

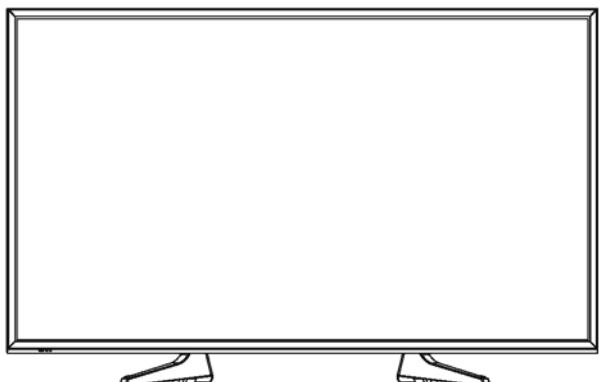
# Service Manual

LED TV

Model No. TH-49ES630K

TH-49ES630M

TH-49ES630S



Chassis:KM33

Destination: K: Malaysia  
M: Middle East  
S: Singapore

## ⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

## IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are marked by ▲ in the Schematic Diagrams, Circuit Board Diagrams, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire or other hazards. Do not modify the original design without permission of manufacturer.

# TABLE OF CONTENTS

	PAGE	PAGE
<b>1 Safety Precautions -----</b>	<b>3</b>	
1.1. General Guidelines -----	3	
1.1.1. Leakage Current Cold Check -----	3	
1.1.2. Leakage Current Hot Check (See Figure 1.) -----	3	
<b>2 Warning -----</b>	<b>4</b>	
2.1. Prevention of Electrostatic Discharge (ESD) to Electrostatically Sensitive (ES) Devices -----	4	
2.2. About lead free solder (PbF) -----	5	
<b>3 Service Navigation-----</b>	<b>6</b>	
3.1. Service Hint-----	6	
<b>4 Specifications -----</b>	<b>7</b>	
<b>5 Service Mode -----</b>	<b>9</b>	
5.1. How to enter into Service Mode -----	9	
5.1.1. Purpose-----	9	
5.1.2. Key command-----	9	
5.1.3. How to exit -----	9	
5.1.4. Contents of adjustment mode-----	9	
5.1.5. Display of SOS History-----	10	
5.1.6. Exit -----	10	
5.1.7. Hotel Mode-----	10	
<b>6 Troubleshooting Guide-----</b>	<b>11</b>	
6.1. Check of the IIC bus lines-----	11	
6.1.1. How to access-----	11	
6.1.2. Self-check indication only -----	11	
6.1.3. Self-check indication and forced to factory shipment setting -----	11	
6.1.4. Exit -----	11	
6.1.5. Screen display -----	11	
6.2. Power LED Blinking timing chart-----	12	
6.3. Method of detecting SOS -----	12	
6.4. LCD Panel test mode -----	13	
6.5. No Power-----	13	
<b>7 Disassembly and Assembly Instructions-----</b>	<b>14</b>	
7.1. Key Button & LED Assembly-----	14	
7.2. Vesa Metal & Btm Back Cover-----	15	
7.3. Install Bottom Metal & AV Bracket-----	16	
7.4. Chasis Bracket A-PCB-----	17	
7.5. Screw Installation (Panel)-----	18	
7.6. Screw Installation (BC)-----	19	
7.7. Label Installation-----	20	
7.8. Handling SPEC-----	21	
<b>8 Measurements and Adjustments -----</b>	<b>22</b>	
8.1. Voltage chart of A-board-----	22	
8.2. Voltage chart of P-board-----	22	
<b>9 Block Diagram -----</b>	<b>23</b>	
9.1. Main Block Diagram-----	23	
<b>10 Wiring Connection Diagram -----</b>	<b>24</b>	
10.1. Wire Dressing-----	24	
<b>11 Schematic Diagram-----</b>	<b>27</b>	
<b>12 Printed Circuit Board -----</b>	<b>28</b>	
<b>13 Exploded View and Replacement Parts List -----</b>	<b>29</b>	

# 1 Safety Precautions

## 1.1. General Guidelines

1. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
2. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
3. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.
4. When conducting repairs and servicing, do not attempt to modify the equipment, its parts or its materials.
5. When wiring units (with cables, flexible cables or lead wires) are supplied as repair parts and only one wire or some of the wires have been broken or disconnected, do not attempt to repair or re-wire the units. Replace the entire wiring unit instead.
6. When conducting repairs and servicing, do not twist the Faston connectors but plug them straight in or unplug them straight out.

### 1.1.1. Leakage Current Cold Check

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
  2. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to the chassis, the reading should be 8.5Mohm to 13Mohm.
- When the exposed metal does not have a return path to the chassis, the reading must be  $\infty$ .

### 1.1.2. Leakage Current Hot Check (See Figure 1.)

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a 1.5kohm, 10 watts resistor, in parallel with a  $0.15\mu F$  capacitors, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in Figure 1.
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 0.75 volts RMS. A leakage current tester (Simpson Model 229 or equivalent) may be used to make the hot checks, leakage current must not exceed 1/2 milliamp. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

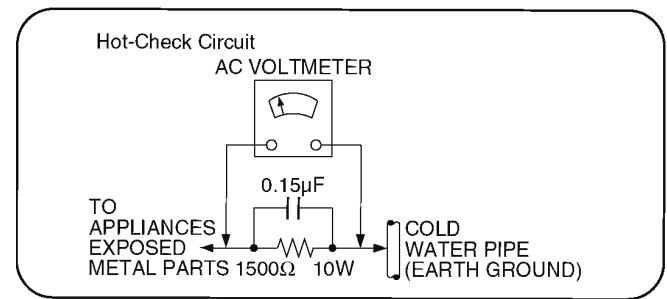


Figure 1

## 2 Warning

### 2.1. Prevention of Electrostatic Discharge (ESD) to Electrostatically Sensitive (ES) Devices

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

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device. Some solder removal devices not classified as [anti-static (ESD protected)] can generate electrical charge sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

#### Caution

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

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity (ESD) sufficient to damage an ES device).

## 2.2. About lead free solder (PbF)

Note: Lead is listed as (Pb) in the periodic table of elements.

In the information below, Pb will refer to Lead solder, and PbF will refer to Lead Free Solder.

The Lead Free Solder used in our manufacturing process and discussed below is (Sn+Ag+Cu).

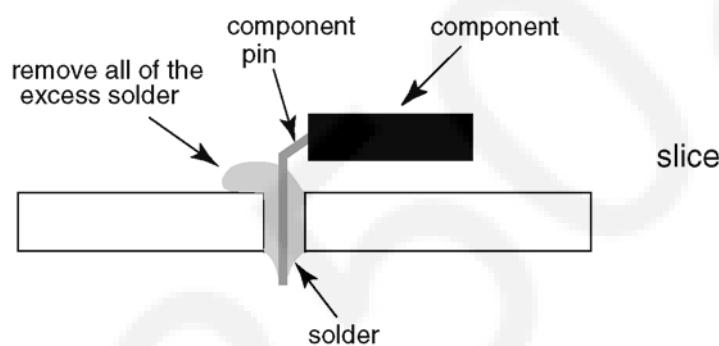
That is Tin (Sn), Silver (Ag) and Copper (Cu) although other types are available.

This model uses Pb Free solder in it's manufacture due to environmental conservation issues. For service and repair work, we'd suggest the use of Pb free solder as well, although Pb solder may be used.

PCBs manufactured using lead free solder will have the PbF within a leaf symbol **PbF** stamped on the back of PCB.

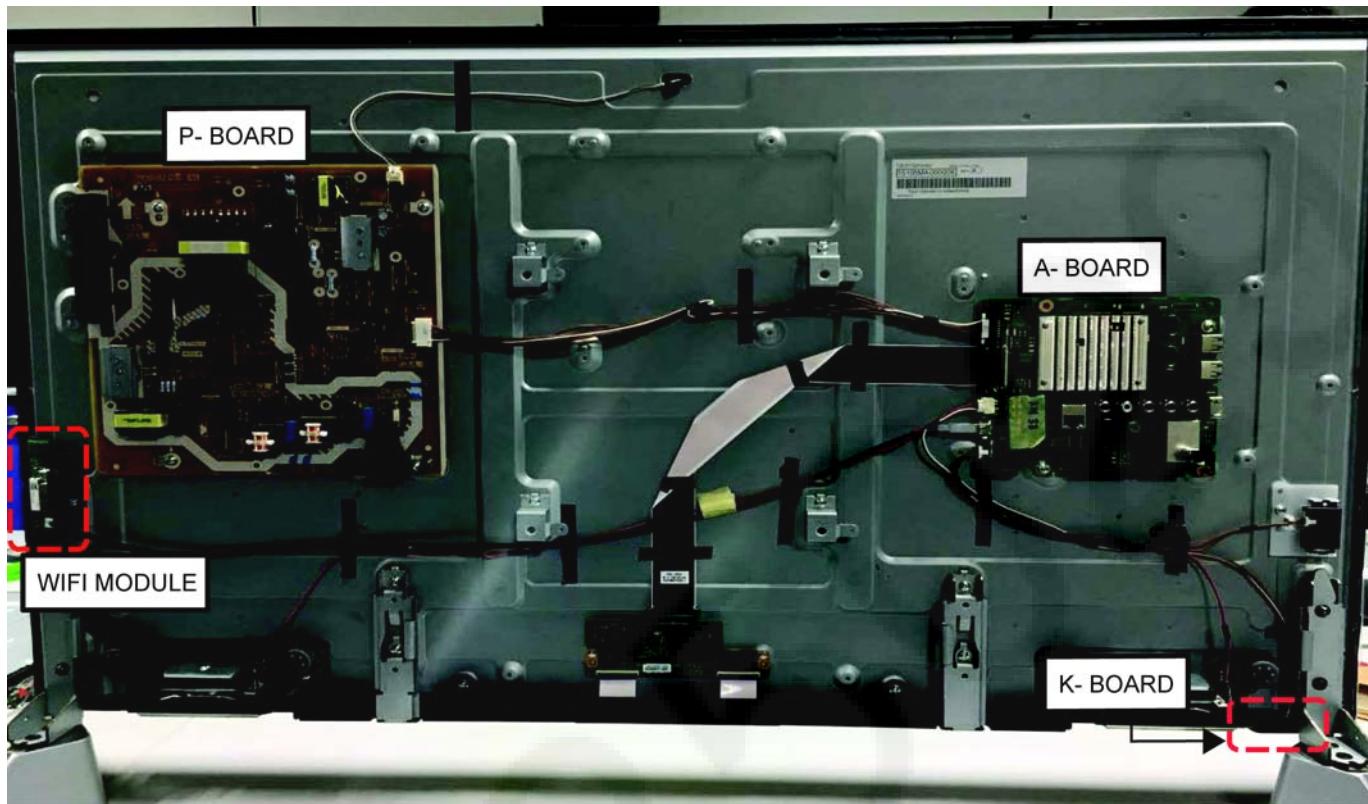
### Caution

- Pb free solder has a higher melting point than standard solder. Typically the melting point is 50 ~ 70 °F (30~40 °C) higher. Please use a high temperature soldering iron and set it to  $700 \pm 20$  °F ( $370 \pm 10$  °C).
- Pb free solder will tend to splash when heated too high (about 1100 °F or 600 °C). If you must use Pb solder, please completely remove all of the Pb free solder on the pins or solder area before applying Pb solder. If this is not practical, be sure to heat the Pb free solder until it melts, before applying Pb solder.
- After applying PbF solder to double layered boards, please check the component side for excess solder which may flow onto the opposite side. (see figure below)



### 3 Service Navigation

#### 3.1. Service Hint



Board Name	Main Device	Remarks
A BOARD	TUN, OFDM, ADV, LD4, STBY EEP	Repairable
P BOARD	Power Supply	Repairable
K BOARD	LED/ RM/ CATS	Repairable

## 4 Specifications

<b>Dimensions (W × H × D)</b>	1106 mm × 697 mm × 313 mm (With Pedestal) 1106 mm × 644 mm × 83 mm (TV only)
<b>Mass</b>	14.5 kg Net (With Pedestal) 13.5 kg Net (TV only)
<b>Power source</b>	<b>TH-49ES630K</b> AC 220-240 V, 50 / 60 Hz <b>TH-49ES630M</b> AC Auto 110-240 V, 50 / 60 Hz <b>TH-49ES630S</b> AC Auto 110-240 V, 50 / 60 Hz
<b>Rated power consumption</b>	<b>TH-49ES630K</b> 142 W <b>TH-49ES630M</b> 146 W <b>TH-49ES630S</b> 146 W
<b>Standby power consumption</b>	0.20 W
<b>Visible screen size (diagonal)</b>	123 cm
<b>Display resolution</b>	1920 (W) × 1080 (H)
<b>Panel</b>	LED backlight Liquid Crystal Display
<b>Sound</b>	
<b>Speaker output</b>	20 W (10 W + 10 W)
<b>Connection terminals</b>	
<b>AV IN</b>	<b>VIDEO</b> RCA PIN Type × 1 1.0 V[p-p] (75 Ω)
<b>(COMPONENT / VIDEO)</b>	<b>AUDIO L - R</b> RCA PIN Type × 2 0.5 V[rms] <b>Y</b> 1.0 V[p-p] (including synchronisation) <b>P<sub>B</sub>/C<sub>B</sub>, P<sub>R</sub>/C<sub>R</sub></b> ±0.35 V[p-p]
<b>HDMI 1 / 2 / 3 input</b>	TYPE A Connectors HDMI1 / 3: Content Type HDMI2: Content Type, Audio Return Channel • This TV supports 'HDAVI Control 5' function. 10BASE-T / 100BASE-TX
<b>ETHERNET</b>	DC == 5 V, Max. 500 mA [Hi-Speed USB (USB 2.0)]
<b>USB 1 / 2</b>	PCM / Dolby Digital, Fibre optic
<b>DIGITAL AUDIO OUT</b>	
<b>Receiving systems / Band name</b>	<b>7 SYSTEMS</b> <b>FUNCTION</b>
	1 PAL B, G, H 2 PAL I 3 PAL D, K 4 SECAM B, G 5 SECAM D, K 6 SECAM K1 7 NTSC M (NTSC 3.58 / 4.5 MHz)
	Reception of broadcast transmissions and Playback from Video Cassette Tape Recorders
<b>Receiving channels (Analogue TV)</b>	<b>Digital TV</b> 7 MHz VHF / 8 MHz UHF free-to-air TV broadcast reception
<b>VHF BAND</b>	2 - 12 (PAL / SECAM B, K1) 0 - 12 (PAL B AUST.) 1 - 9 (PAL B N.Z.) 1 - 12 (PAL / SECAM D) 1 - 12 (NTSC M Japan) 2 - 13 (NTSC M USA)
<b>UHF BAND</b>	21 - 69 (PAL G, H, I / SECAM G, K, K1) 28 - 69 (PAL B AUST.) 13 - 57 (PAL D, K) 13 - 62 (NTSC M Japan) 14 - 69 (NTSC M USA)
<b>CATV</b>	S1 - S20 (OSCAR) 1 - 125 (USA CATV) C13 - C49 (JAPAN) S21 - S41 (HYPER) Z1 - Z37 (CHINA) 5A, 9A (AUST.)
<b>Aerial input</b>	VHF / UHF
<b>Operating Conditions</b>	<b>Temperature</b> : 0°C - 40°C <b>Humidity</b> : 20 % - 80 % RH (non-condensing)
<b>Built-in wireless LAN</b>	<b>Standard compliance and Frequency range*</b> IEEE802.11a/n 5.15 GHz - 5.35 GHz, 5.47 GHz - 5.85 GHz IEEE802.11b/g/n 2.40 GHz - 2.4835 GHz

**Security**

WPA2-PSK (TKIP/AES)  
WPA-PSK (TKIP/AES)  
WEP (64 bit/128 bit)

\*: The frequency and channel differ depending on the country.

**Note**

- Design and Specifications are subject to change without notice. Mass and Dimensions shown are approximate.
- For information about the open source software, refer to [eHELP] (Support > Licence).

## 5 Service Mode

### 5.1. How to enter into Service Mode

#### 5.1.1. Purpose

After exchange parts, check and adjust the contents of adjustment mode.

While pressing [VOLUME (-)] button of the main unit, press [INFO] button of the remote control three times within 2 seconds.

Software version			
Picture adjustment	→ ADJUST	Peaks SOFT	0.164
White balance adjustment	→ WB-ADJ	Peaks EEP	00.10.4398
Option setting	→ OPTION	LSI PACKAGE	0.008
Service tool	→ SRV-TOOL	LSI DATA	0.00.02
USB Drive check	→ DRV CHECK	STBY SOFT	0.08.00
		STBY EEP	0.01.0100
		STBY ROMCOR	0.00.00
		Ajax_CE	0.75.0
			R/E Cnt 000/000/000
			INV Cnt 0000
			AVSW -

#### 5.1.2. Key command

- [1] button...Main items Selection in forward direction
- [2] button...Main items Selection in reverse direction
- [3] button...Sub items Selection in forward direction
- [4] button...Sub items Selection in reverse direction
- [VOL] button...Value of sub items change in forward direction (+), in reverse direction (-)

#### 5.1.3. How to exit

Switch off the power with the [POWER] button on the main unit or the [POWER] button on the remote control.

#### 5.1.4. Contents of adjustment mode

- Value is shown as a hexadecimal number.
- Preset value differs depending on models.
- After entering the adjustment mode, take note of the value in each item before starting adjustment.

Main item	Sub item	Sample Data
ADJUST	CONTRAST	252
	COLOUR	2A
	TINT	00
	SUB-BRT	800
	BACKLGT	FFF
	H POS	0
	H AMP	0
	V POS	0
	V AMP	0
	VCOM	000
WB-ADJ	R-GAIN	80
	G-GAIN	AE
	B-GAIN	5C
	R-CENT	6C
	G-CENT	80
	B-CENT	A0

Main item	Sub item	Sample Data
OPTION	Boot	ROM
	STBY-SET	00
	EMERGENCY	ON
	CLK MODE	00
	CLOCK	000
	Y/C DELAY	0
	OPT 1	00000000
	OPT 2	11100110
	OPT 3	00001001
	OPT 4	00000000
SRV-TOOL	EDID-CLK	HIGH
		00
	DRV CHECK	USB HDD CHECK

## 5.1.5. Display of SOS History

SOS History (Number of LED blinking) indication.

From left side; Last SOS, before Last, three occurrence before, 2nd occurrence after shipment, 1st occurrence after shipment.

This indication except 2nd and 1st occurrence after shipment will be cleared by [Self-check indication and forced to factory shipment setting].

## 5.1.6. Exit

1. Disconnect the AC cord from wall outlet.

## 5.1.7. Hotel Mode

### 1. Purpose

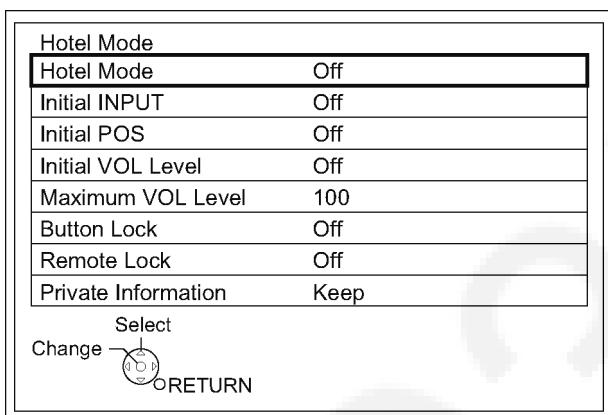
Restrict a function for hotels.

### 2. Access command to the Hotel mode setup menu.

In order to display the Hotel mode setup menu:

While pressing [VOLUME (-)] button of the main unit,  
press [AV] button of the remote control three times within  
2 seconds.

Then, the Hotel mode setup menu is displayed.



### 3. To exit the Hotel mode setup menu

Disconnect AC power cord from wall outlet.

### 4. Explain the Hotel mode setup menu

Item	Function
Hotel Mode	Select hotel mode On/Off
Initial INPUT	Select input signal modes. Set the input, when each time power is switched on. Selection : Off,Analogue,DVB-C,DVB-T,AV1,AV2,HDMI1, HDMI2 • Off: give priority to a last memory. However, Euro model is compulsorily set to TV.
Initial POS	Select programme number. Selection : Off/0 to 99 • Off: give priority to a last memory.
Initial VOL Level	Adjust the volume when each time power is switched on. Selection Range : Off/0 to 100 • Off: give priority to a last memory.
Maximum Vol Level	Adjust maximum volume. Range : 0 to 100
Button Lock	Select local key conditions. Selection : Off/SETUP/MENU/ALL • OFF: altogether valid • SETUP: only F-key is invalid (Tuning guide (menu) can not be selected.) • MENU: only F-key is invalid (only Volume/Mute can be selected.) • ALL: altogether invalid.
Remote Lock	Select remote control key conditions. Selection : Off/SETUP/MENU • OFF: altogether valid. • SETUP: only Setup menu is invalid. • MENU: Picture/Sound/Setup menu are invalid.
Private Information	Select private information for VIERA Cast is Keep or Reset if Hotel mode is set to [On] when TV power on Selection : Keep/Reset • Keep: private information for VIERA Cast is keep • Reset: private information for VIERA Cast is reset

## 6 Troubleshooting Guide

Use the self-check function to test the unit.

1. Checking the IIC bus lines
2. Power LED Blinking timing

### 6.1. Check of the IIC bus lines

#### 6.1.1. How to access

#### 6.1.2. Self-check indication only

Produce TV reception screen, and while pressing [VOLUME (-)] button on the main unit, press [OK] button on the remote control for more than 3 seconds.

#### 6.1.3. Self-check indication and forced to factory shipment setting

Produce TV reception screen, and while pressing [VOLUME (-)] button on the main unit, press [MENU] button on the remote control for more than 3 seconds.

#### 6.1.4. Exit

Disconnect the AC cord from wall outlet.

#### 6.1.5. Screen display

49FHD		SELF CHECK COMPLETE		
H14TUN	OK	PEAKS-SOFT	4.a04	
H90STBY	OK	PEAKS-EEP	01.00.0367	
H92MEM1	OK	LSI-PACKAGE	0.03e	
H91MEM2	OK	LSI-RELEASE	0.07	
H17LAN	OK	STBY-SOFT	2.00.00	
H00FE	OK	STBY-EEP	1.00.0021	
H71TC-DAC	OK			
H96ID	OK			
H97ID2	OK			
H42WiFi	OK			
		MODEL ID		
		0c	0300039d	
			00000200	

## 6.2. Power LED Blinking timing chart

### 1. Subject

Information of LED Flashing timing chart.

### 2. Contents

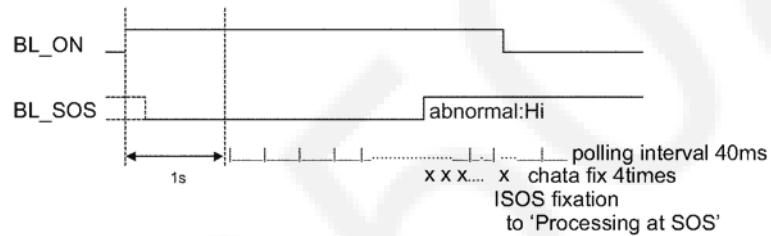
When an abnormality occurs, the protection circuit will operate and reset the unit to stand by mode. During this time, the defective block can be identified by the number of blinking times of the Power LED on the front panel of the unit as follow:

Blinking times	Contents & Check point
1	BL_SOS
7	SUB_3.3V/1.2V
8	SOS
9	SOUND_SOS
12	BE(sLD8/PRO4) SOS
13	Emergency SOS

## 6.3. Method of detecting SOS

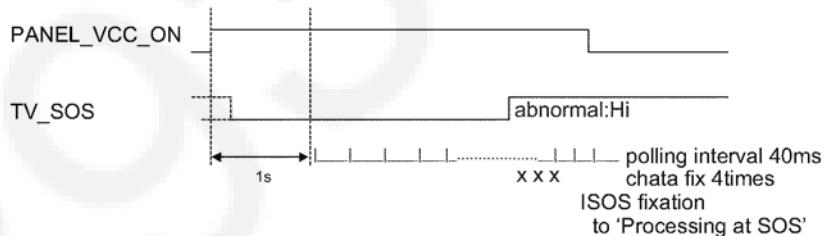
### 1. BL\_SOS

Detection beginning after one second pass from 'BL\_ON'=ON



### 2. TV\_SOS

Detection beginning after one second pass from 'PANEL\_VCC\_ON'=ON



### 3. SOUND\_SOS

Detection beginning 'PANEL\_VCC\_ON'=ON



## 6.4. LCD Panel test mode

### Purpose:

To find the possible failure point where in LCD Panel or Printed Circuit Board when the abnormal picture is displayed.

### How to Enter:

While pressing [VOLUME (-)] button of the main unit, press [OPTION] button of the remote control three times within 2 seconds.

### How to Exit:

Disconnect AC plug from wall outlet.

### How to confirm:

If the abnormal picture is displayed, go into LCD Panel test mode to display the several test patterns.

And then, judge by the following method.

Still abnormal picture is displayed: The cause must be in LCD Panel.

Normal picture is displayed: The cause must be in A board.

### Remarks:

The test pattern is created by the circuit in LCD Panel.

In LCD Panel test mode, this test pattern is displayed unaffected by signal processing for RF or input signal.

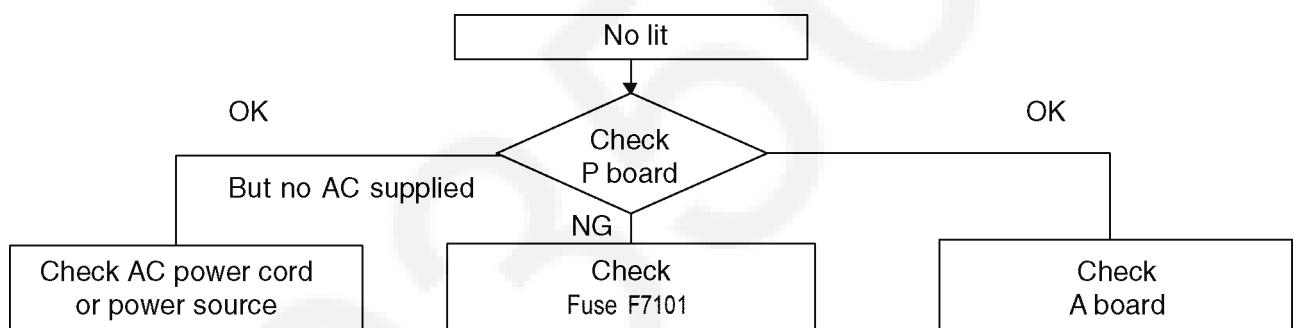
If the normal picture is displayed, LCD Panel must be okay and the cause of failure must be in A board.

## 6.5. No Power

First check point

There are following 2 states of No Power indication by power LED.

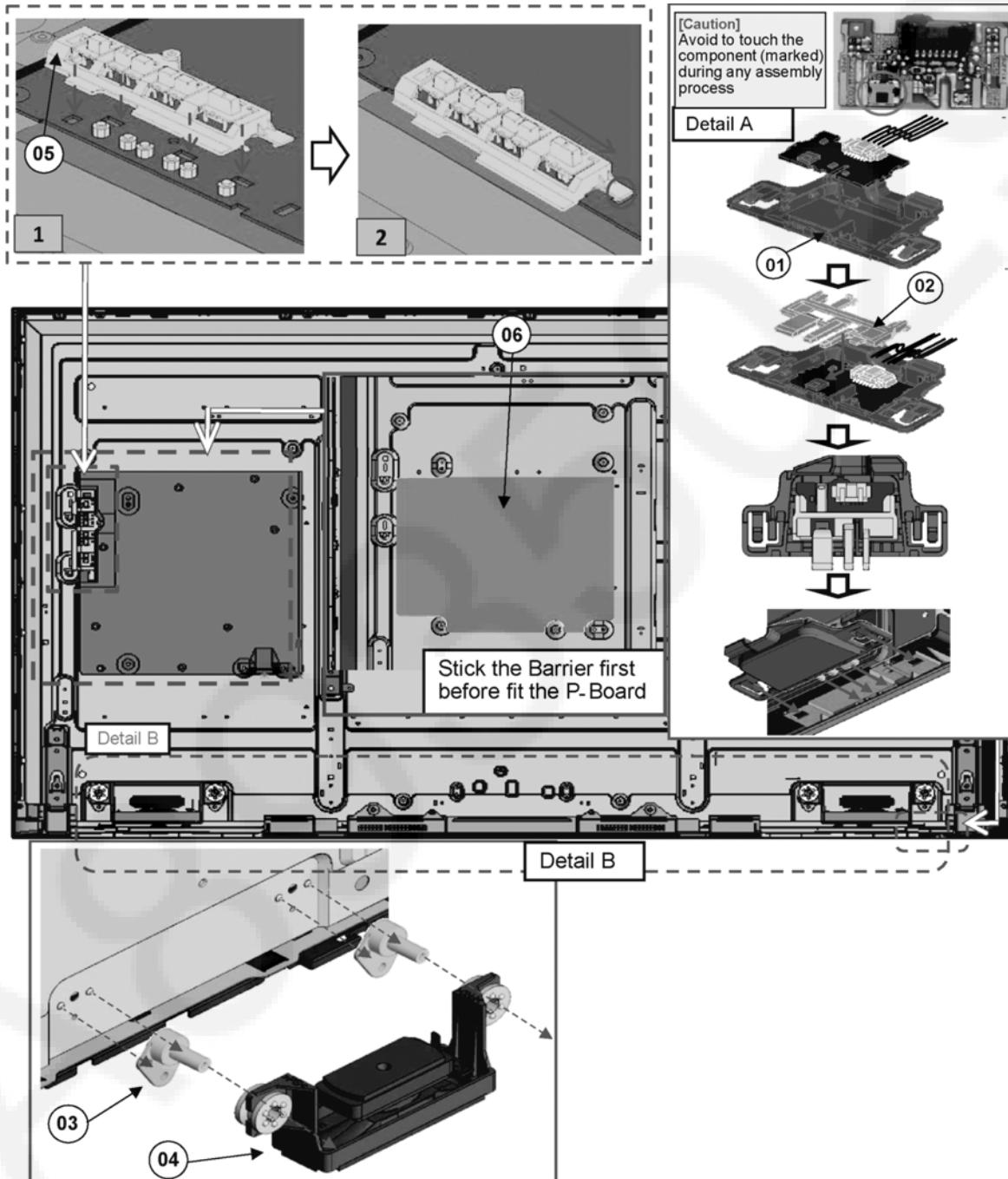
1. No lit
2. Red is lit then turns red blinking a few seconds later. (See 6.2.)



## 7 Disassembly and Assembly Instructions

### 7.1. Key Button & LED Assembly

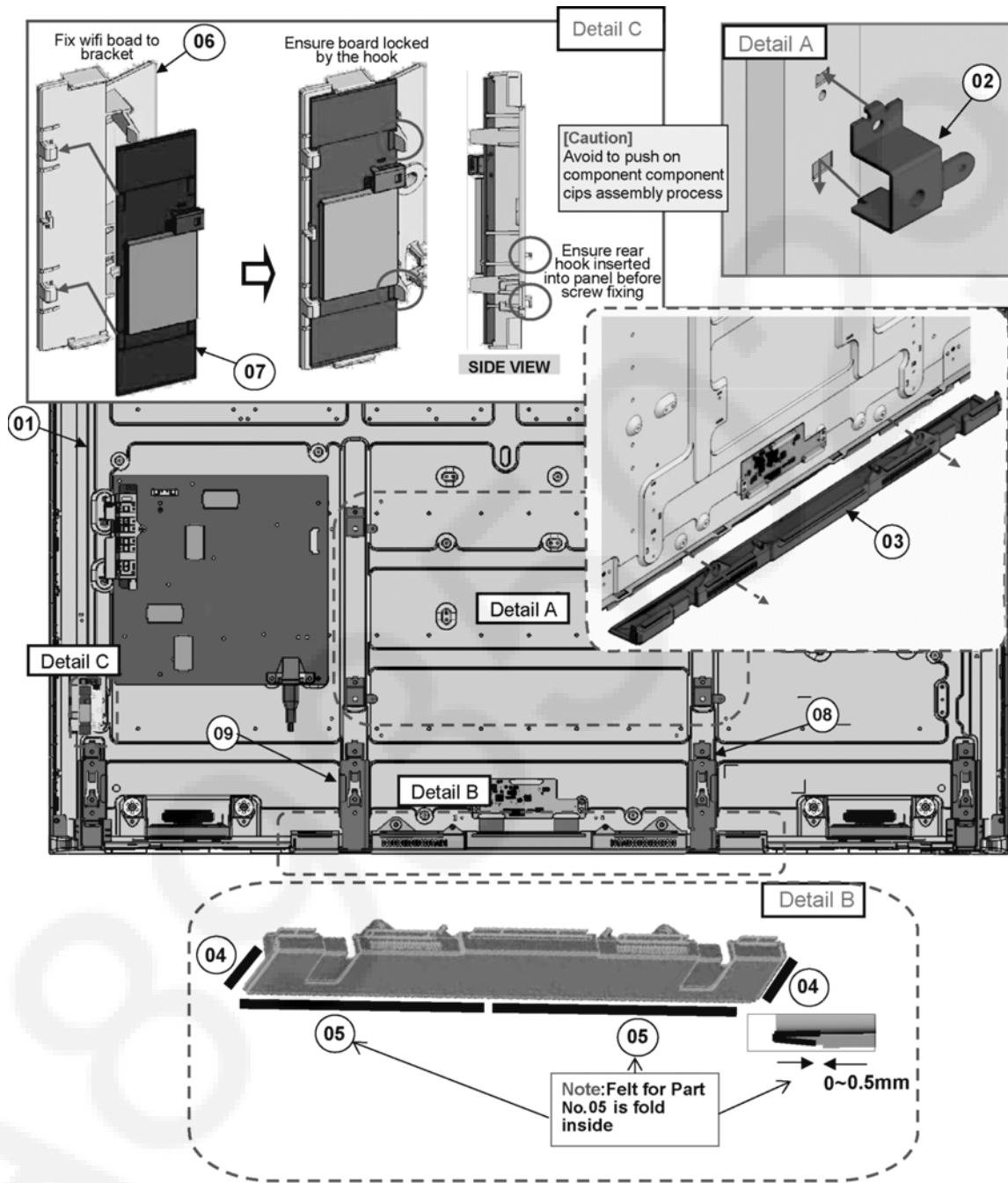
1. Fix SP Bracket.
2. Install SP Unit.
3. Fix Key Button Bracket.
4. Stick the Barrier.



