

CONFIDENTIAL

PDP-026-1(Module Format)

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50" PDP

SERVICE MANUAL

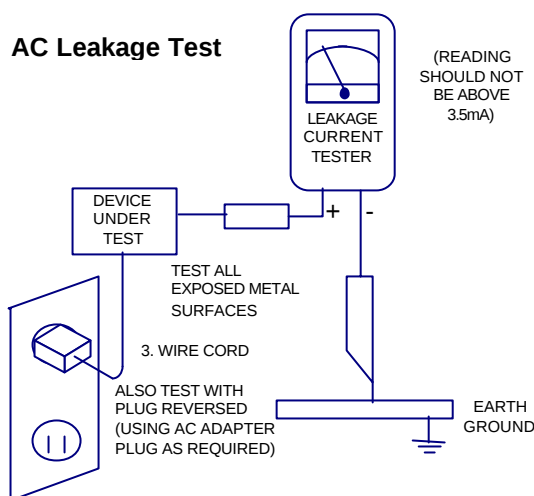
MODEL: GTW-P50M503

PANEL:Samsung (VVES50HW-XD01--)

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1. **Before returning an instrument to the customer**, always make a safety check of the entire instrument, including, but not limited to, the following items.
 - a. Be sure that no built-in protective devices are defective and/or have been defeated during servicing. (1) Protective shields are provided on this chassis to protect both the technician and the customer. Correctly replace all missing protective shields, including any removed for servicing convenience. (2) When reinstalling the chassis and/or other assembly in the cabinet, be sure to put back in place all protective devices, including, but not limited to, nonmetallic control knobs, insulating fish papers, adjustment and compartment covers/shields, and isolation resistor/capacitor networks. **Do not operate this instrument or permit it to be operated without all protective devices correctly installed and functioning.**
 - b. Be sure that there are no cabinet openings through which an adult or child might be able to insert their fingers and contact a hazardous voltage. Such openings include, but are not limited to, (1) spacing between the picture tube and the cabinet mask, (2) excessively wide cabinet ventilation slots, and (3) an improperly fitted and/or incorrectly secured cabinet back cover.
 - c. **Leakage Current Hot Check**—With the instrument completely reassembled, plug the AC line cord directly into a 120V AC outlet. (Do not use an isolation transformer during this test.) Use a leakage current tester or a metering system that complies with American National Standards Institutes (ANSI) C101.1 Leakage Current for Appliances and Underwriters Laboratories (UL) 478. With the instrument AC switch first in the ON position and then in the OFF position, measure from a known earth ground (metal water pipe, conduit, etc.) to all exposed metal parts of the instrument (antennas, handle bracket, metal cabinet, screw heads, metallic overlays, control shafts, etc.), especially any exposed metal parts that offer an electrical return path to the chassis. Any current measured must not exceed 3.5 milliamp. Reverse the instrument power cord plug in the outlet and repeat test. **ANY MEASUREMENTS NOT WITHIN THE LIMITS SPECIFIED HEREIN INDICATE A POTENTIAL SHOCK HAZARD THAT MUST BE ELIMINATED BEFORE RETURNING THE INSTRUMENT TO THE CUSTOMER.**



2. Read and comply with all caution and safety-related notes on or inside the Monitor cabinet, on the Projection Monitor chassis, or on the picture tube.
3. **Design Alteration Warning**—Do not alter or add to the mechanical or electrical design of this unit. Design alterations and additions, including, but not limited to, circuit modifications and the addition of the items such as auxiliary audio and/or video output connections might alter the safety characteristics of this Projection Monitor and create a hazard to the user. Any design alterations or additions will void the manufacturer's warranty and will make you, the service, responsible for personal injury or property damage resulting therefrom.

- 4. Hot Chassis Warning**—**a.** Some Monitor chassis are electrically connected directly to one conductor of the AC power cord and may be safely serviced without an isolation transformer only if the AC power plug is inserted so that the chassis is connected to the ground side of the AC power source. To confirm that the AC power plug is inserted correctly, with an AC voltmeter measure between the chassis and a known earth ground. If a voltage reading in excess of 1.0V is obtained, remove and reinsert the AC power plug in opposite polarity and again measure the voltage potential between the chassis and a known earth ground. **b.** Some Monitor chassis normally have 85V AC (RMS.), between chassis and earth ground regardless of the AC plug polarity. These chassis can be safely serviced only with an isolation transformer inserted in the power line between the receiver and the AC power source, for both personnel and test equipment protection. **c.** Some Projection Monitor chassis have a secondary ground systems in addition to the main chassis ground. This secondary ground system is not isolated from the AC power line. The two ground system are electrically separated by insulating material that must not be defeated or altered.
- 5.** Observe original lead dress. Take extra care to assure correct lead dress in the following areas: **a.** near sharp edges, **b.** near thermally hot parts—be sure that leads and components do not touch thermally hot parts, **c.** the AC supply, **d.** high voltage, **e.** antenna wiring. Always inspect in all areas for pinched, out-of-place, or frayed wiring. Do not change spacing between components, and between components and the printed-circuit board. Check AC power cord for damage.
- 6.** Components, parts, and/or wiring that appear to have overheated or are otherwise damaged should be replaced with components, parts, or wiring that meet original specifications. Additionally, determine the cause of overheating and/or damage and, if necessary, take corrective action to remove any potential safety hazard.
- 7. PRODUCT SAFETY NOTICE**—Many Monitor electrical and mechanical parts have special safety-related characteristics some of which are often not evident from visual inspection, nor can the protection they give necessarily be obtained by replacing them with components rated for higher voltage, wattage, etc. Parts that have special safety characteristics are identified in this service data by shading with a  mark on schematics and by shading or a * mark in the parts list. Use of a substitute replacement part that does not have the same safety characteristics as the recommended replacement part in this service data parts list might create shock, fire, and/or other hazards.

1. **SCOPE:**
These specifications describe all the characteristics of the 50-inch color monitor.
2. **ELECTRICAL REQUIREMENTS:**
 - 2.1. **Display panel:**

	Specification
a. Screen size	Diagonal 50 inch
b. Aspect ratio	16:9 wide
c. Number of pixels	1366 (Horizontal, RGB Trio) X 768 (Vertical) pixels
d. Pixel Pitch	0.81mm (H) X 0.81mm (V)
e. Luminance	Typical 500cd/m ² (1% white window)
f. Contrast Ratio	Typical 450:1 (1% white window)
g. Chromatically	x=0.260±0.03, y=0.275±0.03(color temperature HIGH) at center block white pattern 100% (mosaic). x=0.285±0.03, y=0.295±0.03(color temperature MID) at center block white pattern 100% (mosaic). x=0.335±0.03, y=0.343±0.03(color temperature LOW) at center block white pattern 100% (mosaic). x=0.313±0.03, y=0.329±0.03(color temperature 6500D) at center block white pattern 100% (mosaic).
 - 2.2. **Power Source:**

a. Input voltage	100 ~ 240 Vac, 50 / 60 Hz
b. Input current	5A
c. Inrush current	60 A p-p/20ms Max.
d. Power consumption	470+10% Watts Max. (at 110Vac/color bar pattern)
e. Stand-by & DPMS	10 Watts Max. (at 110Vac)
 - 2.3. **Input Signal:**
 - 2.3.1 **Connector Type:**

9 pin D-SUB
15 pin D-SUB
24 pin DVI
 - 2.3.2 **RGB Signal:**

a. Type	TTL
b. Polarity	Positive or Negative
c. Amplitude	RGB: 0.7Vp-p
d. Frequency	H: support to 31K~91KHz V: support to 50~85Hz
 - 2.3.3 **DVI Signal:**

a. Type	Digital
b. Polarity	Positive or Negative
c. Frequency	H: support to 31K~68KHz V: support to 50~85Hz
d. HDCP Encryption	Enabled

2.3.4 Pin Assignments For D-SUB Connector (In / Loop Out):

Pin	Signal Assignment	Pin	Signal Assignment	Pin	Signal Assignment
1	RED	6	RED GND	11	GND
2	GREEN	7	GREEN GND	12	SDA
3	BLUE	8	BLUE GND	13	H-SYNC
4	GND	9	NC	14	V-SYNC
5	GND	10	GND	15	SCL

2.3.5 Pin Assignments For 24 Pin DVI Connector (Digital Only):

Pin	Signal Assignment	Pin	Signal Assignment	Pin	Signal Assignment
1	TMDS Data 2-	9	TMDS Data 1-	17	TMDS Data 0-
2	TMDS Data 2+	10	TMDS Data 1+	18	TMDS Data 0+
3	TMDS Data 2/4 Shield	11	TMDS Data 1/3 Shield	19	TMDS Data 0/5 Shield
4	TMDS Data 4-	12	TMDS Data 3-	20	TMDS Data 5-
5	TMDS Data 4+	13	TMDS Data 3+	21	TMDS Data 5+
6	DDC Clock	14	+5V Power	22	TMDS Clock Shield
7	DDC Data	15	Ground (For +5V)	23	TMDS Clock +
8	No Connect	16	Hot Plug Detect	24	TMDS Clock -

2.3.6 MODE LIST FOR RGB/DVI:

Mode No	Resolution	Refresh Rate	Horizontal Frequency	Vertical Frequency	Vertical Sync Polarity	Horizontal Sync Polarity	Dot rate
		(Hz)	(K Hz)	(Hz)	(TTL)	(TTL)	(MHz)
1	640(VGA) ×480	60	31.500	59.940	-	-	25.175
2	640(VGA) ×480	72	37.900	72.810	-	-	31.500
3	640(VGA) ×480	75	37.500	75.000	-	-	31.500
4	640(VGA) ×480	85	43.300	85.010	-	-	36.000
5	800(SVGA) ×600	56	35.100	56.250	+	+	36.000
6	800(SVGA) ×600	60	37.900	60.317	+	+	40.000
7	800(SVGA) ×600	72	48.100	72.190	+	+	50.000
8	800(SVGA) ×600	75	46.900	75.000	+	+	49.500
9	800(SVGA) ×600	85	53.700	85.060	+	+	56.250
10	1024(XGA) ×768	60	48.400	60.010	-	-	65.000
11	1024(XGA) ×768	70	56.500	70.070	-	-	75.000
12	1024(XGA) ×768	75	60.000	75.030	+	+	78.750
13	1024(XGA) ×768	85	68.700	84.990	+	+	94.500
14	1280(SXGA) ×1024	60	63.980	60.020	+	+	108.00
15	1280(SXGA) ×1024	75	79.980	75.030	+	+	135.00
16	1280(SXGA) ×1024	85	91.150	85.020	+	+	157.50
18	720(DOS) ×400	70	31.460	70.080	+	-	28.322
19	640(VGA) ×480	50	31.500	50.000	-	-	25.175
20	1280(HDTV) ×720p	60	45.000	60.000	+	+	74.250
21	1920(HDTV) ×1080i	60(i)	33.750	60.000	+	+	74.250
22	640(VGA) ×350	70	31.500	70.000	-	+	25.175
23	852(WGA) ×480	60	31.410	59.835	-	-	30.000
24	640 x 480	67	35.000	66.670	-	-	30.240
25	832 x 624	75	49.730	74.550	-	-	57.283
26	1152 x 870	75	68.680	75.060	-	-	100.000
28	1360 x 768	60	47.368	59.960	-	+	72.000
30	1280 x 960	60	60.000	60.000	+	+	108.000
31	1280 x 960	85	85.938	85.002	+	+	148.500

Note: 1. : For DVI is not supported.

2. Mode 24~26 for Apple Macintosh computer.

2.4. Display Performance Requirements:

The data of display performance are measured based on the following conditions unless otherwise specified.

- a. Ambient temperature 25±5
- b. Warm up period 30 minutes Min.
- c. Line input voltage: 100 Vac ~ 240 Vac (50 / 60 Hz)
- d. Viewing distance Distance from screen is 81 cm
- e. Display mode Test with window white pattern mode if not specified.
- f. Brightness condition Press recall bottom to set default brightness

2.4.1 Maximum Resolution: Support to 1280 x 1024

2.4.2 Horizontal Size (Standard) 1106.5±8 mm (for mode 1 31)
 Vertical Size (Standard) 622.1±8 mm (for mode 1 31)

2.4.3 Horizontal Size (Max.) Mode 1~31⇒ over full-scan
 Vertical Size (Max.) Mode 1~31⇒ over full-scan

2.4.4 Maximum Brightness Level: Timing Mode 1

- a. 100% center block white pattern (mosaic) More than 25FL
 (while pressing recall button to set default brightness)
- b. Raster background Less than 0.4FL
 (while pressing recall button to set default brightness)

2.5. Operation:

Main unit button Main power switch (power ON /OFF)
 Power ON/OFF
 Input Select (RGB -> DVI run in cycle)
 Menu key -,+
 Adjustment -,+
IR Remote Control Power on/off
 MUTE
 Display
 Input Select (same as Main unit button)
 Volume -,+
 Wide:
 Analog RGB input: 4:3/16:9
 Menu -,+
 Adjustment -,+
 RECALL
 PIP, SOURCE, SWAP, POSITION (this mode is not use)
 USE FOR TV MODE: (this mode is not use)
 V-CHIP/ SET
 FAV.CH, FAV.SET, QV, CCD, MTS, CH LOCK,
 SLEEP TIMER,
 Number Select, CH ▲ ▼
 DIRECT KEY:
 POWER ON, POWER OFF, RGB, DVI
 TV(this mode is not use)
 AV1(this mode is not use)
 AV2(this mode is not use)
 COMPONENT1/2(this mode is not use)

2.5.1 Adjustable Items:

Analog RGB input PICTURE:
 Input Source, Brightness, Contrast, V-center, V-size,
 H- position, H-width, Color Temperature, Clock Phase
 SOUND: (this mode is not use)
 Bass, Treble, Surround, BBE, Bass Extension, Volume,
 INNER SPK, Audio Output
 PIP/POP: (no function under this input)
 TV: (this mode is not use)
 OTHER:
 OSD Timeout, OSD Brightness, OSD Background, Sleep,
 OSD Language, Power Save, Power On Sequence, Reset
DVI input PICTURE:
 Input Source, Brightness, Contrast, V-center, V-size, H-
 position, H-width, Color Temperature
 SOUND: (same as Analog RGB input)
 PIP/POP; (no function under this input)
 TV; (this mode is not use)
 OTHER:
 OSD Timeout, OSD Brightness, OSD Background, Sleep,
 Power Save, Power On Sequence, Reset

- | | | | |
|----|--------------------|----------------------|-------------------|
| 3. | DIMENSIONS: | Without/Stand | With/Stand |
| | Width | 49.5"/1256mm | 49.5"/1256mm |
| | Height | 30.0" /762 mm | 31.9"/810mm |
| | Depth | 4.2"/107.5mm | 11.8"/300 mm |
- 3.1. Package Dimensions:
- | | |
|--------|---------------|
| Width | 56.5"/1436 mm |
| Height | 44.3"/1125 mm |
| Depth | 18.5"/470 mm |
- 3.2. Weight:
- | | | |
|--------------|----------------------------|--------------------------|
| Net weight | 103.6lbs/47 Kg (w/o stand) | 108lbs/ 49Kgs (w/ stand) |
| Gross weight | 132.24lbs/60 Kg | |
4. ENVIRONMENT:
- 4.1. Operating:
- | | |
|-------------------|----------------|
| Temperature | 0~50 (32~122) |
| Relative humidity | 20~80% |
| Pressure | 800~1100hpa |
- 4.2. Non-Operating:
- | | |
|-------------------|--|
| Temperature | -20~60 (-4~140) |
| Relative humidity | 20~90% |
| Pressure | 700~1100hpa |
| Vibration | X/Y/Z, 0.5G/10~55Hz(sweep), 10 minutes |
- 4.3. Acoustics:
(IHF A-weighted 1meter)
- | |
|-----------|
| 40dB Max. |
|-----------|
5. Reliability Requirement:
- The MTBF needs 20000hrs under operation 25±5 (half luminosity, motion picture)
6. REGULATORY REQUIREMENTS:
- 6.1 Safety Requirement:
- | | |
|--------|--|
| a. UL | Safety of information technology equipment including electrical business equipment |
| b. CSA | Safety of information technology equipment including electrical business equipment |
| c. TUV | |
- 6.2 Emission Requirement:
- The unit shall meet the EMI limits in all screen modes. For EMI testing, the unit must be failed with the screen pattern consisting of scrolling capital "H" characters also the brightness contrast will be adjusted to max. Level.
- a. FCC class B part 15

6.3 Transit test

- a. Drop Test 200mm max.
- b. Vibration Test
 - 1. Forward and backward 30 minutes 1000 c.p.m
 - 2. Right and left 30 minutes 1000 c.p.m
 - 3. Up and down 30 minutes 1000 c.p.m

6.4 Power Management:

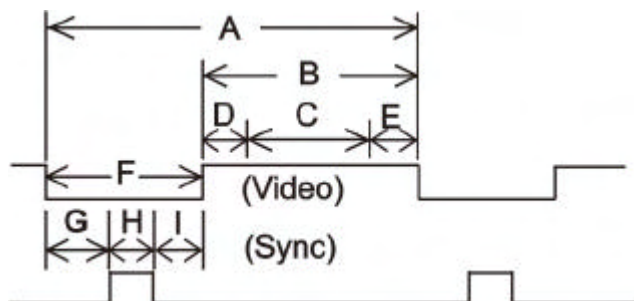
Mode	H-sync	V-sync	Video	Power dissipation
Normal	Pulse	Pulse	Active	Normal power
Stand-by	No pulse	No pulse	No video	Less than 10 watts
Power saving	Pulse	No pulse	Blanked	Less than 10 watts
	No pulse	Pulse		

This Plasma display is Energy star compliant when used with a computer equipped with DPMS.

Note: The power indicator LED color is green in normal state, yellow in stand-by and power saving state.

APPENDIX A:

Preset Timing Chart



Item	Description:
A	Total time
B	Active display area including borders
C	Active display area excluding borders
D	Left/Top border
E	Right/bottom border
F	Blanking time
G	Front porch
H	Sync-width
I	Back porch

Mode No	1	2	3	4	5	6	7	8	9	
Resolution	640	640	640	640	800	800	800	800	800	
&	480	480	480	480	600	600	600	600	600	
Refresh Rate	60	72	75	85	56	60	72	75	85	Hz
Pixel Clock	25.175	31.500	31.500	36.000	36.000	40.000	50.000	49.500	56.250	MHz
Horizontal visible	640	640	640	640	800	800	800	800	800	Dots
Horizontal total	800	832	840	832	1024	1056	1040	1056	1048	Dots
Horizontal front porch	16	24	16	56	24	40	56	16	32	Dots
Horizontal sync	96	40	64	56	72	128	120	80	64	Dots
Horizontal back porch	48	128	120	80	128	88	64	160	152	Dots
Horiz blanking time	160	192	200	192	224	256	240	256	248	Dots
Vertical visible	480	480	480	480	600	600	600	600	600	Lines
Vertical total	525	520	500	509	625	628	666	625	631	Lines
Vertical front porch	10	9	1	1	1	1	37	1	1	Lines
Vertical sync	2	3	3	3	2	4	6	3	3	Lines
Vertical back porch	33	28	16	25	22	23	23	21	27	Lines
Vertical blanking time	45	40	20	29	25	28	66	25	31	Lines
Horizontal frequency	31.469	37.861	37.500	43.269	35.156	37.879	48.077	46.875	53.674	KHz
Vertical frequency	59.940	72.809	75.000	85.008	56.250	60.317	72.188	75.000	85.061	Hz
Vertical sync polarity	-	-	-	-	+	+	+	+	+	TTL
Horiz sync polarity	-	-	-	-	+	+	+	+	+	TTL

