NEC

PART NO. 599911029

SERVICE MANUAL

COLOR MONITOR **Multi Sync V552&V652**

MODELS:

V552 (A)
V552 (B)
V552 (C)
LCD-V552 (J)
V652 (A)
V652 (B)
V652 (C)
LCD-V652 (J)
V552-U2 (A)
V552-U2 (B)
V552-U2 (C)
LCD-V552-U2 (J)

2nd Edition

NEC DISPLAY SOLUTIONS, LTD.

201512
08V71UAN 08V71UBN 08V94UAN
08V71UCN 08V71UJN 08V94UBN
08V91UAN 08V91UBN 08V94UCN
08V91UCN 08V91UJN 08V94UJN

When V552&V652 is repaired, this manual is the description of the necessary matter.

VERY IMPORTANT!

VERY IMPORTANT!

This Equipment is compatible with RoHS Directive and Lead-Free.
Since the equipment is compatible with RoHS Directive, use components in which the use of specific chemically noxious substances is restricted; use only designated spare parts when it is necessary to replace such parts with new parts.
Use lead-free solder for the equipment compatible with ones with substrates on which lead-free components are mounted. For the details, refer to “Caution for Lead-Free Soldering Work” given in the next page.

1. Safety guideline in servicing

1) Never touch the portions with the marking (⚠).

2) Do not expose the set to rain or water.
A risk of fire or electric shock can result.

3) Use an adequate power cord.
A risk of fire or electric shock can result.

4) Do not attempt to service or modify the set without prior permission of the manufacturer.
A risk of fire or electric shock can result.

5) Leave the maintenance service to a service engineer having qualification, knowledge and experience.
A risk of electric shock, injury or fire can result.

6) Always employ genuine parts indicated in the service manual for replacement.
A risk of fire or electric shock can result.

7) Confirm the connection of the power supply connector earth cable in reassembling. (Soldering or Screw fixation)
A risk of fire or electric shock can result.

8) Use the specified binding bands, clampers, tubes and barriers--all of which are necessary for insulation/protection--in their original positions in reassembling.
A risk of fire or electric shock can result.

9) Other complete parts are returned to an appropriate position.

2. Other cautions necessary

1) When removing the cables from their connectors, take care not to damage the wire portions so as to prevent the occurrence of poor contact.
2) When attaching/detaching screws, use a screwdriver that is well-fit to the screw size.

3. Caution for LEAD-FREE soldering work

For this equipment, parts compatible with lead-free materials are used. Please observe the following precautions, when performing any soldering work.

1) Use lead-free solder for substrates mounted with lead-free parts. If you use eutectic solder by mistake, solder will not fuse well because of the difference in fusion point.

2) Fusion Point

Lead-free solder: 220°C

Eutectic solder: 183°C

3) Solder composition of Lead-free solder: Sn-3.0Ag-0.5Cu

[Maker] [Type]

Nihon Genma DHB-RMA NP303-###

Senju metal ESC F3 M705E-###

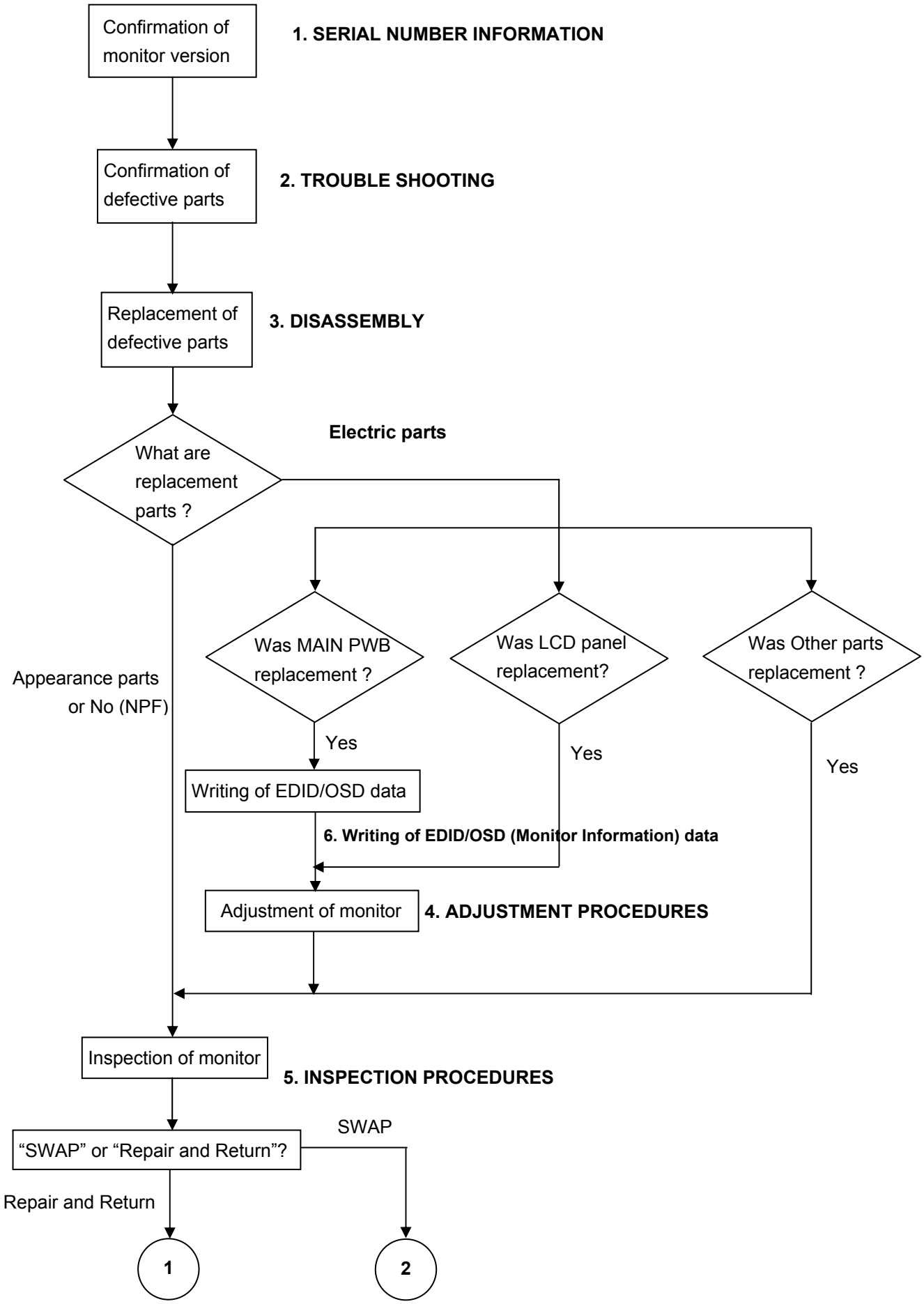
(#: This mark shows the diameter of the solder wire.)

4) When working with lead-free solder always use a temperature adjustable soldering iron. Moreover, the power consumption of the soldering iron must use from 25W to 75W.

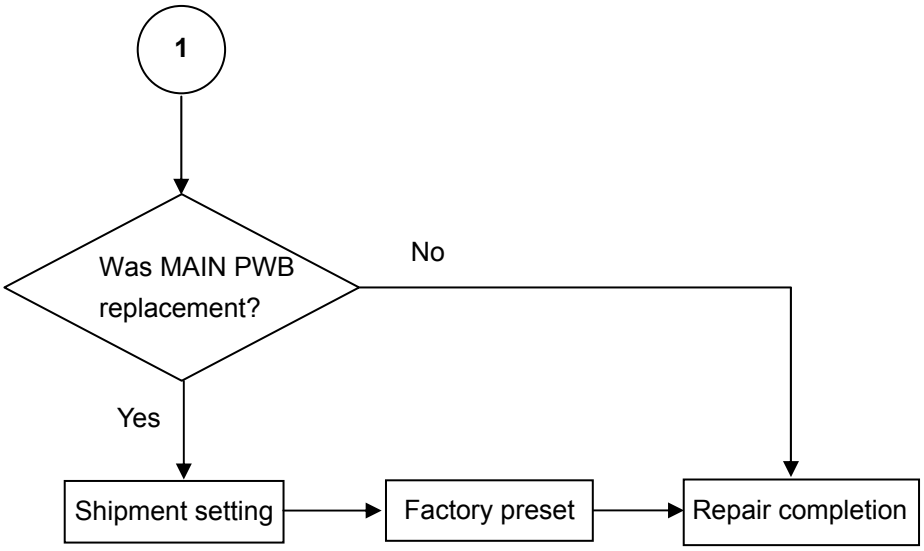
[Solder Iron tip temperature and contact time]

<table>
<tr><th colspan="2">Category of Parts</th><th>Lead-free solder</th><th>Eutectic solder</th></tr>
<tr><td>*SMD Chip</td><td>The Parts of Chip type</td><td>300-320°C(1-3sec)</td><td>260-280°C(1-3sec)</td></tr>
<tr><td>*SMD QFP</td><td>The Parts (IC) of Quad Flat Pack Package type</td><td>320-350°C(1-3sec)</td><td>280-300°C(1-3sec)</td></tr>
<tr><td>Heat sink</td><td>Heat sink</td><td>360-380°C(1-3sec)</td><td>320-420°C(1-3sec)</td></tr>
<tr><td rowspan="3">Ax, RD</td><td>The Parts of Axial or Radial type</td><td rowspan="3">340-370°C(1-3sec)</td><td rowspan="3">350-390°C(1-3sec)</td></tr>
<tr><td>(The Electric Parts other than the above-mentioned.</td></tr>
<tr><td>Ex.: IC, Transistor, Resistor, Capacitor)</td></tr>
</table>

Procedure of monitor repair

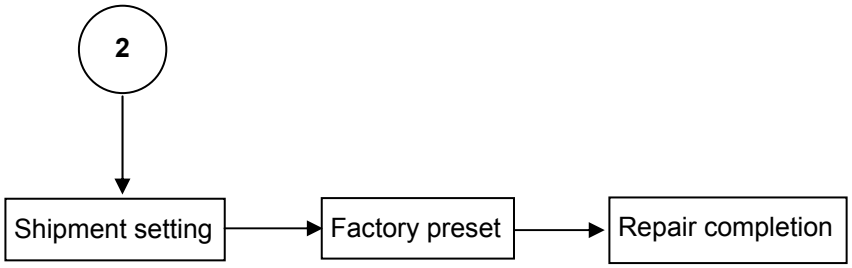


[Repair and Return]



7. SHIPMENT SETTING OSD User menu

[SWAP]



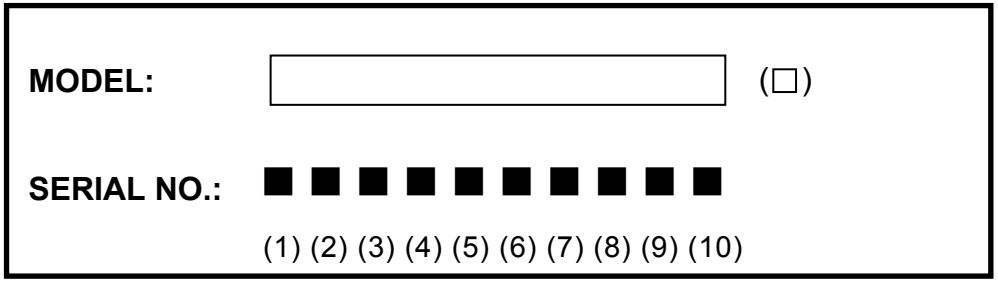
7. SHIPMENT SETTING OSD User menu

CONTENTS

1. Serial Number Information

Refer to the serial number information shown below.

EX.) SERIAL NUMBER LABEL



(1): Manufactured Year

Last digit

(2): Manufactured Month

January to September: 1 to 9
October: X
November: Y
December: Z

(3): Classification code

Discriminate by cabinet color
Black: 0

(4) ~ (8): Running number

This running number does not reset at each month.

(9): Factory Code

TPV China factory: N
TPV EU factory: Z

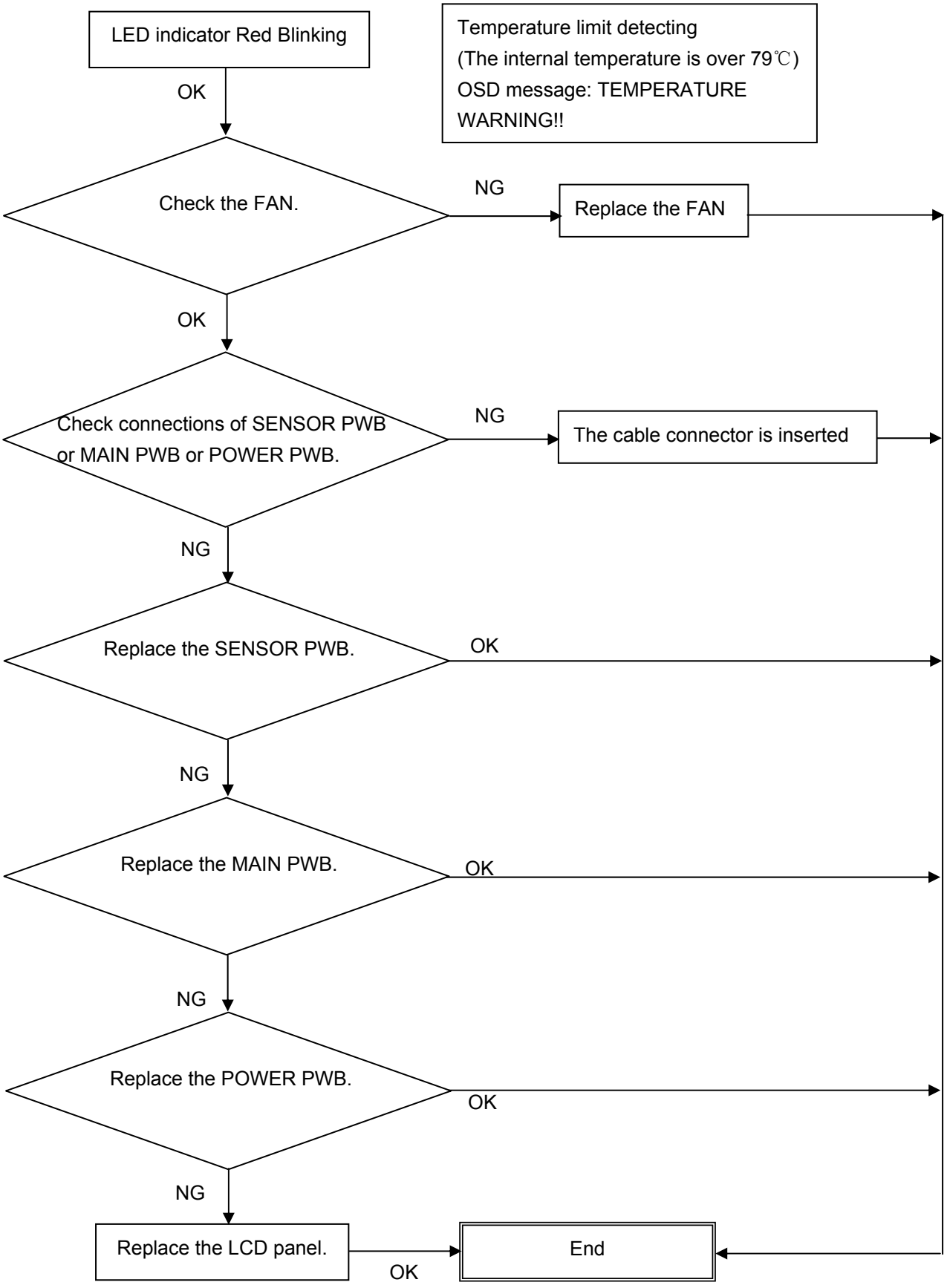
(10): Control Code

For USA (A version): A
For Europe. (B version): B
For China (C version): C
For Japan (J version): J

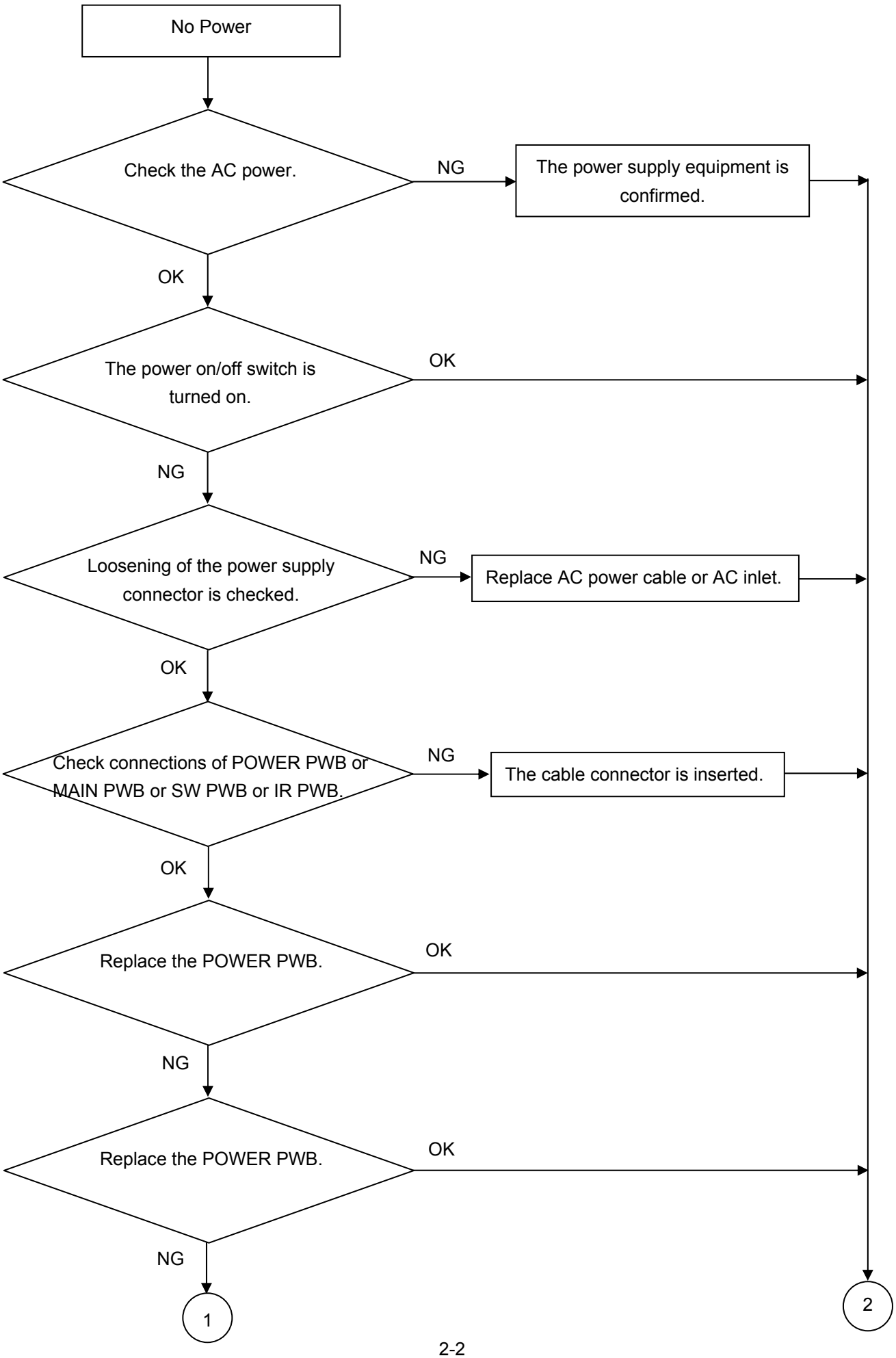
Produce Code	MODEL	Produce ID	(3)	(9)	(10)	LCD Panel	RoHS	Vista
08V71UAN	V652 (A)	V652-U1(A)	0 (Black)	N (TPV China factory)	A	LCD P650HVN02.300 TW AUO	Yes	Yes
08V71UBN	V652 (B)	V652-U1(B)	0 (Black)	N (TPV China factory)	B	LCD P650HVN02.300 TW AUO	Yes	Yes
08V71UCN	V652 (C)	V652-U1(C)	0 (Black)	N (TPV China factory)	C	LCD P650HVN02.300 TW AUO	Yes	Yes
08V71UJN	LCD-V652	LCD-V652	0 (Black)	N (TPV China factory)	J	LCD P650HVN02.300 TW AUO	Yes	Yes
08V91UAN	V552 (A)	V552 (A)	0 (Black)	N (TPV China factory)	A	LCD P550HVN02.000 XM AUO	Yes	Yes
08V91UBN	V552 (B)	V552 (B)	0 (Black)	N (TPV China factory)	B	LCD P550HVN02.000 XM AUO	Yes	Yes
08V91UCN	V552 (C)	V552 (C)	0 (Black)	N (TPV China factory)	C	LCD P550HVN02.000 XM AUO	Yes	Yes
08V91UJN	LCD-V552	LCD-V552	0 (Black)	N (TPV China factory)	J	LCD P550HVN02.000 XM AUO	Yes	Yes
08V94UAN	V552 (A)	V552-U2(A)	0(Black)	N (TPV China factory)	A	LCD P550HVN02.201 TW AUO	Yes	Yes
08V94UBN	V552 (B)	V552-U2(B)	0(Black)	N (TPV China factory)	B	LCD P550HVN02.201 TW AUO	Yes	Yes
08V94UCN	V552 (C)	V552-U2(C)	0(Black)	N (TPV China factory)	C	LCD P550HVN02.201 TW AUO	Yes	Yes
08V94UJN	LCD-V552	LCD-V552-N2-1	0(Black)	N (TPV China factory)	J	LCD P550HVN02.201 TW AUO	Yes	Yes

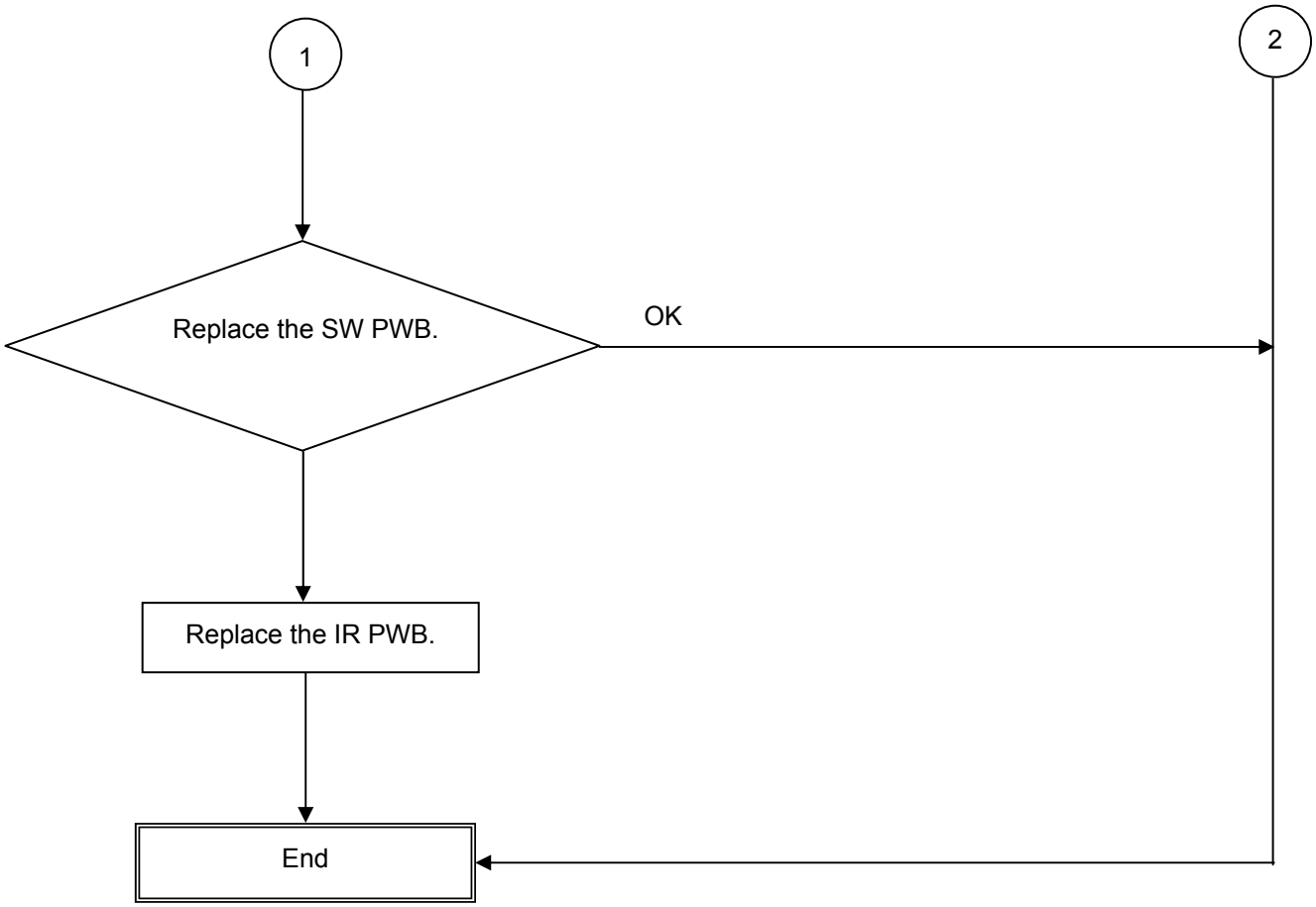
2. TROUBLE SHOOTING

2.1 Diagnosis (Detecting failure)

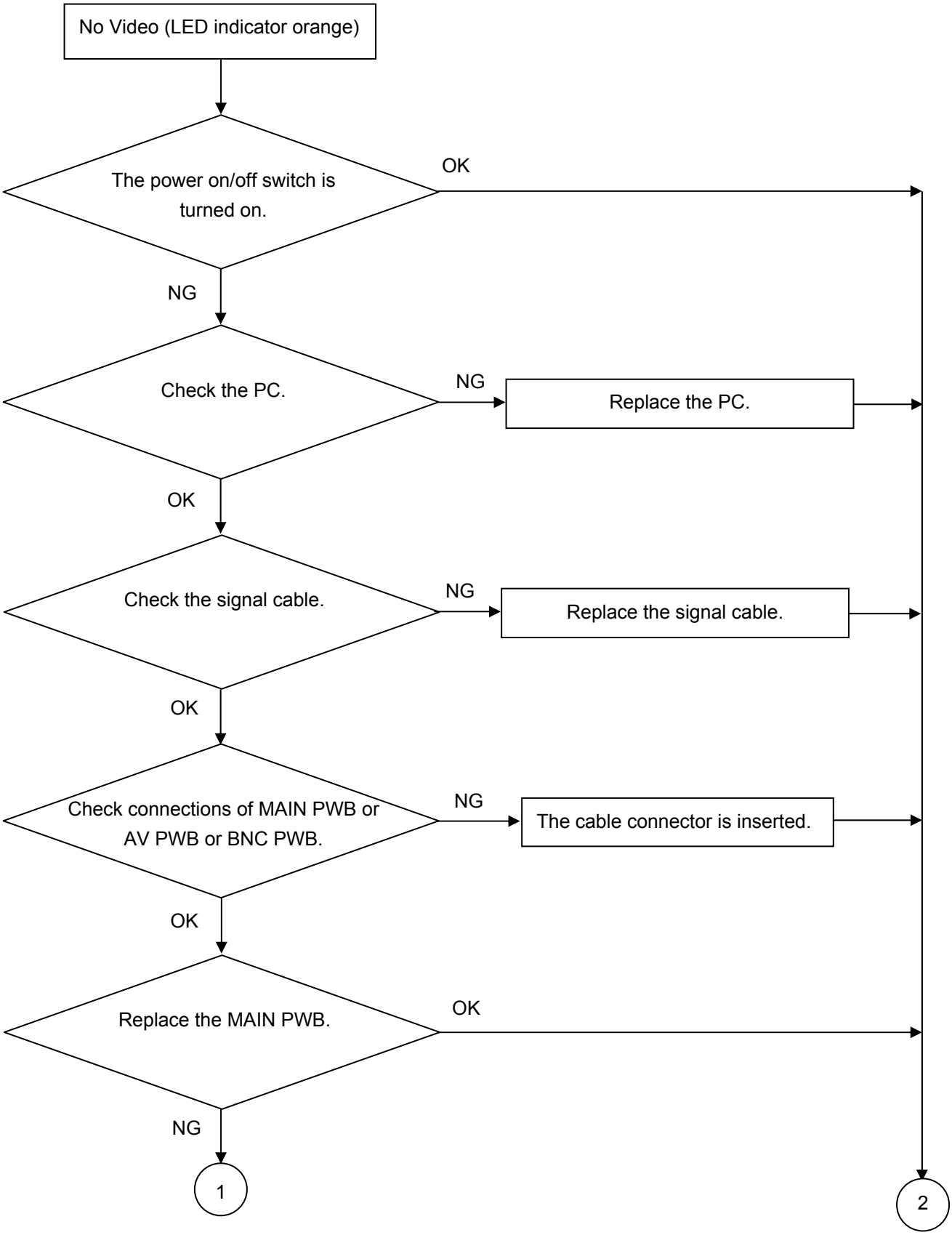


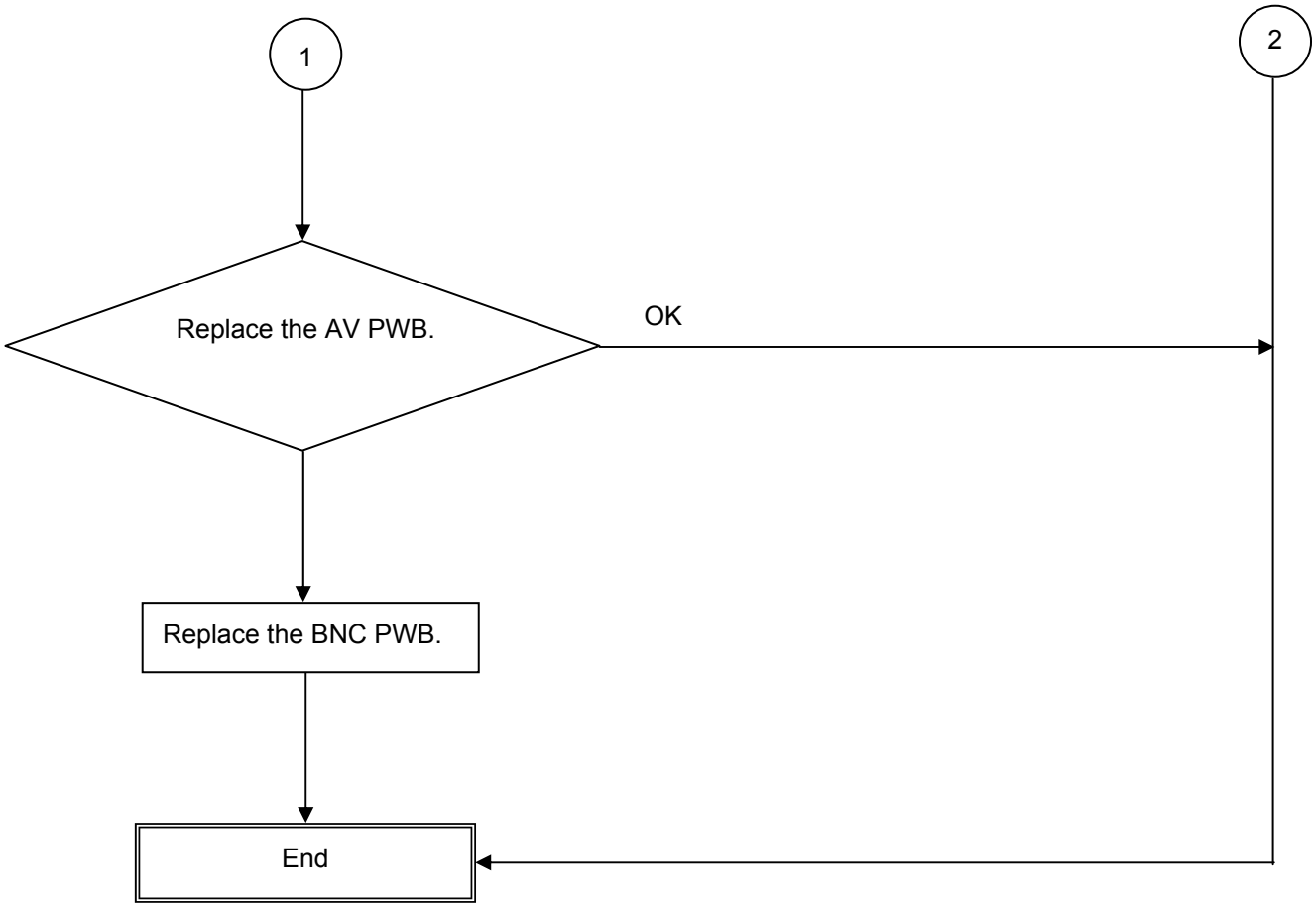
2.2 No Power


No Power
Check the AC power.
NG
The power supply equipment is confirmed.
OK
The power on/off switch is turned on.
OK
NG
Loosening of the power supply connector is checked.
NG
Replace AC power cable or AC inlet.
OK
Check connections of POWER PWB or MAIN PWB or SW PWB or IR PWB.
NG
The cable connector is inserted.
OK
Replace the POWER PWB.
OK
NG
Replace the POWER PWB.
OK
NG
1
2

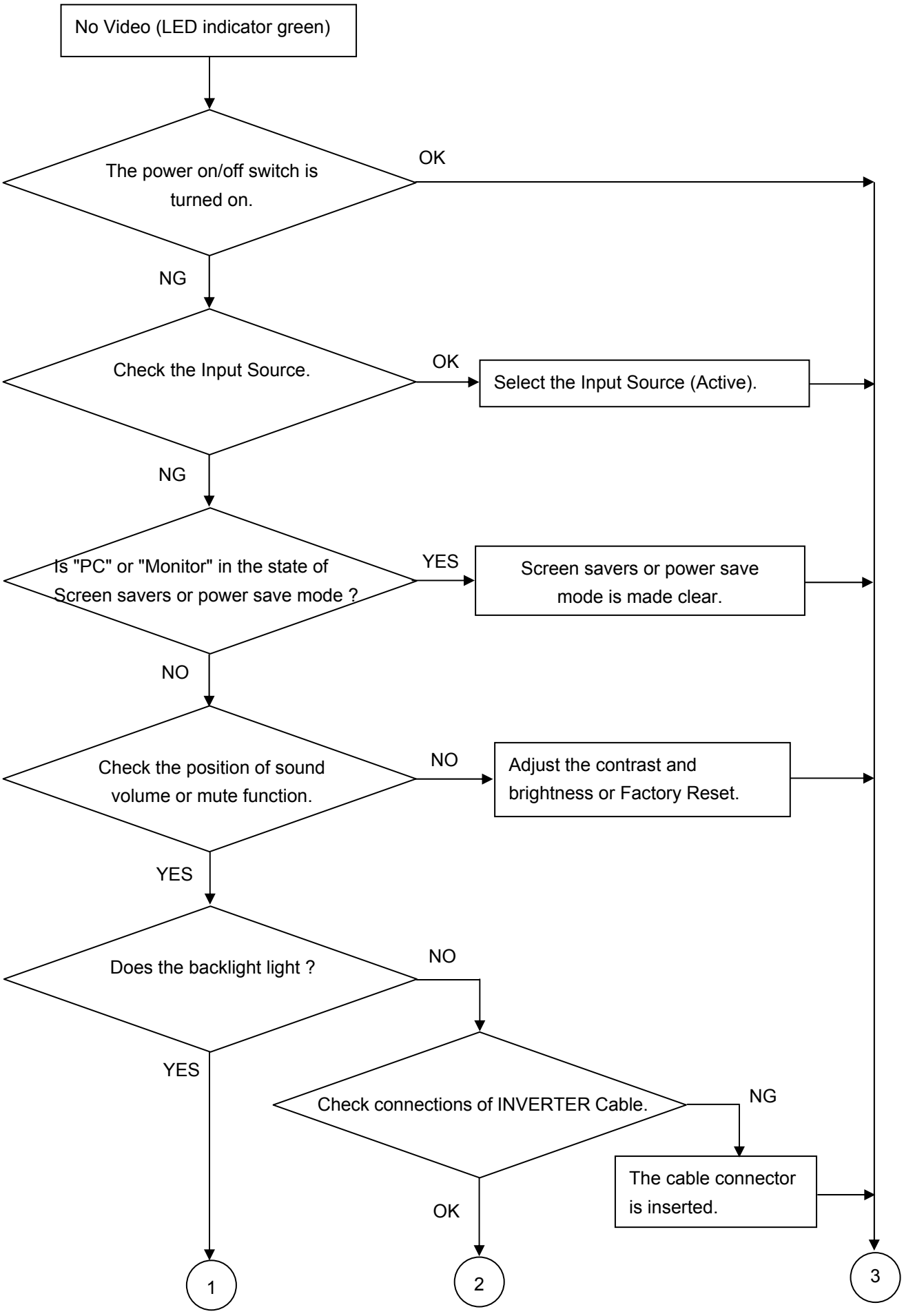

1
2
Replace the SW PWB.
OK
Replace the IR PWB.
End

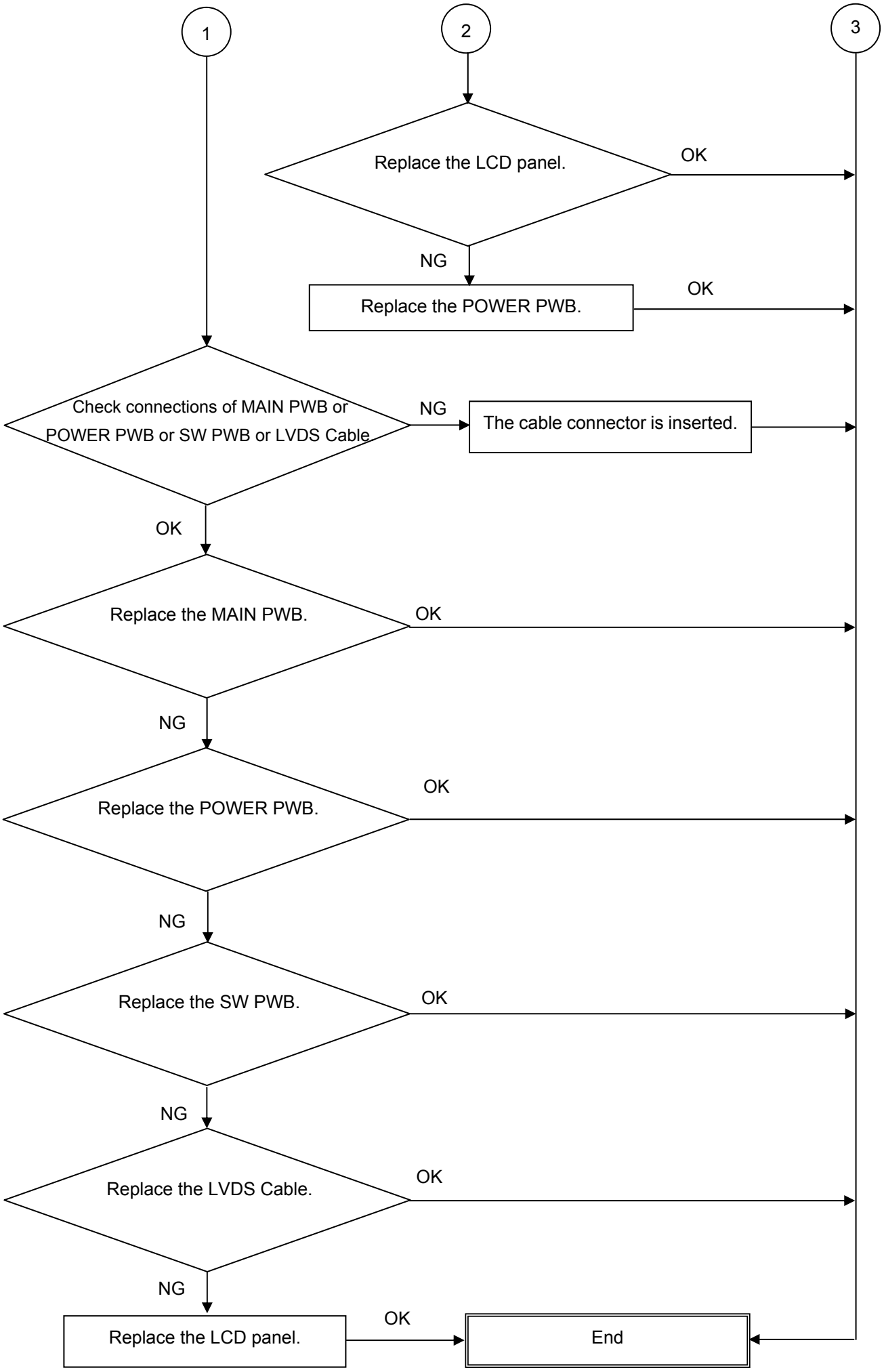
2.3 No Video (LED indicator orange)



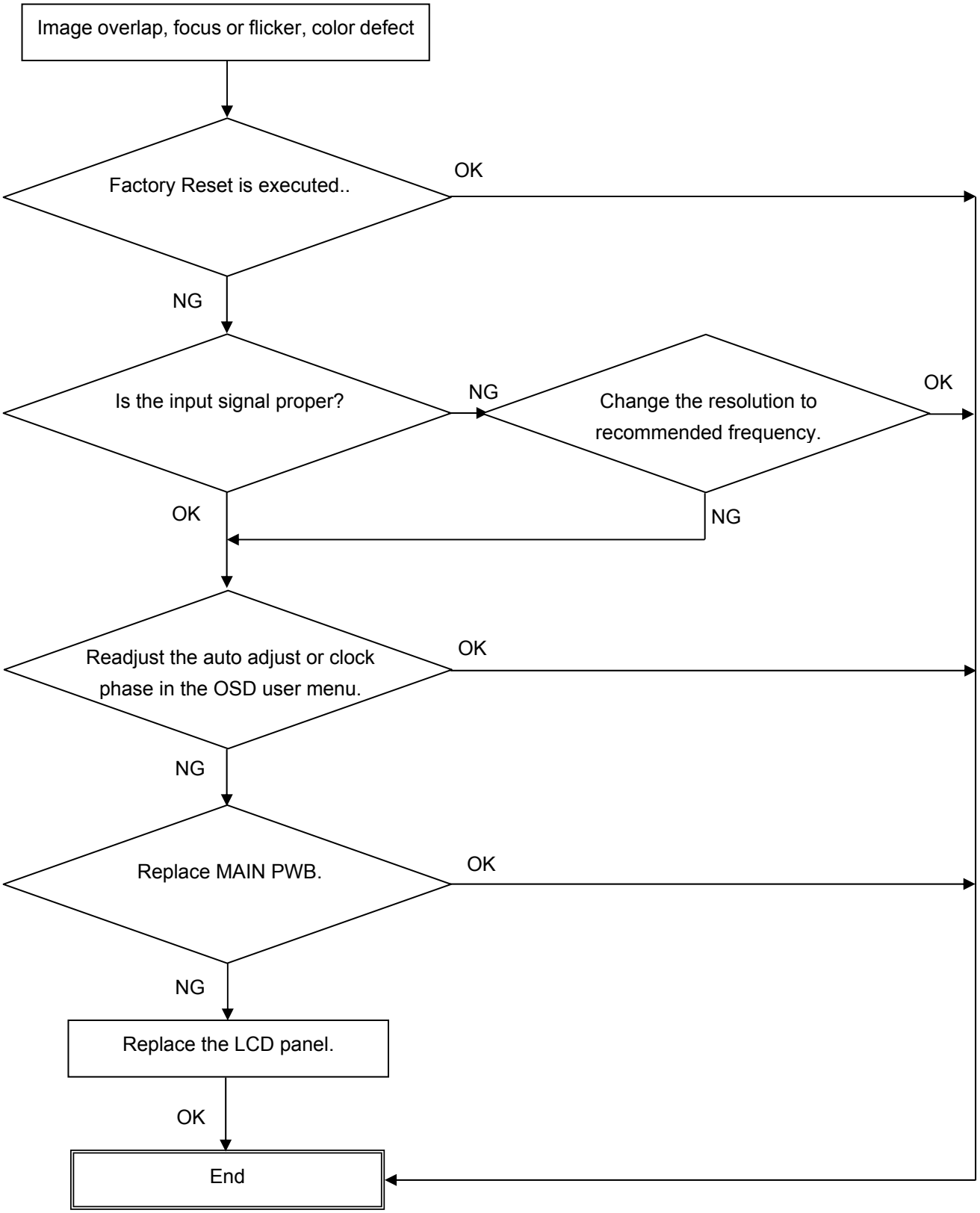

1
2
Replace the AV PWB.
OK
Replace the BNC PWB.
End

2.4 No Video (LED indicator green)

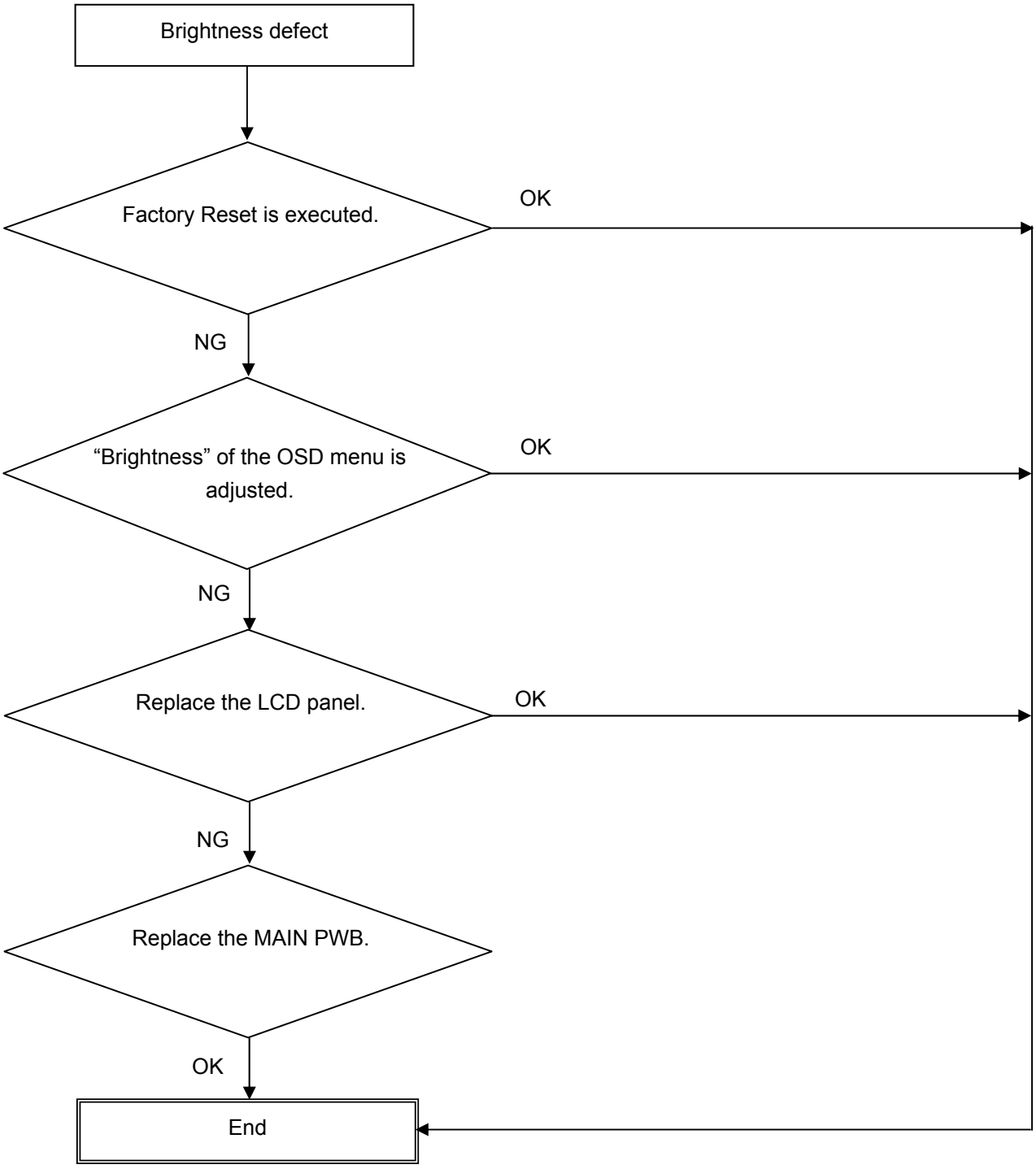



1
2
3
Replace the LCD panel.
OK
NG
Replace the POWER PWB.
OK
Check connections of MAIN PWB or POWER PWB or SW PWB or LVDS Cable
NG
The cable connector is inserted.
OK
Replace the MAIN PWB.
OK
NG
Replace the POWER PWB.
OK
NG
Replace the SW PWB.
OK
NG
Replace the LVDS Cable.
OK
NG
Replace the LCD panel.
OK
End

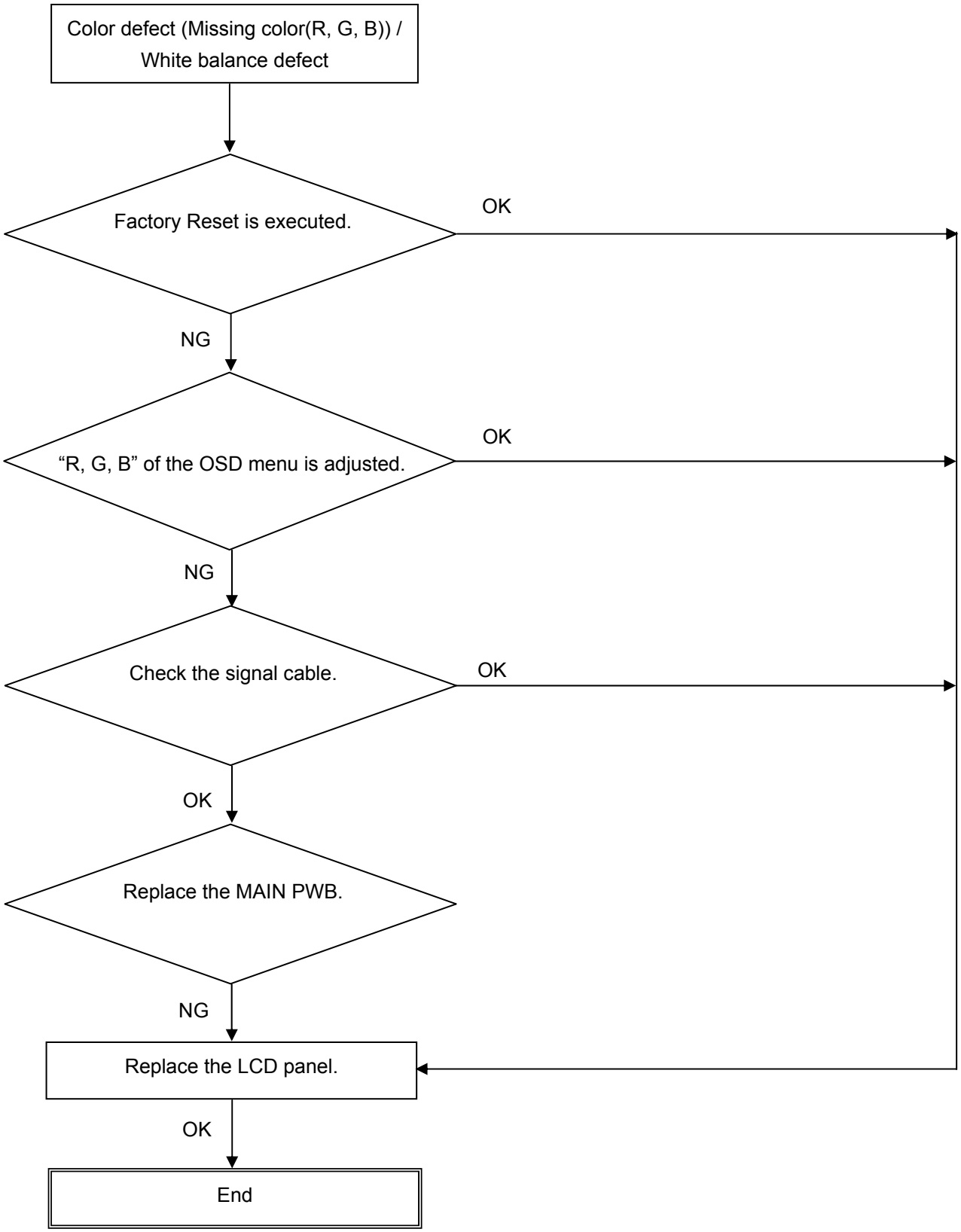
2.5 Image overlap, focus or flicker



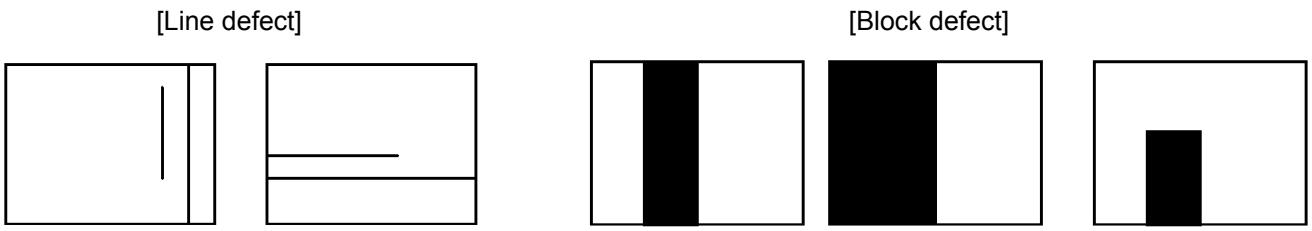
2.6 Brightness defect

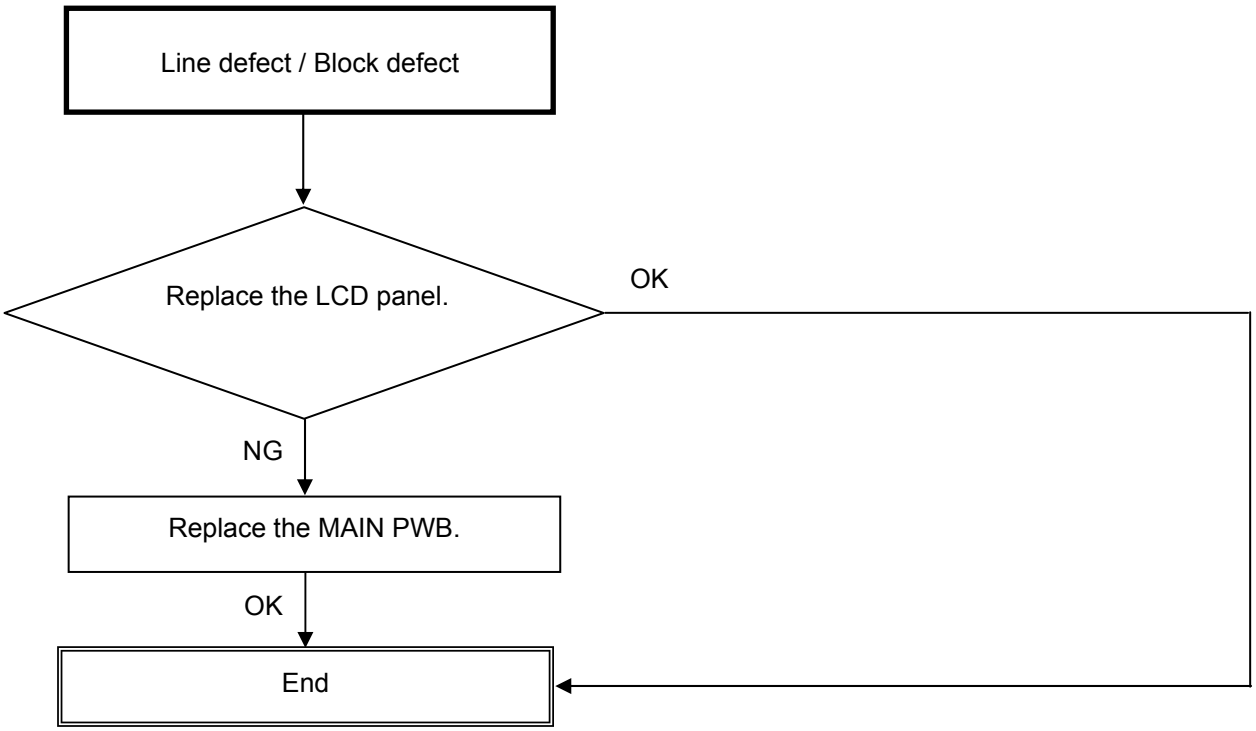


2.7 Color defect (Missing color(R, G, and B)) / White balance defect

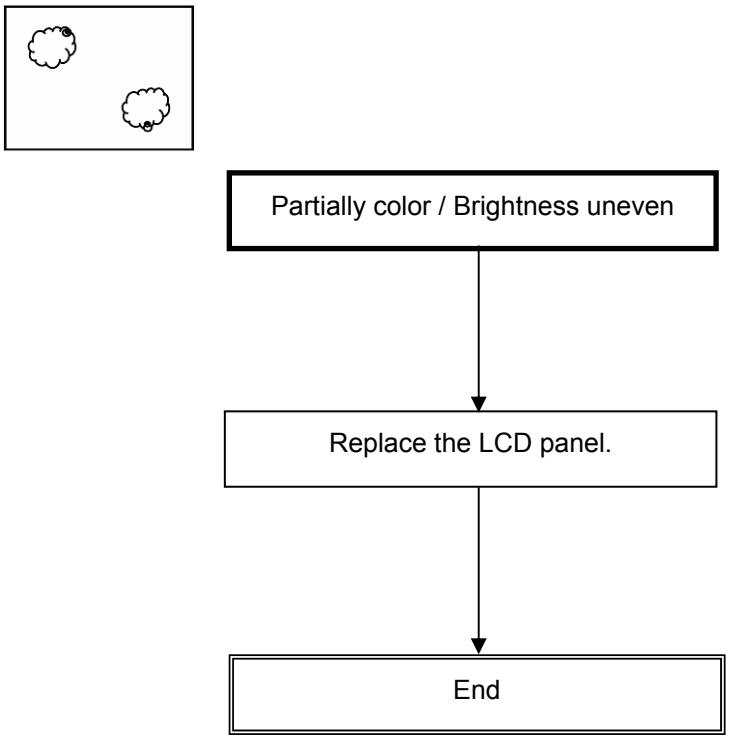


2.8 Line defect / Block defect

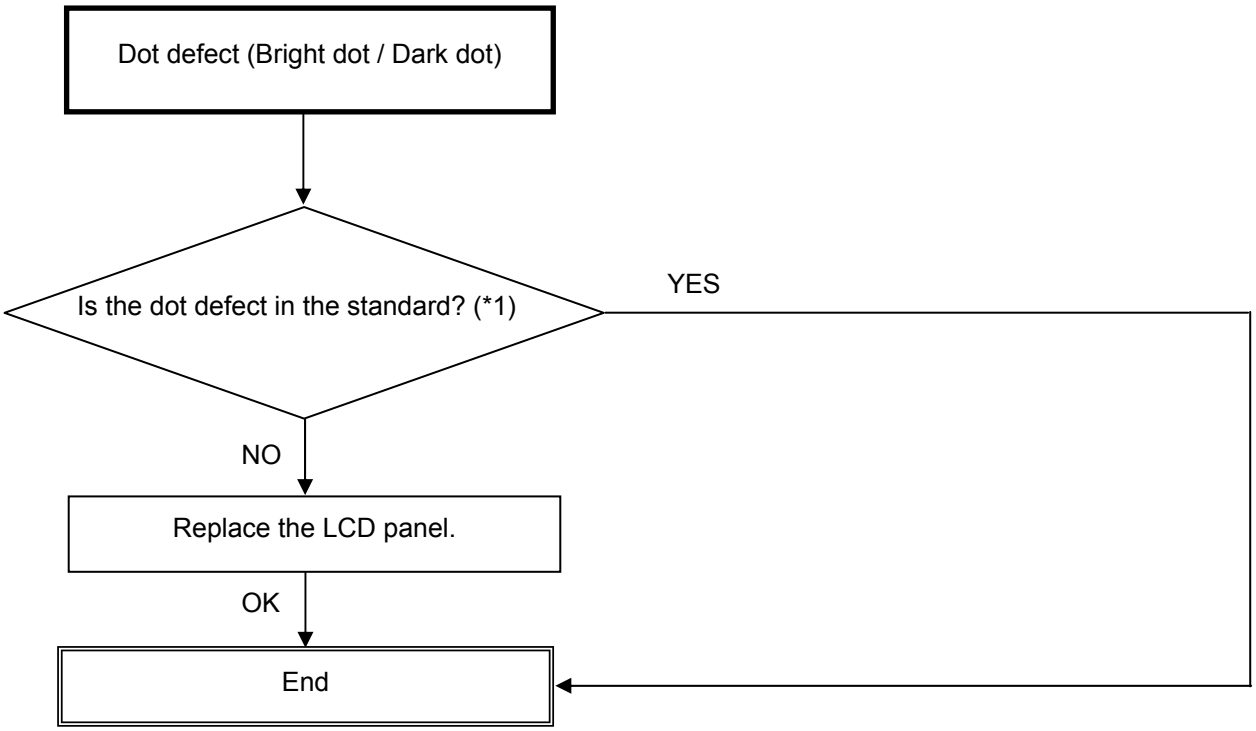




2.9 Partially color / Brightness uneven

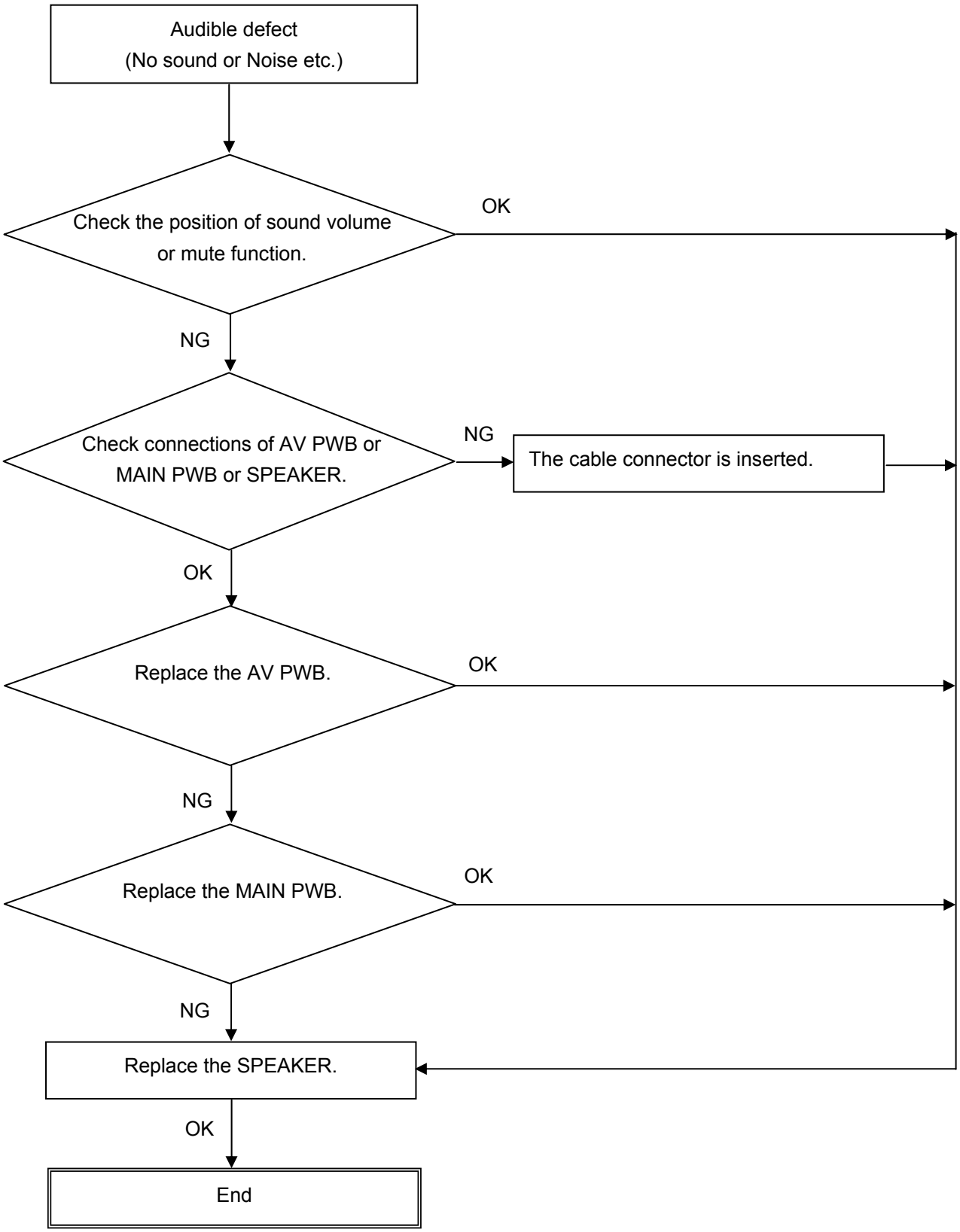


2.10 Dot defect (Bright dot / Dark dot)



(*1) The judgment of the dot defect is confirmed from the service manual.

