

FM8B Hanks Intel UMA

VER : 3A
PWA: W028J
PWA: D178M
PWB: W026J

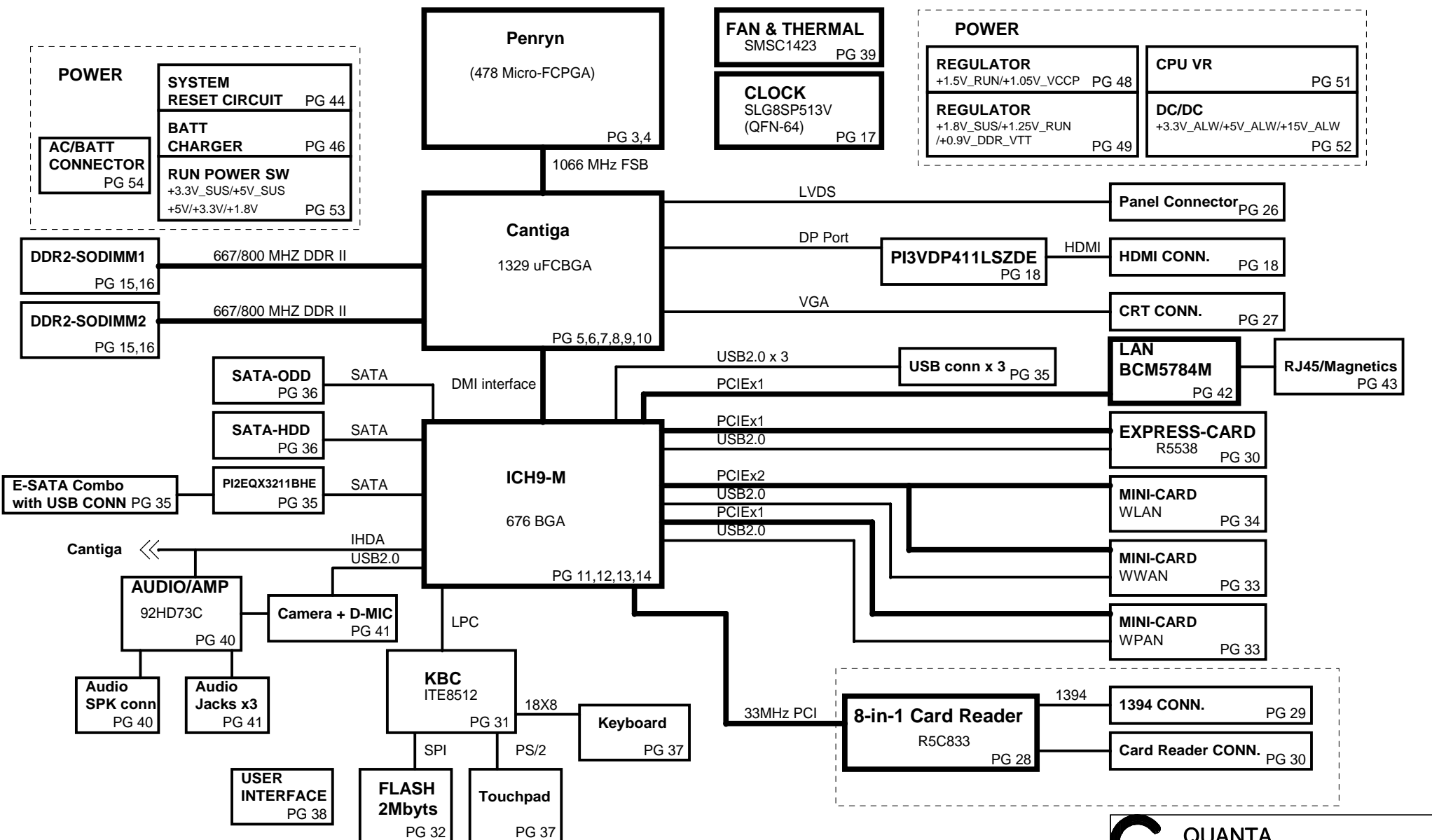









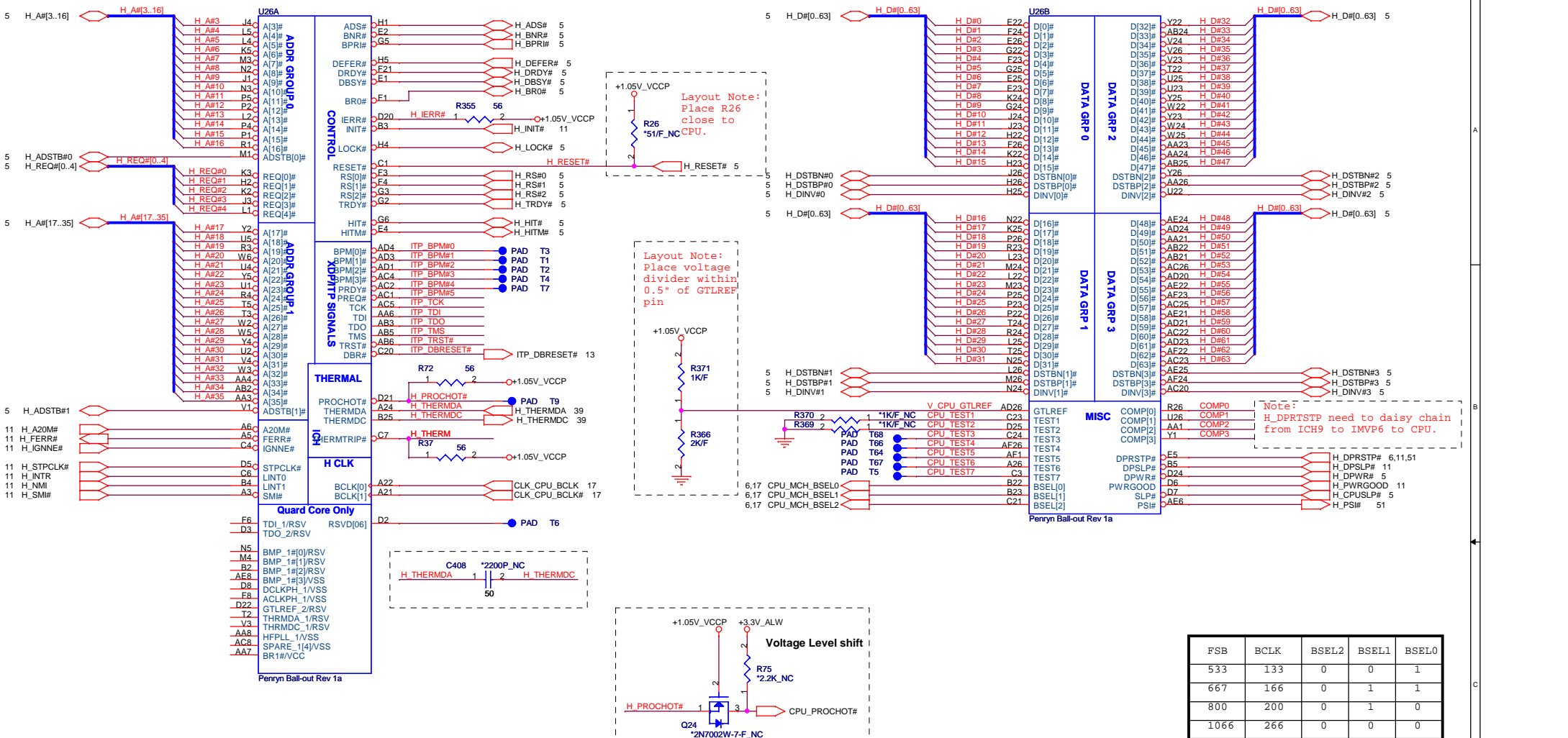
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Power States

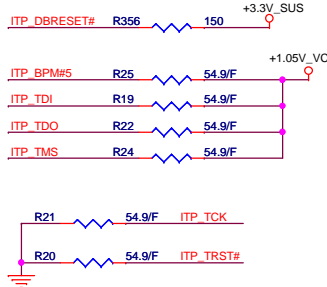
POWER PLANE	VOLTAGE	PAGE	DESCRIPTION	CONTROL SIGNAL	ACTIVE IN
+PWR_SRC	10V~+19V	4,26,32,34,46,48,49,51,52	MAIN POWER		S0~S5
+RTC_CELL	+3.0V~+3.3V	11,14,31,32	RTC		S0~S5
+3.3V_ALW	+3.3V	3,31,32,34,36,37,38,44,46,49,52,53,54	8051 POWER	ALWON	S0~S5
+5V_ALW2	+5V	38,48,49,52,53,54	LCD/CHARGE POWER	ALWON	S0~S5
+15V_ALW	+15V	26,36,37,52,53	LARGE POWER	+5V_ALW	S0~S5
+3.3V_LAN	+3.3V	42,43	LAN POWER	AUX_ON	
+5V_SUS	+5V	14,36,38,51,53	SLP_S5# CTRLD POWER	SUS_ON	
+3.3V_SUS	+3.3V	3,11,12,13,14,26,30,37,38,43,48,49,51,53	SLP_S5# CTRLD POWER	3.3V_SUS_ON	
+1.8V_SUS	+1.8V	6,8,9,15,48,49,53	SODIMM POWER	DDR_ON	
+0.9V_DDR_VTT	+0.9V	16,49,53	SODIMM POWER	0.9V_DDR_VTT_ON	
+5V_RUN	+5V	14,18,27,36,37,39,40,41,53	SLP_S3# CTRLD POWER	RUN_ON	
+3.3V_RUN	+3.3V	3,6,8,9,11,13,14,15,16,17,18,26,27,36,37,38,39,40,41,53	SLP_S3# CTRLD POWER	3.3V_RUN_ON	
+1.8V_RUN	+1.8V	35,53	SDVO POWER	RUN_ON	
+1.5V_RUN	+1.5V	4,9,14,30,33,34,40,48,53	CALISTOGA/ICH8 POWER	1.5V_RUN_ON	
+1.05V_VCCP	+1.05V	3,4,5,6,8,9,11,14,48	CPU/CALISTOGA/ICH8 POWER	1.05V_RUN_ON	
+VCC_CORE	+0.7V~+1.77V	4,51	CPU CORE POWER	IMVP_VR_ON	
+LCDVCC	+3.3V	26	LCD Power	LCDVCC_TST_EN & ENVDD	
+5V_MOD	+5V	36	Module Power	MODC_EN#	
+5V_HDD	+5V	36	HDD Power	HDDC_EN#	
+PBATT	+10V~+17V		MAIN BATTERY	CHG_PBATT	
+SBATT	+10V~+17V		SECOND BATTERY	CHG_SBATT	

GND PLANE	PAGE	DESCRIPTION
 8731AGND	46	
 AGND_0.9V	49	
 AGND_DC/DC	52	
 AGND_DC2	48	
 AGND_DDR	49	
 AGND_ISL6260	51	
 GND	ALL	




Populate ITP700Flex for bringup

Layout Note:
Place couple 0.1uF Decoupling caps with in 0.1" ITP connector.

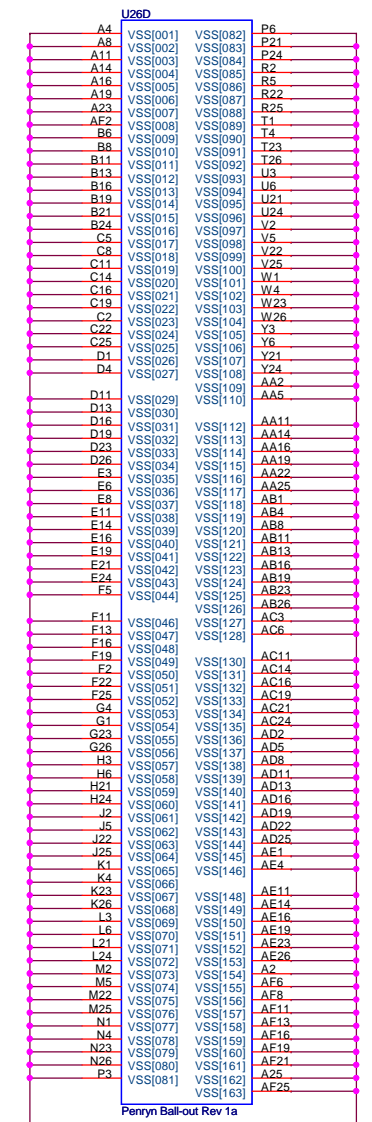
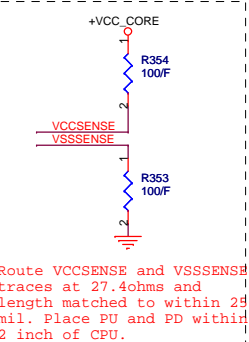
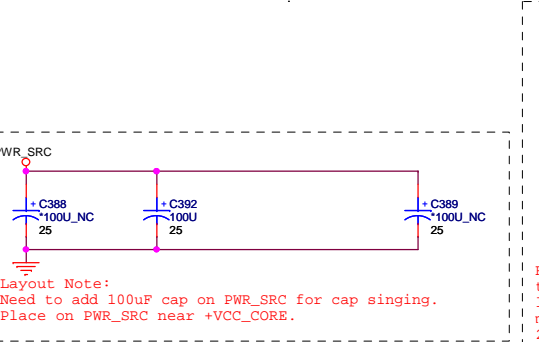
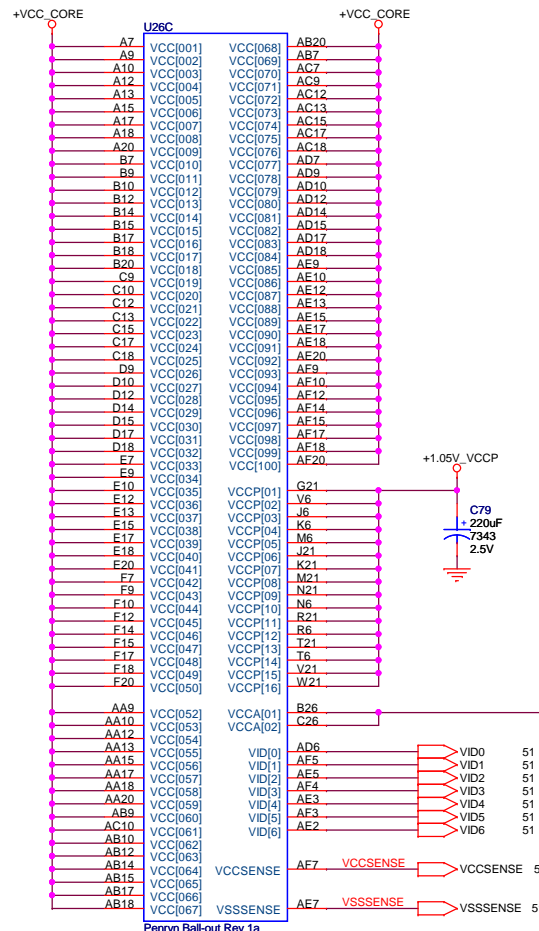
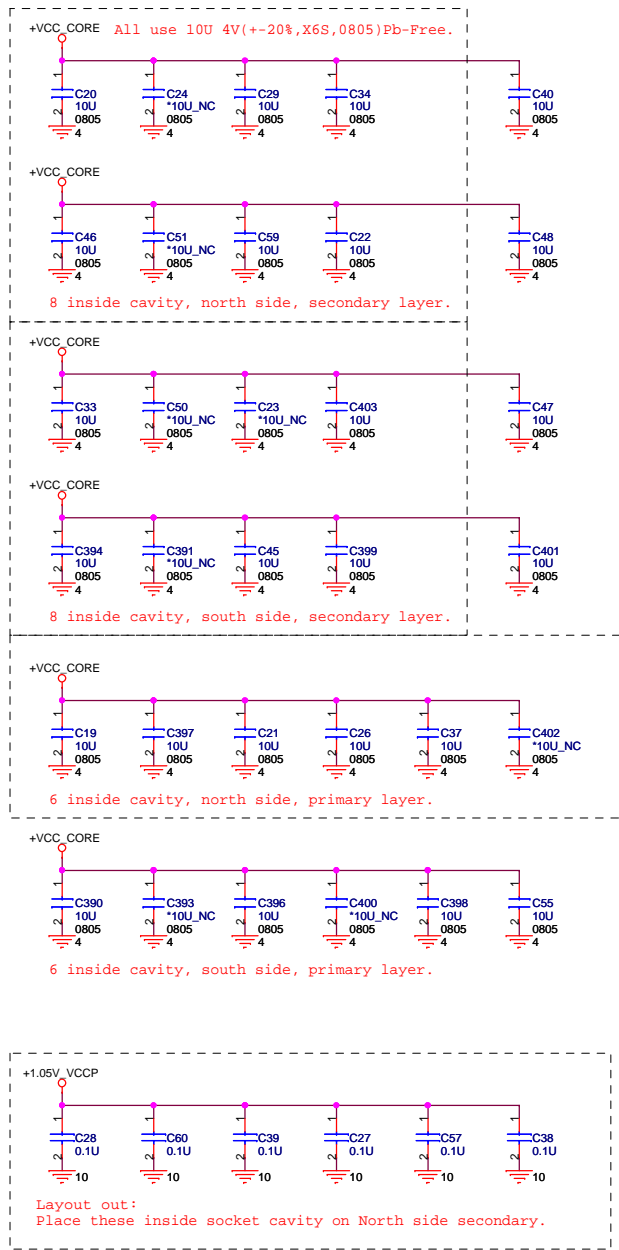


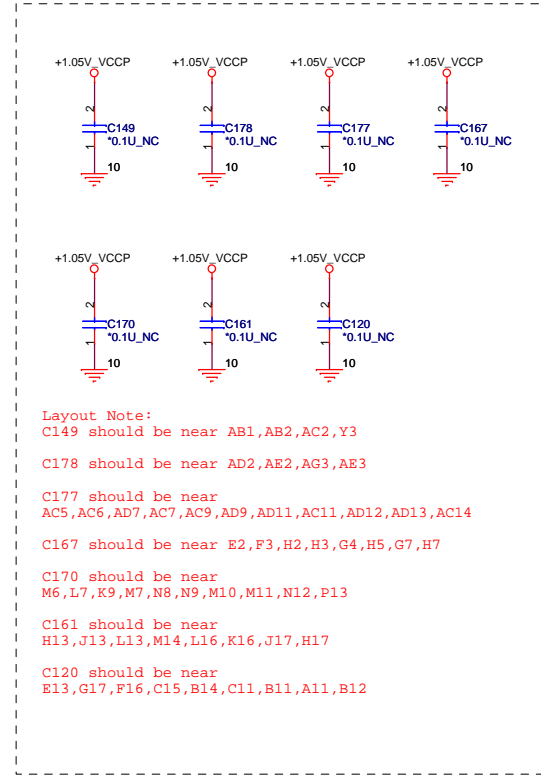
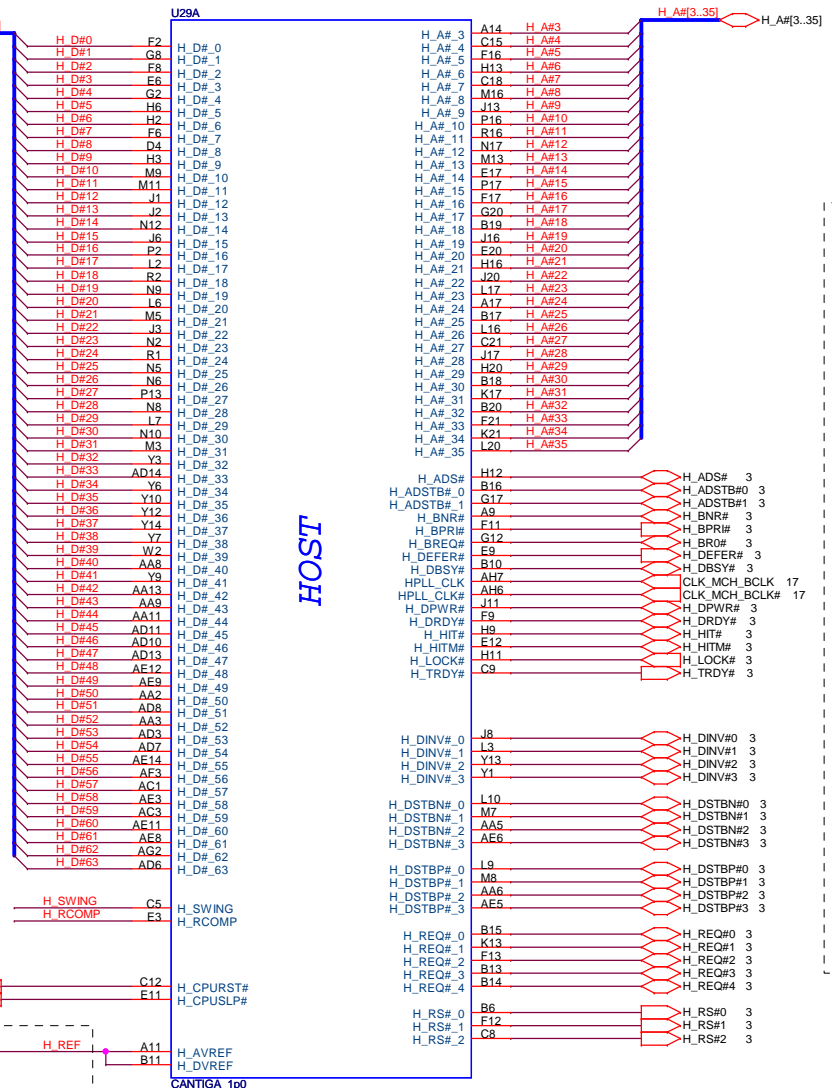
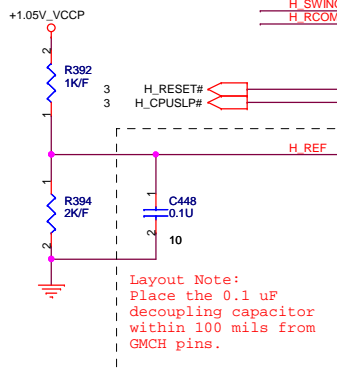
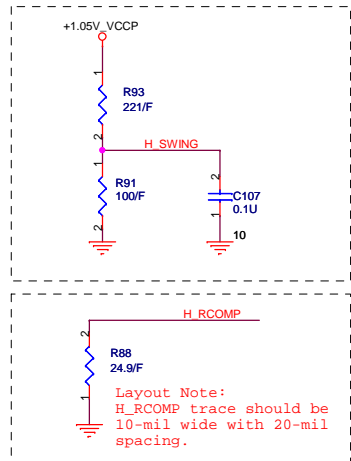
ITP disable guidelines				
Signal	Resistor Value	Connect To	Resistor Placement	
TDI	150 ohm +/- 5%	VTT	Within 2.0" of the ITP	
TMS	39 ohm +/- 5%	VTT	Within 2.0" of the ITP	
TRST#	680 ohm +/- 5%	GND	Within 2.0" of the ITP	
TCK	27 ohm +/- 5%	GND	Within 2.0" of the ITP	
TDO	Open	VTT	Within 2.0" of the ITP	
ITP_EN	R268 Depop	+3VRUN	Close to CK410M Pin8	

