V02A/R01A DIS BLOCK DIAGRAM

PCB STACK UP

8L DIS

- LAYER 1 : TOP
- LAYER 2 : GND
- LAYER 3 : IN1
- LAYER 4 : VCC
- LAYER 5 : IN2
- LAYER 6 : IN3
- LAYER 7 : GND
- LAYER 8 : BOT

DDRIII-SODIMM1 (H=4mm) PAGE 16 — DDRIII 1333 MT/s

DDRIII-SODIMM2 (H=8mm) PAGE 17 — DDRIII 1333 MT/s

CPU
Sandy Bridge 35W
PGA 988
PAGE 4~8

PCIEx16

ATI
Robson XT(64bit)
Seymour XT (64bit)
Whistler LP (128bit)
29mm X 29mm
BGA 969
PAGE 18~22

DDR3 2GB
128Mx16bitx8
PG 23,24

FDI LINK 2.5GT /s

DMI LINK 2.5GT /s

LEVEL SHIFTER PAGE 27 — HDMI CONN PAGE 27

INT HDMI

INT CRT — CRT Board PAGE 26

INT Single CHANNEL LVDS — LCD CONN 1366 x 768 (HD) PAGE 25

iGFX Interfaces

E-SATA PAGE 28 — SATA4 3G /S

SATA -HDD PAGE 31 — SATA0 6G /S

ODD PAGE 36 — SATA1 6G /S

3-axis Fall Sensor PAGE 31 — SMBUS

Mobile Intel
Series 6 Chipset

PCH

HM67
Couger Point

BGA 989
25 mm X 25 mm

PAGE 9~15

ESATA+USB2.0 PAGE 35 — USB[0]

USB Port x1 PAGE 29 — USB[2]

USB2.0

USB[11] — Camera PAGE 30

USB[8] — Card Reader RTL5128-GR PAGE 30

USB[4] — WLAN PAGE 34 — PCIE[1]

USB[5] — WWAN PAGE 35 — PCIE[2]

PCI-E

PCIE[5] — LAN Realtek RTL8111EL PAGE 39 — 25MHz

PCIE[3] — USB3.0 Controller PAGE 36 — USB3.0 Ports x2 PAGE 37

IHDA

RJ45 PAGE 39

IO Board PAGE 33

Audio Codec ALC 269 PAGE 38

Speaker MB Side PAGE 38

Jack X2 PAGE 38

Digital-MIC PAGE 38

Keyboard Conn. PAGE 42

Touch Pad PAGE 42

KBC
ITE 8518
PAGE 32

LPC

SPI

PWM FAN &Thermal PAGE 45

SPI ROM 512KB PAGE 41

SPI ROM 4MB PAGE 41

25MHz

32.768KHz

- Charger PAGE 49
- 3/5V PAGE 50
- 1.5V_SUS/0.75V_DDR PAGE 51
- 1.8V_RUN PAGE 52
- 1.05V_VTT/PCH PAGE 53
- VCCSA PAGE 54
- DGFX_CORE PAGE 55
- CPU_CORE PAGE 56

Quanta Computer Inc.
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Size	Document Number	Rev
	BLOCK DIAGRAM	1A

Date: Wednesday, January 19, 2011 Sheet 1 of 61

power / State					
S0					
S1					
S3					
S4/S5 AC					
S4/S5 DC Only					
AC/DC No Exist					

SMBCLK SMBDATA								
SMB_CLK_ME1 SMB_DAT_ME1								
AB1A_CLK AB1A_DATA								

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PROJECT : V02A/R01A

Size	Document Number	Rev
	Power Rails	1A

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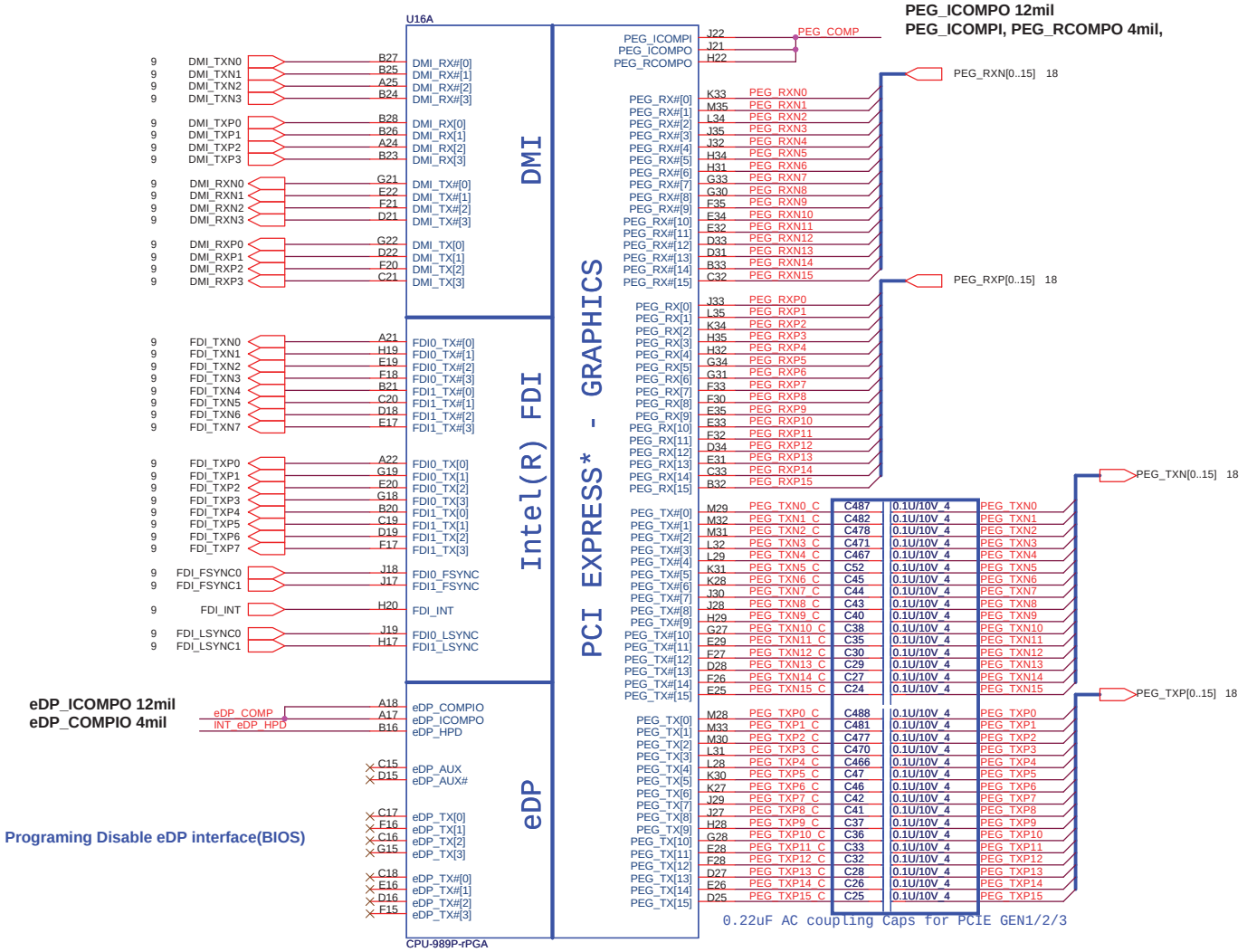
Quanta Computer Inc.

PROJECT : V02A/R01A

Size	Document Number	Rev
	BLANK	1A

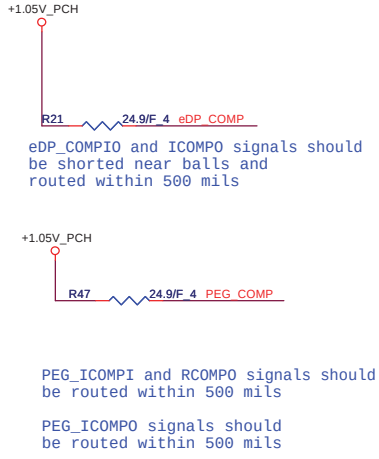
Date: Wednesday, January 19, 2011 Sheet 3 of 61

Sandy Bridge Processor (DMI,PEG,FDI)



Programing Disable eDP interface(BIOS)

DP & PEG Compensation

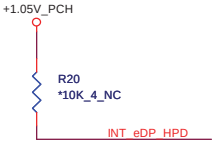


eDP_COMPIO and ICOMPO signals should be shorted near balls and routed within 500 mils

PEG_ICOMPI and RCOMPO signals should be routed within 500 mils

PEG_ICOMPO signals should be routed within 500 mils

eDP Hot-plug (Disable)



CAD Note: Place PU resistor within 2 inches of CPU

This signal can be left as no connect if entire eDP interface is disabled.

Quanta Computer Inc.			
PROJECT : V02A/R01A			
Size	Document Number: Sandy Bridge 1/5		Rev 1A
Date: Wednesday, January 19, 2011	Sheet 4 of 61		

Sandy Bridge Processor (CLK,MISC,JTAG)

U16B

SNB_IVB# N.A at SNB EDS #27637 0.7v1

12 H_SNB_IVB# — H_SNB_IVB# — C26 PROC_SELECT#

32 H_CPUDET# — AN34 SKTOCC#

MISC

AL33 CATERR#

32 PECI_EC — R73 43_4 — AN33 PECI

32,44,47 IMVP7_PROCHOT# — R77 56/J_4 — H_PROCHOT# AL32 PROCHOT#

Over 130 degree C will drive low

14 PM_THRMTRIP# — AN32 THERMTRIP#

THERMAL

9 H_PM_SYNC — AM34 PM_SYNC

14 H_PWRGOOD — AP33 UNCOREPWRGOOD

R231 10K_4

SM_DRAMPWROK — V8 SM_DRAMPWROK

+1.05V_PCH — R81 *75_4_NC

CPU_PLTRST# — R82 *43/J_4_NC CPU_PLTRST#_R — AR33 RESET#

PWR MANAGEMENT

CPU-989P-rPGA

CLOCKS

BCLK A28 — CLK_CPU_BCLKP 13

BCLK# A27 — CLK_CPU_BCLKN 13

DPLL_REF_CLK A16 CLK_DP_P_R — R310 1K_4 — R306 *0_4_NC — CLK_DP_P 13

DPLL_REF_CLK# A15 CLK_DP_N_R — R307 *0_4_NC — CLK_DP_N 13

R311 1K_4 — +1.05V_PCH

DDR3 MISC

SM_DRAMRST# — R8 CPU_DRAMRST#

SM_RCOMP[0] AK1 — SM_RCOMP_0 R66 140/F_4

SM_RCOMP[1] A5 — SM_RCOMP_1 R23 25.5/F_4

SM_RCOMP[2] A4 — SM_RCOMP_2 R26 200/F_4

SM_RCOMP_0, SM_RCOMP_1 20mil
SM_RCOMP_2 15mil,

JTAG & BPM

PRDY# AP29

PREQ# AP27

TCK AR26 XDP_TCLK

TMS AR27 XDP_TMS

TRST# AP30 XDP_TRST# R322 51/J_4

TDI AR28 XDP_TDI

TDO AP26 XDP_TDO

DBR# AL35 XDP_DBRST# R319 1K_4 — +3.3V_RUN

BPM#[0] AT28

BPM#[1] AR29

BPM#[2] AR30

BPM#[3] AT30

BPM#[4] AP32

BPM#[5] AR31

BPM#[6] AT31

BPM#[7] AR32

+1.05V_PCH

XDP_TMS R333 51/J_4

XDP_TDI R328 51/J_4

XDP_TDO R334 51/J_4

IMVP7_PROCHOT# R76 62/J_4

XDP_TCLK R335 51/J_4

XDP_DBRST# use a 1k pull-up to 3.3V_S

TRST# use a 51ohm pull down.

When MP, JTAG PU/PD resistor can be removed?
Need to confirm with Intel

Schematic C/L_v1.0, P56 (PU,PD 1k/J) (Intel and PD3)
Reserve (Intel confirm now)

CPU_PLTRST	R497,R126	U19,C544,R81,R82
Option1	POP	NC
Option2	NC	POP

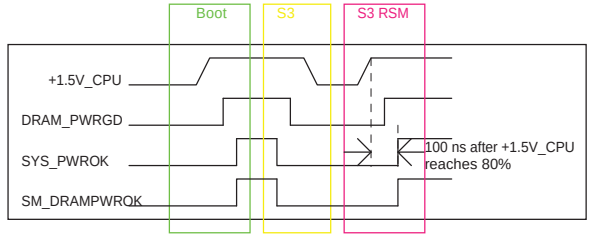
+3.3V_SUS — C544 *0.1U/10V_NC

U19 NC VCC IN GND OUT *74LVC1G07GW_NC

12,18,32,33,35 PLTRST# — R497 1.5K — CPU_PLTRST#

CPU_PLTRST#_R — R126 750/F

IN	OUT
L	L
H	High-Z



Change OD part same with PDC

Copy from PDC

+3.3V_SUS — R118 200_4 — C156 0.1U/10V

+1.5V_CPU — R109 200/F_4

9 PM_DRAM_PWRGD

9 SYS_PWROK

U4 74AHC1G09GW

SM_DRAMPWROK_R — R108 130/F_4 — SM_DRAMPWROK

R110 *39_NC — Q10 *2N7002K_NC — PS_S3CNTRL 7,16

Pin1	Pin2	Pin4
L	L	L
L	H	L
H	L	L
H	H	H

Follow #DG1.0 436735 P105
DDR Power Gating Topology

Follow #DG1.0 436735 P107
DRAMRST# Routing Illustration

+1.5V_SUS — R51 1K/F_4

R45 1K/F_4

16,17 DDR3_DRAMRST# — DDR3_DRAMRST#_R

Q2 2N7002W-7-F — CPU_DRAMRST#

13 DDR_HVREF_RST_PCH

R43 4.99K/F_4

C39 0.047U/10V

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PROJECT : V02A/R01A

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	Sandy Bridge 2/5	1A

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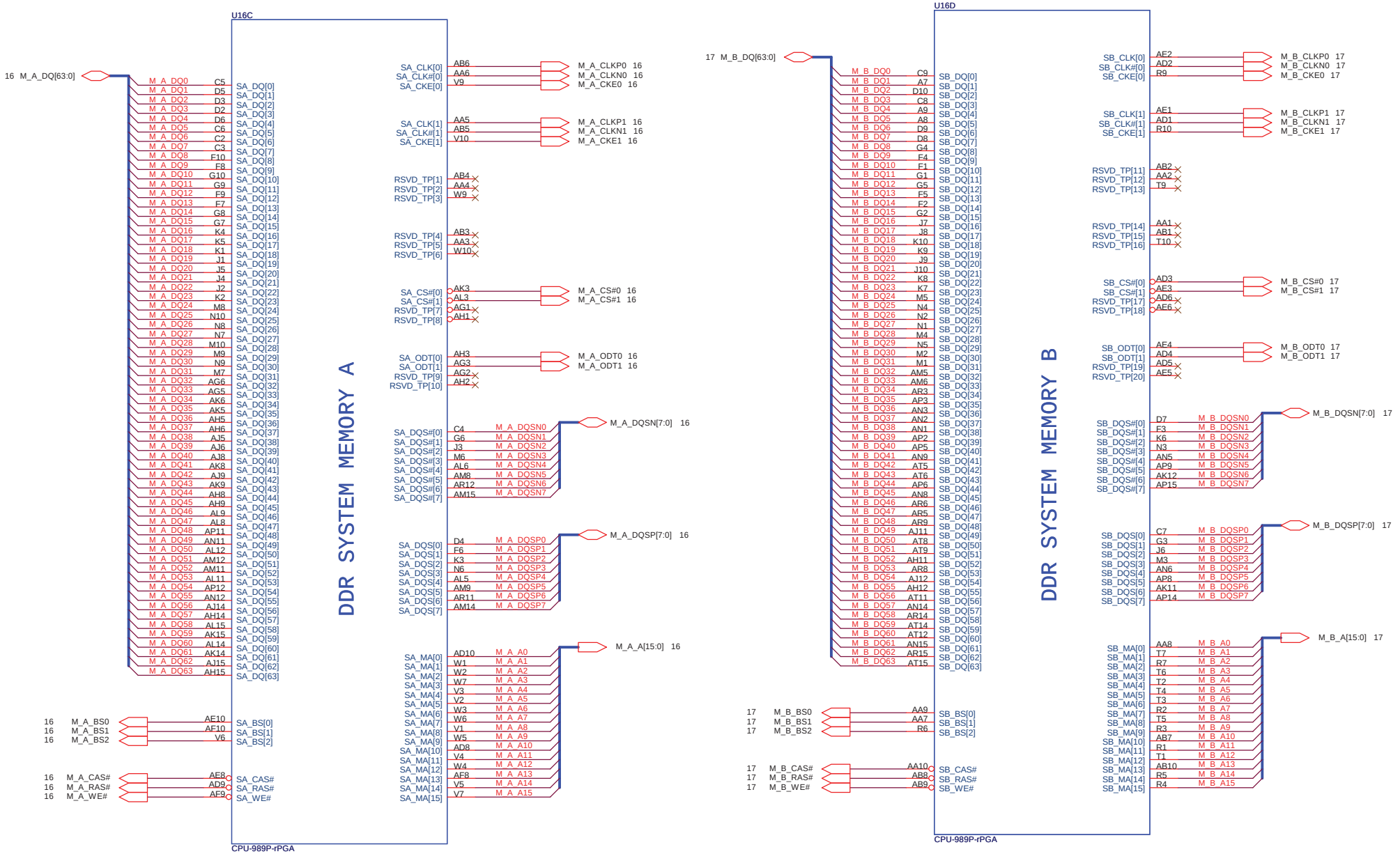
Sandy Bridge Processor (DDR3)



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PROJECT : V02A/R01A

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	Sandy Bridge 3/5	1A

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Sandy Bridge Processor (POWER)

Sandy Bridge Processor (GRAPHIC POWER)

CPU Core Power
SNB 35W:55A
10uF x 24

CPU VTT
SNB 35W:8.5A
10F x12

CPU VGT
SNB 35W:22A
10uF x 12

CPU MCH
SNB 35W: 5A
10uF x 6

CPU SA
SNB35W: 6A
10uF x 3

CPU VCCPL
SNB 35W:3A
10uF x 1
1uF x 2

POWER
CORE SUPPLY
PEG AND DDR
SVID
SENSE LINES
GRAPHICS
VREF
DDR3 -1.5V RAILS
SA RAIL
1.8V RAIL
MISC

CPU-989P-rPGA

CAD Note: +VDDR_REF_CPU should have 10 mil trace width

S3 Power reduce

Take care Q3509 Vgs(MAX)=2.5

Change R8281,R8285, R8704,R8329 to +/-5%
54.9 ohm has no 5%

Layout note: need routing together and ALERT need between CLK and DATA

SVID CLK
Close to VR
Place PU resistor close to CPU
SVID DATA
Close to VR
Place PU resistor close to CPU
SVID ALERT

Quanta Computer Inc.
PROJECT :V02A/R01A

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	Sandy Bridge 4/5	1A
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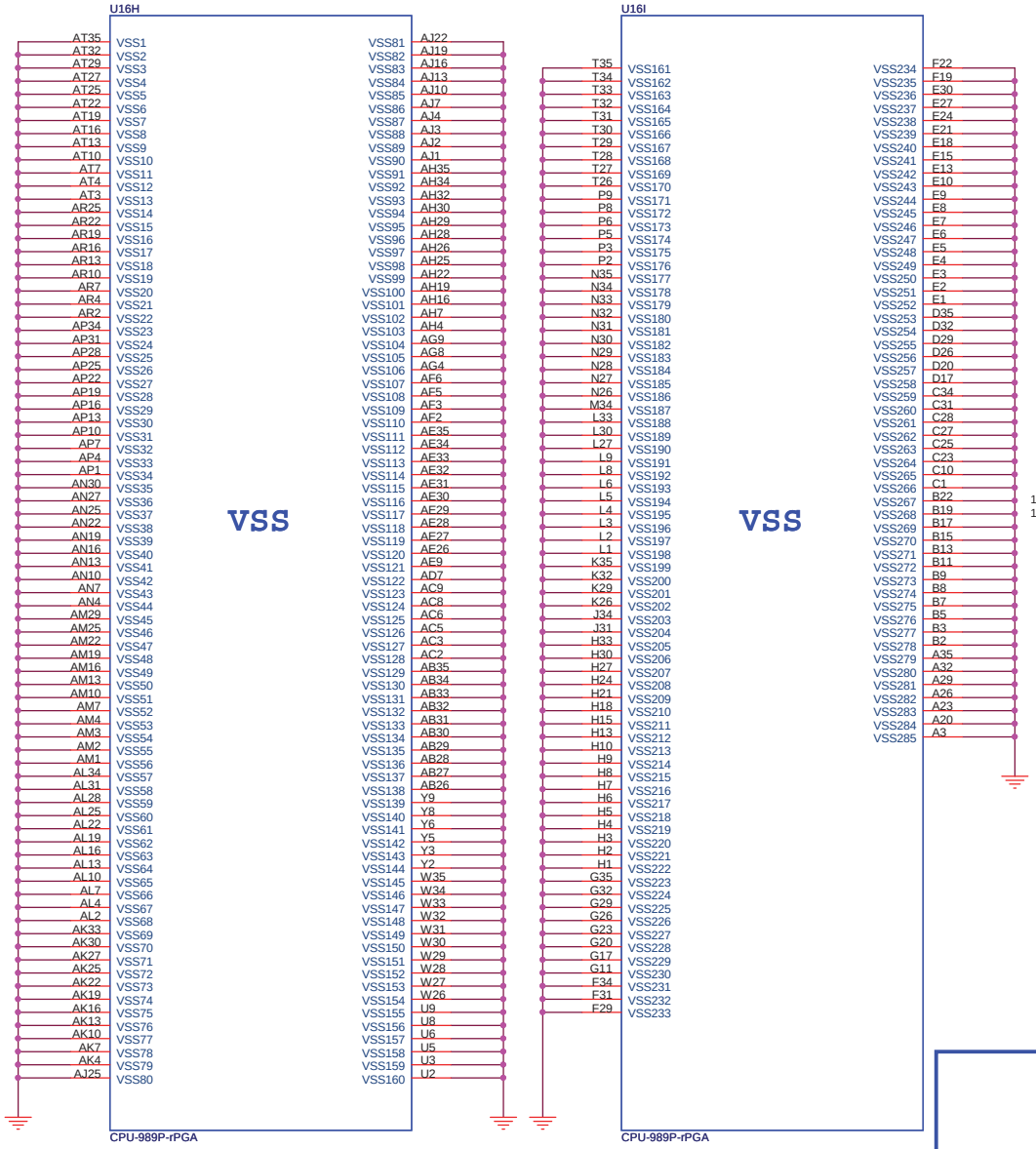
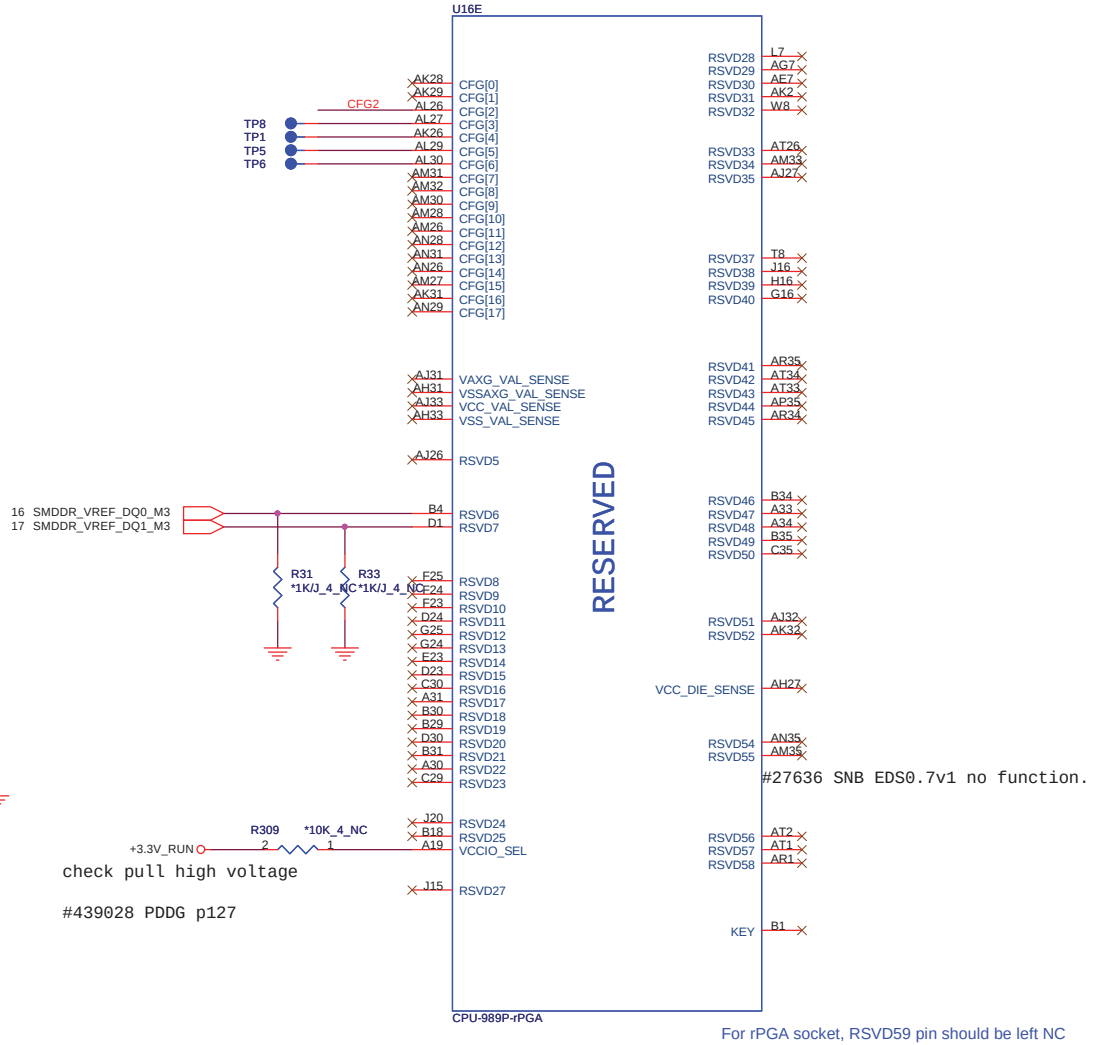
Sandy Bridge Processor (GND)



Sandy Bridge Processor (RESERVED, CFG)



check pull high voltage

#439028 PDDG p127

#27636 SNB EDS0.7v1 no function.

For rPGA socket, RSVD59 pin should be left NC

CFG[6:5] (PCIE Port Bifurcation Straps)

11: (Default) x16 - Device 1 functions 1 and 2 disabled
10: x8, x8 - Device 1 function 1 enabled ; function 2 disabled
01: Reserved - (Device 1 function 1 disabled ; function 2 enabled)
00: x8,x4,x4 - Device 1 functions 1 and 2 enabled

Processor Strapping

The CFG signals have a default value of '1' if not terminated on the board.

	1	0
CFG2 (PCI-E Static x16 Lane Reversal)	Normal Operation	Lane Reversed
CFG3 (PCI-E Static x4 Lane Reversal)	Normal Operation	Lane Reversed
CFG4 (DP Presence Strap)	Disable; No physical DP attached to eDP	Enable; An ext DP device is connected to eDP

CFG2 R106 1K/F_4

Quanta Computer Inc.