2.11 Audible defect (No sound or Noise etc.)



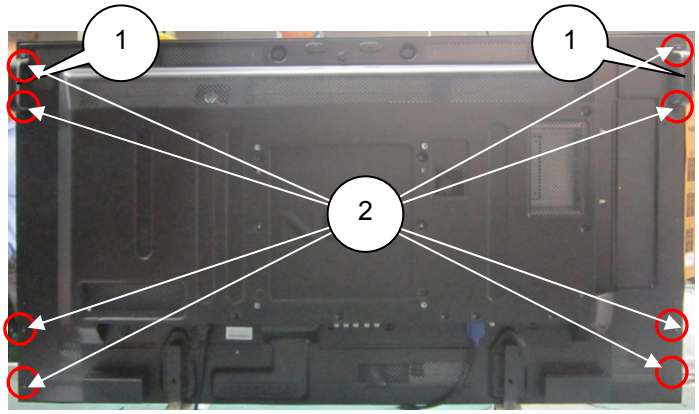
3. DISASSEMBLY

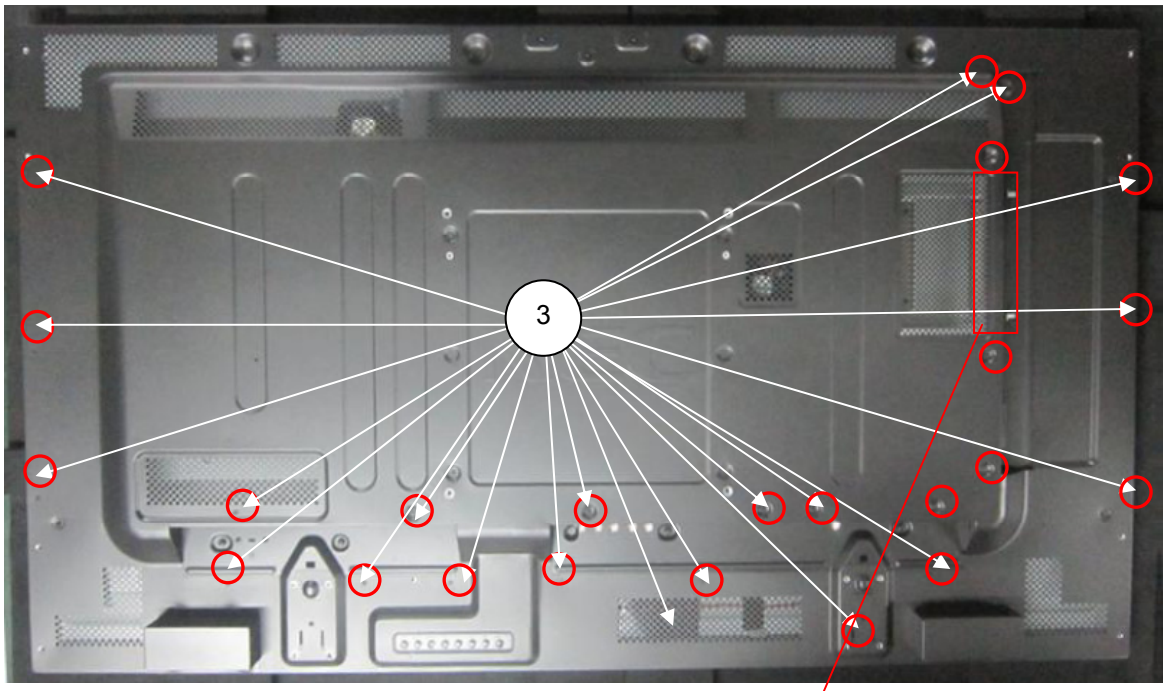
■ Before you disassemble the set, turn off power and pull out the power plug.

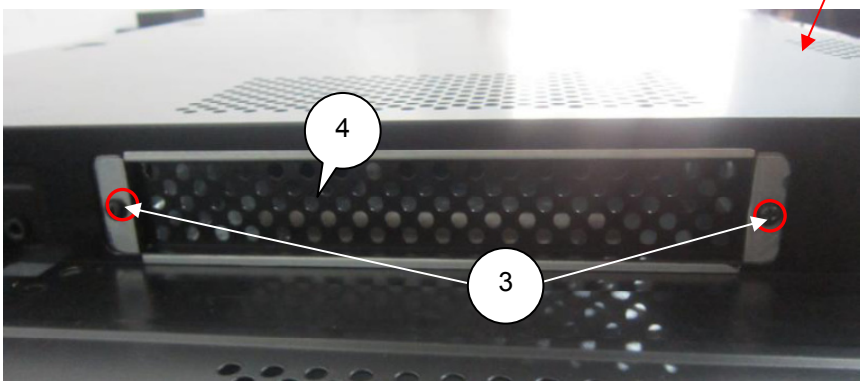
■ Use the proper screwdriver. If oversize or undersize screwdriver is used, screws may be damaged.

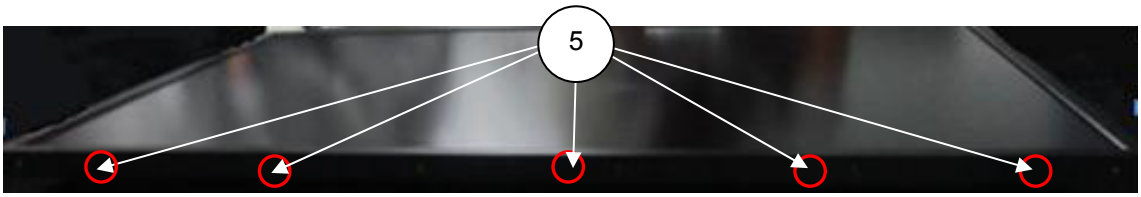
■ Assembly is reversed process of disassembly.

For V552





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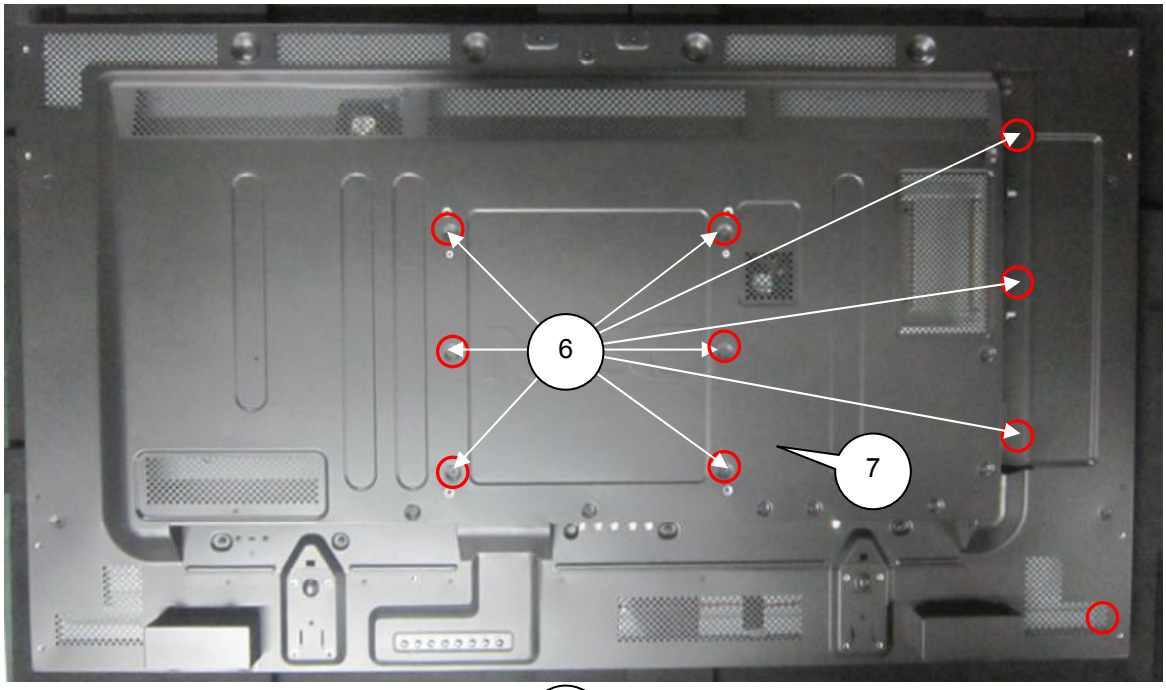
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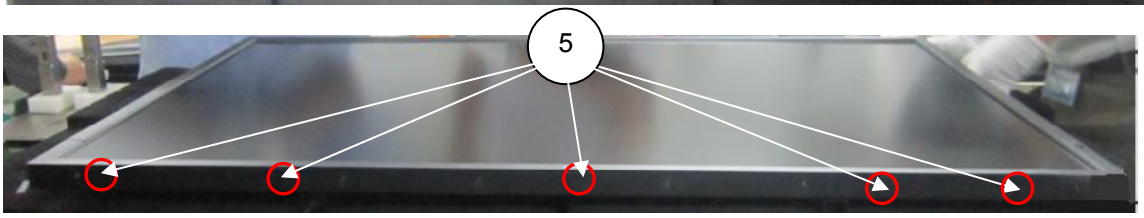
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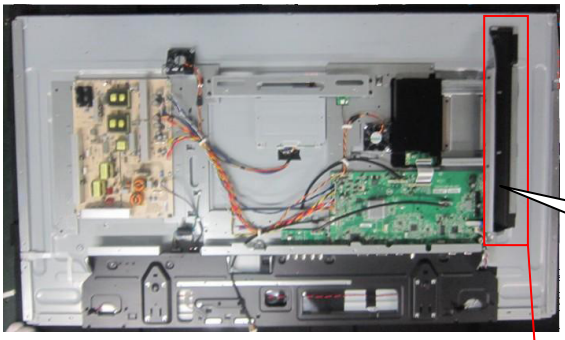
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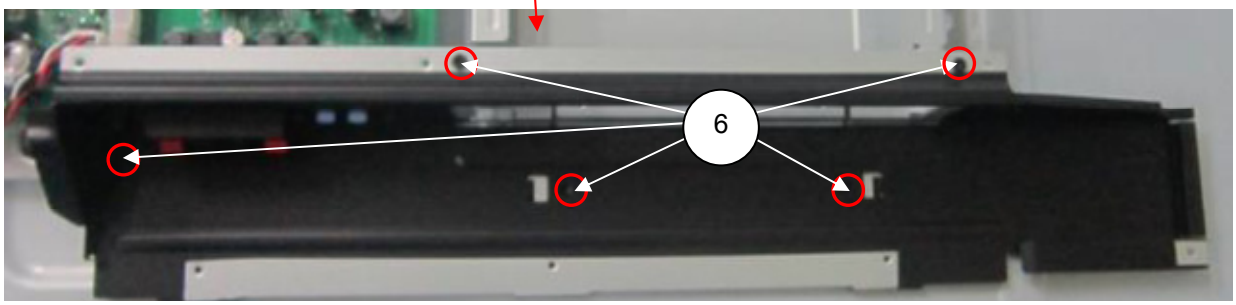
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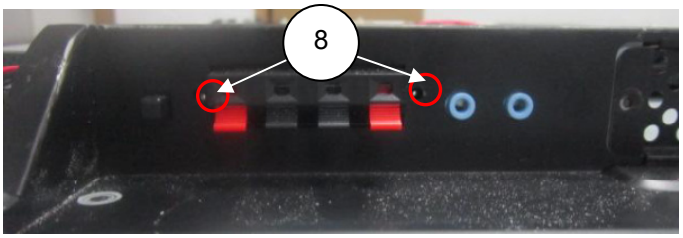
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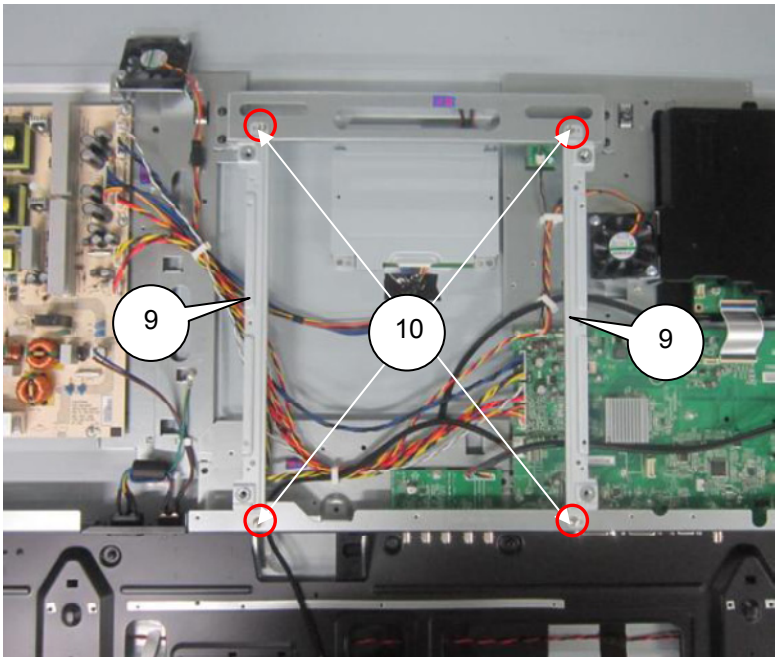
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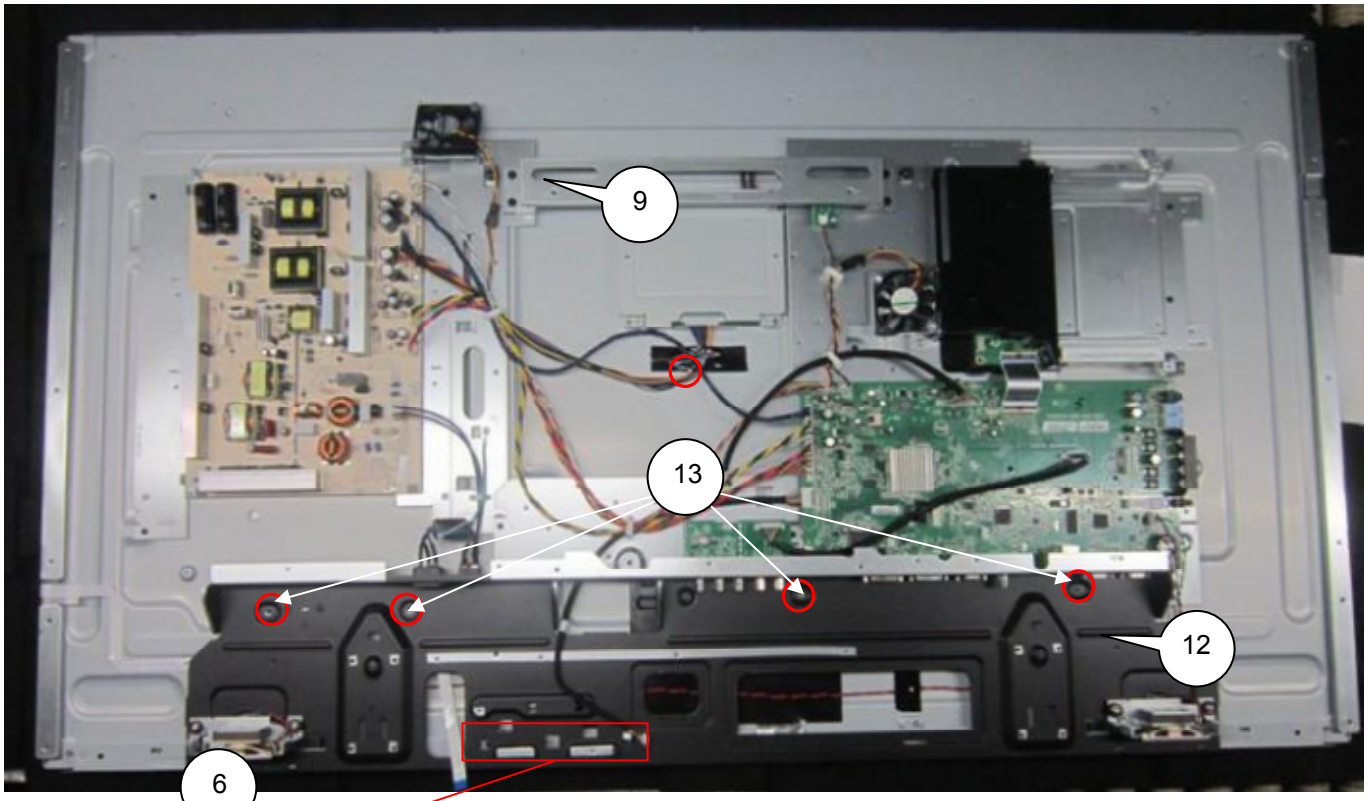
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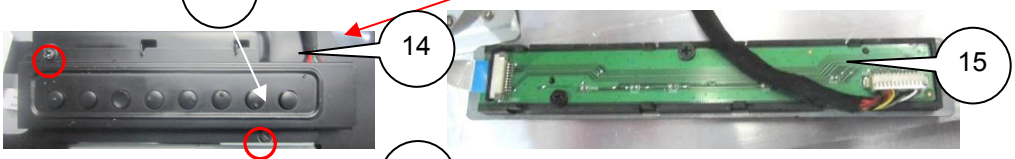
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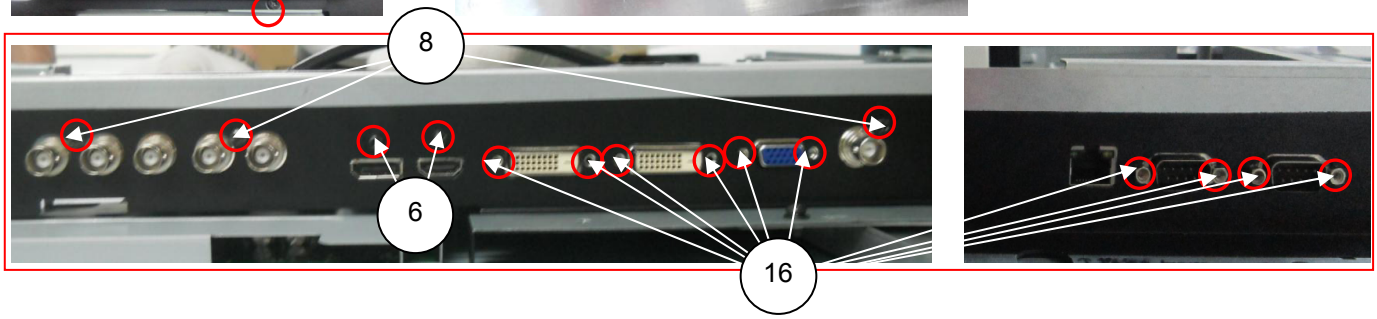
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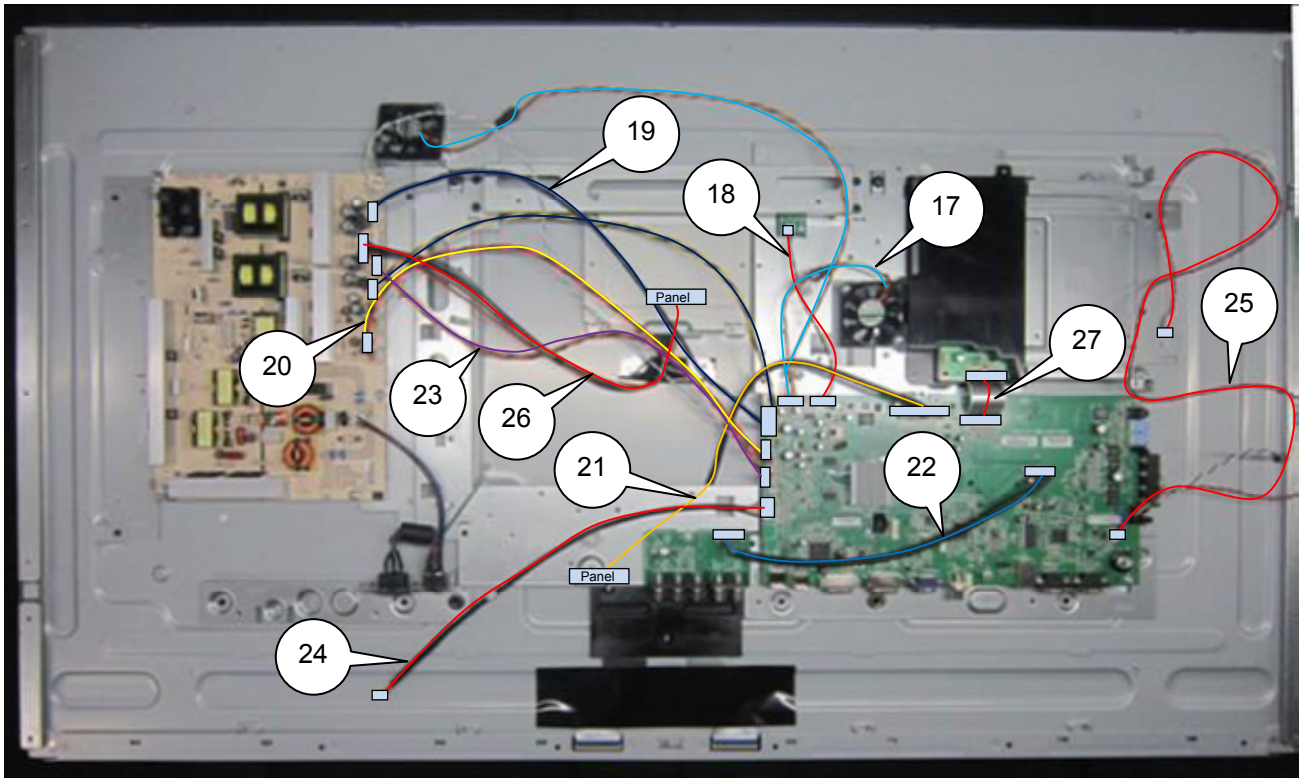
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Panel
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Panel
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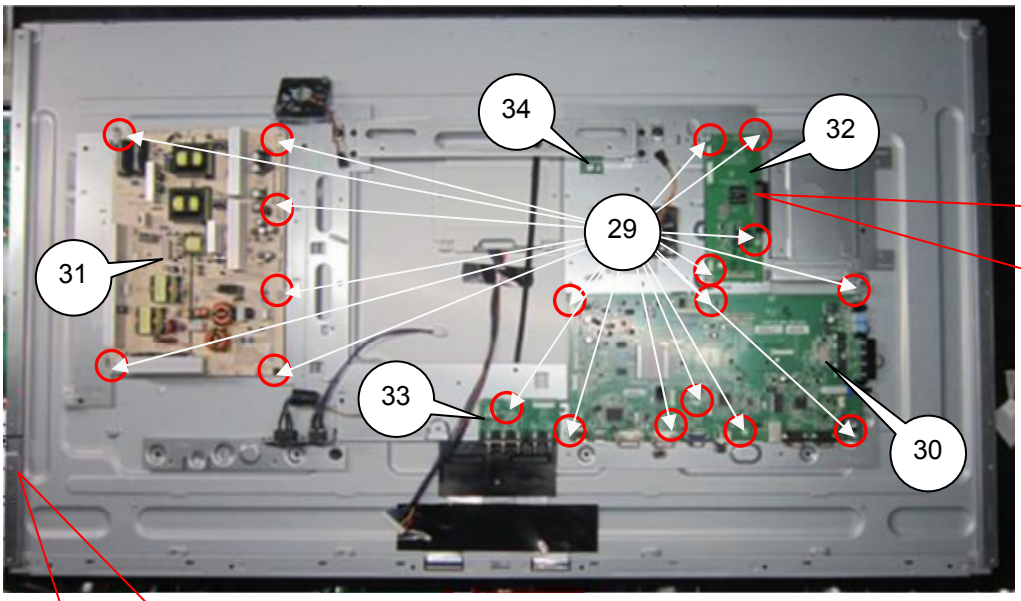
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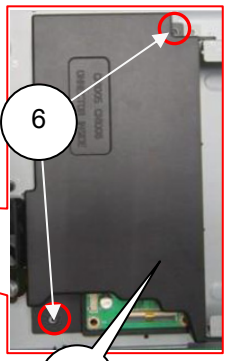
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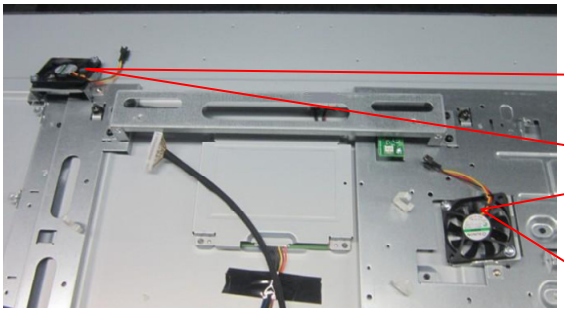

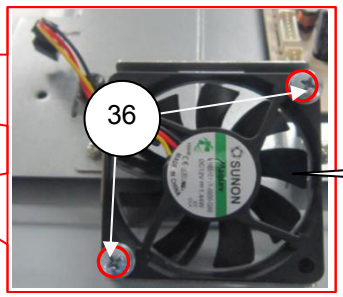
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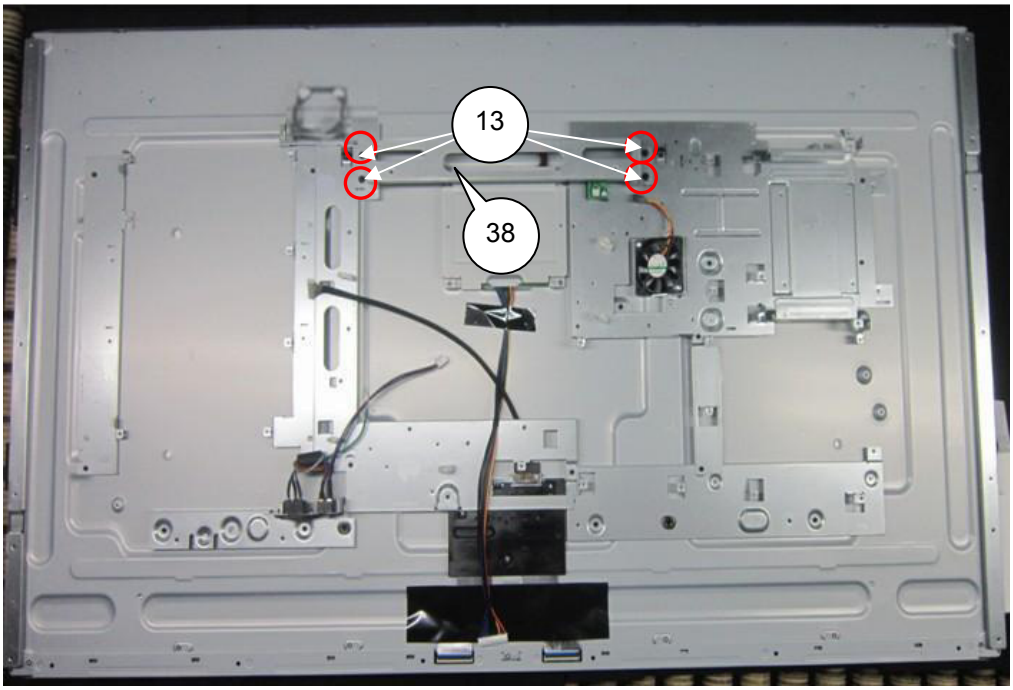
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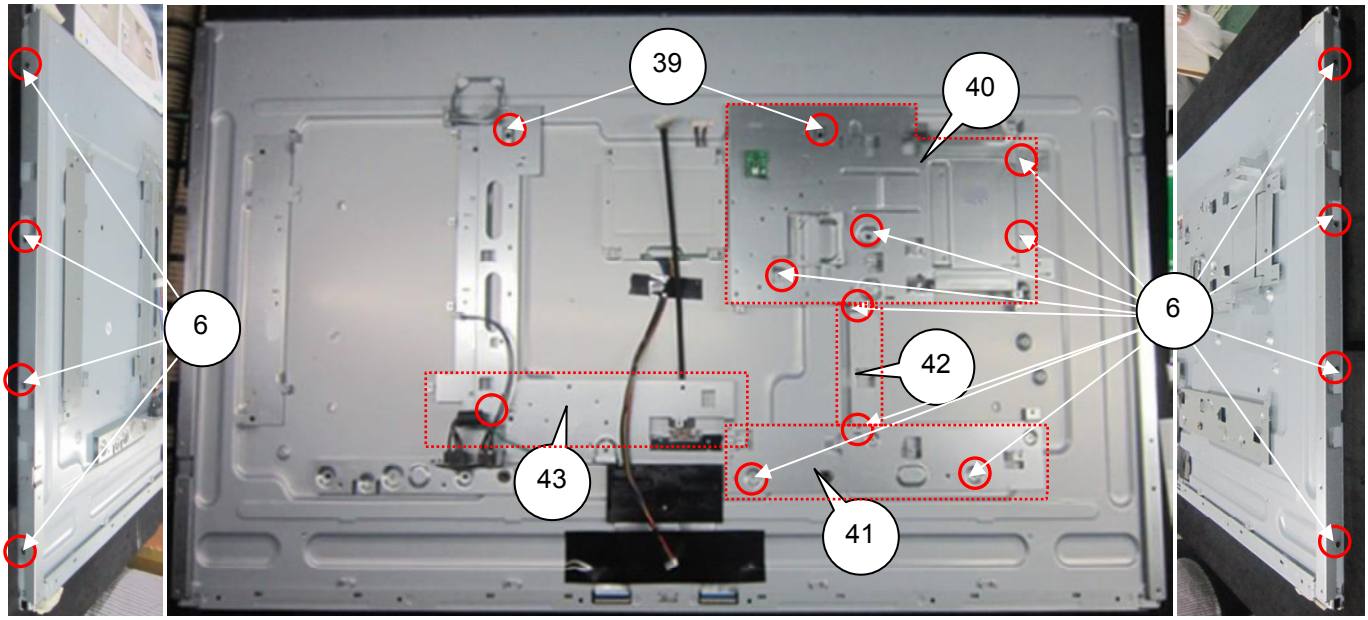
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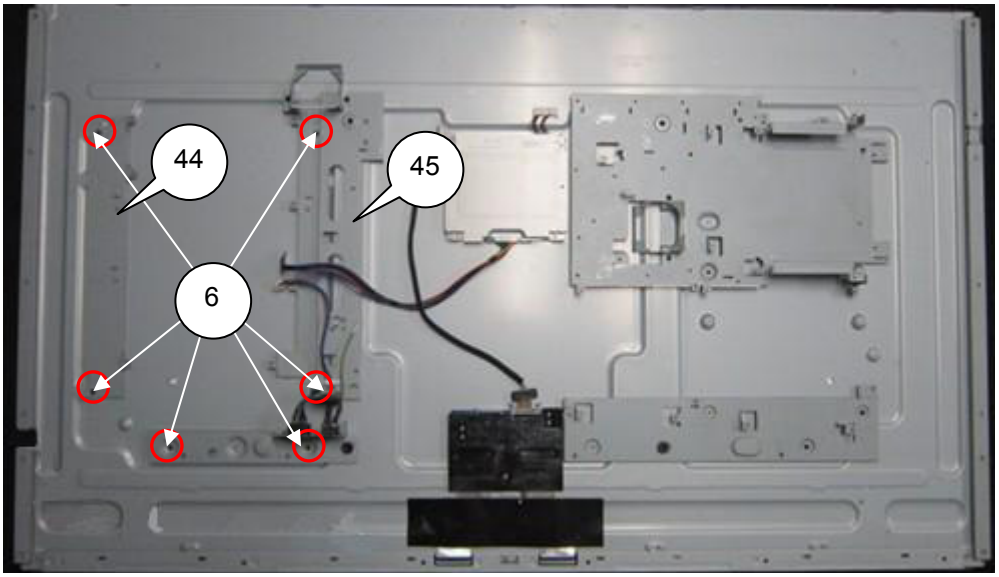
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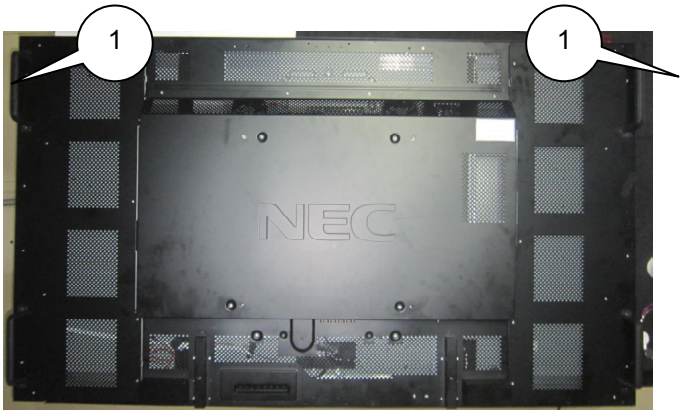
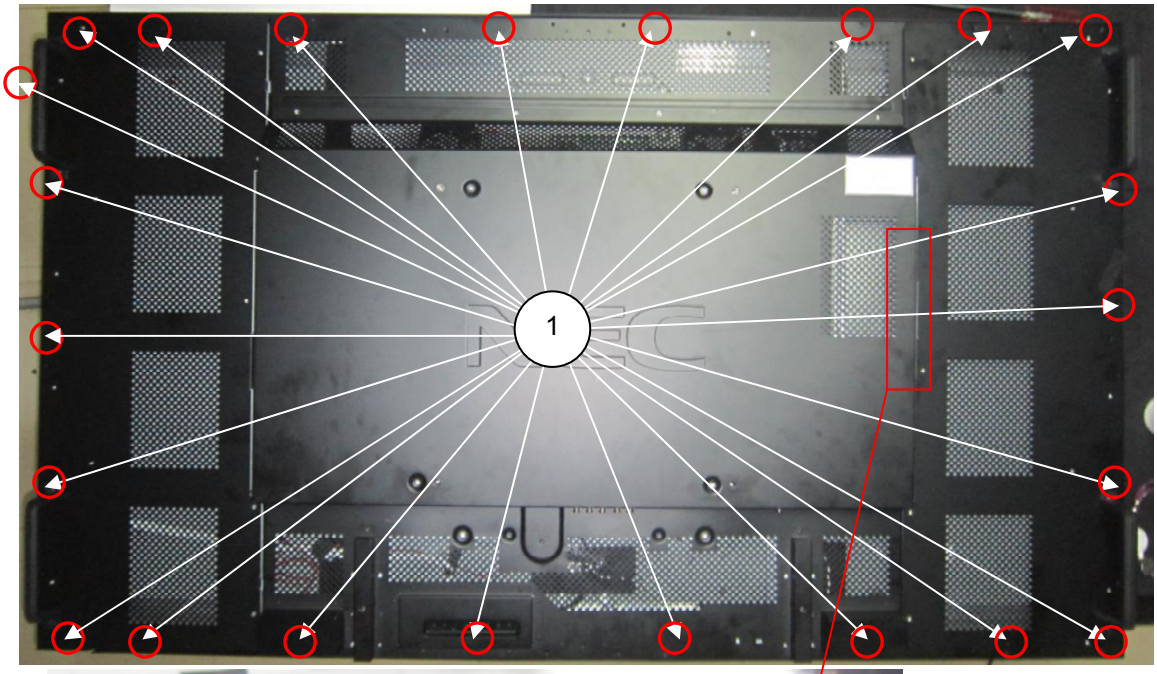
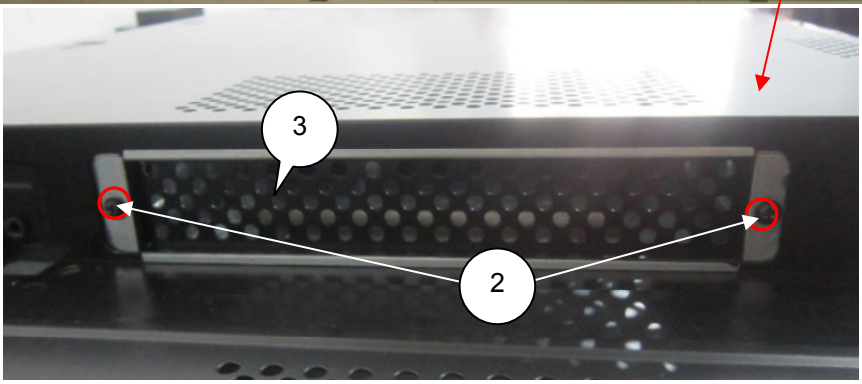
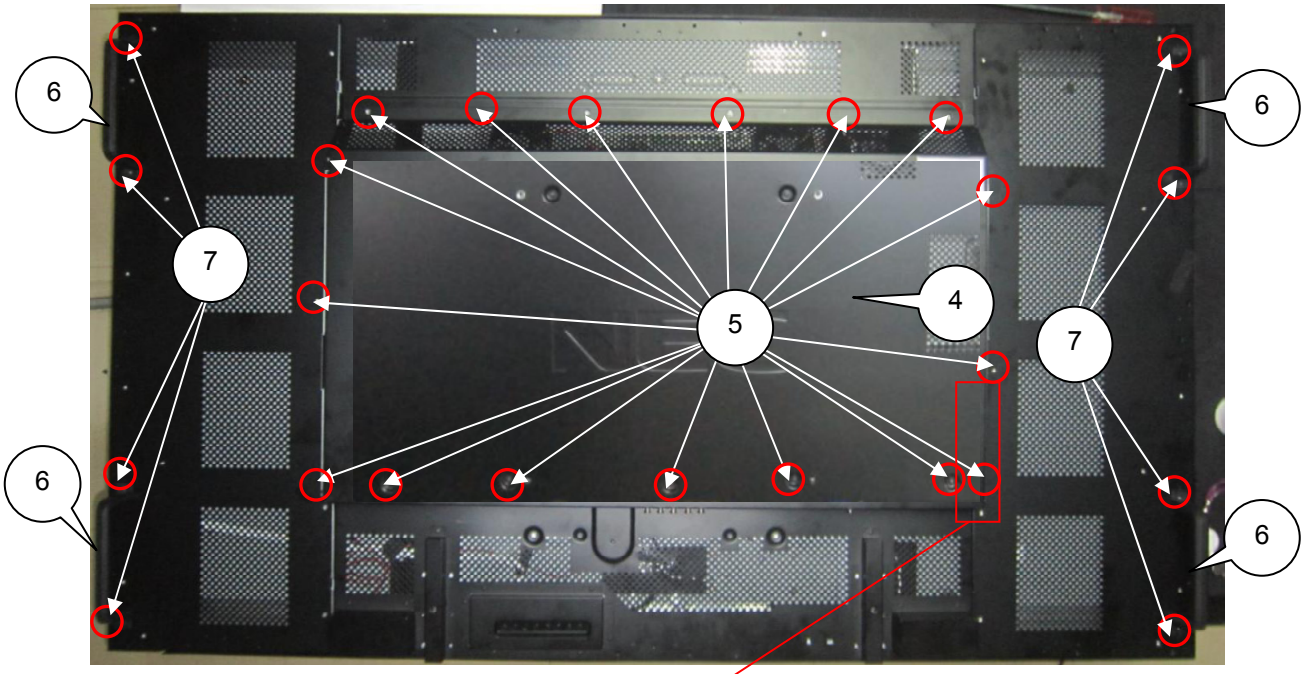
For V652





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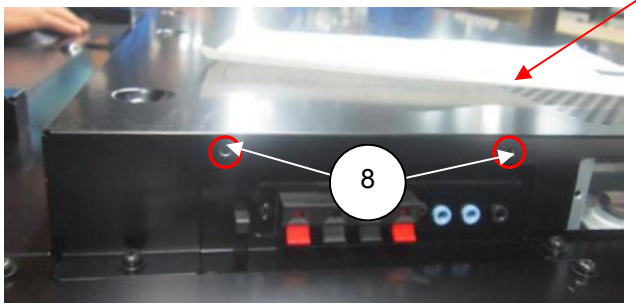
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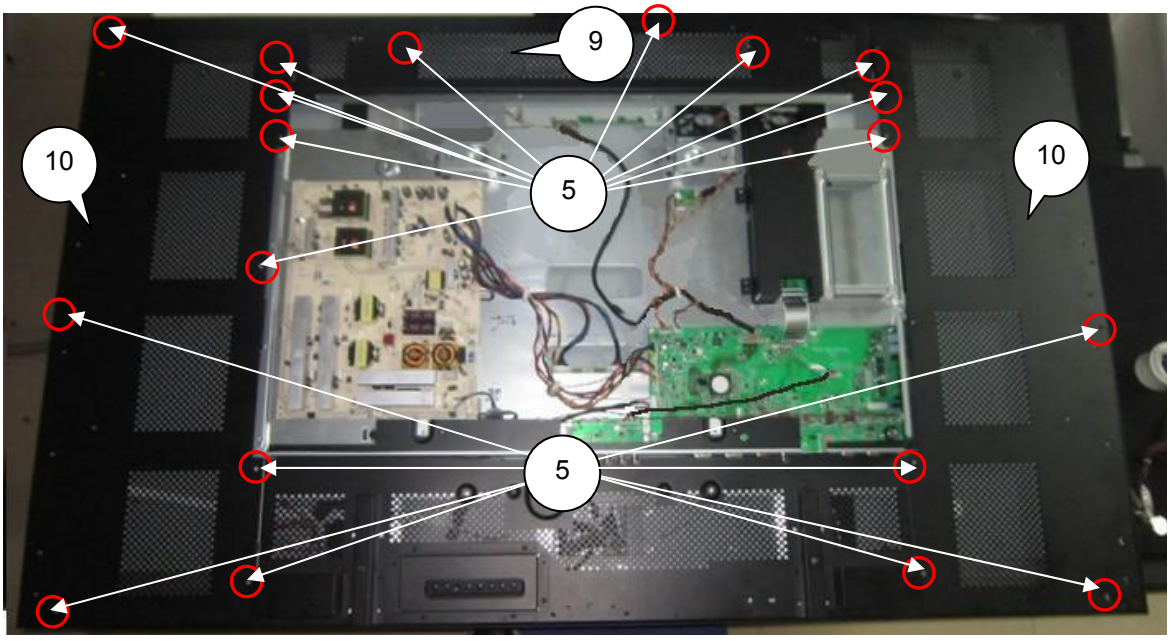
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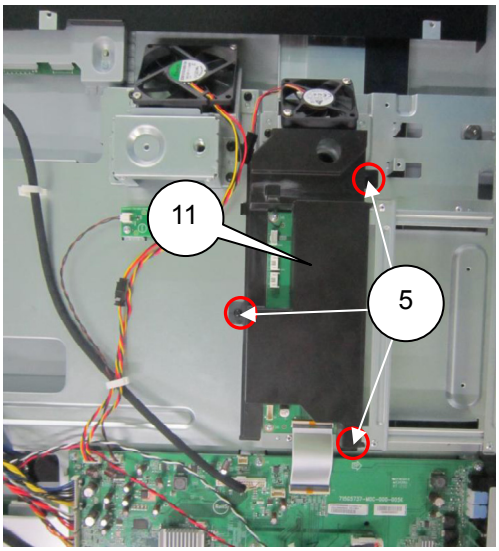
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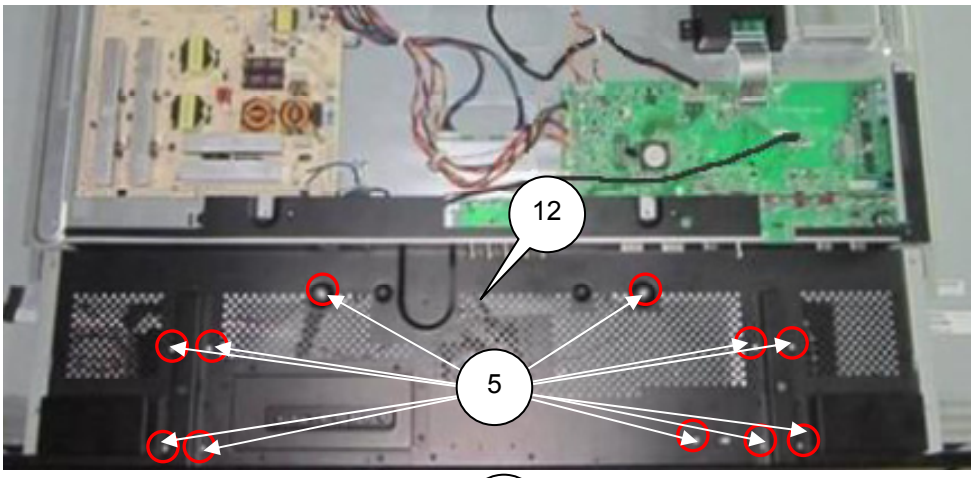
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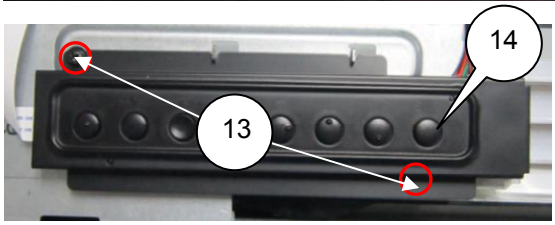
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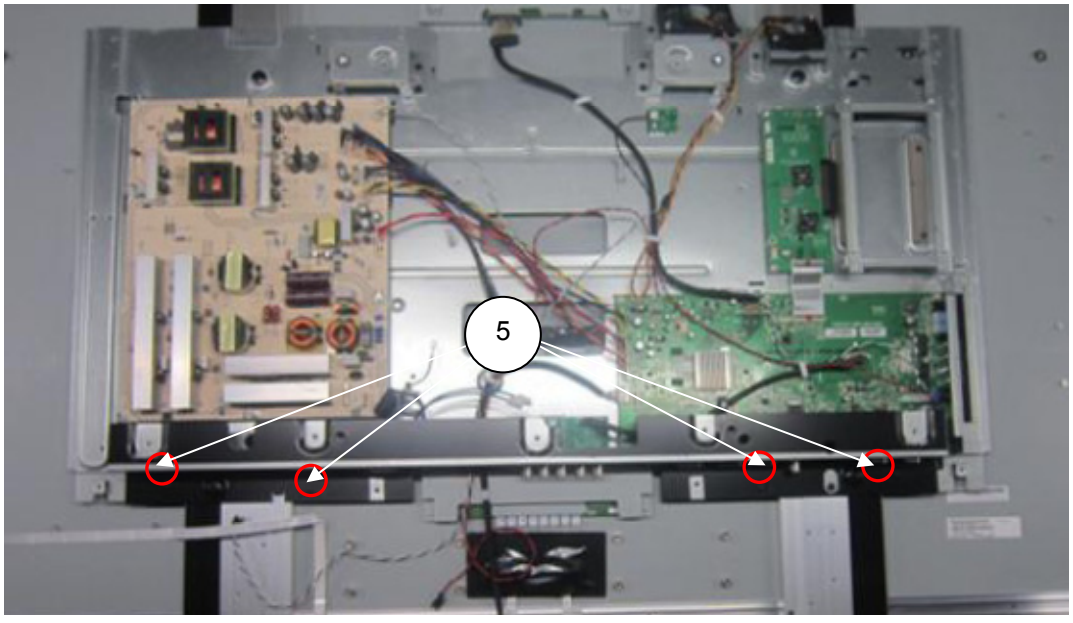
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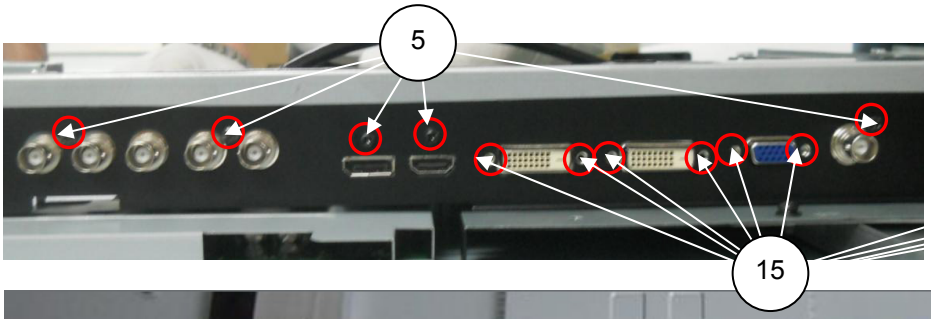
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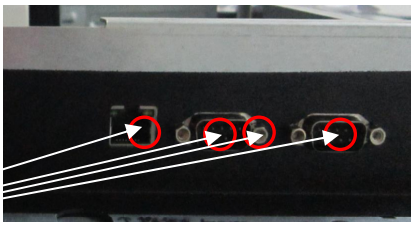

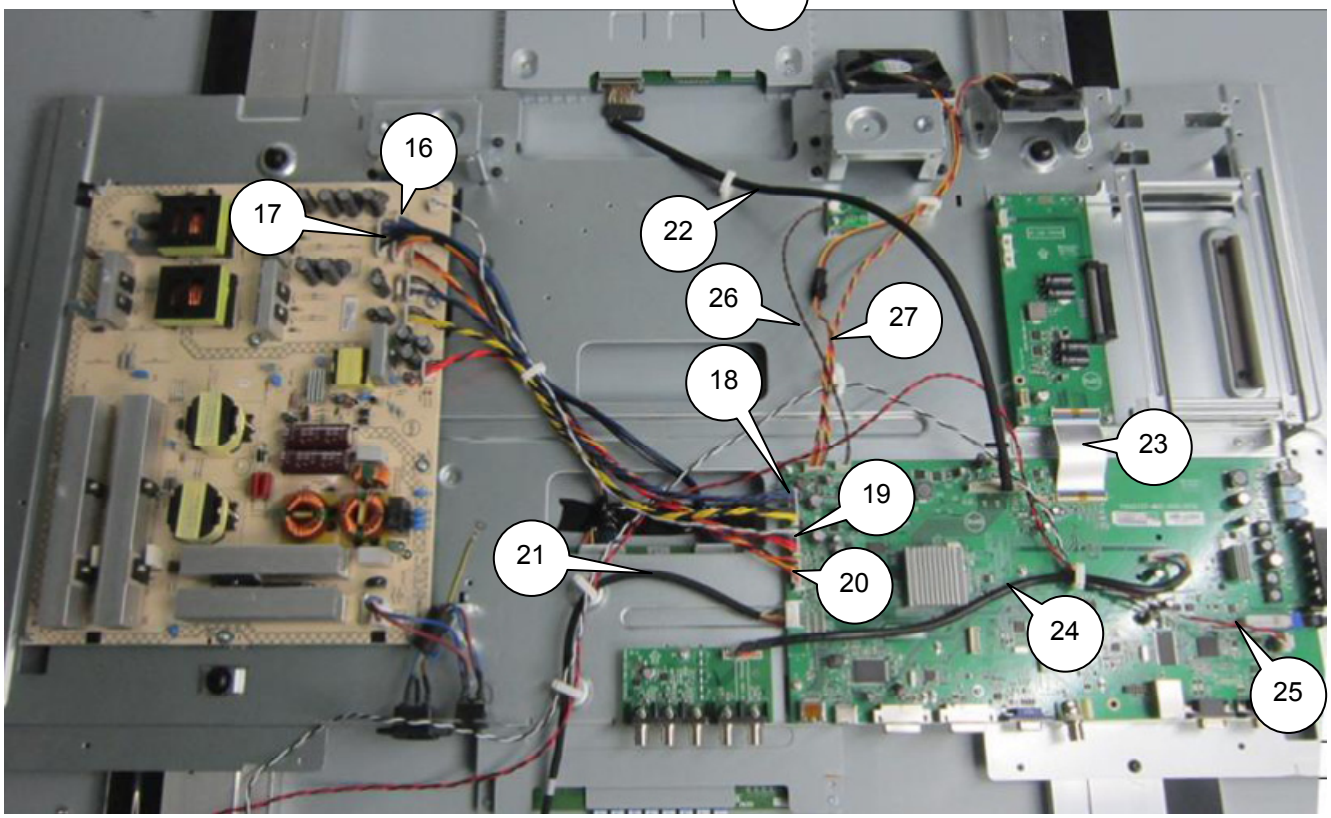
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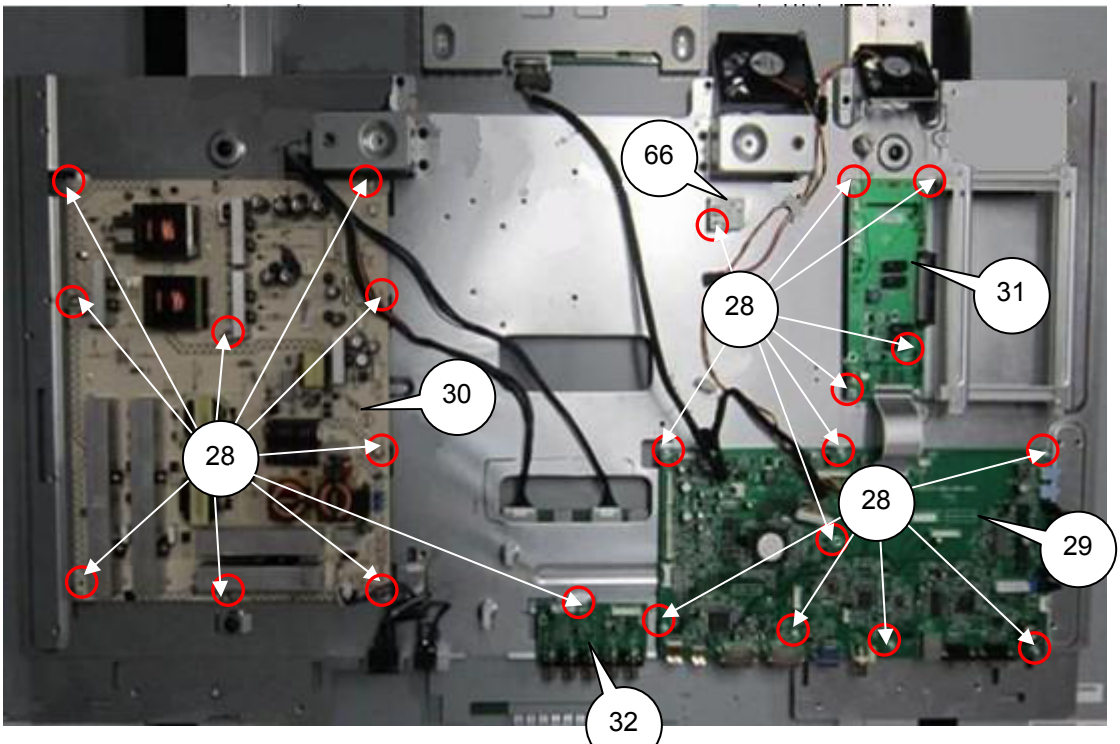
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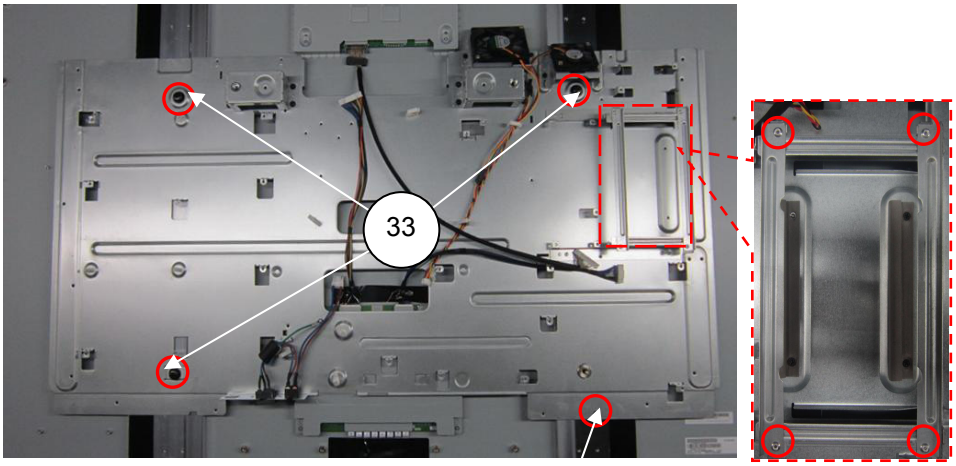
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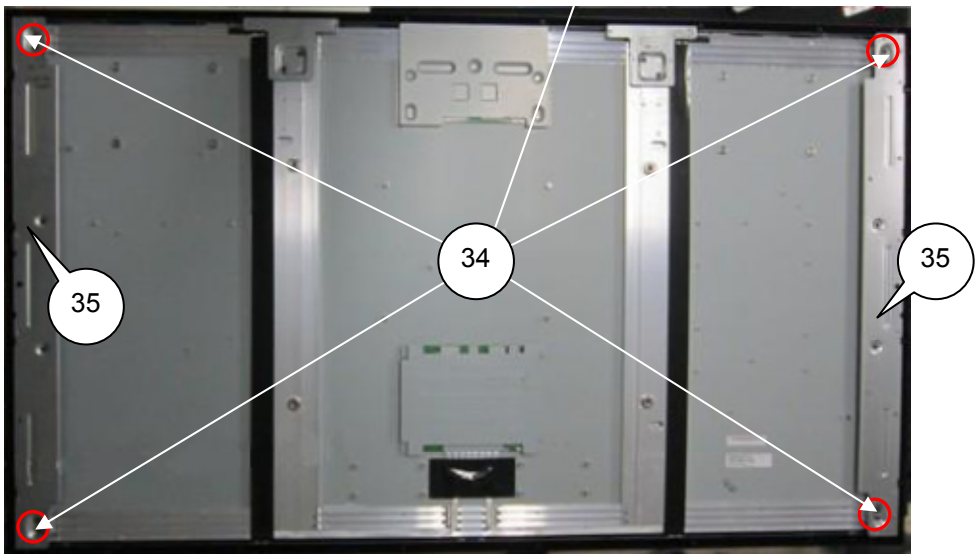
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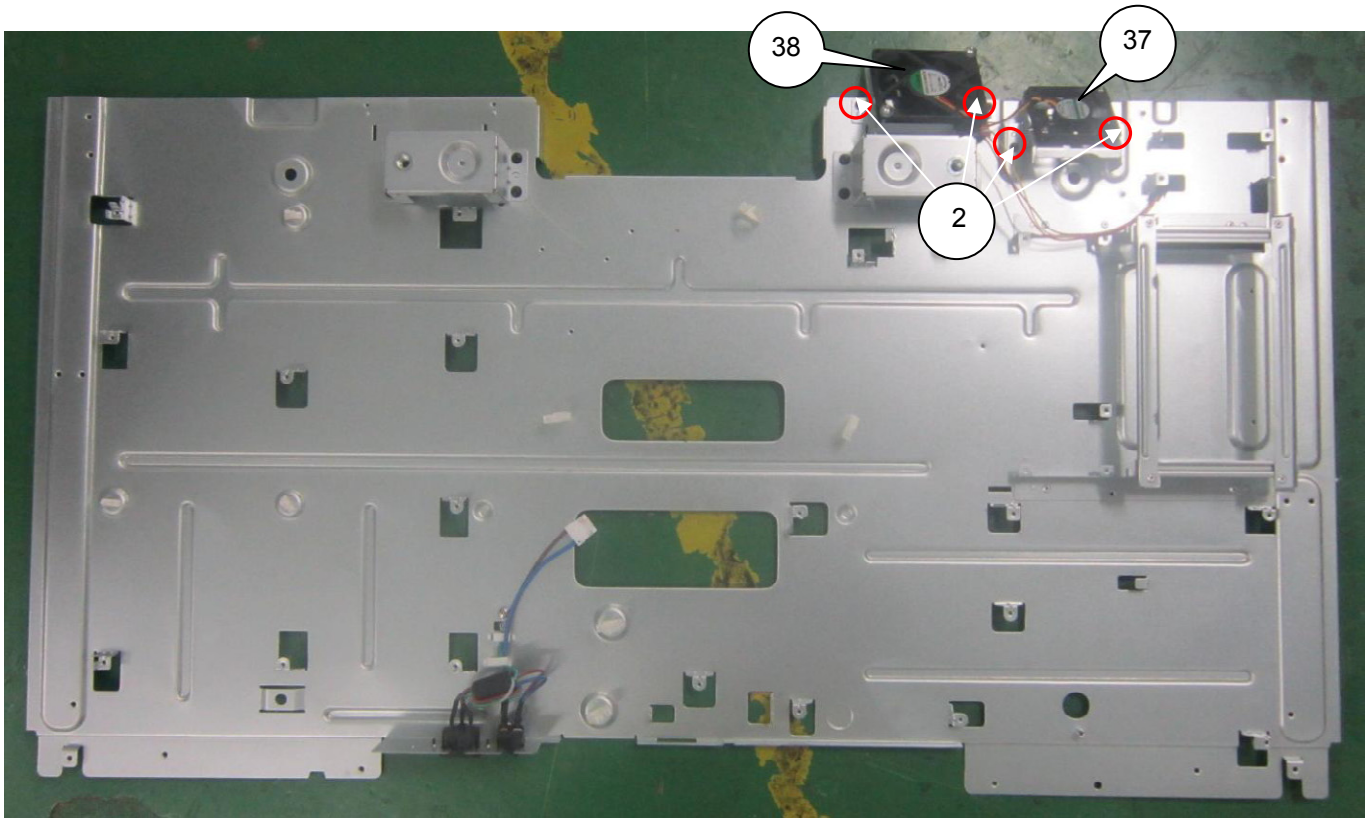
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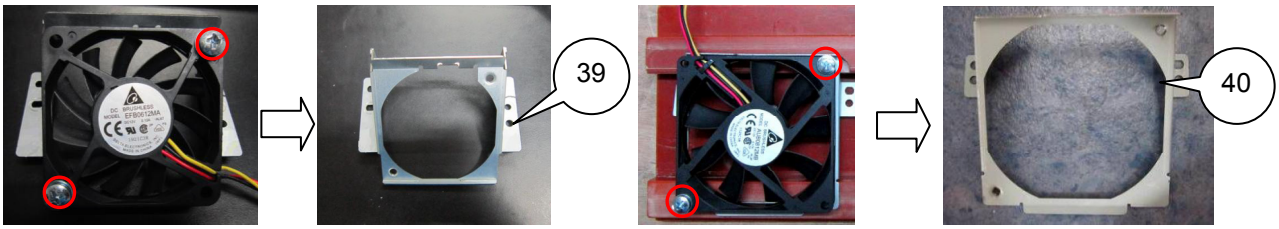
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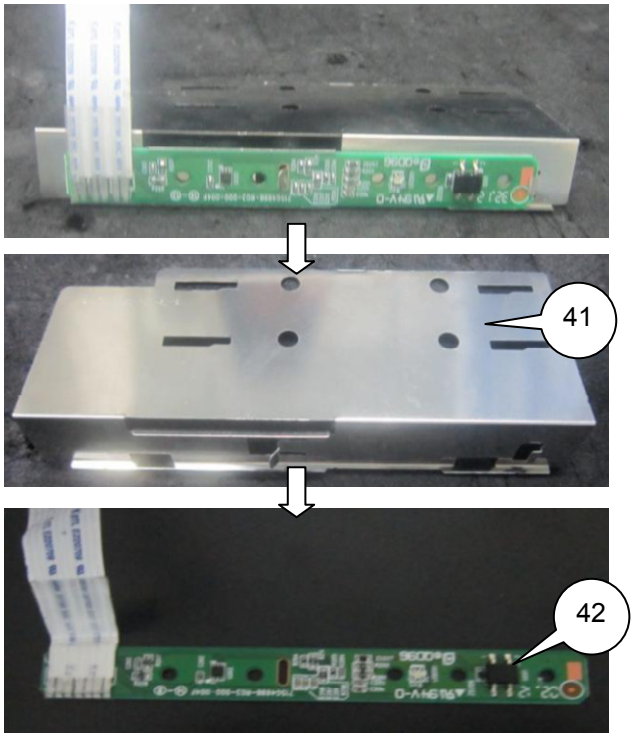
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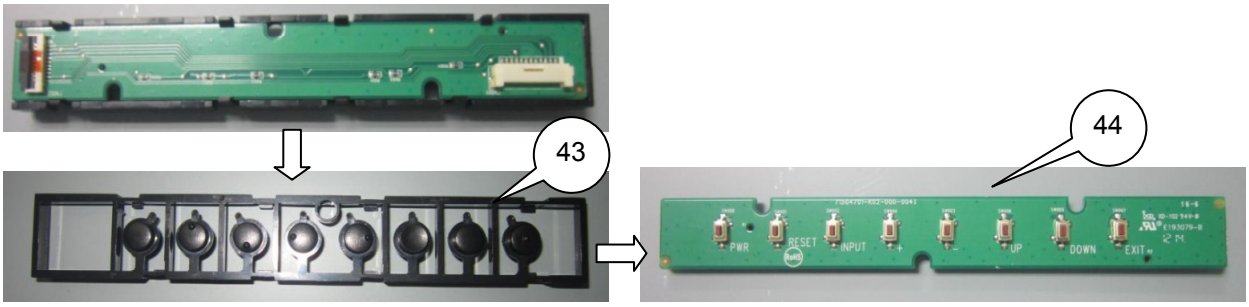
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PWR
RESET
INPUT
UP
DOWN
EXIT


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NEC

4. ADJUSTMENT

4.1 Measuring instruments, jigs, and tools

When adjusting the unit, use measurement instruments, jigs, and tools specified below.

a. Use a signal generator that can produce an all white, or all black screen. Signal timing should be VG-819.

The amplitude of each signal (R, G, B) output should be maintained at 0.7Vp-p ± 0.05V when a load of 75 Ω is connected

4.2 Power Supply Voltage

INPUT: 100Vac ~ 240Vac±10%, 50~60Hz±3Hz.

4.3 Power Circuit Closure

(1) Connect the suitable cable of the signal generator according to the setting mode.

(2) Turn on the Power switch of the signal generator.

(3) Connect the AC power cable to the unit being adjusted.

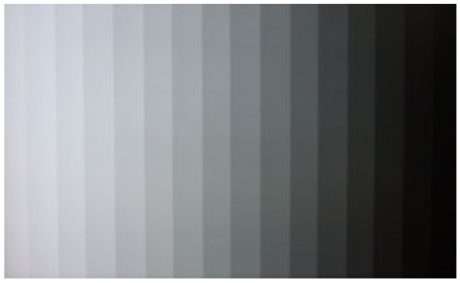
(4) Turn on the Power switch of the unit being adjusted.

(5) After the completion of signal discrimination, the LED is turned green.

4.4 ADC Bias and Gain Adjust

(1) This model needs more than 30 minutes aging before optical and electrical inspection.

(2) Enter the input signal of recommended frequency, in 8 or 16 gray scale pattern.



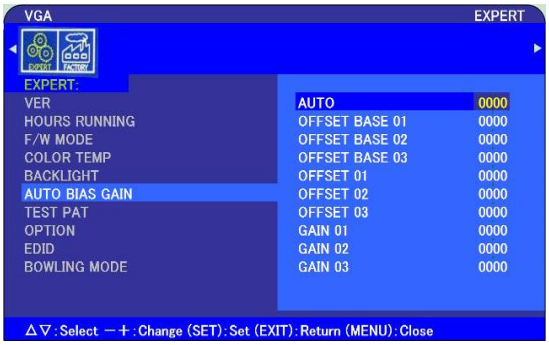
16 gray scale pattern

(3) In the factory mode according to "4.8.1 Factory mode ".

(4) Pressing the (-) or (+) button; adjust the icon “ ”, the factory OSD is carried out as below.

