CONFIDENTIAL

PDP-027-1(Module Format)

Issues:Nov.07.03

Version:1.0

50“ PDP
SERVICE MANUAL
MODEL: GTW-P50M603
PANEL: Samsung(VVES50HW-XD01--)

CONTENTS

1. IMPORTANT SAFETY PRECAUTIONS ……..1-2

2. SPECIFICATION ……2-10

3. FACTORY & ELECTRONIC ADJUSTMENT……...3-7

4. BLOCK DIAGRAM ……...4-4

5. TROUBLE SHOOTING GUIDES ……5-6

6. B.O.M. OF BOARD ASSEMBLY ……....6-18

7. P.C. BOARD TOP VIEW ……7-9

8. ELECTRONIC MODULE LIST ……..8-1

9. EXPLODED VIEW ……..9-1

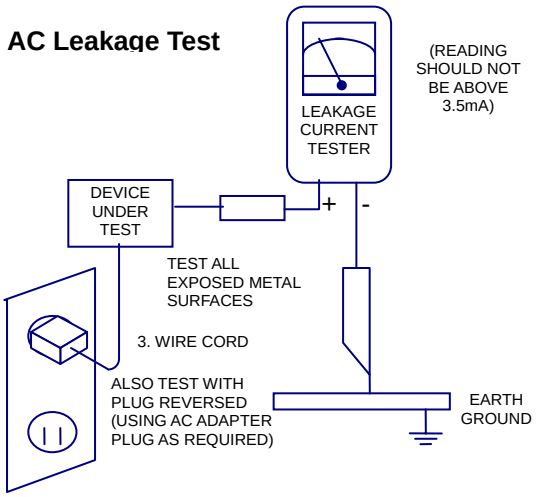
10.PACKAGING LIST ……10-1

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 opening 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.

SPECIFICATION FOR GTW-P50M603 PLASMA DISPLAY VER1.0

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:	**RCA Jack for audio, video Y/C_B/C_R and Y/P_B/P_R 6 pin Din S-terminal 9 pin D-SUB 15 pin D-SUB 24 pin DVI**

2.3.2 Video/S-Video Signal:

a. Type	**Analog**
b. Polarity	**Positive**
c. Amplitude	**Video: 1Vp-p (with sync) S-Video: Y=1Vp-p (with sync), C=0.286Vp-p**
d. Frequency	**H: 15.734KHz V: 60Hz(NTSC) H: 15.625KHz V: 50Hz(PAL)**
e. Input impedance	**75 ohms**

2.3.3 COMPONENT Signal:

a. Type	**Analog**
b. Polarity	**Positive**
c. Amplitude	**Y: 1Vp-p (with sync) C_B/P_B: 0.7Vp-p C_R/P_R: 0.7Vp-p**
d. Frequency	
Y/C_B/C_R	**H: 15.734KHz, V: 60Hz (NTSC) H: 15.625KHz, V: 50Hz (PAL)**
Y/P_B/P_R: HDTV	**1. 31KHz/60Hz (480p) 2. 45KHz/60Hz (720p) 3. 33KHz/60Hz(1080i)**

2.3.4 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

2.3.5 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

2.3.6 Audio Signal: Analog 500mV rms /more than 22Kohm

2.3.7 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

2.3.8 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 -

2.3.9 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)x480	60	31.500	59.940	-	-	25.175
2	640(VGA)x480	72	37.900	72.810	-	-	31.500
3	640(VGA)x480	75	37.500	75.000	-	-	31.500
4	640(VGA)x480	85	43.300	85.010	-	-	36.000
5	800(SVGA)x600	56	35.100	56.250	+	+	36.000
6	800(SVGA)x600	60	37.900	60.317	+	+	40.000
7	800(SVGA)x600	72	48.100	72.190	+	+	50.000
8	800(SVGA)x600	75	46.900	75.000	+	+	49.500
9	800(SVGA)x600	85	53.700	85.060	+	+	56.250
10	1024(XGA)x768	60	48.400	60.010	-	-	65.000
11	1024(XGA)x768	70	56.500	70.070	-	-	75.000
12	1024(XGA)x768	75	60.000	75.030	+	+	78.750
13	1024(XGA)x768	85	68.700	84.990	+	+	94.500
14	1280(SXGA)x1024	60	63.980	60.020	+	+	108.00
15◎	1280(SXGA)x1024	75	79.980	75.030	+	+	135.00
16◎	1280(SXGA)x1024	85	91.150	85.020	+	+	157.50
18	720(DOS)x400	70	31.460	70.080	+	-	28.322
19	640(VGA)x480	50	31.500	50.000	-	-	25.175
20◎	1280(HDTV)x720p	60	45.000	60.000	+	+	74.250
21◎	1920(HDTV)x1080i	60(i)	33.750	60.000	+	+	74.250
22	640(VGA)x350	70	31.500	70.000	-	+	25.175
23	852(WGA)x480	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.

2.3.10 $Y/P_B/P_R$ For Component:

Mode No	Resolution	Refresh Rate
1	640 x480p	60
2	1920 x1080i	60
3	1280 x720p	60

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 (TV -> AV1 ->AV2[S] -> COMPONENT 1 -> COMPONENT 2-> RGB -> DVI->TV run in cycle)
Menu key -,+
Adjustment -,+

IR Remote Control
Power on/off
MUTE
Display
Input Select (same as Main unit button)
Volume -,+
Wide:
- **TV/AV1/AV2[S]/COMPONENT 1/2 input: PANORAMA/4:3/16:9 (ZOOM1/ZOOM2/ZOOM3/OFF for 16:9 only)**
- **Analog RGB input: 4:3/16:9**

Menu -,+
Adjustment -,+
RECALL
PIP, SOURCE, SWAP, POSITION
USE FOR TV MODE:
- **V-CHIP/SET**
- **FAV.CH, FAV.SET, QV, CCD, MTS, CH LOCK, SLEEP TIMER,**
- **Number Select, CH ▲▼**

DIRECT KEY:
- **POWER ON, POWER OFF, RGB, TV, AV1, AV2, COMPONENT1/2, DVI**

2.5.1 Adjustable Items:

TV /AV1 /AV2[S] input	**PICTURE:** **Input Source, Brightness, Contrast, Color, Tint, Sharpness Color Temperature, Clock Phase, Screen Wide, Zoom** **SOUND:** **Bass, Treble, Surround, BBE, Bass Extension, Volume, INNER SPK, Audio Output** **PIP:** **Source, Position, Swap** **POP:** **Source, Screen Rate, Swap** **TV:** **Channel, Channel Status, MTS, CCD, V-CHIP, Ch Search, Tuner Source, Background** **OTHER:** **OSD Timeout, OSD Brightness, OSD Background, Sleep, OSD Language, Power Save (no function under this input), Power On Sequence, Reset**
COMPONENT input	**PICTURE:** **Input Source, Brightness, Contrast, Color, Tint, Sharpness, Color Temperature, Clock Phase, Screen Wide, Zoom, Geometric Adjust** **SOUND: (same as TV/AV1/ AV2[S] input)** **PIP/POP: (no function under this input)** **TV: (same as TV/AV1/AV2[S] input)** **OTHER: (same as TV/AV1/AV2[S] input)**
Analog RGB input	**PICTURE:** **Input Source, Brightness, Contrast, V-center, V-size, H- position, H-width, Color Temperature, Clock Phase** **SOUND: (same as TV/AV1/AV2[S] input)** **PIP/POP: (no function under this input)** **TV: (same as TV/AV1/AV2[S] input)** **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 TV/AV1/AV2[S] input)** **PIP/POP; (no function under this input)** **TV; (same as TV/AV1/AV2[S] input)** **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. SOUND:

a. Residual hum (at volume min) — 500 μW Max.

b. Practical max. Audio output (at 10% THD max.)
1.0vp-p 1K Hz input — 5W +5W Max. /12 ohm

c. Sound distortion (at 250 mw 1K Hz) — 1% Max.

d. Audio output (input at 1.4V_{P-P}) — $\geqq$1.0 V_{P-P}

e. Max. hum (at volume max) — 1000 μW Max.

f. Sensitivity (at volume max. O/P 1W) — 150mV ±3dB
at 1KHz AV Input

g. Audio Fidelity (1KHz 0dB,corrected for emphasis characteristics)

WOOFER ON	60Hz	11dB ±3dB
	10KHz	4dB ±3dB
BBE ON	60Hz	6dB ±3dB
	10KHz	8dB ±3dB
WOOFER & BBE OFF	100Hz	-1dB ±3dB
	10KHz	-1dB ±3dB

6. RF

6.1 RF Sensitivity (Peak)

VHF	CH 2 ~ CH 13	30dB Max.
UHF	CH 14 ~ CH 69	30dB Max.
CATV	CH A-5 ~ CH W+29	30dB Max.

6.2 AFT Pull-In Range

VHF	CH 2 ~ CH 13	±0.6MHz Min.
UHF	CH 14 ~ CH 69	±0.6MHz Min.
CATV	CH A-5 ~ CH W+29	±0.6MHz Min.

6.3 Picture IF Rejection

VHF	CH 2 ~ CH 13	50dB Min.
UHF	CH 14 ~ CH 69	50dB Min.
CATV	CH A-5 ~ CH W+29	50dB Min.

6.4 Picture Image Rejection

VHF	CH 2 ~ CH 13	40dB Min.
UHF	CH 14 ~ CH 69	35dB Min.
CATV	CH A-5 ~ CH W+29	35dB Min.

6.5 AGC Characteristics

AGC Figure Of Merit **50dB Min.**
RF signal range in which video at PDP drops 6 dB from output level obtained with 100mV input.

6.6 RF AGC Cut In Level **55dB ±2dB**

6.7 FM/AM Rejection (100mV at SIF input) **14dB min**

6.8 Noise Limits Sensitivity **VHF 45dB max**
UHF 49dB max

7. Reliability Requirement:

The MTBF needs 20000hrs under operation 25±5℃(half luminosity, motion picture)

8. REGULATORY REQUIREMENTS:

8.1 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

8.2 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

8.3 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**

8.4 Power Management:

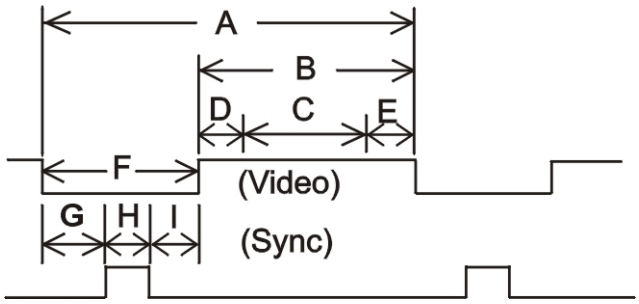
Mode	H-sync	V-sync	Video	Power dissipation
Normal	Pulse	Pulse	Active	Normal power
Stand-by	No pulse	No pulse	No video	Less than 10 watts
Power saving	Pulse	No pulse	Blanked	Less than 10 watts
	No pulse	Pulse		

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 & Refresh Rate	640 480 60	640 480 72	640 480 75	640 480 85	800 600 56	800 600 60	800 600 72	800 600 75	800 600 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