PROJECT : V02A/R01A

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	Sandy Bridge 5/5	1A

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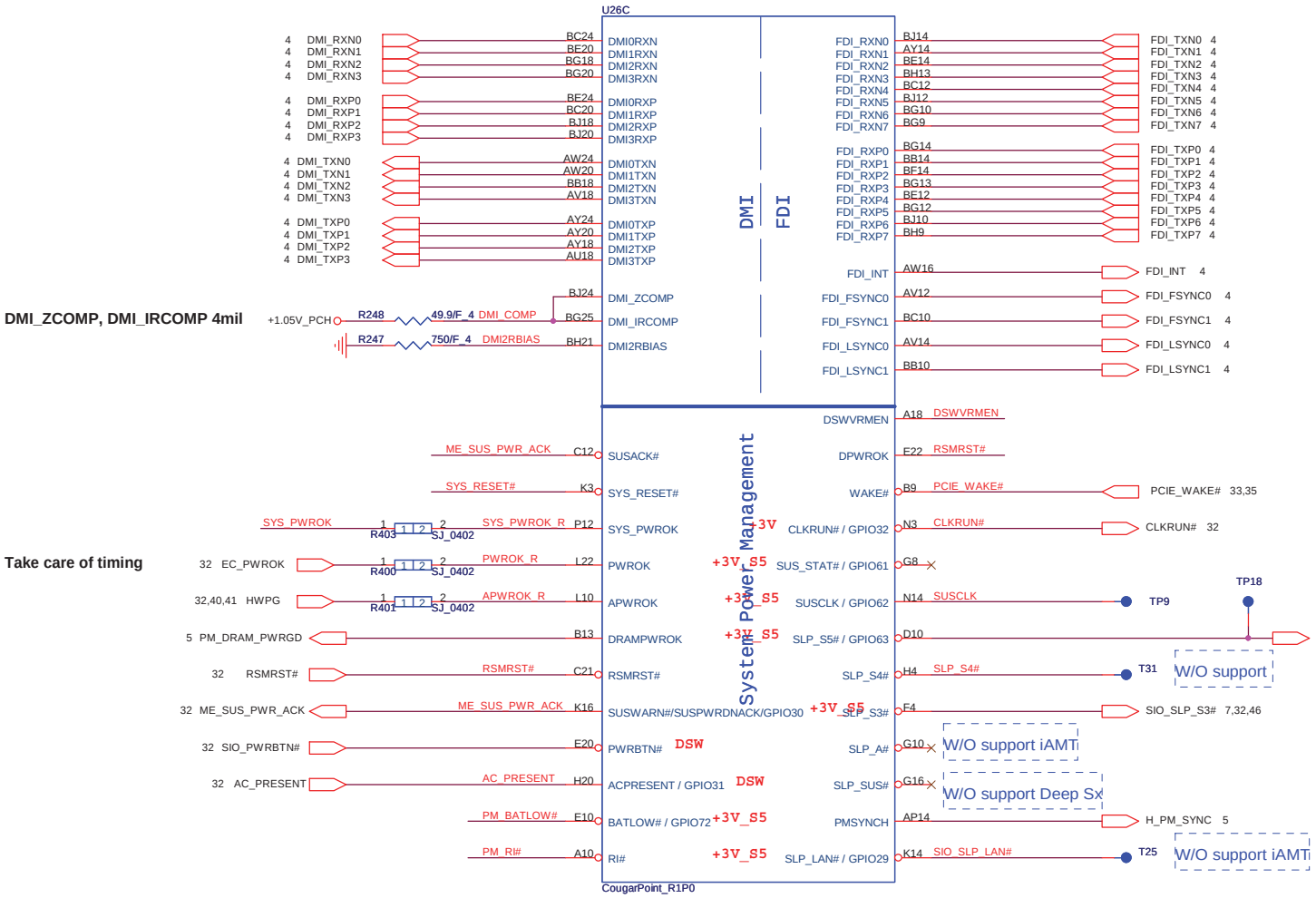
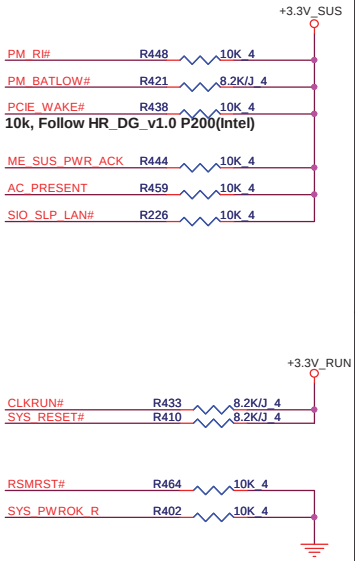
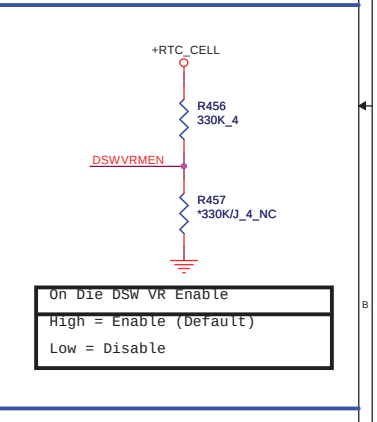
Cougar Point (DMI,FDI,PM)

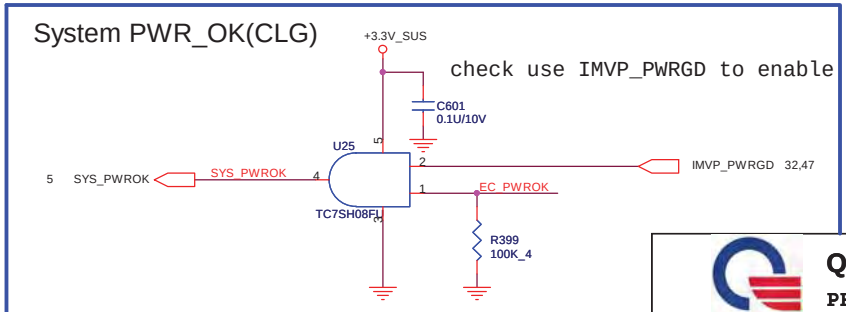


PCH Pull-high/low(CLG)





System PWR_OK(CLG)



Quanta Computer Inc.		
PROJECT : V02A/R01A		
Size	Document Number: Cougar Point 1/7	Rev 1A
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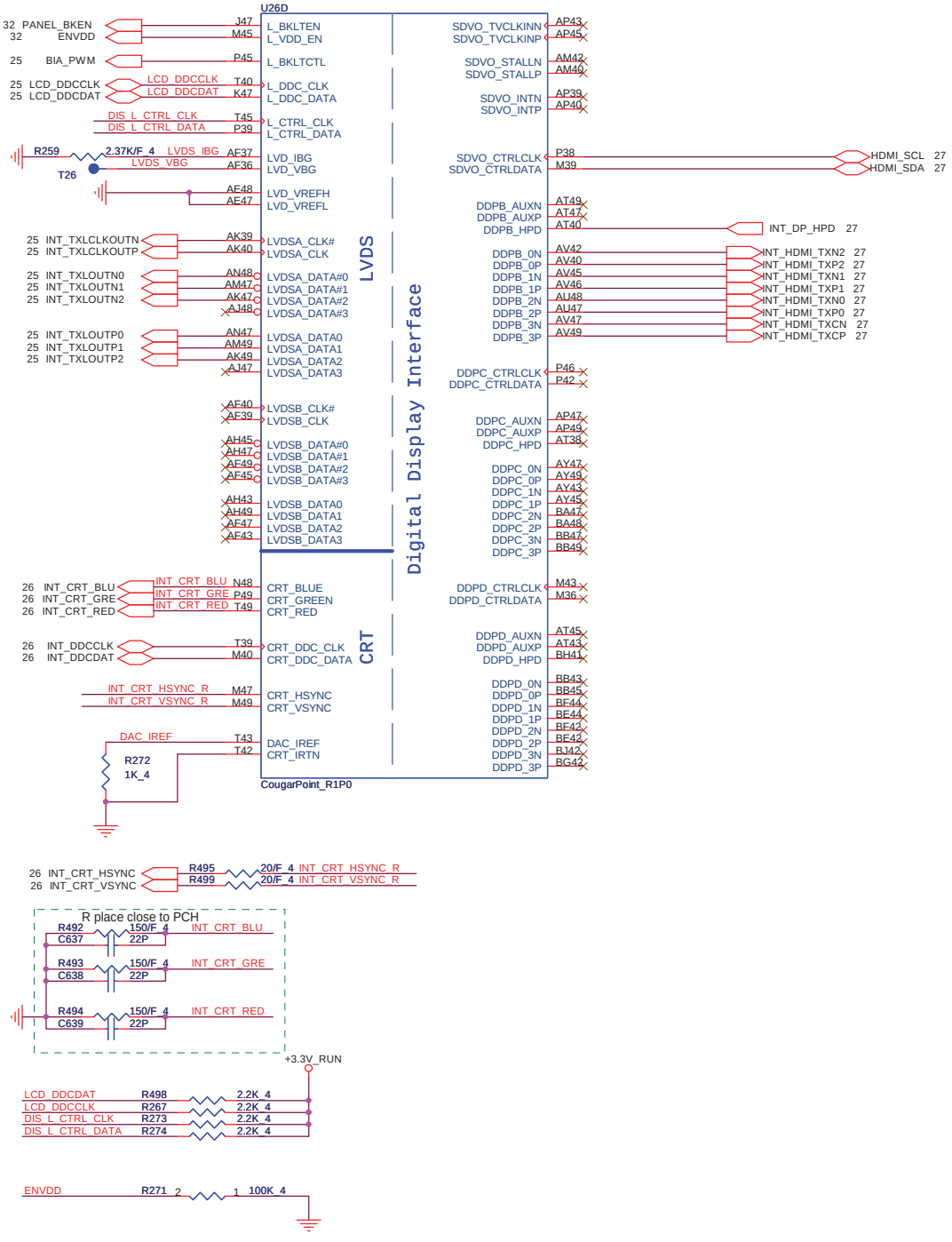
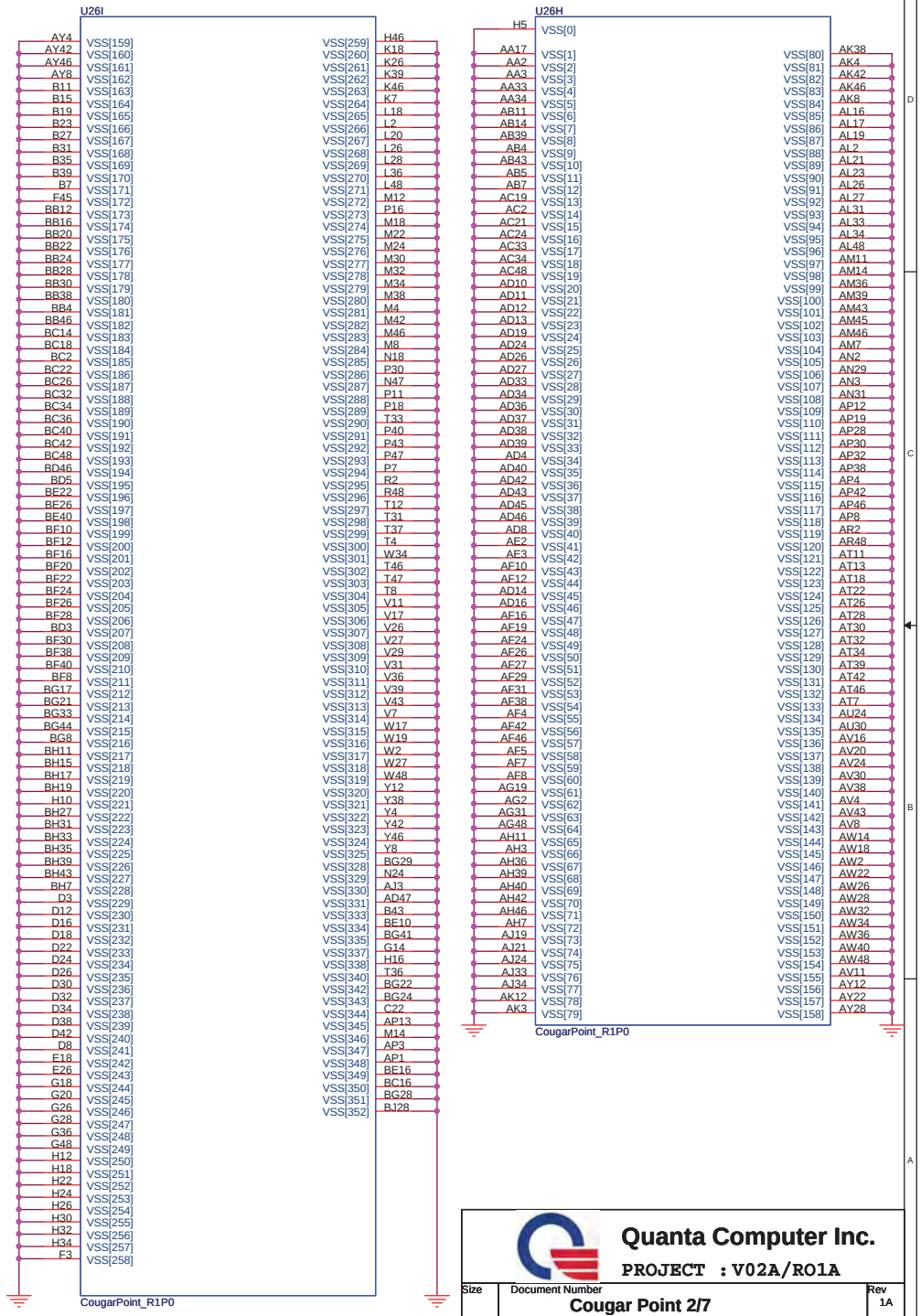
Cougar Point (LVDS,DDI)



Cougar Point (GND)



Quanta Computer Inc.

PROJECT : V02A/R01A

Size	Document Number	Rev
	Cougar Point 2/7	1A

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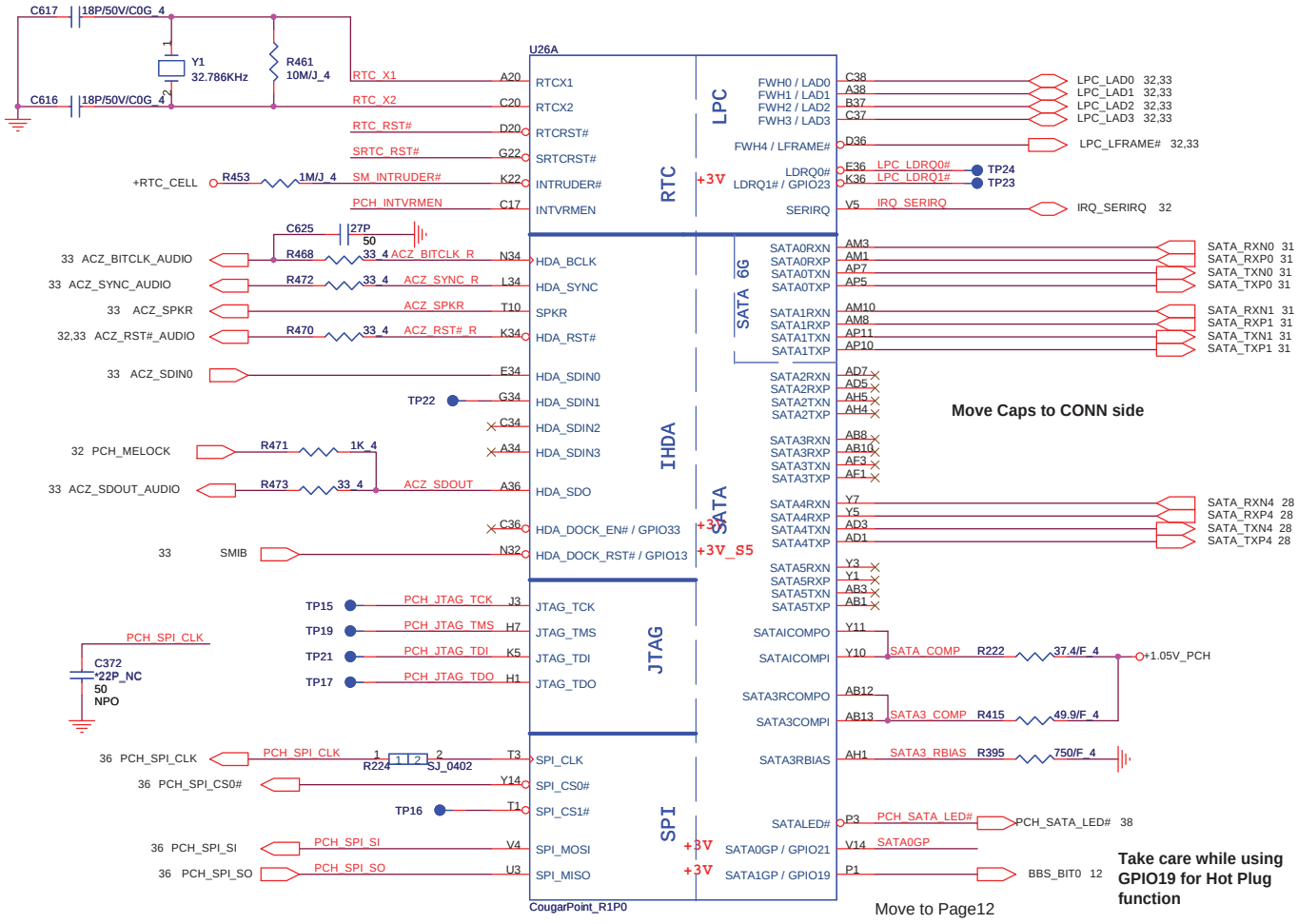
Cougar Point (HDA,JTAG,SATA)



SATA HDD/SSD

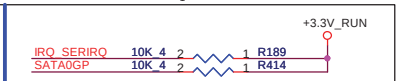
SATA ODD

ESATA

Move Caps to CONN side

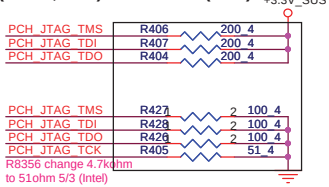
Take care while using GPIO19 for Hot Plug function

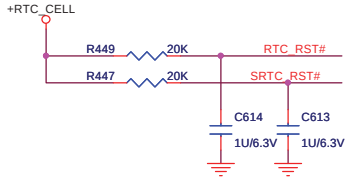
Move to Page12



PCH JTAG Debug (CLG)

5% fine (Intel), 210->200 (PDDG, Intel) MP remove(Intel)





PCH Strap Table

Pin Name	Strap description	Sampled	Configuration	note
SPKR	No reboot mode setting	PWROK	0 = Default (weak pull-down 20K) 1 = Setting to No-Reboot mode	+3.3V_SUS R413 *1K_4_NC ACZ_SPKR
HDA_SDO	Flash Descriptor Security	PWROK	0 = Default (weak pull-down 20K) 1 = Override	+3.3V_SUS R474 *1K_4_NC ACZ_SDOUT
Del 0510			Remove SPI_MOSI from PCH strapping, HR_C/L_v0.91	
INTVRMEN	Integrated 1.05V VRM enable	ALWAYS	Should be always pull-up	+RTC_CELL R455 330K_4 PCH_INTVRMEN
HDA_SYNC	On-Die PLL VR Volatge Select	RSMRST	0 = Support by 1.8V (weak PD) 1 = Support by 1.5V	+3.3V_SUS R469 1K_4 ACZ_SYNC_R

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	Cougar Point 3/7	1A

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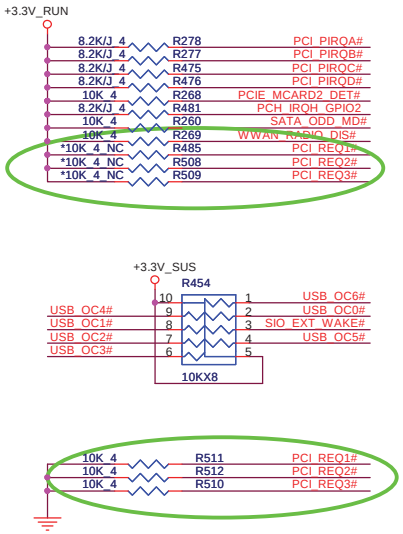
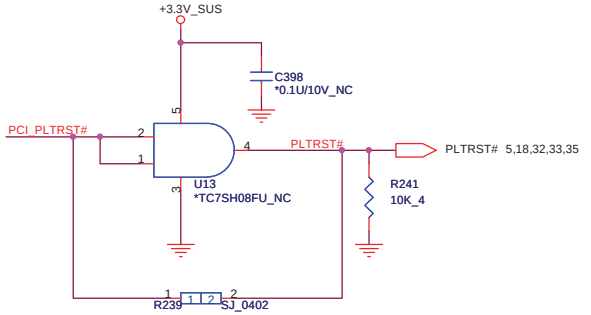
Cougar Point-M (PCI,USB,NVRAM)

PCI/USBOC# Pull-up(CLG)



PLTRST#(CLG)



Pin Name	Strap description	Sampled	Configuration
GNT2# / GPIO53	ESI strap (Server only)	PWROK	Should not be pull-down (weak pull-up 20K)
GNT3# / GPIO55	Top-Block Swap Override	PWROK	0 = "top-block swap" mode 1 = Default (weak pull-up 20K)
GNT1# / GPIO51	Boot BIOS Selection 1 [bit-1]	PWROK	Bit 0 / Bit 1 / Boot Location 1 / 1 / SPI * 0 / 0 / LPC
GPIO19	Boot BIOS Selection 0 [bit-0]	PWROK	
DF_TVS	DMI and FDI Tx/Rx Termination Voltage	PWROK	weak pull-down 20kohm

BBS_BIT1 R496 *1K_4_NC
11 BBS_BIT0 R394 *1K_4_NC

Default weak pull-up on GNT0/1# [Need external pull-down for LPC BIOS]

R420 2.2K_4 +1.8V_RUN
R424 SJ_0402 DF_TVS 14
H_SNB_IVB# 5

CheckList_1.0 p58; HR_v1.0 p450

Quanta Computer Inc.
PROJECT : V02A/R01A

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	Cougar Point 4/7	1A

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Cougar Point-M (PCI-E,SMBUS,CLK)

U26B

WLAN
WWAN
USB 3.0
LAN
Express card
Card reader
WLAN
WWAN
USB3.0
LAN
Express card
XDP

PCI-E*
SMBUS
Controller Link
CLOCKS
FLEX CLOCKS

CougarPoint_R1P0

	Configurable as a GPIO or as a programmable output clock which can be configured as one of the following:
CLKOUTFLEX0 /GPIO64	• 33 /27 /48/ 14.318 MHz / DC Output logic '0'
CLKOUTFLEX1 /GPIO65	unsupported clock output value (Default) / 27/ 14.318 MHz output to SIO/EC /48/24 MHz
CLKOUTFLEX2 /GPIO66	• 33/25/27/48/24/14.318 MHz / DC Output logic '0'
CLKOUTFLEX3 /GPIO67	• 27/14.318 output to SIO/48/24 MHz (Default)

SMBus/Pull-up(CLG)

CLK_REQ/Strap Pin(CLG)

Stuff for Integrated CLK Gen Mode

Quanta Computer Inc.
PROJECT : V02A/R01A

Size	Document Number	Rev
	Cougar Point 5/7	1A
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Cougar Point (GPIO,VSS_NCTF,RSVD)

Pin Name	Strap description	Sampled	Configuration
GPIO28	On-die PLL Voltage Regulator	RSMRST#	0 = Disable 1 = Enable (Default)

R214 *1K_4_NC PLL_ODVR_EN

change to GPIO14 (Aaron)

DO NOT program this pin (BIOS)

Add Description in EC GPIO table (keyboard controller reset)

Chack When Symbol Update (OK)

GPIO Pull-up/Pull-down(CLG)

+3.3V_SUS
ICC_EN# R450 10K_4
LAN_PHY_PWR_CTRL R419 10K_4

+3.3V_RUN
SIO_EXT_SMI# R483 10K_4
SIO_EXT_SCI# R477 10K_4
SIO_A20GATE R194 10K_4
SIO_RCIN# R389 10K_4
USB_MCARD2_DET# R430 10K_4
USB_MCARD1_DET# R429 10K_4
BT_RADIO_DIS# R431 10K_4
FFS_INT2 R216 *10K_4_NC
PCIE_MCARD1_DET# R482 10K_4
DGPU_HOLD_RST# R213 *10K_4_NC
ROUSH_PAID_TS_DET# R451 10K_4
GPIO22 R215 10K_4
DGPU_PWR_EN R434 10K_4

Can be del

+3.3V_SUS R417 *10K_4_NC SV_DET R418 100K_4

Have to Reserve

+3.3V_SUS
HOST_ALERT#1 R425 1K_4

Intel ME Crypto Transport Layer Security (TLS) cipher suite
Low = Disable (Default)
High = Enable

GPIO36 R221 200K +3.3V_RUN

DMI TERMINATION VOLTAGE OVERRIDE
Low = Tx, Rx terminated to same voltage (DC Coupling Mode) (DEFAULT)

SGPIO Confirm with Intel

BMBUSY#:(Intel feedback)
Follow CRB checklist, 1K is for intel BIOS validation purpose.

BMBUSY# R220 10K_4 +3.3V_RUN

BMBUSY#:
If not used, require a weak pull-up (8.2- KΩ to 10 kΩ) to Vcc3_3.
CRB(V1.0)P28: it has 1K PU and 100 ohm on this net for validation purpose.