(4) "EXPERT" is displayed "AUTO BIAS GAIN” highlight indication a push (up) button or (down) button.

(5) The adjustment of bias and gain is performed when push the (+) or (-) button.

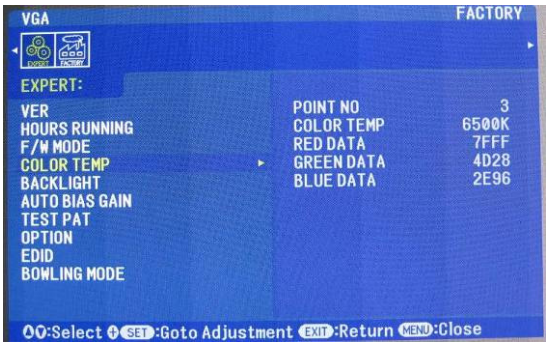


(6) When adjustments have been finished, when the “MENU” button is pressed, close the factory mode.

4.5 Color Temperature Check

Check whether RGB data is as follows in the case of ADC ADJUST.

(1) "FACTORY SETTING" is displayed "COLOR TEMPERATURE” highlight indication a push (up) button or (down) button.



(5) (+) or (-) button is pushed by the “COLOR TEMPERATURE “screen is displayed.

Color temperature R/G/B Data

For AUO panel (P650HVN02.300 TW AUO)

	R	G	B
2600 K	97	34	5
4000 K	107	86	48
5600K	101	112	66
6500K	115	121	73
7500K	123	120	88
9300K	137	131	119
10000K	137	137	137

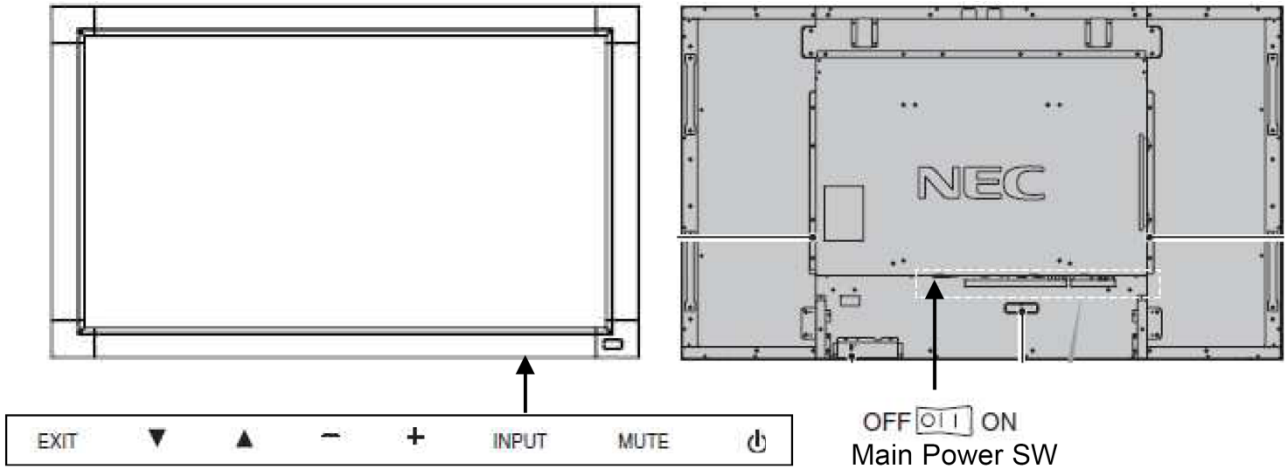
For AUO panel (P550HVN02.000 XM AUO)

	R	G	B
2600 K	77	31	4
4000 K	92	75	38
5600K	89	101	62
6500K	111	104	84
7500K	120	115	74
9300K	133	122	108
10000K	137	137	137

4.6 Reference Signal Timing

No.	Signal timing name	Dot Clock (MHz)	Horizontal						Vertical						HS, VS Polarity
			Frequency Fh (kHz)	Frequency Th (uS)	Sync. Pulse Ths (uS)	Front porch Thf (uS)	Back porch Thb (uS)	Indication Time Thd (uS)	Frequency Fv (Hz)	Frequency Tv (mS)	Sync. Pulse Tvs (mS)	Front porch Tvf (mS)	Back porch Tvb (mS)	Indication Time Tvd (mS)	
1	1920x1080 2.07M9@ 60	138.50	66.587 (Dot)	15.018 2080	0.231 32	0.347 48	0.578 80	13.863 1920	59.934 (Line)	16.685 1111	0.075 5	0.030 2	0.360 24	16.219 1080	P,N
2	720x400@ 60	28.32	31.467 (Dot)	31.780 900	3.814 108	0.636 18	1.907 54	25.424 720	70.082 (Line)	14.269 449	0.064 2	0.413 13	1.081 34	12.712 400	N,P
3	VGA 640x480@60	25.18	31.469 (Dot)	31.778 800	3.813 96	0.636 16	1.907 48	25.422 640	59.940 (Line)	16.683 525	0.064 2	0.318 10	1.049 33	15.253 480	N,N
4	640x480 VGA72	31.50	37.500 (Dot)	26.413 832	1.270 40	0.762 24	4.063 128	20.317 640	72.809 (Line)	13.735 520	0.079 3	0.238 9	0.740 28	12.678 480	N,N
5	640x480 VGA75	31.50	37.500 (Dot)	26.667 840	2.032 64	0.508 16	3.810 120	20.317 640	75.000 (Line)	13.333 500	0.080 3	0.027 1	0.427 16	12.800 480	N,N
6	SVGA 800X600@60	40.00	37.879 (Dot)	26.400 1056	3.200 128	1.000 40	2.200 88	20.000 800	60.317 (Line)	16.579 628	0.106 4	0.026 1	0.607 23	15.840 600	P,P
7	XGA 1024x768@60	65.00	48.363 (Dot)	20.677 1344	2.092 136	0.369 24	2.462 160	15.754 1024	60.004 (Line)	16.666 806	0.124 6	0.062 3	0.600 29	15.880 768	P,P
8	1920x1080 2.07M9@50	141.50	55.621 (Dot)	17.979 2544	1.413 200	0.792 112	2.205 312	13.569 1920	49.929 (Line)	20.028 1114	0.090 5	0.054 3	0.467 26	19.417 1080	N,P
9	UXGA 1600x120@60	162.00	75.000 (Dot)	13.333 2160	1.185 192	0.395 64	1.877 304	9.877 1600	60.000 (Line)	16.667 1250	0.040 3	0.013 1	0.613 46	16.000 1200	P,P
10	1920x1080@60	148.50	67.50 (Dot)	14.800 2200	0.296 44	0.593 88	0.998 148	12.929 1920	60.000 (Line)	16.667 1125	0.074 5	0.059 4	0.534 36	16.059 1080	P,P
11	WXGA 1.04M9@60	84.75	47.720 (Dot)	20.956 1776	1.605 136	0.850 72	2.454 208	16.047 1360	59.799 (Line)	16.723 798	0.105 5	0.063 3	0.461 22	16.094 768	N,P
12	WXGA 1360x768@60	85.50	47.712 (Dot)	20.959 1792	1.310 112	0.749 64	2.994 256	15.906 1360	60.015 (Line)	16.662 795	0.126 6	0.063 3	0.377 18	16.097 768	P,P
13	1280x720 60p	74.25	45.000 (Dot)	22.222 1650	1.481 110	0.539 40	2.963 220	17.239 1280	60.000 (Line)	16.667 750	0.111 5	0.111 5	0.444 20	16.000 720	P,P
14	WXGA (PD40)	81.00	47.986 (Dot)	20.840 1688	1.679 136	0.296 24	3.062 248	15.802 1280	59.833 (Line)	16.713 802	0.125 6	0.063 3	0.521 25	16.005 768	P,P
15	WXGA 0.98M9@60	79.50	47.776 (Dot)	20.931 1664	1.610 128	0.805 64	2.415 192	16.101 1280	59.870 (Line)	16.703 798	0.147 7	0.063 3	0.419 20	16.075 768	N,P
16	SXGA 1280x1024@60	108.00	63.981 (Dot)	15.630 1688	1.037 112	0.444 48	2.296 248	11.852 1280	60.020 (Line)	16.661 1066	0.047 3	0.016 1	0.594 38	16.005 1024	P,P
17	1920x480@60	71.59	29.83 (Dot)	33.526 2400	2.682 192	3.353 240	6.943 497	26.821 1920	60.020 (Line)	16.661 497	0.101 3	0.034 1	0.436 13	16.091 480	P,N

4.7 Basic Operation



Key	
Main Power	Seesaw Switch for the main power on/off.
POWER button	When power is off, power LED lights red. When on, power LED lights green. When status of this set is power save, power LED lights red and green. Glow Red and blink Green while in Power Standby mode with the "SCHEDULE SETTINGS" function enabled. When a component failure is detected within the monitor, the indicator will blink red.
MUTE button	Switches the audio mute on/off.
INPUT button	Acts as SET button within the OSD menu. Selects which signal connected to the display is shown.
PLUS button	Acts as PLUS button to increase the adjustment with OSD menu. Increases the audio output level when the OSD menu is turned off.
MINUS button	Acts as MINUS button to decrease the adjustment with OSD menu. Decrease the audio output level when the OSD menu is turned-off.
UP/DOWN button	Activates the OSD menu when the OSD menu is turned-off. Acts as UP/DOWN button to move the highlighted area up/down to select the adjustment with OSD menu.
EXIT button	Activates the OSD menu when the OSD menu is turned-off. Acts as EXIT button to move to previous menu in the OSD menu

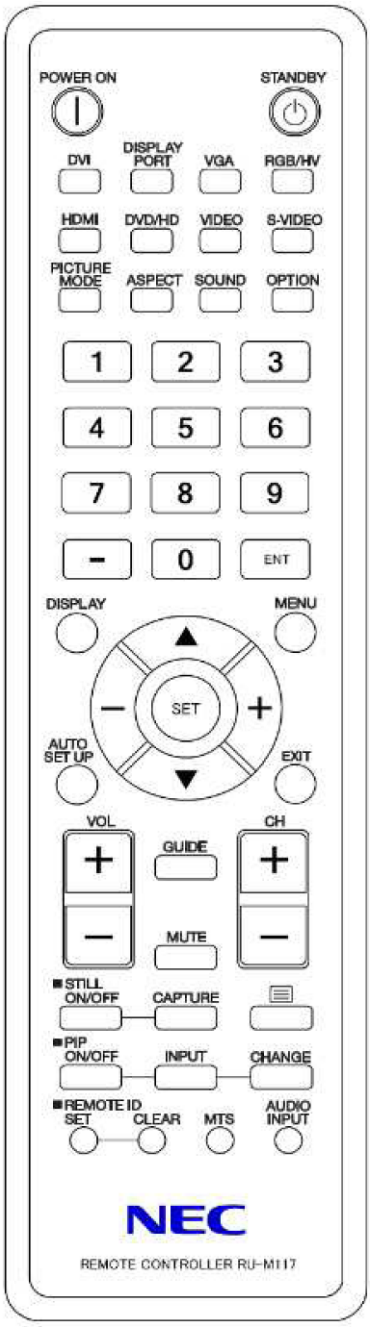
Control Lock Mode

This control completely locks out access to all OSD control functions. When attempting to activate OSD controls while in the Lock Out mode, a screen will appear indicating the OSD controls are locked out.

To activate the OSD Lock Out function, press both of "▼" and "▲ " and hold down simultaneously for three seconds.

To resume back to user mode, Press both of "▼" and "▲ " and hold down simultaneously for three seconds.

Main Power Switch can be covered from mischief by Main switch cover.



ARTICLE	FUNCTION
POWER	POWER ON
STANDBY	POWER OFF
DVI	Input reshuffling (DVI)
DISPLAY PORT	Input reshuffling (Display Poat)
VGA	Input reshuffling (VGA)
RGB/HV	Input reshuffling (RGB/HV)
HDMI	Input reshuffling (HDMI)
DVD/HD	Input reshuffling (DVD/HV)
VIDEO	Input reshuffling (VIDEO)
S-VIDEO	Input reshuffling (S-VIDEO)
PICTURE MODE	Video switching (HIBRIGHT, STANDARD, sRGB, CINEMA, AMBIENT1, AMBIENT2)
ASPECT	Screen display size reshuffling (FULL, NORMAL, ZOOM, WIDE)
SOUND	Sound ON/OFF
OPTION	Input reshuffling (OPTION)
1	Number key
2	Number key
3	Number key
4	Number key
5	Number key
6	Number key
7	Number key
8	Number key
9	Number key
-	Hyphen
0	Number key
ENT	No working
DISPLAY	Information indication ON/OFF
MENU	Menu indication ON/OFF
AUTO SETUP	Change AUTO SETUP
EXIT	Out Menu
MENU ▲	Operation Menu/Screen movement PIP
MENU ▼	Operation Menu/Screen movement PIP
MENU +	Operation Menu /Screen PIP/On timer setting movement
MENU -	Operation Menu /Screen PIP/On timer setting movement
SET	Decision of the menu choice
VOL +	Volume control Upper course
VOL -	Volume control Lower course
GUIDE	Program guide indication
MUTE	Silence of the sound

CH +	No working
CH -	No working
STILL ON/OFF	ON/OFF of the standstill screen
STILL CAPTURE	Uptake of the still image No working
	No working
PIP ON/OFF	Child screen display reshuffling(PIP, POP, SPRIT, OFF)
PIP INPUT	Input reshuffling of the child screen(There is limitation to an optional child screen by a parent)
PIP CHANGE	A pro-screen and the input reshuffling of the child screen
REMOTE ID SET	Remote controller mode reshuffling (ID mode)、Remote controller ID setting
REMOTE ID RESET	Remote controller (Normal mode) mode reshuffling
MTS	No working
AUDIO INPUT	Sound inputting reshuffling(IN1, IN2, IN3, HDMI)

4.8 Special key operation

4.8.1 Factory mode

It is operated only with remote control.

(1) How to enter the Factory mode: [DISP], [DISP], [SET], [▼], [+], [▲], [-], [▼], [▲], [SET], [MENU]

(2) Then press [MENU] button again, open the OSD shows below.

(3) Pressing the (-) or (+) button; adjust the icon “ 

”, the factory OSD is carried out as below.

(4) If you turn off (power off) the monitor in the factory menu, it will exit the factory menu.

4.8.2 Enter Aging Mode

(1) In the factory mode according to "4.8.1 Factory mode ".

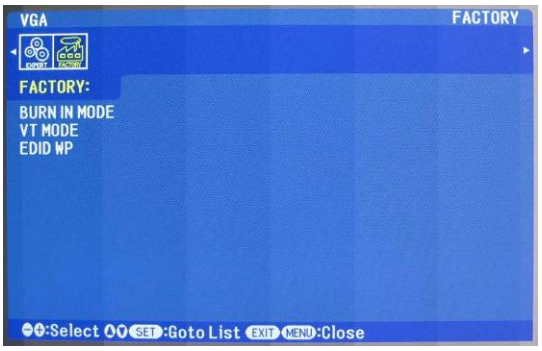
(2) Move the cursor to “BURN-IN” using the [up] button or [down] button and highlight. Then, set it to “ON” using the [-] button or [+] button.

(3) Disconnect the signal cable from with the power turned ON.

(4) The Burn-in pattern is started.

(5) When the aging mode is to be ended, insert the signal cable and turn OFF the factory mode Burn-in setting. Then, end the factory mode.

4.8.3 Factory mode Explanations



Item	Function
BURN IN MODE	ON/OFF BURN IN FUNCTION
EDID WP	EDID write protect. Not stored in EEPROM
VT MODE	BACKGROUND COLOR OF FREE RUN MODE

5. Inspection

Recommended frequency V652: 1920×1080@60Hz

5.1 Electric Performance Inspection

Check for OSD control switch

*The monitor with remote control does a similar inspection about remote control.

(1) Receive recommended frequency, cross hatch pattern.

(2) Check that the picture is shown after 4 seconds from power on.

(3) Check that the LED on line indicator is blinking green.

(4) Check that any noise is shown on the display with power on and off.

(5) Check for OSD control switch

a. Check that OSD menu is displayed when the OSD menu button is pressed.

b. The adjustment menu of various OSD confirms the normal function with the adjustment volume button.
(Brightness and sound volume, etc.)

c. And at this time, check that each value changes smoothly and any noise are not shown on display.
(Brightness and sound volume, etc.)

d. Check that OSD menu becomes off when the OSD menu button is pushed again.

e. Check that the input signal is changed when the button of signal change is pressed.

5.2 Check for the received recommended frequency

Check that the recommended frequency signal is received and displayed successfully. Check that the display is shown in 5 minutes after the received signal is changed.

5.3 Check the performance

(1) Receive recommended frequency, the color bars pattern and the grays scale pattern is displayed.

(2) Check whether the color bars pattern is displayed smoothly, and all data are shown.

5.4 Inspection for Audio function

Purpose: Confirm the audio function works well. This inspection is unnecessary in case of the monitor without the audio output. And when it is a monitor with the external speaker terminal or the headphone terminal, the speaker or headphone is connected.

(1) Connect Audio input terminal with PC or Audio player, then input sound.

(2) Receive recommended frequency.

(3) Display the sound adjustment stage.

(4) Press the sound adjustment button to change the sound.

(5) Check that the sound is out normally from right and left speaker.

5.5 External Inspection on the LCD Module

For V552

Inspection environment conditions

Ambient conditions

A. Temperature: 20 ~ 25℃

B. Humidity: 65±5% RH.

C. Lumination: A single 20W fluorescent lamp (300 to 700 Lux)

Viewing distance

Be at a distance about 100±5 cm in front of LCD module with naked eyes.

Viewing Angle

Viewing line should be perpendicular to the surface of the module.

Classification of defects:

Defects are classified as major defects and minor defects according to the defect classification defined herein.

Major defects:

A major defect is a defect that is likely to result in failure, or to reduce materially the usability of the product for its intended purpose.

Minor defects:

A minor defect is either a defect that is not likely to reduce materially the usability of the product for its intended purpose, or a stray from an intended purpose with little bearing on the effective usage Specific criteria of judgment on major and minor defects shall be in accordance with " the Classification of Defect " table below.

Defect items	Criterion for defects	Severity
Line Defect	Not allowed any vertical, horizontal and cross line	Major
Foreign Material	Shall be in accordance with the item 7.3 “Foreign Material” in this standard	Minor
Polarizer Defect	Shall be in accordance with the item 7.2 “Polarizer Defect” in this standard	Minor
Dot Defect	Shall be in accordance with the item 7.1 ”Dot defect” in this standard	Minor
Mura	Shall be in accordance with the item 7.5 ”Mura” in this standard	Minor

Inspection Criteria

Electrical Inspection

Dot Defect

A. Every dot herein means a Sub-Pixel (each Red, Green or Blue color).

B. Bright Dot defect is defined as that the defective area of the dot is larger than 50% of the dot area and should be visible under 2% ND filter.

Bright Dot

Bright Dot is defined as Dot (sub-pixel), which appears bright on the screen when the LCD module displayed at dark pattern.

Inspection Item	Criteria
R.G or B 1 dot	0

A partial bright dot damaged less than half size of sub-pixel is not counted as a bright dot defect and should be specified below.

Inspection Item	Criteria
5% ND filter Not-visible	Ignored
5% ND filter Visible 2% ND filter Not-visible	Max. 7 allowed
2% ND filter Visible	Max. 5 allowed

7.1-2 Dark Dot

Dark Dot is defined as Dot (sub-pixel), which appears dark on the screen when the LCD Module displays at bright pattern.

Inspection Item	Criteria
R.G or B 1 dot	Max. 9allowed
Adjacent 2 dots	≦2 pairs

Total Dot

Total amount of Dot Defects	Max. 9allowed

Appearance Inspection

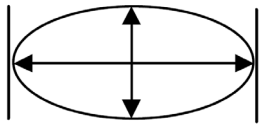
Polarizer Defects

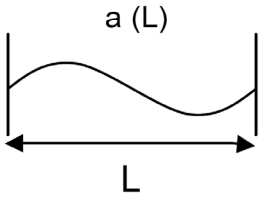
A. Extraneous substances that can be wiped out such as Finger Prints, particles are not considered defects.

B. Defects on the Black Matrix (outside the Active Area) are not considered defects.

Inspection Items	Criteria
Linear Scratch	0.15<W≦0.3, L≦30, N≦8
Bubble/Dent	0.5<D≦1.0, N≦7

Where, W (mm): Width
L (mm): Length
D (mm): Average diameter
Note) Linear: a > 2b, Circular : a ≦ 2b





Foreign Material

Inspection Items	Criteria
Linear	0.15＜W≦0.3, L≦30, N≦6
Circular	0.5<D≦1.0, N≦7

For V552-U2

Inspection environment conditions

Ambient conditions

A. Temperature: 20 ~ 25℃

B. Humidity: 65±5% RH.

C. Lumination: A single 20W fluorescent lamp (300 to 700 Lux)

Viewing distance

Be at a distance about 100±5 cm in front of LCD module with naked eyes.

Viewing Angle

Viewing line should be perpendicular to the surface of the module.

Classification of defects:

Defects are classified as major defects and minor defects according to the defect classification defined herein.

Major defects:

A major defect is a defect that is likely to result in failure, or to reduce materially the usability of the product for its intended purpose.

Minor defects:

A minor defect is either a defect that is not likely to reduce materially the usability of the product for its intended purpose, or a stray from an intended purpose with little bearing on the effective usage Specific criteria of judgment on major and minor defects shall be in accordance with "the Classification of Defect "table below.

Defect items	Criterion for defects	Severity
Line Defect	Not allowed any vertical, horizontal and cross line	Major
Foreign Material	Shall be in accordance with the item 7.3 “Foreign Material” in this standard	Minor
Polarizer Defect	Shall be in accordance with the item 7.2 “Polarizer Defect” in this standard	Minor
Dot Defect	Shall be in accordance with the item 7.1 ”Dot defect” in this standard	Minor
Mura	Shall be in accordance with the item 7.5 ”Mura” in this standard	Minor

Inspection Criteria

Electrical Inspection

Dot Defect

A. Every dot herein means a Sub-Pixel (each Red, Green or Blue color).

B. Bright Dot defect is defined as that the defective area of the dot is larger than 50% of the dot area and should be visible under 2% ND filter.

Bright Dot

Bright Dot is defined as Dot (sub-pixel), which appears bright on the screen when the LCD module displayed at dark pattern.

Inspection Item	Criteria
R.G or B 1 dot	0

A partial bright dot damaged less than half size of sub-pixel is not counted as a bright dot defect and should be specified below.

Inspection Item	Criteria
5% ND filter Not-visible	Ignored
5% ND filter Visible 2% ND filter Not-visible	Max. 7 allowed
2% ND filter Visible	Max. 5 allowed

7.1-2 Dark Dot

Dark Dot is defined as Dot (sub-pixel), which appears dark on the screen when the LCD Module displays at bright pattern.

Inspection Item	Criteria
R.G or B 1 dot	Max. 9allowed
Adjacent 2 dots	≦2 pairs

Total Dot

Total amount of Dot Defects	Max. 9allowed

Appearance Inspection

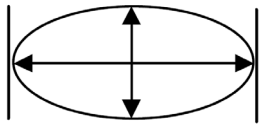
Polarizer Defects

A. Extraneous substances that can be wiped out such as Finger Prints, particles are not considered defects.

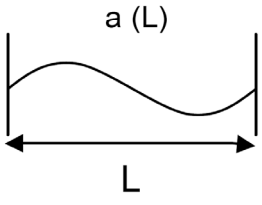
B. Defects on the Black Matrix (outside the Active Area) are not considered defects.

Inspection Items	Criteria
Linear Scratch	0.15<W≦0.3, L≦30, N≦6
Bubble/Dent	0.5<D≦1.0, N≦7

Where, W (mm): Width
L (mm): Length
D (mm): Average diameter
Note) Linear: a > 2b, Circular : a ≦ 2b



D = (a+b)/2



L = Longest point

Foreign Material

Inspection Items	Criteria
Linear	0.15＜W≦0.3, L≦30, N≦6
Circular	1.0<D≦1.5, N≦7

For V652

Inspection environment conditions

Ambient conditions

A. Temperature: 20 ~ 25℃

B. Humidity: 65±5% RH.

C. Lumination: A single 20W fluorescent lamp (300 to 700 Lux)

Viewing distance

Be at a distance about 100±5 cm in front of LCD module with naked eyes.

Viewing Angle

Viewing line should be perpendicular to the surface of the module.

Classification of defects:

Defects are classified as major defects and minor defects according to the defect classification defined herein.

Major defects:

A major defect is a defect that is likely to result in failure, or to reduce materially the usability of the product for its intended purpose.

Minor defects:

A minor defect is either a defect that is not likely to reduce materially the usability of the product for its intended purpose, or a stray from an intended purpose with little bearing on the effective usage Specific criteria of judgment on major and minor defects shall be in accordance with " the Classification of Defect " table below.

Defect items	Criterion for defects	Severity
Line Defect	Not allowed any vertical, horizontal and cross line	Major
Foreign Material	Shall be in accordance with the item 7.3 “Foreign Material” in this standard	Minor
Polarizer Defect	Shall be in accordance with the item 7.2 “Polarizer Defect” in this standard	Minor
Dot Defect	Shall be in accordance with the item 7.1 ”Dot defect” in this standard	Minor
Mura	Shall be in accordance with the item 7.5 ”Mura” in this standard	Minor

Inspection Criteria

Electrical Inspection

Dot Defect

A. Every dot herein means a Sub-Pixel (each Red, Green or Blue color).

B. Bright Dot defect is defined as that the defective area of the dot is larger than 50% of the dot area and should be visible under 2% ND filter.

Bright Dot

Bright Dot is defined as Dot (sub-pixel), which appears bright on the screen when the LCD module displayed at dark pattern.

Inspection Item	Criteria
R.G or B 1 dot	Max. 1 allowed

A partial bright dot damaged less than half size of sub-pixel is not counted as a bright dot defect and should be specified below.

Inspection Item	Criteria
5% ND filter Not-visible	Ignored
5% ND filter Visible 2% ND filter Not-visible	Max. 7 allowed
2% ND filter Visible	Max. 5 allowed

7.1-2 Dark Dot

Dark Dot is defined as Dot (sub-pixel), which appears dark on the screen when the LCD Module displays at bright pattern.

Inspection Item	Criteria
R.G or B 1 dot	Max. 10 allowed
Adjacent 2 dots	≦2 pairs

Total Dot

Total amount of Dot Defects	Max. 10 allowed

Appearance Inspection

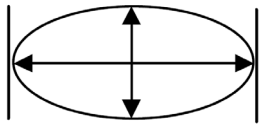
Polarizer Defects

A. Extraneous substances that can be wiped out such as Finger Prints, particles are not considered defects.

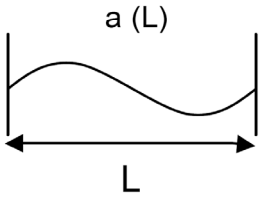
B. Defects on the Black Matrix (outside the Active Area) are not considered defects.

Inspection Items	Criteria
Linear Scratch	0.15<W≦0.3, L≦30, N≦8
Bubble/Dent	0.5<D≦1.0, N≦10

Where, W (mm): Width
L (mm): Length
D (mm): Average diameter
Note) Linear: a > 2b, Circular : a ≦ 2b



D = (a+b)/2



L = Longest point

Foreign Material

Inspection Items	Criteria
Linear	0.15＜W≦0.3, L≦30, N≦8
Circular	0.5<D≦1.0, N≦10

6. Writing of EDID/OSD (Monitor Information) data

(Take X461S For example)

6.1 Writing of EDID data

6.1.1 EDID writing SOP by VGA single port

1. Materials list

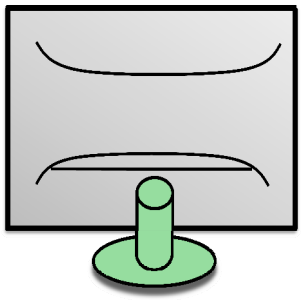
LPT cable (male to male)
TPV P/N: N/A

VGA cable
TPV P/N: 089G728 GAA DB

12V DC adapter
TPV P/N: ADPC12416BEP

ISP JIG: 715GT034-B

PC



Monitor

PORT95NT.EXE
LPT port driver

VGA20110512_NDS
CDT2.0.exe
ISP tool:
VGA20110512_NDSCDT2.0.exe

X461S(A+D+OPTION)
EDID:VGA+DVI+OPTION

2. Connection

3. Install LPT driver.

3.1. Double click the icon 

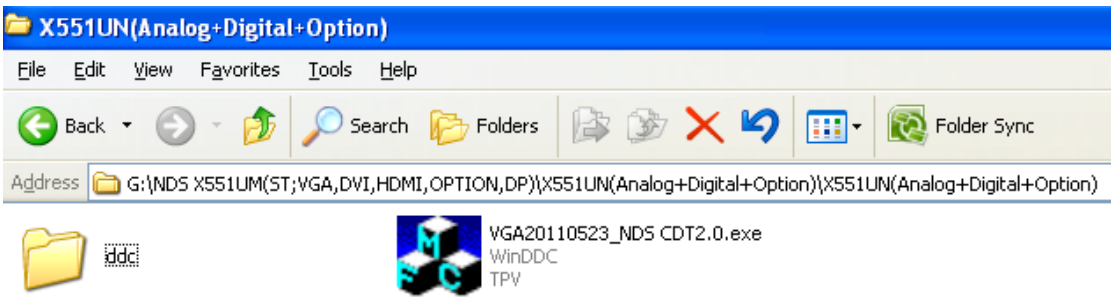
to install the driver.

3.2. Restart PC after installation.

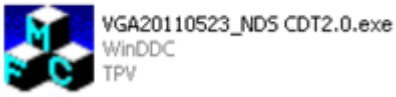
4. Prepare the EDID written.

4.1. The EDID file has been putted in DDC folder as below.

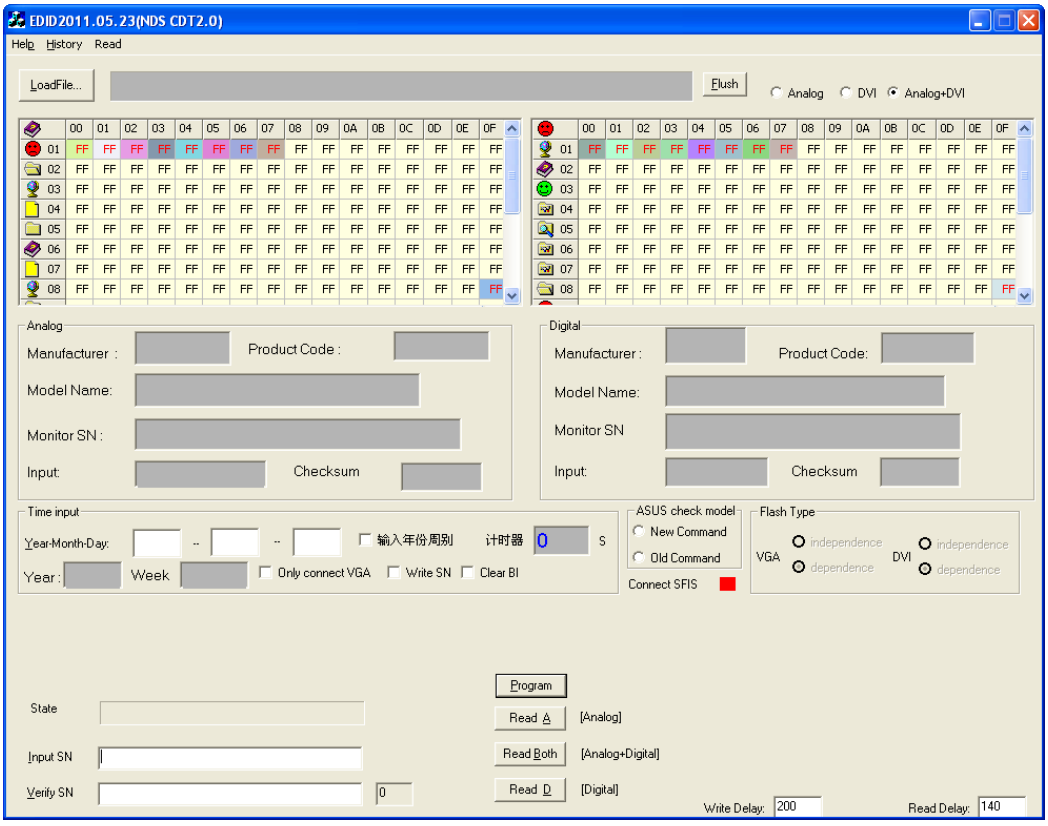
4.2. VGA20110523_NDS CDT2.0.exe is ISP tool.



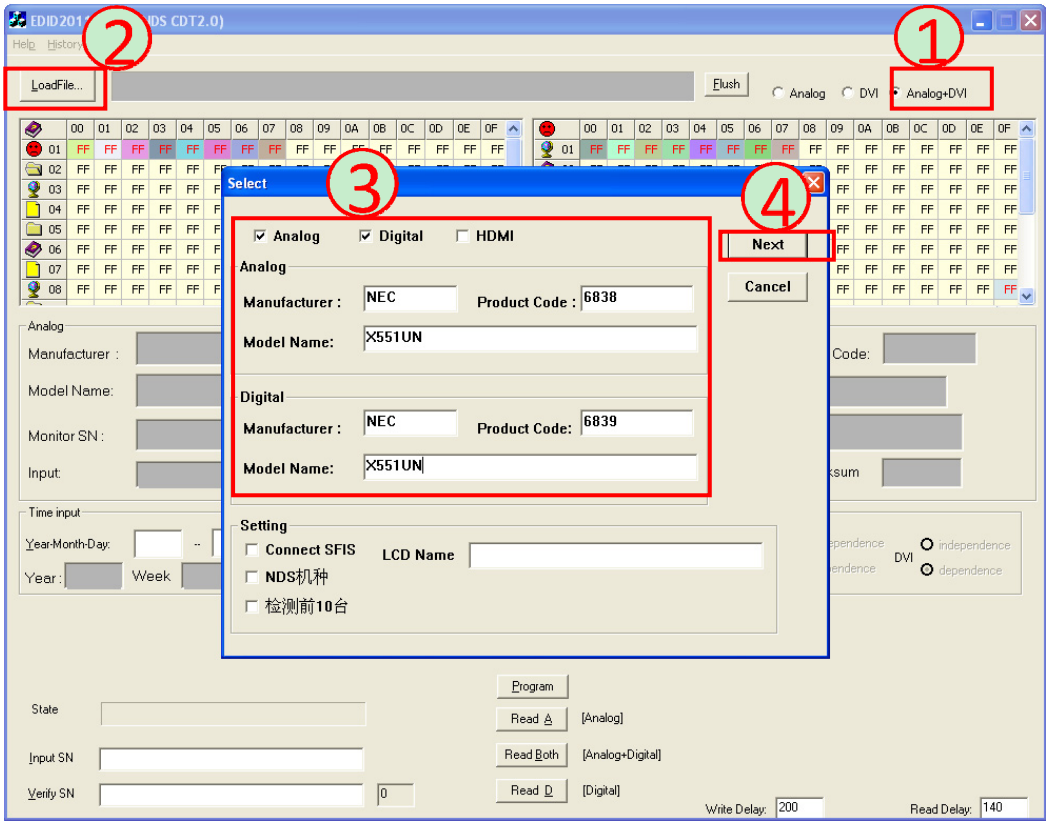
5. Run the ISP tool.

5.1. Double-click the icon 

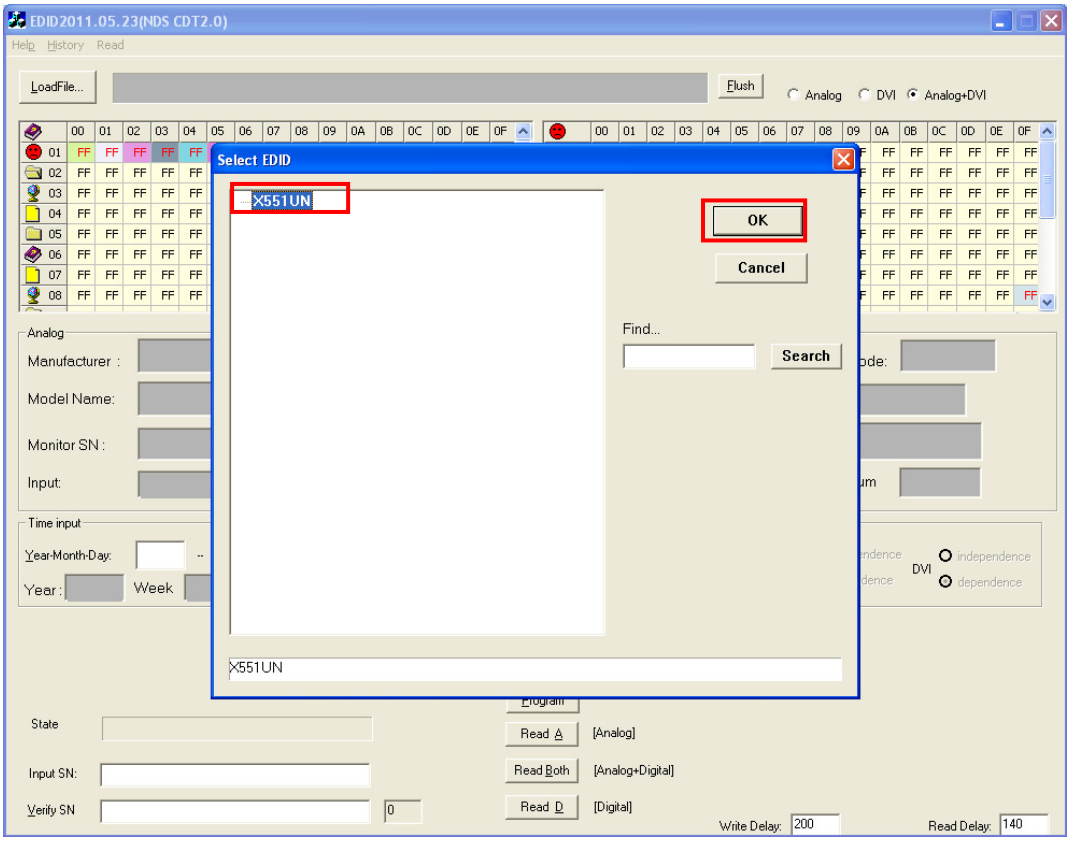
to open the tool.



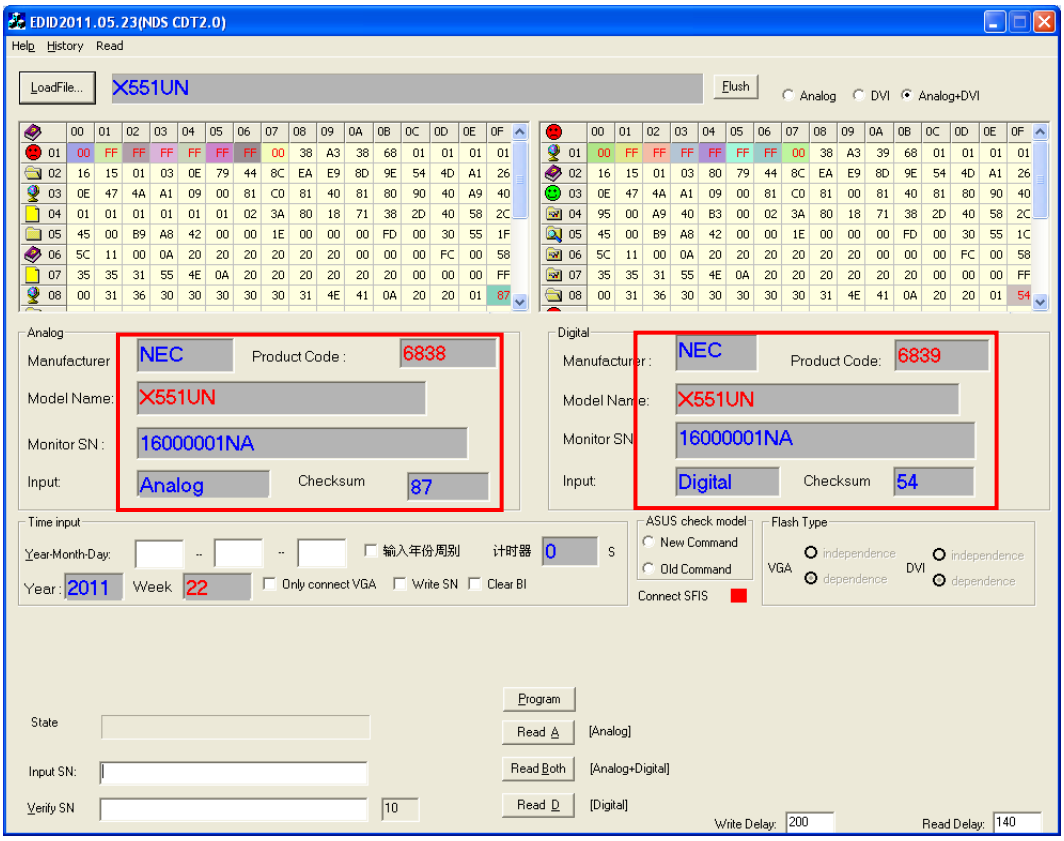
5.2. Tick the “Analog+DVI” and click “Loadfile” to set the parameters.



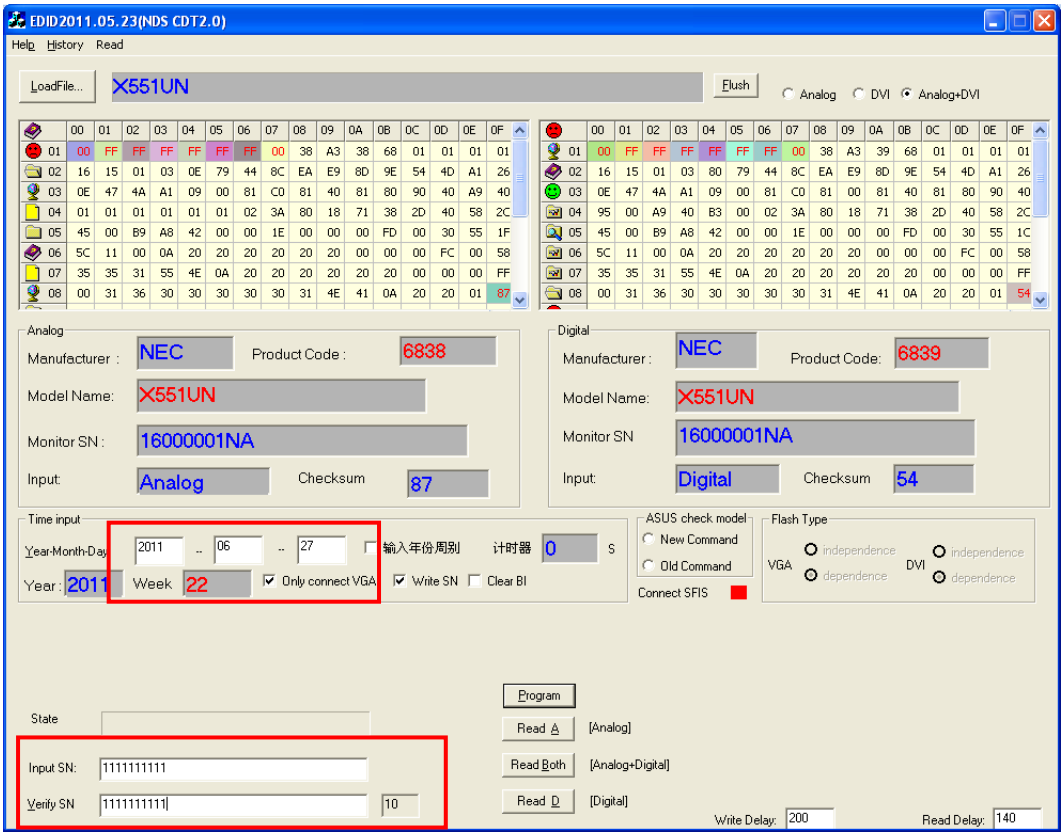
5.3. Select the EDID folder. Select correct folder.



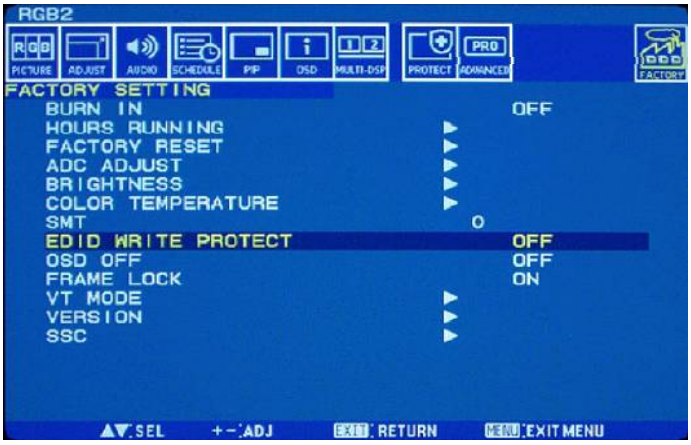
5.4. Load EDID successfully. In the EDID tool, you can know the EDID information.



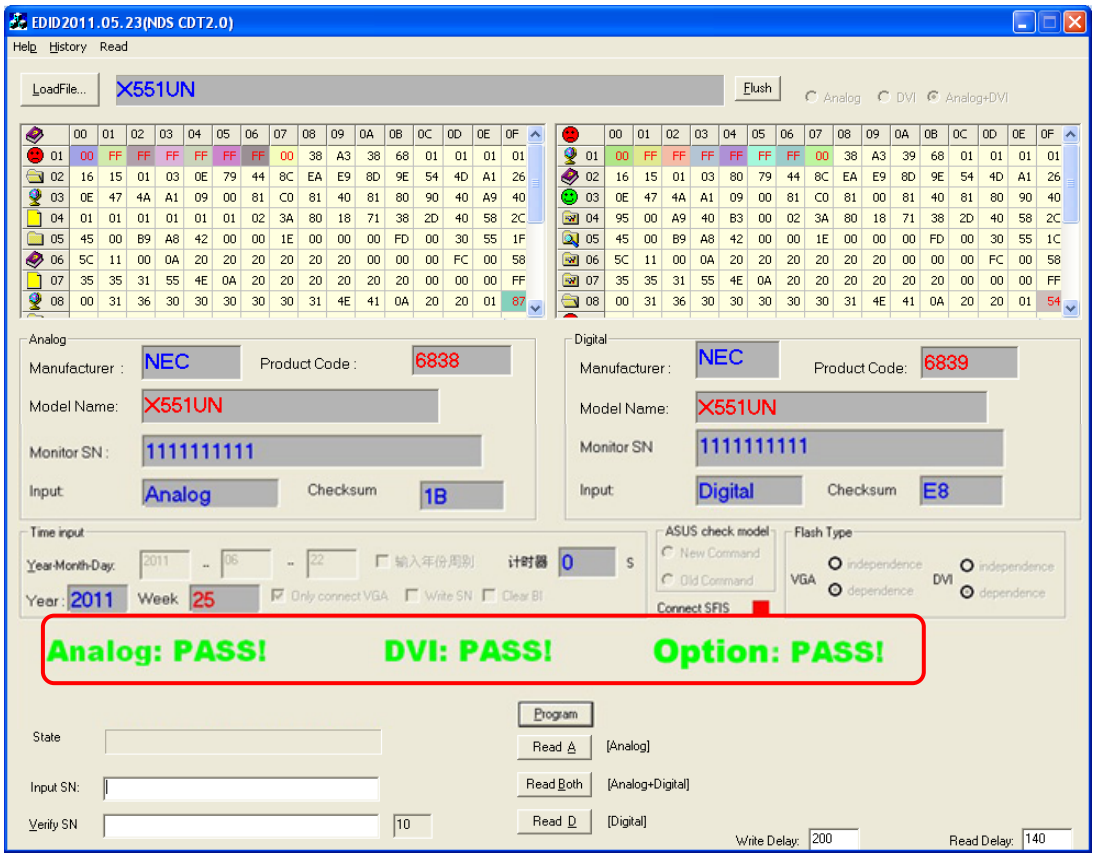
5.5. Tick the “Only connect VGA”, and type in the 10 digit S/N which must be the same as the SN in barcode of set and date.



5.6. Turn on the PD and enter factory mode by pressing “[DISP], [DISP], [SET], [▼], [+], [▲], [-], [▼], [▲], [SET], [MENU], [MENU] keys in remote control. Don’t exit factory mode during EDID writing.



5.7. Start writing. Click “Program” to start writing. When the green “PASS” appear, the process is finished.



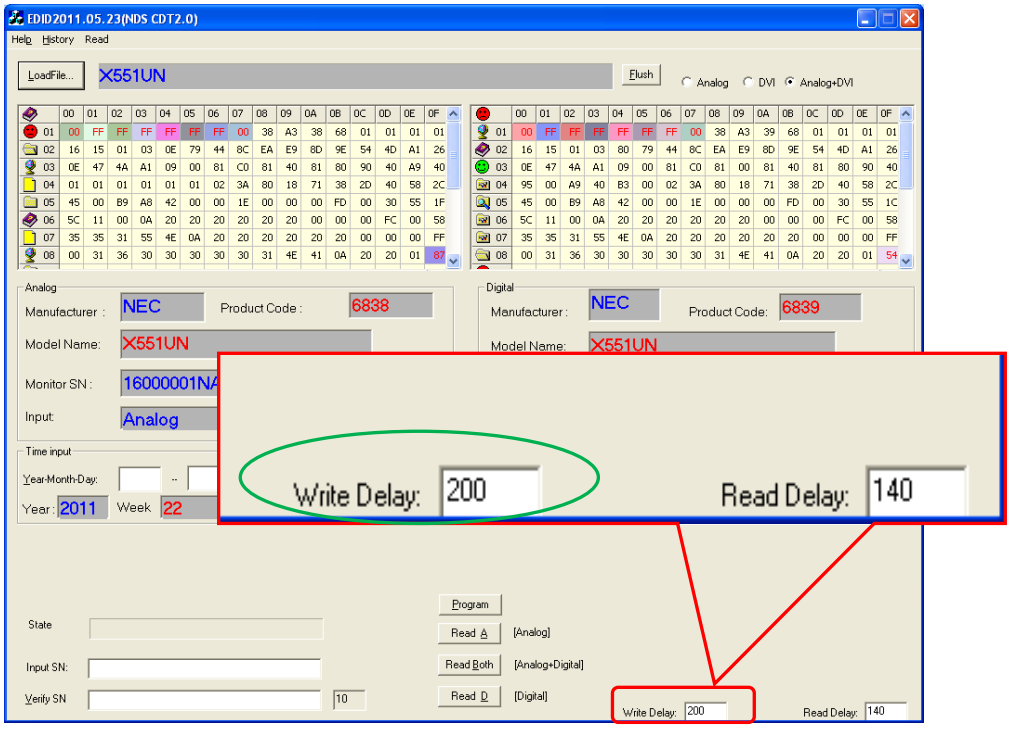
Note: Because the DP EDID has been contained in flash software. So it is not necessary to update it.

6. Troubleshooting.

6.1. Can’t write error.

6.2. Try below few ways to cure can’t write errors!

(1)Modify the “Write Delay” time to longer and try again.



(1) AC on the monitor and turn on it.(Restart the monitor)

(2) Set the Burn in on to try again.

(3)Take apart the monitor and connect the 7pin of EEPROM to GND to diable write protection then write EDID one by one.

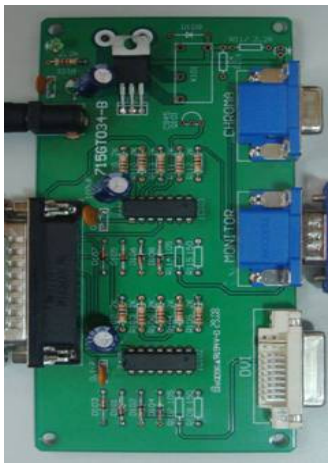
6.1.2 EDID writing SOP by HDMI port

1. Materials list

LPT cable (male to male)
TPV P/N: N/A

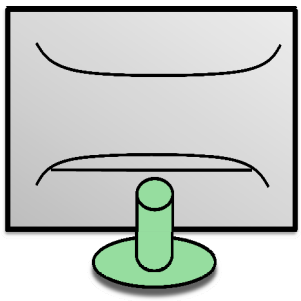
VGA cable
TPV P/N: 089G728 GAA DB

12V DC adapter
TPV P/N: ADPC12416BEP



ISP JIG: 715GT034-B

PC



Monitor

PORT95NT.EXE
LPT port driver

X4615(HDMI)
EDID: HDMI

TPVDDCHDMI.exe
ISP tool: TPVDDCHDMI.exe

DVI to HDMI cable
TPV P/N: 089G183GAA501

2. Connection

3. Install LPT driver.

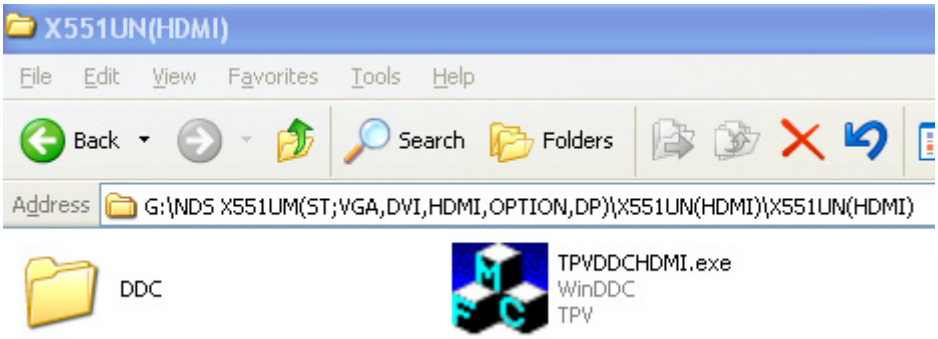
3.1. Double click the icon 

to install the driver. Restart PC after installation.

4. Prepare the EDID written.

4.1. The EDID of V652 has been putted in DDC folder.

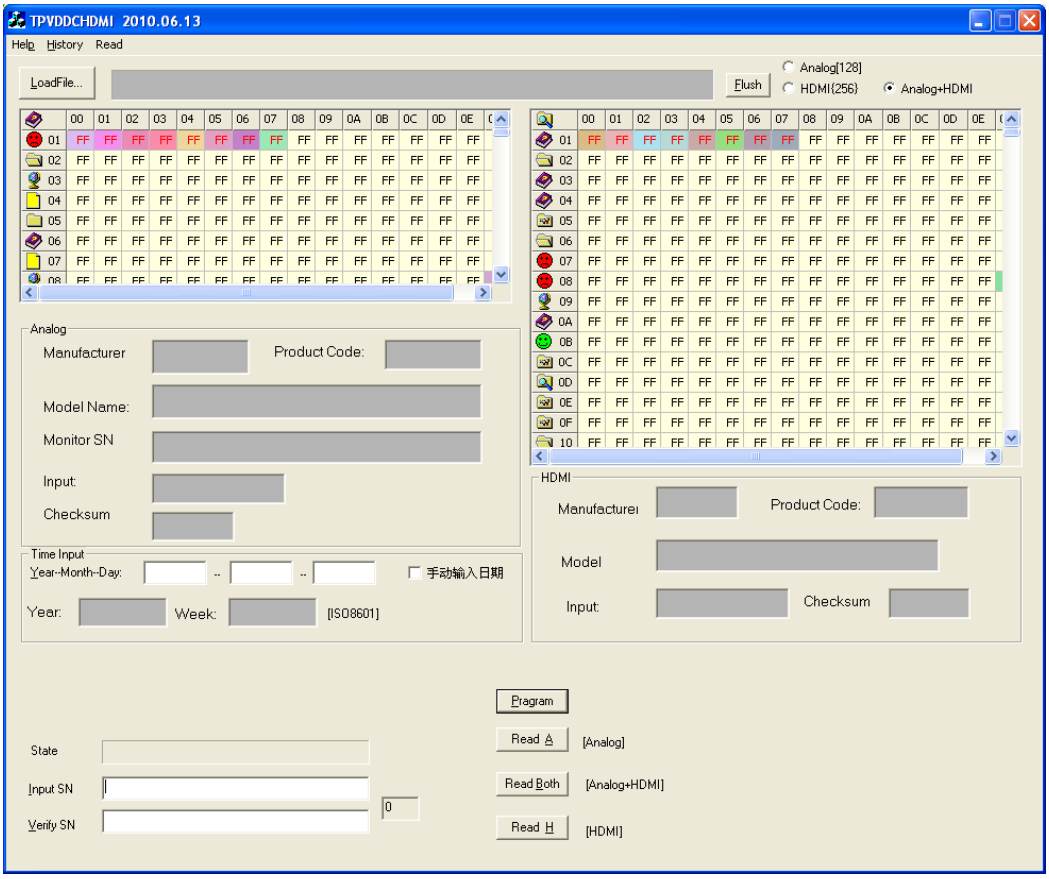
4.2. TPVDDCHDMI.exe is the EDID tool.



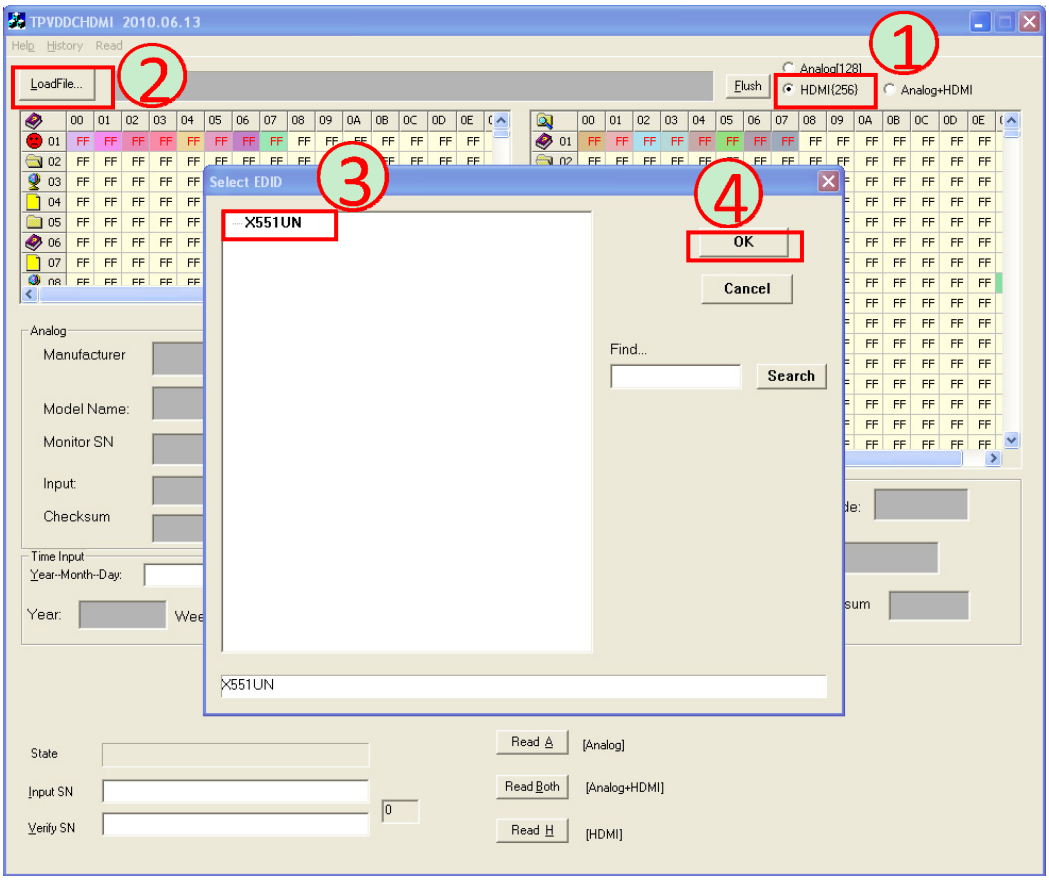
5. Run the ISP tool

5.1. Double-click the icon 

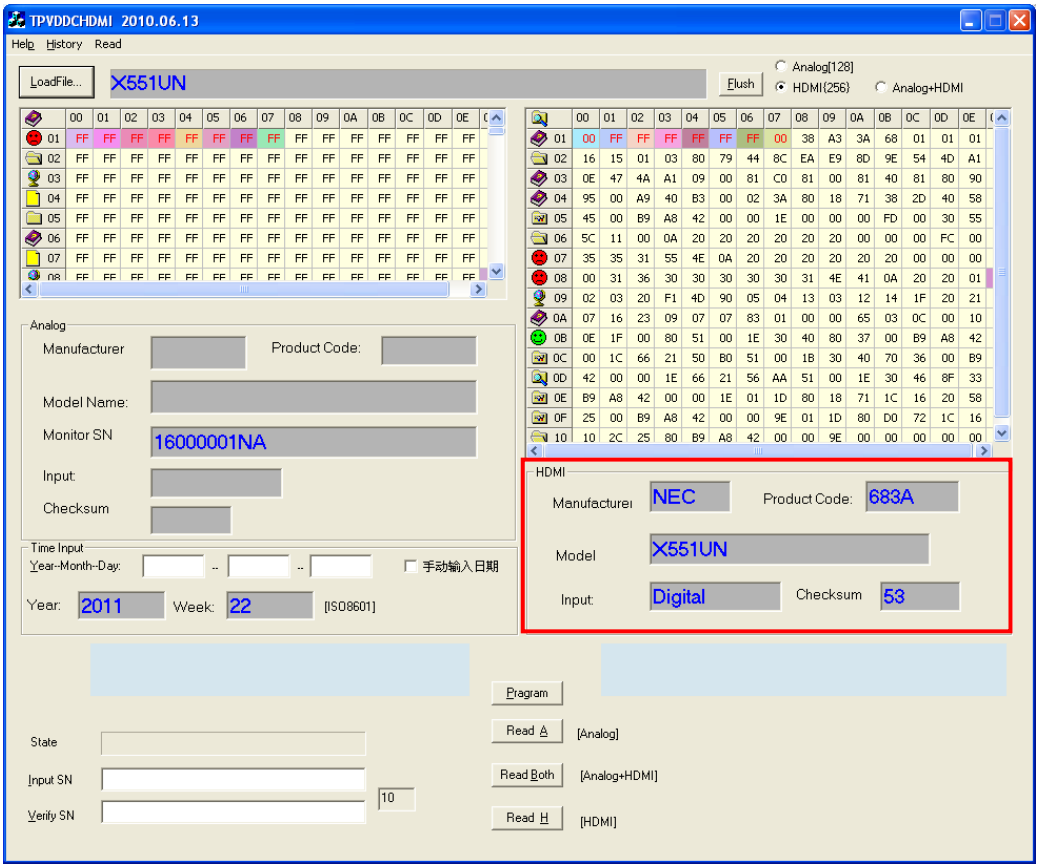
to open the tool.



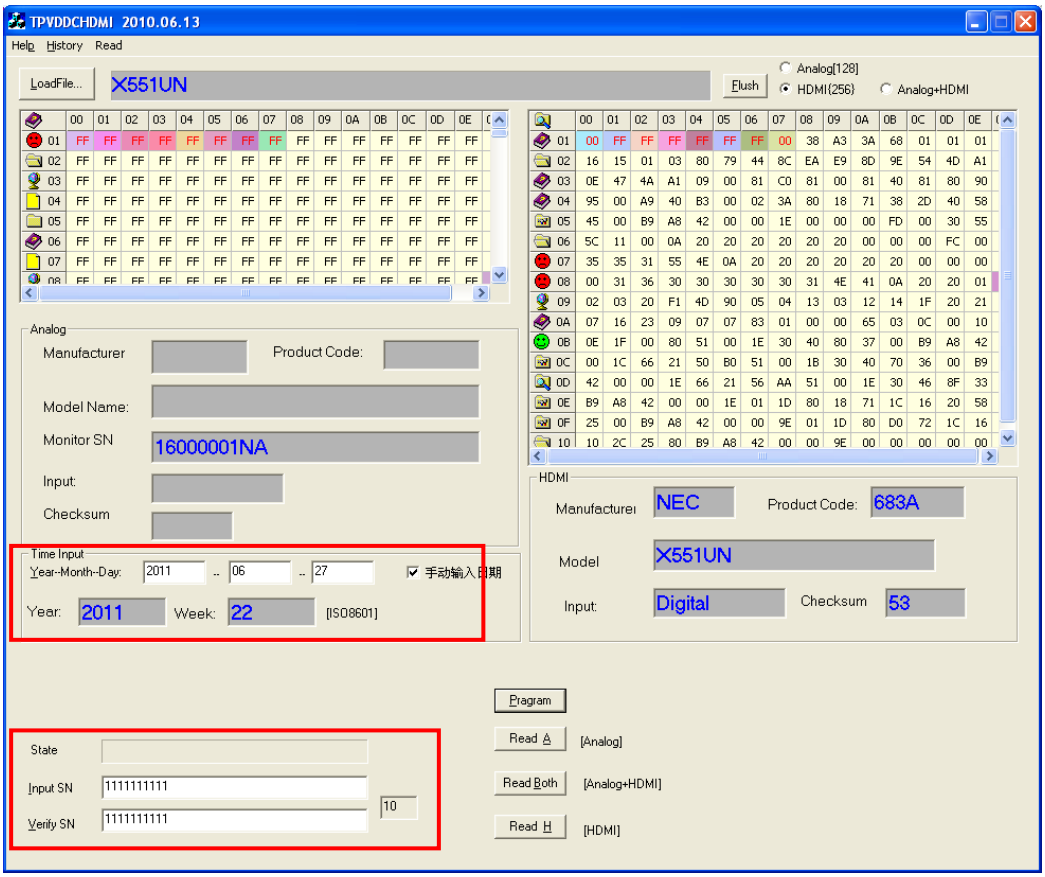
5.2. Tick the “HDMI[256]” and click “Loadfile” to select V652.