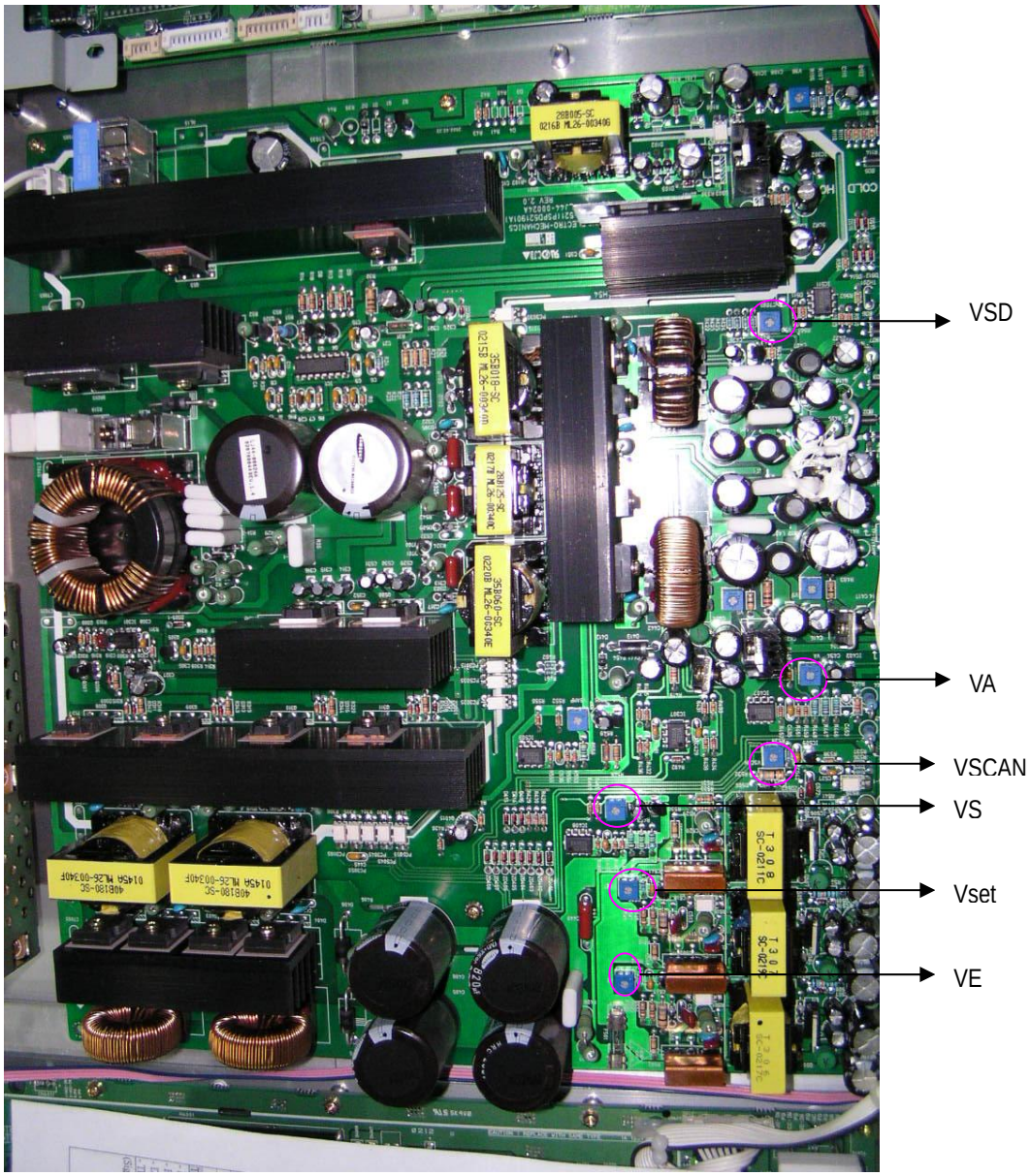
Mode No	10	11	12	13	14	15	16	18	19	
Resolution & Refresh Rate	1024 768 60	1024 768 70	1024 768 75	1024 768 85	1280 1024 60	1280 1024 75	1280 1024 85	720 400 70	640 480 50	Hz
Pixel Clock	65.000	75.000	78.750	94.500	108.000	135.000	157.500	28.320	25.175	MHz
Horizontal visible	1024	1024	1024	1024	1280	1280	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 (output amplifier)/1024 (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.

(6) There are 3 different modes (DVI, RGB and Component) 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, RGB color temp. with RGB source under RGB mode, COM color temp. with Component source under Component1 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±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±30

C. Press the Left/Right key on the remote control to select B-BIAS and adjust the B-Bias value until y = 343±30

D. Repeat steps A, B and C until the following final values are obtained:
x = 335±30
y = 343±30
Y = 0.4±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±1 FL.

B. Select R-GAIN and adjust the R-GAIN value until x = 335±30

C. Select B-GAIN and adjust the B-GAIN value until y = 343±30

D. Repeat steps A, B and C until the following final values are obtained:
x = 335±30
y = 343±30
Y = 30±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±0.1 FL
b. Bright level Y = 30±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 (output amplifier)/1024 (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±0.1 FL
B. Select R-BIAS and adjust the R-Bias value until x = 335±30
C. Select B-BIAS and adjust the B-Bias value until y = 343±30
D. Repeat steps A, B and C until the following final values are obtained:
x = 335±30
y = 343±30
Y = 0.5±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±1 FL
B. Select R-GAIN and adjust the R-GAIN value until x = 335±30
C. Select B-GAIN and adjust the B-GAIN value until y = 343±30
D. Repeat steps A, B and C until the following final values are obtained:
x = 335±30
y = 343±30
Y = 30±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±0.1 FL
b. Bright level Y = 30±1 FL

(6) Once all 4 Color Temperatures have been adjusted, skip through the Component Color Temperatures and completely exit the Factory Adjustment Menu.

3.1 Pre-setting Adjustment and Equipment Preparation for Component Mode:

(1) Turn on the Color Analyzer (Minolta, Model = CA-100) and reset the Color Analyzer.
(2) Switch the PDP input to Component1 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 (ie. SENCORE VP-300 Multimedia Video Generator) with the following settings:

A. Dark Level Center block definition:
   a. Signal Type: Component
   b. Format: 1080i
   c. Pattern = WINDOW 1 14 IRE

B. Bright Level Center block definition:
   a. Signal Type: Component
   b. Format: 1080i
   c. Pattern = WINDOW 2 60 IRE

(4) Connect the PDP Component1 input to the VP-300 Component output connector.
(5) Flatly place the Minolta Color Analyzer’s Photo Detector in contact with the center of the PDP screen.

3.2 Component Mode Color Temperature Adjustment Procedure:

(1) Set the VP-300 to send a dark level center block signal (14 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 and RGB Color Temperatures until you reach the 5400K Component 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 = 1.0±0.1 FL.
   B. Select R-BIAS and adjust the R-Bias value until x = 335±30
   C. Select B-BIAS and adjust the B-Bias value until y = 343±30
   D. Repeat steps A, B and C until the following final values are obtained:
      x = 335±30
      y = 343±30
      Y = 1.0±0.1 FL

(4) 5400K bright level center block adjustment procedure: (Please set the VP-300 bright level center block signal to 60 IRE)
   A. Select G-GAIN and adjust the G-GAIN value until Y = 45±1 FL
   B. Select R-GAIN and adjust the R-GAIN value until x = 335±30
   C. Select B-GAIN and adjust the B-GAIN value until y = 343±30
   D. Repeat steps A, B and C until the following final values are obtained:
      x = 335±30
      y = 343±30
      Y = 45±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, y and Y values 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 = 1.0±0.1 FL
   b. Bright level Y = 45±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.

BLOCK DIAGRAM VER1.0

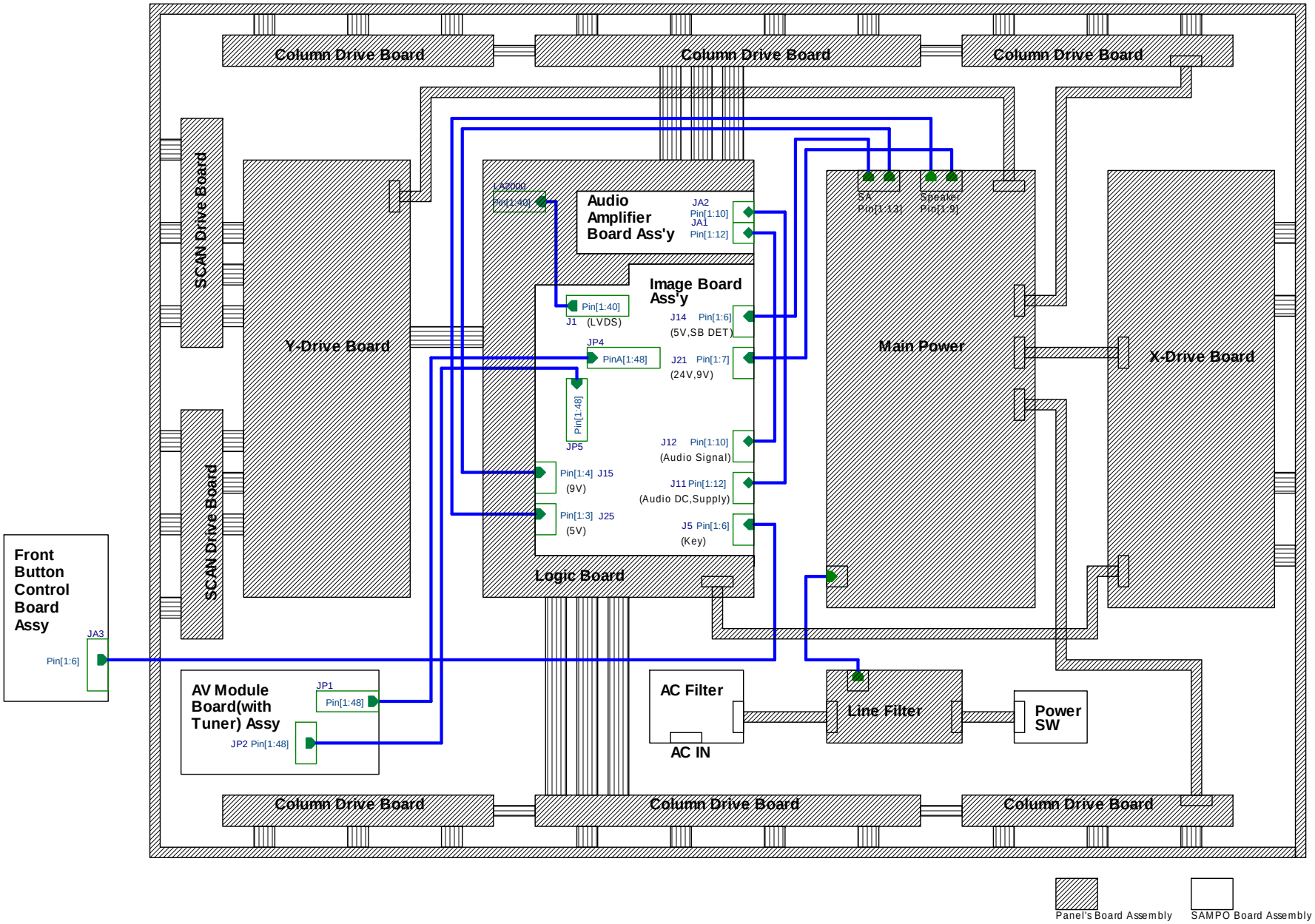
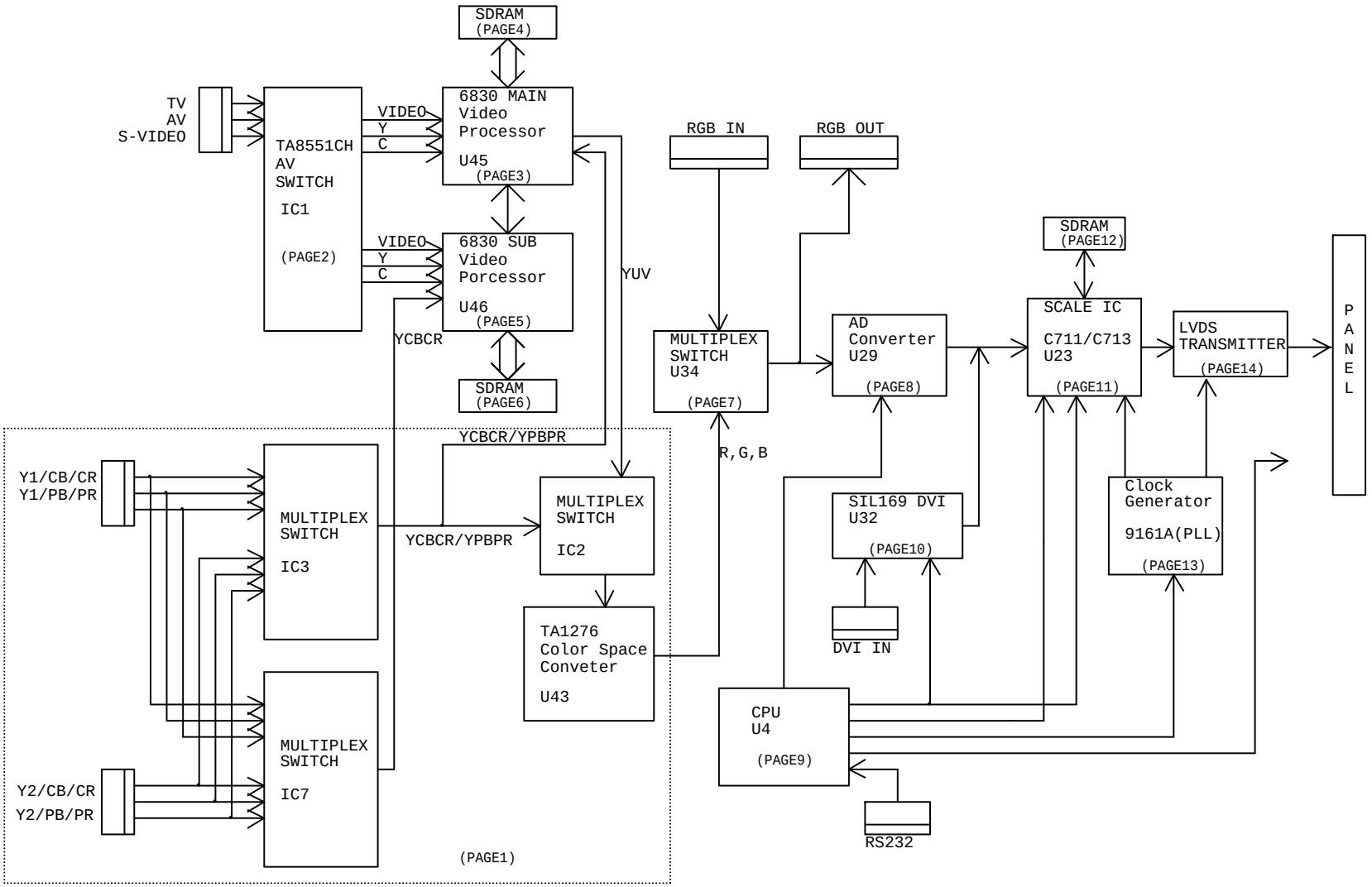
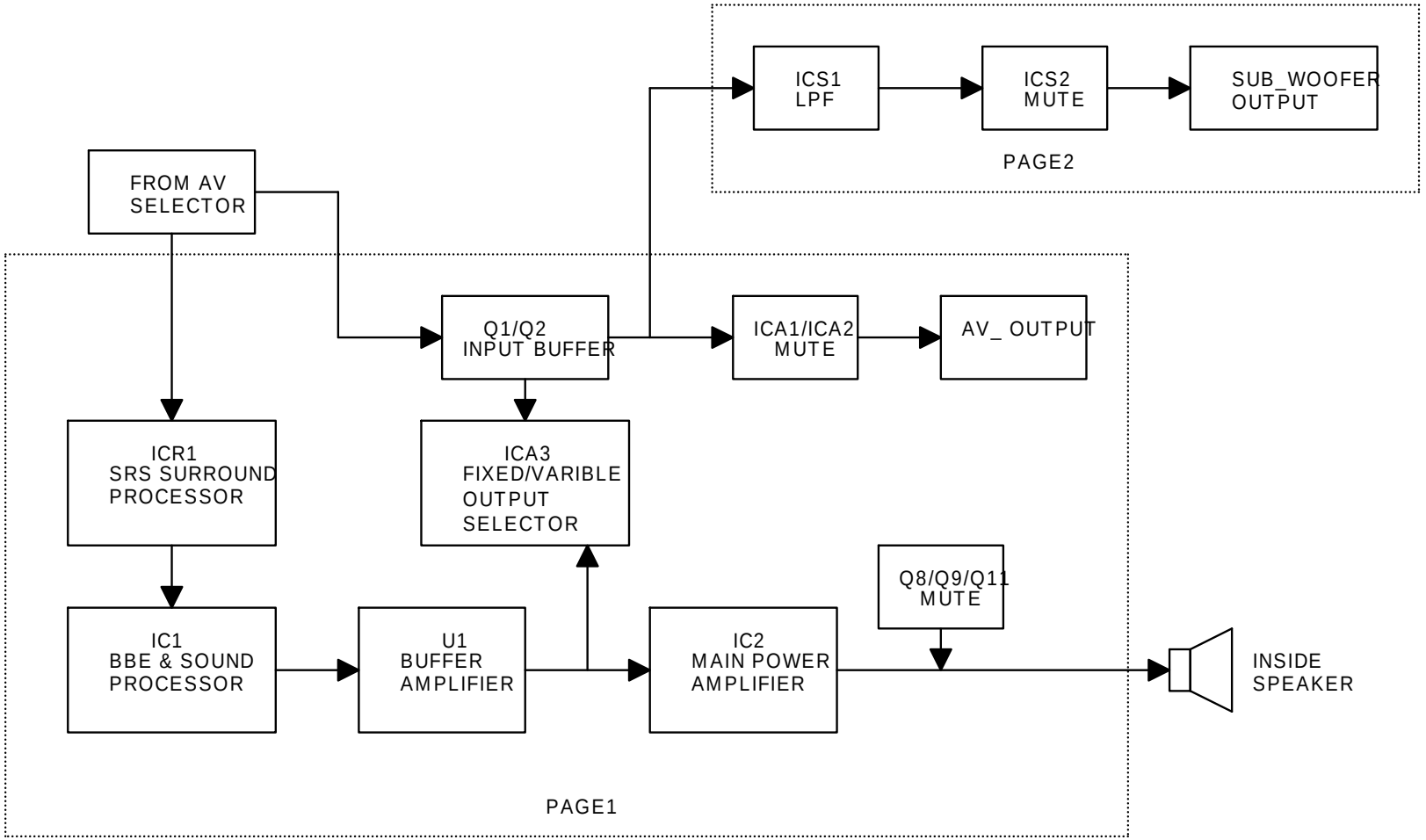