MFG-TEST

WLAN_RADIO_DIS# R412 10K_4 +3.3V_RUN

Quanta Computer Inc.
PROJECT : V02A/R01A

Size	Document Number	Rev
	Cougar Point 6/7	1A
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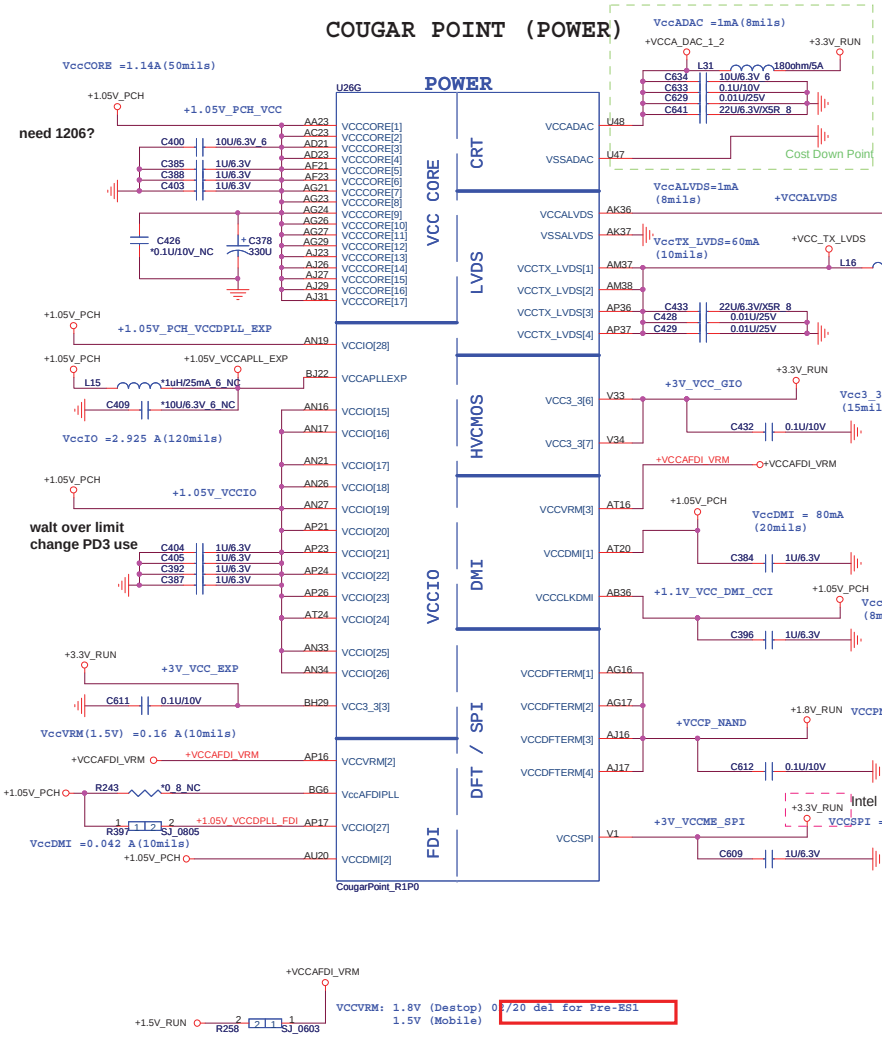
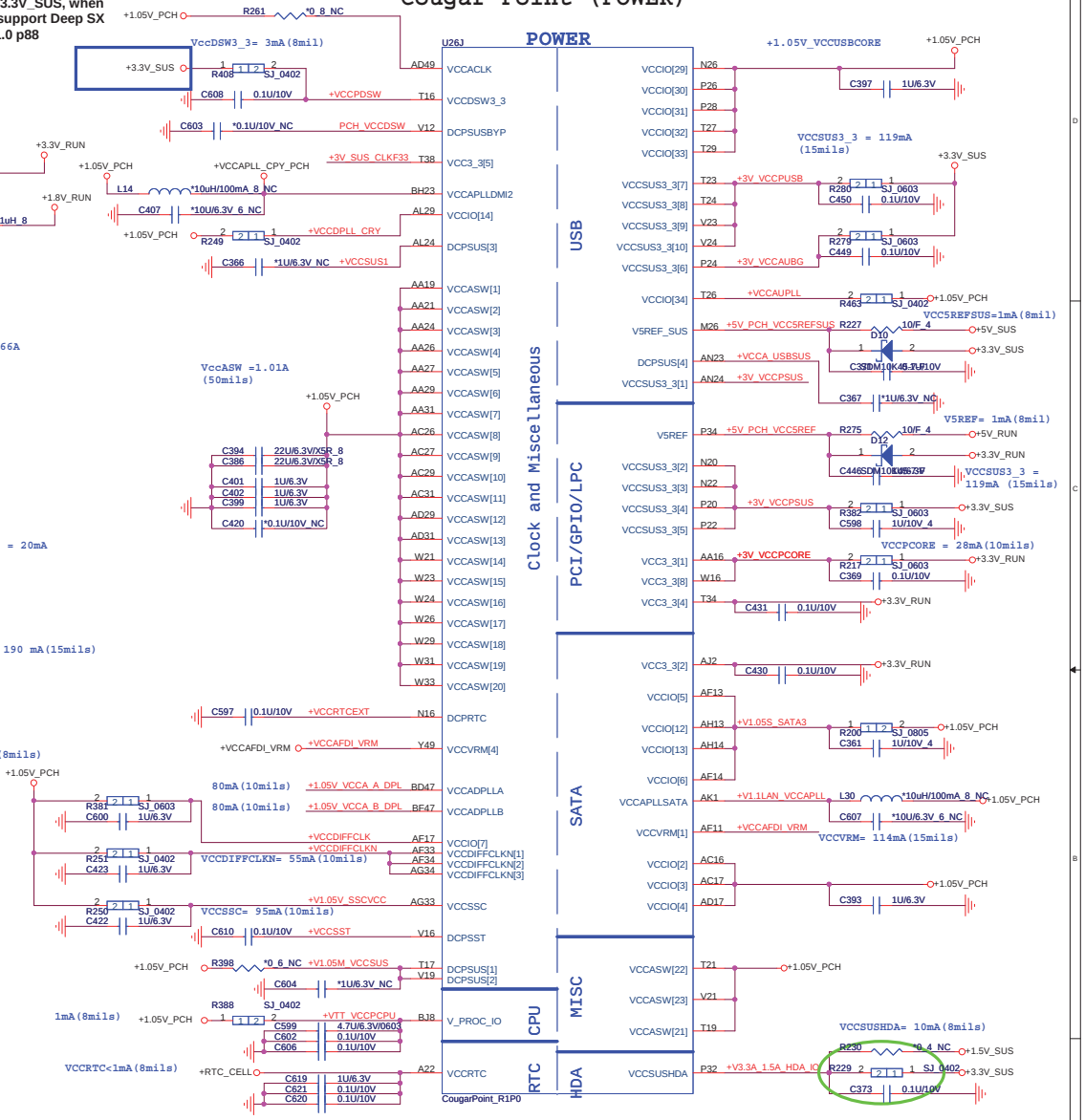
COUGAR POINT (POWER)

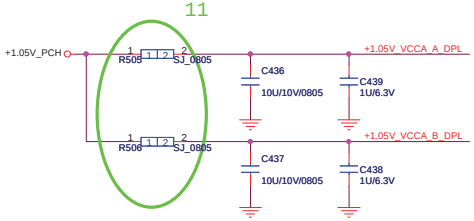


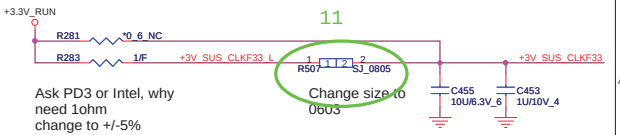
Tie to 3.3V_SUS, when don't support Deep SX CP_v1.0 p88

Cougar Point (POWER)



Ask PD3, Why leave so many 0 ohm for VCCIO?





Quanta Computer Inc.		
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H=8mm,RVS

SO-DIMMA_SPD Address is 0XA0
SO-DIMMA TS Address is 0X30
Still Support?

JDIM1A

PC2100 DDR3 SDRAM SO-DIMM (204P)

DDR3-DIMM0

JDIM1B

PC2100 DDR3 SDRAM SO-DIMM (204P)

DDR3-DIMM0

S3 Power reduce

+0.75V_DDR_VTT
R154 22_4
2N7002W-7-F
Q14
PS_S3CNTRL 5,7

M1 VREF

Place these Caps near So-Dimm0.

Some Projects replace 10UF 0805 by 4.7UF 0603 11/6
It can cost down 30%

For RF noise

For RF noise

Quanta Computer Inc.	
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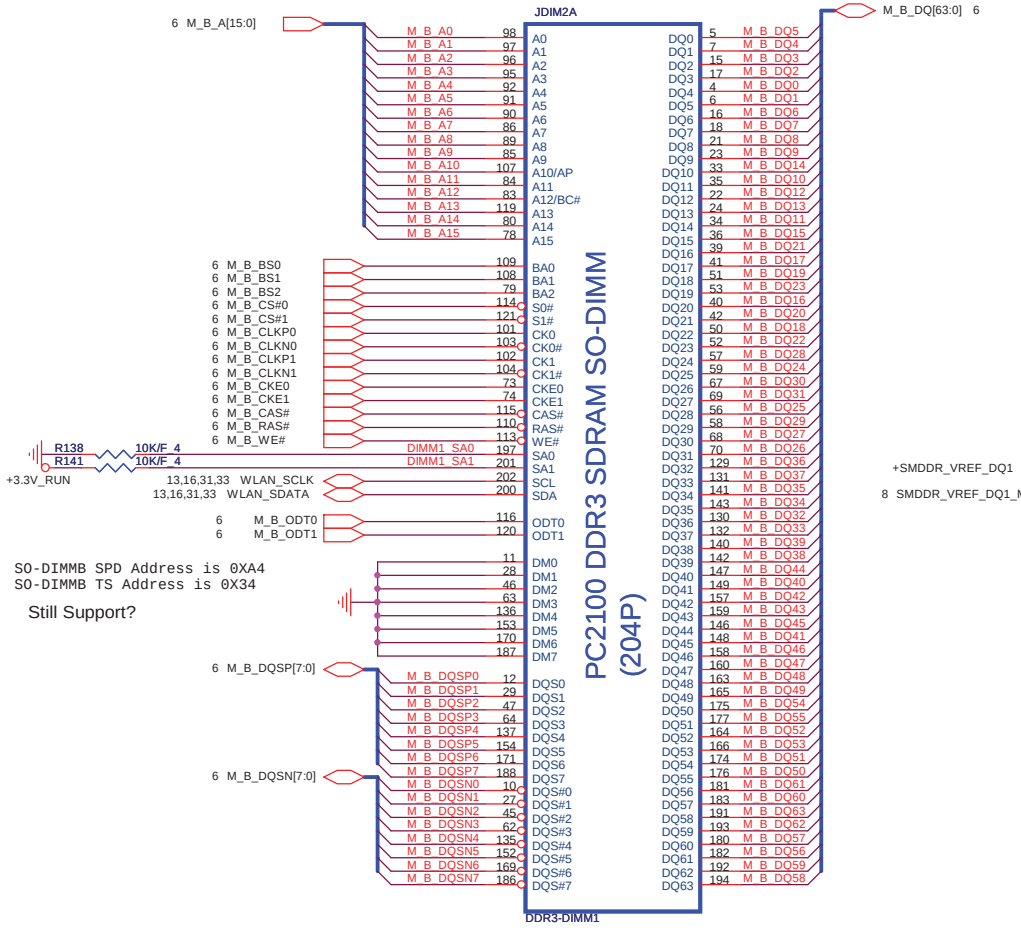
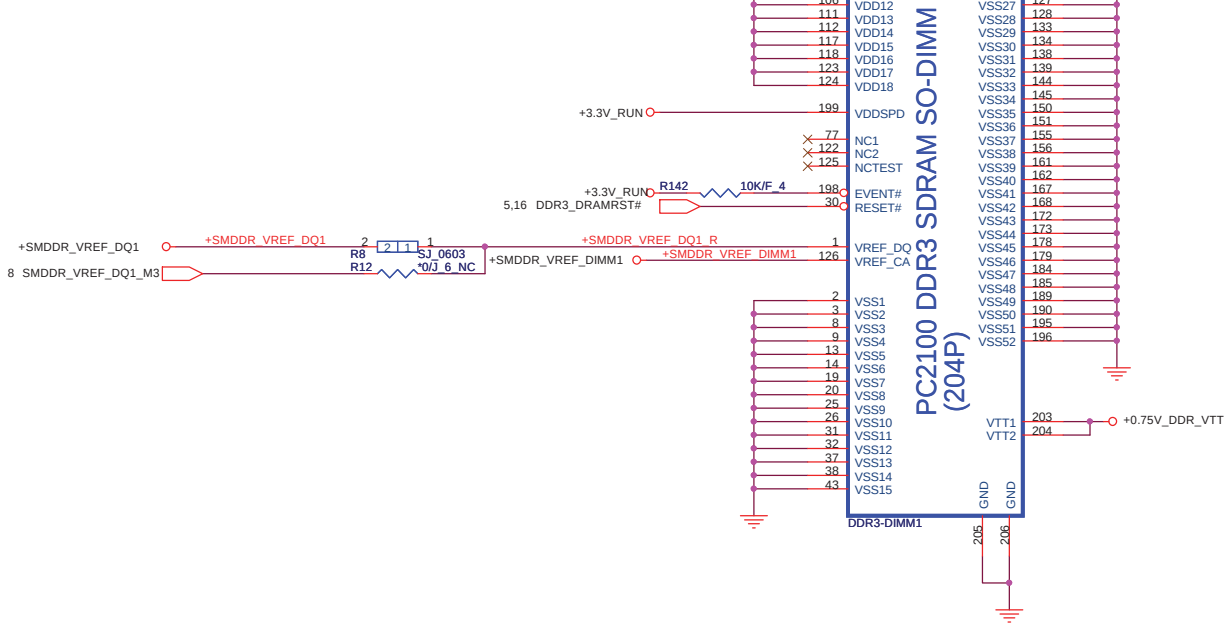
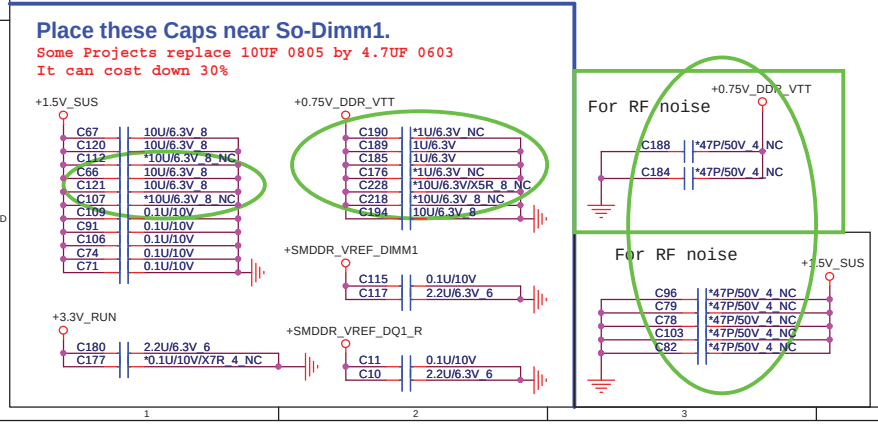
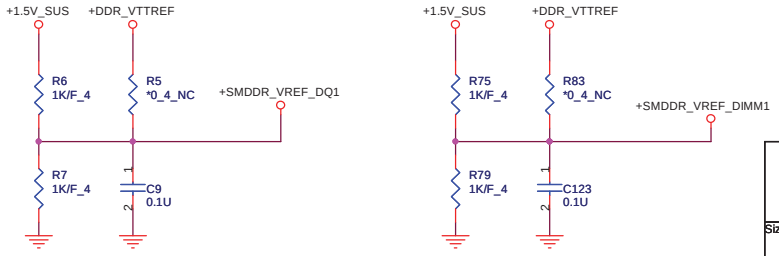
H=4mm,RVS









Quanta Computer Inc.

PROJECT : V02A/R01A

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	DDR3 DIMM-1	1A

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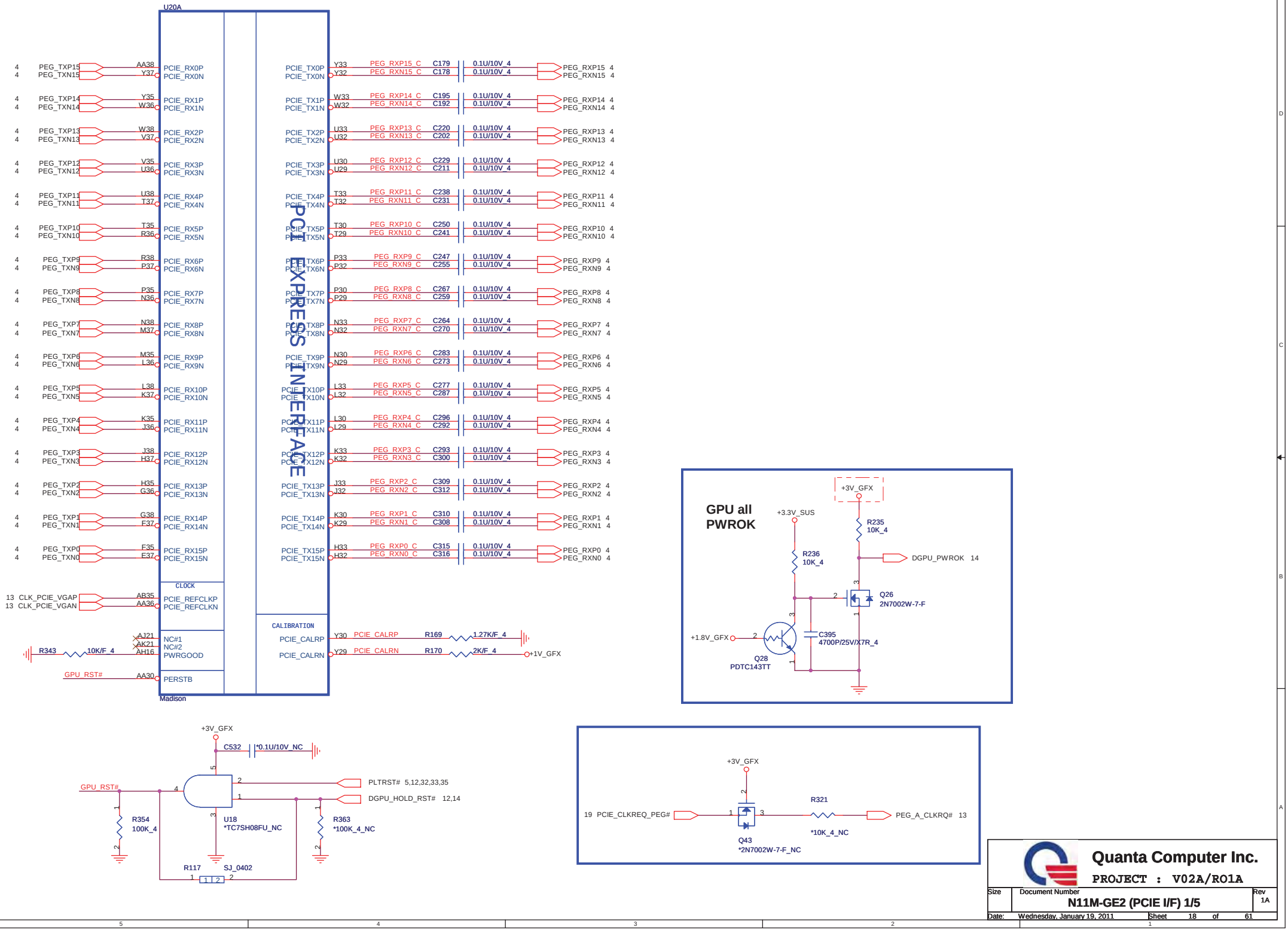
U20A
PCI EXPRESS INTERFACE
PCIE_RX0P
PCIE_RX0N
PCIE_RX1P
PCIE_RX1N
PCIE_RX2P
PCIE_RX2N
PCIE_RX3P
PCIE_RX3N
PCIE_RX4P
PCIE_RX4N
PCIE_RX5P
PCIE_RX5N
PCIE_RX6P
PCIE_RX6N
PCIE_RX7P
PCIE_RX7N
PCIE_RX8P
PCIE_RX8N
PCIE_RX9P
PCIE_RX9N
PCIE_RX10P
PCIE_RX10N
PCIE_RX11P
PCIE_RX11N
PCIE_RX12P
PCIE_RX12N
PCIE_RX13P
PCIE_RX13N
PCIE_RX14P
PCIE_RX14N
PCIE_RX15P
PCIE_RX15N
PCIE_TX0P
PCIE_TX0N
PCIE_TX1P
PCIE_TX1N
PCIE_TX2P
PCIE_TX2N
PCIE_TX3P
PCIE_TX3N
PCIE_TX4P
PCIE_TX4N
PCIE_TX5P
PCIE_TX5N
PCIE_TX6P
PCIE_TX6N
PCIE_TX7P
PCIE_TX7N
PCIE_TX8P
PCIE_TX8N
PCIE_TX9P
PCIE_TX9N
PCIE_TX10P
PCIE_TX10N
PCIE_TX11P
PCIE_TX11N
PCIE_TX12P
PCIE_TX12N
PCIE_TX13P
PCIE_TX13N
PCIE_TX14P
PCIE_TX14N
PCIE_TX15P
PCIE_TX15N
CLOCK
PCIE_REFCLKP
PCIE_REFCLKN
NC#1
NC#2
PWRGOOD
PERSTB
CALIBRATION
PCIE_CALRP
PCIE_CALRN
Madison
PEG_TXP15
PEG_TXN15
PEG_TXP14
PEG_TXN14
PEG_TXP13
PEG_TXN13
PEG_TXP12
PEG_TXN12
PEG_TXP11
PEG_TXN11
PEG_TXP10
PEG_TXN10
PEG_TXP9
PEG_TXN9
PEG_TXP8
PEG_TXN8
PEG_TXP7
PEG_TXN7
PEG_TXP6
PEG_TXN6
PEG_TXP5
PEG_TXN5
PEG_TXP4
PEG_TXN4
PEG_TXP3
PEG_TXN3
PEG_TXP2
PEG_TXN2
PEG_TXP1
PEG_TXN1
PEG_TXP0
PEG_TXN0
CLK_PCIE_VGAP
CLK_PCIE_VGAN
R343
10K/F_4
GPU_RST#
PEG_RXP15_C
PEG_RXN15_C
PEG_RXP14_C
PEG_RXN14_C
PEG_RXP13_C
PEG_RXN13_C
PEG_RXP12_C
PEG_RXN12_C
PEG_RXP11_C
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PEG_RXP3_C
PEG_RXN3_C
PEG_RXP2_C
PEG_RXN2_C
PEG_RXP1_C
PEG_RXN1_C
PEG_RXP0_C
PEG_RXN0_C
C179
C178
C195
C192
C220
C202
C229
C211
C238
C231
C250
C241
C247
C255
C267
C259
C264
C270
C283
C273
C277
C287
C296
C292
C293
C300
C309
C312
C310
C308
C315
C316
0.1U/10V_4
PEG_RXP15
PEG_RXN15
PEG_RXP14
PEG_RXN14
PEG_RXP13
PEG_RXN13
PEG_RXP12
PEG_RXN12
PEG_RXP11
PEG_RXN11
PEG_RXP10
PEG_RXN10
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PEG_RXP3
PEG_RXN3
PEG_RXP2
PEG_RXN2
PEG_RXP1
PEG_RXN1
PEG_RXP0
PEG_RXN0
PCIE_CALRP
R169
1.27K/F_4
PCIE_CALRN
R170
2K/F_4
+1V_GFX
GPU all PWROK
+3V_GFX
+3.3V_SUS
R235
10K_4
R236
10K_4
DGPU_PWROK 14
Q26
2N7002W-7-F
+1.8V_GFX
C395
4700P/25V/X7R_4
Q28
PDTC143TT
+3V_GFX
C532
*0.1U/10V_NC
GPU_RST#
PLTRST# 5,12,32,33,35
DGPU_HOLD_RST# 12,14
R354
100K_4
U18
*TC7SH08FU_NC
R363
*100K_4_NC
R117
SJ_0402
+3V_GFX
19 PCIE_CLKREQ_PEG#
R321
*10K_4_NC
PEG_A_CLKRQ# 13
Q43
*2N7002W-7-F_NC
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N11M-GE2 (PCIE I/F) 1/5
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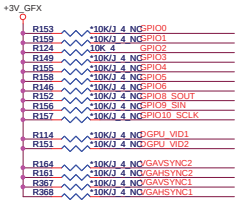
CONFIGURATION STRAPS

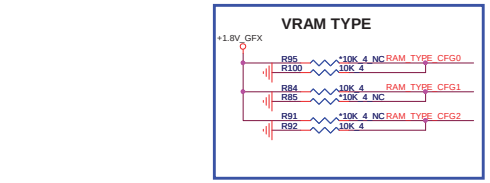
STRAPS	PIN	DESCRIPTION	SET
TX_PWRS_ENB	GPIO0	PCIE FULL TX OUTPUT SWING 0 = 50% Tx output swing 1 = Full Tx output swing	0
TX_DEEMPH_EN	GPIO1	PCIE TRANSMITTER DE-EMPHASIS ENABLED 0 = Disable ; 1 = Enable	0
BIF_GEN2_EN_A	GPIO2	0 = Advertises the PCIe device as 2.5 GT/s capable at power-on. 1 = Advertises the PCIe device as 5.0 GT/s capable at power-on.	1
GPIO_5_AC_BATT (M96-M2)	GPIO5	1 = AC (Performance mode) 0 = Battery saving mode	0
VGA_DIS	GPIO9	0: VGA Controller capacity enabled 1: The device will not be recognized as the system's VGA controller	0
BIOS_ROM_EN	GPIO22	Enable external BIOS ROM device 0 = Disable ; 1 = Enable	0
AUD[1] AUD[0]	VGAHSYNC VGAVSYNC	AUD[1:0]: 00 - No audio function; 01 - Audio for DisplayPort only; 10 - Audio for DisplayPort and HDMI if dongle is detected; 11 - Audio for both DisplayPort and HDMI.	00
VIP_DEVICE_STRAP_EN	BIOS_ROM_EN	VIP Device Strap Enable 0 = Disable ; 1 = Enable	0

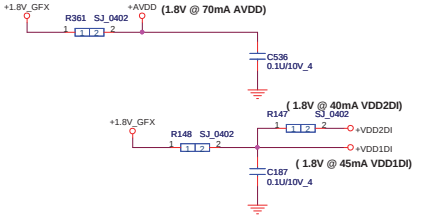
APERTURE SIZE

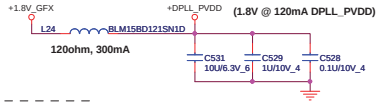
MEMORY APERTURE SIZE SELECT

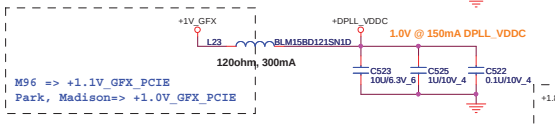
MEMORY SIZE	CFG2 GPIO13	CFG1 GPIO12	CFG0 GPIO11
128MB	0	0	0
256MB	0	0	1
64MB	0	1	0

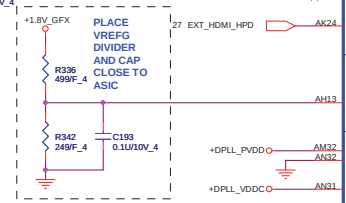


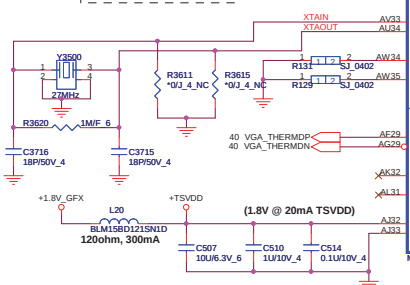


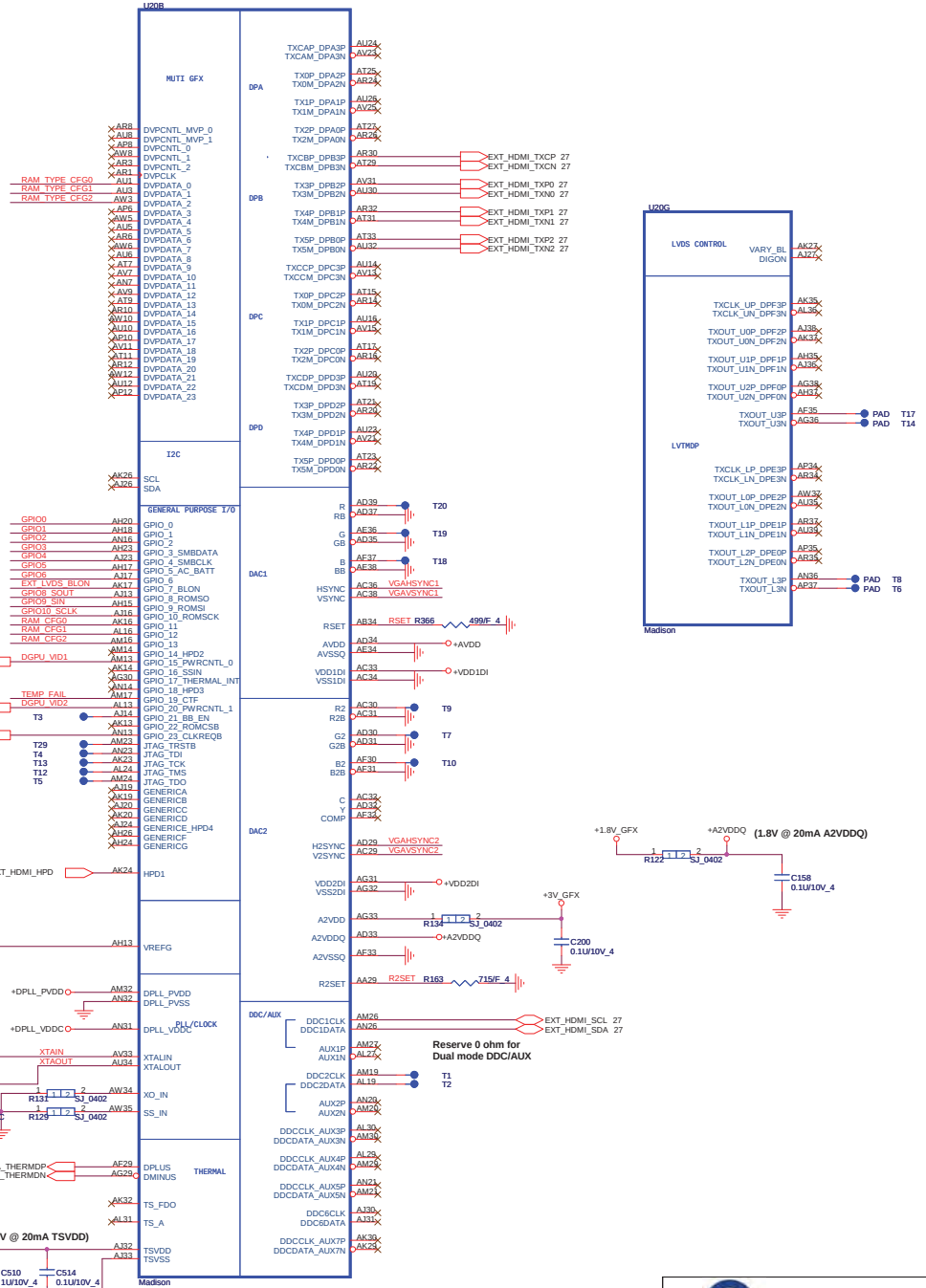












Memory Straps	RAM_TYPE _CFG2	RAM_TYPE _CFG1	RAM_TYPE _CFG0	Quanta PN (QuantaBuy)	Vendor PN	Support GPU
900MHz Samsung 1GB(128M*16*4pcs)	0	0	1	AKD5MGWT507	K4W2G1646C-HC11	For Robson XT (Only Channel B)
900MHz Hynix 1GB(128M*16*4pcs)	0	1	0	AKD5MGWTW06	H5TQ2G63BFR-11C	For Robson XT (Only Channel B)

