

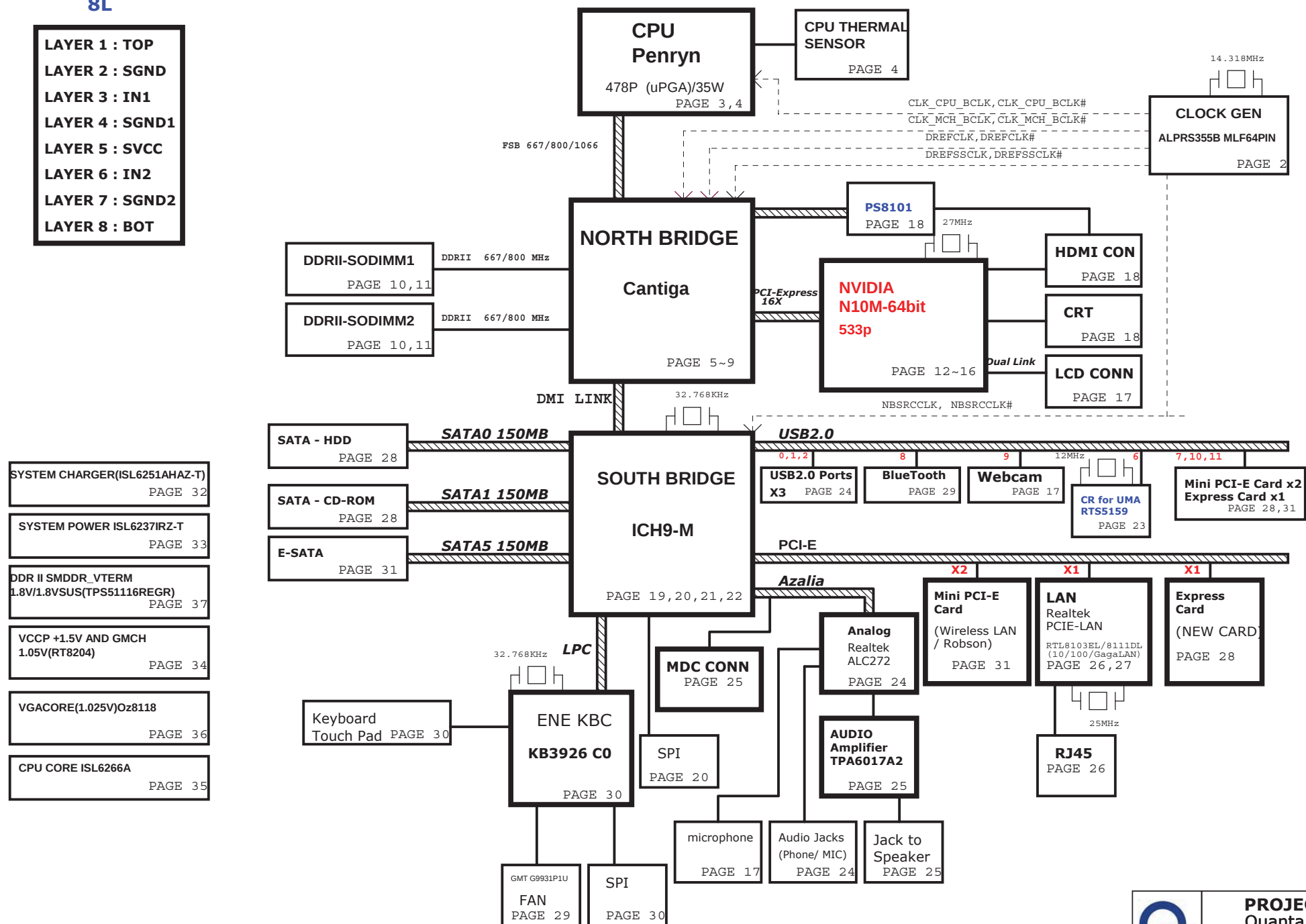
PCB STACK UP 8L

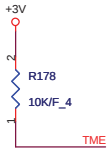
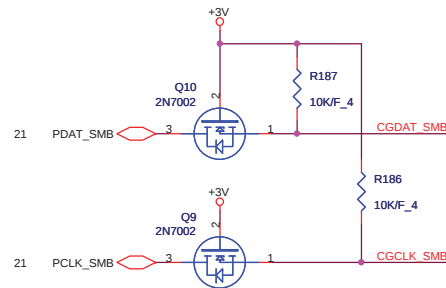
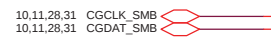
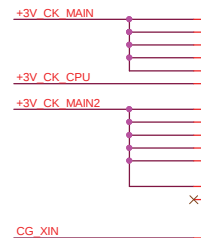
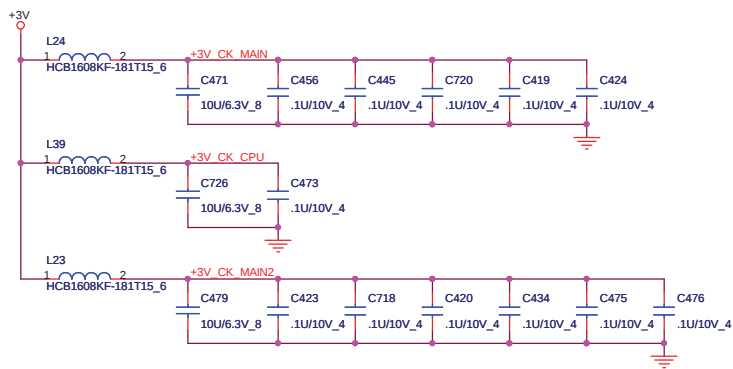
LAYER 1 : TOP
LAYER 2 : SGND
LAYER 3 : IN1
LAYER 4 : SGND1
LAYER 5 : SVCC
LAYER 6 : IN2
LAYER 7 : SGND2
LAYER 8 : BOT

Preso-II

BLOCK DIAGRAM

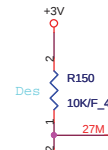
01



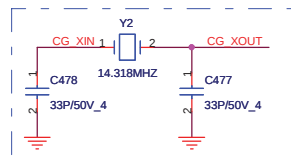


0 = overclocking
of CPU and SRC
allowed

1 = overclocking
of CPU and SRC
not allowed



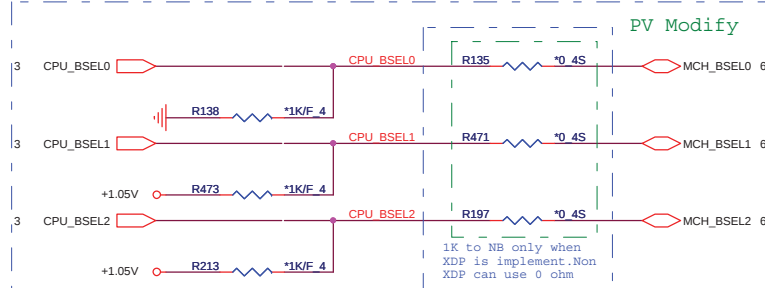
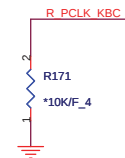
0 = UMA
1 = External VGA



27M_SEL PIN13	PIN20	PIN21	PIN24	PIN25
0=UMA	DOT96T	DOT96C	SRCT1/LCDT_100	SRCT1/LCDT_100
1 = External VGA	SRCT0	SRCC0	27Mout-NSS	27Mout-SS

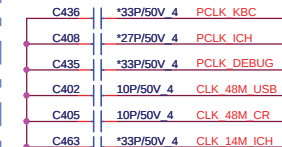
CK505 QFN64

ICS ICS9LPRS355BKLF ALPRS355000
Silego SLG8SP513VTR AL8SP513000
Realtek RTM875N-606-VD-GR AL000875000



CPU Clock select

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

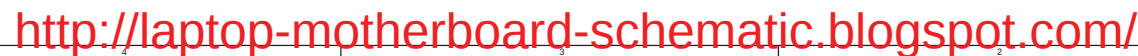


For EMI



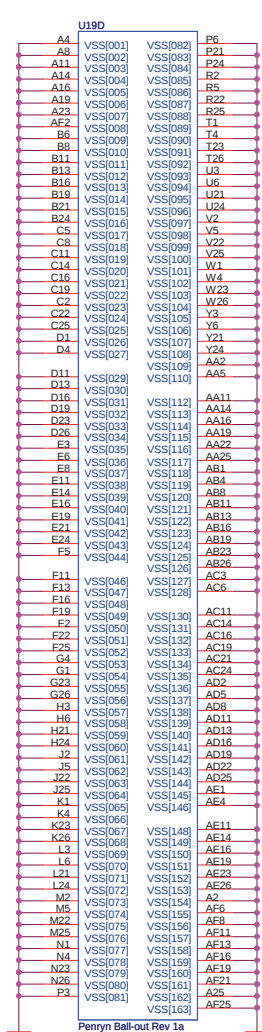
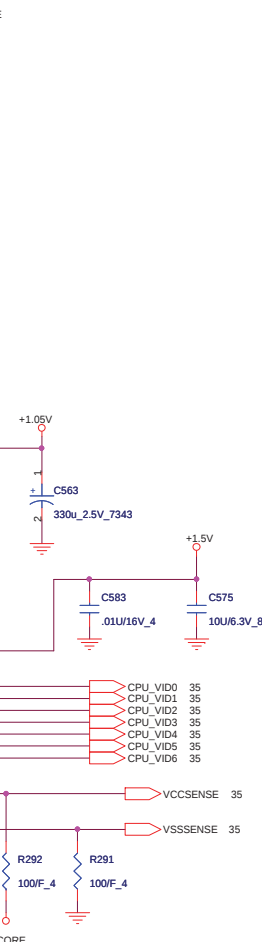
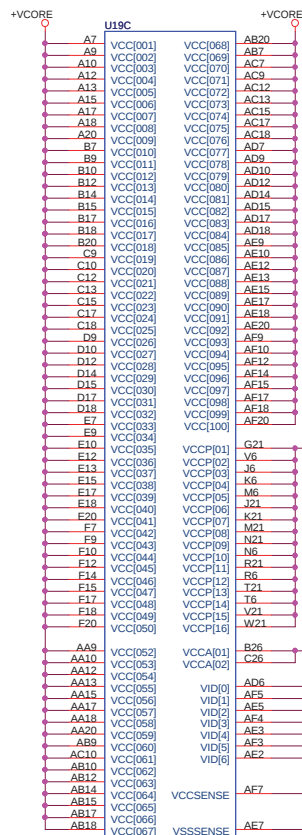
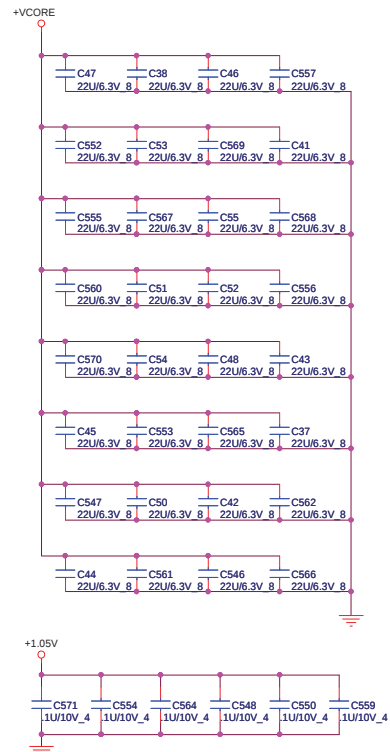
PROJECT : Preso-II
Quanta Computer Inc.

Size Custom Document Number
Clock Generator
Date: Tuesday, May 05, 2009 Sheet 2 of 39 Rev 1A

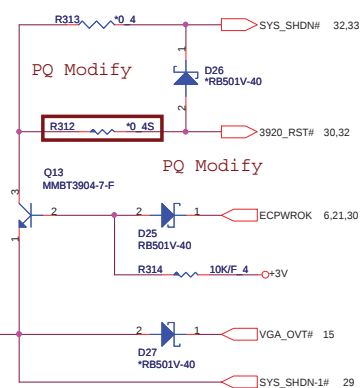
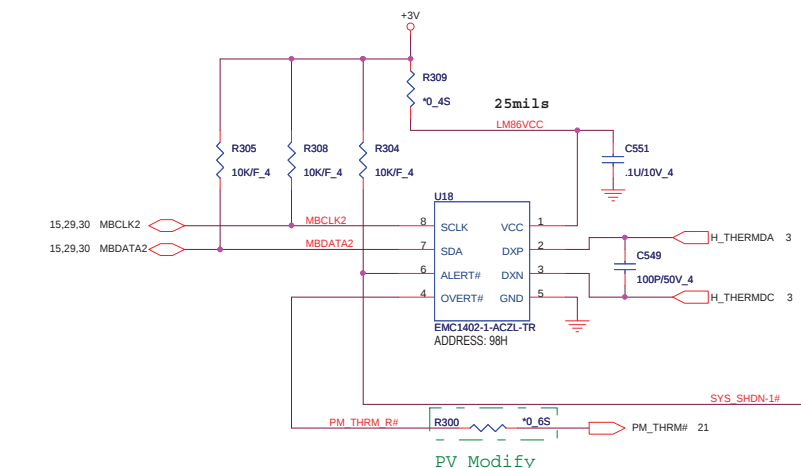


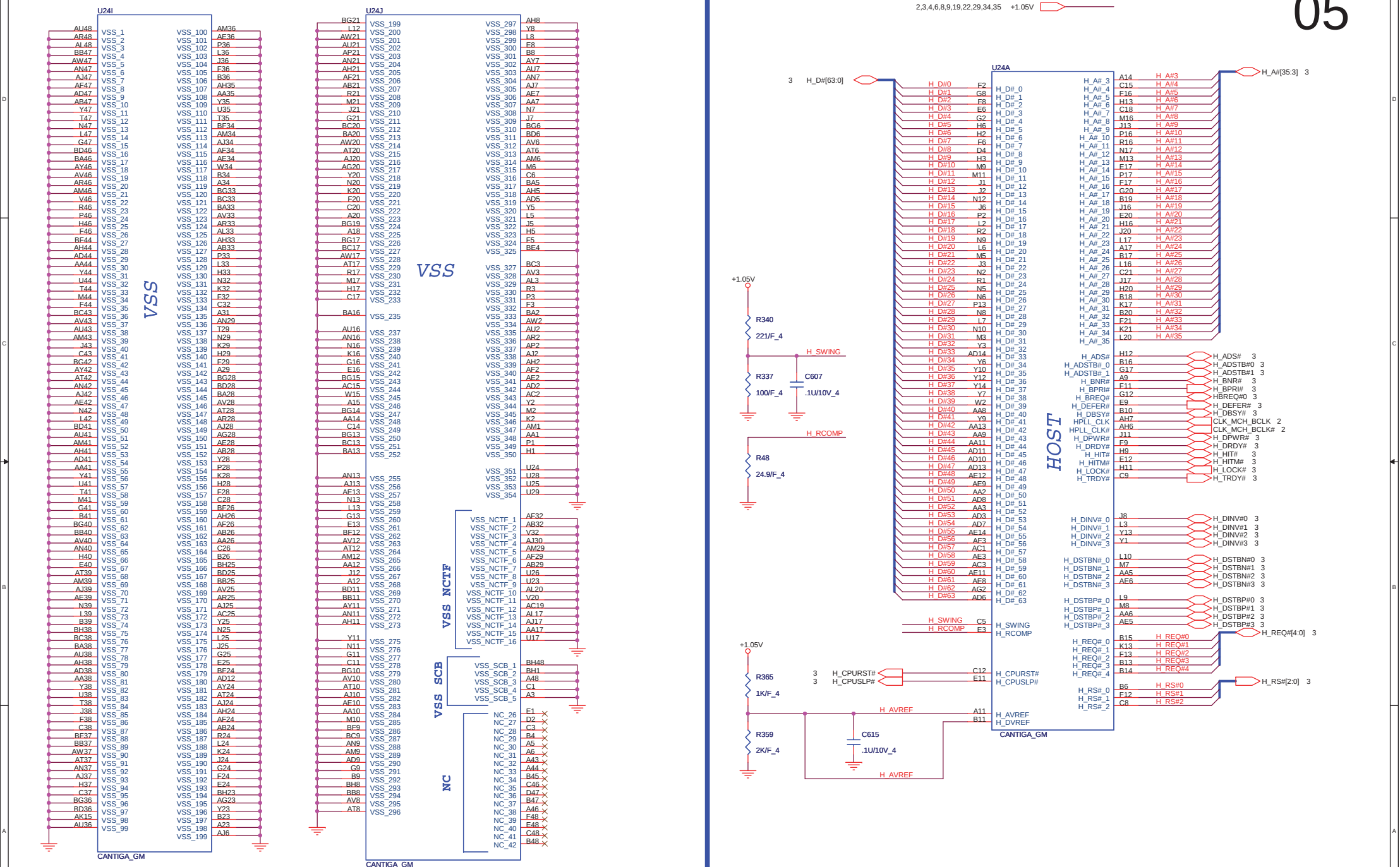
2,6,9,10,11,12,14,15,17,18,19,20,21,22,24,25,26,28,29,30,31,35,36,38
2,3,5,6,8,9,19,22,29,34,35
9,19,20,22,24,25,28,31,34,38
35

+3V
+1.05V
+1.5V
+VCORE



04





MCH_CFG_5 DMIx2 selection
Low: DMIx2
High: DMIx4 (Default)

MCH_CFG_16 FSB Dynamic ODT
Low: Dynamic ODT disabled
High: Dynamic ODT enabled (Default)

MCH_CFG_9 PCI Express Graphic Lane
Low: Reverse Lane
High: Normal operation (Default)

MCH_CFG_19 DMI Lane Reversal

MCH_CFG_6 iTPM Host Interface
Low: iTPM Host Interface enabled
High: iTPM Host Interface disabled (Default)

