



TFT-LCD TV

Chassis GRE32KU
Model LN32R51BX

SERVICE Manual

TFT-LCD TV



Fashion Feature

- Supreme Digital Interface & Networking
- Excellent Picture Quality
- SRS TruSurround XT
- Convenience



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3 Alignments and Adjustments

3-1 Service Instruction

1. Usually, a color LCD-TV 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 the 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 transformer.

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



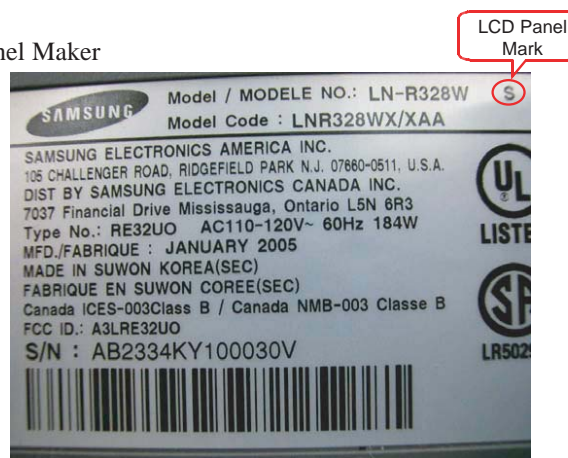
3-2-2 PANEL CHECK

Specially for **LN32R51BX**, 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

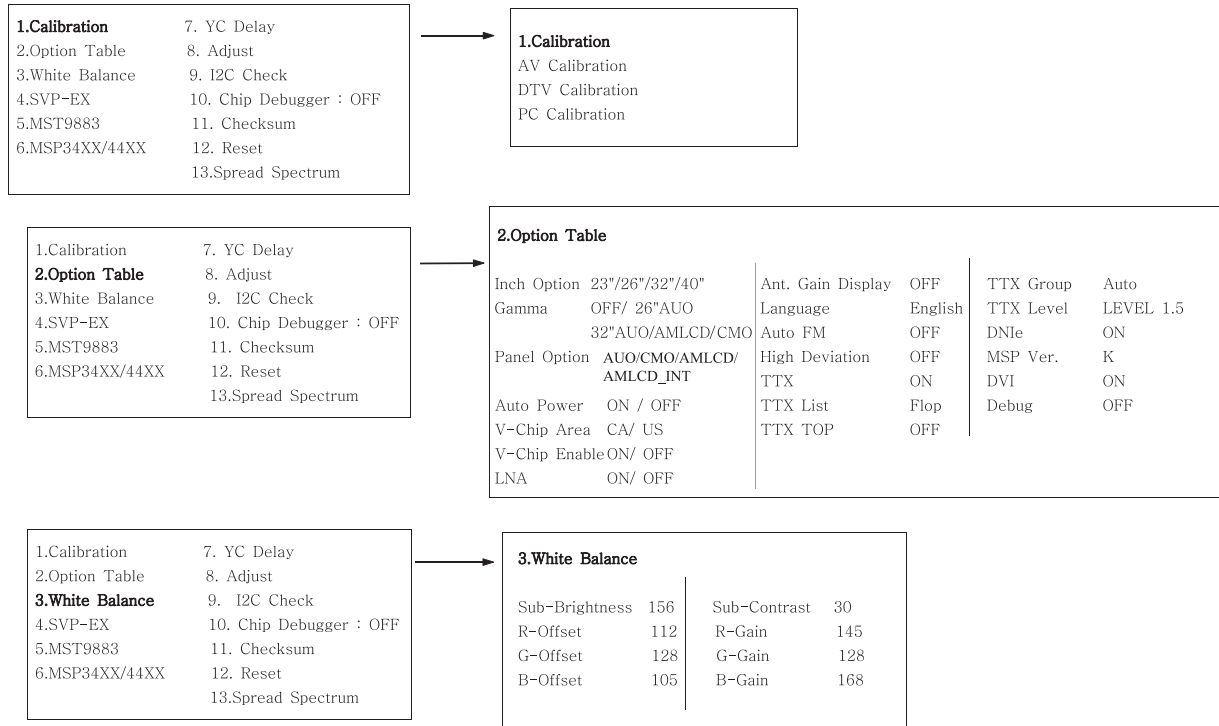
- 2) If Panel Mark is "A", Set the factory mode indicating as follows.

* Option Byte

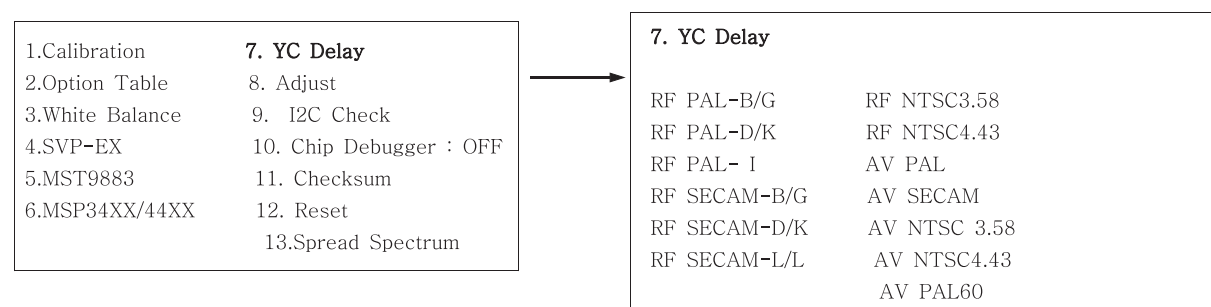
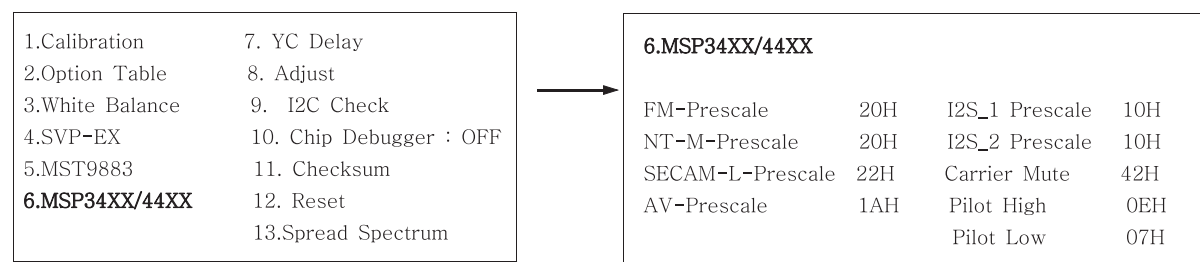
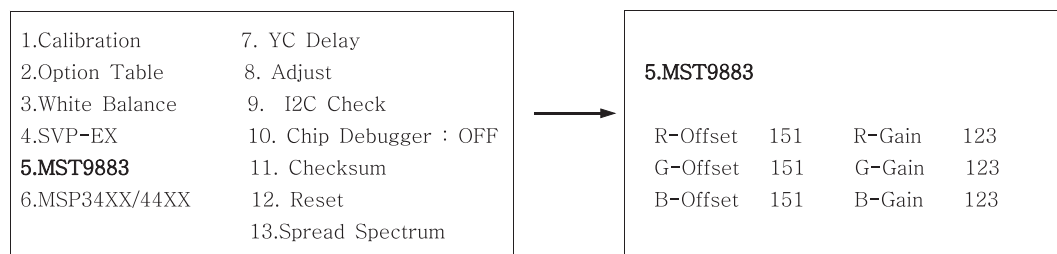
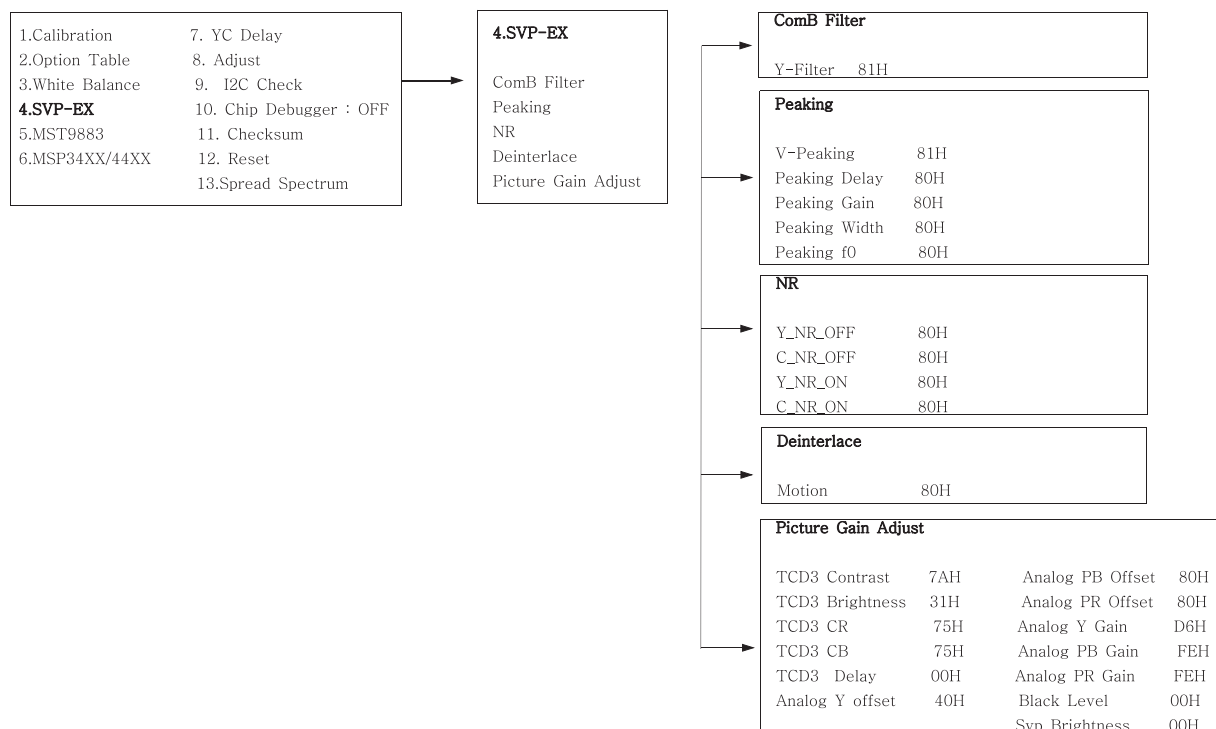
1. Inch Option 32"
2. Gamma 32"AUO
3. Panel Option AUO

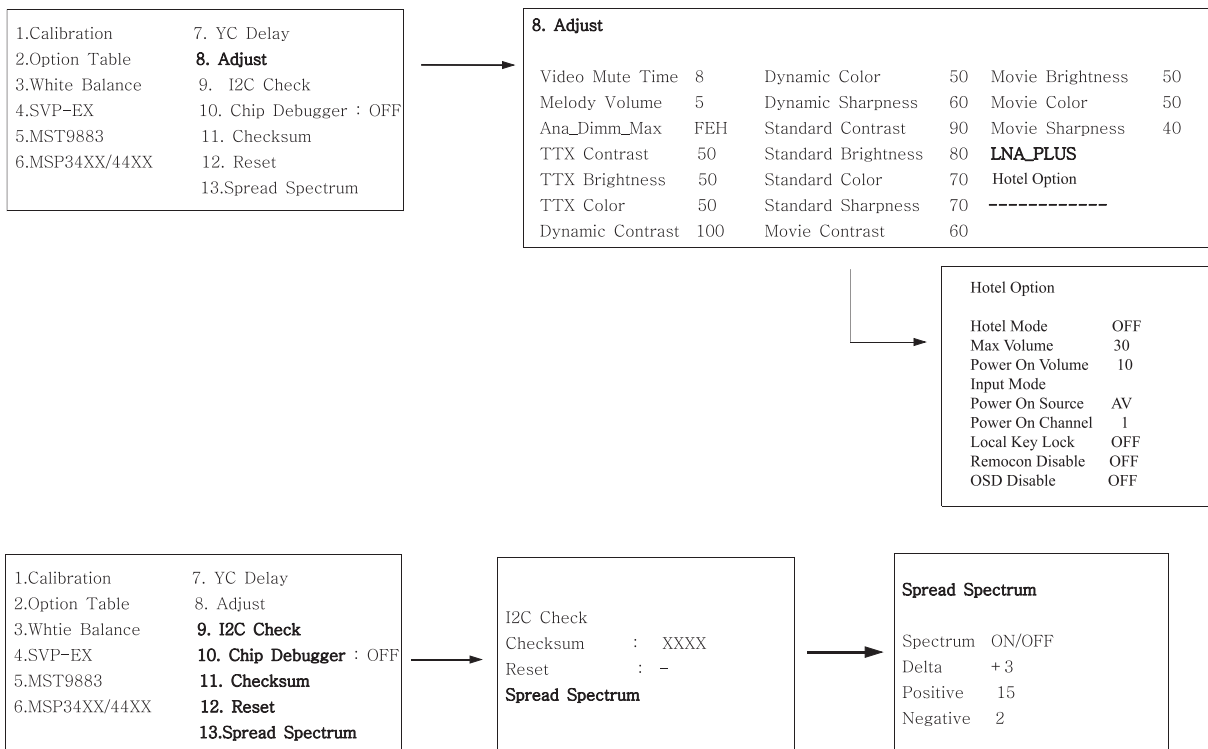
Others are same shown below.

3-3 Factory Mode Data



3 Alignments and Adjustments





3-4 Service Adjustment

3-4-1 White Balance - Calibration

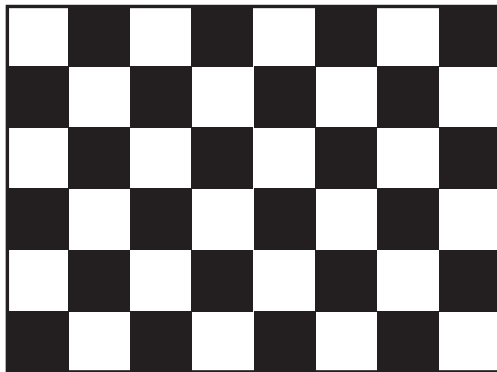
If Picture Color is Wrong, Doing Calibration first.

Equipment : Signal Generator[MSPG-925], Pattern : Mosaic Pattern[#24]

AV Mode : NTSC Composite[Mode #1]

Component/HDMI(DVI): 1280 x 768/60Hz[Mode #6]

PC : 1024 x 768/60Hz[Mode #21]



3-4-2 White Balance - Adjustment

If picture color is wrong, check White Balance condition

Equipment : Signal Generator[MSPG-925], CA210, Patten : Toshiba[Pattern #16]

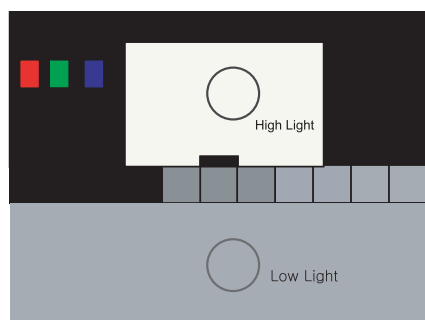
Adjust W/B in Factory Mode

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

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

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

HDMI[DVI] : 1280*720/60Hz



Toshiba Patten

[Test Pattern : MSPG-925 Series Pattern #16]

*Color temperature

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

*Color coordinate

H/L : 264/263 +/- 3

L/L : 264/263 +/- 3 1.2 Ft +/- 0.1

3-4-3 Conditions for Measurement

1. On the basis of toshiba ABL pattern : High Light level (57 IRE)
 - INPUT SIGNAL GENERATOR : MSPG-925LTH
 * Mode NO 1 : 744X484@60 Hz
 NO 6 : 1280X720@60 Hz
 NO 21 : 1024X768@60 Hz
 * Pattern NO 24 : Mosaic Pattern
 NO 16 : Toshiba ABL Pattern
2. Optical measuring device : CA210 (FL)
 Please use the MSPG-925 LTH generator.

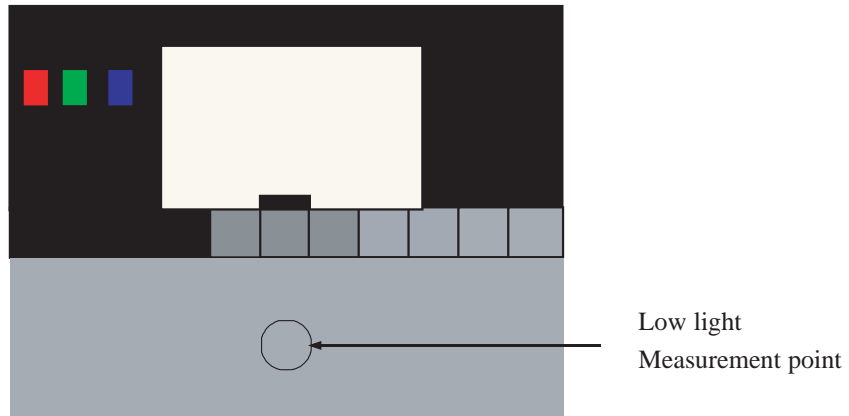
3-4-4 Method of Adjustment

1. Adjust the Calbarition Of AV, Component, PC Input Signals.
2. Adjust the white balance of AV, Component and HDMI(DVI) Modes.
 a) Set the input to the mode in which the adjustment will be made (AV → Component → HDMI(DVI))
 * Input signal - VIDEO Mode : Model #1 (744*484 Mode), Pattern #16
 - Component,HDMI(DVI) Mode : Model #6 (1280*720 Mode), Pattern #16
 b) Enter factory color control, confirm the data.

3 Alignments and Adjustments

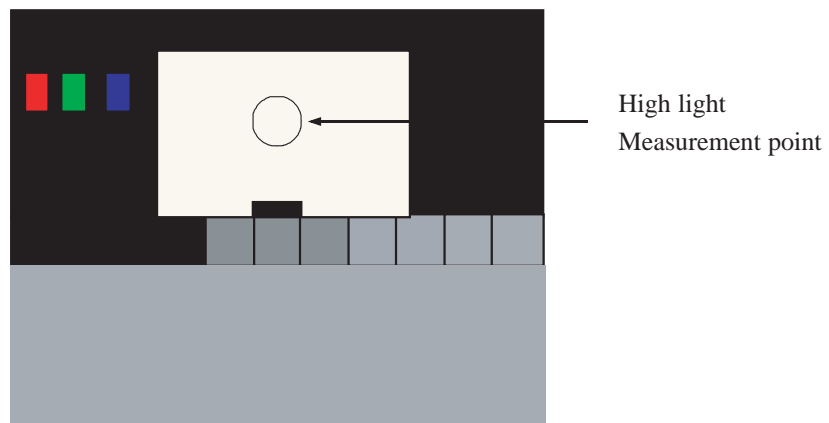
- c) Adjust the low light. (Refer to table 1, 2 in adjustment position by mode)
- Adjust sub - Brightness to set the 'Y' value.
 - Adjust red offset ('x') and blue offset ('y') to the color coordinates.
- * Do not adjust green offset data.

Picture 4-2 Toshiba ABL Pattern



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

Picture 4-3 Toshiba ABL Pattern



3-4-5 Flash ROM Update

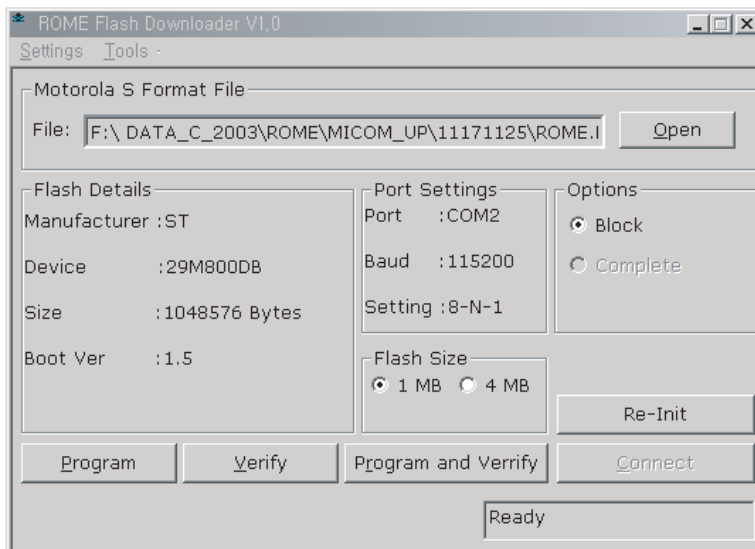
1. Install the Flash Downloader

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.



3. Open the New Update File and Click the Program and Verify.
4. Program update sledding is marked sequentially on OSD screen.
5. After program update completion, message should be pop up.

Memo

The diagram illustrates the architecture of a digital video receiver. Key components and their connections include:

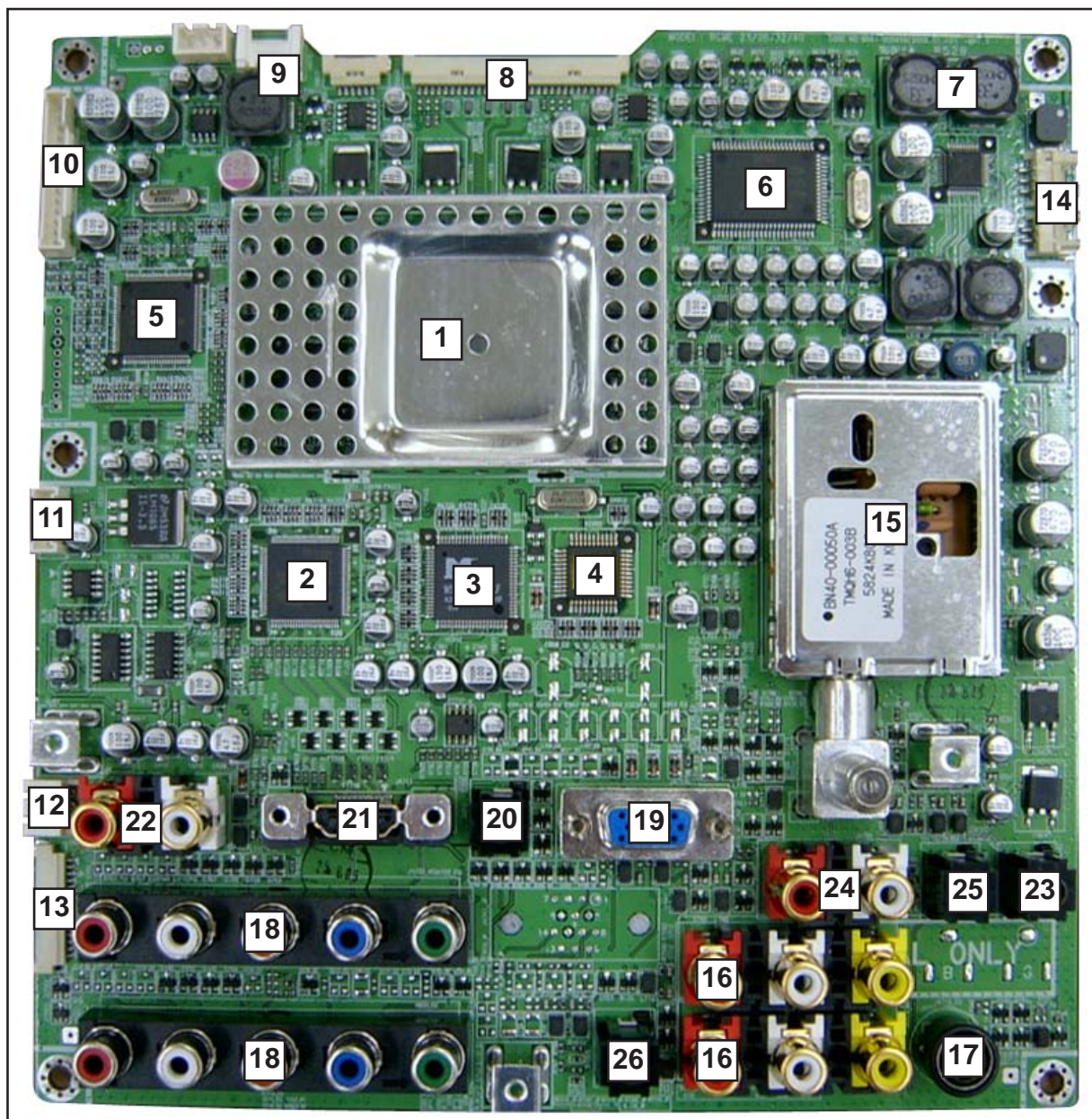
- Main Tuner:** Receives RF signals and outputs to the SVP-EX52 processor via RF (CVBS) and AV-S (CVBS) lines. It also has a Sound Out port.
- SVP-EX52:** The central processing unit. It handles TTX 2.5, CCP, ADC, De-interlace*2, PIP/POP, Digital Input (24bit), and LVDS Out (24bit). It is connected to DDR memory and has an LVDS Out (1366*768) to the TFT LCD Panel.
- Main-Micom (M30620SPGP):** Contains RAM 10K, ROMless, and 100Pin. It is connected to the SVP-EX52 and Flash Memory (1M).
- Sub-Micom (S3F866B):** Contains Flash Rom 64KB and RAM 1KB, 44pin. It is connected to the SVP-EX52 and the Multi Sound Process.
- Multi Sound Process (MSP4410K):** Supports True Surround and is connected to the Main Sound Amp (TPA300202) and H/P Sound Amp (TDA7050T).
- Audio S/W (TC4052):** Manages digital audio signals between the Multi Sound Process and the Audio S/W (TC4052).
- HDMI Receiver (Si19993):** Receives HDMI signals and outputs to the Multi Sound Process and the H/P out port.
- Input Ports:** AV-1 (RF), AV-1 (CVBS), AV-2 (CVBS), AV-2 (RF), Component 1, Component 2, and PC D-Sub.
- Output Ports:** Sound Out, AV-S (CVBS), AV-1 (CVBS), AV-2 (CVBS), Component 1, Component 2, and H/P out.
- Other Components:** EEPROM, Flash Memory (1M), and various control lines like S.VHS, S.VHS, and S.VHS.

Memo



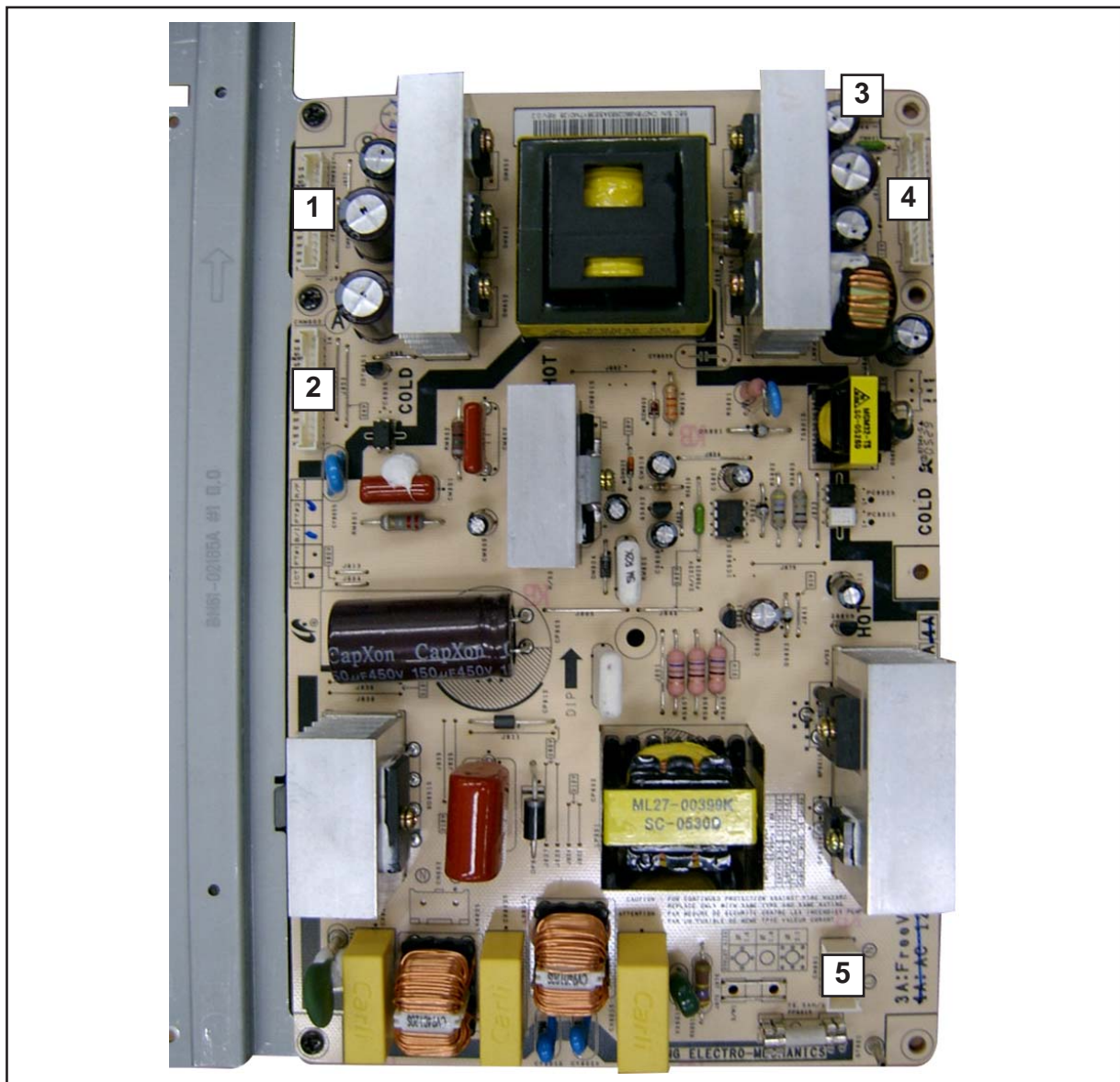
13-2 Partial Block Description

13-2-1 Main Board



NO	LOC.NO	Description
1	IC201[SVP-EX]	A Scalar IC that generate the output resolution appropriate to the LCD PANEL.
2	IC311[SIL9993]	HDMI IC [Converts the TMDS signal on the HDMI/DVI input into 8 bit digital R,G,B Signal.
3	IC312[MST9883]	A/D Converts the R,G,B Input Signal From 15Pin PC Video to 8 Bit Digital R,G,B Signals.
4	IC902[S3F866]	Sub Micom IC[Generates various control signals required for operating the circuit.]
5	IC901[M3062]	Main Micom.
6	IC610[MSP4440]	Sound Processing IC
7	IC611[TPA3004]	Sound AMP IC.
8	CN701	Connector for LVDS
9	CN815	Connector for Inverter Control.
10	CN801	Connector for Main Power.
11	TEST4	Connector for Sub Micom Download.
12	CN802	Connector for Standby Power.
13	CN812	Connector for Function/IR
14	CN621/CN622	Connector for Speaker(R/L).
15	TU110	MAIN TUNER. NTSC
16	JA761/JA713_NT	INPUT JACK For AV Signal & Sound.
17	JA771	INPUT JACK For S-Video Signal
18	JA731_NT/JA732_NT	INPUT JACK For Component signal & Sound.
19	JA751	INPUT JACK For PC Signal
20	JA752	INPUT JACK For PC Sound.
21	JA711	INPUT JACK For HDMI Signal & Sound.[DVI Signal]
22	JA712	INPUT JACK For DVI Sound.
23	JA782	JACK For Headphone Sound Output.
24	JA784	JACK For Monitor Sound Output.
25	JA781_NT	Connector For Anynet Display I2C.
26	JA785	JACK For Flash Program Download.

