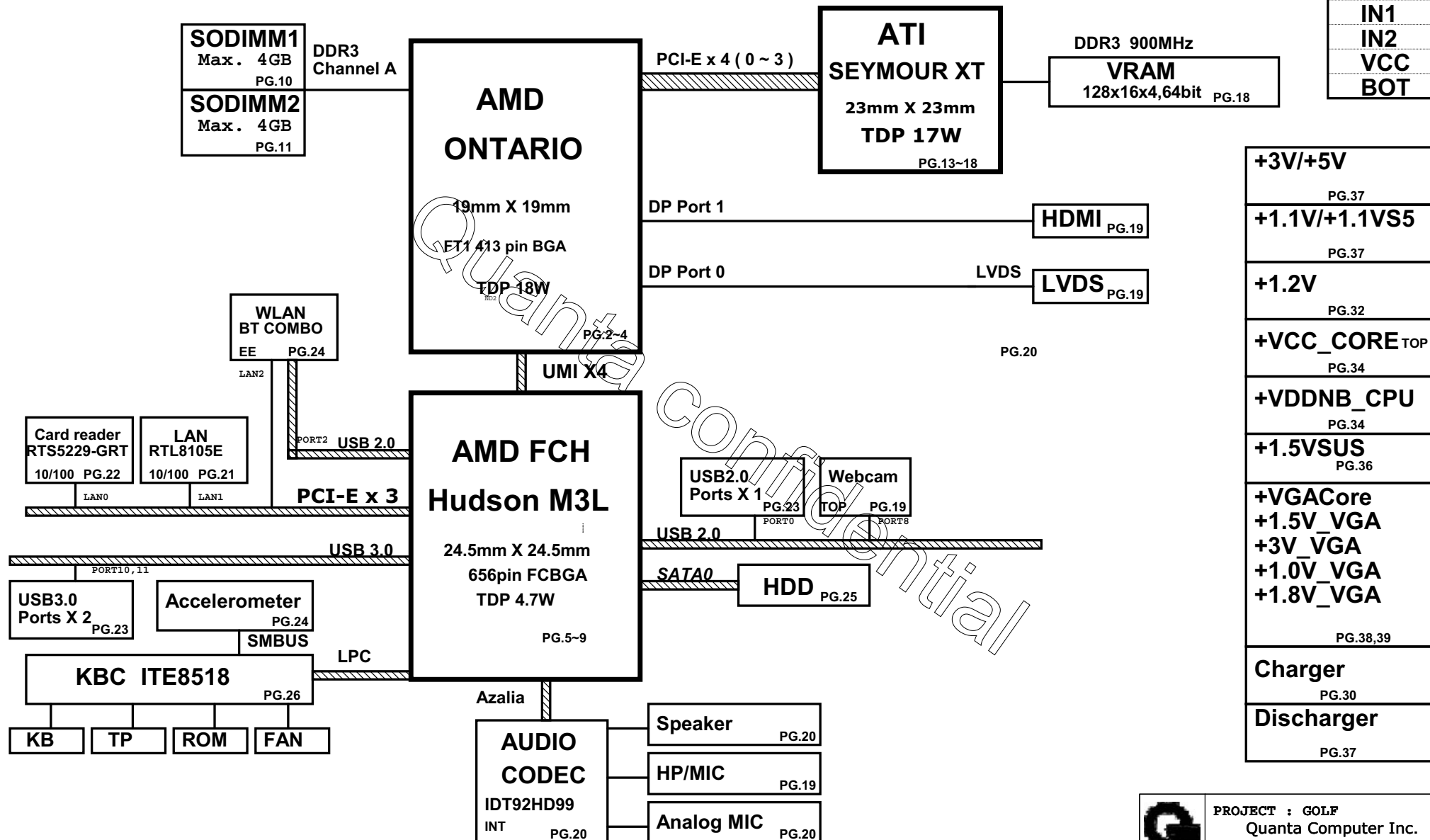


GOLF AMD UMA/Muxless SYSTEM DIAGRAM

Stackup

TOP
GND
IN1
IN2
VCC
BOT



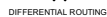
PROJECT : GOLF
Quanta Computer Inc.

Size	Document Number	Rev
	Block Diagram	1A
Date:	Friday, August 10, 2012	Sheet 1 of 37



Size	Document Number
	ONTARIO MEM & PCIE I/F(1/3)

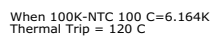
Date: Friday, August 10, 2012 Sheet 2 of 37



Serial VID



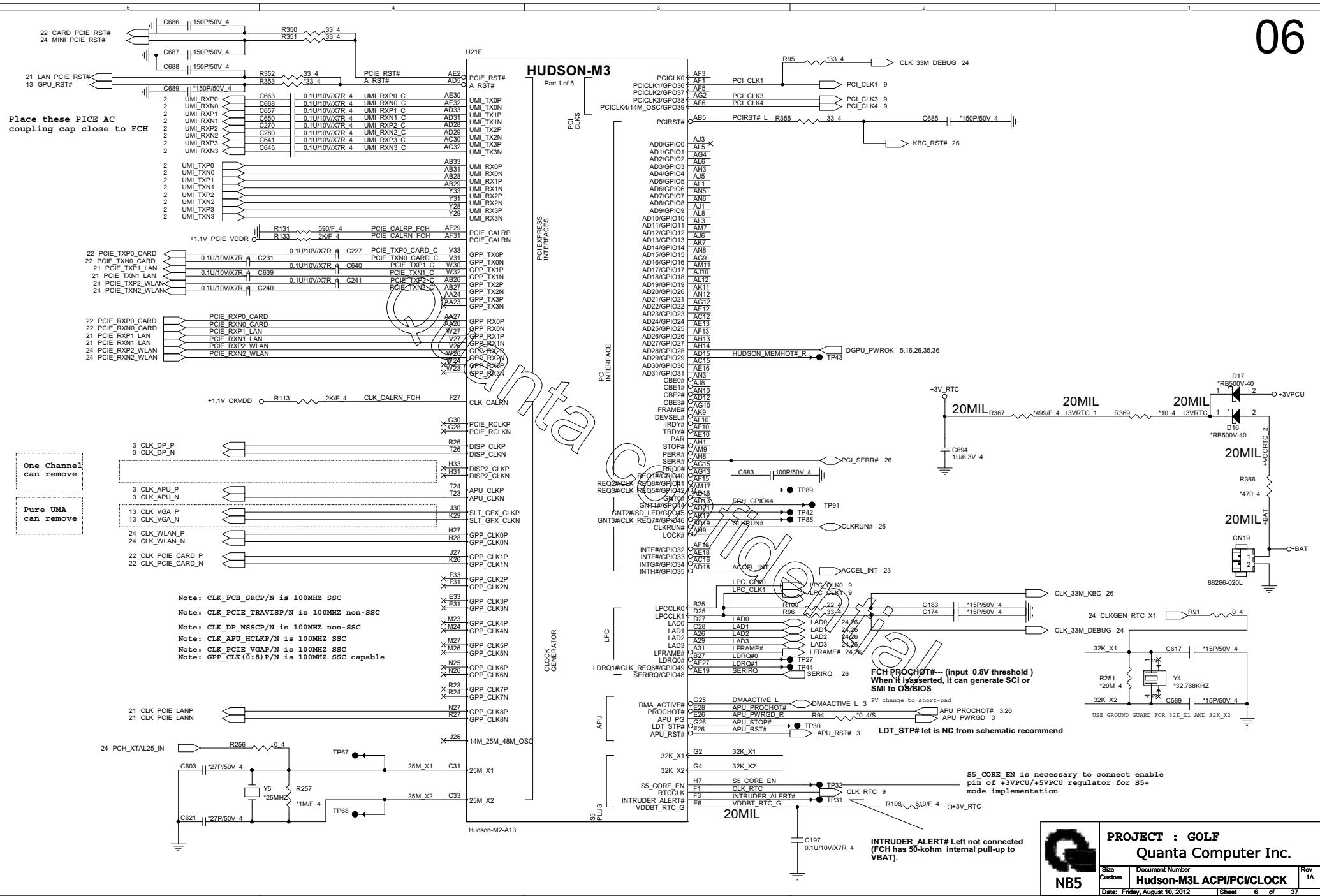
SVC	SVD	Output Voltage
0	0	1.1V
0	1	1.0V
1	0	0.9V
1	1	0.8V

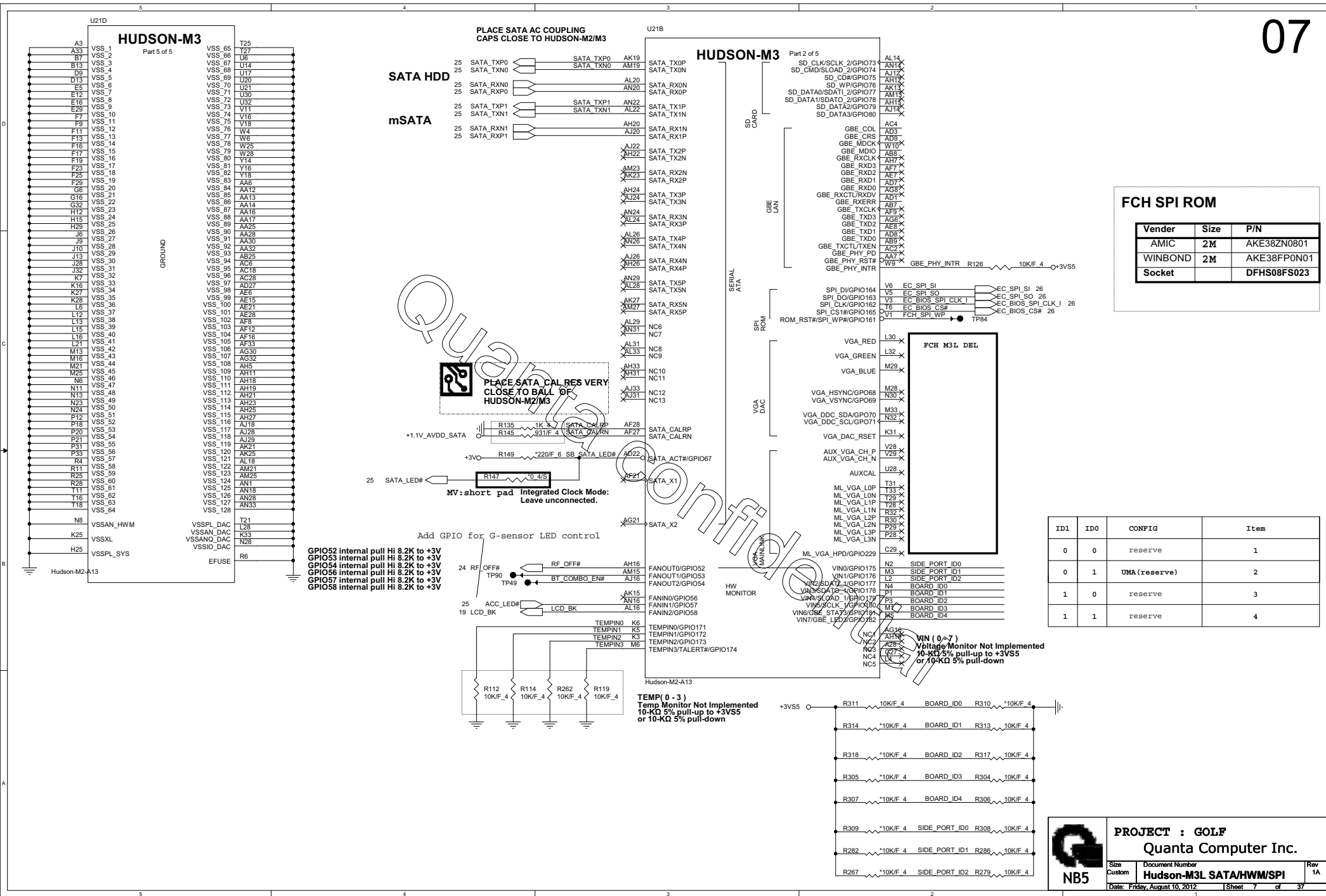
[illegible]

PROJECT : GOLF
Quanta Computer Inc.

Size	Document Number
	ONTATIO DISPLAY/CLK/MI(2/3)







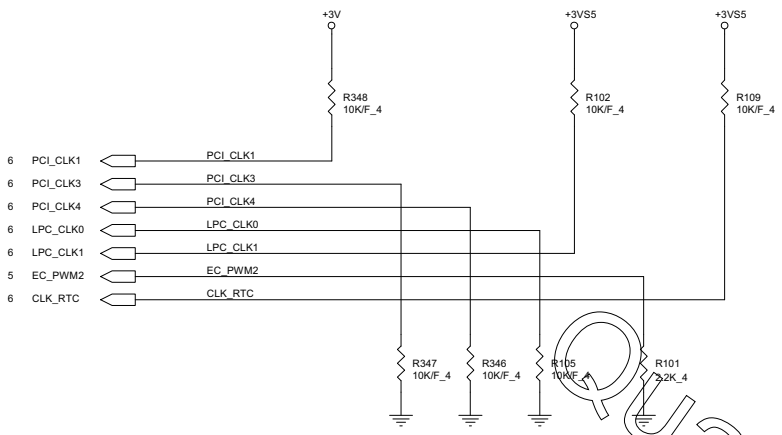
1007mA for M3
902mA for M2



Size Custom	Document Number Hudson-M3L POWER/GND	Rev 1A
Date: Friday, August 10, 2012	Sheet 8 of 37	

STRAPS PINS

OVERLAP COMMON PADS WHERE POSSIBLE FOR DUAL-OP RESISTORS.