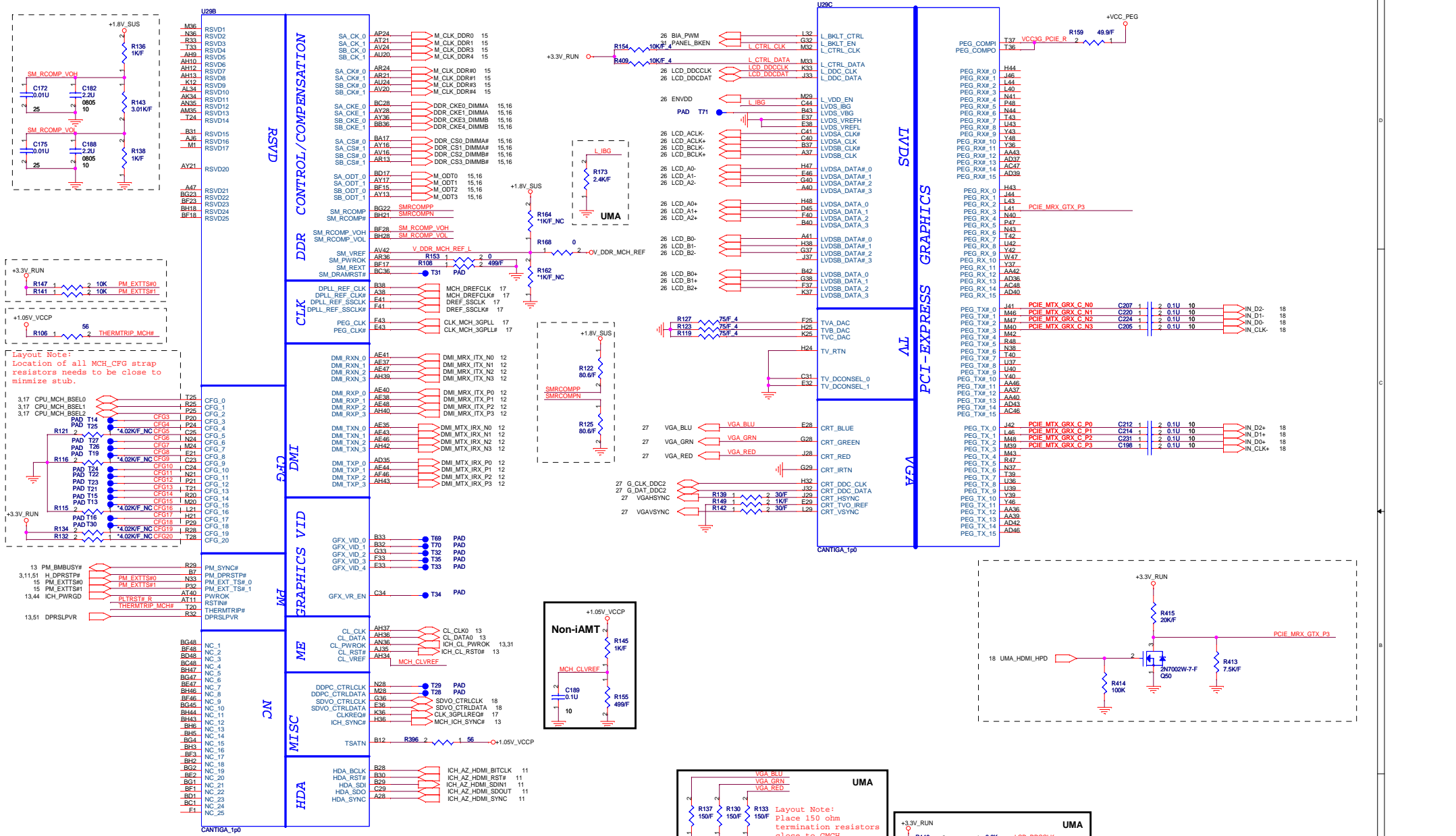


QUANTA
COMPUTER

Title Merom Processor (HOST BUS)		
Size Document Number FM8B	Rev 3A	
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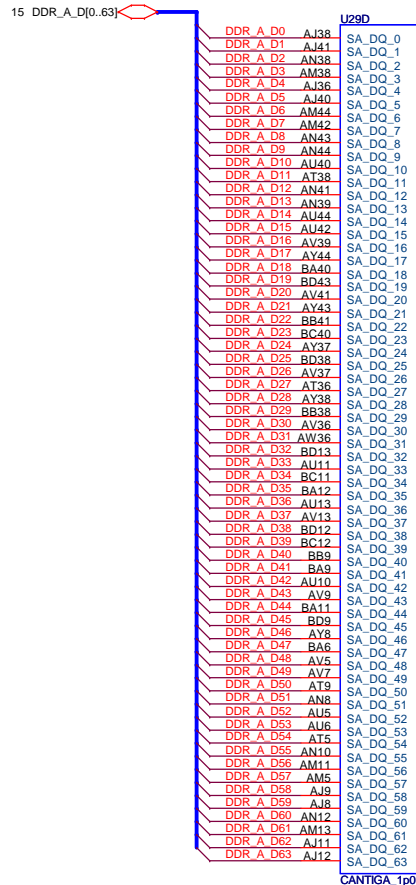




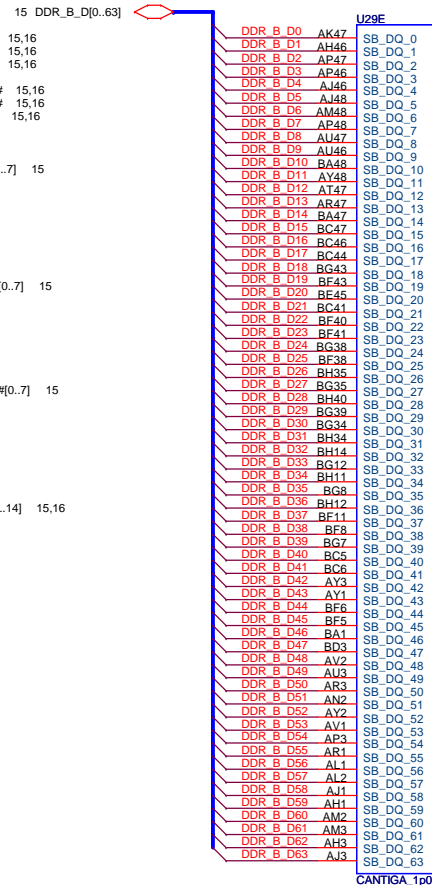
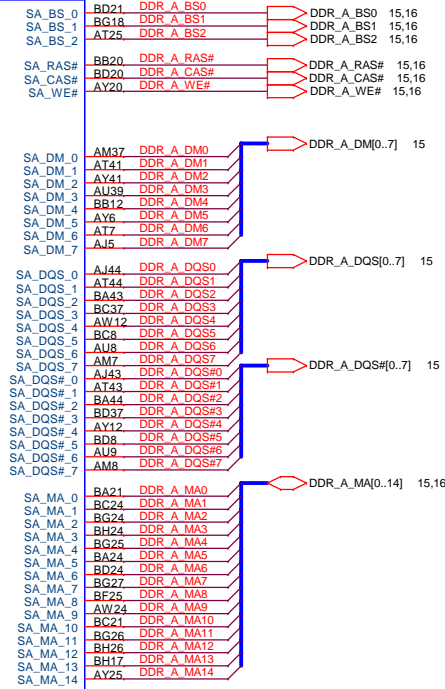


12 SB_NB_PCIE_RST#	R373	0 NC	
12,30,31,33,34,42 PLTRST#	R377	1 0	R374 100 1 PLTRST# R
3,52 H_THERMTRIP#	R412	20 NC	THERMTRIP MCH#

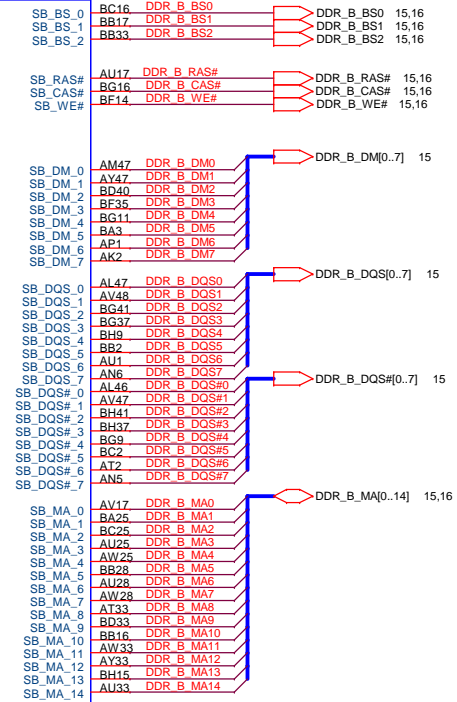
CFG5	DMI X2 Select	Low=DMIx2 High=DMIx4(Default)
CFG9	PCI Express Graphic Lane	Low= Reverse Lane High=Normal operation
CFG16	FSB Dynamic ODT	Low=Dynamic ODT Disable High=Dynamic ODT Enable(default).
CFG19	DMI Lane Reversal	Low=Normal(default). High=Lane Reversed
CFG20	SDVO/PCIE Concurrent Operation	Low=Only SDVO or PCIeI1 is operational (defaults) High=SDVO and PCIeI1 are operating simultaneously via PEG port
SDVO_CTRL_DATA	SDVO Present	Low=No SDVO Device Present (default) High=SDVO Device Present

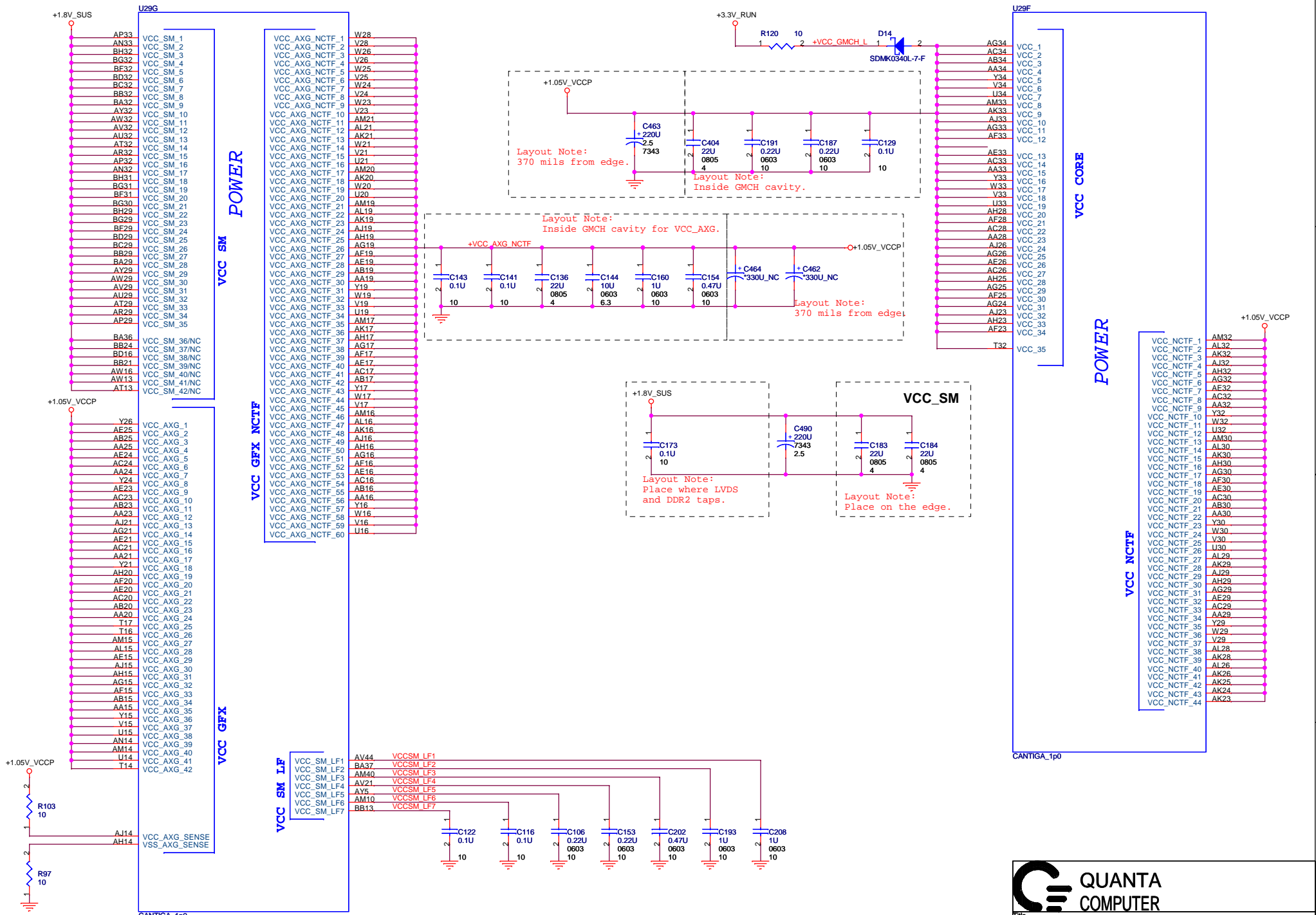


DDR SYSTEM MEMORY A




DDR SYSTEM MEMORY B



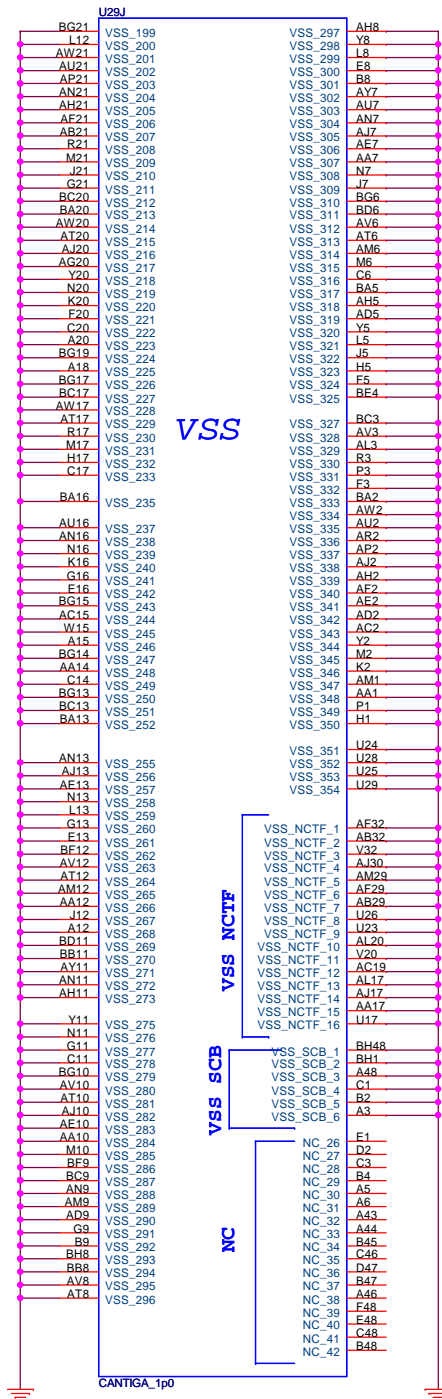
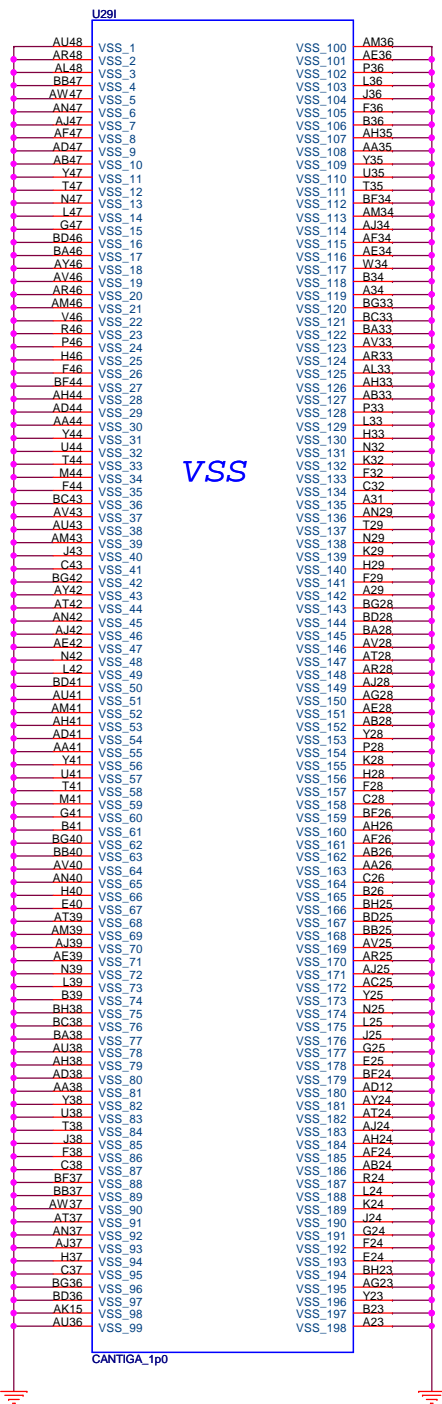



UMA: Places R103, R97 to 10 ohm.
DIS: Please R103, R97 to 0 ohm.

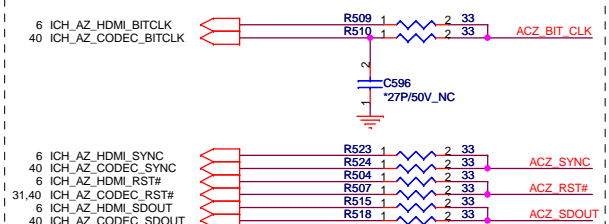
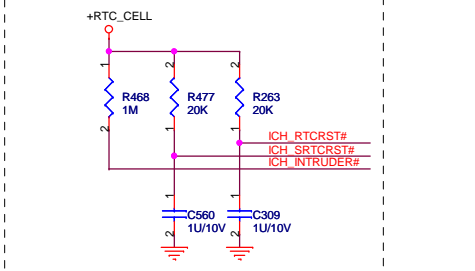
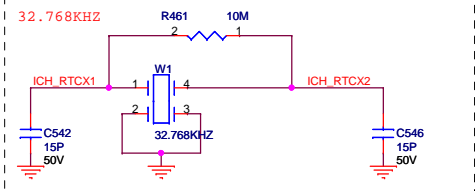


QUANTA
COMPUTER

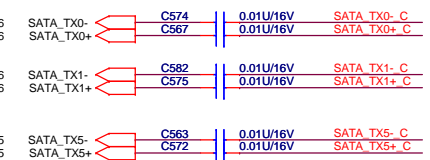
Title Crestline (VCC,NCTF)		
Size FMSB	Document Number	Rev 3A
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 QUANTA COMPUTER		
Title Crestline (VSS)		
Size FM8B	Document Number FM8B	Rev 3A
Date: Thursday, October 09, 2008	Sheet 10	of 58

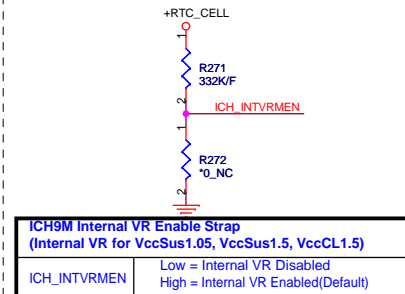


Place all series terms close to ICH9 except for SDIN input lines, which should be close to source. Placement of R523, R524, R509 & R510 should equal distance to the T split trace point as R504 & R507, R515 & R516 respectively. Basically, keep the same distance from T for all series termination resistors.

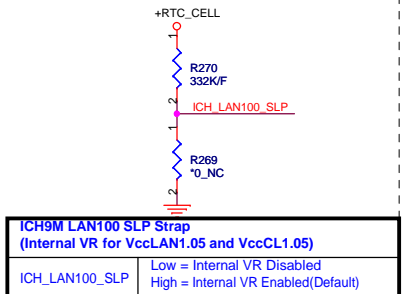


Master HDD

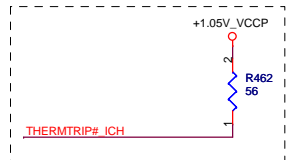
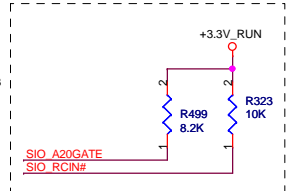
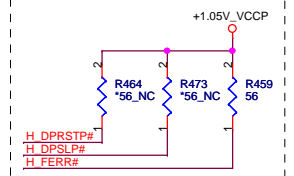
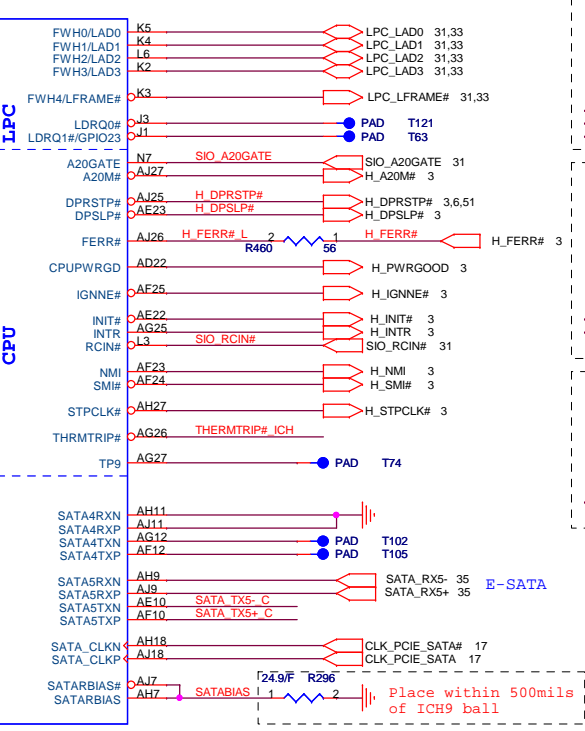
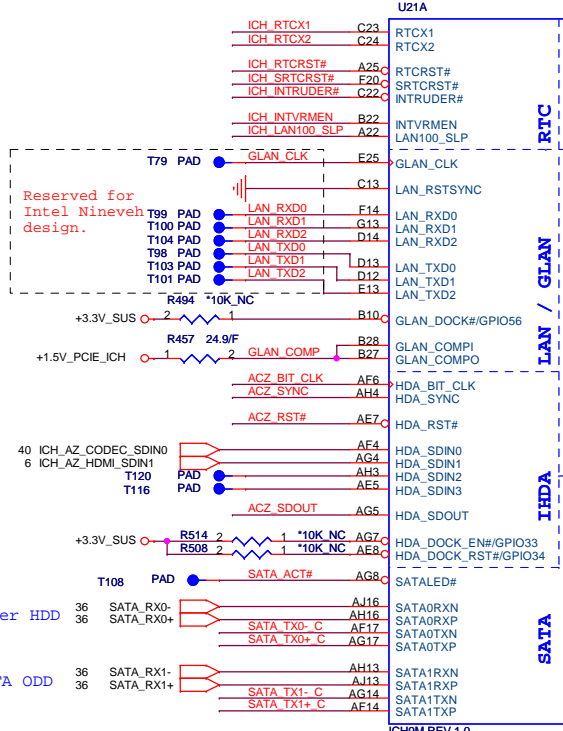
SATA ODD



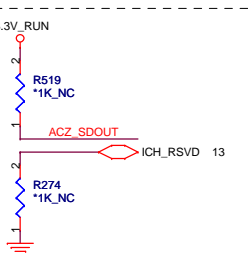
ICH9M Internal VR Enable Strap (Internal VR for VccSus1.05, VccSus1.5, VccCL1.5)		
ICH_INTVRMEN	Low = Internal VR Disabled High = Internal VR Enabled(Default)	

