

Service
Service
Service

EU



Service Manual

Chassis name	Platform	Model name
TPM17.7E LA	MTK5802	43PUS6162/12
		43PUT6162/12
		43PUT6162/60
		43PUS6262/12
		43PUT6262/12
		49PUS6162/12
		49PUT6162/12
		49PUT6162/60
		49PUS6262/12
		49PUT6262/12
		50PUS6162/12
		50PUT6162/12
		50PUS6262/12
		50PUT6262/12
		55PUS6162/12
		55PUT6162/12
		55PUT6162/60
		55PUS6262/12
		55PUT6262/12
		55PUS6272/12
		65PUS6162/12
		65PUT6162/12
		65PUS6262/12
		65PUT6262/12

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1. Product information

Product specifications are subject to change without notice.
For more specification details of this product, see www.philips.com/support

Display Resolution

Diagonal screen size

- 43PUx6x62: 108cm/43inch
- 49PUx6x62: 123cm/49inch
- 50PUx6x62: 126cm/50inch
- 55PUx6xx2: 139cm/55inch
- 65PUx6x62: 164cm/65inch

Display resolution

- 3840 x 2160

Supported Input Resolution-Video

HDMI

- 480i – 24Hz, 25Hz, 30Hz, 50Hz, 60Hz
- 480p– 24Hz, 25Hz, 30Hz, 50Hz, 60Hz
- 576i – 24Hz, 25Hz, 30Hz, 50Hz, 60Hz
- 576p– 24Hz, 25Hz, 30Hz, 50Hz, 60Hz
- 720p– 24Hz, 25Hz, 30Hz, 50Hz, 60Hz
- 1080i– 24Hz, 25Hz, 30Hz, 50Hz, 60Hz
- 1080p – 24Hz, 25Hz, 30Hz, 50Hz, 60Hz
- 3840 x 2160p– 24Hz, 25Hz, 30Hz, 50Hz, 60Hz

HDMI - UHD

🏠 (HOME) > Settings > General settings > HDMI Ultra HD

This TV can display Ultra HD signals. Some devices – connected with HDMI – do not recognize a TV with Ultra HD and might not work correctly or show distorted picture or sound.

To avoid the malfunctioning of such a device, you can set the signal quality to a level the device can handle. If the device is not using Ultra HD signals, you can switch off Ultra HD for this HDMI connection.

An HDMI connection with the setting **UHD 4:4:4/4:2:2** allows maximum up to UHD(50Hz or 60Hz) RGB 4:4:4 or YCbCr 4:4:4/4:2:2/4:2:0 signals. The setting **UHD 4:2:0**

allows maximum up to UHD(50Hz or 60Hz) YCbCr 4:2:0 signals.

Component, Composite

Composite

- PAL, NTSC, SECAM

Component

- 480i – 24Hz, 25Hz, 30Hz, 50Hz, 60Hz
- 480p– 24Hz, 25Hz, 30Hz, 50Hz, 60Hz
- 576i – 24Hz, 25Hz, 30Hz, 50Hz, 60Hz
- 576p– 24Hz, 25Hz, 30Hz, 50Hz, 60Hz
- 720p– 24Hz, 25Hz, 30Hz, 50Hz, 60Hz
- 1080i– 24Hz, 25Hz, 30Hz, 50Hz, 60Hz
- 1080p – 24Hz, 25Hz, 30Hz, 50Hz, 60Hz

Supported Input Resolution – Computer

- 640 x 480 – 60Hz
- 800 x 600 – 60Hz
- 1024 x 768 – 60Hz
- 1280 x 800 – 60Hz
- 1280 x 960 – 60Hz
- 1280 x 1024 – 60Hz
- 1366 x 768 – 60Hz
- 1440 x 900 – 60Hz
- 1920 x 1080 – 60Hz
- 3840 x 2160 – 60Hz

Sound

- Incredible Surround
- Clear sound
- Smart sound
- Output power(RMS): 20W
- Dolby® Digital
- DTS 2.0 + Digital out

Multimedia

Connections

- USB 2.0 / USB 3.0
- Ethernet LAN RJ-45
- Wi-Fi 802.11n(built-in)

Supported USB file systems

FAT, NTFS

Playback formats

- Video Codec:
AVI,MKV,HEVC,H.264/MPEG-4,AVC,MPEG1,MPEG2,MPEG4,WMV9/VC1,VP9
- Audio Codec: MP3,WAV,AAC,WMA(v2 up to v9.2),WMA-PRO(v9 and v10)
- Subtitles:
- Format: SRT,SMI,SSA,SUB,ASS,TXT
- Character encodings: UTF-8,Central Europe and Eastern Europe (Windows-1250),Cyrillic (Windows-1251),Greek (Windows-1253),Turkish (Windows-1254),Western Europe (Windows-1252)
- Image Codec: JPEG,GIF,PNG,BMP

Wi-Fi Certified

This TV supports Miracast certified devices

Performance may vary,depending on the capabilities of the mobile device and the software used.

Connectivity

TV Side

- Common Interface slot: CI+/CAM
- USB 2 – USB 2.0
- HDMI 3 in – MHL –UHD – HDR
- Headphones – Stereo mini-jack 3.5mm

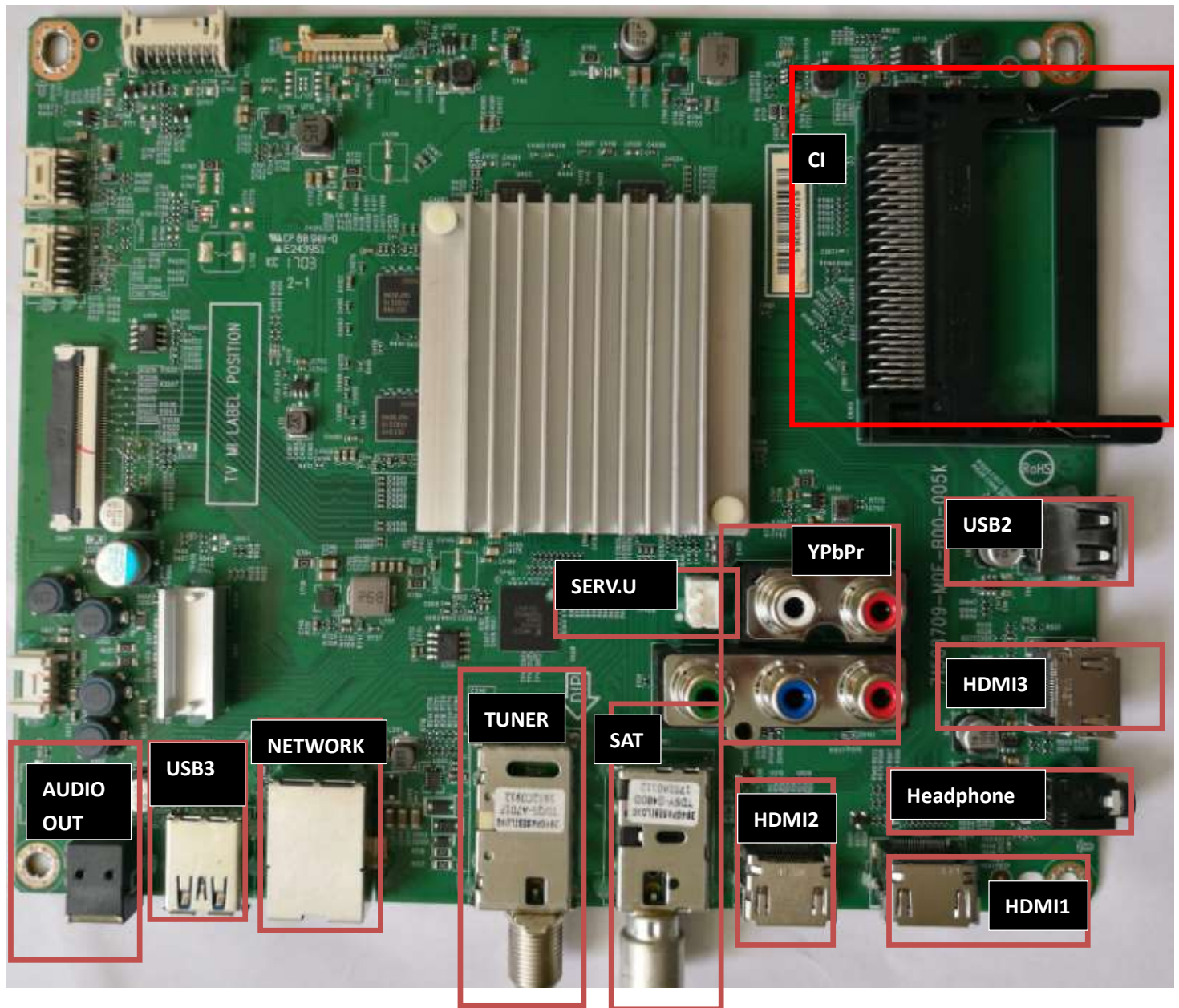
TV Rear

- YPbPr: Y Pb Pr,Audio L/R
- CVBS: CVBS,Audio L/R(Shared with YPbPr)

TV Bottom

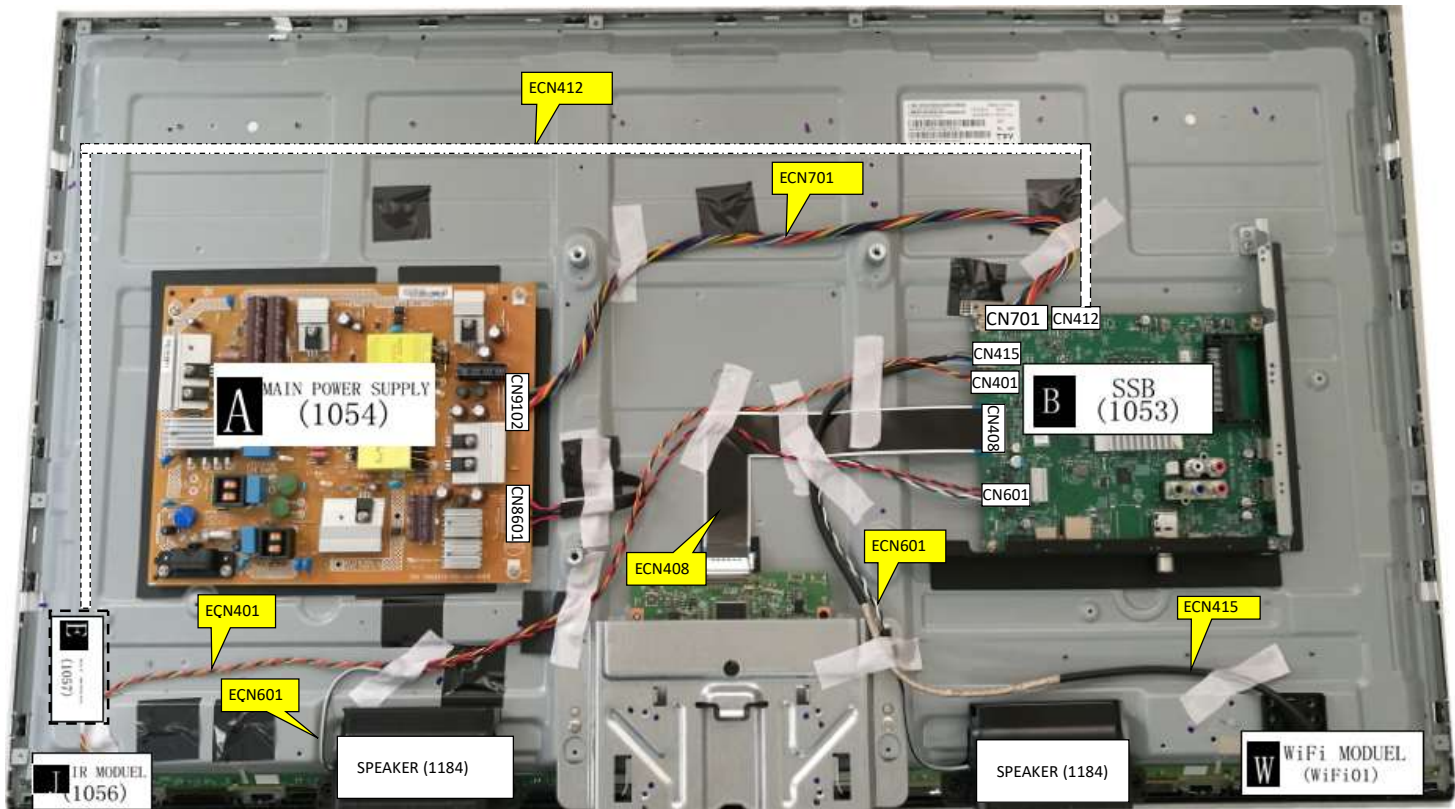
- Audio out – Optical Toslink
- USB 1 – USB 3.0
- Network LAN – RJ45
- Satellite tuner
- Antenna (75 ohm)
- HDMI 1 in – ARC – UHD
- HDMI 2 in – UHD - HDR

2. Connections Overview

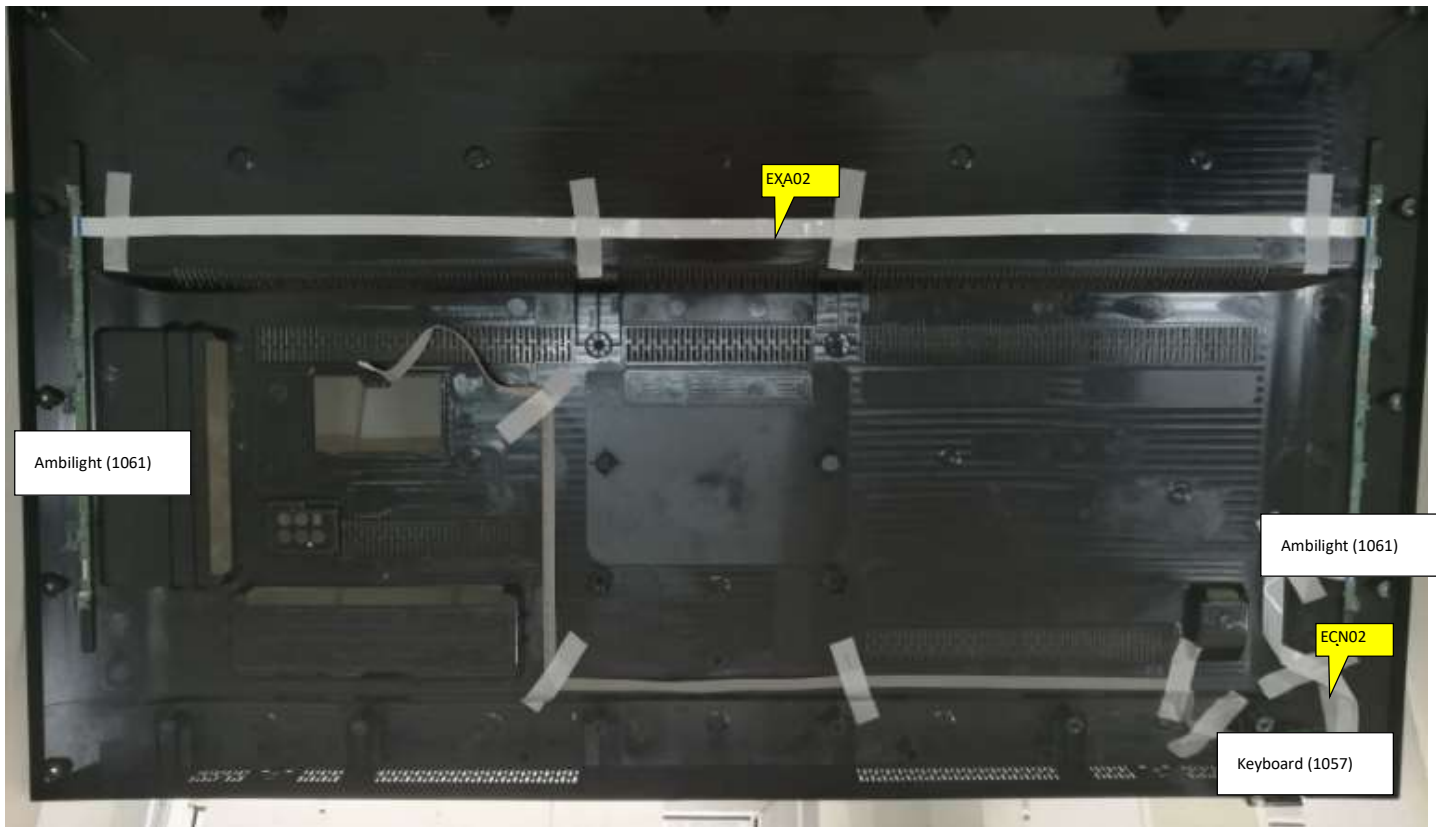


3. Mechanical Instructions

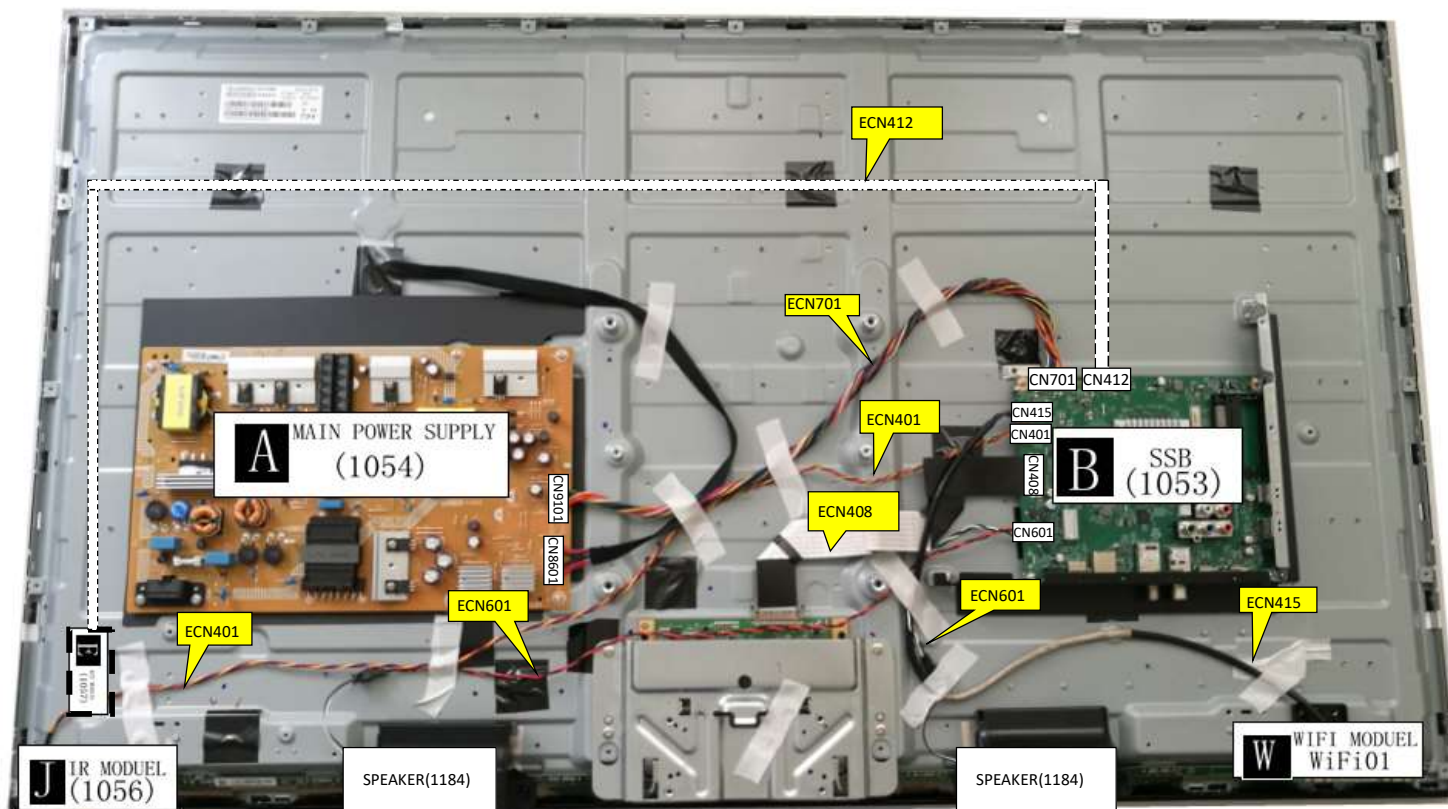
3.1 Cable Dressing



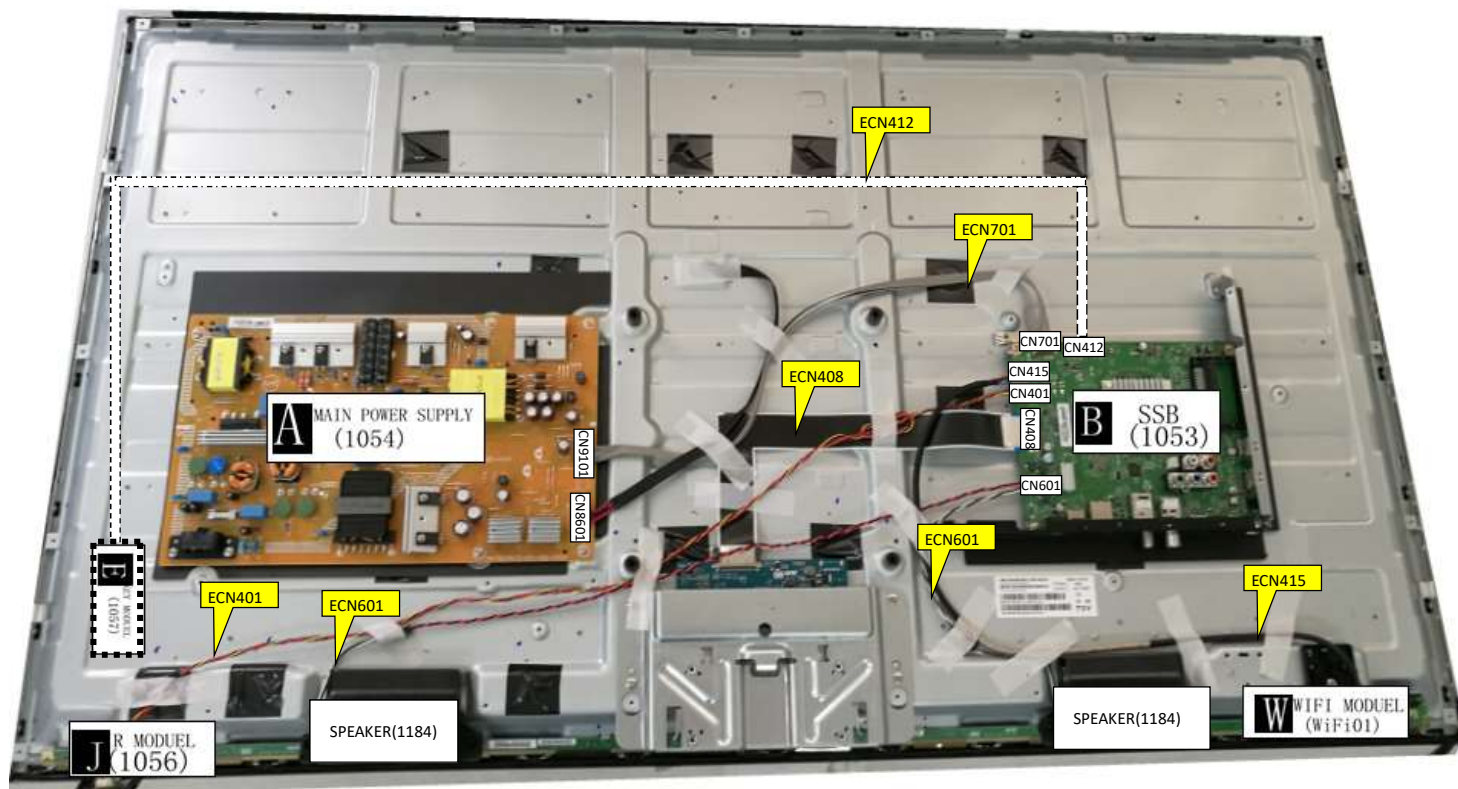
Cable dressing (43" 6162/6262 series)



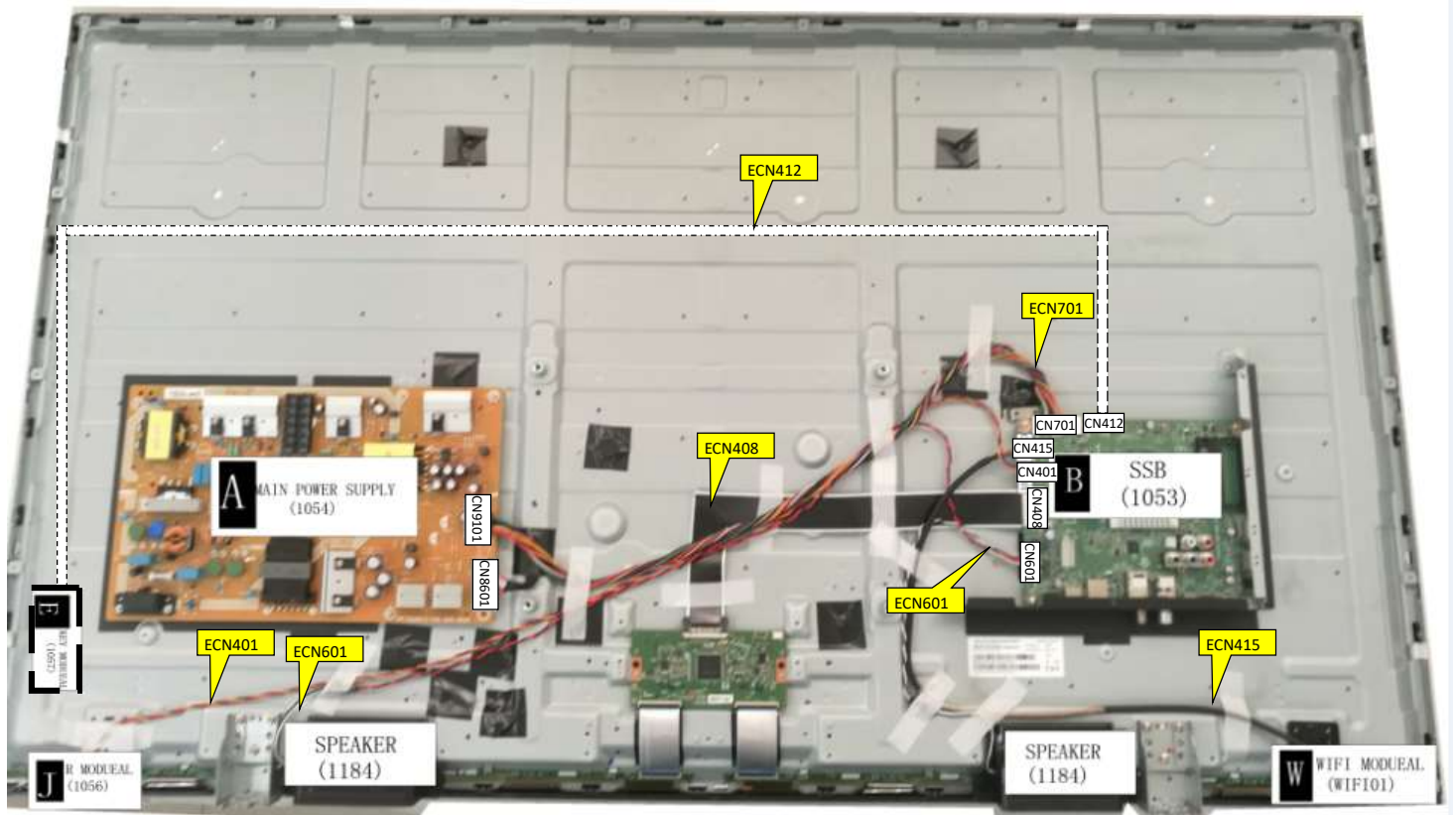
Back cover view (43"/ 49"/ 55" 6262 series)



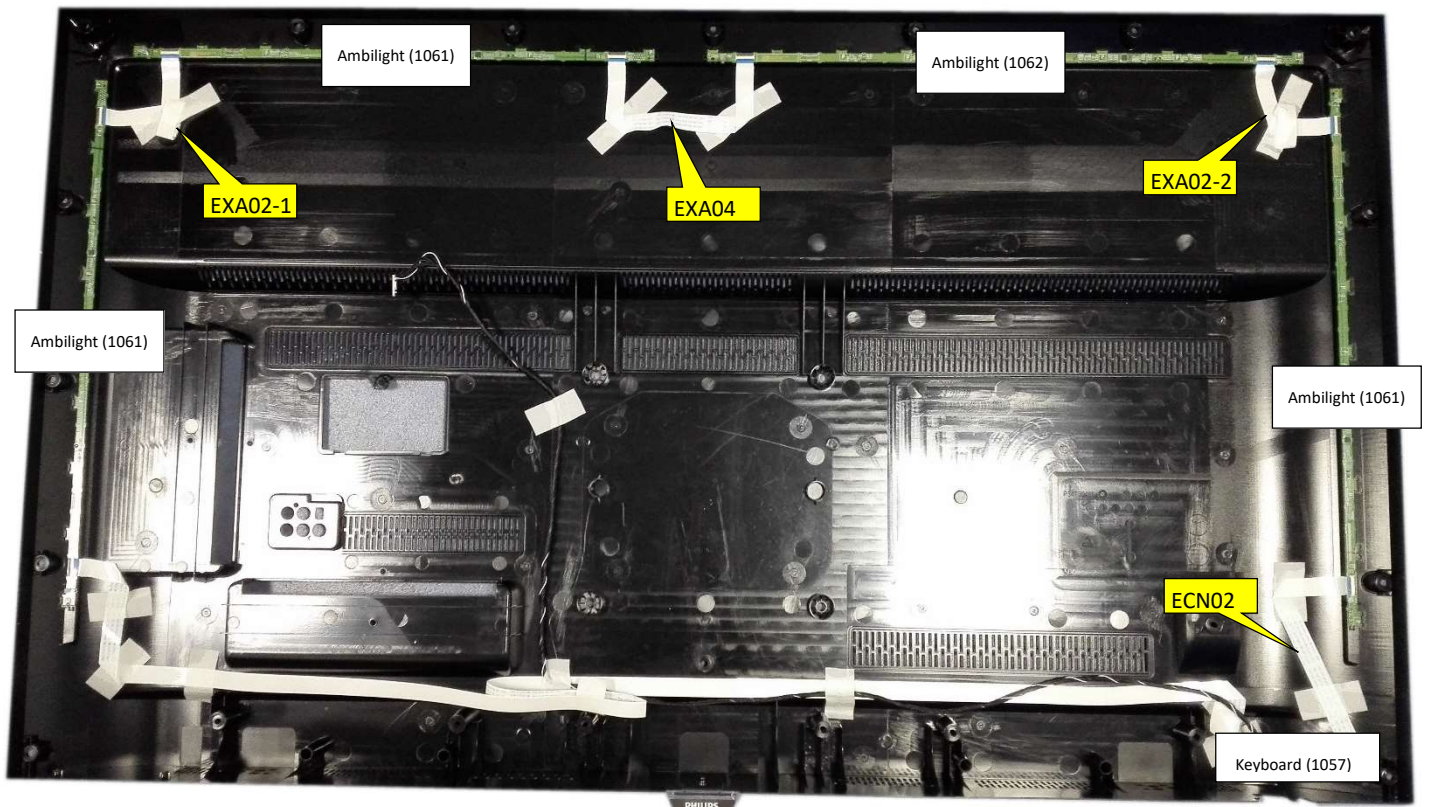
Cable dressing (49" 6162/6262 series)



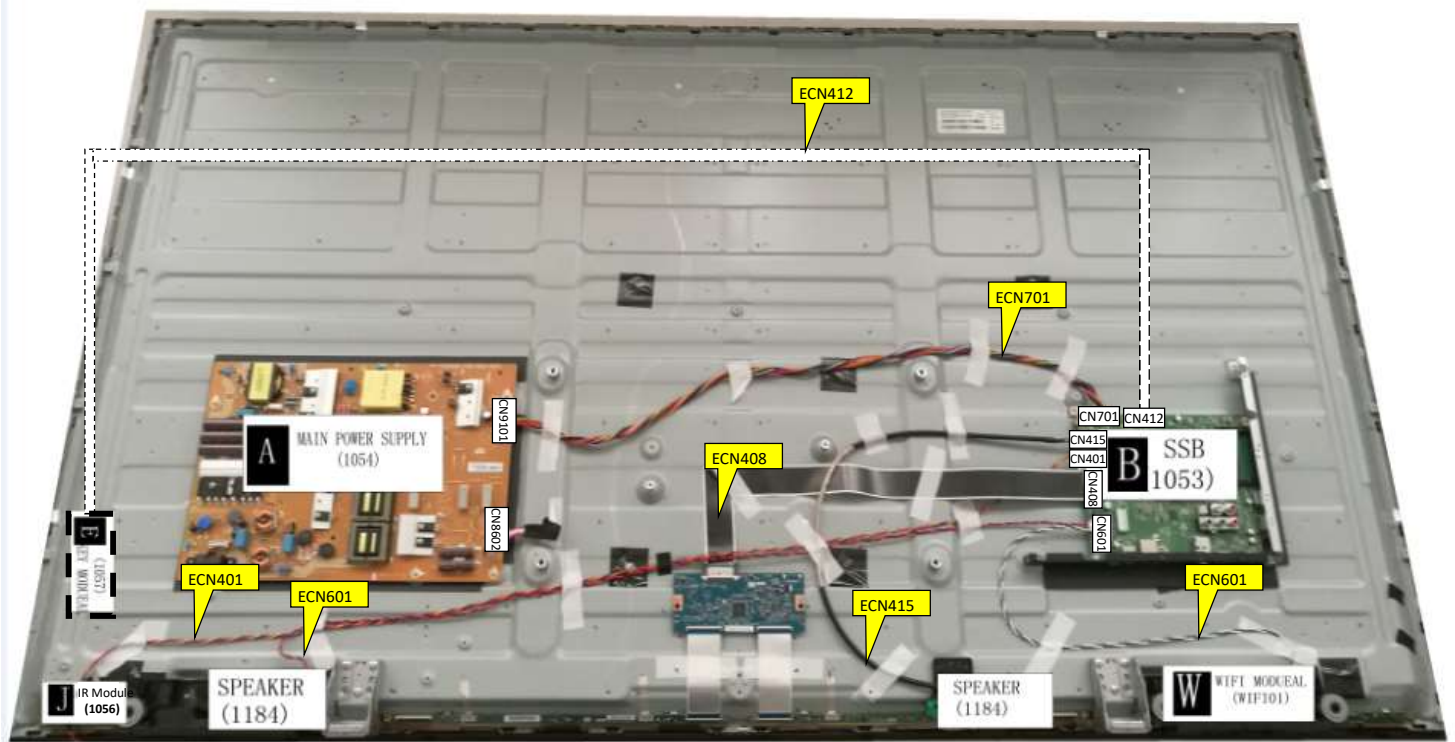
Cable dressing (50"/55" 6162 series)



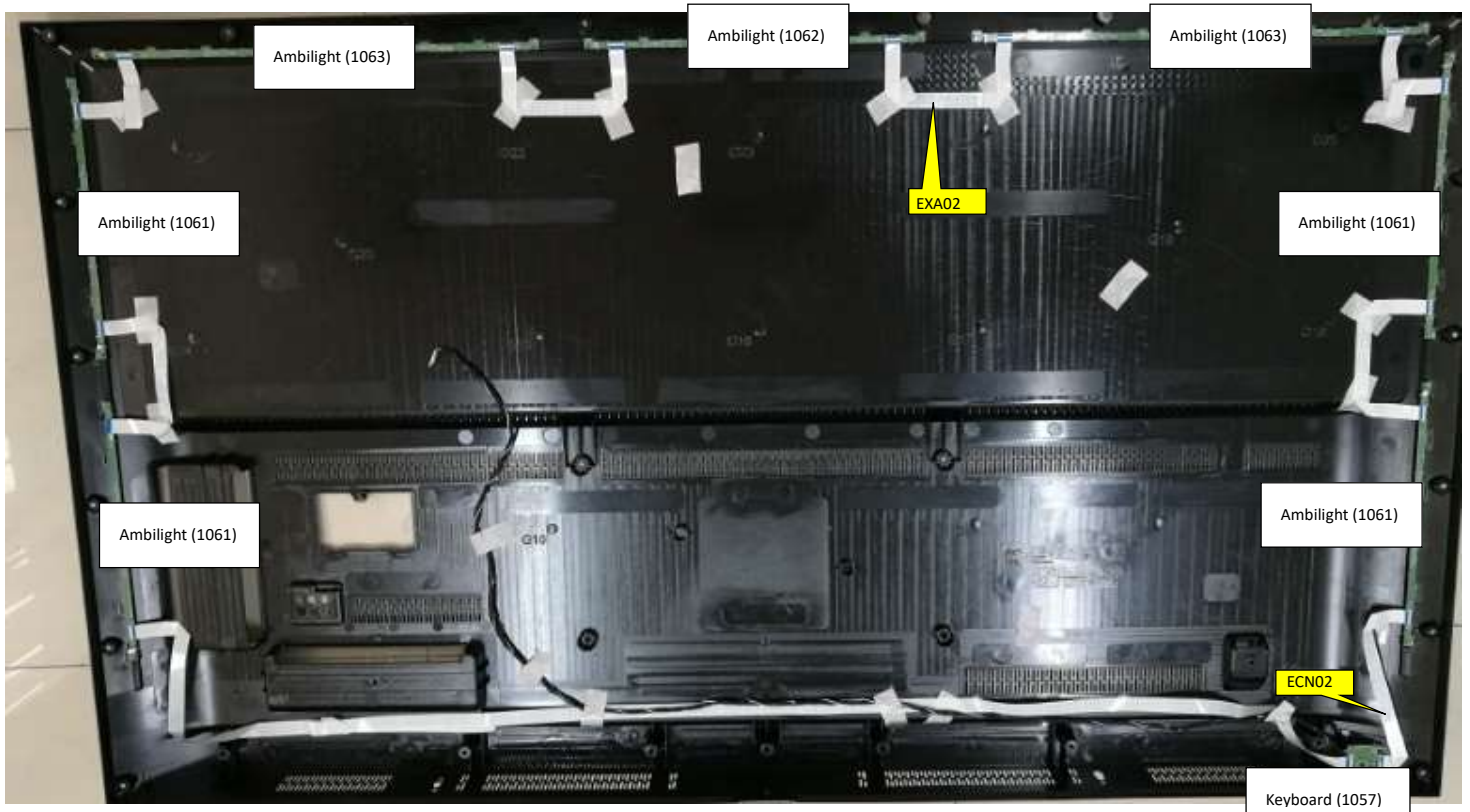
Cable dressing (50"/55" 6262/6272 series)



Back cover view (55" 6272 series)



Cable dressing (65" 6162/6262 series)



Back cover view (65" 6262 series)

3.2 Assembly/Panel Removal

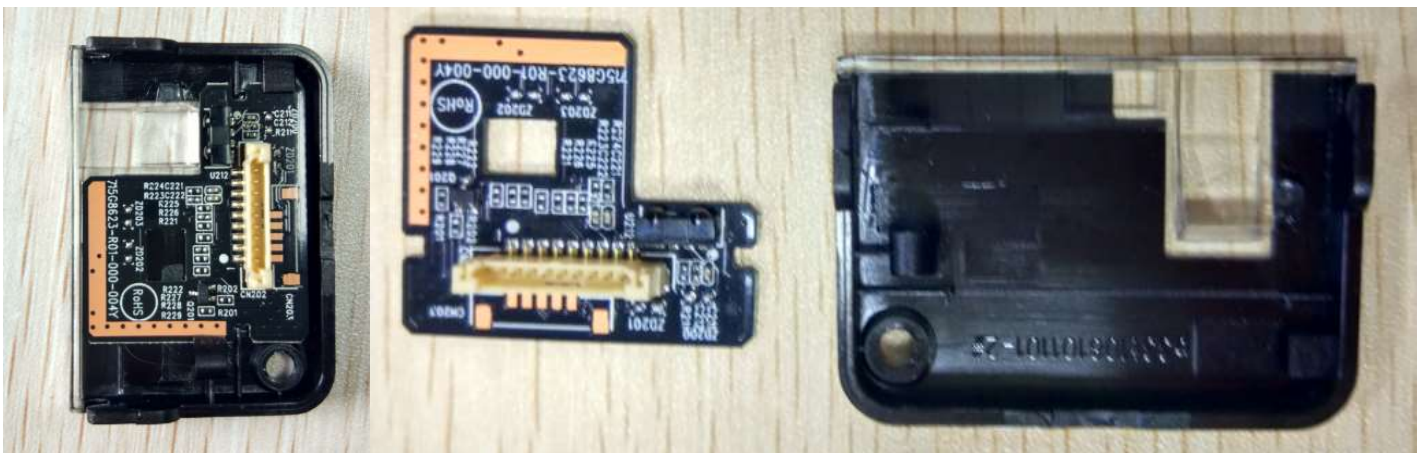
3.2.1 IR board Control Unit

1. Unplug the connector from the SSB.

Caution: be careful, as these are very fragile connectors!

2. Remove all the fixation screws [1] and connector from the IR board control unit.
3. Remove the IR lens, IR board from the DECO_REAR_COVER.

When defective, replace the whole unit.



3.2.2 Stand removal

1. For 6162 series, remove the fixation screws [1] that secure the stand.
For 6262 series, remove the fixation screws [1] that secure the stand.
2. Take the stand bracket out from the set.



