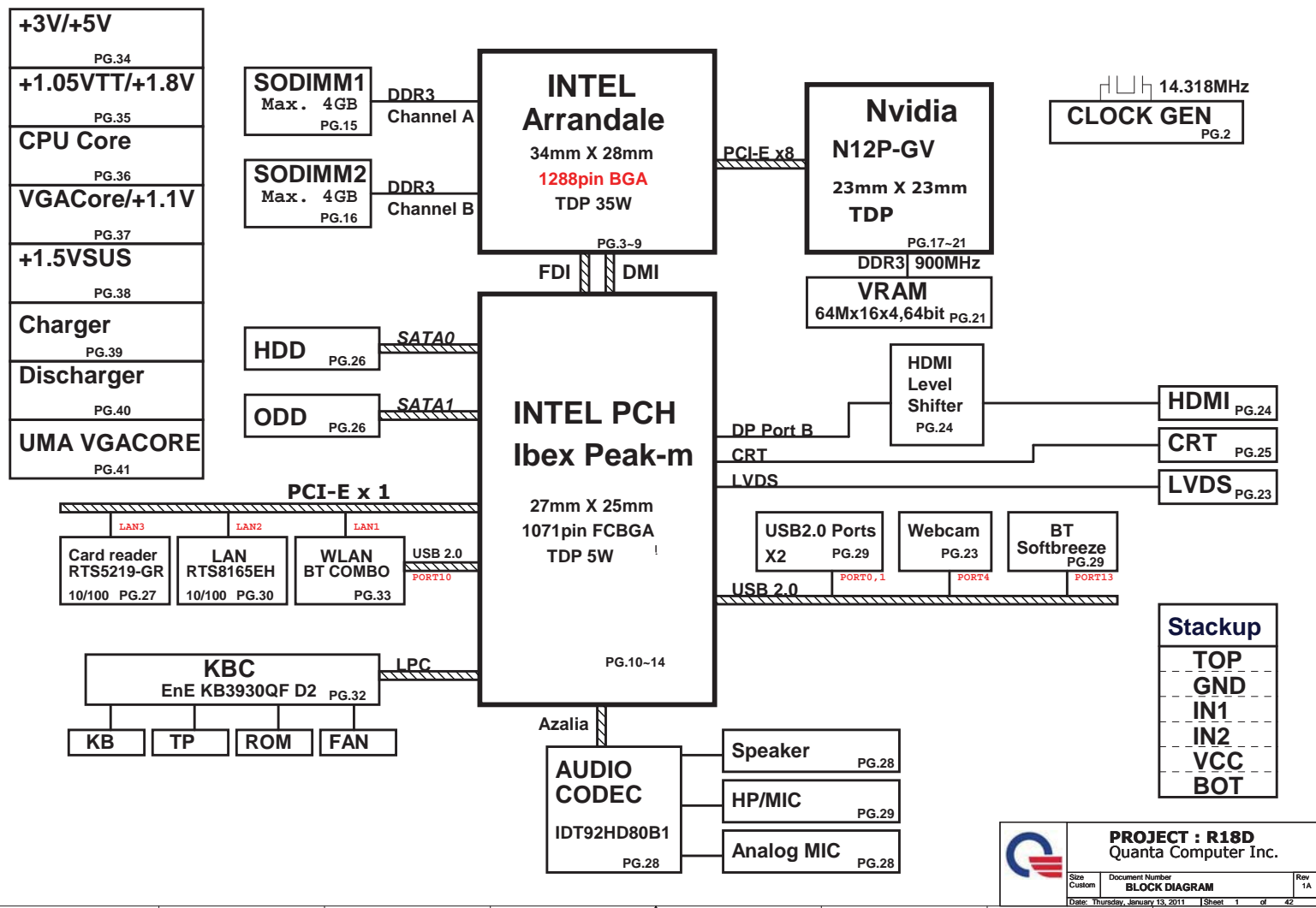
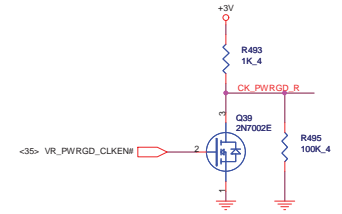
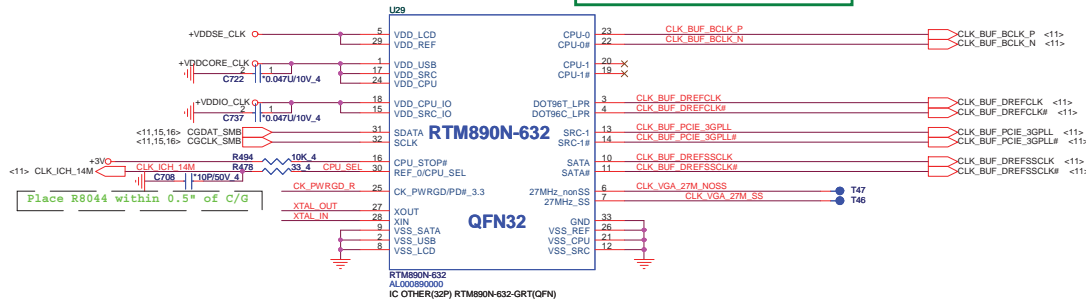
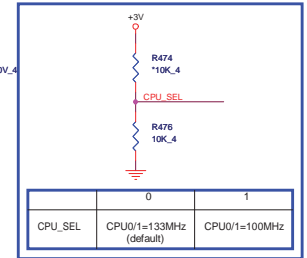
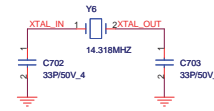
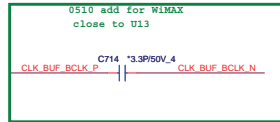
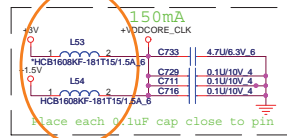
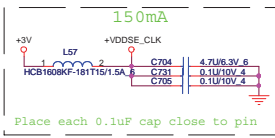
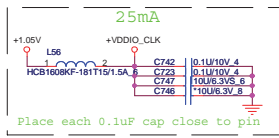


# R18D INTEL UMA/DISCRETE SYSTEM DIAGRAM





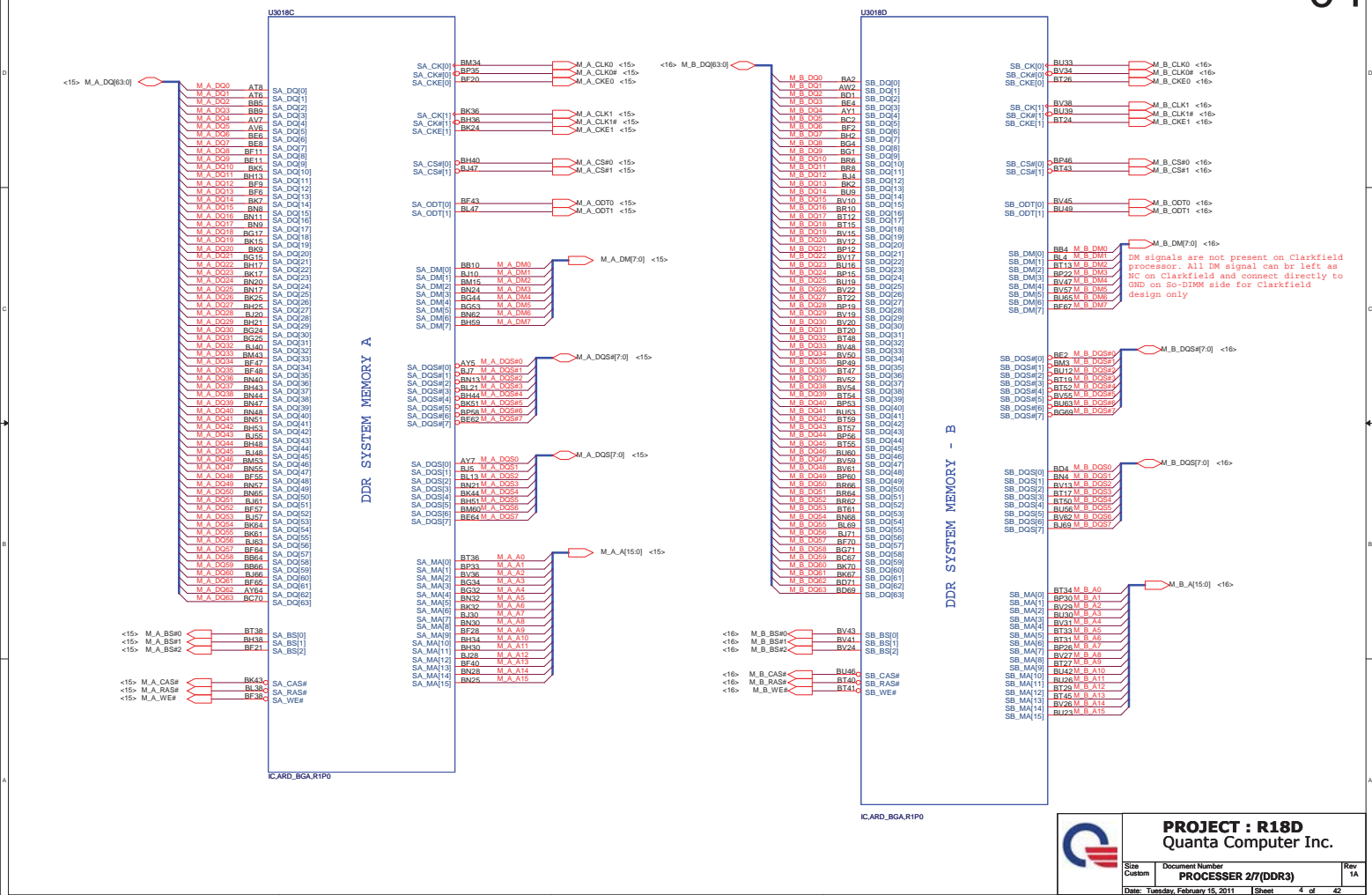
Vender	Part	Part Number	Part Description
ICS	ICS9LVS3197	AL003197001	IC OTHER(32P) ICS9LVS3197AKLFT(MLF)
Realtek	RTM890N-632	AL000890000	IC OTHER(32P) RTM890N-632-GRT(QFN)
Silego	SLG8LV595VTR	AL000595000	IC OTHER(32P)SLG8LV595VTR(QFN)