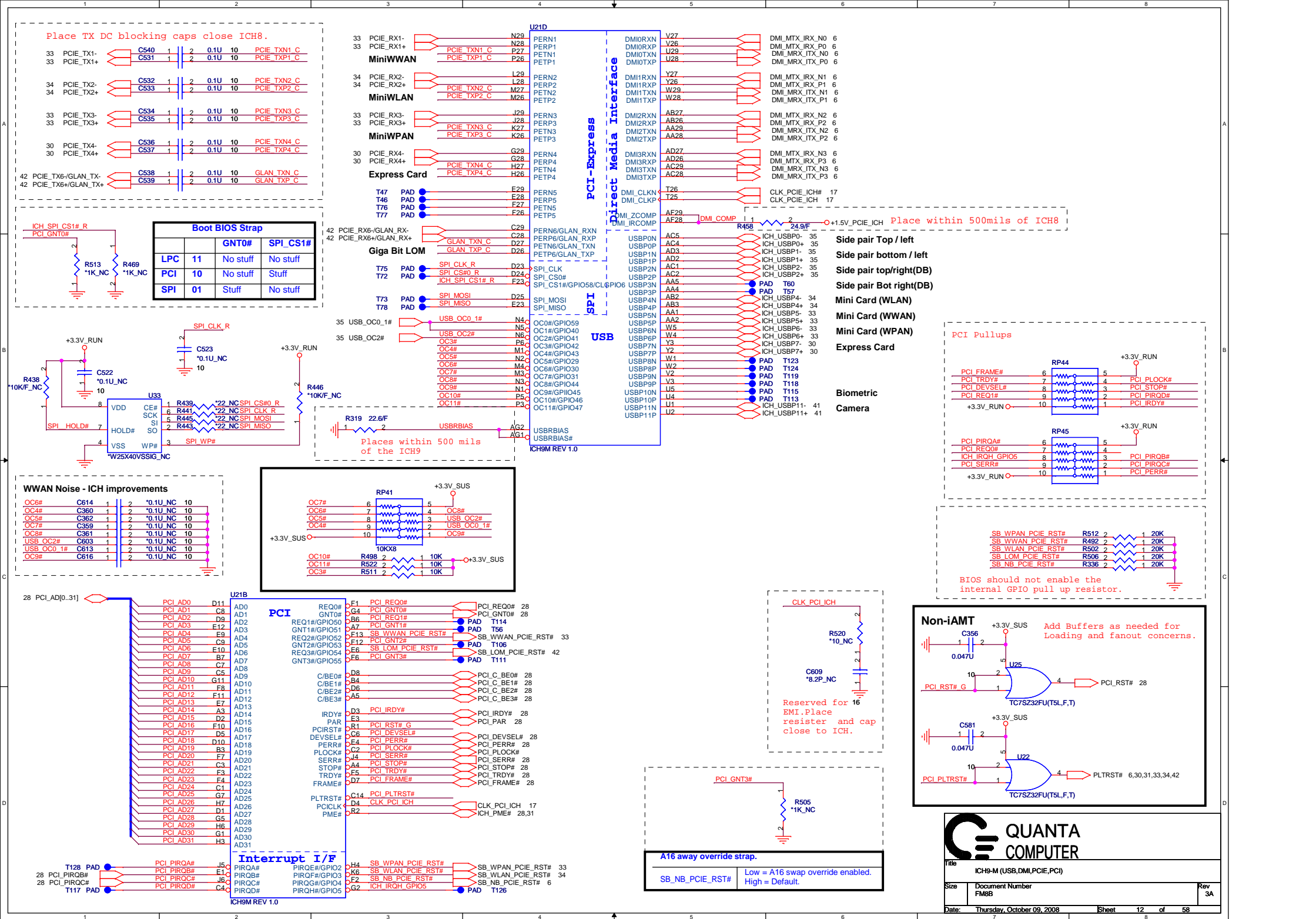


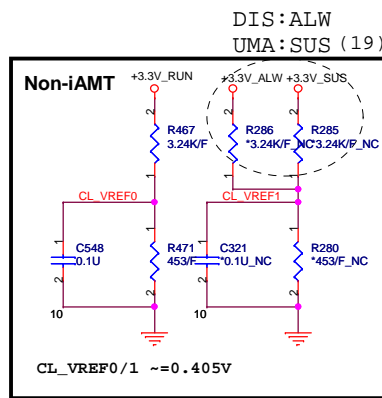
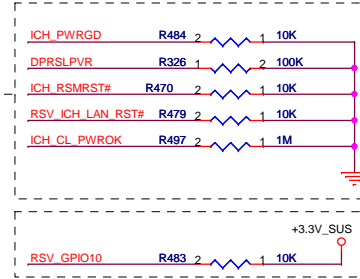
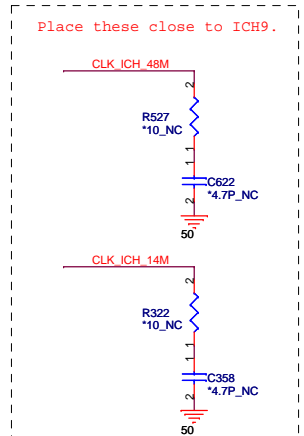
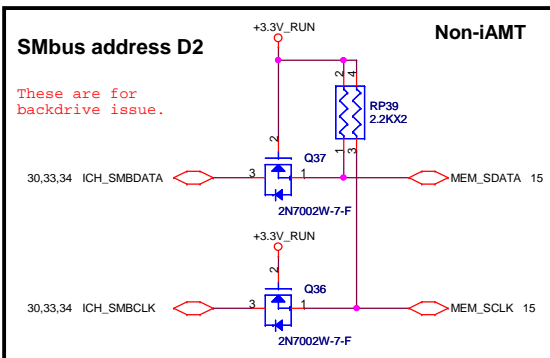
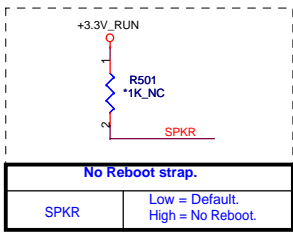
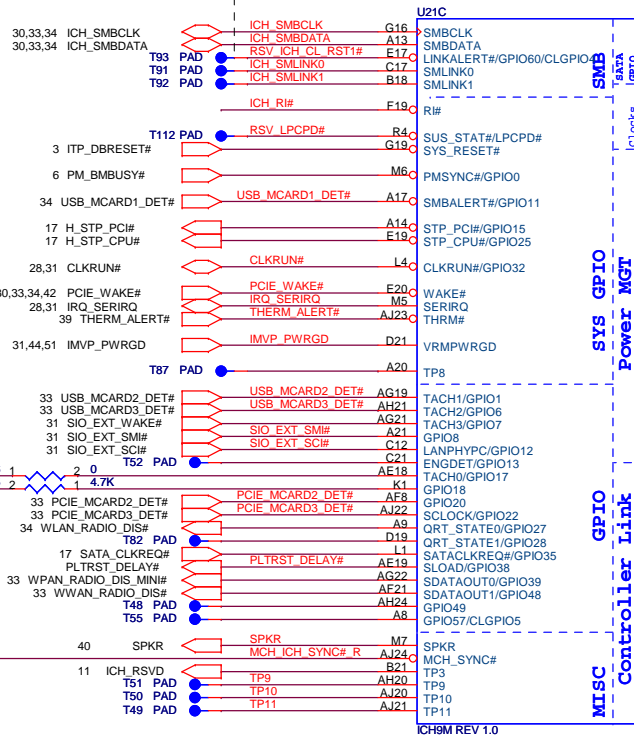
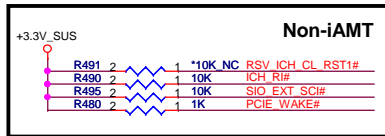
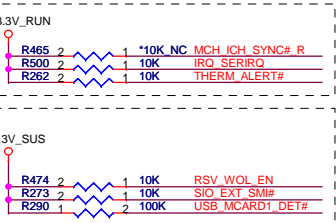
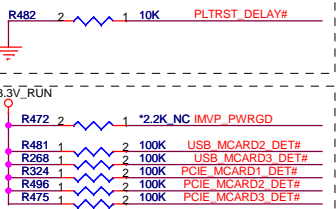
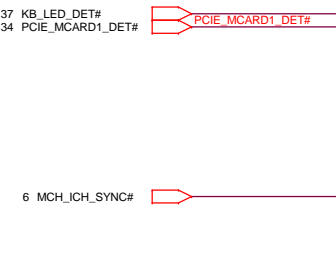
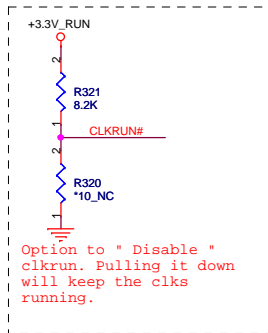
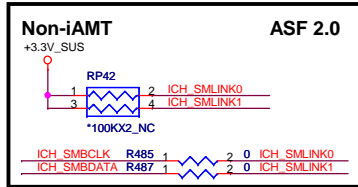
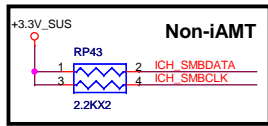
ICH9M LAN100 SLP Strap (Internal VR for VccLAN1.05 and VccCL1.05)		
ICH_LAN100_SLP	Low = Internal VR Disabled High = Internal VR Enabled(Default)	

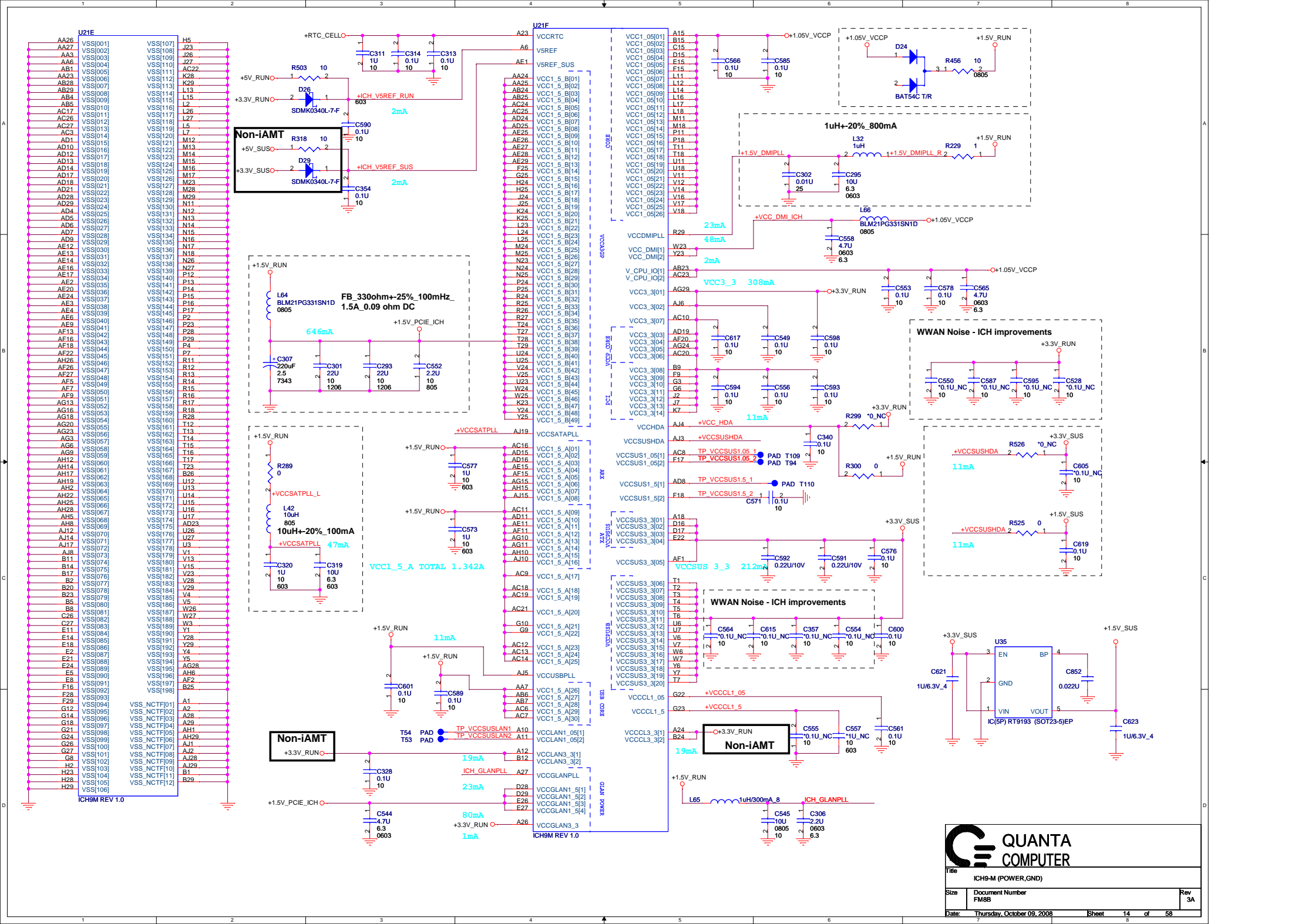


XOR Chain Entrance Strap		
ICH_RSVD	HDA_SDOUT	Description
0	0	RSVD
0	1	Enter XOR Chain
1	0	Normal Operation (Default)
1	1	Set PCIE port config bit 1

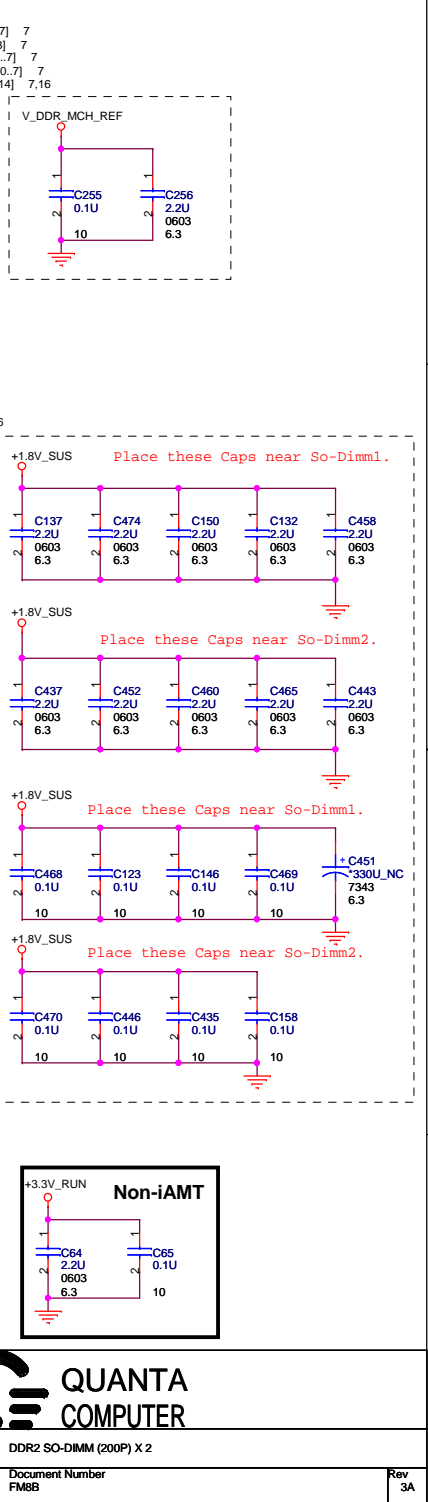
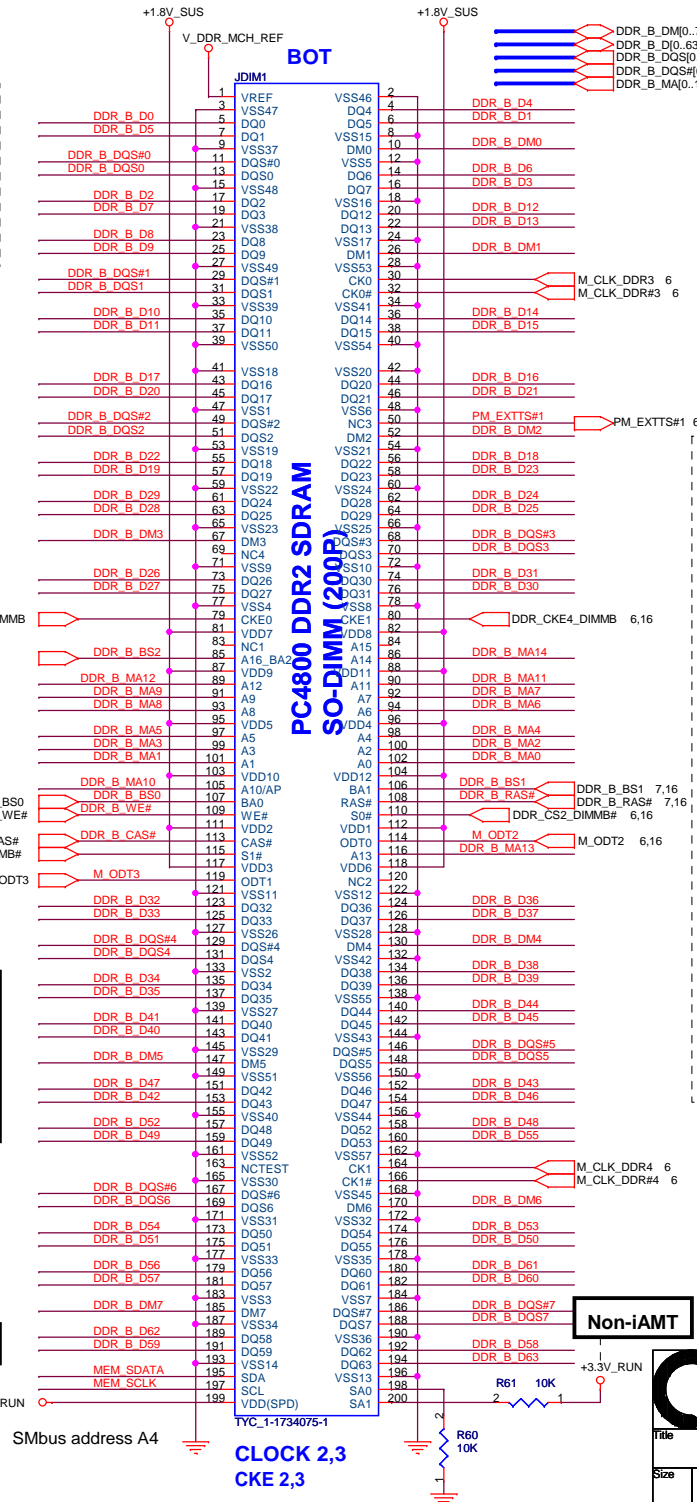
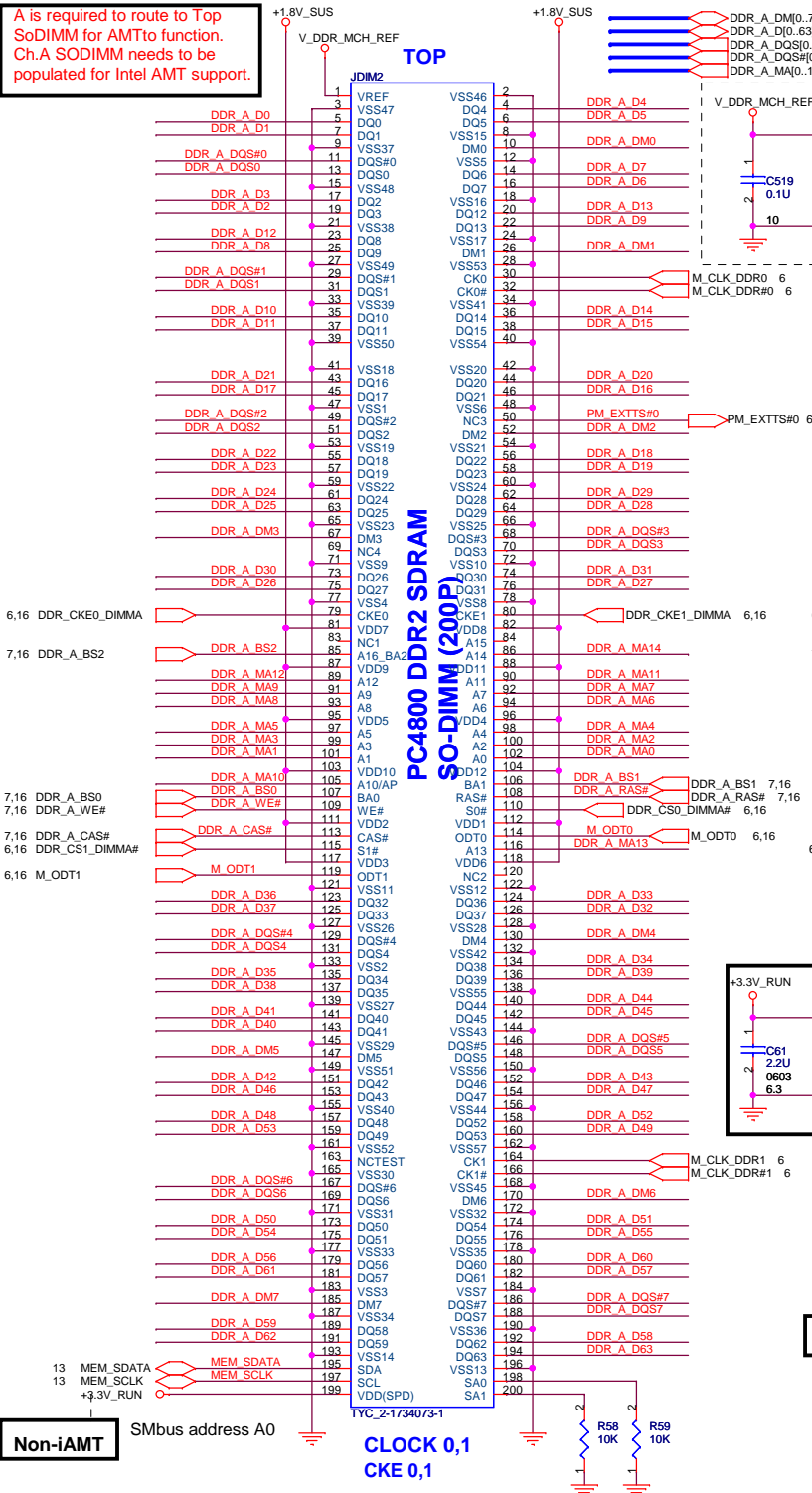