REQUIRED STRAPS

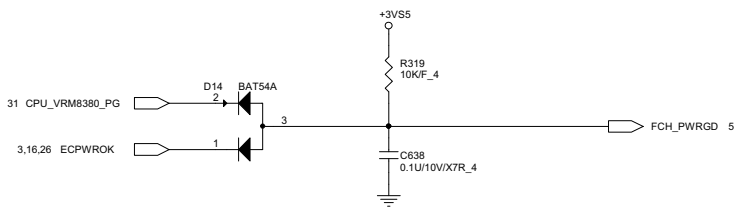
	PCI_CLK1	PCI_CLK3	PCI_CLK4	LPC_CLK0	LPC_CLK1	EC_PWM2	CLK_RTC
PULL HIGH	ALLOW PCIE Gen2 DEFAULT	USE DEBUG STRAP	non Fusion CLOCK MODE	AMD internal EC ENABLED	CLKGEN ENABLED DEFAULT	LPC ROM DEFAULT	S5 PLUS MODE ENABLED
PULL LOW	FORCE PCIE Gen1	IGNORE DEBUG STRAP DEFAULT	FUSION CLOCK MODE DEFAULT	EC DISABLED DEFAULT	CLKGEN DISABLED	SPI ROM	S5 PLUS MODE DISABLED DEFAULT

DEBUG STRAPS

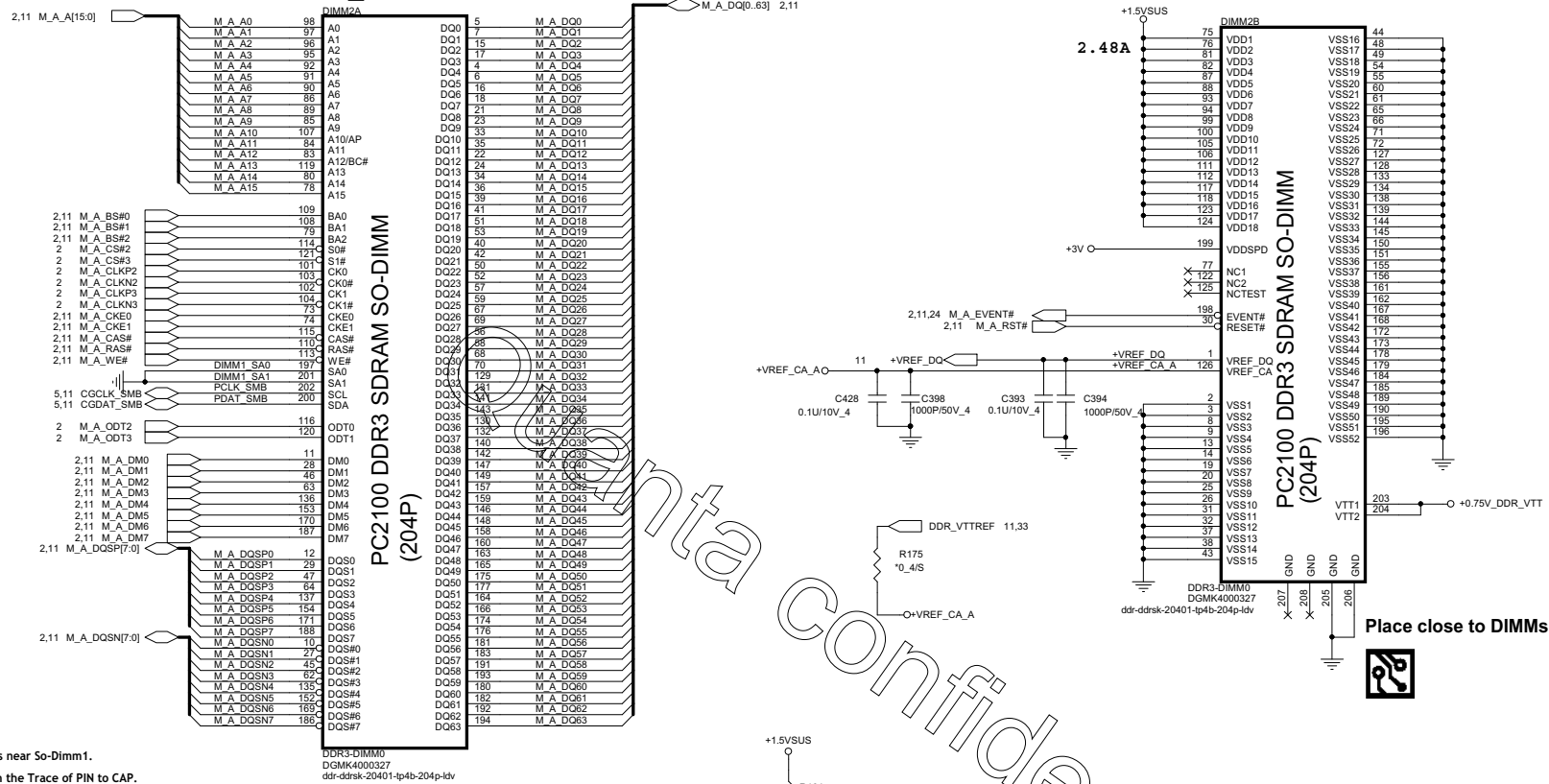
FCH has 15K Internal Pull Up for PCI_AD[27:23]

	PCI_AD27	PCI_AD26	PCI_AD25	PCI_AD24	PCI_AD23
PULL HIGH	USE PCI PLL DEFAULT	DISABLE ILA AUTORUN DEFAULT	USE FC PLL DEFAULT	USE DEFAULT PCIE STRAPS DEFAULT	DISABLE PCI MEM BOOT DEFAULT
PULL LOW	BYPASS PCI PLL	ENABLE ILA AUTORUN	BYPASS FC PLL	USE EEPROM PCIE STRAPS	ENABLE PCI MEM BOOT

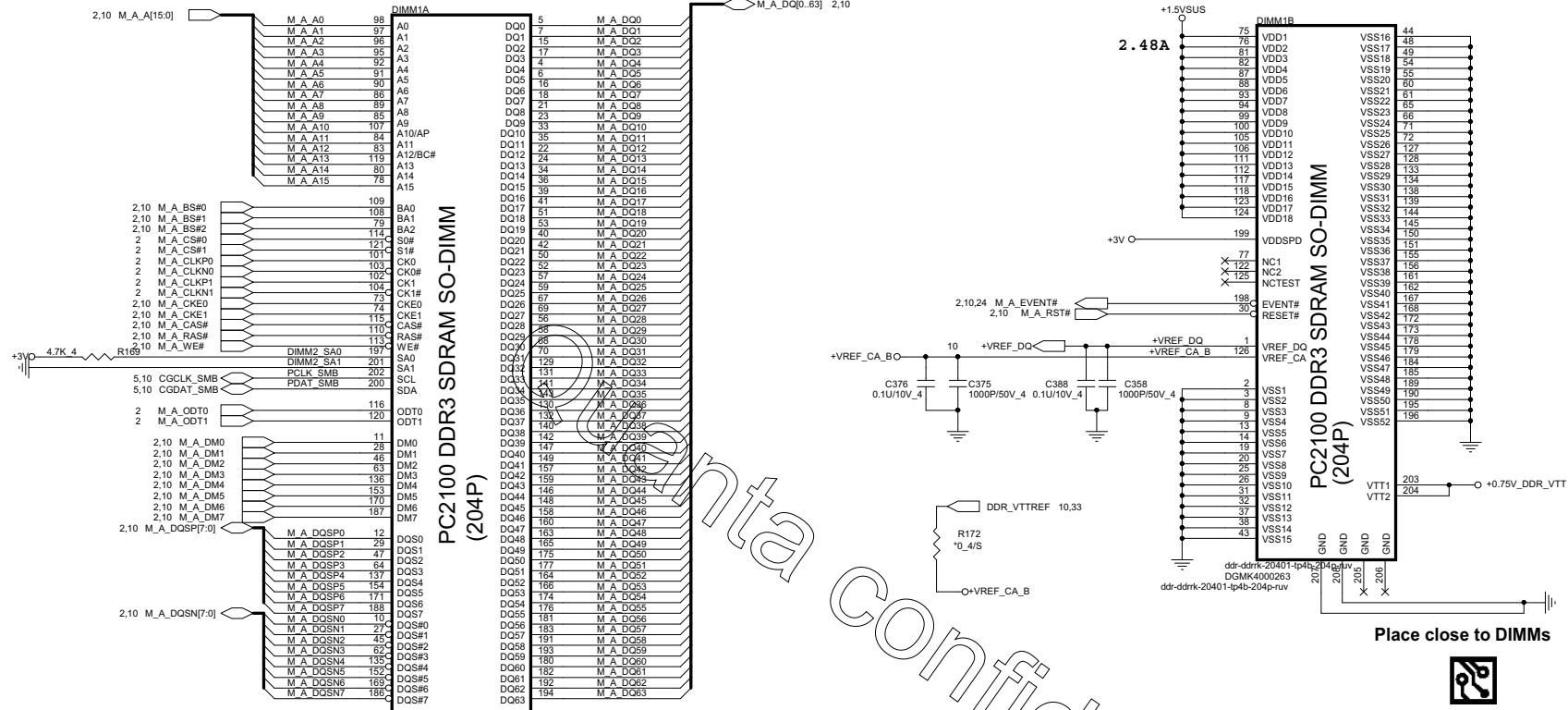
FCH PWRGD

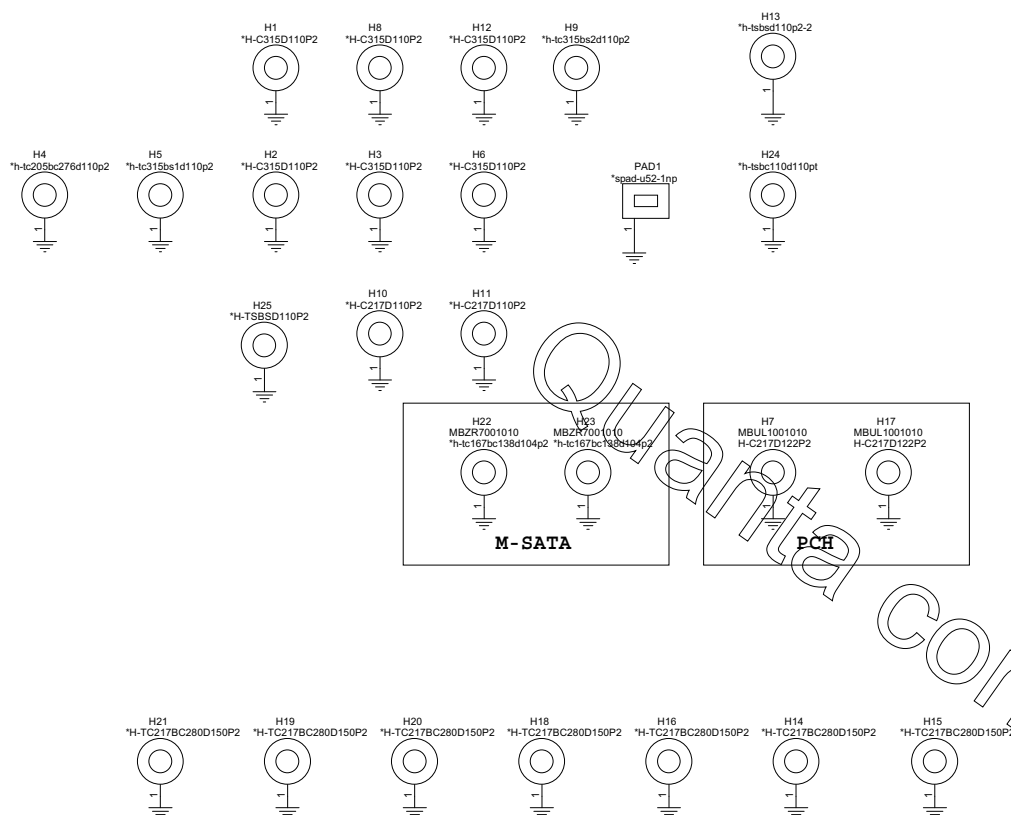


DDR STD (4.0mm)

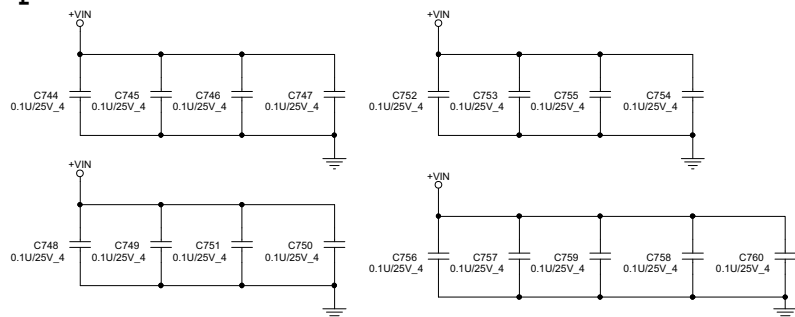


DDR_RVS (4.0mm)

