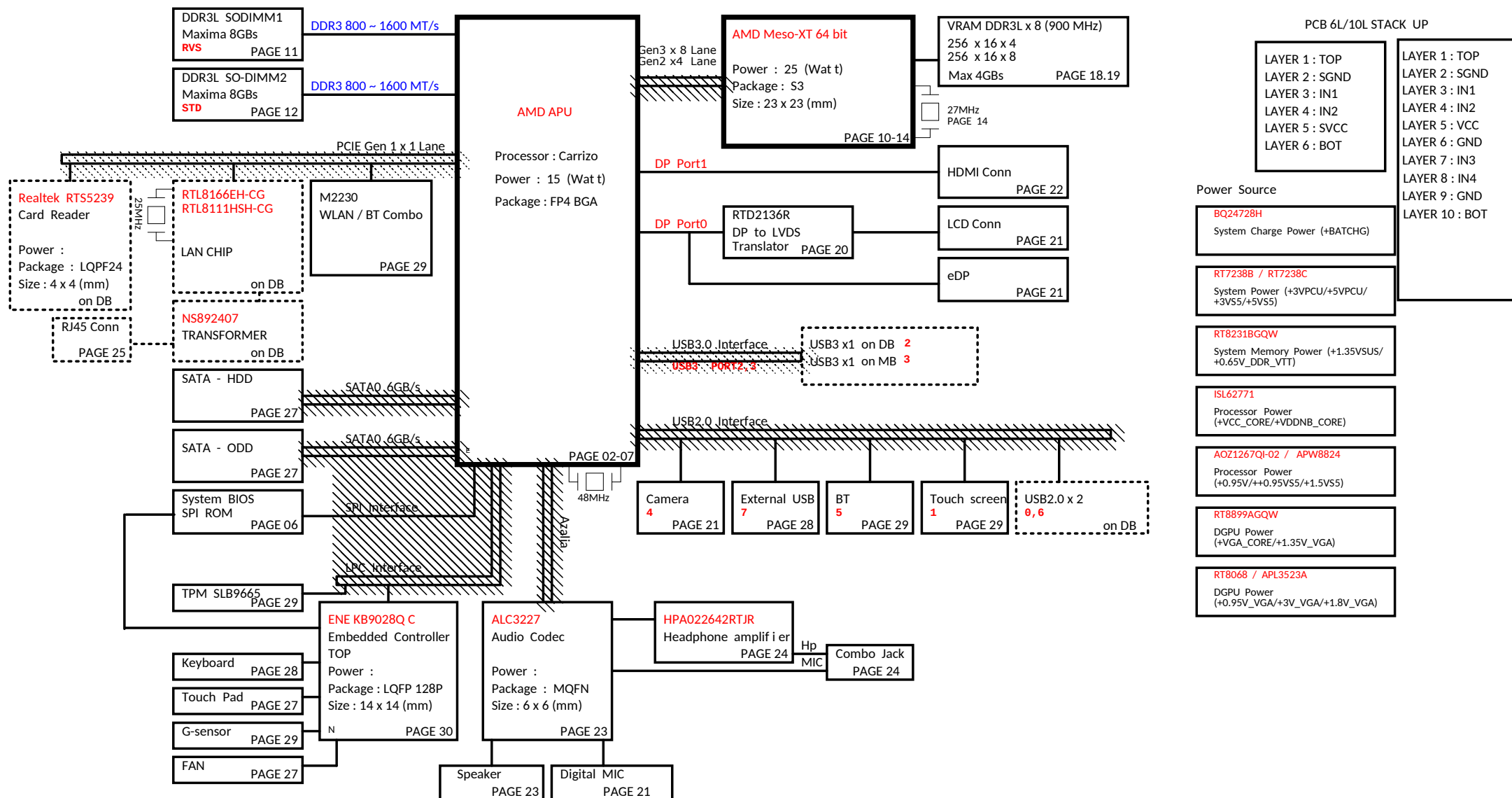
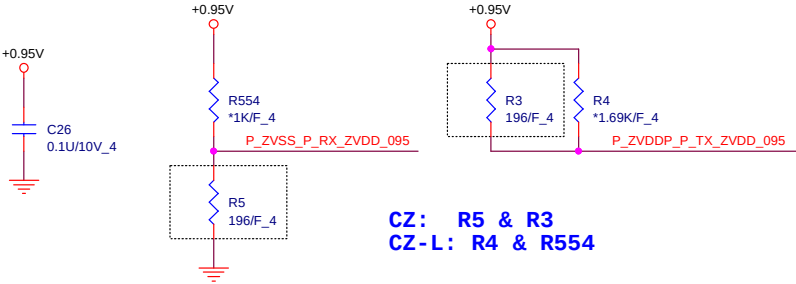
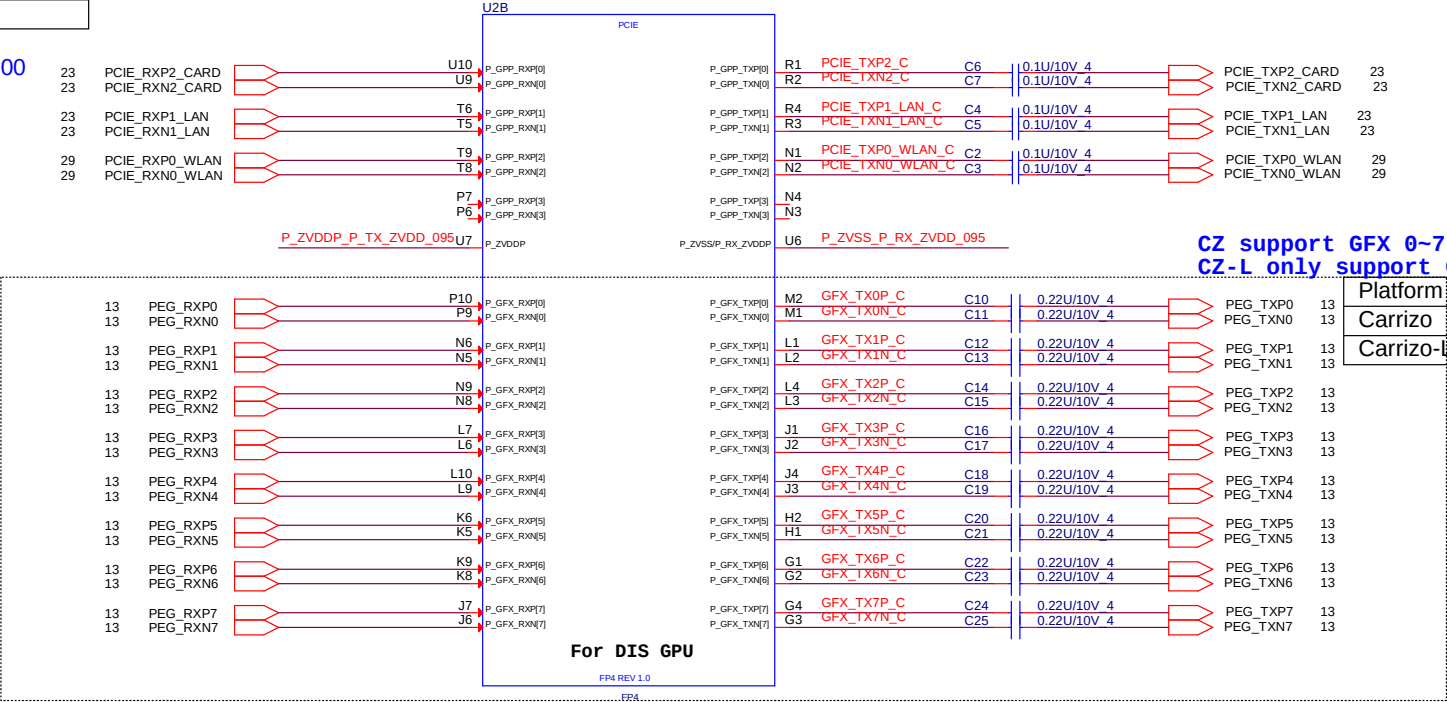


Chocolate_AMD Carrizo(L) DIS/UMA (14.0"/15.6"/17.3")



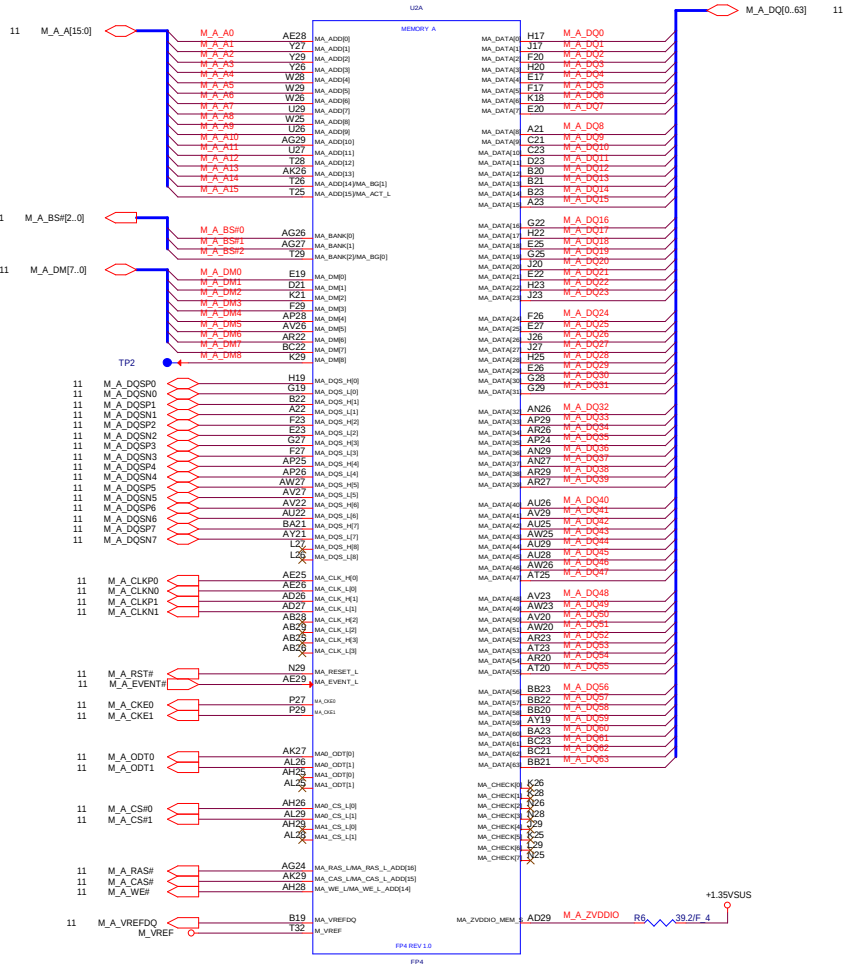
	QBCON	TOPBSQ
Carrizo	AJ1802CUT01	AJ1802CUT02

Carrizo DB phase use AJ1802CUT00

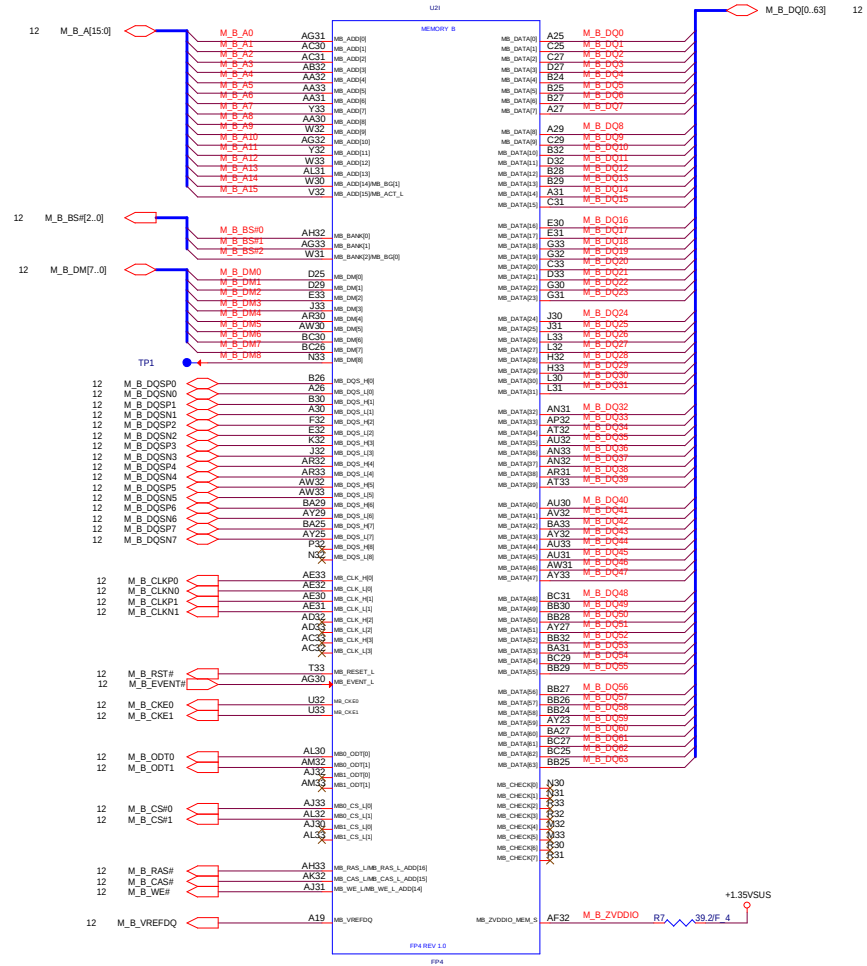
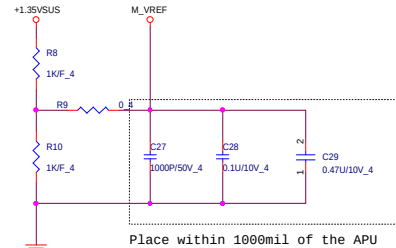


PROJECT : X21
Quanta Computer Inc.

Size	Document Number	Rev
	Carrizo 1/7 (PCIe)	1A
Date: Friday, October 17, 2014	Sheet	2 of 43



CR-L only channel B



BOARD ID TABLE

Model	ID0	ID1	ID2	ID3	ID4	ID5	ID6	ID7
CZ 14" UMA	0	0	0	0	0	1	0	0
CZ 14" SG	1	0	0	0	0	1	0	0
CZ 15" UMA	0	1	0	0	0	1	0	0
CZ 15" SG	1	1	0	0	0	1	0	0
CZ 17" UMA	0	0	1	0	0	1	0	0
CZ 17" SG	1	0	1	0	0	1	0	0

BOARD ID SETTING

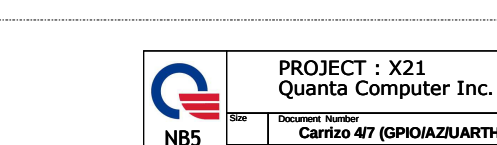
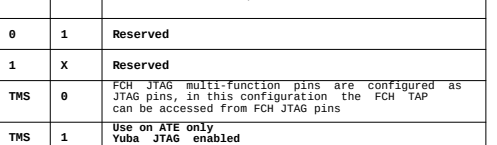
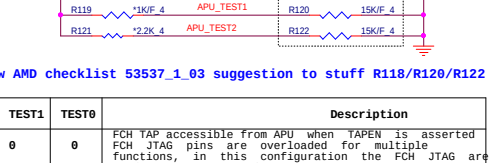
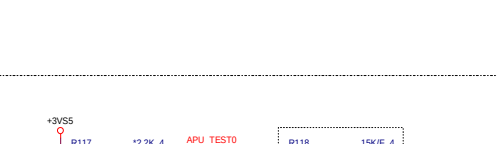
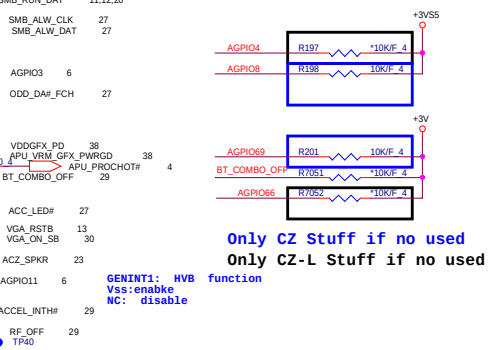
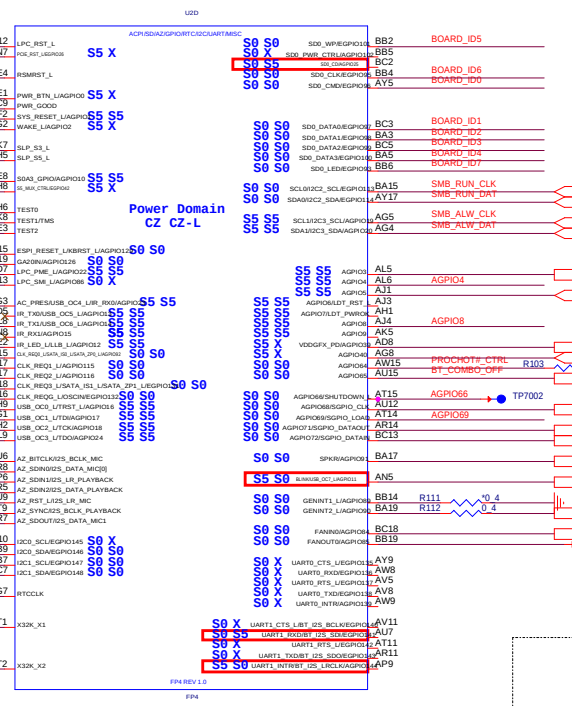
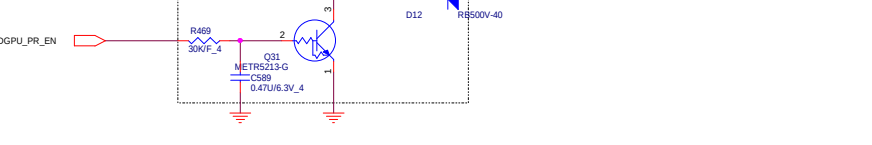
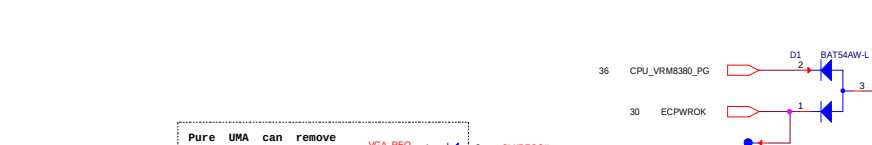
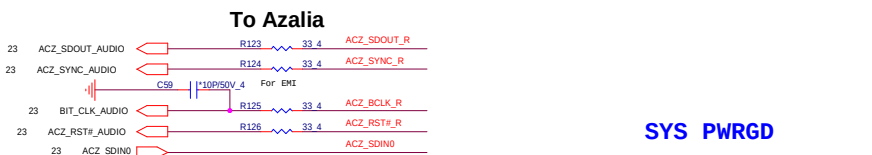
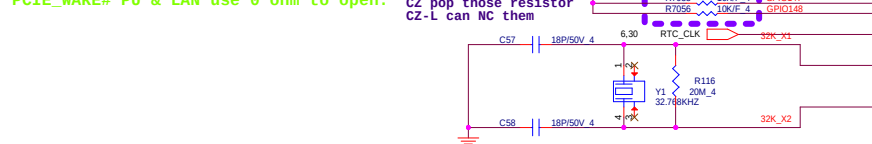
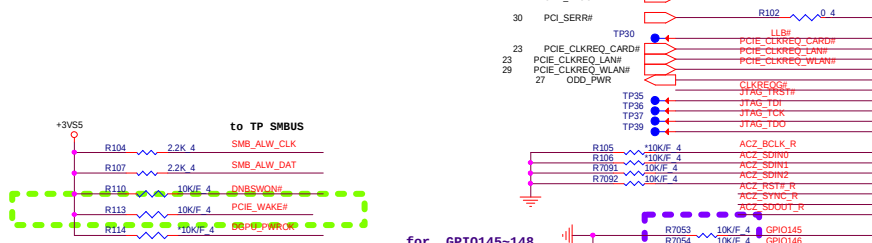
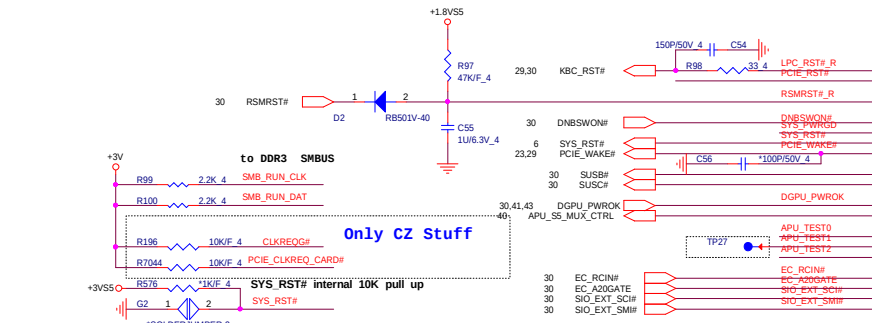
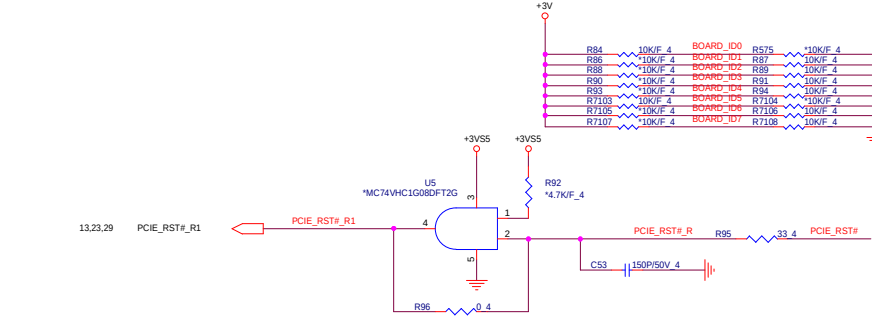
Board ID 0	Definition
0	UMA
1	SG