No	Description	Qty	UOM	Remarks
01	LED PANEL CASE	1	PC	
02	LED PANEL	1	PC	
03	SP BRACKET	4	PC	
04	SPEAKER UNIT	2	PC	
05	KEY BUTTON BRACKET	1	PC	
06	BARRIER	1	PC	

## 7.2. Vesa Metal & Btm Back Cover

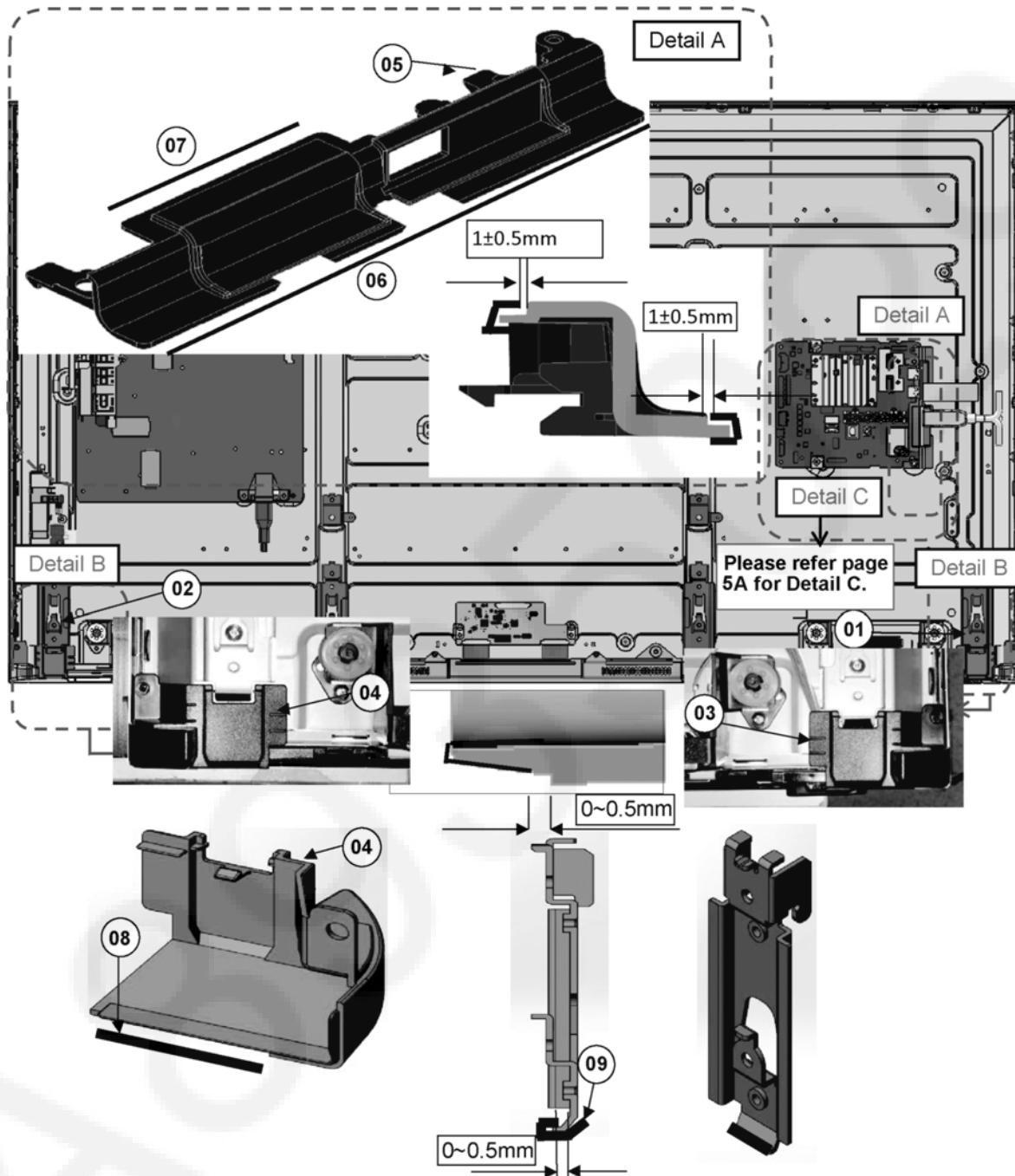
1. Stick Felt to Bottom Back Cover.
2. Fix Bottom Back Cover.
3. Install VESA Metal.



No	Description	Qty	UOM	Remarks
01	ASS'Y 49 IN-HOUSE PANEL	1	PC	
02	VESA METAL	4	PC	
03	BOTTOM BACK COVER	1	PC	
04	FELT (W5 x L40 x T0.35)	2	PC	
05	FELT (W10 x L240 x T0.35)	2	PC	
06	WIFI BRACKET	1	PC	
07	WIFI MODULE	1	PC	
08	BOTTOM METAL L (INSIDE)	1	PC	
09	BOTTOM METAL R (INSIDE)	1	PC	

### 7.3. Install Bottom Metal & AV Bracket

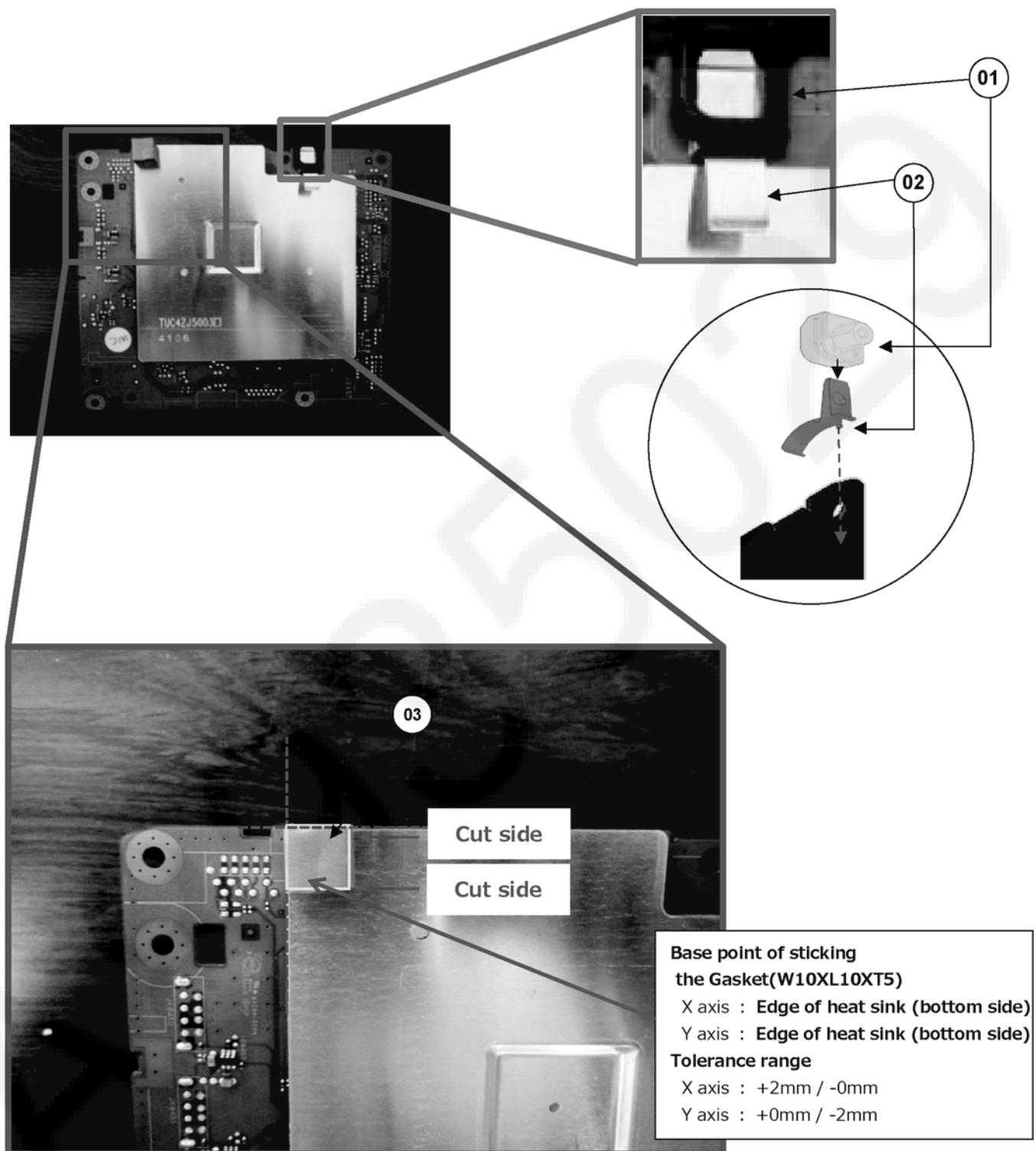
1. Stick Felt to Side AV Bracket.
2. Fix Bottom Metal L and R.
3. Fix Bottom Corner Cover L and R.



No	Description	Qty	UOM	Remarks
01	BOTTOM METAL L	1	PC	
02	BOTTOM METAL R	1	PC	
03	BOTTOM CORNER COVER L	1	PC	
04	BOTTOM CORNER COVER R	1	PC	
05	SIDE AV BRACKET	1	PC	
06	FELT (W10xL130xT0.35)	1	PC	
07	FELT (W10xL50xT0.55)	1	PC	
08	FELT (W10xL35xT0.35)	1	PC	
09	FELT (W10xL10xT0.35)	2	PC	

## 7.4. Chasis Bracket A-PCB

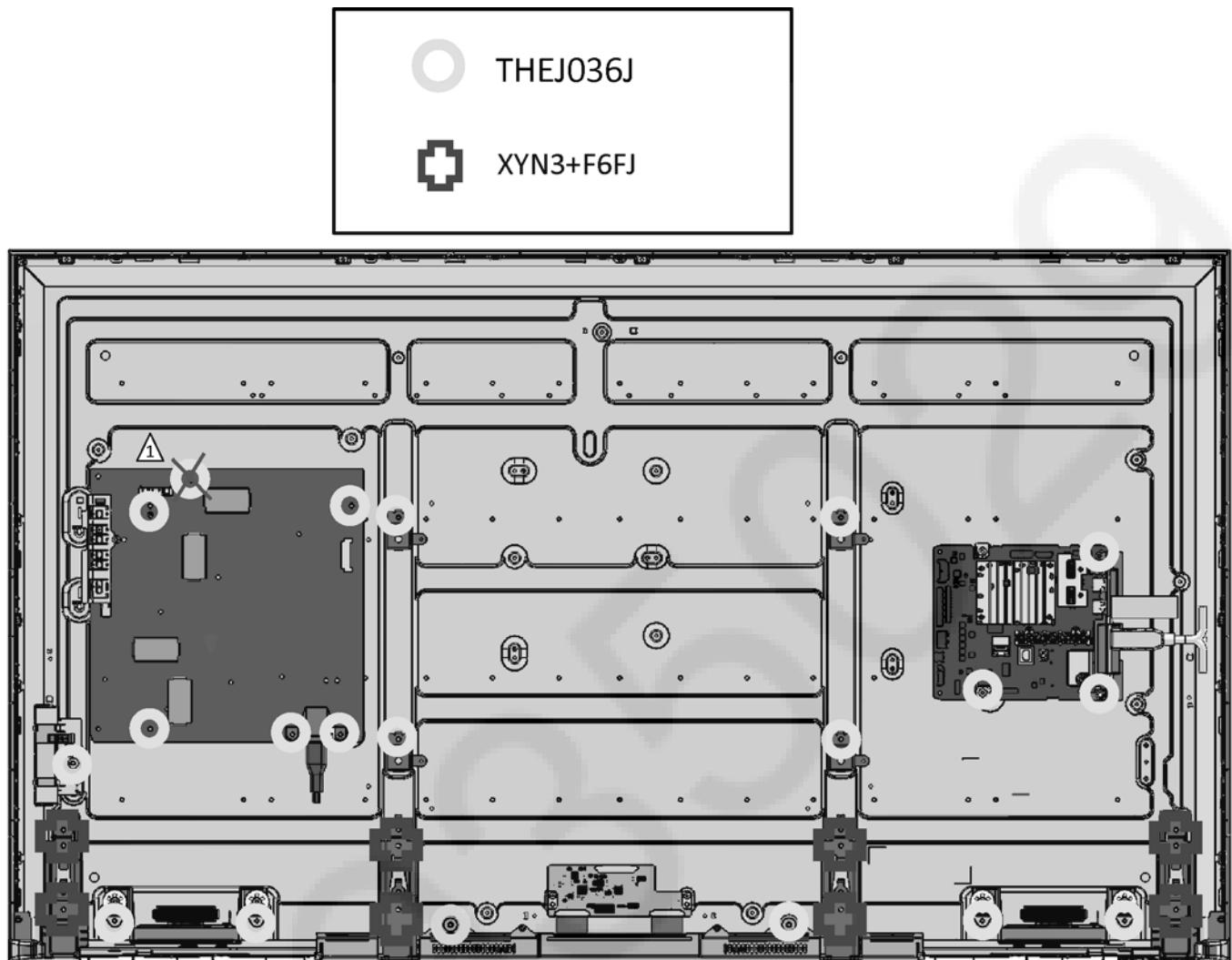
- Follow the diagram below for Chasis Bracket A-PCB.



No	Description	Qty	UOM	Remarks
01	CHASSIS BRACKET A-PCB	1	PC	
02	GROUND SPRING	1	PC	
03	GASKET	1	PC	

## 7.5. Screw Installation (Panel)

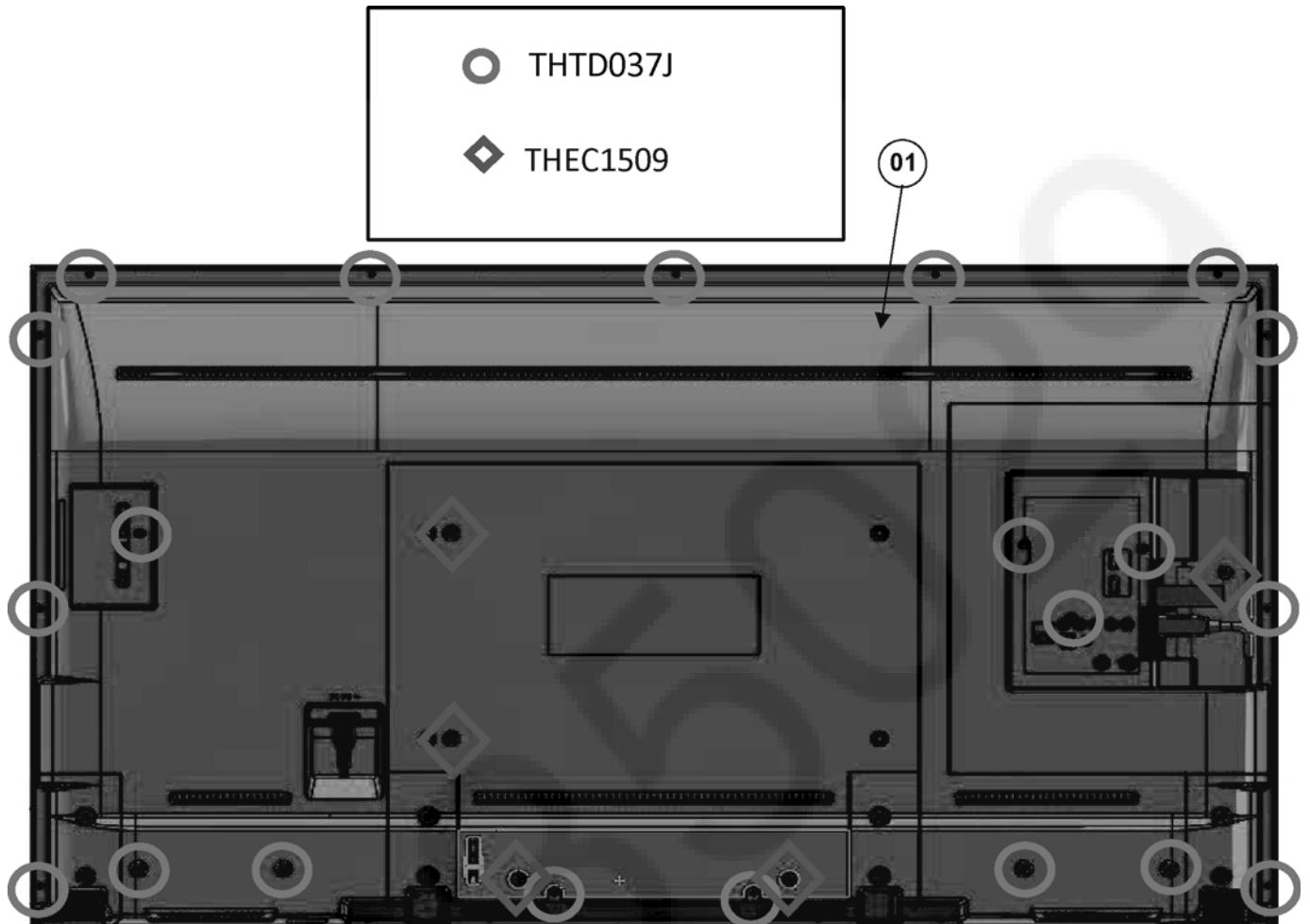
1. Screw all part follow the picture shown.



No	Description	Qty	UOM	Remarks
01	SC (A3/P5/VESA4/MTL4/SP4/WIFI1/LD4/B2)	19	PC	5-7 Kgfcm
02	SC (BTM MTL4)	8	PC	5-7 Kgfcm

## 7.6. Screw Installation (BC)

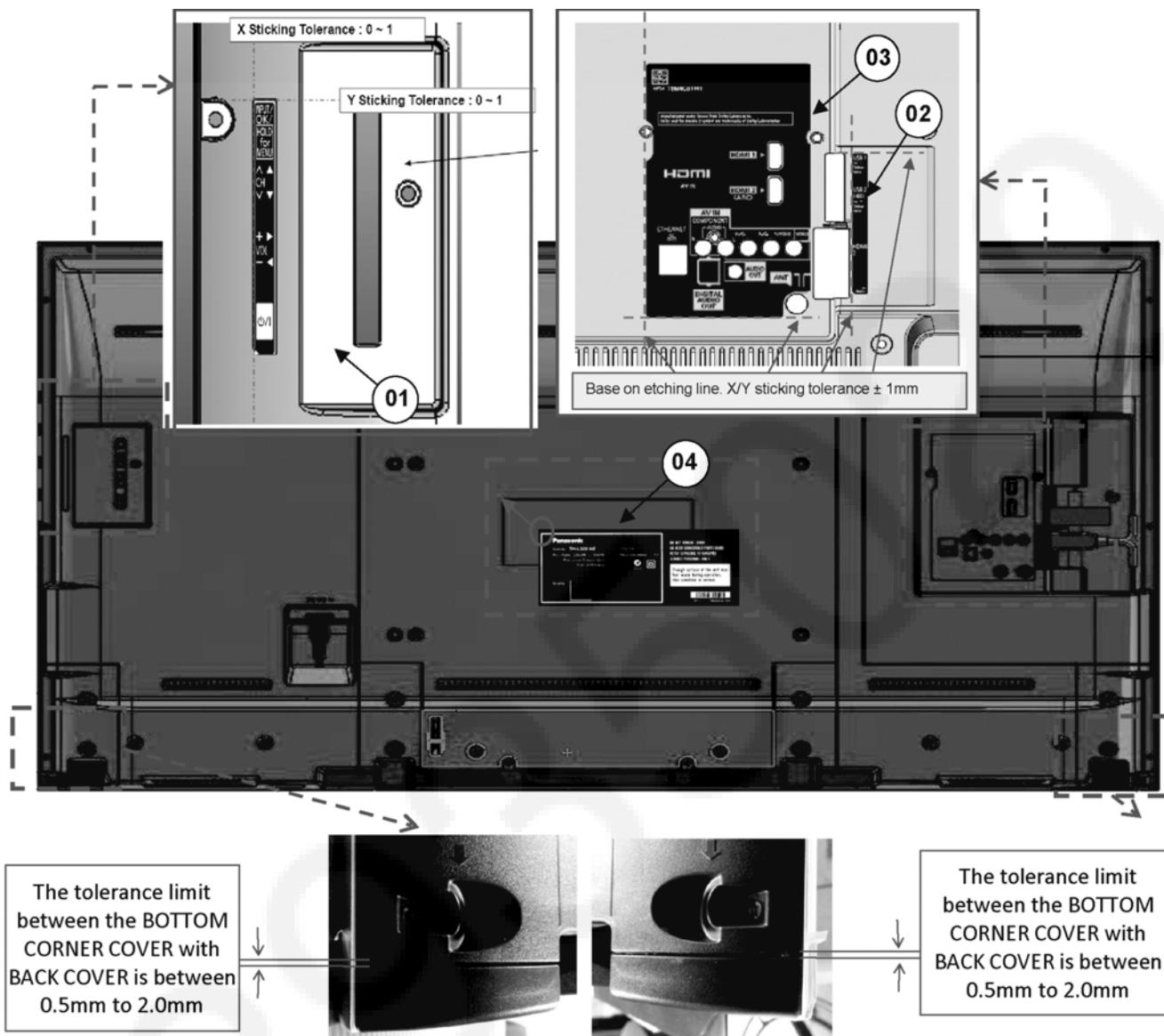
- Screw all part follow the picture shown.



No	Description	Qty	UOM	Remarks
01	SCREW (A3/P5/VESA4/MTL8/SP4/B2/WIFI1)	1	PC	
02	SC (BC13/AV3/CRTL1/SP4)	21	PC	5-7 Kgfcm
03	SCREW (BC5/VESA4)	5	PC	5-7 Kgfcm

## 7.7. Label Installation

- Stick Side Button Label, Side AV Sheet, Rear AV Sheet, and Model Name Plate follow the picture shown.



No	Description	Qty	UOM	Remarks
01	SIDE BUTTON LABEL	1	PC	
02	SIDE AV SHEET	1	PC	
03	REAR AV SHEET	1	PC	49ES630K/M/S/N
04	MODEL NAME PLATE	1	PC	

## 7.8. Handling SPEC

### ■ Moving the LCD module

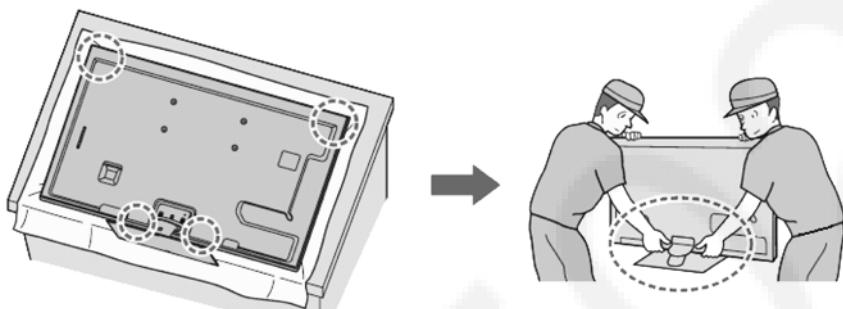
The module should be handle by two people and hold on that top and bottom long side by both hands without module warping. Never handle the module with keeping horizontal position when moving the module in order to avoid internal damage and deformation. Never drop or hit the module.

### ■ About the work table

When tightening a screw, retention structures are required not to deform the LCD module.

### ■ Moving the TV (Case with a stand)

Hold the specified parts as shown to stand the TV up and move it with two people.



## 8 Measurements and Adjustments

### 8.1. Voltage chart of A-board

Set A-Board to a dummy set and check the satisfaction with the specified voltage as following table.

Power Supply Name	Measurement Point	Specification
PNL12V	TP4103	11.3V - 13V
SUB5V	TP5420	4.98V - 5.25V
SUB3.3V	TP5400	3.14V - 3.46V
STB3.3V	TP5002	3.14V - 3.46V
SUB1.8V	TP5300	1.71V - 1.89V
HDMI3.3V	TP8000	3.14V - 3.46V
PHY3.3V	TP8002	3.14V - 3.46V
SUB1.2V	TP8103	1.15V - 1.26V
SUB1.5V	TP8101	1.45V - 1.57V
TU_1.8V	TP5704	1.71V - 1.89V

### 8.2. Voltage chart of P-board

Set P-Board to a dummy load and check the satisfaction with the specified voltage as following table.

Output	Test Point	GND	Step 1	Step 2	Step 3	
PFC	TP7201/02	TP7203/04	<340V	390V ± 15V	390V ± 15V	*HOT
5VS	TP7405/20	TP7427/31/32	5.25 ± 0.2V	5.25 ± 0.2V	5.25 ± 0.2V	
16V	TP7410/11/12	TP7427/31/32	<1V	16 ± 0.6V	16 ± 0.6V	
64V	TP7408/09	TP7801/02/03	<1V	68V ± 10V	68V ± 10V	
VLED	TP101	TP102	<1V	-	1.62 [V] ~ 1.81 [V]	*JIG

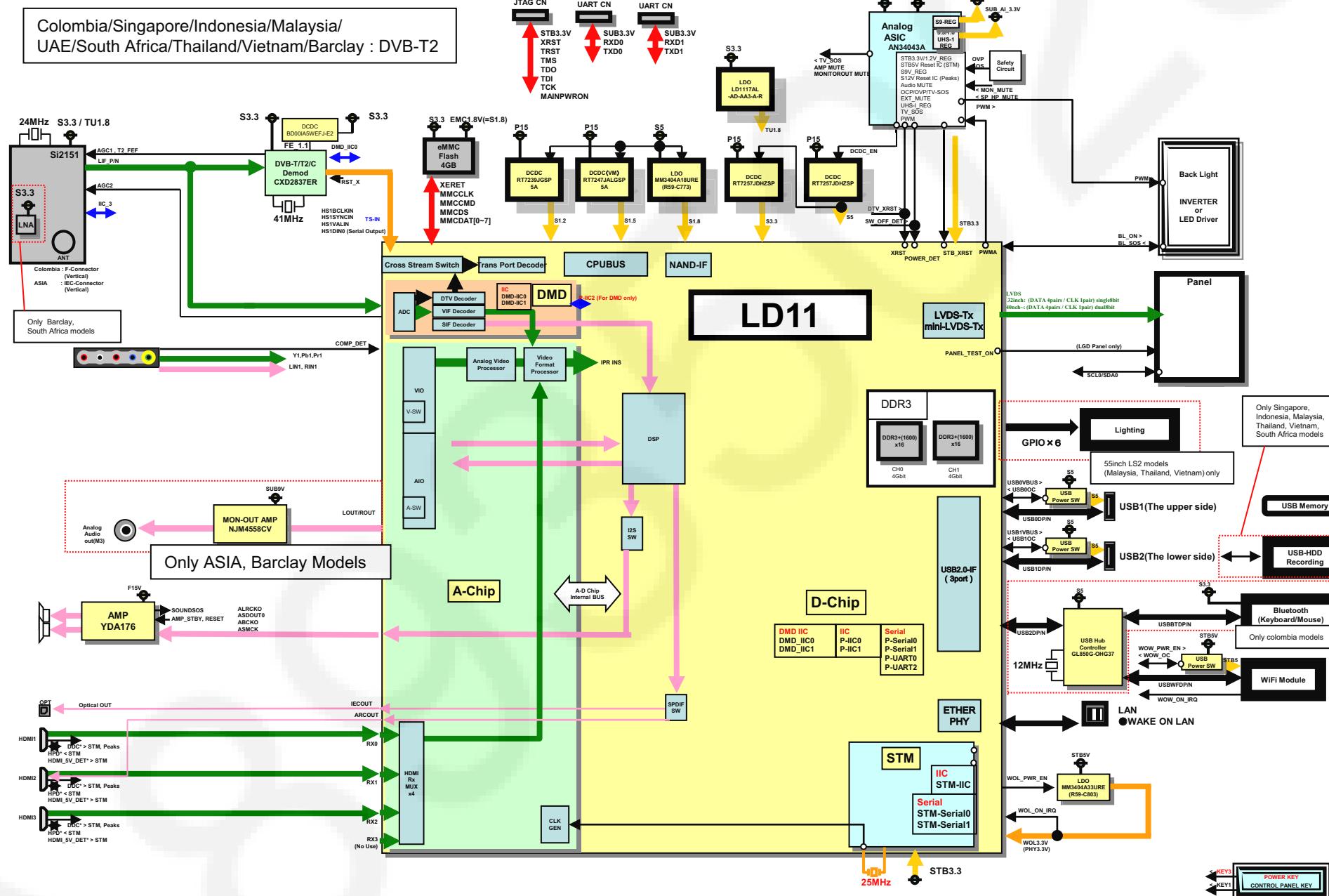
Step 1 Supply to AC connector (JK7101) in the P-Board. SW1/ SW2 is OFF.

Step 2 SW1 to supply DC 2.5V to ON and TV\_SUB\_ON (TP7419). SW2 is OFF.

Step 3 SW2 to ON, and supply the DC3.3V to BL\_ON (TP7518) / PWM1 (TP7517). SW1 is ON.