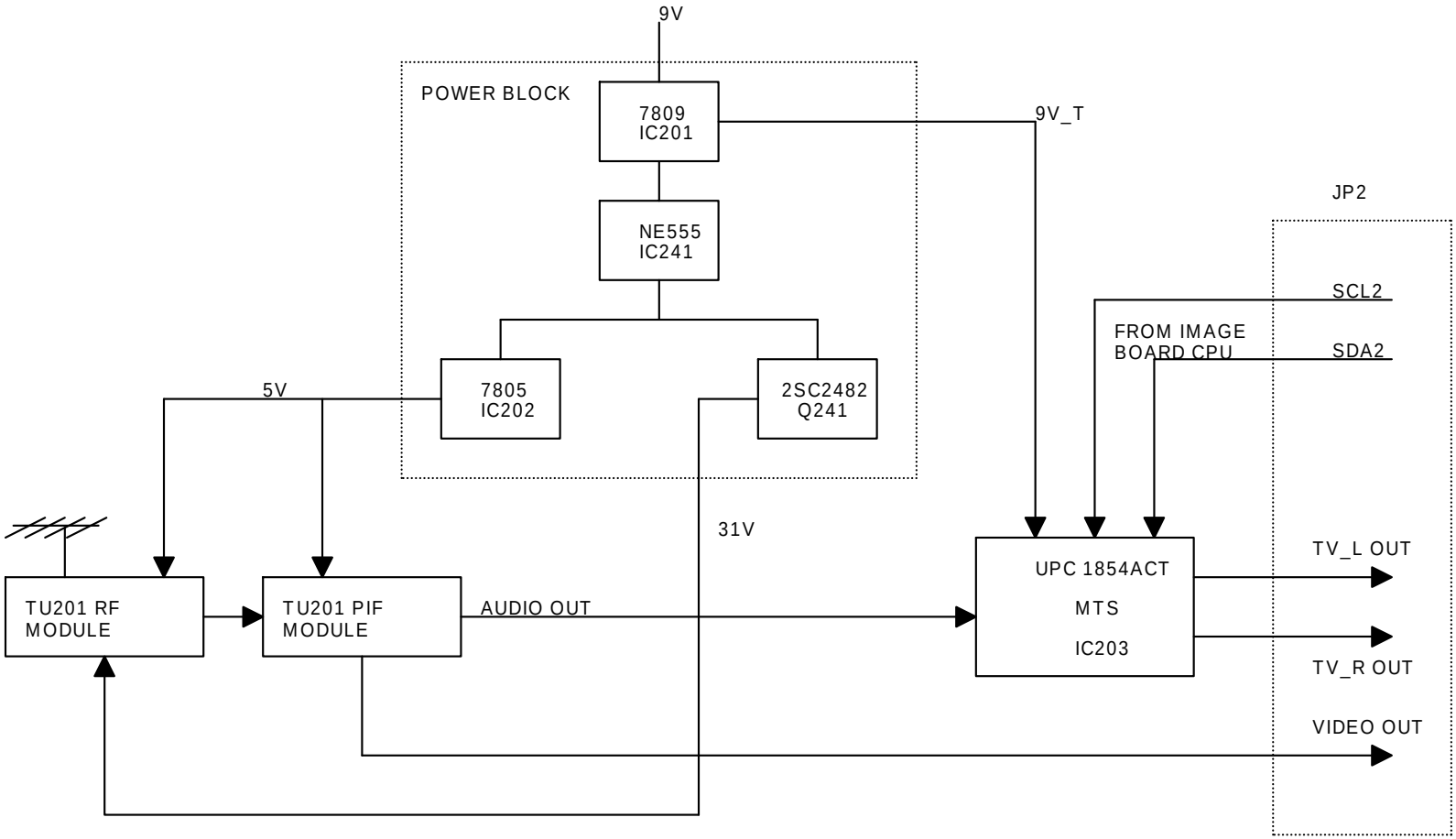
Image Board Signal Block Diagram



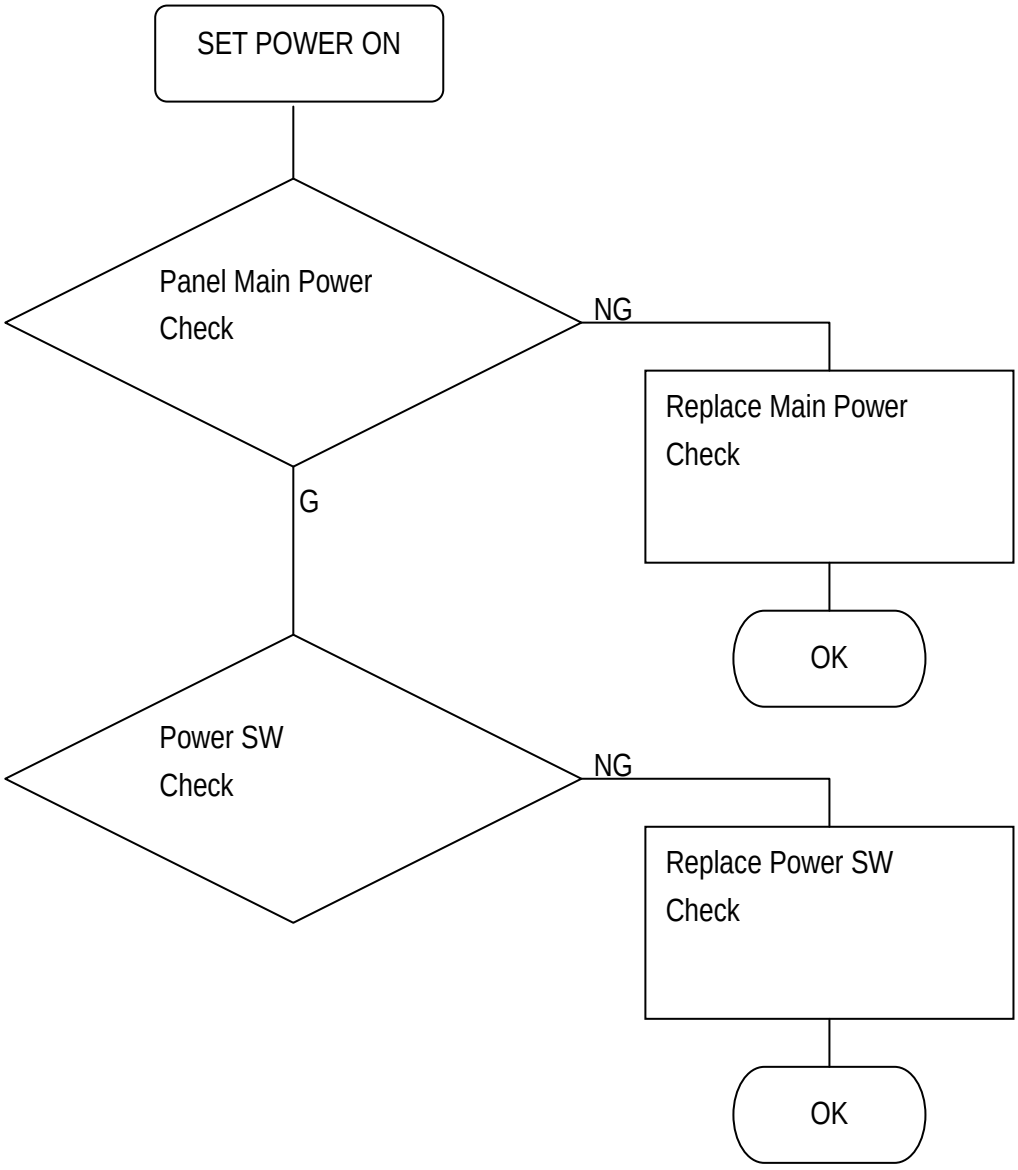
PDP Sound Block Diagram



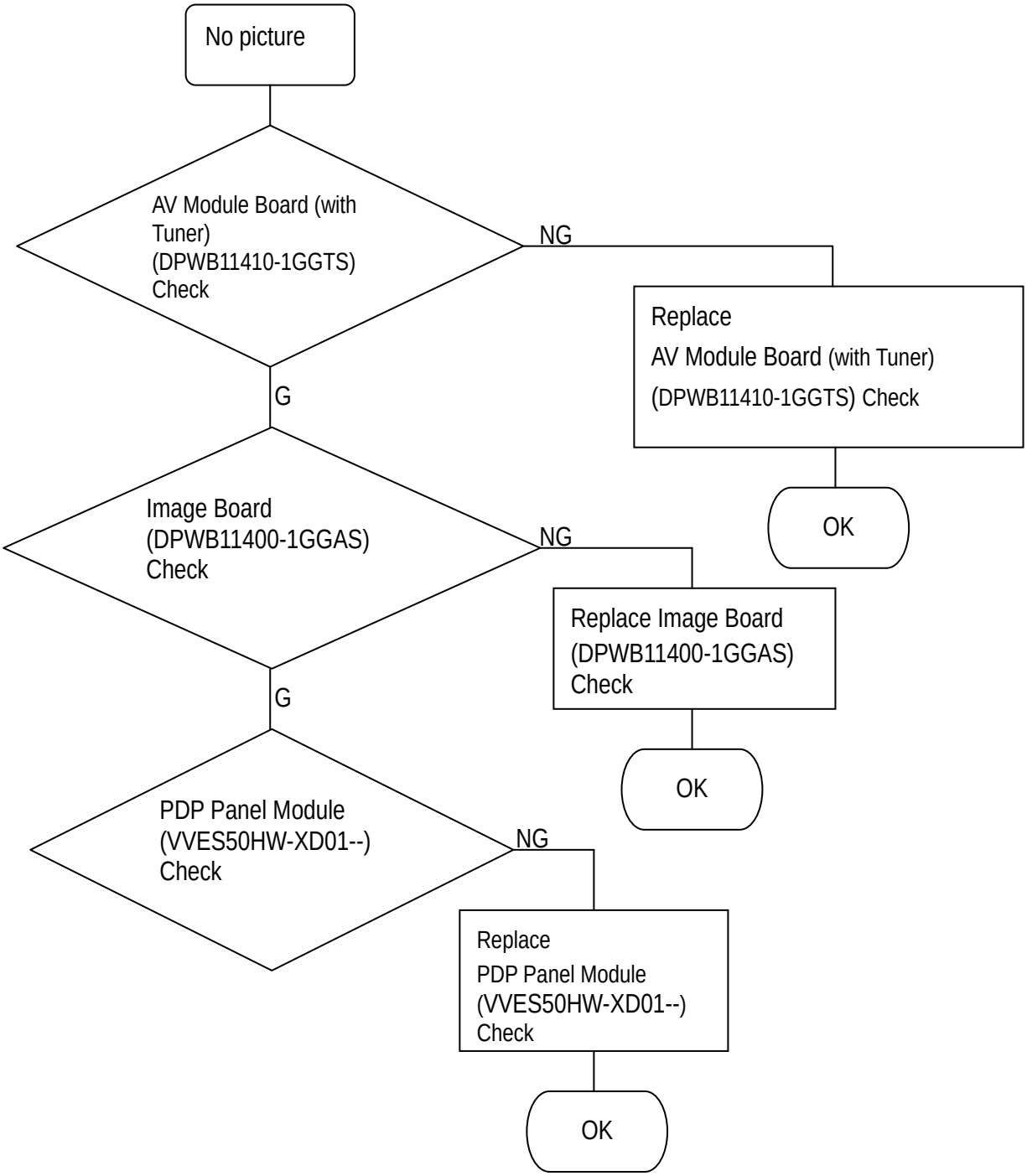
Tuner Board Signal Block Diagram



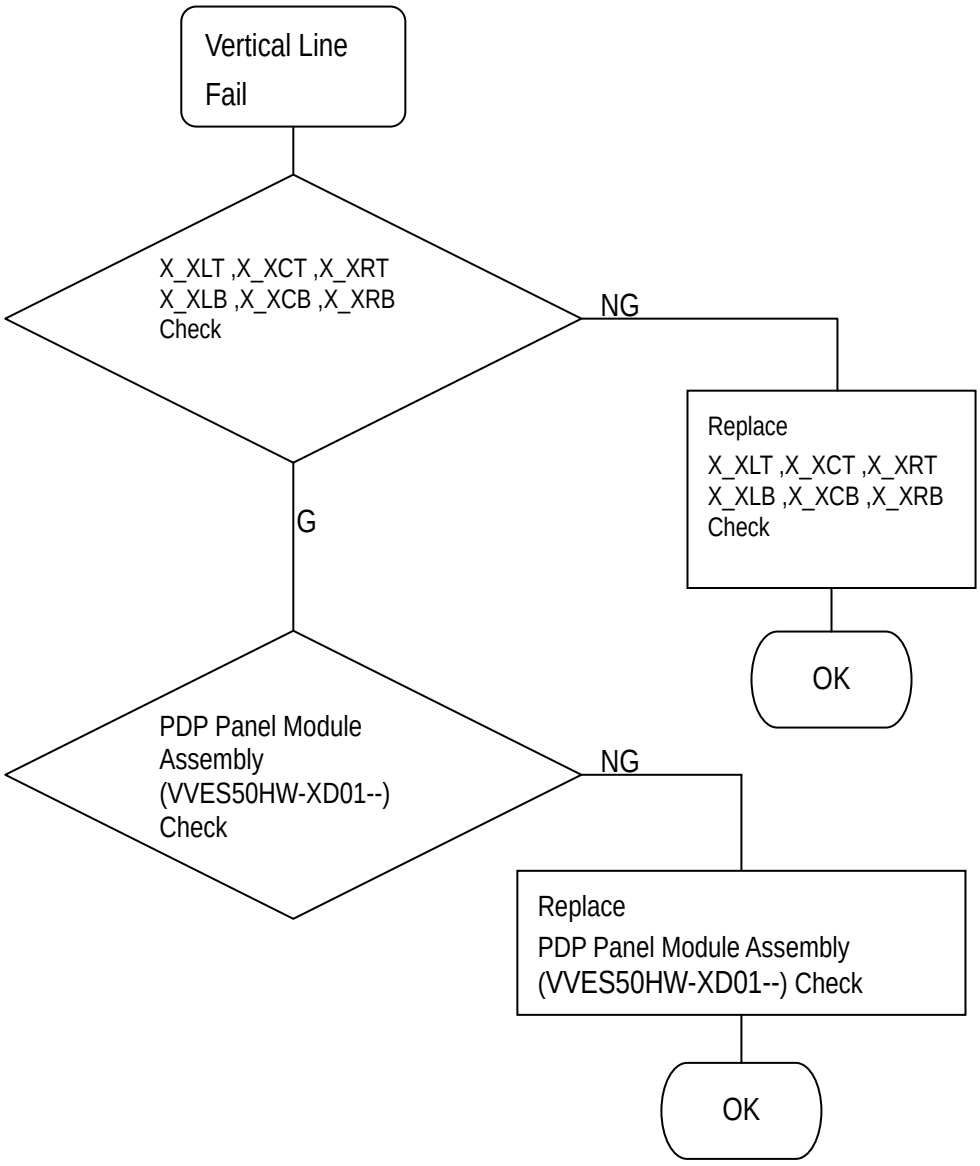
No Power


SET POWER ON
Panel Main Power Check
NG
Replace Main Power Check
G
OK
Power SW Check
NG
Replace Power SW Check