Memory Straps	RAM_TYPE _CFG2	RAM_TYPE _CFG1	RAM_TYPE _CFG0	Quanta PN (QuantaBuy)	Vendor PN	Support GPU
900MHz Samsung 1GB(64M*16*8pcs)	0	0	1	AKD5LGHT505	K4W1G1646E-HC11	For Whisler-LP
900MHz Hynix 1GB(64M*16*8pcs)	0	1	0	AKD5LZWTW07	H5TQ1G63DFR-11C	For Whisler-LP
900MHz Samsung 1GB(64M*16*8pcs)	1	0	0	AKD5EGGT500	K4W1G1646G-BC11	For Whisler-LP

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	Madison_IO&STRAP	1A

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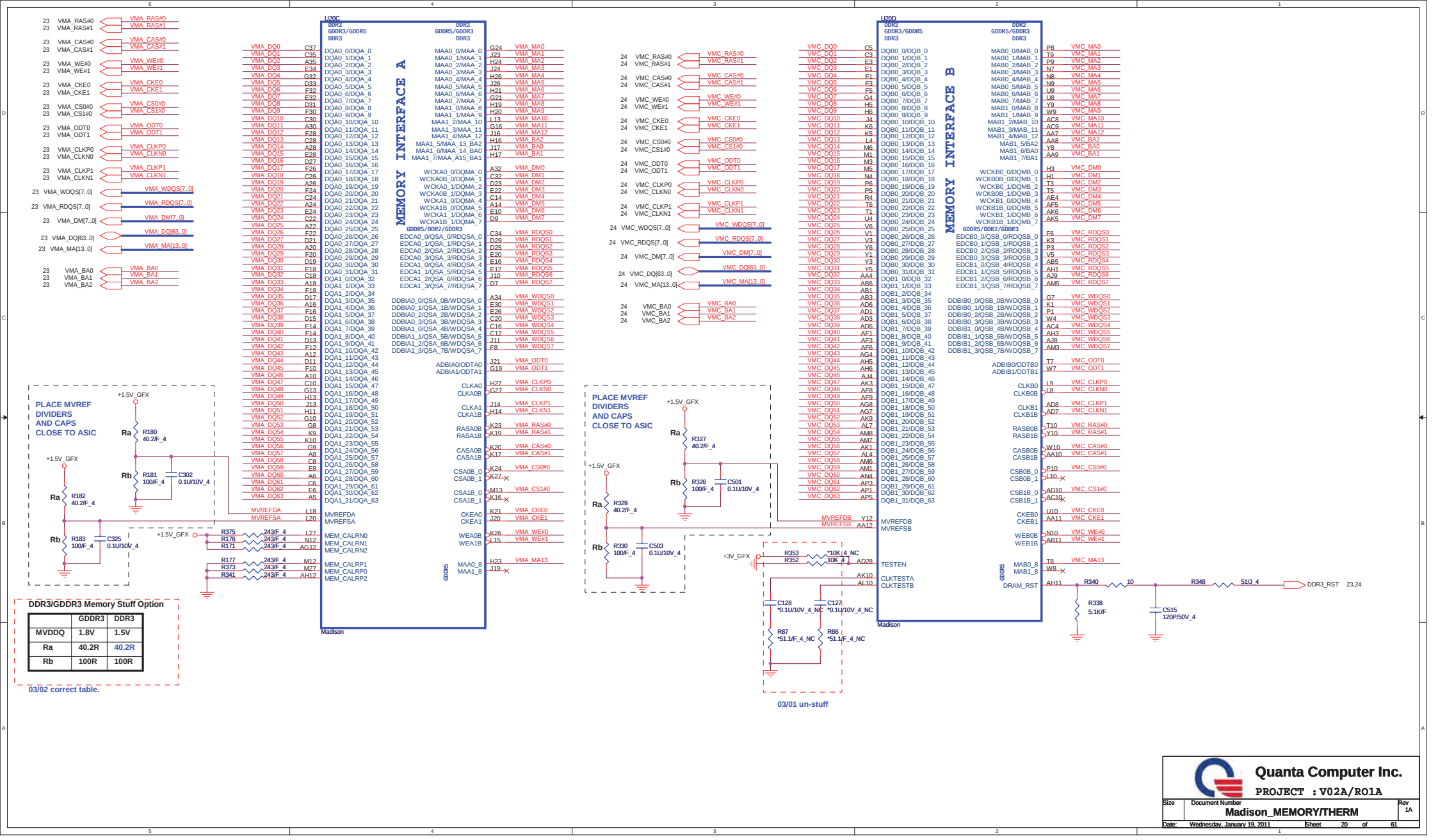
U20C
DDR2
GDDR3/GDDR5
DDR3
MEMORY INTERFACE A
DDR2
GDDR5/GDDR3
DDR3
GDDR5/DDR2/GDDR3
Madison
U20D
MEMORY INTERFACE B
PLACE MVREF DIVIDERS AND CAPS CLOSE TO ASIC
+1.5V_GFX
+3V_GFX
03/01 un-stuff
DDR3/GDDR3 Memory Stuff Option
MVDDQ 1.8V 1.5V
Ra 40.2R 40.2R
Rb 100R 100R
03/02 correct table.
Quanta Computer Inc.
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Madison_MEMORY/THERM
Rev 1A
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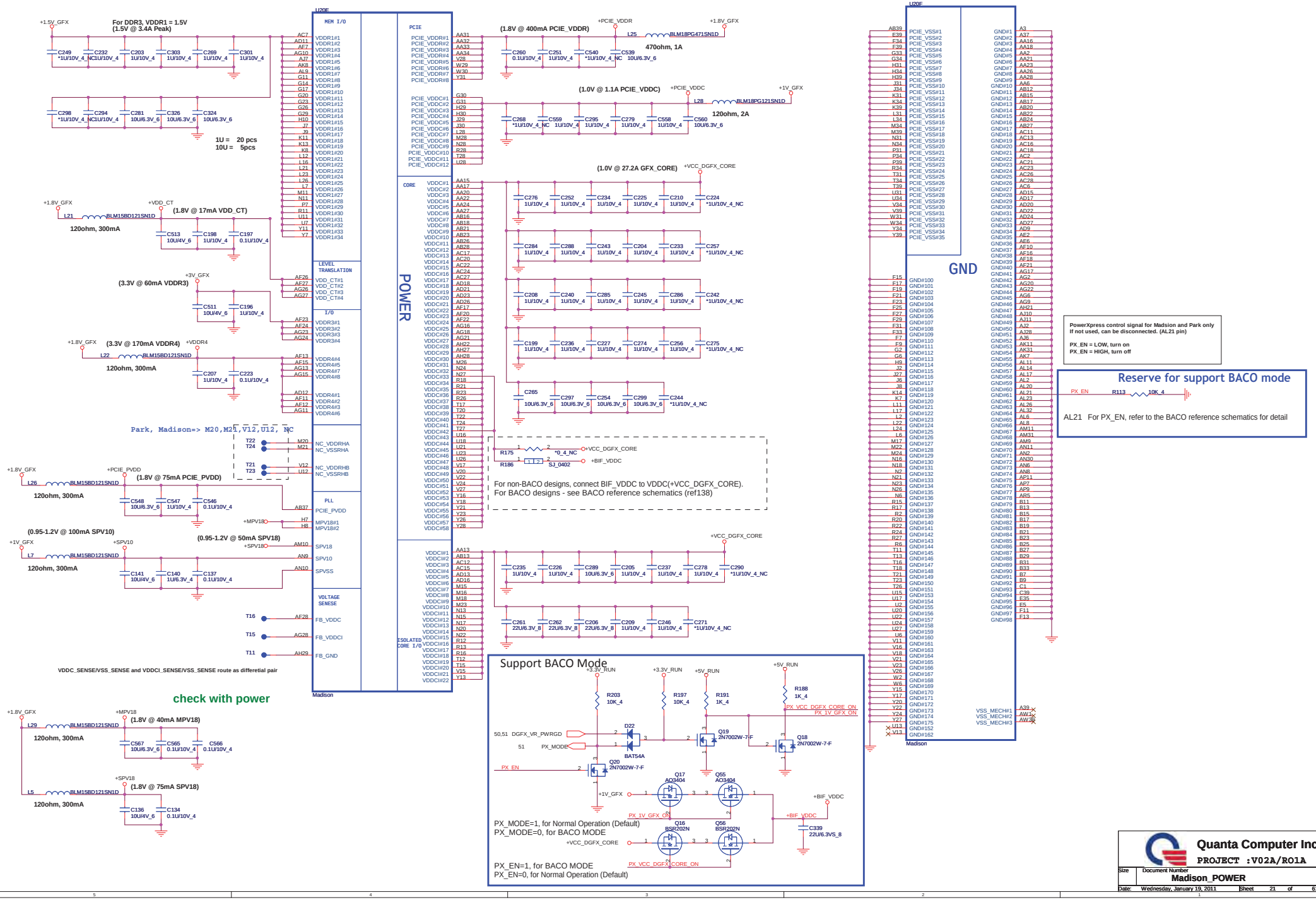

Quanta Computer Inc.

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Size	Document Number	Rev
	Madison_POWER	1A

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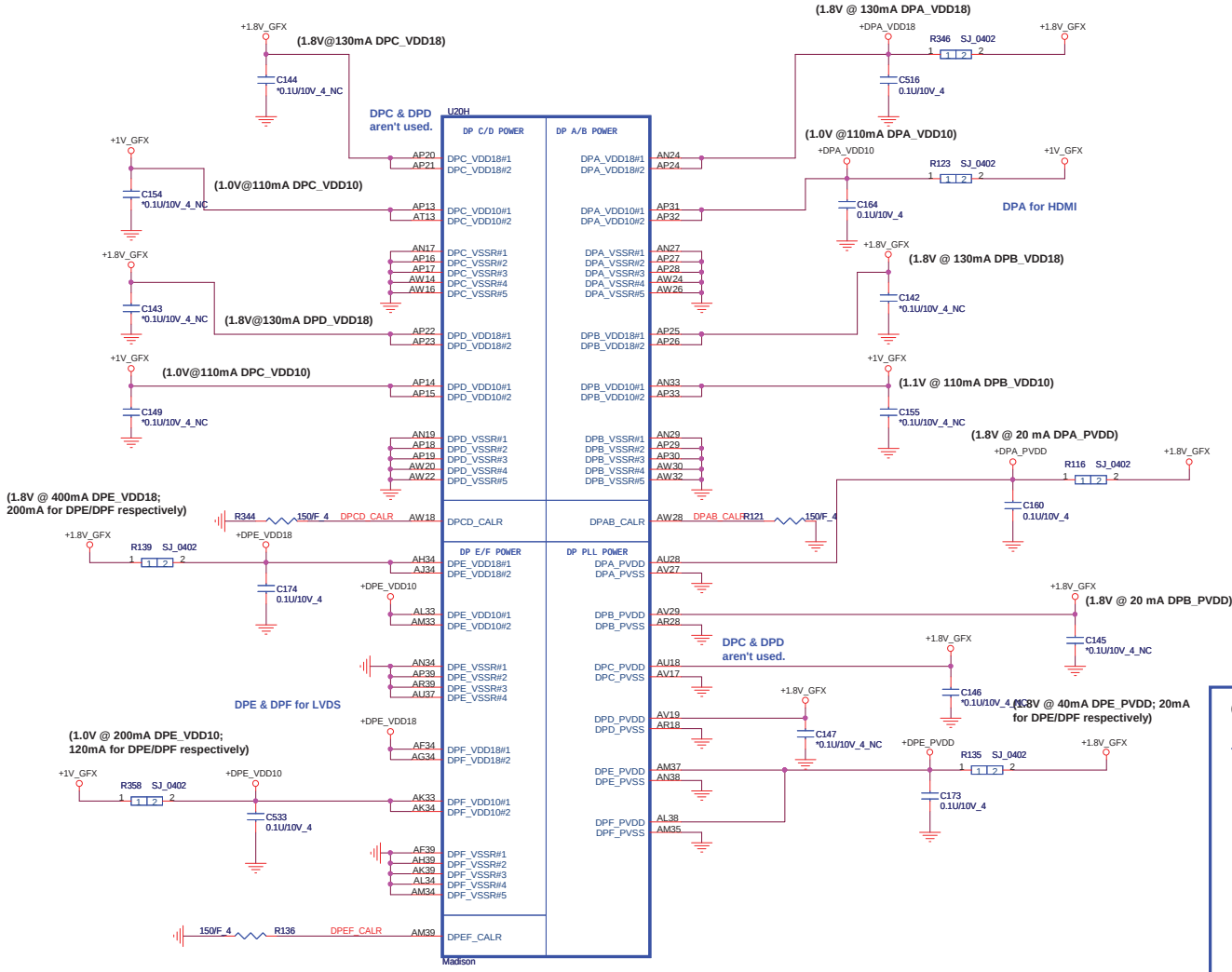

GPU Power Rail List

+1V_GFX=>
- +DPA_VDD10
- +SPV10
- +DPE_VDD10
- +DPLL_VDDC
- +PCIE_VDDC

+1.8V_GPU=>
- +A2VDDQ
- +AVDD
- +DPA_PVDD
- +DPA_VDD18
- +DPE_PVDD
- +DPE_VDD18
- +DPLL_PVDD
- +MPV18
- +PCIE_PVDD
- +PCIE_VDDR
- +SPV18
- +TSVDD
- +VDD1DI
- +VDD2DI
- +VDD_CT
- +VDDR4

GPU Power-on sequence

1 => +3V_GFX
2 => +VCC_DGFX_CORE
3 => +1V_GFX
4 => +1.5V_GFX
5 => +1.8V_GFX
6 => dGPU_PWROK

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	Madison_DP_POWER	1A
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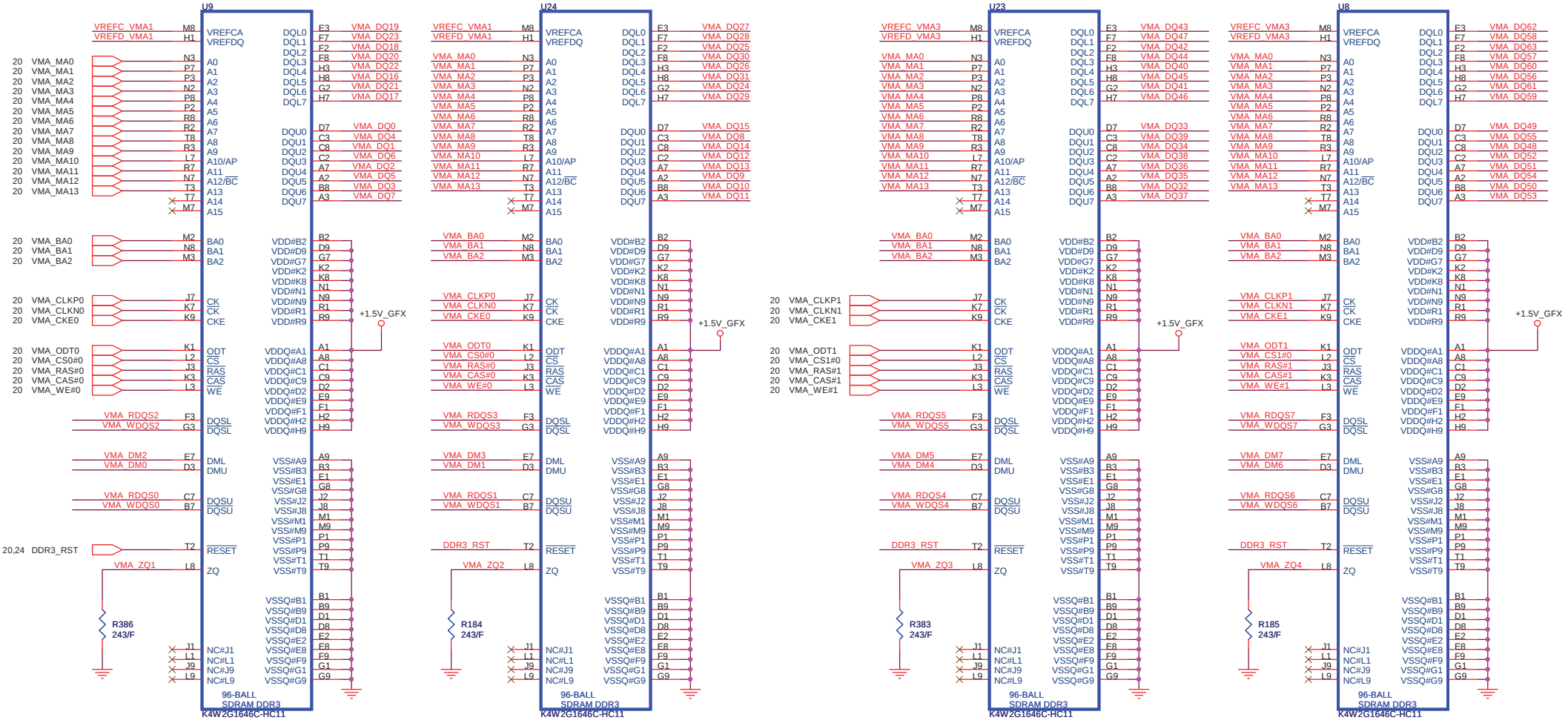
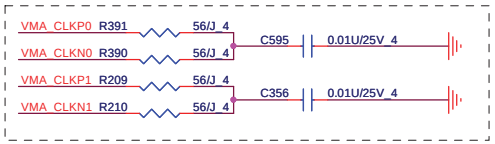
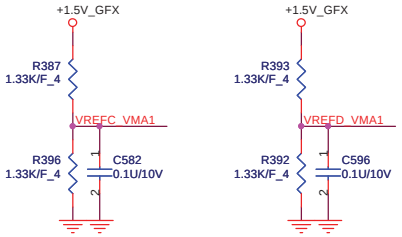
CHANNEL A: 1024MB DDR3

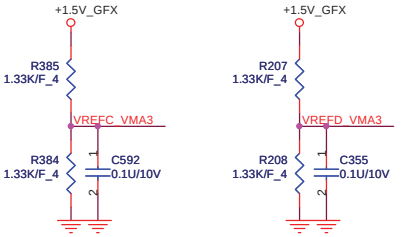
20 VMA_DQ[63..0]
20 VMA_DM[7..0]
20 VMA_WDQS[7..0]
20 VMA_RDQS[7..0]

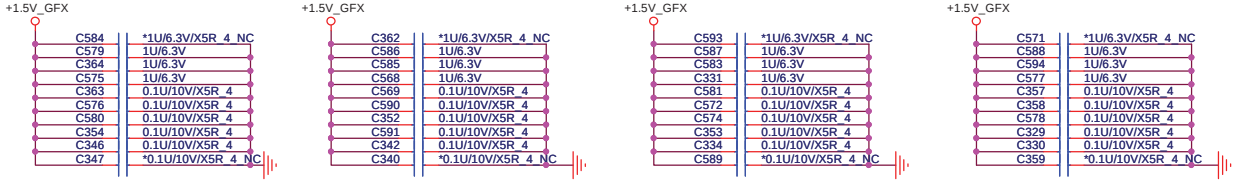


Placement has to be close to VRAM









Quanta Computer Inc.

PROJECT : V02A/R01A

Size	Document Number	Rev
	N11M-GE2 VRAM-1(DDR3 BGA96)	1A

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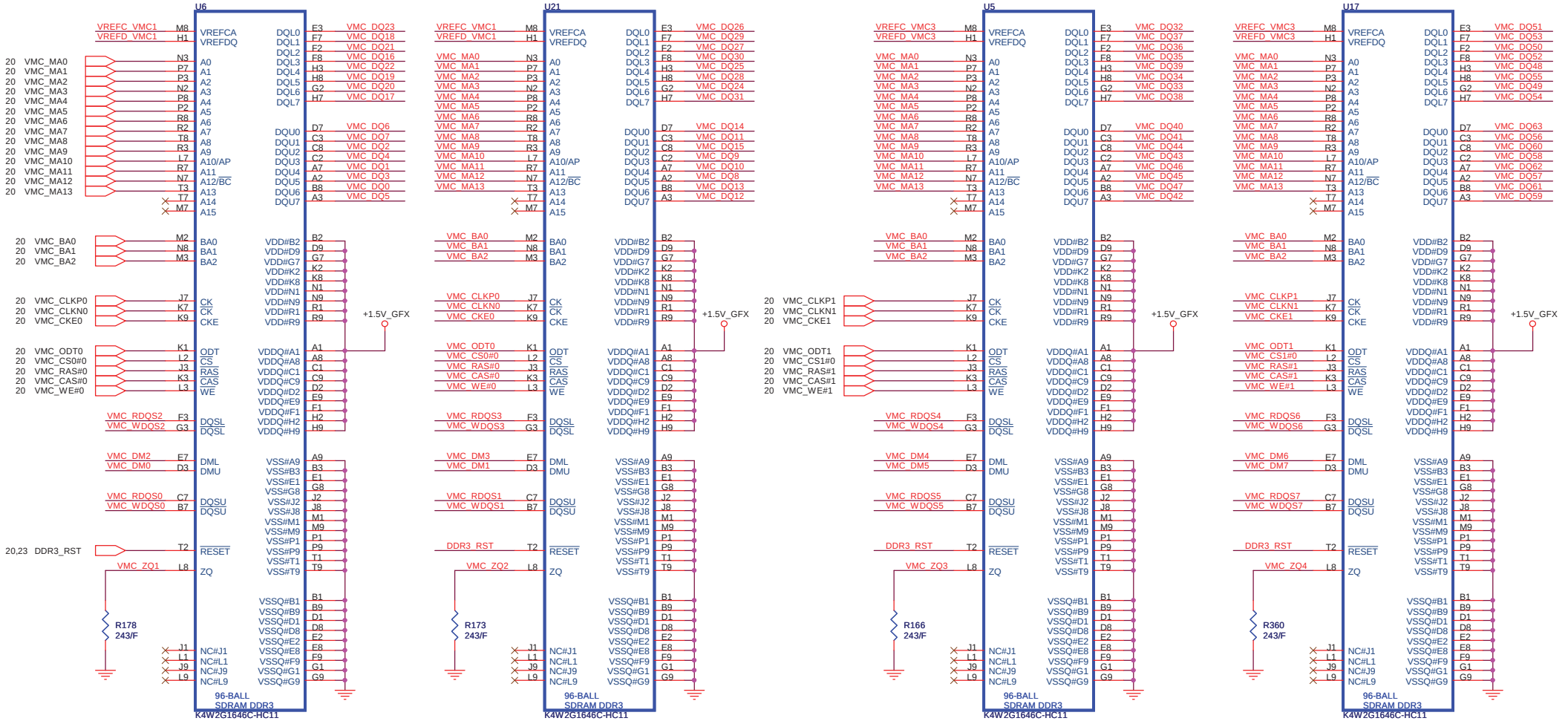
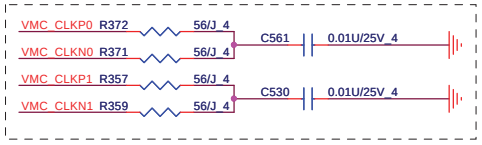
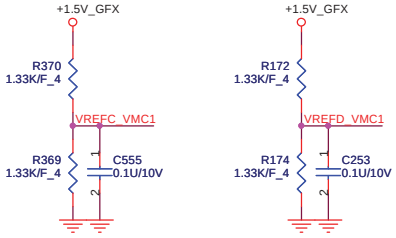
CHANNEL B: 1024MB DDR3

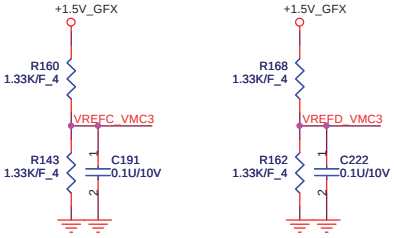
20 VMC_DQ[63..0]
20 VMC_DM[7..0]
20 VMC_WDQS[7..0]
20 VMC_RDQS[7..0]

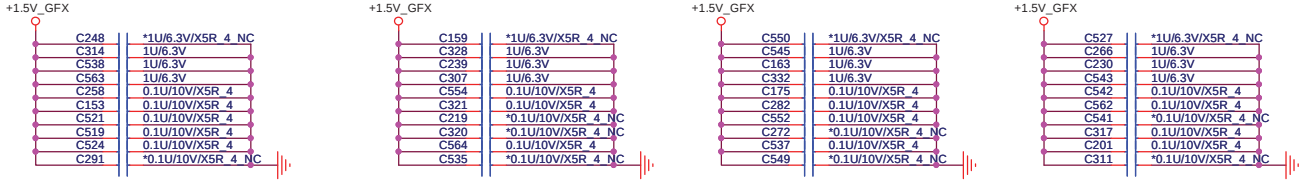


Placement has to be close to VRAM









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Size	Document Number	Rev
	N11M-GE2 VRAM-2(DDR3 BGA96)	1A

