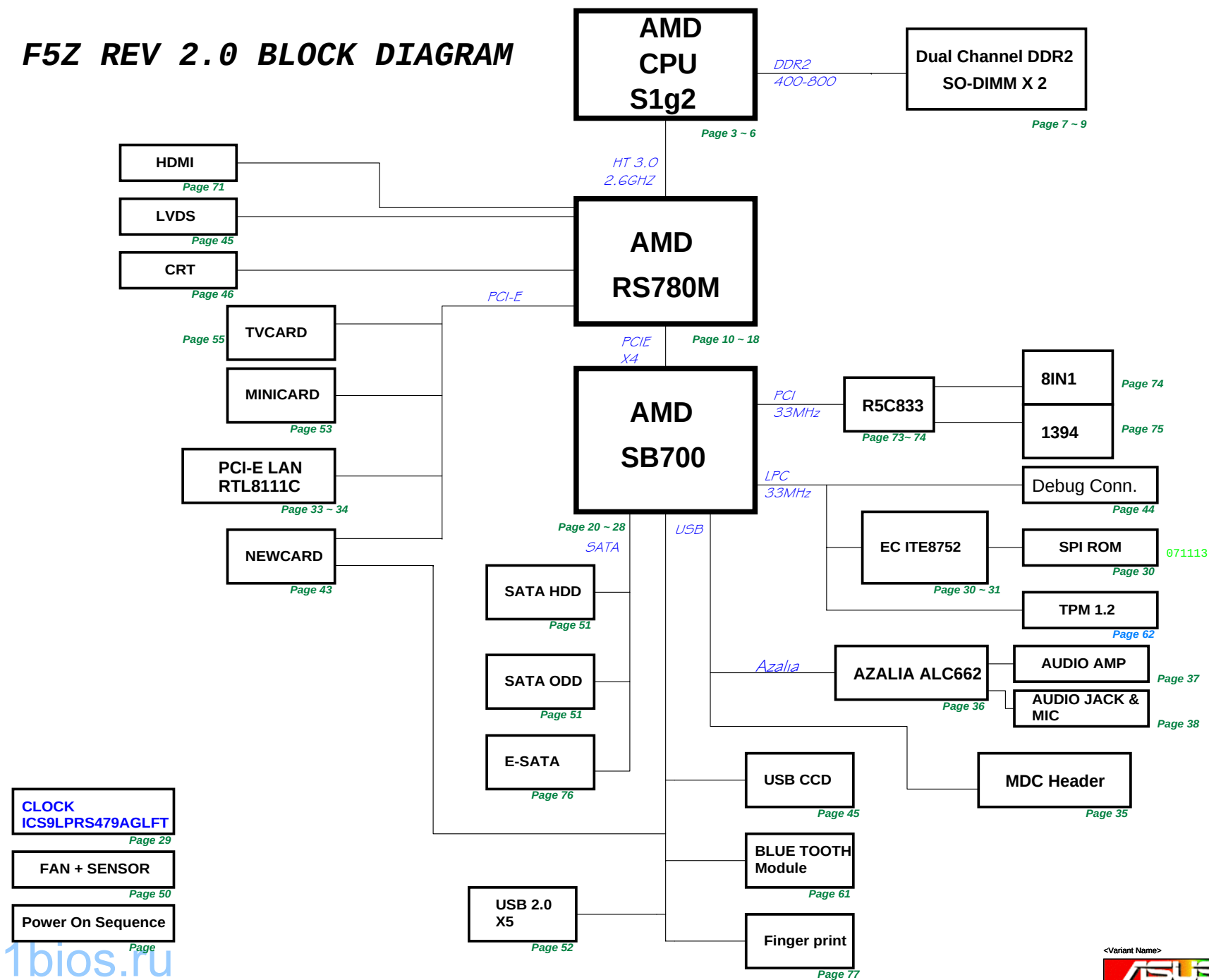
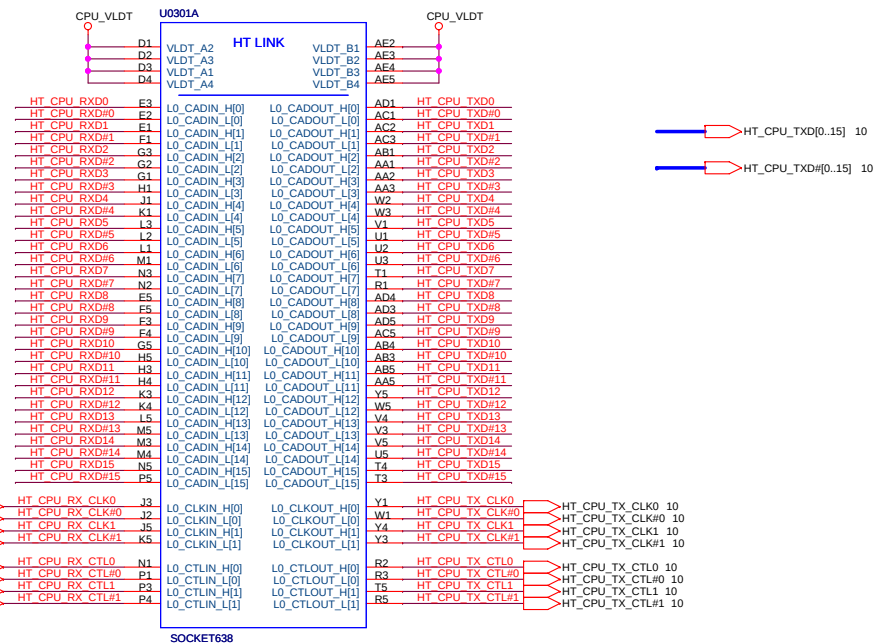


F5Z REV 2.0 BLOCK DIAGRAM

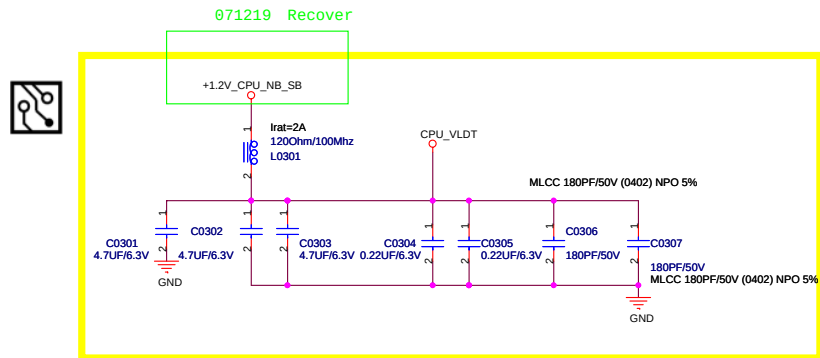


<Variant Name>



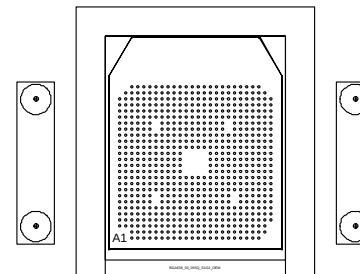
12G011306384 071113

Do not cross plane.

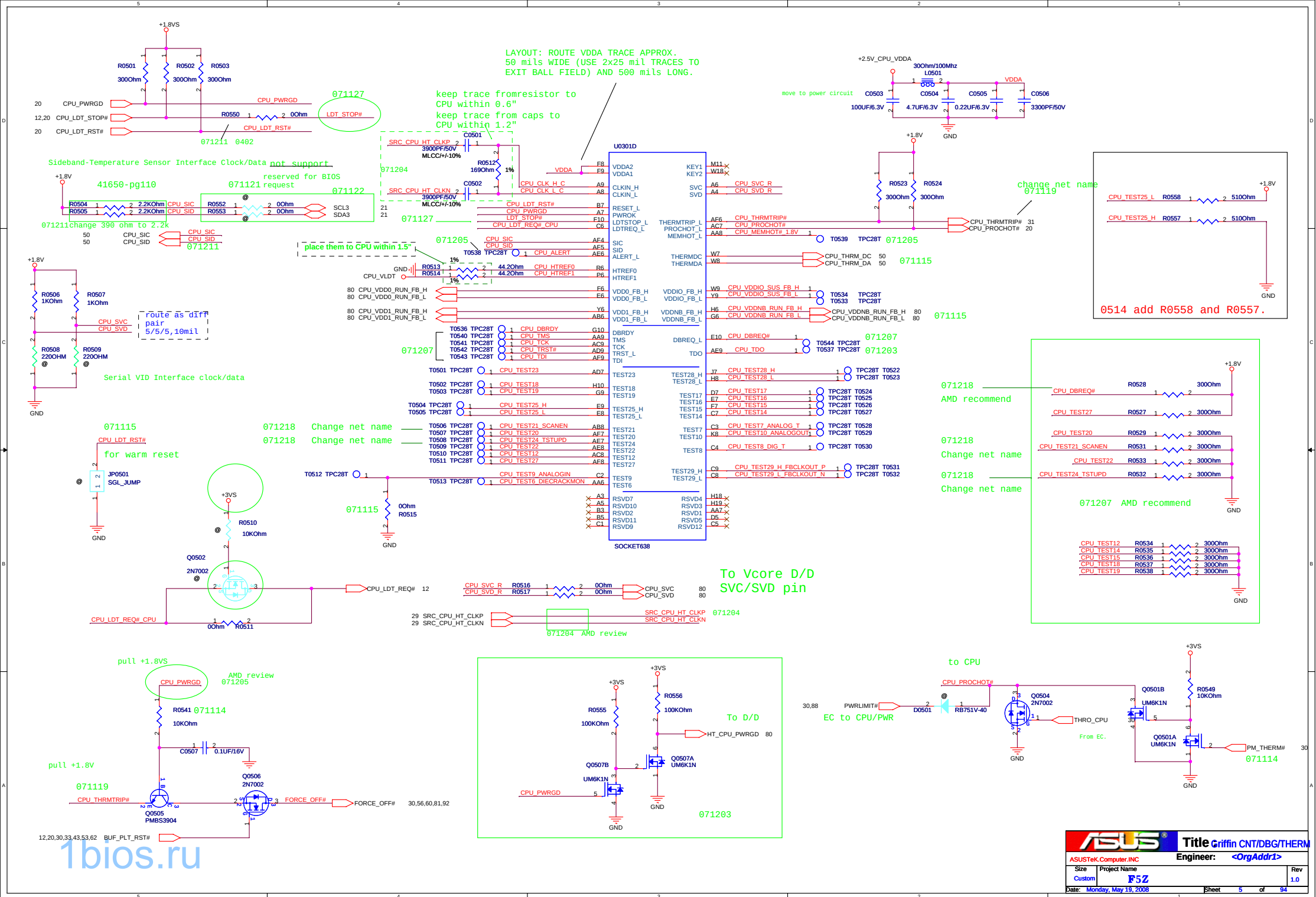


Place close to socket

* If VLDT is connected only on one side,
one 4.7uF cap should be added to
the island side



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D

C

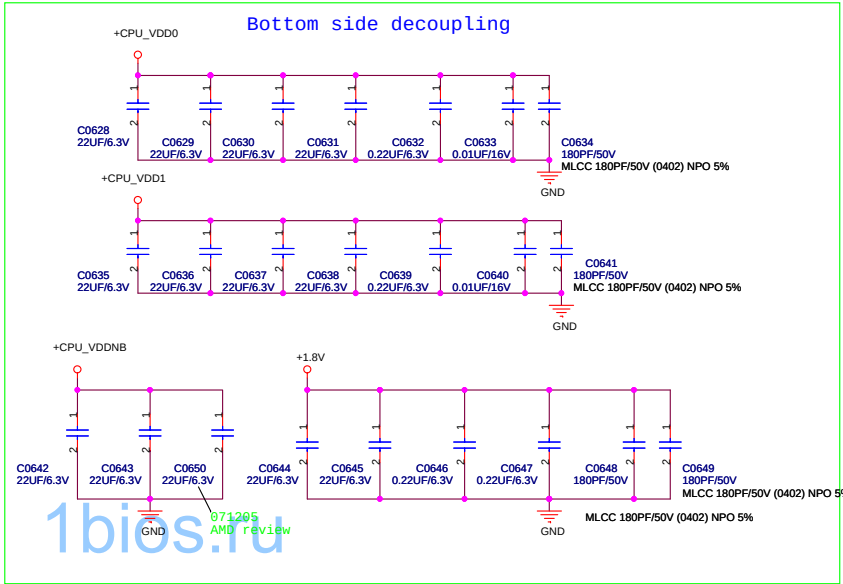
B

A

5

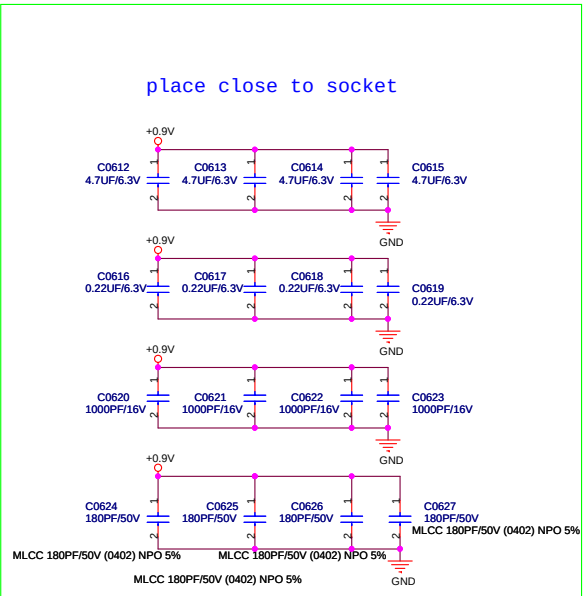
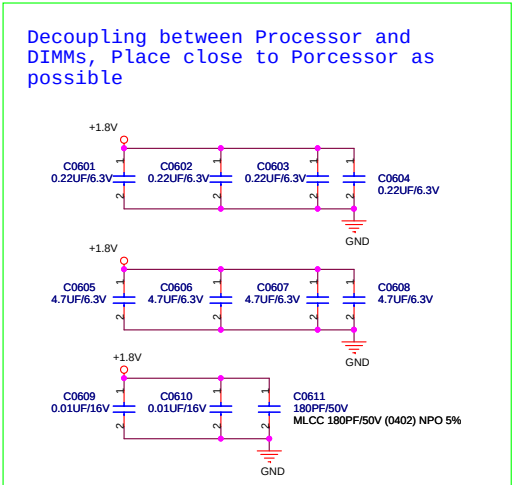
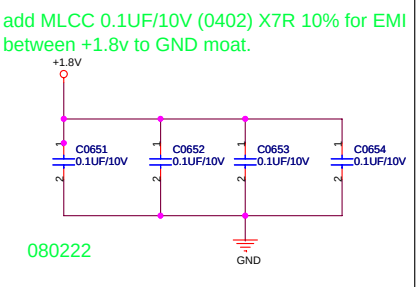
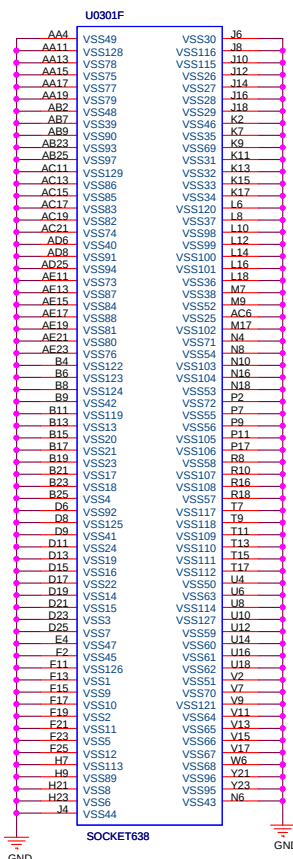
4

5

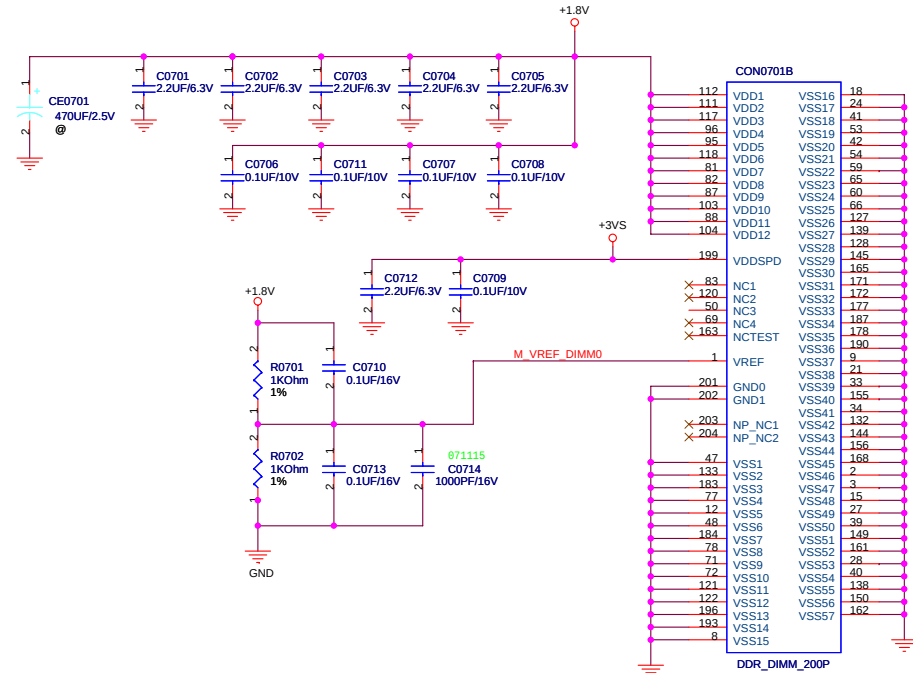
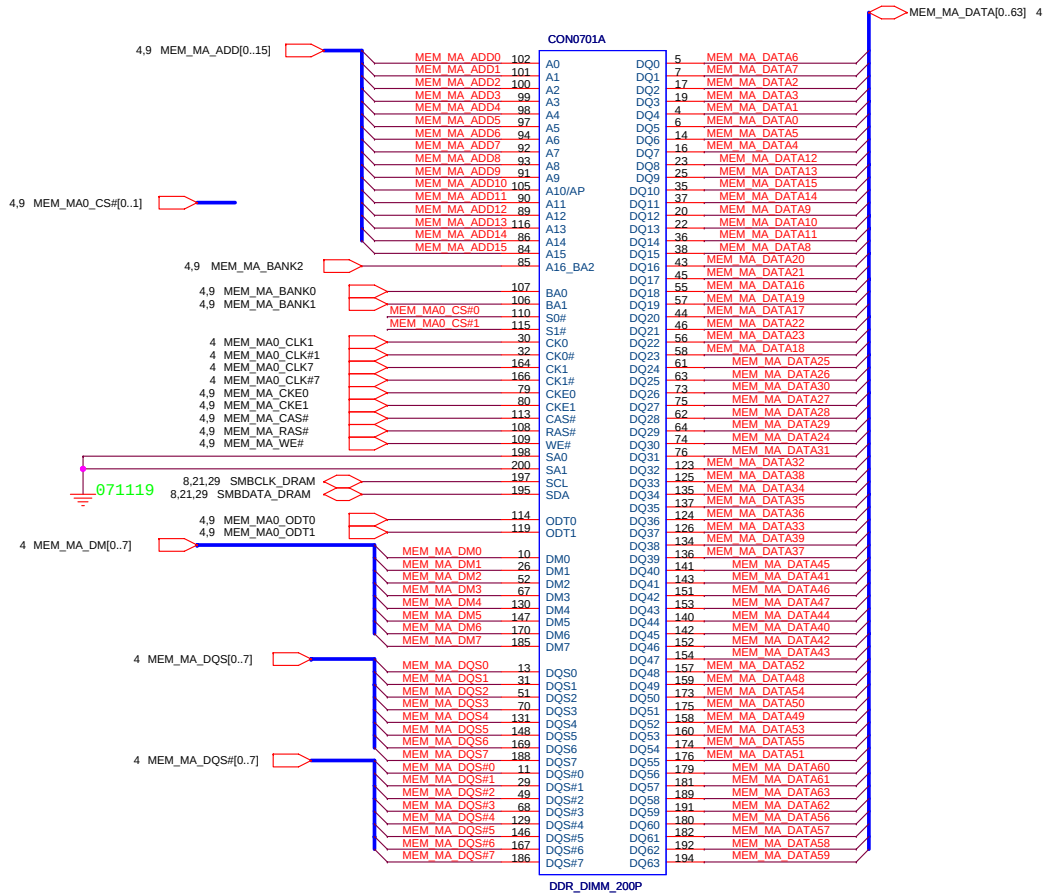


