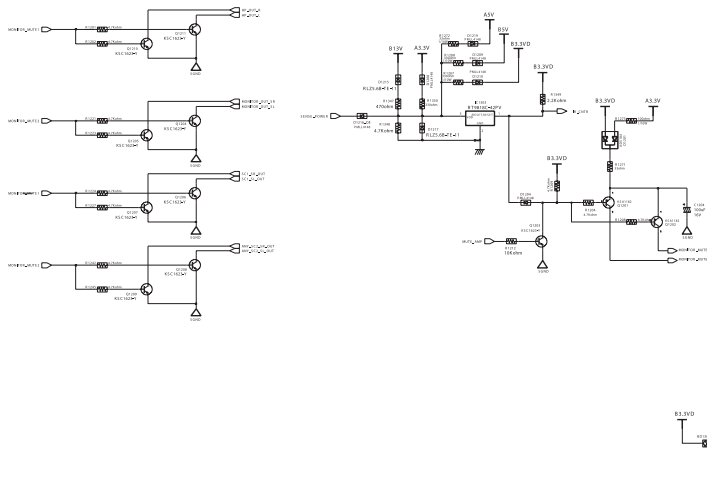
SOUND AMP



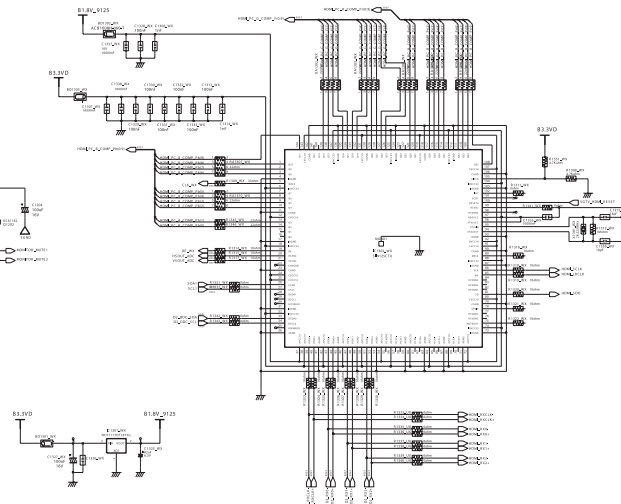
SOUND



POP NOISE SOLUTION



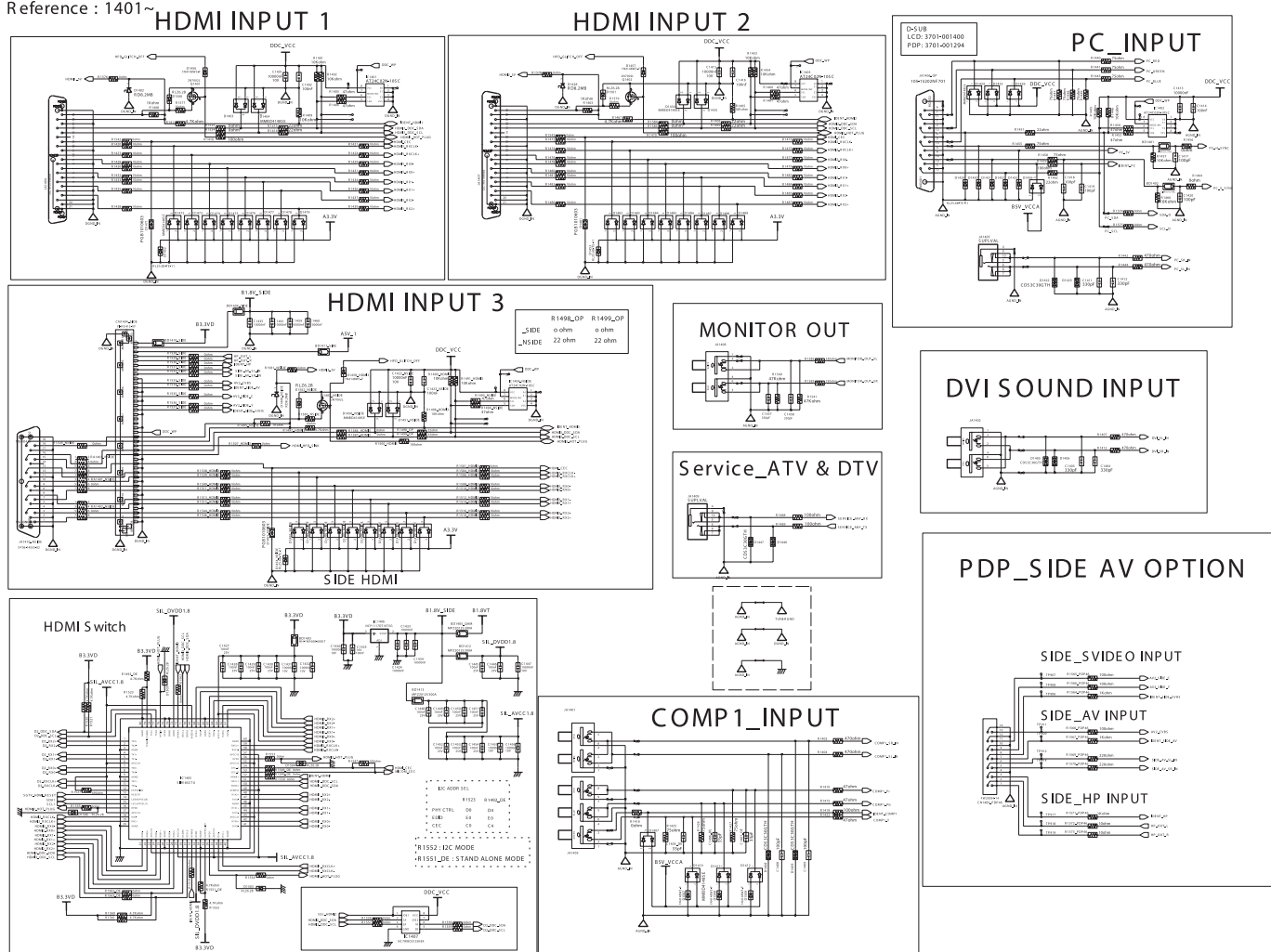
HDMI RECEIVER



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9-3 Input & Output Jack I Schematic Diagram

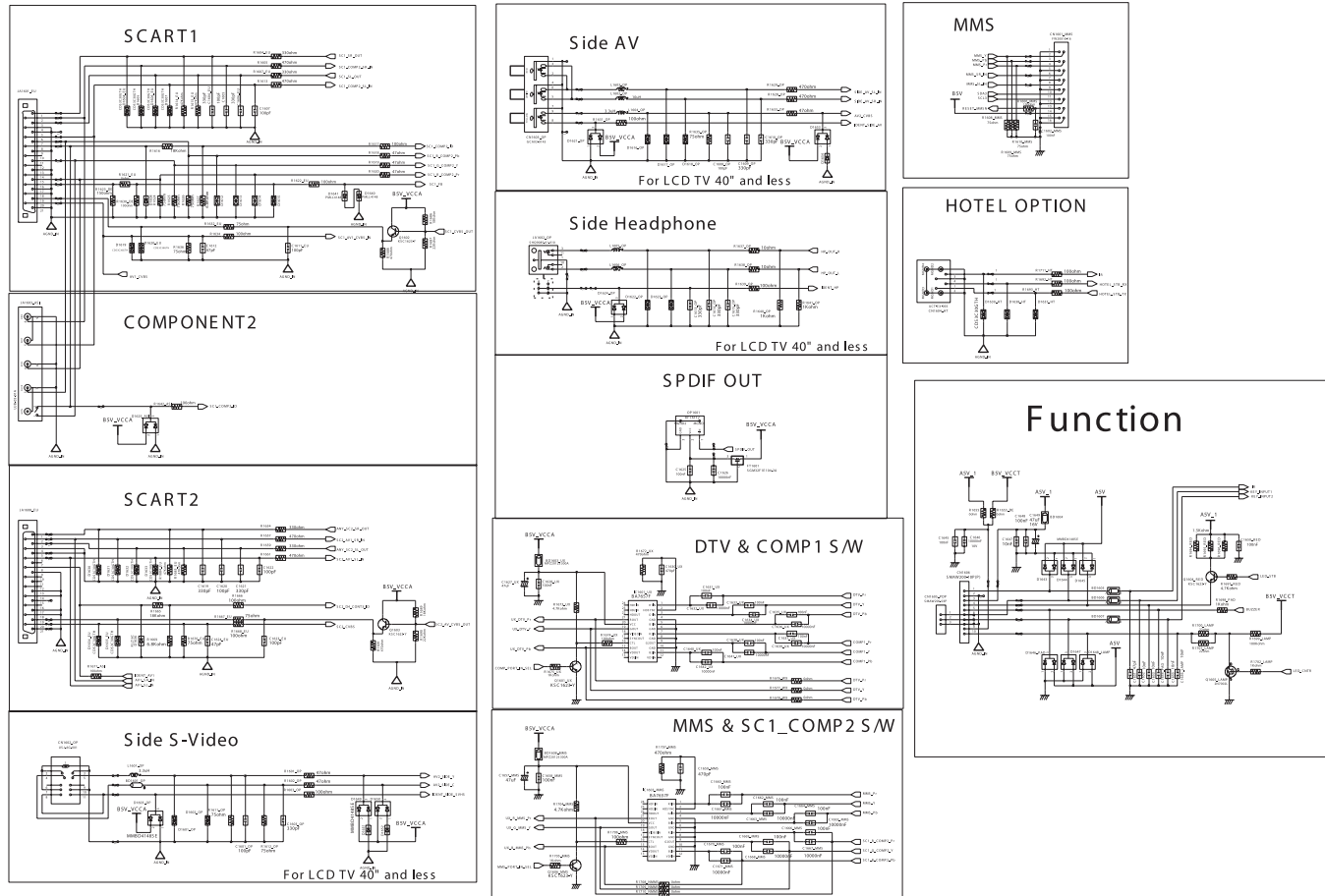
Reference : 1401~



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9-4 Input & Output Jack II Schematic Diagram

