

SAMSUNG

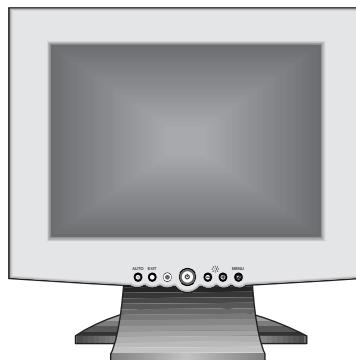
COLOR MONITOR

SyncMaster 570B TFT (CN15MS*)

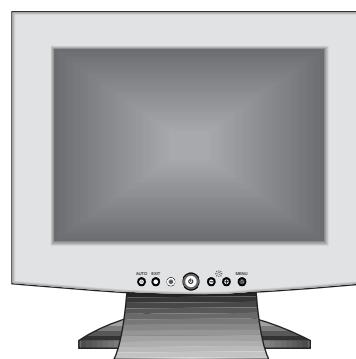
SyncMaster 580B TFT (CN15MO*)

SERVICE Manual

COLOR MONITOR



SyncMaster 570B TFT



SyncMaster 580B TFT

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1 Precautions

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

1-1 Safety Precautions

1-1-1 Warnings

1. For continued safety, do not attempt to modify the circuit board.
2. Disconnect the AC power and DC Power Jack before servicing.
3. When the chassis is operating, semiconductor heatsinks are potential shock hazards.

1-1-2 Servicing the LCD Monitor

1. When servicing the LCD Monitor, remove the static charge by connecting a 10k ohm resistor in series with an insulated wire (such as a test probe) between the chassis and the anode lead. (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*).

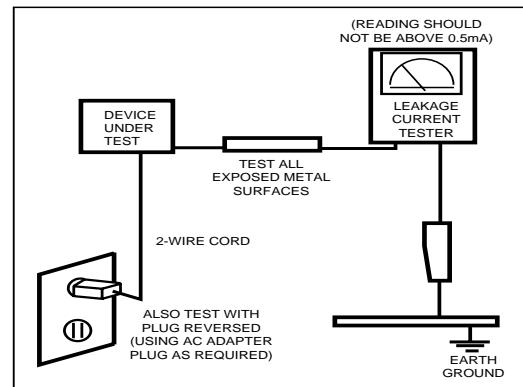


Figure 1-1. Leakage Current Test Circuit

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 Δ 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.

1-2 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 Electrostatically Sensitive Devices (ESD) 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 devices 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.
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.

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

2 Product Specifications

2-1 Specifications

Item	Description
LCD Panel	TFT-LCD panel, RGB vertical stripe, normally white, 15-Inch viewable, 0.297 (H) x 0.297 (V) pixel pitch
Scanning Frequency	Horizontal : 30 kHz to 61 kHz (Automatic) Vertical : 50 Hz to 75 Hz (Automatic)
Display Colors	16,003,008 colors
Maximum Resolution	Horizontal : 1024 Pixels Vertical : 768 Pixels
Input Video Signal	Analog, 0.714 Vp-p ± 5% positive at 75 Ω, internally terminated
Input Sync Signal	Type: Separate H/V sync, Composite H/V, Sync-on-Green, automatic synchronization without external switch of sync type Level: TTL level
Maximum Pixel Clock rate	80 MHz
Active Display Horizontal/Vertical	304.1 mm / 228.1 mm
AC power voltage & Frequency	AC 90 to 264 Volts, 60/50 Hz to 12V/3A
Power Consumption	25 W (normal)
Dimensions / Unit Weight / incl.Carton Unit (W x D x H) with: Standard base MultiMedia base Pivot MM base Angle Pivot base Wire-frame base Carton (W x D x H)	385.4 x 364.7 x 173 mm / 5.20kg / 8.4kg 385.4 x 406.2 x 179 mm / 5.95kg / 9.6kg 385.4 x 406.2 x 179 mm / 5.95kg / 9.6kg 385.4 x 431.6 x 179.9 mm / 6.6kg / 9.8kg 385.4 x 339.2 x 79.7 mm / 4.4kg / 7.6kg 500 x 260 x 457 mm
Environmental Considerations	Operating Temperature : 50 °F to 104 °F (10 °C to 40 °C) Humidity : 10 % to 80 % Storage Temperature : 13 °F to 113 °F (-25 °C to 45 °C) Humidity : 5 % to 95 %
Audio Characteristics	<ul style="list-style-type: none"> • Built-in Microphone: High-sensitivity condenser microphone (mono) • Audio input: Left/Right Stereo phone jack, 0.5 Vrms • Sound output: 1.0 W (left) + 1.0 W (right)/THD 1% at 8ohm • Frequency response: 80 Hz-20 kHz (at -3dB) • Headphone: Max 50mW output (3.5-mm jack) • Speaker: Internal semi Dome (16ohm x 2)

2-2 Pin Assignments

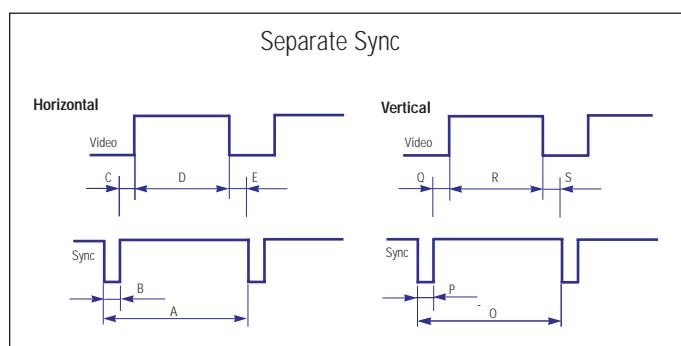
Pin No.	Sync Type	15-Pin Signal Cable Connector		
		Separate	Composite	Sync-on-green
1	Red	Red	Red	Red
2	Green	Green	Green	Green + H/V Sync
3	Blue	Blue	Blue	Blue
4	GND	GND	GND	GND
5	GND (DDC Return)	GND (DDC Return)	GND (DDC Return)	GND (DDC Return)
6	GND-R	GND-R	GND-R	GND-R
7	GND-G	GND-G	GND-G	GND-G
8	GND-B	GND-B	GND-B	GND-B
9	No Connection	No Connection	No Connection	Not Used
10	GND-Sync/Self Test	GND-Sync/Self Test	GND-Sync/Self Test	GND-Sync/Self Test
11	GND	GND	GND	GND
12	DDC Data	DDC Data	DDC Data	DDC Data
13	H-Sync	H/V-Sync	H/V-Sync	Not Used
14	V-Sync	Not Used	Not Used	Not Used
15	DDC Data	DDC Data	DDC Data	DDC Data

2-3 Timing Chart

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

Table 2-1. Timing Chart

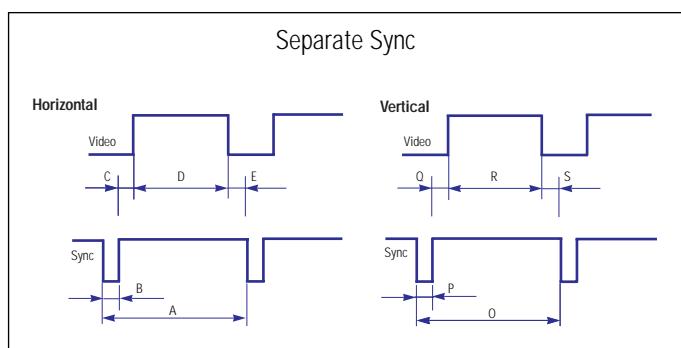
Mode Timing	IBM			VESA			
	VGA1/70 Hz 640 x 350	VGA2/70 Hz 720 x 400	VGA3/60 Hz 640 x 480	640/72 Hz 640 x 480	640/75 Hz 640 x 480	800/56 Hz 800 x 600	800/60 Hz 800 x 600
fH (kHz)	31.469	31.469	31.469	37.861	37.500	35.156	37.879
A µsec	31.778	31.777	31.778	26.413	26.667	28.444	26.400
B µsec	3.813	3.813	3.813	1.270	2.032	2.000	3.200
C µsec	1.589	1.589	1.589	3.810	3.810	3.556	2.200
D µsec	26.058	26.058	26.058	20.825	20.317	22.222	20.000
E µsec	0.318	0.318	0.318	0.508	0.508	0.667	1.000
fV (Hz)	70.086	70.087	59.940	72.809	75.000	56.250	60.317
O msec	14.268	14.268	16.683	13.735	13.333	17.778	16.579
P msec	0.064	0.064	0.064	0.079	0.080	0.057	0.106
Q msec	1.716	0.858	0.794	0.528	0.427	0.626	0.607
R msec	11.504	13.155	15.761	13.100	12.800	17.067	15.840
S msec	0.985	0.191	0.064	0.026	0.027	0.028	0.026
Clock Frequency (MHz)	25.175	28.322	25.175	31.500	31.500	36.000	40.000
H.Sync	Positive	Negative	Negative	Negative	Negative	Positive	Positive
V.Sync	Negative	Positive	Negative	Negative	Negative	Negative	Positive
Remark	Separate	Separate	Separate	Separate	Separate	Separate	Separate



A : Line time total	B : Horizontal sync width	O : Frame time total	P : Vertical sync width
C : Back porch	D : Active time	Q : Back porch	R : Active time
E : Front porch		S : Front porch	

Table 2-1. Timing Chart Continued

Mode Timing	VESA					MAC.	
	800/72 Hz 800 x 600	800/75 Hz 800 x 600	1024/60Hz 1024x768	1024/70Hz 1024x768	1024/75Hz 1024x768	640/67 Hz 60 x 480	832/75 Hz 832 x 624
fH (kHz)	48.077	46.875	48.363	56.476	60.023	35.000	49.726
A μ sec	20.800	21.333	20.677	17.707	16.660	28.571	20.110
B μ sec	2.400	1.616	2.092	1.813	1.219	2.116	1.117
C μ sec	1.280	3.232	2.462	1.920	2.235	3.175	3.910
D μ sec	16.000	16.162	15.754	13.653	13.003	21.164	14.524
E μ sec	1.120	0.323	0.369	0.320	0.203	2.116	0.559
fV (Hz)	72.188	75.000	60.004	70.069	75.029	66.667	74.551
O msec	13.853	13.333	16.666	14.272	13.328	15.000	13.414
P msec	0.125	0.064	0.124	0.106	0.050	0.086	0.060
Q msec	0.478	0.448	0.600	0.513	0.466	1.114	0.784
R msec	12.480	12.800	15.880	13.599	12.795	13.714	12.549
S msec	0.770	0.021	0.062	0.053	0.017	0.086	0.020
Clock Frequency (MHz)	50.000	49.500	65.000	75.000	78.750	30.240	57.284
Polarity							
H.Sync	Positive	Positive	Negative	Negative	Positive	Negative	Negative
V.Sync	Positive	Positive	Negative	Negative	Positive	Negative	Negative
Remark	Separate	Separate	Separate	Separate	Separate	Separate	Separate



A : Line time total	B : Horizontal sync width	O : Frame time total	P : Vertical sync width
C : Back porch	D : Active time	Q : Back porch	R : Active time
E : Front porch		S : Front porch	

3 Disassembly and Reassembly

This section of the service manual describes the disassembly and reassembly procedures for the Sync Master 570B TFT / 580B TFT monitors.

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

3-1 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.

3-1-1 Removing the Stand

1. Remove 4 screws in the hinge area.
2. Pry it off the back of the monitor.
3. Disconnect Power Cord and Signal Cable.

3-1-2 Main Body Disassembly

1. Remove the 4 screws on the four corner of the Rear Cover.
2. Remove Rear Cover from the Front Cover.
3. Remove 11 screws on the Shield and remove the shield.
4. Disconnect Inverter wire, Function PCB wire and Interface wire.
Remove 4 screws on the Main PCB and remove 2 screws on the D sub shield.
5. Remove the Main PCB Assembly.
6. Remove 6 screws on the Inverter PCB Assembly and then remove it
7. Remove 6 screws on the Rear Panel Bracket.
8. Remove the Bracket Assembly from the Front Cover.
9. Remove 3 screws on the Function PCB from locking area of Function knob and remove Function PCB.
10. Remove 4 screws on the Shield of Panel.
11. Remove the Shield.
12. Remove Rear Bracket from Panel.
13. Remove 2 screws between Panel Rear and Inverter PCB.
14. Remove the Interface wire on the Rear Side of Panel.

3-1-3 Standard Stand Disassembly

1. Remove 5 screws from the Stand Rear
2. Remove 4 screws from the Stand Bottom.

3. Remove Stand Front from the Stand assembly.
4. Remove 2 screws from the Stand assembly.
5. Remove the Stand Rear from the Stand assembly.
6. Remove 5 screws on the Vesa Brkt from the Stand assembly.
7. Remove cover hinge from the Stand assembly.
8. Remove Stand Base from the Stand assembly.

3-1-4 Pivot Multi-media Stand Disassembly (option)

1. Stand the stand assembly with the base close to you.
2. Remove the 4 screws on the back cover of the stand and remove it.
3. Stand the stand assembly upside down.
4. Remove the 4 screws.
5. Disconnect CN805, CN806, CN807, CN808, CN809, CN812 and F1.
6. Remove the Back Cover of the Stand Front assembly.
7. Remove 4 screws on the external adaptor and remove the adaptor.
8. Remove 2 screws between hinge and Stand Body.
9. Remove the hinge
10. Remove 2 screws on Audio main PCB and remove it
11. Remove 2 screws on the Audio Function PCB and remove it.

