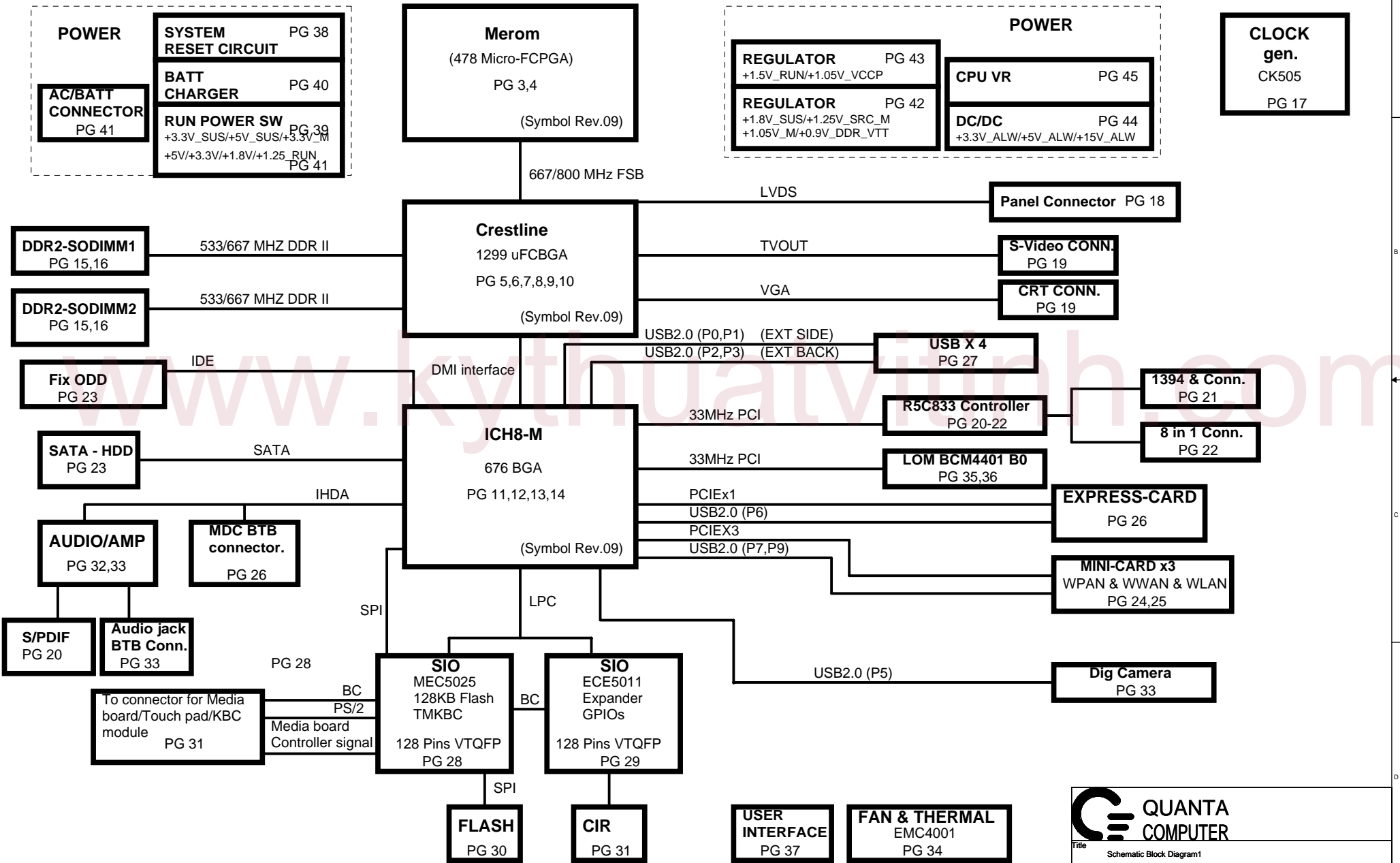


Cosica / Gilligan UMA

VER : 2B



QUANTA COMPUTER

Title: Schematic Block Diagram1

Size: Document Number C & G UMA Rev 2A

Date: Thursday, January 25, 2007 Sheet 1 of 60

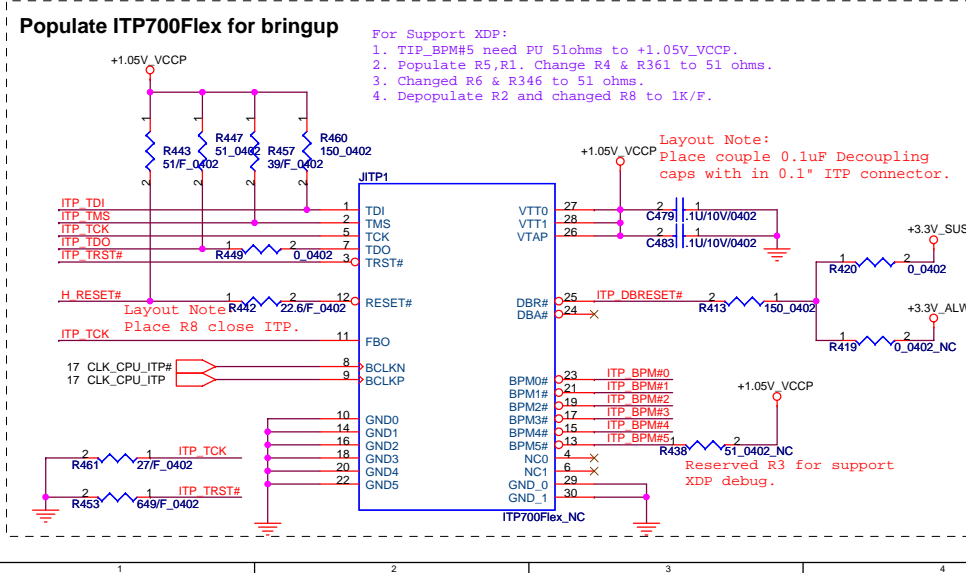
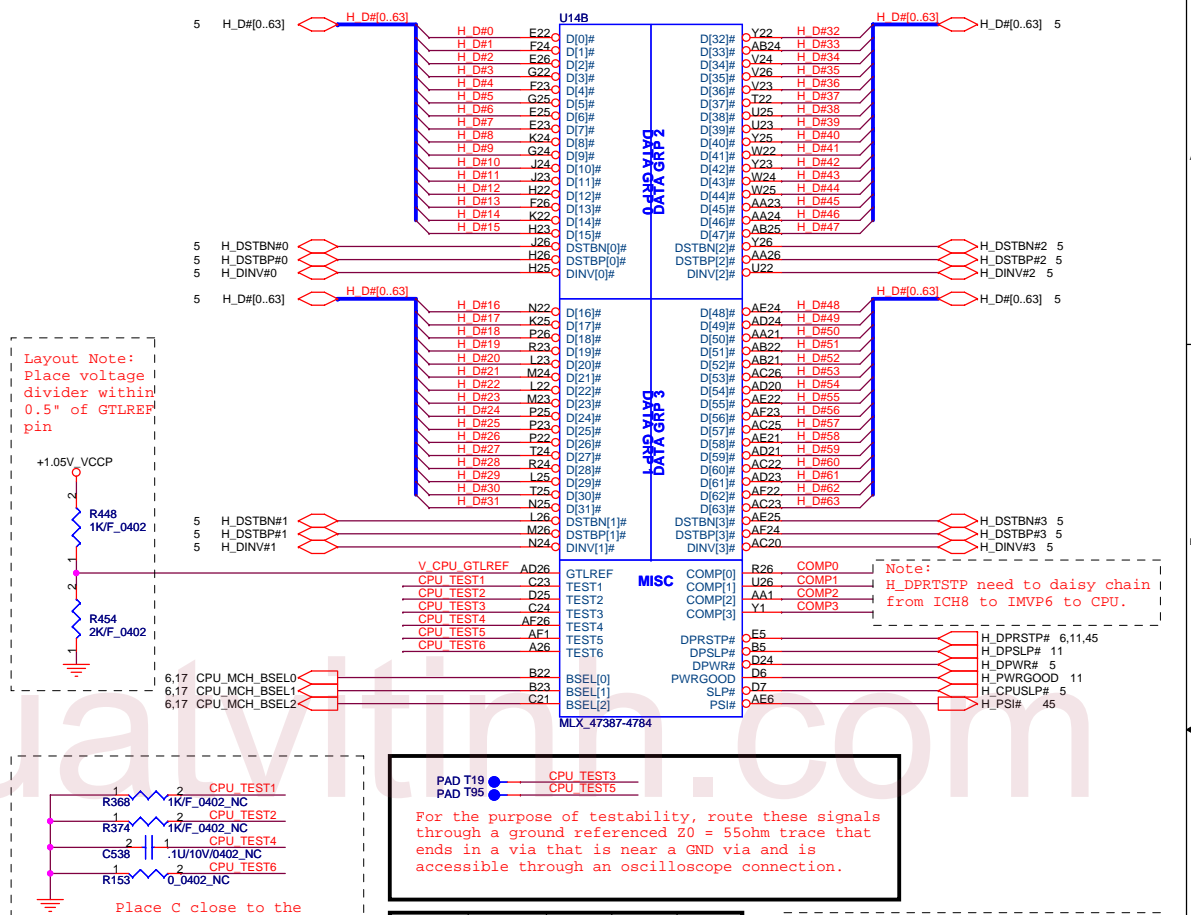
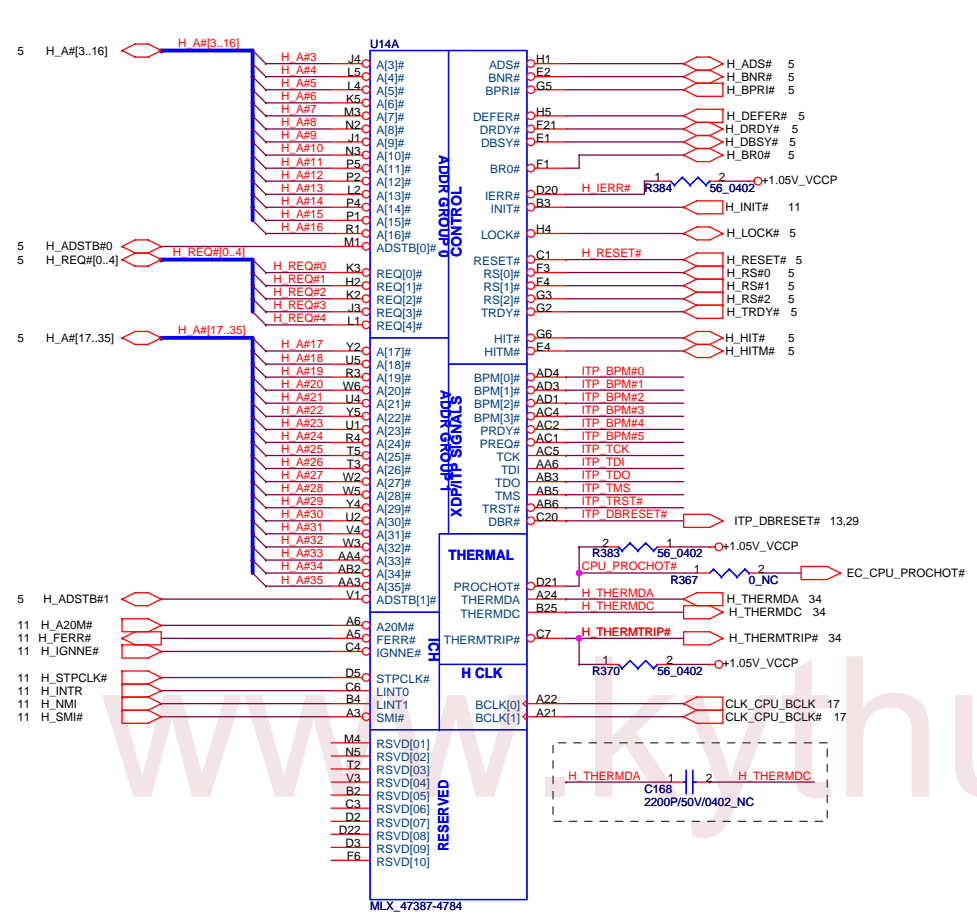
INDEX

Pg#	Description	DNI LIST
1	Schematic Block Diagram	
2	Front Page	
3-4	Merom	
5-10	Crestline	
11-14	ICH8M	
15-16	DDRII SO-DIMM(200P)	
17	Clock Generator	
18-19	VGA/LVDS/CRT/S-Video	
20	8 in 1 controller	
21	1394 function	
22	8 in 1 connector	
23	SATA & IDE Conn	
24-25	Mini Card (WLAN/WPAN/WWAN)	
26	Express Card + MDC BTB Connector	
27	USB Conn.	
28	SIO (MEC5025)	
29	SIO (MEC5011)	
30	Flash / RTC	
31	TP/KB/Media/CIR Conn.	
32-33	Audio CODEC(STAC9200)/Phone Jack	
34	FAN & Thermal	
35-36	LOM (BCM4401)	
37	Dash/LED/BT Conn.	
38	System reset CKT.	
39	RUN Power Switch	
40	Battery Charger	
41	DCIN/Batt Conn.	
42	1.25V,1.8V,0.9V	
43	1.5VSUS,1.05V(VTT)	
44	D/D Power	
45	CPU_ISL6260(3phase)	
46	EMI CAP & Screw Hole.	

Power & Ground

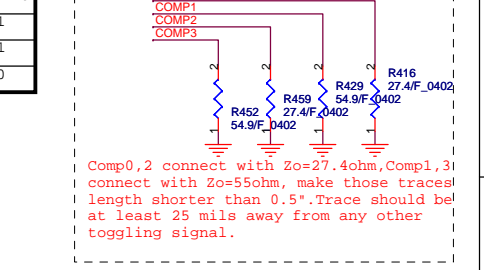
Label	Pg#	Description	Control Signal
DC_IN+		AC ADAPTER (19V)	
PBATT+		MAIN BATTERY + (10~17V)	
PBATT+		SECOND BATTERY + (10~17V)	
PWR_SRC		MAIN POWER (10~19V)	
RTC_PWR3_3V		RTC & +3.3V_RTC_LDO(3.3V)	
+VCC_CORE		CPU CORE POWER (1.5V)	RUNPWROK
+15V_ALW		LARGE POWER (15V)	SUS_ON
+3.3V_RUN		SLP_S3# CTRLD POWER	RUN_ON
+3.3V_SUS		SLP_S5# CTRLD POWER	SUS_ENABLE
+3.3V_ALW		8051 POWER (3.3V)	ALWON/THERM_STP#
+5V_RUN		SLP_S3# CTRLD POWER	RUN_ON
+5V_SUS		SLP_S5# CTRLD POWER	SUS_ON
+5V_HDD		HDD POWER (5V)	+5V_RUN
+5V_MOD		MODULE POWER (5V)	HDD_EN
+5V_ALW		LCD/CHARGE POWER (5V)	
+VDDA		AUDIO ANALOG POWER (5V)	AUDIO_AVDD_ON
+1.5V_RUN		CALISTOGA/ICH7 POWER	RUN_ON
+1.05V_VCCP		CPU/CALISTOGA/ICH7 POWER	RUN_ON
+1_8V_SUS		SODIMM POWER	SUSPWROK_5V
+1.8V_RUN		SDVO POWER	RUN_ON
+0.9V_DDR_VTT		SODIMM POWER	RUN_ON
+3.3V_LAN		LAN POWER	AUX_EN
 GND	ALL PAGES	DIGITAL GROUND	
 AGND_ISL6260		CPU GND	
 AGND_TPS51120		DC/DC POWER GND	
 AGND1		VTT POWER GND	
 AGND2		VTT POWER GND	
 8731AGND		CHARGER GND	





ITP700 layout guidelines

Signal	Resistor Value	Connect To	Resistor Placement
TDI	150 ohm ± 5%	VCCP	Place the pull-up near CPU
TMS	39 ohm ± 1%	VCCP	Within 200ps of ITP connector
TRST#	500 to 680 ohm ± 5%	GND	Place the pull-down near CPU
TCK	27 ohm ± 1%	GND	Connect to TCK pin of CPU and then connect it to FBO pin of ITP connector in daisy chain. Place the pull-down near TCK0 pin of ITP connector
TDO	51 ohm ± 5%	VCCP	Place the pull-up near ITP
RESET#	22.6 ohm ± 1% series resistor and pullup 51 ohm ± 1%.	VCCP	Connect to CPURST# pin of GMCH through the series resistor placed within 200ps of ITP connector. Place the pull-up after the series resistor from ITP connector.

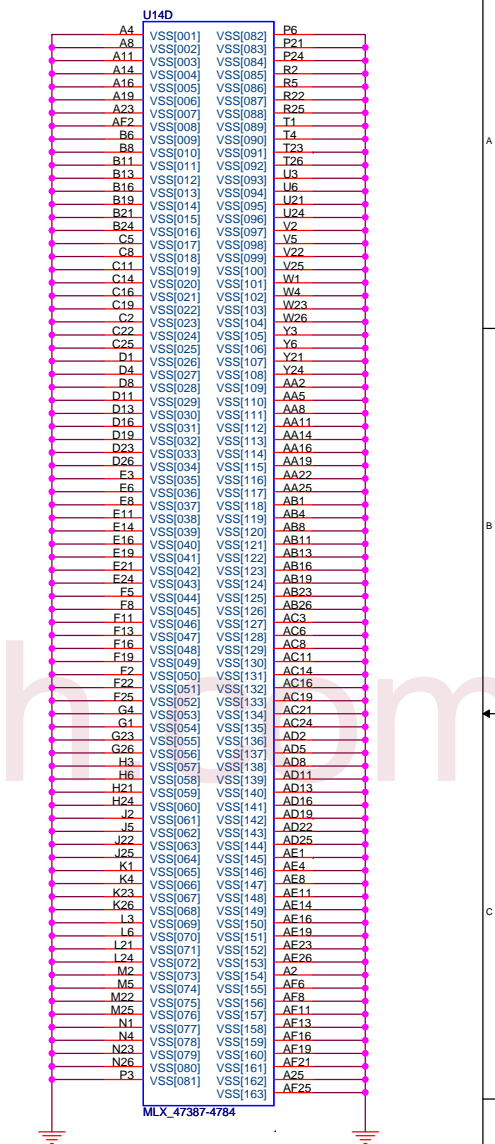
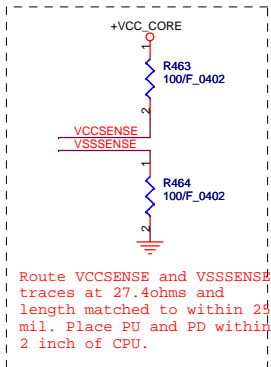
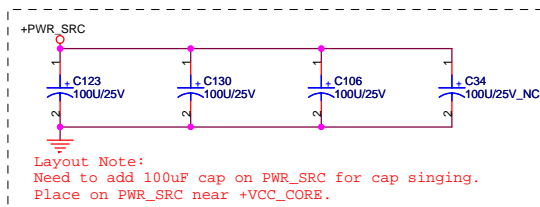
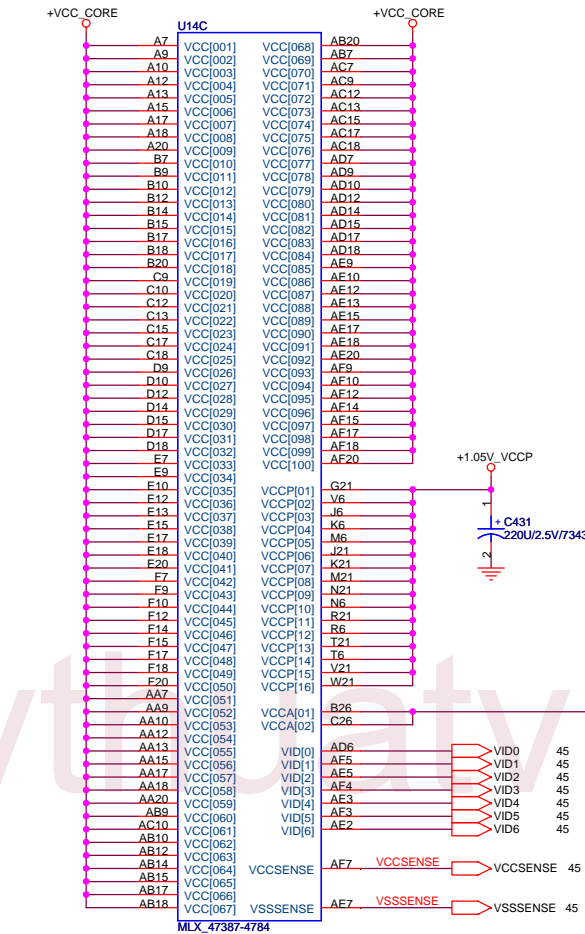
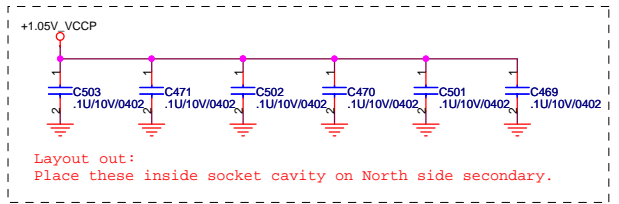
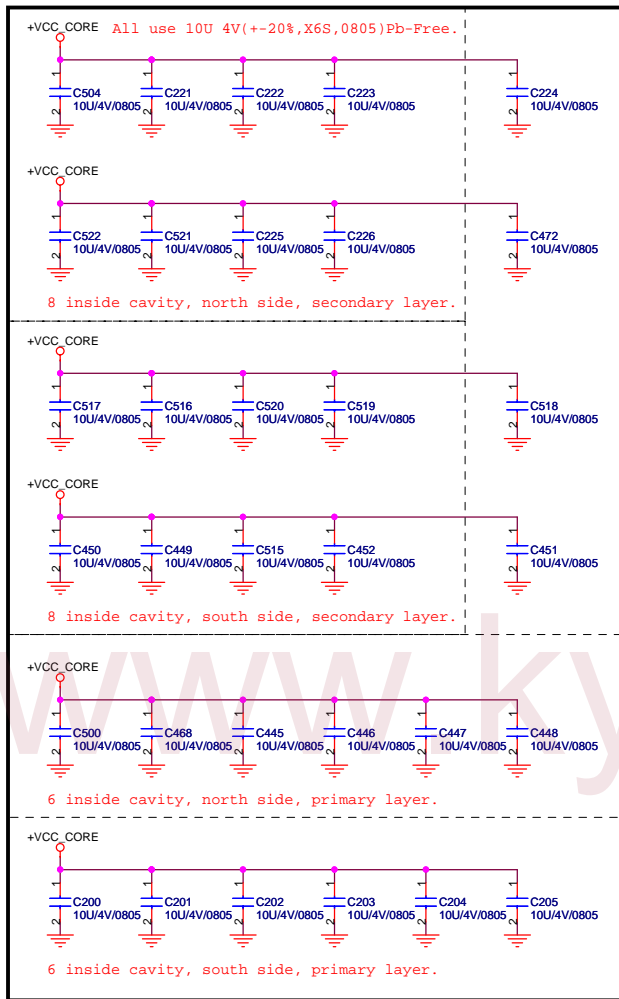


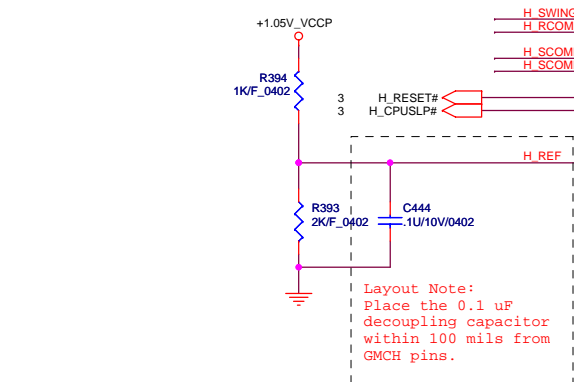
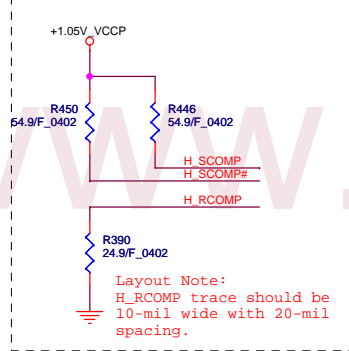
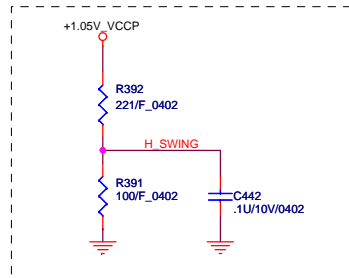
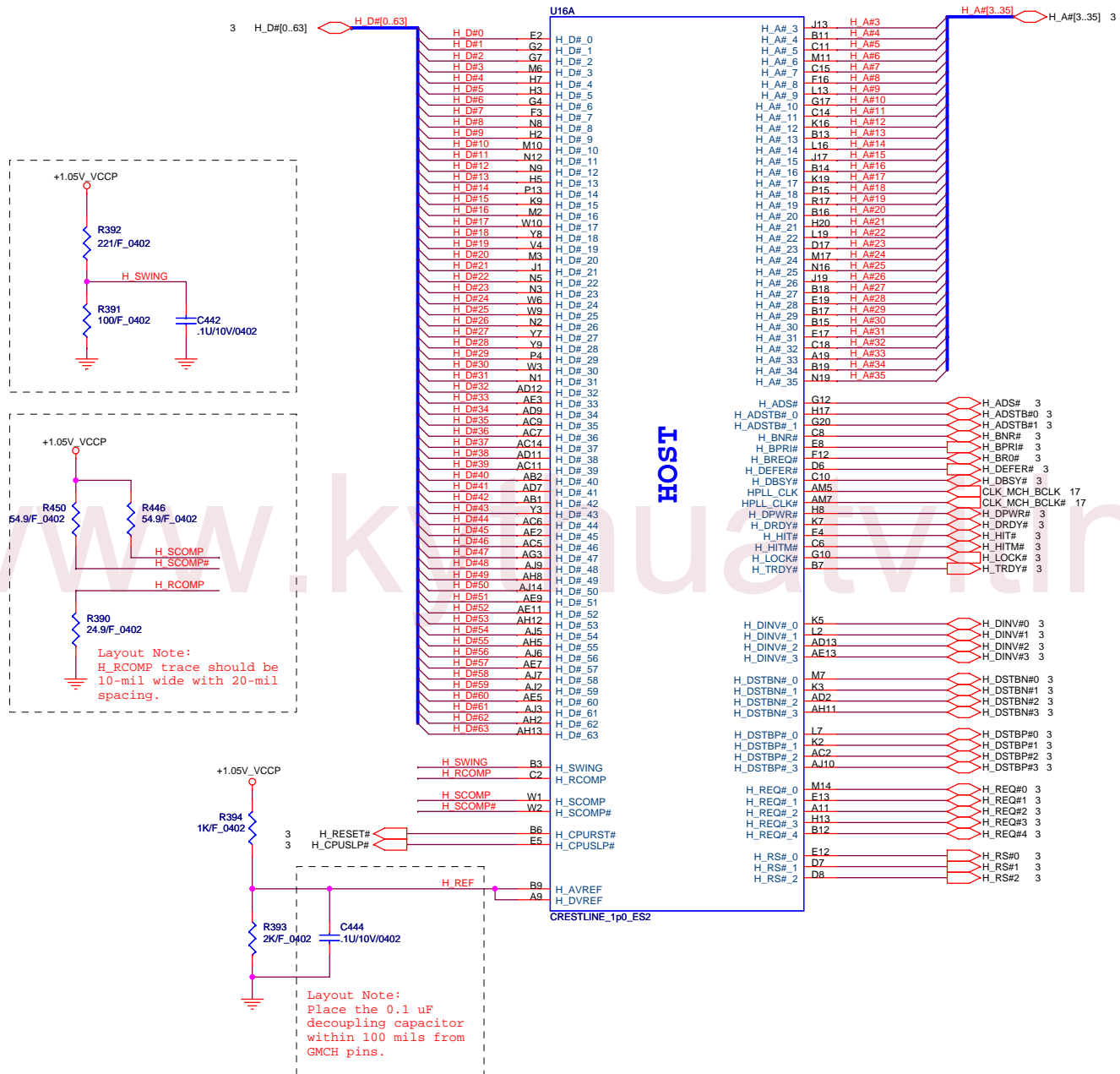
QUANTA COMPUTER

Title: Merom Processor (HOST BUS)

Size: Document Number C & G UMA Rev 2A

Date: Friday, January 19, 2007 Sheet 3 of 60



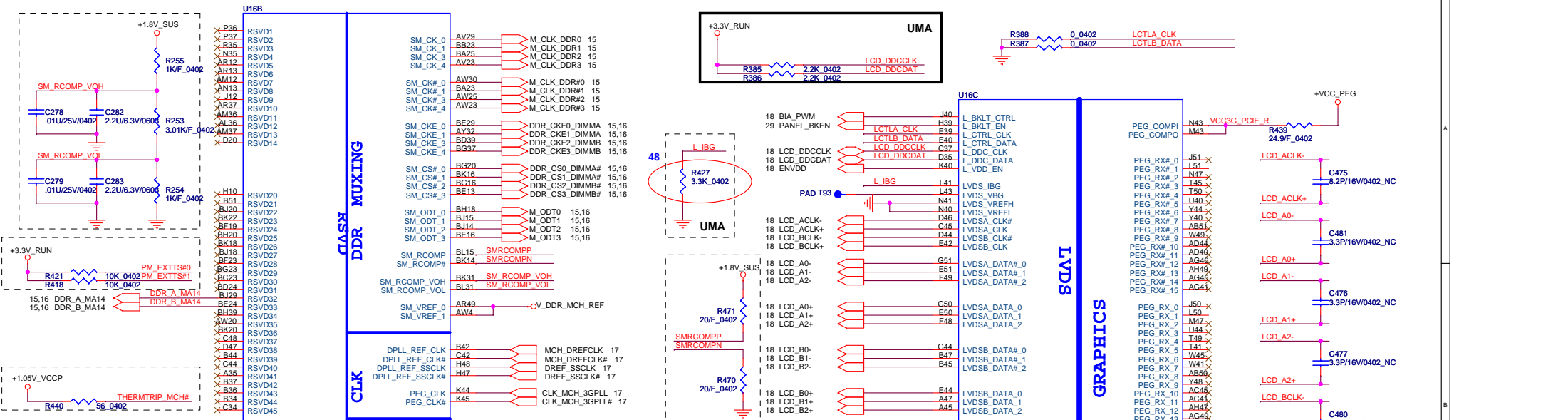


Layout Note:
H_RCOMP trace should be
10-mil wide with 20-mil
spacing.

Layout Note:
Place the 0.1 uF
decoupling capacitor
within 100 mils from
GMCH pins.



Title Crestline (HOST)		
Size	Document Number C & G UMA	Rev 2A
Date:	Friday, January 19, 2007	Sheet 5 of 60



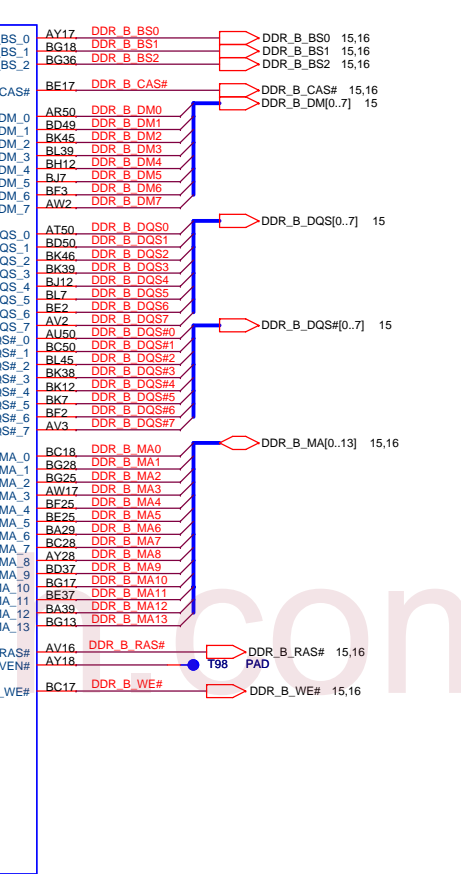
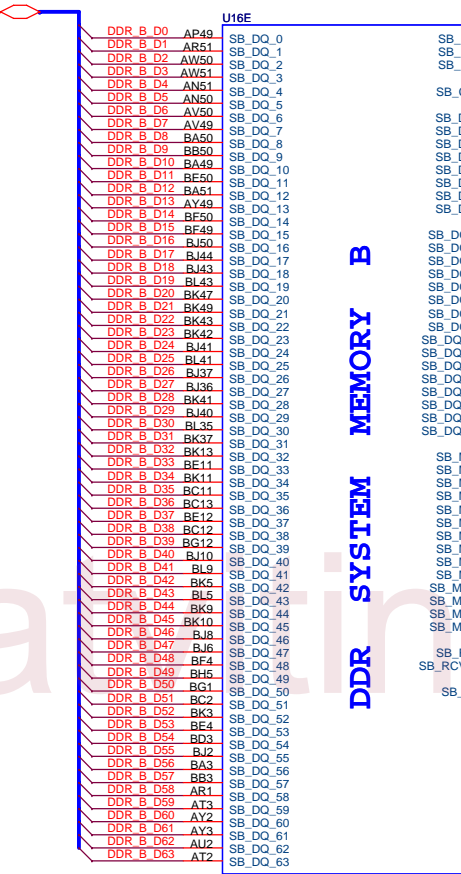
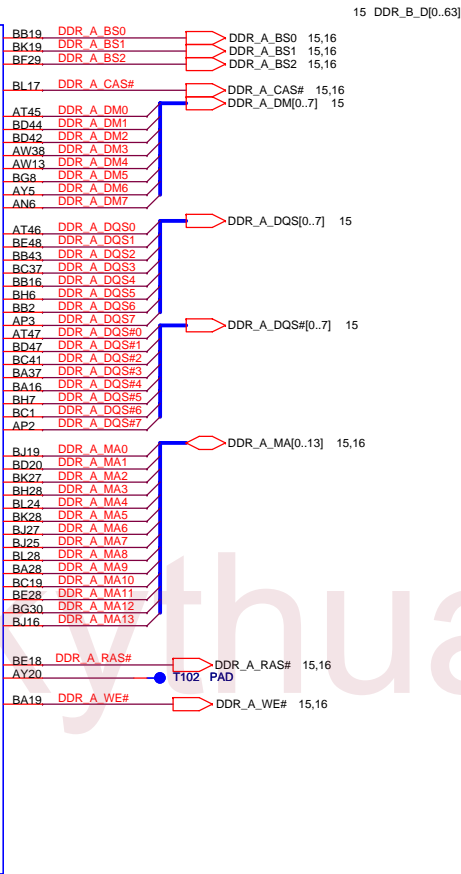
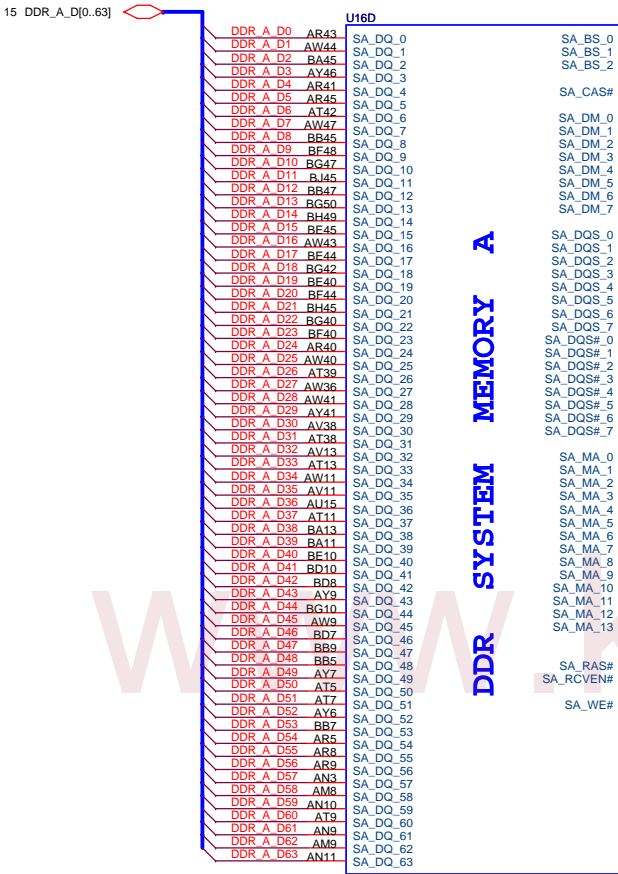
Layout Note:
Location of all MCH_CFG strap resistors needs to be close to minimize stub.