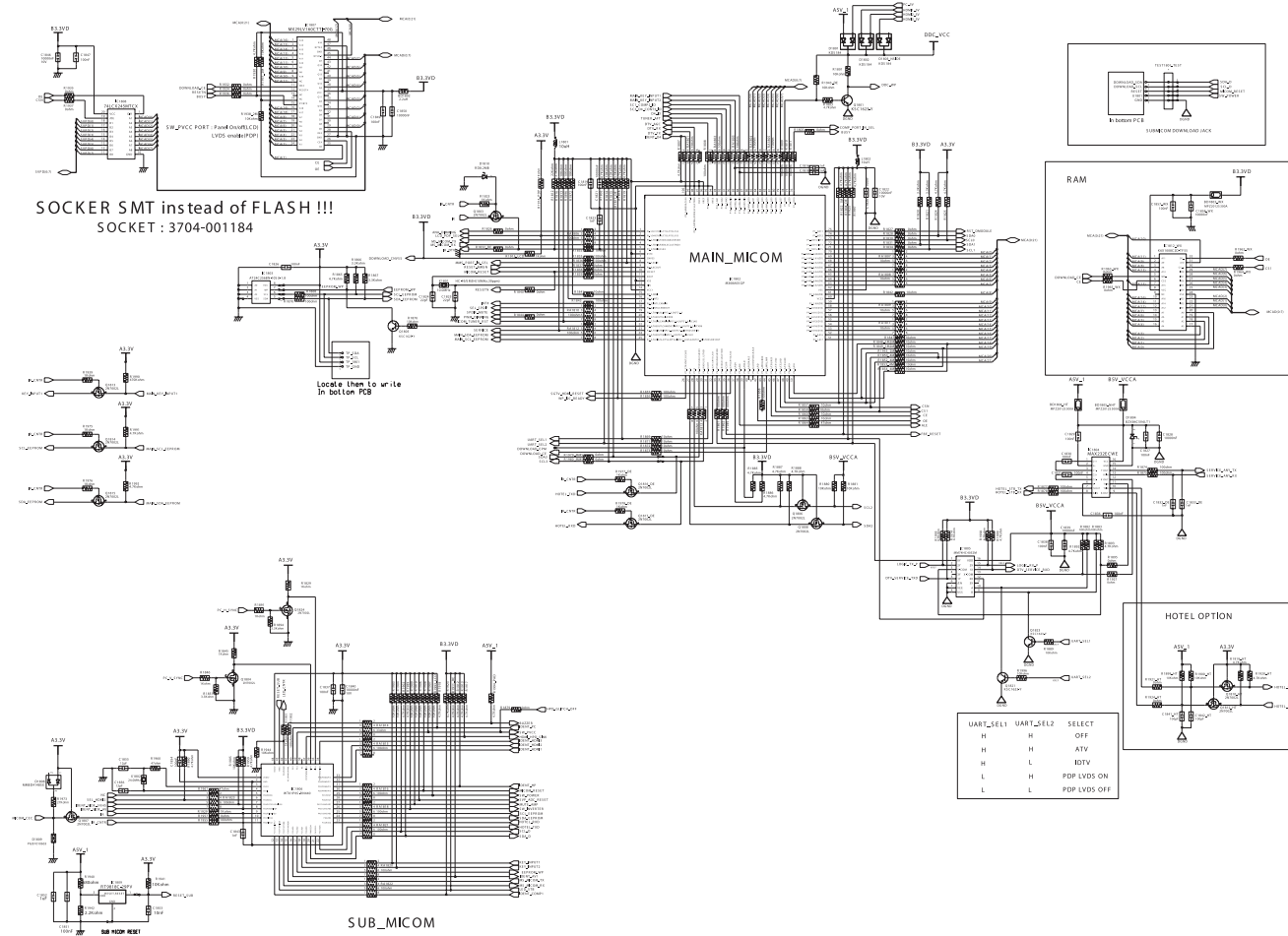
Reference : 1601~



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9-5 MICOM Schematic Diagram

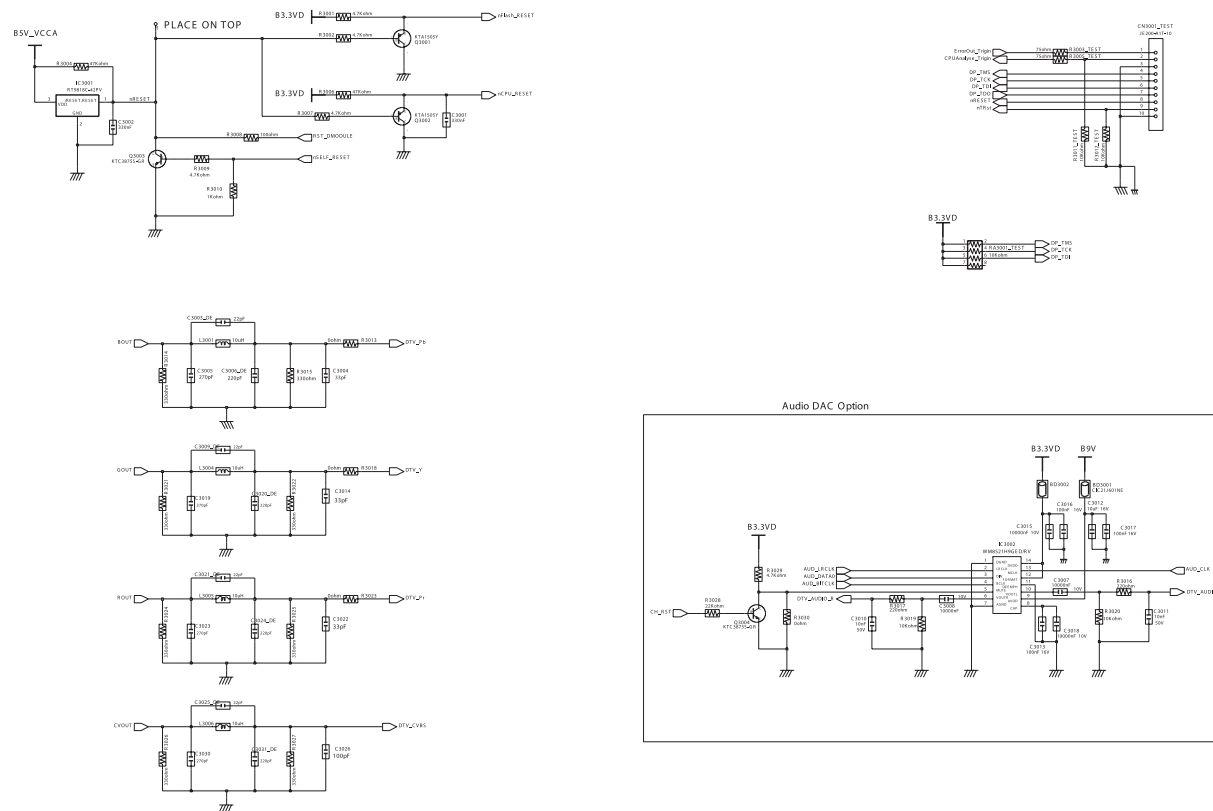
Reference : 1801~



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9-8 DTV Reset & AV out Schematic Diagram

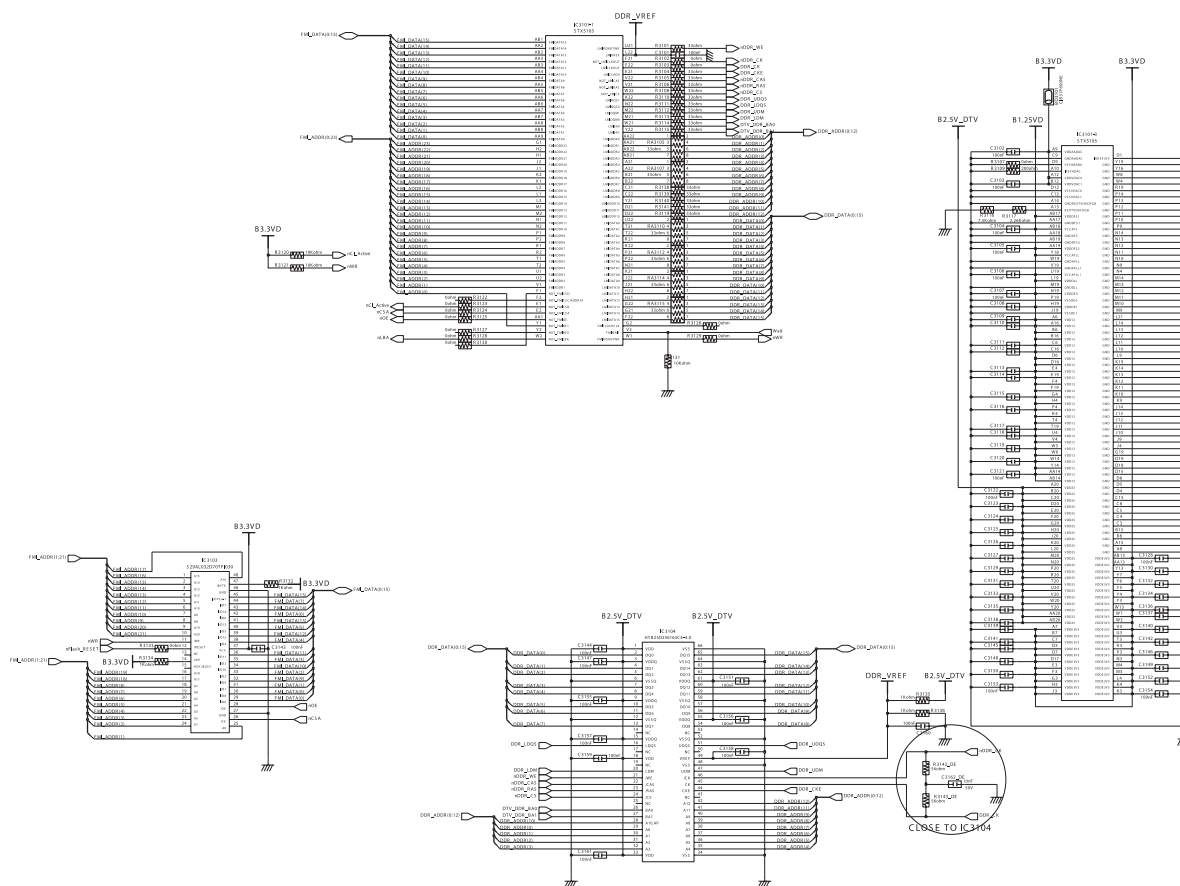
Reference : 3001~



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9-9 DTV Memory & STi5105 Schematic Diagram

Reference : 3101~

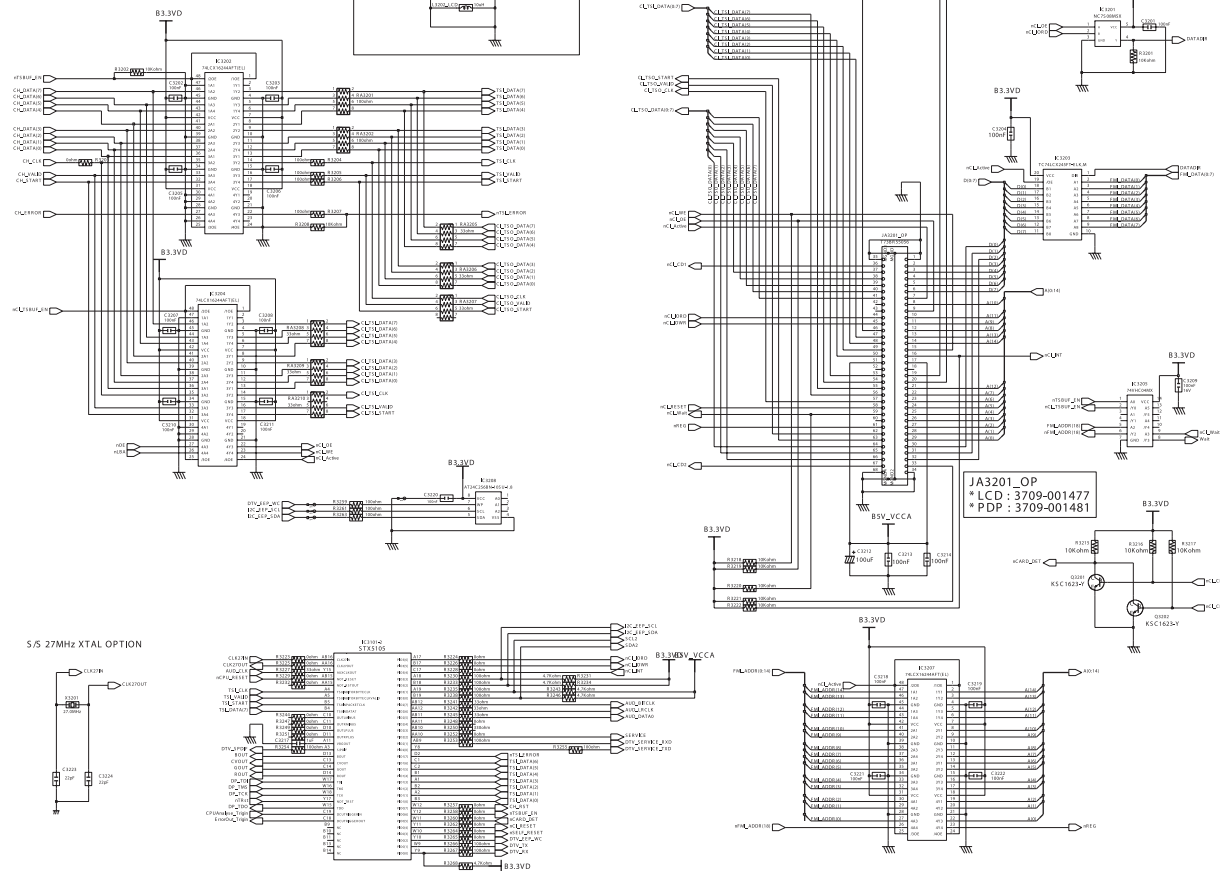


-This Document can not be used without Samsung ' s authorization.