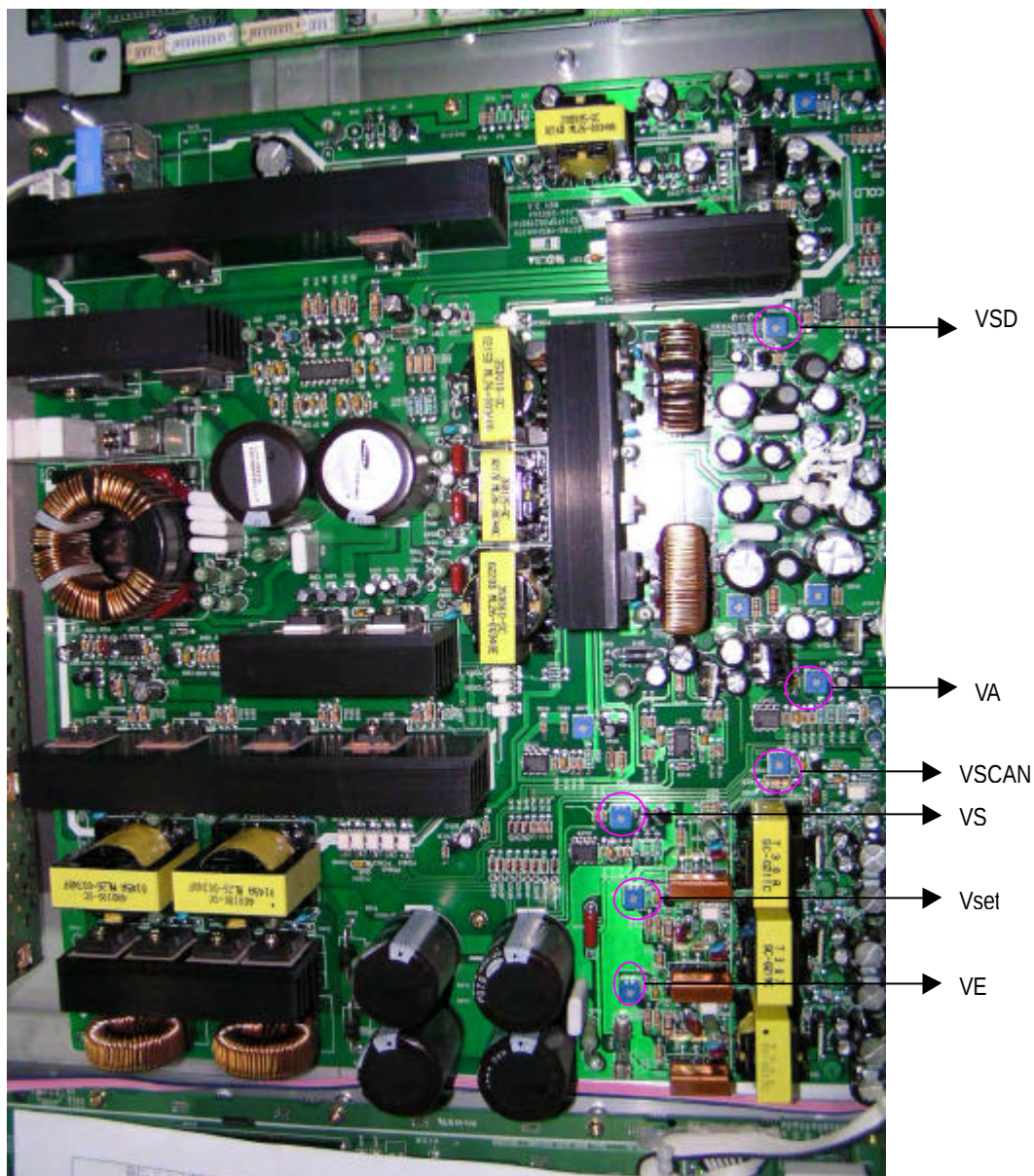
Mode No	10	11	12	13	14	15	16	18	19	
Resolution & Refresh Rate	1024 768 60	1024 768 70	1024 768 75	1024 768 85	1280 1024 60	1280 1024 75	1280 1024 85	720 400 70	640 480 50	Hz
Pixel Clock	65.000	75.000	78.750	94.500	108.000	135.000	157.500	28.320	25.175	MHz
Horizontal visible	1024	1024	1024	1024	1280	1280	1280	720	640	Dots
Horizontal total	1344	1328	1312	1376	1688	1688	1728	900	800	Dots
Horizontal front porch	24	24	16	48	48	16	64	18	16	Dots
Horizontal sync	136	136	96	96	112	144	160	108	96	Dots
Horizontal back porch	160	144	176	208	248	248	224	54	48	Dots
Horiz blanking time	320	304	288	352	408	408	448	180	160	Dots
Vertical visible	768	768	768	768	1024	1024	1024	400	480	Lines
Vertical total	806	806	800	808	1066	1066	1072	449	629	Lines
Vertical front porch	3	3	1	1	1	1	1	12	62	Lines
Vertical sync	6	6	3	3	3	3	3	2	2	Lines
Vertical back porch	29	29	28	36	38	38	44	35	85	Lines
Vertical blanking time	38	38	32	40	42	42	48	49	149	Lines
Horizontal frequency	48.364	56.476	60.023	68.677	63.981	79.976	91.146	31.469	31.469	KHz
Vertical frequency	60.004	70.069	75.029	84.997	60.020	75.025	85.024	70.087	50.030	Hz
Vertical sync polarity	-	-	+	+	+	+	+	+	-	TTL
Horiz sync polarity	-	-	+	+	+	+	+	-	-	TTL

Mode No	20	21	22	23	24	25	26	28	
Resolution & Refresh Rate	1280 720p 60	1920 1080i 60i	640 350 70	852 480 60	640 480 67	832 624 75	1152 870 75	1360 768 60	Hz
Pixel Clock	74.250	74.250	25.175	30.000	30.240	57.283	100.000	72.000	MHz
Horizontal visible	1280	1920	640	852	640	832	1152	1360	Dots
Horizontal total	1650	2200	800	955	864	1152	1456	1520	Dots
Horizontal front porch	110	88	16	19	64	32	32	48	Dots
Horizontal sync	40	44	96	48	64	64	128	32	Dots
Horizontal back porch	220	148	48	36	96	224	144	80	Dots
Horiz blanking time	370	280	160	103	224	320	304	160	Dots
Vertical visible	720	540	350	480	480	624	870	768	Lines
Vertical total	750	562.5	449	525	525	667	915	790	Lines
Vertical front porch	5	3	37	10	3	1	3	2	Lines
Vertical sync	5	5	2	2	3	3	3	5	Lines
Vertical back porch	20	15	60	33	39	39	39	15	Lines
Vertical blanking time	30	23	99	45	45	43	45	22	Lines
Horizontal frequency	45.000	33.750	31.469	31.413	35.000	49.725	68.681	47.368	KHz
Vertical frequency	60.000	60.000	70.087	59.835	66.667	74.550	75.062	59.960	Hz
Vertical sync polarity	+	+	-	-	-	-	-	-	TTL
Horiz sync polarity	+	+	+	-	-	-	-	+	TTL

Mode No	30	31						
Resolution & Refresh Rate	1280 960 60	1280 960 85						Hz
Pixel Clock	108.000	148.500						MHz
Horizontal visible	1280	1280						Dots
Horizontal total	1800	1728						Dots
Horizontal front porch	96	64						Dots
Horizontal sync	112	160						Dots
Horizontal back porch	312	224						Dots
Horiz blanking time	520	448						Dots
Vertical visible	960	960						Lines
Vertical total	1000	1011						Lines
Vertical front porch	1	1						Lines
Vertical sync	3	3						Lines
Vertical back porch	36	47						Lines
Vertical blanking time	40	51						Lines
Horizontal frequency	60.000	85.938						KHz
Vertical frequency	60.000	85.002						Hz
Vertical sync polarity	+	+						TTL
Horiz sync polarity	+	+						TTL

1. PANEAL voltage adjustment

POWER VOLTAGE ADJUST



1. POWER ON
2. INPUT ALL WHITE PATTERN
3. ADJUST "Vs" VR MEASURE P805 PIN13 TO PIN10 VOLTAGE IS 158 ~ 172 V
4. ADJUST "Va" VR MEASURE P805 PIN1 TO PIN4 VOLTAGE IS 66 ~ 77 V
5. ADJUST "VSD" VR MEASURE P805 PIN1 TO PIN2 VOLTAGE IS 49 V
6. ADJUST "VSCAN" VR MEASURE P805 PIN7 TO PIN2 VOLTAGE IS 88 ~ 92 V
7. ADJUST "Vset" VR MEASURE P805 PIN7 TO PIN10 VOLTAGE IS 208 ~ 222 V
8. ADJUST "VE" VR MEASURE P805 PIN5 TO PIN2 VOLTAGE IS 183 ~ 197 V

2. Color Temperature Adjustment

1.1 Pre-setting Adjustment and Equipment Preparation for DVI Mode:

- (1) Turn on the PDP and let it warm up for at least 30 minutes.
- (2) Turn on the Color Analyzer (ie. Minolta, Model = CA-100) and reset the Color Analyzer.
- (3) Change the PDP input mode to DVI and press the "Recall" key on the remote control to have the PDP set recalled back to default factory settings.
- (4) Set up the Video Pattern Generator (ie. Chroma, Model = C2226) with the following settings:
 - a. Timing: 640 x 480 @ 60Hz,
 - b. Make sure the Output signal is Digital (DVI)Connect the PDP DVI input connector to the Chroma DVI output connector.
- (5) Dark level and bright level center block definition:
 - A. Dark level center block definition:

Pattern set = Pattern name = 1-mosaic,
Color form = norm,
Background color = 0
Foreground color = 17

According to the C-2226' s user manual, appendix analog-color: Normal Pen from Pen 17 = R: 102, G: 102, B: 102
 $102 \text{ (output amplifier)} / 1024 \text{ (total amplifier)} = 10\%$, therefore the 10% is the 10 IRE white output pattern.
 - B. Bright level center block definition:

Pattern set = Pattern name = 1-mosaic,
Color form = norm,
Background color = 0
Foreground color = 25

According to the C-2226' s user manual, appendix analog-color: Normal Pen from Pen 25 = R: 614, G: 614, B: 614
 $614 \text{ (output amplifier)} / 1024 \text{ (total amplifier)} = 60\%$, therefore the 60% is the 60 IRE white output pattern.
- (6) There are 2 different modes (DVI and RGB) that have Color Temperature settings. For each one of these 3 modes, there are 4 different Color Temperatures (5400K, 6500D, 9300K and 13800K) that can be individually adjusted. Each Color Temperature is adjusted through the dark level, bright level, Gain and Bias values.
- (7) Press the following key sequence to access the Factory Adjustment Menu:
Press and hold down the Left Arrow key for at least 5 seconds, then press and hold down the Right Arrow key for at least 5 seconds followed by pressing the FAV.SET key.

From the Factory Adjustment Menu, choose the Color Temp. Adj option and the following OSD will appear.

DVI (RGB, COM)	5400K (6500D, 9300K, 13800K)
x=335	y=343
GAIN	BIAS
R G B	R G B
X X X	X X X

Note: When adjusting the DVI and RGB color temperatures, please set the PDP input source so that it matches the color temperature source being adjusted (DVI color temp. to be adjusted with DVI source under DVI mode and RGB color temp. with RGB source under RGB mode).

- (8) Flatly place the Minolta Color Analyzer' s Photo Detector in contact with the center of the PDP screen.

1.2 DVI Mode Color Temperature Adjustment Procedure:

- (1) With the PDP' s DVI input connected to Chroma C-2226' s DVI output connector, set the Chroma to send a dark level center block signal (10 IRE). Now press the Factory Adjustment key sequence as stated in point (7) above. The DVI 5400K Color Temperature setting menu will appear after choosing the Color Temperature Adjustment option.
- (2) Press the Left/Right Button to switch between the Bias (R, G, B) and Gain (R, G, B) values. Use the Up/Down Buttons to change the Bias and Gain Values.
- (3) 5400K dark level center block adjustment procedure:
 - A. Press the Left/Right key on the remote control to select G-BIAS and adjust (using the up/down key) the G-Bias value until $Y = 0.4 \pm 0.1$ FL.
 - B. Press the Left/Right key on the remote control to select R-BIAS and adjust the R-Bias value until $x = 335 \pm 30$
 - C. Press the Left/Right key on the remote control to select B-BIAS and adjust the B-Bias value until $y = 343 \pm 30$
 - D. Repeat steps A, B and C until the following final values are obtained:

 $x = 335 \pm 30$

 $y = 343 \pm 30$

 $Y = 0.4 \pm 0.1$ FL
- (4) 5400K bright level center block adjustment procedure: (Please set the Chroma C-2226 DVI bright level center block signal to 60 IRE)
 - A. Select G-GAIN and adjust the G-GAIN value until $Y = 30 \pm 1$ FL.
 - B. Select R-GAIN and adjust the R-GAIN value until $x = 335 \pm 30$

- C. Select B-GAIN and adjust the B-GAIN value until $y = 343 \pm 30$
- D. Repeat steps A, B and C until the following final values are obtained:
 - $x = 335 \pm 30$
 - $y = 343 \pm 30$
 - $Y = 30 \pm 1$ FL
- (5) Upon completion of Steps 3 and 4 above, press the FAV.SET key for the next Color Temperature setting (5400 → 6500D → 9300 → 13800).
 For each color temperature setting, please repeat Steps 3 and 4 above but replace the x and y settings with the following values:
 - a. 6500D: $x = 313$, $y = 329$ for both Dark and Bright Level Settings
 - b. 9300K: $x = 285$, $y = 295$ for both Dark and Bright Level Settings
 - c. 13800K: $x = 260$, $y = 275$ for both Dark and Bright Level Settings
 For these 3 Color Temperatures (6500D, 9300K and 13800K), adjust the Dark and Bright Levels to the following Y values:
 - a. Dark level $Y = 0.4 \pm 0.1$ FL
 - b. Bright level $Y = 30 \pm 1$ FL
- (6) Once all 4 Color Temperatures have been adjusted, skip through the RGB and Component Color Temperatures (using the FAV.SET key) and completely exit the Factory Adjustment Menu.

2.1 Pre-setting Adjustment and Equipment Preparation for RGB Mode:

- (1) Turn on the Color Analyzer (Minolta, Model = CA-100) and reset the Color Analyzer.
- (2) Switch the PDP input to RGB mode and press the "Recall" key on the remote control to have the PDP set recalled back to default factory settings.
- (3) Set up the Video Pattern Generator (Chroma, Model = C2226) with the following settings:
 - A. Timing: 640 x 480 @ 60Hz,
 - B. Make sure the Output signal is Analog (RGB)
 Connect the PDP RGB input connector to the Chroma C-2226 RGB output connector.
- (4) Dark level and bright level center block definition:
 - A. Dark level center block definition:
 - Pattern set = Pattern name = 1-mosaic
 - Color form = norm
 - Background color = 0
 - Foreground color = 17
 According to the C-2226' s user manual, appendix analog-color: Normal Pen from Pen 17 = R: 102, G: 102, B: 102
 $102 \text{ (output amplifier)} / 1024 \text{ (total amplifier)} = 10\%$, therefore the 10% is the 10 IRE white output pattern.

B. Bright level center block definition:

Pattern set = Pattern name = 1-mosaic

Color form = norm

Background color = 0

Foreground color = 25

According to the C-2226' s user manual, appendix analog-color: Normal Pen from Pen 25 = R: 614, G: 614, B: 614

614 (output amplifier)/1024 (total amplifier)=60%, therefore the 60% is the 60 IRE white output pattern.

- (5) Flatly place the Minolta Color Analyzer' s Photo Detector in contact with the center of the PDP screen.

2.2 RGB Mode Color Temperature Adjustment Procedure:

- (1) With the PDP' s RGB input connected to Chroma C-2226' s RGB output connector, set the Chroma C-2226 to a dark level center block signal (10 IRE). Enter the Factory Adjustment Menu using the same Key sequence specified above and then select the Color Temperature Adjustment option. Using the FAV.SET key skip through all the DVI Color Temperatures until you reach the 5400K RGB Color Temperature OSD.
- (2) Press the Left/Right Button to switch between the Bias (R, G, B) and Gain (R, G, B) values. Use the Up/Down Buttons to change the Bias and Gain Values.
- (3) 5400K dark level center block adjustment procedure:
 - A. Select G-BIAS and adjust the G-Bias value until $Y = 0.5 \pm 0.1$ FL
 - B. Select R-BIAS and adjust the R-Bias value until $x = 335 \pm 30$
 - C. Select B-BIAS and adjust the B-Bias value until $y = 343 \pm 30$
 - D. Repeat steps A, B and C until the following final values are obtained:

$x = 335 \pm 30$
 $y = 343 \pm 30$
 $Y = 0.5 \pm 0.1$ FL
- (4) 5400K bright level center block adjustment procedure: (Please set the Chroma C-2226 RGB bright level center block signal to 60 IRE)
 - A. Select G-GAIN and adjust the G-GAIN value until $Y = 30 \pm 1$ FL
 - B. Select R-GAIN and adjust the R-GAIN value until $x = 335 \pm 30$
 - C. Select B-GAIN and adjust the B-GAIN value until $y = 343 \pm 30$
 - D. Repeat steps A, B and C until the following final values are obtained:

$x = 335 \pm 30$
 $y = 343 \pm 30$
 $Y = 30 \pm 1$ FL

- (5) Upon completion of Steps 3 and 4 above, press the FAV.SET key for the next Color Temperature setting (5400 → 6500D → 9300 → 13800). For each color temperature setting, please repeat Steps 3 and 4 above but replace the x and y settings with the following values:
- a. 6500D: $x = 313$, $y = 329$ for both Dark and Bright Level Settings
 - b. 9300K: $x = 285$, $y = 295$ for both Dark and Bright Level Settings
 - c. 13800K: $x = 260$, $y = 275$ for both Dark and Bright Level Settings
- For these 3 Color Temperatures (6500D, 9300K and 13800K), adjust the Dark and Bright Levels to the following Y values:
- a. Dark level $Y = 0.5 \pm 0.1$ FL
 - b. Bright level $Y = 30 \pm 1$ FL
- (6) Once all 4 Color Temperatures have been set you will automatically exit the Color Temperature Adjustment. Once you exit the Color Temperature Adjustment proceed on by completely exiting the Factory Adjustment Menu.

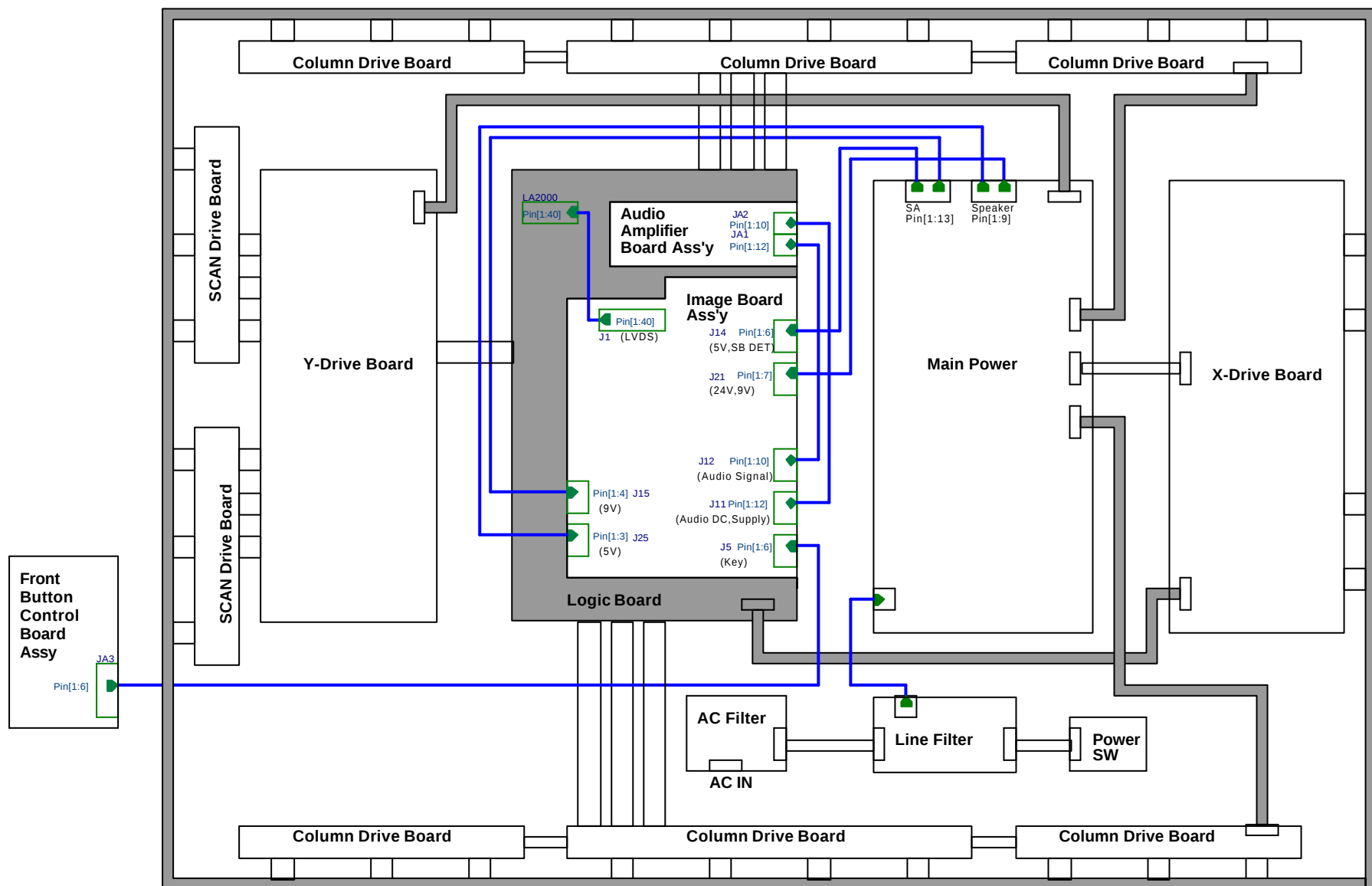
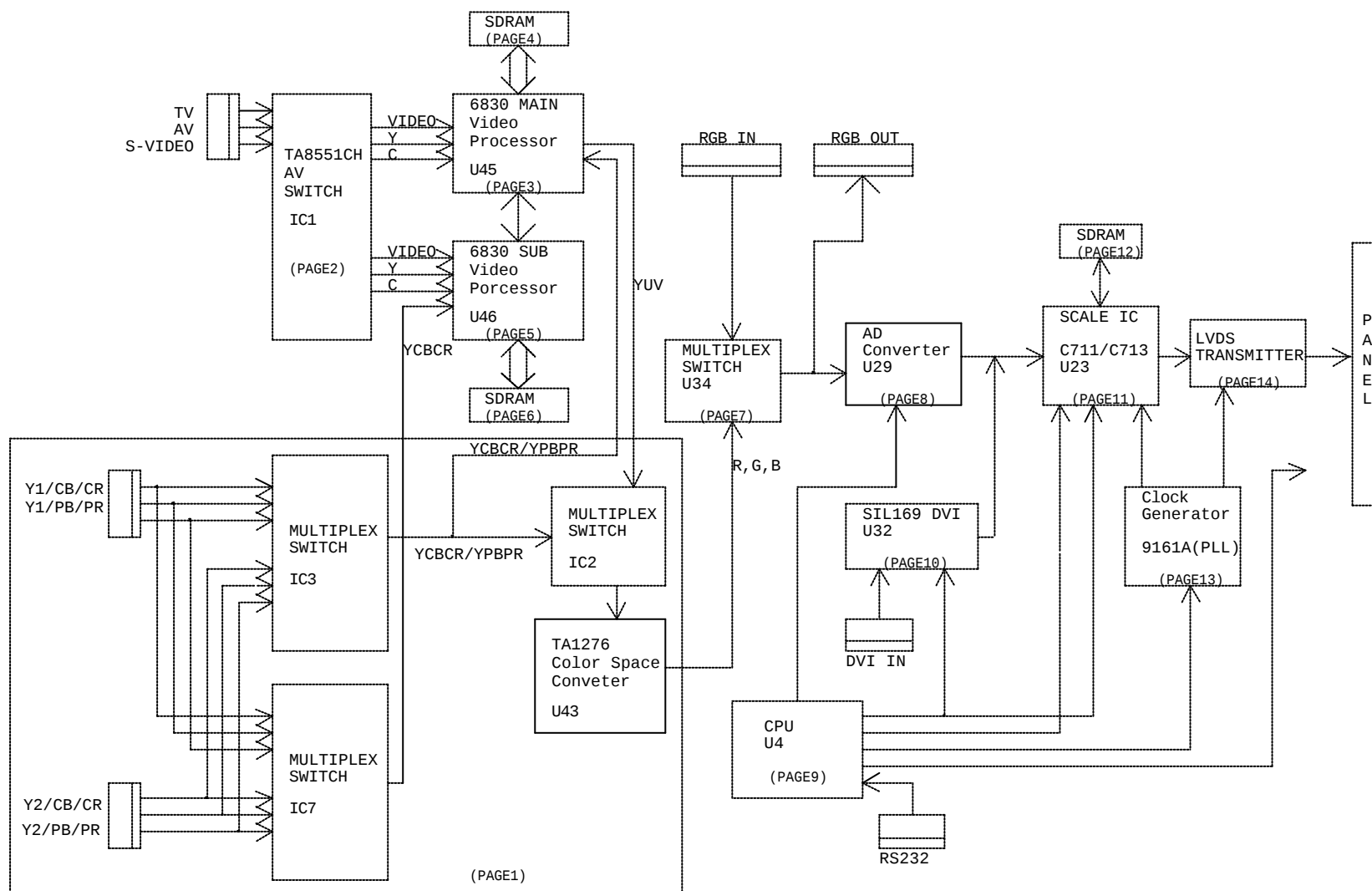
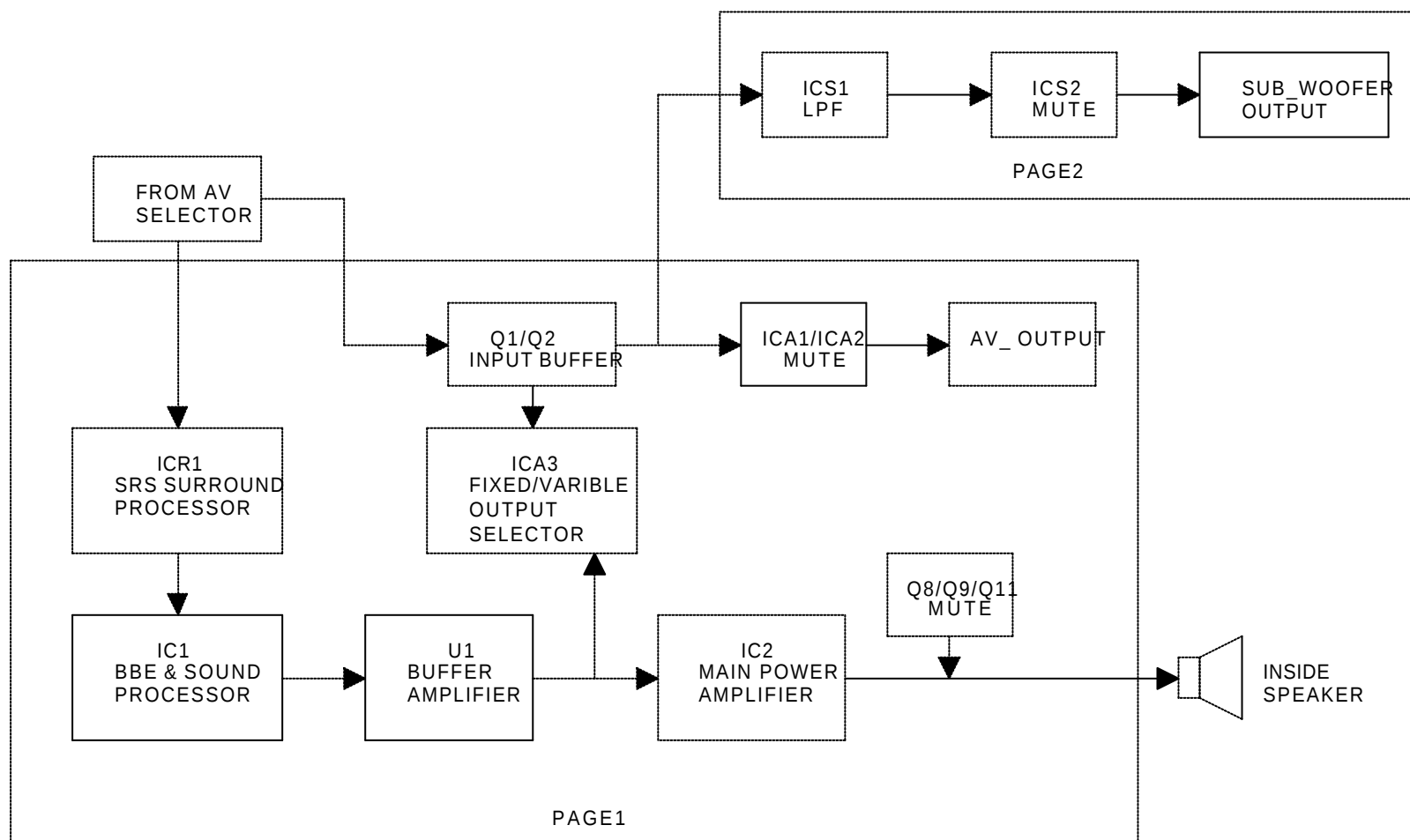