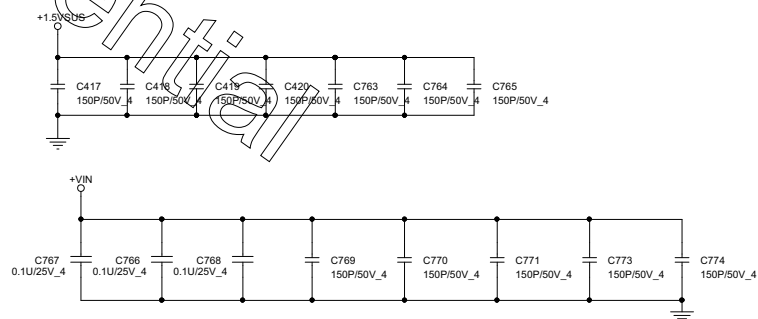




Vin Cap

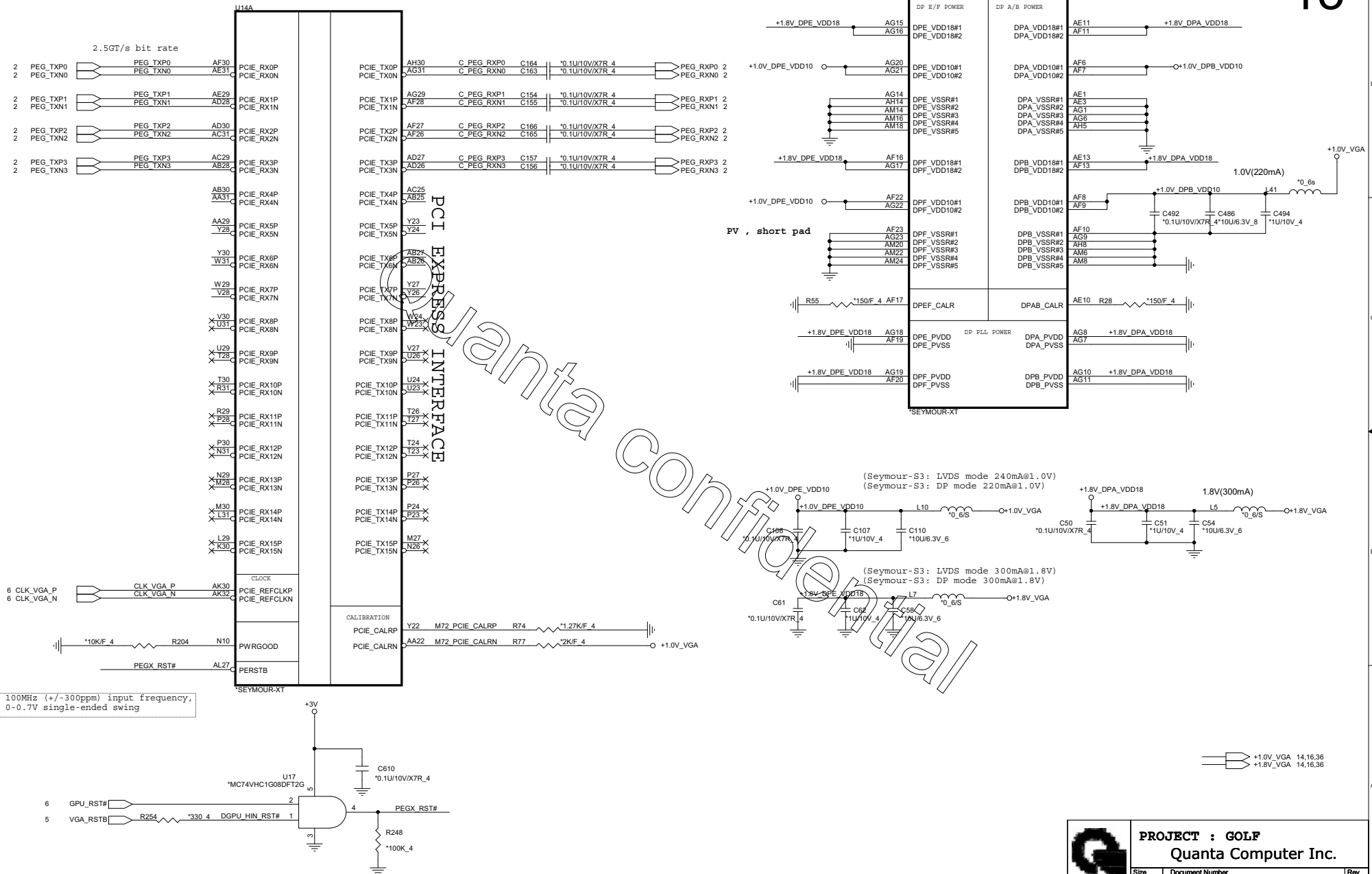


+1.5VSUS Cap for EMI 06/14 add



PROJECT : GOLF
Quanta Computer Inc.

Size Custom	Document Number HOLE	Rev 1A
Date: Friday, August 10, 2012		Sheet 12 of 37



PROJECT : GOLF
Quanta Computer Inc.

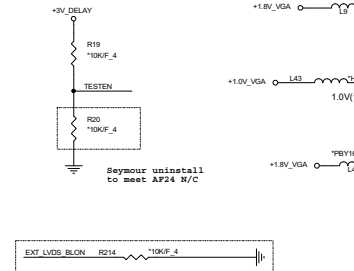
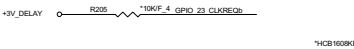
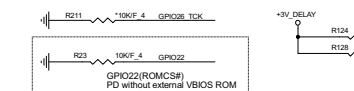
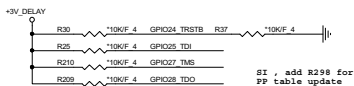
Size Custom Document Number **SEYMOUR-XT PCIE_Interface** Rev 1A

Date: Friday, August 10, 2012 Sheet 13 of 37

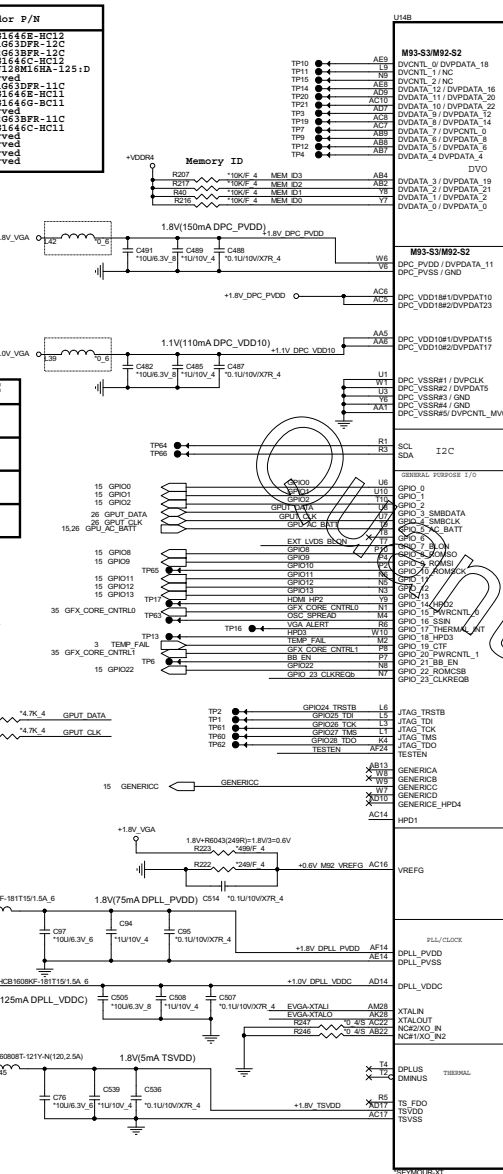
MEM_ID[3:0]	Vendor	Type	Vendor P/N
0000	Samsung- S die	64*16-800MHZ	K4W1G1646S-BC11
0001	Rynix- Vega die	64*16-800MHZ	HS7Q16G3DPR-12C
0010	Rynix- Vega die	128*16-800MHZ	HS7Q26G3BPR-12C
0011	Samsung- G die	128*16-800MHZ	K4W321646C-BC11
0100	Micron	128*16-800MHZ	MT41J128M16BA-125:D
0101	Reserved		
0110	Rynix- Vega die	64*16-900MHZ	HS7Q16G3DPR-11C
0111	Samsung- S die	64*16-900MHZ	K4W1G1646S-BC11
1000	Samsung- G die	64*16-900MHZ	K4W1G1646G-BC11
1001	Reserved		
1010	Rynix- Vega die	128*16-900MHZ	HS7Q26G3BPR-11C
1011	Samsung- G die	128*16-900MHZ	K4W321646C-BC11
1100	Reserved		
1101	Reserved		
1110	Reserved		
1111	Reserved		

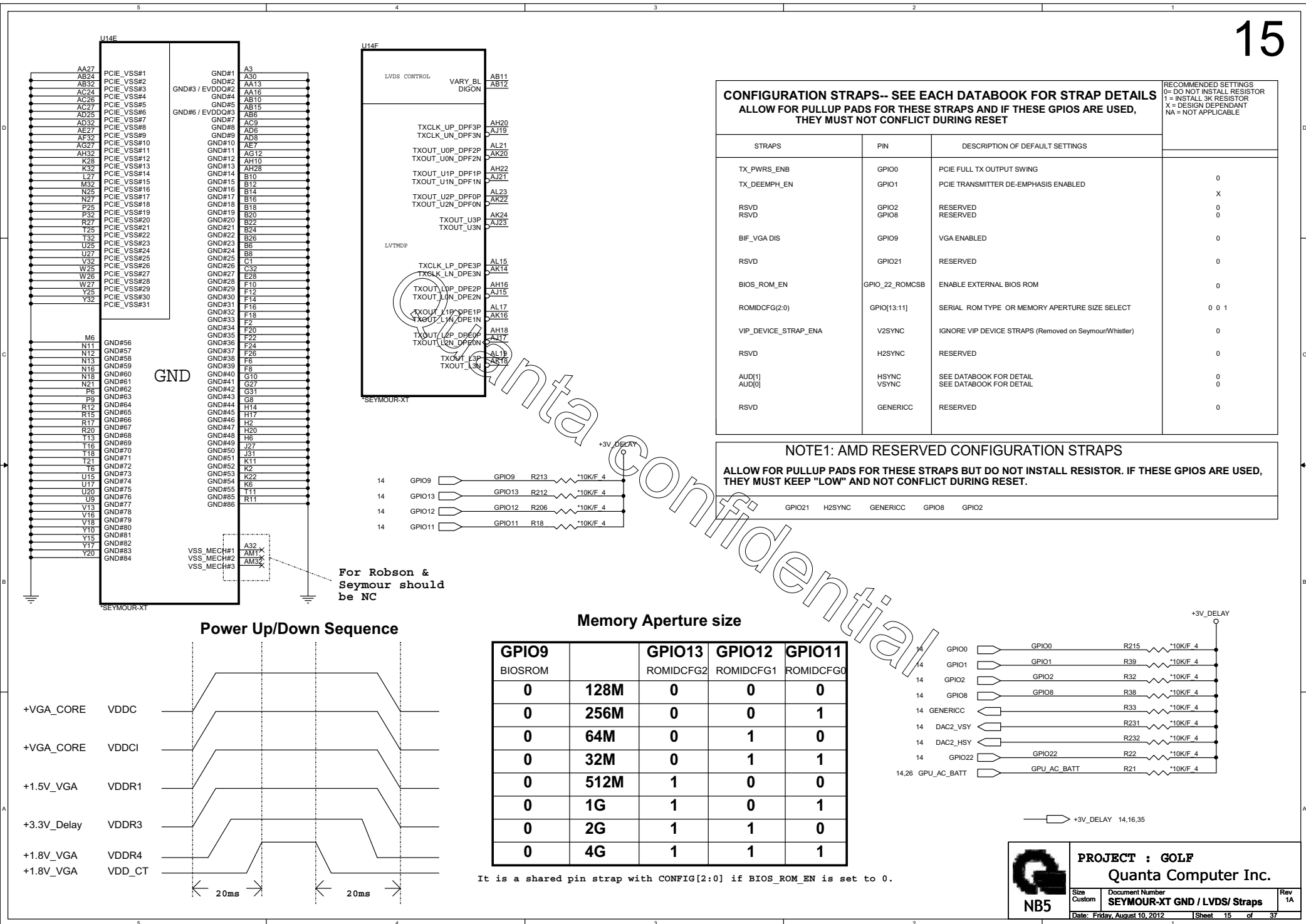
MEM_ID[3:0]	31 Level BOM	N/W setting
0000	TBD	TBD
0001	TBD	TBD
0010	TBD	TBD
0011	TBD	TBD
0100	TBD	TBD

Seymour	PWRCNTL0	PWRCNTL1	V-CORE
L	0	0	0.9V
M	0	1	1.0V
H/USD	1	0	1.1V
TBD	1	1	TBD



If no contact this pin to LVDS need pull low



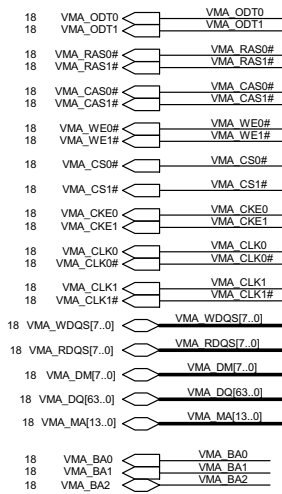




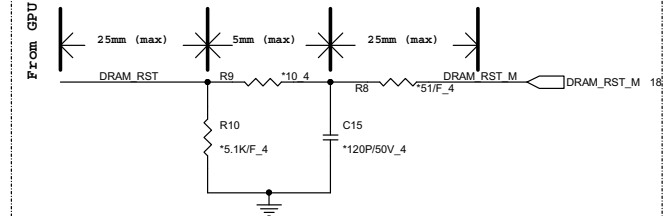
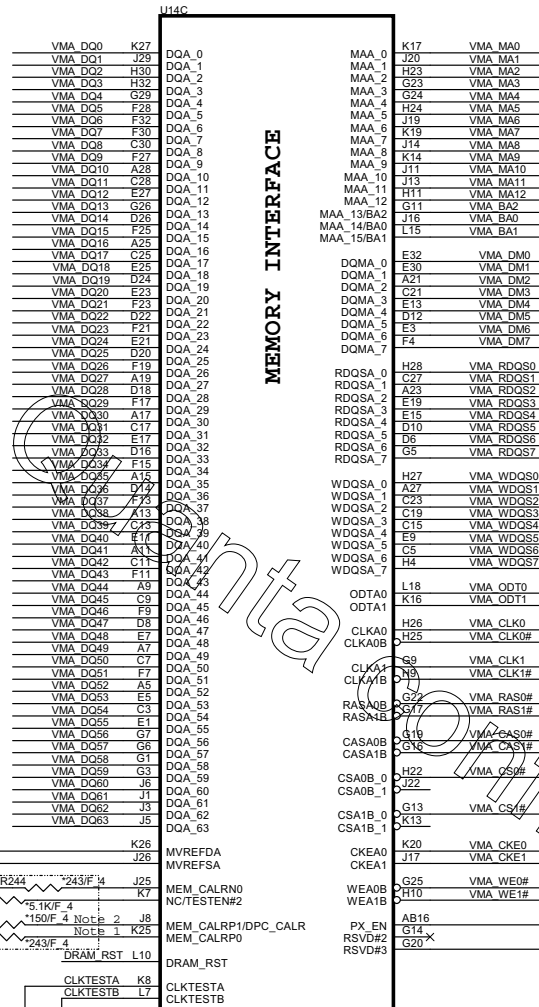
1. No BACO Support :BIF_VDDC shorts with VDDC (Install Ra)
2. BACO Support: Refer to the BACO reference schematics/Application note for detail about BIF_VDDC Rail if BACO is Supported (Uninstall Ra)



Size Custom	Document Number SEYMOUR-XT_Power_and_NC	Rev 1A
Date: Friday, August 10, 2012	Sheet 16 of 37	