9-10 PCMCIA & STi5105 Schematic Diagram

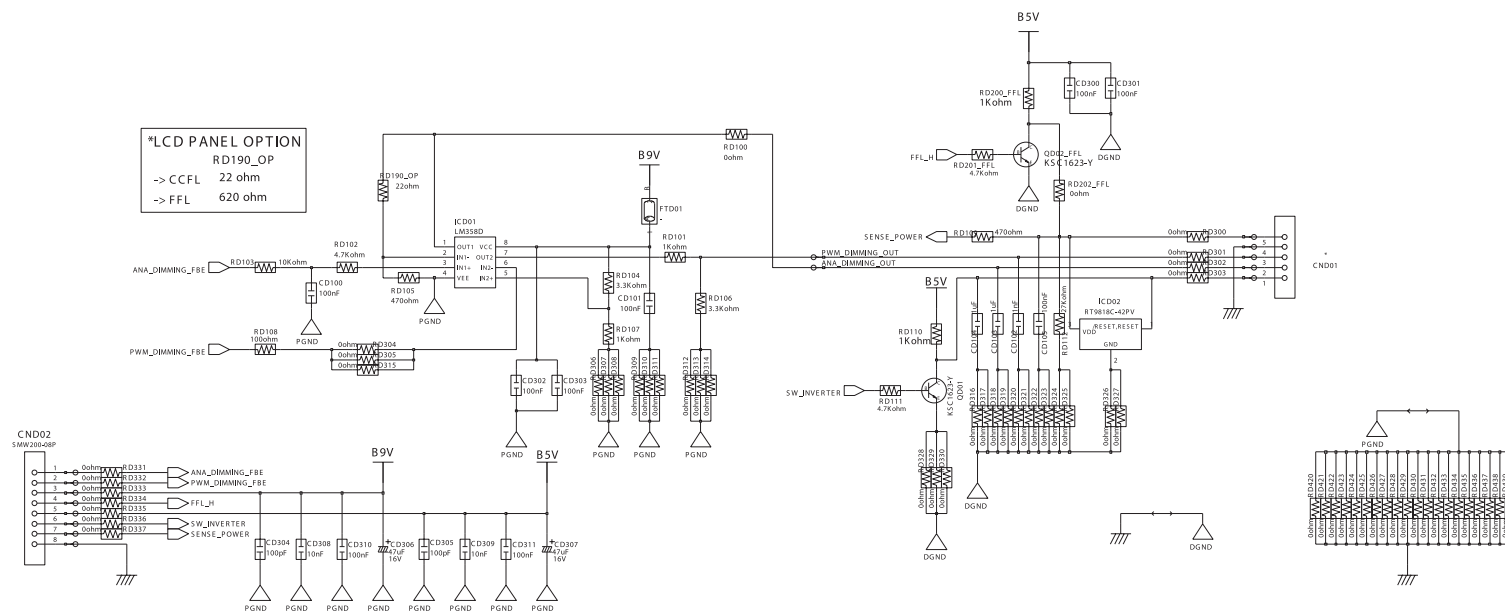
Reference : 3201~

FOR SUPPORT SHIELD (CI CARD SLOT)



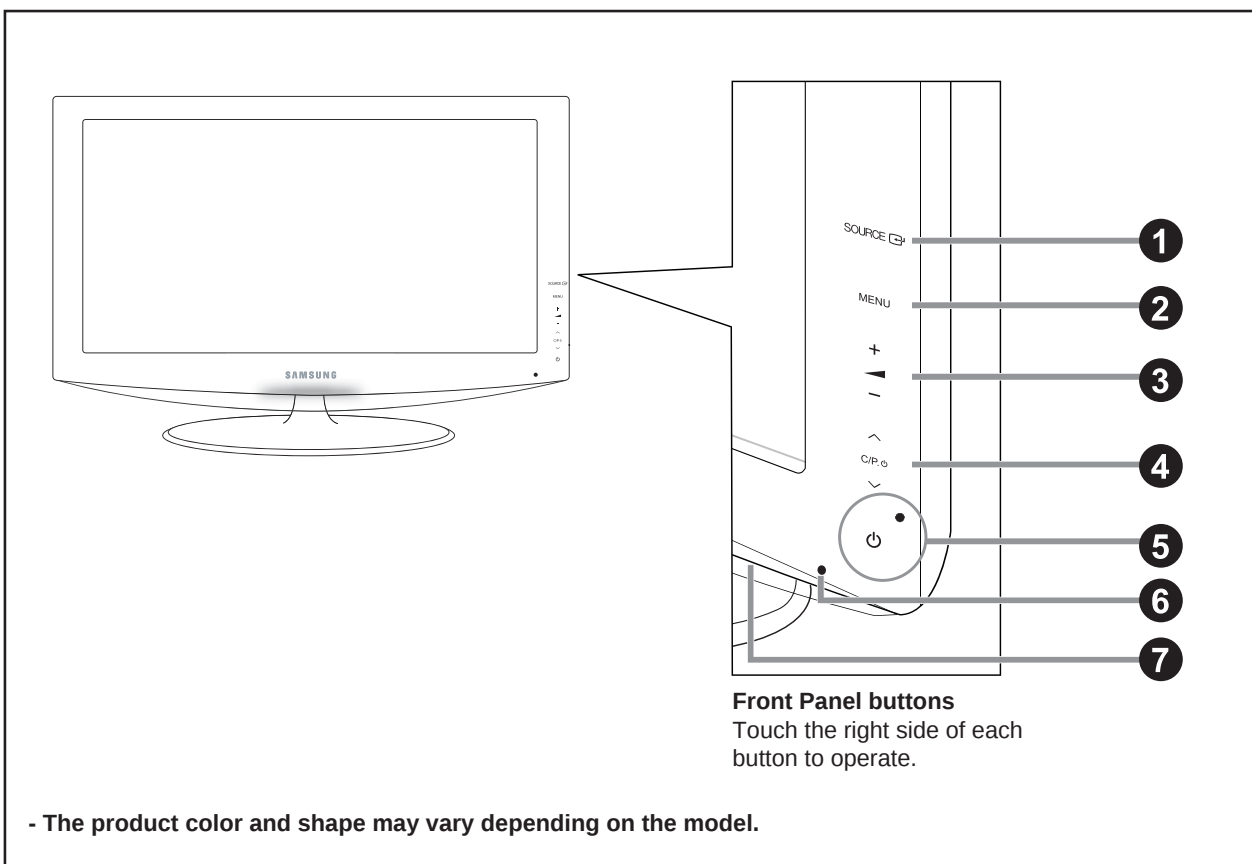
-This Document can not be used without Samsung 's authorization.

9-11 DIMMING BOARD Schematic Diagram



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, HDMI3, DTV). In the on-screen menu, use this button as you use the **ENTER/OK** 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. ⏻ (Power)

Press to turn the TV on and off.

Power Indicator

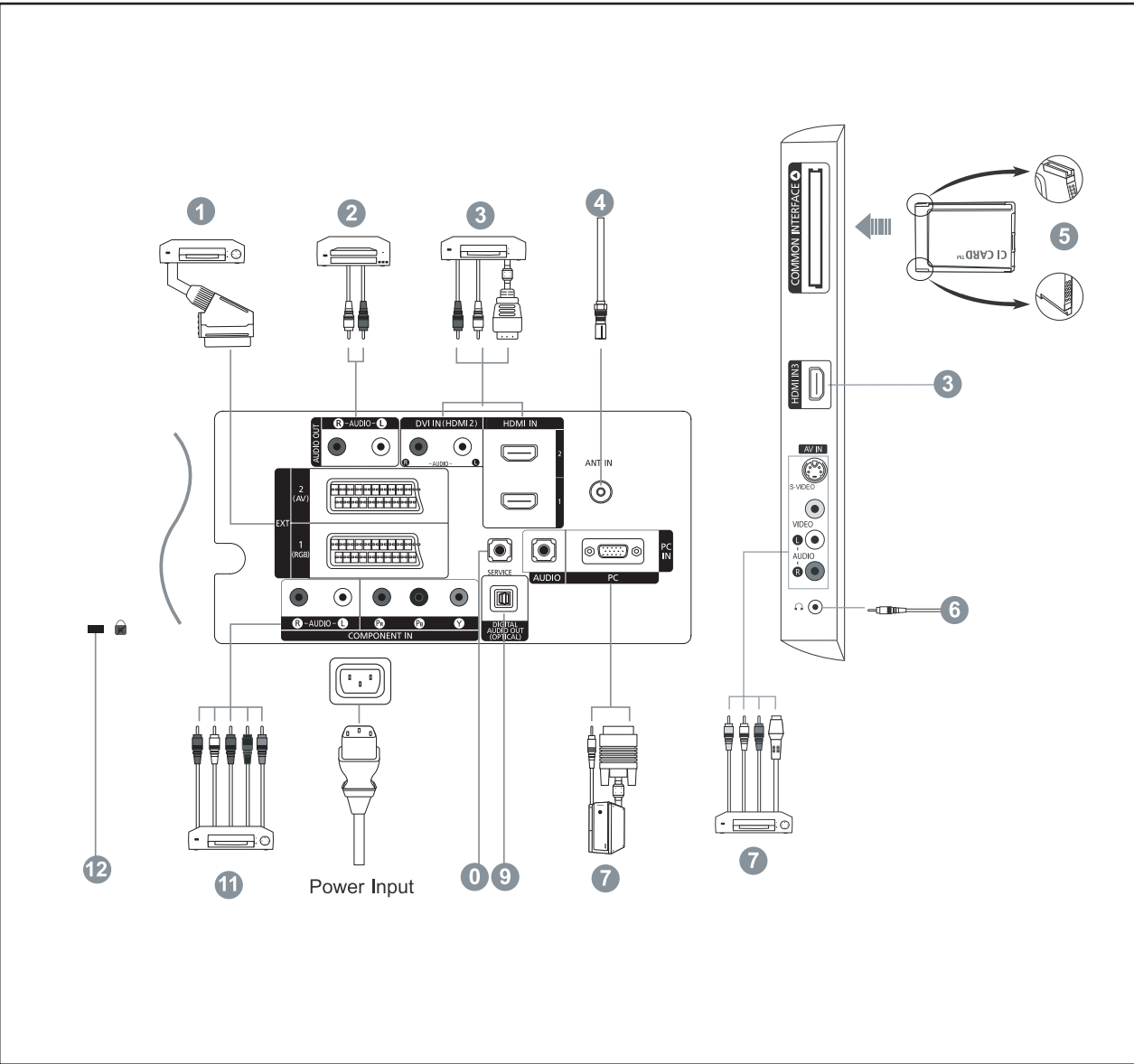
Blinks and turns off when the power is on and lights up in stand-by mode.

6. Remote Control Sensor

Aim the remote control towards this spot on the TV.

7. Speakers

10-2 Viewing the 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. Connecting HDMI/DVI

- Supports connections between HDMI-connection-enabled AV devices (Set-Top Boxes, DVD players, AV receivers and digital TVs).

- 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.

- ▶ 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.

- 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.

- ▶ Supported modes for DVI or HDMI

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

- Do not attempt to connect the HDMI/DVI connector to a PC or Laptop Graphics Card.
(This will result in a blank screen being displayed)

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

5. Connecting CI (Common Interface) CARD

- When not inserting "CI CARD" in some channels, "Scrambled Signal" is displayed on the screen.
- The pairing information containing a telephone number, CI CARD ID, Host ID and other information will be displayed in about 2~3 minutes. If an error message is displayed, please contact your service provider.
- When the channel information configuration has finished, the message "Updating Completed" is displayed, indicating that the channel list is now updated.
- You must obtain a CI CARD from a local cable service provider.

7. 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 (**6**) on the rear of your set. While the headphone is connected, the sound from the built-in speakers will be disabled.

8. 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.

9. DIGITAL AUDIO OUT (OPTICAL)

- Connect to a Digital Audio Component.