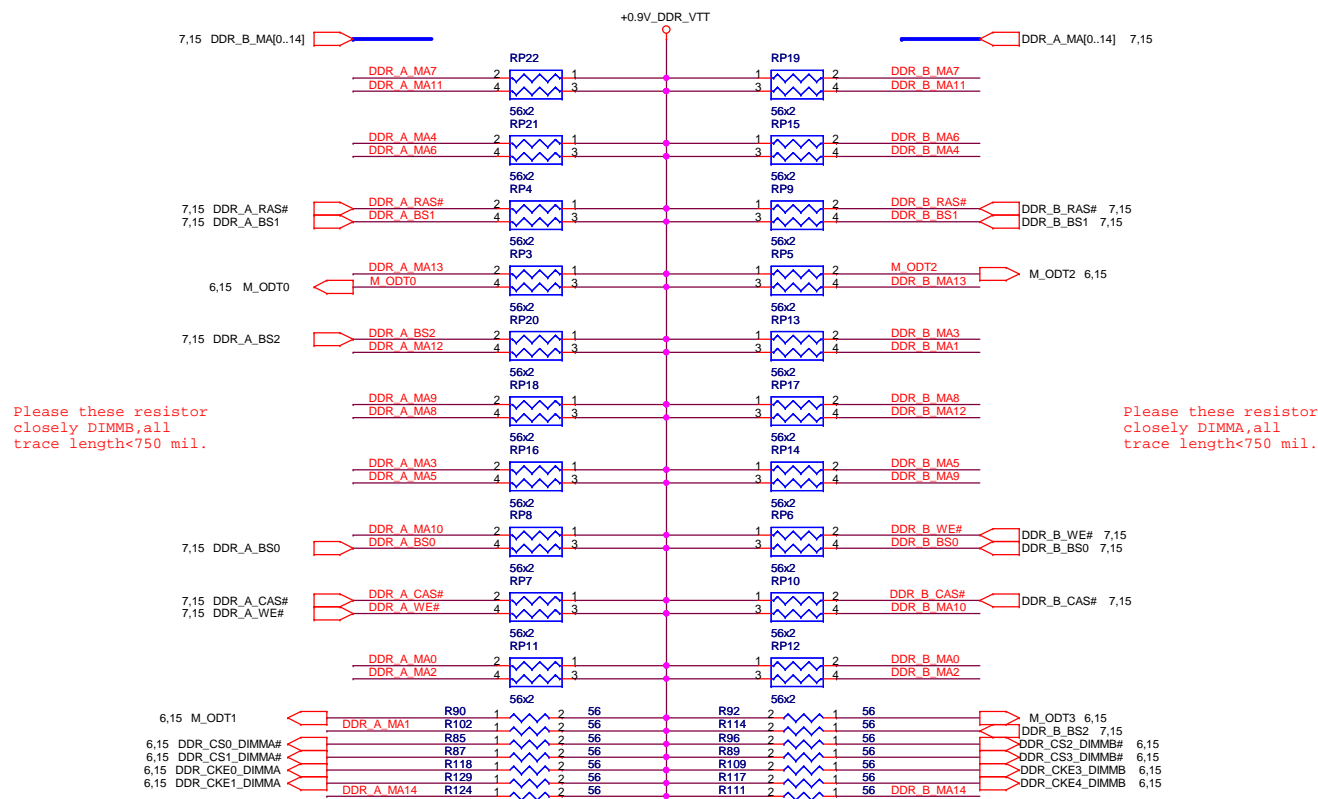
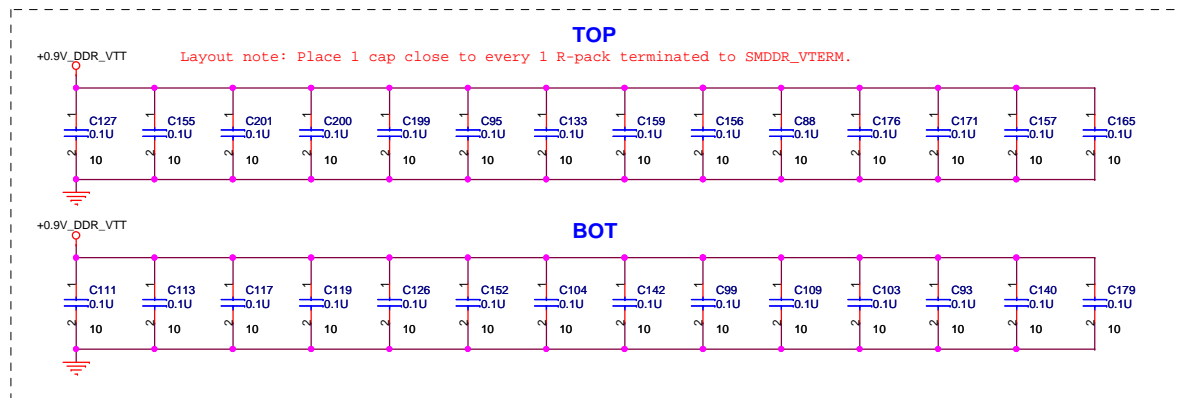




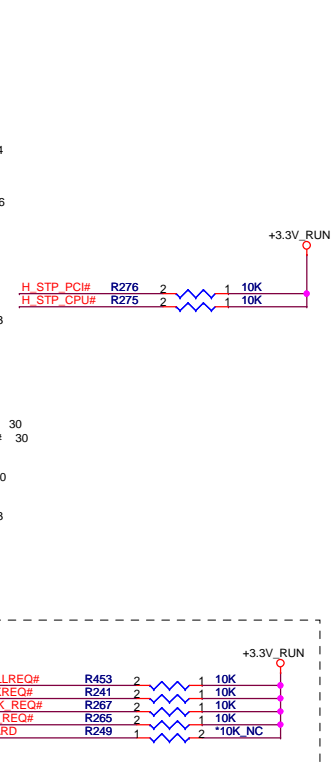
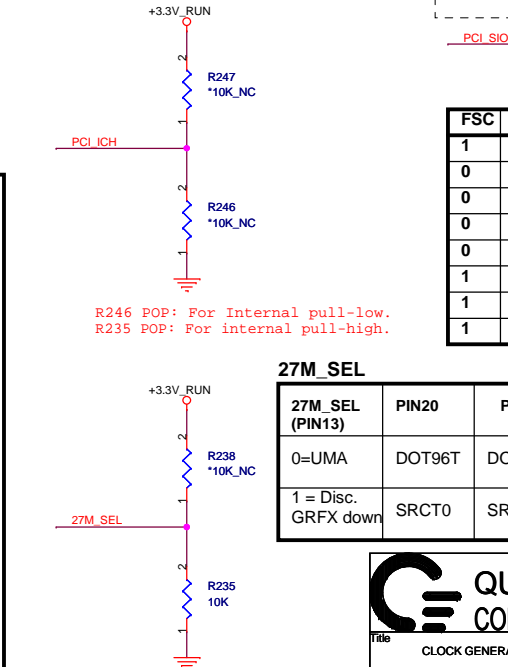
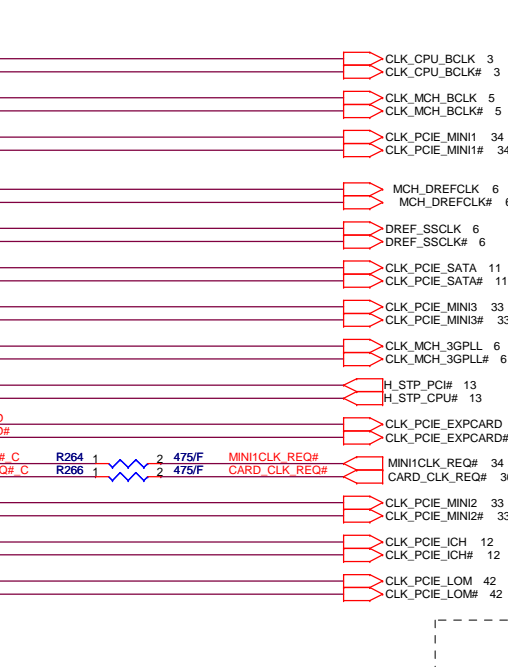
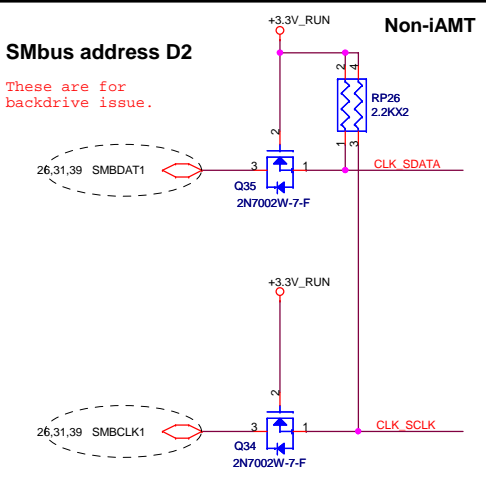
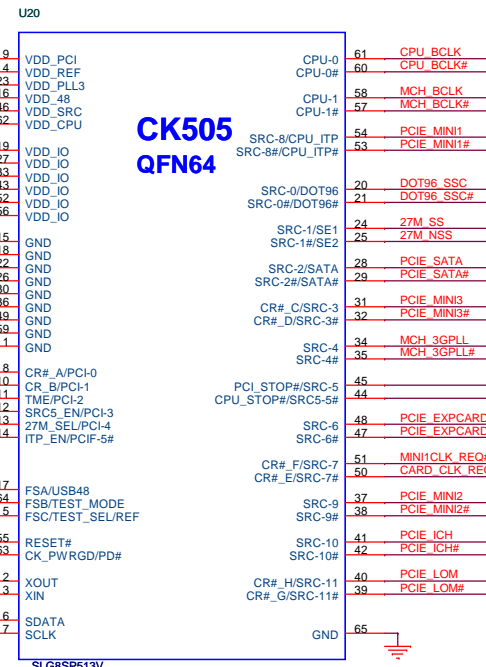
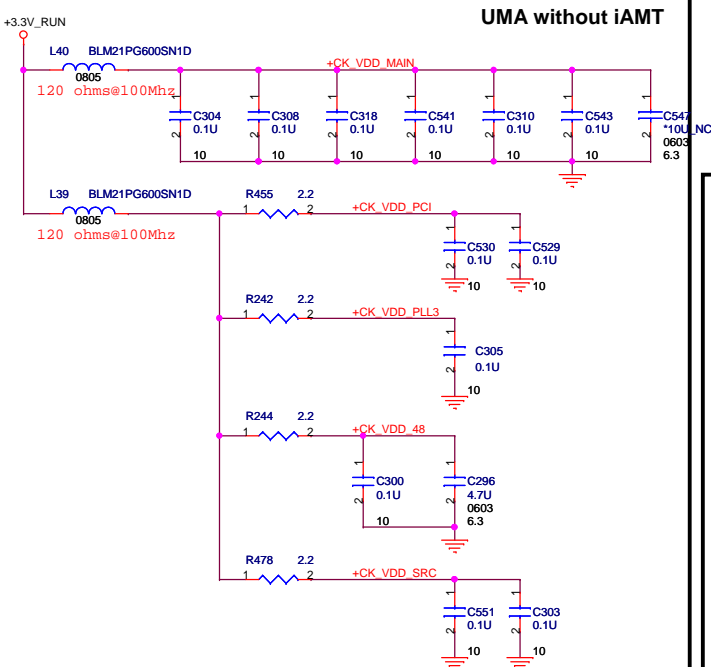
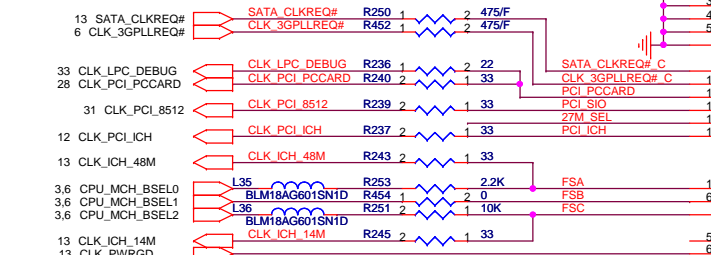
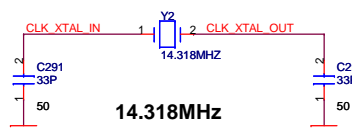
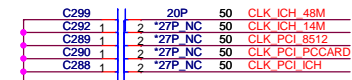


A is required to route to Top SoDIMM for AMTto function. Ch.A SODIMM needs to be populated for Intel AMT support.





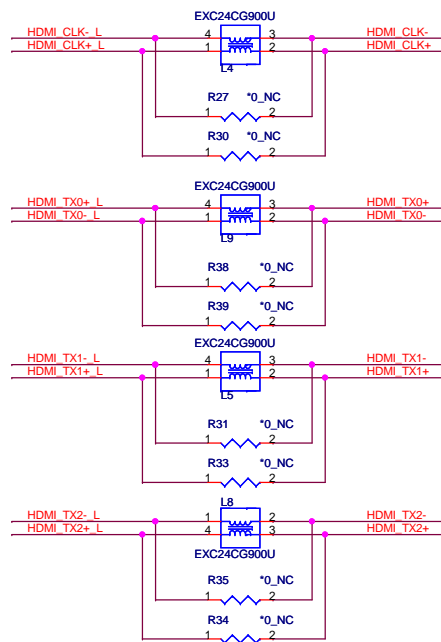
Add capacitor pads for improving WWAN.



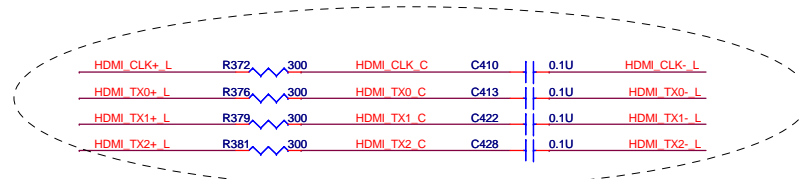
FSC	FSB	FSA	CPU	SRC	PCI
1	0	1	100	100	33
0	0	1	133	100	33
0	1	1	166	100	33
0	1	0	200	100	33
0	0	0	266	100	33
1	0	0	333	100	33
1	1	0	400	100	33
1	1	1	RSVD	100	33

27M_SEL (PIN13)	PIN20	PIN21	PIN24	PIN25
0=UMA	DOT96T	DOT96C	96/100M_T	96/100M_C
1 = Disc. GRFX down	SRCT0	SRCC0	27Mout	27MSSout



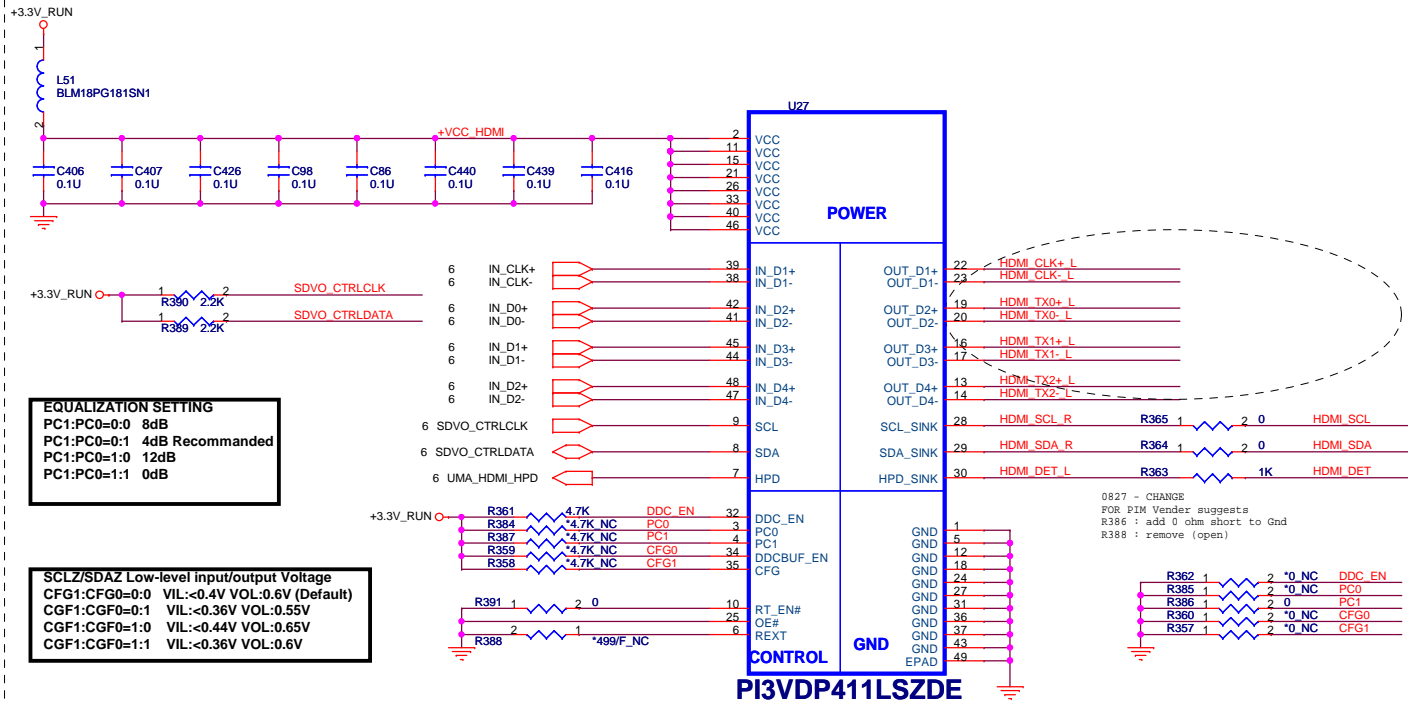
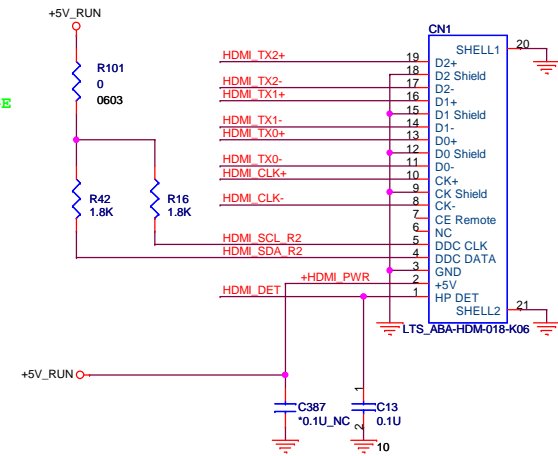
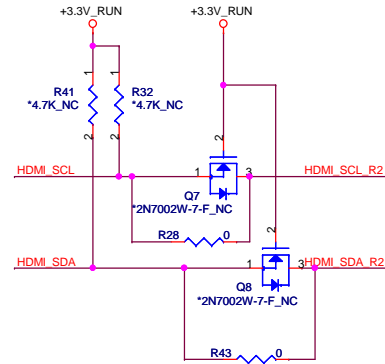


Reserve for EMI and close to HDMI CONN



HDMI Connector

07-24 - 23
FOR EA TEST HDMI CHANGE



EQUALIZATION SETTING
PC1:PC0=0:0 8dB
PC1:PC0=0:1 4dB Recommended
PC1:PC0=1:0 12dB
PC1:PC0=1:1 0dB


SCLZ/SDAZ Low-level input/output Voltage
CFG1:CFG0=0:0 VIL:<0.4V VOL:0.6V (Default)
CGF1:CGF0=0:1 VIL:<0.36V VOL:0.55V
CGF1:CGF0=1:0 VIL:<0.44V VOL:0.65V
CGF1:CGF0=1:1 VIL:<0.36V VOL:0.6V

PI3VDP411LSZDE

QUANTA COMPUTER


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 QUANTA COMPUTER		
Title		
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 QUANTA COMPUTER		
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	FM8B	3A
Date: Thursday, October 09, 2008		Sheet 22 of 58


	A	B	C	D	E
4					
3					
2					
1					

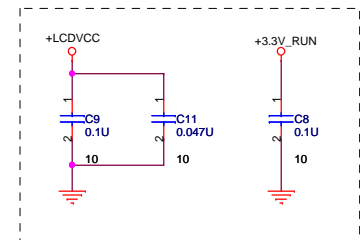
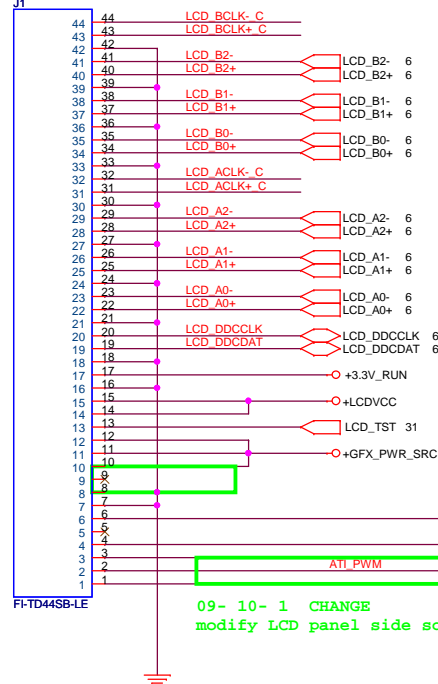
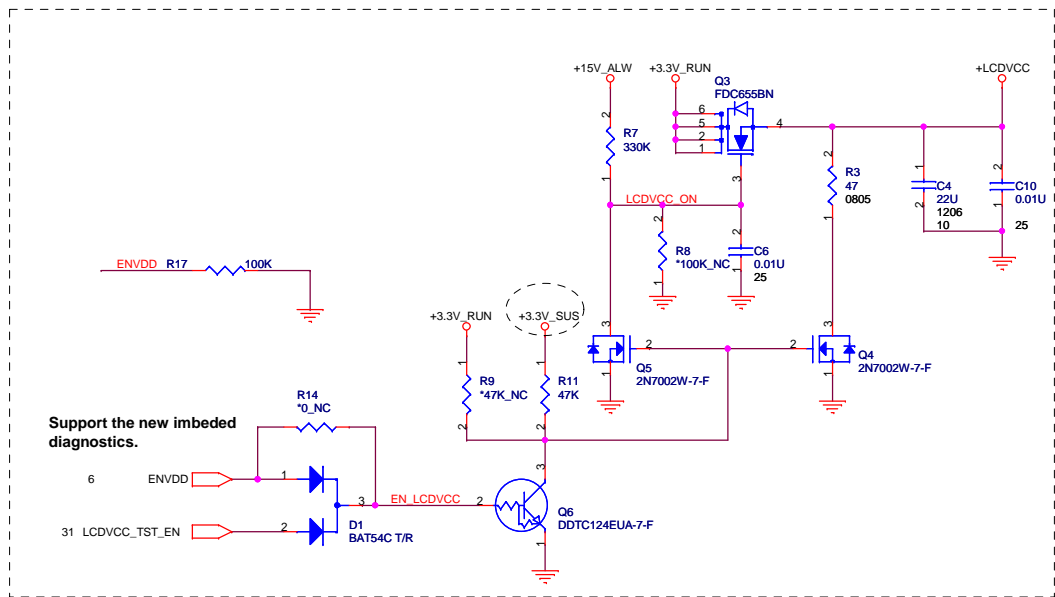
 QUANTA COMPUTER		
Title FLASH, RTC & KC		
Size FMSB	Document Number	Rev 3A
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	1	2	3	4	5
A					
B					
C					
D					
	1	2	3	4	5

 <div>QUANTA COMPUTER</div>		
Title Battery Selector		
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1	2	3	4	5	6	7	8
A							
B							
C							
D							

 QUANTA COMPUTER		
Title Docking Station CONN.		
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Address : A9H --Contrast
AAH --Backlight

09- 10- 1 CHANGE
modify LCD panel side schematic for DPST .

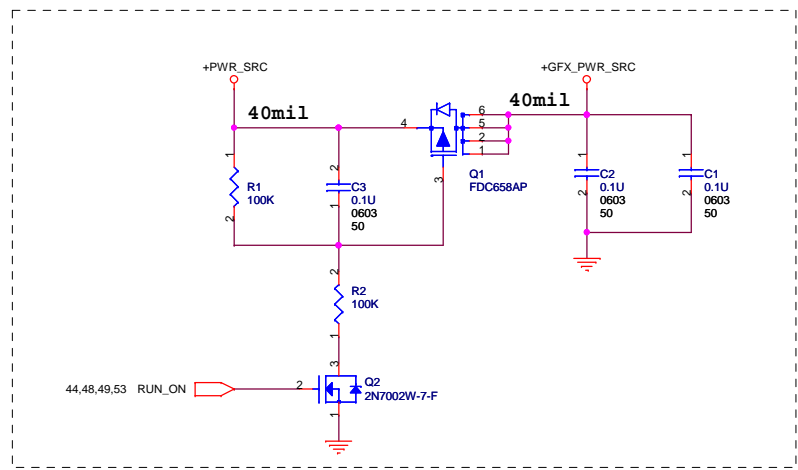
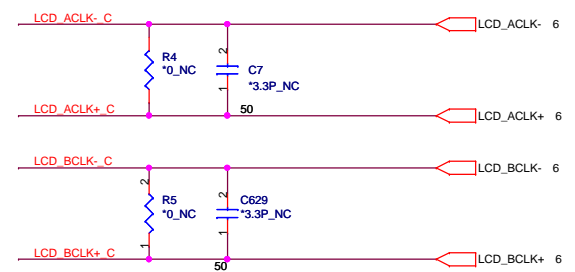
UMA
Populate R351 for DPST implementation only.