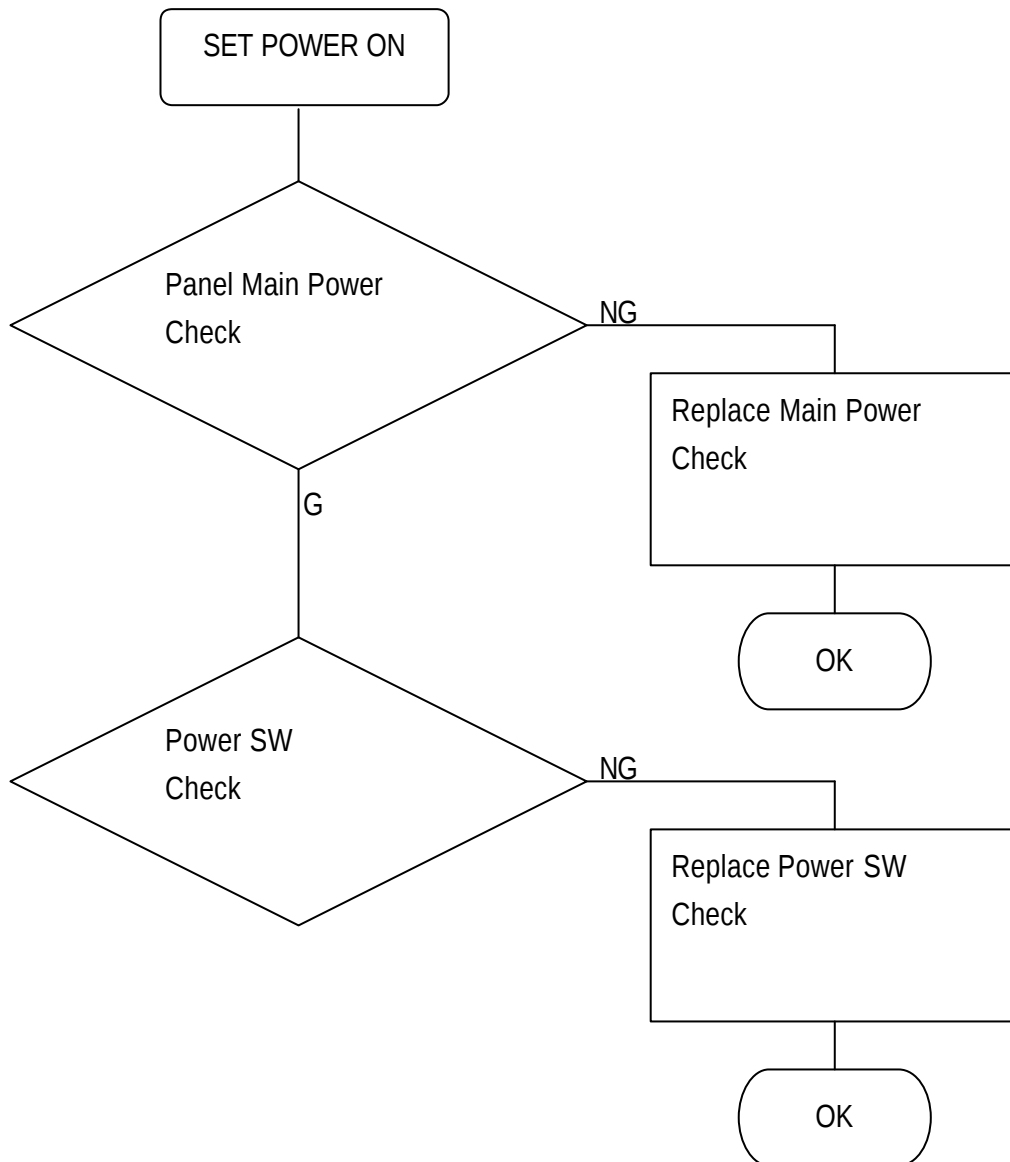
Image Board Signal Block Diagram



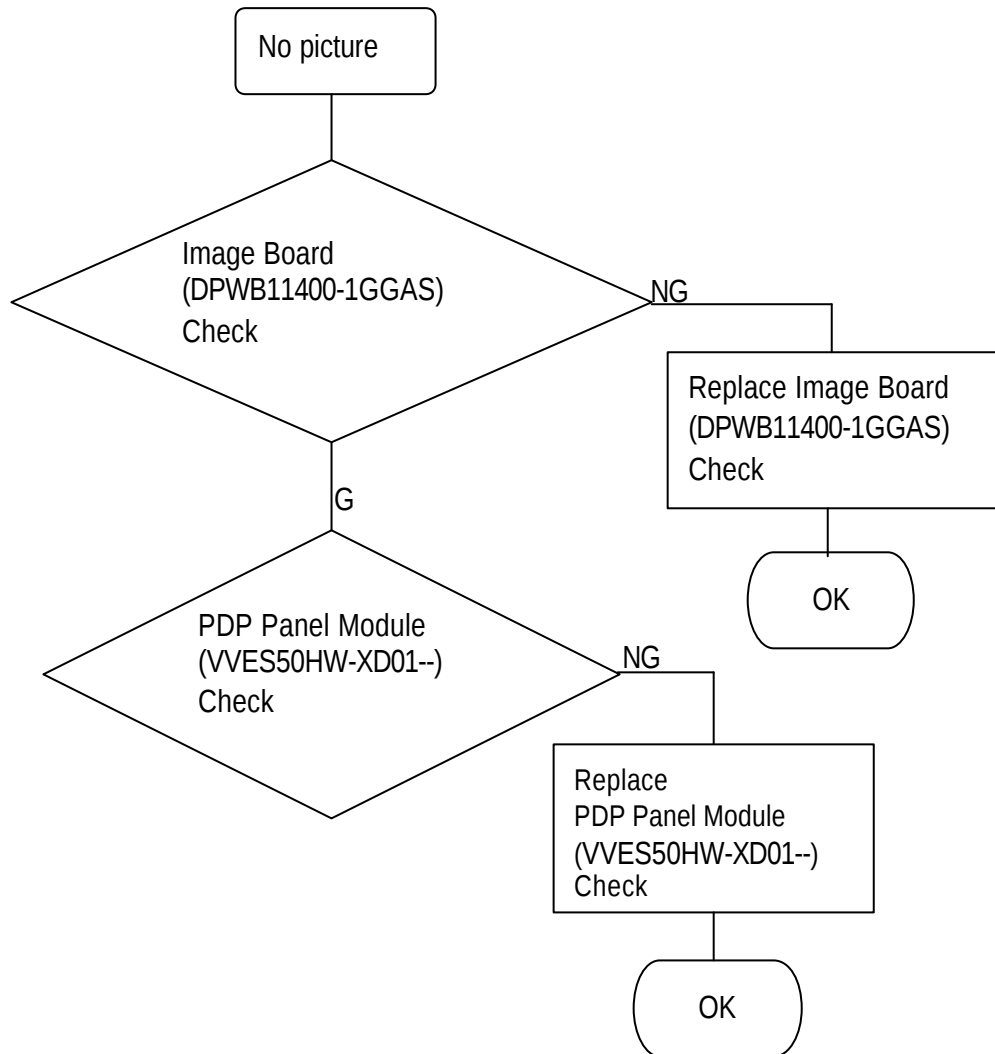
PDP Sound Block Diagram



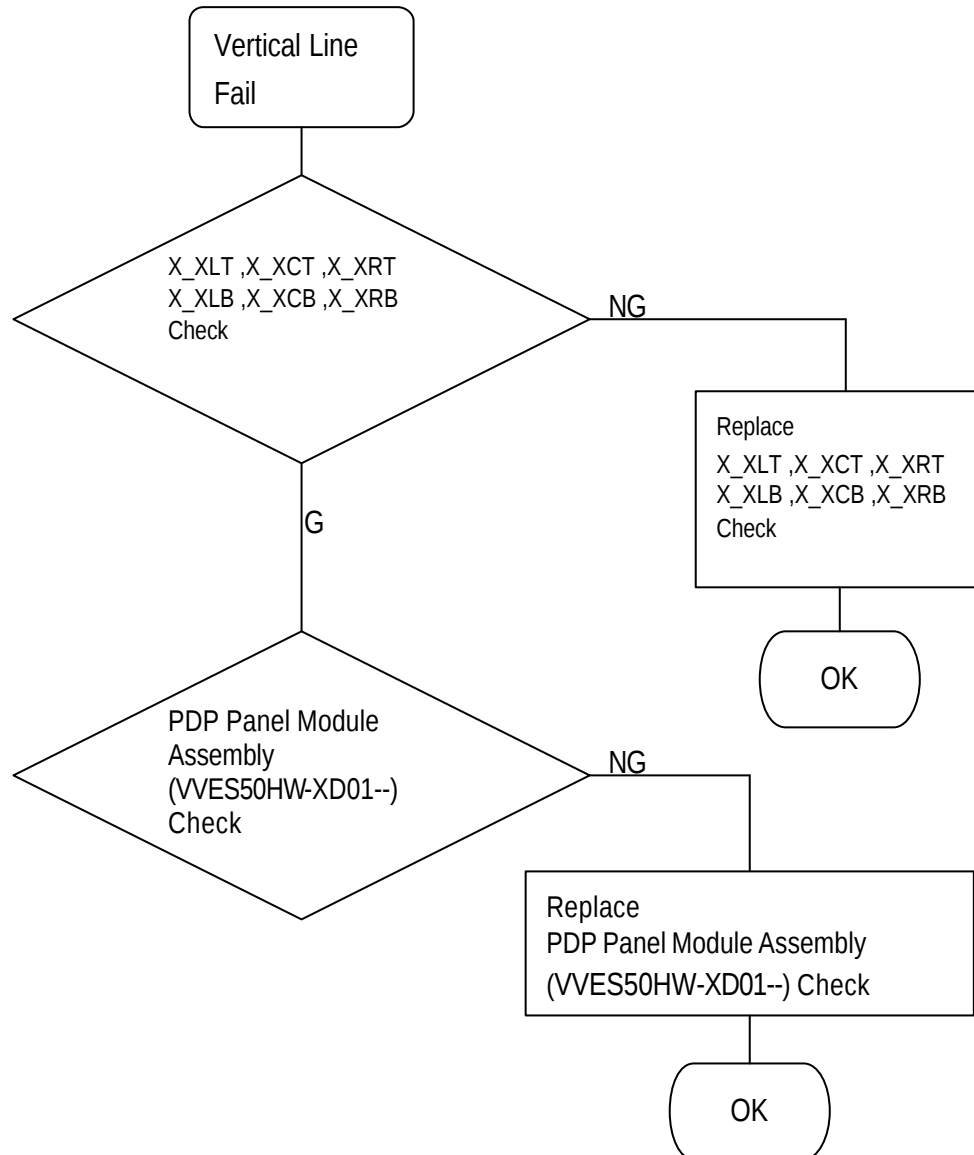
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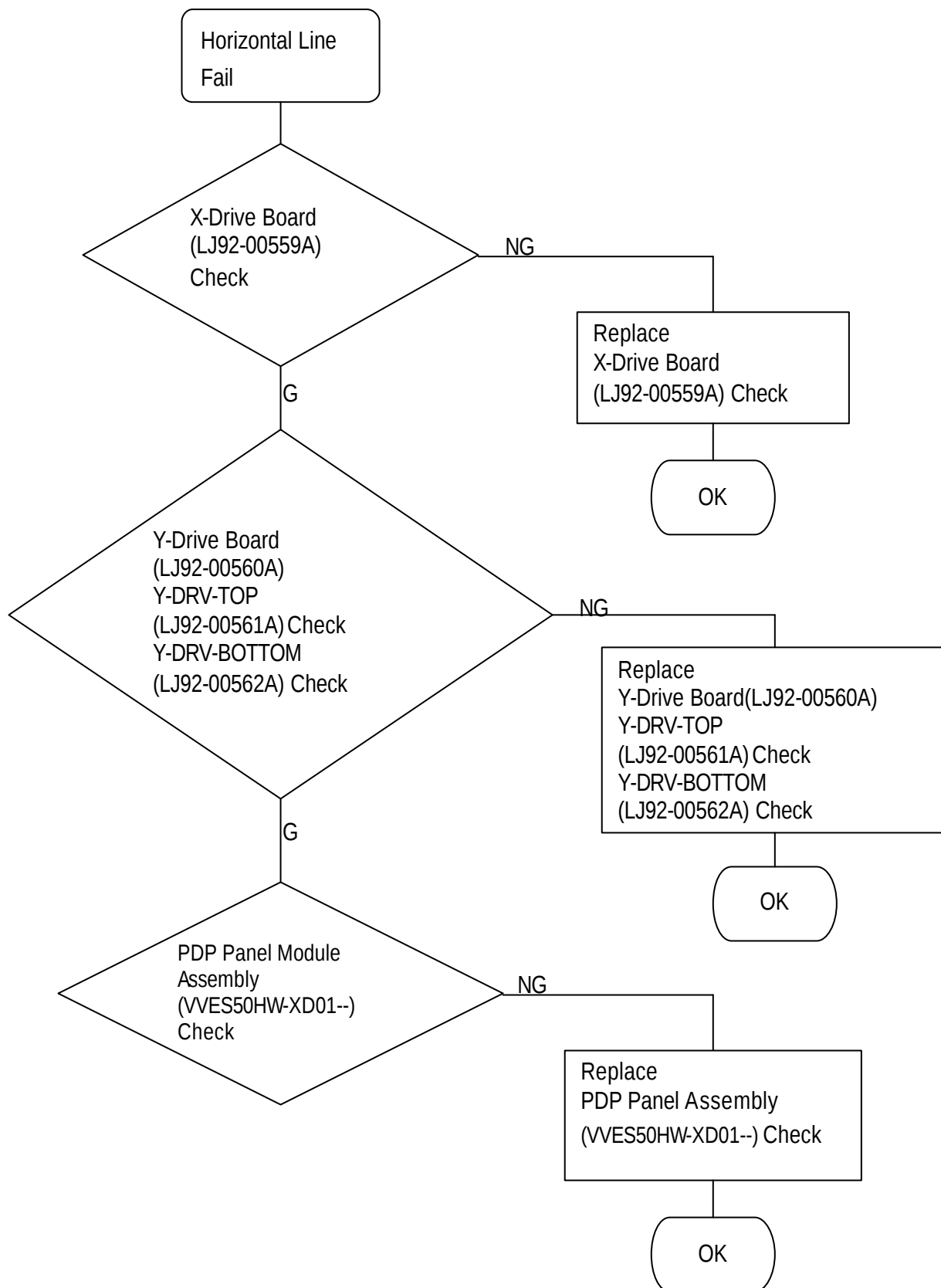
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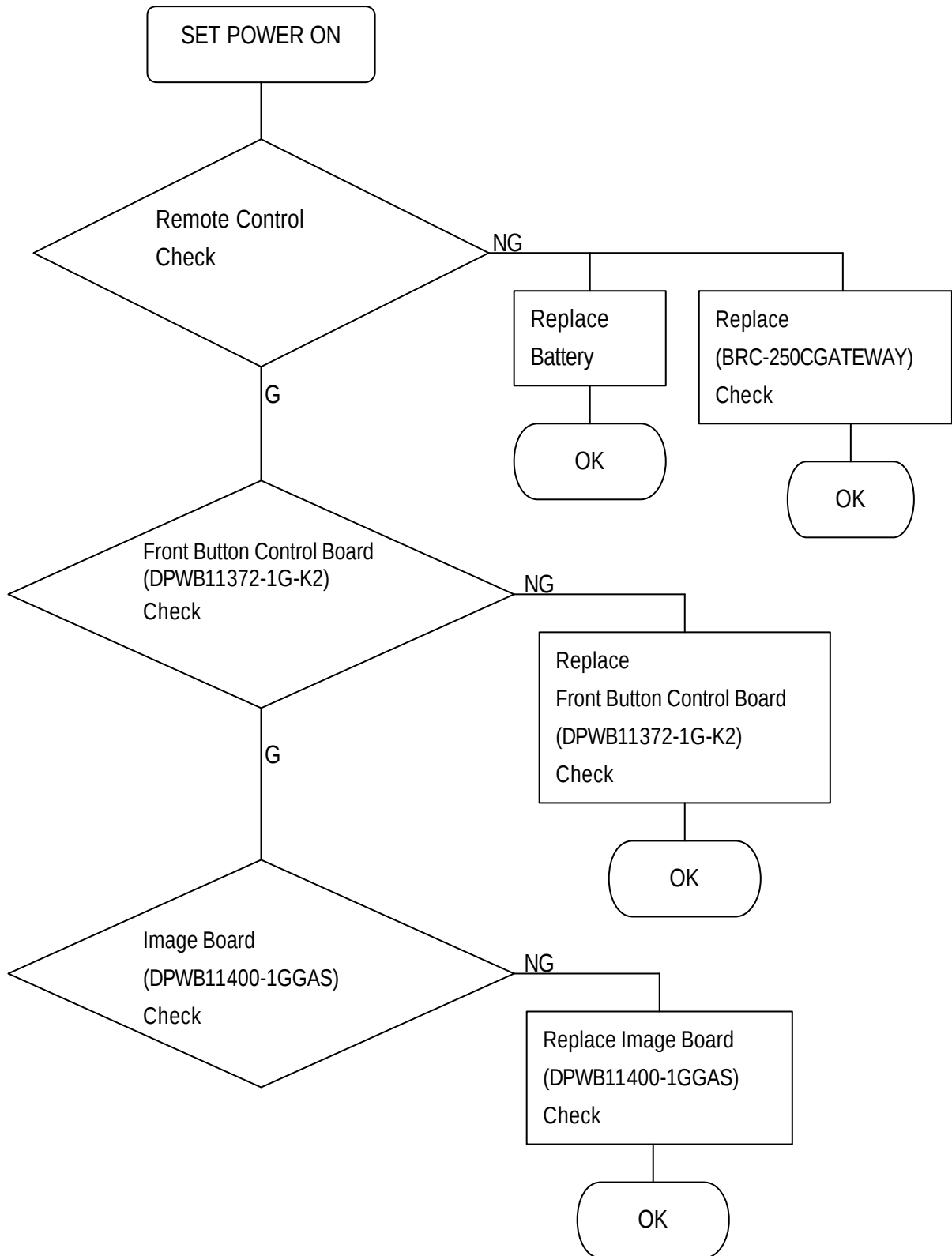
Vertical Line Fail