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071205
AMD review



080220
SWAP

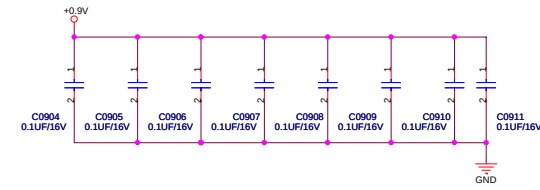
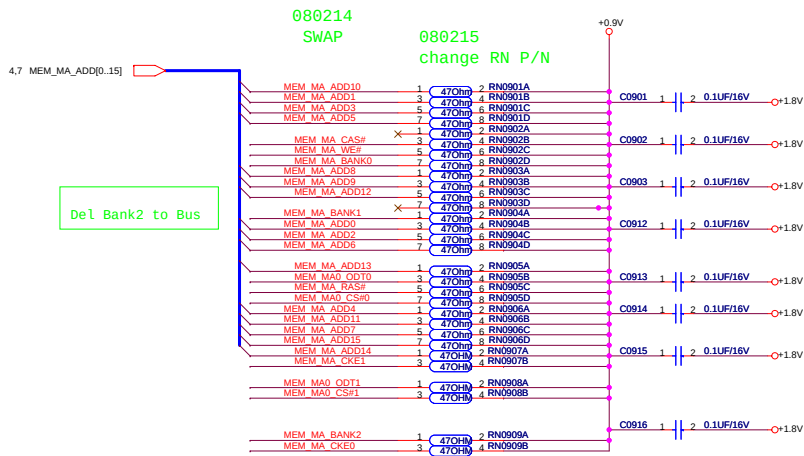


PN:12G025122006

modify 05/24

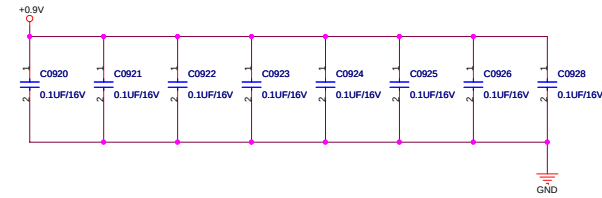
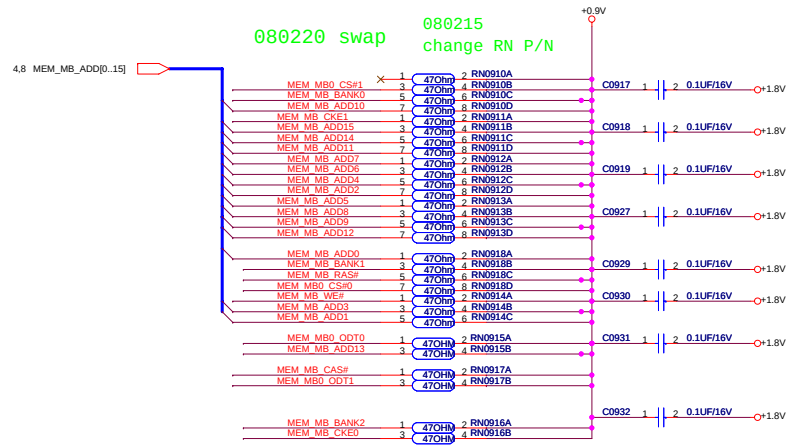
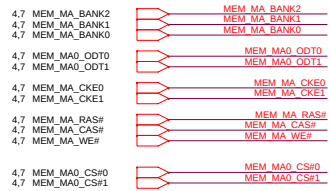
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<Variant Name>

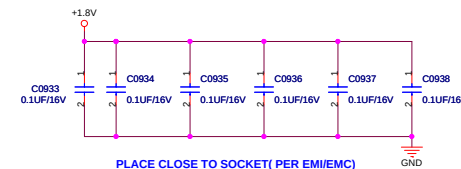
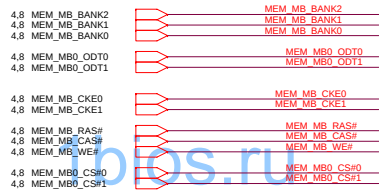


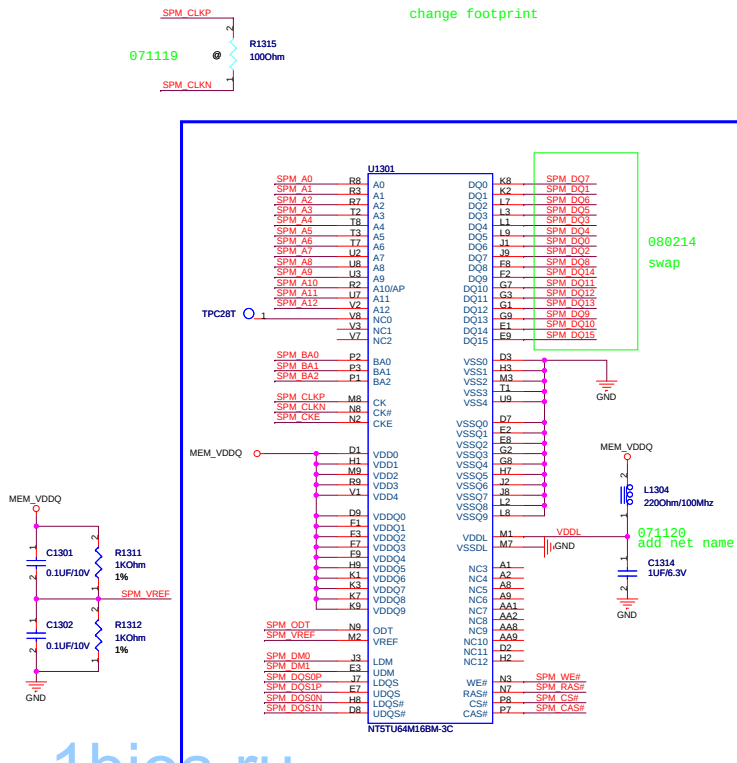
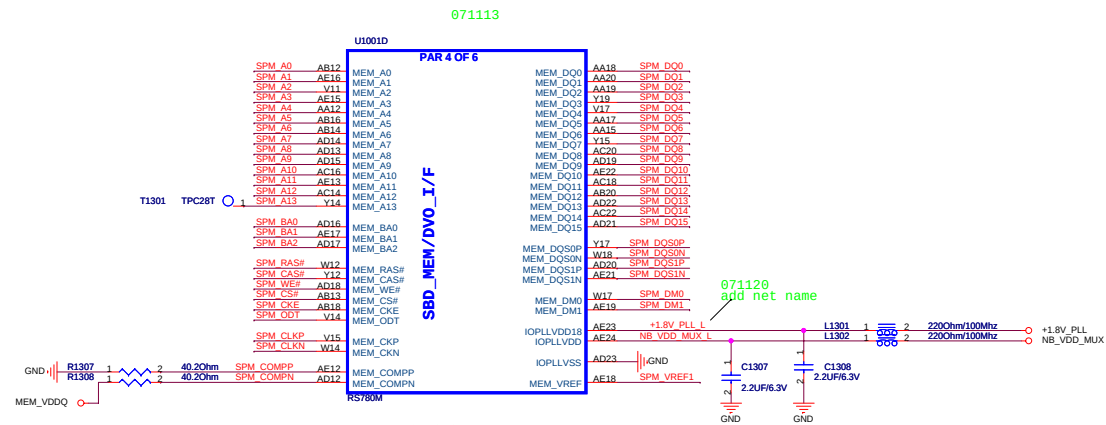
071207

071121



071211



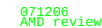




NOTE: SB700 HAS INTERNAL 15K PULL UP RESISTOR FOR RTC CLK



WITH A12 SB700, STRAP PIN FOR MEM BOOT AND EC ENABLE SWAPED.
I.E. LPC_CLK0 FOR EC ENABLE, AZ_RST# FOR MEM BOOT ENABLE.



1 bios.ru

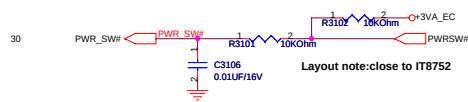
For Battery

Note: When plug in or out the battery, it may cause a spike to damage EC and gas gauge. It needs to add varistors to protect those pins.

In Page 60

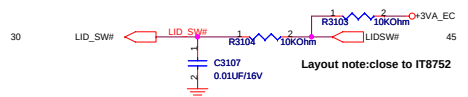
For Switch

PWR
SWITCH

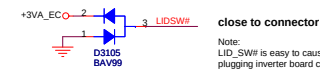


Layout note:close to IT8752

LID
SWITCH

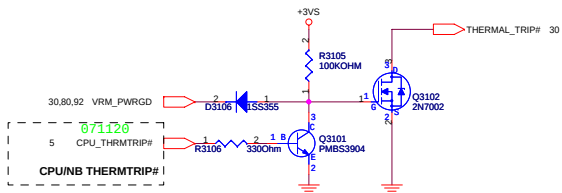


Layout note:close to IT8752

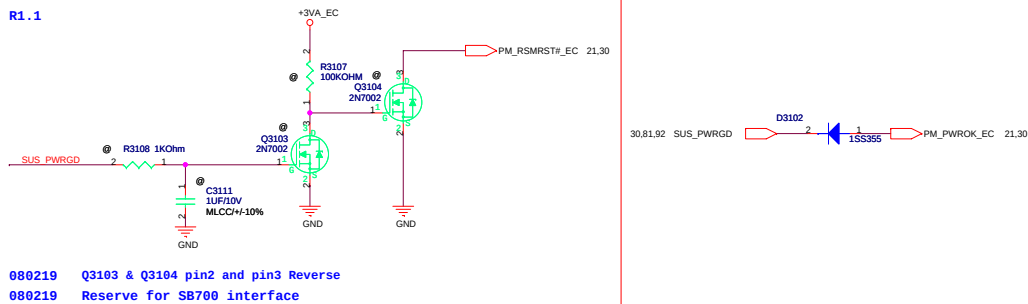


Note:
LID_SW# is easy to cause high voltage damage when plugging inverter board connector to M/B with AC present. Need to add bidirectional diode to protect this pin.

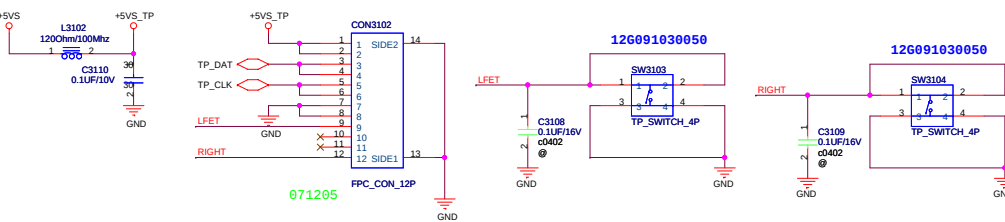
For Thermal Control Method



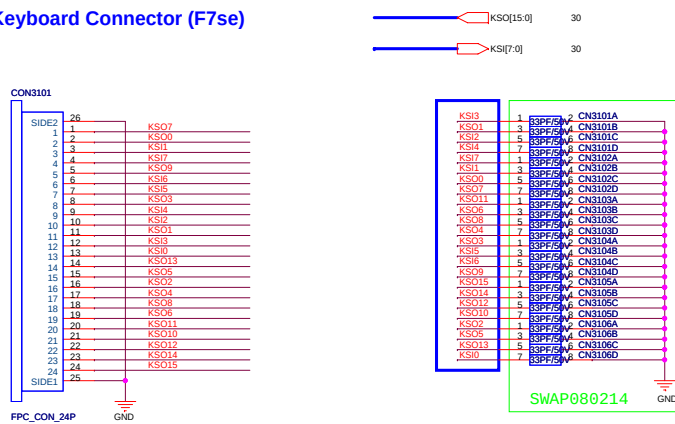
R1.1



Touch-Pad (F7se)

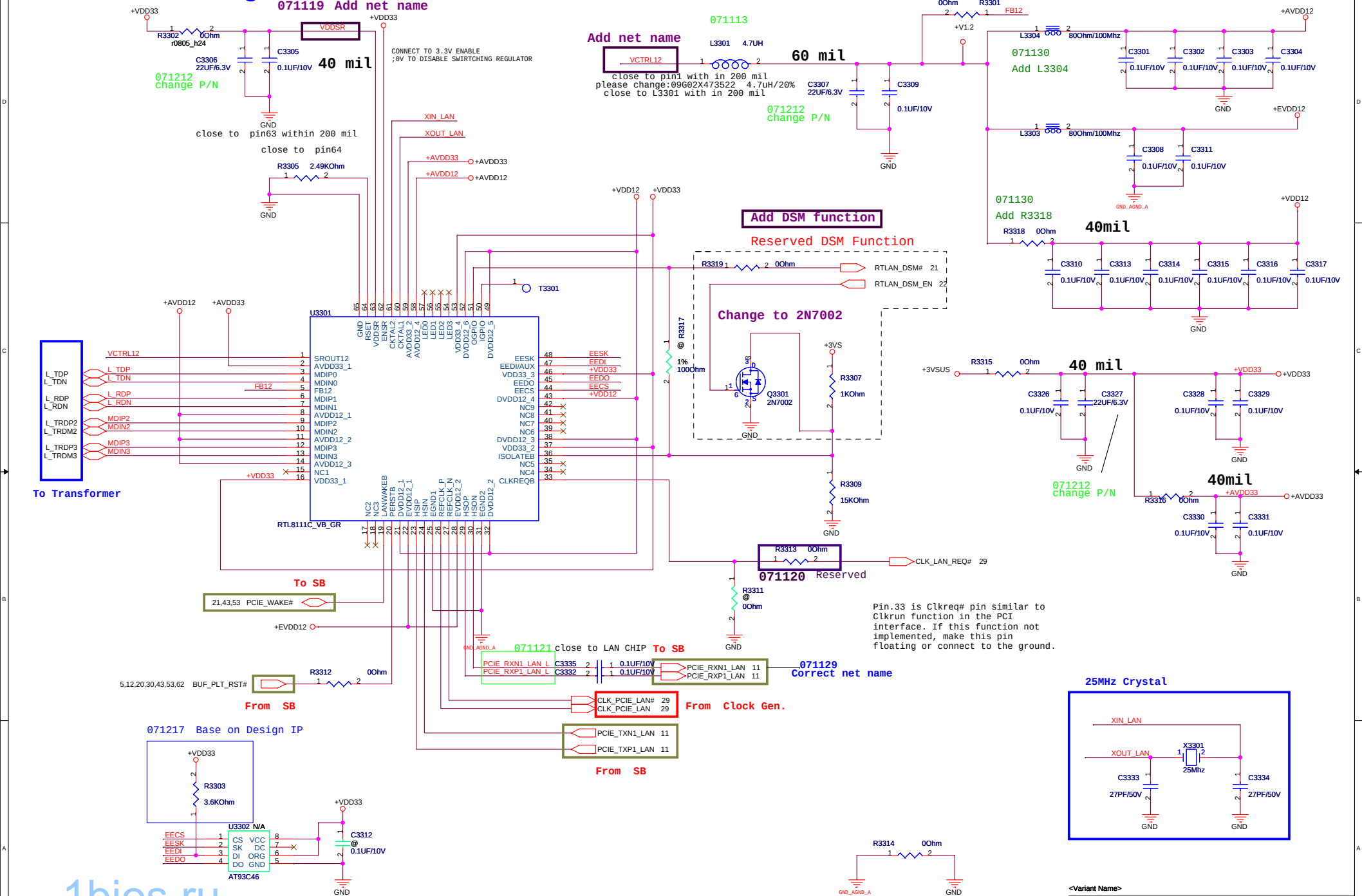


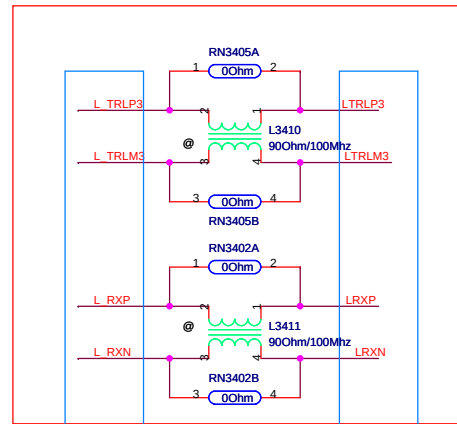
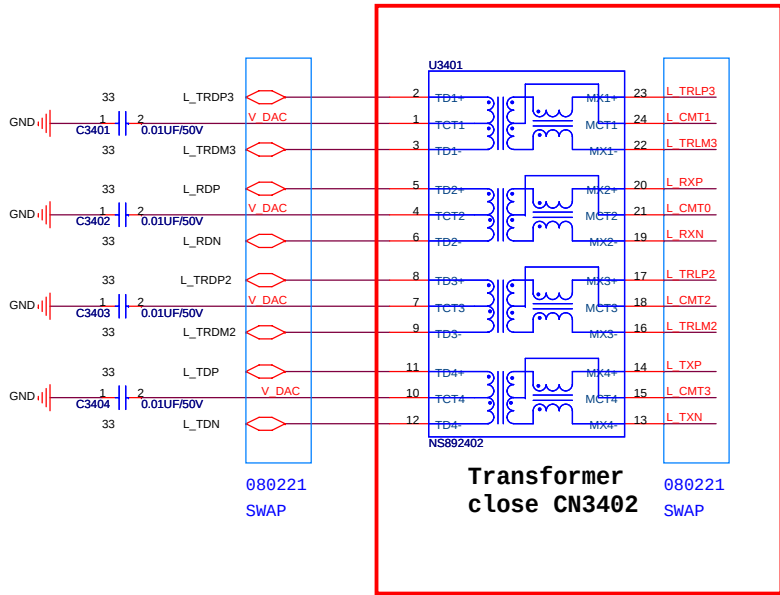
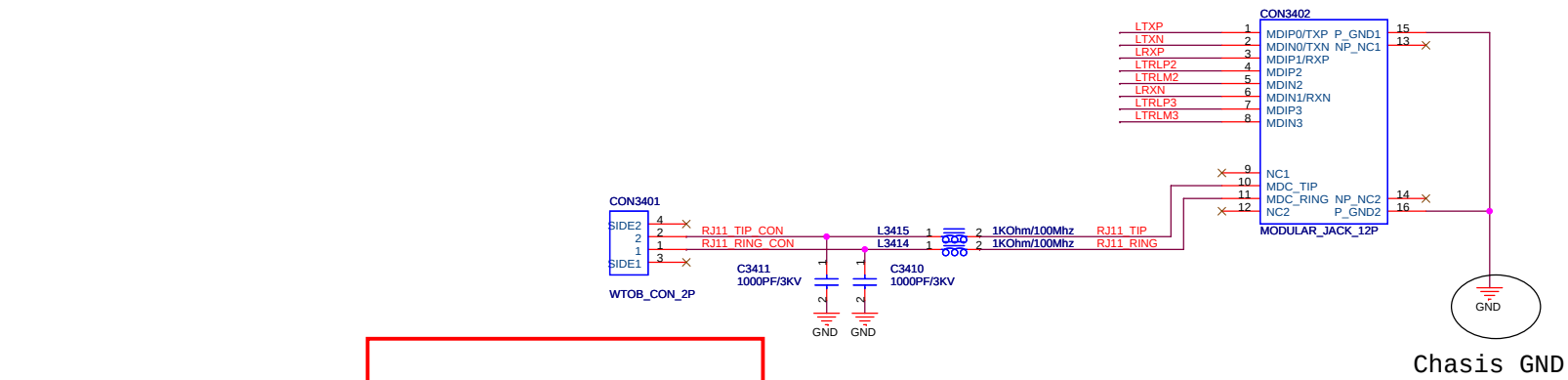
Keyboard Connector (F7se)