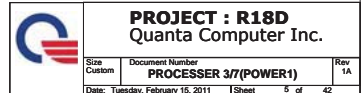
+1.05V <10,11,12,14,41>  
 +1.5V <6,32>  
 -3V <3,10,11,12,13,14,15,16,17,19,22,23,24,25,26,27,29,30,31,32,35,36,38>

**PROJECT : R18D**  
Quanta Computer Inc.

Size Custom	Document Number <b>Clock Gen(9LRS3197)</b>	Rev 1A
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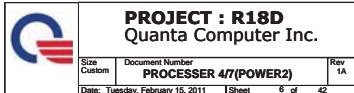


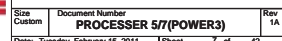




	DIS	UMA
Rc	NA	4.7K
Rd	NA	0 ohm
Re	NA	0 ohm
Rf	NA	NA

♀ Please note that +VCC GFX COR

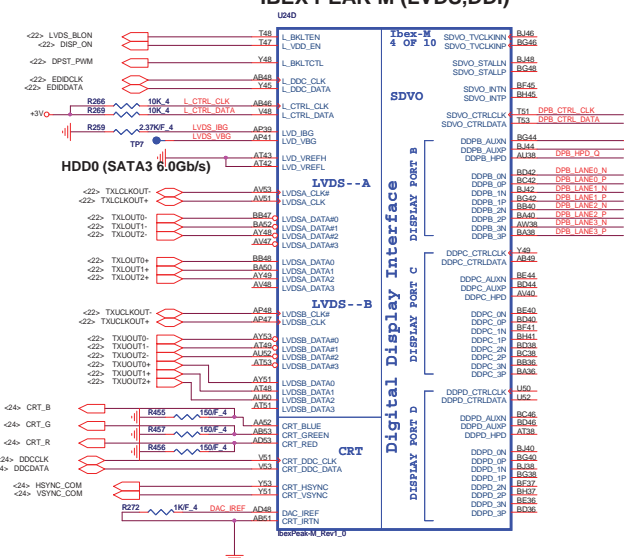
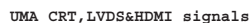




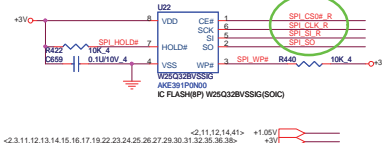
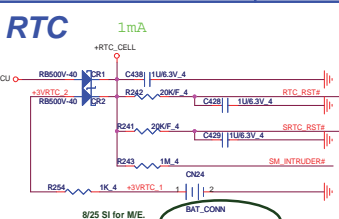
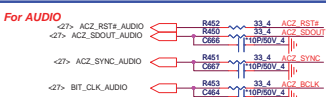
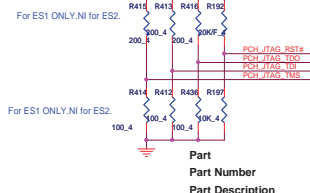
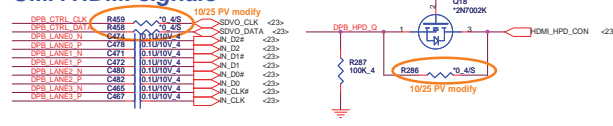








### UMA HDMI signals

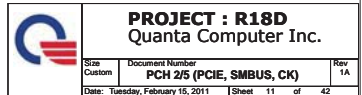


**Vender**  
Socket DG008000031  
EON - EN25F32-100HIP  
AKE39FN0Q00 IC FLASH(8P) EN25F32-100HIP (SOIC)  
WINBOND - W25Q32BVSSIG  
AKE391P0N00 IC FLASH(8P) W25Q32BVSSIG(SOIC)

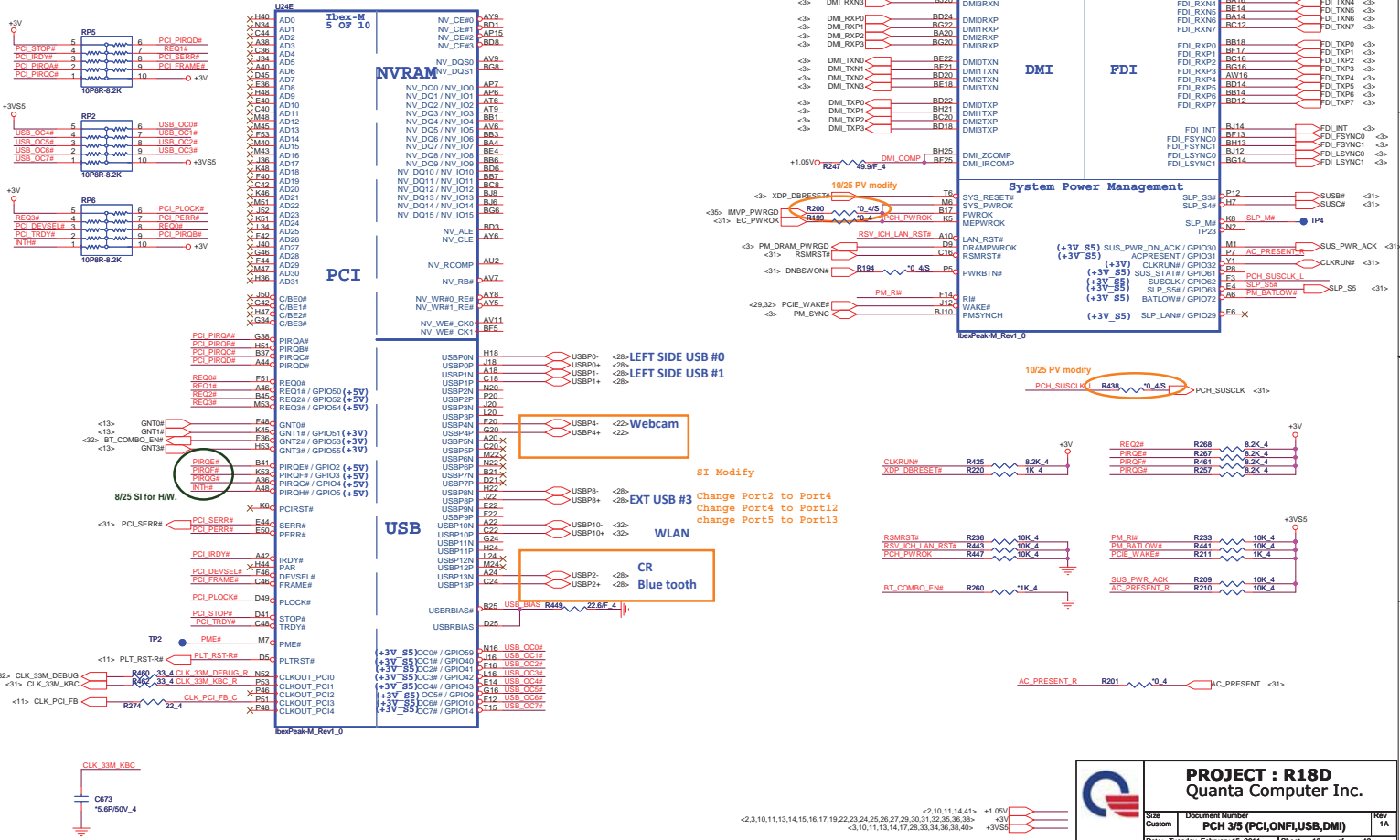


**PROJECT : R18D**  
Quanta Computer Inc.


Size: Custom	Document Number <b>PCH 1/5 (SATA,HDA,LPC)</b>	R
Date: Tuesday, February 15, 2011	Sheet 10 of 42	



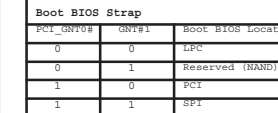
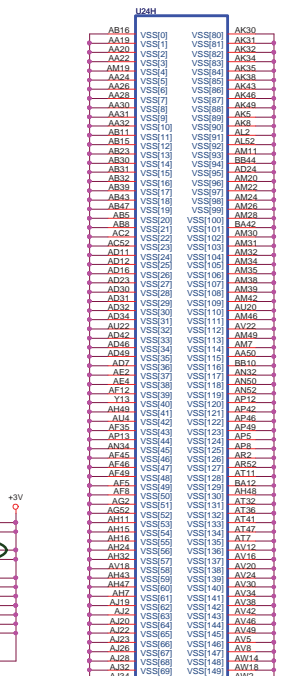
U24E  
H40 AD0 Ibex-M