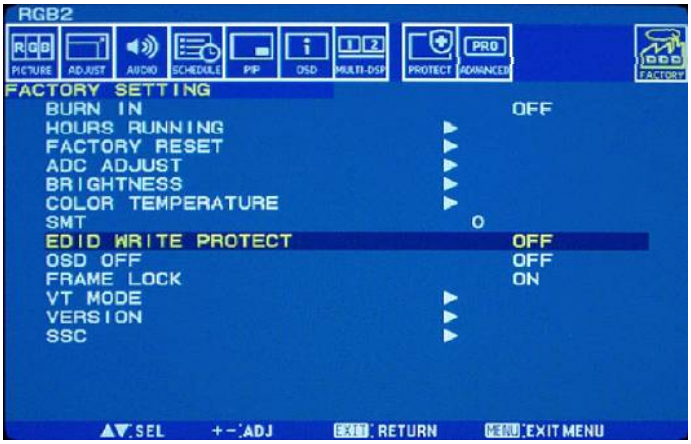
5.3. Load EDID successful.



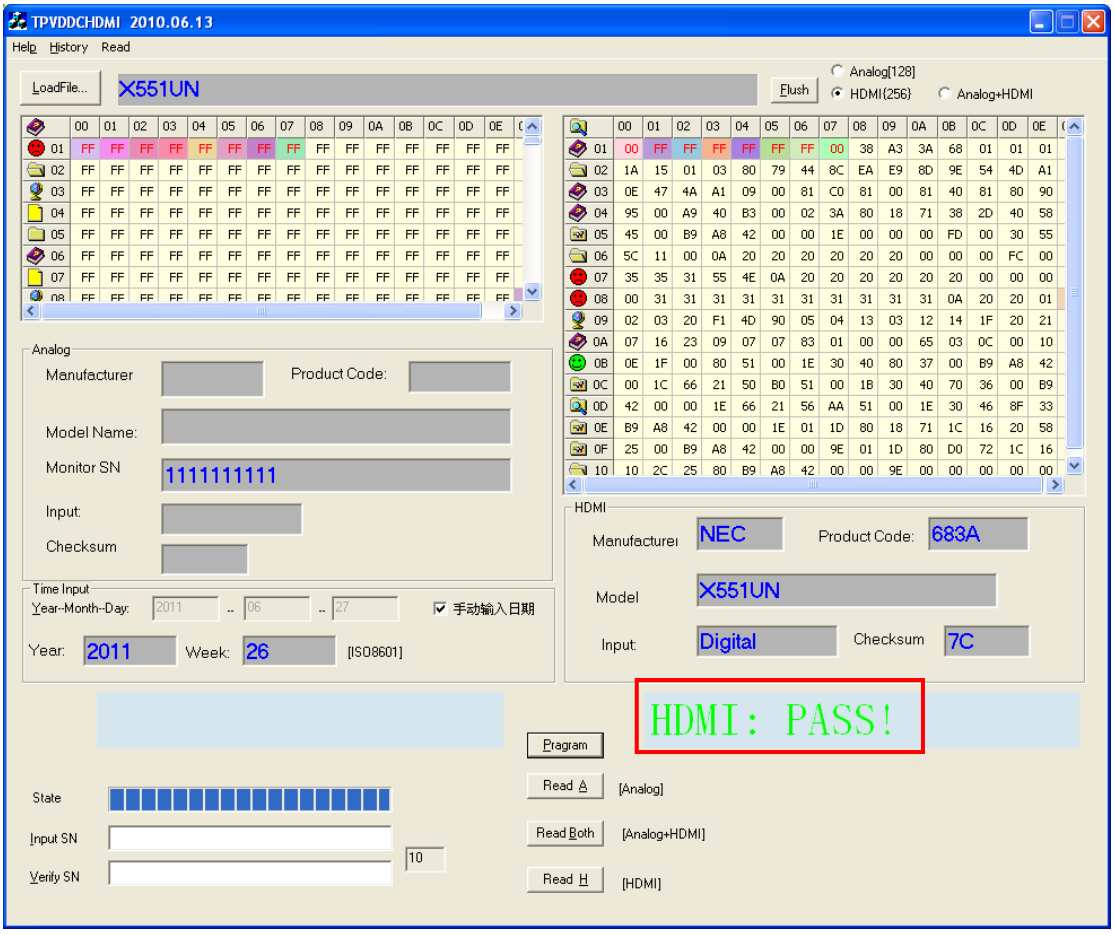
5.5. Type in the 10 digit S/N which must be the same as SN in the barcode of set and date.



5.6. Turn on the PD and enter factory mode by pressing “[DISP], [DISP], [SET], [▼], [+], [▲], [-], [▼], [▲], [SET], [MENU], [MENU] keys in remote control. Don’t exit factory mode during EDID writing.



5.7. Start to writing. Click “Program” to start writing. When The green “PASS” appear, the process is finished.



6. Troubleshooting.

6.1. Can’t write!

(1)AC on the monitor and turn on it.(Restart the monitor)

(2)Although we write all EDID through by HDMI single port in this SOP, I can also write it one by one when can’t write into.

(3)Take apart the monitor and connect the 7pin of EEPROM to GND to diable write protection then write EDID one by one.

(4)Set the Burn in on last to try again.

6.1.3 EDID Data File

V652 EDID DATA for Analog

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
00	00	FF	FF	FF	FF	FF	FF	00	38	A3	40	68	01	01	01	01
10	Note1	Note2	01	03	0E	8F	50	78	EA	E6	9D	A3	54	4A	99	26
20	0F	47	4A	A1	09	00	81	C0	81	40	81	80	90	40	A9	40
30	01	01	01	01	01	01	02	3A	80	18	71	38	2D	40	58	2C
40	45	00	94	23	53	00	00	1E	00	00	00	FD	00	30	55	1F
50	5C	11	00	0A	20	20	20	20	20	20	00	00	00	FC	00	56
60	36	35	31	0A	20	20	20	20	20	20	20	20	00	00	00	FF
70	00	Note3	Note3	Note3	Note3	Note3	Note3	Note3	Note3	Note3	Note3	Note3	Note3	Note3	01	Note4
80	02	01	04	00	0E	1F	00	80	51	00	1E	30	40	80	37	00
90	94	23	53	00	00	1C	66	21	50	B0	51	00	1B	30	40	70
A0	36	00	94	23	53	00	00	1E	66	21	56	AA	51	00	1E	30
B0	46	8F	33	00	94	23	53	00	00	1E	9E	20	00	90	51	20
C0	1F	30	48	80	36	00	94	23	53	00	00	04	9A	29	A0	D0
D0	51	84	22	30	50	98	36	00	94	23	53	00	00	1C	21	39
E0	90	30	62	1A	27	40	68	B0	36	00	94	23	53	00	00	1C
F0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	E0

V652 EDID DATA for Digital

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
00	00	FF	FF	FF	FF	FF	FF	00	38	A3	41	68	01	01	01	01
10	Note1	Note2	01	03	80	8F	50	78	EA	E6	9D	A3	54	4A	99	26
20	0F	47	4A	A1	09	00	81	C0	81	00	81	40	81	80	90	40
30	95	00	A9	40	B3	00	02	3A	80	18	71	38	2D	40	58	2C
40	45	00	94	23	53	00	00	1E	00	00	00	FD	00	30	55	1C
50	5C	11	00	0A	20	20	20	20	20	20	00	00	00	FC	00	56
60	36	35	31	0A	20	20	20	20	20	20	20	20	00	00	00	FF
70	00	Note3	Note3	Note3	Note3	Note3	Note3	Note3	Note3	Note3	Note3	Note3	Note3	Note3	01	Note4
80	02	01	04	00	0E	1F	00	80	51	00	1E	30	40	80	37	00
90	94	23	53	00	00	1C	66	21	50	B0	51	00	1B	30	40	70
A0	36	00	94	23	53	00	00	1E	66	21	56	AA	51	00	1E	30
B0	46	8F	33	00	94	23	53	00	00	1E	02	3A	80	18	71	38
C0	2D	40	58	2C	45	00	94	23	53	00	00	1E	02	3A	80	D0
D0	72	38	2D	40	10	2C	45	80	94	23	53	00	00	1E	01	1D
E0	80	18	71	1C	16	20	58	2C	25	00	94	23	53	00	00	9E
F0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	98

V652 EDID DATA for HDMI

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
00	00	FF	FF	FF	FF	FF	FF	00	38	A3	42	68	01	01	01	01
10	Note1	Note2	01	03	80	8F	50	78	EA	E6	9D	A3	54	4A	99	26
20	0F	47	4A	A1	09	00	81	C0	81	00	81	40	81	80	90	40
30	95	00	A9	40	B3	00	02	3A	80	18	71	38	2D	40	58	2C
40	45	00	94	23	53	00	00	1E	00	00	00	FD	00	30	55	1C
50	5C	11	00	0A	20	20	20	20	20	20	00	00	00	FC	00	56
60	36	35	31	0A	20	20	20	20	20	20	20	20	00	00	00	FF
70	00	31	34	30	30	30	30	30	31	4E	41	0A	20	20	01	Note4
80	02	03	20	F1	4D	90	05	04	13	03	12	14	1F	20	21	22
90	07	16	23	09	07	07	83	01	00	00	65	03	0C	00	10	00
A0	0E	1F	00	80	51	00	1E	30	40	80	37	00	94	23	53	00
B0	00	1C	66	21	50	B0	51	00	1B	30	40	70	36	00	94	23
C0	53	00	00	1E	66	21	56	AA	51	00	1E	30	46	8F	33	00
D0	94	23	53	00	00	1E	01	1D	80	18	71	1C	16	20	58	2C
E0	25	00	94	23	53	00	00	9E	01	1D	80	D0	72	1C	16	20
F0	10	2C	25	80	94	23	53	00	00	9E	00	00	00	00	00	72

V652 EDID DATA for DisplayPort

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
00	00	FF	FF	FF	FF	FF	FF	00	38	A3	43	68	00	00	00	00
10	Note1	Note2	01	04	A5	8F	50	78	E2	E6	9D	A3	54	4A	99	26
20	0F	47	4A	A1	09	00	81	C0	81	00	81	40	81	80	90	40
30	95	00	A9	40	B3	00	02	3A	80	18	71	38	2D	40	58	2C
40	45	00	94	23	53	00	00	1E	00	00	00	FD	00	30	55	1C
50	5C	11	00	0A	20	20	20	20	20	20	00	00	00	FC	00	56
60	36	35	31	0A	20	20	20	20	20	20	20	20	00	00	00	FF
70	00	31	34	30	30	30	30	30	31	4E	41	0A	20	20	01	Note4
80	02	03	18	C1	4B	05	14	04	13	03	12	90	1F	20	21	22
90	23	09	07	07	83	01	00	00	0E	1F	00	80	51	00	1E	30
A0	40	80	37	00	94	23	53	00	00	1C	66	21	50	B0	51	00
B0	1B	30	40	70	36	00	94	23	53	00	00	1E	66	21	56	AA
C0	51	00	1E	30	46	8F	33	00	94	23	53	00	00	1E	01	1D
D0	80	18	71	1C	16	20	58	2C	25	00	94	23	53	00	00	9E
E0	01	1D	80	D0	72	1C	16	20	10	2C	25	80	94	23	53	00
F0	00	9E	00	00	00	00	00	00	00	00	00	00	00	00	00	4D

Note 1: Address10h, Week of manufacture

Note 2: Address11h, Year of manufacture - 1990

Note 3: Address71h - 7Dh, Serial Number (ASCII coded)

If less than 13 char, terminate with 0Ah and fill the rests with 20h.

*See Appendix IV about Serial Number.

Note 4: Address7Fh, Checksum, The sum of entire 128 bytes shall be equal to 00h.

Note 5: AddressFFh, Checksum, Fixed value (AFh) for digital.

6.2 OSD "MONITOR INFORMATION" for Serial Number

SN writing SOP by VGA port

1.Materials list

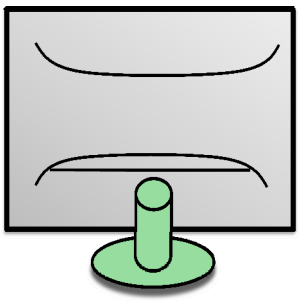
LPT cable (male to male)
TPV P/N: N/A

2 VGA cables
TPV P/N: 089G728 GAA DB

12V DC adapter
TPV P/N: ADPC12416BEP

ISP JIG: 715GT034-B

PC



Monitor

PORT95NT.EXE

LPT port driver

NDSCDT20110614.exe

Tool: NDSCDT20110614.exe

2.Connection

3. Install LPT driver.

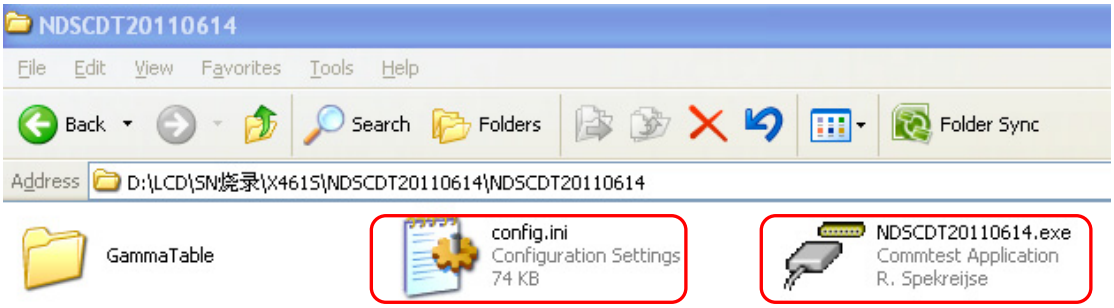
3.1. Double click the icon 

to install the driver.

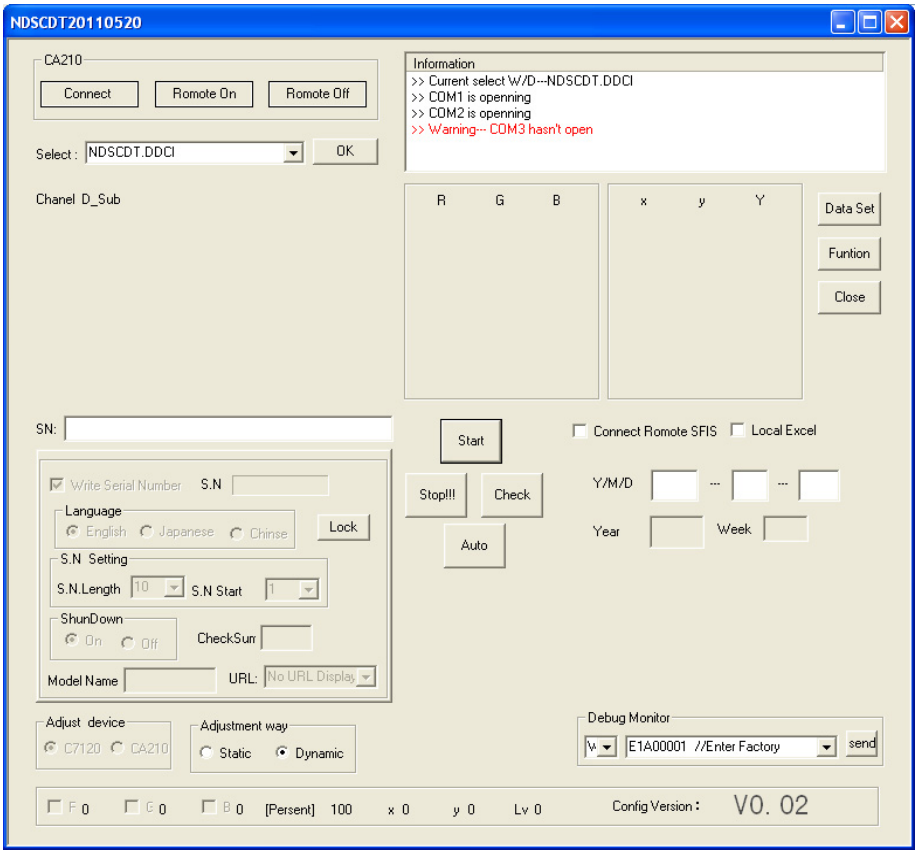
3.2. Restart PC after installation.

4. SN writing tool.

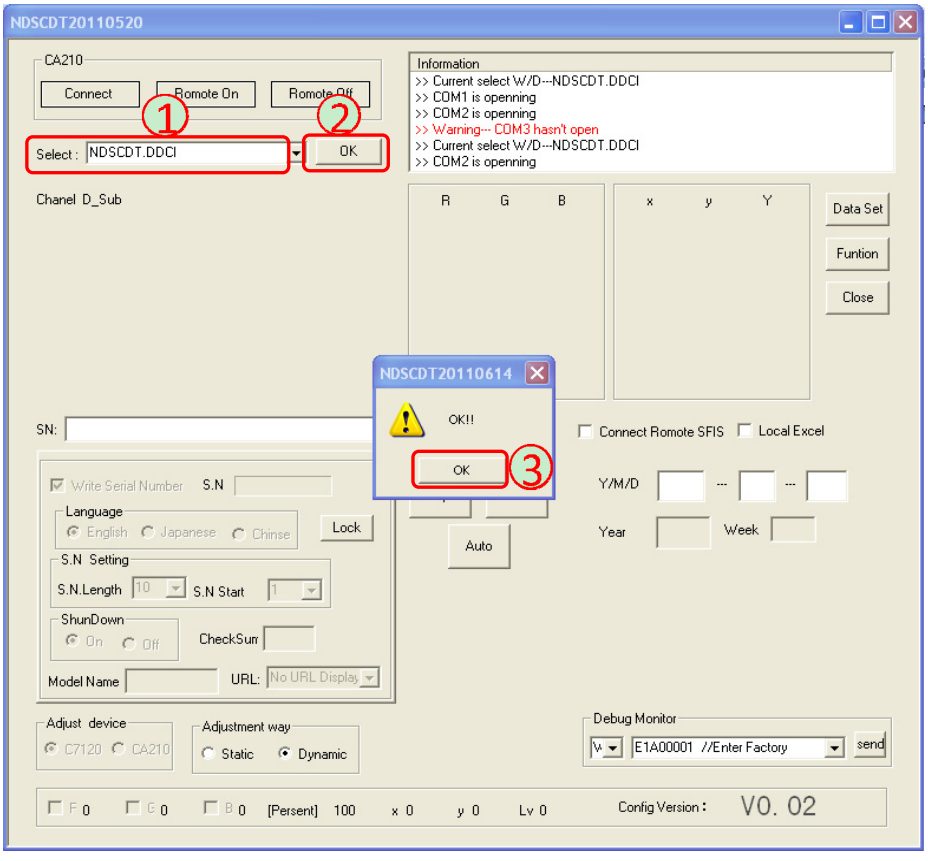
4.1. Copy the two files to one folder.



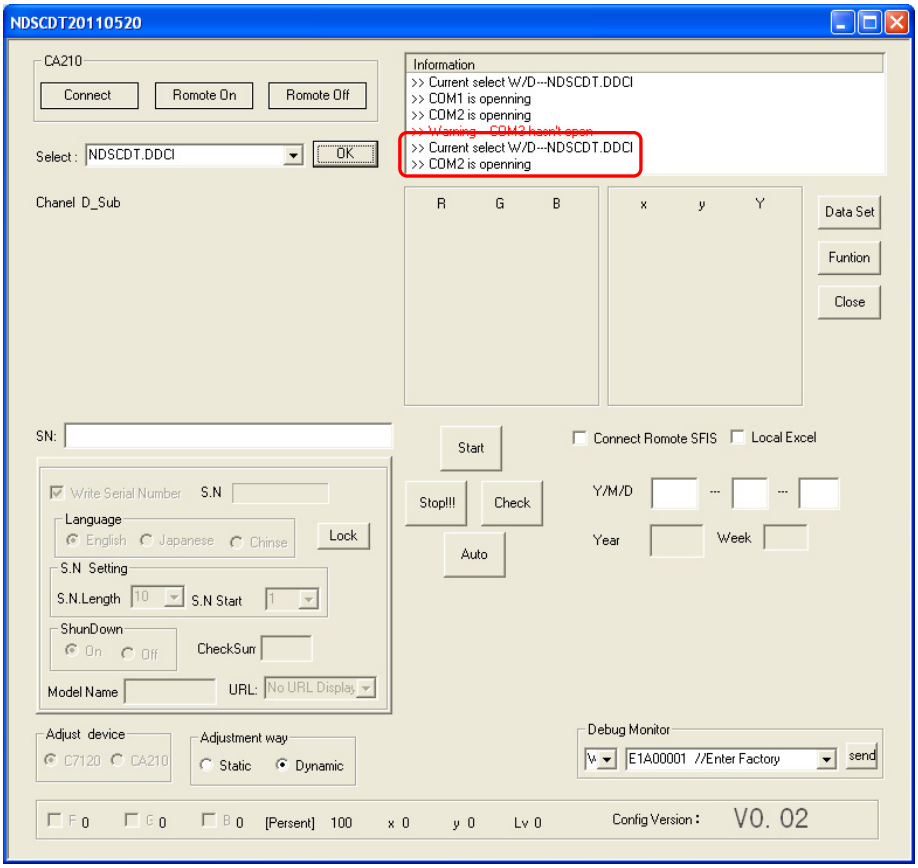
4.2. Double-click the “NDSCDT20110614.exe” to open the tool.



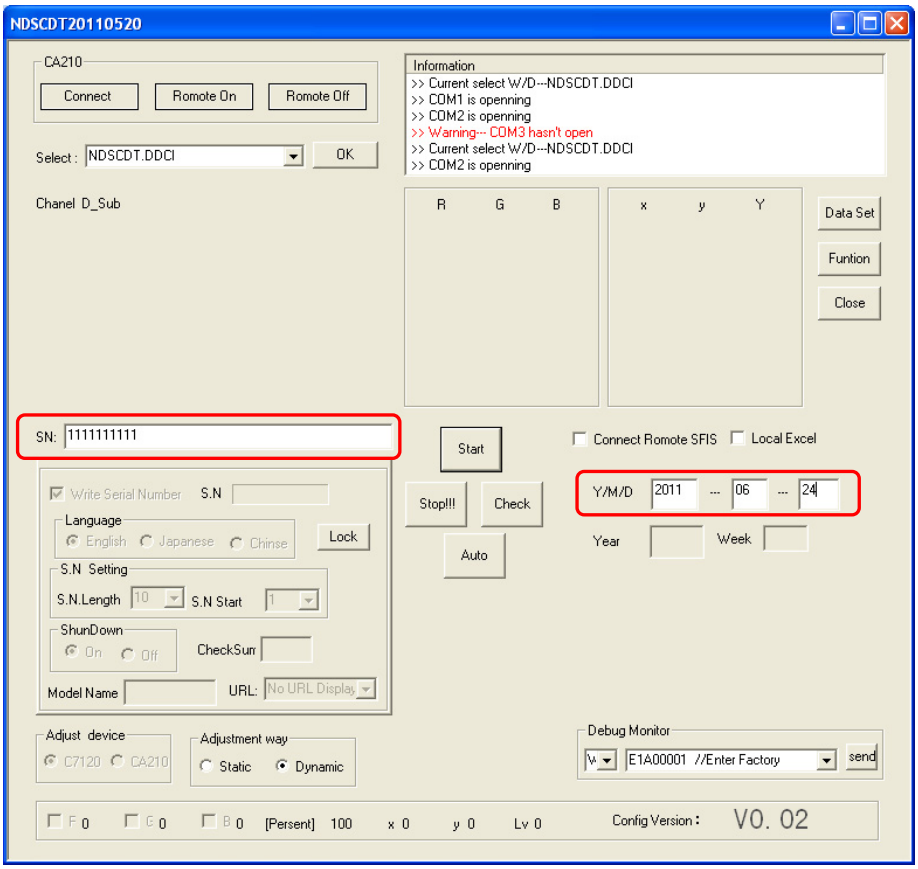
4.3. Select “NDSCDT.DDCI” and click “ok”. There pop up a “ok” message as below.



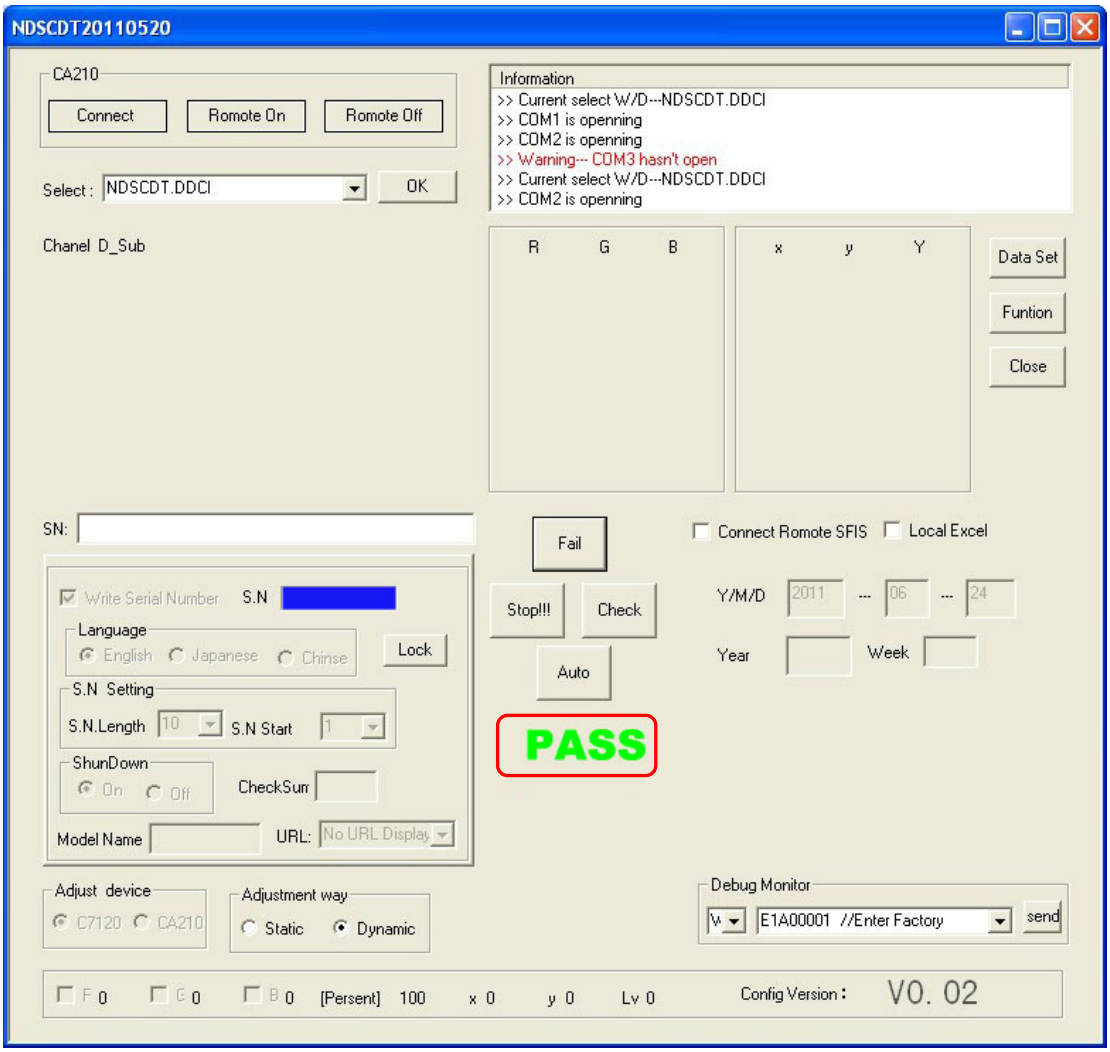
4.4. Click “ok” to open the relevant COM port. The COM2 is openning as below.



4.5. Type into 10 digit set’s SN and data as below.



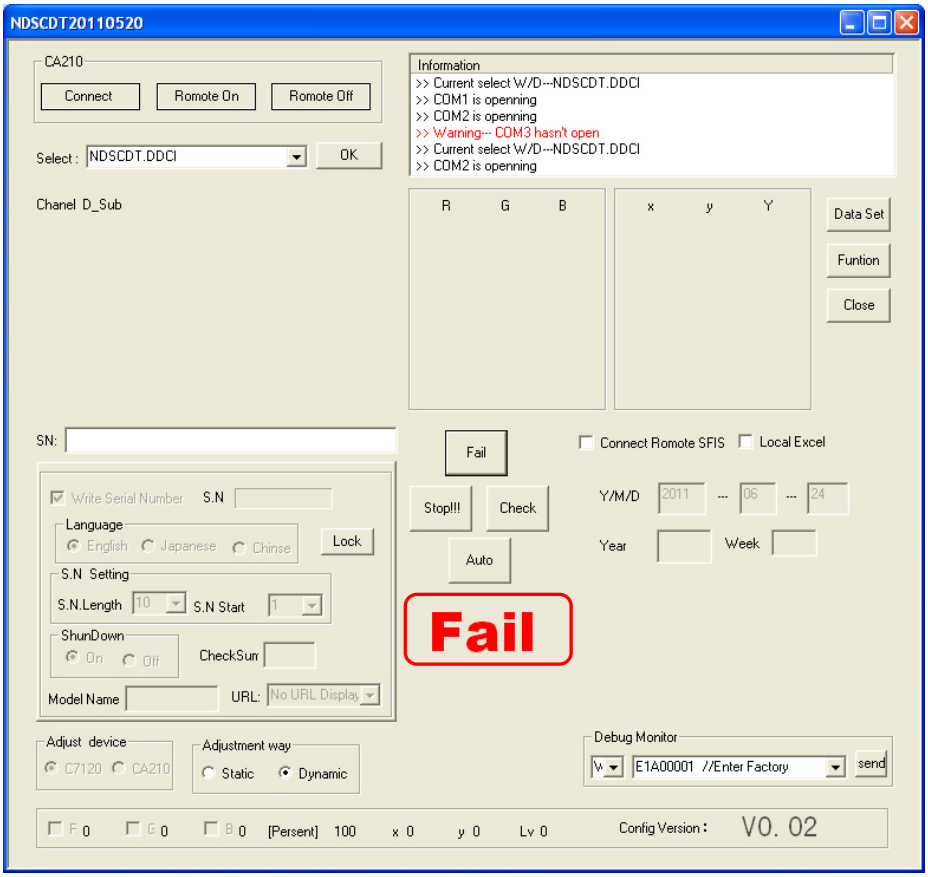
4.6.Turn on the monitor and click “Start” to write SN. When the green “PASS” appears, the SN write successfully.



4.7. Check the SN in the OSD. If the SN is not the same as what you wrote, please re-write it again.

5. Troubleshooting.

5.1. Connect fail.



Check the connection of cable and JIG tool.

5.2. Try below few ways to cure other can't write errors!

(1) AC on the monitor and turn on it.(Restart the monitor)

(2) Open the factory mode.

(3)Set the Burn in on last to try again.

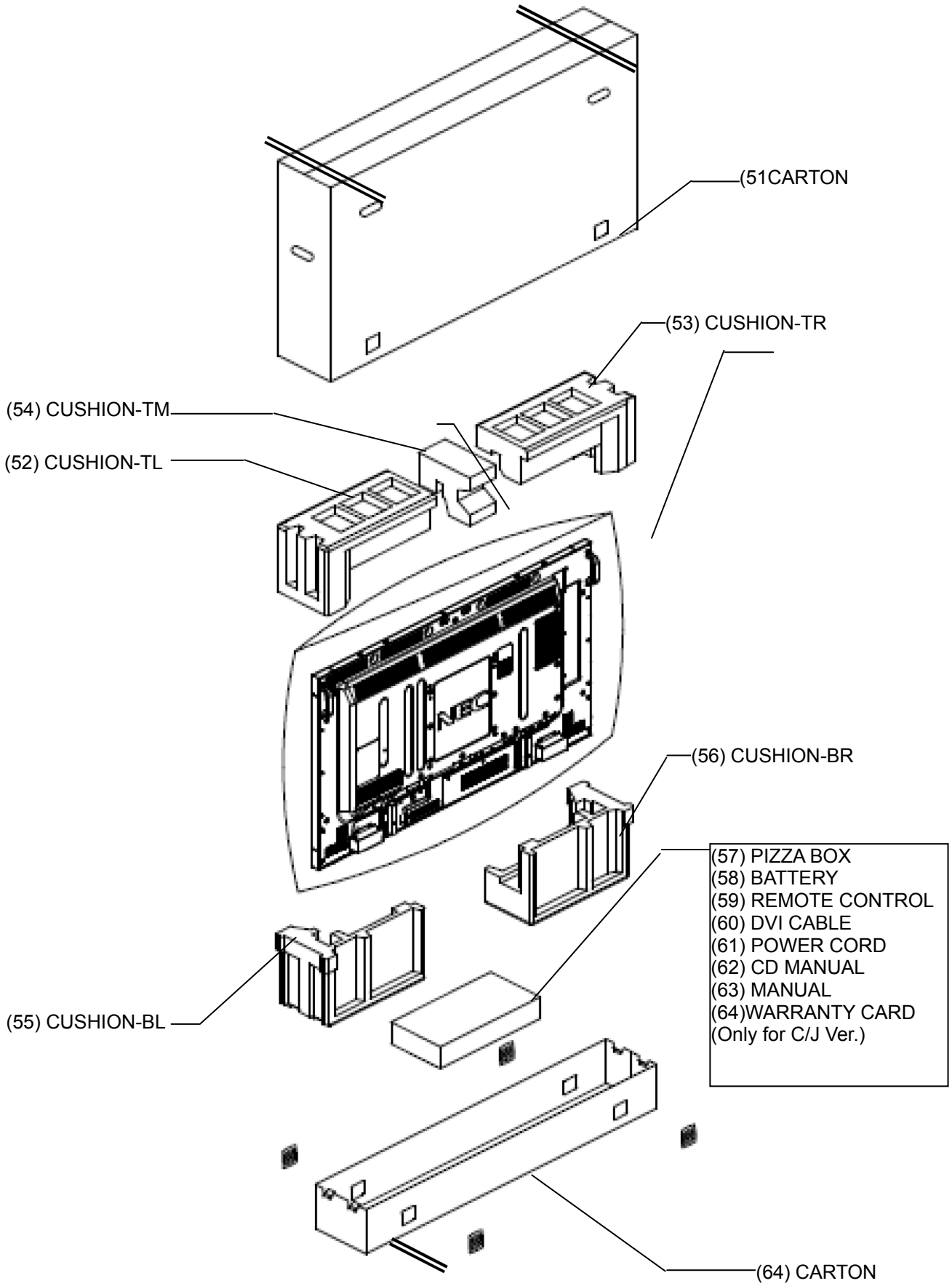
7. SHIPMENT SETTING

Items		OSD Control items in OSD	Shipment Setting
Common items		INPUT	VGA
		VOLUME	40
		MUTE	OFF
		MTS	MAIN+SUB
		SOUND	SURROUND: OFF
		BALANCE	CENTER
		PIP AUDIO	MAIN AUDIO
		LINE OUT	FIXED
		OFF TIMER	OFF 1HOUR
		SCHEDULE	**All Indication "-"**
		DATE & TIME	**0:00/1/JAN/2000**
		KEEP PIP MODE	OFF
		PIP MODE	OFF
		PIP SIZE	LARGE
		PIP POSITION	X=95, Y=92
		TEXT TICKER	MODE = OFF, POSITION = 100, SIZE = 4/24, BLEND = 80%, DETECT = AUTO FADE IN = OFF
		LANGUAGE	**A/B-ver.; English, J-ver.; Japanese C-ver. ; Chinese**
		OSD TURN OFF	30 SEC
		OSD POSITION	X=128, Y=225
		INFORMATION OSD	ON, 3 SEC
		MONITOR INFORMATION	MODEL NAME = V652, Serial number
		OSD TRANSPARENCY	TYPE2
		OSD ROTATION	LANDSCAPE
		MONITOR ID	1, All Clear
		IR CONTROL	NORMAL
		TILE MATRIX	H MONITORS = 1, V MONITORS = 1, POSITION = 1, TILE COMP = NO, ENABLE = NO
		POWER ON DELAY	0 SEC
		POWER INDICATOR	ON
		EXTERNAL CONTROL	RS-232C, NO, ON, MAC ADDRESS
		LAN SETTING	DHCP, IP ADDRESS, SUBNET MASK, DEFAULT GATEWAY, DNS PRIMARY, DNS SECONDARY
		SETTING COPY	All Clear

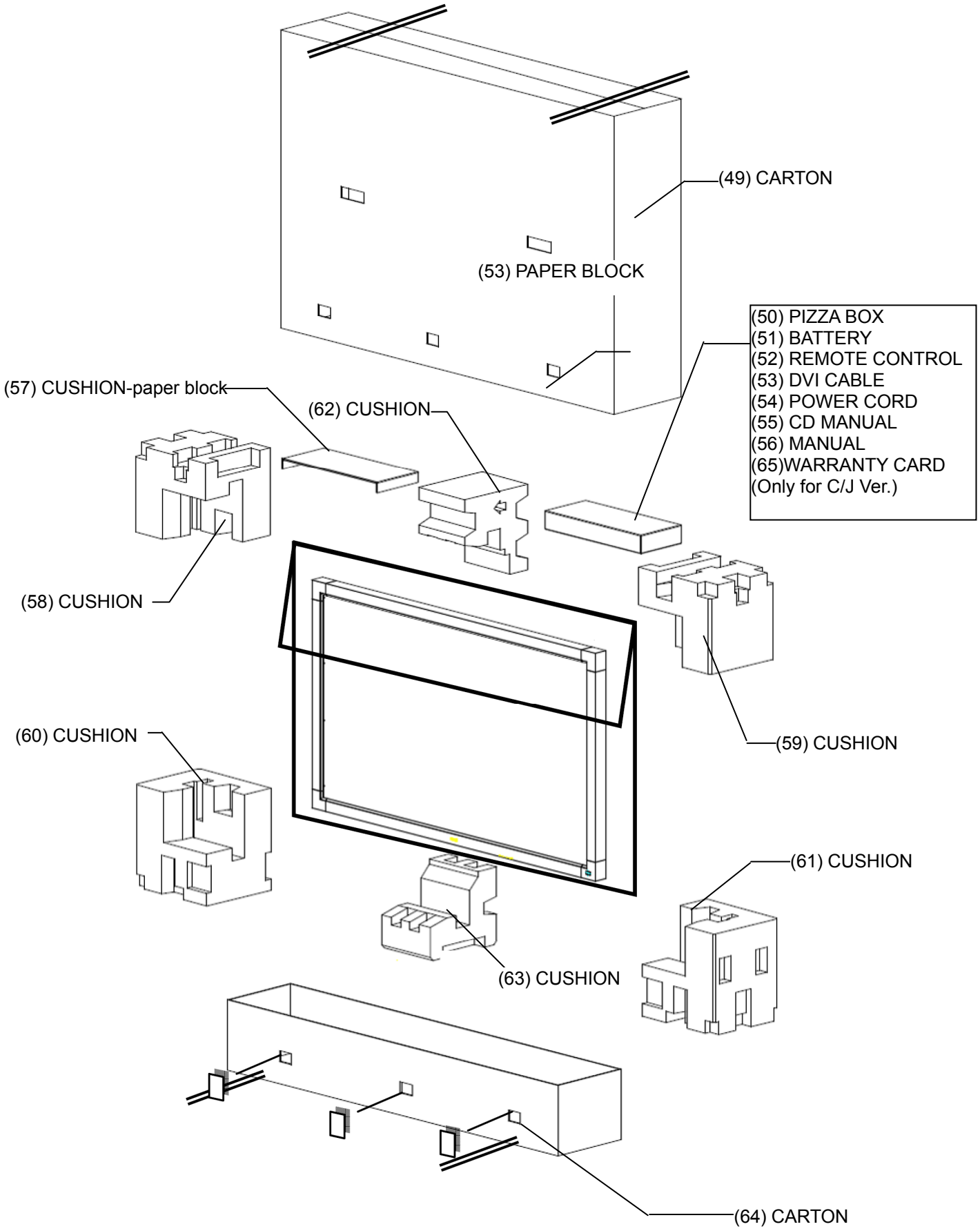
		HEAT STATUS		-
		FAN CONTROL		AUTO, HIGH, MAX, MAX, MAX
		SCREEN SAVER		GAMMA = OFF, BRIGHTNESS = OFF, MOTION = OFF, INTERVAL = 10 s, ZOOM = 100 %
		CHANGE SECURITY PASSWORD		□□□□
		SECURITY LOCK		OFF
		DDC/CI		ENABLE
		INPUT DETECT		NONE
		INPUT CHANGE		NORMAL
		DVI MODE		DVI-PC
		BNC MODE		RGB
		SCART MODE		OFF
		HDMI SIGNAL		EXPAND
		MURA COMP		-

8. PACKING SPECIFICATION

For V552



For V652


(49) CARTON
(53) PAPER BLOCK
(50) PIZZA BOX
(51) BATTERY
(52) REMOTE CONTROL
(53) DVI CABLE
(54) POWER CORD
(55) CD MANUAL
(56) MANUAL
(65)WARRANTY CARD
(Only for C/J Ver.)
(57) CUSHION-paper block
(62) CUSHION
(58) CUSHION
(59) CUSHION
(60) CUSHION
(61) CUSHION
(63) CUSHION
(64) CARTON

9. REVISION HISTORY

REVISION	REVISION
New Issue (1st Edition) 2012/12	
Add New model (1st Edition) 2013/02	
Add New model (2nd Edition) 2015/12	

Recommended Spare Parts List

TABLE OF CONTENTS

Note: The parts information listed below are for reference only, and are subject to change without notice. Please go to http://cs.tpv.com.cn/hello1.asp for the latest information.

Recommended Spare Parts List (For USA)

Model V552 (A)

*** LCD PANEL and PWB ASSYS ***

DISASSEMBLY Symbol No.	For USA (TPV Part Number)	Description	Cabinet Color	Remark
15	KEPCAQNB	KEY BOARD	---	
30	756JQCCB0NN0550001	main board-CBPCCS2N3Q3	---	
31	ADPCA2435AAK	POWER BOARD	---	
32	SUPCCQNB	SUB BOARD	---	
33	CTPCCQNC	CONNECTOR BOARD	---	
34	CNPC9QN6	CNPC BOARD	---	
35	IRPCCQN2	IR BOARD	---	
46	750JBU550V2013N0ND	LCD P550HVN02.000 XM AUO	---	

*** ELECTRICAL PARTS & MISCELLANEOUS PARTS ***

DISASSEMBLY Symbol No.	For USA (TPV Part Number)	Description	Cabinet Color	Remark
17	395G8014006M4000KM	HARNESS 6P-3P/3P 630mm	---	
18	395G801400465900KM	HARNESS 4P-2P 180mm	---	
19	395G8014012M7800KM	HARNESS 12P-6P/7P 580mm	---	
20	395G8014008M1100KM	HARNESS 8P-5P/3P 590mm	---	
21	395G8018051N0400KM	LVDS CABLE 51P-40P 370mm	---	
22	395G8014012M7400KM	HARNESS 12P-12P 350mm	---	
23	395G8014010M0800KM	HARNESS 10P-5P 520mm	---	
24	395G8014016M0200KM	HARNESS 2*8P-12P 420mm	---	
25	395G8014004M7100KM	HARNESS 4P-2P/2P 1110mm	---	
26	395G8013014M1500KM	HARNESS 14P-14P 380mm	---	
27	395G176J060M05	FFC CABLE 60 90mm 0.5MM	---	
37	017GF0614S	FAN 12V 0.12A 60X60X10mm	---	

*** APPEARANCE PARTS ***

DISASSEMBLY Symbol No.	For USA (TPV Part Number)	Description	Cabinet Color	Remark
1	Q20J60721	DIE-CASTING	---	
2	0M1G17401047CR3	SCREW 4x10	---	
3	0P1G1430647CR3	SCREW	---	
4	Q15J1320101	BKT_OPS_COVER	---	
5	0M1G2430947RA	SCREW	---	
6	0M1G3030547CR3	SCREW	---	
7	Q15J1322101	REAR_COVER	---	
8	0B1G930847CR3	SCREW(1D000801)	---	
9	Q15J1036102	BKT_VESA	---	
10	0M1G940647CR3	SCREW 4x6	---	
11	Q15J1314101	REAR_COVER_L	---	
12	Q15J1316101	BKT_IO	---	
13	0P1G1740847CR3	SCREW	---	
14	Q15J118410100000TD	BKT_KEY_COVER	---	

28	A34J3103AHC1T0100	OPS_COVER	---	
29	0P1GNS1D000861	SC PL-#2CPISSx3x8x16B	---	
36	Q01G6177002A0100XL	SCREW	---	
38	Q15J1311101	BKT_TOP	---	
39	0M1G17601047CR3	SCREW_	---	
40	Q15J1306101	BKT_OPS_CHASSIS	---	
41	Q15J1309101	MAINFRAME	---	
42	Q15J132310100000AJ	BKT_PCB_MAINBD_TOP	---	
43	Q15J1312101	BKT_BTM	---	
44	Q15J1308101	BKT_POWER_L	---	
45	Q15J1307101	BKT_POWER_R	---	
46	750JBU550V2013N0ND	LCD P550HVN02.000 XM AUO	---	
47	A34J3099AHC1T0100	BEZEL_L	---	
48	A34J3100AHC1T0130	BEZEL_R	---	
49	A34J3101AHC1T0130	BEZEL_TOP	---	
50	A34J3102AHCA1T0130	BEZEL_BTM	---	

*** PRINTED & PACKING MATERIALS ***

DISASSEMBLY Symbol No.	For USA (TPV Part Number)	Description	Cabinet Color	Remark
50	A34J3102AHCA1T0130	BEZEL_BTM	---	
51	Q44GV011FB	CARTON	---	
52	Q44GV0241010YH	CUSHION-TL	---	
53	Q44GV0242010YH	CUSHION-TR	---	
54	Q44GV0245010SY	CUSHION-TM	---	
55	Q44GV0243010YH	CUSHION-BL	---	
56	Q44GV0244010YH	CUSHION-BR	---	
57	Q44GZ025M0100600JM	CUSHION-pizza box	---	
58	092TB1JX1A2NDS	BATTERY 1.5V BATTERY GN15G	---	
59	098GRABD1NENDS	Remote control For NDS	---	
60	089G1748HAA15N	DVI CABLE 1800	---	
61	089G402A30NISN	AC POWER CORD	---	
62	Q70G65C184201A	CD MANUAL V552/V652	---	
63	Q41G65M184204A	MANUAL V552 V652 A,B,J,C ver	---	

Recommended Spare Parts List (For Europe)

Model V552 (B)

*** LCD PANEL and PWB ASSYS ***

DISASSEMBLY Symbol No.	For Europe (TPV Part Number)	Description	Cabinet Color	Remark
15	KEPCAQNB	KEY BOARD	---	
30	756JQCCB0NN0550001	main board-CBPCCS2N3Q3	---	
31	ADPCA2435AAK	POWER BOARD	---	
32	SUPCCQNB	SUB BOARD	---	
33	CTPCCQNC	CONNECTOR BOARD	---	
34	CNPC9QN6	CNPC BOARD	---	
35	IRPCCQN2	IR BOARD	---	
46	750JBU550V2013N0ND	LCD P550HVN02.000 XM AUO	---	

*** ELECTRICAL PARTS & MISCELLANEOUS PARTS ***

DISASSEMBLY Symbol No.	For Europe (TPV Part Number)	Description	Cabinet Color	Remark
17	395G8014006M4000KM	HARNESS 6P-3P/3P 630mm	---	
18	395G801400465900KM	HARNESS 4P-2P 180mm	---	
19	395G8014012M7800KM	HARNESS 12P-6P/7P 580mm	---	
20	395G8014008M1100KM	HARNESS 8P-5P/3P 590mm	---	
21	395G8018051N0400KM	LVDS CABLE 51P-40P 370mm	---	
22	395G8014012M7400KM	HARNESS 12P-12P 350mm	---	
23	395G8014010M0800KM	HARNESS 10P-5P 520mm	---	
24	395G8014016M0200KM	HARNESS 2*8P-12P 420mm	---	
25	395G8014004M7100KM	HARNESS 4P-2P/2P 1110mm	---	
26	395G8013014M1500KM	HARNESS 14P-14P 380mm	---	
27	395G176J060M05	FFC CABLE 60 90mm 0.5MM	---	
37	017GF0614S	FAN 12V 0.12A 60X60X10mm	---	

*** APPEARANCE PARTS ***

DISASSEMBLY Symbol No.	For Europe (TPV Part Number)	Description	Cabinet Color	Remark
1	Q20J60721	DIE-CASTING	---	
2	0M1G17401047CR3	SCREW 4x10	---	
3	0P1G1430647CR3	SCREW	---	
4	Q15J1320101	BKT_OPS_COVER	---	
5	0M1G2430947RA	SCREW	---	
6	0M1G3030547CR3	SCREW	---	
7	Q15J1322101	REAR_COVER	---	
8	0B1G930847CR3	SCREW(1D000801)	---	
9	Q15J1036102	BKT_VESA	---	
10	0M1G940647CR3	SCREW 4x6	---	
11	Q15J1314101	REAR_COVER_L	---	
12	Q15J1316101	BKT_IO	---	
13	0P1G1740847CR3	SCREW	---	
14	Q15J118410100000TD	BKT_KEY_COVER	---	
28	A34J3103AHC1T0100	OPS_COVER	---	
29	0P1GNS1D000861	SC PL-#2CPISSx3x8x16B	---	
36	Q01G6177002A0100XL	SCREW	---	

38	Q15J1311101	BKT_TOP	---	
39	0M1G17601047CR3	SCREW_	---	
40	Q15J1306101	BKT_OPS_CHASSIS	---	
41	Q15J1309101	MAINFRAME	---	
42	Q15J132310100000AJ	BKT_PCB_MAINBD_TOP	---	
43	Q15J1312101	BKT_BTM	---	
44	Q15J1308101	BKT_POWER_L	---	
45	Q15J1307101	BKT_POWER_R	---	
46	750JBU550V2013N0ND	LCD P550HVN02.000 XM AUO	---	
47	A34J3099AHC1T0100	BEZEL_L	---	
48	A34J3100AHC1T0130	BEZEL_R	---	
49	A34J3101AHC1T0130	BEZEL_TOP	---	
50	A34J3102AHCA1T0130	BEZEL_BTM	---	

*** PRINTED & PACKING MATERIALS ***

DISASSEMBLY Symbol No.	For Europe (TPV Part Number)	Description	Cabinet Color	Remark
50	A34J3102AHCA1T0130	BEZEL_BTM	---	
51	Q44GV011FB	CARTON	---	
52	Q44GV0241010YH	CUSHION-TL	---	
53	Q44GV0242010YH	CUSHION-TR	---	
54	Q44GV0245010SY	CUSHION-TM	---	
55	Q44GV0243010YH	CUSHION-BL	---	
56	Q44GV0244010YH	CUSHION-BR	---	
57	Q44GZ025M0100600JM	CUSHION-pizza box	---	
58	092TB1JX1A2NDS	BATTERY 1.5V BATTERY GN15G	---	
59	098GRABD1NENDS	Remote control For NDS	---	
60	089G1748HAA15N	DVI CABLE 1800	---	
61	089G404A30NISN	POWER CORD	---	
62	Q70G65C184201A	CD MANUAL V552/V652	---	
63	Q41G65M184204A	MANUAL V552 V652 A,B,J,C ver	---	

Recommended Spare Parts List (For China)

Model V552 (C)

*** LCD PANEL and PWB ASSYS ***

DISASSEMBLY Symbol No.	For China (TPV Part Number)	Description	Cabinet Color	Remark
15	KEPCAQNB	KEY BOARD	---	
30	756JQCCB0NN0550001	main board-CBPCCS2N3Q3	---	
31	ADPCA2435AAK	POWER BOARD	---	
32	SUPCCQNB	SUB BOARD	---	
33	CTPCCQNC	CONNECTOR BOARD	---	
34	CNPC9QN6	CNPC BOARD	---	
35	IRPCCQN2	IR BOARD	---	
46	750JBU550V2013N0ND	LCD P550HVN02.000 XM AUO	---	

*** ELECTRICAL PARTS & MISCELLANEOUS PARTS ***

DISASSEMBLY Symbol No.	For China (TPV Part Number)	Description	Cabinet Color	Remark
17	395G8014006M4000KM	HARNESS 6P-3P/3P 630mm	---	
18	395G801400465900KM	HARNESS 4P-2P 180mm	---	
19	395G8014012M7800KM	HARNESS 12P-6P/7P 580mm	---	
20	395G8014008M1100KM	HARNESS 8P-5P/3P 590mm	---	
21	395G8018051N0400KM	LVDS CABLE 51P-40P 370mm	---	
22	395G8014012M7400KM	HARNESS 12P-12P 350mm	---	
23	395G8014010M0800KM	HARNESS 10P-5P 520mm	---	
24	395G8014016M0200KM	HARNESS 2*8P-12P 420mm	---	
25	395G8014004M7100KM	HARNESS 4P-2P/2P 1110mm	---	
26	395G8013014M1500KM	HARNESS 14P-14P 380mm	---	
27	395G176J060M05	FFC CABLE 60 90mm 0.5MM	---	
37	017GF0614S	FAN 12V 0.12A 60X60X10mm	---	

*** APPEARANCE PARTS ***

DISASSEMBLY Symbol No.	For China (TPV Part Number)	Description	Cabinet Color	Remark
1	Q20J60721	DIE-CASTING	---	
2	0M1G17401047CR3	SCREW 4x10	---	
3	0P1G1430647CR3	SCREW	---	
4	Q15J1320101	BKT_OPS_COVER	---	
5	0M1G2430947RA	SCREW	---	
6	0M1G3030547CR3	SCREW	---	
7	Q15J1322101	REAR_COVER	---	
8	0B1G930847CR3	SCREW(1D000801)	---	
9	Q15J1036102	BKT_VESA	---	
10	0M1G940647CR3	SCREW 4x6	---	
11	Q15J1314101	REAR_COVER_L	---	
12	Q15J1316101	BKT_IO	---	
13	0P1G1740847CR3	SCREW	---	
14	Q15J118410100000TD	BKT_KEY_COVER	---	
28	A34J3103AHC1T0100	OPS_COVER	---	
29	0P1GNS1D000861	SC PL-#2CPISSx3x8x16B	---	
36	Q01G6177002A0100XL	SCREW	---	
38	Q15J1311101	BKT_TOP	---	

39	0M1G17601047CR3	SCREW_	---	
40	Q15J1306101	BKT_OPS_CHASSIS	---	
41	Q15J1309101	MAINFRAME	---	
42	Q15J132310100000AJ	BKT_PCB_MAINBD_TOP	---	
43	Q15J1312101	BKT_BTM	---	
44	Q15J1308101	BKT_POWER_L	---	
45	Q15J1307101	BKT_POWER_R	---	
46	750JBU550V2013N0ND	LCD P550HVN02.000 XM AUO	---	
47	A34J3099AHC1T0100	BEZEL_L	---	
48	A34J3100AHC1T0130	BEZEL_R	---	
49	A34J3101AHC1T0130	BEZEL_TOP	---	
50	A34J3102AHCA1T0130	BEZEL_BTM	---	

*** PRINTED & PACKING MATERIALS ***

DISASSEMBLY Symbol No.	For China (TPV Part Number)	Description	Cabinet Color	Remark
50	A34J3102AHCA1T0130	BEZEL_BTM	---	
51	Q44GV011FB	CARTON	---	
52	Q44GV0241010YH	CUSHION-TL	---	
53	Q44GV0242010YH	CUSHION-TR	---	
54	Q44GV0245010SY	CUSHION-TM	---	
55	Q44GV0243010YH	CUSHION-BL	---	
56	Q44GV0244010YH	CUSHION-BR	---	
57	Q44GZ025M0100600JM	CUSHION-pizza box	---	
58	092TB1JX1A2NDS	BATTERY 1.5V BATTERY GN15G	---	
59	098GRABD1NENDS	Remote control For NDS	---	
60	089G1748HAA15N	DVI CABLE 1800	---	
61	089G414A30NISN	POWER CORD	---	
62	Q70G65C184201A	CD MANUAL V552/V652	---	
63	Q41G65M184204A	MANUAL V552 V652 A,B,J,C ver	---	
64	Q41G78D184237C	WARRANTY CARD	---	

Recommended Spare Parts List (For Japan)

Model LCD-V552 (J)

*** LCD PANEL and PWB ASSYS ***

DISASSEMBLY Symbol No.	For Japan (TPV Part Number)	Description	Cabinet Color	Remark
15	KEPCAQNB	KEY BOARD	---	
30	756JQCCB0NN0550001	main board-CBPCCS2N3Q3	---	
31	ADPCA2435AAK	POWER BOARD	---	
32	SUPCCQNB	SUB BOARD	---	
33	CTPCCQNC	CONNECTOR BOARD	---	
34	CNPC9QN6	CNPC BOARD	---	
35	IRPCCQN2	IR BOARD	---	
46	750JBU550V2013N0ND	LCD P550HVN02.000 XM AUO	---	

*** ELECTRICAL PARTS & MISCELLANEOUS PARTS ***

DISASSEMBLY Symbol No.	For Japan (TPV Part Number)	Description	Cabinet Color	Remark
17	395G8014006M4000KM	HARNESS 6P-3P/3P 630mm	---	
18	395G801400465900KM	HARNESS 4P-2P 180mm	---	
19	395G8014012M7800KM	HARNESS 12P-6P/7P 580mm	---	
20	395G8014008M1100KM	HARNESS 8P-5P/3P 590mm	---	
21	395G8018051N0400KM	LVDS CABLE 51P-40P 370mm	---	
22	395G8014012M7400KM	HARNESS 12P-12P 350mm	---	
23	395G8014010M0800KM	HARNESS 10P-5P 520mm	---	
24	395G8014016M0200KM	HARNESS 2*8P-12P 420mm	---	
25	395G8014004M7100KM	HARNESS 4P-2P/2P 1110mm	---	
26	395G8013014M1500KM	HARNESS 14P-14P 380mm	---	
27	395G176J060M05	FFC CABLE 60 90mm 0.5MM	---	
37	017GF0614S	FAN 12V 0.12A 60X60X10mm	---	

*** APPEARANCE PARTS ***

DISASSEMBLY Symbol No.	For Japan (TPV Part Number)	Description	Cabinet Color	Remark
1	Q20J60721	DIE-CASTING	---	
2	0M1G17401047CR3	SCREW 4x10	---	
3	0P1G1430647CR3	SCREW	---	
4	Q15J1320101	BKT_OPS_COVER	---	
5	0M1G2430947RA	SCREW	---	
6	0M1G3030547CR3	SCREW	---	
7	Q15J1322101	REAR_COVER	---	
8	0B1G930847CR3	SCREW(1D000801)	---	
9	Q15J1036102	BKT_VESA	---	
10	0M1G940647CR3	SCREW 4x6	---	
11	Q15J1314101	REAR_COVER_L	---	
12	Q15J1316101	BKT_IO	---	
13	0P1G1740847CR3	SCREW	---	
14	Q15J118410100000TD	BKT_KEY_COVER	---	
28	A34J3103AHC1T0100	OPS_COVER	---	
29	0P1GNS1D000861	SC PL-#2CPISSx3x8x16B	---	
36	Q01G6177002A0100XL	SCREW	---	
38	Q15J1311101	BKT_TOP	---	
39	0M1G17601047CR3	SCREW_	---	
40	Q15J1306101	BKT_OPS_CHASSIS	---	

41	Q15J1309101	MAINFRAME	---	
42	Q15J132310100000AJ	BKT_PCB_MAINBD_TOP	---	
43	Q15J1312101	BKT_BTM	---	
44	Q15J1308101	BKT_POWER_L	---	
45	Q15J1307101	BKT_POWER_R	---	
46	750JBU550V2013N0ND	LCD P550HVN02.000 XM AUO	---	
47	A34J3099AHC1T0100	BEZEL_L	---	
48	A34J3100AHC1T0130	BEZEL_R	---	
49	A34J3101AHC1T0130	BEZEL_TOP	---	
50	A34J3102AHCA1T0130	BEZEL_BTM	---	

*** PRINTED & PACKING MATERIALS ***

DISASSEMBLY Symbol No.	For Japan (TPV Part Number)	Description	Cabinet Color	Remark
50	A34J3102AHCA1T0130	BEZEL_BTM	---	
51	Q44GV011FB	CARTON	---	
52	Q44GV0241010YH	CUSHION-TL	---	
53	Q44GV0242010YH	CUSHION-TR	---	
54	Q44GV0245010SY	CUSHION-TM	---	
55	Q44GV0243010YH	CUSHION-BL	---	
56	Q44GV0244010YH	CUSHION-BR	---	
57	Q44GZ025M0100600JM	CUSHION-pizza box	---	
58	092TB1JX1A2NDS	BATTERY 1.5V BATTERY GN15G	---	
59	098GRABD1NENDS	Remote control For NDS	---	
60	089G1748HAA15N	DVI CABLE 1800	---	
61	089G401A30NISN	NO-SUGGEST POWER CORD	---	
62	Q70G65C184201A	CD MANUAL V552/V652	---	
63	Q41G65M184204A	MANUAL V552 V652 A,B,J,C ver	---	
64	Q41G78D184250A	1E700492 warranty card for jp	---	

Recommended Spare Parts List (For USA)

Model V652 (A)

*** LCD PANEL and PWB ASSYS ***

DISASSEMBLY Symbol No.	For USA (TPV Part Number)	Description	Cabinet Color	Remark
29	756GQCCB0NN0500002	Main board-CBPCCS2N3Q3	---	
30	ADPCC2460QAA	ADAPTER BOARD	---	
31	CTPCCQNC	CONNECTOR BOARD	---	
32	SUPCCQNB	SUB BOARD	---	
42	IRPCCQNA	IR BOARD	---	
44	KEPCAQNB	KEY BOARD	---	
66	CNPC9QN6	CNPC BOARD	---	

*** ELECTRICAL PARTS & MISCELLANEOUS PARTS ***

DISASSEMBLY Symbol No.	For USA (TPV Part Number)	Description	Cabinet Color	Remark
16	395G8013014M1400KM	HARNESS 14P-14P(PH) 310mm	---	
17	395G8014012M7600KM	HARNESS 12P(PH)-10P(2506) 380mm	---	
18	395G8014012M7500KM	HARNESS 12P-7P/6P 350mm	---	
19	395G8014008M1000KM	HARNESS 8P-5P/3P 410mm/320mm	---	
20	395G8014010M0600KM	HARNESS 10P-5P 370mm	---	
21	395G8014016M0200KM	HARNESS 2*8P-12P 420mm	---	
22	395G8018051N0100KM	LVDS CABLE 51P-40P 530mm	---	
23	395G176J060M05	FFC CABLE 60 90mm 0.5MM	---	
24	395G8014012M7400KM	HARNESS 12P-12P 350mm	---	
25	395G8013004M7000KM	HARNESS 4P-2P/2P 1450mm/1000mm	---	
26	395G8014004M3400KM	HARNESS 4P-2P 250mm	---	
27	395G8014006M3700KM	HARNESS 6P-3P/3P 310mm/160mm	---	

*** APPEARANCE PARTS ***

DISASSEMBLY Symbol No.	For USA (TPV Part Number)	Description	Cabinet Color	Remark
1	0Q1G9301047CR3	SCREW M3x10	---	
2	0P1G1430647CR3	SCREW	---	
3	Q15J1294101AJ	BKT_OPS_COVER	---	
4	Q15J1281102AJ	REAR_COVER_MID	---	
5	0P1G1740847CR3	SCREW	---	
6	Q20J60721	DIE-CASTING	---	
7	0M1G17401247CR3	SCREW 12x4	---	
8	0Q1G930847CR3	SCREW	---	
9	Q15J128210200000AJ	REAR_COVER_TOP	---	
10	Q15J1283101AJ	REAR_COVER_L	---	
11	A34J3067AHC1T0100	COVER	---	
12	Q15J1284102AJ	REAR_COVER_BTM	---	
13	0M1G3030547CR3	SCREW	---	
14	Q15J118410100000TD	BKT_KEY_COVER	---	
28	0P1GNS1D000861	SCREW	---	
33	0M1G9801447	SCREW	---	

34	0M1G17408120	SCREW	---	
35	Q15J1285101DW	BKT_CHASSIS_L	---	
36	Q15J1286101DW	BKT_TOP	---	
37	017GF0614S	FAN	---	
38	017GF08503S	FAN	---	
39	Q15J1278101DW	BKT_FAN	---	
40	Q15J1277101DW	BKT_FAN	---	
41	Q15J1290101AJ	BKT_IR	---	
43	A33J1177AHC1T0200	KEY		
45	A34J3063AHC1T0100	BEZEL_L		
46	A34J3064AHC1T0100	BEZEL_R		
47	A34J3065AHC1T0100	BEZEL_TOP		
48	A34J3066AHCA1T0100	BEZEL_BTM		

*** PRINTED & PACKING MATERIALS ***

DISASSEMBLY Symbol No.	For USA (TPV Part Number)	Description	Cabinet Color	Remark
49	Q44GX01284201A0TY2	ARTWORK CARTON	---	
50	Q44GZ021X003	PIZZA BOX	---	
51	092TB1JX1A2NDS	BATTERY	---	
52	098GRABD1NENDS	Remote control For NDS	---	
53	089G1748HAA15N	DVI CABLE 1800	---	
54	089G404A30NISN	AC POWER CORD 3000MM	---	
55	Q70G65C18421A	CD MANUAL	---	
56	Q41G65M184204A	MANUAL	---	
57	Q44GX012BRO01A00Y2	CUSHION-paper block	---	
58	Q44GX0121010SY	CUSHION-TL	---	
59	Q44GX0122010SY	CUSHION-TR	---	
60	Q44GX0123010SY	CUSHION-BL	---	
61	Q44GX0124010SY	CUSHION-BR	---	
62	Q44GX0125010SY	CUSHION-TM	---	
63	Q44GX0126010SY	CUSHION-BM	---	
64	Q44GX0120FB0Y2	CUSHION-die cut Carton	---	

Recommended Spare Parts List (For Europe)

Model V652 (B)

*** LCD PANEL and PWB ASSYS ***

DISASSEMBLY Symbol No.	For Europe (TPV Part Number)	Description	Cabinet Color	Remark
29	756GQCCB0NN0500002	Main board-CBPCCS2N3Q3	---	
30	ADPCC2460QAA	ADAPTER BOARD	---	
31	CTPCCQNC	CONNECTOR BOARD	---	
32	SUPCCQNB	SUB BOARD	---	
42	IRPCCQNA	IR BOARD	---	
44	KEPCAQNB	KEY BOARD	---	
66	CNPC9QN6	CNPC BOARD	---	