OK

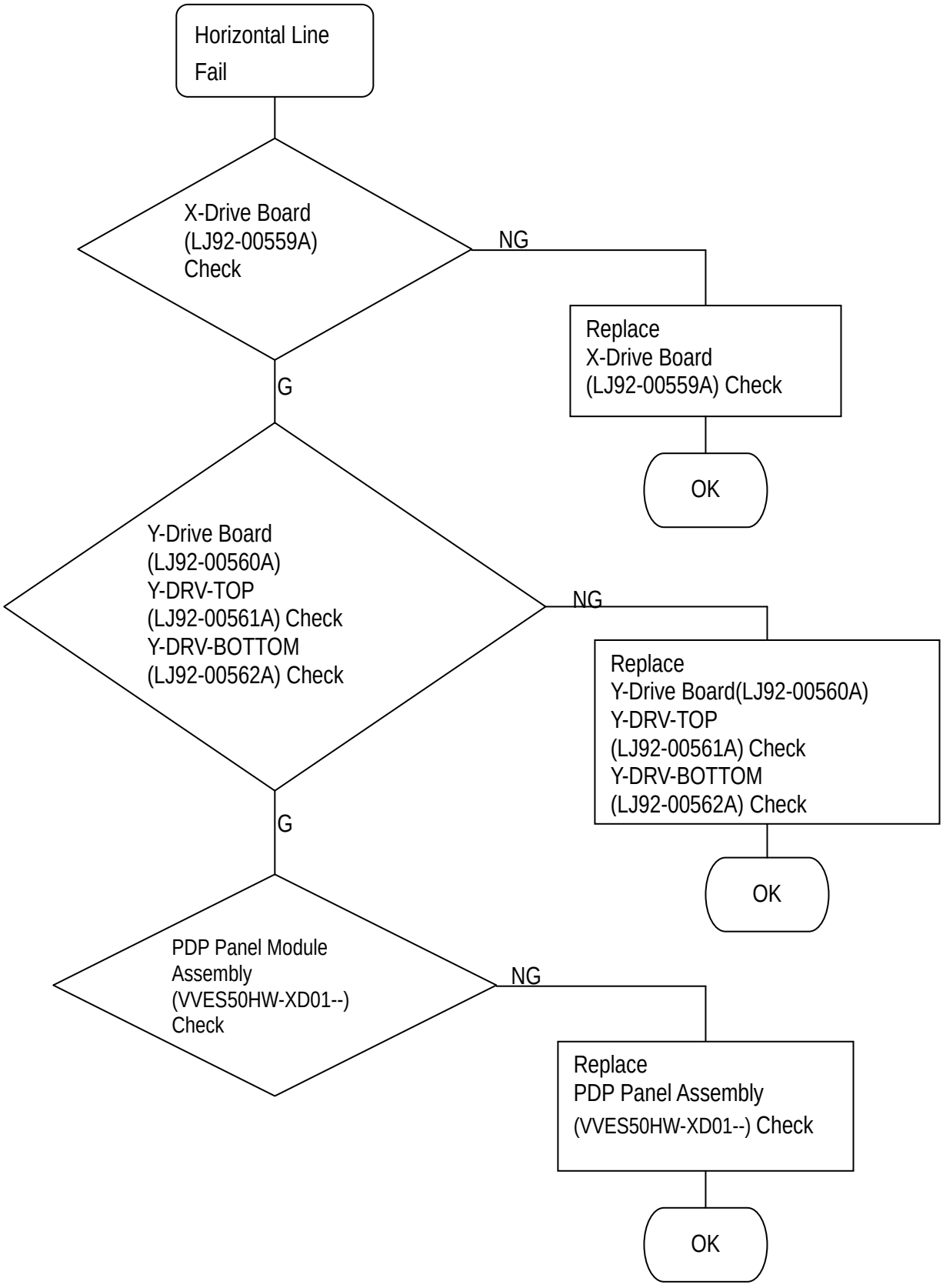
No Picture


No picture
AV Module Board (with Tuner) (DPWB11410-1GGTS) Check
NG
Replace AV Module Board (with Tuner) (DPWB11410-1GGTS) Check
OK
G
Image Board (DPWB11400-1GGAS) Check
NG
Replace Image Board (DPWB11400-1GGAS) Check
OK
G
PDP Panel Module (VVES50HW-XD01--) Check
NG
Replace PDP Panel Module (VVES50HW-XD01--) Check
OK