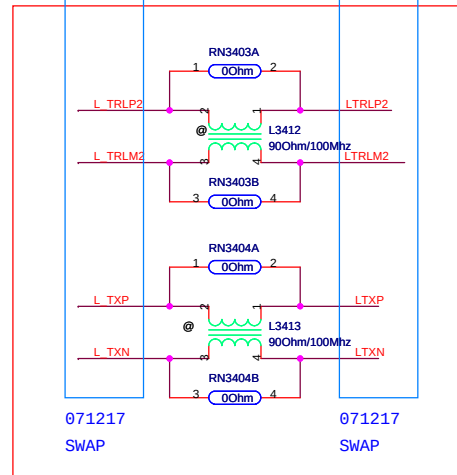
1 bios.ru

5	
ALL Follow Design IP	

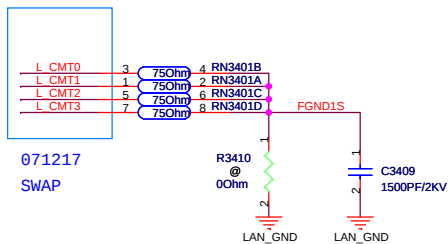
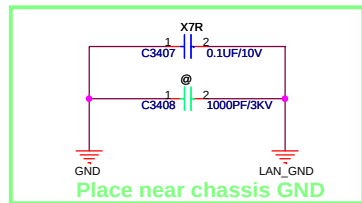




071130
Co-lay for Layout rule



071130
Co-lay for Layout rule

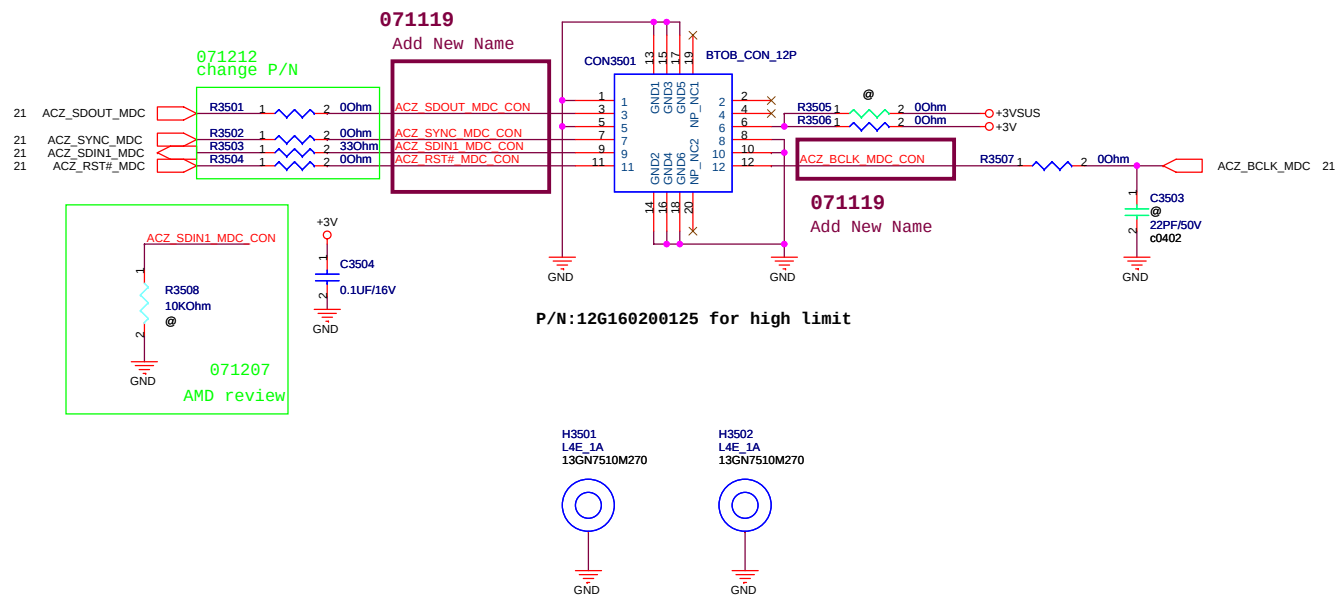


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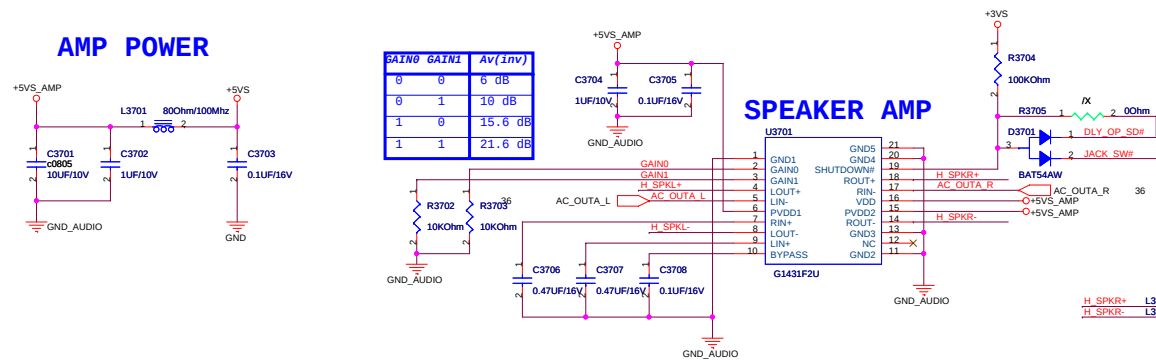
<Variant Name>

ASUS		Title : LAN-RJ45	
ASUSTek COMPUTER INC		Engineer: Richard Lu	
Size Custom	Project Name F5Z	Rev 1.0	
Date: Monday, May 19, 2008	Sheet 34	of 94	

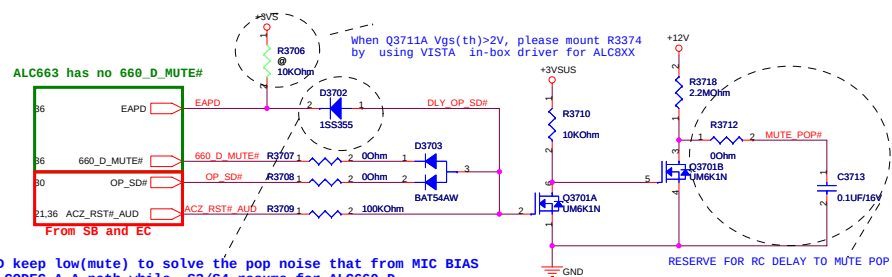
MDC



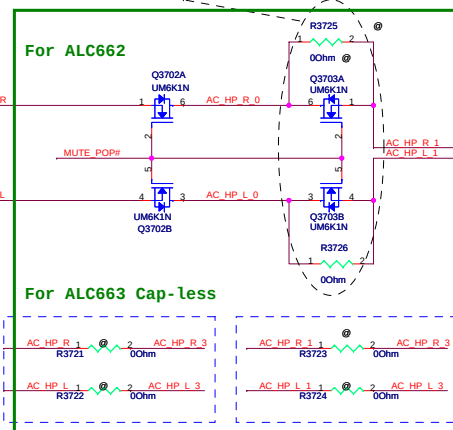
AMP POWER



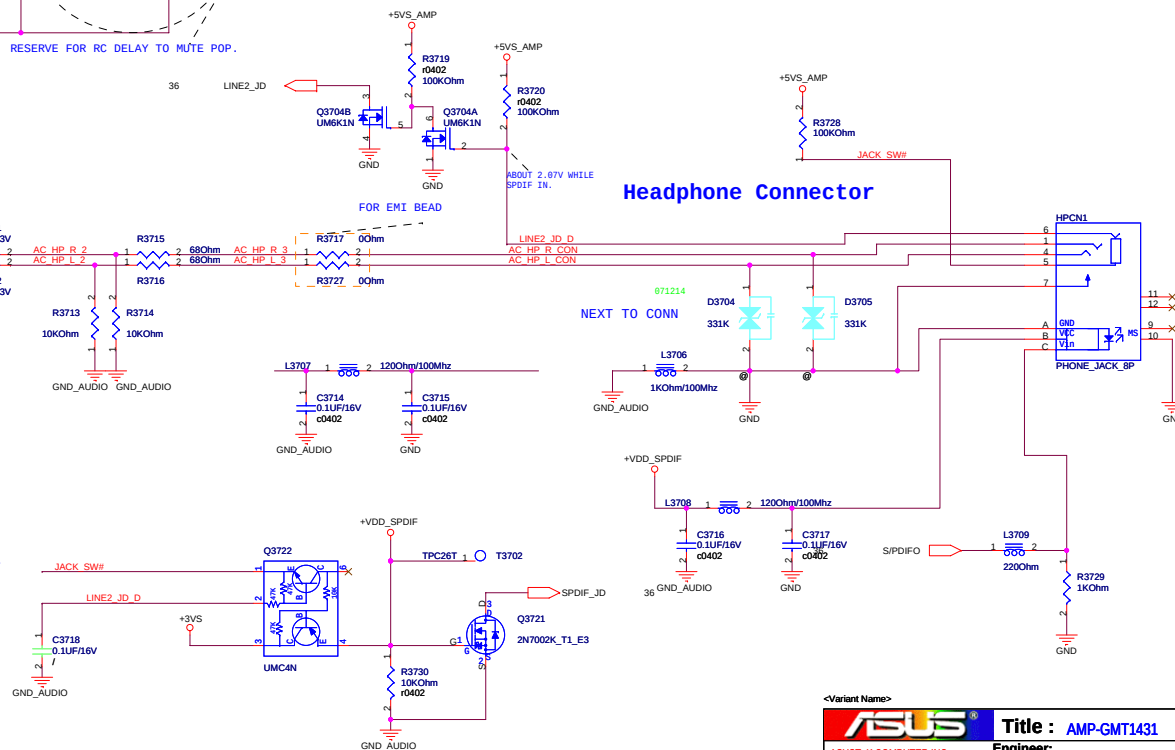
MUTE CONTROL



EAPD keep low(mute) to solve the pop noise that from MIC BIAS via CODEC A-A path while S3/S4 resume for ALC660-D. Base on pop noise by each model.if your model do not care the A-A path pop-noise, you can not mount D3711,Q3755,but mount R3764 and R3765



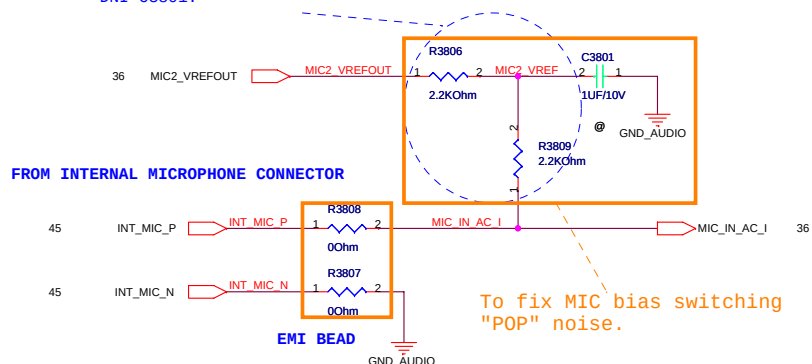
For ALC663 Cap-less, mount
R3775, R3776, RX3612, RX3613



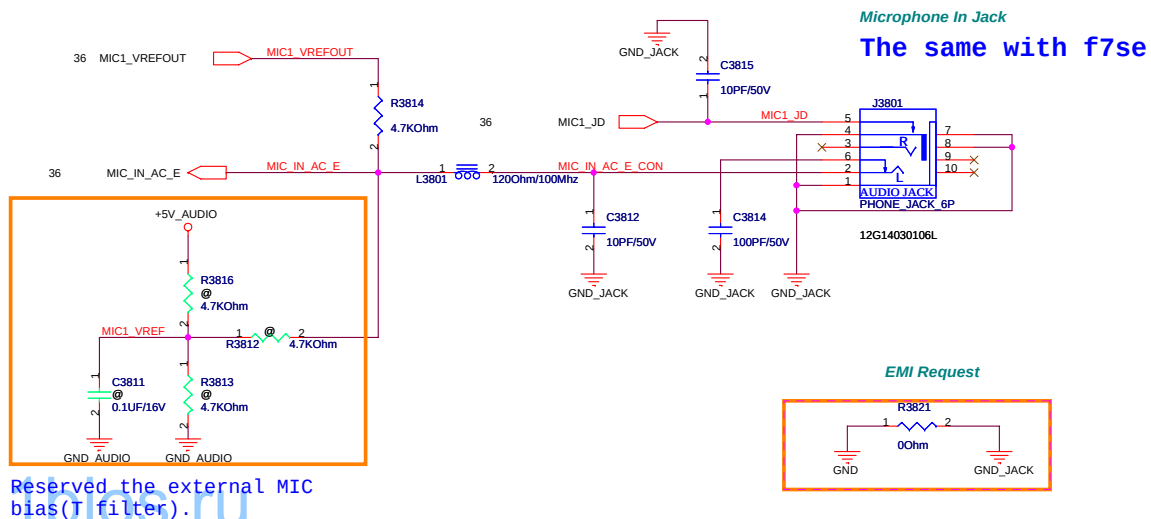
1 bios.ru

INTERNAL MICROPHONE

If EAPD available(fix MIC bias switching "POP" noise):
Replace R3801,R3802 by one 4.7K ohm resistor.
DNI C3801.

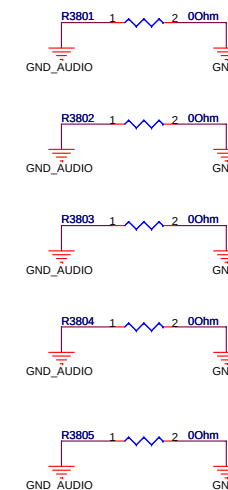


EXTERNAL MICROPHONE



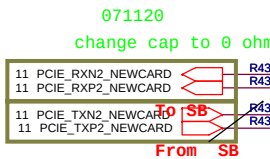
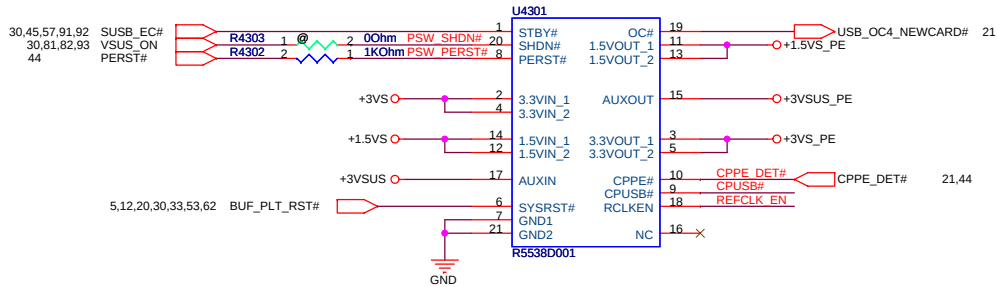
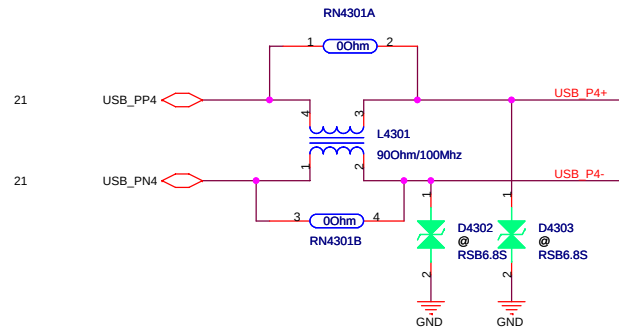
F5Z

071212
change 0 ohm P/N

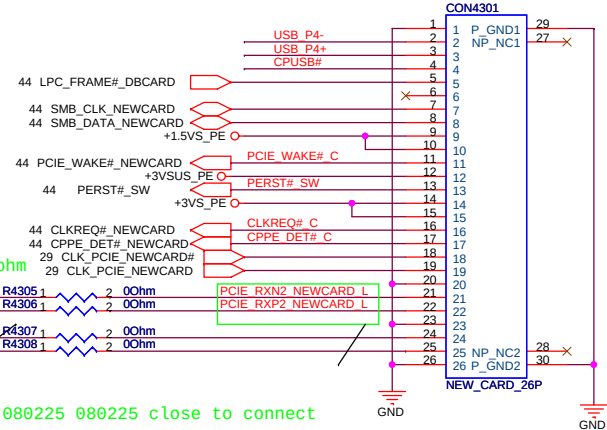


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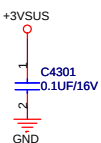
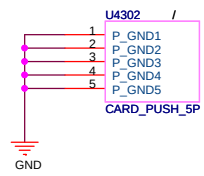
ASUS		Title : MIC-IN Jack	
ASUSTeK COMPUTER INC		Engineer: Richard Lu	
Size	Project Name		Rev
Custom	F5Z		1.0
Date: Monday, May 19, 2008		Sheet	38 of 94



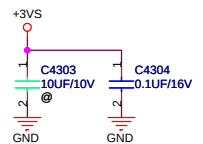
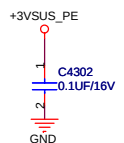
!! ExpressCard Standard 1.0:
Change Pin7 from RESERVED to SMBCLK
Change Pin8 from SMBCLK to SMBDATA
Change Pin9 from SMBDATA to +1.5V



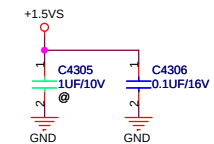
NewCard Ejecter



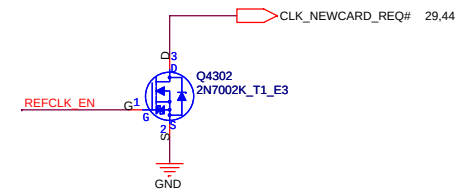
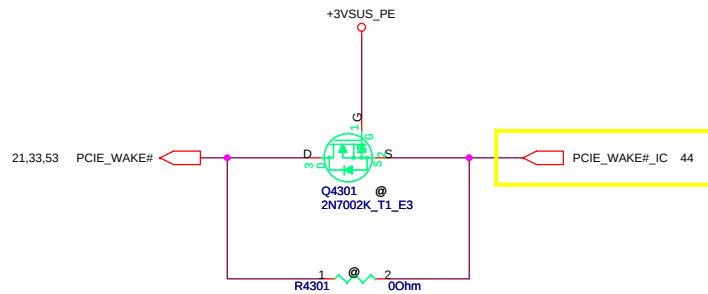
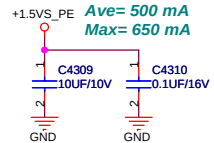
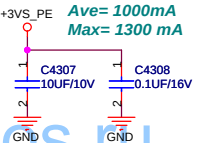
3.0V~3.6V
Ave= 200mA
Max= 275 mA