10. SERVICE

- Service connection for qualified service engineer.

10 Operating Instructions and Installation

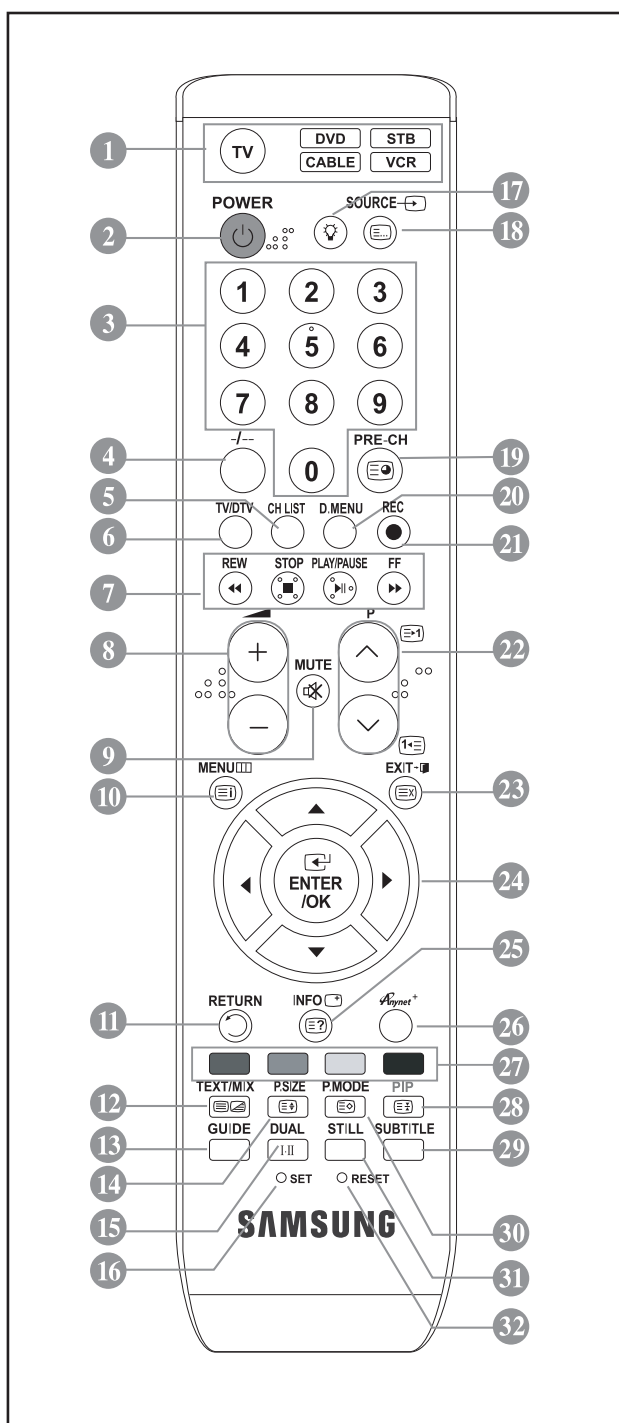
11. Connecting Component Devices (DTV/DVD)

- 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.

12. 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



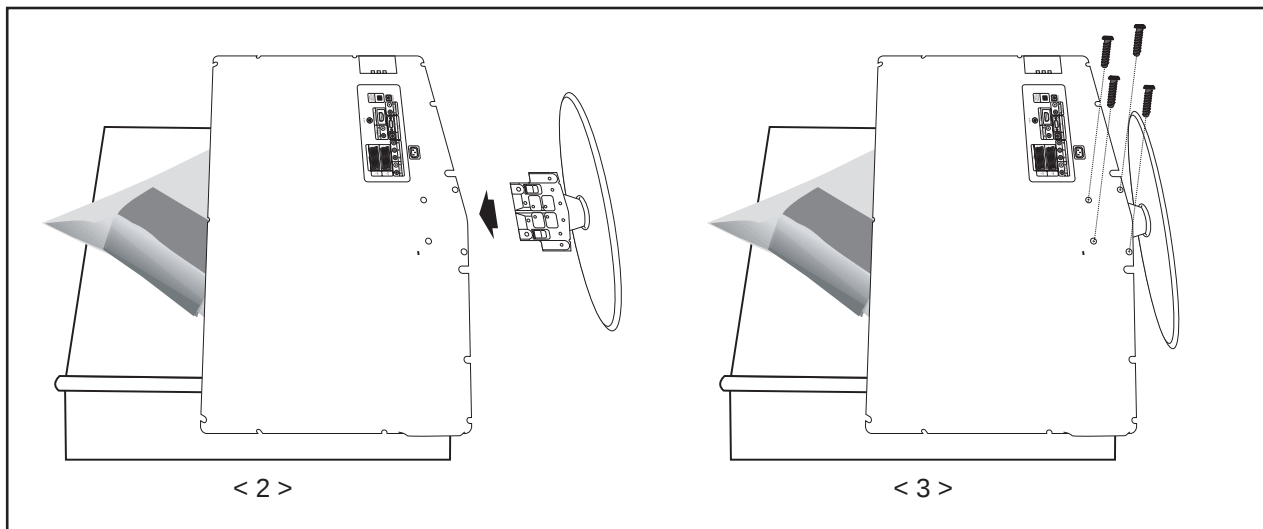
1. Selects a target device to be controlled by the Samsung remote control (TV, DVD, STB, CABLE, VCR)
2. Television Standby button
3. Number buttons for direct channel access
4. One/Two-digit channel selection
5. It display "Channel Manager" on the screen.
6. Selects the TV mode directly
7. VCR/DVD Functions
Rewind, Stop, Play/Pause, Fast/Forward
8. + Volume increase
- Volume decrease
9. Temporary sound switch-off
10. Menu display and change confirmation
11. Returns to the previous menu
13. Electronic Program Guide (EPG) display
14. Picture size selection
15. Sound effect selection
16. Adjusts 5 separate devices - TV, DVD, STB, CABLE, or VCR.
17. When pressing this button, a number of buttons on the remote control (e.g. Selects a target device, volume, channel and MUTE buttons) light up for a few seconds and then turn off to save power. This function is to conveniently use the remote control at night or when dark.
18. Available source selection
19. Previous channel
20. DTV menu display
21. Records for Live Broadcasting
22. P (Next channel)
P (Previous channel)
23. Exit the OSD
24. Control the cursor in the menu
25. Use to see information on the current broadcast
26. Runs the Anynet view functions and sets up Anynet devices. Please refer to the Anynet Owner's Instruction.
27. Picture size selection
28. Picture-In-Picture On / Off
29. Digital subtitle display
30. Picture effect selection
31. SRS TSXT selection
32. When your remote does not work, change the batteries and press the "RESET" button for 2-3 seconds before use.

Teletext Functions

8. Exit from the teletext display
10. Teletext index
12. Alternately select Teletext, Double, or Mix.
14. Teletext size selection
18. Teletext mode selection (LIST/FLOF)
19. Teletext sub page
22. P (Teletext next page)
P (Teletext previous page)
23. Teletext cancel
25. Teletext reveal
27. Fastext topic selection
28. Teletext hold
30. Teletext store

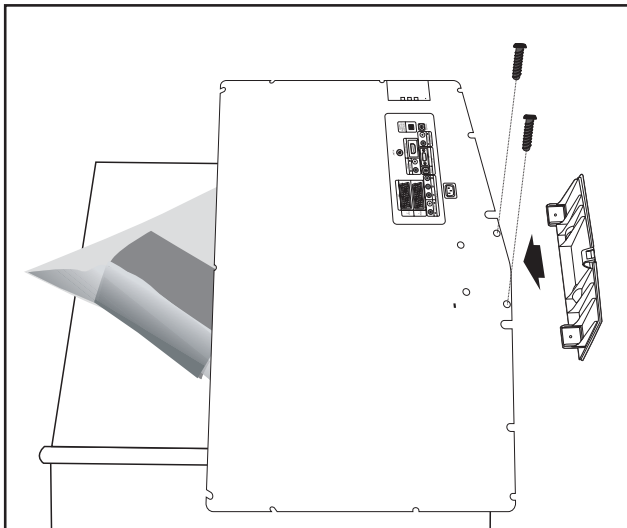
- The performance of the remote control may be affected by bright light.
- This is a special remote contro for the visually impaired, and has Braille points on the Power, Channel and Volume buttons.

10-4 Installing the Stand



1. Place the TV faced down 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.

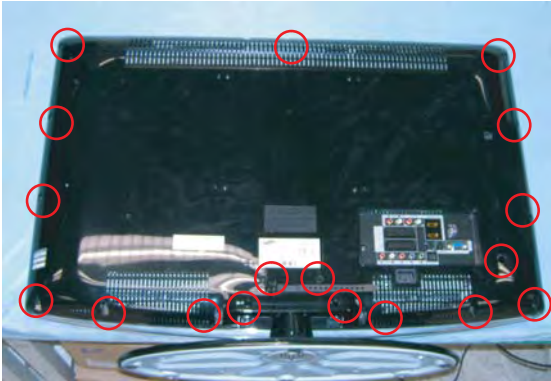
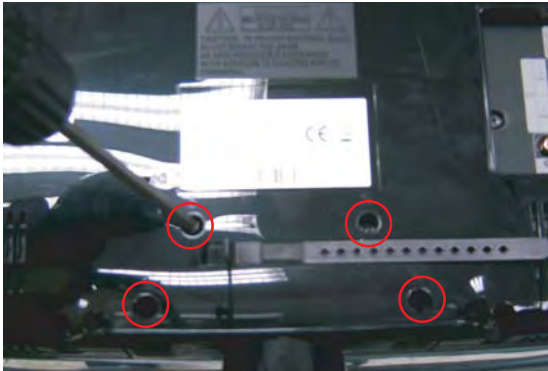
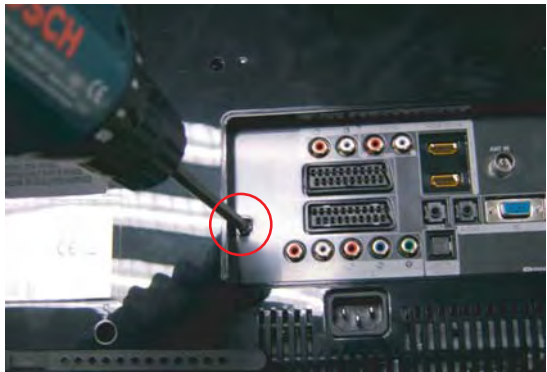
11 Disassembly and Reassembly

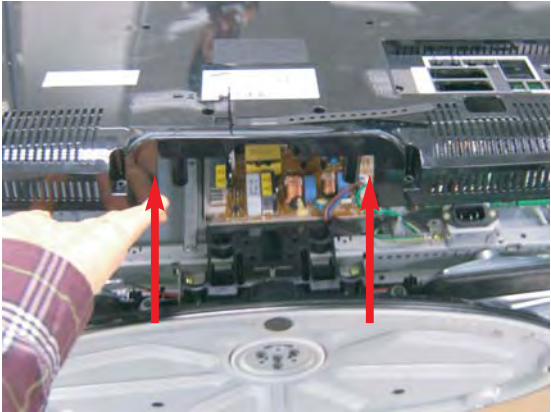
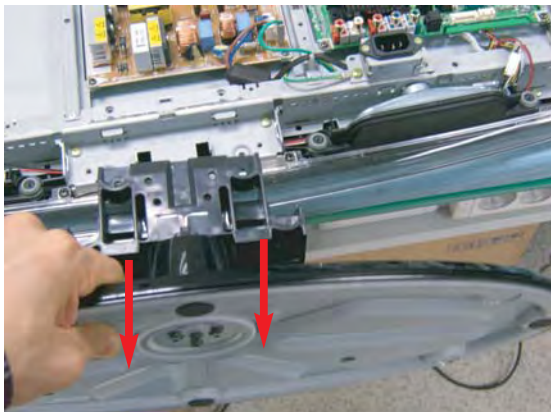
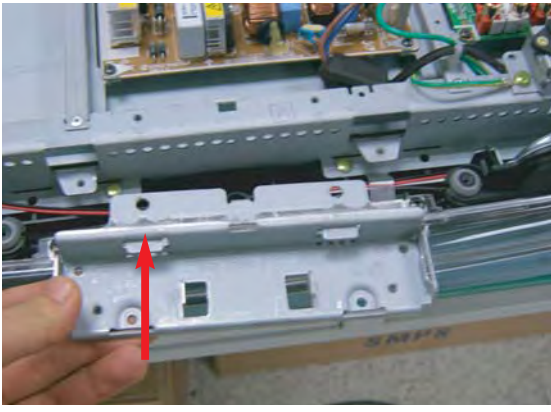
This section of the service manual describes the disassembly and reassembly procedures for the TFT-LCD TV.