## 9 Block Diagram

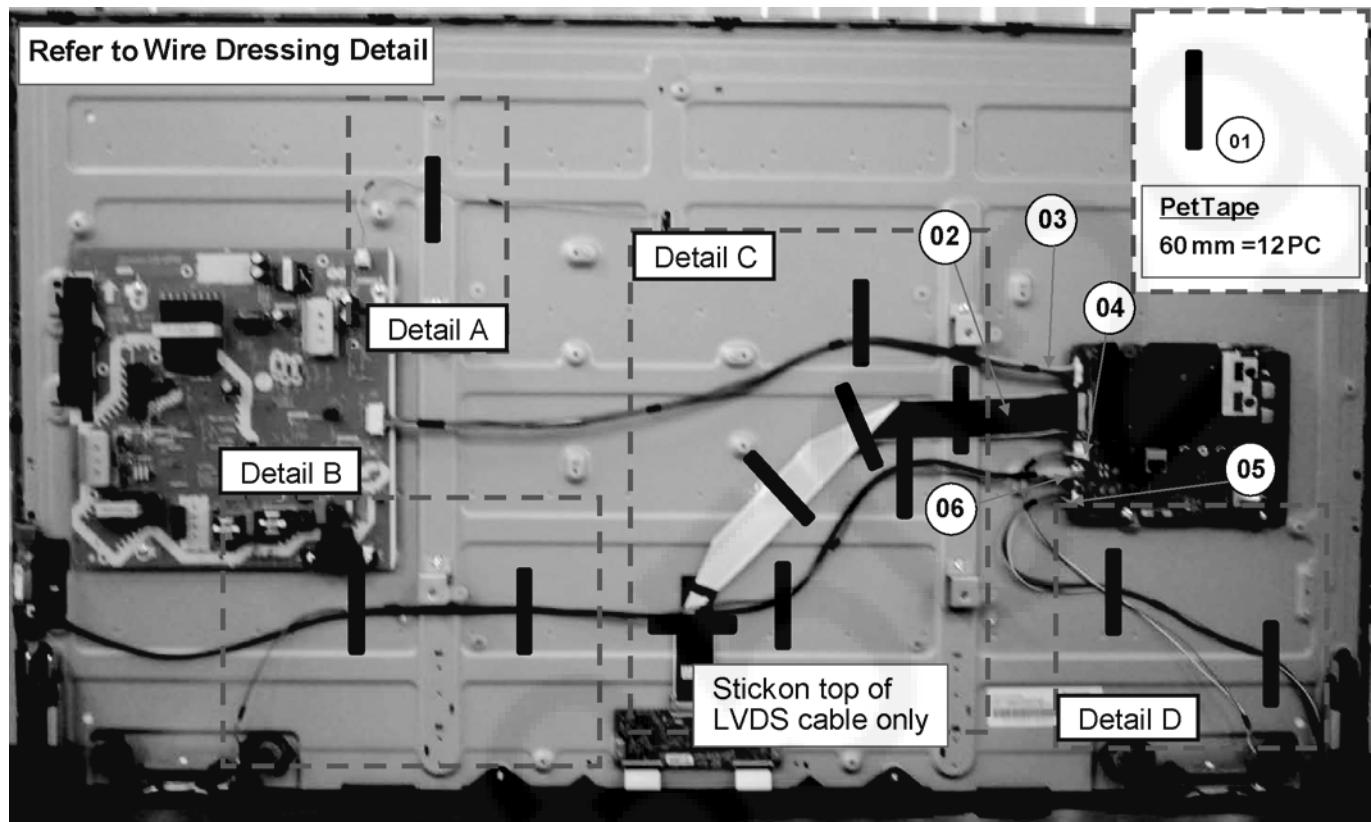
### 9.1. Main Block Diagram

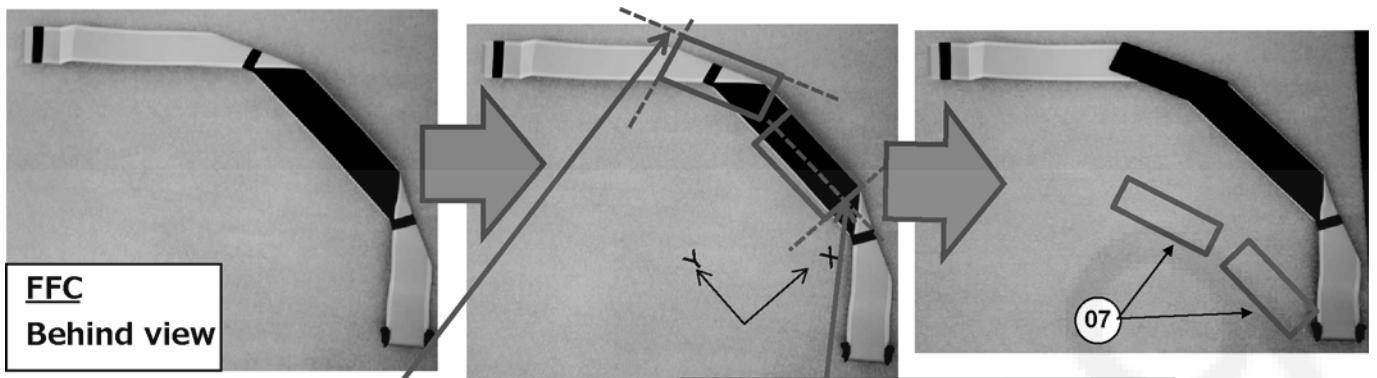


# 10 Wiring Connection Diagram

## 10.1. Wire Dressing

1. Do the wire dressing follow the diagram below.
2. Each tape sticking is detail.



**Base point of sticking the sponge**X axis : **Folding of FFC**Y axis : **End face of FFC****Tolerance range**

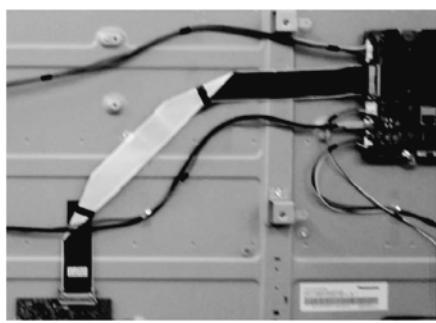
X axis : +0mm, -3mm

Y axis : +3mm, -3mm

**Base point of sticking the sponge**X axis : **Folding of FFC**Y axis : **Center of FFC****Tolerance range**

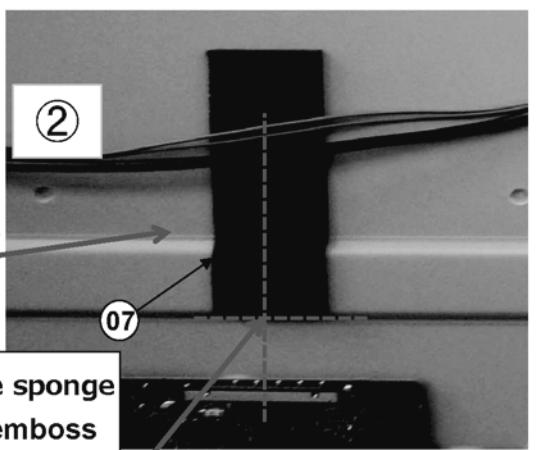
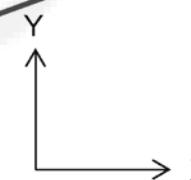
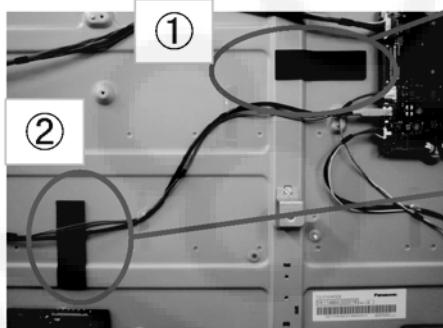
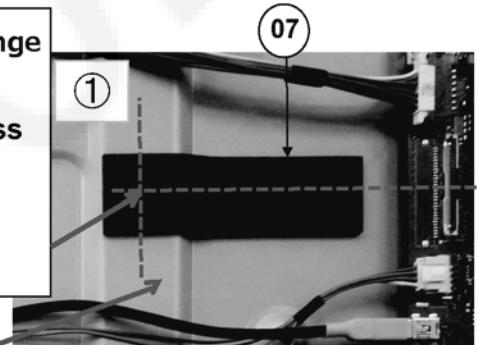
X axis : +2mm, -2mm

Y axis : +3mm, -0mm

**Base point of sticking the sponge**X axis : **Center of T-CON CN**Y axis : **Edge of Panel emboss****Tolerance range**

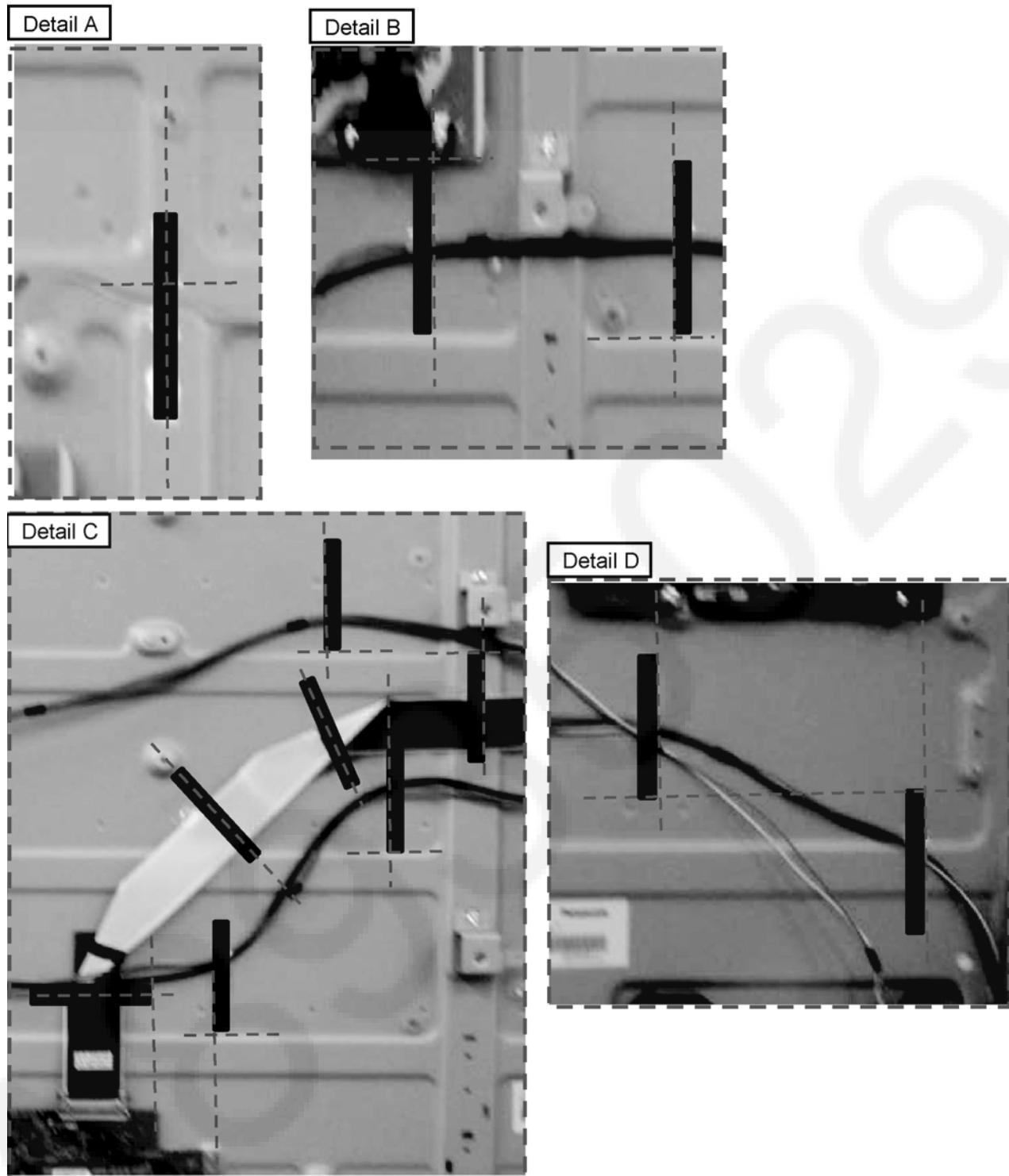
X axis : +3mm, -3mm

Y axis : +3mm, -3mm

**Base point of sticking the sponge**X axis : **Edge of Panel emboss**Y axis : **Center of T-CON CN****Tolerance range**

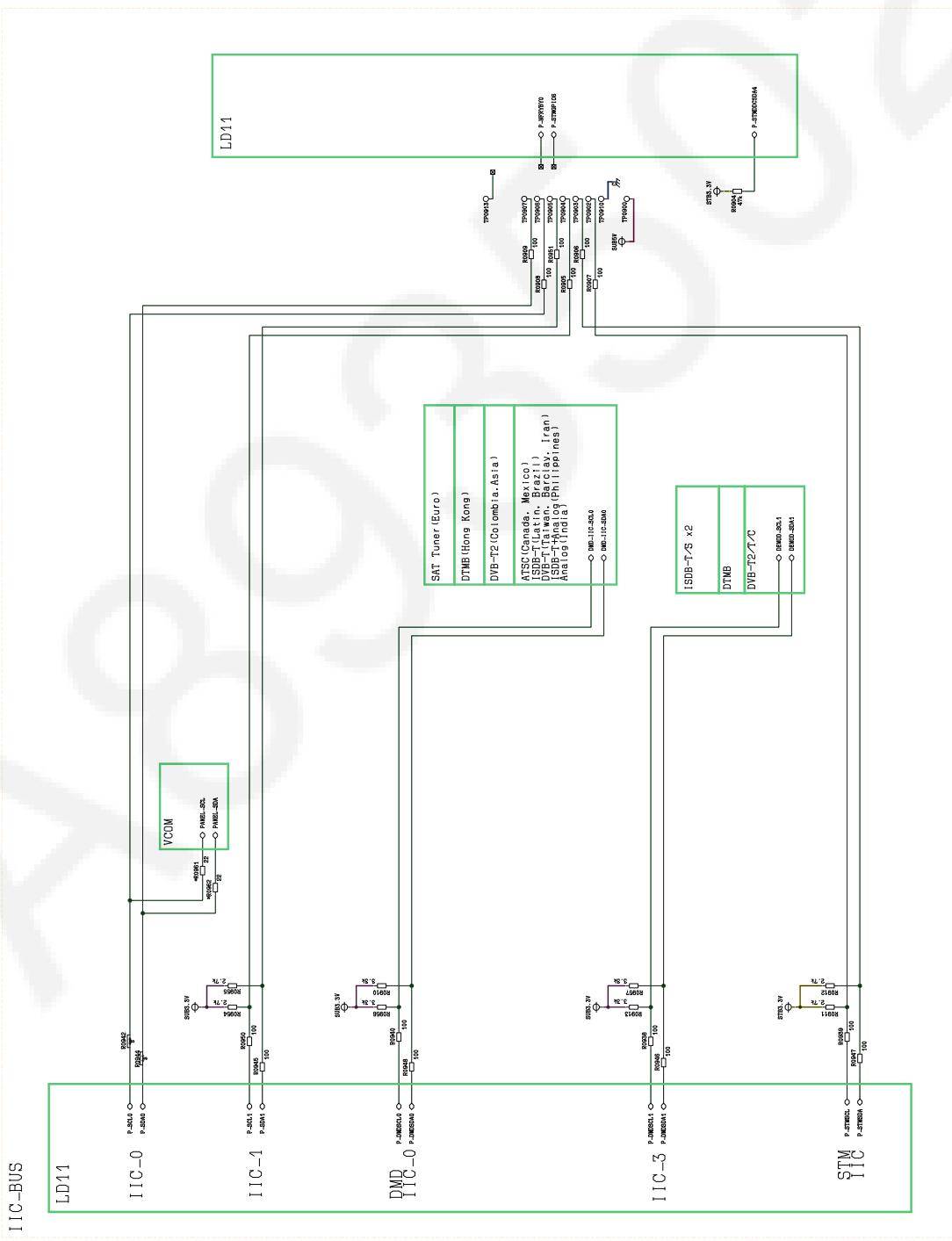
X axis : +3mm, -3mm

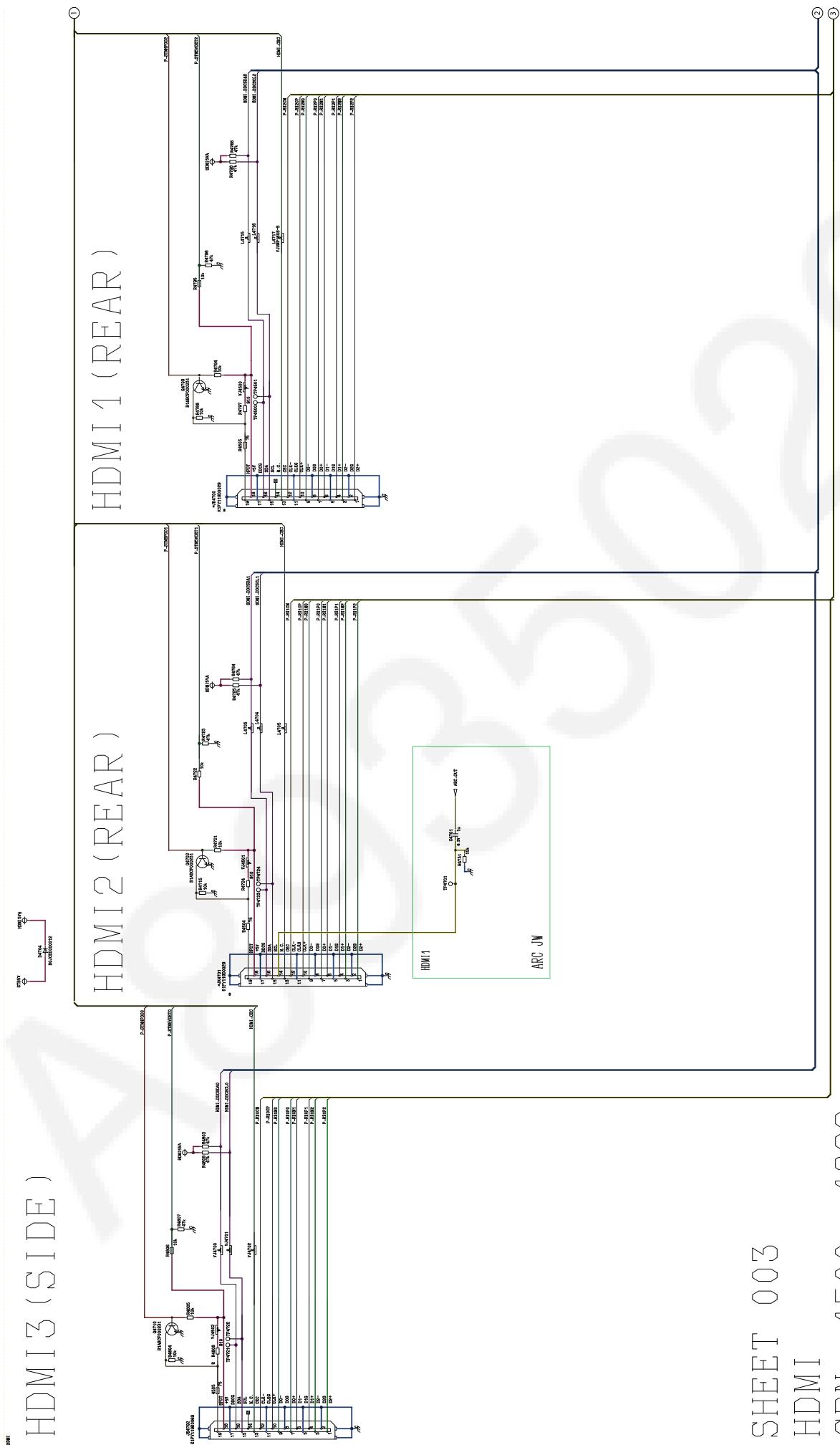
Y axis : +3mm, -0mm



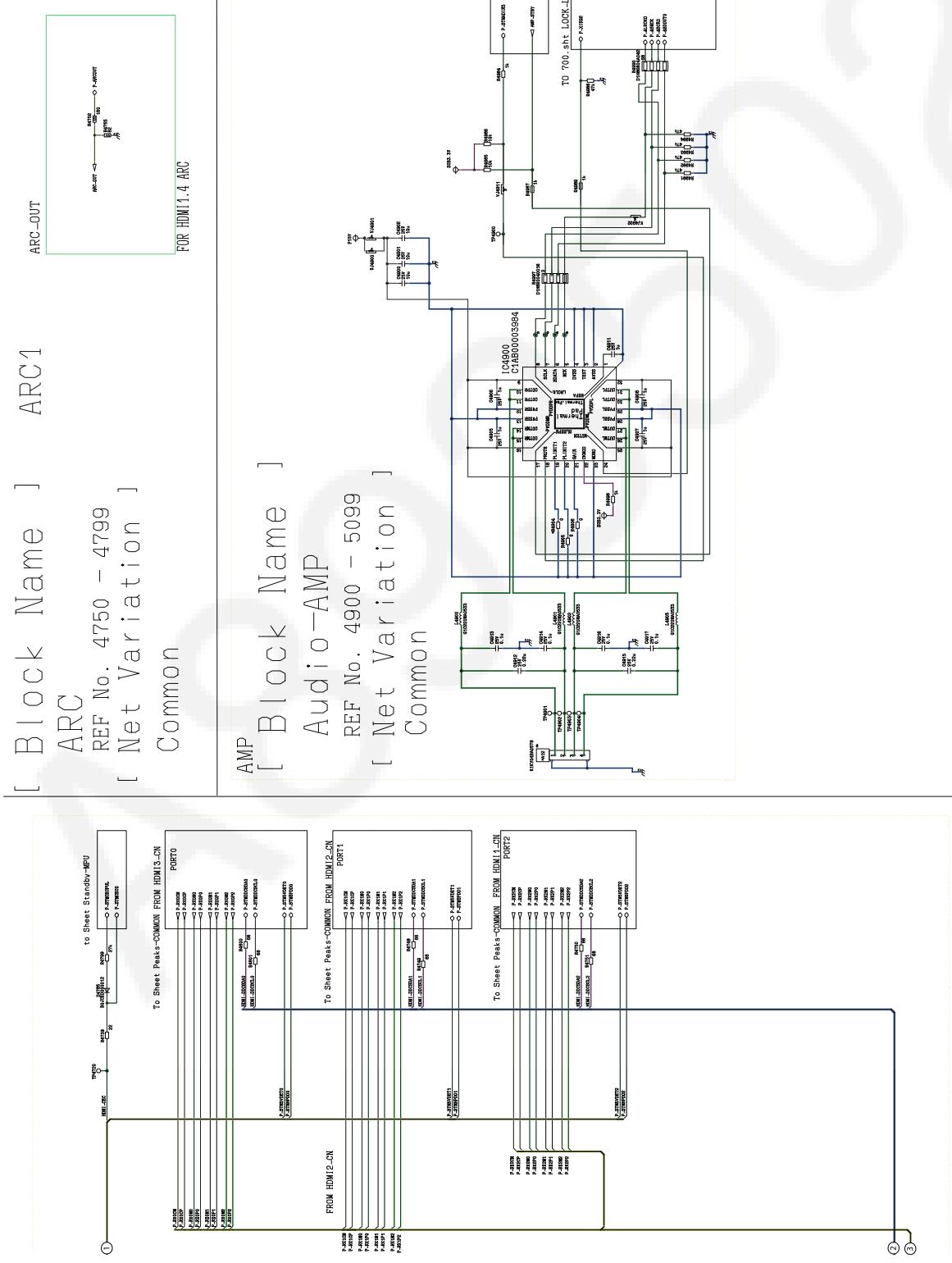
No	Description	Qty	UOM	Remarks
01	PET TAPE	0.72	MT	
02	LVDS CABLE	1	PC	
03	WIRE (A02-P2)	1		
04	WIRE (A12-SPL/ SPR)	1		
05	WIRE (A10-K10)	1		
06	WIFI DONGLE WIRE	1		
07	SPONGE	4		T3 x W25 x L85

SHEET 002

IIC  
CRNO : 0900 - 0999



SHEET 003  
HDMI  
CRNO : 4500 - 4899



# SHEET 004

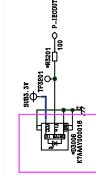
## TANSHI /AVSW

REF No. 3000 - 3299

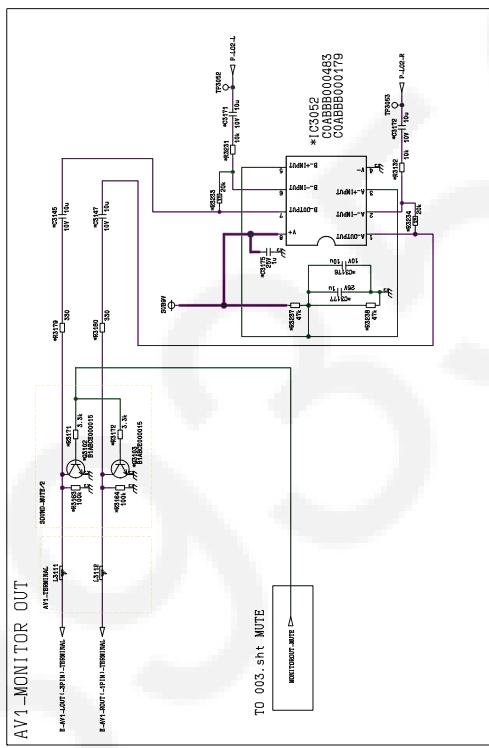
[ Net Variation ]

Common

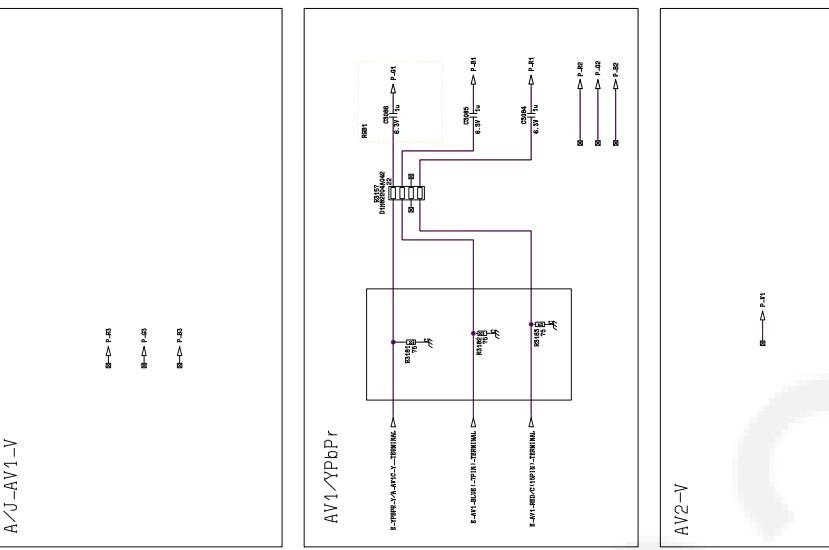
OPTICAL-OUT



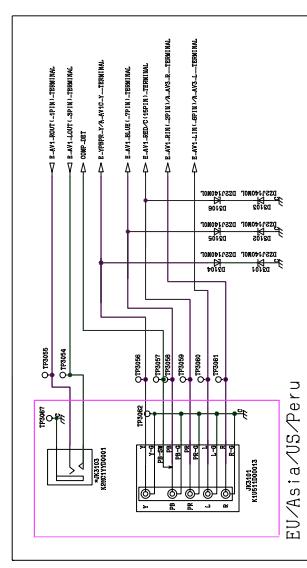
AUDIO-OUT



VIDEO-IN

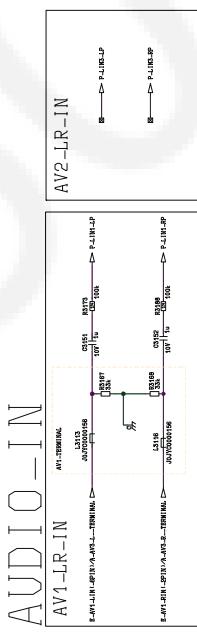
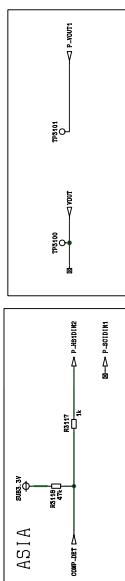


AV1 STRAIGHT

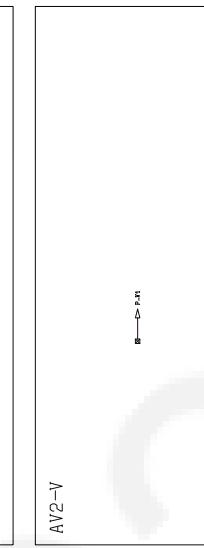


EU/Asia/US/Peru

VIDEO-DET VIDEO-OUT



AV2-V



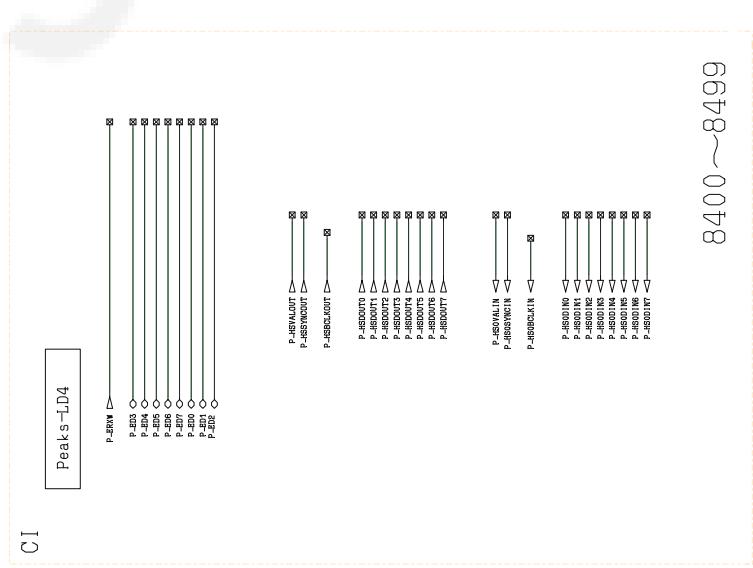


SHEET  
[ C ]

REF No. 8400 - 8499

[ Net Variation ]

Common



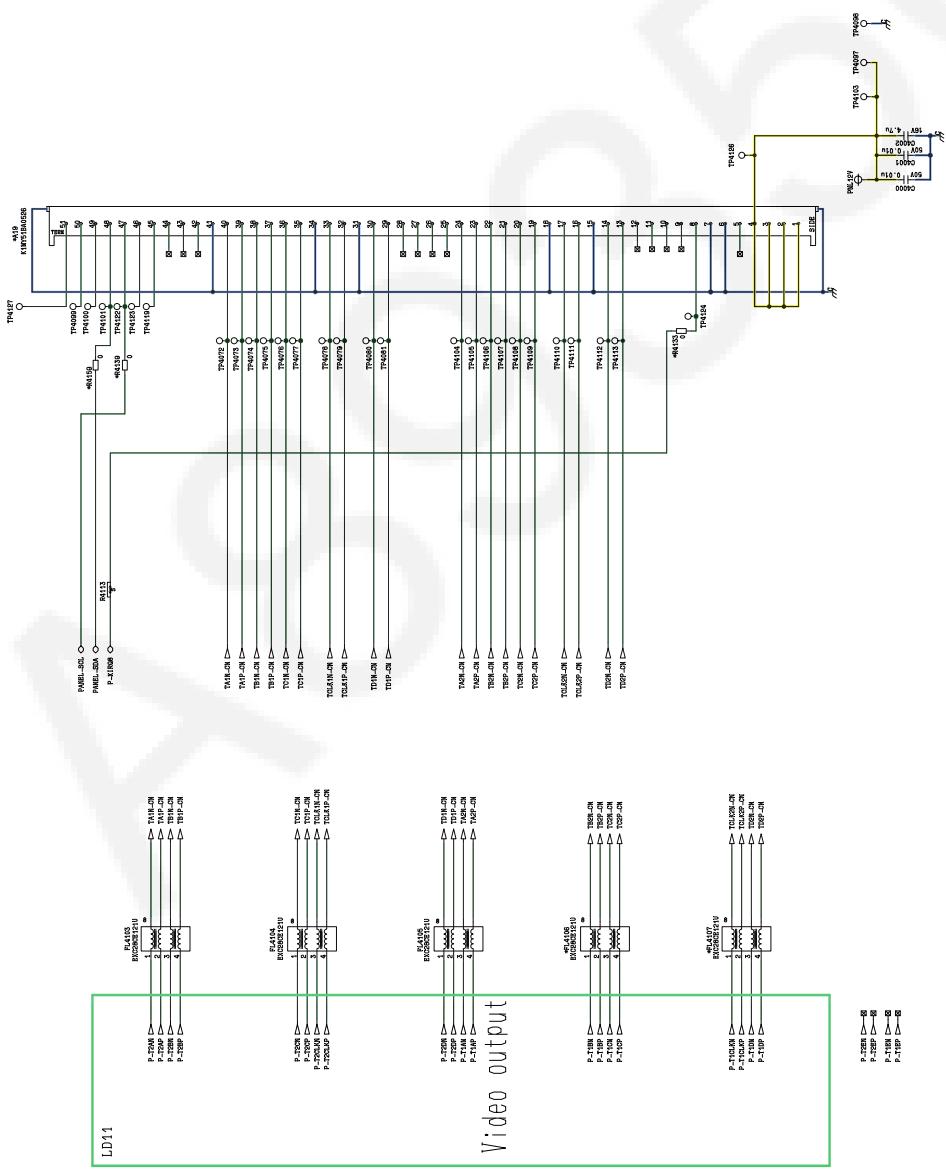
[ Block Name ]  
B-CAS

REF No. 2700 - 2799  
[ Net Variation ]



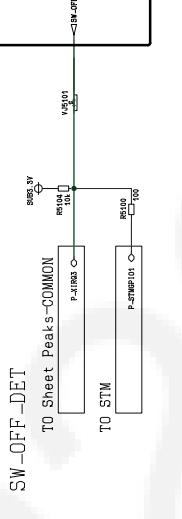
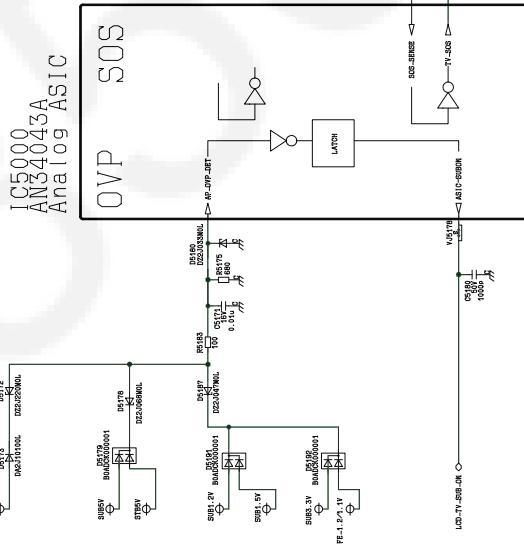
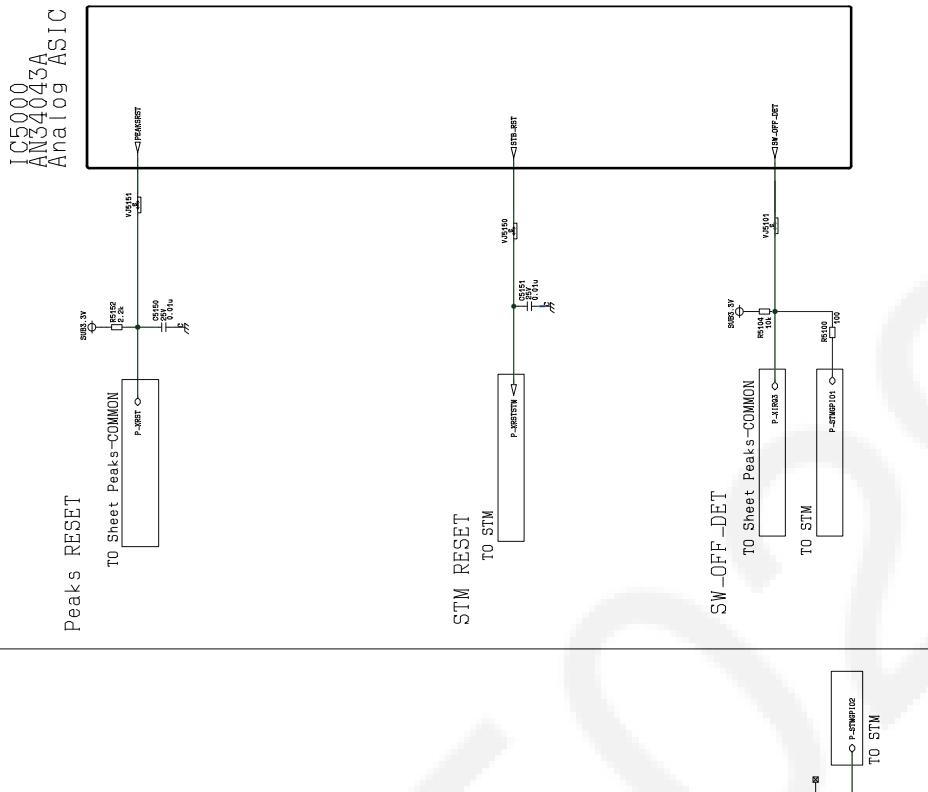
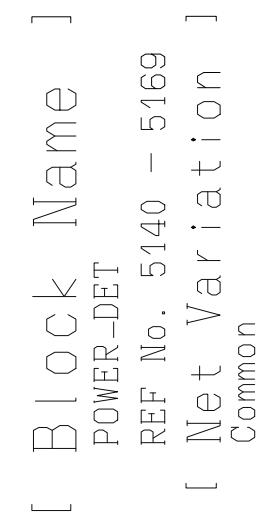
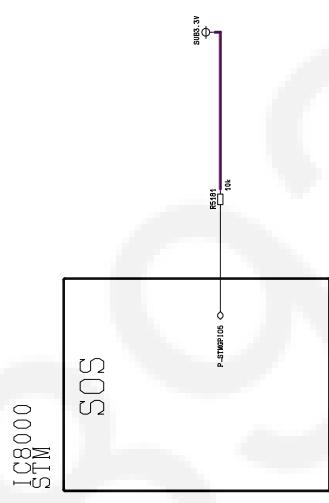
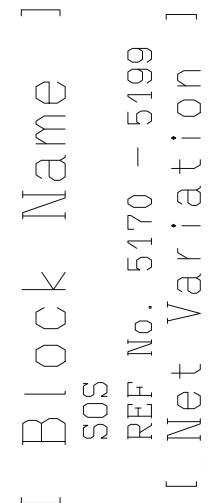
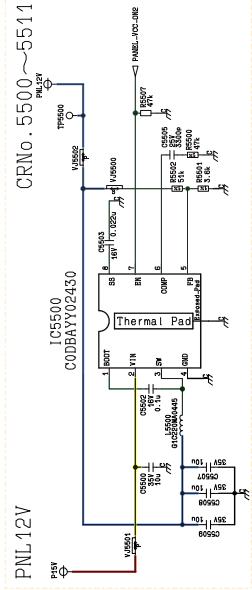
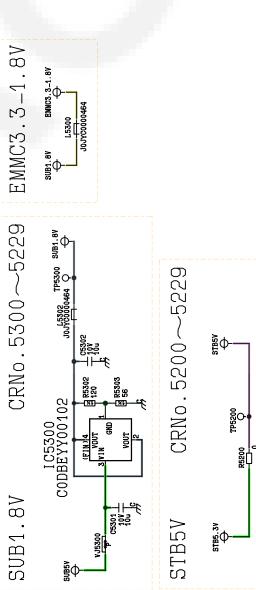
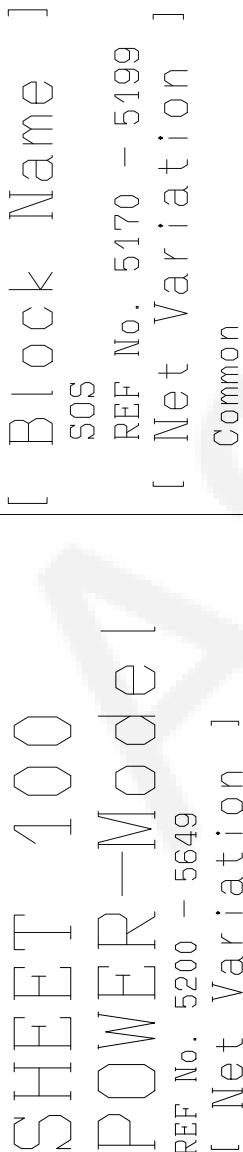
SHEET L V D S - I F / T - C O N