3.0V~3.6V
Ave= 1000mA
Max= 1300 mA



1.35V~1.65V
Ave= 500 mA
Max= 650 mA

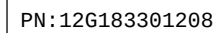


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Block C

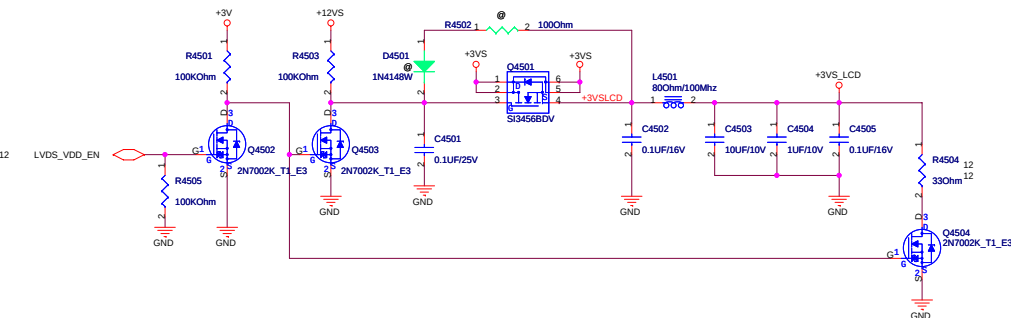


**If support NewCard Debug Card,
Pls don't mount all components.**



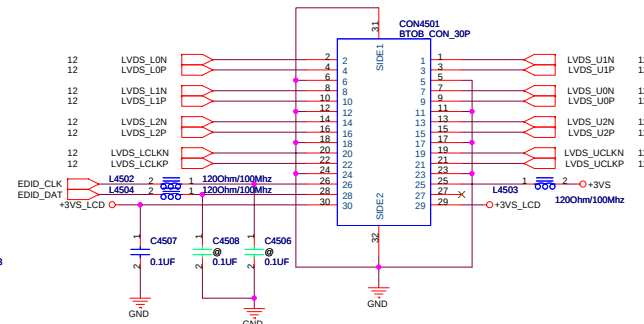
LCD Backlight Control

LCD Power



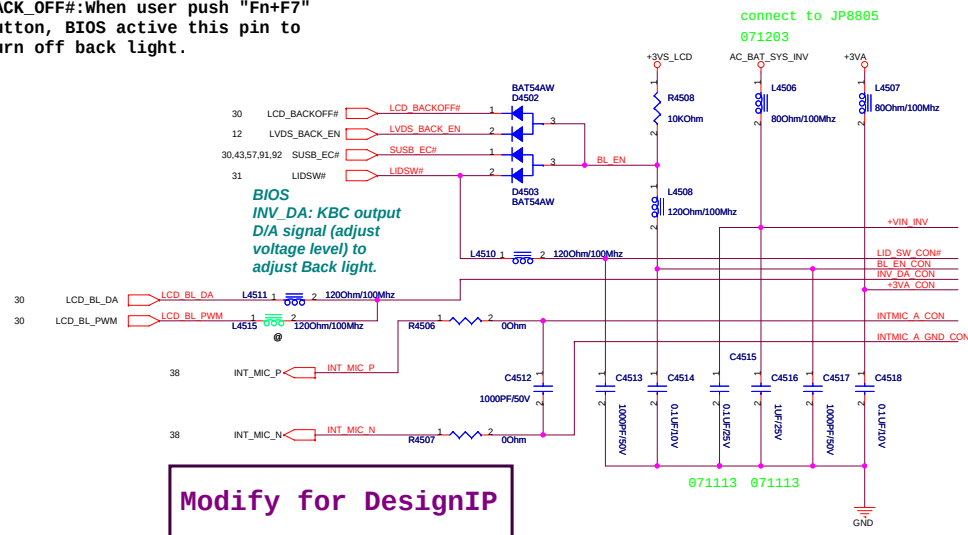
LCD LVDS Interface

Cable Requirement:
Impedance: 100 ohm +/- 10%
Length Mismatch <= 10 mils
Twisted Pair(Not Ribbon)
Maximum Length <= 16"



INVERTER Interface

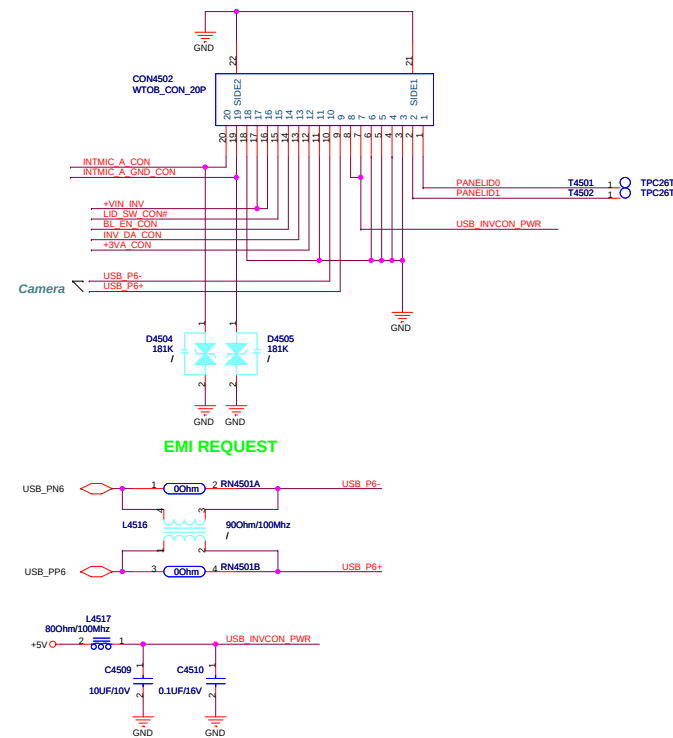
BIOS
BACK_OFF#:When user push "Fn+F7"
button, BIOS active this pin to
turn off back light.

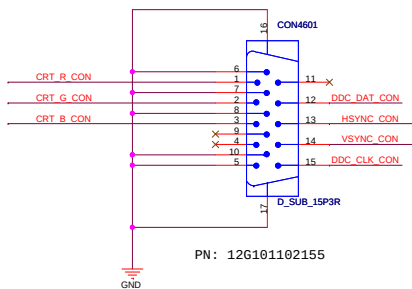


INVERTER
Interface/Speaker CONN.

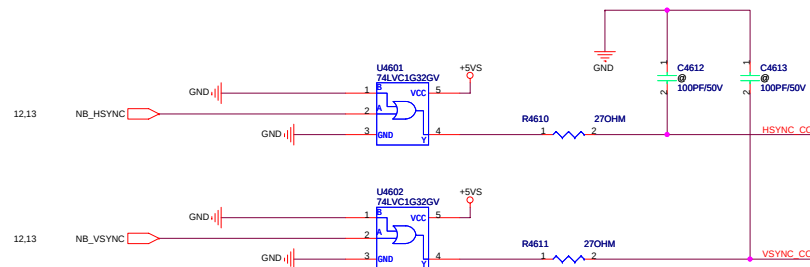
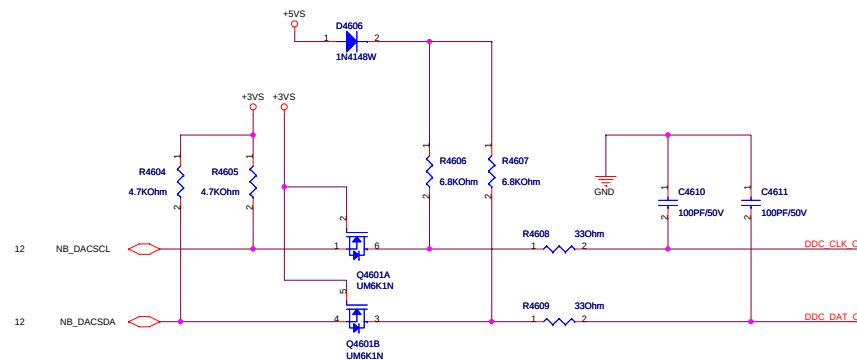
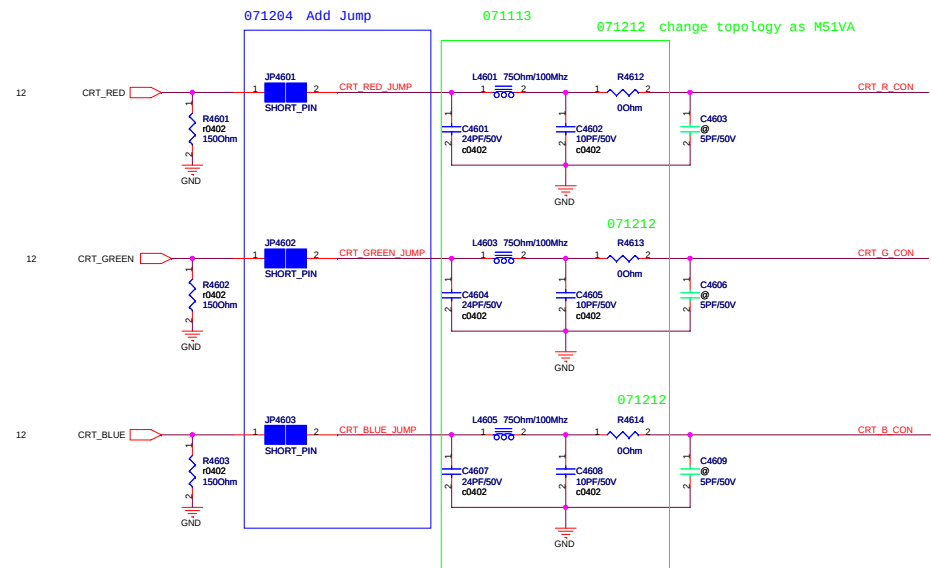
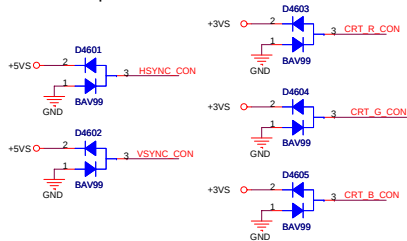
1 bios.ru

Delete LID_SW SCH



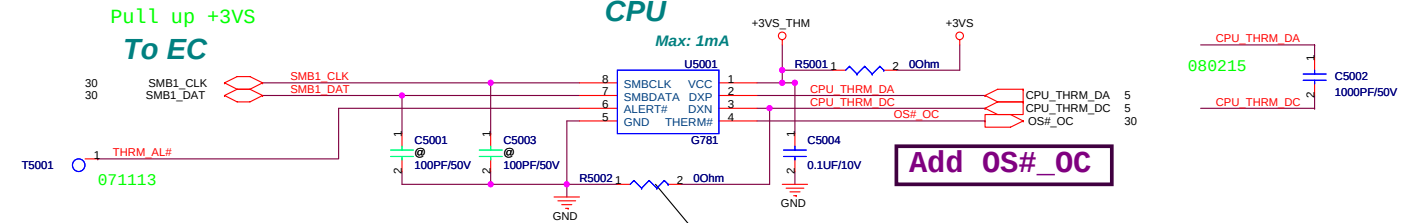


PLACE ESD Diodes near
VGA port

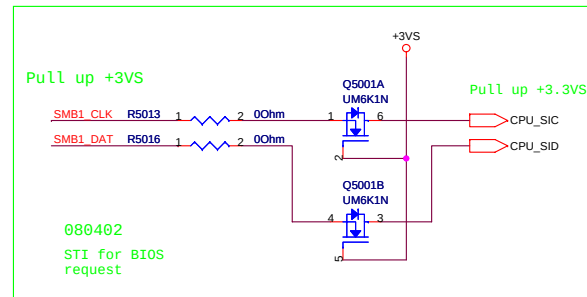


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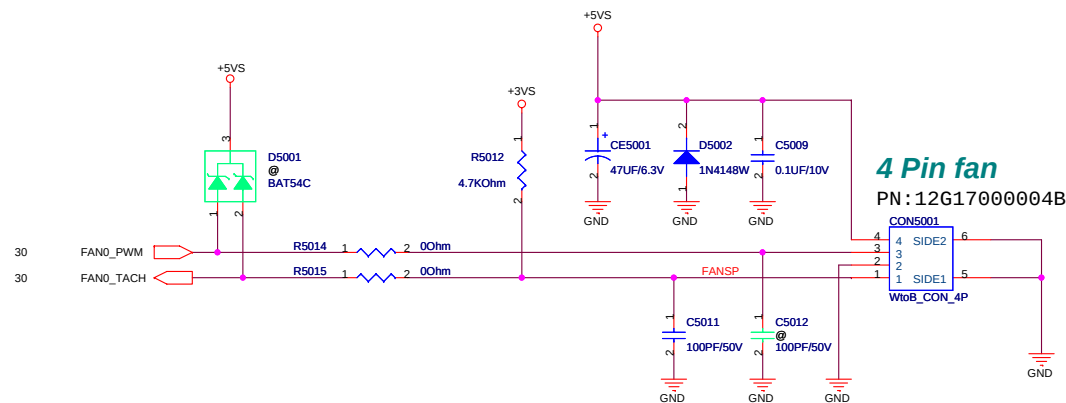
Thermal Sensor



080408 Close to DNX FOR G786



DC FAN Control



Route H_THERMDA and H_THERMDC on the same layer

-----OTHER SIGNALS
15 mils
=====GND
10 mils
=====H_THERMDA(10 mils)
10 mils
=====H_THERMDC(10 mils)
10 mils
=====GND
15 mils
-----OTHER SIGNALS

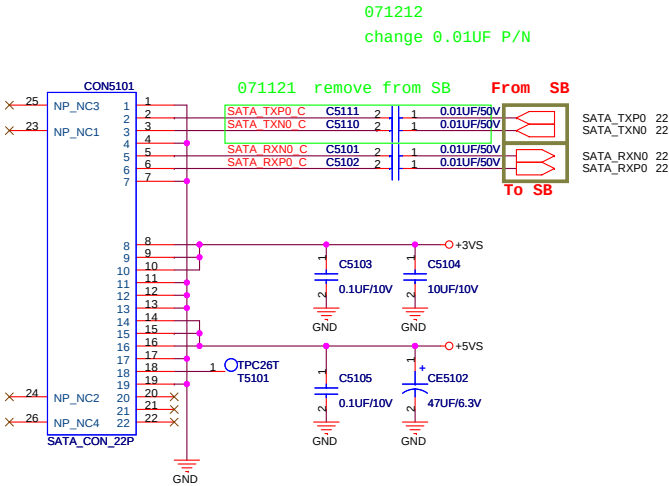
Avoid FSB, Power

1bios.ru

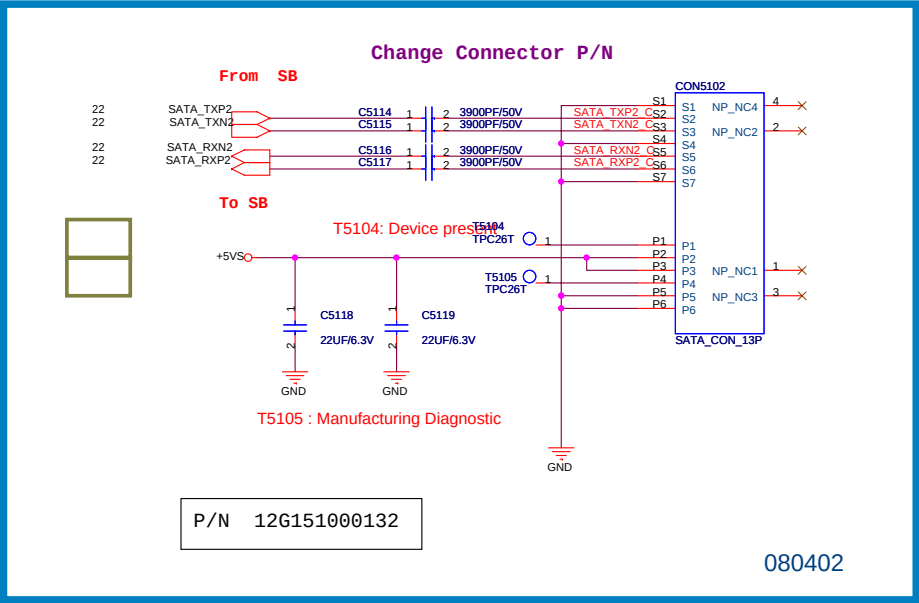
<Variant Name>

ASUS		Title : THER SENSOR & FAN	
ASUSTeK COMPUTER INC		Engineer: Richard Lu	
Size	Project Name		Rev
Custom	F5Z		1.0
Date: Monday, May 19, 2008		Sheet	50 of 94

SATA HDD



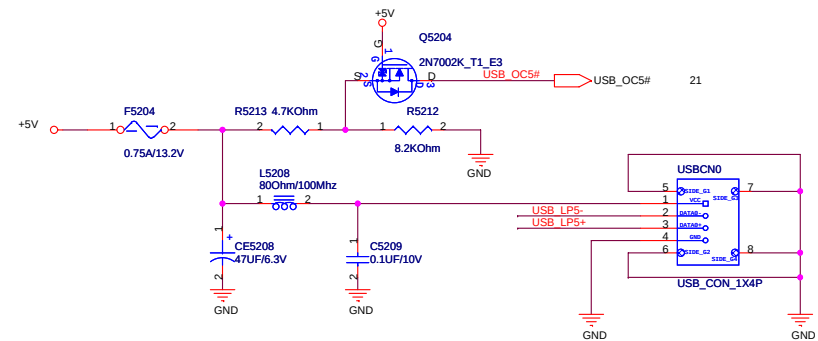
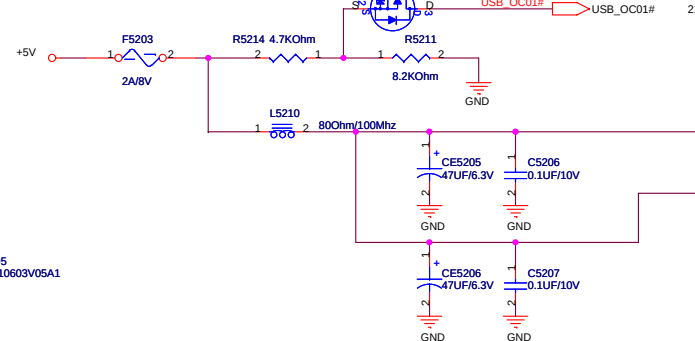
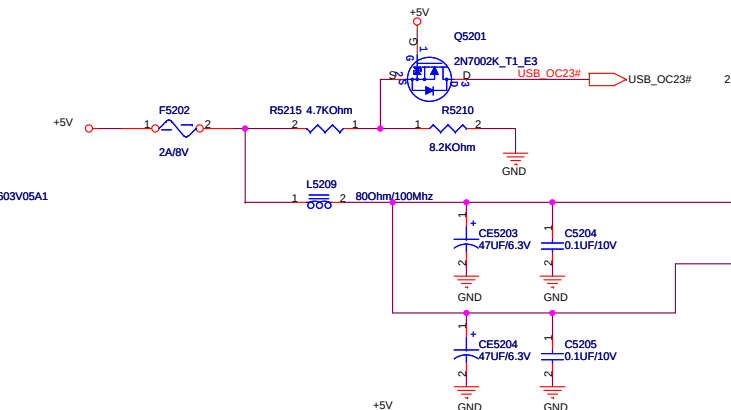
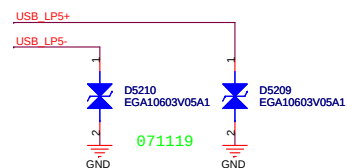
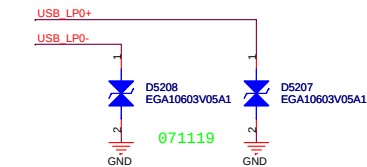
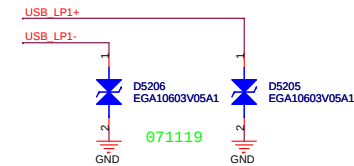
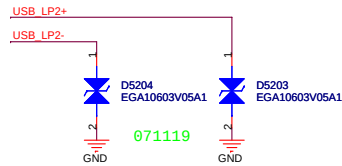
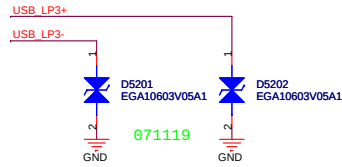
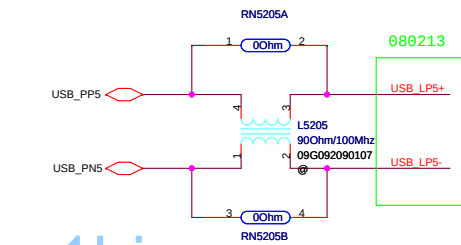
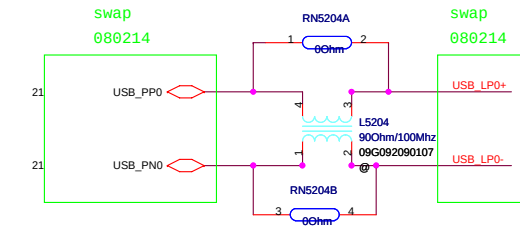
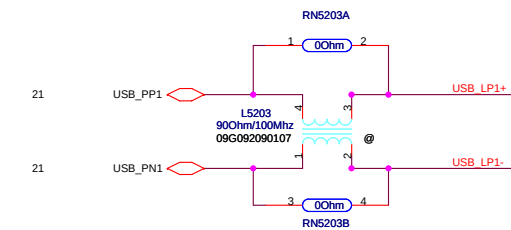
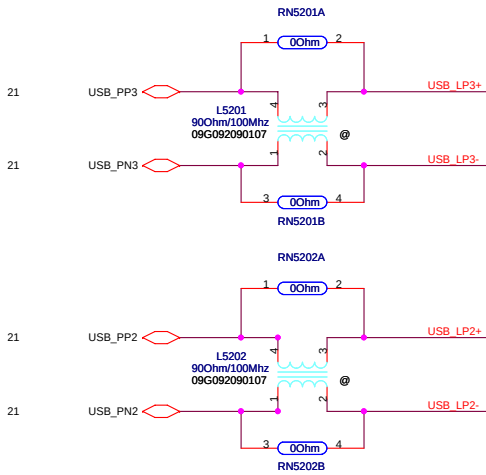
ODD