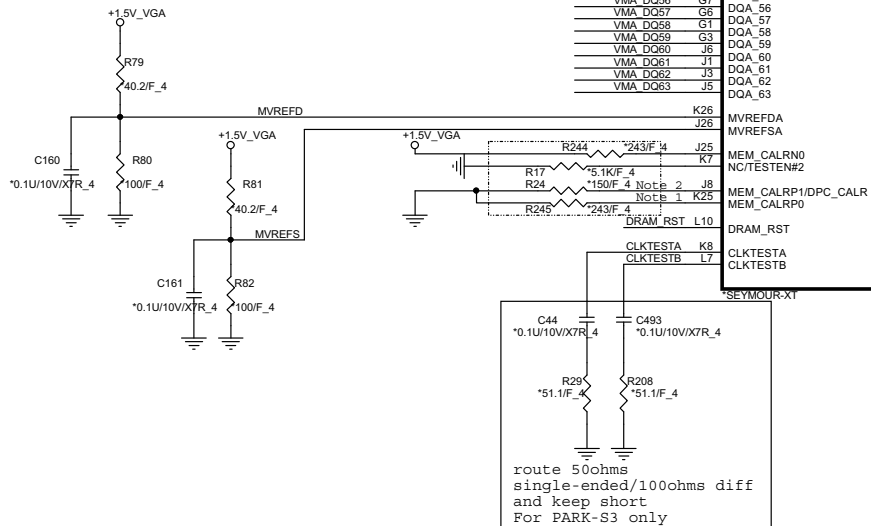


support 1Gbit
VRAM (64M x 16)



Place all these components very close to GPU (Within 25mm) and keep all component close to each Other (within 5mm) except Rser2

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

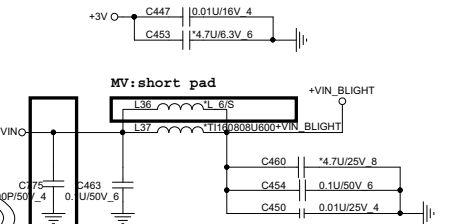
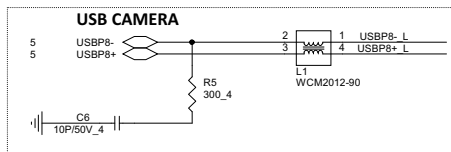
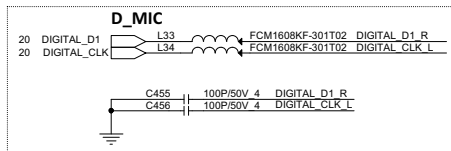
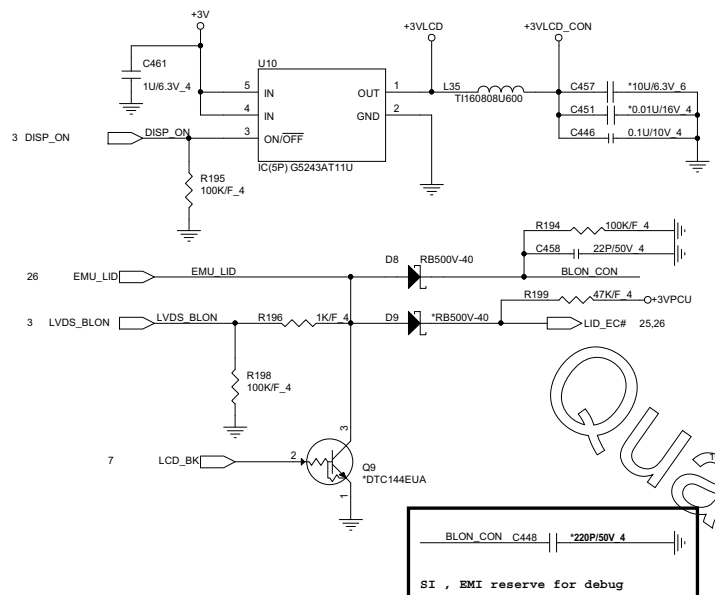


PROJECT : GOLF
Quanta Computer Inc.

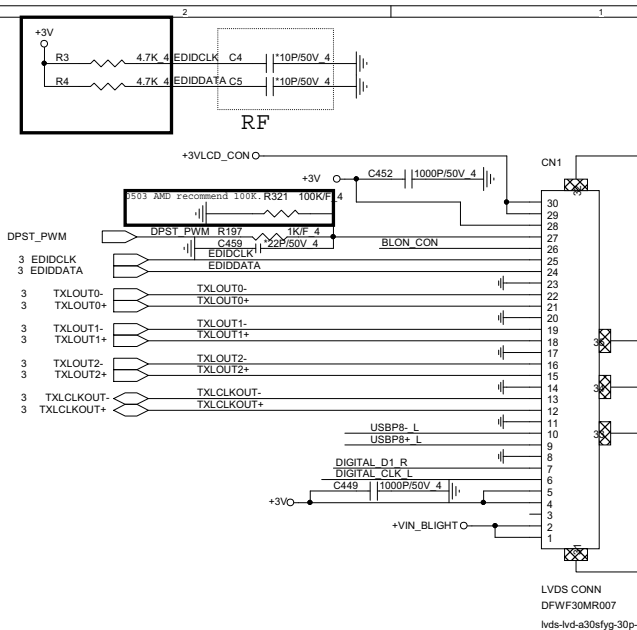
Size Custom Document Number SEYMOUR-XT MEM_Interface Rev 1A
Date: Friday, August 10, 2012 Sheet 17 of 37



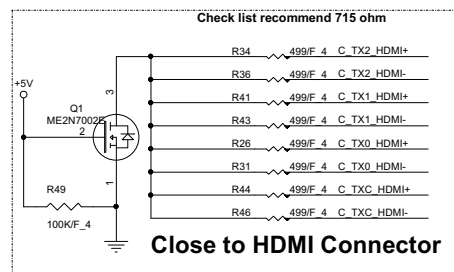
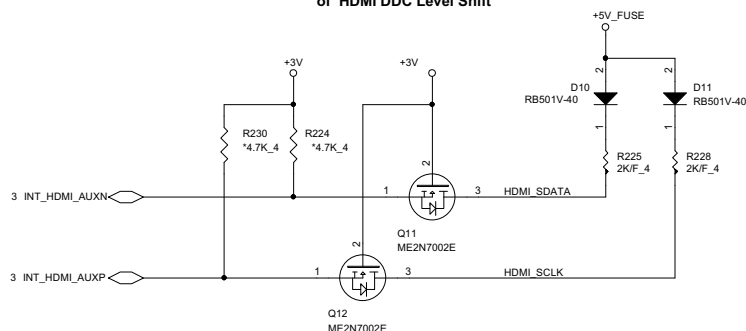
Size Custom	Document Number SEYMOUR-XT VRAM(DDR3 BGA96)
----------------	---

LVDS Conn.

MV: New add for EMI

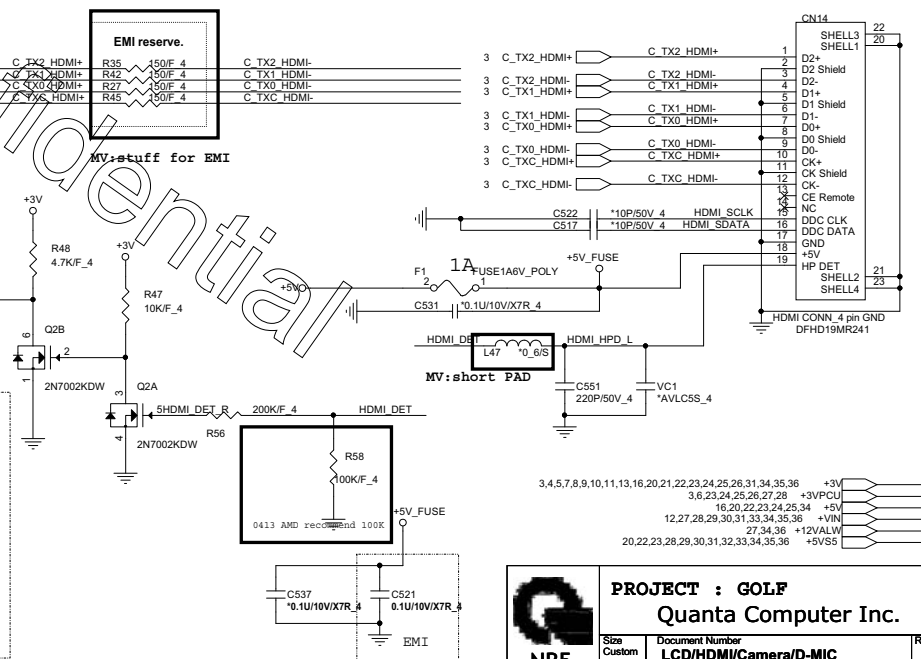
**HDMI Conn.**

Cost down backup solution of HDMI DDC Level Shift



Close to HDMI Connector

HDMI HPD SENSE

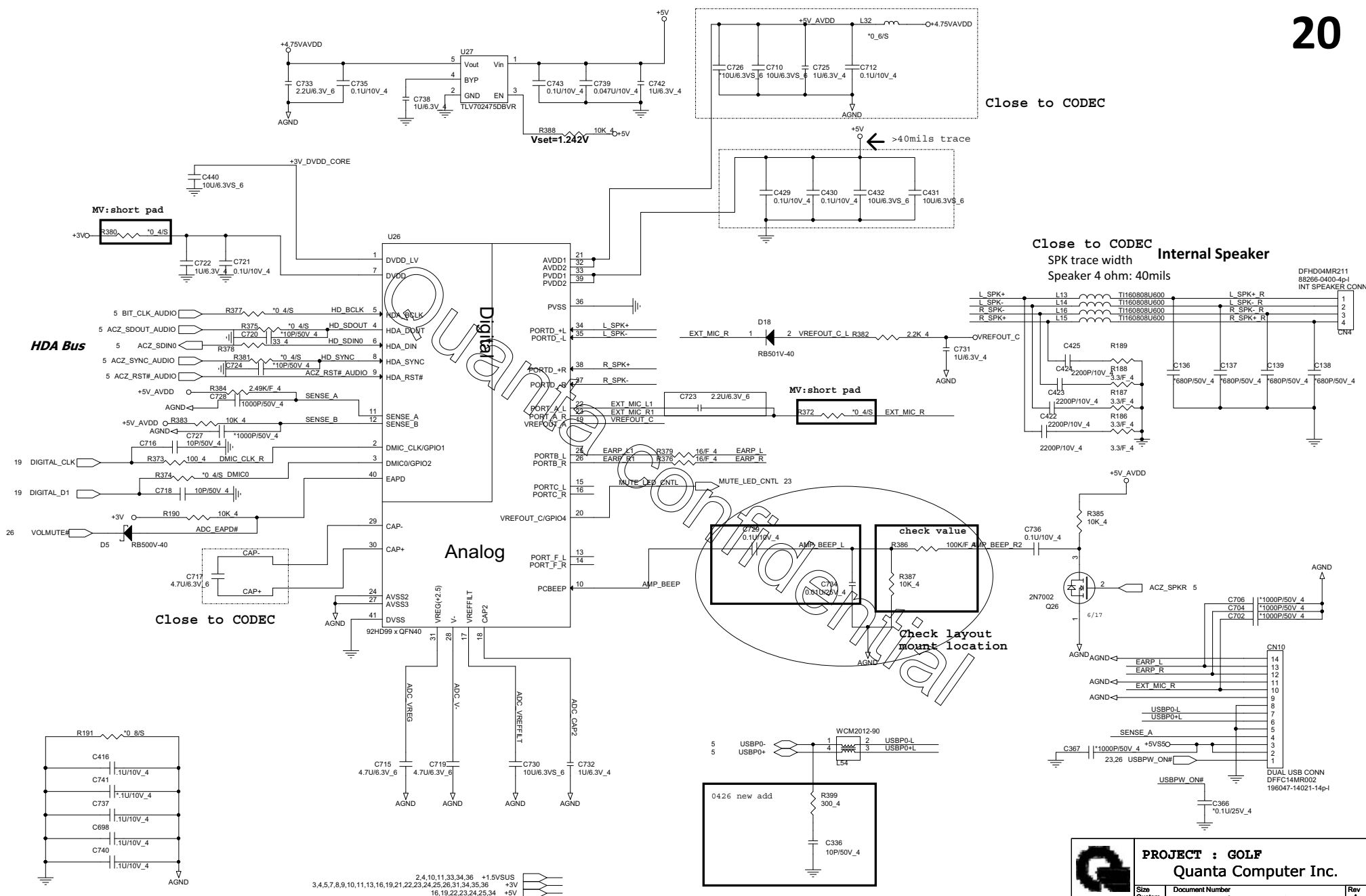


PROJECT : GOLF
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Size Custom	Document Number LCD/HDMI/Camera/D-MIC	Rev 3A
Date: Friday, August 10, 2012	Sheet 19 of 37	

Close to CODEC
SPK trace width
Speaker 4 ohm: 40mils

DFHD04MR211
88266-0400-4p-l
INT SPEAKER CONN

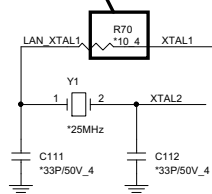


NBS

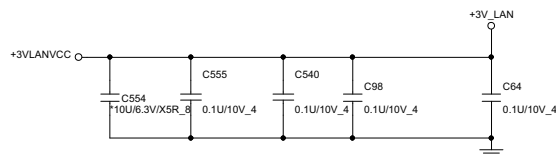
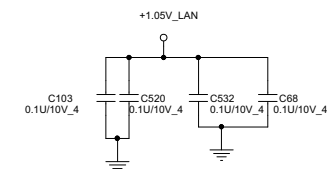
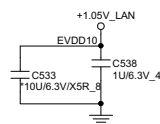
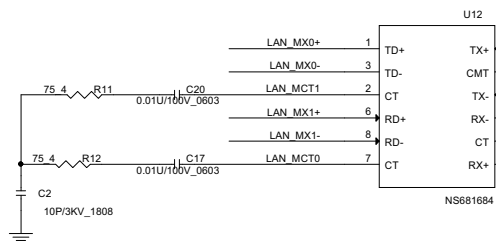
PROJECT : GOLF
Quanta Computer Inc.