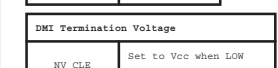
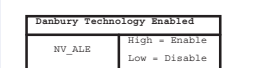
**IBEX PEAK-M (GND)**

<12> GNT3# 

A16 swap override Strap/Top-Block Swap Override jumper	
GNT3#	Low = A16 swap override/Top-Block Swap Override enabled High = Default

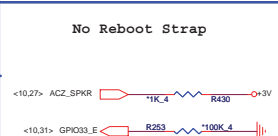
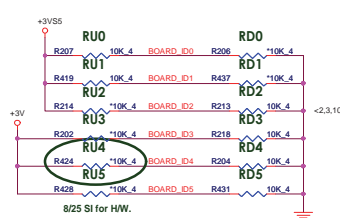


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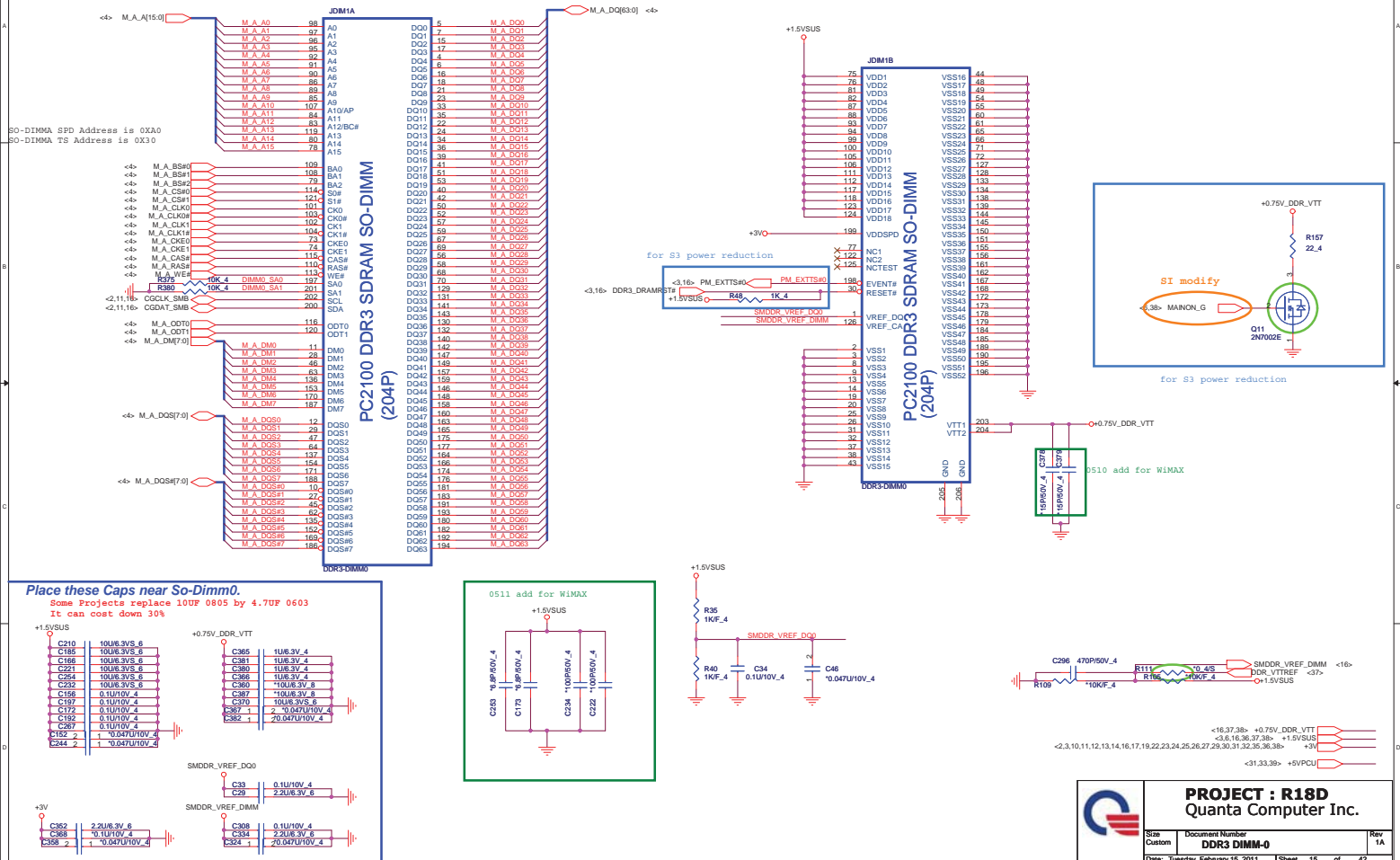


Board ID	ID0 GPIO24	ID1 GPIO45	ID2 GPIO57	ID3 GPIO34	ID4 GPIO35	ID5 GPIO38
UMA/DIS	0=UMA 1=DIS.					
1.1/1.0		1=1.1 0=1.0				
Reserve			0=No 1=Yes			
Reserve				0=No 1=Yes		
Reserve					0=No 1=Yes	
Reserve						0=No 1=Yes

BOARD ID1設成HIGH代表Rockey 1.1



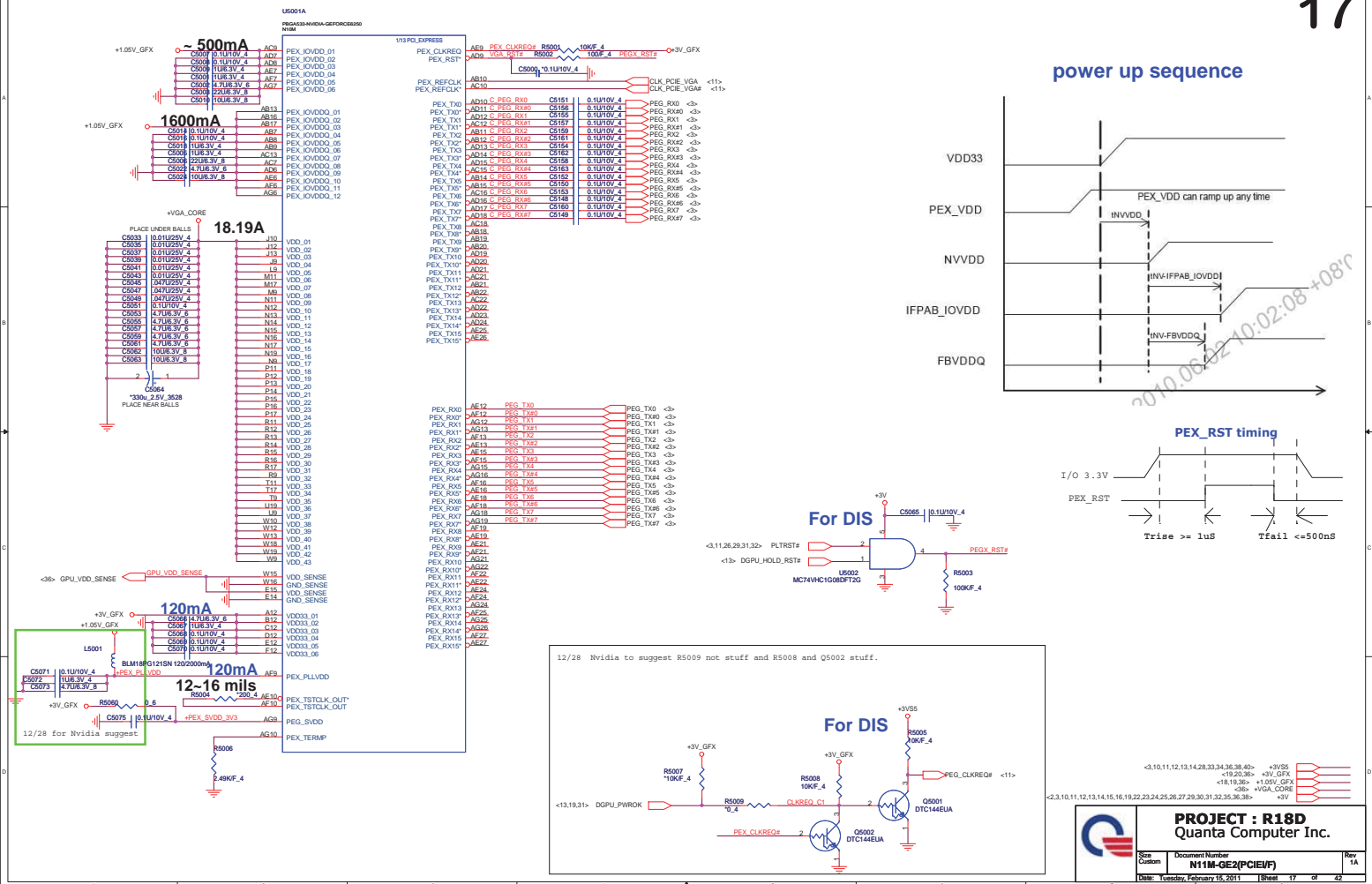


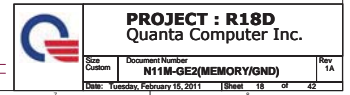












Optimus:  
All unstuff , one Cap stuff 10K ohm

Optimus:  
All unstuff , one Cap stuff 10K ohm

Optimus:  
All unstuff , one Cap stuff 10K ohm

Optimus:  
All unstuff , one Cap stuff 10K ohm

Optimus:  
All unstuff , one Cap stuff 10K ohm

Optimus:  
All unstuff , one Cap stuff 10K ohm

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All unstuff , one Cap stuff 10K ohm