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071119 change common
choke and R P/N

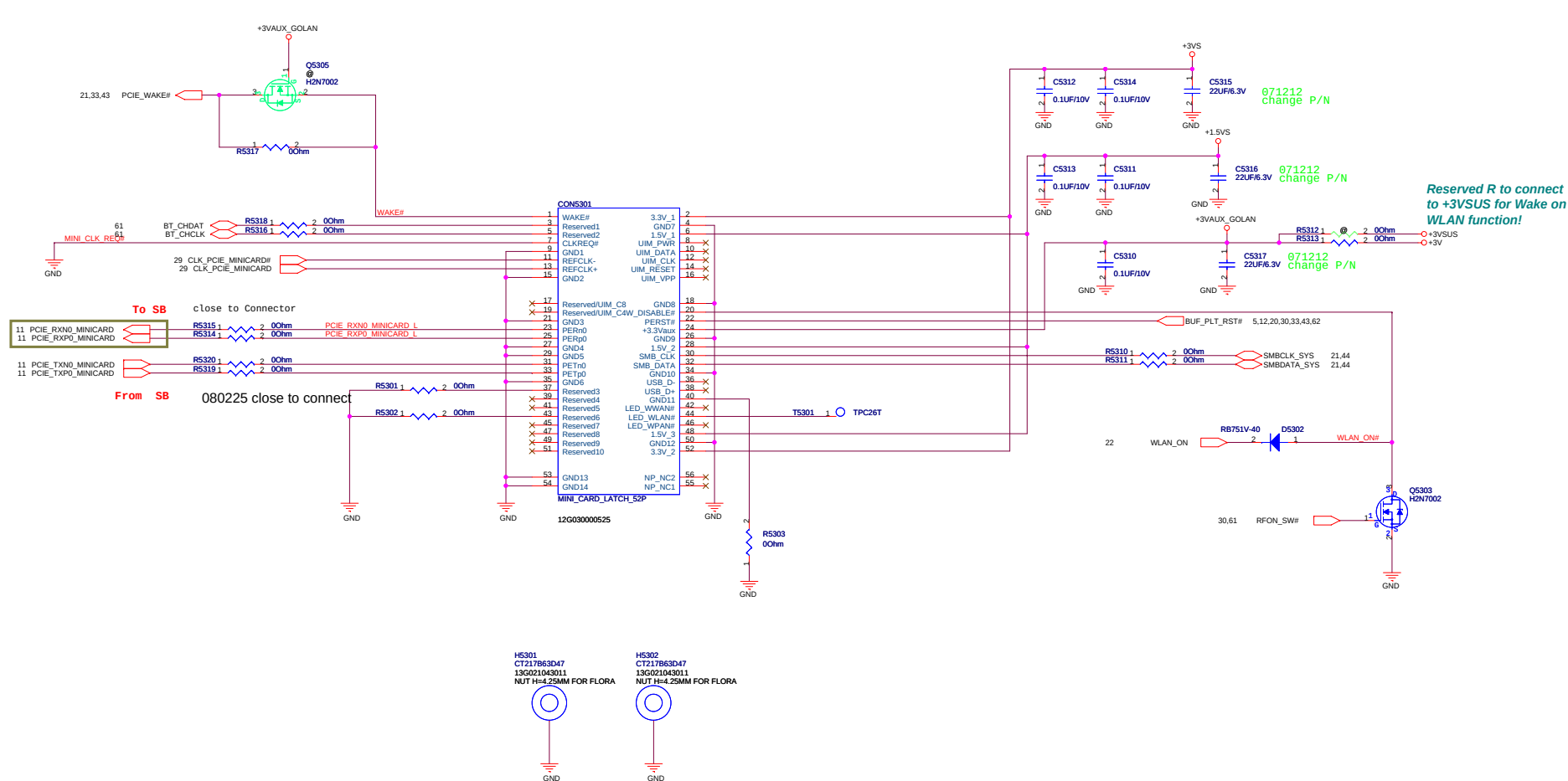
Change all MOS with ESD part

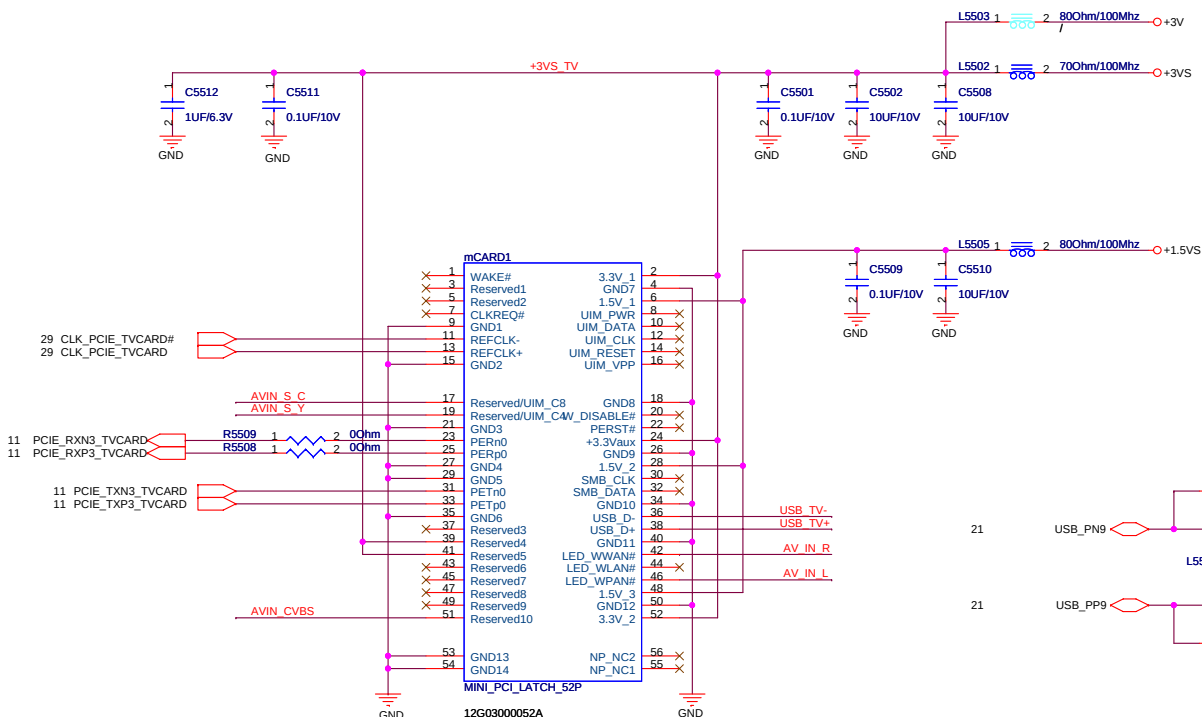


<Variant Name>

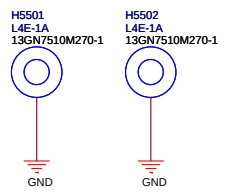
ASUS		Title : USB CONN	
ASUSTek COMPUTER INC		Engineer: Richard Lu	
Size	Project Name		Rev
Custom	F5Z		1.0
Date: Monday, May 19, 2008		Sheet 52 of 94	

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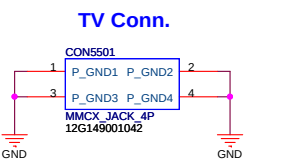
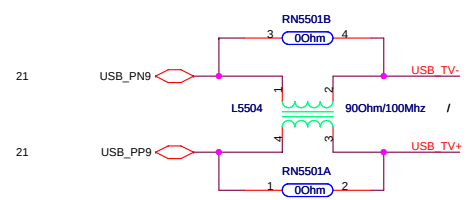




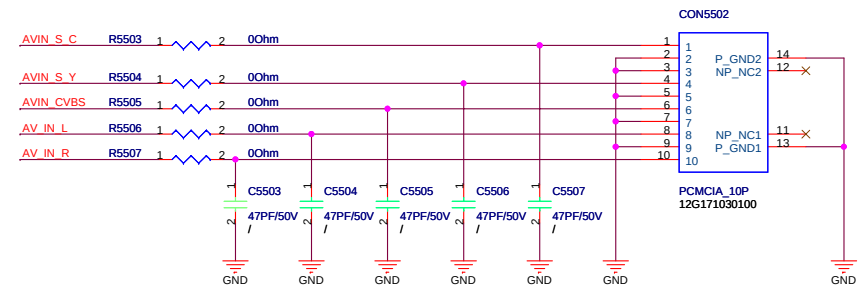
H = 5.2mm
FOR TV TUNER
(UWB OPTION)



H = 3.0mm



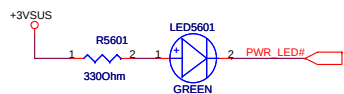
ME P/N : 14G152075000



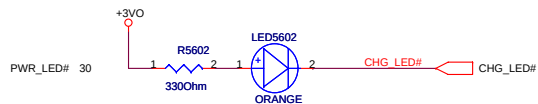
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LED

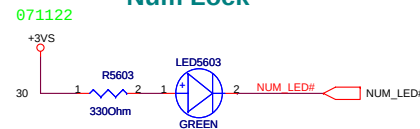
For POWER LED



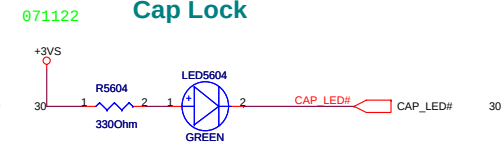
BATTERY LED



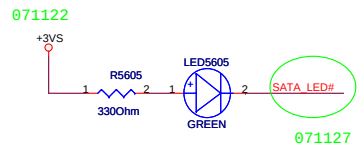
Num Lock



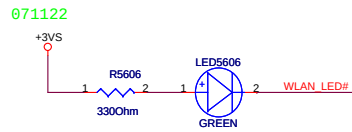
Cap Lock



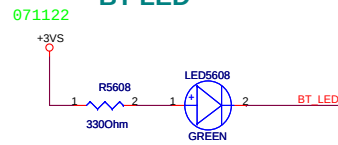
SATA/IDE LED



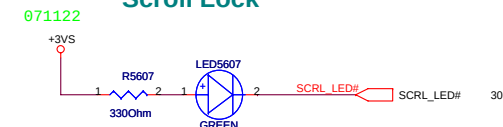
WireLess LED



BT LED

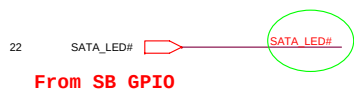


Scroll Lock

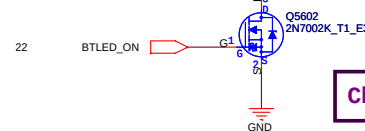


Change all LED for 5mA

delete D5601
071127



From SB GPIO

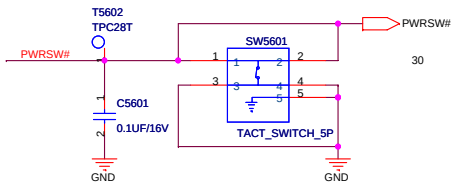


Change all MOS with ESD part

F5Z SWITCH CIRCUIT

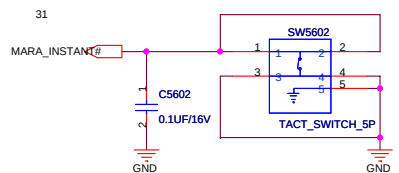
Move SW from P32 to P56

Power SW.



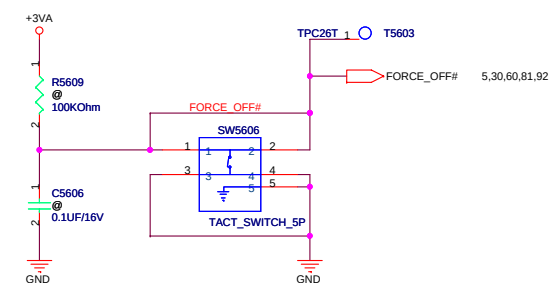
P/N: 12G091030050

Marathon SW.



Add SHUT Down SCH

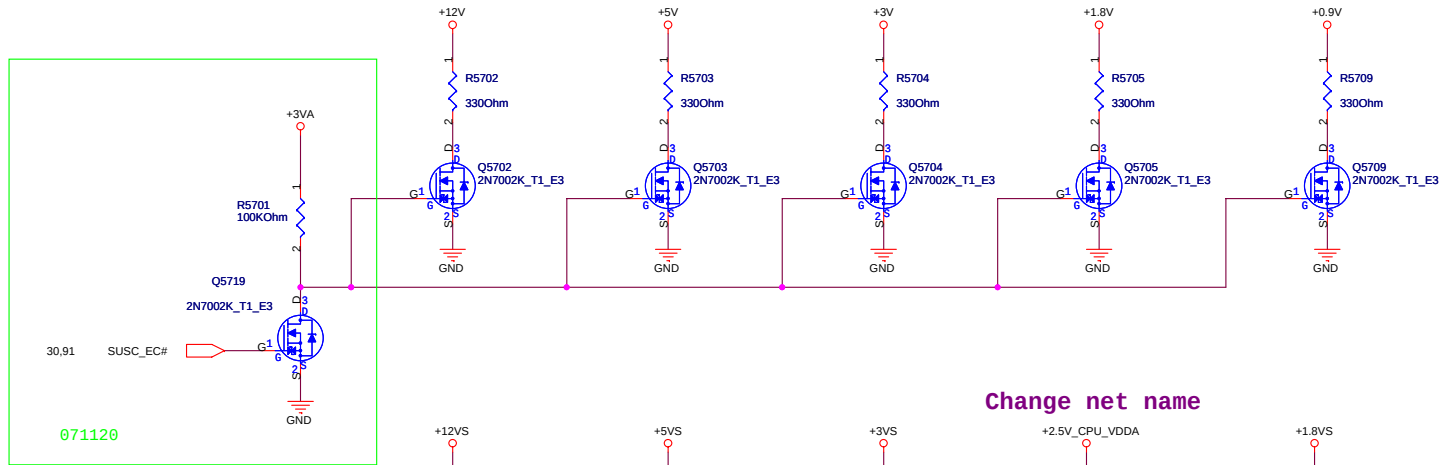
SHUT_DOWN#



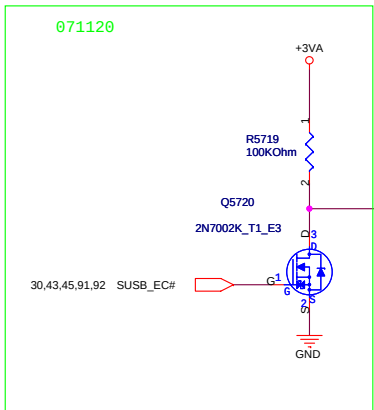
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<Variant Name>

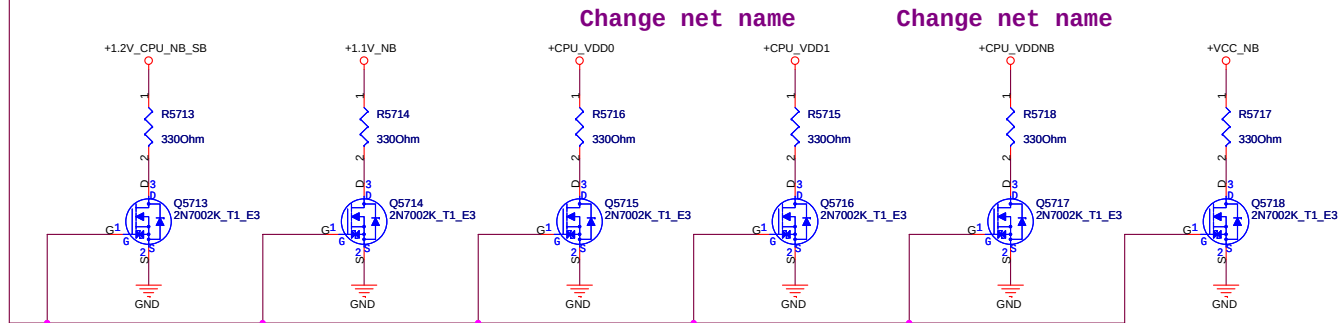
ASUS		Title : LED/PWR SWITCH	
ASUSTek COMPUTER INC		Engineer: Richard Lu	
Size	Project Name		Rev
Custom	F5Z		1.0
Date: Monday, May 19, 2008		Sheet	56 of 94



Change net name



Change all MOS with ESD part

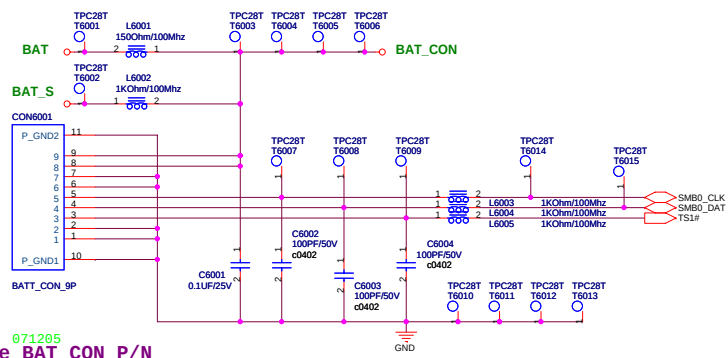


Change net name

Change net name

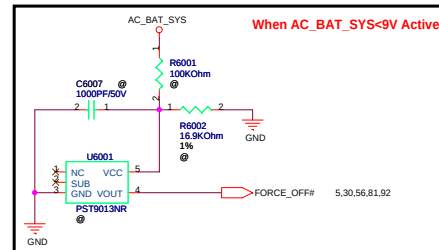
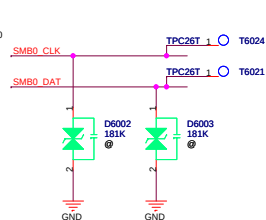
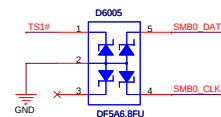
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071120 cahnge PL->L,PT->T,PC->C



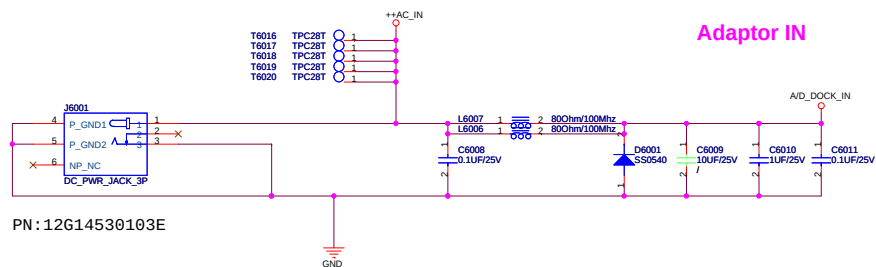
Change BAT CON P/N 071205

Without Battery & Pull out Adapter



Add for AC Adapter protect

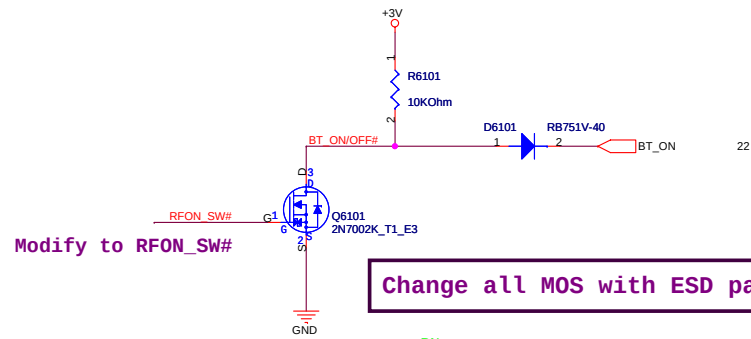
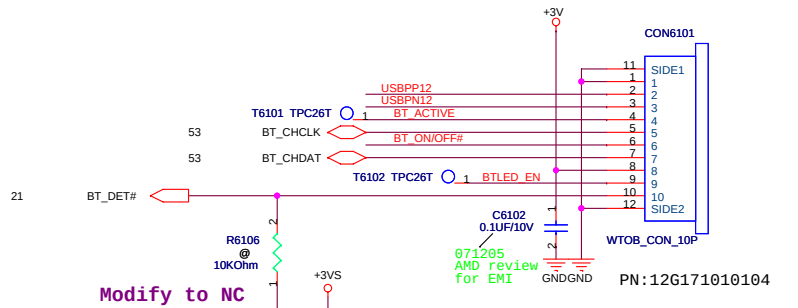
Adaptor IN



