

SERVICE MANUAL

LCD Color Television
50L2353D(N)

REVISION HISTORY

REV	Date	Reason for Change
1	Dec/19/2014	Addition of "AFTER MAIN PCB REPLACEMENT".

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IMPORTANT NOTICE

WARNING:

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GREEN PRODUCT PROCUREMENT

The EC is actively promoting the WEEE & RoHS Directives that define standards for recycling and reuse of Waste Electrical and Electronic Equipment and for the Restriction of the use of certain Hazardous Substances. From July 1, 2006, the RoHS Directive will prohibit any marketing of new products containing the restricted substances.

Increasing attention is given to issues related to the global environmental. Toshiba Corporation recognizes environmental protection as a key management tasks, and is doing its utmost to enhance and improve the quality and scope of its environmental activities. In line with this, Toshiba proactively promotes Green Procurement, and seeks to purchase and use products, parts and materials that have low environmental impacts.

Green procurement of parts is not only confined to manufacture. The same green parts used in manufacture must also be used as replacement parts.

LEAD-FREE SOLDER

This product is manufactured using lead-free solder as a part of a movement within the consumer products industry at large to be environmentally responsible. Lead-free solder must be used in the servicing and repair of this product.

**WARNING: This product is manufactured using lead free solder.
DO NOT USE LEAD BASED SOLDER TO REPAIR THIS PRODUCT!**


The melting temperature of lead-free solder is higher than that of leaded solder by 30°C to 40°C (54°F to 72°F). Use of a soldering iron designed for lead-based solders to repair product made with lead-free solder may result in damage to the component and or PCB being soldered. Great care should be made to ensure high-quality soldering when servicing this product especially when soldering large components, through-hole pins, and on PCBs as the level of heat required to melt lead-free solder is high.

SAFETY INSTRUCTION

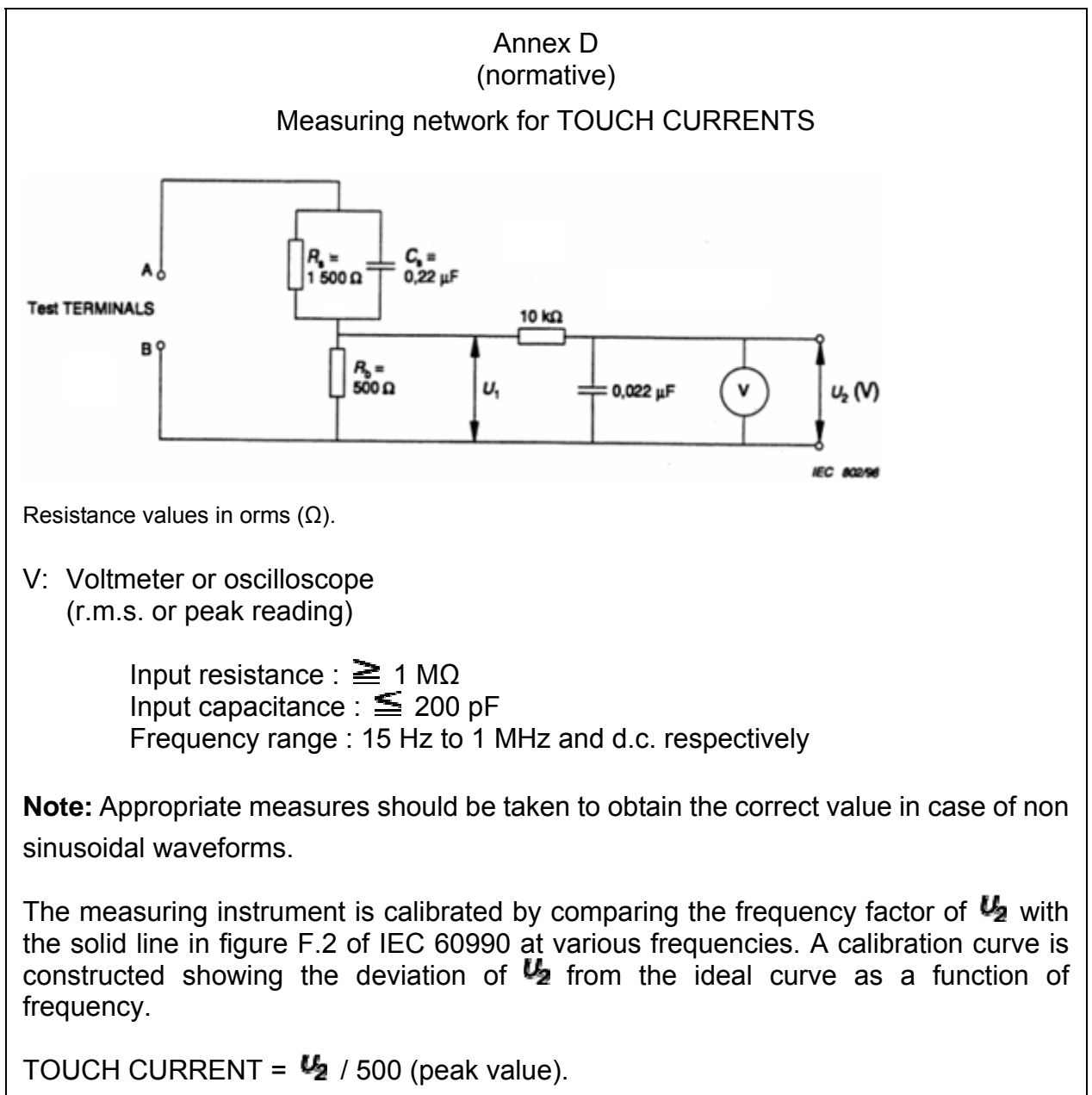
WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" INSTRUCTIONS BELOW.

Safety Precaution

WARNING: SERVICING SHOULD NOT BE ATTEMPTED BY ANYONE UNFAMILIAR WITH THE NECESSARY PRECAUTIONS ON THIS RECEIVER. THE FOLLOWING ARE THE NECESSARY PRECAUTIONS TO BE OBSERVED BEFORE SERVICING THIS CHASSIS.

1. An isolation transformer should be connected in the power line between the receiver and the AC line before any service is performed on the receiver.
2. Always disconnect the power plug before any disassembling of the product. It may result in electrical shock.
3. When replacing a chassis in the cabinet, always be certain that all the protective devices are put back in place, such as nonmetallic control knobs, insulating covers, shields, isolation resistor-capacitor network, etc.
4. Always keep tools, components of the product, etc away from the children, These items may cause injury to children.
5. Depending on the model, use an isolation transformer or wear suitable gloves when servicing with the power on, and disconnect the power plug to avoid electrical shock when replacing parts. In some cases, alternating current is also impressed in the chassis, so electrical shock is possible if the chassis is contacted with the power on.
6. Always use the replacement parts specified for the particular model when making repairs. The parts used in products require special safety characteristics such as inflammability, voltage resistance, etc. therefore, use only replacement parts that have these same characteristics. Use only the specified parts when the  mark is indicated in the circuit diagram or parts list.
7. Parts mounting and routing dressing of wirings should be the same as that used originally. For safety purposes, insulating materials such as isolation tube or tape are sometimes used and printed circuit boards are sometimes mounted floating. Also make sure that wirings is routed and clamped to avoid parts that generate heat and which use high voltage. Always follow the manufactured wiring routes / dressings.

8. Always ensure that all internal wirings are in accordance before re-assembling the external casing after a repairing completed. Do not allow internal wiring to be pinched by cabinets, panels, etc. Any error in reassembly or wiring can result in electrical leakage, flame, etc., and may be hazardous.
9. NEVER remodel the product in any way. Remodeling can result in improper operation, malfunction, or electrical leakage and flame, which may be hazardous.
10. Touch current check. (After completing the work, measure touch current to prevent an electric shock.)
 - Plug the AC cord directly into the AC outlet. Do NOT use an isolation transformer for this check.
 - Connect a measuring network for touch currents between each exposed metallic part on the set and a good earth ground such as a water pipe.



- The potential at any point (TOUCH CURRENT) expressed as voltage U_1 and U_2 does not exceed the following value:

The part or contact of a TERMINAL is not HAZARDOUS LIVE if:

- a) The open-circuit voltage should not exceed 35 V (peak) a.c. or 60 V d.c. or, if a) is not met.
- b) The measurement of the TOUCH CURRENT shall be carried out in accordance with IEC 60990, with the measuring network described in **Annex D** of this standard.

The TOUCH CURRENT expressed as voltages U_1 and U_2 , does not exceed the following values:

- for a.c. : $U_1 = 35$ V (peak) and $U_2 = 0.35$ V (peak);
- for d.c. : $U_1 = 1.0$ V

Note: The limit values of $U_2 = 0.35$ V (peak) for a.c. and $U_1 = 1.0$ V for d.c. correspond to the values 0.7 mA (peak) a.c. and 2.0 mA d.c.

Product Safety Notice

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the international hazard symbols on the schematic diagram and the parts list.

Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create electrical shock, fire, or other hazards.

HOTEL MODE

		Function	Setting *off(normal set)		Information
1	1	Hotel Mode On/Off	Off/On	Off	Hotel mode enable *On: hotel mode on
	2	Panel Lock	Off/On	Off	Inhibit all buttons which are on TV body *On: not available Side key
	3	Panel Lock W/O Input Selector Keys.	Off/On	Off	Inhibit all buttons which are on TV body only disable input key *On: not available Side key only disable input key
	4	Disable Remote Control	Off/On	Off	Inhibit the remote control. *Setting is enable at the Service mode. *On: not available remote control
	5	Disable All Menu	Off/On	Off	*On: All of user menu will be disabled. *Off: All of user menu will work normally.
	6	Disable Setup Menu	Off/On	Off	Inhibit set up menu *On: set up menu Inhibit
	7	Setup Menu W/O Lang.	Off/On	Off	Inhibit display set up menu except for language setting. *There is only language setting at the Setup menu. *On: only lang. display at setup menu.

	8	Max Volume Setting	0~100[dec]	100	Max volume control Max vol setting Method: Setting 100 volume, and turning and choice this value.
	9	Digital Tuner	Off/On	On	DTV source selection depends on Digital Tuner setting. *On: enable DTV *Off: hide DTV
	10	USB Port	Off/On	On	MEDIA source selection depends on USB port setting. *On: enable MEDIA in inputs menu *Off: hide MEDIA in inputs menu *Off (Enable 5V): Disable USB, but enable the 5V power.
	11	TV to USB	NO/YES	NO	It will clone the data of TV to USB disk. The data includes user setting, the setting of hotel mode and channel table.
	12	USB to TV	NO/YES	NO	It will clone the data of USB disk to TV. The data includes user setting, the setting of hotel mode and channel table.
	13	Disable NIT Update	Off/On	Off	*On: enable NIT update *Off: disable NIT update
	14	Detect SCART	On / Off	On	ON: Pin8 will go on normal operation and it is going to switch between sources automatically. Off: Pin8 is ignored and the automatic source switching would be enabled.

2	1	Fixed Pos/Video	Off/ On(AC)/ On	Off	Remote control power button on or TV power switch (on side body) on, then display goes to fixed POS/Video (= nearly equal #9) *On: fixed pos/video set *On (AC): TV tunes to preset "Pos/Video" (channel or input) only when AC power is applied. When TV is powered on by power button, tune to the last channel or input.
			ATV(0~99)/SCART/AV/ YPBPR/HDMI1/HDMI2/ PC/DTV	*TV, Component, AV,..., PC,HDMI,...Off TV:1~255[dec] (normal:0) DTV: depends on channel auto tuning	
	2	Fixed Volume	Off/On	Off	Remote control power button on or TV power switch(on side body) on , then forced volume setting
			0~100[dec] (normal:50)		*101~ : not available
3	Fixed Picture Mode	Off/On	Off	Remote control power button on or TV power switch(on side body) on, then picture mode is selected	
		0:Dynamic(Default) 1:Standard 2:Mild 3:Movie 4:Memory		*On: Fixed selectable Pic.	
4	Welcome Message	Off/On	Off	Remote control power button on or TV power	

		1:Default 2:8 Sec. 3:15 Sec.		switch(on side body) on, then fixed "Welcome to our hotel" Message is displayed. 'Until first operation' means that first event for TV occur (ex. Ch up).
5	Update Welcome Message	YES/NO	NO	It will update the logo, when TV on the new logo show. *Using USB, user replaces the user original message with the default welcome message. As below is message, the file limitation items: 1. File format should be JPG file. 2. JPG Resolution <= 1360 x 768. 3. JPG file size < 64KB. 4. JPG file name is "Hotel_Logo.jpg".
6	Teletext	Off/On	On	Teletext functions are depend on Teletext setting *On: enable Teletext functions and operation *Off: disable Teletext functions and operation
7	ATV/DTV P+/P-	Off/On	Off	*On: enable ATV/DTV P+/P- *Off: disable ATV/DTV P+/P
8	TV Power	Disabled/ On/ Standby	Disabled	*Disabled: TV returns to previous Standby/On state when AC power is applied. *On: Power TV on when AC power is applied. *Standby: Put TV in Standby when AC power is applied.
9	Reset Menu	YES/NO	NO	Set to default all setting in Hotel mode menu

How to enter Hotel Mode.

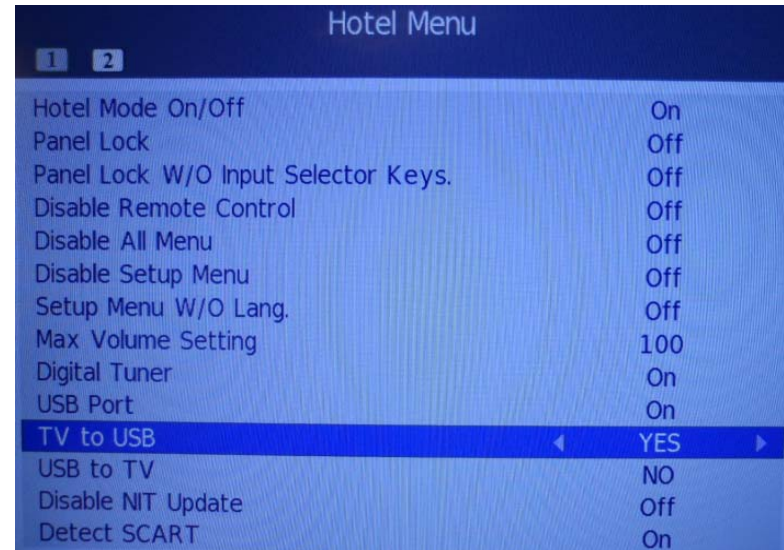
- 1) Press "MUTE" button on the remote, and display [mute].
- 2) Within 2 sec, press "MUTE" button on the remote again, and hold the button down for 3 sec.
- 3) Then, press "INPUT" button on the TV side. Then hotel mode menu will appear.

How to exit Hotel mode.

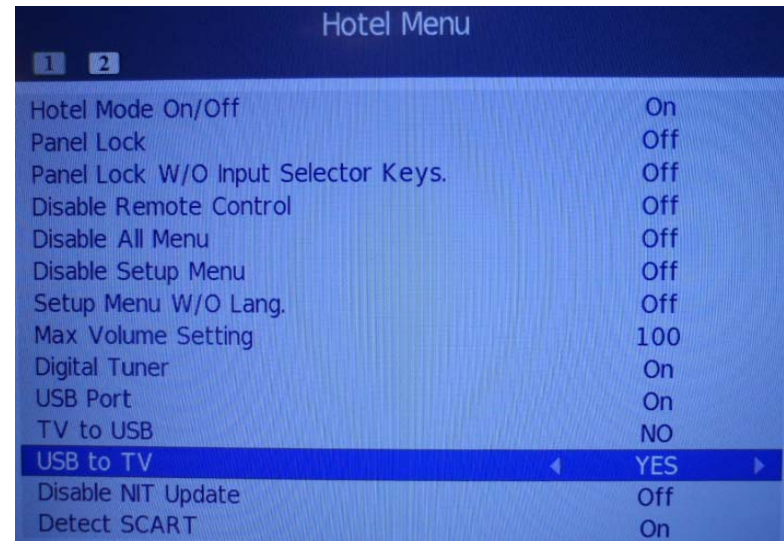
Turn the TV power off

Copying Hotel Mode Setting

TV to USB:
Copying a BIN file into USB flash.



USB to TV:
Copying a BIN file into TV.



TV to USB Step :

1. Insert USB flash disk into TV USB port.
2. Please press “MUTE” key twice (MUTE icon disappear) , at the same time, press “SOURCE” by keypad for a while.
->“Hotel Menu” will come out.
3. Select the item “TV to USB” and press Left or Right button to choose “YES”. Then press “OK” button.
->The hotel settings will copy into USB disk with file name **HOTEL_xxx23xxx.BIN**
4. Once copy is finished. The OSD message “**Please wait...**” will disappear then shown "**OK!** " message.

USB to TV Step (method 1) :

1. Insert USB disk with available file into TV USB port.
2. Please press “MUTE” key twice (MUTE icon disappear) , at the same time, press “SOURCE” by keypad for a while.
->“Hotel Menu” will come out.
3. Selecting the item “USB to TV ” and press Left or Right button to choose “YES”. Then press “OK” button.
->The hotel settings will copy from USB to TV with file name **HOTEL_xxx23xxx.BIN**.
4. Once copy is finished. The OSD message “**Please wait...**” will disappear then shown "**Please remove USB memory, then TV will be reset automatically**" message.

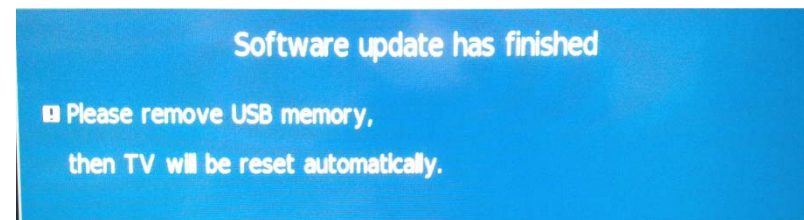
USB to TV Step (method 2) :

1. Insert USB disk with available file into TV USB port.
2. Please reboot (AC Off/On) TV to update hotel settings automatically.
->the set will shown “Hotel Mode Settings Update Please Wait”.
3. The OSD message “Please wait...” will disappear then shown “Update is finished .Please remove USB memory, then TV will be reset automatically.”
4. Please remove USB disk then turn AC Off/On to reboot TV.
The new settings will be active.

Firmware Upgrade – USB

(1/2)

1. Copying a firmware BIN file to USB disk. (root directory)
2. Plug in USB disk to TV USB port.
3. Reboot (AC Off/On) TV to update F/W automatically.
4. During firmware upgrade will have display a OSD on LCD screen and power status LED will be blinking.
5. When F/W upgrade is finished, a message on screen will be shown then unplug USB disk.
6. TV will be reset automatically.



Definition of Firmware file name

(2/2)

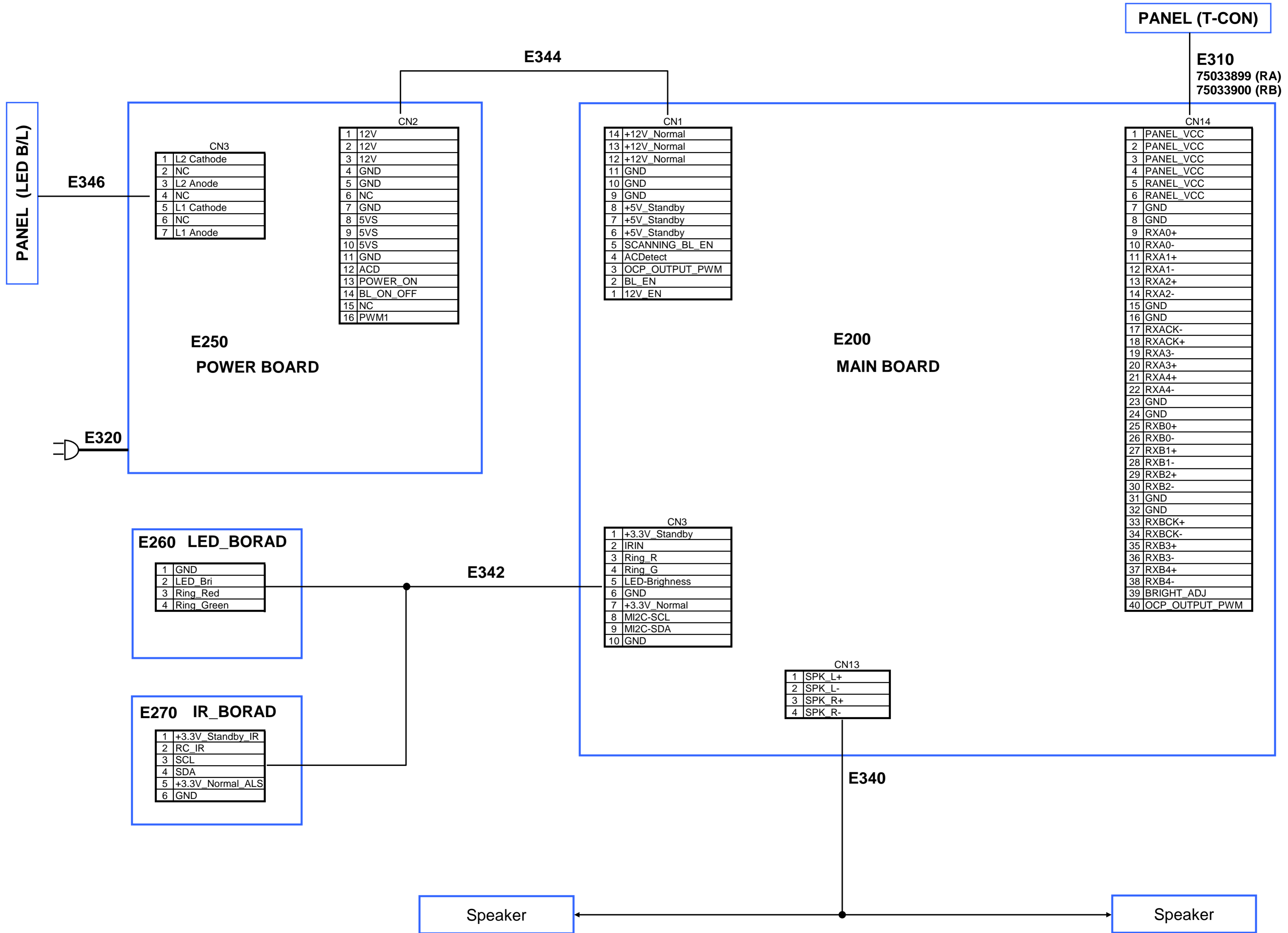
File name: xxx23xxx_001_REV00.bin.

xx: for all TV size.

x23xxx: model series.