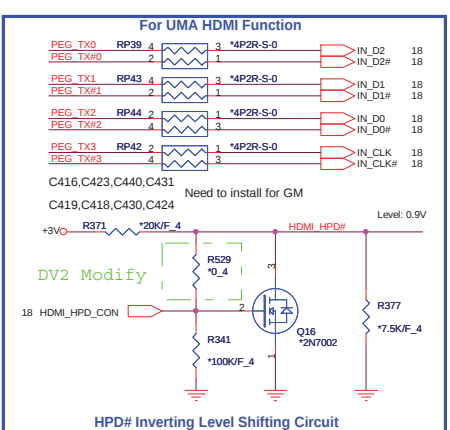
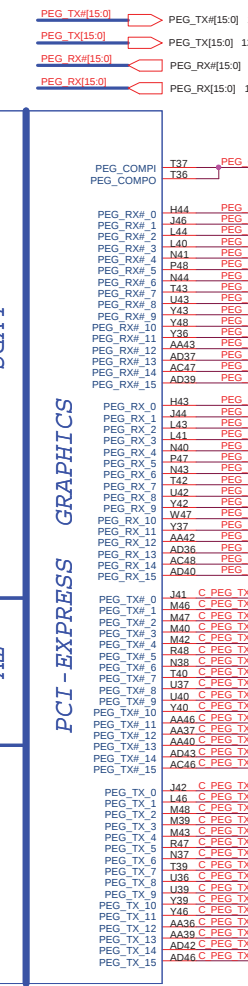
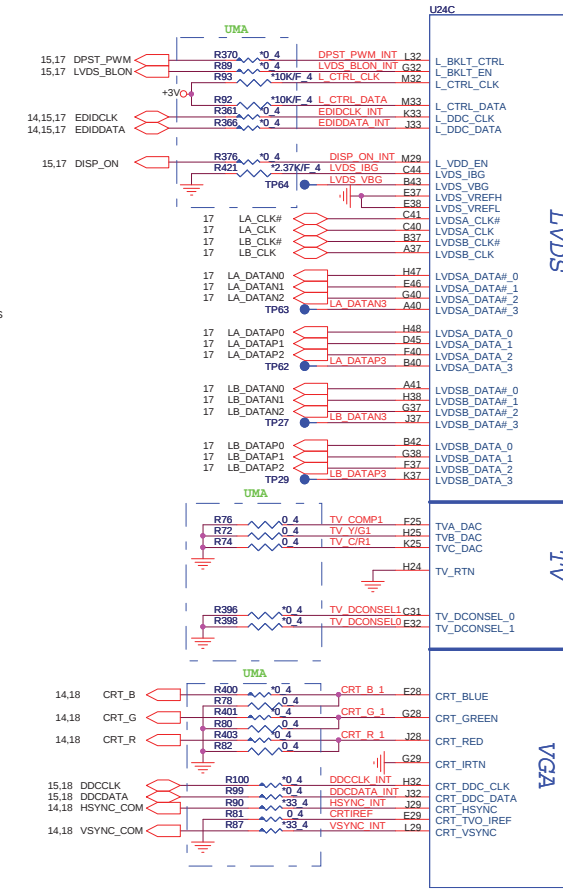
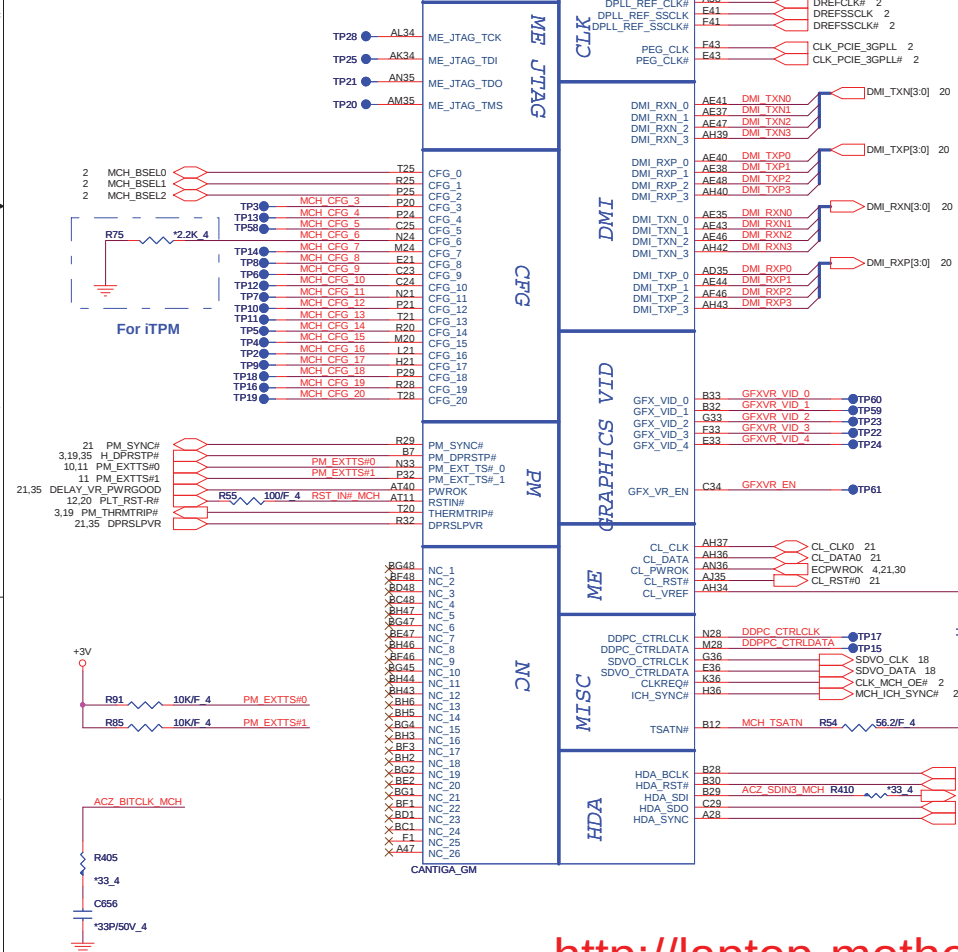
MCH_CFG_7 Intel (R) Management Engine Crypto
Low: Intel (R) Management Engine Crypto
TLS cipher suite with no confidentiality
High: Intel (R) Management Engine Crypto
TLS cipher suite with no confidentiality (Default)

MCH_CFG_10 PCIe Lookback Enable
Low: Enabled
High: Disabled (Default)

MCH_CFG_12/13 XOR/ALLZ/CLOCK Un-gating

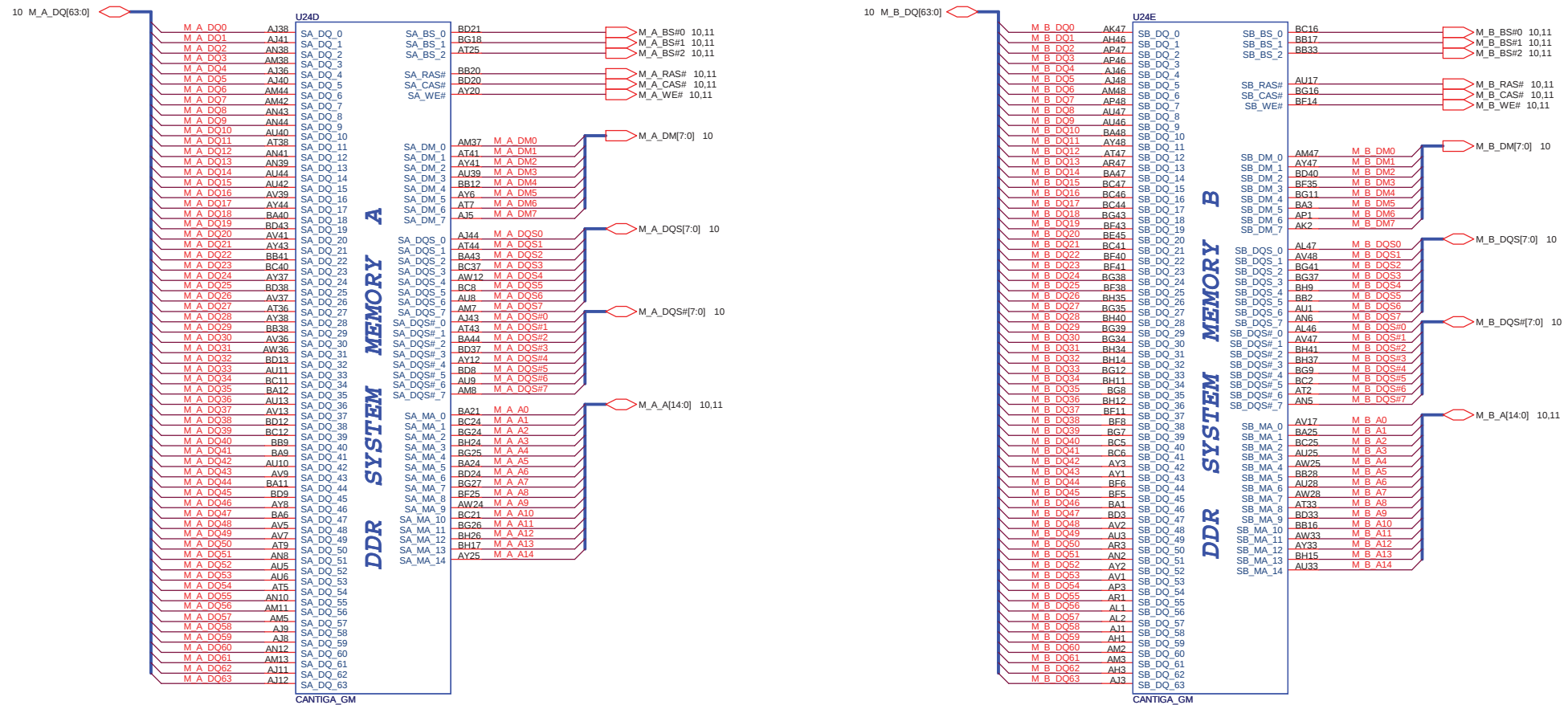
MCH_CFG_13 MCH_CFG_12 Configuration

0	0	Reserved
1	0	XOR Mode enabled
0	1	All-Z Mode enabled
1	1	Normal operation (Default)



PROJECT : Preso-II
Quanta Computer Inc.

Size Custom Document Number
Cantiga DMI/DISP 2/5
Date: Tuesday, May 05, 2009 Sheet 6 of 38

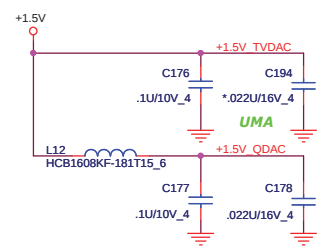
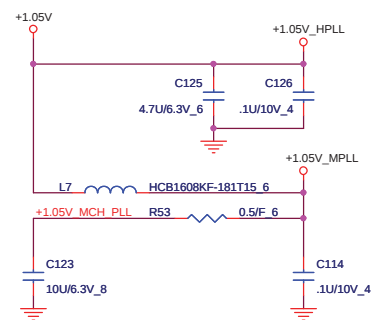
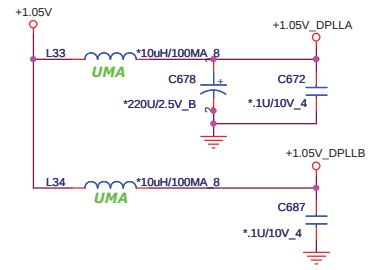


PROJECT : Preso-II
Quanta Computer Inc.

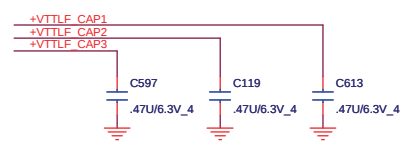
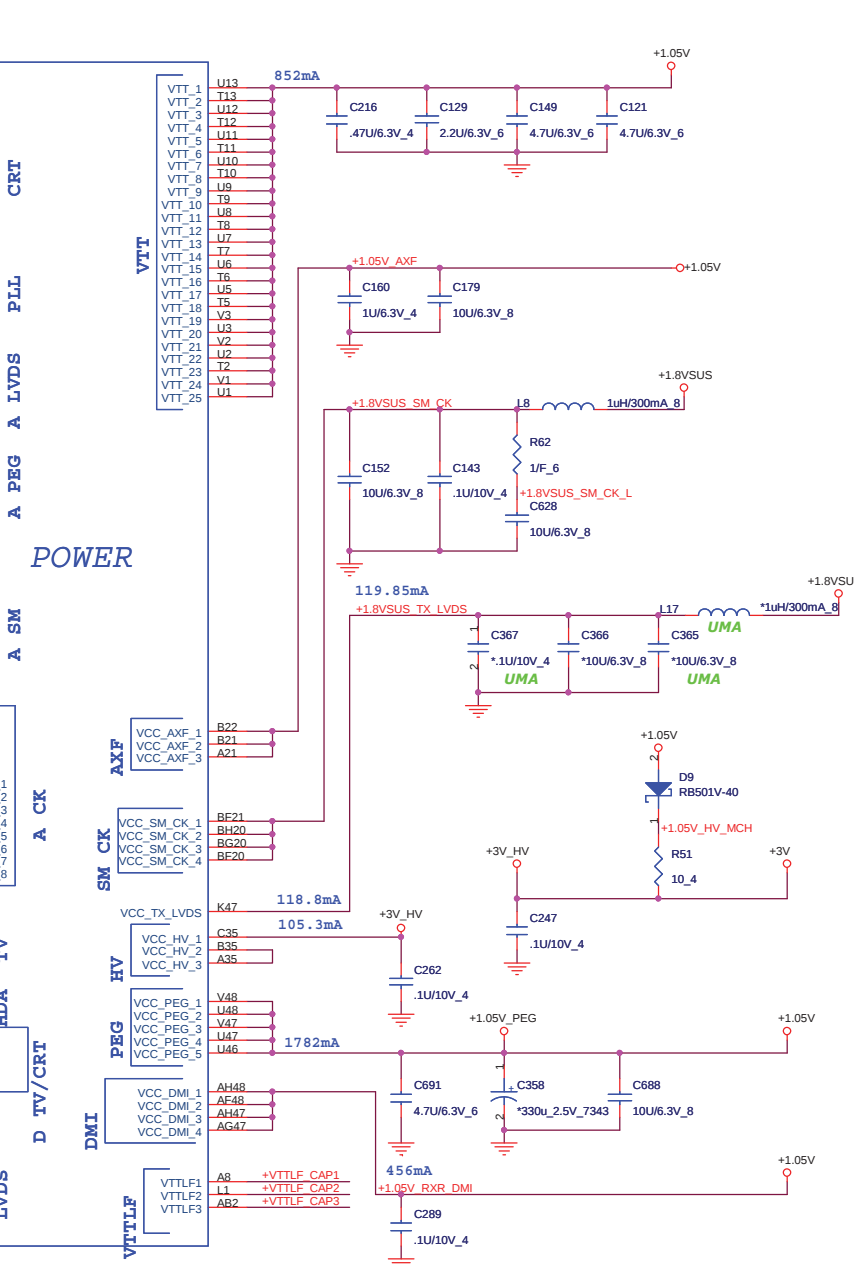
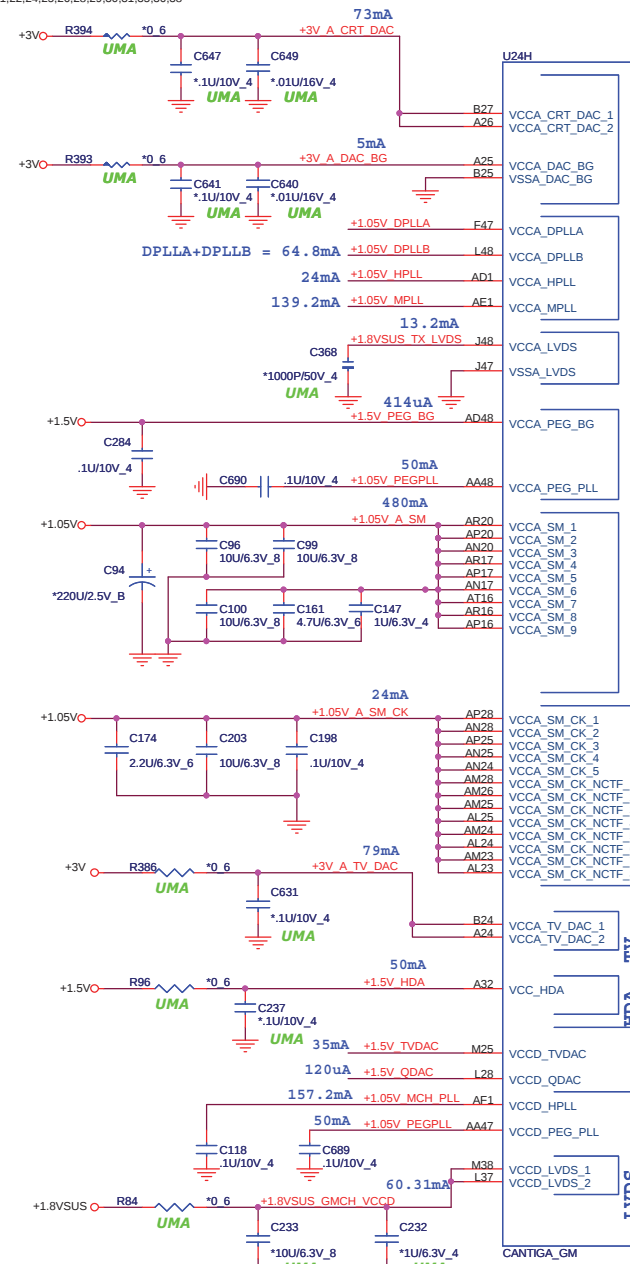
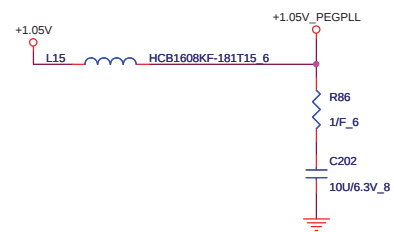
Size Custom Document Number Cantiga DDR2 3/5 Rev 1A
Date: Tuesday, May 05, 2009 Sheet 7 of 39





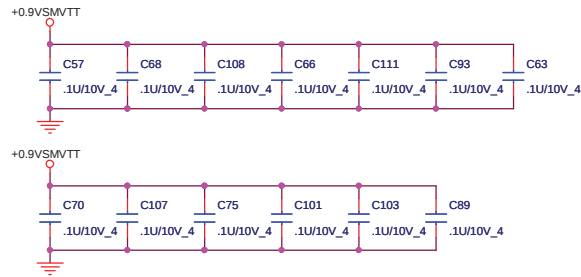


For PM/GM internal thermal sensor power



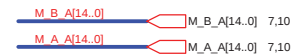
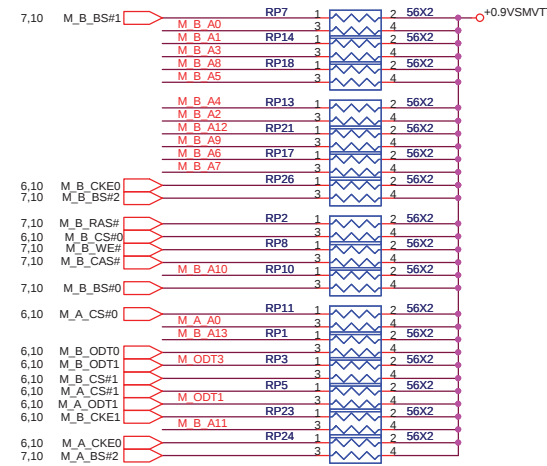
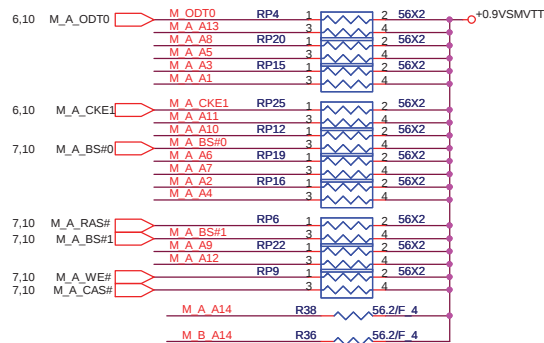
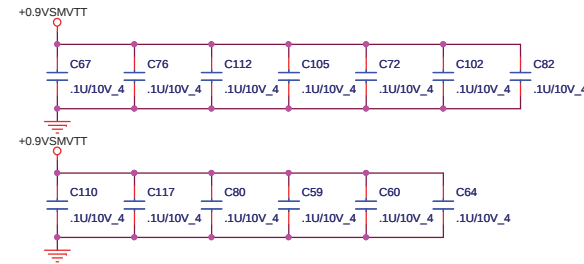
DDRII DUAL CHANNEL A,B.