(6162 series)

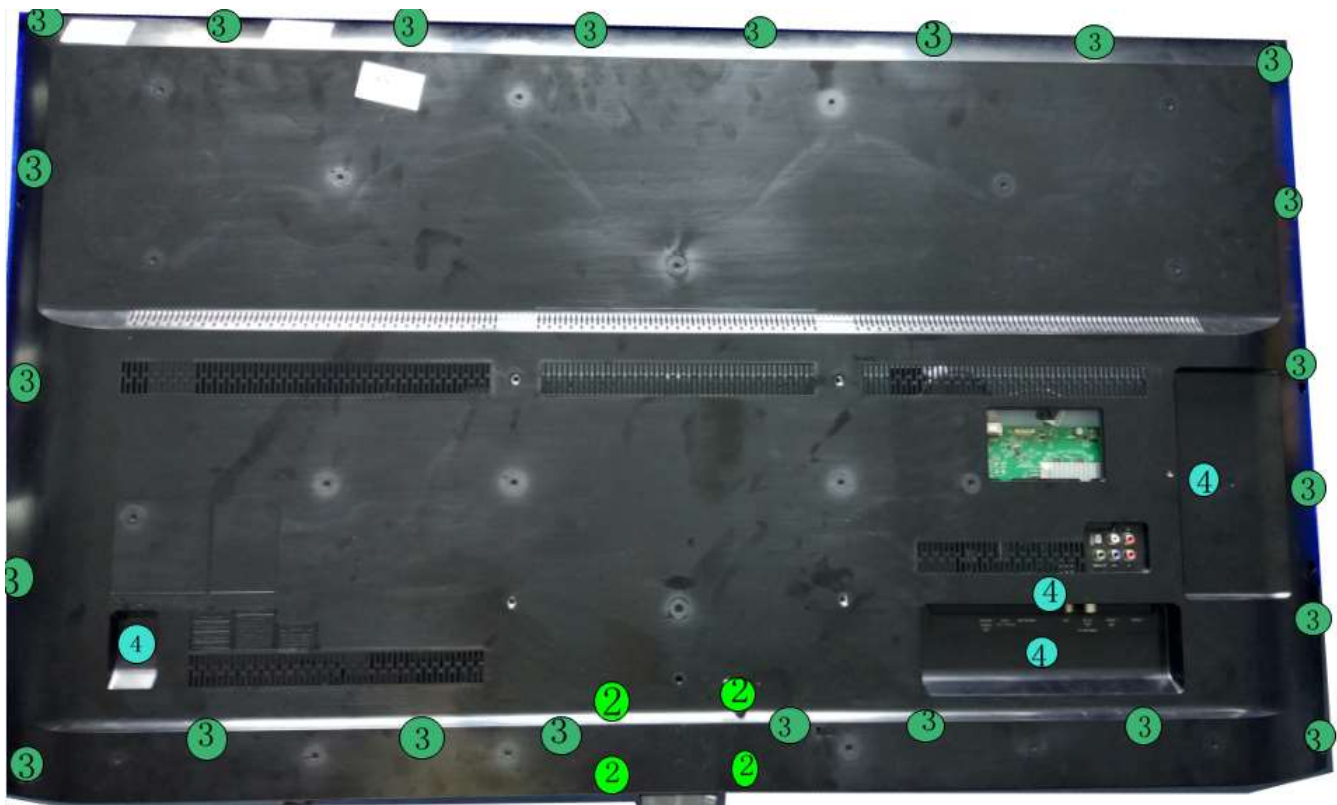


(6262 series)

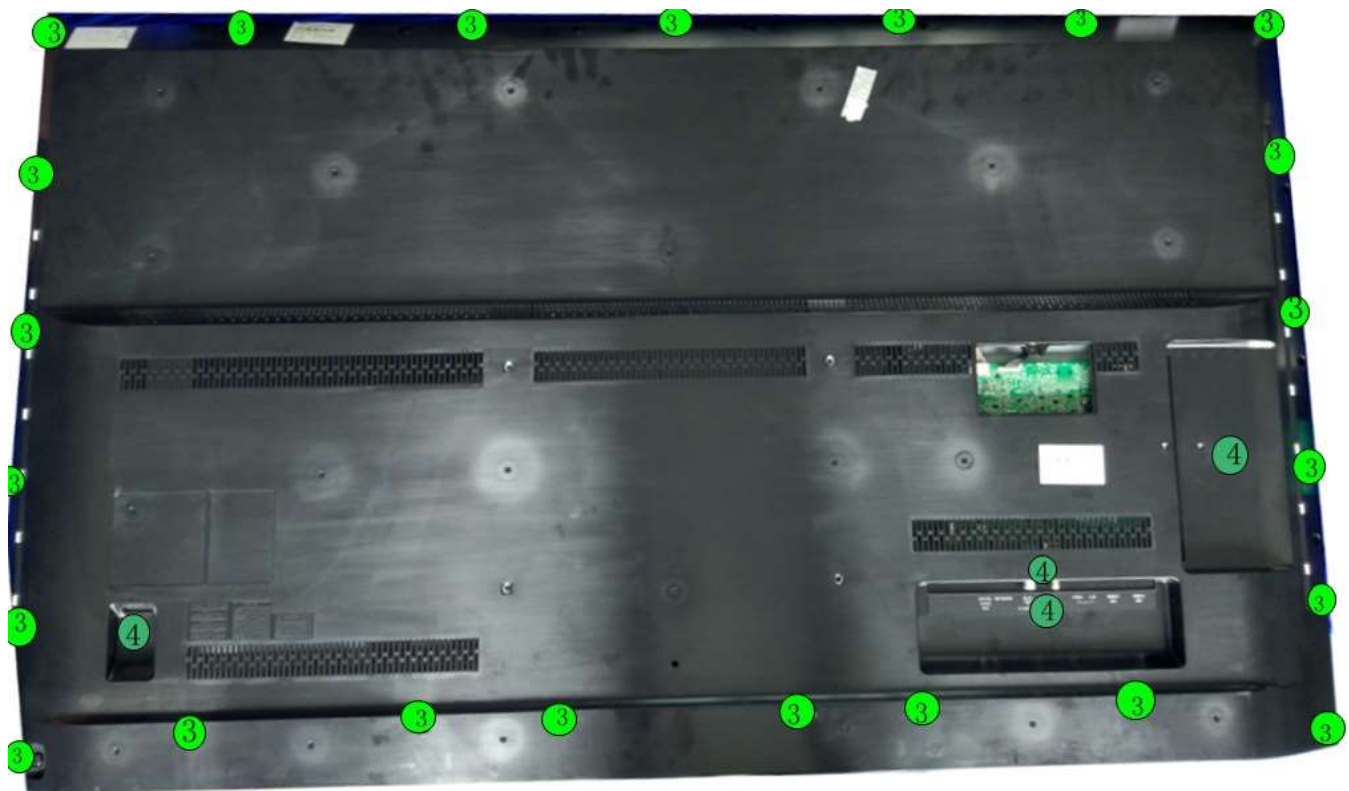
3.2.3 Rear Cover

Warning: Disconnect the mains power cord before removing the rear cover.

1. For 6162 series, remove the fixation screws [2], [3] and [4] that secure the back cover.
For 6262 series, remove fixation screws [3] and [4] that secure the back cover
2. Gently lift the rear cover from the TV. Make sure that wires and cables are not damaged while lifting the rear cover from the set.



(6162 series)



(6262 series)

3.2.4 Keyboard Control Unit

1. Release the connector from the SSB Board.

Caution: be careful, the Keyboard is catch on the Back cover, please be careful to avoid damage the fragile connectors!

2. Remove all the fixation screws from the keyboard control panel [2] and take it out from the Back cover

When defective, replace the whole unit.



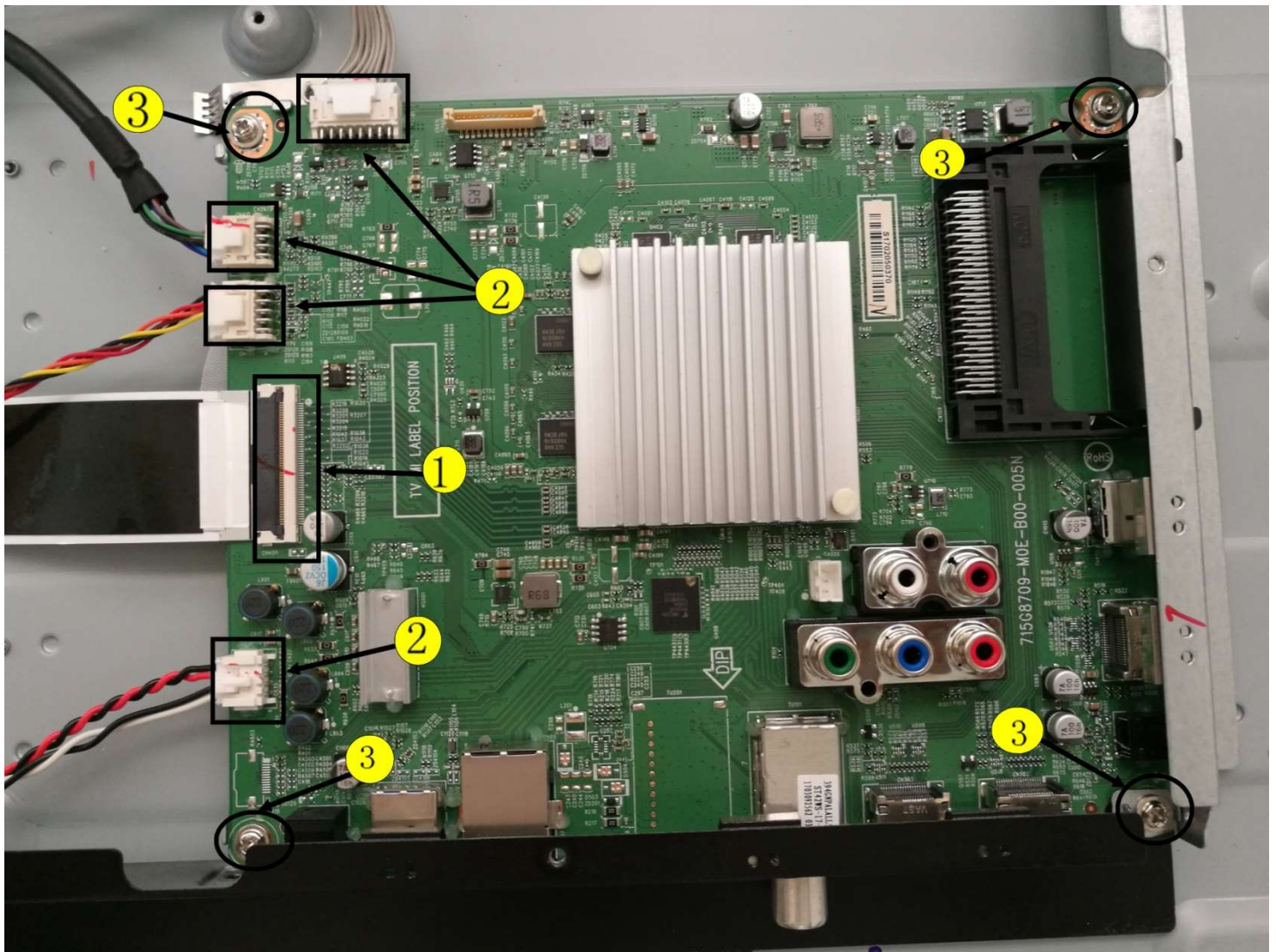
3.2.5 Small Signal Board (SSB)

Caution: it is mandatory to remount all different screws at their original position during re-assembly. Failure to do so may result in damaging the SSB.

1. Release the clips from the LVDS connector that connect with the SSB[1].

Caution: be careful, as these are very fragile connectors!

2. Unplug all other connectors [2] .
3. Remove all the fixation screws from the SSB [3].
4. The SSB can now be shifted from side connector cover, then lifted and taken out of the I/O bracket.



3.2.6 Power Supply Unit (PSU)

Caution: it is mandatory to remount all different screws at their original position during re-assembly. Failure to do so may result in damaging the PSU.

1. Gently unplug all connectors from the PSU.
2. Remove all fixation screws from the PSU.
3. The PSU can be taken out of the set now.

3.2.7 Speakers

1. Gently release the tapes that secure the speaker cables.
2. Unplug the speaker connector from the SSB.
3. Take the speakers out.

When defective, replace the both units.

3.2.8 WIFI module

1. Unplug the connector from the SSB.
2. Remove fixation screw that secure the WIFI module.

When defective, replace the whole unit.

3.2.9 LCD Panel

1. Remove the SSB as described earlier.
2. Remove the PSU as described earlier.
3. Remove the keyboard control panel as described earlier.
4. Remove the stand bracket as described earlier.
5. Remove the IR/LED as described earlier.
6. Remove the fixations screws that fix the metal clamps to the front bezel. Take out those clamps.
7. Remove all other metal parts not belonging to the panel.
8. Lift the LCD Panel from the bezel.

When defective, replace the whole unit.

4. Service Modes

4.1 Service Modes

The Service Mode feature is split into following parts:

- Service Alignment Mode (SAM).
- Factory Mode.
- Customer Service Mode (CSM). SAM and the Factory mode offer features, which can be used by the Service engineer to repair/align a TV set.

SAM and the Factory mode offer features, which can be used by the Service engineer to repair/align a TV set. Some features are:

- Make alignments (e.g. White Tone), reset the error buffer(SAM and Factory Mode).
- Display information (“SAM” indication in upper right corner of screen, error buffer, software version, operating hours,options and option codes, sub menus).

The CSM is a Service Mode that can be enabled by the consumer. The CSM displays diagnosis information, which the customer can forward to the dealer or call centre. In CSM mode, “CSM”, is displayed in the top right corner of the screen. The information provided in CSM and the purpose of CSM is to:

- Increase the home repair hit rate.
- Decrease the number of nuisance calls.
- Solved customers’ problem without home visit.

Note: For the new model range, a new remote control (RC) is used with some renamed buttons. This has an impact on the activation of the Service modes. For instance the old “MENU” button is now called “HOME” (or is indicated by a “house” icon).

4.2 Service Alignment Mode (SAM)

Purpose

- To modify the NVM.
- To display/clear the error code buffer.
- To perform alignments.

Specifications

- Operation hours counter (maximum five digits displayed).
- Software version, error codes, and option settings display.
- Error buffer clearing.
- Option settings.
- Software alignments (White Tone).
- NVM Editor.
- Set screen mode to full screen (all content is visible).

How to Activate SAM

To activate SAM, use one of the following methods:

- Press the following key sequence on the remote control transmitter: “**062596**”, directly followed by the “**INFO/OK**” button. Do not allow the display to time out between entries while keying the sequence.
- Or via ComPair.

After entering SAM, the following items are displayed,

with “SAM” in the upper right corner of the screen to indicate that the television is in Service Alignment Mode.

How to Navigate

- In the SAM menu, select menu items with the UP/DOWN keys on the remote control transmitter. The selected item will be indicated. When not all menu items fit on the screen, use the **UP/DOWN keys** to display the next/previous menu items.
- With the “LEFT/RIGHT” keys, it is possible to:

- (De) activate the selected menu item.
- (De) activate the selected sub menu.
- Change the value of the selected menu item.
- When you press the MENU button once while in top level SAM, the set will switch to the normal user menu (with the SAM mode still active in the background).

How to Store SAM Settings

To store the settings changed in SAM mode (except the RGB Align settings), leave the top level SAM menu by using the POWER button on the remote control transmitter or the television set. The mentioned exceptions must be stored separately via the STORE button.

How to Exit SAM

Use one of the following methods:

- Switch the set to STANDBY by pressing the mains button on the remote control transmitter or the television set.
- Via a standard RC-transmitter, key in "00" sequence.

Note: When the TV is switched "off" by a power interrupt while in SAM, the TV will show up in "normal operation mode" as soon as the power is supplied again. The error buffer will not be cleared.

SAM mode overview



4.3 Factory mode:

Purpose

- To perform extended alignments.

Specifications

- Displaying and or changing Panel ID information.
- Displaying and or changing Tuner ID information.
- Error buffer clearing.
- Various software alignment settings.
- Testpattern displaying.
- Public Broadcasting Service password Reset.
- etc.

How to Activate the Factory mode

To activate the Factory mode, use the following method:

- Press the following key sequence on the remote control transmitter: from the “**menu/home**” press “**1999**”, directly followed by the “**Back/Return**” button. Do not allow the display to time out between entries while keying the sequence.

After entering the Factory mode, we can see many items displayed, use the **UP/DOWN** keys to display the next/previous menu items

Factory mode overview



How to Exit the Factory mode

Use one of the following methods:

- Select EXIT_FACTORY from the menu and press the “OK” button.

Note: When the TV is switched “off” by a power interrupt, or normal switch to “stand-by” while in the factory mode, the TV will show up in “normal operation mode” as soon as the power is supplied again. The error buffer will not be cleared.

4.4 Customer Service Mode (CSM)

Purpose

The Customer Service Mode shows error codes and information on the TVs operation settings. The call centre can instruct the customer (by telephone) to enter CSM in order to identify the status of the set. This helps the call centre to diagnose problems and failures in the TV set before making a service call.

The CSM is a read-only mode; therefore, modifications are not possible in this mode.

Specifications

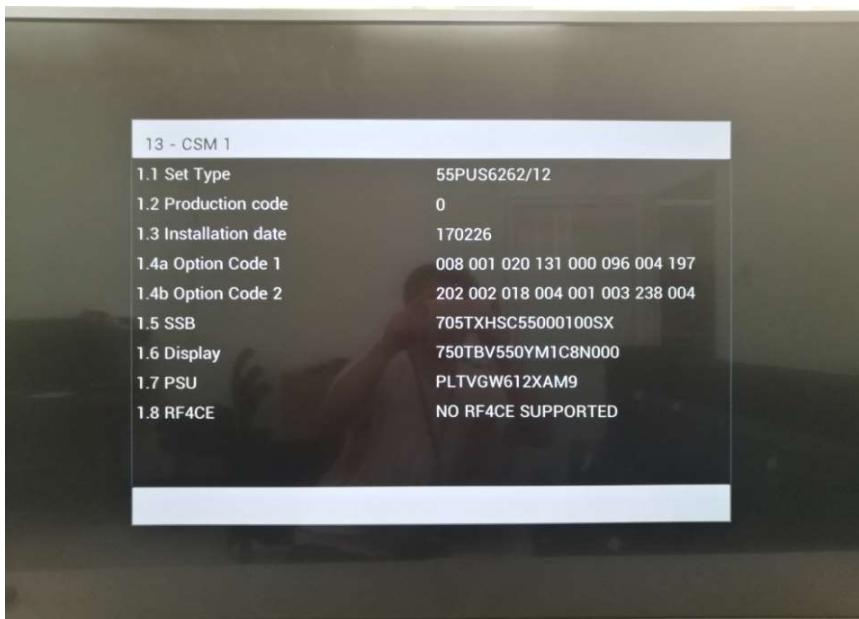
- Ignore “Service unfriendly modes”.
- Line number for every line (to make CSM language independent).
- Set the screen mode to full screen (all contents on screen is visible).
- After leaving the Customer Service Mode, the original settings are restored.
- Possibility to use “CH+” or “CH-” for channel surfing, or enter the specific channel number on the RC.

How to Activate CSM

To activate CSM, press the following key sequence on a standard remote control transmitter: “**123654**” (do not allow the display to time out between entries while keying the sequence). After entering the Customer Service Mode, the following items are displayed. use the **Right/Left** keys to display the next/previous menu items

Note: Activation of the CSM is only possible if there is no (user) menu on the screen!

CSM Overview



How to Navigate

By means of the "CURSOR-DOWN/UP" knob (or the scroll wheel) on the RC-transmitter, can be navigated through the menus.

How to Exit CSM

To exit CSM, use one of the following methods.

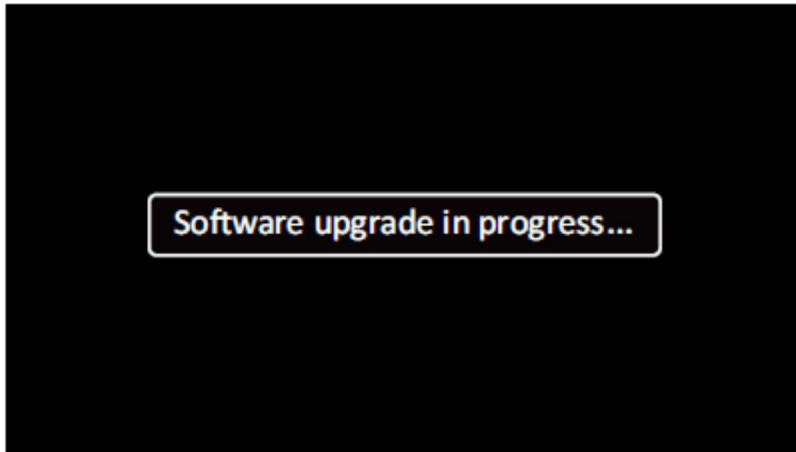
- Press the MENU/HOME button on the remote control transmitter.
- Press the POWER button on the remote control transmitter.
- Press the POWER button on the television set.

5. Software Upgrading, Error code and Panel Code

5.1 Software Upgrading

5.1.1. The following update is for .pkg file.

1. Rename the file to "upgrade_loader.pkg"
2. Prepare a USB memory.
3. Copy the software to USB flash disk(root directory).
4. Switch off the TV and Insert the USB memory stick that contains the software update files in one of the TV's USB 2.0 ports.
Note: It contains USB3.0 port, if connect on it, the software may can't be detected.
5. Switch on the TV. The TV will detect the USB memory s tick automatically. Then a window jumps out as below



6. When the TV software is updated, the TV will turn on again automatically. Remove your USB flash drive.
7. We can enter in CSM or Factory mode to check the current software version.

5.1.2. The following update is for .upg file.

Step 1: Ready for F/W Upgrade

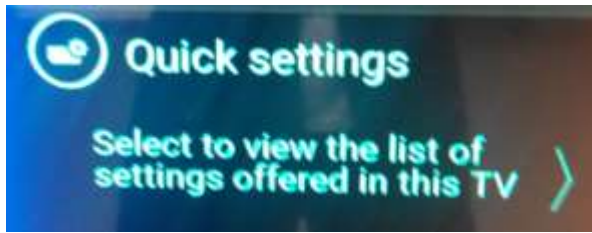
1. Rename the file to "autorun.upg"
2. Prepare a USB memory.
3. Copy the software to USB flash disk(root directory).
4. Switch on the TV and Insert the USB memory stick that contains the software update files in one of the TV's USB 2.0 ports

Note the version of this F/W before you change the software file name.



Step 2: F/W Upgrade

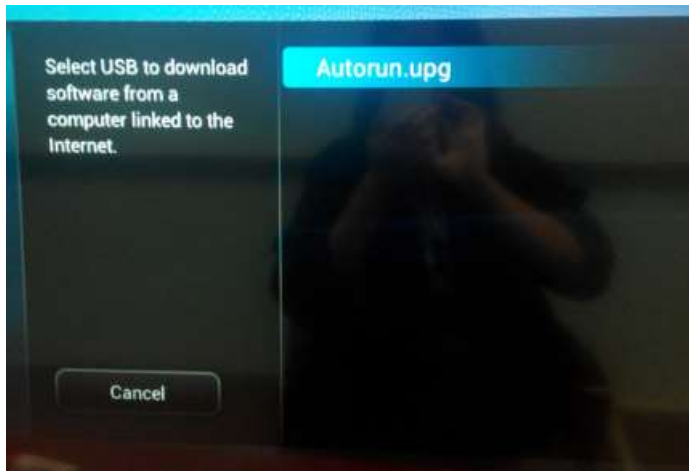
1. Press [Quick settings], then Choose [Update Software] in the Settings menu



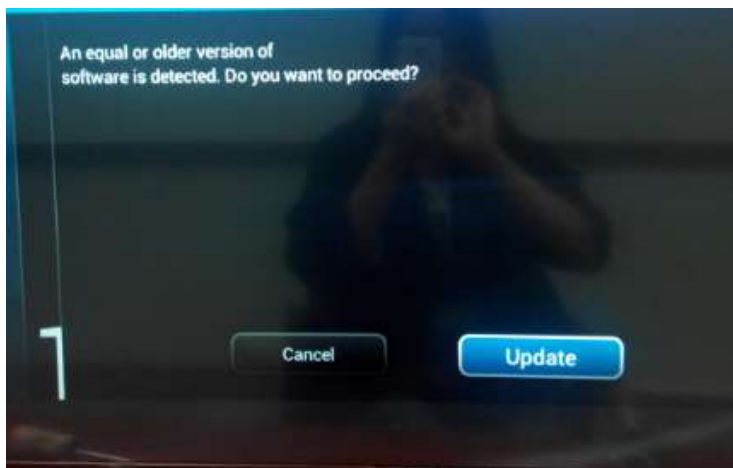
2. Choose [Local Updates], then press OK.



3. Select the file that you downloaded and press OK

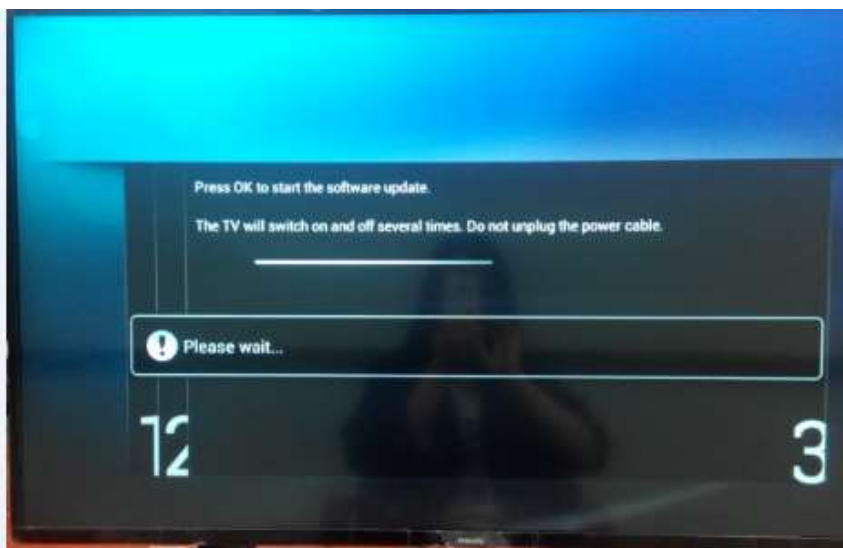


4. Choose [Update], then choose [Start] on following step





5. Upgrade in progress



Step 3: Check the SW version

1. After burning software, TV will restart
2. Press "Menu+1999+back", enter Factory mode to check if the software version is correct

Caution: Please make sure that software upgrade is finished before unplug the USB and AC power!

5.2 Error Code

5.2.1 Introduction

Error codes are required to indicate failures in the TV set. In principle a unique error code is available for every:

- Activated (SW) protection.
- Failing I2C device.
- General I2C error.

The last five errors, stored in the NVM, are shown in the Service menu's. This is called the error buffer.

The error code buffer contains all errors detected since the last time the buffer was erased. The buffer is written from left to right. When an error occurs that is not yet in the error code buffer, it is displayed at the left side and all other errors shift one position to the right.

An error will be added to the buffer if this error differs from any error in the buffer. The last found error is displayed on the left.

An error with a designated error code never leads to a deadlock situation. It must always be diagnosable (e.g. error buffer via OSD or blinking LED).

In case a failure identified by an error code automatically results in other error codes (cause and effect), only the error code of the MAIN failure is displayed.

5.2.2 How to Read the Error Buffer

You can read the error buffer in following ways:

- On screen via the SAM/CSM (if you have a picture).

Example:

- **ERROR: 000 000 000 000 000:** No errors detected
- **ERROR: 013 000 000 000 000:** Error code 13 is the last and only detected error
- **ERROR: 034 013 000 000 000:** Error code 13 was detected first and error code 34 is the last detected (newest) error
- Via the blinking LED procedure (when you have no picture).

5.2.3 Error codes overview

In this chassis only "layer 2" error codes are available and point to problems on the SSB. They are triggered by LED blinking when CSM is activated. Only the following layer 2 errors are defined:

Description	LAYER 1 error	LAYER 2 error	Monitored	Error	I ² C address	EB: in error buffer	Device	Defective board
				Prot.		BL: Blinking LED		
I ² C BUSES								
DSP bus (00)	2	11	SOC	E	00	BL/EB	SSB	Audio DSP
AMP bus (01)	2	12	SOC	E	01	BL/EB	SSB	Audio DSP
SSB bus (0F)	2	13	SOC	E	0F	BL/EB	SSB	SSB
BE bus (3F)	2	14	SOC	E	3F	BL/EB	SSB	SSB
FE bus (2F)	2	17	SOC	E	2F	BL/EB	SSB	SSB
DISP bus (30)	2	18	SOC	E	30	BL/EB	SSB	Display
AMBI bus (31)	2	19	SOC	E	31	BL/EB	SSB	Proj AL
SOC doesn't boot (HW cause)	2	15	St-by μ P	P	D4	BL	MT5593	SSB
Supply related								
12V	3	16	St-by μ P	P		BL		Supply
SSB								
I2C switch (SSB bus)	9	24	SOC	E	E0	EB	PCA9540	Audio DSP
I2C switch (BE bus)	2	25	SOC	E	E0	EB	PCA9540	SSB
Channel dec	2	27	SOC	E	C8-CE	EB	Silab Si216x	SSB
Boston (HDMI2.2)	2	29	SOC	E	40	EB	SIL 9777	SSB
Lnb controler	2	31	SOC	E	10	EB	LNBH 25	SSB
Tuner	2	34	SOC	E	C0	EB	Si2151/AV 2019	SSB
Tuner S2	2	36	SOC	E		EB		
Class - D 3 (DSP bus)	9	35	SOC	E	D8	EB	TAS 5760 LD	Audio DSP
Audio DSP	9	36	SOC	E	70	EB		Audio DSP
Class-D 1	2/9	37	SOC	E	D8	EB	TAS5760LD	SSB/Audio DSP
DSP EEPROM	9	38	SOC	E	A0	EB	Durango	Audio DSP
Class - D 2	2/9	39	SOC	E	DA	EB	TAS 5760 LD	SSB/Audio DSP
T° sensor SSB	2	42	SOC	E	98	EB	LM 75	T° sensor
Light sensor	6	43	SOC	E	52	EB	TSL2571	SET
B&O signal board	4	44	SOC	E		EB		
HDD XFS repair	8	45	SOC	E		EB		
DSP doesn't boot (SW cause)	9	52	SOC	E	70	EB	MT5593	Audio DSP
SOC doesn't boot (SW cause)	2	53	St-by μ P	P	D4	BL	MT5593	SSB
FRC	2	61	SOC	E	34	EB	NT72324/72333	SSB
ASIC	2	62	SOC	E	84	EB	ASIC	SSB
Display	5	63	SOC	E	34	EB	Innolux	Display

5.2.4 How to Clear the Error Buffer

The error code buffer is cleared in the following cases:

- By using the CLEAR command in the SAM menu
- By using the CLEAR command in the Factory mode:
- By using the following key sequence on the remote control transmitter: **"062599"** directly followed by the **OK** button.
- If the contents of the error buffer have not changed for 50 hours, the error buffer resets automatically.

Note: If you exit SAM by disconnecting the mains from the television set, the error buffer is not reset.

5.3 Panel Code

Press the following key sequence on a standard RC transmitter: "062598" directly followed by MENU and "xxx", where "xxx" is a 3 digit decimal value of the panel type: see column "Display Code" in below tab. After resetting the Display Code, restart the set immediately.

CTN_ALT BOM#	Panel Type	Step option code	CTN_ALT BOM#	Panel Type	Step option code
43PUS6162/12	TPT430U3-EQYSHM.G S1V	002	55PUS6162/12	TPT550U2-EQYSHM.G S1AD	008
43PUS6162/12	TPT430U3-EQYSHM.G S1AD	019	55PUS6162/12	TPT550U2-EQYSKM.G S5G	025
43PUS6162/12	TPT430U3-QVN03.U S0B0F	083	55PUS6162/12	TPT550U2-D072.L S01L	041
43PUT6162/12	TPT430U3-EQYSHM.G S1V	001	55PUS6162/12	TPT550U2-EQYSKM.G S5N	078
43PUT6162/60	TPT430U3-EQYSHM.G S1V	003	55PUS6162/12	TPT550U2-EQYSKM.G S1H	126
43PUT6162/60	TPT430U3-EQYSHM.G S1AD	020	55PUT6162/12	TPT550U2-EQYSHM.G S1AD	007
43PUS6262/12	TPT430U3-EQYSHM.G S1U	013	55PUS6262/12	TPT550U2-EQYSHM.G S1AC	017
43PUS6262/12	TPT430U3-EQYSHM.G S1AC	028	55PUS6262/12	TPT550U2-EQYSKM.G S5F	099
43PUS6262/12	TPT430U3-QVN03.U S0B0G	096	55PUS6262/12	TPT550U2-D072.L S01M	076
43PUS6262/12	TPT430U3-QVN03.U S0B0L	124	55PUS6262/12	TPT550U2-EQYSKM.G S5M	093
43PUT6262/12	TPT430U3-EQYSHM.G S1U	013	55PUS6262/12	TPT550U2-D072.L S01V	052
43PUT6262/12	TPT430U3-EQYSHM.G S1AC	028	55PUS6262/12	TPT550U2-EQYSKM.G S5Q	081
49PUS6162/12	TPT490U2-EQYSHM.G SC1V	005	55PUS6272/12	TPT550U2-EQYSKM.G S5F	068
49PUS6162/12	TPT490U2-QUB8A.K S89P0E	115	55PUT6262/12	TPT550U2-EQYSHM.G S1AC	016
49PUT6162/12	TPT490U2-EQYSHM.G SC1V	004	55PUT6162/60	TPT550U2-EQYSHM.G S1AD	009
49PUT6162/60	TPT490U2-EQYSHM.G SC1V	004	55PUT6162/60	TPT550U2-EQYSKM.G S5G	026
49PUS6262/12	TPT490U2-EQYSHM.G SC1U	015	55PUT6162/60	TPT550U2-D072.L S01L	042
49PUT6262/12	TPT490U2-EQYSHM.G SC1U	015	55PUT6162/60	TPT550U2-EQYSKM.G S5N	079
50PUS6162/12	TPT500U1-QVN03.U S5B0T	034	65PUS6162/12	TPT650UA-QVN06.U S300B	011
50PUS6162/12	TPT500U1-DJ6QE1.N ST4C	087	65PUS6162/12	TPT650U2-FN04.S SG01B	039
50PUS6162/12	TPT500U1-QVN03.U S5B0AB	060	65PUS6162/12	TPT650U2-FN04.S SG01F	120
50PUT6162/12	TPT500U1-QVN03.U S5B0T	033	65PUT6162/12	TPT650UA-QVN06.U S300B	010
50PUS6262/12	TPT500U1-QVN03.U S5B0R	050	65PUS6262/12	TPT650UA-QVN06.U S300G	067
50PUS6262/12	TPT500U1-DJ6QE1.N ST4D	090	65PUS6262/12	TPT650UA-QVN06.U S300T	037
50PUS6262/12	TPT500U1-DJ6QE1.N ST4B	058	65PUT6262/12	TPT650UA-QVN06.U S300G	036
50PUT6262/12	TPT500U1-QVN03.U S5B0T	033			

6. Circuit Descriptions

6.1 Introduction

The TPM17.7E LA is a new chassis launched in EU in 2017. The whole range is covered by MT5802VGEJ platform. The major deltas versus its predecessor support DVB-C; DVB-T/T2, with also USB3.0,WIFI/multi-media, Video out

The TPM17.7E LA chassis comes with the following stylings:

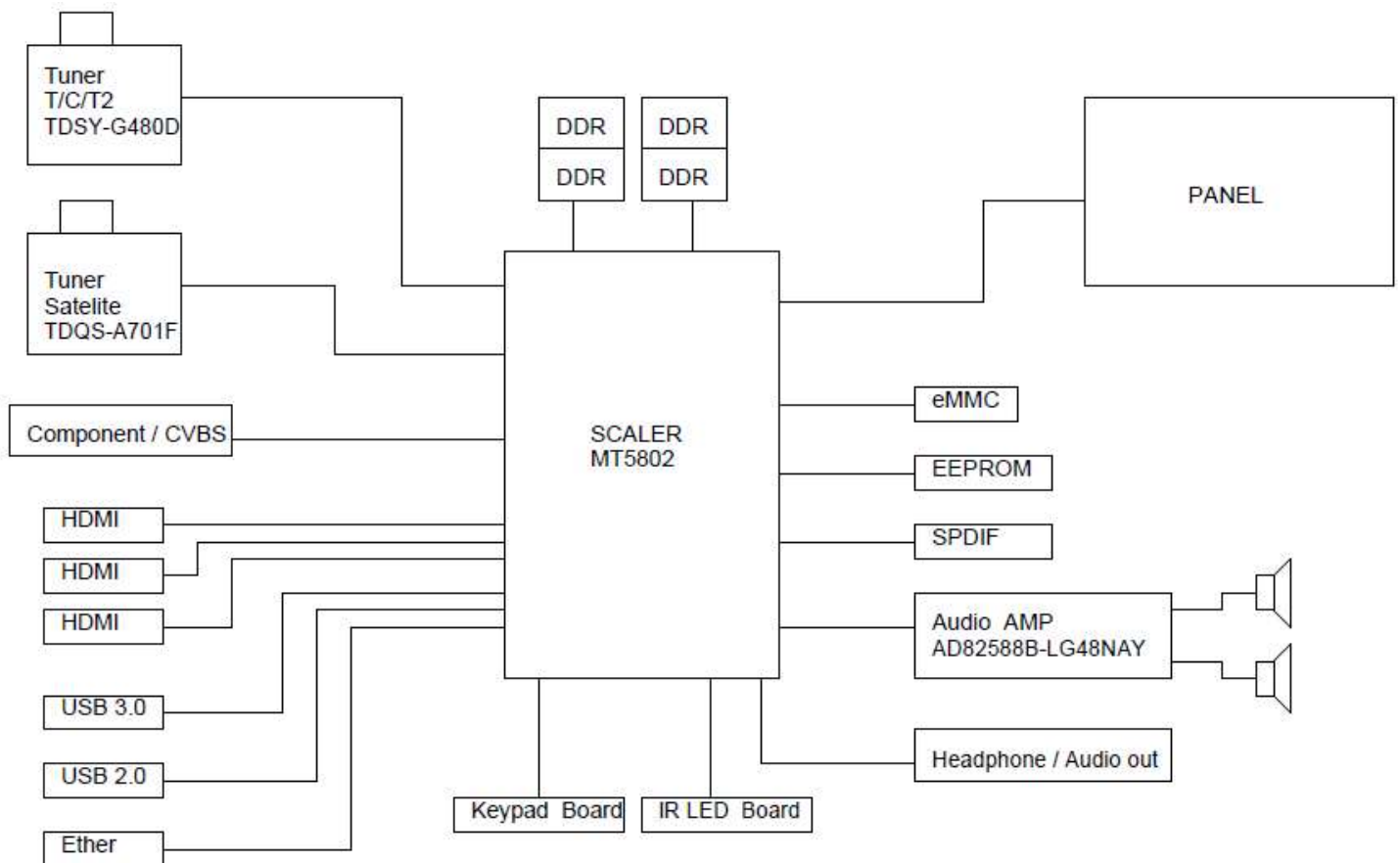
- series xxPUx6162/xx
- series xxPUx6262/xx
- series xxPUS6272/xx

6.1.1 Implementation

Key components of this chassis are:

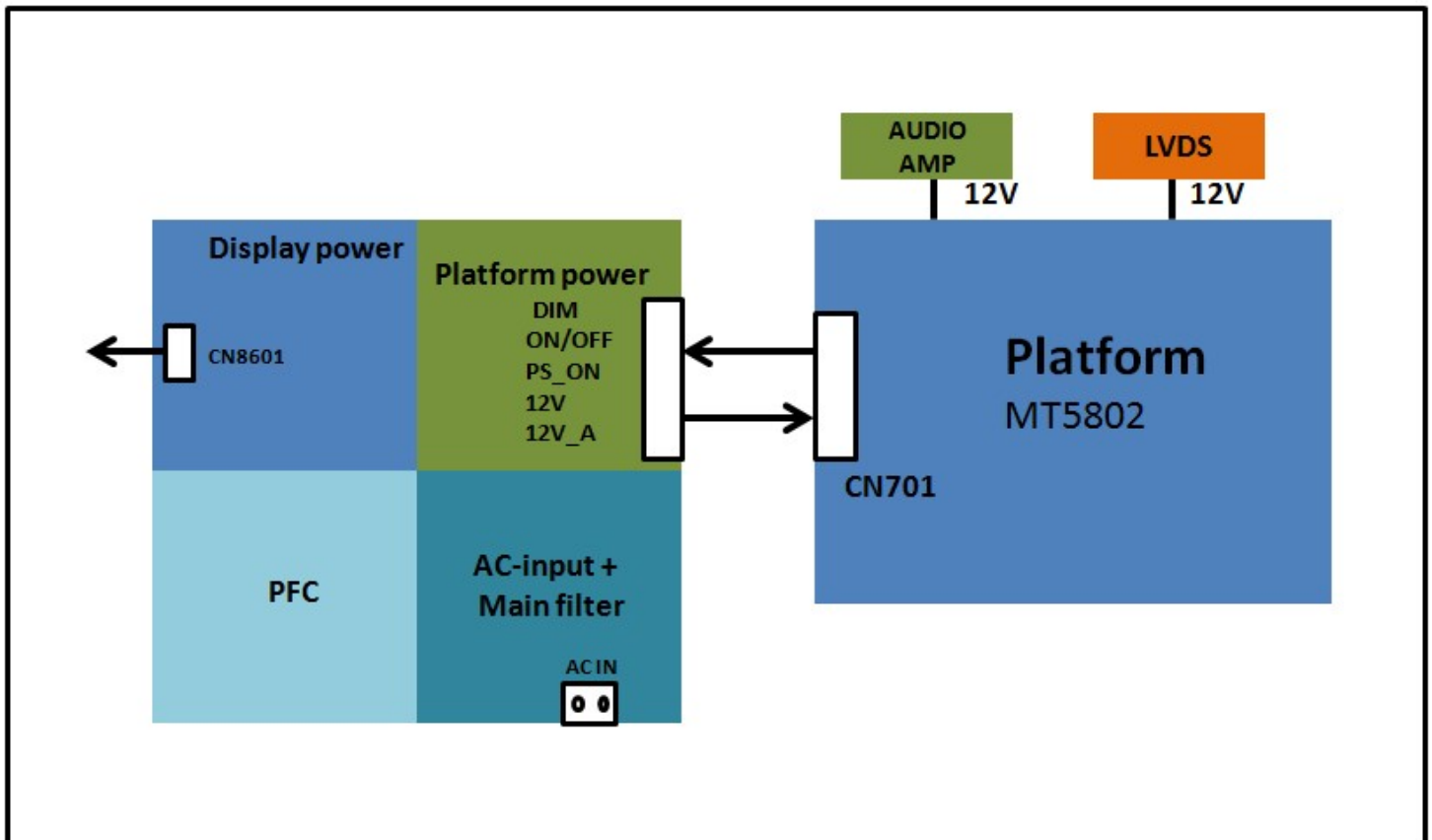
- SCALER MT5802VGEJ HSFBGA-802
- EMMC THGBMDG5D1LBAIT 4GB FBGA153
- EEPROM M24128-BRMN6TP 128k SOP-8
- AUDIO AD82588B-LG48NAY 2x15W stereo E-LQ
- TUNER EUROPE TDSY-G480D

6.1.2 Block diagram



6.2 Power Supply

Power architecture of this platform.



6.2.1 Power Supply Unit

All power supplies are a black box for Service. When defective, a new board must be ordered and the defective one must be returned, unless the main fuse of the board is broken. Always replace a defective fuse with one with the correct specifications! This part is available in the regular market.

Consult the Philips Service web portal for the order codes of the boards.

Important delta's with the platform are:

- New power architecture for LED backlight
- "Boost"-signal is now a PWM-signal + continuous variable

The control signals are:

- PS-ON
- Lamp "on/off"
- DIM (PWM) (not for PSDL)

In this manual, no detailed information is available because of design protection issues.

- +12 output (on-mode)
- +12V_audio (audio AMP power)
- Output to the display; in case of
 - IPB: High voltage to the LCD panel
 - PSL and PSLs (LED-driver outputs)
 - PSDL (high frequent) AC-current.

6.2.2 Diversity

The diversity in power supply units is mainly determined by the diversity in displays.

The following displays can be distinguished:

- CCFL/EEFL backlight: power panel is conventional IPB
- LED backlight:
 - side-view LED without scanning: PSL power panel

- side-view LED with scanning: PSLs power panel
- direct-view LED without 2D-dimming: PSL power panel
- direct-view LED with 2D-dimming: PSDL power panel.

PSL stands for **P**ower **S**upply with integrated LED-drivers.

PSLS stands for a **P**ower **S**upply with integrated LED-drivers with added **S**canning functionality (added microcontroller).