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All unstuff , one Cap stuff 10K ohm

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All unstuff , one Cap stuff 10K ohm

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All unstuff , one Cap stuff 10K ohm

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All unstuff , one Cap stuff 10K ohm

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All unstuff , one Cap stuff 10K ohm

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All unstuff , one Cap stuff 10K ohm

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All unstuff , one Cap stuff 10K ohm

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All unstuff , one Cap stuff 10K ohm

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All unstuff , one Cap stuff 10K ohm

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All unstuff , one Cap stuff 10K ohm

Optimus:  
All unstuff , one Cap stuff 10K ohm

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All unstuff , one Cap stuff 10K ohm

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All unstuff , one Cap stuff 10K ohm

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All unstuff , one Cap stuff 10K ohm

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Optimus:  
All unstuff , one Cap stuff 10K ohm

Optimus:  
All unstuff , one Cap stuff 10K ohm

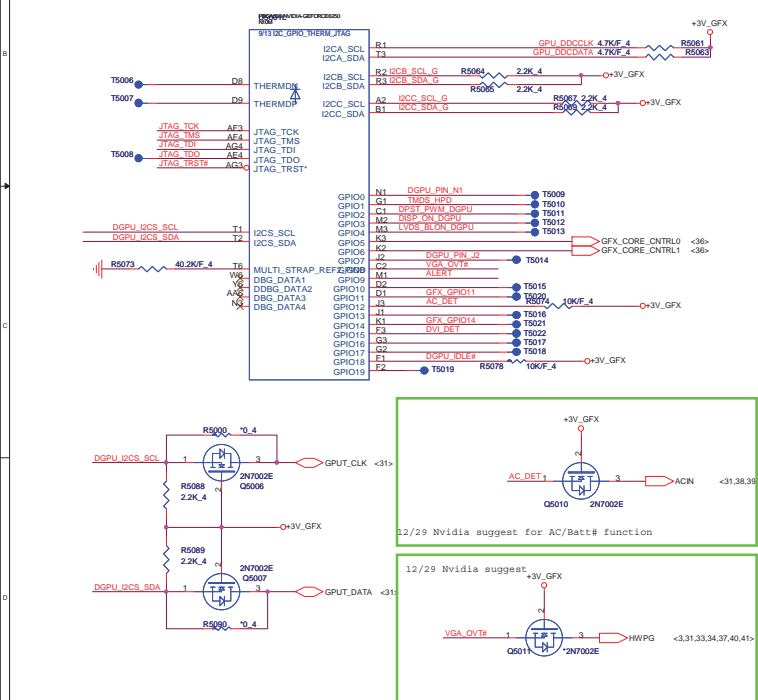
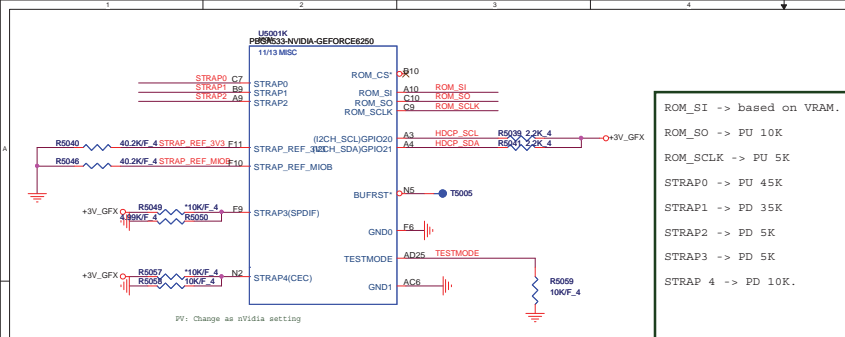
Optimus:  
All unstuff , one Cap stuff 10K ohm

<2,3,10,11,12,13,14,15,16,17,22,23,24,25,26,27,29,30,31,32,35,36,38>  
+3V  
+17.20,36> +3V\_GFX  
<17,18,36> +1.05V\_GFX

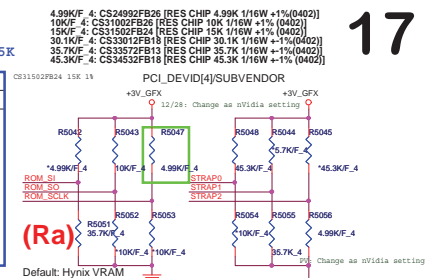


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**Quanta Computer Inc.**

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Logical Strap Bit Mapping		
	PU-VDD	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



	Logical Strapping Bit3	Logical Strapping Bit2	Logical Strapping Bit1	Logical Strapping Bit0
ROM_SO	XCLK_4V7E	FB_0_BAR_SIZE	SMB_ALT_ADDR	VGA_DEVICE
ROM_SCLK	PCI_DEVIDE[4]	SUB_VENDOR	SLOT_CLK_CFG	PEX_PLL_EN_TERM
ROM_SI	RAMCFG[3]	RAMCFG[2]	RAMCFG[1]	RAMCFG[0]
STRAP2	PCI_DEVIDE[3]	PCI_DEVIDE[2]	PCI_DEVIDE[1]	PCI_DEVIDE[0]
STRAP1	3GIO_PADCFG[3]	3GIO_PADCFG[2]	3GIO_PADCFG[1]	3GIO_PADCFG[0]
STRAP0	USER[3]	USER[2]	USER[1]	USER[0]
STRAP3	SOR3_EXPOSED	SOR2_EXPOSED	SOR1_EXPOSED	SOR0_EXPOSED
STRAP4	RESERVED	RESERVED	PCIE_MAX_SPEED	DP_PLL_VDD33V

### VRAM Configuration Table

RAMCFG [3:0]	DESCRIPTION	Vendor	Vendor PIN	ROM_SI
0000		Reserved		
0010	DDR3 64Mx16x6, 128bit, 1GB,800MHz	Hyunix		PD 15K
0011	DDR3 64Mx16x6, 128bit, 1GB,800MHz	SamSung		PD 15K
0110	DDR3 128Mx16x4, 128bit, 1GB,800MHz	Hyunix		PD 35K
0111	DDR3 128Mx16x4, 128bit, 1GB,800MHz	SamSung		PD 45K
XXXX				
XXXX				

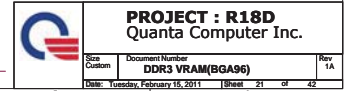
## GPIO ASSIGNMENTS

GPIO	I/O	ACTIVE	USAGE
0	N/A	N/A	
1	IN	N/A	Hot plug detect for IFP link C
2	OUT	HIGH	PANEL BACKLIGHT PWM
3	OUT	HIGH	PANEL POWER ENABLE
4	OUT	HIGH	PANEL BACKLIGHT ENABLE
5	OUT	N/A	NVVDD VID0
6	OUT	N/A	NVVDD VID1
7	OUT	N/A	NVVDD VID2
8	I/O	LOW	OVERT
9	I/O	LOW	ALERT
10	OUT	N/A	Memory VREF SELECT
11	IN	N/A	SLI SYNC0
12	IN	N/A	PWR_LEVEL
13	OUT	N/A	THERM_LOAD_STEP_DOWN
14	OUT	N/A	THERM_LOAD_STEP_UP



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**Quanta Computer Inc.**

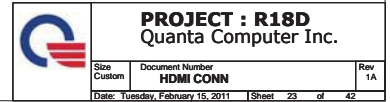
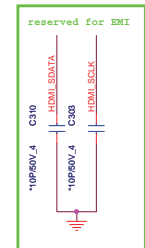
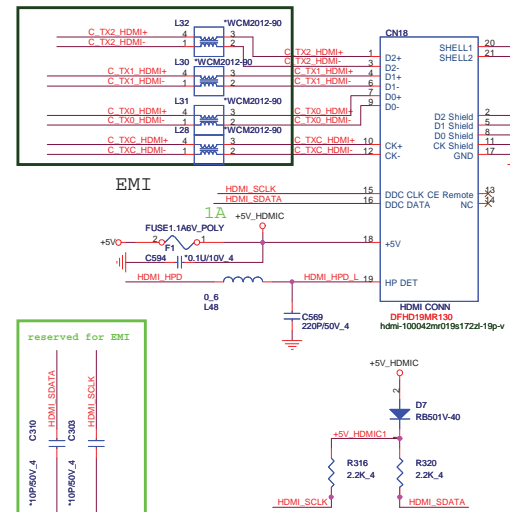
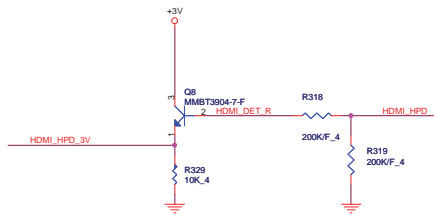
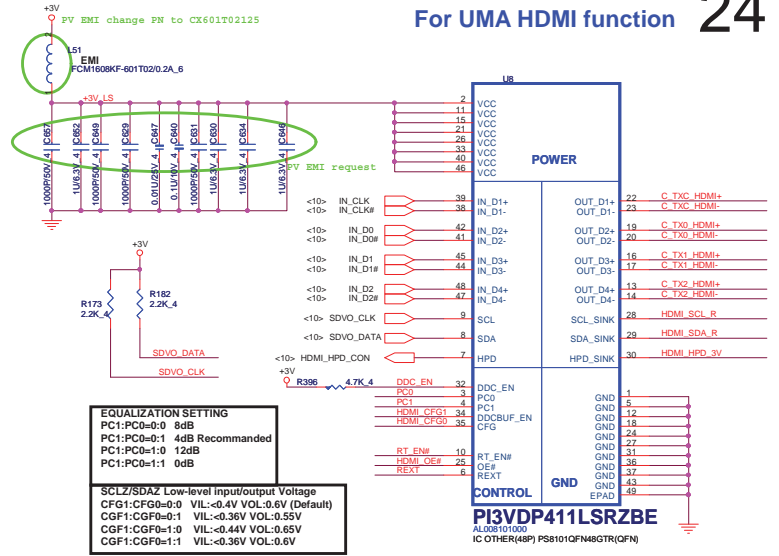
Document Number  
**N12P-GV(GPIO/STRAPS)**