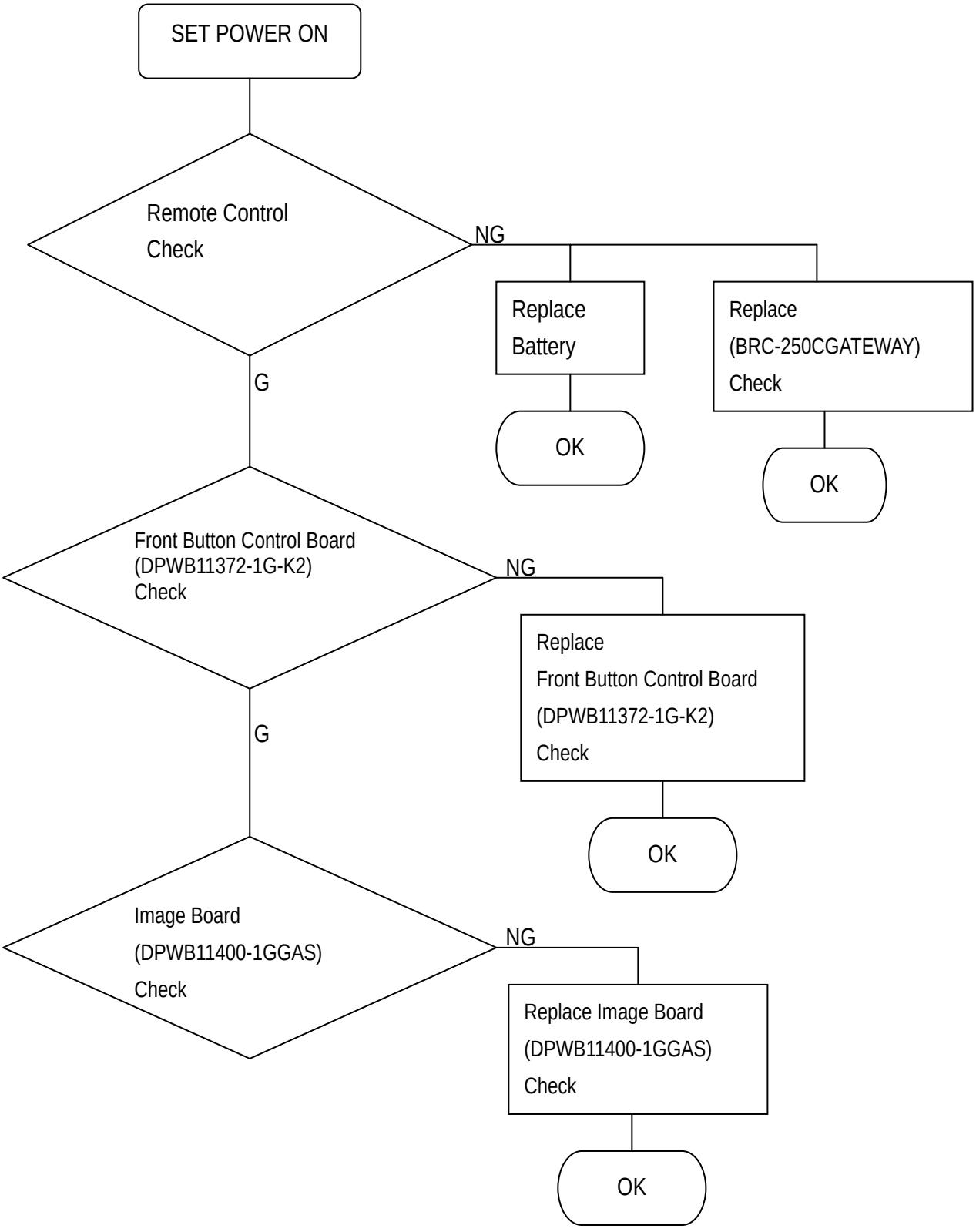
Vertical Line Fail



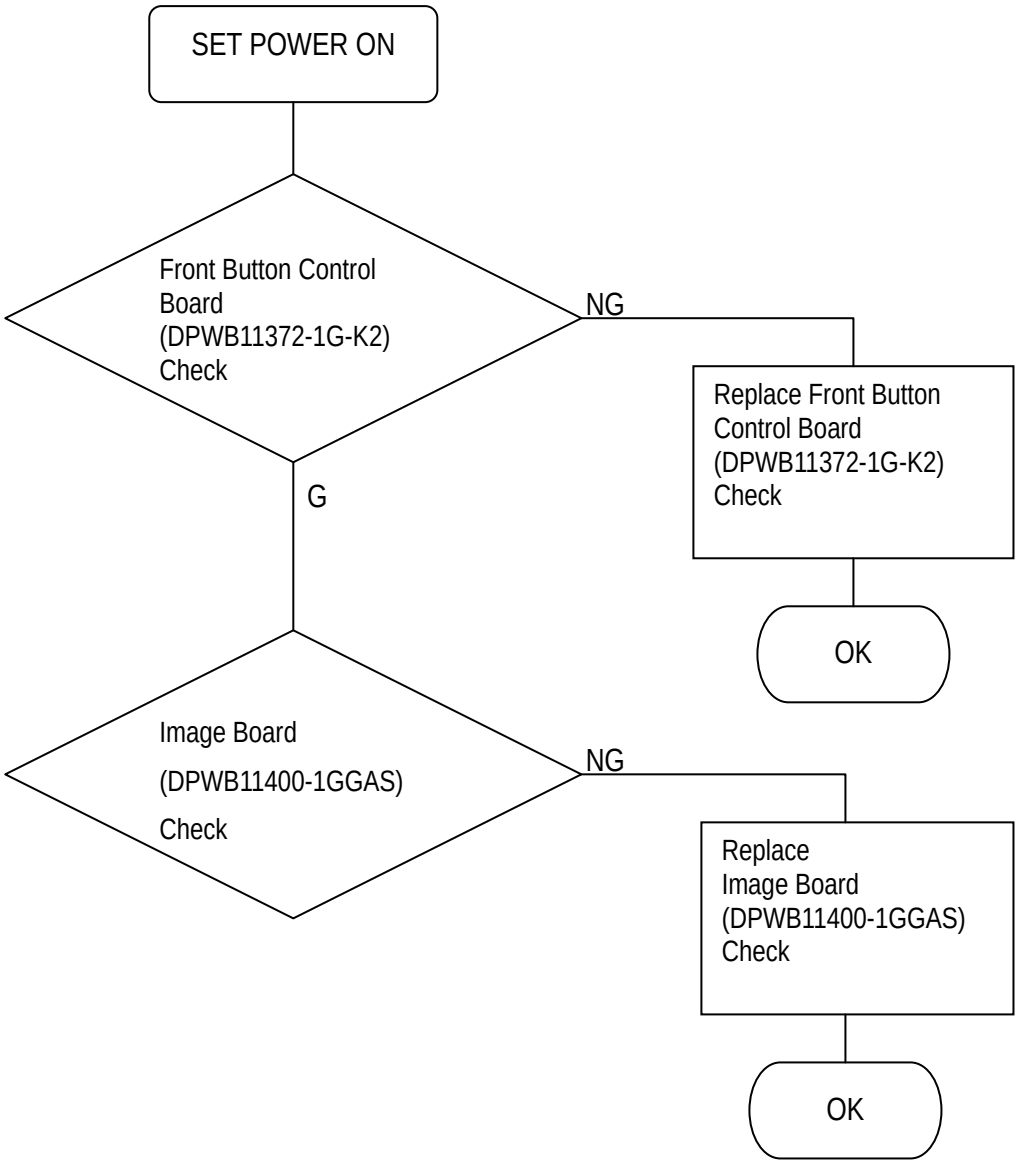
Horizontal Line Fail



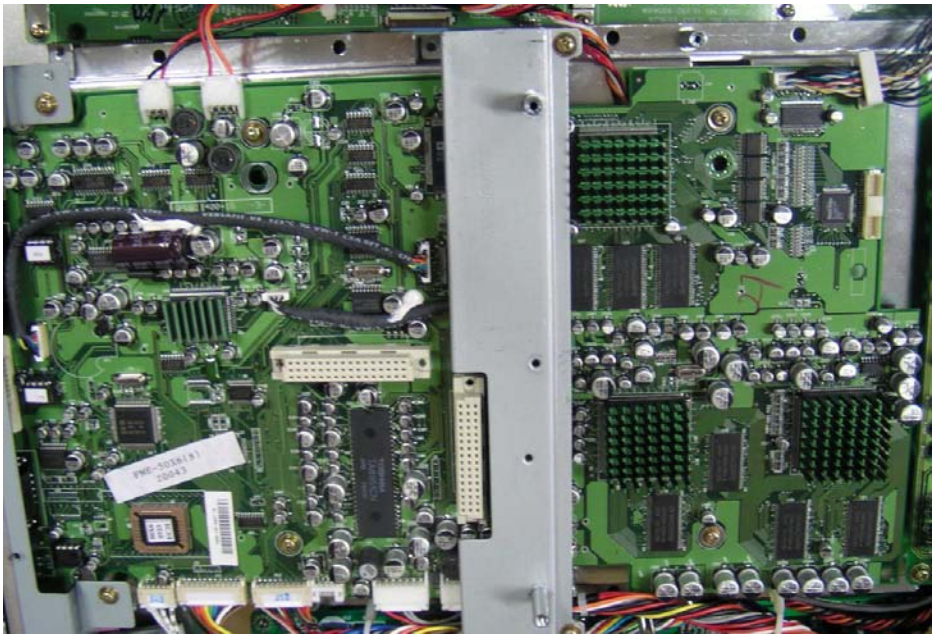
No Remote Control



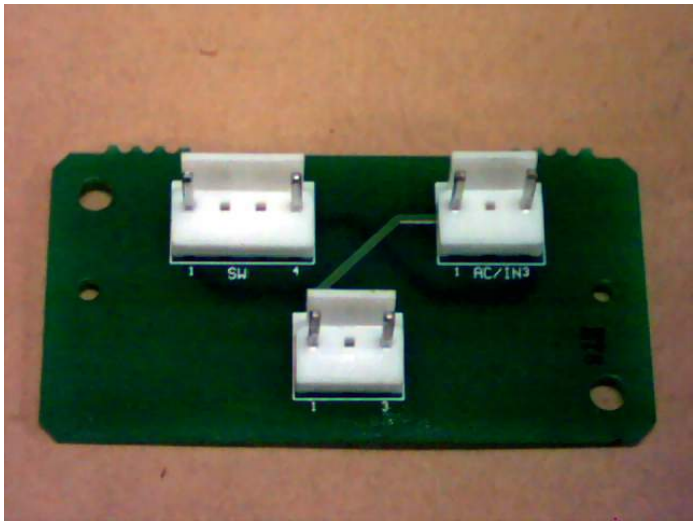
Front Button Fail



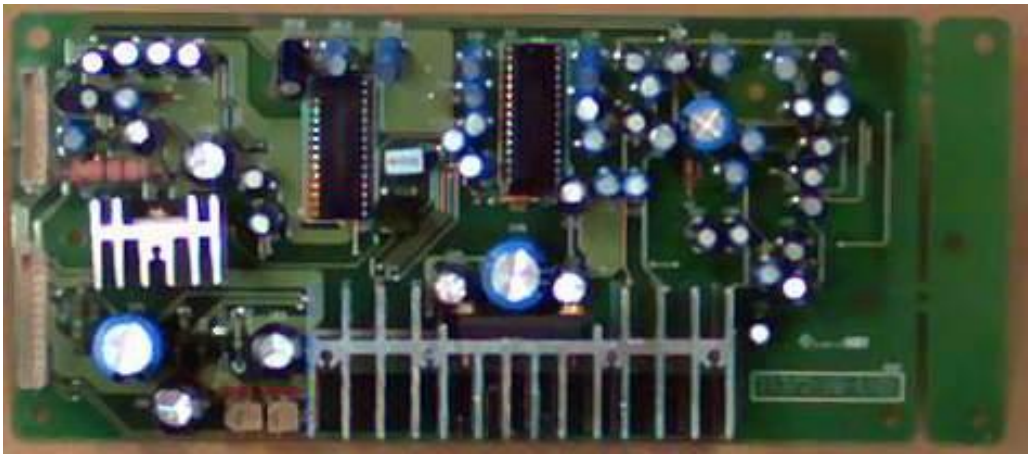
P.C. BOARD TOP VIEW VER1.0



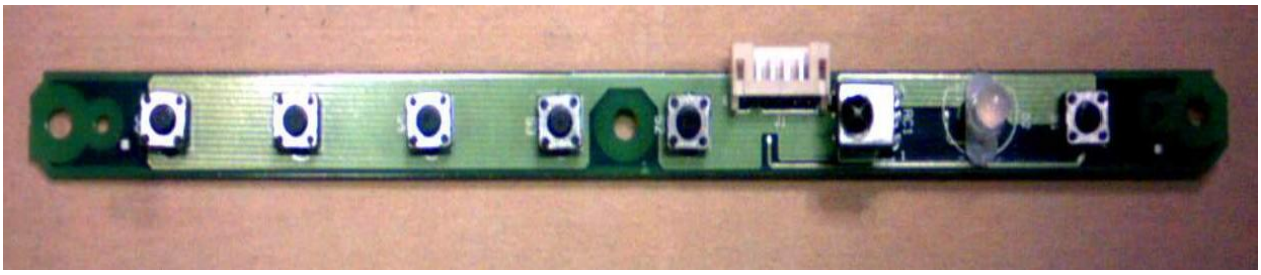
MODULE NAME	PART NO.
IMAGE BOARD ASS'Y	DPWB11400-1GGAS