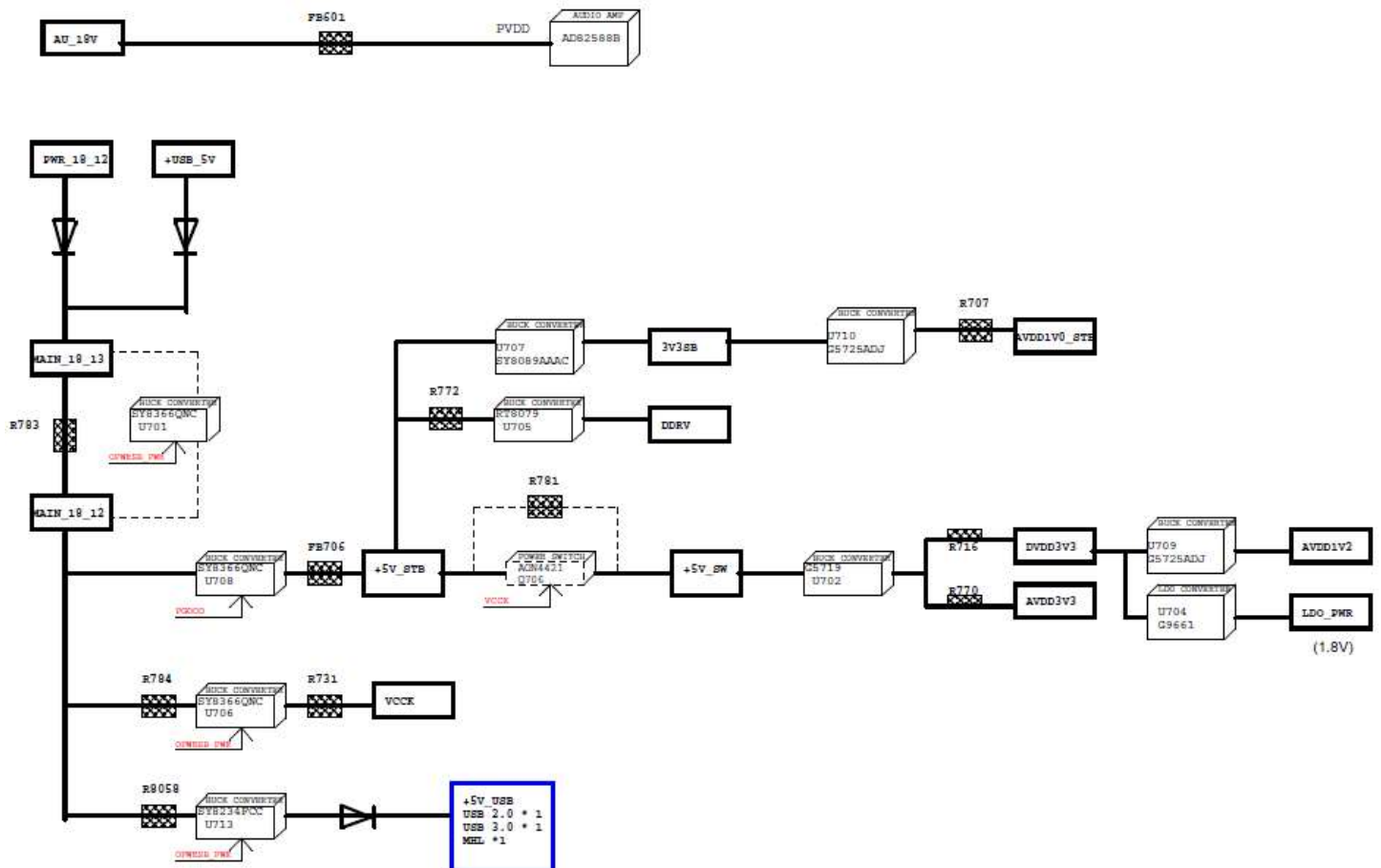
PSDL stands for a **P**ower **S**upply for **D**irect-view LED backlight with 2D-dimming.

6.3 DC/DC Converters

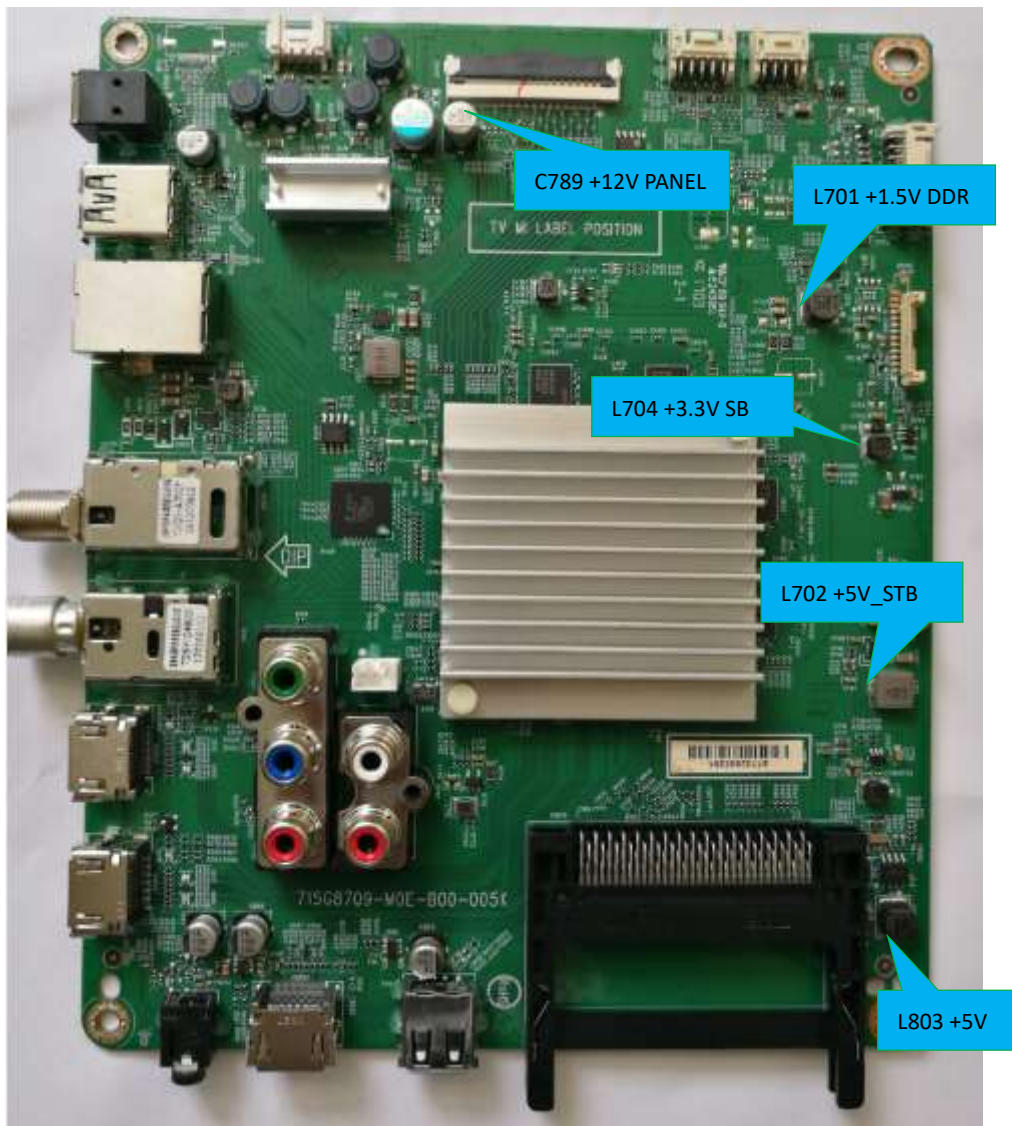
The on-board DC/DC converters deliver the following voltages(depending on set execution):

- +5V-STB, permanent voltage for the Stand-by Power system and WIFI
- +3V3-SB, voltage for IR/Key board
- +12V, input from the power supply for the panel common(active mode)
- +12V, input from the power supply for LNB supply
- +1V8-EMMC, +V-EMMC-IO, voltage for EMMC when TV on
- +1V5-DDR, +VREF-A2-DQ,, +VREF-A2-CA, voltage for DDR
- TUNER_3V3, supply voltage for tuner
- +5V-SW, input intermediate supply voltage for USB Power
- +12V-AUDIO1 for the AUDIO AMP
- +5V-WIFI, voltage for WIFI

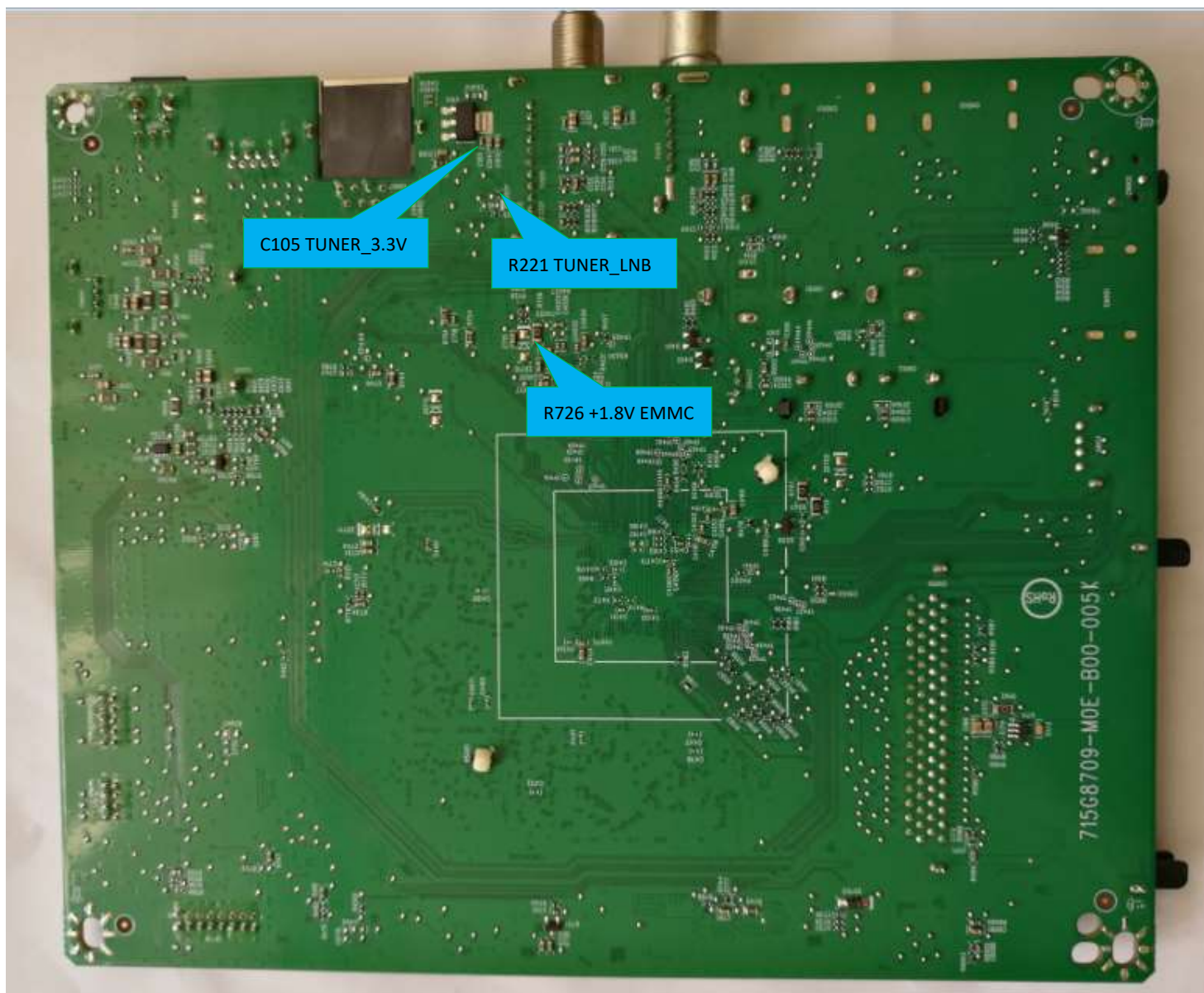
6.3.1 Power tree



6.3.2 Power layout SSB



Power SSB Top View



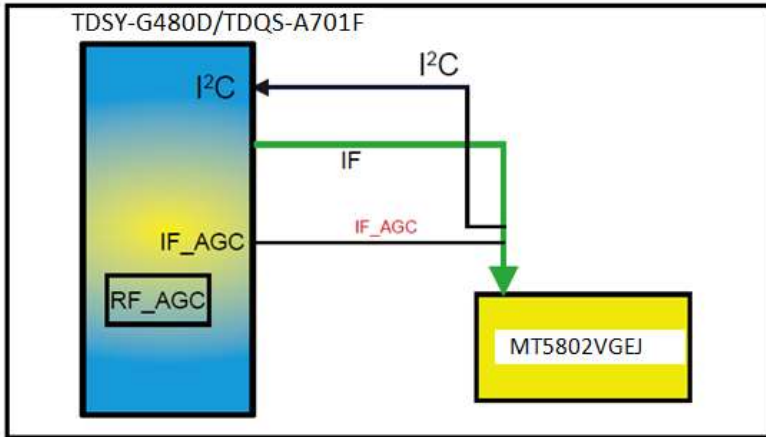
Power SSB Bottom View

6.4 Front-End Analogue and DVB-T/T2, DVB-C reception

The Front-End for analogue tuner consist of the following key components:

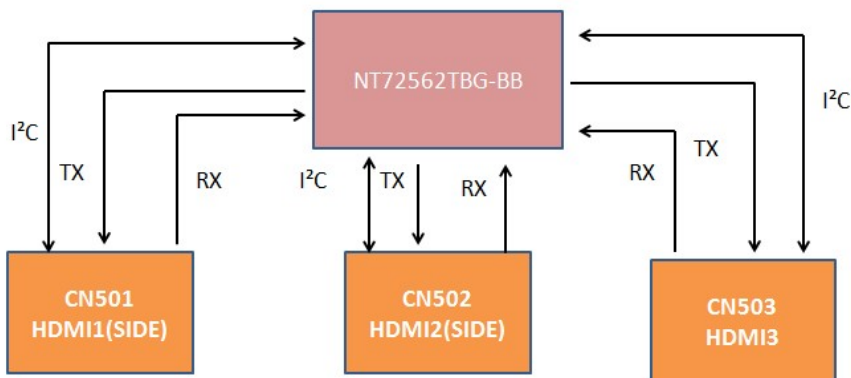
- TUNER EUROPE TDSY-G480D
- TUNER EUROPE TDQS-A701F
- SCALER MT5802VGEJ HSFBGA-802

Below find a block diagram of the front-end application.



6.5 HDMI

Refer to below for the application.



The following HDMI connector can be used:

- HDMI 1: HDMI input (TV digital interface support HDMI2.0) with digital audio/PC DVI input /MHL
- HDMI 2: HDMI input (TV digital interface support HDMI2.0/HDCP2.2) with digital audio/PC DVI input
- HDMI 3: HDMI input (TV digital interface support HDMI1.4) with digital audio/PC DVI input/ARC
- +5V detection mechanism
- Stable clock detection mechanism
- MHL function only for HDMI1
- Audio return channel(ARC)
- TMDS output control
- HPD control
- CEC control

6.6 Video and Audio Processing - MT5802VGEJ

The MT5802VGEJ is the main audio and video processor (or System-on-Chip) for this platform. It has the following features:

- Worldwide multi-standard analog TV demodulator
- DVB-T/DVB-T2/DVB-S/DVB-S2/DVB-S2X/DVB-C/DVB-C2 demodulators
- UHD@60Hz direct drive
- Powerful CPU core
- 3D graphic support OpenGL ES 1.1/2.0
- A transport de-multiplexer
- A multi-standard video decoder (including VP9)
- Rich format audio codec
- H.264 encoder
- HDMI 2.0 receiver with 3D support
- MHL 2.0 & Standby Charging
- 2D/3D converter
- Ethernet MAC+PHY
- ME/MC Engine
- Local dimming (LED backlight)
- Two-link LVDS, V-by-one

The MediaTek MT5802VGEJ family consists of a DTV front-end demodulator, a backend decoder and a TV controller and offers high integration for advanced applications. It integrates a transport de-multiplexer, a high definition video decoder, an audio decoder, a two-link LVDS transmitter, a V-by-One transmitter, and a NTSC/PAL/SECAM TV decoder with a 3D comb filter (NTSC/PAL). The MT5802VGEJ enables consumer electronics manufacturers to build high quality, low cost and feature-rich DTV.

World-Leading Audio/Video Technology: The MT5802VGEJ supports Full-HD MPEG1/2/4/h.264/DiviX/VC1/RM/AVS/VP6/VP8 and UHD H.264/AVC, H.265/HEVC, VP9 video decoder standards, and JPEG. The MT5802VGEJ also supports MediaTek MDDiTM de-interlace solution which can reach very smooth picture quality for motions. A 3D comb filter added to the TV decoder recovers great details for still pictures. The special color processing technology provides a natural, deep colors and true studio quality video. Moreover, the MT5802VGEJ family has built-in high resolution and high-quality audio codec.

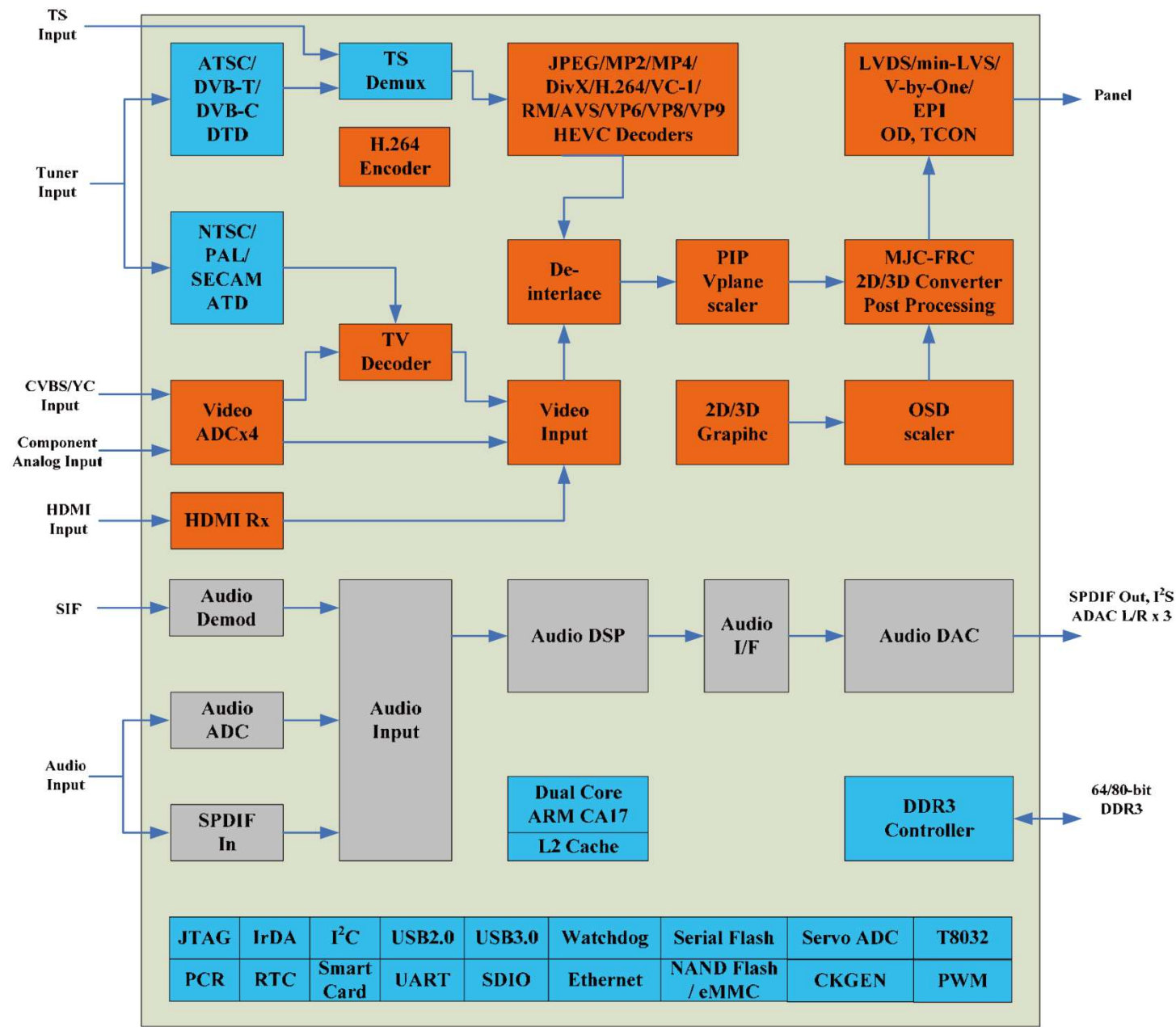
Rich Features for High Value Products: The MT5802VGEJ family enables true single-chip experience. It integrates high-quality HDMI2.0, two-link LVDS, V-by-One, USB2.0/3.0 receiver, Ethernet MAC+PHY, Quad core CPU and 512K bytes L2 cache, OpenGL ES 1.1/2.0, OpenVG 1.1, DirectX DX11 compliant 3D graphic engine, and DVB-T/DVB-T2/DVB-S/DVB-S2/DVB-S2X/DVB-C/DVB-C2 demodulators.

All New UHD@60Hz Experience: The MT5802VGEJ family provides consumers with UHD 60Hz direct drive. And Supports ME/MC Frame rate conversion with data rate 3840x2160p@30Hz up to 3840x2160p@60Hz or 3840x2160p@24Hz up to 3840x2160p@48Hz.

WW Common Platform Capability: The MT5802VGEJ family supports DVB-T, DVB-T2, DVB-S, DVB-S2, DVB-S2X, DVB-C, DVB-C2 demodulation functions. It reserves transport stream inputs for external demodulators for other countries or areas. TV maker can easily port the same UI to worldwide TV models. First-class adjacent and co-channel rejection capability grants excellent reception. Professional error-concealment provides stable, smooth and mosaic-free video quality.

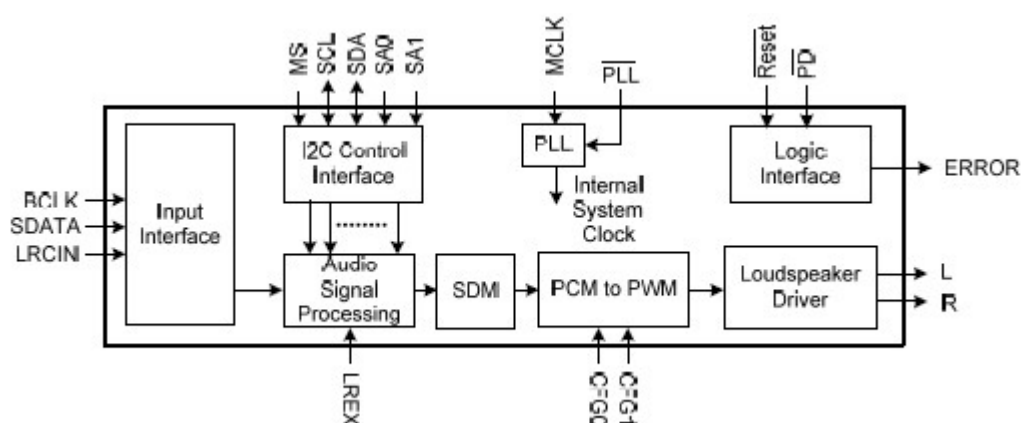
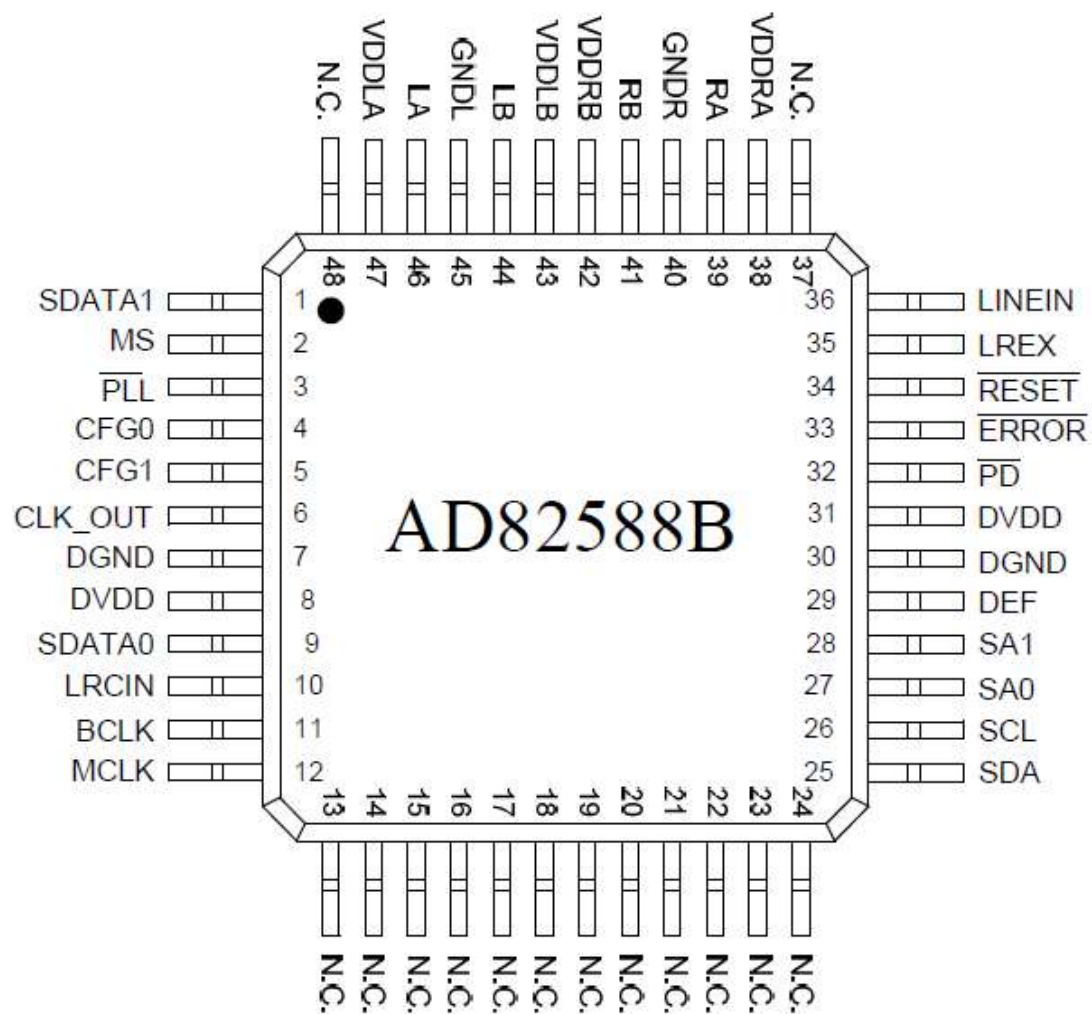
7. IC Data Sheets

7.1 MT5802VGEJ (IC U401)

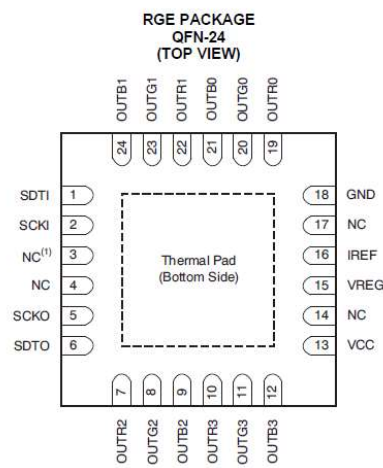


[illegible]

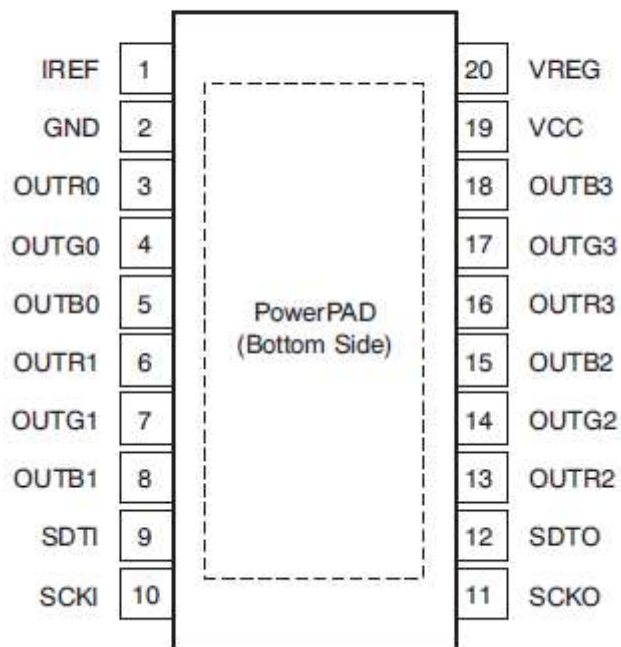
7.2 AD82588B-LG48NAY (IC U601)



7.3 TLC5971RGER (IC U002)



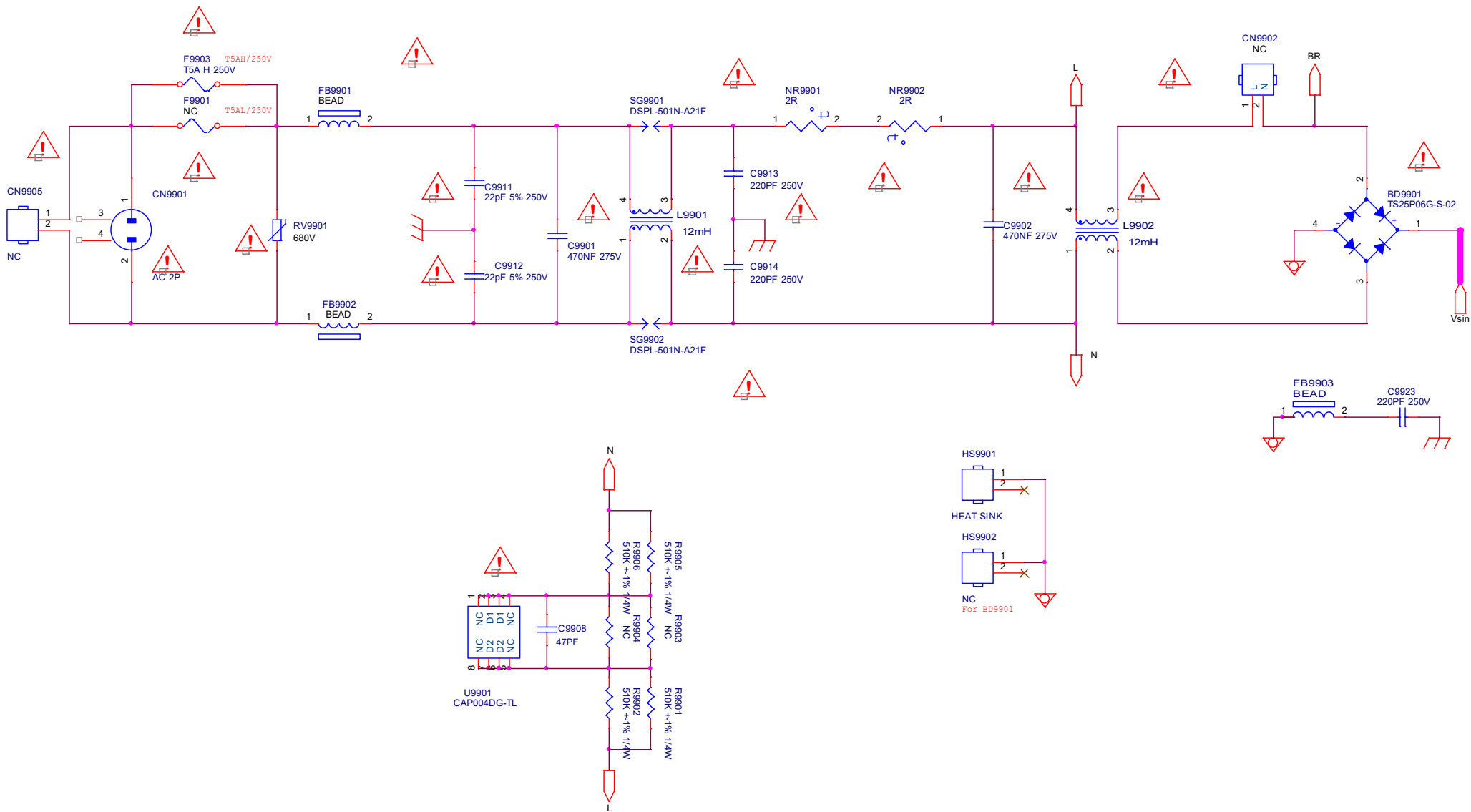
PWP PACKAGE
HTSSOP-20 PowerPAD
(TOP VIEW)