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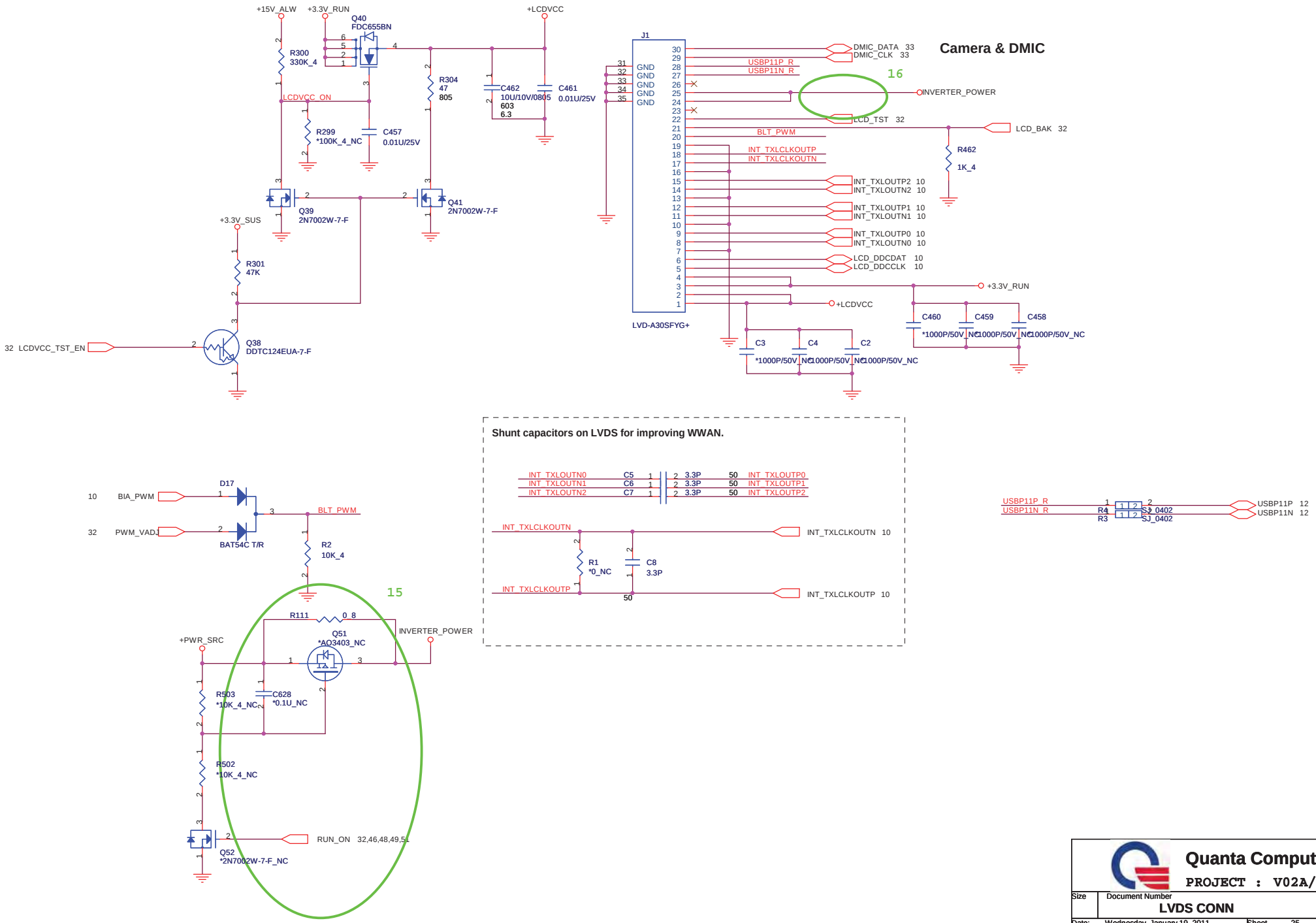
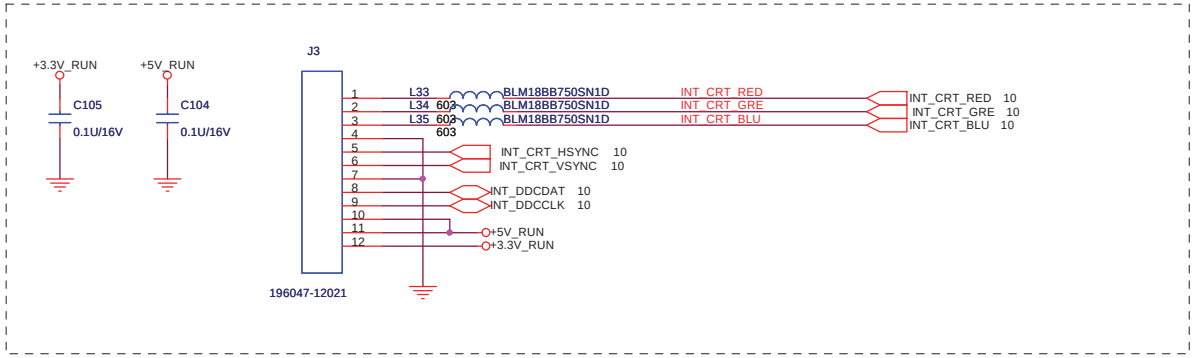

Camera & DMIC
+15V_ALW
+3.3V_RUN
+LCDVCC
Q40
FDC655BN
R300
330K_4
R304
47
805
C462
10U/10V/0805
603
6.3
C461
0.01U/25V
LCDVCC_ON
R299
*100K_4_NC
C457
0.01U/25V
Q39
2N7002W-7-F
Q41
2N7002W-7-F
+3.3V_SUS
R301
47K
32 LCDVCC_TST_EN
Q38
DDTC124EUA-7-F
J1
LVD-A30SFYG+
DMIC_DATA 33
DMIC_CLK 33
USBP11P_R
USBP11N_R
16
INVERTER_POWER
LCD_TST 32
LCD_BAK 32
BLT_PWM
R462
1K_4
INT_TXLCLKOUTP
INT_TXLCLKOUTN
INT_TXLOUTP2 10
INT_TXLOUTN2 10
INT_TXLOUTP1 10
INT_TXLOUTN1 10
INT_TXLOUTP0 10
INT_TXLOUTN0 10
LCD_DDCDAT 10
LCD_DDCCLK 10
+3.3V_RUN
+LCDVCC
C460
C459
C458
*1000P/50V_NC
C3
C4
C2
10 BIA_PWM
32 PWM_VADJ
D17
BAT54C T/R
BLT_PWM
R2
10K_4
15
R111
0_8
Q51
*AO3403_NC
INVERTER_POWER
+PWR_SRC
R503
*10K_4_NC
C628
*0.1U_NC
R502
*10K_4_NC
Q52
*2N7002W-7-F_NC
RUN_ON 32,46,48,49,51
Shunt capacitors on LVDS for improving WWAN.
INT_TXLOUTN0
INT_TXLOUTN1
INT_TXLOUTN2
C5
C6
C7
3.3P
INT_TXLOUTP0
INT_TXLOUTP1
INT_TXLOUTP2
INT_TXLCLKOUTN
INT_TXLCLKOUTP
R1
*0_NC
C8
3.3P
USBP11P_R
USBP11N_R
R4
R3
SJ_0402
USBP11P 12
USBP11N 12
Quanta Computer Inc.
PROJECT : V02A/R01A
Size
Document Number
LVDS CONN
Rev
1A
Date: Wednesday, January 19, 2011
Sheet 25 of 61



Quanta Computer Inc.

PROJECT : V02A/RO1A

Size	Document Number	Rev
	BLANK	1A

Date: Wednesday, January 19, 2011 Sheet 26 of 61

UMA HDMI

10 INT_HDMI_TXP2 — C157 0.1U/10V — HDMI_TX2+_R
10 INT_HDMI_TXN2 — C151 0.1U/10V — HDMI_TX2-_R

10 INT_HDMI_TXP1 — C148 0.1U/10V — HDMI_TX1+_R
10 INT_HDMI_TXN1 — C138 0.1U/10V — HDMI_TX1-_R

10 INT_HDMI_TXP0 — C162 0.1U/10V — HDMI_TX0+_R
10 INT_HDMI_TXN0 — C170 0.1U/10V — HDMI_TX0-_R

10 INT_HDMI_TXCP — C133 0.1U/10V — HDMI_CLK+_R
10 INT_HDMI_TXCN — C132 0.1U/10V — HDMI_CLK-_R

10 HDMI_SCL — R104 0_4 — HDMI_SCL_R
10 HDMI_SDA — R102 0_4 — HDMI_SDA_R

10 INT_DP_HPD — R325 0_4 — HDMI_HPD_3V

DIS HDMI

19 EXT_HDMI_TXP2 — C517 *0.1U/10V_NC — HDMI_TX2+_R
19 EXT_HDMI_TXN2 — C512 *0.1U/10V_NC — HDMI_TX2-_R

19 EXT_HDMI_TXP1 — C509 *0.1U/10V_NC — HDMI_TX1+_R
19 EXT_HDMI_TXN1 — C508 *0.1U/10V_NC — HDMI_TX1-_R

19 EXT_HDMI_TXP0 — C518 *0.1U/10V_NC — HDMI_TX0+_R
19 EXT_HDMI_TXN0 — C520 *0.1U/10V_NC — HDMI_TX0-_R

19 EXT_HDMI_TXCP — C506 *0.1U/10V_NC — HDMI_CLK+_R
19 EXT_HDMI_TXCN — C504 *0.1U/10V_NC — HDMI_CLK-_R

19 EXT_HDMI_SCL — R105 *0_4_NC — HDMI_SCL_R
19 EXT_HDMI_SDA — R103 *0_4_NC — HDMI_SDA_R

19 EXT_HDMI_HPD — R150 *0_4_NC — HDMI_HPD_3V

Reserve for EMI and close to HDMI CONN

9

HDMI_TX2+_R — R276 — HDMI_TX2+_C
HDMI_TX2-_R — R282 — HDMI_TX2-_C
HDMI_TX0+_R — R285 — HDMI_TX0+_C
HDMI_TX0-_R — R293 — HDMI_TX0-_C
HDMI_TX1+_R — R314 — HDMI_TX1+_C
HDMI_TX1-_R — R377 — HDMI_TX1-_C
HDMI_CLK+_R — R432 — HDMI_CLK+_C
HDMI_CLK-_R — R504 — HDMI_CLK-_C

SJ_0402

HDMI HPD

+3.3V_RUN
Q50 MMST3904-7-F
R491 200K
HDMI_HPD_3V — R501 SJ_0402
HDMI_HPD
R246 200K
R324 10K_4

R347 680/F HDMI_TX2+_R
R345 680/F HDMI_TX2-_R
R339 680/F HDMI_TX1+_R
R337 680/F HDMI_TX1-_R
R349 680/F HDMI_TX0+_R
R350 680/F HDMI_TX0-_R
R332 680/F HDMI_CLK+_R
R331 680/F HDMI_CLK-_R

+5V_RUN — Q44 2N7002W-7-F

HDMI Conn.

CN6
DFHS19FR015
Female
TYPE A

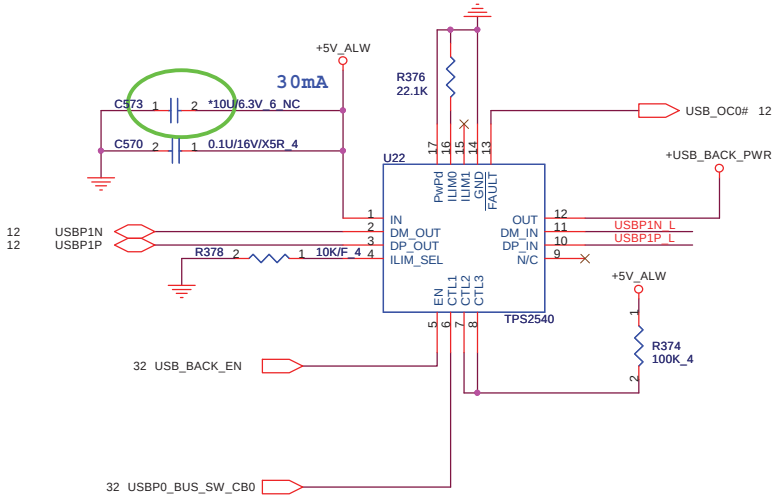
+3.3V_RUN
R99 4.7K
R98 4.7K
HDMI_SCL_R — Q9 FDV301N — HDMI_CLK
HDMI_SDA_R — Q8 FDV301N — HDMI_DAT
+5V_RUN
R320 2.2K_4
R323 2.2K_4
C126 *0.1U_NC 16

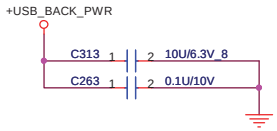
HDMI_TX2+_C
HDMI_TX2-_C
HDMI_TX1+_C
HDMI_TX1-_C
HDMI_TX0+_C
HDMI_TX0-_C
HDMI_CLK+_C
HDMI_CLK-_C
HDMI_HPD
GND

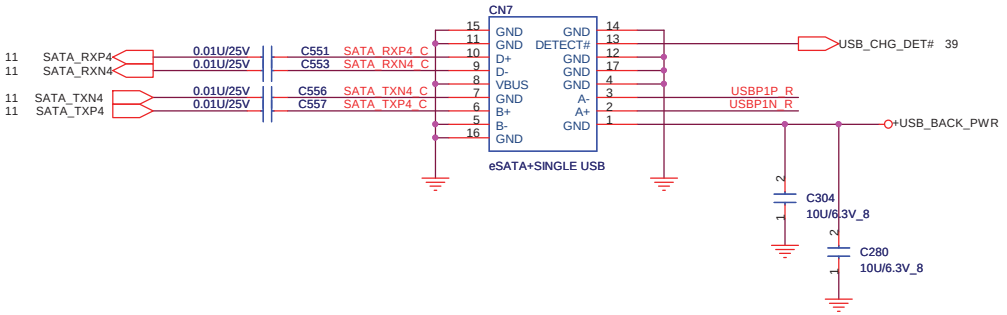
Quanta Computer Inc.		
PROJECT : V02A/R01A		
Size	Document Number: HDMI CONN	Rev 1A
Date: Wednesday, January 19, 2011	Sheet 27 of 61	

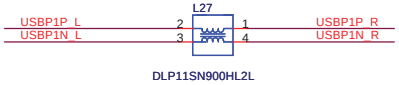
ESATA + USB Conn + Power share

S3/S5 USB charging circuit









USBP0_BUS_SW_CB0	Mode
Low	DCP, Auto-detect
High	CDP, BC Spec 1.1

	R8224	mA	
OC limitation	100k ohm	480	
	22.1k ohm	2171	Applied Now

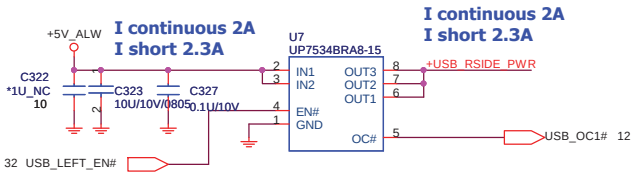
Quanta Computer Inc.

PROJECT : V02A/R01A

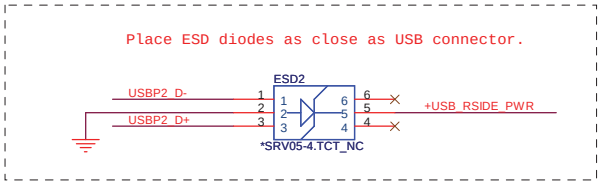
Size	Document Number	Rev
	PUSB / ESATA	1A

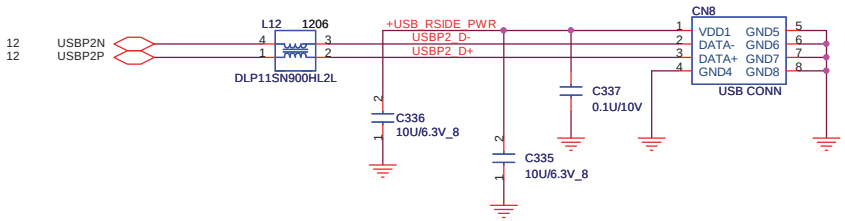
Date: Wednesday, January 19, 2011 Sheet 28 of 61

UPI power switch

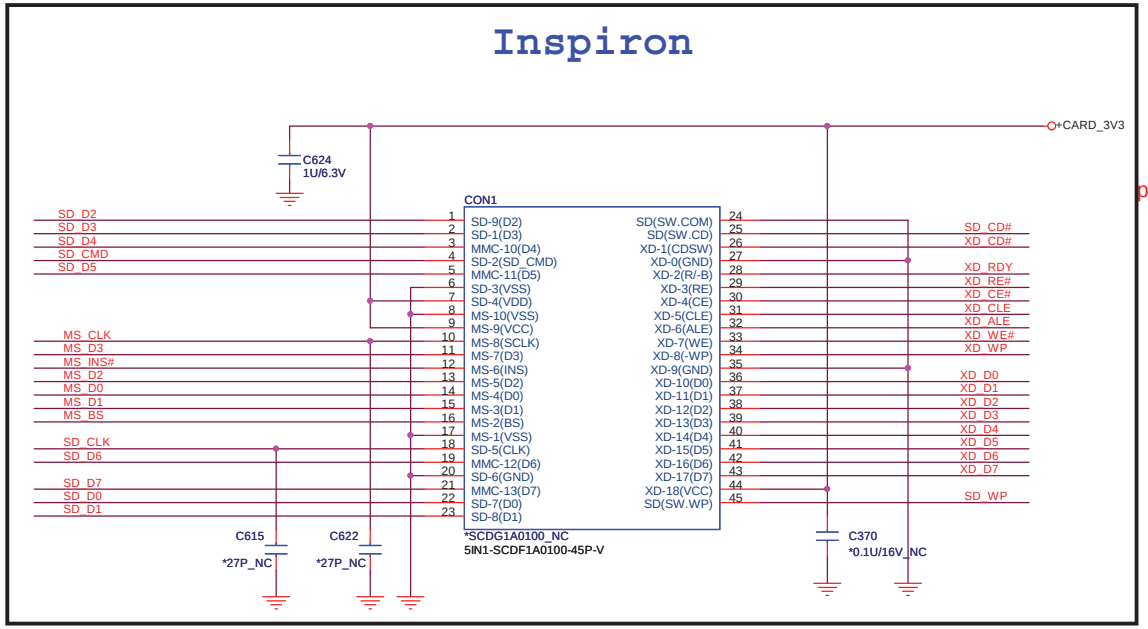


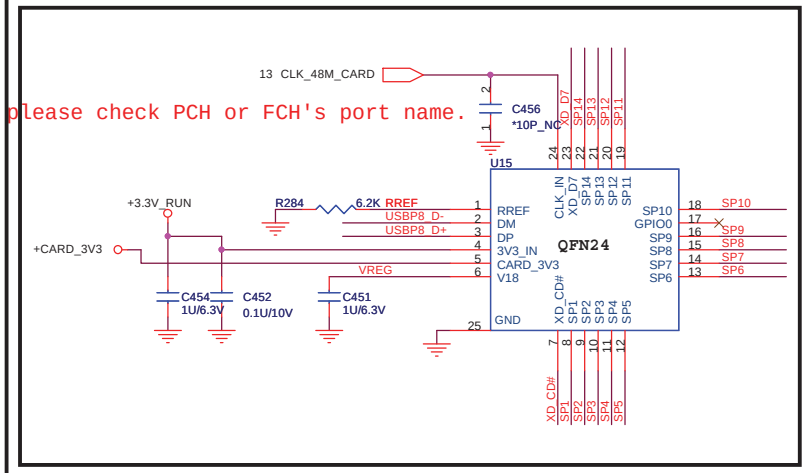
Platforms should put in PADS for the USB chokes if they have the room. Chokes should be NOPOP.





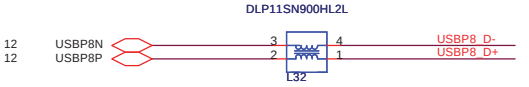
Quanta Computer Inc.		
PROJECT : V02A/R01A		
Size	Document Number: USB 2.0	Rev: 1A
Date: Wednesday, January 19, 2011	Sheet 29 of 61	

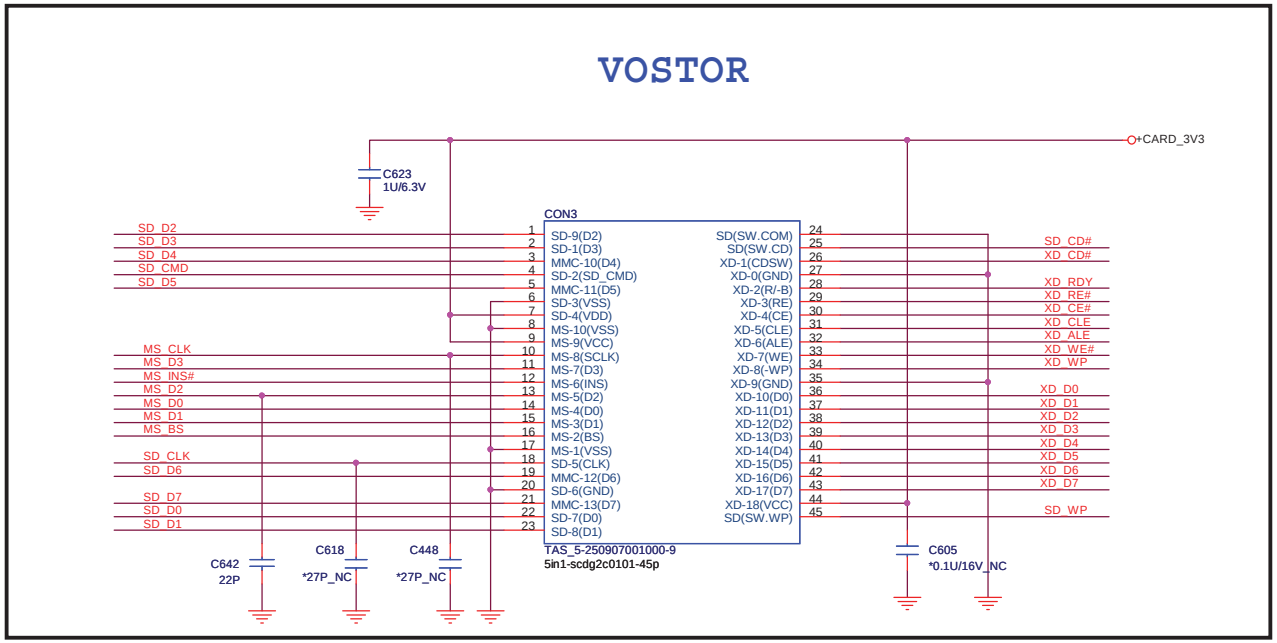




SP1	XD_RDY	SD_WP	MS_CLK
SP2	XD_RE#		MS_INS#
SP3	XD_CE#	SD_D1	
SP4	XD_CLE	SD_D0	MS_D7
SP5	XD_ALE	SD_D7	MS_D3
SP6	XD_WE#	SD_CD#	
SP7	XD_WP	SD_D6	MS_D6
SP8	XD_D0	SD_CLK	MS_D2
SP9	XD_D1	SD_D5	MS_D0
SP10	XD_D2	SD_CMD	
SP11	XD_D3	SD_D4	MS_D4
SP12	XD_D4	SD_D3	MS_D1
SP13	XD_D5	SD_D2	MS_D5
SP14	XD_D6		MS_BS

Share Pin





Cardreader	POP	NC
Inspiron	CON1	CON3
VOSTOR	CON3	CON1

Quanta Computer Inc.

PROJECT : V02A/R01A

Size	Document Number	Rev
	Cardreader (RTS5128)	1A

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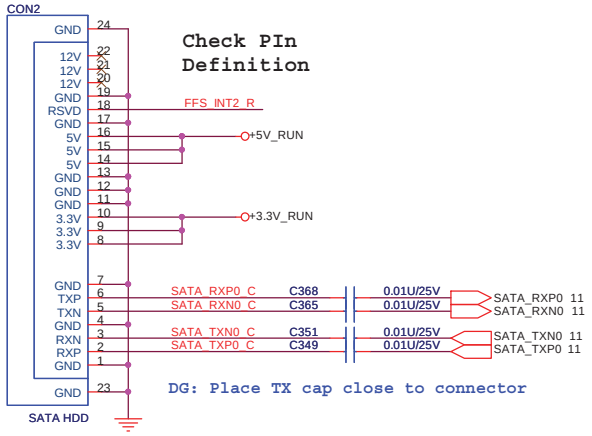
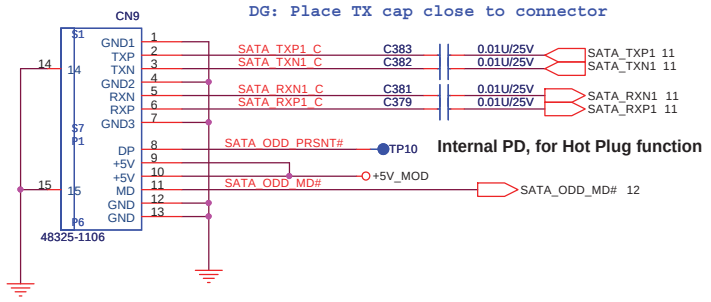
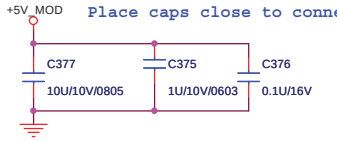
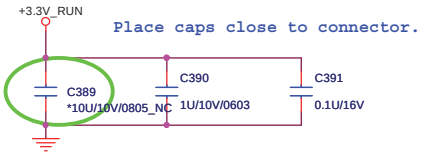
SATA Connector UM8

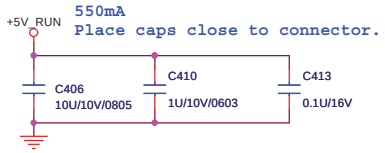


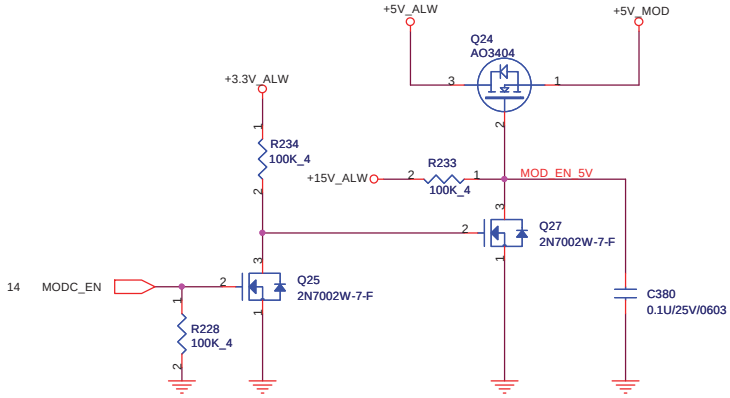
ODD Connector

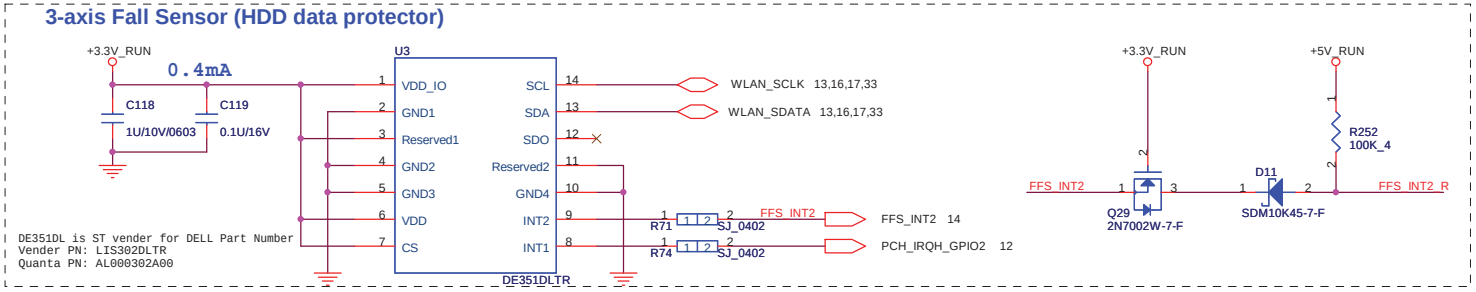












3-axis Fall Sensor	VOSTOR	Inspiron
U3,Q29,D11 R71,R74,R252 C118,C119	POP	NC

Quanta Computer Inc.