Size Custom	Document Number Audio Codec (IDT_HDA Azalia 92HD99	R
Date: Friday, August 10, 2012	Sheet 20 of	37

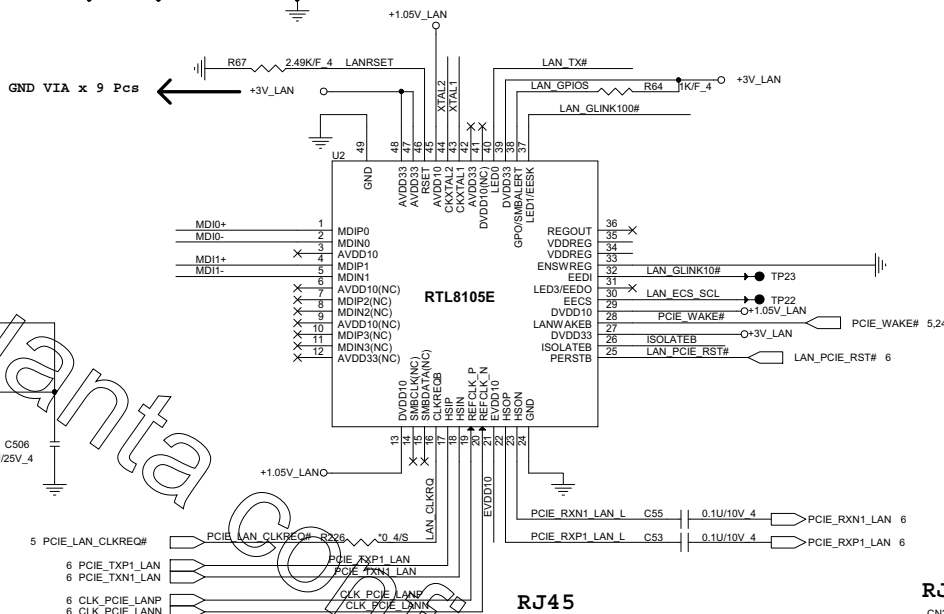
For EMI 0 ~ 22 ohm



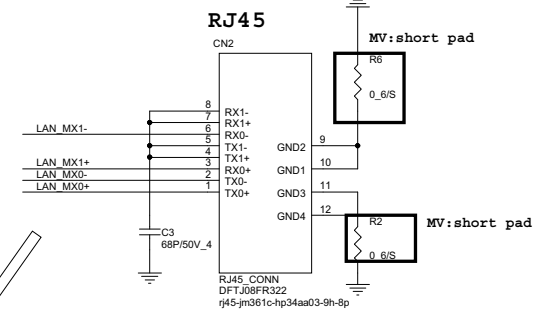
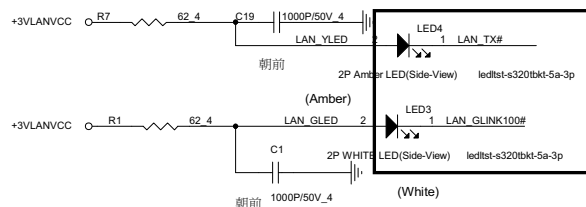
Green Clk



GND VIA x 9 Pcs



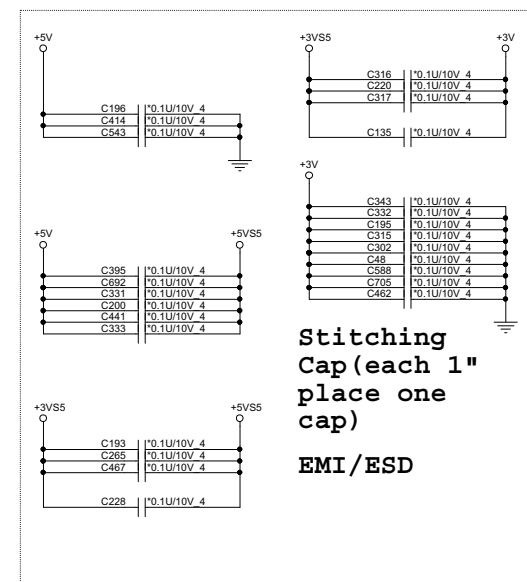
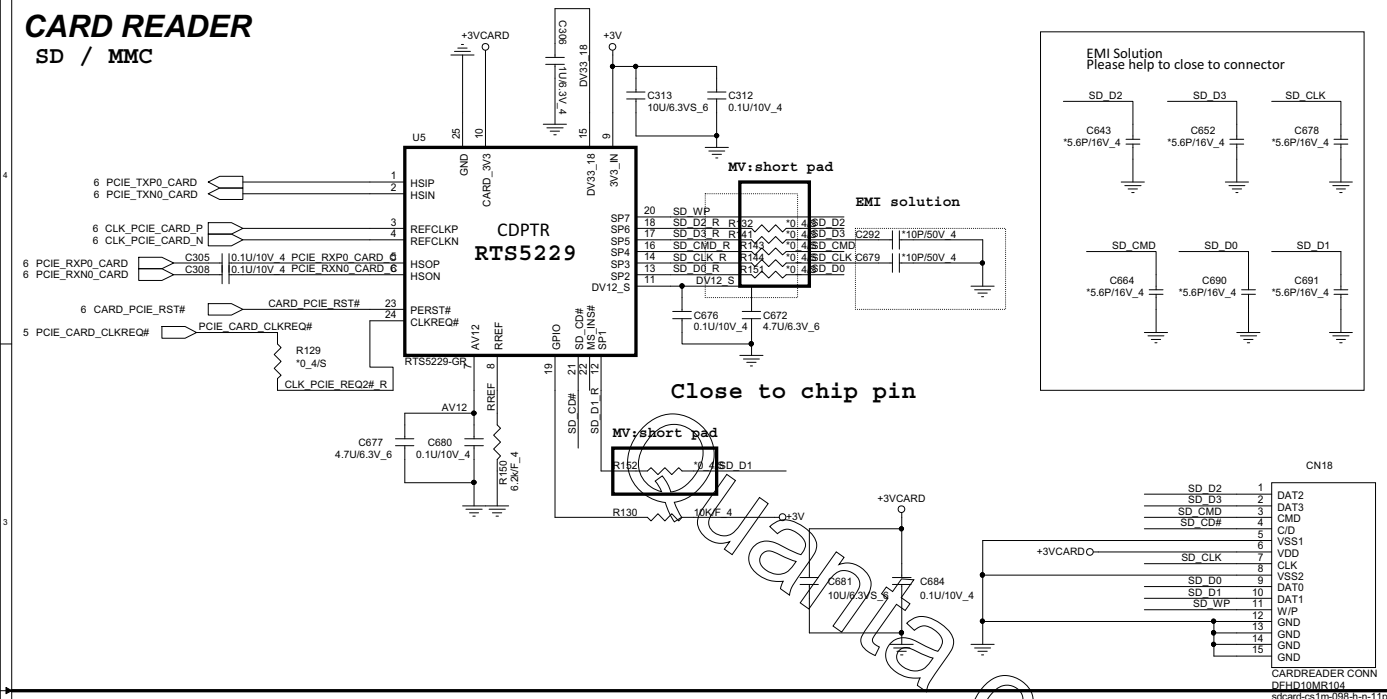
RJ45

MV modify 0723
SMT open issue for footprint changePROJECT : GOLF
Quanta Computer Inc.

Size Custom	Document Number LAN RTL8105/RJ45	Rev A
Date: Friday, August 10, 2012	Sheet 21 of 37	

CARD READER

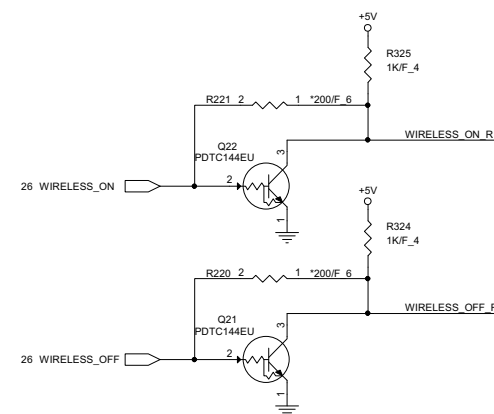
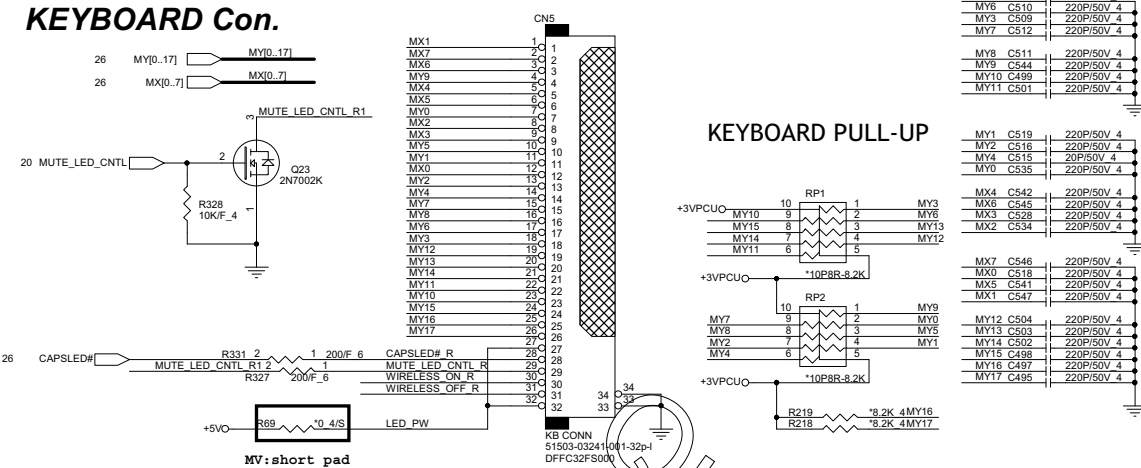
SD / MMC

**CRT PORT**

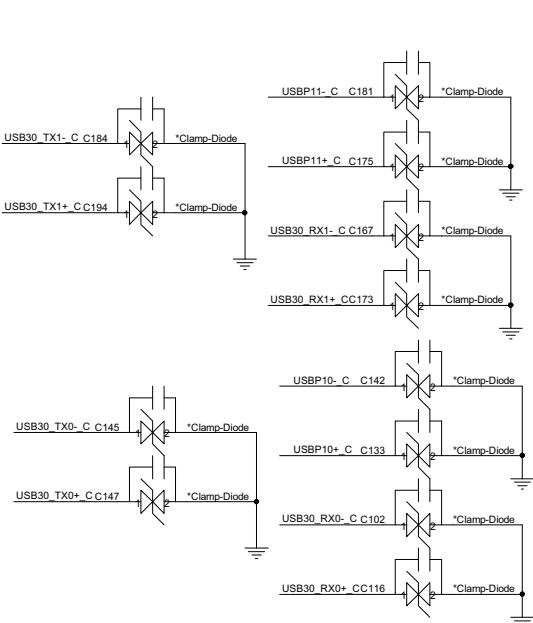
PROJECT : GOLF
Quanta Computer Inc.

Size	Document Number	Rev
Custom	Card Reader control (RTS5229-GR)	A
Date: Friday, August 10, 2012	Sheet 22 of 37	

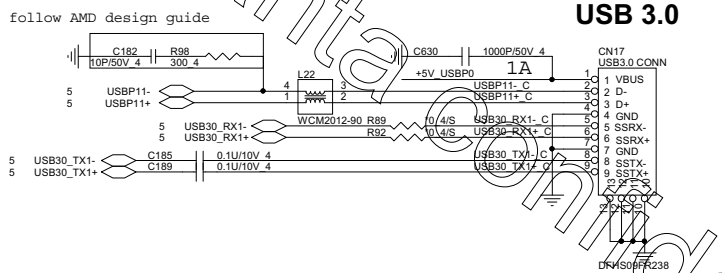
KEYBOARD Con.