Board ID [2:1]	Definition
00	14"
01	15"
10	17"

Board ID [4:3]	Definition
00	Pavilion
01	Reserve
10	Reserve

Board ID [5]	Definition
0/1	CZ/CZ-L

Board ID [7:6]	Definition
00	Reserve



Follow AMD checklist 53537_1_03 suggestion to stuff R118/R120/R122

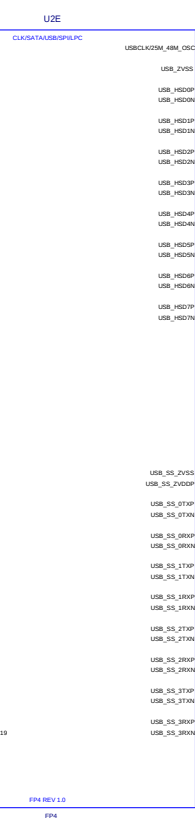
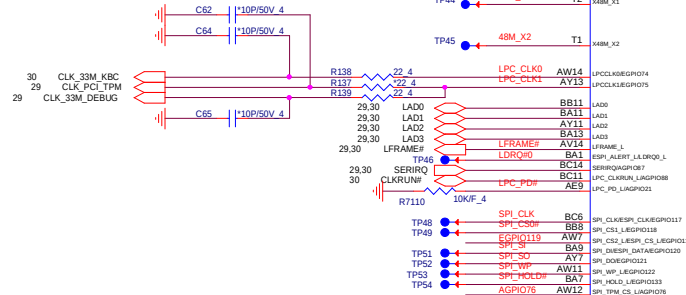
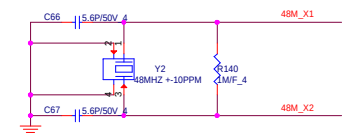
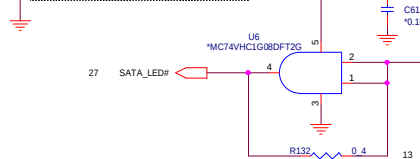
TEST2	TEST1	TEST0	Description
0	0	0	FCH JTAG accessible from APU when TAPEN is asserted FCH JTAG pins are overloaded for multiple functions, in this configuration the FCH JTAG are used as non-JTAG pins
0	0	1	Reserved
0	1	X	Reserved
1	TMS	0	FCH JTAG multi-function pins are configured as JTAG pins, in this configuration the FCH TAP can be accessed from FCH JTAG pins
1	TMS	1	Use on ATE only Yuba JTAG enabled



PROJECT : X21
Quantia Computer Inc.

Size Document Number
NB5 Carrizo 4/7 (GPIO/AZUAR) Rev 1A
Date: Friday, October 17, 2014 Sheet 5 of 43

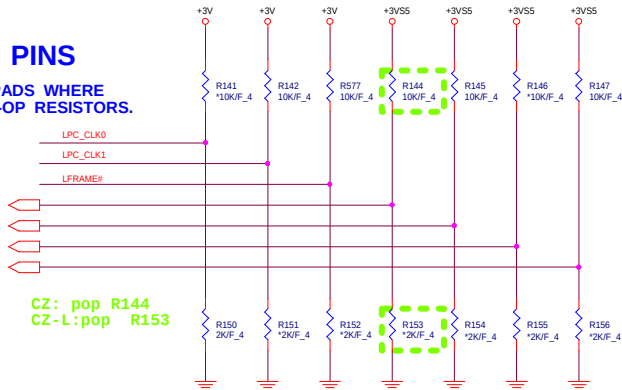
R202 10K/F 4 EGPI067
 R203 10K/F 4 EGPI070
 R204 10K/F 4 AGPI076
 R580 10K/F 4 EGPI0119



No support S3~S5 wake up

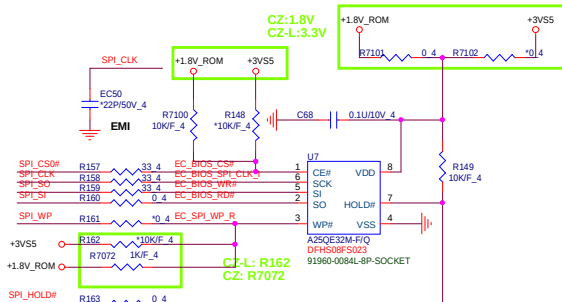
28
28 **Right side USB Combo 3.0/2.0.**

OVERLAP COMMON PADS WHERE POSSIBLE FOR DUAL-OP RESISTORS.



D/N (2.3V)	D/N (1.8V)
------------	------------

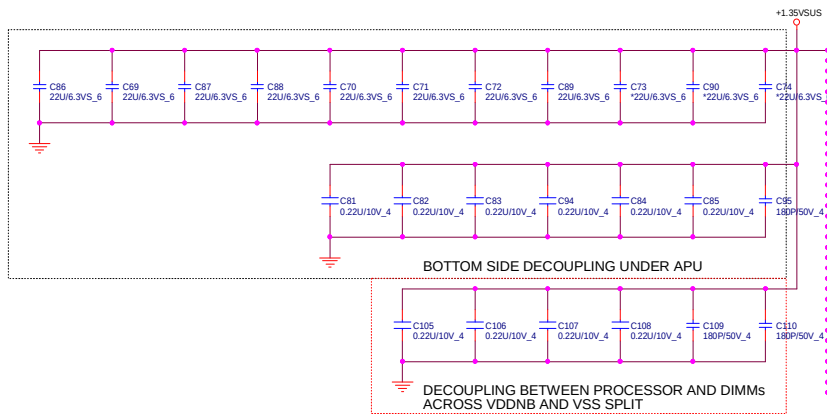
30	EC_SPI_WP_R	EC_SPI_WP_R
30	EC_BIOS_CS#	EC_BIOS_CS#
30	EC_BIOS_SPI_CLK_I	EC_BIOS_SPI_CLK_I
30	EC_BIOS_WR#	EC_BIOS_WR#
30	EC_BIOS_RD#	EC_BIOS_RD#



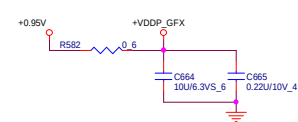
Follow FAE comment: R154 change to 2K, R147 to 10k, R146 is NC



Size	Document Number	Revision
	Carrizo 5/7 (SATA/USB/SPI)	1A
Date: Friday, October 17, 2014	Sheet 6 of 42	

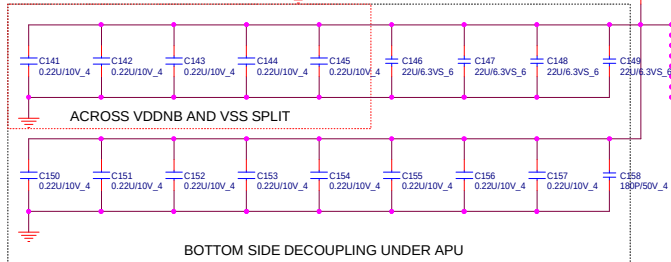
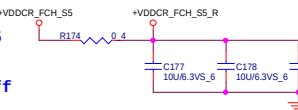


R582
CZ: always pop
CZ-L PX: Stuff
UMA: No Stuff

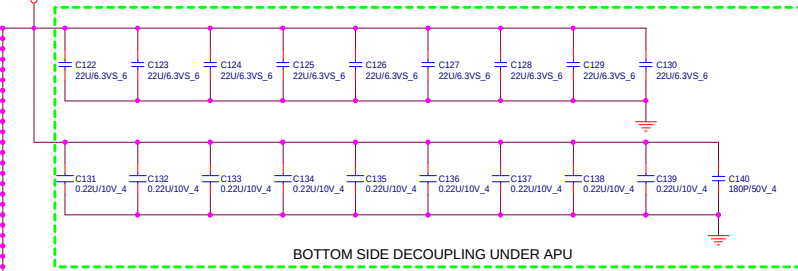
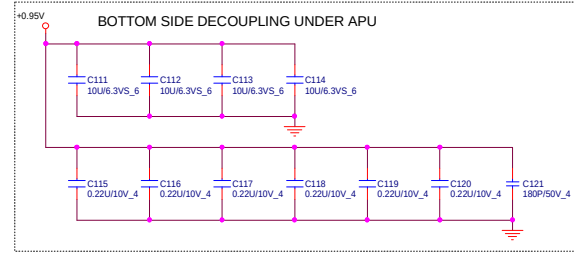
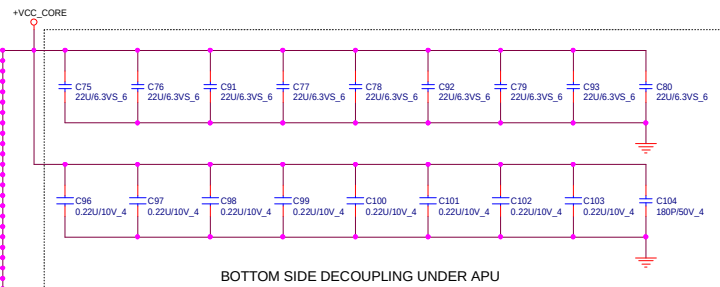
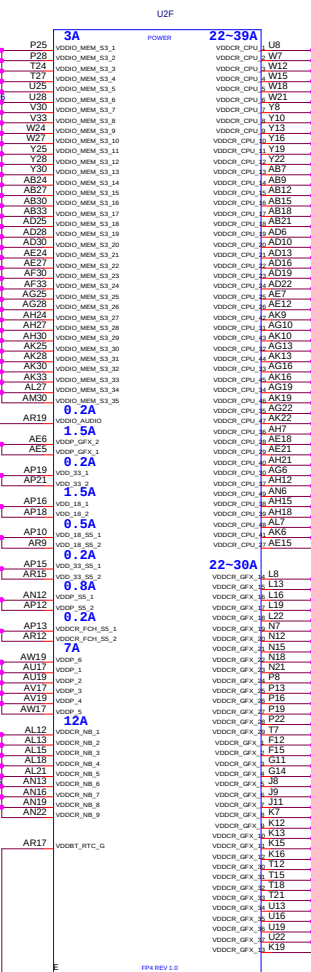
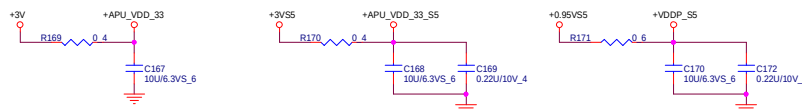
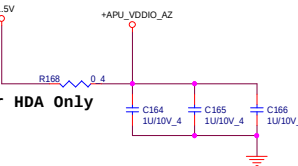


R7047
only pop on
CZ-L UMA SKU.

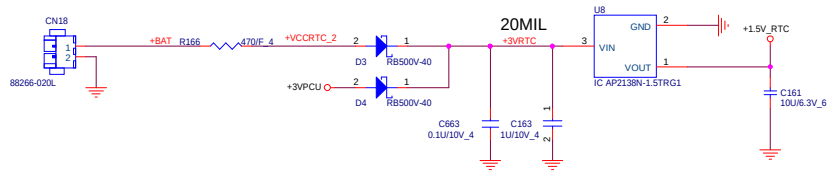
+VDDCR_FCH_S5
R174
CZ: Stuff
CZ-L: No Stuff



1.5V For HDA Only

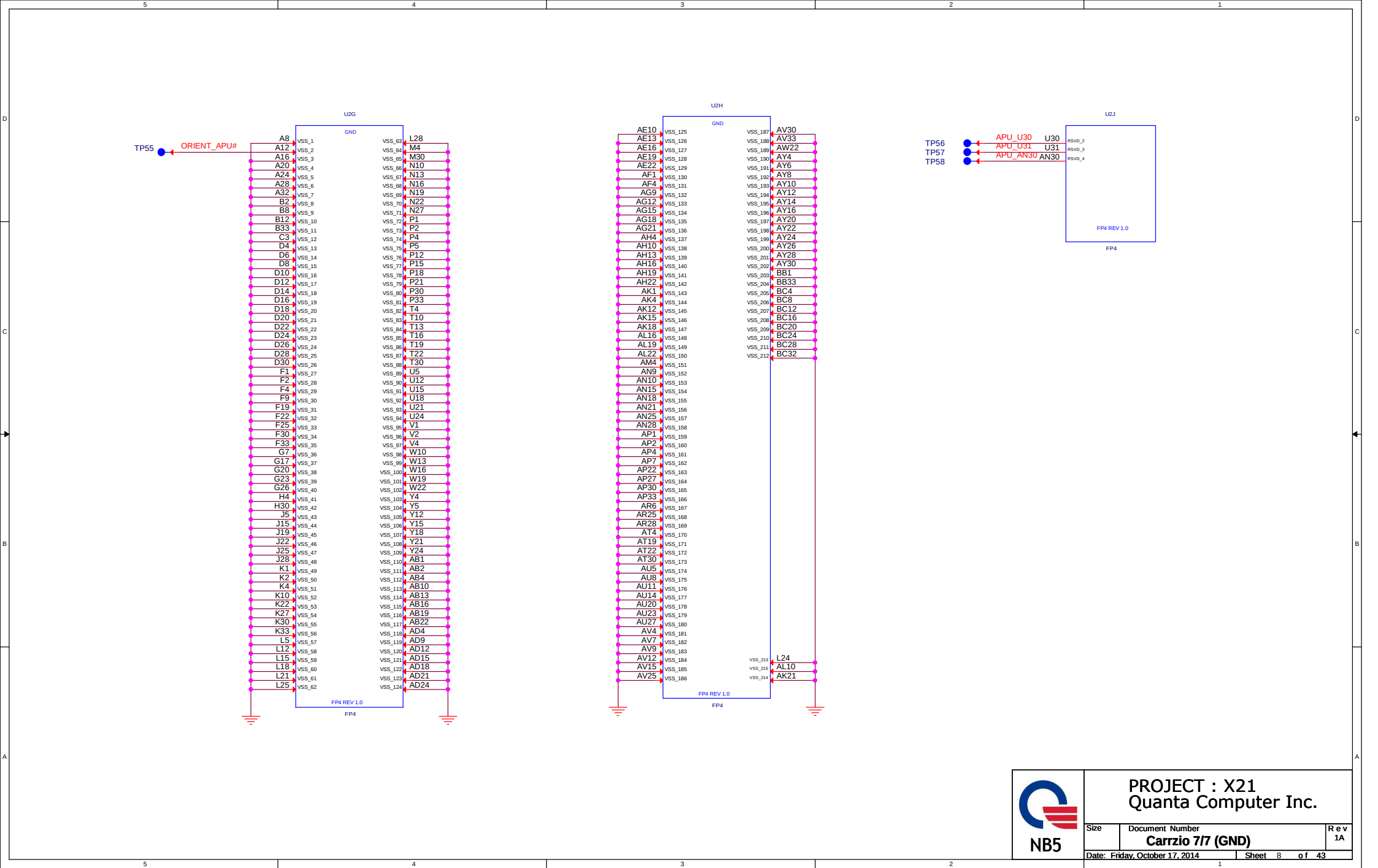


CZ: All +APU_VDDGFX_RUN cap Stuff.
CZ-L: All +APU_VDDGFX_RUN cap No Stuff.



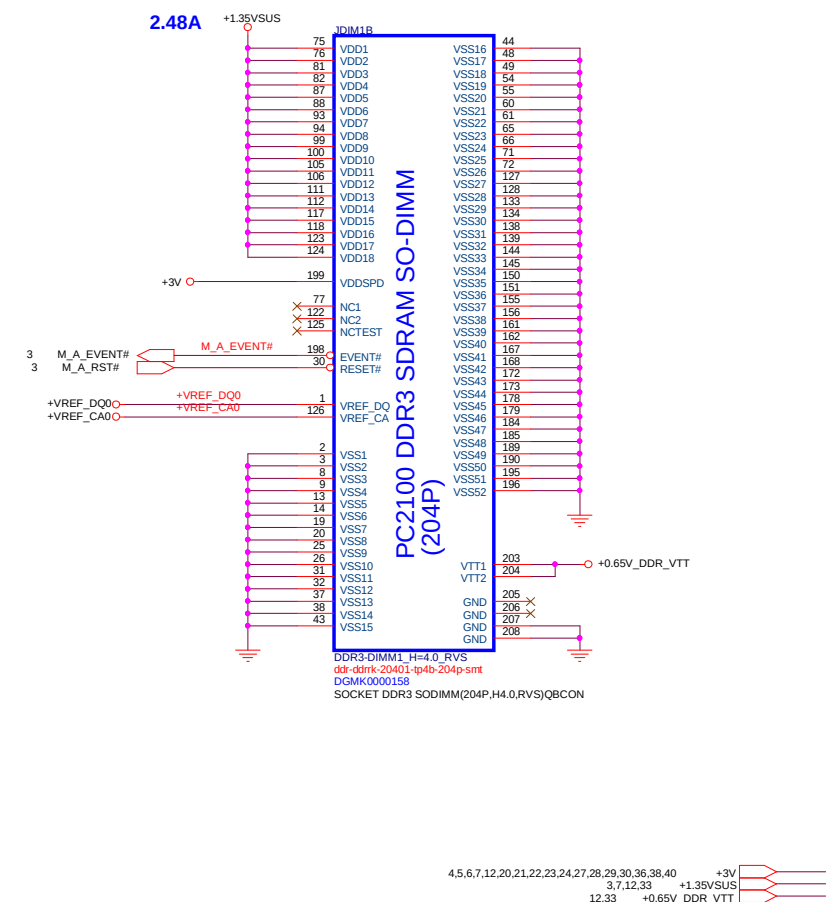
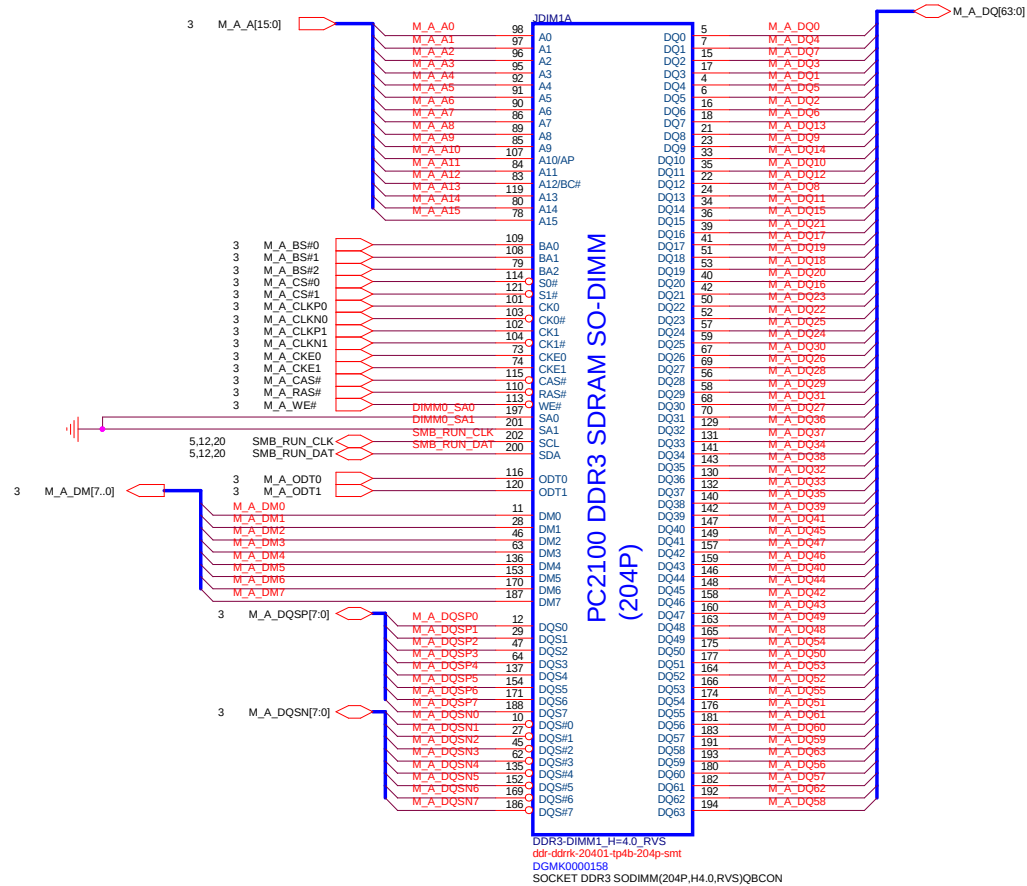
form BAT coin --> stuff CN13/R527/D15
--> unstuff R529

form BAT pack --> unstuff CN13/R527/D15
--> stuff R529

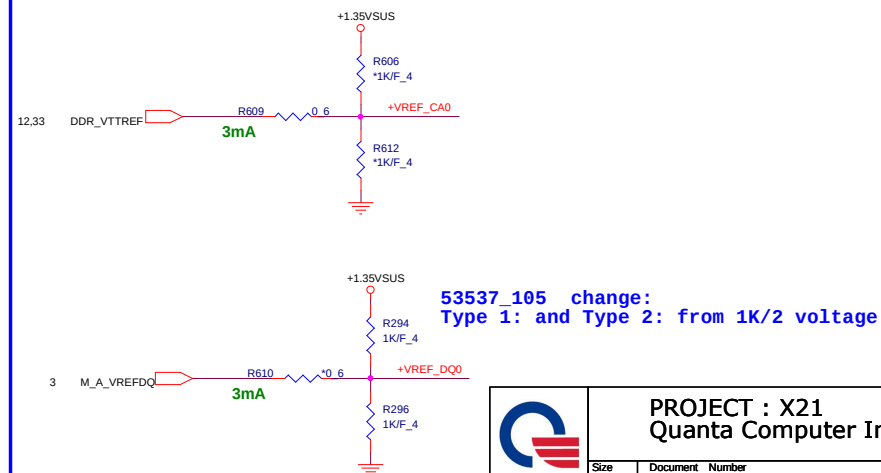
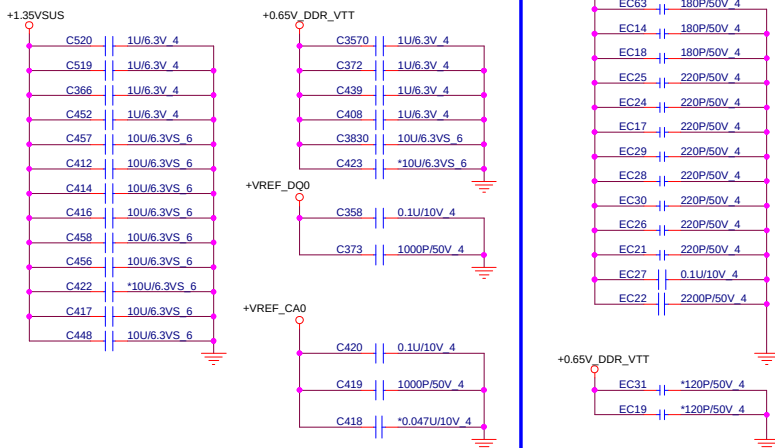