13-2-2 Main SMPS



(1)

CNM802(SMPS) ↕ AMLCD Inverter	
1	24V
2	24V
3	24V
4	24V
5	24V
6	GND
7	GND
8	GND
9	GND
10	GND
11	GND
12	BL
13	ADIM
14	PWM

(2)

CNM803(SMPS) ↕ AUO Inverter	
1	24V
2	24V
3	24V
4	24V
5	24V
6	GND
7	GND
8	GND
9	GND
10	GND
11	ADIM
12	BL
13	PWM
14	GND

(3)

CNM804(SMPS) ↕ CN815(Main)	
1	SW_Inverter
2	ADIM
3	PWM
4	GND
5	Sensor Power

(5)

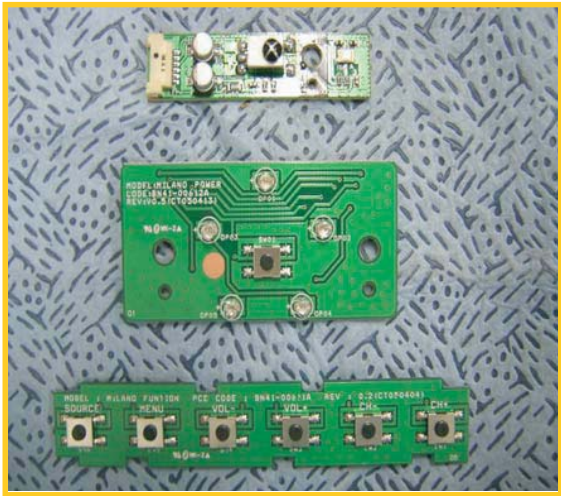
CN801 ↕ Inlet Socket	
1	Live
2	Neutral

(4)

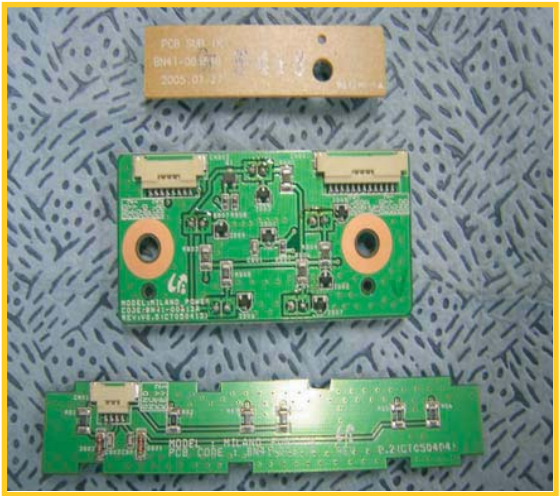
CNM801(SMPS) ↕ CN801,CN802	
1	13V
2	GND
3	5.4V
4	5.4V
5	5.4V
6	GND
7	GND
8	GND
9	12V
10	12V
11	12V
12	GND
13	GND
14	GND
15	ST7V
16	PWR

13-2-3 Function & IR Board

[TOP]



[Bottom]



Memo

11 Disassembly and Reassembly

This section of the service manual describes the disassembly and reassembly procedures for the LN32R51BX LCD TV.

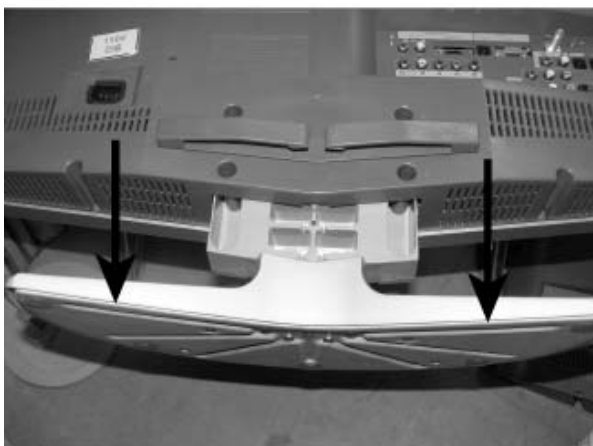
⚠ WARNING: This monitor contains electrostatically sensitive devices.
Use caution when handling these components.

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.
 3. R/Cover opening jig : BH81-00001A

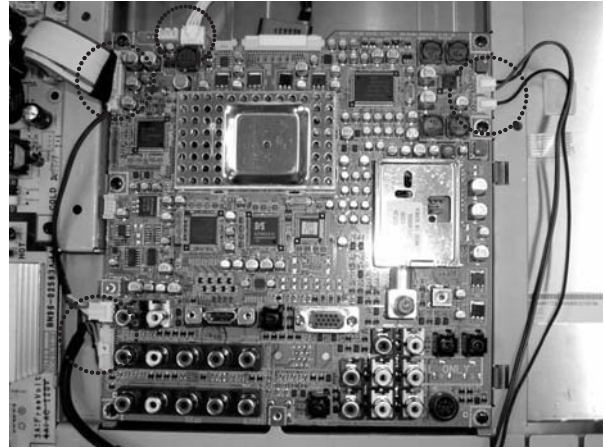
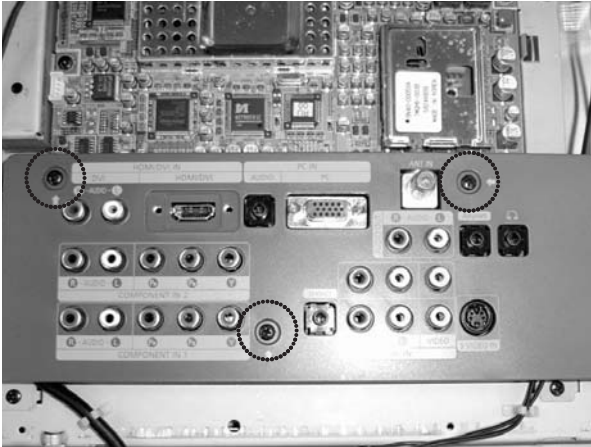


1. Place LCD TV face down on cushioned table. Remove 9 screws from the rear cover. Remove 4 screws from grip on the stand. and remove the stand.

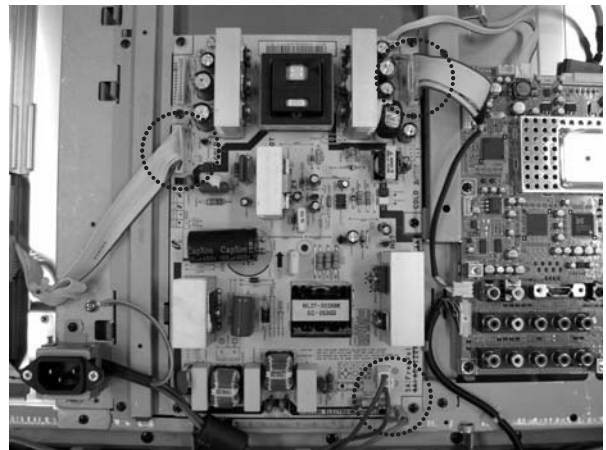
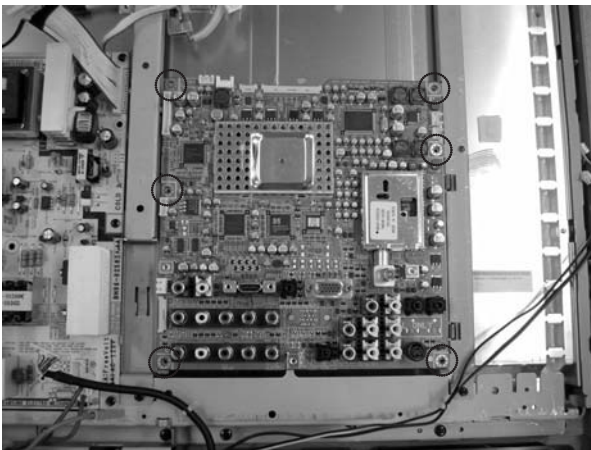


2. Remove the stand and lift up the rear cover.

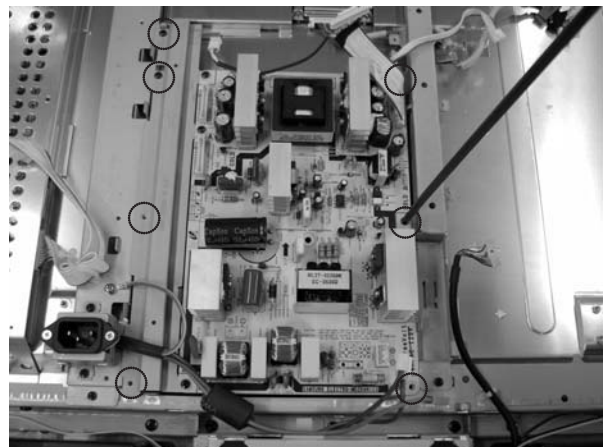
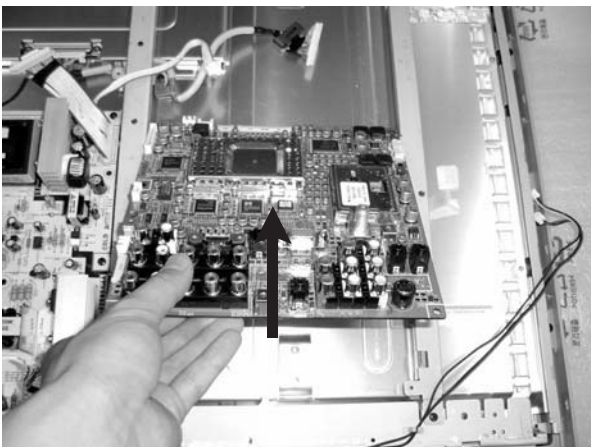
11 Disassembly and Reassembly



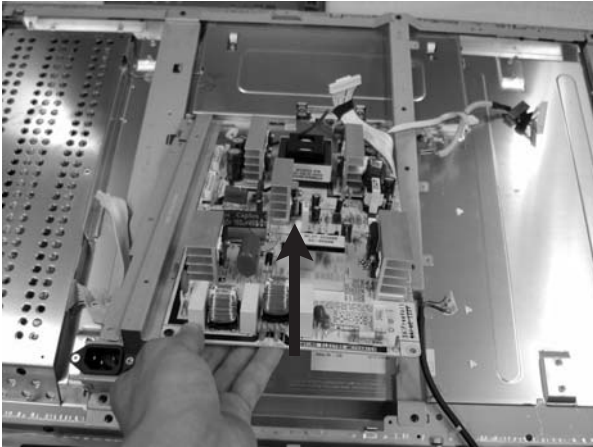
3. Remove 3 screws and lift up the jack cover. Disconnect speaker cable, function cable from the board.



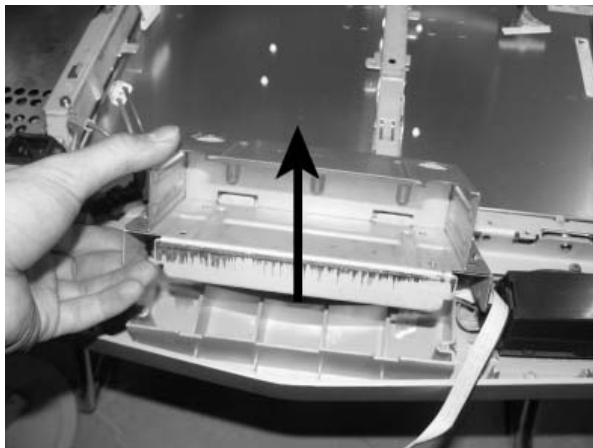
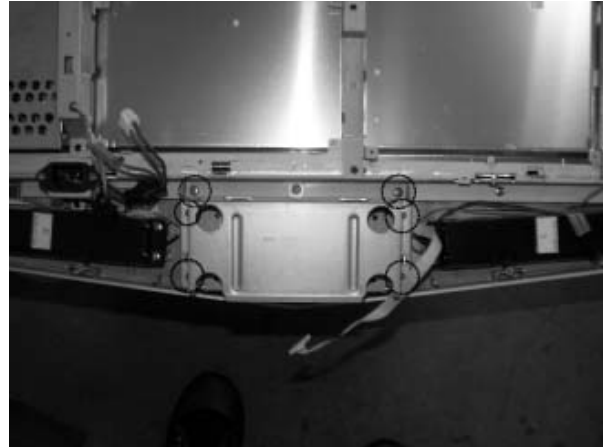
4. Remove 6 screws from the main board and disconnect cable.



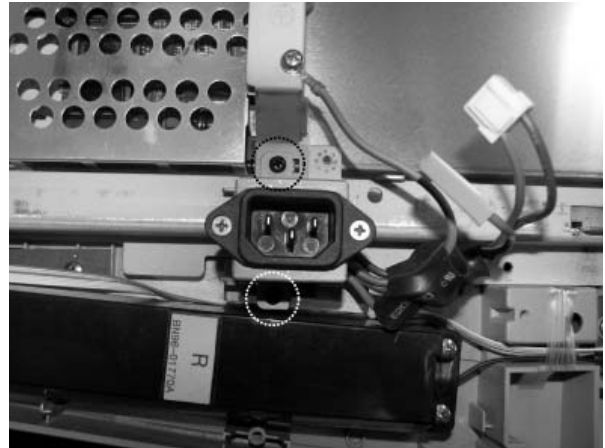
5. Lift up the main board and remove 7 screws from the power board.



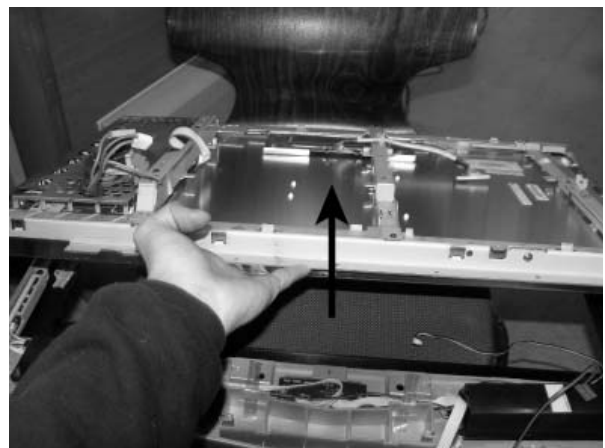
6. lift up the power board.



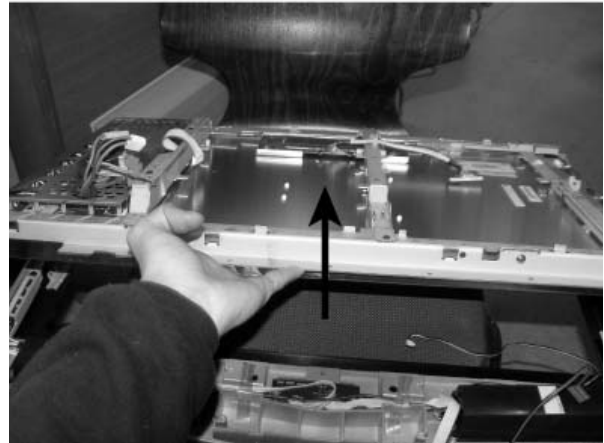
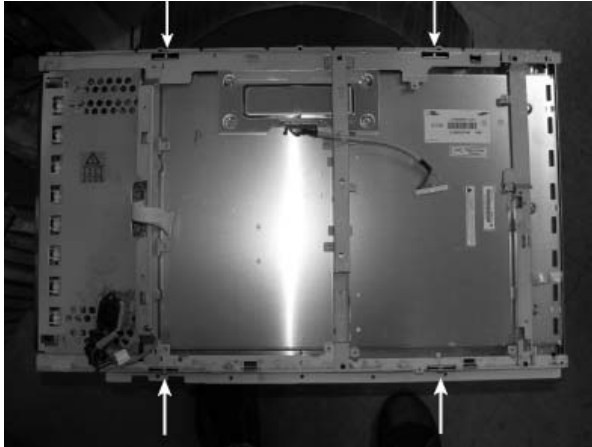
7. lift up the stand BRKT and remove 2 screws.



8. Remove 9 screws from the shield and lift up the shield panel.



11 Disassembly and Reassembly



9. Remove 4 screws from the shield and lift up the BRKT.



11-2 Reassembly

Reassembly procedures are in the reverse order of dissassembly procedures, place the lamp wire correctly in the locator groove so that the wire will not bind or interfere with rear cover.

6 Electrical Parts List

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

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

6-1 LN32R51BX Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
		LN32R51BX/XAZ	LN32R51B,A61J/32A82-GRE,32,LCD-TV,BRAZIL	0	SA
1	M0002	BN90-00687S	ASSY COVER REAR;RE32UO,(XAZ)	1	SNA
2	T0081	6002-001294	SCREW-TAPPING;BH,+,M4,L16,ZPC(BLK)	10	SA
2	M0081	6003-000115	SCREW-TAPTITE;BH,+,B,M3,L6,ZPC(BLK),SWRC	3	SNA
2	M0013	BN96-01732A	ASSY COVER P-REAR;ROME,32,HIPS,HB,GR503	1	SA
...3	M0114	BN61-01488A	HOLDER-WIRE;ROME,40,ABS,HB,GR503	1	SNA
...3	M0113	BN61-01505A	BRACKET-VESA;40,ROME,SECC,T1.6	1	SNA
...3	M0006	BN63-01672A	COVER-REAR;ROME,32,HIPS,HB,GR503,READY	1	SNA
...3	M0081	6003-001321	SCREW-TAPTITE;BH,+,B,M4,L8,ZPC(BLK),SWRC	4	SA
...3	M0081	6003-001321	SCREW-TAPTITE;BH,+,B,M4,L8,ZPC(BLK),SWRC	2	SA
2	T0130	BN96-02072A	ASSY COVER P-TERMINAL;ROME,32,26UO,NT	1	SNA
...3	M0081	6003-000282	SCREW-TAPTITE;BH,+,B,M3,L8,ZPC(BLK),SWCH	2	SNA
...3		BN61-01753A	HOLDER-BOSS;ROME 26,32,ABS,V0,T3.0,14,63	1	SNA
...3		BN63-01642A	COVER-JACK;ROME,40,32,26UO,ABS,V0,GR503,	1	SNA
1	M0216	BN90-00688A	ASSY STAND;RE32	1	SNA
2	M0013	BN96-01733A	ASSY STAND P-BASE;ROME,32,HIPS,HB,GR504,	1	SA
...3	T0081	6002-001294	SCREW-TAPPING;BH,+,M4,L16,ZPC(BLK)	5	SA
...3		BN61-01519A	GUIDE-STAND;ROME,32,ABS,HB,GR70	1	SNA
...3		BN61-01524A	BRACKET-STAND BOTTOM;32,ROME,SECC,T2.0	1	SNA
...3	M0111	BN63-01673A	COVER-STAND;ROME,32,HIPS,HB,GR504,SV012P	1	SNA
...3	T0132	BN73-00052A	RUBBER FOOT;ARES 17,SILICON,DIA 17 * T1.	5	SNA
...3	M0081	6003-001239	SCREW-TAPTITE;FH,+,B,M4,L10,ZPC(YEL),SWR	8	SA
2	T0524	6902-000520	BAG PE;HDPE/NITRON(DOUBLE),T0.015/T0.5(D	1	SNA
1	M0112	BN91-00947N	ASSY SHIELD;LN32R51BX/XAZ	1	SNA
2	M0081	6003-000115	SCREW-TAPTITE;BH,+,B,M3,L6,ZPC(BLK),SWRC	2	SNA
2	M0081	6003-000115	SCREW-TAPTITE;BH,+,B,M3,L6,ZPC(BLK),SWRC	1	SNA
2	M0081	6003-000115	SCREW-TAPTITE;BH,+,B,M3,L6,ZPC(BLK),SWRC	6	SNA
2	M0081	6003-000115	SCREW-TAPTITE;BH,+,B,M3,L6,ZPC(BLK),SWRC	6	SNA
2	M0081	6003-000133	SCREW-TAPTITE;BH,+,S,M4,L8,ZPC(BLK),SW	9	SNA
2	M0081	6003-001003	SCREW-TAPTITE;BH,+,B,M4,L12,ZPC(BLK),SWR	2	SNA
2	M0081	6003-001003	SCREW-TAPTITE;BH,+,B,M4,L12,ZPC(BLK),SWR	4	SNA
2	M0081	6003-001003	SCREW-TAPTITE;BH,+,B,M4,L12,ZPC(BLK),SWR	11	SNA
2	CCM1	6006-000245	SCREW-MACHINE;WSP,PH,+,M4,L8,ZPC(YEL),SW	1	SNA
2	T0562	6046-001013	STAND OFF;M3,L5,Ni PLT,SUM24L,#4-40	2	SNA
2	M0162	6502-001027	CABLE CLAMP;DAWH-5NA,ID11.5,T3,NYLON66,N	1	SNA
2	M0162	6502-001067	CABLE CLAMP;DAFC-1300,ID2.2,T5.2,NYLIN6/	2	SNA
2	M2893	BH39-00362B	LEAD CONNECTOR;RE32**,UL1007#26,5P,150mm	1	SA
2	T0076	BN39-00615A	CBF HARNESS-INLET;ROME40,UL1617#22/1015#	1	SA
2	M2893	BN39-00616A	LEAD CONNECTOR;RE26**,UL2835#28,12/15P,30	1	SA
2	M2893	BN39-00657A	LEAD CONNECTOR;LE32R41B,UL20276#30,30P,3	1	SA
2		BN61-01523A	BRACKET-GUIDE STAND;32,ROME,SECC,T1.0	1	SNA
2		BN61-01525A	BRACKET-STAND LINK;32,ROME,SECC,T1.6	1	SNA
2		BN61-01527A	BRACKET-PANEL SIDE;32,ROME,SECC,T1.2,RIG	1	SNA
2		BN61-01528A	BRACKET-PANEL SIDE;32,ROME,SECC,T1.2,LEF	1	SNA
2	M0114	BN61-01709A	HOLDER-WIRE;NYLON 6/6,NATURAL,DAWS-1ND	1	SNA
2	M0146	BN96-01882C	ASSY BOARD P-POWER & IR;ROME 26,CT5000-3	1	SA
2	T0447	BN96-02422D	ASSY BRACKET P-PANEL;32 ROME,SECC,READY	1	SNA
...3	M0081	6003-000115	SCREW-TAPTITE;BH,+,B,M3,L6,ZPC(BLK),SWRC	6	SNA
...3		BN61-01526A	BRACKET-PANEL TOP;32,ROME,SECC,T1.2	1	SNA
...3		BN61-01529A	BRACKET-PANEL BOTTOM;32,ROME,SECC,T1.6	1	SNA
...3	T0852	BN96-01988A	ASSY BRACKET P-GUIDE MAIN;ROME 32,SECC,T	1	SNA
...4	M0131	AA63-00997A	GASKET;RE 32,40,SHIELD FORM,16mm,12mm,17	1	SNA
...4		BN61-01702A	BRACKET-GUIDE MAIN;32,ROME,SECC,T1.2,REA	1	SNA
...3	MP1.0	BN96-01989A	ASSY BRACKET P-GUIDE POWER;ROME 32,SECC,	1	SNA
...4		BN61-01531A	BRACKET-GUIDE POWER;32,ROME,SECC,T1.2,LE	1	SNA
...4	M0131	BN63-01824A	GASKET;RE 32,40,SHIELD FORM,13mm,12mm,27	1	SNA
...3	MP1.0	BN96-01990A	ASSY BRACKET P-GUIDE POWER;ROME 32,SECC,	1	SNA
...4	M0131	AA63-00998A	GASKET;RE 32,40,SHIELD FORM,25mm,12mm,10	1	SNA
...4		BN61-01530A	BRACKET-GUIDE POWER;32,ROME,SECC,T1.2,RI	1	SNA
1	M0017	BN91-00979G	ASSY CHASSIS-AMZ;LN32R51BX/XAZ	1	SA
2	T0120	BN94-00792A	ASSY PCB POWER;ROME 32,NEW SMPS, SVC	1	SNA
...3	M0081	6003-000115	SCREW-TAPTITE;BH,+,B,M3,L6,ZPC(BLK),SWRC	4	SNA
...3	M2893	BN39-00603A	LEAD CONNECTOR;RE40**,UL1007#26,UL 14P,2	1	SA
...3	M2893	BN39-00698A	LEAD CONNECTOR;ROME,UL1007#26,16P,200MM,	1	SA
...3	M0114	BN61-01778A	HOLDER-WIRE;NYLON-66,NATURAL or GRAY,DAF	1	SNA
...3	T0159	BN96-02583A	ASSY PCB P-SMPS;Free Voltage SMPS,GTR32K	1	SA