UMA only
Layout Note:
Place 150 ohm termination resistors close to GMCH.

UMA only
Layout Note:
Place 150 ohm termination resistors close to GMCH.

CFG5	DMI X2 Select	Low=DMIx2 High=DMIx4(Default)
CFG9	PCI Express Graphic Lane	Low= Reverse Lane High=Normal operation
CFG16	FSB Dynamic ODT	Low=Dynamic ODT Disable High=Dynamic ODT Enable(default).
CFG19	DMI Lane Reversal	Low=Normal(default). High=Lane Reversed
CFG20	SDVO/PCIe Concurrent Operation	Low=Only SDVO or PCIeExl is operational (defaults) High=SDVO and PCIeExl are operating simultaneously via PEG port
SDVO_CTRL_DATA	SDVO Present.	Low=No SDVO Device Present (default) High=SDVO Device Present

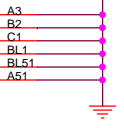
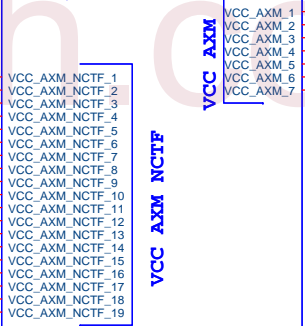
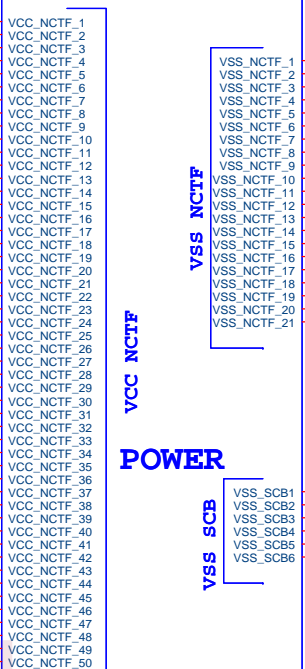
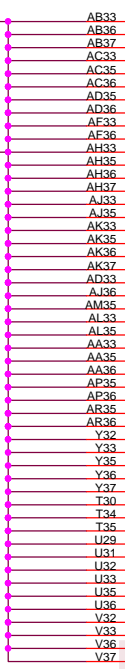
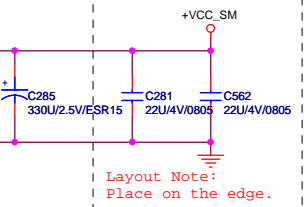
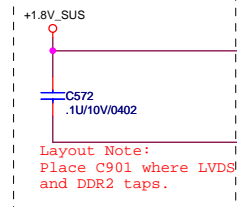
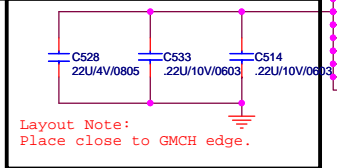
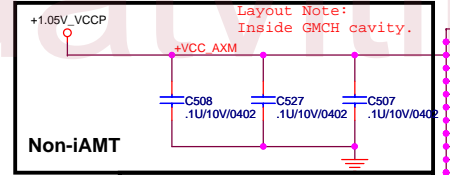
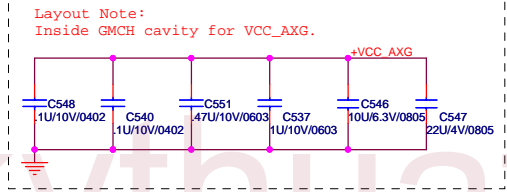
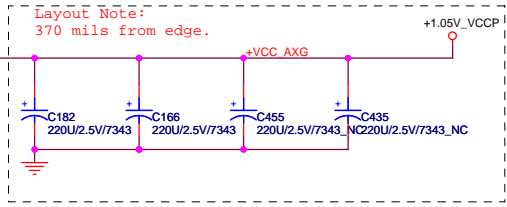
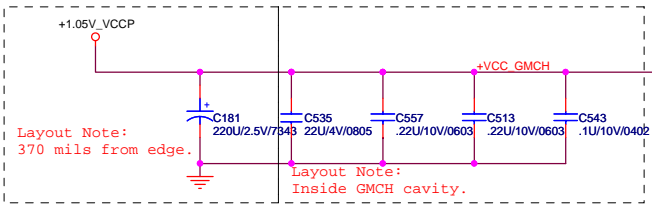
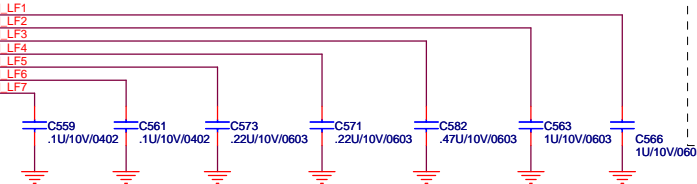
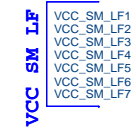
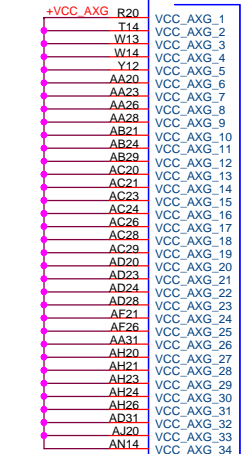
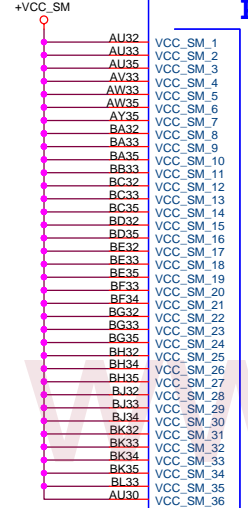
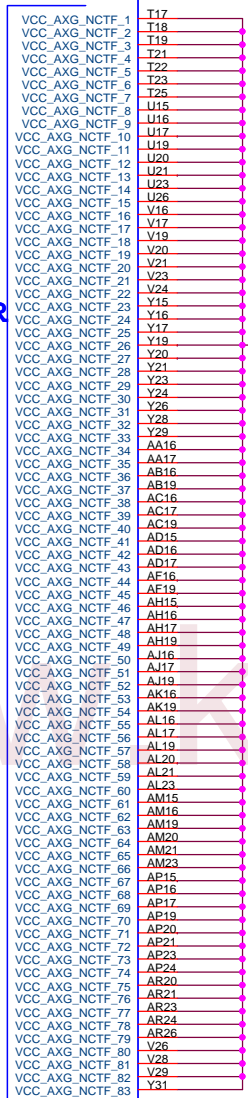
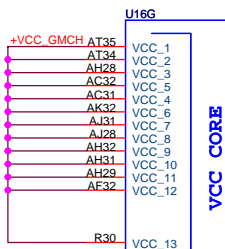




DDR SYSTEM MEMORY A

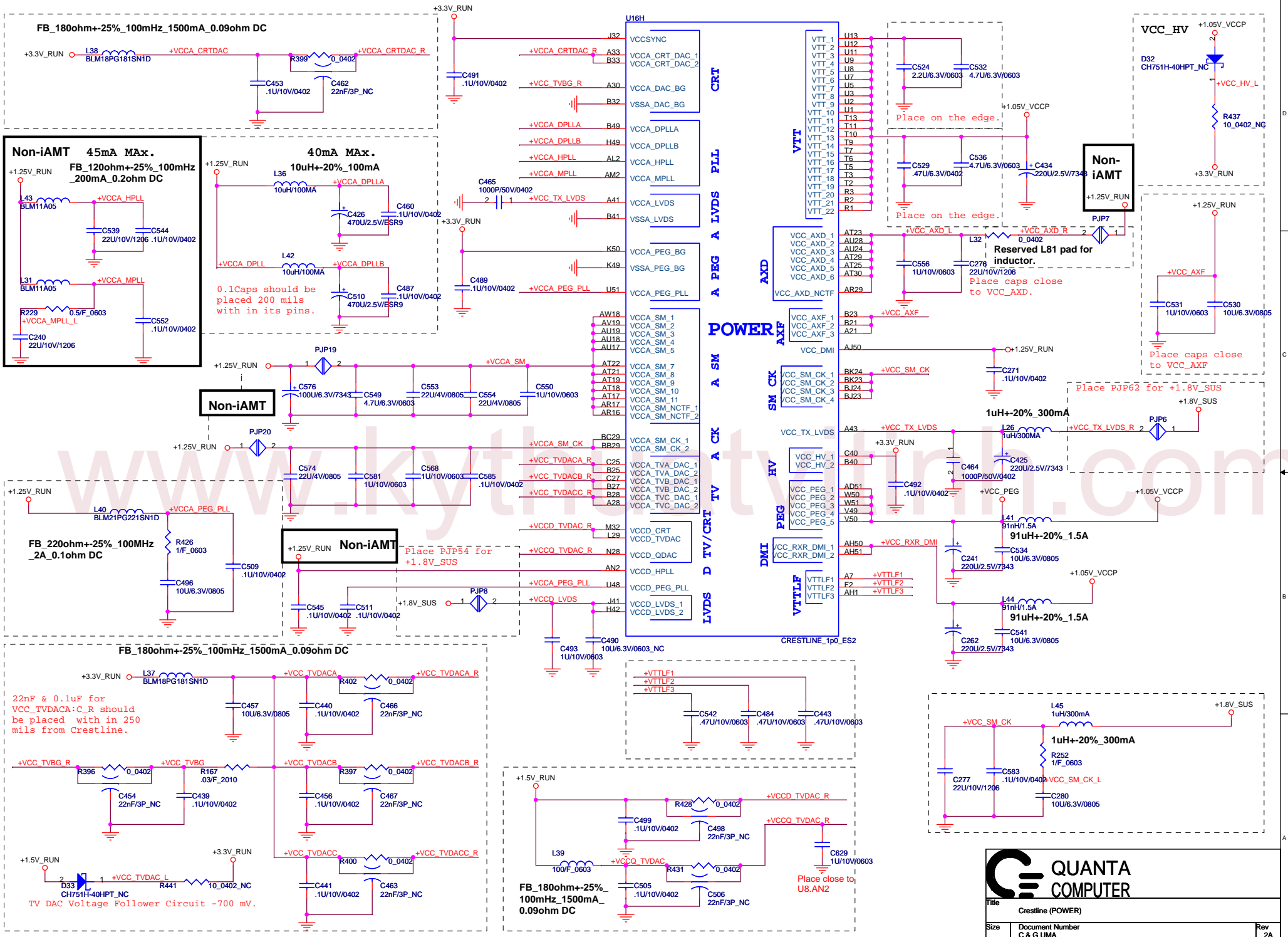
DDR SYSTEM MEMORY B





CRESTLINE_1p0_ES2



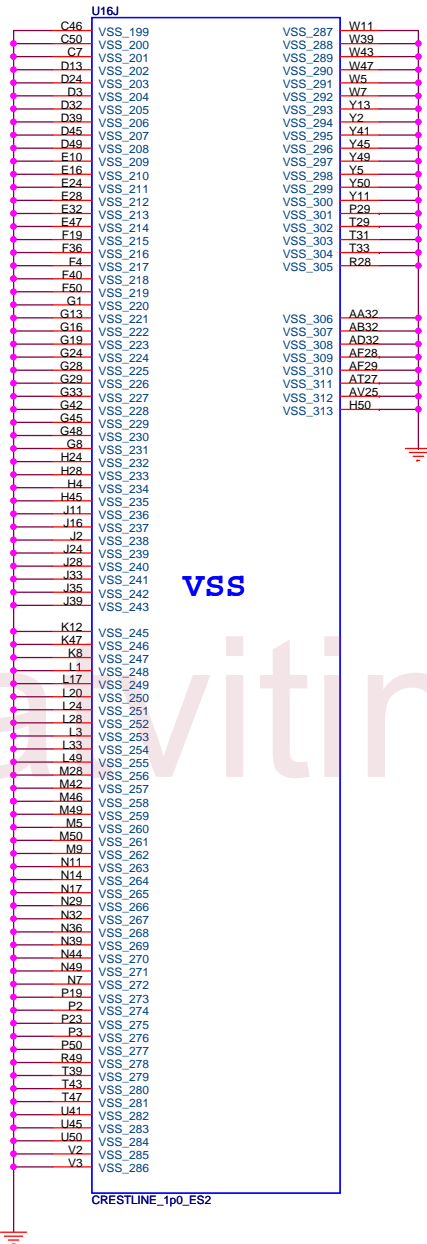
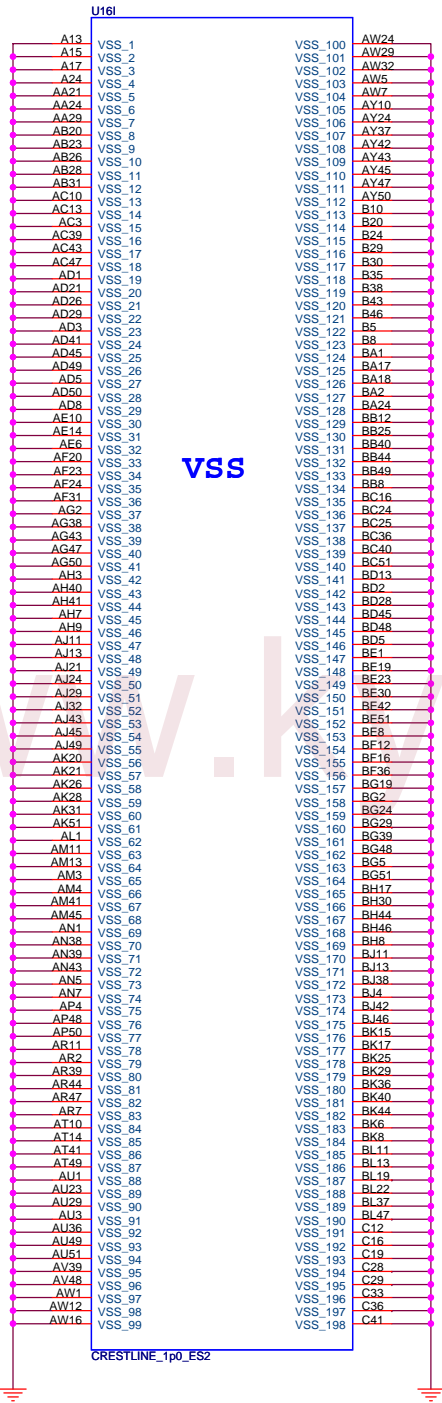



QUANTA COMPUTER

Title: Crestline (POWER)

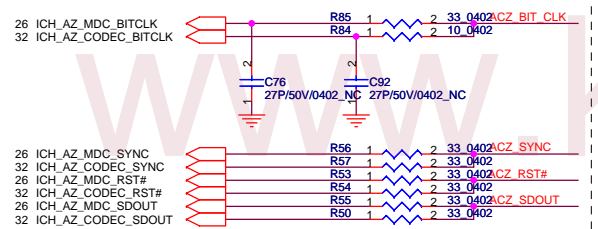
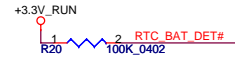
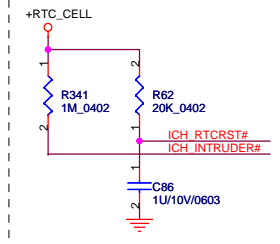
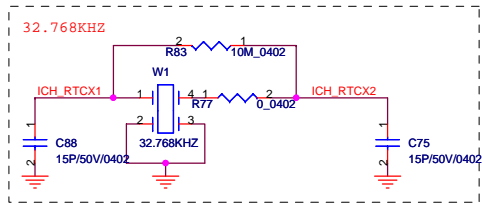
Size	Document Number	Rev
	C & G UMA	2A

Date: Friday, January 19, 2007 Sheet 9 of 60

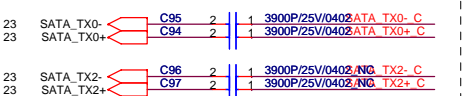



**QUANTA
COMPUTER**

Title Crestline (VSS)		
Size	Document Number C & G UMA	Rev 2A
Date:	Friday, January 19, 2007	Sheet 10 of 60



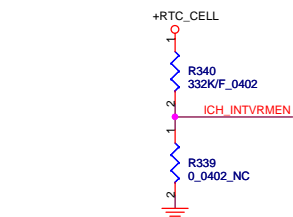
Place all series terms close to ICH8 except for SDIN input lines, which should be close to source. Placement of R292, R286, R283 & R289 should equal distance to the T split trace point as R291, R285, R284 & R290 respective. Basically, keep the same distance from T for all series termination resistors.



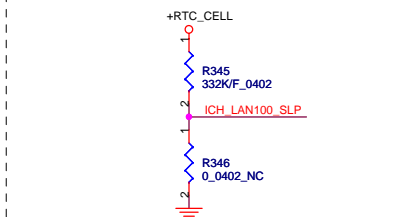
Populate C96, C97 (P/N:CH23904KB13) for Gilligan

Distance between the ICH-8 M and cap on the "P" signal should be identical distance between the ICH-6 M and cap on the "N" signal for same pair.

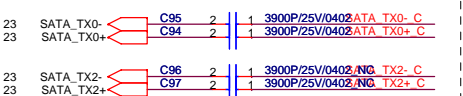
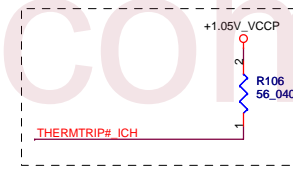
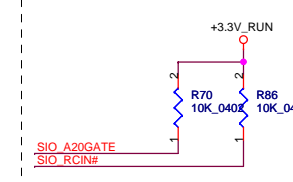
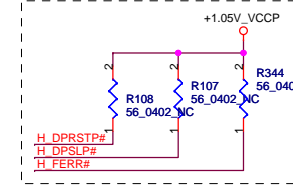
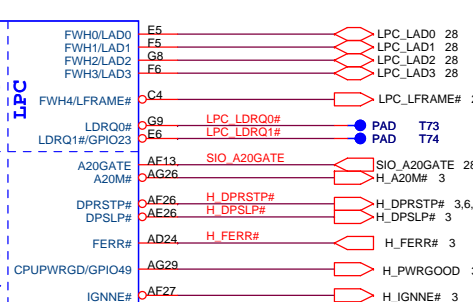
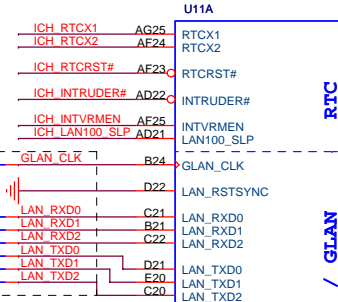
Place within 500mills of ICH8 ball



ICH8M Internal VR Enable Strap (Internal VR for VccSus1.05, VccSus1.5, VccCL1.5)		
ICH_INTVRMEN	Low = Internal VR Disabled	High = Internal VR Enabled(Default)

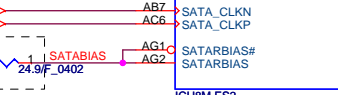
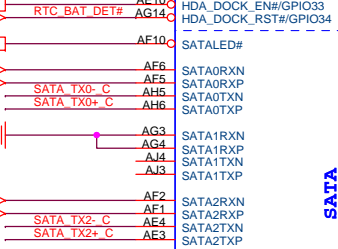
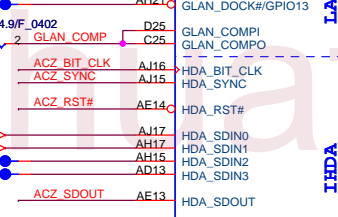


ICH8M LAN100 SLP Strap (Internal VR for VccLAN1.05 and VccCL1.05)		
ICH_LAN100_SLP	Low = Internal VR Disabled	High = Internal VR Enabled(Default)



Distance between the ICH-8 M and cap on the "P" signal should be identical distance between the ICH-6 M and cap on the "N" signal for same pair.

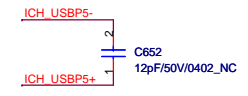
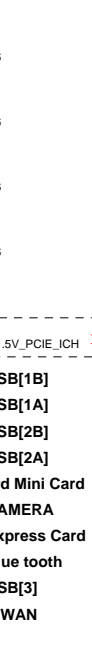
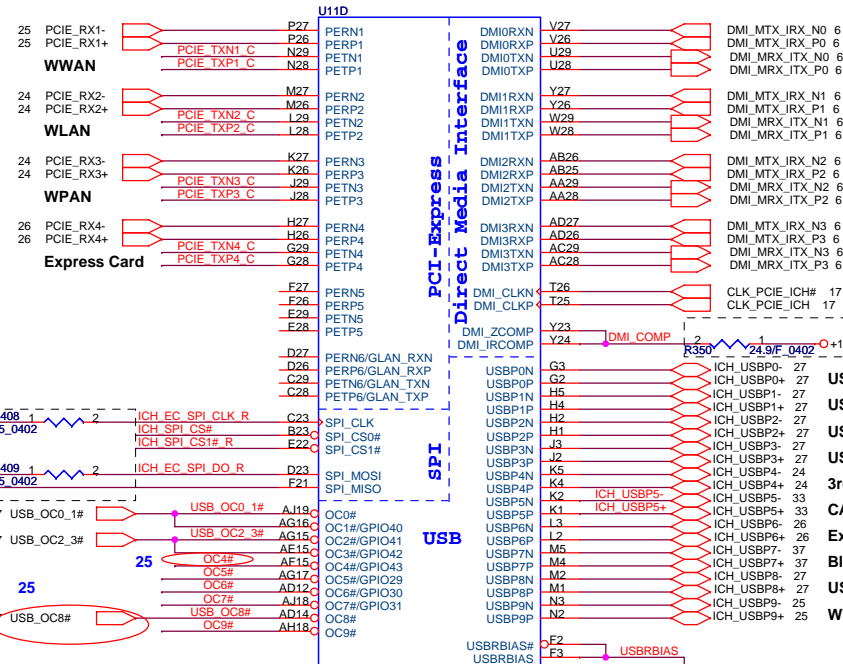
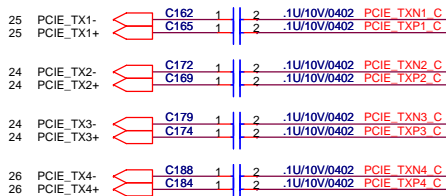
Place within 500mills of ICH8 ball



XOR Chain Entrance Strap		
ICH_RSVD	HDA_SDOUT	Description
0	0	RSVD
0	1	Enter XOR Chain
1	0	Normal Operation (Default)
1	1	Set PCIE port config bit 1

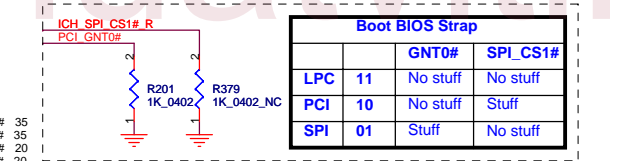
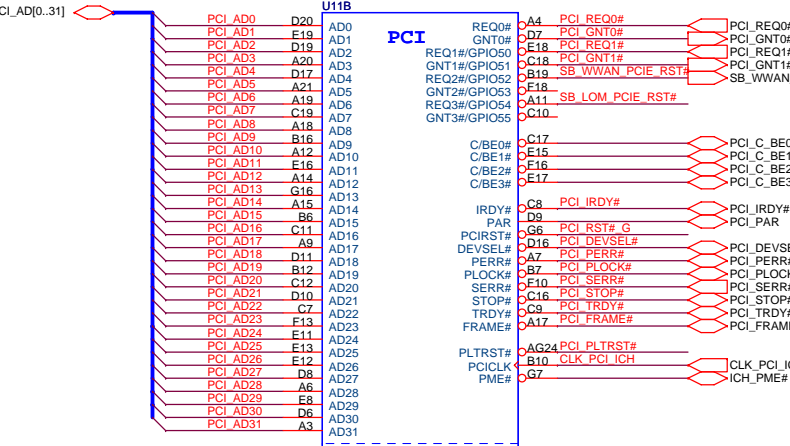
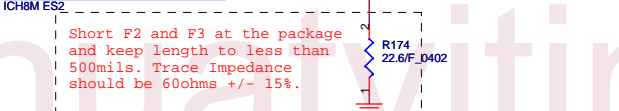
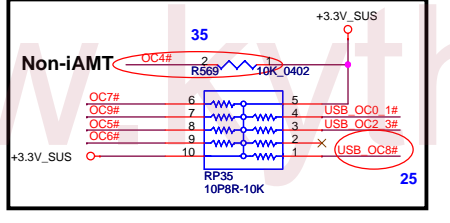
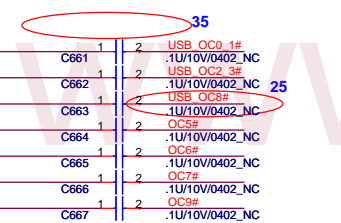
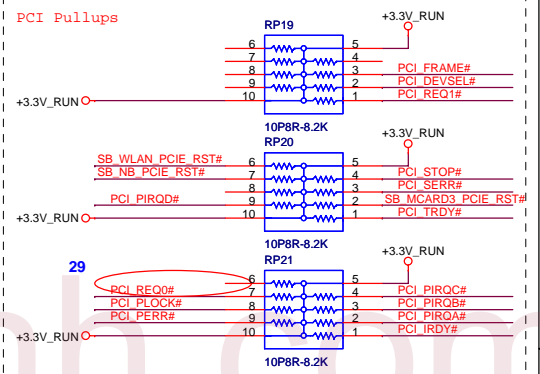
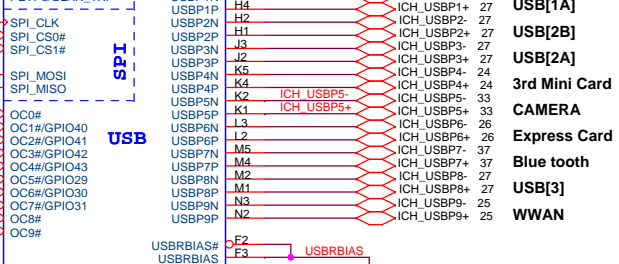
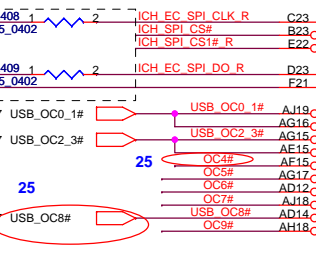
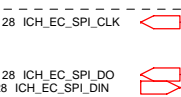


Place TX DC blocking caps close ICH8.

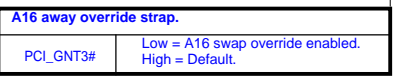
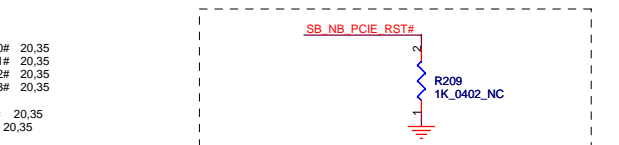
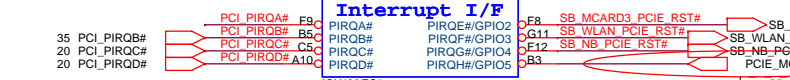


Place within 500mils of ICH8

Layout Note:
Place R288, R688 and R282 within 500 mils from ICH8.

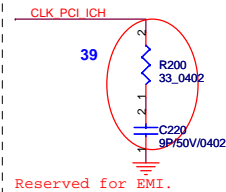
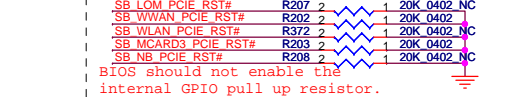


Boot BIOS Strap		
LPC	11	No stuff
PCI	10	No stuff
SPI	01	Stuff

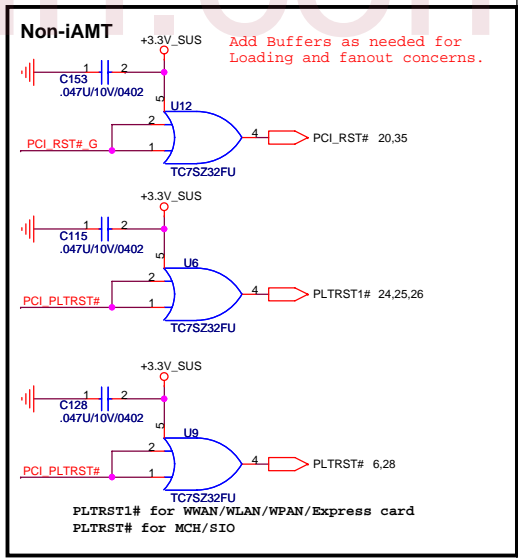


PCI_PIRQB# for LOM
PCI_PIRQC# for Media Card
PCI_PIRQD# for 1394

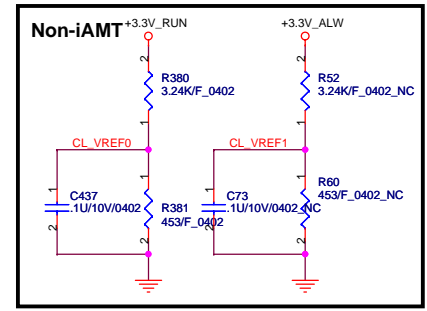
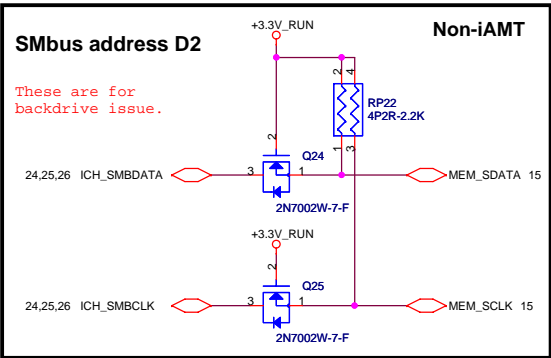
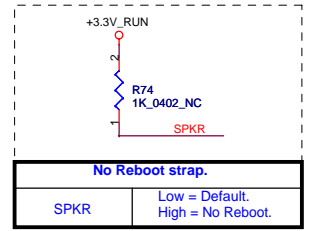
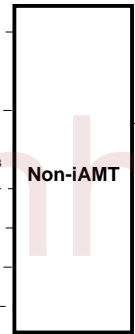
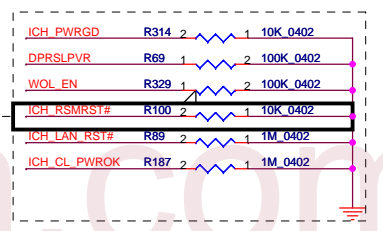
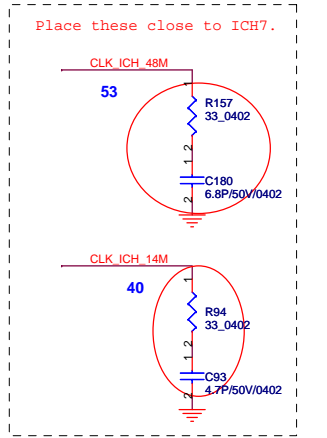
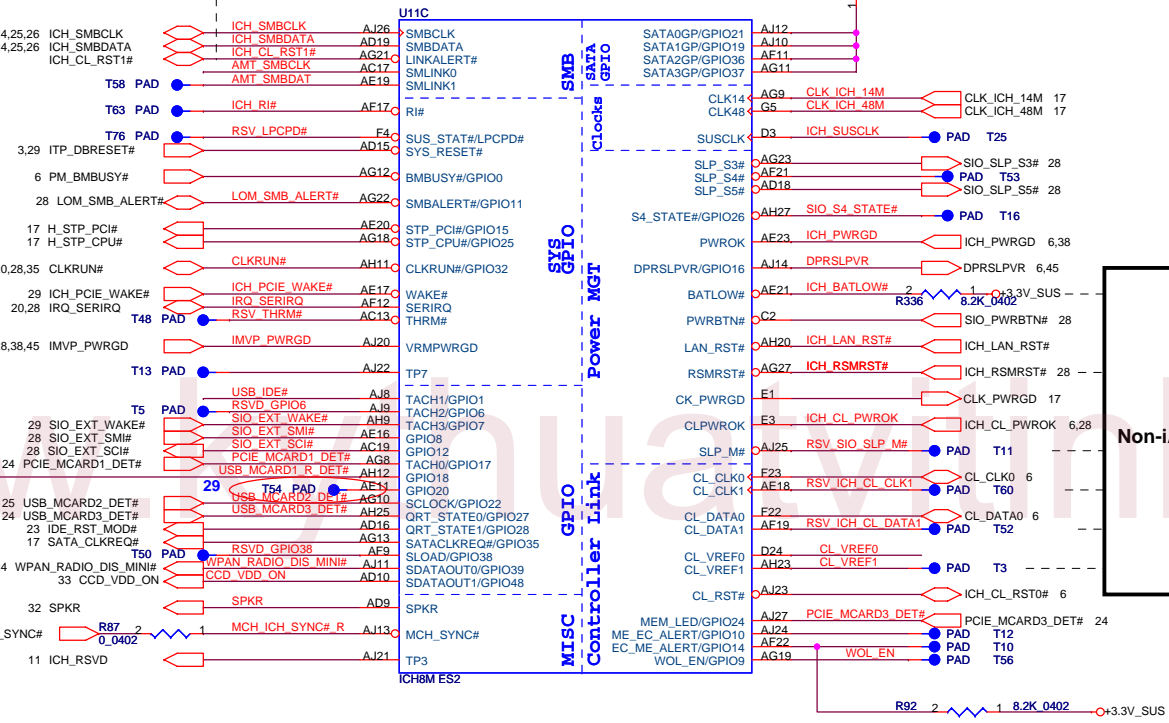
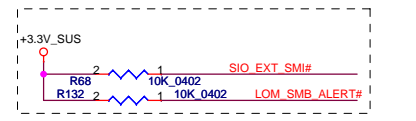
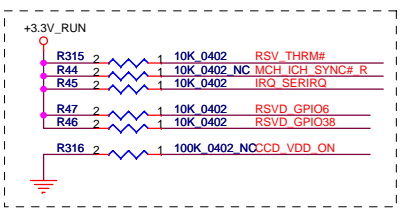
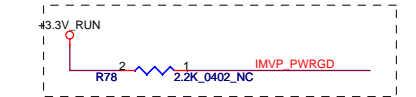
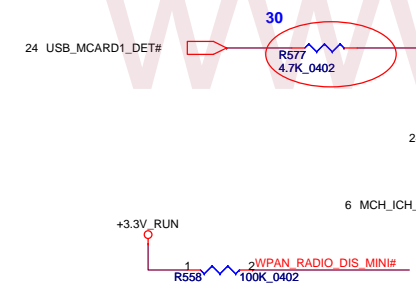
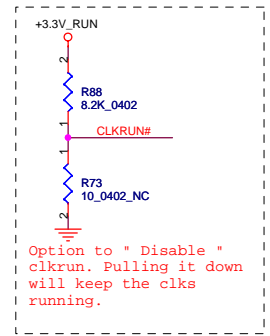
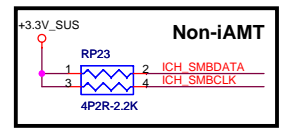
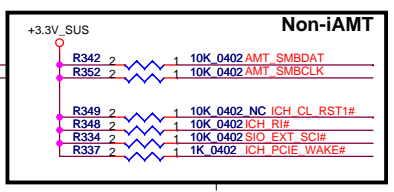
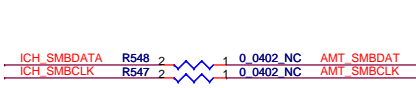
LOM			
REQ0	GNT0	PIRQB	
REQ1	GNT1	PIRQC	PIRQD



Reserved for EMI.
Place resistor and cap close to ICH.