REF No. 4000 - 4199



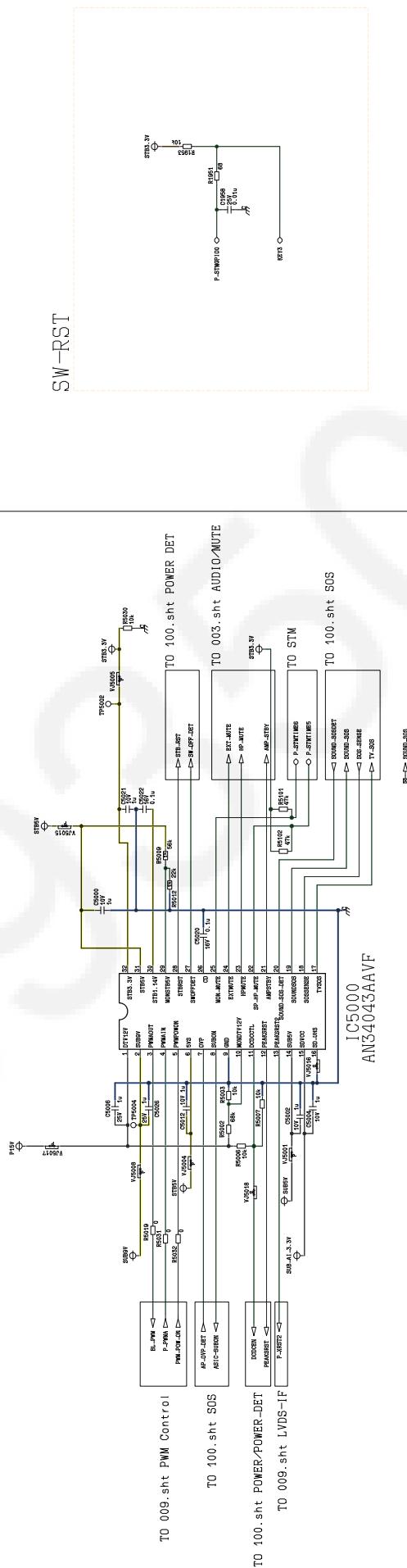
V<sub>DD</sub> 12V  
P-AUDIO IN → P-AUDIO OUT

LD11



[ Block Name ]  
 Analog ASIC  
 REF No. 5000 – 5139  
 [ Net Variation ]  
 Common

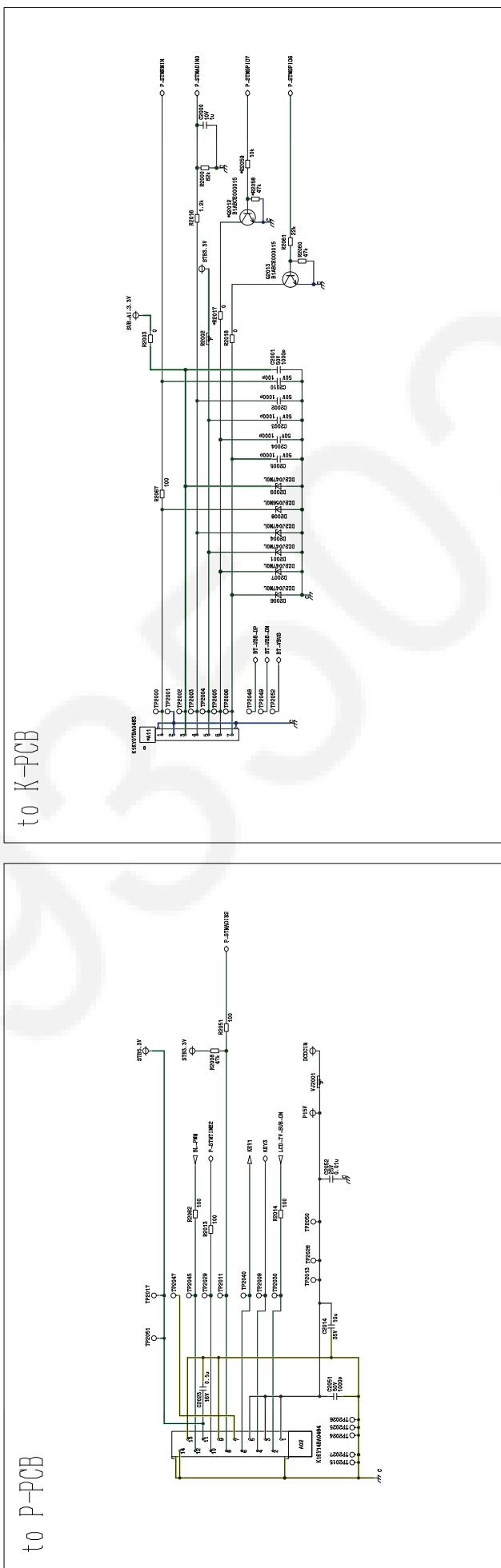
[ Block Name ]  
 POWER KEY RESET  
 REF No. 1951 – 1999  
 [ Net Variation ]  
 Common  
 NonUse



SHEET 101  
SET

REF No. 2000 - 2299

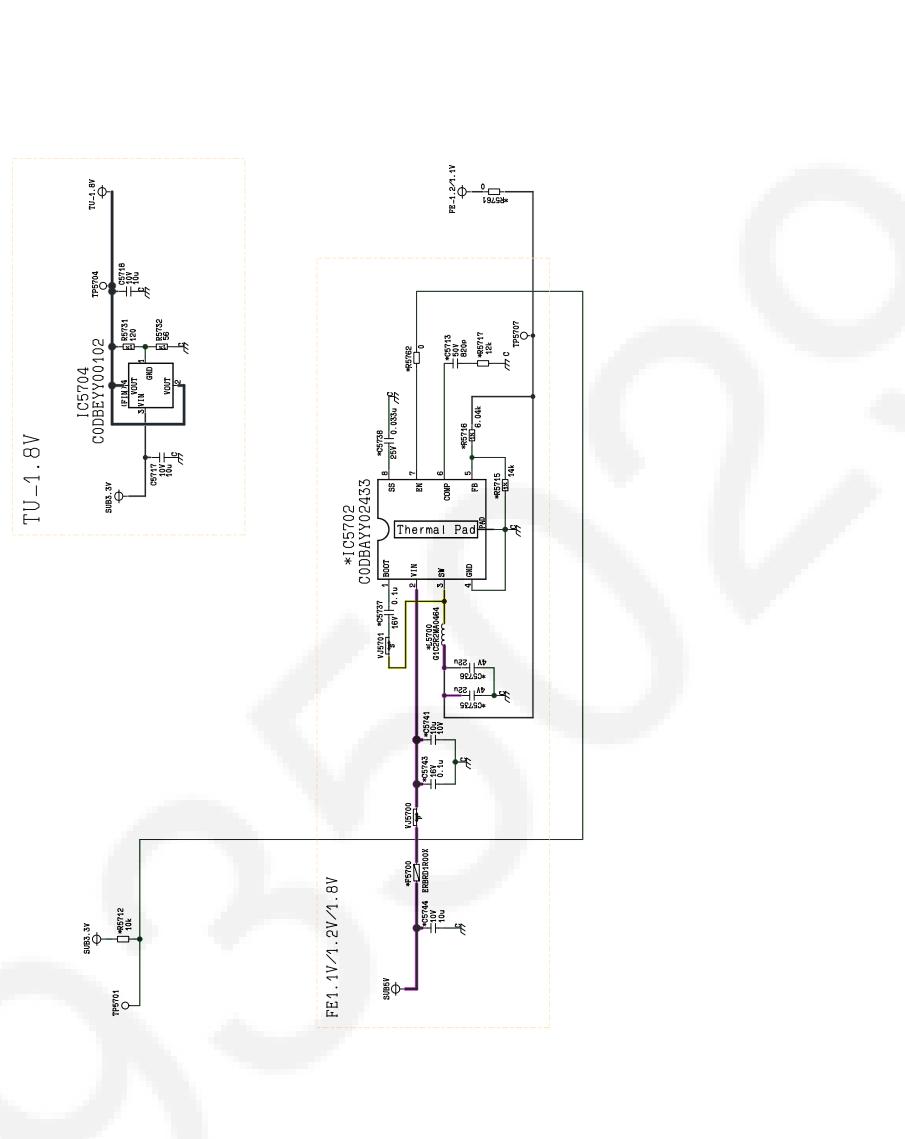
[ Net Variation ]



SHEET 102  
POWER FOR TU+FE

REF No. 5700 - 5899

POWER-FE



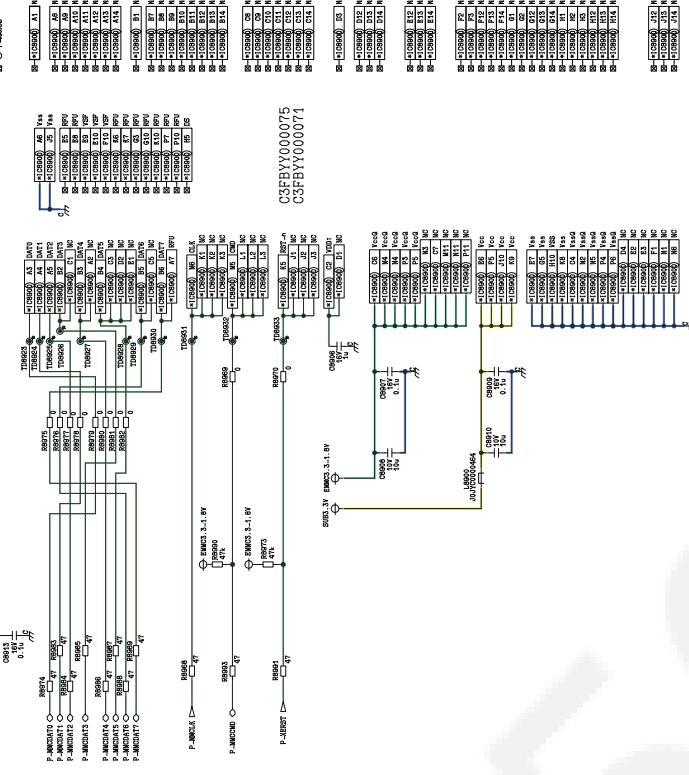
# SHEET 300

## COMMON-NAND/SPC/E-EPPROM/JTAG

eMMC

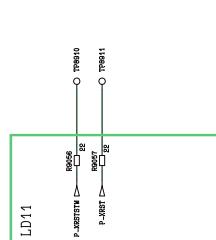
[e-MMC 4GB]

0.1uF



SUPPORT-CARD

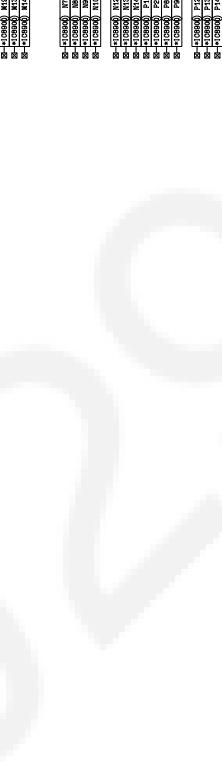
EX-BUS

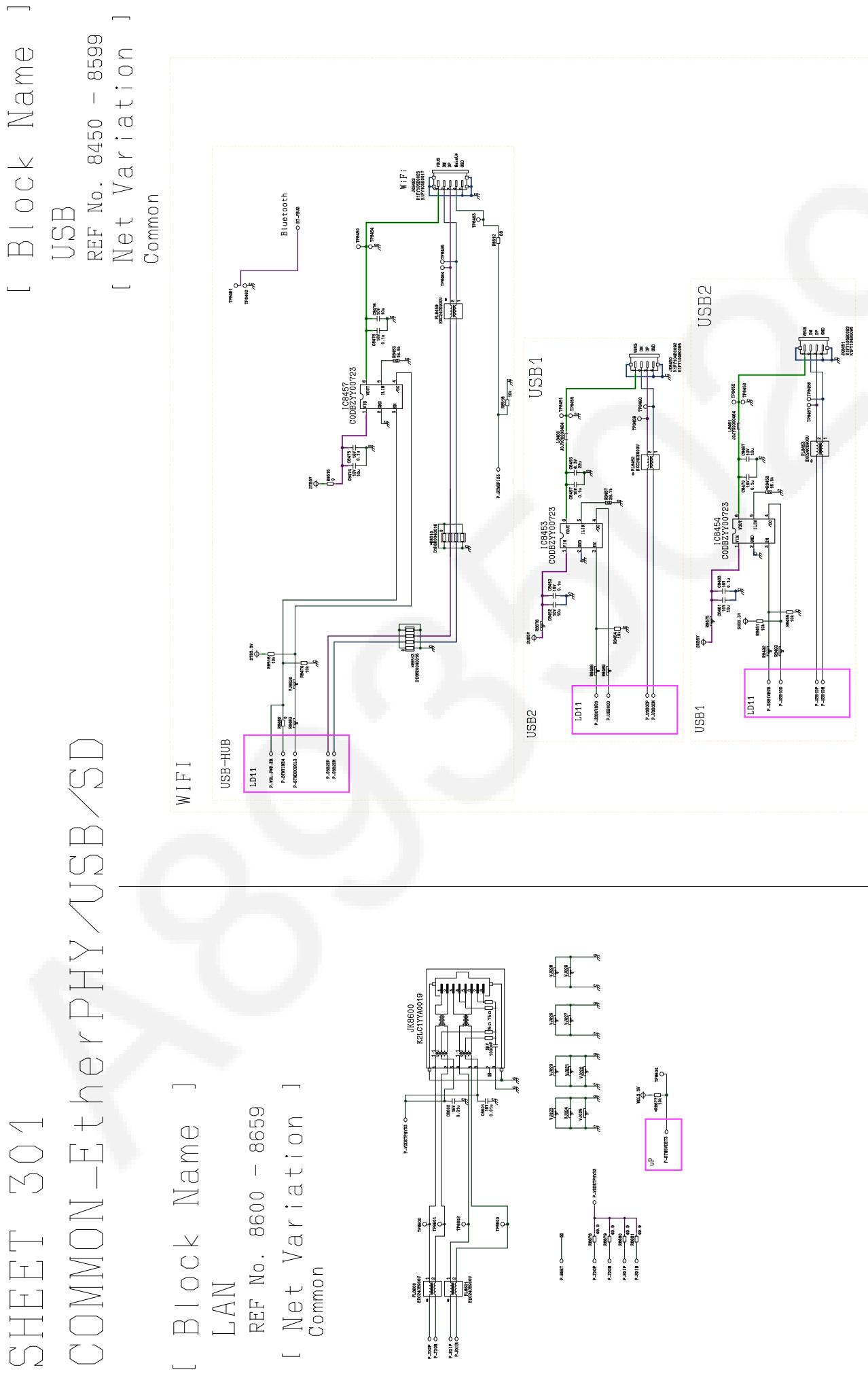


UART Ch0



STM Serial

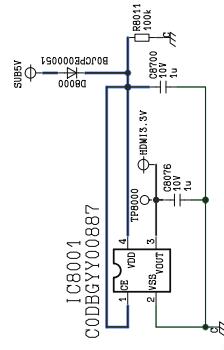




# SHEET 302 POWER-Peaks

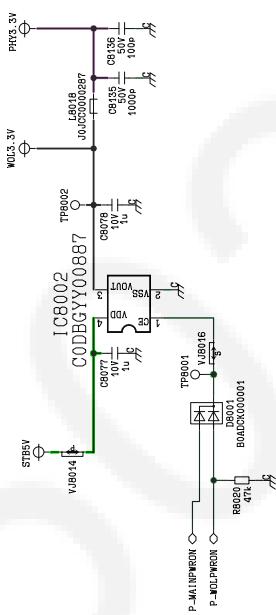
REF No. 8000 - 8999

AVDDH3 . 3V

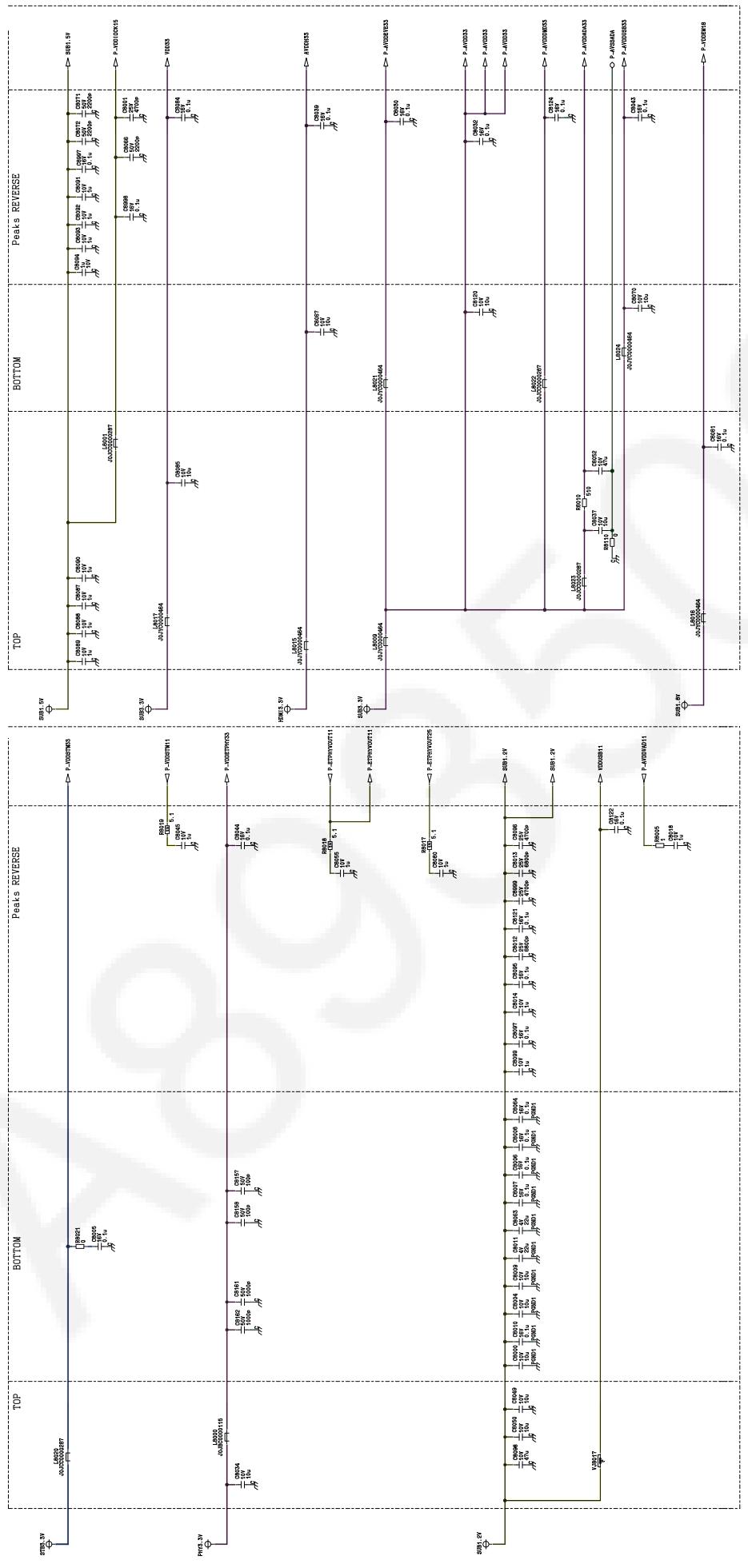


HDMI

PHY3 . 3V



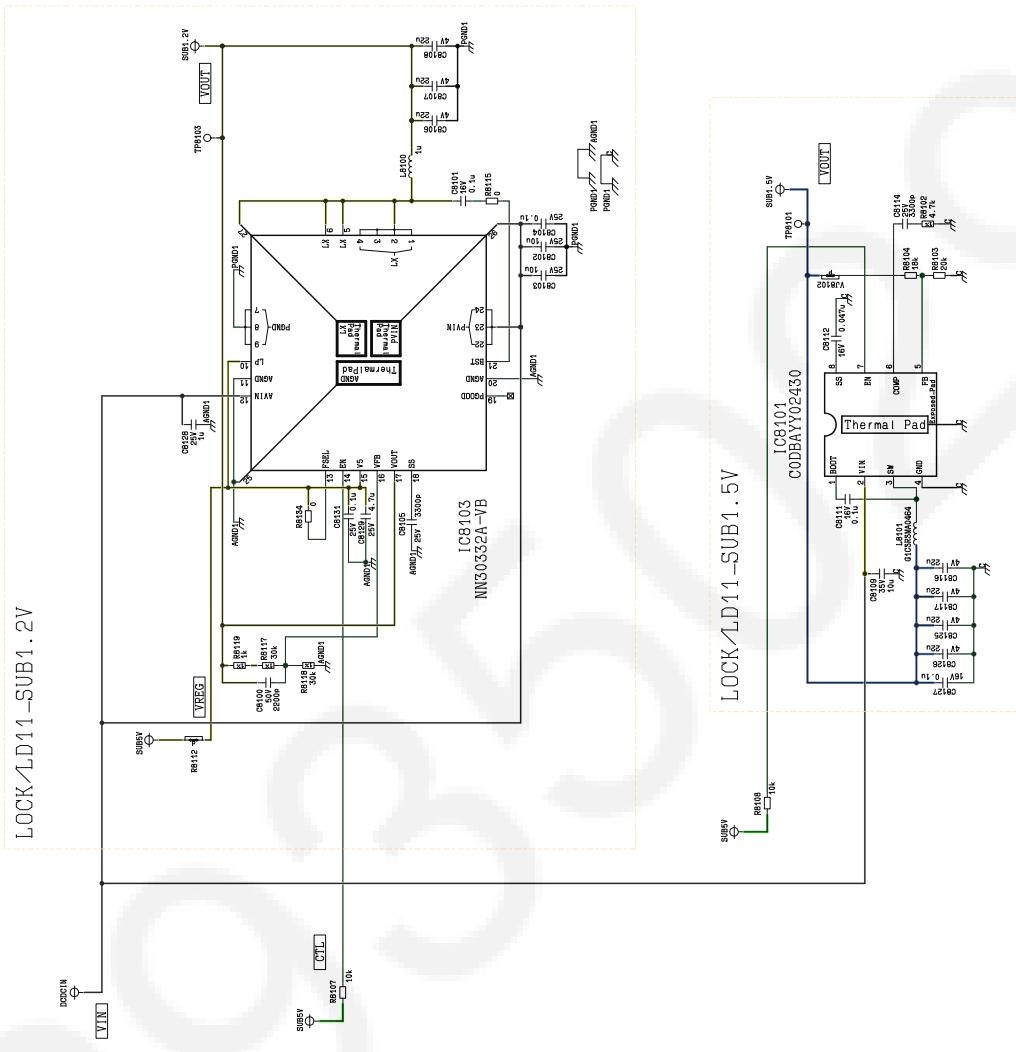




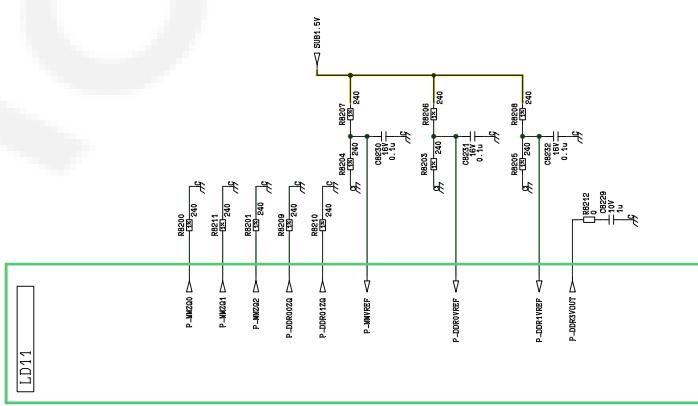
SHEET 701  
LOCK-PEAKS-POWER  
CRNo : 8001 - 8099

SHEET 702  
 LOCK-PEEKS-DCC  
 CRNo : 8100 - 8199

LOCK/LD11-SUB1.2V



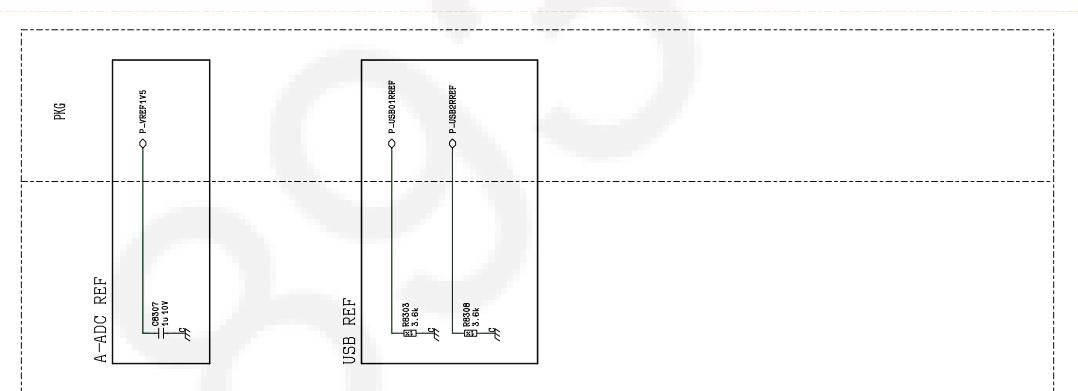
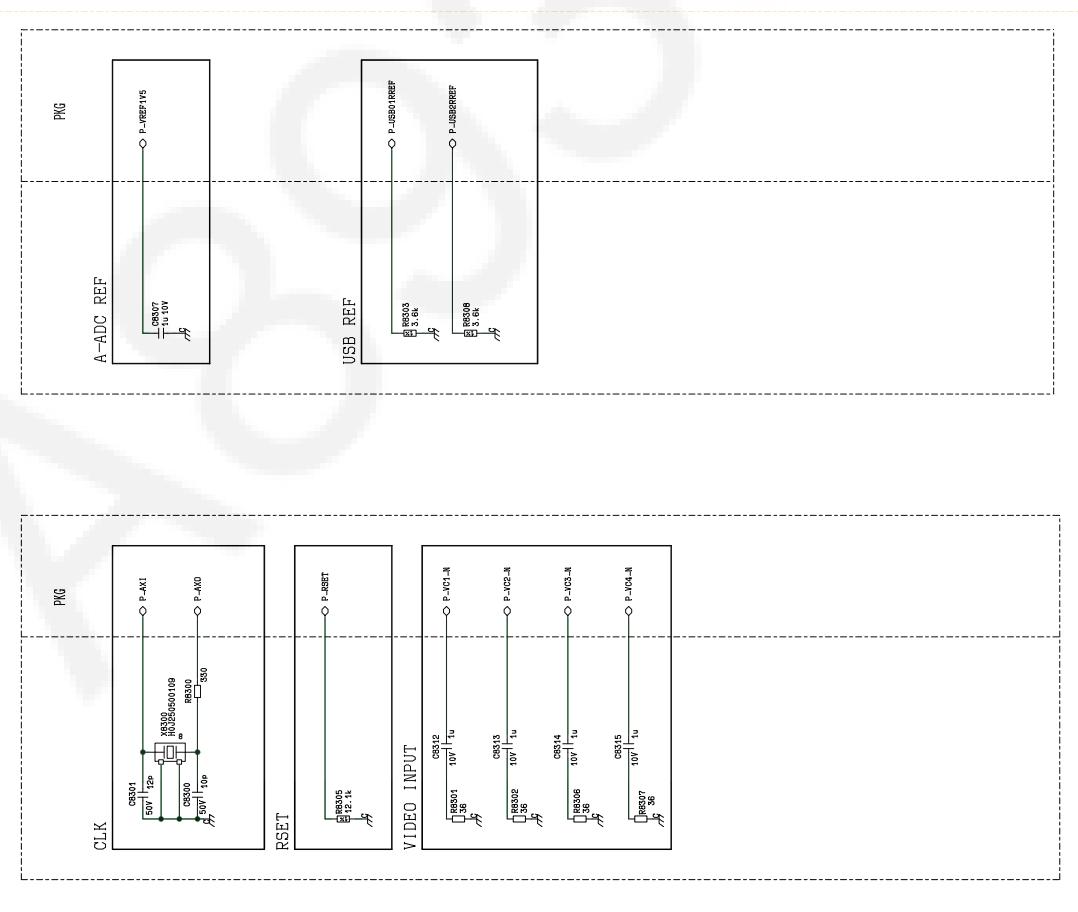
SHEET 703  
LOCK-DDR3  
CRN0 : 8200 - 8299



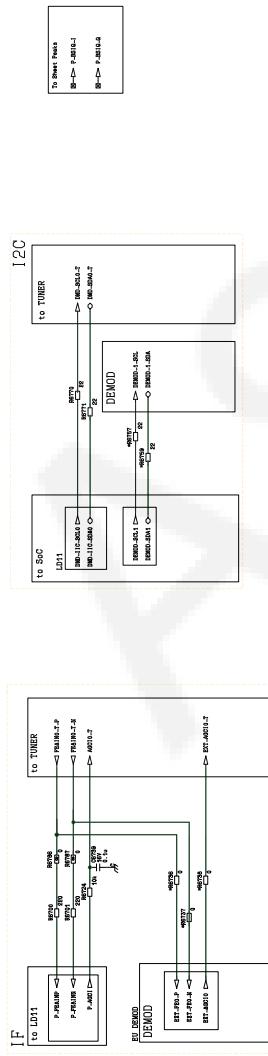
SHEET 704  
LOCK-PEAKS-DEST

CRNo : 8300 - 8399

LOCK/LD11-DEST



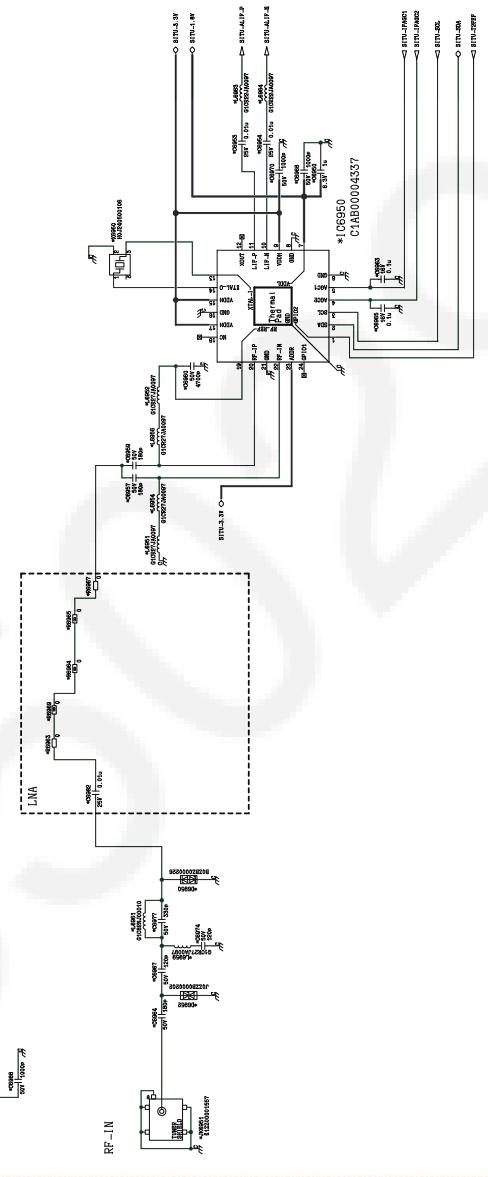
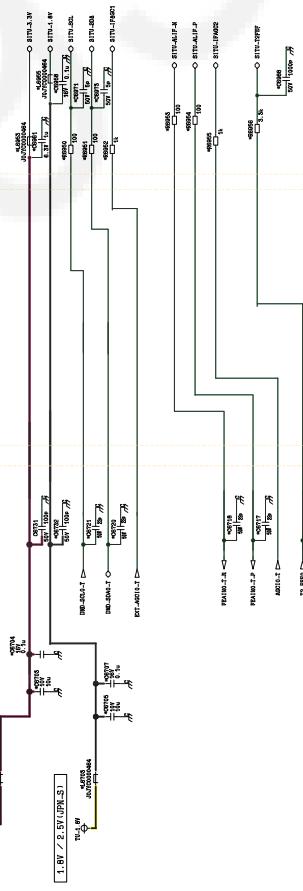
**SHEET 706**  
**TUNER**  
CRNo : 6700 - 6999