6 Electrical Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
..3	M0412	BN96-02926A	ASSY BRACKET P-PCB;SECC,ROME,T1.2,POWER	1	SNA
...4	M0131	AA63-01337A	GASKET;Rome 32",Conductive Fabric,11mm,2	1	SNA
...4	M0107	BN61-02185A	BRACKET-PCB;ROME,SECC,T1.2,POWER	1	SNA
2	M0014	BN94-00795A	ASSY PCB MAIN-AMZ;LN32R51BX/XAZ	1	SA
..3	T0245	0202-001366	SOLDER-WIRE FLUX;-;RS60S,D1.2.63Sn/37Pb,	0.01	SNA
..3	JA751	3701-001294	CONNECTOR-DSUB;15P,3R,FEMALE,STRAIGHT,AU	1	SA
..3	CN906	3705-001329	CONNECTOR-COAXIAL;NT(F),ADAPTOR,-;75ohm,	1	SA
..3	CN914	3711-000024	HEADER-BOARD TO CABLE;BOX,3P,1R,2.5MM,ST	1	SA
..3	CN802	3711-000057	HEADER-BOARD TO CABLE;BOX,3P,1R,2.5MM,AN	1	SA
..3	CN815	3711-004068	HEADER-BOARD TO BOARD;BOX,5P,1R,2MM,ANGL	1	SA
..3	CN801	3711-004122	HEADER-BOARD TO CABLE;BOX,14P,1R,2mm,STR	1	SA
..3	TEST4	3711-004484	HEADER-BOARD TO CABLE;BOX,5P,1R,2mm,STRA	1	SA
..3	JA752	3722-001061	JACK-PHONE;1P,3.6PI,AG,BLK,N	1	SA
..3	JA781_NT	3722-001061	JACK-PHONE;1P,3.6PI,AG,BLK,N	1	SA
..3	JA782	3722-001061	JACK-PHONE;1P,3.6PI,AG,BLK,N	1	SA
..3	JA785	3722-001061	JACK-PHONE;1P,3.6PI,AG,BLK,N	1	SA
..3	JA771	3722-001734	JACK-VHS;4P,-;SN,BLK,-	1	SA
..3	JA731_NT	3722-002143	JACK-PIN;5P,NI,GRN/BLU/RED/WHT/RED,STRAI	1	SA
..3	JA732_NT	3722-002143	JACK-PIN;5P,NI,GRN/BLU/RED/WHT/RED,STRAI	1	SA
..3	JA712	3722-002362	JACK-PIN;2P,Sn,WHT/RED,STRAIGHT	1	SA
..3	JA784	3722-002362	JACK-PIN;2P,Sn,WHT/RED,STRAIGHT	1	SA
..3	JA713_NT	3722-002363	JACK-PIN;3P,Sn,YEL/WHT/RED,STRAIGHT	1	SA
..3	JA761	3722-002363	JACK-PIN;3P,Sn,YEL/WHT/RED,STRAIGHT	1	SA
..3	CIS3	BN40-00050A	TUNER;TMQH6-003B,PDP-NELSON,NTSC,181CH,4	1	SA
..3	T0530	BN61-01521A	SUPPORT-PCB;ROME,SPT,TO.5,L11.0	1	SNA
..3	T0530	BN61-01521A	SUPPORT-PCB;ROME,SPT,TO.5,L11.0	1	SNA
..3	T0530	BN61-01521A	SUPPORT-PCB;ROME,SPT,TO.5,L11.0	1	SNA
..3	M0107	BN63-01847A	SHIELD-COVER;ROME,SECC,TO.3,49.5,79.5,HE	1	SNA
..3	CIS7	BN73-00024C	SILICON/RUBBER-BERGQUIST;VENUS 32,40",SI	1	SNA
..3		BN97-00722A	ASSY SMD-AMZ;LN32R51BX/XAZ	1	SNA
...4	CIS5	0202-001375	SOLDER-CREAM;RMA-20-21L,S63,-,Sn63/Pb36.	7.46	SNA
...4	D101	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200MA,SO	1	SA
...4	D7102	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200MA,SO	1	SA
...4	D7103	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200MA,SO	1	SA
...4	D7104	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200MA,SO	1	SA
...4	D7105	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200MA,SO	1	SA
...4	D7113	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200MA,SO	1	SA
...4	D7114	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200MA,SO	1	SA
...4	D719	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200MA,SO	1	SA
...4	D722	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200MA,SO	1	SA
...4	D741	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200MA,SO	1	SA
...4	D742	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200MA,SO	1	SA
...4	D791_NT	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200MA,SO	1	SA
...4	D792_NT	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200MA,SO	1	SA
...4	D793_NT	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200MA,SO	1	SA
...4	D794_NT	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200MA,SO	1	SA
...4	D795_NT	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200MA,SO	1	SA
...4	D796_NT	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200MA,SO	1	SA
...4	D950	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200MA,SO	1	SA
...4	D951	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200MA,SO	1	SA
...4	D952	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200MA,SO	1	SA
...4	D953	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200MA,SO	1	SA
...4	D954	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200MA,SO	1	SA
...4	D955	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200MA,SO	1	SA
...4	D956	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200MA,SO	1	SA
...4	D957	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200MA,SO	1	SA
...4	D812	0402-000553	DIODE-RECTIFIER;SS24,40V,2.0A,DO-214AA	1	SA
...4	D617	0403-000258	DIODE-ZENER;BZX84C5V6,5.2-6V,225MW,SOT-2	1	SA
...4	D620	0403-000258	DIODE-ZENER;BZX84C5V6,5.2-6V,225MW,SOT-2	1	SA
...4	D621	0403-000258	DIODE-ZENER;BZX84C5V6,5.2-6V,225MW,SOT-2	1	SA
...4	D901	0403-000258	DIODE-ZENER;BZX84C5V6,5.2-6V,225MW,SOT-2	1	SA
...4	D210	0403-000620	DIODE-ZENER;RLZ5.6B,5.45-5.73V,500MW,LL-	1	SA
...4	D211	0403-000620	DIODE-ZENER;RLZ5.6B,5.45-5.73V,500MW,LL-	1	SA
...4	D212	0403-000620	DIODE-ZENER;RLZ5.6B,5.45-5.73V,500MW,LL-	1	SA
...4	D213	0403-000620	DIODE-ZENER;RLZ5.6B,5.45-5.73V,500MW,LL-	1	SA
...4	D214	0403-000620	DIODE-ZENER;RLZ5.6B,5.45-5.73V,500MW,LL-	1	SA
...4	D215	0403-000620	DIODE-ZENER;RLZ5.6B,5.45-5.73V,500MW,LL-	1	SA
...4	D216	0403-000620	DIODE-ZENER;RLZ5.6B,5.45-5.73V,500MW,LL-	1	SA
...4	D217	0403-000620	DIODE-ZENER;RLZ5.6B,5.45-5.73V,500MW,LL-	1	SA
...4	D769	0403-000620	DIODE-ZENER;RLZ5.6B,5.45-5.73V,500MW,LL-	1	SA
...4	D770	0403-000620	DIODE-ZENER;RLZ5.6B,5.45-5.73V,500MW,LL-	1	SA
...4	D771	0403-000620	DIODE-ZENER;RLZ5.6B,5.45-5.73V,500MW,LL-	1	SA
...4	D930	0403-000620	DIODE-ZENER;RLZ5.6B,5.45-5.73V,500MW,LL-	1	SA
...4	D961	0403-000620	DIODE-ZENER;RLZ5.6B,5.45-5.73V,500MW,LL-	1	SA
...4	D962	0403-000620	DIODE-ZENER;RLZ5.6B,5.45-5.73V,500MW,LL-	1	SA
...4	D970	0403-000620	DIODE-ZENER;RLZ5.6B,5.45-5.73V,500MW,LL-	1	SA
...4	D971	0403-000620	DIODE-ZENER;RLZ5.6B,5.45-5.73V,500MW,LL-	1	SA

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
...4	D972	0403-000620	DIODE-ZENER;RLZ5.6B,5.45-5.73V,500MW,LL-	1	SA
...4	D973	0403-000620	DIODE-ZENER;RLZ5.6B,5.45-5.73V,500MW,LL-	1	SA
...4	D974	0403-000620	DIODE-ZENER;RLZ5.6B,5.45-5.73V,500MW,LL-	1	SA
...4	D975	0403-000620	DIODE-ZENER;RLZ5.6B,5.45-5.73V,500MW,LL-	1	SA
...4	D990	0403-000620	DIODE-ZENER;RLZ5.6B,5.45-5.73V,500MW,LL-	1	SA
...4	D725	0403-001016	DIODE-ZENER;RLZ6.2B,5.96-6.27V,500mW,LL-	1	SA
...4	D702	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D704	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D706	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D708	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D7108	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D7109	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D7110	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D7111	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D7112	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D717	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D718	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D720	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D721	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D723	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D724	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D7301	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D736_NT	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D743	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D744	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D745	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D746	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D748	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D749_NT	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D750	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D751	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D752	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D7551	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D7552	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D7553	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D756	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D758	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D759	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D761	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D763	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D764	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D765	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D766	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D767	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D772	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D773	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D774	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D775	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D776	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D777	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D778	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D779	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D780	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D781	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D782	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D958	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D959	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D960	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200MW,SOT-2	1	SA
...4	D102	0403-001425	DIODE-ZENER;BZX84C33,31-35V,350MW,SOT-23	1	SA
...4	D7302	0406-001172	DIODE-TVS;CDS3C30GTH,48V,0W,SMD	1	SA
...4	D7303	0406-001172	DIODE-TVS;CDS3C30GTH,48V,0W,SMD	1	SA
...4	D7304	0406-001172	DIODE-TVS;CDS3C30GTH,48V,0W,SMD	1	SA
...4	D7305	0406-001172	DIODE-TVS;CDS3C30GTH,48V,0W,SMD	1	SA
...4	D622	0407-000123	DIODE-ARRAY;DAN202K,80V,100MA,CA2-3,SOT-	1	SA
...4	D911	0407-000123	DIODE-ARRAY;DAN202K,80V,100MA,CA2-3,SOT-	1	SA
...4	D912	0407-000123	DIODE-ARRAY;DAN202K,80V,100MA,CA2-3,SOT-	1	SA
...4	D963	0407-000123	DIODE-ARRAY;DAN202K,80V,100MA,CA2-3,SOT-	1	SA
...4	D964	0407-000123	DIODE-ARRAY;DAN202K,80V,100MA,CA2-3,SOT-	1	SA
...4	D976	0407-000123	DIODE-ARRAY;DAN202K,80V,100MA,CA2-3,SOT-	1	SA
...4	Q100	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
...4	Q211	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
...4	Q221	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
...4	Q608	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
...4	Q611	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
...4	Q612	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
...4	Q615	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
...4	Q630	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA

6 Electrical Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
...4	Q631	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
...4	Q632	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
...4	Q633	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
...4	Q634	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
...4	Q635	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
...4	Q918	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
...4	Q930	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
...4	Q931	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
...4	Q952	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
...4	Q970	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
...4	Q971	0501-000342	TR-SMALL SIGNAL;KSC1623-Y,NPN,200mW,SOT-	1	SA
...4	Q215	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	SA
...4	Q216	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	SA
...4	Q610	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	SA
...4	Q620	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	SA
...4	Q801	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	SA
...4	Q802	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	SA
...4	Q803	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	SA
...4	Q910	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	SA
...4	Q911	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	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
...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	0505-001170	FET-SILICON;SI9933ADY-T1,P,-20V,3.4A,0.0	1	SA
...4	IC104	0801-002267	IC-CMOS LOGIC;74LCX14,-,SOIC,14P,150MIL,	1	SA
...4	IC104	0801-002267	IC-CMOS LOGIC;74LCX14,-,SOIC,14P,150MIL,	1	SA
...4	IC104	0801-002633	IC-CMOS LOGIC;NC7WBD3125,2BIT BUS SWITCH	1	SA
...4	IC901	0903-001362	IC-MICROCOMPUTER;M30620SPGP,16BIT,LQFP,1	1	SNA
...4	IC605	1001-000164	IC-ANALOG MULTIPLEX;74HC4052,CMOS,SOP,16	1	SA
...4	IC106	1001-001082	IC-VIDEO SWITCH;BA7657F,-,SOP,24P,300MIL	1	SA
...4	IC913	1001-001109	IC-ANALOG SWITCH;FST3125M,BUS SWITCH & C	1	SA
...4	IC203	1001-001211	IC-ANALOG MULTIPLEX;MM74HC4052MTC,DUALMU	1	SA
...4	IC108	1002-001398	IC-A/D CONVERTER;MST9883CR-110,24Bit(8x3	1	SA
...4	IC110	1006-001076	IC-DRIVER/RECEIVER;MAX232ECWE+T,SOP,16P,	1	SA
...4	IC112	1103-000129	IC-EEPROM;24C02,256x8,SOP,8P,5x4mm,4.5/5	1	SA
...4	IC112	1103-000129	IC-EEPROM;24C02,256x8,SOP,8P,5x4mm,4.5/5	1	SA
...4	IC112	1103-001279	IC-EEPROM;24C32,4Kx8,SOP,8P,5x4mm,2.5/5.	1	SA
...4	IC202	1105-001538	IC-VIDEO RAM;K4D263238,-,128M,4x1Mx32Bit	1	SNA
...4	DU410	1201-000166	IC-OP AMP;LM358,SOP,ST,8P,150MIL,DUAL,10	1	SA
...4	T0085	1201-001495	IC-AUDIO AMP;7050,SOP,8P,150MIL,DUAL,26D	1	SA
...4	T0085	1201-002119	IC-AUDIO AMP;TPA3004D2,HTQFP,48P,7x7mm,-	1	SA
...4	IC616	1203-001109	IC-VOL. DETECTOR;7045,SOT-89,3P,-,PLASTI	1	SA
...4	IC905	1203-001559	IC-RESET;DS1834A,SOIC,8P,150MIL,PLASTIC,	1	SA
...4	T0087	1203-001815	IC-POS.FIXED REG.;78M09,TO-252,3P,-,PLA	1	SA
...4	T0087	1203-001816	IC-POS.FIXED REG.;78M08,TO-252,3P,-,PLA	1	SA
...4	IC920	1203-001824	IC-VOL. DETECTOR;7042,SOT-89,3P,-,PLASTI	1	SA
...4	T0087	1203-002708	IC-POS.FIXED REG.;1085,TO-263,3P,340MIL	1	SA
...4	T0087	1203-002842	IC-POS.FIXED REG.;AP1117D-33A,TO-252,3P	1	SA
...4	T0087	1203-002842	IC-POS.FIXED REG.;AP1117D-33A,TO-252,3P	1	SA
...4	T0087	1203-002844	IC-POS.FIXED REG.;AP1117D-18A,TO-252-3L	1	SA
...4	T0087	1203-002855	IC-POS.FIXED REG.;MC33269DTRK-5.0,DPRK,	1	SA
...4	T0087	1203-002855	IC-POS.FIXED REG.;MC33269DTRK-5.0,DPRK,	1	SA
...4	T0087	1203-002855	IC-POS.FIXED REG.;MC33269DTRK-5.0,DPRK,	1	SA
...4	T0087	1203-002974	IC-POS.FIXED REG.;AP1117D-25A,TO-252,3P	1	SA
...4	T0170	1203-003059	IC-SWITCH VOL. REG.;MP1583,SOIC,8P,4.9x3	1	SA
...4	IC118	1204-002352	IC-VIDEO PROCESS;SVP-EX52-7052,PQFP,256P	1	SA
...4	IC610	1204-002412	IC-AUDIO PROCESSOR;MSP4440K-QA-B3-500,PQ	1	SA
...4	IC311	1205-002383	IC-RECEIVER;SI19993CT100,TQFP,100P,14x14	1	SA
...4	R229	2007-000043	R-CHIP;1Kohm,1%,1/10W,TP,1608	1	SA
...4	R230	2007-000043	R-CHIP;1Kohm,1%,1/10W,TP,1608	1	SA
...4	R2357	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	SA
...4	R919	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	SA
...4	R9401	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	SA
...4	R9405	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	SA
...4	R9406_NT	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	SA
...4	R963	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	SA
...4	R964	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	SA
...4	R965	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	SA
...4	R966	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	SA
...4	R9661	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	SA
...4	R9662	2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	SA
...4	R121	2007-000060	R-CHIP;100Kohm,1%,1/10W,TP,1608	1	SA
...4	32_	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
...4	R2008_OP	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R207	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R214	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R215_OP	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R216	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R221	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R222	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R223	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R236	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R237	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R239	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R240	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R241	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R245	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R247	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R248	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R280	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R281	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R282	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R283	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R331	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R332	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R333	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R375	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R378	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R380_EU	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R381_EU	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R640	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R645	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R646	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R650	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R651	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R652	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R655	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R681	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R686	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R688	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R7135_NT	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R7139_NT	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R7141_NT	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R7606_NT	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R7607_NT	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R7622_NT	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R7623_NT	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R772	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R9124	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R9125	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R9129	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R918	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R9207	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R9208_NT	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R9209	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R9215	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R9217	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R9218	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R923	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R9330	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R934	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R935	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R9403	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R9404_NT	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R960	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R9664	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R9665	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R994	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R995	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R996	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R997	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	UO_	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
...4	R201	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	SA
...4	R2013	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	SA
...4	R2015	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	SA
...4	R202	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	SA
...4	R203	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	SA
...4	R206	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	SA
...4	R208	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	SA
...4	R209	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	SA

6 Electrical Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
...4	R210	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	SA
...4	R212	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	SA
...4	R337	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	SA
...4	R340	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	SA
...4	R345	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	SA
...4	R754	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	SA
...4	R758	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	SA
...4	R9673	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	SA
...4	R100	2007-000072	R-CHIP;47ohm,5%,1/10W,TP,1608	1	SA
...4	R101	2007-000072	R-CHIP;47ohm,5%,1/10W,TP,1608	1	SA
...4	R347	2007-000072	R-CHIP;47ohm,5%,1/10W,TP,1608	1	SA
...4	R349	2007-000072	R-CHIP;47ohm,5%,1/10W,TP,1608	1	SA
...4	R350	2007-000072	R-CHIP;47ohm,5%,1/10W,TP,1608	1	SA
...4	R351	2007-000072	R-CHIP;47ohm,5%,1/10W,TP,1608	1	SA
...4	R616	2007-000072	R-CHIP;47ohm,5%,1/10W,TP,1608	1	SA
...4	R617	2007-000072	R-CHIP;47ohm,5%,1/10W,TP,1608	1	SA
...4	R761	2007-000072	R-CHIP;47ohm,5%,1/10W,TP,1608	1	SA
...4	R7610	2007-000072	R-CHIP;47ohm,5%,1/10W,TP,1608	1	SA
...4	R7611	2007-000072	R-CHIP;47ohm,5%,1/10W,TP,1608	1	SA
...4	R762	2007-000072	R-CHIP;47ohm,5%,1/10W,TP,1608	1	SA
...4	R782	2007-000072	R-CHIP;47ohm,5%,1/10W,TP,1608	1	SA
...4	R783	2007-000072	R-CHIP;47ohm,5%,1/10W,TP,1608	1	SA
...4	R982	2007-000072	R-CHIP;47ohm,5%,1/10W,TP,1608	1	SA
...4	R983	2007-000072	R-CHIP;47ohm,5%,1/10W,TP,1608	1	SA
...4	R984	2007-000072	R-CHIP;47ohm,5%,1/10W,TP,1608	1	SA
...4	R985	2007-000072	R-CHIP;47ohm,5%,1/10W,TP,1608	1	SA
...4	R986	2007-000072	R-CHIP;47ohm,5%,1/10W,TP,1608	1	SA
...4	R102	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R2344	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R2345	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R260	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R261	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R270	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R271	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R272	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R273	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R334	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R613	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R614	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R618	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R628	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R629	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R630	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R631	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R7110_NT	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R7120	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R727_NT	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R738	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R745	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R757	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R7590	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R7613	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R7614	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R7619	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R7630	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R781	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R9110_EU	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R9119	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R9120	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R9122	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R9123	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R932	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R936	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R937	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R940	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R941	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R953	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R954	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R955	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R962	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R9668	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R9669	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R967	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R968	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R969	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R974	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R975	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
...4	R976	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R990	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R991	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R992	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R993	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
...4	R190	2007-000076	R-CHIP;330ohm,5%,1/10W,TP,1608	1	SA
...4	R7488	2007-000076	R-CHIP;330ohm,5%,1/10W,TP,1608	1	SA
...4	R7490	2007-000076	R-CHIP;330ohm,5%,1/10W,TP,1608	1	SA
...4	R1246	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	SA
...4	R2358	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	SA
...4	R355	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	SA
...4	R356	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	SA
...4	R357	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	SA
...4	R7130_NT	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	SA
...4	R7131_NT	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	SA
...4	R729_NT	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	SA
...4	R730_NT	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	SA
...4	R7582	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	SA
...4	R7588	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	SA
...4	R7620_NT	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	SA
...4	R7621_NT	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	SA
...4	R765	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	SA
...4	R766	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	SA
...4	R793	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	SA
...4	R794	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	SA
...4	R9663	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	SA
...4	R131_OP	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	SA
...4	R211	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	SA
...4	R258	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	SA
...4	R259	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	SA
...4	R323	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	SA
...4	R615	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	SA
...4	R626_OP	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	SA
...4	R627_OP	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	SA
...4	R6402	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	SA
...4	R6404	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	SA
...4	R692	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	SA
...4	R696	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	SA
...4	R767	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	SA
...4	R768	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	SA
...4	R924	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	SA
...4	R931	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	SA
...4	R9666	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	SA
...4	R9667	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	SA
...4	R204	2007-000079	R-CHIP;1.8Kohm,5%,1/10W,TP,1608	1	SA
...4	R205	2007-000079	R-CHIP;1.8Kohm,5%,1/10W,TP,1608	1	SA
...4	R693	2007-000080	R-CHIP;2Kohm,5%,1/10W,TP,1608	1	SA
...4	R224	2007-000082	R-CHIP;3.3Kohm,5%,1/10W,TP,1608	1	SA
...4	R242	2007-000082	R-CHIP;3.3Kohm,5%,1/10W,TP,1608	1	SA
...4	R244	2007-000082	R-CHIP;3.3Kohm,5%,1/10W,TP,1608	1	SA
...4	R338	2007-000082	R-CHIP;3.3Kohm,5%,1/10W,TP,1608	1	SA
...4	R922	2007-000082	R-CHIP;3.3Kohm,5%,1/10W,TP,1608	1	SA
...4	R925	2007-000082	R-CHIP;3.3Kohm,5%,1/10W,TP,1608	1	SA
...4	R926	2007-000082	R-CHIP;3.3Kohm,5%,1/10W,TP,1608	1	SA
...4	R927	2007-000082	R-CHIP;3.3Kohm,5%,1/10W,TP,1608	1	SA
...4	R928	2007-000082	R-CHIP;3.3Kohm,5%,1/10W,TP,1608	1	SA
...4	R938	2007-000082	R-CHIP;3.3Kohm,5%,1/10W,TP,1608	1	SA
...4	R939	2007-000082	R-CHIP;3.3Kohm,5%,1/10W,TP,1608	1	SA
...4	R945	2007-000082	R-CHIP;3.3Kohm,5%,1/10W,TP,1608	1	SA
...4	R946	2007-000082	R-CHIP;3.3Kohm,5%,1/10W,TP,1608	1	SA
...4	R9671	2007-000082	R-CHIP;3.3Kohm,5%,1/10W,TP,1608	1	SA
...4	R9672	2007-000082	R-CHIP;3.3Kohm,5%,1/10W,TP,1608	1	SA
...4	R225	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R2356	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R238	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R256	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R257	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R321	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R336	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R339	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R342	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R343	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R619	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R632	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R657	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R810	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R9109_EU	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA

6 Electrical Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
...4	R9118	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R9132	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R917	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R9187	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R9213	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R9222	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R9224	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R9231	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R9232	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R9234	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R9235	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R9238	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R929	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R9332	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R9335	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R9336	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R9402	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R942	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R943	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R944	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R9670	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R988	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R989	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	SA
...4	R233	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	SA
...4	R620	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	SA
...4	R623	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	SA
...4	R639	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	SA
...4	R641	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	SA
...4	R642	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	SA
...4	R649	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	SA
...4	R690	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	SA
...4	R691	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	SA
...4	R759	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	SA
...4	R760	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	SA
...4	R7609	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	SA
...4	R7612	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	SA
...4	R763	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	SA
...4	R802	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	SA
...4	R803	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	SA
...4	R804	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	SA
...4	R805	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	SA
...4	R812	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	SA
...4	R8877	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	SA
...4	R901	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	SA
...4	R913	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	SA
...4	R9131	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	SA
...4	R9133	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	SA
...4	R9135	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	SA
...4	R9211	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	SA
...4	R957	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	SA
...4	R679	2007-000091	R-CHIP;12Kohm,5%,1/10W,TP,1608	1	SA
...4	R860	2007-000091	R-CHIP;12Kohm,5%,1/10W,TP,1608	1	SA
...4	R861	2007-000092	R-CHIP;15Kohm,5%,1/10W,TP,1608	1	SA
...4	R621	2007-000093	R-CHIP;20Kohm,5%,1/10W,TP,1608	1	SA
...4	R622	2007-000093	R-CHIP;20Kohm,5%,1/10W,TP,1608	1	SA
...4	R191	2007-000094	R-CHIP;22Kohm,5%,1/10W,TP,1608	1	SA
...4	R9337	2007-000094	R-CHIP;22Kohm,5%,1/10W,TP,1608	1	SA
...4	R110	2007-000097	R-CHIP;47Kohm,5%,1/10W,TP,1608	1	SA
...4	R111	2007-000097	R-CHIP;47Kohm,5%,1/10W,TP,1608	1	SA
...4	R633	2007-000097	R-CHIP;47Kohm,5%,1/10W,TP,1608	1	SA
...4	R634	2007-000097	R-CHIP;47Kohm,5%,1/10W,TP,1608	1	SA
...4	R635	2007-000097	R-CHIP;47Kohm,5%,1/10W,TP,1608	1	SA
...4	R638	2007-000097	R-CHIP;47Kohm,5%,1/10W,TP,1608	1	SA
...4	R7608	2007-000097	R-CHIP;47Kohm,5%,1/10W,TP,1608	1	SA
...4	R795	2007-000097	R-CHIP;47Kohm,5%,1/10W,TP,1608	1	SA
...4	R796	2007-000097	R-CHIP;47Kohm,5%,1/10W,TP,1608	1	SA
...4	R797	2007-000097	R-CHIP;47Kohm,5%,1/10W,TP,1608	1	SA
...4	R798	2007-000097	R-CHIP;47Kohm,5%,1/10W,TP,1608	1	SA
...4	R9114	2007-000097	R-CHIP;47Kohm,5%,1/10W,TP,1608	1	SA
...4	R601	2007-000100	R-CHIP;68Kohm,5%,1/10W,TP,1608	1	SA
...4	R602	2007-000100	R-CHIP;68Kohm,5%,1/10W,TP,1608	1	SA
...4	R603	2007-000100	R-CHIP;68Kohm,5%,1/10W,TP,1608	1	SA
...4	R604	2007-000100	R-CHIP;68Kohm,5%,1/10W,TP,1608	1	SA
...4	R605	2007-000100	R-CHIP;68Kohm,5%,1/10W,TP,1608	1	SA
...4	R606	2007-000100	R-CHIP;68Kohm,5%,1/10W,TP,1608	1	SA
...4	R607	2007-000100	R-CHIP;68Kohm,5%,1/10W,TP,1608	1	SA
...4	R608	2007-000100	R-CHIP;68Kohm,5%,1/10W,TP,1608	1	SA

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
...4	R609	2007-000100	R-CHIP;68Kohm,5%,1/10W,TP,1608	1	SA
...4	R610	2007-000100	R-CHIP;68Kohm,5%,1/10W,TP,1608	1	SA
...4	R611	2007-000100	R-CHIP;68Kohm,5%,1/10W,TP,1608	1	SA
...4	R612	2007-000100	R-CHIP;68Kohm,5%,1/10W,TP,1608	1	SA
...4	R670	2007-000100	R-CHIP;68Kohm,5%,1/10W,TP,1608	1	SA
...4	R671	2007-000100	R-CHIP;68Kohm,5%,1/10W,TP,1608	1	SA
...4	R672	2007-000100	R-CHIP;68Kohm,5%,1/10W,TP,1608	1	SA
...4	R673	2007-000100	R-CHIP;68Kohm,5%,1/10W,TP,1608	1	SA
...4	R175	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	SA
...4	R636	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	SA
...4	R637	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	SA
...4	R801	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	SA
...4	R806	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	SA
...4	R9675	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	SA
...4	R653	2007-000103	R-CHIP;120Kohm,5%,1/10W,TP,1608	1	SA
...4	R105	2007-000106	R-CHIP;220Kohm,5%,1/10W,TP,1608	1	SA
...4	R120	2007-000106	R-CHIP;220Kohm,5%,1/10W,TP,1608	1	SA
...4	R104	2007-000115	R-CHIP;82ohm,5%,1/10W,TP,1608	1	SA
...4	R811	2007-000123	R-CHIP;1.5Kohm,5%,1/10W,TP,1608	1	SA
...4	R9111	2007-000123	R-CHIP;1.5Kohm,5%,1/10W,TP,1608	1	SA
...4	R9112	2007-000123	R-CHIP;1.5Kohm,5%,1/10W,TP,1608	1	SA
...4	R9113	2007-000123	R-CHIP;1.5Kohm,5%,1/10W,TP,1608	1	SA
...4	R9115	2007-000123	R-CHIP;1.5Kohm,5%,1/10W,TP,1608	1	SA
...4	R9116	2007-000123	R-CHIP;1.5Kohm,5%,1/10W,TP,1608	1	SA
...4	R9117	2007-000123	R-CHIP;1.5Kohm,5%,1/10W,TP,1608	1	SA
...4	R335	2007-000125	R-CHIP;3.9Kohm,5%,1/10W,TP,1608	1	SA
...4	R647	2007-000129	R-CHIP;27Kohm,5%,1/10W,TP,1608	1	SA
...4	R262	2007-000134	R-CHIP;33Kohm,5%,1/10W,TP,1608	1	SA
...4	R263	2007-000134	R-CHIP;33Kohm,5%,1/10W,TP,1608	1	SA
...4	R264	2007-000134	R-CHIP;33Kohm,5%,1/10W,TP,1608	1	SA
...4	R265	2007-000134	R-CHIP;33Kohm,5%,1/10W,TP,1608	1	SA
...4	R266	2007-000134	R-CHIP;33Kohm,5%,1/10W,TP,1608	1	SA
...4	R267	2007-000134	R-CHIP;33Kohm,5%,1/10W,TP,1608	1	SA
...4	R268	2007-000134	R-CHIP;33Kohm,5%,1/10W,TP,1608	1	SA
...4	R269	2007-000134	R-CHIP;33Kohm,5%,1/10W,TP,1608	1	SA
...4	R643_OP	2007-000134	R-CHIP;33Kohm,5%,1/10W,TP,1608	1	SA
...4	R644_OP	2007-000134	R-CHIP;33Kohm,5%,1/10W,TP,1608	1	SA
...4	R7132	2007-000293	R-CHIP;100ohm,5%,1/4W,TP,3216	1	SA
...4	R7133	2007-000293	R-CHIP;100ohm,5%,1/4W,TP,3216	1	SA
...4	R7134	2007-000293	R-CHIP;100ohm,5%,1/4W,TP,3216	1	SA
...4	R721	2007-000293	R-CHIP;100ohm,5%,1/4W,TP,3216	1	SA
...4	R722	2007-000293	R-CHIP;100ohm,5%,1/4W,TP,3216	1	SA
...4	R726_NT	2007-000293	R-CHIP;100ohm,5%,1/4W,TP,3216	1	SA
...4	R728_NT	2007-000293	R-CHIP;100ohm,5%,1/4W,TP,3216	1	SA
...4	R731_NT	2007-000293	R-CHIP;100ohm,5%,1/4W,TP,3216	1	SA
...4	R3111	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
...4	R7309	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
...4	R7310	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
...4	R7311	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
...4	R7312	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
...4	R7313	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
...4	R7314	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
...4	R7315	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
...4	R7316	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
...4	R9100	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
...4	R9101	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
...4	R9102	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
...4	R9103	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
...4	R9105	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
...4	R9106	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
...4	R9128	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
...4	R9331	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
...4	R9501_OP	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
...4	R9502_OP	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
...4	R952	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
...4	R970	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
...4	R971	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
...4	R972	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
...4	R973	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
...4	R977	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
...4	R978	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
...4	R979	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
...4	R981	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
...4	R998	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
...4	R999	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
...4	RA920	2007-000309	R-CHIP;10ohm,5%,1/10W,TP,1608	1	SA
...4	R694	2007-000458	R-CHIP;18Kohm,5%,1/10W,TP,1608	1	SA