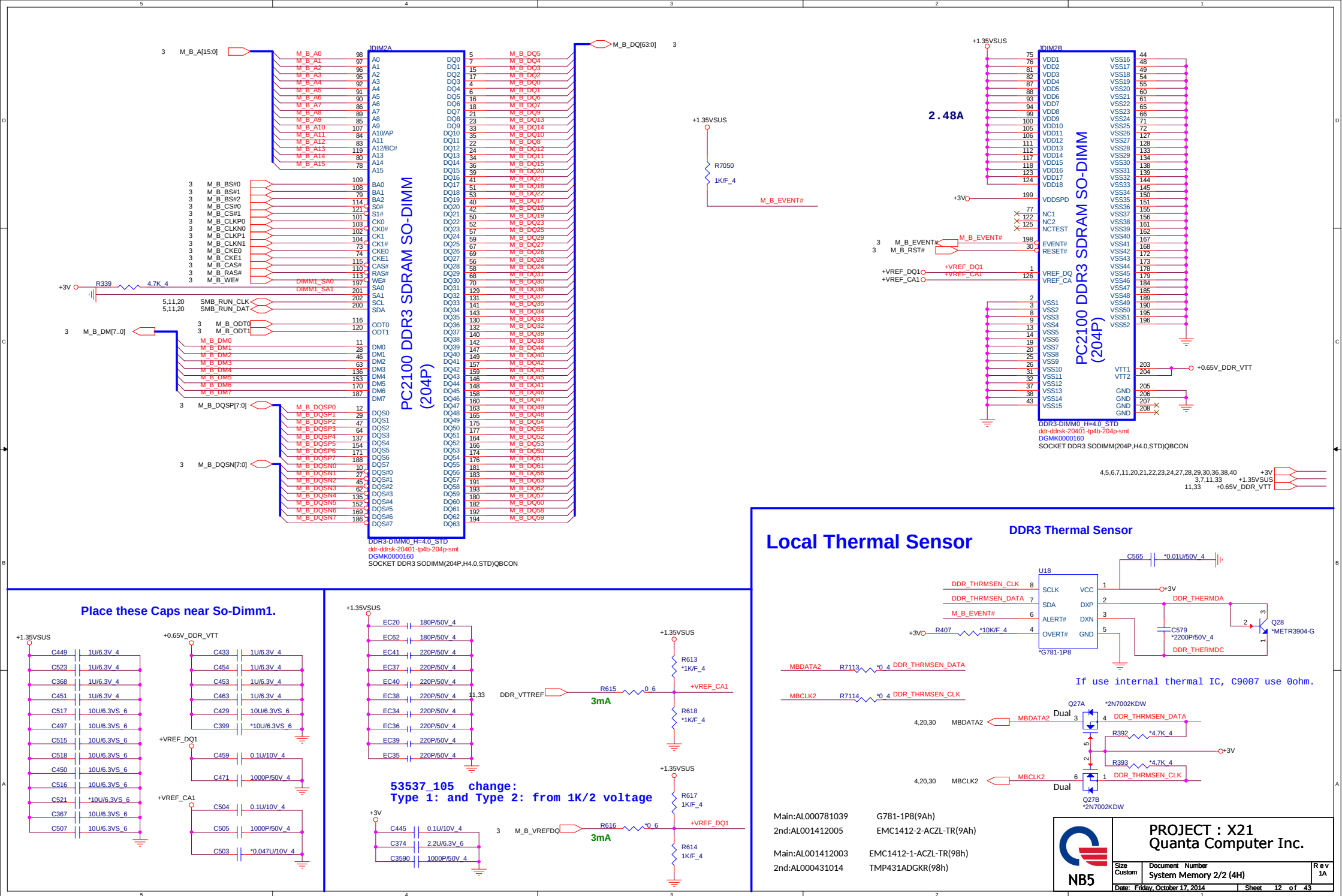
PROJECT : X21
Quanta Computer Inc.

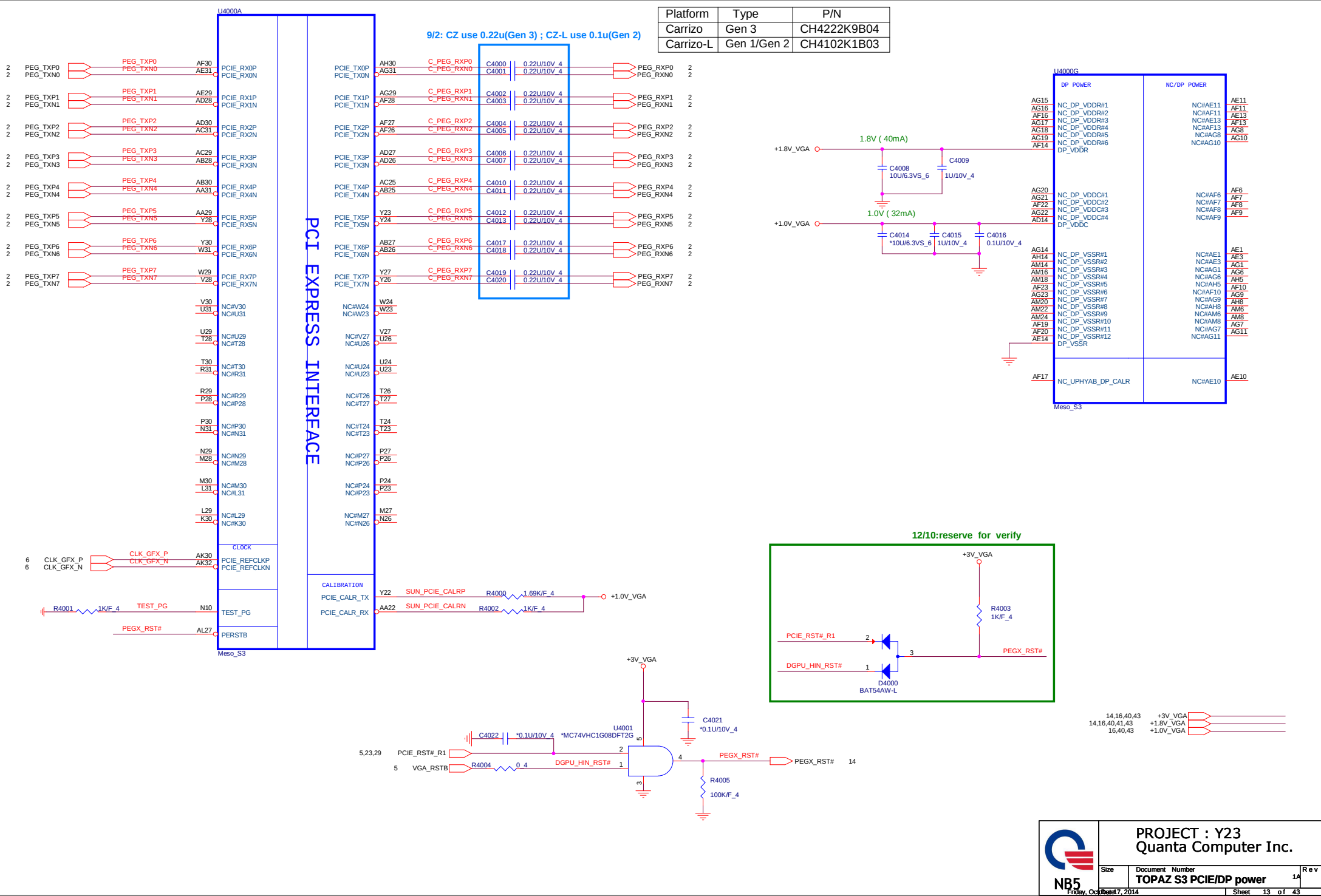
Size	Document Number	Rev
	Carrzio 7/7 (GND)	1A
Date: Friday, October 17, 2014	Sheet 8	of 43

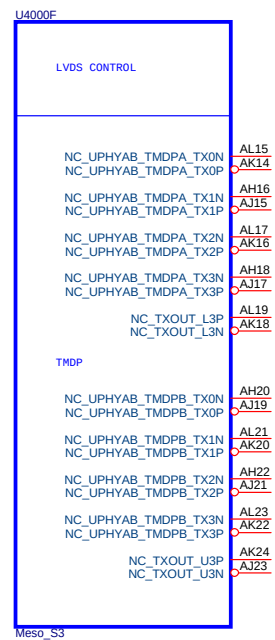
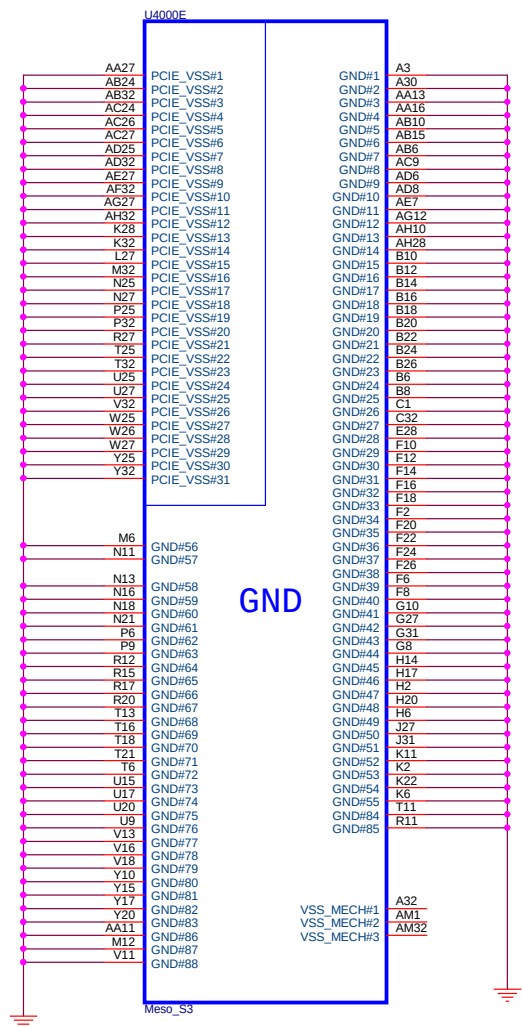


Place these Caps near So-Dimm0.









CONFIGURATION STRAPS-- SEE EACH DATABOOK FOR STRAP DETAILS
ALLOW FOR PULLUP PADS FOR THESE STRAPS AND IF THESE GPIOS ARE USED, THEY MUST NOT CONFLICT DURING RESET

RECOMMENDED SETTINGS
0= DO NOT INSTALL RESISTOR
1= INSTALL 3K RESISTOR
X = DESIGN DEPENDANT
NA = NOT APPLICABLE

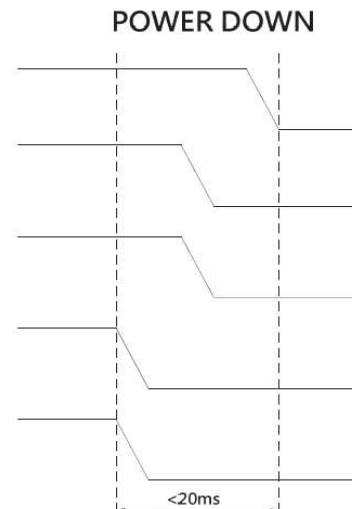
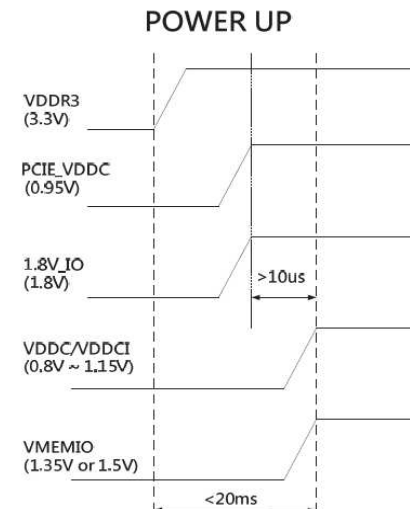
STRAPS	PIN	DESCRIPTION OF DEFAULT SETTINGS	
TX_PWRS_ENB	GPIO0	PCIE FULL TX OUTPUT SWING	0
TX_DEEMPH_EN	GPIO1	PCIE TRANSMITTER DE-EMPHASIS ENABLED	x
RSVD	GPIO2	RESERVED	0
RSVD	GPIO8	RESERVED	0
BIF_VGA_DIS	GPIO9	VGA ENABLED	0
RSVD	GPIO21	RESERVED	0
BIOS_ROM_EN	GPIO_22_ROMCSB	ENABLE EXTERNAL BIOS ROM	0
ROMIDCFG(2:0)	GPIO[13:11]	SERIAL ROM TYPE OR MEMORY APERTURE SIZE SELECT	0 0 1
VIP_DEVICE_STRAP_ENA	V2SYNC	IGNORE VIP DEVICE STRAPS (Removed on Seymour/Whistler)	0
RSVD	H2SYNC	RESERVED	0
AUD[1] AUD[0]	HSYNC VSYNC	SEE DATABOOK FOR DETAIL SEE DATABOOK FOR DETAIL	0 0
RSVD	GENERICC	RESERVED	0

NOTE1: AMD RESERVED CONFIGURATION STRAPS

ALLOW FOR PULLUP PADS FOR THESE STRAPS BUT DO NOT INSTALL RESISTOR. IF THESE GPIOS ARE USED, THEY MUST KEEP "LOW" AND NOT CONFLICT DURING RESET.

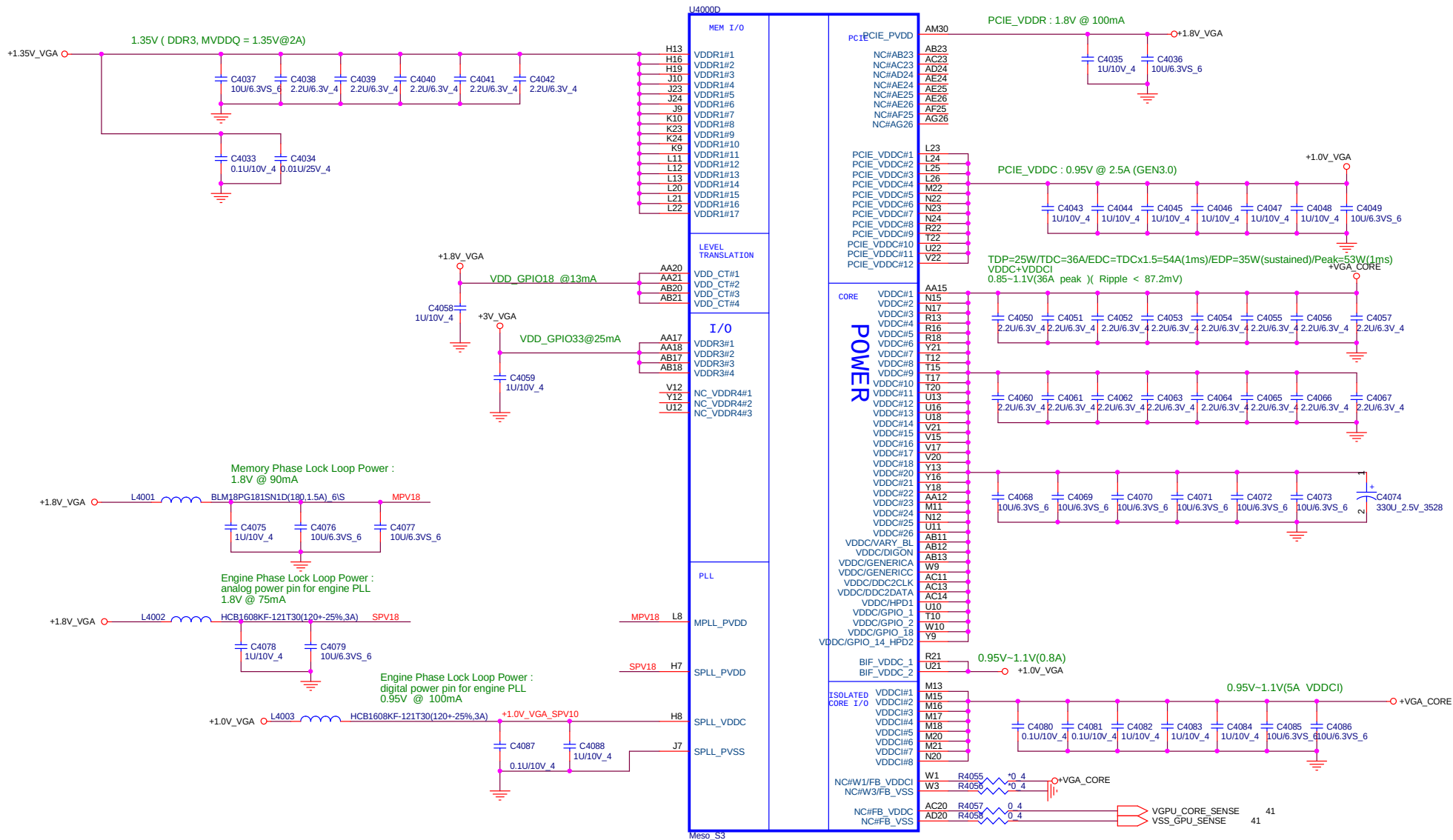
GPIO21 H2SYNC GENERICC GPIO8 GPIO2

POWER UP / POWER DOWN SEQUENCE



PROJECT : Y23
Quanta Computer Inc.

Size	Document Number	Rev
	TOPAZ_S3_GND/LVDS/Strap	1A
Date:	Friday, October 17, 2014	Sheet 15 of 43

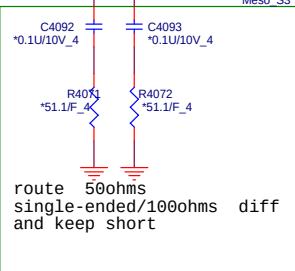
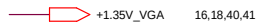
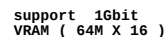


+1.35V_VGA 17,18,40,41
 +1.8V_VGA 13,14,40,41,43
 +1.0V_VGA 13,40,43
 +VGA_CORE 40,41,42

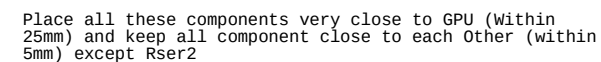


PROJECT : Y23
Quanta Computer Inc.