DDRII A CHANNEL

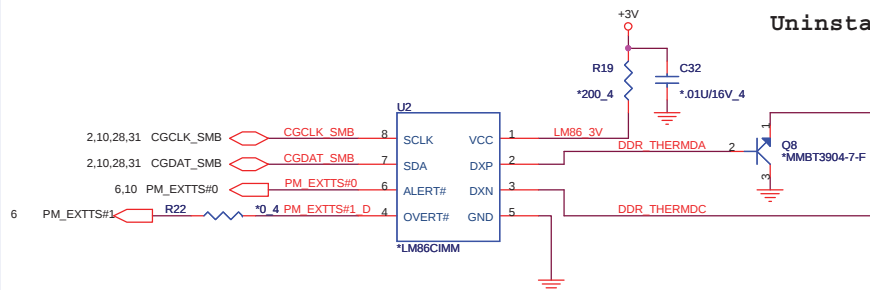


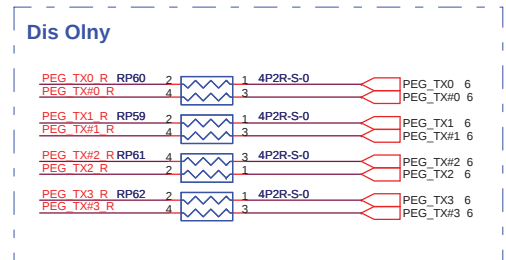
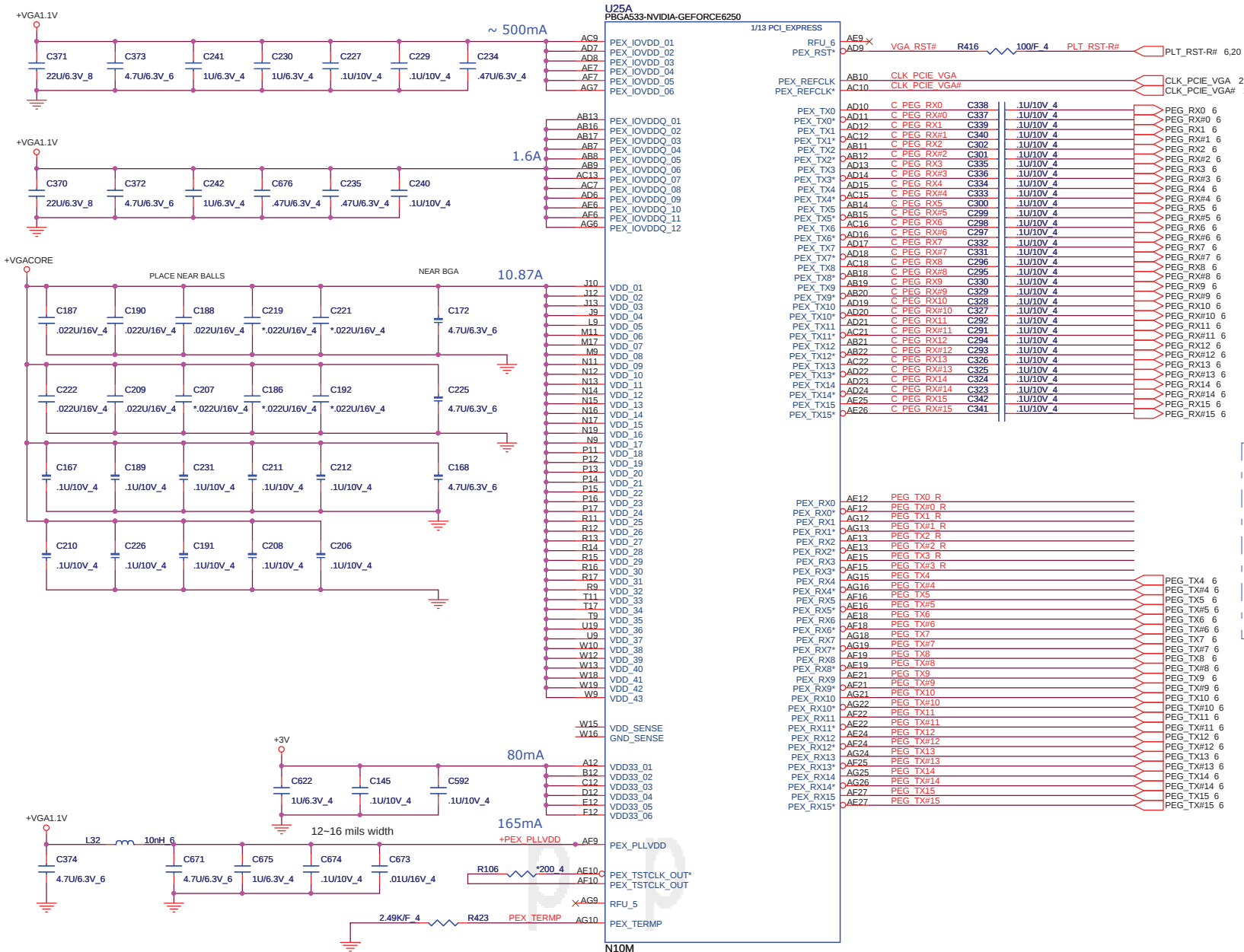
Layout note: Place one cap close to every 2 pullup resistors terminated to SMDDR_VTERM

DDRII B CHANNEL

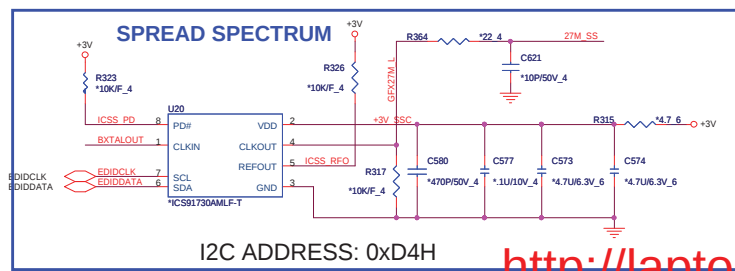
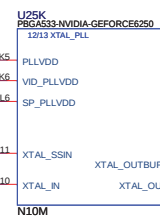
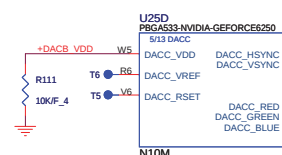
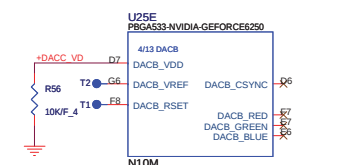
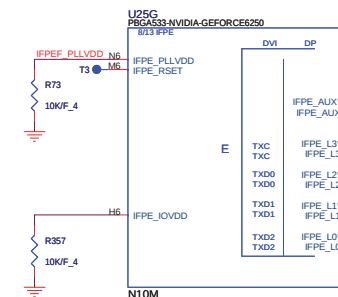
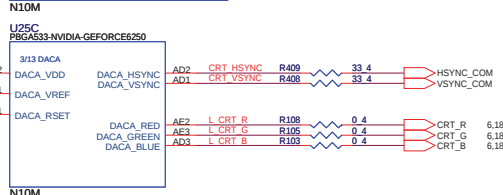
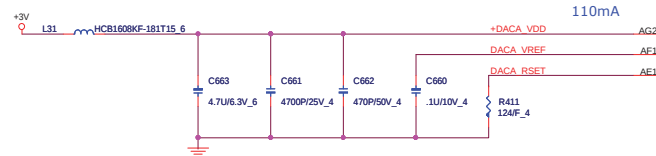
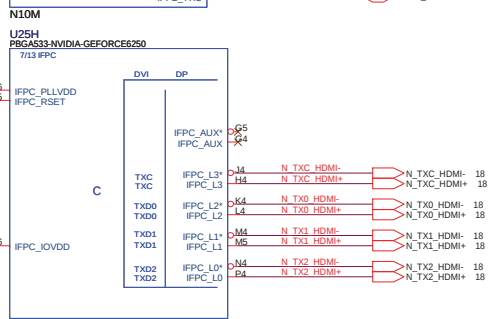
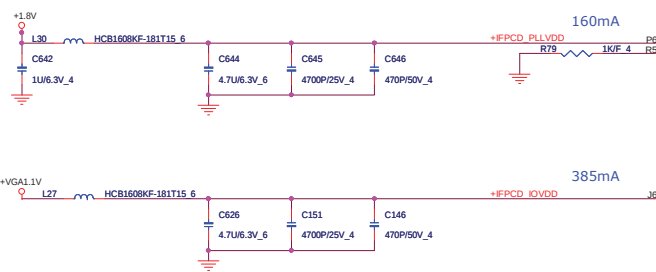
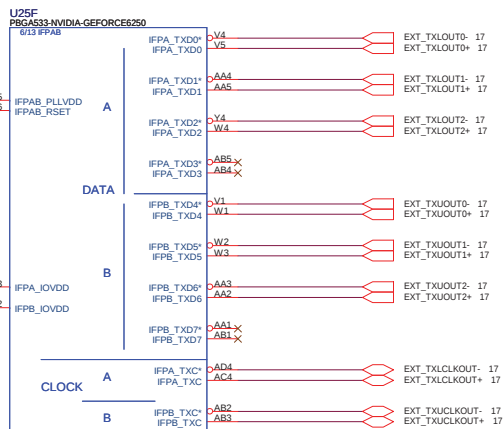
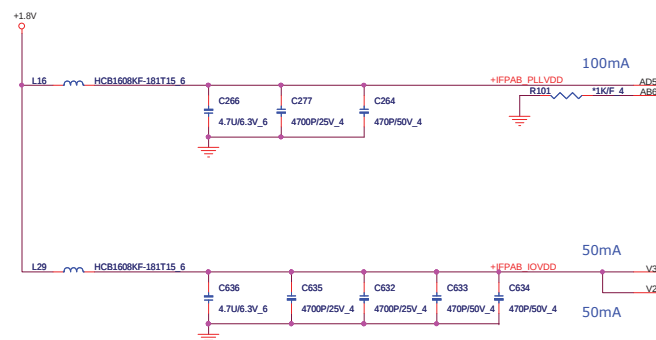


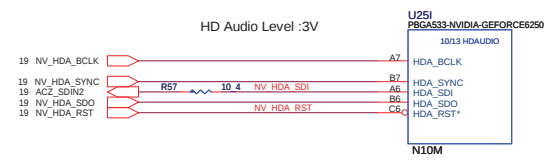
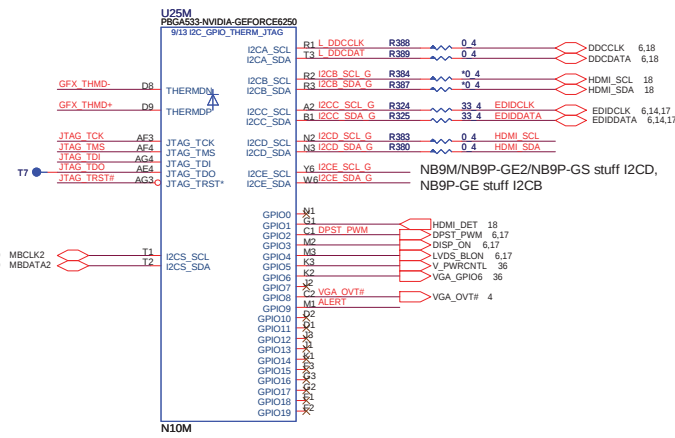
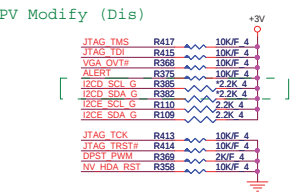
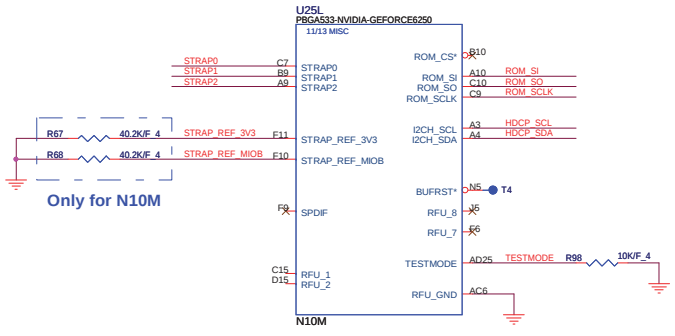
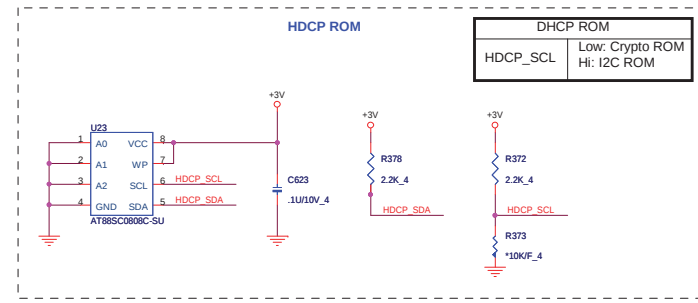
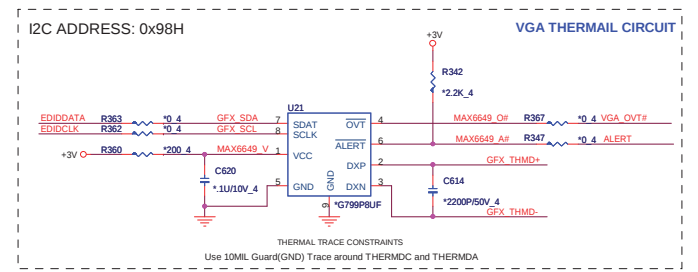
Uninstall







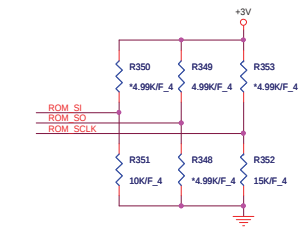




GPIO ASSIGNMENTS

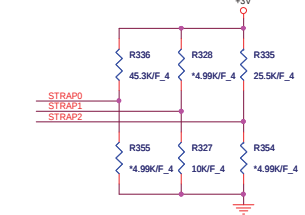
GPI0	I/O	ACTIVE	USAGE
0	IN	N/A	PRIMARY DVI HOTPLUG
1	IN	N/A	SECONDARY DVI HOTPLUG
2	OUT	HIGH	PANEL BACKLIGHT PWM
3	OUT	HIGH	PANEL POWER ENABLE
4	OUT	HIGH	PANEL BACKLIGHT ENABLE
5	OUT	N/A	NVDD VID0
6	OUT	N/A	NVDD VID1
7	OUT	N/A	FBVDD VID0
8	IN	LOW	THERMAL ALERT
9	OUT	LOW	FAN PWM
10	OUT	N/A	FBVREF SELECT
11	OUT	N/A	SLI SYNC0
12	IN	N/A	AC DETECT
13	OUT	LOW	PS CONTROL OR HDMI_CEC
14	OUT	HIGH	PS CONTROL

PCI_DEVID[4] / SUBVENDOR



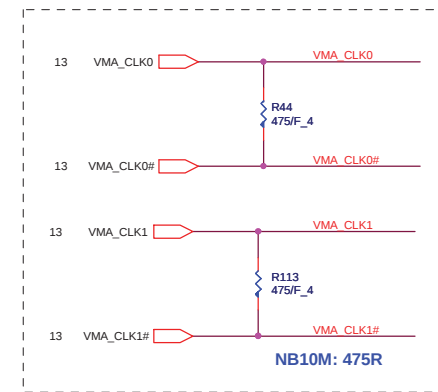
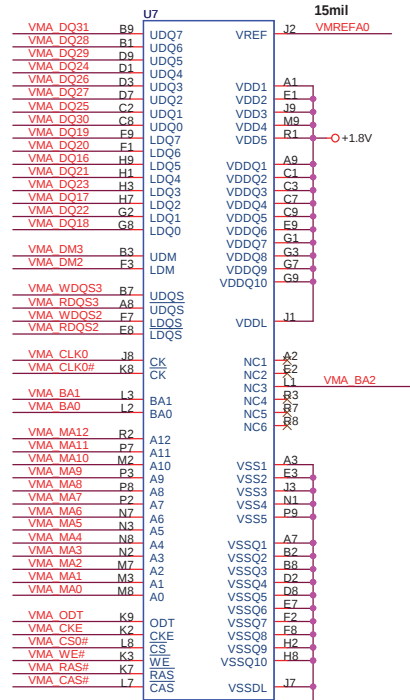
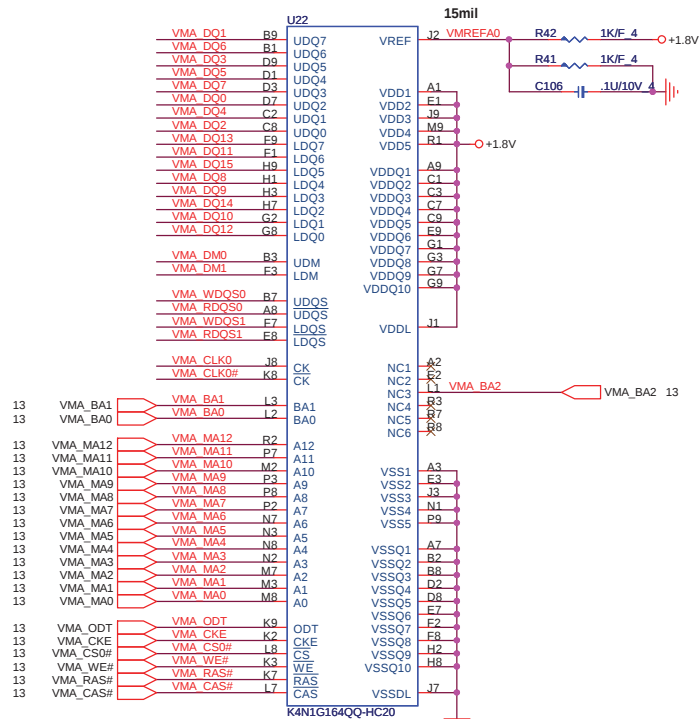
VRAM ID	
ROM_SI	PD 5K: Hynix PD 10K: Samsung PD 15K: Qimonda