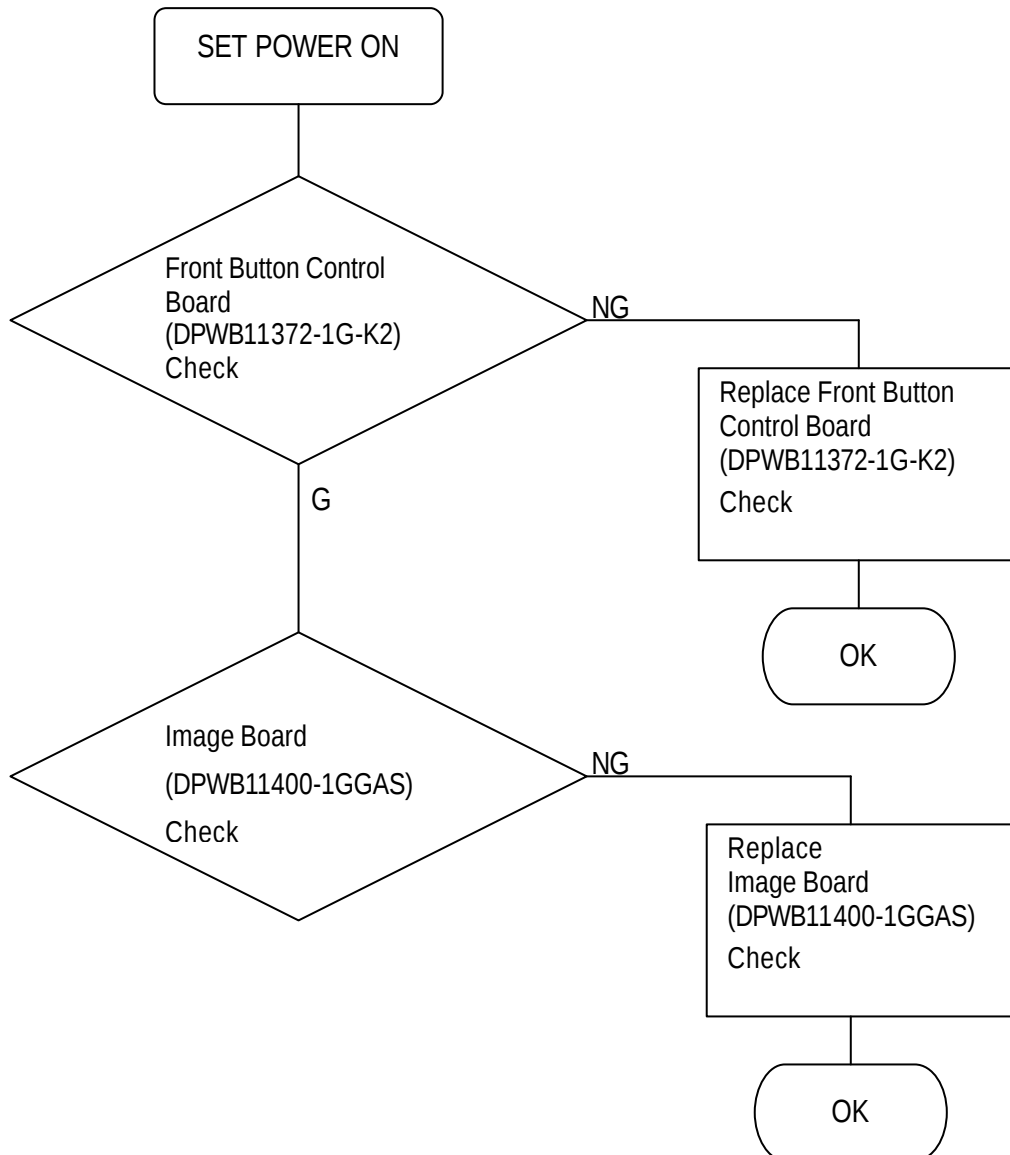
Horizontal Line Fail



No Remote Control



Front Button Fail



Module Breakdown

Model Name: GTW-P50M503

Remark: GTW-P50M503, based on the GTW-P50M603 and removing Tuner Box, has the same BOM as GTW-P50M603 except for without "AV w/ Tuner Module Board".

No.	Module	Supplier	Supplier's Ass'y Part #	Quantity Per Final Assembly	Sub-Con Name	Sub-Con Location	Current Revision Level
1	Image Board	Sampo	DPWB11400-1GGAS	1	TSMT PCBA	Taiwan	S11400-04-100
2	AC Master Power Switch Board	Sampo	DPWB11398-1G---	1	TSMT PCBA	Taiwan	OR
3	Audio Amplifier Board	Sampo	DPWB11372-1GGSA	1	TSMT PCBA	Taiwan	A11372-02-100
4	Front Button Control Board	Sampo	DPWB11372-1G-K2	1	TSMT PCBA	Taiwan	K2
5	Logic Board	Samsung	LJ92-00598A	1	-	-	A9
6	Y Driver-Top	Samsung	LJ92-00561A	1	-	-	A2
7	Y Driver-Bottom	Samsung	LJ92-00562A	1	-	-	A2
8	Y Drive Board	Samsung	LJ92-00560A	1	-	-	A2
9	X_XLB (E Buffer)	Samsung	LJ92-00524B	1	-	-	A1
10	X_XCB (F Buffer)	Samsung	LJ92-00525B	1	-	-	A1
11	X_XRB (G Buffer)	Samsung	LJ92-00526C	1	-	-	A2
12	X_XLT (H Buffer)	Samsung	LJ92-00527B	1	-	-	A1
13	X_XCT (I Buffer)	Samsung	LJ92-00528B	1	-	-	A1
14	X_XRT (J Buffer)	Samsung	LJ92-00529C	1	-	-	A2
15	X Drive Board	Samsung	LJ92-00559A	1	-	-	A4
16	Main Power	Samsung	LJ44-00044A	1	-	-	A1
17	EMI Filter	Samsung	LJ92-00747A	1	-	-	A2
18	Full Set PDP Panel Module	Samsung	VVES50HW-XD01--	1	-	-	V1
19	Glass Filter	Sampo	PGLS-0014-1----	1	Asahi Glass Corporation	Japan	OR
20	Speaker	Sampo	RSPK-L005-1CFJ-	2	In Hana Industrial Co. Ltd.	Taiwan	OR
21	Front Bezel	Sampo	DMSKP0128-1F--D	1	Cheng Fa Plastic Mfg Co., Ltd.	Taiwan	D
22	Rear Cover	Sampo	GCABB0306-1P--D	1	Yung Cheng Industrial Co., Ltd.	Taiwan	D
23	Plasma Stand Assembly- Leg Type	Sampo	DSTN-0021-1G---	2	Yo Tai Plastic Industrial Co., Ltd.	Taiwan	OR

Module Part Level BOM

Module Name: Image Board
Supplier Name: Sampo
Module P/N: DPWB11400-1GGAS
Revision: S11400-04-100

Part #	Part Number Name	Part Description			Quantity per Assembly	Supplier Name	Ref Designator
QCNC1628-140-A	Connector	40PIN			2	Chia-Soon Electronics Co., Ltd.	J1 J18
QCNC1731-1----	Connector	48Pin			2	Oupiin Enterprise Co., Ltd.	JP4 JP5
QCNWT1286-1001-					1	Chia-Soon Electronics Co., Ltd.	
QCNWT128A-1001-					1	Chia-Soon Electronics Co., Ltd.	
QPWB11400-1G-4-	PCB				1	CADAC Electronic Co., Ltd.	MAIN PWB
QSOCD1550-115--	Socket				2	Chia-Soon Electronics Co., Ltd.	S1 S2 (VGA DB15)
QSOCD1553-109--	Socket				1	Chia-Soon Electronics Co., Ltd.	P1 (RS232 DB9)
QSOCD1555-124--	Socket	24Pin			1	MOLEX	J9 (24Pin DVI Connector)
QSOCL1177-108--	IC Socket	8Pin			3	Suyin Corporation	Ic Socket DIP8 For U7,U33,U35
QSOCL1514-132-S	IC Socket	32Pin			1	Chia-Soon Electronics Co., Ltd.	Ic Socket PLCC20 For U3
RCHO-1022D8----	Choke	330uH			1	Top-Nation Electronic Factory	L24
RCHOL1020-1100-	Choke	10uH			5	Taiwan Sumida Electronics Inc.	L25 L26 L27 L28 L30
RCORA1021-1---U	Bead core	0.45uH			1	Murata Mfg. Co., Ltd.	L29
RCORA1047-1---A	Bead core	120Ω/100MHz			3	Walsin Technology Corp.	F21 F23 F26
RCORA1048-1121A	Bead core	120Ω/2mA			15	Walsin Technology Corp.	L5 L21 L22 L23 L51 L52 L57 L58 L59 LD20 LD21 LS20 LS21
RCRSL1185-1---A	Crystal	16MHz			1	KDS Taiwan Electronics Corp.	Y1
RCRSL1187-1---A	Crystal	14.318MHz			2	KDS Taiwan Electronics Corp.	Y3 YD1
RNWR-0028CM103A	Network Resister	10K ohm			12	Yageo Corporation	RP1 RP2 RP3 RP5 RP7 RP8 RP9 RP12 RP43 RP44 RP45
RNWR-0028CM220A	Network Resister	22 ohm			15	Yageo Corporation	RND1 RND2 RND3 RND4 RND5 RND6 RP4 RP6 RP35 RP36 RP37 RP38 RP39 RP40 RP41
RNWR-0028CM330A	Network Resister	33 ohm			24	Yageo Corporation	RP10 RP11 RP13 RP14 RP15 RP16 RP17 RP18 RP19 RP20 RP21 RP22 RP23 RP24 RP25 RP26 RP27 RP28 RP29 RP30 RP31 RP32 RP33 RP34
TLABD1145-1B---	BAR CODE PCB				1	Diing Yih Enterprise Co., Ltd.	
VCEABN1CG106MNA	Capacity,Aluminum Elect.	10uF	16V	±20%	59	Matsushita Electric Co., Ltd.	C9 C10 C13 C14 C15 C27 C43 C58 C99 C115 C158 C185 C214 C219 C220 C221 C222 C223 C230 C231 C246 C251 C253 C258 C271 C310 C312 C322 C324 C391 C399 C400 C401 C405 C406 C407 C409 C415 C418 CD8 CD17 CD22 CD36 CD40 CD45 CD47 CD49 CD51 CD71 CDS8 CDS17 CDS22 CDS36 CDS40 CDS45 CDS47 CDS49 CDS51 CDS71
VCEABN1CG107MNA	Capacity,Aluminum Elect.	100uF	16V	±20%	22	Matsushita Electric Co., Ltd.	C86 C124 C211 C224 C226 C237 C241 C259 C266 C291 C295 C299 C309 C311 C321 C323 C338 C343 C346 C349 C381 C412
VCEABN1CG226MNA	Capacity,Aluminum Elect.	22uF	16V	±20%	23	Matsushita Electric Co., Ltd.	C65 C71 C72 C73 C160 C194 C203 C204 C268 CD16 CD23 CD69 CD82 CD84 CD87 CD89 CDS16 CDS23 CDS69 CDS82 CDS84 CDS87 CDS89
VCEABN1CG227MNA	Capacity,Aluminum Elect.	220uF	16V	±20%	22	Matsushita Electric Co., Ltd.	C92 C97 C112 C197 C202 C210 C337 C342 C345 C348 C411 CD18 CD67 CD94 CD99 CDS18 CDS67 CDS92 CDS94 CDS97 CDSA1 CDSB3

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Part #	Part Number Name	Part Description			Quantity per Assembly	Supplier Name	Ref Designator
VCEABN1CG337MNA	Capacity,Aluminum Elect.	330uF	16V	±20%	4	Matsushita Electric Co., Ltd.	C269 C287 CD53 CDS53
VCEABN1CG475M-A	Capacity,Aluminum Elect.	4.7uF	16V	±20%	1	Matsushita Electric Co., Ltd.	C428
VCEABN1CG476M-A	Capacity,Aluminum Elect.	47uF	16V	±20%	35	Matsushita Electric Co., Ltd.	C37 C44 C55 C59 C162 C165 C167 C171 C172 C173 C175 C179 C190 C191 C193 C195 C215 C217 C229 C233 C234 C238 C239 C240 C249 C256 C410 C417 C449 CD9 CD13 CD15 CDS9 CDS13 CDS15
VCEABN1EG227MNA	Capacity,Aluminum Elect.	220uF	25V	±20%	1	Matsushita Electric Co., Ltd.	C333
VCEABN1HG105MNA	Capacity,Aluminum Elect.	1uF	50V	±20%	12	Matsushita Electric Co., Ltd.	C31 C34 C192 C236 C275 C283 C297 C426 CD12 CD14 CDS12 CDS14
VCEABN1HG224MNA	Capacity,Aluminum Elect.	0.22uF	50V	±20%	1	Matsushita Electric Co., Ltd.	C288
VCEABN1HG225MNA	Capacity,Aluminum Elect.	2.2uF	50V	±20%	20	Matsushita Electric Co., Ltd.	C4 C183 C184 C186 C187 C188 C189 C198 C199 C205 C206 C207 C208 C248 C273 C274 C276 C281 C282 C286
VCEABN1HG476MNA	Capacity,Aluminum Elect.	47uF	50V	±20%	2	Matsushita Electric Co., Ltd.	C216 C333
VCEABN1VG475MNA	Capacity,Aluminum Elect.	4.7uF	35V	±20%	4	Matsushita Electric Co., Ltd.	C384 C385 C386 C389
VCEACU1CG228M--	Capacity,Aluminum Elect.	2200uF	16V	±20%	1	Matsushita Electric Co., Ltd.	C451
VCICHN1HH100J-A	Capacity,Temp. Comp. Ceramic	10PF	50V	±5%	12	Yageo Corporation	C6 C7 CD38 CD39 CD42 CD43 CD44 CDS38 CDS39 CDS42 CDS43 CDS44
VCICHN1HH101J-A	Capacity,Temp. Comp. Ceramic	100PF	50V	±5%	30	Yageo Corporation	C30 C140 C153 C154 C155 C156 C166 C169 C176 C180 C181 C182 C232 C245 C265 C301 C308 C341 CD6 CD10 CD21 CD25 CD37 CD41 CDS6 CDS10 CDS21 CDS25 CDS37 CDS41
VCICHN1HH102J-A	Capacity,Temp. Comp. Ceramic				4	Yageo Corporation	C16 C17 C18 C19
VCICHN1HH120J-A	Capacity,Temp. Comp. Ceramic	12PF	50V	±5%	3	Yageo Corporation	C22 C51 C52
VCICHN1HH121J-A	Capacity,Temp. Comp. Ceramic	120PF	50V	±5%	2	Yageo Corporation	C20 C375
VCICHN1HH181J-A	Capacity,Temp. Comp. Ceramic	180PF	50V	±5%	5	Yageo Corporation	C35 C36 C306 C307 C383
VCICHN1HH200J-A	Capacity,Temp. Comp. Ceramic	20PF	50V	±5%	2	Yageo Corporation	CD3 CD4
VCICHN1HH220J-A	Capacity,Temp. Comp. Ceramic	22PF	50V	±5%	2	Yageo Corporation	C300 C414
VCICHN1HH270J-A	Capacity,Temp. Comp. Ceramic	27PF	50V	±5%	1	Yageo Corporation	C252
VCICHN1HH330J-A	Capacity,Temp. Comp. Ceramic	33PF	50V	±5%	4	Yageo Corporation	C2 C3 C303 C404
VCICHN1HH331J-A	Capacity,Temp. Comp. Ceramic	330PF	50V	±5%	8	Yageo Corporation	C144 C145 C146 C147 C148 C149 C150 C151
VCICHN1HH390J-A	Capacity,Temp. Comp. Ceramic	39PF	50V	±5%	1	Yageo Corporation	C54
VCICHN1HH470J-A	Capacity,Temp. Comp. Ceramic	47PF	50V	±5%	26	Yageo Corporation	C49 C305 C351 C352 C353 C354 C355 C356 C357 C358 C359 C360 C361 C362 C363 C364 C365 C366 C367 C368 C369 C370 C371 C372 C373 C374
VCICHN1HH471J-A	Capacity,Temp. Comp. Ceramic	470PF	50V	±5%	1	Yageo Corporation	C177
VCICHN1HH561J-A	Capacity,Temp. Comp. Ceramic	560PF	50V	±5%	1	Samsung	C387
VCLFCN1HY224M-A	Capacity,High Diel. Ceramic	0.22uF	50V	±20%	5	Yageo Corporation	C200 C334 C380 C402 C403

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Part #	Part Number Name	Part Description			Quantity per Assembly	Supplier Name	Ref Designator
VCLFHN1EY104Z-A	Capacity,High Diel. Ceramic	0.1uF	25V	+80%~-20%	202	Yageo Corporation	C1 C5 C8 C11 C12 C21 C23 C24 C25 C28 C33 C38 C39 C40 C50 C56 C57 C60 C61 C62 C63 C64 C66 C67 C68 C69 C70 C74 C75 C76 C77 C78 C79 C80 C81 C82 C83 C84 C85 C87 C88 C89 C90 C91 C92 C93 C94 C95 C96 C97 C98 C100 C101 C102 C103 C104 C105 C107 C111 C114 C116 C117 C118 C119 C120 C121 C122 C123 C125 C127 C129 C130 C131 C132 C133 C134 C135 C136 C137 C138 C139 C157 C161 C178 C212 C213 C244 C267 C278 C279 C280 C304 C313 C315 C317 C319 C325 C327 C329 C331 C336 C339 C344 C347 C350 C390 C392 C393 C394 C395 C396 C397 C398 C408 C413 C419 C421 C423 C425 C427 C435 C436 C437 C438 C439 C440 C441 C442 C443 C444 C450 C452 CD5 CD7 CD11 CD24 CD26 CD27 CD28 CD29 CD32 CD33 CD34 CD35 CD46 CD48 CD50 CD52 CD54 CD55 CD56 CD57 CD58 CD59 CD60 CD68 CD70 CD72 CD85 CD86 CD90 CD91 CD95 CD96 CD100 CD101 CDS3 CDS5 CDS7 CDS11 CDS24 CDS26 CDS27 CDS28 CDS29 CDS32 CDS33 CDS34 CDS35 CDS46 CDS48 CDS50 CDS52 CDS54 CDS55 CDS56 CDS57 CDS58 CDS59 CDS60 CDS68 CDS70 CDS72 CDS85 CDS86 CDS90 CDS91 CDS95 CDS96 CDS99 CDSB2
VCLRHN1CB393K-A	Capacity,High Diel. Ceramic	0.039uF	16V	±10%	1	Yageo Corporation	C113
VCLRHN1CB473K-A	Capacity,High Diel. Ceramic	0.047uF	16V	±10%	3	Yageo Corporation	C108 C109 C110
VCLRHN1CB683K-A	Capacity,High Diel. Ceramic	0.068uF	16V	±10%	1	Yageo Corporation	C388
VCLRHN1HB102K-A	Capacity,High Diel. Ceramic	1000PF	50V	±10%	27	Yageo Corporation	C376 C377 C378 C379 C430 CD30 CD31 CD73 CD74 CD75 CD76 CD77 CD78 CD79 CD80 CD81 CDS30 CDS31 CDS73 CDS74 CDS75 CDS76 CDS77 CDS78 CDS79 CDS80 CDS81
VCLRHN1HB103K-A	Capacity,High Diel. Ceramic	0.01uF	50V	±10%	67	Yageo Corporation	C106 C126 C128 C159 C163 C164 C168 C170 C174 C196 C201 C209 C218 C225 C228 C235 C247 C260 C270 C272 C290 C292 C293 C294 C298 C314 C316 C318 C320 C326 C328 C330 C332 C340 C382 CD61 CD62 CD63 CD64 CD65 CD66 CD102 CD103 CD104 CD105 CD106 CD107 CD108 CD109 CD110 CD111 CDS61 CDS62 CDS63 CDS64 CDS65 CDS66 CDSA2 CDSA3 CDSA4 CDSA5 CDSA6 CDSA7 CDSA8 CDSA9 CDSB0 CDSB1
VCLRHN1HB392K-A	Capacity,High Diel. Ceramic	3900PF	50V	±10%	1	Yageo Corporation	C112
VCLRHN1HB472K-A	Capacity,High Diel. Ceramic	4700PF	50V	±10%	4	Yageo Corporation	CD1 CD2 CDS1 CDS2
VCNCP0053-JJST-	Connector	3 Pin			1	JST ELECTRONIC PRODUCTS MFG.CO.,LTD	J25
VCNCP0054-JJST-	Connector	4 Pin			1	JST ELECTRONIC PRODUCTS MFG.CO.,LTD	J15
VCNCP0056-JJST-	Connector	6 Pin			1	JST ELECTRONIC PRODUCTS MFG.CO.,LTD	J14
VCNCP0057-JJST-	Connector	7 Pin			1	JST ELECTRONIC PRODUCTS MFG.CO.,LTD	J21
VCNCP0315-EJST-	Connector	5Pin			1	JST ELECTRONIC PRODUCTS MFG.CO.,LTD	J28
VCNCP0316-EJST-	Connector	6 Pin			1	JST ELECTRONIC PRODUCTS MFG.CO.,LTD	J5
VCNCP031A-EJST-	Connector	10 Pin			1	JST ELECTRONIC PRODUCTS MFG.CO.,LTD	J12
VCNCP031C-EJST-	Connector	12 Pin			1	JST ELECTRONIC PRODUCTS MFG.CO.,LTD	J11
VCNCT1286-BJSTA	Connector	5 PIN			2	JST ELECTRONIC PRODUCTS MFG.CO.,LTD	J26 J27
VCNCT128A-BJSTA	Connector	10PIN			2	JST ELECTRONIC PRODUCTS MFG.CO.,LTD	J23 J24
VCPELU1HG222J-P	Capacity,Polyester Film	2200PF	50V	±5%	1	Mylar Electronics Co., Ltd.	C289
VCTABN1AB106M-A	Capacity,tantalum	10uF	10V	±20%	9	Energie Electronic Co., Ltd.	C141 C142 C143 C152 C433 C434 C446 C447 C448