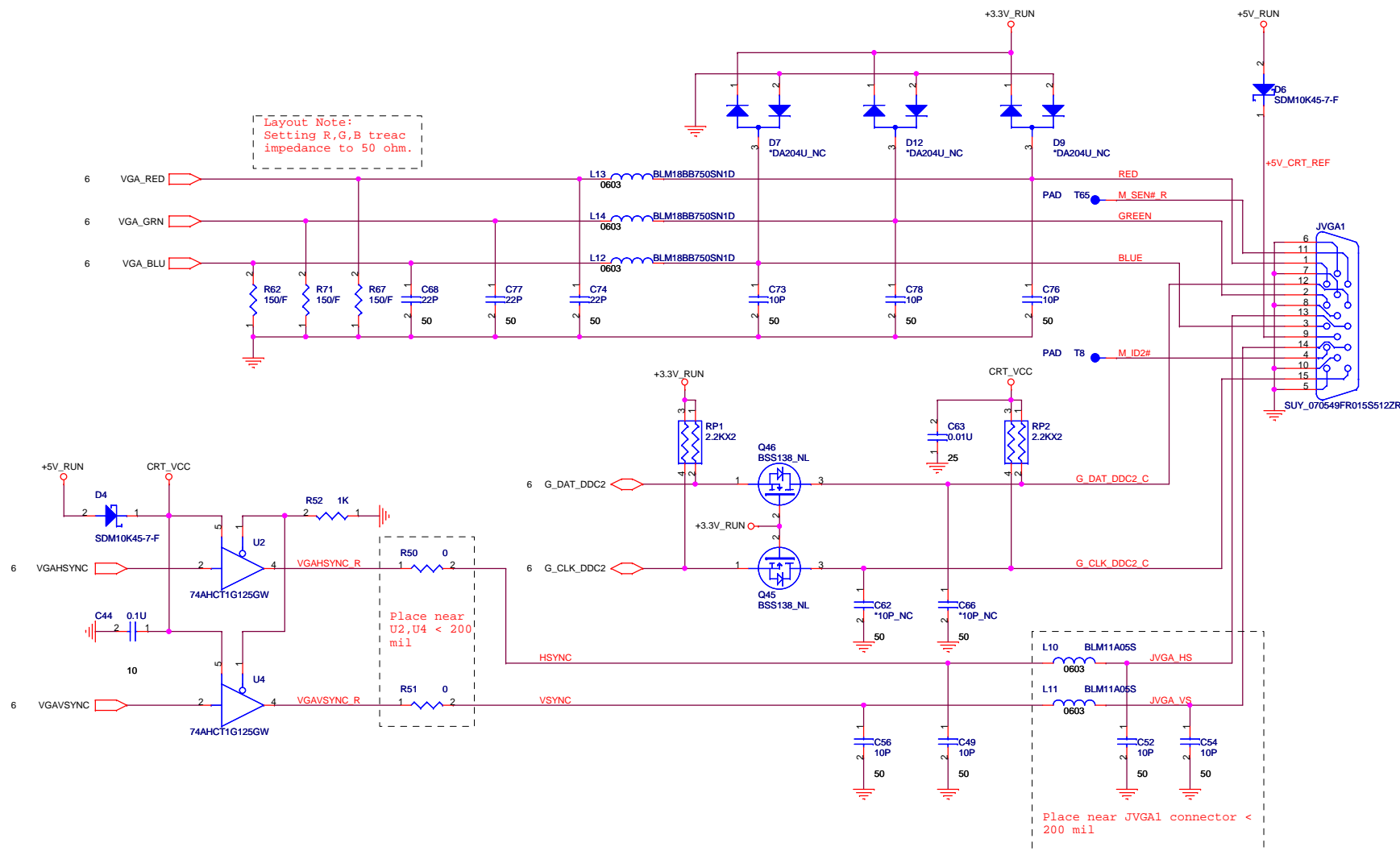
Populate R352 for platform without DPST support. No Stuff for Discrete DSPT support due to back up plan.

09- 10- 1 CHANGE
modify LCD panel side schematic for DPST .

Shunt capacitors on LVDS for improving WWAN.

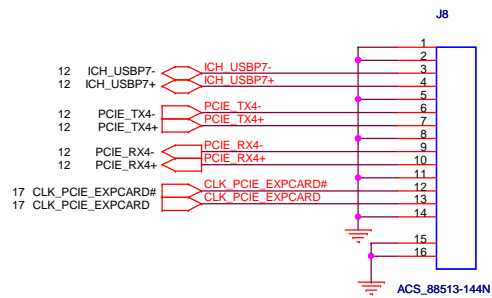
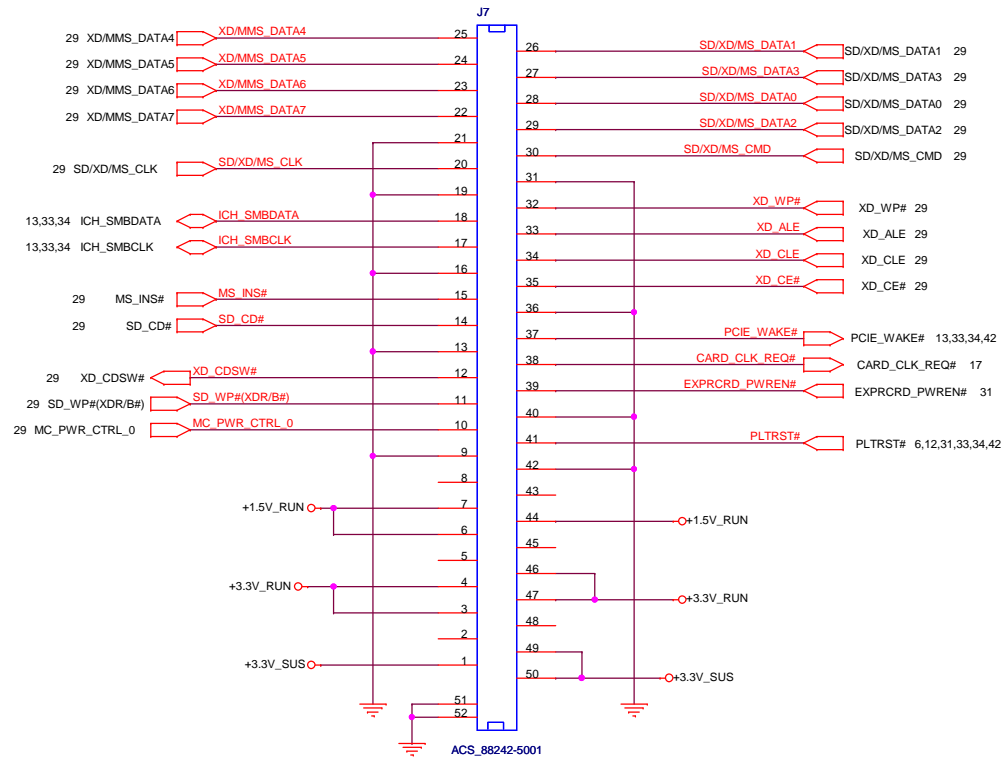
LCD B0-	C628	1	2	*3.3P	NC	50	LCD B0+
LCD B1-	C366	1	2	*3.3P	NC	50	LCD B1+
LCD B2-	C627	1	2	*3.3P	NC	50	LCD B2+
LCD A0-	C364	1	2	*3.3P	NC	50	LCD A0+
LCD A1-	C386	1	2	*3.3P	NC	50	LCD A1+
LCD A2-	C385	1	2	*3.3P	NC	50	LCD A2+

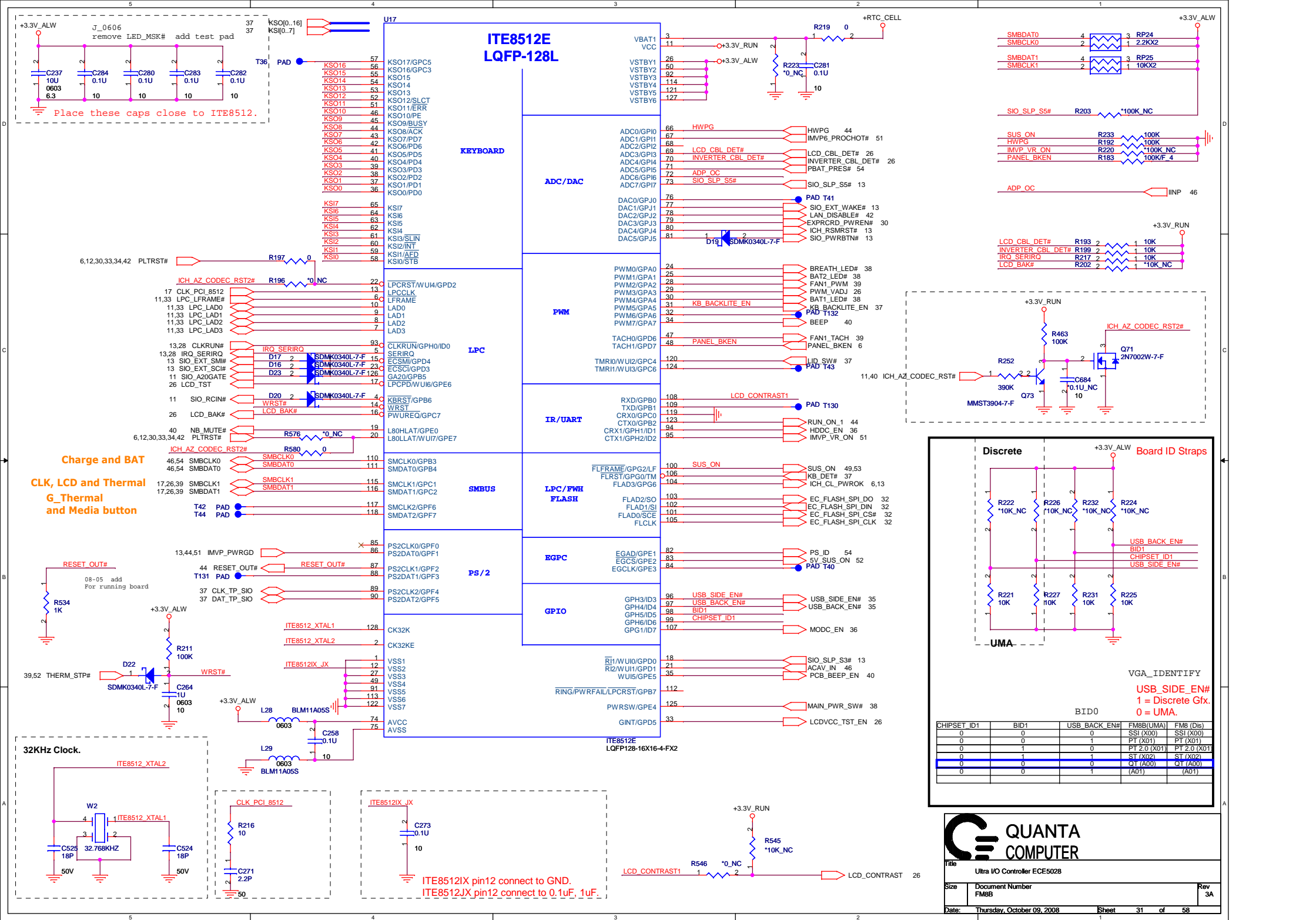




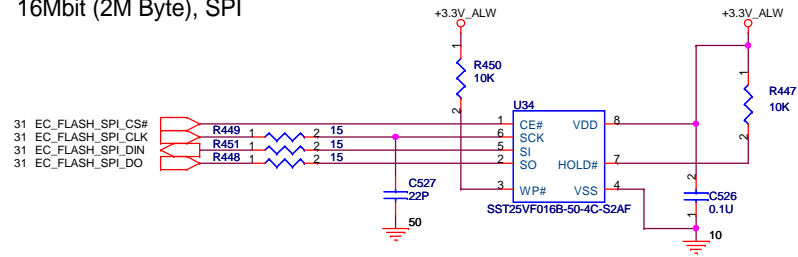
Title		
CRT&TV CONN		
Size	Document Number	Rev
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Express Card/CARD READER

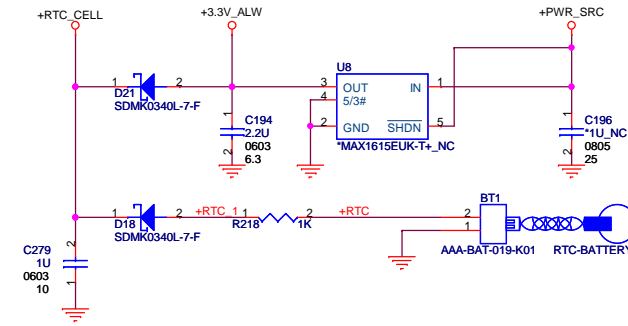




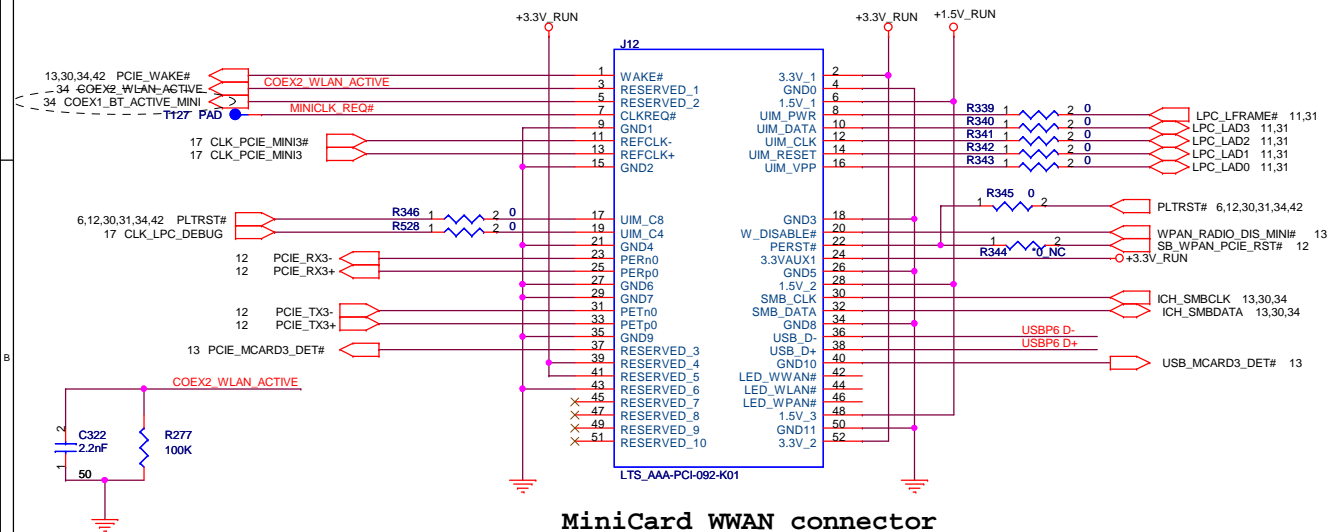
16Mbit (2M Byte), SPI



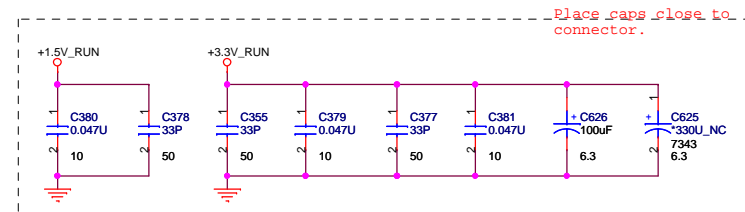
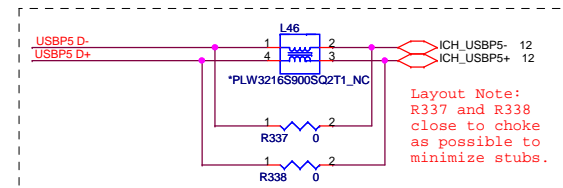
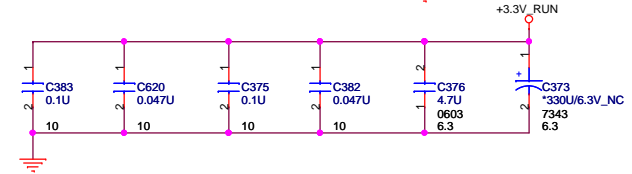
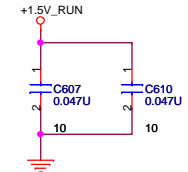
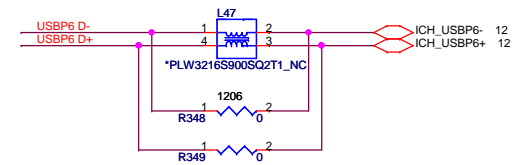
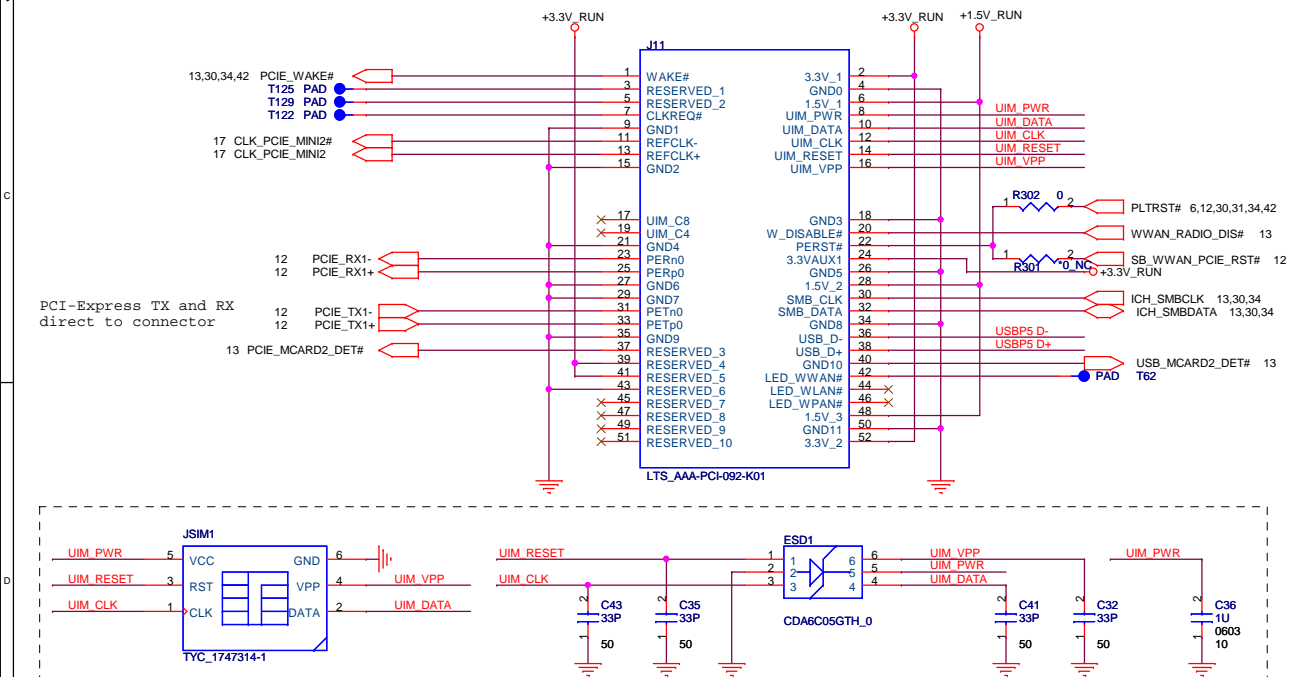
RTC BATTERY



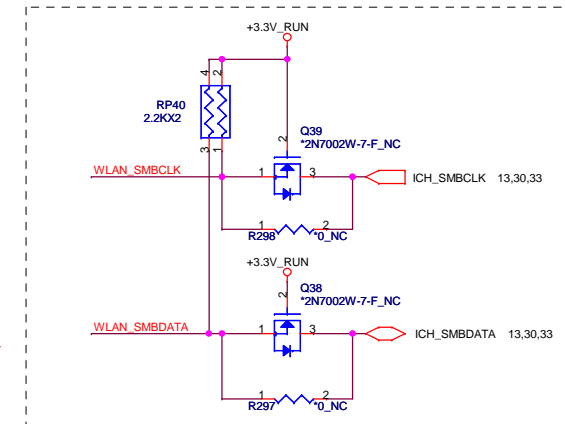
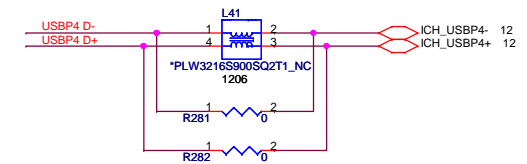
MiniCard Robson, BT. UWB connector



MiniCard WWAN connector



Title			
MINI-PCI			
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	FM8B		3A
Date:	Thursday, October 09, 2008	Sheet	33 of 58



WLAN_RADIO_OFF#

2 1

D25
SDMK0340L-7-F

3.3V

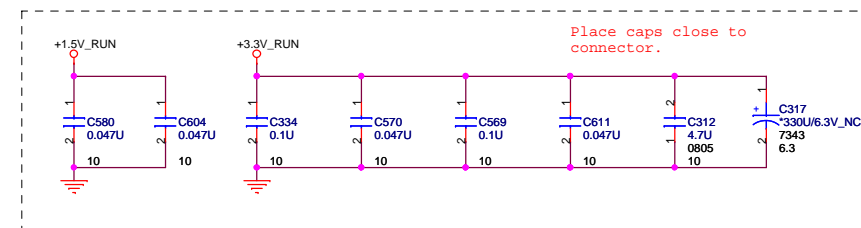
1 2

R294

0_NC

WLAN_RADIO_DIS# 13

Prevent backdrive when
WoW is enabled.



Title

MDC CONN.

Size

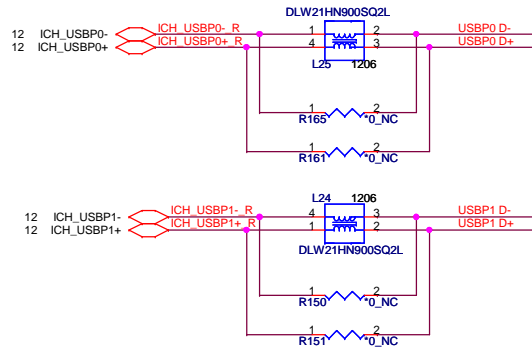
Document Number

Rev	
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Date: Thursday, October 09, 2008

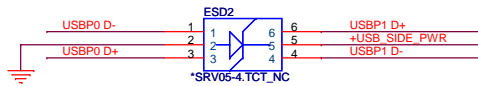
Sheet 34 of 58

External USB PORT hookup reference. Your design may need more or less external ports and may be mapped differently

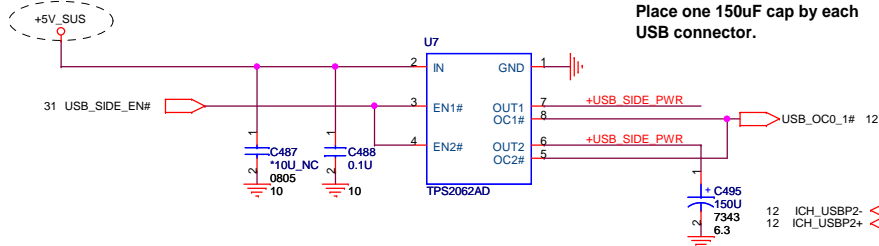


Platforms should put in PADS for the USB chokes if they have the room. Chokes should be NOPOP.