Title: ICH8-M (USB,DMI,PCIE,PCI)		
Size:	Document Number: C & G UMA	Rev: 2A
Date:	Friday, January 19, 2007	Sheet: 12 of 60

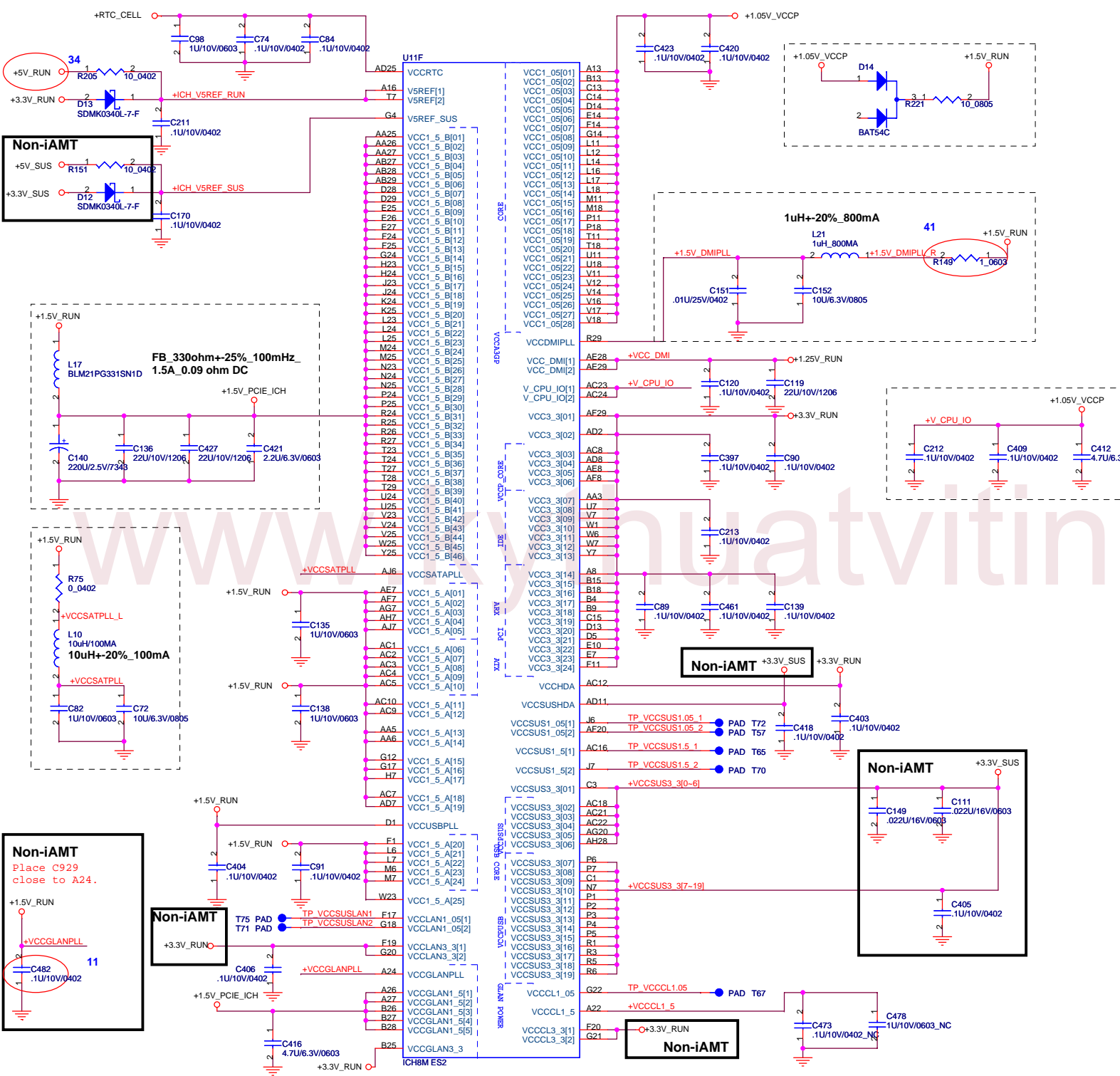


QUANTA COMPUTER

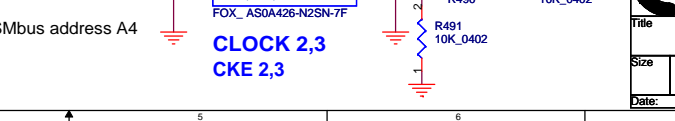
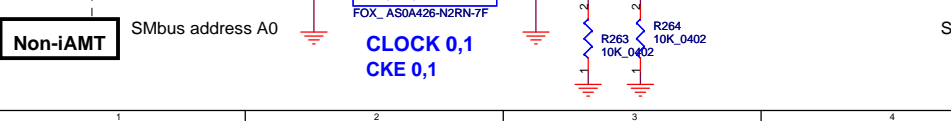
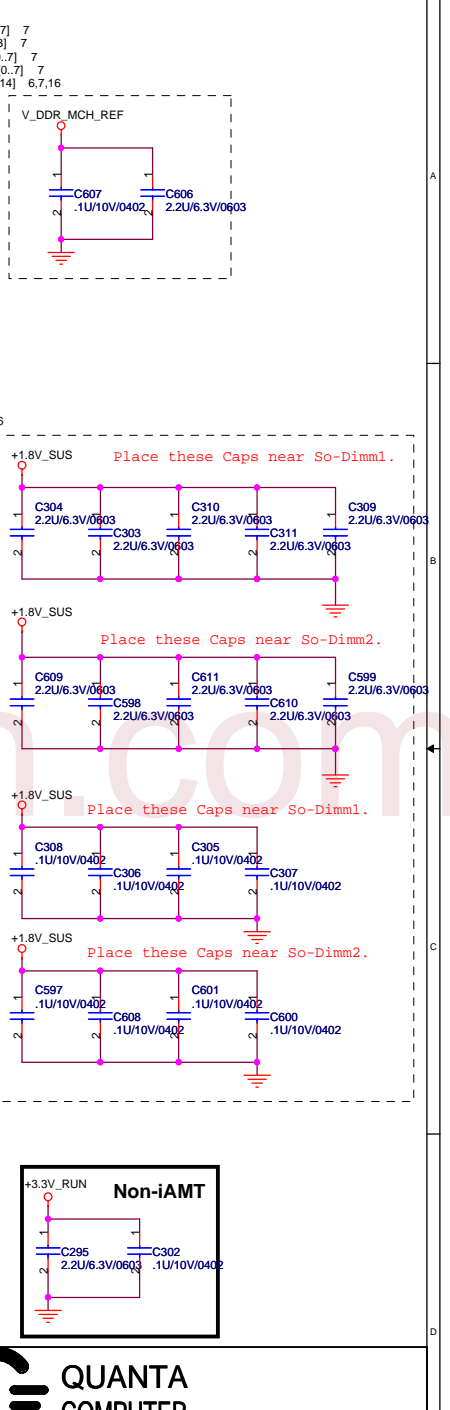
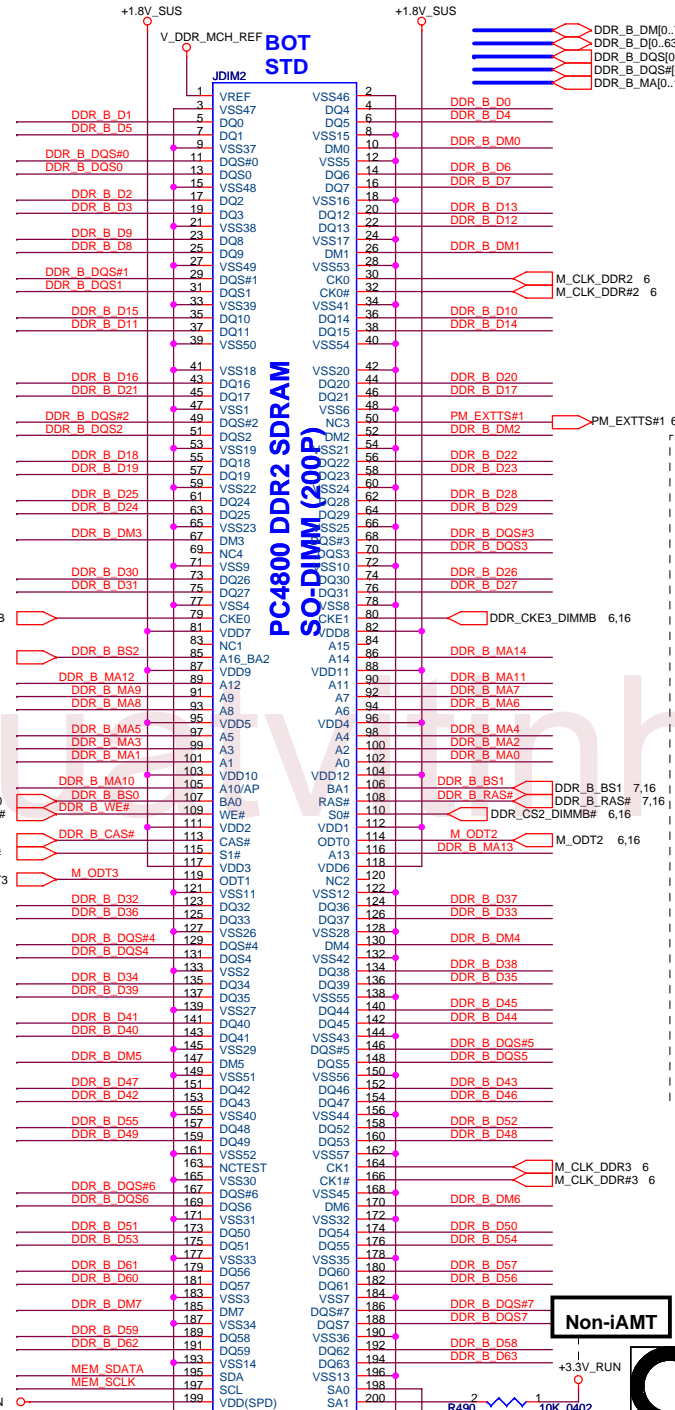
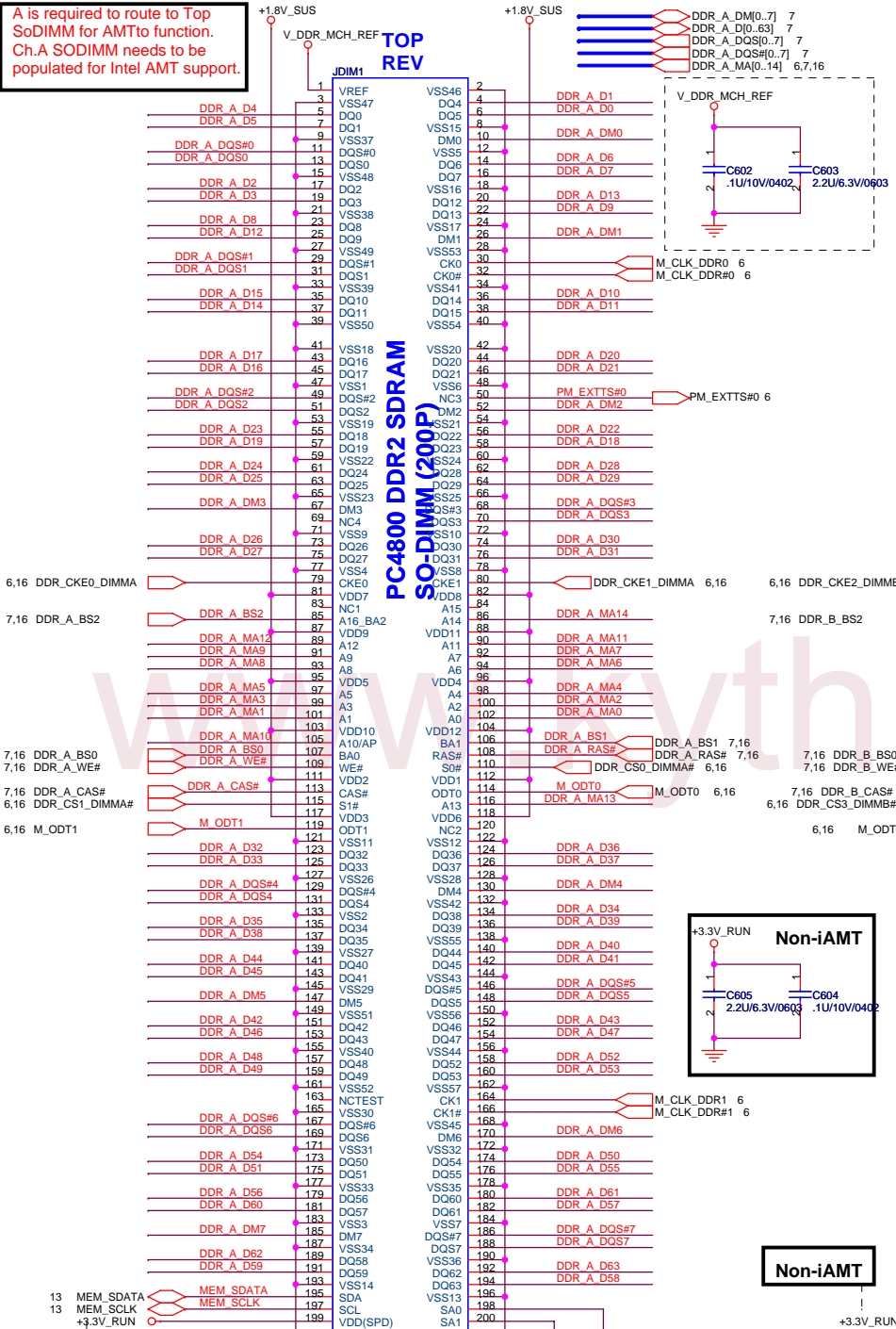
Title: ICH8-M (PM,GPIO,SMB,CL)

Size: Document Number C & G UMA Rev 2A

Date: Tuesday, January 23, 2007 Sheet 13 of 60

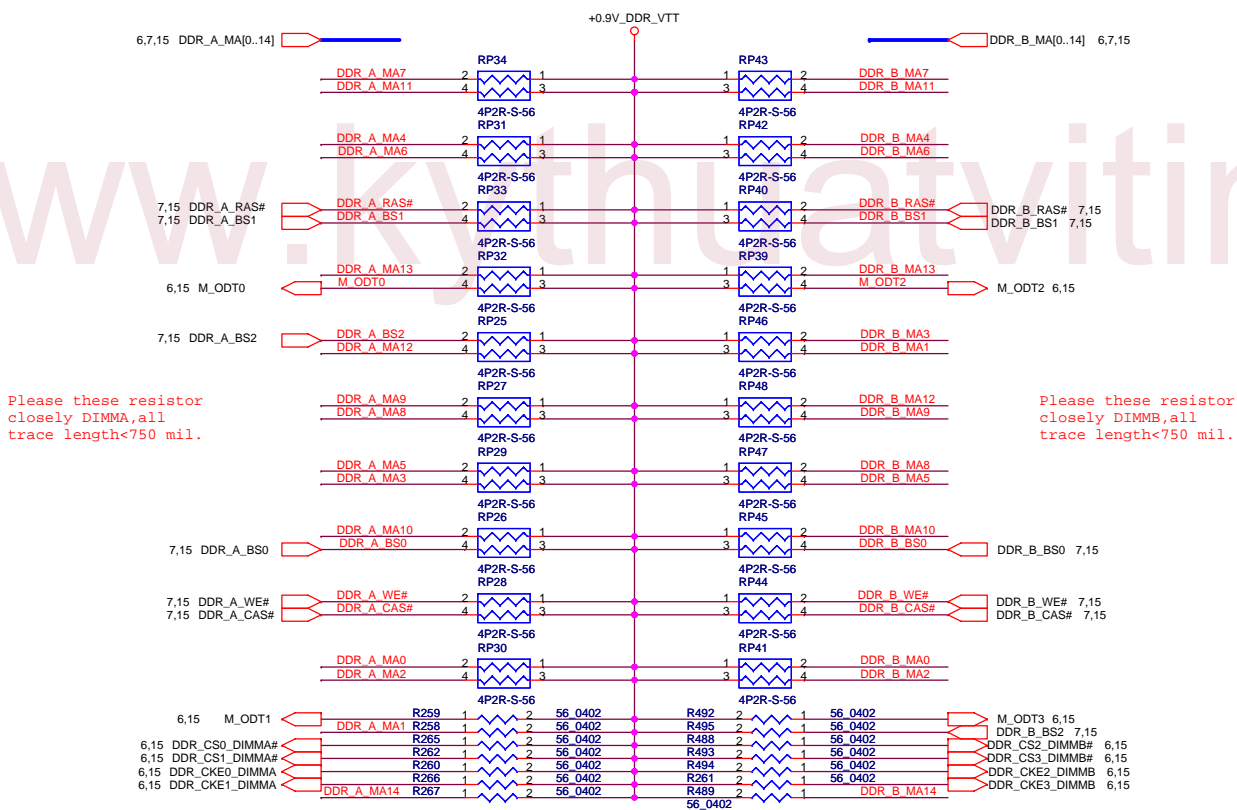
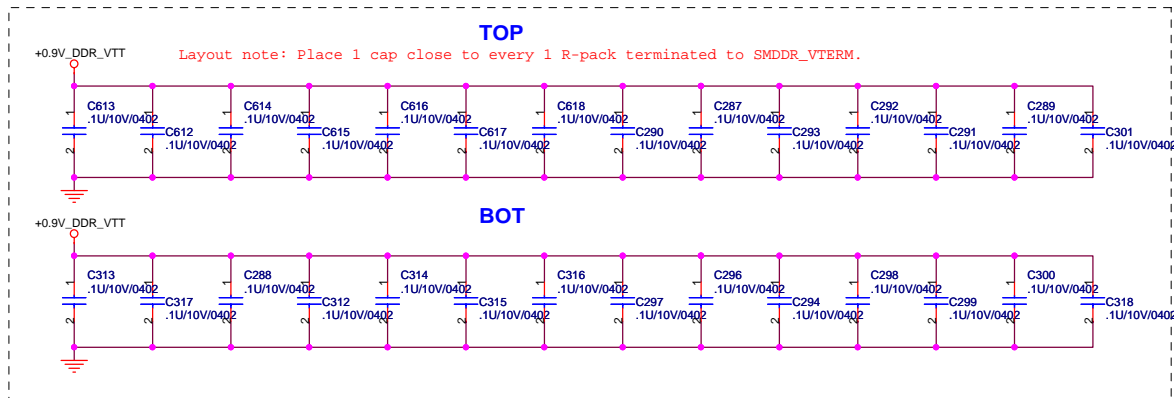


A is required to route to Top SoDIMM for AMTto function. Ch.A SODIMM needs to be populated for Intel AMT support.



QUANTA COMPUTER

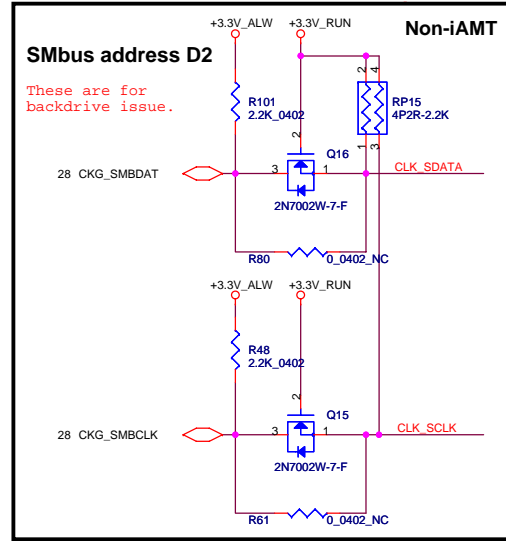
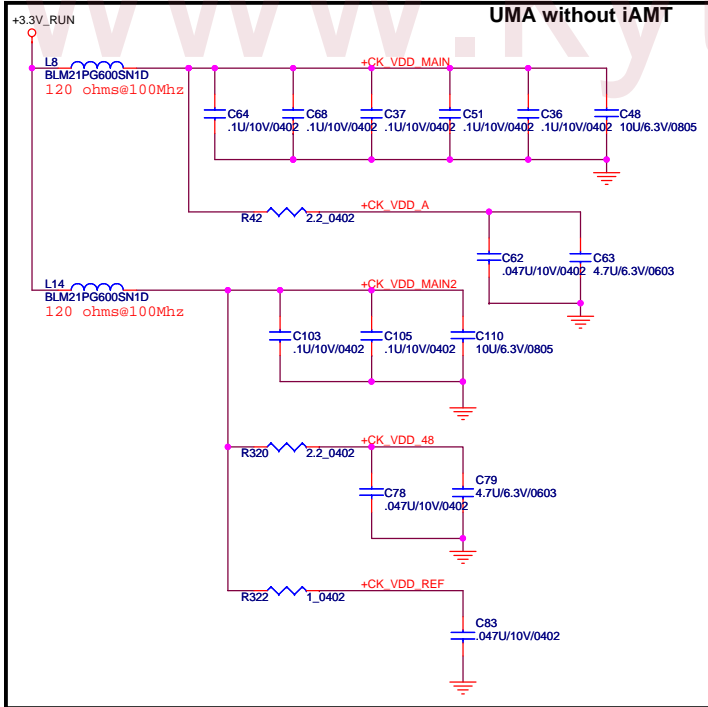
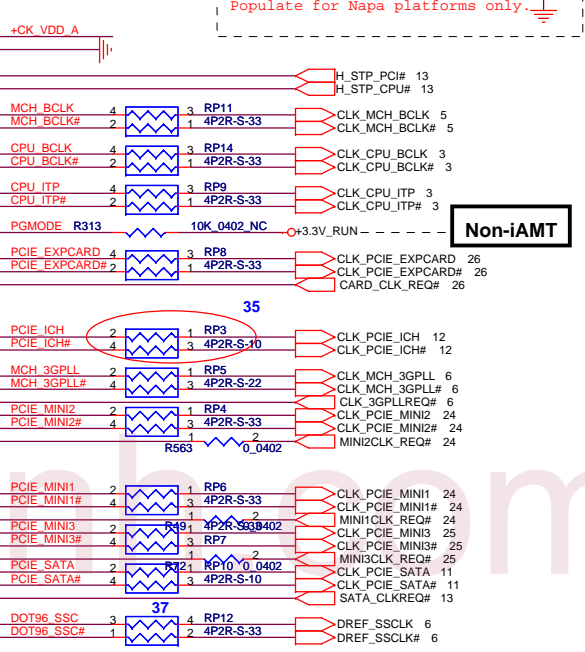
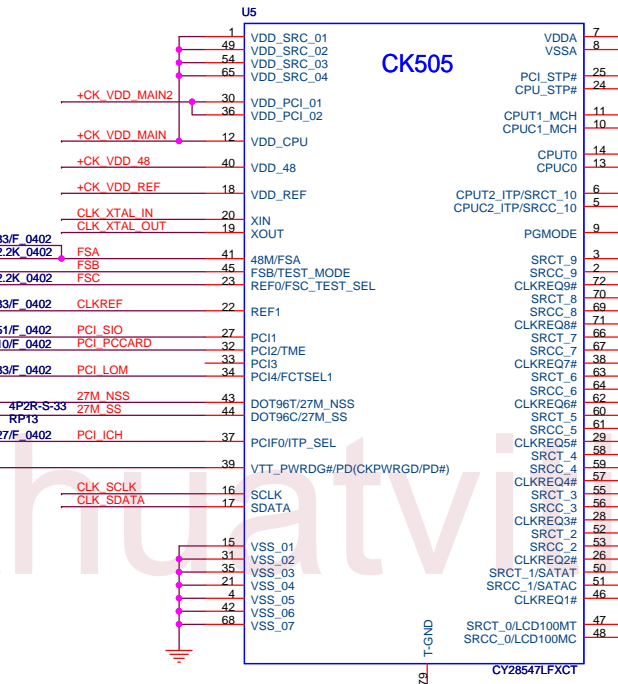
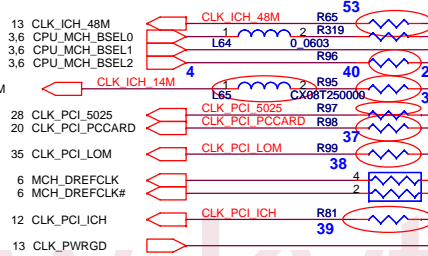
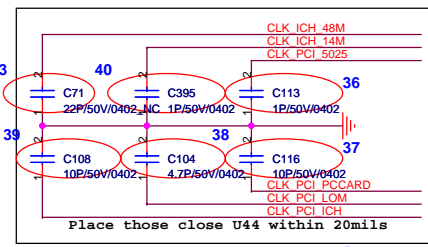
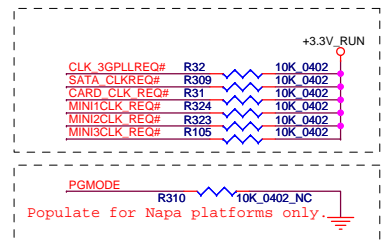
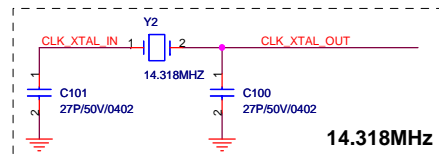
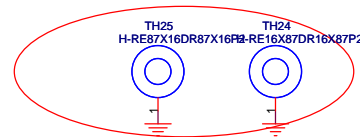
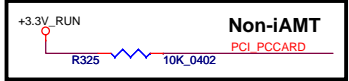
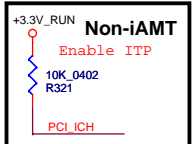
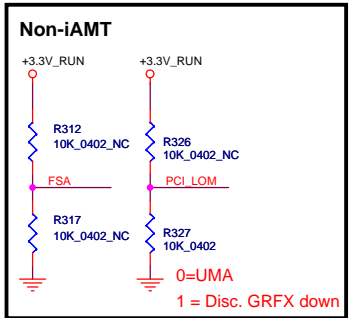
Title	DDR2 SO-DIMM (200P) X 2		
Size	Document Number	C & G UMA	Rev 2A
Date:	Friday, January 19, 2007	Sheet	15 of 60



**QUANTA
COMPUTER**

Title: **DDR2 RES ARRAY**

Size: Document Number C & G UMA	Rev: 2A
Date: Friday, January 19, 2007	
Sheet 16 of 60	



FSC	FSB	FSA	CPU	SRC	PCI
1	0	1	100	100	33
0	0	1	133	100	33
0	1	1	166	100	33
0	1	0	200	100	33
0	0	0	266	100	33
1	0	0	333	100	33
1	1	0	400	100	33
1	1	1	RSVD	100	33

PCI_LOM = FCTSEL1

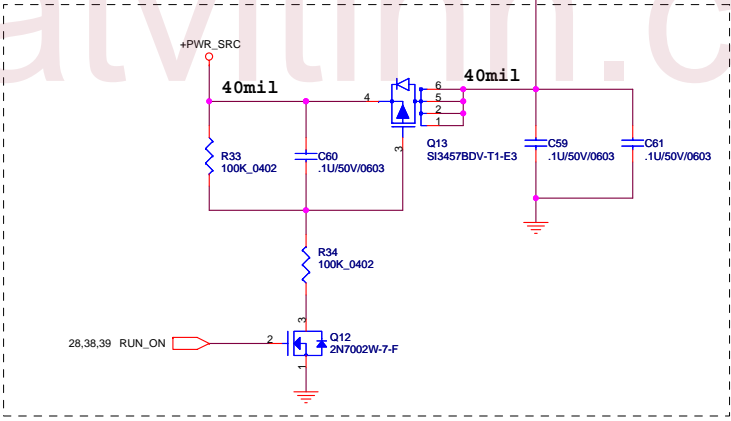
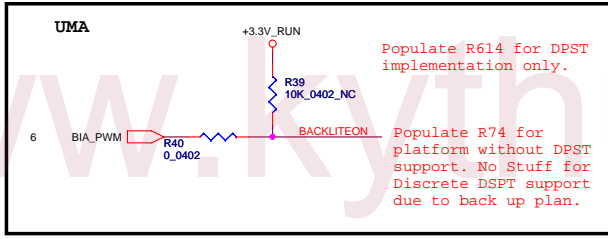
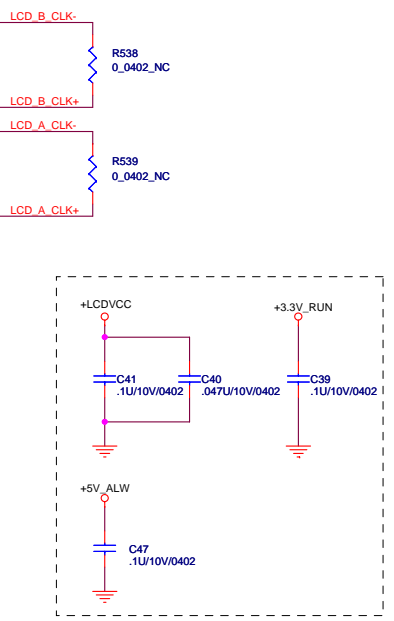
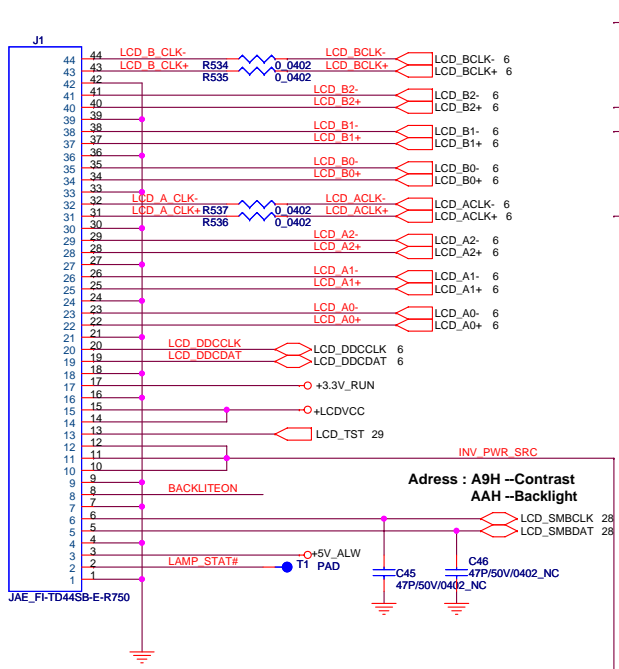
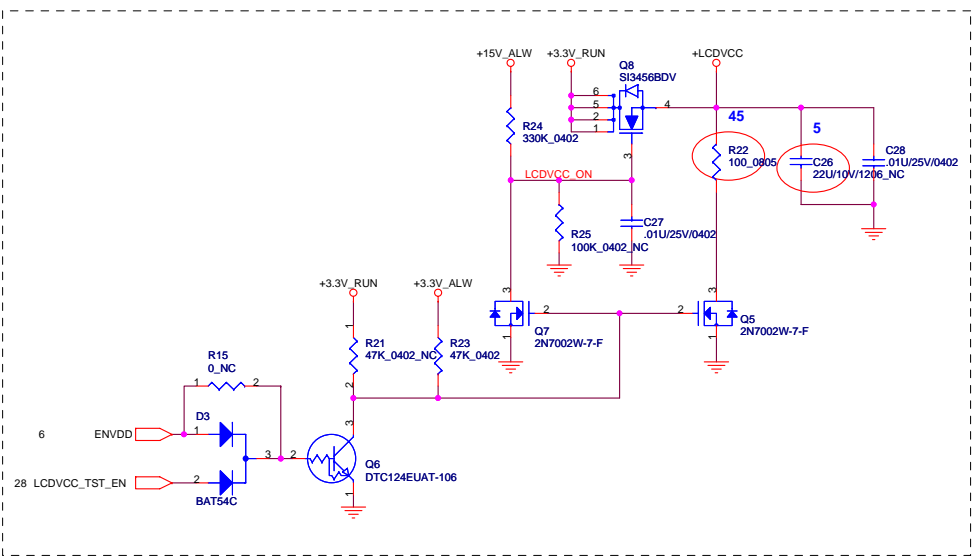
FCTSEL1 (PIN34)	PIN43	PIN44	PIN47	PIN48
0=UMA	DOT96T	DOT96C	96/100M_T	96/100M_C
1 = Disc. GRFX down	27Mout	27MSSout	SRCT0	SRCC0

QUANTA COMPUTER

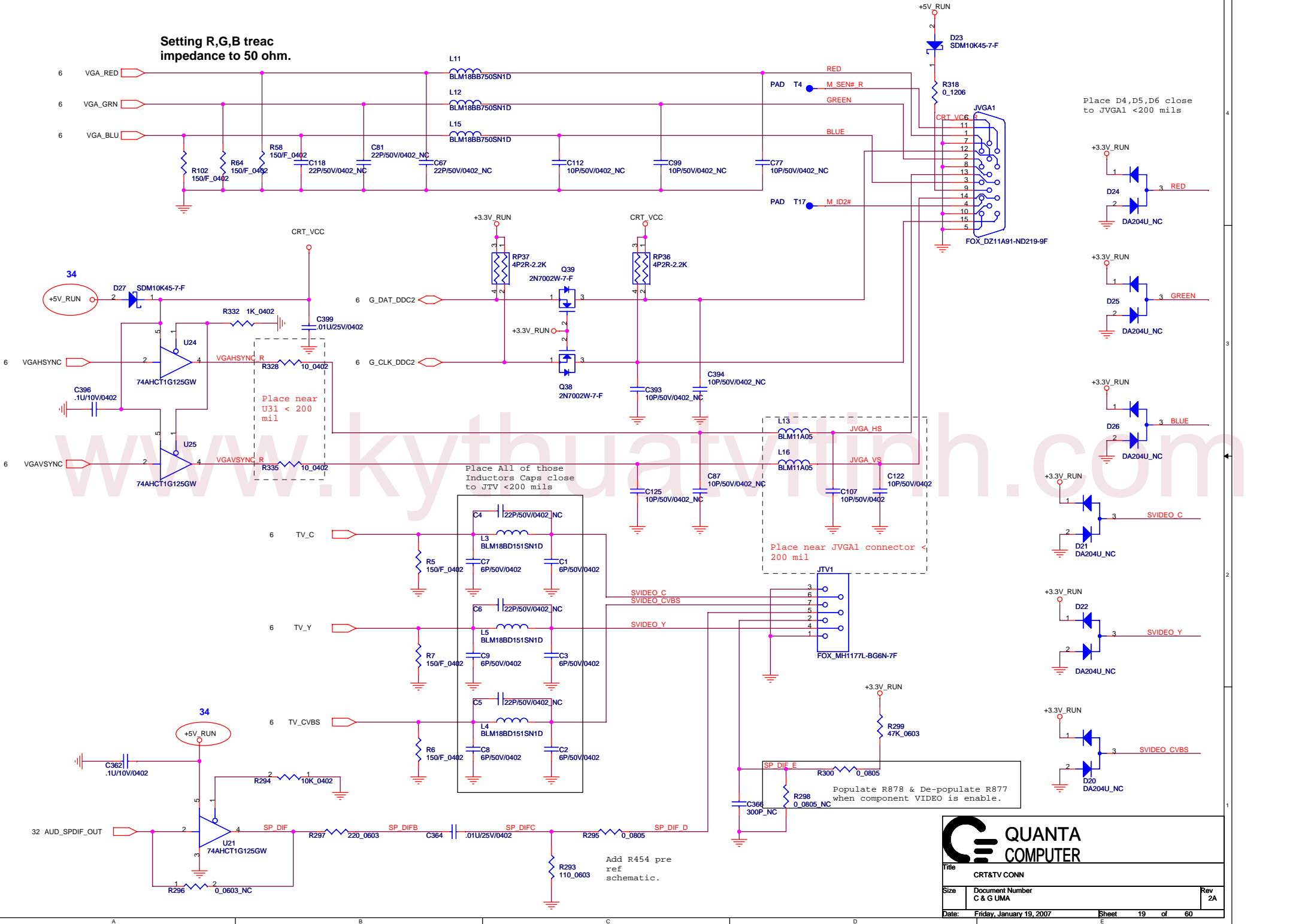
Title: CLOCK GENERATOR

Size: Document Number C & G UMA Rev 2A

Date: Friday, January 19, 2007 Sheet 17 of 60



Setting R,G,B treac impedance to 50 ohm.