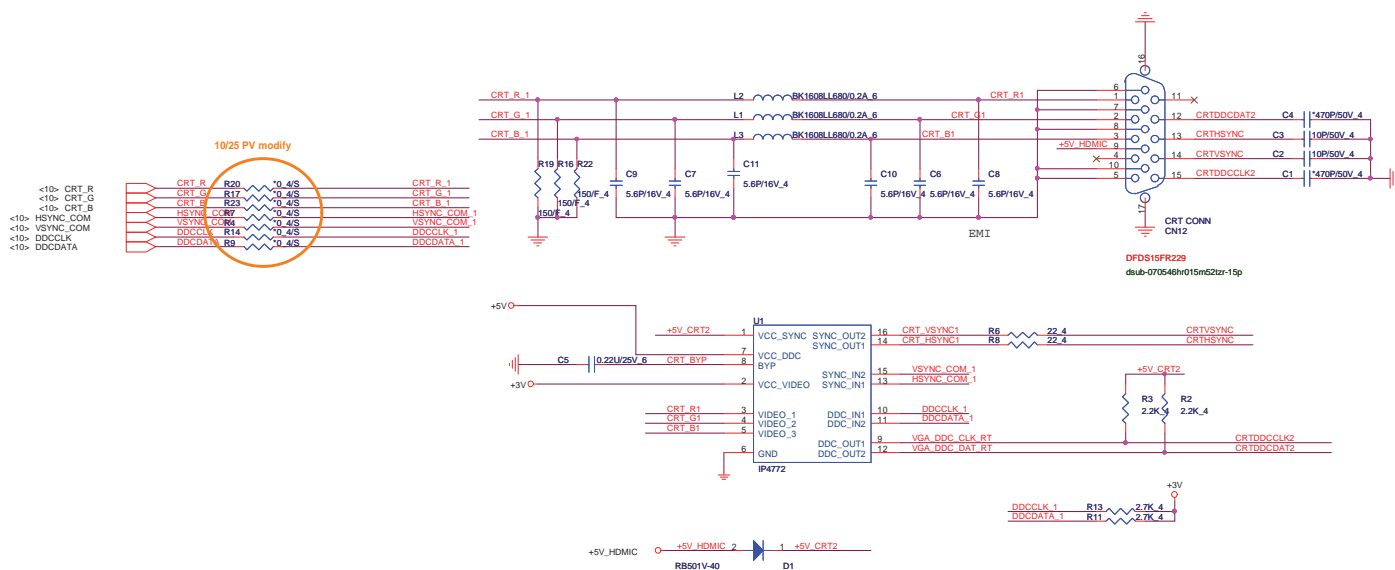


9/16 : PIM: need use ALP411LS000 or ALP411LS004 for capella

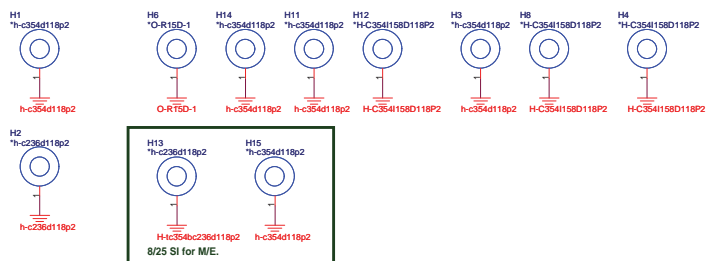
CHR : need Na R1182, add R1027 for capella



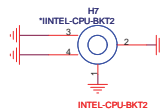
## CRT PORT



**HOLE**



## CPU



## VGA

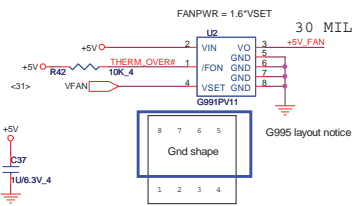
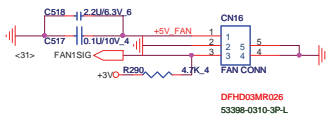


**PROJECT : R18D**  
Quanta Computer Inc.

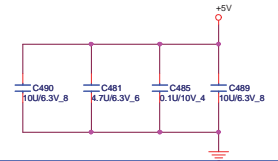
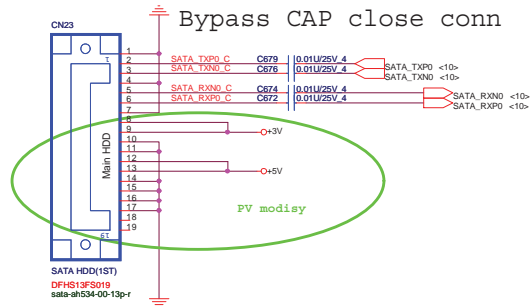
Size Custom	Document Number <b>CRT,Hole</b>	Rev 1A
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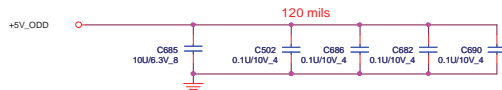
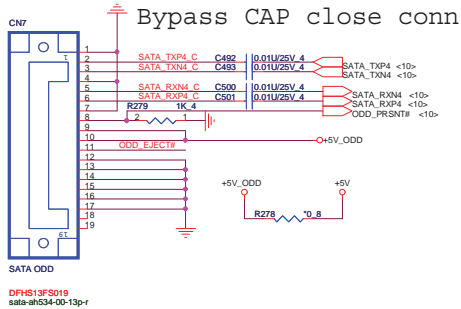
## CPU FAN



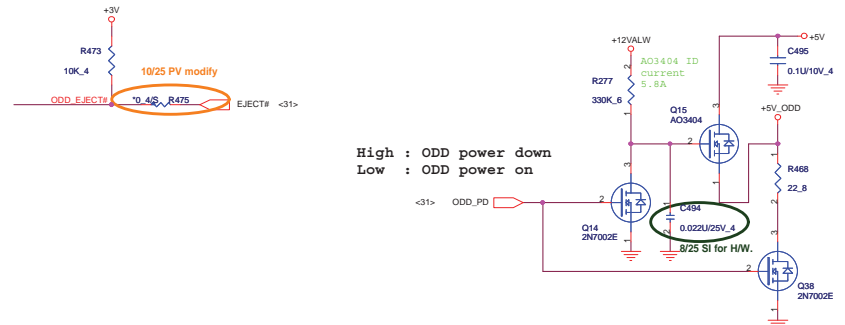
## SATA HDD CONNECTOR



## SATA ODD CONNECTOR

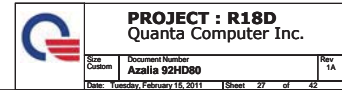


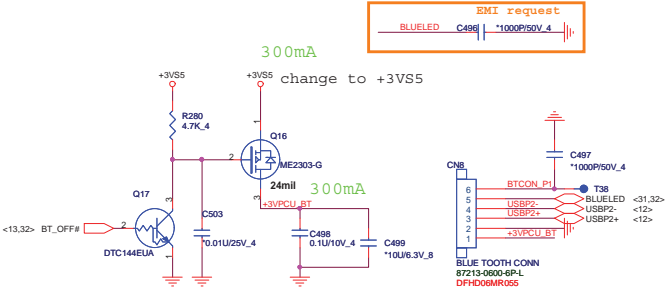
follow INTEL DG change eject PU to +3V.