ONBOARD

**Si2151**

MAIN-TUNER



SHEET 707

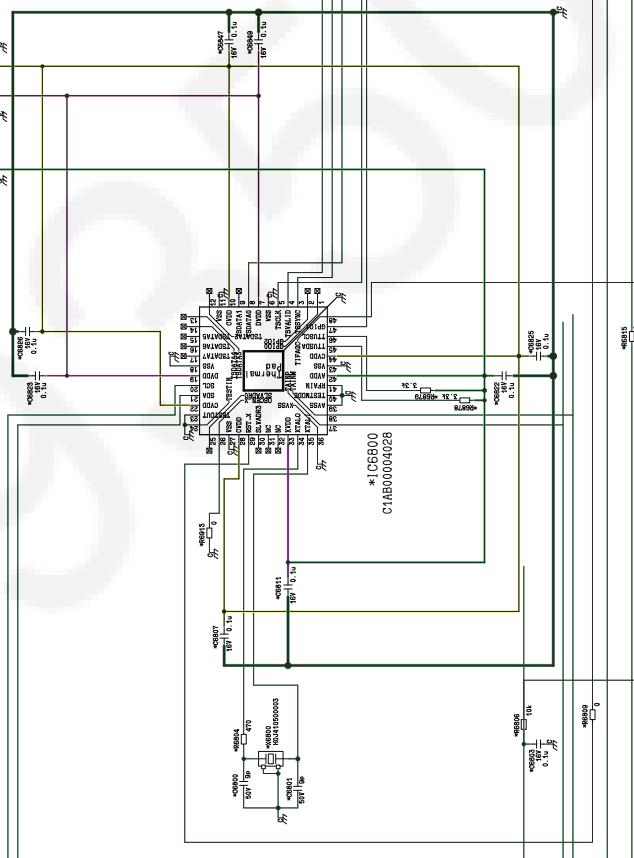
Demod

CRN<sub>0</sub> : 6800 - 6999

Demod-1

ISDB-T/S-DVB-T2/T/C/S2-DTMB-JPN-W

Sheet Tuner

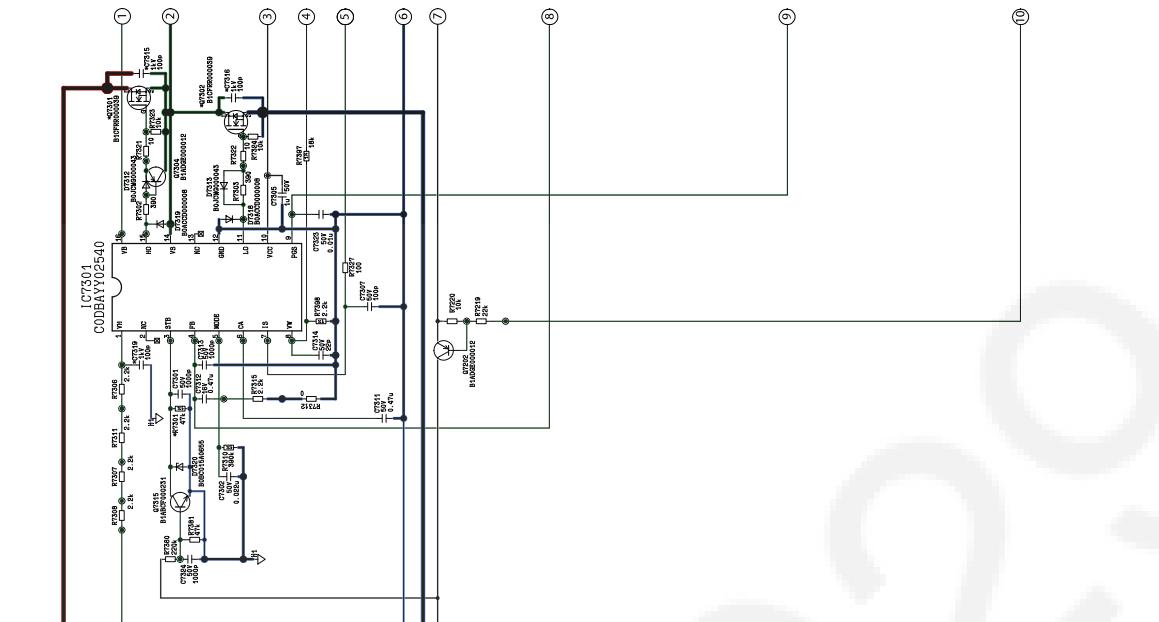


Sheet IIC

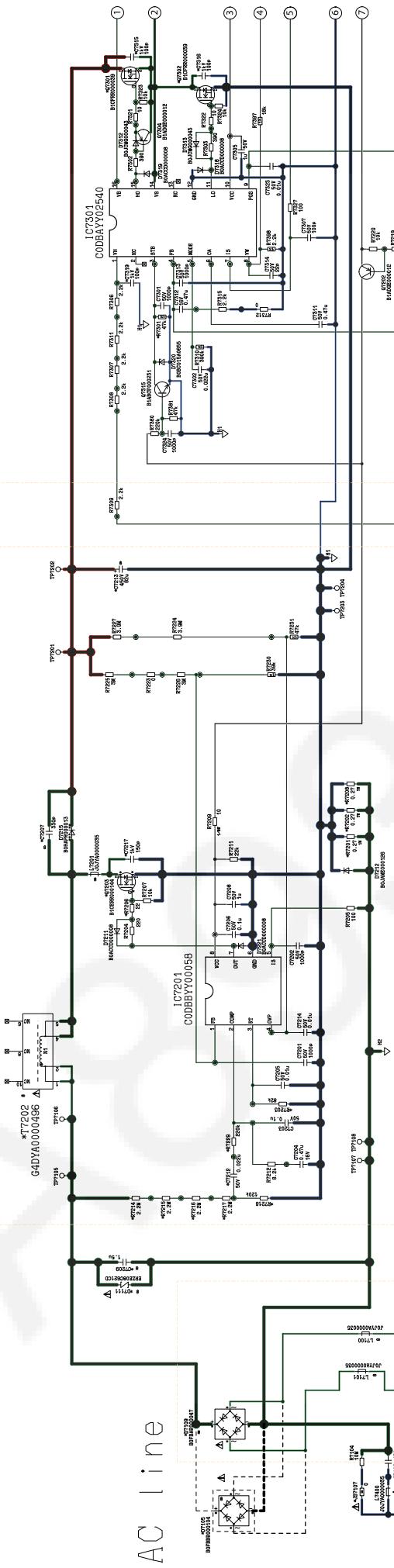
IIC

IIC

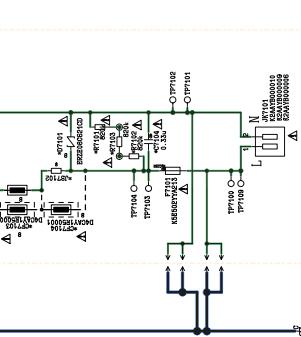
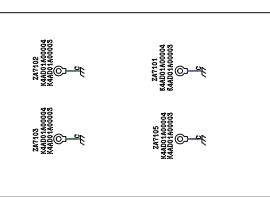
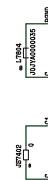
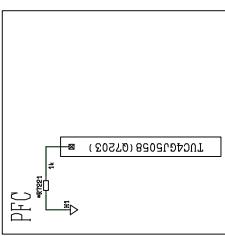
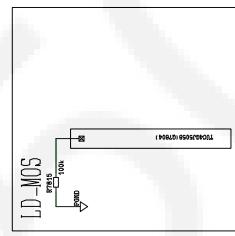
MAIN



PFC

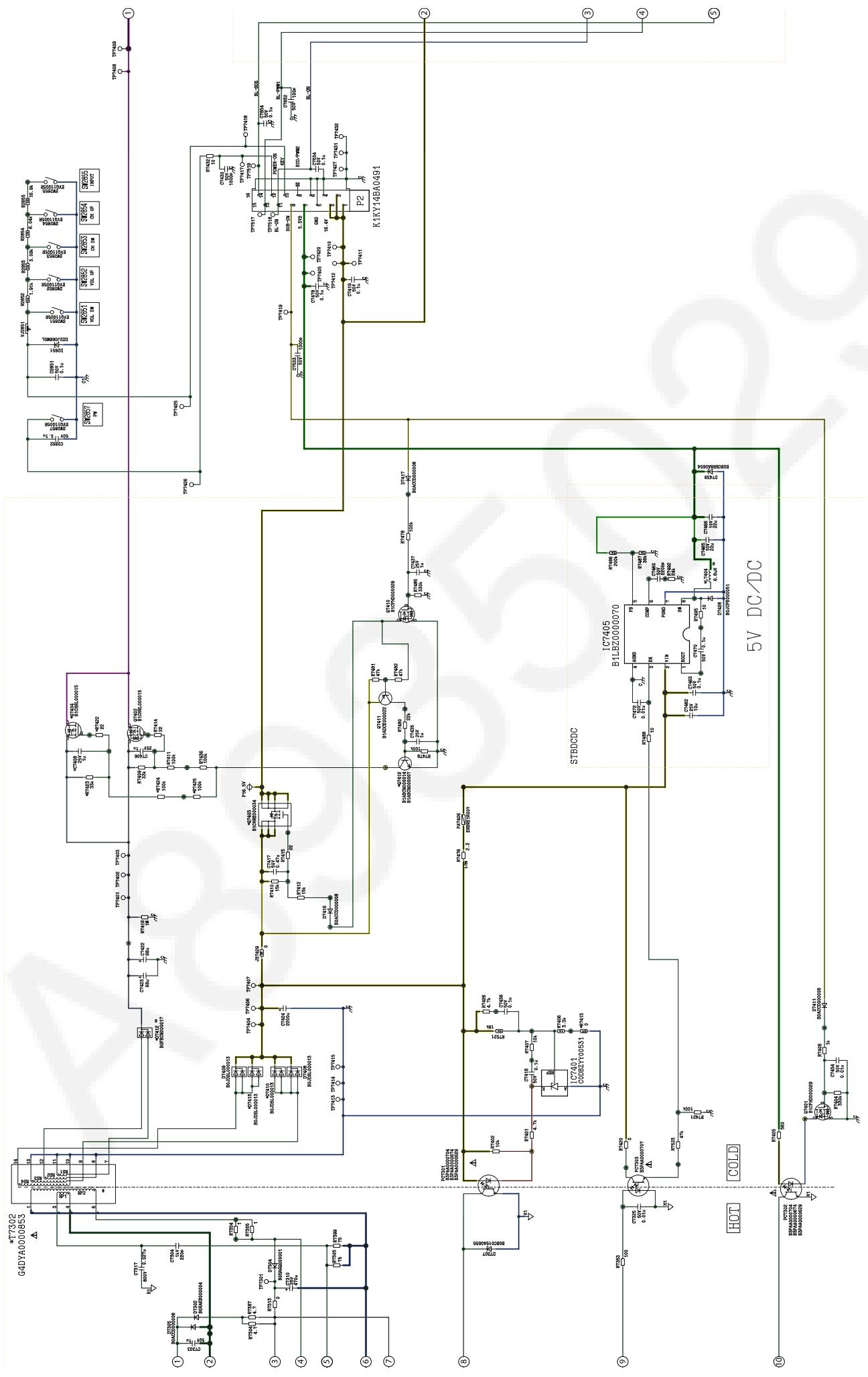


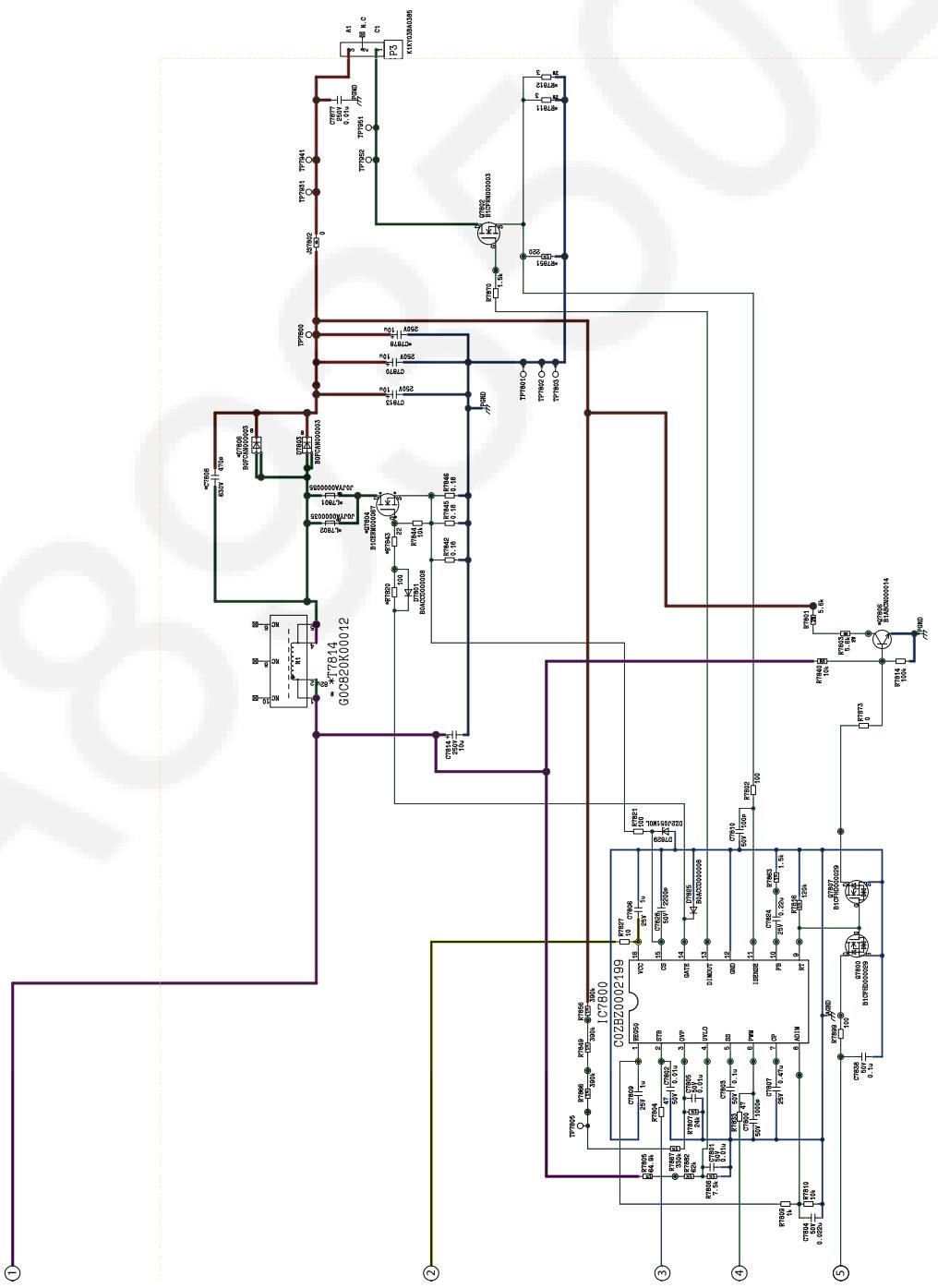
AC line



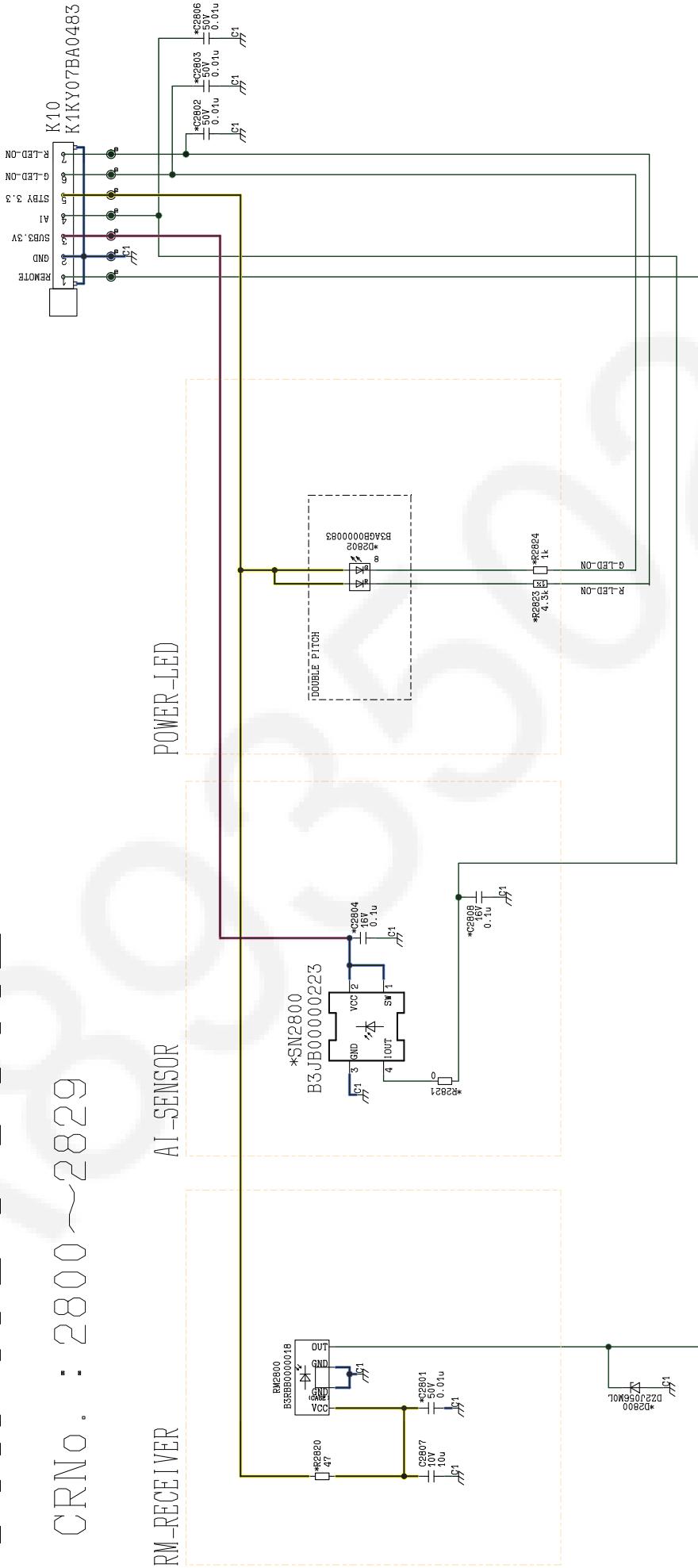
POWER BOARD  
TNPA6382

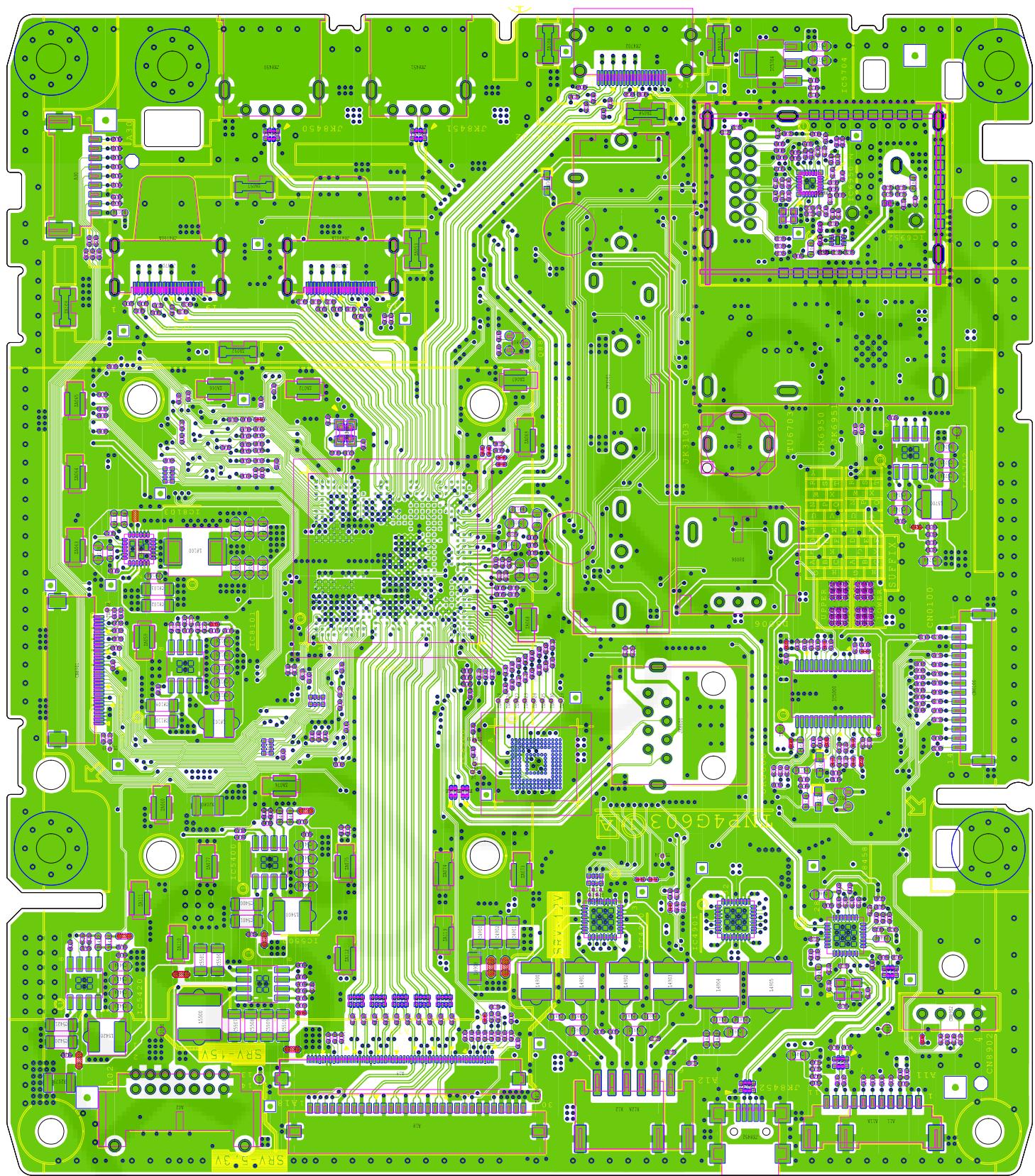
CRNo : 7800 ~

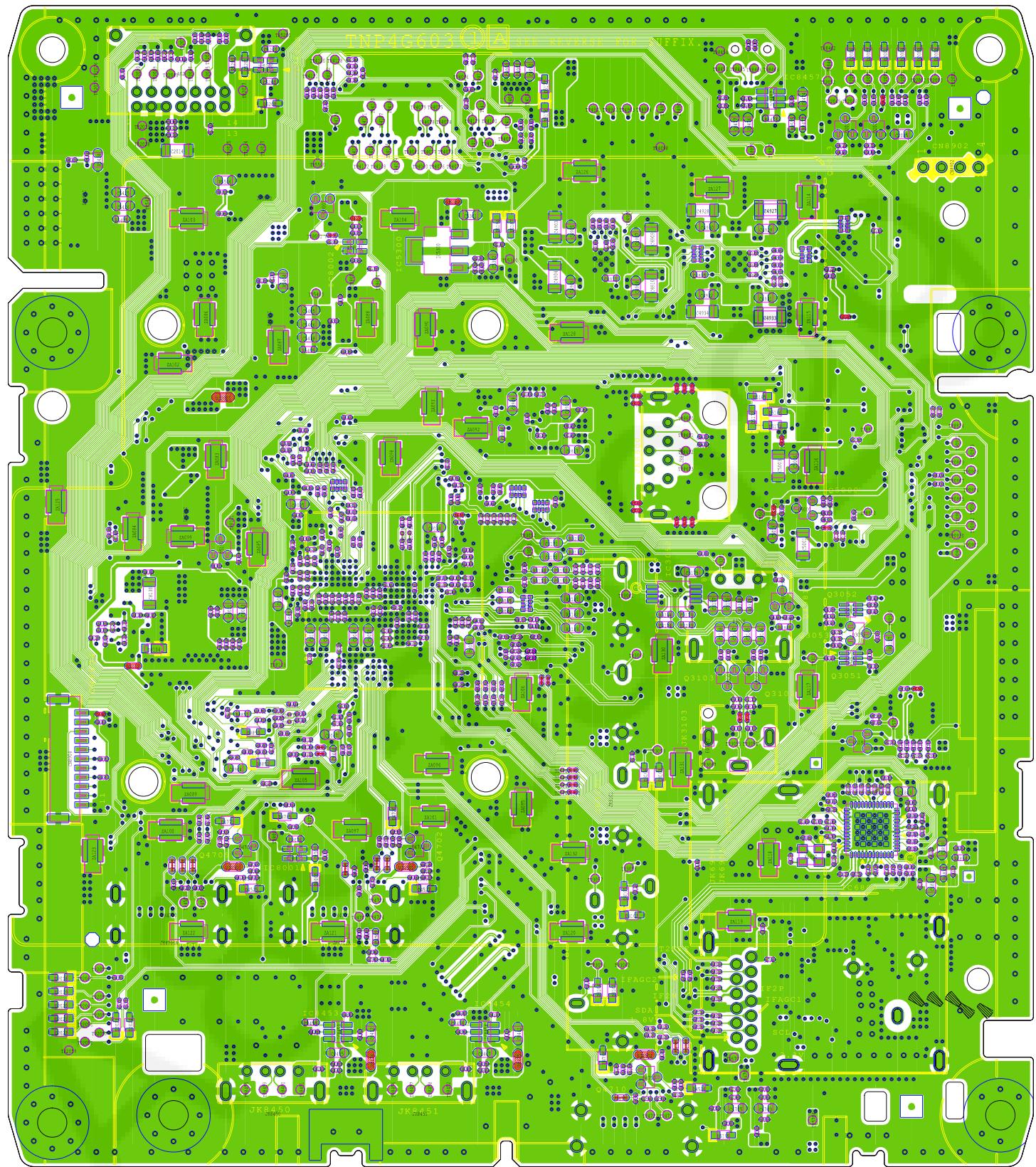


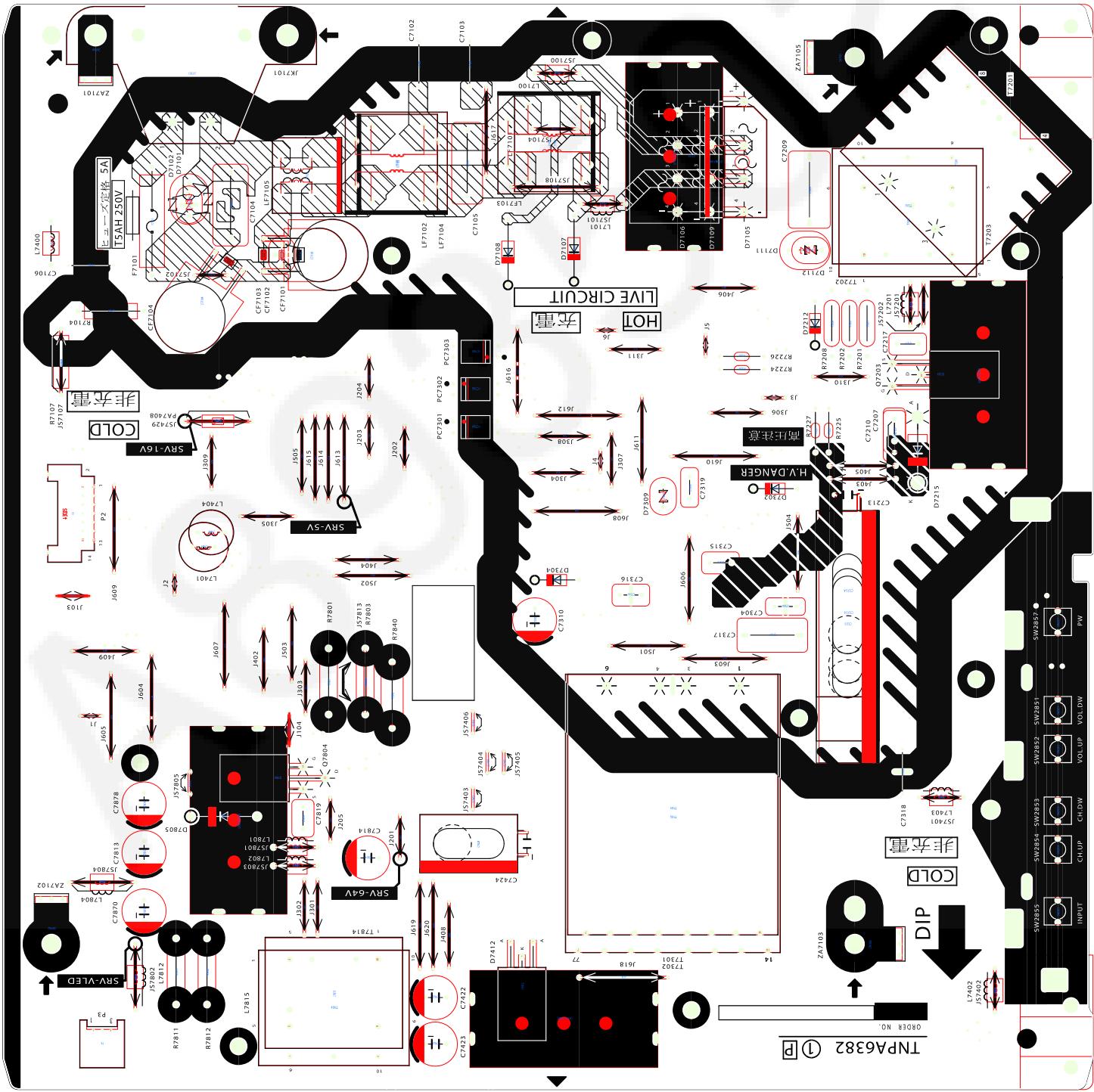


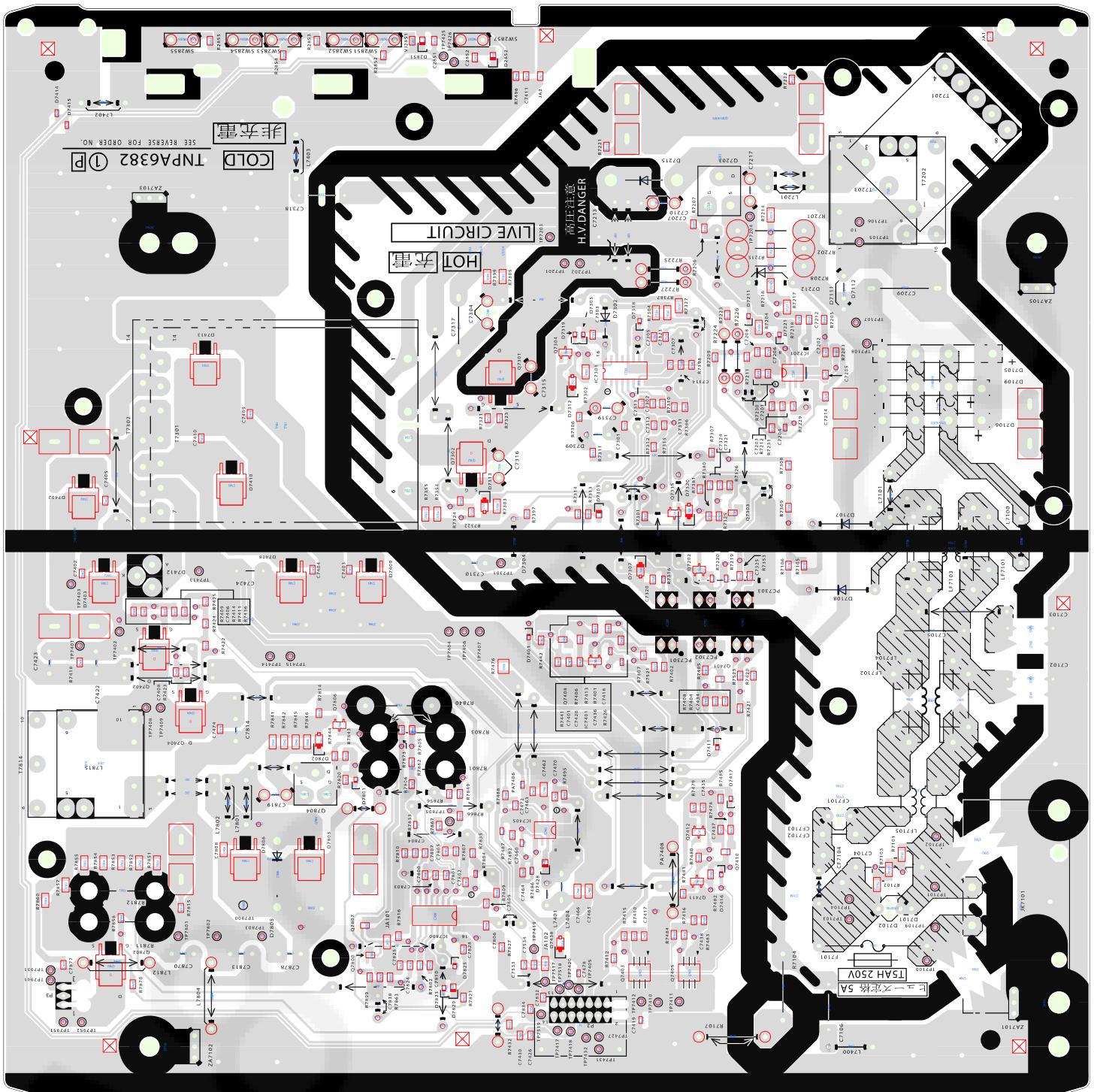
K  
B  
A  
R  
D  
T  
N  
P  
A  
6  
1  
O  
A  
CRNO. : 2800~2829