Place D4,D5,D6 close to JVGA1 <200 mils

Place near U31 < 200 mil

Place All of those Inductors Caps close to JTV <200 mils

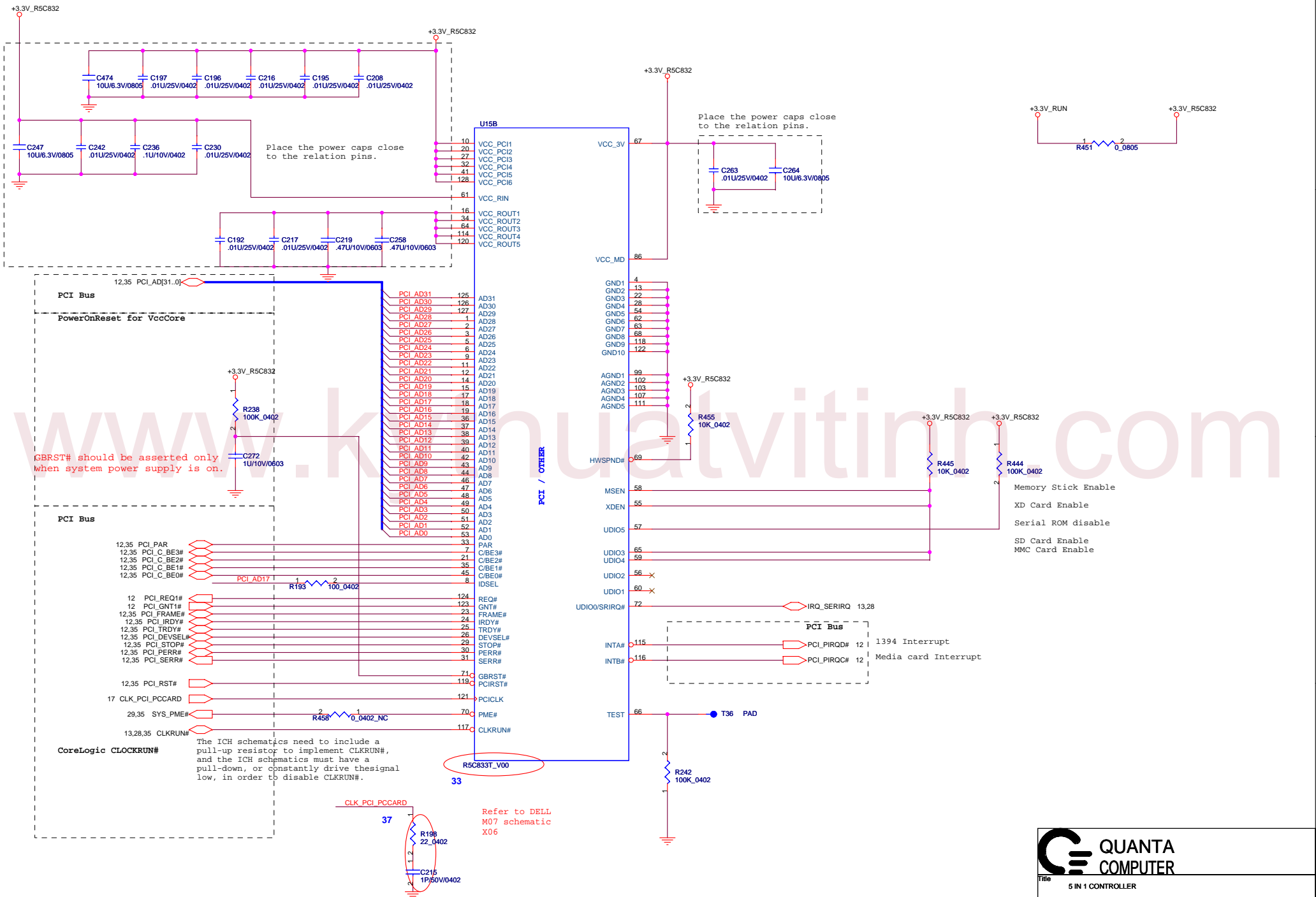
Place near JVGA1 connector 200 mil

Populate R878 & De-populate R877 when component VIDEO is enable.

Add R454 pre ref schematic.



Title CRT&TV CONN		
Size	Document Number C & G UMA	Rev 2A
Date:	Friday, January 19, 2007	Sheet 19 of 60



GBRST# should be asserted only when system power supply is on.

The ICH schematics need to include a pull-up resistor to implement CLKRUN#, and the ICH schematics must have a pull-down, or constantly drive the signal low, in order to disable CLKRUN#.

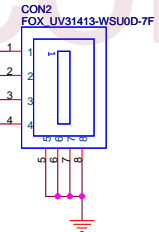
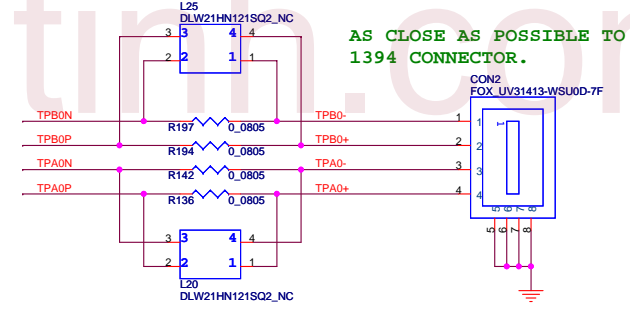
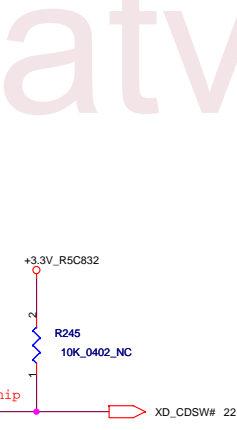
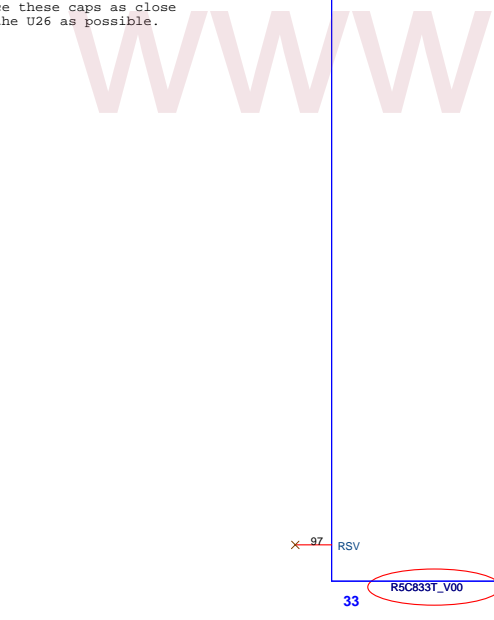
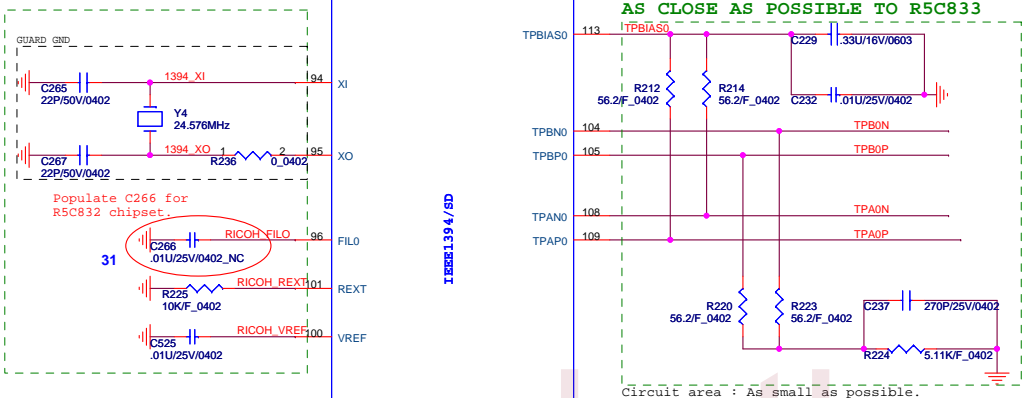
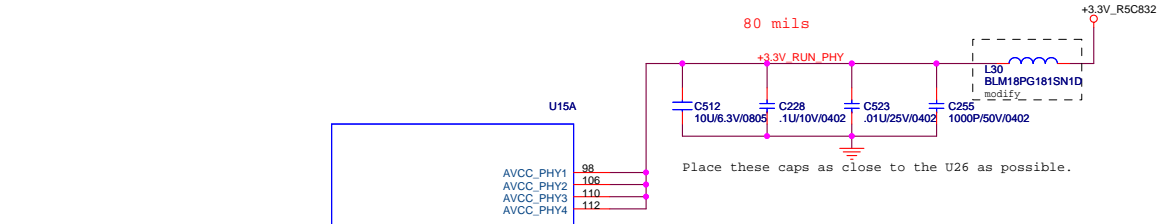
Refer to DELL M07 schematic X06

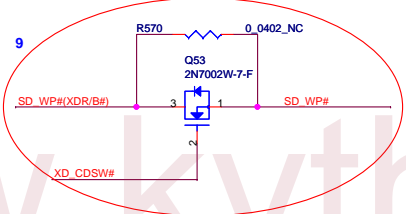
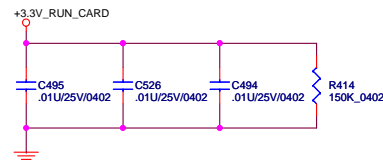
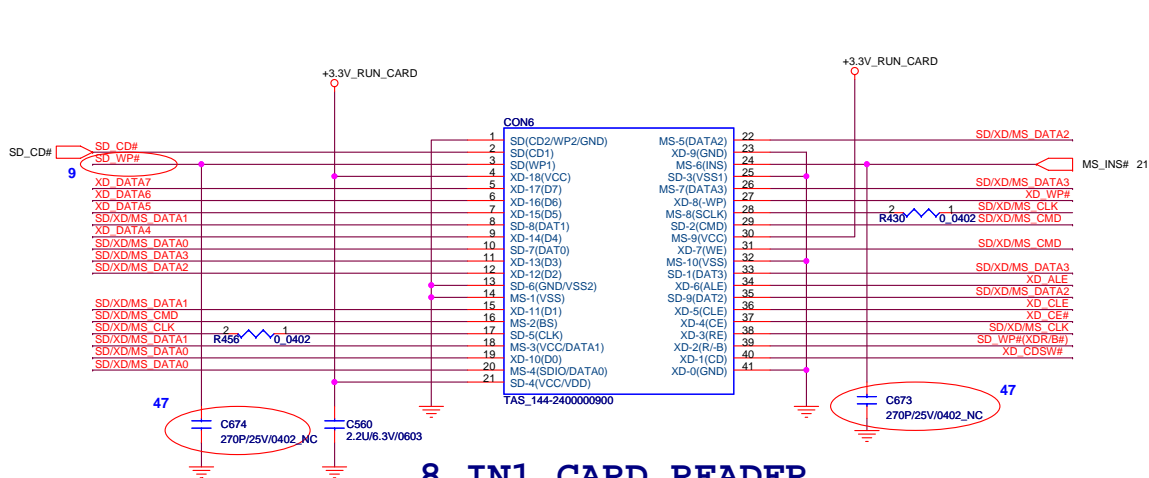
QUANTA COMPUTER

Title: 5 IN 1 CONTROLLER

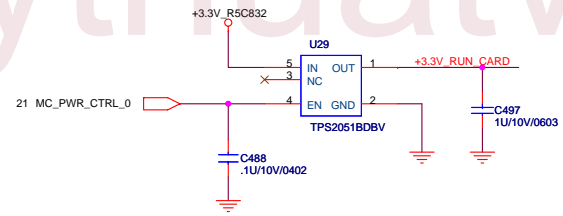
Size	Document Number	Rev
	C & G UMA	2A

Date: Friday, January 19, 2007 Sheet 20 of 60

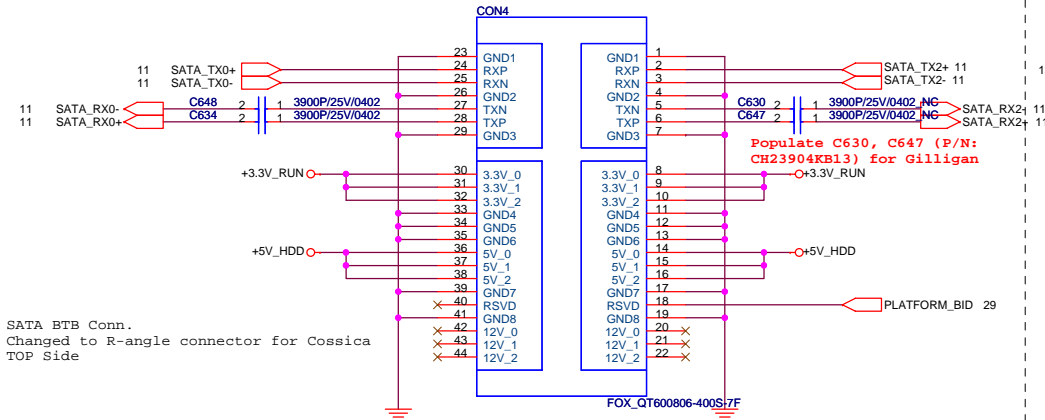




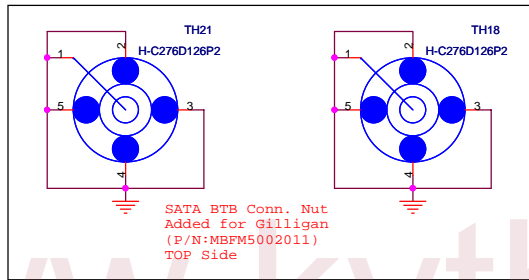
- 21 XD_CDSW#
- 21 SD_WP#(XDR/B#)
- 21 XD_DATA7
- 21 XD_DATA6
- 21 XD_DATA5
- 21 XD_DATA4
- 21 SD/XD/MS_DATA3
- 21 SD/XD/MS_DATA2
- 21 SD/XD/MS_DATA1
- 21 SD/XD/MS_DATA0
- 21 SD/XD/MS_CMD
- 21 XD_WP#
- 21 XD_ALE
- 21 XD_CLE
- 21 XD_CE#
- 21 SD/XD/MS_CLK



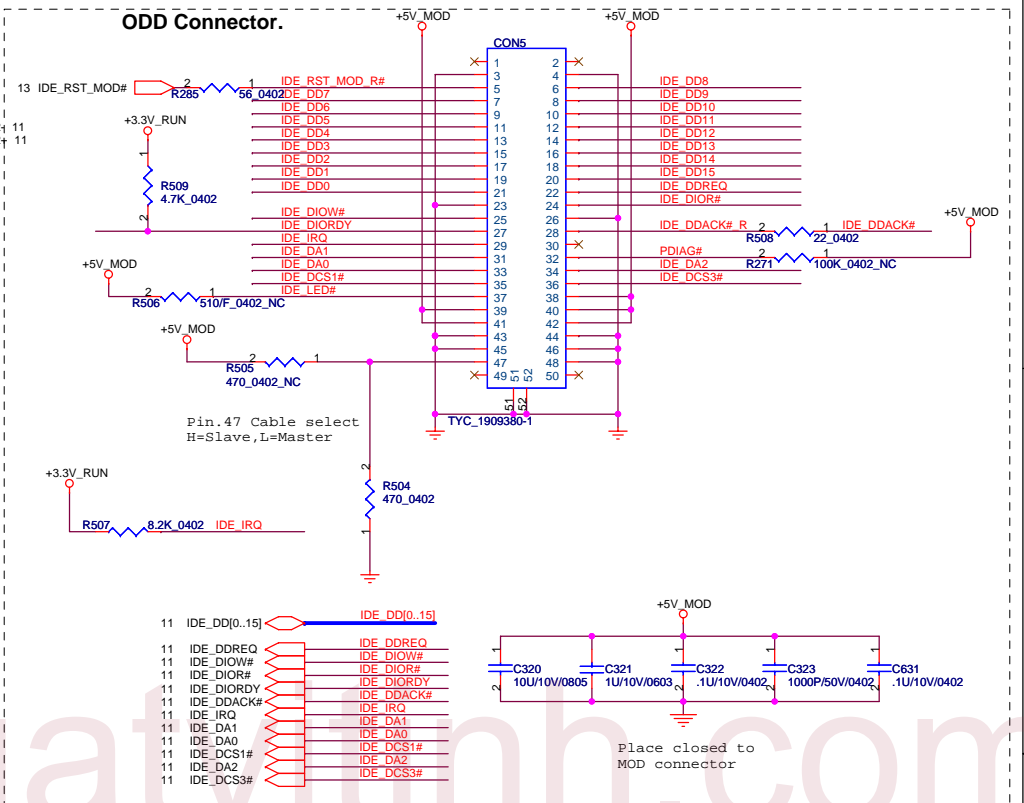
SATA 1 & 2 Connector. Change CON4 P/N to DFHS44FS611 for Gilligan.



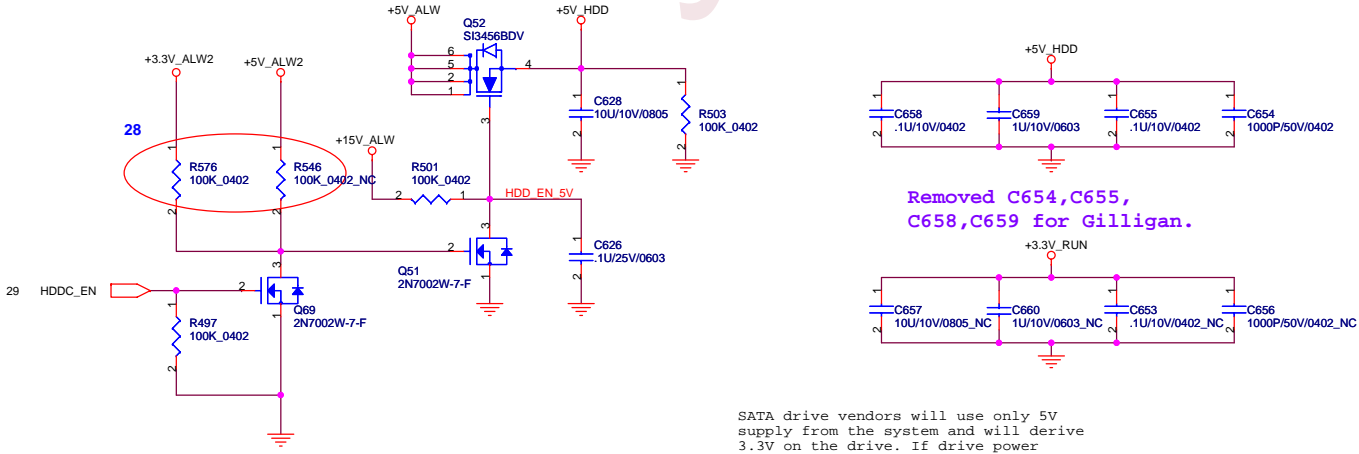
SATA BTB Conn.
Changed to R-angle connector for Cossica
TOP Side



ODD Connector.



SATA 1 PWR

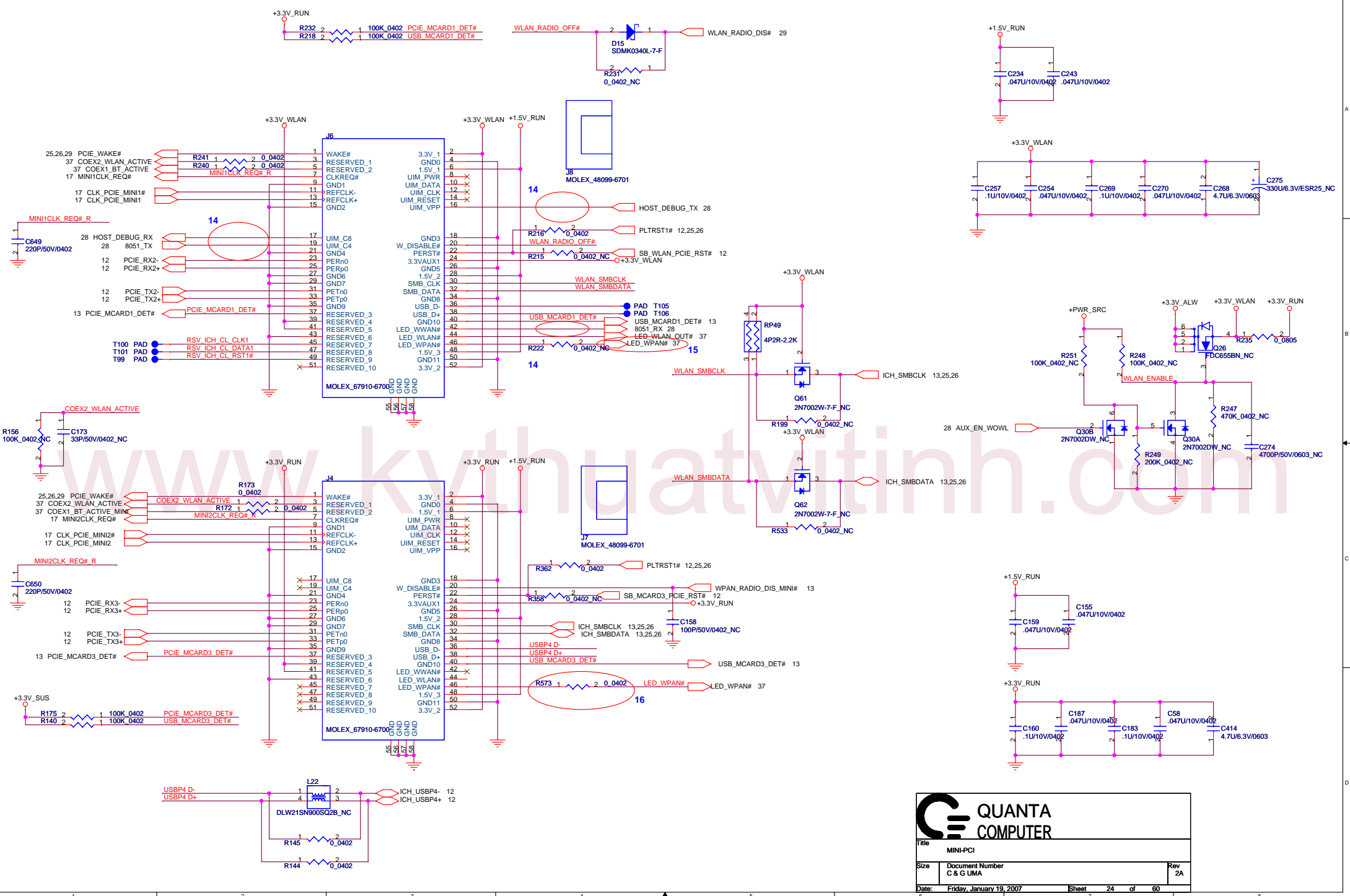


SATA drive vendors will use only 5V supply from the system and will derive 3.3V on the drive. If drive power goals are not achieved, drive vendors will use both 5V and 3.3V supplies from the system. Initial power saving using 3.3V from system is less than 5%.

Power Estimate:
SATA drive power consumption estimate at MobileMark is 1.1W. An additional 150mW can be saved using Intel's IMST driver.

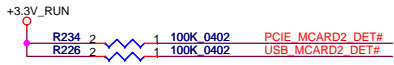


Title SATA (HDD&CD_ROM)		
Size	Document Number C & G UMA	Rev 2A
Date:	Friday, January 19, 2007	Sheet 23 of 60

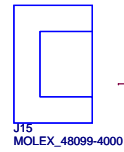
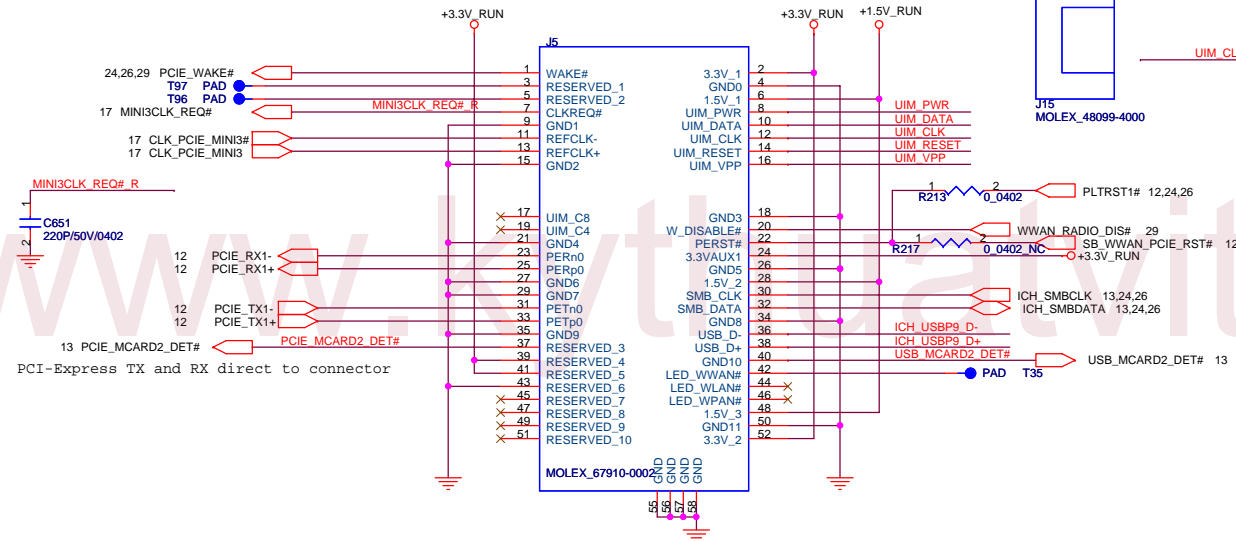


QUANTA COMPUTER

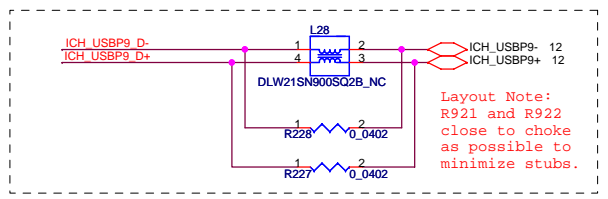
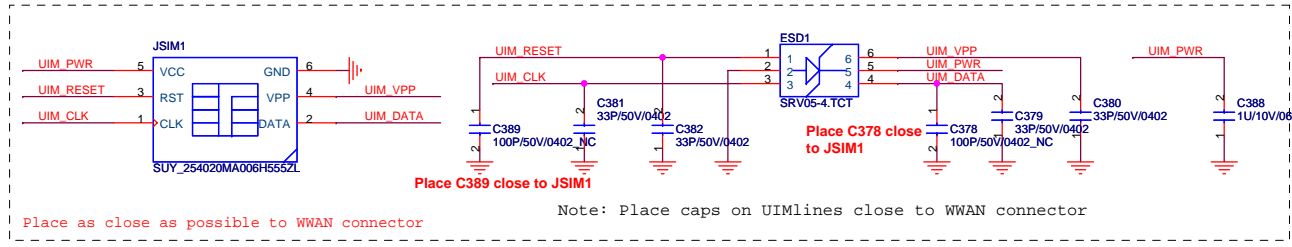
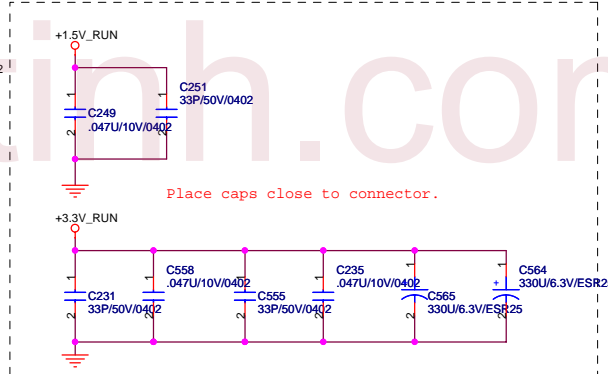
Title		MINI-PCI	
Size	Document Number	C & G UMA	
Date:	Friday, January 19, 2007	Sheet	24 of 60
		Rev	2A



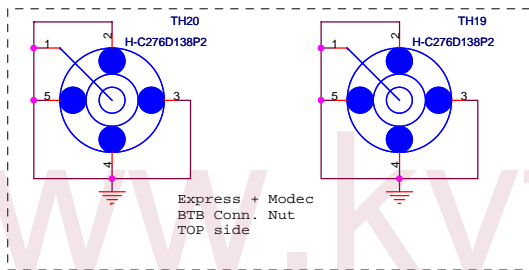
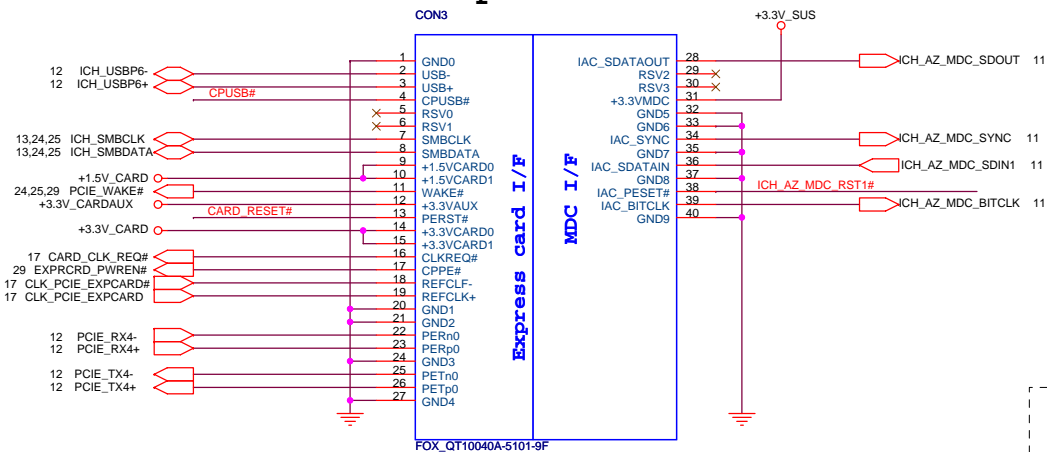
MiniCard WWAN connector



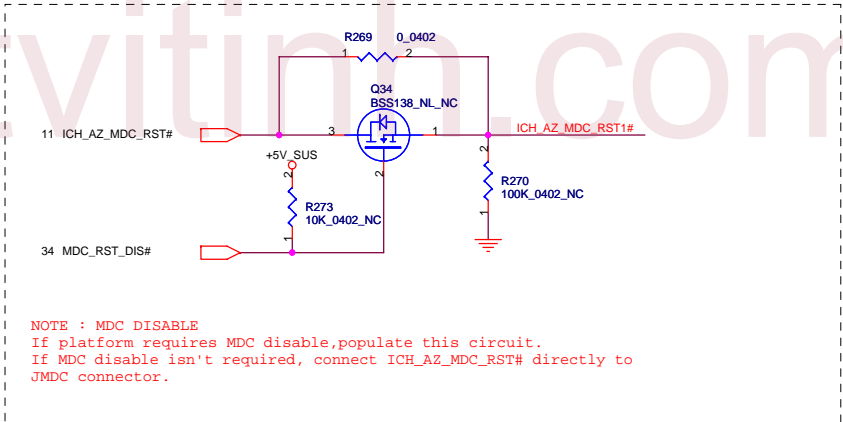
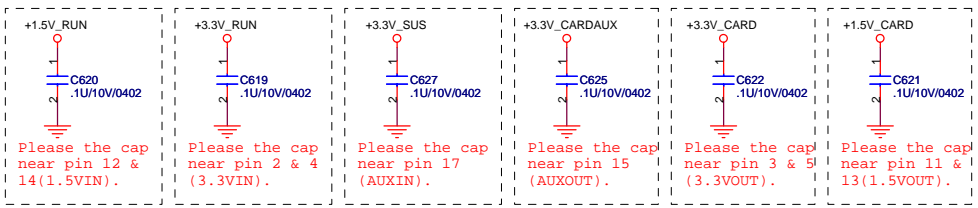
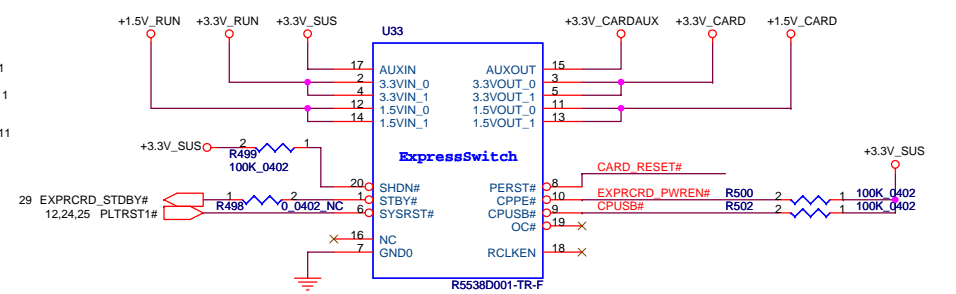
Place C245 close to J5



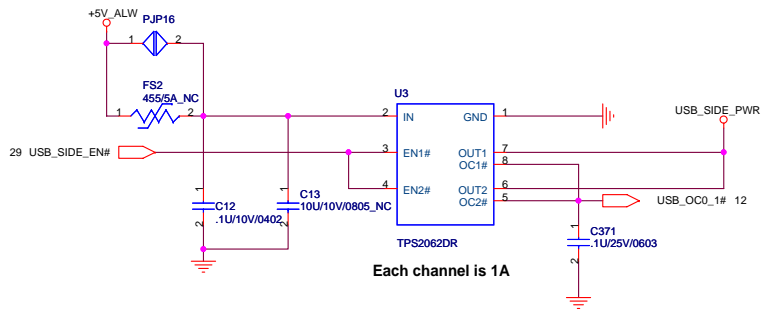
EXPRESS+MDC Update PN



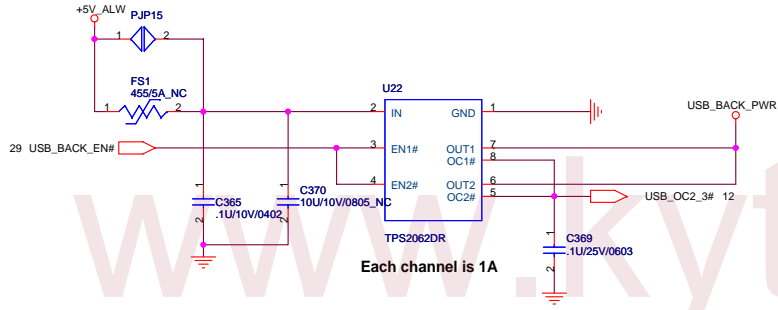
+1.5V_CARD Max. 650mA, Average 500mA.
+3V_CARD Max. 1300mA, Average 1000mA.