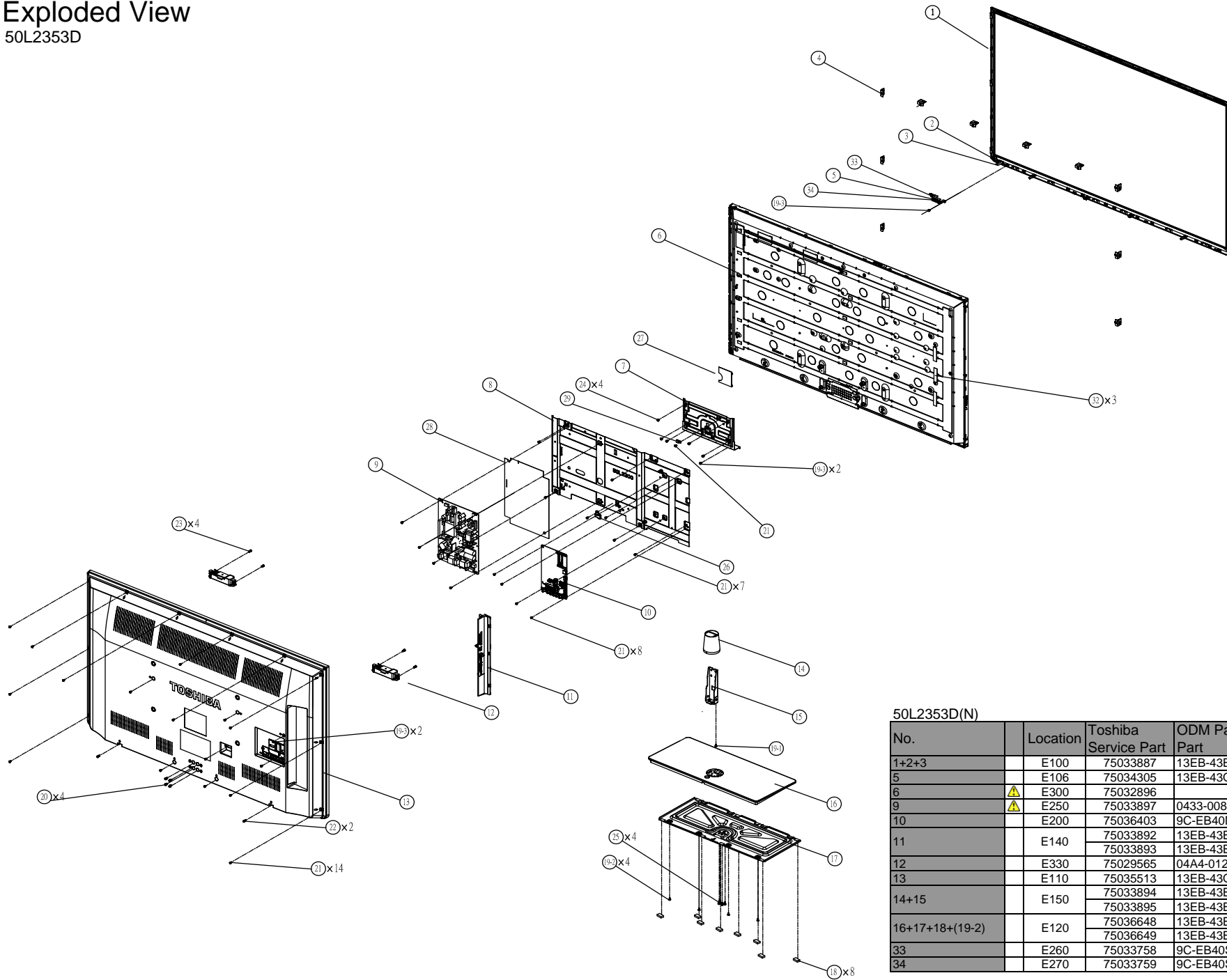
001 : firmware version ex 001 is 0.01, 100 is 1.00

REV00: fixed for revision 00




Exploded View

50L2353D



Note:
Please see PPL put on Web-PRESS for the latest information or other parts.

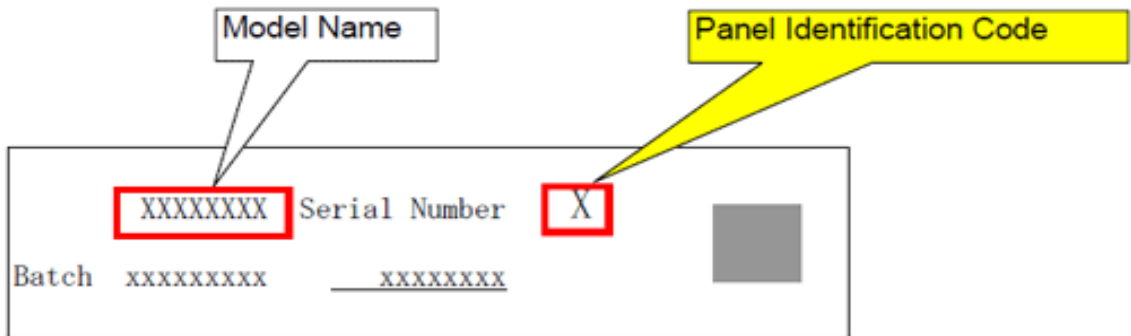
SAFETY PRECAUTION
The parts identified by  mark are critical for safety. Replace only with part number specified. The mounting position of replacement is to be identical with originals. The substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create shock, fire or other hazards.

50L2353D(N)

No.	Location	Toshiba Service Part	ODM Partner Part	Description
1+2+3	E100	75033887	13EB-43B0601	FRONT COVER (FRONT BEZEL)
5	E106	75034305	13EB-43Q0W11	SUPPORT FOR SMALL BOARD
6	 E300	75032896		LCD PANEL, LG, LC500DUE-SFR1
9	 E250	75033897	0433-008C000	POWER BOARD ASSY
10	E200	75036403	9C-EB40M0370	MAIN BOARD ASSY
11	E140	75033892 75033893	13EB-43B0H01 13EB-43B0A01	SIDE KEY BEZEL ASSY
12	E330	75029565	04A4-012X000	SPEAKER (LEFT AND RIGHT)
13	E110	75035513	13EB-43Q1211	BACK COVER ASSY
14+15	E150	75033894 75033895	13EB-43B0901 13EB-43B0K01	NECK ASSY
16+17+18+(19-2)	E120	75036648 75036649	13EB-43B0C11 13EB-43B0P11	STAND ASSY
33	E260	75033758	9C-EB40S0250	LED BOARD ASSY
34	E270	75033759	9C-EB40S0270	IR BOARD ASSY

PANEL IDENTIFICATION

Serial No. part printed on Rating Label



Panel Identification Code

Marking	Panel Vendor	Marking	Panel Vendor	Marking	Panel Vendor
A	AUO	J		S	SHARP
B	BriView	K	SAMSUNG	T	
C	CMO	L	LPL/LGD	U	
D	CHILIN	M		V	
E		N		W	
F		P	CPT	X	
G		Q		Y	
H	IPS	R		Z	

AFTER MAIN PCB REPLACEMENT

The following setting must be checked after PCB replacement to make sure, that PCB setting corresponds to the panel type:

1. Enter Factory Menu:

- **MENU**
- **Applications**
- **Sleep Timer + “2766”**

2. Go to page 3 and select the proper panel type (take care of the full panel name, not only panel vendor name).

Panel type can be found on the panel serial number sticker.



3. Press EXIT to leave the factory mode (please make sure you have selected the proper panel type, before you press EXIT !).

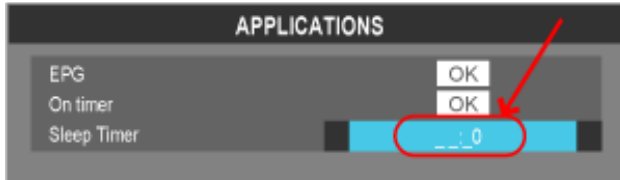
4. If the proper panel type was set, TV will come up with proper picture after TV restart.

PLEASE TAKE CARE: set may come up with NO PICTURE at all when wrong panel was selected and it will be very difficult/impossible to adjust the proper settings afterwards.

DESTINATION SETTING CHANGE

Whenever replacing the Main PCB with new one, perform this procedure.

1. IR Key MENU → APPLICATIONS → Sleep Timer → OK.
2. When display __ : __ 0 input 4 numbers 2766.



The Factory menu will display.



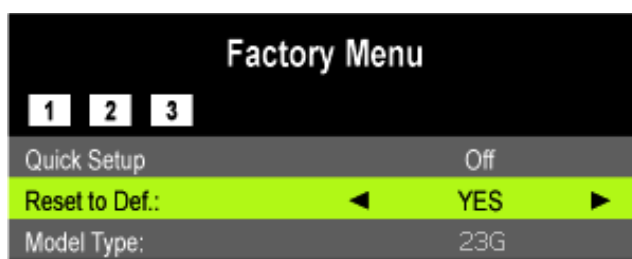
3. Move to Tag "3" by Right/Left Arrow key on the Remote.
4. Select "Model Type" cell.



5. Select the appropriate model type by Right/Left Arrow key on the Remote.



6. Select "Reset to Def".
7. Select "Yes" and press "OK" button on the Remote.

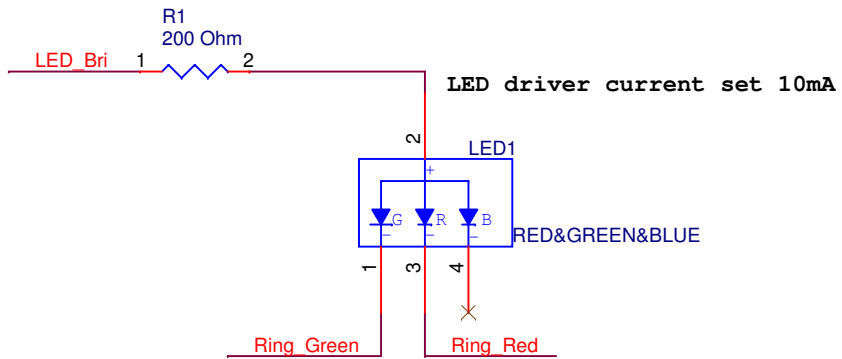
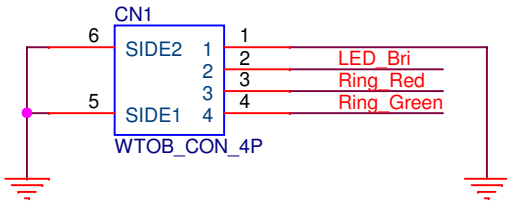


TOSHIBA LIFESTYLE PRODUCTS & SERVICES CORPORATION
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REV. 01
Dec/19/2014

Power On mode-----Green

Standby mode-----Red



Unihan		Title : LED	
LED BOARD		Engineer: Jeff Y Hsiao/Webb Chen	
Size A	Project Name L2300	Rev 1.01	
Date: Monday, March 18, 2013		Sheet 2 of 2	

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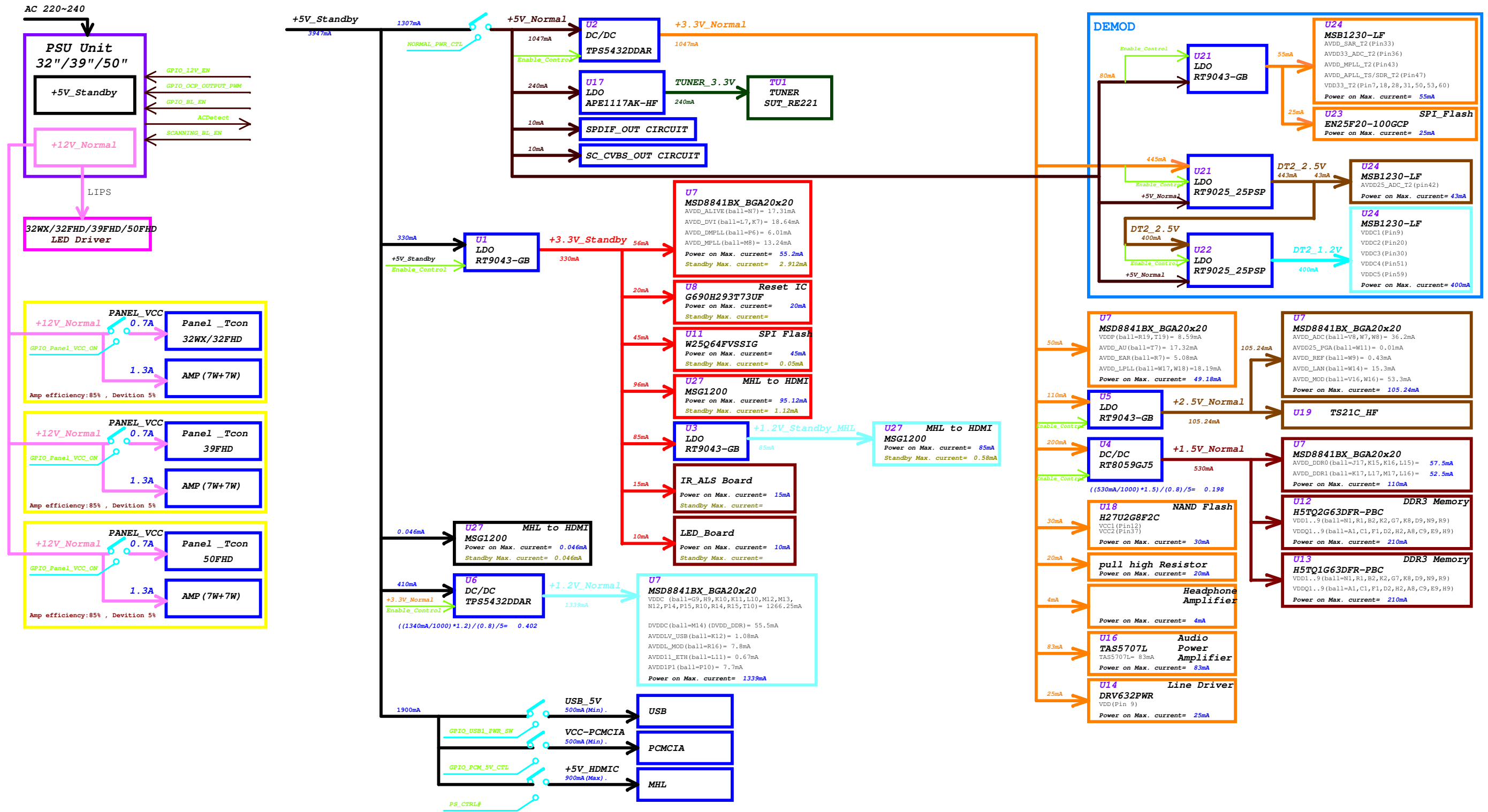
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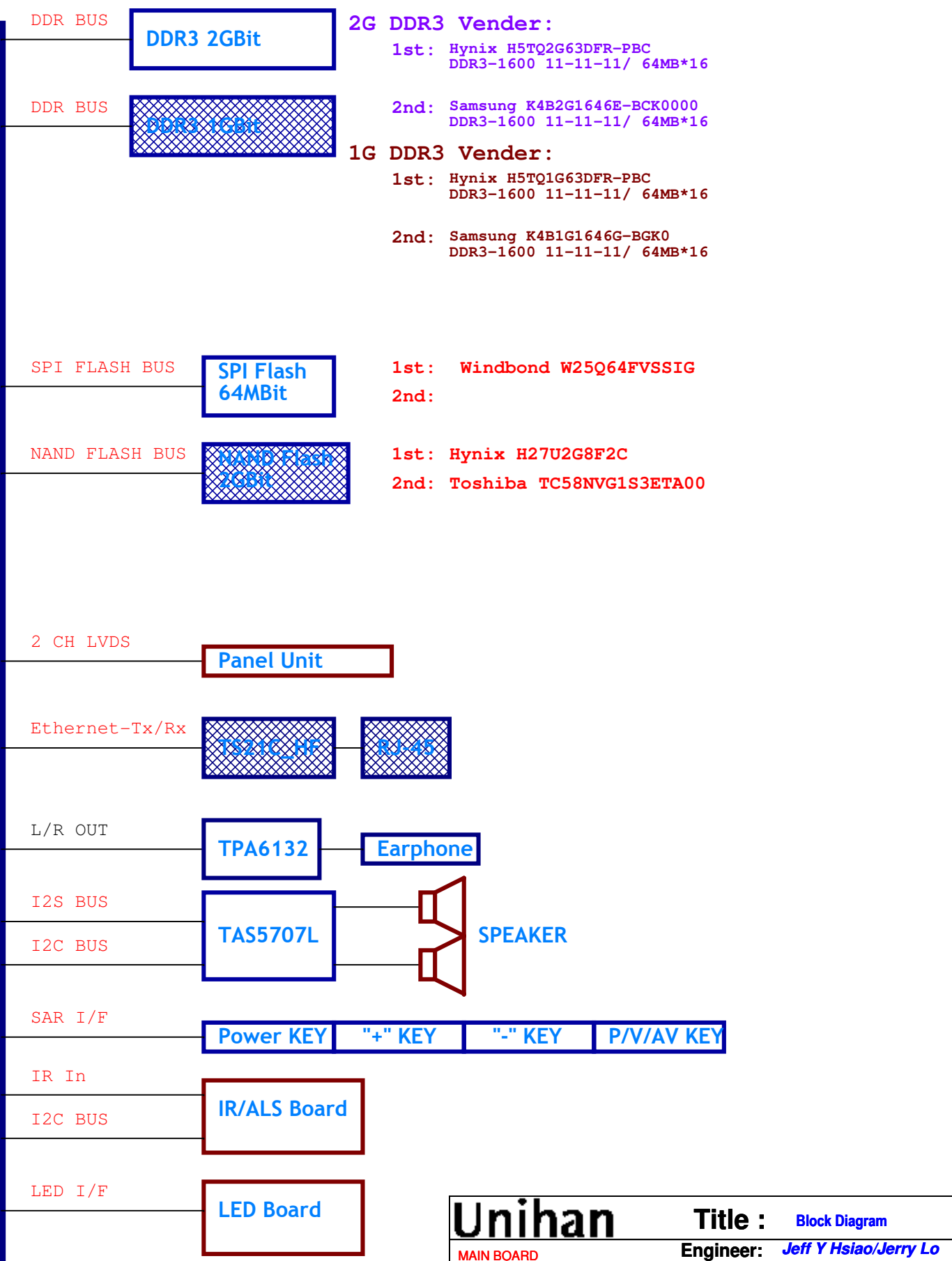
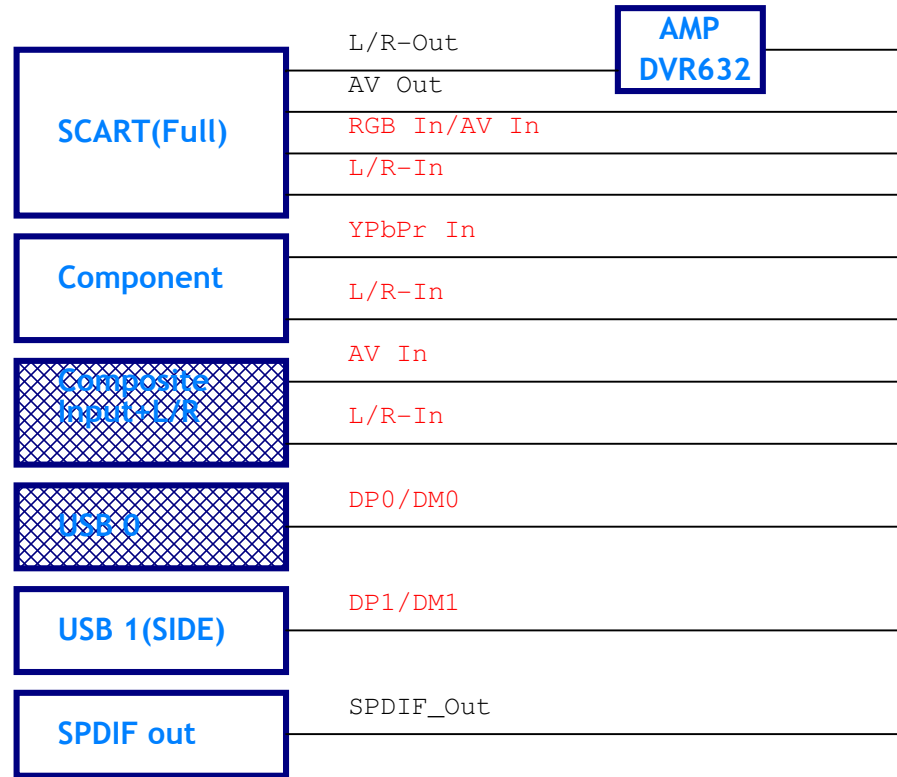
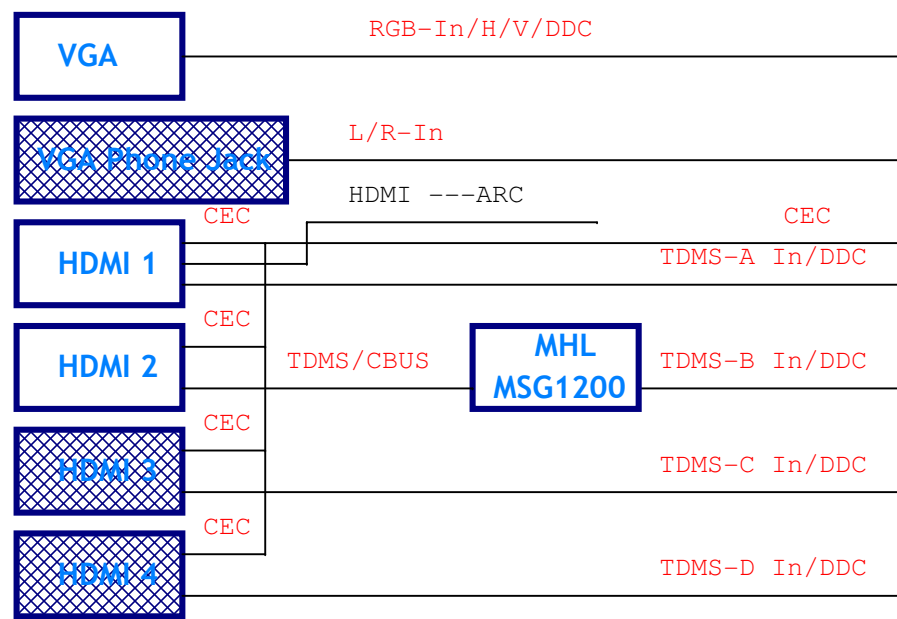
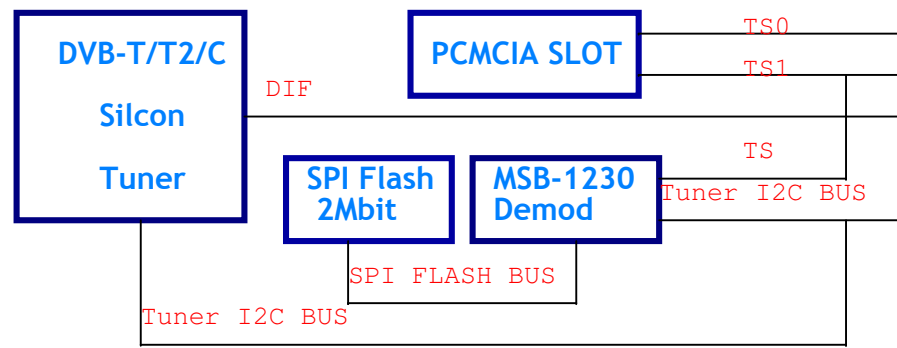
REVISION HISTORY

Date	Author	Ver	Comments
2012/08/27	Jeff/Jerry	1.00	For SR stage.
2012/09/14	Jeff/Jerry	1.01	For SR2 stage.
2012/10/20	Jeff/Jerry	1.02	For ER stage.
2012/11/07	Jeff/Jerry	1.03	For ER2 stage.
2012/11/21	Jeff/Jerry	1.03a	For PR stage.