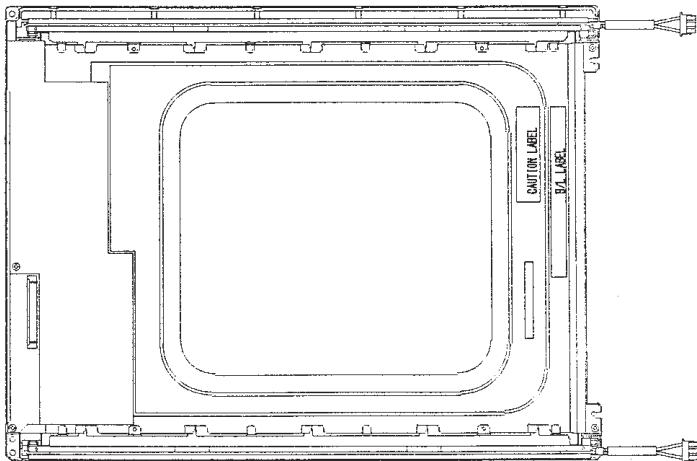
3-1-5 Angle Pivot Stand Disassembly (option)

1. Remove the cap pivot from the stand assembly.
2. Remove the 4 screws on the hinge assembly.
3. Remove the 4 screws on the Stand Rear

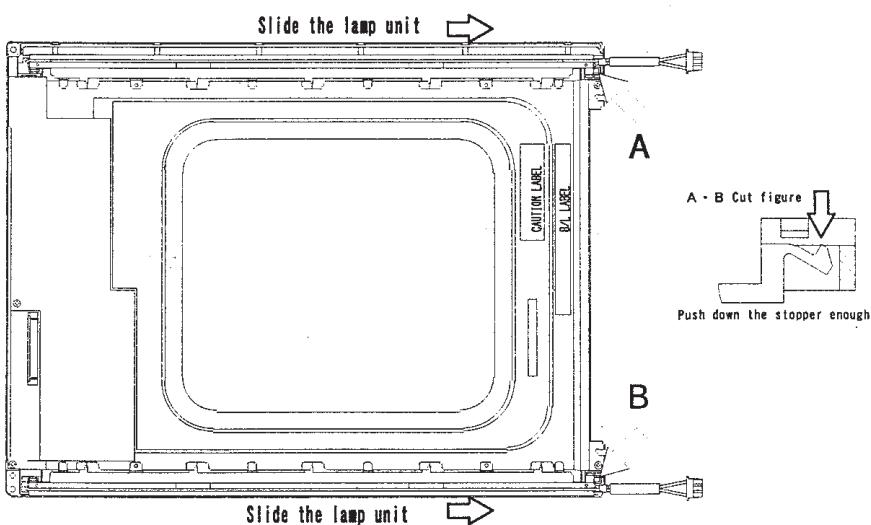
3 Disassembly and Reassembly

4. Remove the Stand Rear from the Stand assembly.
5. Remove the Stand Front from the Stand assembly.
6. Remove the Neck Rear from the Stand assembly.
7. Remove the 4 Rubbers on the four corner of the Stand Bottom and the 4 screws on the four corner of the Stand Bottom.
8. Remove the 5 stopper hinges from the Bracket Bottom.
9. Remove the Stand Base from the Stand Assembly.

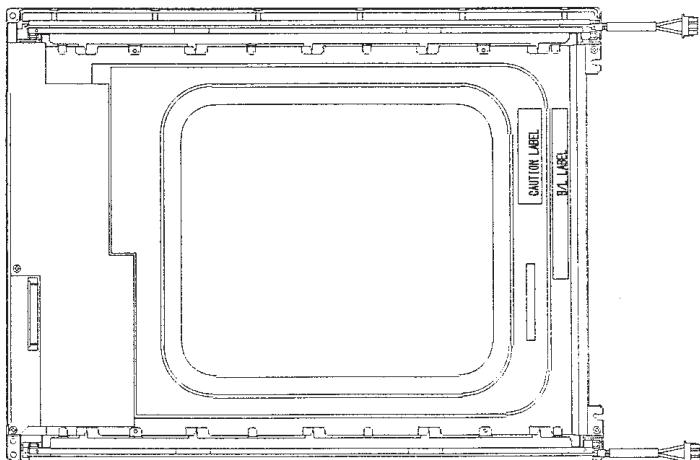
3-2 Replacement Order of Lamp Assemblies (CN15MSS/CN15MOS : Samsung Panel)



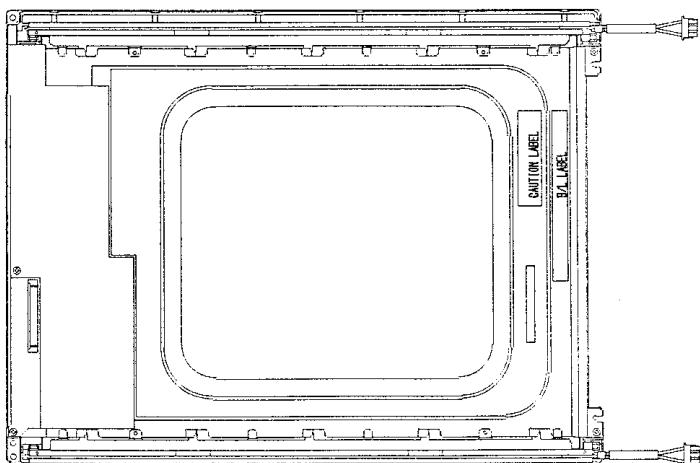
1. After confirm there is nothing on the disk
Turn the LCD module over and put it on a flat desk set to the ground.



2. Push down the stopper and slide the lamp unit.



3. Please take out the lamp unit from the LCD module.



4. Please fix the new lamp units on the LCD module : opposite process 2 and 3

- * Replacement of lamp unit should be done at the power off state and recommended clean bench condition.

3-3 Reassembly

Reassembly procedures are in the reverse order of Disassembly procedures.

MEMO

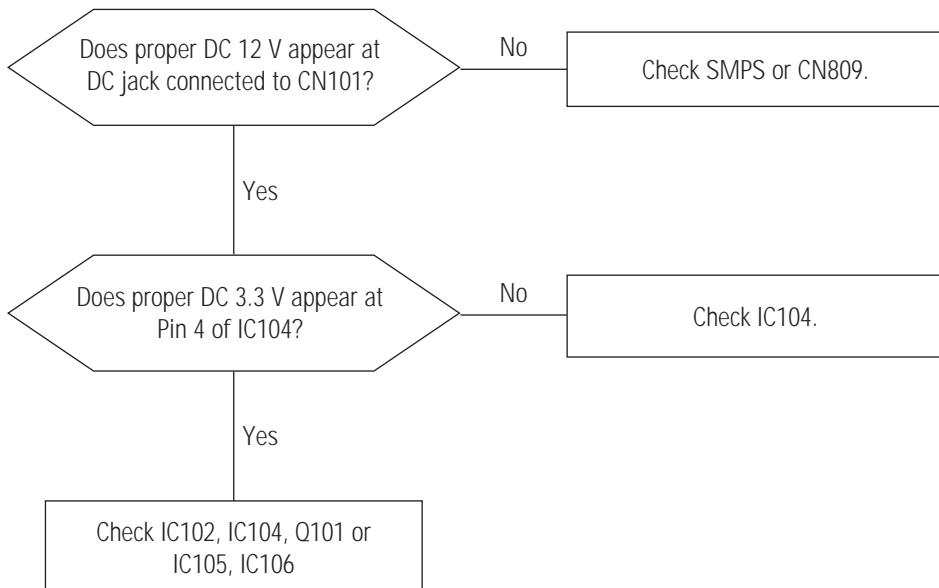
4 Troubleshooting

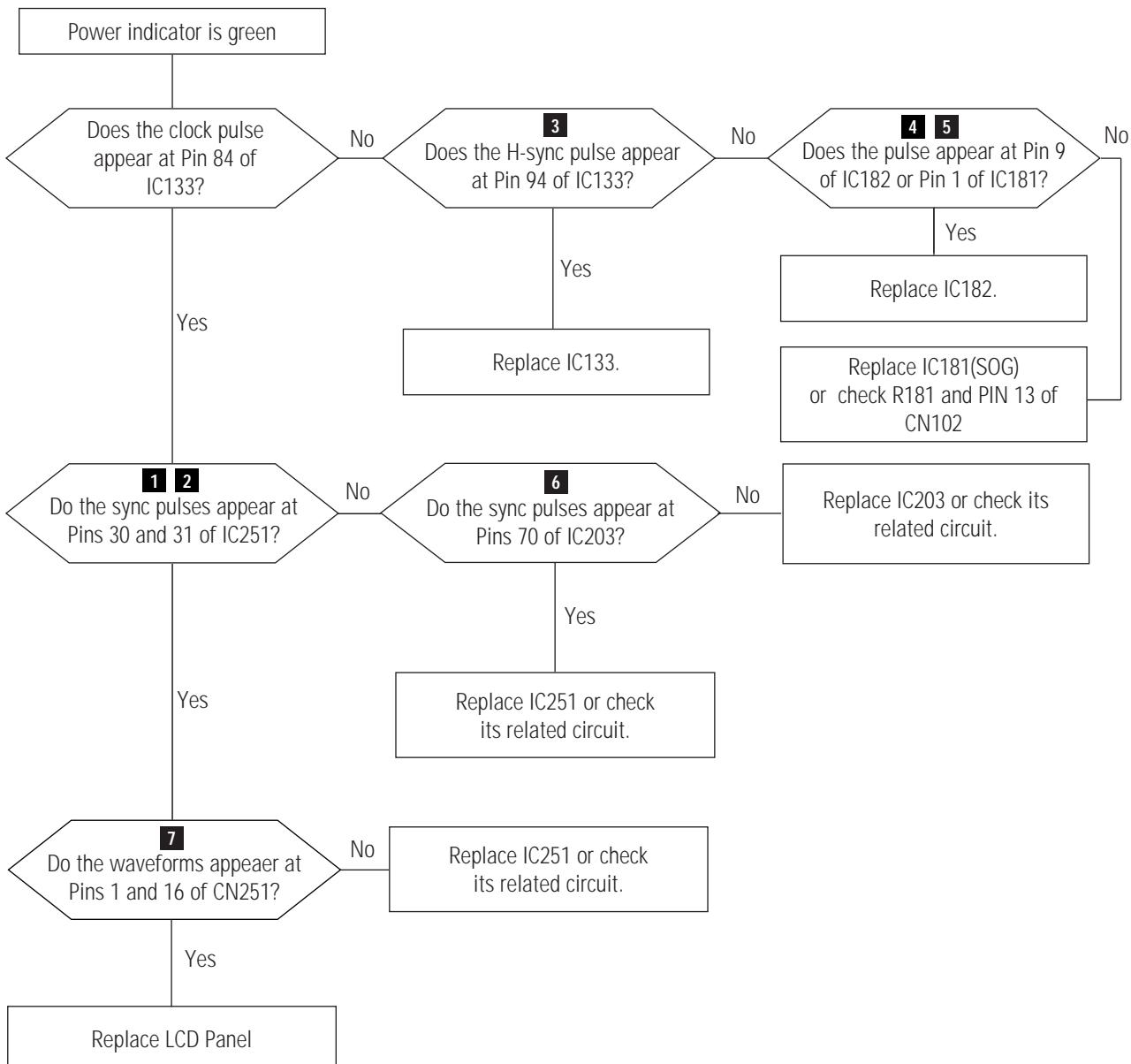
Notes: 1. Before troubleshooting, setup the PC's display as below.

- Resolution: 1024 x 768
- H-frequency: 48 kHz
- V-frequency: 60 Hz

2. If no picture appears, make sure the power cord is correctly connected.
3. Check the following circuits.
 - No raster appears: Audio PCB, SMPS PCB, Main PCB
 - 12V develop but no screen: Main PCB
 - 12V does not develop: Audio PCB, SMPS PCB
4. If you push and hold the "EXIT" button for more than 5 seconds, the monitor automatically turns back to the factory preset.

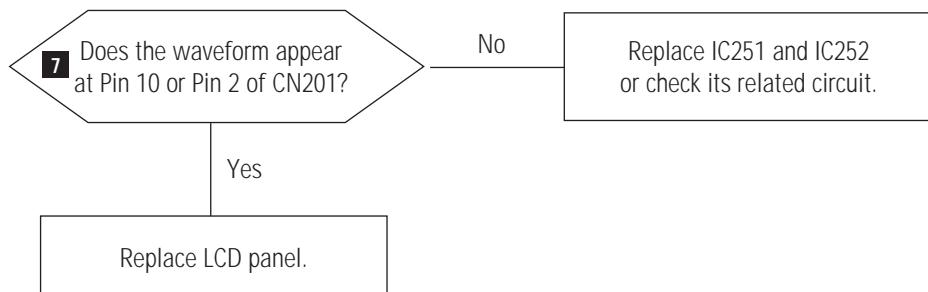
4-1 No Power (CN15MSS/MOS)



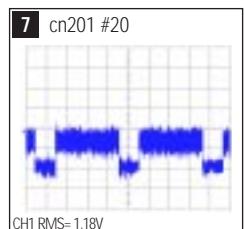
4-2 No Video (CN15MSS/MOS)

4-3 No Video of Alternate Vertical Line (CN15MSS/MOS)

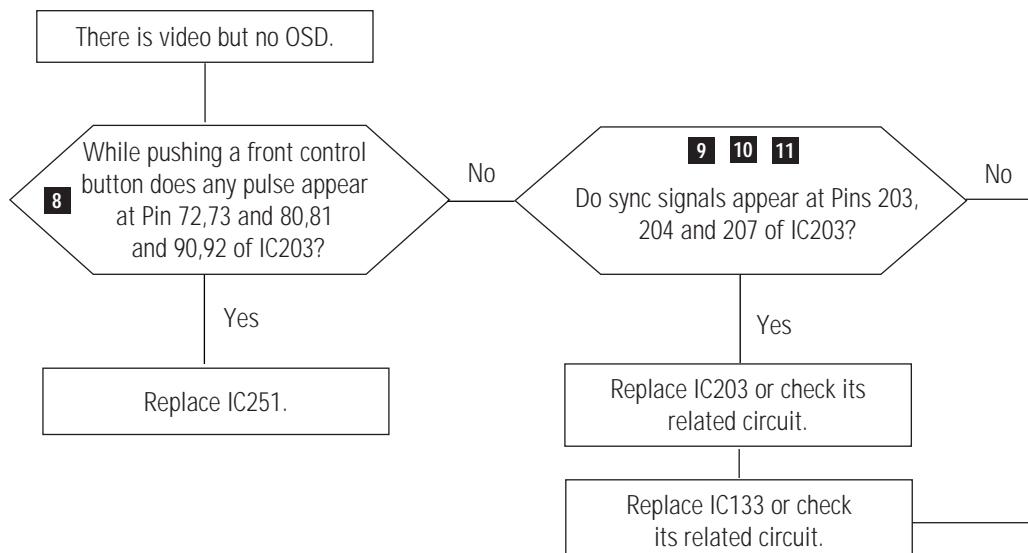
One or more even or odd vertical lines do not display.