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Part #	Part Number Name	Part Description			Quantity per Assembly	Supplier Name	Ref Designator
VRMBNV8--000J-A	Resiser,Metal Film	0	1/8W	±5%	70	Yageo Corporation	F1 F2 F5 F6 F7 F8 F9 F10 F11 F12 F13 F15 F17 F18 F20 F22 F24 L1 L2 L3 L6 L7 L8 L9 L10 L11 L12 L15 L16 L17 L18 L19 L33 L36 L38 L44 L50 L53 L54 L55 LD1 LD2 LD3 LD4 LD5 LD6 LD7 LD8 LD11 LD12 LD13 LD14 LD18 LD22 LD26 LDS1 LDS2 LDS3 LDS4 LDS5 LDS6 LDS7 LDS8 LDS11 LDS12 LDS13 LDS14 LDS15 LDS17 LDS19
VRMBNV8--181J-A	Resiser,Metal Film	180	1/8W	±5%	2	Yageo Corporation	F4 R417
VRMHNVG--000J-A	Resiser,Metal Film	0	1/16W	±5%	59	Yageo Corporation	L56 R45 R49 R53 R96 R98 R101 R123 R145 R150 R154 R187 R189 R192 R193 R195 R228 R229 R234 R236 R238 R246 R236 R258 R259 R260 R261 R263 R272 R320 R340 R341 R342 R343 R344 R345 R347 R351 R353 R354 R385 R389 R391 R392 R402 R404 R408 R413 R418 R419 R430 R432 R436 R441 RD19 RDS19 RDS22 RDS28 RDS35
VRMHNVG--100J-A	Resiser,Metal Film	10	1/16W	±5%	16	Yageo Corporation	R22 R23 R38 R40 R175 R230 R235 R254 R257 R376 R377 R378 R379 R380 R381 R383
VRMHNVG--101J-A	Resiser,Metal Film	100	1/16W	±5%	13	Yageo Corporation	R65 R66 R67 R159 R160 R163 R198 R200 R281 R286 R433
VRMHNVG--102J-A	Resiser,Metal Film	1K	1/16W	±5%	14	Yageo Corporation	R58 R168 R170 R205 R225 R239 R256 R303 R306 R308 R327 R335 R337 R338
VRMHNVG--103J-A	Resiser,Metal Film	10K	1/16W	±5%	37	Yageo Corporation	R1 R5 R36 R37 R39 R44 R89 R90 R92 R93 R106 R119 R120 R125 R134 R138 R142 R144 R156 R161 R162 R178 R184 R251 R287 R313 R339 R411 R412 R422 R423 R424 R428 RD13 RD23 RDS13 RDS23
VRMHNVG--104J-A	Resiser,Metal Film	100K	1/16W	±5%	2	Yageo Corporation	R6 R310
VRMHNVG--105J-A	Resiser,Metal Film	1M	1/16W	±5%	1	Yageo Corporation	R309
VRMHNVG--122J-A	Resiser,Metal Film	1.2K	1/16W	±5%	7	Yageo Corporation	R164 R165 R166 R295 R355 R356 R357
VRMHNVG--123J-A	Resiser,Metal Film	12K	1/16W	±5%	1	Yageo Corporation	R305
VRMHNVG--1240F-A	Resiser,Metal Film	124	1/16W	±1%	5	Yageo Corporation	R397 R398 R400 R401 R444
VRMHNVG--132J-A	Resiser,Metal Film	1.3K	1/16W	±5%	1	Yageo Corporation	R71
VRMHNVG--151J-A	Resiser,Metal Film	150	1/16W	±5%	6	Yageo Corporation	R211 R217 R220 R223 R382 R386
VRMHNVG--152J-A	Resiser,Metal Film	1.5K	1/16W	±5%	8	Yageo Corporation	R208 R209 R213 R215 R218 R219 R221 R222
VRMHNVG--181J-A	Resiser,Metal Film	180	1/16W	±5%	4	Yageo Corporation	R241 R247 R269 R292
VRMHNVG--182J-A	Resiser,Metal Film	1.8K	1/16W	±5%	1	Yageo Corporation	R387
VRMHNVG--183J-A	Resiser,Metal Film	18K	1/16W	±5%	3	Yageo Corporation	R262 R264 R275
VRMHNVG--202J-A	Resiser,Metal Film	2K	1/16W	±5%	4	Yageo Corporation	R118 R232 R237 R248
VRMHNVG--2200F-A	Resiser,Metal Film	220	1/16W	±5%	1	Yageo Corporation	R445
VRMHNVG--220J-A	Resiser,Metal Film	22	1/16W	±5%	5	Yageo Corporation	RDS3 RDS4 RDS5 RDS6 RDS12
VRMHNVG--221J-A	Resiser,Metal Film	220	1/16W	±5%	10	Yageo Corporation	R202 R224 R316 R369 R370 R371 RD16 RD20 RDS16 RDS20
VRMHNVG--222J-A	Resiser,Metal Film	2.2K	1/16W	±5%	2	Yageo Corporation	R288 R434
VRMHNVG--223J-A	Resiser,Metal Film	22K	1/16W	±5%	7	Yageo Corporation	R27 R30 R34 R35 R297 R301 R311
VRMHNVG--224J-A	Resiser,Metal Film	220K	1/16W	±5%	1	Yageo Corporation	R250
VRMHNVG--270J-A	Resiser,Metal Film	27	1/16W	±5%	3	Yageo Corporation	R72 R74 R388
VRMHNVG--273J-A	Resiser,Metal Film	27K	1/16W	±5%	2	Yageo Corporation	RD10 RDS10
VRMHNVG--303J-A	Resiser,Metal Film	30K	1/16W	±5%	2	Yageo Corporation	R283 R284
VRMHNVG--330J-A	Resiser,Metal Film	33	1/16W	±5%	38	Yageo Corporation	R10 R12 R18 R19 R20 R21 R24 R31 R33 R68 R69 R77 R78 R80 R105 R108 R111 R112 R113 R114 R121 R122 R231 R249 R317 R318 RD29 RD30 RD31 RD32 RD33 RD34 RDS29 RDS30 RDS31 RDS32 RDS33 RDS34

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VRMHNVG--332J-A	Resiser,Metal Film	3.3K	1/16W	±5%	20	Yageo Corporation	R7 R15 R16 R17 R109 R171 R173 R176 R179 R181 R185 R194 R199 R203 R206 R210 R214 R312 R323 R329
VRMHNVG--333J-A	Resiser,Metal Film	33K	1/16W	±5%	2	Yageo Corporation	R298 R307
VRMHNVG--390J-A	Resiser,Metal Film	39	1/16W	±5%	3	Yageo Corporation	RD3 RD4 RD5
VRMHNVG--391J-A	Resiser,Metal Film	390	1/16W	±5%	1	Yageo Corporation	R116
VRMHNVG--393J-A	Resiser,Metal Film	39K	1/16W	±5%	1	Yageo Corporation	R299
VRMHNVG--470J-A	Resiser,Metal Film	47	1/16W	±5%	8	Yageo Corporation	R8 R9 R13 R59 R60 R61 R63 R81
VRMHNVG--472J-A	Resiser,Metal Film	4.7K	1/16W	±5%	6	Yageo Corporation	R182 R188 R190 R197 R315 RD14
VRMHNVG--473J-A	Resiser,Metal Film	47K	1/16W	±5%	17	Yageo Corporation	R28 R32 R172 R174 R177 R180 R183 R186 R191 R196 R201 R204 R207 R212 R216 R296 R331
VRMHNVG--474J-A	Resiser,Metal Film	470K	1/16W	±5%	1	Yageo Corporation	R153
VRMHNVG--4R7J-A	Resiser,Metal Film	4.7	1/16W	±5%	3	Yageo Corporation	R115 R117 R157
VRMHNVG--511J-A	Resiser,Metal Film	510	1/16W	±5%	1	Yageo Corporation	R348
VRMHNVG--560J-A	Resiser,Metal Film	56	1/16W	±5%	1	Yageo Corporation	R79
VRMHNVG--561J-A	Resiser,Metal Film	560	1/16W	±5%	2	Yageo Corporation	RD9 RDS9
VRMHNVG--562J-A	Resiser,Metal Film	5.6K	1/16W	±5%	4	Yageo Corporation	R25 R29 R328 R425
VRMHNVG--563J-A	Resiser,Metal Film	56K	1/16W	±5%	5	Yageo Corporation	R88 R129 R333 R334 R336
VRMHNVG--680J-A	Resiser,Metal Film	68	1/16W	±5%	2	Yageo Corporation	R62 R83
VRMHNVG--682J-A	Resiser,Metal Film	6.8K	1/16W	±5%	1	Yageo Corporation	R332
VRMHNVG--750J-A	Resiser,Metal Film	75	1/16W	±5%	20	Yageo Corporation	R102 R103 R104 R146 R147 R149 R167 R169 R358 R359 R360 R361 R362 R363 R364 R365 R366 R367 R368 R375
VRMHNVG--820J-A	Resiser,Metal Film	82	1/16W	±5%	1	Yageo Corporation	R54
VRMHNVG--821J-A	Resiser,Metal Film	820	1/16W	±5%	1	Yageo Corporation	R280
VRMHNVG--823J-A	Resiser,Metal Film	82K	1/16W	±5%	1	Yageo Corporation	R302
VSDBAV99-----A	Diode	BAV99			22	Philips Semiconductors	D4 D8 D11 D12 D13 D14 D15 D16 D17 D18 D19 D20 D21 D22 D23 D24 D26 D28 D29 D30 D31 D32
VSDRLS4148----A	Diode	RLS4148			20	ROHM CO.,LTD	D1 D2 D3 D25 D27 D37 D38 D39 D40 D41 D42 D43 D45 D50 D51 D52 D54 D55 D57 D58
VSI39SF040-7--S	IC-4M CMOS Flash Memory	39SF040-7			1	Silicon Storage Technology, Inc.	U3
VSI74HC221D---A	IC- Dual Non-Retriggerable Monostable Multivibrator with Reset	74HC221D			1	Philips Semiconductors / Texas Instruments+G78	IC12
VSI74HC4538D--A	IC- Dual Retriggerable Precision Monostable Multivibrator	74HC4538D			1	Philips Semiconductors / Texas Instruments+G78	IC11
VSI74HCT04D---A	IC- Inverter	74HCT04D			1	Philips Semiconductors / Texas Instruments+G78	U67
VSI74LVC157---A	IC- Multiplexer	74LVC157			2	Philips Semiconductors / Texas Instruments+G78	U15 U22
VSI74LVC244ADBA	IC- Octal Buffer/Line Driver	74LVC244ADB			4	ASIA FORTUNE ELECTRONIC ENTERPRISE	U18 U19 U20 U21
VSI74LVT04----A	IC- Hex Inverter	74LVT04			2	Philips Semiconductors / Texas Instruments+G78	U6 U24
VSI74LVT14----A	IC- Hex Inverter	74LVT14			1	Philips Semiconductors / Texas Instruments+G78	U30
VSI78M05A-----A	IC- 5 Voltage Regulator	78M05A			1	ST Microelectronics	IC9
VSIA5-32-10VC4D	IC- In System Programmable High Density PLD	A5-32-10VC4			1	LATTICE SEMICONDUCTOR CORPORATION	U1
VSIAD9884AKS--D	IC- Analog Interface	AD9884AKS			1	ANALOG DEVICES	U29
VSIAMC7630-5--A	IC- Panel protector	AMC7630-5			1	ADD Microtech Corp.	U68
VSIAT24C21-----	IC-EEPROM	AT24C21			2	ST Microelectronics / Atmel Corporation	U33 U35
VSIBA033-----A	IC- Low Dropout 3.3 Voltage Regulator	BA033			9	ROHM CO.,LTD	U31 U52 U53 U54 U55 U60 U61 U62 U63
VSIBA033LBSG--A	IC- 3.3 Voltage Regulator	BA033LBSG			1	ROHM CO.,LTD	U28
VSIBA7657F----A	IC- Input Selector Switch	BA7657F			1	KROM ELECTRONICS CO.,LTD.	U34

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VSID6416AH-7--D	IC- SDRAM	L64164AH-7			3	Dynachips	U25 U26 U27
VSI5640L16-7TCD	IC- SDRAM	GLT5640L16-7TC			3	G-Link Technology	U25 U26 U27 (II)
VSID6432AH-6--D	IC- SGRAM	D6432AH-6			4	Dynachips	U48 U49 U50 U51
VSIDPTV6830---D	IC- Progressive	DPTV6830			2	Trident Technologies Inc.	U45 U46
VSID590C385---A	IC- I/O Output	DS90C385			1	National Semiconductor	U66
VSIHD6413079F-D	IC- CPU	HD6413079F			1	Hitachi SEMICONDUCTOR	U4
VSIHEF4053BT--A	IC- Analogue Multiplexer/Demultiplexer	HEF4053BT			2	Philips Semiconductors / Texas Instruments	IC13 U42
VSIHIN232CB-T-A	IC- RS232 IC	HIN232CB			1	FAIRCHILD SEMICONDUCTOR	U12
VSIICS9161A---A	IC- Programmable Freq. IC	ICS9161A			1	INTEGRATED CIRCUIT SYSTEMS	U16
VSIIP00C713---D	IC- Color Image Enlargement Reduction	IP00C713			1	I-CHIPS TECHNOLOGY INC.	U23
VSILA7213-----	IC- Monolithiclinear	LA7213			3	SANYO SEMICONDUCTORS	IC4 IC6 IC10
VSILD1117S----A	IC- Regulator	LD1174			1	ST Microelectronics	IC14
VSILM1085ISX-3A	IC- 3.3 Voltage Regulator	LM1085ISX-3			2	National Semiconductor	U56 U57
VSILM1085ISX-AA	IC- 2.5 Voltage Regulator	LM1085ISX--A			2	National Semiconductor	U58 U59
VSIM24C16WBN6--	IC- EEPROM	M24C16WBN6			1	ST Microelectronics	U7
VSIM52055FP---A	IC- 3-Channel Analog Switch	M52055FP			3	MUTSUBISHI ELECTRIC CORPORATION	IC2 IC3 IC7
VSIM52347FP---A	IC- Sync Signal Processor	M52347FP			1	MUTSUBISHI ELECTRIC CORPORATION	U64
VSIMTV130-----A	IC- OSD IC	MTV130			1	MYSON TECHNOLOGY INC.	U11
VSIPCA9555DB--A	IC- I/O	PCA9555DB			1	Philips Semiconductors	U8
VSI80845ANUP-A	IC- Voltage Detector	S80845ANUP			1	Seiko Instrunets Taiwan Inc.	U5
VSI164CT64-D	IC- Interface IC	SII164CT64			1	SILICON IMAGE	U69
VSI169CT100D	IC- DVI with HDCP	SII169CT100			1	SILICON IMAGE	U32
VSITA1276AF---D	IC- Video/Chroma/Deflection	TA1276AF			1	TOSHIBA CORPORATION	U43
VSITA8851CN----	IC- Audio/Video Switch	TA8851CN			1	TOSHIBA CORPORATION	IC1
VST2SA1037KQ--A	Transistor	2SA1037KQ			1	ROHM CO.,LTD	Q39
VST2SC1213C---P	Transistor	2SC1213C			1	HITACHI SEMICONDUCTOR	Q48
VST2SC2412KBQ-A	Transistor	2SC2412KBQ			21	ROHM CO.,LTD	Q1 Q2 Q3 Q4 Q10 Q11 Q12 Q14 Q15 Q16 Q17 Q18 Q19 Q25 Q26 Q30 Q33 Q37 Q38 Q43 Q44
VSTBSN20-----A	Transistor	BSN20			4	Philips Semiconductors	Q5 Q6 Q20 Q21
VSTDTC144EKA--A	Transistor	DTC144EKA			6	ROHM CO.,LTD	Q40 Q41 Q42 Q45 Q46 Q47
VSZRLZ7.5B----A	Zener Diode	RLZ7.5B			1	ROHM CO.,LTD	ZD1

Module Part Level BOM

Module Name: AC Master Power Switch Board
Supplier Name: Sampo
Module P/N: DPWB11398-1G---
Revision: OR

Part #	Part Number Name	Part Description			Quantity per Assembly	Supplier Name	Ref Designator
QPWB11398-1G---	PCB Bareboard	POWER SWITCH B/O			1	Chien Wey Electronic Industrial Co., Ltd.	PCB
QCNC1552-1----	Connector	3PIN			2	Chia-Soon Electronics Co., Ltd.	AC IN, AC OUT
QCNC1622-1----	Connector	4PIN			1	Chia-Soon Electronics Co., Ltd.	SW

Module Part Level BOM

Module Name: Audio Amplifier Board
Supplier Name: Sampo
Module P/N: DPWB11372-1GGSA
Revision: A11372-02-100

Part #	Part Number Name	Part Description			Quantity per Assembly	Supplier Name	Ref Designator
PRDAA0116-1G--I	HEAT SINK IC2 USE				1	Base Strong Industrial Co., Ltd.	
PRDAA0140-1P--G	U2 USE Heat Sink				1	Base Strong Industrial Co., Ltd.	
QPWB11372-1G-2S	PCB				1	EISD Enterprise Co., Ltd.	PCB (AUDIO)
RFILN1011-1----	Amp Output Filter	1000P/100V			2	Murata Mfg. Co., Ltd.	F1 F2
TLABD1145-1B---	Barcode label				1	Diing Yih Enterprise Co., Ltd.	
VCEACF1VG338MN-	Capacity,Aluminum Elect.	3300uf	35V	±20%	1	Matsushita Electric Co., Ltd.	C71
VCEACU1CG107MNP	Capacity,Aluminum Elect.	100uF	16V	±20%	4	Matsushita Electric Co., Ltd.	C30 C31 C42 CR10
VCEACU1CG226MNP	Capacity,Aluminum Elect.	22uF	16V	±20%	3	Matsushita Electric Co., Ltd.	C1 C8 C14
VCEACU1CG476MNP	Capacity,Aluminum Elect.	47uF	16V	±20%	1	Matsushita Electric Co., Ltd.	CS1
VCEACU1CG477MNP	Capacity,Aluminum Elect.	470uF	16V	±20%	1	Matsushita Electric Co., Ltd.	C28
VCEACU1CH337MNP	Capacity,Aluminum Elect.	330uF	16V	±20%	1	Matsushita Electric Co., Ltd.	C54
VCEACU1EG477MNP	Capacity,Aluminum Elect.	470uF	25V	±20%	2	Matsushita Electric Co., Ltd.	C52 C59
VCEACU1HG105MNP	Capacity,Aluminum Elect.	1uF	50V	±20%	3	Matsushita Electric Co., Ltd.	C36 CR6 CR9
VCEACU1HG106MNP	Capacity,Aluminum Elect.	10uF	50V	±20%	15	Matsushita Electric Co., Ltd.	C3 C5 C7 C12 C62 C63 C65 C66 C67 C68 CR4 CR5 CR15 CS2 CS3
VCEACU1HG224MNP	Capacity,Aluminum Elect.	0.22uF	50V	±20%	2	Matsushita Electric Co., Ltd.	C40 C16
VCEACU1HG225MNP	Capacity,Aluminum Elect.	2.2uF	50V	±20%	4	Matsushita Electric Co., Ltd.	C2 C4 C64 CR1
VCEACU1HG475MNP	Capacity,Aluminum Elect.	4.7uF	50V	±20%	13	Matsushita Electric Co., Ltd.	C9 C11 C17 C18 C23 C24 C25 C33 C34 C37 C41 CR13 CR16
VCEACU1VG107MNP	Capacity,Aluminum Elect.	100uF	35V	±20%	1	Matsushita Electric Co., Ltd.	C53
VCEACU1VG108MNP	Capacity,Aluminum Elect.	1000uF	35V	±20%	1	Matsushita Electric Co., Ltd.	C49
VCEACU1VG227MNP	Capacity,Aluminum Elect.	220uF	35V	±20%	1	Matsushita Electric Co., Ltd.	C43
VCICHN1HH221J-A	Capacity,Temp. Comp. Ceramic	220PF	50V	±5%	2	Yageo Corporation	C6 C13
VCLFCN1HY224M-A	Capacity,High Diel. Ceramic	0.22uF	50V	±20%	1	Yageo Corporation	C72
VCLFHN1AY105Z-A	Capacity,High Diel. Ceramic	1uF	10V	+80%~-20%	1	Yageo Corporation	C55
VCLFHN1EY104Z-A	Capacity,High Diel. Ceramic	0.1uF	25V	+80%~-20%	2	Yageo Corporation	C29 C45
VCLRCN1CB224K-A	Capacity,High Diel. Ceramic	0.22uF	16V	±10%	2	Yageo Corporation	CR12 CR17
VCLRCN1CB474K-A	Capacity,High Diel. Ceramic	0.47uF	16V	±10%	6	Yageo Corporation	C21 C27 C32 C35 CR2 CR11