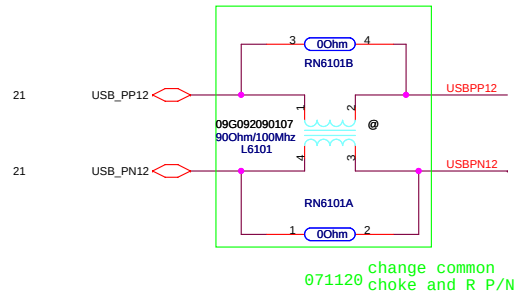
PN:12G14530103E

071218
Delete GND_DC , Bead
,and Test Point

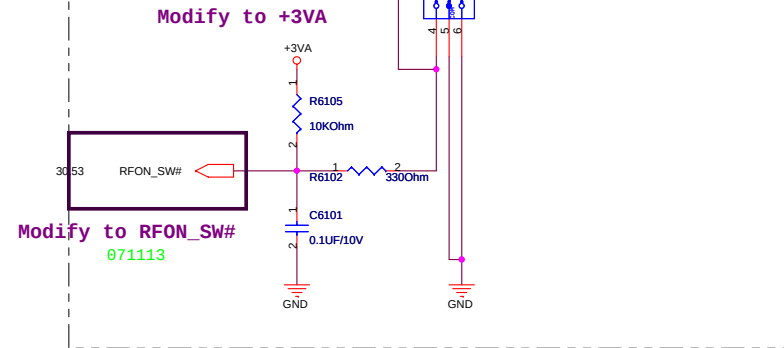
For Bluetooth



RN swap
071214

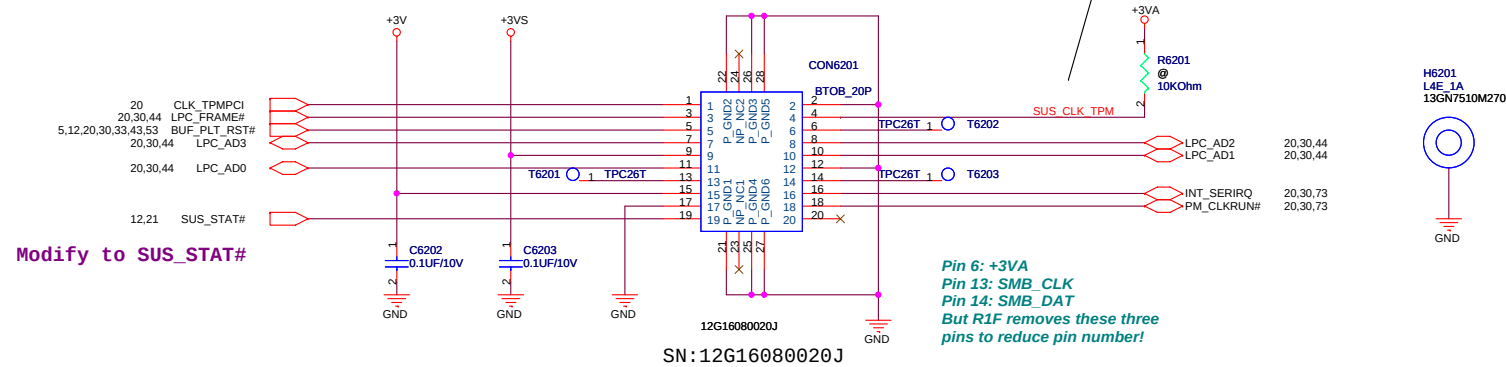


For Side SW



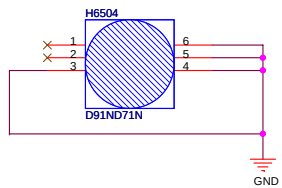
For TPM Module

```
071120
TPM module has internal crystal
```

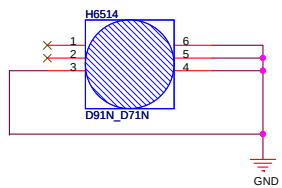


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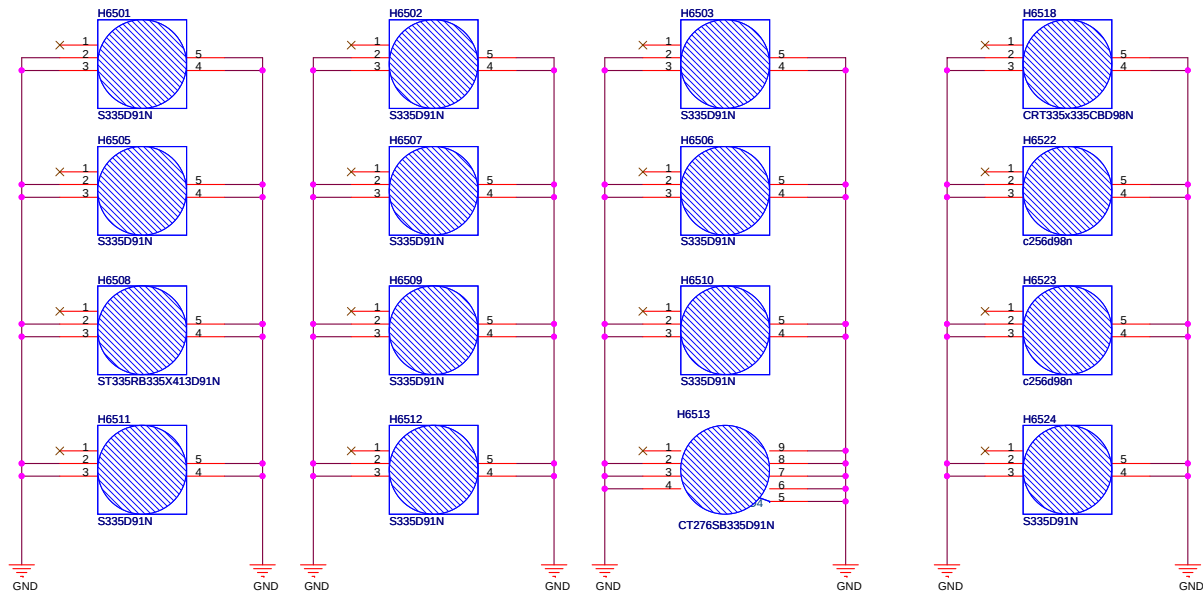
FOR LEFT UNDER



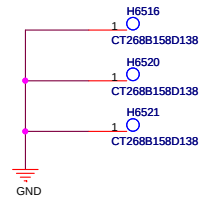
FOR RIGHT UP



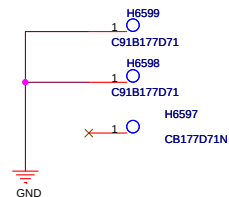
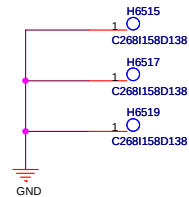
FOR SCREW HOLE



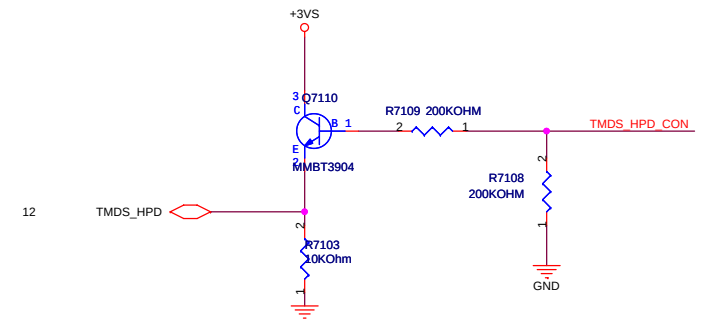
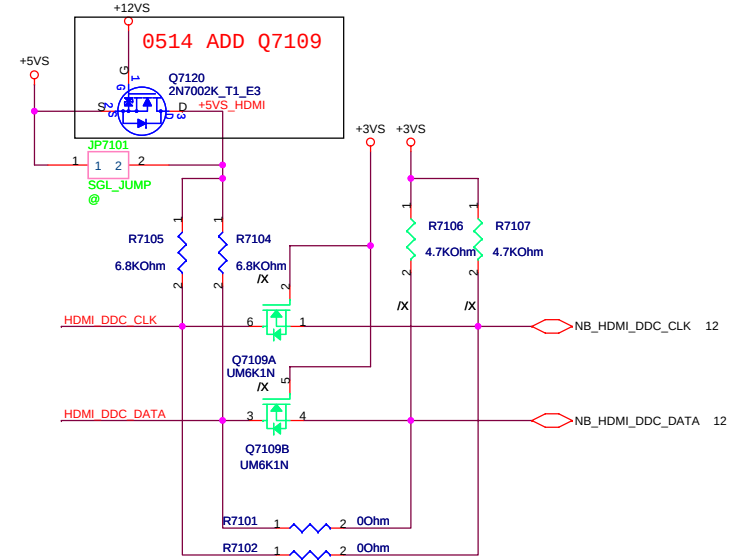
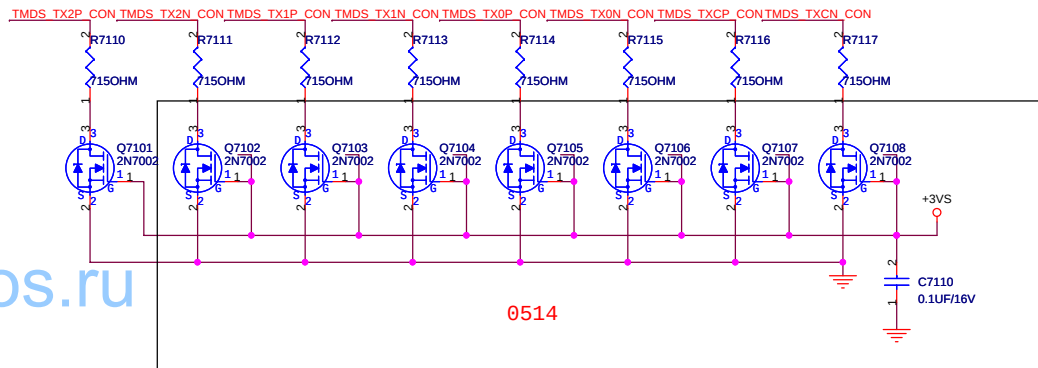
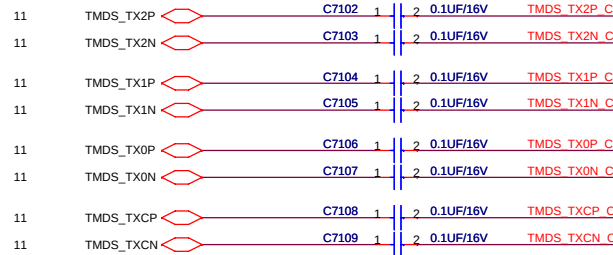
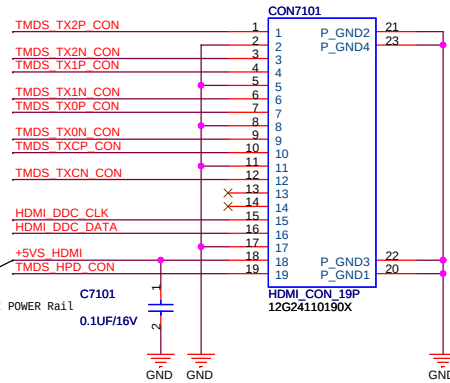
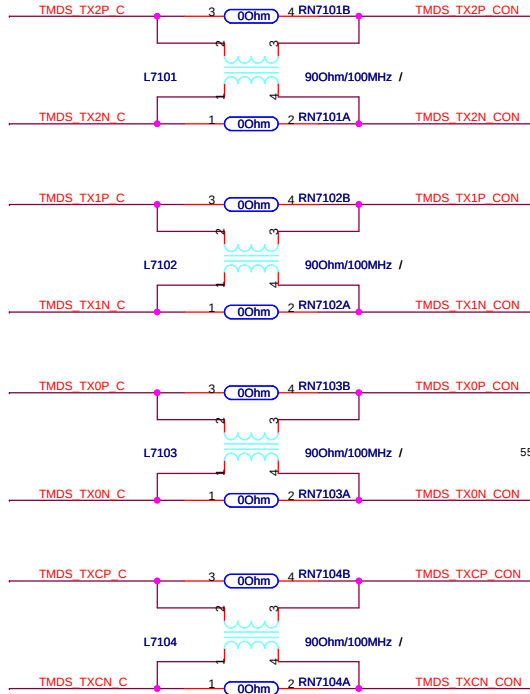
FOR CPU



FOR VGA



HDMI

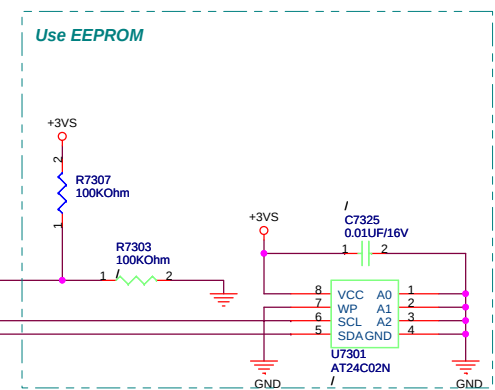
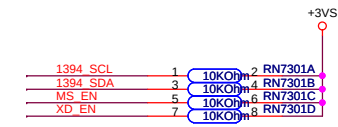
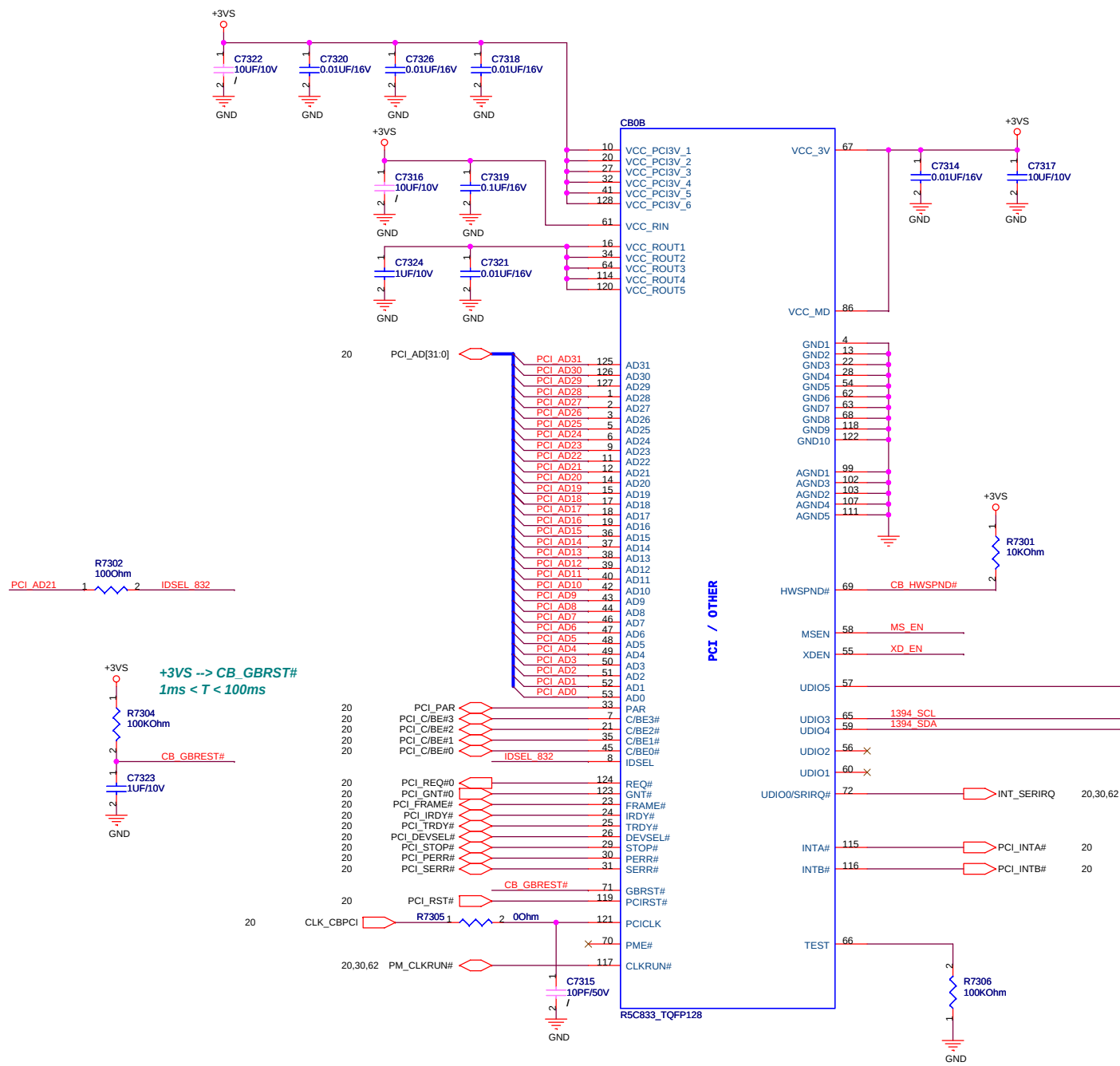


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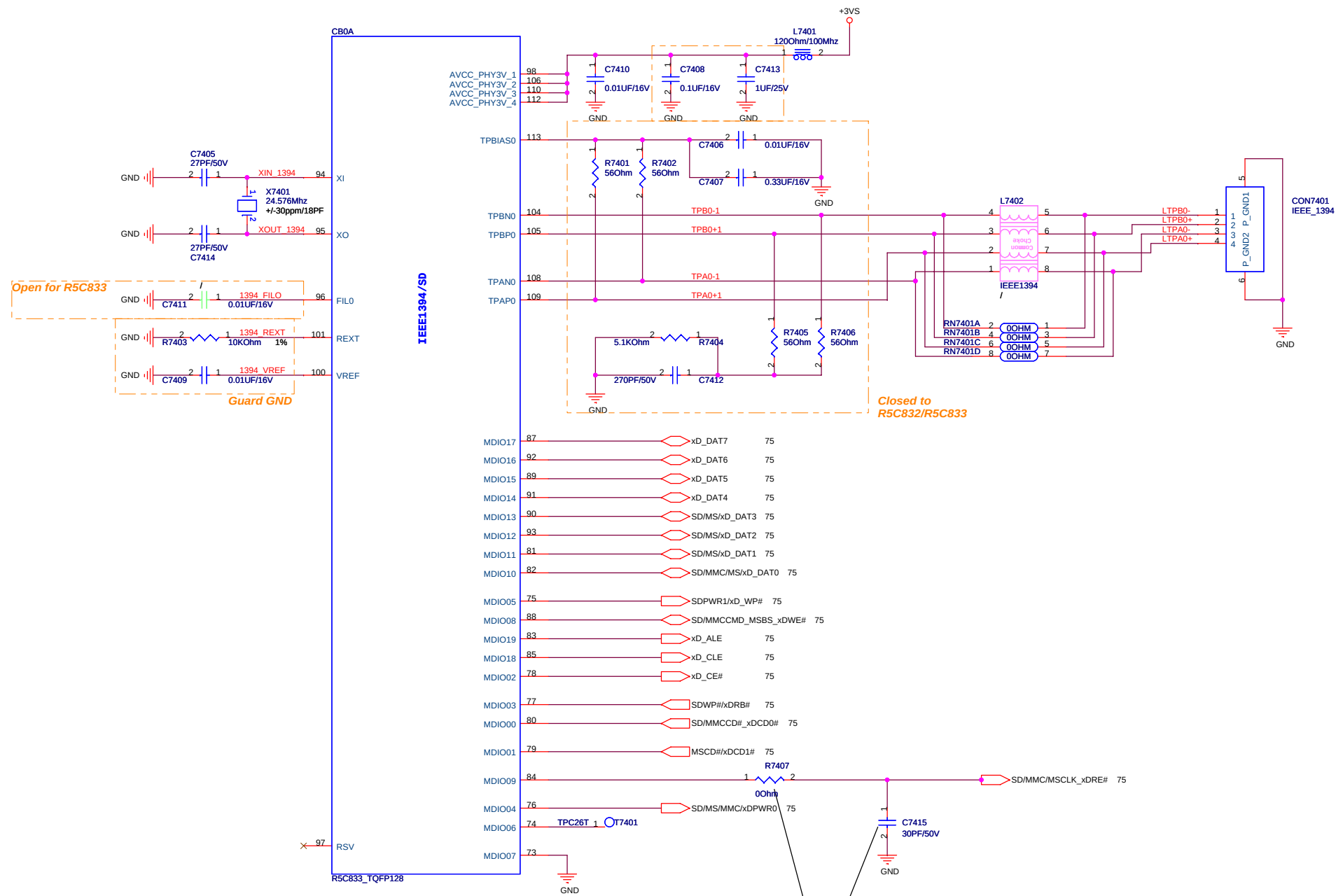
0514