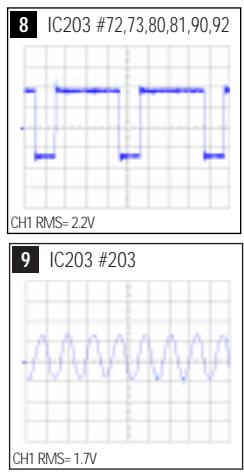
WAVEFORMS



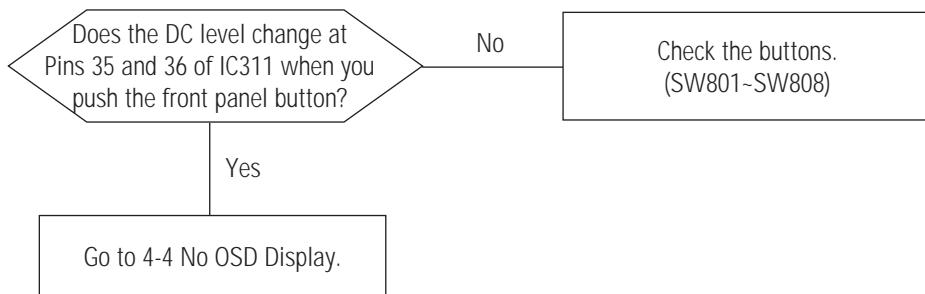
4-4 No OSD (CN15MSS/MOS)



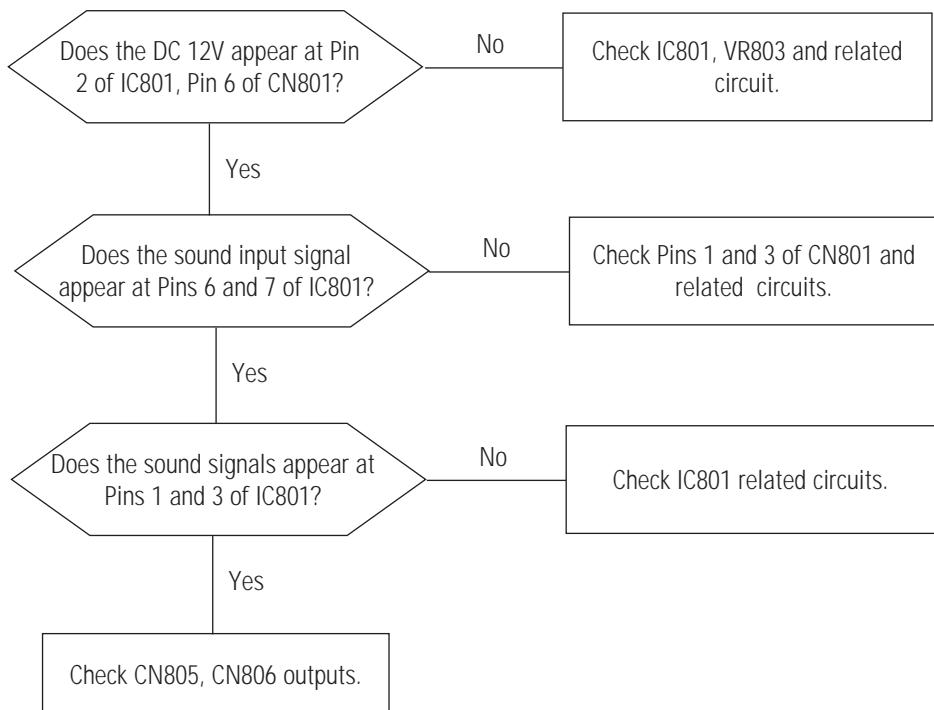
WAVEFORMS



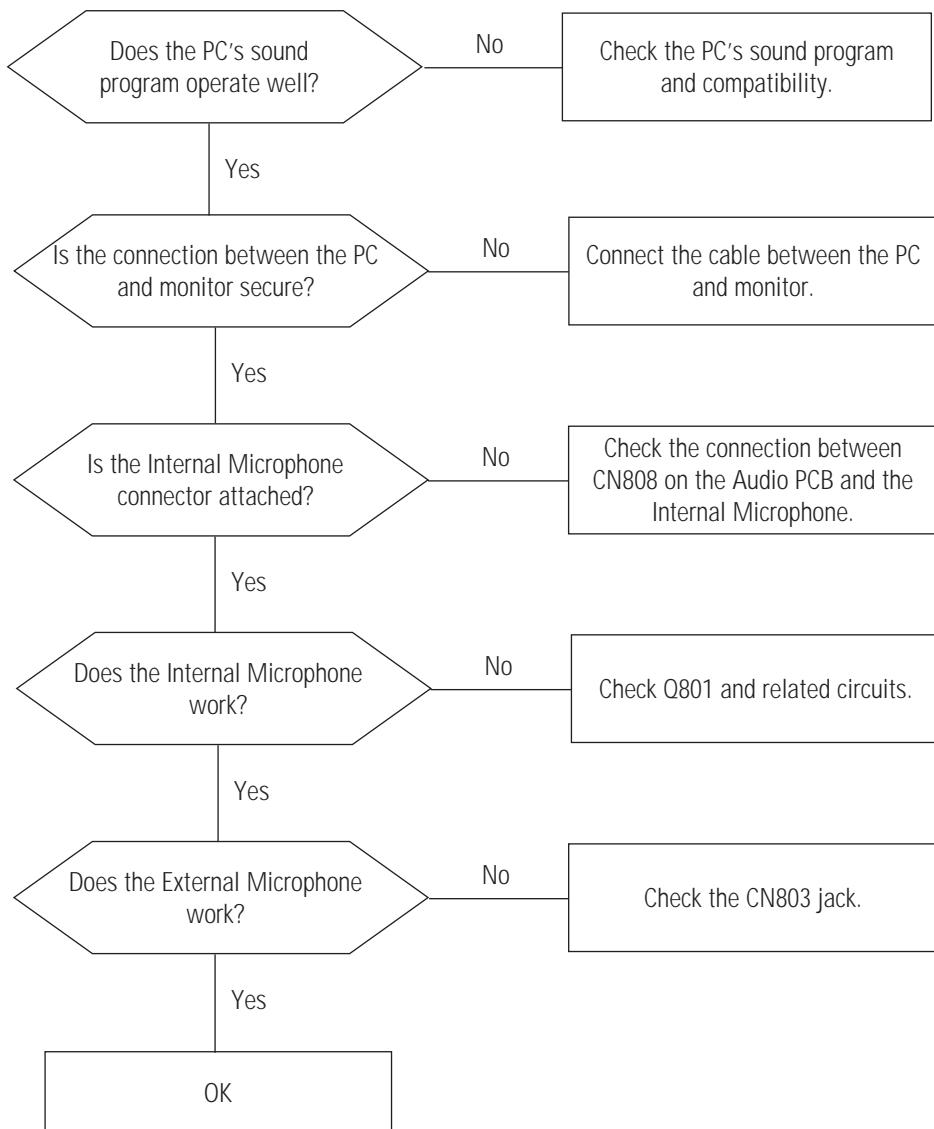
4-5 User Controls Don't Work (CN15MSS/MOS)



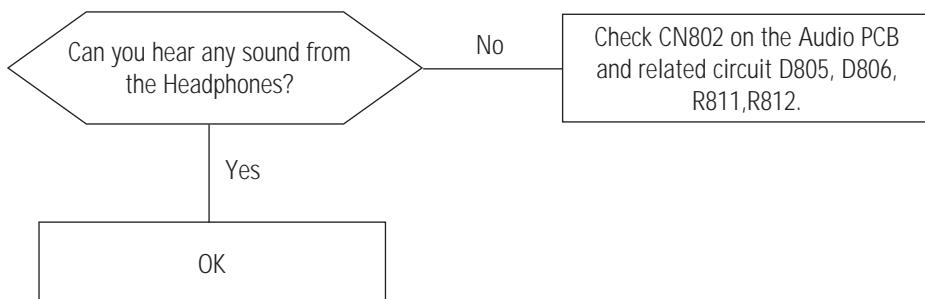
4-6 No Sound (CN 15MSS/MOS)