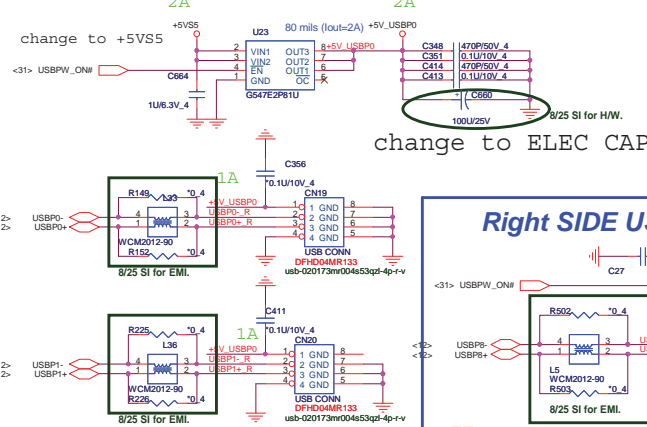
			PROJECT : R18D Quanta Computer Inc.	
Size Custom	Document Number HDD/ODD/FAN			Rev 1A
Date: Tuesday, February 15, 2011	Sheet	25	of	42



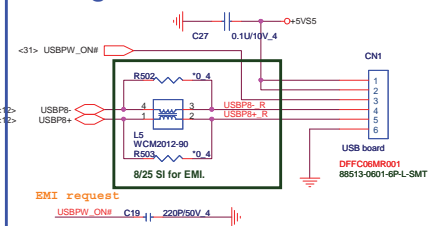




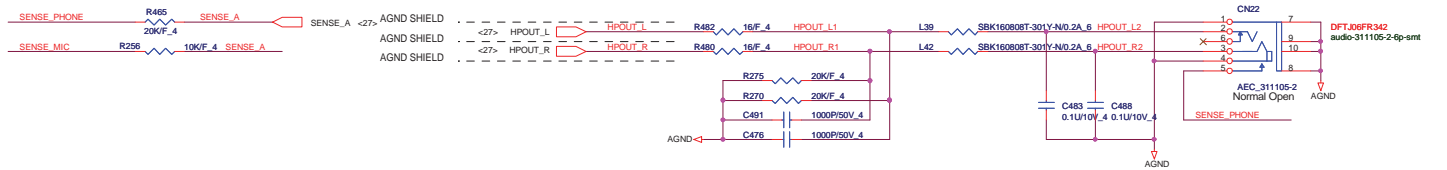
change to AL000547005



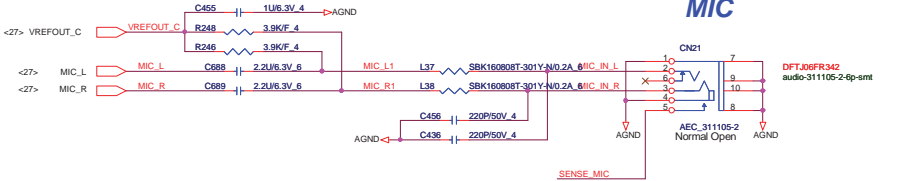
Right SIDE USBX1



Line out

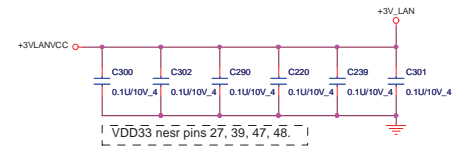


MIC



**PROJECT : R18D**  
Quanta Computer Inc.

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Quanta Computer Inc.

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Date: Tuesday, February 15, 2011		Sheet 29 of 42

[illegible]

SI Modify

Two circuit diagrams illustrating SI modifications for WIRELESS\_ON and WIRELESS\_OFF signals.

**Left Diagram (WIRELESS\_ON):**

- Input signal: `<31> WIRELESS_ON`
- Resistor: R302 (1K\_4)
- Capacitor: 200F\_6
- Transistor: Q21 (PDC144EU)
- Power supply: +5V
- Resistor: R298 (1K\_4)
- Signal: 8/25 SI for LX
- Output signal: WIRELESS\_ON\_R

**Right Diagram (WIRELESS\_OFF):**

- Input signal: `<31> WIRELESS_OFF`
- Resistor: R95 (1K\_4)
- Capacitor: 200F\_6
- Transistor: Q22 (PDC144EU)
- Power supply: +5V
- Resistor: R97 (1K\_4)
- Signal: 8/25 SI for LX
- Output signal: WIRELESS\_OFF\_R

8/25 SI for H/W.

- +3V
- SATA\_LED#
- PWR\_LED#
- GND

change to +3VSUS  
close conn

+3VSUS ○ R188 4.7K 4 TPCLK  
R180 4.7K 4 TPDATA

TP L  
TP R

C601 1.000P/50V\_4  
C398 1000P/50V\_4

CNS

6  
5  
4  
3  
2  
1

TPCLK-1  
TPDATA-1

L30 10P/50V\_4  
L34 10P/50V\_4

BUM18BA470SN/DIO.3A E  
BUM18BA470SN/DIO.3A E

TOUCH PAD CONN  
DIFFCOMMR001  
+3VSUS ○ C386 [0.1U/10V\_4] .88513-0601-6P-L-SMT

25 mils

<31> TPCLK  
<31> TPDATA

TP LED#  
TP R  
TP L

CNS

1  
2  
3  
4

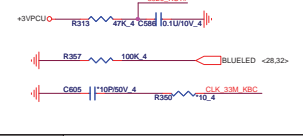
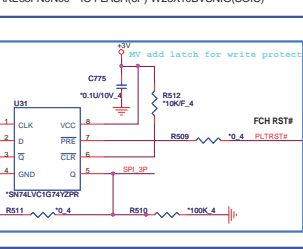
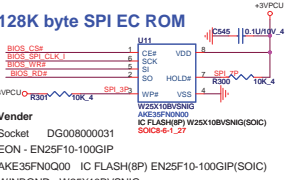
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To TOUCH PAD SW board

PROJECT : R18D  
Quanta Computer Inc.

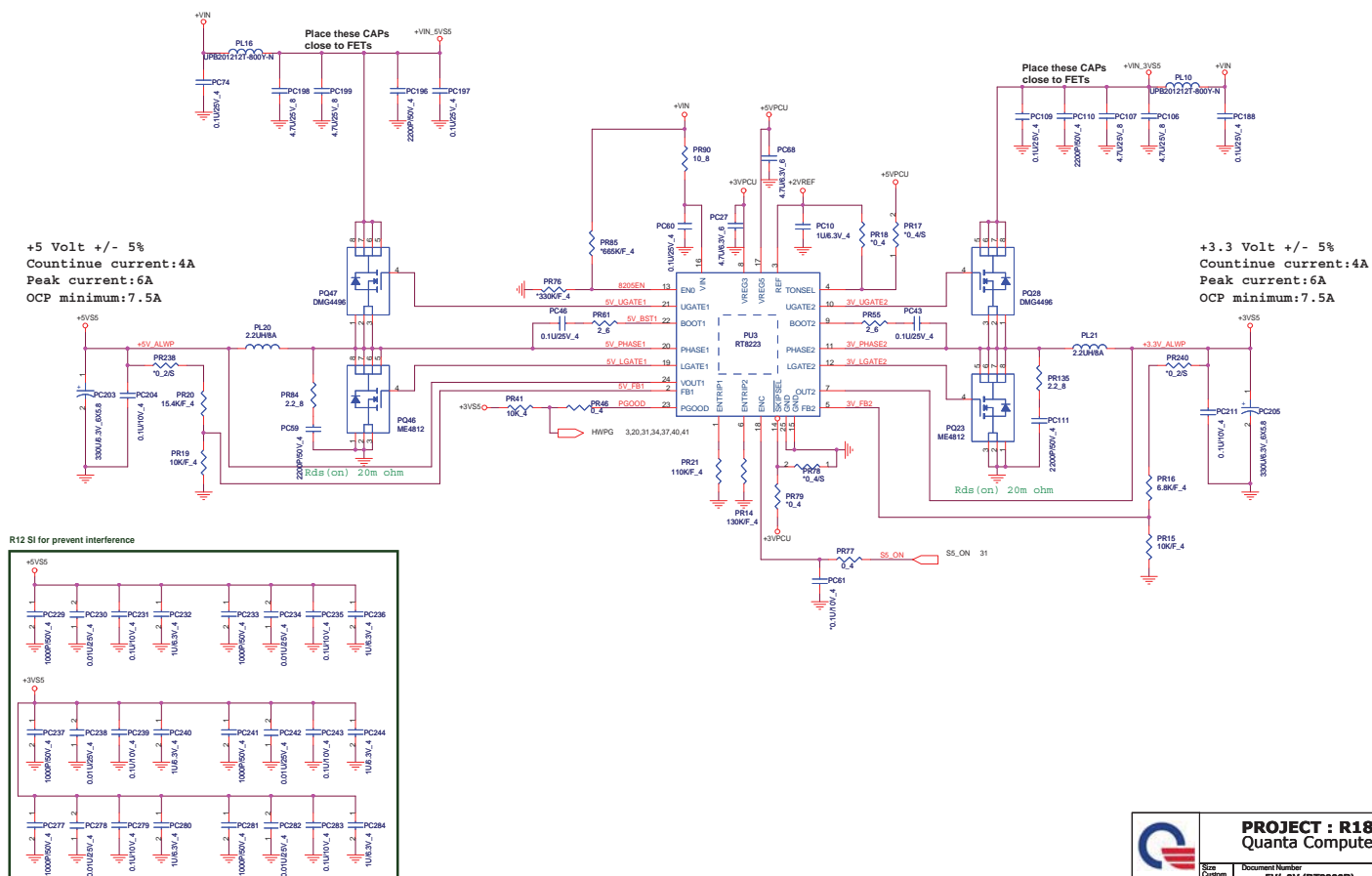
Size Custom Document Number LED/KB/SW/TP Rev 1A