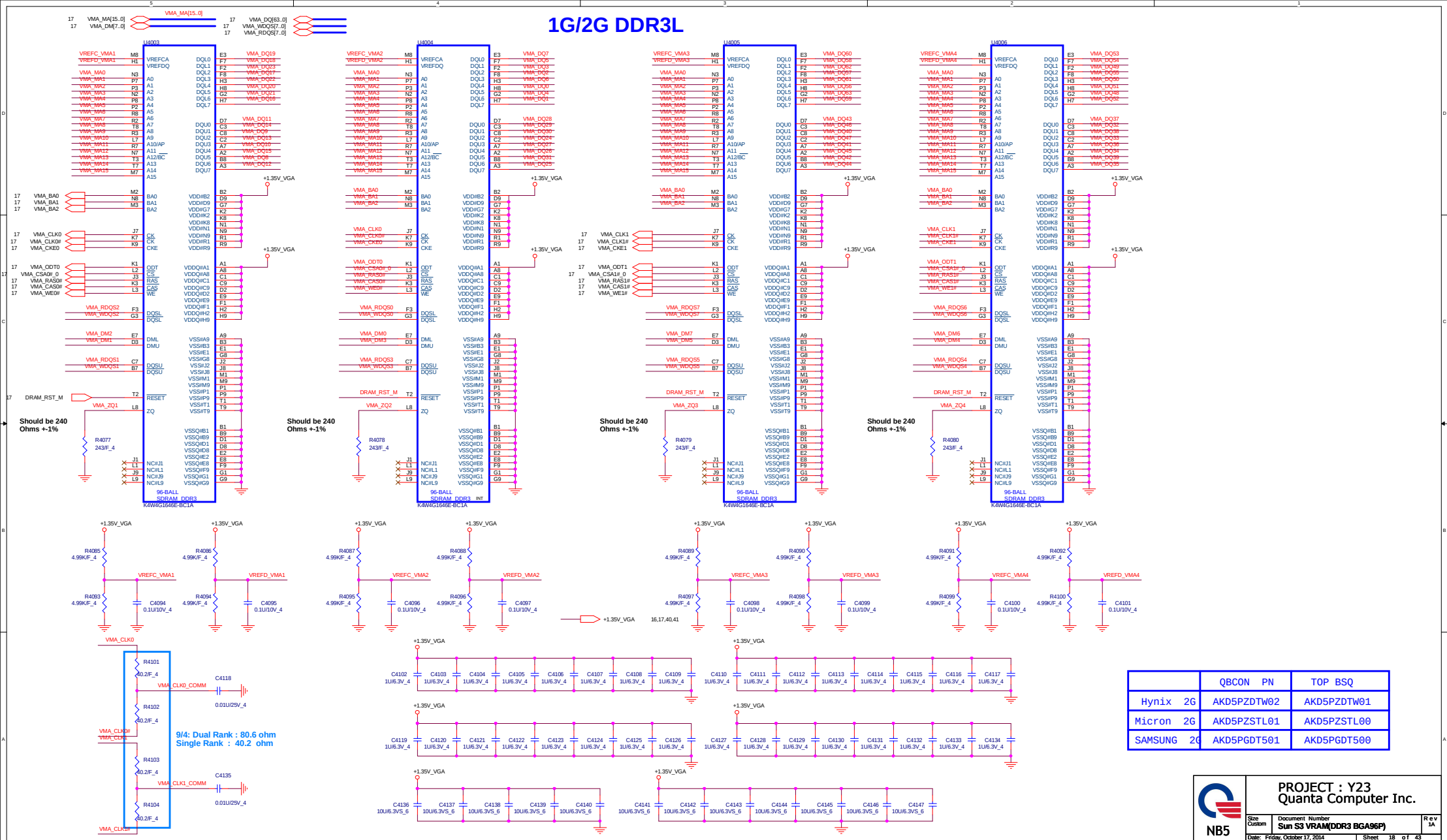
Size	Document Number	Rev
	TOPAZ S3 Power	1A
Date:	Friday, October 17, 2014	Sheet 16 of 43



MEMORY INTERFACE



This basic topology should be used for DRAM_RST for DDR3/GDDR5. These Capacitors and Resistor values are an example only. The Series R and || Cap values will depend on the DRAM load and will have to be calculated for different Memory, DRAM Load and board to pass Reset Signal Spec.



		QBCON PN	TOP BSQ
Hynix	2G	AKD5PZDTW02	AKD5PZDTW01
Micron	2G	AKD5PZSTL01	AKD5PZSTL00
SAMSUNG	2G	AKD5PGDT501	AKD5PGDT500

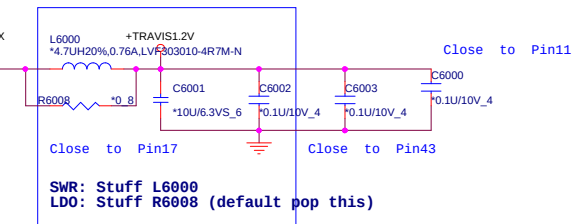
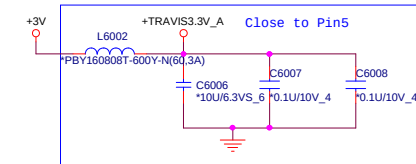
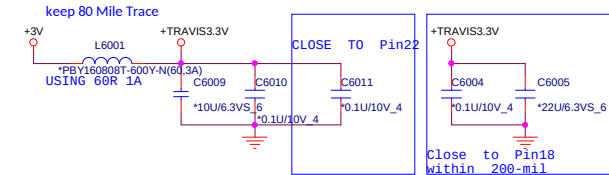
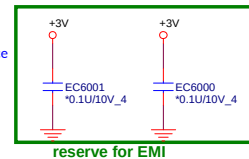
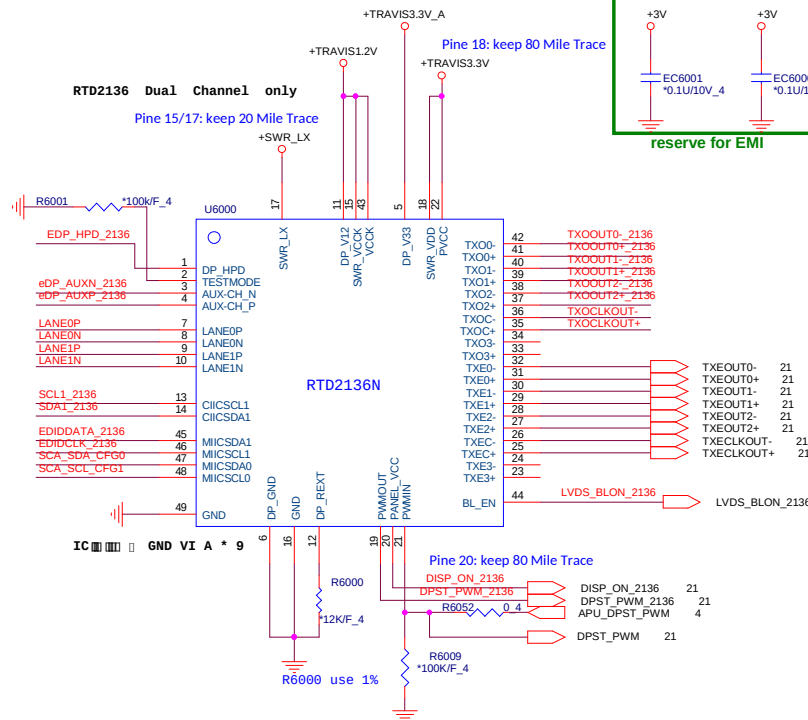
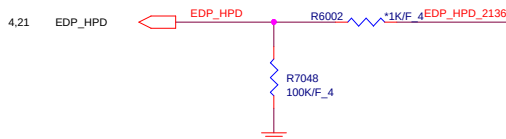
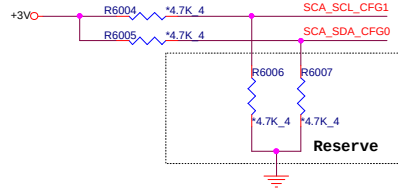


PROJECT : Y23
Quanta Computer Inc.

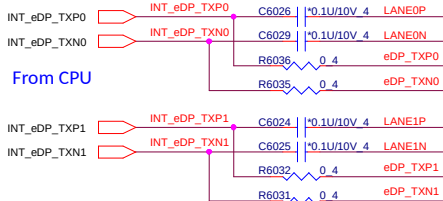
Size Custom	Document Number Sun S3 VRAM(DDR3 BGA96P)	Rev 1A
Date: Friday, October 17, 2014		Sheet 19 of 43

14" & 15" only eDP panel SKU , 17" have both LVDS & eDP SKU

		MODE_CFG0(PIN47)	
		0	1
MODE_CFG1(PIN48)	0	X	EP MODE
	1	ROM ONLY MODE	EEPROM MODE



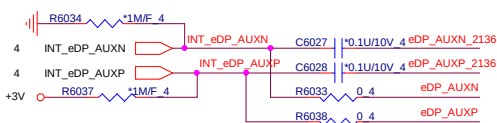
L6000: need use CV-4709MN00 for Vendor suggestion
2nd CV-4708MN03



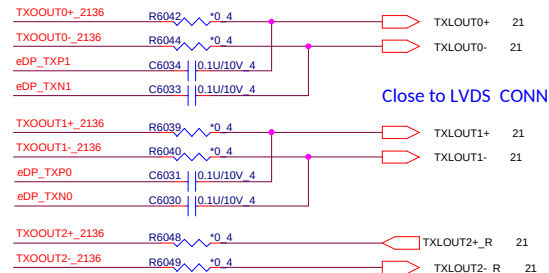
To 2136

To 2136

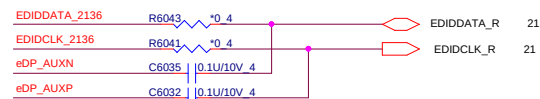
For EDP Only: stuff Resistor
For LVDS only stuff Cap



To 2136



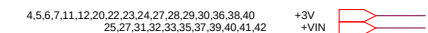
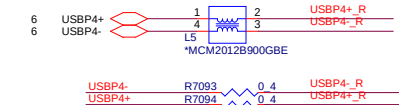
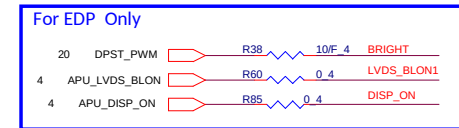
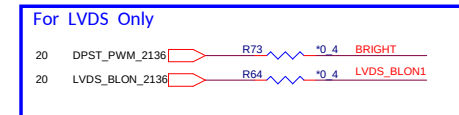
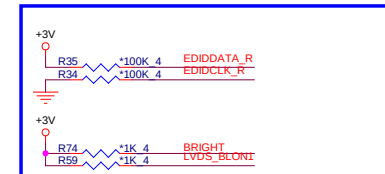
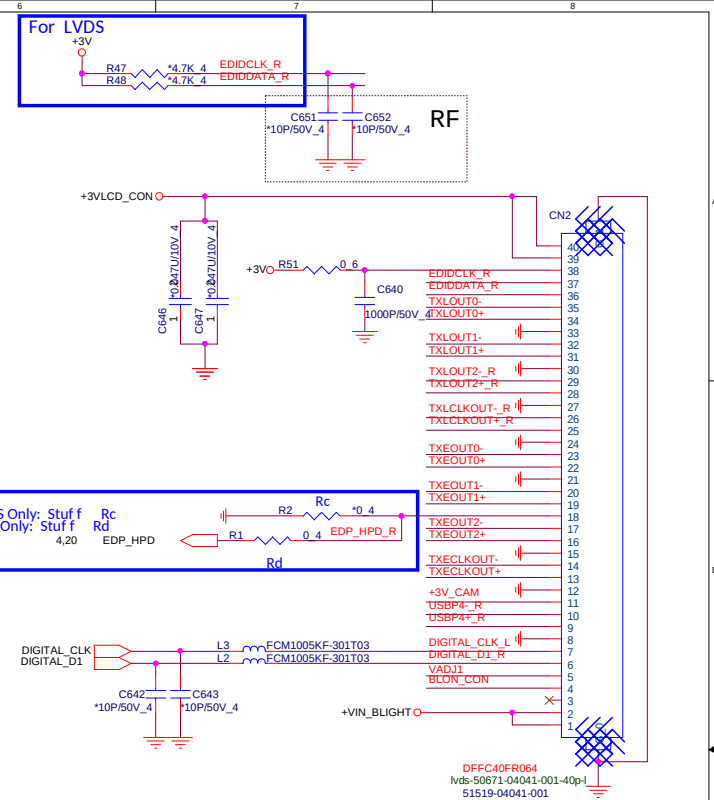
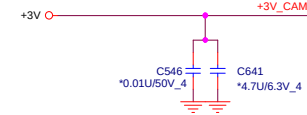
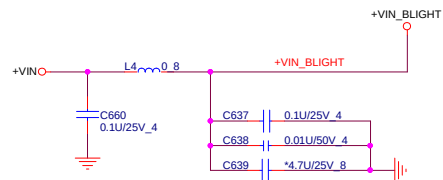
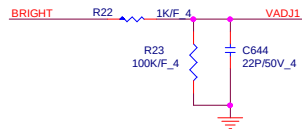
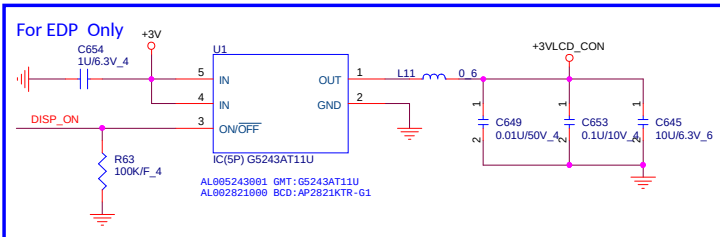
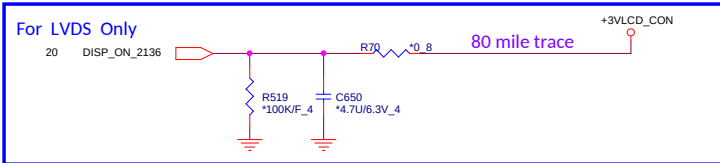
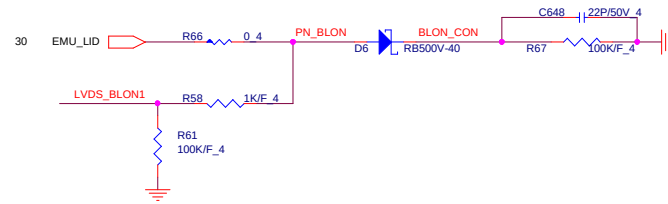
Close to LVDS CONN



For EDP Only: stuff Cap

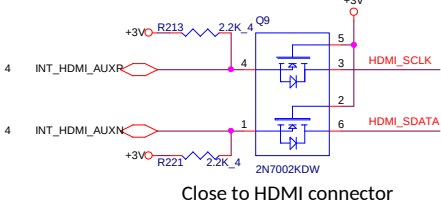
For LVDS only stuff Resistor

LVDS conn.
14" & 15" only eDP panelS KU, 17" have bot LVDS & eDPKU



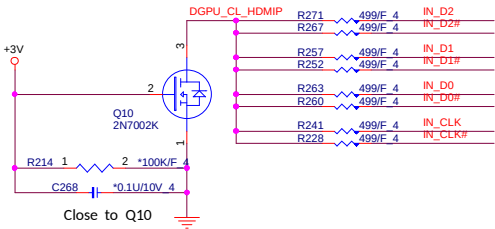
HDMI Conn.

HDMI SMBus Isolat i on



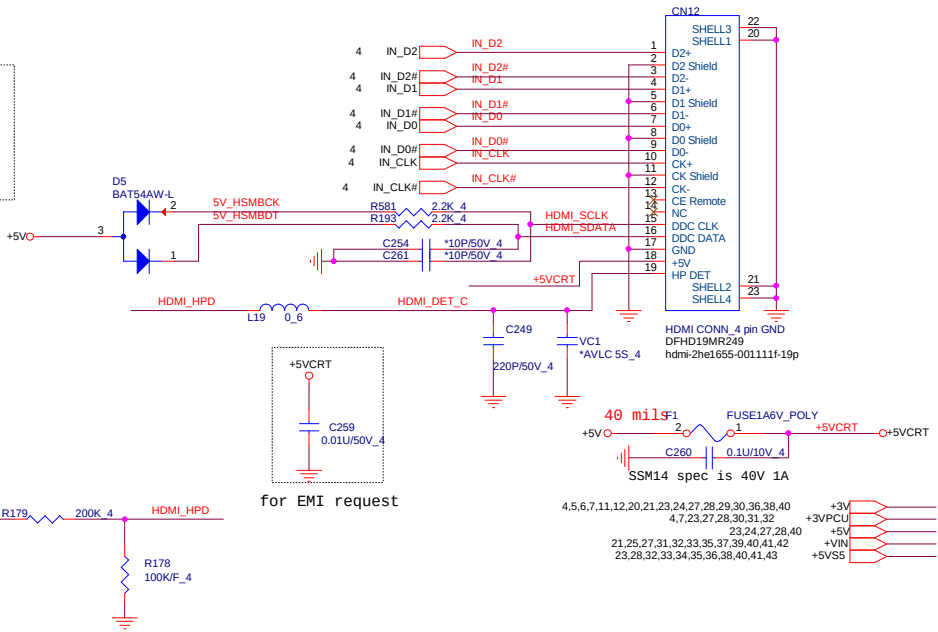
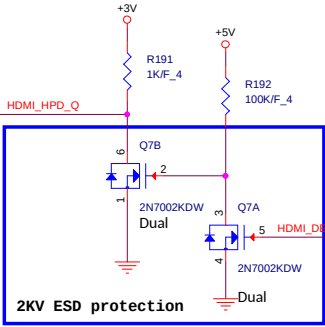
Close to HDMI connector