*** ELECTRICAL PARTS & MISCELLANEOUS PARTS ***

DISASSEMBLY Symbol No.	For Europe (TPV Part Number)	Description	Cabinet Color	Remark
16	395G8013014M1400KM	HARNESS 14P-14P(PH) 310mm	---	
17	395G8014012M7600KM	HARNESS 12P(PH)-10P(2506) 380mm	---	
18	395G8014012M7500KM	HARNESS 12P-7P/6P 350mm	---	
19	395G8014008M1000KM	HARNESS 8P-5P/3P 410mm/320mm	---	
20	395G8014010M0600KM	HARNESS 10P-5P 370mm	---	
21	395G8014016M0200KM	HARNESS 2*8P-12P 420mm	---	
22	395G8018051N0100KM	LVDS CABLE 51P-40P 530mm	---	
23	395G176J060M05	FFC CABLE 60 90mm 0.5MM	---	
24	395G8014012M7400KM	HARNESS 12P-12P 350mm	---	
25	395G8013004M7000KM	HARNESS 4P-2P/2P 1450mm/1000mm	---	
26	395G8014004M3400KM	HARNESS 4P-2P 250mm	---	
27	395G8014006M3700KM	HARNESS 6P-3P/3P 310mm/160mm	---	

*** APPEARANCE PARTS ***

DISASSEMBLY Symbol No.	For Europe (TPV Part Number)	Description	Cabinet Color	Remark
1	0Q1G9301047CR3	SCREW M3x10	---	
2	0P1G1430647CR3	SCREW	---	
3	Q15J1294101AJ	BKT_OPS_COVER	---	
4	Q15J1281102AJ	REAR_COVER_MID	---	
5	0P1G1740847CR3	SCREW	---	
6	Q20J60721	DIE-CASTING	---	
7	0M1G17401247CR3	SCREW 12x4	---	
8	0Q1G930847CR3	SCREW	---	
9	Q15J128210200000AJ	REAR_COVER_TOP	---	
10	Q15J1283101AJ	REAR_COVER_L	---	
11	A34J3067AHC1T0100	COVER	---	
12	Q15J1284102AJ	REAR_COVER_BTM	---	
13	0M1G3030547CR3	SCREW	---	
14	Q15J118410100000TD	BKT_KEY_COVER	---	

28	0P1GNS1D000861	SCREW	---	
33	0M1G9801447	SCREW	---	
34	0M1G17408120	SCREW9()	---	
35	Q15J1285101DW	BKT_CHASSIS_L	---	
36	Q15J1286101DW	BKT_TOP	---	
37	017GF0614S	FAN 12V 0.12A 60X60X10mm	---	
38	017GF08503S	FAN 12V 1.0A 80X80X15mm	---	
39	Q15J1278101DW	BKT_FAN	---	
40	Q15J1277101DW	BKT_FAN	---	
41	Q15J1290101AJ	BKT_IR	---	
43	A33J1177AHC1T0200	KEY		
45	A34J3063AHC1T0100	BEZEL_L		
46	A34J3064AHC1T0100	BEZEL_R		
47	A34J3065AHC1T0100	BEZEL_TOP		
48	A34J3066AHCA1T0100	BEZEL_BTM		

*** PRINTED & PACKING MATERIALS ***

DISASSEMBLY Symbol No.	For Europe (TPV Part Number)	Description	Cabinet Color	Remark
49	Q44GX01284201A0TY2	ARTWORK CARTON	---	
50	Q44GZ021X003	PIZZA BOX	---	
51	092TB1JX1A2NDS	BATTERY	---	
52	098GRABD1NENDS	Remote control	---	
53	089G1748HAA15N	DVI CABLE 1800	---	
54	089G402A30NISN	AC POWER CORD 3000MM	---	
55	Q70G65C184201A	CD MANUAL	---	
56	Q41G65M184204A	MANUAL V552 V652 A,B,J,C ver	---	
57	Q44GX012BRO01A00Y2	CUSHION-paper block	---	
58	Q44GX0121010SY	CUSHION-TL	---	
59	Q44GX0122010SY	CUSHION-TR	---	
60	Q44GX0123010SY	CUSHION-BL	---	
61	Q44GX0124010SY	CUSHION-BR	---	
62	Q44GX0125010SY	CUSHION-TM	---	
63	Q44GX0126010SY	CUSHION-BM	---	
64	Q44GX0120FB0Y2	CUSHION-die cut Carton	---	

Recommended Spare Parts List (For China)

Model V652 (C)

*** LCD PANEL and PWB ASSYS ***

DISASSEMBLY Symbol No.	For China (TPV Part Number)	Description	Cabinet Color	Remark
29	756GQCCB0NN0500002	Main board-CBPCCS2N3Q3	---	
30	ADPCC2460QAA	ADAPTER BOARD	---	
31	CTPCCQNC	CONNECTOR BOARD	---	
32	SUPCCQNB	SUB BOARD	---	
42	IRPCCQNA	IR BOARD	---	
44	KEPCAQNB	KEY BOARD	---	
66	CNPC9QN6	CNPC BOARD	---	

*** ELECTRICAL PARTS & MISCELLANEOUS PARTS ***

DISASSEMBLY Symbol No.	For China (TPV Part Number)	Description	Cabinet Color	Remark
16	395G8013014M1400KM	HARNESS 14P-14P(PH) 310mm	---	
17	395G8014012M7600KM	HARNESS 12P(PH)-10P(2506) 380mm	---	
18	395G8014012M7500KM	HARNESS 12P-7P/6P 350mm	---	
19	395G8014008M1000KM	HARNESS 8P-5P/3P 410mm/320mm	---	
20	395G8014010M0600KM	HARNESS 10P-5P 370mm	---	
21	395G8014016M0200KM	HARNESS 2*8P-12P 420mm	---	
22	395G8018051N0100KM	LVDS CABLE 51P-40P 530mm	---	
23	395G176J060M05	FFC CABLE 60 90mm 0.5MM	---	
24	395G8014012M7400KM	HARNESS 12P-12P 350mm	---	
25	395G8013004M7000KM	HARNESS 4P-2P/2P 1450mm/1000mm	---	
26	395G8014004M3400KM	HARNESS 4P-2P 250mm	---	
27	395G8014006M3700KM	HARNESS 6P-3P/3P 310mm/160mm	---	

*** APPEARANCE PARTS ***

DISASSEMBLY Symbol No.	For China (TPV Part Number)	Description	Cabinet Color	Remark
1	0Q1G9301047CR3	SCREW M3x10	---	
2	0P1G1430647CR3	SCREW	---	
3	Q15J1294101AJ	BKT_OPS_COVER	---	
4	Q15J1281102AJ	REAR_COVER_MID	---	
5	0P1G1740847CR3	SCREW	---	
6	Q20J60721	DIE-CASTING	---	
7	0M1G17401247CR3	SCREW 12x4	---	
8	0Q1G930847CR3	SCREW	---	
9	Q15J128210200000AJ	REAR_COVER_TOP	---	
10	Q15J1283101AJ	REAR_COVER_L	---	
11	A34J3067AHC1T0100	COVER	---	
12	Q15J1284102AJ	REAR_COVER_BTM	---	
13	0M1G3030547CR3	SCREW	---	
14	Q15J118410100000TD	BKT_KEY_COVER	---	

28	0P1GNS1D000861	SCREW	---	
33	0M1G9801447	SCREW	---	
34	0M1G17408120	SCREW	---	
35	Q15J1285101DW	BKT_CHASSIS_L	---	
36	Q15J1286101DW	BKT_TOP	---	
37	017GF0614S	FAN 12V 0.12A 60X60X10mm	---	
38	017GF08503S	FAN 12V 1.0A 80X80X15mm	---	
39	Q15J1278101DW	BKT_FAN	---	
40	Q15J1277101DW	BKT_FAN	---	
41	Q15J1290101AJ	BKT_IR	---	
43	A33J1177AHC1T0200	KEY		
45	A34J3063AHC1T0100	BEZEL_L		
46	A34J3064AHC1T0100	BEZEL_R		
47	A34J3065AHC1T0100	BEZEL_TOP		
48	A34J3066AHCA1T0100	BEZEL_BTM		

*** PRINTED & PACKING MATERIALS ***

DISASSEMBLY Symbol No.	For China (TPV Part Number)	Description	Cabinet Color	Remark
49	Q44GX01284201A0TY2	ARTWORK CARTON	---	
50	Q44GZ021X003	PIZZA BOX	---	
51	092TB1JX1A2NDS	BATTERY	---	
52	098GRABD1NENDS	Remote control	---	
53	089G1748HAA15N	DVI CABLE 1800	---	
54	089G414A30NISN	AC POWER CORD 3000MM	---	
55	Q70G65C184201A	CD MANUAL	---	
56	Q41G65M184204A	MANUAL V552 V652 A,B,J,C ver	---	
57	Q44GX012BRO01A00Y2	CUSHION-paper block	---	
58	Q44GX0121010SY	CUSHION-TL	---	
59	Q44GX0122010SY	CUSHION-TR	---	
60	Q44GX0123010SY	CUSHION-BL	---	
61	Q44GX0124010SY	CUSHION-BR	---	
62	Q44GX0125010SY	CUSHION-TM	---	
63	Q44GX0126010SY	CUSHION-BM	---	
64	Q44GX0120FB0Y2	CUSHION-die cut Carton	---	
65	Q41G78D184237C	WARRANTY CARD	---	

Recommended Spare Parts List (For Japan)

Model LCD-V652 (J)

*** LCD PANEL and PWB ASSYS ***

DISASSEMBLY Symbol No.	For Japan (TPV Part Number)	Description	Cabinet Color	Remark
29	756GQCCB0NN0500002	Main board-CBPCCS2N3Q3	---	
30	ADPCC2460QAA	ADAPTER BOARD	---	
31	CTPCCQNC	CONNECTOR BOARD	---	
32	SUPCCQNB	SUB BOARD	---	
42	IRPCCQNA	IR BOARD	---	
44	KEPCAQNB	KEY BOARD	---	
66	CNPC9QN6	CNPC BOARD	---	

*** ELECTRICAL PARTS & MISCELLANEOUS PARTS ***

DISASSEMBLY Symbol No.	For Japan (TPV Part Number)	Description	Cabinet Color	Remark
16	395G8013014M1400KM	HARNESS 14P-14P(PH) 310mm	---	
17	395G8014012M7600KM	HARNESS 12P(PH)-10P(2506) 380mm	---	
18	395G8014012M7500KM	HARNESS 12P-7P/6P 350mm	---	
19	395G8014008M1000KM	HARNESS 8P-5P/3P 410mm/320mm	---	
20	395G8014010M0600KM	HARNESS 10P-5P 370mm	---	
21	395G8014016M0200KM	HARNESS 2*8P-12P 420mm	---	
22	395G8018051N0100KM	LVDS CABLE 51P-40P 530mm	---	
23	395G176J060M05	FFC CABLE 60 90mm 0.5MM	---	
24	395G8014012M7400KM	HARNESS 12P-12P 350mm	---	
25	395G8013004M7000KM	HARNESS 4P-2P/2P 1450mm/1000mm	---	
26	395G8014004M3400KM	HARNESS 4P-2P 250mm	---	
27	395G8014006M3700KM	HARNESS 6P-3P/3P 310mm/160mm	---	

*** APPEARANCE PARTS ***

DISASSEMBLY Symbol No.	For Japan (TPV Part Number)	Description	Cabinet Color	Remark
1	0Q1G9301047CR3	SCREW M3x10	---	
2	0P1G1430647CR3	SCREW	---	
3	Q15J1294101AJ	BKT_OPS_COVER	---	
4	Q15J1281102AJ	REAR_COVER_MID	---	
5	0P1G1740847CR3	SCREW	---	
6	Q20J60721	DIE-CASTING	---	
7	0M1G17401247CR3	SCREW 12x4	---	
8	0Q1G930847CR3	SCREW	---	
9	Q15J128210200000AJ	REAR_COVER_TOP	---	
10	Q15J1283101AJ	REAR_COVER_L	---	
11	A34J3067AHC1T0100	COVER	---	
12	Q15J1284102AJ	REAR_COVER_BTM	---	
13	0M1G3030547CR3	SCREW	---	
14	Q15J118410100000TD	BKT_KEY_COVER	---	

28	0P1GNS1D000861	SCREW	---	
33	0M1G9801447	SCREW	---	
34	0M1G17408120	SCREW	---	
35	Q15J1285101DW	BKT_CHASSIS_L	---	
36	Q15J1286101DW	BKT_TOP	---	
37	017GF0614S	FAN 12V 0.12A 60X60X10mm	---	
38	017GF08503S	FAN 12V 1.0A 80X80X15mm	---	
39	Q15J1278101DW	BKT_FAN	---	
40	Q15J1277101DW	BKT_FAN	---	
41	Q15J1290101AJ	BKT_IR	---	
43	A33J1177AHC1T0200	KEY		
45	A34J3063AHC1T0100	BEZEL_L		
46	A34J3064AHC1T0100	BEZEL_R		
47	A34J3065AHC1T0100	BEZEL_TOP		
48	A34J3066AHCA1T0100	BEZEL_BTM		

*** PRINTED & PACKING MATERIALS ***

DISASSEMBLY Symbol No.	For Japan (TPV Part Number)	Description	Cabinet Color	Remark
49	Q44GX01284201A0TY2	ARTWORK CARTON	---	
50	Q44GZ021X003	PIZZA BOX	---	
51	092TB1JX1A2NDS	BATTERY	---	
52	098GRABD1NENDS	Remote control	---	
53	089G1748HAA15N	DVI CABLE 1800	---	
54	089G401A30NISN	AC POWER CORD 3000MM	---	
55	Q70G65C184201A	CD MANUAL	---	
56	Q41G65M184204A	MANUAL V552 V652 A,B,J,C ver	---	
57	Q44GX012BRO01A00Y2	CUSHION-paper block	---	
58	Q44GX0121010SY	CUSHION-TL	---	
59	Q44GX0122010SY	CUSHION-TR	---	
60	Q44GX0123010SY	CUSHION-BL	---	
61	Q44GX0124010SY	CUSHION-BR	---	
62	Q44GX0125010SY	CUSHION-TM	---	
63	Q44GX0126010SY	CUSHION-BM	---	
64	Q44GX0120FB0Y2	CUSHION-die cut Carton	---	
65	Q41G78D184250A	WARRANTY CARD	---	

Recommended Spare Parts List (For USA)

Model V552-U2 (A)

*** LCD PANEL and PWB ASSYS ***

DISASSEMBLY Symbol No.	For USA (TPV Part Number)	Description	Cabinet Color	Remark
15	KEPCAQNB	KEY BOARD	---	
30	756JQCCB0NN0550001	MAIN BOARD-CBPCCS2N3Q3	---	
31	ADPCA2435AAK	POWER BOARD	---	
32	SUPCCQNB	SUB BOARD	---	
33	CTPCCQNC	CONNECTOR BOARD	---	
34	CNPC9QN6	CNPC BOARD	---	
35	IRPCFQNA	IR BOARD	---	
46	750JBU550V2211N0ND	LCD P550HVN02.201 TW AUO	---	

*** ELECTRICAL PARTS & MISCELLANEOUS PARTS ***

DISASSEMBLY Symbol No.	For USA (TPV Part Number)	Description	Cabinet Color	Remark
17	395G8014006M4000KM	HARNESS 6P-3P/3P 630mm	---	
18	395G801400465900KM	HARNESS 4P-2P 180mm	---	
19	395G8014012M7800KM	HARNESS 12P-6P/7P 580mm	---	
20	395G8014008M1100KM	HARNESS 8P-5P/3P 590mm	---	
21	395G8018051N0400KM	LVDS CABLE 51P-40P 370mm	---	
22	395G8014012M7400KM	HARNESS 12P-12P 350mm	---	
23	395G8014010M0800KM	HARNESS 10P-5P 520mm	---	
24	395G8014016M0200KM	HARNESS 2*8P-12P 420mm	---	
25	395G8014004M7100KM	HARNESS 4P-2P/2P 1110mm	---	
26	395G8013014M1500KM	HARNESS 14P-14P 380mm	---	
27	395G176J060M05	FFC CABLE 60 90mm 0.5MM	---	
37	017GF0614S	FAN 12V 0.12A 60X60X10mm	---	

*** APPEARANCE PARTS ***

DISASSEMBLY Symbol No.	For USA (TPV Part Number)	Description	Cabinet Color	Remark
1	Q20J60721	DIE-CASTING	---	
2	0M1G17401047CR3	SCREW 4x10	---	
3	0P1G1430647CR3	SCREW	---	
4	Q15J1320101	BKT_OPS_COVER	---	
5	0M1G24301047RA	SCREW	---	
6	0M1G3030547CR3	SCREW	---	
7	Q15J1322101	REAR_COVER	---	
8	0B1G930847CR3	SCREW(1D000801)	---	
9	Q15J1036102	BKT_VESA	---	
10	0M1G940647CR3	SCREW 4x6	---	
11	Q15J1314301	REAR_COVER_L	---	
12	Q15J1316301	BKT_IO	---	
13	0P1G1740847CR3	SCREW	---	
14	Q15J118410100000TD	BKT_KEY_COVER	---	
28	A34J3103AHC1T0100	OPS_COVER	---	
29	0P1GNS1D000861	SC PL-#2CPISSx3x8x16B	---	
36	Q01G6177002A0100XL	SCREW	---	
38	Q15J1311101	BKT_TOP	---	

39	0M1G17601047CR3	SCREW_	---	
40	Q15J1306201	BKT_OPS_CHASSIS	---	
41	Q15J1309101	MAINFRAME	---	
42	Q15J132310100000AJ	BKT_PCB_MAINBD_TOP	---	
43	Q15J1312101	BKT_BTM	---	
44	Q15J1308201	BKT_POWER_L	---	
45	Q15J1307101	BKT_POWER_R	---	
46	750JBU550V2013N0ND	LCD P550HVN02.000 XM AUO	---	
47	A34J3099AHC1T0100	BEZEL_L	---	
48	A34J3100AHC1T0130	BEZEL_R	---	
49	A34J3101AHC1T0130	BEZEL_TOP	---	
50	A34J3102AHCA1T0130	BEZEL_BTM	---	

*** PRINTED & PACKING MATERIALS ***

DISASSEMBLY Symbol No.	For USA (TPV Part Number)	Description	Cabinet Color	Remark
50	A34J3102AHCA1T0130	BEZEL_BTM	---	
51	Q44GV011FB	CARTON	---	
52	Q44GV0241010YH	CUSHION-TL	---	
53	Q44GV0242010YH	CUSHION-TR	---	
54	Q44GV0245010SY	CUSHION-TM	---	
55	Q44GV0243010YH	CUSHION-BL	---	
56	Q44GV0244010YH	CUSHION-BR	---	
57	Q44GZ025M0100600JM	CUSHION-pizza box	---	
58	092TB1JX1A2NDS	BATTERY 1.5V BATTERY GN15G	---	
59	098GRABD1NENDS	Remote control For NDS	---	
60	089G1748HAA15N	DVI CABLE 1800	---	
61	Q70G55C184208A	AC POWER CORD	---	
62	Q70G55C184208A	CD MANUAL V552/V652	---	
63	Q41G65M184204A	MANUAL V552 V652 A,B,J,C ver	---	

Recommended Spare Parts List (For Europe)

Model V552-U2 (B)

*** LCD PANEL and PWB ASSYS ***

DISASSEMBLY Symbol No.	For Europe (TPV Part Number)	Description	Cabinet Color	Remark
15	KEPCAQNB	KEY BOARD	---	
30	756JQCCB0NN0550001	MAIN BOARD-CBPCCS2N3Q3	---	
31	ADPCA2435AAK	POWER BOARD	---	
32	SUPCCQNB	SUB BOARD	---	
33	CTPCCQNC	CONNECTOR BOARD	---	
34	CNPC9QN6	CNPC BOARD	---	
35	IRPCFQNA	IR BOARD	---	
46	750JBU550V2211N0ND	LCD P550HVN02.201 TW AUO	---	

*** ELECTRICAL PARTS & MISCELLANEOUS PARTS ***

DISASSEMBLY Symbol No.	For Europe (TPV Part Number)	Description	Cabinet Color	Remark
17	395G8014006M4000KM	HARNESS 6P-3P/3P 630mm	---	
18	395G801400465900KM	HARNESS 4P-2P 180mm	---	
19	395G8014012M7800KM	HARNESS 12P-6P/7P 580mm	---	
20	395G8014008M1100KM	HARNESS 8P-5P/3P 590mm	---	
21	395G8018051N0400KM	LVDS CABLE 51P-40P 370mm	---	
22	395G8014012M7400KM	HARNESS 12P-12P 350mm	---	
23	395G8014010M0800KM	HARNESS 10P-5P 520mm	---	
24	395G8014016M0200KM	HARNESS 2*8P-12P 420mm	---	
25	395G8014004M7100KM	HARNESS 4P-2P/2P 1110mm	---	
26	395G8013014M1500KM	HARNESS 14P-14P 380mm	---	
27	395G176J060M05	FFC CABLE 60 90mm 0.5MM	---	
37	017GF0614S	FAN 12V 0.12A 60X60X10mm	---	

*** APPEARANCE PARTS ***

DISASSEMBLY Symbol No.	For Europe (TPV Part Number)	Description	Cabinet Color	Remark
1	Q20J60721	DIE-CASTING	---	
2	0M1G17401047CR3	SCREW 4x10	---	
3	0P1G1430647CR3	SCREW	---	
4	Q15J1320101	BKT_OPS_COVER	---	
5	0M1G24301047RA	SCREW	---	
6	0M1G3030547CR3	SCREW	---	
7	Q15J1322101	REAR_COVER	---	
8	0B1G930847CR3	SCREW(1D000801)	---	
9	Q15J1036102	BKT_VESA	---	
10	0M1G940647CR3	SCREW 4x6	---	
11	Q15J1314301	REAR_COVER_L	---	
12	Q15J1316301	BKT_IO	---	
13	0P1G1740847CR3	SCREW	---	
14	Q15J118410100000TD	BKT_KEY_COVER	---	
28	A34J3103AHC1T0100	OPS_COVER	---	
29	0P1GNS1D000861	SC PL-#2CPISSx3x8x16B	---	
36	Q01G6177002A0100XL	SCREW	---	

38	Q15J1311101	BKT_TOP	---	
39	0M1G17601047CR3	SCREW_	---	
40	Q15J130620	BKT_OPS_CHASSIS	---	
41	Q15J1309101	MAINFRAME	---	
42	Q15J132310100000AJ	BKT_PCB_MAINBD_TOP	---	
43	Q15J1312101	BKT_BTM	---	
44	Q15J1308201	BKT_POWER_L	---	
45	Q15J1307101	BKT_POWER_R	---	
46	750JBU550V2013N0ND	LCD P550HVN02.000 XM AUO	---	
47	A34J3099AHC1T0100	BEZEL_L	---	
48	A34J3100AHC1T0130	BEZEL_R	---	
49	A34J3101AHC1T0130	BEZEL_TOP	---	
50	A34J3102AHCA1T0130	BEZEL_BTM	---	

*** PRINTED & PACKING MATERIALS ***

DISASSEMBLY Symbol No.	For Europe (TPV Part Number)	Description	Cabinet Color	Remark
50	A34J3102AHCA1T0130	BEZEL_BTM	---	
51	Q44GV011FB	CARTON	---	
52	Q44GV0241010YH	CUSHION-TL	---	
53	Q44GV0242010YH	CUSHION-TR	---	
54	Q44GV0245010SY	CUSHION-TM	---	
55	Q44GV0243010YH	CUSHION-BL	---	
56	Q44GV0244010YH	CUSHION-BR	---	
57	Q44GZ025M0100600JM	CUSHION-pizza box	---	
58	092TB1JX1A2NDS	BATTERY 1.5V BATTERY GN15G	---	
59	098GRABD1NENDS	Remote control For NDS	---	
60	089G1748HAA15N	DVI CABLE 1800	---	
61	089G404A30NISN	POWER CORD	---	
62	Q70G55C184208A	CD MANUAL 7A961626 V423 V463 V552 V652	---	
63	Q41G55M184216A	MANUAL V552 V652_2nd setup	---	

Recommended Spare Parts List (For China)

Model V552-U2 (C)

*** LCD PANEL and PWB ASSYS ***

DISASSEMBLY Symbol No.	For China (TPV Part Number)	Description	Cabinet Color	Remark
15	KEPCAQNB	KEY BOARD	---	
30	756JQCCB0NN0550001	MAIN BOARD-CBPCCS2N3Q3	---	
31	ADPCA2435AAK	POWER BOARD	---	
32	SUPCCQNB	SUB BOARD	---	
33	CTPCCQNC	CONNECTOR BOARD	---	
34	CNPC9QN6	CNPC BOARD	---	
35	IRPCFQNA	IR BOARD	---	
46	750JBU550V2211N0ND	LCD P550HVN02.201 TW AUO	---	

*** ELECTRICAL PARTS & MISCELLANEOUS PARTS ***

DISASSEMBLY Symbol No.	For China (TPV Part Number)	Description	Cabinet Color	Remark
17	395G8014006M4000KM	HARNESS 6P-3P/3P 630mm	---	
18	395G801400465900KM	HARNESS 4P-2P 180mm	---	
19	395G8014012M7800KM	HARNESS 12P-6P/7P 580mm	---	
20	395G8014008M1100KM	HARNESS 8P-5P/3P 590mm	---	
21	395G8018051N0400KM	LVDS CABLE 51P-40P 370mm	---	
22	395G8014012M7400KM	HARNESS 12P-12P 350mm	---	
23	395G8014010M0800KM	HARNESS 10P-5P 520mm	---	
24	395G8014016M0200KM	HARNESS 2*8P-12P 420mm	---	
25	395G8014004M7100KM	HARNESS 4P-2P/2P 1110mm	---	
26	395G8013014M1500KM	HARNESS 14P-14P 380mm	---	
27	395G176J060M05	FFC CABLE 60 90mm 0.5MM	---	
37	017GF0614S	FAN 12V 0.12A 60X60X10mm	---	

*** APPEARANCE PARTS ***

DISASSEMBLY Symbol No.	For China (TPV Part Number)	Description	Cabinet Color	Remark
1	Q20J60721	DIE-CASTING	---	
2	0M1G17401047CR3	SCREW 4x10	---	
3	0P1G1430647CR3	SCREW	---	
4	Q15J1320101	BKT_OPS_COVER	---	
5	0M1G24301047RA	SCREW	---	
6	0M1G3030547CR3	SCREW	---	
7	Q15J1322101	REAR_COVER	---	
8	0B1G930847CR3	SCREW(1D000801)	---	
9	Q15J1036102	BKT_VESA	---	
10	0M1G940647CR3	SCREW 4x6	---	
11	Q15J1314301	REAR_COVER_L	---	
12	Q15J1316101	BKT_IO	---	
13	0P1G1740847CR3	SCREW	---	
14	Q15J118410100000TD	BKT_KEY_COVER	---	
28	A34J3103AHC1T0100	OPS_COVER	---	
29	0P1GNS1D000861	SC PL-#2CPISSx3x8x16B	---	
36	Q01G6177002A0100XL	SCREW	---	
38	Q15J1311101	BKT_TOP	---	

39	0M1G17601047CR3	SCREW_	---	
40	Q15J1306201	BKT_OPS_CHASSIS	---	
41	Q15J1309101	MAINFRAME	---	
42	Q15J132310100000AJ	BKT_PCB_MAINBD_TOP	---	
43	Q15J1312101	BKT_BTM	---	
44	Q15J1308201	BKT_POWER_L	---	
45	Q15J1307101	BKT_POWER_R	---	
46	750JBU550V2013N0ND	LCD P550HVN02.000 XM AUO	---	
47	A34J3099AHC1T0100	BEZEL_L	---	
48	A34J3100AHC1T0130	BEZEL_R	---	
49	A34J3101AHC1T0130	BEZEL_TOP	---	
50	A34J3102AHCA1T0130	BEZEL_BTM	---	

*** PRINTED & PACKING MATERIALS ***

DISASSEMBLY Symbol No.	For China (TPV Part Number)	Description	Cabinet Color	Remark
50	A34J3102AHCA1T0130	BEZEL_BTM	---	
51	Q44GV011FB	CARTON	---	
52	Q44GV0241010YH	CUSHION-TL	---	
53	Q44GV0242010YH	CUSHION-TR	---	
54	Q44GV0245010SY	CUSHION-TM	---	
55	Q44GV0243010YH	CUSHION-BL	---	
56	Q44GV0244010YH	CUSHION-BR	---	
57	Q44GZ025M0100600JM	CUSHION-pizza box	---	
58	092TB1JX1A2NDS	BATTERY 1.5V BATTERY GN15G	---	
59	098GRABD1NENDS	Remote control For NDS	---	
60	089G1748HAA15N	DVI CABLE 1800	---	
61	089G414A30NISN	POWER CORD	---	
62	Q70G55C184208A	CD MANUAL 7A961626 V423 V463 V552 V652	---	
63	Q41G55M184216A	MANUAL V552 V652_2nd setup	---	
64	Q41G78D184237C	WARRANTY CARD	---	

Recommended Spare Parts List (For Japan)

Model LCD-V552-U2 (J)

*** LCD PANEL and PWB ASSYS ***

DISASSEMBLY Symbol No.	For Japan (TPV Part Number)	Description	Cabinet Color	Remark
15	KEPCAQNB	KEY BOARD	---	
30	756JQCCB0NN0550001	MAIN BOARD-CBPCCS2N3Q3	---	
31	ADPCA2435AAK	POWER BOARD	---	
32	SUPCCQNB	SUB BOARD	---	
33	CTPCCQNC	CONNECTOR BOARD	---	
34	CNPC9QN6	CNPC BOARD	---	
35	IRPCFQNA	IR BOARD	---	
46	750JBU550V2211N0ND	LCD P550HVN02.201 TW AUO	---	

*** ELECTRICAL PARTS & MISCELLANEOUS PARTS ***

DISASSEMBLY Symbol No.	For Japan (TPV Part Number)	Description	Cabinet Color	Remark
17	395G8014006M4000KM	HARNESS 6P-3P/3P 630mm	---	
18	395G801400465900KM	HARNESS 4P-2P 180mm	---	
19	395G8014012M7800KM	HARNESS 12P-6P/7P 580mm	---	
20	395G8014008M1100KM	HARNESS 8P-5P/3P 590mm	---	
21	395G8018051N0400KM	LVDS CABLE 51P-40P 370mm	---	
22	395G8014012M7400KM	HARNESS 12P-12P 350mm	---	
23	395G8014010M0800KM	HARNESS 10P-5P 520mm	---	
24	395G8014016M0200KM	HARNESS 2*8P-12P 420mm	---	
25	395G8014004M7100KM	HARNESS 4P-2P/2P 1110mm	---	
26	395G8013014M1500KM	HARNESS 14P-14P 380mm	---	
27	395G176J060M05	FFC CABLE 60 90mm 0.5MM	---	
37	017GF0614S	FAN 12V 0.12A 60X60X10mm	---	

*** APPEARANCE PARTS ***

DISASSEMBLY Symbol No.	For Japan (TPV Part Number)	Description	Cabinet Color	Remark
1	Q20J60721	DIE-CASTING	---	
2	0M1G17401047CR3	SCREW 4x10	---	
3	0P1G1430647CR3	SCREW	---	
4	Q15J1320101	BKT_OPS_COVER	---	
5	0M1G24301047RA	SCREW	---	
6	0M1G3030547CR3	SCREW	---	
7	Q15J1322101	REAR_COVER	---	
8	0B1G930847CR3	SCREW(1D000801)	---	
9	Q15J1036102	BKT_VESA	---	
10	0M1G940647CR3	SCREW 4x6	---	
11	Q15J1314301	REAR_COVER_L	---	
12	Q15J1316301	BKT_IO	---	
13	0P1G1740847CR3	SCREW	---	
14	Q15J118410100000TD	BKT_KEY_COVER	---	
28	A34J3103AHC1T0100	OPS_COVER	---	
29	0P1GNS1D000861	SC PL-#2CPISSx3x8x16B	---	
36	Q01G6177002A0100XL	SCREW	---	
38	Q15J1311101	BKT_TOP	---	
39	0M1G17601047CR3	SCREW_	---	
40	Q15J1306201	BKT_OPS_CHASSIS	---	

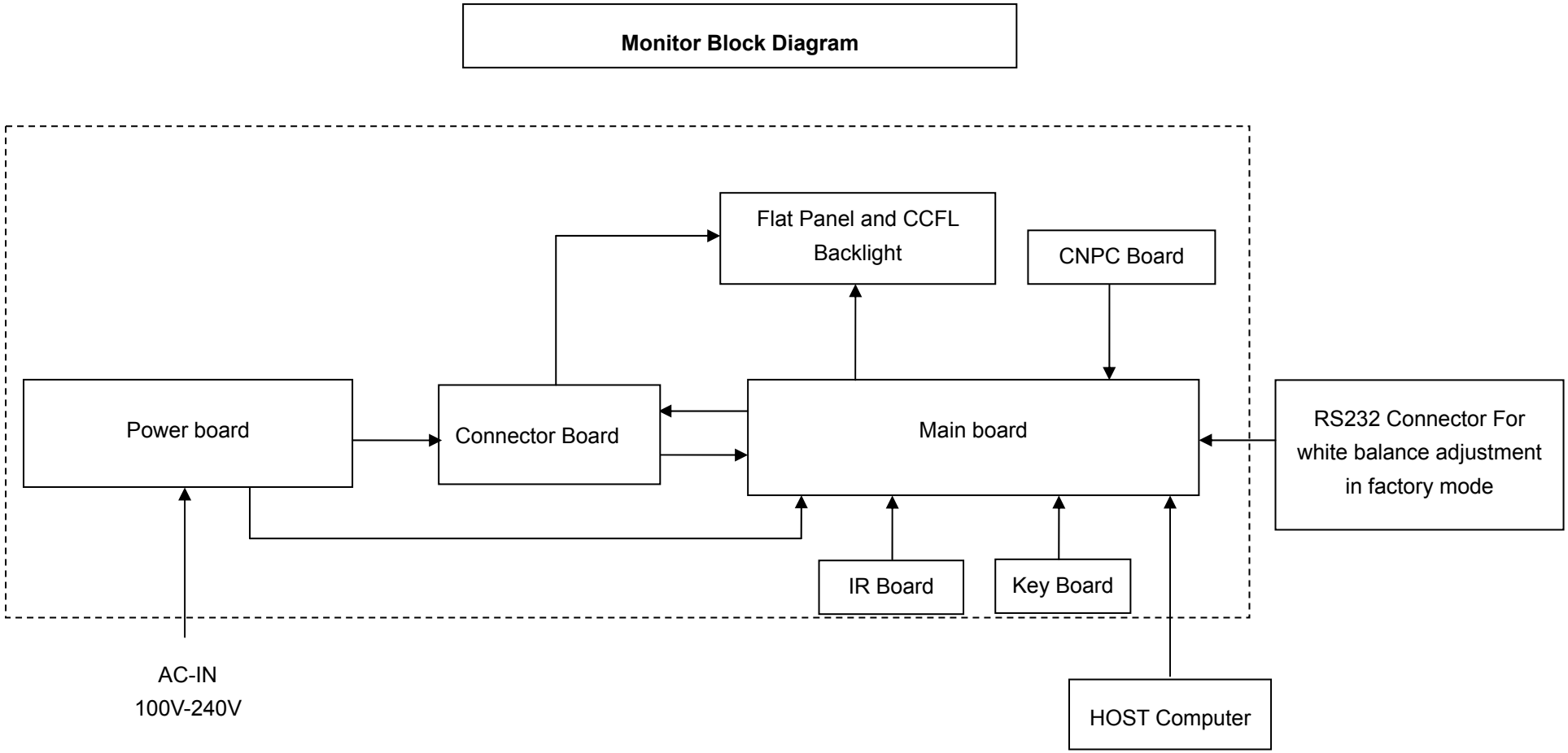
41	Q15J1309101	MAINFRAME	---	
42	Q15J132310100000AJ	BKT_PCB_MAINBD_TOP	---	
43	Q15J1312101	BKT_BTM	---	
44	Q15J1308201	BKT_POWER_L	---	
45	Q15J1307101	BKT_POWER_R	---	
46	750JBU550V2013N0ND	LCD P550HVN02.000 XM AUO	---	
47	A34J3099AHC1T0100	BEZEL_L	---	
48	A34J3100AHC1T0130	BEZEL_R	---	
49	A34J3101AHC1T0130	BEZEL_TOP	---	
50	A34J3102AHCA1T0130	BEZEL_BTM	---	

*** PRINTED & PACKING MATERIALS ***

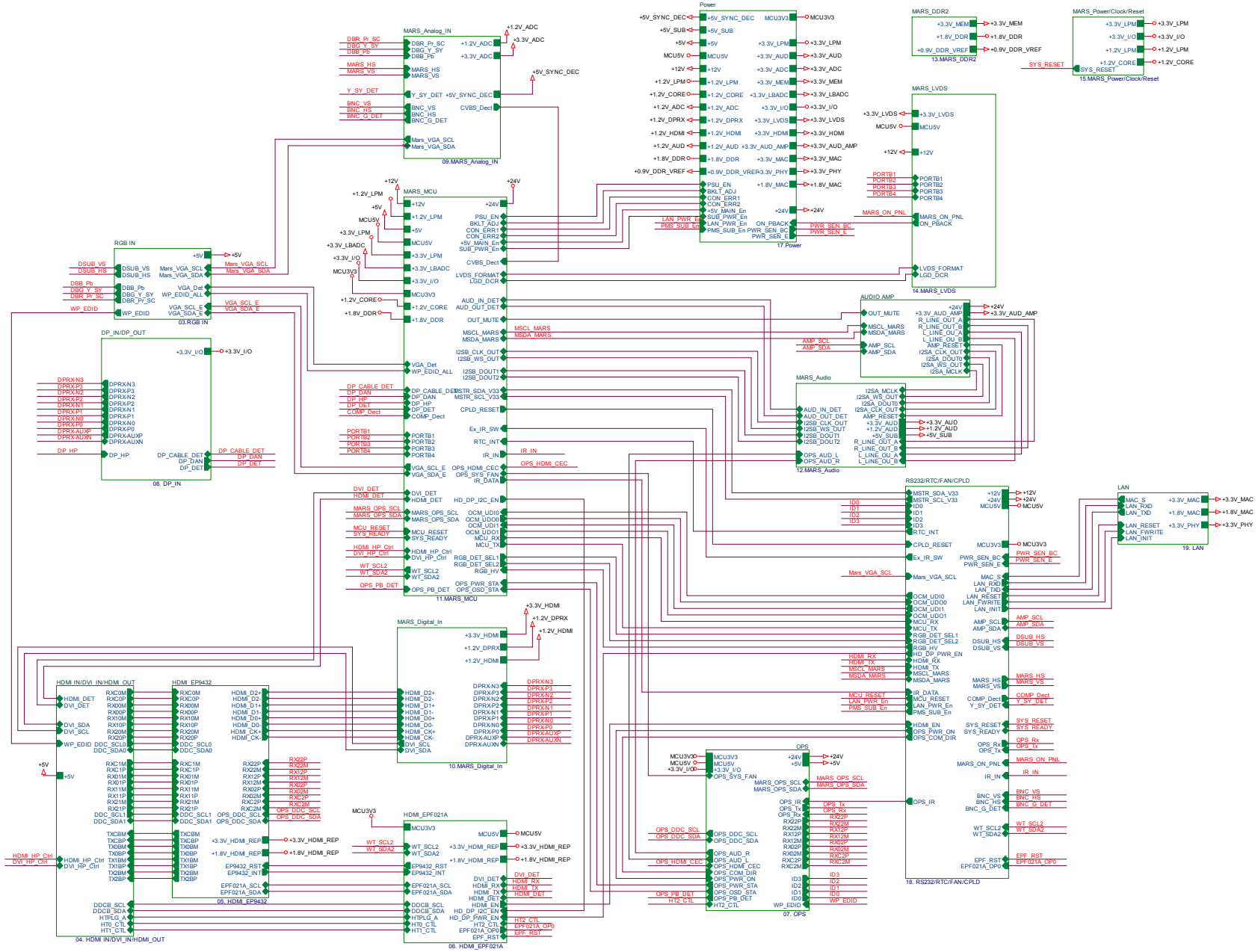
DISASSEMBLY Symbol No.	For Japan (TPV Part Number)	Description	Cabinet Color	Remark
50	A34J3102AHCA1T0130	BEZEL_BTM	---	
51	Q44GV011FB	CARTON	---	
52	Q44GV0241010YH	CUSHION-TL	---	
53	Q44GV0242010YH	CUSHION-TR	---	
54	Q44GV0245010SY	CUSHION-TM	---	
55	Q44GV0243010YH	CUSHION-BL	---	
56	Q44GV0244010YH	CUSHION-BR	---	
57	Q44GZ025M0100600JM	CUSHION-pizza box	---	
58	092TB1JX1A2NDS	BATTERY 1.5V BATTERY GN15G	---	
59	098GRABD1NENDS	Remote control For NDS	---	
60	089G1748HAA15N	DVI CABLE 1800	---	
61	089G401A30NISN	NO-SUGGEST POWER CORD	---	
62	Q70G55C184208A	CD MANUAL 7A961626 V423 V463 V552 V652	---	
63	Q41G55M184216A	MANUAL V552 V652_2nd setup	---	
64	Q41G78D184250A	1E700492 warranty card for jp	---	

BLOCK DIAGRAM

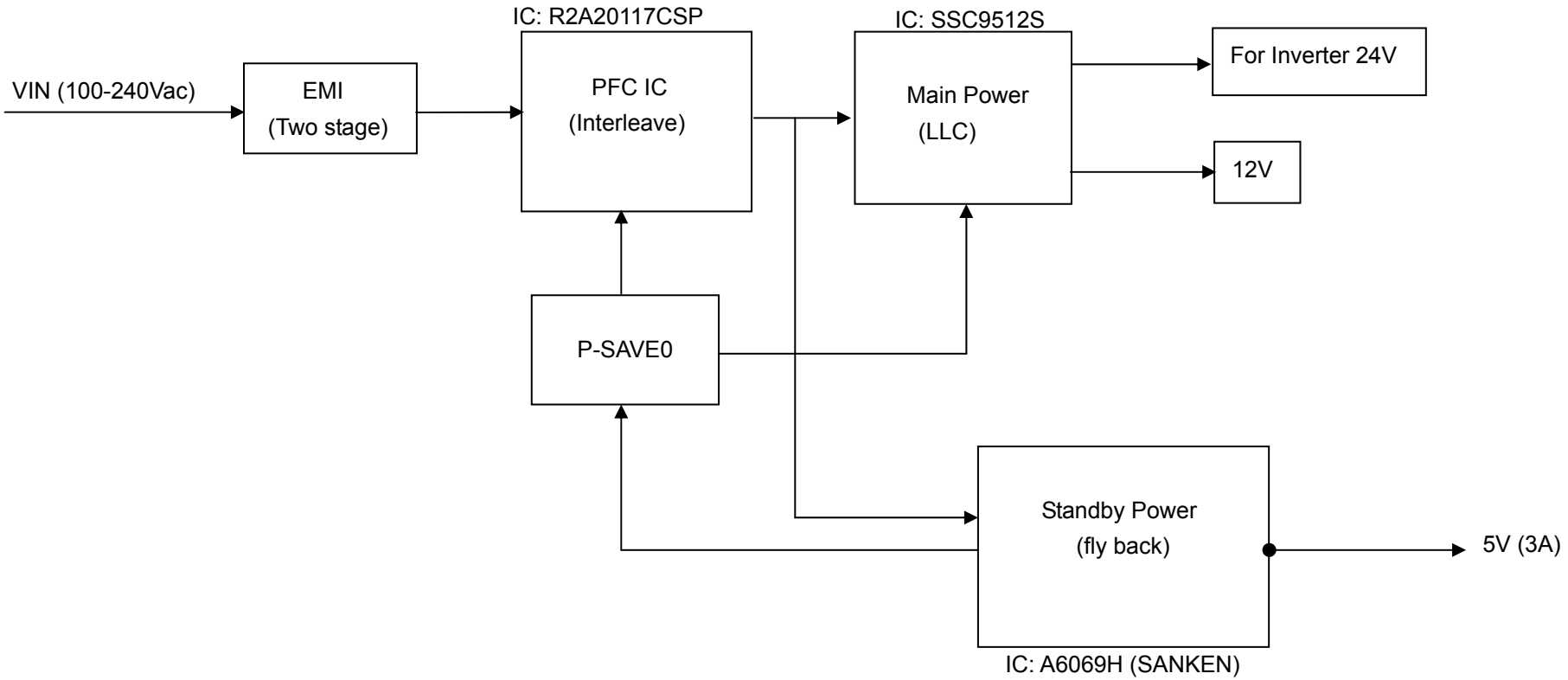
1. THE MONITOR BLOCK DIAGRAM



2. SCALER BOARD BLOCK DIAGRAM



3. POWER BLOCK DIAGRAM



CIRCUIT DESCRIPTION

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1. General Description

The LCD MONITOR contains a panel, a main board, a power board, a keyboard, an IR board, an IF board and a CNPC board.

2. Main Board

The main board contains many components such as, panel control logic, brightness control logic, DDC and CD convert, and DC circuit, audio circuit, video circuit, Fan circuit, RTC circuit. RS232 circuit.

2.1 Description of Main Chips

STDP8028-AB: Scalar IC, ADC, OSD, SCALER, convert analog RGB into digital and room and shrink scaling output to timing control circuit of LCD panel.

MCU: 61P802-RG480WT, which the main function is to provide areas such as power control, OSD control, frequency calculation, RS232 communication.

G5657F12U: DC power convert, used to 5V convert 1.2V.

AZ1084D-3.3TRE1: DC power convert, used to 5V convert 3.3V.

G971ADJF11U: DC power convert, used to 3.3V convert 1.8V.

CAT24C02WI-GT3A: 2K EEPROM, is used to save DDC data which contains the basic parameter of facility, supplier, product name, maximum H-frequency, support resolution and so on.

M24256-BRMN6TP: 256K EEPROM, is used to save Auto config data, white balance data, the state of power key and power on counting data.

M25P16-VMN6P: 16M bit ISP Serial Flash Rom, is used to save ISP data

MX25L3206EM2I-12G: 32M bit ISP Serial Flash Rom, is used to save ISP data

2.2 STDP8028

The STDP8028 is an innovative System-on-Chip (SoC) controller designed for multimedia monitors and emerging digital display applications. The STDP8028 chipset offers high integration for advanced applications of Picture-in-Picture (PIP) and Picture-by-Picture (PBP) with an integrated video decoder and audio decoder. The STDP8028 can power up to WUXGA displays with the proven Faroudja DCDi Cinema® branded technology.

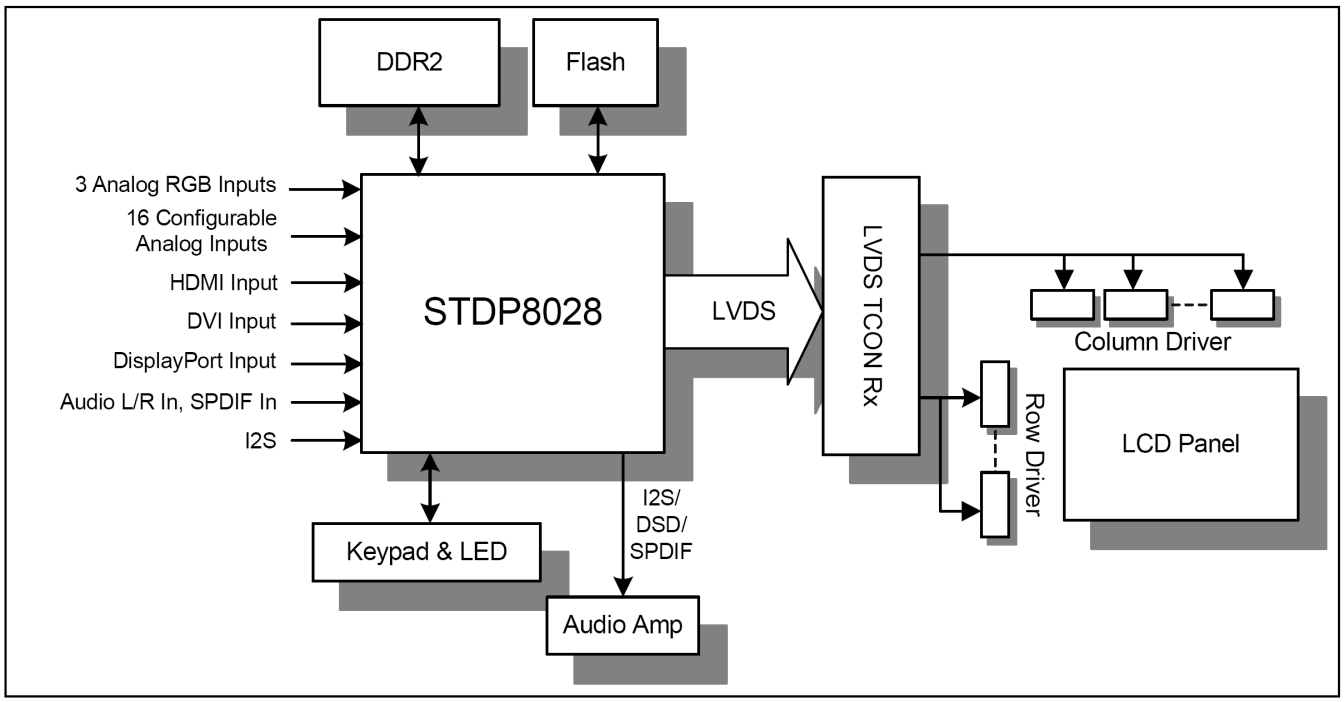
The STDP8028 comprises an integrated Analog Front End (AFE) that includes dual sets of high-speed triple 10-bit Analog-to-Digital Converters (ADCs) with front end switching for SD and HD inputs over CVBS, S-Video, and Component inputs. The flexible AFE ensures simple PCB design with direct connections to input video connectors. The device also supports Adaptive Contrast Control II (ACC II) and Active Color Management-3D (ACM-3D) leading to exceptional video quality. This exclusive level of video quality technology, only seen on Faroudja® Home Theater Systems in the past, is now available in a single chip solution.

The STDP8028 chipset offers the new Display Port (DP) interface for receiver applications. The integrated receiver supports an open industry “Display Port Standard” AV interface introduced by VESA. This new interface standard offers high bandwidth AV signal transmission over fewer lines for interconnects within multimedia monitor applications. The Display Port standard includes an optional HDCP content protection scheme for secured audio-visual data transmission between sources and sink devices. The device also includes an HDMI 1.3 receiver with support for HDCP for secured audio-visual data-transmission with HDMI transmitters.

The audio decoder interface for the STDP8028 offers support for both analog and digital audio input and output

interfaces. The multi-standard audio decoder is capable of decoding all Analog Mono/Stereo standards. It can also process base band Mono/Stereo inputs and can receive and process I2S or SPDIF input. The base band audio inputs are processed through a very powerful audio engine. Apart from the processed Stereo output, the separate subwoofer and headphone outputs enhance the true audio reproduction using the integrated 10-bit audio codec's. The digital audio outputs can be driven simultaneously over I2S channels, DSD, or SPDIF channels.
Its rich feature set, high level of integration, and sophisticated implemented technologies make the STDP8028 the ideal answer for a high-quality, cost-effective, integrated multimedia monitor solution.

STDP8028 SYSTEM DESIGN EXAMPLE



FEATURES

FLEXIBLE DIGITAL AND ANALOG CAPTURE

• 19 configurable analog inputs

• Integrated dual 10-bit triple ADCs with capture up to 205 MHz

• Input resolution support up to UXGA@75 Hz/WUXGA@60 Hz

• Composite-Sync and Sync-on-Green (SOG) support

• Instant Auto™ for automatic phase and clock adjustment

• 2 CVBS out support

• 4:4:4/4:2:2/CCIR656/601 30/24/16/8-bit digital input port

INTEGRATED HDMI 1.3 RECEIVER

• Integrated multi-mode HDMI 1.3

• Front-end multiplexer supports two physical input ports

• 1080p HDMI capture support

• HDCP 1.2a content protection with integrated key storage

• xvYCC support based on IEC61966-2-4 color standard

• Deep Color and Wide Gamut support: 12-bit HDMI input at YCC 4:4:4

INTEGRATED 3D VIDEO DECODER

• Single 3D Adaptive Comb Filter for Luma–Chroma separation

• Supports Composite, S-Video, and Component SD and HD video input signals

• Macrovision®b and VCR trick mode support

INTEGRATED DISPLAYPORT 1.1 RECEIVER

• Display Port interconnectivity provides very high bandwidth compared to conventional digital interfaces such as HDMI, DVI, and LVDS

• Low cost interface with fewer signal lines, inexpensive cables and connectors, and low EMI

• Display Port link comprising of 4 main lines and 1 auxiliary channel

• WUXGA capture support

INTEGRATED AUDIO PROCESSING

• 5 Stereo (L/R) analog inputs, 1 Mono (MIC) input

• Additional and separate audio inputs for HDMI, I2S, and SPDIF

• Outputs include 5 analog DACs, SPDIF, I2S, DSD, and 2 Line Outs (L/R)

• Worldwide multi-standards audio support

• Integrated I2S Audio Delay to exact audio and video synchronization

• Supports 5.1 analog/digital output stream (Left, Center, Right, LS, RS + LFE)

FAROUDJA REALCOLOR®

• Faroudja RealColor® provides true 10-bit color processing

• Active color management with overlapping regions allows for flexible Flesh-Tone Compensation, Blue Stretch, color regions detection, and other image enhancements

• Adaptive Contrast Control delivers smoother, more realistic gradients and ensures that full dynamic range is used in video content

• Patented Quick Match technology produces uniform color responses for different panels using flexible and programmable techniques

• Integrated noise filter to eliminate contrast noise

FAROUDJA DCDI CINEMA® FORMAT

CONVERSION

• Low Angle De-interlacing processing

• Per Pixel Motion Adaptive De-interlacing (MADi) up to 1080i format

• Format conversion up to 1080p resolutions

• Adaptive 3D/TNR Noise Reduction

PICTURE-IN-PICTURE (PIP)

• Programmable PIP channel horizontal and vertical filter coefficients

• Flexible PIP, PBP, and POP support capability (Video, Graphics)

• DCDi Edge® processing for second channel window

FAROUDJA® TRUELIFE™ VIDEO ENHANCER

• High performance programmable sharpening filters with Noise Coring

• Programmable Main channel horizontal and vertical filter coefficients

• Non-linear Chroma and Luma enhancement

DDR2 MEMORY CONTROLLER

• DDR2 memory I/F support

• Supports 16/32-bit memory I/F 1x16, 2x16, 1x32, 2x32

ON-CHIP MICROPROCESSOR AND OSD

CONTROLLER

• Integrated x186-based microprocessor with rich function library

• General Purpose Inputs/Outputs (GPIOs) available for managing system devices (keypad, backlight, NVRAM, etc.)

• 2-wire serial master bus interface for external device control

• Integrated I/R decoder and 4-channel low bandwidth ADC

• Advanced bit-mapped OSD controller

OUTPUT FORMATS

• Dual-channel/single-channel 18/24/30-bit LVDS transmitters for direct connection to LCD modules

• Single-channel 24/30-bit TTL output

• Adaptive Contrast Ratio (ACR) control for automatic, intelligent backlight adjustments

DIGITAL INPUT PORT CLOCKS

BALLNAME	I/O	BALL#	DESCRIPTION
DIN_0CLK	I/O	E10	Digital Input Port Clock 0. May also be configured as clock output for Media Card Port.
DIN_1CLK	I/O	D11	Digital Input Port Clock 1. May also be configured as GPIO_0.
DIN_VS	I/O	C11	Digital Input Port Vertical Sync. May also be configured as Vertical Sync output for Media Card Port. May also be configured as GPIO_1.
DIN_HS_CS	I/O	A11	Digital Input Port Horizontal / Composite Sync. May also be configured as Horizontal Sync output for Media Card Port. May also be configured as GPIO_2.
DIN_ODD	I/O	D10	Digital Input Port Odd. May also be configured as Odd output for Media Card Port. May also be configured as GPIO_3.
DIN_HREF_DE	I/O	B11	Digital Input Port Data Enable (active data marker). May also be configured as GPIO_4.
DIN_29	I/O	D15	Digital Input Port bit 29. May also be configured as GPIO_5. May also be configured as a second DIN_VS, DIN_HS_CS, DIN_HREF_DE or DIN_ODD.
DIN_28	I/O	C15	Digital Input Port bit 28. May also be configured as GPIO_6. May also be configured as a second DIN_VS, DIN_HS_CS, DIN_HREF_DE or DIN_ODD.
DIN_27	I/O	B15	Digital Input Port bit 27. May also be configured as GPIO_7. May also be configured as a second DIN_VS, DIN_HS_CS, DIN_HREF_DE or DIN_ODD.
DIN_26	I/O	A15	Digital Input Port bit 26. May also be configured as GPIO_8. May also be configured as a second DIN_VS, DIN_HS_CS, DIN_HREF_DE or DIN_ODD.
DIN_25	I/O	E14	Digital Input Port bit 25. May also be configured as GPIO_9. May also be configured as a second DIN_VS, DIN_HS_CS, DIN_HREF_DE or DIN_ODD.
DIN_24	I/O	D14	Digital Input Port bit 24. May also be configured as GPIO_10. May also be configured as a second DIN_VS, DIN_HS_CS, DIN_HREF_DE or DIN_ODD.
DIN_23	I/O	C14	Digital Input Port bit 23. May also be configured as GPIO_11. May also be configured as a second DIN_VS, DIN_HS_CS, DIN_HREF_DE or DIN_ODD.
DIN_22	I/O	B14	Digital Input Port bit 22. May also be configured as GPIO_12. May also be configured as a second DIN_VS, DIN_HS_CS, DIN_HREF_DE or DIN_ODD.

DIN_21	I/O	A14	Digital Input Port bit 21. May also be configured as GPIO_13. May also be configured as a second DIN_VS, DIN_HS_CS, DIN_HREF_DE or DIN_ODD.

BALLNAME	I/O	BALL#	DESCRIPTION
DIN_20	I/O	E13	Digital Input Port bit 20. May also be configured as GPIO_14. May also be configured as a second DIN_VS, DIN_HS_CS, DIN_HREF_DE or DIN_ODD.
DIN_19	I/O	D13	Digital Input Port bit 19. May also be configured as GPIO_15. May also be configured as a second DIN_VS, DIN_HS_CS, DIN_HREF_DE or DIN_ODD.
DIN_18	I/O	C13	Digital Input Port bit 18. May also be configured as GPIO_16. May also be configured as a second DIN_VS, DIN_HS_CS, DIN_HREF_DE or DIN_ODD.
DIN_17	I/O	B13	Digital Input Port bit 17. May also be configured as GPIO_17. May also be configured as a second DIN_VS, DIN_HS_CS, DIN_HREF_DE or DIN_ODD.
DIN_16	I/O	A13	Digital Input Port bit 16. May also be configured as GPIO_18. May also be configured as a second DIN_VS, DIN_HS_CS, DIN_HREF_DE or DIN_ODD.
DIN_15	I/O	E12	Digital Input Port bit 15. May also be configured as data bit 7 output Media Card Port. May also be configured as GPIO_19. May also be configured as a second DIN_VS, DIN_HS_CS, DIN_HREF_DE or DIN_ODD.
DIN_14	I/O	D12	Digital Input Port bit 14. May also be configured as data bit 6 output Media Card Port. May also be configured as GPIO_20. May also be configured as a second DIN_VS, DIN_HS_CS, DIN_HREF_DE or DIN_ODD.
DIN_13	I/O	C12	Digital Input Port bit 13. May also be configured as data bit 5 output Media Card Port. May also be configured as GPIO_21. May also be configured as a second DIN_VS, DIN_HS_CS, DIN_HREF_DE or DIN_ODD.
DIN_12	I/O	B12	Digital Input Port bit 12. May also be configured as data bit 4 output Media Card Port. May also be configured as GPIO_22. May also be configured as a second DIN_VS, DIN_HS_CS, DIN_HREF_DE or DIN_ODD.
DIN_11	I/O	A12	Digital Input Port bit 11. May also be configured as data bit 3 output Media Card Port. May also be configured as GPIO_23. May also be configured as a second DIN_VS, DIN_HS_CS, DIN_HREF_DE or DIN_ODD.
DIN_10	I/O	E11	Digital Input Port bit 10. May also be configured as data bit 2 output Media Card Port. May also be configured as GPIO_24. May also be configured as a second DIN_VS, DIN_HS_CS, DIN_HREF_DE or DIN_ODD.
DIN_9	I/O	C10	Digital Input Port bit 9. May also be configured as data bit 1 output Media Card Port. May also be configured as GPIO_25. May also be configured as a second DIN_VS, DIN_HS_CS, DIN_HREF_DE or DIN_ODD.

DIN_8	I/O	B10	Digital Input Port bit 8. May also be configured as data bit 0 output Media Card Port. May also be configured as GPIO_26. May also be configured as a second DIN_VS, DIN_HS_CS, DIN_HREF_DE or DIN_ODD.

BALLNAME	I/O	BALL#	DESCRIPTION
DIN_7	I/O	A10	Digital Input Port bit 7. May also be configured as GPIO_27. May also be configured as a second DIN_VS, DIN_HS_CS, DIN_HREF_DE or DIN_ODD.
DIN_6	I/O	D9	Digital Input Port bit 6. May also be configured as GPIO_28. May also be configured as a second DIN_VS, DIN_HS_CS, DIN_HREF_DE or DIN_ODD.
DIN_5	I/O	C9	Digital Input Port bit 5. May also be configured as GPIO_29. May also be configured as a second DIN_VS, DIN_HS_CS, DIN_HREF_DE or DIN_ODD.
DIN_4	I/O	B9	Digital Input Port bit 4. May also be configured as GPIO_30. May also be configured as a second DIN_VS, DIN_HS_CS, DIN_HREF_DE or DIN_ODD.
DIN_3	I/O	A9	Digital Input Port bit 3. May also be configured as GPIO_31. May also be configured as a second DIN_VS, DIN_HS_CS, DIN_HREF_DE or DIN_ODD.
DIN_2	I/O	E8	Digital Input Port bit 2. May also be configured as GPIO_32. May also be configured as a second DIN_VS, DIN_HS_CS, DIN_HREF_DE or DIN_ODD.
DIN_1	I/O	D8	Digital Input Port bit 1. May also be configured as GPIO_33. May also be configured as a second DIN_VS, DIN_HS_CS, DIN_HREF_DE or DIN_ODD.
DIN_0	I/O	C8	Digital Input Port bit 0. May also be configured as GPIO_34. May also be configured as a second DIN_VS, DIN_HS_CS, DIN_HREF_DE or DIN_ODD.

HDMI INPUT PORT

BALLNAME	I/O	BALL#	DESCRIPTION
HDMI_REXT	P	D6	External Termination Resistor: A 1% 249 ohm resistor must be con-nected from this pin to HDMI_VDD_33.
HDMI_ARXCP	I	B8	HDMI A channel clock input pair.
HDMI_ARXCN	I	A8	HDMI A channel clock input pair.
HDMI_ARX0P	I	B7	HDMI A channel input pair 0.
HDMI_ARX0N	I	A7	HDMI A channel input pair 0.
HDMI_ARX1P	I	B6	HDMI A channel input pair 1.
HDMI_ARX1N	I	A6	HDMI A channel input pair 1.

HDMI_ARX2P	I	B5	HDMI A channel input pair 2.
HDMI_ARX2N	I	A5	HDMI A channel input pair 2.
HDMI_BRXCP	I	B4	HDMI B channel clock input pair.
HDMI_BRXCN	I	A4	HDMI B channel clock input pair.
HDMI_BRX0P	I	B3	HDMI B channel input pair 0.
HDMI_BRX0N	I	A3	HDMI B channel input pair 0.
HDMI_BRX1P	I	B2	HDMI B channel input pair 1.
HDMI_BRX1N	I	A2	HDMI B channel input pair 1.
HDMI_BRX2P	I	B1	HDMI B channel input pair 2.
HDMI_BRX2N	I	A1	HDMI B channel input pair 2.
HDMI_SDA	I/O	E6	Normally configured as data for two wire HDCP authentication link. Can be configured as data for two-wire Serial DDC2bi Slave. May be configured as GPIO_75.
HDMI_SCL	I/O	E7	Normally configured as clock for two wire HDCP authentication link. Can be configured as clock for two-wire Serial DDC2bi Slave. May be configured as GPIO_76.
HDMI_12VDD	P	E5	Analog VDD (1.2V) for HDMI receiver.
HDMI_VDD33 P C2	C4	C2,C4, C6,D7	Analog VDD (3.3V) for HDMI receiver.
HDMI_VSS	G	C1,C3, D4,C5, D5,C7	Ground for HDMI receiver.

ANALOG FRONT END

BALLNAME	I/O	BALL#	DESCRIPTION
SIF1	I	D2	Sound Intermediate Frequency Input 1 (positive).
SIF2	I	D1	Sound Intermediate Frequency Input 2 (positive).
SIF_RTN	I	E3	Return for SIF inputs (negative).
SV4P	I	G4	Positive analog input or sync input for channel 4.
A4P	I	E1	Positive analog input ‘A’ for channel 4.
B4P	I	F3	Positive analog input ‘B’ for channel 4.
C4P	I	G5	Positive analog input ‘C’ for channel 4.
SV3P	I	G2	Positive analog input or sync input for channel 3.
A3P	I	H4	Positive analog input ‘A’ for channel 3.
B3P	I	F1	Positive analog input ‘B’ for channel 3.
C3P	I	G3	Positive analog input ‘C’ for channel 3.
SV2P	I	J2	Positive analog input or sync input for channel 2.
A2P	I	H2	Positive analog input ‘A’ for channel 2.
B2P	I	J3	Positive analog input ‘B’ for channel 2.
C2P	I	H1	Positive analog input ‘C’ for channel 2.