Straps



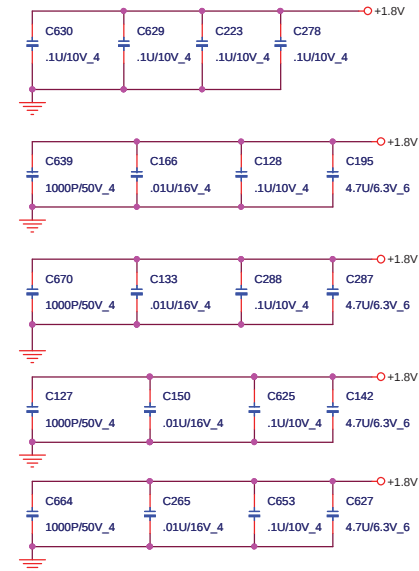
Logical Strap Bit Mapping

	PU	PD
5K	1000	0000
10K	1001	0001
15K	1010	0010
20K	1011	0011
25K	1100	0100
30K	1101	0101
35K	1110	0110
45K	1111	0111

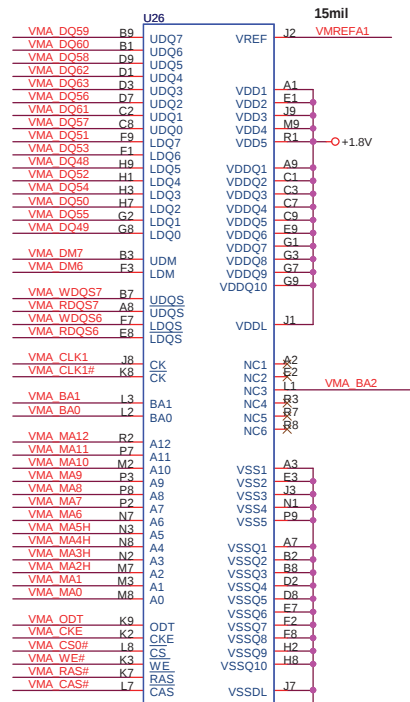
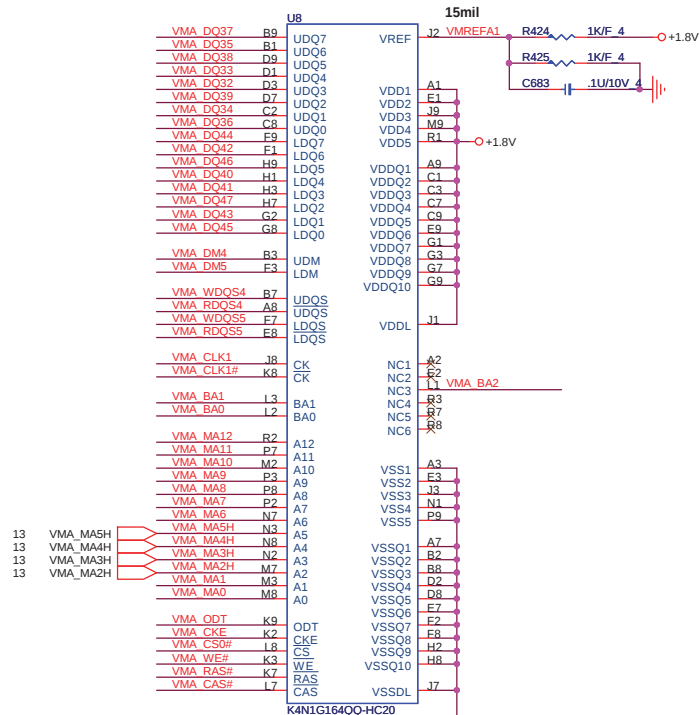


CS14752FB11 RES CHIP 475 1/16W +-1%(0402)

(By pass capacitor)



- 13 VMA_DQ[63..0]
- 13 VMA_DM[7..0]
- 13 VMA_WDQ[7..0]
- 13 VMA_RDQ[7..0]

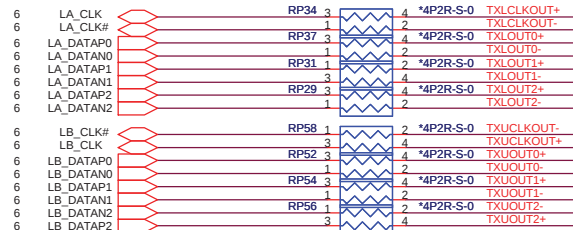


PROJECT : Preso-II
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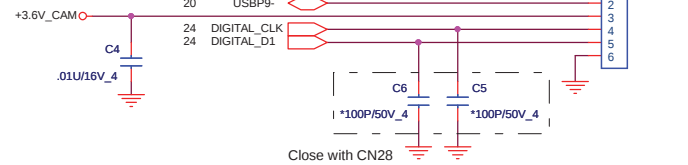
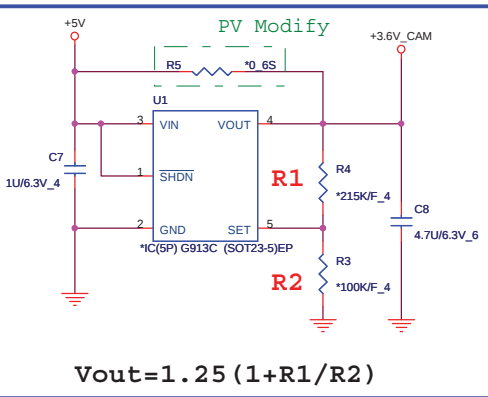
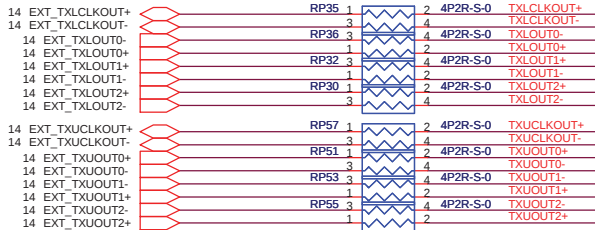
Size	Document Number	Rev
Custom	N10M VRAM-1(GDDR2) 5/5	1A
Date: Tuesday, May 05, 2009	Sheet 16 of 39	

1. If LCD connector near GPU, then place these series Resistors near GPU
2. If LCD connector near N/B, then place these series Resistors near N/B

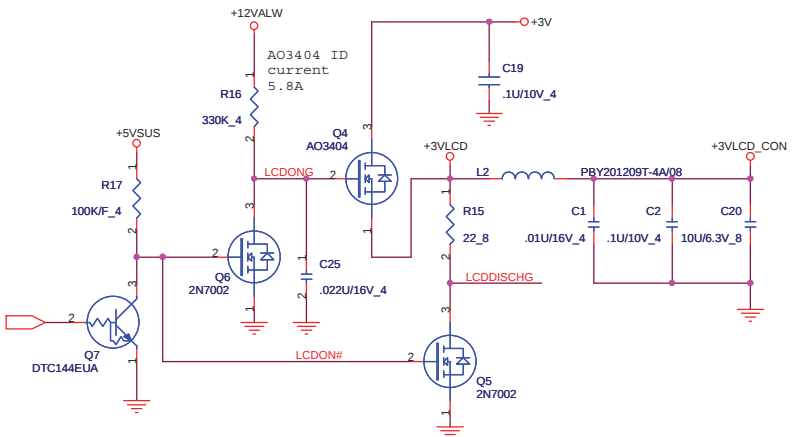
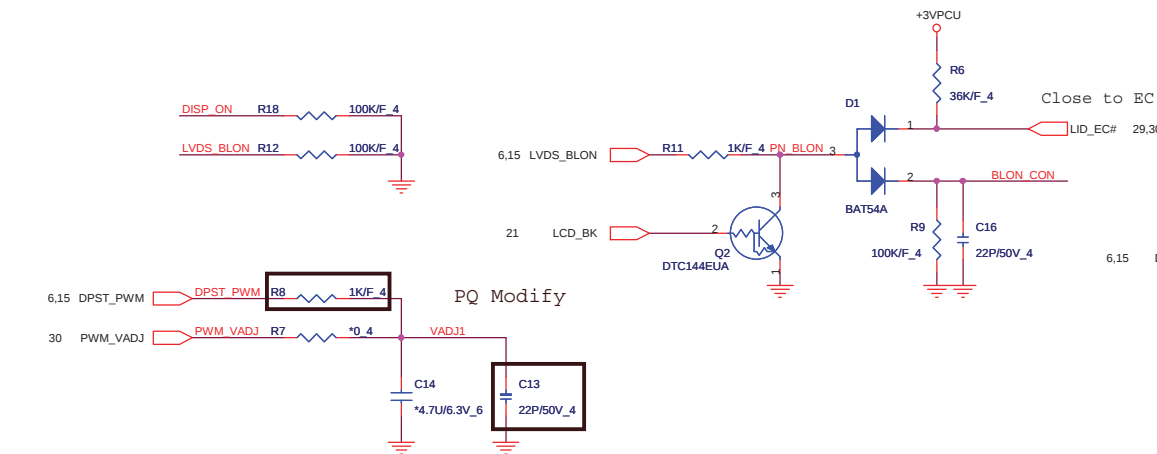
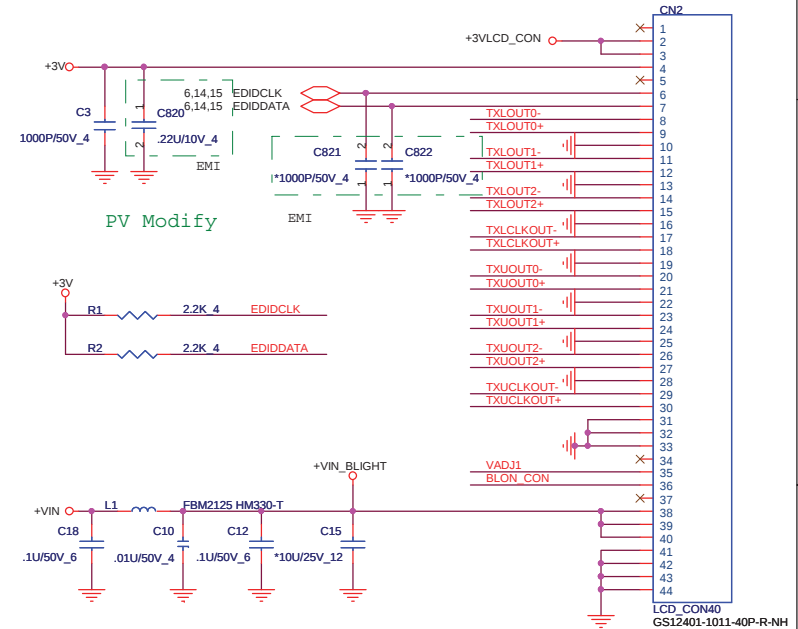
OPTION SIGNAL FROM NB FOR UMA VGA



OPTION SIGNAL FROM Nvidia to VGA



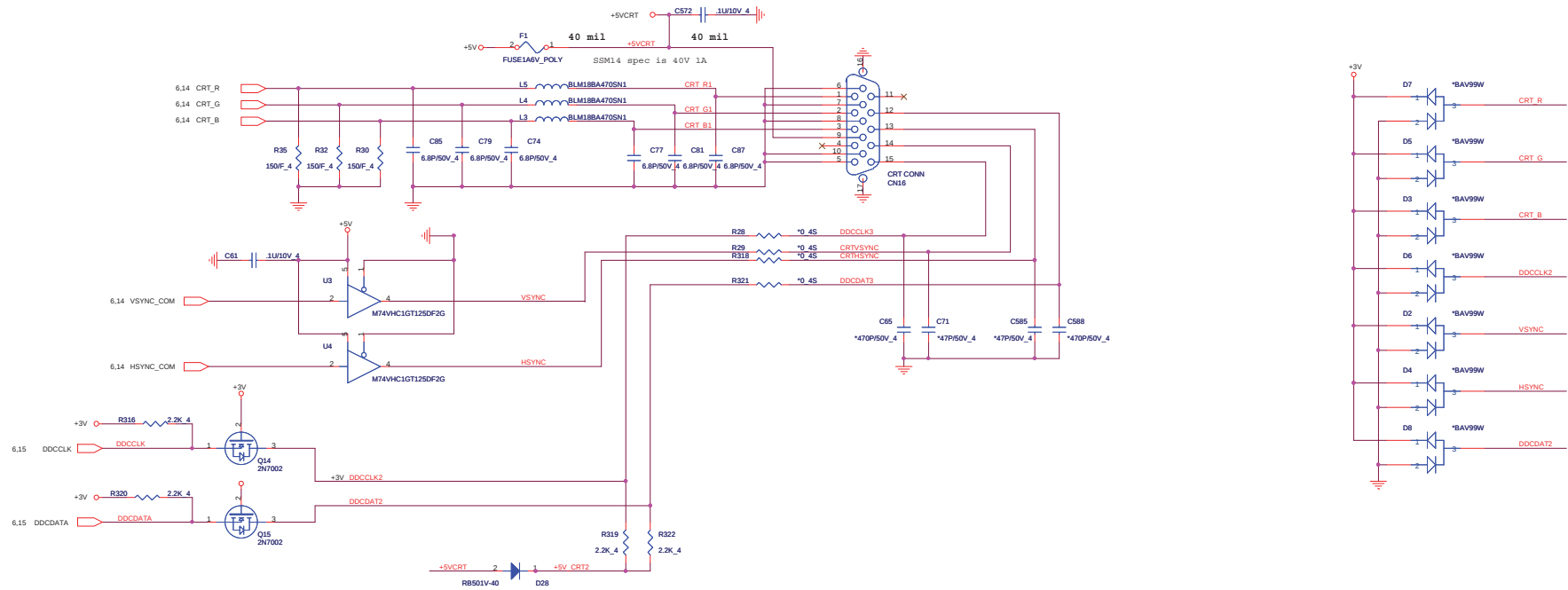
LCD / USB CAMERA / DIGITAL MIC CONNECTOR



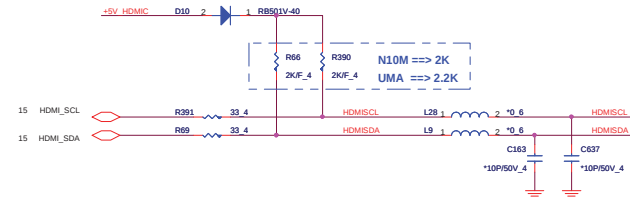
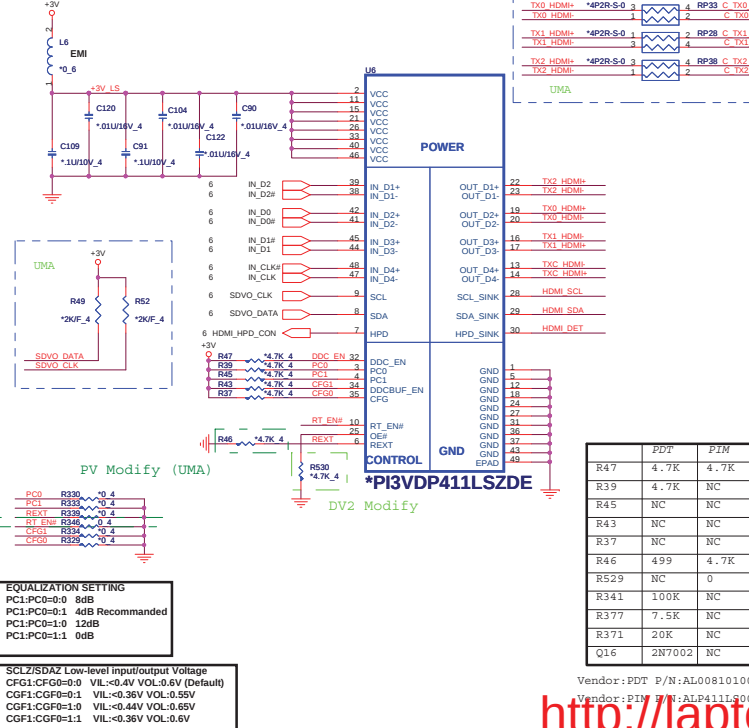
PROJECT : Preso-II
Quanta Computer Inc.

Size Custom	Document Number	Rev 1A
LCD CONN(WC/MIC)/LID		
Date: Tuesday, May 05, 2009	Sheet 17	of 39

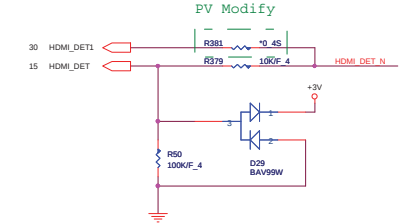
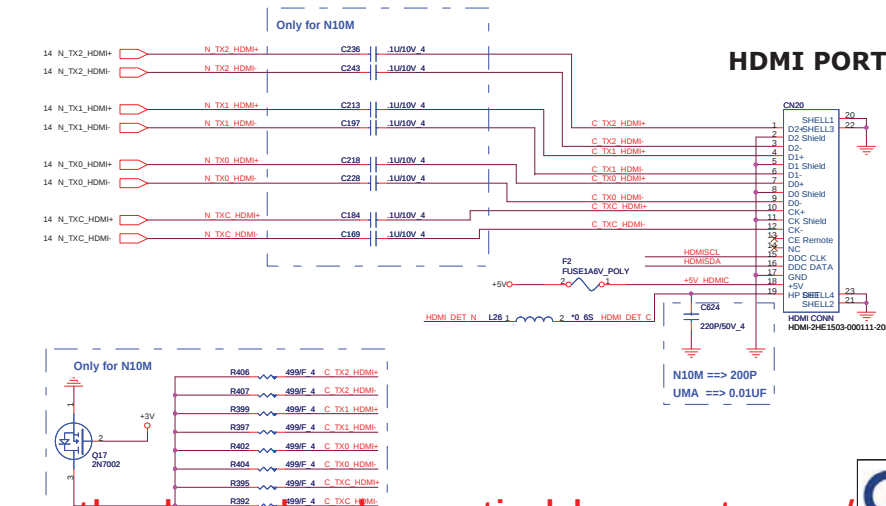
CRT PORT