4-7 Microphones Don't Work

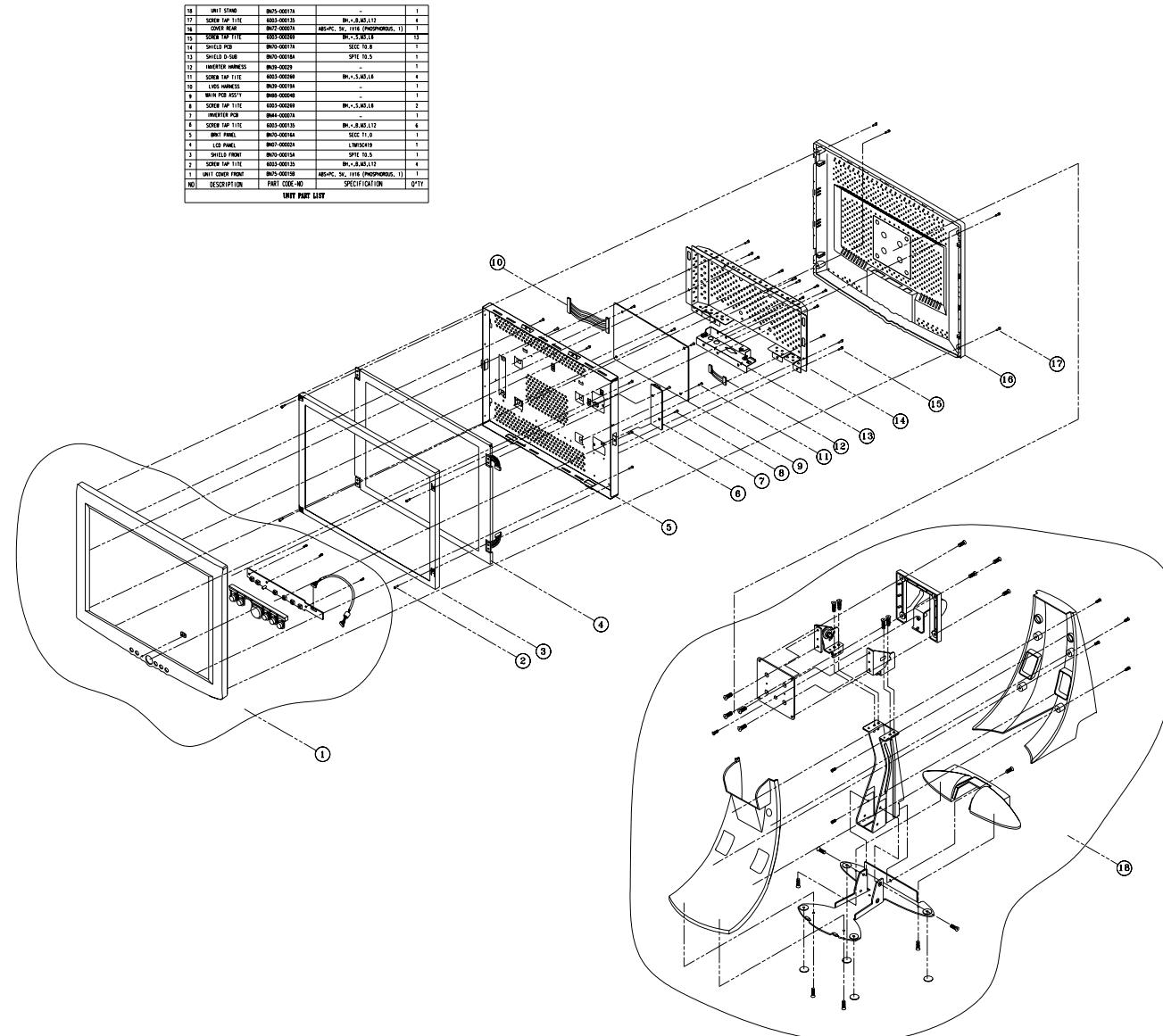


4-8 Headphones Don't Work



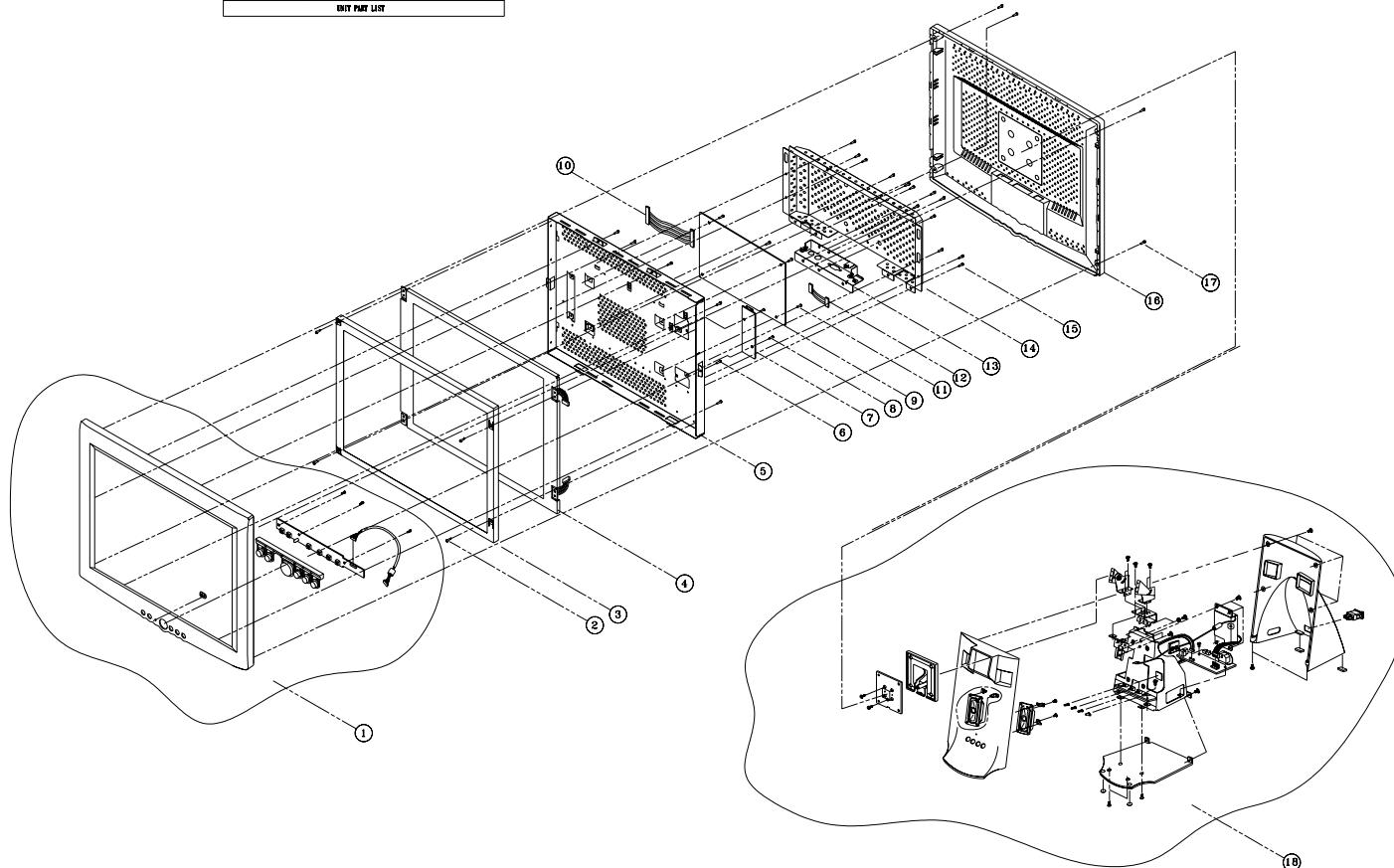
5 Exploded View and Parts List

5-1 Simple Base (CN15MSS)



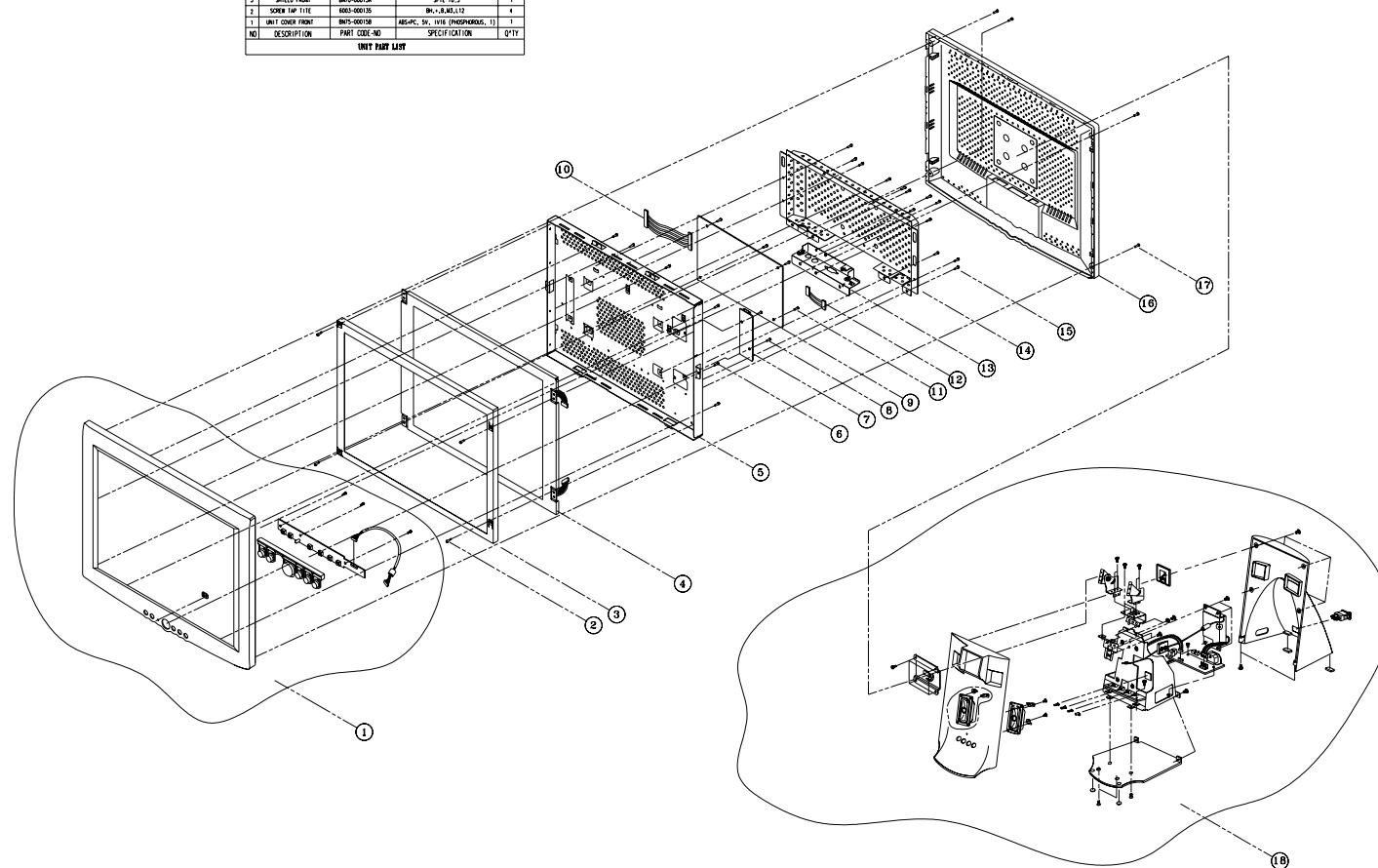
5-2 MultiMedia Base (CN15MSS)

NO	DESCRIPTION	PART NO.	SPECIFICATION	Q'TY
18	UNIT STAND MATT	BW9-20036A	-	1
17	SCREW M4 11	6003-00011	M4 x 10, L11	4
16	COVER PLATE	6003-00014	45x45x1.5, 30°, VTL (NO SPOT WELDING, 1)	1
15	SCREW M4 11	6003-00019	M4 x 10, L11	13
14	SHIELD PCB	BW9-20017A	SECC 10.8	1
13	SHIELD D-SUB	BW9-20018A	SPTE 10.5	1
12	SCREW M4 11	6003-00017	M4 x 10, L11	1
11	SCREW M4 11	6003-00018	M4 x 10, L11	1
10	LVS HARNESS	BW9-20019A	-	1
9	WAVK PCB ASSY	BW9-20004B	-	1
8	SCREW M4 11	6003-00020B	M4 x 10, L16	2
7	SCREW M4 11	6003-00021	M4 x 10, L11	1
6	SCREW M4 11	6003-00019	M4 x 10, L11	6
5	BRKT PANEL	BW9-20014A	SECC 11.0	1
4	LCD PANEL	BW9-20002A	LW95419	1
3	SHIELD FRONT	BW9-20015A	SPTE 10.5	1
2	SCREW M4 11	6003-00013	M4 x 10, L12	4
1	UNIT STAND	BW9-20036A	45x45x1.5, 30°, VTL (NO SPOT WELDING, 1)	1
NO	DESCRIPTION	PART NO.	SPECIFICATION	Q'TY

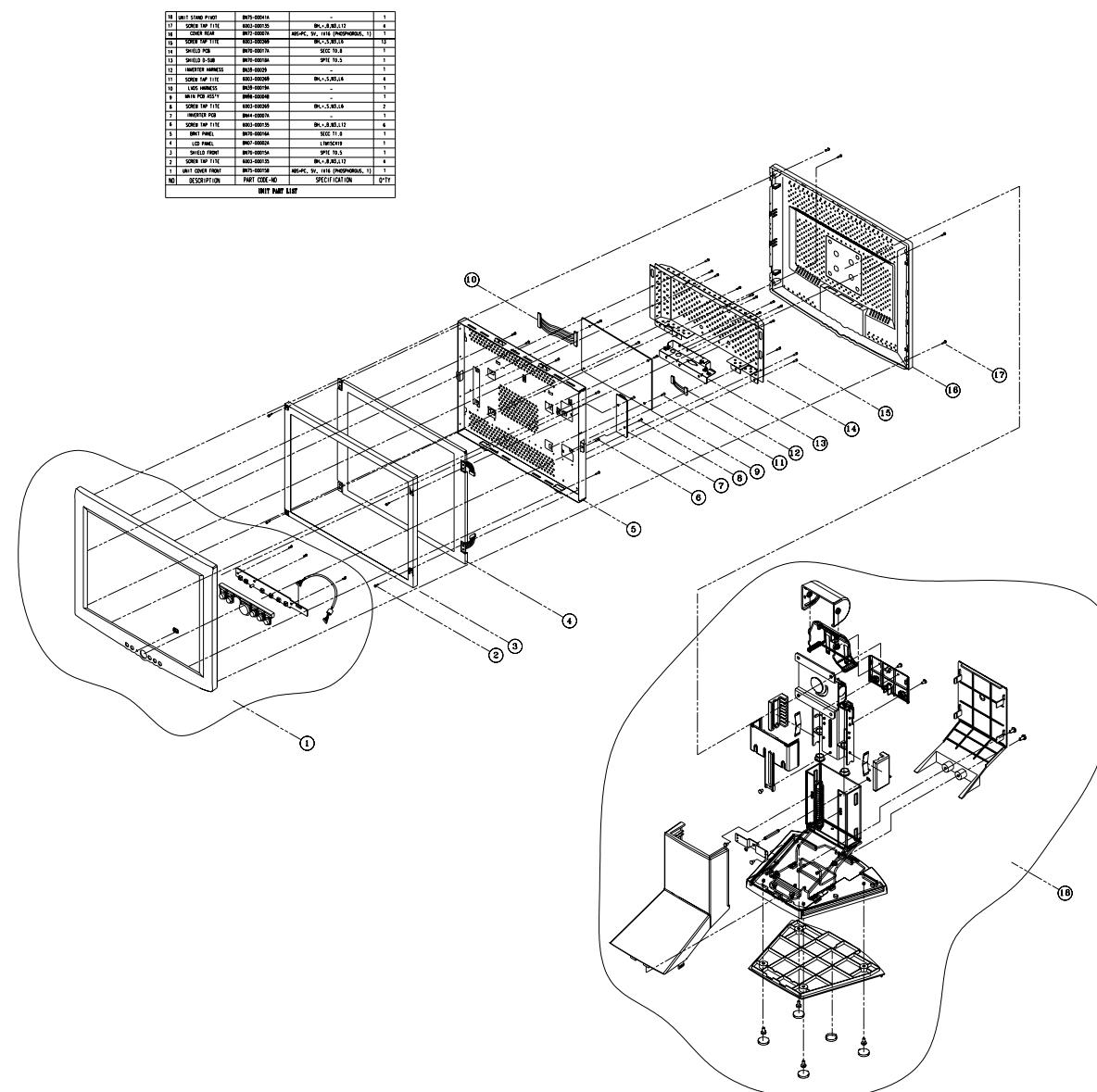


5-3 Pivot-MultiMedia Base (CN15MSS)

NO.	DESCRIPTION	PART CODE-N	SPECIFICATION	Q'TY
18	UNIT STAND (PIVOT MULTI)	BNG9-00037A	-	1
17	SCREEN TAP 11:16	E001-000135	DN.1x.8.M3.1.12	4
16	COVER REAR	BNT7-00007A	ABS-PC, Sv, IVTE (PHOSPHORUS, 1)	1
15	COVER FRONT	BNT7-00007B	ABS-PC, Sv, IVTE (PHOSPHORUS, 1)	1
14	SHIELD PCB	BNT7-00017A	SECC 11.0	1
13	SHIELD D-SUB	BNT7-00018A	SPIE 16.5	1
12	INVERTER HARNESS	BNT9-00029	-	1
11	SCREEN TAP 11:16	E001-000269	DN.1x.5.M3.1.6	4
10	LIVE COVER	BNT7-000179	-	1
9	SCREW FOR ASSY	E001-000268	-	1
8	SCREEN TAP 11:16	E001-000269	DN.1x.5.M3.1.6	2
7	INVERTER PCB	BH44-00007A	-	1
6	SCREEN TAP 11:16	E001-000135	DN.1x.8.M3.1.12	6
5	BEAT PANEL	BNT9-00016A	SECC 11.0	1
4	LINE FILTER	BNT7-000163	DN.1x.8.M3.1.12	1
3	SHIELD FRAME	BNT7-000154	SPIE 16.5	1
2	SCREEN TAP 11:16	E001-000135	DN.1x.8.M3.1.12	4
1	UNIT COVER FRONT	BNT7-000158	ABS-PC, Sv, IVTE (PHOSPHORUS, 1)	1
NO.	DESCRIPTION	PART CODE-N	SPECIFICATION	Q'TY