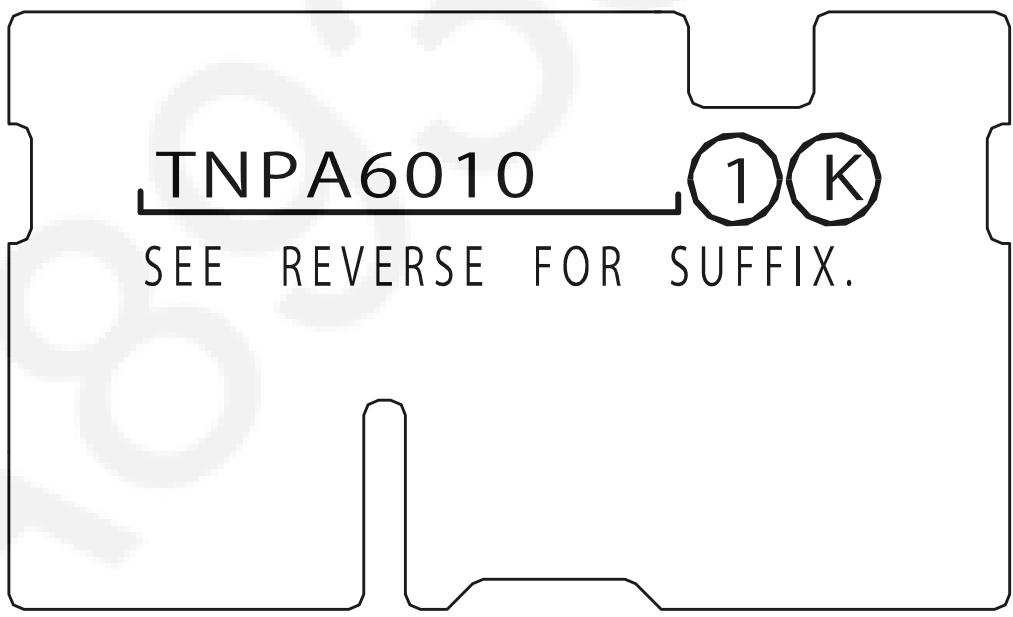
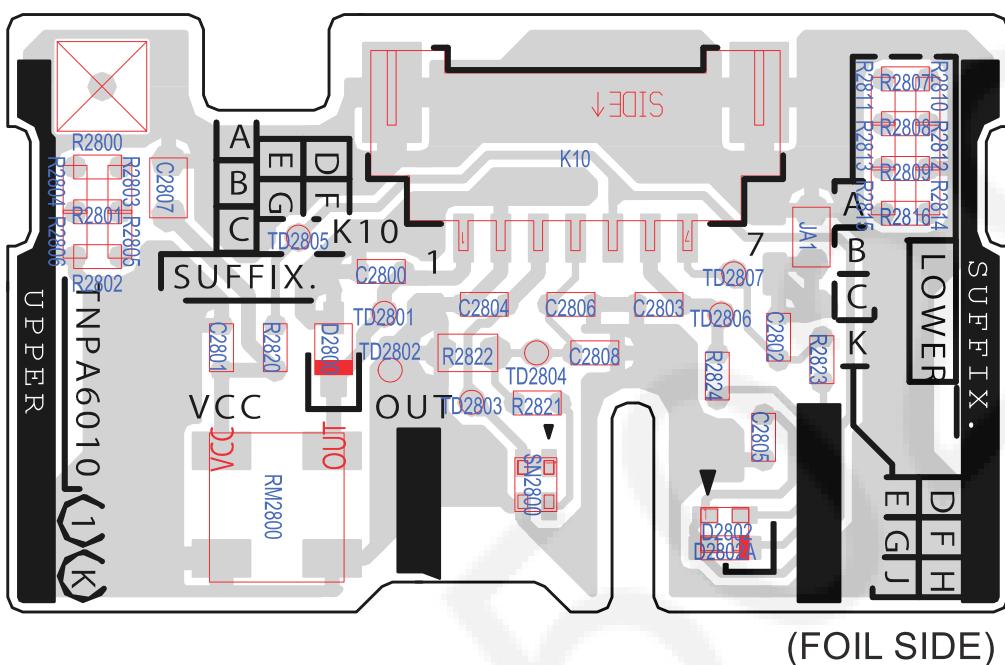


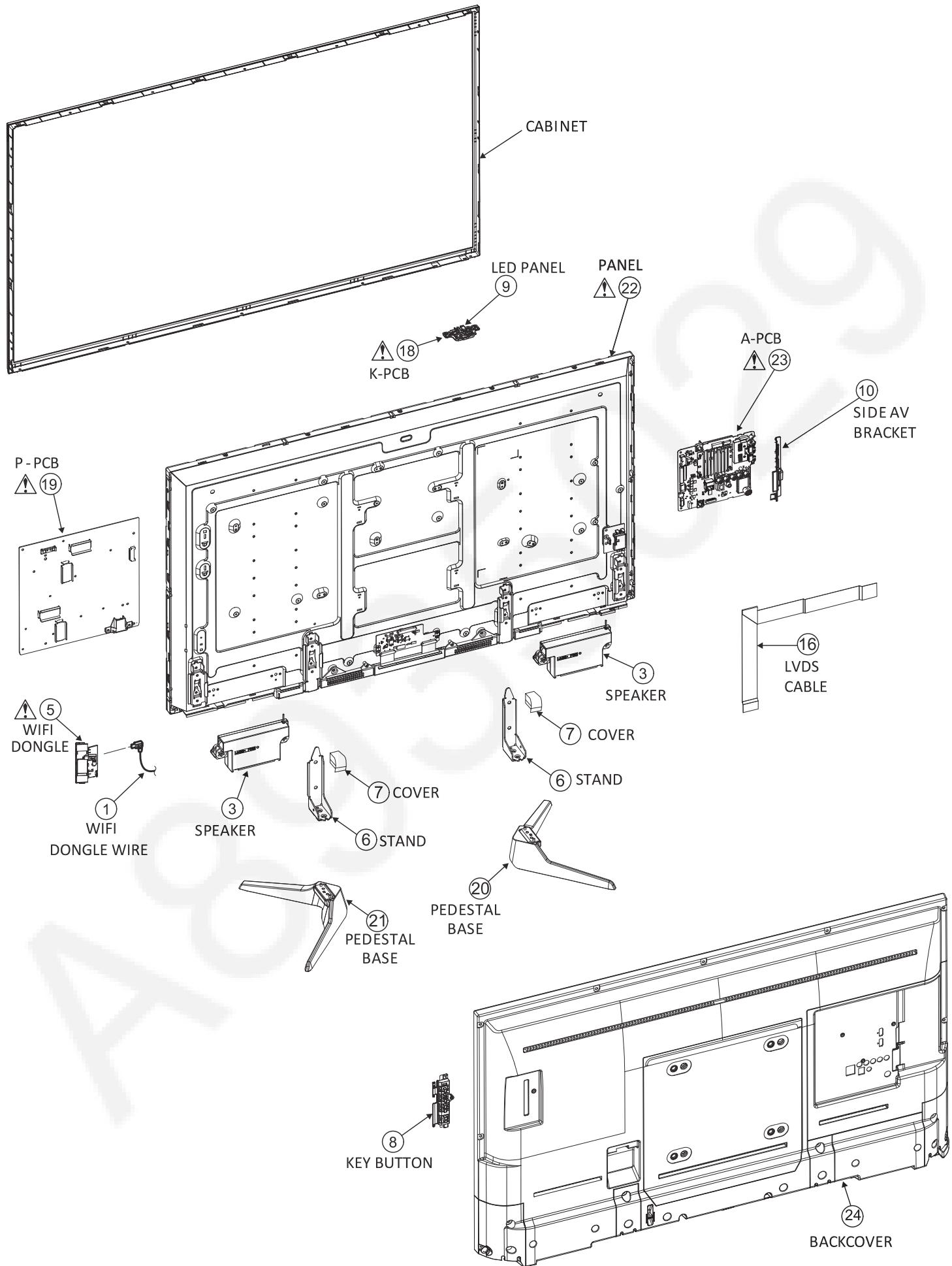






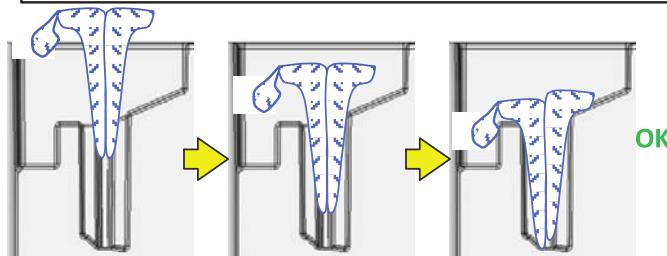
## K-BOARD



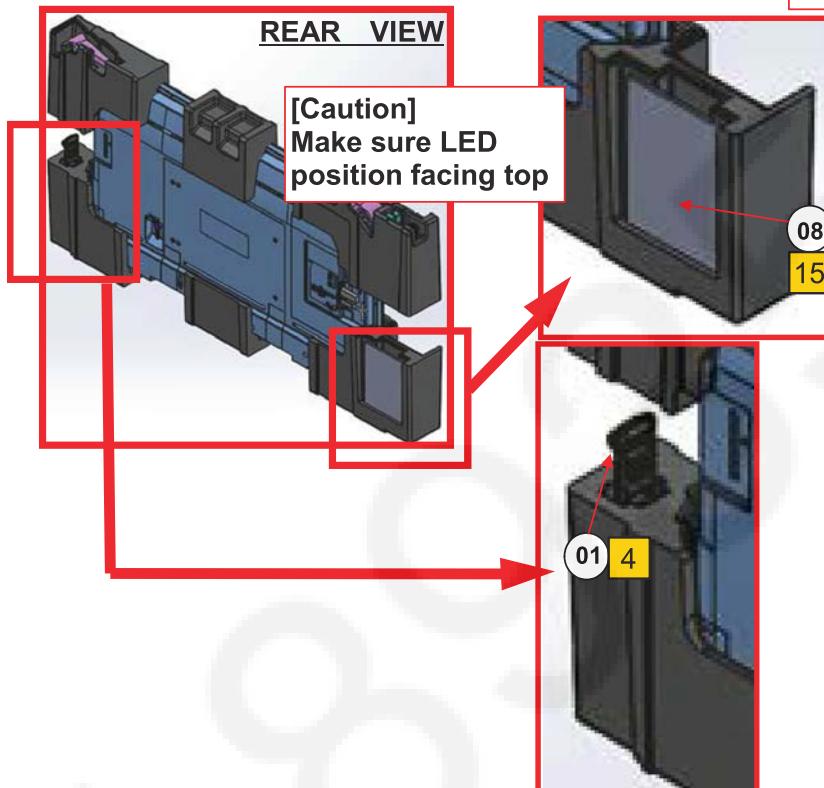
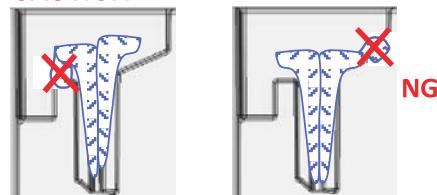


ASSEMBLY CONTENTS :

1. Follow all the sequence and arrangement for place accessories.
2. There are several item need to special arrangement position like fanbag and remote.

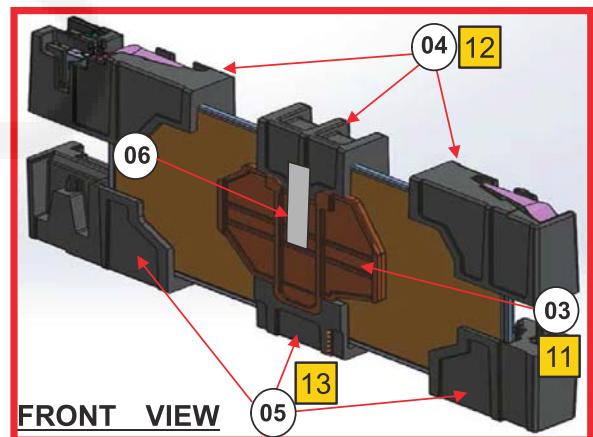
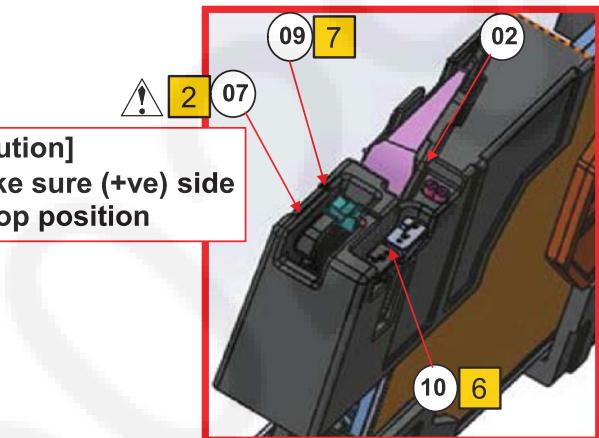


**CAUTION**



No.	Description	Qty	UOM	Remarks
01	REMOTE TRANSMITTER	1	PC	
02	BATTERY	1	PC	49ES630K
03	CUSHION FRONT	1	PC	
04	CUSHION TOP	1	PC	
05	CUSHION BOTTOM	1	PC	
06	PP TAPE	0.1	MT	
07	AC CORD	1	PC	49ES630K/S/M/N
08	FAN BAG ASSY	1	PC	49ES630K/S/M/N
09	STAND COVER ASS'Y	1	PC	
10	STAND METAL ASSY	1	PC	

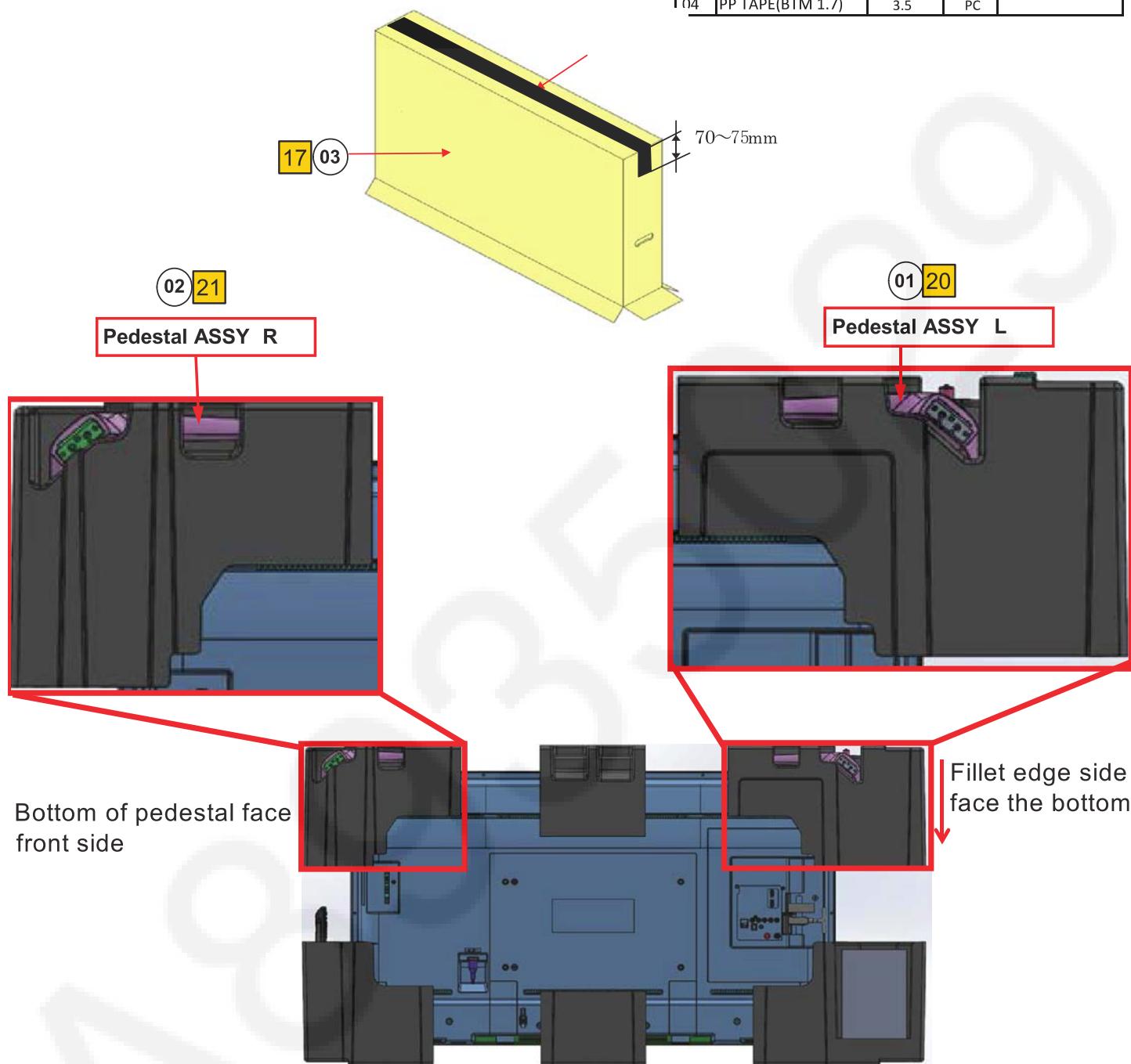
[Caution]  
Make sure (+ve) side at top position



**ASSEMBLY CONTENTS :**

1. Follow all the sequence and arrangement for place accessories.
2. There are several item need to special arrangement position like fanbag and remote.

No.	Description	Qty	UOM	Remarks
01	PEDESTAL ASS'Y L	1	PC	
02	PEDESTAL ASS'Y R	1	PC	
03	CARTON	1	PC	
04	PP TAPE(BTM 1.7)	3.5	PC	



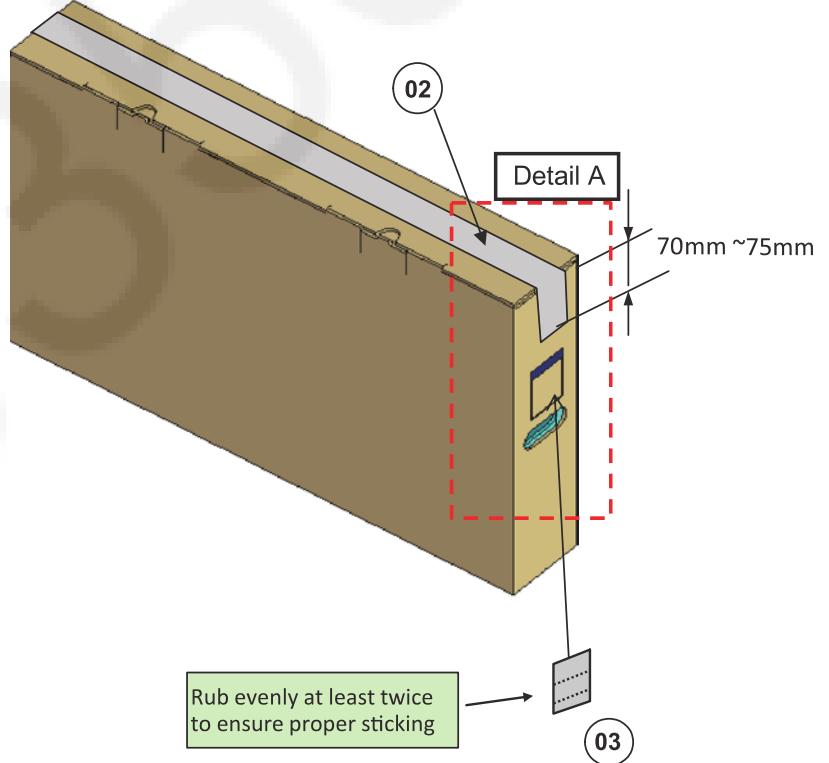
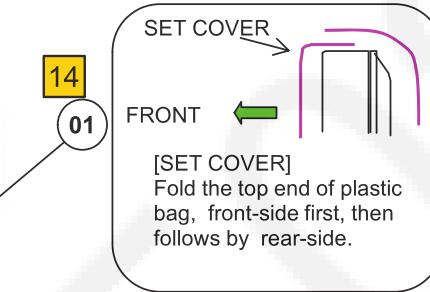
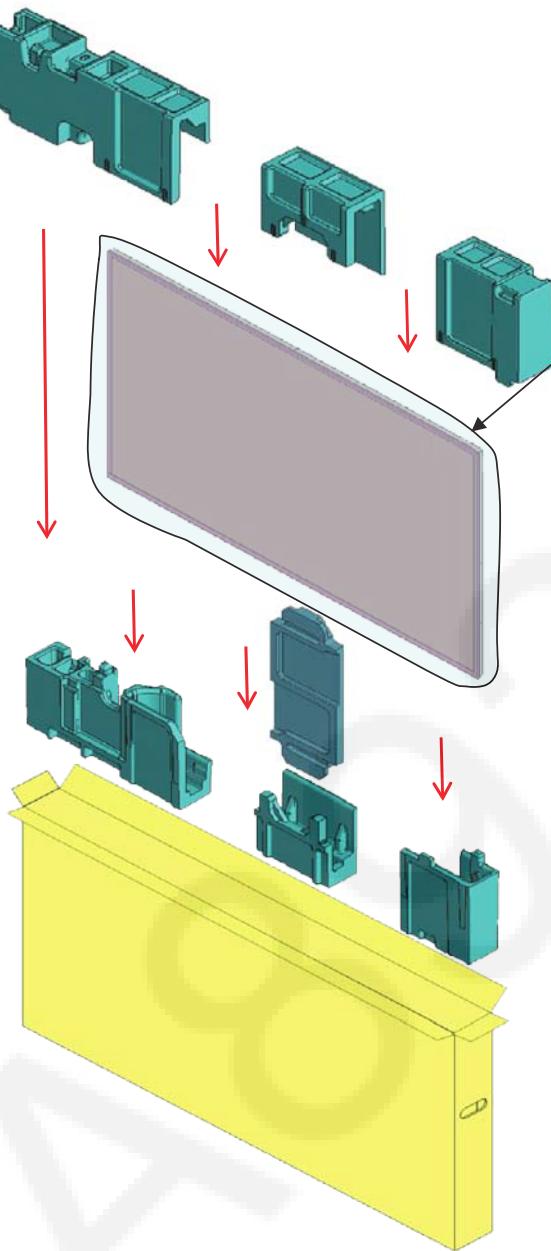
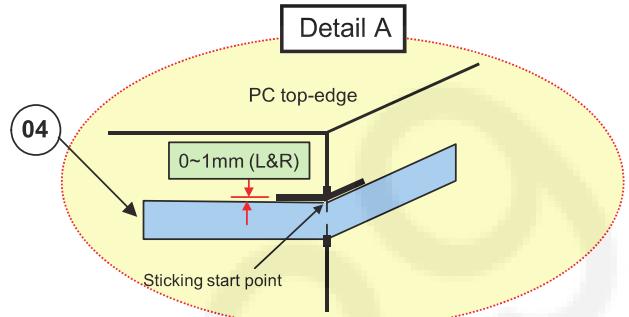
ASSEMBLY CONTENTS :

1. Follow all the sequence and arrangement for placing the TOP, BOTTOM and FRONT CUSHION.

[Caution] Need to make sure packing case top & bottom isn't **overlap** and bending



No.	Description	Qty	UOM	Remarks
01	SET BAG	1	PC	
02	PP TAPE(TOP 1.7)	3.5	PC	
03	LABEL COMBINATION	1	PC	49ES630K/M/S/N
04	CARTON LABEL	1	PC	49ES630K/M/S/N



03

**Model No. : TH-49ES630K/TH-49ES630M/TH-49ES630S Parts List**

Change	Safety	Ref. No.	Part No.	Part Name & Description	Q'ty	Remarks
		A02	K1KY14BA0484	CONNECTOR		
		A11	K1KY07BA0483	CONNECTOR		
		A12	K1KY04BA0579	CONNECTOR		
		A19	K1MY51BA0526	CONNECTOR		
		C1958	F1G1E103A144	C 0.01UF, 25V		
		C2000	F1G1A105A107	C 1UF, 10V		
		C2001	F1G1H102A830	C 1000PF, 50V		
		C2002	F1G1H102A830	C 1000PF, 50V		
		C2003	F1G1H102A830	C 1000PF, 50V		
		C2004	F1G1H102A830	C 1000PF, 50V		
		C2005	F1G1H102A830	C 1000PF, 50V		
		C2010	F1G1H101A948	C 100PF, 50V		
		C2014	F1K1V106A010	C 10UF, 35V		
		C2023	F1G1C104A173	C 0.1UF, 16V		
		C2051	F1G1H102A830	C 1000PF, 50V		
		C2052	F1G1E103A144	C 0.01UF, 25V		
		C2801	F1H1H103B047	C 0.01UF, 50V		
		C2802	F1H1H103B047	C 0.01UF, 50V		
		C2803	F1H1H103B047	C 0.01UF, 50V		
		C2804	F1H1C104A178	C 0.1UF, 16V		
		C2806	F1H1H103B047	C 0.01UF, 50V		
		C2807	F1J1A106A043	C 10UF, 10V		
		C2808	F1H1C104A178	C 0.1UF, 16V		
		C2851	F1J1H104A902	C 0.1UF, 50V		
		C2852	F1J1H104A902	C 0.1UF, 50V		
		C3084	F1H0J105A051	C 1.0UF, 6.3V		
		C3085	F1H0J105A051	C 1.0UF, 6.3V		
		C3086	F1H0J105A051	C 1.0UF, 6.3V		
		C3145	F1J1A106A043	C 10UF, 10V		
		C3147	F1J1A106A043	C 10UF, 10V		
		C3151	F1H1A1050039	C 1UF, 10V		
		C3152	F1H1A1050039	C 1UF, 10V		
		C3171	F1J1A106A043	C 10UF, 10V		
		C3172	F1J1A106A043	C 10UF, 10V		
		C3175	F1J1E105A287	C 1UF, 25V		
		C3176	F1J1A106A043	C 10UF, 10V		
		C3177	F1J1E105A287	C 1UF, 25V		
		C4000	F1H1H103B047	C 0.01UF, 50V		
		C4001	F1H1H103B047	C 0.01UF, 50V		
		C4002	F1J1C475A225	C 4.7UF, 16V		
		C4701	F1H0J105A051	C 1.0UF, 6.3V		
		C4900	F1K1E106A167	C 10UF, 25V		
		C4901	F1K1E106A167	C 10UF, 25V		
		C4902	F1K1E106A167	C 10UF, 25V		
		C4905	F1J1E105A287	C 1UF, 25V		
		C4906	F1J1E105A287	C 1UF, 25V		
		C4907	F1J1E105A287	C 1UF, 25V		
		C4908	F1J1E105A287	C 1UF, 25V		
		C4911	F1H1E105A153	C 1UF, 25V		
		C4912	F1J1E224A272	C 0.22UF, 25V		
		C4913	F1H1E104A161	C 0.1UF, 25V		
		C4914	F1H1E104A161	C 0.1UF, 25V		
		C4915	F1J1E224A272	C 0.22UF, 25V		
		C4916	F1H1E104A161	C 0.1UF, 25V		
		C4917	F1H1E104A161	C 0.1UF, 25V		
		C4918	F1G1H102A830	C 1000PF, 50V		
		C4919	F1G1H102A830	C 1000PF, 50V		
		C4920	F1G1H102A830	C 1000PF, 50V		
		C4921	F1G1H102A830	C 1000PF, 50V		
		C5000	F1G1A105A107	C 1UF, 10V		
		C5002	F1G1A105A107	C 1UF, 10V		
		C5004	F1G1A105A107	C 1UF, 10V		
		C5006	F1J1E105A287	C 1UF, 25V		
		C5012	F1G1A105A107	C 1UF, 10V		

**Model No. : TH-49ES630K/TH-49ES630M/TH-49ES630S Parts List**

Change	Safety	Ref. No.	Part No.	Part Name & Description	Q'ty	Remarks
		C5020	F1G1C104A173	C 0.1UF, 16V		
		C5021	F1G1A105A107	C 1UF, 10V		
		C5022	F1G1C104A173	C 0.1UF, 16V		
		C5026	F1H1E105A153	C 1UF, 25V		
		C5150	F1G1E103A144	C 0.01UF, 25V		
		C5151	F1G1E103A144	C 0.01UF, 25V		
		C5171	F1G1C103A173	C 0.01UF, 16V		
		C5180	F1G1H102A830	C 1000PF, 50V		
		C5301	F1J1A106A043	C 10UF, 10V		
		C5302	F1J1A106A043	C 10UF, 10V		
		C5400	F1K1V106A010	C 10UF, 35V		
		C5401	F1K1V106A010	C 10UF, 35V		
		C5402	F1G1C104A173	C 0.1UF, 16V		
		C5403	F1J0J2260004	C 22UF, 6.3V		
		C5404	F1J0J2260004	C 22UF, 6.3V		
		C5407	F1G1E333A144	C 0.033UF, 25V		
		C5408	F1G1H222A946	C 2200PF, 50V		
		C5420	F1K1V106A010	C 10UF, 35V		
		C5421	F1K1V106A010	C 10UF, 35V		
		C5422	F1G1C104A173	C 0.1UF, 16V		
		C5423	F1J0J2260004	C 22UF, 6.3V		
		C5424	F1J0J2260004	C 22UF, 6.3V		
		C5427	F1G1E333A144	C 0.033UF, 25V		
		C5428	F1G1H222A946	C 2200PF, 50V		
		C5433	F1J0J2260004	C 22UF, 6.3V		
		C5434	F1J0J2260004	C 22UF, 6.3V		
		C5435	F1G1C104A173	C 0.1UF, 16V		
		C5436	F1J0J2260004	C 22UF, 6.3V		
		C5437	F1J0J2260004	C 22UF, 6.3V		
		C5438	F1J0J2260004	C 22UF, 6.3V		
		C5439	F1G1C104A173	C 0.1UF, 16V		
		C5500	F1K1V106A010	C 10UF, 35V		
		C5502	F1G1C104A173	C 0.1UF, 16V		
		C5503	F1G1C223A173	C 0.022UF, 16V		
		C5505	F1G1E332A172	C 3300PF, 25V		
		C5507	F1K1V106A010	C 10UF, 35V		
		C5508	F1K1V106A010	C 10UF, 35V		
		C5509	F1K1V106A010	C 10UF, 35V		
		C5713	F1G1H821A946	C 820PF, 50V		
		C5717	F1J1A106A043	C 10UF, 10V		
		C5718	F1J1A106A043	C 10UF, 10V		
		C5735	F1J0G2260001	C 22UF, 4V		
		C5736	F1J0G2260001	C 22UF, 4V		
		C5737	F1G1C104A146	C 0.1UF, 16V		
		C5738	F1G1E333A144	C 0.033UF, 25V		
		C5741	F1J1A106A043	C 10UF, 10V		
		C5743	F1G1C104A146	C 0.1UF, 16V		
		C5744	F1J1A106A043	C 10UF, 10V		
		C6702	F1G1H102A948	C 1000PF, 50V		
		C6703	F1J1A106A043	C 10UF, 10V		
		C6704	F1G1C104A146	C 0.1UF, 16V		
		C6705	F1J1A106A043	C 10UF, 10V		
		C6707	F1G1C104A146	C 0.1UF, 16V		
		C6717	F1G1H220A834	C 22PF, 50V		
		C6718	F1G1H220A834	C 22PF, 50V		
		C6720	F1G1H220A834	C 22PF, 50V		
		C6721	F1G1H220A834	C 22PF, 50V		
		C6731	F1G1H101A948	C 100PF, 50V		
		C6732	F1G1H101A948	C 100PF, 50V		
		C6739	F1G1C104A146	C 0.1UF, 16V		
		C6800	F1G1H9R0A831	C 9PF, 50V		
		C6801	F1G1H9R0A831	C 9PF, 50V		
		C6803	F1G1C104A146	C 0.1UF, 16V		
		C6807	F1G1C104A146	C 0.1UF, 16V		

## Model No. : TH-49ES630K/TH-49ES630M/TH-49ES630S Parts List

Change	Safety	Ref. No.	Part No.	Part Name & Description	Q'ty	Remarks
		C6811	F1G1C104A146	C 0.1UF, 16V		
		C6822	F1G1C104A146	C 0.1UF, 16V		
		C6823	F1G1C104A146	C 0.1UF, 16V		
		C6825	F1G1C104A146	C 0.1UF, 16V		
		C6826	F1G1C104A146	C 0.1UF, 16V		
		C6836	F1J1A106A043	C 10UF, 10V		
		C6839	F1J1A106A043	C 10UF, 10V		
		C6843	F1J1A106A043	C 10UF, 10V		
		C6847	F1G1C104A146	C 0.1UF, 16V		
		C6849	F1G1C104A146	C 0.1UF, 16V		
		C6950	F1G0J1050007	C 1.0UF, 6.3V		
		C6953	F1G1E103A144	C 0.01UF, 25V		
		C6954	F1G1E103A144	C 0.01UF, 25V		
		C6957	F1G1H181A834	C 180PF, 50V		
		C6958	F1G1C104A146	C 0.1UF, 16V		
		C6959	F1G1H181A834	C 180PF, 50V		
		C6960	F1G1H472A830	C 4700PF, 50V		
		C6961	F1G0J1050007	C 1.0UF, 6.3V		
		C6963	F1G1C104A146	C 0.1UF, 16V		
		C6964	F1H1H181B052	C 180PF, 50V		
		C6965	F1G1C104A146	C 0.1UF, 16V		
		C6967	F1G1H121A834	C 120PF, 50V		
		C6968	F1G1H102A830	C 1000PF, 50V		
		C6970	F1G1H102A830	C 1000PF, 50V		
		C6971	F1G1H5R0A947	C 5PF, 50V		
		C6973	F1G1H5R0A947	C 5PF, 50V		
		C6974	F1G1H121A834	C 120PF, 50V		
		C6977	F1G1H331A946	C 330PF, 50V		
		C6982	F1G1E103A144	C 0.01UF, 25V		
		C6988	F1G1H102A830	C 1000PF, 50V		
⚠		C7102	F1AAF471A019	C 470PF, 240V		
⚠		C7103	F1AAF471A019	C 470PF, 240V		
⚠		C7104	F0CAF334A223	C 0.33UF, 250V		
⚠		C7105	F0CAF224A218	C 0.22UF, 250V		
⚠		C7106	F1AAF471A019	C 470PF, 240V		
		C7201	F1J1H102A909	C 1000PF, 50V		
		C7202	F1J1H102A909	C 1000PF, 50V		
		C7203	F1J1H104A902	C 0.1UF, 50V		
		C7204	F1H1C474A178	C 0.47UF, 16V		
		C7205	F1J1H103A900	C 0.01UF, 50V		
		C7206	F1J1H104A902	C 0.1UF, 50V		
		C7207	F1A3A331A078	C 330PF, 1KV		
		C7208	F1J1H105A918	C 1UF, 50V		
		C7209	ECWFD2W155KC	C 1.5UF, 450V		
		C7212	F1J1H223A900	C 0.022UF, 50V		
		C7213	F2A2W820A264	C 82UF, 450V		
		C7214	F1J1H103A900	C 0.01UF, 50V		
		C7217	F1A3A151A078	C 150PF, 1KV		
		C7301	F1J1H102A909	C 1000PF, 50V		
		C7302	F1J1H223A900	C 0.022UF, 50V		
		C7303	F1J1H105A919	C 1UF, 50V		
		C7304	F1A3A221A079	C 220PF, 1KV		
		C7305	F1J1H105A918	C 1UF, 50V		
		C7307	F1J1H101A906	C 100PF, 50V		
		C7310	F2A1E471C224	C 470PF, 25V		
		C7311	F1J1H474A918	C 0.47UF, 50V		
		C7312	F1J1C474A238	C 0.47UF, 16V		
		C7313	F1J1H102A909	C 1000PF, 50V		
		C7314	F1J1H220A906	C 22PF, 50V		
		C7315	F1A3A101A078	C 100PF, 1KV		
		C7316	F1A3A101A078	C 100PF, 1KV		
		C7317	ECWH8273HAC	C 27000PF, 800V		
		C7319	F1A3A101A079	C 100PF, 1KV		
		C7323	F1J1H103A900	C 0.01UF, 50V		