PROJECT : V02A/R01A

Size	Document Number	Rev
	SATA HDD/ODD	1A

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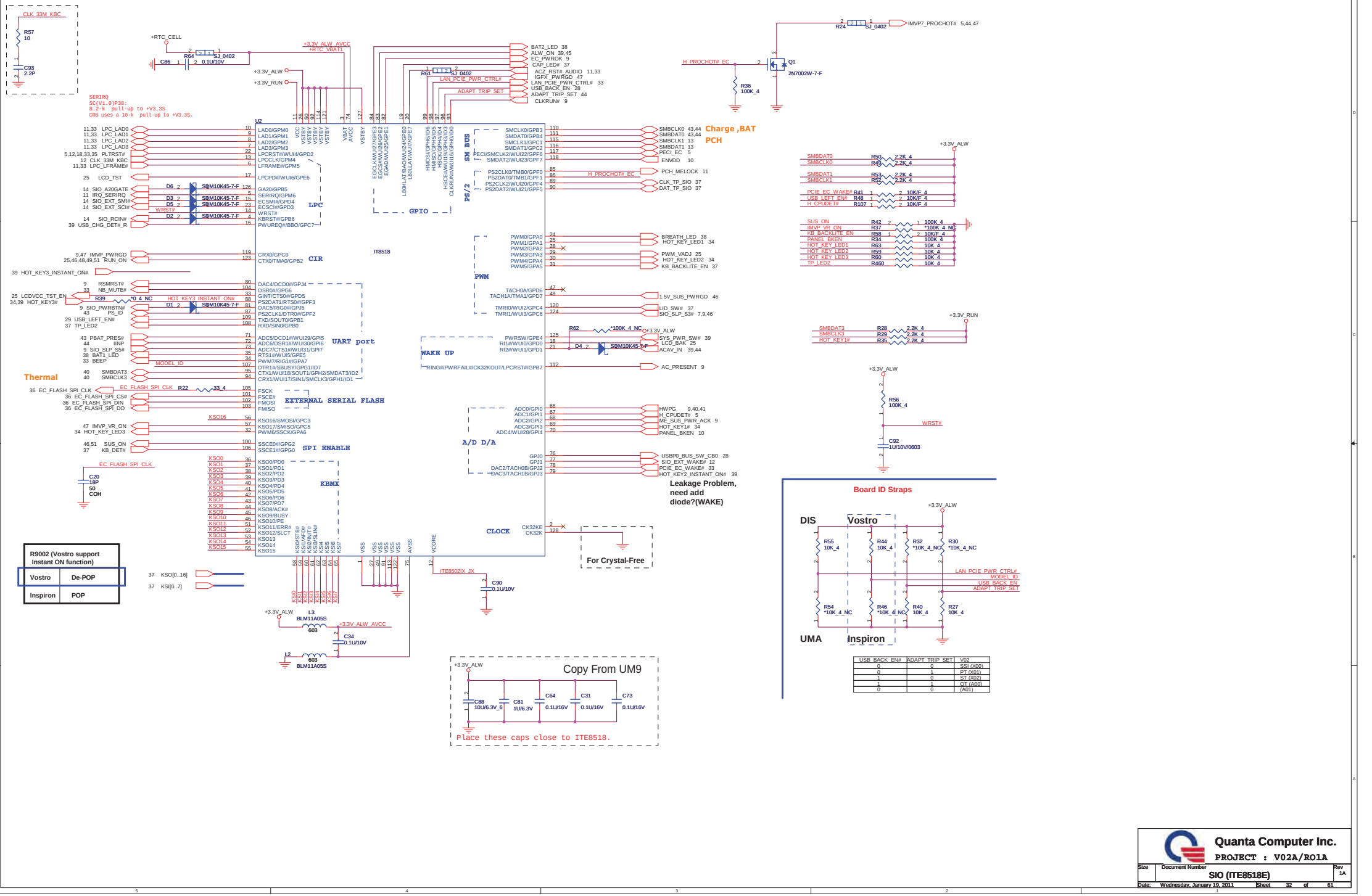
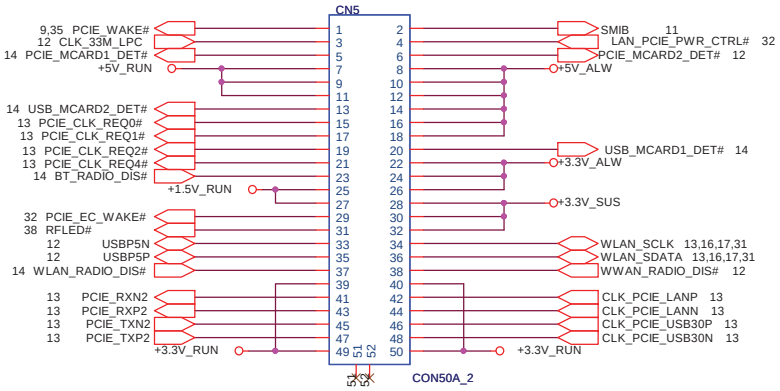
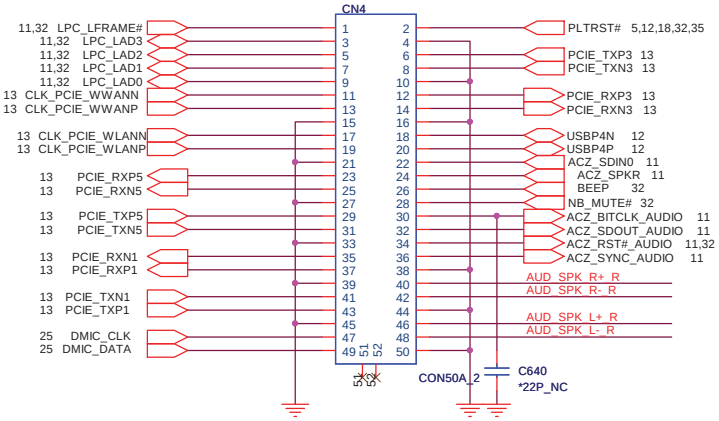
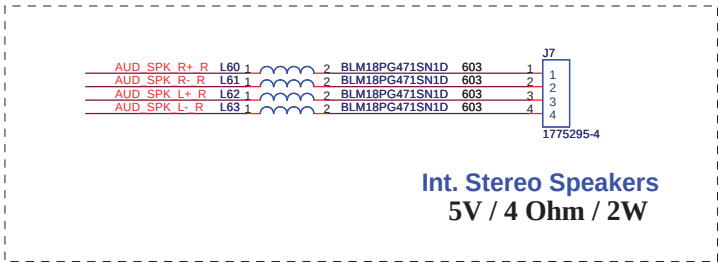


USB_BACK_EN#	ADAPT_TRIP_SET	V02
0	0	SSI (X00)
0	1	PT (X01)
1	0	ST (X02)
1	1	QT (A00)
0	0	(A01)







Quanta Computer Inc.

PROJECT : V02A/R01A

Size	Document Number	Rev
	SIO (ITE8518E)	1A

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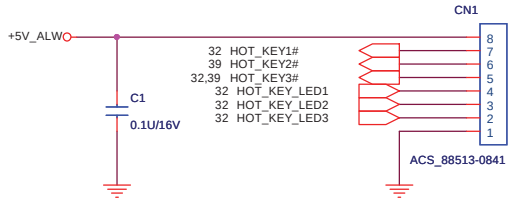

HOTKEY CON

Quanta Computer Inc.

PROJECT : V02A/R01A

Size	Document Number	Rev
	MINI-PCI (WLAN/WPAN)	1A

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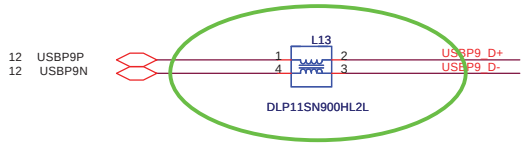
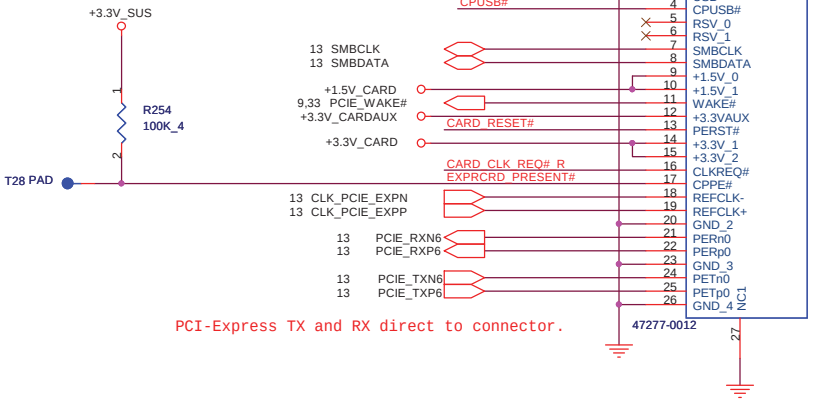
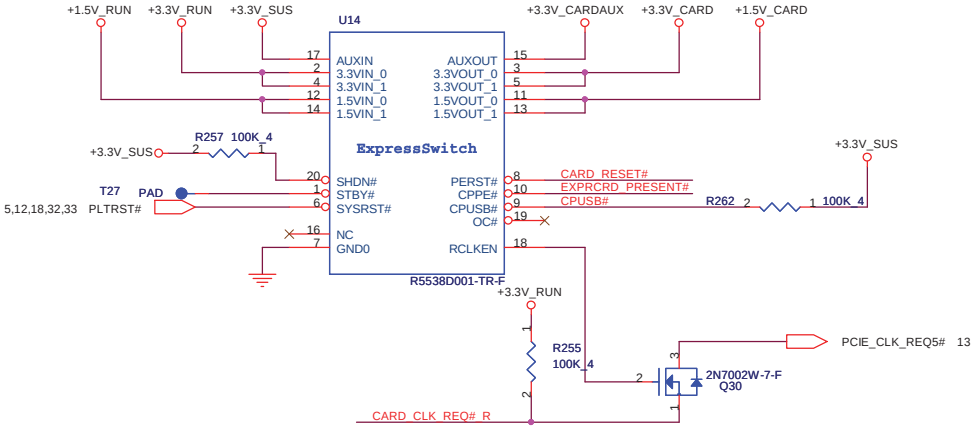
Express Card

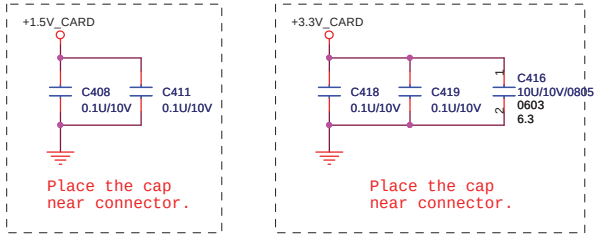




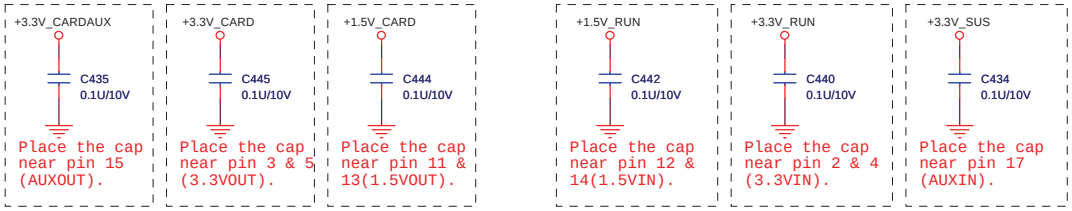
PCI-Express TX and RX direct to connector.

+1.5V_CARD Max. 650mA, Average 500mA.
+3V_CARD Max. 1300mA, Average 1000mA.





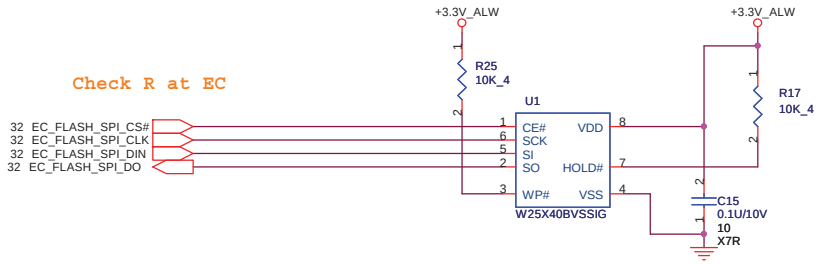
If close enough, could combine



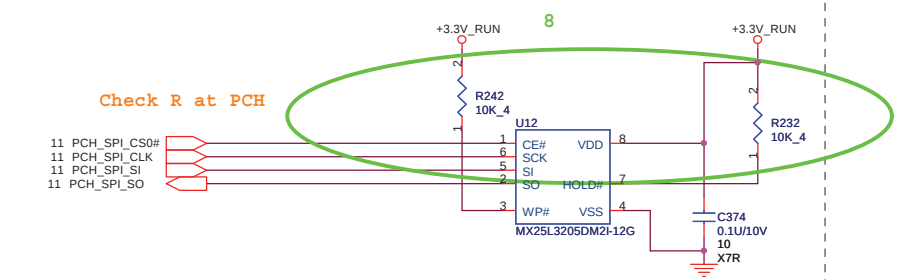
Quanta Computer Inc.
PROJECT : V02A/R01A

Size	Document Number	Rev
	LAN (RTL8111EL)	1A
Date: Wednesday, January 19, 2011	Sheet 35 of 61	

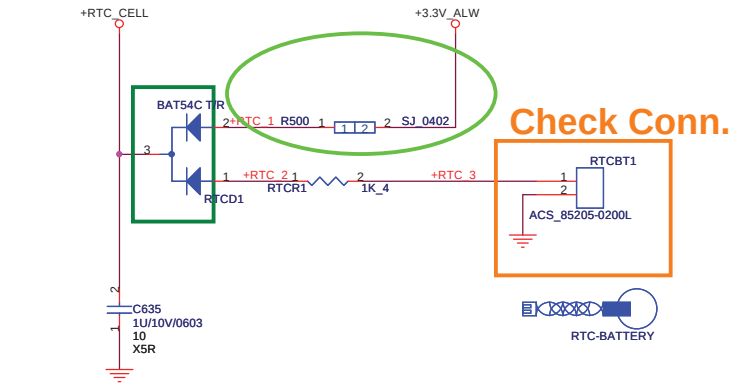
For EC 4Mbit (512K Byte)



For PCH 32Mbit (4M Byte)



RTC



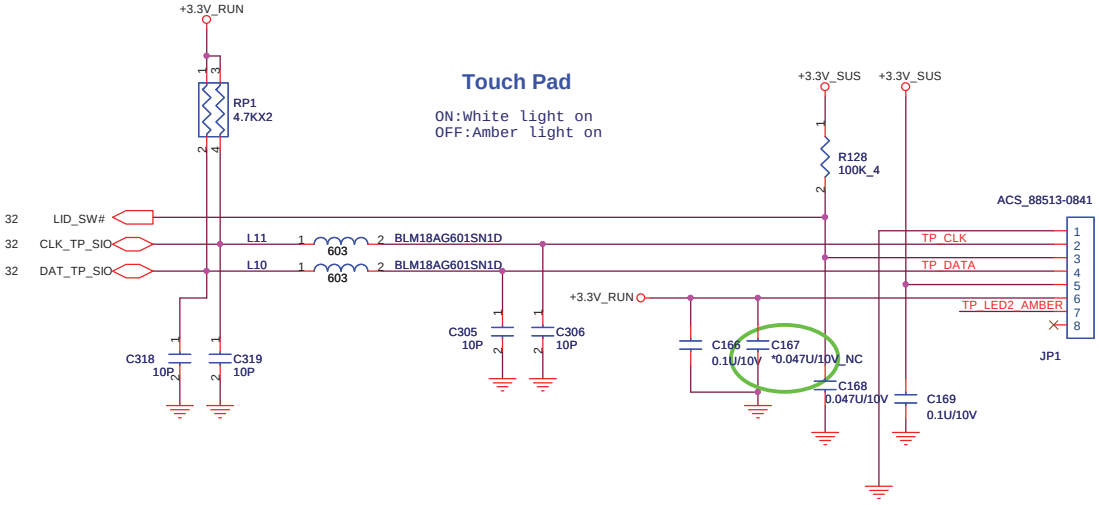
Double, 25'C, Vf=0.4V, If=25mA
one, 25'C, Vf=0.35V, If=15.8mA

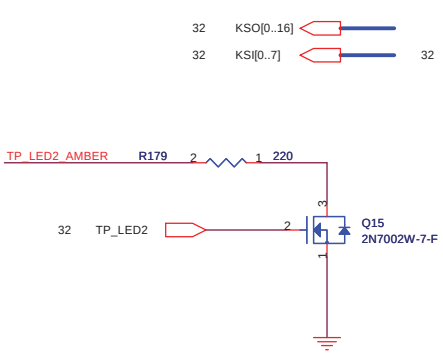
Quanta Computer Inc.		
PROJECT : V02A/R01A		
Size	Document Number: FLASH / RTC	Rev 1A
Date: Wednesday, January 19, 2011	Sheet 36 of 61	

copy GM6

Touch Pad

ON:White light on
OFF:Amber light on

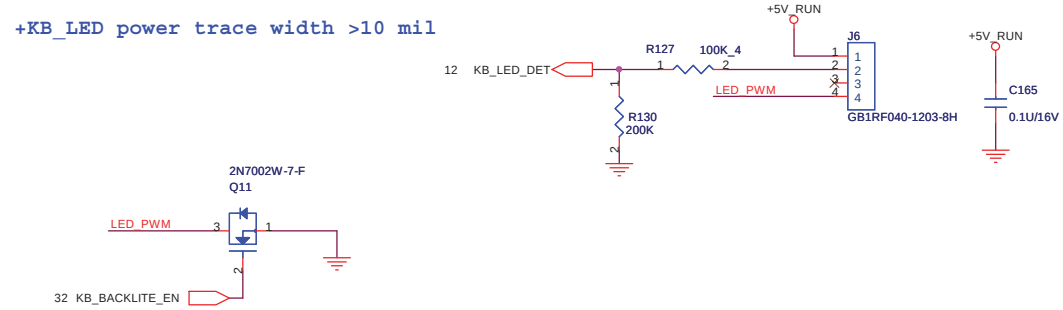




KEYBOARD CONNECTOR

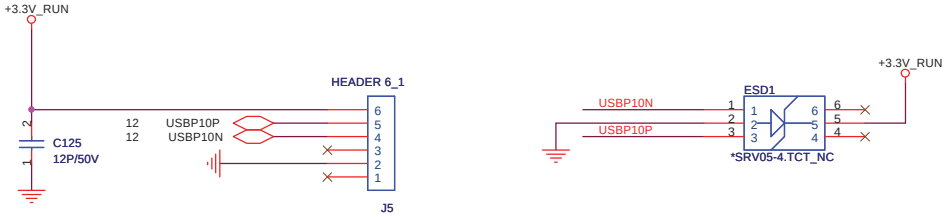
Key board illumination

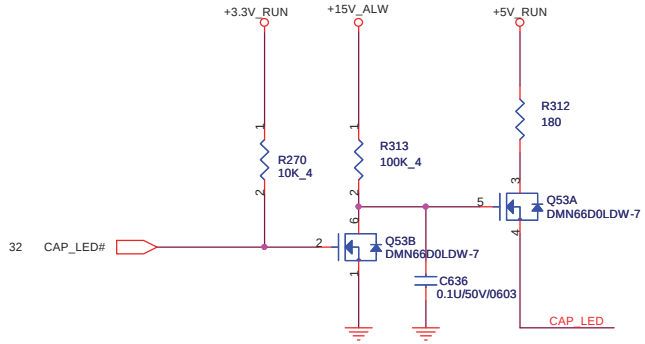
+KB_LED power trace width >10 mil



13

Biometric





Quanta Computer Inc.
PROJECT : V02A/R01A

Size	Document Number	Rev
	TP / KB	1A

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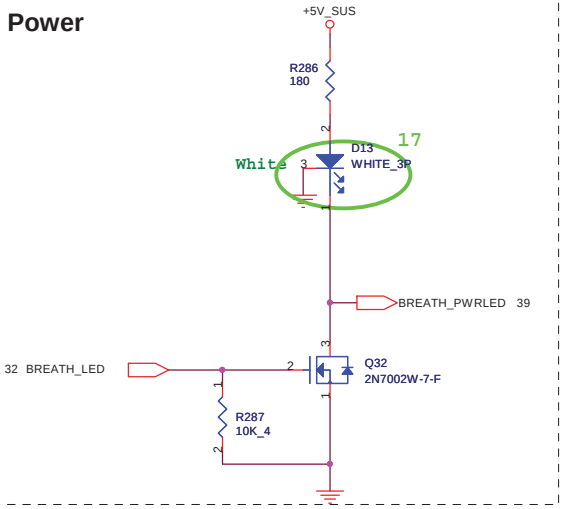
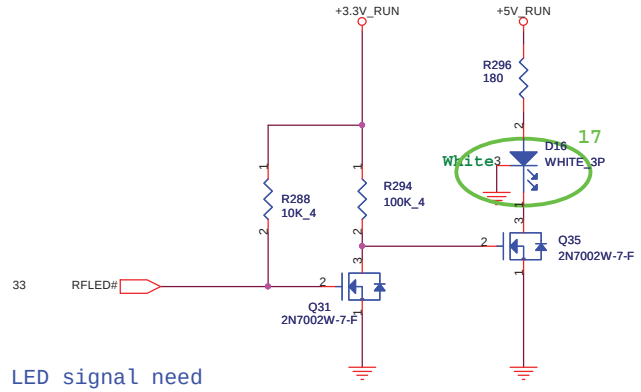
Power

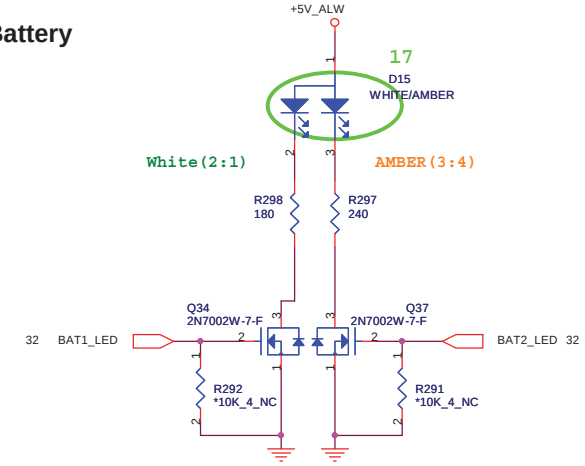


Bluetooth / WLAN on/off LED

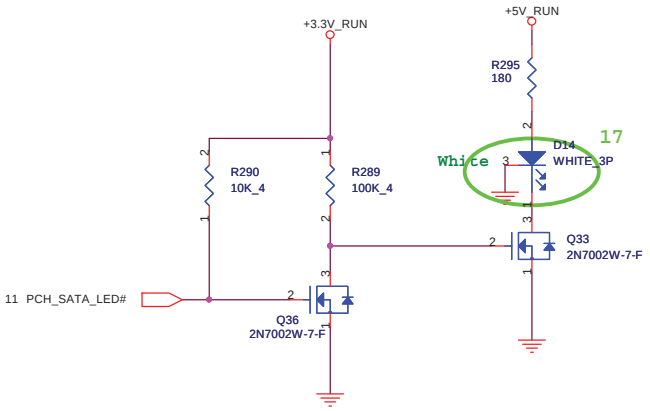


BT LED signal need

Battery



HDD activity LED.



VOSTOR	R286,R295,R296,R298	R297
	180 ohm PN:CS11802JB15	240 ohm PN:CS12402JB13
Inspiron	R286,R295,R296,R298	R297
	390 ohm PN:CS13902JB14	330 ohm PN:CS13302JB21

Quanta Computer Inc.

PROJECT : V02A/RO1A

Size	Document Number	Rev
	LED	1A

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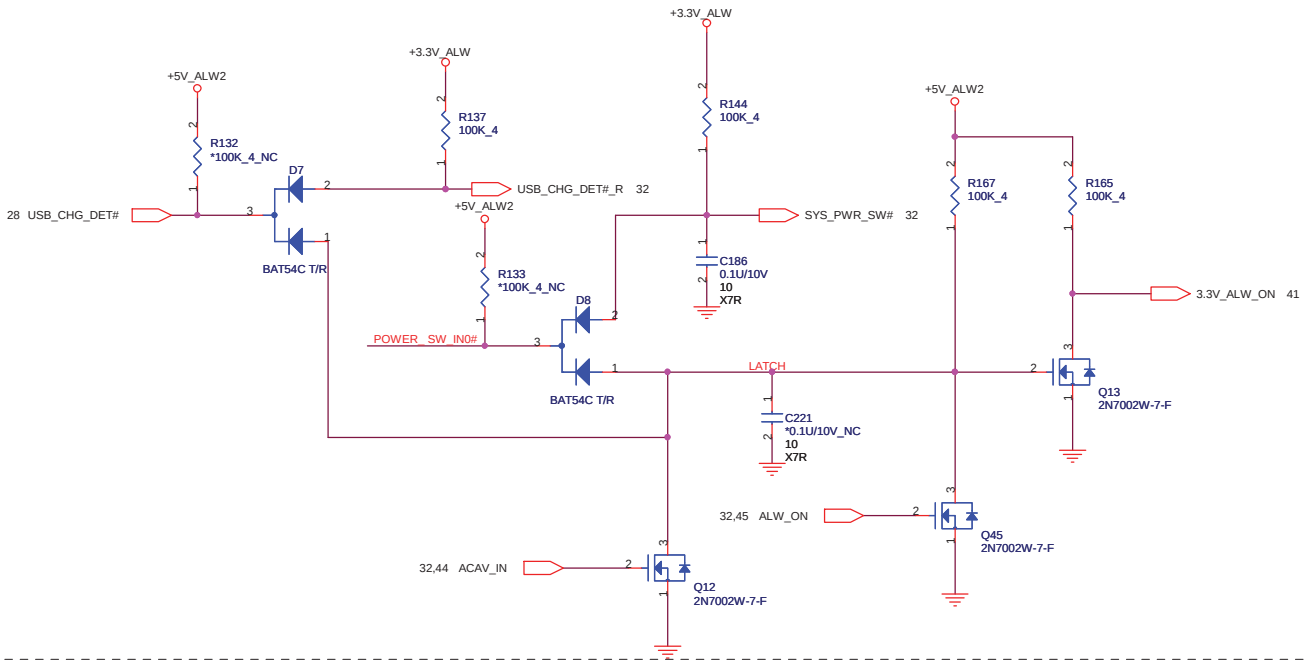
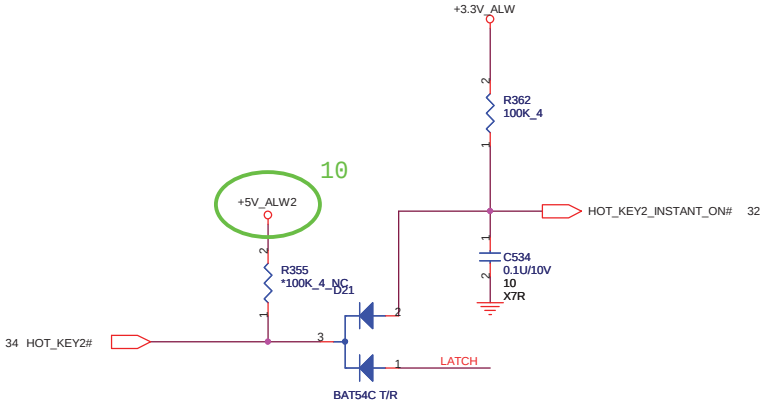
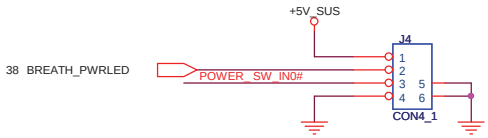
3VALW ON POWER LOGIC