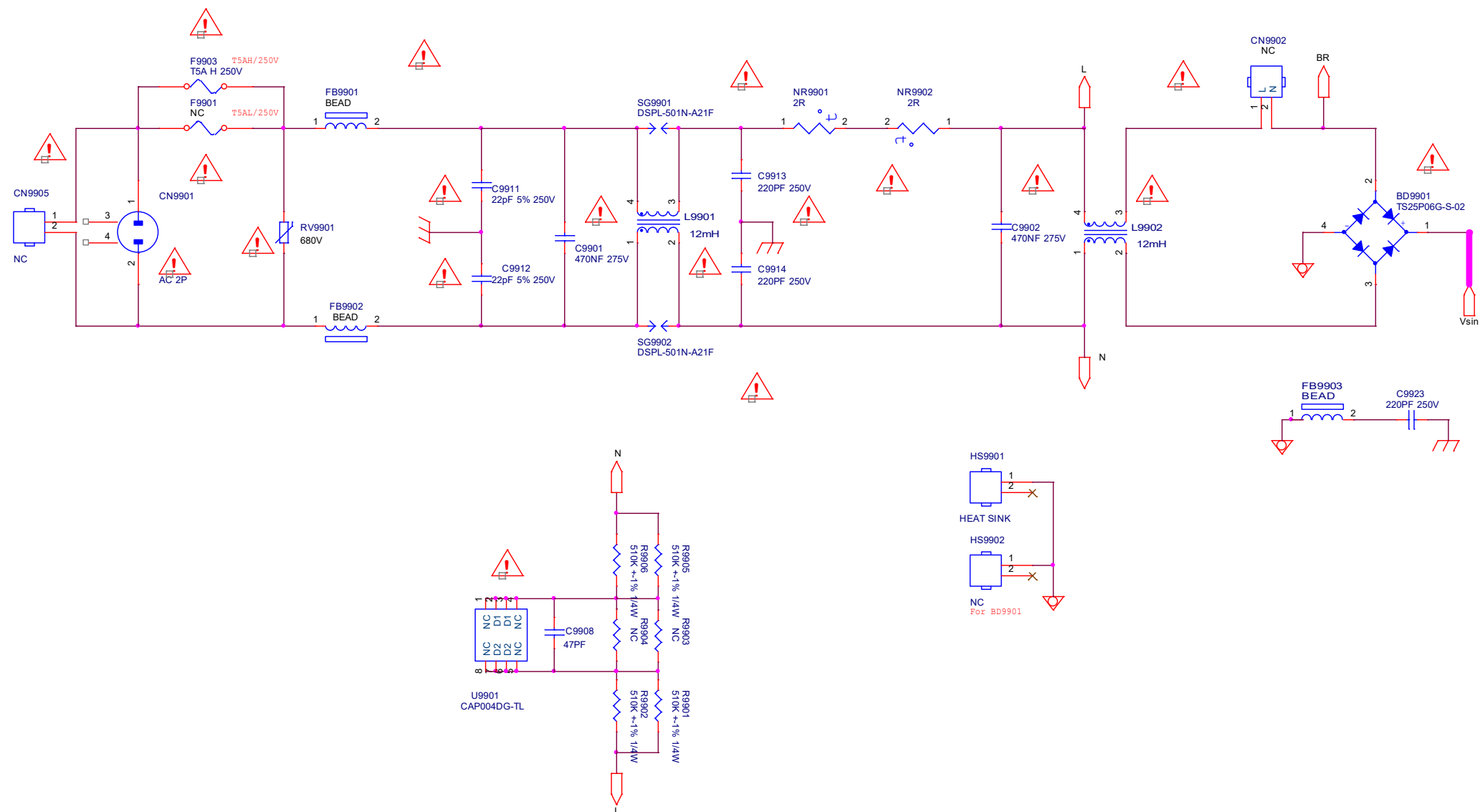
8.Circuit Diagrams

8.1 A 715G8620 PSU(For 43” 6162/6262 Series)

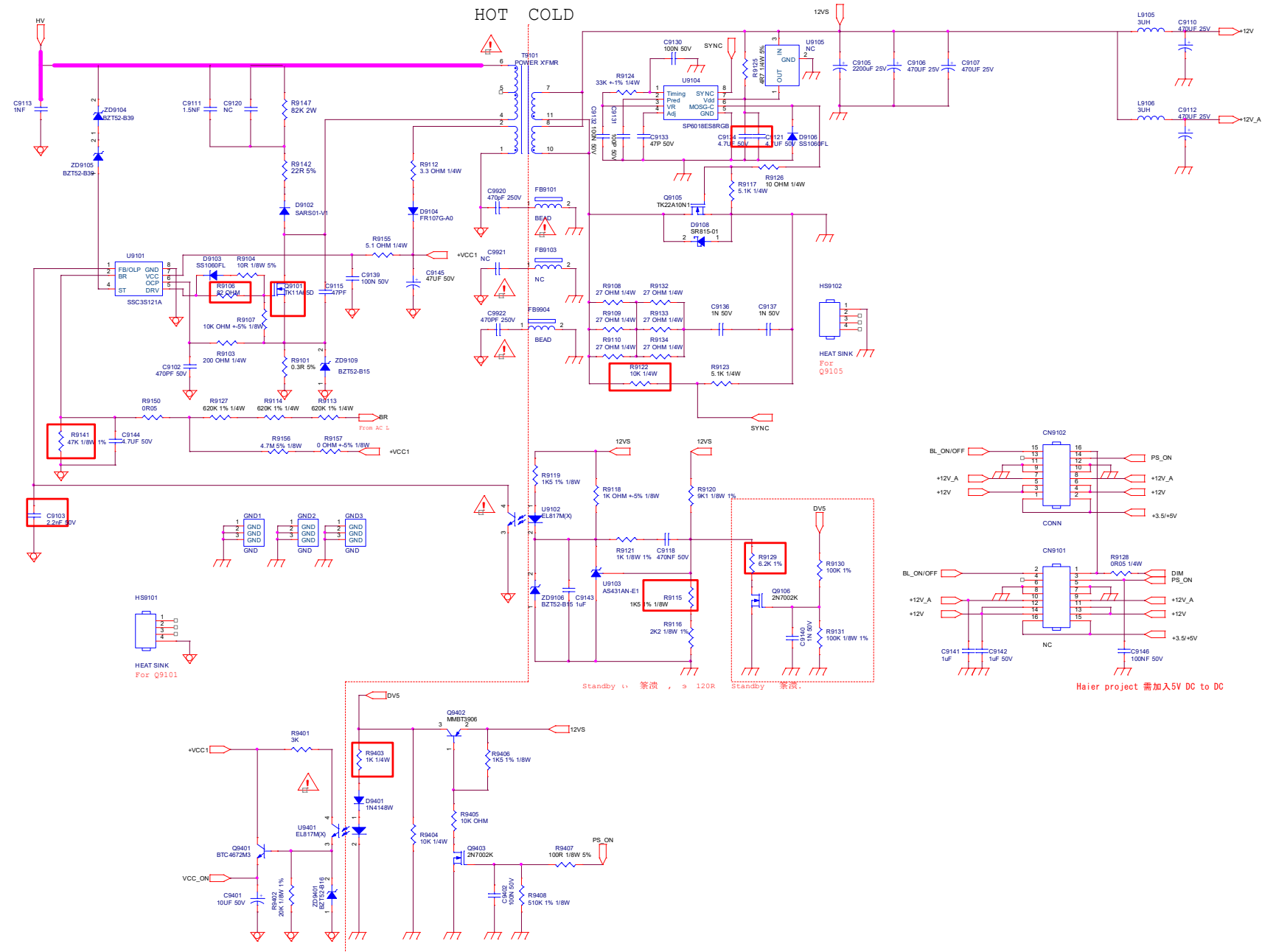
8-1-1 AC Input



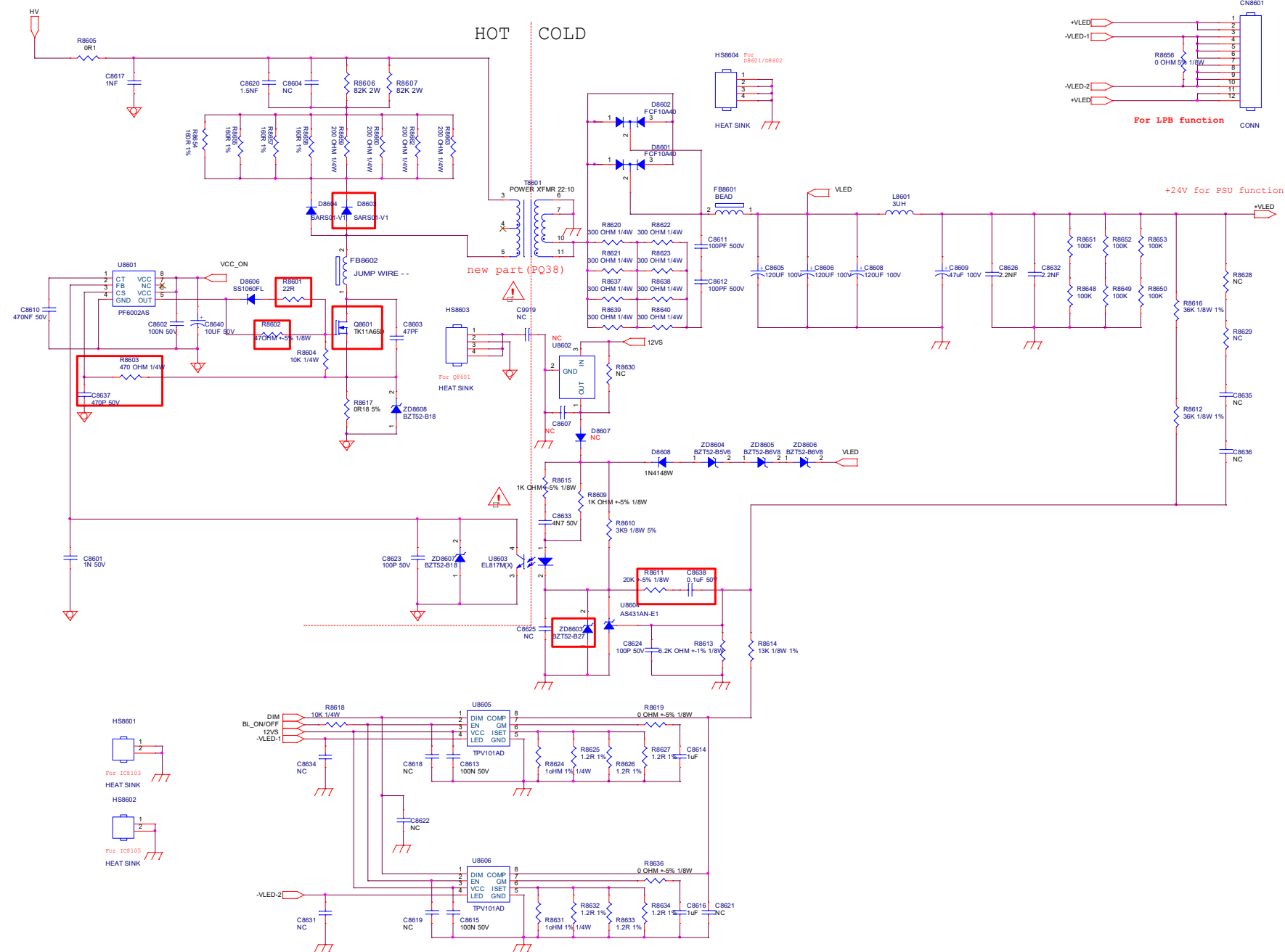
8-1-2 PFC



8-1-3 Main power

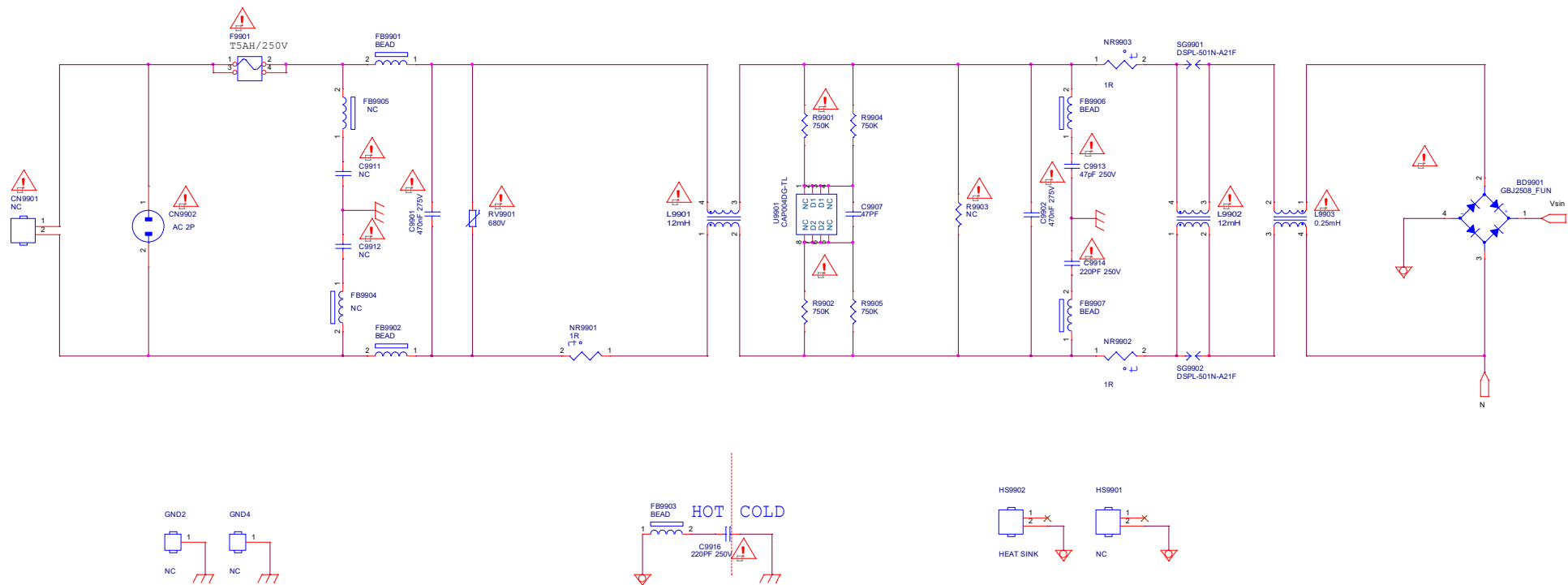


8-1-4 LED Driver

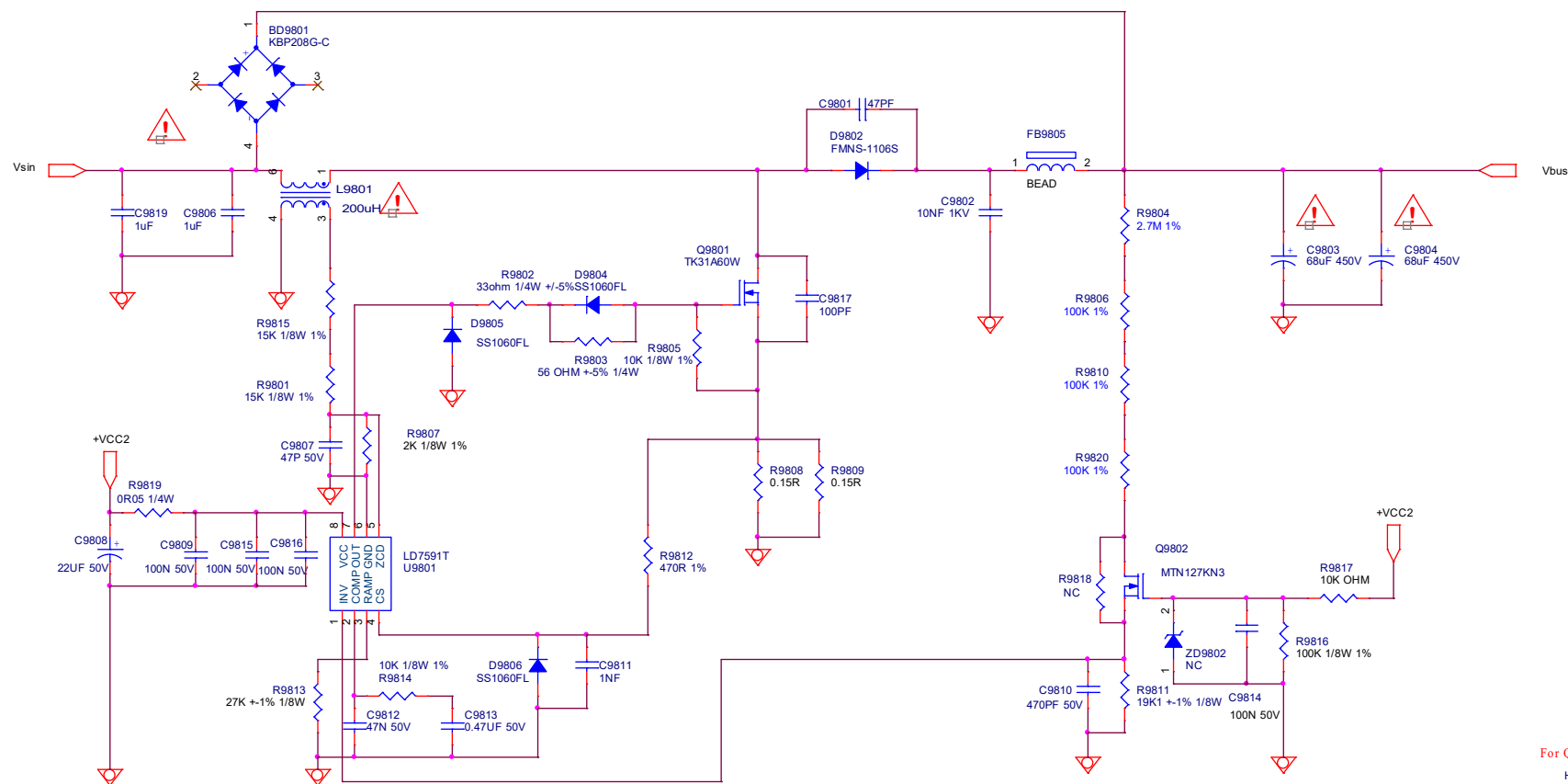


8.2 A 715G8672 PSU(For 49"/ 55 " 6162 / 6262 Series)

8-2-1 AC Input

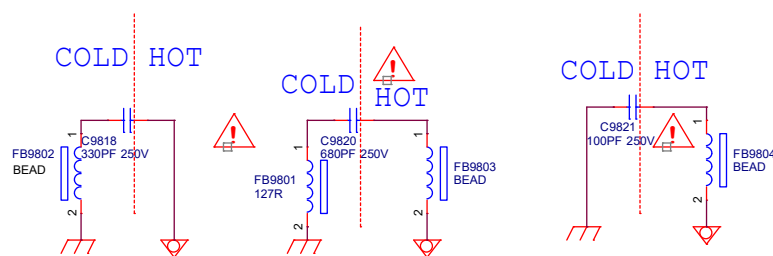
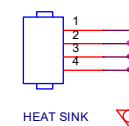


8-2-2 PFC LD7591T

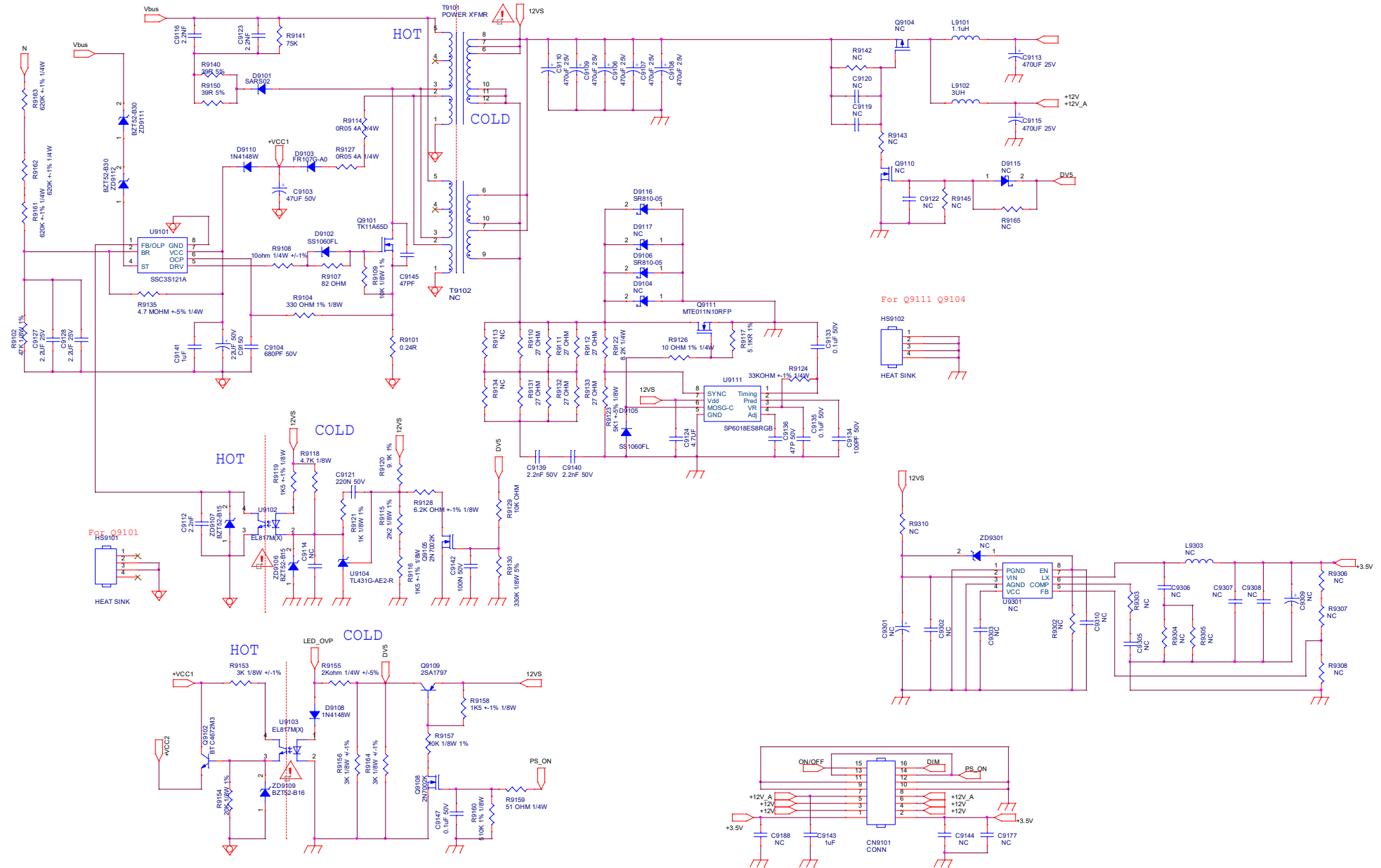


For Q9801/D9802

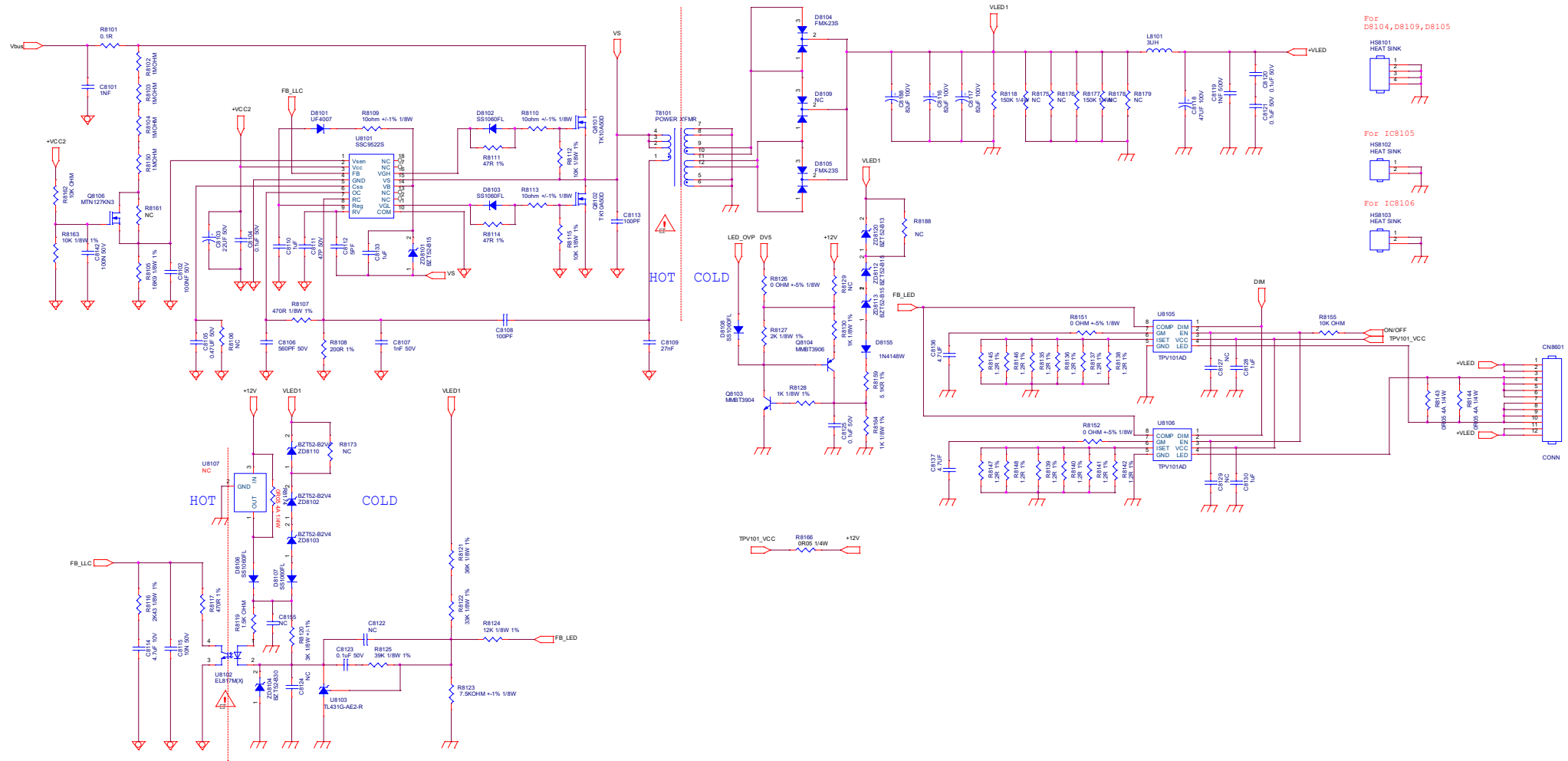
HS9801



8-2-3 Main power SSC3S121A

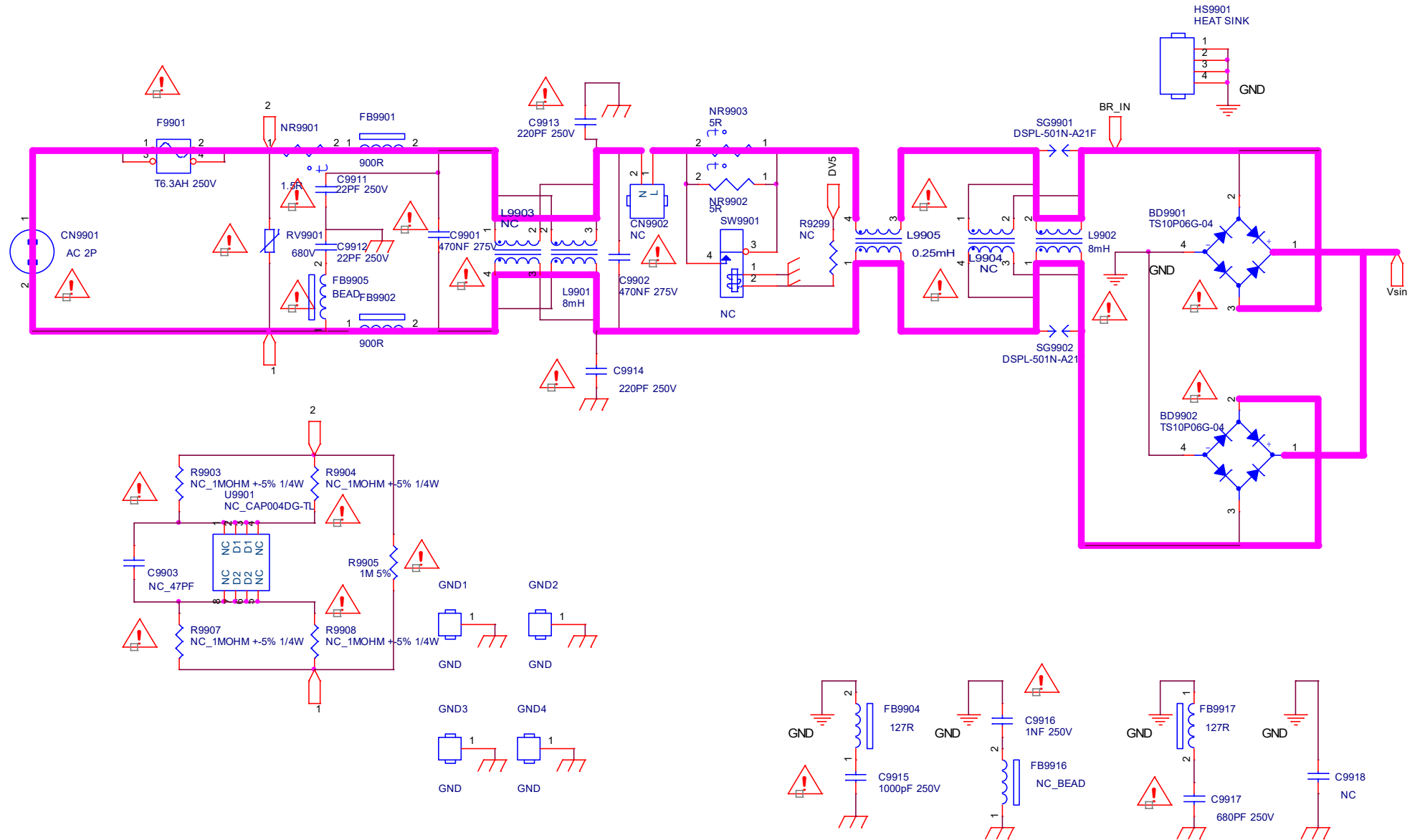


8-2-4 LED Driver SSC9522S

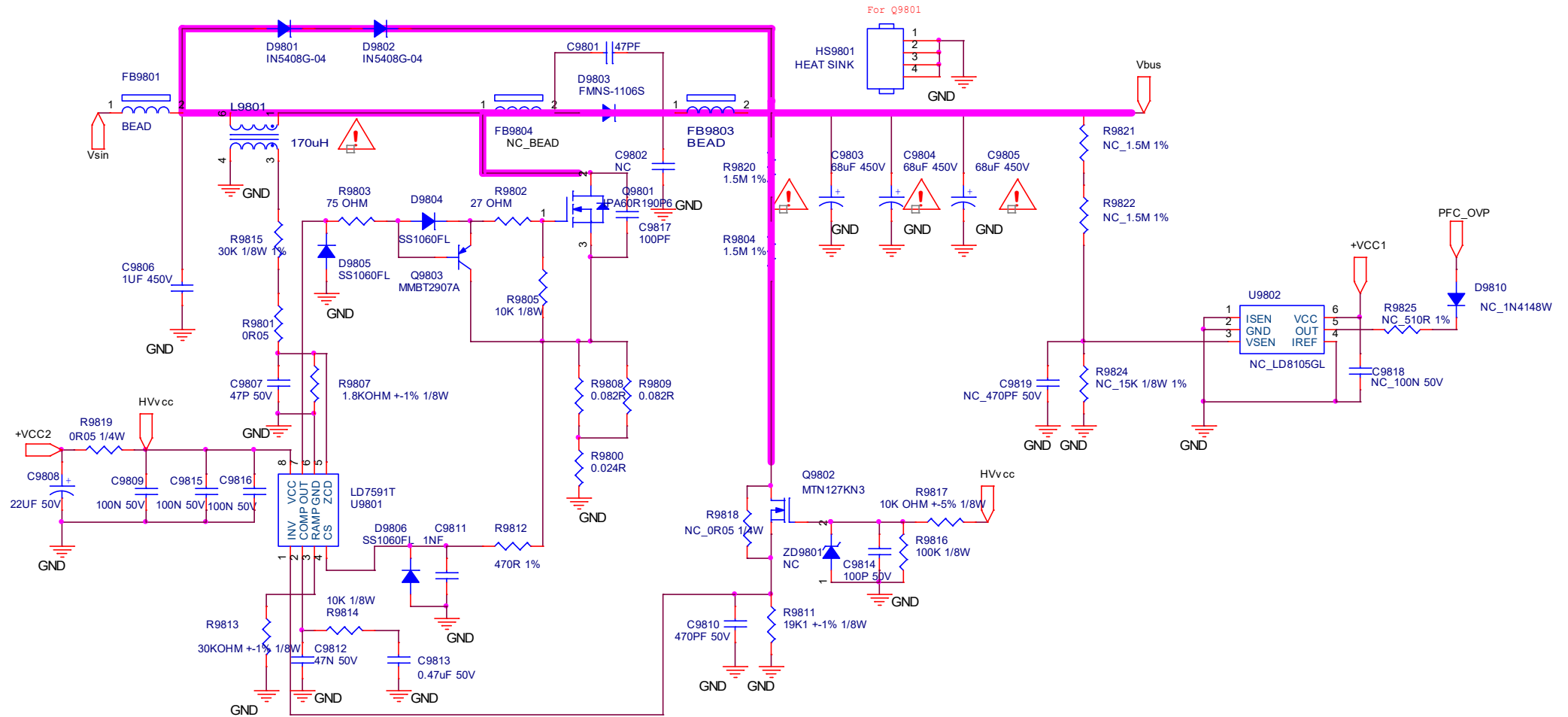


8.3 A 715G8682 PSU(For 65" 6162/6262 Series)

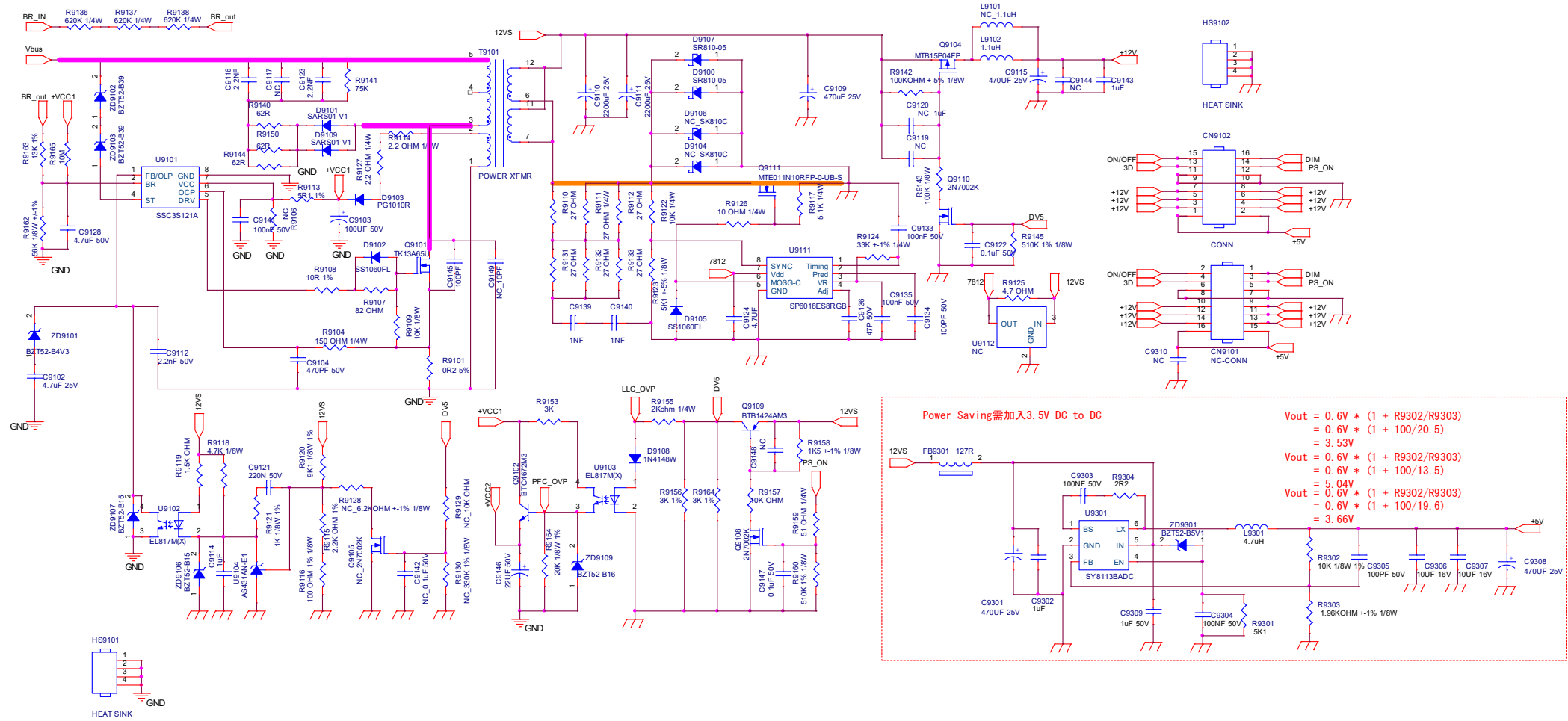
8-3-1 AC Input



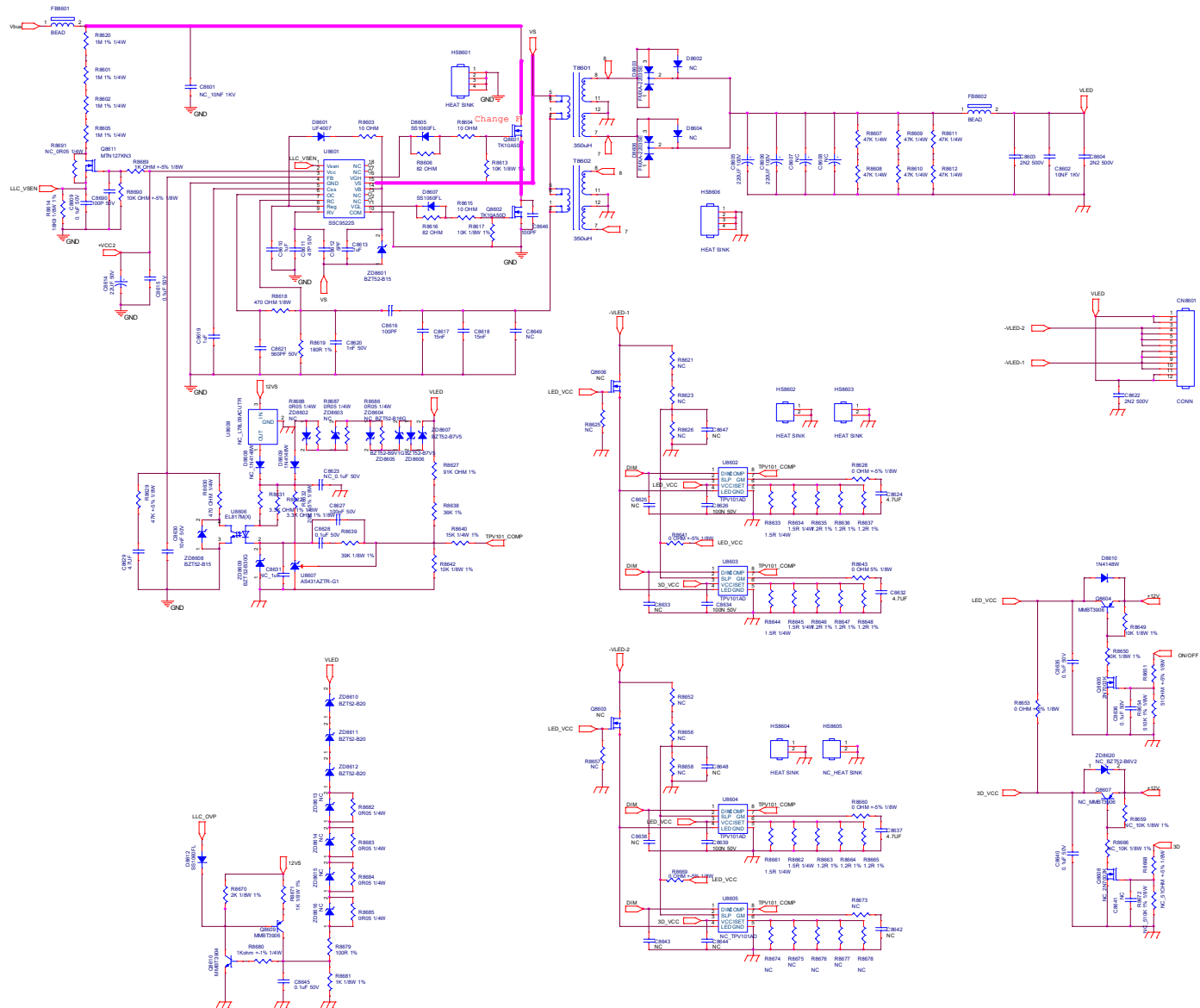
8-3-2 PFC



8-3-3 Main Power



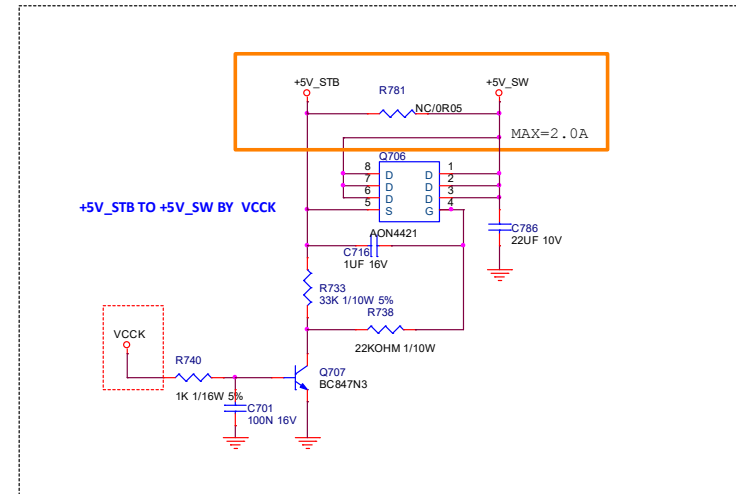
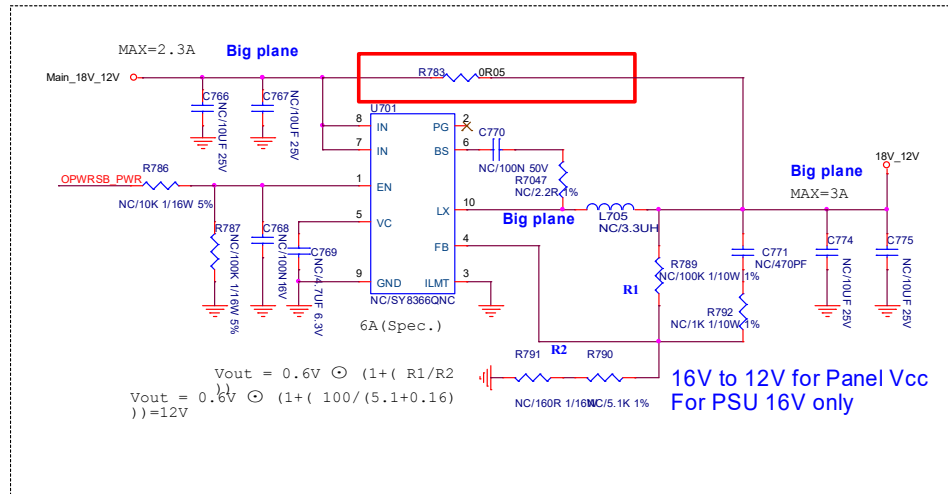
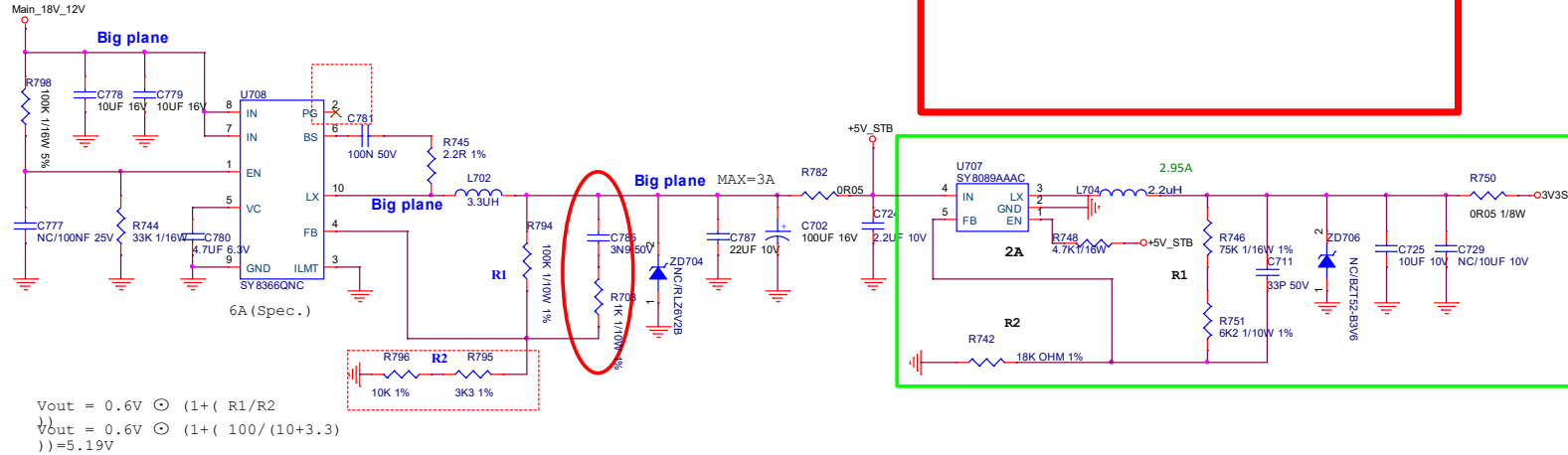
8-3-4 LLC



8.4 B 715G8709SSB

8-4-1POWER

2K17 MT5802 platform

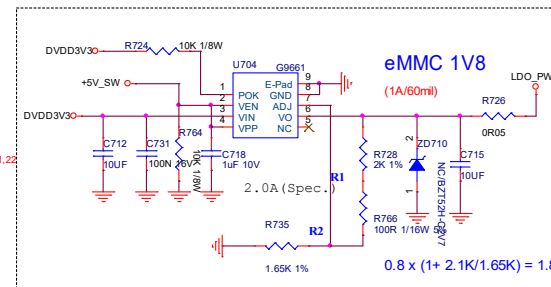
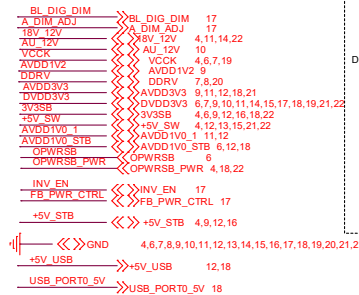
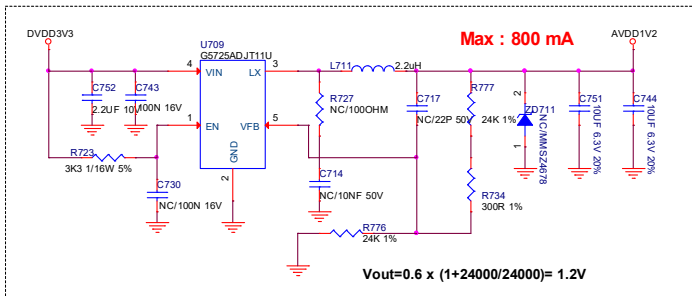
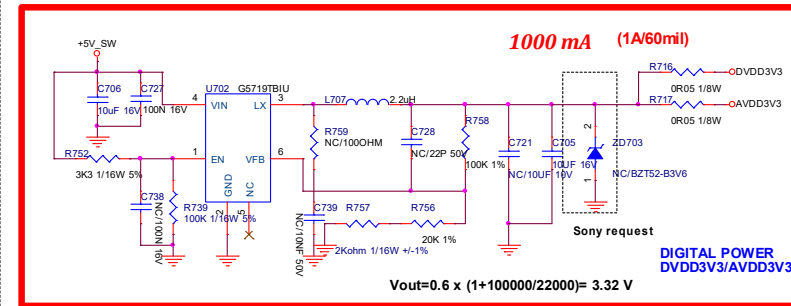
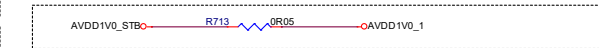
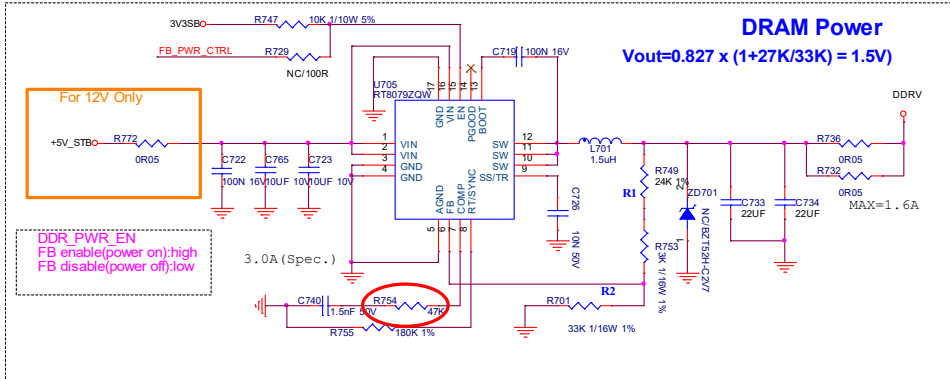
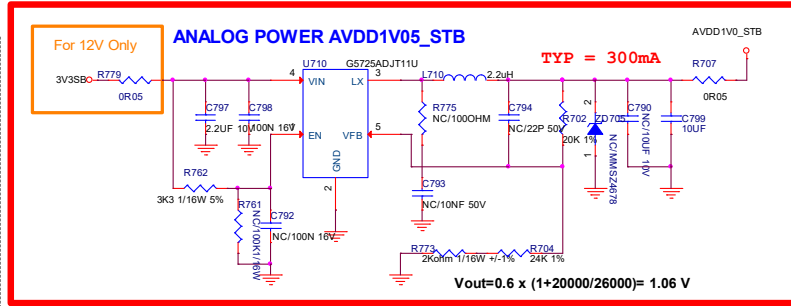
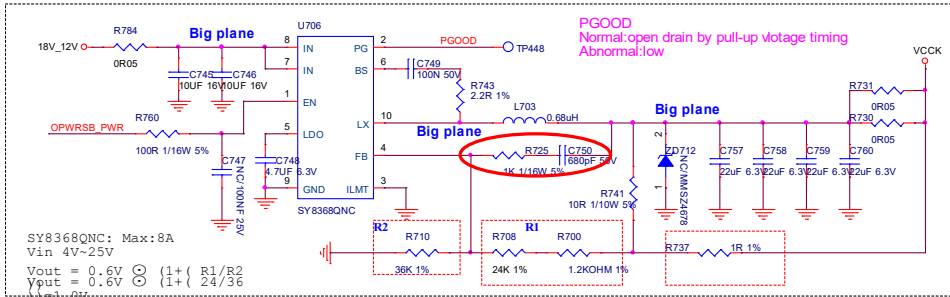
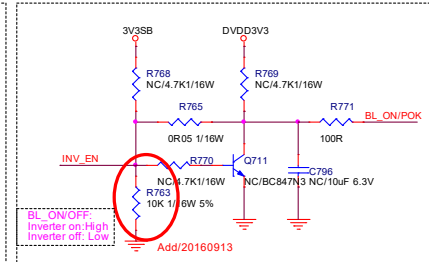
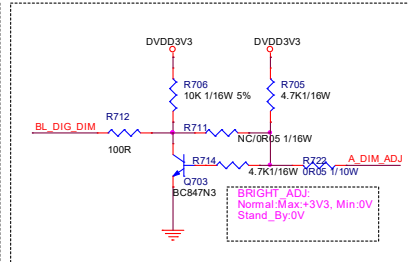
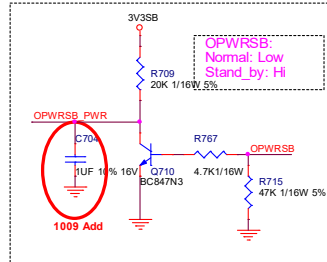
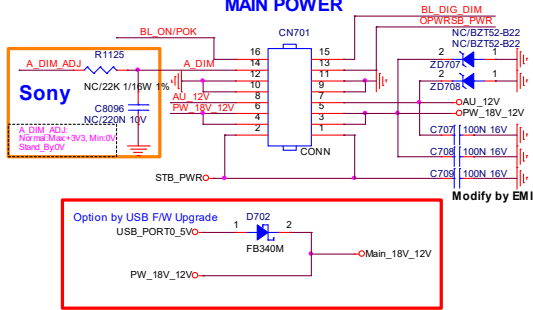


18V_12V	18V_12V	5,11,14,22
+5V_STB	+5V_STB	5,9,12,16
VCC	VCC	5,6,7,19
DDR	DDR	5,7,8,20
DVDD3V3	DVDD3V3	5,6,7,9,10,11,14,15,17,18,19,21,22
3V3SB	3V3SB	5,6,9,12,16,18,22
+5V_SW	+5V_SW	5,12,13,15,21,22
AVDD1V0_1	AVDD1V0_1	5,11,12
AVDD1V0_STB	AVDD1V0_STB	5,6,12,18
OPWRSB	OPWRSB	5,6
OPWRSB_PWR	OPWRSB_PWR	5,18,22