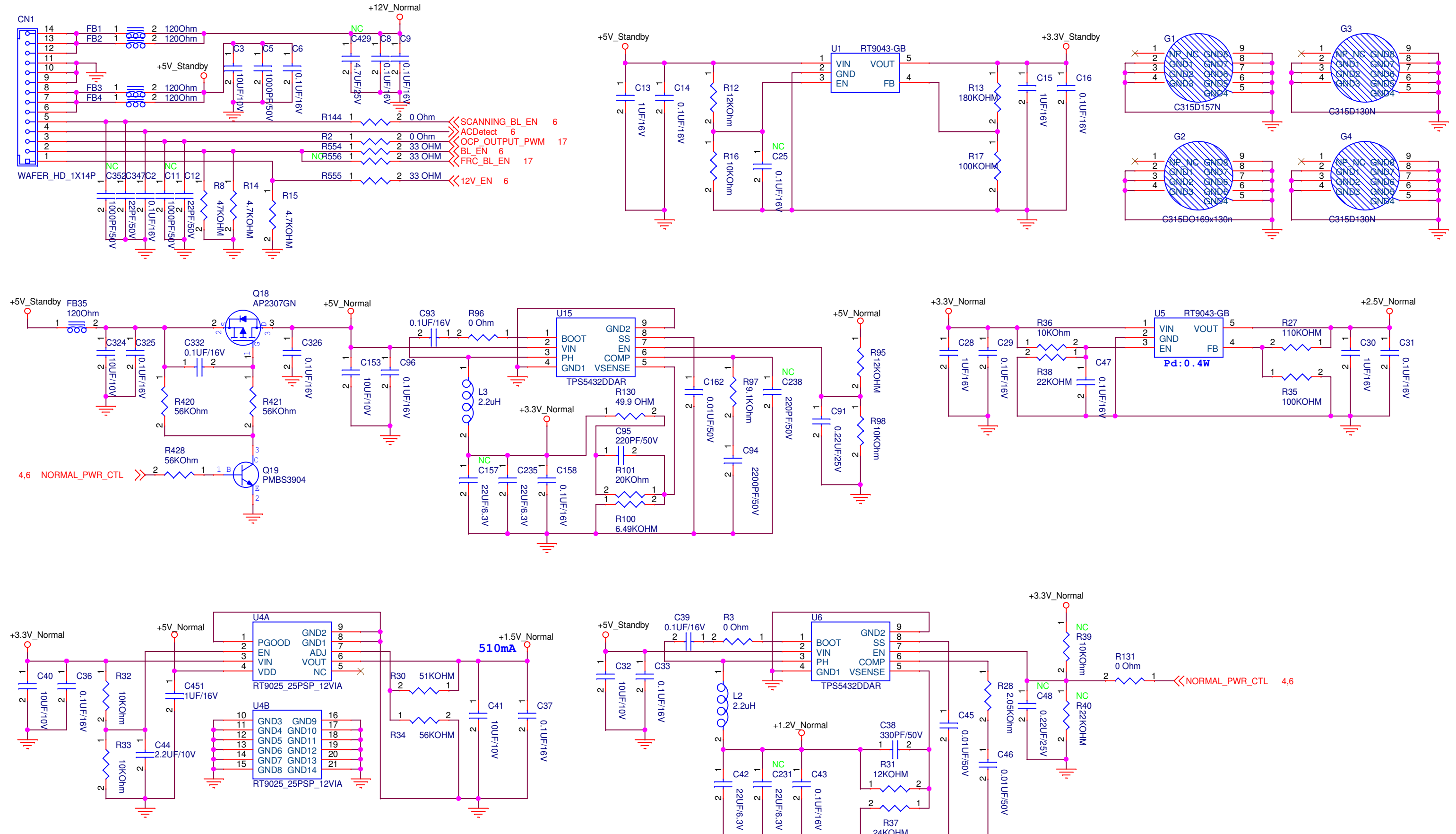
Unihan		Title : Contents&History
MAIN BOARD		Engineer: Jeff Y Hsiao/Jerry Lo
Size B	Project Name L2300	Rev 1.03a
Date: Thursday, December 20, 2012		Sheet 1 of 23

TV System Power Budget Block Diagram

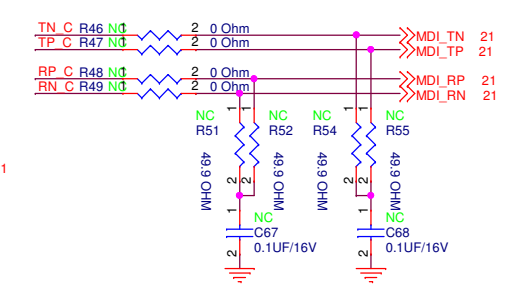
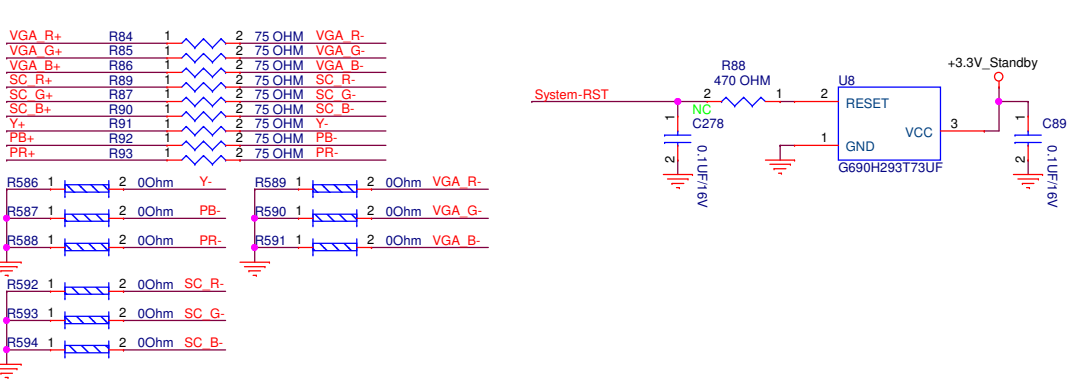
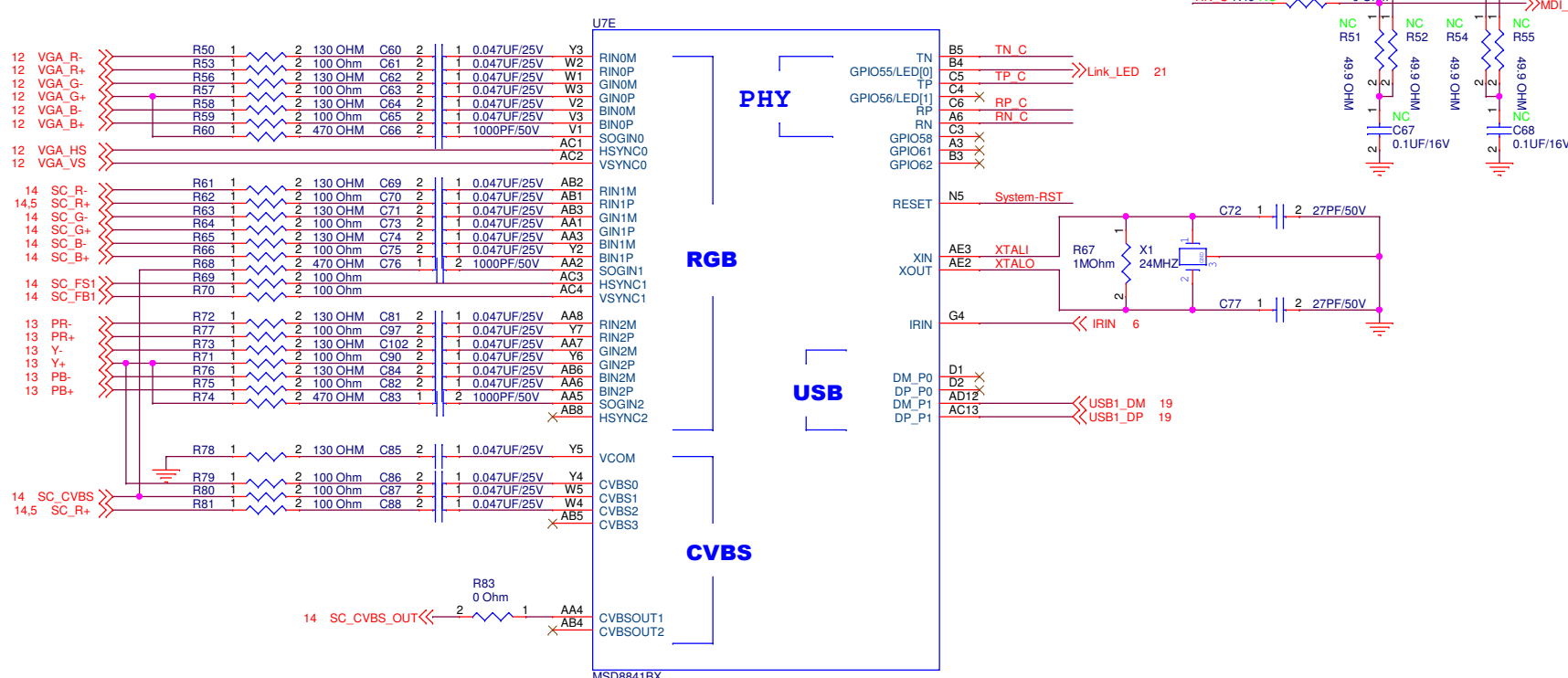
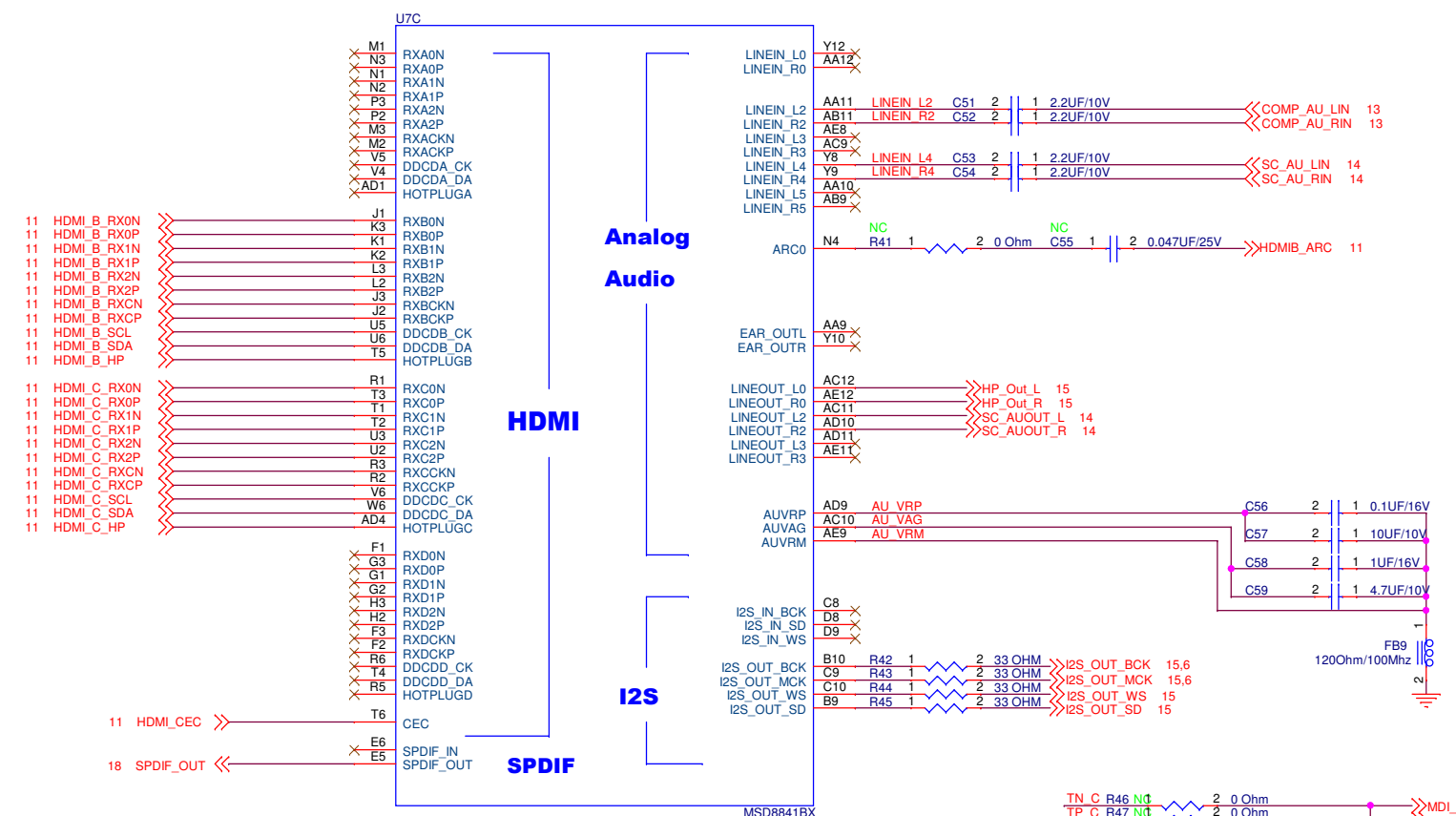


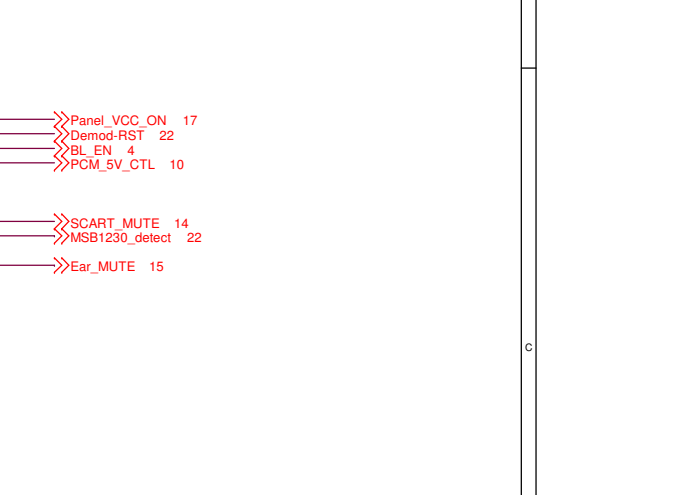
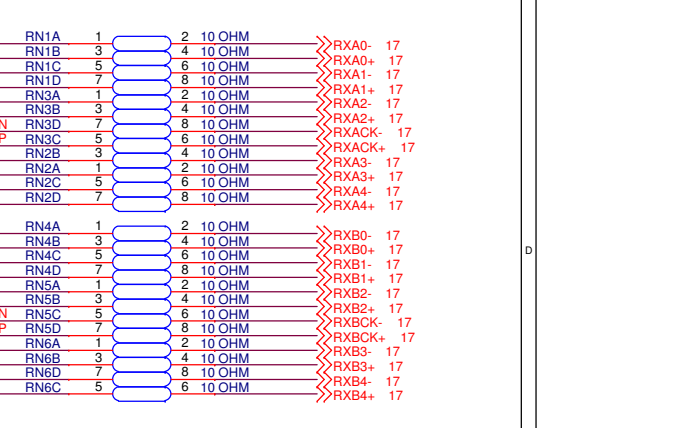
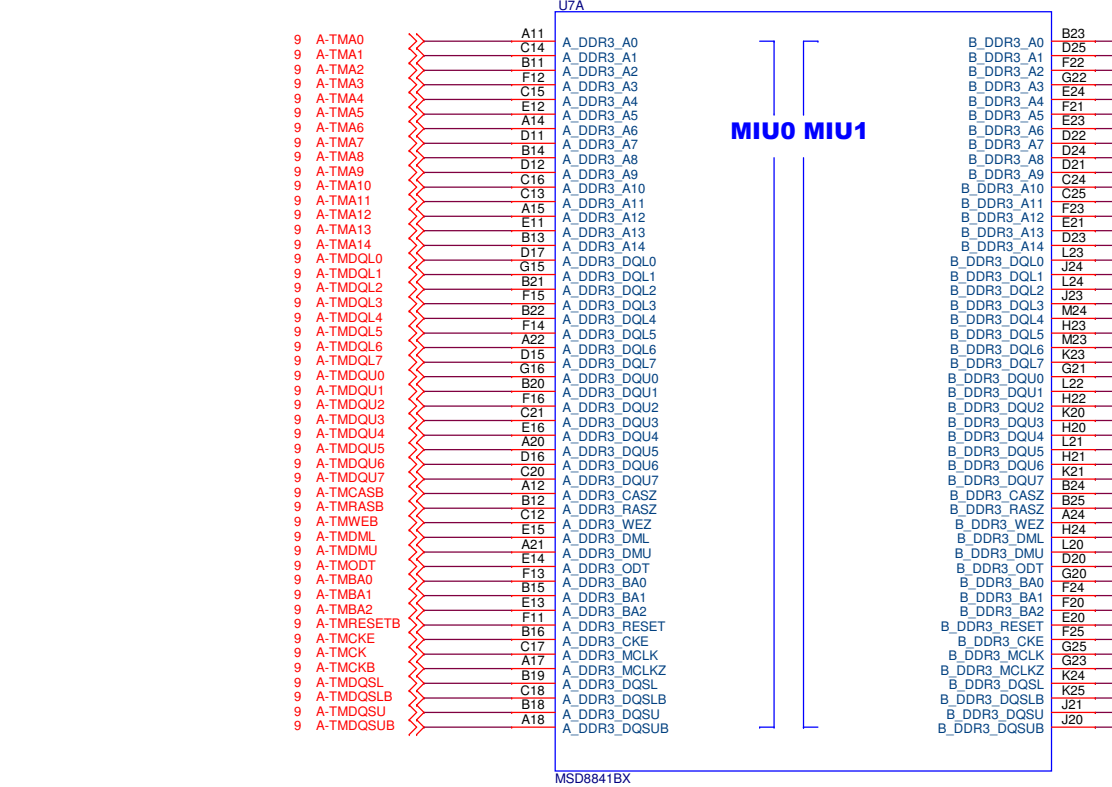
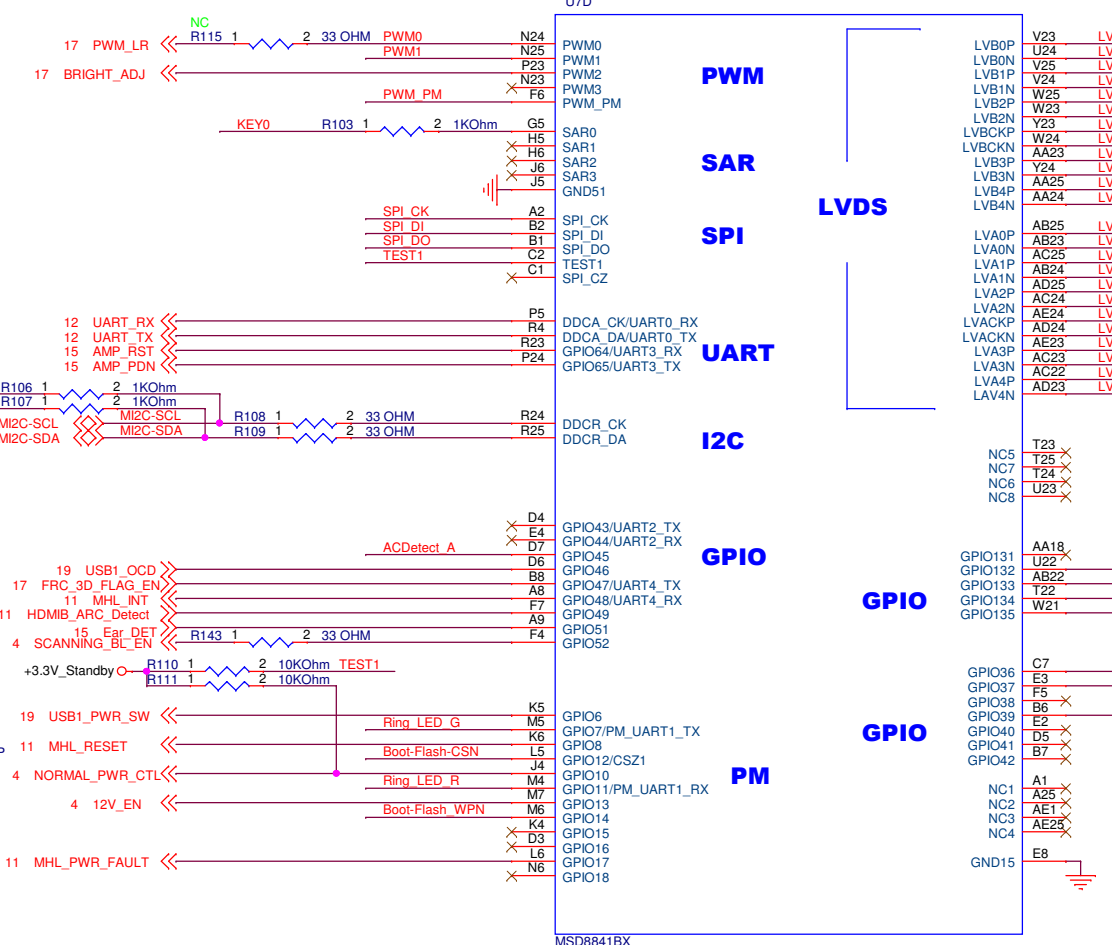
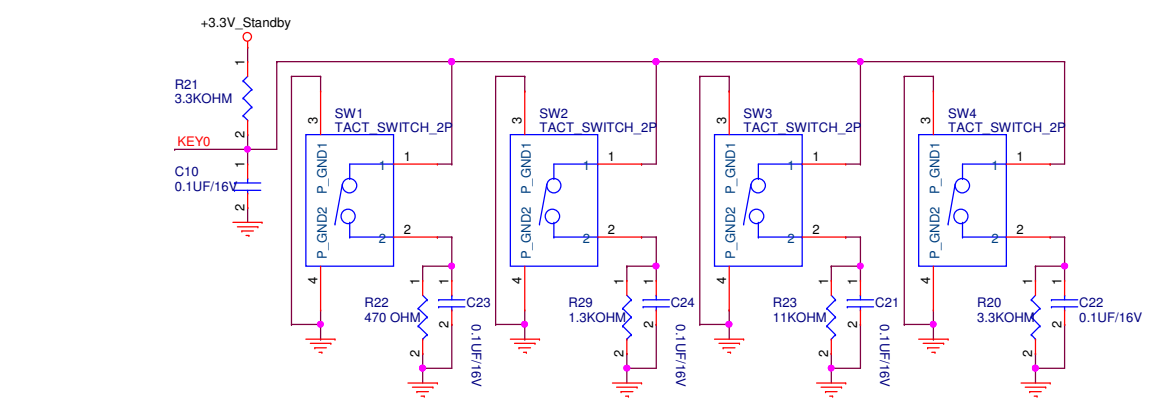
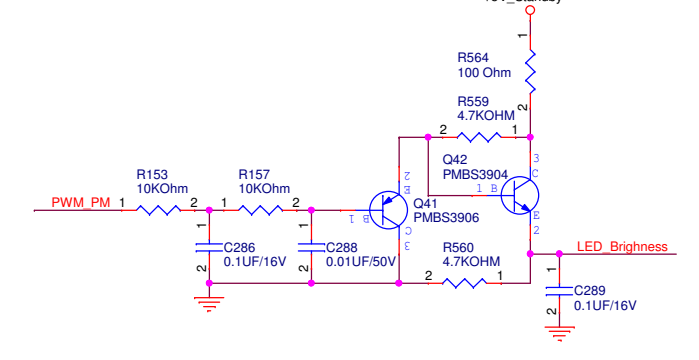
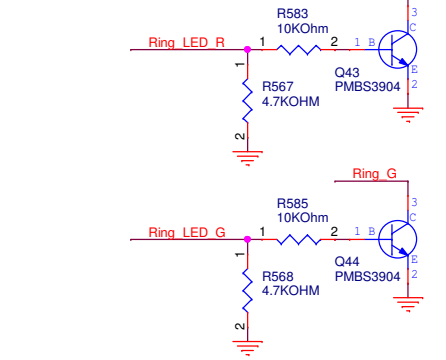
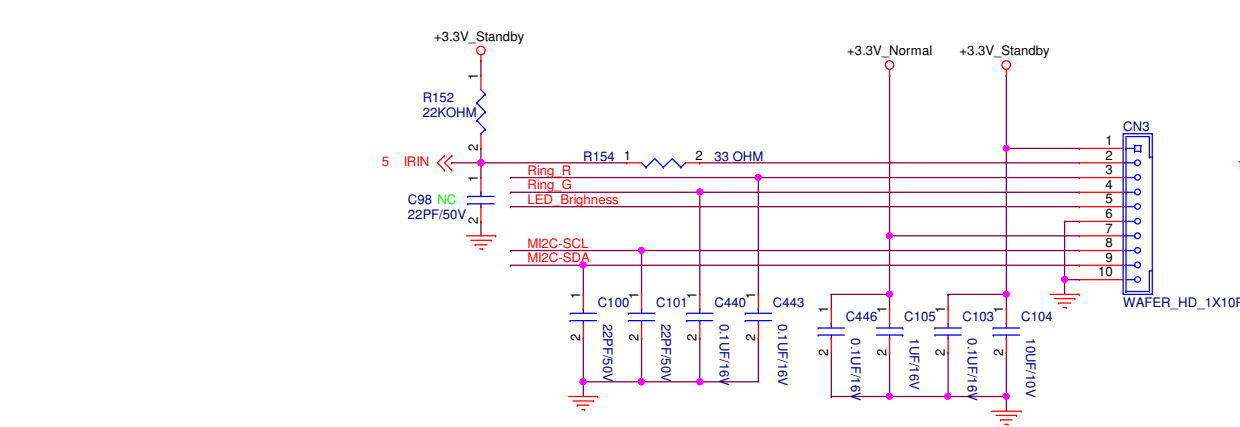
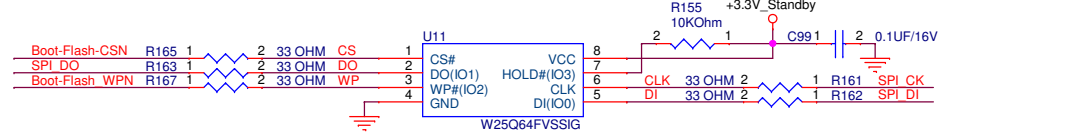
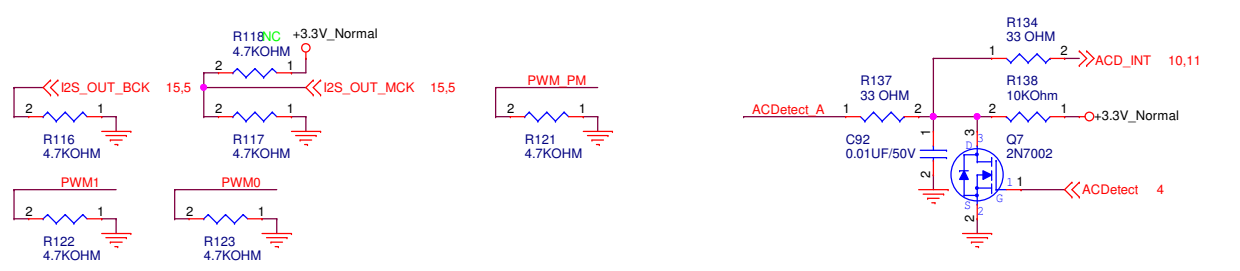