6 Electrical Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
...4	R746	2007-000458	R-CHIP;18Kohm,5%,1/10W,TP,1608	1	SA
...4	R920	2007-000458	R-CHIP;18Kohm,5%,1/10W,TP,1608	1	SA
...4	R328	2007-000779	R-CHIP;33ohm,1%,1/10W,TP,1608	1	SA
...4	R330	2007-000779	R-CHIP;33ohm,1%,1/10W,TP,1608	1	SA
...4	R327	2007-000821	R-CHIP;390ohm,1%,1/10W,TP,1608	1	SA
...4	R624	2007-000882	R-CHIP;4.7ohm,5%,1/10W,TP,1608	1	SA
...4	R625	2007-000882	R-CHIP;4.7ohm,5%,1/10W,TP,1608	1	SA
...4	R231	2007-001014	R-CHIP;51OHM,5%,1/10W,TP,1608	1	SA
...4	R232	2007-001014	R-CHIP;51OHM,5%,1/10W,TP,1608	1	SA
...4	R858	2007-001068	R-CHIP;6.8Kohm,1%,1/10W,TP,1608	1	SA
...4	R921	2007-001139	R-CHIP;7.5Kohm,1%,1/10W,TP,1608	1	SA
...4	C7790	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	SA
...4	R103	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	SA
...4	R720	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	SA
...4	R744	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	SA
...4	R7581	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	SA
...4	R7583	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	SA
...4	R7584	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	SA
...4	R7591	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	SA
...4	R7592	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	SA
...4	R770	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	SA
...4	R771	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	SA
...4	R7788	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	SA
...4	R7789	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	SA
...4	R352	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	SA
...4	R353	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	SA
...4	R354	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	SA
...4	R751	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	SA
...4	R752	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	SA
...4	R753	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	SA
...4	R755	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	SA
...4	R756	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	SA
...4	RA2015	2011-000002	R-NET;22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
...4	RA2016	2011-000002	R-NET;22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
...4	RA2017	2011-000002	R-NET;22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
...4	RA2018	2011-000002	R-NET;22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
...4	RA2019	2011-000002	R-NET;22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
...4	RA2020	2011-000002	R-NET;22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
...4	RA2021	2011-000002	R-NET;22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
...4	RA2022	2011-000002	R-NET;22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
...4	RA933	2011-000515	R-NET;4.7Kohm,5%,1/16W,L,CHIP,8P,TP,3.2x	1	SA
...4	RA934	2011-000515	R-NET;4.7Kohm,5%,1/16W,L,CHIP,8P,TP,3.2x	1	SA
...4	RA323	2011-000585	R-NET;47ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1	1	SA
...4	RA324	2011-000585	R-NET;47ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1	1	SA
...4	RA325	2011-000585	R-NET;47ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1	1	SA
...4	RA326	2011-000585	R-NET;47ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1	1	SA
...4	RA327	2011-000585	R-NET;47ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1	1	SA
...4	RA328	2011-000585	R-NET;47ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1	1	SA
...4	RA329	2011-000585	R-NET;47ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1	1	SA
...4	RA330	2011-000585	R-NET;47ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1	1	SA
...4	RA316	2011-000651	R-NET;10ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
...4	RA317	2011-000651	R-NET;10ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
...4	RA318	2011-000651	R-NET;10ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
...4	RA319	2011-000651	R-NET;10ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
...4	RA320	2011-000651	R-NET;10ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
...4	RA321	2011-000651	R-NET;10ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
...4	RA322	2011-000651	R-NET;10ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
...4	RA913	2011-000651	R-NET;10ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
...4	RA914	2011-000651	R-NET;10ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
...4	RA915	2011-000651	R-NET;10ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
...4	RA916	2011-000651	R-NET;10ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
...4	RA917	2011-000651	R-NET;10ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
...4	RA919	2011-000651	R-NET;10ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
...4	RA910	2011-001093	R-NET;100OHM,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
...4	RA911	2011-001093	R-NET;100OHM,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
...4	RA912	2011-001093	R-NET;100OHM,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
...4	RA922	2011-001093	R-NET;100OHM,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
...4	RA923	2011-001093	R-NET;100OHM,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
...4	RA924	2011-001093	R-NET;100OHM,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
...4	RA925	2011-001093	R-NET;100OHM,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
...4	RA926	2011-001093	R-NET;100OHM,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
...4	RA927	2011-001093	R-NET;100OHM,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
...4	RA928	2011-001093	R-NET;100OHM,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
...4	RA929	2011-001093	R-NET;100OHM,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
...4	RA930	2011-001093	R-NET;100OHM,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
...4	RA931	2011-001093	R-NET;100OHM,5%,1/16W,L,CHIP,8P,TP,3216	1	SA
...4	RA932	2011-001093	R-NET;100OHM,5%,1/16W,L,CHIP,8P,TP,3216	1	SA

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
...4	C622	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	SA
...4	C646	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	SA
...4	C120	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C2061	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C2065	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C2102	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C2104	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C2106	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C224	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C225	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C236	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C240	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C241	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C242	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C243	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C244	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C245	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C246	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C247	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C248	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C249	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C25026	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C252	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C253	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C254	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C255	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C256	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C258	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C259	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C260	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C261	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C262	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C263	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C264	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C265	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C266	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C267	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C268	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C269	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C277	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C279	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C281	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C285	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C286	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C287	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C288	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C289	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C290	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C291	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C292	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C293	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C294	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C295	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C296	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C298	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C299	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C317	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C331	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C349	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C353	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C356	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C357	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C359	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C380	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C383	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C385	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C389	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C630	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C649	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C654	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C669	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C671	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C676	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C686	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C687	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C736	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C737	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA

6 Electrical Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
...4	C802	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C805	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C808	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C811	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C814	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C818	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C820	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C868	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C877	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C907	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C939	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C9553	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C9555	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C9846	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
...4	C118	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
...4	C119	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
...4	C25020	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
...4	C25021	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
...4	C25022	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
...4	C25023	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
...4	C283	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
...4	C323	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
...4	C344	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
...4	C387	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
...4	C5132	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
...4	C702	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
...4	C704	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
...4	C731	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
...4	C733	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
...4	C734	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
...4	C735	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
...4	C988	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
...4	C989	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
...4	C102	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
...4	C105	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
...4	C106	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
...4	C213	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
...4	C214	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
...4	C215	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
...4	C216	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
...4	C217	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
...4	C223	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
...4	C226	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
...4	C2301	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
...4	C388	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
...4	C803	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
...4	C806	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
...4	C809	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
...4	C812	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
...4	C819	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
...4	C838	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
...4	C854	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
...4	C869	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
...4	C932	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
...4	C934	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
...4	C936	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
...4	C937	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
...4	C940	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
...4	C850	2203-000405	C-CER,CHIP;0.18nF,5%,50V,C0G,1608	1	SA
...4	C25016	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
...4	C25017	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
...4	C25018	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
...4	C25019	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
...4	C341	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
...4	C350	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
...4	C351	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
...4	C354	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
...4	C355	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
...4	C381	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
...4	C386	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
...4	C635	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
...4	C636	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
...4	C901	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
...4	C903	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
...4	C906	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
...4	C9548	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
...4	C9549	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
...4	C990	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
...4	C109	2203-000491	C-CER,CHIP;2.2nF,10%,50V,X7R,1608	1	SA
...4	C238	2203-000552	C-CER,CHIP;0.02nF,5%,50V,C0G,TP,1608	1	SA
...4	C239	2203-000552	C-CER,CHIP;0.02nF,5%,50V,C0G,TP,1608	1	SA
...4	C919	2203-000626	C-CER,CHIP;0.022nF,5%,50V,C0G,1608	1	SA
...4	C920	2203-000626	C-CER,CHIP;0.022nF,5%,50V,C0G,1608	1	SA
...4	C929	2203-000626	C-CER,CHIP;0.022nF,5%,50V,C0G,1608	1	SA
...4	C930	2203-000626	C-CER,CHIP;0.022nF,5%,50V,C0G,1608	1	SA
...4	C8822	2203-000715	C-CER,CHIP;3.3nF,10%,50V,X7R,1608	1	SA
...4	C712	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	SA
...4	C713	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	SA
...4	C739	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	SA
...4	C742	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	SA
...4	C7420	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	SA
...4	C7422	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	SA
...4	C743	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	SA
...4	C744	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	SA
...4	C749	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	SA
...4	C750	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	SA
...4	C7579	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	SA
...4	C760	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	SA
...4	D747	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	SA
...4	C921	2203-000815	C-CER,CHIP;0.033nF,5%,50V,C0G,1608	1	SA
...4	C922	2203-000815	C-CER,CHIP;0.033nF,5%,50V,C0G,1608	1	SA
...4	C333	2203-000838	C-CER,CHIP;0.39nF,5%,50V,C0G,TP,1608	1	SA
...4	C332	2203-000843	C-CER,CHIP;39nF,10%,25V,X7R,1608	1	SA
...4	C627	2203-000872	C-CER,CHIP;0.003nF,0.25PF,50V,C0G,TP,160	1	SA
...4	C628	2203-000872	C-CER,CHIP;0.003nF,0.25PF,50V,C0G,TP,160	1	SA
...4	C110	2203-000888	C-CER,CHIP;4.7nF,10%,50V,X7R,1608	1	SA
...4	C218	2203-000888	C-CER,CHIP;4.7nF,10%,50V,X7R,1608	1	SA
...4	C219	2203-000888	C-CER,CHIP;4.7nF,10%,50V,X7R,1608	1	SA
...4	C324	2203-000888	C-CER,CHIP;4.7nF,10%,50V,X7R,1608	1	SA
...4	C335	2203-000888	C-CER,CHIP;4.7nF,10%,50V,X7R,1608	1	SA
...4	C633	2203-000888	C-CER,CHIP;4.7nF,10%,50V,X7R,1608	1	SA
...4	C634	2203-000888	C-CER,CHIP;4.7nF,10%,50V,X7R,1608	1	SA
...4	C107	2203-000972	C-CER,CHIP;47nF,10%,16V,X7R,TP,1608	1	SA
...4	C620	2203-000972	C-CER,CHIP;47nF,10%,16V,X7R,TP,1608	1	SA
...4	C370	2203-000975	C-CER,CHIP;47nF,10%,25V,X7R,TP,1608,-	1	SA
...4	C667	2203-000975	C-CER,CHIP;47nF,10%,25V,X7R,TP,1608,-	1	SA
...4	C668	2203-000975	C-CER,CHIP;47nF,10%,25V,X7R,TP,1608,-	1	SA
...4	C681	2203-000975	C-CER,CHIP;47nF,10%,25V,X7R,TP,1608,-	1	SA
...4	C685	2203-000975	C-CER,CHIP;47nF,10%,25V,X7R,TP,1608,-	1	SA
...4	C935	2203-000998	C-CER,CHIP;0.047nF,5%,50V,C0G,1608	1	SA
...4	C624	2203-001071	C-CER,CHIP;0.056nF,5%,50V,C0G,1608	1	SA
...4	C625	2203-001071	C-CER,CHIP;0.056nF,5%,50V,C0G,1608	1	SA
...4	C626	2203-001071	C-CER,CHIP;0.056nF,5%,50V,C0G,1608	1	SA
...4	C664	2203-001391	C-CER,CHIP;150nF,10%,25V,X7R,TP,2012,-	1	SA
...4	C665	2203-001391	C-CER,CHIP;150nF,10%,25V,X7R,TP,2012,-	1	SA
...4	C682	2203-001391	C-CER,CHIP;150nF,10%,25V,X7R,TP,2012,-	1	SA
...4	C684	2203-001391	C-CER,CHIP;150nF,10%,25V,X7R,TP,2012,-	1	SA
...4	C108	2203-001607	C-CER,CHIP;0.22nF,5%,50V,NP0,1608	1	SA
...4	C675	2203-001607	C-CER,CHIP;0.22nF,5%,50V,NP0,1608	1	SA
...4	C657	2203-001630	C-CER,CHIP;330nF,+80-20%,16V,Y5V,1608	1	SA
...4	C658	2203-001630	C-CER,CHIP;330nF,+80-20%,16V,Y5V,1608	1	SA
...4	C623	2203-001656	C-CER,CHIP;0.47nF,5%,50V,NP0,1608	1	SA
...4	C644	2203-001656	C-CER,CHIP;0.47nF,5%,50V,NP0,1608	1	SA
...4	C100	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C113	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C2107	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C211	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C212	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C221	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C222	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C228	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C230	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C231	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C232	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C25025	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C321	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C322	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C325	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C327	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C328	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C329	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C330	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C334	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C336	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA

6 Electrical Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
...4	C337	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C338	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C339	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C340	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C342	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C343	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C346	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C347	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C348	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C361	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C392	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C394	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C609	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C632	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C647	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C679	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C816	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C823	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C825	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C837	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C840	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C842	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C848	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C860	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C862	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C864	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C866	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C871	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C873	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C874	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C881	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C883	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C918	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C941	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C942	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C950_EU	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C952_EU	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C955_EU	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C957_EU	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C960	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C962	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C963	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C964	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C967	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C991	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C992	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C993	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C994	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C995	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C997	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C998	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
...4	C666	2203-005030	C-CER,CHIP;470nF,+80-20%,50V,Y5V,TP,3216	1	SA
...4	C683	2203-005030	C-CER,CHIP;470nF,+80-20%,50V,Y5V,TP,3216	1	SA
...4	C2049	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
...4	C235	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
...4	C237	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
...4	C638	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
...4	C639	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
...4	C680	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
...4	C689	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
...4	C690	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
...4	C691	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
...4	C692	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
...4	C693	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
...4	C826	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
...4	C827	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
...4	C876	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
...4	C928	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
...4	C371	2203-005437	C-CER,CHIP;10000nF,+80-20%,10V,Y5V,3216	1	SA
...4	C674	2203-006036	C-CER,CHIP;680NF,+80-20%,16V,Y5V,TP,1608	1	SA
...4	C678	2203-006036	C-CER,CHIP;680NF,+80-20%,16V,Y5V,TP,1608	1	SA
...4	C738	2402-000108	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.2m	1	SA
...4	C670	2402-001081	C-AL,SMD;100uF,20%,25V,WT,TP,8.3x8.3x10	1	SA
...4	C688	2402-001081	C-AL,SMD;100uF,20%,25V,WT,TP,8.3x8.3x10	1	SA
...4	C801	2402-001081	C-AL,SMD;100uF,20%,25V,WT,TP,8.3x8.3x10	1	SA
...4	C817	2402-001081	C-AL,SMD;100uF,20%,25V,WT,TP,8.3x8.3x10	1	SA
...4	C836	2402-001081	C-AL,SMD;100uF,20%,25V,WT,TP,8.3x8.3x10	1	SA

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
...4	C101	2402-001128	C-AL,SMD;100UF,20%,16V,WT,TP,6.3X5.7MM	1	SA
...4	C210	2402-001128	C-AL,SMD;100UF,20%,16V,WT,TP,6.3X5.7MM	1	SA
...4	C220	2402-001128	C-AL,SMD;100UF,20%,16V,WT,TP,6.3X5.7MM	1	SA
...4	C25027	2402-001128	C-AL,SMD;100UF,20%,16V,WT,TP,6.3X5.7MM	1	SA
...4	C345	2402-001128	C-AL,SMD;100UF,20%,16V,WT,TP,6.3X5.7MM	1	SA
...4	C391	2402-001128	C-AL,SMD;100UF,20%,16V,WT,TP,6.3X5.7MM	1	SA
...4	C648	2402-001128	C-AL,SMD;100UF,20%,16V,WT,TP,6.3X5.7MM	1	SA
...4	C660	2402-001128	C-AL,SMD;100UF,20%,16V,WT,TP,6.3X5.7MM	1	SA
...4	C677	2402-001128	C-AL,SMD;100UF,20%,16V,WT,TP,6.3X5.7MM	1	SA
...4	C804	2402-001128	C-AL,SMD;100UF,20%,16V,WT,TP,6.3X5.7MM	1	SA
...4	C807	2402-001128	C-AL,SMD;100UF,20%,16V,WT,TP,6.3X5.7MM	1	SA
...4	C865	2402-001128	C-AL,SMD;100UF,20%,16V,WT,TP,6.3X5.7MM	1	SA
...4	C867	2402-001128	C-AL,SMD;100UF,20%,16V,WT,TP,6.3X5.7MM	1	SA
...4	C619	2402-001129	C-AL,SMD;47UF,20%,16V,WT,TP,6.3X5.2MM	1	SA
...4	C655	2402-001129	C-AL,SMD;47UF,20%,16V,WT,TP,6.3X5.2MM	1	SA
...4	C938	2402-001129	C-AL,SMD;47UF,20%,16V,WT,TP,6.3X5.2MM	1	SA
...4	C958_EU	2402-001129	C-AL,SMD;47UF,20%,16V,WT,TP,6.3X5.2MM	1	SA
...4	C2109	2402-001158	C-AL,SMD;1UF,20%,50V,WT,TP,4X5.2MM	1	SA
...4	C250	2402-001158	C-AL,SMD;1UF,20%,50V,WT,TP,4X5.2MM	1	SA
...4	C2060	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C2064	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C2100	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C2101	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C2103	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C2105	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C229	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C233	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C234	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C25015	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C25024	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C273	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C274	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C275	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C276	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C278	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C280	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C282	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C297	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C390	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C601	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C602	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C603	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C604	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C605	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C606	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C607	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C608	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C6105	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C611	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C612	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C6120	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C629	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C631	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C645	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C650	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C651	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C652	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C653	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C7766	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C839	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C910	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C923	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C933	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C949_EU	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C951_EU	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C953_EU	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C9540	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C9543	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C961	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C965	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C966	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
...4	C103	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA
...4	C112	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA
...4	C2108	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA
...4	C227	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA
...4	C284	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA
...4	C320	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA

6 Electrical Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
...4	C326	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA
...4	C352	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA
...4	C358	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA
...4	C382	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA
...4	C384	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA
...4	C610	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA
...4	C621	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA
...4	C656	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA
...4	C659	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA
...4	C813	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA
...4	C815	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA
...4	C821	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA
...4	C822	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA
...4	C824	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA
...4	C853	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA
...4	C855	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA
...4	C861	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA
...4	C863	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA
...4	C870	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA
...4	C872	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA
...4	C875	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA
...4	C880	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA
...4	C882	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA
...4	C931	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA
...4	C966	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA
...4	C393	2402-001226	C-AL,SMD;4.7UF,20%,35V,HR,TP,4.3X4.3X5.8	1	SA
...4	C6104	2402-001226	C-AL,SMD;4.7UF,20%,35V,HR,TP,4.3X4.3X5.8	1	SA
...4	C613	2402-001226	C-AL,SMD;4.7UF,20%,35V,HR,TP,4.3X4.3X5.8	1	SA
...4	C614	2402-001226	C-AL,SMD;4.7UF,20%,35V,HR,TP,4.3X4.3X5.8	1	SA
...4	C615	2402-001226	C-AL,SMD;4.7UF,20%,35V,HR,TP,4.3X4.3X5.8	1	SA
...4	C616	2402-001226	C-AL,SMD;4.7UF,20%,35V,HR,TP,4.3X4.3X5.8	1	SA
...4	C617	2402-001226	C-AL,SMD;4.7UF,20%,35V,HR,TP,4.3X4.3X5.8	1	SA
...4	C618	2402-001226	C-AL,SMD;4.7UF,20%,35V,HR,TP,4.3X4.3X5.8	1	SA
...4	C104	2402-001238	C-AL,SMD;1uF,20%,50V,HR,TP,4.3x4.3x5.2mm	1	SA
...4	C111	2402-001257	C-AL,SMD;470uF,20%,16V,-,TP,8.3*10	1	SA
...4	C7767	2402-001257	C-AL,SMD;470uF,20%,16V,-,TP,8.3*10	1	SA
...4	C847	2409-001029	C-ORGANIC;120uF,20%,6.3V,WT,TP,10.3x10.3	1	SA
...4	CA392	2503-001018	C-NETWORK;15PFX4,10%,50V,-	1	SA
...4	CA393	2503-001018	C-NETWORK;15PFX4,10%,50V,-	1	SA
...4	CA394	2503-001018	C-NETWORK;15PFX4,10%,50V,-	1	SA
...4	CA395	2503-001018	C-NETWORK;15PFX4,10%,50V,-	1	SA
...4	CA396	2503-001018	C-NETWORK;15PFX4,10%,50V,-	1	SA
...4	CA397	2503-001018	C-NETWORK;15PFX4,10%,50V,-	1	SA
...4	T0052	2703-000274	INDUCTOR-SMD;2.2uH,10%,2012	1	SA
...4	T0052	2703-000274	INDUCTOR-SMD;2.2uH,10%,2012	1	SA
...4	T0052	2703-000274	INDUCTOR-SMD;2.2uH,10%,2012	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
...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
...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
...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
...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
...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
...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
...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
...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
...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
...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
...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
...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
...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
...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
...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		

[illegible]

6 Electrical Parts List

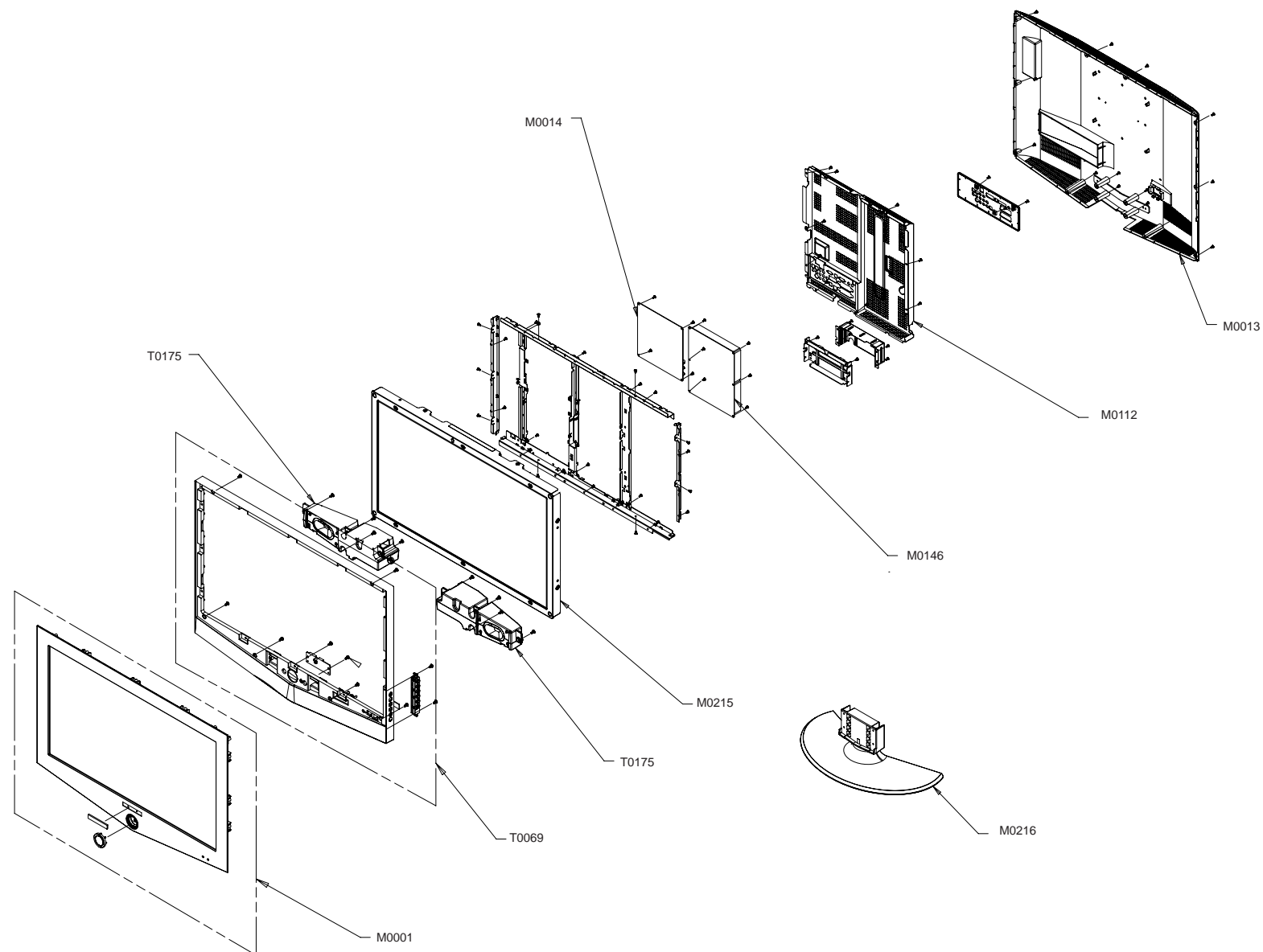
Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
1	M0019	BN92-01044V	ASSY LABEL;LM	1	SNA
1	M0113	BN92-01289A	ASSY P/MATERIAL;RE32	1	SNA
2	T0376	6902-000379	BAG AIR;LDPE,T0.2,W1000,L1800,TRP,-,-	0.018	SNA
2	T0524	6902-000519	BAG PE;HDPE/NITRON(DOUBLE),T0.015/T0.05(1	SNA
2		6902-000604	BAG WRAPPING;LDPE,T0.02,W500,L10000,TRP,	6	SNA
1	M0003	BN92-01290L	ASSY BOX;LN32R51BX/XAO	1	SNA
2		BN69-00953B	BOX-01,SET;RE32UO,RE32SO,DW3,AB,YEL,A1,A	1.01	SNA
1	M0045	BN92-01603W	ASSY ACCESSORY;LN32R51BX/XAZ	1	SNA
2	M0045	BN96-02835W	ASSY ACCESSORY;LN32R51BX/XAZ	1	SA
..3	T0268	3903-000020	CBF-POWER CORD;DT,BR,BP3/YES,I(IEC320 C1	1	SA
..3	T0524	6902-000110	BAG PE;LDPE,T0.05,W250,L400,TRP,28,2	1	SNA
..3	T0610	AA68-03242F	MANUAL-SAFETY GUIDE;All Model,SEC,Eng/Fr	1	SNA
..3	ACCESSORY	AA68-03532A	MANUAL-S/NETWORK;CL29Z6PQUX,BRAZIL,W/P15	1	SNA
..3	T0100	AA68-03533A	MANUAL-WARRANTY CARD;CL29Z6PQUX,BRAZIL,W	1	SNA
..3	ACCESSORY	AA68-03575M	MANUAL-ANYNET;Anynet,English,XAA,W/P100G	1	SNA
..3	T0128	BN39-00518B	CBF SIGNAL-STEREO;SVP-50L3HR,1P,UL2464#2	1	SA
..3	T0074	BN59-00455A	REMOCON;ROME,TM76B,210*58*21,ZILOG,48,G6	1	SA
..4	T0119	AA09-00371A	IC MICOM;SZTM-839C R-52MX,28PIN,16KBYTE,	1	SA
..4	T0122	2802-000194	RESONATOR-CERAMIC;8MHz,1.0%,TP,8.5x4.5x5	1	SA
..3	T0531	BN63-01674A	COVER-BOTTOM;23,26,32,ROME,HIPS,V0,GR503	1	SNA
..3	ACCESSORY	BN63-01798A	CLOTH-CLEAN;RE40**,CLOTH,310,320,RHOM	1	SNA
..3	T0511	BN68-00895A	MANUAL USERS;COMM,SAMSUNG,W/P 5G,PRECAUT	1	SNA
..3	M0596	BN68-00972A	MANUAL USERS-00;LN32R51BX,SAMSUNG,ENGLIS	1	SNA
..3	ACCESSORY	BN69-01052A	BOX-ACCESSORY;ALL,CB-SW1,YEL,W603,D672	1	SNA
..3	M0045	BN96-01800A	ASSY ACCESSORY;ROME32,SCREW	1	SA
..4	T0081	6002-001294	SCREW-TAPPING;BH,+,M4,L16,ZPC(BLK)	4	SA
..4	ACCESSORY	6902-000128	BAG ZIPPER;LDPE,T0.05,W200,L150,TRP,8,2-	1	SNA
1	M0001	BN90-00686V	ASSY COVER FRONT;RE32UO,C/F+C/M	1	SNA
2	M0081	6003-001003	SCREW-TAPTITE;BH,+,B,M4,L12,ZPC(BLK),SWR	1	SNA
2	M0081	6003-001003	SCREW-TAPTITE;BH,+,B,M4,L12,ZPC(BLK),SWR	2	SNA
2	M0081	6006-001096	SCREW-TAPTITE;WP,BH,+,M4,0,L12,BLK,SWRCH	4	SNA
2	T0003	BN96-02419F	ASSY COVER P-FRONT;ROME,32UO,ABS,HB,BK23	1	SNA
..3	M0081	6003-001003	SCREW-TAPTITE;BH,+,B,M4,L12,ZPC(BLK),SWR	6	SNA
..3	M0081	6003-001003	SCREW-TAPTITE;BH,+,B,M4,L12,ZPC(BLK),SWR	2	SNA
..3		BN61-01489A	GUIDE-CONTROL;ROME,40,ABS,HB,GR70	1	SNA
..3	T0060	BN61-01655A	SPRING ETC;STS-304 SUS,D8,L12,T0.5	1	SA
..3	M0112	BN63-01669B	COVER-FRONT;ROME,32,ABS,HB,BK23,STEAM,UO	1	SNA
..3	T0069	BN63-01670B	COVER-MIDDLE;ROME,32,HIPS,T2.0,V0,GR504,	1	SNA
..3	C/F	BN63-02183F	COVER-SHEET;Rhcm,PE Vinyl,T0.05,900mm,20	1.48	SNA
..3		BN64-00340A	KNOB-DECORATION;ROME,40,ABS,HB,GR515,AL	1	SNA
..3	T0022	BN64-00341A	KNOB CONTROL;ROME,40,PC+ABS,GR70	1	SNA
..3	T0023	BN64-00342A	KNOB POWER;ROME,40,PC+ABS,VIOLET	1	SNA
..3	T0603	BN64-00343A	WINDOW-RMC;ROME,40,PC,CLEAR	1	SNA
..3		BN64-00346A	KNOB-DECORATION;ROME,40,AL,T0.5,TITAN,PO	1	SNA
..3	T0071	BN64-00366A	INDICATOR-LED;ROME-I,PC,CLEAR,ALL MODEL	1	SNA
..3	M0145	BN96-01881A	ASSY BOARD P-FUNCTION;ROME 32',CT5000-32	1	SA
..3	T0382	BP61-00509C	HOLDER-CARE;PJT,ACRYL-FOAM,T0.25,W20.0mm	0.28	SNA
2	T0175	BN96-02453A	ASSY SPEAKER P;8ohm,Left,10W,500mm,VE RO	1	SA
2	T0175	BN96-02454A	ASSY SPEAKER P;8ohm,Right,10W,700mm,VE R	1	SA
2	T0382	BP61-00495C	HOLDER-CARE;PJT,ACRYL-FOAM,T0.25,W30.0mm	0.2	SNA
1	MP1.0	BN91-00953K	ASSY LCD-AMZ;Rome Ready,AUO,V5	1	SNA
2	M0215	BN07-00253A	LCD-PANEL;T315XW01,8bit,760.0*450.0*47.2	1	SA