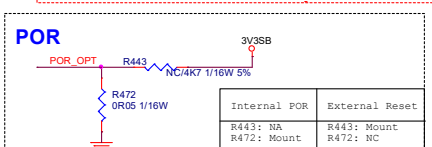
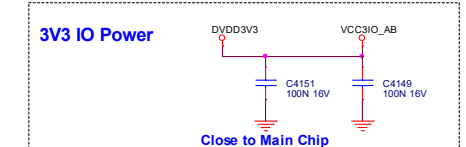
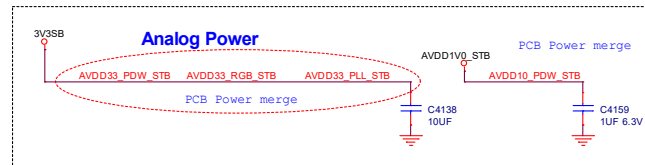
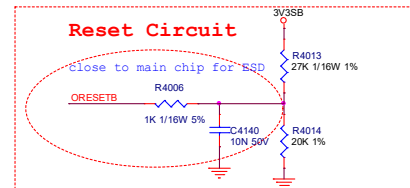
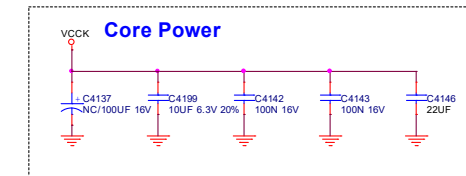
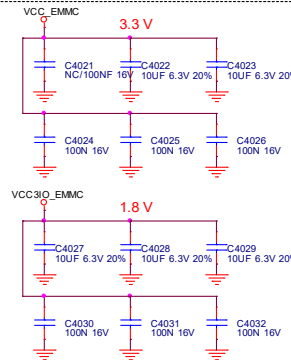
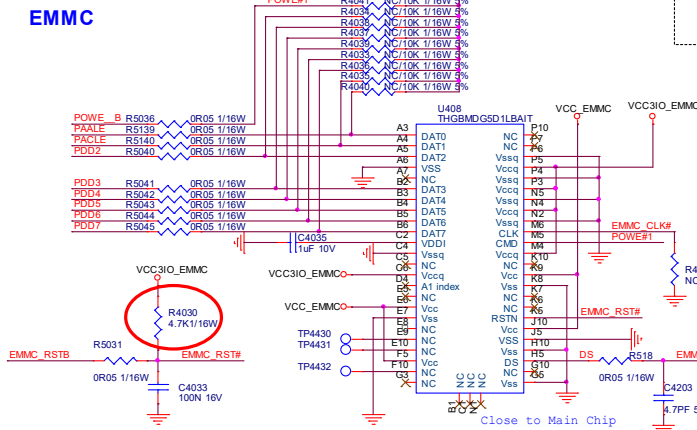
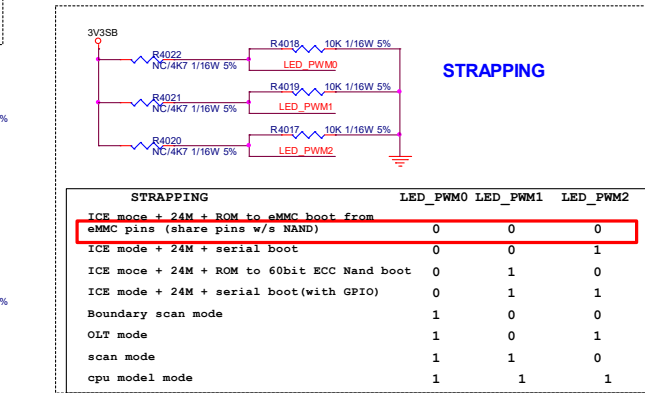
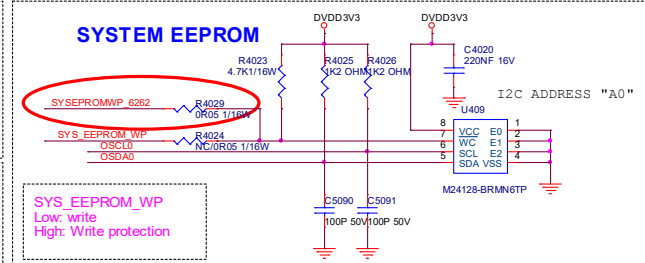
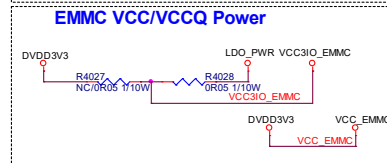
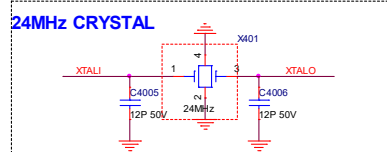
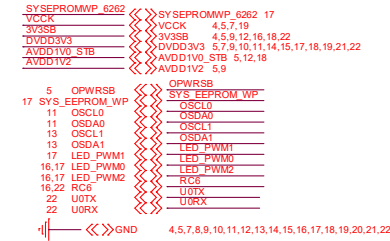
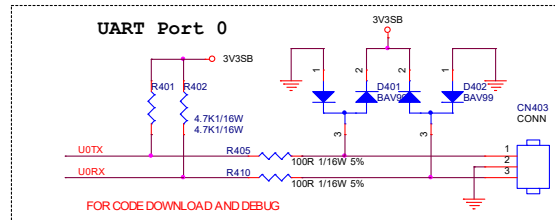
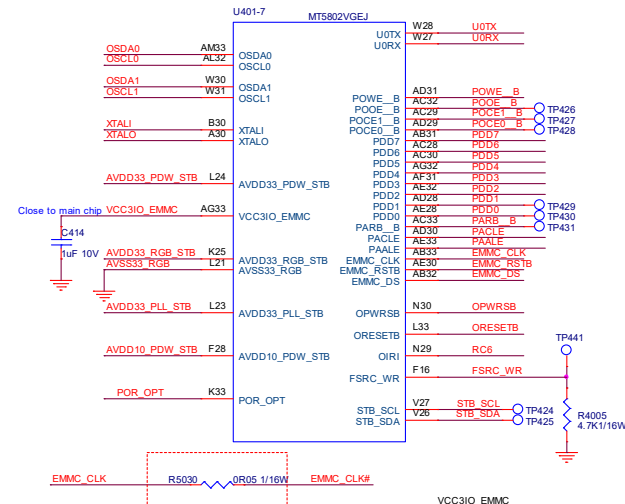
GND 5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22

8-4-2 System Power

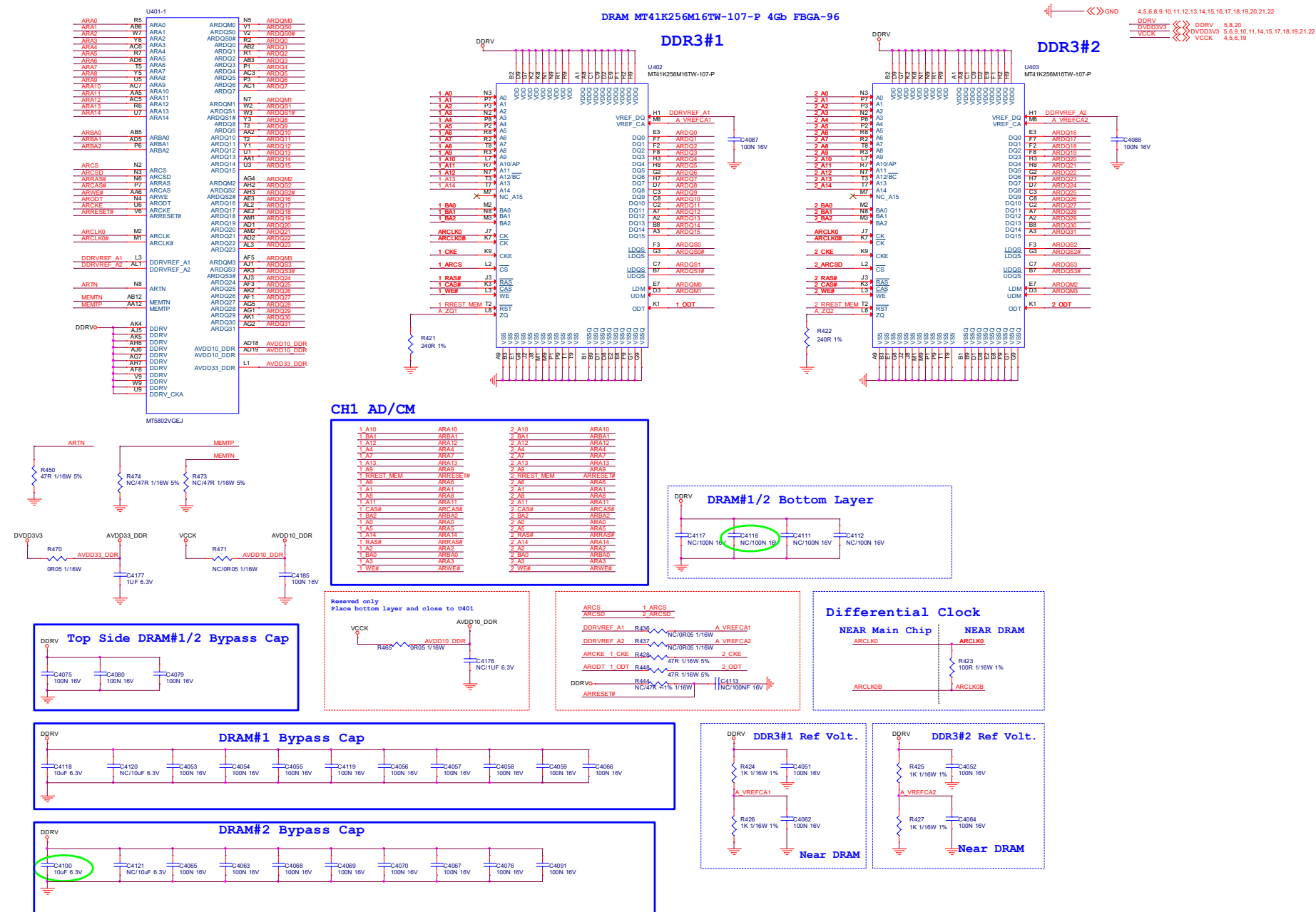
MAIN POWER



8-4-3 Peripheral



8-4-4 DRR3*2



8-4-5 DRR3*2-2

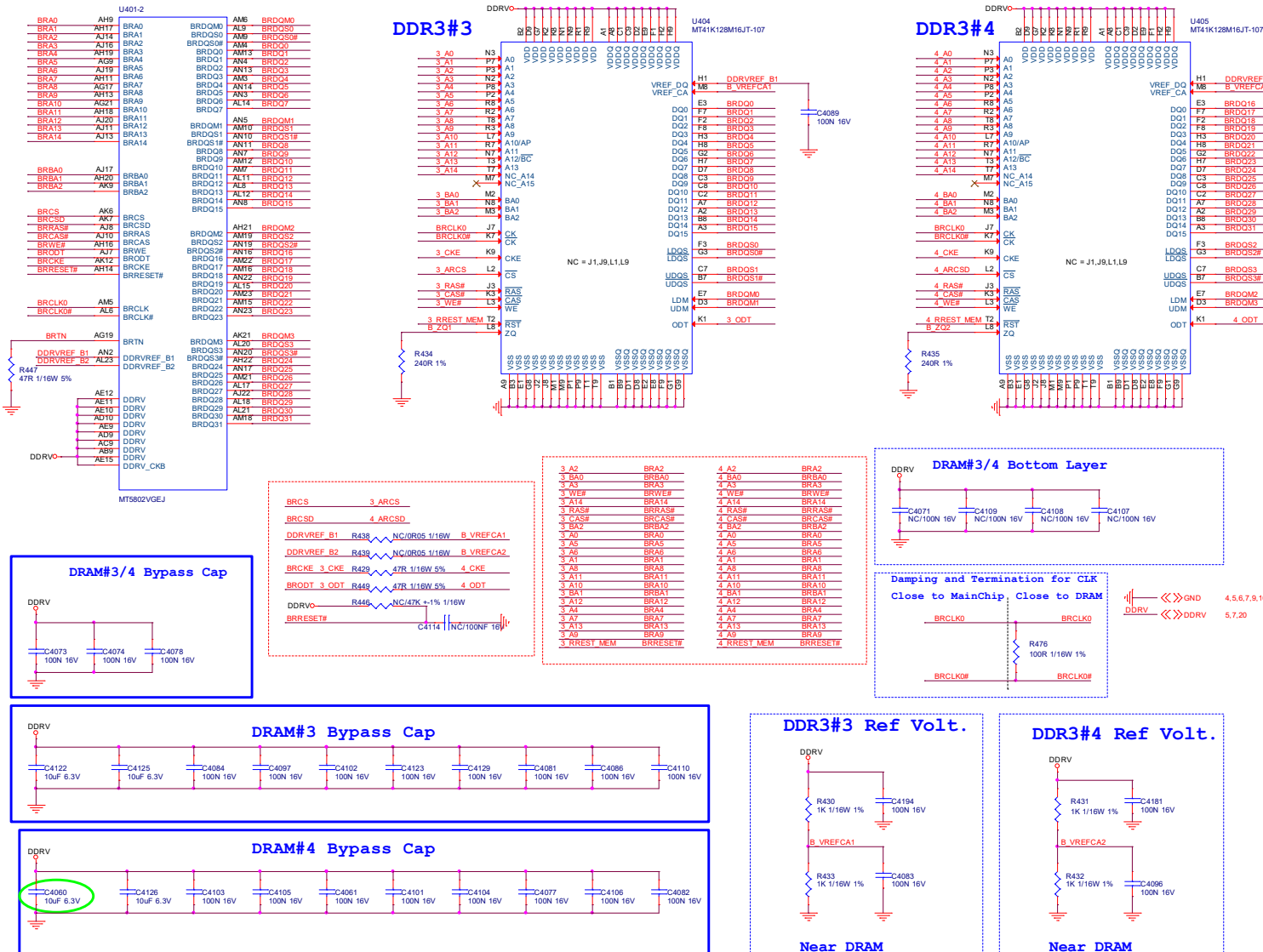
4,5,6,7,8,10,11,12,13,14,15,16,17,18,19,20,21,22 GND

4,5,6,7,8,10,11,12,13,14,15,16,17,18,19,20,21,22 GND

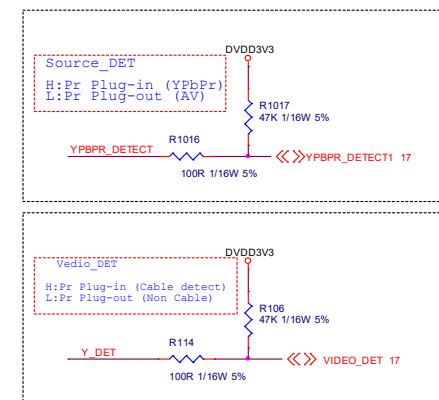
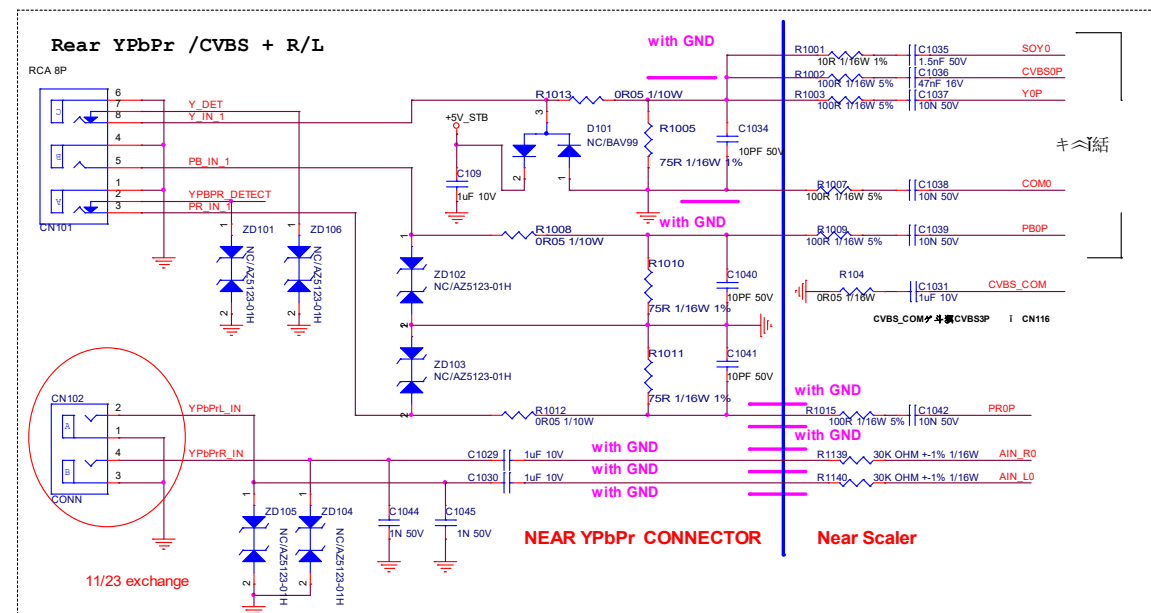
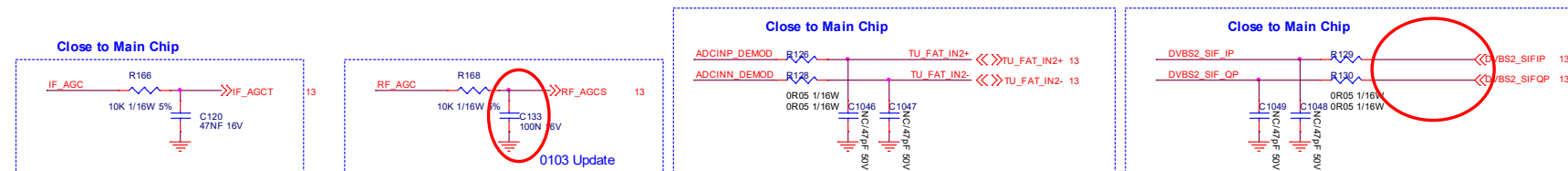
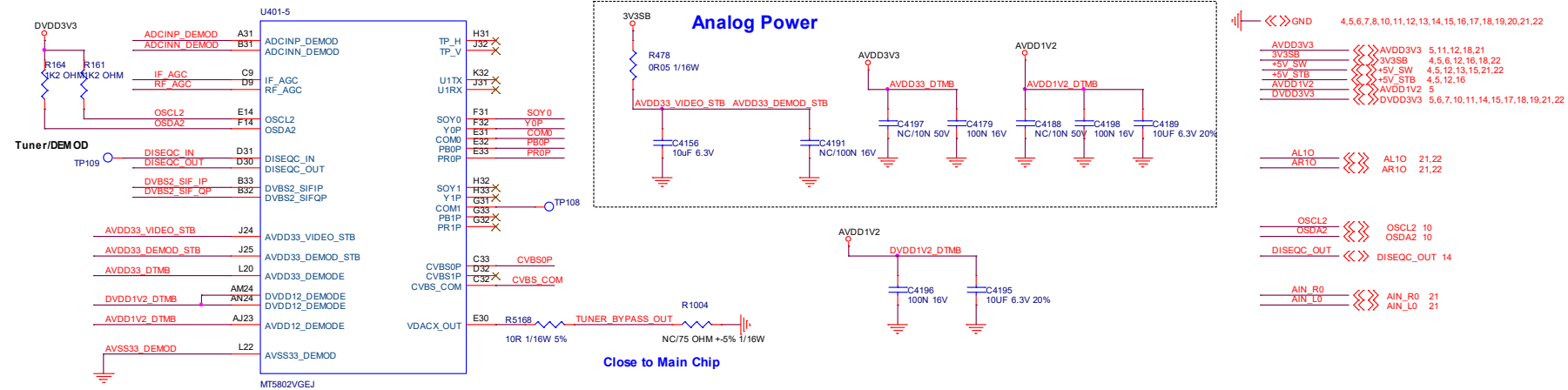
DDR3#3

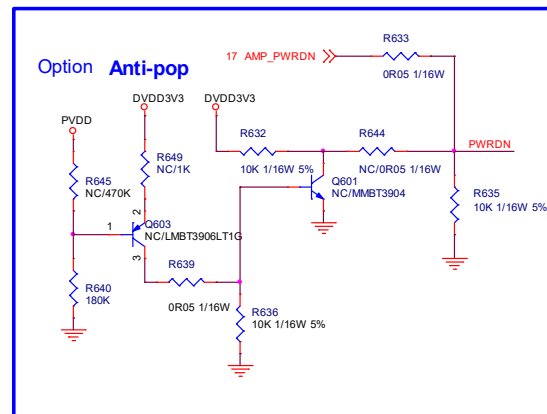
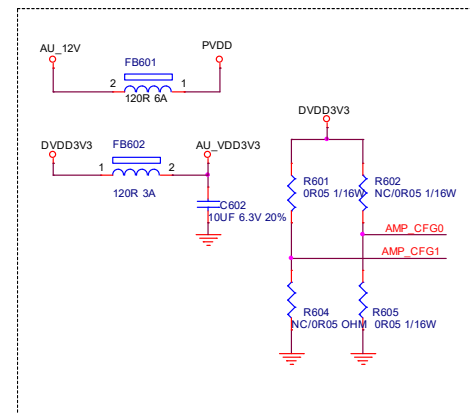
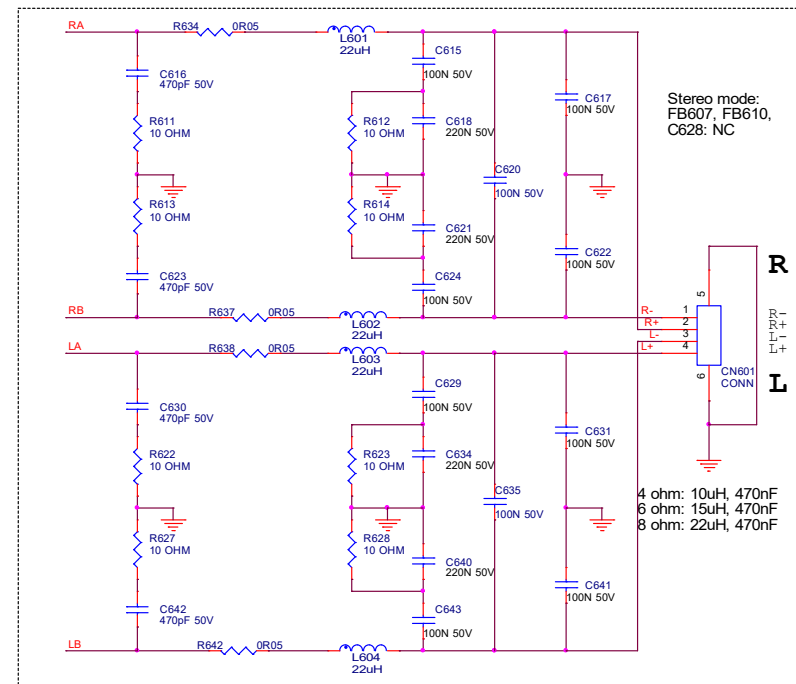
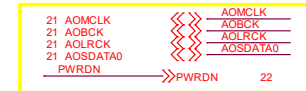
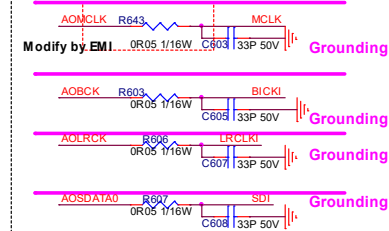
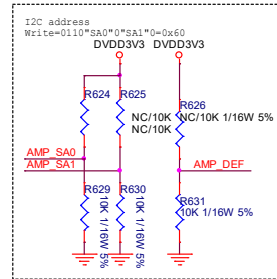
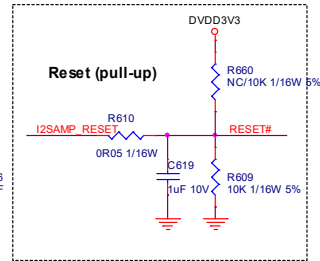
DDR3#4

CH2 AD/CM Damping



8-4-6 YPbPr/CVBS/SPIDIF

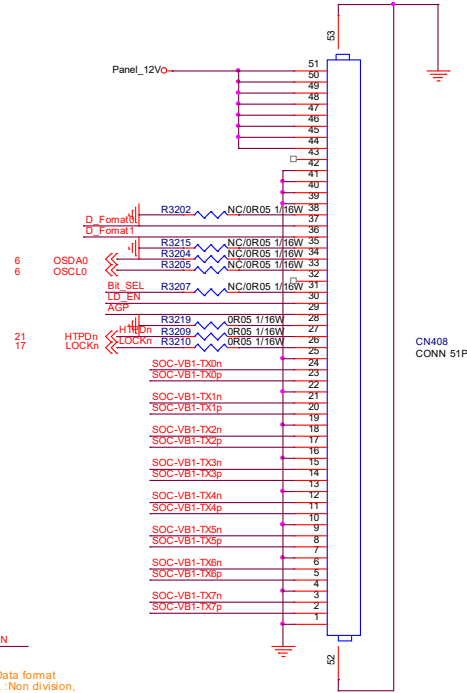
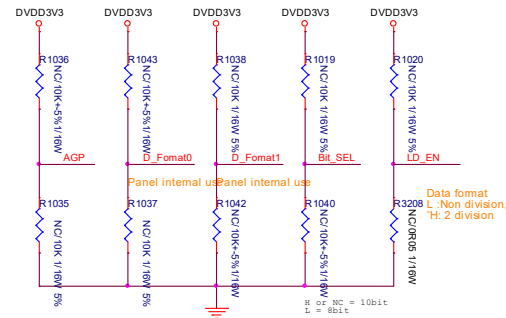
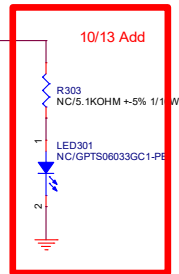
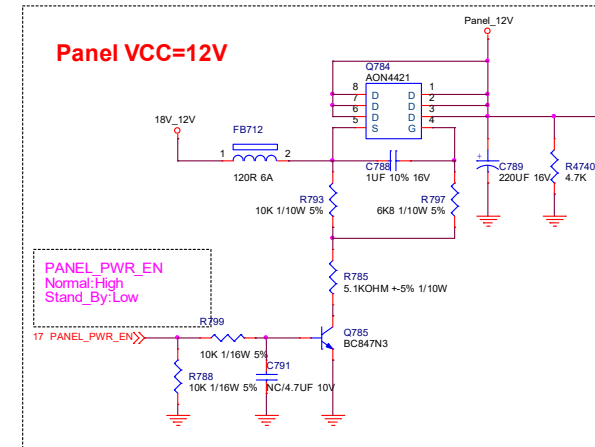
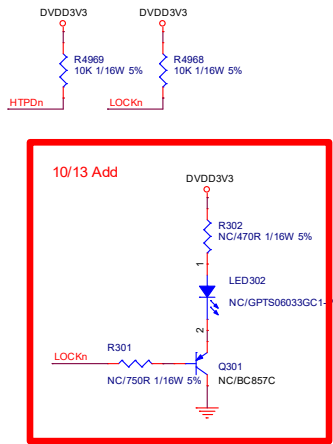
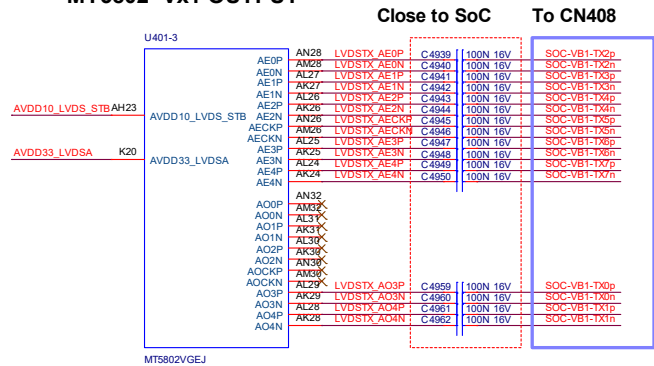




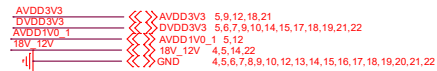
CFG1	CFG0	Mode
0	0	Reserved
0	1	2.1CH
1	0	Stereo
1	1	Mono

8-4-8 VB1 output

MT5802 Vx1 OUTPUT



	Port AO						Part AE						
LVDS(Ball name)	AO0	AO1	AO2	AOCK	AO3	AO4	AE0	AE1	AE2	AECK	AE3	AE4	
VB1 (MTK)	CH0	CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8	CH9	CH10	CH11	
VB1 (TPV)					CH0	CH1	CH2	CH3	CH4	CH5	CH6	CH7	

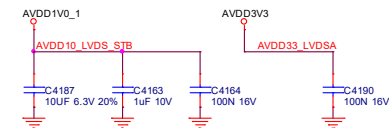


MT5802 HEAT SINK

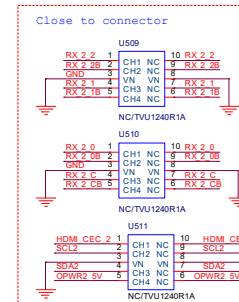
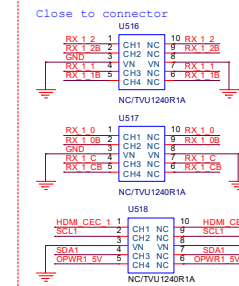
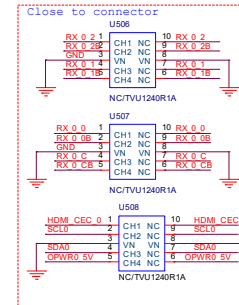
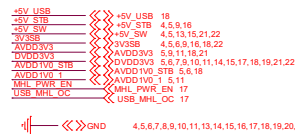
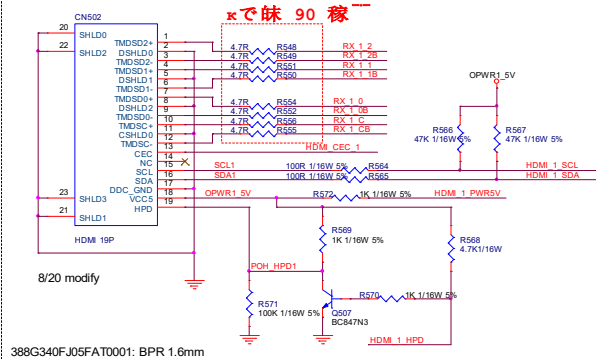
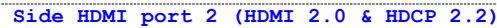
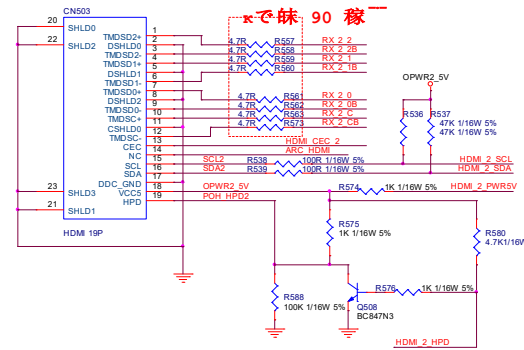
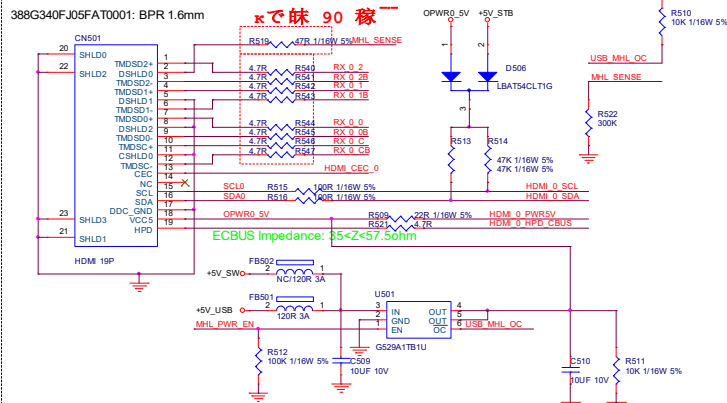
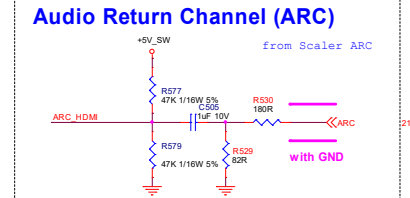
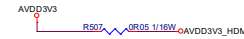
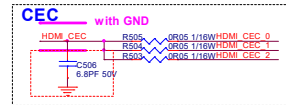
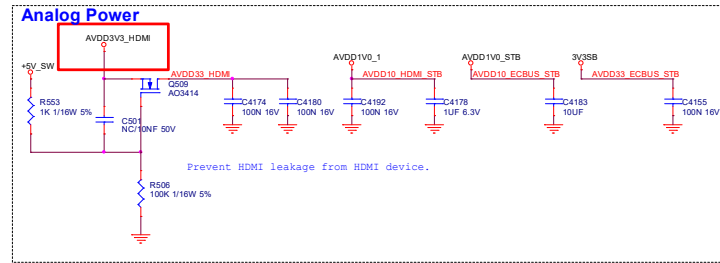
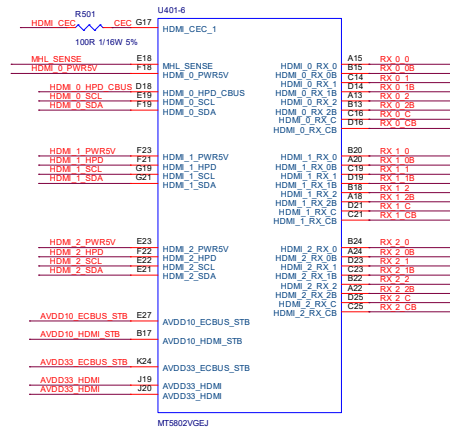


X90G401004200000BF

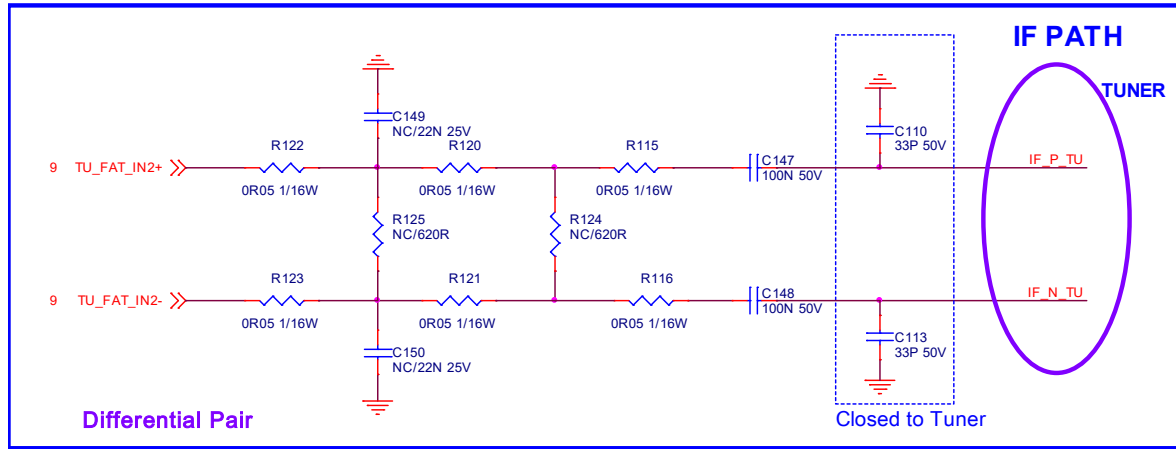
Analog Power



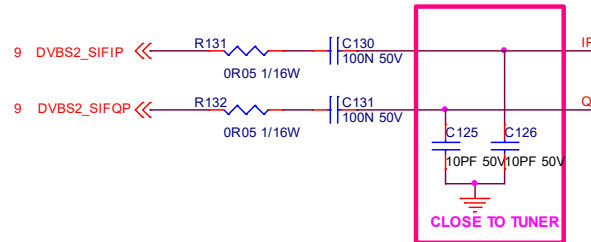
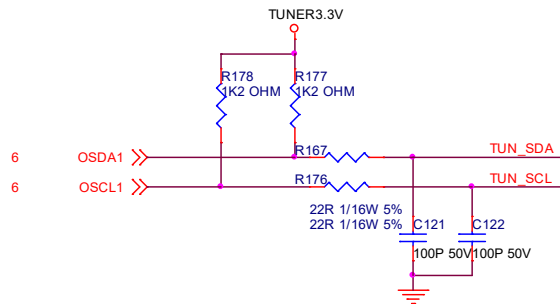
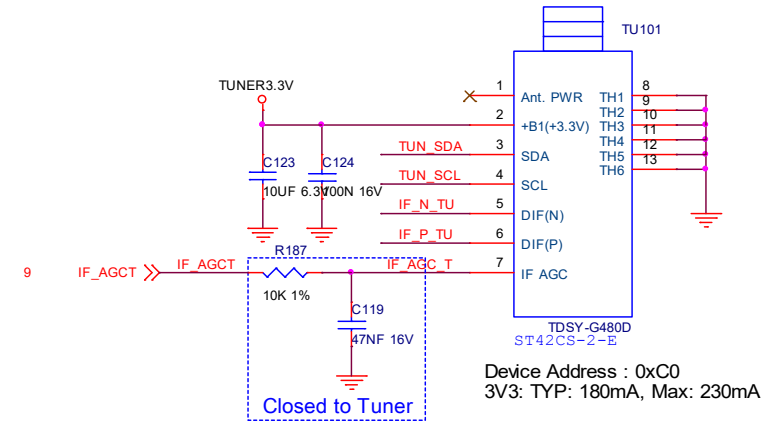
8-4-9 HDMI/MHL



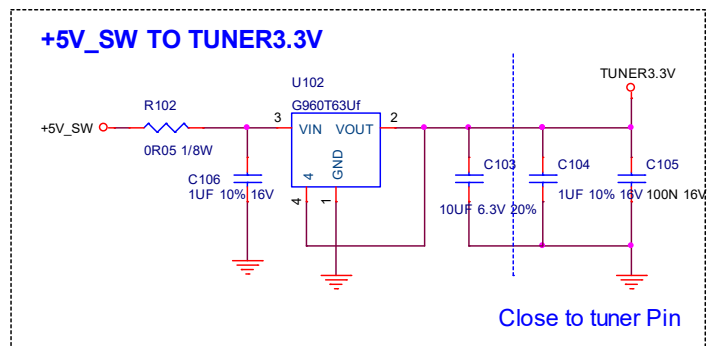
8-4-10 Tuner



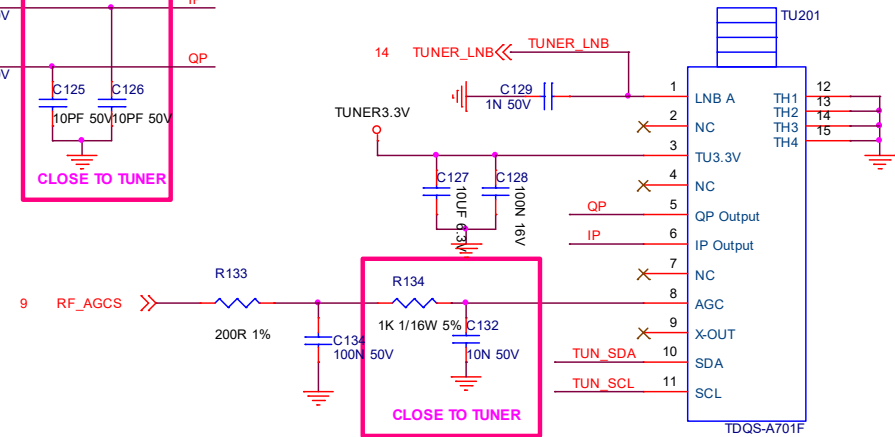
T2 TUNER



+5V_SW TO TUNER3.3V



S2 TUNER

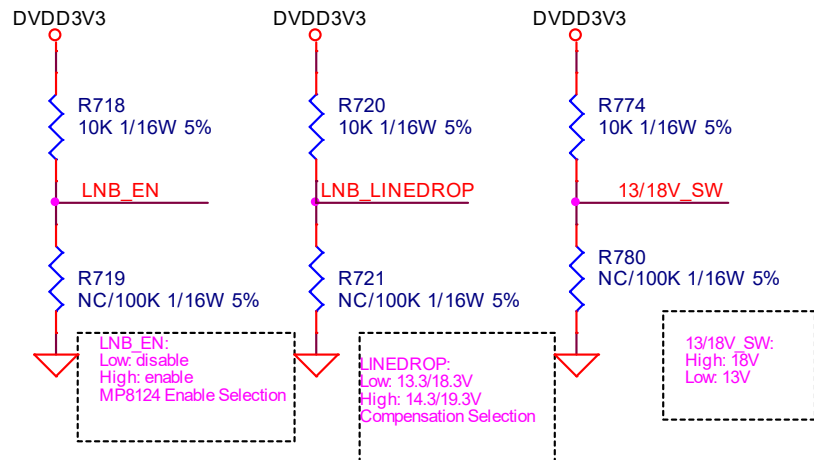
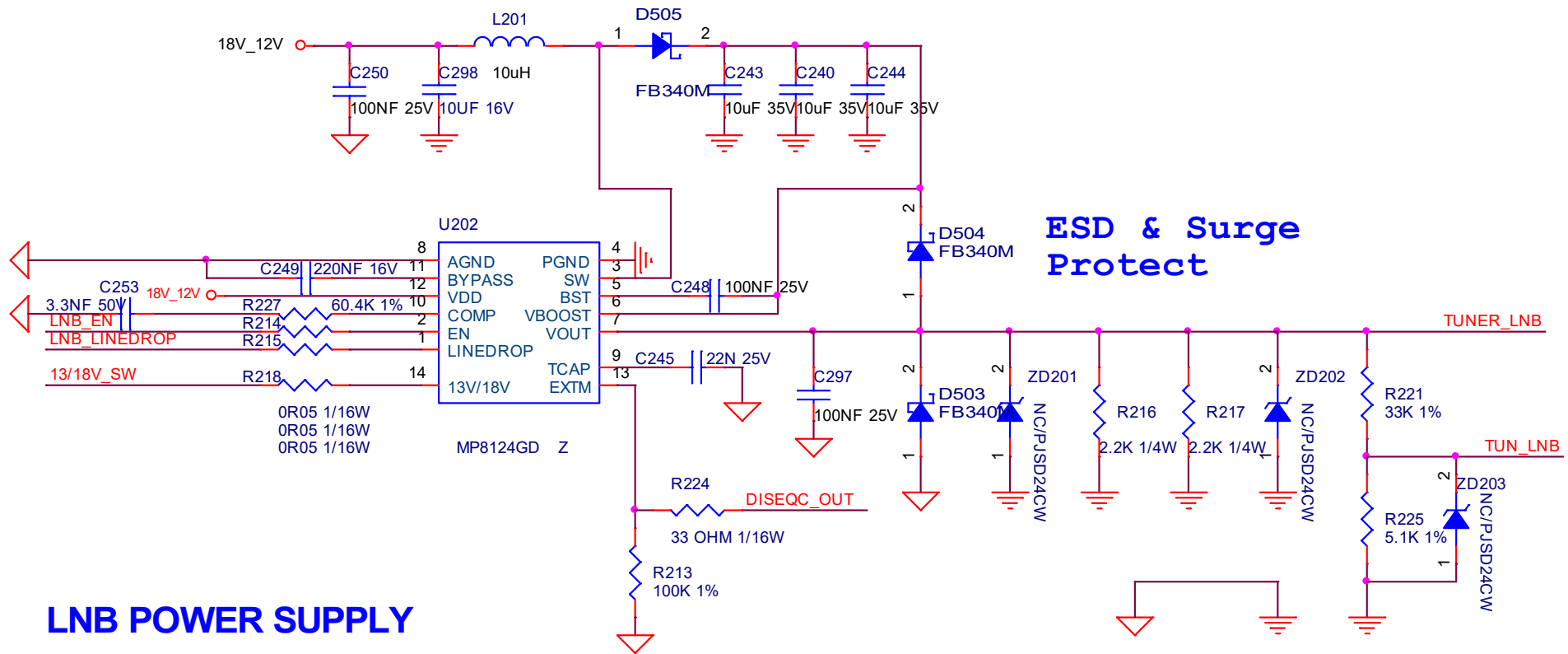


⏏ << >> GND	4,5,6,7,8,9,10,11,12,14,15,16,17,18,19,20,21,22
DVDD3V3 >>	DVDD3V3 5,6,7,9,10,11,14,15,17,18,19,21,22
+5V_SW >>	+5V_SW 4,5,12,15,21,22

Device Address : 0xC6

LGTuner with DVB-S/S2
K model : Samsung DNB02112IH2

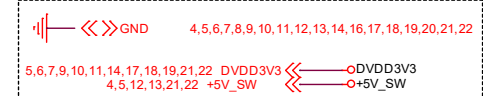
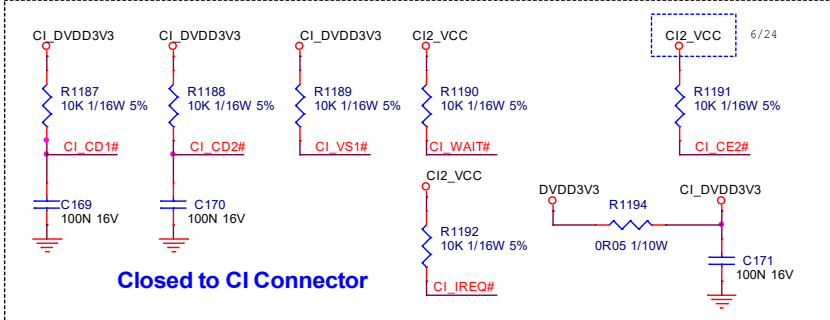
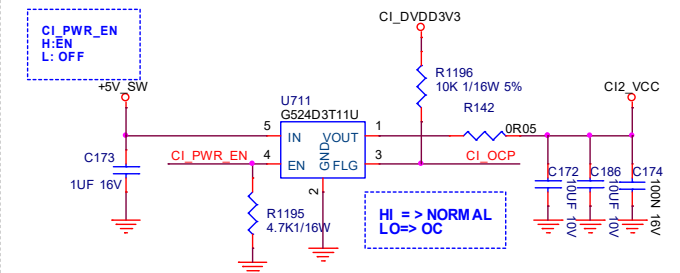
8-4-11 LNB