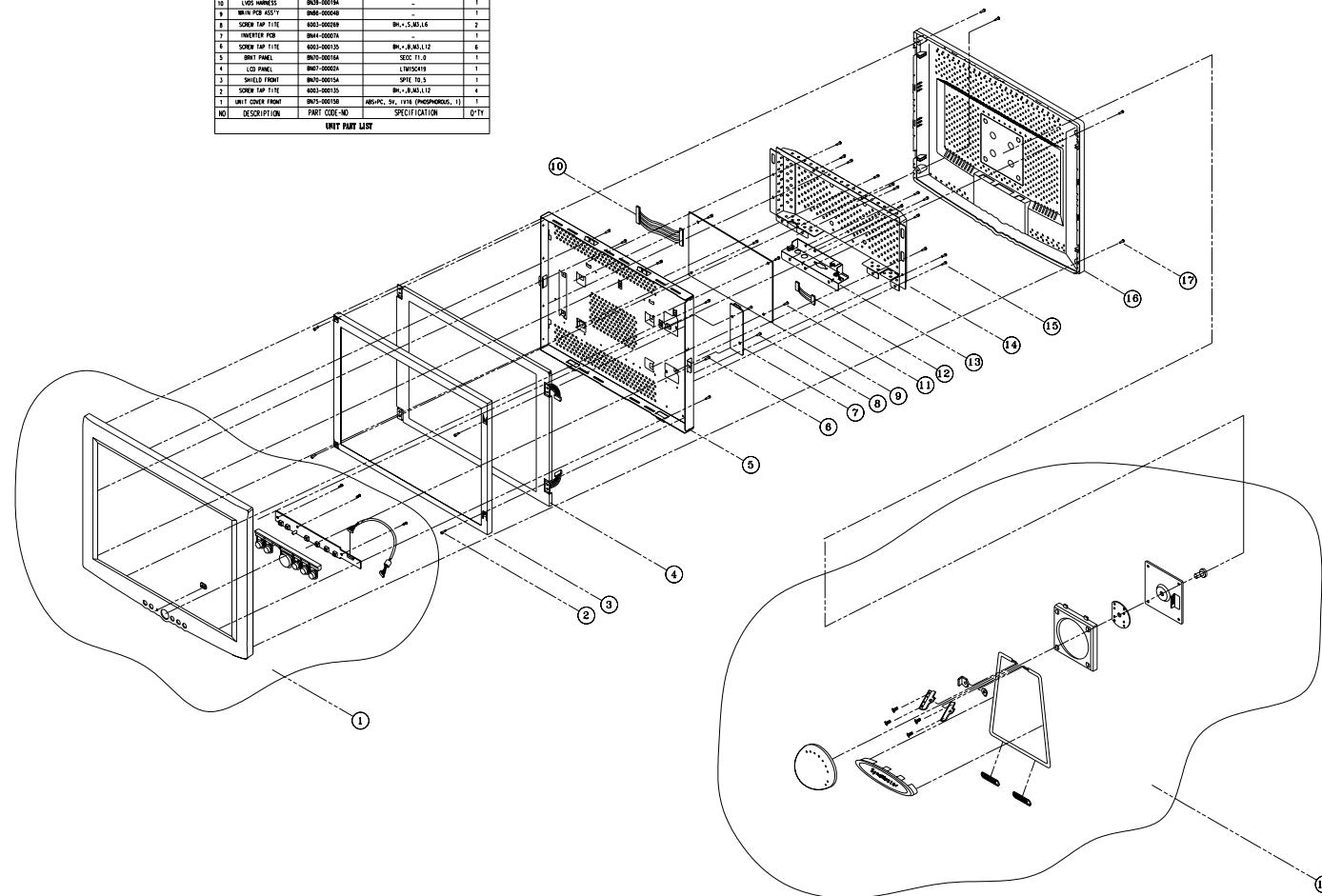


5-4 Angle-Pivot Base (CN15MSS)



5-5 Wire-Frame Base (CN15MSS)

UNIT	STUD BOLT FRAME	PART CODE-N0	DESCRIPTION	SPECIFICATION
17	SCREW TAP 1/4"	0001-00115	SHC, #8, R, L12	
17	COVER GEAR	007-00074	ABEC-5, 1000 RPM, 11	
17	SHIELD PEG	007-00075	SECC 1.5	
17	SHIELD PEG	007-00076	SECC 1.5	
17	SHIELD PEG	007-00077A	SECC 1.5	
17	SHIELD D-SUB	007-00084	SPIE 10.5	
17	INVERTER WIRE	008-00029	-	
17	SCREW TAP 1/4"	008-00114	SHC, #8, R, L12	
17	SCREW TAP 1/4"	008-00115	SHC, #8, R, L12	
17	MAIN PCB ASSY	008-00048	-	
8	SCREW TAP 1/4"	008-00029	SHC, #8, L16	
7	INVERTER	008-00074	-	
7	SCREW TAP 1/4"	008-00029	SHC, #8, L16	
7	BUTYL TAPE	009-00014	SECC 1.5	
4	LCD PANEL	009-00024	LTM1501W	
3	SHIELD FROTH	009-00015A	SPIE 10.5	
3	SCREW TAP 1/4"	009-00029	SHC, #8, L16	
1	UNIT, COOL FRAME	009-00010B	ABEC-5, 1000 RPM, 11	
NO	DESCRIPTION	PART CODE-N0	SPECIFICATION	0



6 Electrical Parts List

6-1 Main PCB Parts

Loc. No.	Code No.	Description	Specification	Remarks
BD101	2703-001334	INDUCTOR-SMD	"1.5uH,10%,2x1.25x0.85mm"	
BD102	2703-001334	INDUCTOR-SMD	"1.5uH,10%,2x1.25x0.85mm"	
BD103	2703-001334	INDUCTOR-SMD	"1.5uH,10%,2x1.25x0.85mm"	
BD104	2703-001334	INDUCTOR-SMD	"1.5uH,10%,2x1.25x0.85mm"	
BD105	2703-001334	INDUCTOR-SMD	"1.5uH,10%,2x1.25x0.85mm"	
BD106	2703-001334	INDUCTOR-SMD	"1.5uH,10%,2x1.25x0.85mm"	
BD181	2703-001334	INDUCTOR-SMD	"1.5uH,10%,2x1.25x0.85mm"	
BD182	2703-001334	INDUCTOR-SMD	"1.5uH,10%,2x1.25x0.85mm"	
BD183	2703-001334	INDUCTOR-SMD	"1.5uH,10%,2x1.25x0.85mm"	
BD301	2703-001334	INDUCTOR-SMD	"1.5uH,10%,2x1.25x0.85mm"	
BD302	2703-001334	INDUCTOR-SMD	"1.5uH,10%,2x1.25x0.85mm"	
BD303	2703-001334	INDUCTOR-SMD	"1.5uH,10%,2x1.25x0.85mm"	
BD304	2703-001334	INDUCTOR-SMD	"1.5uH,10%,2x1.25x0.85mm"	
C101	2402-000170	"C-AL,SMD"	"1uF,20%,50V,GP,TP,4.3x4.3x5.4,"	
C102	2402-000168	"C-AL,SMD"	"100uF,20%,16V,GP,TP,8.3x8.3x6.3mm"	
C103	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C104	2402-000168	"C-AL,SMD"	"100uF,20%,16V,GP,TP,8.3x8.3x6.3mm"	
C105	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C106	2402-000170	"C-AL,SMD"	"1uF,20%,50V,GP,TP,4.3x4.3x5.4,"	
C107	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C108	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C109	2402-000168	"C-AL,SMD"	"100uF,20%,16V,GP,TP,8.3x8.3x6.3mm"	
C110	2409-001029	C-ORGANIC	"120uF,20%,6.3V,WT,TP,10.3x10.3x10.3mm,9"	
C111	2402-000168	"C-AL,SMD"	"100uF,20%,16V,GP,TP,8.3x8.3x6.3mm"	
C112	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C113	2402-000168	"C-AL,SMD"	"100uF,20%,16V,GP,TP,8.3x8.3x6.3mm"	
C114	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C115	2402-000168	"C-AL,SMD"	"100uF,20%,16V,GP,TP,8.3x8.3x6.3mm"	
C116	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C117	2402-000168	"C-AL,SMD"	"100uF,20%,16V,GP,TP,8.3x8.3x6.3mm"	
C118	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C119	2402-000108	"C-AL,SMD"	"10uF,20%,16V,WT,TP,4.3x4.3x5.4"	
C120	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C121	2402-000108	"C-AL,SMD"	"10uF,20%,16V,WT,TP,4.3x4.3x5.4"	
C122	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C123	2402-000108	"C-AL,SMD"	"10uF,20%,16V,WT,TP,4.3x4.3x5.4"	
C124	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C125	2402-000108	"C-AL,SMD"	"10uF,20%,16V,WT,TP,4.3x4.3x5.4"	
C126	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C127	2402-000108	"C-AL,SMD"	"10uF,20%,16V,WT,TP,4.3x4.3x5.4"	
C128	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C131	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C132	2402-000108	"C-AL,SMD"	"10uF,20%,16V,WT,TP,4.3x4.3x5.4"	
C133	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C134	2402-000108	"C-AL,SMD"	"10uF,20%,16V,WT,TP,4.3x4.3x5.4"	
C135	2203-000681	"C-CERAMIC,CHIP"	"0.027nF,5%,50V,NP0,TP,1608"	
C136	2203-000681	"C-CERAMIC,CHIP"	"0.027nF,5%,50V,NP0,TP,1608"	

Loc. No.	Code No.	Description	Specification	Remarks
C137	2203-000681	"C-CERAMIC,CHIP"	"0.027nF,5%,50V,NP0,TP,1608"	
C138	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C139	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C140	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C141	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C142	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C143	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C144	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C145	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C146	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C147	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C148	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C149	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C150	2203-000357	"C-CERAMIC,CHIP"	"0.15nF,5%,50V,NP0,TP,1608"	
C151	2203-000843	"C-CERAMIC,CHIP"	"39nF,10%,25V,X7R,TP,1608,-"	
C152	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C153	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C154	2203-002398	"C-CERAMIC,CHIP"	"22nF,10%,50V,X7R,TP,1608"	
C155	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C156	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C157	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C158	2203-002398	"C-CERAMIC,CHIP"	"22nF,10%,50V,X7R,TP,1608"	
C159	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C160	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C161	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C162	2203-002398	"C-CERAMIC,CHIP"	"22nF,10%,50V,X7R,TP,1608"	
C163	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C164	2203-000140	"C-CERAMIC,CHIP"	"1.5nF,10%,50V,X7R,TP,1608,-"	
C165	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C166	2203-000357	"C-CERAMIC,CHIP"	"0.15nF,5%,50V,NP0,TP,1608"	
C167	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C168	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C169	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C170	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C171	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C172	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C173	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C174	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C175	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C176	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C177	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C178	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C181	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C182	2402-000108	"C-AL,SMD"	"10uF,20%,16V,WT,TP,4.3x4.3x5.4"	
C183	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C184	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C185	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	

Loc. No.	Code No.	Description	Specification	Remarks
C186	2402-000108	"C-AL,SMD"	"10uF,20%,16V,WT,TP,4.3x4.3x5.4"	
C187	2203-000236	"C-CERAMIC,CHIP"	"0.1nF,5%,50V,NP0,TP,1608"	
C188	2203-000236	"C-CERAMIC,CHIP"	"0.1nF,5%,50V,NP0,TP,1608"	
C201	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C202	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C203	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C204	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C205	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C206	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C207	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C208	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C209	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C210	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C211	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C212	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C213	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C214	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C215	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C216	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C217	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C218	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C219	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C220	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C221	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C222	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C223	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C224	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C225	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C226	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C227	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C228	2203-000626	"C-CERAMIC,CHIP"	"0.022nF,5%,50V,NP0,TP,1608"	
C229	2203-000626	"C-CERAMIC,CHIP"	"0.022nF,5%,50V,NP0,TP,1608"	
C230	2203-000626	"C-CERAMIC,CHIP"	"0.022nF,5%,50V,NP0,TP,1608"	
C231	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C232	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C251	2402-000108	"C-AL,SMD"	"10uF,20%,16V,WT,TP,4.3x4.3x5.4"	
C252	2203-000440	"C-CERAMIC,CHIP"	"1nF,10%,50V,X7R,TP,1608,-"	
C253	2402-000108	"C-AL,SMD"	"10uF,20%,16V,WT,TP,4.3x4.3x5.4"	
C254	2203-000440	"C-CERAMIC,CHIP"	"1nF,10%,50V,X7R,TP,1608,-"	
C255	2402-000108	"C-AL,SMD"	"10uF,20%,16V,WT,TP,4.3x4.3x5.4"	
C256	2203-000440	"C-CERAMIC,CHIP"	"1nF,10%,50V,X7R,TP,1608,-"	
C257	2402-000108	"C-AL,SMD"	"10uF,20%,16V,WT,TP,4.3x4.3x5.4"	
C258	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C301	2402-000108	"C-AL,SMD"	"10uF,20%,16V,WT,TP,4.3x4.3x5.4"	
C302	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C303	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C304	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	