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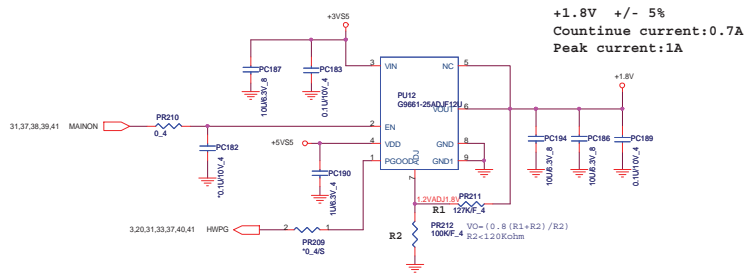
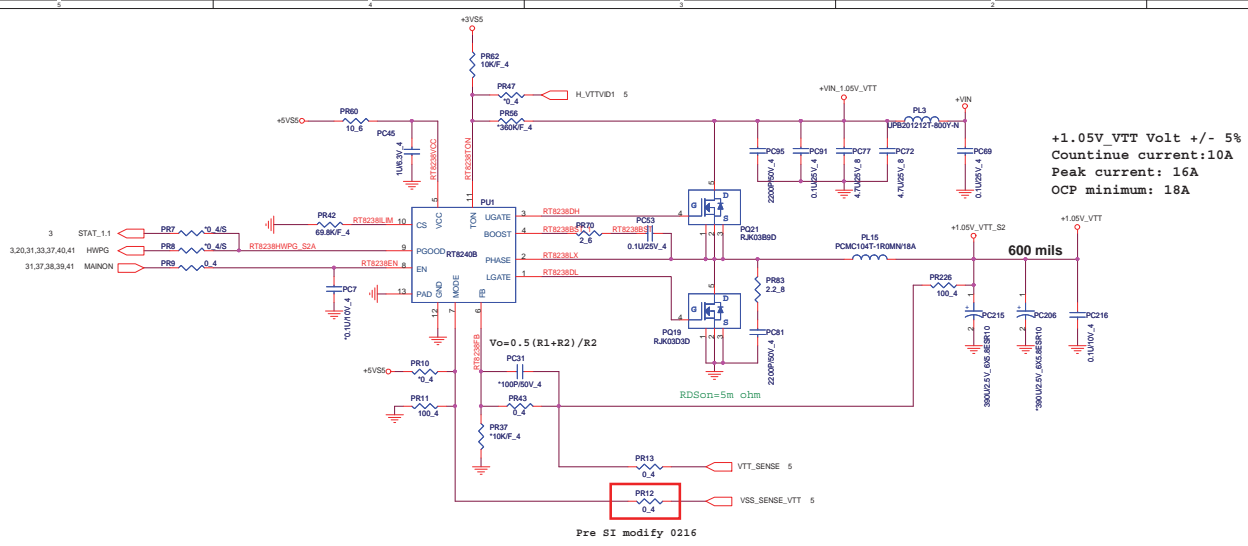




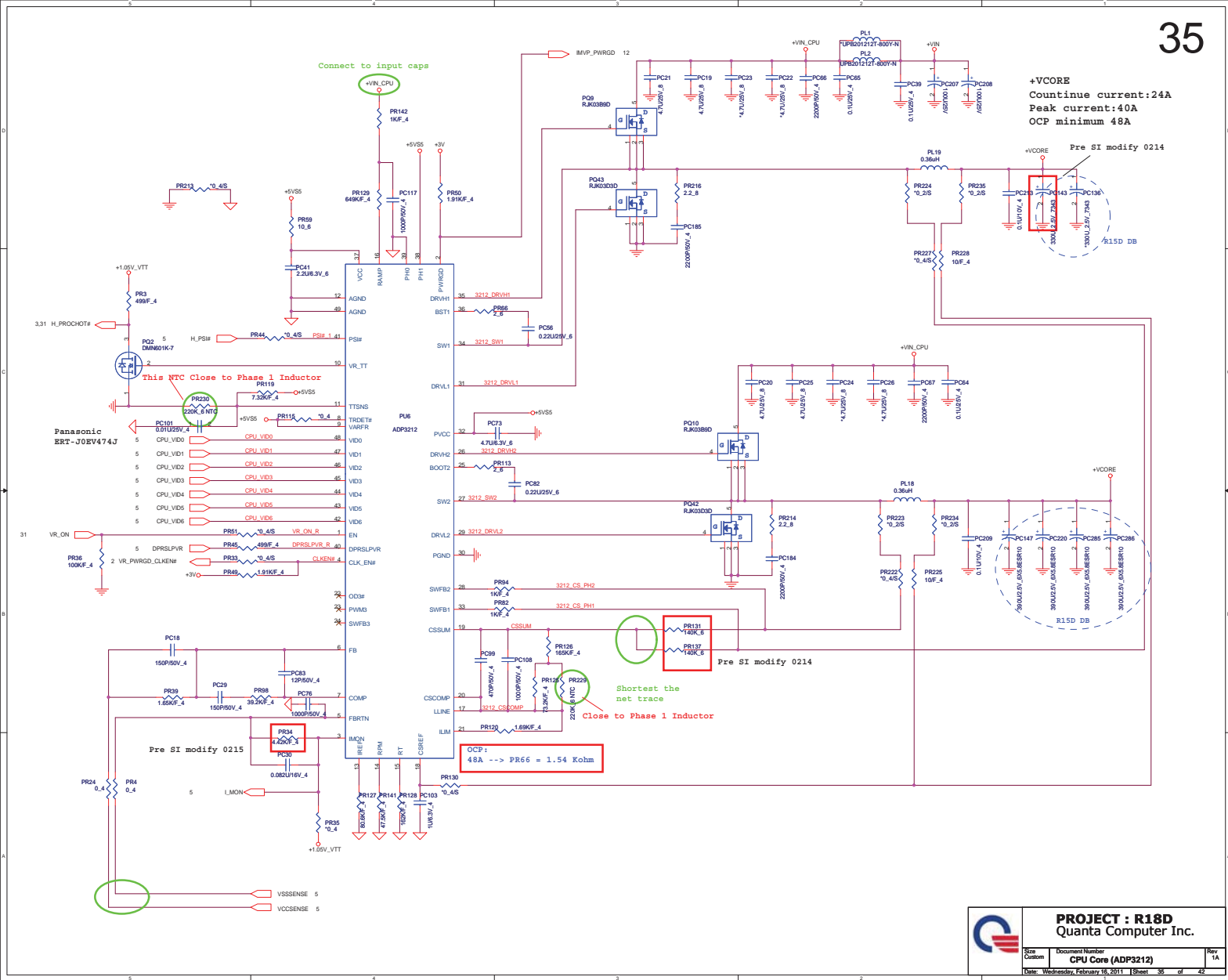


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Quanta Computer Inc.

Rev	Document Number	Rev
1A	+5V/+3V (RT8206B)	1A
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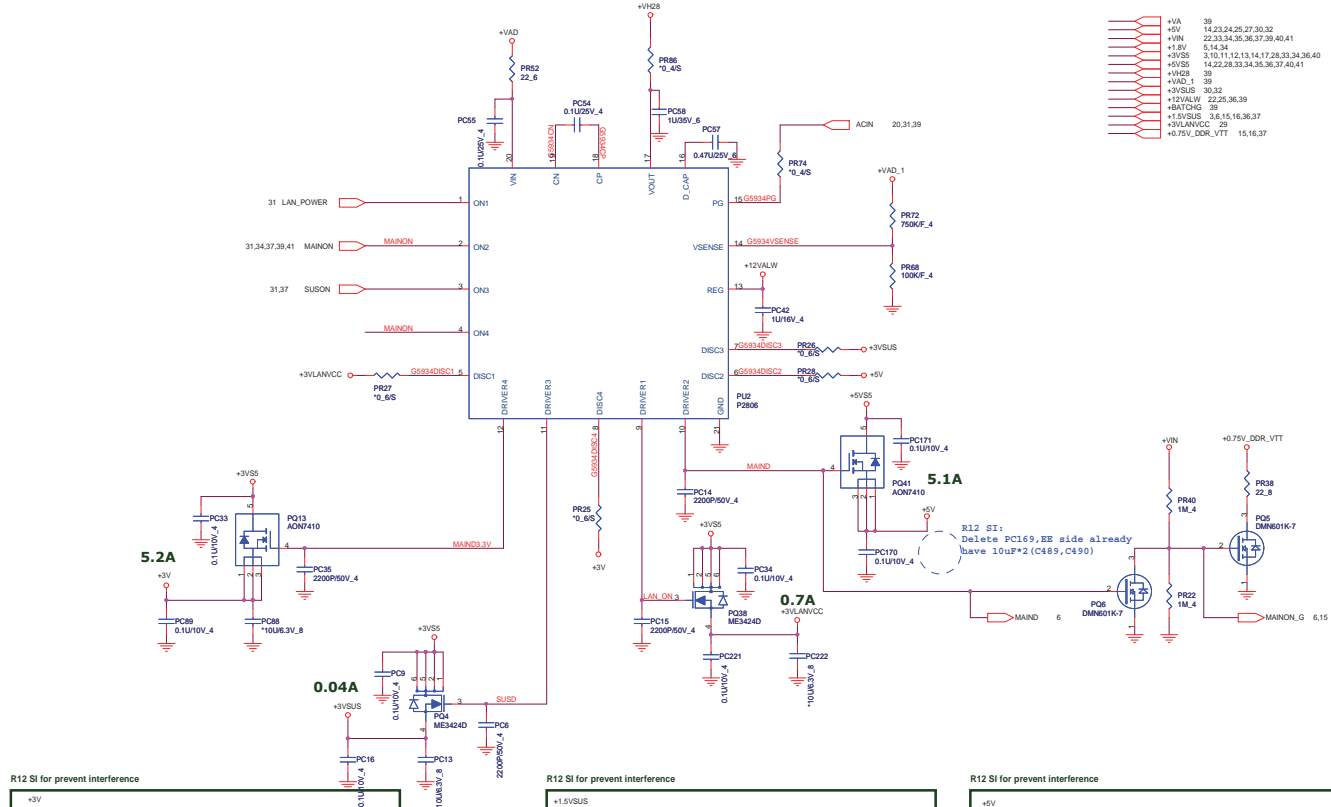