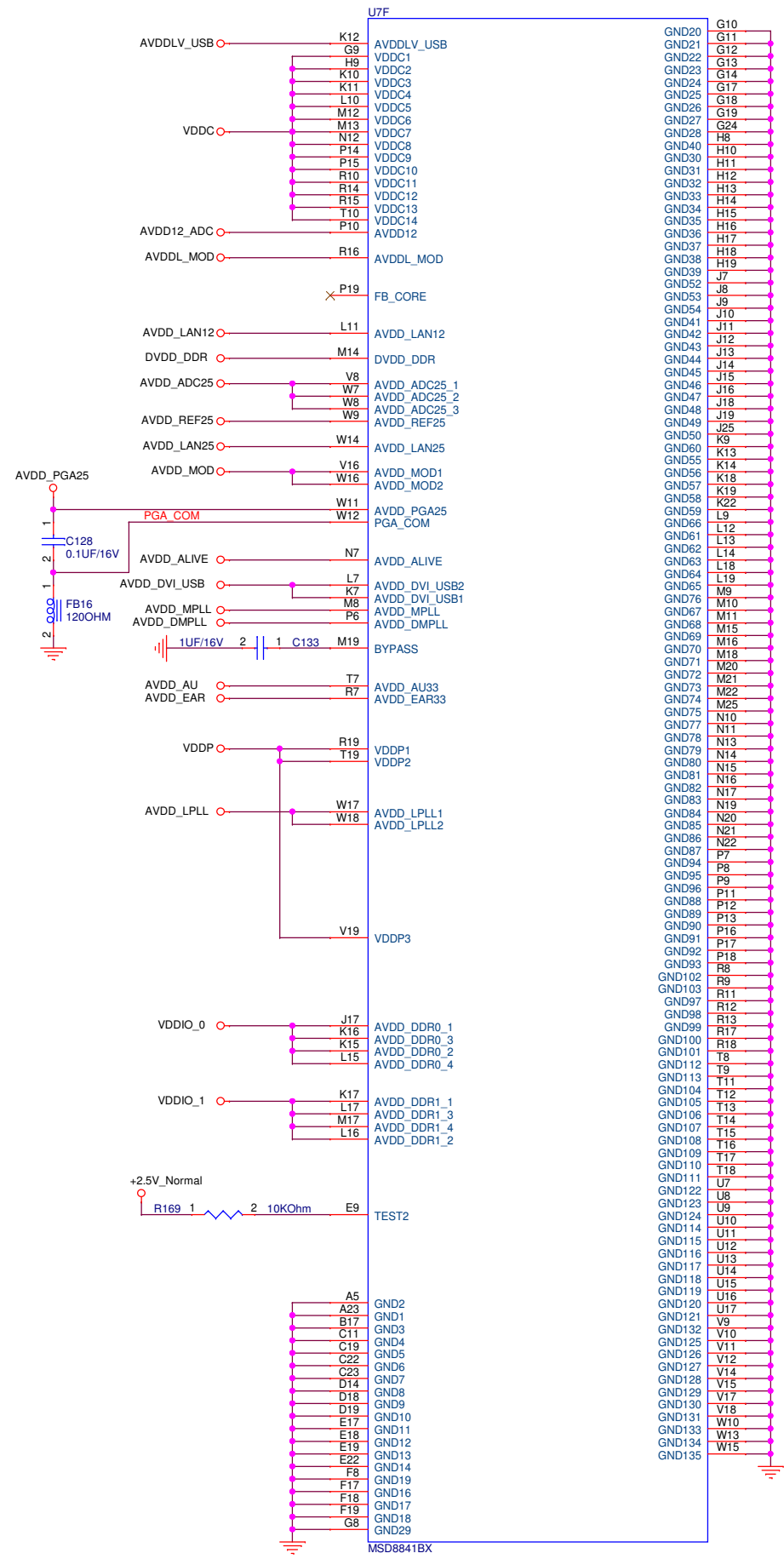
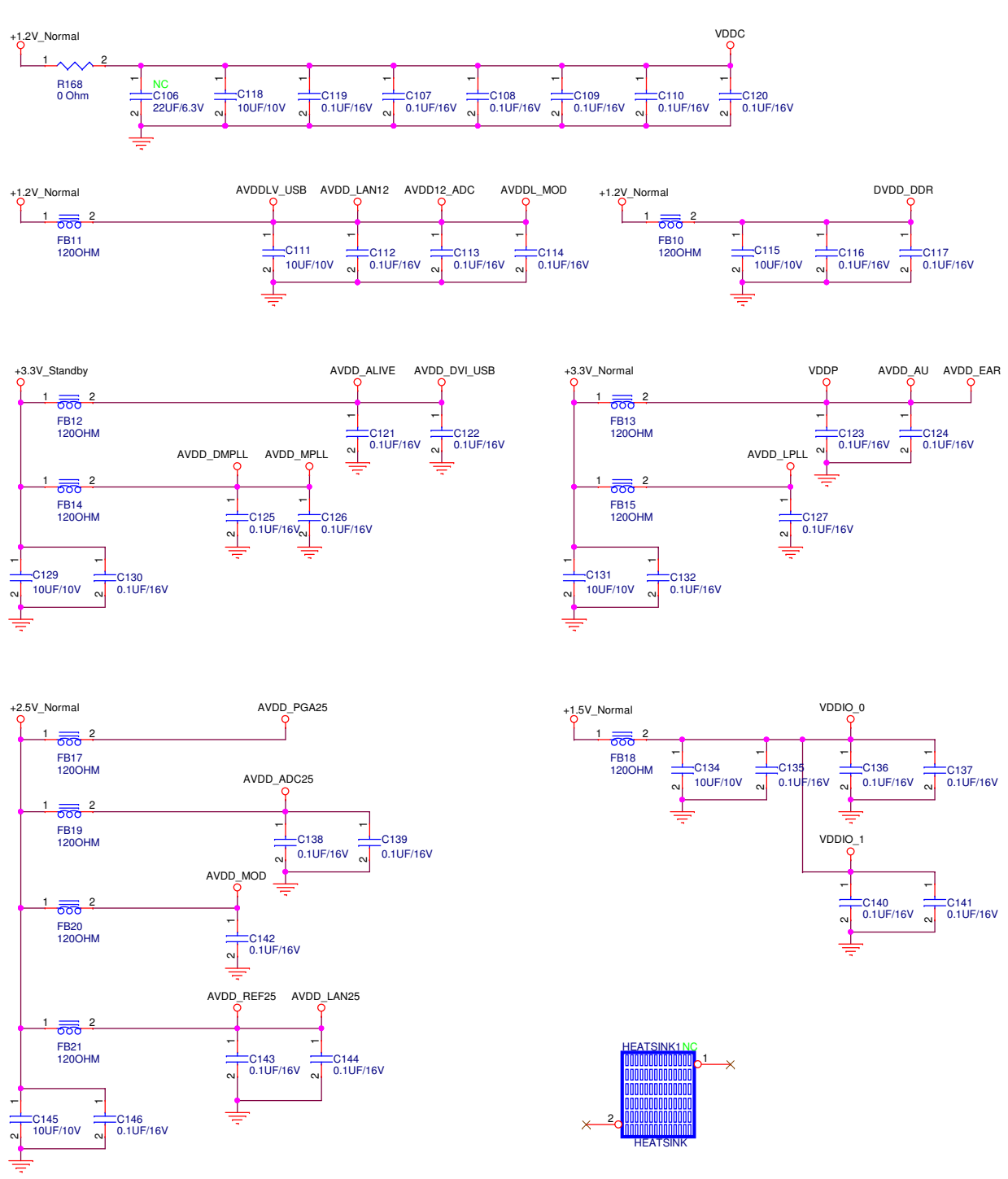
Unihan		Title : Block Diagram	
MAIN BOARD		Engineer: Jeff Y Hsiao/Jerry Lo	
Size B	Project Name L2300	Rev 1.03a	
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Unihan		Title : DC to DC	
MAIN BOARD		Engineer: Jeff Y Hsiao/Jerry Lo	
Size B	Project Name L2300	Rev 1.03a	
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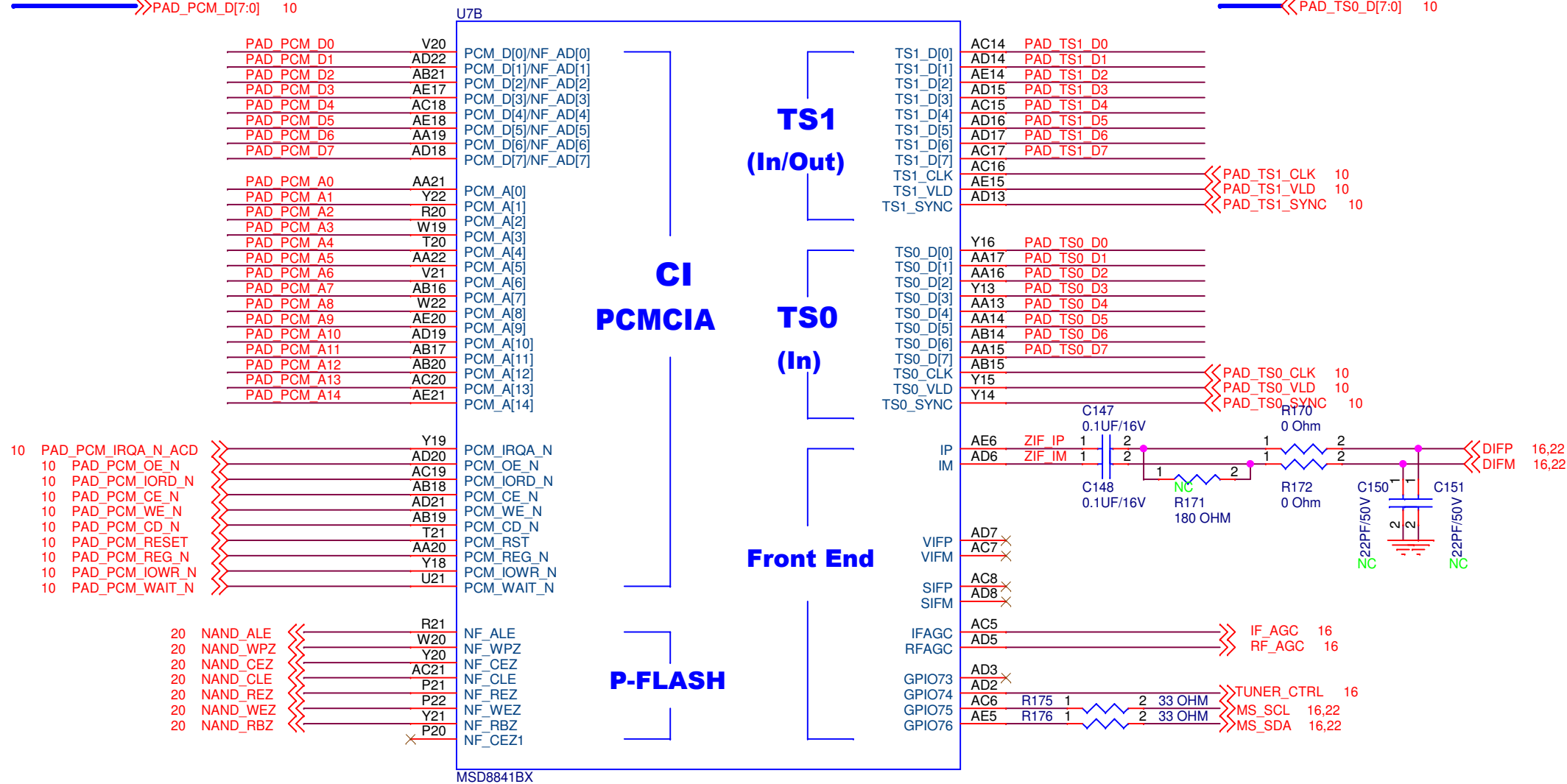




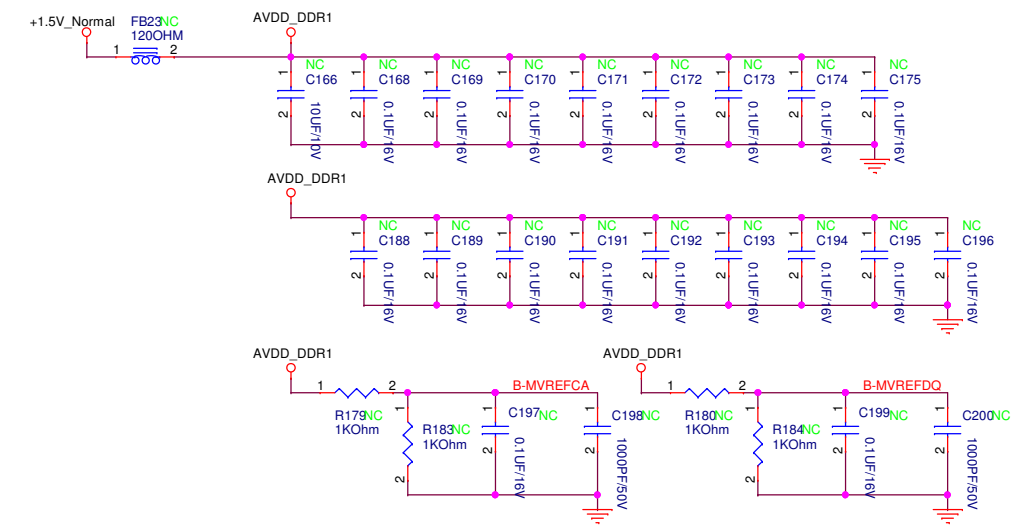
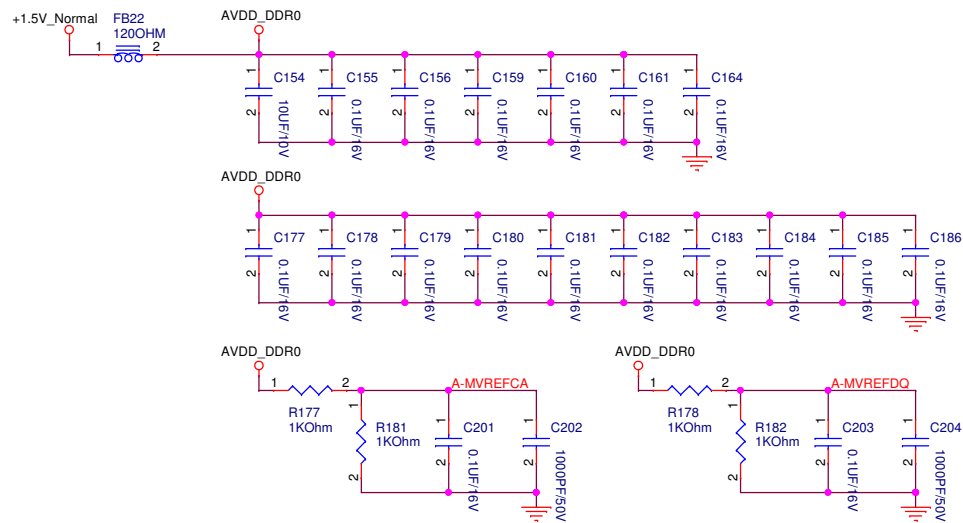


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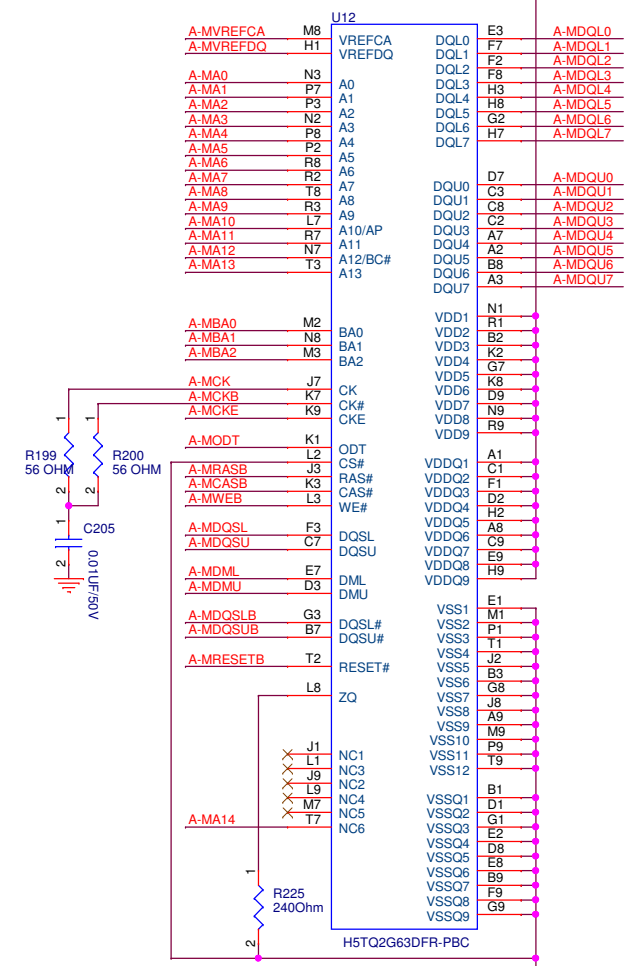
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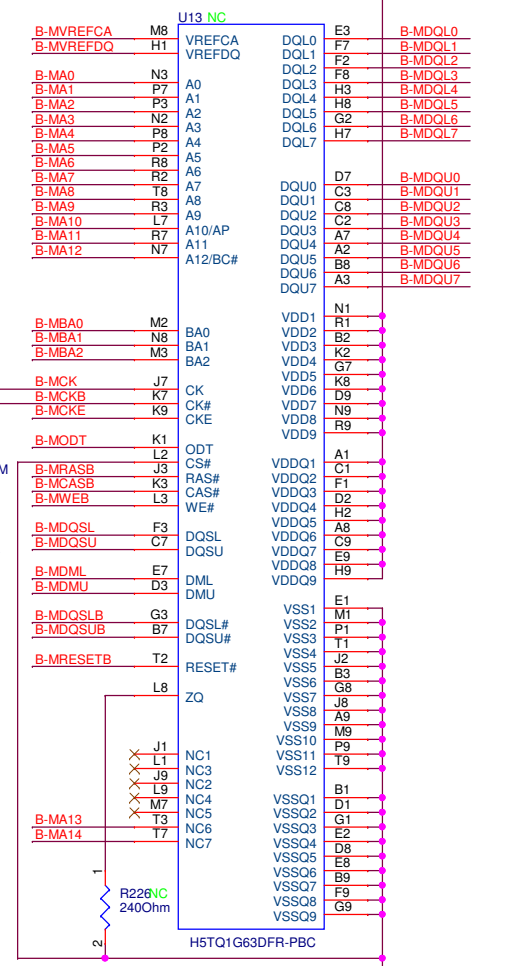
Unihan		Title : MSD8841	
MAIN BOARD		Engineer: Jeff Y Hsiao/Jerry Lo	
Size B	Project Name L2300	Rev 1.03a	
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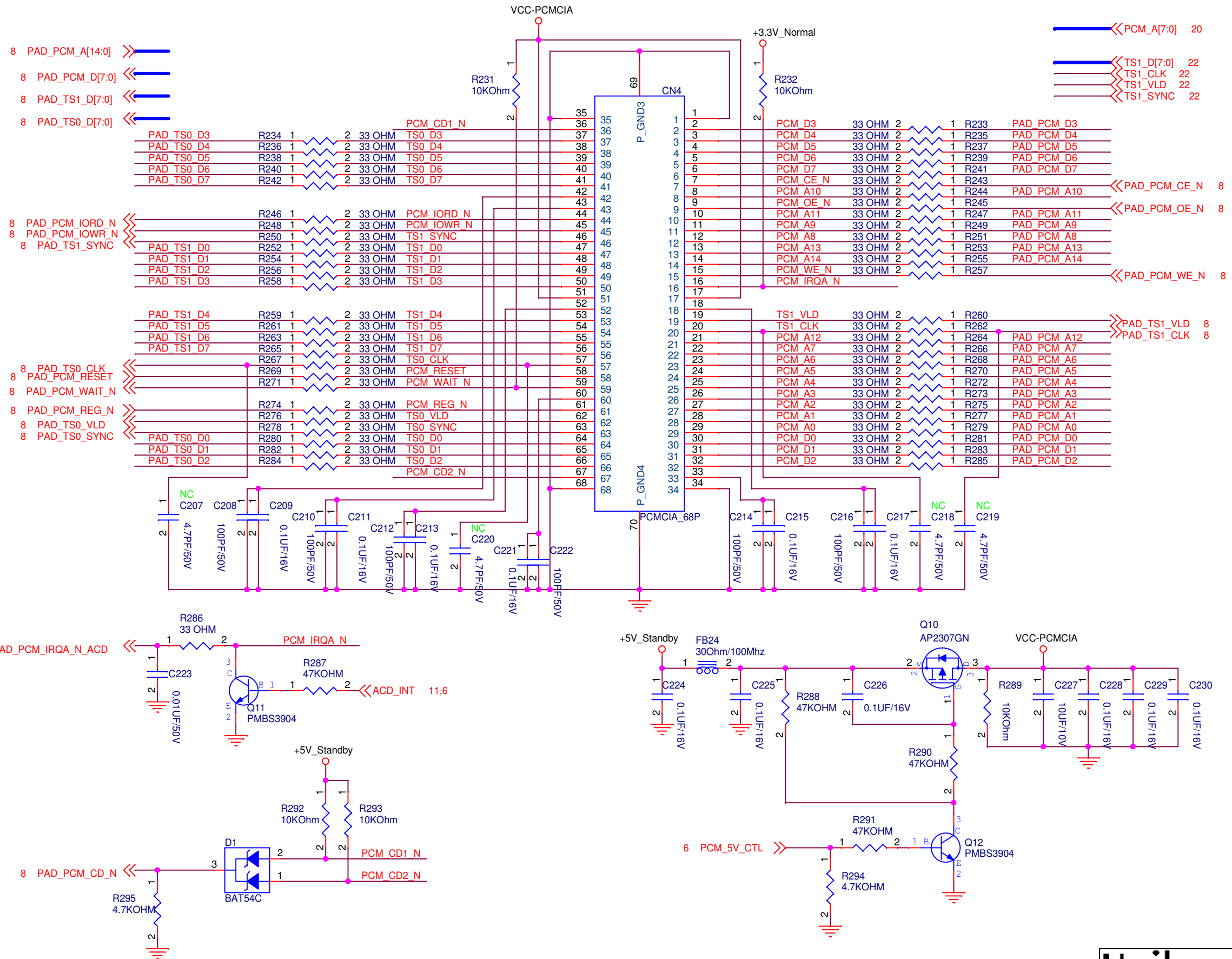