6 Electrical Parts List

Loc. No.	Code No.	Description	Specification	Remarks
C311	2203-000626	"C-CERAMIC,CHIP"	"0.022nF,5%,50V,NP0,TP,1608"	
C312	2203-000626	"C-CERAMIC,CHIP"	"0.022nF,5%,50V,NP0,TP,1608"	
C313	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C314	2402-000108	"C-AL,SMD"	"10uF,20%,16V,WT,TP,4.3x4.3x5.4"	
C315	2402-000168	"C-AL,SMD"	"100uF,20%,16V,GP,TP,8.3x8.3x6.3mm"	
C316	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C371	2402-000108	"C-AL,SMD"	"10uF,20%,16V,WT,TP,4.3x4.3x5.4"	
C372	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
C373	2402-000108	"C-AL,SMD"	"10uF,20%,16V,WT,TP,4.3x4.3x5.4"	
C374	2203-000257	"C-CERAMIC,CHIP"	"10nF,10%,50V,X7R,TP,1608"	
C375	2203-000236	"C-CERAMIC,CHIP"	"0.1nF,5%,50V,NP0,TP,1608"	
C376	2402-000108	"C-AL,SMD"	"10uF,20%,16V,WT,TP,4.3x4.3x5.4"	
C377	2203-005005	"C-CERAMIC,CHIP"	"100nF,10%,16V,X7R,TP,1608"	
CIS	BN70-00018A	SHIELD-D/SUB	"RN15AS,SPTE,0.5,-,-"	
CIS	BN46-00004X	"MICOM-S/W,CN15M(\$DD)"	"CEZANNE(CN15M),-, -, -, -, -"	
CL102	BN27-20001A	COIL-CHOKE		
CN101	3722-000117	JACK-DC POWER	"3P,3.5mm,AG,BLK,NO"	
CN102	3701-001160	CONNECTOR-DSUB	"15P,3R,FEMALE,ANGLE,AU15U"	
CN201	3711-003161	CONNECTOR-HEADER	"BOX,20P,1R,1.25mm,ANGLE,SN"	
CN301	3711-000556	CONNECTOR-HEADER	"BOX,12P,1R,1.25mm,SMD-A,SN"	
CN302	3711-002049	CONNECTOR-HEADER	"BOX,6P,1R,1.25mm,SMD-A,SN"	
CN304	3711-000056	CONNECTOR-HEADER	"BOX,2P,1R,2.5mm,ANGLE,SN"	
D101	0402-000553	DIODE-RECTIFIER	"SS24,40V,2.0A,DO-214AA"	
D131	0401-001056	DIODE-SWITCHING	"MMBD4148SE,75V,600mA,SOT-23,TP"	
D132	0401-001056	DIODE-SWITCHING	"MMBD4148SE,75V,600mA,SOT-23,TP"	
D133	0401-001056	DIODE-SWITCHING	"MMBD4148SE,75V,600mA,SOT-23,TP"	
D134	0401-001056	DIODE-SWITCHING	"MMBD4148SE,75V,600mA,SOT-23,TP"	
D301	0401-001056	DIODE-SWITCHING	"MMBD4148SE,75V,600mA,SOT-23,TP"	
D302	0401-001056	DIODE-SWITCHING	"MMBD4148SE,75V,600mA,SOT-23,TP"	
FT101	3301-001145	CORE-FERRITE BEAD	"AB,4.5x1.6x1.6mm,-,-"	
FT131	2901-001114	FILTER-EMI SMD	"25VDC,2.0ADC,-,100nF,3.2x1.6x1"	
FT132	2901-001114	FILTER-EMI SMD	"25VDC,2.0ADC,-,100nF,3.2x1.6x1"	
FT133	2901-001114	FILTER-EMI SMD	"25VDC,2.0ADC,-,100nF,3.2x1.6x1"	
FT134	2901-001114	FILTER-EMI SMD	"25VDC,2.0ADC,-,100nF,3.2x1.6x1"	
FT135	2901-001114	FILTER-EMI SMD	"25VDC,2.0ADC,-,100nF,3.2x1.6x1"	
FT136	2901-001114	FILTER-EMI SMD	"25VDC,2.0ADC,-,100nF,3.2x1.6x1"	
FT137	2901-001114	FILTER-EMI SMD	"25VDC,2.0ADC,-,100nF,3.2x1.6x1"	
FT201	2901-001114	FILTER-EMI SMD	"25VDC,2.0ADC,-,100nF,3.2x1.6x1"	
FT202	2901-001114	FILTER-EMI SMD	"25VDC,2.0ADC,-,100nF,3.2x1.6x1"	
FT203	2901-001114	FILTER-EMI SMD	"25VDC,2.0ADC,-,100nF,3.2x1.6x1"	
FT204	2901-001114	FILTER-EMI SMD	"25VDC,2.0ADC,-,100nF,3.2x1.6x1"	
FT205	2901-001114	FILTER-EMI SMD	"25VDC,2.0ADC,-,100nF,3.2x1.6x1"	
FT251	2901-001114	FILTER-EMI SMD	"25VDC,2.0ADC,-,100nF,3.2x1.6x1"	
FT252	2901-001114	FILTER-EMI SMD	"25VDC,2.0ADC,-,100nF,3.2x1.6x1"	
FT253	2901-001114	FILTER-EMI SMD	"25VDC,2.0ADC,-,100nF,3.2x1.6x1"	
FT254	2901-001114	FILTER-EMI SMD	"25VDC,2.0ADC,-,100nF,3.2x1.6x1"	
IC101	0505-001170	FET-SILICON	"SI9933ADY-T1,P,-20V,3.4A,0.0750HM,2W,SO-8"	

Loc. No.	Code No.	Description	Specification	Remarks
IC102	1203-001488	IC-POSI.FIXED REG.	"7805,T0-252,3P,-,PLASTIC,4.8/5"	
IC103	0505-001170	FET-SILICON	"SI9933ADY-T1,P,-20V,3.4A,0.0750HM,2W,SO-8"	
IC104	1203-001447	IC-POSI.FIXED REG.	"2596,TO-263,5P,-,PLASTIC,3.135"	
IC105	1203-001488	IC-POSI.FIXED REG.	"7805,T0-252,3P,-,PLASTIC,4.8/5"	
IC106	1203-001488	IC-POSI.FIXED REG.	"7805,T0-252,3P,-,PLASTIC,4.8/5"	
IC131	1203-001538	IC-POSI.ADJUST REG.	"431,SOT-89,3P,-,PLASTIC,2.47/3"	
IC132	0803-000275	IC-TTL	"74F32,OR GATE,SOP,14P,150MIL,Q"	
IC133	1002-001224	IC-A/D CONVERTER	"TDA8752BH/8/C5,8BIT,QFP,100P,-,°A0.5LSB,TR,-,PLASTIC,5.25V,0to+70C,1.1W,Triple 8"	
IC181	1204-000292	IC-VIDEO SYSTEM	"LM1881M,SOP,8P,150MIL,PLASTIC,"	
IC182	0803-000122	IC-TTL	"74F125,BUFFER,SOP,14P,150MIL,Q"	
IC201	1105-001165	IC-DRAM	"416S1020,512Kx16BITx2,TSOP,50P"	
IC202	1105-001165	IC-DRAM	"416S1020,512Kx16BITx2,TSOP,50P"	
IC203	1003-001295	IC-LCD CONTROLLER	"MX88L284FC,QFP,208P,-,DUAL,-,TR,PLASTIC,-,0to+70C,-,-,-"	
IC251	1205-001740	IC-TRANSMITTER	"DS90C385,TSSOP,56P,240MIL,PLASTIC,4V,1.63W,-10 TO +70C,ST,FPD LINK-85MHZ(LVDS)"	
IC311	0903-001194	IC-MICROCONTROLLER	"3P863.8Bit,SDIP,42P,600MIL,12MHz,ST,CMOS,PLASTIC,5V,-,40to+85C,1040BYTE,48KBYTE"	
IC311_SOCK	3704-001071	SOCKET-IC	"42P,DIP,SN,1.778mm"	
IC312	1203-001109	IC-VOL. DETECTOR	"7045,SOT-89,3P,-,PLASTIC,4.3/4"	
IC371	1103-001023	IC-EEPROM	"524C80D81,1028x8Bit,SOP,8P,150MIL,10mS,5V,10%,PLASTIC,0to+70C,110uA,CMOS,TP"	
IC372	1103-001164	IC-EEPROM	"24LC21A,128X8BIT,SOP,8P,150MIL,-,5V,10%,PLASTIC,0 TO +70C,100uA,CMOS,TP"	
IC373	0803-000122	IC-TTL	"74F125,BUFFER,SOP,14P,150MIL,Q"	
L101	2703-001070	INDUCTOR-SMD	"100uH,10%,4.5x3.2x3.2mm"	
L102	2703-001070	INDUCTOR-SMD	"100uH,10%,4.5x3.2x3.2mm"	
L103	2703-001070	INDUCTOR-SMD	"100uH,10%,4.5x3.2x3.2mm"	
MP1.0	BN41-00033A	PCB-MAIN	"CN15LS,FR-4,4,172.4*107.0*1.6,1.6T"	
Q101	0501-002080	TR-SMALL SIGNAL	"2SC2412K,NPN,200mW,SOT-23,TP,1"	
Q102	0501-002080	TR-SMALL SIGNAL	"2SC2412K,NPN,200mW,SOT-23,TP,1"	
Q103	0501-002080	TR-SMALL SIGNAL	"2SC2412K,NPN,200mW,SOT-23,TP,1"	
Q181	0501-002080	TR-SMALL SIGNAL	"2SC2412K,NPN,200mW,SOT-23,TP,1"	
Q311	0501-002080	TR-SMALL SIGNAL	"2SC2412K,NPN,200mW,SOT-23,TP,1"	
Q312	0501-002080	TR-SMALL SIGNAL	"2SC2412K,NPN,200mW,SOT-23,TP,1"	
R101	2007-000084	R-CHIP	"4.7Kohm,5%,1/16W,DA,TP,1608"	
R102	2007-000090	R-CHIP	"10Kohm,5%,1/16W,DA,TP,1608"	
R103	2007-000074	R-CHIP	"100ohm,5%,1/16W,DA,TP,1608"	
R104	2007-000102	R-CHIP	"100Kohm,5%,1/16W,DA,TP,1608"	
R105	2007-000102	R-CHIP	"100Kohm,5%,1/16W,DA,TP,1608"	
R106	2007-000102	R-CHIP	"100Kohm,5%,1/16W,DA,TP,1608"	
R107	2007-000090	R-CHIP	"10Kohm,5%,1/16W,DA,TP,1608"	
R108	2007-000084	R-CHIP	"4.7Kohm,5%,1/16W,DA,TP,1608"	
R131	2007-001167	R-CHIP	"75ohm,5%,1/16W,DA,TP,1608"	
R132	2007-001167	R-CHIP	"75ohm,5%,1/16W,DA,TP,1608"	
R133	2007-001167	R-CHIP	"75ohm,5%,1/16W,DA,TP,1608"	
R134	2007-000113	R-CHIP	"33ohm,5%,1/16W,DA,TP,1608"	
R135	2007-000113	R-CHIP	"33ohm,5%,1/16W,DA,TP,1608"	
R136	2007-000113	R-CHIP	"33ohm,5%,1/16W,DA,TP,1608"	
R137	2007-000124	R-CHIP	"2.2Kohm,5%,1/16W,DA,TP,1608"	
R138	2007-000074	R-CHIP	"100ohm,5%,1/16W,DA,TP,1608"	
R140	2007-000070	R-CHIP	"0ohm,5%,1/16W,DA,TP,1608"	

6 Electrical Parts List

Loc. No.	Code No.	Description	Specification	Remarks
R141	2007-000084	R-CHIP	"4.7Kohm,5%,1/16W,DA,TP,1608"	
R142	2007-000078	R-CHIP	"1Kohm,5%,1/16W,DA,TP,1608"	
R143	2007-000071	R-CHIP	"22ohm,5%,1/16W,DA,TP,1608"	
R144	2007-000071	R-CHIP	"22ohm,5%,1/16W,DA,TP,1608"	
R181	2007-000116	R-CHIP	"120ohm,5%,1/16W,DA,TP,1608"	
R182	2007-001114	R-CHIP	"680Kohm,5%,1/16W,DA,TP,1608"	
R183	2007-000084	R-CHIP	"4.7Kohm,5%,1/16W,DA,TP,1608"	
R184	2007-000090	R-CHIP	"10Kohm,5%,1/16W,DA,TP,1608"	
R185	2007-000074	R-CHIP	"100ohm,5%,1/16W,DA,TP,1608"	
R186	2007-000090	R-CHIP	"10Kohm,5%,1/16W,DA,TP,1608"	
R187	2007-001167	R-CHIP	"75ohm,5%,1/16W,DA,TP,1608"	
R188	2007-000074	R-CHIP	"100ohm,5%,1/16W,DA,TP,1608"	
R203	2007-000084	R-CHIP	"4.7Kohm,5%,1/16W,DA,TP,1608"	
R205	2007-000109	R-CHIP	"1Mohm,5%,1/16W,DA,TP,1608"	
R206	2007-001167	R-CHIP	"75ohm,5%,1/16W,DA,TP,1608"	
R301	2007-000078	R-CHIP	"1Kohm,5%,1/16W,DA,TP,1608"	
R311	2007-000084	R-CHIP	"4.7Kohm,5%,1/16W,DA,TP,1608"	
R312	2007-000084	R-CHIP	"4.7Kohm,5%,1/16W,DA,TP,1608"	
R313	2007-000084	R-CHIP	"4.7Kohm,5%,1/16W,DA,TP,1608"	
R314	2007-000074	R-CHIP	"100ohm,5%,1/16W,DA,TP,1608"	
R315	2007-000074	R-CHIP	"100ohm,5%,1/16W,DA,TP,1608"	
R316	2007-000074	R-CHIP	"100ohm,5%,1/16W,DA,TP,1608"	
R317	2007-000074	R-CHIP	"100ohm,5%,1/16W,DA,TP,1608"	
R318	2007-000074	R-CHIP	"100ohm,5%,1/16W,DA,TP,1608"	
R319	2007-000074	R-CHIP	"100ohm,5%,1/16W,DA,TP,1608"	
R320	2007-000074	R-CHIP	"100ohm,5%,1/16W,DA,TP,1608"	
R321	2007-000074	R-CHIP	"100ohm,5%,1/16W,DA,TP,1608"	
R322	2007-000074	R-CHIP	"100ohm,5%,1/16W,DA,TP,1608"	
R323	2007-000109	R-CHIP	"1Mohm,5%,1/16W,DA,TP,1608"	
R324	2007-000074	R-CHIP	"100ohm,5%,1/16W,DA,TP,1608"	
R325	2007-000074	R-CHIP	"100ohm,5%,1/16W,DA,TP,1608"	
R326	2007-000074	R-CHIP	"100ohm,5%,1/16W,DA,TP,1608"	
R327	2007-000074	R-CHIP	"100ohm,5%,1/16W,DA,TP,1608"	
R328	2007-000074	R-CHIP	"100ohm,5%,1/16W,DA,TP,1608"	
R329	2007-000074	R-CHIP	"100ohm,5%,1/16W,DA,TP,1608"	
R330	2007-000074	R-CHIP	"100ohm,5%,1/16W,DA,TP,1608"	
R331	2007-000074	R-CHIP	"100ohm,5%,1/16W,DA,TP,1608"	
R332	2007-000074	R-CHIP	"100ohm,5%,1/16W,DA,TP,1608"	
R333	2007-000074	R-CHIP	"100ohm,5%,1/16W,DA,TP,1608"	
R334	2007-000074	R-CHIP	"100ohm,5%,1/16W,DA,TP,1608"	
R335	2007-000074	R-CHIP	"100ohm,5%,1/16W,DA,TP,1608"	
R336	2007-000074	R-CHIP	"100ohm,5%,1/16W,DA,TP,1608"	
R337	2007-000074	R-CHIP	"100ohm,5%,1/16W,DA,TP,1608"	
R338	2007-000074	R-CHIP	"100ohm,5%,1/16W,DA,TP,1608"	
R339	2007-000084	R-CHIP	"4.7Kohm,5%,1/16W,DA,TP,1608"	
R340	2007-000084	R-CHIP	"4.7Kohm,5%,1/16W,DA,TP,1608"	
R341	2007-000084	R-CHIP	"4.7Kohm,5%,1/16W,DA,TP,1608"	