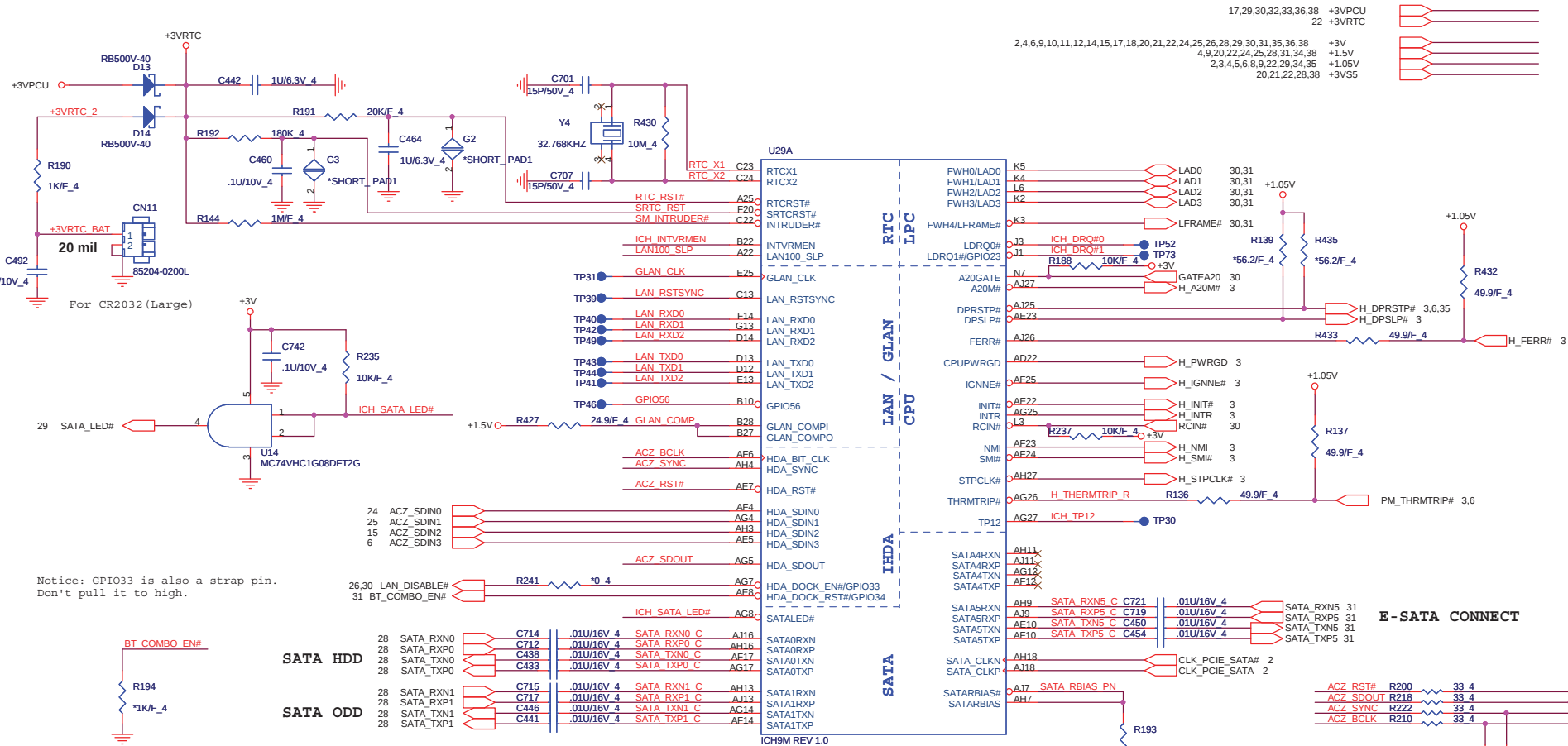


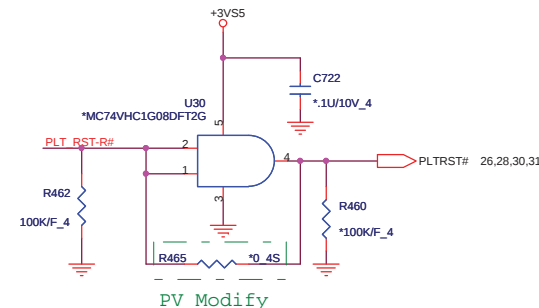
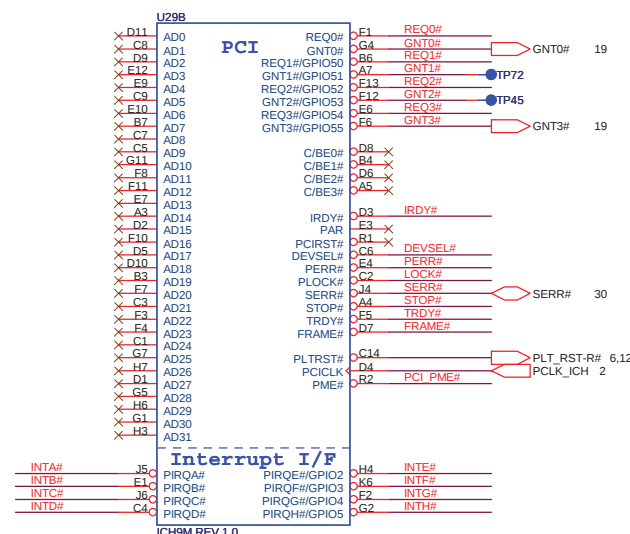
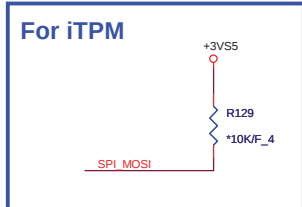
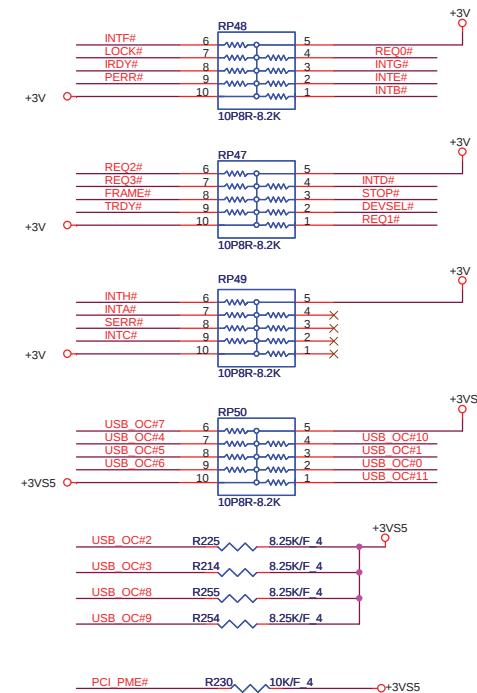
UMA HDMI Function



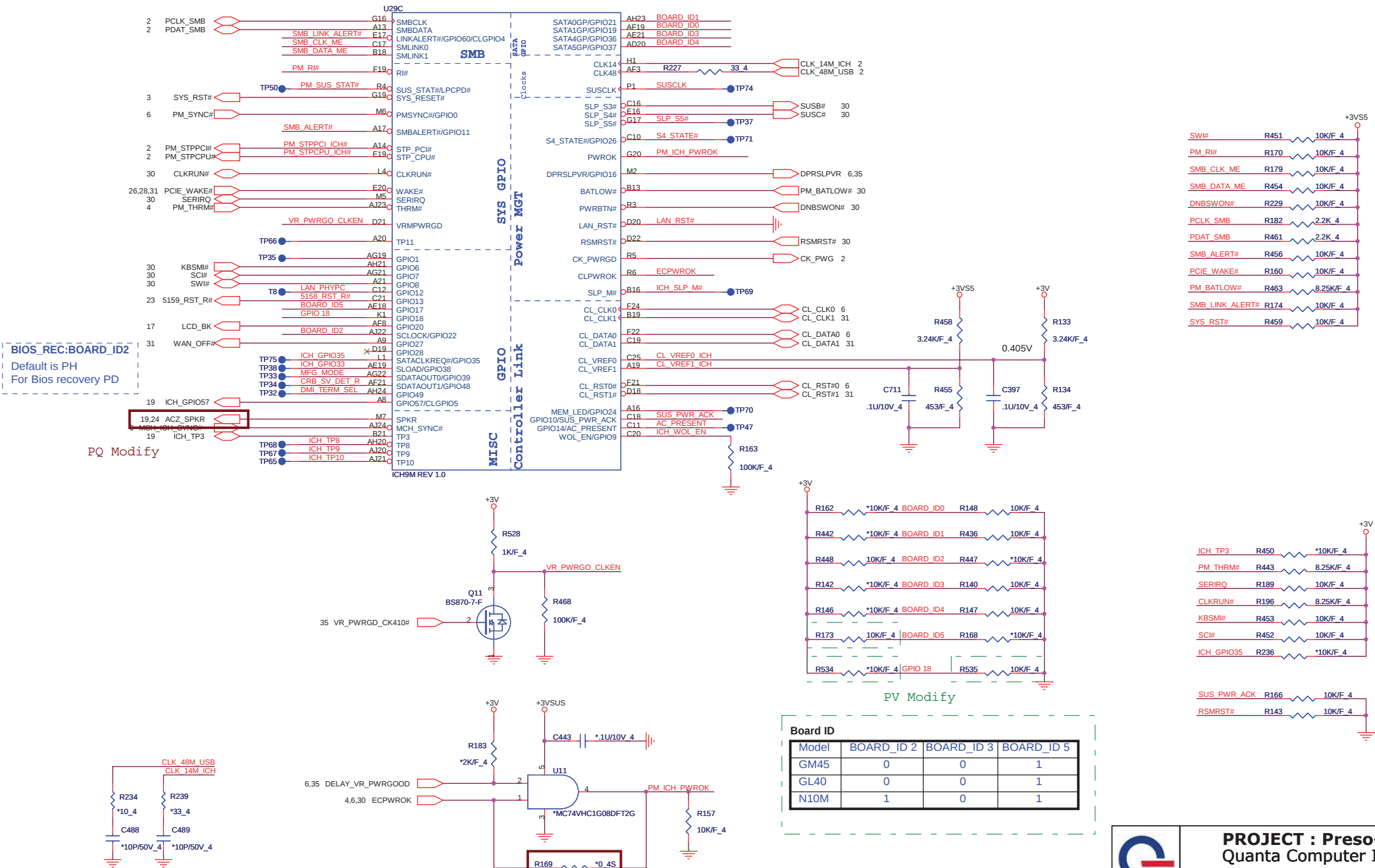
HDMI PORT

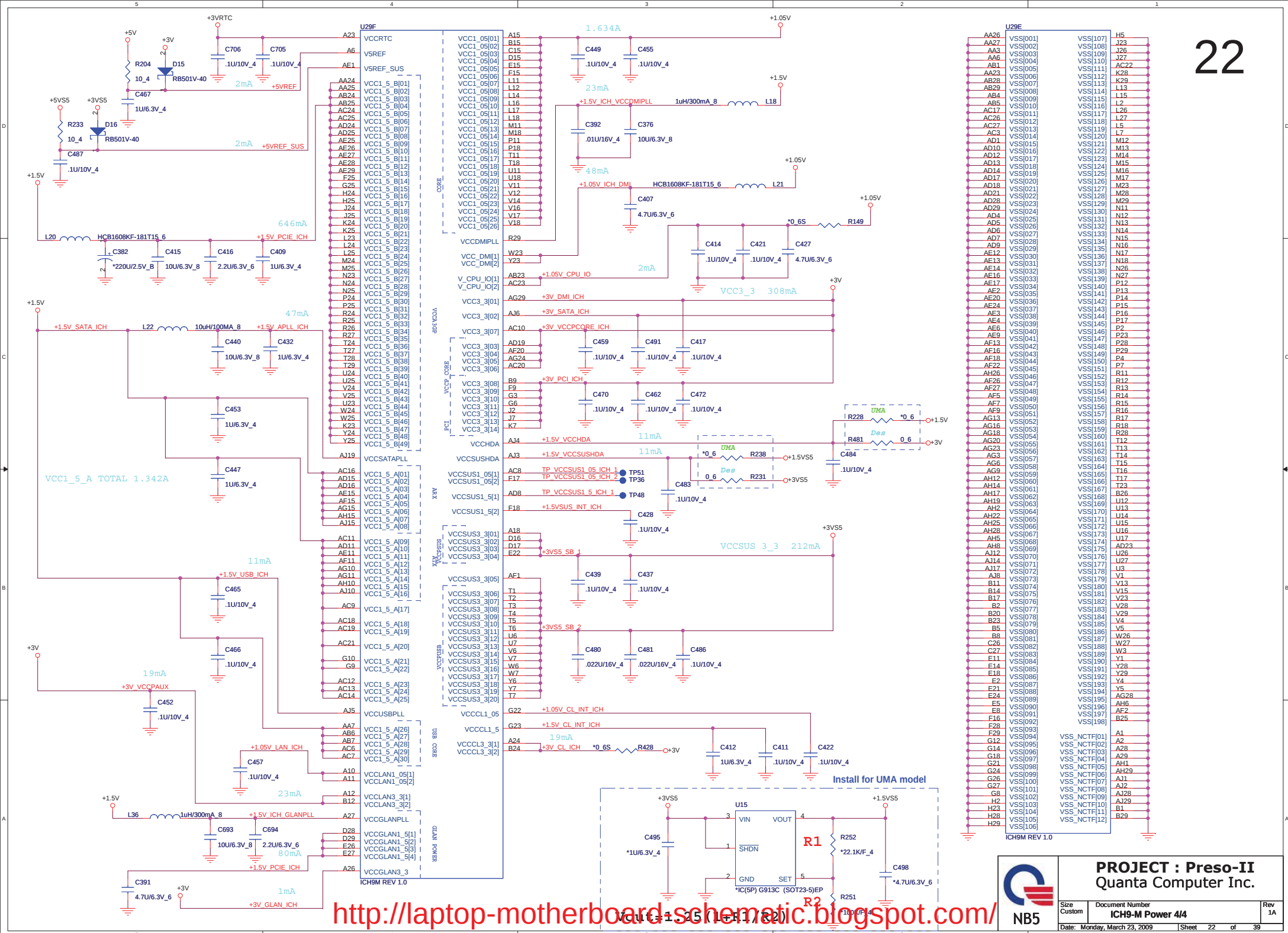


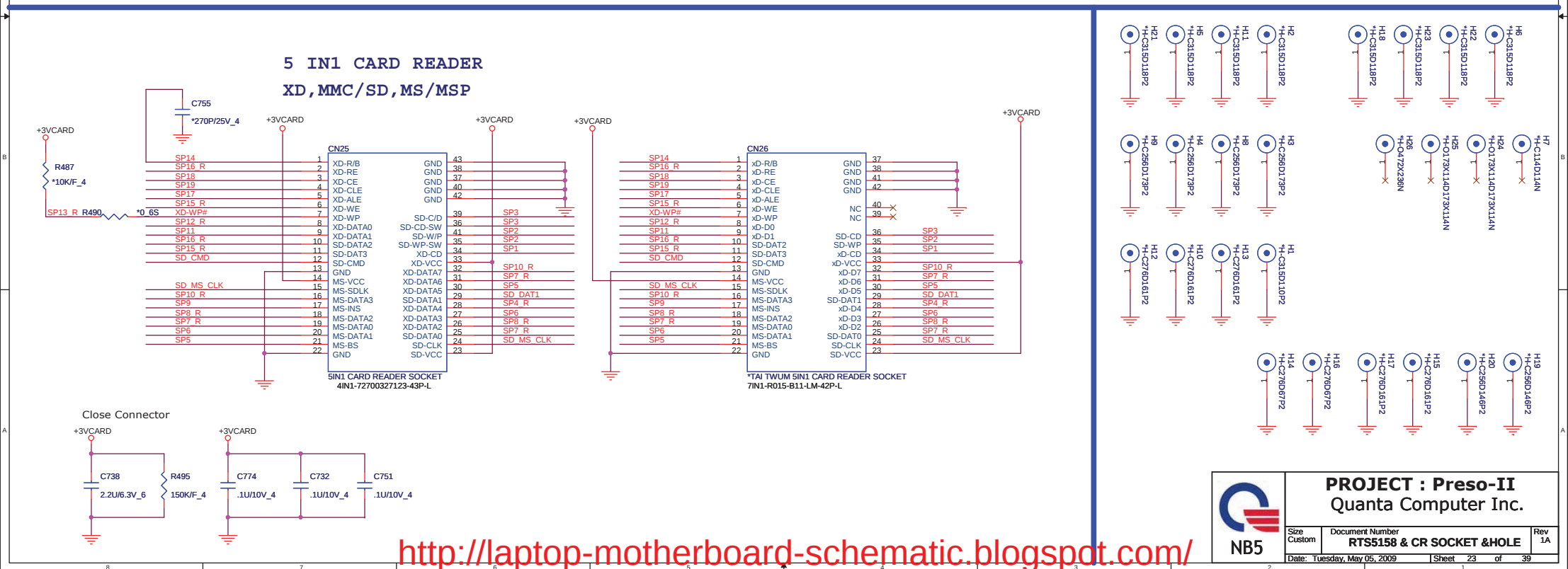
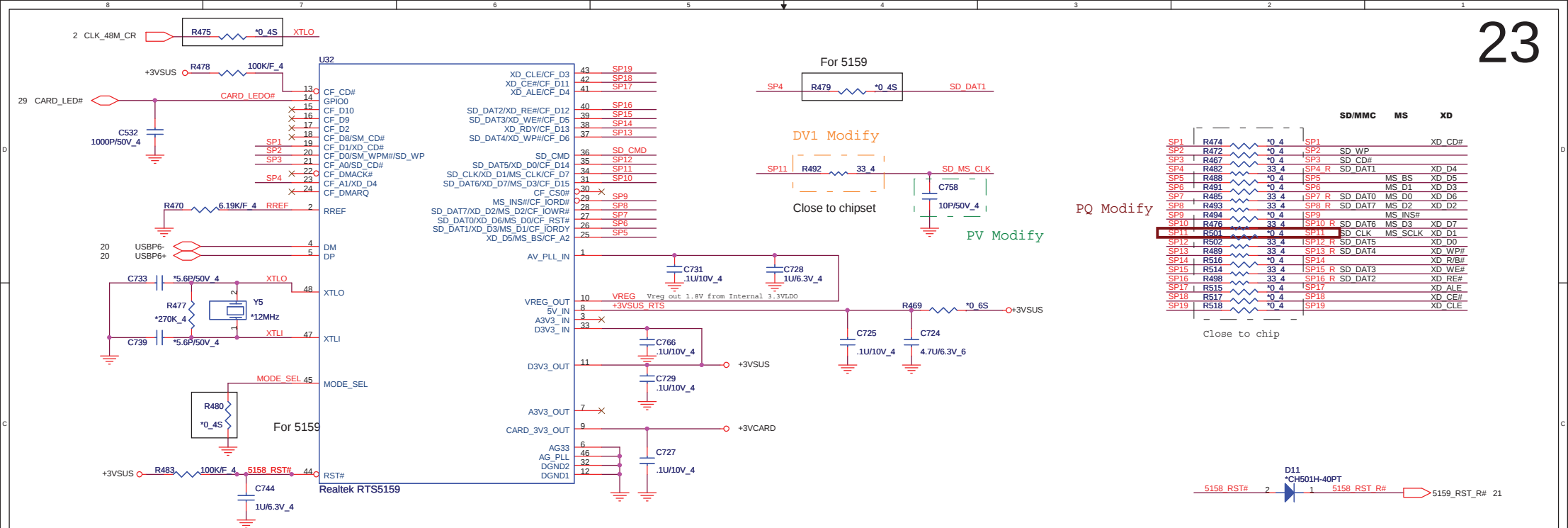