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 LN32R51BX Exploded View



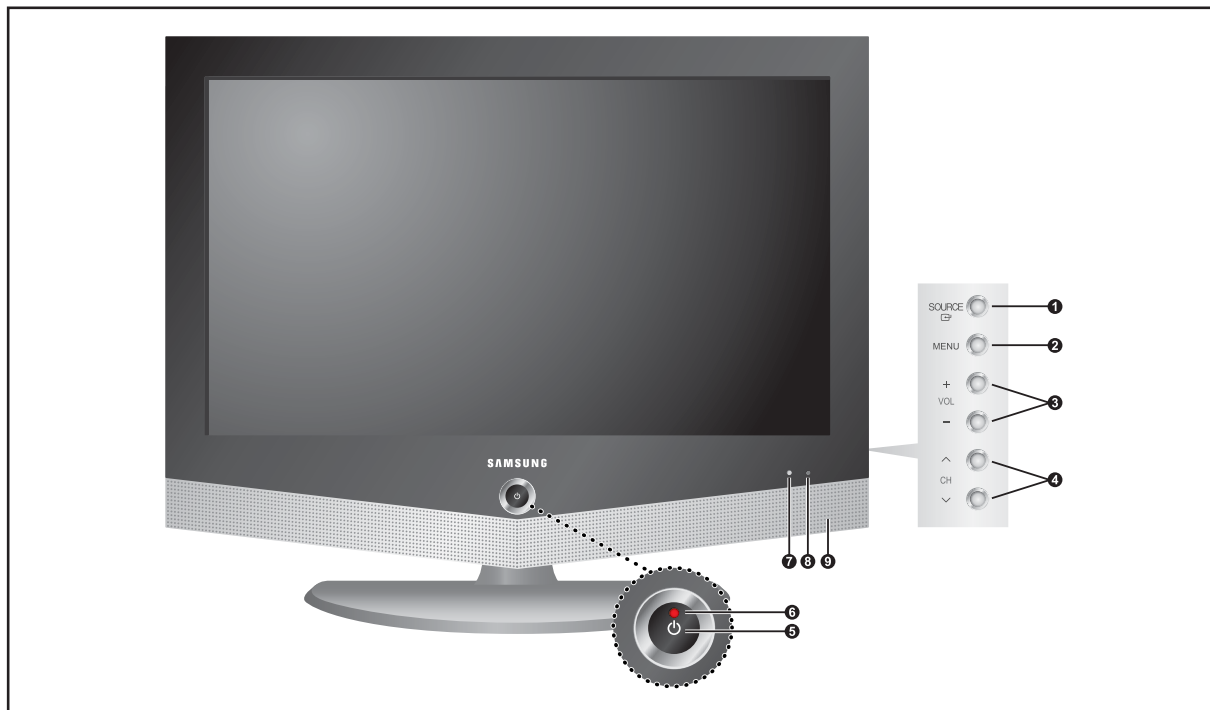
5-2 LN32R51BX Parts List

Location	Code.No	Item & Specification	Q'ty	SA/SNA	Remark
M0001	BN90-00686B	ASSY COVER FRONT;RE32UO	1	SNA	
T0069	BN63-01670B	COVER-MIDDLE;ROME,32,HIPS,V0,GR504,SV012	1	SNA	
M0215	BN07-00194A	LCD-PANEL;T315XW01,8bit,760.0*450.0*47.2	1	SA	
T0175	BN96-02453A	ASSY SPEAKER P;8ohm,Left,10W,Rome 32	1	SA	
T0175	BN96-02454A	ASSY SPEAKER P;8ohm,Right,10W,Rome 32	1	SA	
M0146	BN96-02453A	ASSY BOARD P-POWER & IR;ROME 26,CT5000-3	1	SA	
M0014	BN94-00795A	ASSY PCB MAIN-AUO;LN32R51BX/XAZ	1	SA	
M0112	BN91-00947N	ASSY SHIELD;LN32R51BX/XAZ	1	SNA	
M0013	BN96-01732A	ASSY COVER P-REAR;ROME,32,HIPS,V0,GR503	1	SA	
M0216	BN90-00688A	ASSY STAND;RE32	1	SNA	

10 Operating Installations and Installation

10-1 Product Features

10-1-1 Front



1. SOURCE

Displays a menu of all of the available input sources (TV, AV1, AV2, S-Video, Component 1, Component 2, PC, HDMI). Also used to confirm your choice on the on-screen menu.

2. MENU

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

3. - VOL +

Press to decrease or increase the volume. Also used to select items on the on-screen menu.

4. ^ CH v

Press to change channels. Also press to highlight various items on the on-screen menu.

5. POWER

Press to turn the TV on and off.

6. POWER INDICATOR

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

7. LIGHT DETECTING SENSOR

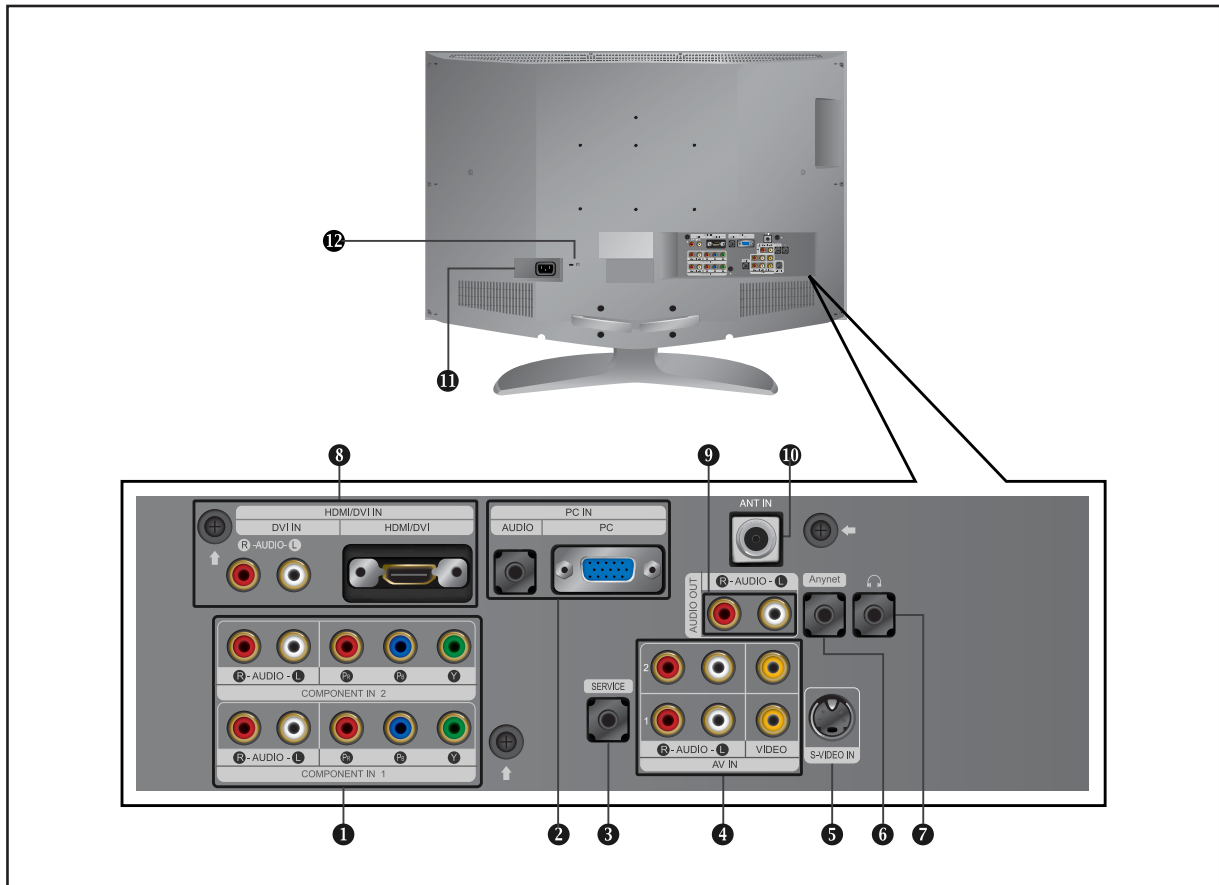
Adjusts the brightness of the screen automatically by detecting brightness of the surrounding environment. This sensor works when the Brightness Sensor is on.

8. REMOTE CONTROL SENSOR

Aim the remote control towards this spot on the TV.

9. SPEAKERS

10-1-2 Back



1. COMPONENT IN 1, 2

Connect component video/audio from a DVD/Set-top box.

2. PC IN

Component to the video and audio output jack on your PC.

3. SERVICE

Connector for service only.

4. AV IN

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

5. S-VIDEO IN

Video inputs for external devices with an S-Video output, such as a camcorder or VCR.

6. AnyNet

Refer to "AnyNet AV Owner's Instructions".

7. HEADPHONE JACK

Connect a set of external headphones for private listening.

8. HDMI/DVI IN

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

Use the HDMI/DVI terminal for DVI connection to an external device. You should use the DVI-to-HDMI cable or DVI-HDMI Adapter for the connection, and the 'R -AUDIO -L' terminal on DVI-IN for sound output. (HDMI/DVI IN terminal does not support PC.)

9. AUDIO OUT

Connect to the audio input jack on your amplifier.

10. ANT IN

Connect to an antenna or to a cable TV system.

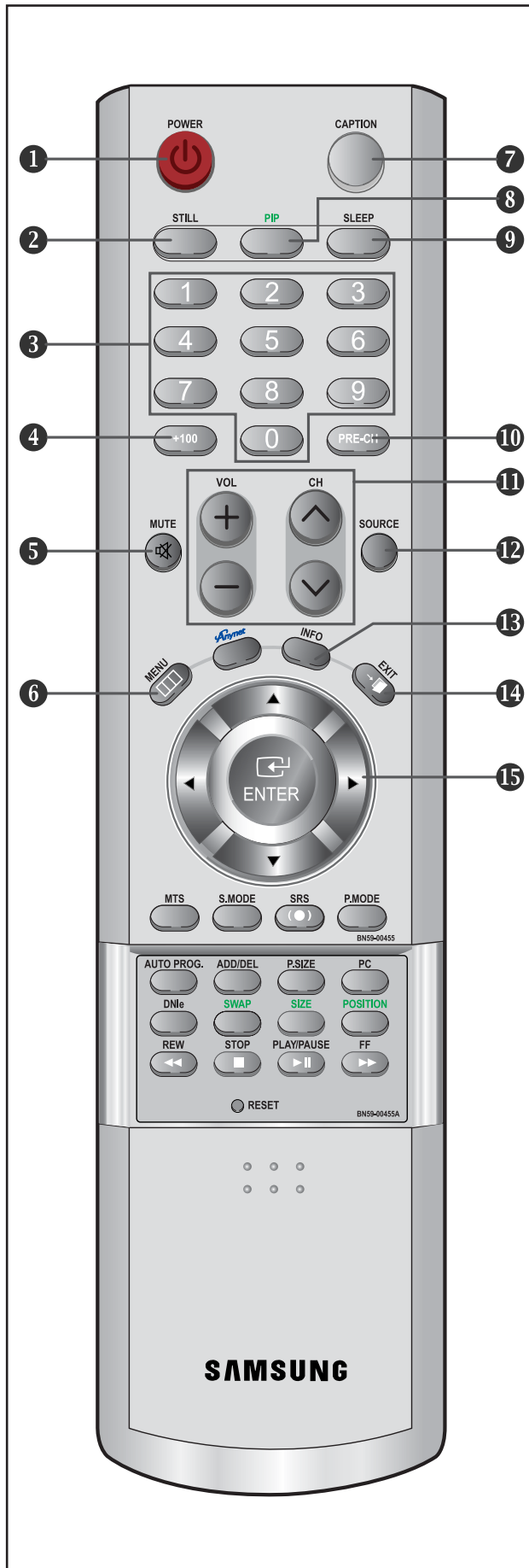
11. POWER INPUT

Connect the supplied power cord.

12. KENSINGTON LOCK

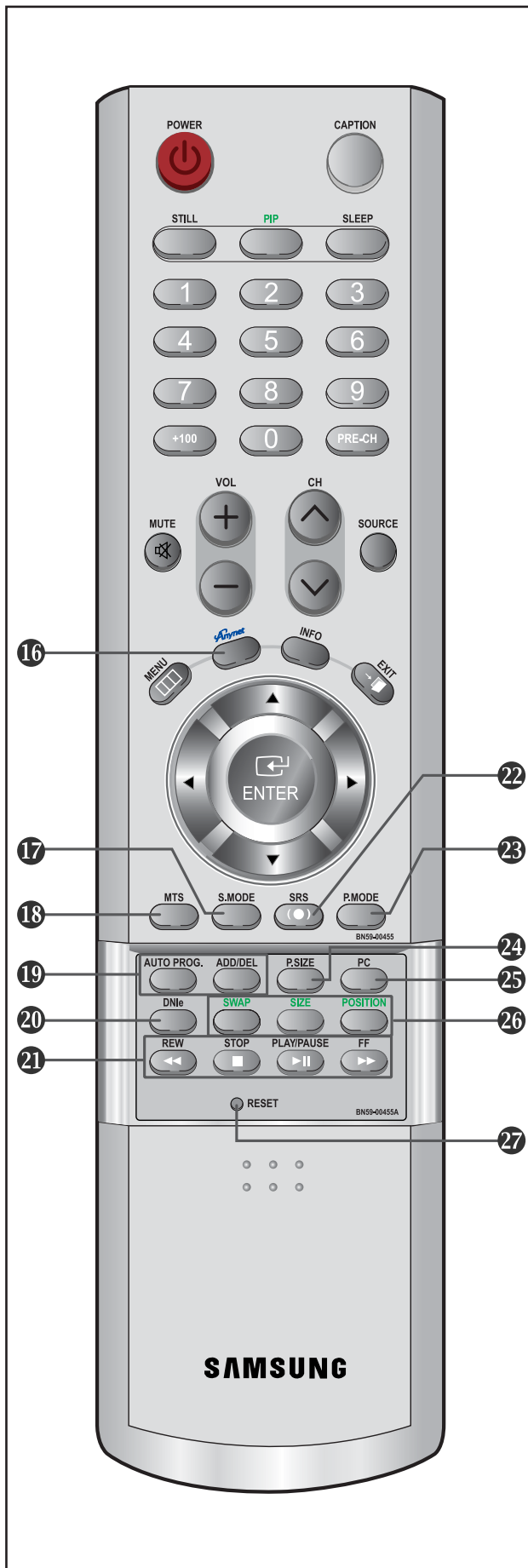
Refer to "Using the Anti-Theft Kensington Lock"

10-1-3 Remote Control



- 1. POWER**
Turns the TV on and off
- 2. STILL**
Press to stop the action during a particular scene. Press again to resume normal video.
- 3. NUMBER BUTTONS**
Press to change the channel.
- 4. +100**
Press to select channels over 100. For example, to select channel 121, press "+100", then press "2" and "1".
- 5. MUTE**
Press to temporarily cut off the sound.
- 6. MENU**
Displays the main on-screen menu.
- 7. CAPTION**
Controls the caption decoder.
- 8. PIP**
Picture-in-Picture ON/OFF.
- 9. SLEEP**
Press to select a time for the TV to turn off automatically.
- 10. PRE-CH**
Tunes to the previous channel.
- 11. CH ^ and CH v (Channel UP/Down)**
Press CH or CH to change channels.

VOL + and VOL -
Press to increase or decrease the volume.
- 12. SOURCE**
Press to display all of the available video sources.
- 13. INFO**
Use to see information on the current broadcast.
- 14. EXIT**
Press to exit the menu.
- 15. UP / DOWN / LEFT / RIGHT / ENTER**
Use to select on-screen menu items and change menu values.



16. Anynet

Press the Anynet button to bring up the Anynet menu.
(Refer to "Anynet AV Owner's Instructions".)

17. S.MODE

Adjusts the TV sound by selecting one of the pre set factory settings (or selects your personal, customized sound settings).

18. MTS

(Multi channel Television Stereo) Press to choose stereo, mono or Separate Audio Program (SAP broadcast).

19. AUTO PROG.

Press to automatically store selected TV/Cable channels.

ADD/DEL

Use to store and delete channels to/from memory.

20. DNle

DNle Demo On/Off.

Off : DNle Demo mode is deactivated.

On : The right-hand side of the screen shows the improved DNle image.

The left-hand side of the screen shows the original.

21. VCR/DVD Functions (Only Anynet mode)

- Rewind
- Stop
- Play/Pause
- Fast Forward

22. SRS

Selects TruSurround XT mode.

23. P.MODE

Adjusts the TV picture by selecting one of the preset factory settings.

24. P.SIZE

Press to change the screen size.

25. PC

Press to switch to the PC mode.

26. SWAP

Press to interchange the main picture and the sub (PIP) picture.

SIZE

Press to make the PIP window small, double1, double2.

POSITION

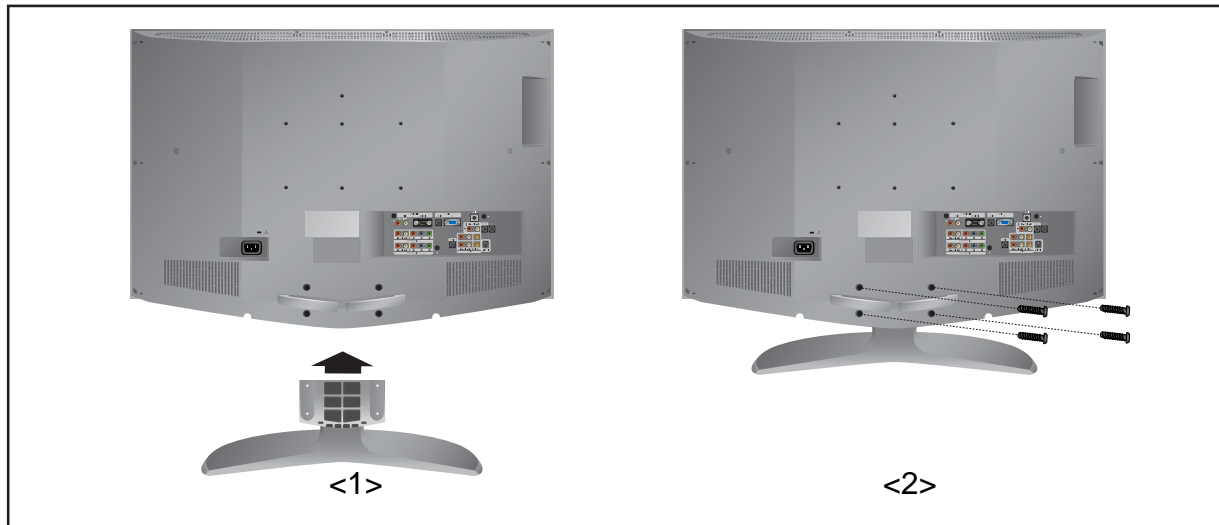
Press to select the position of sub (PIP) picture.

27. RESET

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

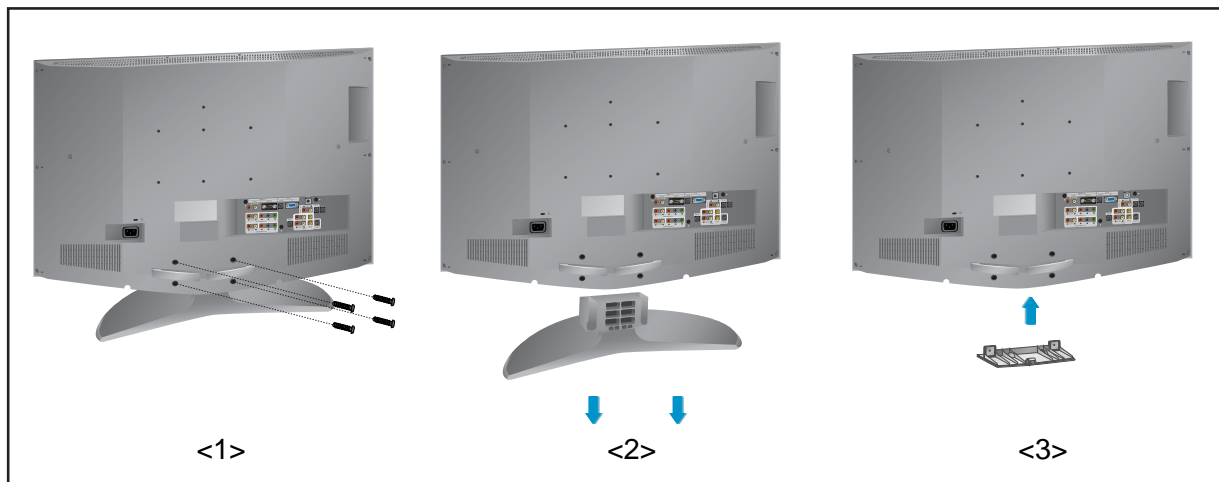
10-2 Installation Notes and Precautions

10-2-1 Installing the stand



1. Lower the TV set in the direction of the arrow and fix the stand.
2. Use the four screws to tightly fix the stand.

10-2-2 Disconnecting the stand



1. Remove four screws from the back of the TV.
2. Separate the stand from the TV.
3. Cover the bottom hole with a cap.

10-2-3 Installing the Wall Mount Kit

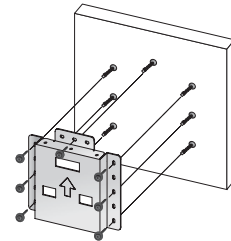
Components (Sold separately)



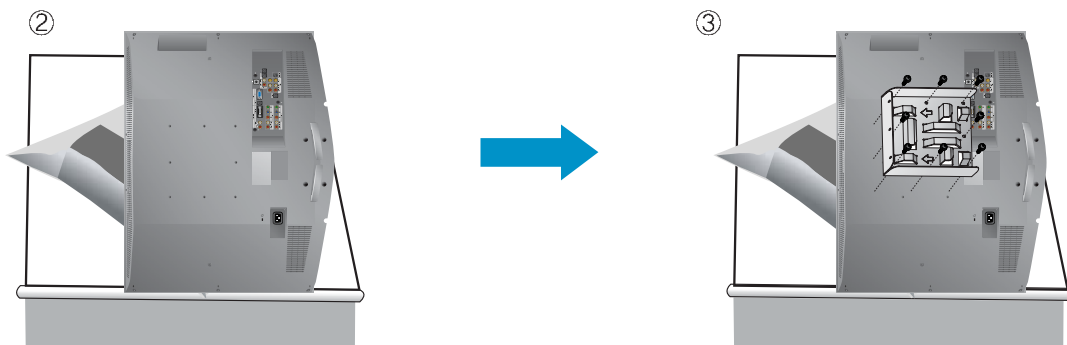
How to assemble the Wall Mount Bracket

- 1
 - ① Mark the location on the wall where the hole will be drilled.
 - ② Make over 35mm-depth-hole on the marked location using drill.
 - ③ Fix anchors (e) on each hole on the wall.
 - ④ Connect wall-bracket (a) to the wall with wood screws (d) after fitting anchors (e) into the wall-bracket (a).

Note : If the bracket is not firmly fixed to the wall, LCD TV can fall off.

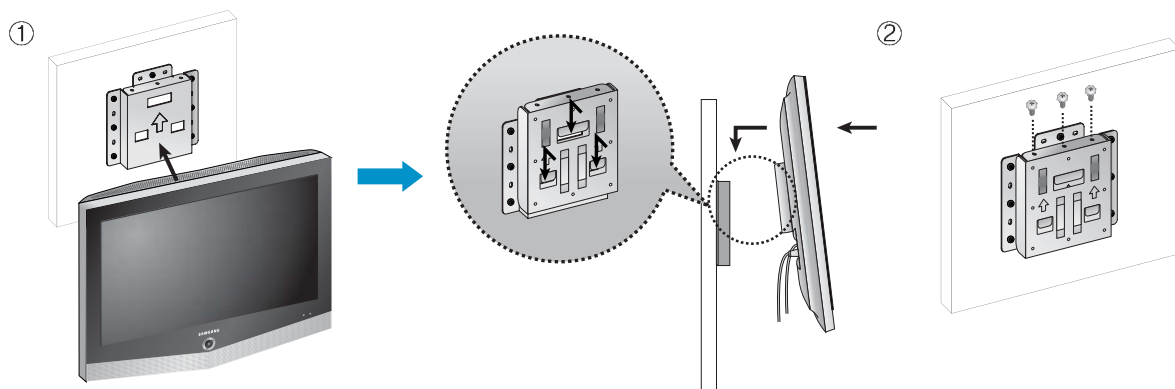


- 2
 - ① Turn the power off and unplug the power cord from the outlet.
 - ② Place the TV faced down on a soft cloth or cushion on a table.
 - ③ Attach the set-bracket (b) onto the rear side of the TV set and secure the screws (c).



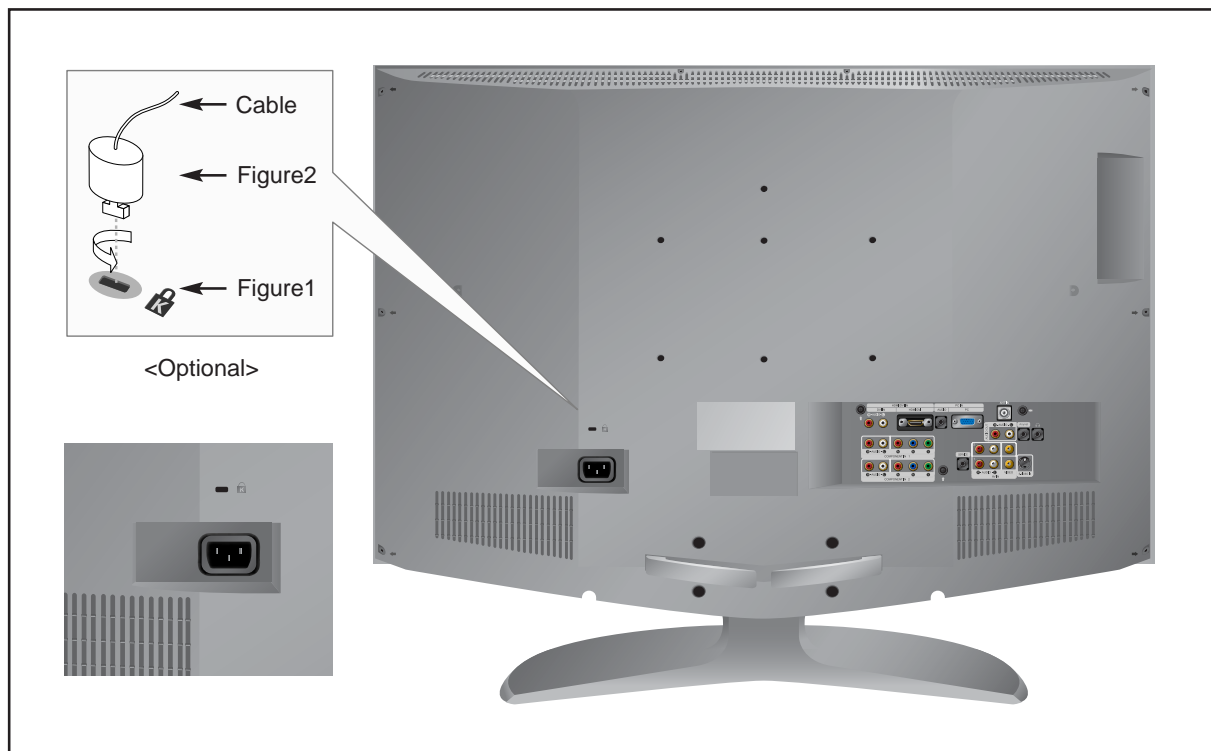
- 3
 - ① Insert three Hangers of the set-bracket (b) into the grooves of the wall-bracket (a).
 - ② Fix set-bracket (b) and wall-bracket (a) with screws (f).

Note : Before installing the set on the wall, connect the cables to the set first.



10-2-4 Using the Anti-Theft Kensington Lock

The Kensington lock is a device used to physically fix the system when using it in a public place. The locking device has to be purchased separately. The appearance and locking method may differ from the illustration depending on the manufacturer. Please refer to the manual provided with the Kensington lock for proper use.



1. Insert the locking device into the Kensington slot on the LCD TV (Figure 1), and turn it in the locking direction (Figure 2).
2. Connect the Kensington lock cable.
3. Fix the Kensington lock to a desk or a heavy stationary object.