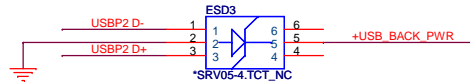
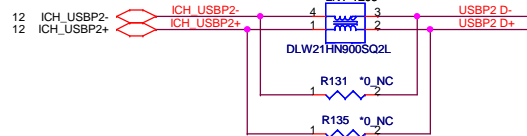
Place ESD diodes as close as USB connector.



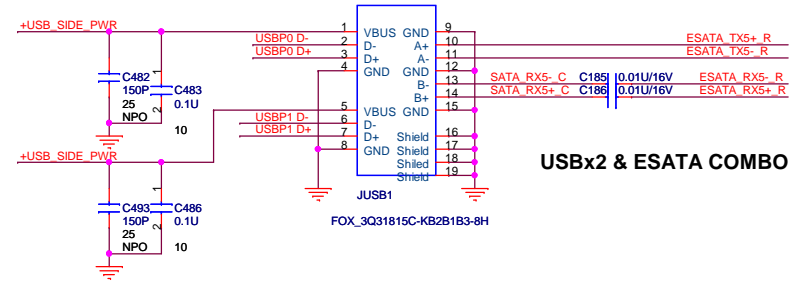
08 - 06 Del
remove fuse and Jump in the same time



Place one 150uF cap by each USB connector.

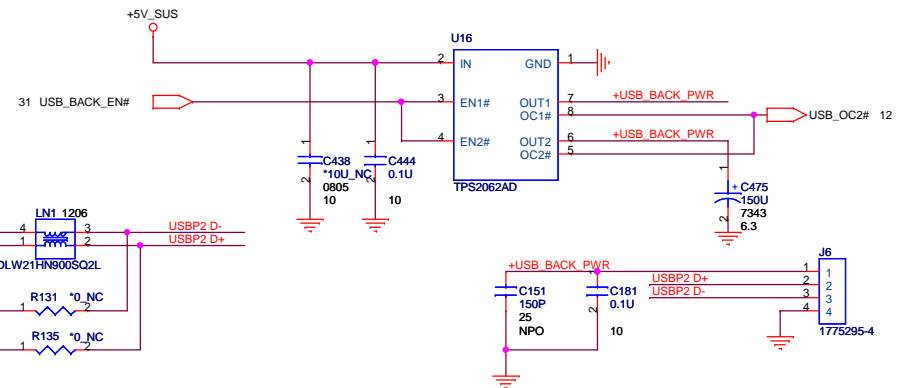
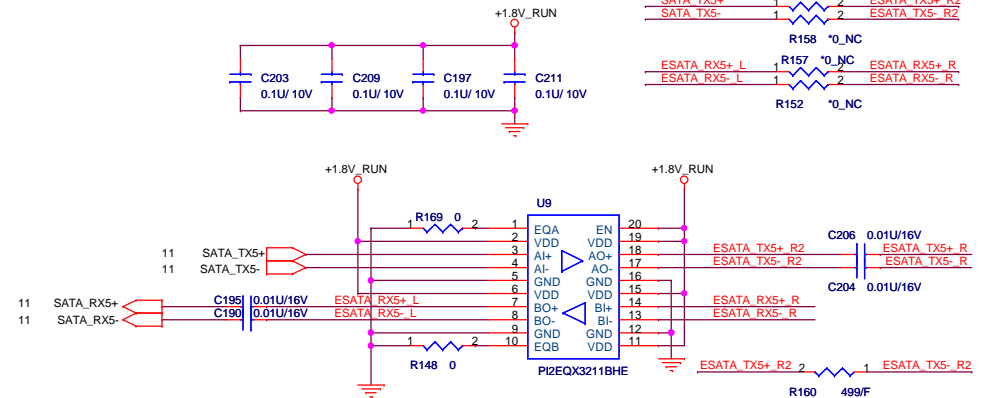


Side External USBX2



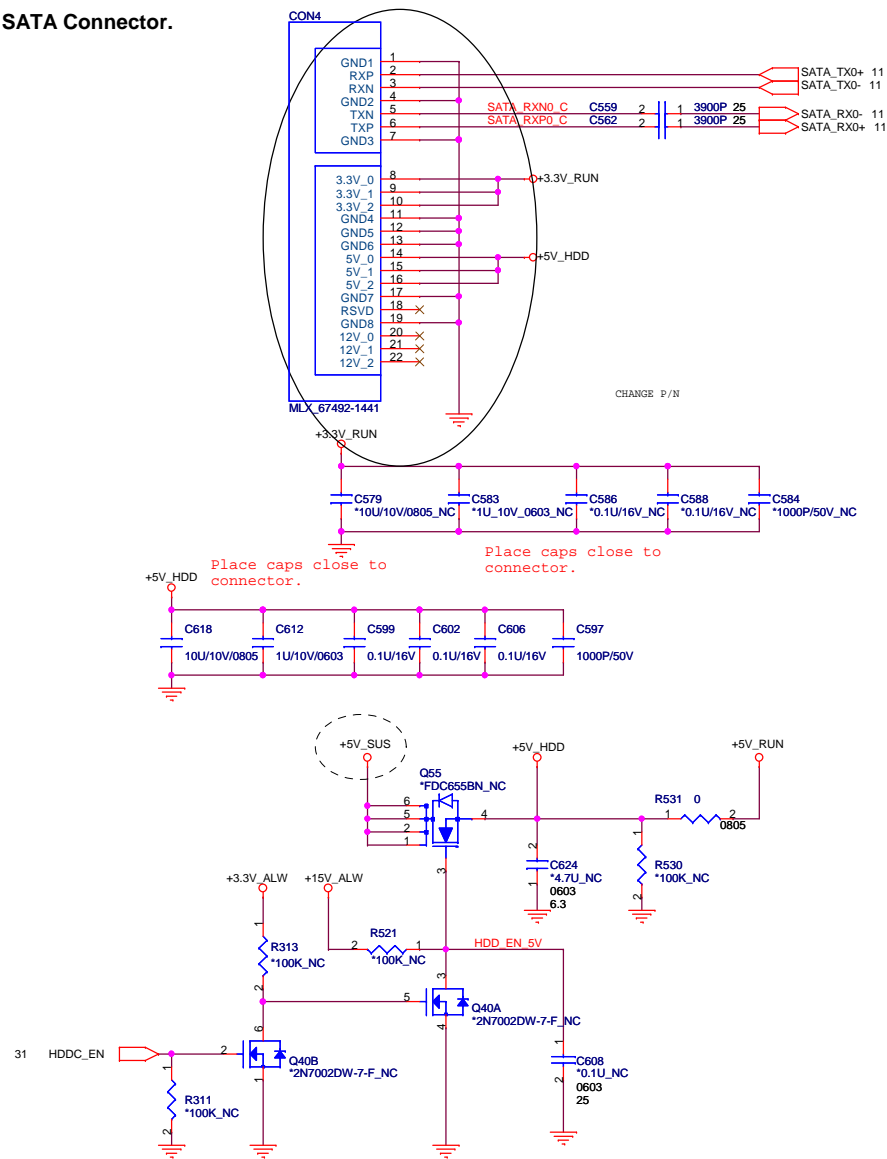
USBx2 & ESATA COMBO

E-SATA Re-driver

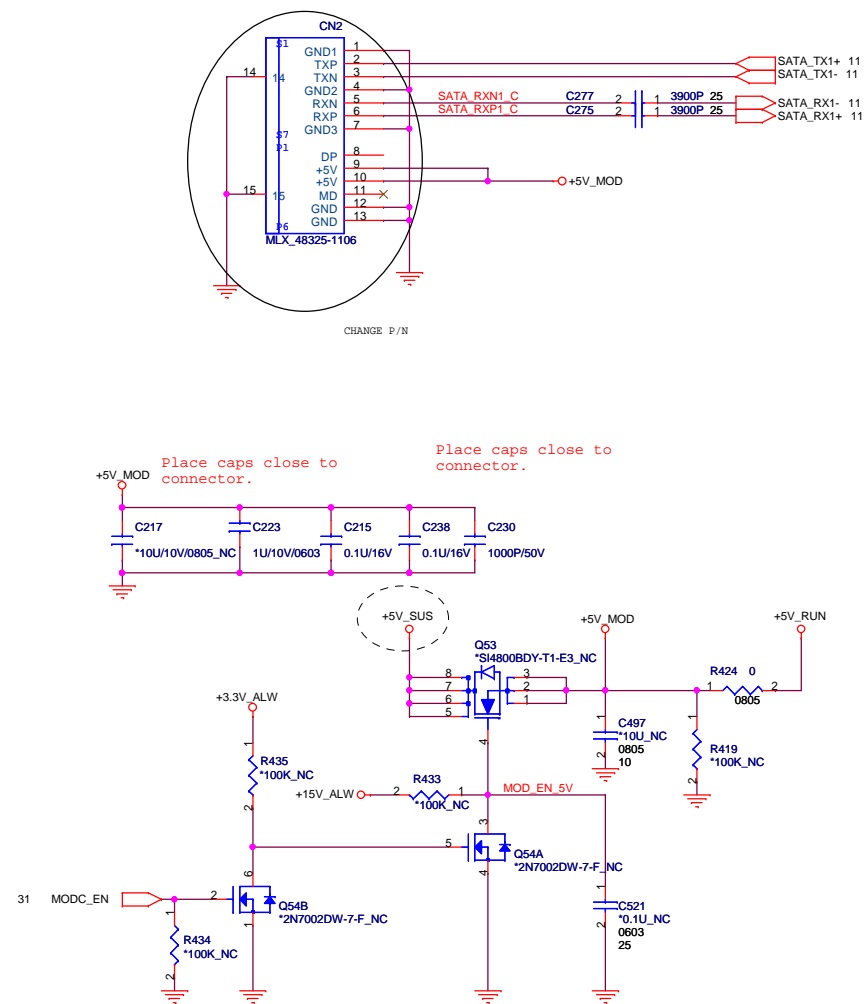


QUANTA COMPUTER	
Title SERIAL PORT & USB	
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SATA Connector.



ODD Connector



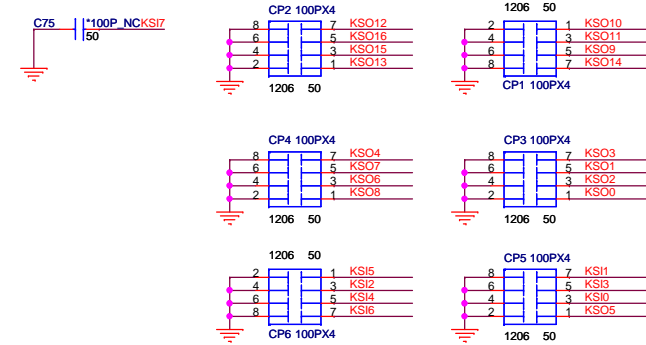
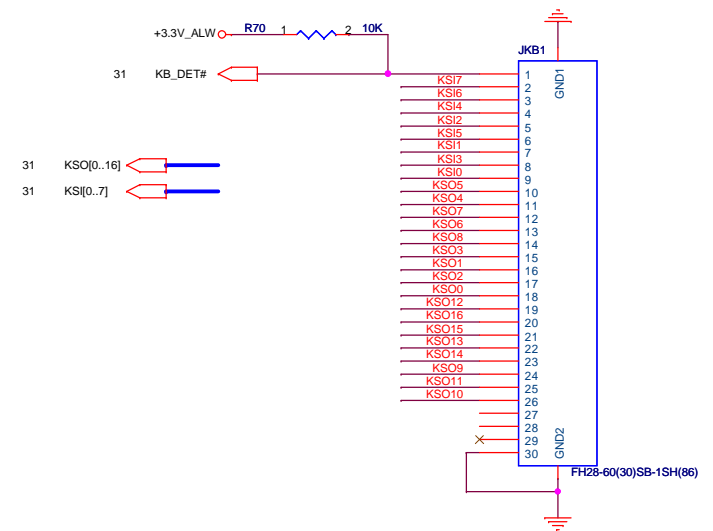
Title	SATA (HDD&CD_ROM)
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Size	Docum FM8B
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Date: Thursday, October 09, 2008

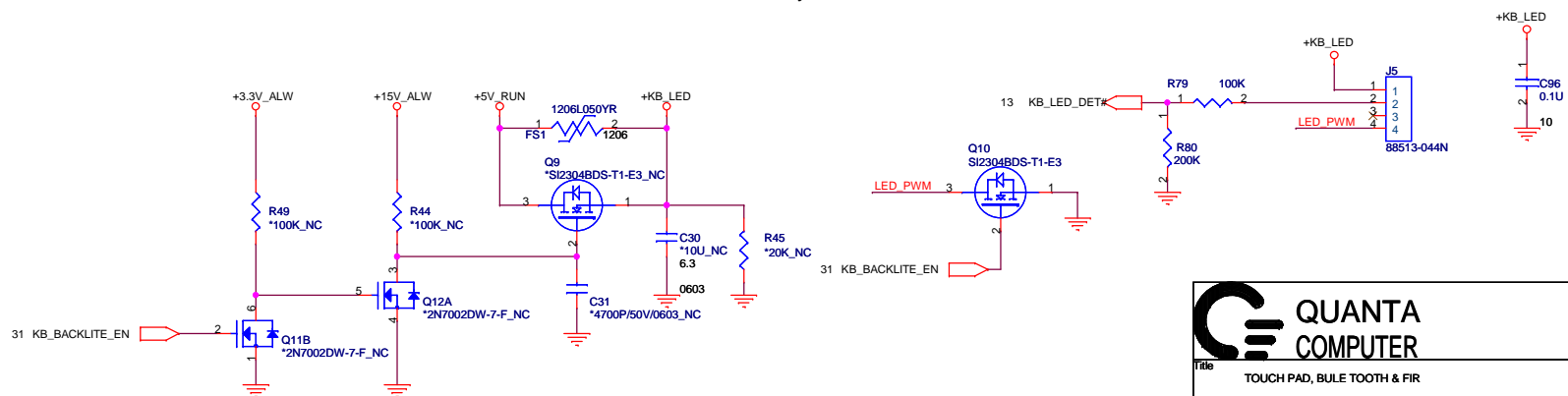
Sheet 36 of 58

KEYBOARD CONNECTOR



100P CAPS CLOSE TO JKB1

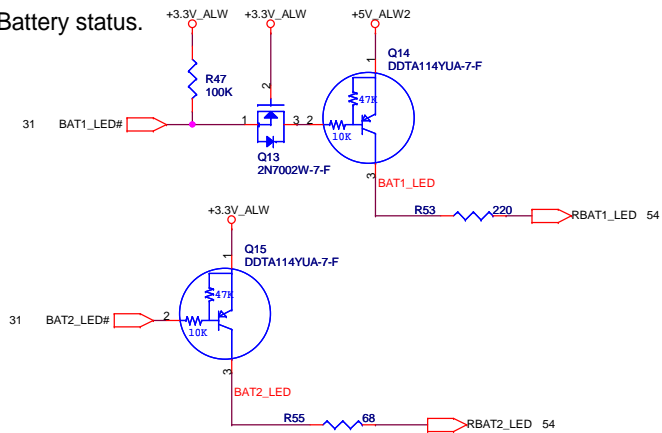
Key board Illumination



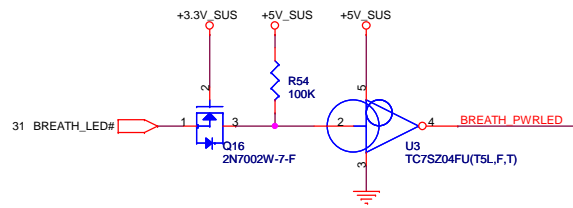
**QUANTA
COMPUTER**

Title TOUCH PAD, BULE TOOTH & FIR		
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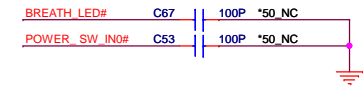
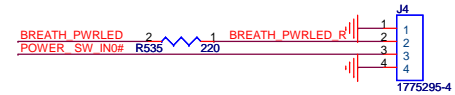
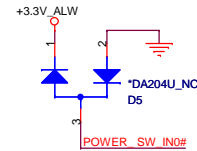
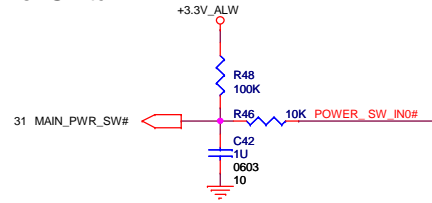
Battery status.

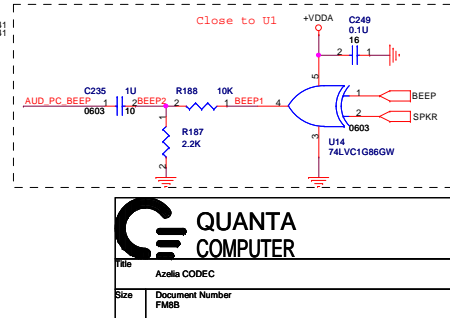
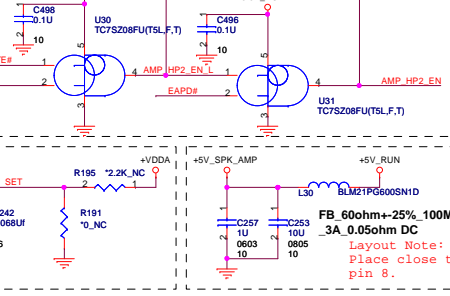
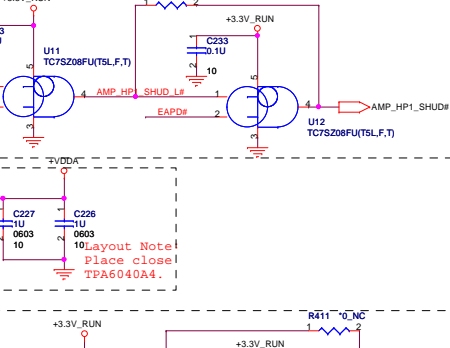
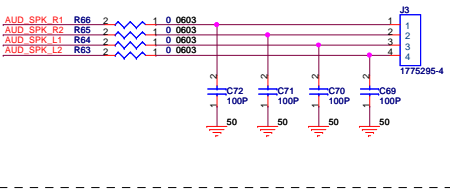
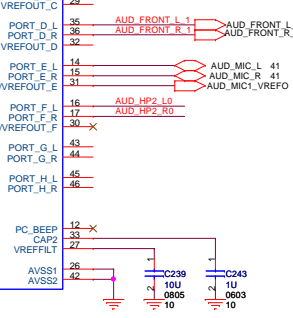
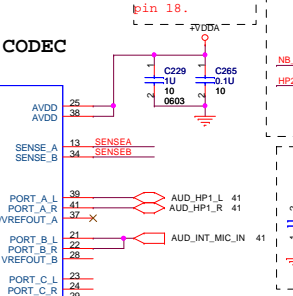
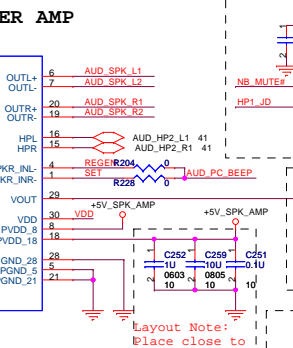
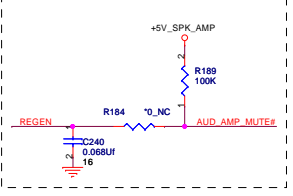
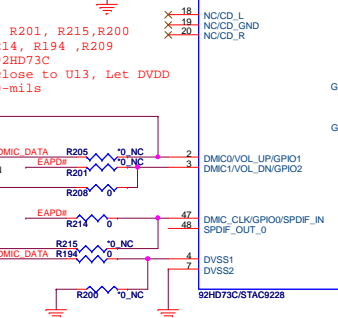
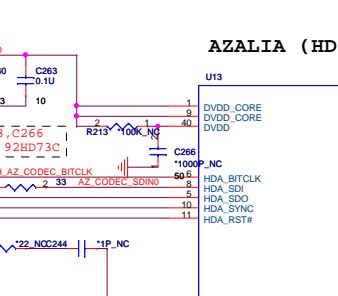
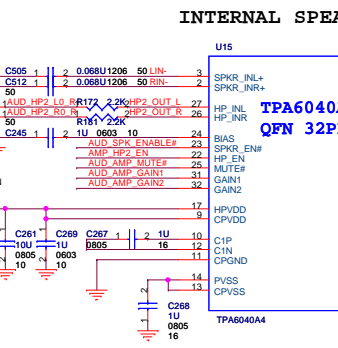
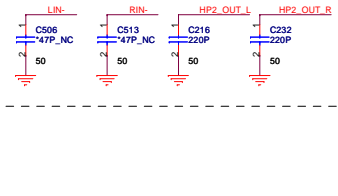
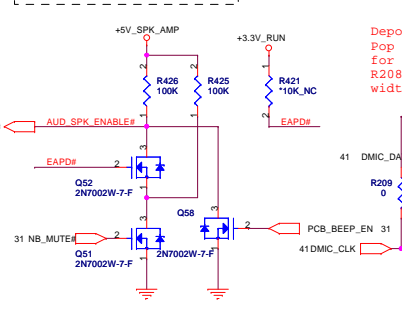
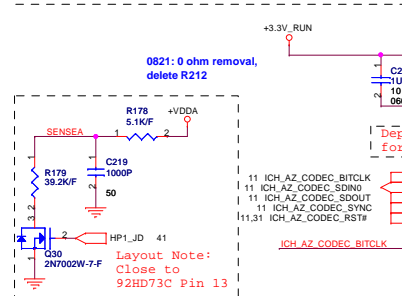
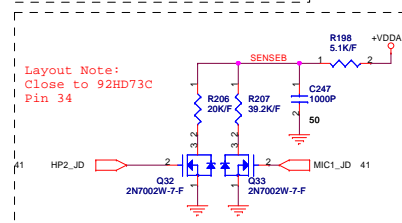
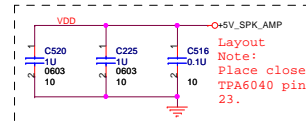
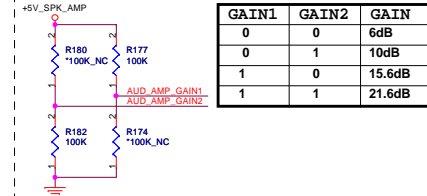
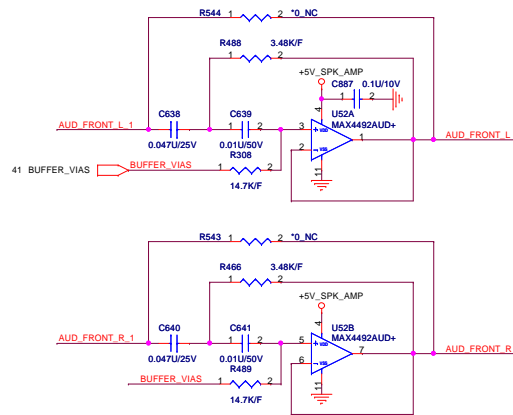


Power & Suspend.