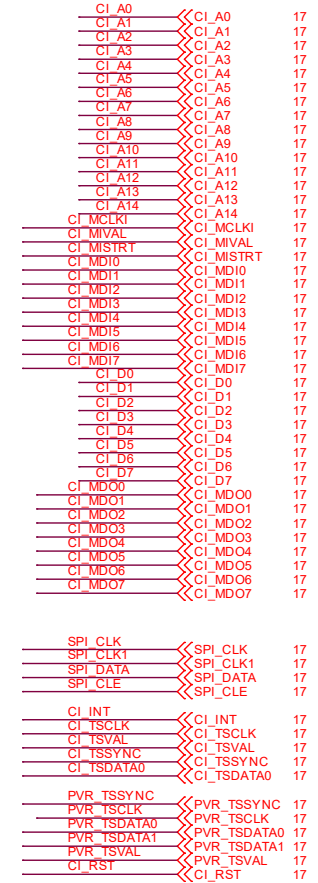
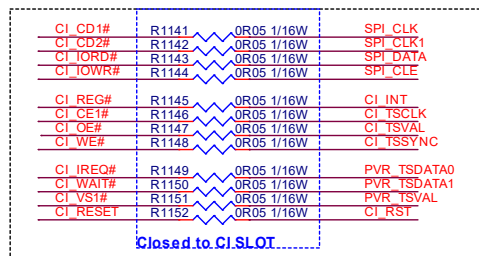
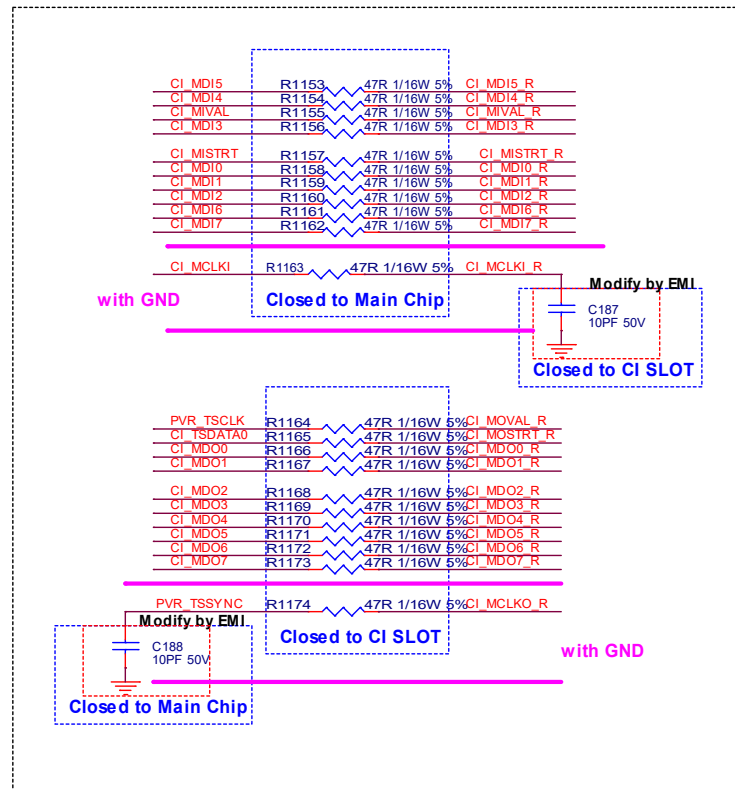
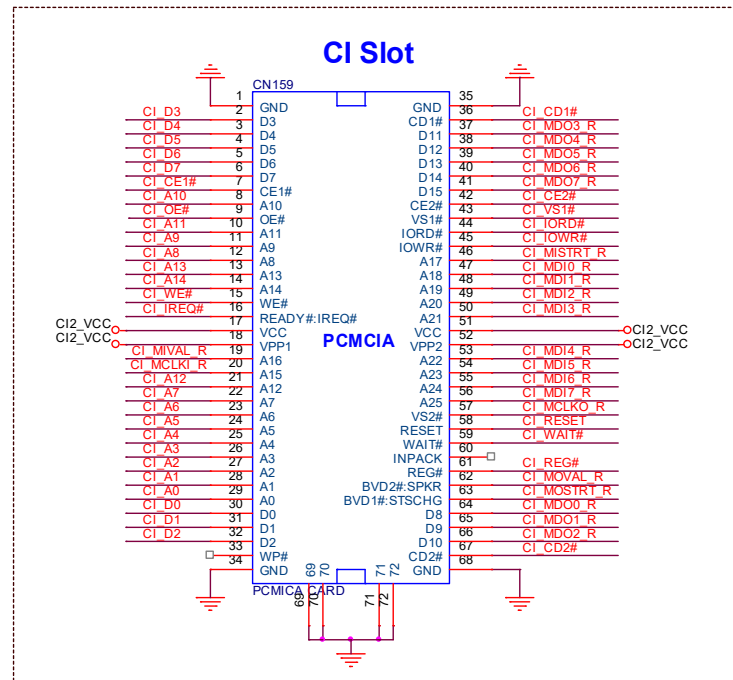
TUNER_LNB	13
TUN_LNB	17
DISEQC_OUT	9
18V_12V	4,5,11,22
LNB_EN	17
LNB_LINEDROP	17
13/18V_SW	17
DVDD3V3	5,6,7,9,10,11,15,17,18,19,21,22
GND	4,5,6,7,8,9,10,11,12,13,15,16,17,18,19,20,21,22

8-4-12 Internal CI

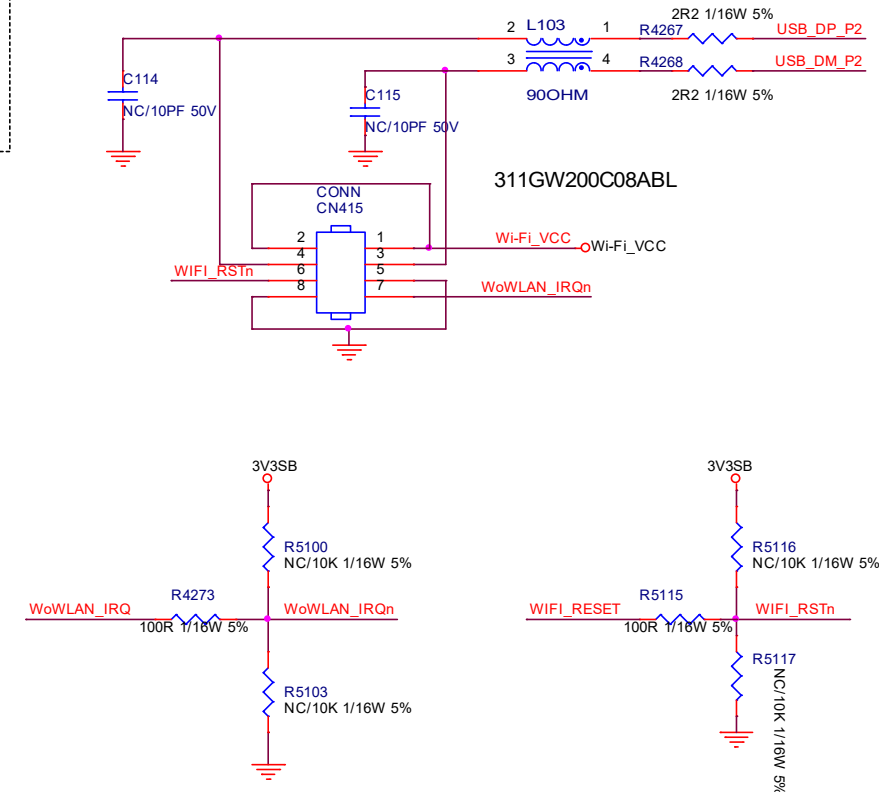
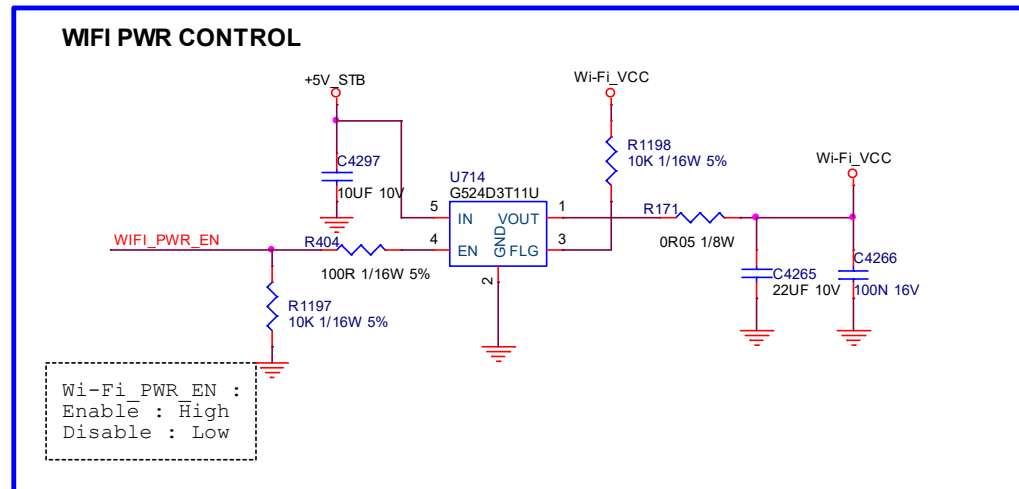
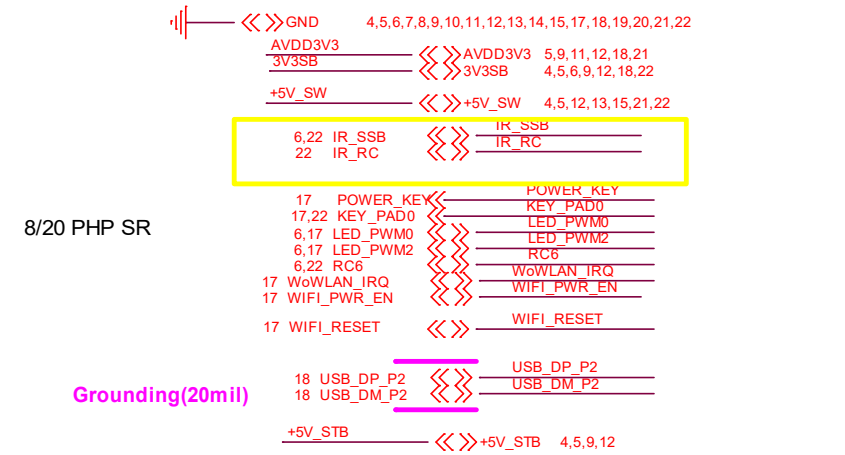
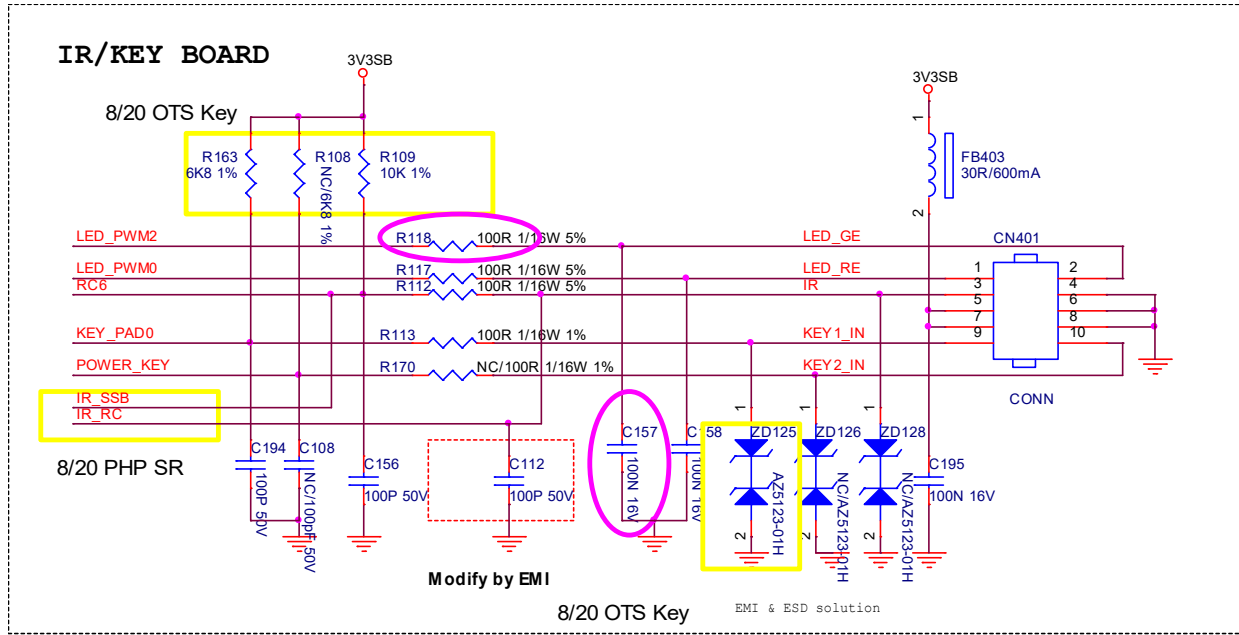
CLOSE TO CI CONNECTOR



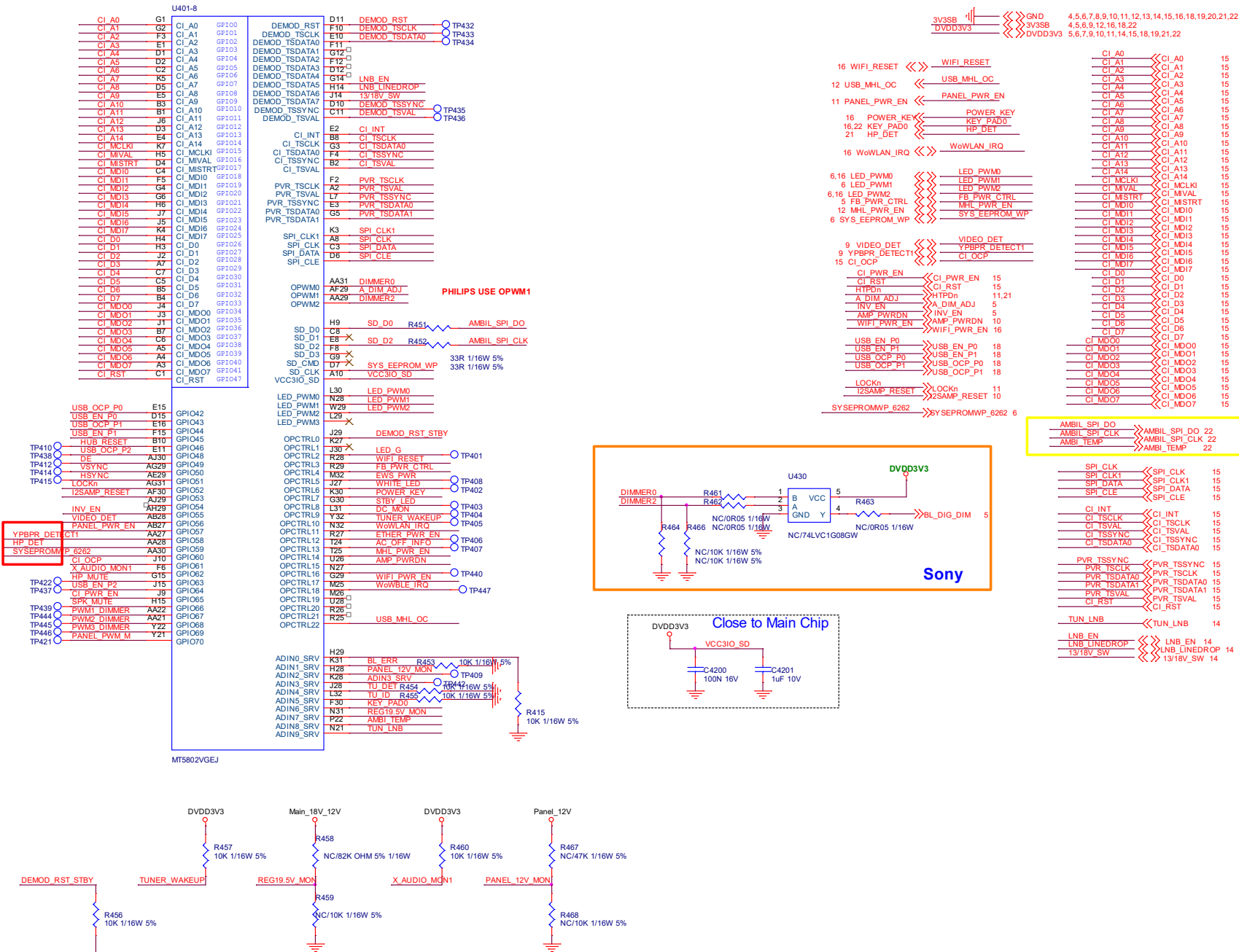
Control Interface



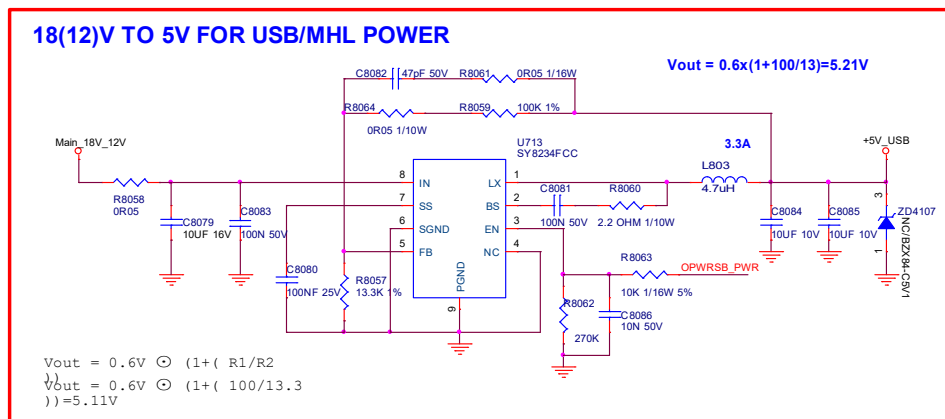
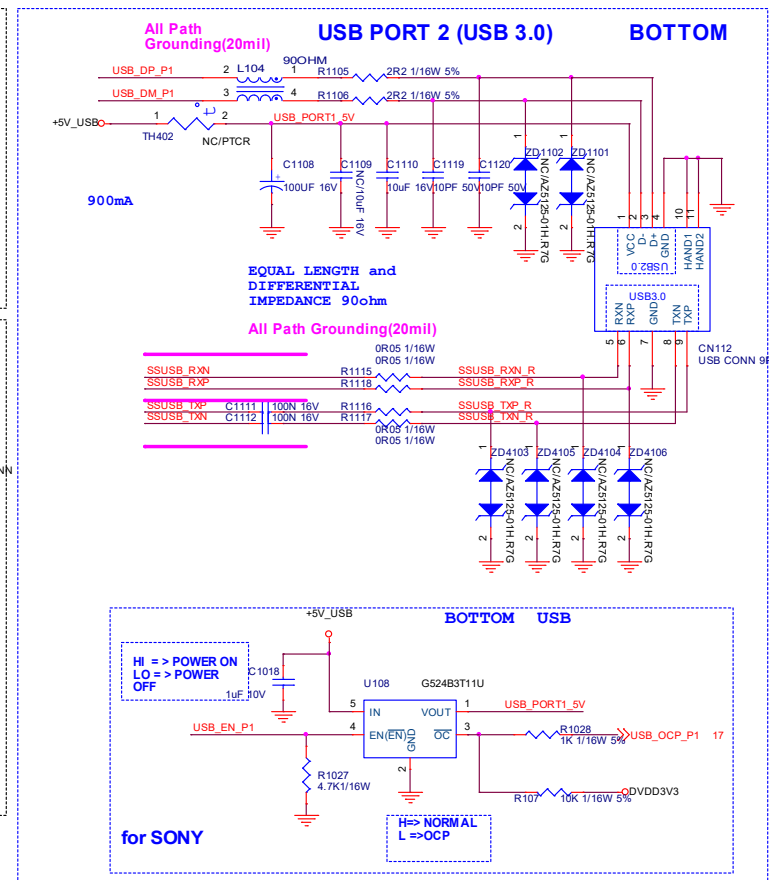
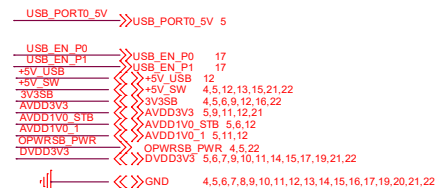
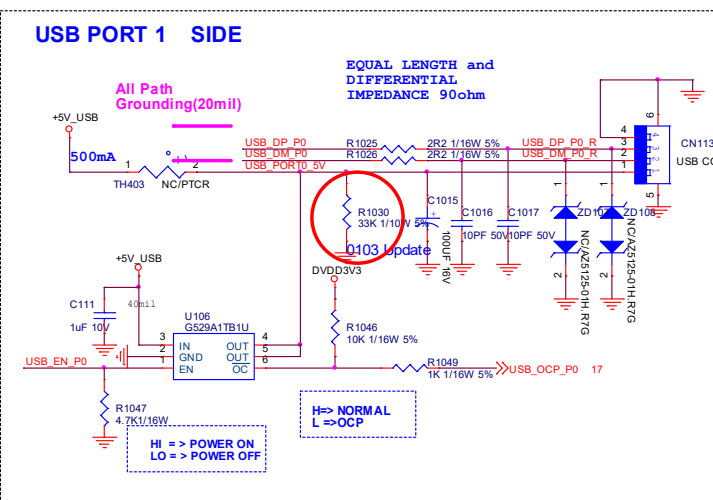
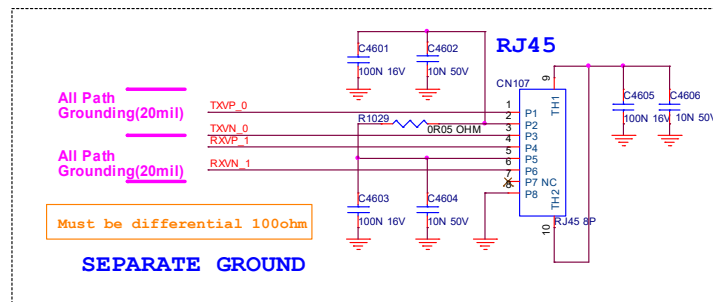
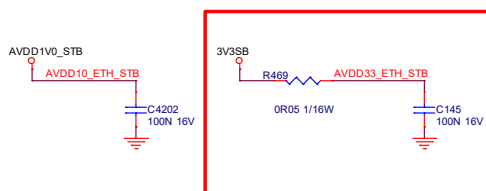
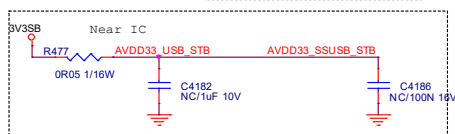
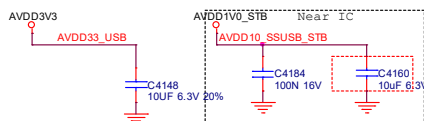
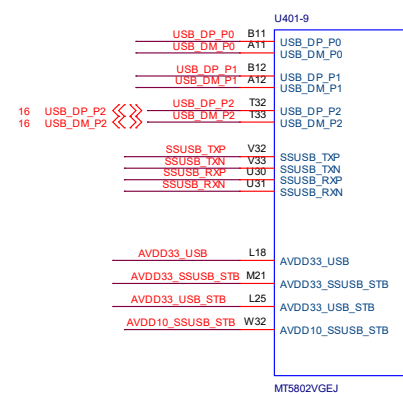
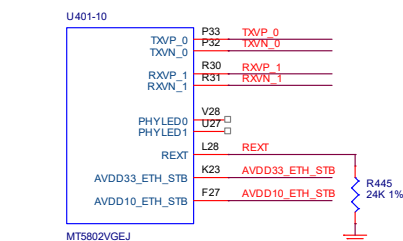
8-4-13 WIFI/KEYPAD



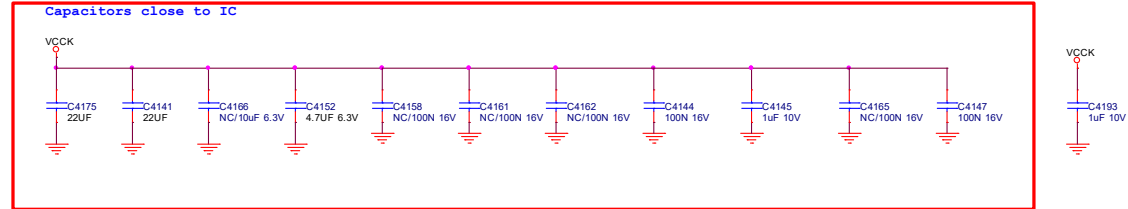
8-4-14 GPIO/servAD



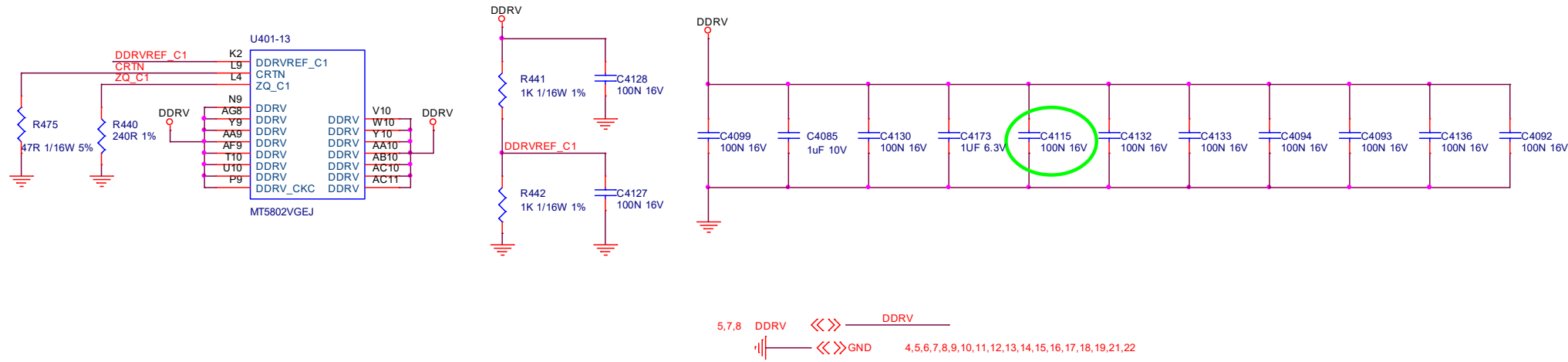
ETHERNET PHY



U401-11		
Y2		H16
P2	DVSS	DVSS
U2	DVSS	C24
AC2	DVSS	C24
AF2	DVSS	E24
AJ2	DVSS	F24
KE	DVSS	H16
R3	DVSS	AC16
R3	DVSS	F29
Y3	DVSS	H17
AA3	DVSS	C18
AD3	DVSS	I30
AG3	DVSS	I30
AH4	DVSS	C20
AG6	DVSS	C22
PS	DVSS	C22
V5	DVSS	H25
AH5	DVSS	AJ25
EG9	DVSS	H26
16	DVSS	H26
M7	DVSS	E25
W8	DVSS	AL10
AE8	DVSS	AJ26
AL4	DVSS	AJ12
E7	DVSS	AL13
LB	DVSS	AM14
AB7	DVSS	P21
D8	DVSS	AJ28
G8	DVSS	AE31
T8	DVSS	I31
V8	DVSS	V22
R8	DVSS	V22
W8	DVSS	U22
AE8	DVSS	U21
AC8	DVSS	F9
AF6	DVSS	AJ30
AL5	DVSS	AC31
17	DVSS	N20
AE7	DVSS	AL19
H8	DVSS	AE32
C10	DVSS	N33
H10	DVSS	W21
AC	DVSS	U21
M11	DVSS	U21
N11	DVSS	I21
P11	DVSS	AJ21
T11	DVSS	AE19
R11	DVSS	N19
AF11	DVSS	AE20
AK8	DVSS	Y20
AM11	DVSS	W20
M12	DVSS	U20
N12	DVSS	U20
P12	DVSS	I20
R12	DVSS	AE20
U12	DVSS	P20
V12	DVSS	P18
Y12	DVSS	N18
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W12	DVSS	C17
V13	DVSS	AE19
P15	DVSS	Y19
R15	DVSS	W19
T15	DVSS	Y19
U15	DVSS	U19
V15	DVSS	I19
W15	DVSS	U19
M6	DVSS	P19
E9	DVSS	AE16
AF12	DVSS	AE16
AM6	DVSS	AE16
P16	DVSS	Y16
T16	DVSS	N16
U16	DVSS	AE16
V16	DVSS	Y18
W16	DVSS	Y18
P17	DVSS	U18
R17	DVSS	I18
T17	DVSS	H18
U17	DVSS	M16
V17	DVSS	AE15
W17	DVSS	AE15
Y17	DVSS	AE15
AX17	DVSS	Y15
M15	DVSS	N15
N13	DVSS	M15
R13	DVSS	AL16
T13	DVSS	AE14
U13	DVSS	AE14
V13	DVSS	Y14
W13	DVSS	Y14
Y13	DVSS	Y14
AX13	DVSS	Y14
C13	DVSS	R14
AB13	DVSS	AL22
AH10	DVSS	AE10
P10	DVSS	K15
C15	DVSS	AC13
M14	DVSS	AC12
C12	DVSS	AM20
N14	DVSS	AM17
P14	DVSS	U22
AJ4	DVSS	L5
I28	DVSS	F20
W33	DVSS	F29
U25	DVSS	K6
Y26	DVSS	F7
C27	DVSS	H8
I29	DVSS	G10
AC27	DVSS	AD27

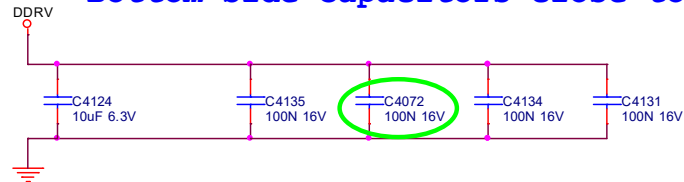


8-4-17 DDP POWER

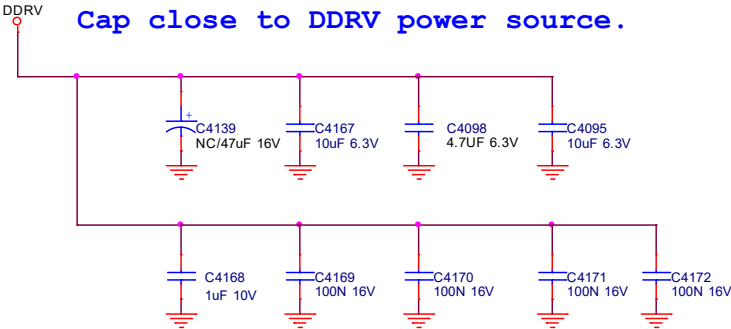


DRAM Power

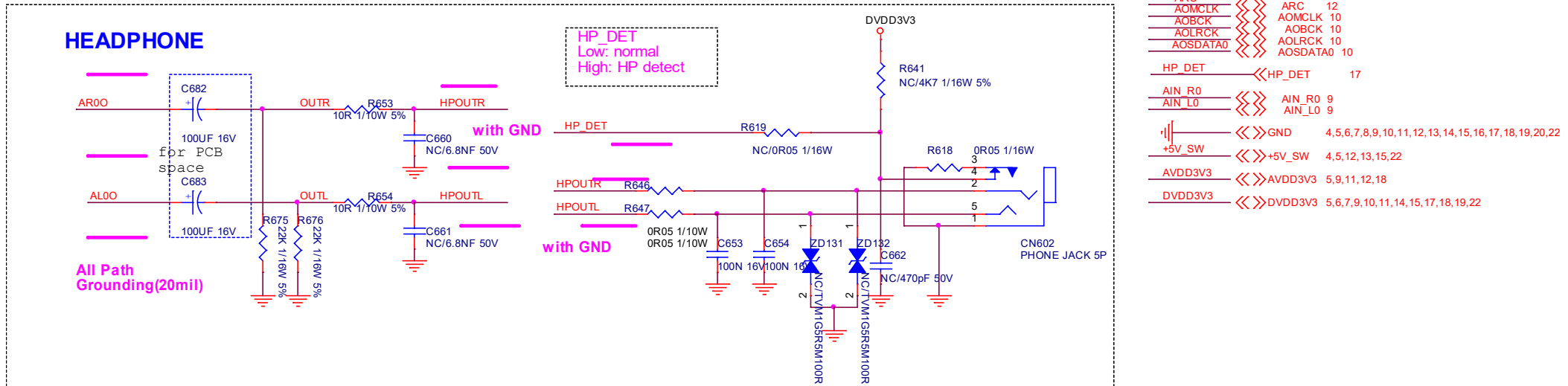
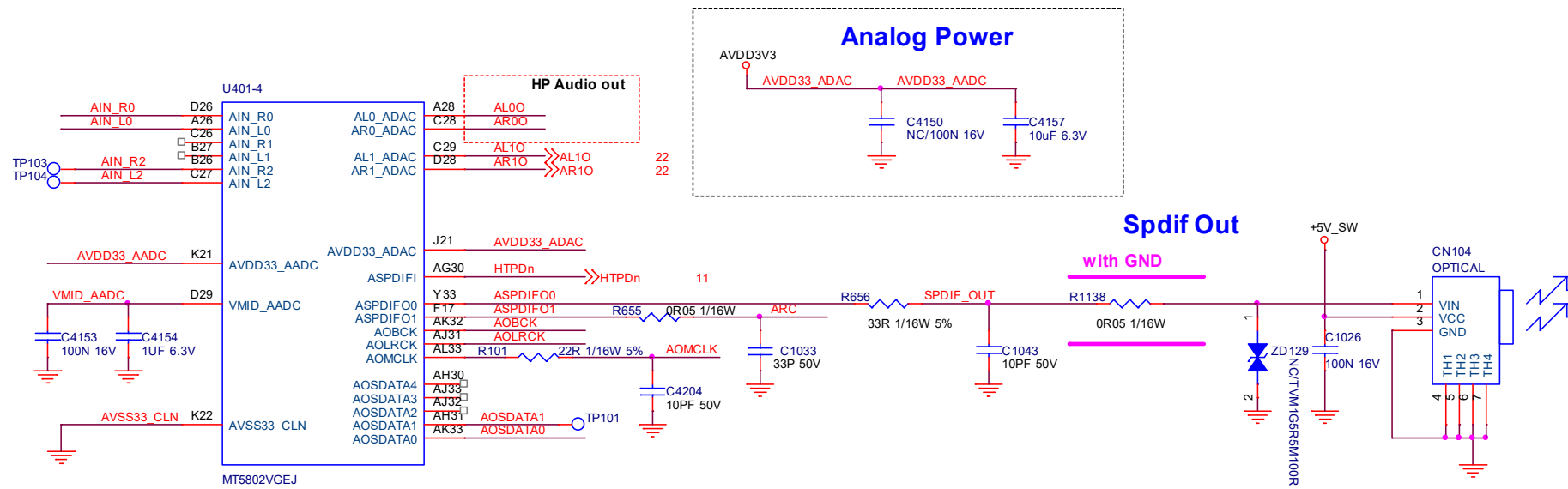
Bottom Side Capacitors close to IC



Cap close to DDRV power source.

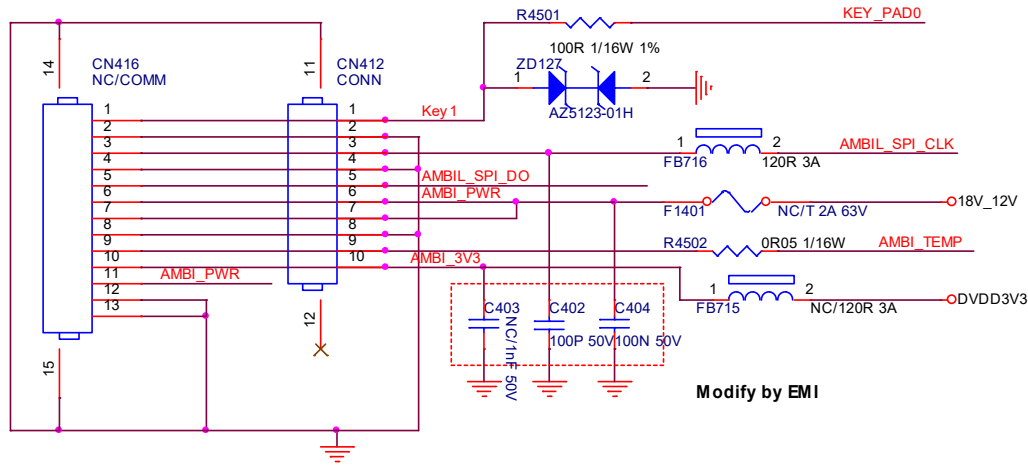


8-4-18 LINE OUT

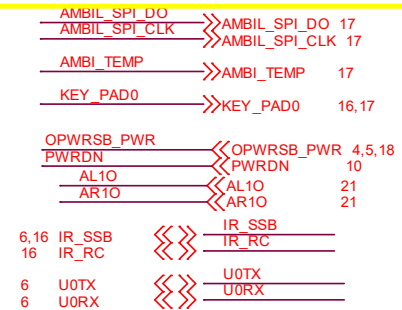


8-4-19 AMBILIGHT & Hotel TV

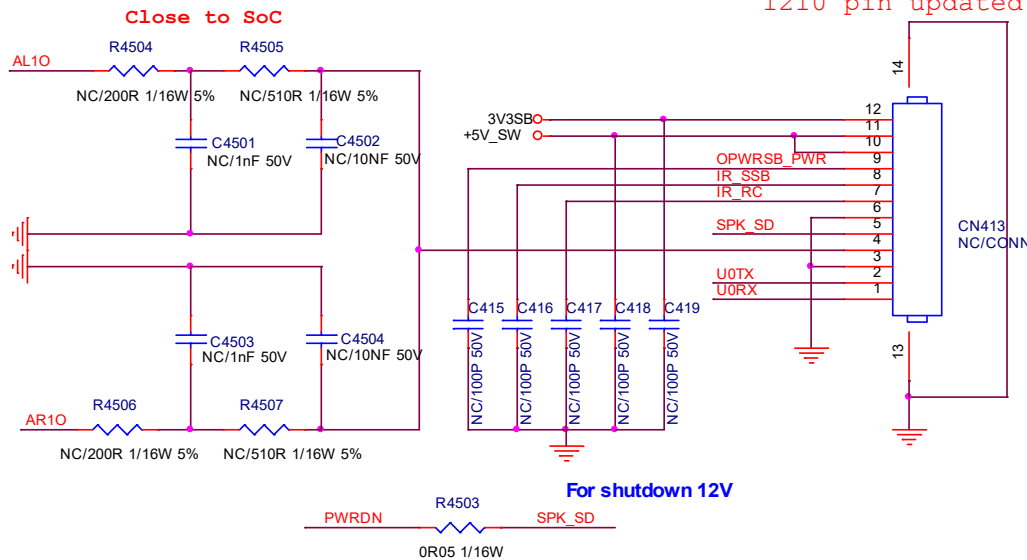
AL+KEY



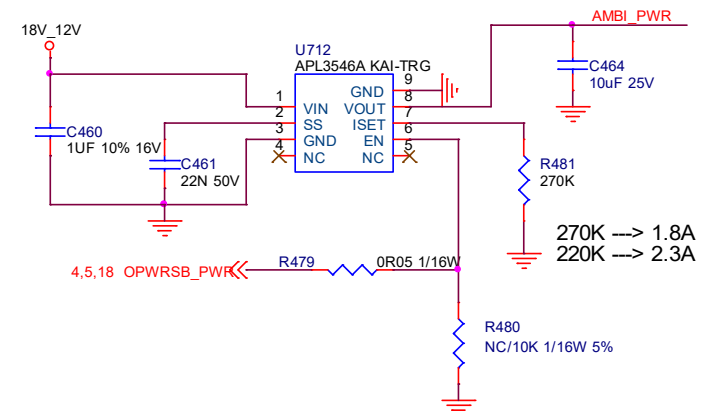
8/20 Add for PHP



2W Mono Speaker output for BUH Hotel TV

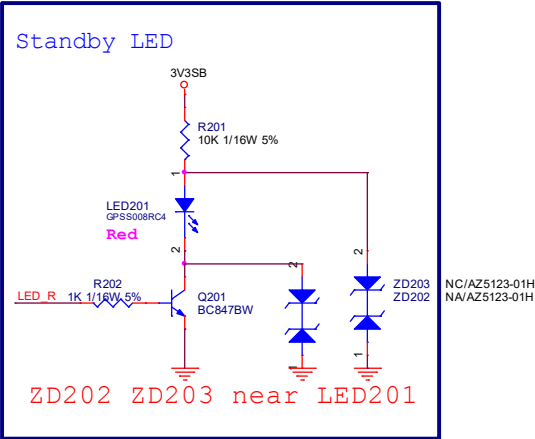
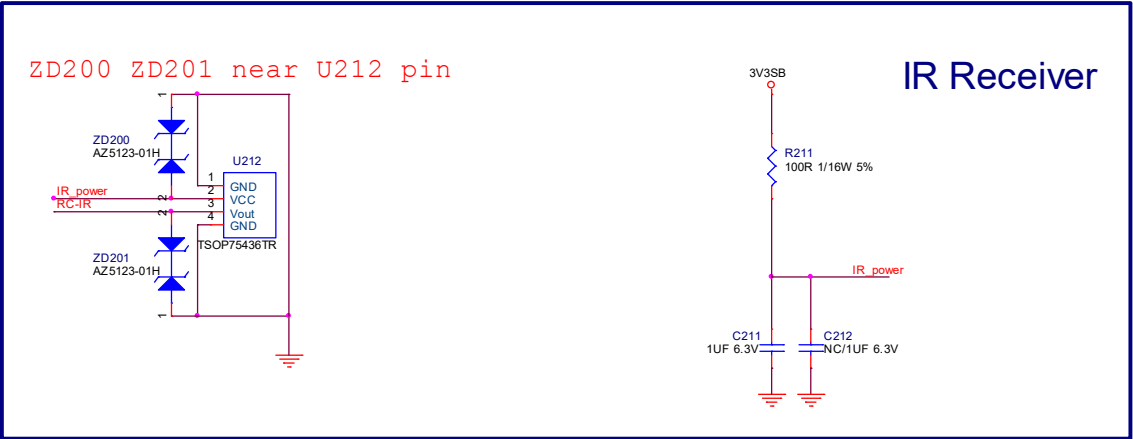
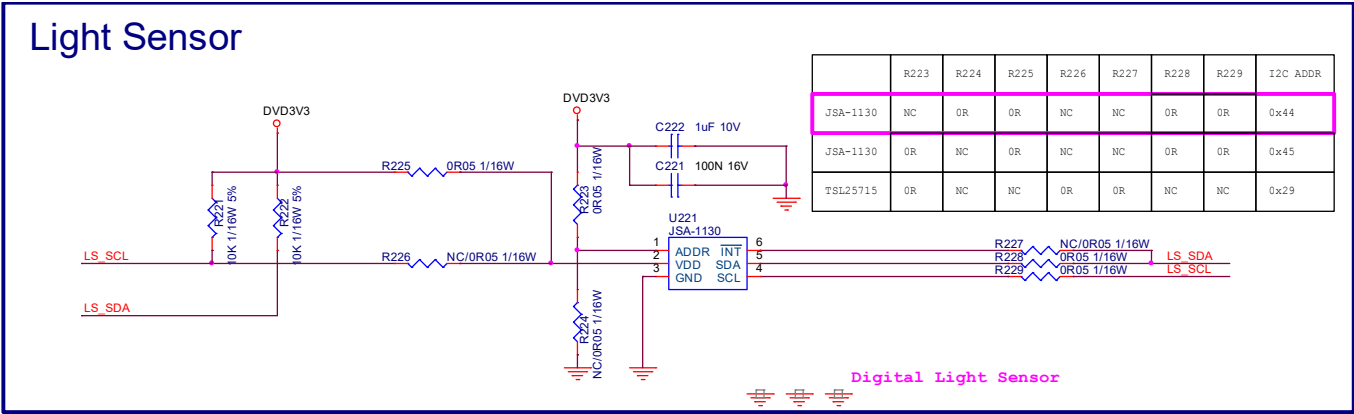
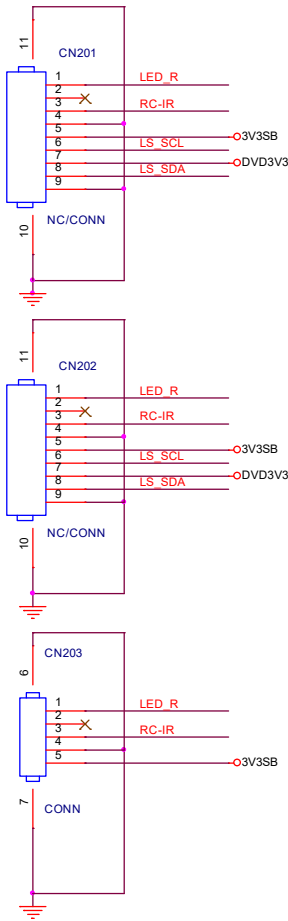