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6	A-TMBA1	RN7C	6	5	22 OHM	A-MBA1
6	A-TMA10	RN7B	4	3	22 OHM	A-MA10
6	A-TMCKE	RN7A	2	1	22 OHM	A-MCKE
6	A-TMA1	RN8D	8	7	22 OHM	A-MA1
6	A-TMA8	RN8C	6	5	22 OHM	A-MA8
6	A-TMA6	RN8B	4	3	22 OHM	A-MA6
6	A-TMA4	RN8A	2	1	22 OHM	A-MA4
6	A-TMCASB	RN9D	8	7	22 OHM	A-MCASB
6	A-TMRASB	RN9C	6	5	22 OHM	A-MRASB
6	A-TMA11	RN9B	4	3	22 OHM	A-MA11
6	A-TMA14	RN9A	2	1	22 OHM	A-MA14
6	A-TMA2	R185	2	1	22 OHM	A-MA2
6	A-TMA0	R186	2	1	22 OHM	A-MA0
6	A-TMBA2	RN10D	8	7	22 OHM	A-MBA2
6	A-TMBA0	RN10C	6	5	22 OHM	A-MBA0
6	A-TMA3	RN10B	4	3	22 OHM	A-MA3
6	A-TMA5	RN10A	2	1	22 OHM	A-MA5
6	A-TMA9	RN11D	8	7	22 OHM	A-MA9
6	A-TMA13	RN11C	6	5	22 OHM	A-MA13
6	A-TMA7	RN11B	4	3	22 OHM	A-MA7
6	A-TMRESETB	RN11A	2	1	22 OHM	A-MRESETB
6	A-TMODT	R187	2	1	22 OHM	A-MODT
6	A-TMWEB	R188	2	1	22 OHM	A-MWEB
6	A-TMCKB	R189	2	1	22 OHM	A-MCKB
6	A-TMCK	R190	2	1	22 OHM	A-MCK
6	A-TMDMU	RN12D	8	7	22 OHM	A-MDMU
6	A-TMDQL2	RN12C	6	5	22 OHM	A-MDQL2
6	A-TMDQL6	RN12B	4	3	22 OHM	A-MDQL6
6	A-TMDQL4	RN12A	2	1	22 OHM	A-MDQL4
6	A-TMDQU7	RN13D	8	7	22 OHM	A-MDQU7
6	A-TMDQU1	RN13C	6	5	22 OHM	A-MDQU1
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6	A-TMDQL7	RN14B	4	3	22 OHM	A-MDQL7
6	A-TMDQL5	RN14A	2	1	22 OHM	A-MDQL5
6	A-TMDQSLB	R192	2	1	22 OHM	A-MDQSLB
6	A-TMDQSL	R193	2	1	22 OHM	A-MDQSL
6	A-TMDQSUB	R194	2	1	22 OHM	A-MDQSUB
6	A-TMDQSU	R195	2	1	22 OHM	A-MDQSU
6	A-TMDQU2	R196	2	1	22 OHM	A-MDQU2
6	A-TMDQU6	RN15D	8	7	22 OHM	A-MDQU6
6	A-TMDQU4	RN15C	6	5	22 OHM	A-MDQU4
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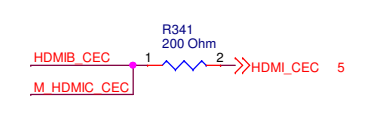
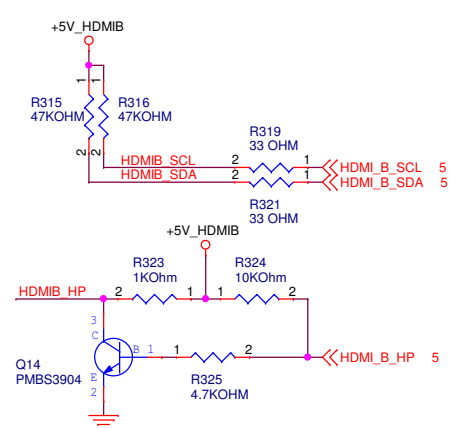
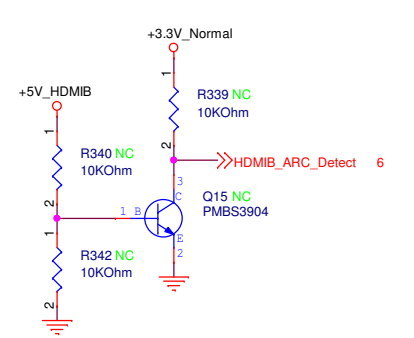
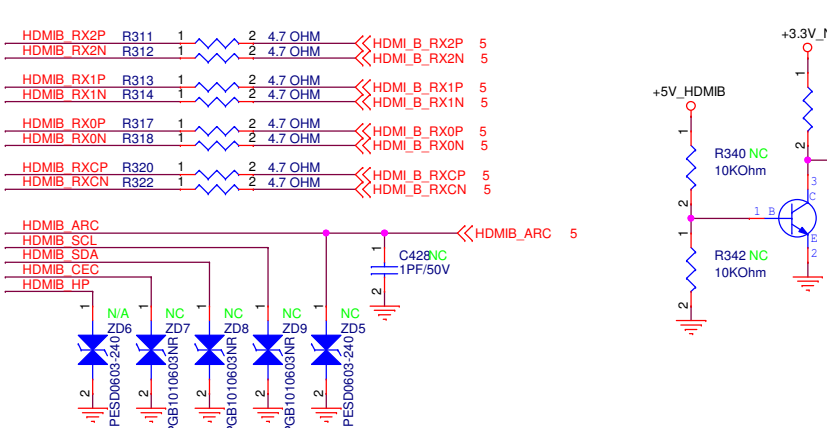
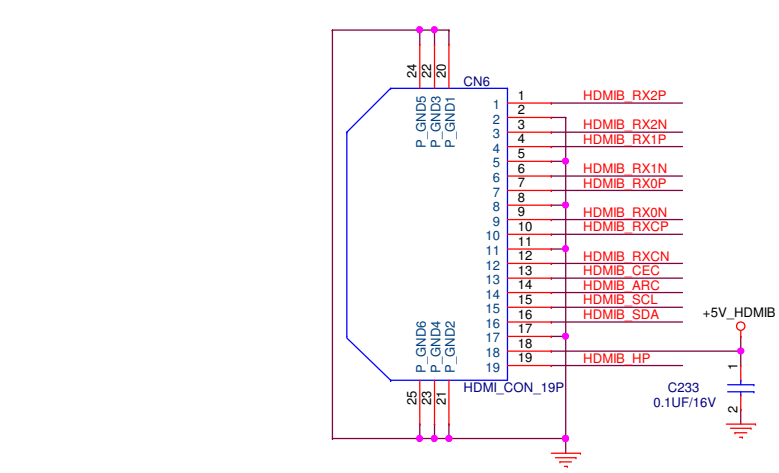
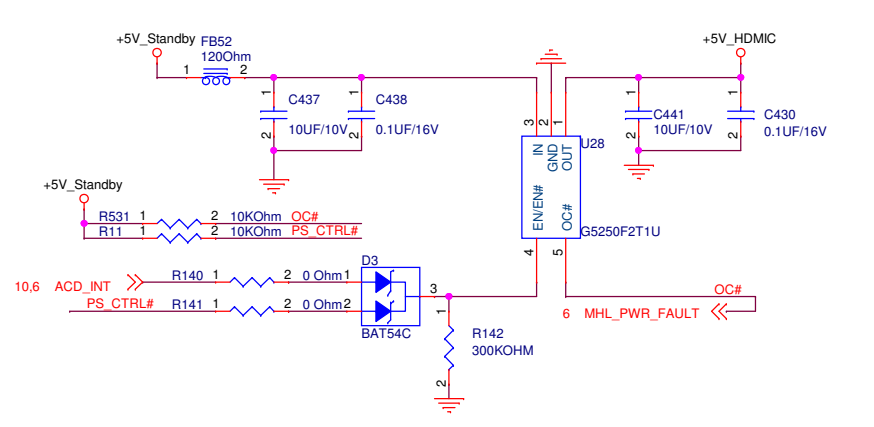
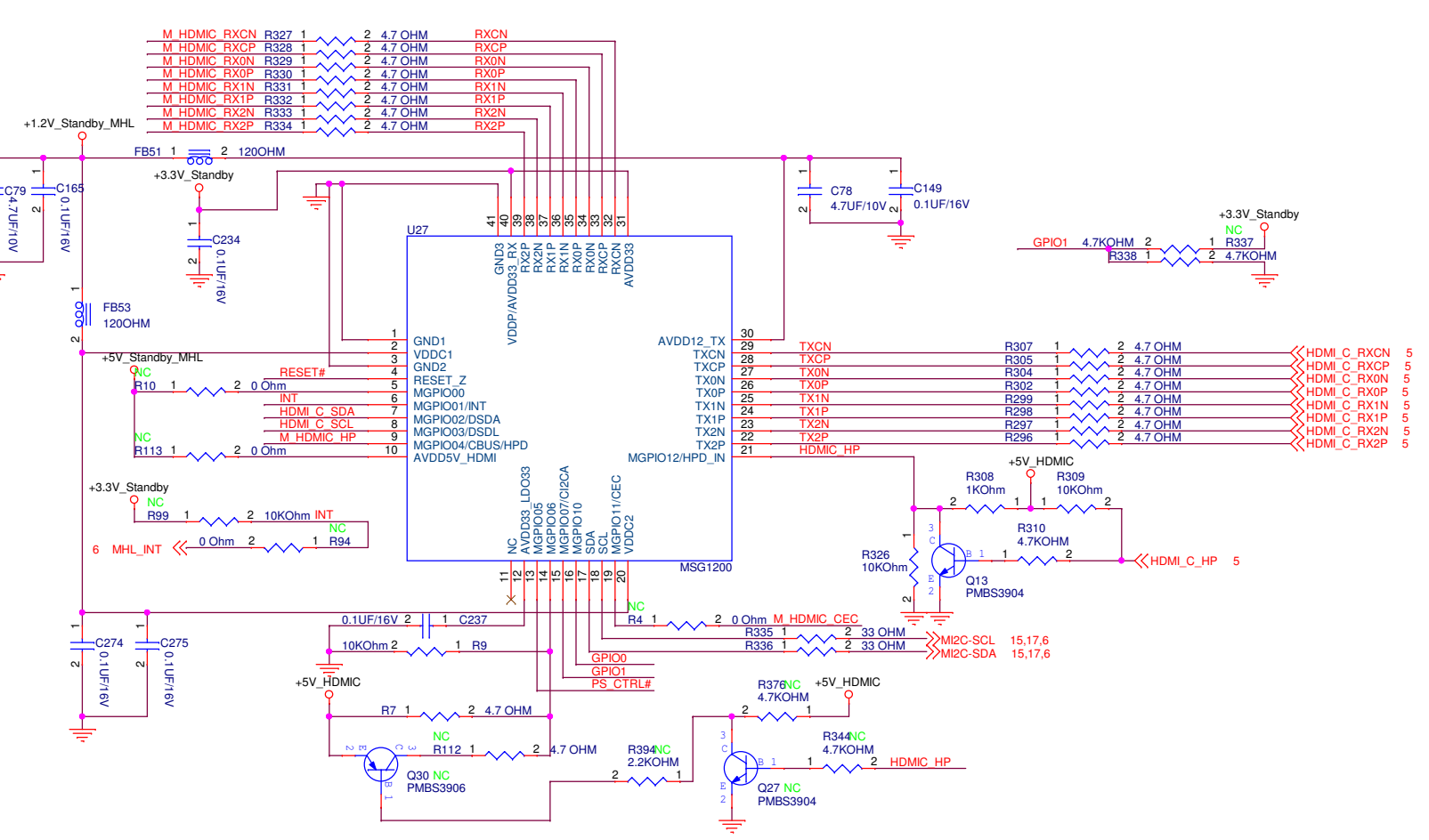
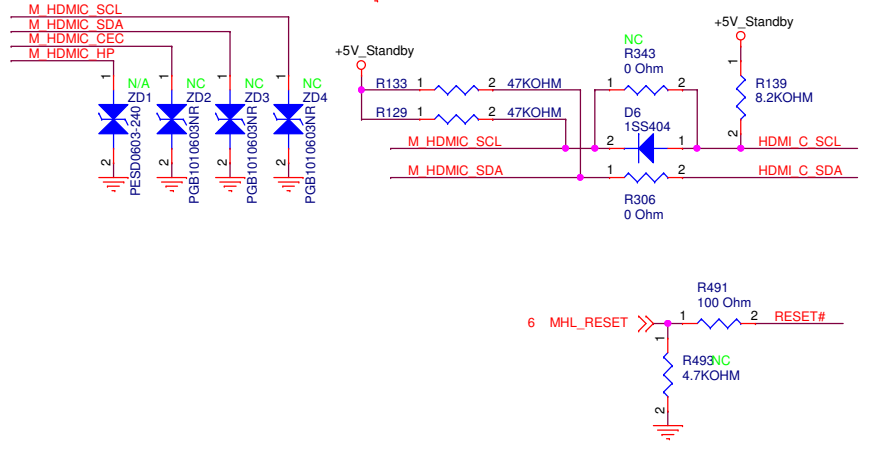
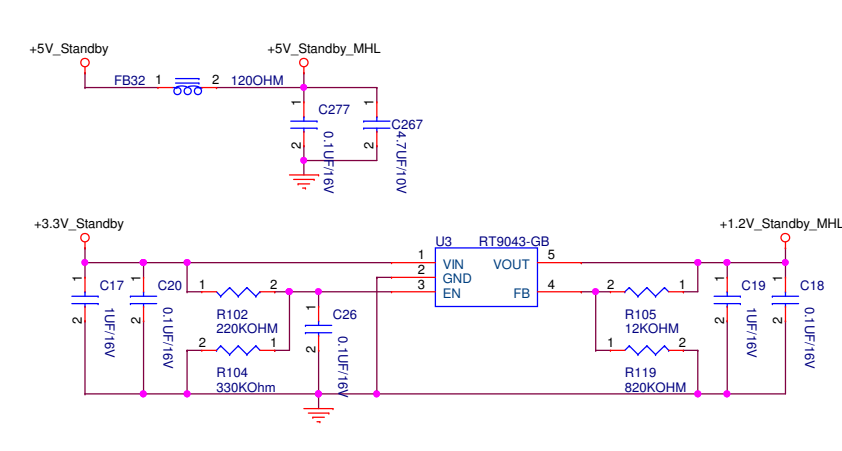
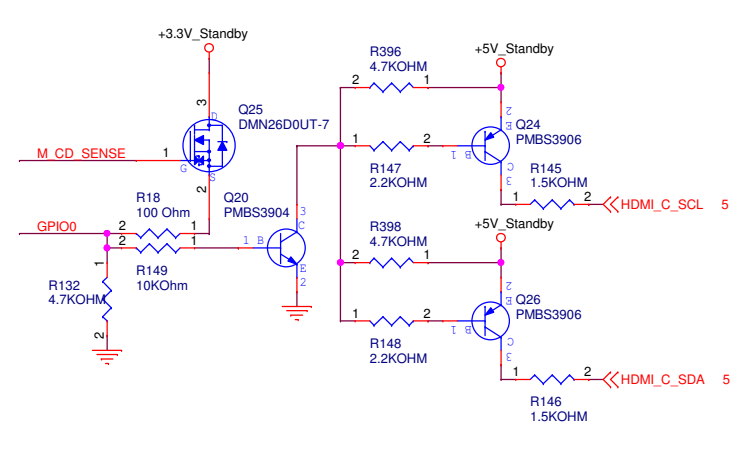
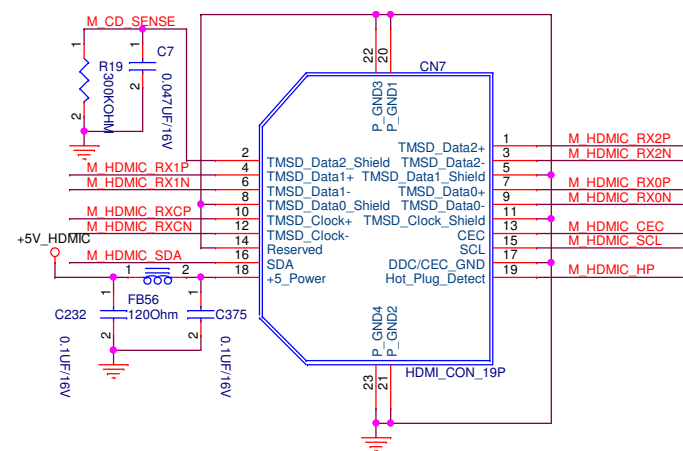


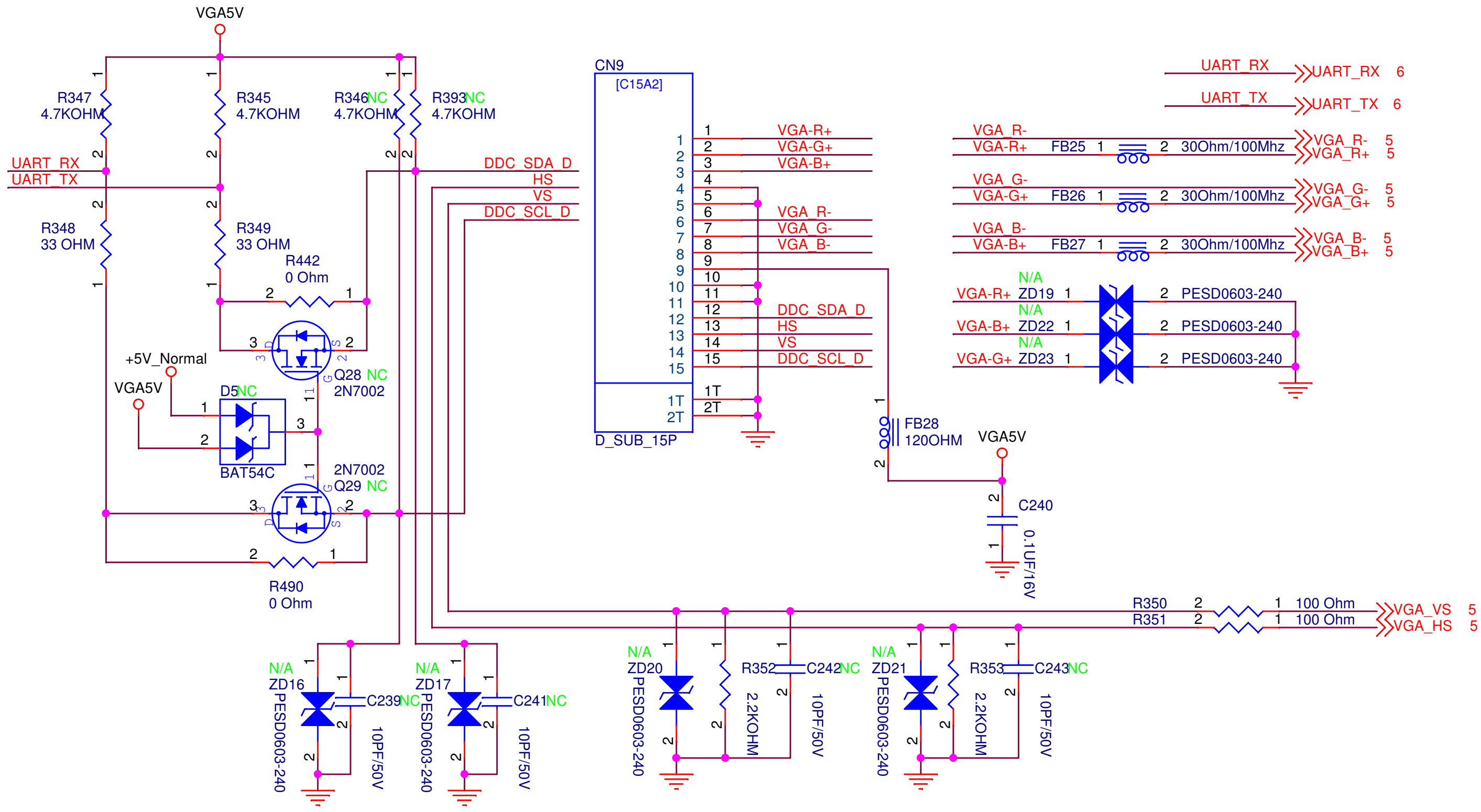
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6	B-TMA10	NC	RN18A	2	1	B-MA10
6	B-TMWEB	NC	RN18D	8	7	B-MWEB
6	B-TMA1	NC	RN17B	4	3	B-MA1
6	B-TMA8	NC	RN17A	2	1	B-MA8
6	B-TMA6	NC	RN16D	8	7	B-MA6
6	B-TMA4	NC	RN16C	6	5	B-MA4
6	B-TMCASB	NC	RN18C	6	5	B-MCASB
6	B-TMRASB	NC	RN18B	4	3	B-MRASB
6	B-TMA11	NC	RN17D	8	7	B-MA11
6	B-TMA14	NC	RN17C	6	5	B-MA14
6	B-TMBA2	NC	R197	2	1	B-MBA2
6	B-TMA0	NC	R198	2	1	B-MA0
6	B-TMA2	NC	RN19A	2	1	B-MA2
6	B-TMBA0	NC	RN19D	8	7	B-MBA0
6	B-TMA3	NC	RN19C	6	5	B-MA3
6	B-TMA5	NC	RN19B	4	3	B-MA5
6	B-TMA9	NC	RN20C	6	5	B-MA9
6	B-TMA13	NC	RN20B	4	3	B-MA13
6	B-TMA7	NC	RN20D	8	7	B-MA7
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6	B-TMODT	NC	R201	2	1	B-MODT
6	B-TMCKE	NC	R202	2	1	B-MCKE
6	B-TMCK	NC	R203	2	1	B-MCK
6	B-TMCKB	NC	R204	2	1	B-MCKB
6	B-TMDQL0	NC	RN21D	8	7	B-MDQL0
6	B-TMDQL2	NC	RN21C	6	5	B-MDQL2
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6	B-TMDQU5	NC	RN22D	8	7	B-MDQU5
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6	B-TMDML	NC	RN23D	8	7	B-MDML
6	B-TMDQL7	NC	RN23A	2	1	B-MDQL7
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6	B-TMDQSL	NC	R207	2	1	B-MDQSL
6	B-TMDQSUB	NC	R208	2	1	B-MDQSUB
6	B-TMDQSU	NC	R209	2	1	B-MDQSU
6	B-TMDMU	NC	R210	2	1	B-MDMU
6	B-TMDQU6	NC	RN24B	4	3	B-MDQU6
6	B-TMDQU4	NC	RN24D	8	7	B-MDQU4
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6	B-TMDQL1	NC	RN23B	4	3	B-MDQL1