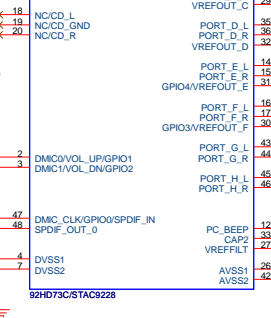
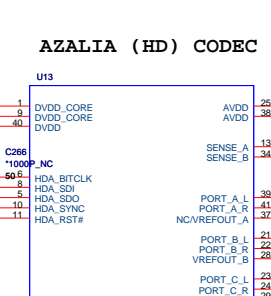
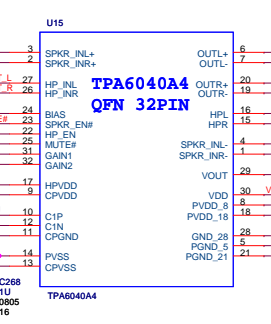


Power Switch

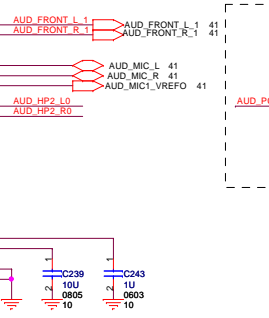
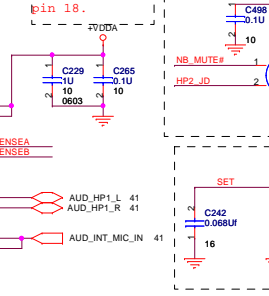
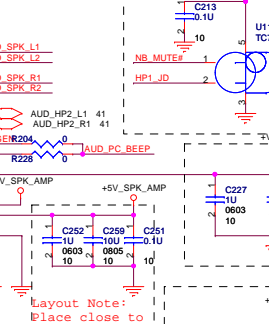




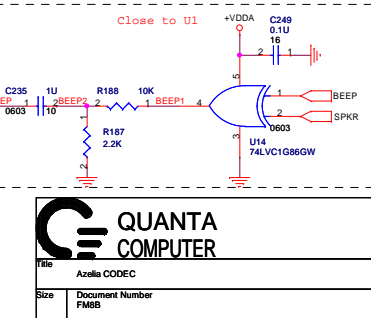
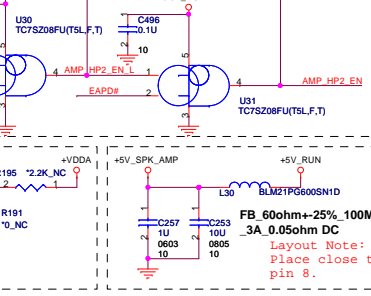
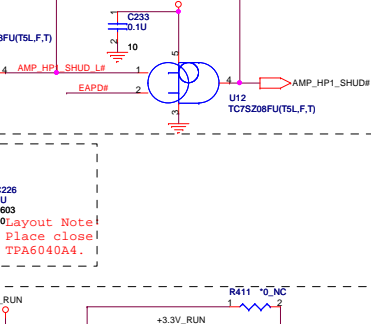
INTERNAL SPEAKER AMP



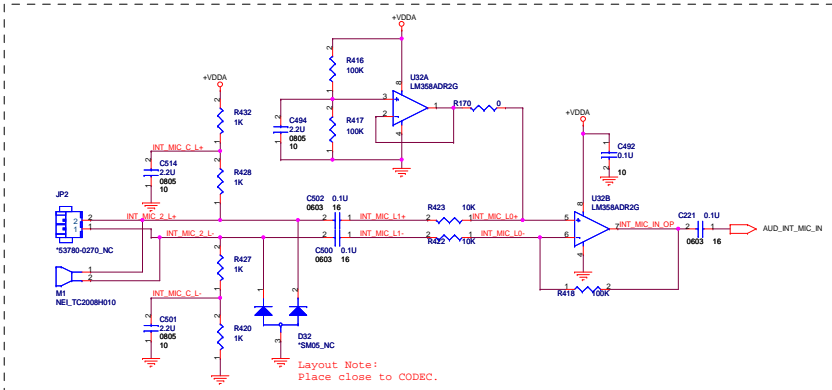
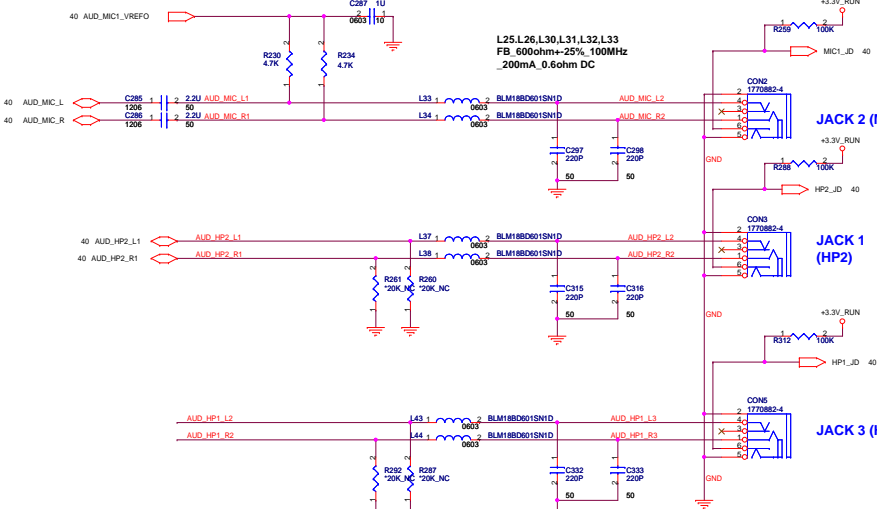
AZALIA (HD) CODEC



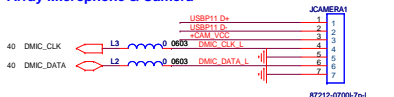
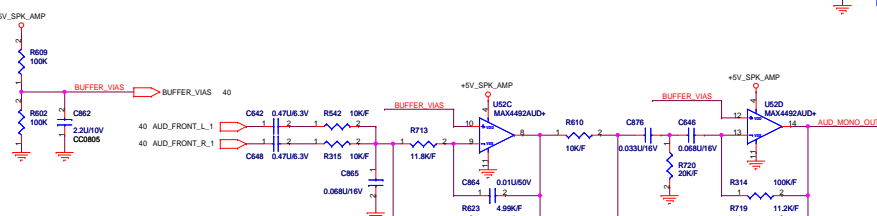
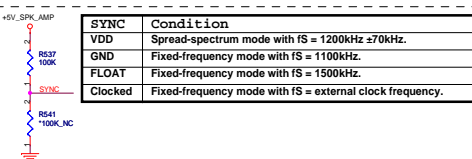
QUANTA COMPUTER



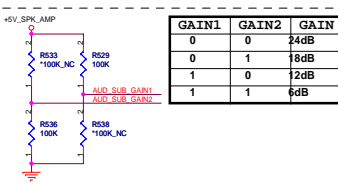
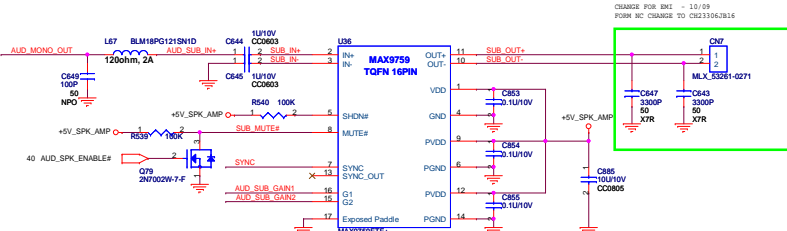
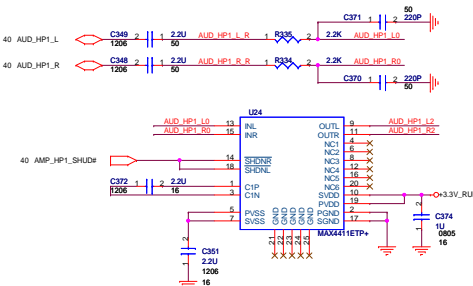
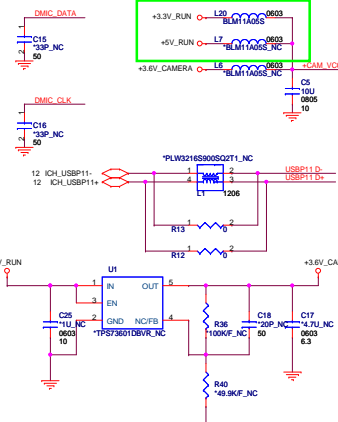
Headphone Jack
Stereo MIC Jack



INTERNAL SUBWOOFER AMP



09-10-34
was 2.2W for Camera power which can save one LED and connector change from 6pin to 7pin



GAIN1	GAIN2	GAIN
0	0	24dB
0	1	18dB
1	0	12dB



AUDIO CO.

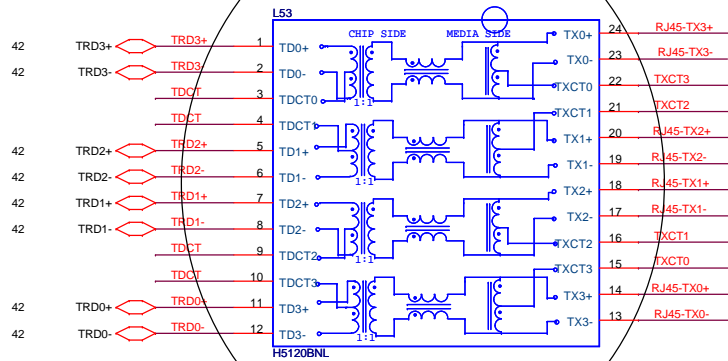
AUDIO CONT.	
Line	Argument Number

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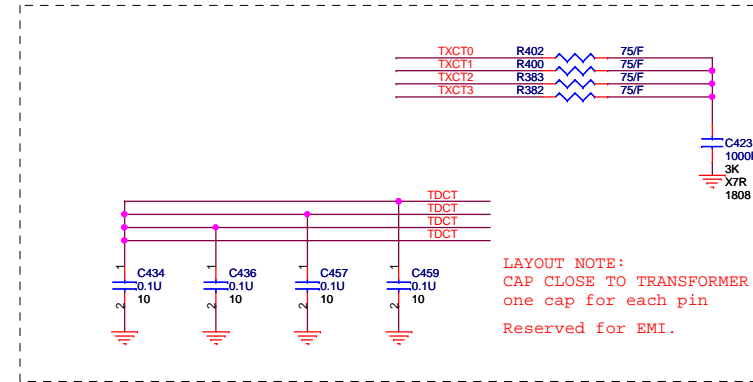
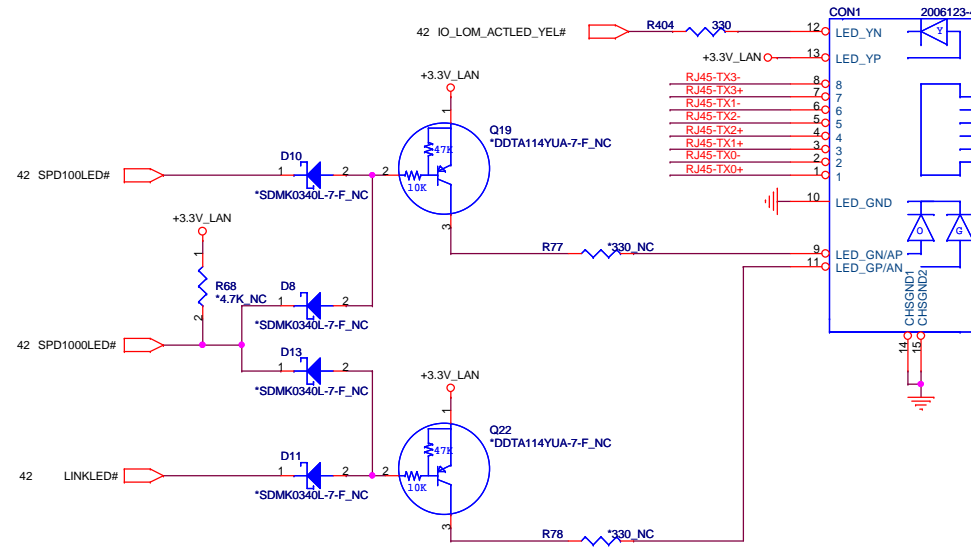
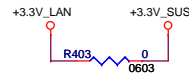
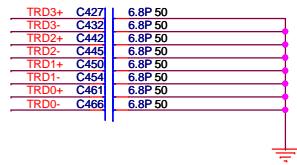
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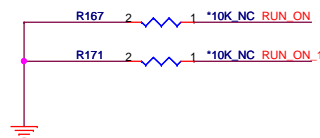
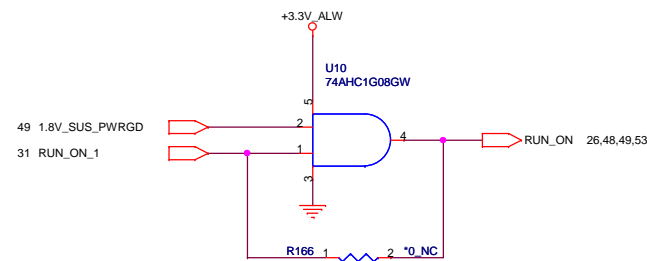
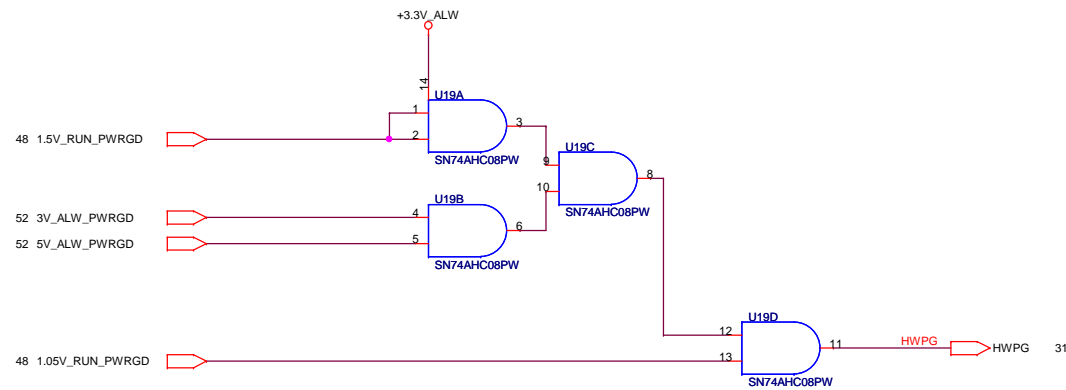
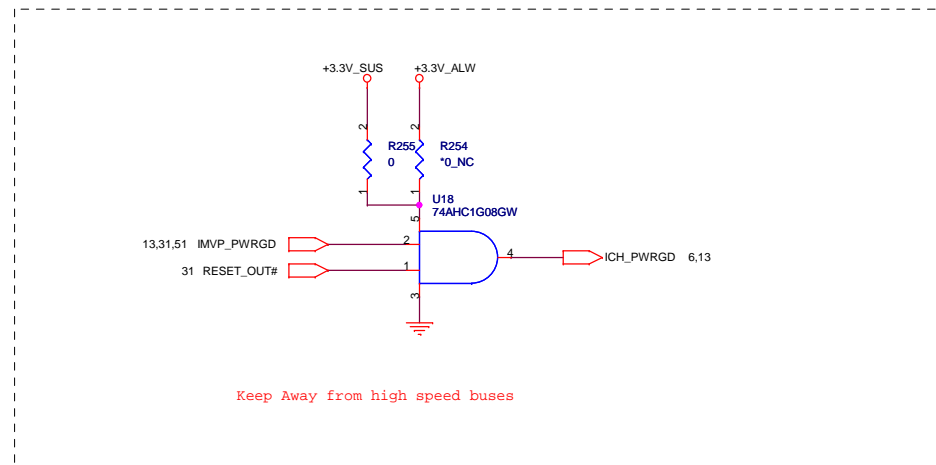
RJ-45 Connector

TRANSFORM




CHANGE FOR EA
FORM DTA CHANGE TO PLE H5120BNL




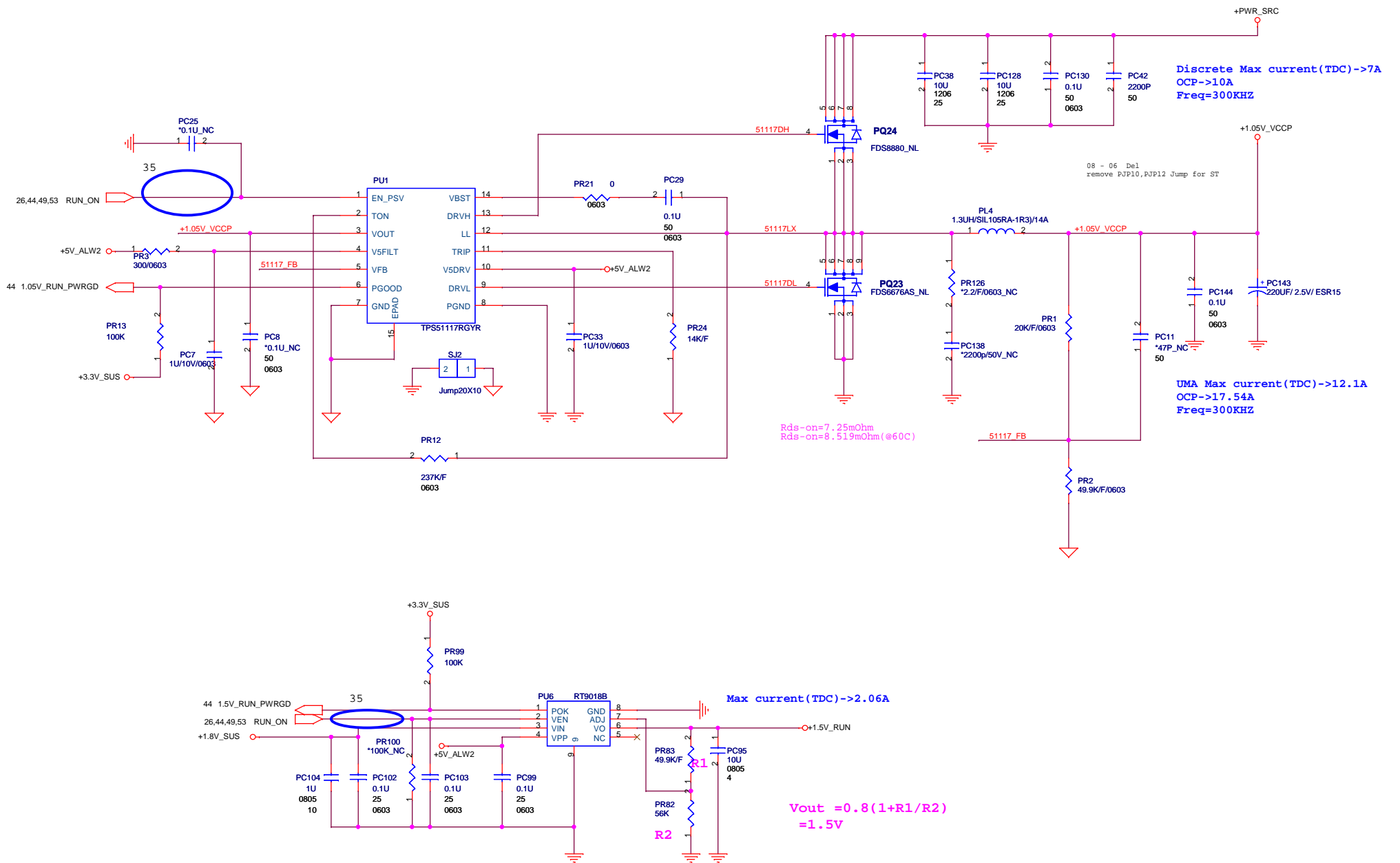


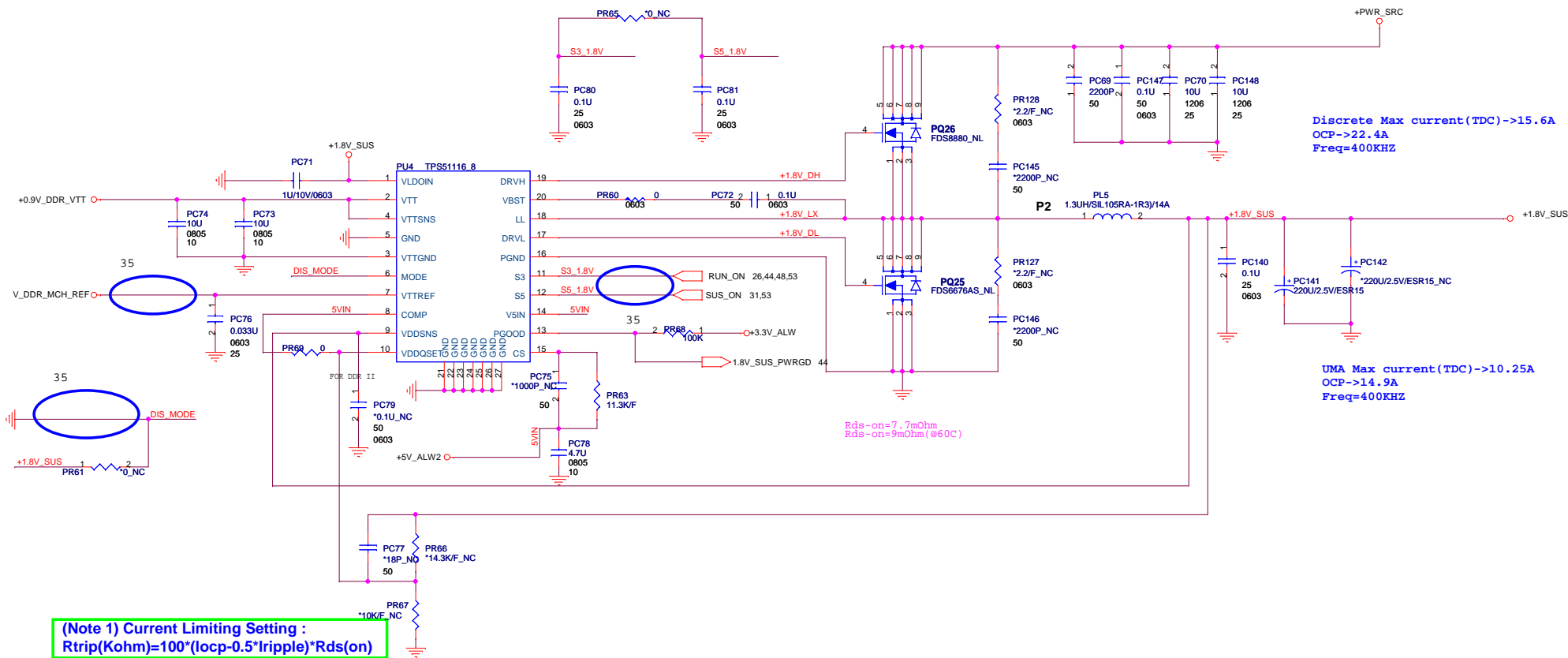
1	2	3	4	5	6	7	8
A							
B							
C							
D							