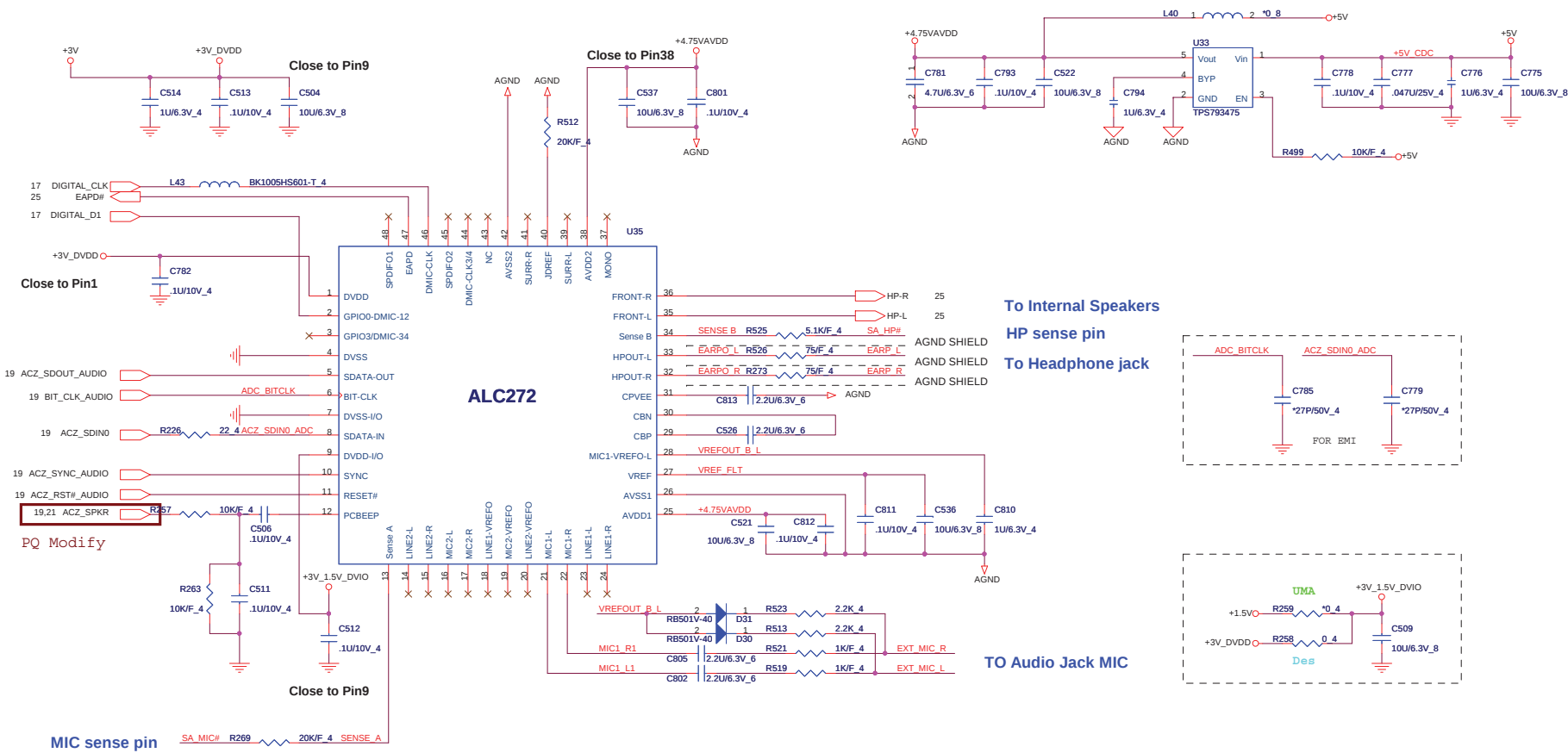


4,9,19,20,22,24,25,28,31,34,38 +1.5V
2,4,6,9,10,11,12,14,15,17,18,19,20,22,24,25,26,28,29,30,31,35,36,38 +3V
19,20,22,28,38 +3VS5
23,29,31,34,35,36,38 +3VSUS

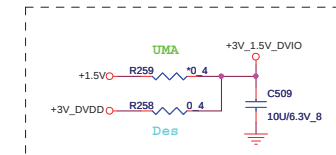
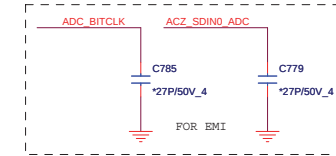
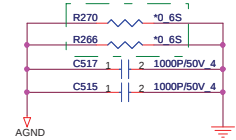






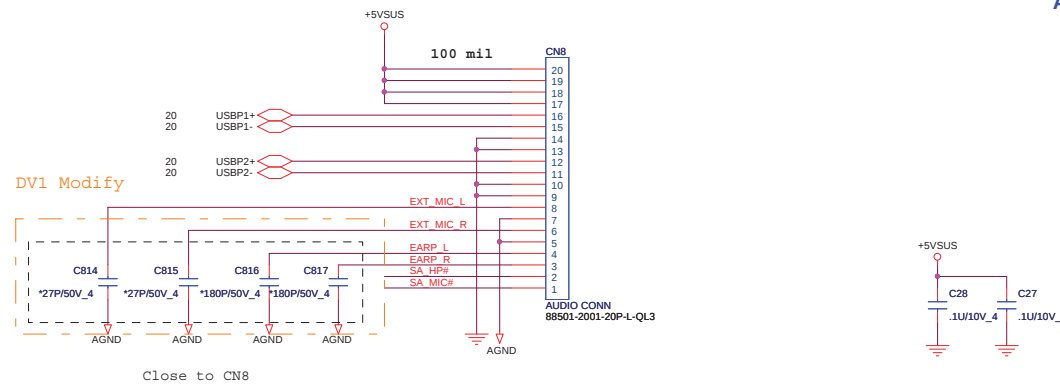


PV Modify



PORT	PLACE TO
MONO_OUT	X
PORT A	X
PORT B	Audio Jack MIC
PORT C	X
PORT D	Internal Speakers
PORT E	X
PORT F	X
PORT I	HP OUT

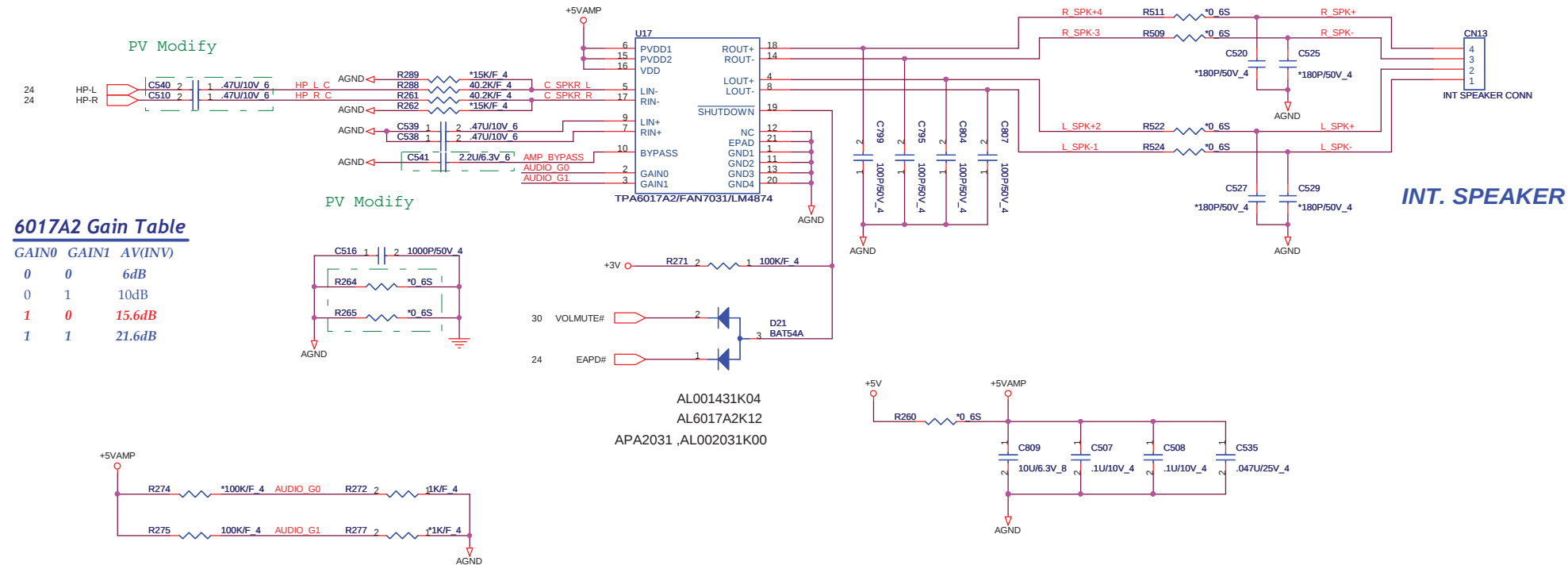
AUDIO / USB BOARD CONNECTOR



PROJECT : Preso-II
Quanta Computer Inc.

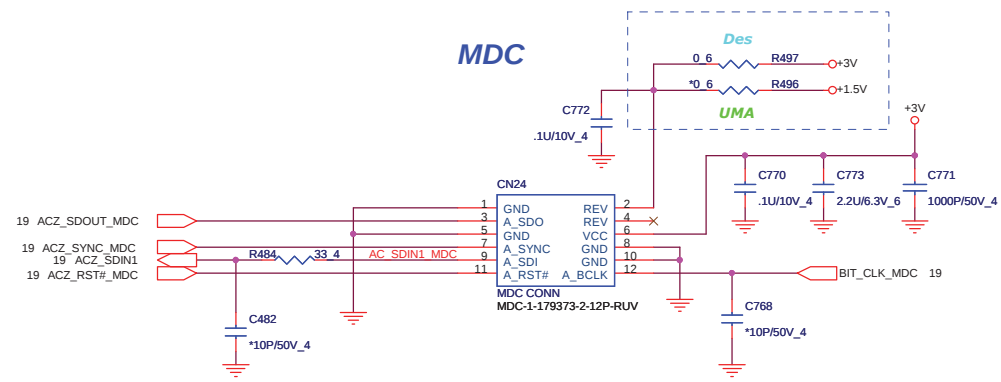
Size Custom	Document Number Azalia IDT92HD71B7	Rev 1A
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AUDIO AMPLIFIER



6017A2 Gain Table

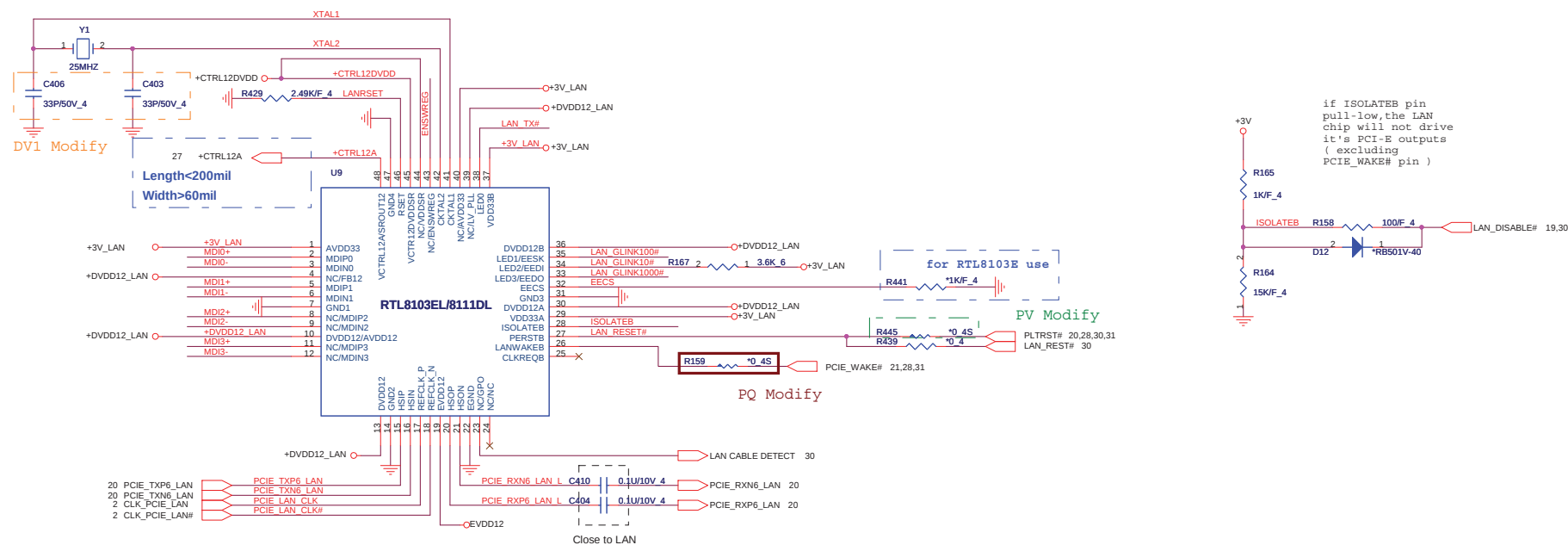
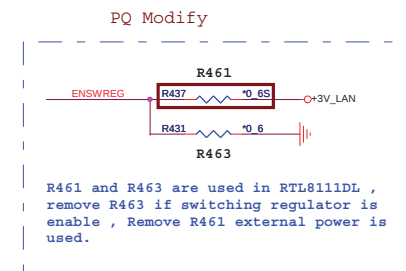
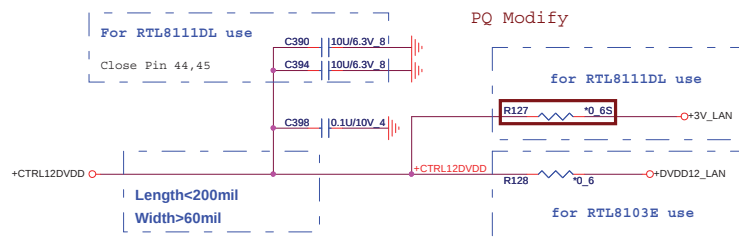
GAIN0	GAIN1	AV(INV)
0	0	6dB
0	1	10dB
1	0	15.6dB
1	1	21.6dB



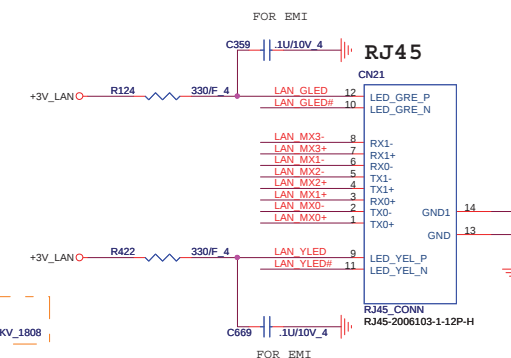
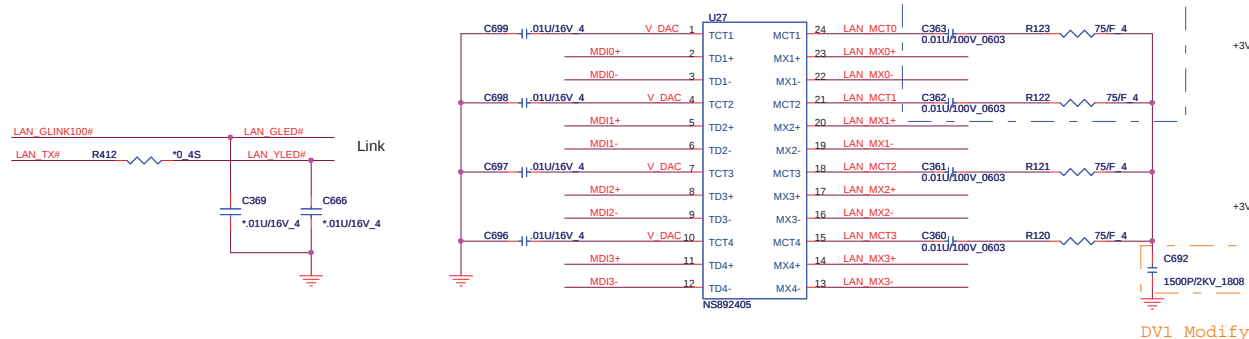


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Quanta Computer Inc.

Size Custom	Document Number	Rev 1A
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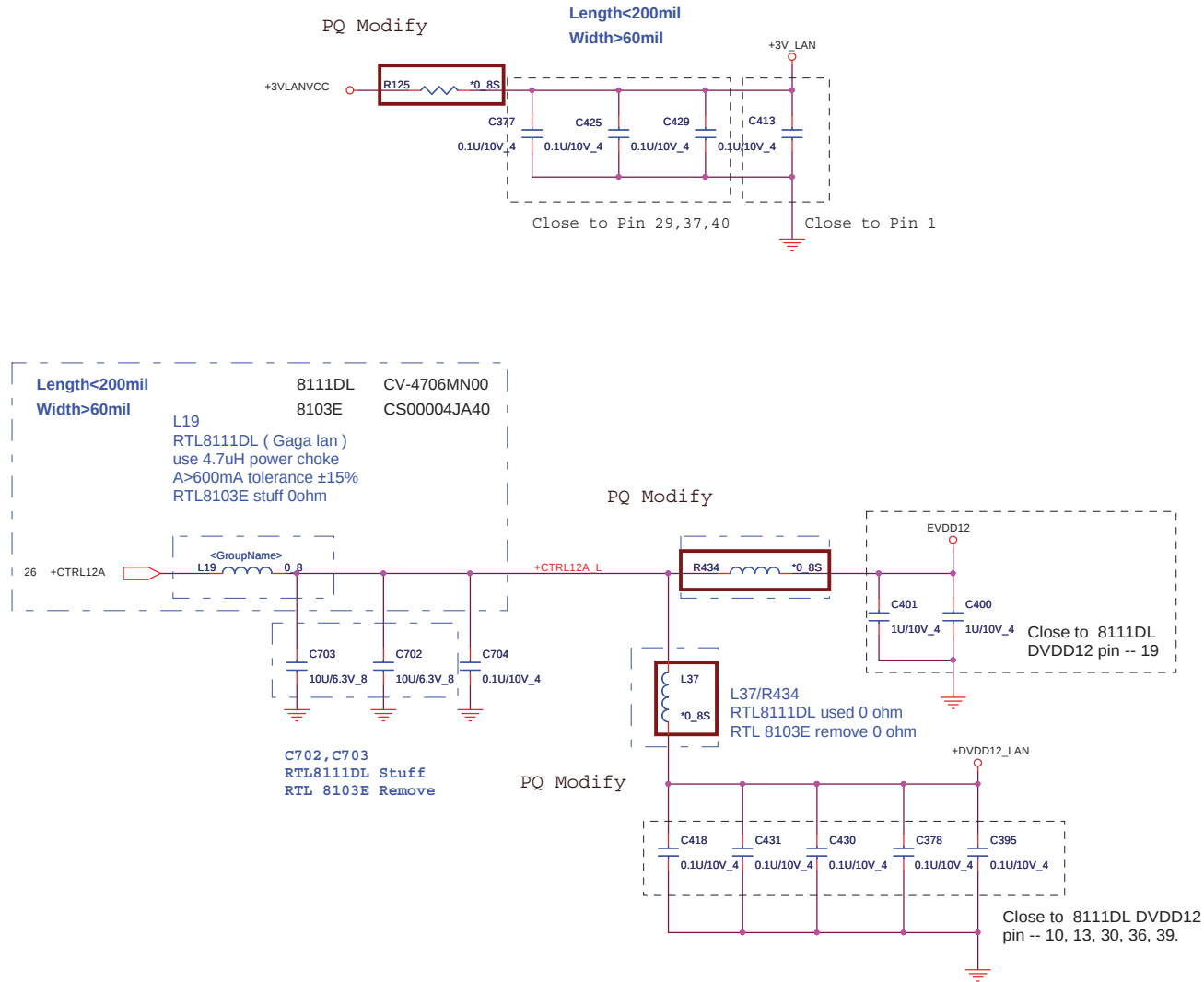
AL08111DB00	RTL8111DL-GR
AL08103EB00	RTL8103EL-GR