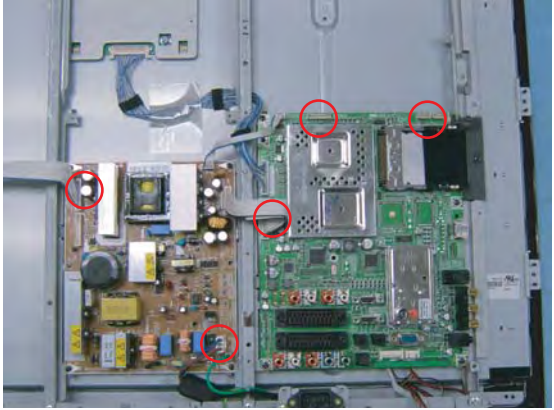
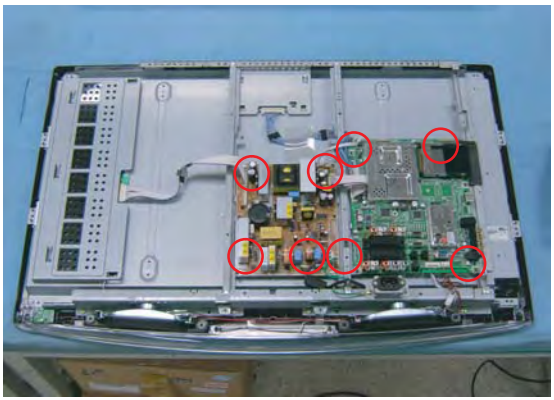
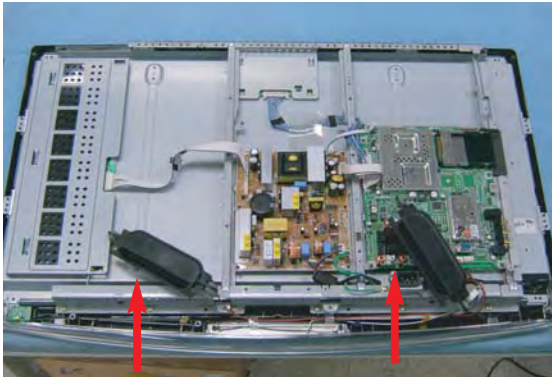
⚠ WARNING : This monitor contains electrostatically sensitive devices. Use caution when handling these components.

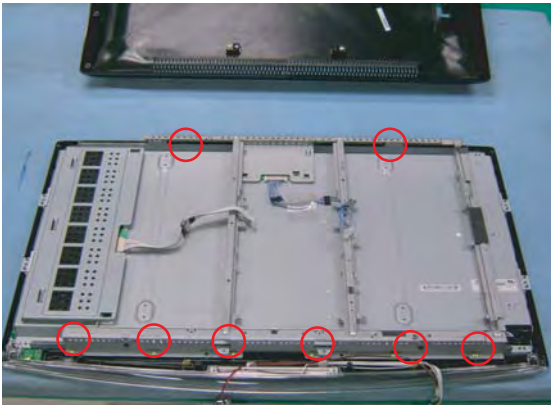
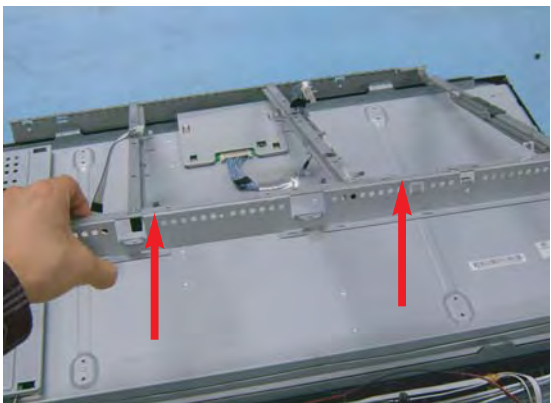
11-1 Disassembly

- ⚠ 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 and remove screws from the stand.	 A photograph showing the back of a black monitor. Numerous screws are visible, securing the rear cover and the stand. Red circles are drawn around each screw head to indicate where to remove them.
	 A close-up photograph of a hand using a screwdriver to remove a screw from the bottom of the monitor's stand. Red circles highlight the screw being removed and the stand's structure.
	 A close-up photograph of a hand using a screwdriver to remove a screw from the rear cover of the monitor. Red circles highlight the screw being removed and the rear cover's panel.

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
4. Lift up the shield and disconnect cables from the boards.	 A photograph showing the internal components of a device chassis. A green printed circuit board (PCB) is visible, populated with various electronic components. Several red circles are drawn on the image to highlight specific points of interest: two on the left side of the PCB, one on the top right, and one on the bottom left. These circles likely indicate where cables are connected or where the shield is attached.
5. Remove screws from the boards and remove screw from the side connector.	 A photograph showing the internal components of a device chassis, similar to the previous image. Red circles are drawn on the image to highlight specific locations: one on the left side of the PCB, one on the top right, and one on the bottom left. These circles likely indicate where screws are located or where a side connector is attached.
	 A photograph showing the internal components of a device chassis, similar to the previous images. Red arrows are drawn on the image to point to specific locations: one on the left side of the PCB and one on the bottom right. These arrows likely indicate where side connectors are located or where a side connector is attached.

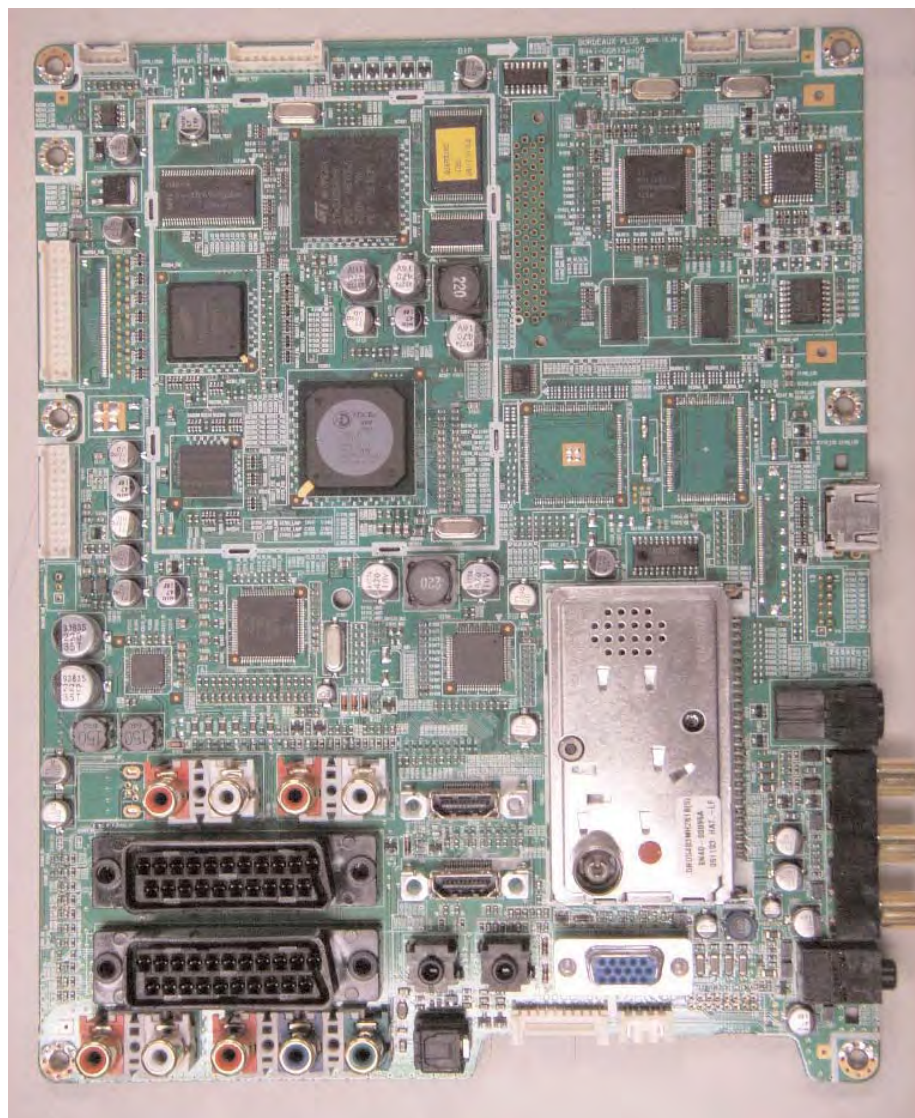
Description	Picture Description
6. Remove screws and lift up the BRKT	 A photograph showing the rear view of a device chassis. Several screws are circled in red, indicating the locations to be removed. A bracket is visible at the top of the chassis.
	 A close-up photograph showing a hand lifting a bracket. Two red arrows point upwards, indicating the direction of movement. The bracket is being lifted from the chassis.
	 A photograph showing the rear view of the device chassis after the bracket has been removed. The chassis is shown from a slightly different angle than the previous images.

11-2 Reassembly

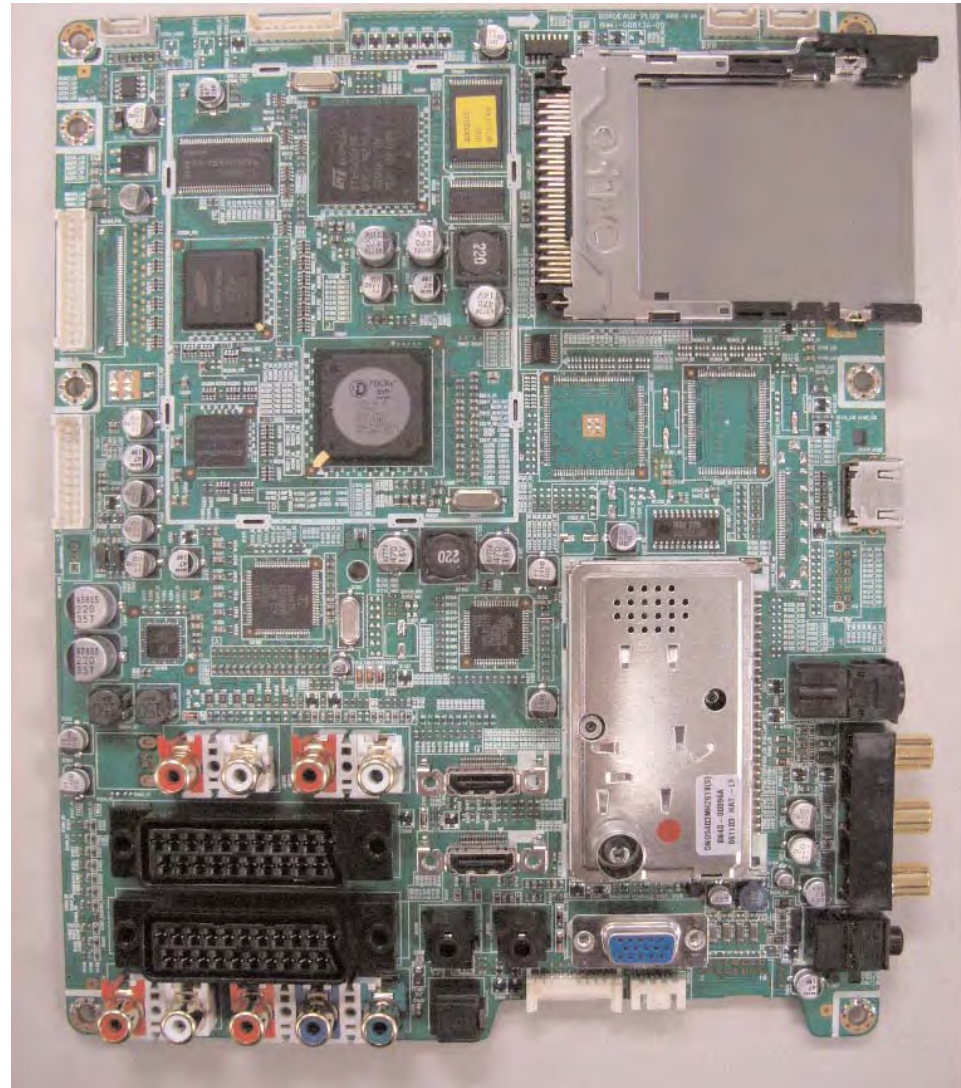
Reassembly procedures are in the reverse order of disassembly procedures.