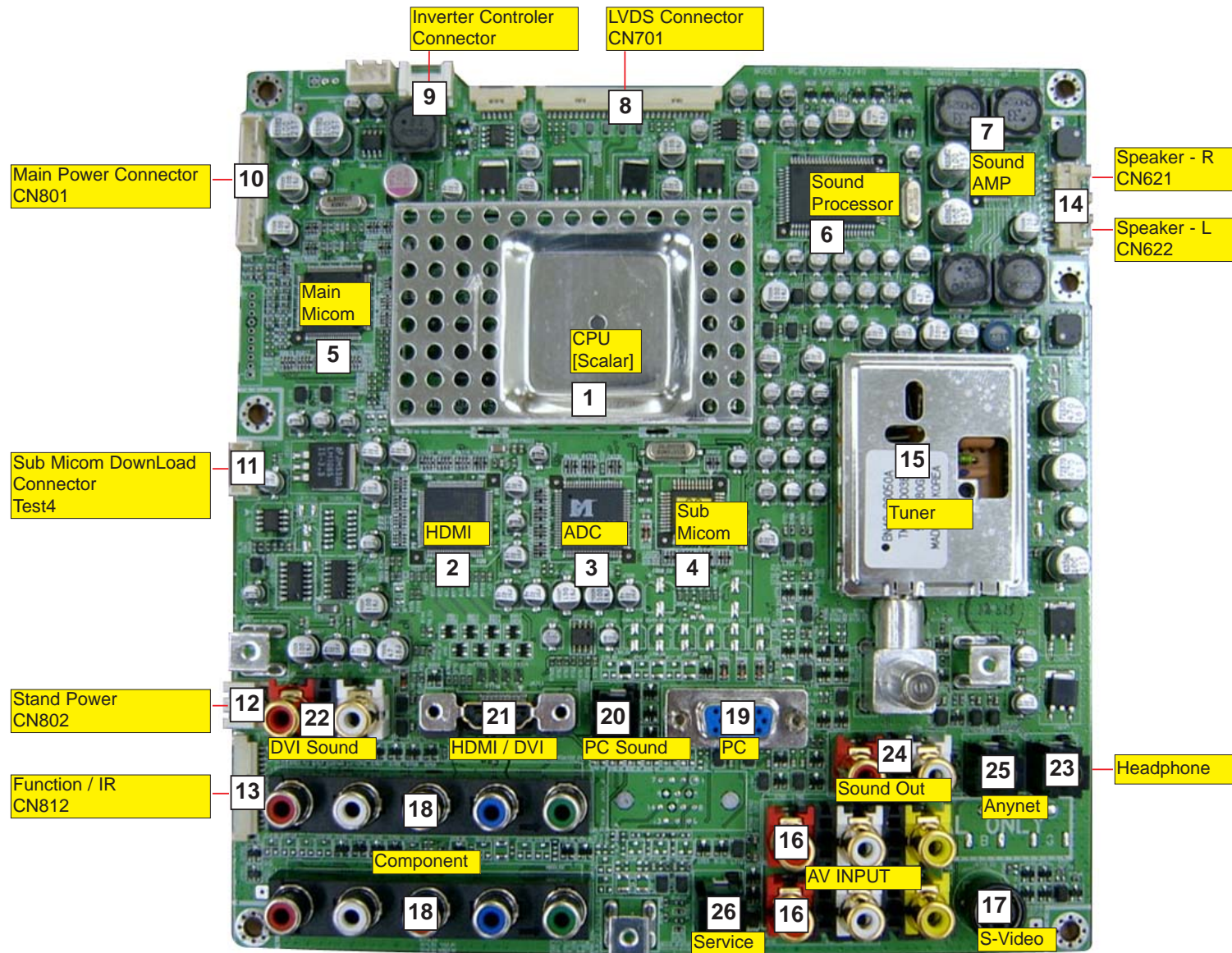
Using Your TV in Another Country

If you plan to take your TV with you to a foreign country, please be aware of the different television systems that are in use around the world. A TV designed for one system may not work properly with another system due to differences in the TV channel frequencies.

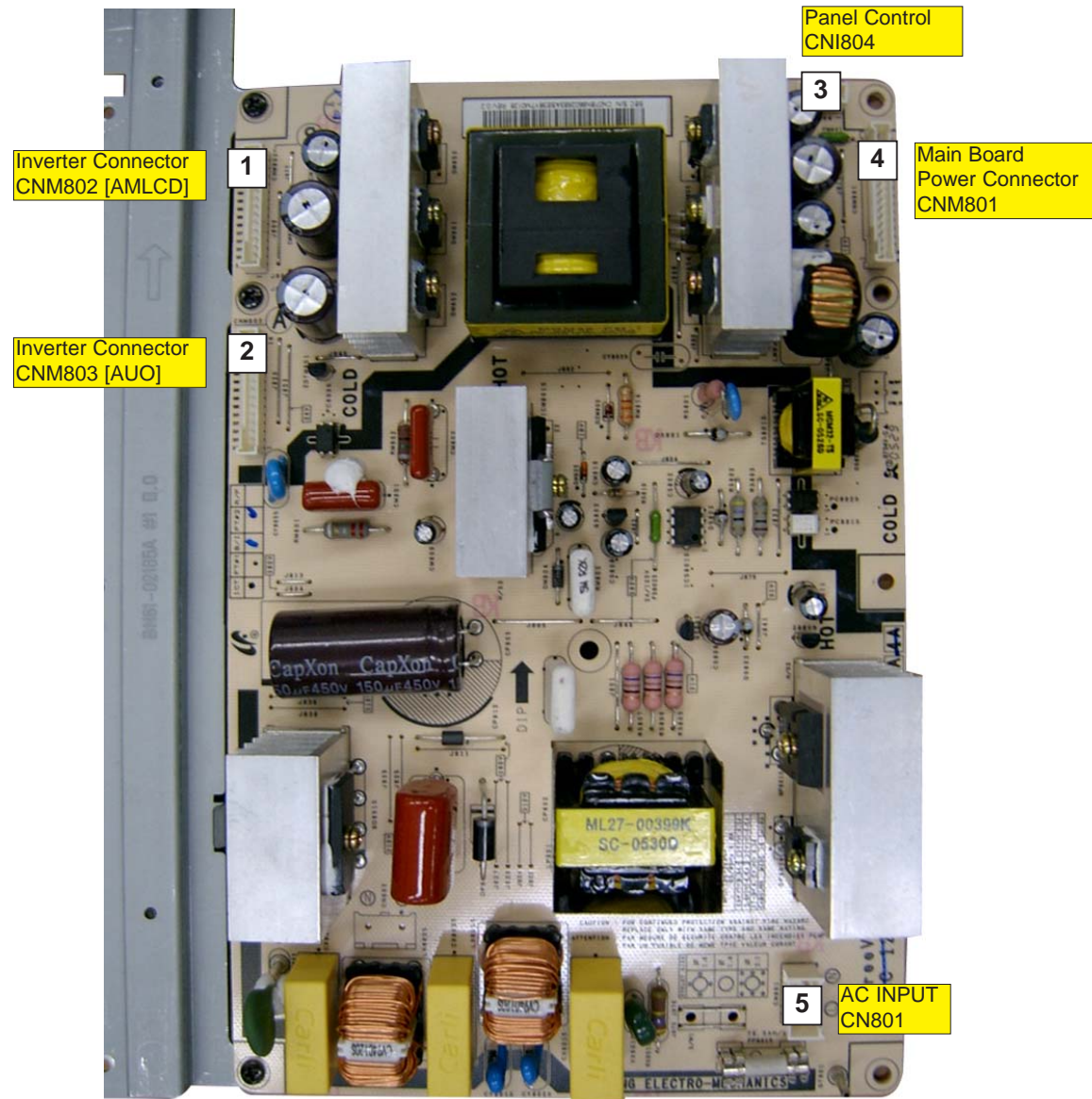
Memo

12 PCB Layout

12-1 Main PCB Layout



12-2 Power board



1 Precautions

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

1-1 Safety Precautions

1-1-1 Warnings

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

1-1-2 Servicing the LCD Monitor

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

1-1-3 Fire and Shock Hazard

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

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

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

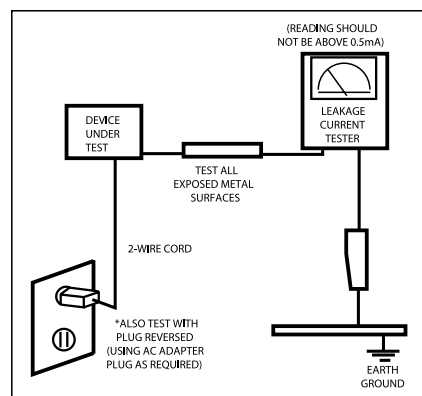



Figure 1-1. Leakage Current Test Circuit

4. With the unit completely reassembled, plug the AC line cord directly into a 120V AC outlet. With the unit's AC switch first in the ON position and then OFF, measure the current between a known earth ground (metal water pipe, conduit, etc.) and all exposed metal parts, including: metal cabinets, screwheads and control shafts. The current measured should not exceed 0.5 milliamp. Reverse the power-plug prongs in the AC outlet and repeat the test.

1-1-4 Product Safety Notices

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

1 Precautions

1-2 Servicing Precautions

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

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

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

1-2-1 General Servicing Precautions

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

1-3 Static Electricity Precautions

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

1. Immediately before handling any semiconductor components or assemblies, drain the electrostatic charge from your body by touching a known earth ground. Alternatively, wear a discharging wrist-strap device. To avoid a shock hazard, be sure to remove the wrist strap before applying power to the monitor.
2. After removing an ESD-equipped assembly, place it on a conductive surface such as aluminum foil to prevent accumulation of an electrostatic charge.
3. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ESDs.
4. Use only a grounded-tip soldering iron to solder or desolder ESDs.
5. Use only an anti-static solder removal device. Some solder removal devices not classified as anti-static can generate electrical charges sufficient to damage ESDs.
6. Do not remove a replacement ESD from its protective package until you are ready to install it. Most replacement ESDs are packaged with leads that are electrically shorted together by conductive foam, aluminum foil or other conductive materials.
7. Immediately before removing the protective material from the leads of a replacement ESD, touch the protective material to the chassis or circuit assembly into which the device will be installed.
Caution: Be sure no power is applied to the chassis or circuit and observe all other safety precautions.
8. Minimize body motions when handling unpackaged replacement ESDs. Motions such as brushing clothes together, or lifting your foot from a carpeted floor can generate enough static electricity to damage an ESD.

1-4 Installation Precautions

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

1 Precautions

Memo

2 Product specifications

2-1 Fashion Feature

- Excellent Picture Quality

DNle technology provides life-like clear images.

- My Color Control

Colors can be set to your preference by adjusting Blue, Green, Pink, Standard, Custom.

- 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.

2-2 LN32R51BX 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 ~ 61kHz(Automatic) / Vertical : 60 Hz ~ 75 Hz (Automatic)	
Display Colors	16,777,216 colors	
Maximum Resolution	Horizontal : 1360 Pixels Vertical : 768 Pixels	
Input Video Signal	Analog 0.7 Vp-p \pm 5% positive at 75 Ω , internally terminated	
Input Sync Signal	Type : Seperate H/V Level : TTL level	
Maximum Pixel Clock rate	80 MHz	
Active Display Horizontal/Vertical	697.68 mm / 392.26 mm	
AC power voltage & Frequency	AC100 ~ 240V, 50/60Hz	
Power Consumption	170 W	
Dimensions(W x D x H) Set	31.38 x 3.898 x 23.31 inches (797.0 x 99.0 x 592.0 mm) After installation Stand 31.38 x 9.80 x 25.62 inches (797.0 x 249.0 x 650.7 mm) Without stand	
Weight Set(After installation Stand)	39.02 lbs (17.7 kg)	
TV System	Tuning	Frequency Synthesize
	System	NTSC, PAL-M
	Sound	STEREO
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 : 10W / Left : 10W -BASS Control Range : -9 dB ~ + 9dB -TREBLE Control Range : -9 dB ~ +9 dB -Headphone Out : 10 mW MAX -Output Frequency : RF : 80 Hz ~ 15 kHz A/V : 80 Hz ~ 20 kHz	

2-3 Spec Comparison

Model	LN32A31B	LN32R51BX
Design		
Frequency Horizontal Vertical Display Color	30 ~ 61 kHz 56 ~ 75 Hz 16,777,216 colors	30 ~ 61 kHz 60 ~ 75 Hz 16,777,216 colors
PC Resolution Maximum mode	1280 x 768 / 60 Hz	1360 x 768 / 60 Hz
Input Signal Sync Signal Video Signal	H/V Separate, TTL, P. or N. 0.7 Vp-p @ 75ohm	H/V Separate, TTL, P. or N. 0.7 Vp-p @ 75ohm
Power Consumption Normal Power Saving	170W < 1W	170W < 1.5W

2-4 Option Specification

Item	Item Name	Code.No	Remark
	Remocon & Battery	BN59-00455A 4301-000121	
	Power Cord	3903-000020	
	Cleaning Cloth	BN63-001798A	
	Owner' s Instructions	BN68-00972A	
	Stand	BN96-01733A	
	Cover-Bottom	BN63-01674A	
	Screw(4EA)	6002-001294	
	CBF Signal-Stereo cable	BN39-00518B	

14 Reference Information

14-1 Technical Terms

-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 1920 x 1200 , this means the screen is composed of 1920 horizontal dots (horizontal resolution) and 1200 vertical lines (vertical resolution).

-A2

This system uses two carriers to transmit voice data. Countries such as South Korea and Germany use this system.

-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 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

14-2-2 S-Video

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

14-2-3 A/V

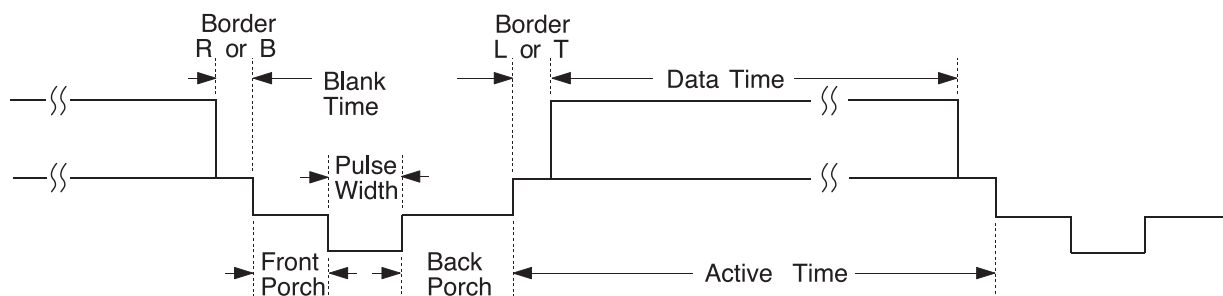
RCA Yellow	CVBS
RCA White	Audio L
	GND
RCA Red	Audio R
	GND

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

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



14-3-1 Supported Modes (1)

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

14-3-1 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	26.400μs	20.800μs	21.333μs
Activetime	20.000μs	16.000μs	16.162μs
Blank time	6.400μs	4.800μs	5.171μs
Border(L / R)	0.000μs	0.000μs	0.000μs
Data time	20.000μs	16.000μs	16.162μs
Front porch	1.000μs	1.120μs	0.323μs
Sync. width	3.200μs	2.400μs	1.616μs
Back porch	2.200μs	1.280μs	3.232μs
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

14-3-1 Supported Modes (3)

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	26.400μs	20.800μs	21.333 μs
Activetime	20.000μs	16.000μs	16.162 μs
Blank time	6.400 μs	4.800 μs	5.171 μs
Border(L / R)	0.000 μs	0.000 μs	0.000 μs
Data time	20.000μs	16.000μs	16.162 μs
Front porch	1.000 μs	1.120 μs	0.323 μs
Sync. width	3.200 μs	2.400 μs	1.616 μs
Back porch	2.200 μs	1.280 μs	3.232 μs
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

14-3-1 Supported Modes (4)

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

14-4 Preset Timing Modes

If the signal from the system equals the standard signal mode, the screen is adjusted automatically. If the signal from the system doesn't equal the standard signal mode, adjust the mode by referring to your video card user guide; otherwise there may be no video. For the display modes listed below, the screen image has been optimized during manufacture.

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	+ / +
	1360 X 768	47.712	60.015	85.800	+ / +
	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.

14-5 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

Maker	VENDOR P/N	PANEL_CODE	PANEL_ABB	STICKER_CODE	Remarks
SEC	LTM170EH-L05	BN07-00097A	EZ		LTM170E5-L05 Color Coordinates Change Panel Code
SEC	LTA400W1-L01	BN07-00109A	S1		PANEL of AMLCD 40" TV
SEC	LTM153W1-L01	BN07-00110A	S2		Color coordinates change 0.280/0.290, 10000k & ZPD Panel
SEC	LTM150XH-L06	BN07-00111A	S3		Color coordinates change 0.280/0.290, 10000k & ZPD Panel
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

14 Reference Infomation

Maker	VENDOR P/N	PANEL_CODE	PANEL_ABB	STICKER_CODE	Remarks
SEC	LTM190EX-L02	BN07-00191B	STZ		AMLCD 19" TN new Panel ZPD derivation
SEC	LTA230W1-L02	BN07-00184A	SPZ		AMLCD 23" 16:9 new Panel
SEC	LTA260W2-L01	BN07-00185A	SPZ		AMLCD 26" 16:9 new Panel
SEC	LTM240M1-L01	BN07-00195A	SPH		24" panel with high brightness development
SEC	LTA400W2-L01	BN07-00186A	SPZ		AMLCD 40" 16:9 new Panel
SEC	LTM150XO-L01	BN07-00197A	STH		AMLCD 15" XO-L01 Pb free panel code
SEC	LTM150XO-L01	BN07-00197B	STZ		AMLCD 15" XO-L01 Pb free panel ZPD code
SEC	LTM170EU-L21	BN07-00202A	STZ		AMLCD EU-L21 ZPD new code derivation
SEC	LTA460W2-L03	BN07-00187A	SPZ		BEETOVEN 46"ZPD new panel
SEC	LTM240M1-L01	BN07-00195B	SPZ		24" igh brightness panel ZPD code derivation
SEC	M170EX-L21	BN07-00206A	STZ		AMLCD LTM170EX-L21 ZPD new code derivation
SEC	LTA460H3-L01	BN07-00200A	SPZ		AMLCD 46" LED BLU panel
SEC	LTM170EU-L15	BN07-00214A	STZ		AMLCD EU-L15 TV high brightness ZPD new code derivation
SEC	LTM170E8-L21	BN07-00218A	SPZ		AMLCD LTM170E8-L21 PVA ZPD new code derivation
SEC	LTM190EX-L21	BN07-00222A	STZ		DISPLAY LCD
SEC	LTM201U1-L01	BN07-00190B	SPZ		AMLCD 20.1" Normal panel ZPD code derivation
SEC	LTM190E4-L21	BN07-00223A	SPZ		HAYDN 17" PZD code PANEL derivation
SEC	LTA570H1-L01	BN07-00196A	SPZ		AMLCD 57" new panel development
SEC	LTM150XO-L21	BN07-00229A	STZ		AMLCD 15" XO-L21 8ms panel code
SEC	LTA260W2-L11	BN07-00239A	SPZ		AMLCD 26" 16:9 7Line new Panel
SEC	LTA400WS-LH1	BN07-00245A	SPZ		AMLCD 40" 16:9 SPVA 90% new Panel
SEC	LTM213U6-L01	BN07-00231A	SPZ		AMLCD 21.3" PVA new Panel Code
SEC	LTA320WS-LH2	BN07-00244A	SPZ		AMLCD 32" 16:9 SPVA 90% new Panel
SEC	LTA400WS-LH1	BN07-00245A	SPZ		AMLCD 40" 16:9 SPVA 90% new Panel
CPT	CLAA150XG09	BN07-00141A	PA		"CPT 15"" Monitor new panel development"
CPT	CLAA170EA02	BN07-00148A	PB		"17"" CPT NEW development panel"
CPT	CLAA170EA02	BN07-00148B	PC		"17"" CPT ZPD panel code derivation"
CPT	CLAA150XG09	BN07-00141B	PTZ		"CPT 15"" panel ZPD code derivation (GOYA-PJT)"
CPT	CLAA150XP01	BN07-00173A	PTH		CPT 15" PSWG code derivation
CPT	CLAA150XP01	BN07-00173B	PTZ		CPT 15" PSWG panel ZPD code
CPT	CLAA170EA07	BN07-00174A	PTH		"CPT 17"" PSWG panel code derivation
CPT	CLAA170EA07	BN07-00174B	PTZ		CPT 17"" PSWG type new Panel code""
CPT	CLAA170EA07	BN07-00174B	PTZ		CPT 17" PSWG type new Panel code
CPT	CLAA170EA07Q	BN07-00220A	PTZ		CPT 17" PSWG R/T 8msec code derivation
CPT	CLAA170EA07Q	BN07-00220B	PTH		CPT 17" PSWG R/T 8msec HPD code derivation
CPT	CLAA150XP01F	BN07-00236A	PTZ		CPT 15" PSWG panel ZPD & Lead free code derivation
TOSHIBA	LTM15C419(A)	BN07-00002A	TA		-
TOSHIBA	LTM15C423(B)	BN07-00006A	TB		-
TOSHIBA	LTM18C161	BN07-00008A	TC		-
TOSHIBA	LTM15C443	BN07-00031A	TD		-
TOSHIBA	LTM15C458	BN07-00043A	TE		-
TOSHIBA	LTM15C458S	BN07-00077A	TF		"TSB 15"" high brightness Panel"
TOSHIBA	LTM15C458	BN07-00078A	TG		Toshiba ZPD panel
TOSHIBA	LTM15C458S	BN07-00099A	TH		TSB LTM15C458S (ZPD)
HANNSTAR	HSD150MX41A(A)	BN07-00020A	NA		"TTL type"
HANNSTAR	HSD150MX12	BN07-00030A	NB		"TTL type"

Maker	VENDOR P/N	PANEL_CODE	PANEL_ABB	STICKER_CODE	Remarks
HANNSTAR	HSD170ME13	BN07-00180A	NTH		Hannstar 17" TN new panel development
HANNSTAR	HSD170ME13	BN07-00180B	NTZ		Hannstar 17" TN new panel development ZPD code derivation
HANNSTAR	HSD190ME12	BN07-00210A	NTZ		Hannstar 19" TN new panel development
HANNSTAR	HSD150MX17-A	BN07-00226A	NTZ		Hannstar 15" slim panel ZPD code derivation
TORISAN	TM150XG-22L03(A)	BN07-00021A	RA		-
TORISAN	TM150XG-26L06	BN07-00042A	RB		-
TORISAN	TM181SX-76N01	BN07-00048A	RC		-
TORISAN	TM150XG-26L06	BN07-00059A	RD		15" XGA TN MODE(ZPD)
TORISAN	TM290WX-71N31	BN07-00063A	RE		"RS24NS (TORISAN 29"" NEW PANEL)"
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 "

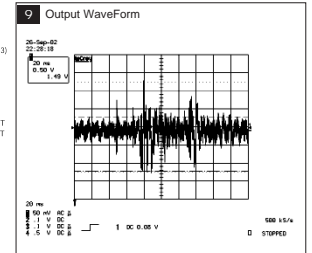
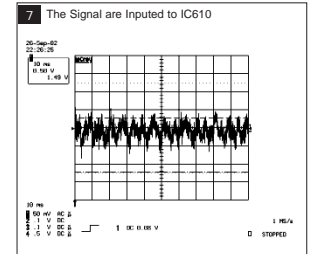
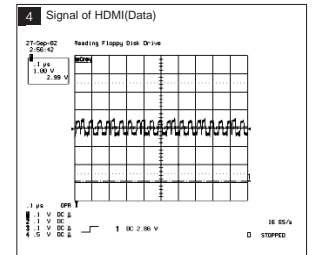
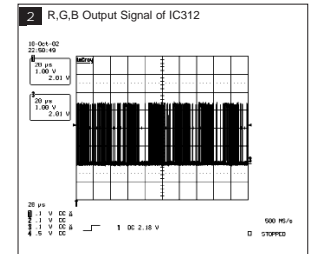
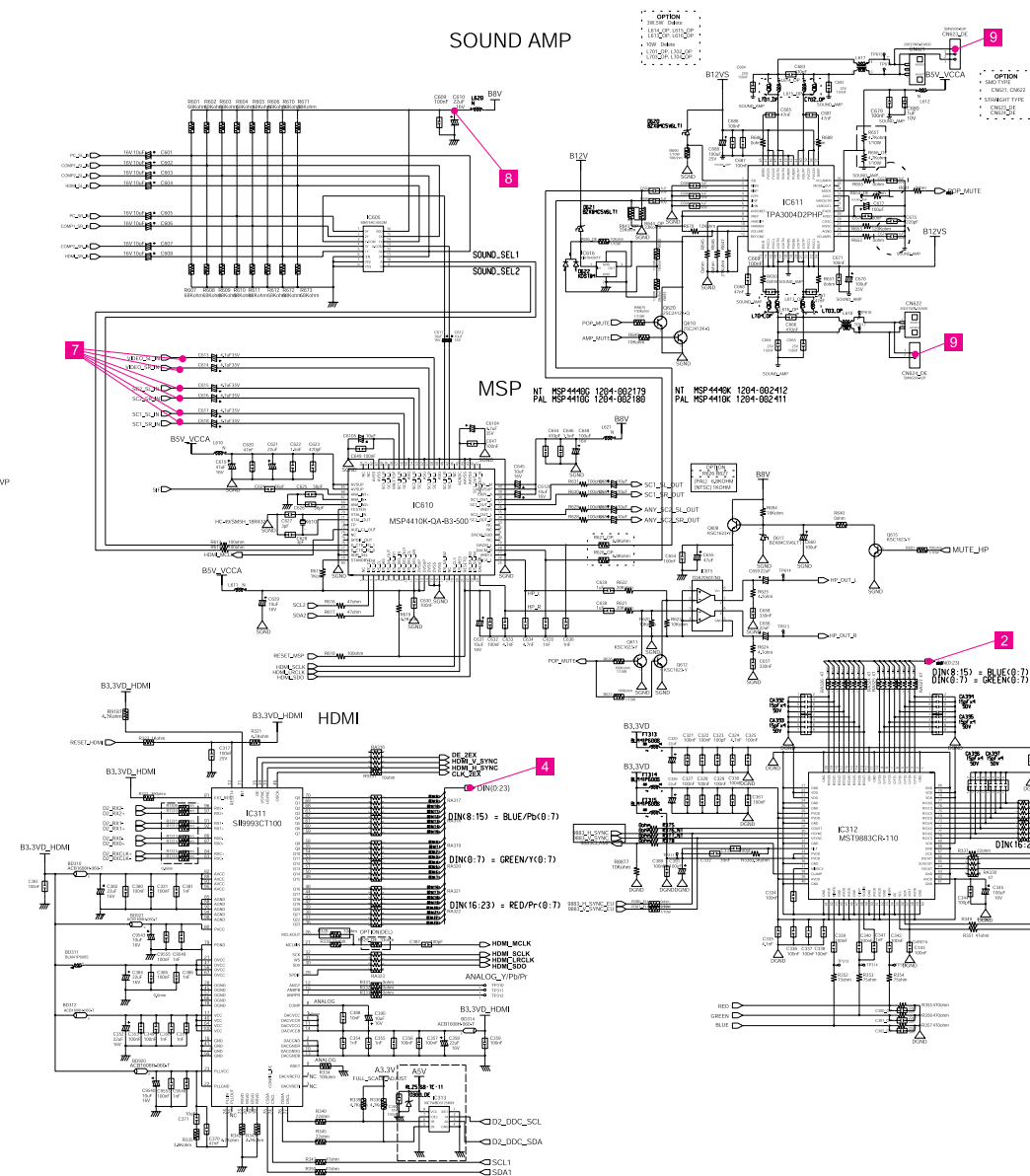
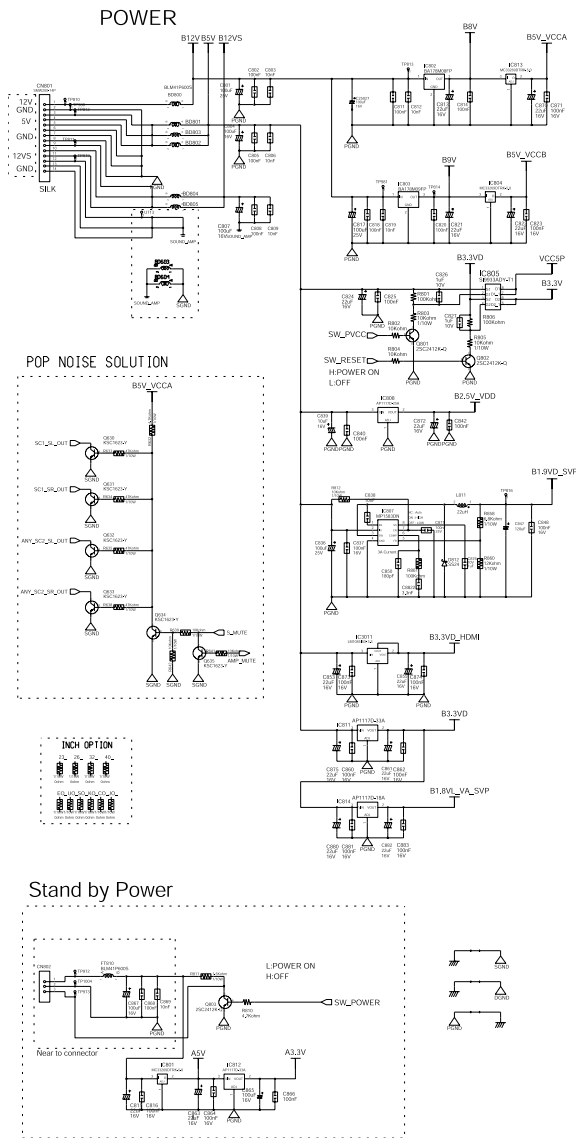
14 Reference Infomation