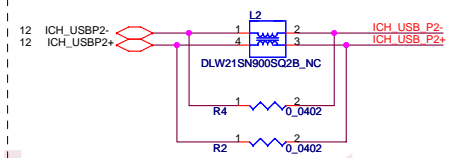
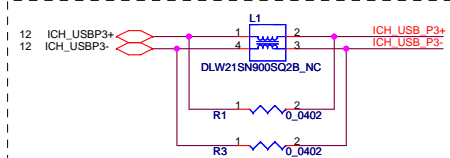
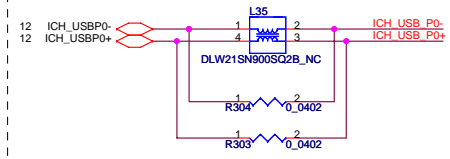
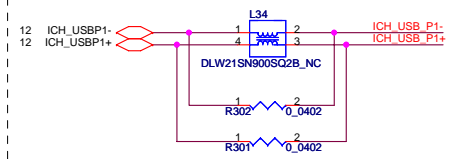
Title ExpressCard/SmartCard		
Size	Document Number C & G UMA	Rev 2A
Date:	Friday, January 19, 2007	Sheet 26 of 60



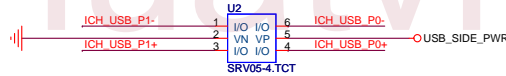
Each channel is 1A



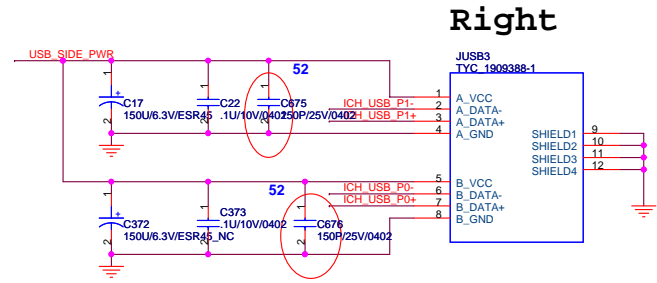
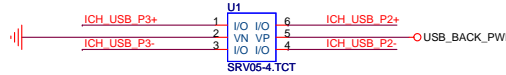
Each channel is 1A



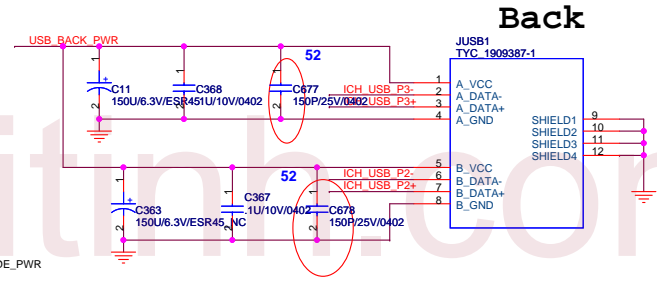
Place ESD diodes as close as USB connector.



Place ESD diodes as close as USB connector.

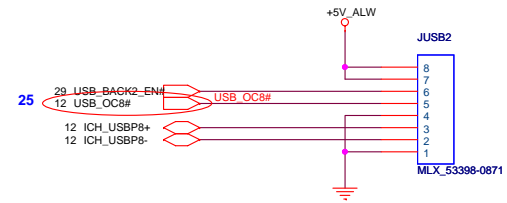


Right



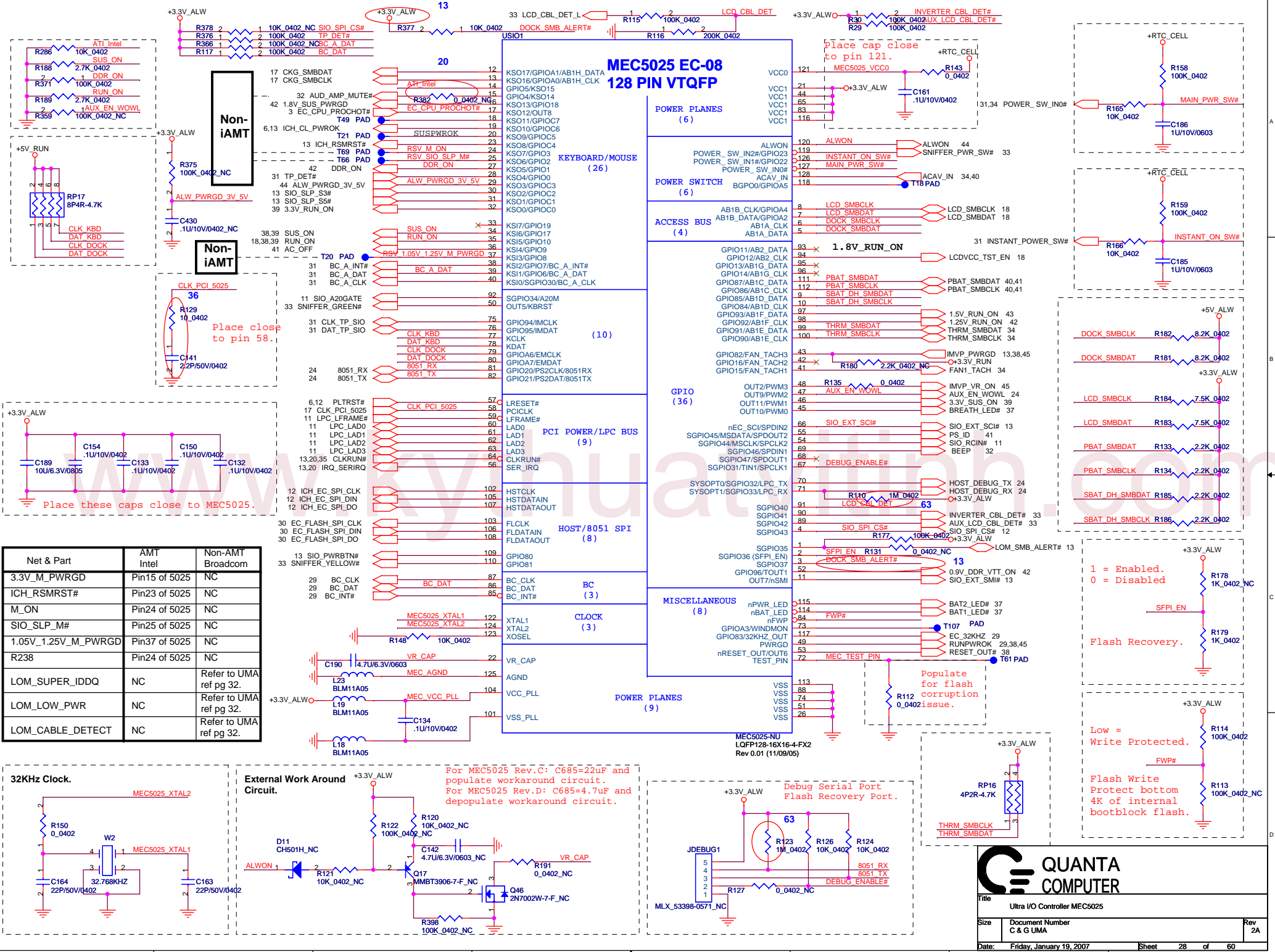
Back

For Gilligan

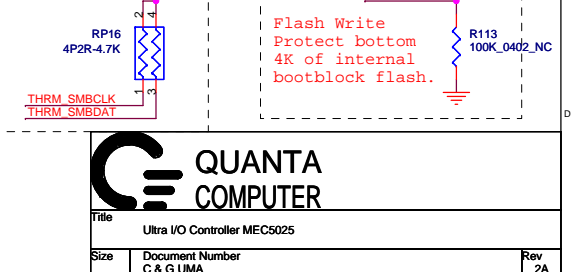
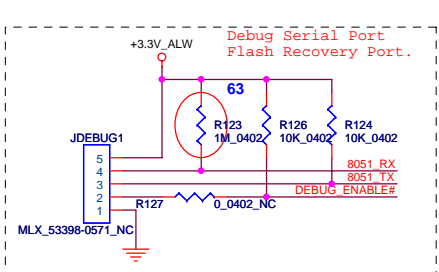
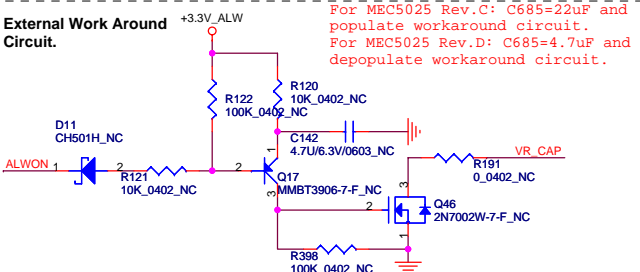
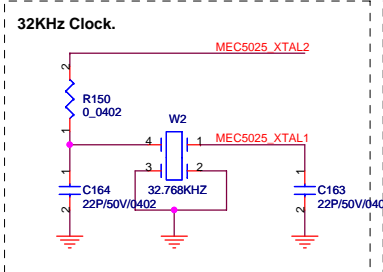


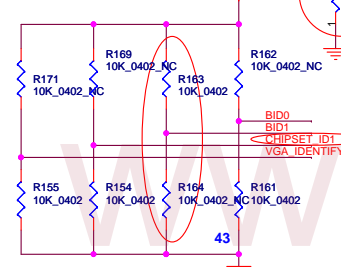
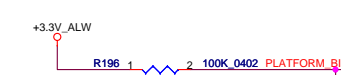
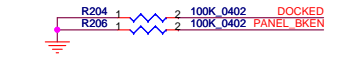
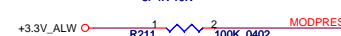
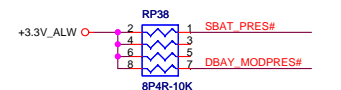
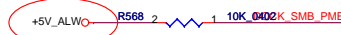
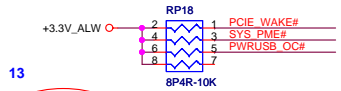
Ext. USB WTB Conn.
Populate for Gilligan
(P/N: DFHD08MS731)
TOP side





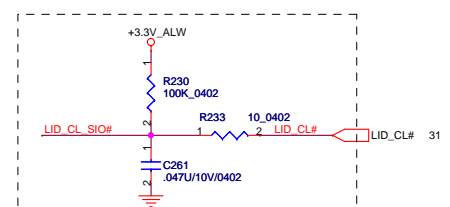
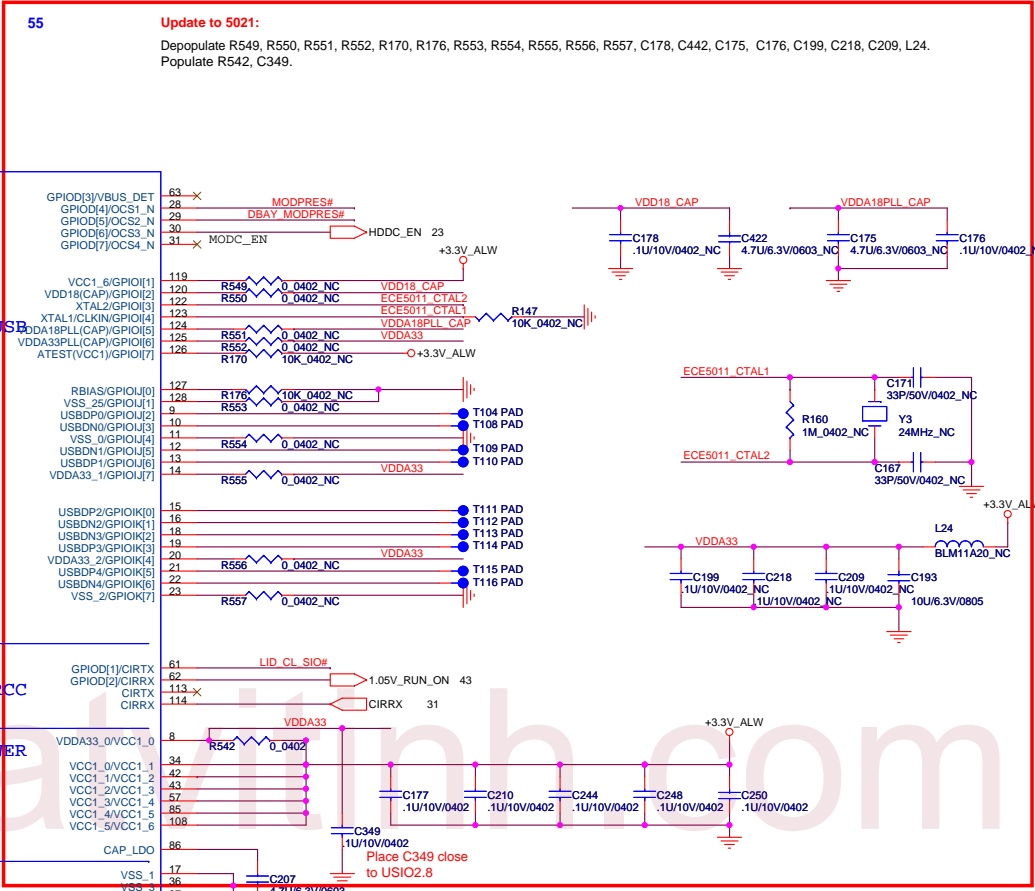
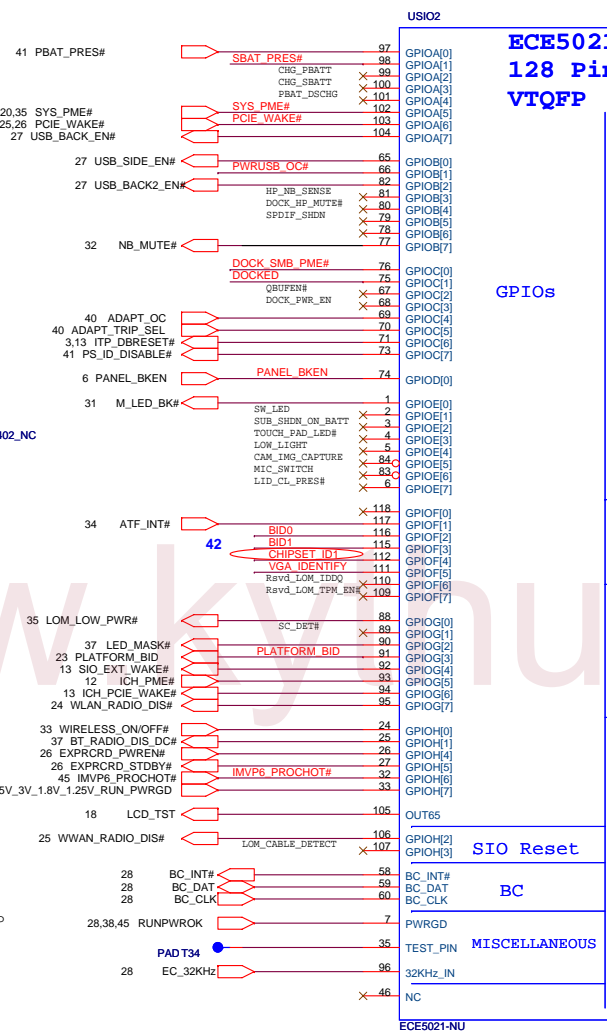
Net & Part	AMT Intel	Non-AMT Broadcom
3.3V_M_PWRGD	Pin15 of 5025	NC
ICH_RSMRST#	Pin23 of 5025	NC
M_ON	Pin24 of 5025	NC
SIO_SLP_M#	Pin25 of 5025	NC
1.05V_1.25V_M_PWRGD	Pin37 of 5025	NC
R238	Pin24 of 5025	NC
LOM_SUPER_IDDQ	NC	Refer to UMA ref pg 32.
LOM_LOW_PWR	NC	Refer to UMA ref pg 32.
LOM_CABLE_DETECT	NC	Refer to UMA ref pg 32.





BID3	BID2	BID1	BID0	Board Revision
0	0	0	0	SST (X00)
0	0	0	1	PT (X01)
0	0	1	0	ST (X02)
0	0	1	1	QT (A00)
0	0	0	0	RAMP(A01)

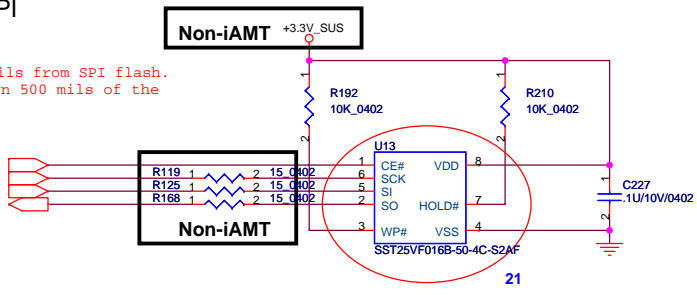
PROCHOT# change to CPU_PROCHOT# per ref schematic.



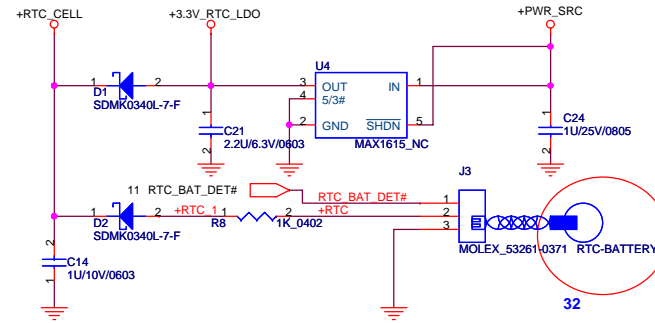
8Mbit (1M Byte), SPI

Layout Note:
Place R471 within 500 mils from SPI flash.
Place R498 & R534 within 500 mils of the MEC5025.


12 SPI_CS0#
28 EC_FLASH_SPI_CLK
28 EC_FLASH_SPI_DO
28 EC_FLASH_SPI_DIN

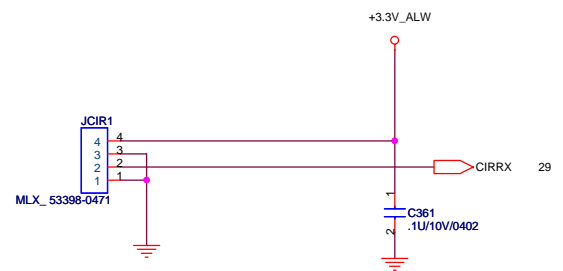
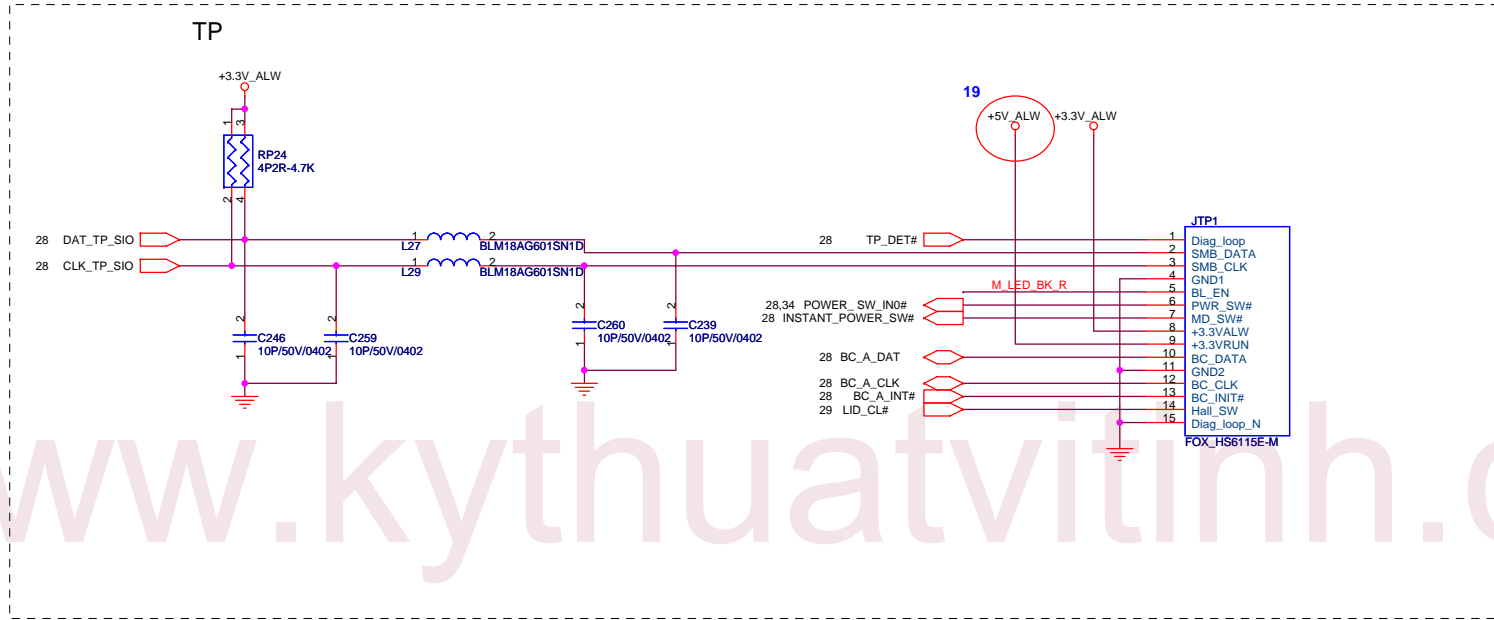
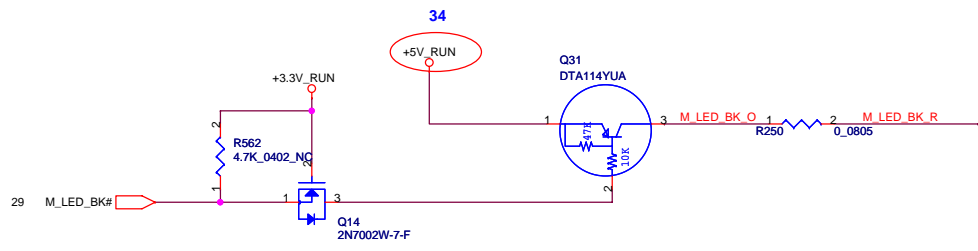


RTC BATTERY




www.kythuatchinh.com

 QUANTA COMPUTER		
Title FLASH, RTC & KC		
Size	Document Number C & G UMA	Rev 2A
Date:	Friday, January 19, 2007	Sheet 30 of 60

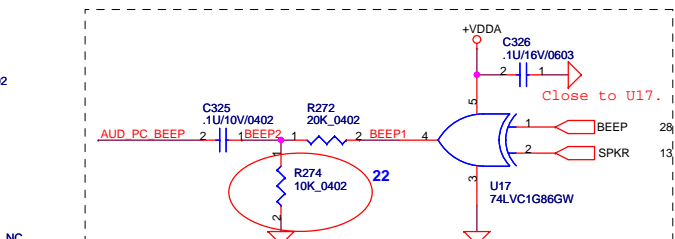
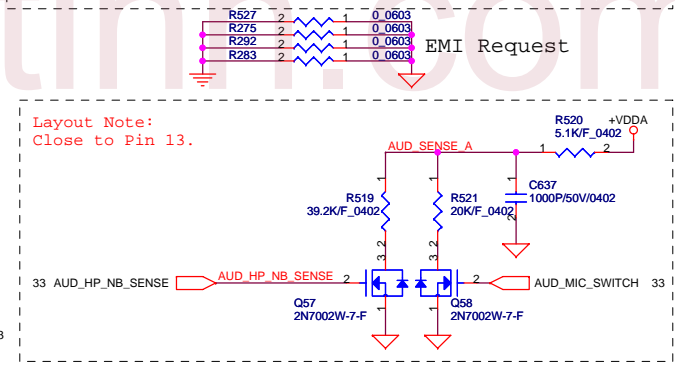
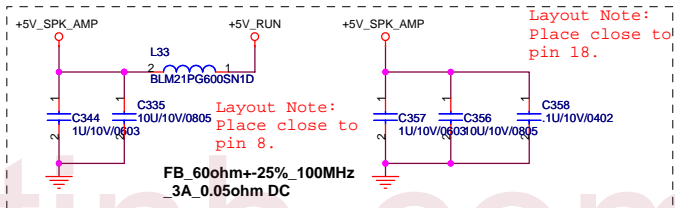
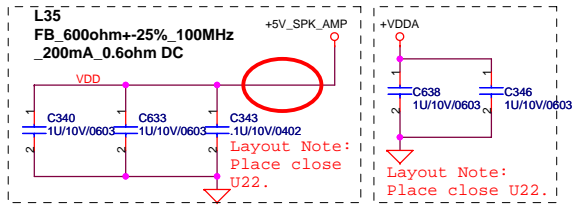
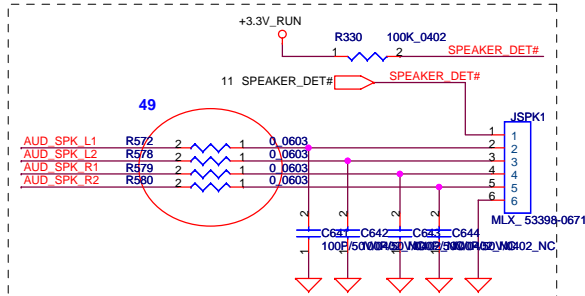
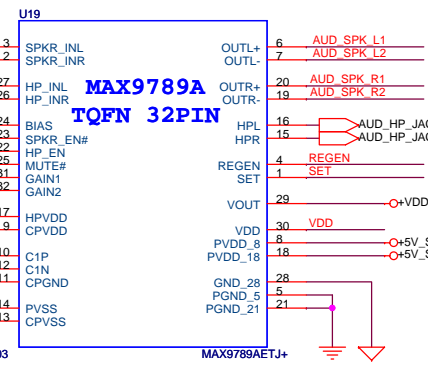


www.kythuatvitinh.com

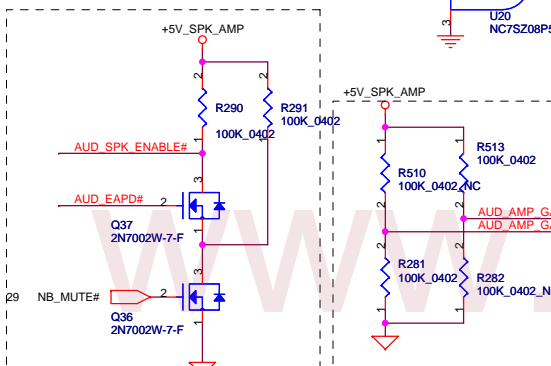
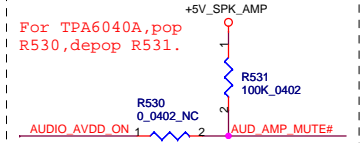
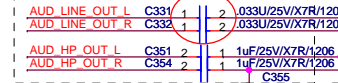
		Title	
		TP/KB/Media/CIR Conn.	
Size	Document Number	Rev	
	C & G UMA	2A	
Date:	Friday, January 19, 2007	Sheet	31 of 60

INTERNAL SPEAKER AMP

MAX9789A
TQFN 32PIN



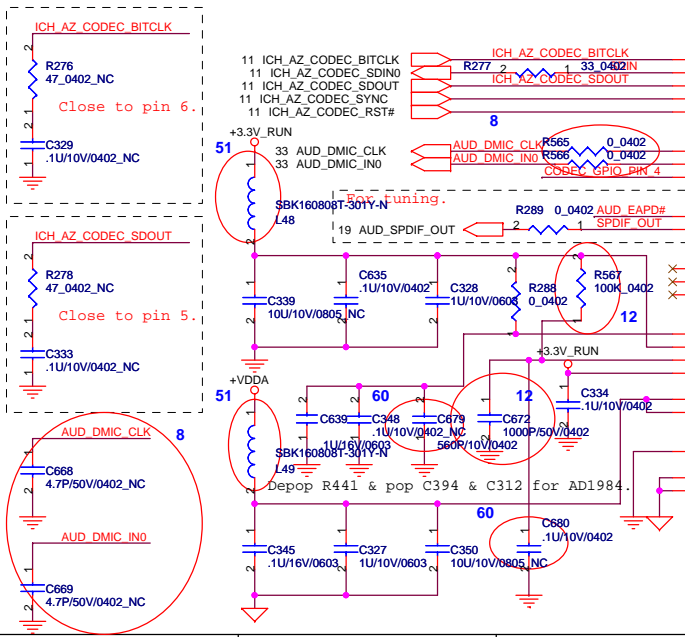
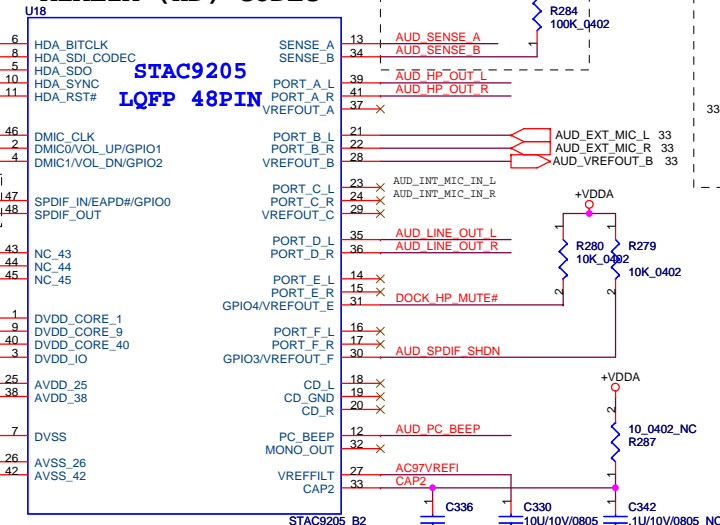
Package 1206 for THD+N performance for Vista Logo requirements.