12 PCB Diagram

12-1 Main PCB Diagram (Without Card Slot)

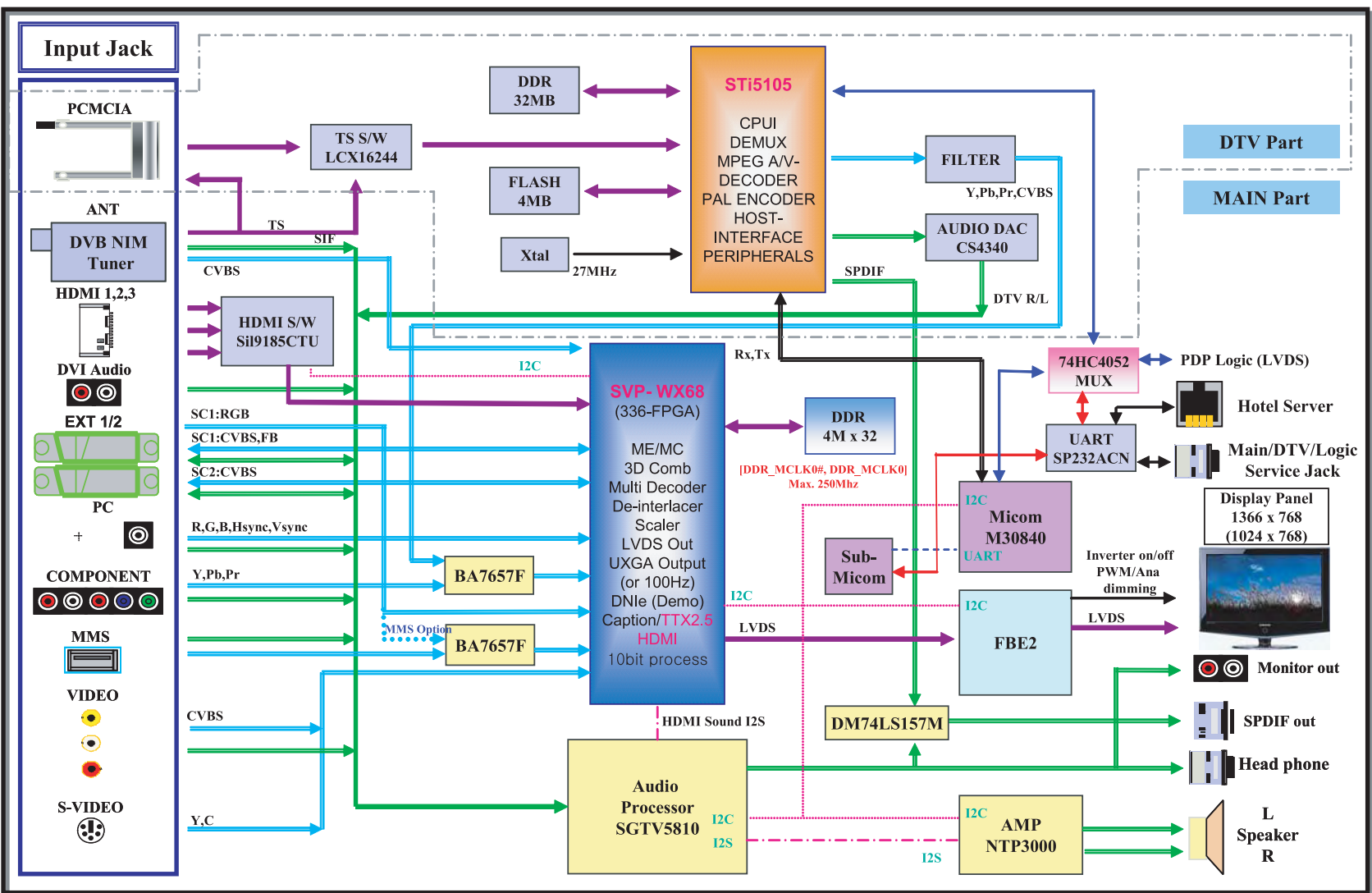


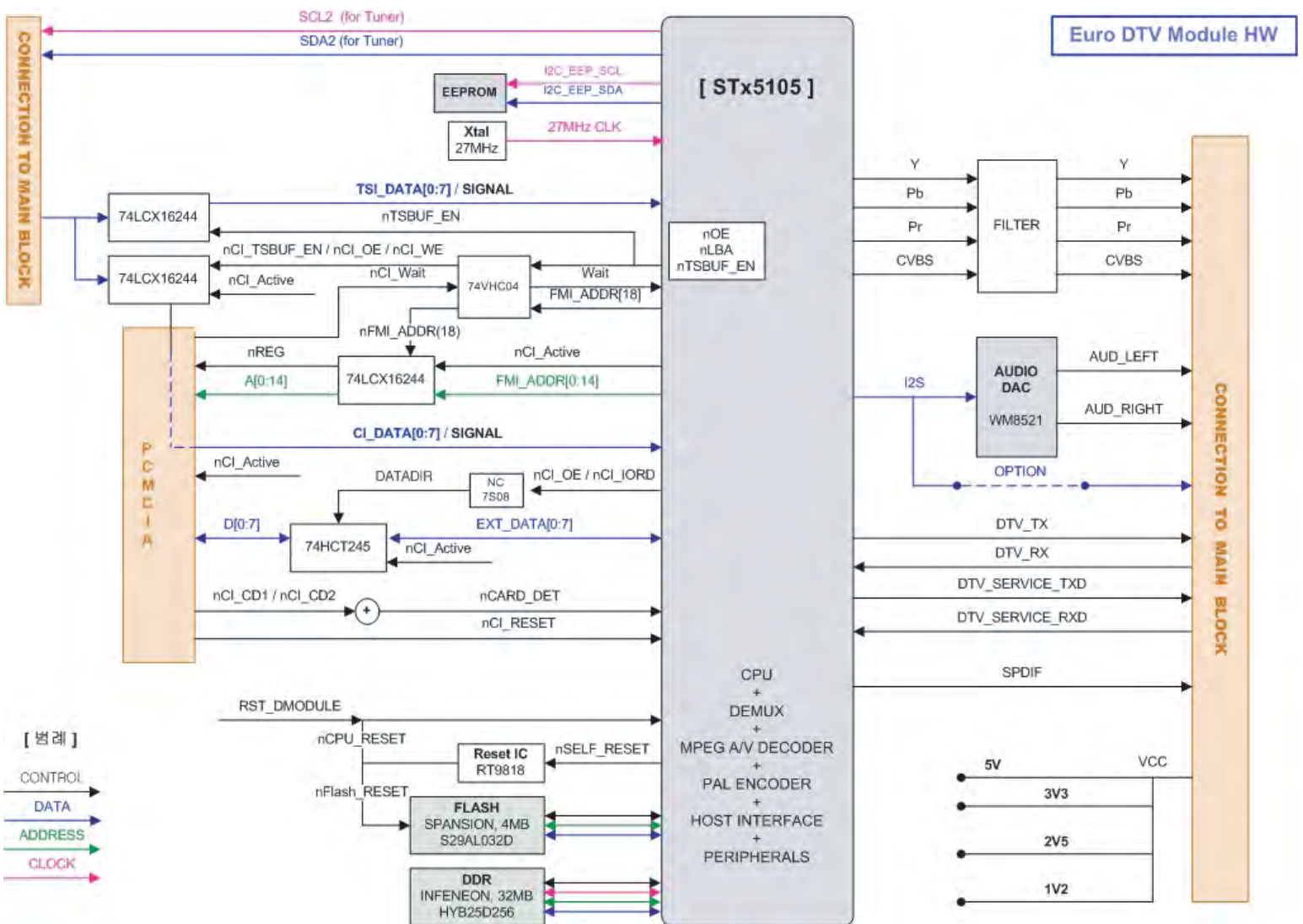
12-2 Main PCB Diagram (With Card Slot)



13 Circuit Descriptions

13-1 Main Signal Description





13-3 RF/DTV Tuner (DNOS403MH261B(S)) SPEC.

1. Description

1-1 Receiving System : Designed to cover all bands in VHF and UHF including digital terrestrial(DVB-T) and hyper channels for CCIR system.

1-2 It built in COFDM-Demod IC & Analog Demod IC (PAL B/G, I, D/K, SECAM L/L')

1-3 Receiving Channel : 47MHz ~ 862MHz

1-4 Intermediate Frequency : Digital(center) 36.167 MHz, Analog(picture) 38.9MHz

1-5 Input Impedance : 75Ω, Unbalanced.

1-6 Terminals name and function

Pin No	Connection	Remark	Pin No	Connection	Remark
1	LNA 9V	Only Analog part	15	N.C	
2	RF AGC		16	SYNC	
3	5V		17	VALID	
4	AFT		18	MD7	MPEG data output7
5	30V		19	MD6	MPEG data output6
6	N.C (AS)		20	MD5	MPEG data output5
7	RESET	Initial power-up, Reset need Low status $\leq 50\text{mS}$	21	MD4	MPEG data output4
8	ERROR		22	MD4	MPEG data output3
9	VIDEO OUT		23	MD2	MPEG data output2
10	N.C		24	MD1	MPEG data output1
11	SIF OUT		25	MD0	MPEG data output0
12	3.3V		26	MPEG CLK	
13	GND		27	SDA	
14	N.C		28	SCL	

2. Mechanical Characteristics

2-1 Dimensions : refer Fig1

2-2 Weight : 60g

2-3 RF input : DIN jack(female)

2-4 Holding Strength of Ant jack.

Initial Inserting Force : 5.0kg max.

Extracting Force After 5 Cycles : 0.7kg min.

2-5 Terminal Strength

The terminal shall not withdraw to the inside
when a force of 1.0Kgf(9.8N) is applied to the end.

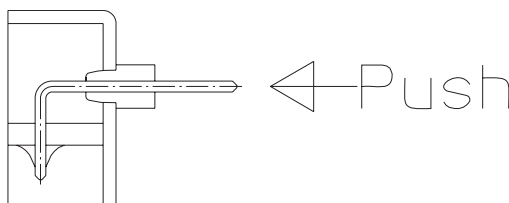


Fig - 2

3. General Characteristics

3-1 Temperature Range

Storage Temperature : -20°C ~ +80°C

Operation Temperature : 0°C ~ +65°C

3-2 Test conditions : All data hold under following conditions

T(amb.) : +25±2°C / Humidity : 45 ~ 65 % RH

Supply voltage(5V) : +5V ± 2%

Supply voltage(9V) : +9V ± 2%

Tuning voltage (BT) : +30V ± 2%

Supply voltage(3.3V) : +3.3V ± 2%

3-3 Current Consumption

Supply Voltage (5V) : Typ 210mA, Max 240mA

Supply Voltage (9V) : Typ 40mA, Max 70mA

Tuning Voltage(30V) : Max 2mA

Supply Voltage(3.3V) : Max 240mA Max 260mA

4. Electrical Characteristics (RF block & Digital Demodulation)

4-1 Input Frequency Range

Analog VHF-Low Band : 48.25MHz ~ 168.25MHz

VHF-High Band : 175.25MHz ~ 463.25MHz

UHF Band : 471.25MHz ~ 855.25MHz

DVB-T VHF-High Band : 174(177.5)MHz ~ 230(226.5)MHz

UHF Band : 470(474)MHz ~ 862(858)MHz

4-2 Input Signal Level : -80dBm ~ -10dBm (AveragePower, 64QAM, 2/3CR)

4-3 Voltage Gain

1st IF : 40dB typ. 38dBmin.