Check list recommend 604 ohm

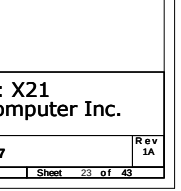
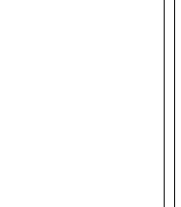
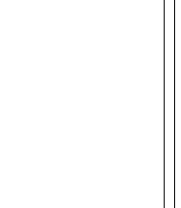
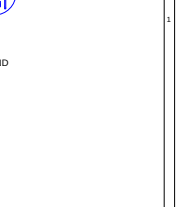
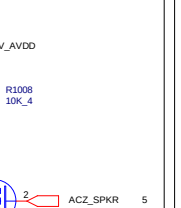
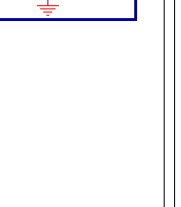
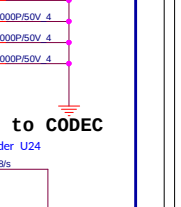
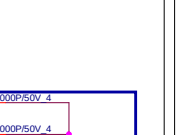
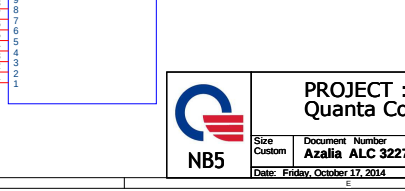
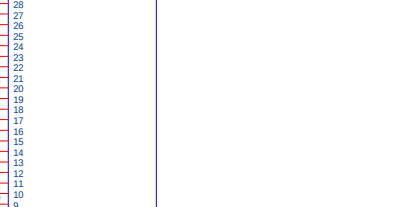
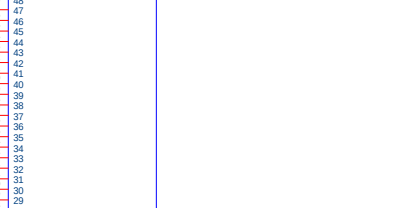
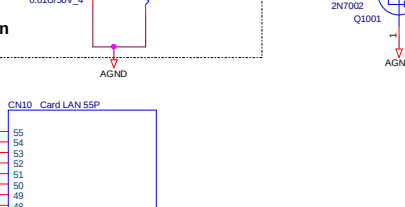
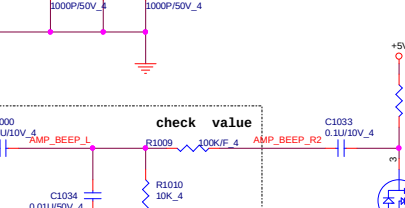
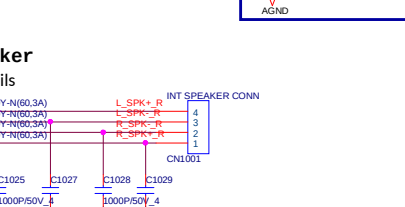
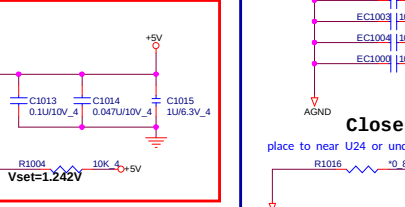
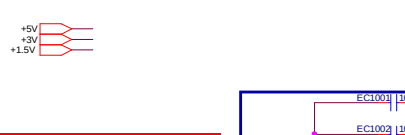
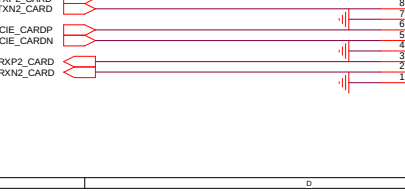
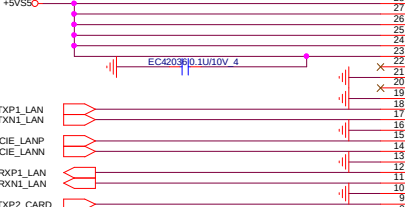
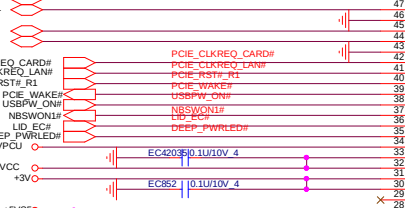
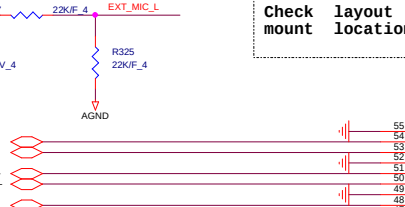
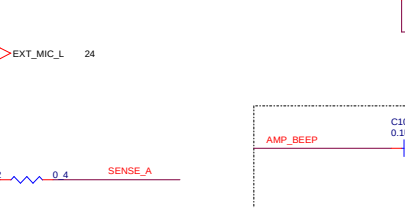
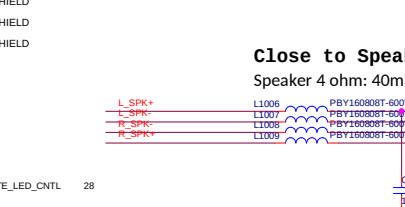
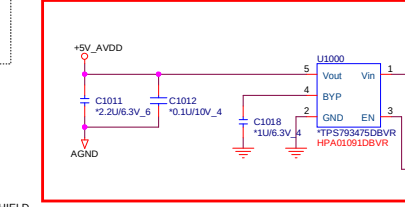
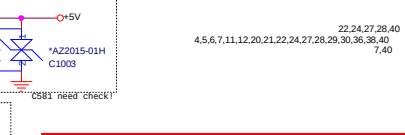
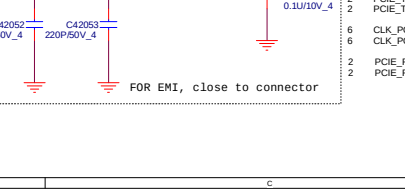
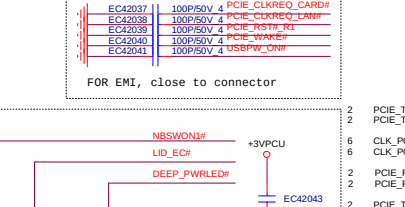
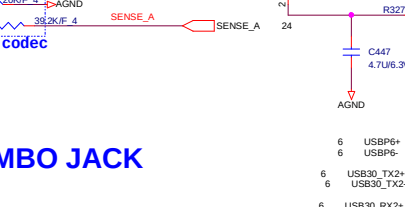
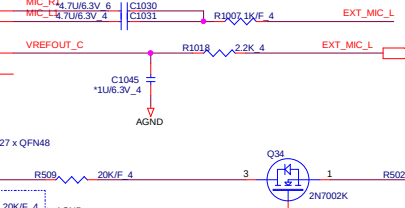
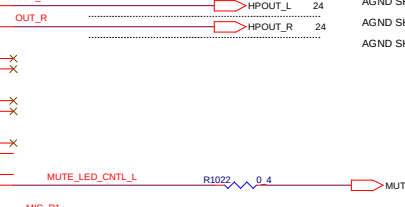
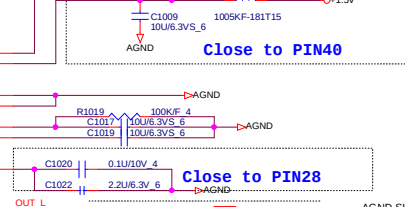
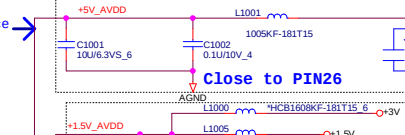
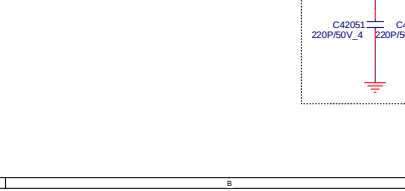
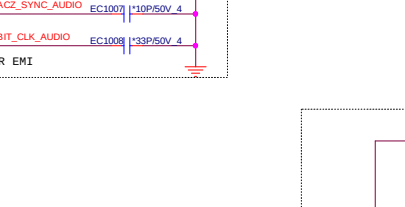
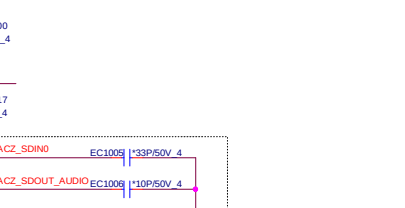
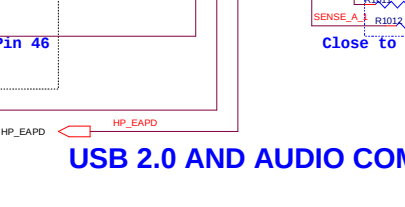
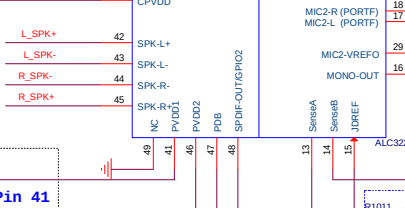
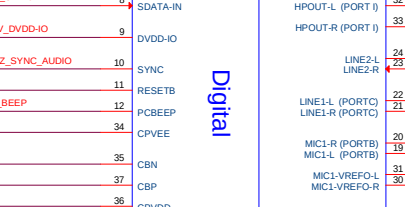
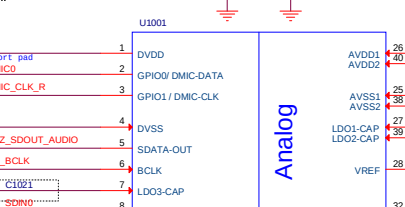
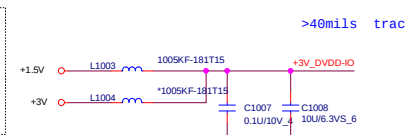
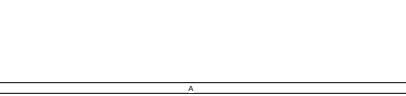
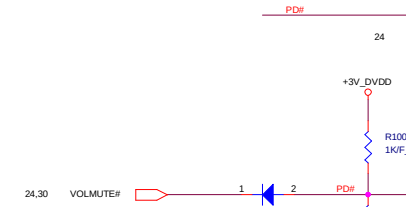
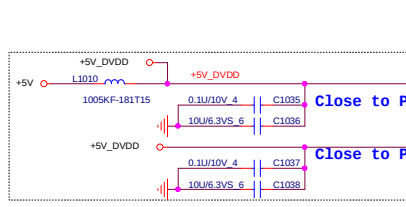
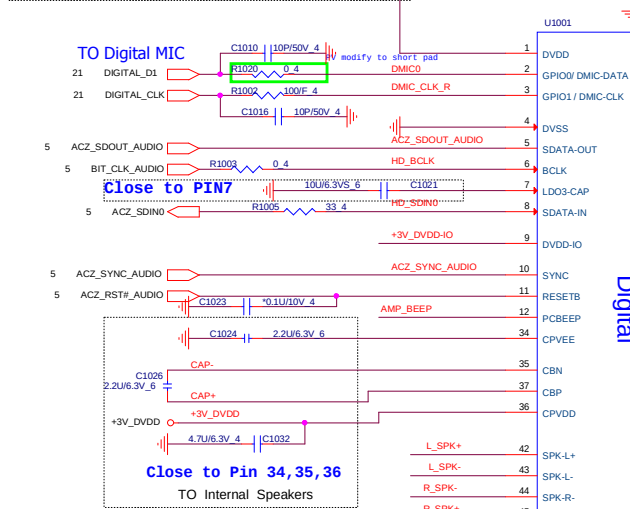
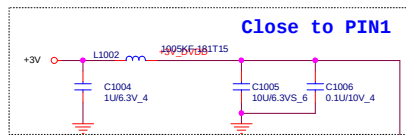


Close to Q10

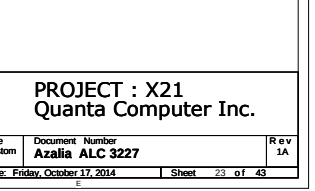
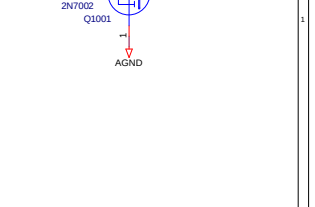
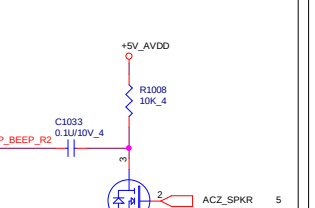
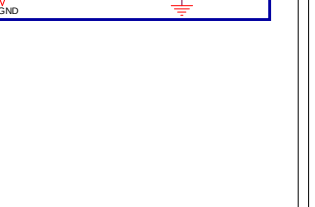
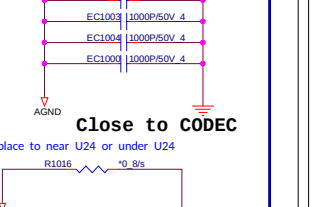
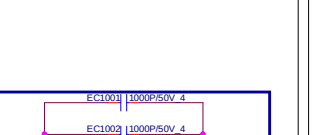
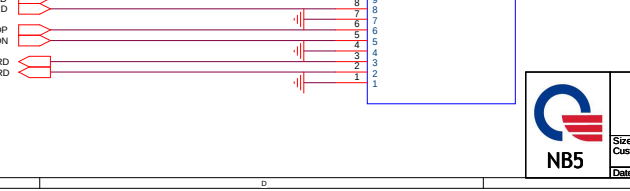
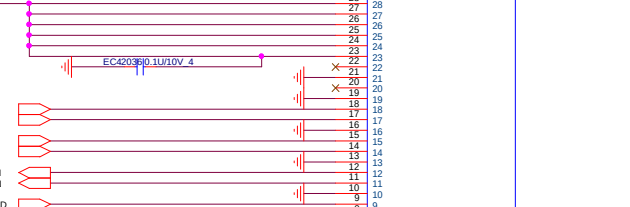
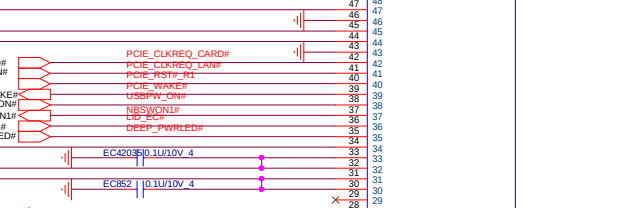
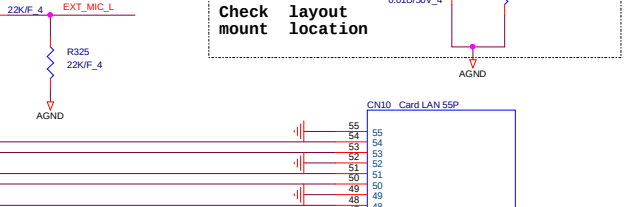
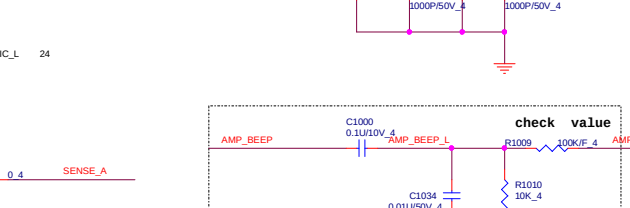
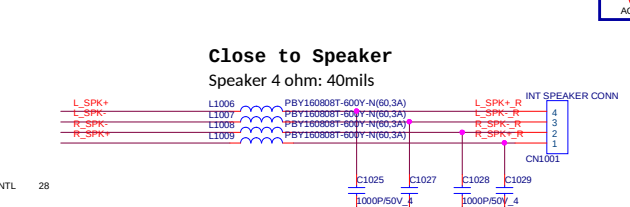
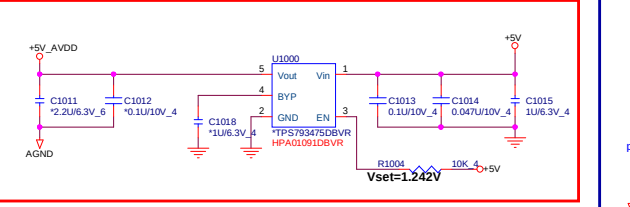
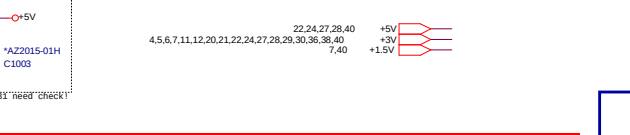
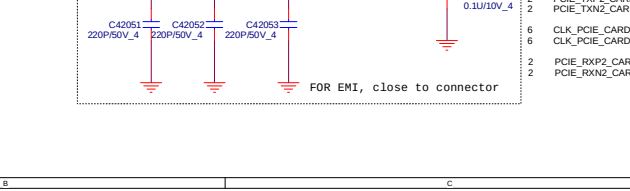
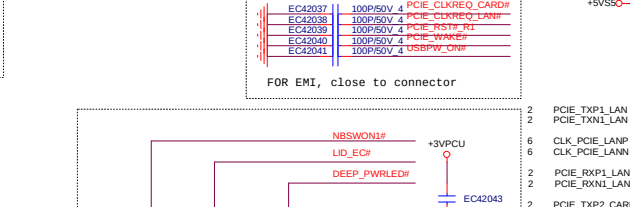
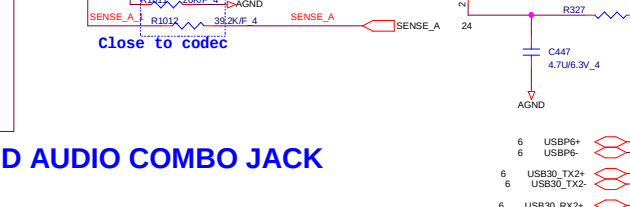
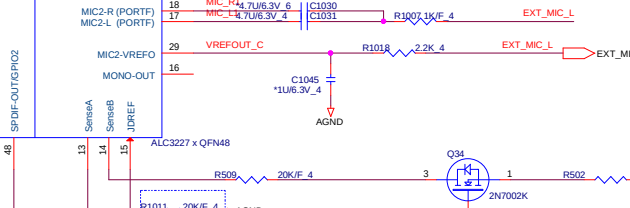
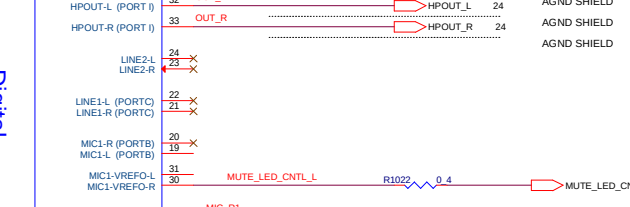
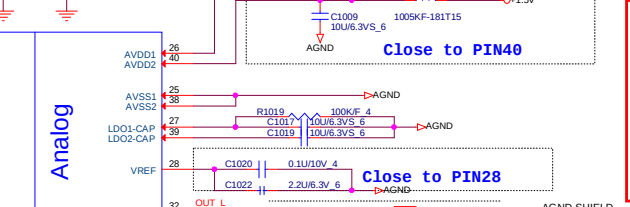
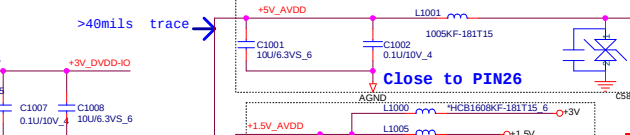
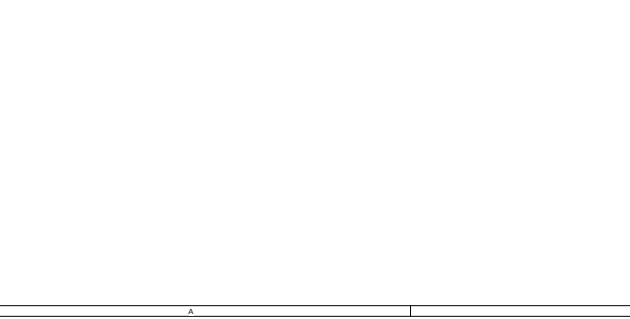
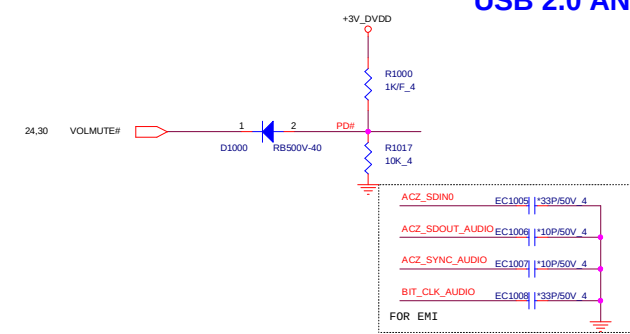
HDMI HPD SENSE



for EMI request

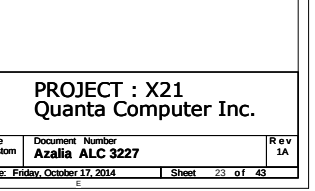
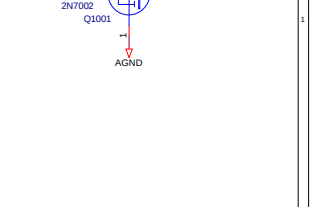
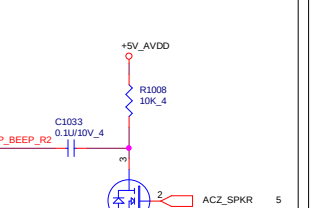
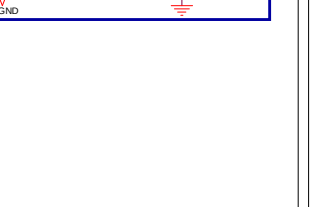
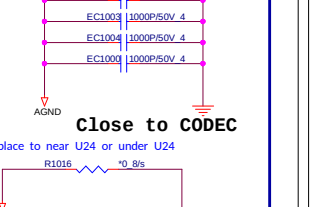
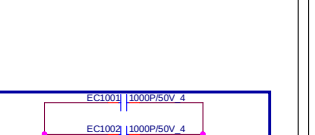
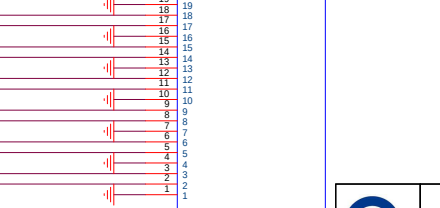
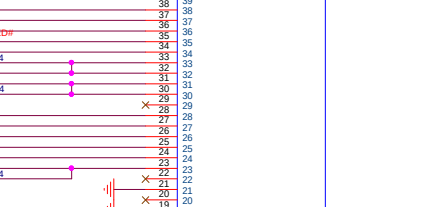
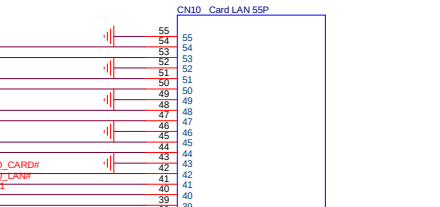
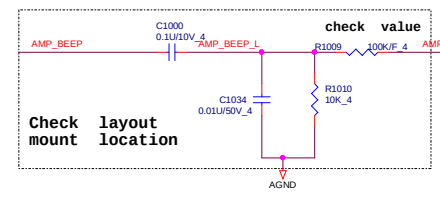
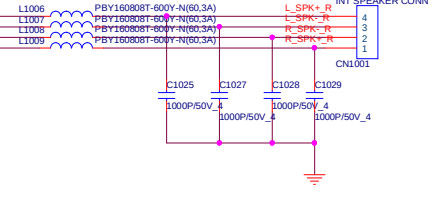