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Part #	Part Number Name	Part Description			Quantity per Assembly	Supplier Name	Ref Designator
VCLRCN1EY224K-A	Capacity,High Diel. Ceramic	0.22uF	25V	±10%	2	Yageo Corporation	C51 C56
VCLRCN1HB104K-A	Capacity,High Diel. Ceramic	0.1uF	50V	±10%	2	Yageo Corporation	C46 C50
VCLRHN1CB104K-A	Capacity,High Diel. Ceramic	0.1uF	16V	±10%	8	Yageo Corporation	C22 C44 C69 C70 CR8 CR19 CR29 CS4
VCLRHN1CB273K-A	Capacity,High Diel. Ceramic	0.027uF	16V	±10%	1	Yageo Corporation	CR20
VCLRHN1CB333K-A	Capacity,High Diel. Ceramic	0.033uF	16V	±10%	2	Lipers Enterprise Co., Ltd.	C20 C39
VCLRHN1CB473K-A	Capacity,High Diel. Ceramic	0.047uF	16V	±10%	1	Yageo Corporation	CS5
VCLRHN1HB102K-A	Capacity,High Diel. Ceramic	1000PF	50V	±10%	2	Yageo Corporation	C15 C48
VCLRHN1HB103K-A	Capacity,High Diel. Ceramic	0.01uF	50V	±10%	3	Yageo Corporation	CR7 CR28 CR99
VCLRHN1HB153K-A	Capacity,High Diel. Ceramic	0.015uF	50V	±10%	1	Yageo Corporation	CR26
VCLRHN1HB222K-A	Capacity,High Diel. Ceramic	2200PF	50V	±10%	3	Yageo Corporation	CR14 CR18 CR27
VCLRHN1HB332K-A	Capacity,High Diel. Ceramic	3300PF	50V	±10%	2	Yageo Corporation	C19 C38
VCLRHN1HB392K-A	Capacity,High Diel. Ceramic	3900PF	50V	±10%	2	Yageo Corporation	C58 C61
VCLRHN1HB471K-A	Capacity,High Diel. Ceramic	470PF	50V	±10%	1	Yageo Corporation	CR25
VCLRHN1HB472K-A	Capacity,High Diel. Ceramic	4700PF	50V	±10%	3	Yageo Corporation	CR21 CR23 CR30
VCMECU1JG474J-P	Capacity,Metal Ploy. Film	0.47uF	63V	±5%	1	Mylar Elctronics Co., Ltd.	CR24
VCNCP0302-EJST-	Connector	2 PIN			2	Chia-Soon Electronics Co., Ltd.	BT1 BT2
VCNCP030A-EJST-	Connector	10 PIN			1	Chia-Soon Electronics Co., Ltd.	JA2
VCNCP030C-EJST-	Connector	12 PIN			1	Chia-Soon Electronics Co., Ltd.	JA1
VCPELU1HG104J-P	Capacity,Polyester Film	0.1uF	50V	±5%	1	Mylar Elctronics Co., Ltd.	CR22
VCPELU1HG223J-P	Capacity,Polyester Film	0.022uF	50V	±5%	2	Mylar Elctronics Co., Ltd.	C57 C60
VL-DH102K0000-U	Peaking coil	1000uH		±10%	1	Chilisin Electronics Corp.	L1
VRCPTV4--2R2J-U	Resiser,Carbon Film	2.2	1/4W	±5%	3	Yageo Corporation	R29 R31 RR2
VRMHNVG--000J-A	Resiser,Metal Film	0	1/16W	±5%	1	Yageo Corporation	R55
VRMHNVG--100J-A	Resiser,Metal Film	10	1/16W	±5%	1	Yageo Corporation	R30
VRMHNVG--101J-A	Resiser,Metal Film	100	1/16W	±5%	2	Yageo Corporation	R33 R34
VRMHNVG--102J-A	Resiser,Metal Film	1K	1/16W	±5%	1	Yageo Corporation	RR22
VRMHNVG--103J-A	Resiser,Metal Film	10K	1/16W	±5%	20	Yageo Corporation	R13 R16 R17 R18 R19 R21 R41 R50 R51 R59 RR1 RR3 RR4 RR10 RR18 RR28 RR30 RR32 RS6 RS7
VRMHNVG--104J-A	Resiser,Metal Film	100K	1/16W	±5%	4	Yageo Corporation	RR11 RR17 RR29 RR31
VRMHNVG--123J-A	Resiser,Metal Film	12K	1/16W	±5%	2	Yageo Corporation	RR25 RR27
VRMHNVG--124J-A	Resiser,Metal Film	120K	1/16W	±5%	2	Yageo Corporation	R1 R2
VRMHNVG--152J-A	Resiser,Metal Film	1.5K	1/16W	±5%	4	Yageo Corporation	R3 R7 R43 RR8
VRMHNVG--222J-A	Resiser,Metal Film	2.2K	1/16W	±5%	6	Yageo Corporation	R27 R28 R56 RR13 RR20 RR21
VRMHNVG--223J-A	Resiser,Metal Film	22K	1/16W	±5%	2	Yageo Corporation	RS1 RS2

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Part #	Part Number Name	Part Description			Quantity per Assembly	Supplier Name	Ref Designator
VRMHNVG--224J-A	Resiser,Metal Film	220K	1/16W	±5%	2	Yageo Corporation	R5 R8
VRMHNVG--272J-A	Resiser,Metal Film	2.7K	1/16W	±5%	6	Yageo Corporation	R24 R35 R39 R40 RR24 RR26
VRMHNVG--273J-A	Resiser,Metal Film	27K	1/16W	±5%	1	Yageo Corporation	R48
VRMHNVG--333J-A	Resiser,Metal Film	33K	1/16W	±5%	1	Yageo Corporation	RR15
VRMHNVG--391J-A	Resiser,Metal Film	390	1/16W	±5%	1	Yageo Corporation	RR7
VRMHNVG--392J-A	Resiser,Metal Film	3.9K	1/16W	±5%	4	Yageo Corporation	R12 R20 RR5 RR12
VRMHNVG--472J-A	Resiser,Metal Film	4.7K	1/16W	±5%	3	Yageo Corporation	R15 R23 RR16
VRMHNVG--473J-A	Resiser,Metal Film	47K	1/16W	±5%	12	Yageo Corporation	R4 R6 R9 R10 R11 R25 R52 R53 RR14 RS3 RS4 RS5
VRMHNVG--623J-A	Resiser,Metal Film	62K	1/16W	±5%	1	Yageo Corporation	RR19
VRMHNVG--682J-A	Resiser,Metal Film	6.8K	1/16W	±5%	4	Yageo Corporation	R45 R47 RR9 RR23
VRMHNVG--822J-A	Resiser,Metal Film	8.2K	1/16W	±5%	2	Yageo Corporation	R26 R32
VRMHNVG--823J-A	Resiser,Metal Film	82K	1/16W	±5%	1	Yageo Corporation	R46
VRMMTV2--1R0J-U	Resiser,Metal Film	1	1/2W	±5%	1	Yageo Corporation	R49
VRMMTV2--8R2J-U	Resiser,Metal Film	8.2	1/2W	±5%	2	Yageo Corporation	R42 R44
VRNMK01--R22J--	Resiser,Metal Oxide Film	0.22	1W	±5%	1	Yageo Corporation	R38
VRNMK03--820J--	Resiser,Metal Oxide Film	82	3W	±5%	1	Yageo Corporation	R57
VSDRLS4148----A	Diode	RLS4148			6	ROHM CO.,LTD	D1 DR3 DR4 DR5 DR6 DR7
VSIHEF4052BT--A	IC- Dual 4-Channel Analogue Multiplexer/ Demultiplexer	HEF4052BT			1	PHILIPS SEMICONDUCTORS	ICA3
VSILM2940CT12--	IC- Voltage Regulator	LM2940CT12			1	National semiconductor	U2
VSINJM2178L----	IC- SRS 3D Surround Audio Processor	NJM2178L			1	NEW JAPAN RADIO CO.,LTD	ICR1
VSINJM4558M---A	IC- Operational Amplifier	NJM4558M			2	NEW JAPAN RADIO CO.,LTD	ICS1 U1
VSINJW1132-----	IC- Sound Processor (BBE)	NJM1132			1	NEW JAPAN RADIO CO.,LTD	IC1
VSITC4W53FU---A	IC- SMT Analogue Switch	TC4W53FU			3	TOSHIBA SEMICONDUCTORS	ICA1 ICA2 ICS2
VSITDA2616-----	IC- Sound Amplifier	TDA2616			1	Philips Semiconductors	IC2
VST2SA1037KQ--A	Transistor	2SA1037KQ			1	ROHM CO.,LTD	Q6
VST2SC2412KBQ-A	Transistor	2SC2412KBQ			3	ROHM CO.,LTD	Q1 Q2 Q7
VSTDTC144EKA--A	Transistor	DTC144EKA			14	ROHM CO.,LTD	Q3 Q5 Q8 Q9 Q10 Q11 Q12 Q13 Q14 Q15 Q16 OR1 OR2 OR3
XBPSD30P10000--	U2 USE Screw				1	Kou Fei Screw Industrial Co., Ltd.	
XJASD30P08000--	FOR PRDAA0116-1G--I*2				2	Shi Ho Screw Industrial Co., Ltd.	
XJSD30P10000--	IC2 USE Screw				2	Kou Fei Screw Industrial Co., Ltd.	

Module Part Level BOM

Module Name: Front Button Control Board
Supplier Name: Sampo
Module P/N: DPWB11372-1G-K2
Revision: K2

Part #	Part Number Name	Part Description		Quantity per Assembly	Supplier Name	Ref Designator
QPWB11372-1G-4K	PCB			1	EISD Enterprise Co., Ltd.	PCB (KEY)
QSW-A1225-11-1P	Tact Switch			6	Hua Jie (Taiwan) Corp.	S3 S4 S5 S6 S7 S8
VSI93M2AKF-----	IC- Infrared Receiver	93M2AKF		1	Imperial Star Corp.	U39
VSPHB5-30YGC---	LED			1	Huey Jann Electronics Industry Co., Ltd.	LD1
VRMHNVG-1501F-A	Metel Film	1.5K	1/16W	2	Yageo Corporation	R167 R171
VRMHNVG-3301F-A	Metel Film	3.3K	1/16W	2	Yageo Corporation	R168 R174
VRMHNVG-7501F-A	Metel Film	7.5K	1/16W	1	Yageo Corporation	R169
VRMHNVG-6800F-A	Metel Film	680	1/16W	1	Yageo Corporation	R170
VRMHNVG-1001F-A	Metel Film	1K	1/16W	2	Yageo Corporation	R172 R173
VRMHNVG--471J-A	Metel Film	470	1/16W	1	Yageo Corporation	R175
VRMHNVG-8201F-A	Metel Film	8.2K	1/16W	1	Yageo Corporation	R176
VRMHNVG--821J-A	Metel Film	820	1/16W	1	Yageo Corporation	R177
VRMHNVG--4R7J-A	Metel Film	4.7	1/16W	1	Yageo Corporation	R178
VCLRHN1HB471K-A	High Diel. Ceramic	470PF	50V	1	Yageo Corporation	C236
VCLRHN1HB102K-A	High Diel. Ceramic	1000PF	50V	1	Yageo Corporation	C235
VCTAEN1AB107M-A	Tantalum	100uF	10V	1	Kentec Vision Corp.	C237
VCNCP0316-EJST-	Connector	6 PIN		1	Chia-Soon Electronics Co., Ltd.	JA3
VSDRLS4148----A	Diode		RLS4148	2	ROHM CO.,LTD	D100,D101
VSZUDZ5.1B----A	Diode		MTZJ7.5B	2	ROHM CO.,LTD	ZD100,ZD101

Module Part Level BOM

Module Name: Front Button Control Board
Supplier Name: Sampo
Module P/N: DPWB11372-1G-K2
Revision: K2

Part #	Part Number Name	Part Description		Quantity per Assembly	Supplier Name	Ref Designator
QPWB11372-1G-4K	PCB			1	EISD Enterprise Co., Ltd.	PCB (KEY)
QSW-A1225-11-1P	Tact Switch			6	Hua Jie (Taiwan) Corp.	S3 S4 S5 S6 S7 S8
VSI93M2AKF-----	IC- Infrared Receiver	93M2AKF		1	Imperial Star Corp.	U39
VSPHB5-30YGC---	LED			1	Huey Jann Electronics Industry Co., Ltd.	LD1
VRMHNVG-1501F-A	Metel Film	1.5K	1/16W	2	Yageo Corporation	R167 R171
VRMHNVG-3301F-A	Metel Film	3.3K	1/16W	2	Yageo Corporation	R168 R174
VRMHNVG-7501F-A	Metel Film	7.5K	1/16W	1	Yageo Corporation	R169
VRMHNVG-6800F-A	Metel Film	680	1/16W	1	Yageo Corporation	R170
VRMHNVG-1001F-A	Metel Film	1K	1/16W	2	Yageo Corporation	R172 R173
VRMHNVG--471J-A	Metel Film	470	1/16W	1	Yageo Corporation	R175
VRMHNVG-8201F-A	Metel Film	8.2K	1/16W	1	Yageo Corporation	R176
VRMHNVG--821J-A	Metel Film	820	1/16W	1	Yageo Corporation	R177
VRMHNVG--4R7J-A	Metel Film	4.7	1/16W	1	Yageo Corporation	R178
VCLRHN1HB471K-A	High Diel. Ceramic	470PF	50V	1	Yageo Corporation	C236
VCLRHN1HB102K-A	High Diel. Ceramic	1000PF	50V	1	Yageo Corporation	C235
VCTAEN1AB107M-A	Tantalum	100uF	10V	1	Kentec Vision Corp.	C237
VCNCP0316-EJST-	Connector	6 PIN		1	Chia-Soon Electronics Co., Ltd.	JA3
VSDRLS4148----A	Diode		RLS4148	2	ROHM CO.,LTD	D100,D101
VSZUDZ5.1B----A	Diode		MTZJ7.5B	2	ROHM CO.,LTD	ZD100,ZD101

Supplier Approved Vendor List_SAMPO

Remark: 1. The vendor is qualified by Sampo RD, QA and Purchasing Department.

2. The part is qualified by Sampo RD Department.

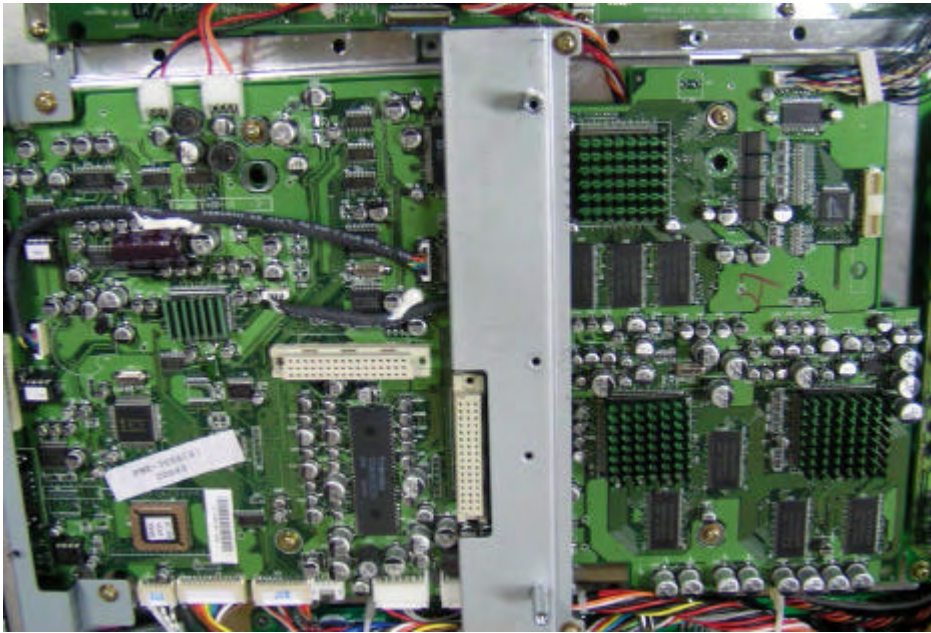
No.	Vendor Name	Taiwan Distributor Name	Vendor/ Taiwan Distributor Address	Zip Code	Commodity Supplied
1	ADD Microtech Corp.	TEX YEA CORPORTION	13Fl., No. 49, Sec. 3, Minsheng E. Rd., Sungshan Chiu, Taipei, Taiwan 105,	105	IC
2	ANALOG DEVICES	EPCO TECHNOLOGY CO.,LTD.	6Fl., No. 37, Lane 513, Rueiguang Rd., Neihu Chiu, Taipei, Taiwan 114, R.O.C.	114	IC
3	Asahi Glass Co.	Lim Shang Hang Temper-Safe Glass Factory Co.,	46, Ta Yeh South Road, Hsiao Kang District, Kaohsiung, 812 Taiwan, R.O.C.	812	Glass Filter
4	Base Strong Industrial Co., Ltd.	-	No. 53, Chingshiang St., Tucheng City, Taipei, Taiwan 236, R.O.C.	236	Heat sink
5	Best Enterprise Co., Ltd.	-	1Fl., No. 143, Dadau Rd., Shinyi Chiu, Taipei, Taiwan 110, R.O.C.	110	Packing material
6	CADAC Electronic Co., Ltd		No. 121, Tzu-Chiang 1st Road, Chung-Li Ind. Park, Taiwan 320, R.O.C.	320	PCB
7	Cation Industry Co., Ltd.	-	No. 59, Lane 530, Sec. 1, Kuo-Gi Road, Taoyuan, Taiwan, R.O.C.	330	PCB insertion
8	Cheng Fa Plastic Mfg Co., Ltd.	-	No. 555, Sec. 1, Wanshou Rd., Gueishan Shiang, Taoyuan, Taiwan 333,	333	Bezel
9	Chia-Soon Electronics Co., Ltd.	-	No. 145-1, Ankang Rd., Neihu Chiu, Taipei, Taiwan 114, R.O.C.	114	Connector, Socker
10	Chien Wey Electronic Industrial Co.,		No. 12-4, Dunglin Rd., Shiaugang Chiu, Kaohsiung, Taiwan 812, R.O.C	812	PCB
11	Sannon Co., Ltd.	-	No. 7, Lane 325, Jungjeng Rd., Banchiau City, Taipei, Taiwan 220, R.O.C.	220	Packing AD.
12	Chilisin Electronics Corp.	-	No. 29, Lane 301, Deshing Rd., Hukou Shiang, Hsinchu, Taiwan 303, R.O.C.	303	Coil
13	DAHZAN Electronic Co., Ltd.	-	4F, No. 105, Shi-Cheng Road, Panchiao City, Taipei, Taiwan 220, R.O.C.	220	Resistor, Film
14	Digimax Innovative Products Ltd.	-	4Fl.-4, No. 129, Lane 235, Bauchiau Rd., Shindian City, Taipei, Taiwan 231,	231	Elec. accessory
15	Diing Yih Enterprise Co., Ltd.	-	No. 32-1, Lane 23, Yian Rd., Junghe City, Taipei, Taiwan 235, R.O.C.	235	Printing
16	Dynachips	PROHUBS INTERNATIONAL CORP	9Fl., No. 77, Sec. 1, Shintai 5th Rd., Shijr City, Taipei, Taiwan 221, R.O.C.	221	IC
17	EISD Enterprise Co., Ltd.	-	1Fl., No. 52-2, Beinei St., Shulin City, Taipei, Taiwan 238, R.O.C.	238	PCB
18	EMC CORPORATION	Kuen-Chang Optic Corp.	6Fl., No. 92, Baujung Rd., Shindian City, Taipei, Taiwan 231, R.O.C.	231	IC
19	Energie Electronic Co., Ltd.	-	6-1Fl., No. 142, Sec. 2, Nangang Rd., Nangang Chiu, Taipei, Taiwan 115,	115	Capacitor
20	FAIRCHILD SEMICONDUCTOR	TECO ENTERPRISE CO.,LTD.	10Fl., No. 292, Minsheng W. Rd., Datung Chiu, Taipei, Taiwan 103, R.O.C.	103	IC
21	Forward Electronics Co. Ltd.	-	No. 393, Sec. 1, Jungjeng Rd., Sanshia Jen, Taipei, Taiwan 237, R.O.C.	237	Tuner unit
22	Frontier Electronics Co., Ltd.	-	4Fl., No. 48, Minchiuan Rd., Shindian City, Taipei, Taiwan 231, R.O.C.	231	Choke
23	G.I.S. Enterprise Co., Ltd.	-	No. 93-15, Luju Tsuen, Luju Shiang, Taoyuan, Taiwan 338, R.O.C.	338	Poly foam
24	Gaoma Engineering Co., Ltd.	-	No. 27, Lane 469, Liancheng Rd., Junghe City, Taipei, Taiwan 235, R.O.C.	235	Socket
25	G-Link Technology	PROHUBS INTERNATIONAL CORP	9Fl., No. 77, Sec. 1, Shintai 5th Rd., Shijr City, Taipei, Taiwan 221, R.O.C.	221	IC
26	Goldfull Electronics & Telecommunications Corp.	-	5Fl., No. 132, Lide St., Junghe City, Taipei, Taiwan 235, R.O.C.	235	Power cord
27	Heng Ya Electrical Industry Co., Ltd.	UCOME TEK CO.,LTD	3Fl., No. 542-2, Jungjeng Rd., Shindian City, Taipei, Taiwan 231, R.O.C.	231	Resistor
28	Hirose	Forward-Tech Electronics, Ltd.	4Fl., No. 118, Hougang St., Shrlin Chiu, Taipei, Taiwan 111, R.O.C.	111	Conector
29	Hitachi SEMICONDUCTOR	NISSEI SANGYO CO.,LTD. TAIPEI BRANCH	10Fl., No. 44, Sec. 2, Jungshan N. Rd., Jungshan Chiu, Taipei, Taiwan 104,	104	Transistor, IC
30	Hua Jie (Taiwan) Corp.	-	No. 231, Lungshou St., Taoyuan City, Taoyuan, Taiwan 330, R.O.C.	330	Switch