Maker	VENDOR P/N	PANEL_CODE	PANEL_ABB	STICKER_CODE	Remarks
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)
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"1 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

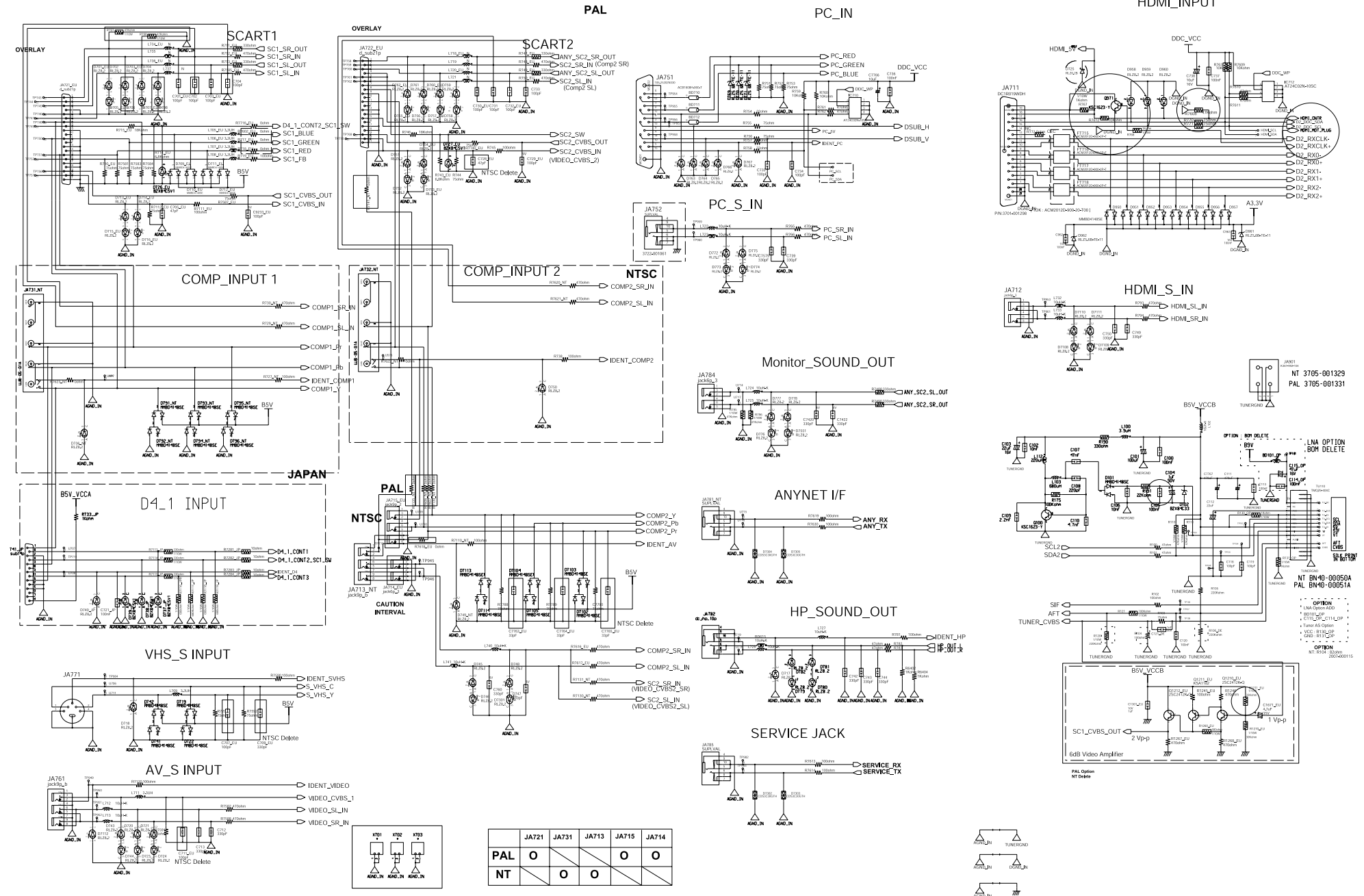
9 Schematic Diagrams

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9-1 Power_Sound Process Schematic Diagram

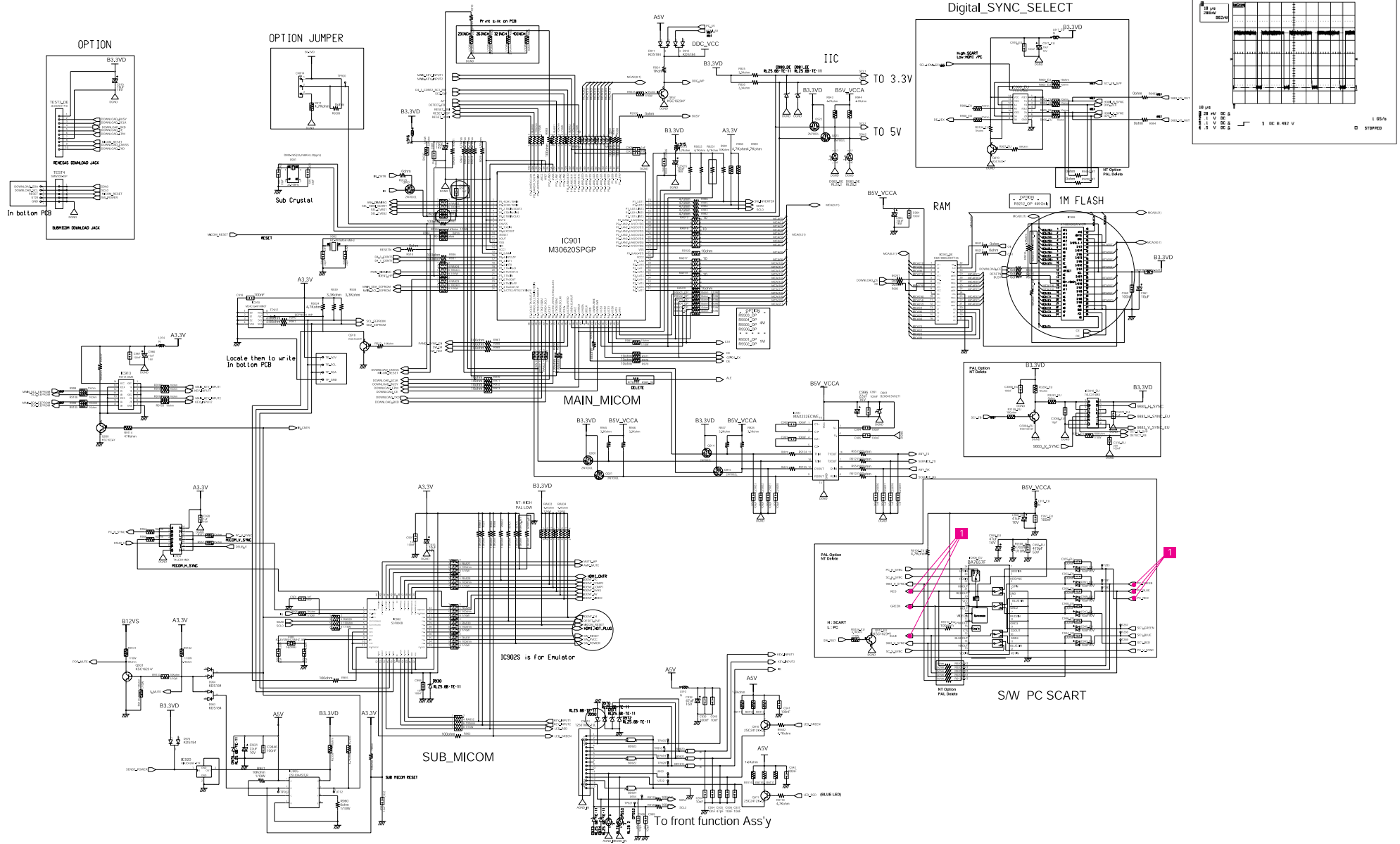


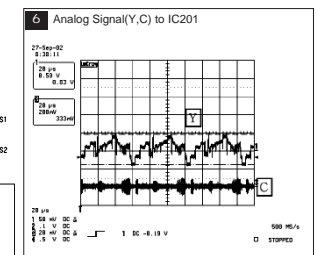
9-2 In_Out_Jack Schematic Diagram



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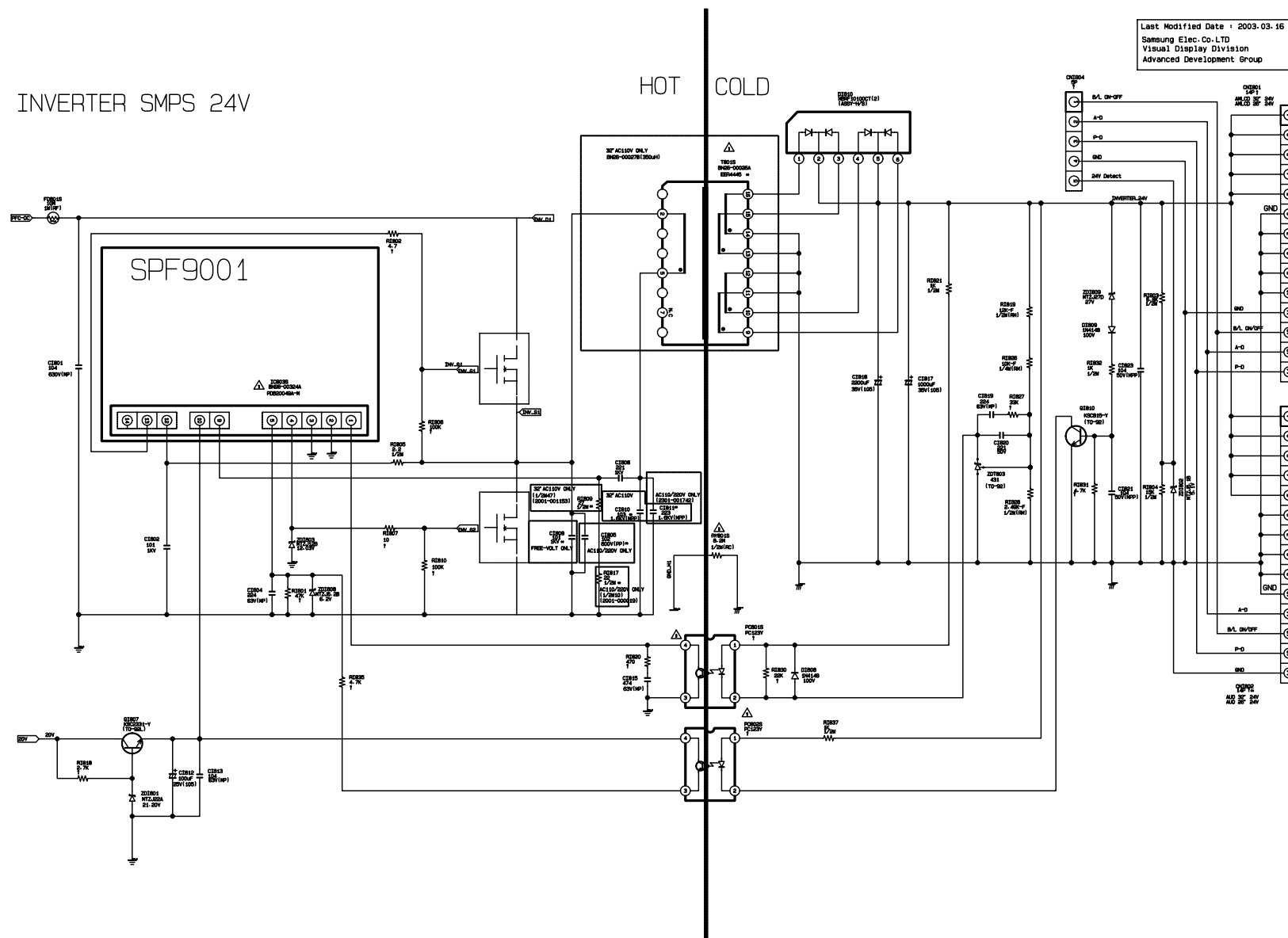
9-3 MICOM Schematic Diagram





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9-5 MAIN POWER 1_INVERTER Schematic Diagram

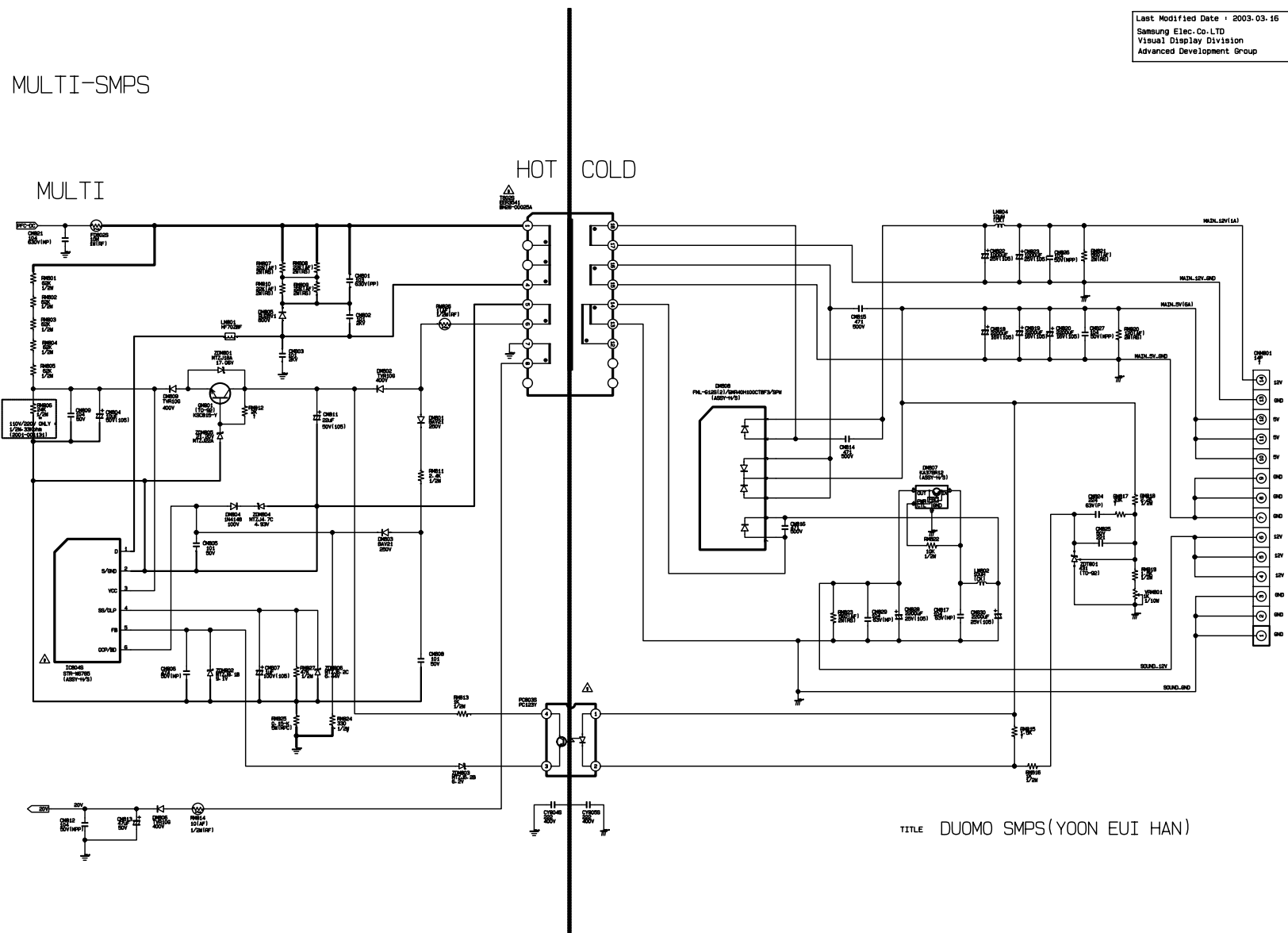


PFC-CONTROL SMPS



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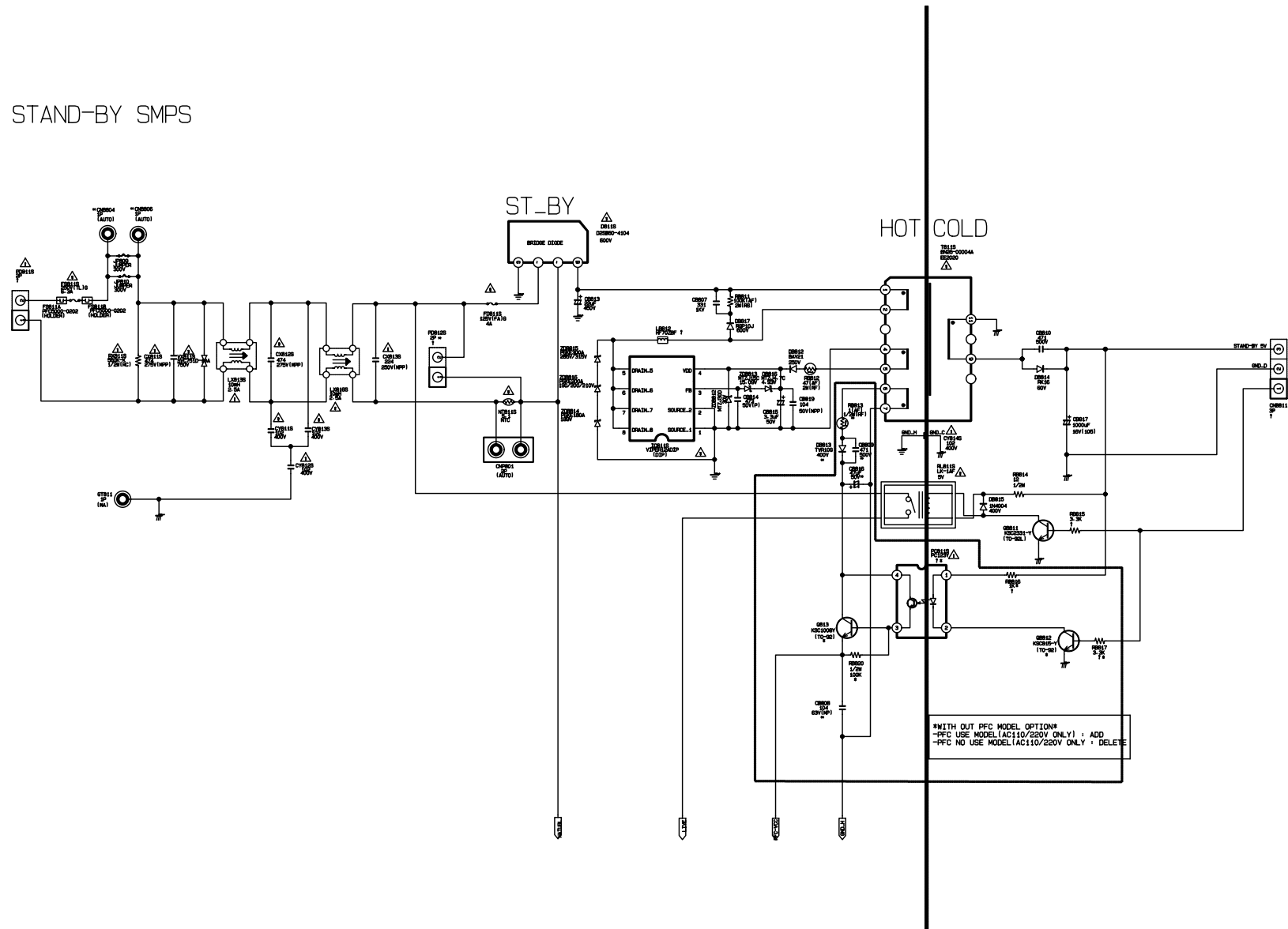
9-7 MAIN POWER 3_MULTI Schematic Diagram



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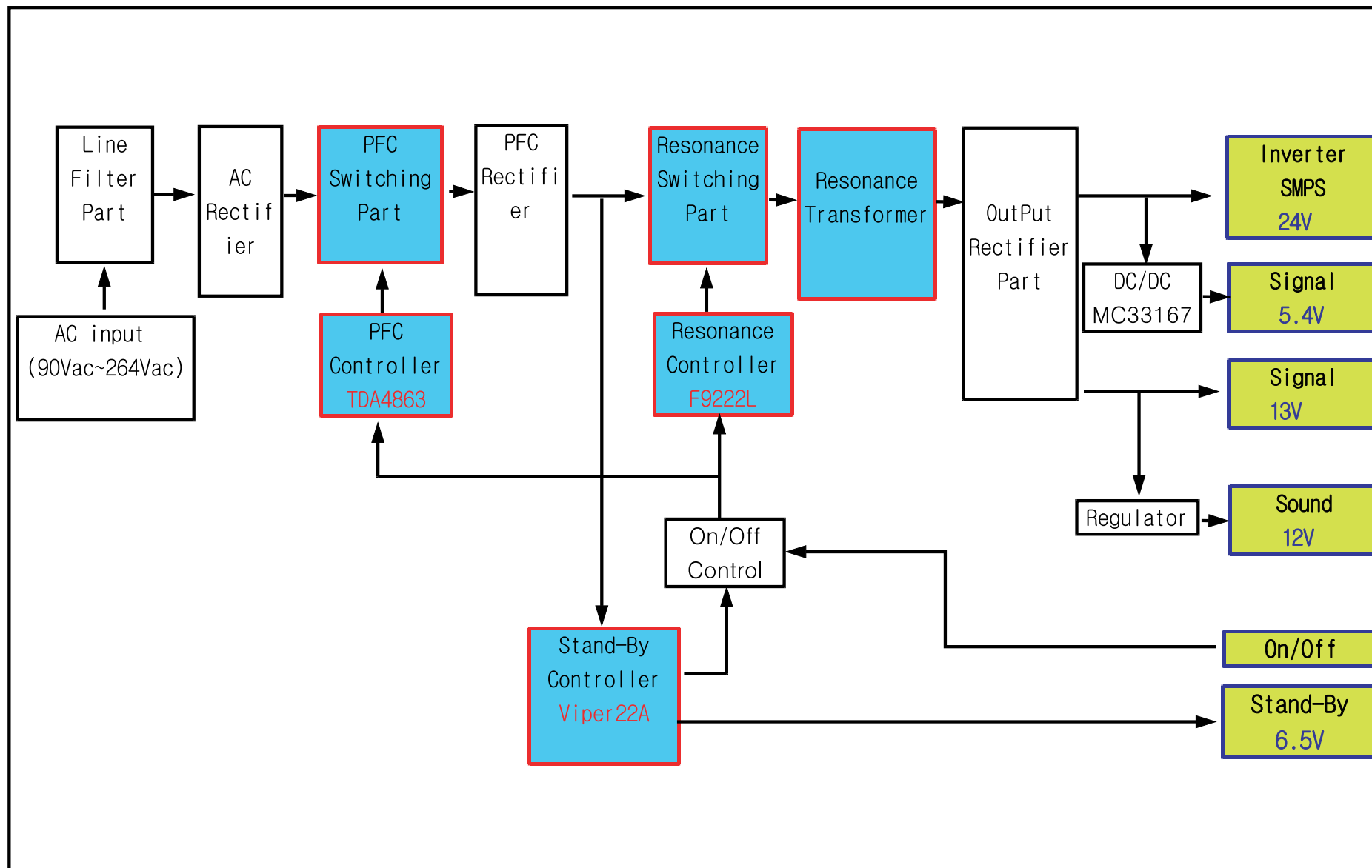
9-8 SUB POWER Schematic Diagram

STAND-BY SMPS



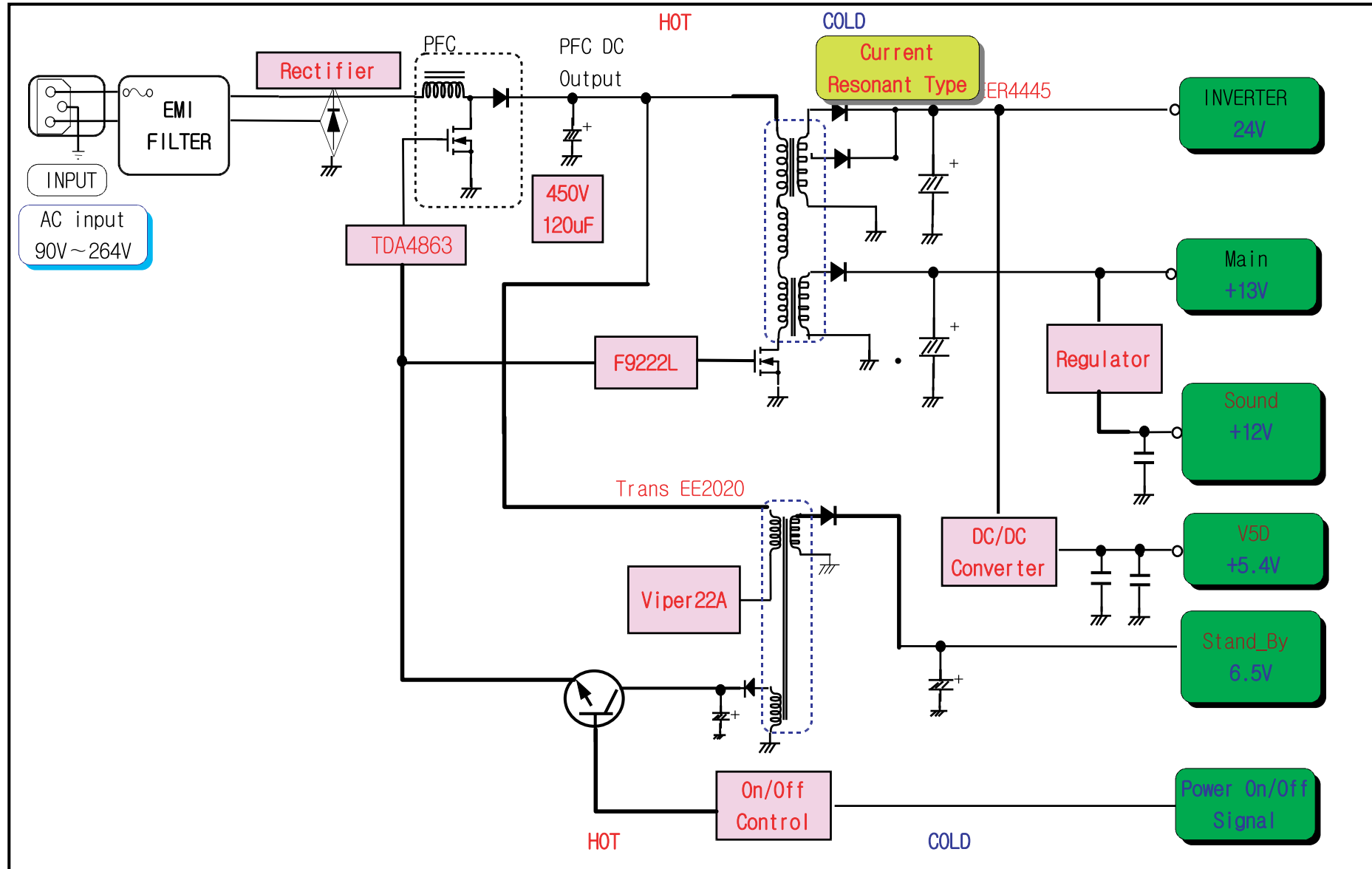
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9-9 32" SMPS Block(Free_Volt)



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9-10 32" SMPS Diagram(Free_Volt)



Output Name	Output Voltage			Output Current				Load Characteristics	PCB Loc.	Usage	Remark
	Nominal	Regulation (%)	Variable Range	Min	Typical	Peak					
24V	24.5V	± 4	23.52V ~ 25.48V	0.1A	5.0A	8.0A		Pulsating	Main B'D	Drive	–
5.4V	5.4V	± 5	5.13V ~ 5.67V	0.1A	4.0A	5.0A		Constant	Main B'D	Drive, Logic, Buffer, Image Digital	–
13V	12.7V	± 7	11.9V ~13.7V	0.01A	0.3A	0.5A		Constant	Main B'D	Image Analog	–
Vamp	12.0V	± 4	11.52V ~ 12.5V	0.01A	0.5A	2.5A		Constant	Main B'D	Sound	–
ST-BY	8.0V		5.58V ~ 8.5V	0.1A	0.3A	0.6A		Constant	Main B'D	Stand-by	–

Memo

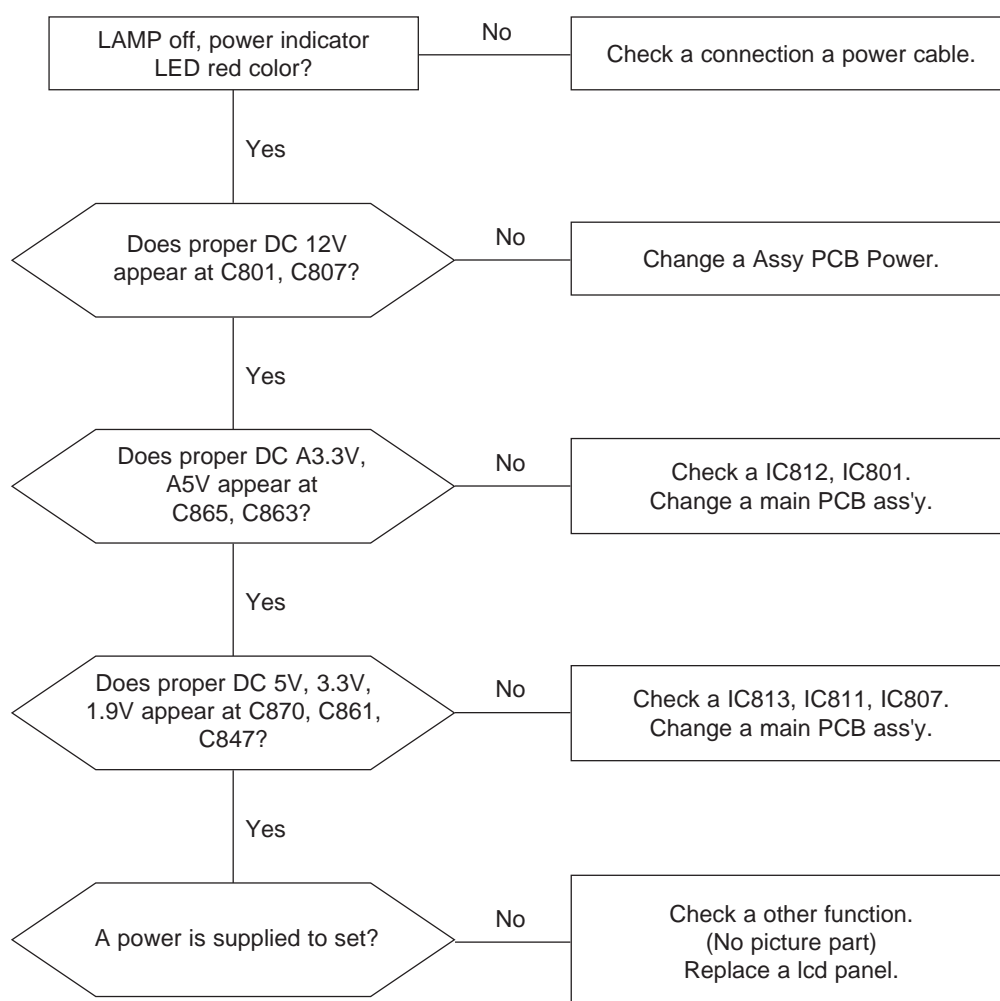
4 Troubleshooting

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 Video Board.
3. Check the voltage in and out between the SMPS ↔ Video Board, between the SMPS ↔ X, Y Drive Board, and between the Logic Boards.