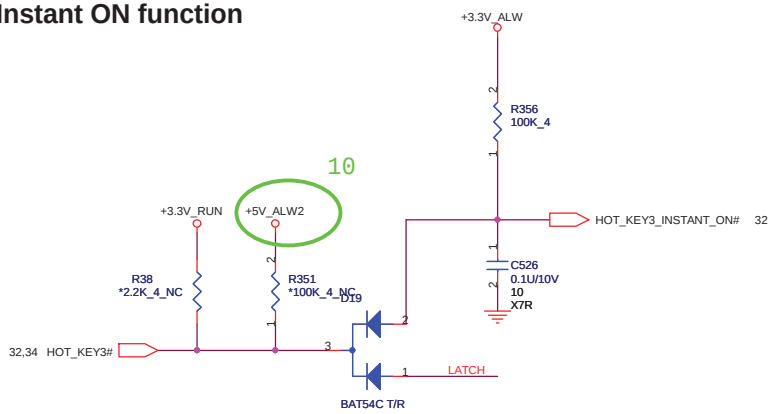


Vostro pop D19,C526,R356 depop R38,R39
Inspiron depop D19,C526,R356 pop R38,R39

PWR button board



Instant ON function



Quanta Computer Inc.
PROJECT : V02A/R01A

Size	Document Number	Rev
	PWR SW/LED	1A
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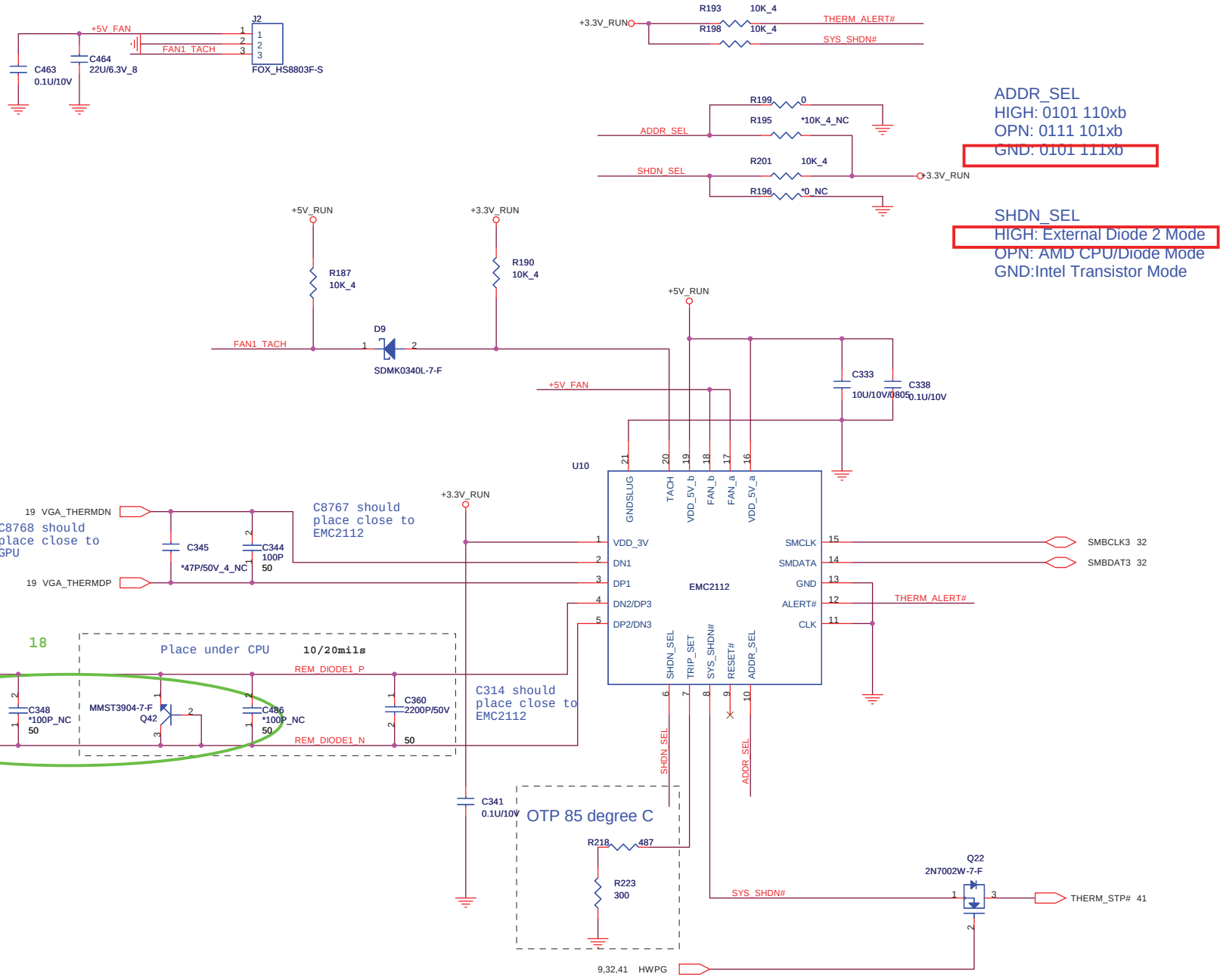
+5V_FAN
C463
0.1U/10V
C464
22U/6.3V_8
FAN1_TACH
J2
FOX_HS8803F-S
+3.3V_RUN
R193
10K_4
R198
10K_4
THERM_ALERT#
SYS_SHDN#
ADDR_SEL
HIGH: 0101 110xb
OPN: 0111 101xb
GND: 0101 111xb
R199
0
R195
*10K_4_NC
ADDR_SEL
SHDN_SEL
R201
10K_4
R196
*0_NC
SHDN_SEL
HIGH: External Diode 2 Mode
OPN: AMD CPU/Diode Mode
GND:Intel Transistor Mode
+5V_RUN
+3.3V_RUN
R187
10K_4
R190
10K_4
D9
SDMK0340L-7-F
FAN1_TACH
+5V_FAN
C333
10U/10V/0805
C338
0.1U/10V
U10
GNDSLUG
TACH
VDD_5V_b
FAN_b
FAN_a
VDD_5V_a
VDD_3V
DN1
DP1
DN2/DP3
DP2/DN3
EMC2112
SMCLK
SMDATA
GND
ALERT#
CLK
SMBCLK3 32
SMBDAT3 32
THERM_ALERT#
SHDN_SEL
TRIP_SET
SYS_SHDN#
RESET#
ADDR_SEL
19 VGA_THERMDN
19 VGA_THERMDP
C8768 should
place close to
GPU
C345
*47P/50V_4_NC
C344
100P
50
C8767 should
place close to
EMC2112
C314 should
place close to
EMC2112
18
Place under CPU
10/20mils
REM_DIODE1_P
REM_DIODE1_N
MMST3904-7-F
Q21
C348
*100P_NC
50
MMST3904-7-F
Q42
C486
*100P_NC
50
C360
2200P/50V
50
C341
0.1U/10V
OTP 85 degree C
R218
487
R223
300
Q22
2N7002W-7-F
SYS_SHDN#
THERM_STP# 41
9,32,41 HWPG
Quanta Computer Inc.
PROJECT : V02A/R01A
Size
Document Number
FAN & THERMAL
Rev
1A
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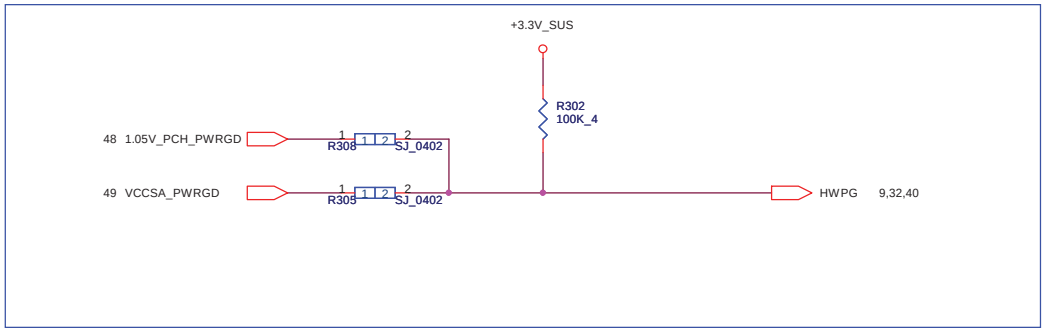

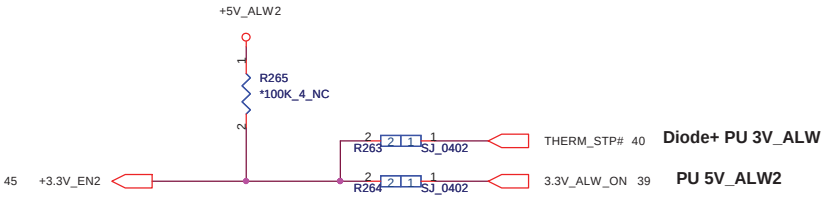

Quanta Computer Inc.

PROJECT : V02A/R01A

Size	Document Number	Rev
	System Reset Circuit	1A
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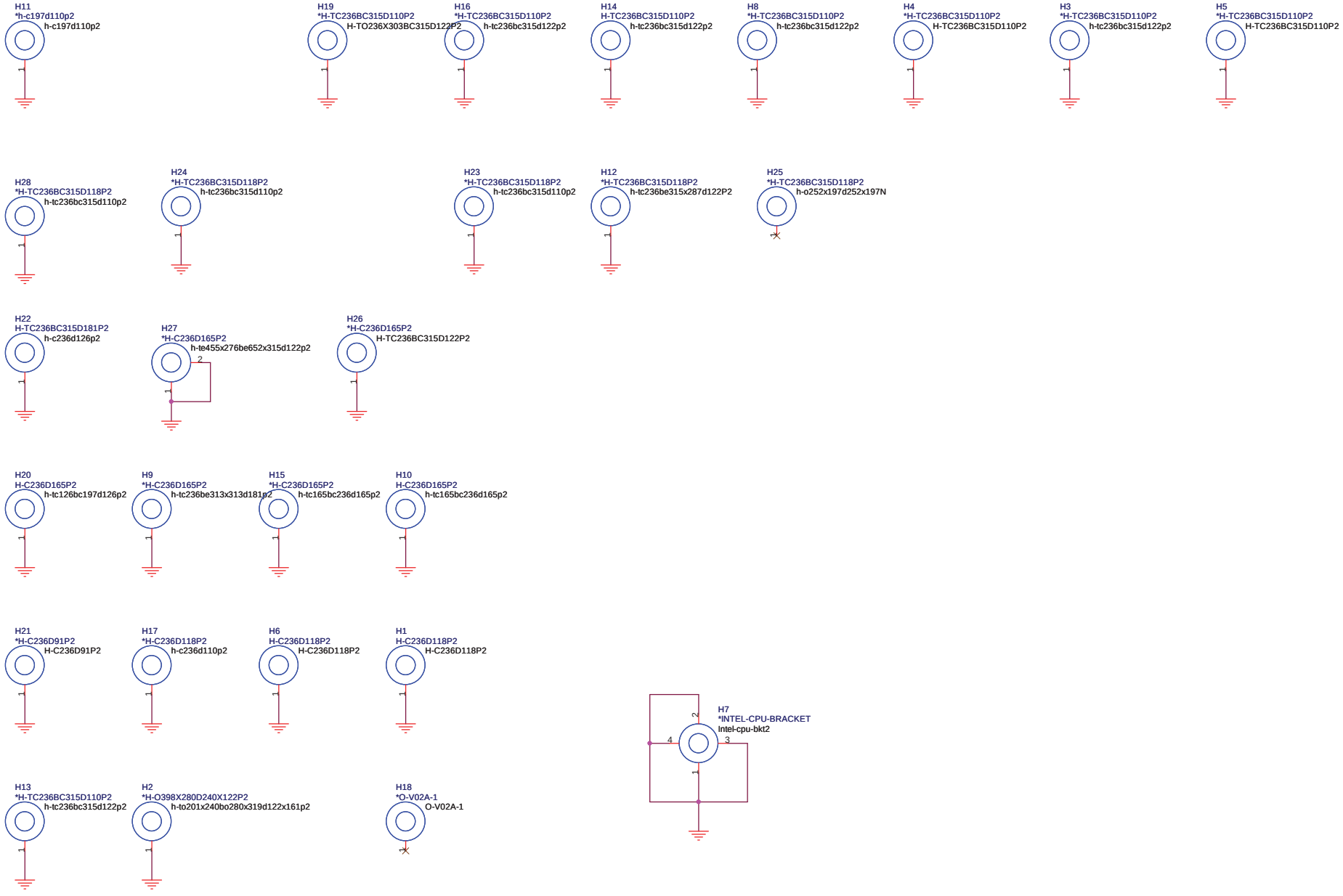

Quanta Computer Inc.

PROJECT : V02A/RO1A

Size	Document Number	Rev
	SCREW PAD	1A

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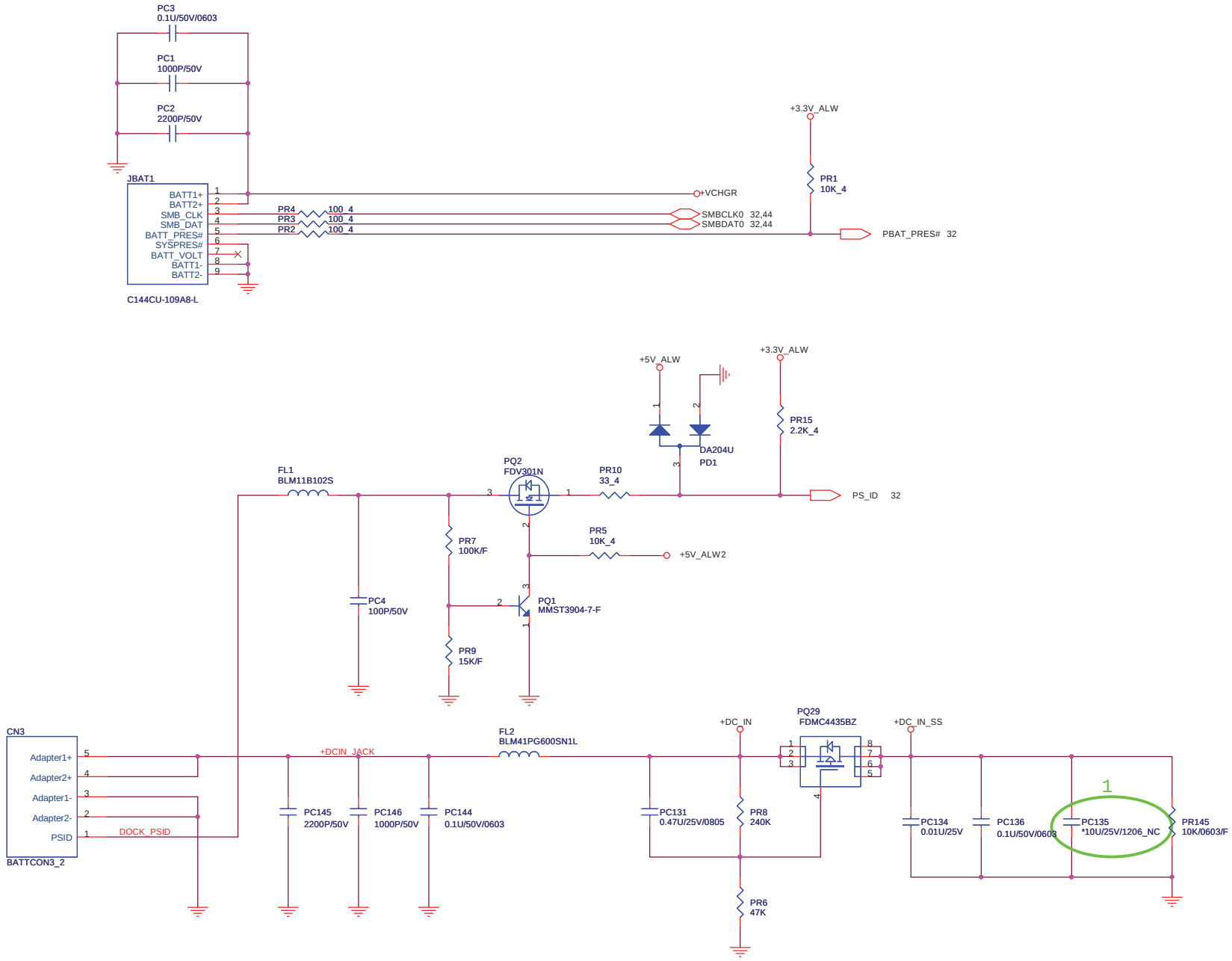
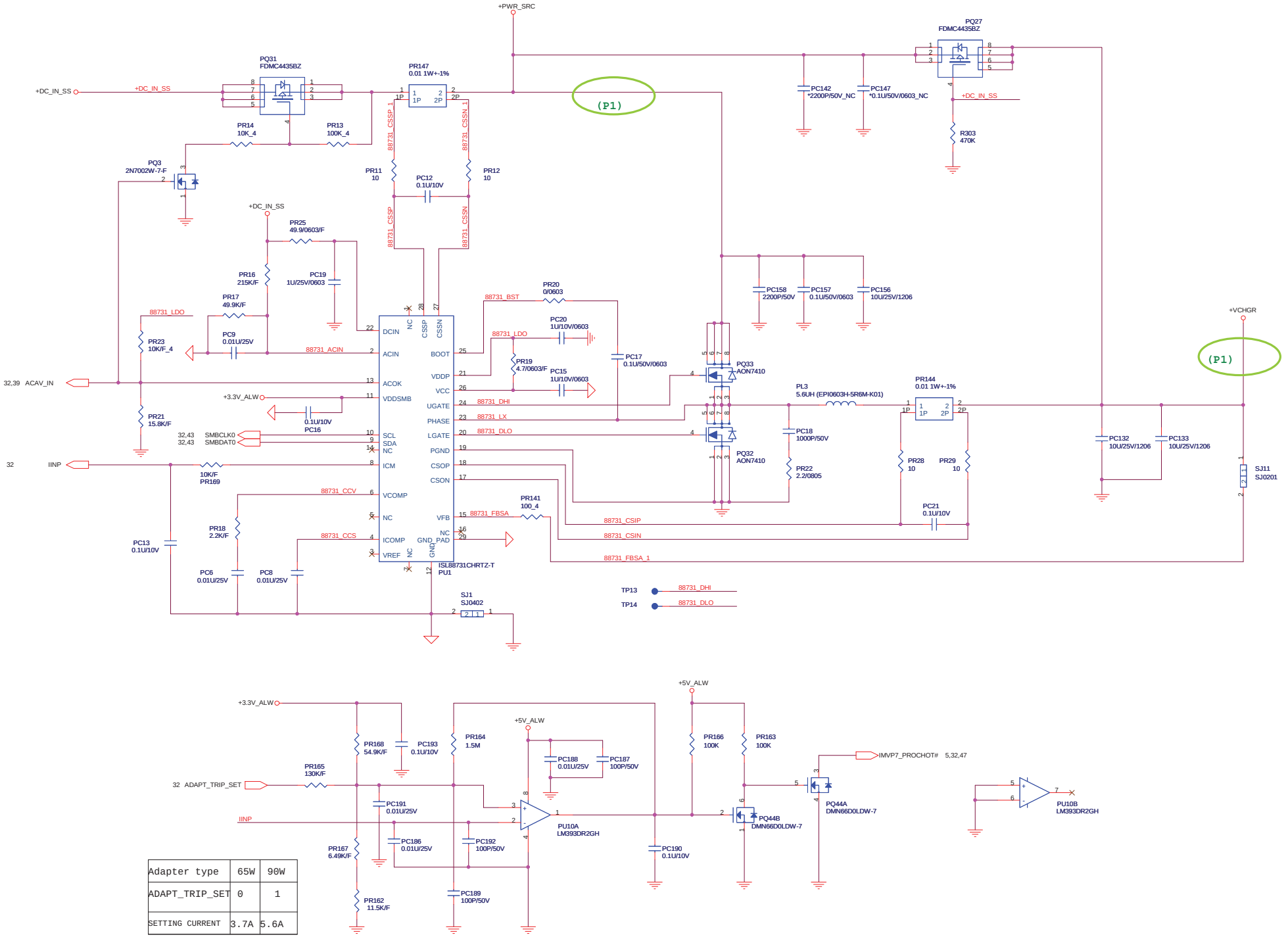


Quanta Computer Inc.		
PROJECT : V02A/R01A		
Size	Document Number: DC IN / BATT	Rev: 1A
Date: Wednesday, January 19, 2011	Sheet 43 of 61	



Adapter type	65W	90W
ADAPT_TRIP_SET	0	1
SETTING CURRENT	3.7A	5.6A

Quanta Computer Inc.

PROJECT : V02A/R01A

Size	Document Number	Rev
	Charger (BQ24765RUVR)	1A

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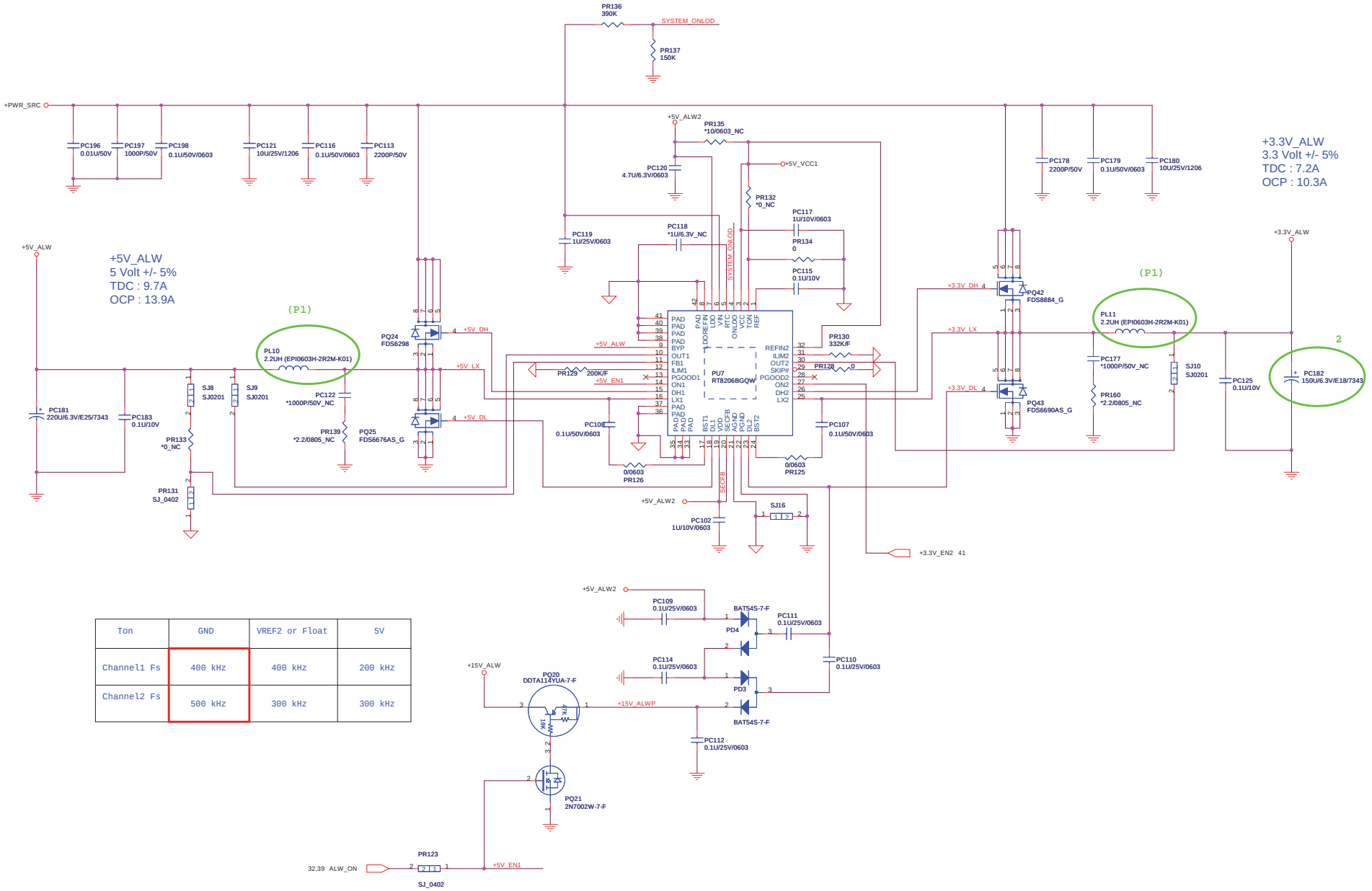

Ton	GND	VREF2 or Float	5V
Channel1 Fs	400 kHz	400 kHz	200 kHz
Channel2 Fs	500 kHz	300 kHz	300 kHz

Quanta Computer Inc.

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Size	Document Number	Rev
	3.3V_ALW / 5V_ALW (TPS51427ARHBR)	1A

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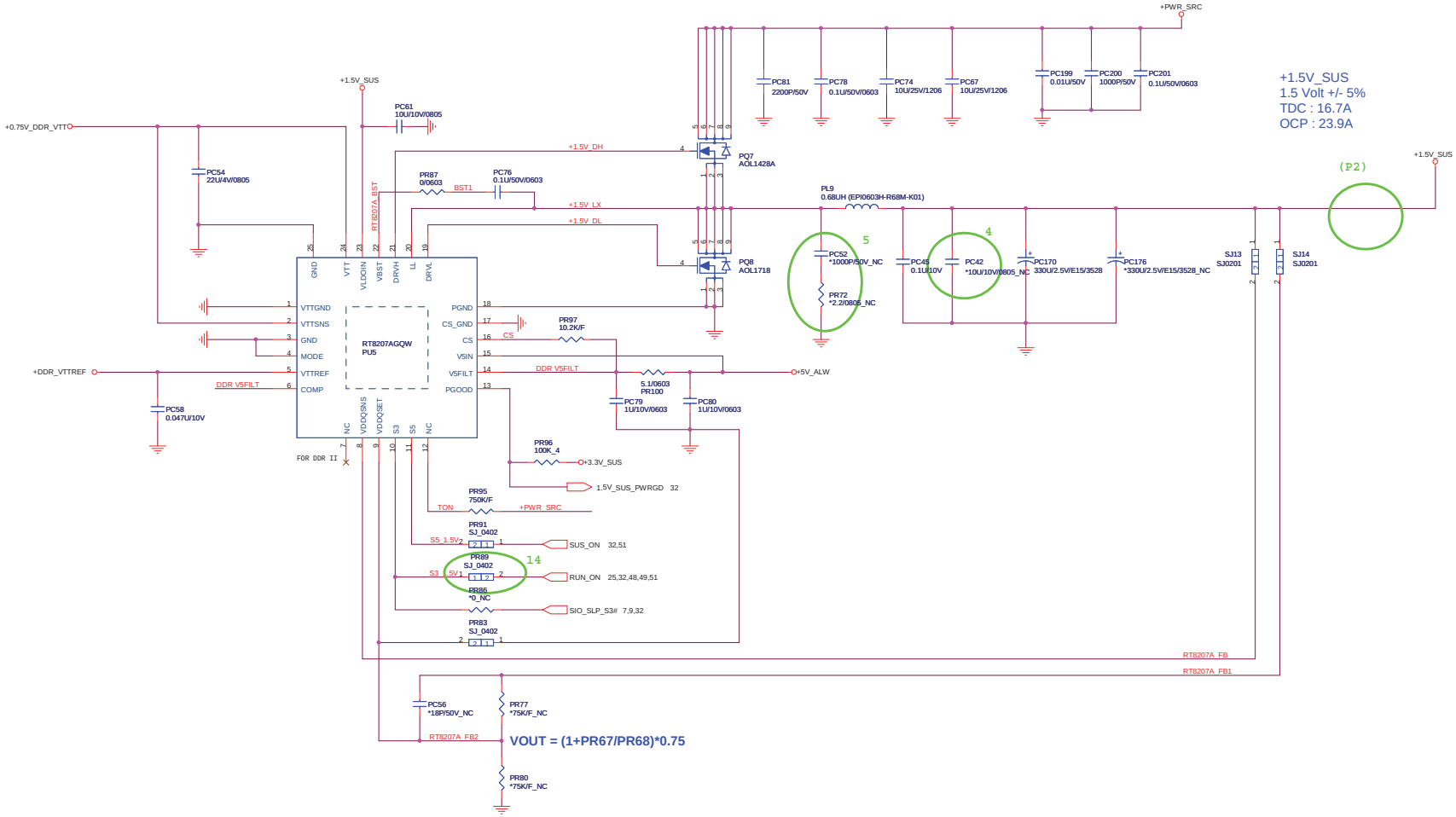

VDDQ and VTT discharge control

MODE pin	Discharge mode
V5IN	No discharge
VDDQ	Tracking discharge
S4/GND	Non-tracking discharge

VDDQ output voltage selection

VDDQSET	VDDQ(V)	VTTREF and VTT	NOTE
GND	1.5V	VDDQSNS/2	DDR3
V5IN	1.8V	VDDQSNS/2	DDR2
FB Resistors	Adjusting	VDDQSNS/2	1.5V < VVDDQ < 3V

Outputs Management by S3, S5 control

State	S3	S5	VDDQ	VTTREF	VTT
S0	HI	HI	On	On	On
S3	LO	HI	On	On	Off (Hi-Z)
S4/S5	LO	LO	On (discharge)	Off (discharge)	Off (discharge)

Quanta Computer Inc.
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Size	Document Number	Rev
	1.5_SUS/0.75_DDR_VTT (RT8207AGQW)	1A