Connect to input caps

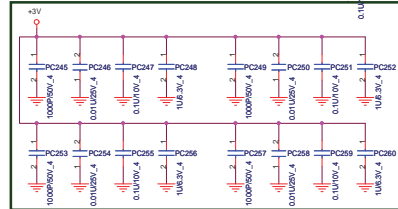




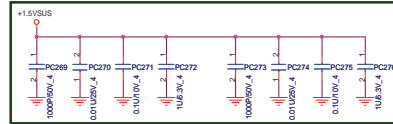




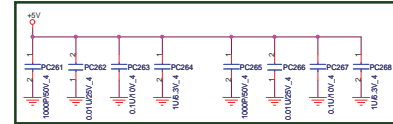
R12 SI for prevent interference



R12 SI for prevent interference

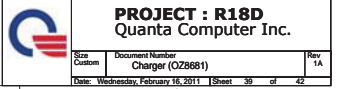


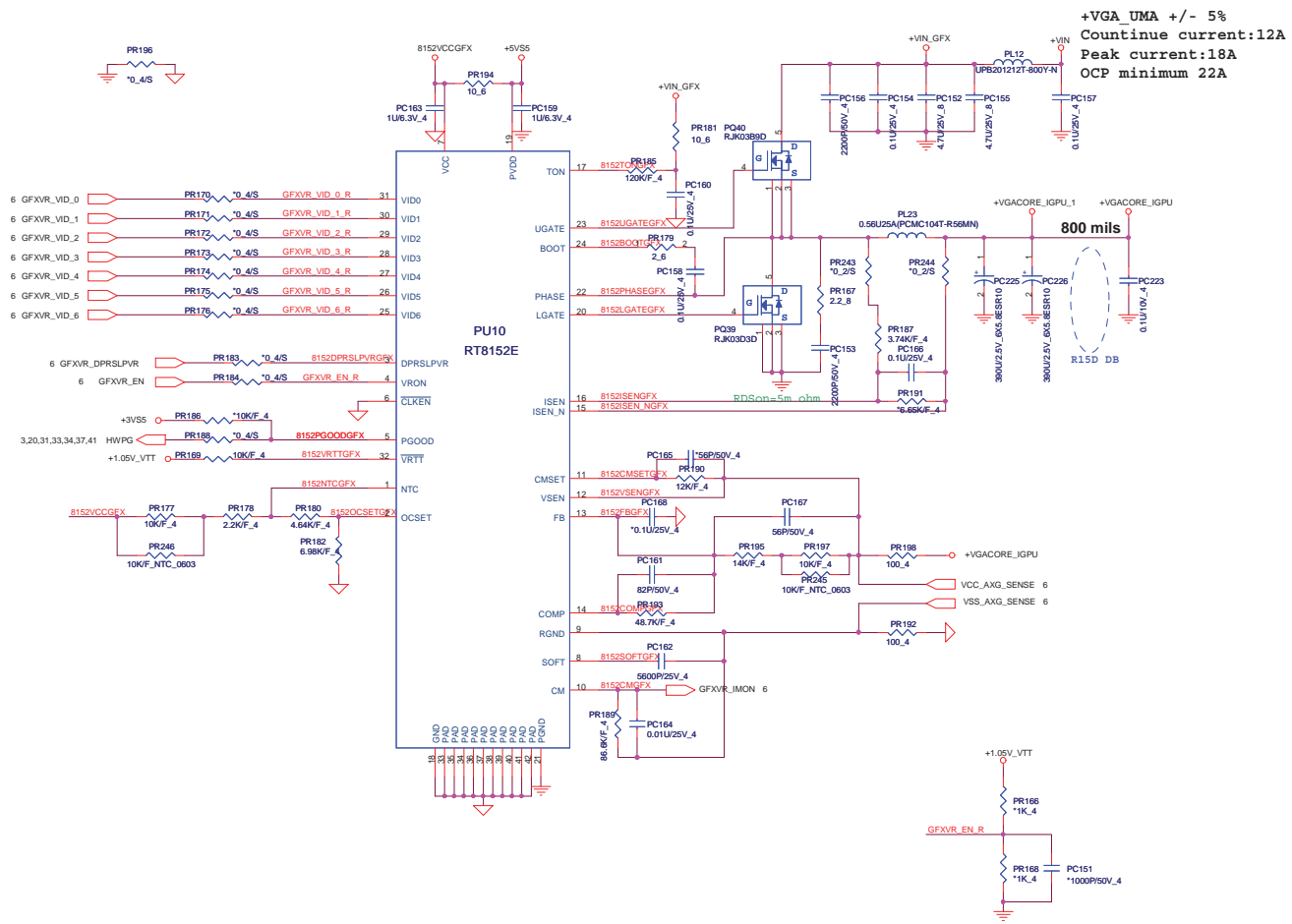
R12 SI for prevent interference



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Rev	Document Number	Rev
1A	Dis-charge IC (G5934)	1A
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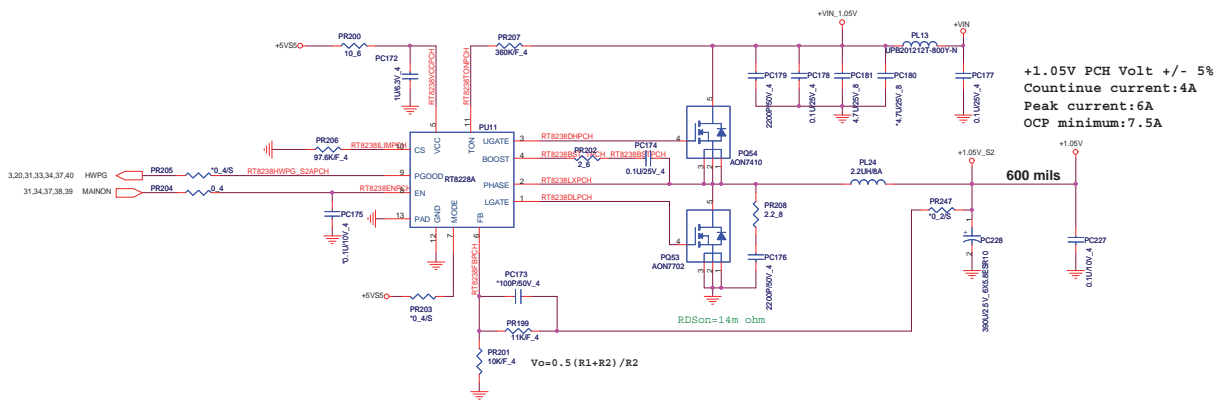




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**Quanta Computer Inc.**

Size	Document Number	Rev
Custom	UMA GPU CORE (RT8152C)	1A
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Smt Custom	Document Number <b>+1.05V (RT8238A)</b>	Rev 1A
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-->Pre SI  
Page 19  
1.Delete L5005, C5096,C5097,C5098,C5099,CS100 and connect +SP\_PLLVDD to +NV\_PLLVDD  
2.L5004 change to bead 220ohm (ESR=0.5) 0603.  
3.C5085 change to 22uF\_0805  
Page 11  
1.delete Q35.

Page 17  
1.delete L5000 and C5074.  
2.connect +3V GFX to GPU ball A09 with a 0.1uF cap C5075.  
3.New add R5060 for test  
4.L5001 change to bead 120ohm@100MHz (ESR=0.18ohm) 0603.  
5.C5073 should be 4.7uF X7R 0805.  
6.C5072 should be 1uF X7R 0603.  
7.C5071 should be 0.1uF X7R 0402.  
8.PCIE change to PEX\_TX0-7 and PEX\_EX0-7 on GPU side for X8 lane configuration  
9.unstuff R5009 and R5008 Q5002 stuff for test  
9.delete L5002 for Widi@ recommend  
Page 18  
1.L5003 change to bead 30ohm (ESR=0.01) 0603.  
2.C5085 change to 1uF\_X7R\_0603  
3.Delete C5084.

Page 21  
1.R5096 and R5103 change to 162ohm\_1%.  
Page 31

1.New add R5105 and R5106 2.2K pull up resistors to +3V for GPUT\_CLK and GPUT\_DATA on EC side.  
2.Delete D20,Q25,D19,R500.  
Page 20  
1.delete R5081,R5082,R5082.  
2.New add R5085 and R5086 10K pull down resistors to GFX\_CORE\_CNTRL0 and GFX\_CORE\_CNTRL1  
3.Change R5047 to 5K pull up for ROW\_SCLK  
4.Change R5080 to 10K for JTAG\_TRST# pull down.  
5.R5084 can be no stuff for JTAG\_TCK  
6.New add Q5010 for AC/Batt# function.  
7.New add Q5011.



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