GAIN1	GAIN2	GAIN
0	0	6dB
0	1	10dB
1	0	15.6dB
1	1	21.6dB

AZALIA (HD) CODEC

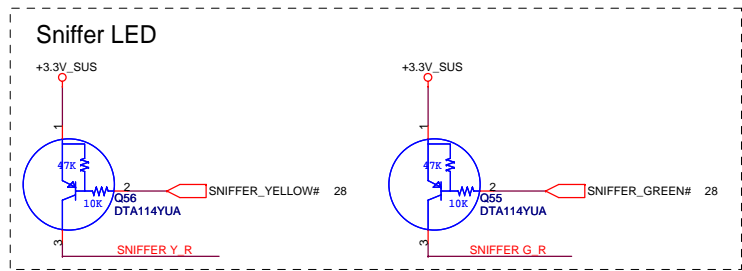
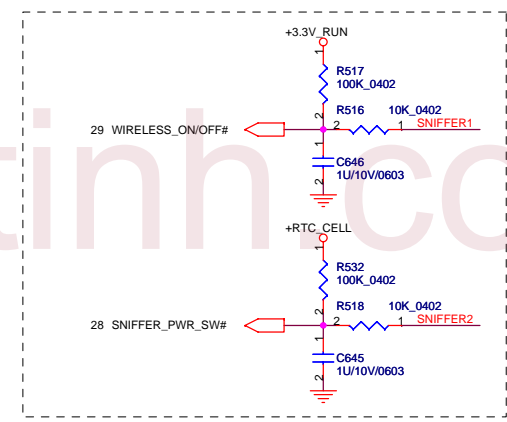
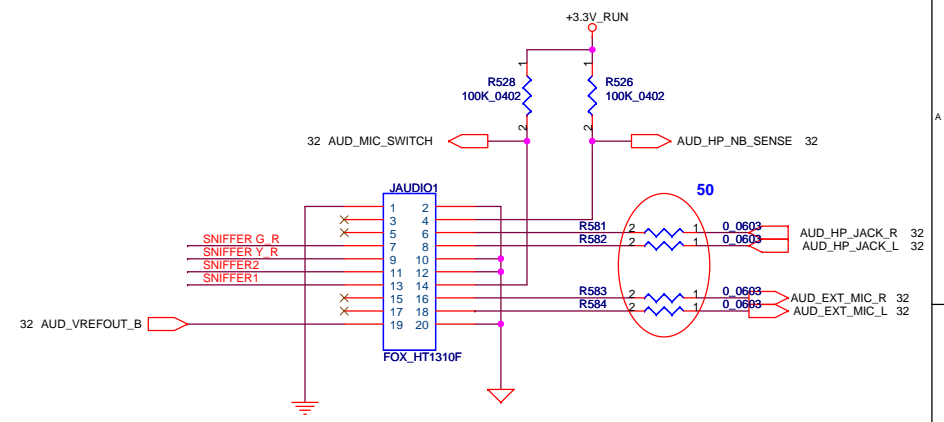
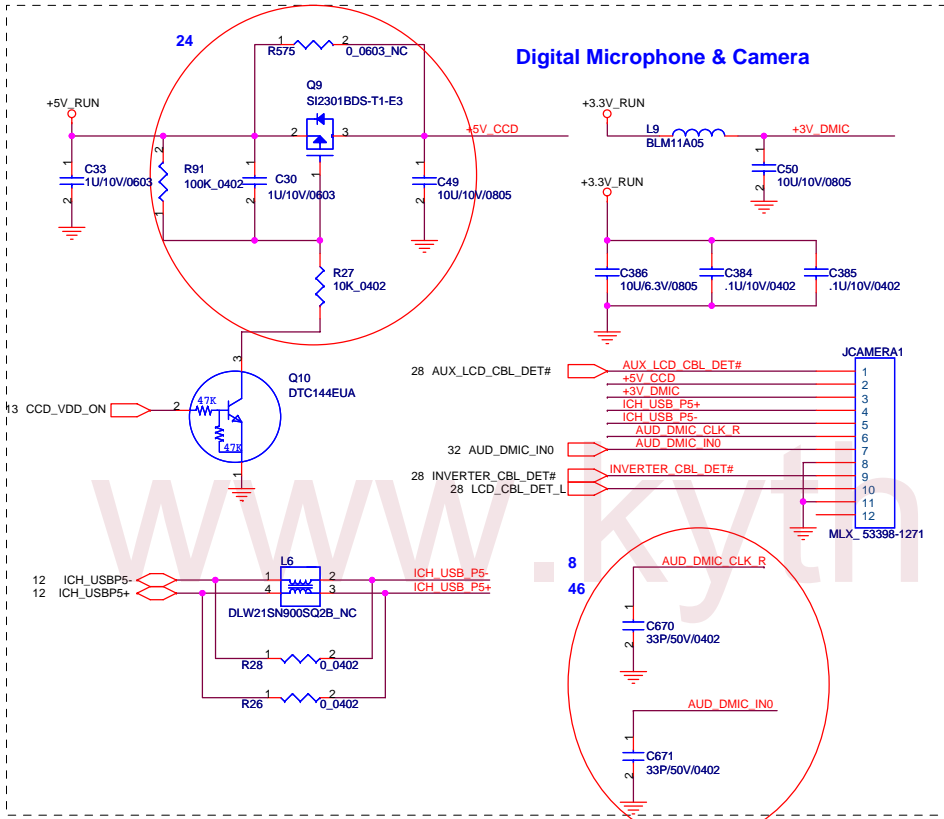
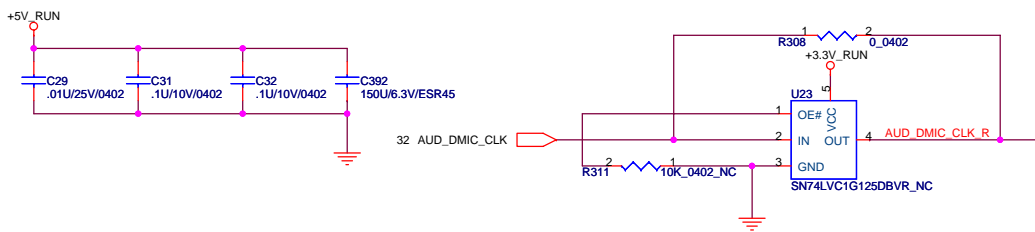
STAC9205
LQFP 48PIN



Pop C315 & R603 for AD1984. C288 need change to 1uF.



Title: Azelia CODEC(STAC9205)		
Size: C & G UMA	Document Number: C & G UMA	Rev: 2A
Date: Tuesday, January 23, 2007	Sheet: 32	of 60



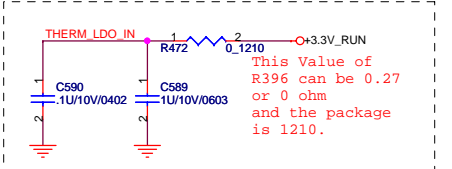
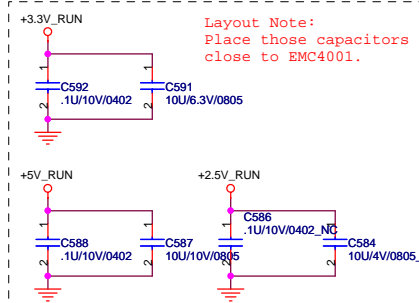
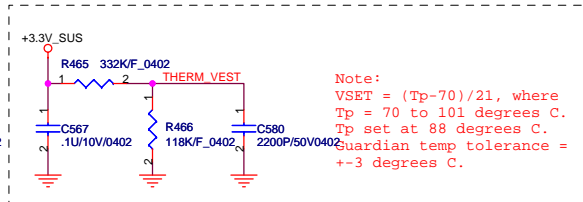
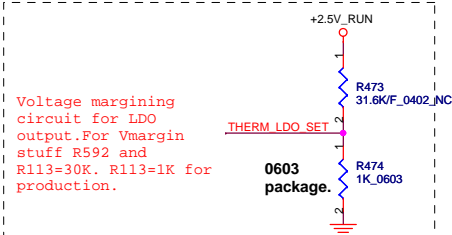
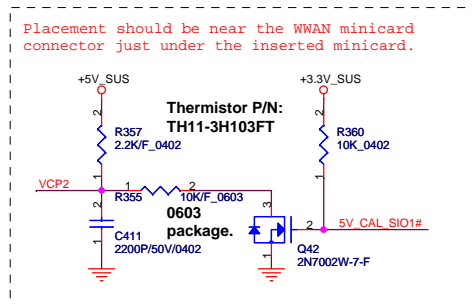
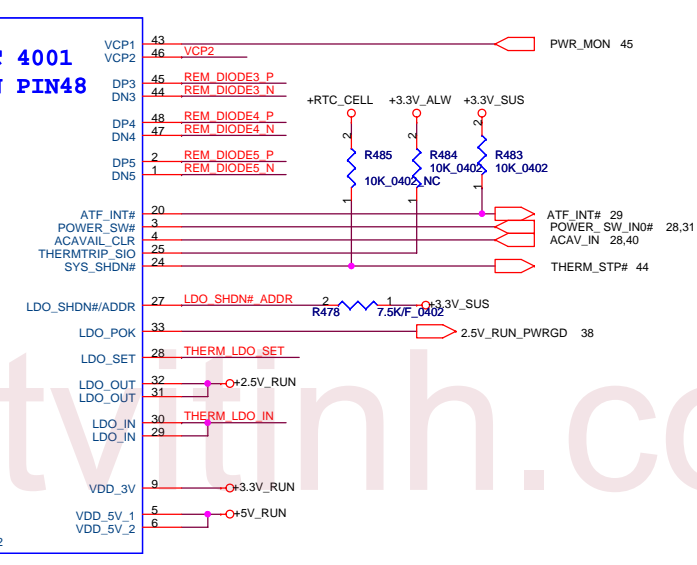
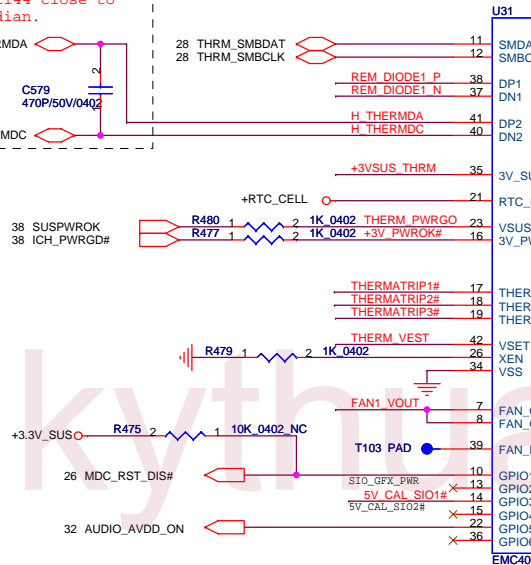
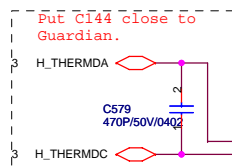
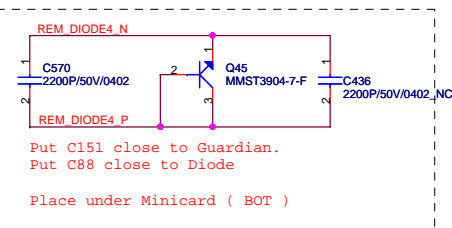
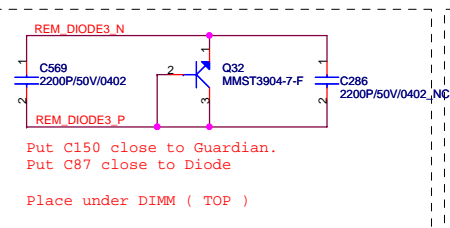
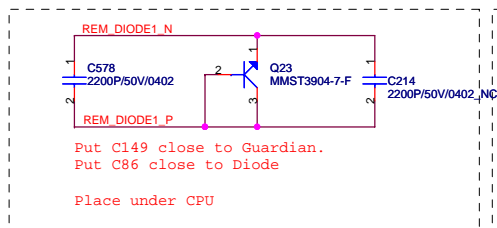
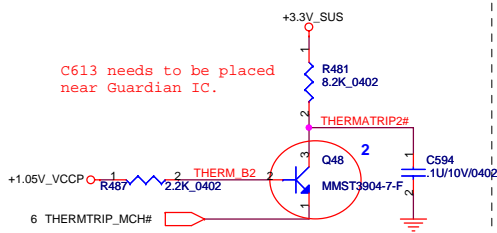
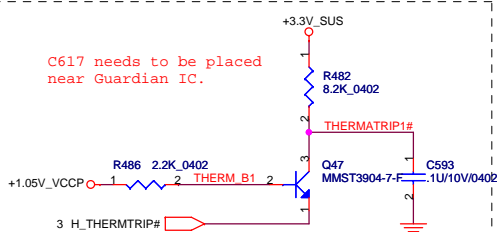
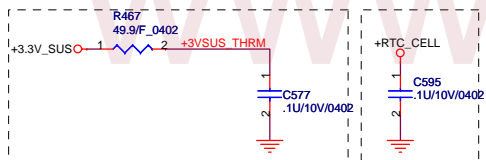
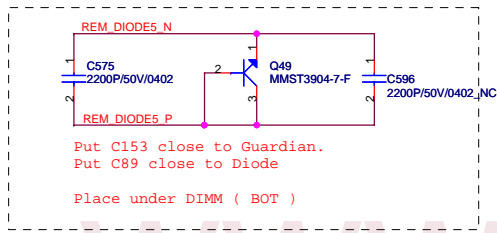
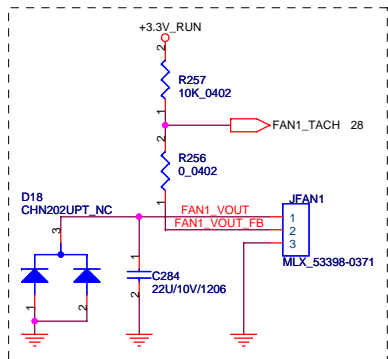
- 1 Diag Loop Diag MB connector (Local Loop)
- 2 Mic Signal
- 3 Mic Pwr Mic Power 3.3v (run)
- 4 Mic clock Mic Clock
- 5 GND
- 6 USB Signal
- 7 USB Pwr Camera Power 3.3v (Camera)
- 8 USB Clock
- 9 Diag CAM Diag Camera/Inverter
- 10 Diag LVDS Diag 5v return (LVDS connector)
- 11 Diag Loop Diag MB connector (Local Loop)

QUANTA COMPUTER

Title: AUDIO&Sniffer&Camera CONN.

Size: Document Number C & G UMA Rev 2A

Date: Tuesday, January 23, 2007 Sheet 33 of 60

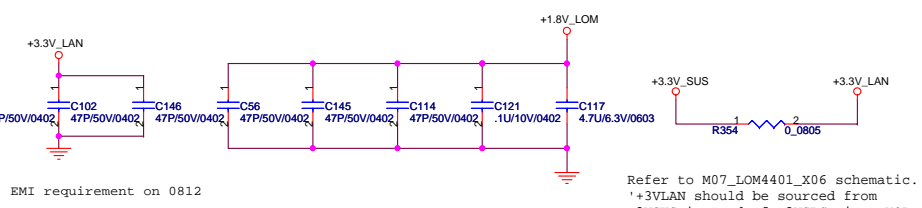
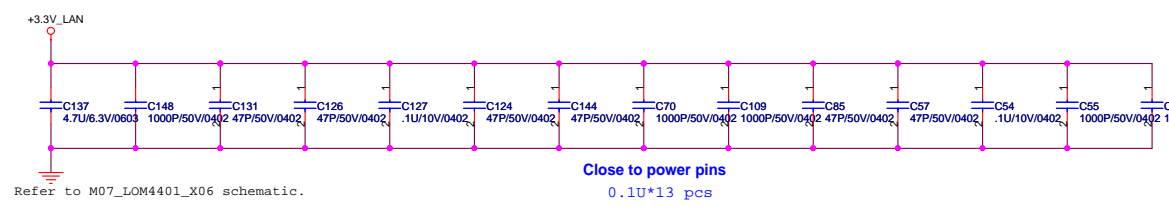


QUANTA COMPUTER

Title: FAN & THERMAL

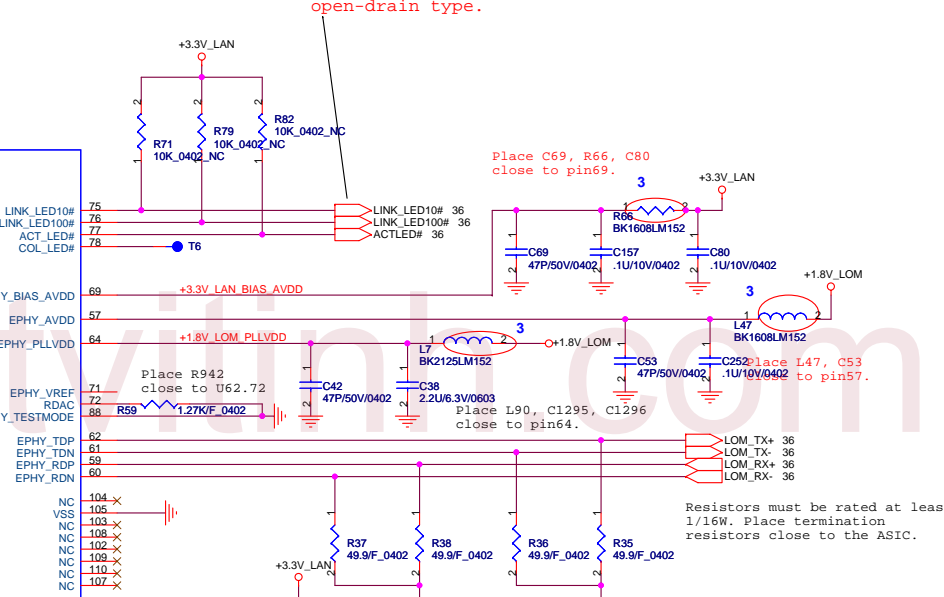
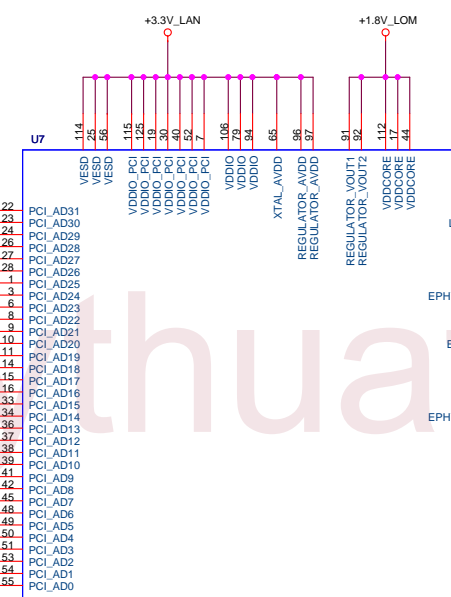
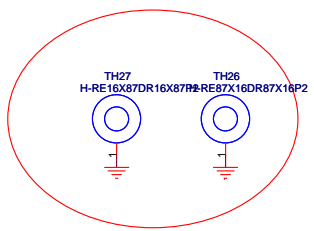
Size: Document Number C & G UMA Rev 2A

Date: Friday, January 19, 2007 Sheet 34 of 60



Refer to M07_L0M4401_X06 schematic.

Refer to M07_L0M4401_X06 schematic. '+3VLAN should be sourced from +3VSUS instead of +3VSRG since WOL is not supported on Cosica/Gilligan.



These three pin LINK_LED10#, LINK_LED100#, ACT_LED are open-drain type.

Place C69, R66, C80 close to pin69.

Place R942 close to U62.72

Place L47, C53 close to pin57.

Place L90, C1295, C1296 close to pin64.

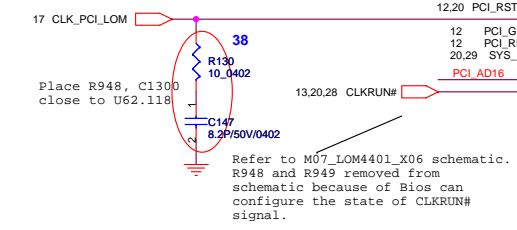
Resistors must be rated at least 1/16W. Place termination resistors close to the ASIC.

Delete R630/R631 per 4401 ref schematic

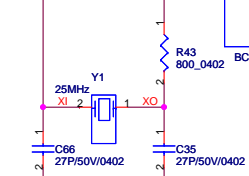
Note: EXT_POR_L has a internal pull up.

Note: BCM4401 requires 16-bit R/W data width

Note: The BCM4401 has weak internal pulldown resistors on the following signals: SPROM_CS, SPROM_CLK, SPROM_DOUT, SPROM_DIN.



Refer to M07_L0M4401_X06 schematic. R948 and R949 removed from schematic because of Bios can configure the state of CLKRUN# signal.



BCM4401 B0

QUANTA COMPUTER

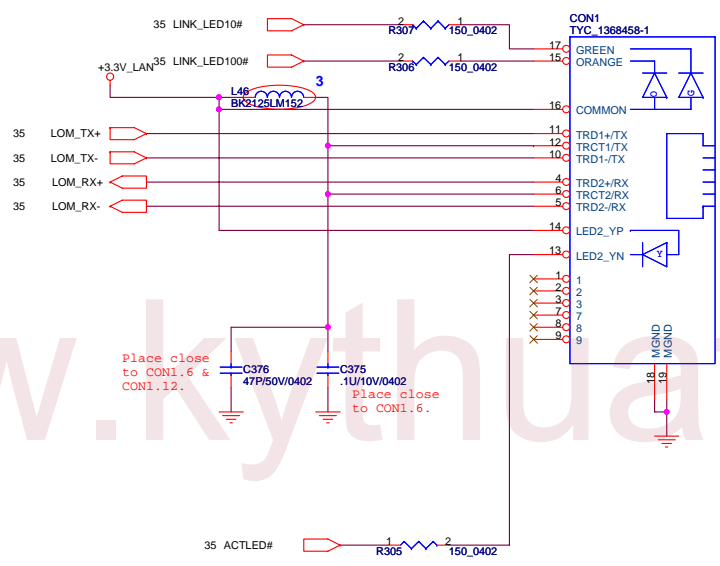
Title: LAN (BCM4401)

Size: Document Number C & G UMA

Date: Friday, January 19, 2007

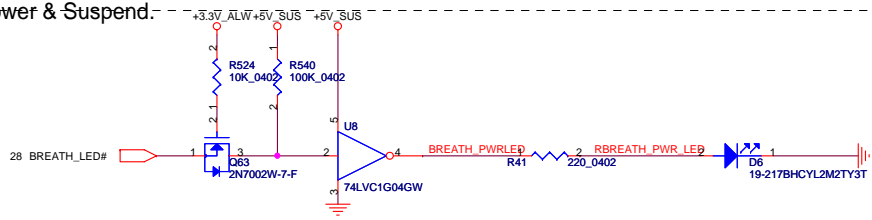
Sheet: 35 of 60

Rev: 2A



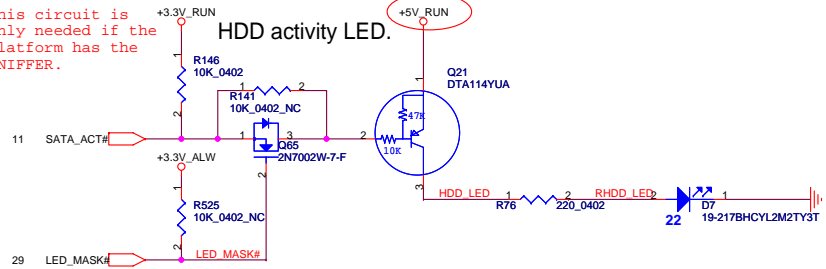
www.kyathuatvith.com

Power & Suspend.

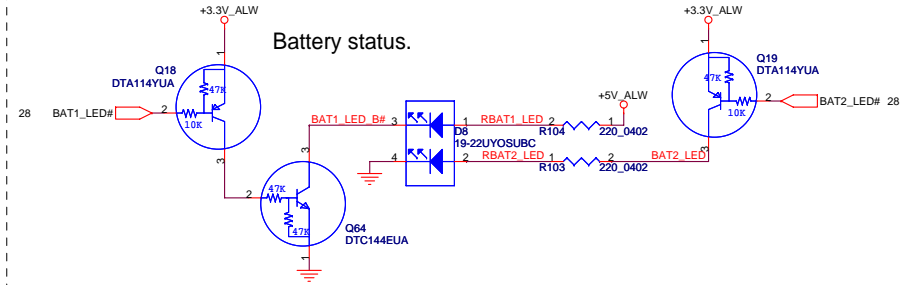


This circuit is only needed if the platform has the SNIFFER.

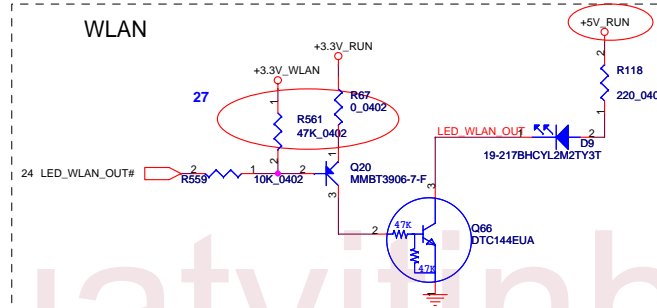
HDD activity LED.



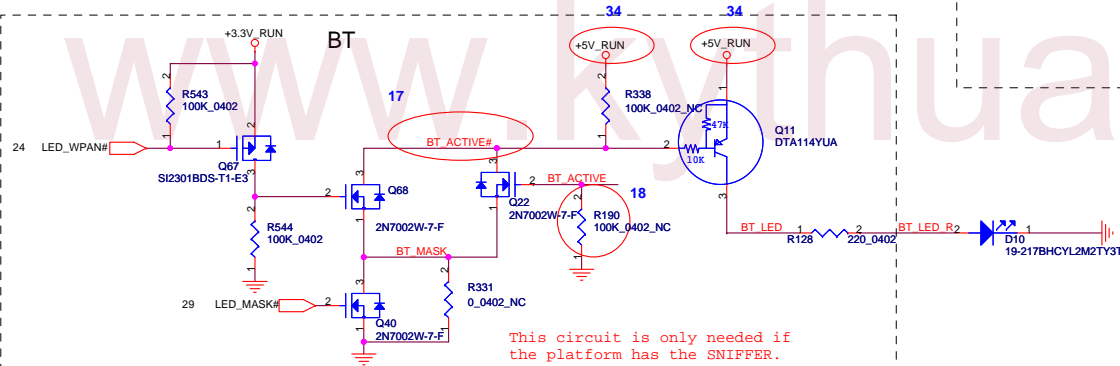
Battery status.



WLAN

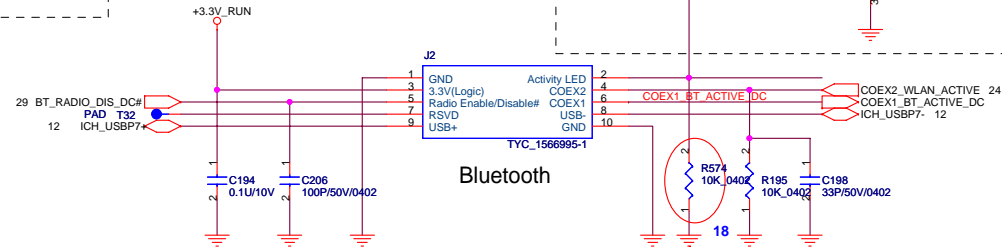
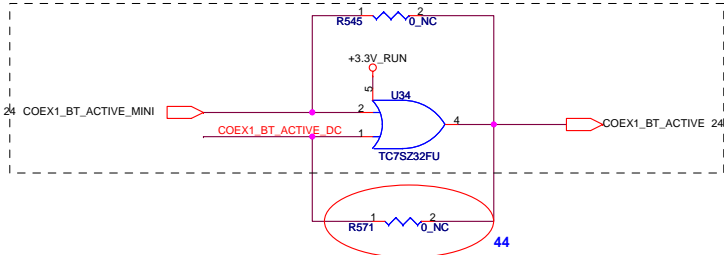
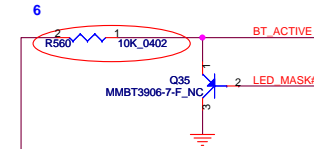


BT



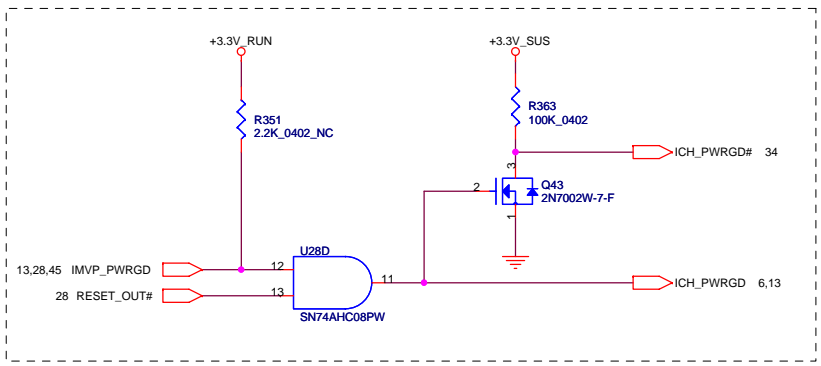
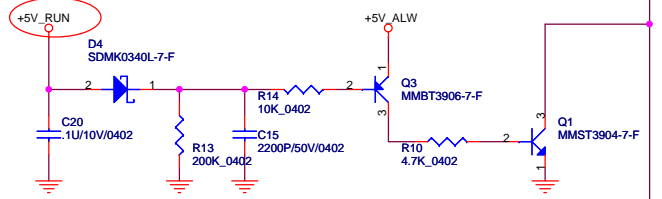
This circuit is only needed if the platform has the SNIFFER.

This circuit is only needed if the platform has the SNIFFER.

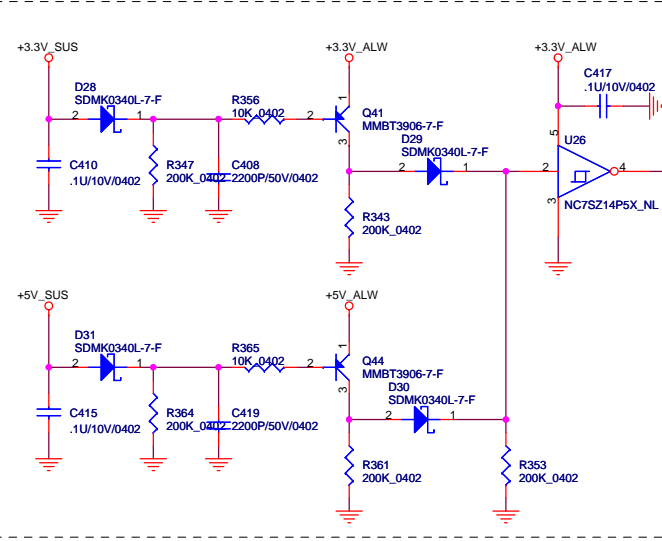
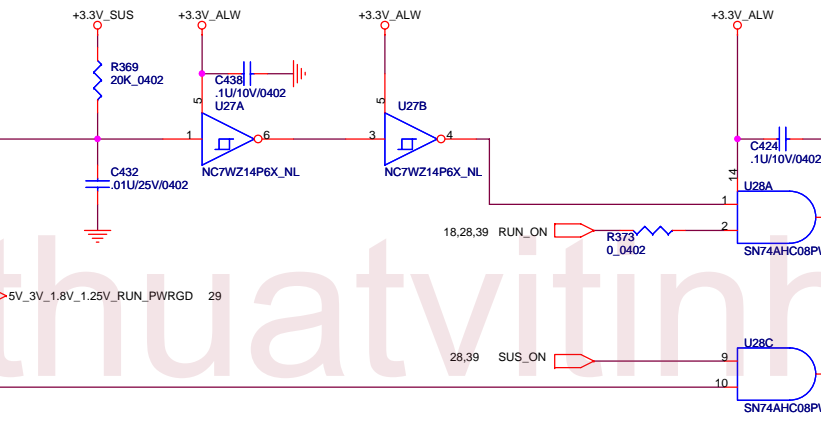
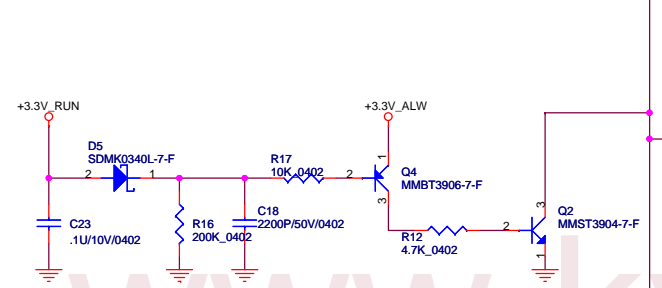