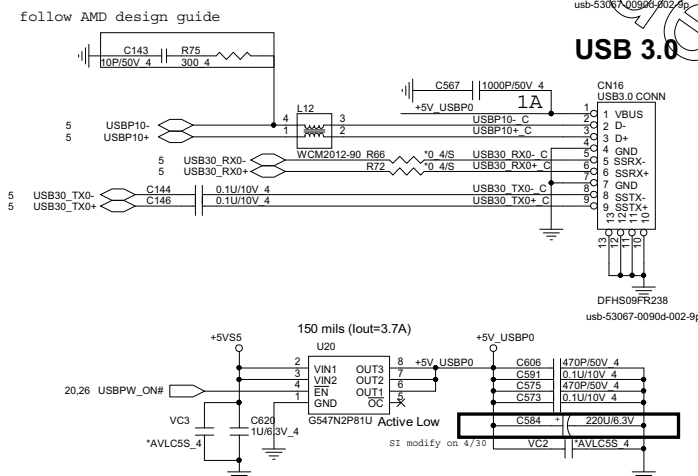
USB 2.0/3.0 Combo



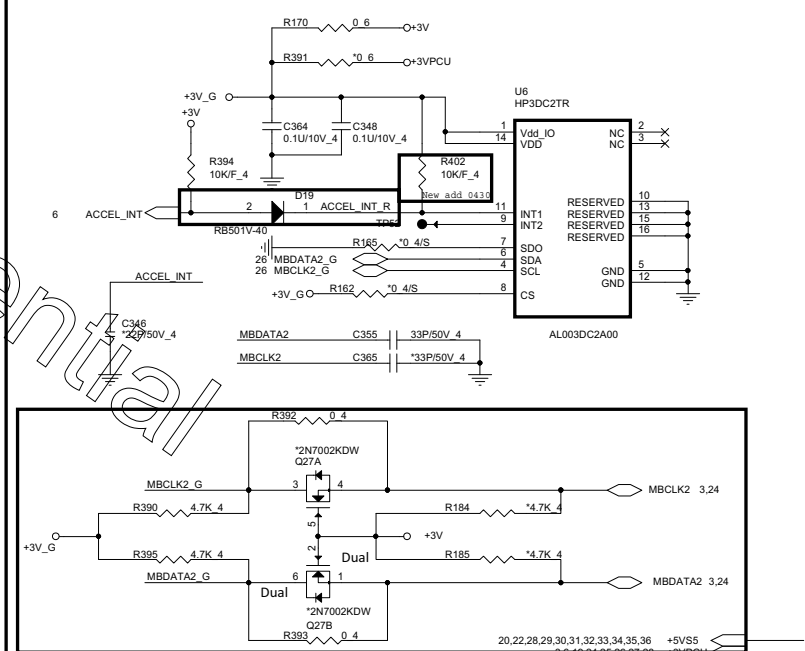
USB 3.0



USB 3.0



Accelerometer Sensor

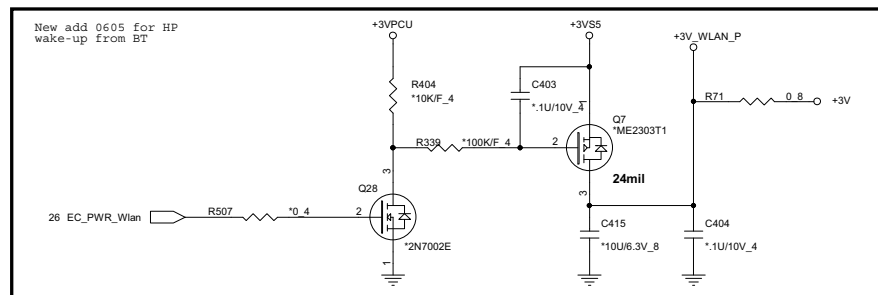
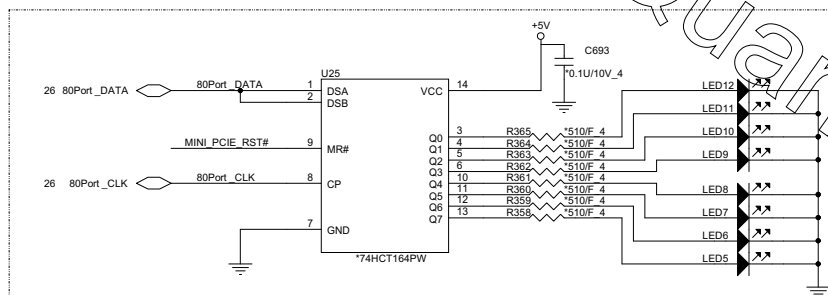
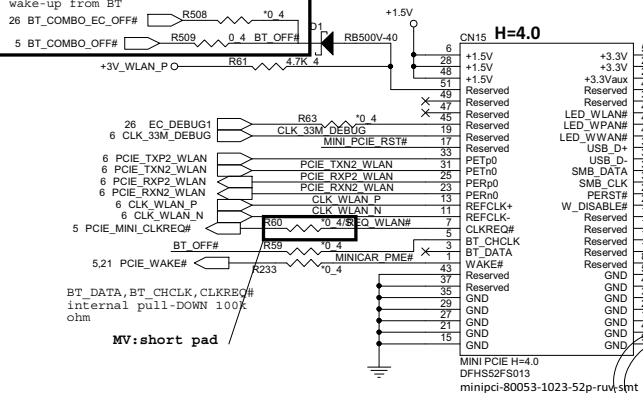


PROJECT : GOLF
Quanta Computer Inc.

Size Custom	Document Number USB 3.0/KB/Green CLK	Rev A
Date: Friday, August 10, 2012	Sheet 23 of	37

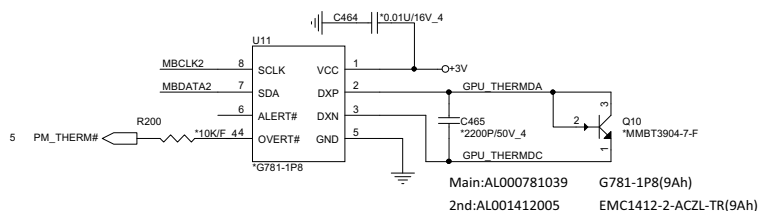
Mini Card WLAN/BT(Optional) PV Add for Reserve

New add 0605 for HP
wake-up from BT
26 BT_COMBO_EC_OFF#
5 BT_COMBO_OFF#



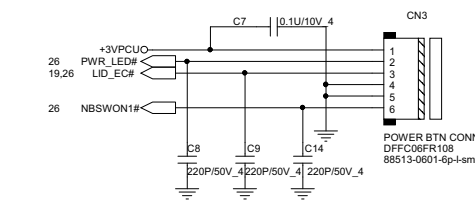
Local Thermal Sensor

Thermal Solution(Close to GPU)

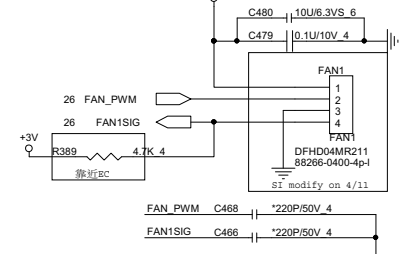


Power Button Connector

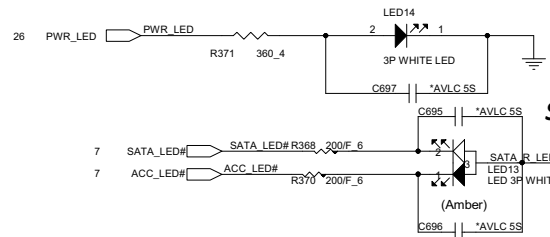
Pin1 : +3VPCU(LIDSWITCH PWR)
Pin2 : POWER LED
Pin3 : LIDSWITCH
Pin4 : GND
Pin5 : GND
Pin6 : POWERON#



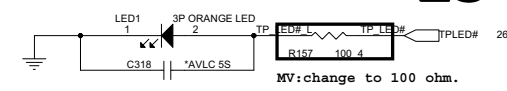
FAN



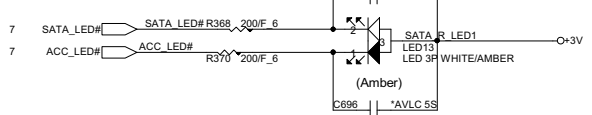
PWR LED



14" TP LED

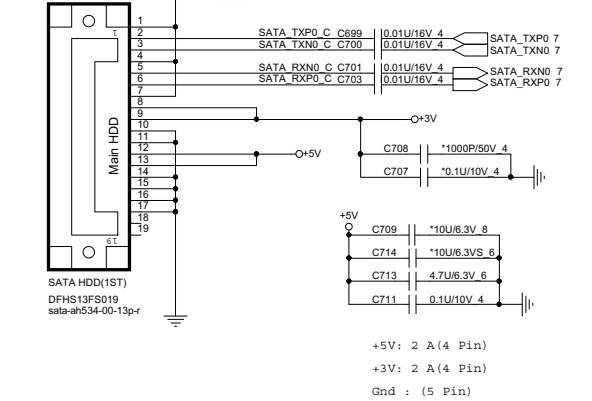


SATA LED

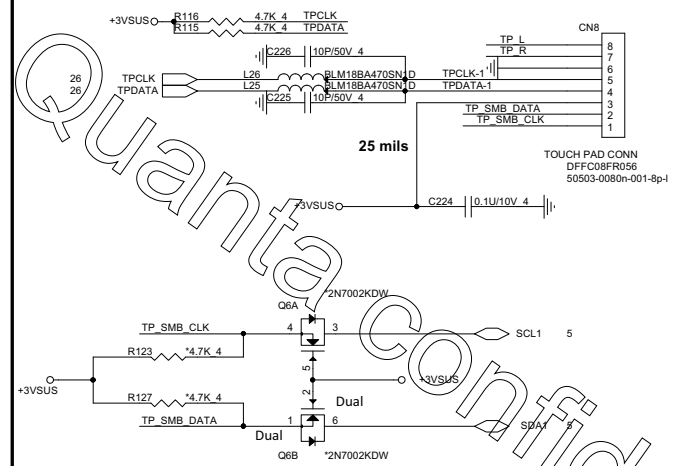


SATA HDD Connector(Cable type)

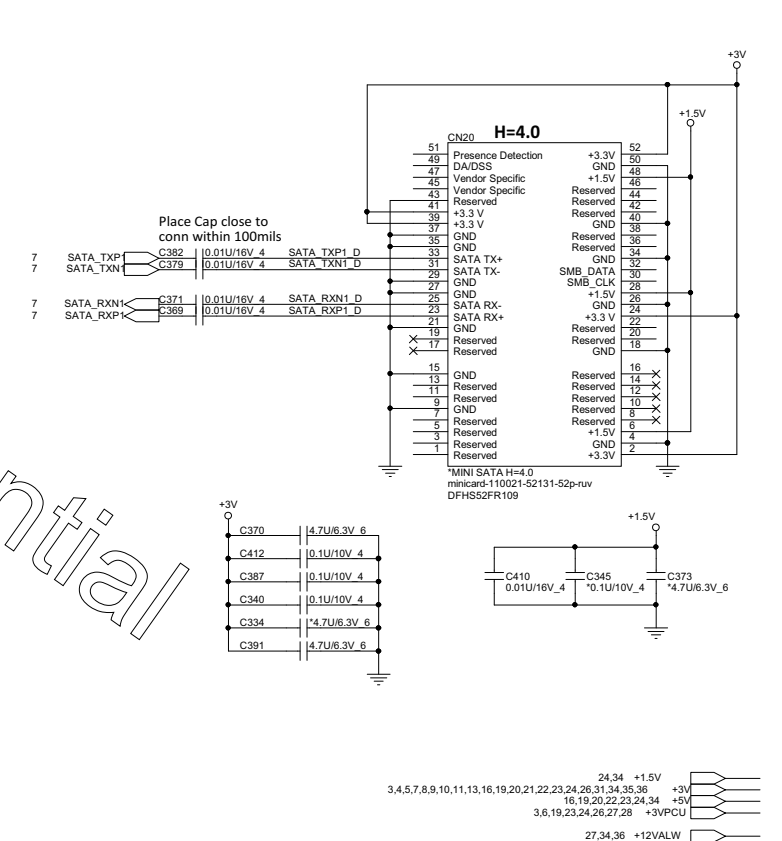
Bypass CAP close conn



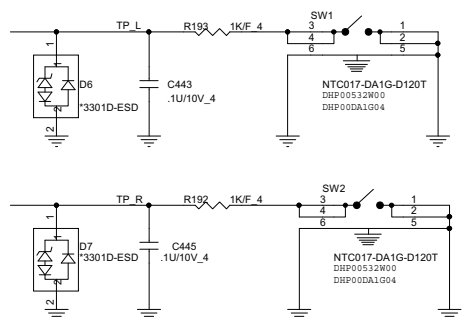
Touch Pad Connector



Mini PCI-E Card 2- Full size mSATA

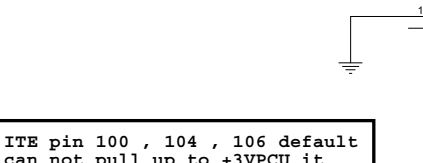
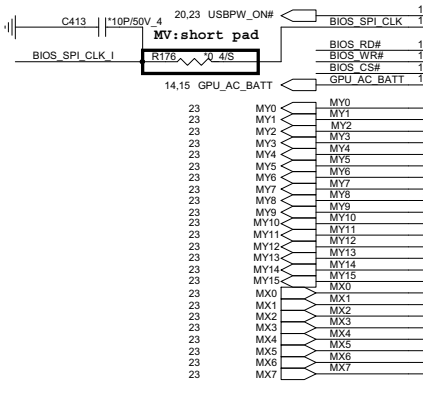
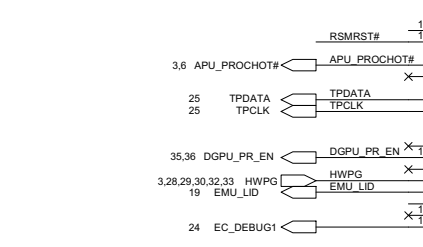
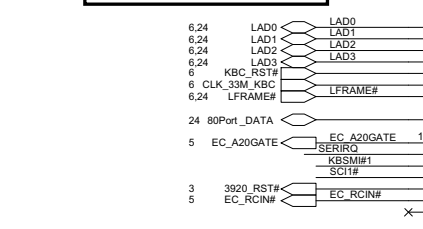
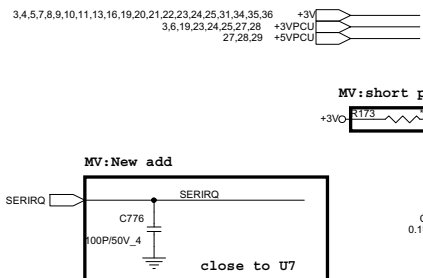


Switch board connector for 15.6"