SV1P	I	K2	Positive analog input or sync input for channel 1.
A1P	I	L5	Positive analog input ‘A’ for channel 1.
B1P	I	K3	Positive analog input ‘B’ for channel 1.
C1P	I	J1	Positive analog input ‘C’ for channel 1.
AN1	I	J4	Negative analog input “A” number 1.
AN2	I	G1	Negative analog input “A” number 2.
BN1	I	K4	Negative analog input “B” number 1.
BN2	I	F2	Negative analog input “B” number 2.
CN1	I	K1	Negative analog input “C” number 1.
CN2	I	E2	Negative analog input “C” number 2.
SN	I	H3	Negative analog input for sync mux
VOUT_1	O	M4	Analog VOUT_1.
VOUT_2	O	D3	Analog VOUT_2.
AHSP	I	M2	Positive analog input ‘A’ for high speed graphics input.
AHSN	I	M1	Negative analog input ‘A’ for high speed graphics input.
BHSP	I	L2	Positive analog input ‘B’ for high speed graphics input.
BHSN	I	L1	Negative analog input ‘B’ for high speed graphics input.
CHSP	I	L4	Positive analog input ‘C’ for high speed graphics input.
CHSN	I	L3	Negative analog input ‘C’ for high speed graphics input.
AHS	I	N1	Analog Front End Hsync or Csync Input.
AVS	I	N2	Analog Front End Vsync Input.
VGA_SDA	I/O	N4	Can be configured as data for two-wire Serial In-Circuit JTAG debug-ger. May be configured as data for two-wire Serial DDC2bi Slave. May be configured as GPIO_73.
VGA_SCL	I/O	N3	Can be configured as clock for two-wire Serial In-Circuit JTAG debug-ger. May be configured as clock for two-wire Serial DDC2bi Slave. May be configured as GPIO_74.
ADC_VDD33	P	F5, H5, M5	Analog VDD (3.3) for Analog Front End.
ADC_12VDD	P	J5	Digital VDD (1.2) for Analog Front End.
ADC_GNDA	G	E4, F4, M3	Analog Ground for Analog Front End.
ADC_DGND	G	K5	Digital Ground For Analog Front End.

ANALOG AUDIO CODEC

BALLNAME	I/O	BALL#	DESCRIPTION
AUD_VREFP	P	P1	Audio Reference input P – connect to Analog VDD (3.3V) and 10µF and 100nF capacitors – other side to ground.
AUD_VREFM	P	P2	Audio Reference input M – connect to 10µF and 100nF capacitors – other side to ground.
AUD_VREFN	P	P3	Audio Reference input N – connect to ground.
AUD_MONO_IN	I	P4	Line level audio monotone input.
AUD_L1_IN	I	R2	Line level audio channel 1 left input.
AUD_R1_IN	I	R1	Line level audio channel 1 right input.
AUD_L2_IN	I	R4	Line level audio channel 2 left input.
AUD_R2_IN	I	R3	Line level audio channel 2 right input.
AUD_L3_IN	I	T2	Line level audio channel 3 left input.
AUD_R3_IN	I	T1	Line level audio channel 3 right input.
AUD_L4_IN	I	T4	Line level audio channel 4 left input.
AUD_R4_IN	I	T3	Line level audio channel 4 right input.
AUD_L5_IN	I	U2	Line level audio channel 5 left input.
AUD_R5_IN	I	U1	Line level audio channel 5 right input.
AUD_L1_OUT	O	W1	Line level audio channel 1 left output.
AUD_R1_OUT	O	V2	Line level audio channel 1 right output.
AUD_L2_OUT	O	W2	Line level audio channel 2 left output.
AUD_R2_OUT	O	V3	Line level audio channel 2 right output.
AUD_OUT_LS_L	O	U4	Main speaker channel 1 left output. Driven by audio DAC.
AUD_OUT_LS_R	O	V1	Main speaker channel 1 right output. Driven by audio DAC.
AUD_SUB_OUT	O	U3	Subwoofer output. Driven by audio DAC.
AUD_HP_L_OUT	O	W4	Headphone left output. Driven by audio DAC.
AUD_HP_R_OUT	O	V4	Headphone right output. Driven by audio DAC.
AUD_VDD33	P	U5, W5	Analog VDD (3.3) for Audio CODEC ADC and DAC.
AUD_HPVDD33	P	W3	Analog VDD (3.3) for Audio CODEC HP DAC.
AUD_12VDD	P	V5	Digital VDD (1.2) for Audio CODEC.
AUD_HPGND	G	Y2	Ground for Audio CODEC HP DAC.
AUD_GND	G	P5, R5, T5	Ground for Audio CODEC.

LOW POWER MONITOR

BALLNAME	I/O	BALL#	DESCRIPTION
CEC_LPM	I/O	Y1	CEC interface. May be configured as LPM_GPIO_4.
IR_LPM	I	AA2	Infrared input.
UDO_LPM	I.O	AB1	LPM UART data out. Power on default (LPM domain) is HIZ. May be configured as LPM_GPIO_1.
UDI_LPM	I/O	AC1	LPM UART data out. Power on default (LPM domain) is HIZ. May be configured as LPM_GPIO_2.
GPIO_0_LPM	I/O	AA3	May be configured as LPM_GPIO0. Power on default (LPM domain) is HIZ.
GPIO_3_LPM	I/O	AA1	May be configured as LPM_GPIO3. Power on default (LPM domain) is HIZ.
IO_VDD33_LPM	P	Y3	LPM I/O VDD (3.3). Use same regulator to power RPLL_3.3 and MPLL_3.3
CVDD12_LPM	G	Y4	LPM core logic VDD (1.2V). Use same regulator to power RPLL_3.3 and MPLL_1.2.

INTERNAL CLOCK GENERATION

BALLNAME	I/O	BALL#	DESCRIPTION
XTAL	O	AC4	Output to external crystal. Connect crystal between TCLK pin and XTAL pin.
TCLK	I	AC5	Reference clock for external crystal connection (19.6609 MHz).
OBUF_C	O	AA4	Analog Test Pin. Leave floating.
RPLL_3.3	P	AB5	Analog VDD (3.3) for RPLL.
MPLL_3.3	P	AB3	Analog VDD (3.3) for MPLL.
RPLL_1.2	P	AC3	Digital VDD (1.2) for RPLL.
MPLL_1.2	P	AA5	Digital VDD (1.2) for MPLL.
RPLL_GND	G	AB4	Ground for RCLK PLL.
MPLL_GND	G	Y5	Ground for MCLK PLL.

LOW BANDWIDTH ADC

BALLNAME	I/O	BALL#	DESCRIPTION
LBADC_IN1	I	W6	Analog input channel 1 for low bandwidth ADC.
LBADC_IN2	I	AA6	Analog input channel 2 for low bandwidth ADC.
LBADC_IN3	I	AB6	Analog input channel 3 for low bandwidth ADC.
LBADC_IN4	I	AC6	Analog input channel 4 for low bandwidth ADC.
LBADC_VDD33	P	Y6	Analog VDD (3.3) for low bandwidth ADC.
LBADC_GND	G	W7	Ground for Low bandwidth ADC.

OCM PERIPHERALS

BALLNAME	I/O	BALL#	DESCRIPTION
SPI_CSn	O	Y10	SPI chip select logic low. Connect to SPI Flash Memory.
SPI_DI	I/O	AA10	SPI data in from SPI Flash Memory. Also used to specify system configuration at Power-on-reset – See Bootstrap Table.
SPI_DO	I/O	AB10	SPI data out to SPI Flash Memory. Also used to specify system configuration at Power-on-reset – See Bootstrap Table.
SPI_CLK	I/O	W11	SPI clock to SPI Flash Memory. Also used to specify system configuration at Power-on-reset – See Bootstrap Table.
OCM_INT0	I/O	Y7	Edge sensitive IRQ source for internal OCM – external IRQ0. May also be configured as GPIO_85.
PWM0	I/O	AC11	Pulse Width Modulator 0 output. May also be configured as GPIO_81.
PWM1	I/O	AB11	Pulse Width Modulator 1 output. May also be configured as GPIO_82.
PWM2/OCM_INT1	I/O	E16	Pulse Width Modulator 2 output. May also be configured as IRQ source for internal OCM – external IRQ1. May also be configured as GPIO_83.
PWM3/OCM_TIMER	I/O	D16	Pulse Width Modulator 3 output. May also be configured as timer enable/pulse counter input. May also be configured as GPIO_84.
OCM_UDI0	I/O	E17	UART 0 data input. May also be configured as alternate location of serial master/slave data. May also be configured as GPIO_78.
OCM_UDO0	I/O	D17	UART 0 data output. May also be configured as alternate location of serial master/slave clock. May also be configured as GPIO_77.

BALLNAME	I/O	BALL#	DESCRIPTION
OCM_UDI1	I/O	A17	UART 1 data input. May also be configured as GPIO_80.
OCM_UDO1	I/O	A16	UART 1 data output. May also be configured as GPIO_79.
MSTR0_SDA	I/O	B16	Serial Master 0 data. May also be configured as GPIO_69.
MSTR0_SCL	I/O	C16	Serial Master 0 clock. May also be configured as GPIO_70.
MSTR1_SDA	I/O	Y11	Serial Master 1 data. May also be configured as alternate I2S Data Input. May also be configured as GPIO_71.
MSTR1_SCL	I/O	AA11	Serial Master 1 clock. May also be configured as alternate I2S Clock Input. May also be configured as GPIO_72.
GPIO_95/ DPRX_HP_OUT	I/O	E18	GPIO_95. May also be configured as DisplayPort receiver Hot Plug Detect output. May also be configured to output RED bit 0 for 30-bit TTL display mode.

GPIO_94	I/O	D18	GPIO_94. May also be configured to output PIP STG Hsync. May also be configured to mark FIELD polarity from TTL output port. May also be configured to output RED bit 1 for 30-bit TTL display mode. May also be configured as 5-wire JTAG Boundary Scan – BS_TRSTn.
GPIO_93	I/O	B17	GPIO_93. May also be configured to output PIP STG clock. May also be configured to output GREEN bit 0 for 30-bit TTL display mode. May also be configured as 5-wire JTAG Boundary Scan - BS_TCK.
GPIO_92	I/O	C17	GPIO_92. May also be configured to output PIP STG Vsync. May also be configured to output GREEN bit 1 for 30-bit TTL display mode. May also be configured as 5-wire JTAG Boundary Scan - BS_TDI.
GPIO_91	I/O	AC10	GPIO_91. May also be configured to mark OSD pixels from TTL output port. May also be configured to output BLUE bit 0 for 30-bit TTL display mode. May also be configured as 5-wire JTAG Boundary Scan - BS_TMS.
GPIO_90	I/O	W9	GPIO_90. May also be configured as DSD Audio Data Output 7. May also be configured to mark FIELD polarity from TTL output port. May also be configured to output BLUE bit 1 for 30-bit TTL display mode. May also be configured as 5-wire JTAG Boundary Scan - BS_TDO.

I2S INPUT AND OUTPUT

BALLNAME	I/O	BALL#	DESCRIPTION
I2S_DIN	I/O	AA8	I2S Data Input. May also be configured as GPIO 59.
I2S_WS_IN	I/O	AB8	I2S Word Strobe Input. May also be configured as GPIO 60.
I2S_CLK_IN	I/O	Y8	I2S Bit Clock Input. May also be configured as GPIO 61.
I2SB_DOUT2	I/O	AA9	B Channel I2S Data 2 Output. May also be configured as DSD Audio Data Output 2. May also be configured as GPIO 62. Also used to specify system configuration at Power-on-reset – See Bootstrap Table.
I2SB_DOUT1	I/O	Y9	B Channel I2S Data 1 Output. May also be configured as DSD Audio Data Output 1. May also be configured as GPIO 63. Also used to specify system configuration at Power-on-reset – See Bootstrap Table.

I2SB_WS_OUT	I/O	AC9	B Channel I2S Word Strobe Output. May also be configured as DSD Audio Data Output 0. May also be configured as GPIO 64. Also used to specify system configuration at Power-on-reset – See Bootstrap Table.
I2SB_CLK_OUT	I/O	AB9	B Channel I2S Bit Clock Output. May also be configured as DSD Audio Clock Output. May also be configured as GPIO 65. Also used to specify system configuration at Power-on-reset – See Bootstrap Table.
I2SB_MCLK_OUT/IN	I/O	AC8	A Channel I2S MCLK Input or Output. May also be configured as DSD MCLK Output. May also be configured as GPIO 66.
SPDIF_OUT	I/O	AB7	SPDIF data output. May also be configured as GPIO 67. Also used to specify system configuration at Power-on-reset – See Bootstrap Table.
SPDIF_IN	I/O	AA7	SPDIF data input. May also be configured as GPIO 68.

LVDS/TTL OUTPUT

BALLNAME	I/O	BALL#	DESCRIPTION
LVDS_E_CH4P	I/O	AC13	When display interface is LVDS, this is EVEN Channel 4 Positive by default. When display interface is TTL, this is PD0. May also be configured as GPIO 58. The direction of this GPIO – input/output must be the same as GPIO 57.
LVDS_E_CH4N	I/O	AB13	When display interface is LVDS, this is EVEN Channel 4 Negative by default. When display interface is TTL, this is PD1. May also be configured as GPIO 57.
LVDS_E_CH3P	I/O	AB14	When display interface is LVDS, this is EVEN Channel 3 Positive by default. When display interface is TTL, this is PD2. May also be configured as GPIO 56. The direction of this GPIO – input/output must be the same as GPIO 55.
LVDS_E_CH3N	I/O	AA14	When display interface is LVDS, this is EVEN Channel 3 Negative by default. When display interface is TTL, this is PD3. May also be configured as GPIO 55.
LVDS_E_CLKP	I/O	Y14	When display interface is LVDS, this is EVEN Channel Clock Positive by default. When display interface is TTL, this is PD4. May also be configured as GPIO 54. The direction of this GPIO – input/output must be the same as GPIO 53.

LVDS_E_CLKN	I/O	W14	When display interface is LVDS, this is EVEN Channel Clock Negative by default. When display interface is TTL, this is PD5. May also be configured as GPIO 53.

BALLNAME	I/O	BALL#	DESCRIPTION
LVDS_E_CH2P	I/O	AC14	When display interface is LVDS, this is EVEN Channel 2 Positive by default. When display interface is TTL, this is PD6. May also be configured as GPIO 52. The direction of this GPIO – input/output must be the same as GPIO 51
LVDS_E_CH2N	I/O	AC15	When display interface is LVDS, this is EVEN Channel 2 Negative by default. When display interface is TTL, this is PD7. May also be configured as GPIO 51.
LVDS_E_CH1P	I/O	AB15	When display interface is LVDS, this is EVEN Channel 1 Positive by default. When display interface is TTL, this is PD8. May also be configured as GPIO 50. The direction of this GPIO – input/output must be the same as GPIO 49.
LVDS_E_CH1N	I/O	AA15	When display interface is LVDS, this is EVEN Channel 1 Negative by default. When display interface is TTL, this is PD9. May also be configured as GPIO 49.
LVDS_E_CH0P	I/O	Y15	When display interface is LVDS, this is EVEN Channel 0 Positive by default. When display interface is TTL, this is PD10. May also be configured as GPIO 48. The direction of this GPIO – input/output must be the same as GPIO 47.
LVDS_E_CH0N	I/O	W15	When display interface is LVDS, this is EVEN Channel 0 Negative by default. When display interface is TTL, this is PD11. May also be configured as GPIO 47.
LVDS_O_CH4P	I/O	AC16	When display interface is LVDS, this is ODD Channel 4 Positive by default. When display interface is TTL, this is PD12. May also be configured as GPIO 46. The direction of this GPIO – input/output must be the same as GPIO 45.
LVDS_O_CH4N	I/O	AB16	When display interface is LVDS, this is ODD Channel 4 Negative by default. When display interface is TTL, this is PD13. May also be configured as GPIO 45.
LVDS_O_CH3P	I/O	AC17	When display interface is LVDS, this is ODD Channel 3 Positive by default. When display interface is TTL, this is PD14. May also be configured as GPIO 44. The direction of this GPIO – input/output must be the same as GPIO 43.

LVDS_O_CH3N	I/O	AB17	When display interface is LVDS, this is ODD Channel 3 Negative by default. When display interface is TTL, this is PD15. May also be configured as GPIO 43.
LVDS_O_CLKP	I/O	AA16	When display interface is LVDS, this is ODD Channel Clock Positive by default. When display interface is TTL, this is PD16. May also be configured as GPIO 42. The direction of this GPIO – input/output must be the same as GPIO 41.
LVDS_O_CLKN	I/O	Y16	When display interface is LVDS, this is ODD Channel Clock Negative by default. When display interface is TTL, this is PD17. May also be configured as GPIO 41.
LVDS_O_CH2P	I/O	AA17	When display interface is LVDS, this is ODD Channel 2 Positive by default. When display interface is TTL, this is PD18. May also be configured as GPIO 40. The direction of this GPIO – input/output must be the same as GPIO 39.

BALLNAME	I/O	BALL#	DESCRIPTION
LVDS_O_CH2N	I/O	Y17	When display interface is LVDS, this is ODD Channel 2 Negative by default. When display interface is TTL, this is PD19. May also be configured as GPIO 39.
LVDS_O_CH1P	I/O	AC18	When display interface is LVDS, this is ODD Channel 1 Positive by default. When display interface is TTL, this is PD20. May also be configured as GPIO 38. The direction of this GPIO – input/output must be the same as GPIO 37.
LVDS_O_CH1N	I/O	AB18	When display interface is LVDS, this is ODD Channel 1 Negative by default. When display interface is TTL, this is PD21. May also be configured as GPIO 37.
LVDS_O_CH0P	I/O	AA18	When display interface is LVDS, this is ODD Channel 0 Positive by default. When display interface is TTL, this is PD22. May also be configured as GPIO 36. The direction of this GPIO – input/output must be the same as GPIO 35.
LVDS_O_CH0N	I/O	Y18	When display interface is LVDS, this is ODD Channel 0 Negative by default. When display interface is TTL, this is PD23. May also be configured as GPIO 35.
LVDS_VDD33	P	AA13, W17	Analog VDD (3.3) for LVDS.
LVDS_GND	P	W16, W18	Ground for LVDS.

TTL/'A' CHANNEL I2S OUTPUT

BALLNAME	I/O	BALL#	DESCRIPTION
DCLK/ I2SA_CLK_OUT/ OCM_INT2	I/O	AB12	When display interface is TTL, this is display clock. May also be configured as A Channel I2S Bit Clock Output. May also be configured as DSD Audio Data Output 3. May also be configured as alternate I2S Word Strobe Input. May also be configured as IRQ source for internal OCM – external IRQ2. May also be configured as GPIO 86.
DVS/I2SA_DOUT0	I/O	AA12	When display interface is TTL, this is display Vsync. May also be configured as TTL display composite sync output. May also be configured as A/B Channel I2S Data 0 Output. May also be configured as DSD Audio Data Output 4. May also be configured as A Channel I2S Word Strobe Output. May also be configured as GPIO 87.
DHS/I2SA_WS_OUT	I/O	AC12	When display interface is TTL, this is display Hsync. May also be configured as A Channel I2S Word Strobe Output. May also be configured as DSD Audio Data Output 5. May also be configured as A/B Channel I2S Data 0 Output. May also be configured as GPIO 88.
DEN/ I2S_A_MCLK_OUT/ IN/I2SB_DOUT3	I/O	Y13	When display interface is TTL, this is display data enable. May also be configured as A Channel I2S MCLK Input or Output. May also be configured as B Channel I2S Data 3 Output. May also be configured as DSD Audio Data Output 6. May also be configured as GPIO 89.

LCD POWER AND BACKLIGHT CONTROL

BALLNAME	I/O	BALL#	DESCRIPTION
PPWR	O	Y12	Control for enabling power to panel.
PBIAS	O	W12	Control for enabling panel backlight.

SYSTEM CONTROL

BALLNAME	I/O	BALL#	DESCRIPTION
TEST_EN0	I	AB2	Test control input 0. Ground for normal operation.
TEST_EN1	I	AC2	Test control input 1. Ground for normal operation.
RESETn	I/O	AC7	Hard Reset-active low input. This reset does not affect the low power monitor logic. Once reset is released, this ball will stay low for ~150ms and may be used to drive other IC's active low reset input. RESETn will also be pulled low if the 3.3V power supply drops below ~2.7V. Requires an external xK external pull-up resis-tor to 3.3V.

FRAME STORE DDR INTERFACE

BALLNAME	I/O	BALL#	DESCRIPTION
DDR_D0	I/O	D20	Data input/output. Synchronized with DDR_DQS0.
DDR_D1	I/O	K20	Data input/output. Synchronized with DDR_DQS0.
DDR_D2	I/O	G22	Data input/output. Synchronized with DDR_DQS0.
DDR_D3	I/O	H23	Data input/output. Synchronized with DDR_DQS0.
DDR_D4	I/O	L19	Data input/output. Synchronized with DDR_DQS0.
DDR_D5	I/O	E19	Data input/output. Synchronized with DDR_DQS0.
DDR_D6	I/O	J20	Data input/output. Synchronized with DDR_DQS0.
DDR_D7	I/O	D21	Data input/output. Synchronized with DDR_DQS0.
DDR_DM0	O	H20	Data write mask. Used during write cycles to DRAM. A logic ‘1’ indicates that DDR_D [7:0] is not to be overwritten. Synchronized with FSDQS0
DDR_DQS0	I/O	G19	Data strobe. Data I/O DDR_D[7:0] and DDR_DM0 are synchro-nized with both edges of DDR_DQS0. For DDR2, DDR_DQS0 is generated differentially using DDR_DQS0_N along with DDR_DQS0.
DDR_DQS0_N	I/O	G20	Negative DDR_DQS0 – only used for DDR2.
DDR_D8	I/O	E22	Data input/output. Synchronized with DDR_DQS1.
DDR_D9	I/O	K23	Data input/output. Synchronized with DDR_DQS1.
DDR_D10	I/O	H21	Data input/output. Synchronized with DDR_DQS1.
DDR_D11	I/O	J21	Data input/output. Synchronized with DDR_DQS1.
DDR_D12	I/O	K22	Data input/output. Synchronized with DDR_DQS1.
DDR_D13	I/O	E21	Data input/output. Synchronized with DDR_DQS1.
DDR_D14	I/O	K21	Data input/output. Synchronized with DDR_DQS1.
DDR_D15	I/O	D23	Data input/output. Synchronized with DDR_DQS1.
DDR_DM1	O	J22	Data write mask. Used during write cycles to DRAM. A logic ‘1’ indicates that DDR_D [15:8] is not to be overwritten. Synchronized with FSDQS1.
DDR_DQS1	I/O	F22	Data strobe. Data I/O DDR_D[15:8] and DDR_DM1 are synchro-nized with both edges of DDR_DQS1. For DDR2, DDR_DQS1 is generated differentially using DDR_DQS1_N along with DDR_DQS1.
DDR_DQS1_N	I/O	F23	Negative DDR_DQS1 – only used for DDR2.
DDR_D16	I/O	V19	Data input/output. Synchronized with DDR_DQS2.
DDR_D17	I/O	AC21	Data input/output. Synchronized with DDR_DQS2.
DDR_D18	I/O	Y20	Data input/output. Synchronized with DDR_DQS2.
DDR_D19	I/O	AB21	Data input/output. Synchronized with DDR_DQS2.
DDR_D20	I/O	AC19	Data input/output. Synchronized with DDR_DQS2.
DDR_D21	I/O	U20	Data input/output. Synchronized with DDR_DQS2.
DDR_D22	I/O	AB20	Data input/output. Synchronized with DDR_DQS2.
DDR_D23	I/O	U19	Data input/output. Synchronized with DDR_DQS2.

BALLNAME	I/O	BALL#	DESCRIPTION
DDR_DM2	O	AA20	Data write mask. Used during write cycles to DRAM. A logic ‘1’ indicates that DDR_D [23:16] is not to be overwritten. Synchro-nized with FSDQS2.
DDR_DQS2	I/O	W19	Data strobe. Data I/O DDR_D[23:16] and DDR_DM2 are synchro-nized with both edges of DDR_DQS2. For DDR2, DDR_DQS2 is generated differentially using DDR_DQS2_N along with DDR_DQS2.
DDR_DQS2_N	I/O	W20	Negative DDR_DQS2 – only used for DDR2.
DDR_D24	I/O	T23	Data input/output. Synchronized with DDR_DQS3.
DDR_D25	I/O	AA22	Data input/output. Synchronized with DDR_DQS3.
DDR_D26	I/O	Y23	Data input/output. Synchronized with DDR_DQS3.
DDR_D27	I/O	W22	Data input/output. Synchronized with DDR_DQS3.
DDR_D28	I/O	AA21	Data input/output. Synchronized with DDR_DQS3.
DDR_D29	I/O	U22	Data input/output. Synchronized with DDR_DQS3.
DDR_D30	I/O	AB23	Data input/output. Synchronized with DDR_DQS3.
DDR_D31	I/O	U21	Data input/output. Synchronized with DDR_DQS3.
DDR_DM3	O	Y21	Data write mask. Used during write cycles to DRAM. A logic ‘1’ indicates that DDR_D [31:24] is not to be overwritten. Synchro-nized with FSDQS3.
DDR_DQS3	I/O	V22	Data strobe. Data I/O DDR_D[31:24] and DDR_DM3 are synchro-nized with both edges of DDR_DQS3. For DDR2, DDR_DQS3 is generated differentially using DDR_DQS3_N along with DDR_DQS3.
DDR_DQS3_N	I/O	V23	Negative DDR_DQS3 – only used for DDR2.
DDR_A0	O	M21	Row and column address for DDR access.
DDR_A1	O	R23	Row and column address for DDR access.
DDR_A2	O	N20	Row and column address for DDR access.
DDR_A3	O	P19	Row and column address for DDR access.
DDR_A4	O	M20	Row and column address for DDR access.
DDR_A5	O	P22	Row and column address for DDR access.
DDR_A6	O	N21	Row and column address for DDR access.
DDR_A7	O	T22	Row and column address for DDR access.
DDR_A8	O	N23	Row and column address for DDR access.
DDR_A9	O	P23	Row and column address for DDR access.
DDR_A10	O	T20	Row and column address for DDR access.
DDR_A11	O	N22	Row and column address for DDR access.
DDR_A12	O	T21	Row and column address for DDR access.
DDR_BA0	O	R21	Bank select address. Together with DDR_BA1 selects one of the 4 banks is active.
DDR_BA1	O	P21	Bank select address. Together with DDR_BA0 selects one of the 4 banks is active.
DDR_WE_N	O	P20	Write enable active low.
DDR_CS_N	O	L20	Chip select active low.

DDR_CKE	O	R20	Clock enable.
DDR_RAS_N	O	L21	DDR row address strobe active low.
DDR_CAS_N	O	M19	DDR column address strobe active low.
DDR_CK	O	L23	Master DDR differential clock positive.
DDR_CK_N	O	M23	Master DDR differential clock negative.
DDR_ODT		J19	For DDR2, connect to ODT pin on DRAM.
DDR_CAL		R19	For DDR2, connect to ground through 294ohm, 1% resistor.
DDR_VRF_0	P	F21	DDR reference voltage for establishing input logic level threshold. VREF is generated by a voltage divider: DDR_VDDQ/2. For DDR2, VREF is 0.9V.
DDR_VRF_1	P	N19	DDR reference voltage for establishing input logic level threshold. VREF is generated by a voltage divider: DDR_VDDQ/2. For DDR2, VREF is 0.9V.
DDR_VRF_2	P	V20	DDR reference voltage for establishing input logic level threshold. VREF is generated by a voltage divider: DDR_VDDQ/2. For DDR2, VREF is 0.9V.

BALLNAME	**I/O**	**BALL#**	**DESCRIPTION**
DLL_Vaa1	P	K19	Supply voltage for DLL (3.3V).
DLL_Vaa2	P	T19	Supply voltage for DLL (3.3V).
DDR_iVDD1	P	F19	Supply voltage for input buffers. For DDR2, this voltage is 3.3V.
DDR_iVDD2	P	AA19	Supply voltage for input buffers. For DDR2, this voltage is 3.3V.
DDR_VDDQ	P	E20, E23, G21, G23, J23, L22, R22, U23, W21, W23, AA23, AC20, AC22, AC23	Supply voltage for output buffers. For DDR2 this voltage is 1.8V.
DDR_VSSO	G	D19, D22, F20, H19, H22,	Ground for DDR interface. Note that DDR_VSS0 is common with DGND on the package substrate.

		M22, V21, Y19, Y22, AB19, AB22	

DISPLAYPORT INPUT

BALLNAME	I/O	BALL#	DESCRIPTION
DPRX_REXT	P	A22	External Termination Resistor: A 1% 285 ohm resistor should be connected from this pin to the 1.2V analog power supply.
DPRX_3P	I	A18	Display Port receiver channel input pair 3.
DPRX_3N	I	B18	Display Port receiver channel input pair 3.
DPRX_2P	I	A19	Display Port receiver channel input pair 2.
DPRX_2N	I	B19	Display Port receiver channel input pair 2.
DPRX_1P	I	A20	Display Port receiver channel input pair 1.
DPRX_1N	I	B20	Display Port receiver channel input pair 1.
DPRX_0P	I	A21	Display Port receiver channel input pair 0.
DPRX_0N	I	B21	Display Port receiver channel input pair 0.
DPRX_AUXP	I	A23	Display Port receiver auxiliary channel input pair.
DPRX_AUXN	I	B23	Display Port receiver auxiliary channel input pair.
DPRX_VDD12	P	C18, C20, C22	Analog VDD (1.2V) for Display Port receiver.
DPRX_VSS	G	B22, C19, C21, C23	Ground for Display Port receiver.

SYSTEM POWER AND GROUNDS

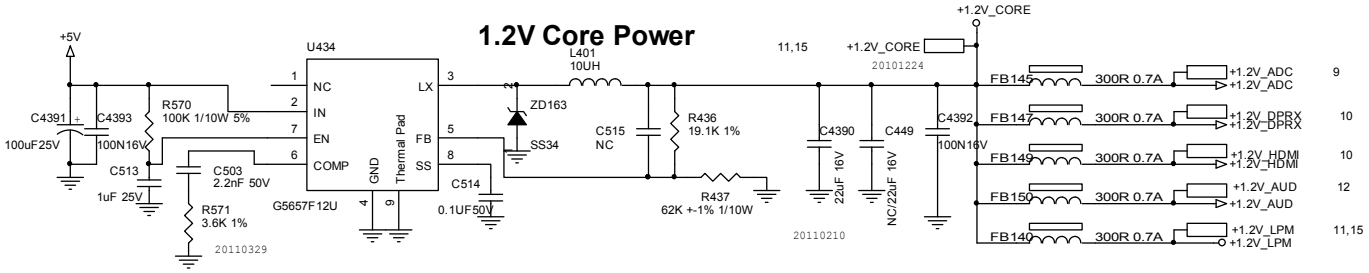
BALLNAME	I/O	BALL#	DESCRIPTION
CVDD12	P	J9, J10, J14, J15, K9, K15, L15, P9, P15, R9, R10, R14, R15	Core voltage (1.2).
IO_VDD33	P	E9, E15, N5, W8, W10, W13	Output driver voltage (3.3V).

2.3 DC to DC

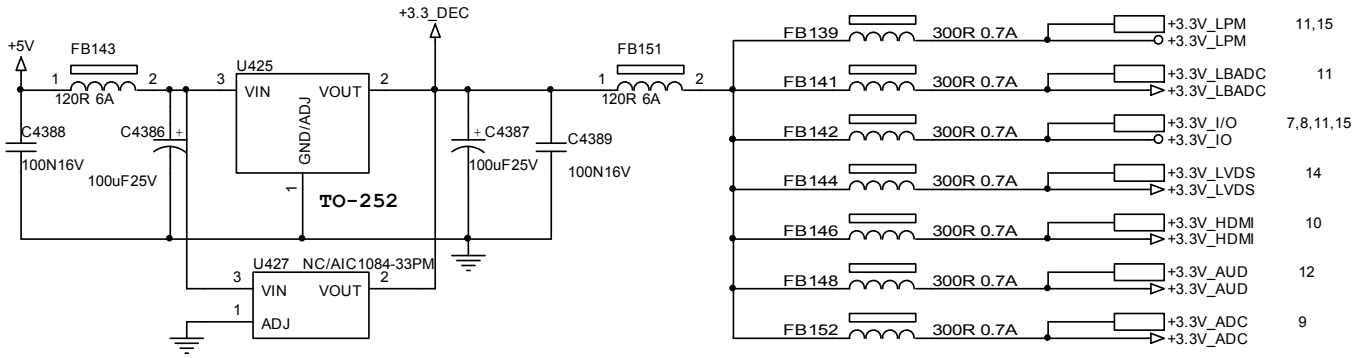
The required power supply are different for each chip, and the voltage of 5v offered by PWPC can not reach the requirement, thus DC to DC chips (5v->1.2v, 5v->3.3v,3.3v->1.8v) are utilized.

The circuit diagrams are as follows;

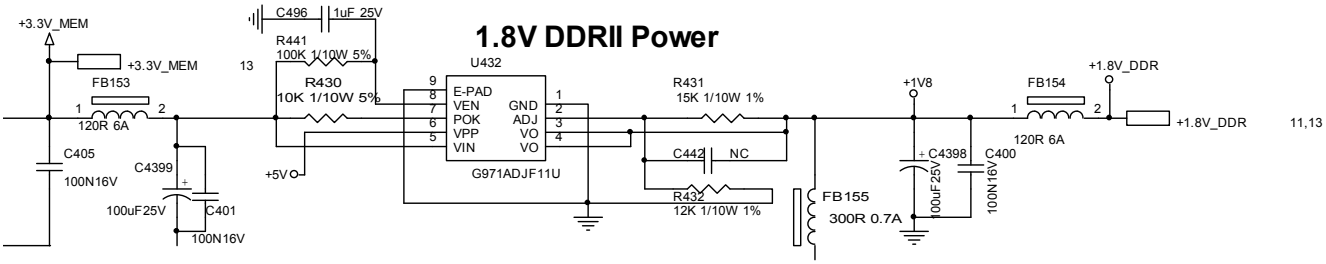
5v-->1.2v



5v-->3.3v

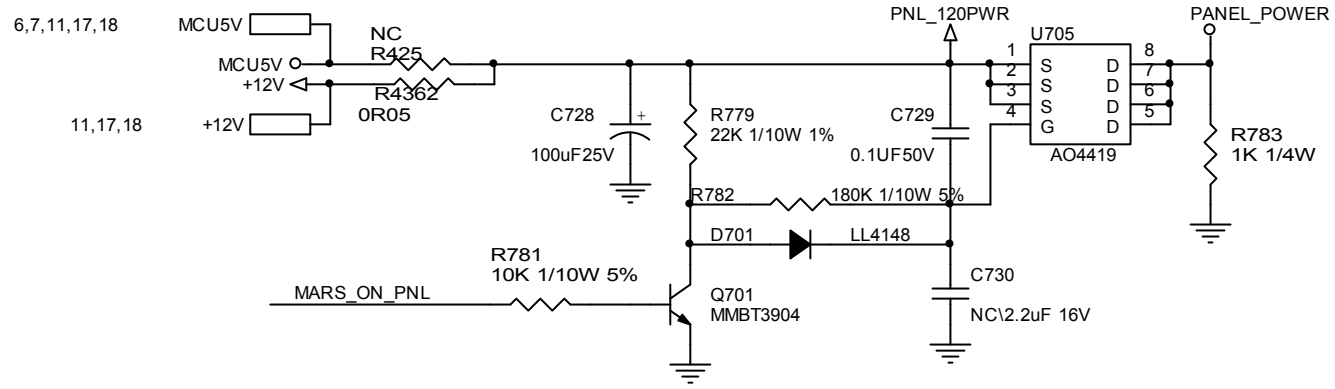


3.3v-->1.8v



2.4 Panel Control Circuit

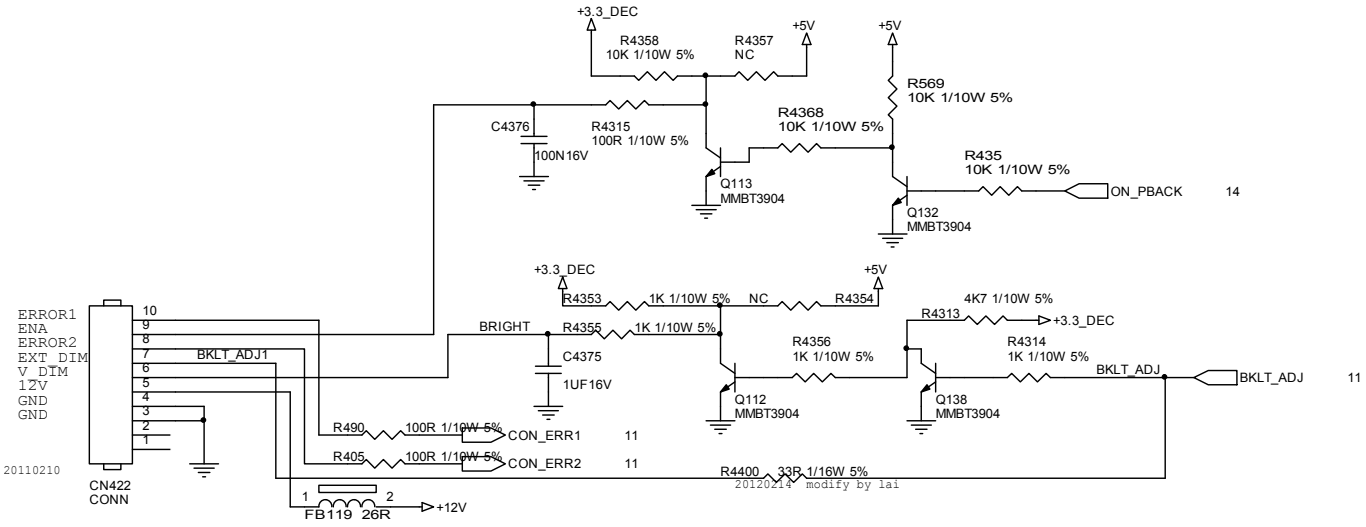
The high level output from U401 makes Q701, U705 break through, and offer 12V to panel when work well. The output is low level when it's saving energy state and Q701, U705 break off, so the panel doesn't work.



2.5 On/Off /Brightness control circuit

ON/OFF control: When it works well, the outputs are high level, and low in saving energy state.

Brightness control: When it works well, the output PWM pulse from PIN200 U401adjusts the brightness, the smaller the duty, the higher the brightness.

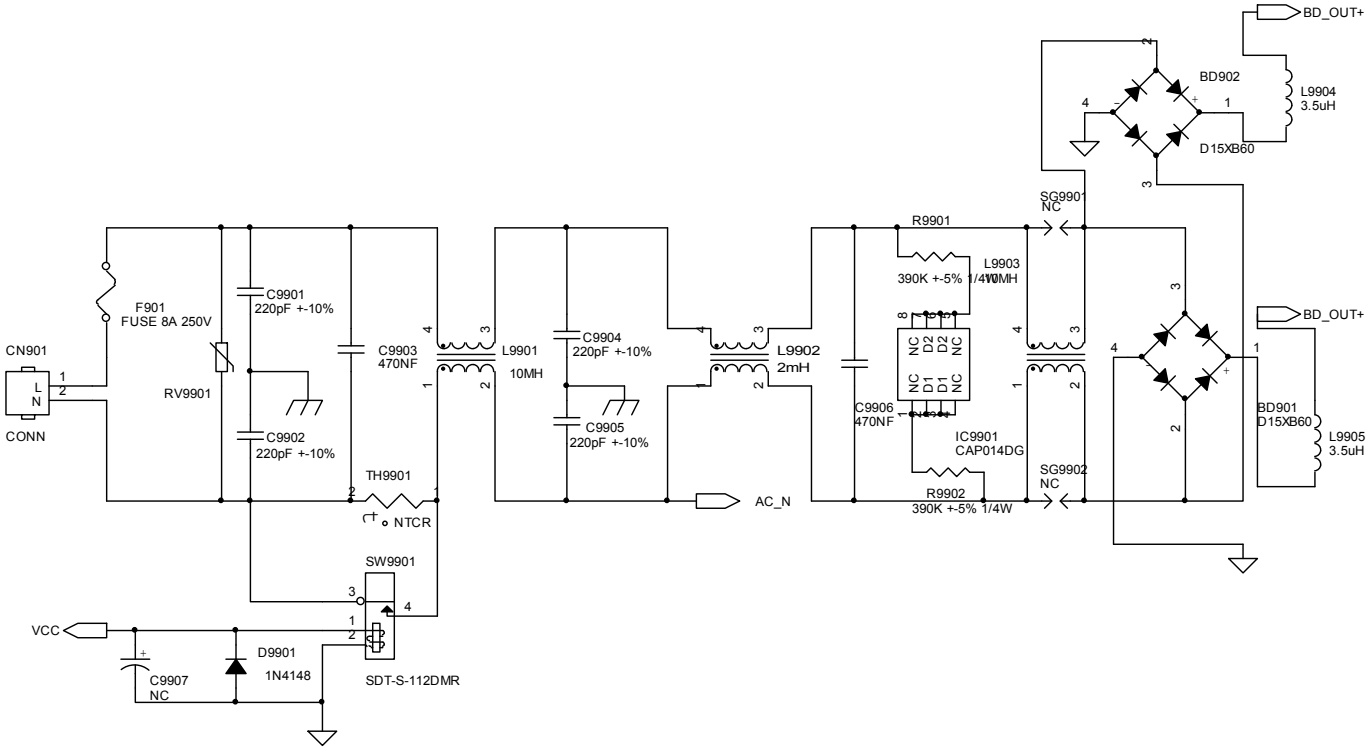


3. Power Board

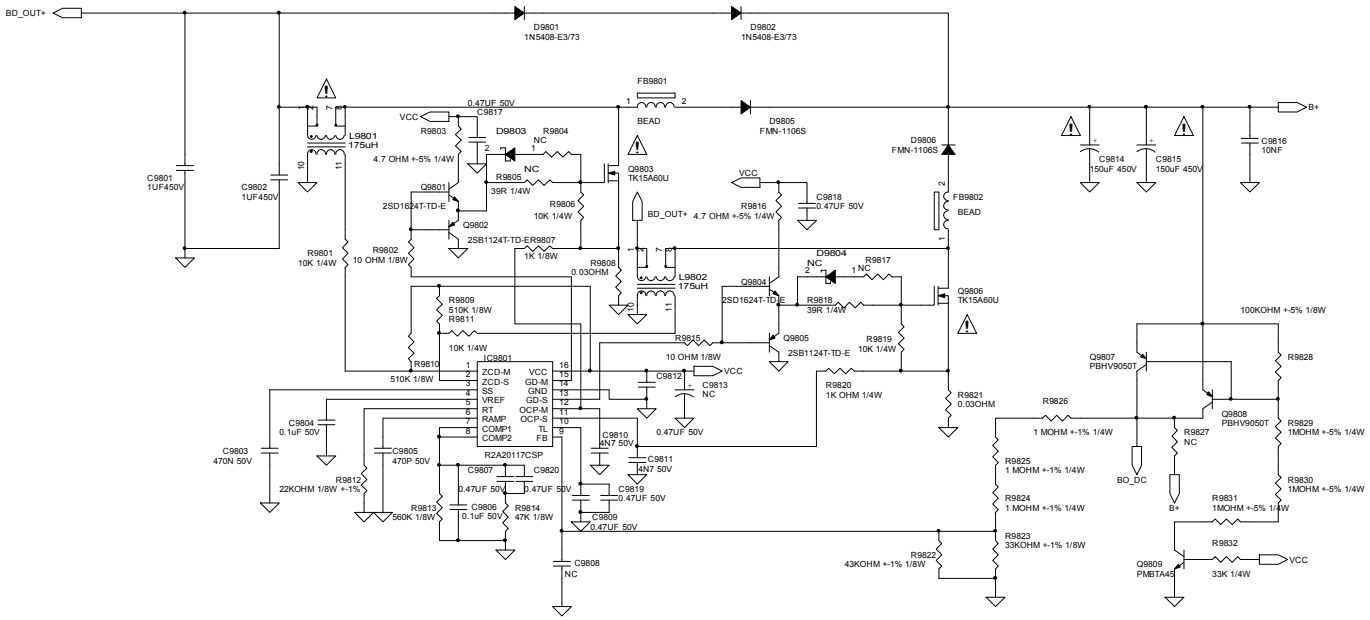
For V552

EMI filter circuit: It is common used to get rid of the disturbance existing in the electric net or coming from outside. L901, L902, L903 is used to reduce the symmetry disturbance and filter the high frequency noise; C903, C904, C905, C906 can restrain the symmetry and filter the low frequency noise; RV901 is used to prevent the impulse of surge current when start the machine, which possesses minus temperature modulus.

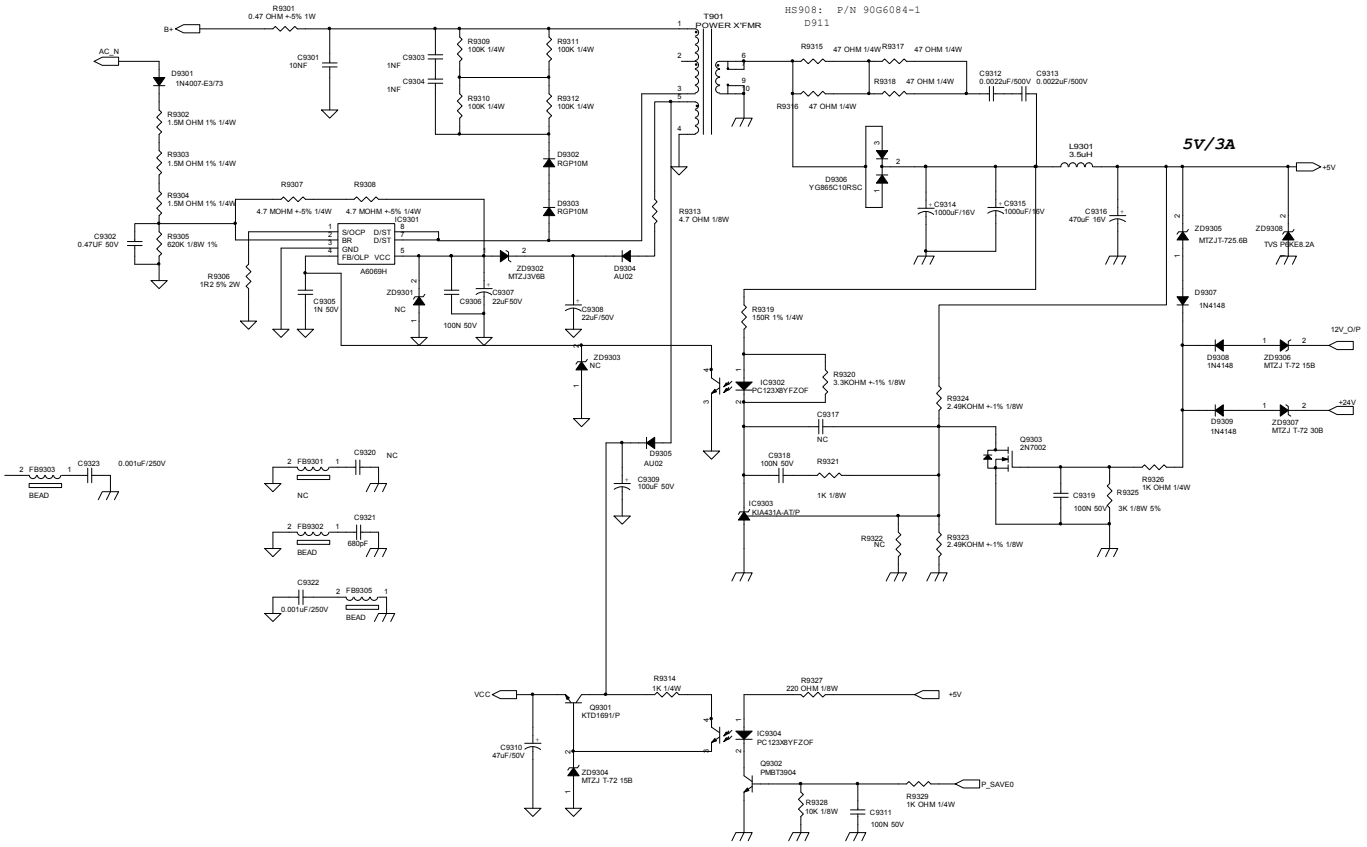
Rectifier circuit: The AC input is changed to a high DC voltage that magnitude is the product of 1.414 to AC after it is commuted by bridge rectifier (BD901, BD902).



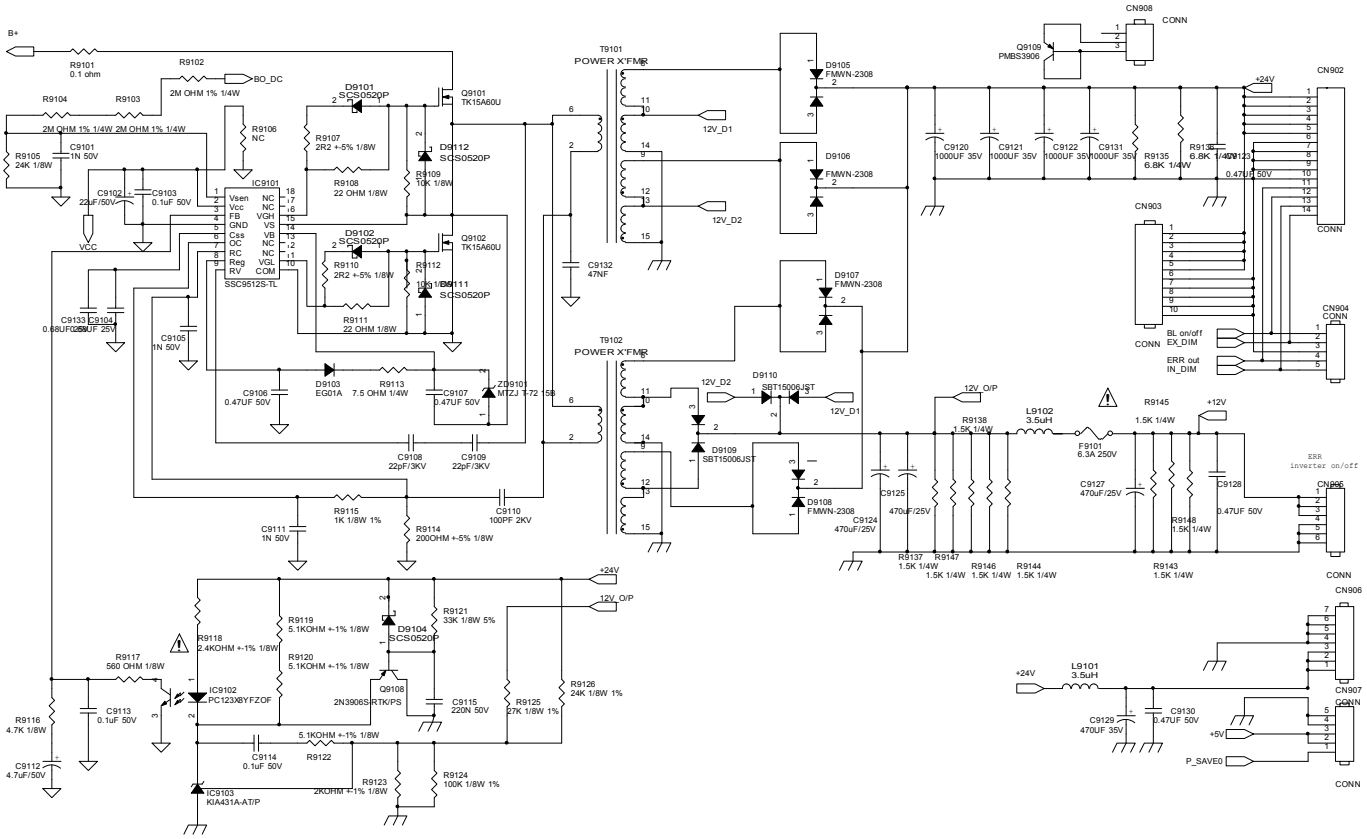
PFC Circuit: It will improve the power efficiency and steady the voltage of bulk-capacitor



Aux. power circuit: When the terminal of BD_OUT+ has 400V, Through the R303 connects to pin1 of T9301, The IC9301 start up. The transformer can output voltage. After rectifier of D9306 and L9301, The DC voltage of 5V is established. The 5V supply main board to work. Then the whole stand by circuit start-up process is end.



Main power circuit: When get the Vcc voltage of IC9101 (SSC9512S-TL). This PWM IC will output driver signal to on/off MOSFET (Q9101, Q9102). This forward power circuit can output 24V and 12V after rectifier, the 24V supply inverter board to work and 12V supply audio amplifier and main board to work.

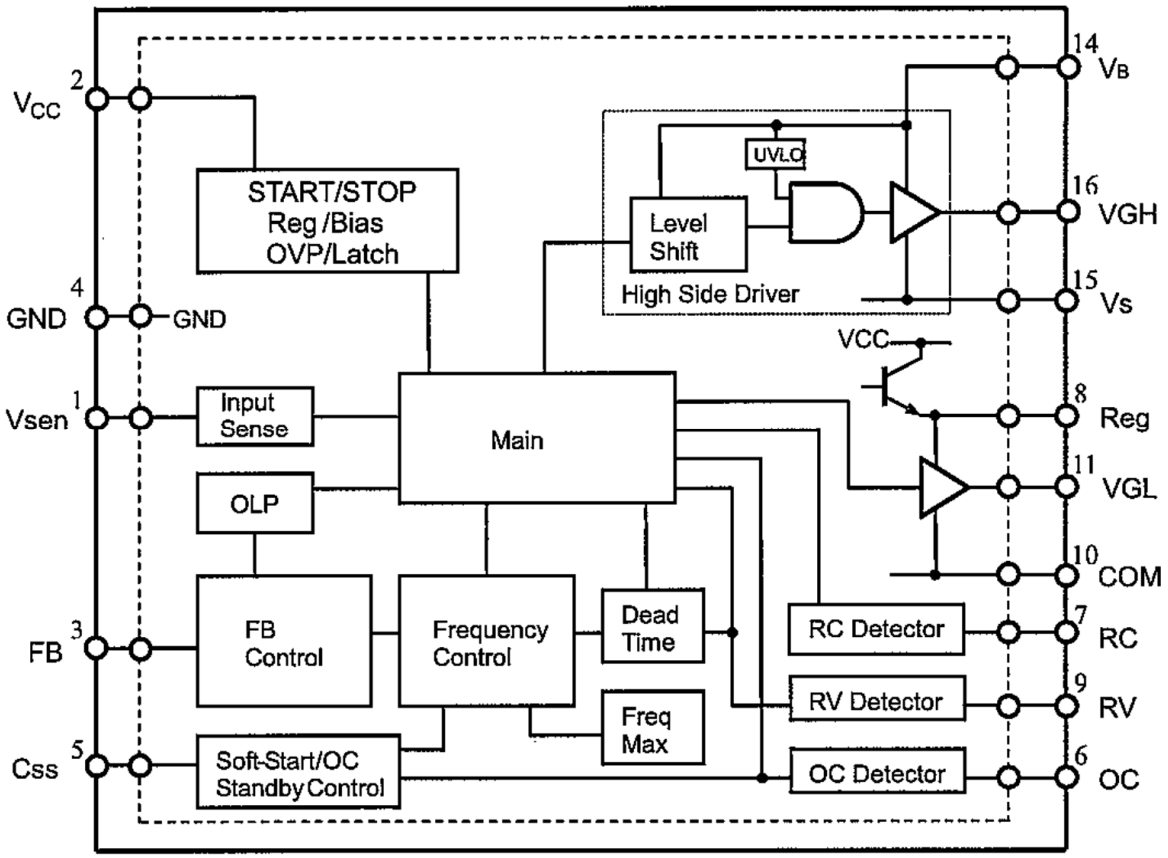


SSC9512S-TL: PWM IC, The function of each pin and the inside circuit diagram are as follows:

Function of terminal

端子番号 Terminal	記　号 Symbol	名　　称 Description	機　　能 Functions
1	Vsen	入力(AC ライン)電圧検出端子 Detection of input AC line voltage terminal	入力(AC ライン)電圧検出端子 Detection of input AC line voltage
2	V_{CC}	電源端子 Power supply terminal	制御部電源端子 Supply voltage for control
3	FB	FB 端子 Feed back terminal	定電圧制御／過負荷検出端子 Control for output/detection of over load
4	GND	制御部グランド端子 Ground for control terminal	制御部グランド Ground for control
5	Css	Css 端子 Soft start capacitor terminal	ソフトスタート用コンデンサ接続端子 Terminal for connection of capacitor for soft start
6	OC	OC 端子 Over current detection terminal	過電流検出端子 Detection of over current
7	RC	RC 端子 Resonance current detection terminal	共振電流検出端子 Detection of resonance current
8	Reg	Reg 端子 Internal regulator terminal	ゲートドライブ回路用電源入力 Supply voltage output for gate drive circuit
9	RV	RV 端子 Resonance voltage terminal	電圧共振検出端子 Detection of resonance voltage
10	COM	パワー部グランド端子 Ground for power terminal	パワー部グランド Ground for power
11	VGL	ローサイドゲートドライブ端子 Low-side gate drive terminal	ローサイドゲートドライブ Low-side gate drive
12, 13 17, 18	NC	NC	非接続 None
14	V_B	ハイサイドゲートドライブ電源端子 High-side gate drive supply terminal	ハイサイドゲートドライブ電源入力 Supply voltage for High-side gate drive
15	V_S	ハイサイドドライバフローティンググランド端子 High-side drive floating ground terminal	ハイサイドドライバフローティンググランド High-side drive floating ground
16	VGH	ハイサイドゲートドライブ端子 High-side gate drive terminal	ハイサイドゲートドライブ High-side gate drive

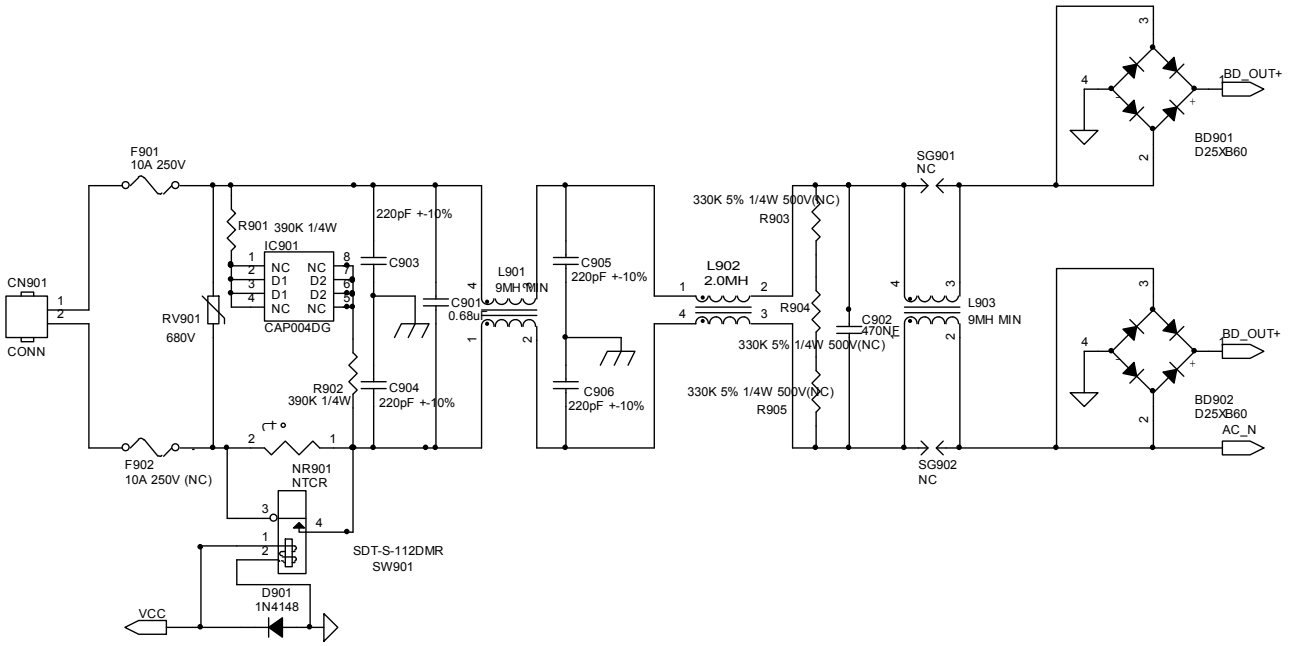
Block Diagram



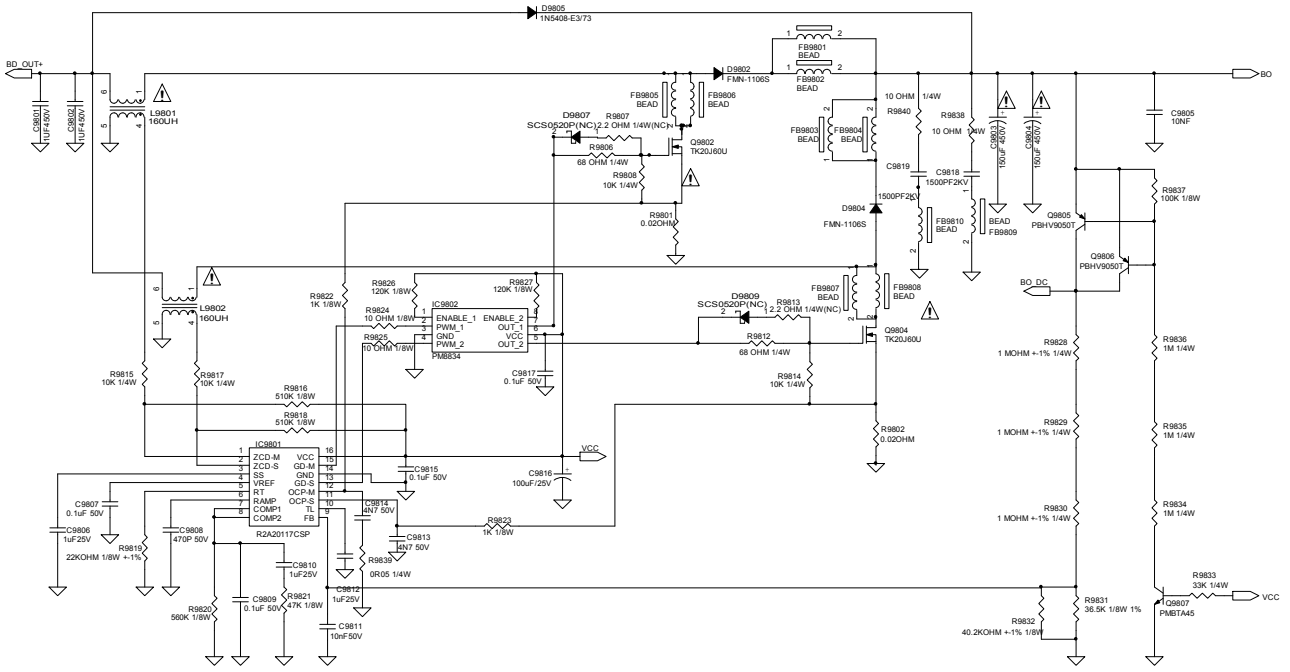
For V652

EMI filter circuit: It is common used to get rid of the disturbance existing in the electric net or coming from outside. L901, L902, L903 is used to reduce the symmetry disturbance and filter the high frequency noise; C903, C904, C905, C906 can restrain the symmetry and filter the low frequency noise; RV901 is used to prevent the impulse of surge current when start the machine, which possesses minus temperature modulus.

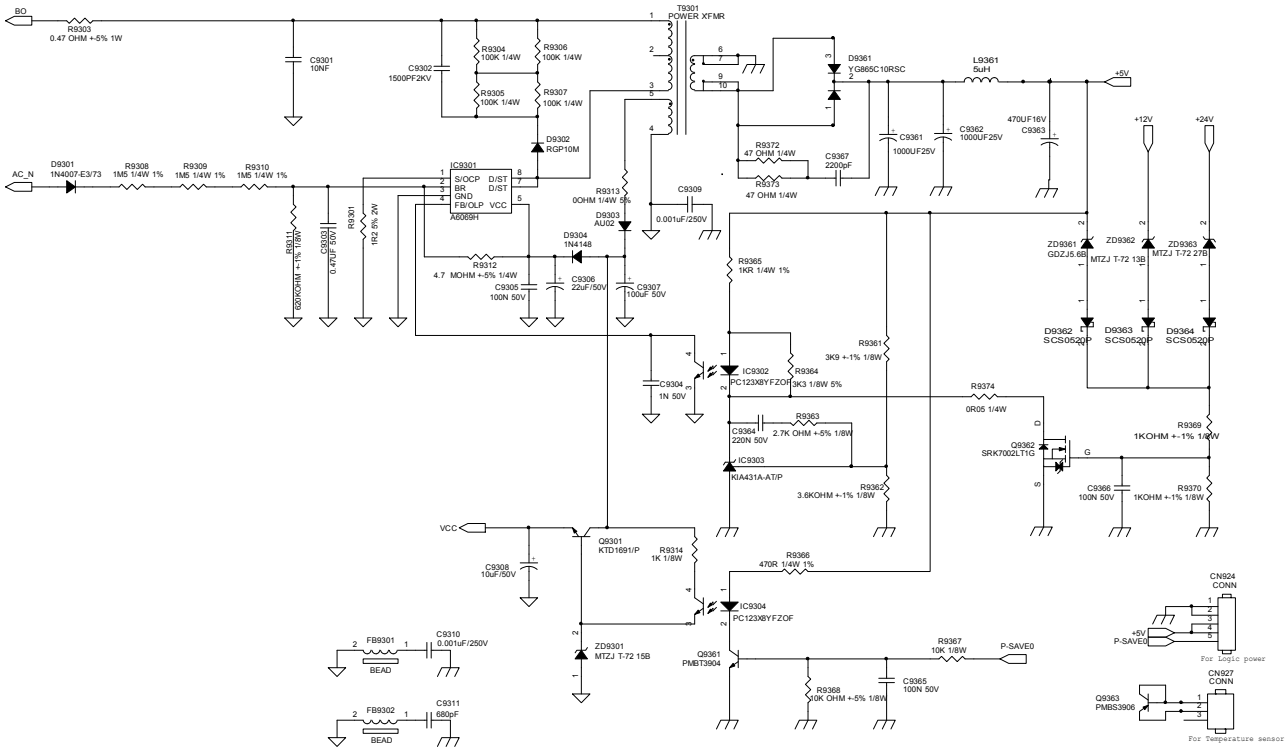
Rectifier circuit: The AC input is changed to a high DC voltage that magnitude is the product of 1.414 to AC after it is commuted by bridge rectifier (BD901, BD902).