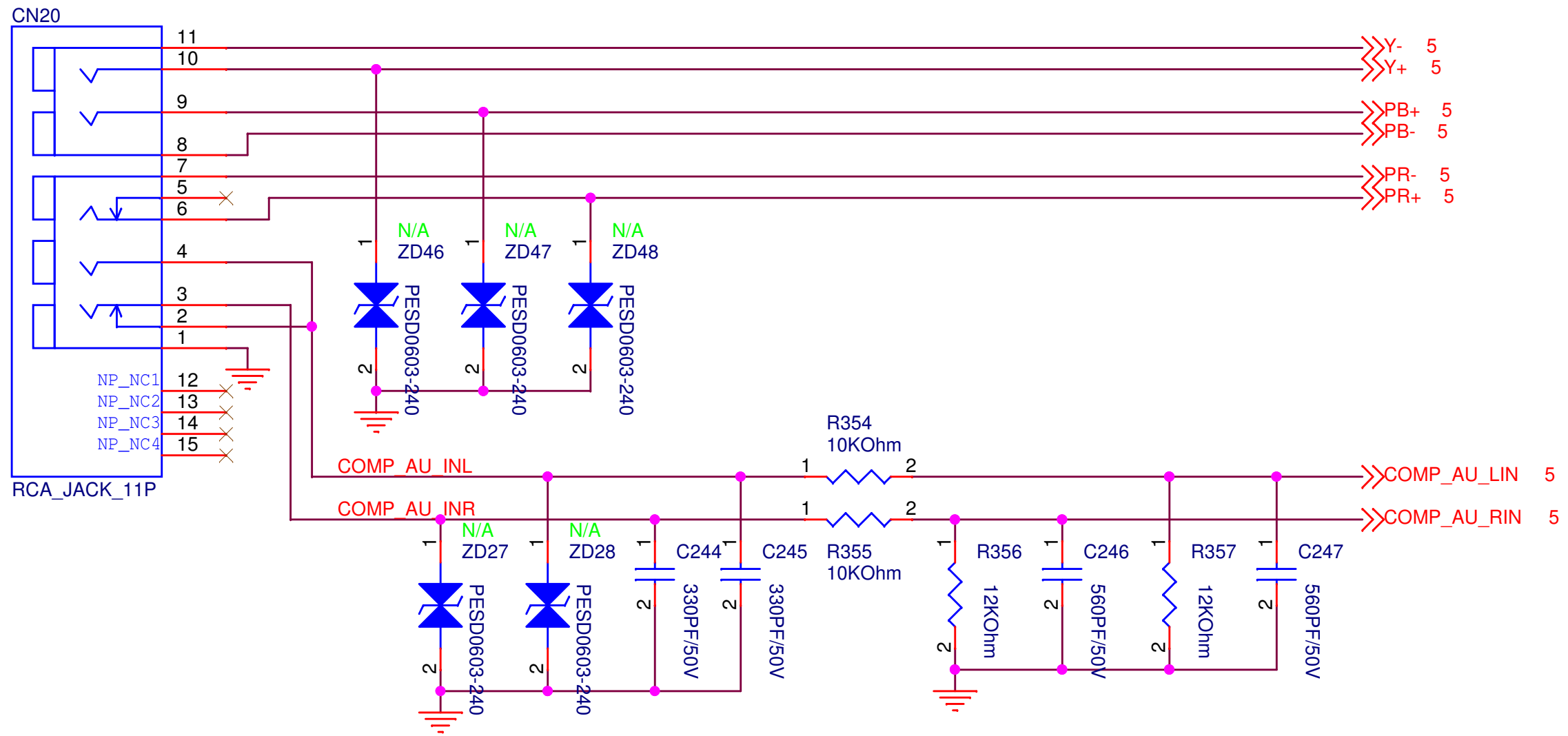


Unihan		Title : MSD8841	
MAIN BOARD		Engineer: Jeff Y Hsiao/Jerry Lo	
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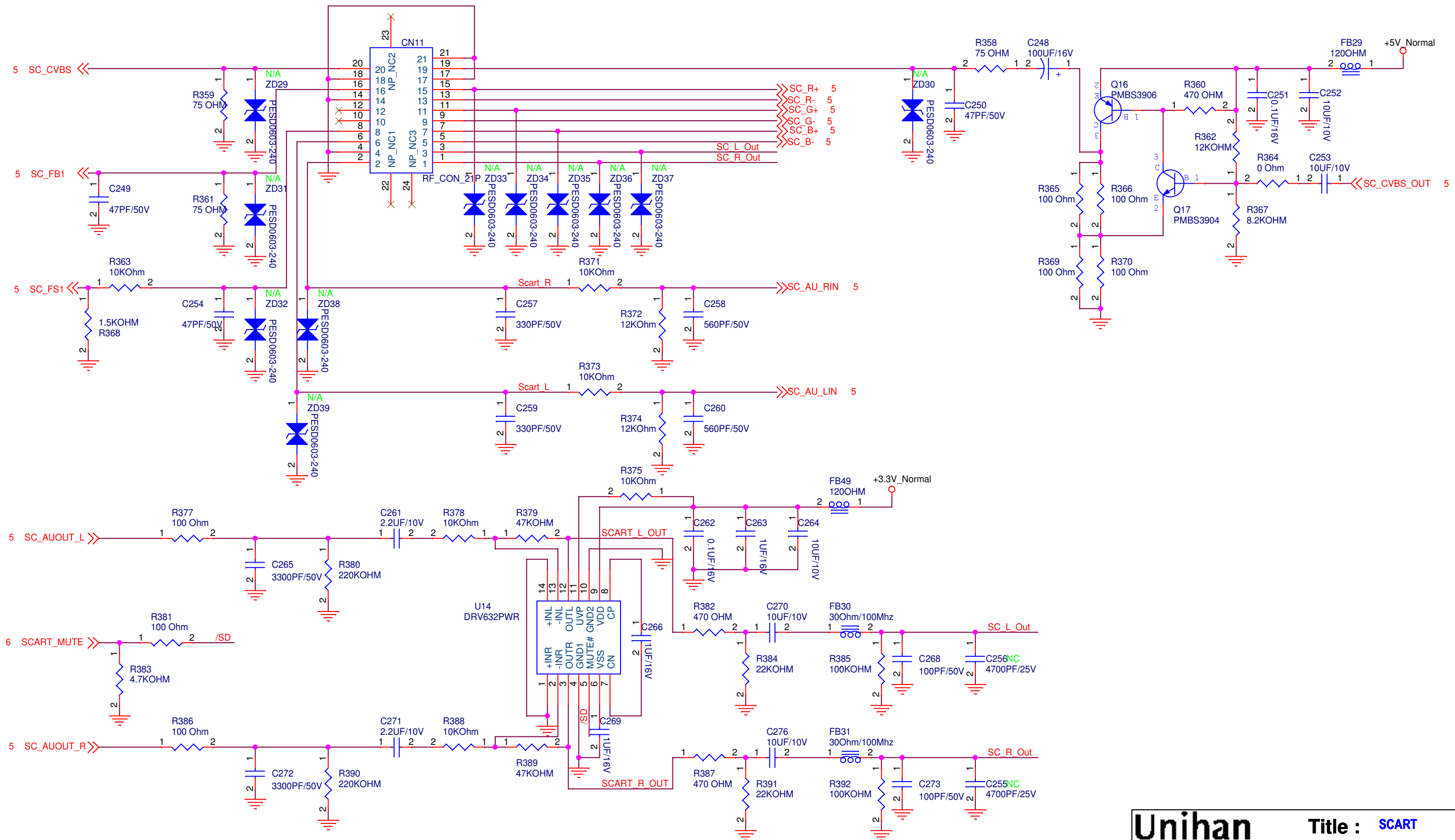




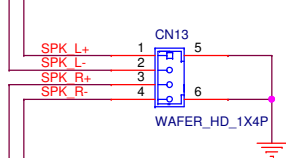
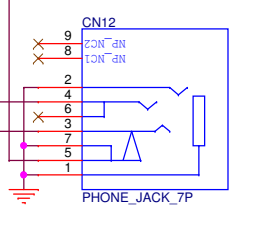
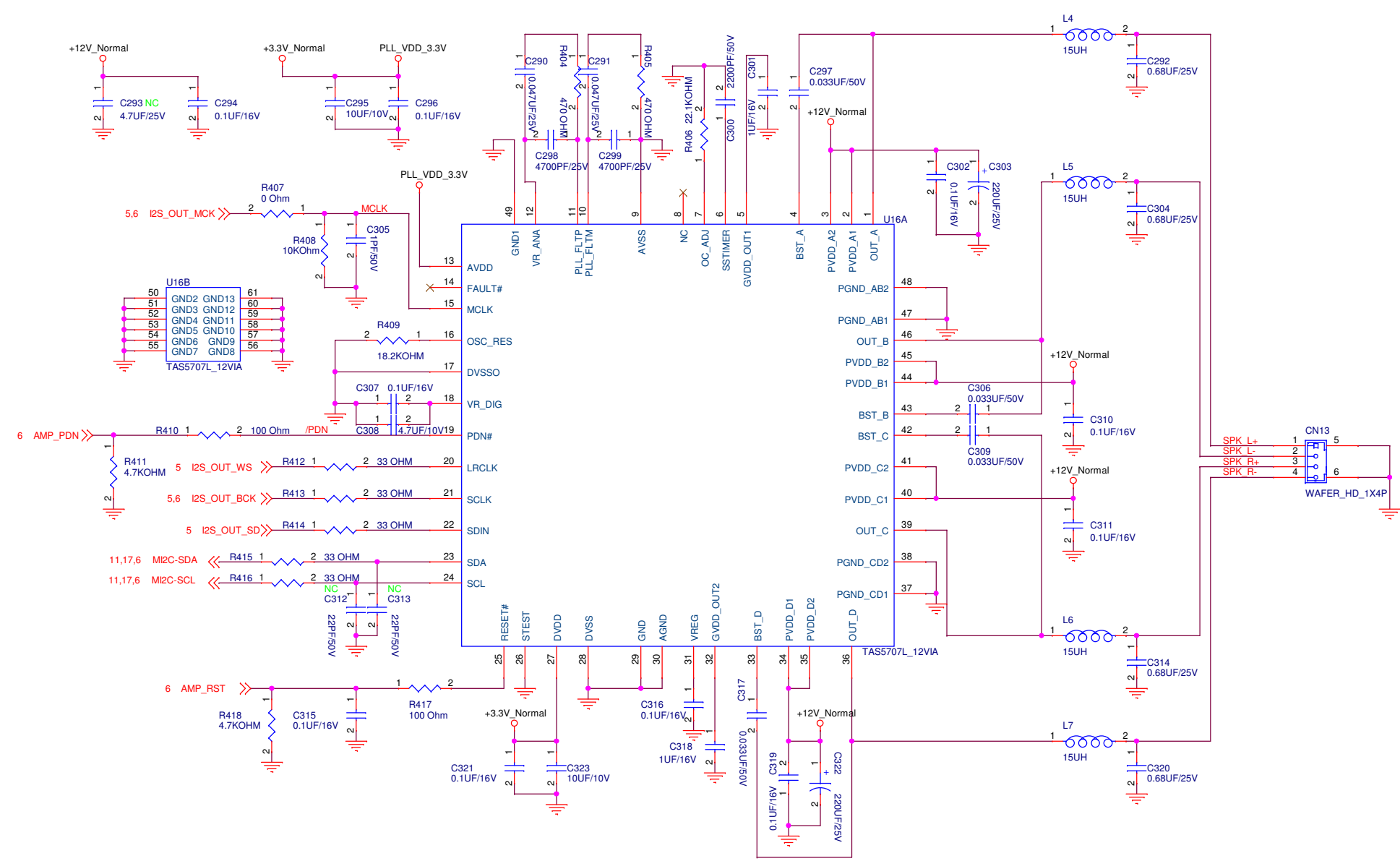
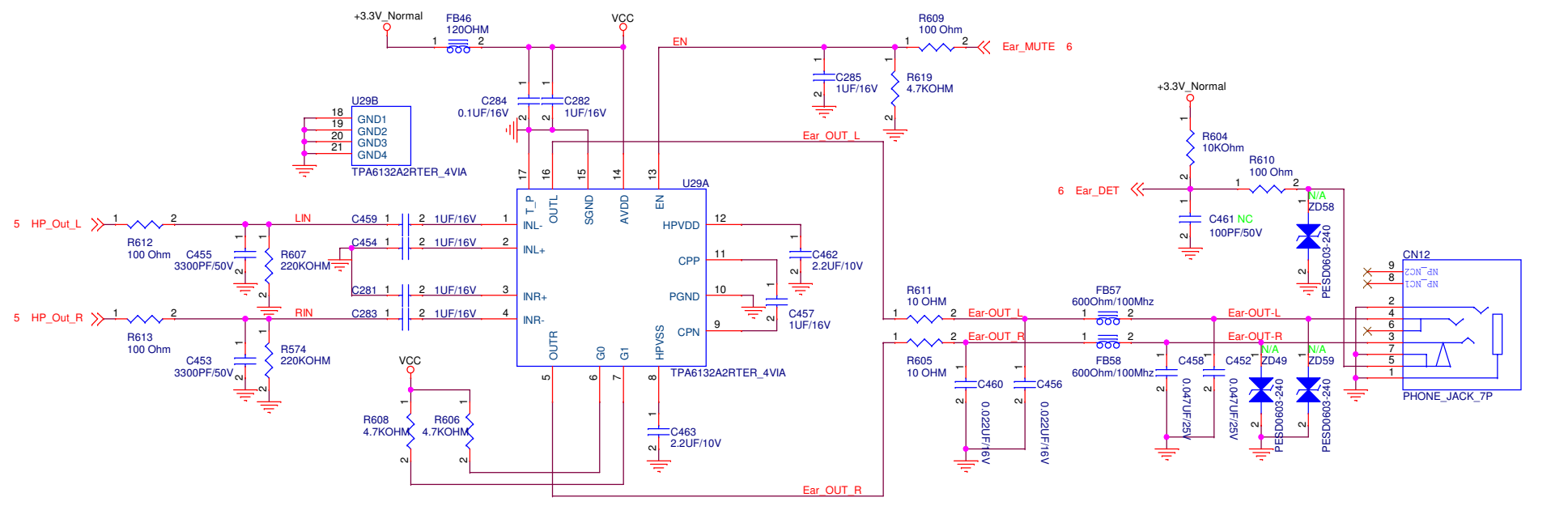
Unihan		Title : VGA	
MAIN BOARD		Engineer: <i>Jeff Y Hsiao/Jerry Lo</i>	
Size A	Project Name L2300	Rev 1.03a	
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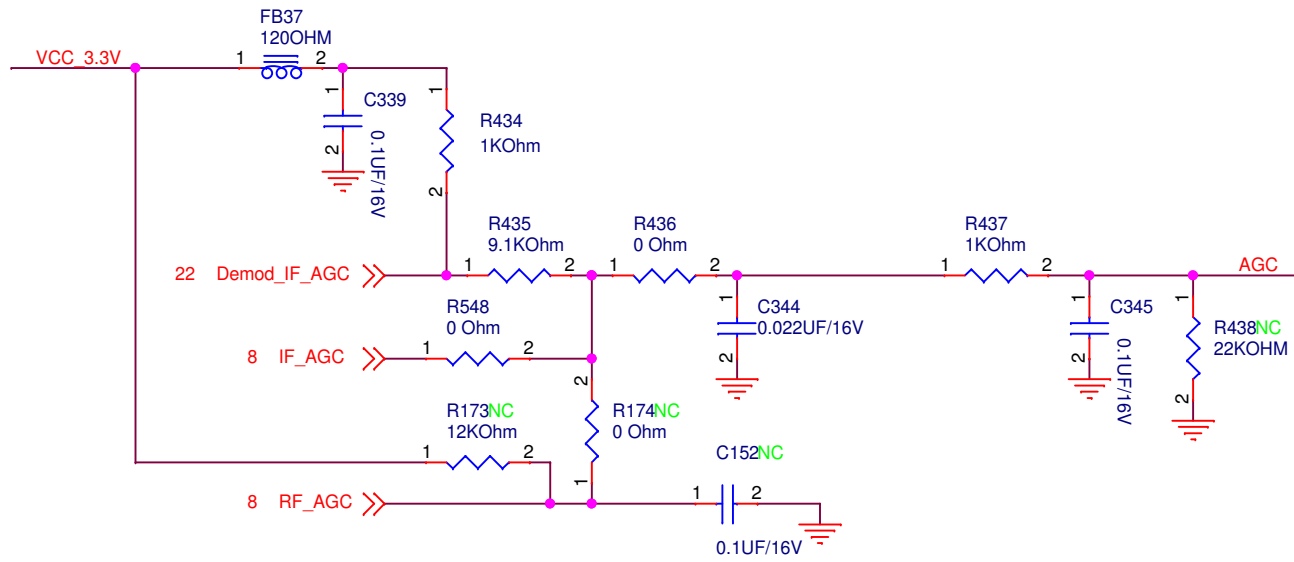
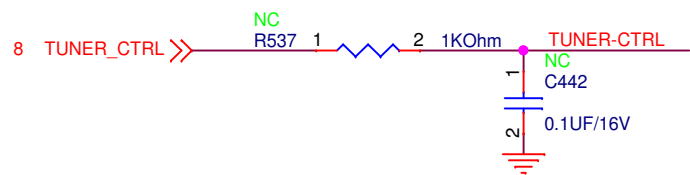
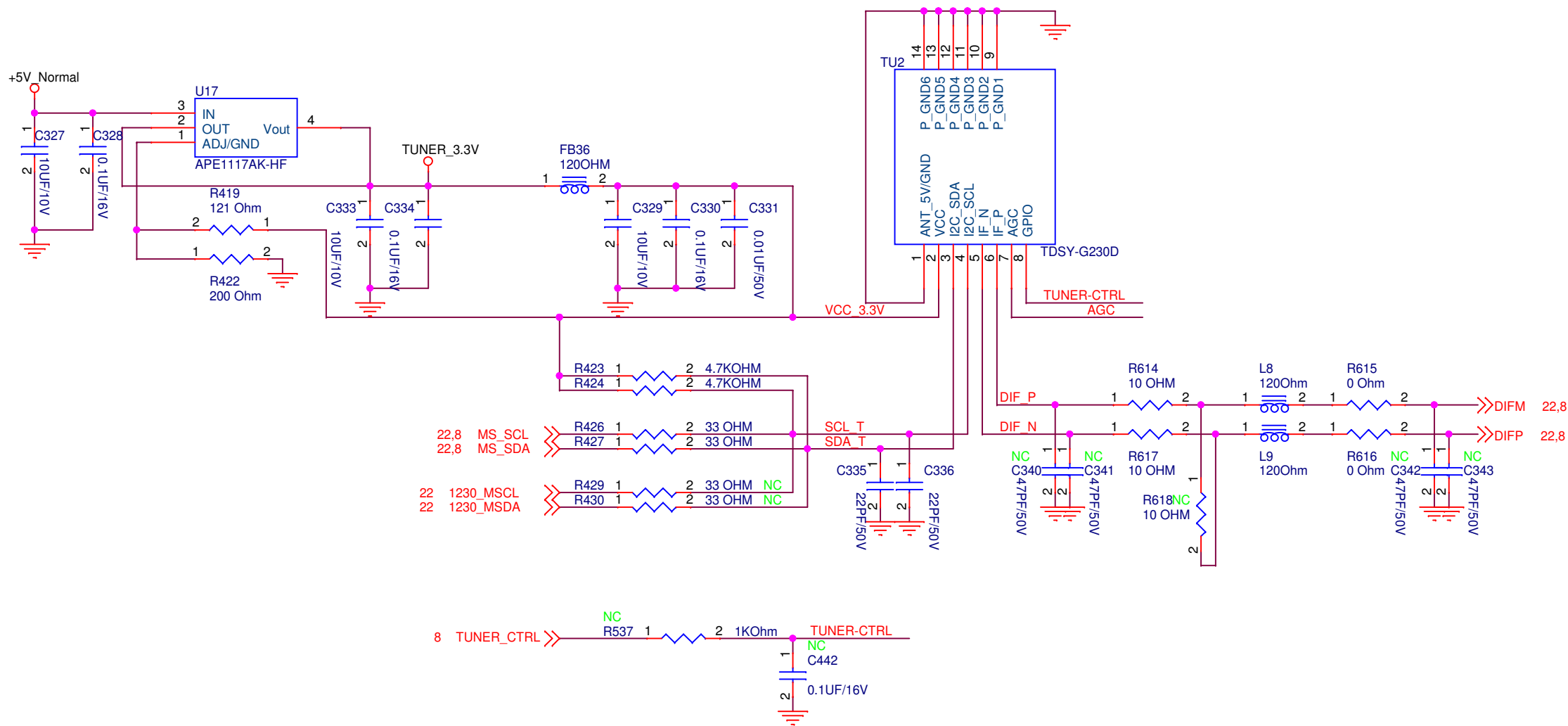


UniHan		Title : COMPONENT	
MAIN BOARD		Engineer: Jeff Y Hsiao/Jerry Lo	
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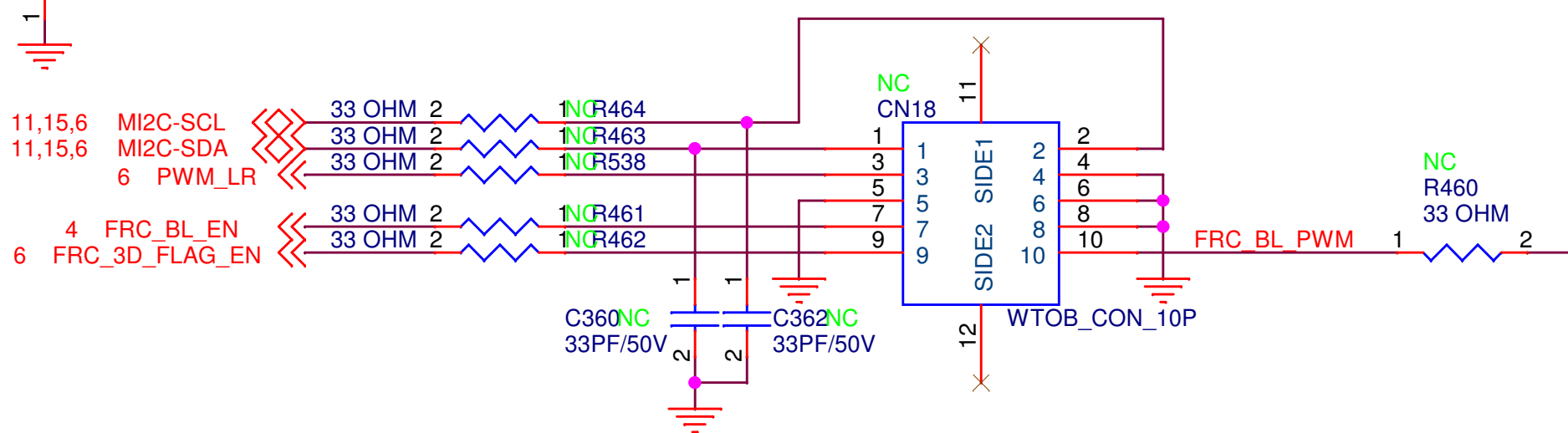
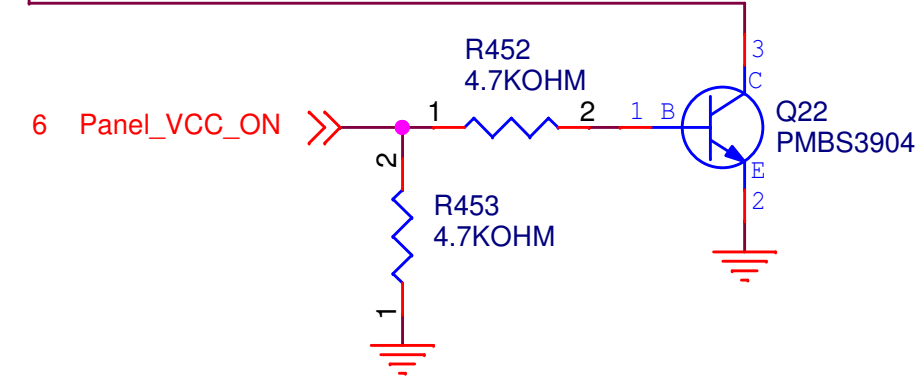
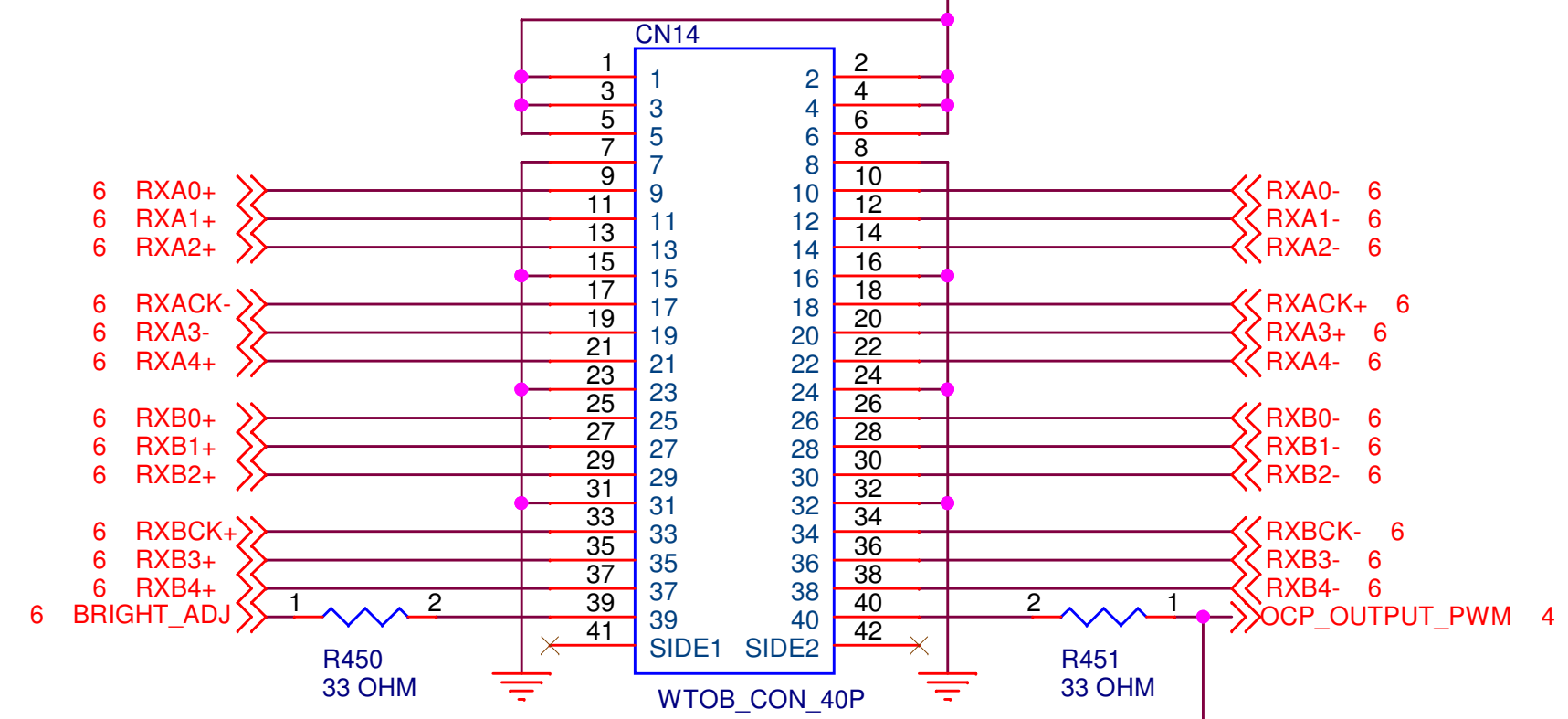
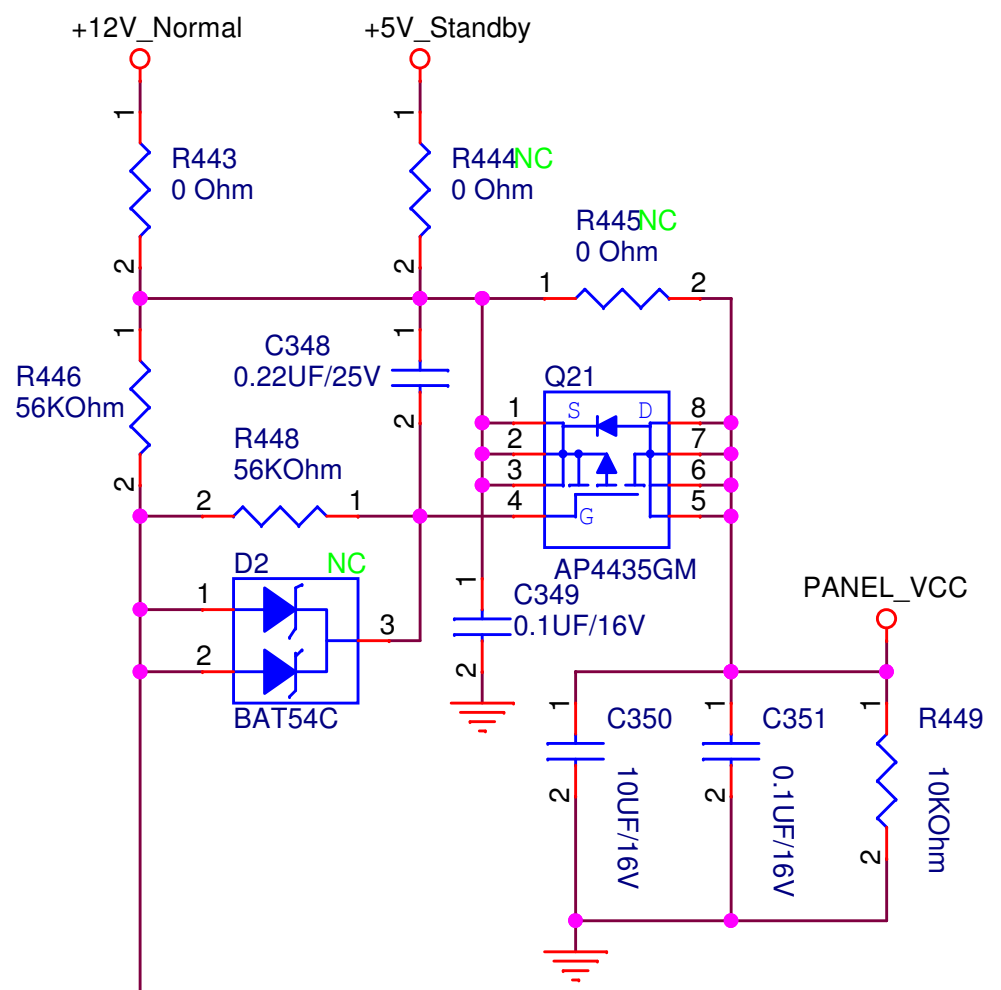