Loc. No.	Code No.	Description	Specification	Remarks
R342	2007-000075	R-CHIP	"220ohm,5%,1/16W,DA,TP,1608"	
R343	2007-000084	R-CHIP	"4.7Kohm,5%,1/16W,DA,TP,1608"	
R344	2007-000084	R-CHIP	"4.7Kohm,5%,1/16W,DA,TP,1608"	
R345	2007-000084	R-CHIP	"4.7Kohm,5%,1/16W,DA,TP,1608"	
R346	2007-000084	R-CHIP	"4.7Kohm,5%,1/16W,DA,TP,1608"	
R347	2007-000084	R-CHIP	"4.7Kohm,5%,1/16W,DA,TP,1608"	
R348	2007-000078	R-CHIP	"1Kohm,5%,1/16W,DA,TP,1608"	
R349	2007-000075	R-CHIP	"220ohm,5%,1/16W,DA,TP,1608"	
R350	2007-000077	R-CHIP	"470ohm,5%,1/16W,DA,TP,1608"	
R351	2007-000120	R-CHIP	"680ohm,5%,1/16W,DA,TP,1608"	
R362	2007-000070	R-CHIP	"0ohm,5%,1/16W,DA,TP,1608"	
R371	2007-000074	R-CHIP	"100ohm,5%,1/16W,DA,TP,1608"	
R372	2007-000074	R-CHIP	"100ohm,5%,1/16W,DA,TP,1608"	
R373	2007-000092	R-CHIP	"15Kohm,5%,1/16W,DA,TP,1608"	
R374	2007-000092	R-CHIP	"15Kohm,5%,1/16W,DA,TP,1608"	
R375	2007-000074	R-CHIP	"100ohm,5%,1/16W,DA,TP,1608"	
R376	2007-000074	R-CHIP	"100ohm,5%,1/16W,DA,TP,1608"	
R377	2007-000074	R-CHIP	"100ohm,5%,1/16W,DA,TP,1608"	
R901	2007-001167	R-CHIP	"75ohm,5%,1/16W,DA,TP,1608"	
R971	2007-000084	R-CHIP	"4.7Kohm,5%,1/16W,DA,TP,1608"	
R972	2007-000074	R-CHIP	"100ohm,5%,1/16W,DA,TP,1608"	
R973	2007-000075	R-CHIP	"220ohm,5%,1/16W,DA,TP,1608"	
R974	2007-000120	R-CHIP	"680ohm,5%,1/16W,DA,TP,1608"	
R975	2007-000074	R-CHIP	"100ohm,5%,1/16W,DA,TP,1608"	
R976	2007-000084	R-CHIP	"4.7Kohm,5%,1/16W,DA,TP,1608"	
RA131	2011-001015	R-NETWORK	"1Kohm,5%,1/16W,L,CHIP,8P,TP"	
RA132	2011-001015	R-NETWORK	"1Kohm,5%,1/16W,L,CHIP,8P,TP"	
RA133	2011-001015	R-NETWORK	"1Kohm,5%,1/16W,L,CHIP,8P,TP"	
RA134	2011-001015	R-NETWORK	"1Kohm,5%,1/16W,L,CHIP,8P,TP"	
RA135	2011-001015	R-NETWORK	"1Kohm,5%,1/16W,L,CHIP,8P,TP"	
RA136	2011-001015	R-NETWORK	"1Kohm,5%,1/16W,L,CHIP,8P,TP"	
RA137	2011-000002	R-NETWORK	"22ohm,5%,63mW,L,CHIP,8P,TP"	
RA138	2011-000002	R-NETWORK	"22ohm,5%,63mW,L,CHIP,8P,TP"	
RA139	2011-000002	R-NETWORK	"22ohm,5%,63mW,L,CHIP,8P,TP"	
RA140	2011-000002	R-NETWORK	"22ohm,5%,63mW,L,CHIP,8P,TP"	
RA141	2011-000002	R-NETWORK	"22ohm,5%,63mW,L,CHIP,8P,TP"	
RA142	2011-000002	R-NETWORK	"22ohm,5%,63mW,L,CHIP,8P,TP"	
RA205	2011-000002	R-NETWORK	"22ohm,5%,63mW,L,CHIP,8P,TP"	
RA206	2011-000002	R-NETWORK	"22ohm,5%,63mW,L,CHIP,8P,TP"	
RA207	2011-000002	R-NETWORK	"22ohm,5%,63mW,L,CHIP,8P,TP"	
RA208	2011-000002	R-NETWORK	"22ohm,5%,63mW,L,CHIP,8P,TP"	
RA209	2011-000002	R-NETWORK	"22ohm,5%,63mW,L,CHIP,8P,TP"	
RA210	2011-000002	R-NETWORK	"22ohm,5%,63mW,L,CHIP,8P,TP"	
RC201	2503-001018	C-NETWORK	"15PFX4,10%,50V,-"	
RC202	2503-001018	C-NETWORK	"15PFX4,10%,50V,-"	
RC203	2503-001018	C-NETWORK	"15PFX4,10%,50V,-"	
RC204	2503-001018	C-NETWORK	"15PFX4,10%,50V,-"	

6 Electrical Parts List

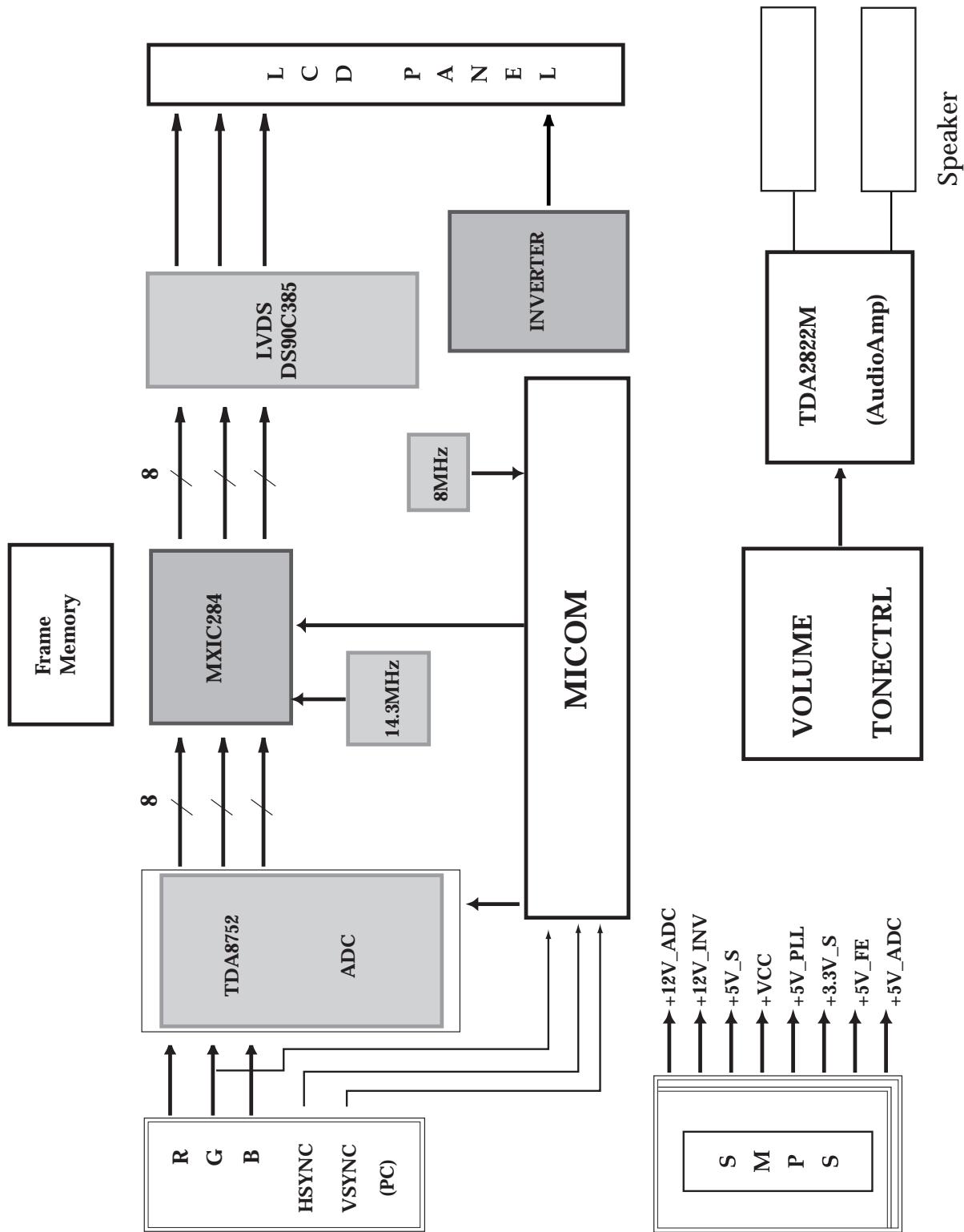
Loc. No.	Code No.	Description	Specification	Remarks
RC205	2503-001018	C-NETWORK	"15PFX4,10%,50V,-"	
RC206	2503-001018	C-NETWORK	"15PFX4,10%,50V,-"	
X201	2801-003667	CRYSTAL-SMD	"14.3182MHZ,50PPM,28-AAN,16,500HM,TP"	
X311	2801-003773	CRYSTAL-SMD	"12MHZ,30PPM,28-AAN,20PF,500HM,TP"	
ZD181	0403-000579	DIODE-ZENER	"BZX84C5V1,5.1V,5%,200mW,SOT-23"	
ZD182	0403-000579	DIODE-ZENER	"BZX84C5V1,5.1V,5%,200mW,SOT-23"	
ZD183	0403-000579	DIODE-ZENER	"BZX84C5V1,5.1V,5%,200mW,SOT-23"	
ZD184	0403-000579	DIODE-ZENER	"BZX84C5V1,5.1V,5%,200mW,SOT-23"	
ZD185	0403-000579	DIODE-ZENER	"BZX84C5V1,5.1V,5%,200mW,SOT-23"	
ZD311	0403-000579	DIODE-ZENER	"BZX84C5V1,5.1V,5%,200mW,SOT-23"	

Others

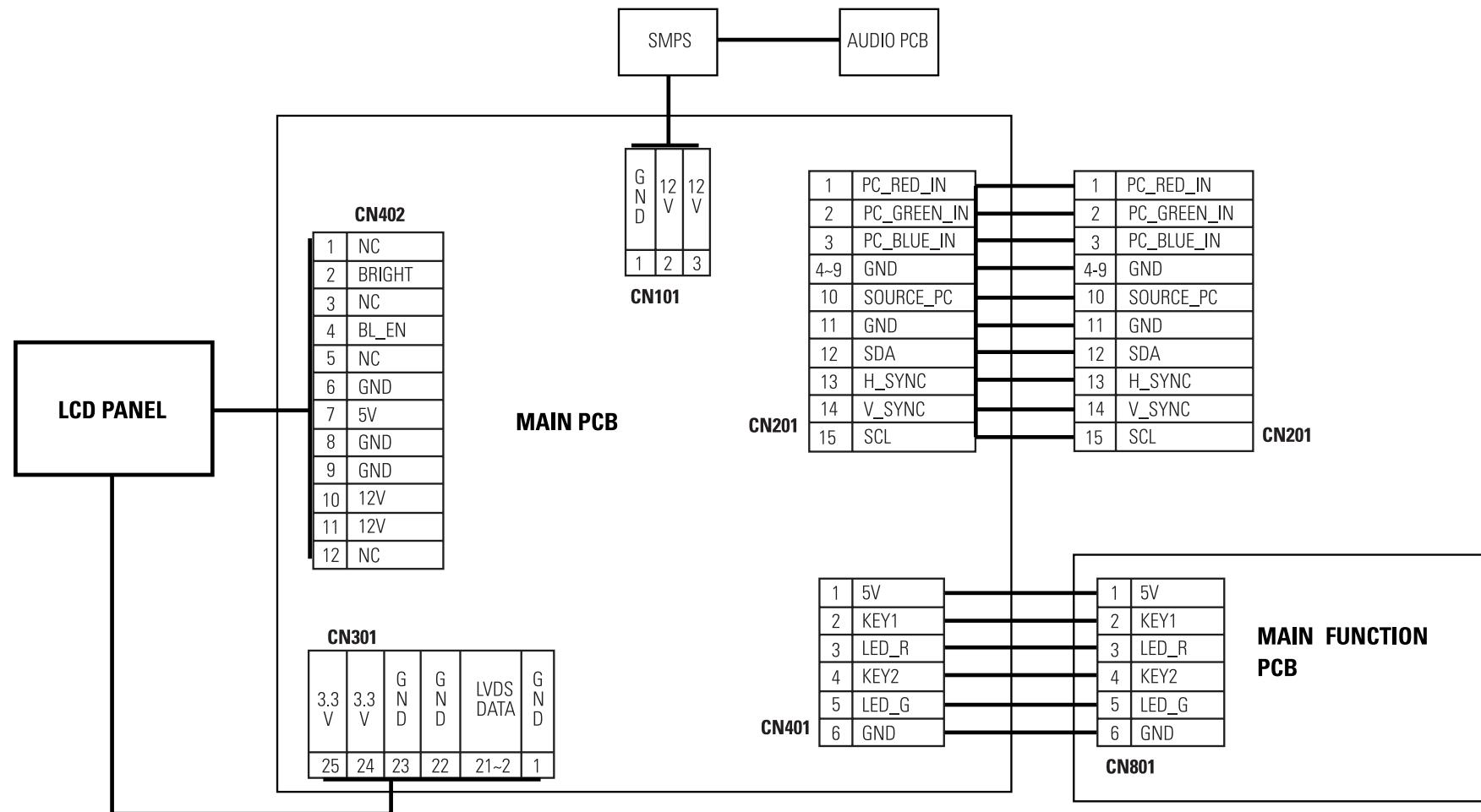
Loc. No.	Code No.	Description	Specification	Remarks
-	BN91-00018C	ASSY MAIN/AUTO-ST	"CN15MS-XGL2/0000,-,-,-"	
-	BN95-00040E	"ASSY,MANUAL"	"RN15MSSN/EDC,E/S/F/G/P/I/R,EDC,NETHERLAND"	
CIS	BN39-00028A	CBF-HARNESS	"6P/6P,170MM,BLK,UL2835,AWG28-3C,51021-06"	
CIS	BN46-00004X	"MICOM-S/W,CN15M(SDD)"	"CEZANNE(CN15M),-, -, -, -, -"	
CN301+INV	BN39-00002A	CBF-HARNESS	"-,60,BLU/WHT,-,26,-"	
CIS	BN39-00030A	CBF-SIGNAL	"DETACHABLE,1830MM,15P/15P,-,2990,D-SUB-MALE"	
CN201+PAN	BN39-00083A	CBF-HARNESS	"20P,140MM,-,UL1571,AWG30,DF14-20S-1.25C"	
CIS	BH39-10007A	CBF POWER CORD	"DET,H05VV-F,250V/6A,IVY,1830MM"	
CIS	BN44-00022A	INVERTER	"SIC241T(S),2LAMP,-,15,11.5~12.5,121.0*30.5*14.0"	
CIS	BN68-00075H	MANUAL-USERS	"S/M570B/580BTFT,SAMSUNG,E/F/S/G/P/I/R,W/W,MIMOJ080G,-,148X210,I/B,-"	⚠
-	BN98-00015C	ASSY PCB/MAIN-ST	"CN15MS-XGL2/0000,-,-,-"	