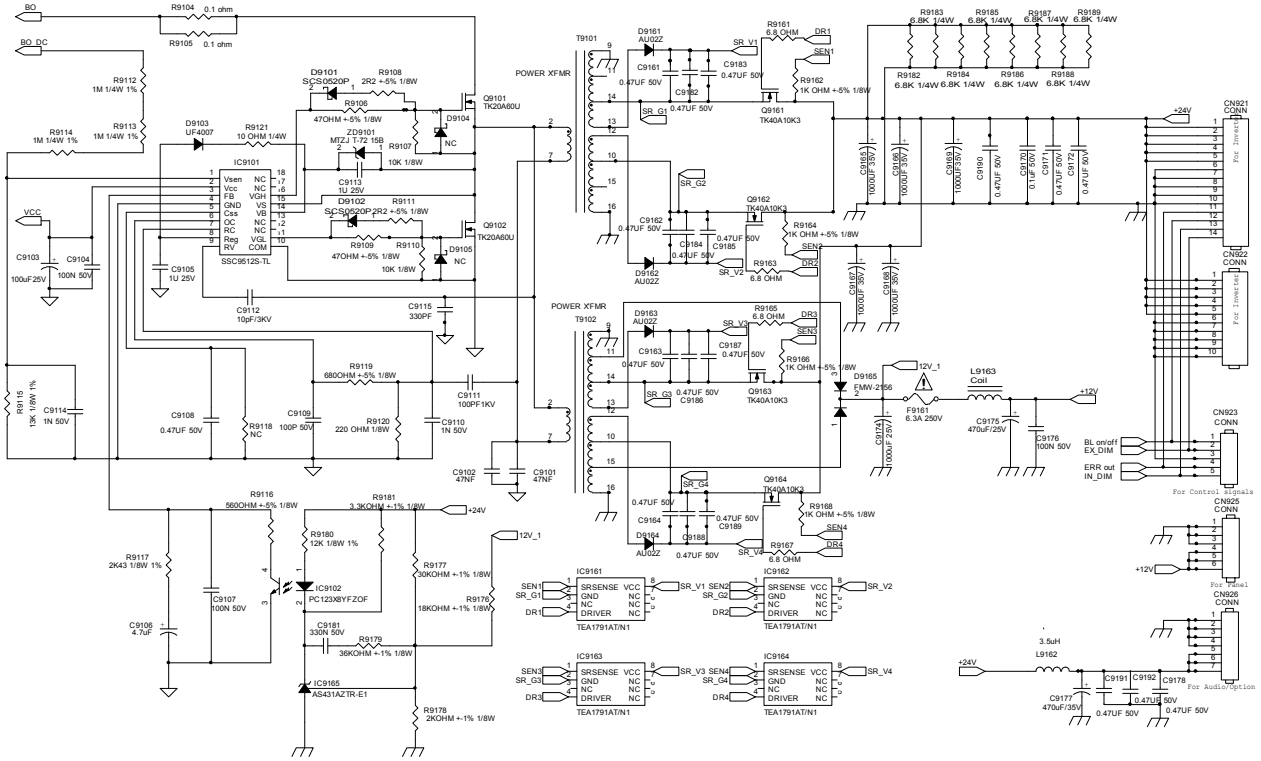
PFC Circuit: It will improve the power efficiency and steady the voltage of bulk-capacitor



Aux. power circuit: When the terminal of BD_OUT+ has 400V, Through the R941 connects to pin1 of T9301, The IC9301 start up. The transformer can output voltage. After rectifier of D9361 and L9361, The DC voltage of 5V is established. The 5V supply main board to work. Then the whole stand by circuit start-up process is end.



Main power circuit: When get the Vcc voltage of IC9101 (SSC9512S-TL). This PWM IC will output driver signal to on/off MOSFET (Q9101, Q9102). This forward power circuit can output 24V and 12V after rectifier, the 24V supply inverter board to work and 12V supply audio amplifier and main board to work.



SSC9512S-TL: PWM IC, The function of each pin and the inside circuit diagram are as follows:

Function of terminal

端子番号 Terminal	記　号 Symbol	名　　称 Description	機　　能 Functions
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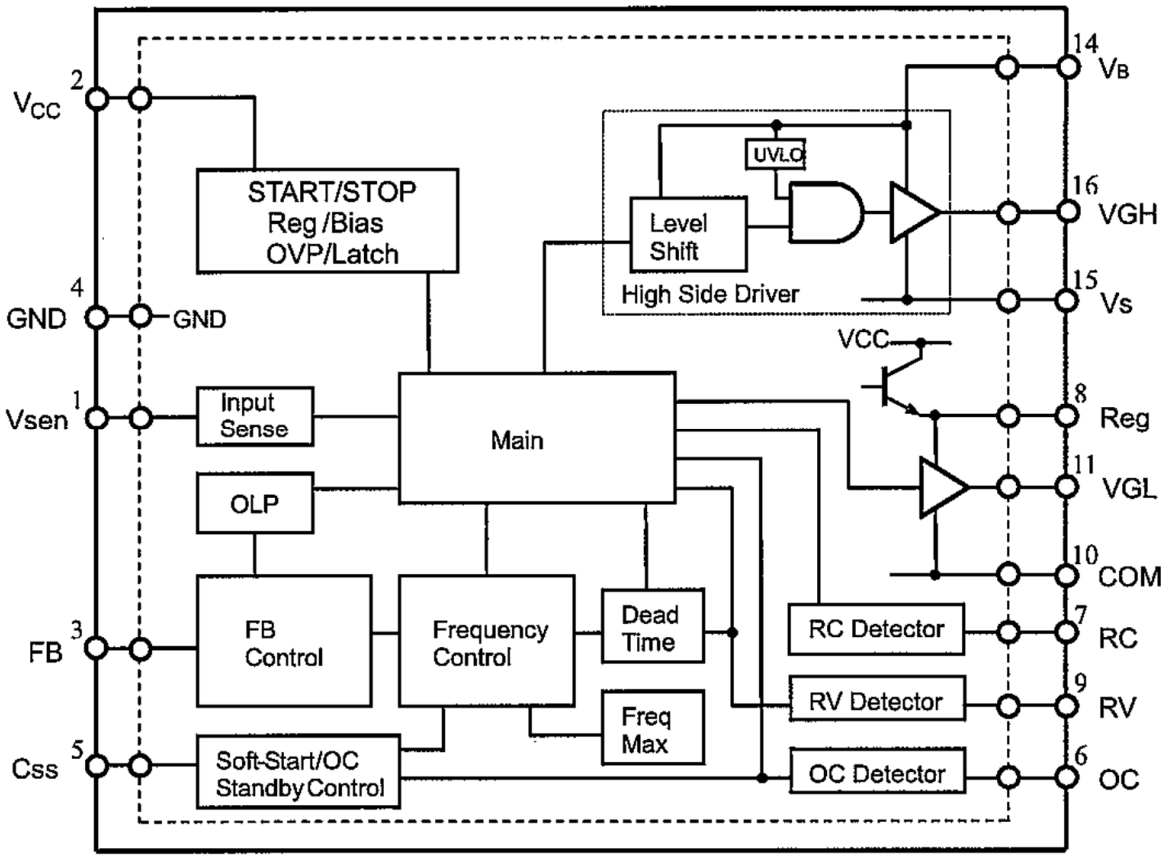
3	FB	FB 端子 Feed back terminal	定電圧制御／過負荷検出端子 Control for output/detection of over load
4	GND	制御部グランド端子 Ground for control terminal	制御部グランド Ground for control
5	Css	Css 端子 Soft start capacitor terminal	ソフトスタート用コンデンサ接続端子 Terminal for connection of capacitor for soft start
6	OC	OC 端子 Over current detection terminal	過電流検出端子 Detection of over current
7	RC	RC 端子 Resonance current detection terminal	共振電流検出端子 Detection of resonance current
8	Reg	Reg 端子 Internal regulator terminal	ゲートドライブ回路用電源入力 Supply voltage output for gate drive circuit
9	RV	RV 端子 Resonance voltage terminal	電圧共振検出端子 Detection of resonance voltage
10	COM	パワー部グランド端子 Ground for power terminal	パワー部グランド Ground for power
11	VGL	ローサイドゲートドライブ端子 Low-side gate drive terminal	ローサイドゲートドライブ Low-side gate drive
12，13 17，18	NC	NC	非接続 None
14	V_B	ハイサイドゲートドライブ電源端子 High-side gate drive supply terminal	ハイサイドゲートドライブ電源入力 Supply voltage for High-side gate drive
15	V_S	ハイサイドドライバフローティンググランド端子 High-side drive floating ground terminal	ハイサイドドライバフローティンググランド High-side drive floating ground
16	VGH	ハイサイドゲートドライブ端子 High-side gate drive terminal	ハイサイドゲートドライブ High-side gate drive

Block Diagram



SCHEMATIC DIAGRAM

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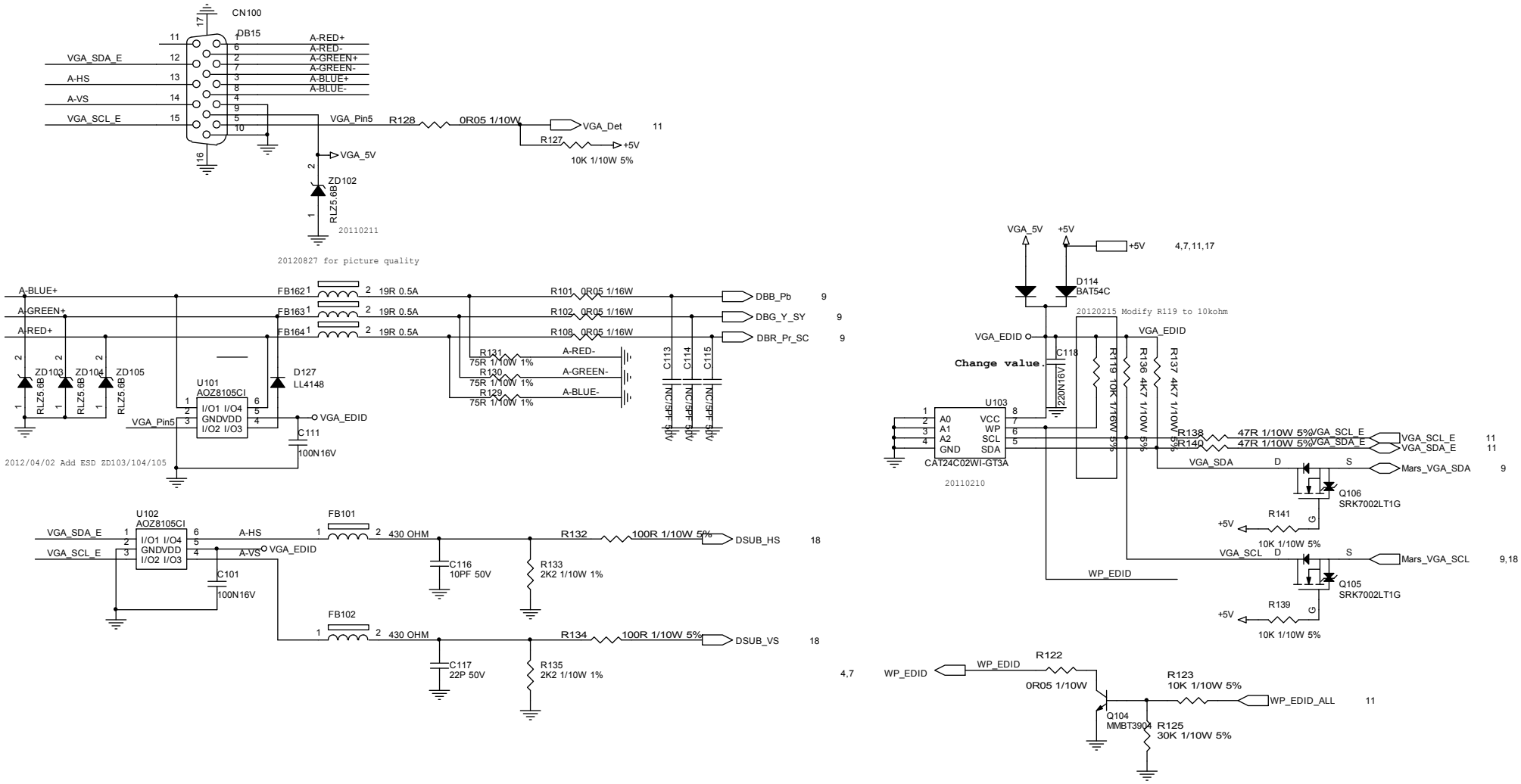
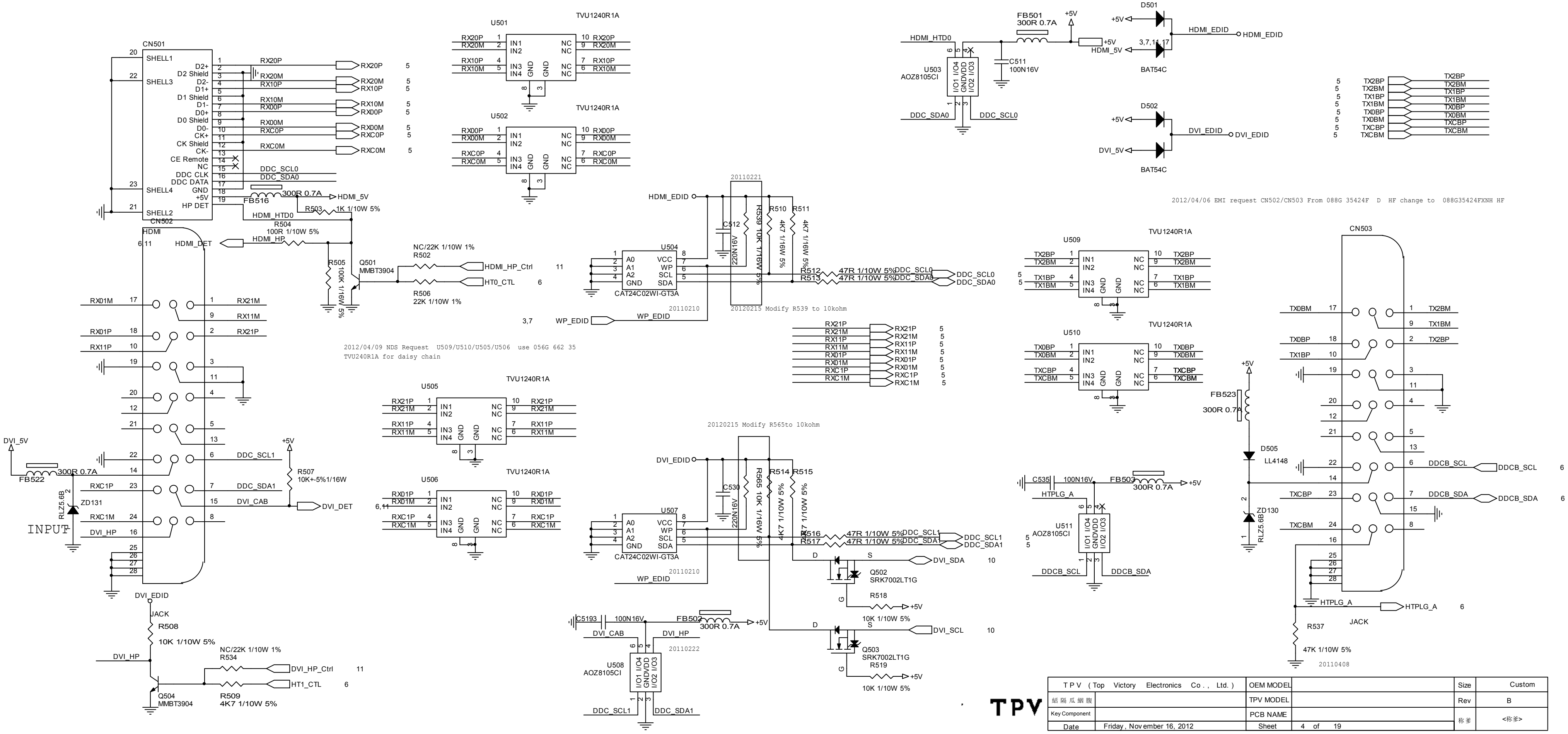
MODEL V652 SCHEMATIC DIAGRAM MAIN BOARD (756GQCCB0NN0500002) (RGB_IN)

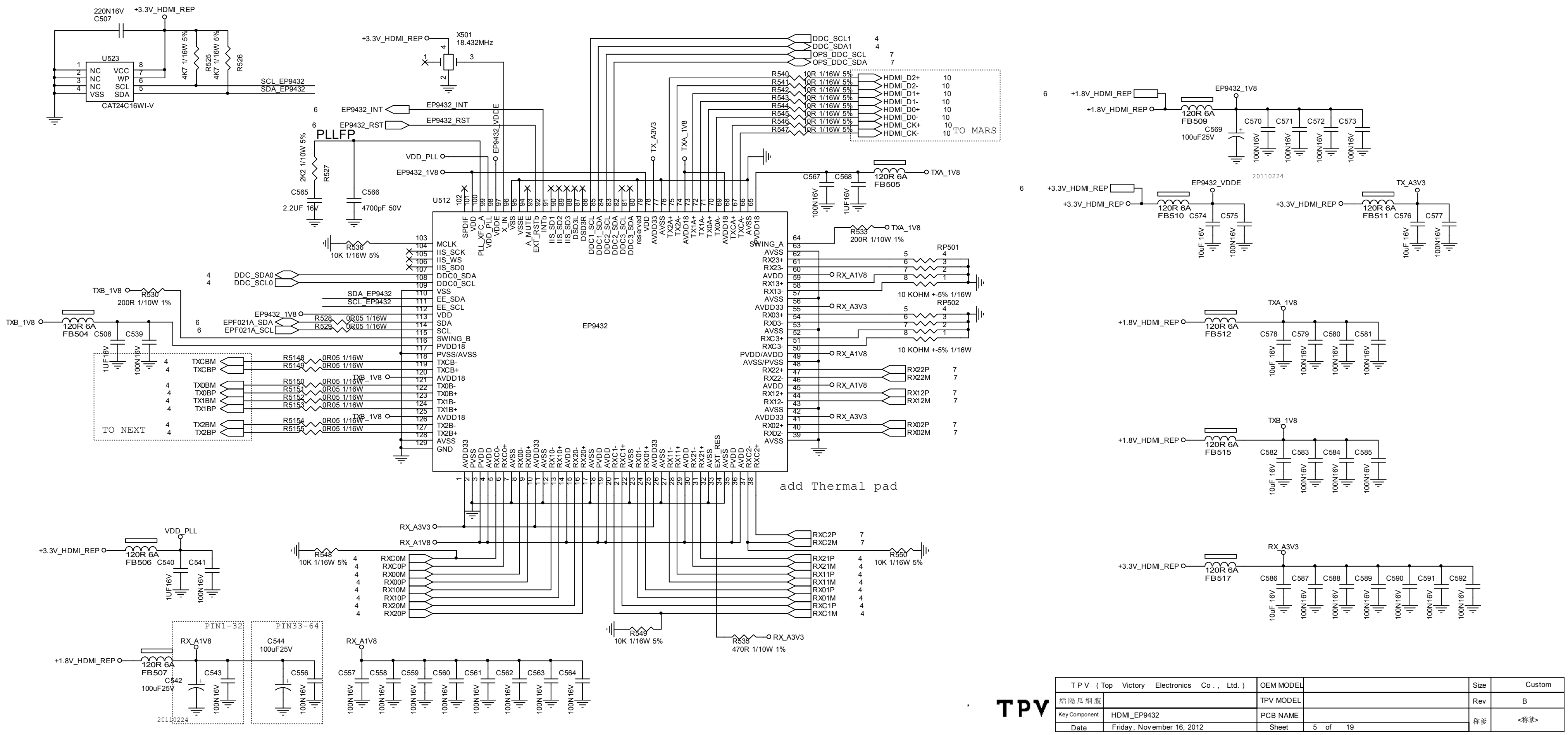


T P V (Top Victory Electronics Co . , Ltd.)		OEM MODEL		Size	B
結 隔 瓜 絹 腹		TPV MODEL		Rev	B
Key Component	RGB In	PCB NAME		称 爹	<称爹>
Date	Friday , November 16, 2012	Sheet	3 of 19		

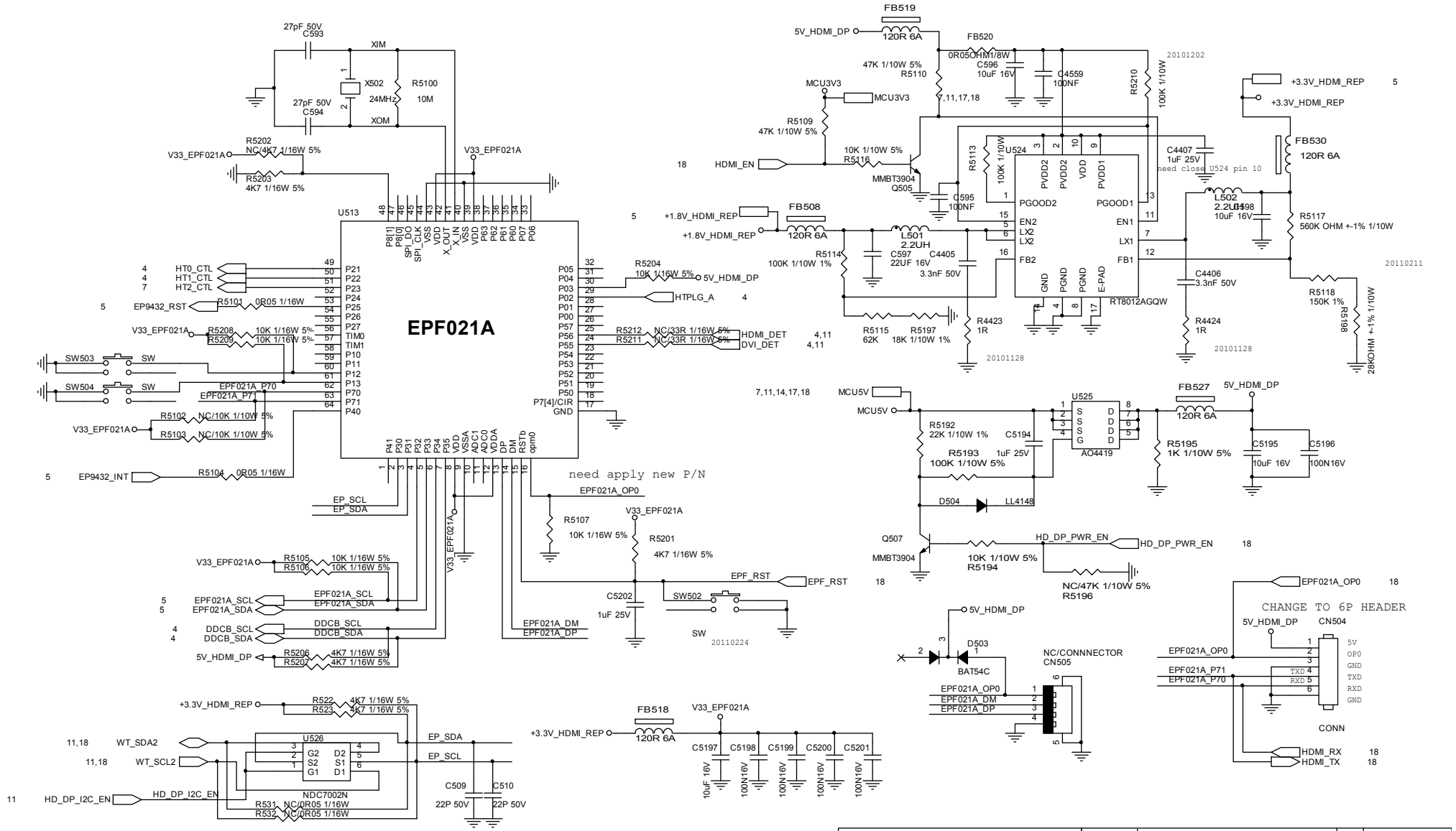
MODEL V652 SCHEMATIC DIAGRAM MAIN BOARD (HDMI IN/DVI_IN/HDMI_OUT)



MODEL V652 SCHEMATIC DIAGRAM MAIN BOARD (HDMI_EP9432)

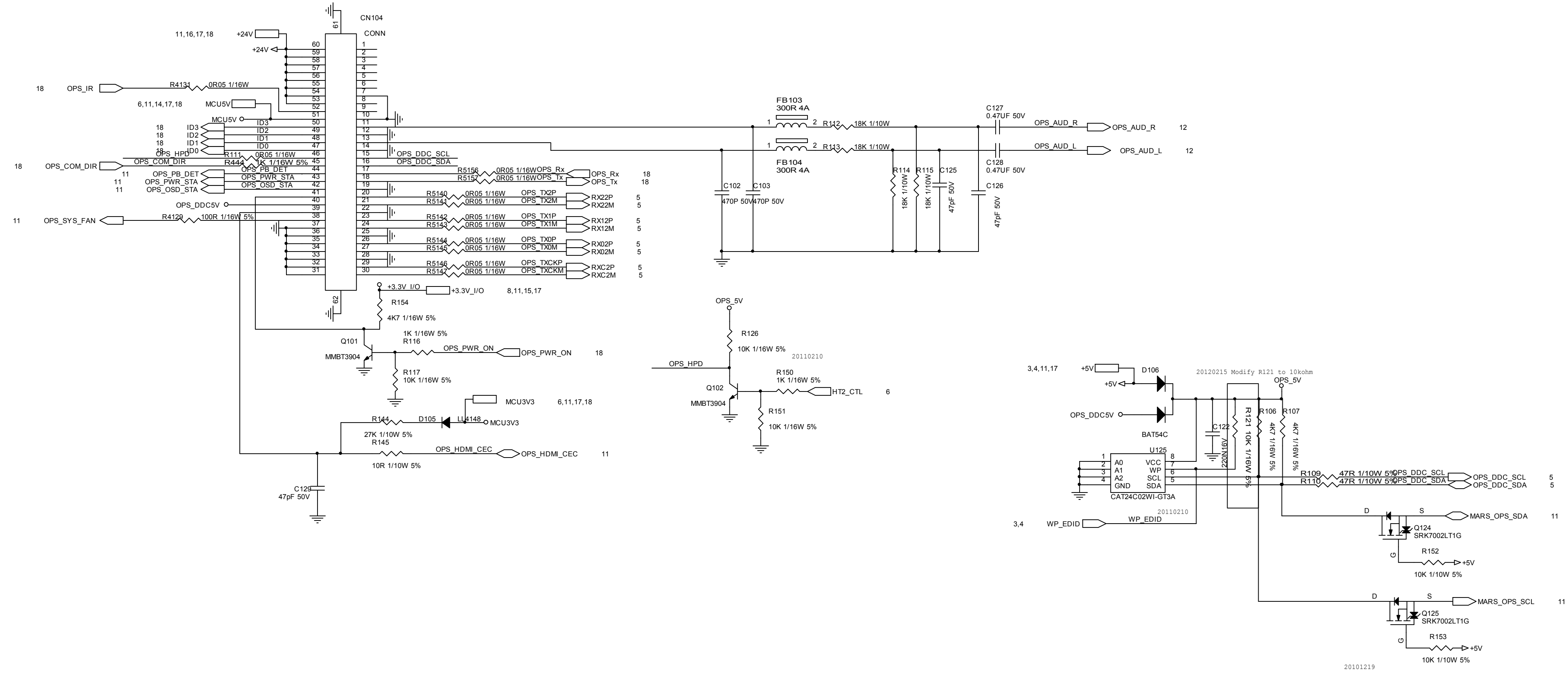


MODEL V652 SCHEMATIC DIAGRAM MAIN BOARD (HDMI_EPF021A)



TPV (Top Victory Electronics Co., Ltd.)		OEM MODEL		Size	B
結隔瓜綢腹		TPV MODEL		Rev	B
Key Component	HDMI_EPF021A	PCB NAME		称爹	<称爹>
Date	Friday, November 16, 2012	Sheet	6 of 19		

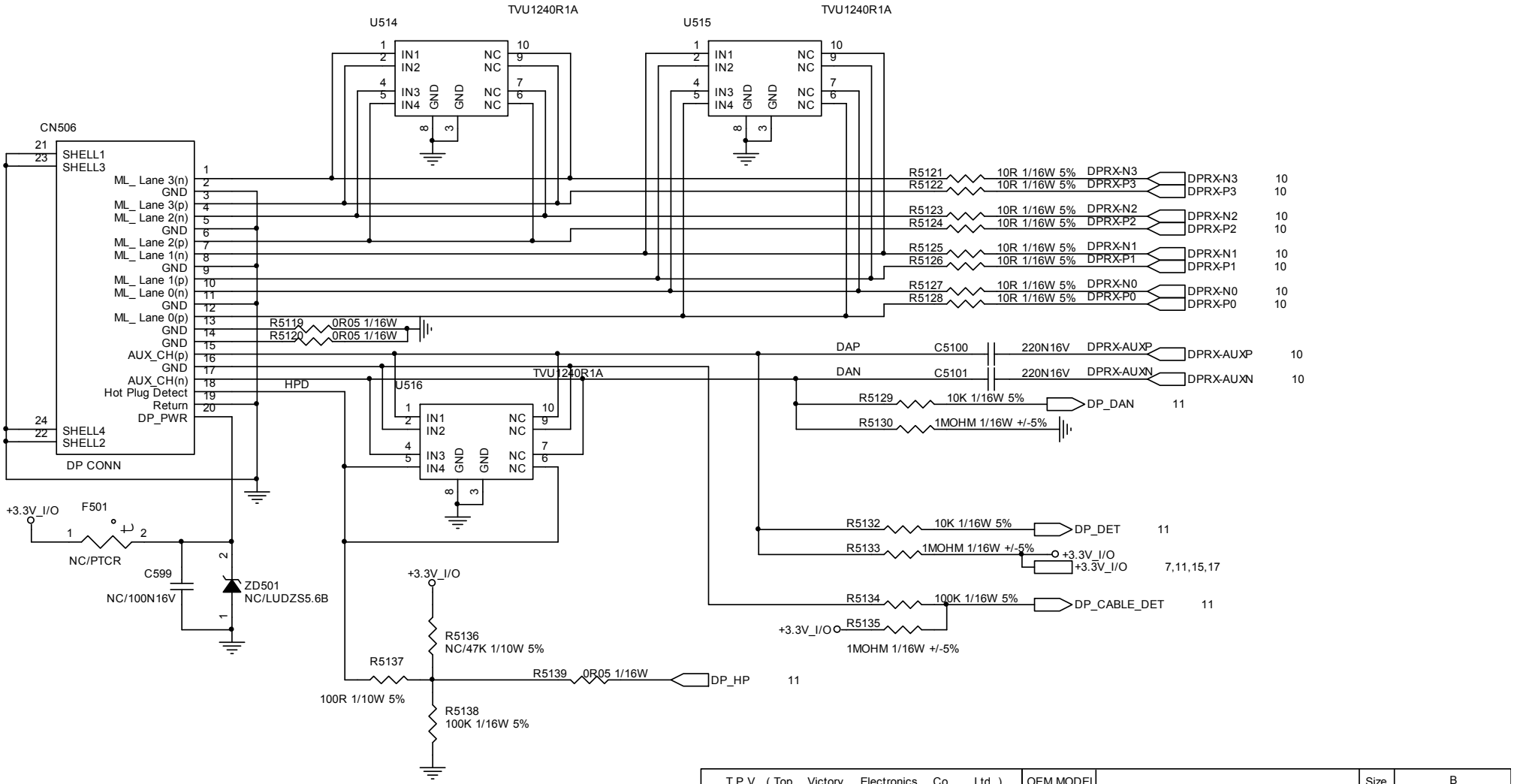
MODEL V652 SCHEMATIC DIAGRAM MAIN BOARD (OPS)



TPV

TPV (Top Victory Electronics Co., Ltd.)		OEM MODEL		Size	C
		TPV MODEL		Rev	B
Key Component	OPS	PCB NAME			<称变>
Date	Friday, November 16, 2012	Sheet	7 of 19		

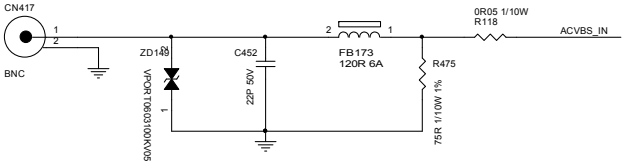
MODEL V652 SCHEMATIC DIAGRAM MAIN BOARD (DP_IN)

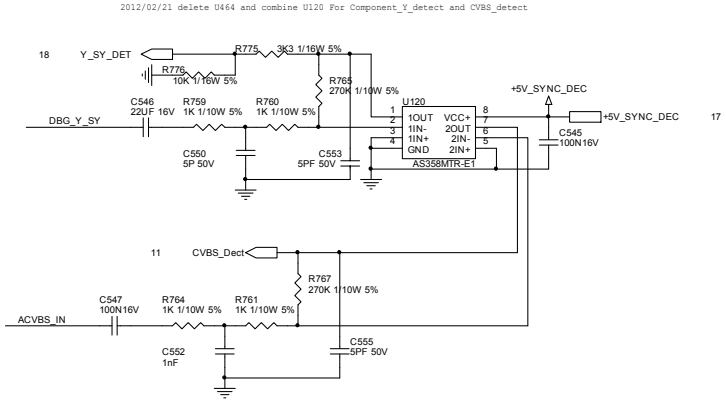


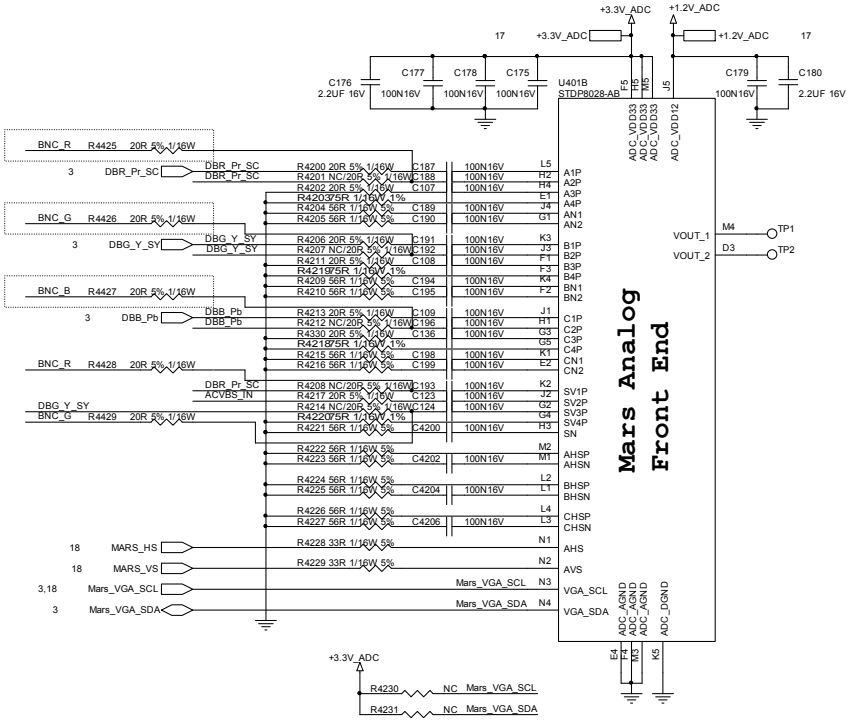
TPV (Top Victory Electronics Co., Ltd.)		OEM MODEL		Size	B
結隔瓜細腹		TPV MODEL		Rev	B
Key Component	DP_IN	PCB NAME		称爹	<称爹>
Date	Friday, November 16, 2012	Sheet	8 of 19		

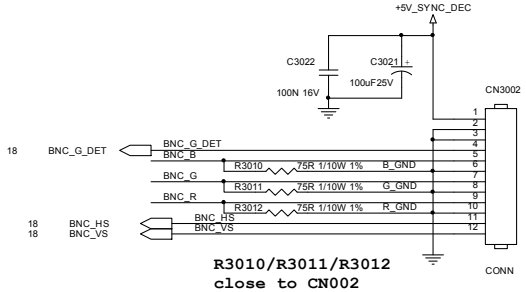
MODEL V652 SCHEMATIC DIAGRAM MAIN BOARD (MARS_Anglog_IN)

	V652/V552	V463/V423
R4201	NC	20R
R4207	NC	20R
R4212	NC	20R
R4425	20R	NC
R4426	20R	NC
R4427	20R	NC
R4208	NC	20R
R4428	20R	NC
R4214	NC	20R
R4429	20R	NC









TPV (Top Victory Electronics Co., Ltd.)		OEM MODEL		Size	C
結陽瓜鋼腹		TPV MODEL		Rev	B
Key Component	MARS_Analog_IN	PCB NAME		称爹	<称爹>
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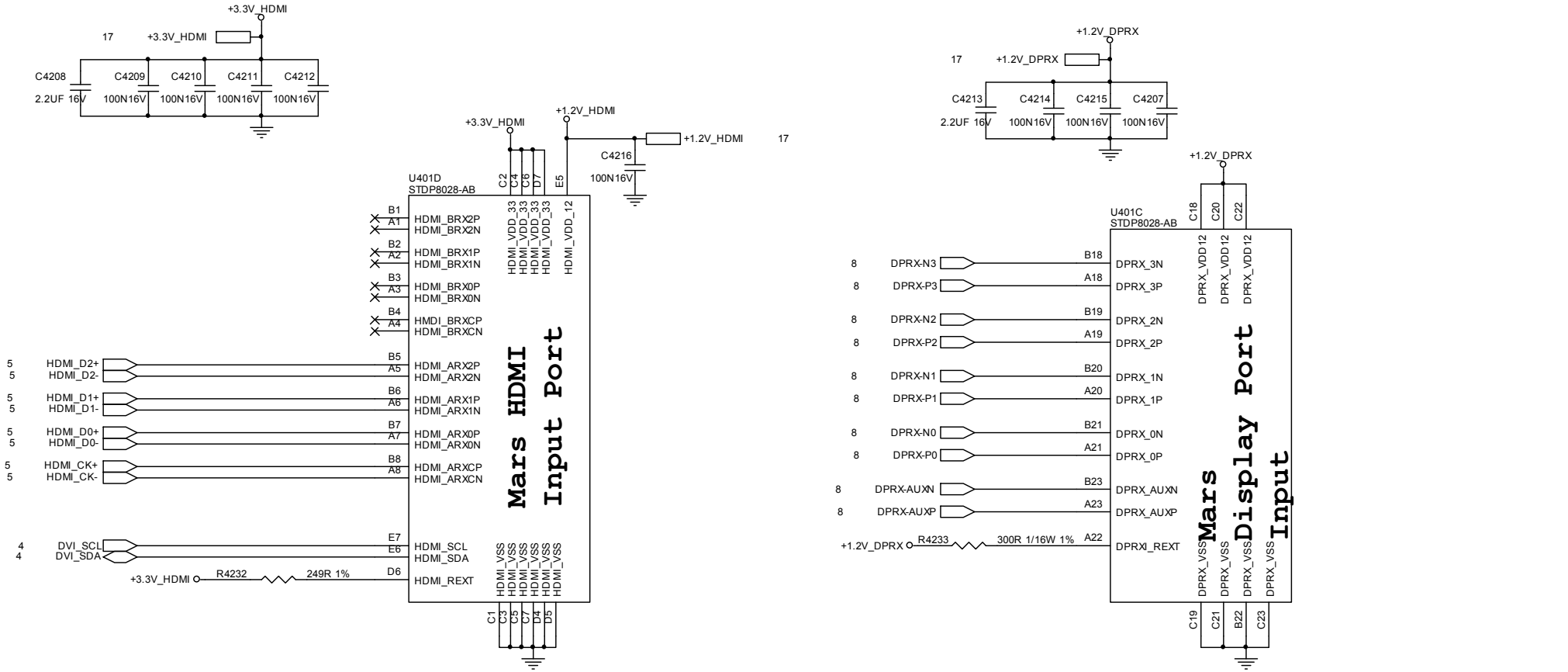
MODEL V652 SCHEMATIC DIAGRAM MAIN BOARD (MARS_Digital_IN)



TPV (Top Victory Electronics Co., Ltd.)		OEM MODEL		Size	B
結隔瓜細腹		TPV MODEL		Rev	B
Key Component	MARS Digital In	PCB NAME		称爹	<称爹>
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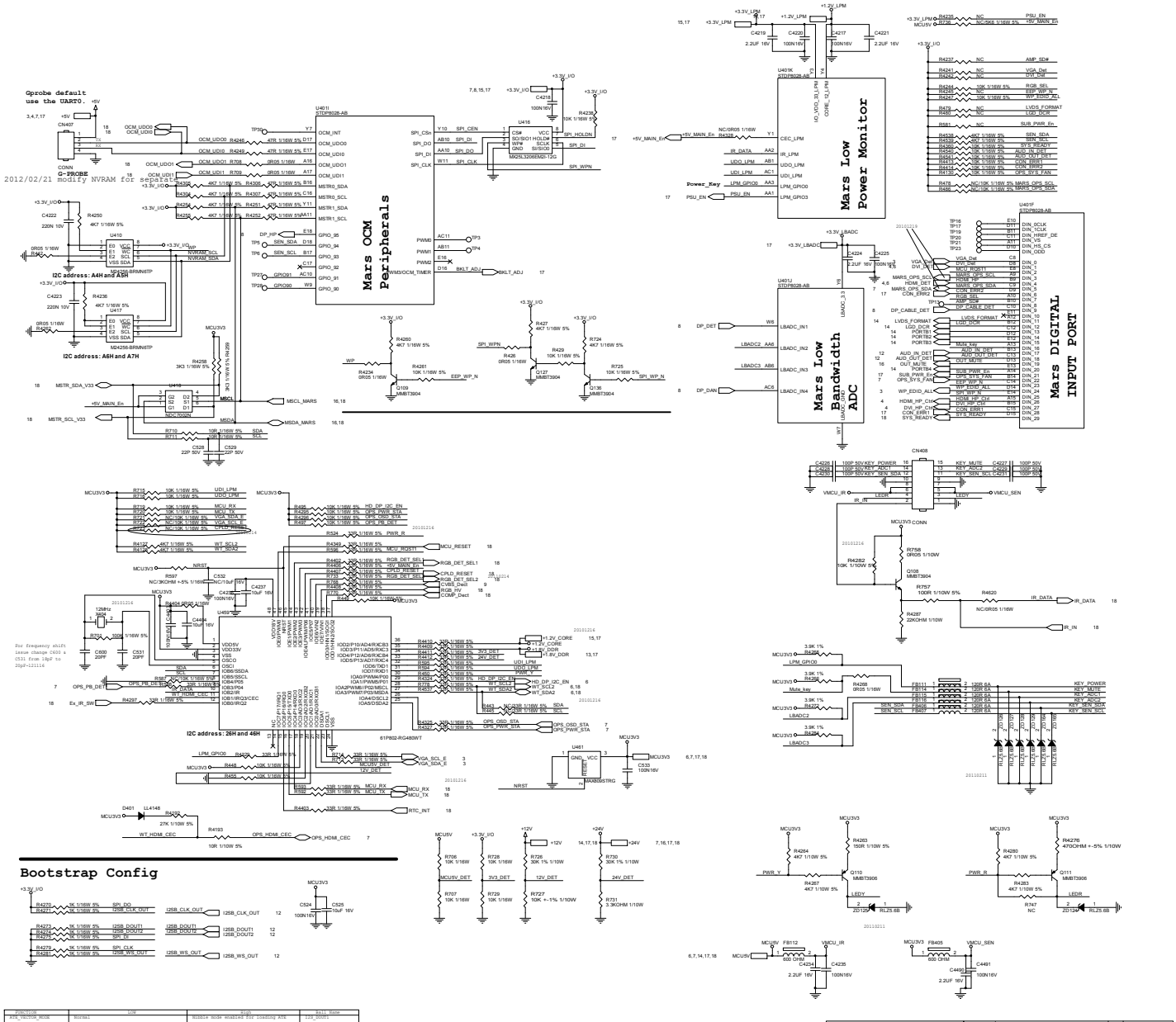
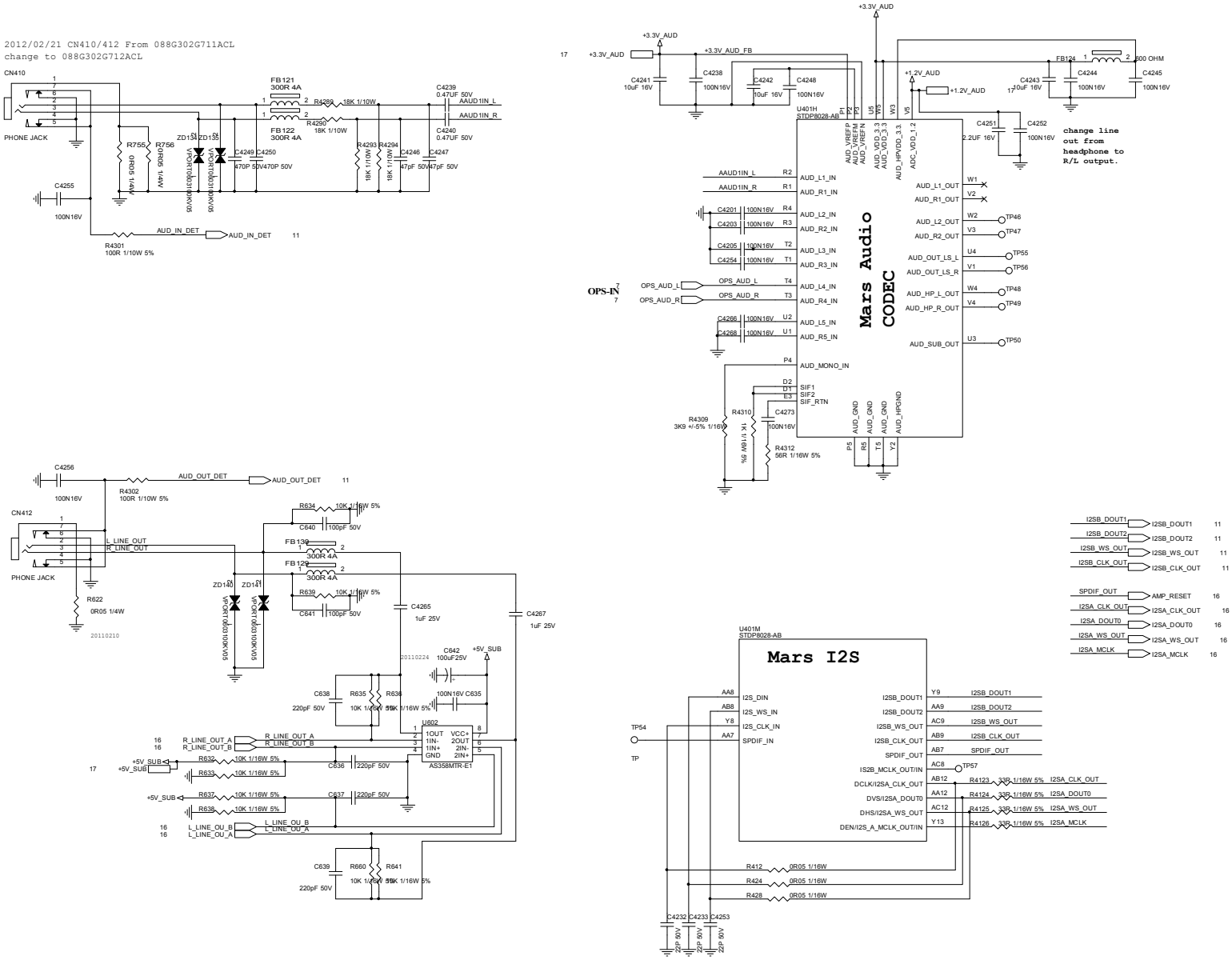
MODEL V652 SCHEMATIC DIAGRAM MAIN BOARD (MARS_MCU)



MODEL V652 SCHEMATIC DIAGRAM MAIN BOARD (MARS_Audio)



T.P.V (Top Victory Electronics Co., Ltd.)		OEM MODEL		Size	C
結爾瓜銅版		TPV MODEL		Rev	B
Key Component	MARS Audio	PCB NAME		称多	<称多>
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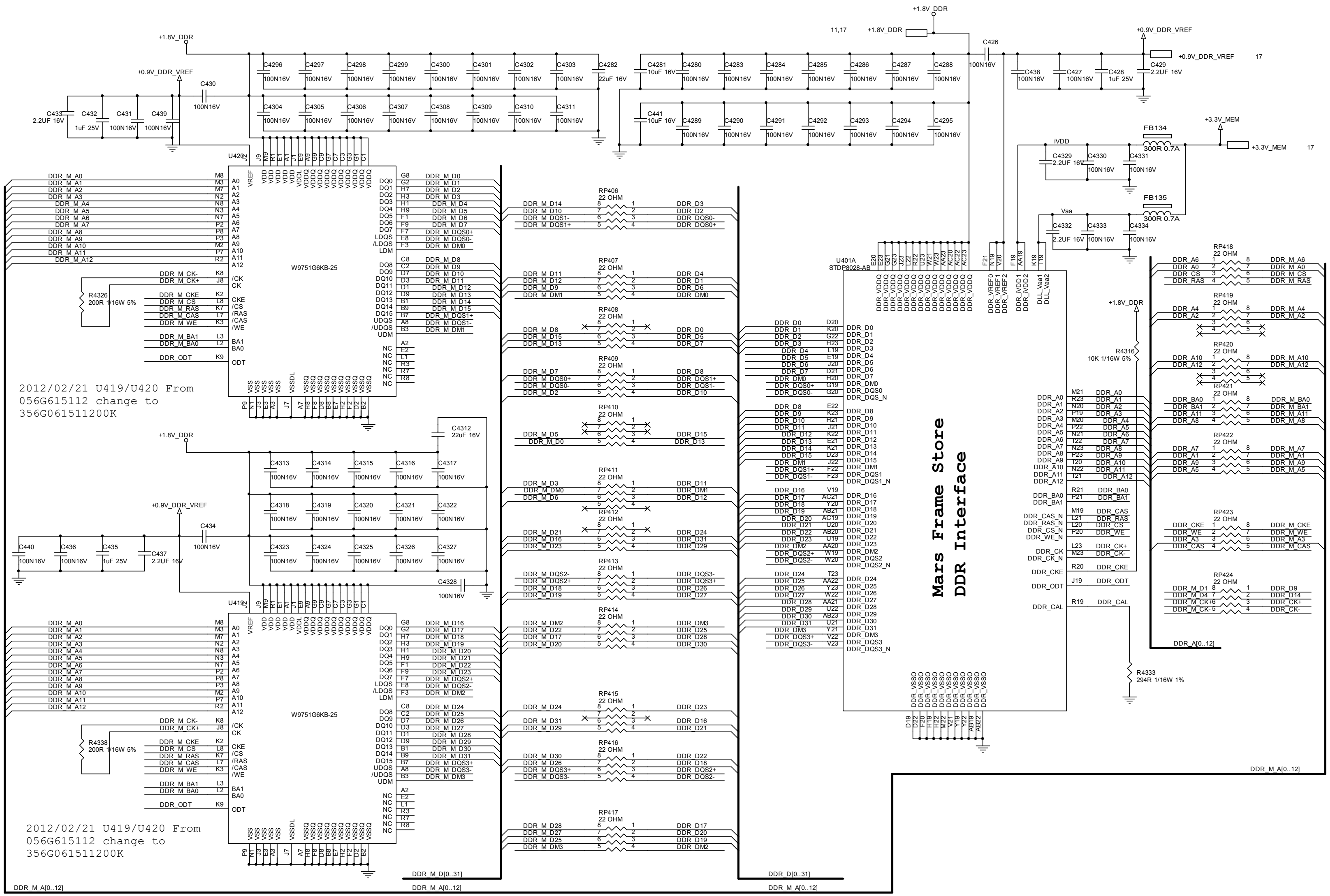
TPV

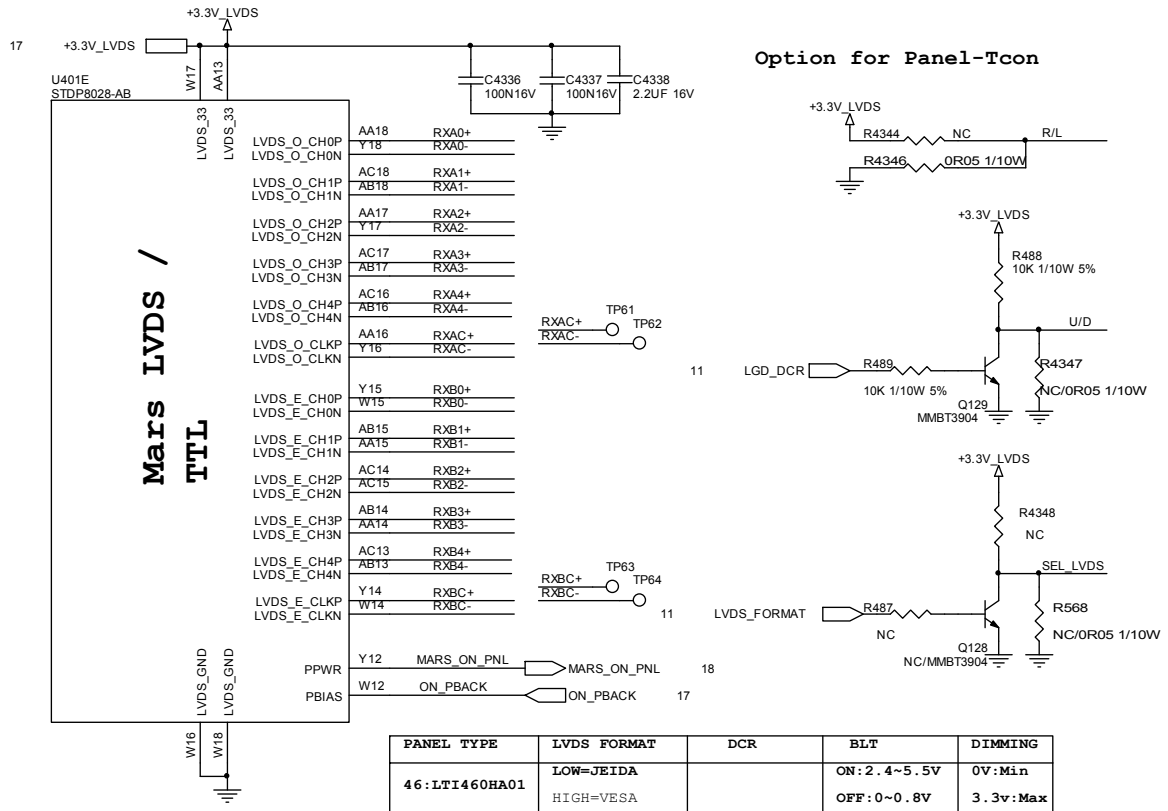
MODEL V652 SCHEMATIC DIAGRAM MAIN BOARD (MARS_DDR2)

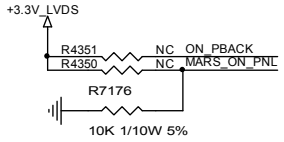


TPV (Top Victory Electronics Co., Ltd.)	OEM MODEL		Size	C
絹 隔 瓜 綱 腹	TPV MODEL		Rev	B
Key Component: MARS DDR2	PCB NAME		核 審	<核審>
Date: Friday, November 16, 2012	Sheet	13 of 19		

TPV

MODEL V652 SCHEMATIC DIAGRAM MAIN BOARD (MARS_LVDS)



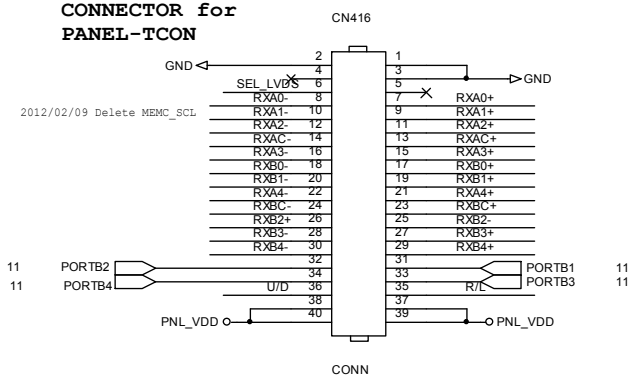


Option for Panel-Tcon

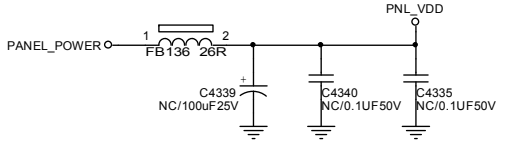
PANEL TYPE	LVDS FORMAT	DCR	BLT	DIMMING
46:LTI460HA01	LOW=JEIDA HIGH=VESA		ON:2.4~5.5V OFF:0~0.8V	0V:Min 3.3v:Max
42:LD420WXN	LOW=VESA HIGH=JEIDA	LOW:DISABLE. HIGH:ENABLE.	ON:5V OFF:0V	0V:Min 3.3v:Max
32:LTI320AA02	LOW=JEIDA HIGH=VESA		ON:2.4~5.5V OFF:0~0.8V	0V:Min 3.3v:Max

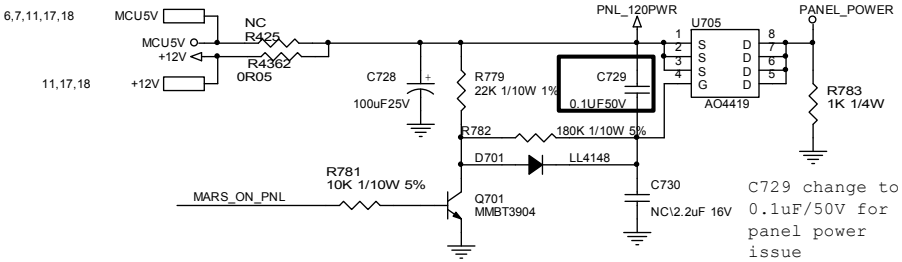
2012/02/21 modify CN416 for LVDS PIN Define

CONNECTOR for PANEL-TCON



2012/02/09 Delete MEMC_SCL

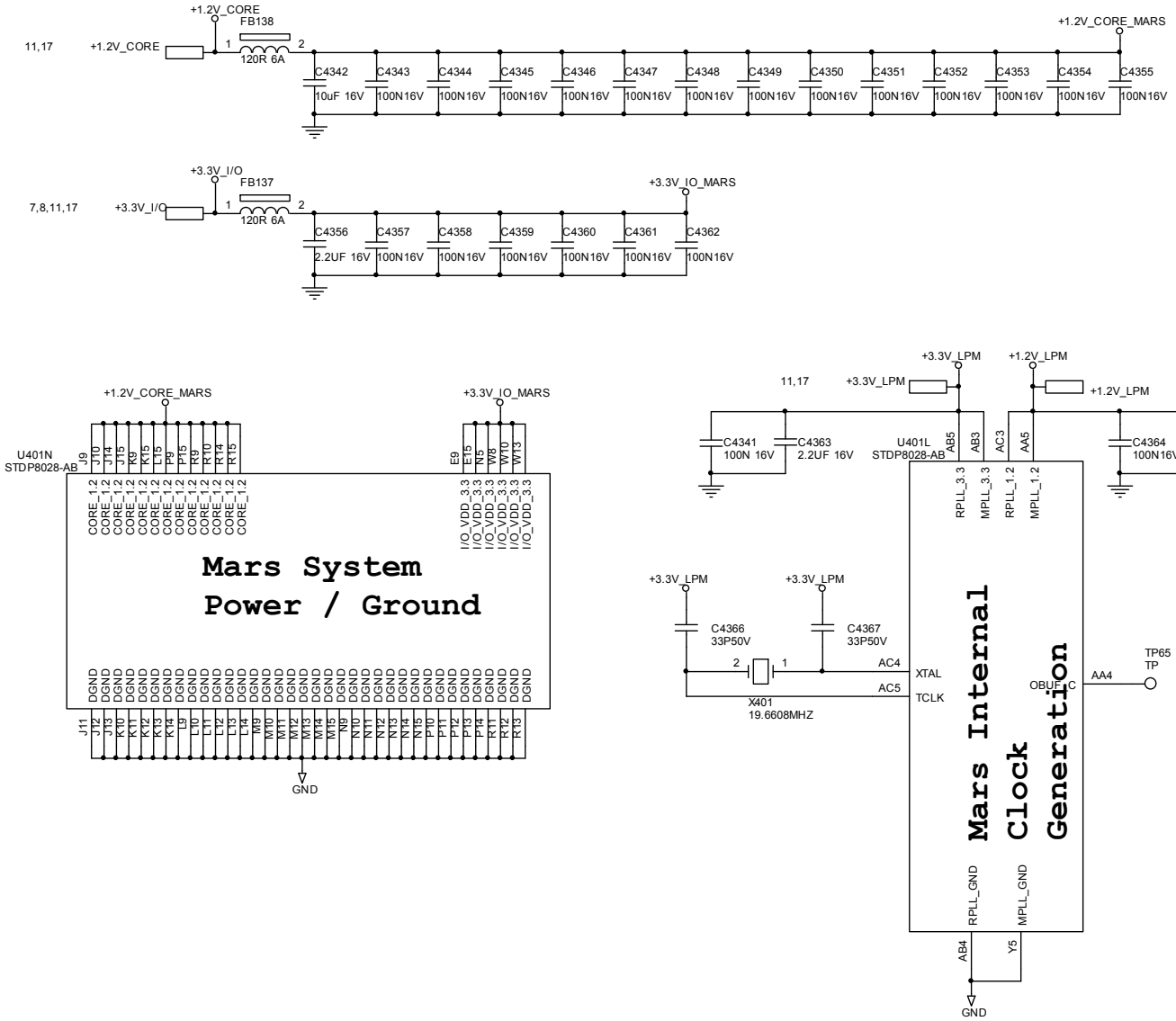




C729 change to 0.1uF/50V for panel power issue

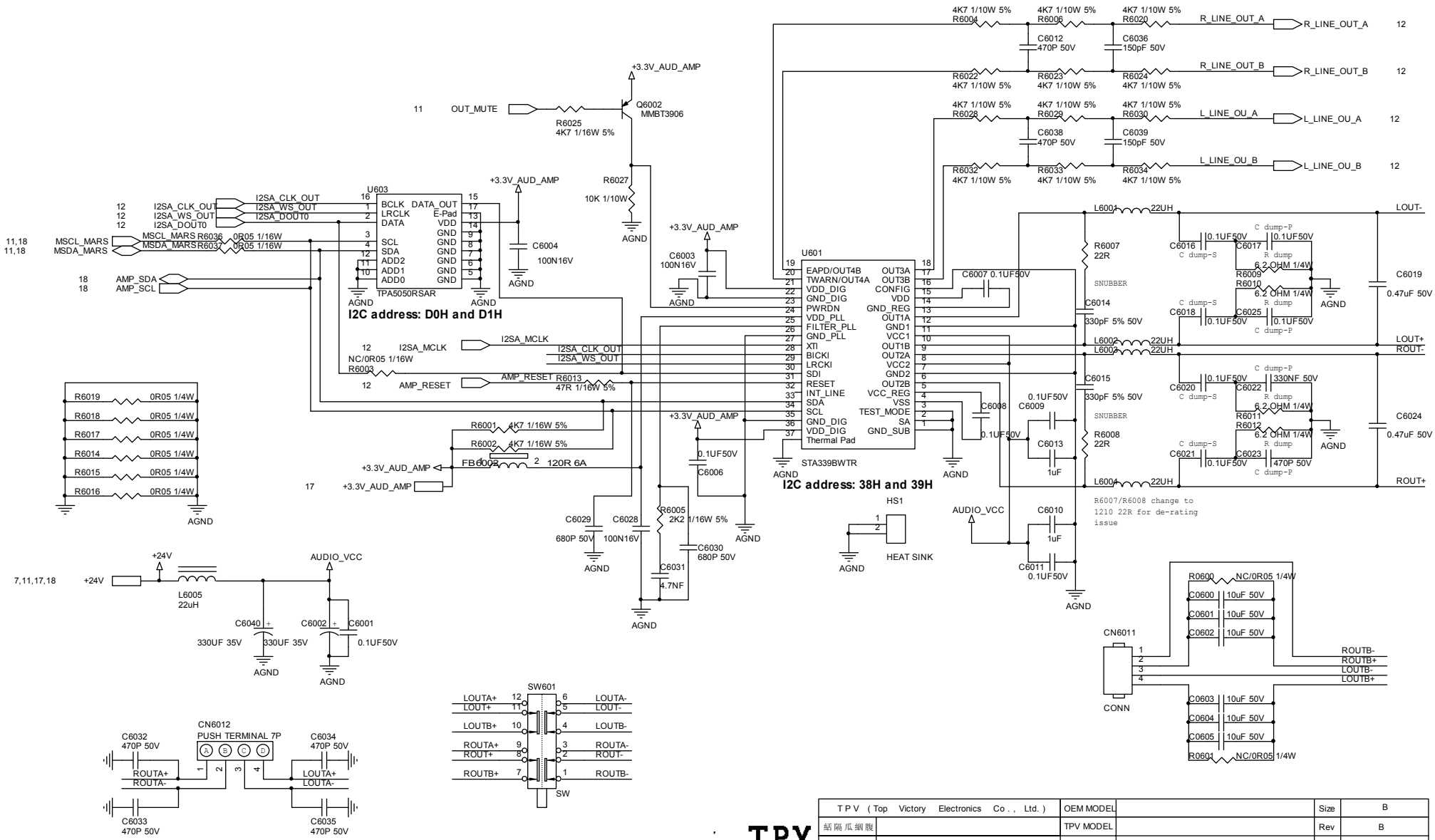
TPV (Top Victory Electronics Co., Ltd.)		OEM MODEL		Size	B
紙隔瓜網腹		TPV MODEL		Rev	B
Key Component	MARS_LVDS	PCB NAME		称爹	<称爹>
Date	Friday, November 16, 2012	Sheet	14 of 19		

MODEL V652 SCHEMATIC DIAGRAM MAIN BOARD (MARS_POWER/Clock/Reset)