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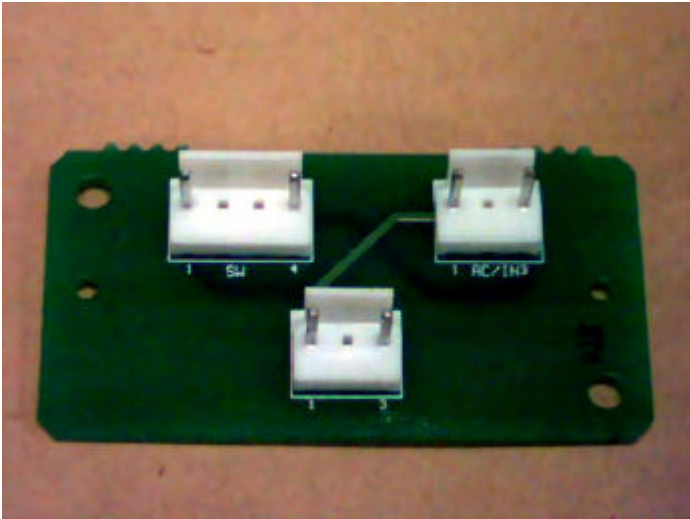
No.	Vendor Name	Taiwan Distributor Name	Vendor/ Taiwan Distributor Address	Zip Code	Commodity Supplied
31	Huey Jann Electronics Industry Co.,	-	No. 27, Lane 466, Sec. 2, Gangnan Rd., Wuchi Jen, Taichung, Taiwan 435,	435	LED
32	I-CHIPS TECHNOLOGY INC.	Micromax Technology	3Fl., No. 103, Sec. 2, Jioutzung Rd., Neihu Chiu, Taipei, Taiwan 114, R.O.C.	114	IC
33	Imperial Star Corp.	-	6Fl.-4, No. 27, Lane 61, Sec. 1, Guangfu Rd., Sanchung City, Taipei, Taiwan	241	IC
34	In Hana Industrial Co. Ltd.	-	No. 120, Shinshing Rd., Bade City, Taoyuan, Taiwan 334, R.O.C.	334	Speaker
35	INTEGRATED CIRCUIT SYSTEMS	MAXTEK TECHNOLOGY CO.,LTD.	3Fl.-2, No. 197, Sec. 4, Nanjing E. Rd., Sungshan Chiu, Taipei, Taiwan 105,	105	IC
36	JST ELECTRONIC PRODUCTS MFG.CO.,LTD	-	No. 145-1, Ankang Rd., Neihu Chiu, Taipei, Taiwan 114, R.O.C.	114	Connector
37	Jye Tai Precision Industrial Co., Ltd.	-	5Fl.-3, No. 8, Lane 609, Sec. 5, Chungshin Rd., Sanchung City, Taipei, Taiwan 241, R.O.C.	241	Connector
38	Jyh Dong Co., Ltd.	-	No. 20, Lane 169, Fuhua St., Jungli City, Taoyuan, Taiwan 320, R.O.C.	320	Printing
39	KDS Taiwan Electronics Corp.	-	6Fl., No. 69, Jilin Rd., Jungshan Chiu, Taipei, Taiwan 104, R.O.C.	104	Crystal
40	Kentec Vision Corp.	CHIEFTAIN ENTERPRISES CO.,LTD.	6Fl., No. 726, Sec. 6, Jungshan N. Rd., Shrlin Chiu, Taipei, Taiwan 111, R.O.C.	111	Capacitor
41	Kou Fei Screw Industrial Co., Ltd.	-	No. 12, Lane 195, Huacheng Rd., Shinjuang City, Taipei, Taiwan 242, R.O.C.	242	Scraw
42	LATTICE SEMICONDUCTOR CORPORATION	PROMASTER TECHNOLOGY CROP.	16Fl., No. 182, Sec. 2, Duenhua S. Rd., Daan Chiu, Taipei, Taiwan 106, R.O.C.	103	IC
43	Long Maw Electronics Co., Ltd.	-	No. 20, Sanlong St., Shulin City, Taipei, Taiwan 238, R.O.C.	238	PCB
44	Matsushita Electric (Taiwan) Ltd.	-	6Fl., No. 550, Sec. 4, Jungshiau E. Rd., Shinyi Chiu, Taipei, Taiwan 110, R.O.C.	110	Remote control
45	Maxi Electronic Enterprise Co., Ltd.	-	3Fl., No. 111, Sec. 3, Chungshin Rd., Sanchung City, Taipei, Taiwan 241,	241	Connector
46	Mina Information Co., Ltd.	MINA INFORMATION CO.,LTD.	17Fl.-2, No. 327, Sec. 2, Fushing S. Rd., Daan Chiu, Taipei, Taiwan 106,	106	Connector
47	MMC Electronics Taiwan Co., Ltd.	MMC ELECTRONICS TAIWAN CO.,LTD.	No. 20, Jianguo Rd., Tanzi Shiang, Taichung, Taiwan 427, R.O.C.	427	Capacitor
48	MOLEX	-	1Fl., No. 49, Lane 264, Tzuenshian St., Beitou Chiu, Taipei, Taiwan 112,	112	Socket
49	MSK Technology Corp.	-	No. 62, Sec. 2, Renhe Rd., Dashi Jen, Taoyuan, Taiwan 335, R.O.C.	335	Connector
50	Murata Mfg. Co., Ltd.	-	26-10 TENJIN 2-CHONE.NOGAOKAKYO,KYOTO.61		Core, Filter
51	MUTSUBISHI ELECTRIC	SETSUYO	5Fl., No. 105, Wugung 3rd Rd., Wugu Shiang, Taipei, Taiwan 248, R.O.C.	248	IC
52	Mylar Elctronics Co., Ltd.	-	6Fl.-2, No. 135, Sec. 4, Bade Rd., Sungshan Chiu, Taipei, Taiwan 105, R.O.C.	105	Capacitor
53	MYSON TECHNOLOGY INC.	-	No. 6, Alley 10, Lane 51, Sec. 3, Jungshiau E. Rd., Daan Chiu, Taipei, Taiwan 106, R.O.C.	106	IC
54	National Semiconductor	ARROWALLY,INC.	19Fl., No. 75, Sec. 1, Shintai 5th Rd., Shijr City, Taipei, Taiwan 221, R.O.C.	221	IC
55	National Semiconductor	SILTRONTECH Electronics Corp.	11F, No. 20, Alley 1, Lane 768, Sec. 4, Pate Rd., Nangang Chiu, Taipei, Taiwan	115	IC
56	NEC CORPORATION	TAIWAN SATORI CO.,LTD.	Suite 2108, 21Fl., No. 333, Sec. 1, Jilung Rd., Shinyi Chiu, Taipei, Taiwan	110	IC
57	NEW JAPAN RADIO CO.,LTD	CASSNA INTERNATIONAL CO.,LTD.	9Fl., No. 415, Sec. 4, Shinyi Rd., Shinyi Chiu, Taipei, Taiwan 110, R.O.C.	110	IC
58	Oupiin Enterprise Co., Ltd.	-	No. 302, Changshing Rd., Bade City, Taoyuan, Taiwan 334, R.O.C	334	Connector
59	Philips Semiconductors	PHILIPS TAIWAN LTD.	28Fl., No. 66, Sec. 1, Jungshiau W. Rd., Jungjeng Chiu, Taipei, Taiwan 100,	100	Diode, IC
60	Philips Semiconductors	WORLD PEACE INDUSTRIAL CO.,LTD.	8Fl., No. 76, Sec. 1, Chenggung Rd., Nangang Chiu, Taipei, Taiwan 115,	115	Transistor
61	Philips Semiconductors / Texas Instruments	ASIA FORTUNE ELECTRONIC ENTERPRISE	No. 238-1, Jihe Rd., Shrlin Chiu, Taipei, Taiwan 111, R.O.C.	111	IC
62	R.U.G. Isolator (Taiwan) Ltd.	-	No. 2-2, Alley 56, Lane 250, Sec. 2, Huanhe S. Rd., Wanhua Chiu, Taipei, Taiwan 108, R.O.C.	108	Packing AD
63	ROHM CO.,LTD	TEX YEA CORPORTION	13Fl., No. 49, Sec. 3, Minsheng E. Rd., Sungshan Chiu, Taipei, Taiwan 105,	105	Diode, IC, Transistor

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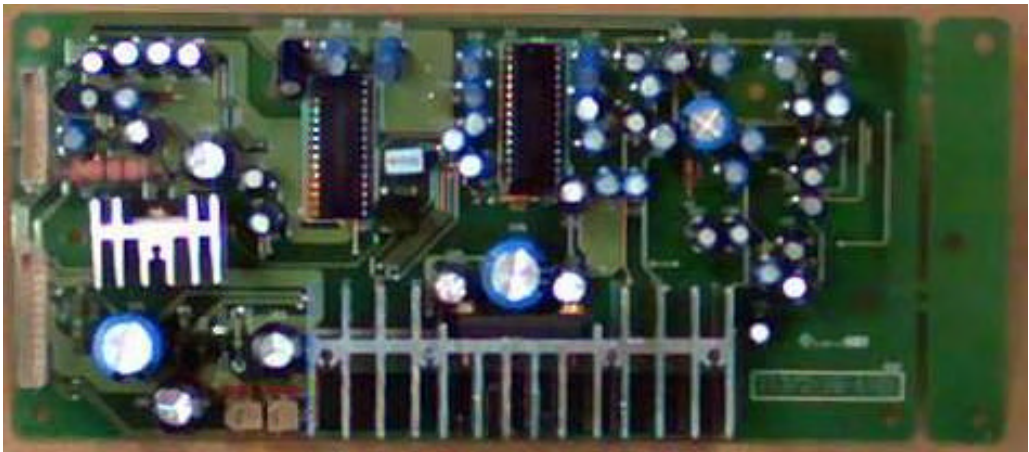
No.	Vendor Name	Taiwan Distributor Name	Vendor/ Taiwan Distributor Address	Zip Code	Commodity Supplied
64	ROHM CO.,LTD	KROM ELECTRONICS CO.,LTD.	2Fl., No. 1, Alley 16, Lane 235, Bauchiau Rd., Shindian City, Taipei, Taiwan	231	Diode, IC, Transistor
65	Samsung	Lipers Enterprise Co., Ltd.	12Fl., No. 786-1, Jungjeng Rd., Junghe City, Taipei, Taiwan 235,R.O.C.	235	Capacitor
66	SANYO SEMICONDUCTORS	TONG SAN	Suite 406, No. 372, Linsen N. Rd., Jungjeng Chiu, Taipei, Taiwan 100, R.O.C.	100	IC
67	Seiko Instrunets Taiwan Inc.	SEIKO INSTRUMENTS TAIWAN INC.	4Fl., No. 40, Sec. 2, Minchiuan E. Rd., Jungshan Chiu, Taipei, Taiwan 104,	104	IC
68	Shi Ho Screw Industrial Co., Ltd.	-	12Fl., Yungchuen St., Shiaugang Chiu, Kaohsiung, Taiwan 812, R.O.C.	812	Scraw
69	Shin Chi Paper Container Co., Ltd.	-	No. 188-1, Hungdau Rd., Sanshia Jen, Taipei, Taiwan 237, R.O.C.	237	Carton
70	Shuning Yurn Enterprise Co., Ltd.	-	5Fl., No. 5, Lane 163, Shinyi Rd., Banchiau City, Taipei, Taiwan 220, R.O.C.	220	Choke
71	SILICOM MAGIC CORP.	PROHUBS INTERNATIONAL CORP	9Fl., No. 77, Sec. 1, Shintai 5th Rd., Shijr City, Taipei, Taiwan 221, R.O.C.	221	IC
72	SILICON IMAGE	WORLD PEACE INDUSTRIAL CO.,LTD.	8Fl., No. 76, Sec. 1, Chenggung Rd., Nangang Chiu, Taipei, Taiwan 115,	115	IC
73	Silicon Storage Technology, Inc.	PCT LIMITED	6FL-2, No. 15, Lane 174, Sinming Rd, Beitou Chiu, Taipei, Taiwan 112, R.O.C.	112	IC
74	Skyenet Electronics Co., Ltd.	-	4th Fl., No. 76, Chen-Kong Rd., Sec. 1, Nan Kan District, Taipei, Taiwan, R.O.C.	115	Power
75	Smart Concept Enterprise Co., Ltd.	SMART CONCEPT ENTERPRISE LIMITED	5Fl., No. 67, Jungfeng N. Rd., Jungli City, Taoyuan, Taiwan 320, R.O.C.	320	Packing AD
76	ST Microelectronics	-	12Fl., No. 325, Sec. 1, Duenhua S. Rd., Taipei, Taiwan 105, R.O.C.	105	IC
77	ST Microelectronics / Atmel	TOPTREND TECHNOLOGIES CORP.	8Fl.-2, No. 15, Lane 360, Sec. 1, Neihu Rd., Neihu Chiu, Taipei, Taiwan 114,	114	IC
78	Suyin Corporation	-	No. 233, Fude 1st Rd., Shijr City, Taipei, Taiwan 221, R.O.C.	221	Socket
79	Taiwan Sumida Electronics Inc.	-	No. 171, Fude St., Shinyi Chiu, Taipei, Taiwan 110, R.O.C.	110	Choke
80	Top-Nation Electronic Factory	Yao Sheng Electronic Co., Ltd	5F, No. 15, Wu Chuang 6th Rd., Wu Ku Industrial Zone, Wu Ku Shiang, Taipei Hsien, Taiwan 248, R.O.C.	248	Diode
81	TOSHIBA CORPORATION	TOSHIBA ELECTRONICS TAIWAN CORP.CO.,	17Fl., No. 109, Sec. 3, Minsheng E. Rd., Sungshan Chiu, Taipei, Taiwan 105,	105	IC, Transistor
82	TOSHIBA SEMICONDUCTORS	TOPSHINE ELECTRONICS CORP.	5Fl., No. 68, Joutz St., Neihu Chiu, Taipei, Taiwan 114, R.O.C.	114	IC, Diode
83	TOSHIBA SEMICONDUCTORS	TOSHIBA ELECTRONICS TAIWAN CORP.CO.,	17Fl., No. 109, Sec. 3, Minsheng E. Rd., Sungshan Chiu, Taipei, Taiwan 105, R.O.C.	105	IC, Diode
84	Trident Technologies Inc.	TRIDENT TECHNOLOGIES INC	14F, No. 3, Lishing 2nd Rd., Hsinchu, Taiwan 300, R.O.C.	300	IC
85	Trim International		21Fl., No. 508, Sec. 5, Jungshiau E. Rd., Taipei, Taiwan 110, R.O.C.	110	Label
86	TSMT- Taiwan Surface Mounting Technology Corp.	-	No. 7, Shinghua Rd., Taoyuan City, Taoyuan, Taiwan 330, R.O.C.	330	PCB insertion
87	UNITED MICROELECTRONICS	SAS ELECTRONIC(TAIWAN)CO., LTD.	6F, No. 3, Lane 235, Bauchiau Rd., Shindian City, Taipei, Taiwan 231, R.O.C.	231	IC
88	Usance Innovative Products Ltd.	-	5F-3, No. 123, Lane 235, Pao-Chiao Rd., Hsin Tien City, Taipei Hsien, Taiwan	231	Elec. accessory
89	Walsin Technology Corp.	-	No. 8, Dafeng Rd., Taoyuan City, Taoyuan, Taiwan 330, R.O.C.	330	Core
90	Well Shin Enterprise Co., Ltd.	-	No. 14, Lane 498, Sec. 3, Chenggung Rd., Neihu Chiu, Taipei, Taiwan 114,	114	Power cord
91	WINBOND ELECTRONICS CORP.	ULTIMA ELECTRONICS CORP.	9Fl., No. 18, Alley 1, Lane 768, Sec. 4, Bade Rd., Sungshan Chiu, Taipei, Taiwan 105, R.O.C.	105	IC
92	Yageo Corporation	-	3F, No. 233-1, Bauchiau Rd., Shindian City, Taipei, Taiwan 231, R.O.C.	231	Capacitor, Resistor
93	Yem Chio Co., Ltd.	-	No. 423, Sec. 3, Mingj Rd., Taishan Shiang, Taipei, Taiwan 243, R.O.C.	243	Packing AD
94	Yo Tai Plastic Industrial Co., Ltd.	-	No. 26, Shujung St., Shulin City, Taipei, Taiwan 238, R.O.C.	238	Leg base
95	Yung Cheng Industrial Co., Ltd.	-	No. 15, Lane 333, Shinshu Rd., Shinjuang City, Taipei, Taiwan 242, R.O.C.	242	Cabinet



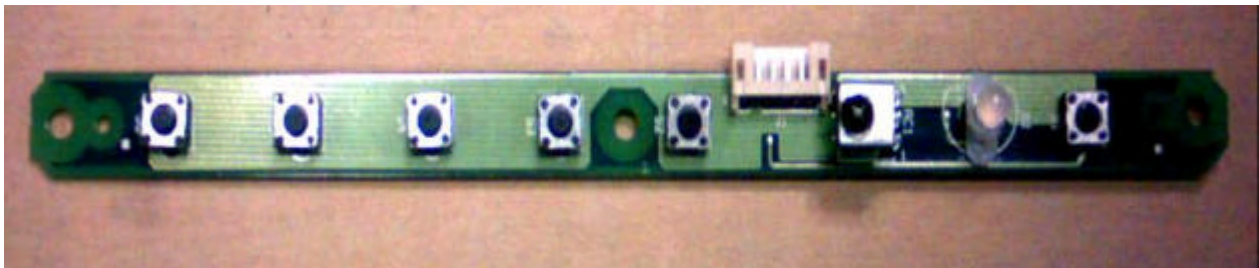
MODULE NAME	PART NO.
IMAGE BOARD ASS'Y	DPWB11400-1GGAS



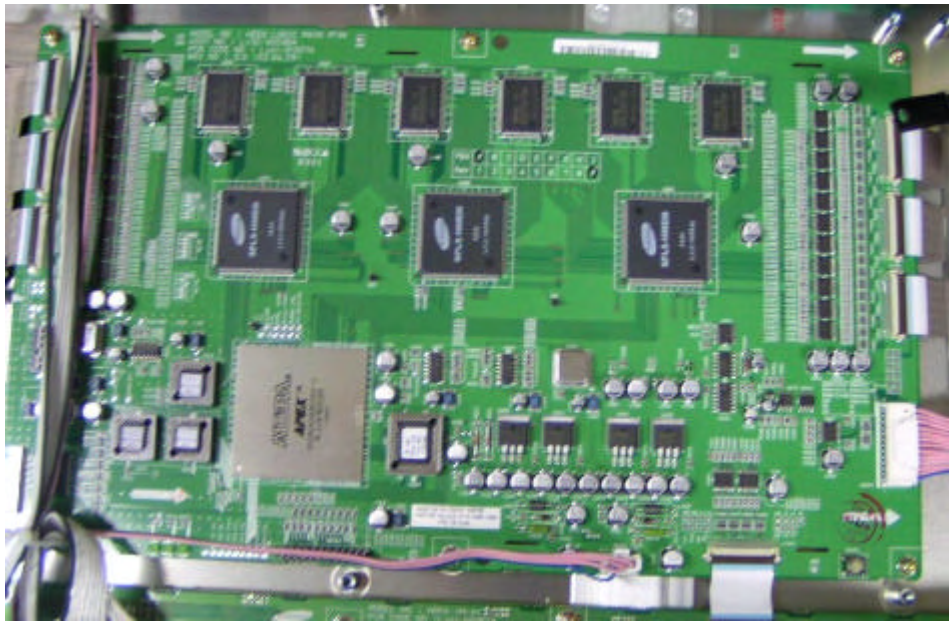
MODULE NAME	PART NO.
AC MASTER POWER SWITCH B/D ASS'Y	DPWB11398-1G---



MODULE NAME	PART NO.
AUDIO AMPLIFIER BOARD ASS'Y	DPWB11372-1GGSA



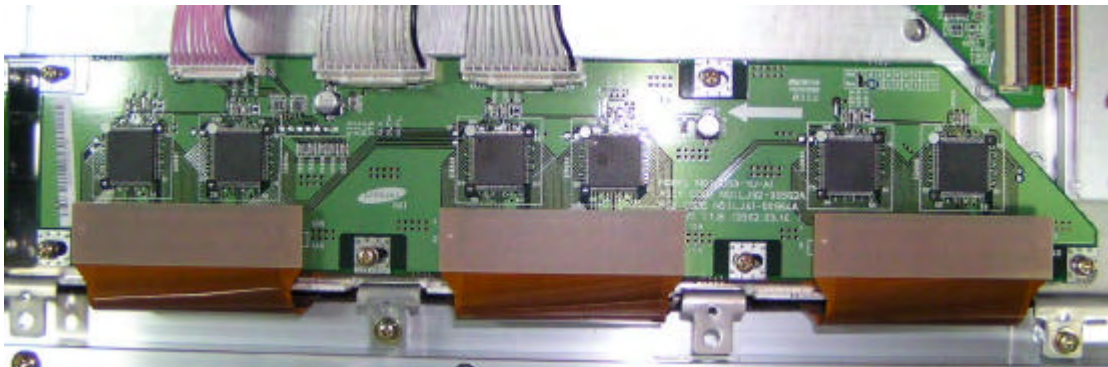
MODULE NAME	PART NO.
FRONT BUTTON CONTROL BOARD ASS'Y	DPWB11372-1G-K2



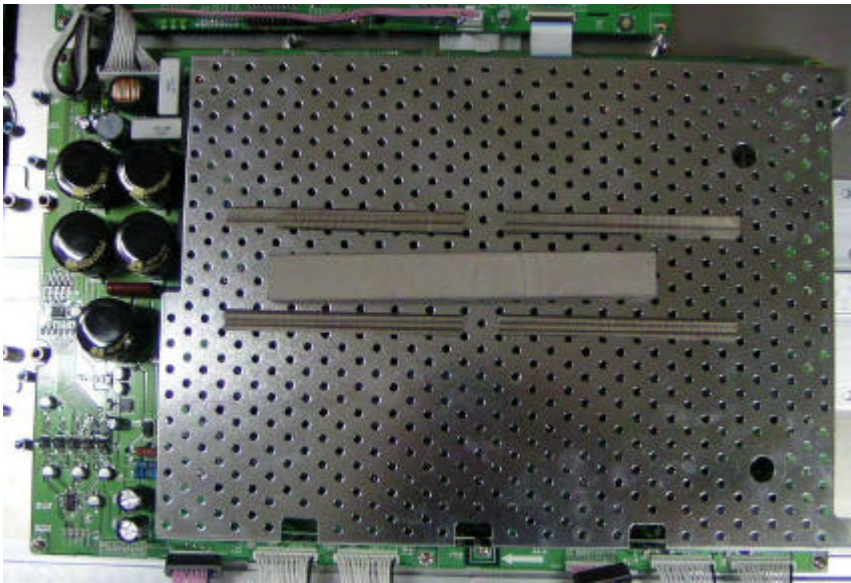
MODULE NAME	PART NO.
LOGIC BOARD ASS'Y	LJ92-00598A