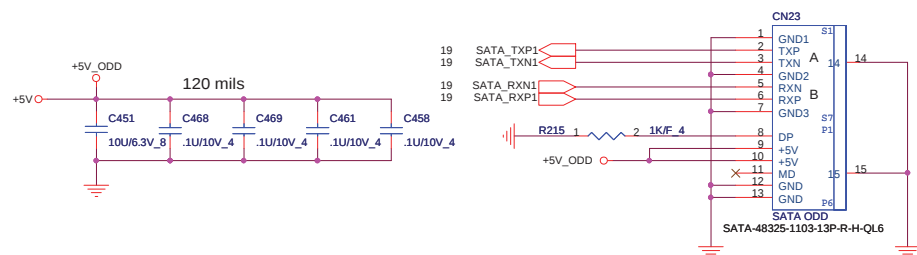
```

-----
| NS892402:1G                                DB0AT9LAN05
|
| NS892405:10/100                           DB0ZB1LAN04

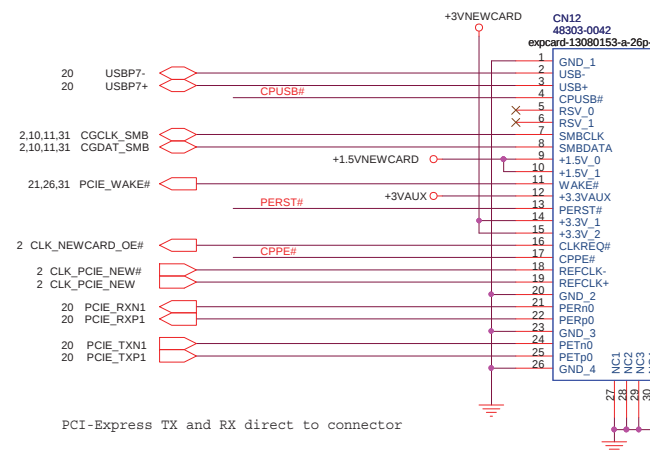
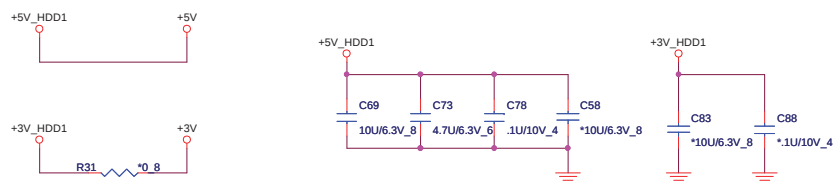
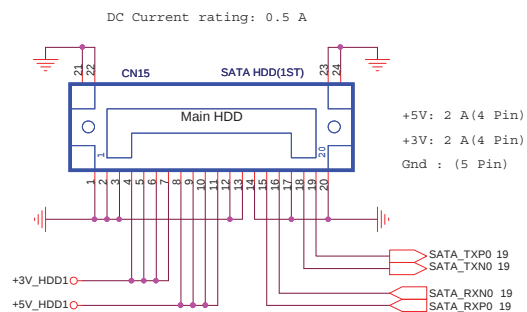
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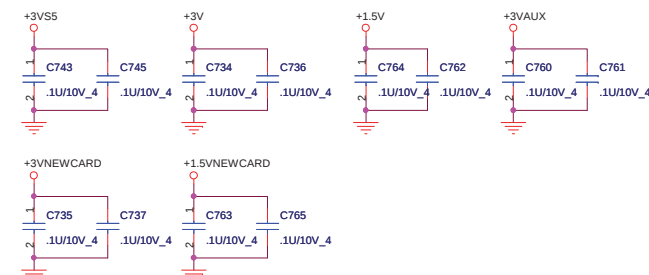
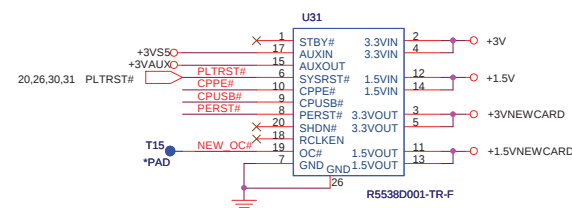
SATA ODD CONECTOR

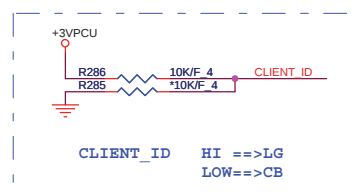
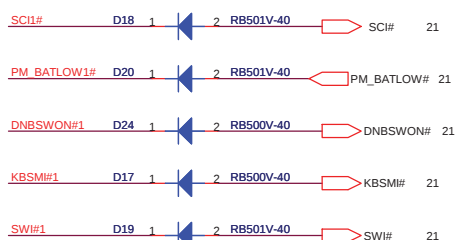
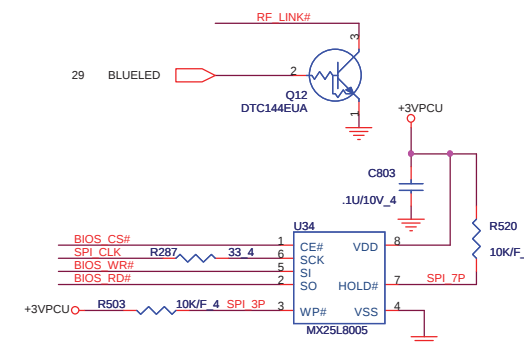
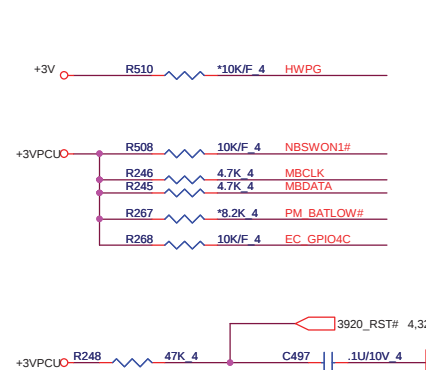
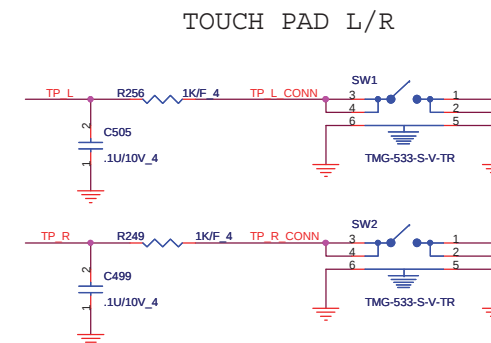
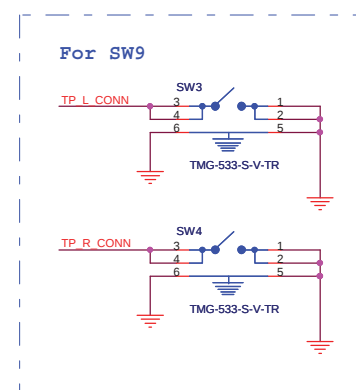
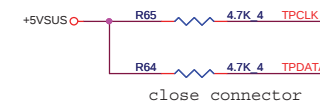
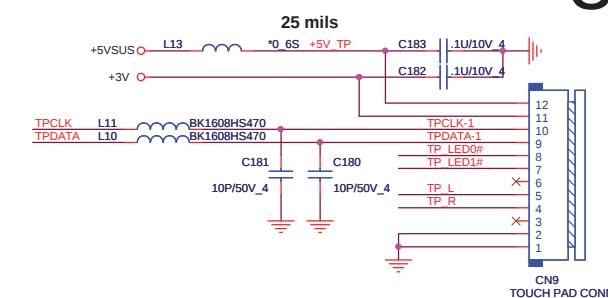
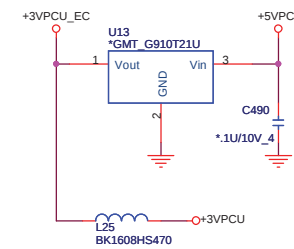


SATA HDD CONNECTOR

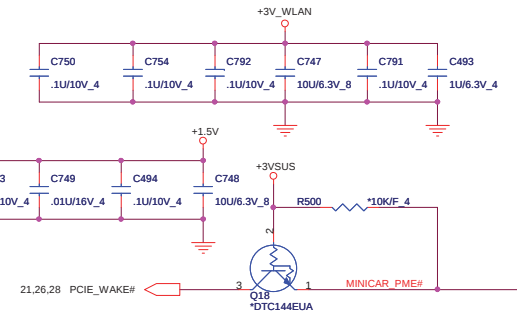
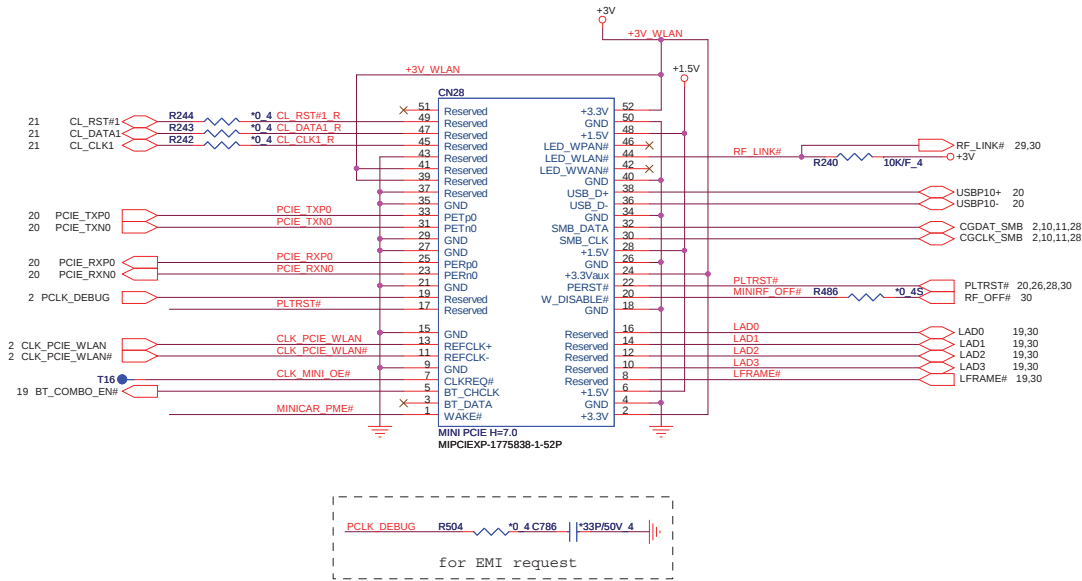


PCI-Express TX and RX direct to connector

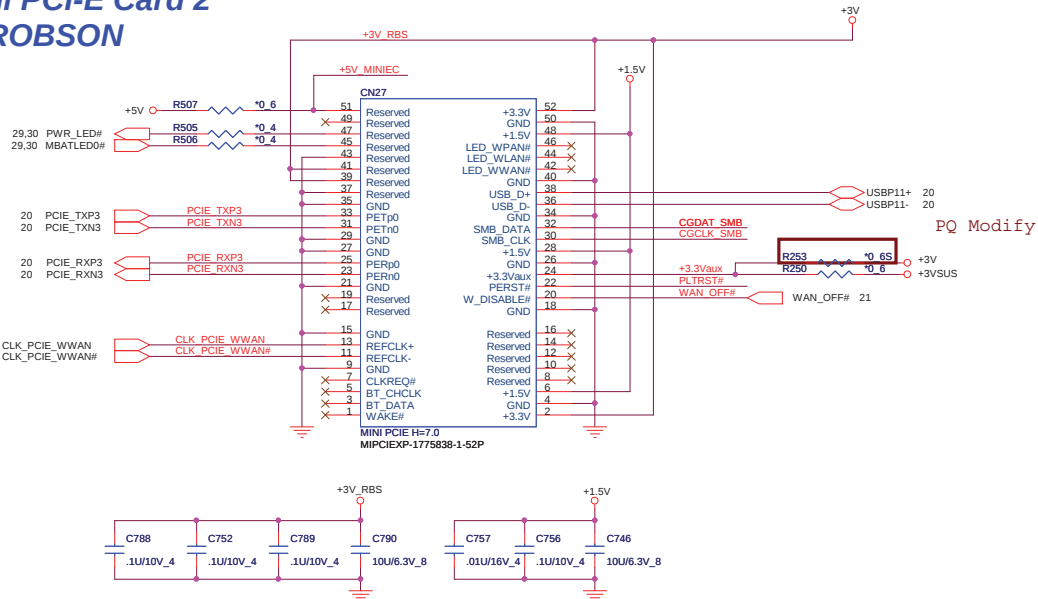




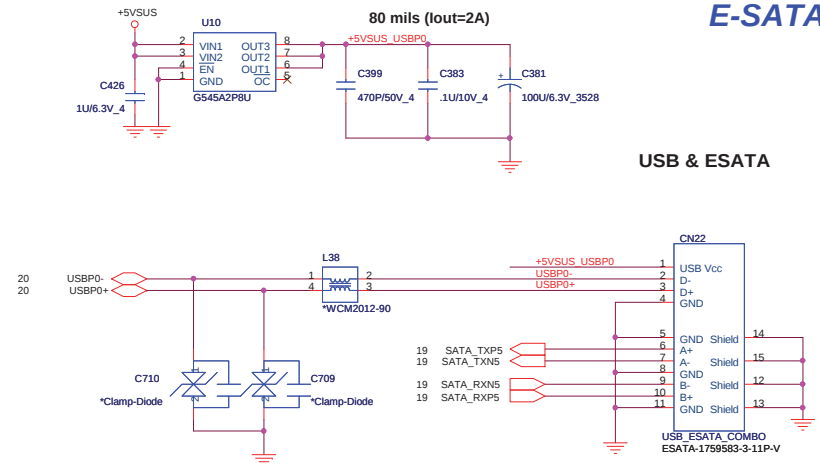
Mini PCI-E Card 1 WLAN



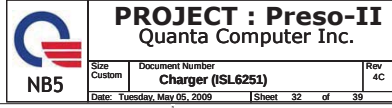
Mini PCI-E Card 2 ROBSON



E-SATA/USB COMBO



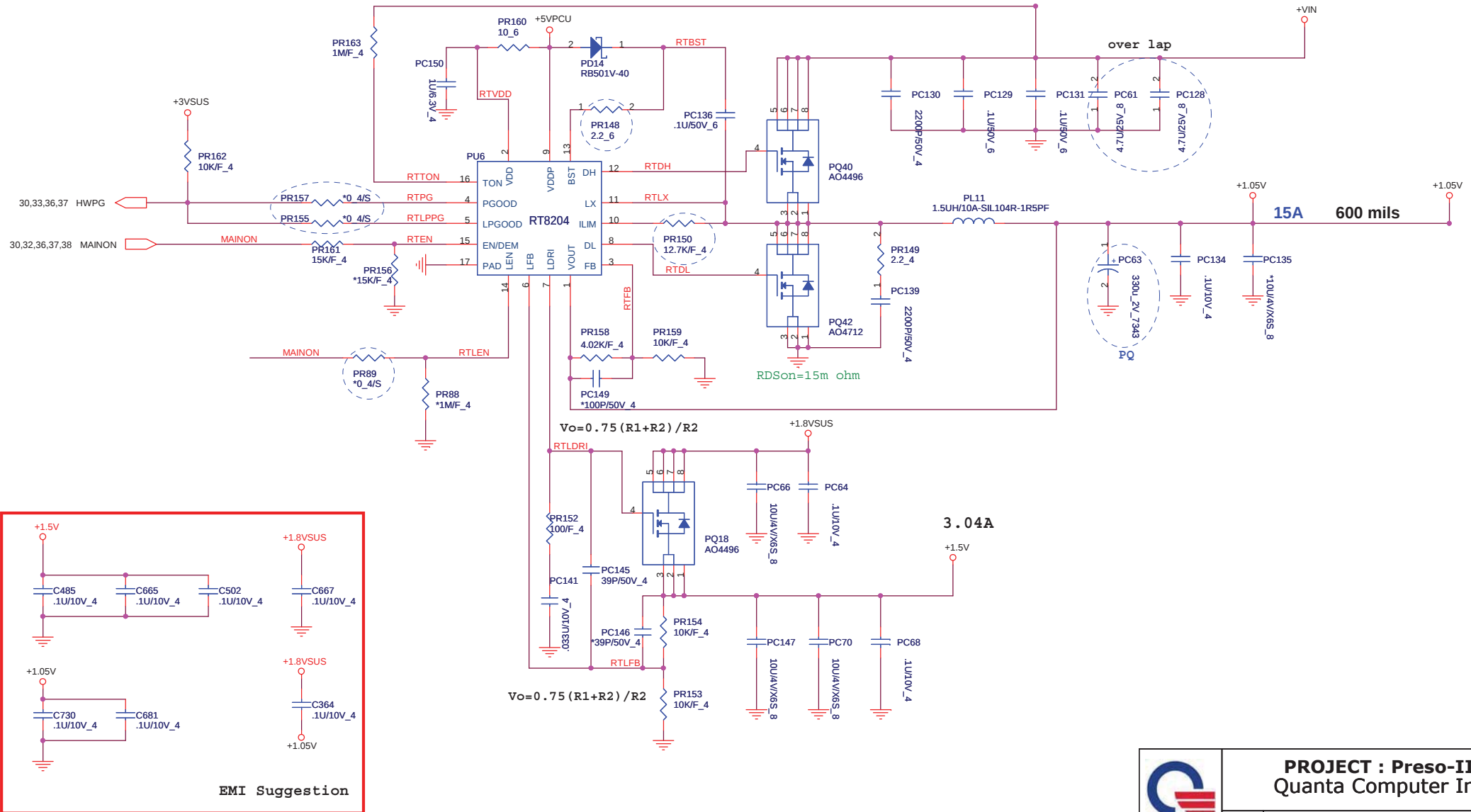
		PROJECT : Preso-II Quanta Computer Inc.	
Size Custom	Document Number MINI PCIE CONN X2/E-SATA	Date: Tuesday, May 05, 2009	Sheet 31 of 39
Rev 1A			



VCCP1.05V & +1.5V

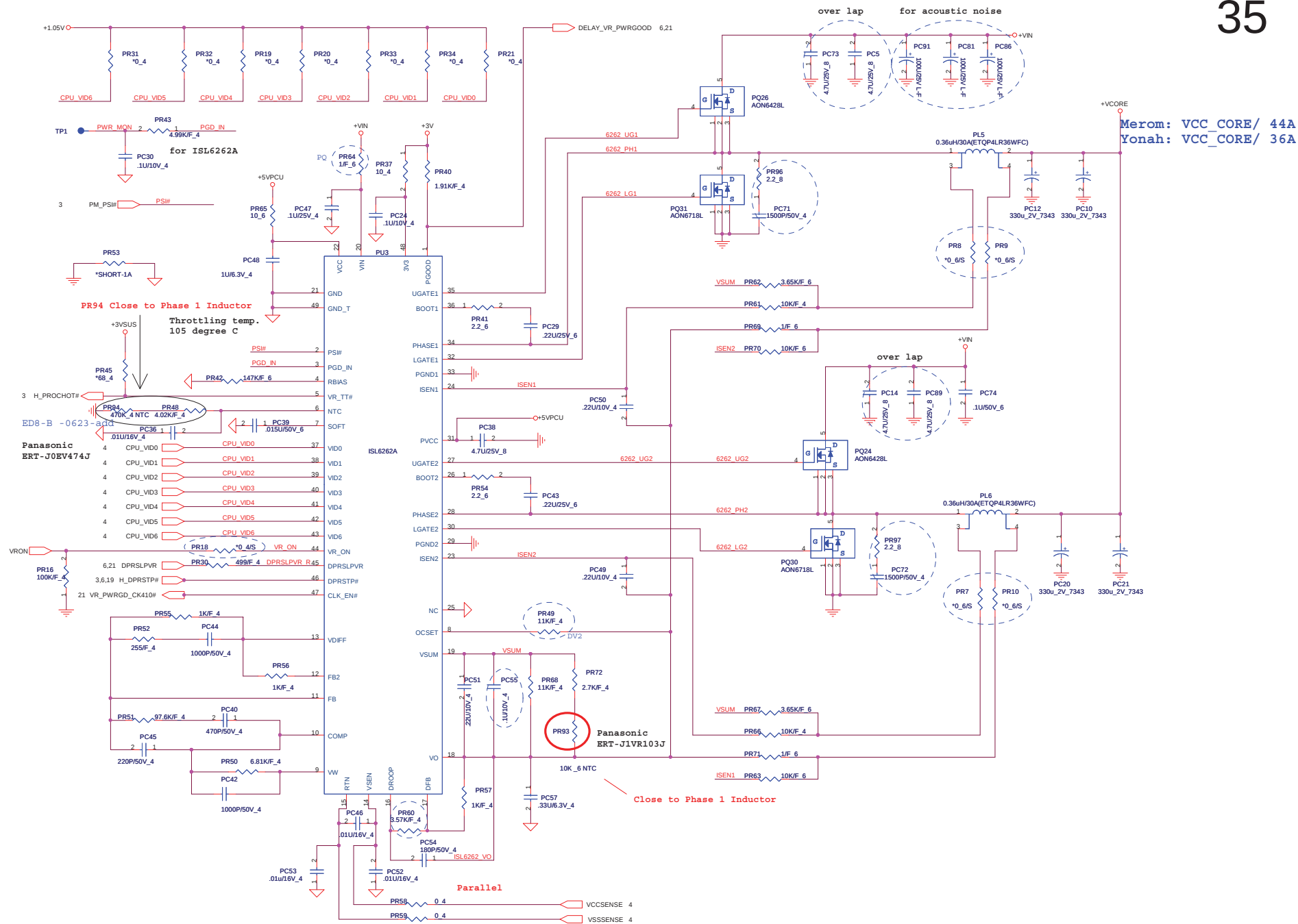
+1.05Volt +/- 5%
 Countinue current:7.5A
 Peak current:10A
 OCP minimum 15A

34



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 Quanta Computer Inc.

Size B	Document Number +1.05V/+1.5V (RT8204)	Rev 4C
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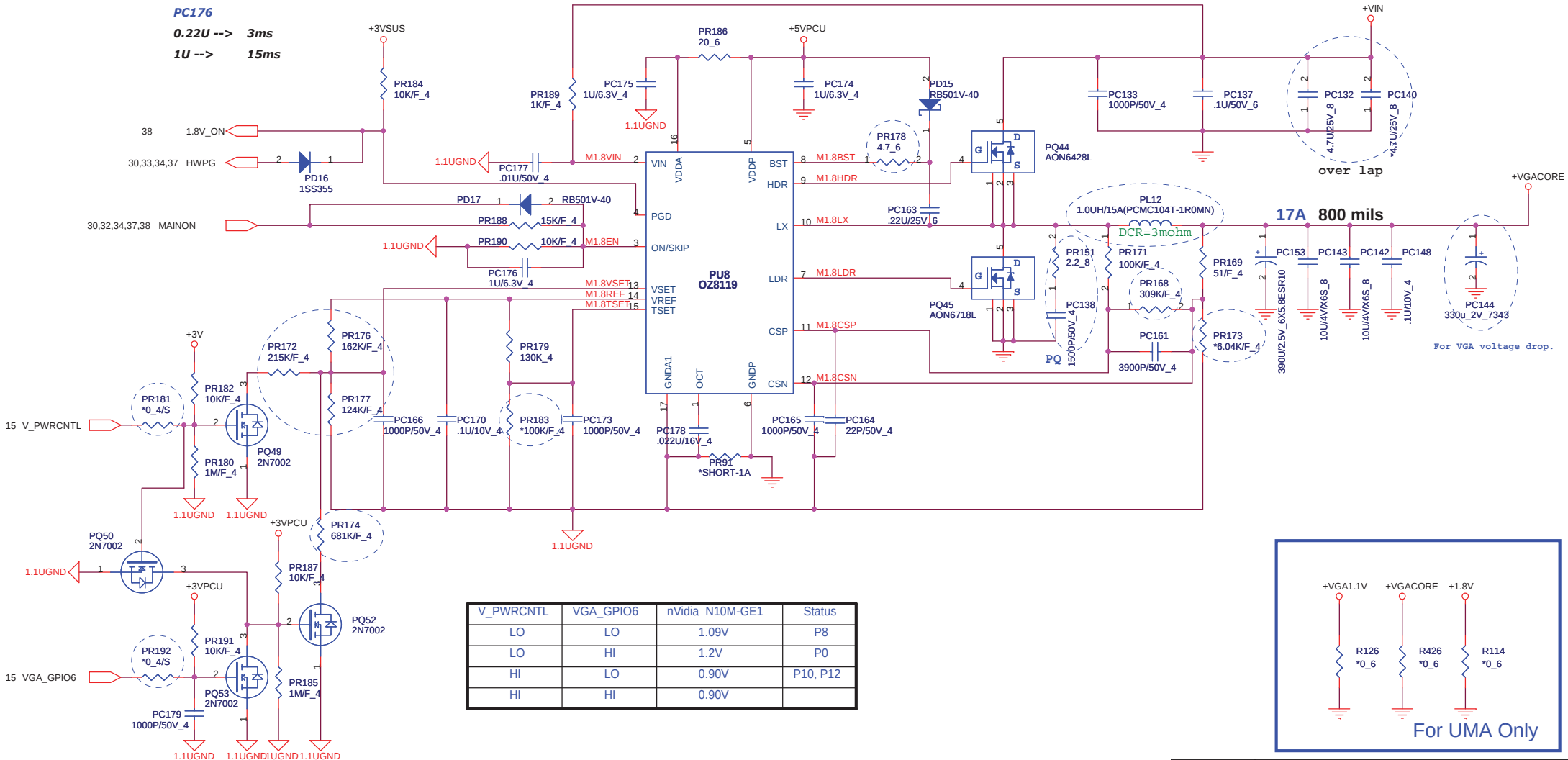