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Title Docking Q-SWITCH		
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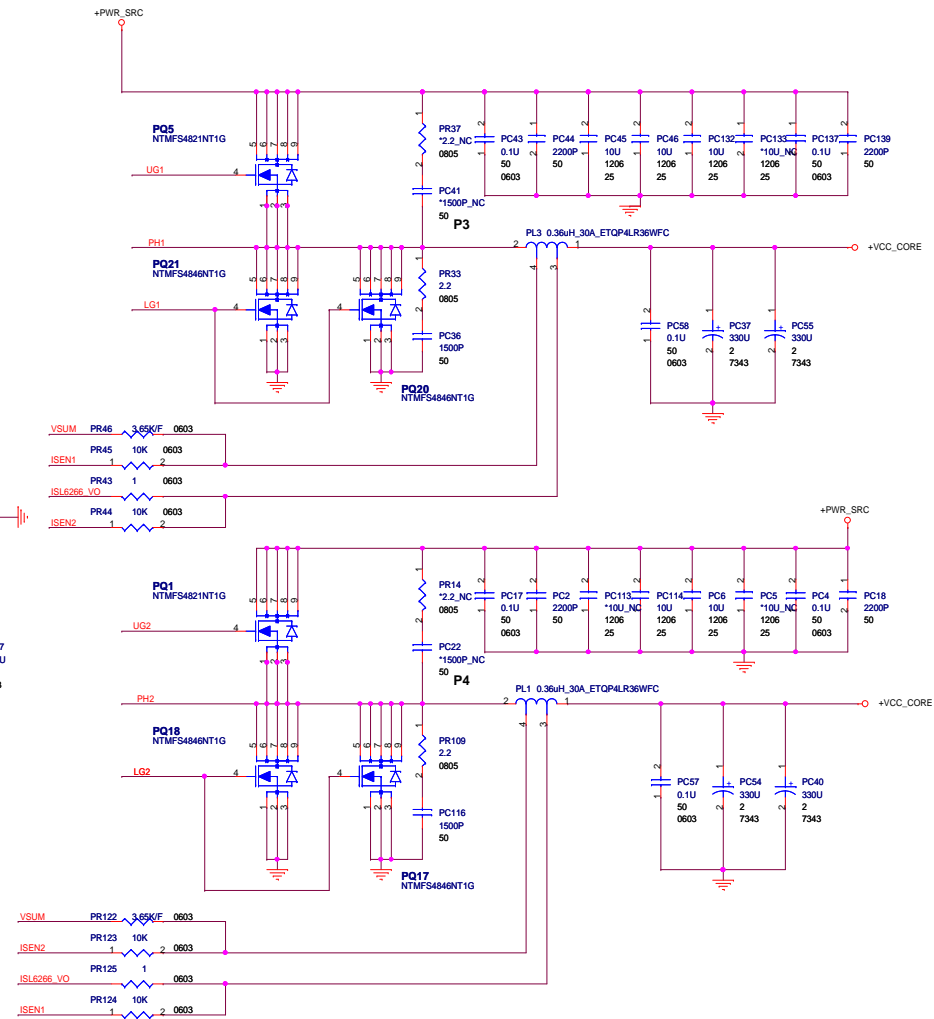
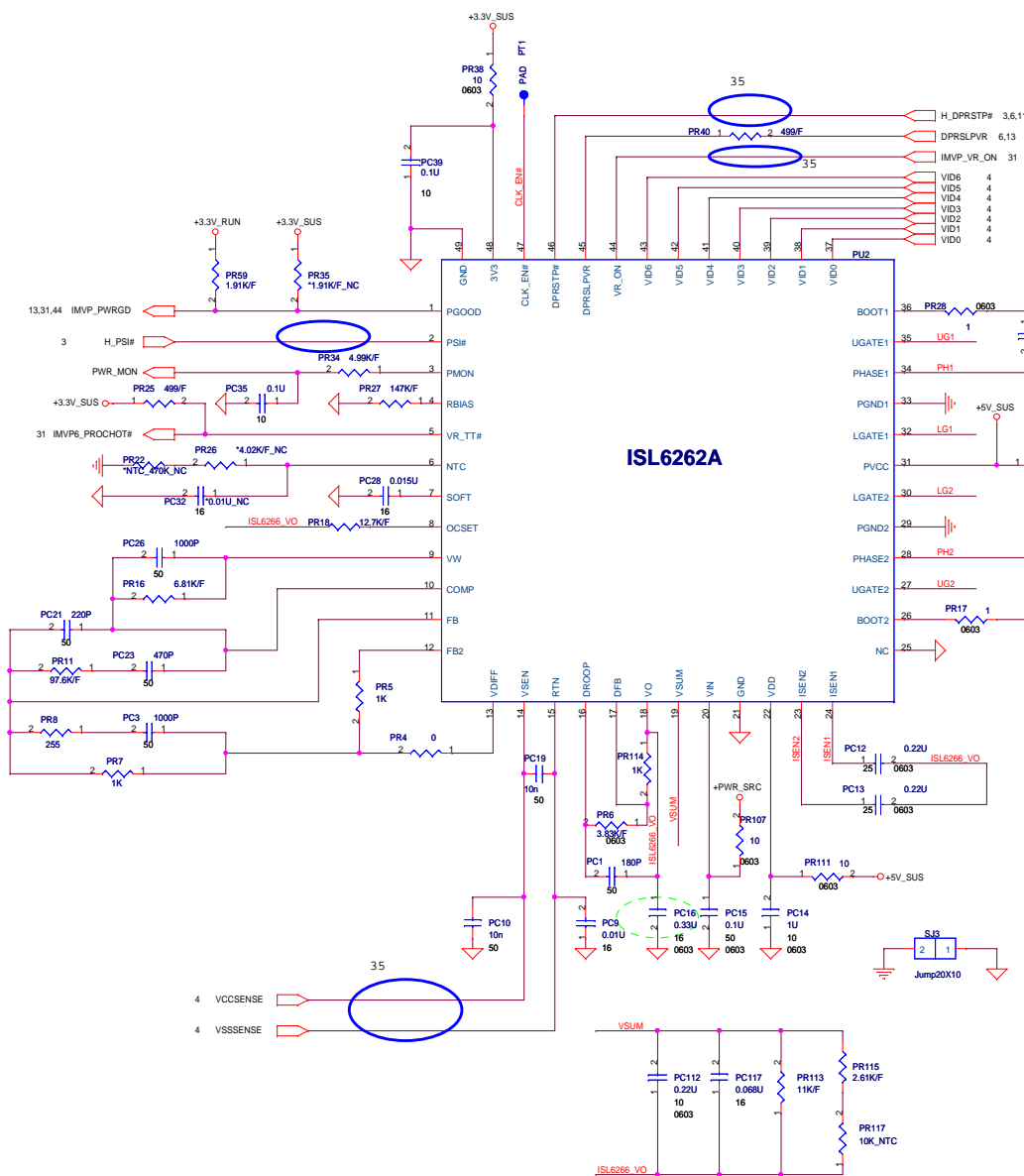
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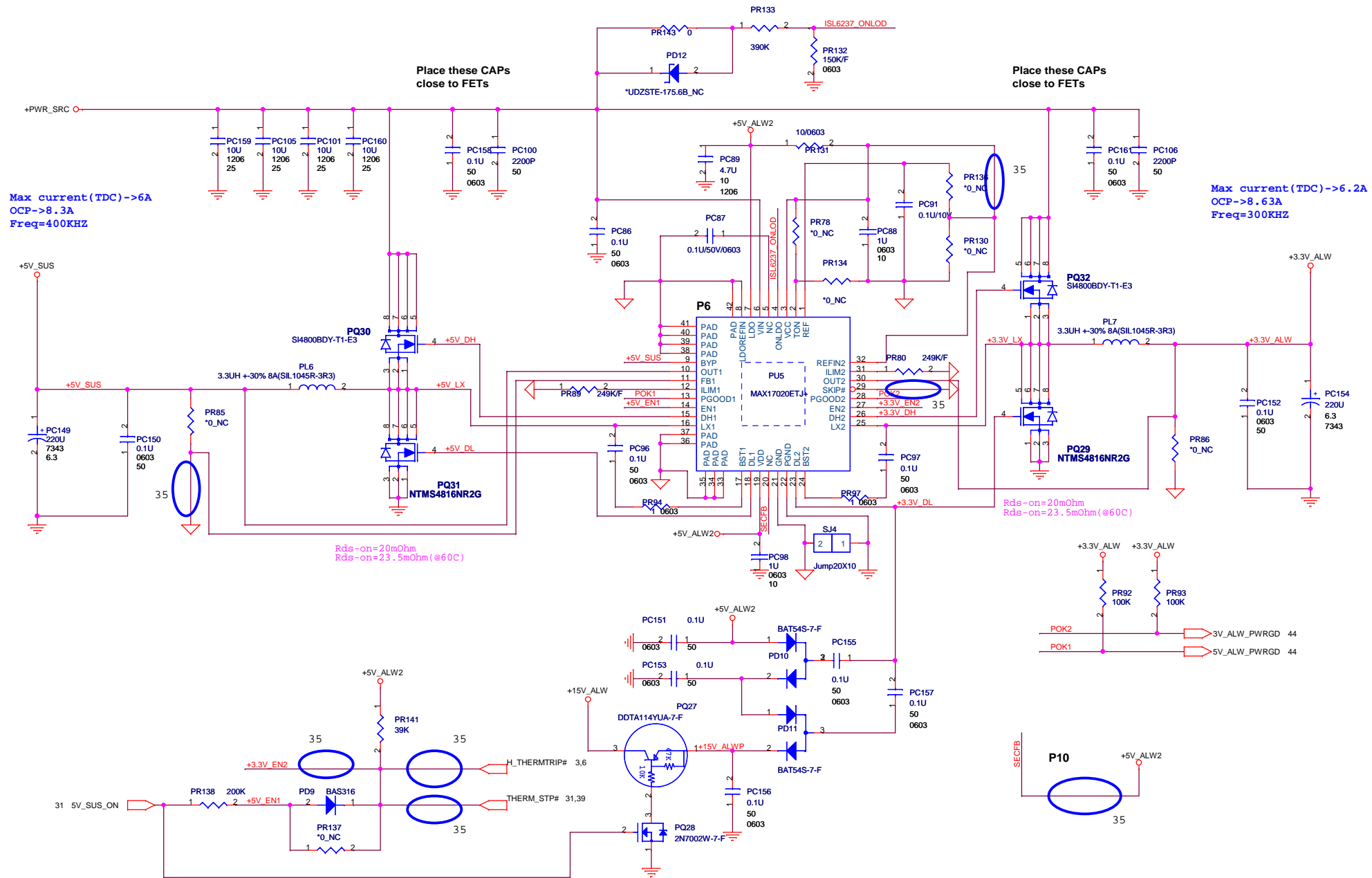


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DC/DC +3V_ALW/+5V_SUS/+5V_ALW /+15V_ALW



Title 3VALW,5V,3V, Power On

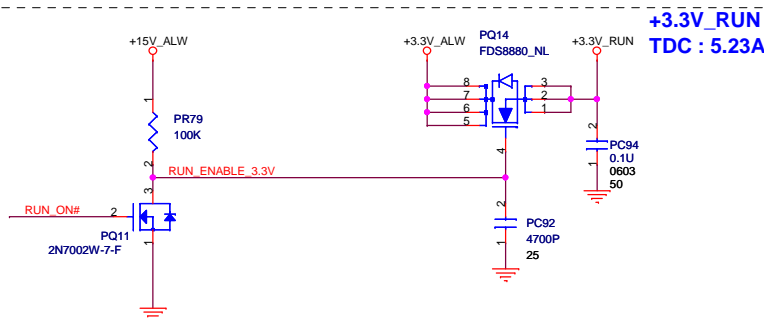
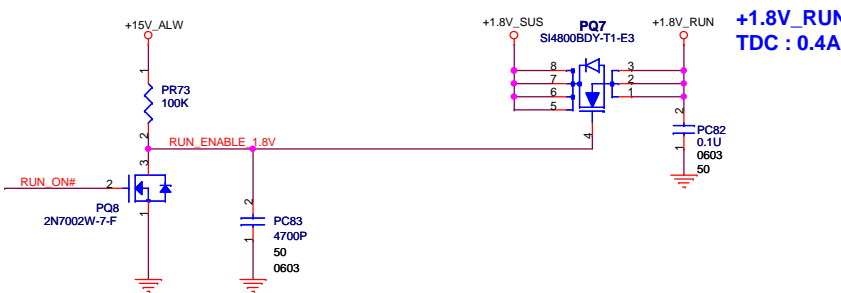
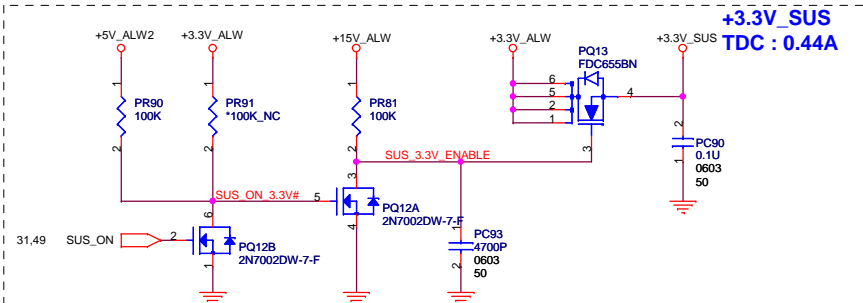
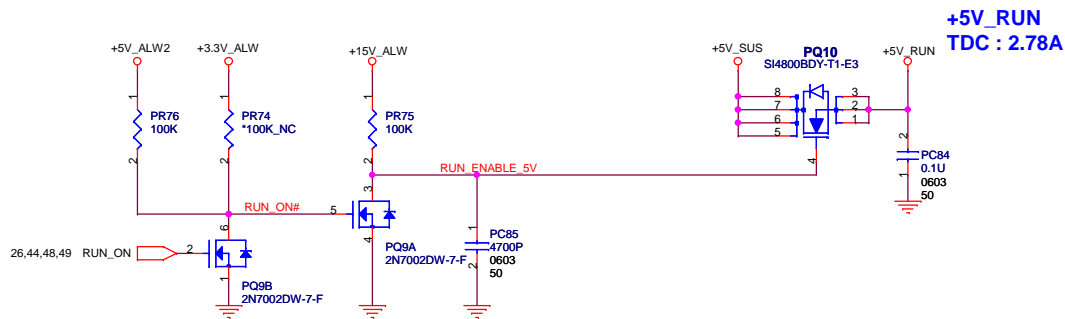
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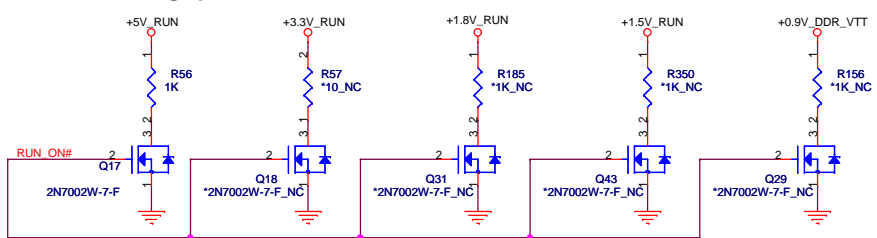
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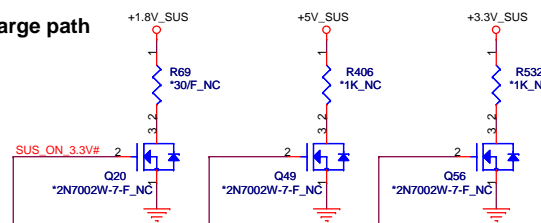
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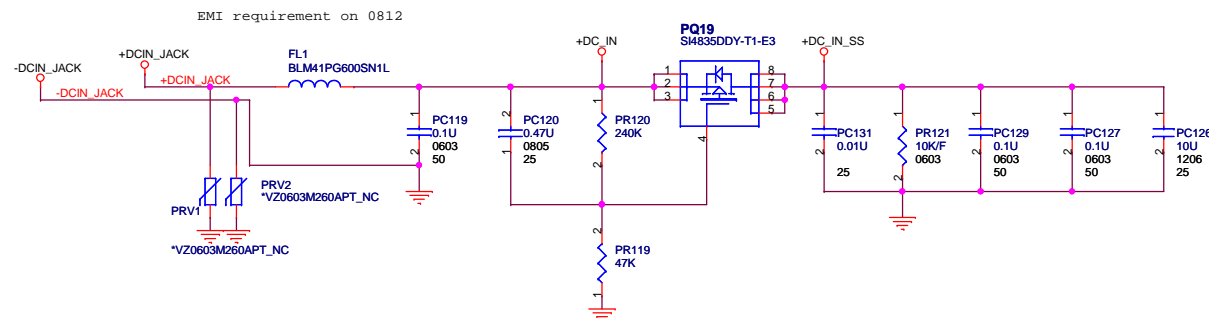
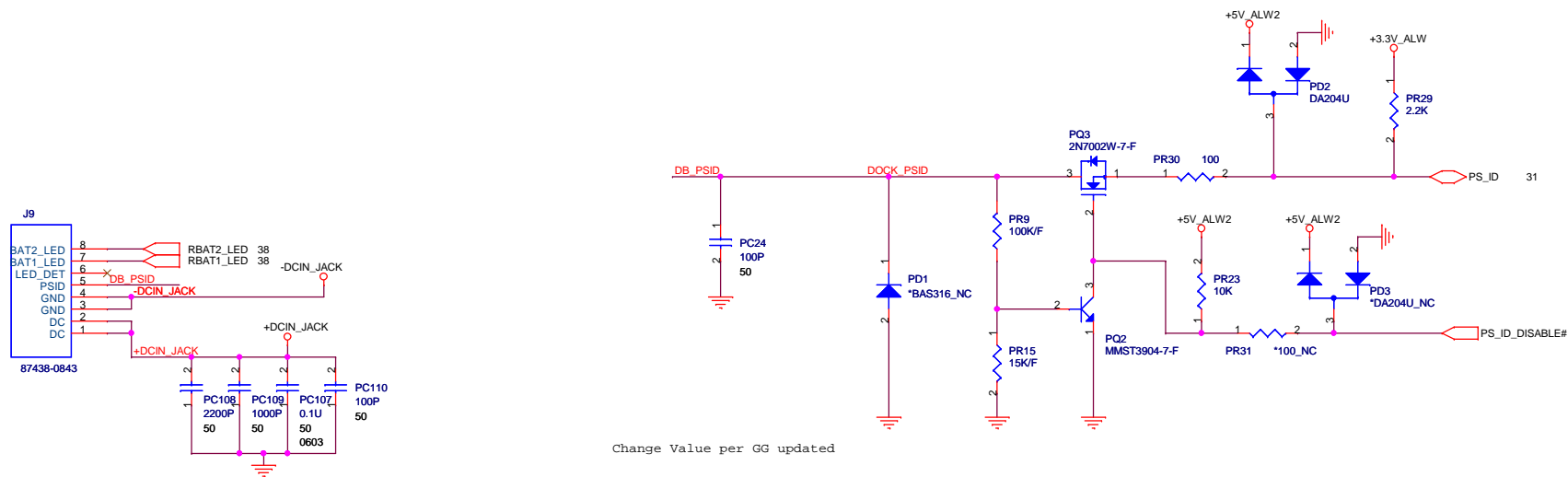
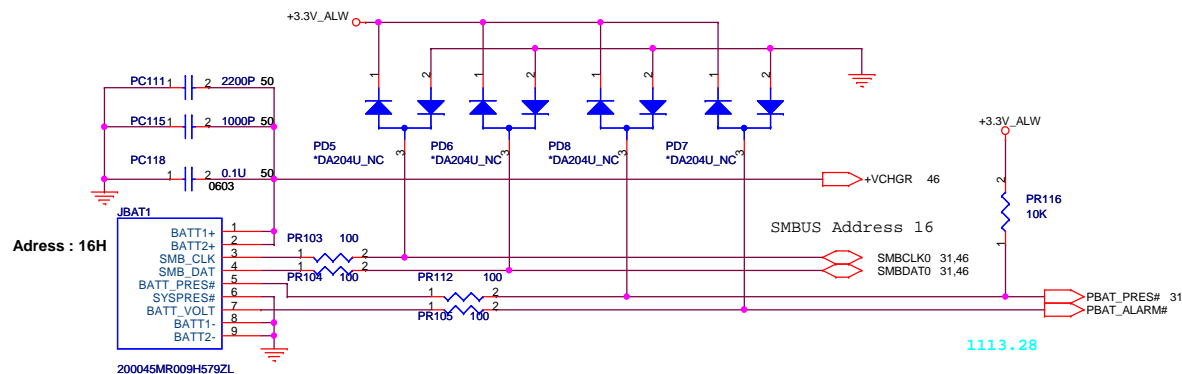


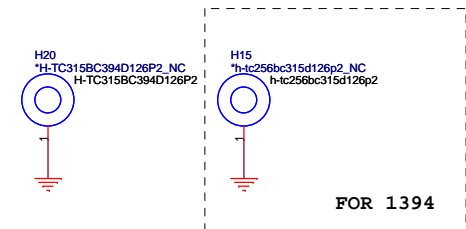
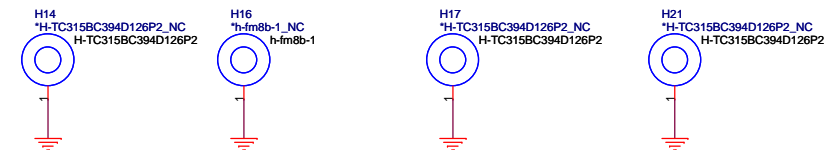
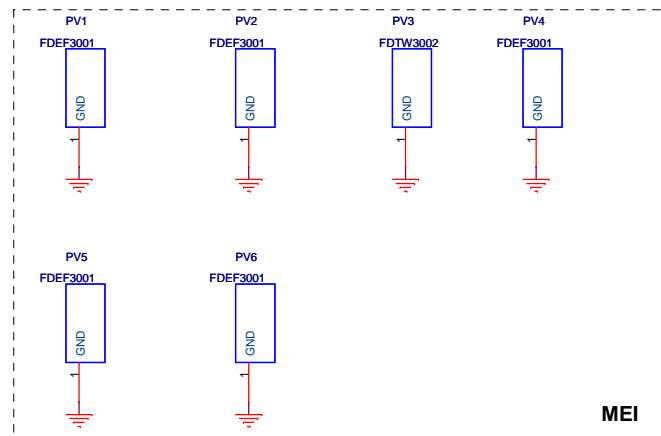
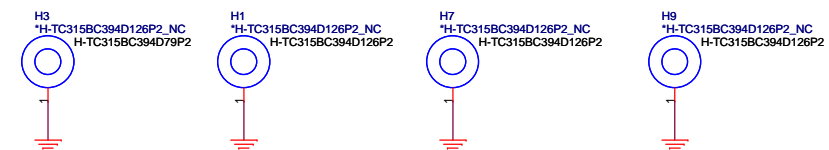
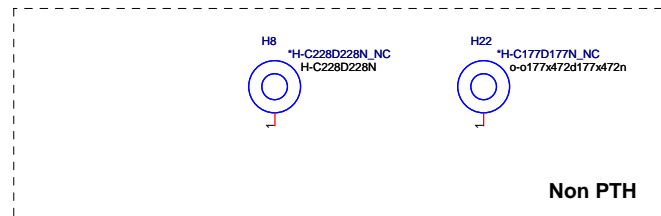
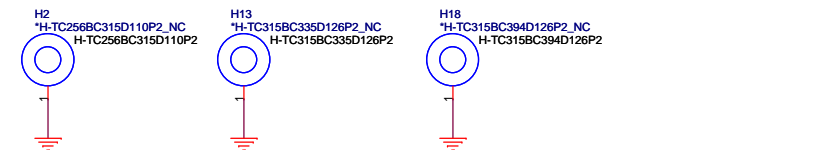
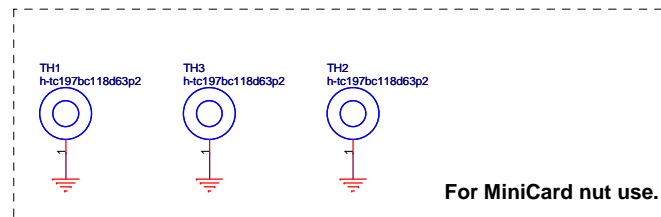
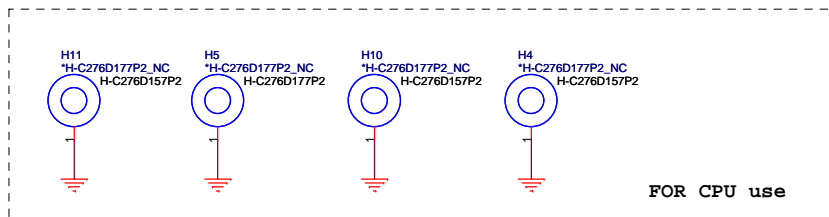
Reserve discharge path



Reserve discharge path








Reserved for EMI.

Stitching caps.



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EMI CAP		
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