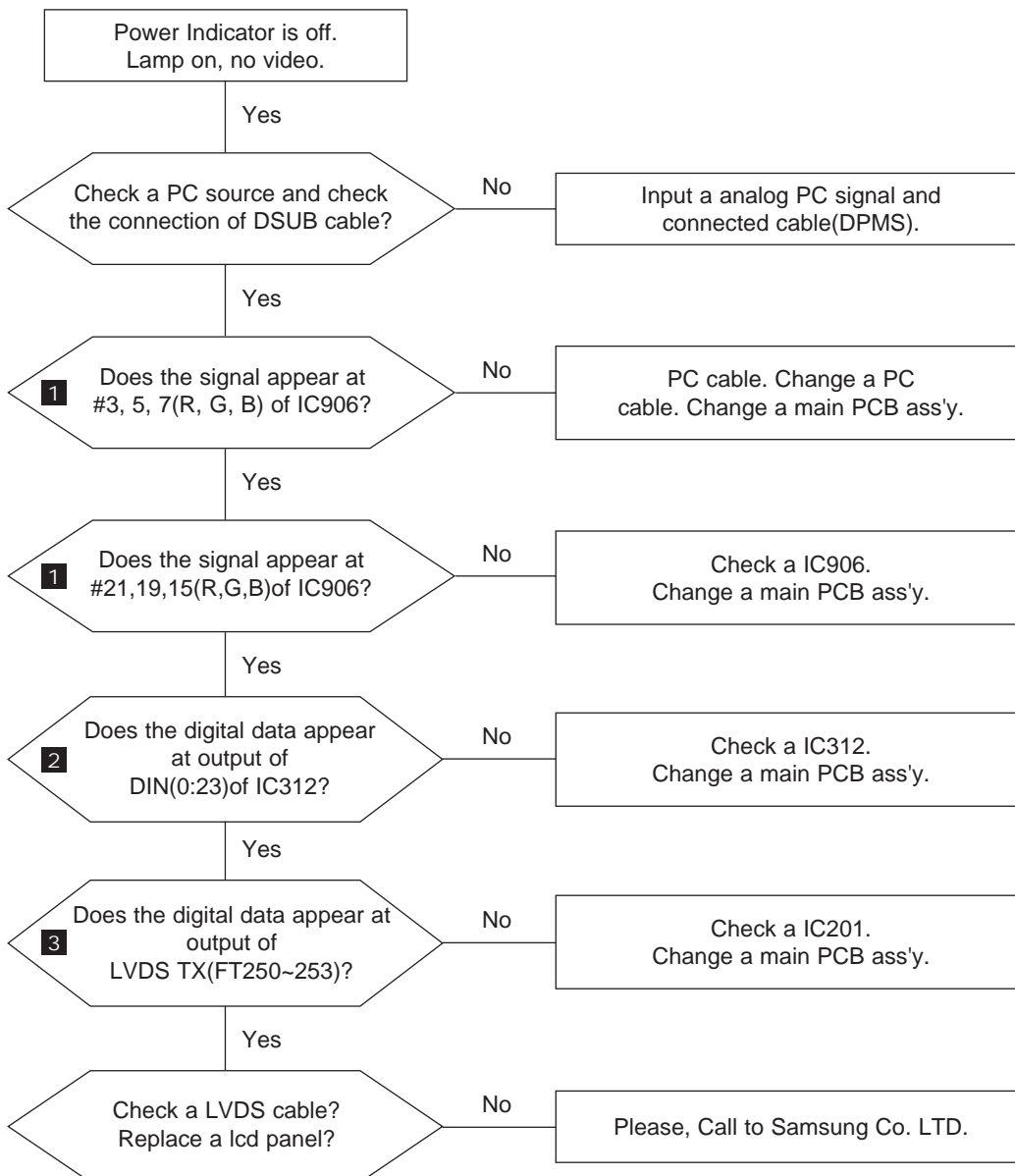
4-2 Checkpoints by Error Mode

4-2-1 No Power



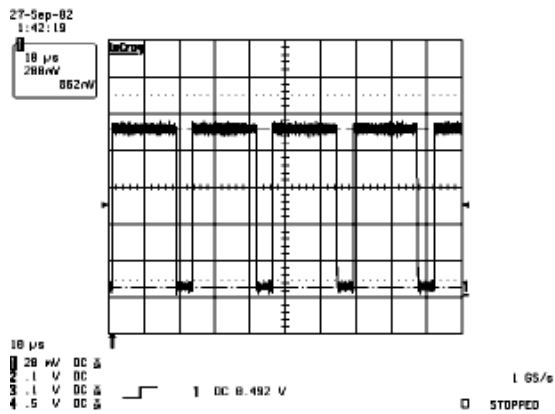
4 Troubleshooting

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

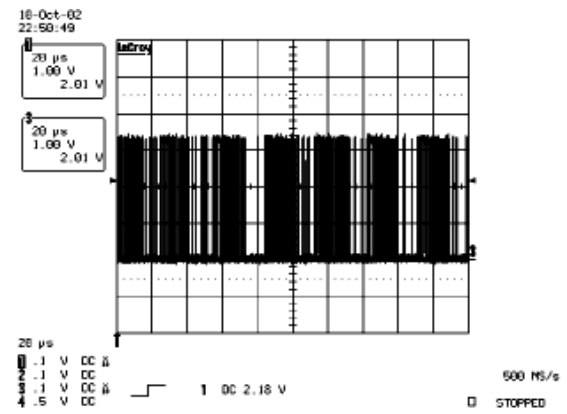


WAVEFORMS

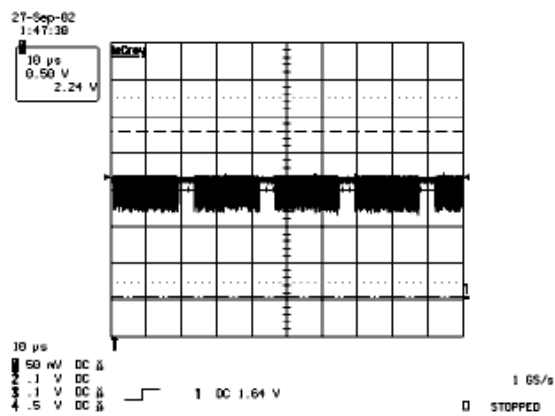
1 R,G,B Output Signal of IC906



2 R,G,B Output Signal of IC312

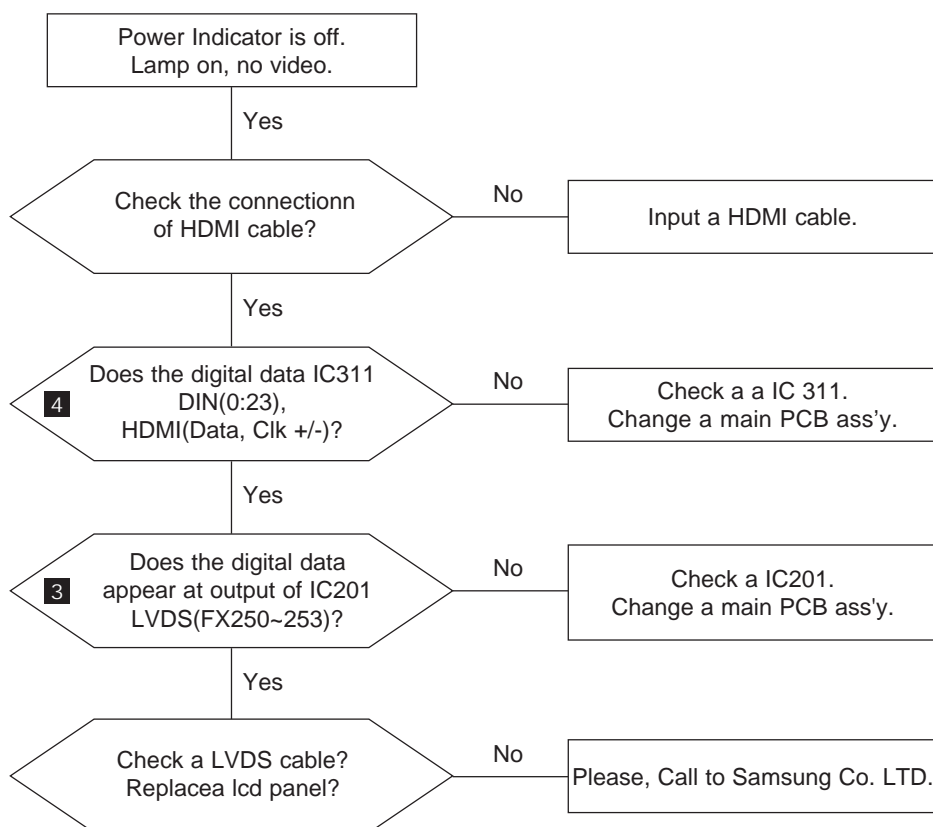


3 Digital Output Data of IC201



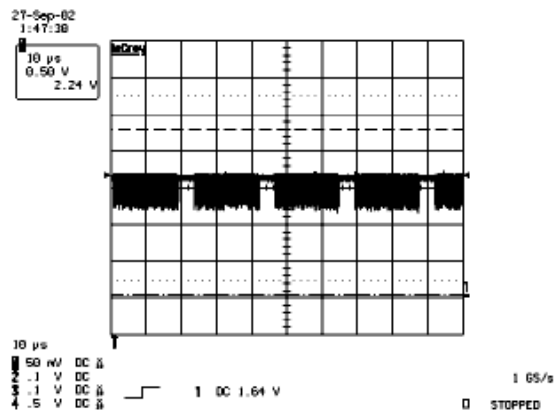
4 Troubleshooting

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

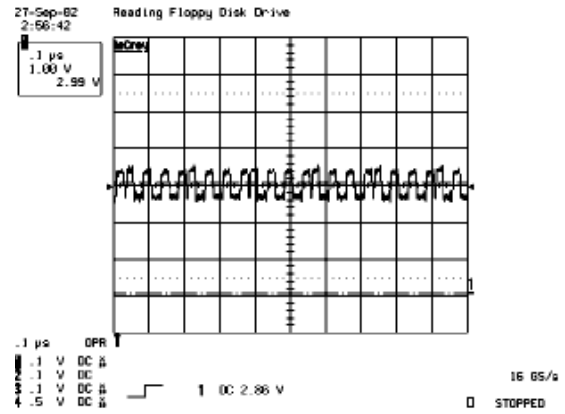


WAVEFORMS

3 Digital Output Data of IC201

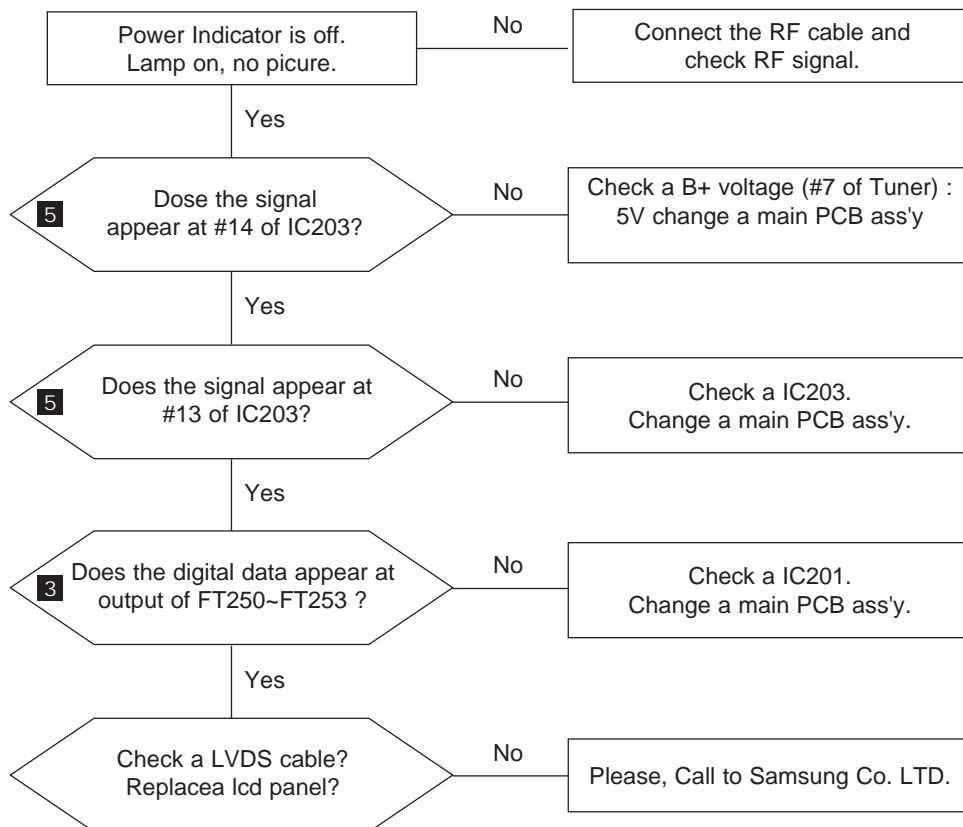


4 Signal of HDMI(Data)



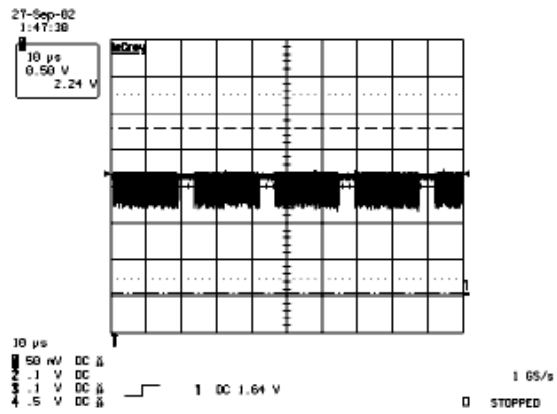
4 Troubleshooting

4-2-4 No Picture (Tuner_CVBS)

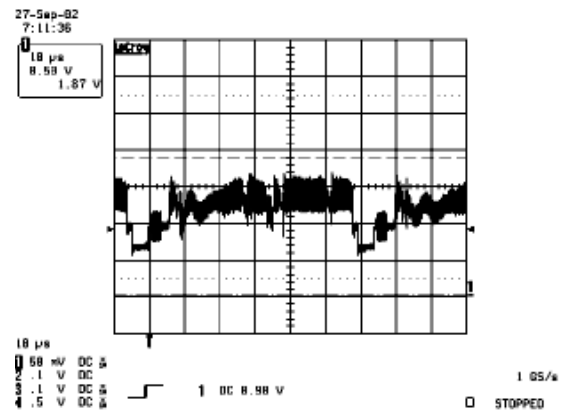


WAVEFORMS

3 Digital Output Data of IC201

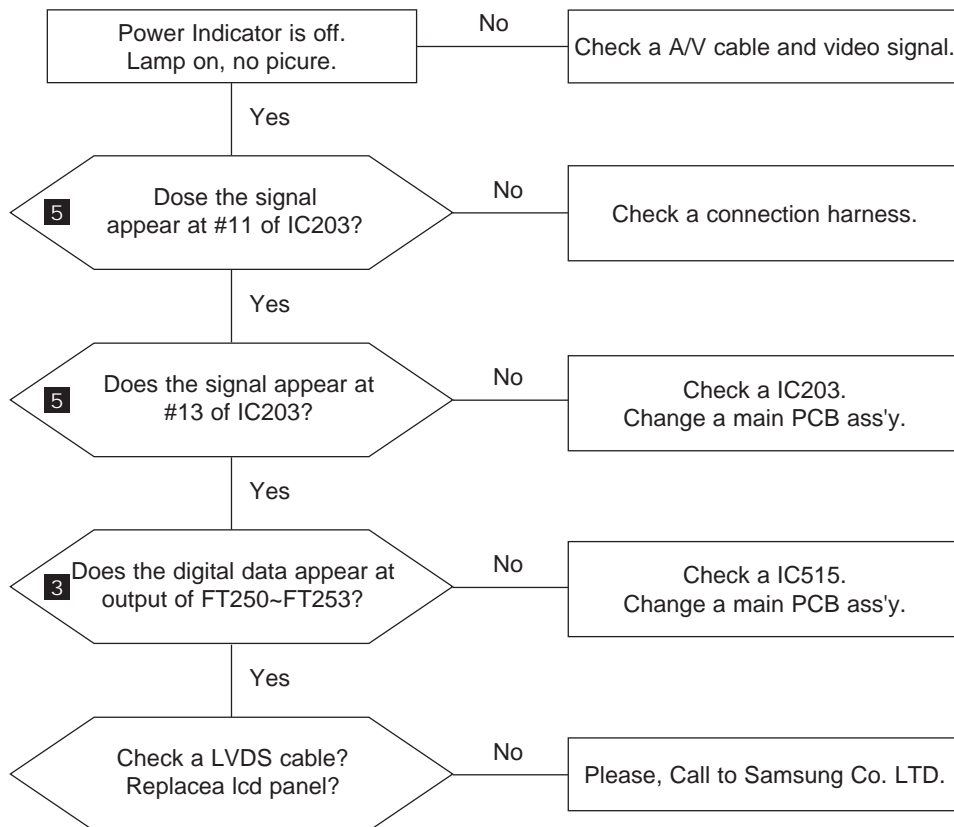


5 Tuner_CVBS Output Signal



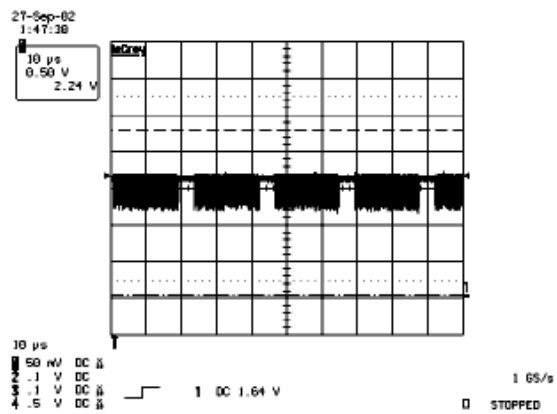
4 Troubleshooting

4-2-5 No Picture (Video_CVBS)

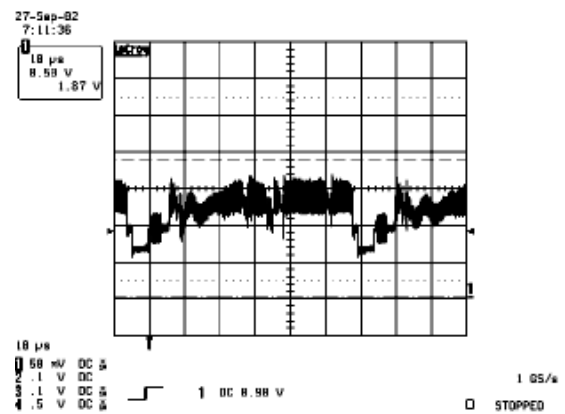


WAVEFORMS

3 Digital Output Data of IC515

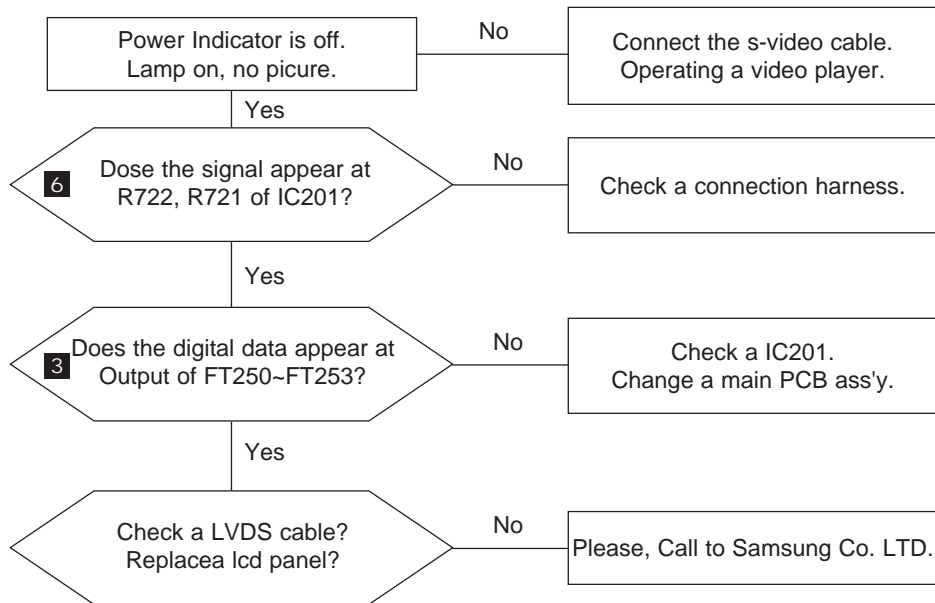


5 Tuner_CVBS Output Signal



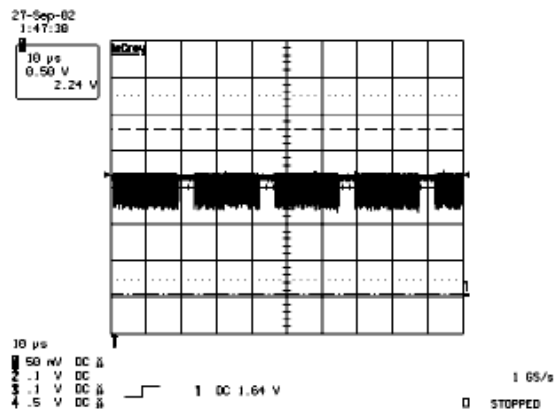
4 Troubleshooting

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

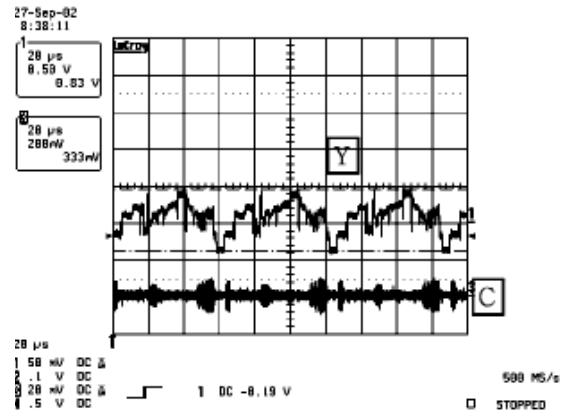


WAVEFORMS

3 Digital Output Data of IC201

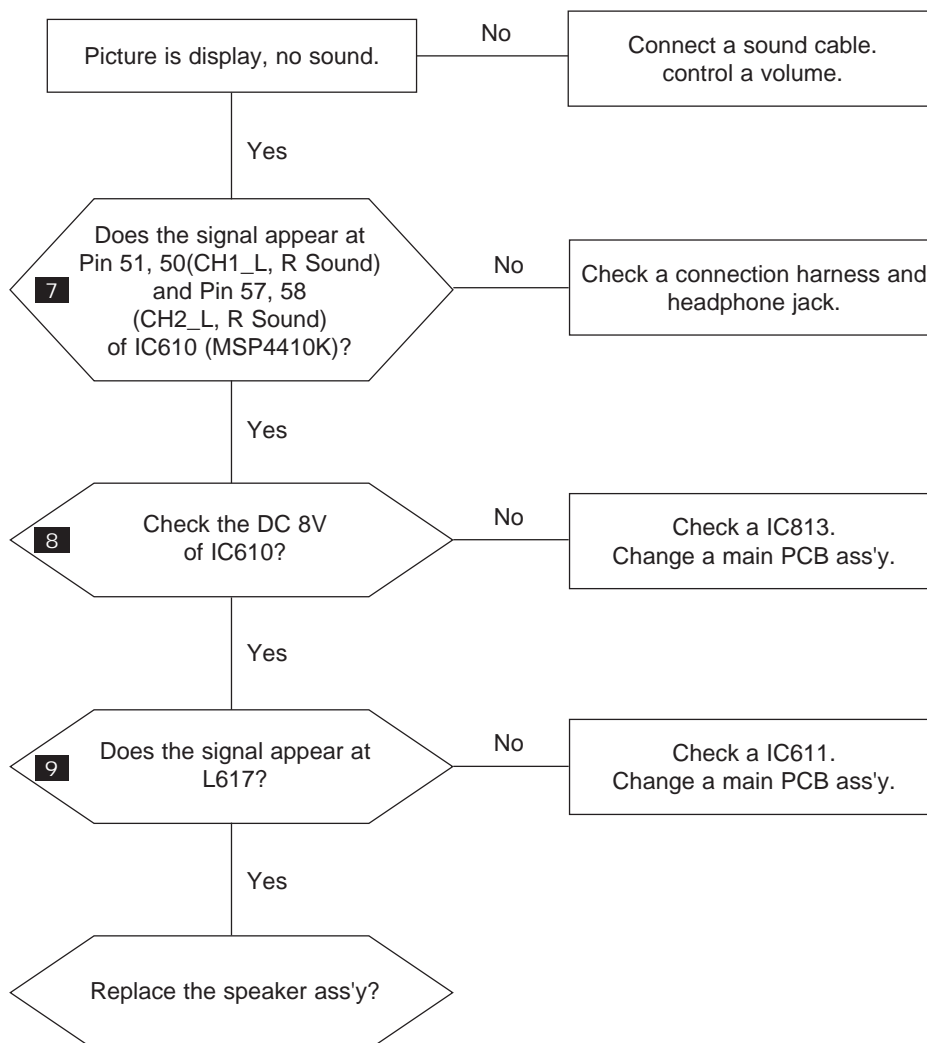


6 Analog Signal(Y,C) to IC201



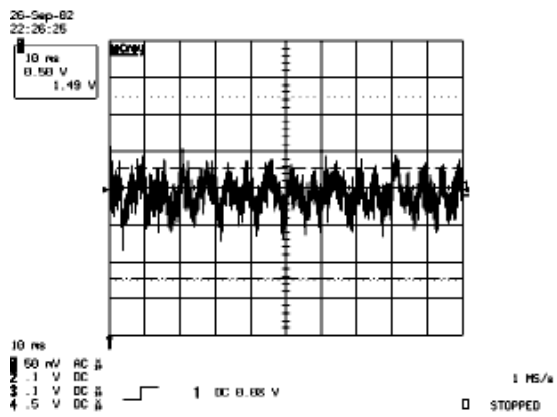
4 Troubleshooting

4-2-7 No Sound

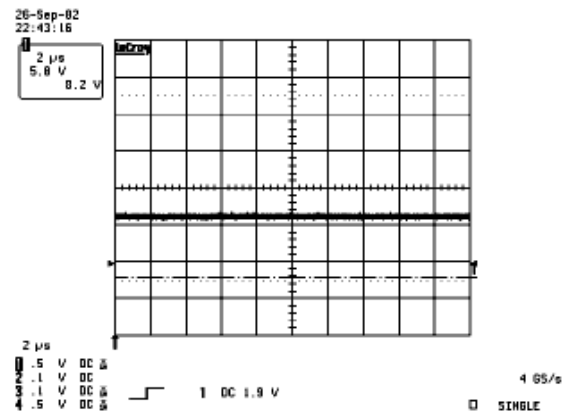


WAVEFORMS

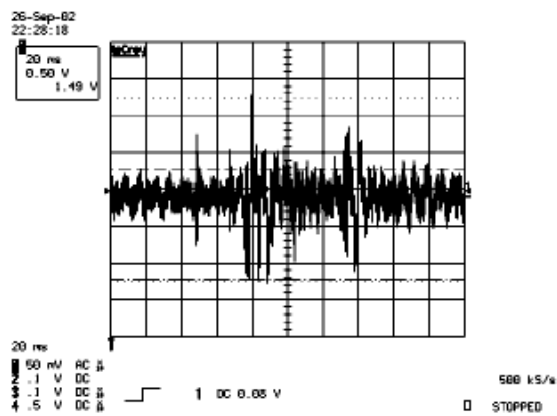
7 The Signal are Inputed to IC610



8 DC +8V



9 Output WaveForm



Memo



Memo