Unihan		Title : SCART	
MAIN BOARD		Engineer: <i>Jeff Y Hsiao/Jerry Lo</i>	
Size B	Project Name L2300	Rev 1.03a	
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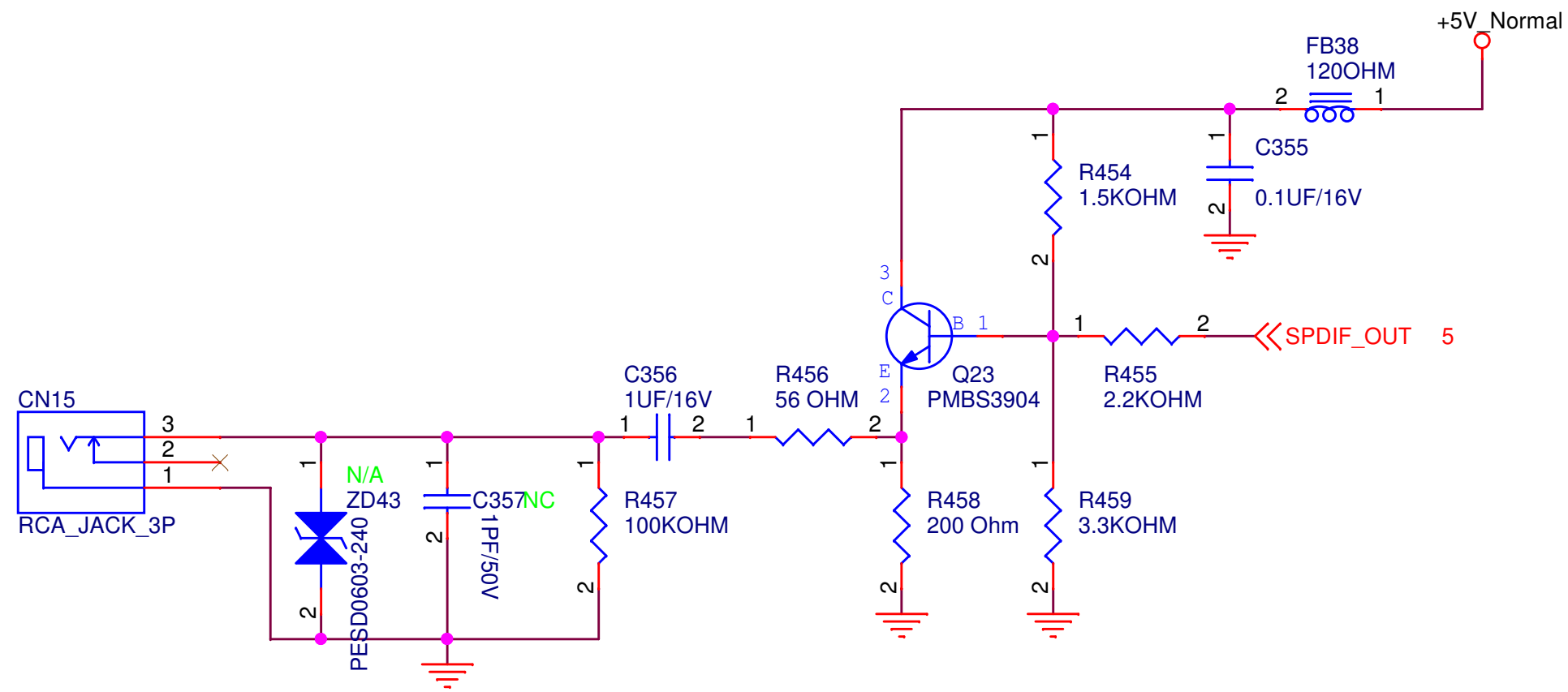