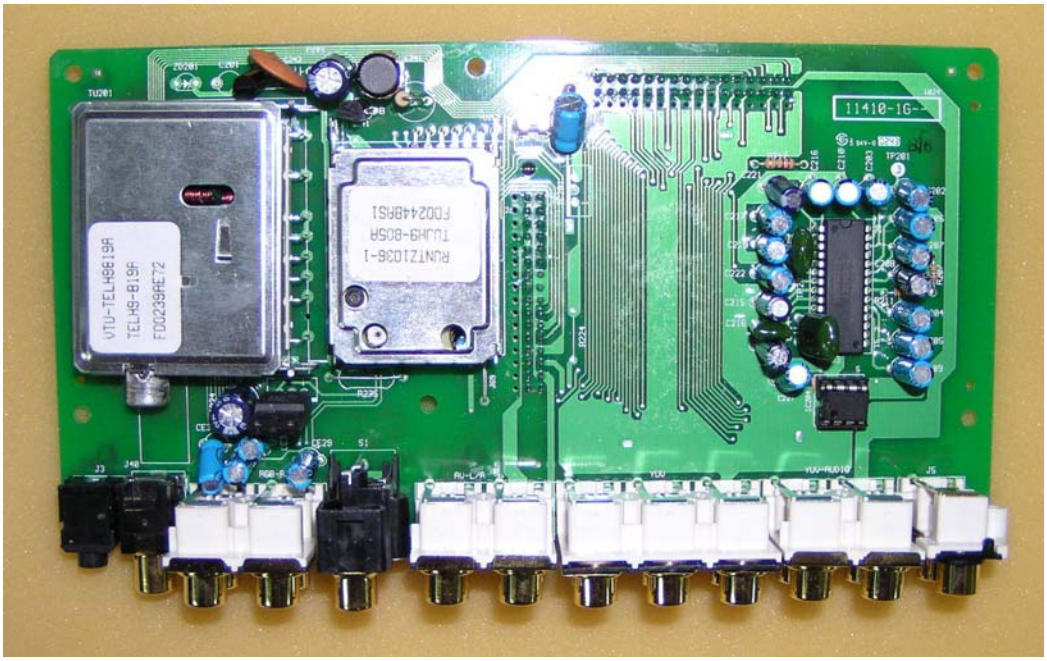
MODULE NAME	PART NO.
AC MASTER POWER SWITCH B/D ASS'Y	DPWB11398-1G---



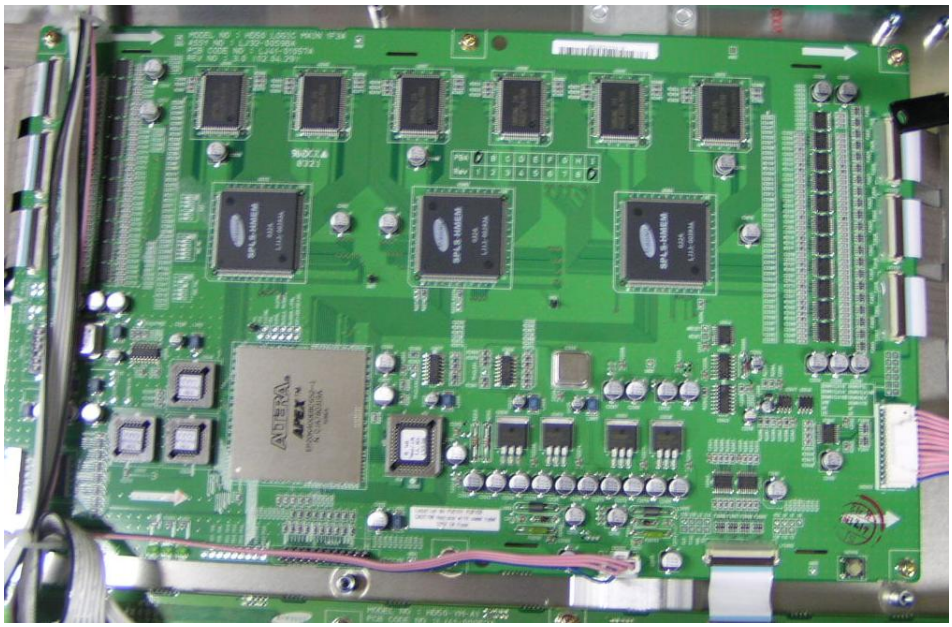
MODULE NAME	PART NO.
AUDIO AMPLIFIER BOARD ASS'Y	DPWB11372-1GGSA



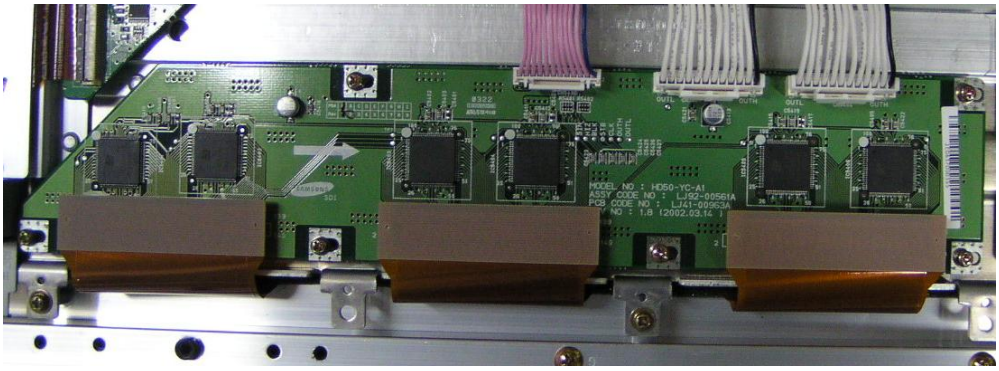
MODULE NAME	PART NO.
FRONT BUTTON CONTROL BOARD ASS'Y	DPWB11372-1G-K2



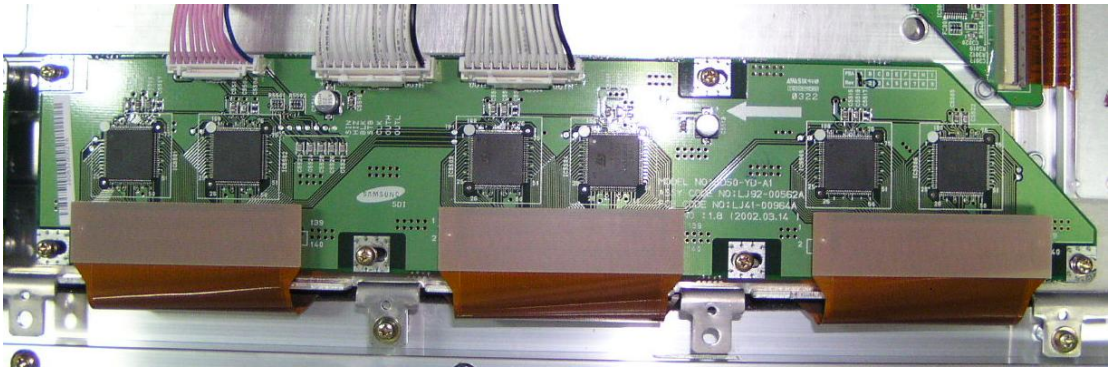
MODULE NAME	PART NO.
AV MODULE BOARD (with Tuner) ASS'Y	DPWB11410-1GGTS



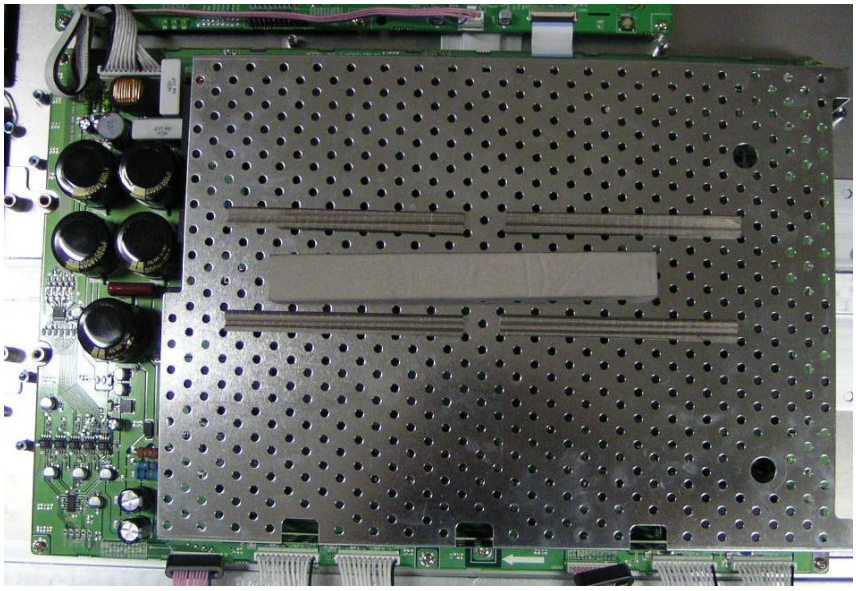
MODULE NAME	PART NO.
LOGIC BOARD ASS'Y	LJ92-00598A



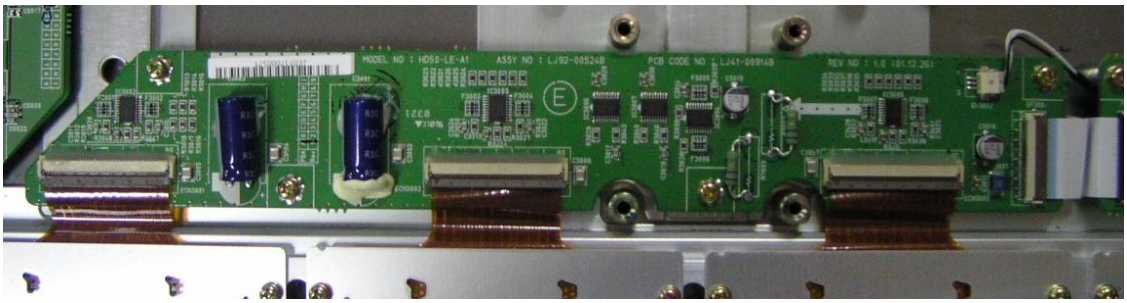
MODULE NAME	PART NO.
Y DRIVE-TOP ASS'Y	LJ92-00561A



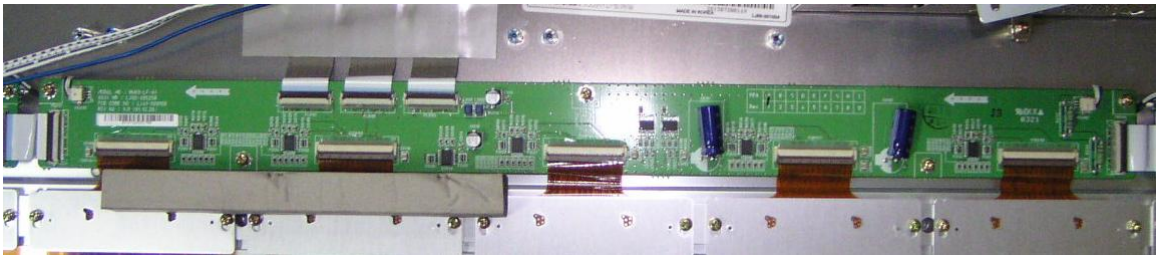
MODULE NAME	PART NO.
Y DRIVE-BOTTON ASS'Y	LJ92-00562A



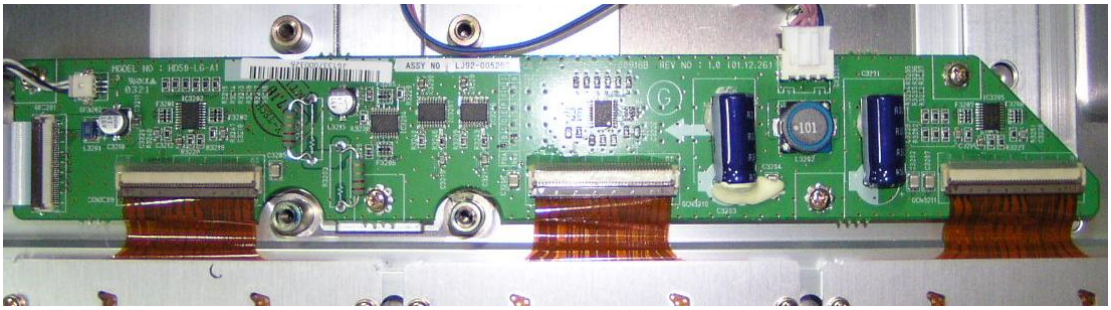
MODULE NAME	PART NO.
Y-DRIVE BOARD ASS'Y	LJ92-00560A



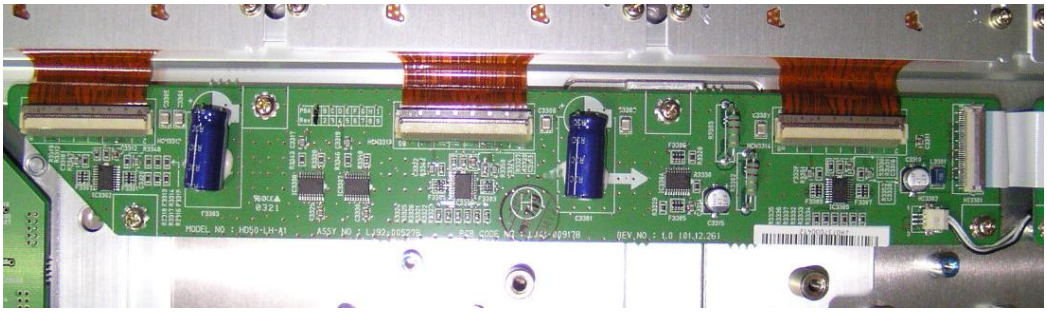
MODULE NAME	PART NO.
X_XLB BOARD ASS'Y	LJ92-00524B