Non-iAMT

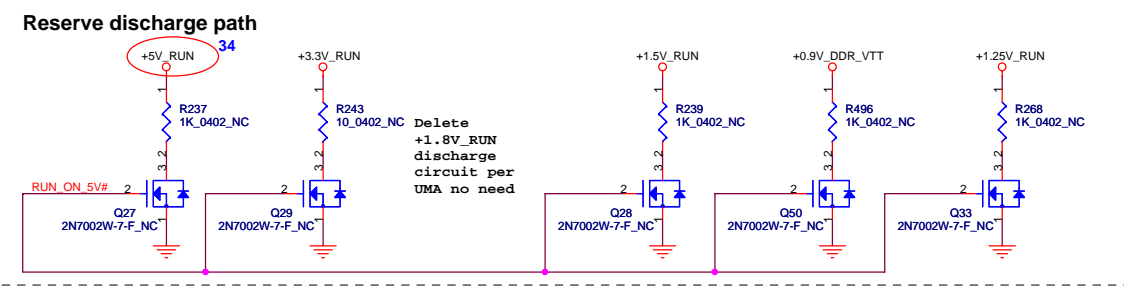
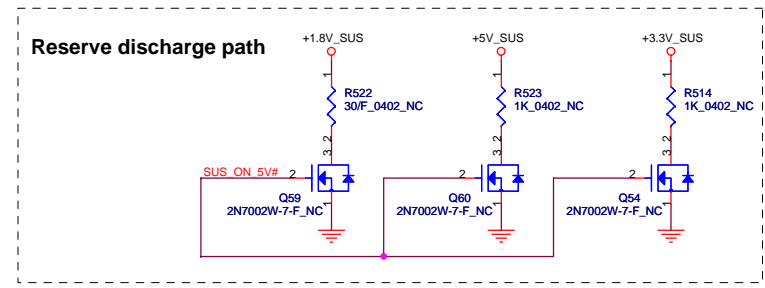
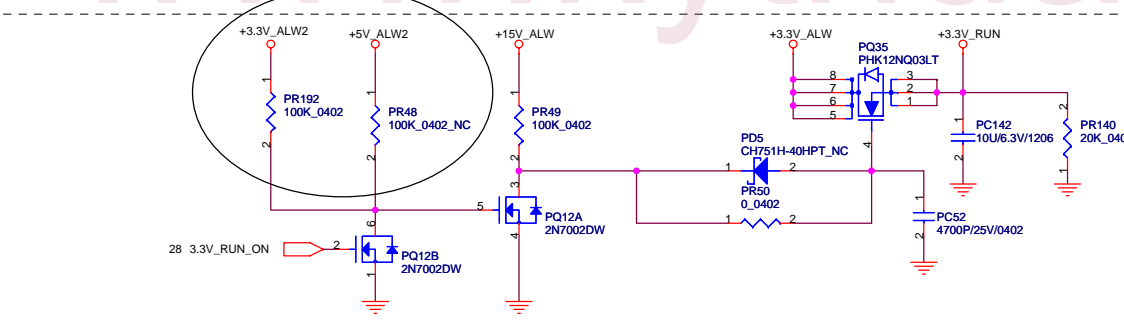
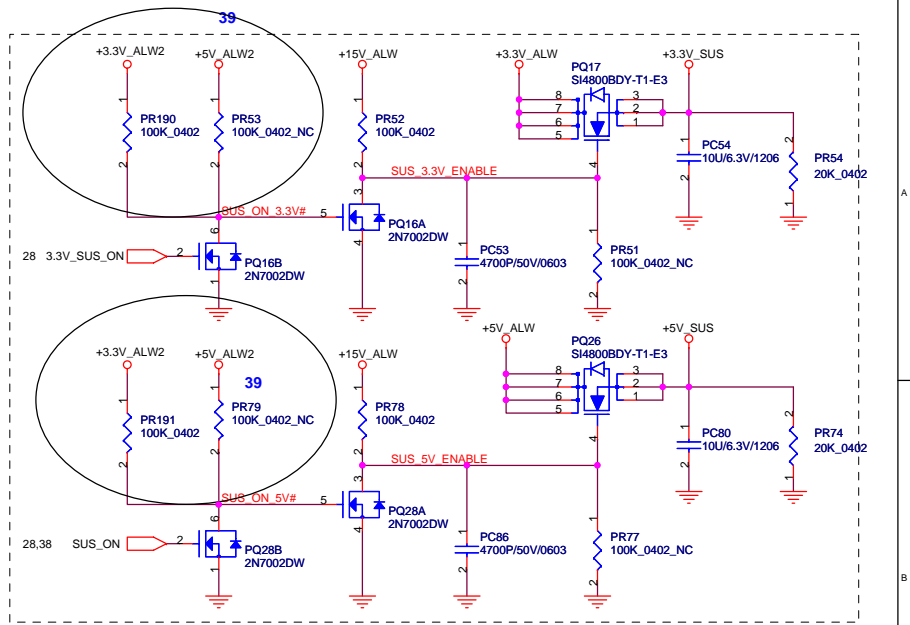
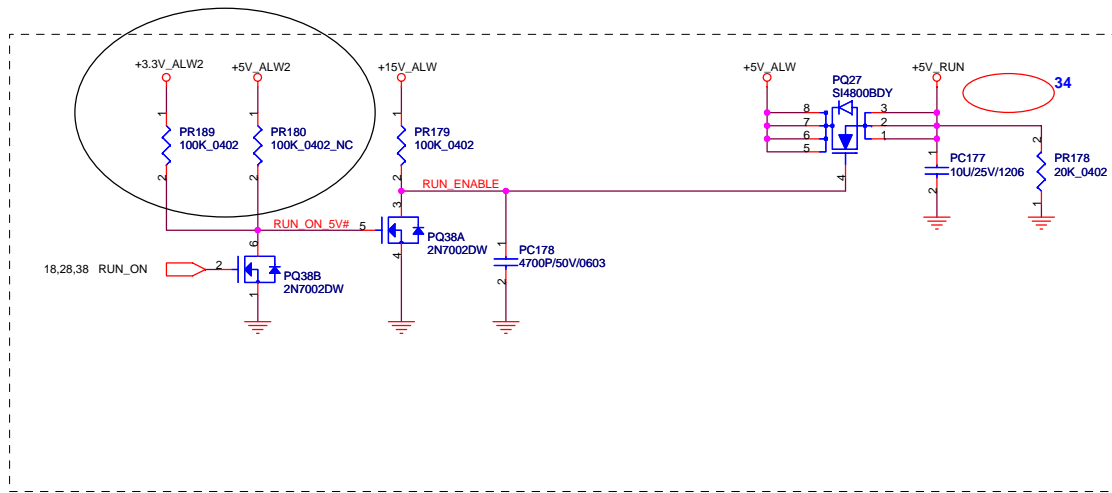
- 42 1.25V_RUN_PWRGD R9 0_0402
- 43 1.5V_RUN_PWRGD R19 0_0402
- 43 1.05V_RUN_PWRGD R18 0_0402
- 34 2.5V_RUN_PWRGD R11 0_0402_NC



Keep Away from high speed buses



Title System Reset Circuit		
Size	Document Number C & G UMA	Rev 2A
Date:	Friday, January 19, 2007	Sheet 38 of 60



www.kythuathvinh.com

QUANTA COMPUTER

Title: RUN POWER SW

Size: M-08	Document Number: M-08	Rev: 2A
------------	-----------------------	---------

Date: Friday, January 19, 2007 Sheet 39 of 60

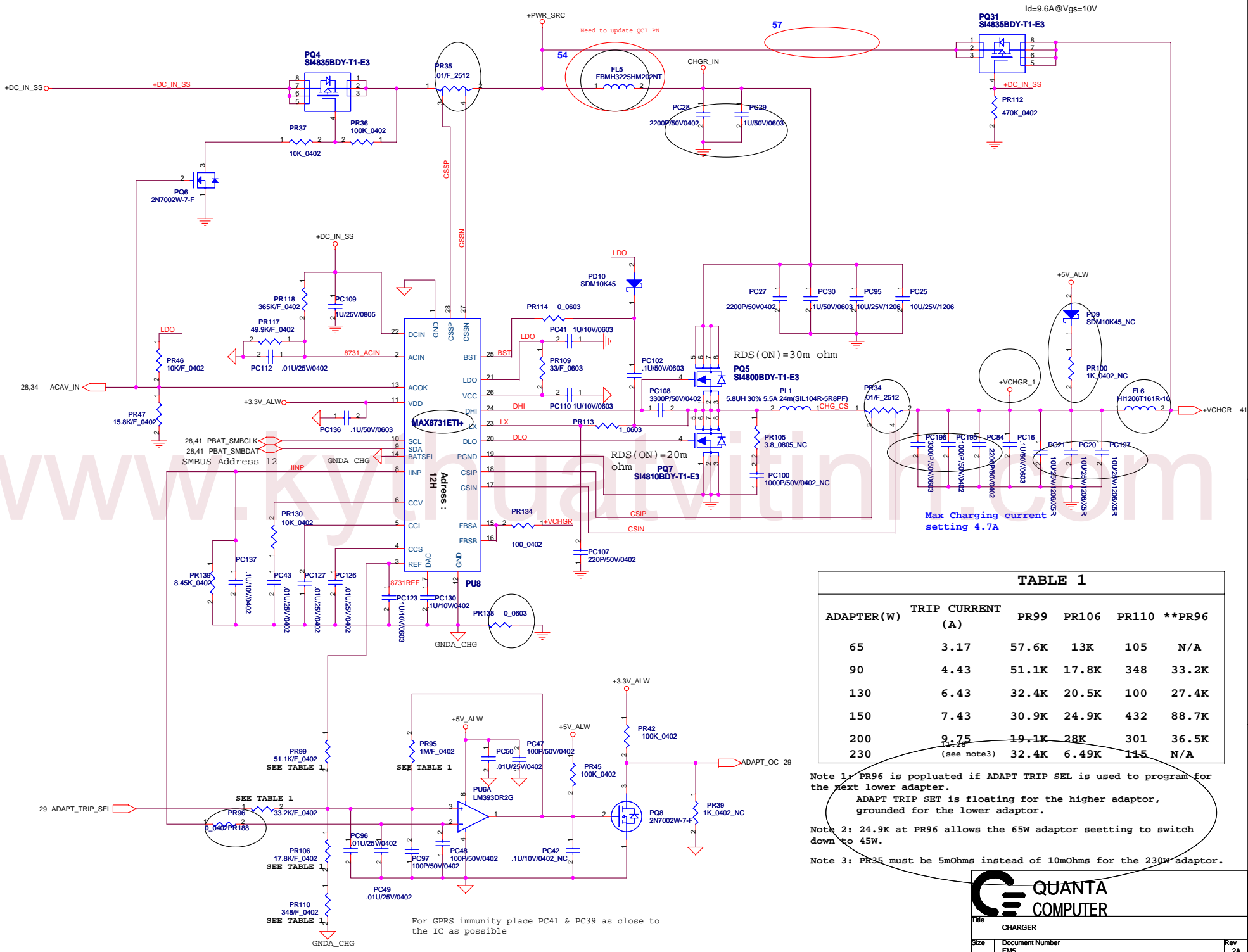


TABLE 1

ADAPTER(W)	TRIP CURRENT (A)	PR99	PR106	PR110	**PR96
65	3.17	57.6K	13K	105	N/A
90	4.43	51.1K	17.8K	348	33.2K
130	6.43	32.4K	20.5K	100	27.4K
150	7.43	30.9K	24.9K	432	88.7K
200	9.75	19.1K	28K	301	36.5K
230	(see note3)	32.4K	6.49K	115	N/A

Note 1: PR96 is populated if ADAPT_TRIP_SEL is used to program for the next lower adaptor.
 ADAPT_TRIP_SET is floating for the higher adaptor, grounded for the lower adaptor.

Note 2: 24.9K at PR96 allows the 65W adaptor setting to switch down to 45W.

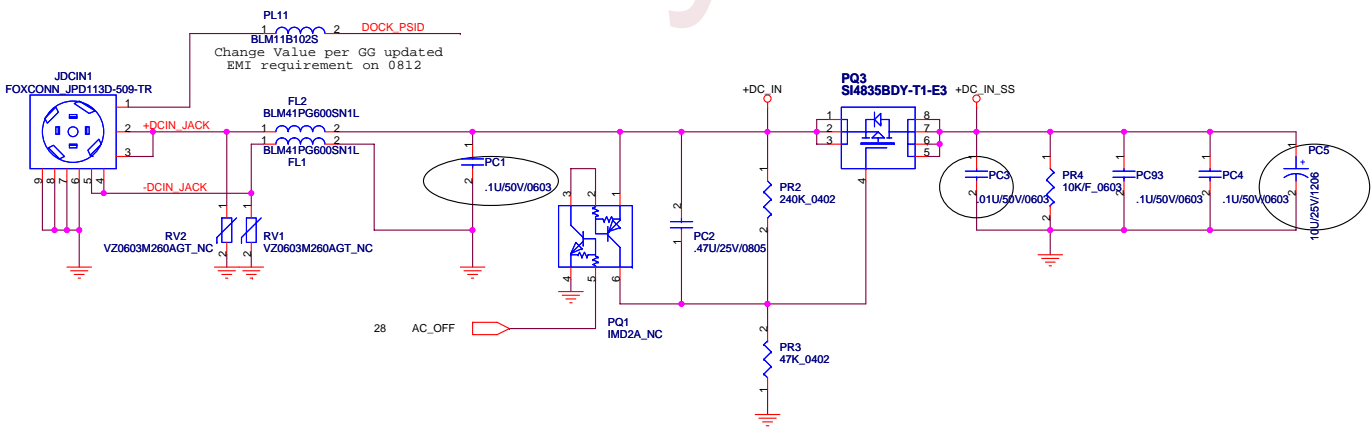
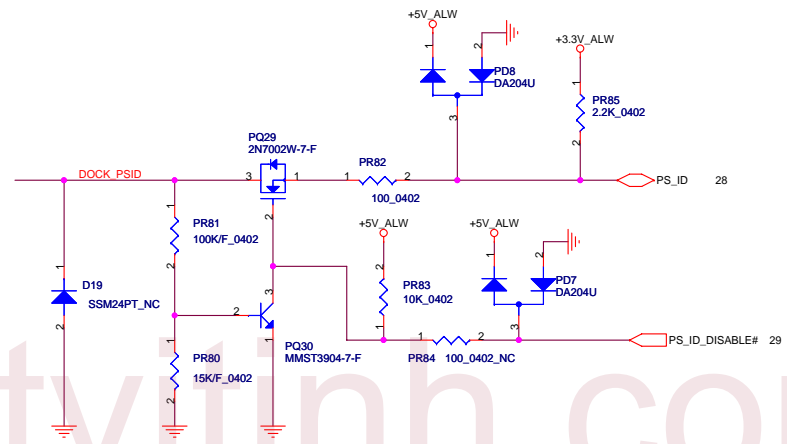
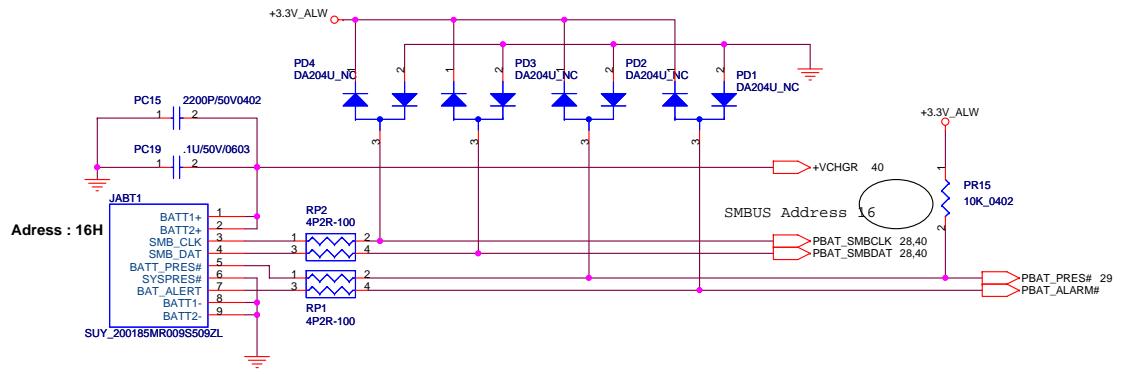
Note 3: PR35 must be 5mOhms instead of 10mOhms for the 230W adaptor.

QUANTA COMPUTER

File: CHARGER

Size: FMS	Document Number: FMS	Rev: 2A
Date: Tuesday, January 23, 2007	Sheet: 40	of 60

For GPRS immunity place PC41 & PC39 as close to the IC as possible



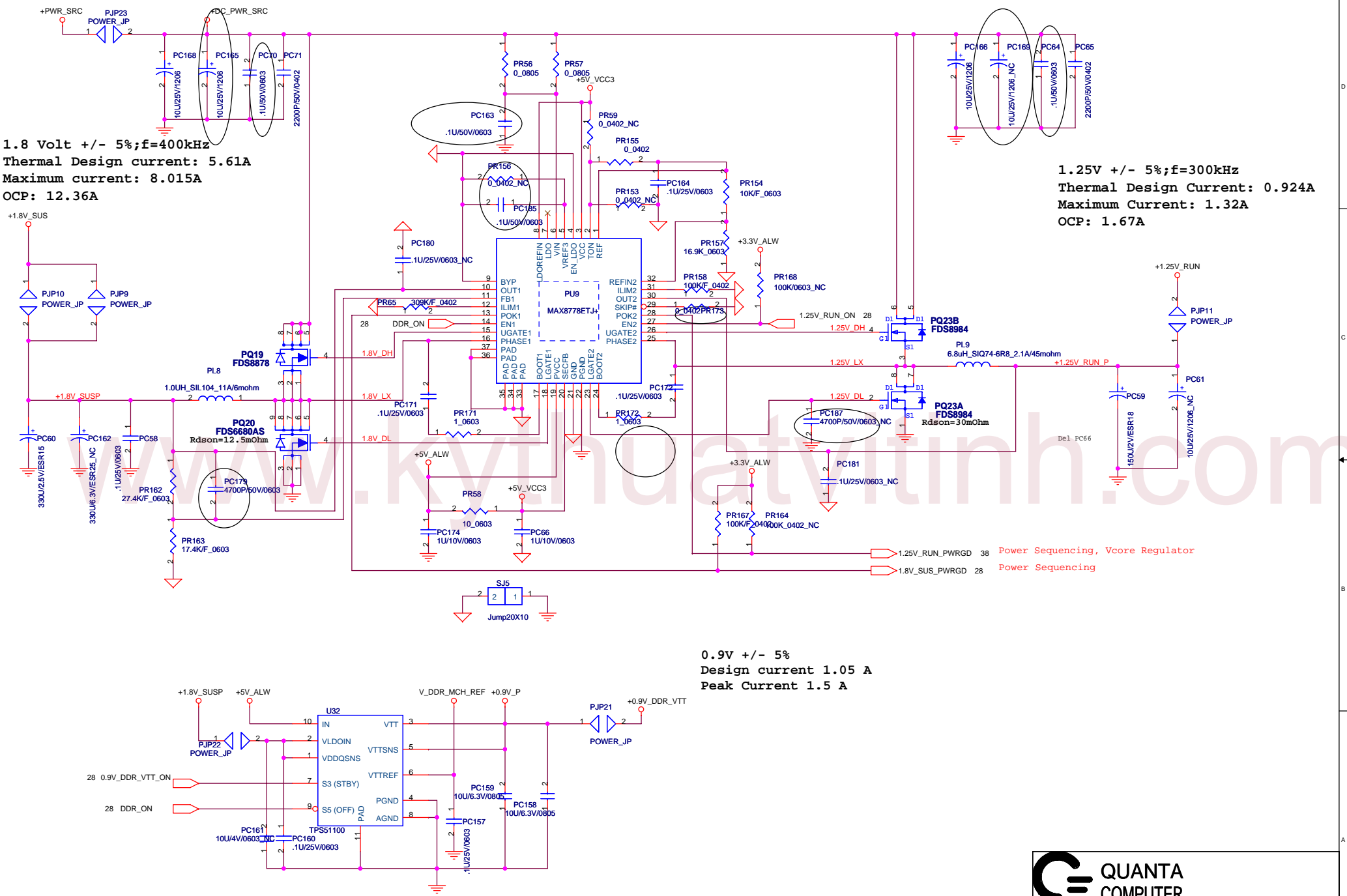
www.kythuatvlinh.com

Size	Document Number FM5	Rev 2A
Date:	Friday, January 19, 2007	Sheet 41 of 60

1.8 Volt +/- 5%; f=400kHz
 Thermal Design current: 5.61A
 Maximum current: 8.015A
 OCP: 12.36A

1.25V +/- 5%; f=300kHz
 Thermal Design Current: 0.924A
 Maximum Current: 1.32A
 OCP: 1.67A

0.9V +/- 5%
 Design current 1.05 A
 Peak Current 1.5 A

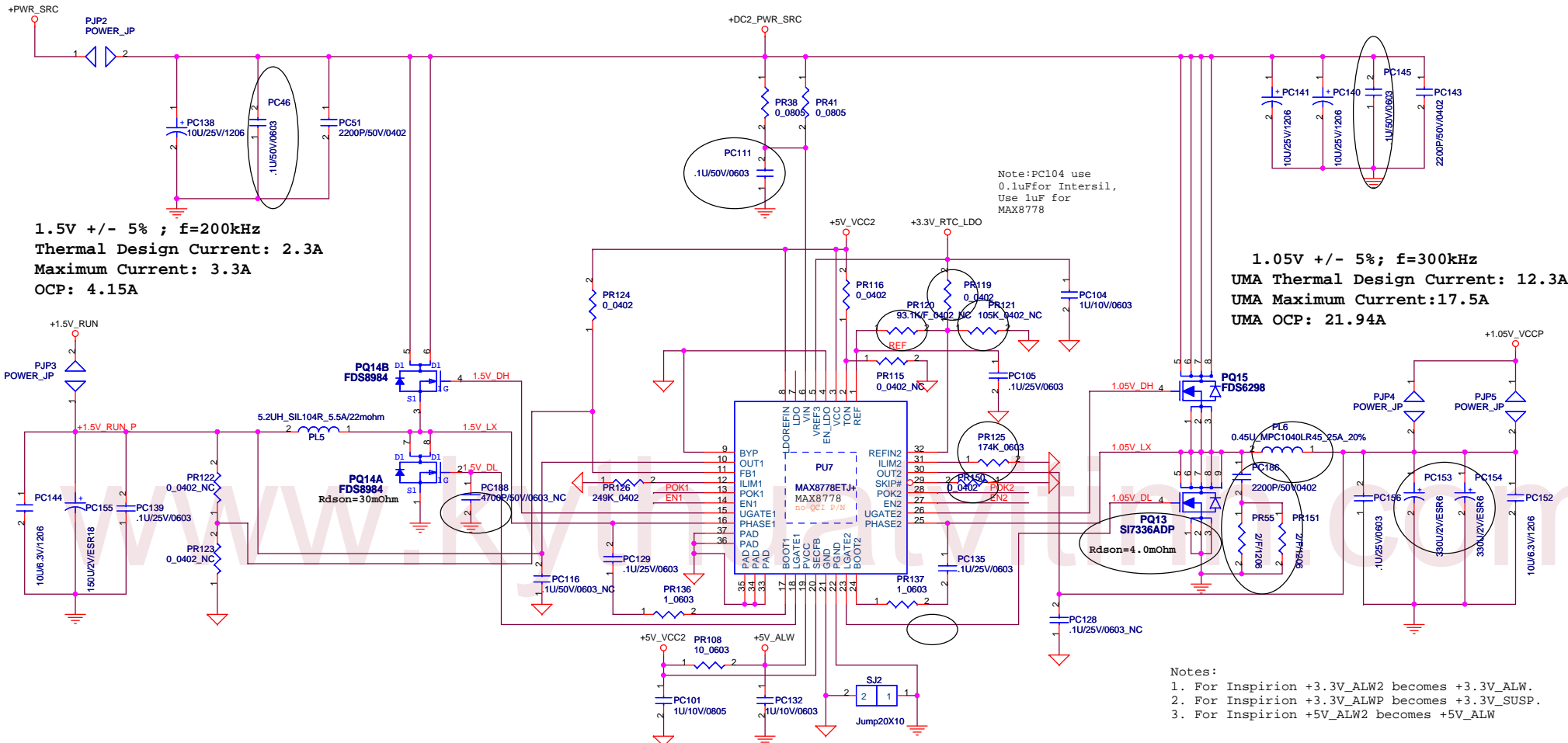


1.25V_RUN_PWRGD 38 Power Sequencing, Voore Regulator
 1.8V_SUS_PWRGD 28 Power Sequencing



Title		1.25V,1.05V,1.8V,0.9V
Size	Document Number	Rev
FMS		2A
Date:	Friday, January 19, 2007	Sheet 42 of 60

+1.5V_RUN / +1.05V_VCCP / +3.3V_ALW / +3.3V_RTC_LDO



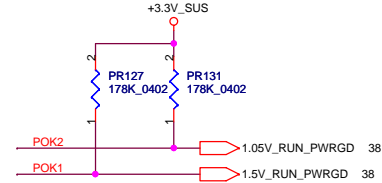
1.5V +/- 5% ; f=200kHz
Thermal Design Current: 2.3A
Maximum Current: 3.3A
OCP: 4.15A

1.05V +/- 5% ; f=300kHz
UMA Thermal Design Current: 12.3A
UMA Maximum Current: 17.5A
UMA OCP: 21.94A

Note: PC104 use
 0.1uF for Intersil,
 Use 1uF for
 MAX8778

- Notes:
1. For Inspirion +3.3V_ALW2 becomes +3.3V_ALW.
 2. For Inspirion +3.3V_ALWP becomes +3.3V_SUSP.
 3. For Inspirion +5V_ALW2 becomes +5V_ALW

For Inspirion see note 3



Title		
1.5V,1.05V		
Size	Document Number	Rev
	C & G UMA	2A
Date:	Friday, January 19, 2007	Sheet 43 of 60

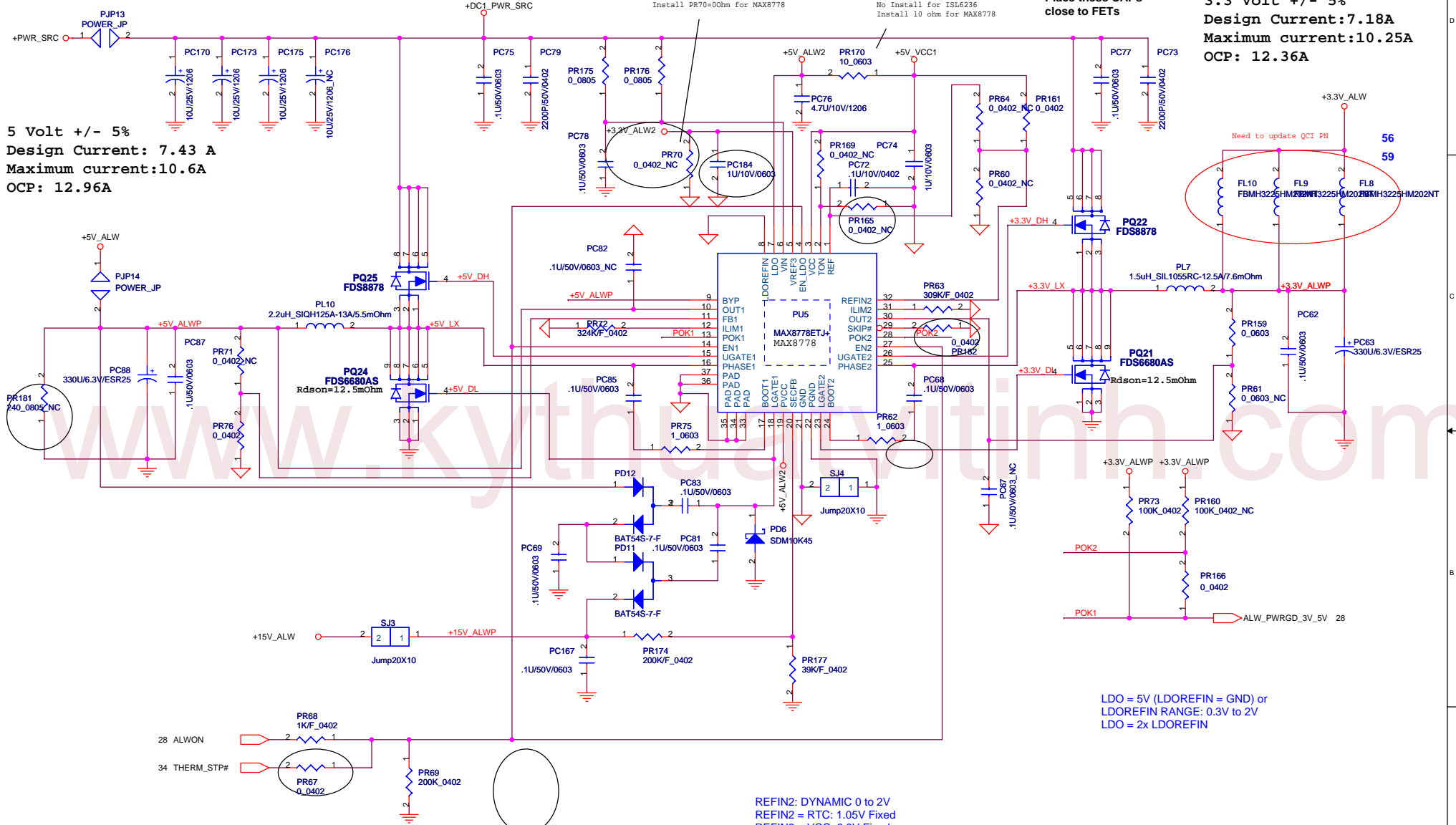
DC/DC +3V_ALW/+5V_ALW/+5V_ALW2 /+15V_ALW

Ton:OUT1/OUT2 Switching Frequency
 VDD 200kHz/300kHz
 OPEN (REF): 400kHz/300kHz
 GND: 400kHz/500kHz

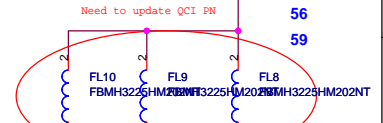
3.3 Volt +/- 5%
Design Current: 7.18A
Maximum current: 10.25A
OCF: 12.36A

Place these CAPS close to FETs

Place these CAPS close to FETs



5 Volt +/- 5%
Design Current: 7.43 A
Maximum current: 10.6A
OCF: 12.96A



LDO = 5V (LDOREFIN = GND) or
 LDOREFIN RANGE: 0.3V to 2V
 LDO = 2x LDOREFIN

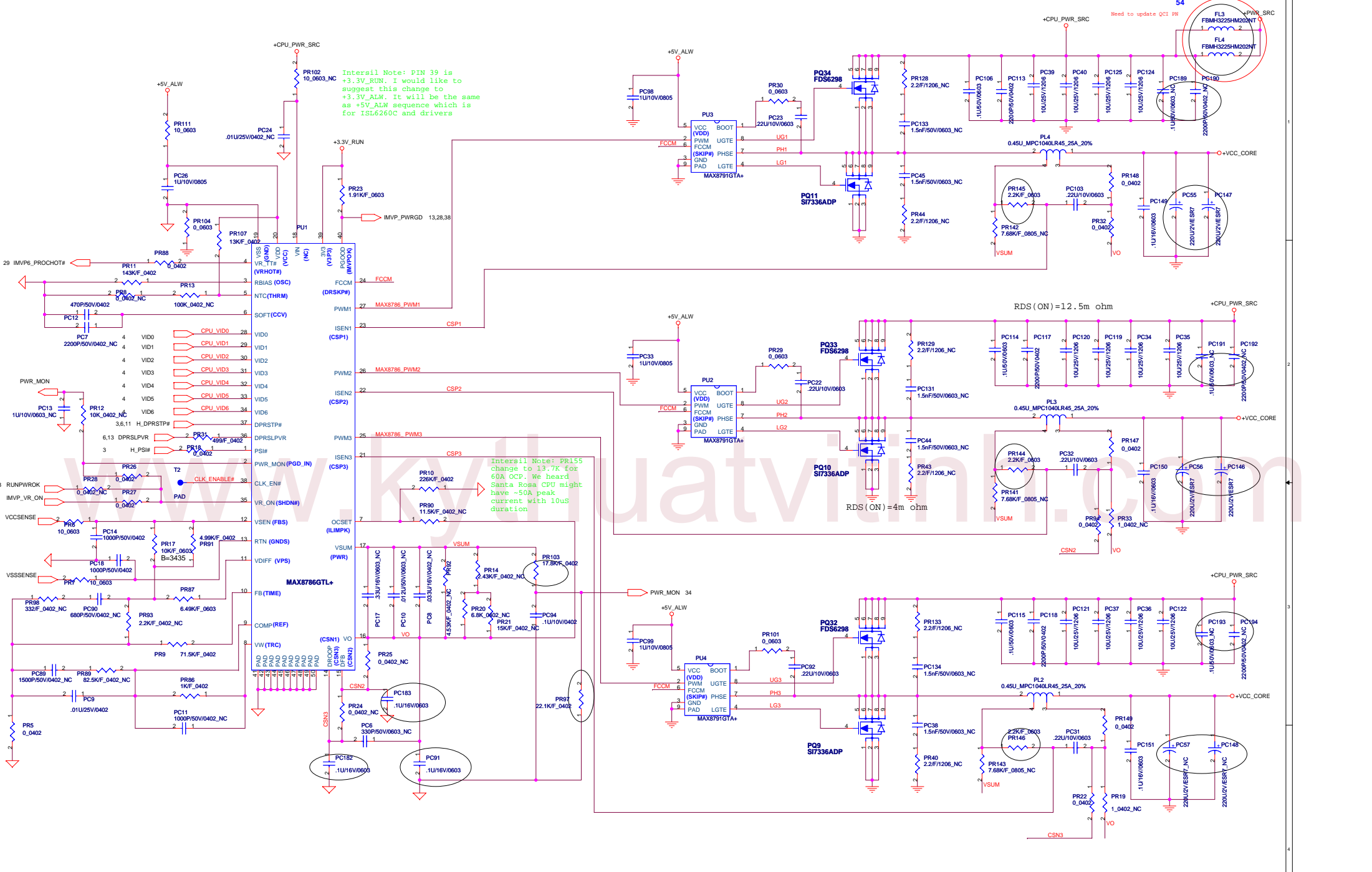
REFIN2: DYNAMIC 0 to 2V
 REFIN2 = RTC: 1.05V Fixed
 REFIN2 = VCC: 3.3V Fixed

**QUANTA
COMPUTER**

Title: 3VALW.5V.3V, power on

Size:	Document Number	Rev
	FMS	2A

Date: Tuesday, January 23, 2007 Sheet 44 of 60

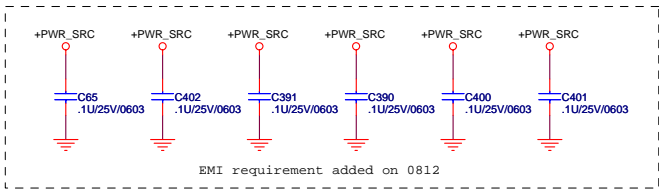
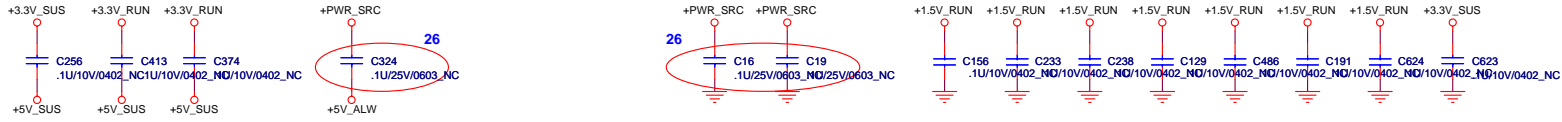
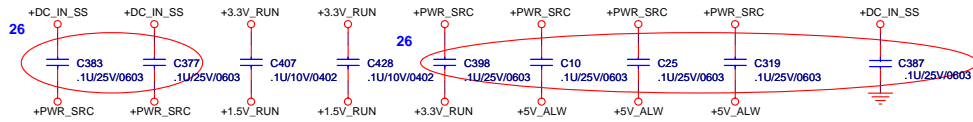
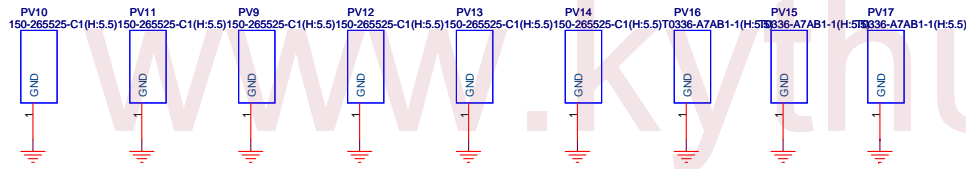
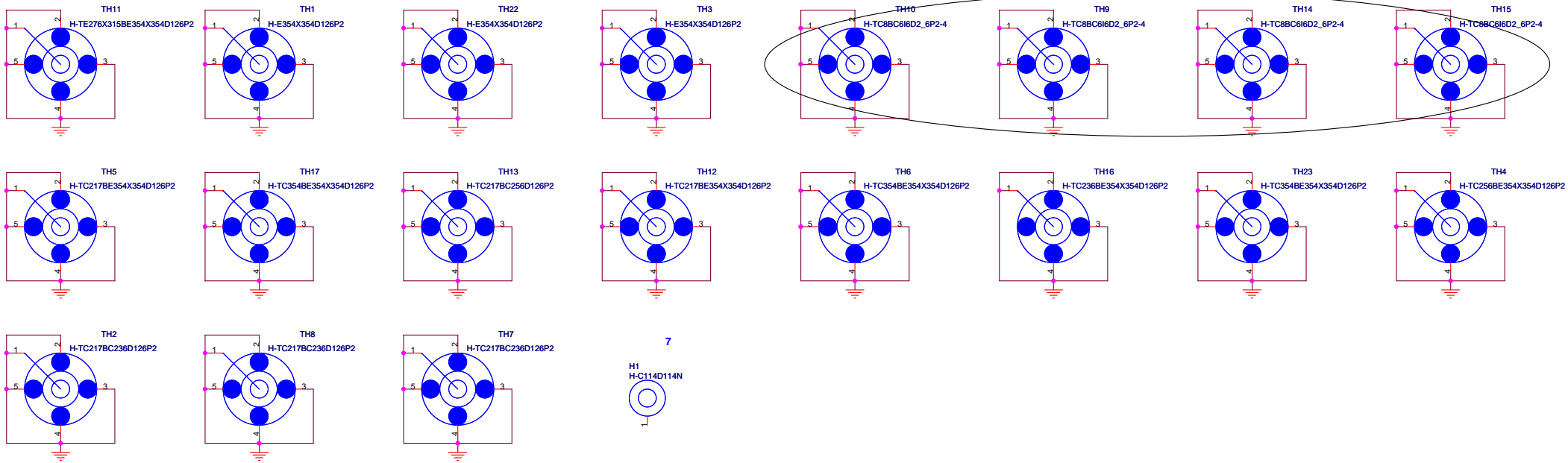