4-4 Noise Figure

1st IF : 4.5dB typ. 6.5dB max. (at max. gain)

4-5 OFDM-Demod IC : MT5131 (produced by MediaTek)

4-6 Input Impedance : 75Ω

4-7 RF Input/Output Return Loss : -8dB typ. -6dB min.

4-8 IF Frequency

1) Digital center frequency : 36.125MHz

2) Analog (PAL B/G, I, D/K, SECAM L/L')

Picture intermediate frequency :

38.9MHz(PAL B/G & SECAM L), 33.9MHz(SECAM L')

Sound intermedate frequency :

33.4MHz(B/G), 32.9MHz(I), 32.4MHz(D/K,SECAM L), 40.4MHz(SECAM L')

4-9 Spurious Signals at Input Terminal

Local Oscillator Leakage : 46dBuV max.

4-10 Reference Frequency

The X-tal for the RF block's PLL : 4MHz

4-11 Phase Noise (step frequency 166.67kHz for digital)

@ 1kHz : -84dBc/Hz typ. -75dBc/Hz max.

@ 10kHz : -90dBc/Hz typ. -80dBc/Hz max.

4-12 Control Data Bus : I²C

4-13 Control Data Format : refer 5 section

4-14 Image PAL Interference Protection Ratio

: -49dB typ. -46dB min (at 2K, 8K mode) Note1.

4-15 Adjacent PAL Interference Protection Ratio. (N ±1 channel)

: -38dB typ. -35dB min (at 2K, 8K mode) Note1.

4-16 Adjacent DVB-T Interference Protection Ratio. (N ±1 channel)

: -33dB typ. -30dB min (at 2K, 8K mode) Note1.

4-17 Co-Channel PAL Interference Ratio.

: +1dB typ. +4dB min (at 2K, 8K mode) Note1.

◆ Note1 :

Desire input signal condition

a : Modulation - 64QAM

b : Guard Interval - 1/32

c : Puncture Rate - 2/3

Undesired input signal condition :

PAL : Video 75% color bars

FM sound : 1kHz tone (P/S : 13dB, ± 50kHz deviation, freq. P/S : 6.0MHz)

※ Adjacent & Image channel PAL interference test procedure

a. Turn DVB-T source off ; adjust PAL PSP level to -25dBm

b. Turn PAL off ; turn DVB-T on

c. Adjust DVB-T to -25dBm

d. Turn PAL on and increase step PAL level to see the pixelation on the screen

e. Note protection ratio as the difference value between DVB-T and PAL's level

※ Co-Channel PAL interference test procedure

a. Turn PAL source off ; adjust DVB-T level to -50dBm

b. Turn DVB-T off ; turn PAL on

c. Adjust PAL to -50dBm

d. Turn DVB-T on and increase step attenuator in PAL channel until QEF.

4-18 Input Carrier to Noise (Additive White Gaussian Noise, QEF. Condition)

: 17.4dB typ. 18.4dB max. (64QAM, 2K,8K Mode, Code rate:2/3, input level:-50dBm)

: 22.5dB typ. 23.5dB max. (64QAM, 2K,8K Mode, Code rate:7/8, input level:-50dBm)

4-19 Sensitivity (QEF. Condition)

: -80dBm typ. -78.5dBm max.(64QAM, 2K,8K Mode, Code rate:2/3,Guard Interval 1/32)

: -76dBm typ. -74.7dBm max.(64QAM, 2K,8K Mode, Code rate:7/8,Guard Interval 1/32)

4-20 Multipath channel Interference (64QAM, 2K, 2/3code rate, 1/32G.I)

4-21 C(N+1) Performance in Single Frequency Networks outside the guard interval

- NorDig Unified Test Specification, ver 1.0 (Task 3.28)

13 Circuit Descriptions

short echo : 20.5dB max

Pin No	Delay(us)	Relative Attenuation(dB)
1	0	2.8
2	0.05	0
3	0.4	3.8
4	1.45	0.1
5	2.3	2.6
6	2.8	1.3

long echo : 21.5dB max

Pin No	Delay(us)	Relative Attenuation(dB)
1	0	0
2	5	9
3	14	22
4	35	25
5	54	27
6	75	28

short delay parameter

long delay parameter

4-22 Performance in Time-Varying Channels

- NorDig Unified Test Specification, ver 1.0 (Task 3.25)

Mode	0dB echo delay[us]	Frequency Separation [Hz]	C/N[dB]
{8K, 64-QAM, R=3/4, $\Delta/T_u=1/4$ }	20us	0Hz	Max 29.5
{8K, 64-QAM, R=3/4, $\Delta/T_u=1/4$ }	20us	1Hz	
{8K, 64-QAM, R=3/4, $\Delta/T_u=1/4$ }	20us	5Hz	
{8K, 64-QAM, R=3/4, $\Delta/T_u=1/4$ }	20us	10Hz	
{8K, 64-QAM, R=3/4, $\Delta/T_u=1/4$ }	20us	15Hz	
{8K, 64-QAM, R=3/4, $\Delta/T_u=1/4$ }	20us	20Hz	

4-23 C(N+1) Performance in Single Frequency Networks for more than one echo

- NorDig Unified Test Specification, ver 1.0 (Task 3.26)

8K, 64-QAM, R=3/4, $\Delta/T_0=1/4$						
Main Path		Pre echo		Post echo		C/N[dB]
Att[dB]	Delay[dB]	Att[dB]	Delay[dB]	Att[dB]	Delay[dB]	
0	0	0	-100	0	100	Max 26.5
0	0	3	-100	3	100	
0	0	6	-100	6	100	
0	0	9	-100	9	100	
0	0	12	-100	12	100	
0	0	15	-100	15	100	
0	0	18	-100	18	100	
0	0	21	-100	21	100	
0	0	15	-100	0	100	
0	0	15	-100	3	100	
0	0	15	-100	6	100	
0	0	15	-100	9	100	
0	0	15	-100	12	100	
0	0	15	-100	18	100	
0	0	15	-100	21	100	
0	0	0	-100	15	100	
0	0	3	-100	15	100	
0	0	6	-100	15	100	
0	0	9	-100	15	100	
0	0	12	-100	15	100	
0	0	18	-100	15	100	
0	0	21	-100	15	100	

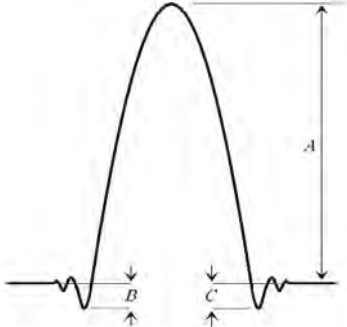
Delay(us)	Echo attenuation in dB relative reference									
	-260	-230	-200	-150	-120	120	150	200	230	260
Mode										
8K, 64-QAM, R=2/3, $\Delta/T_U=1/8$	15	-	13	10	5	5	10	13	-	15
8K, 64-QAM, R=2/3, $\Delta/T_U=1/4$	10	5	n/a	n/a	n/a	n/a	n/a	n/a	5	10
8K, 64-QAM, R=3/4, $\Delta/T_U=1/4$	12	6	n/a	n/a	n/a	n/a	n/a	n/a	6	12

5. Electrical Characteristics (Analog Demodulation)

5-1 PIF characteristics

Parameter		Specification			Unit	Remark
		Min.	Typ.	Max.		
Video Output Level		0.95	1.0	1.05	Vp-p	*Input level : 70dBuV *PAL : 87.5% mod. *75 Ω Terminated
Luminance S/N Ratio		45	47	-	dB	*Input level : VHF 70dBuV UHF 70dBuV *HPF : 100kHz *LPF : 5MHz, SC trap : ON *100% white signal (0.7Vp-p) *PAL : 87.5% mod. *Weight : OFF
Sensitivity	VHF	-	41	43	dBuV	S/N = 30dB, LNA ON HPF : 100kHz LPF : 5MHz, SC trap : ON 100% white signal PAL : 87.5% mod.
	UHF	-	43	45		
Chroma Distortion	DP	-8	3	+8	Deg	*Input level : 70dBuV *10 stair step *PAL : 87.5% mod.
	DG	-8	3	+8	%	
Y/C Delay		-120	0	50	nsec	Y is reference(B/G MODE)
Video Frequency Response						
	1.0MHz	-1.0	0	+1.5	dB	*Input level : 70dBuV *Video Signal - PAL : 87.5 %, AM MOD - Multi - Burst Signal
	2.0MHz	-1.5	0	+2.0		
	3.0MHz	-2.5	0	+2.5		
	4.0MHz	-3.0	0	+3.0		
	4.43MHz	-4.0	-1.5	+3.0		
Video Frequency Response						
	1.0MHz	-1.0	0	+1.5	dB	*Input level : 70dBuV *Video Signal - SECAM : 95 %, AM MOD - Multi - Burst Signal
	2.0MHz	-1.5	0	+2.0		
	3.0MHz	-2.5	0	+2.5		
	4.0MHz	-3.0	0	+3.0		
	4.43MHz	-4.0	-2.5	+3.0		
BURST LEVEL		240	300	360	mV	*Input level : 70dBuV *Video Signal - PAL : 87.5 %, AM MOD (Standard Color Bar Signal)

13 Circuit Descriptions

Parameter	Specification			Unit	Remark
	Min.	Typ.	Max.		
Ringin g & S hoot		5	8	%	Input Signal : 2T-Pulse or Dot&cross (B/G mode) Shoot Tolerance(Pre & Over) : $\text{Shoot(max)} \leq \frac{(A \times 8)}{100}$ Bilateral Symmetry : Typical Balanced 

5-2 AFT Characteristics

Parameter	Specification			Unit	Remark
	Min.	Typ.	Max.		
AFT Alignment Accuracy	+50	0	-50	KH z	Alignment center : 2.5V IF input level : 90dBuV P/S = -10dB Standard color bar :87.5% mod.

5-3 Audio characteristics

Parameter	Specification			Unit	Remark
	Min	Typ	Max		
SIF OUT Level	70	90		dBuV	Standard color bar 87.5% mod.
	200	400		mVp-p	Standard color bar 87.5% mod.

13-4 DTV MAIN ChipSet

13-5-1 STx5105 SPEC.