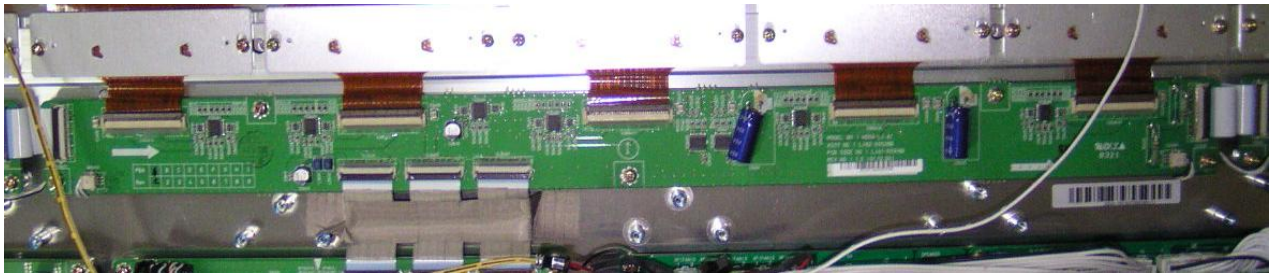
MODULE NAME	PART NO.
X_XCB BOARD ASS'Y	LJ92-00525B



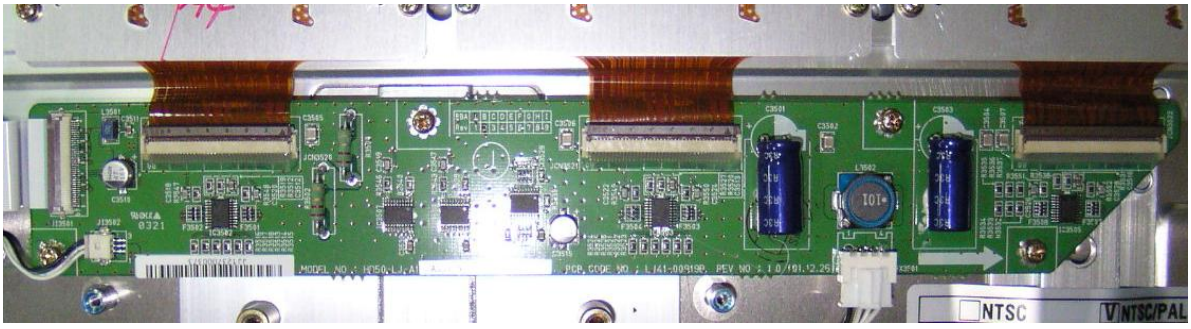
MODULE NAME	PART NO.
X_XRB BOARD ASS'Y	LJ92-00526C



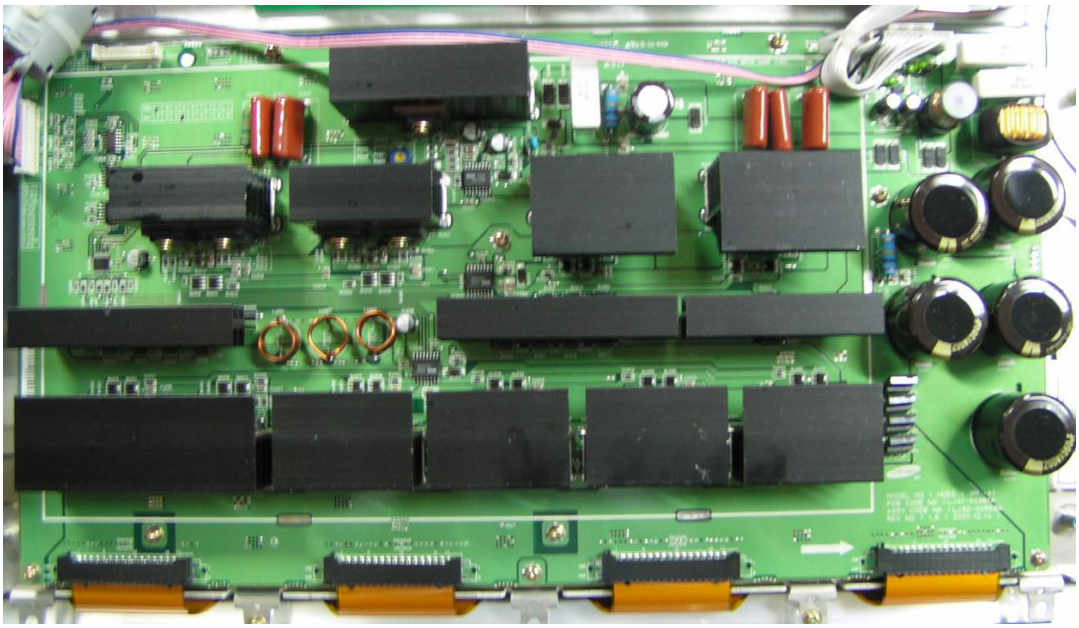
MODULE NAME	PART NO.
X_XLT BOARD ASS'Y	LJ92-00527B



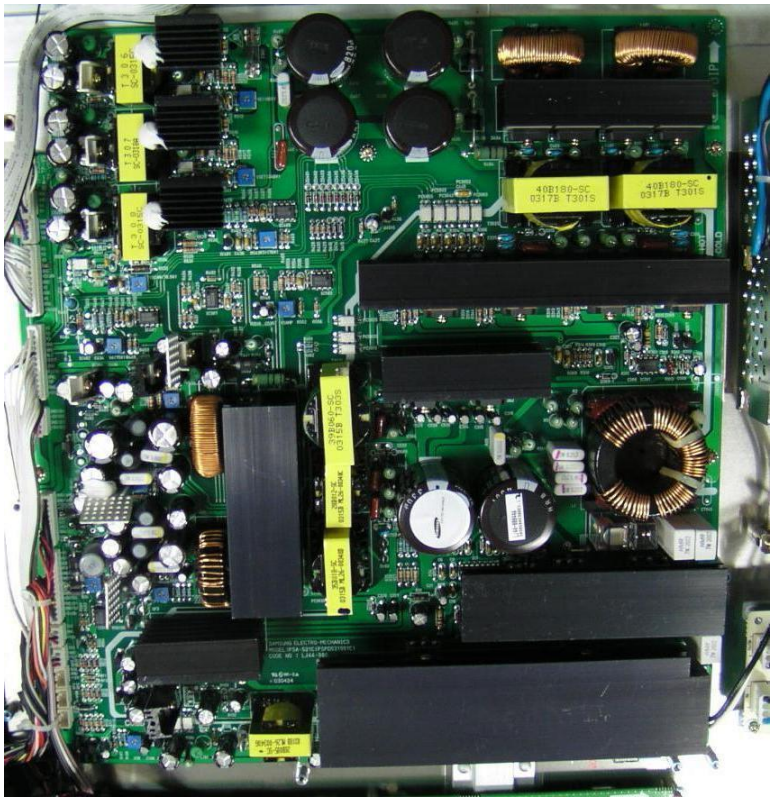
MODULE NAME	PART NO.
X_XCT BOARD ASS'Y	LJ92-00528B



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



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



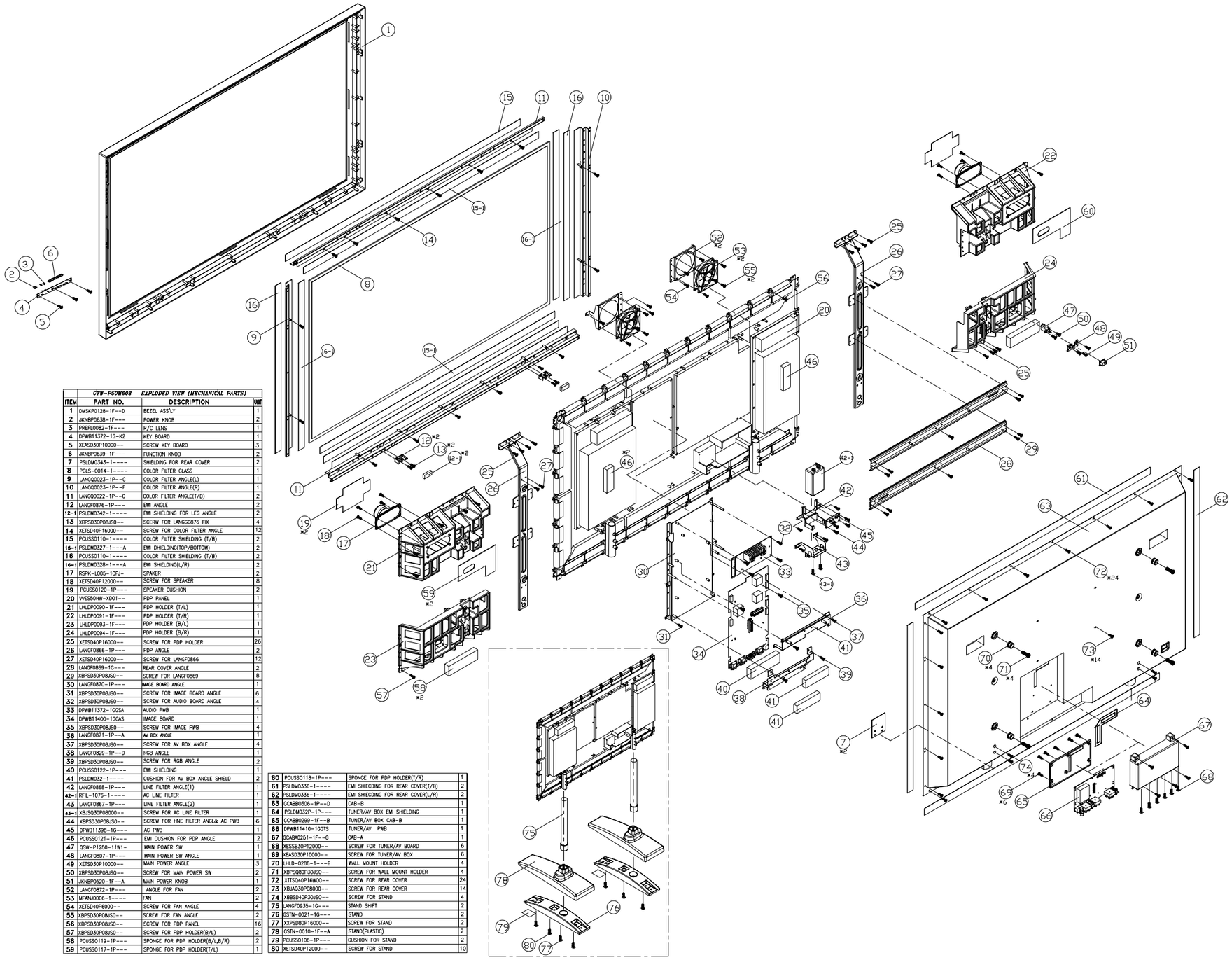
MODULE NAME	PART NO.
PANEL MAIN POWER SUPPLY ASS'Y	LJ44-00044A

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

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

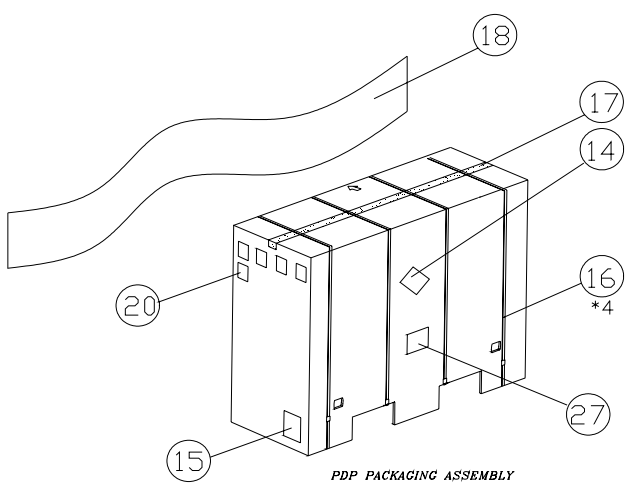
ELECTRONIC MODULE LIST VER1.0

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	AV w/ Tuner Module Board	Sampo	DPWB11410-1GGTS	1
6	Logic Board	Samsung	LJ92-00598A	1
7	Y Driver-Top	Samsung	LJ92-00561A	1
8	Y Driver-Bottom	Samsung	LJ92-00562A	1
9	Y Drive Board	Samsung	LJ92-00560A	1
10	X_XLB	Samsung	LJ92-00524B	1
11	X_XCB	Samsung	LJ92-00525B	1
12	X_XRB	Samsung	LJ92-00526C	1
13	X_XLT	Samsung	LJ92-00527B	1
14	X_XCT	Samsung	LJ92-00528B	1
15	X_XRT	Samsung	LJ92-00529C	1
16	X Drive Board	Samsung	LJ92-00559A	1
17	Main Power	Samsung	LJ44-00044A	1
18	EMI Filter	Samsung	LJ92-00747A	1
19	Full Set PDP Panel Module	Samsung	VVES50HW-XD01- -	1
20	Glass Filter	Sampo	PGLS-0014-1- - - -	1
21	Speaker	Sampo	RSPK-L005-1CFJ-	2
22	Front Bezel	Sampo	DMSKP0128-1F- -D	1
23	Rear Cover	Sampo	GCABB0306-1P- -D	1
24	Plasma Stand Assembly	Sampo	DSTN-0021-1G- - -	2