## Model No. : TH-49ES630K/TH-49ES630M/TH-49ES630S Parts List

Change	Safety	Ref. No.	Part No.	Part Name & Description	Q'ty	Remarks
		C7324	F1J1H102A909	C 1000PF, 50V		
		C7325	F1J1H103A900	C 0.01UF, 50V		
		C7406	F1J1E105A287	C 1UF, 25V		
		C7408	F1J1E105A287	C 1UF, 25V		
		C7417	F1J1H474A918	C 0.47UF, 50V		
		C7418	F1J1H104A902	C 0.1UF, 50V		
		C7419	F1H1H104B047	C 0.1UF, 50V		
		C7422	F2AZZ6800005	C 68UF, 240V		
		C7423	F2AZZ6800005	C 68UF, 240V		
		C7424	F2AZZ2220001	C 2200UF, 240V		
		C7430	F1J1H102A909	C 1000PF, 50V		
		C7434	F1J1H103A900	C 0.01UF, 50V		
		C7435	F1J1E105A287	C 1UF, 25V		
		C7436	F1H1H104B047	C 0.1UF, 50V		
		C7437	F1J1E105A287	C 1UF, 25V		
		C7460	F1H1H222B047	C 2200PF, 50V		
		C7462	F1K1E106A167	C 10UF, 25V		
		C7463	F1J1H104A902	C 0.1UF, 50V		
		C7465	F1K1A226A060	C 22UF, 10V		
		C7466	F1K1A226A060	C 22UF, 10V		
		C7470	F1J1H104A902	C 0.1UF, 50V		
		C7472	F1J1H103A900	C 0.01UF, 50V		
		C7478	F1H1H104B047	C 0.1UF, 50V		
		C7533	F1J1H102A909	C 1000PF, 50V		
		C7534	F1J1H104A902	C 0.1UF, 50V		
		C7800	F1J1H102A909	C 1000PF, 50V		
		C7801	F1J1H103A900	C 0.01UF, 50V		
		C7802	F1J1H103A900	C 0.01UF, 50V		
		C7803	F1J1H104A902	C 0.1UF, 50V		
		C7804	F1J1H223A900	C 0.022UF, 50V		
		C7805	F1J1H103A900	C 0.01UF, 50V		
		C7806	F1J1E105A287	C 1UF, 25V		
		C7807	F1J1E474A272	C 0.47UF, 25V		
		C7808	F1K2J471A042	C 470PF, 63V		
		C7809	F1J1E105A287	C 1UF, 25V		
		C7810	F1J1H101A906	C 100PF, 50V		
		C7813	F2AZE1000034	C 10UF, 250V		
		C7814	F2AZE1000034	C 10UF, 250V		
		C7824	F1J1E224A272	C 0.22UF, 25V		
		C7828	F1J1H222A900	C 2200PF, 50V		
		C7832	F1J1H101A906	C 100PF, 50V		
		C7834	F1J1H104A902	C 0.1UF, 50V		
		C7838	F1J1H104A902	C 0.1UF, 50V		
		C7870	F2AZE1000034	C 10UF, 250V		
		C7877	F1J2E1030004	C 0.01UF, 250V		
		C7878	F2AZE1000034	C 10UF, 250V		
		C8000	F1J1A106A043	C 10UF, 10V		
		C8001	F1G1E472A172	C 4700PF, 25V		
		C8004	F1J1A106A043	C 10UF, 10V		
		C8005	F1G1C104A173	C 0.1UF, 16V		
		C8006	F1G1C104A146	C 0.1UF, 16V		
		C8007	F1G1C104A146	C 0.1UF, 16V		
		C8008	F1G1C104A146	C 0.1UF, 16V		
		C8009	F1J1A106A043	C 10UF, 10V		
		C8010	F1G1C104A146	C 0.1UF, 16V		
		C8011	F1JOG2260001	C 22UF, 4V		
		C8012	F1G1E682A144	C 6800 PF, 25V		
		C8013	F1G1E682A144	C 6800 PF, 25V		
		C8014	F1G1A105A107	C 1UF, 10V		
		C8018	F1G1A105A107	C 1UF, 10V		
		C8030	F1G1C104A173	C 0.1UF, 16V		
		C8032	F1G1C104A173	C 0.1UF, 16V		
		C8034	F1J1A106A043	C 10UF, 10V		
		C8037	F1J1A106A043	C 10UF, 10V		

**Model No. : TH-49ES630K/TH-49ES630M/TH-49ES630S Parts List**

Change	Safety	Ref. No.	Part No.	Part Name & Description	Q'ty	Remarks
		C8039	F1G1C104A173	C 0.1UF, 16V		
		C8043	F1G1C104A173	C 0.1UF, 16V		
		C8044	F1G1C104A173	C 0.1UF, 16V		
		C8045	F1J1A105A107	C 1UF, 10V		
		C8049	F1J1A106A043	C 10UF, 10V		
		C8050	F1J1A106A043	C 10UF, 10V		
		C8052	F1J1A4760001	C 47UF, 10V		
		C8055	F1G1A105A107	C 1UF, 10V		
		C8063	F1J0G2260001	C 22UF, 4V		
		C8064	F1G1C104A146	C 0.1UF, 16V		
		C8066	F1G1H222A946	C 2200PF, 50V		
		C8067	F1J1A106A043	C 10UF, 10V		
		C8070	F1J1A106A043	C 10UF, 10V		
		C8071	F1G1H222A946	C 2200PF, 50V		
		C8072	F1G1H222A946	C 2200PF, 50V		
		C8076	F1H1A1050039	C 1UF, 10V		
		C8077	F1G1A105A047	C 1UF, 10V		
		C8078	F1G1A105A047	C 1UF, 10V		
		C8080	F1G1A105A107	C 1UF, 10V		
		C8081	F1G1C104A173	C 0.1UF, 16V		
		C8084	F1G1C104A173	C 0.1UF, 16V		
		C8085	F1J1A106A043	C 10UF, 10V		
		C8087	F1G1A105A107	C 1UF, 10V		
		C8088	F1G1A105A107	C 1UF, 10V		
		C8089	F1G1A105A107	C 1UF, 10V		
		C8090	F1G1A105A107	C 1UF, 10V		
		C8091	F1G1A105A107	C 1UF, 10V		
		C8092	F1G1A105A107	C 1UF, 10V		
		C8093	F1G1A105A107	C 1UF, 10V		
		C8094	F1G1A105A107	C 1UF, 10V		
		C8095	F1G1C104A173	C 0.1UF, 16V		
		C8096	F1G1E472A172	C 4700PF, 25V		
		C8097	F1G1C104A173	C 0.1UF, 16V		
		C8098	F1J1A4760001	C 47UF, 10V		
		C8099	F1G1A105A107	C 1UF, 10V		
		C8100	F1G1H222A946	C 2200PF, 50V		
		C8101	F1G1C104A146	C 0.1UF, 16V		
		C8102	F1K1E106A167	C 10UF, 25V		
		C8103	F1K1E106A167	C 10UF, 25V		
		C8104	F1H1E104A161	C 0.1UF, 25V		
		C8105	F1G1E332A172	C 3300PF, 25V		
		C8106	F1J0G2260001	C 22UF, 4V		
		C8107	F1J0G2260001	C 22UF, 4V		
		C8108	F1J0G2260001	C 22UF, 4V		
		C8109	F1K1V106A010	C 10UF, 35V		
		C8111	F1G1C104A173	C 0.1UF, 16V		
		C8112	F1G1C473A173	C 0.047UF, 16V		
		C8114	F1G1E332A172	C 3300PF, 25V		
		C8116	F1J0G2260001	C 22UF, 4V		
		C8117	F1J0G2260001	C 22UF, 4V		
		C8120	F1J1A106A043	C 10UF, 10V		
		C8121	F1G1C104A173	C 0.1UF, 16V		
		C8122	F1G1C104A173	C 0.1UF, 16V		
		C8124	F1G1C104A173	C 0.1UF, 16V		
		C8125	F1J0G2260001	C 22UF, 4V		
		C8126	F1J0G2260001	C 22UF, 4V		
		C8127	F1G1C104A173	C 0.1UF, 16V		
		C8128	F1H1E105A153	C 1UF, 25V		
		C8129	F1J1E475A257	C 4.7UF, 25V		
		C8131	F1H1E104A161	C 0.1UF, 25V		
		C8135	F1G1H102A830	C 1000PF, 50V		
		C8136	F1G1H101A948	C 100PF, 50V		
		C8157	F1G1H101A948	C 100PF, 50V		
		C8158	F1G1H101A948	C 100PF, 50V		

## Model No. : TH-49ES630K/TH-49ES630M/TH-49ES630S Parts List

Change	Safety	Ref. No.	Part No.	Part Name & Description	Q'ty	Remarks
		C8161	F1G1H102A830	C 1000PF, 50V		
		C8162	F1G1H102A830	C 1000PF, 50V		
		C8229	F1G1A105A107	C 1UF, 10V		
		C8230	F1G1C104A173	C 0.1UF, 16V		
		C8231	F1G1C104A173	C 0.1UF, 16V		
		C8232	F1G1C104A173	C 0.1UF, 16V		
		C8300	F1G1H100A948	C 10PF, 50V		
		C8301	F1G1H120A948	C 12PF, 50V		
		C8307	F1G1A105A107	C 1UF, 10V		
		C8312	F1G1A105A107	C 1UF, 10V		
		C8313	F1G1A105A107	C 1UF, 10V		
		C8314	F1G1A105A107	C 1UF, 10V		
		C8315	F1G1A105A107	C 1UF, 10V		
		C8452	F1J1A106A043	C 10UF, 10V		
		C8453	F1G1C104A173	C 0.1UF, 16V		
		C8455	F1J0J2260004	C 22UF, 6.3V		
		C8457	F1G1C104A173	C 0.1UF, 16V		
		C8461	F1J1A106A043	C 10UF, 10V		
		C8463	F1G1C104A173	C 0.1UF, 16V		
		C8467	F1J1A106A043	C 10UF, 10V		
		C8470	F1G1C104A173	C 0.1UF, 16V		
		C8474	F1J1A106A043	C 10UF, 10V		
		C8475	F1G1C104A173	C 0.1UF, 16V		
		C8476	F1J1A106A043	C 10UF, 10V		
		C8478	F1G1C104A173	C 0.1UF, 16V		
		C8601	F1G1C103A173	C 0.01UF, 16V		
		C8602	F1G1C103A173	C 0.01UF, 16V		
		C8700	F1H1A1050039	C 1UF, 10V		
		C8850	F1G1E103A144	C 0.01UF, 25V		
		C8903	F1G1A105A107	C 1UF, 10V		
		C8906	F1H1C105A167	C 1UF, 16V		
		C8907	F1G1C104A146	C 0.1UF, 16V		
		C8908	F1J1A106A043	C 10UF, 10V		
		C8909	F1G1C104A146	C 0.1UF, 16V		
		C8910	F1J1A106A043	C 10UF, 10V		
		C8913	F1G1C104A146	C 0.1UF, 16V		
		C8997	F1G1C104A173	C 0.1UF, 16V		
		C8998	F1G1C104A173	C 0.1UF, 16V		
		C8999	F1G1E472A172	C 4700PF, 25V		
		CF7102	D4CAY2R20002	TERMISTOR		For TH-49ES630K Only
		CF7103	D4CAY1R50001	NTC THERMISTORS		For TH-49ES630M & S Only
		CF7104	D4CAY1R50001	NTC THERMISTORS		For TH-49ES630M & S Only
		D2001	DZ2J047M0L	DIODE		
		D2004	DZ2J047M0L	DIODE		
		D2006	DZ2J047M0L	DIODE		
		D2007	DZ2J047M0L	DIODE		
		D2008	DZ2J056M0L	DIODE		
		D2009	DZ2J047M0L	DIODE		
		D2800	DZ2J056M0L	DIODE		
		D2802	B3AGB0000083	LED		
		D2851	DZ2J068M0L	DIODE		
		D3006	K7AAAY000018	OPTICAL DIODE		
		D3101	DZ2J140M0L	DIODE		
		D3102	DZ2J140M0L	DIODE		
		D3103	DZ2J140M0L	DIODE		
		D3104	DZ2J140M0L	DIODE		
		D3105	DZ2J140M0L	DIODE		
		D3106	DZ2J140M0L	DIODE		
		D4704	B0JCED000012	DIODE		
		D4785	B0JCED000012	DIODE		
		D5172	DZ2J220M0L	DIODE		
		D5173	DA2J10100L	DIODE		
		D5178	DZ2J068M0L	DIODE		
		D5179	B0ADCK000001	DIODE		

**Model No. : TH-49ES630K/TH-49ES630M/TH-49ES630S Parts List**

Change	Safety	Ref. No.	Part No.	Part Name & Description	Q'ty	Remarks
		D5180	DZ2J033M0L	DIODE		
		D5187	DZ2J047M0L	DIODE		
		D5191	B0ADCK000001	DIODE		
		D5192	B0ADCK000001	DIODE		
		D6950	B0ZBZ0000226	DIODE		
		D6952	J0ZZB0000202	DIODE		
		D7101	ERZE08C621CD	SURGE ABSORBER		
		D7105	B0FEBR000104	DIODE		For TH-49ES630M & S Only
		D7107	B0AAMT000014	DIODE		
		D7108	B0AAMT000014	DIODE		
		D7109	B0FBAR000047	DIODE		For TH-49ES630K Only
		D7111	ERZE08C621CD	SURGE ABSORBER		
		D7211	B0ACCD000008	DIODE		
		D7212	B0JAME000126	DIODE		
		D7215	B0HAPR000013	DIODE		
		D7221	B0ACCD000008	DIODE		
		D7302	B0HAKR000004	DIODE		
		D7304	B0HAGQ000001	DIODE		
		D7305	B0ACCD000008	DIODE		
		D7307	B0BC015A0655	DIODE		
		D7312	B0JCMG000043	DIODE		
		D7313	B0JCMG000043	DIODE		
		D7318	B0ACCD000008	DIODE		
		D7319	B0ACCD000008	DIODE		
		D7320	B0BC015A0655	DIODE		
		D7408	B0JDSL000013	DIODE		
		D7409	B0JDSL000013	DIODE		
		D7410	B0JDSL000013	DIODE		
		D7411	B0ACCD000008	DIODE		
		D7412	B0FBCN000017	DIODE		
		D7413	B0JDSL000013	DIODE		
		D7416	B0ACCD000008	DIODE		
		D7417	B0ACCD000008	DIODE		
		D7428	B0JCPE000051	DIODE		
		D7438	B0EC6R8A0654	DIODE		
		D7801	B0ACCD000008	DIODE		
		D7803	B0FCAN000003	DIODE		
		D7806	B0FCAN000003	DIODE		
		D7825	B0ACCD000008	DIODE		
		D7829	DZ2J051M0L	DIODE		
		D8000	B0JCPE000051	DIODE		
		D8001	B0ADCK000001	DIODE		
		D8850	B0JCED000012	DIODE		
		F5700	ERBRD1R00X	FUSE		
		F7101	K5E502YYA213	FUSE		
		FL4103	EXC28CE121U	CHIP CHOKE COIL		
		FL4104	EXC28CE121U	CHIP CHOKE COIL		
		FL4105	EXC28CE121U	CHIP CHOKE COIL		
		FL4106	EXC28CE121U	CHIP CHOKE COIL		
		FL4107	EXC28CE121U	CHIP CHOKE COIL		
		FL8452	EXC24CE900U	NOISE FILTER		
		FL8453	EXC24CE900U	NOISE FILTER		
		FL8459	EXC24CE900U	NOISE FILTER		
		FL8600	EXC24CE900U	NOISE FILTER		
		FL8601	EXC24CE900U	NOISE FILTER		
		IC3052	C0ABBB000483	IC		
		IC4900	C1AB00003984	IC		
		IC5000	AN34043AAVF	IC		
		IC5300	C0DBEYY00102	IC		
		IC5400	C0DBAYY02432	IC		
		IC5420	C0DBAYY02432	IC		
		IC5500	C0DBAYY02430	IC		
		IC5702	C0DBAYY02433	IC		
		IC5704	C0DBEYY00102	IC		

## Model No. : TH-49ES630K/TH-49ES630M/TH-49ES630S Parts List

Change	Safety	Ref. No.	Part No.	Part Name & Description	Q'ty	Remarks
		IC6800	C1AB00004028	IC		
		IC6950	C1AB00004337	IC		
		IC7201	C0DBBYY00058	IC		
		IC7301	C0DBAYY02540	IC		
		IC7401	C0DBZYY00531	IC		
		IC7405	B1LBZ0000070	IC		
		IC7800	C0ZBZ0002199	IC		
		IC8000	C1AB00004507	IC		
		IC8001	C0DBGYY00887	IC		
		IC8002	C0DBGYY00887	IC		
		IC8101	C0DBAYY02430	IC		
		IC8103	NN30332A-VB	IC		
		IC8453	C0DBZYY00723	IC		
		IC8454	C0DBZYY00723	IC		
		IC8457	C0DBZYY00723	IC		
		IC8900	TVRU103	ROM VERSION ASSEMBLY		
		JA101	D0GFR00J0005	M 0 OHM, J, 1/3W		
		JA102	D0GFR00J0005	M 0 OHM, J, 1/3W		
		JK3101	K1U511D00013	AV TERMINAL		
		JK3103	K2HC1YYD0001	AV TERMINAL		
		JK4700	K1FY119D0029	TERMINAL		
		JK4701	K1FY119D0029	TERMINAL		
		JK4702	K1FY119E0069	TERMINAL		
		JK6951	K1ZZ00001557	TUNER SHIELD		
		JK7101	K2AAYB00010	AC INLET		
		JK8450	K1FY104B0092	TERMINAL		
		JK8451	K1FY104B0092	TERMINAL		
		JK8452	K1FY105E0025	CONNECTOR		
		JK8600	K2LC1YYA0019	TERMINAL		
		JS0041	D0GAR00JA039	M 0 OHM, 1/16W		For TH-49ES630K Only
		JS0043	D0GAR00JA039	M 0 OHM, 1/16W		For TH-49ES630M Only
		JS0048	D0GAR00JA039	M 0 OHM, 1/16W		For TH-49ES630S Only
		JS0058	D0GAR00JA039	M 0 OHM, 1/16W		
		K10	K1KY07BA0483	CONNECTOR		
		L3113	J0JYC0000156	INDUCTOR		
		L3116	J0JYC0000156	INDUCTOR		
		L4900	G1C220MA0533	INDUCTOR		
		L4901	G1C220MA0533	INDUCTOR		
		L4902	G1C220MA0533	INDUCTOR		
		L4903	G1C220MA0533	INDUCTOR		
		L5300	J0JYC0000464	BEAD CORE		
		L5302	J0JYC0000464	BEAD CORE		
		L5400	G1C4R7ZA0240	INDUCTOR		
		L5420	G1C6R8MA0426	COIL		
		L5500	G1C220MA0445	INDUCTOR		
		L5700	G1C2R2MA0464	INDUCTOR		
		L6701	J0JYC0000464	BEAD CORE		
		L6703	J0JYC0000464	BEAD CORE		
		L6801	J0JYC0000464	BEAD CORE		
		L6804	J0JYC0000464	BEAD CORE		
		L6951	G1CR27JA0097	COIL		
		L6952	G1CR27JA0097	COIL		
		L6953	J0JYC0000464	BEAD CORE		
		L6954	G1CR27JA0097	COIL		
		L6955	J0JYC0000464	BEAD CORE		
		L6956	G1CR27JA0097	COIL		
		L6959	G1CR27JA0097	COIL		
		L6961	G1C82NJ00010	COIL		
		L6963	G1CR22JA0097	COIL		
		L6964	G1CR22JA0097	COIL		
		L7100	J0JYA0000035	BEAD CORE		
		L7101	J0JYA0000035	BEAD CORE		
		L7201	J0JYA0000035	BEAD CORE		
		L7400	J0JYA0000035	BEAD CORE		

## Model No. : TH-49ES630K/TH-49ES630M/TH-49ES630S Parts List

Change	Safety	Ref. No.	Part No.	Part Name & Description	Q'ty	Remarks
		L7401	G0C6R8MA0094	CHOKE COIL		
		L7801	J0JYA0000035	BEAD CORE		
		L7802	J0JYA0000035	BEAD CORE		
		L7804	J0JYA0000035	BEAD CORE		
		L8000	J0JBC0000115	CHIP BEADS MURATA:BLM18PG121SN1D		
		L8001	J0JCC0000287	BEAD CORE		
		L8009	J0JYC0000464	BEAD CORE		
		L8015	J0JYC0000464	BEAD CORE		
		L8016	J0JYC0000464	BEAD CORE		
		L8017	J0JYC0000464	BEAD CORE		
		L8018	J0JCC0000287	BEAD CORE		
		L8020	J0JCC0000287	BEAD CORE		
		L8021	J0JYC0000464	BEAD CORE		
		L8022	J0JCC0000287	BEAD CORE		
		L8023	J0JCC0000287	BEAD CORE		
		L8024	J0JYC0000464	BEAD CORE		
		L8100	G1C1ROMA0858	INDUCTOR		
		L8101	G1C3R3MA0464	INDUCTOR		
		L8460	J0JYC0000464	BEAD CORE		
		L8461	J0JYC0000464	BEAD CORE		
		L8900	J0JYC0000464	BEAD CORE		
		LF7101	G0B143G0006	LINE FILTER		For TH-49ES630K Only
		LF7102	G0B143G0006	LINE FILTER		For TH-49ES630K Only
		LF7103	G0B183G0011	LINE FILTER		For TH-49ES630M & S Only
		LF7104	G0B183G0011	LINE FILTER		For TH-49ES630M & S Only
		LF7105	G0B350GA0083	LINE FILTER		
		P2	K1KY14BA0491	CONNECTOR		
		P3	K1KY03BA0385	CONNECTOR		
		PA7406	ERBRE1R00V	FUSE		
		PC7301	B3PAA0000704	PHOTO COUPLERS		
		PC7302	B3PAA0000704	PHOTO COUPLERS		
		PC7303	B3PAA0000707	PHOTO COUPLER		
		Q2012	B1ABCE000015	TRANSISTOR		
		Q2013	B1ABCE000015	TRANSISTOR		
		Q3102	B1ABCE000015	TRANSISTOR		
		Q3103	B1ABCE000015	TRANSISTOR		
		Q4702	B1ABCF000231	TRANSISTOR		
		Q4709	B1ABCF000231	TRANSISTOR		
		Q4710	B1ABCF000231	TRANSISTOR		
		Q4981	B1ABCE000015	TRANSISTOR		
		Q7202	B1ADGE000012	TRANSISTOR		
		Q7203	B1CERR000144	TRANSISTOR		
		Q7301	B1CFRR000039	TRANSISTOR		
		Q7302	B1CFRR000039	TRANSISTOR		
		Q7304	B1ADGE000012	TRANSISTOR		
		Q7315	B1ABC000231	TRANSISTOR		
		Q7401	B1CFHD000029	TRANSISTOR		
		Q7402	B1CHRL000015	TRANSISTOR		
		Q7403	B1CHRE000034	TRANSISTOR		
		Q7404	B1CHRL000015	TRANSISTOR		
		Q7410	B1CFHD000029	TRANSISTOR		
		Q7411	B1ADCE000022	TRANSISTOR		
		Q7412	B1ABCN000014	OR B1ABCN000007		
		Q7800	B1CFHD000029	TRANSISTOR		
		Q7802	B1CFRN000003	TRANSISTOR		
		Q7804	B1CERM000067	TRANSISTOR		
		Q7806	B1ABCN000014	OR B1ABCN000007		
		Q7807	B1CFHD000029	TRANSISTOR		
		Q8800	B1ABCE000015	TRANSISTOR		
		R0904	D0GA473JA039	M 47K OHM, J, 1/16W		
		R0905	D0GA101JA039	M 100 OHM, J, 1/16W		
		R0906	D0GA101JA039	M 100 OHM, J, 1/16W		
		R0907	D0GA101JA039	M 100 OHM, J, 1/16W		
		R0908	D0GA101JA039	M 100 OHM, J, 1/16W		

## Model No. : TH-49ES630K/TH-49ES630M/TH-49ES630S Parts List

Change	Safety	Ref. No.	Part No.	Part Name & Description	Q'ty	Remarks
		R0909	D0GA101JA039	M 100 OHM, J, 1/16W		
		R0910	D0GA332JA039	M 3.3K OHM, J, 1/16W		
		R0911	D0GA272JA039	M 2.7K OHM, J, 1/16W		
		R0912	D0GA272JA039	M 2.7K OHM, J, 1/16W		
		R0913	D0GA332JA039	M 3.3K OHM, J, 1/16W		
		R0938	D0GA101JA039	M 100 OHM, J, 1/16W		
		R0939	D0GA101JA039	M 100 OHM, J, 1/16W		
		R0940	D0GA101JA039	M 100 OHM, J, 1/16W		
		R0945	D0GA101JA039	M 100 OHM, J, 1/16W		
		R0946	D0GA101JA039	M 100 OHM, J, 1/16W		
		R0947	D0GA101JA039	M 100 OHM, J, 1/16W		
		R0948	D0GA101JA039	M 100 OHM, J, 1/16W		
		R0950	D0GA101JA039	M 100 OHM, J, 1/16W		
		R0951	D0GA101JA039	M 100 OHM, J, 1/16W		
		R0954	D0GA272JA039	M 2.7K OHM, J, 1/16W		
		R0955	D0GA272JA039	M 2.7K OHM, J, 1/16W		
		R0956	D0GA332JA039	M 3.3K OHM, J, 1/16W		
		R0957	D0GA332JA039	M 3.3K OHM, J, 1/16W		
		R0961	D0GA220JA039	M 22 OHM, J, 1/16W		
		R0962	D0GA220JA039	M 22 OHM, J, 1/16W		
		R1951	D0GA680JA039	M 68 OHM, J, 1/16W		
		R1953	D0GA103JA039	M 10K OHM, J, 1/16W		
		R2000	D0GA823JA039	M 82K OHM, J, 1/16W		
		R2003	D0GAR00JA039	M 0 OHM, 1/16W		
		R2008	D0GA473JA039	M 47K OHM, J, 1/16W		
		R2013	D0GA101JA039	M 100 OHM, J, 1/16W		
		R2014	D0GA101JA039	M 100 OHM, J, 1/16W		
		R2016	D0GA122JA039	M 1.2K OHM, J, 1/16W		
		R2017	D0GAR00JA039	M 0 OHM, 1/16W		
		R2018	D0GAR00JA039	M 0 OHM, 1/16W		
		R2051	D0GA101JA039	M 100 OHM, J, 1/16W		
		R2058	D0GA473JA039	M 47K OHM, J, 1/16W		
		R2059	D0GA103JA039	M 10K OHM, J, 1/16W		
		R2060	D0GA473JA039	M 47K OHM, J, 1/16W		
		R2061	D0GA223JA039	M 22K OHM, J, 1/16W		
		R2062	D0GA101JA039	M 100 OHM, J, 1/16W		
		R2067	D0GA101JA039	M 100 OHM, J, 1/16W		
		R2800	D0GBR00J0004	M 0 OHM, J, 1/10W		
		R2810	D0GBR00J0004	M 0 OHM, J, 1/10W		
		R2820	D0GB470JA065	M 47 OHM, J, 1/10W		
		R2821	D0GBR00J0004	M 0 OHM, J, 1/10W		
		R2823	D1BB4301A073	M 4.3K OHM, J, 1/10W		
		R2824	D1BB1001A073	M 1K OHM, J, 1/10W		
		R2852	D1BD1911A066	M 1.91K OHM, F, 1/8W		
		R2853	D1BD3091A066	M 3.09K OHM, F, 1/8W		
		R2854	D1BD6041A066	M 6.04K OHM, F, 1/8W		
		R2855	D1BD1692A066	M 16.9K OHM, F, 1/8W		
		R3117	D0GA102JA039	M 1K OHM, J, 1/16W		
		R3118	D0GA473JA039	M 47K OHM, J, 1/16W		
		R3132	D0GB103JA065	M 10K OHM, J, 1/10W		
		R3157	D1H82204A042	M 22 OHM, J, 1/16W		
		R3163	D0GA104JA039	M 100K OHM, J, 1/16W		
		R3164	D0GA104JA039	M 100K OHM, J, 1/16W		
		R3167	D0GA333JA039	M 33K OHM, J, 1/16W		
		R3168	D0GA333JA039	M 33K OHM, J, 1/16W		
		R3171	D0GA332JA039	M 3.3K OHM, J, 1/16W		
		R3172	D0GA332JA039	M 3.3K OHM, J, 1/16W		
		R3173	D1BB1003A073	M 100K OHM, F, 1/10W		
		R3179	D0GA331JA039	M 330 OHM, J, 1/16W		
		R3180	D0GA331JA039	M 330 OHM, J, 1/16W		
		R3181	D1BD75R0A066	M 75 OHM, F, 1/8W		
		R3182	D1BD75R0A066	M 75 OHM, F, 1/8W		
		R3183	D1BD75R0A066	M 75 OHM, F, 1/8W		
		R3188	D1BB1003A073	M 100K OHM, F, 1/10W		

## Model No. : TH-49ES630K/TH-49ES630M/TH-49ES630S Parts List

Change	Safety	Ref. No.	Part No.	Part Name & Description	Q'ty	Remarks
		R3201	D0GA101JA039	M 100 OHM, J, 1/16W		
		R3231	D0GB103JA065	M 10K OHM, J, 1/10W		
		R3233	D1BB2002A073	M 20K OHM, J, 1/10W		
		R3234	D1BB2002A073	M 20K OHM, J, 1/10W		
		R3237	D0GB473JA065	M 47K OHM, J, 1/10W		
		R3238	D0GB473JA065	M 47K OHM, J, 1/10W		
		R4133	D0GAR00JA039	M 0 OHM, 1/16W		
		R4139	D0GAR00JA039	M 0 OHM, 1/16W		
		R4159	D0GAR00JA039	M 0 OHM, 1/16W		
		R4503	D0GA750JA039	M 75 OHM, J, 1/16W		
		R4504	D0GA750JA039	M 75 OHM, J, 1/16W		
		R4505	D0GA750JA039	M 75 OHM, J, 1/16W		
		R4715	D0GA103JA039	M 10K OHM, J, 1/16W		
		R4721	D0GA103JA039	M 10K OHM, J, 1/16W		
		R4722	D0GA103JA039	M 10K OHM, J, 1/16W		
		R4723	D0GA473JA039	M 47K OHM, J, 1/16W		
		R4724	D0GA911JA039	M 910 OHM, J, 1/16W		
		R4725	D0GA473JA039	M 47K OHM, J, 1/16W		
		R4731	D0GA103JA039	M 10K OHM, J, 1/16W		
		R4739	D0GA220JA039	M 22 OHM, J, 1/16W		
		R4748	D0GA680JA039	M 68 OHM, J, 1/16W		
		R4749	D0GA680JA039	M 68 OHM, J, 1/16W		
		R4750	D0GA680JA039	M 68 OHM, J, 1/16W		
		R4751	D0GA680JA039	M 68 OHM, J, 1/16W		
		R4752	D1BA1600A023	M 160 OHM, F, 1/16W		
		R4753	D1BA82R0A023	M 82 OHM, F, 1/16W		
		R4764	D0GA473JA039	M 47K OHM, J, 1/16W		
		R4766	D0GA473JA039	M 47K OHM, J, 1/16W		
		R4788	D0GA103JA039	M 10K OHM, J, 1/16W		
		R4794	D0GA103JA039	M 10K OHM, J, 1/16W		
		R4795	D0GA103JA039	M 10K OHM, J, 1/16W		
		R4796	D0GA473JA039	M 47K OHM, J, 1/16W		
		R4797	D0GA911JA039	M 910 OHM, J, 1/16W		
		R4798	D0GA473JA039	M 47K OHM, J, 1/16W		
		R4799	D0GA273JA039	M 27K OHM, J, 1/16W		
		R4800	D0GA680JA039	M 68 OHM, J, 1/16W		
		R4801	D0GA680JA039	M 68 OHM, J, 1/16W		
		R4803	D0GA473JA039	M 47K OHM, J, 1/16W		
		R4804	D0GA103JA039	M 10K OHM, J, 1/16W		
		R4805	D0GA103JA039	M 10K OHM, J, 1/16W		
		R4806	D0GA103JA039	M 10K OHM, J, 1/16W		
		R4807	D0GA473JA039	M 47K OHM, J, 1/16W		
		R4808	D0GA911JA039	M 910 OHM, J, 1/16W		
		R4809	D0GA473JA039	M 47K OHM, J, 1/16W		
		R4904	D0GAR00JA039	M 0 OHM, 1/16W		
		R4905	D0GAR00JA039	M 0 OHM, 1/16W		
		R4906	D0GAR00JA039	M 0 OHM, 1/16W		
		R4980	D0GB332JA065	M 3.3K OHM, J, 1/10W		
		R4981	D0GA103JA039	M 10K OHM, J, 1/16W		
		R4982	D0GA473JA039	M 47K OHM, J, 1/16W		
		R4984	D0GA102JA039	M 1K OHM, J, 1/16W		
		R4985	D0GA103JA039	M 10K OHM, J, 1/16W		
		R4986	D0GA103JA039	M 10K OHM, J, 1/16W		
		R4987	D0GA102JA039	M 1K OHM, J, 1/16W		
		R4988	D0GA473JA039	M 47K OHM, J, 1/16W		
		R4989	D0GA102JA039	M 1K OHM, J, 1/16W		
		R4990	D1H86804A042	M 68 OHM, J, 1/16W		
		R4991	D0GA473JA039	M 47K OHM, J, 1/16W		
		R4992	D0GA473JA039	M 47K OHM, J, 1/16W		
		R4993	D0GA473JA039	M 47K OHM, J, 1/16W		
		R4994	D0GA473JA039	M 47K OHM, J, 1/16W		
		R4997	D1H8R0040016	M 0 OHM, Z, 1/16W		
		R4998	D0GA102JA039	M 1K OHM, J, 1/16W		
		R5002	D0GA683JA039	M 68K OHM, J, 1/16W		