<Variant Name>

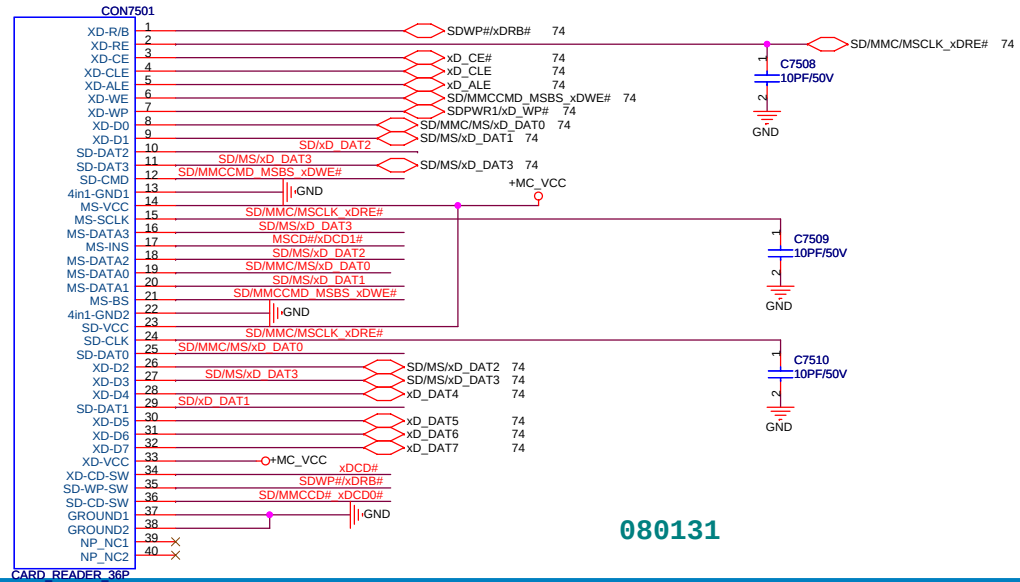
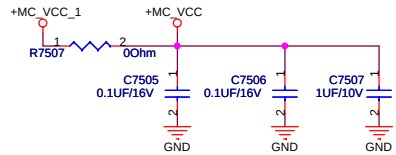
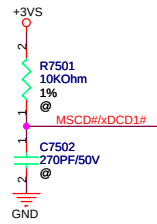
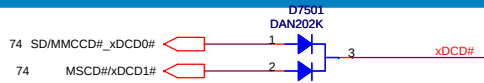
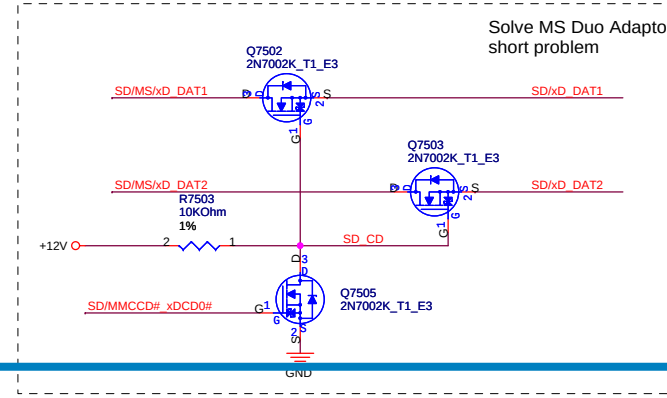
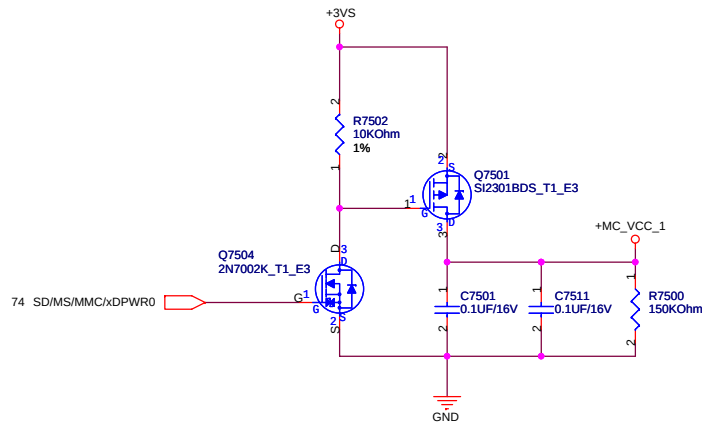
ASUS		Title : HDMI CON	
ASUSTeK COMPUTER INC		Engineer:	
Size	Project Name	Rev	
Custom	F5Z	1.0	
Date:	Monday, May 19, 2008	Sheet	71 of 94



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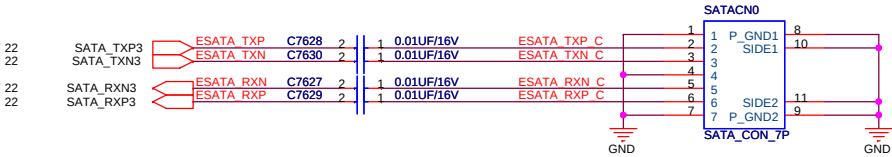


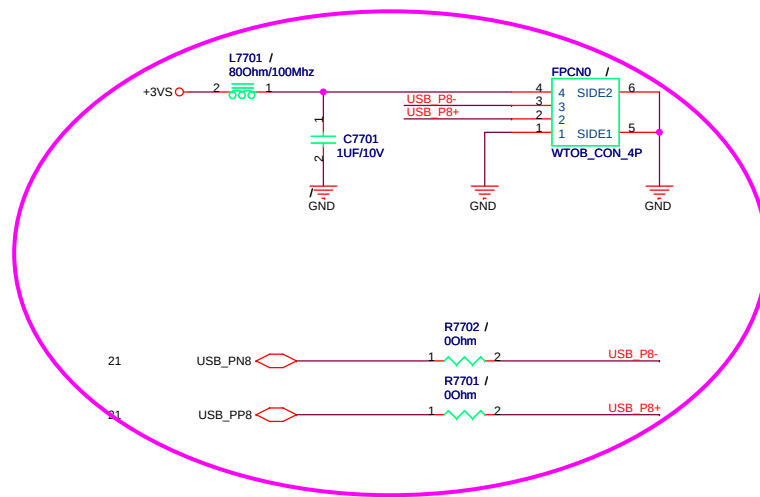
<Variant Name>



080131

eSATA Connector





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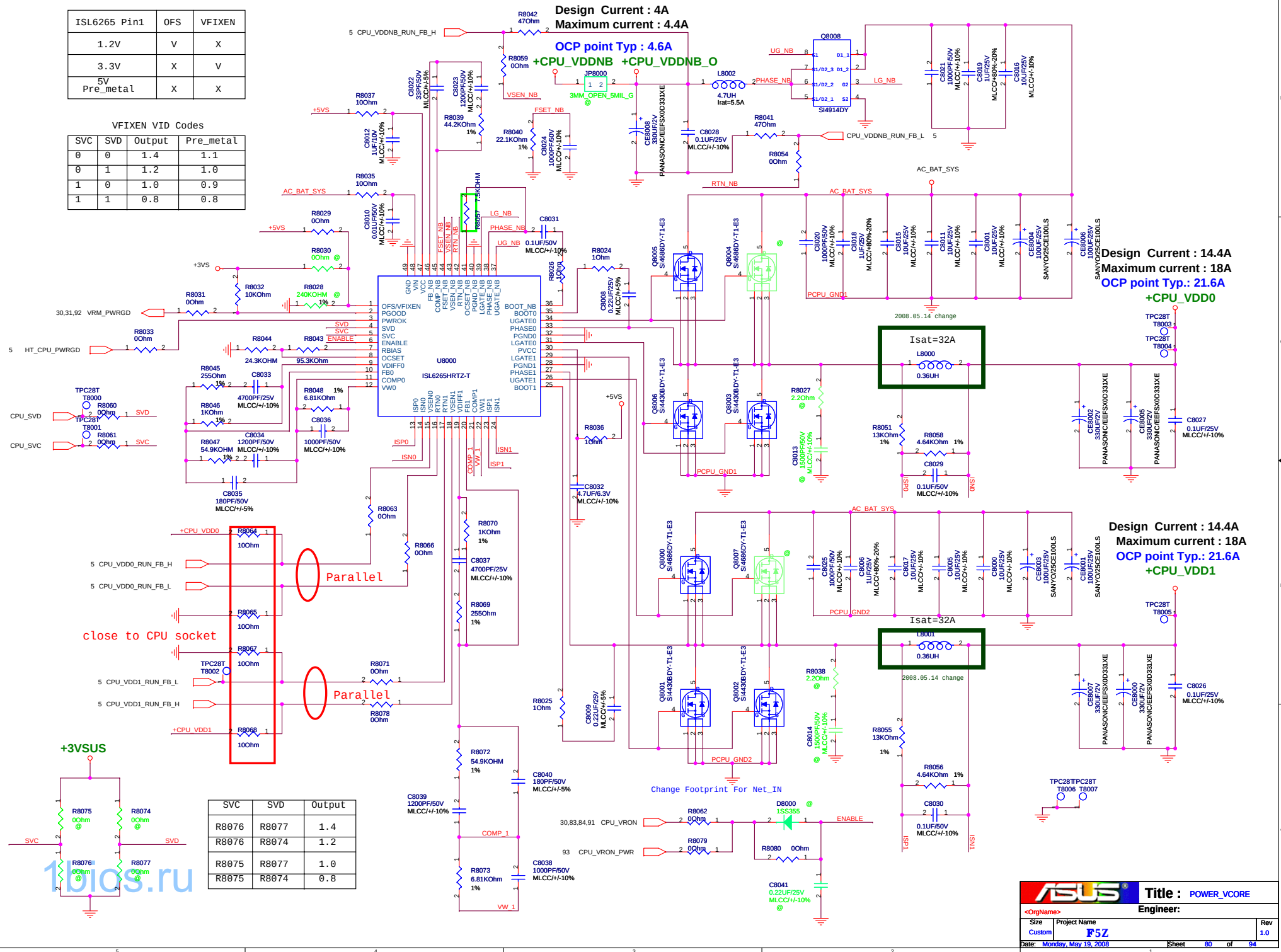
<Variant Name>

ASUS		Title : *	
ASUSTeK COMPUTER INC		Engineer:	
Size	Project Name		Rev
Custom	F5Z		1.0
Date: Monday, May 19, 2008		Sheet	77 of 94

ISL6265 Pin1	OFS	VFIXEN
1.2V	V	X
3.3V	X	V
5V Pre_metal	X	X

VFIXEN VID Codes

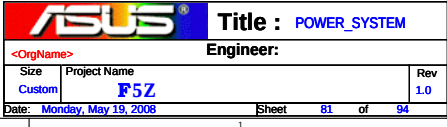
SVC	SVD	Output	Pre_metal
0	0	1.4	1.1
0	1	1.2	1.0
1	0	1.0	0.9
1	1	0.8	0.8



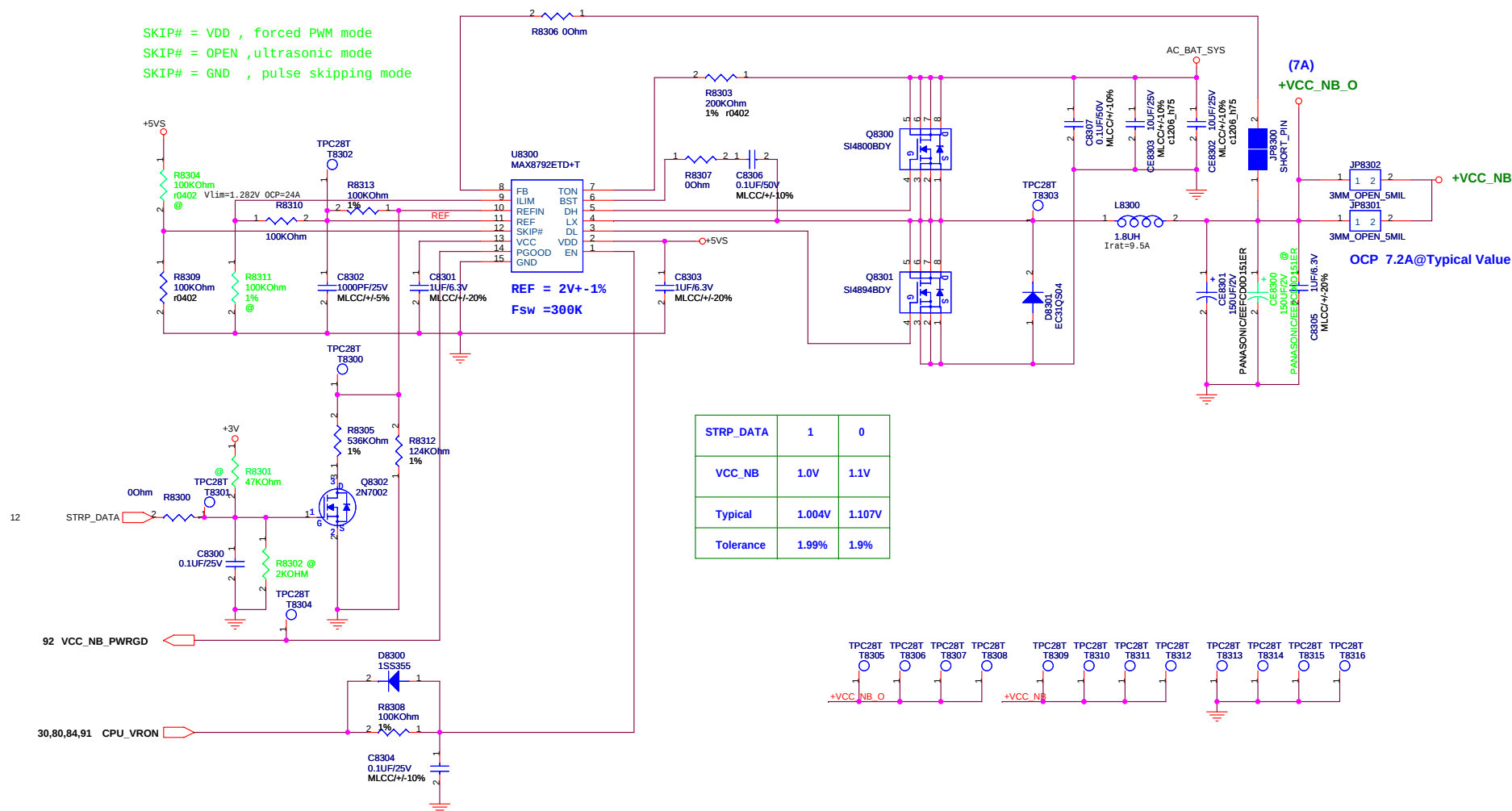
Design Current : 14.4A
Maximum current : 18A
OCP point Typ.: 21.6A
+CPU_VDDO

Design Current : 14.4A
Maximum current : 18A
OCP point Typ.: 21.6A
+CPU_VDD1

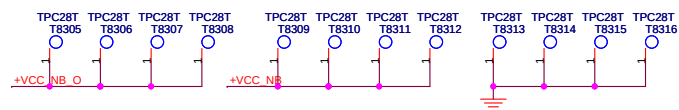
1010s.ru



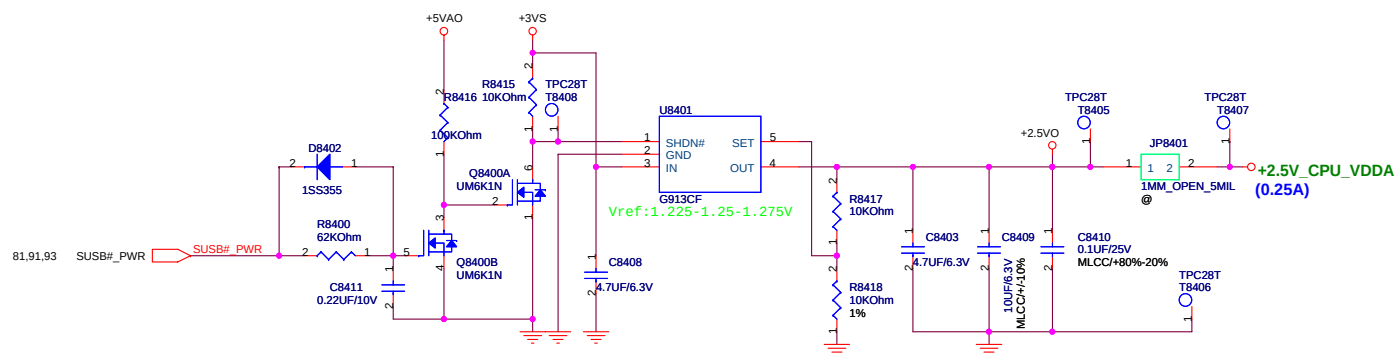

```
SKIP# = VDD , forced PWM mode
SKIP# = OPEN ,ultrasonic mode
SKIP# = GND , pulse skipping mode
```



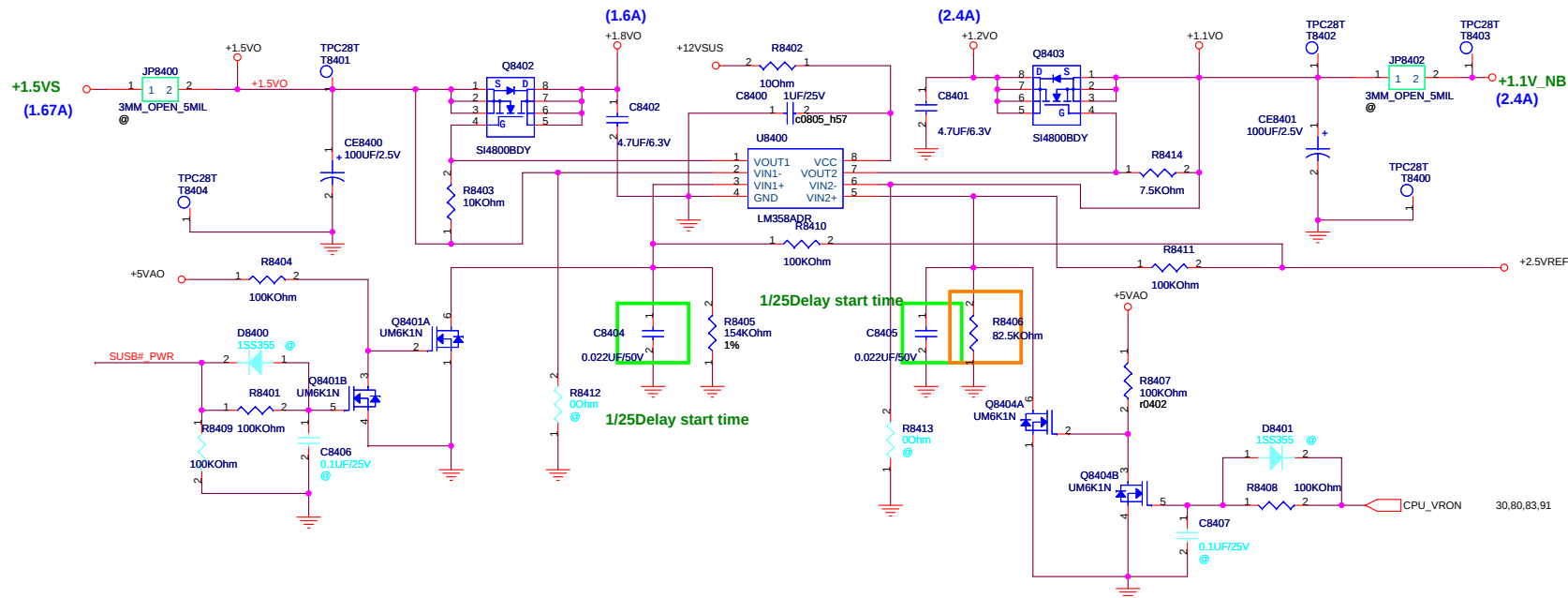
STRP_DATA	1	0
VCC_NB	1.0V	1.1V
Typical	1.004V	1.107V
Tolerance	1.99%	1.9%