USB 2.0 AND AUDIO COMBO JACK

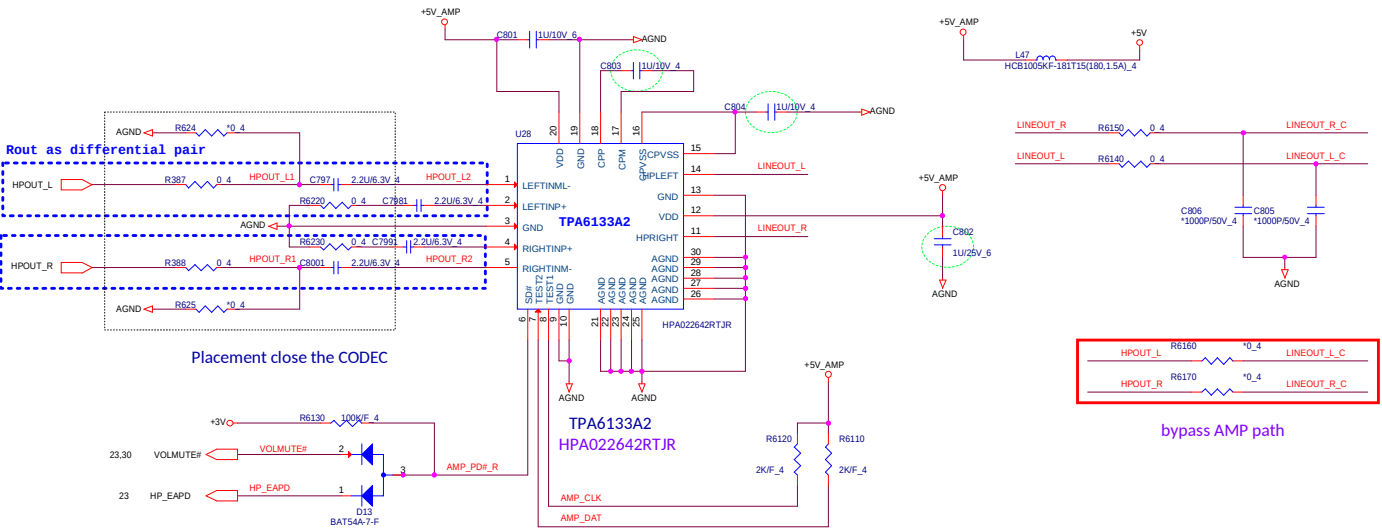


Close to Speaker

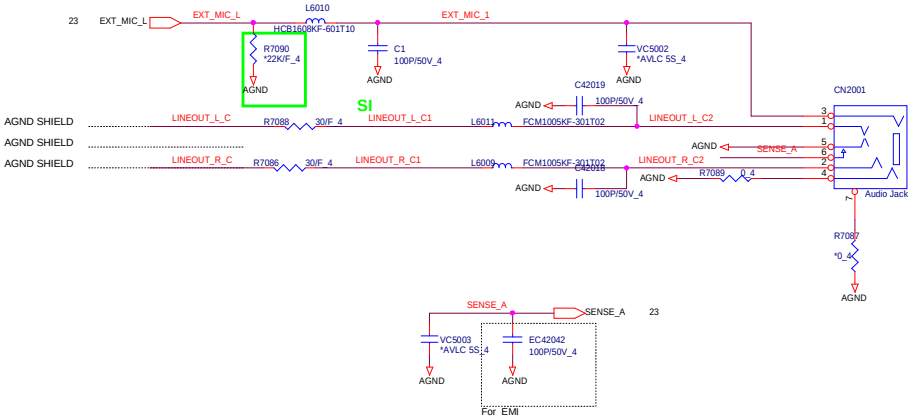
Speaker 4 ohm: 40mils

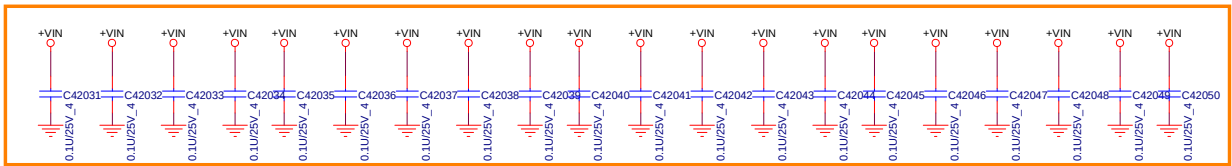


Head Phone out

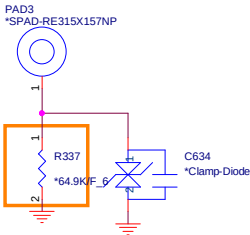
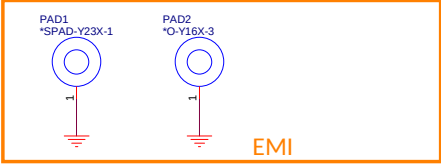
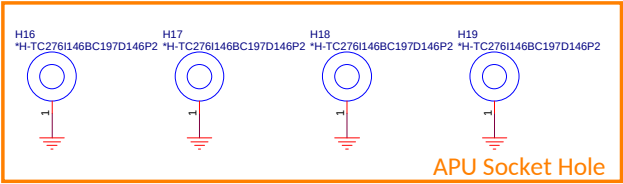
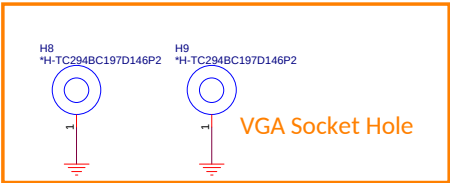


Audio Combo

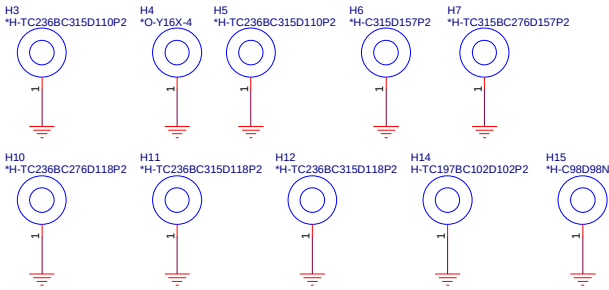




Place on 19V path



R: 64.9K, NC f irst

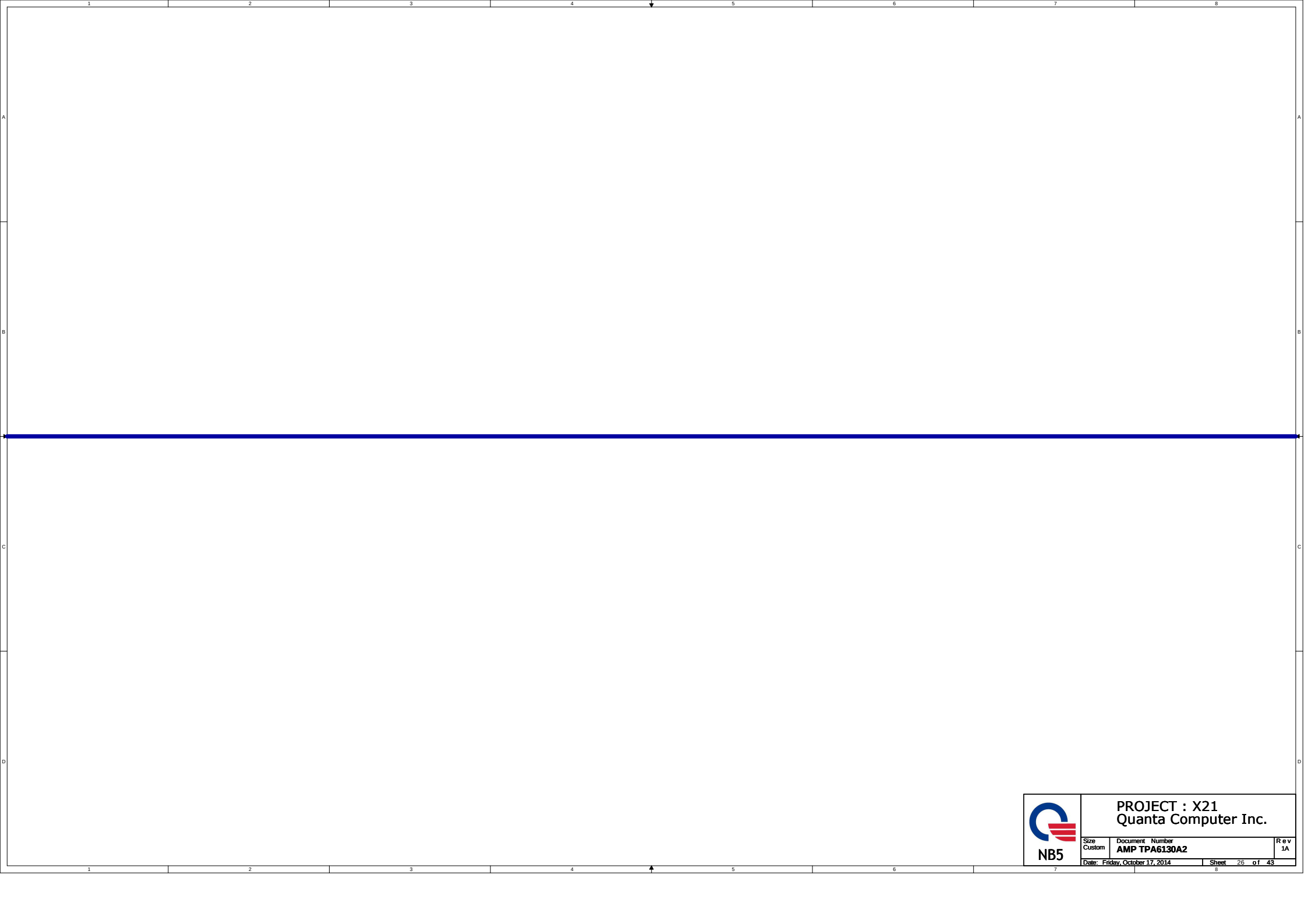



Nut for WLAN



PROJECT : X21
Quanta Computer Inc.

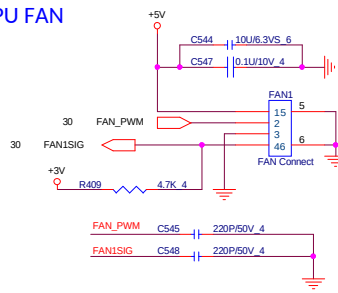
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Date: Friday, October 17, 2014	Sheet 25 of 43	



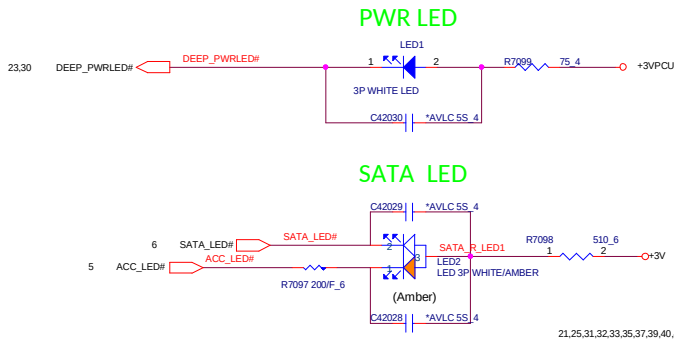
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	Date: Friday, October 17, 2014		Sheet 26 of 43

Power But t on Connect or (move t oDB)

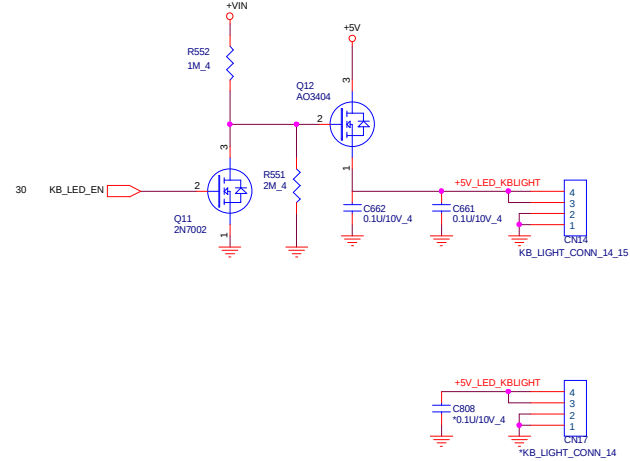
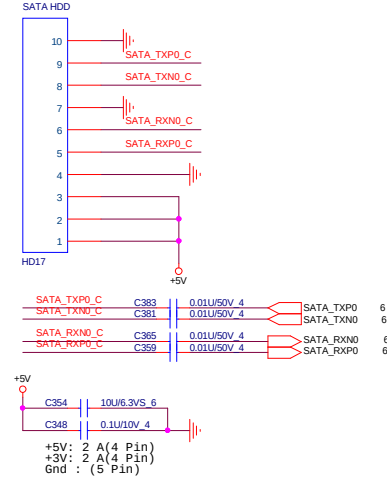
CPU FAN



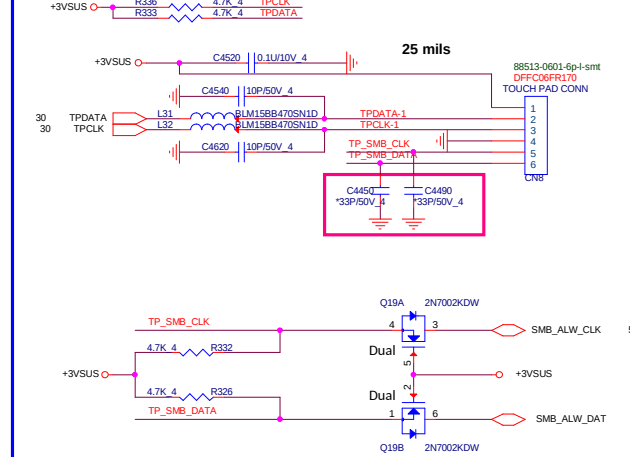
PWR LED



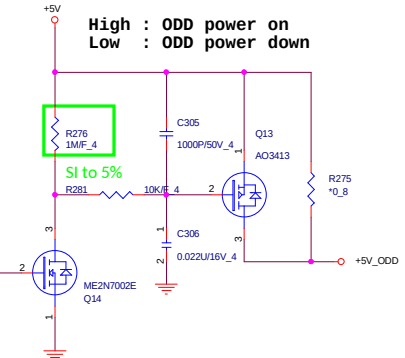
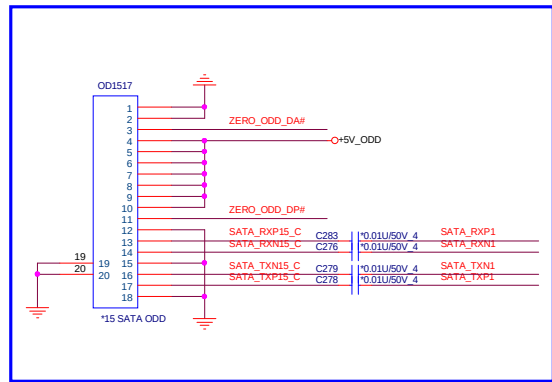
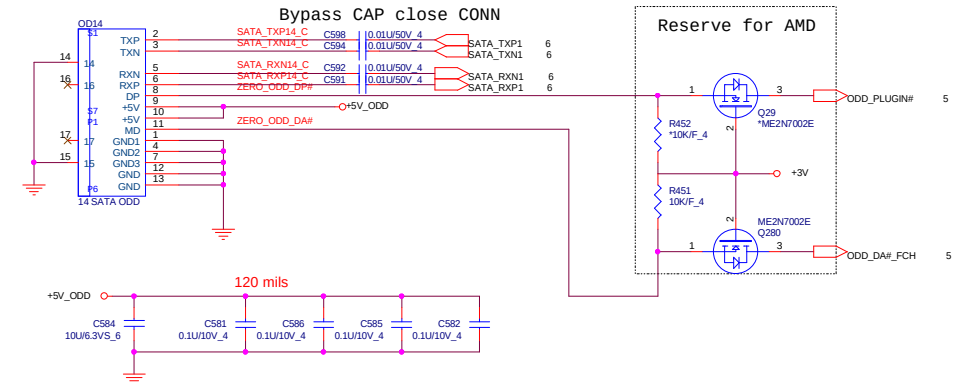
SATA HDD Connector(Cable type)



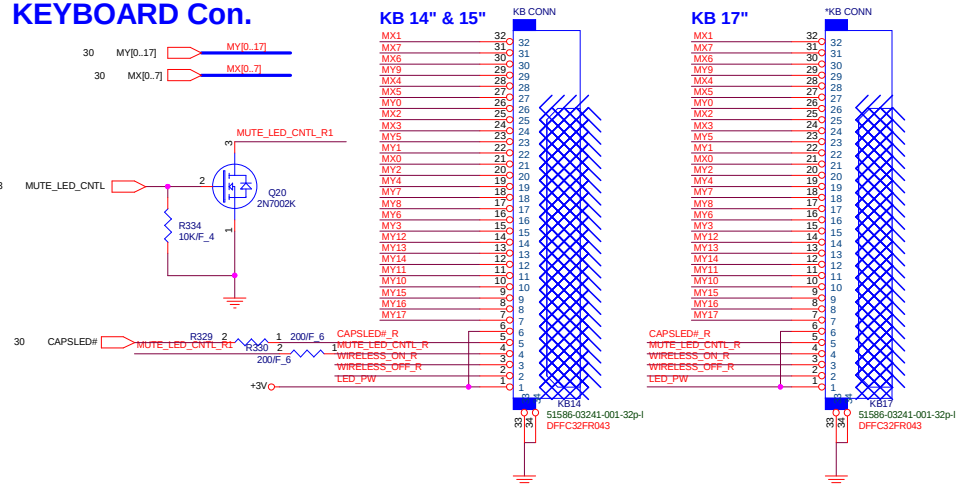
Touch Pad



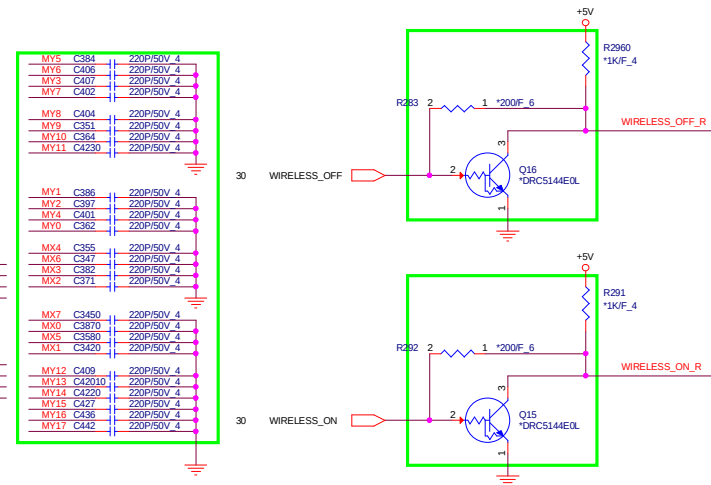
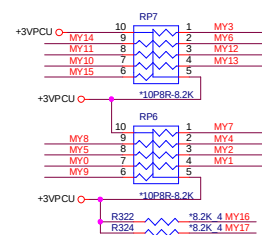
SATA ODD CONNECTOR



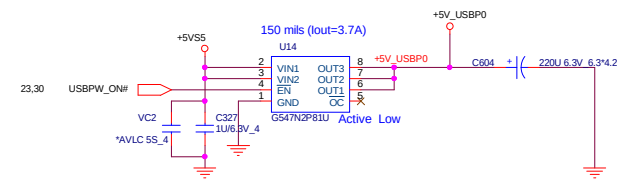
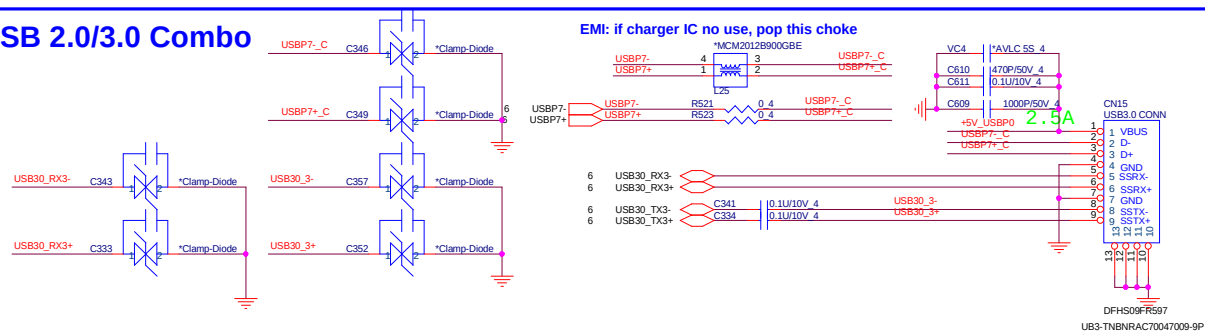
KEYBOARD Con.