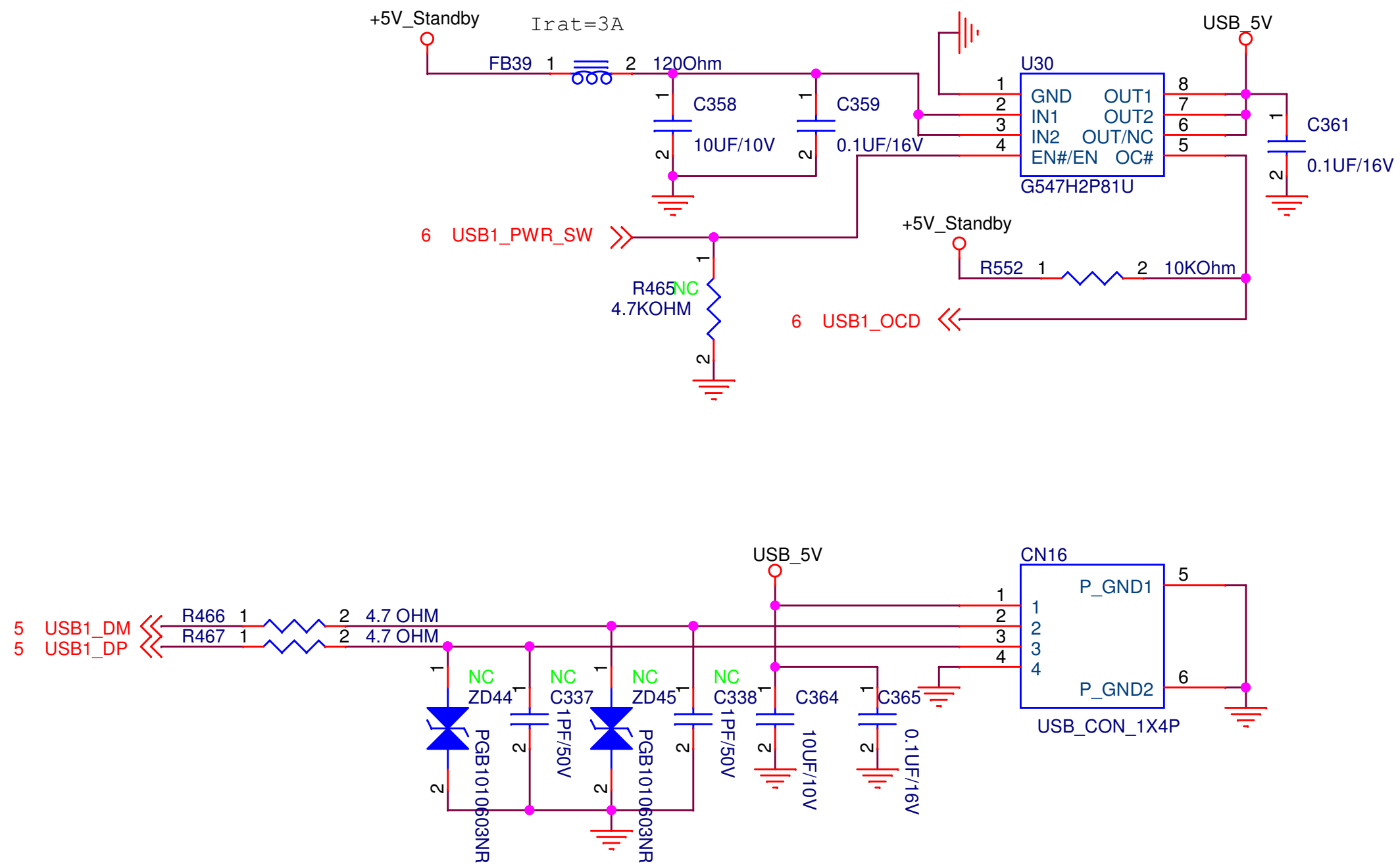
Unihan		Title : Tuner	
MAIN BOARD		Engineer: Jeff Y Hsiao/Jerry Lo	
Size B	Project Name L2300	Rev 1.03a	
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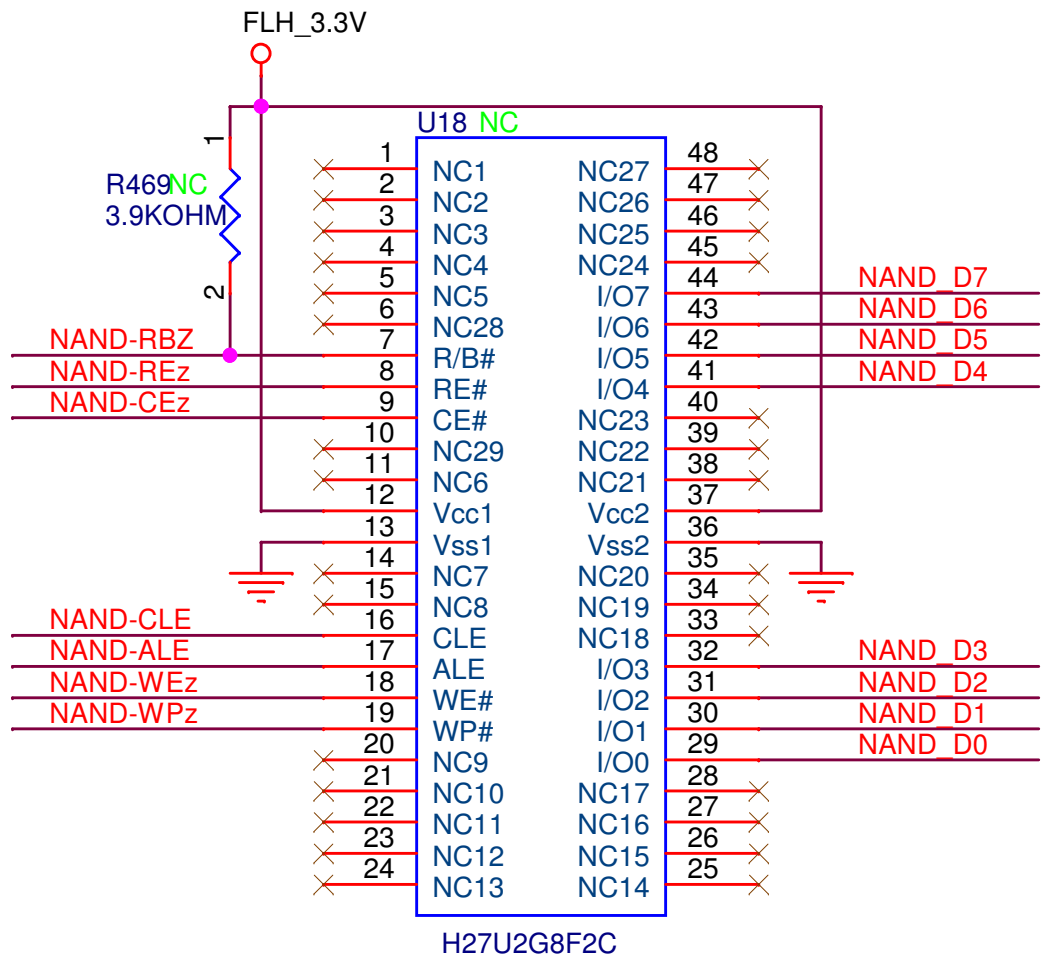
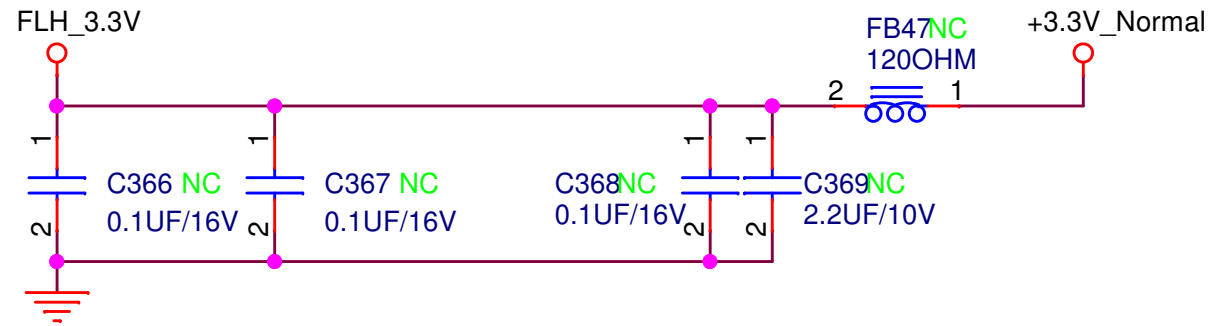
Unihan		Title : LVDS Interface	
MAIN BOARD		Engineer: Jeff Y Hsiao/Jerry Lo	
Size A	Project Name L2300	Rev 1.03a	
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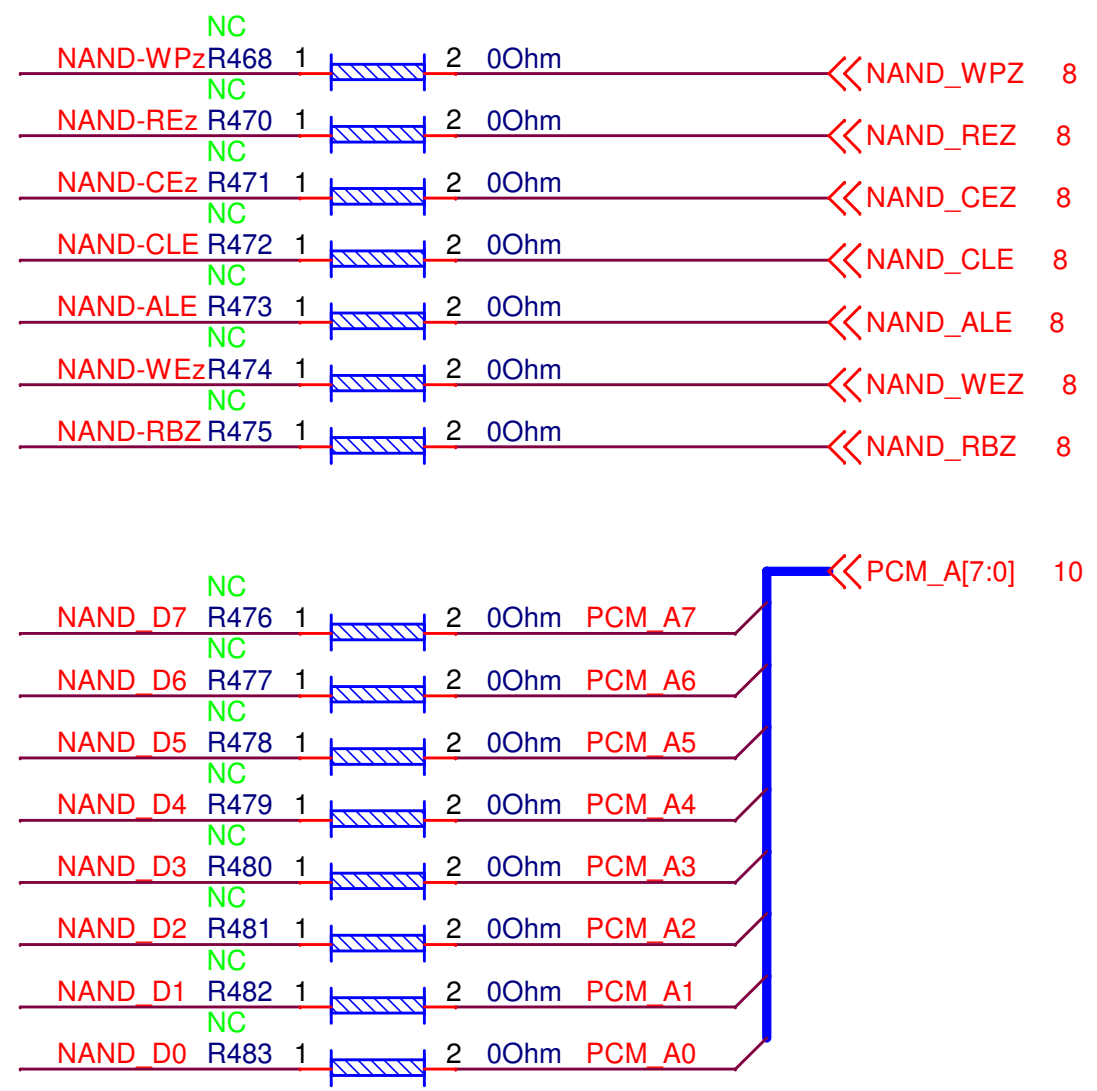
Unihan		Title : SPDIF OUT	
MAIN BOARD		Engineer: <i>Jeff Y Hsiao/Jerry Lo</i>	
Size A	Project Name L2300	Rev 1.03a	
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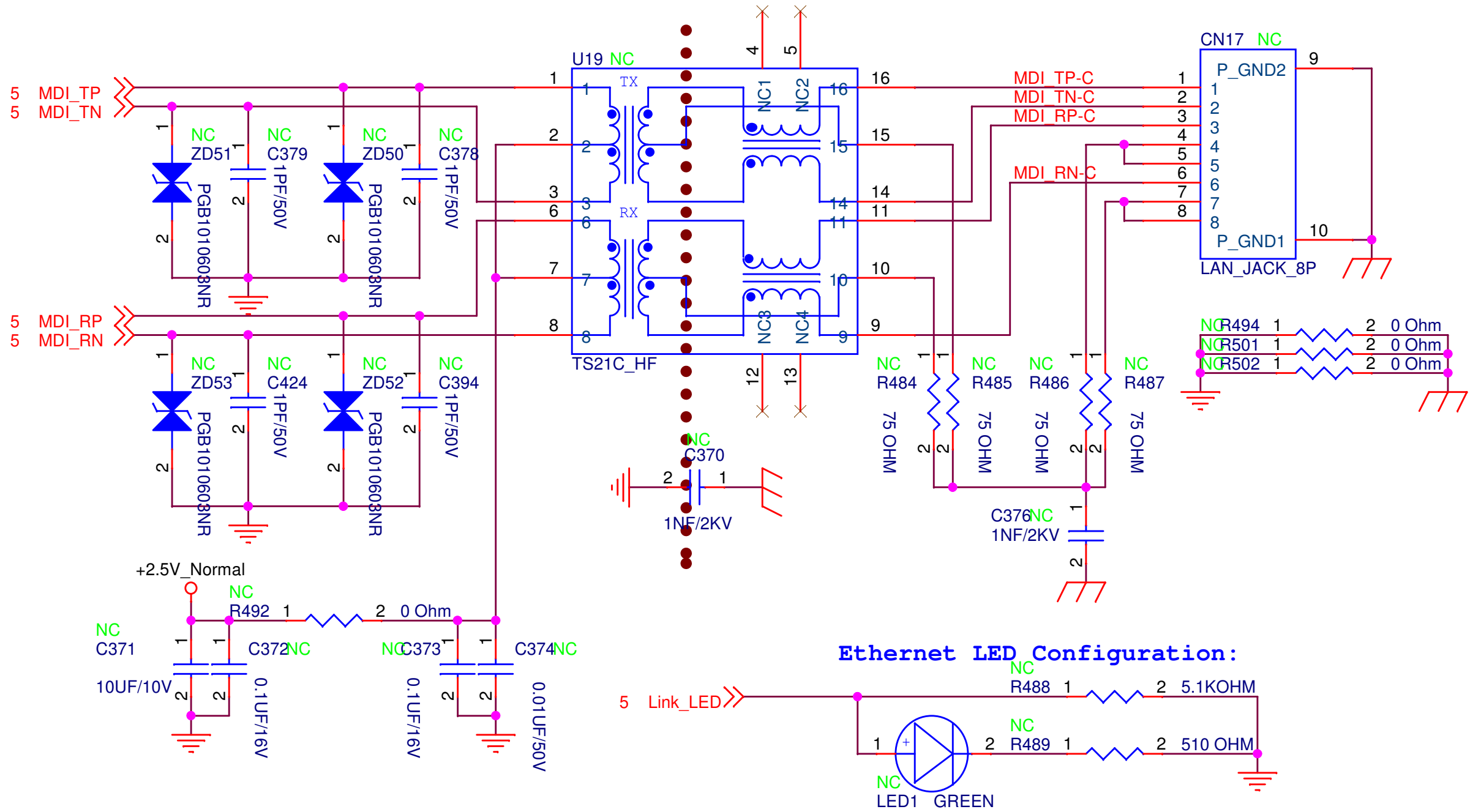
Unihan		Title : USB	
MAIN BOARD		Engineer: <i>Jeff Y Hsiao/Jerry Lo</i>	
Size A	Project Name L2300	Rev 1.03a	
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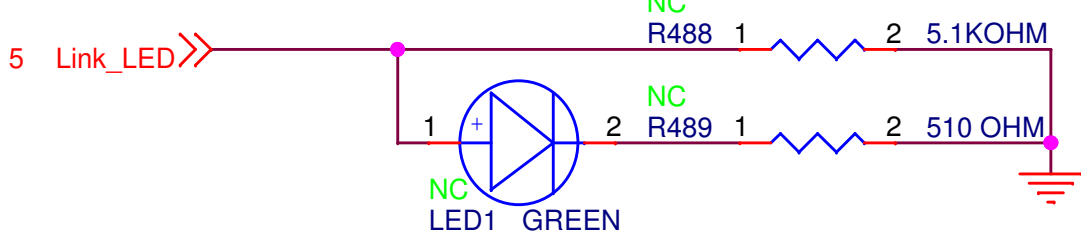
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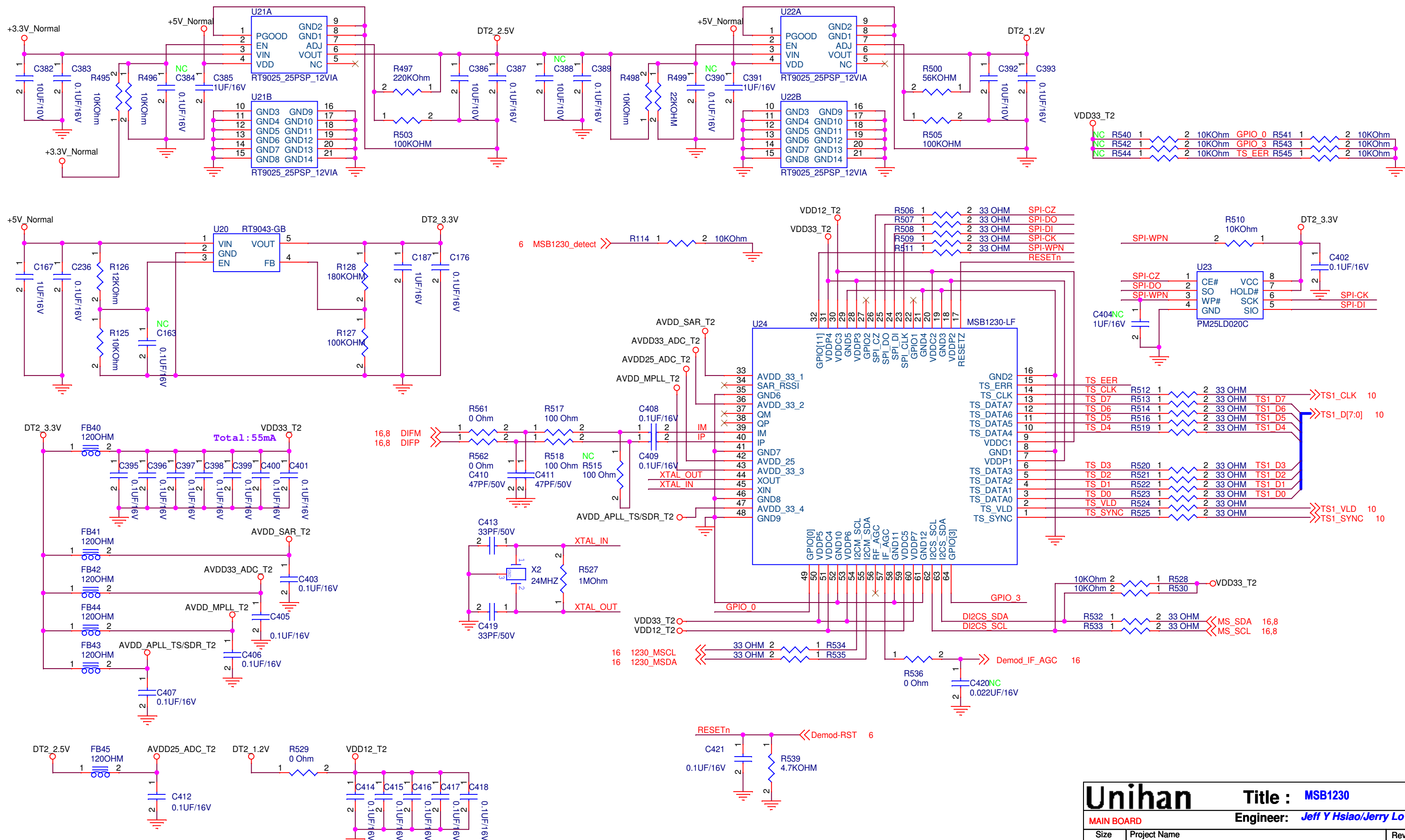
UniHan		Title : NAND FLASH	
MAIN BOARD		Engineer: Jeff Y Hsiao/Jerry Lo	
Size A	Project Name L2300	Rev 1.03a	
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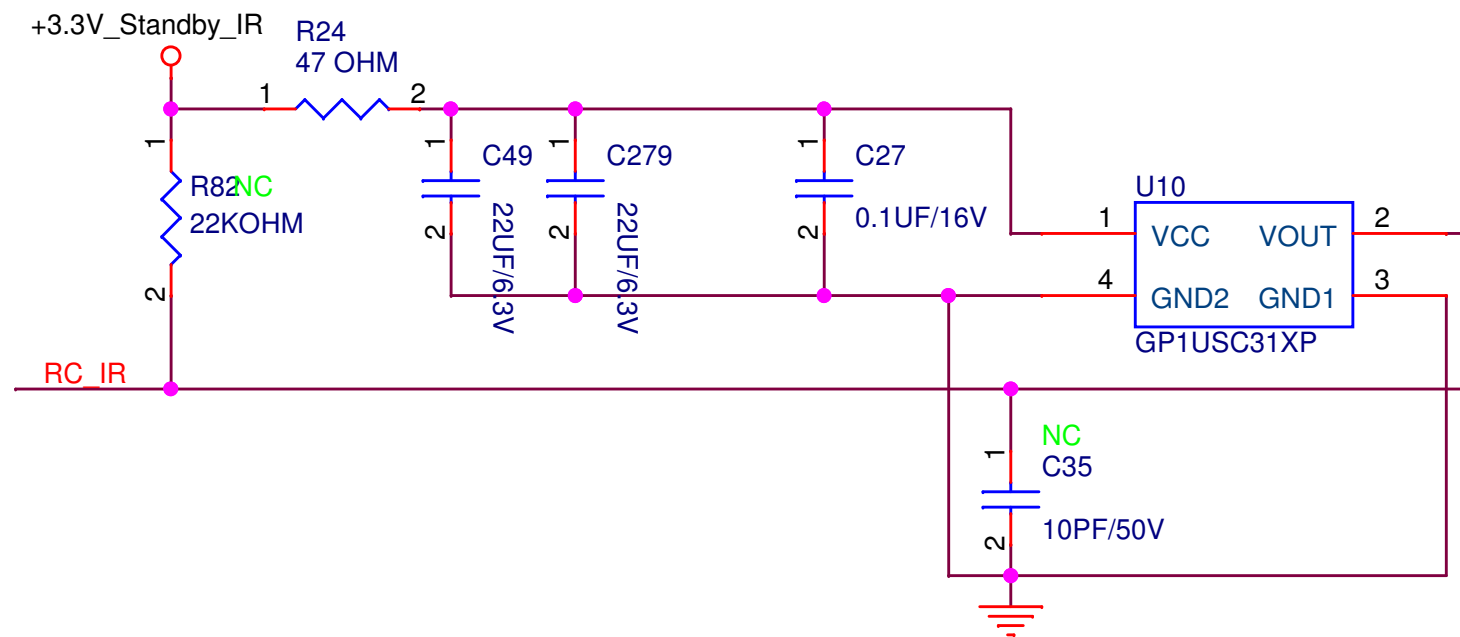
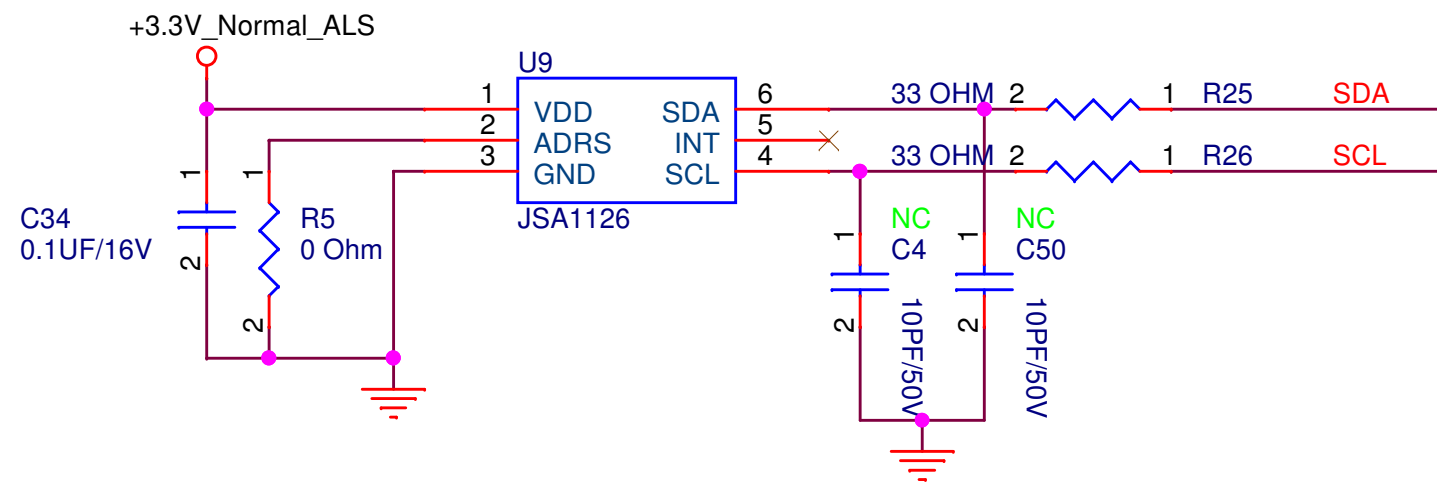
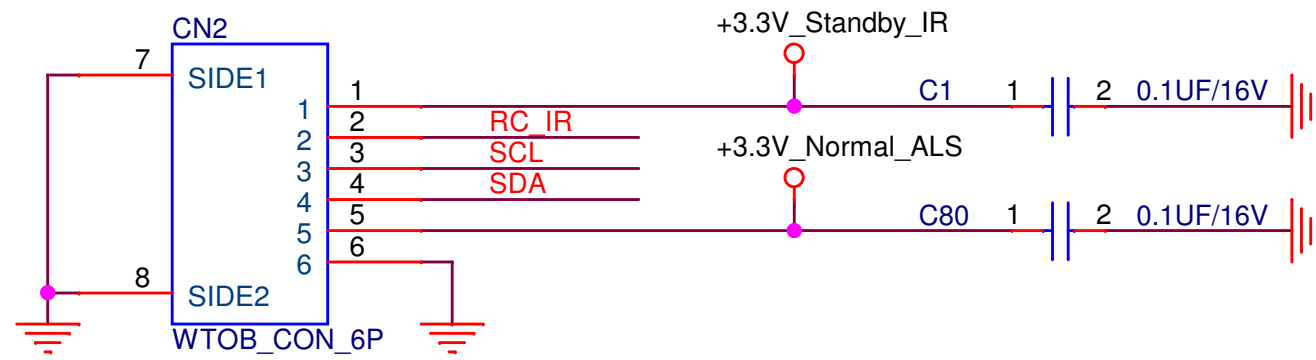
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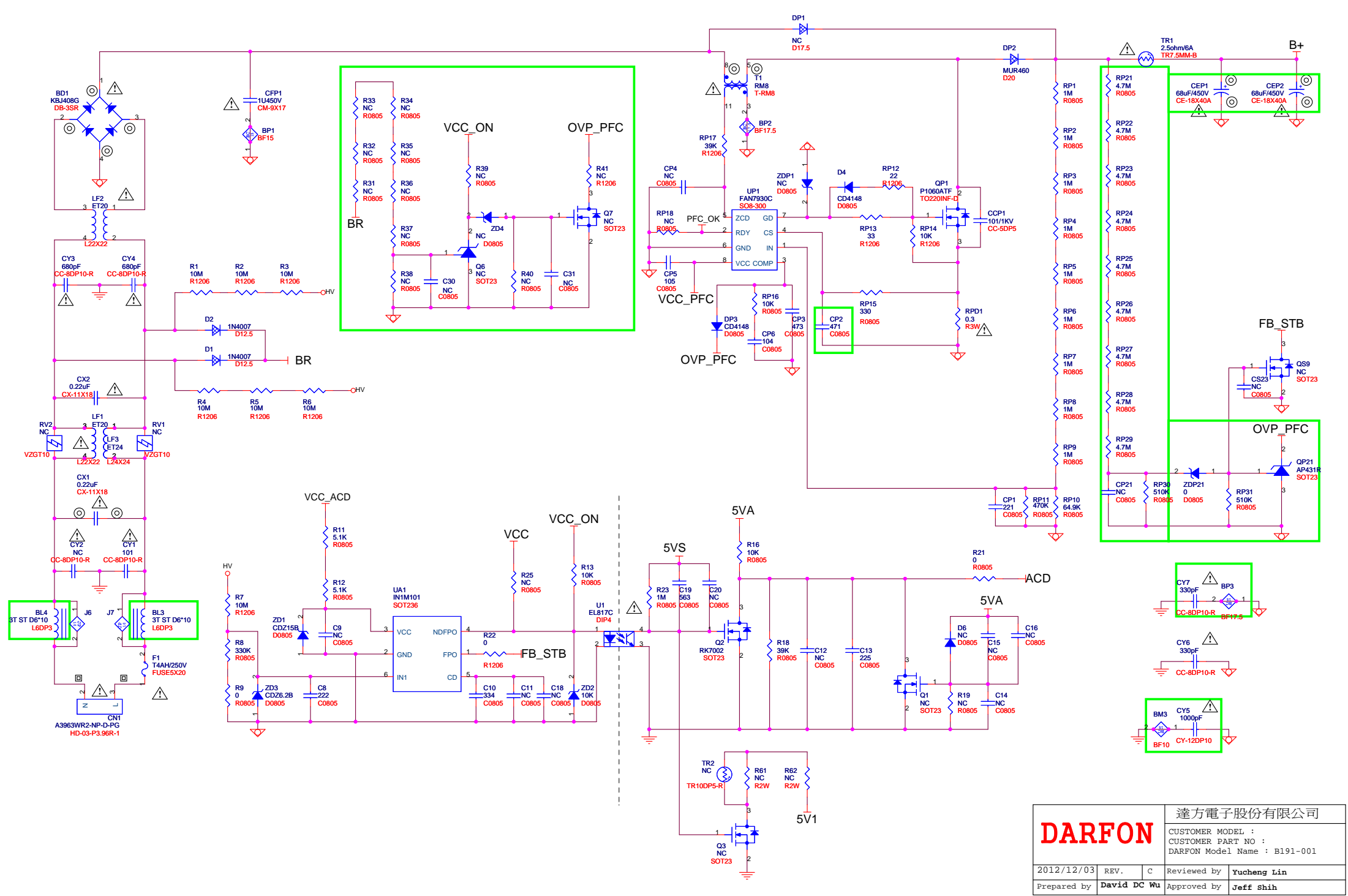
UniHan		Title : Ethernet Conn	
MAIN BOARD		Engineer: <i>Jeff Y Hsiao/Jerry Lo</i>	
Size A	Project Name L2300	Rev 1.03a	
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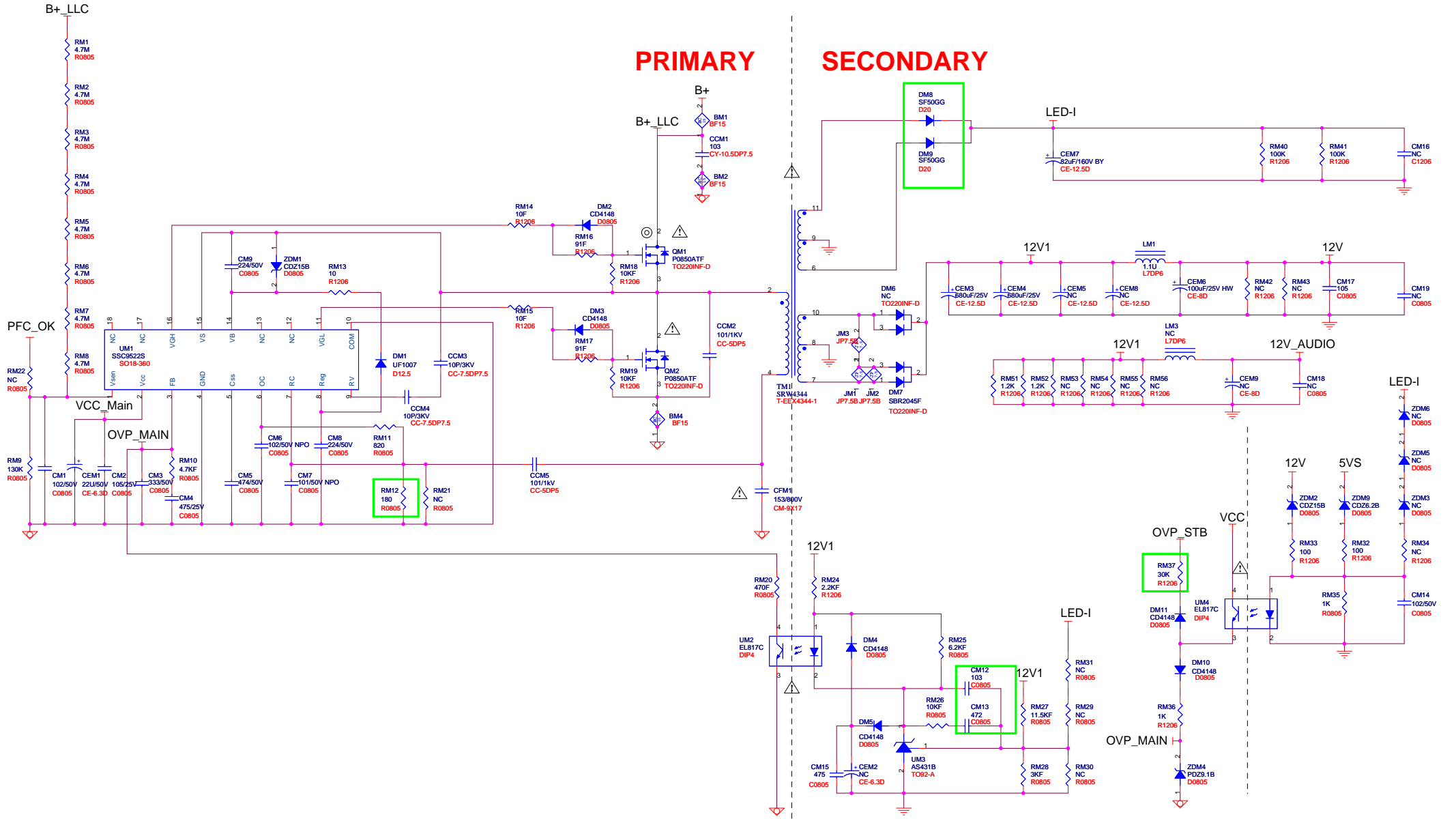
UniHan		Title : MSB1230	
MAIN BOARD		Engineer: Jeff Y Hsiao/Jerry Lo	
Size B	Project Name L2300	Rev 1.03a	
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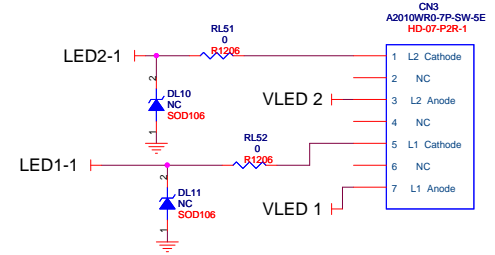
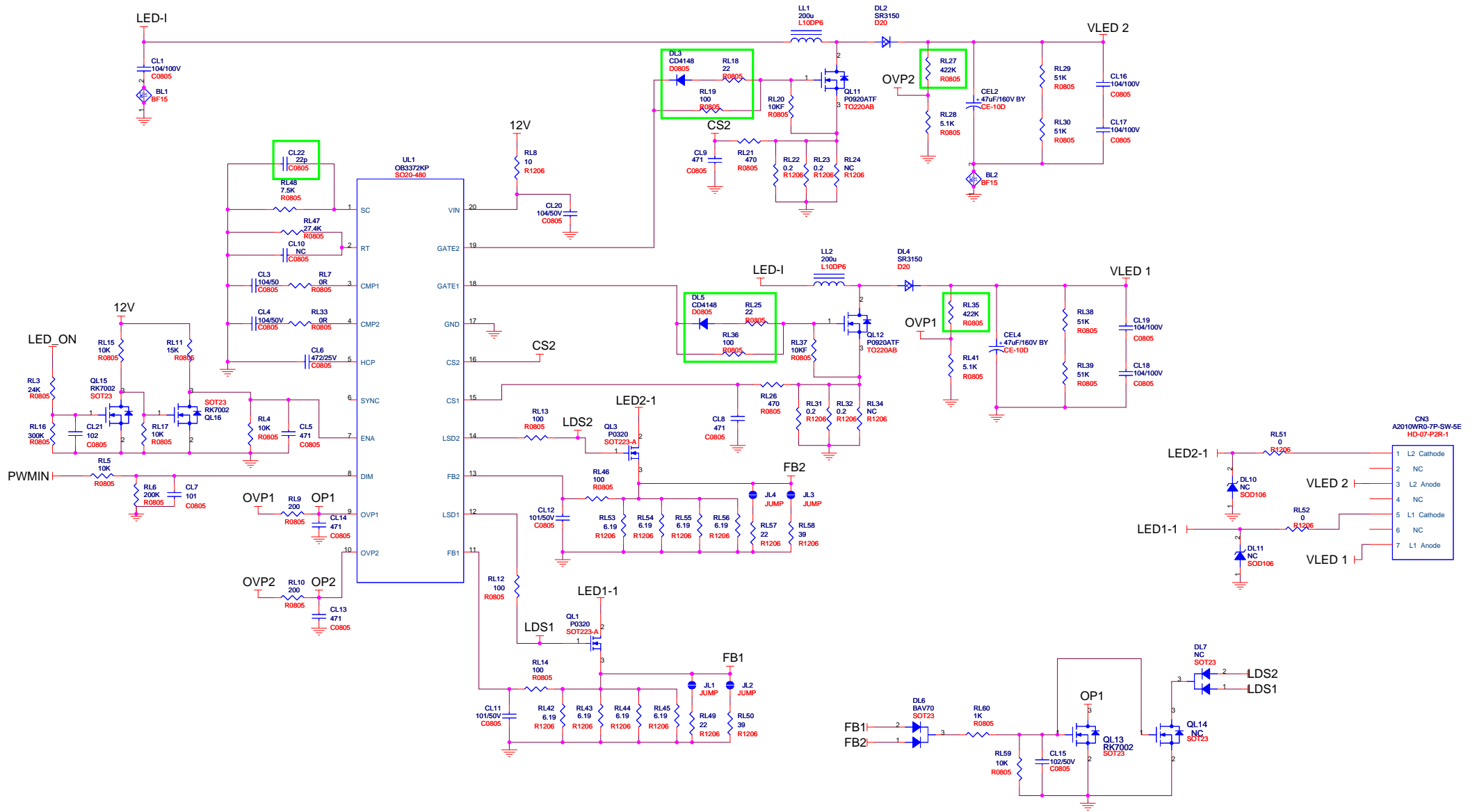
Unihan		Title : IR_ALS	
MAIN BOARD		Engineer: Jeff Y Hsiao/Jerry Lo	
Size A	Project Name L2300	Rev 1.03a	
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DARFON		達方電子股份有限公司	
		CUSTOMER MODEL : CUSTOMER PART NO : DARFON Model Name : B191-001	
2012/12/03	REV.	C	Reviewed by Yucheng Lin
Prepared by David DC Wu			Approved by Jeff shih



DARFON		遠方電子股份有限公司	
		CUSTOMER MODEL : CUSTOMER PART NO : DARFON Model Name : B191-001	
2012/12/03	REV.	C	Reviewed by Yucheng Lin
Prepared by David DC Wu		Approved by Jeff Shih	



DARFON		達方電子股份有限公司	
		CUSTOMER MODEL : CUSTOMER PART NO : DARFON Model Name : B191-001	
2012/12/03	REV.	C	Reviewed by Yucheng Lin
Prepared by	David DC Wu	Approved by	Jeff Shih