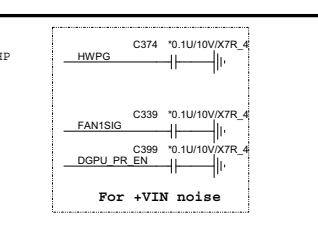
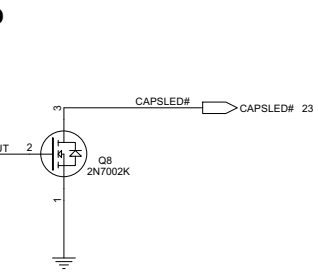
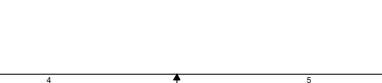
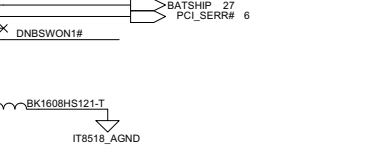
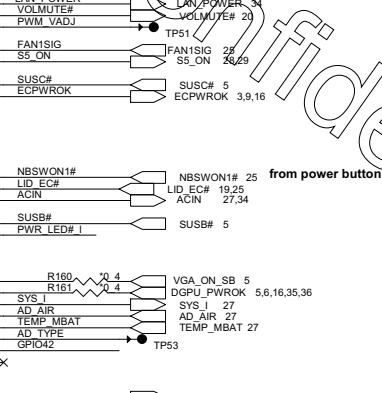
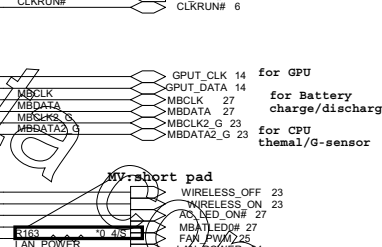
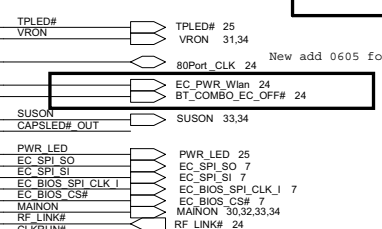
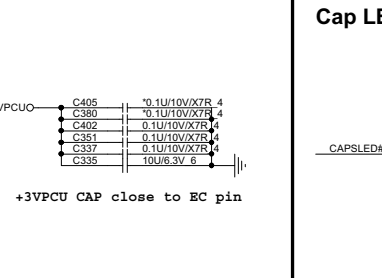
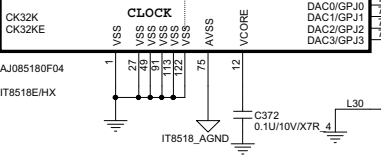
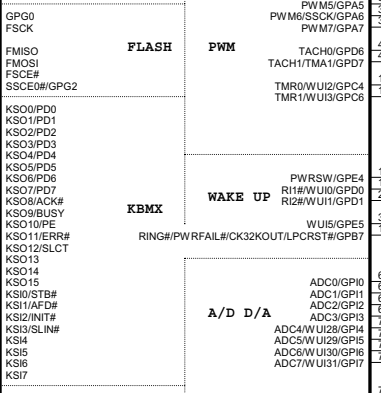
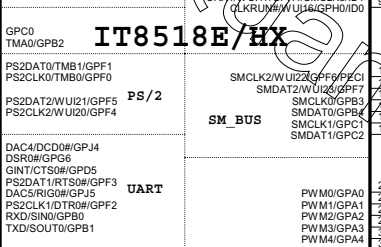
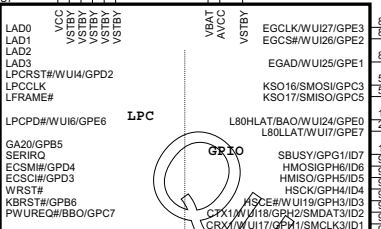
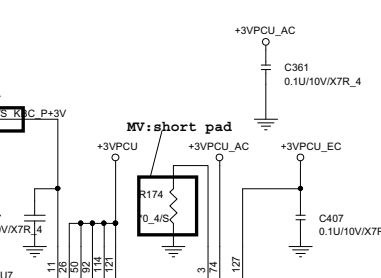


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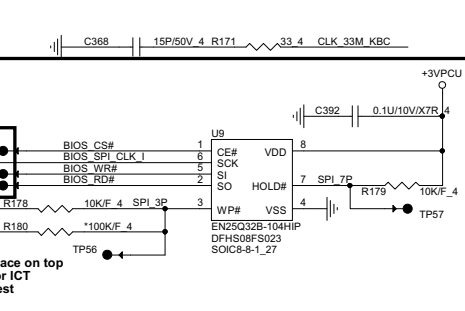
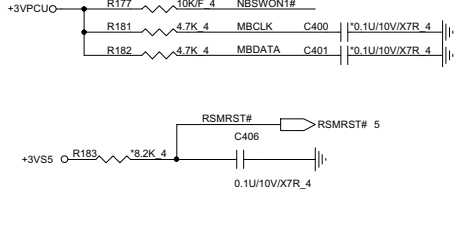
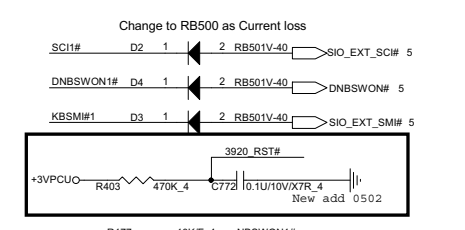
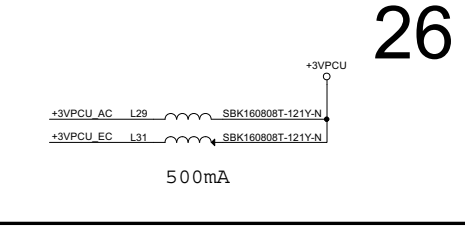
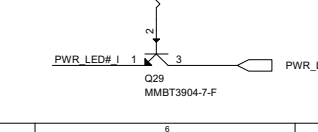
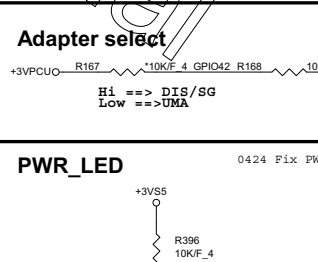
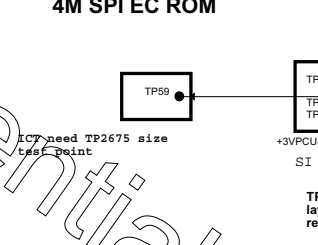
Size Custom	Document Number	Rev A
SATA HDD/ODD/MSATA CONN		
Date: Friday, August 10, 2012	Sheet	37



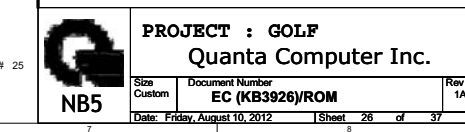
ITE pin 100, 104, 106 default can not pull up to +3VPCU it will cause chip into test mode



Vender	Size	P/N
PMC	4M	AKE39ZN0500
EON(main)	4M	AKE39ZN0Q02
MX	4M	AKE39FP0Z02



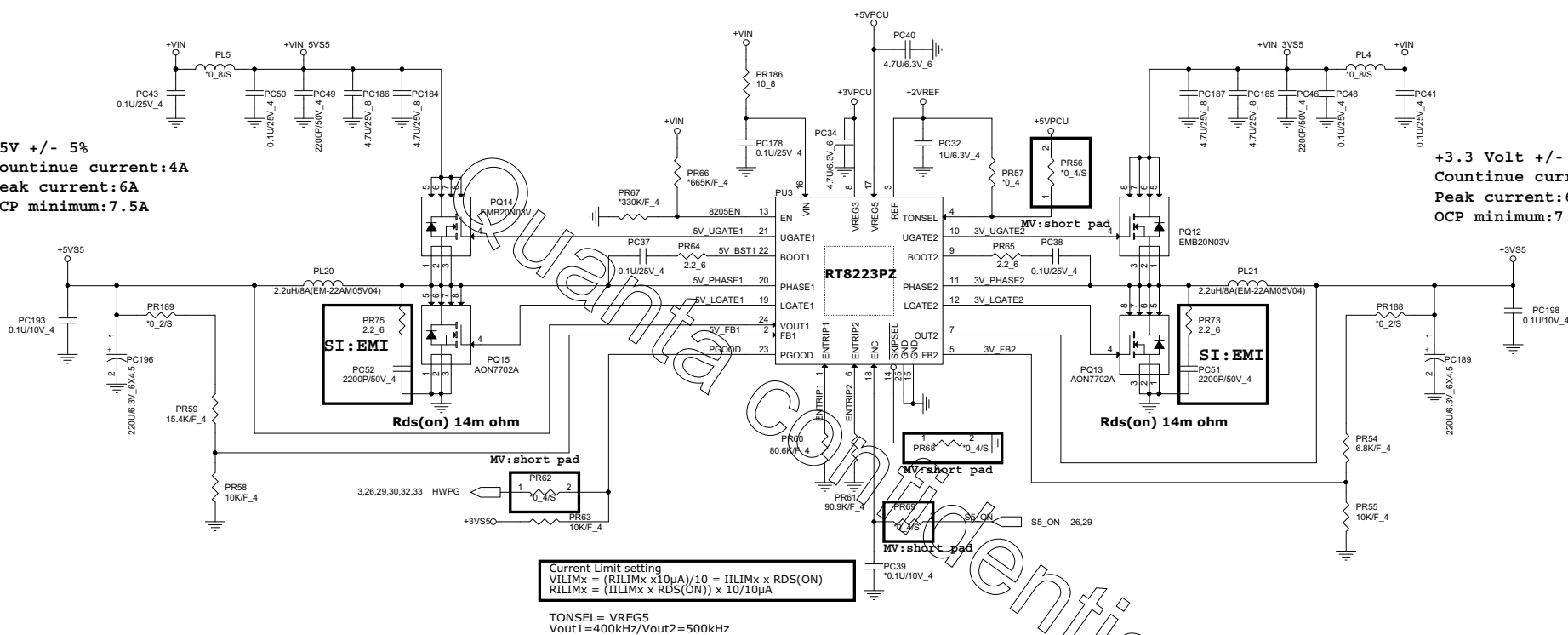
Platform model	GPIO42	adapter
SG/DIS	High	90W
UMA	Low	65W



DC/DC +3V_ALW/+5V_ALW/+5V_ALW2 /+15V_ALW

+5V +/- 5%
 Countinue current:4A
 Peak current:6A
 OCP minimum:7.5A

+3.3 Volt +/- 5%
 Countinue current:4A
 Peak current:6A
 OCP minimum:7.5A

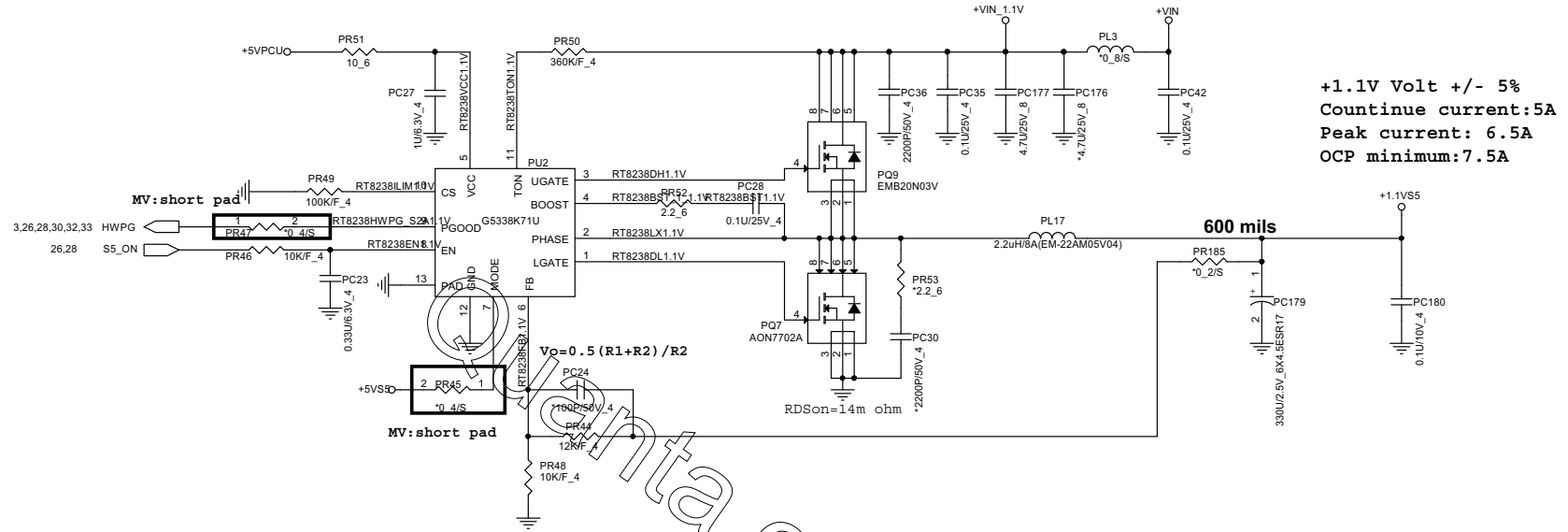


12,19,27,29,30,31,33,34,35,36 +VIN
 5,7,8,9,22,24,26,34,35,36 +3VS5
 20,22,23,29,30,31,32,33,34,35,36 +5VS5
 3,6,19,23,24,25,26,27 +3VPCU