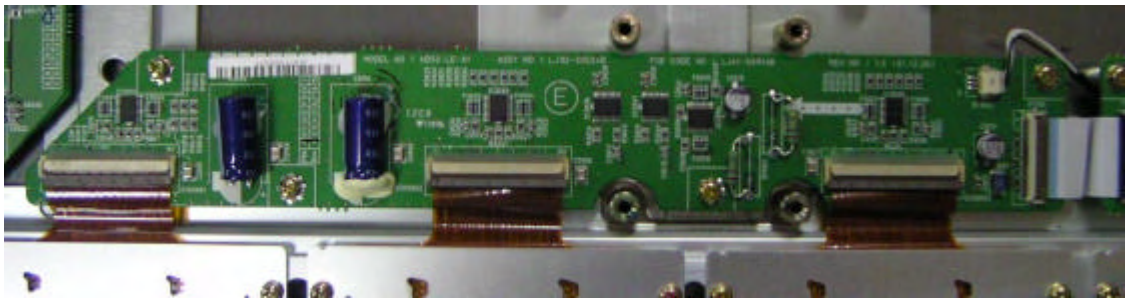
MODULE NAME	PART NO.
Y DRIVE-TOP ASS'Y	LJ92-00561A



MODULE NAME	PART NO.
Y DRIVE-BOTTON ASS'Y	LJ92-00562A



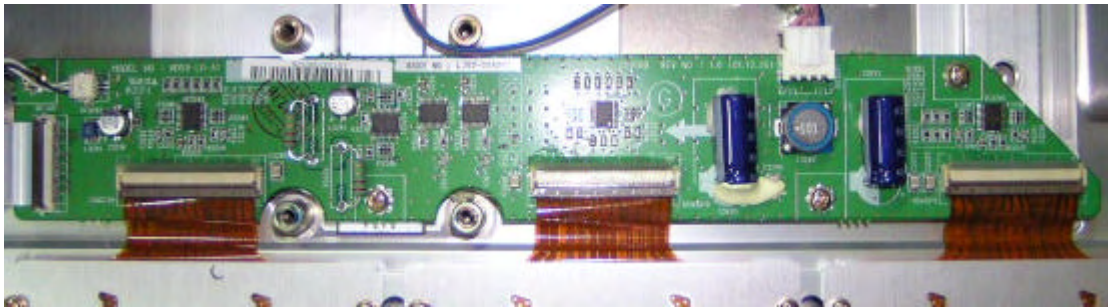
MODULE NAME	PART NO.
Y-DRIVE BOARD ASS'Y	LJ92-00560A



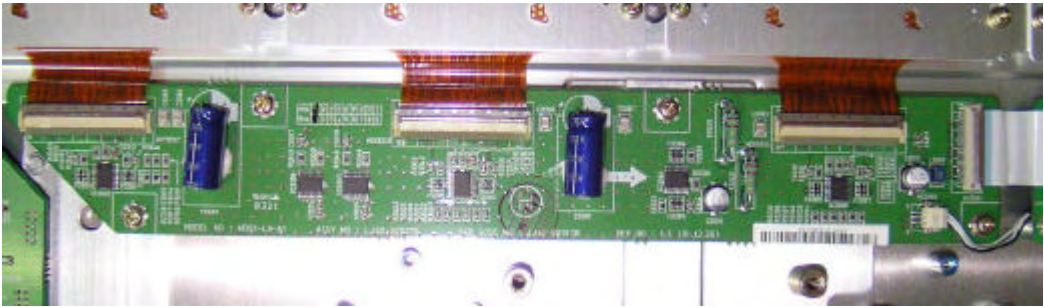
MODULE NAME	PART NO.
X_XLB BOARD ASS'Y	LJ92-00524B



MODULE NAME	PART NO.
X_XCB BOARD ASS Y	LJ92-00525B



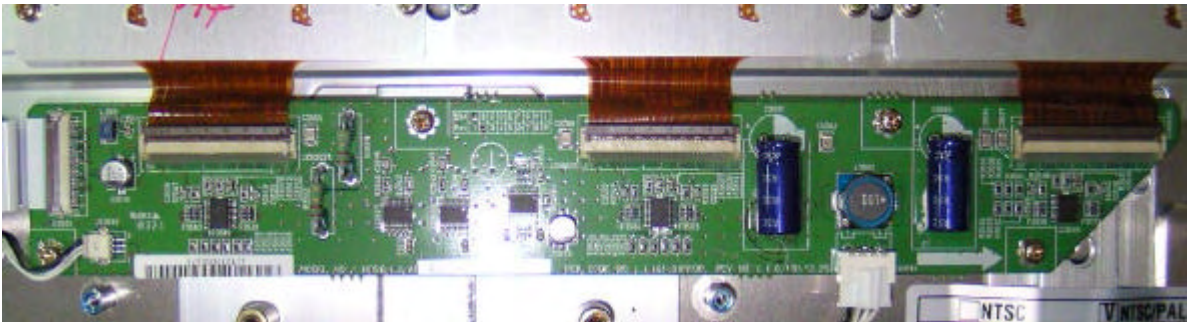
MODULE NAME	PART NO.
X_XRB BOARD ASS Y	LJ92-00526C



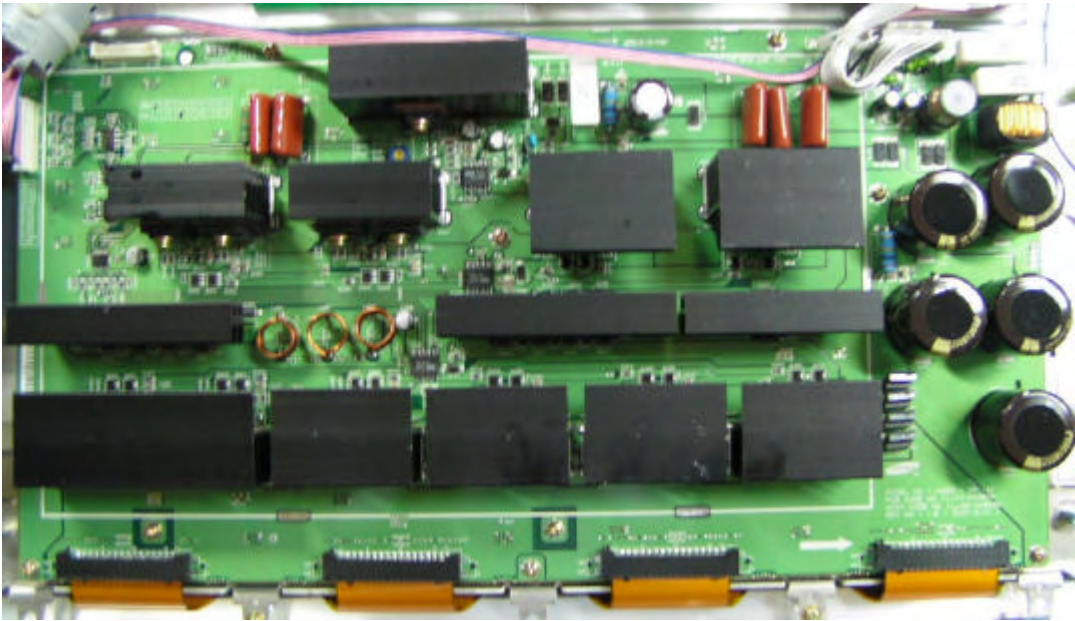
MODULE NAME	PART NO.
X_XLT BOARD ASS Y	LJ92-00527B



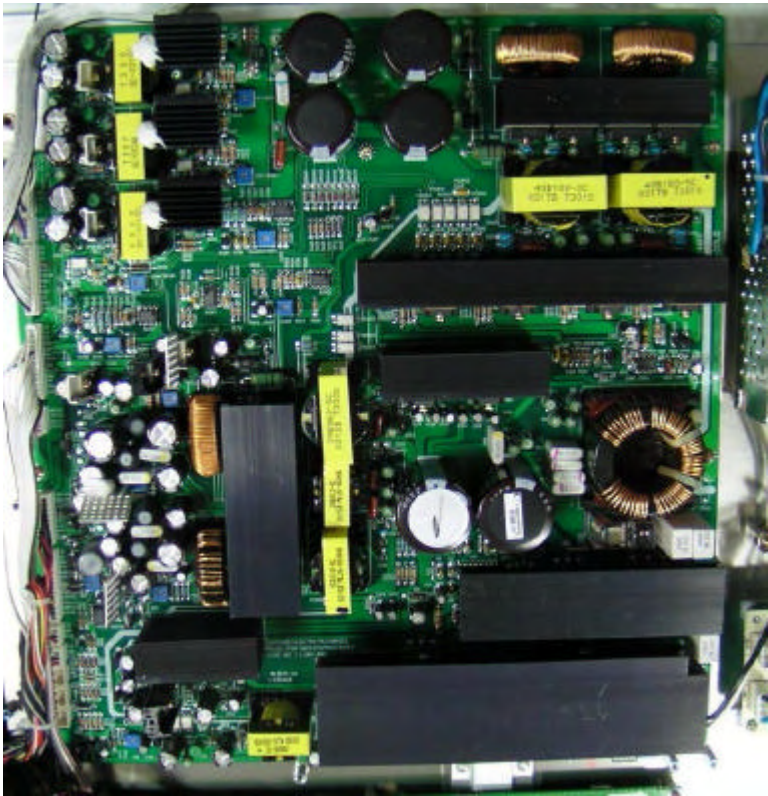
MODULE NAME	PART NO.
X_XCT BOARD ASS Y	LJ92-00528B



MODULE NAME	PART NO.
X_XRT BOARD ASS Y	LJ92-00529C



MODULE NAME	PART NO.
X-DRIVE BOARD ASS'Y	LJ92-00559A



MODULE NAME	PART NO.
PANEL MAIN POWER SUPPLY ASS'Y	LJ44-00044A

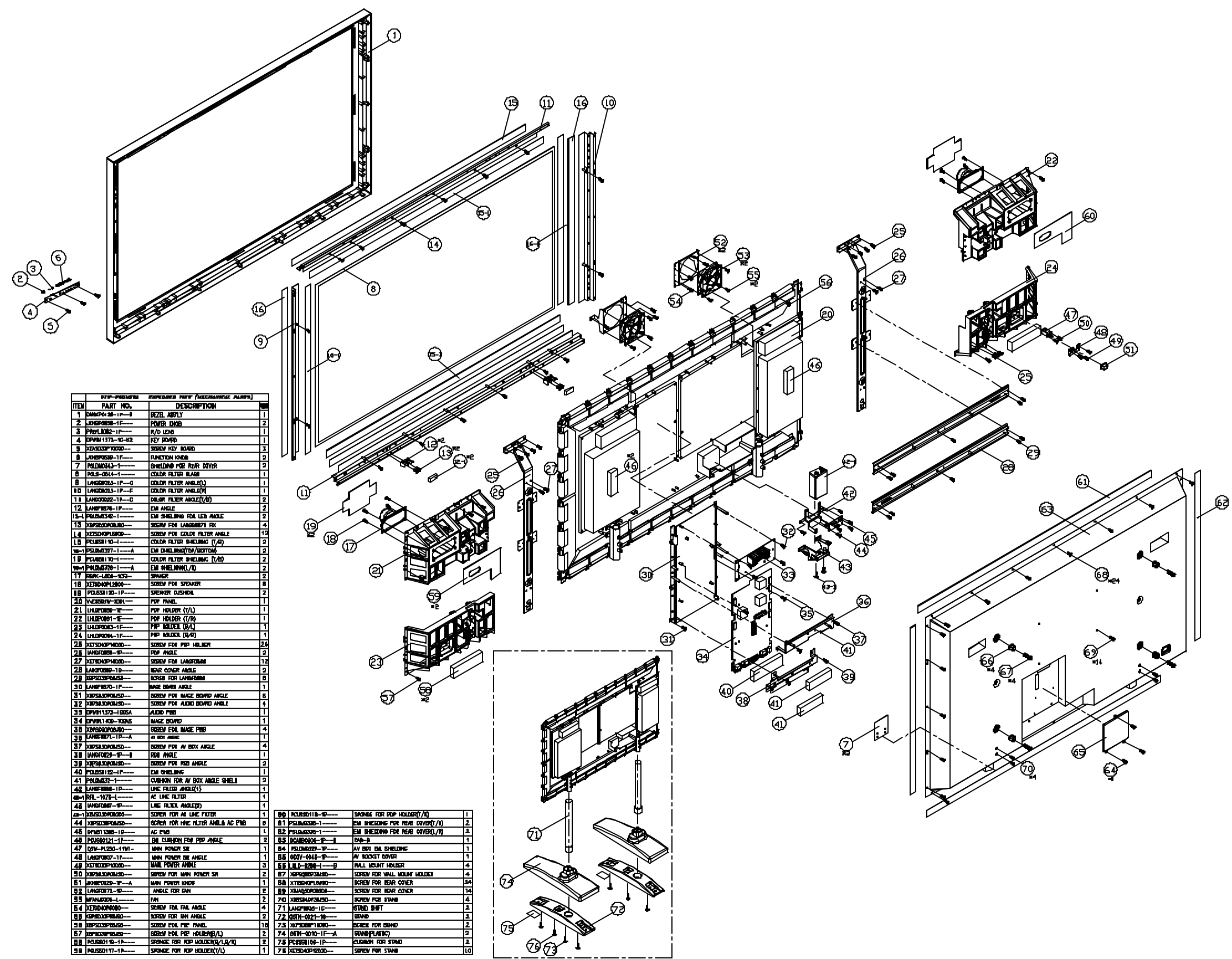


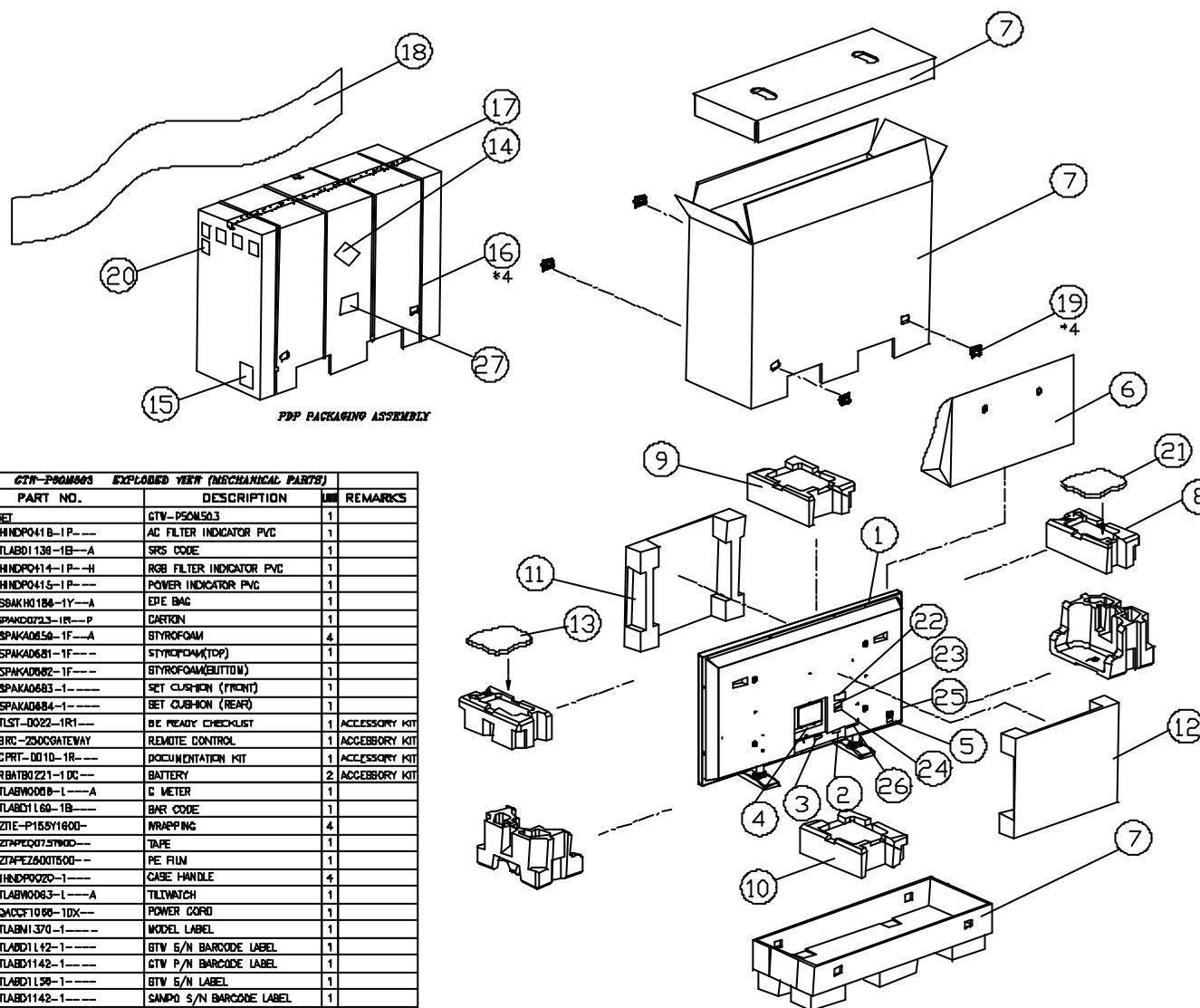
MODULE NAME	PART NO.
EMI FILTER ASS'Y	LJ92-00747A



MODULE NAME	PART NO.
PDP PANEL MODULE ASS'Y	VVES50HW-XD01--

No.	Module	Supplier	Supplier's Ass'y Part #	Quantity Per Final Assembly
1	Image Board	Sampo	DPWB11400-1GGAS	1
2	AC Master Power Switch Board	Sampo	DPWB11398-1G---	1
3	Audio Amplifier Board	Sampo	DPWB11372-1GGSA	1
4	Front Button Control Board	Sampo	DPWB11372-1G-K2	1
5	Logic Board	Samsung	LJ92-00598A	1
6	Y Driver-Top	Samsung	LJ92-00561A	1
7	Y Driver-Bottom	Samsung	LJ92-00562A	1
8	Y Drive Board	Samsung	LJ92-00560A	1
9	X_XLB	Samsung	LJ92-00524B	1
10	X_XCB	Samsung	LJ92-00525B	1
11	X_XRB	Samsung	LJ92-00526C	1
12	X_XLT	Samsung	LJ92-00527B	1
13	X_XCT	Samsung	LJ92-00528B	1
14	X_XRT	Samsung	LJ92-00529C	1
15	X Drive Board	Samsung	LJ92-00559A	1
16	Main Power	Samsung	LJ44-00044A	1
17	EMI Filter	Samsung	LJ92-00747A	1
18	Full Set PDP Panel Module	Samsung	VVES50HW-XD01- -	1
19	Glass Filter	Sampo	PGLS-0014-1- - - -	1
20	Speaker	Sampo	RSPK-L005-1CFJ-	2
21	Front Bezel	Sampo	DMSKP0128-1F- -D	1
22	Rear Cover	Sampo	GCABB0306-1P- -D	1
23	Plasma Stand Assembly	Sampo	DSTN-0021-1G- - -	2





GTV-PRO4003 EXPLODED VIEW (MECHANICAL PARTS)				
ITEM	PART NO.	DESCRIPTION	QTY	REMARKS
1	SET	GTV-PS0503	1	
2	HINDP041B-1P----	AC FILTER INDICATOR PVC	1	
3	TLABD113B-1B--A	SRS CODE	1	
4	HINDP0414-1P--H	RGB FILTER INDICATOR PVC	1	
5	HINDP0415-1P----	POWER INDICATOR PVC	1	
6	SBKH0186-1Y--A	EPE BAG	1	
7	SPAKD0723-1R--P	CARTON	1	
8	SPAKA0656-1F--A	STYROFOAM	4	
9	SPAKA0681-1F----	STYROFOAM(TOP)	1	
10	SPAKA0682-1F----	STYROFOAM(BOTTOM)	1	
11	SPAKA0683-1-----	SET CUSHION (FRONT)	1	
12	SPAKA0684-1-----	SET CUSHION (REAR)	1	
13	TLST-0022-1R1----	BE READY CHECKLIST	1	ACCESSORY KIT
	BRC-2500GATEWAY	REMOTE CONTROL	1	ACCESSORY KIT
	CPRT-0010-1R----	DOCUMENTATION KIT	1	ACCESSORY KIT
	RBATB0221-1DC--	BATTERY	2	ACCESSORY KIT
14	TLABW000B-1--A	G METER	1	
15	TLABD1160-1B----	BAR CODE	1	
16	ZTE-P155Y1600--	WRAPPING	4	
17	ZTAPC00757900--	TAPE	1	
18	ZTAPCZ6001500--	PE FILM	1	
19	HINDP0020-1-----	CASE HANDLE	4	
20	TLABW0063-1--A	TILTWATCH	1	
21	QACCT1060-10X--	POWER CORD	1	
22	TLABN1370-1-----	MODEL LABEL	1	
23	TLABD1142-1-----	GTV S/N BARCODE LABEL	1	
24	TLABD1142-1-----	GTV P/N BARCODE LABEL	1	
25	TLABD113B-1-----	GTV S/N LABEL	1	
26	TLABD1142-1-----	SANPO S/N BARCODE LABEL	1	
27	TLABN133B-1-----	GTV SERVICE INFO LABEL	1	