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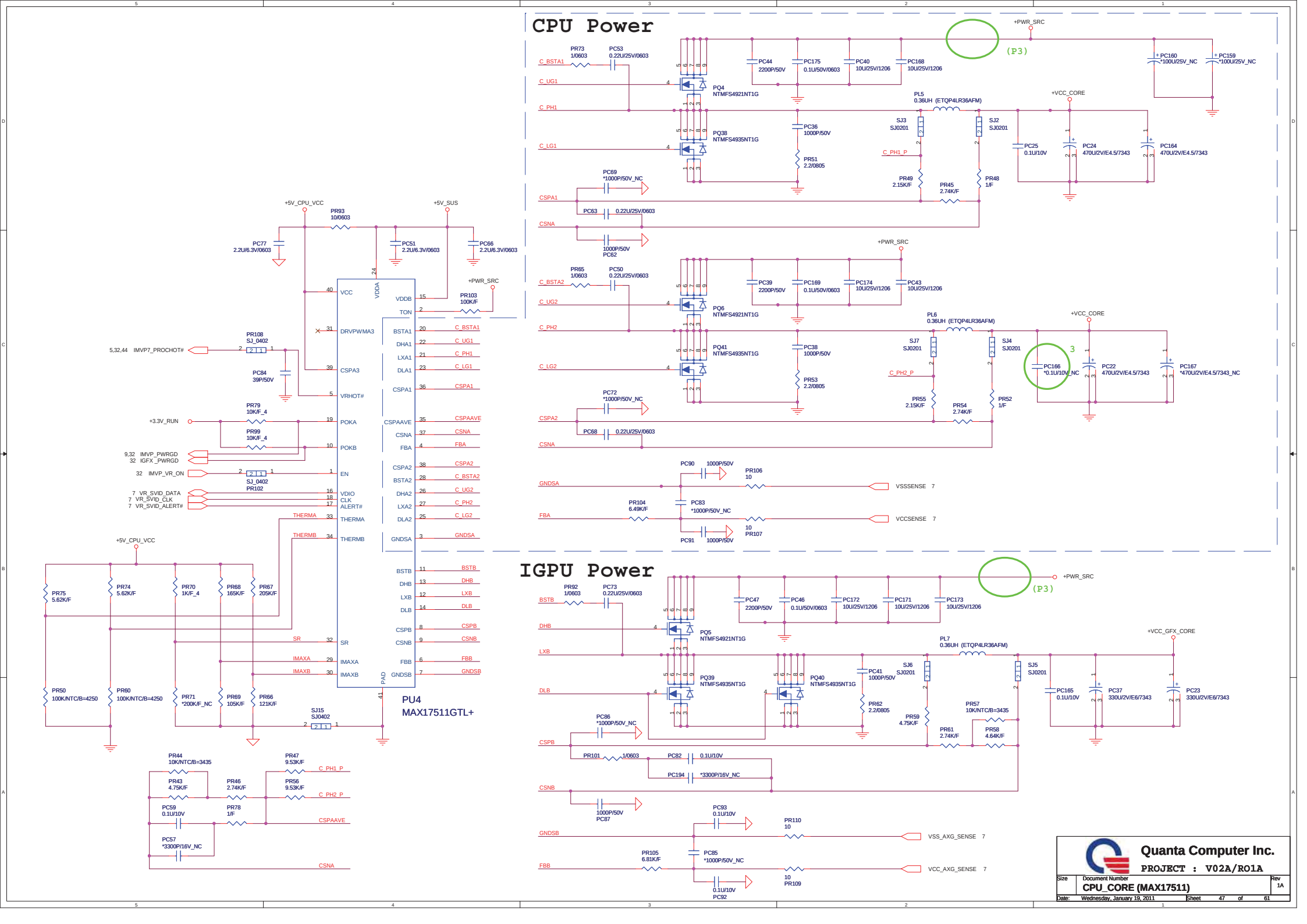
CPU Power
IGPU Power
PU4
MAX17511GTL+
+5V_CPU_VCC
+5V_SUS
+PWR_SRC
+VCC_CORE
+VCC_GFX_CORE
(P3)
PQ4 NTMFS4921NT1G
PQ38 NTMFS4935NT1G
PQ6 NTMFS4921NT1G
PQ41 NTMFS4935NT1G
PQ5 NTMFS4921NT1G
PQ39 NTMFS4935NT1G
PQ40 NTMFS4935NT1G
PL5 0.36UH (ETQP4LR36AFM)
PL6 0.36UH (ETQP4LR36AFM)
PL7 0.36UH (ETQP4LR36AFM)
VSSSENSE 7
VCCSENSE 7
VSS_AXG_SENSE 7
VCC_AXG_SENSE 7
Quanta Computer Inc.
PROJECT : V02A/R01A
CPU_CORE (MAX17511)
Wednesday, January 19, 2011
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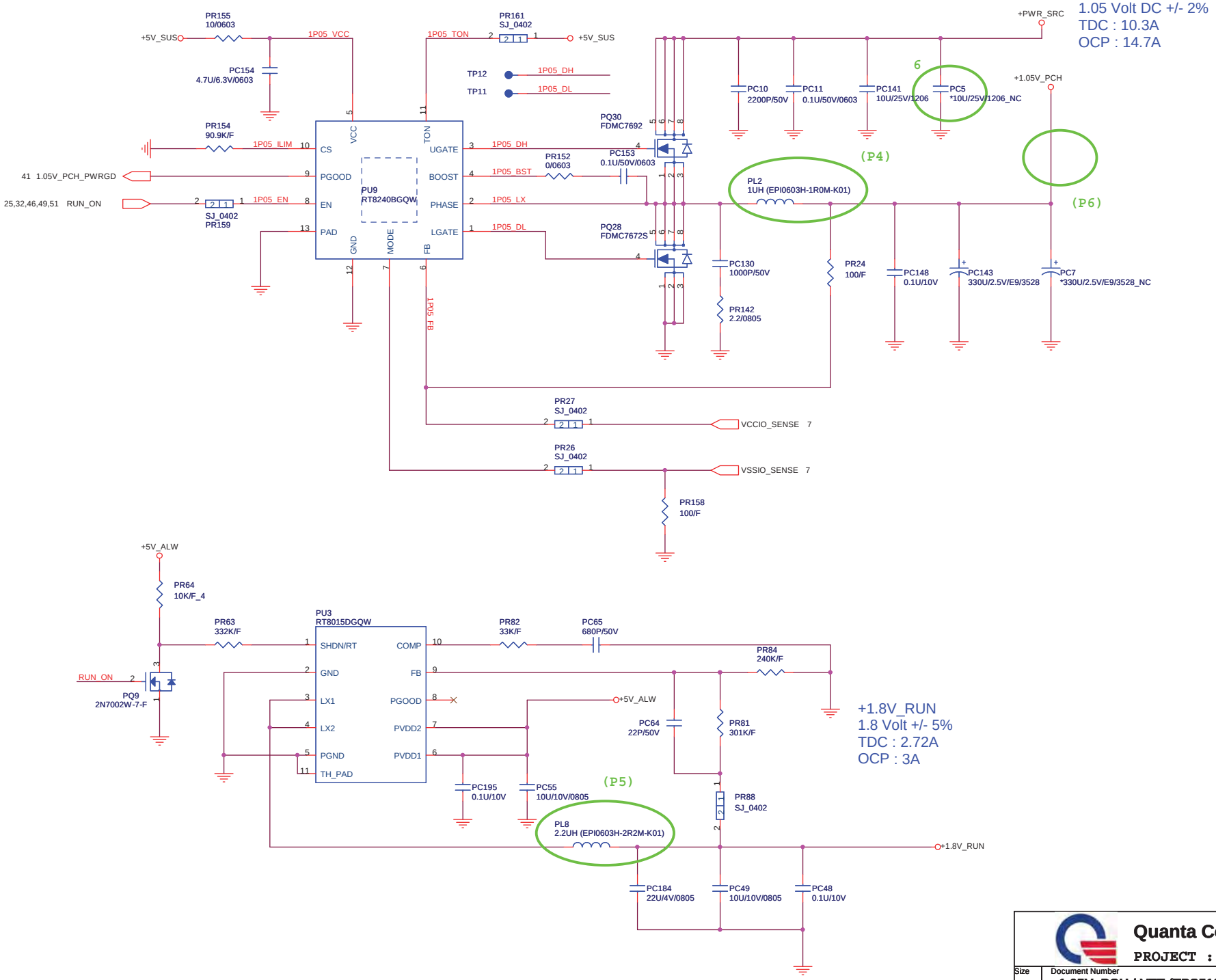
+1.05V_PCH
1.05 Volt DC +/- 2%
TDC : 10.3A
OCP : 14.7A
+PWR_SRC
+5V_SUS
PR155
10/0603
1P05_VCC
PC154
4.7U/6.3V/0603
PR161
SJ_0402
1P05_TON
TP12
TP11
1P05_DH
1P05_DL
PC10
2200P/50V
PC11
0.1U/50V/0603
PC141
10U/25V/1206
PC5
*10U/25V/1206_NC
+1.05V_PCH
PR154
90.9K/F
1P05_ILIM
41 1.05V_PCH_PWRGD
25,32,46,49,51 RUN_ON
SJ_0402
PR159
1P05_EN
PU9
RT8240BGQW
CS
PGOOD
EN
PAD
VCC
TON
UGATE
BOOST
PHASE
LGATE
GND
MODE
FB
PQ30
FDMC7692
PR152
0/0603
1P05_BST
PC153
0.1U/50V/0603
1P05_LX
PQ28
FDMC7672S
PL2
1UH (EPI0603H-1R0M-K01)
(P4)
(P6)
PC130
1000P/50V
PR142
2.2/0805
PR24
100/F
PC148
0.1U/10V
PC143
330U/2.5V/E9/3528
PC7
*330U/2.5V/E9/3528_NC
1P05_FB
PR27
SJ_0402
VCCIO_SENSE 7
PR26
SJ_0402
VSSIO_SENSE 7
PR158
100/F
+5V_ALW
PR64
10K/F_4
PR63
332K/F
PU3
RT8015DGQW
SHDN/RT
GND
LX1
LX2
PGND
TH_PAD
COMP
FB
PGOOD
PVDD2
PVDD1
PR82
33K/F
PC65
680P/50V
PR84
240K/F
RUN_ON
PQ9
2N7002W-7-F
PC64
22P/50V
PR81
301K/F
PC195
0.1U/10V
PC55
10U/10V/0805
(P5)
PR88
SJ_0402
PL8
2.2UH (EPI0603H-2R2M-K01)
+1.8V_RUN
PC184
22U/4V/0805
PC49
10U/10V/0805
PC48
0.1U/10V
+1.8V_RUN
1.8 Volt +/- 5%
TDC : 2.72A
OCP : 3A
Quanta Computer Inc.
PROJECT : V02A/R01A
Size
Document Number
+1.05V_PCH / VTT (TPS51218DSCR)
Rev
1A
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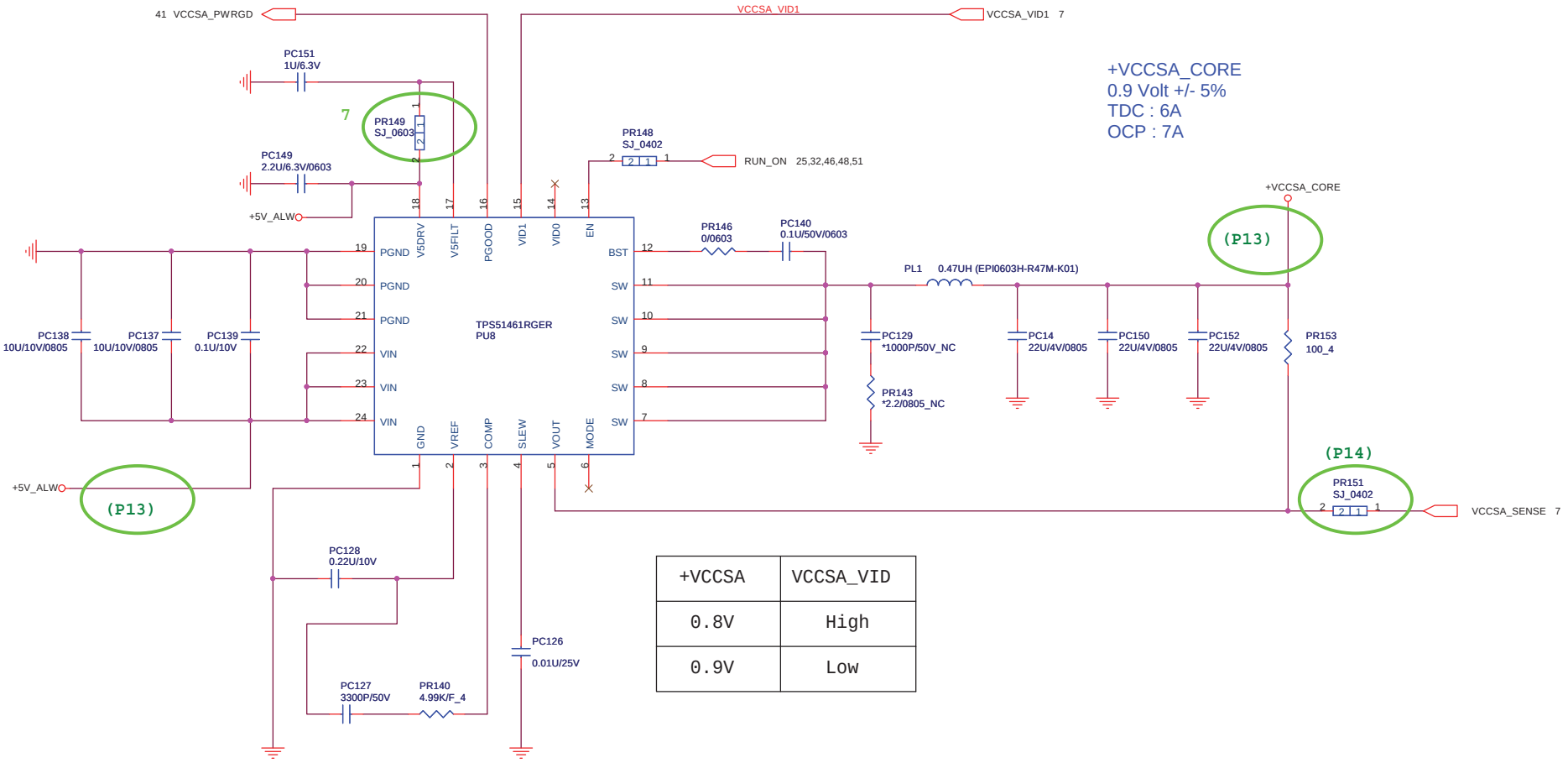

+VCCSA	VCCSA_VID
0.8V	High
0.9V	Low

Quanta Computer Inc.

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Size	Document Number	Rev
	VCCSA (ISL95870A)	1A

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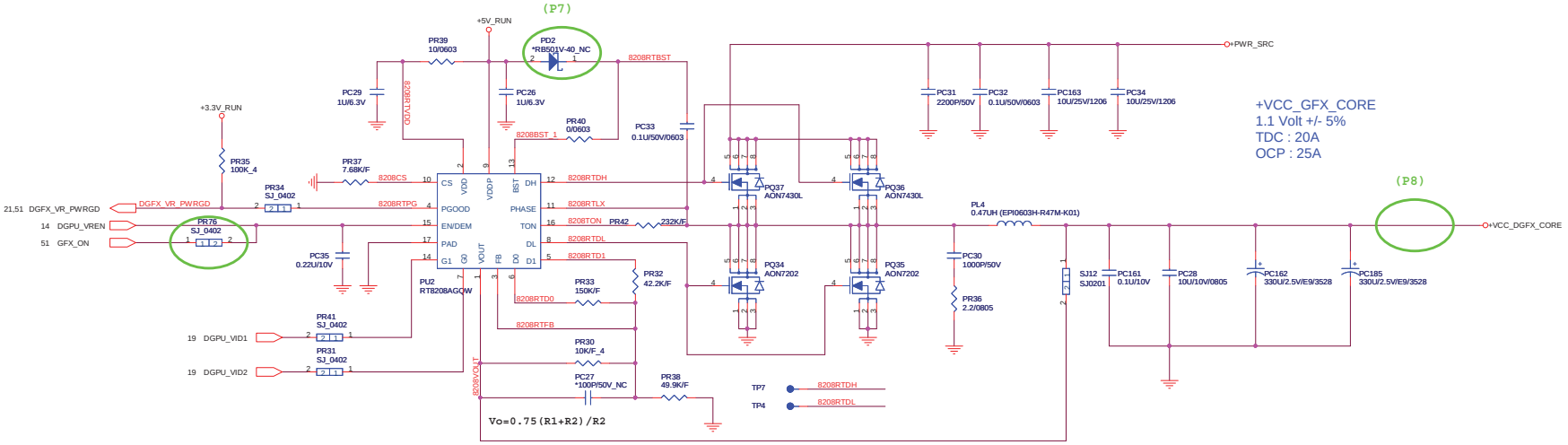


Robson_XT

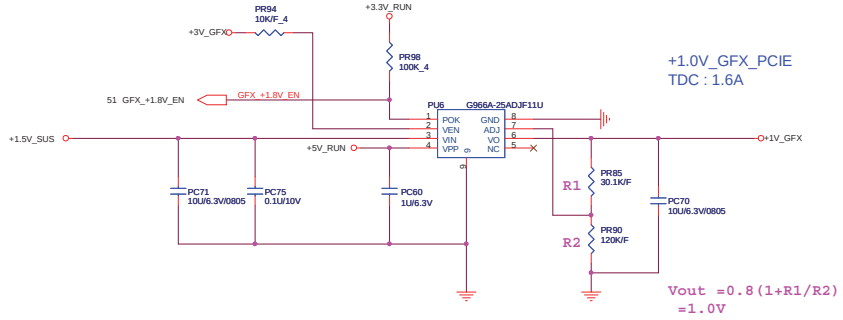
DGPU_VID2	DGPU_VID1	+VCC_GFX_CORE
LOW	LOW	0.9V
HIGH	LOW	0.95V
HIGH	HIGH	1.12V
Setting		
Location	**Part No.**	**Value**
PR30	CS31002FB26	10K
PR38	CS34992FB10	49.9K
PR33	CS41502FB18	150K
PR32	CS34222FB00	44.2K

Whistler_LP

DGPU_VID2	DGPU_VID1	+VCC_GFX_CORE
LOW	LOW	0.85V
HIGH	LOW	0.9V
HIGH	HIGH	1.0V
Setting		
Location	**Part No.**	**Value**
PR30	CS31002FB26	10K
PR38	CS37502FB12	75K
PR33	CS41502FB18	150K
PR32	CS37502FB12	75K

Seymour_XT

DGPU_VID2	DGPU_VID1	+VCC_GFX_CORE
LOW	LOW	0.85V
HIGH	LOW	0.9V
LOW	HIGH	1.0V
HIGH	HIGH	1.1V
Setting		
Location	**Part No.**	**Value**
PR30	CS31002FB26	10K
PR38	CS37502FB12	75K
PR33	CS41072FB11	107K
PR32	CS34122FB19	41.2K



Quanta Computer Inc.
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Size	Document Number	Rev
	dGFX_CORE (RT8208A)	1A

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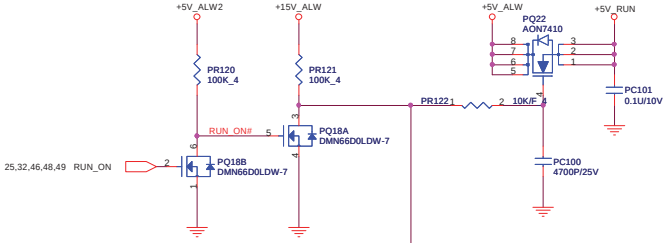
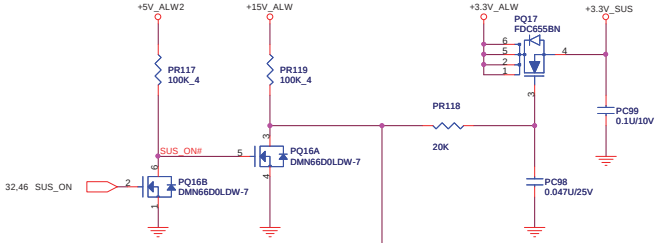
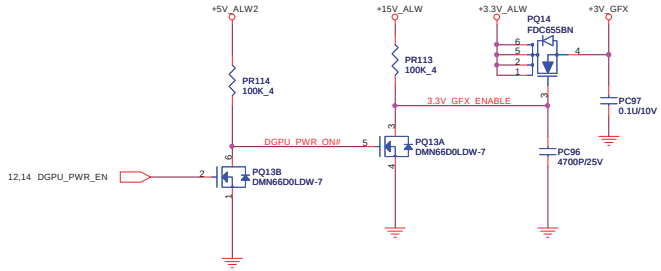
+5V_RUN
Max Current : 2.69A



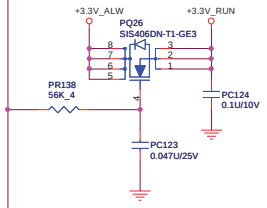
+3.3V_SUS
Max Current : 1.28A



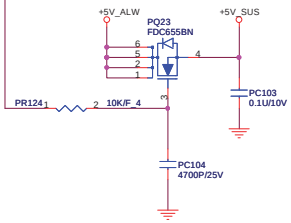
+3V_GFX
Max Current : 60mA



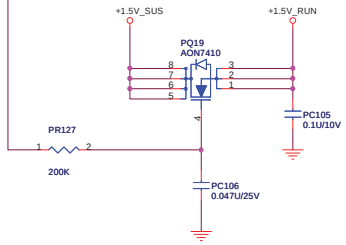
+3.3V_RUN
Max Current : 4.32A



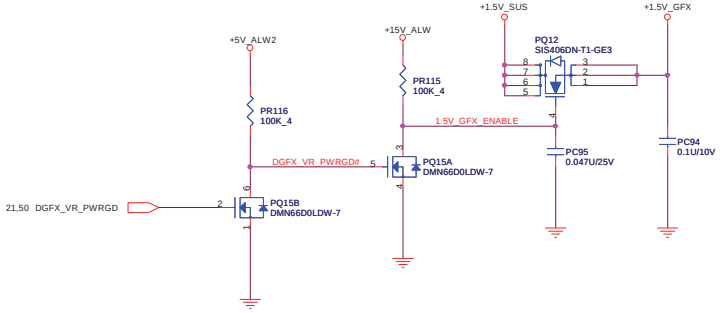
+5V_SUS
Max Current : 0.1A



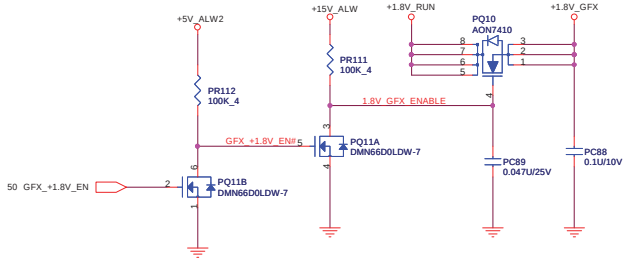
+1.5V_RUN
Max Current : 1.16A

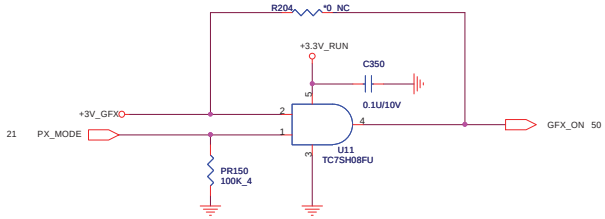


+1.5V_GFX
Max Current : 3.6A



+1.8V_GFX
Max Current : 2.5A





Reserve for support BACO mode
Power sequence control +3V_GFX>+VCC_DGFX_CORE

Quanta Computer Inc.
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Size	Document Number	Rev
	Load Switch	1A

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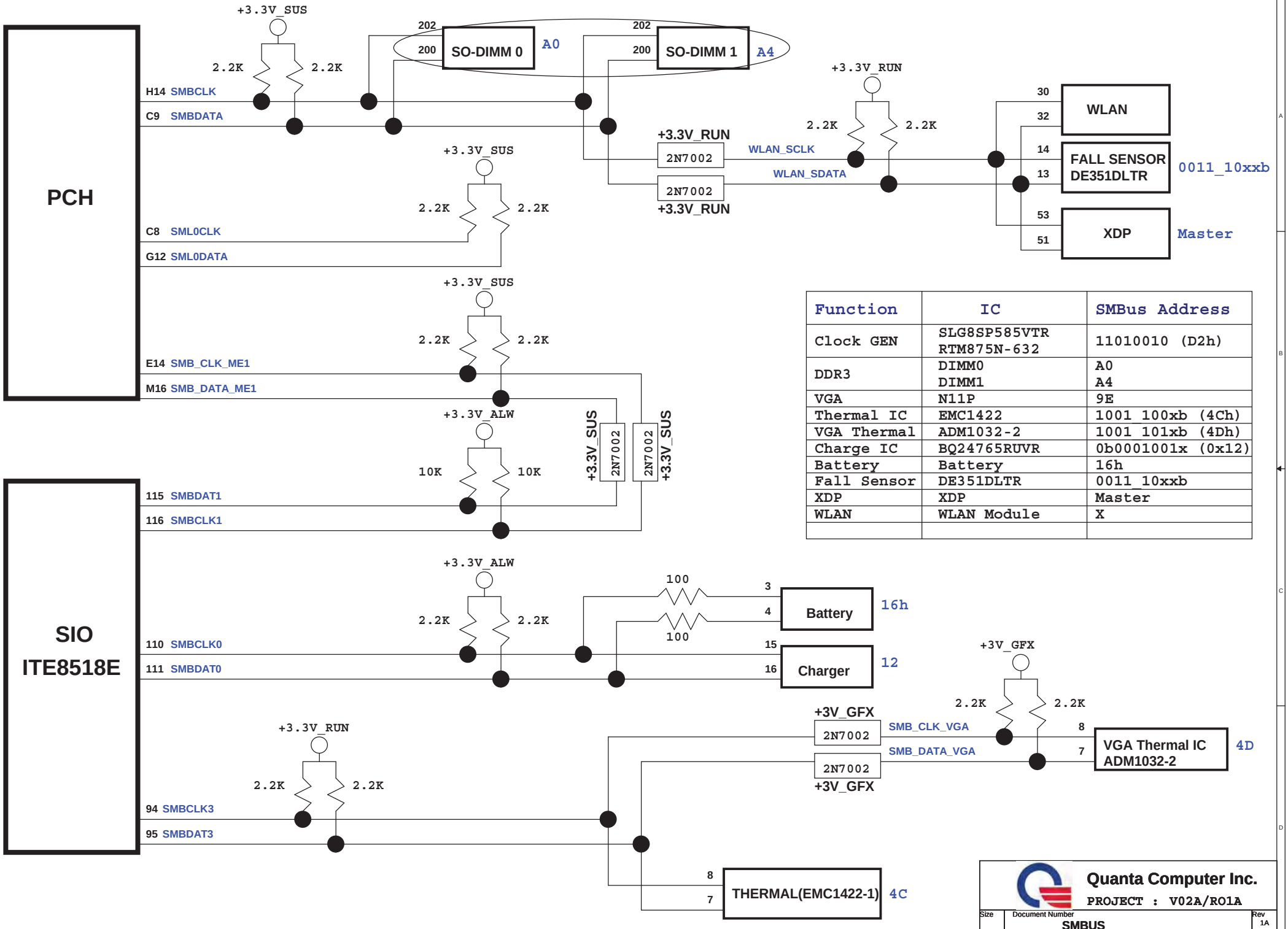

Function	IC	SMBus Address
Clock GEN	SLG8SP585VTR RTM875N-632	11010010 (D2h)
DDR3	DIMM0 DIMM1	A0 A4
VGA	N11P	9E
Thermal IC	EMC1422	1001 100xb (4Ch)
VGA Thermal	ADM1032-2	1001 101xb (4Dh)
Charge IC	BQ24765RUVR	0b0001001x (0x12)
Battery	Battery	16h
Fall Sensor	DE351DLTR	0011_10xxb
XDP	XDP	Master
WLAN	WLAN Module	X

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Size	Document Number	Rev
	SMBUS	1A

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