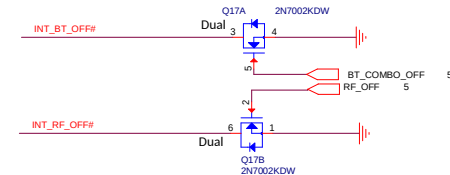
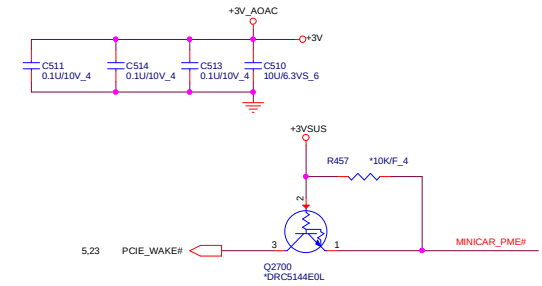
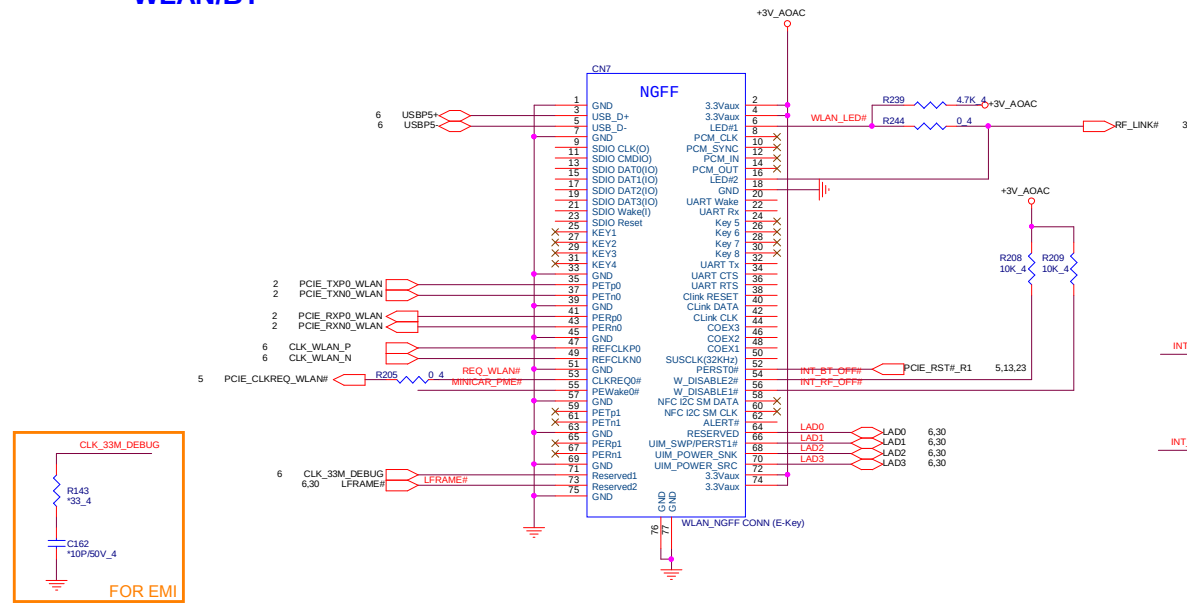
KEYBOARD PULL-UP



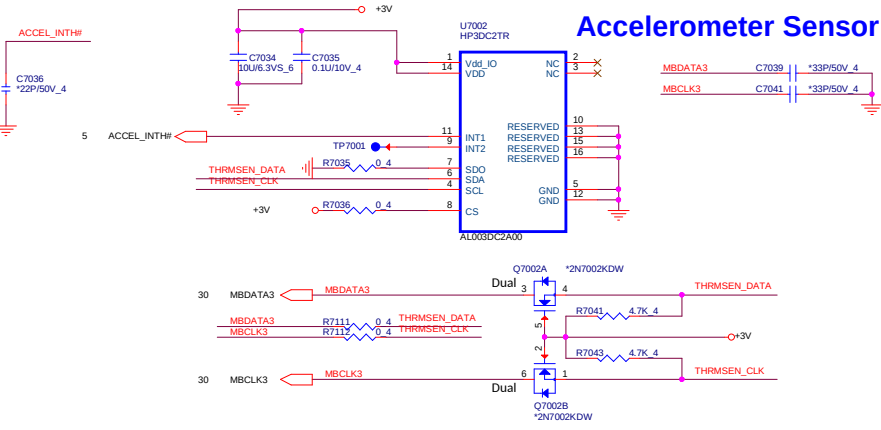
USB 2.0/3.0 Combo



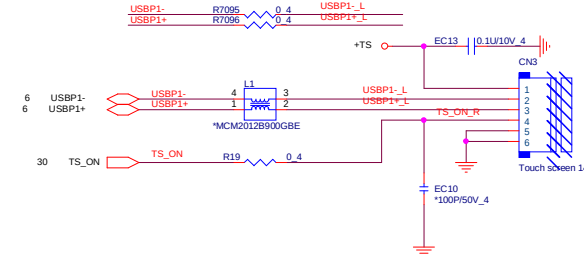
WLAN/BT



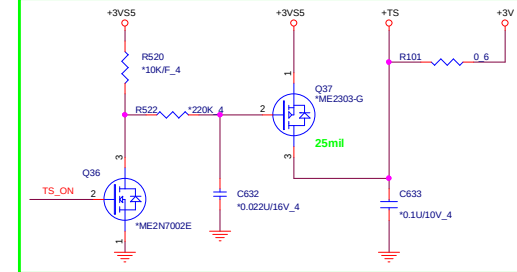
Accelerometer Sensor



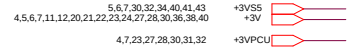
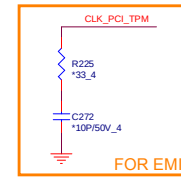
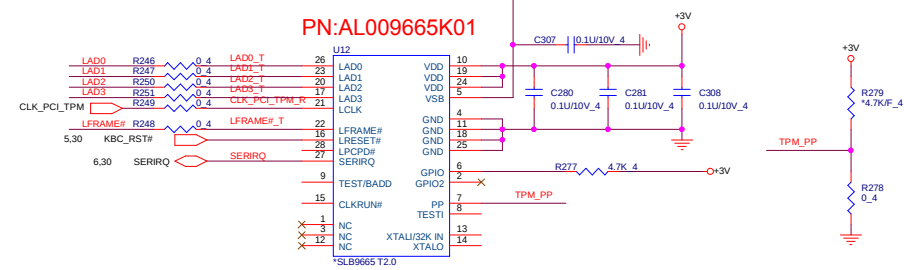
Touch screen

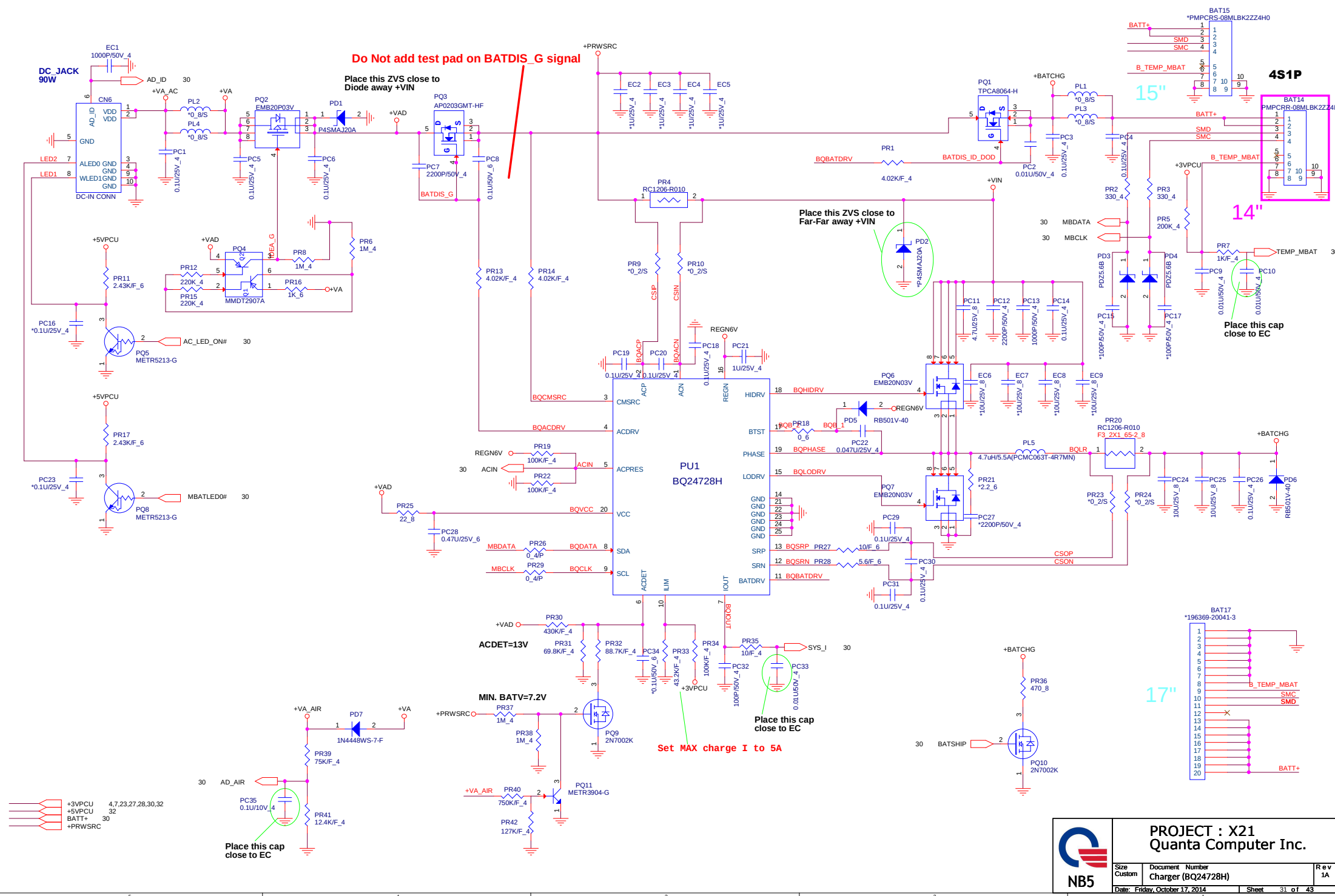


SI for Remove LDO

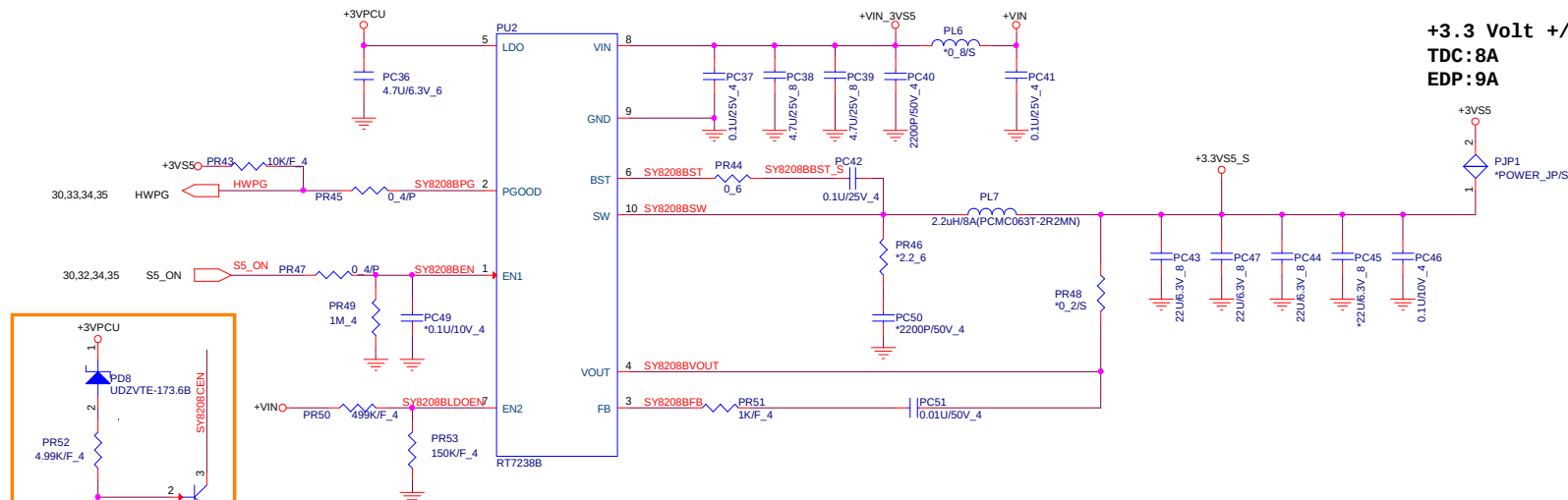


TPM (2.0)



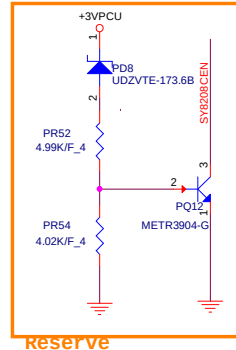


DC/DC +3VS5/+5VS5

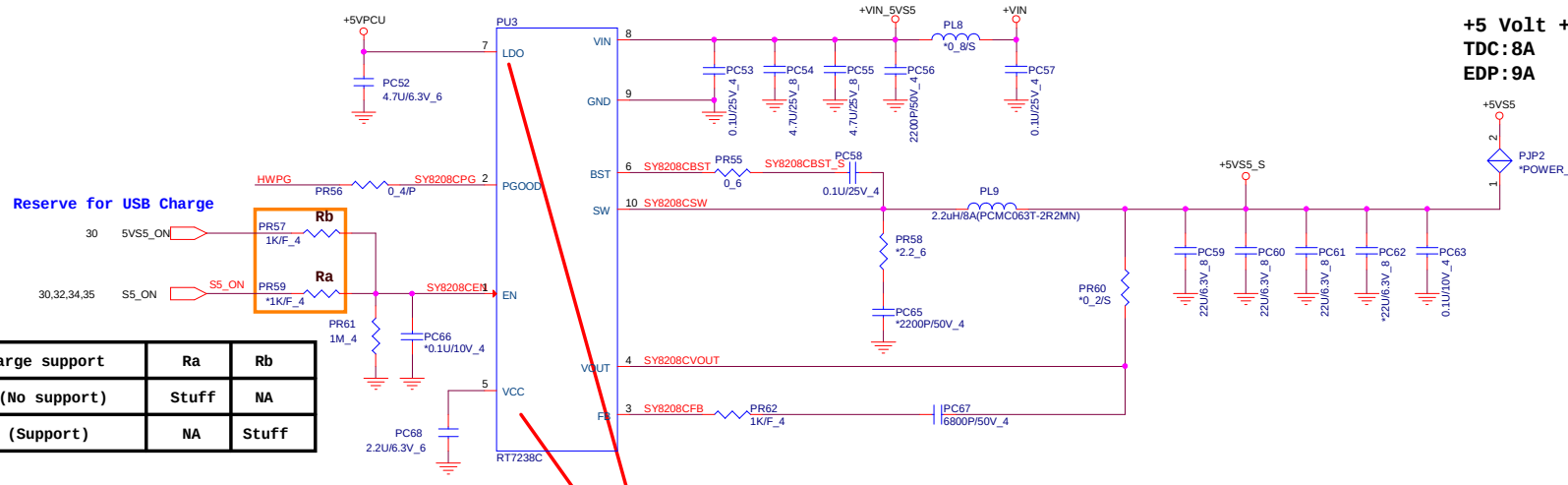


+3.3 Volt +/- 5%
TDC:8A
EDP:9A

+3VS5 5,6,7,29,30,34,40,41,43
+5VS5 23,28,33,34,35,36,38,40,41,43



Reserve



+5 Volt +/- 5%
TDC:8A
EDP:9A

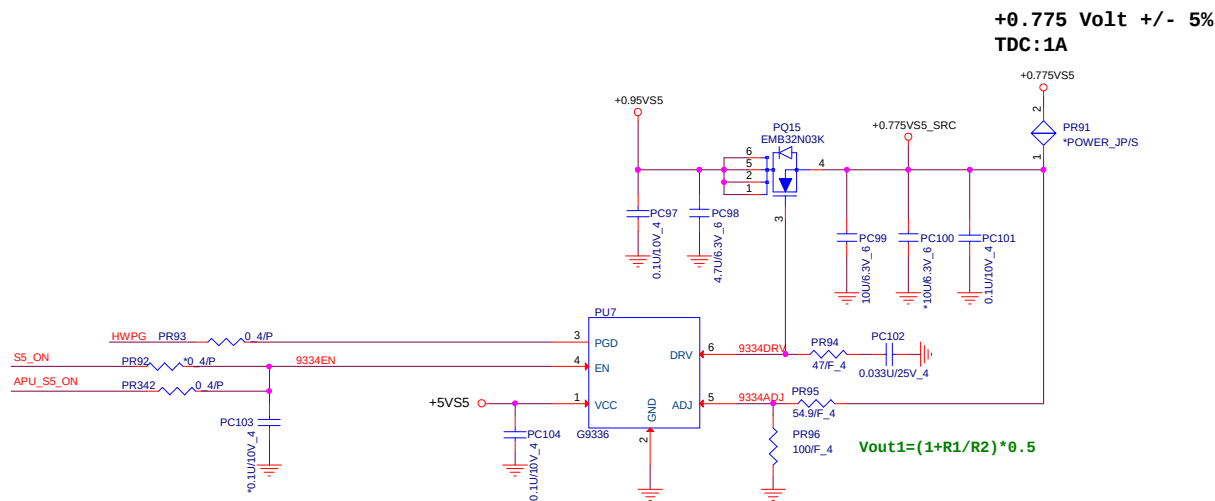
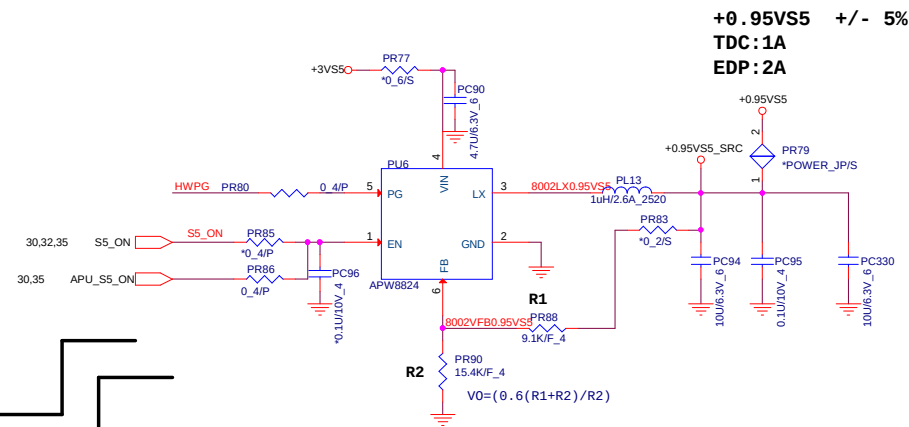
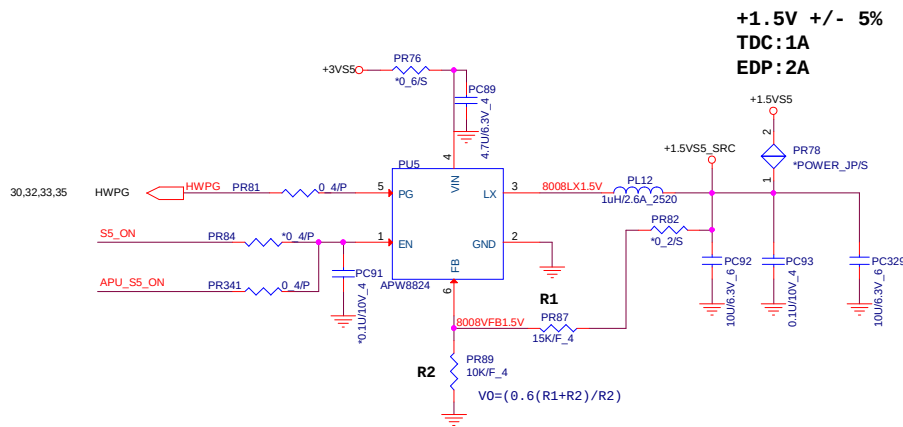
Reserve for USB Charge