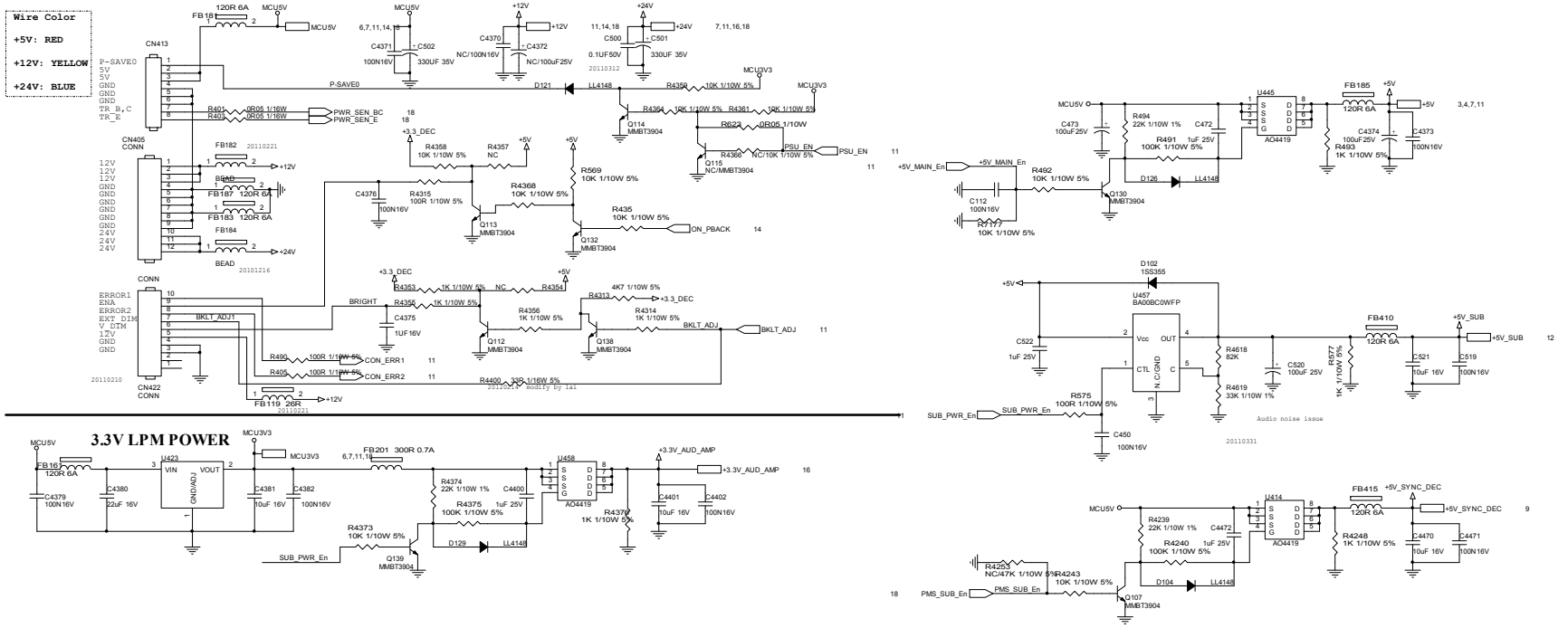
TPV (Top Victory Electronics Co., Ltd.)		OEM MODEL		Size	B
結隔瓜網腹		TPV MODEL		Rev	B
Key Component	MARS_Power/Clock/Reset	PCB NAME		称爹	<称爹>
Date	Friday, November 16, 2012	Sheet	15 of 19		

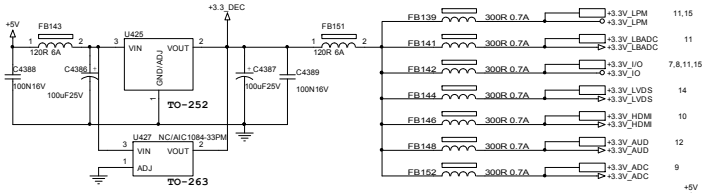
MODEL V652 SCHEMATIC DIAGRAM MAIN BAORD (Audio AMP)

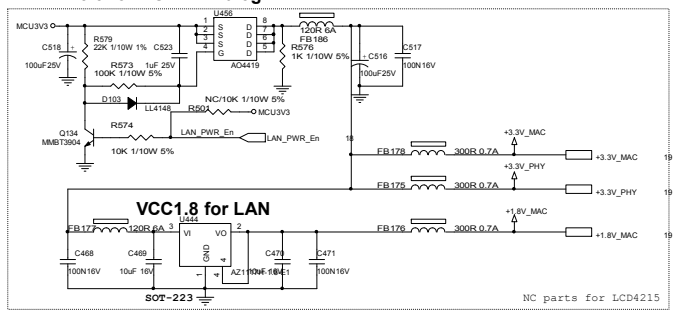


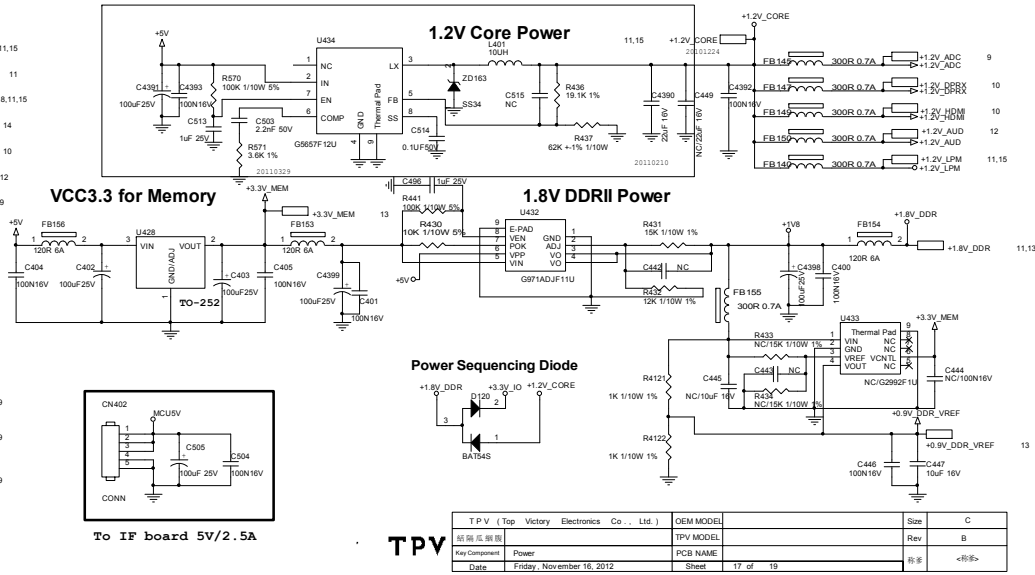
TPV (Top Victory Electronics Co., Ltd.)		OEM MODEL		Size	B
結隔瓜綢腹		TPV MODEL		Rev	B
Key Component	AUDIO AMP	PCB NAME		称爹	<称爹>
Date	Friday, November 16, 2012	Sheet	16 of 19		

MODEL V652 SCHEMATIC DIAGRAM MAIN BAORD (Power)



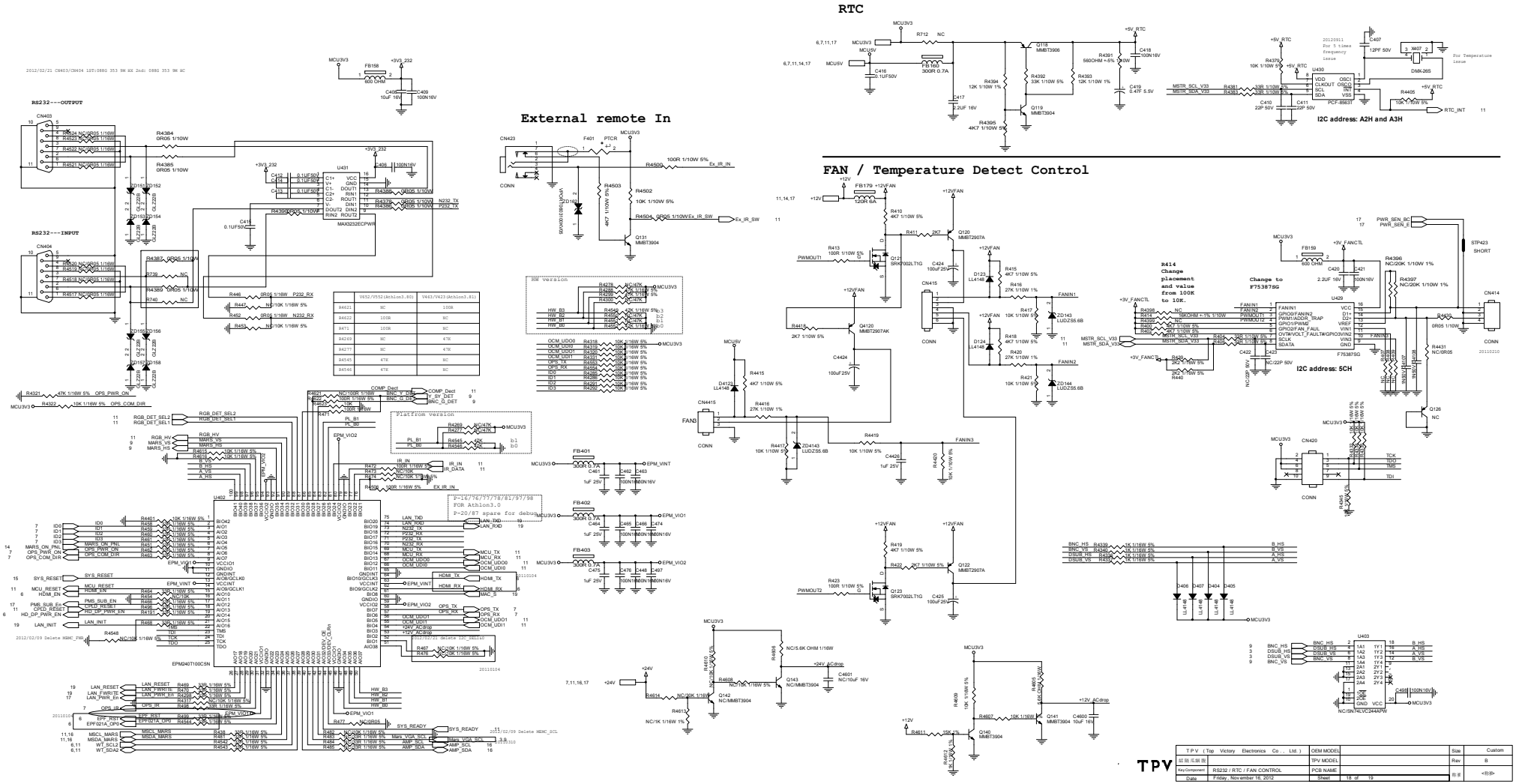




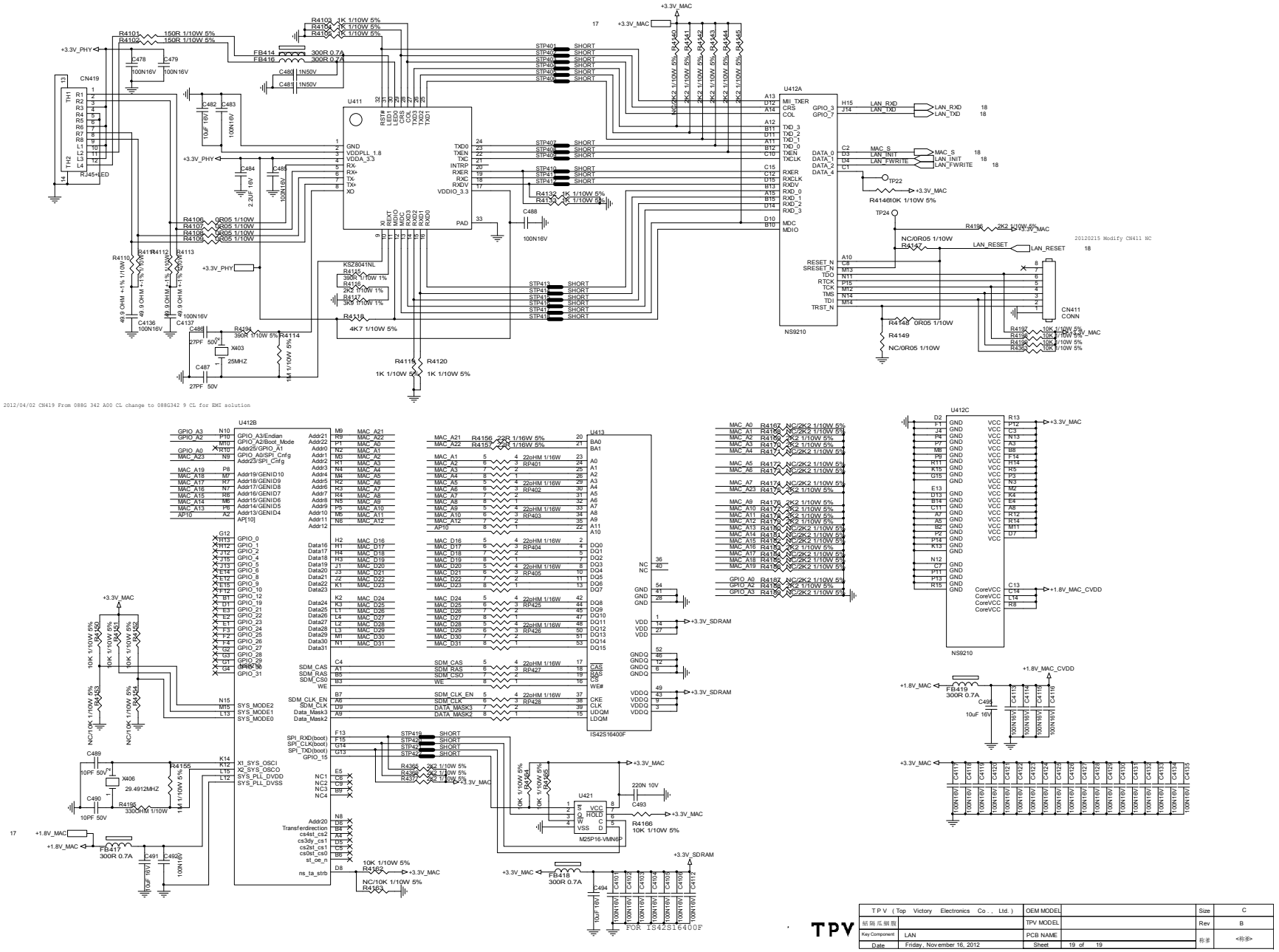


T P V (Top Victory Electronics Co . , Ltd.)		OEM MODEL		Size	C
纸隔瓦铜膜		TPV MODEL		Rev	B
Key Component	Power	PCB NAME		标准	<标准>
Date	Friday , November 16, 2012	Sheet	17 of 19		

MODEL V652 SCHEMATIC DIAGRAM MAIN BAORD (RS232/RCT/FAN/CPLD)



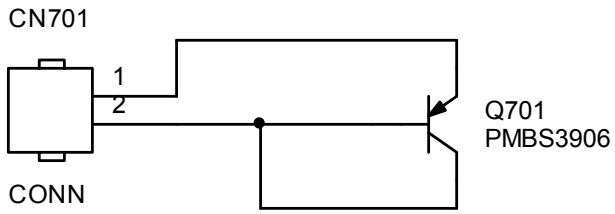
MODEL V652 SCHEMATIC DIAGRAM MAIN BAORD (LAN)



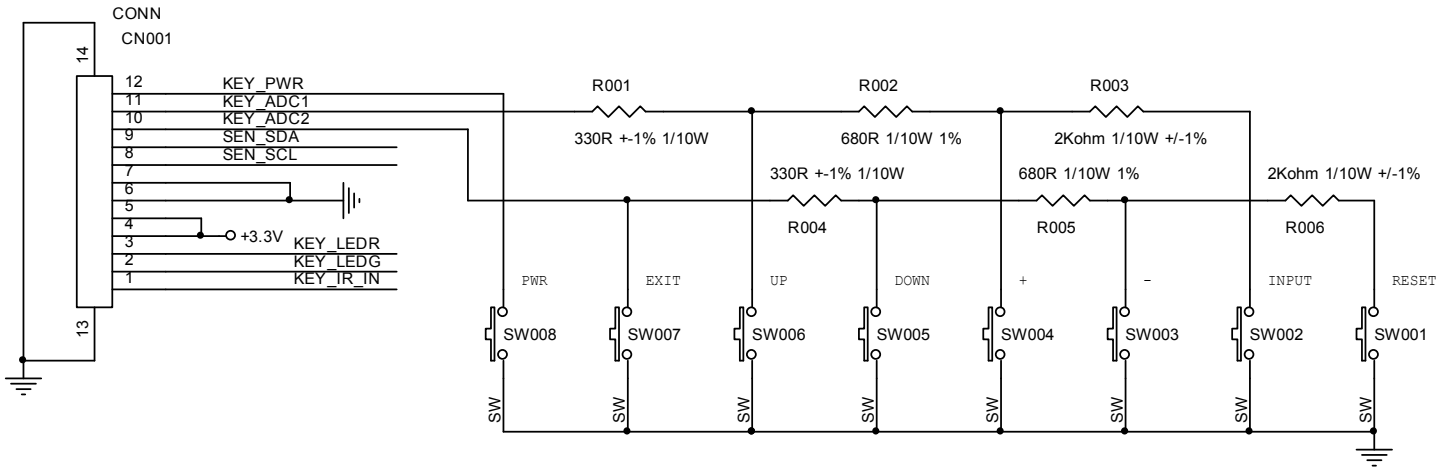
T P V (Top Victory Electronics Co . , Ltd.)		OEM MODEL		Size	C
結開瓜個股		TPV MODEL		Rev	B
Key Component	LAN	PCB NAME		标准	<标准>
Date	Friday, November 16, 2012	Sheet	19 of 19		

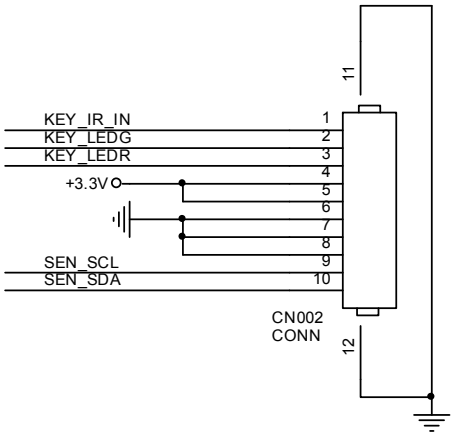
TPV

MODEL V652 SCHEMATIC DIAGRAM CNPC BAORD (CNPC9QN6)



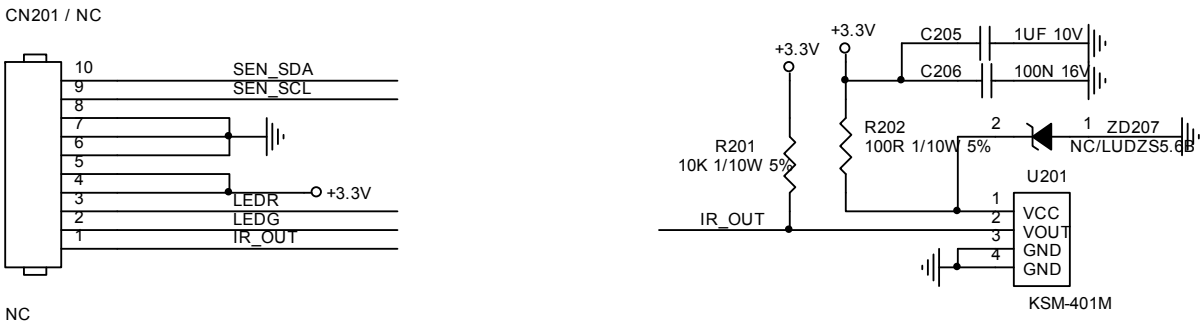
MODEL V652 SCHEMATIC DIAGRAM KEY BAORD (KEPCAQNB)

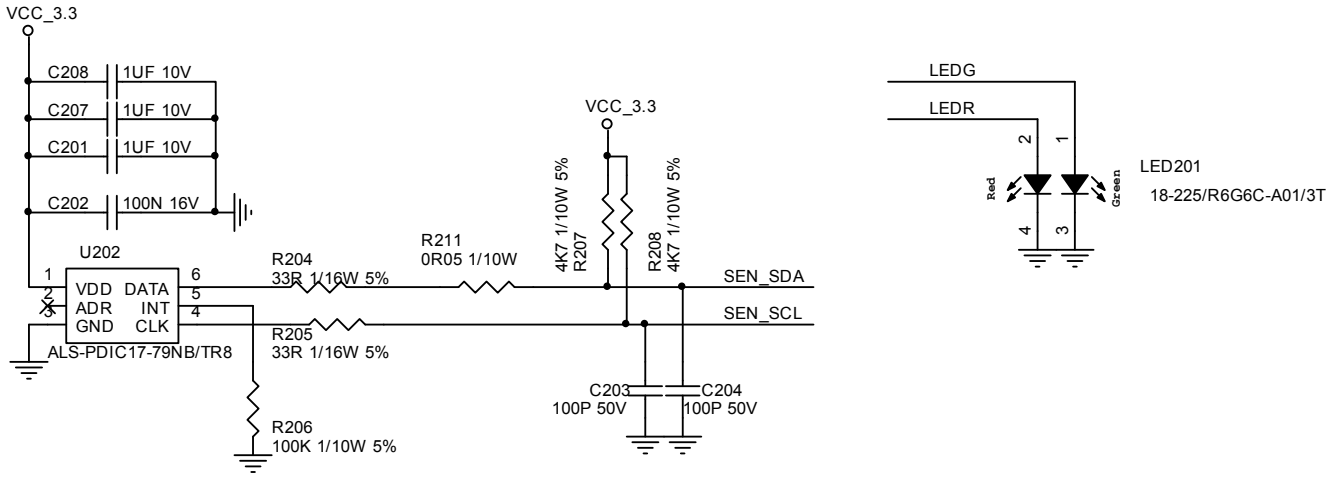




TPV (Top Victory Electronics Co., Ltd.)		OEM MODEL		Size	A
絽隔瓜絧腹		TPV MODEL		Rev	E
Key Component	02. KEYPAD BOARD	PCB NAME		称爹	<称爹>
Date	Thursday, December 30, 2010	Sheet	2 of 2		

MODEL V652 SCHEMATIC DIAGRAM IR BAORD (IRPCAQN3)

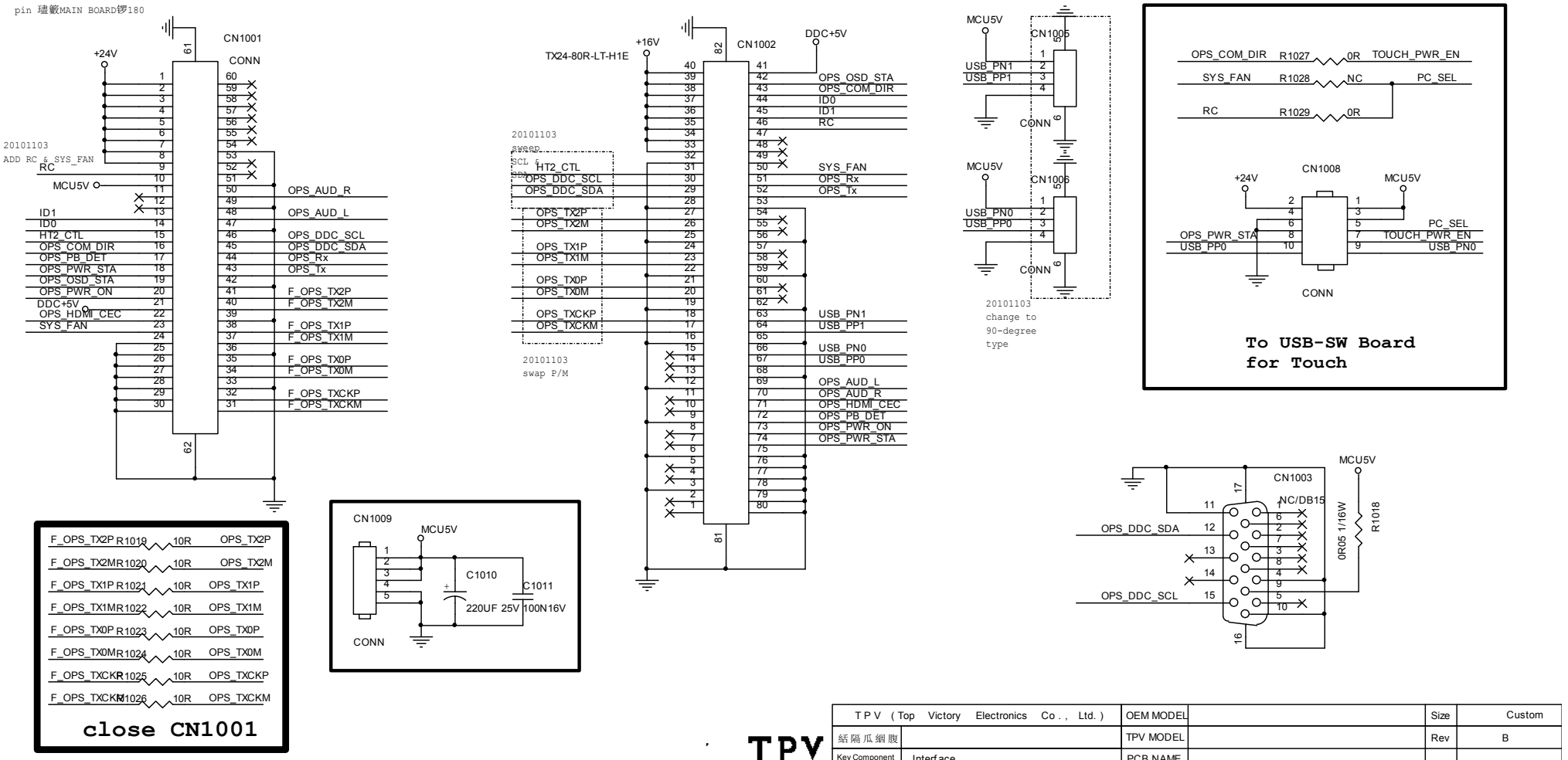




I2C ADDR: 72H & 73H

TPV (Top Victory Electronics Co., Ltd.)		OEM MODEL		Size	A
結隔瓜網腹		TPV MODEL		Rev	F
Key Component	02. IR / LED Board	PCB NAME		称爹	<称爹>
Date	Monday, January 03, 2011	Sheet	2 of 2		

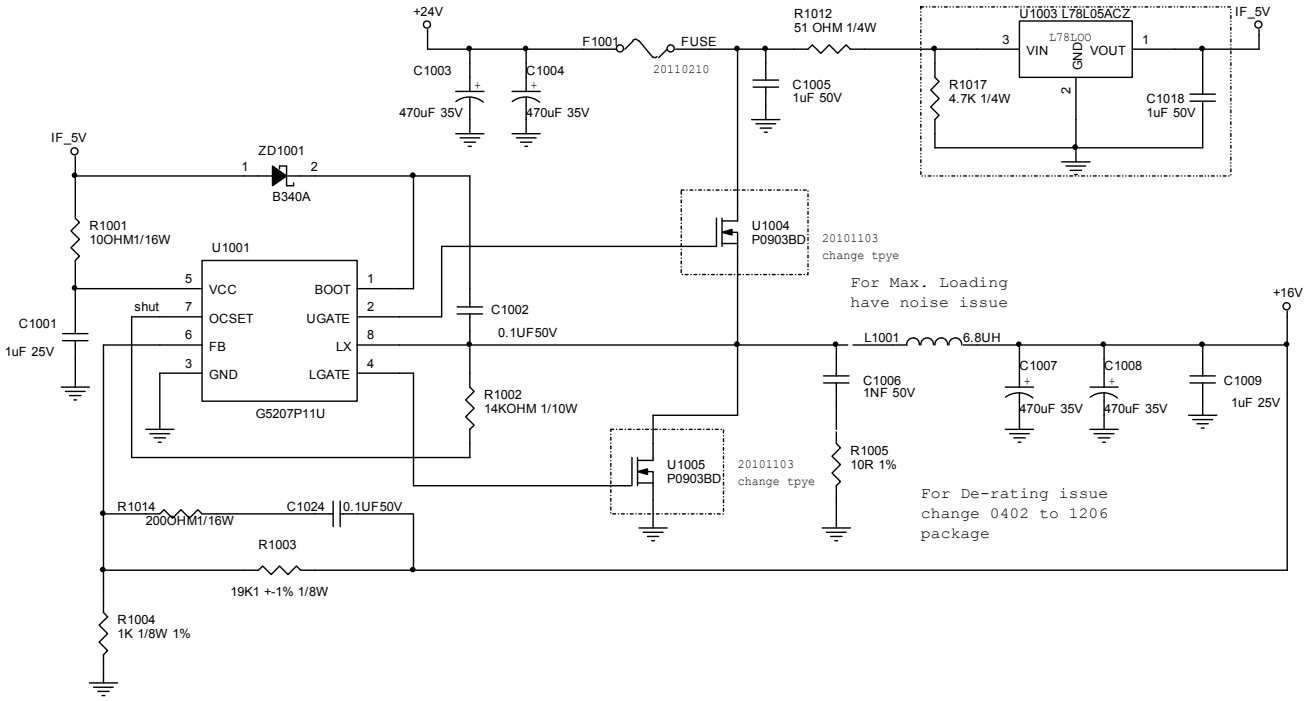
MODEL V652 SCHEMATIC DIAGRAM LNPC BAORD (CTPCCQNC) (Interface)

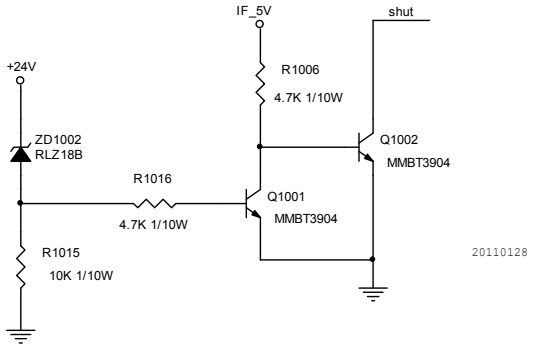


TPV

TPV (Top Victory Electronics Co., Ltd.)		OEM MODEL		Size	Custom
紝隔瓜綢腹		TPV MODEL		Rev	B
Key Component	Interface	PCB NAME		称爹	<称爹>
Date	Friday, September 07, 2012	Sheet	1 of 2		

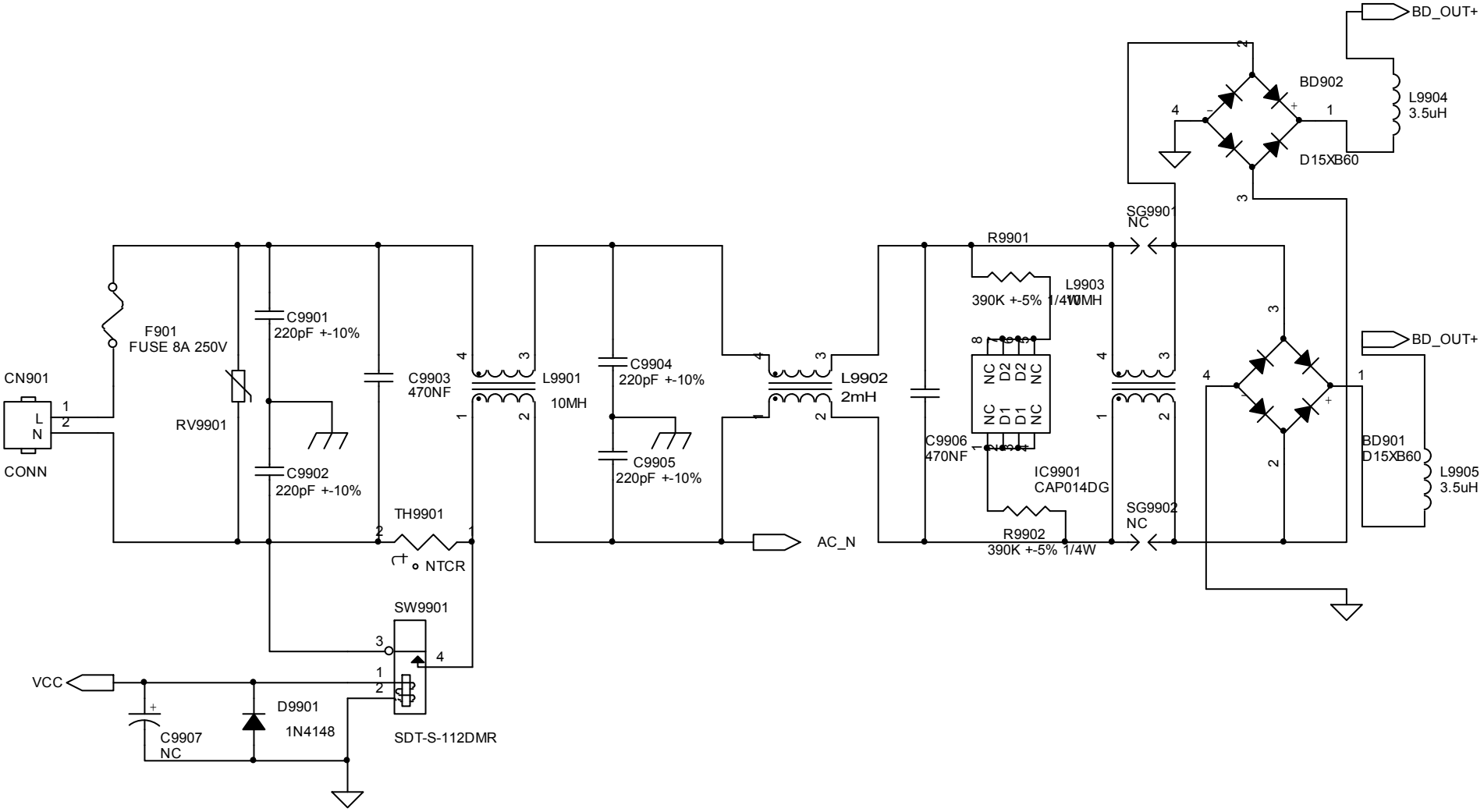
MODEL V652 SCHEMATIC DIAGRAM CTPC BAORD (CTPCCQNC) (Power)





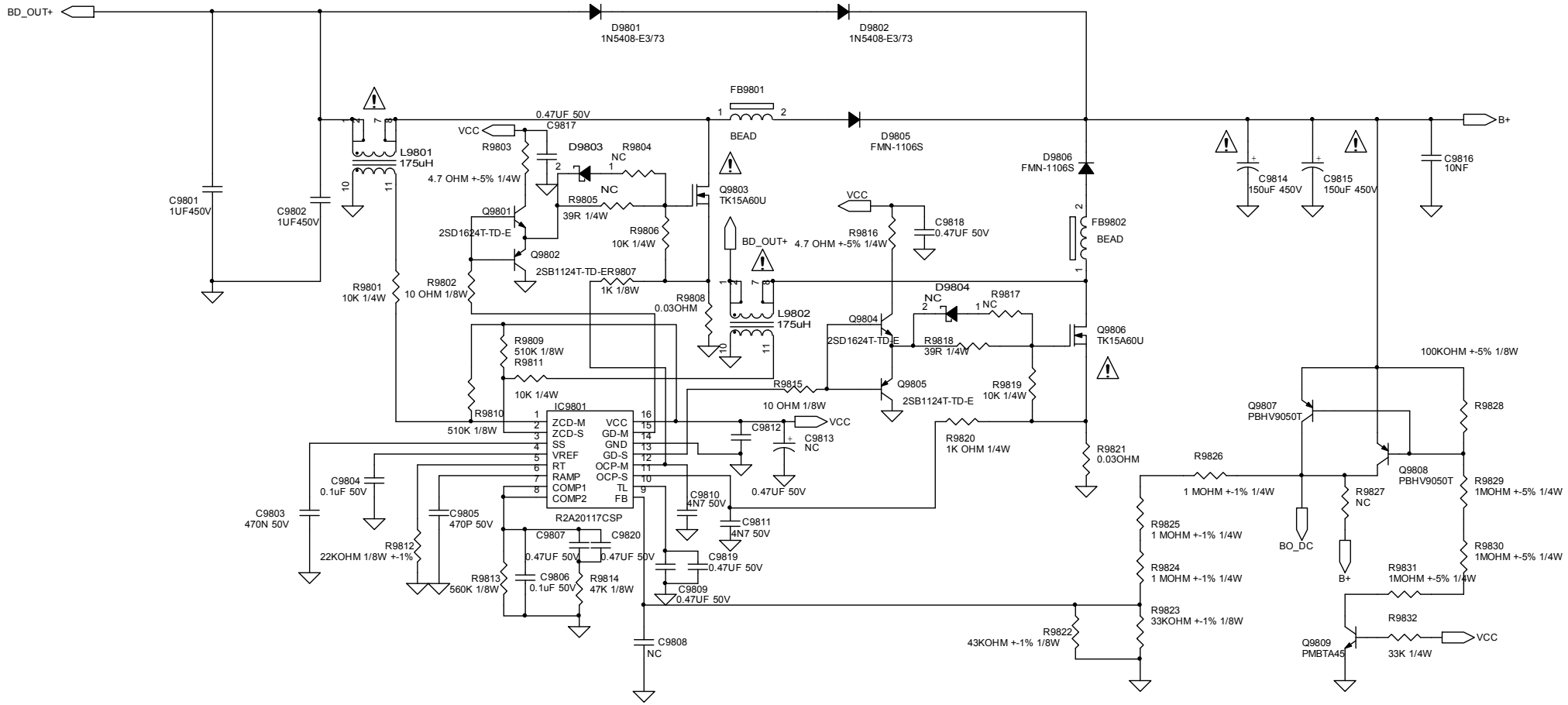
TPV (Top Victory Electronics Co., Ltd.)		OEM MODEL		Size	B
結隔瓜綢腹		TPV MODEL		Rev	B
Key Component	Power	PCB NAME		称爹	<称爹>
Date	Friday, September 07, 2012	Sheet	2 of 2		

MODEL V552 SCHEMATIC DIAGRAM POWER BAORD (ADPCA2435AAK) (Input stage)



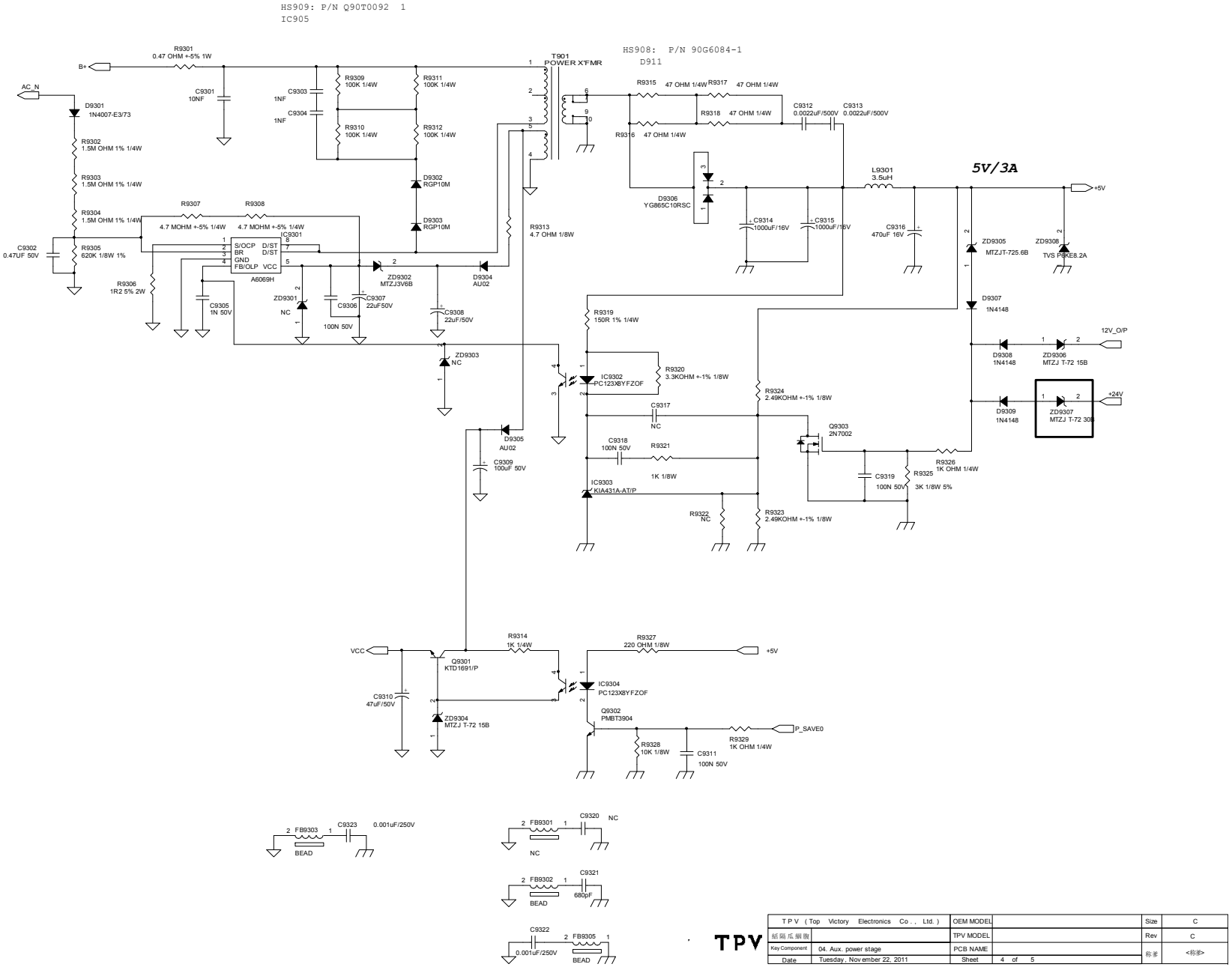
T P V (Top Victory Electronics Co . , Ltd.)		OEM MODEL		Size	Custom
結隔瓜綑腹		TPV MODEL		Rev	C
Key Component	02. Input stage	PCB NAME		称爹	<称爹>
Date	Tuesday , Nov ember 22, 2011	Sheet	2 of 5		

MODEL V552 SCHEMATIC DIAGRAM POWER BAORD (PFC stage)

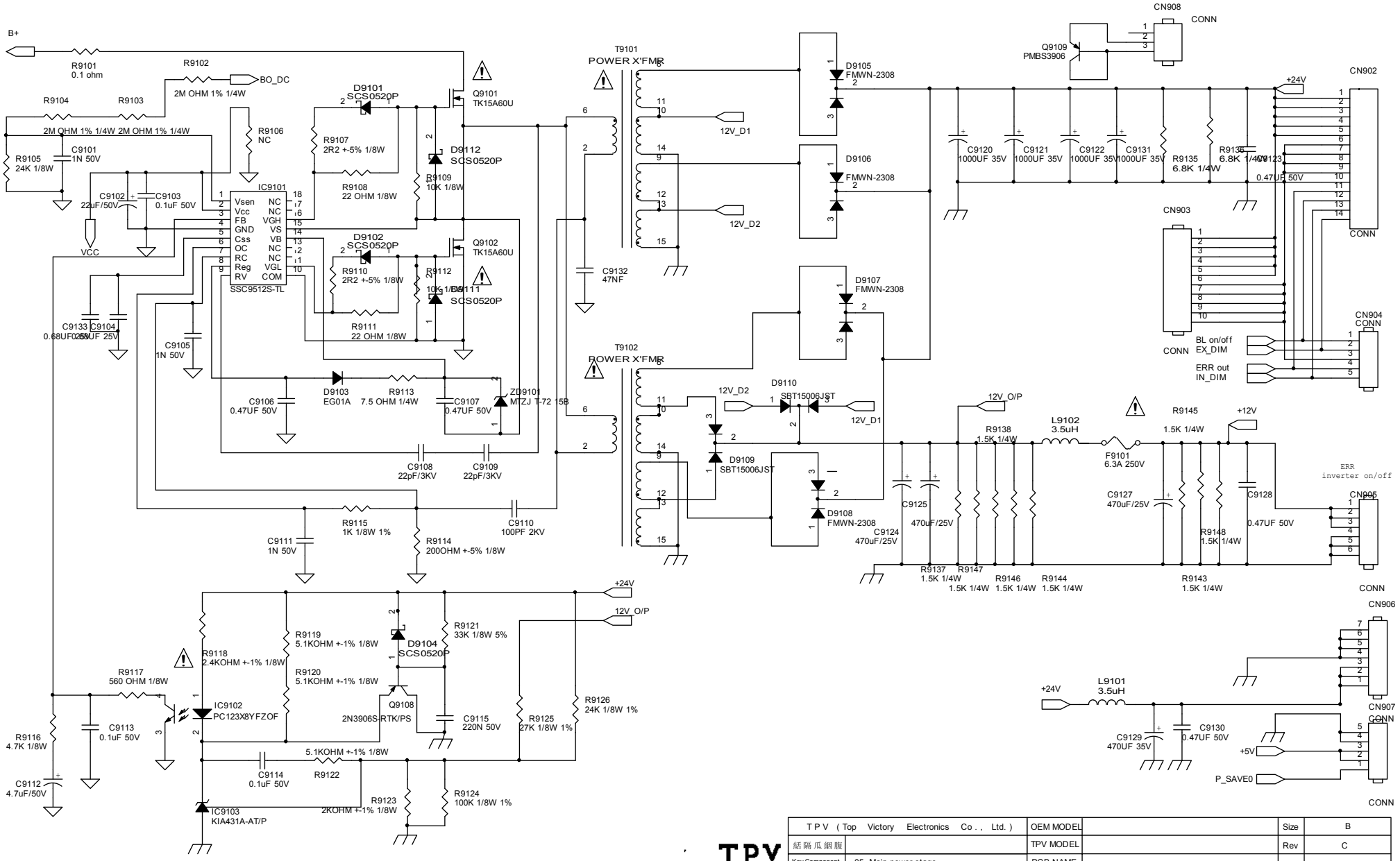


T P V （Top Victory Electronics Co., Ltd.）		OEM MODEL		Size	B
紙隔瓜網腹		TPV MODEL		Rev	C
Key Component	03. PFC stage	PCB NAME		称爹	<称爹>
Date	Tuesday, November 22, 2011	Sheet	3 of 5		

MODEL V552 SCHEMATIC DIAGRAM POWER BAORD (Aux. power stage)



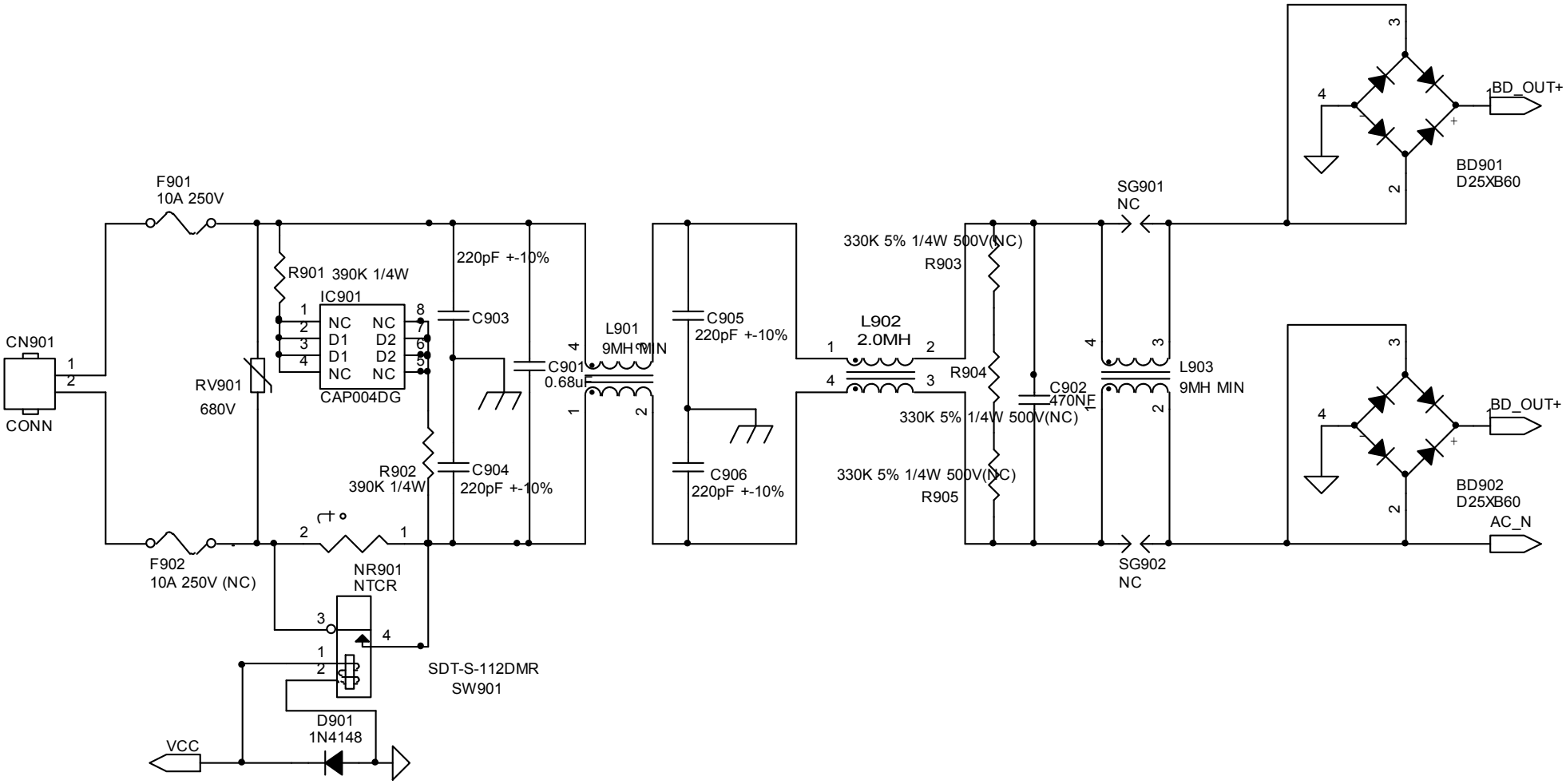
MODEL V552 SCHEMATIC DIAGRAM POWER BAORD (Main power stage)



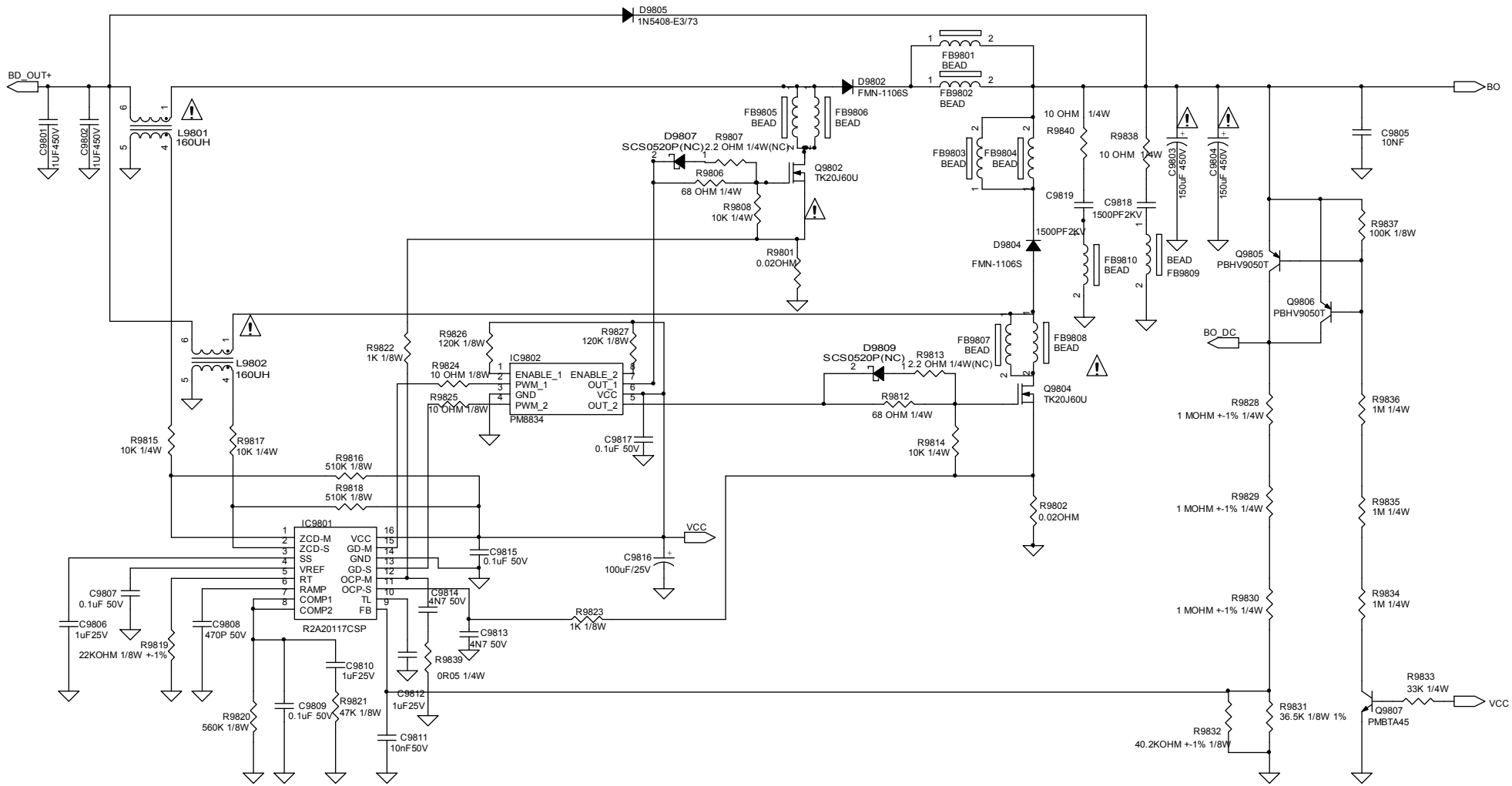
T P V (Top Victory Electronics Co., Ltd.)		OEM MODEL		Size	B
結隔爪綑腹		TPV MODEL		Rev	C
Key Component	05. Main power stage	PCB NAME		称爹	<称爹>
Date	Wednesday, February 22, 2012	Sheet	5 of 5		

TPV

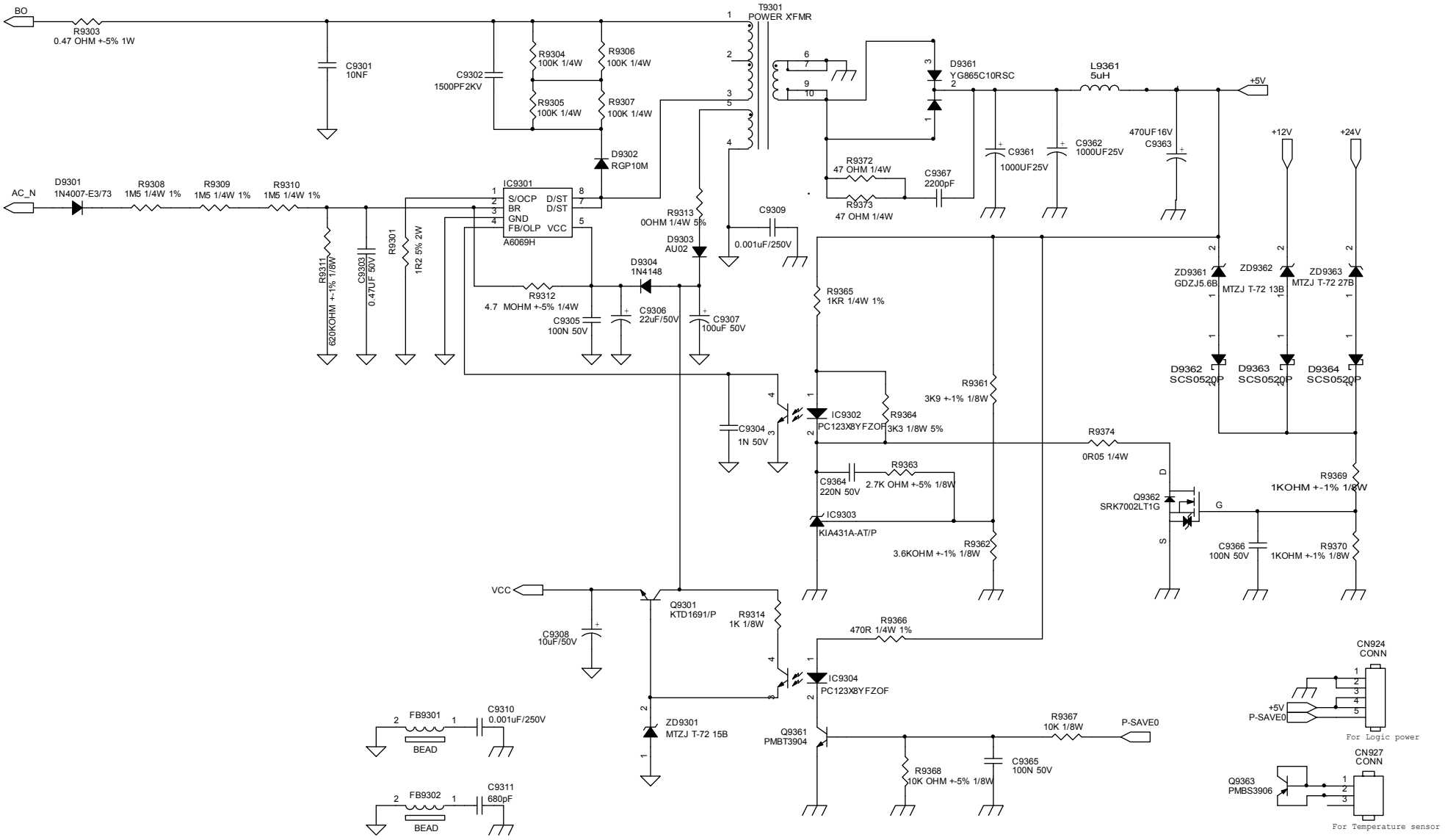
MODEL V652 SCHEMATIC DIAGRAM POWER BAORD (ADPCC2460QAA) (Input stage)



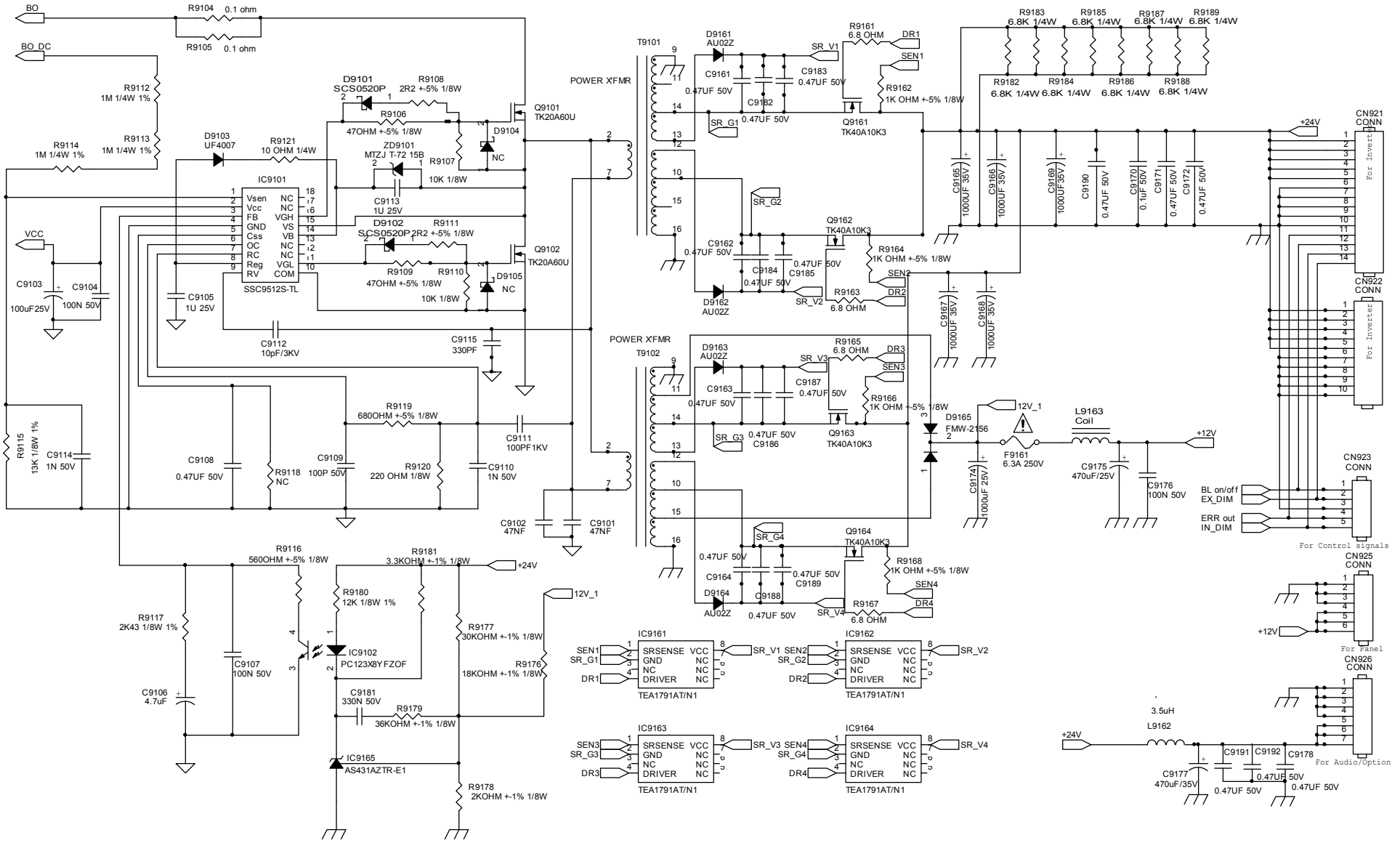
MODEL V652 SCHEMATIC DIAGRAM POWER BAORD (PFC stage)



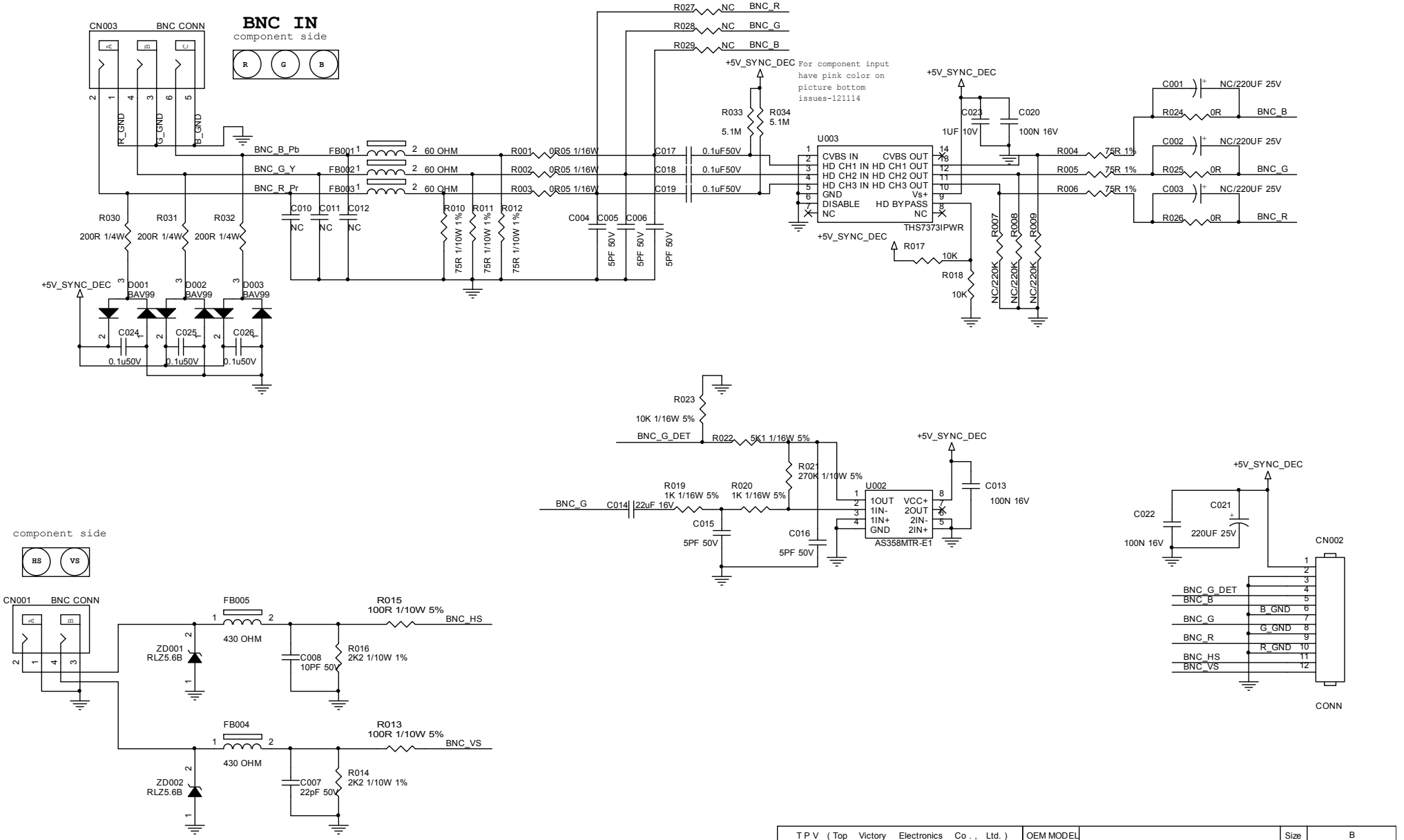
MODEL V652 SCHEMATIC DIAGRAM POWER BAORD (Aux. power stage)



MODEL V652 SCHEMATIC DIAGRAM POWER BAORD (Main power stage)



MODEL V652 SCHEMATIC DIAGRAM CTPC BAORD (SUPCCQNB)



TPV (Top Victory Electronics Co., Ltd.)		OEM MODEL		Size	B
結隔瓜網腹		TPV MODEL		Rev	B
Key Component	02. BNC_IN/EXT-IR IN	PCB NAME		称爹	<称爹>
Date	Wednesday, November 14, 2012	Sheet	2 of 2		

TPV