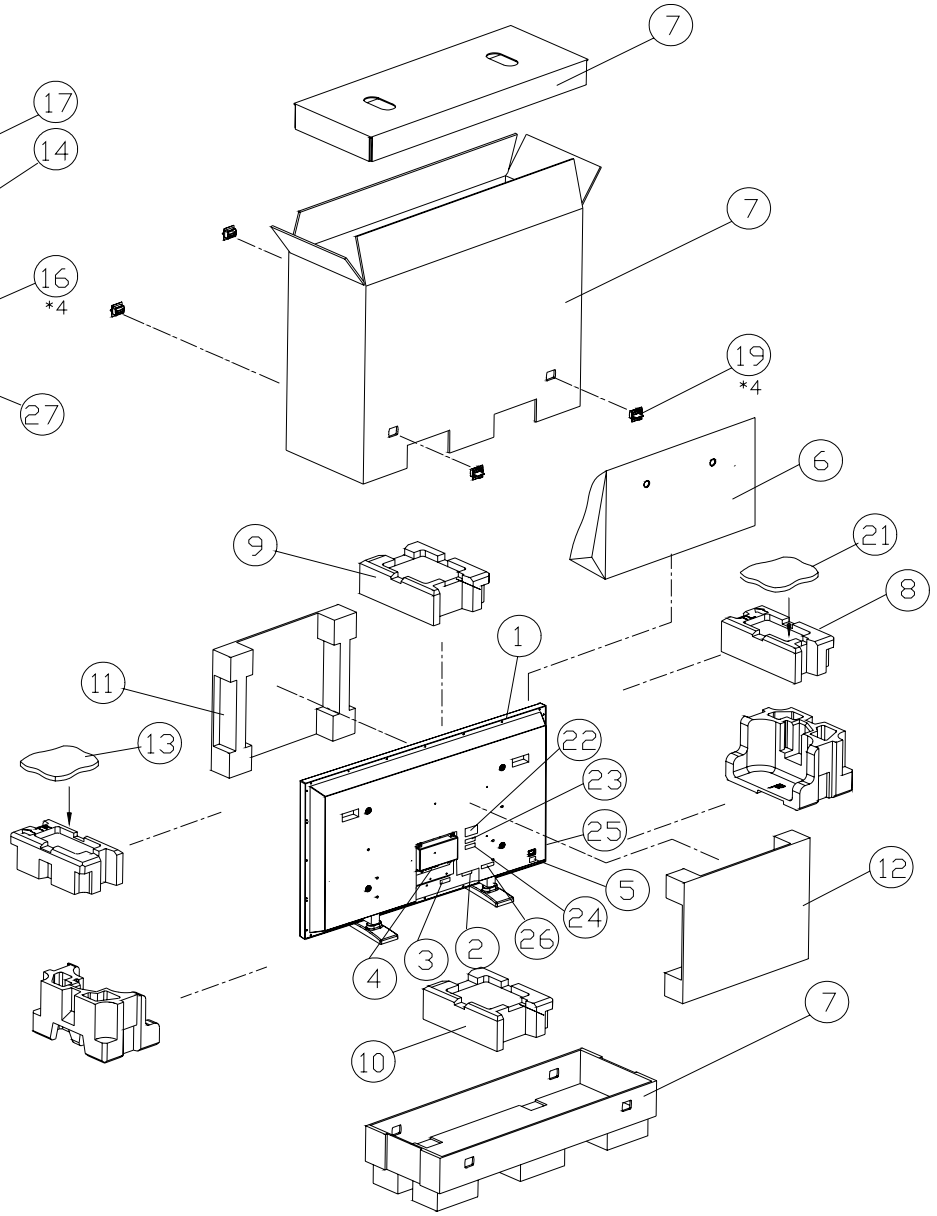


GTW-P50M603 EXPLODED VIEW (MECHANICAL PARTS)

ITEM	PART NO.	DESCRIPTION	UNIT
1	DMGKP0128-1F--Q	BEZEL ASS'Y	1
2	JKNBP0638-1F---	POWER KNOB	2
3	PREFL0082-1F---	R/C LENS	1
4	DPWB11372-1G-K2	KEY BOARD	1
5	XEASD30P10000--	SCREW KEY BOARD	3
6	JKNBP0639-1F---	FUNCTION KNOB	2
7	PSLDM0343-1----	SHIELDING FOR REAR COVER	2
8	PGLS-0014-1----	COLOR FILTER GLASS	1
9	LANGQ0023-1P--G	COLOR FILTER ANGLE(L)	1
10	LANGQ0023-1P--F	COLOR FILTER ANGLE(R)	1
11	LANGQ0022-1P--C	COLOR FILTER ANGLE(T/B)	2
12	LANGF0876-1P---	EMI ANGLE	2
12-1	PSLDM0342-1----	EMI SHIELDING FOR LEG ANGLE	2
13	XBPSD30P08J50--	SCERW FOR LANGG0876 FIX	4
14	XETSD40P16000--	SCREW FOR COLOR FILTER ANGLE	12
15	PCUSS0110-1----	COLOR FILTER SHIELDING (T/B)	2
15-1	PSLDM0327-1---A	EMI SHIELDING(TOP/BOTTOM)	2
16	PCUSS0110-1----	COLOR FILTER SHIELDING (T/B)	2
16-1	PSLDM0328-1---A	EMI SHIELDING(L/R)	2
17	RSPK-L005-1CFJ-	SPAKER	2
18	XETSD40P12000--	SCREW FOR SPEAKER	8
19	PCUSS0120-1P---	SPEAKER CUSHION	2
20	VVES50HW-XD01--	PDP PANEL	1
21	LHLDP0090-1F---	PDP HOLDER (T/L)	1
22	LHLDP0091-1F---	PDP HOLDER (T/R)	1
23	LHLDP0093-1F---	PDP HOLDER (B/L)	1
24	LHLDP0094-1F---	PDP HOLDER (B/R)	1
25	XETSD40P16000--	SCREW FOR PDP HOLDER	26
26	LANGF0866-1P---	PDP ANGLE	2
27	XETSD40P16000--	SCREW FOR LANGF0866	12
28	LANGF0869-1G---	REAR COVER ANGLE	2
29	XBPSD30P08J50--	SCREW FOR LANGF0869	8
30	LANGF0870-1P---	IMAGE BOARD ANGLE	1
31	XBPSD30P08J50--	SCREW FOR IMAGE BOARD ANGLE	6
32	XBPSD30P08J50--	SCREW FOR AUDIO BOARD ANGLE	4
33	DPWB11372-1GGSA	AUDIO PWB	1
34	DPWB11400-1GGAS	IMAGE BOARD	1
35	XBPSD30P08J50--	SCREW FOR IMAGE PWB	4
36	LANGF0871-1P--A	AV BOX ANGLE	1
37	XBPSD30P08J50--	SCREW FOR AV BOX ANGLE	4
38	LANGF0829-1P--D	RGB ANGLE	1
39	XBPSD30P08J50--	SCREW FOR RGB ANGLE	2
40	PCUSS0122-1P---	EMI SHIELDING	1
41	PSLDM032-1-----	CUSHION FOR AV BOX ANGLE SHIELD	2
42	LANGF0868-1P---	LINE FILTER ANGLE(1)	1
42-1	RFIL-1076-1-----	AC LINE FILTER	1
43	LANGF0867-1P---	LINE FILTER ANGLE(2)	1
43-1	XBJSD30P08000--	SCREW FOR AC LINE FILTER	1
44	XBPSD30P08J50--	SCREW FOR HNE FILTER ANGL& AC PWB	6
45	DPWB11398-1G---	AC PWB	1
46	PCUSS0121-1P---	EMI CUSHION FOR PDP ANGLE	2
47	QSW-P1250-11W1-	MAIN POWER SW	1
48	LANGF0807-1P---	MAIN POWER SW ANGLE	1
49	XETSD30P10000--	MAIN POWER ANGLE	3
50	XBPSD30P08J50--	SCREW FOR MAIN POWER SW	2
51	JKNBP0620-1F--A	MAIN POWER KNOB	1
52	LANGF0872-1P---	ANGLE FOR FAN	2
53	MFANJ0006-1-----	FAN	2
54	XETSD40P16000--	SCREW FOR FAN ANGLE	4
55	XBPSD30P08J50--	SCREW FOR FAN ANGLE	2
56	XBPSD30P08J50--	SCREW FOR PDP PANEL	16
57	XBPSD30P08J50--	SCREW FOR PDP HOLDER(B/L)	2
58	PCUSS0119-1P---	SPONGE FOR PDP HOLDER(B/L,B/R)	2
59	PCUSS0117-1P---	SPONGE FOR PDP HOLDER(T/L)	1
60	PCUSS0118-1P---	SPONGE FOR PDP HOLDER(T/R)	1
61	PSLDM0336-1-----	EMI SHIECDING FOR REAR COVER(T/B)	2
62	PSLDM0336-1-----	EMI SHIECDING FOR REAR COVER(L/R)	2
63	GCABB0306-1P--D	CAB-B	1
64	PSLDM032P-1P----	TUNER/AV BOX EMI SHIELDING	1
65	GCABB0299-1F--B	TUNER/AV BOX CAB-B	1
66	DPWB11410-1GGTS	TUNER/AV PWB	1
67	GCABA0251-1F--G	CAB-A	1
68	XESSB30P12000--	SCREW FOR TUNER/AV BOARD	6
69	XEASD30P10000--	SCREW FOR TUNER/AV BOX	6
70	LHLD-0288-1---B	WALL MOUNT HOLDER	4
71	XBPSQ80P30J50--	SCREW FOR WALL MOUNT HOLDER	4
72	XTTSQ40P16W00--	SCREW FOR REAR COVER	24
73	XBJAQ30P08000--	SCREW FOR REAR COVER	14
74	XBBSD40P30J50--	SCREW FOR STAND	4
75	LANGF0935-1G---	STAND SHIFT	2
76	GSTN-0021-1G---	STAND	2
77	XXPSD80P16000--	SCREW FOR STAND	2
78	GSTN-0010-1F--A	STAND(PLASTIC)	2
79	PCUSS0106-1P---	CUSHION FOR STAND	2
80	XETSD40P12000--	SCREW FOR STAND	10



PDP PACKAGING ASSEMBLY



GTW-P50M603 EXPLODED VIEW (MECHANICAL PARTS)				
ITEM	PART NO.	DESCRIPTION	UNIT	REMARKS
1	SET	GTW-P50M603	1	
2	HINDP0416-1P---	AC FILTER INDICATOR PVC	1	
3	TLABD1139-1B--A	SRS CODE	1	
4	HINDP0414-1P--H	RGB INDICATOR PVC	1	
5	HINDP0415-1P---	POWER INDICATOR PVC	1	
6	SSAKH0186-1Y--A	EPE BAG	1	
7	SPAKC0723-1R--Q	CARTON	1	
8	SPAKA0659-1F--A	STYROFOAM	4	
9	SPAKA0681-1F---	STYROFOAM(TOP)	1	
10	SPAKA0682-1F---	STYROFOAM(BUTTOM)	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-250CGATEWAY	REMOTE CONTROL	1	ACCESSORY KIT
	CPRT-0010-1R---	DOCUMENTATION	1	ACCESSORY KIT
	RBATB0221-1DC--	BATTERY	2	ACCESSORY KIT
14	TLABW0056-1---A	G METER	1	
15	TLABD1169-1B---	BAR CODE	1	
16	ZTIE-P155Y1600-	WRAPPING	4	
17	ZTAPEQ075T900--	TAPE	1	
18	ZTAPEZ500T500--	PE FILM	1	
19	JHNDP0020-1---	CASE HANDLE	4	
20	TLABW0063-1---A	TILTWATCH	1	
21	QACCF1066-1DX--	POWER CORD	1	
22	TLABM1369-1----	MODEL LABEL	1	
23	TLABD1142-1----	GTW S/N BARCODE LABEL	1	
24	TLABD1142-1----	GTW P/N BARCODE LABEL	1	
25	TLABD1156-1----	GTW S/N LABEL	1	
26	TLABD1142-1----	SAMPO S/N BARCODE LABEL	1	
27	TLABM1359-1----	GTW SERVICE INFO LABEL	1	