Enhanced ST20 32-bit VL-RISC CPU

- 200 MHz, single cycle cache/4 Kbyte instruction cache,/ 4 Kbyte data cache, 2 Kbyte SRAM

Unified memory interface

- Up to 133 MHz, 16-bit wide DDR SDRAM interface

Programmable flash memory interface

- 4 separately configurable banks, 8/16-bits wide
- SRAM, peripheral, Flash, SFlash™ support
- Support for low cost DVB-CI

Programmable transport interface (PTI)

- Single transport stream input
- Support for DVB transport streams
- Integrated DVB, ICAM descramblers

MPEG-2 MP@ML video decoder

- Fully programmable horizontal and vertical SRCs

Graphics/display

- 4 display planes
- 8 bpp CLUT graphics, 256 x 30 bits (AYCbCr) CLUT entries. 16 bpp true color graphics, RGB565, ARGB1555, ARGB4444 formats. Link-list control
- Alpha blending, antialiasing, antialiasing, antiflicker filters
- 2D paced blitter engine with fill function
- Blitter based display compositor

PAL/NTSC/SECAM encoder

- RGB, CVBS, Y/C and YUV outputs with four 10-bit DAC outputs. RGB/CVBS or YUV/CVBS or YC/CVBS.
- Encoding of CGMS, Teletext, WSS, VPS, close caption

Audio subsystem

- MPEG-1 layers I/II
- Simultaneous MPEG audio decode and output of Dolby streams on S/PDIF
- IEC958/IEC1937 digital audio output interface
- Integrated stereo audio DAC system

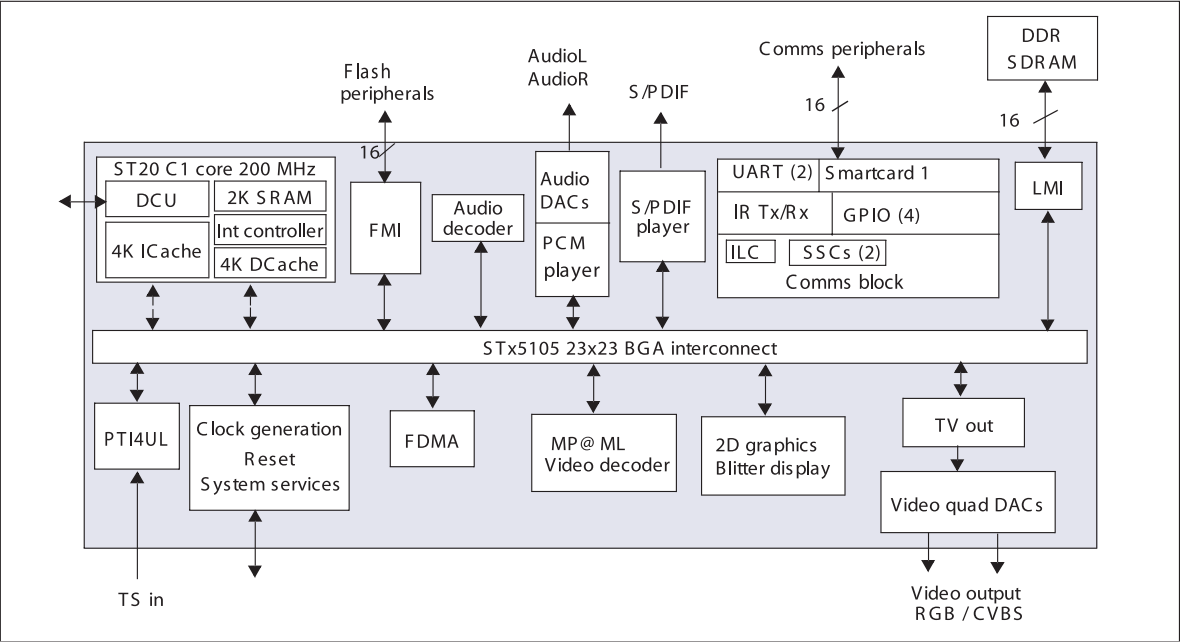
Central DMA controller

On-chip peripherals

- Two ASCs (UARTs) with Tx and Rx FIFOs
- Three 8-bit banks of parallel I/O and one 7-bit bank
- One smartcard interface and clock generator
- Two SSCs for I²C/SPI master/slave interfaces
- Infrared transmitter/receiver
- Integrated VCXO
- Low-power / RTC / watchdog controller

JTAG/TAP interface

Package 23 x 23 PBGA



13-4-3 S29AL032D(Flash Memory) SPEC.

Distinctive Characteristics

Architectural Advantages

- **Single power supply operation**
 - Full voltage range: 2.7 to 3.6 volt read and write operations for battery-powered applications
- **Manufactured on 200-nm process technology**
 - Fully compatible with 0.23 μm Am29LV320D, 0.32 μm Am29LV033C, and 0.33 μm MBM29LV320E devices
- **Flexible sector architecture**
 - Boot sector models: Eight 8-Kbyte sectors; sixty-three 64-Kbyte sectors; top or bottom boot block configurations available
 - Uniform sector models: Sixty-four 64-Kbyte sectors
- **Sector Protection features**
 - A hardware method of locking a sector to prevent any program or erase operations within that sector
 - Sectors can be locked in-system or via programming equipment
 - Temporary Sector Unprotect feature allows code changes in previously locked sectors
- **Unlock Bypass Program Command**
 - Reduces overall programming time when issuing multiple program command sequences
- **Secured Silicon Sector**
 - 128-word sector for permanent, secure identification through an 8-word random Electronic Serial Number
 - May be programmed and locked at the factory or by the customer
 - Accessible through a command sequence
- **Compatibility with JEDEC standards**
 - Pinout and software compatible with single-power supply Flash
 - Superior inadvertent write protection

Package Options

- **48-ball FBGA**
- **48-pin TSOP**
- **40-pin TSOP**

Performance Characteristics

- **High performance**
 - Access times as fast as 70 ns

- **Ultra low power consumption (typical values at 5 MHz)**
 - 200 nA Automatic Sleep mode current
 - 200 nA standby mode current
 - 9 mA read current
 - 20 mA program/erase current
- **Cycling endurance: 1,000,000 cycles per sector typical**
- **Data retention: 20 years typical**

Software Features

- **CFI (Common Flash Interface) compliant**
 - Provides device-specific information to the system, allowing host software to easily reconfigure for different Flash devices
- **Erase Suspend/Erase Resume**
 - Suspends an erase operation to read data from, or program data to, a sector that is not being erased, then resumes the erase operation
- **Data# Polling and toggle bits**
 - Provides a software method of detecting program or erase operation completion
 - Unlock Bypass Program Command
Reduces overall programming time when issuing multiple program command sequences

Hardware Features

- **Ready/Busy# pin (RY/BY#)**
 - Provides a hardware method of detecting program or erase cycle completion
- **Hardware reset pin (RESET#)**
 - Hardware method to reset the device to reading array data
- **WP#/ACC input pin**
 - Write protect (WP#) function allows protection of two outermost boot sectors (boot sector models only), regardless of sector protect status
 - Acceleration (ACC) function provides accelerated program times

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

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

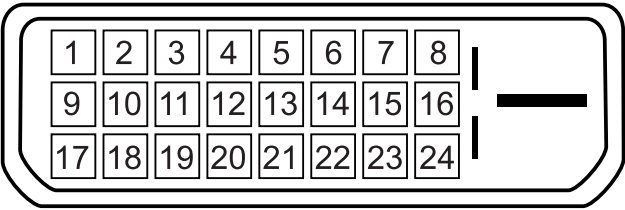


Figure 1.

14-2-2 Component

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

14-2-4 A/V

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

14-2-3 S-Video

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

14-2-5 D-SUB

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

14-2-6 PC Display mode

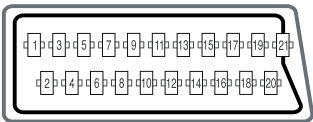
Both screen position and size will vary depending on the type of PC monitor and its resolution.

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

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

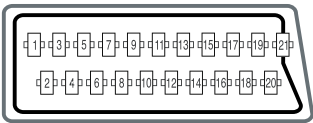
- The interlace mode is not supported.
- The set might operate abnormally if a non-standard video format is selected.
- DVI dose not support PC function.

14-2-7 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



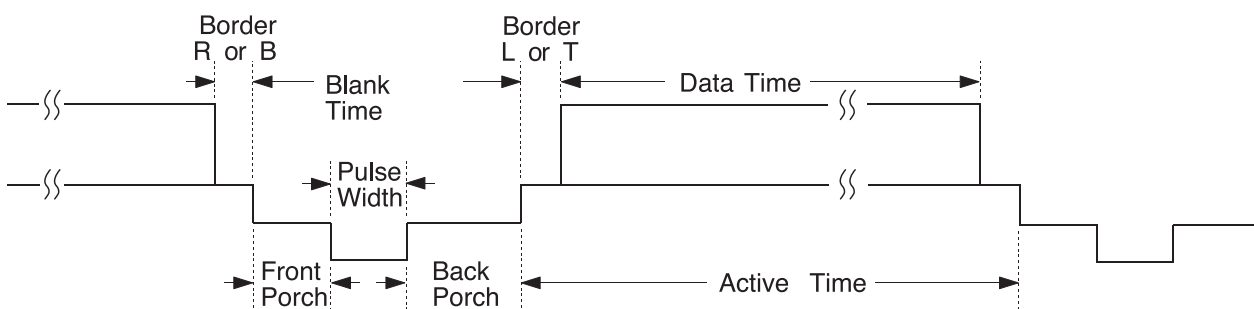
Pin	Signal	Pin	Signal
1	Audio output R	12	NC
2	Audio input R	13	Video GND (RGB red)
3	Audio output L	14	GND
4	Audio common GND	15	RGB red input
5	Video GND (RGB blue)	16	NC
6	Audio input L	17	Video output GND
7	RGB blue input	18	Video input GND
8	Switching voltage	19	Video output (CVBS out)
9	Video GND (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 (HxV)	1366x768
HORIZONTAL	
Frequency	47.712kHz
Total time	20.959 μ s
Activetime	15.906 μ s
Blank time	5.053 μ s
Border(L / R)	0.000 μ s
Data time	15.906 μ s
Front porch	0.749 μ s
Sync. width	1.702 μ s
Back porch	2.994 μ s
Sync. polarity	Positive
VERTICAL	
Frequency	60.015Hz
Total time	16.662 ms
Active time	16.097 ms
Blank time	0.566 ms
Border(T / B)	0.000 ms
Data time	16.097 ms
Front porch	0.063 ms
Sync. width	0.105 ms
Back porch	0.377 ms
Sync polarity	Positive
Dot Clock	85.500MHz
Sync. Type	Separate
Scan Type	N/I



14-3-2 Supported Modes (1)

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

14-3-3 Supported Modes (2)

Timing No.	13	14	18
Originator	VESA	VESA	VESA
Mode Name	800/60Hz	800/72Hz	800/75Hz
Resolution (HxV)	800x600	800x600	800x600
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	2.200 μ s	1.280 μ s	3.232 μ s
Sync. polarity	Positive	Positive	Positive
VERTICAL			
Frequency	60.317Hz	72.188Hz	75.000Hz
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(T / B)	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. Originator Mode Name Resolution (HxV)	15 VESA 1024/60Hz 1024x768	16 VESA 1024/70Hz 1024x768	19 VESA 1024/75Hz 1024x768	VESA 1360/60Hz 1360x768
HORIZONTAL Frequency Total time Activetime Blank time Border(L / R) Data time Front porch Sync. width Back porch Sync. polarity	48.363kHz 20.677 μ s 15.754 μ s 4.923 μ s 0.000 μ s 15.754 μ s 0.369 μ s 2.092 μ s 2.462 μ s Negative	56.476kHz 17.707 μ s 13.653 μ s 4.053 μ s 0.000 μ s 13.653 μ s 0.320 μ s 1.813 μ s 1.920 μ s Negative	60.023kHz 16.660 μ s 13.003 μ s 3.777 μ s 0.000 μ s 13.003 μ s 0.323 μ s 1.219 μ s 2.235 μ s Positive	47.712kHz 20.959 μ s 15.906 μ s 5.053 μ s 0.000 μ s 15.906 μ s 0.749 μ s 1.702 μ s 2.994 μ s Positive
VERTICAL Frequency Total time Active time Blank time Border(T / B) Data time Front porch Sync. width Back porch Sync polarity	60.004Hz 16.666ms 15.880ms 0.786ms 0.000ms 15.880ms 0.062ms 0.124ms 0.600ms Negative	70.069Hz 14.272ms 13.599ms 0.672ms 0.000ms 13.599ms 0.053ms 0.106ms 0.513ms Negative	75.029Hz 13.328ms 12.795ms 0.533ms 0.000ms 12.795ms 0.017ms 0.050ms 0.466ms Positive	60.015Hz 16.662ms 16.097ms 0.566ms 0.000ms 16.097ms 0.063ms 0.105ms 0.377ms Positive
Dot Clock	65.000MHz	75.000MHz	78.750MHz	85.500MHz
Sync. Type	Separate	Separate	Separate	Separate
Scan Type	N/I	N/I	N/I	N/I

14-4 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

14 Reference Information

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

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

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

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