USB Charge support	Ra	Rb
Vine (No support)	Stuff	NA
Envy (Support)	NA	Stuff


Do Not add test pad on VCC & LDO pin

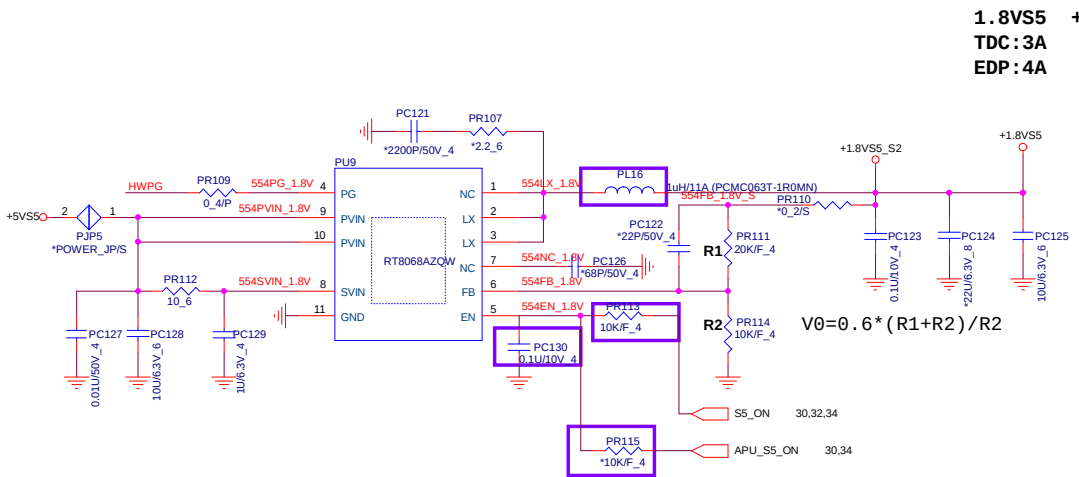
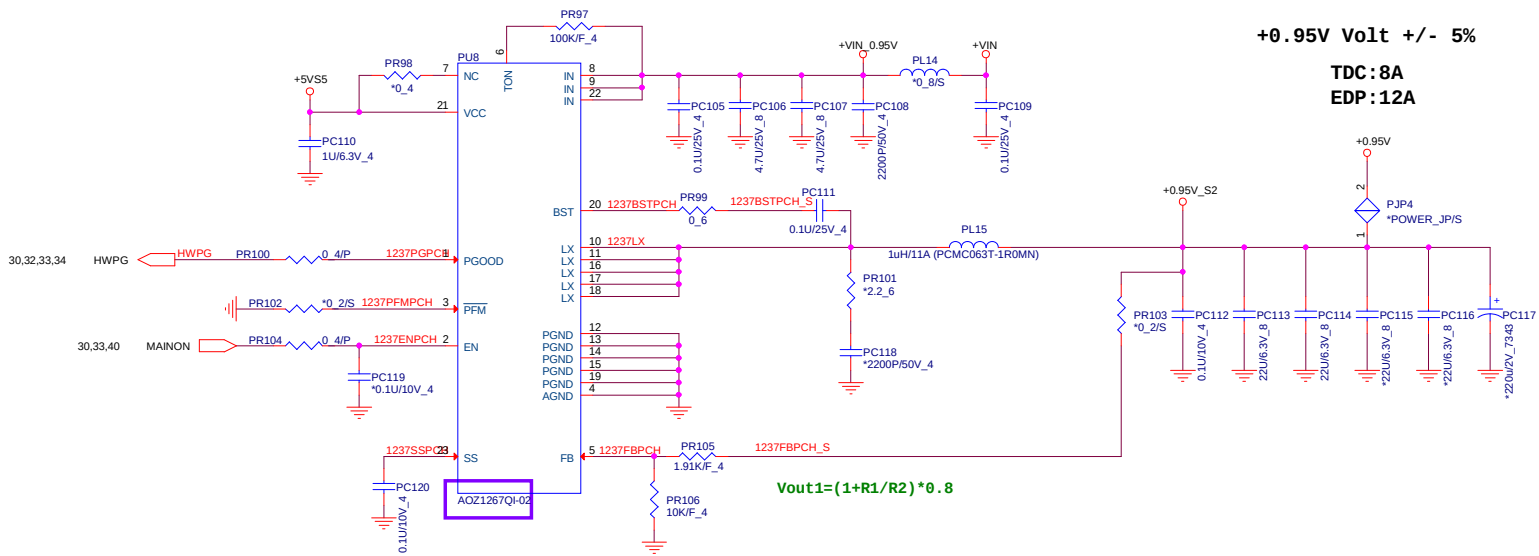
PROJECT : X21
Quanta Computer Inc.

Size Custom	Document Number 3/SVPCU(SY8208B/SY8208C)	Rev 1A
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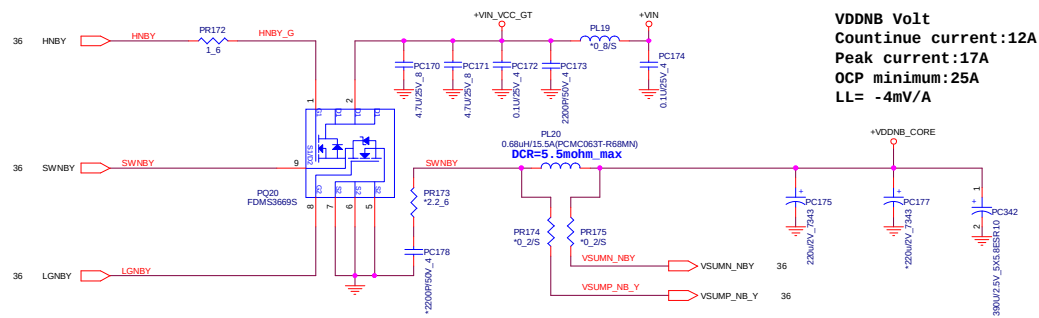
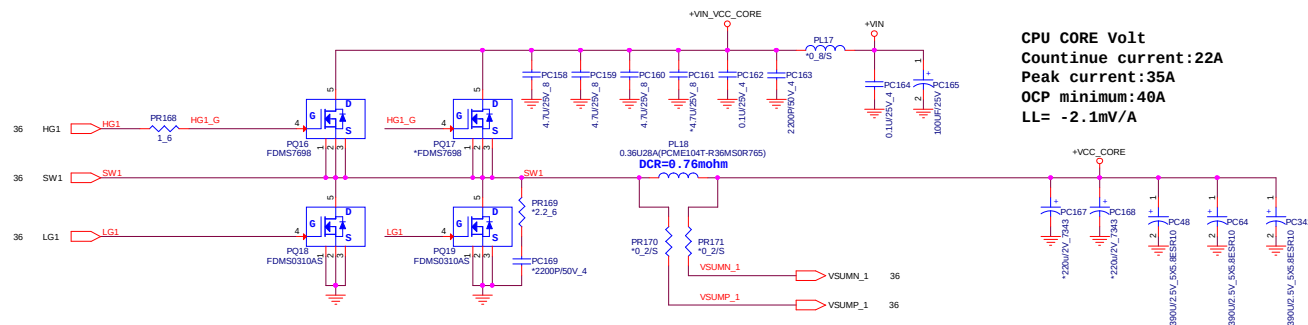
+VIN	21,25,27,31,32,33,35,37,39,40,41,42
+3VS5	5,6,7,29,30,32,40,41,43
+5VS5	23,28,32,33,35,36,38,40,41,43
+5VPCU	31,32

	PROJECT : X21 Quanta Computer Inc.		
	Size Custom	Document Number +1.1VS5 (RT8228)/2.5V	Rev 1A
Date: Friday, October 17, 2014	Sheet	34	of 43

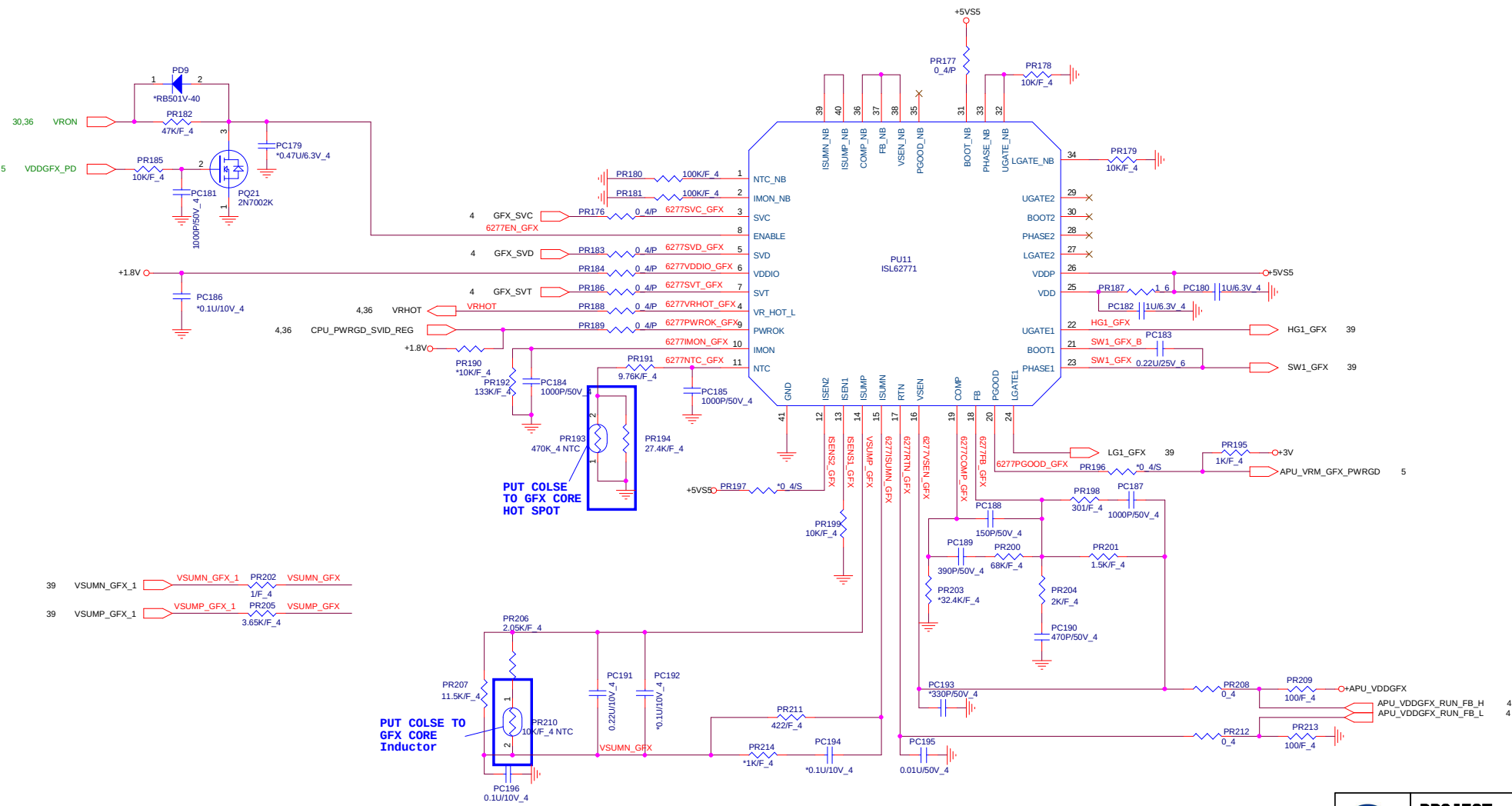


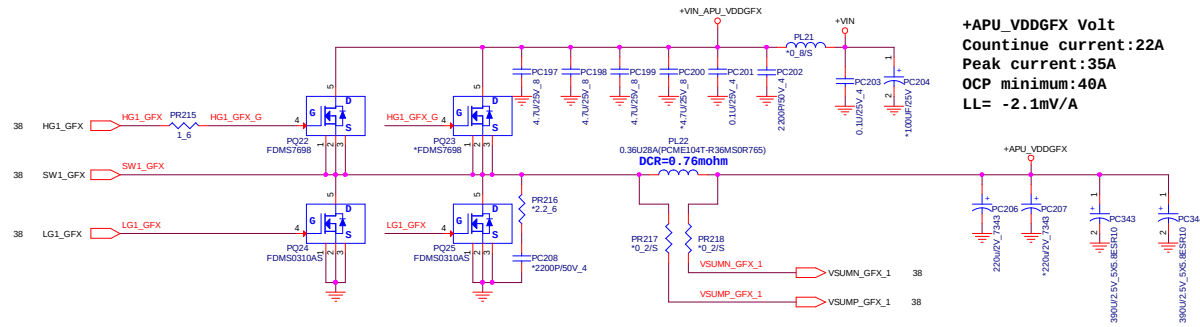


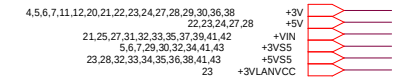
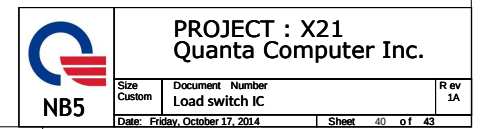
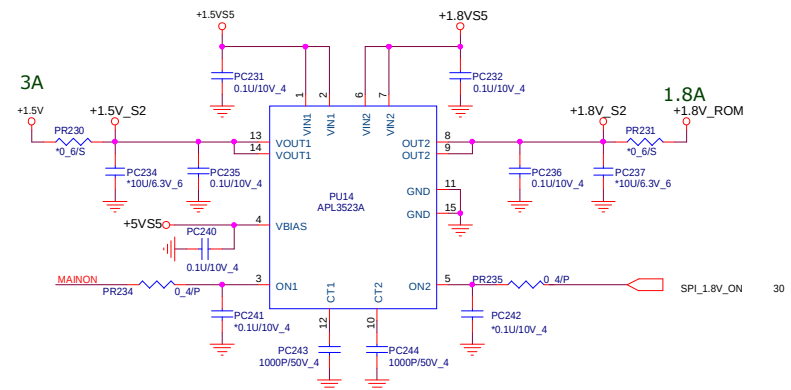
Size Custom	Document Number CPU Core1 (ISL62771)	Rev 1A
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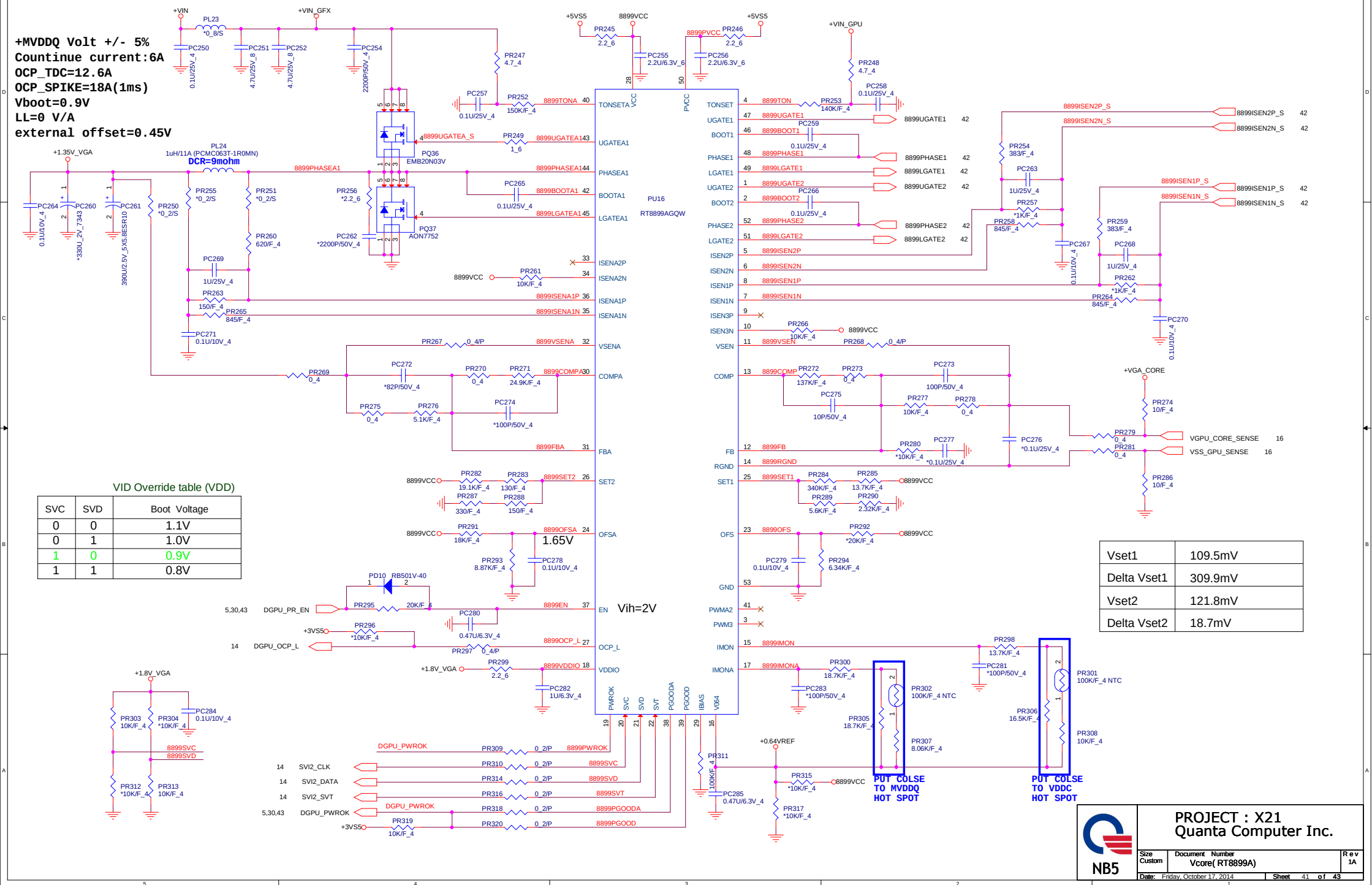
CPU	Page 38 & Page 39
Carrizo	Stuff
Carrizo-L	Unstuff



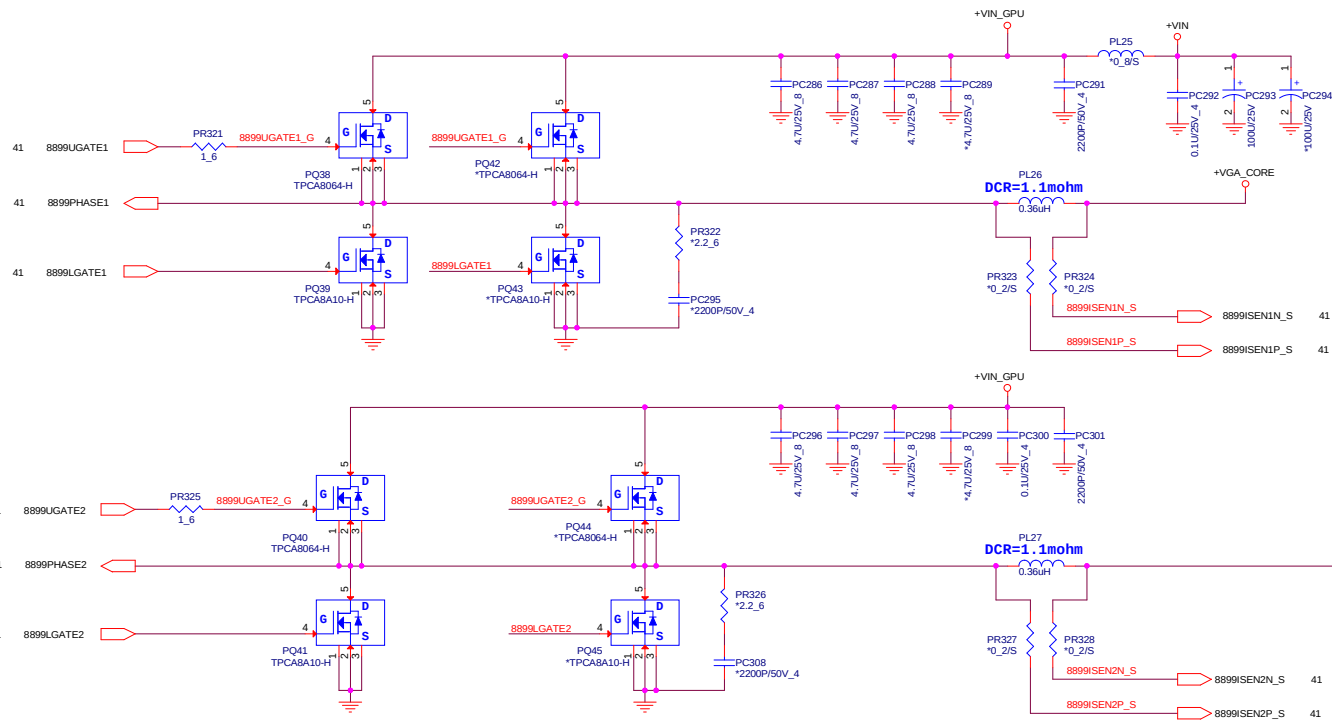


[illegible]

```
+MVDDQ Volt +/- 5%
Countinue current:6A
OCP_TDC=12.6A
OCP_SPIKE=18A(1ms)
Vboot=0.9V
LL=0 V/A
external offset=0.45V
```



Vset1	109.5mV
Delta Vset1	309.9mV
Vset2	121.8mV
Delta Vset2	18.7mV



VGACORE (Meso XT DDR3_ 35W/53W(1ms))
Countinue current:36A
OCP_TDC=45A
OCP_SPIKE=75A(1ms)
Vboot=0.9V
LL=1m V/A