VGA Core & VCC1.1

+1.1Volt +/- 5%
 Countinue current:15A
 Peak current:17A
 OCP minimum 22A

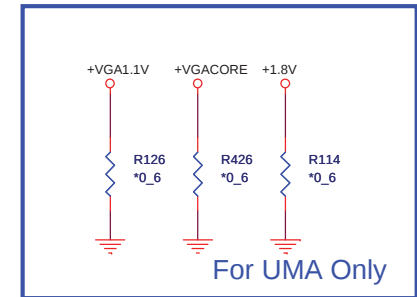
36

PC176

0.22U --> 3ms
 1U --> 15ms

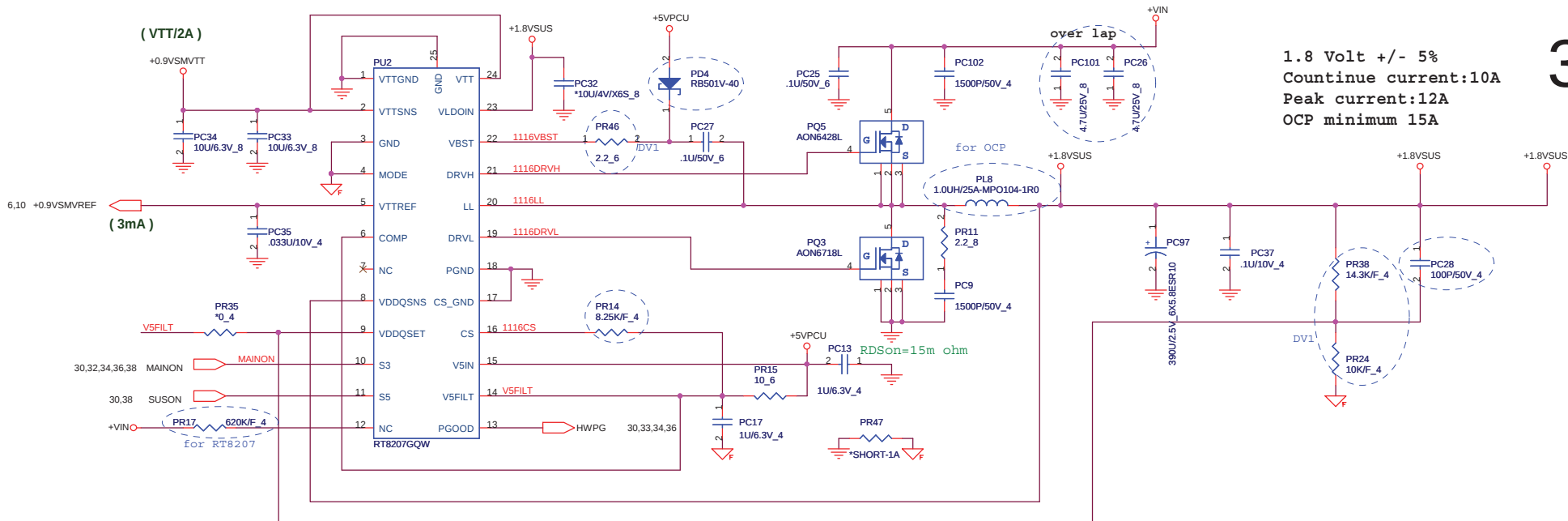


V_PWRCNTL	VGA_GPIO6	nVidia N10M-GE1	Status
LO	LO	1.09V	P8
LO	HI	1.2V	P0
HI	LO	0.90V	P10, P12
HI	HI	0.90V	



PROJECT : Preso-II
 Quanta Computer Inc.

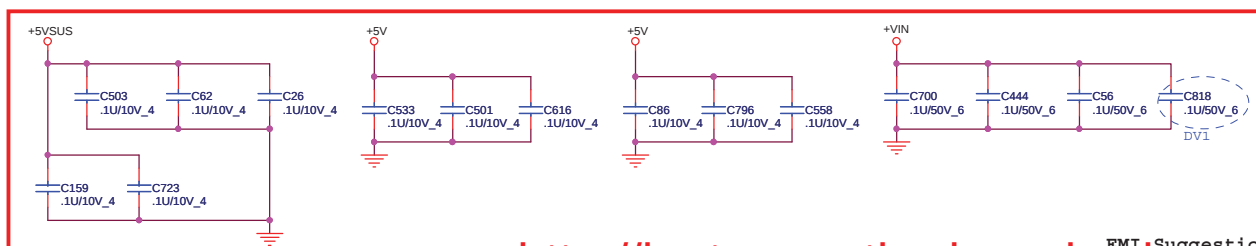
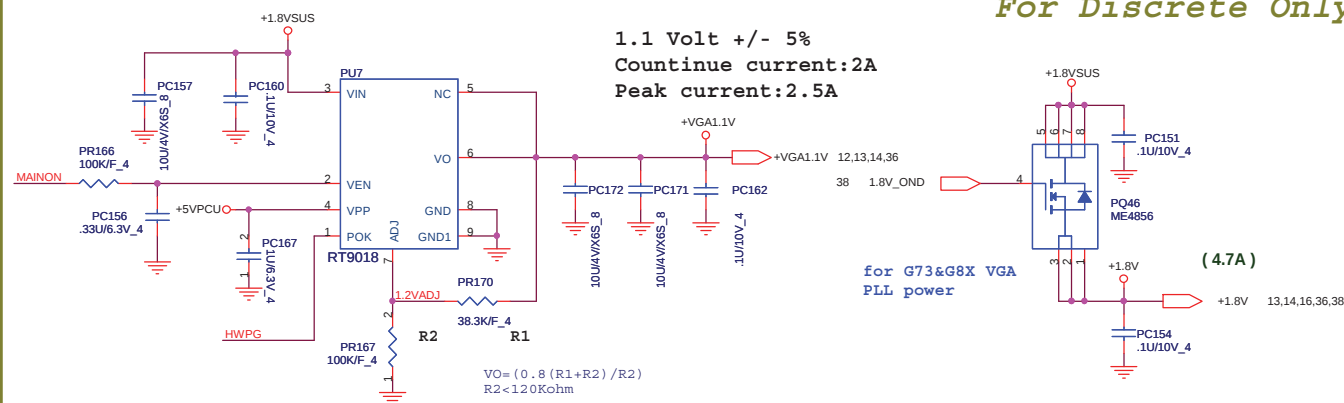
Size	Document Number	Rev
B	VGA CORE OZ8119	4C
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1.8 Volt +/- 5%
 Countinue current:10A
 Peak current:12A
 OCP minimum 15A

For Discrete Only

1.1 Volt +/- 5%
 Countinue current:2A
 Peak current:2.5A

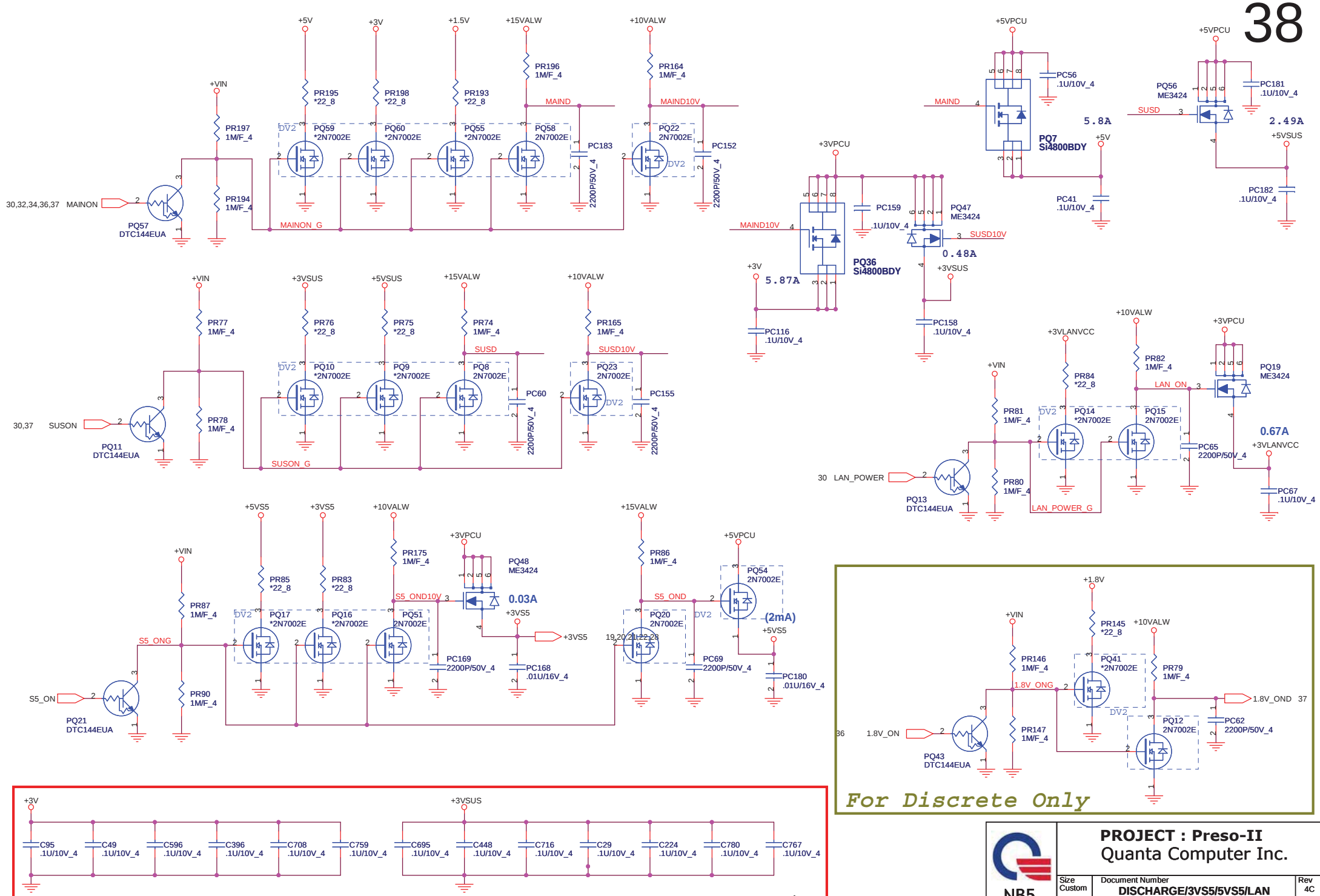


EMI Suggestion



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 Quanta Computer Inc.

Size Custom	Document Number 1.8V/DDR_VTER/+1.8v/+1.1V	Rev 4C
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	Voltage level	AC MODE				DC MODE			
		S0	S3	S4	S5	S0	S3	S4	S5
+3VPCU	3.3V +/- 5%	V	V	V	V	V	V	V	V
+5VPCU	5V +/- 5%	V	V	V	V	V	V	V	V
+3VRTC	3.3V +/- 5%	V	V	V	V	V	V	V	V
+3VS5	3.3V +/- 5%	V	V	V	V	V	V		
+5VS5	5V +/- 5%	V	V	V	V	V	V		
+3VSUS	3.3V +/- 5%	V	V			V	V		
+5VSUS	5V +/- 5%	V	V			V	V		
+1.8VSUS	1.8V +/- 5%	V	V			V	V		
+0.9VSMVTT	0.9V +/- 5%	V	V			V	V		
+1.5V	1.5V +/- 5%	V				V			
+1.05V	1.05V +/- 5%	V				V			
+VCORE	0.9~1.15V	V				V			
+VGA_CORE	0.9~1.2V	V				V			
+VGA1.1V	1.1V +/- 5%	V				V			
+1.8V	1.8V +/- 5%	V				V			
+3VLAVCC	3.3V +/- 5%	V				V			



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Quanta Computer Inc.

Size Custom	Document Number Voltage status	Rev 1A
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