AL POWER CONTROL



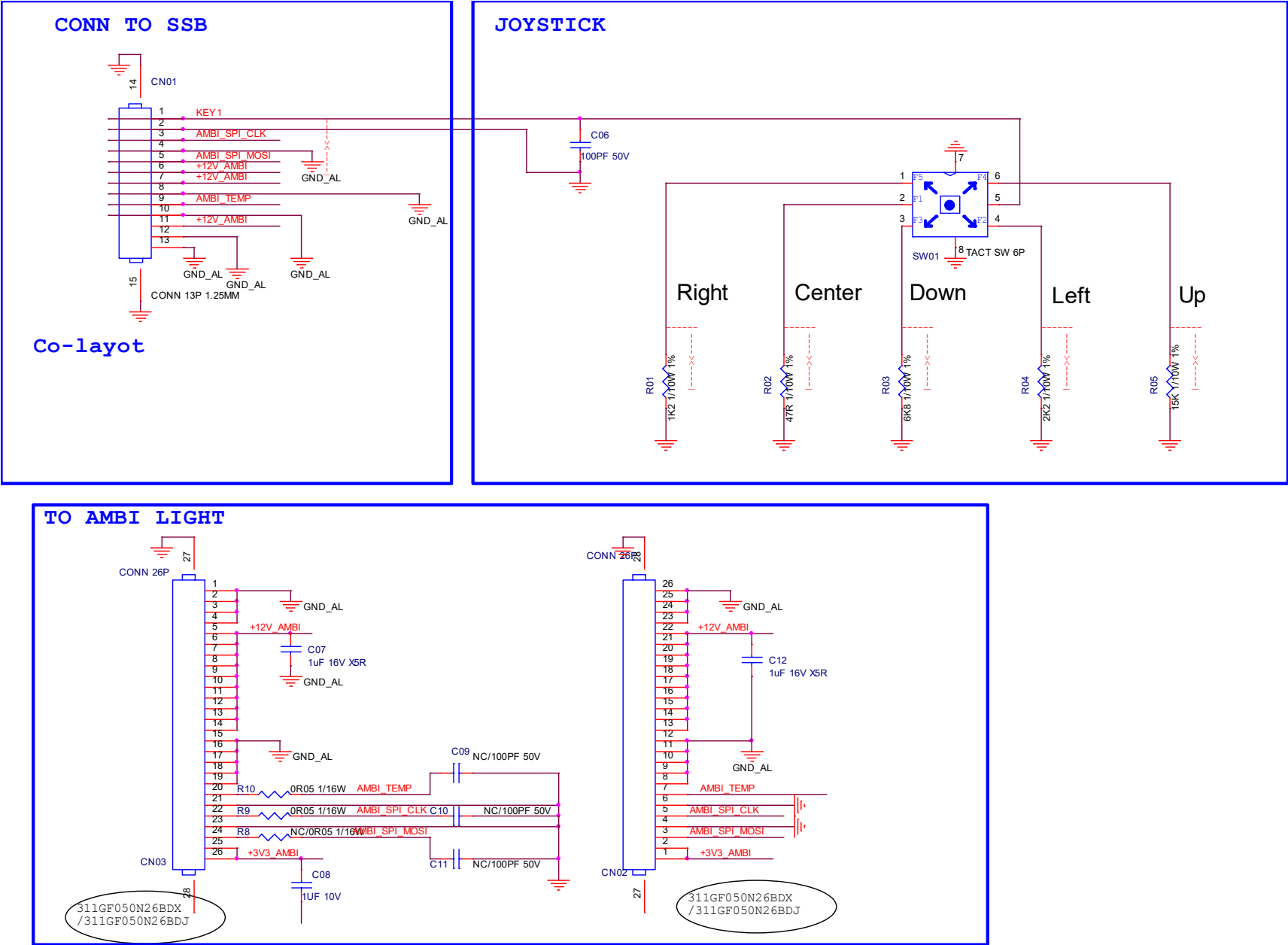
8.5 E 715G8623 IR Board

8-5-1 IR



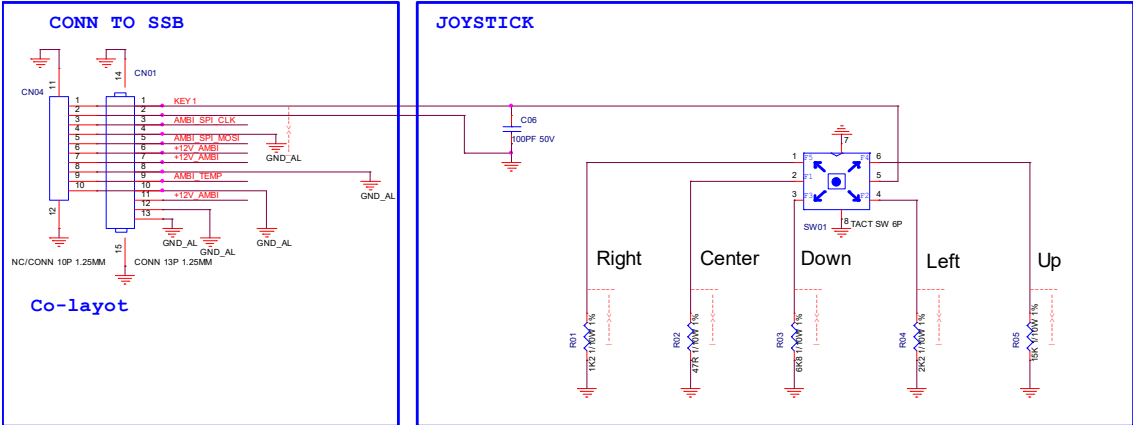
8.6 E 715G7088 Keyboard control panel

8-6-1 Key



8.7 J 715G8555 Keyboard control panel

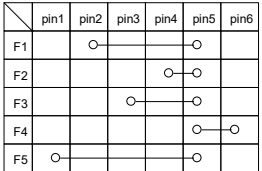
8-7-1 Key



Joystick key define

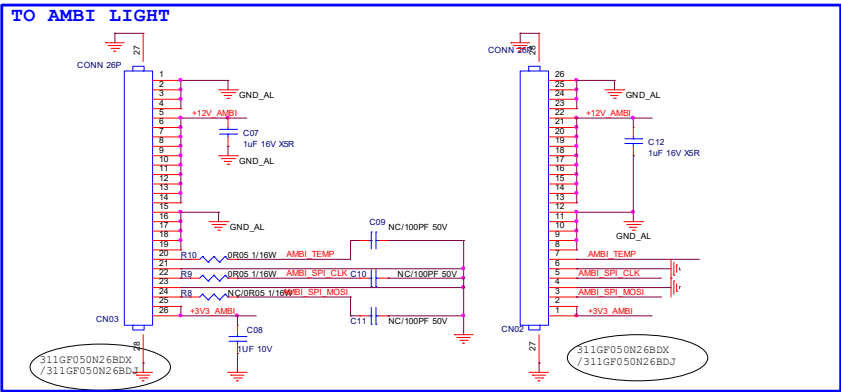
Direction	switch	Key function	Resistance	Voltage	Range
Center	2-5 short	Menu	0R	0V	0.0 to 0.22 V
Right	1-5 short	CH+	1K2	0.5V	0.39 to 0.60 V
Left	4-5 short	CH-	2K2	0.81V	0.67 to 0.95 V
Down	3-5 short	VOL-	6K8	1.65V	1.41 to 1.87 V
Up	6-5 short	VOL+	15K	2.27V	1.93 to 2.58 V
NA	NA	No function	NA	3.3V	3.135 to 3.465V

Joystick circuit diagram

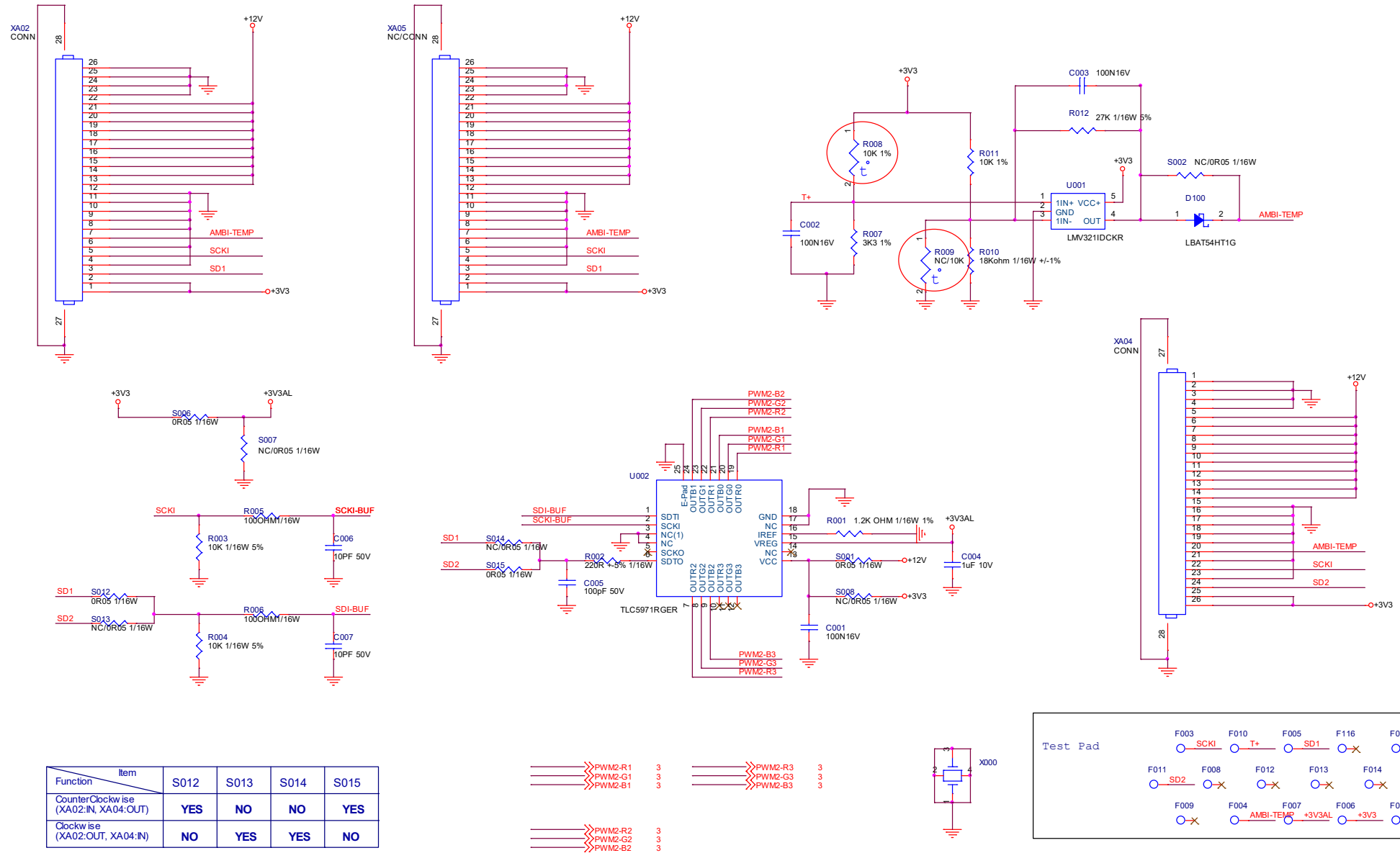


Joystick diversity for AL

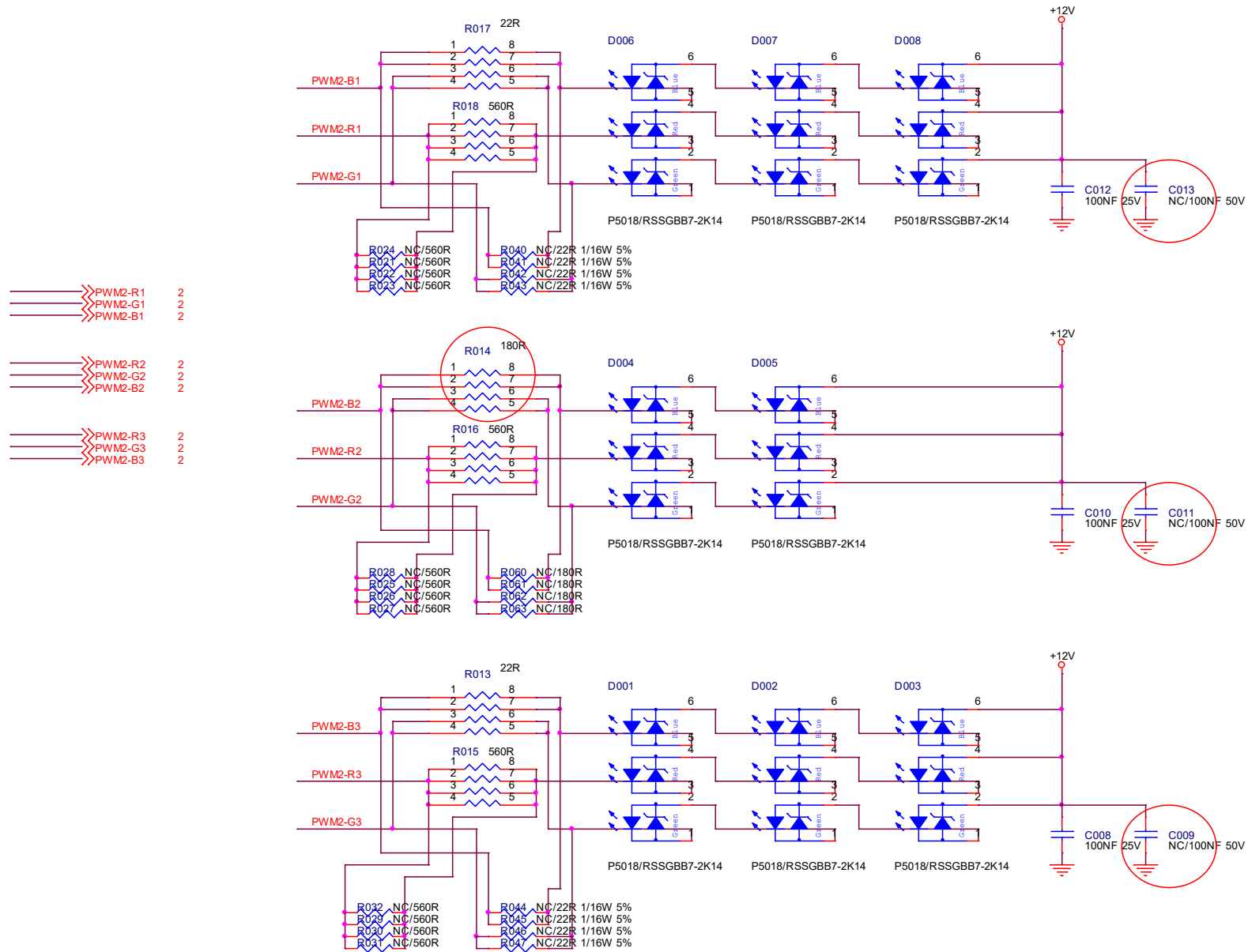
	CN03	C07	R9	R10
AL2	N	N	N	N
AL3/AL4	Y	Y	Y	Y



8-8-1 TLC5971

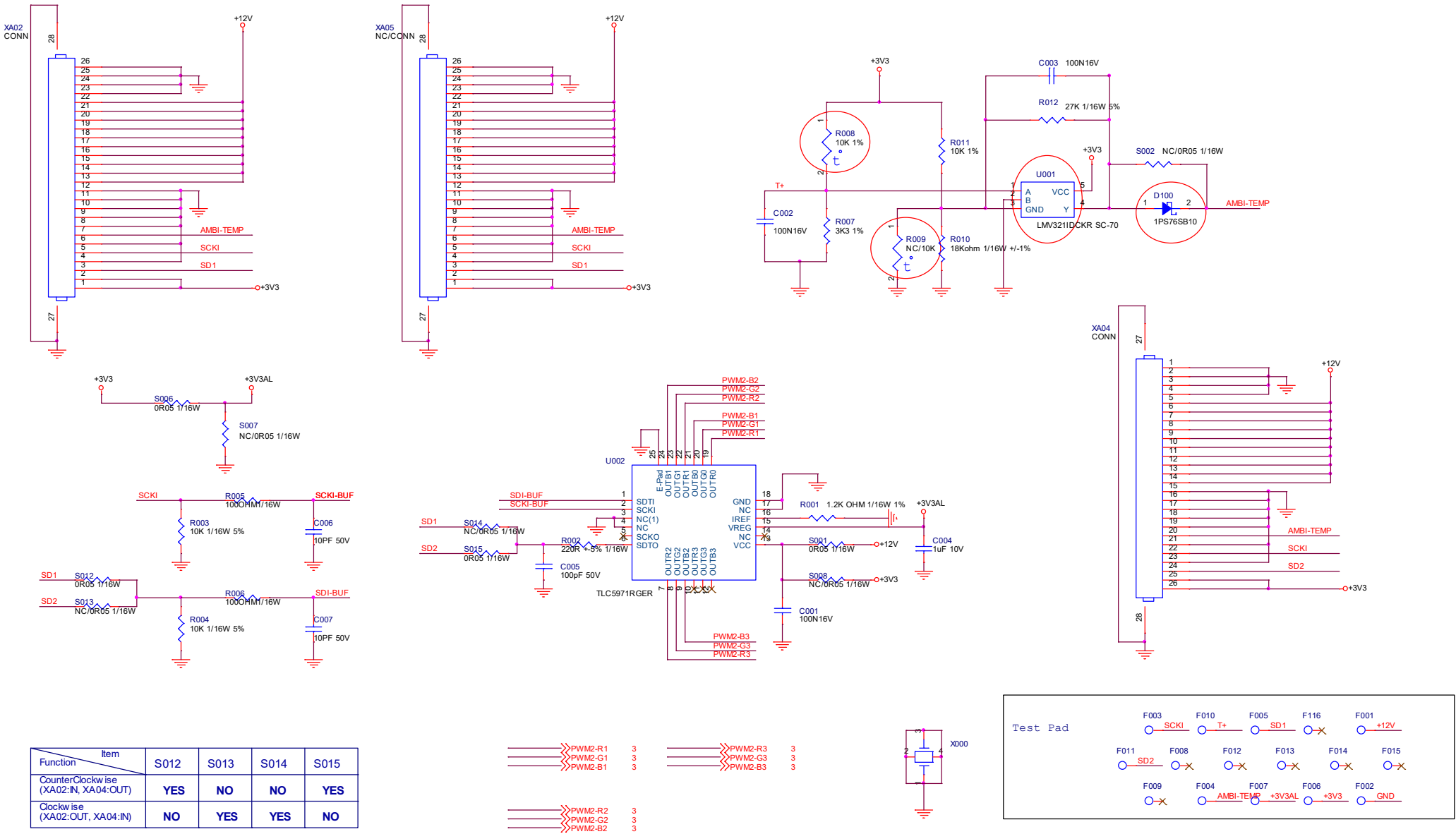


8-8-2 Ambilight 8-LED

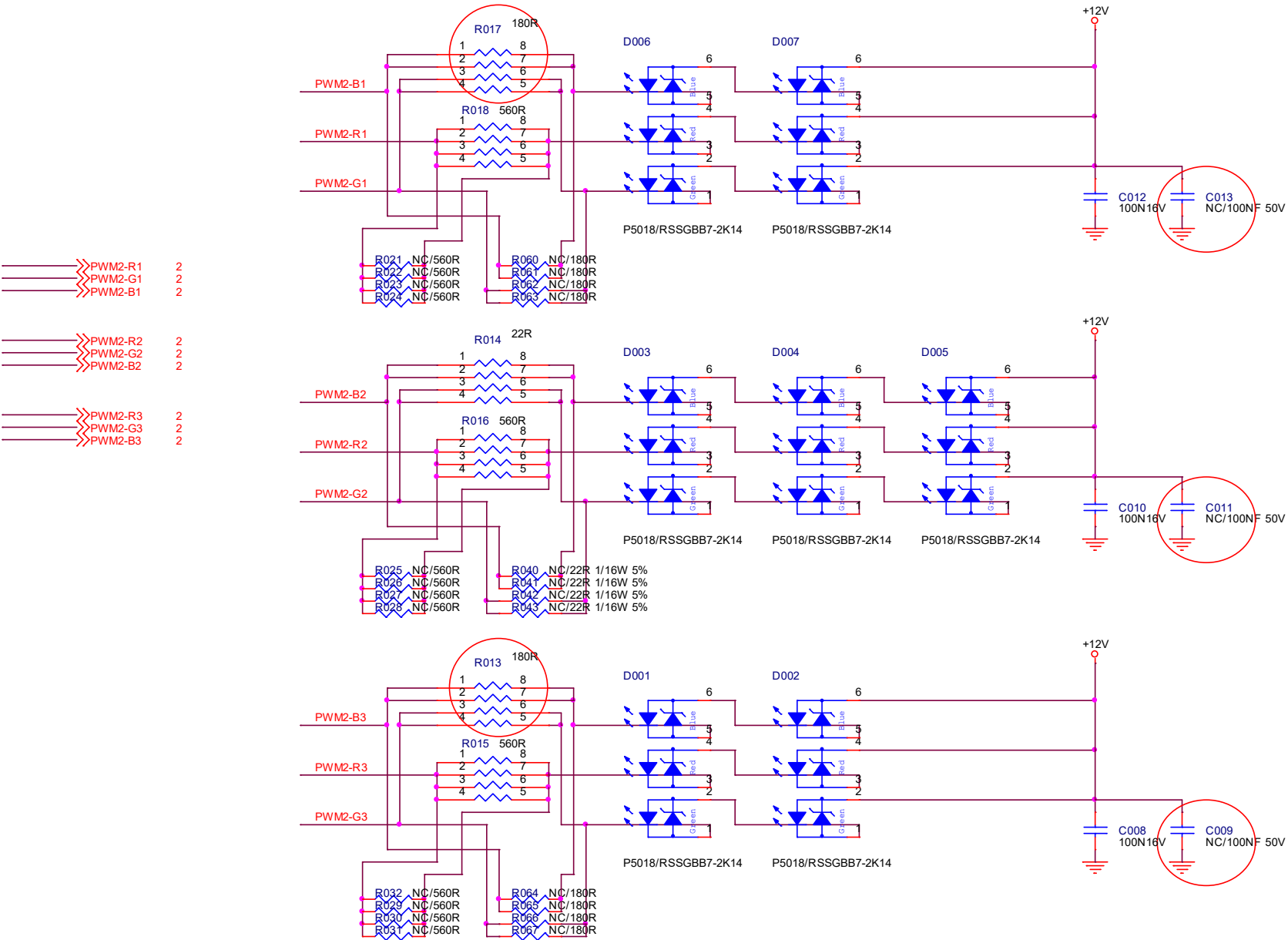


8.9 715G7004 AMBI Panel (For 43/49/50/65" 6262 Series)

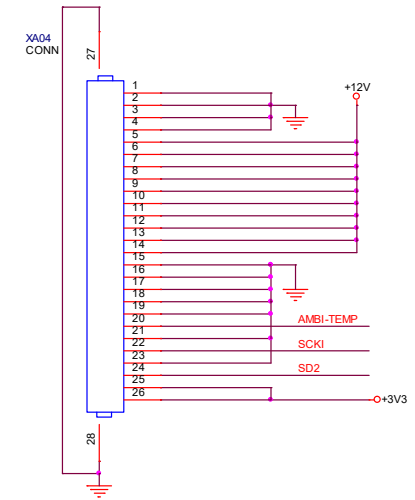
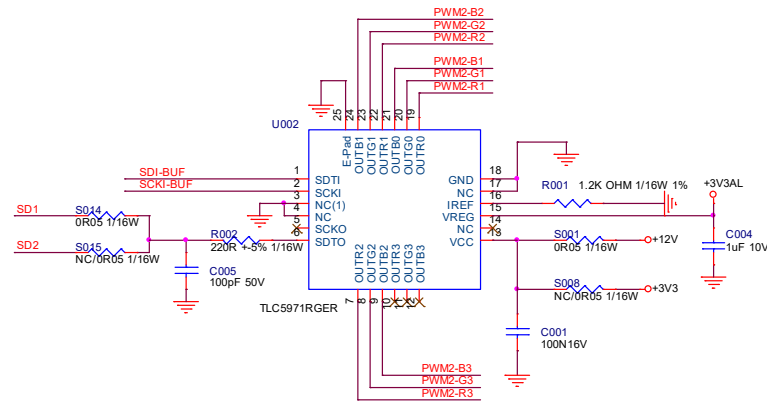
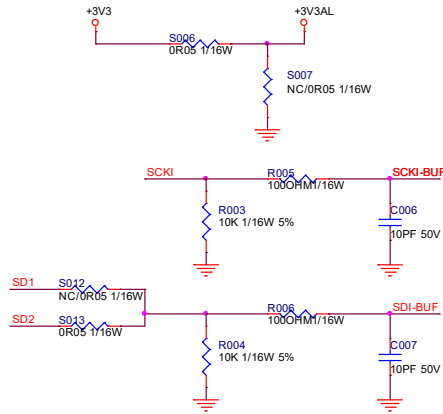
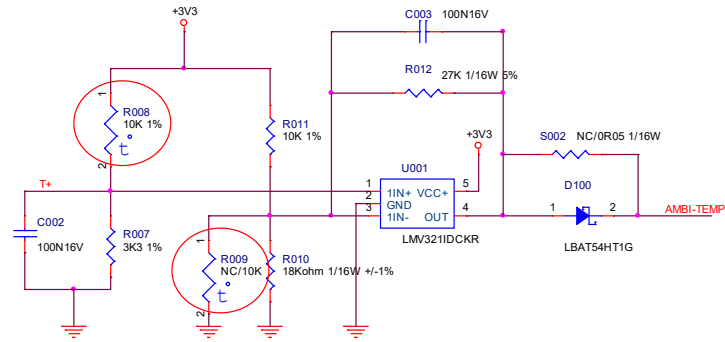
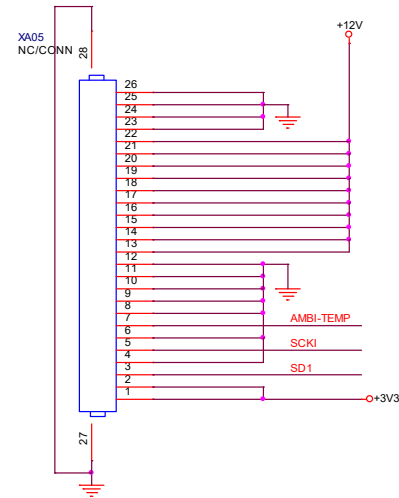
8-9-1 TLC5971



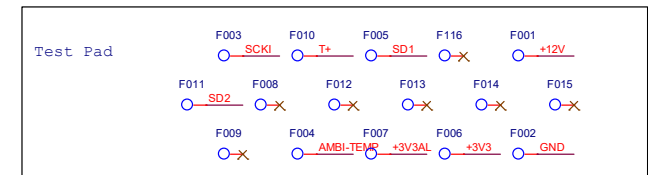
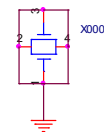
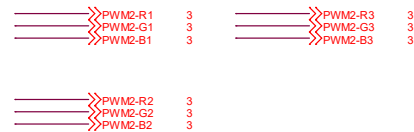
8-9-2 Ambilight 7-LED



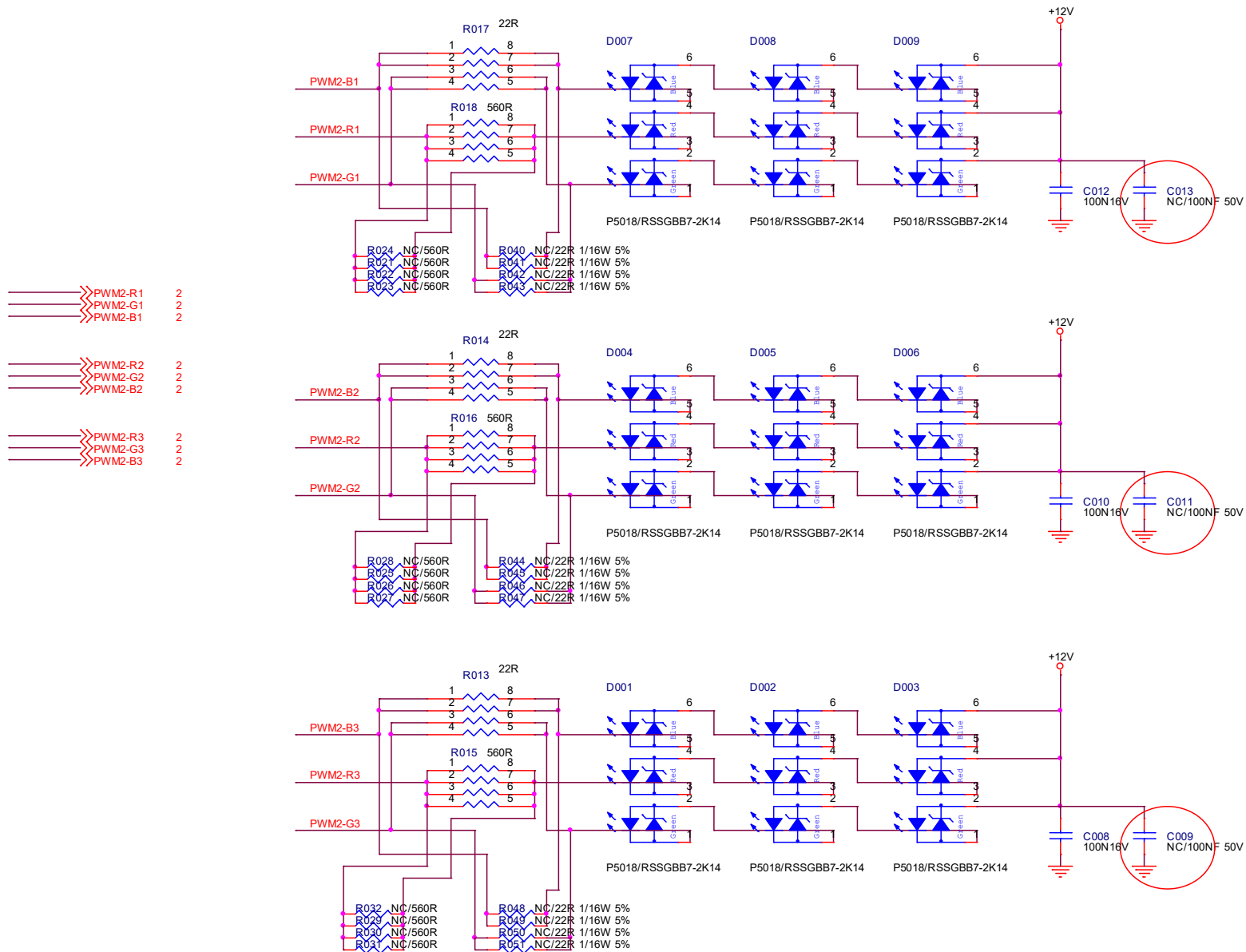
8-10-1 TLC5971



Function \ Item	S012	S013	S014	S015
CounterClockwise (XA02:IN, XA04:OUT)	YES	NO	NO	YES
Clockwise (XA02:OUT, XA04:IN)	NO	YES	YES	NO

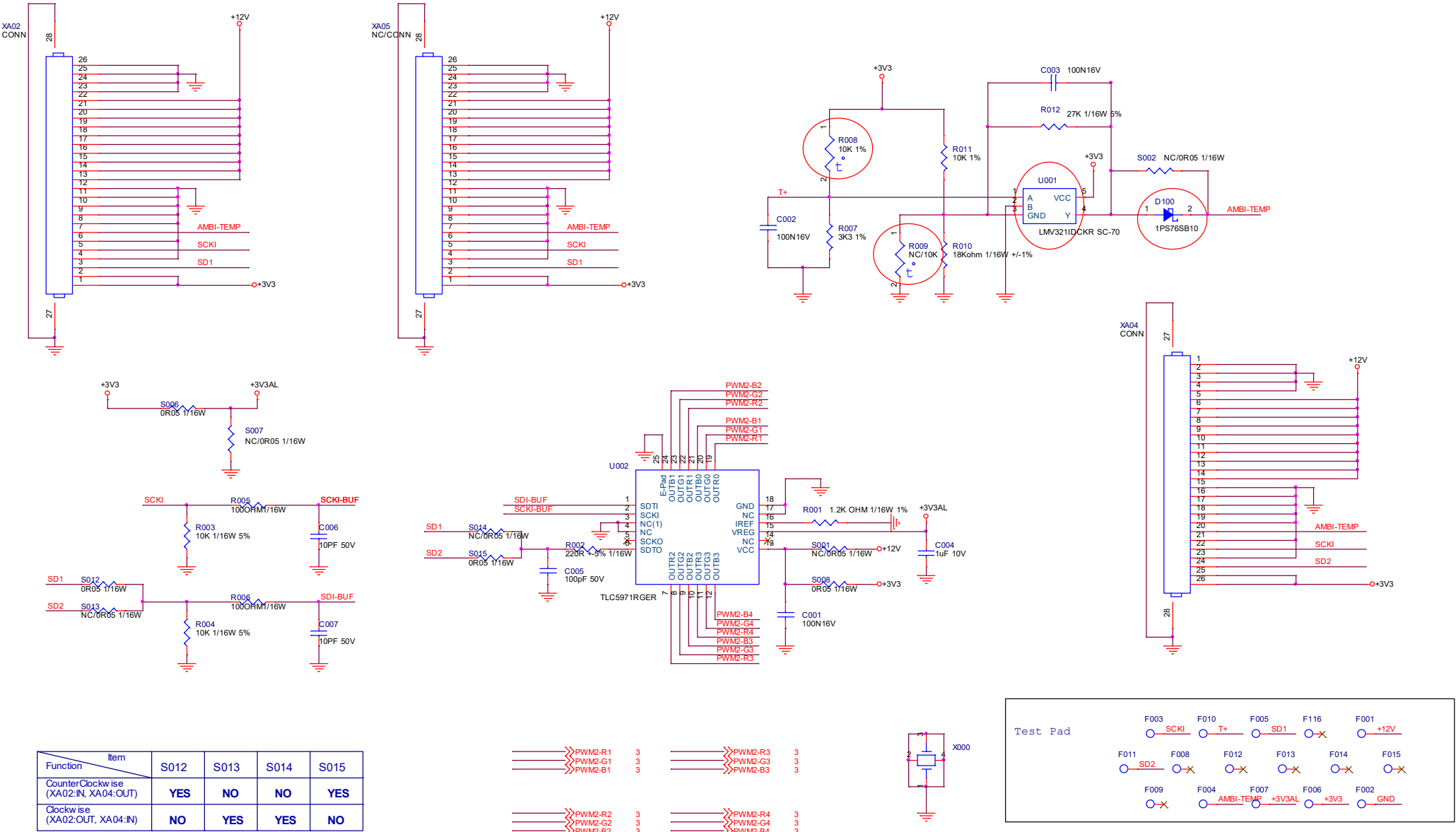


8-10-2 Ambilight 9-LED

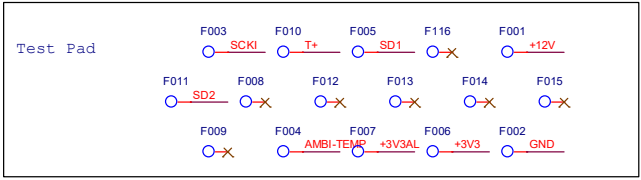
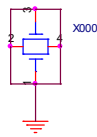
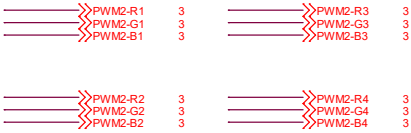


8.11 715G7007 AMBI Panel (For 55" 6272 Series)

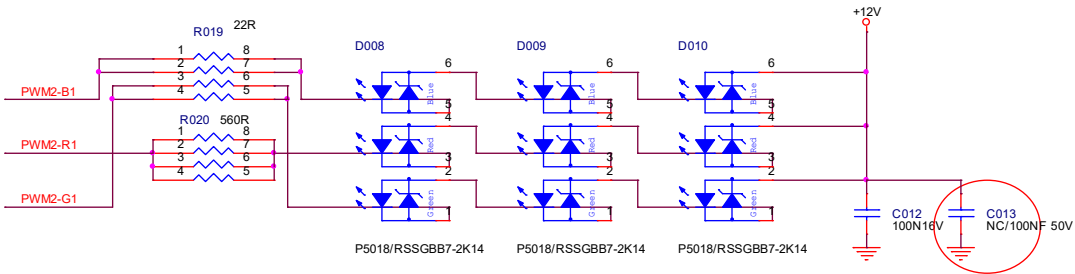
8-11-1 TLC5971



Function	Item	S012	S013	S014	S015
CounterClockwise (XA02:IN, XA04:OUT)		YES	NO	NO	YES
Clockwise (XA02:OUT, XA04:IN)		NO	YES	YES	NO



8-11-2 Ambilight 10-LED

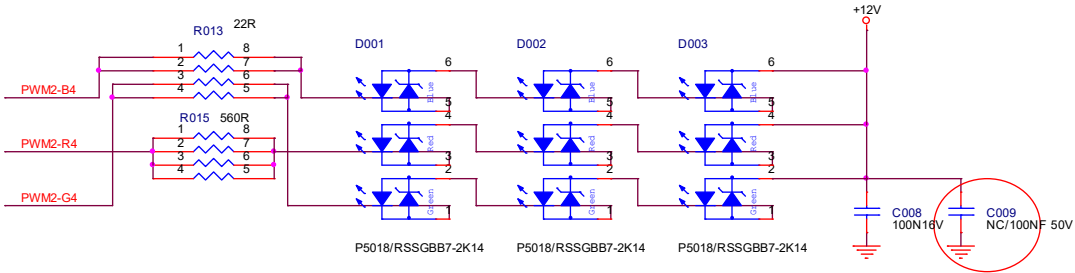
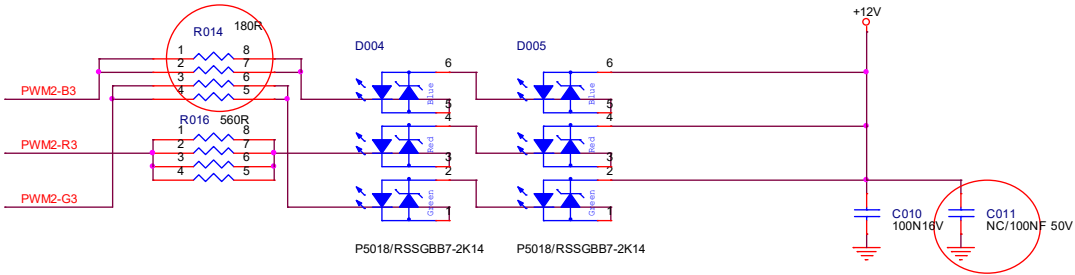
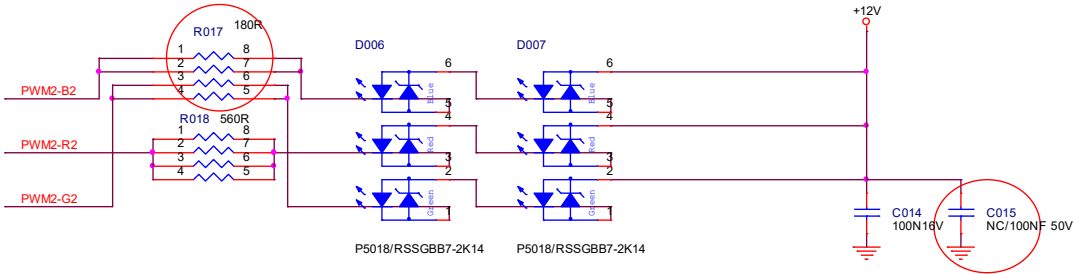