7 Block Diagram

7-1. Sync Master 570B TFT / 580B TFT

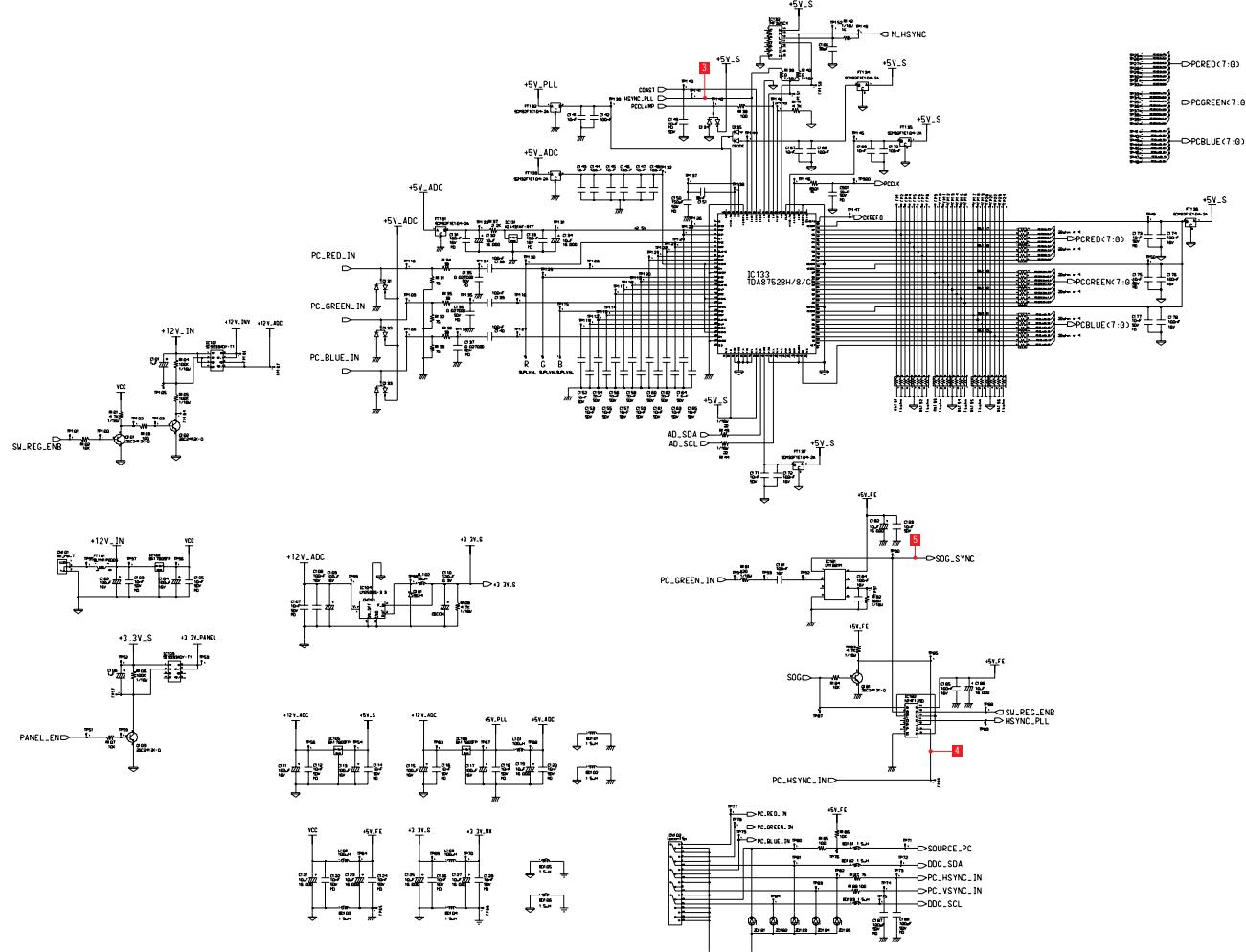


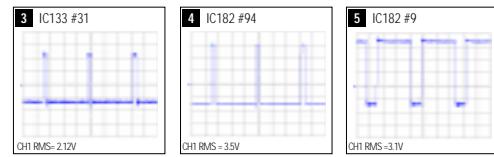
8 Wiring Diagram



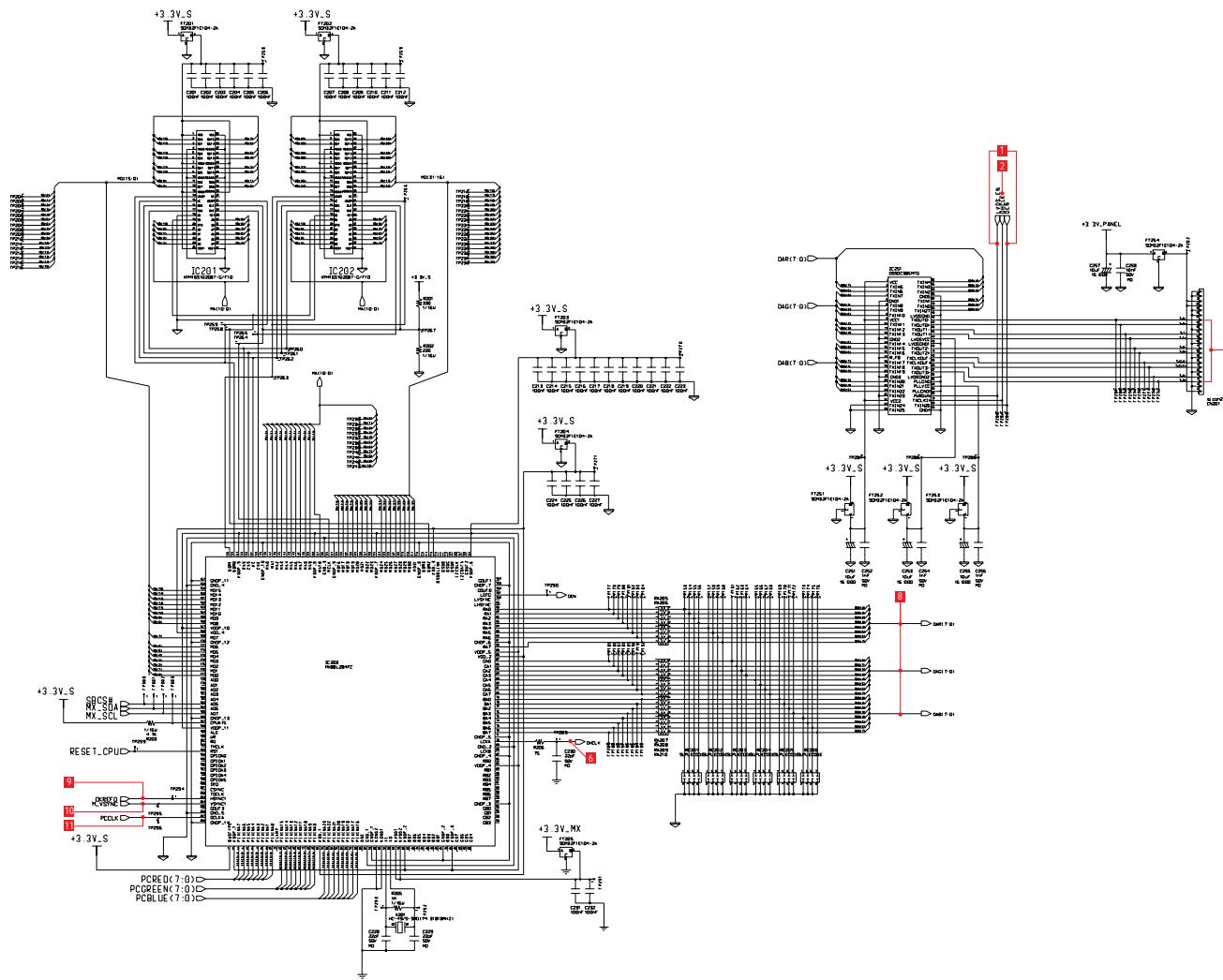
9 Schematic Diagrams

9-1 ADC & I/O Part Schematic Diagram (CN15MSS)

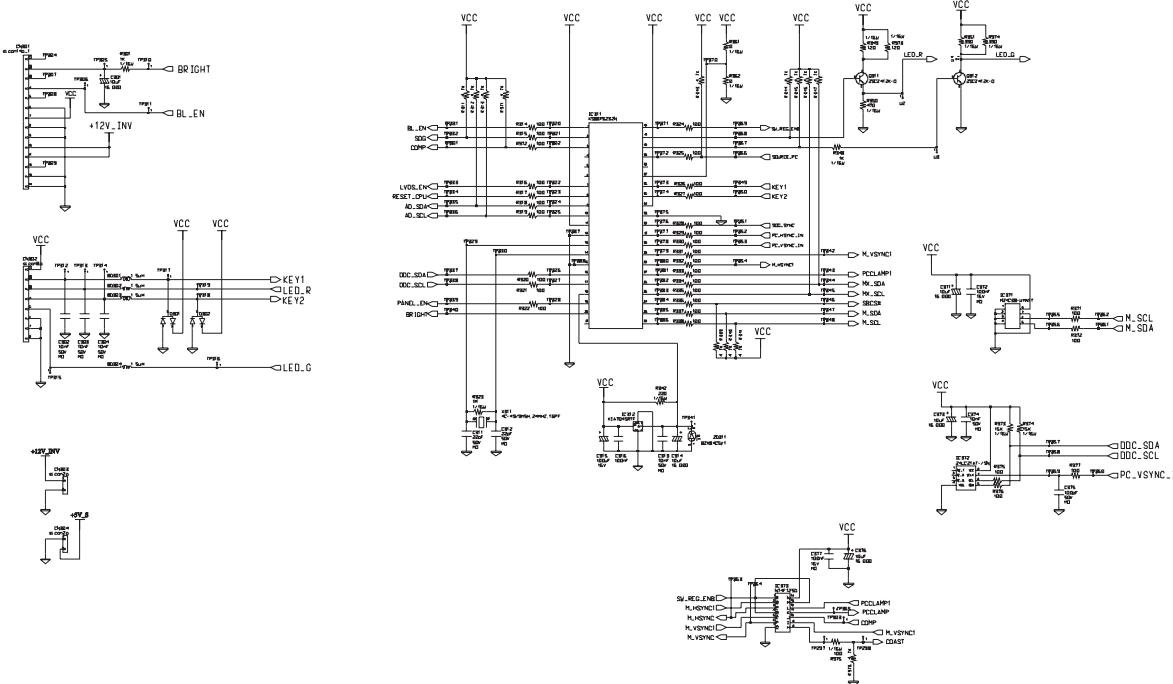




9-2 FRC & LVDS Part Schematic Diagram (CN15MSS)





9-3 Micom Part Schematic Diagram (CN15MSS)**Table 9-7. IC401**

pin #	MODES		pin #	MODES	
	1024 x 768 / 75 Hz			1024 x 768 / 75 Hz	
1	0-5	22	Pulse		
2	0..5	23	GND		
3	5	24	Pulse		
4	5	25	5		
5	4.62	26	5		
6	0	27	0		
7	5	28	0		
8	5	29	5		
9	GND	30	5		
10	5	31	0		
11	NC	32	Clock		
12	NC	33	Clock		
13	5	34	5		
14	5	35	NC		
15	Pulse	36	3.8		
16	Pulse	37	5		
17	5	38	0		
18	NC	39	5		
19	NC	40	5		
20	Pulse	41	GND		
21	Pulse	42	NC		

Unit: Vrms

Table 9-8. IC403

pin #	MODES	
	1024 x 768 / 75 Hz	
1	NC	
2	NC	
3	NC	
4	GND	
5	4.43	
6	4.46	
7	4.87	
8	5.03	

Unit: Vrms

Table 9-9. IC404

pin #	MODES	
	1024 x 768 / 75 Hz	
1	GND	
2	GND	
3	GND	
4	GND	
5	5.03	
6	5.03	
7	GND	
8	5.03	

Unit: Vrms



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