## Model No. : TH-49ES630K/TH-49ES630M/TH-49ES630S Parts List

Change	Safety	Ref. No.	Part No.	Part Name & Description	Q'ty	Remarks
		R5003	D0GA103JA039	M 10K OHM, J, 1/16W		
		R5006	D0GA103JA039	M 10K OHM, J, 1/16W		
		R5007	D0GA103JA039	M 10K OHM, J, 1/16W		
		R5009	D1BA5602A023	M 56K OHM, F, 1/16W		
		R5012	D1BA2202A023	M 22K OHM, F, 1/16W		
		R5019	D0GAR00JA039	M 0 OHM, 1/16W		
		R5030	D0GA103JA039	M 10K OHM, J, 1/16W		
		R5031	D0GAR00JA039	M 0 OHM, 1/16W		
		R5032	D0GAR00JA039	M 0 OHM, 1/16W		
		R5100	D0GA101JA039	M 100 OHM, J, 1/16W		
		R5101	D0GA473JA039	M 47K OHM, J, 1/16W		
		R5102	D0GA473JA039	M 47K OHM, J, 1/16W		
		R5104	D0GA103JA039	M 10K OHM, J, 1/16W		
		R5152	D0GA222JA039	M 2.2K OHM, J, 1/16W		
		R5175	D0GA681JA039	M 680 OHM, J, 1/16W		
		R5181	D0GA103JA039	M 10K OHM, J, 1/16W		
		R5183	D0GB101JA065	M 100 OHM, J, 1/10W		
		R5200	D0GBR00J0004	M 0 OHM, J, 1/10W		
		R5302	D1BA1200A023	M 120 OHM, F, 1/16W		
		R5303	D1BA56R0A023	M 56 OHM, F, 1/16W		
		R5401	D1BA2202A023	M 22K OHM, F, 1/16W		
		R5402	D1BB9100A073	M 910 OHM, J, 1/10W		
		R5403	D1BB2871A073	M 2.87K OHM, J, 1/10W		
		R5421	D1BA3302A023	M 33K OHM, F, 1/16W		
		R5422	D1BB9100A073	M 910 OHM, J, 1/10W		
		R5423	D1BB4871A073	M 4.87K OHM, J, 1/10W		
		R5426	D0GA103JA039	M 10K OHM, J, 1/16W		
		R5500	D1BA4702A023	M 47K OHM, F, 1/16W		
		R5501	D1BA3601A023	M 3.6K OHM, F, 1/16W		
		R5502	D1BA5102A023	M 51K OHM, F, 1/16W		
		R5507	D0GA473JA039	M 47K OHM, J, 1/16W		
		R5712	D0GA103JA039	M 10K OHM, J, 1/16W		
		R5715	D1BA1402A023	M 14K OHM, F, 1/16 W		
		R5716	D1BA6041A023	M 6.04K OHM, F, 1/16 W		
		R5717	D0GA123JA039	M 12K OHM, J, 1/16W		
		R5731	D1BA1200A023	M 120 OHM, F, 1/16W		
		R5732	D1BA56R0A023	M 56 OHM, F, 1/16W		
		R5761	D0GDR00J0004	M 0 OHM, J, 1/8W		
		R5762	D0GAR00JA039	M 0 OHM, 1/16W		
		R6700	D0GA221JA039	M 220 OHM, J, 1/16W		
		R6701	D0GA221JA039	M 220 OHM, J, 1/16W		
		R6724	D0GA103JA039	M 10K OHM, J, 1/16W		
		R6736	D0GAR00JA039	M 0 OHM, 1/16W		
		R6737	D0GAR00JA039	M 0 OHM, 1/16W		
		R6738	D0GAR00JA039	M 0 OHM, 1/16W		
		R6757	D0GA220JA039	M 22 OHM, J, 1/16W		
		R6759	D0GA220JA039	M 22 OHM, J, 1/16W		
		R6770	D0GA220JA039	M 22 OHM, J, 1/16W		
		R6771	D0GA220JA039	M 22 OHM, J, 1/16W		
		R6786	D0GAR00JA039	M 0 OHM, 1/16W		
		R6787	D0GAR00JA039	M 0 OHM, 1/16W		
		R6804	D0GA471JA039	M 470 OHM, J, 1/16W		
		R6806	D0GA103JA039	M 10K OHM, J, 1/16W		
		R6809	D0GAR00JA039	M 0 OHM, 1/16W		
		R6815	D0GAR00JA039	M 0 OHM, 1/16W		
		R6817	D0GAR00JA039	M 0 OHM, 1/16W		
		R6822	D0GA332JA039	M 3.3K OHM, J, 1/16W		
		R6828	D0GA470JA039	M 47 OHM, J, 1/16W		
		R6829	D0GA470JA039	M 47 OHM, J, 1/16W		
		R6830	D0GA470JA039	M 47 OHM, J, 1/16W		
		R6831	D0GA470JA039	M 47 OHM, J, 1/16W		
		R6837	D0GBR00J0004	M 0 OHM, J, 1/10W		
		R6878	D0GA332JA039	M 3.3K OHM, J, 1/16W		
		R6879	D0GA332JA039	M 3.3K OHM, J, 1/16W		

## Model No. : TH-49ES630K/TH-49ES630M/TH-49ES630S Parts List

Change	Safety	Ref. No.	Part No.	Part Name & Description	Q'ty	Remarks
		R6888	D0GA103JA039	M 10K OHM, J, 1/16W		
		R6913	D0GAR00JA039	M 0 OHM, 1/16W		
		R6950	D0GA101JA039	M 100 OHM, J, 1/16W		
		R6951	D0GA101JA039	M 100 OHM, J, 1/16W		
		R6952	D0GA102JA039	M 1K OHM, J, 1/16W		
		R6953	D0GA101JA039	M 100 OHM, J, 1/16W		
		R6954	D0GA101JA039	M 100 OHM, J, 1/16W		
		R6955	D0GA102JA039	M 1K OHM, J, 1/16W		
		R6956	D0GA332JA039	M 3.3K OHM, J, 1/16W		
		R6963	D0GAR00JA039	M 0 OHM, 1/16W		
		R6964	D0GAR00JA039	M 0 OHM, 1/16W		
		R6965	D0GAR00JA039	M 0 OHM, 1/16W		
		R6967	D0GAR00JA039	M 0 OHM, 1/16W		
		R6969	D0GAR00JA039	M 0 OHM, 1/16W		
		R7101	D0GF824JA048	M 820 KOHM, J, 1/4W		
		R7102	D0GF824JA048	M 820 KOHM, J, 1/4W		
		R7103	D0GF824JA048	M 820 KOHM, J, 1/4W		
		R7104	D0XB106JA018	M 10M OHM, J, 1/16W		
		R7105	D0GD102JA052	M 1K OHM, J, 1/8W		
		R7106	D0GD102JA052	M 1K OHM, J, 1/8W		
		R7201	ERX1SJR22V	M 0.22 OHM, J, 1W		For TH-49ES630M & S Only
		R7201	ERX1SJR27V	M 0.27 OHM, J, 1W		For TH-49ES630K Only
		R7202	ERX1SJR22V	M 0.22 OHM, J, 1W		For TH-49ES630M & S Only
		R7202	ERX1SJR27V	M 0.27 OHM, J, 1W		For TH-49ES630K Only
		R7203	D0GD823JA052	M 82K OHM, J, 1/8W		
		R7204	D0GF221JA047	M 220 OHM, J, 1/3W		
		R7205	D0GD101JA052	M 100 OHM, J, 1/8W		
		R7206	D0GD220JA059	M 22 OHM, J, 1/4W		
		R7207	D0GD103JA052	M 10K OHM, J, 1/8W		
		R7208	ERX1SJR22V	M 0.22 OHM, J, 1W		For TH-49ES630M & S Only
		R7208	ERX1SJR27V	M 0.27 OHM, J, 1W		For TH-49ES630K Only
		R7209	D0GD100JA052	M 10 OHM, J, 1/8W		
		R7211	D0GD223JA052	M 22K OHM, J, 1/8W		
		R7212	D0GD822JA052	M 8.2K OHM, J, 1/8W		
		R7214	D0GF225JA048	M 2.2M OHM, J, 1/4W		
		R7215	D0GF225JA048	M 2.2M OHM, J, 1/4W		
		R7216	D0GF225JA048	M 2.2M OHM, J, 1/4W		
		R7217	D0GF225JA048	M 2.2M OHM, J, 1/4W		
		R7218	D0GD124JA052	M 120K OHM, J, 1/8W		
		R7219	D0GB223JA065	M 22K OHM, J, 1/10W		
		R7220	D0GB103JA065	M 10K OHM, J, 1/10W		
		R7221	D0GD101JA052	M 100 OHM, J, 1/8W		For TH-49ES630M & S Only
		R7221	D0GD102JA052	M 1K OHM, J, 1/8W		For TH-49ES630K Only
		R7223	D0GDR00J0004	M 0 OHM, J, 1/8W		
		R7224	D1AB3904A023	M 3.9M OHM, F, 1/16W		
		R7225	D1AB3004A023	M 3000K OHM, F, 1/4W		
		R7226	D1AB3004A023	M 3000K OHM, F, 1/4W		
		R7227	D1AB3904A023	M 3.9M OHM, F, 1/16W		
		R7229	D0GD224JA052	M 220K OHM, J, 1/8W		
		R7230	D1BD3902A066	M 39K OHM, F, 1/8W		
		R7231	D1BD4702A066	M 47K OHM, F, 1/8W		
		R7301	D1BD4702A066	M 47K OHM, F, 1/8W		
		R7302	D0GF391JA048	M 390 OHM, J, 1/4W		
		R7303	D0GF391JA048	M 390 OHM, J, 1/4W		
		R7304	D0GF4R7JA048	M 4.7 OHM, J, 1/4W		
		R7305	D0GF750JA047	M 75 OHM, J, 1/4W		
		R7306	D0GD222JA052	M 2.2K OHM, J, 1/8W		
		R7307	D0GD222JA052	M 2.2K OHM, J, 1/8W		
		R7308	D0GD222JA052	M 2.2K OHM, J, 1/8W		
		R7309	D0GD222JA052	M 2.2K OHM, J, 1/8W		
		R7310	D1BD3903A066	M 390K OHM, F, 1/8W		
		R7311	D0GD222JA052	M 2.2K OHM, J, 1/8W		
		R7312	D0GDR00J0004	M 0 OHM, J, 1/8W		
		R7313	D0GDR00J0004	M 0 OHM, J, 1/8W		

**Model No. : TH-49ES630K/TH-49ES630M/TH-49ES630S Parts List**

Change	Safety	Ref. No.	Part No.	Part Name & Description	Q'ty	Remarks
		R7315	D0GD222JA052	M 2.2K OHM, J, 1/8W		
		R7321	D0GD100JA059	M 10 OHM, J, 1/4W		
		R7322	D0GD100JA059	M 10 OHM, J, 1/4W		
		R7323	D0GD103JA052	M 10K OHM, J, 1/8W		
		R7324	D0GD103JA052	M 10K OHM, J, 1/8W		
		R7327	D0GF101JA048	M 100 OHM, J, 1/4W		
		R7353	D0GD101JA052	M 100 OHM, J, 1/8W		
		R7354	D0GF1R0JA047	M 1.0 OHM, J, 1/4W		
		R7355	D0GF1R0JA047	M 1.0 OHM, J, 1/4W		
		R7380	D0GD224JA052	M 220K OHM, J, 1/8W		
		R7381	D0GD473JA052	M 47K OHM, J, 1/8W		
		R7387	D0GF4R7JA048	M 4.7 OHM, J, 1/4W		
		R7397	D1BD1802A066	M 18K OHM, F, 1/8W		
		R7398	D1BD2201A066	M 220 OHM, F, 1/8W		
		R7399	D0GF750JA047	M 75 OHM, J, 1/4W		
		R7401	D0GD472JA052	M 4.7K OHM, J, 1/8W		
		R7402	D0GD103JA052	M 10K OHM, J, 1/8W		
		R7404	D0GD334JA052	M 330K OHM, J, 1/8W		
		R7405	D0GD561JA052	M 560 OHM, J, 1/8W		
		R7406	D1BD3301A066	M 3.3K OHM, F, 1/8W		
		R7407	D0GD103JA052	M 10K OHM, J, 1/8W		
		R7408	D0GD102JA052	M 1K OHM, J, 1/8W		
		R7409	D0GD333JA052	M 33K OHM, J, 1/8W		
		R7410	D0GD153JA052	M 15K OHM, J, 1/8W		
		R7411	D0GD104JA052	M 100K OHM, J, 1/8W		
		R7412	D0GD153JA052	M 15K OHM, J, 1/8W		
		R7413	D0GDR00J0004	M 0 OHM, J, 1/8W		
		R7414	D0GD220JA052	M 22 OHM, J, 1/8W		
		R7415	D0GD220JA052	M 22 OHM, J, 1/8W		
		R7418	D0GD105JA052	M 1M OHM, J, 1/8W		
		R7420	D0GDR00J0004	M 0 OHM, J, 1/8W		
		R7421	D0GD104JA052	M 100K OHM, J, 1/8W		
		R7422	D0GD220JA052	M 22 OHM, J, 1/8W		
		R7423	D0GD333JA052	M 33K OHM, J, 1/8W		
		R7424	D0GD104JA052	M 100K OHM, J, 1/8W		
		R7425	D0GD104JA052	M 100K OHM, J, 1/8W		
		R7426	D0GB472JA065	M 4.7K OHM, J, 1/10W		
		R7432	D0GD100JA052	M 10 OHM, J, 1/8W		
		R7436	D0GD104JA052	M 100K OHM, J, 1/8W		
		R7476	D0GZ2R2JA020	M 2.2 OHM, J, 1/2W		
		R7478	D0GD104JA052	M 100K OHM, J, 1/8W		
		R7479	D0GD104JA052	M 100K OHM, J, 1/8W		
		R7480	D0GD223JA052	M 22K OHM, J, 1/8W		
		R7481	D0GD473JA052	M 47K OHM, J, 1/8W		
		R7482	D0GD473JA052	M 47K OHM, J, 1/8W		
		R7485	D0GD334JA052	M 330K OHM, J, 1/8W		
		R7486	D1BB2003A073	M 200K OHM, F, 1/10W		
		R7487	D1BB3602A073	M 36K OHM, F, 1/10W		
		R7488	D0GD100JA052	M 10 OHM, J, 1/8W		
		R7492	D0GD243JA052	M 24K OHM, J, 1/8W		
		R7495	D0GD100JA052	M 10 OHM, J, 1/8W		
		R7521	D1BD1802A066	M 18K OHM, F, 1/8W		
		R7523	D0GD473JA052	M 47K OHM, J, 1/8W		
		R7801	ERG2SJ562V	M 5.6K OHM, J, 2W		
		R7802	D0GD101JA052	M 100 OHM, J, 1/8W		
		R7803	ERG2SJ562V	M 5.6K OHM, J, 2W		
		R7804	D0GB470JA065	M 47 OHM, J, 1/10W		
		R7805	D1BD6492A066	M 64.9K OHM, F, 1/8W		
		R7806	D1BD7501A066	M 7.5K OHM, F, 1/8W		
		R7807	D1BD2402A066	M 24K OHM, F, 1/8W		
		R7809	D0GD102JA052	M 1K OHM, J, 1/8W		
		R7810	D0GD103JA052	M 10K OHM, J, 1/8W		
		R7811	ERX2SG3R0V	M 3 OHM, J, 2W		
		R7812	ERX2SG3R0V	M 3 OHM, J, 2W		

**Model No. : TH-49ES630K/TH-49ES630M/TH-49ES630S Parts List**

Change	Safety	Ref. No.	Part No.	Part Name & Description	Q'ty	Remarks
		R7814	D0GD104JA052	M 100K OHM, J, 1/8W		
		R7815	D0GD104JA052	M 100K OHM, J, 1/8W		
		R7816	D1BD1203A066	M 120K OHM, D, 1/10 W		
		R7820	D0GD101JA059	M 100 OHM, J, 1/8W		
		R7821	D0GD101JA052	M 100 OHM, J, 1/8W		
		R7827	D0GD100JA052	M 10 OHM, J, 1/8W		
		R7833	D0GB470JA065	M 47 OHM, J, 1/10W		
		R7840	ERG2SJ103P	M 10k OHM, J, 2W		
		R7842	D0GFR18JA020	M 0.18 OHM, J, 1/4W		
		R7843	D0GD220JA059	M 22 OHM, J, 1/4W		
		R7844	D0GD103JA052	M 10K OHM, J, 1/8W		
		R7845	D0GFR18JA020	M 0.18 OHM, J, 1/4W		
		R7846	D0GFR18JA020	M 0.18 OHM, J, 1/4W		
		R7849	D1BD3903A066	M 390K OHM, F, 1/8W		
		R7851	D1BF2200A073	M 220 OHM, F, 1/16W		
		R7856	D1BD3903A066	M 390K OHM, F, 1/8W		
		R7863	D1BD1501A066	M 1.5K OHM, F, 1/10W		
		R7866	D1BD3903A066	M 390K OHM, F, 1/8W		
		R7867	D1BD3303A066	M 330K OHM, D, 1/10 W		
		R7870	D0GD152JA052	M 1.5K OHM, J, 1/8W		
		R7873	D0GDR00J0004	M 0 OHM, J, 1/8W		
		R7882	D1BD6202A066	M 62K OHM, D, 1/10 W		
		R7899	D0GD101JA052	M 100 OHM, J, 1/8W		
		R8005	D0GA1R0JA039	M 1 OHM, J, 1/16W		
		R8010	D0GA511JA039	M 510 OHM, J, 1/16W		
		R8011	D0GA104JA039	M 100K OHM, J, 1/16W		
		R8017	D1BA5R10A023	M 5.1 OHM, F, 1/16W		
		R8018	D1BA5R10A023	M 5.1 OHM, F, 1/16W		
		R8019	D1BA5R10A023	M 5.1 OHM, F, 1/16W		
		R8020	D0GA473JA039	M 47K OHM, J, 1/16W		
		R8021	D0GAR00JA039	M 0 OHM, 1/16W		
		R8102	D1BA4701A023	M 4.7K OHM, F, 1/16W		
		R8103	D1BA2002A023	M 20K OHM, F, 1/16W		
		R8104	D1BA1802A023	M 18K OHM, F, 1/16W		
		R8107	D0GA103JA039	M 10K OHM, J, 1/16W		
		R8108	D0GA103JA039	M 10K OHM, J, 1/16W		
		R8110	D0GER00J0004	M 0 OHM, J, 1/10W		
		R8115	D0GAR00JA039	M 0 OHM, 1/16W		
		R8117	D1BA3002A023	M 30K OHM, F, 1/16W		
		R8118	D1BA3002A023	M 30K OHM, F, 1/16W		
		R8119	D1BA1001A023	M 1K OHM, F, 1/16 W		
		R8134	D0GAR00JA039	M 0 OHM, 1/16W		
		R8200	D1BA2400A023	M 240 OHM, F, 1/16W		
		R8201	D1BA2400A023	M 240 OHM, F, 1/16W		
		R8203	D1BA2400A023	M 240 OHM, F, 1/16W		
		R8204	D1BA2400A023	M 240 OHM, F, 1/16W		
		R8205	D1BA2400A023	M 240 OHM, F, 1/16W		
		R8206	D1BA2400A023	M 240 OHM, F, 1/16W		
		R8207	D1BA2400A023	M 240 OHM, F, 1/16W		
		R8208	D1BA2400A023	M 240 OHM, F, 1/16W		
		R8209	D1BA2400A023	M 240 OHM, F, 1/16W		
		R8210	D1BA2400A023	M 240 OHM, F, 1/16W		
		R8211	D1BA2400A023	M 240 OHM, F, 1/16W		
		R8212	D0GAR00JA039	M 0 OHM, 1/16W		
		R8300	D0GA331JA039	M 330 OHM, J, 1/16W		
		R8301	D0GA360JA039	M 36 OHM, J, 1/16W		
		R8302	D0GA360JA039	M 36 OHM, J, 1/16W		
		R8303	D1BA3601A023	M 3.6K OHM, F, 1/16W		
		R8305	D1BA1212A023	M 12.1K OHM, F, 1/16W		
		R8306	D0GA360JA039	M 36 OHM, J, 1/16W		
		R8307	D0GA360JA039	M 36 OHM, J, 1/16W		
		R8308	D1BA3601A023	M 3.6K OHM, F, 1/16W		
		R8451	D0GA103JA039	M 10K OHM, J, 1/16W		
		R8453	D1BA1652A023	M 16.5K OHM, F, 1/16W		

## Model No. : TH-49ES630K/TH-49ES630M/TH-49ES630S Parts List

Change	Safety	Ref. No.	Part No.	Part Name & Description	Q'ty	Remarks
		R8454	D0GA103JA039	M 10K OHM, J, 1/16W		
		R8455	D0GA103JA039	M 10K OHM, J, 1/16W		
		R8457	D1BA2872A023	M 28.7K OHM, F, 1/16W		
		R8458	D1BA1652A023	M 16.5K OHM, F, 1/16W		
		R8470	D0GA103JA039	M 10K OHM, J, 1/16W		
		R8482	D0GAR00JA039	M 0 OHM, 1/16W		
		R8512	D0GA680JA039	M 68 OHM, J, 1/16W		
		R8513	D1H8R0040016	M 0 OHM, Z, 1/16W		
		R8514	D1H8R0040016	M 0 OHM, Z, 1/16W		
		R8515	D0GBR00J0004	M 0 OHM, J, 1/10W		
		R8516	D0GA103JA039	M 10K OHM, J, 1/16W		
		R8518	D0GA103JA039	M 10K OHM, J, 1/16W		
		R8677	D0GA103JA039	M 10K OHM, J, 1/16W		
		R8678	D1BA49R9A022	M 49.9 OHM, F, 1/16W		
		R8679	D1BA49R9A022	M 49.9 OHM, F, 1/16W		
		R8680	D1BA49R9A022	M 49.9 OHM, F, 1/16W		
		R8681	D1BA49R9A022	M 49.9 OHM, F, 1/16W		
		R8803	D0GA473JA039	M 47K OHM, J, 1/16W		
		R8816	D0GA103JA039	M 10K OHM, J, 1/16W		
		R8817	D0GA103JA039	M 10K OHM, J, 1/16W		
		R8818	D0GA103JA039	M 10K OHM, J, 1/16W		
		R8850	D0GA331JA039	M 330 OHM, J, 1/16W		
		R8851	D1BB7151A073	M 7.15K OHM, J, 1/10W		
		R8852	D0GA102JA039	M 1K OHM, J, 1/16W		
		R8853	D0GA182JA039	M 1.8K OHM, J, 1/16W		
		R8858	D0GA103JA039	M 10K OHM, J, 1/16W		
		R8873	D0GA103JA039	M 10K OHM, J, 1/16W		
		R8889	D0GA103JA039	M 10K OHM, J, 1/16W		
		R8890	D0GA103JA039	M 10K OHM, J, 1/16W		
		R8891	D0GA103JA039	M 10K OHM, J, 1/16W		
		R8894	D0GA103JA039	M 10K OHM, J, 1/16W		
		R8898	D0GA103JA039	M 10K OHM, J, 1/16W		
		R8924	D0GA102JA039	M 1K OHM, J, 1/16W		
		R8926	D0GA332JA039	M 3.3K OHM, J, 1/16W		
		R8967	D0GA473JA039	M 47K OHM, J, 1/16W		
		R8968	D0GA470JA039	M 47 OHM, J, 1/16W		
		R8969	D0GAR00JA039	M 0 OHM, 1/16W		
		R8970	D0GAR00JA039	M 0 OHM, 1/16W		
		R8973	D0GA473JA039	M 47K OHM, J, 1/16W		
		R8974	D0GA470JA039	M 47 OHM, J, 1/16W		
		R8975	D0GAR00JA039	M 0 OHM, 1/16W		
		R8976	D0GAR00JA039	M 0 OHM, 1/16W		
		R8977	D0GAR00JA039	M 0 OHM, 1/16W		
		R8978	D0GAR00JA039	M 0 OHM, 1/16W		
		R8979	D0GAR00JA039	M 0 OHM, 1/16W		
		R8980	D0GAR00JA039	M 0 OHM, 1/16W		
		R8981	D0GAR00JA039	M 0 OHM, 1/16W		
		R8982	D0GAR00JA039	M 0 OHM, 1/16W		
		R8983	D0GA470JA039	M 47 OHM, J, 1/16W		
		R8984	D0GA470JA039	M 47 OHM, J, 1/16W		
		R8985	D0GA470JA039	M 47 OHM, J, 1/16W		
		R8986	D0GA470JA039	M 47 OHM, J, 1/16W		
		R8987	D0GA470JA039	M 47 OHM, J, 1/16W		
		R8988	D0GA470JA039	M 47 OHM, J, 1/16W		
		R8989	D0GA470JA039	M 47 OHM, J, 1/16W		
		R8990	D0GA473JA039	M 47K OHM, J, 1/16W		
		R8991	D0GA470JA039	M 47 OHM, J, 1/16W		
		R8993	D0GA470JA039	M 47 OHM, J, 1/16W		
		R8998	D0GA272JA039	M 2.7K OHM, J, 1/16W		
		R8999	D0GA272JA039	M 2.7K OHM, J, 1/16W		
		R9000	D0GA272JA039	M 2.7K OHM, J, 1/16W		
		R9001	D0GA272JA039	M 2.7K OHM, J, 1/16W		
		R9007	D0GA272JA039	M 2.7K OHM, J, 1/16W		
		R9008	D0GA272JA039	M 2.7K OHM, J, 1/16W		

## Model No. : TH-49ES630K/TH-49ES630M/TH-49ES630S Parts List

Change	Safety	Ref. No.	Part No.	Part Name & Description	Q'ty	Remarks
		R9014	D0GAR00JA039	M 0 OHM, 1/16W		
		R9016	D0GA103JA039	M 10K OHM, J, 1/16W		
		R9056	D0GA220JA039	M 22 OHM, J, 1/16W		
		R9057	D0GA220JA039	M 22 OHM, J, 1/16W		
		RM2800	B3RBB0000018	PHOTO DETECTOR		
		SN2800	B3JB00000223	PHOTO DETECTOR		
		SW2851	EVQ11G05R	SWITCH		
		SW2852	EVQ11G05R	SWITCH		
		SW2853	EVQ11G05R	SWITCH		
		SW2854	EVQ11G05R	SWITCH		
		SW2855	EVQ11G05R	SWITCH		
		SW2857	EVQ11G05R	SWITCH		
		T7202	G4DYA0000496	TRANSFORMER		For TH-49ES630K Only
		T7202	G4DYA0000848	TRANSFORMER		For TH-49ES630M & S Only
		T7302	G4DYA0000853	SWITCHING TRANSFORMER		
		T7814	G0C820K00012	INDUCTORS		
		X6800	H0J410500003	CRYSTAL RESONATORS		
		X6950	H0J240500106	CRYSTAL OSCILLATOR		
		X8300	H0J250500109	CRYSTAL RESONATOR		
		ZA059	K4AD01D00026	TERMINAL		
		ZA060	K4AD01D00026	TERMINAL		
		ZA063	K4AD01D00026	TERMINAL		
		ZA065	K4AD01D00026	TERMINAL		
		ZA067	K4AD01D00026	TERMINAL		
		ZA068	K4AD01D00026	TERMINAL		
		ZA072	K4AD01D00026	TERMINAL		
		ZA073	K4AD01D00026	TERMINAL		
		ZA075	K4AD01D00026	TERMINAL		
		ZA076	K4AD01D00026	TERMINAL		
		ZA102	K4AD01D00026	TERMINAL		
		ZA103	K4AD01D00026	TERMINAL		
		ZA104	K4AD01D00026	TERMINAL		
		ZA110	K4AD01D00026	TERMINAL		
		ZA113	K4AD01D00026	TERMINAL		
		ZA115	K4AD01D00026	TERMINAL		
		ZA116	K4AD01D00026	TERMINAL		
		ZA117	K4AD01D00026	TERMINAL		
		ZA119	K4AD01D00026	TERMINAL		
		ZA121	K4AD01D00026	TERMINAL		
		ZA122	K4AD01D00026	TERMINAL		
		ZA123	K4AD01D00026	TERMINAL		
		ZA125	K4AD01D00026	TERMINAL		
		ZA126	K4AD01D00026	TERMINAL		
		ZA127	K4AD01D00026	TERMINAL		
		ZA130	K4AD01D00026	TERMINAL		
		ZA132	K4AD01D00026	TERMINAL		
		ZA7101	K4AD01A00004	RUG TERMINAL		
		ZA7102	K4AD01A00004	RUG TERMINAL		
		ZA7103	K4AD01A00004	RUG TERMINAL		
		ZA7105	K4AD01A00004	RUG TERMINAL		

## Model No. : TH-49ES630K/TH-49ES630M/TH-49ES630S Parts List

Change	Safety	Ref. No.	Part No.	Part Name & Description	Q'ty	Remarks
		1	K1HY05YY0281	WIFI DONGLE WIRE		
	⚠	2	K2CQ2YY00122	AC CORD		For TH-49ES630K & S Only
	⚠	2	K2CT2YY00091	AC CORD		For TH-49ES630M Only
		3	L0EYAA000068	SPEAKER UNIT		
		4	N2QAYB001126	REMOTE TRANSMITTER		
	⚠	5	N5HBZ0000120	WIFI MOUDLE		
		6	TBL4ZX00101	STAND METAL KIT ASSEMBLY		Kit Includes All Brackets and Screws
		7	TBL4ZX00151	STAND COVER ASSY		
		8	TBX5ZA03303A	KEY BUTTON BRACKET		
			THE5ZL002N	SCREW (B) M4x12mm (Round Screw)		Pedestal Assembly to TV Screw Note : Screws Supplied with Stand Metal Assy
		9	TKK5ZC50501A	LED PANEL		
		10	TKP5ZA32206	SIDE AV BRACKET		
		11	TPD4GA08211	CUSHION_FRONT		
		12	TPD4GA08771	CUSHION_TOP		
		13	TPD4GA08781	CUSHION_BOTTOM		
		14	TPE4GH015-1	SET_BAG		
		15	TQZ4GC208	FAN BAG ASSEMBLY		For TH-49ES630S Only
		15	TQZ4GC210	FAN BAG ASSEMBLY		For TH-49ES630K Only
		15	TQZ4GC211	FAN BAG ASSEMBLY		For TH-49ES630M Only
		16	TSCKF1050054	LVDS CABLE		
		17	TXFPC01VVUM	CARTON_ASSEMBLY		For TH-49ES630M Only
		17	TXFPC01XFUS	CARTON_ASSEMBLY		For TH-49ES630S Only
		17	TXFPC01ZDUK	CARTON_ASSEMBLY		For TH-49ES630K Only
	⚠	18	TXN/K1WLUK	K PRINT ASSEMBLY		
	⚠	19	TXN/P1GEVX	P PRINT ASSEMBLY		For TH-49ES630M & S Only
	⚠	19	TXN/P1ZDUK	P PRINT ASSEMBLY		For TH-49ES630K Only
		20	TZBL4GX00541	PEDESTAL ASSY_L		
		21	TZBL4GX00551	PEDESTAL ASSY_R		
	⚠	22	TZLP151KKAM3	ASSY 49 IN-HOUSE PANEL		
	⚠	23	TZT/A1VVUM	A PRINT ASSEMBLY		For TH-49ES630M Only
	⚠	23	TZT/A1XPUS	A PRINT ASSEMBLY		For TH-49ES630S Only
	⚠	23	TZT/A1ZDUK	A PRINT ASSEMBLY		For TH-49ES630K Only
		24	TZTU4GA1934	BACK COVER COMPLETE ASSY		For TH-49ES630S Only
		24	TZTU4GA1939	BACK COVER COMPLETE ASSY		For TH-49ES630K Only
		24	TZTU4GA1941	BACK COVER COMPLETE ASSY		For TH-49ES630M Only
			XYN5+F14FNK	SCREW (A) M5x14mm (Flat Screw)		Stand Metal Bracket to Pedestal Base Screw Note : Screws Supplied with Stand Metal Assy