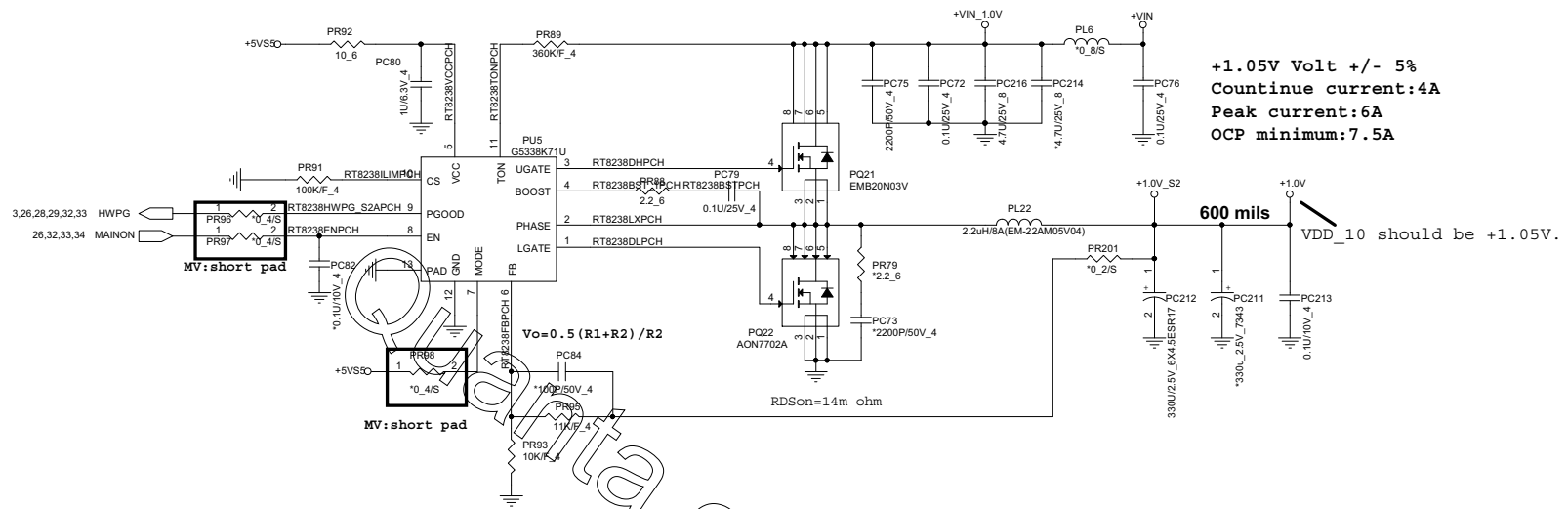
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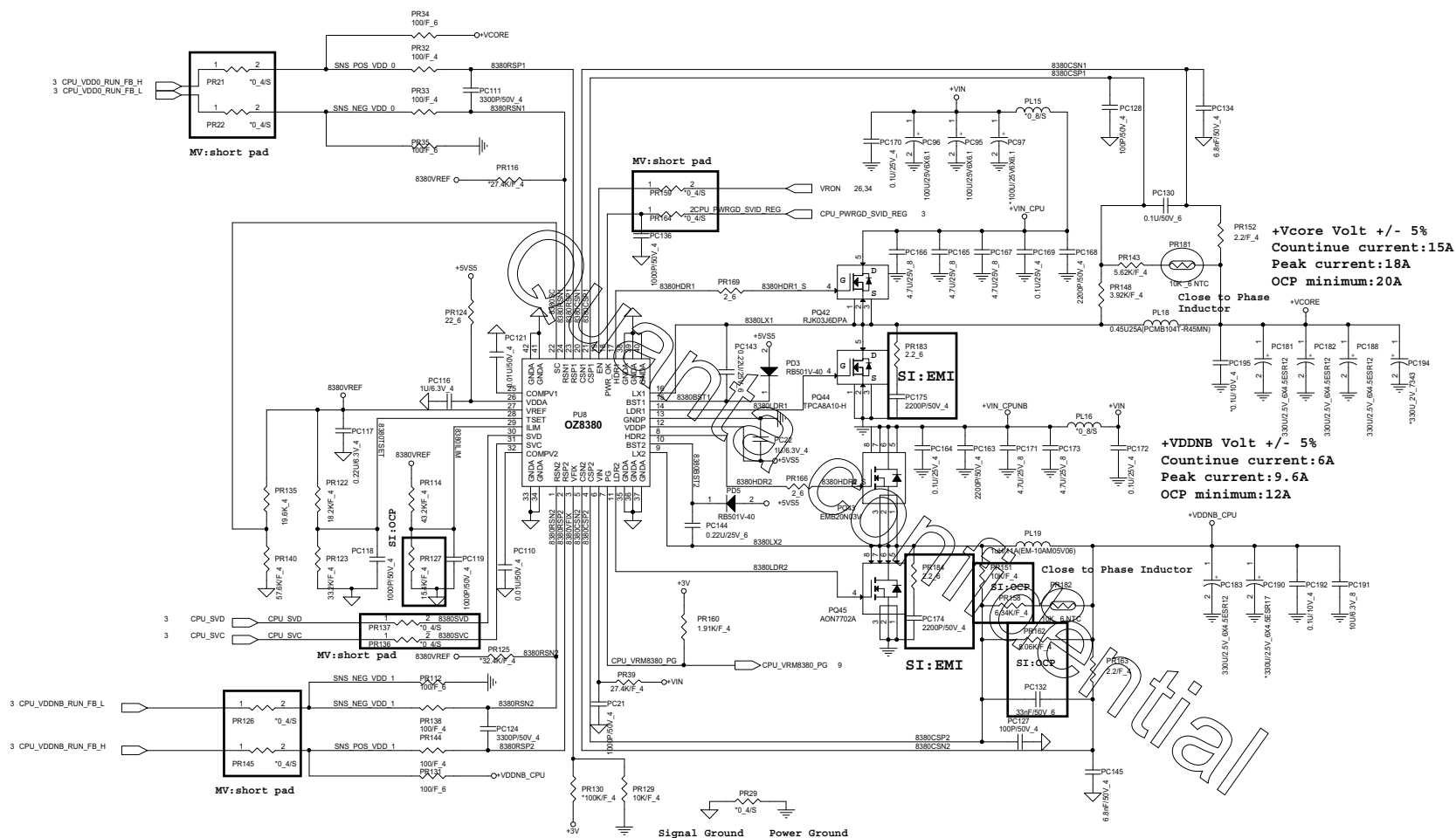
Size Custom	Document Number 3/5VPCU(TPS51123A)	Rev 1A
Date Friday, August 10, 2012	Sheet 28 of 37	

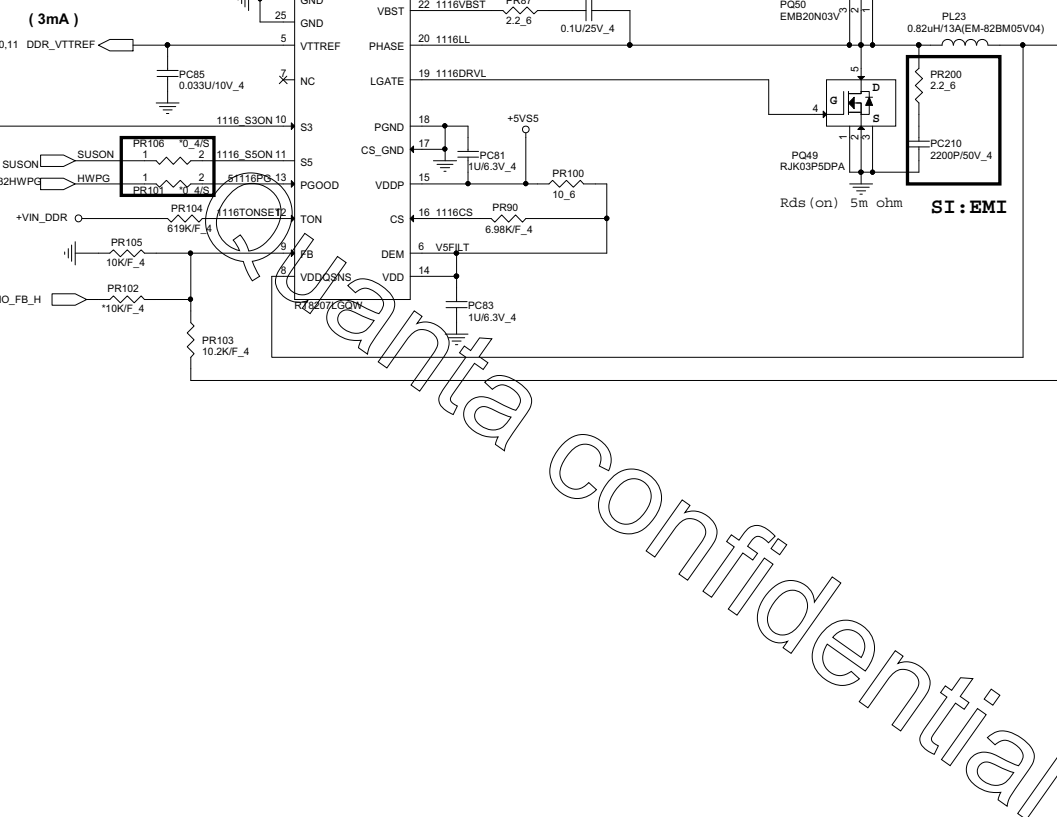


PROJECT : GOLF
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Size Custom	Document Number +1.1VS5 (RT8228)	Rev 1A
Date: Friday, August 10, 2012 Sheet 29 of 37		

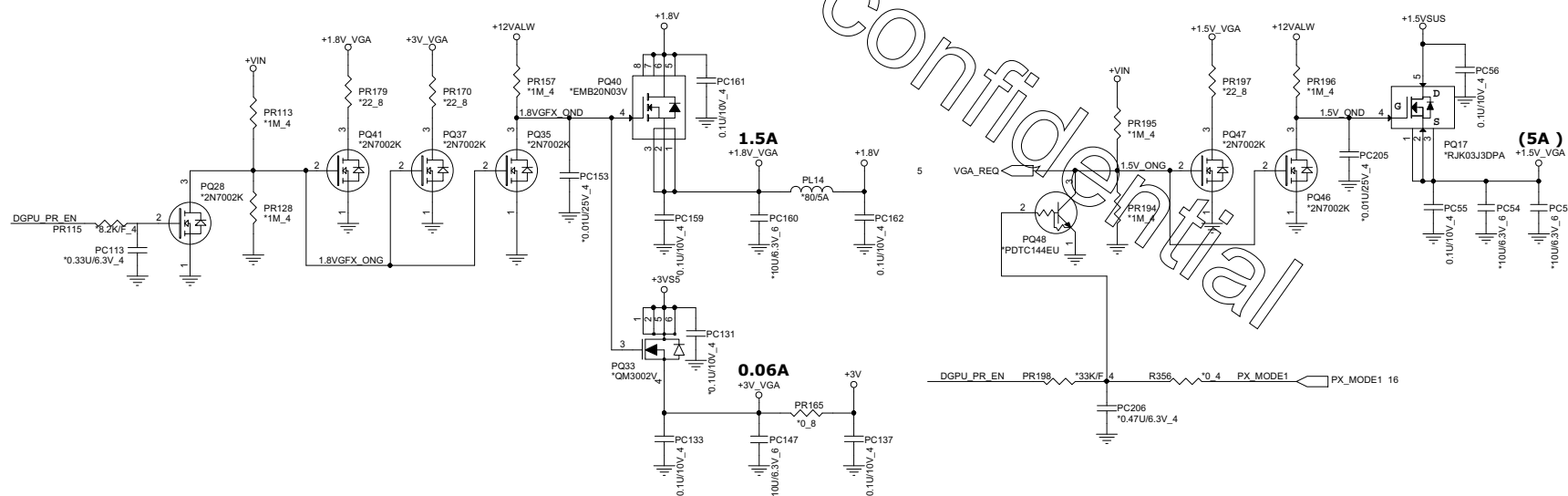
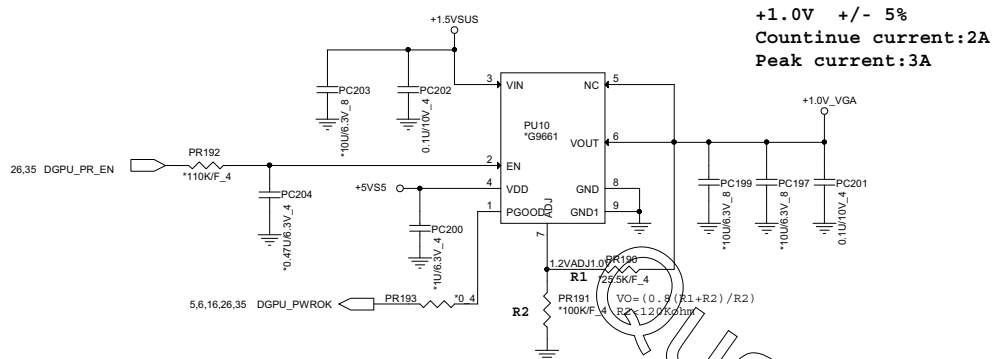






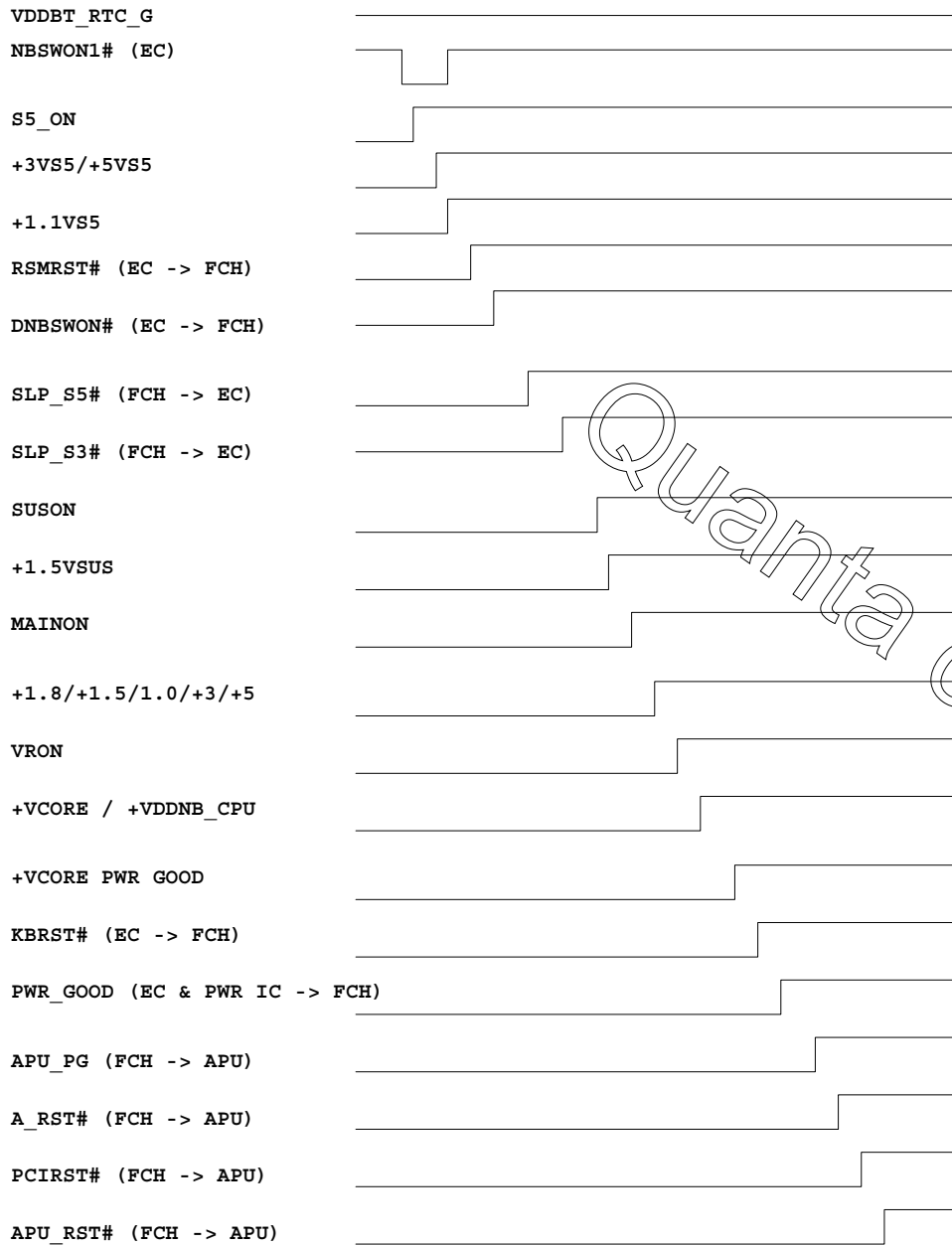


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Custom	+1.0V VGA (G5193)

Date: Friday, August 10, 2012	Sh
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