+2.5V_CPU_VDDA

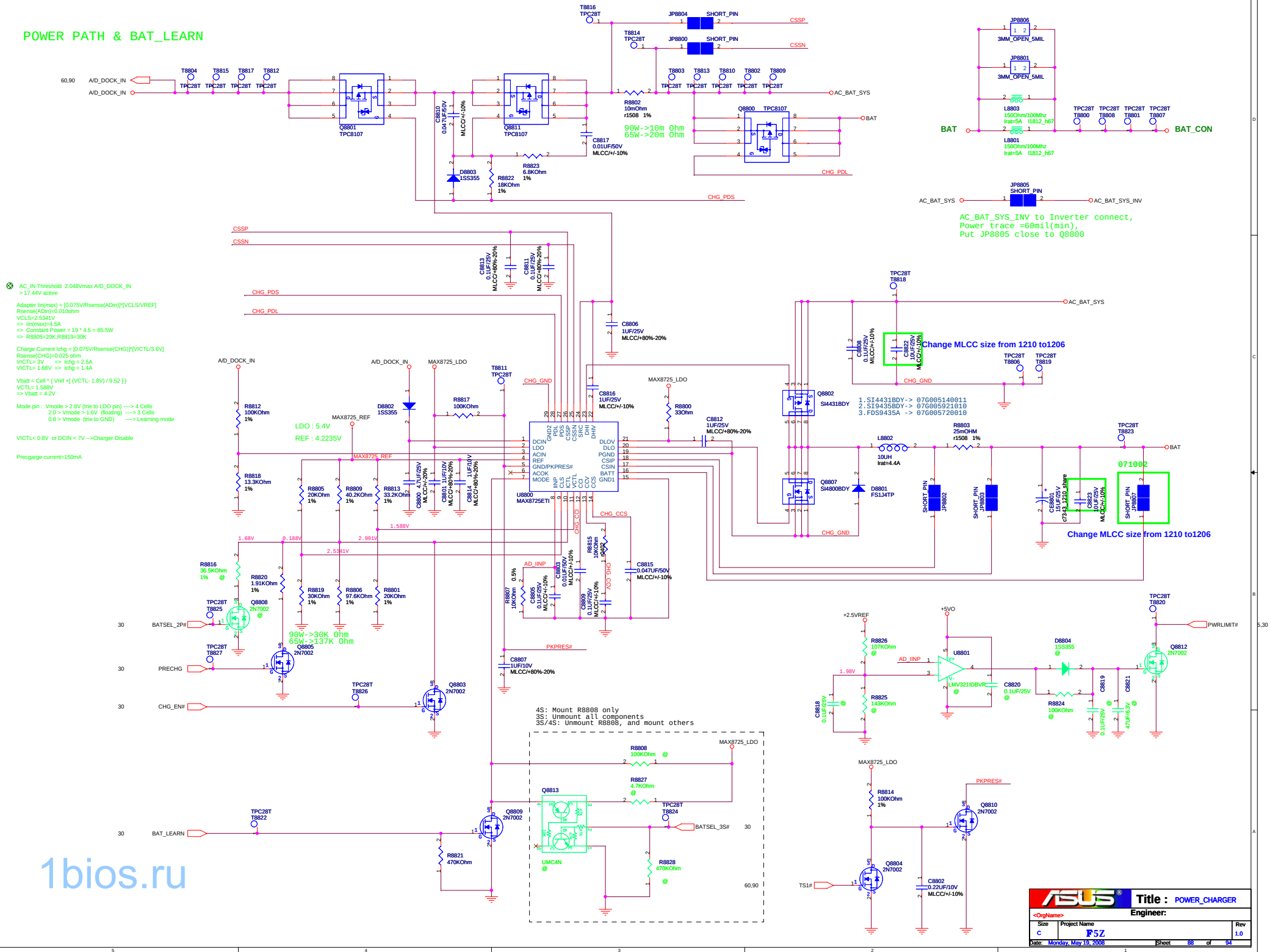


+1.5VS & +1.1V_NB

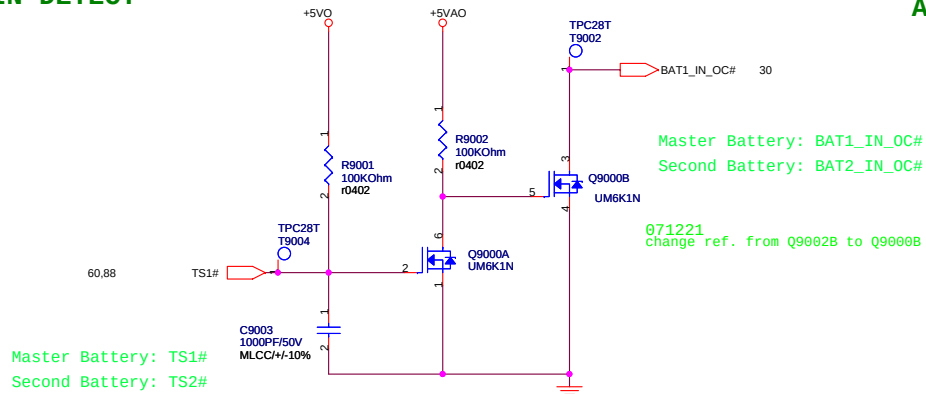


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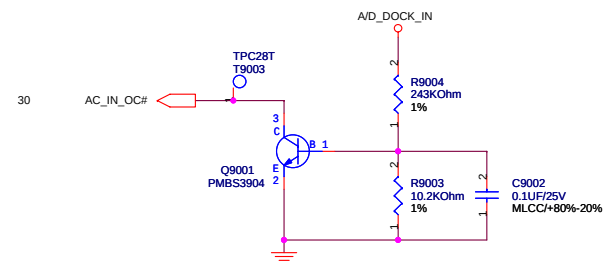
POWER PATH & BAT_LEARN



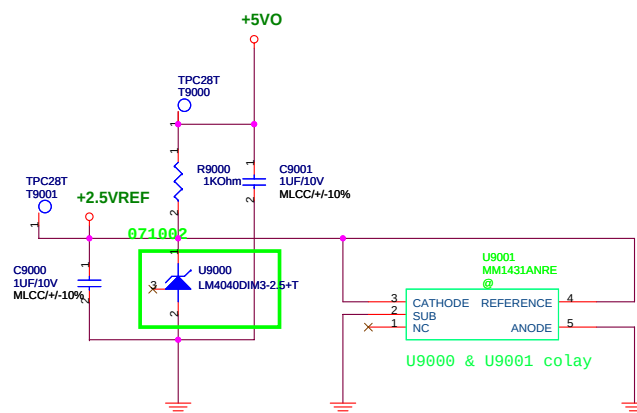
BATTERY IN DETECT



ADAPTER IN DETECT

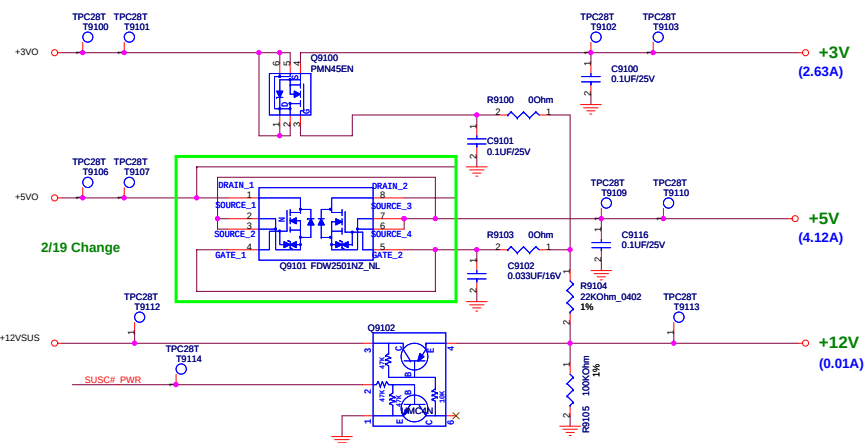


+2.5VREF

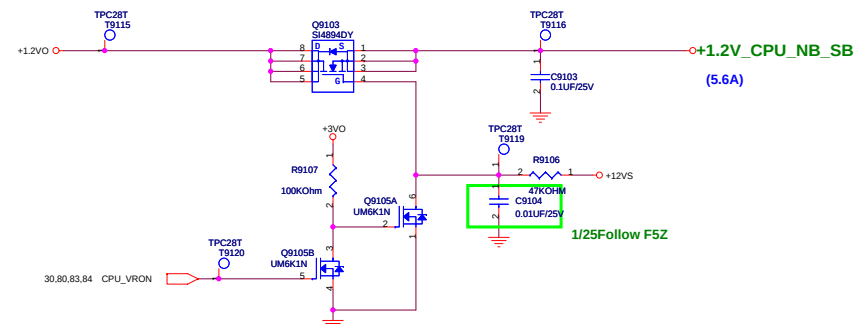
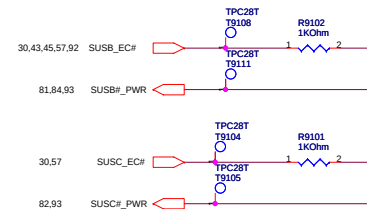
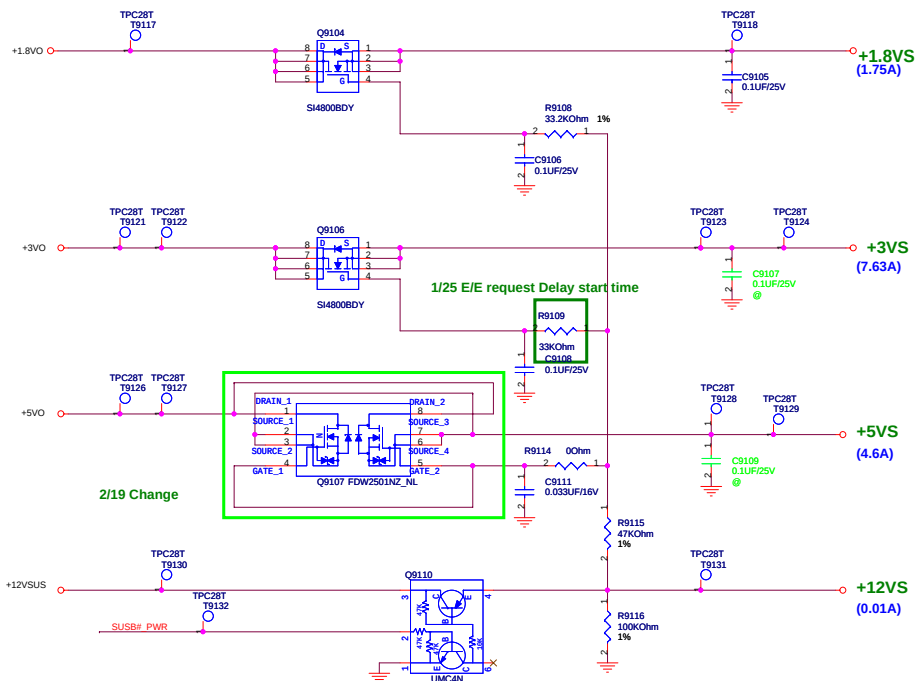


U9000 Main source change to 06G006002414(tolerance:1%).
Add second source 06G006002610 (tolerance:1%),
06G006002412 (tolerance:0.2%) and
06G006002020(tolerance:0.2%)

SUSC#_PWR POWER

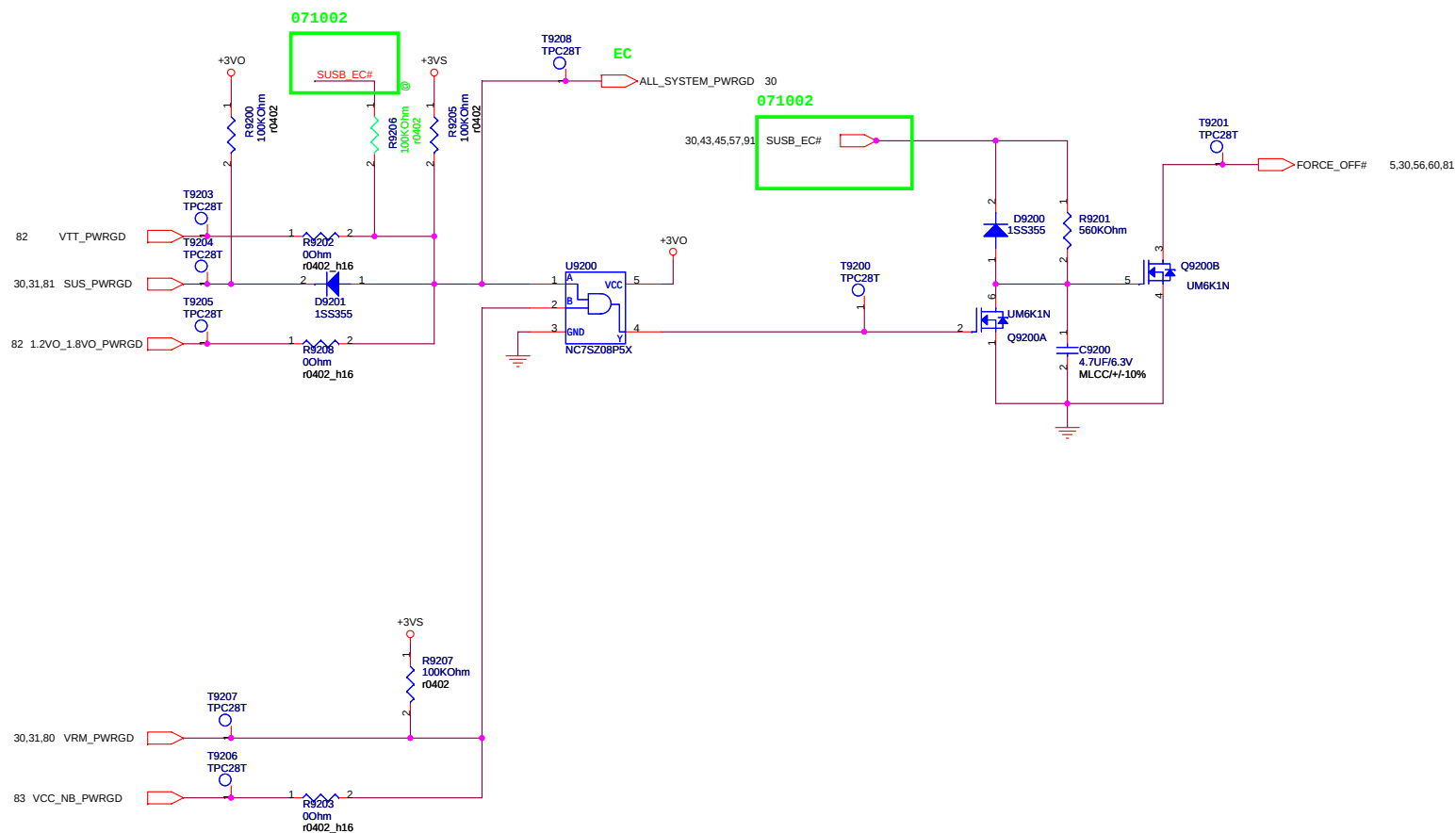


SUSB#_PWR POWER



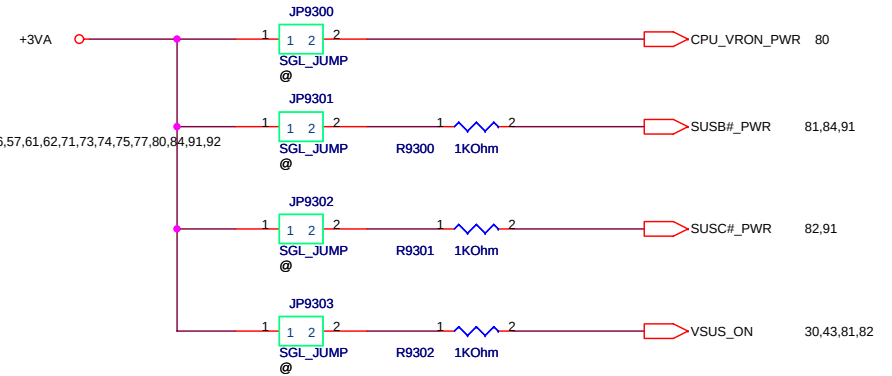
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POWER GOOD DETECTOR



AC_BAT_SYS		AC_BAT_SYS	60,80,81,82,83,88
BAT		BAT	60,88
BAT_CON		BAT_CON	60,88
+2.5VREF		+2.5VREF	82,84,88,90
+3VA		+3VA	20,30,45,56,57,61,62,81
+5VAO		+5VAO	81,84,90
+5VO		+5VO	81,82,88,90,91
+5VSUS		+5VSUS	81
+5V		+5V	44,45,52,57,91
+5VS		+5VS	23,30,31,36,37,46,50,51,57,71,80,83,91
+3VO		+3VO	56,81,91,92
+3VSUS		+3VSUS	4,20,21,22,23,24,30,33,35,37,43,53,56,80,81
+3V		+3V	30,35,44,45,53,55,57,61,62,83,91
+3VS		+3VS	5,7,8,12,13,14,21,22,23,24,29,30,31,33,36,37,43,45,46,50,51,53,55,56,57,61,62,71,73,74,75,77,80,84,91,92
+12VSUS		+12VSUS	81,84,91
+12V		+12V	37,57,75,91
+12VS		+12VS	30,45,57,71,91
+1.8VO		+1.8VO	82,84,91
+1.8V		+1.8V	4,5,6,7,8,9,57,82
+1.8VS		+1.8VS	5,12,13,14,21,57,91
+0.9V		+0.9V	4,6,9,57,82
+0.9VO		+0.9VO	82
+2.5V_CPU_VDDA		+2.5V_CPU_VDDA	5,57,84
+1.5VS		+1.5VS	43,53,55,57,84
+1.5VO		+1.5VO	84
+1.1VO		+1.1VO	84
+1.1V_NB		+1.1V_NB	12,14,57,84
+1.2VO		+1.2VO	82,84,91
+1.2VSUS		+1.2VSUS	23,82
+1.2V_CPU_NB_SB		+1.2V_CPU_NB_SB	3,14,20,22,23,57,91
+VCC_NB_O		+VCC_NB_O	83
+VCC_NB		+VCC_NB	14,57,83
+CPU_VDD0		+CPU_VDD0	6,57,80
+CPU_VDD1		+CPU_VDD1	6,57,80
+CPU_VDDNB_O		+CPU_VDDNB_O	80
+CPU_VDDNB		+CPU_VDDNB	6,57,80

FOR POWER TEST



ASUS		Title : POWER_SIGNAL	
<OrgName>		Engineer:	
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