PWM2-R1 2
PWM2-G1 2
PWM2-B1 2

PWM2-R2 2
PWM2-G2 2
PWM2-B2 2

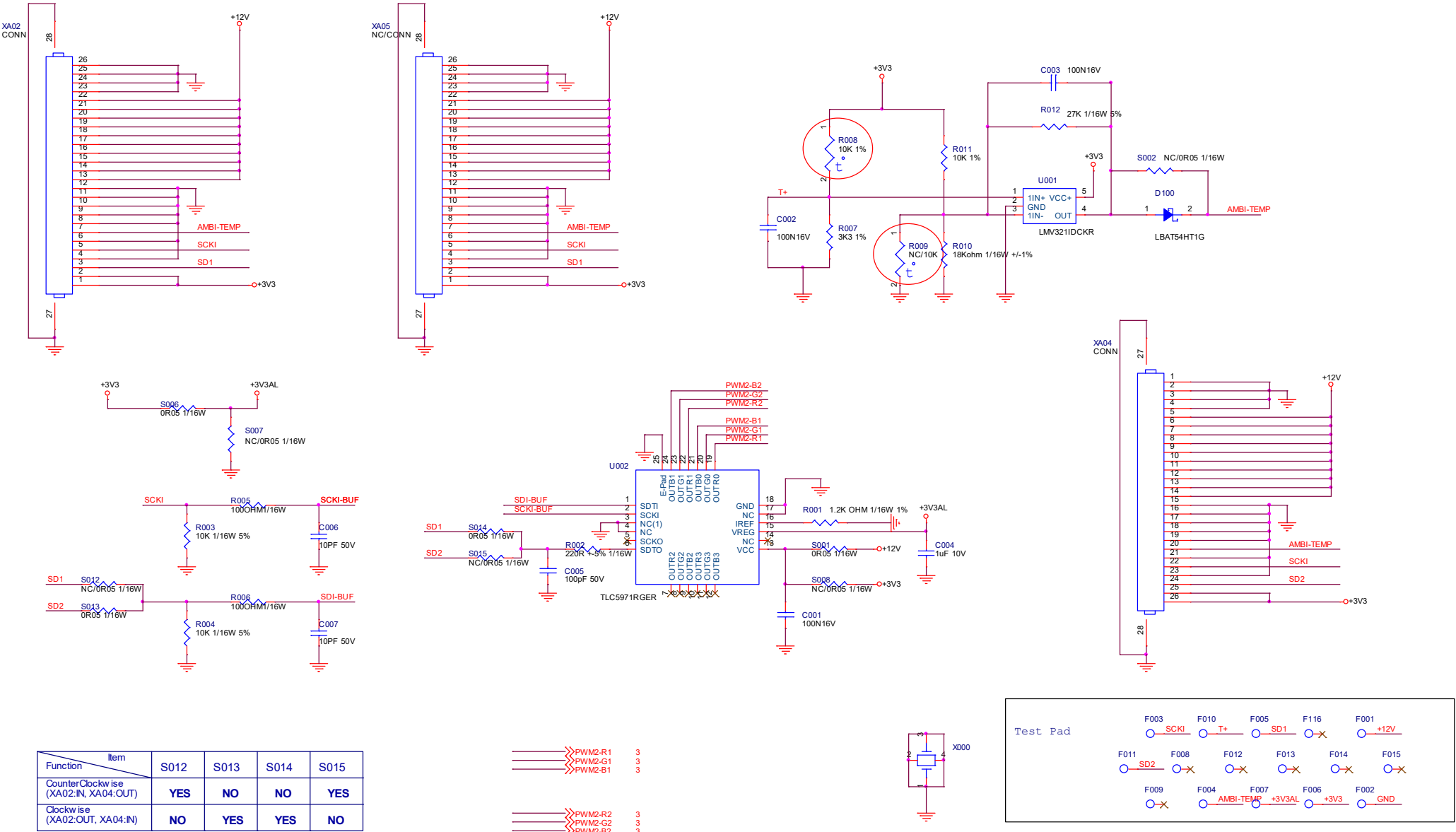
PWM2-R3 2
PWM2-G3 2
PWM2-B3 2

PWM2-R4 2
PWM2-G4 2
PWM2-B4 2

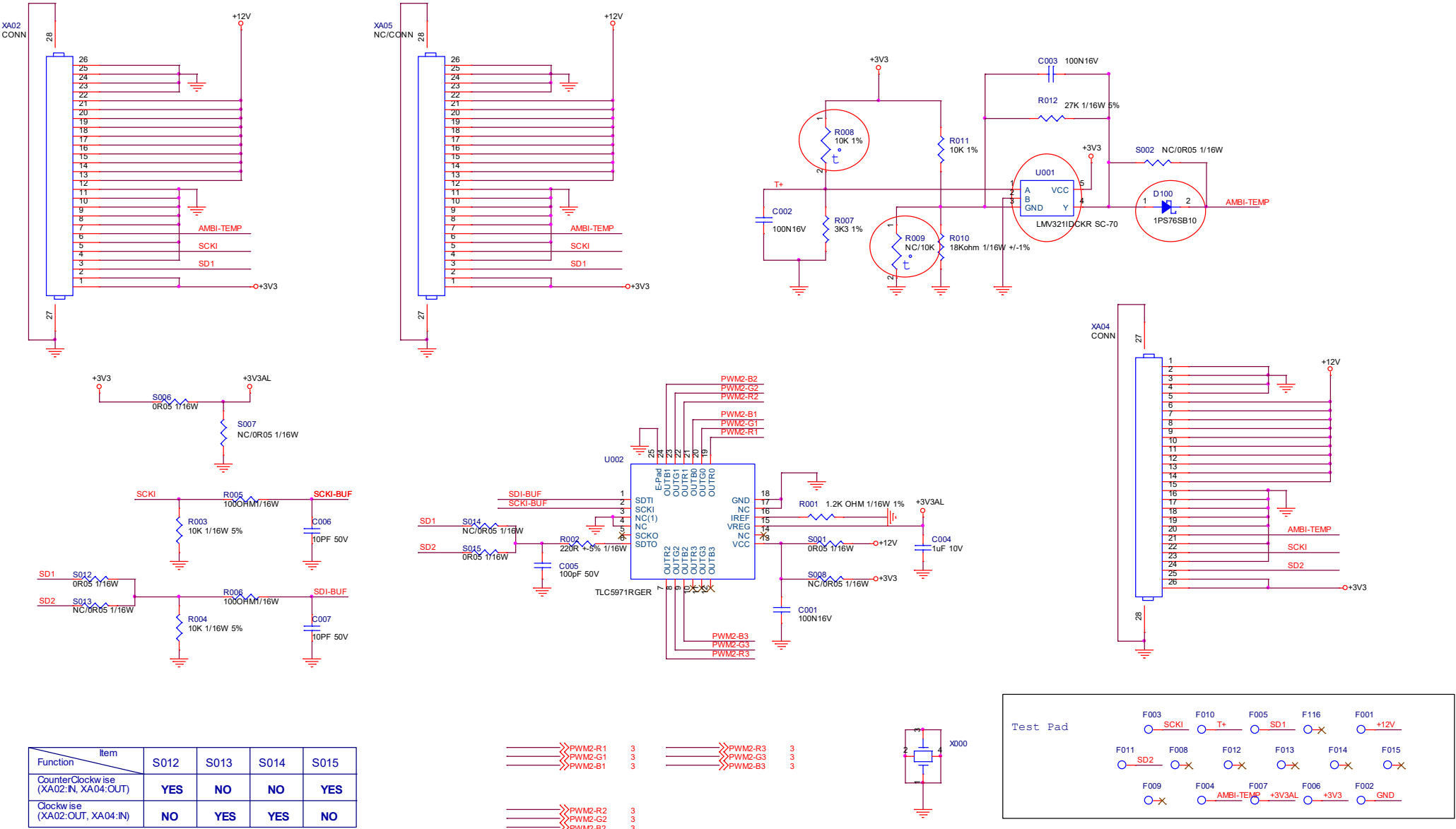


8.12 715G7008 AMBI Panel (For 65" 6262 Series)

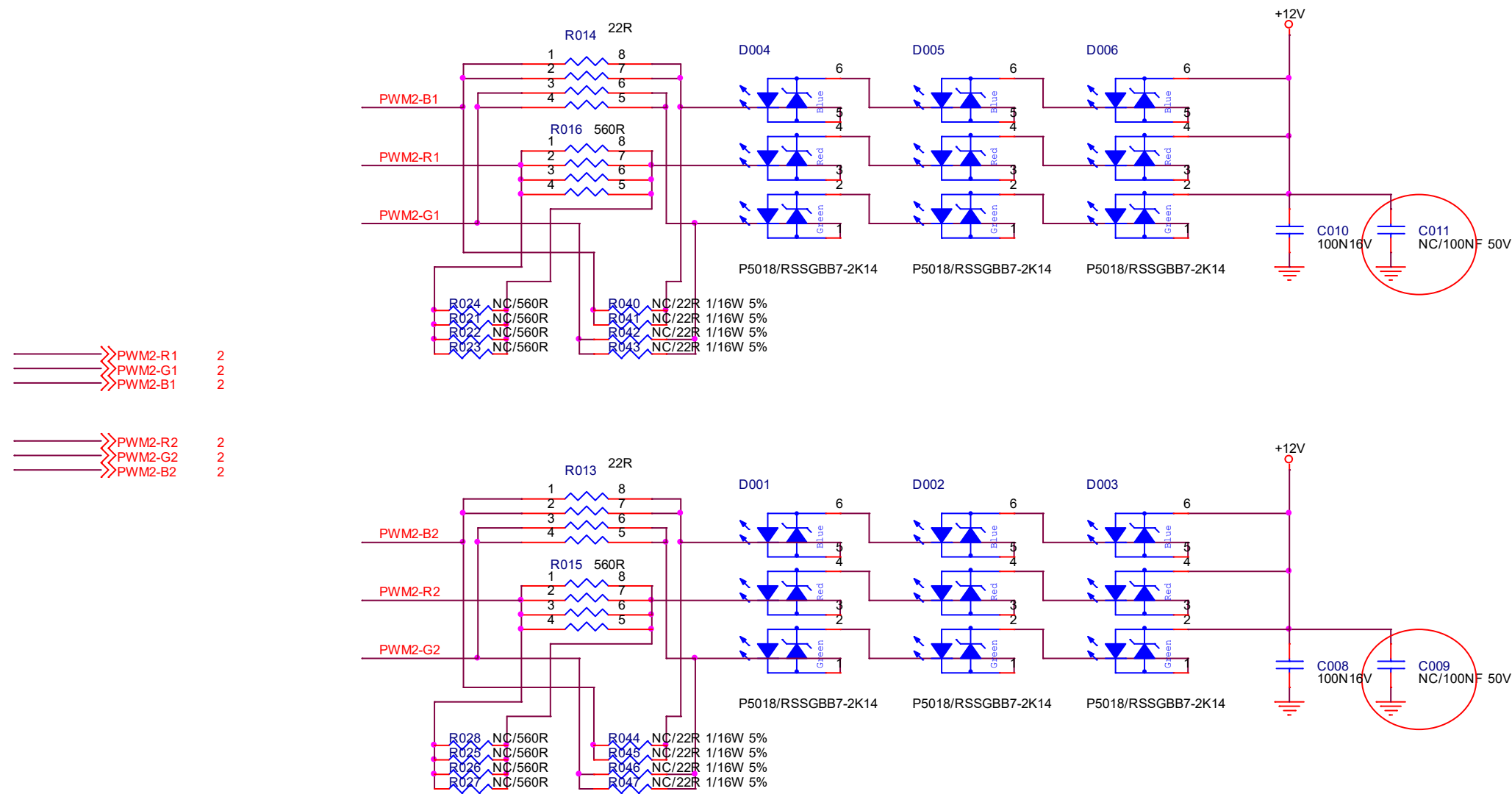
8-12-1 TLC5971



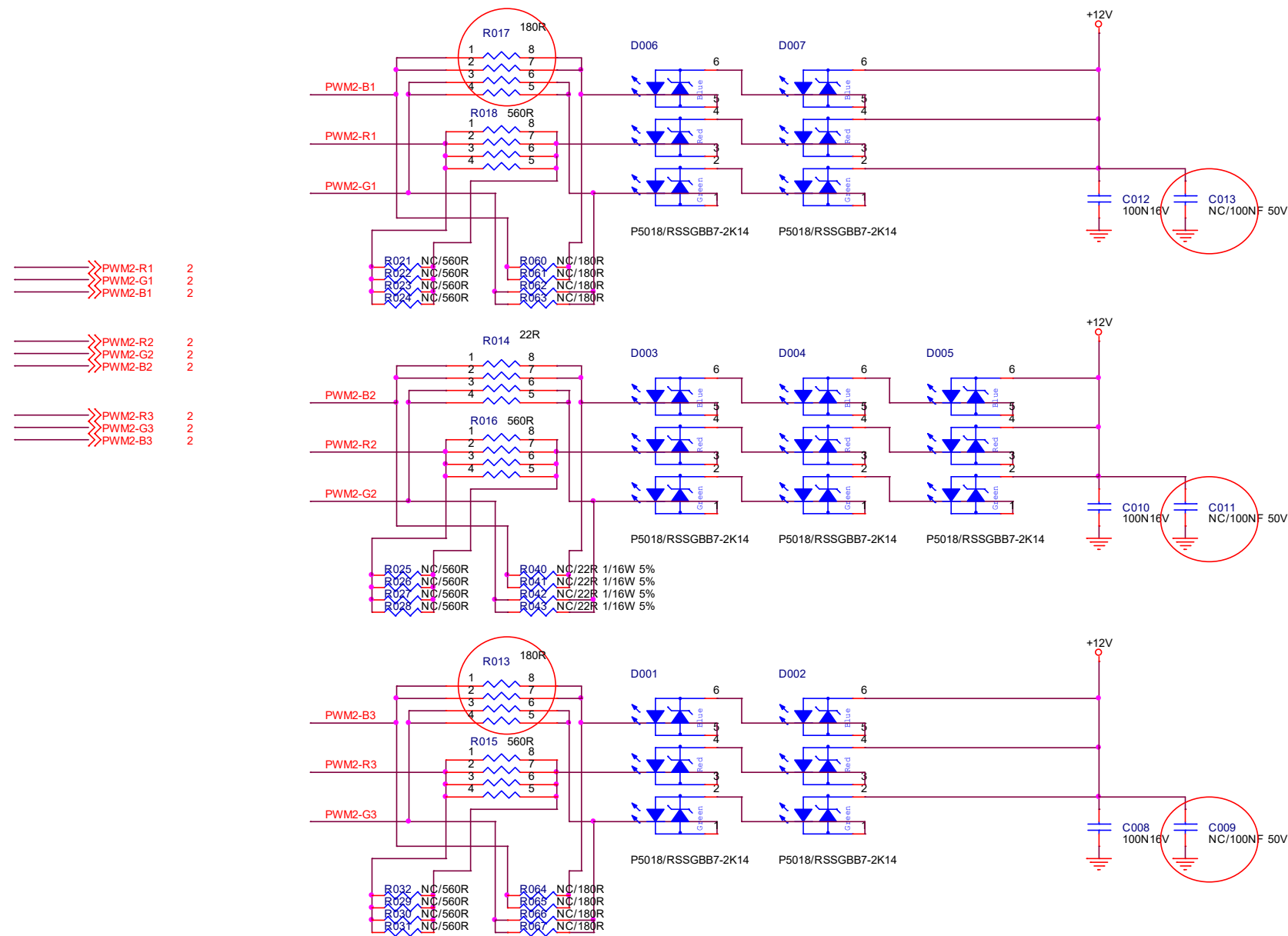
8-12-2 TLC5971_2



8-12-3 Ambilight 6-LED

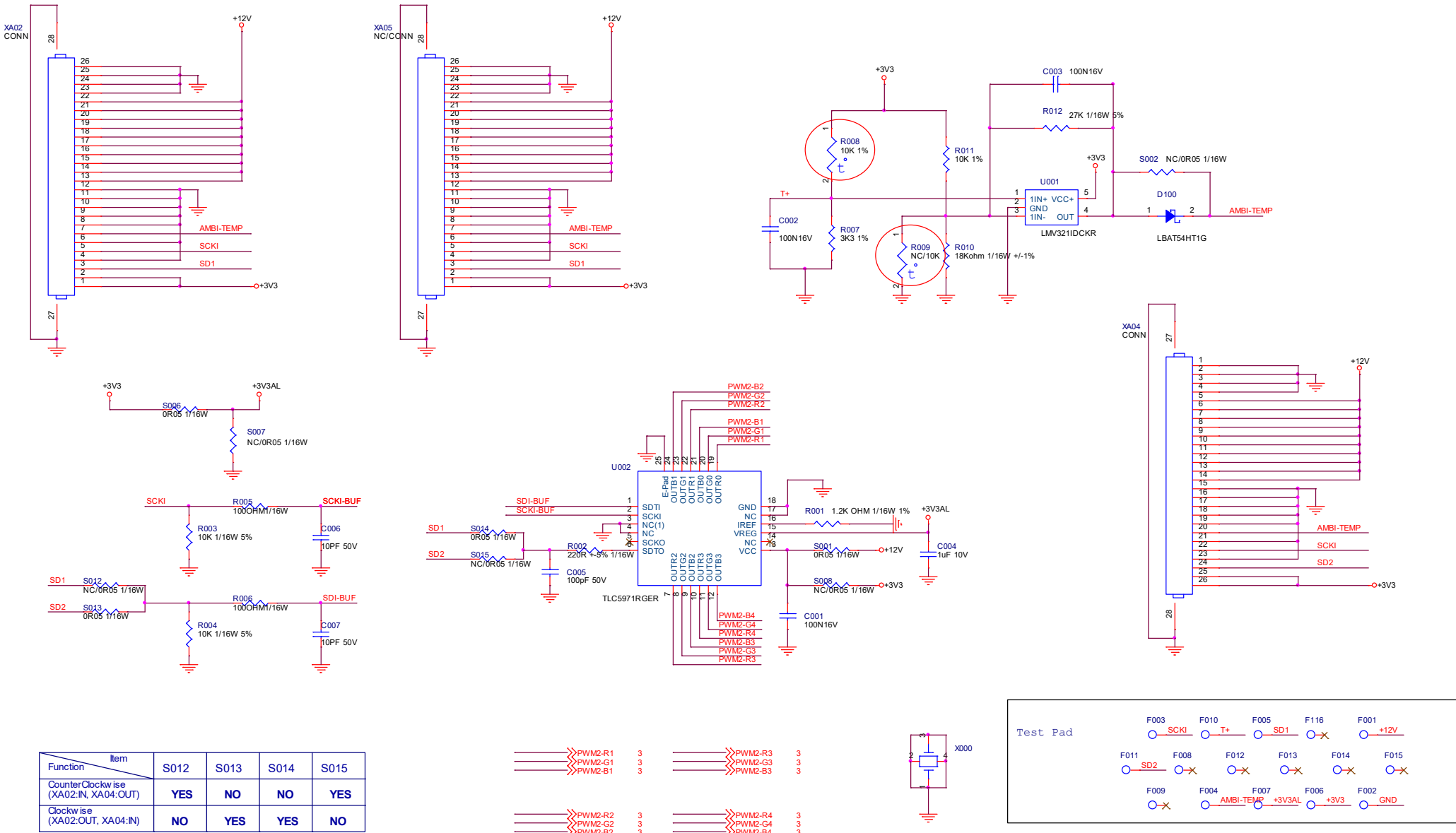


8-12-4 Ambilight 7-LED

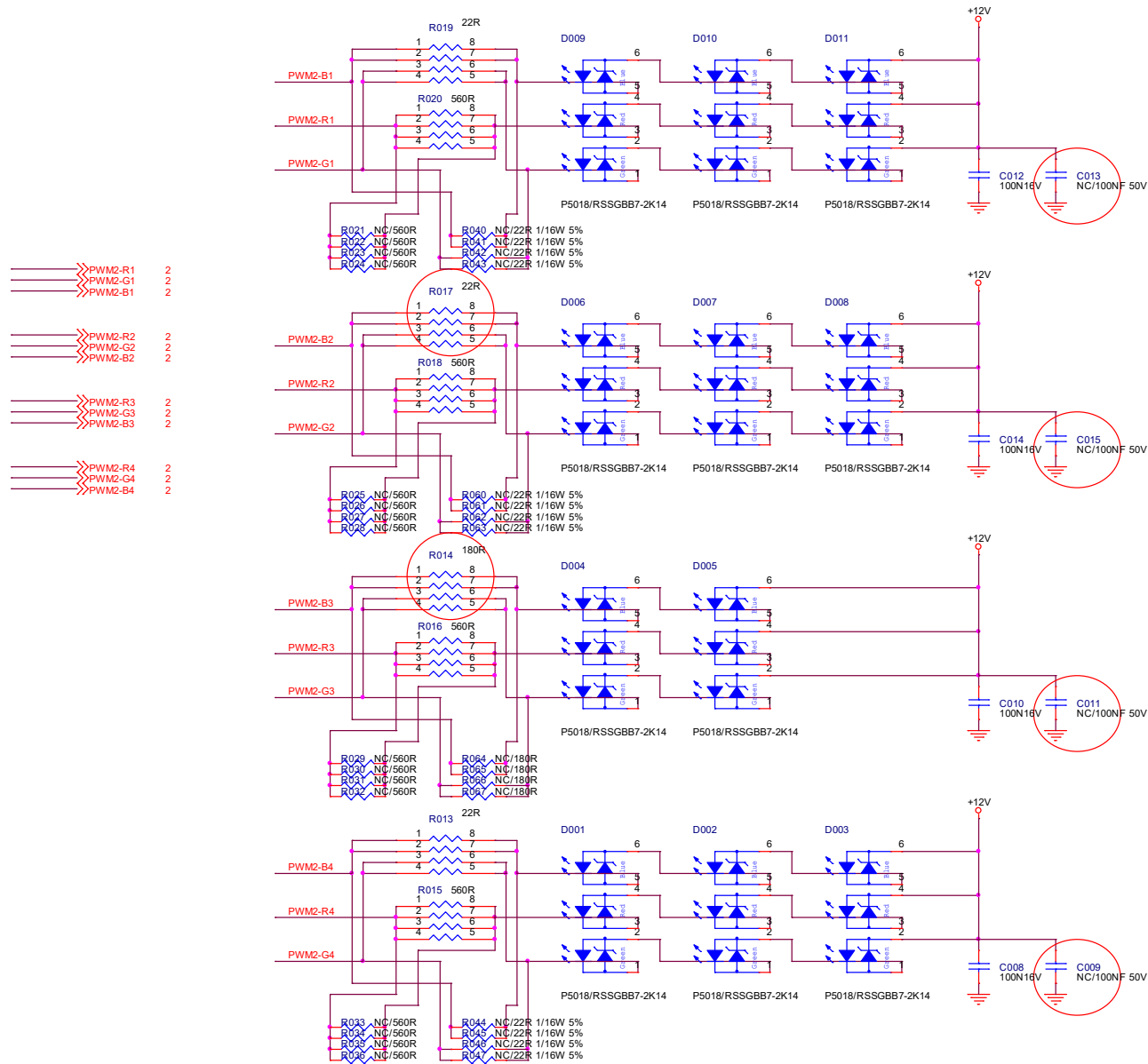


8.13 715G7865 AMBI Panel (For 55" 6272 Series)

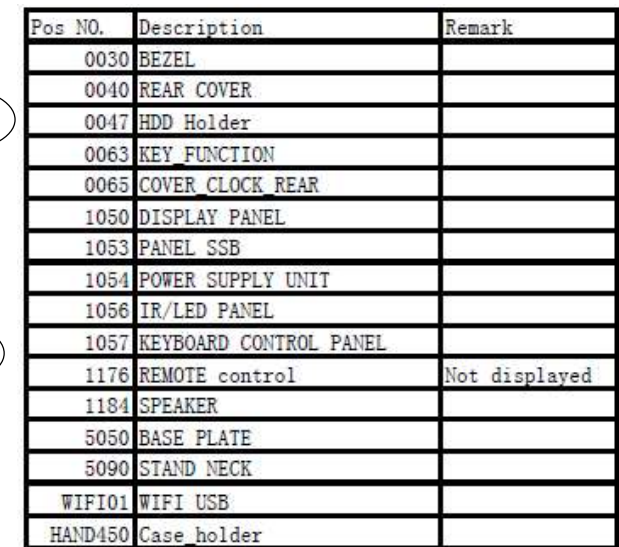
8-13-1 TLC5971



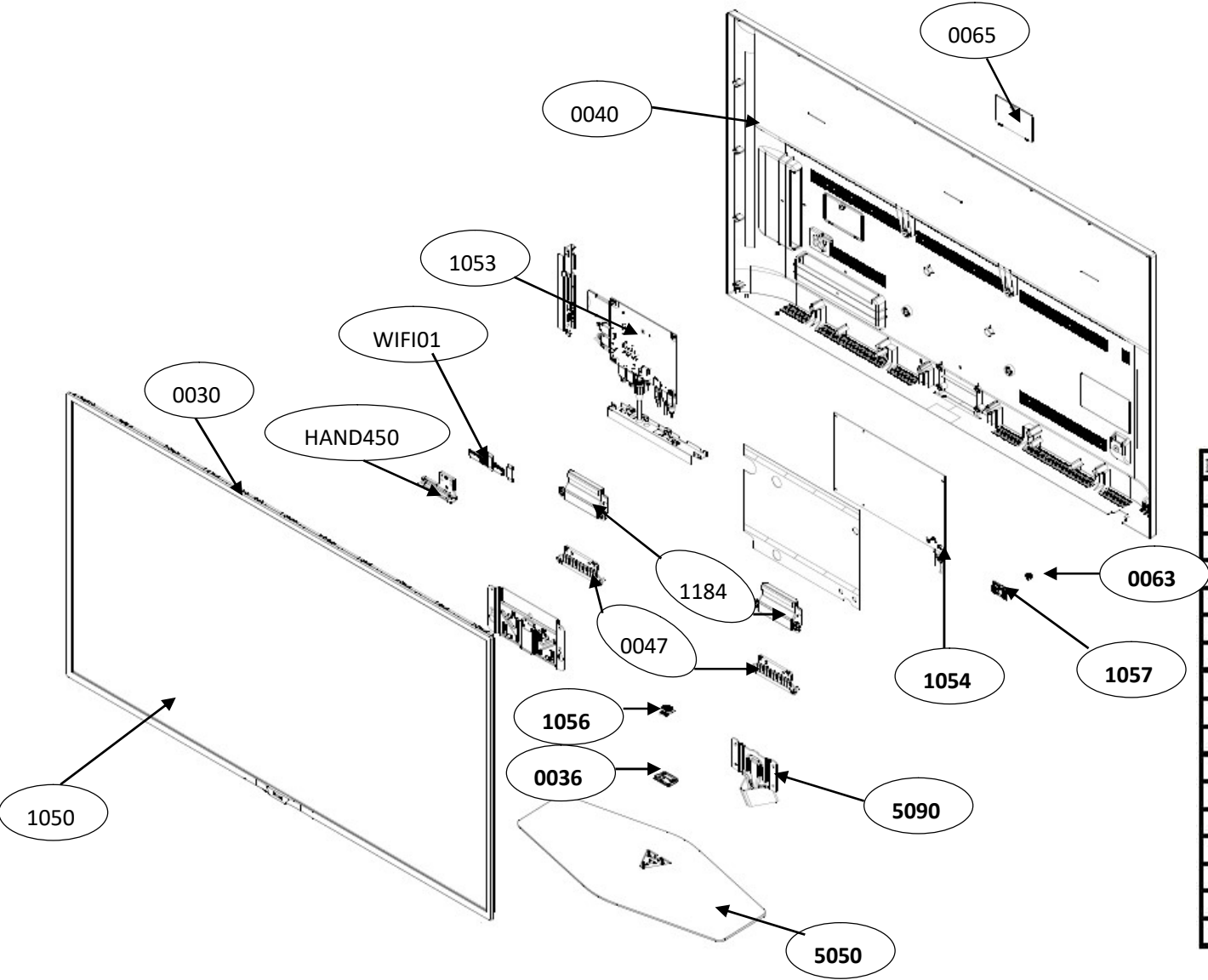
8-13-2 Ambilight 11-LED



9.1 6162 series 43"

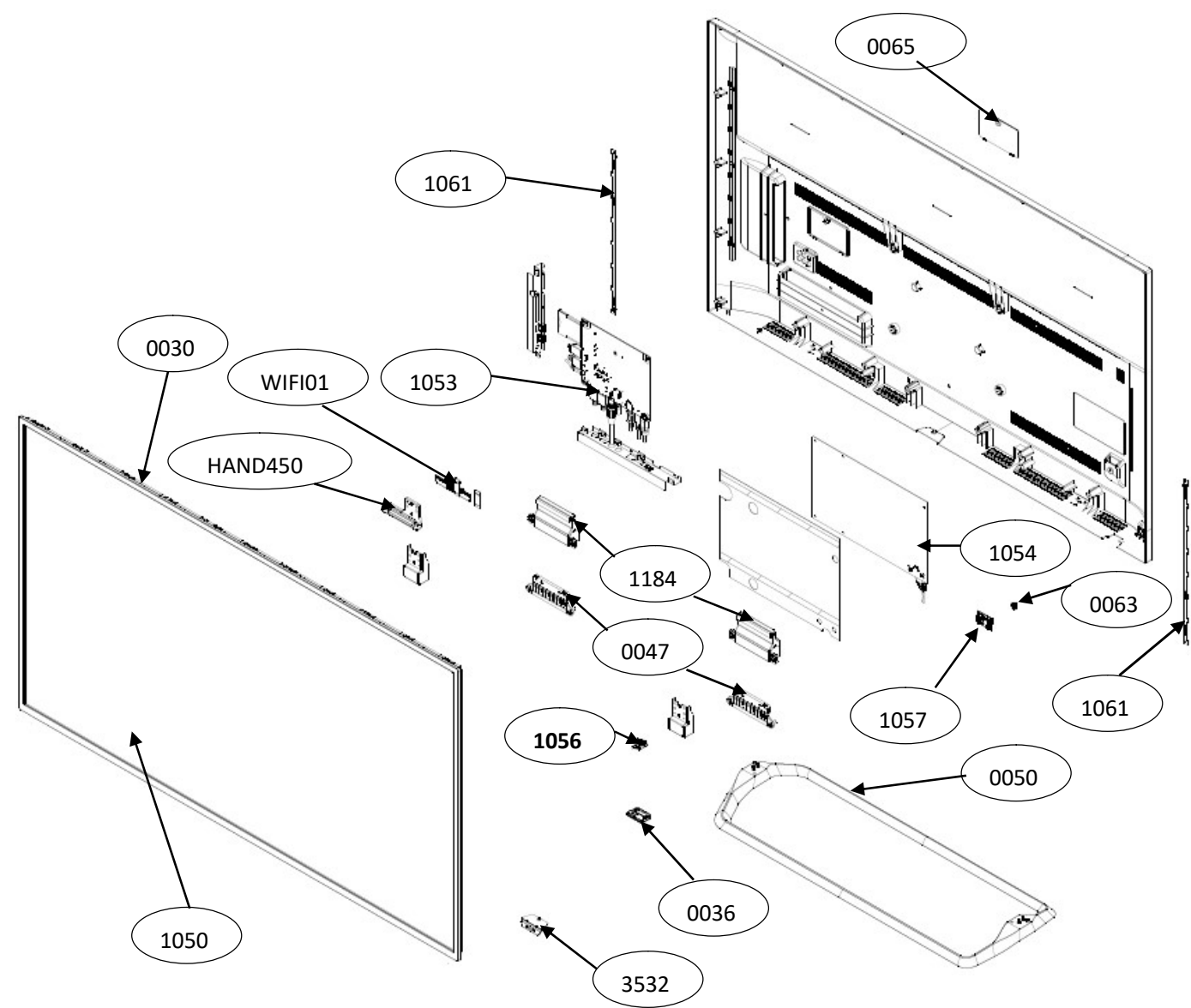


9.2 6162 series 49"/50"/55"



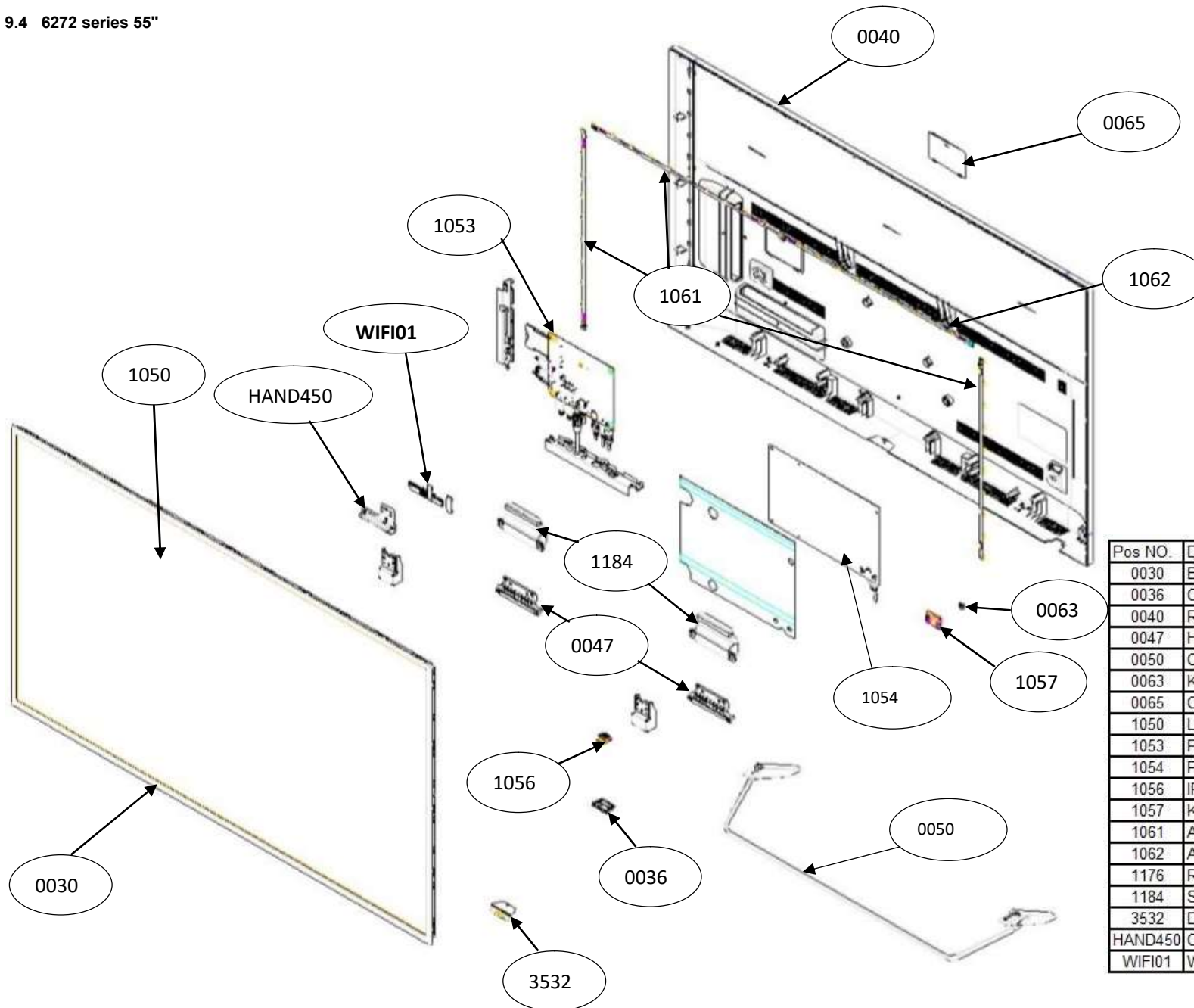
Pos NO.	Description	Remark
0030	BEZEL	
0036	LENS_IR	
0040	REAR COVER	
0047	HDD Holder	
0063	KEY_FUNCTION	
0065	COVER_CLOCK_REAR	
1050	DISPLAY PANEL	
1053	PANEL_SSB	
1054	POWER SUPPLY UNIT	
1056	IR/LED PANEL	
1057	KEYBOARD CONTROL PANEL	
1176	REMOTE control	Not displayed
1184	SPEAKER	
5050	BASE PLATE	
5090	STAND NECK	
WIFI01	WIFI USB	
HAND450	Case_holder	

9.3 6262 series 49"/50"/55"



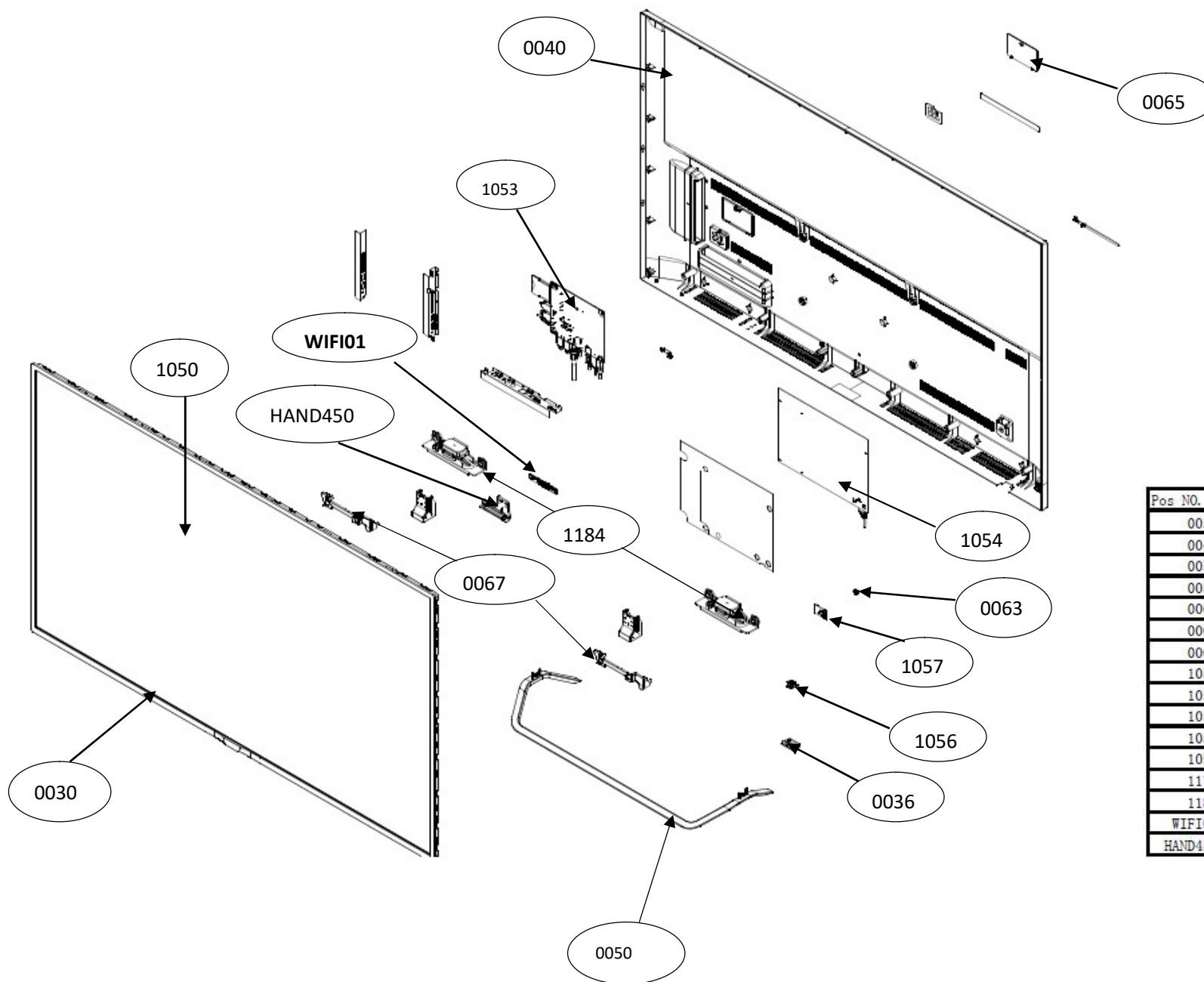
Pos NO.	Description	Remark
0030	BEZEL	
0036	LENS_IR	
0040	REAR COVER	
0047	HDD Holder	
0050	BASE	
0063	KEY FUNCTION	
0065	COVER CLOCK REAR	
1050	DISPLAY PANEL	
1053	PANEL SSB	
1054	POWER SUPPLY UNIT	
1056	IR/LED PANEL	
1057	KEYBOARD CONTROL PANEL	
1061	AMBILIGHT ASSY(LED 6)	
1176	REMOTE control	Not displayed
1184	SPEAKER	
3532	DECO LOGO	
WIFI01	WIFI USB	
HAND450	Case holder	

9.4 6272 series 55"



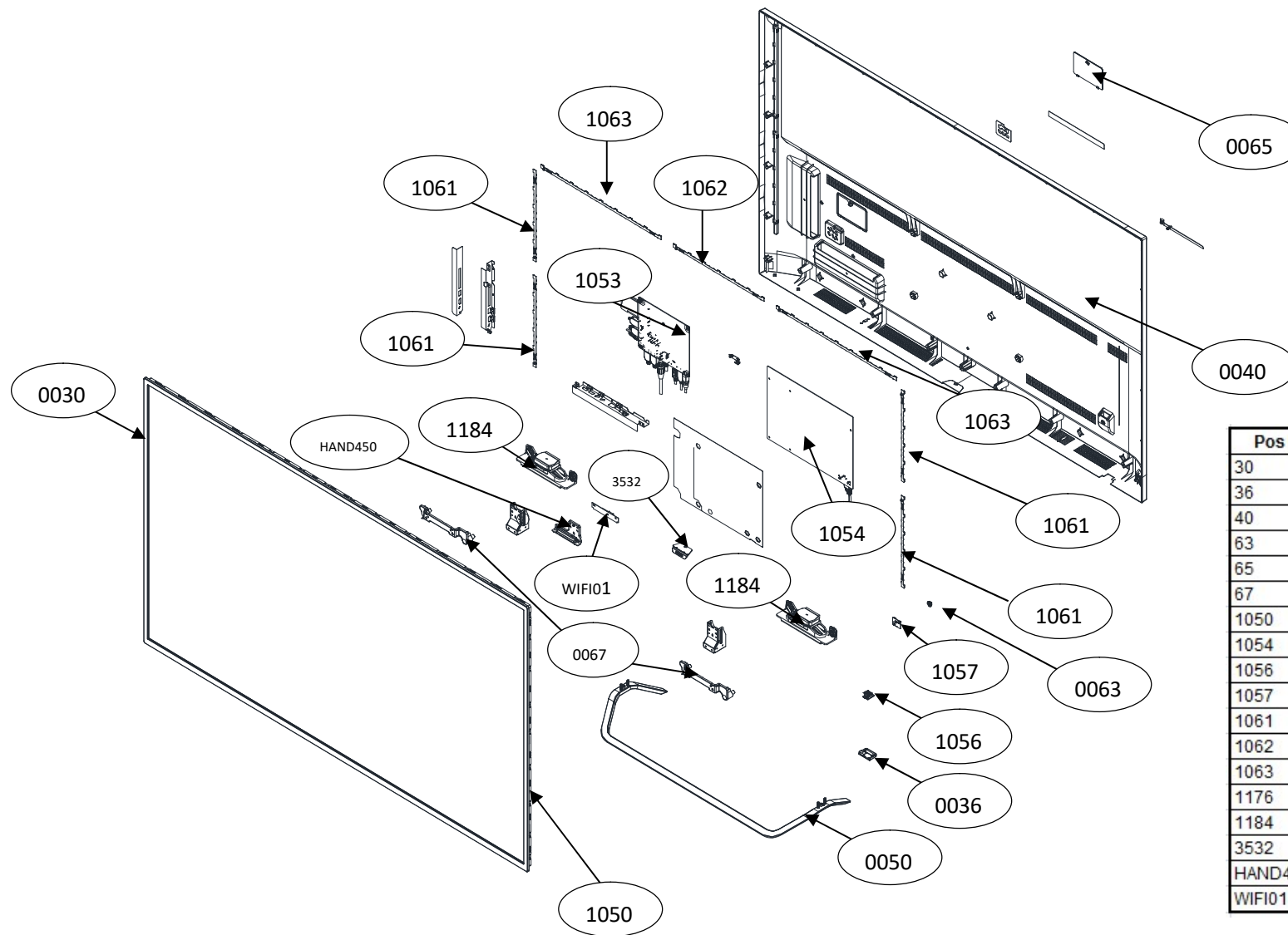
Pos NO.	Description	Remark
0030	BEZEL	
0036	COVER LENS IR	
0040	REAR COVER	
0047	HDD Holder	
0050	CENTRAL STAND	
0063	KEY FUNCTION	Not displayed
0065	COVER CLOCK REAR	
1050	LCD PANEL	
1053	PANEL SSB	
1054	POWER BOARD	
1056	IR BOARD	
1057	KEY BOARD	
1061	AMBILIGHT ASSY(3)	
1062	AMBILIGHT ASSY(1)	
1176	REMOTE CONTROL	Not displayed
1184	SPEAKER	
3532	DECO LOGO	
HAND450	Case holder	
WIFI01	WIFI MODUEL	

9.5 6162 series 65"



Pos NO.	Description	Remark
0030	BEZEL	
0040	REAR COVER	
0036	LENS_IR	
0050	BASE	
0063	KEY_FUNCTION	
0065	COVER_CLOCK_REAR	
0067	COVER_SPK	
1050	DISPLAY PANEL	
1053	PANEL_SSB	
1054	POWER SUPPLY UNIT	Not displayed
1056	IR/LED PANEL	
1057	KEYBOARD CONTROL PANEL	
1176	REMOTE control	
1184	SPEAKER	
WIFI01	WIFI USB	
HAND450	Case holder	

9.6 6262 series 65"



Pos No	Description	Remark
30	BEZEL ASSY	
36	LENS_IR	
40	REAR COVER	
63	KEY_FUNCTION	
65	COVER_CLOCK_REAR	
67	COVER_SPK	
1050	LCD Panel	
1054	POWER BOARD ASSY	
1056	IR BOARD ASSY	
1057	KEY BOARD ASSY	
1061	AMBILIGHT ASSY(4)	
1062	AMBILIGHT ASSY	
1063	AMBILIGHT ASSY(2)	
1176	REMOTE CONTROL	Not displayed
1184	SPEAKERS	
3532	DECO_LOGO	
HAND450	Case_holder	
WIFI01	WIFI USB	