PHASE 3 populate

QUANTA COMPUTER

Title: CPU POWER

Size: FMS	Document Number: FMS	Rev: ZA
Date: Tuesday, January 23, 2007	Sheet: 45 of 60	



QUANTA COMPUTER

Title: EMI & Screw hole

Size	Document Number	Rev
	C & G UMA	2A
Date:	Friday, January 19, 2007	Sheet 46 of 60

POWER STATES

State \ Signal	SLP S3#	SLP S4#	SLP S5#	S4 STATE#	SLP M#	ALWAYS PLANE	M PLANE	SUS PLANE	RUN PLANE	CLOCKS
S0 (Full ON) / M0	HIGH	HIGH	HIGH	HIGH	HIGH	ON	ON	ON	ON	ON
S3 (Suspend to RAM) / M1	LOW	HIGH	HIGH	HIGH	HIGH	ON	ON	ON	OFF	ON
S4 (Suspend to DISK) / M1	LOW	HIGH	HIGH	LOW	HIGH	ON	ON	ON	OFF	ON
S5 (SOFT OFF) / M1	LOW	HIGH	LOW	LOW	HIGH	ON	ON	ON	OFF	ON
S3 (Suspend to RAM) / M-OFF	LOW	HIGH	HIGH	HIGH	LOW	ON	OFF	ON	OFF	OFF
S4 (Suspend to DISK) / M-OFF	LOW	LOW	HIGH	LOW	LOW	ON	OFF	OFF	OFF	OFF
S5 (SOFT OFF) / M-OFF	LOW	LOW	LOW	LOW	LOW	ON	OFF	OFF	OFF	OFF

PM TABLE

State \ power plane	+3.3V_ALW +3.3V_RTC_LDO +3.3V_WLAN +5V_ALW +15V_ALW	+1.8V_SUS +1.8V_LOM +3.3V_LAN +3.3V_SUS +5V_SUS	+0.9V_DDR_VTT +1.05V_VCCP +1.25V_RUN +1.5V_CARD +1.5V_RUN +3.3V_CARD +3.3V_CARDAUX +3.3V_R5C832 +3.3V_RUN	+3.3V_RUN_CARD +2.5V_RUN +5V_MOD +5V_RUN +5V_SPK_AMP +CPU_PWR_SRC +VCC_CORE +VDDA	+DC_IN +DC_IN_SS +PWR_SRC +RTC_CELL
S0	ON	ON	ON	ON	ON
S3	ON	ON	OFF	OFF	ON
S5 S4/AC	ON	OFF	OFF	OFF	ON
S5 S4/AC don't exist	OFF	OFF	OFF	OFF	ON

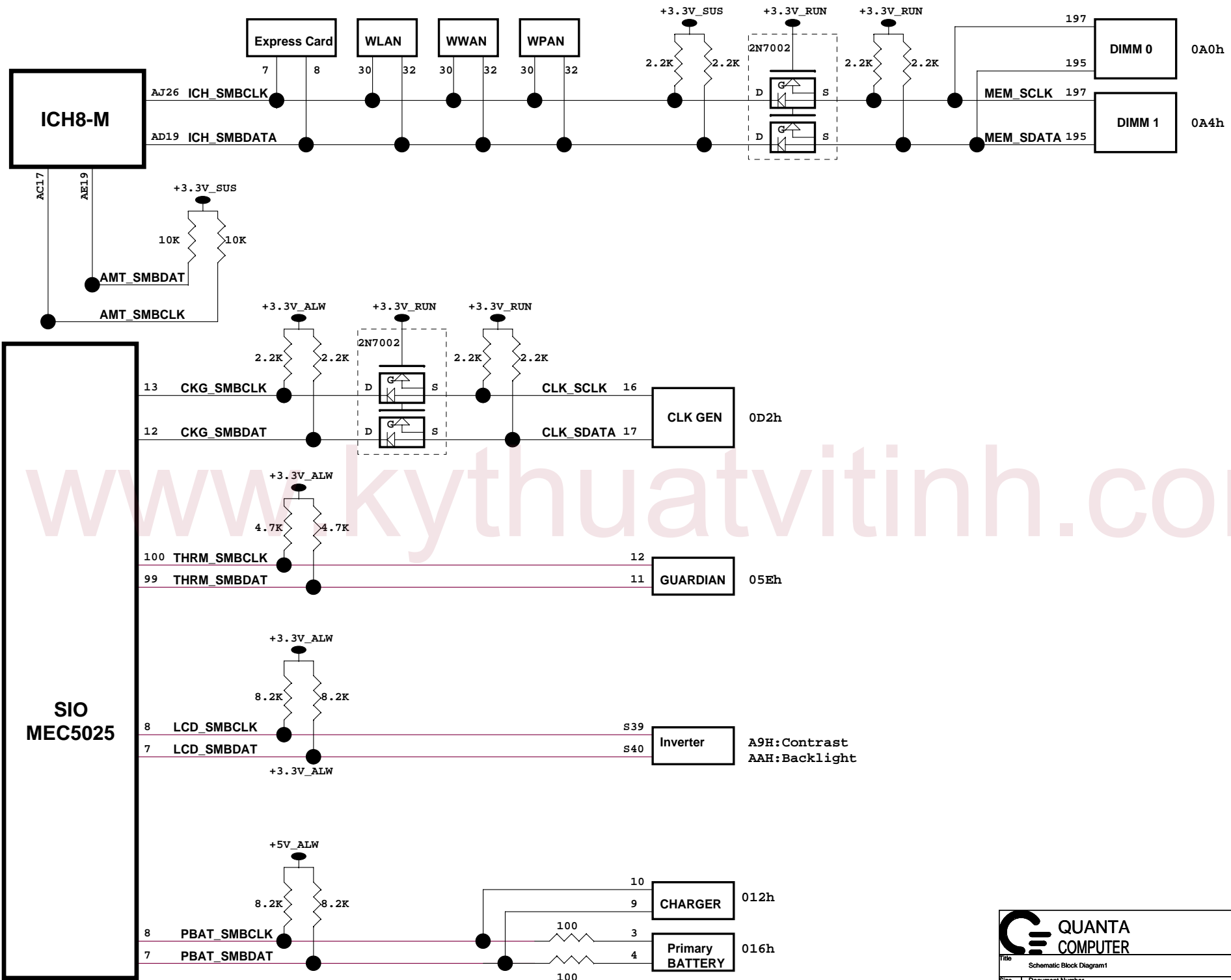
PCI TABLE

PCI DEVICE	IDSEL	REQ#/GNT#	PIRQ
BCM4401B	AD16	REQ#0 / GNT#0	PIRQB
R5C833	AD17	REQ#1 / GNT#1	PIRQC: Card reader PIEQD: 1394

ICH8-M	USB PORT#	DESTINATION
	0	Right Top
	1	Right Bottom
	2	Side TOP
	3	Side Bottom
	4	Ext. USB TOP
	5	Digital Camera
	6	Express Card
	7	WPAN/Bluetooth
	8	Ext. USB Bottom
ECE 5011	9	WWAN
	1	None
	2	None
	3	None
	4	None

PCI EXPRESS	DESTINATION
Lane 1	MINI CARD-1 WWAN
Lane 2	MINI CARD-2 WLAN
Lane 3	MINI CARD-3 WPAN
Lane 4	Express Card
Lane 5	None
Lane 6	None





www.kythuatv tinh.com



Model	Item	Page	Date	Rev.	Description
C & G UMA	1	P.3	0619	1A	Update no populated ITP schmatic per ref. Intel checklist V:1.201a. And added ITP to XDP implement txt.
	2	P.23,25,46	0620	1A	Update Screw hole per ME update.
	3	P.17	0620	1A	Update SRC CLK per followed Discrete schematic changed.
	4	P.12	0620	1A	Swap RP21.2, RP21.3, RP52.3, RP52.4, RP52.6 net for layout requirement.
	5	P.15,16	0620	1A	Swap RP14.2, RP14.4, JDIM2.136, JDIM2.137, JDIM2.141, JDIM2.143 per layout requirement.
	6	P.13,28	0620	1A	Change USIO2.28 net name from SIO_S4_STATE# to TP_DET# and delete U25.AH27.
	7	P.18	0620	1A	Update +LCDVCC circuit per ref. CD_Diag_0619.ppt file.
	8	P.33	0620	1A	Added AUX_LCD_CBL_DET#, INVERTER_CBL_DET#, LCD_CBL_DET Pull-up resistor.
	9	P.13,28	0620	1A	Delete WOL_EN of U25.AG19 and R571. Changed USIO2.94 net-name from WOL_EN to EC_ENVDD per ref BITS WI74741.
	10	P.32	0620	1A	Update JSPK1 and added SPK DET. PU Resistor.
	11	P.28	0620	1A	Delete R479 per ref BITS WI75517
	12	P.24,28	0620	1A	Added WoWL power SW circuit per ref BITS WI74552.
	13	P.6	0620	1A	Delete all of NC pins connected to test pad per ref. BITS issue WI75504.
	14	P.6	0620	1A	Populate R1, R5, R9 per implement ITP function.
	15	P.31	0621	1A	DAT_TP_SIO & CLK_TP_SIO pull up to +3.3V_ALW, Added PU to +3.3V_ALW for TP_DET#.
	16	P.33	0621	1A	Correction LCD_CBL_DET pull up circuit.
	17	P.11,30	0621	1A	Change RTC_BAT_DET# PU resistor from 10K to 100K and moved to P.30
	18	P.11,32	0621	1A	Change SPEAKER_DET# PU resistor from 10K to 100K and moved to P.32
	19	P.24,25	0621	1A	Change Mini card DET. PU resistor from 10K to 100K.
	20	P.29	0621	1A	Delete PBAT_ALERT# per M08 GPIO table removed.
	21	P.39-45	0621	1A	Update power schematic per ref power team updated schematic.
	22	P.22	0622	1A	Per TaiSol suggest, the CD2/WP2 is a dynamic pin; CD1 is a fixed pin, CD2 will touch CD1 when SD card insert into connector
	23	P.22	0622	1A	After discussion with the TaiSol's FAE, pin-1 must connect to GND
	24	P.20	0622	1A	Ricoh check result: UDIO3 & UDIO4 apply NC required. Removed pull high resistor from UDIO3 and UDIO4.
	25	P.20	0622	1A	Ricoh check result: INTA# and INTB# interrupt line change required. Please apply PCI_PIRQC# interrupt line for INTA#, PCI_PIRQD# interrupt line for INTB#
	26	P.21	0622	1A	Ricoh check result: Shield GND for XTAL for XO/XI Please apply shield GND for XTAL for XO/XI to reduce external noise for XTAL.
	27	P.12,20	0627	1A	Changed REQ2/GNT2 to REQ1/GNT1 and swap PIRQD/PIRQC for C&G card reader+1394.
	28	P.12,35	0627	1A	Changed REQ3/GNT3 to REQ0/GNT0 and change PIRQB for C&G LOM.
	29	P.35	0629	1A	L90 changed to BLM11A601.
	30	P.24,25	0629	1A	Update PCI-E chennals. Update WPAN LED signal circuit.
	31	P.23	0629	1A	Delete SATA power2 for ref. Discrete schematic.
	32	P.9	0629	1A	De-populate C1 per Intel review update.
	33	P.13	0629	1A	Delete ICH_CL_RST1# per Intel review.Delete AMT_SMBCLK & AMTSMBDAT per not support AMT function.
	34	P.39	0703	1A	Added ALW power transfer circuit per power changed.
	35	P.25	0703	1A	Change ESD2 from CDA6C05GTH to SRV05-4 per refer Dawson schematic update.
	36	P.40-45	0704	1A	Power update schematic.
	37	P.29	0705	1A	The net name of IMVP6_PROCHOT# is for pin32 not for pin33. So, I change the the net name of IMVP6_PROCHOT# from pin 33 to pin 32.
	38	P.27	0707	1A	Ref Discrete schematic, changed the pin define of JCAMERA2 between pin 5 & pin6



Model	Item	Page	Date	Rev.	Description
C & G UMA	39	P.26	0707	1A	Ref Discrete schematic, Move R24 and C25 to DB.
	40	P.26	0707	1A	Ref Discrete schematic, Move R317 and C405 to DB.
	41	P.26	0707	1A	Ref Discrete schematic, Move C293 and C396 to DB.
	42	P.27	0707	1A	Ref Discrete schematic, Add a fuse on U64
	43	P.27	0707	1A	Ref Discrete schematic, Add a fuse on U67
	44	P.32	0707	1A	Ref Discrete schematic, added a net name SPEAKER_DET# on U21.4. Delete off-page connection from JSPK1.
	45	P.11	0707	1A	Ref Discrete schematic, deleted off-page connection from U25.AE10
	46	P.32	0707	1A	Ref Discrete schematic, added an offpage connection name SPDIF_SHDN on U21.30.
	47	P.37	0707	1A	Ref Discrete schematic, changed LED schematic of BT based on Discrete schemaitc. Remove U72, R23, D6 and Q7. Add Q?, R? and D? on page 37.
	48	P.29	0707	1A	Ref Discrete schematic, USIO.98 pull up to +3.3V_ALW through a 10k ohm.
	49	P.29	0707	1A	Ref Discrete schematic, USIO.66 pull up to +3.3V_ALW through a 10k ohm.
	50	P.29	0707	1A	Ref Discrete schematic, USIO.76 pull up to +3.3V_ALW through a 10k ohm.
	51	P.29	0707	1A	Ref Discrete schematic, USIO.29 pull up to +3.3V_ALW through a 10k ohm.
	52	P.29	0707	1A	Ref Discrete schematic, USIO.28 pull up to +3.3V_ALW through a 100k ohm.
	53	P.21	0710	1A	Per vendor check result, UDIO3 and UDIO4 pull-up resistor through a 10K ohm. (UDIO3 pull-up: SD enabled, UDIO4 pull-up: MMC enabled)
	54	P.24	0711	1A	Ref Discrete schematic, connect 0 ohm from J10 pin 22 to Sourth Bridge SB_WLAN_PCIE_RST#.
	55	P.12	0711	1A	Ref Discrete schematic, U25B.F18: change the net name from PCI_GNT2# to SB_WLAN_PCIE_RST#; Add 20K pull down resistor at U25B pin F18
	56	P.24	0711	1A	Ref Discrete schematic, connect 0 ohm from J9 pin 22 to Sourth Bridge SB_MCARD3_PCIE_RST#.
	57	P.12	0711	1A	Ref Discrete schematic, U25B.F8: connect 0 ohm population option to J9.22. GPIO table suggests that we add 20k pull down. Dis NO.
	58	P.25	0711	1A	Ref Discrete schematic, connect 0 ohm from J16 pin 22 to Sourth Bridge SB_WWAN_PCIE_RST#.
	59	P.12	0711	1A	Ref Discrete schematic, U25B.B19: change the net name from PCI_REQ2# to SB_WWAN_PCIE_RST#; Add 20K pull down resistor at U25B pin B19
	60	P.25	0711	1A	Ref Discrete schematic, UIM_DATA: add a 100pF(NC) capacitor at the point nearest the SIM connector.
	61	P.25	0711	1A	Ref Discrete schematic, change the net name of J16 pin 40 from USB_MCARD3_DET# to USB_MCARD2_DET#
	62	P.24	0711	1A	Ref Discrete schematic, change the net name of J9 pin 40 from USB_MCARD2_DET# to USB_MCARD3_DET#
	63	P.33	0711	1A	Ref Discrete schematic, Reserve SN74LVC1G125DBVR buffer and Add 0 ohm between buffer input and output pin for AUD_DMIC_CLK
	64	P.31	0711	1A	Ref Discrete schematic, Remove R451 between JTP1 pin 1 and +3.3V_ALW
	65	P.19	0711	1A	Ref Discrete schematic, Remove RP45,Q54 and Q55 from G_DAT_DDC2 and G_CLK_DDC2
	66	P.32	0711	1A	Per GG item 7 and Discrete schematic, C&G can remove this reserve circuit without no docking support. U59 pin1 pull down 10K. EC pin79 NC. Del R867
	67	P.19	0711	1A	Per GG item 7 and Discrete schematic, C&G can remove this reserve circuit without no docking support. U59 pin1 pull down 10K. EC pin79 NC. Del R867
	68	P.29	0711	1A	Per GG item 7 and Discrete schematic, C&G can remove this reserve circuit without no docking support. U59 pin1 pull down 10K. EC pin79 NC. Del R867
69	P.32	0711	1A	Ref Discrete schematic, Reserve R603 and C315 at U21 pin 33	
70	P.32	0711	1A	Ref Discrete schematic, Reserve R441,C394 and C312 at U21 pin 1.	
71	P.32	0711	1A	Ref Discrete schematic, Remove 3.3V_LAN_PWRGD circuit.	
72	P.27	0712	1A	Ref Discrete schematic, Add common choke	
73	P.26	0712	1A	Common choke and capacitor move to DB, delete L25,R145,R142,C180,C183,C656,C654,C198.	
73	P.28 P.3	0712	1A	Ref Discrete schematic, USIO2.17 change the net name from DDR_ON to EC_CPU_PROCHOT# Ref Discrete schematic, U9.D21 connect to EC_CPU_PROCHOT# through a 0 ohm.	



Title EMI & Screw hole		
Size	Document Number C & G UMA	Rev 2A
Date: Friday, January 19, 2007	Sheet 50	of 60

Model	Item	Page	Date	Rev.	Description
C & G UMA	74	P.28	0712	1A	Ref Discrete schematic, Add net name ALW_PWRGD_3V_5V on USIO.18 Per GPIO table, Del. RC circuit. 100K and 0.1 uF.
	75	P.28 P.13	0712	1A	Ref Discrete schematic, USIO2.27 change the net name from SIO_SLP_S4# to DDR_ON and then add a 100k pull down. U25.AF21: change to TEST PAD
	76	P.28	0712	1A	Ref Discrete schematic and GG item 41, AUX_EN_WOWL add 100K pull down
	77	P.28	0712	1A	Ref Discrete schematic, change net name IMVP_PWRGD from USIO2 pin3 to USIO2 pin43.
	78	P.28	0712	1A	Ref Discrete schematic, add a off-page connection at USIO2 pin66
	79	P.28 P.13	0712	1A	Ref Discrete schematic, SB side add test pad. EC side ME_EC_ALERT change net name to LOM_SMB_ALERT# reserver pull high.
	80	P.28	0712	1A	Ref Discrete schematic, USIO2 pin 3 change signal name to DOCK_SMB_PME# and Add Pull up to +3.3V_ALW by 10K resister.
	81	P.28	0712	1A	Ref Discrete schematic, USIO2 pin 4 reserve 10K NC resister Pull high to +3.3V_ALW.
	82	P.28 P.18	0712	1A	Per GPIO pin table 0.1, UMA Use "LCDVCC_TST_EN" signal name for LCD TST. Change net name from EC_ENVDD to LCDVCC_TST_EN.
	83	P.28	0712	1A	Per Dell's Diag implementation and ref Discrete schematic, USIO2 pin 28 add 10K resister Pull high to +3.3V_ALW.
	84	P.32 P.29	0712	1A	Per GG list, AUD_HP_NB_SENSE/NB_MUTE# come into a AND gate output to U22 pin22 HP EN. Delete AUD_HP_NB_SENSE from USIO1 pin 81.
	85	P.29	0712	1A	Ref Discrete schematic, Delete R658 between USIO1 and NB_MUTE#
	86	P.29	0712	1A	Ref Discrete schematic, Add Pull down 100K.
	87	P.29	0712	1A	Ref Discrete schematic, USIO1 pin 95 add a off-page connection named WLAN_RADIO_DIS#
	88	P.29	0712	1A	Ref Discrete schematic, Add a TEST PAD on USIO1.35
	89	P.29 P.31	0712	1A	Ref Discrete schematic, USIO1 pin 61 Add 100K ohm and 0.047uF cap. RC circuit to +3.3V_ALW and serial 10 ohm resister. Change net name of JTP1 from LID_CL_SIO# to LID_CL#
	90	P.29	0712	1A	Ref Discrete schematic, delete net name DOCK_SIO_ALERT# from RP59
	91	P.29	0712	1A	Ref Discrete schematic, USIO1 pin 75 pull down through a 100k.
	92	P.29 P.23	0712	1A	Ref Discrete schematic, USIO1 pin 31 add an off-page connection named MODC_EN# Ref Discrete schematic, Reserve MODC_EN# circuit.
	93	P.12	0712	1A	Ref Discrete schematic, U25C pin AE19 pull high to +3.3V_SUS
	94	P.12	0712	1A	Ref Discrete schematic, U25C pin AC17 pull high to +3.3V_SUS
	95	P.12	0712	1A	Ref Discrete schematic, U25C pin AG21 pull high to +3.3V_SUS Ref Discrete schematic, add a off-page connection at AG21
	96	P.12	0712	1A	Ref Discrete schematic, add a off-page connection at F4
	97	P.12	0712	1A	Ref Discrete schematic, U25.AJ18 reserve 8.2K pull up to +3.3V_RUN
	98	P.12	0712	1A	Per GG list, DOCKED# should pull high to +3.3V_SUS.
	99	P.25	0712	1A	Ref Discrete schematic, delete off-page connection ICH_LAN_RST# and add TEST PAD
	100	P.12	0712	1A	Ref Discrete schematic, U25 pin AG19 pull down through a 100k
101	P.17	0712	1A	Added C788-C793 per GG updated.	
102	P.34	0712	1A	Added VCP2 circuit per GG updated.	
103	P.6	0713	1A	TV_DCONSEL_0 & TV_DCONSEL_1 connected to GND.	
104	P.11	0713	1A	Update LAN function circuit per ref Discrete update.	
105	P.12	0713	1A	SB_LOM_PCIE_RST# Pull High to +3.3V_RUN per ref GPIO recommend. SB_NB_PCIE_RST# pull down per refer Discrete added.	
106	P.13	0713	1A	Change SIO_EXT_SMI# pull up power from +3.3V_ALW to +3.3V_SUS.	
107	P.17	0713	1A	Update CLK Gen. circuit per GG & Discrete update.	



**QUANTA
COMPUTER**

Title EMI & Screw hole		Rev 2A
Size	Document Number C & G UMA	
Date: Friday, January 19, 2007	Sheet 51 of 60	

Model	Item	Page	Date	Rev.	Description
C & G UMA	108	P.17	0713	1A	Update CLK Gen. circuit per GG & Discrete update.
	109	P.18	0713	1A	Update LVDS power control method per ref JM7.
	110	P.19	0713	1A	Update SPDIF CIRCUIT per ref Discrete & GG.
	111	P.24,25	0713	1A	Update WLAN,WPAN,WWAN circuit per GG requirement.
	112	P.26	0713	1A	Update MDC_RST_DIS# circuit per GG requirement.
	113	P.27	0713	1A	Correction USB connector side signals name.
	114	P.28,29	0713	1A	Update SIO circuit per ref GG requirement and GPIO list.
	115	P.32,33	0713	1A	Update Audio,AMP,SPK circuit per refer GG.
	116	P.39	0713	1A	Populated PC10,PC13,PC63,PC66 per GG requirement.
	117	P.39-45	0713	1A	Power updated schematic.(File name changed to FM5 MB UMA-0714_JM-5)
	118	P.46	0714	1A	Per ME's drawing, add clips.
	119	P.31	0714	1A	Depopulate RP61 per GG requirement
	120	P.27	0714	1A	Added C313 & C323 per GG requirement.
	121	P.6	0714	1A	Populate R411 per GG requirement.
	122	P.17	0714	1A	Populate R487 per GG requirement
	123	P.11,30	0714	1A	Changed RTC_BAT_DET# PU from P.30 to P.11 per GG requirement.
	124	P.12	0714	1A	Changed SB_LOM_PCIE_RST# to PD. Delete PCI_PIRQA# off page symbol.
	125	P.13	0714	1A	Added R529, De-pop R655, R657, C936 per GG requirement.
	126	P.16	0714	1A	Added C690,C702 per GG requirement.
	127	P.24	0714	1A	Populate Q67 per support Sniffer function.
	128	P.31	0714	1A	Removed C3 & R436 to DB per GG requirement.
	129	P.24	0717	1A	De-populate WoWL power SW circuit.
	130	P.17	0717	1A	Removed R429 & R859 per Vendor review update.
	131	P.9,28,38,39	0718	1A	Removed +1.8V_RUN power for UMA no need.
	132	P.31	0718	1A	Populate RP61 per provide TP AMB BUS driving.
	133	P.6,12,24 25,26,28	0718	1A	Split PLTRST to 2 single gate. PLTRST1# for WWAN?WLAN/WPAN/Express Card. PLTRST2# for MCH/SIO.
	134	P.37	0719	1A	Added BT circuit.
	135	P.25	0719	1A	De-populate C1249 per ref JM7 schematic update.
	136	P.39-45	0720	1A	Power update schematic.
	137	P.9	0720	1A	Added R429,R436,R456,R461 pull up/down for Crestline sighting report V:9.0 P.16 update.
138	P.6,12,28	0720	1A	Change net name from PLTRST2# to PLTRST# for same as Discrete.	
139	P.14	0720	1A	Change R253 package from 0402 to 0603.	
140	P.29	0724	1A	Delete R927, Change R929 value from 12K/F to 10K per SMSC revier updated.	
141	P.28	0724	1A	Changed R325&R265 vlaue from 1M to 47K per SmSC review updated.	
142	P.31	0724	1A	Added Media board LED control signal cirfuit, changed enable signals to low active per GG updated.	
143	P.29,33	0724	1A	Added CCD control power circuit, DMIC filter circuit, USB common choke circuit, per GG requirement.	
144	P.23	0724	1A	Added R927 and R595. Depopulate R917,R918 per GG updated.	
145	P.6	0724	1A	LCTLA_CLK/LCTLA_DATA changed to connect GND per GG updated.	
146	P.27,29	0724	1A	Change Signal net from Gilligan USB EN# to USB_BACK2_EN# per GG updated.	
147	P.24	0724	1A	Change Signal net PCIE_MCARD3_DET#/USB_MCARD3_DET# PU to +3.3V_SUS per GG updated.	
148	P.39-45	0725	1A	Update power schematic for layout requirement and checked updated.	
149	P.29	0727	1A	Added R647 for BC_DAT pull-up per Dell requirement.	
149	P.28,29	0727	1A	Update GPIO table per DELL update A12 include ITP_DBRESET# / BEEP / PS_ID	



Title EMI & Screw hole		
Size	Document Number C & G UMA	Rev 2A
Date:	Friday, January 19, 2007	Sheet 52 of 60

Model	Item	Page	Date	Rev.	Description
C & G UMA	1	24	9/18/2006	2A	Add SMBus isolation circuitry for WLAN.Add isolation circuitry for SMBus on WLAN.
	2	37	9/18/2006	2A	Update footprint name of D8.
	3	39- 45	9/21/2006	2A	Per Power schematic 0920, update power schematic.
	4	27	10/02/2006	2A	Update footprint name of JUSB2, and change to 8 pin.
	5	12	10/02/2006	2A	Delete ICH_USBP8+ and ICH_USBP8-
	6	19	10/02/2006	2A	Update footprint name of JVGA1.
	7	31	10/02/2006	2A	Update footprint name and QCI PN of JTP1.
	8	25	10/02/2006	2A	Update footprint name and QCI PN of JSIM1.
	9	11&23	10/16/2006	2A	Changed SATA port1 to port2 for Gilligan used.
	10	18	10/16/2006	2A	De-populate C45&C46 for LCD SMBUS rise/fall time issue.
	11	12&24	10/16/2006	2A	Update USB ports assignment
	12	18	10/16/2006	2A	Update LVDS per EMC requirement.
	13	35	10/23/2006	2A	Added L47, Change R66 to bead, Change L7 vlaue, Change C42, C69, C143, C145, C56, C114, C124, C144, C102, C126, C57, C146, C109, C70, C55, C148 pre Dell RF EMI requirement.
	14	36	10/23/2006	2A	Added L46 and changed C376 value for Dell RF EMI requirement.
	15	13	10/24/2006	2A	Change R67 value from 100K to 10K per GG list checked. Because GPIO update, Delete R67 by change item 49.
	16	34	10/24/2006	2A	Change R360 power up rail from +5V_SUS to +3.3V_SUS pwe GG updated.
	17	28 & 33	10/24/2006	2A	Per change Sniffer control same as M07 of GG list, Change Q55, Q56 from 3904 to DTA114YUA, delete R131, R132, R524, R525.
	18	28	10/24/2006	2A	Change R188&R189 value from 1M to 2.7K per GG requirement.
	19	23	10/24/2006	2A	Change HDD EN control power rail from +5V_ALW to +5V_ALW2 per GG requirement.
	20	13	10/24/2006	2A	Depopulate R329 and change R92 value from 10K to 8.2K per GG requirement.
	21	17	10/24/2006	2A	Change Single End serial damping value for fine tune value per GG requirement.
	22	11&37	10/25/2006	2A	Changed the LED control method. Move SATA LED mask to P.37. 1109 JM: Corrected LED of WLAN circuit.
	23	13	10/25/2006	2A	Depopulate R342, R352 per GG requirement.
	24	46	10/25/2006	2A	Pop C377, C407, C428, C383, C398, C10, C25, C319, C387 with 0.1uF caps for GG requirement
	25	24 & 25	10/25/2006	2A	Remove C252, C157, C253 per Mini-card no used +3V_LAN.
	26	24	10/25/2006	2A	Add R541 and non-populate for GG requirement, Changed PD on P.28
	27	24	10/25/2006	2A	Added 2 TP for GG requirement.
	28	25	10/25/2006	2A	Added R542 and non-populate per GG requirement.
	29	24 & 37	10/25/2006	2A	Moved the LED_MASK# circuit to 37 and followed GG to update BT LED control method, for this change, added R543,R544, Q67,Q68. Change Q11 from DTA114YUA to 2N7002W-7-F. Change R383 from 10K to 100K. Change R128 from 220 to 2K.
	30	24	10/25/2006	2A	Change the net of pin 5 of J4 from "COEX1_BT_ACTIVE" to "COEX1_BT_ACTIVE_Mini" per GG requirement.
	31	37	10/25/2006	2A	Change the net of pin 6 of J2 from "COEX1_BT_ACTIVE" to "COEX1_BT_ACTIVE_DC" pre GG requirement
	32	37	10/25/2006	2A	Added U34 Circuit per GG requirement.
	33	33	10/25/2006	2A	Update Audio DB BTB circuit per update connector pin define.
	35	11	10/27/2006	2A	Change CODEC bitclk with 10 ohm damping resistor per GG requirement.
	36	24	10/27/2006	2A	Added "BT_ACTIVE#" with 0_NC on J3.46 per GG requirement.
	37	17	10/27/2006	2A	Change RP10 from 33 to 10, RP3, RP5 from 33 to 22 per EA updated.
	38	17	10/27/2006	2A	Pop C71, C395, C113, C108, C104, C116 with 22p caps per GG requirement.
	39	39	10/27/2006	2A	Change +3.3V_SUS & +5V_SUS EN power up to +5V_ALW2 per GG requirement.
	40	32	10/27/2006	2A	Change C331, 332 to 0.033uF/16V/X7R/1206 & C351, C354 to 1uF/16V/X7R/1206 per Gg requirement.
	41	29	10/27/2006	2A	Depopulate EC non control resistor. Dell don't agree to do it.
	42	28	10/27/2006	2A	Depopulate EC non control resistor. Dell don't agree to do it.
	43	13&28	10/27/2006	2A	Per GPIO A14, changed U11.AG22 to LOM_SMB_ALERT#.
	44	28&29	10/27/2006	2A	Per GPIO A14, Swap DOCK_SMB_ALERT# and DOCK_SMB_PME.



Title		EMI & Screw hole	
Size	Document Number	Rev	
	C & G UMA	2A	
Date:	Friday, January 19, 2007	Sheet	53 of 60

Model	Item	Page	Date	Rev.	Description
C & G UMA	45	28&38	10/27/2006	2A	Per GPIO A14, changed USIO1.14 to ATI_Intel. Delete 3.3V_LAN_PWRGD.
	46	28&32	10/27/2006	2A	Reserved the AUD_AMP_MUTE# for 'PO' noise back up solution.
	47	28 & 38	10/27/2006	2A	Per GPIO A14, swap USIO1.18 & USIO1.29. Base on Dawson, delete '3V_5V_SUS_PWRGD' and added TP.
	48	29&13	10/27/2006	2A	Per GPIO A14, change USIO2.66 to PWRUSB_OC#. CCD_VDD_ON changed to U11.AD10.
	49	13	10/27/2006	2A	Per GPIO A14, change U11.AC19 to SIO_EXT_SCI#.
	50	29&37	10/27/2006	2A	Per Comm. requirement, Change USIO2.25 & J2.5 net-name from "BT_RADIO_DIS#" to "BT_RADIO_DIS_DC#"
	51	13	10/30/2006	2A	Change LOM_SMB_ALERT# PU to +3.3V_SUS per GG requirement.
	52	28	10/30/2006	2A	Change R183,R184 to 7.5K per EA fine tune requirement.
	53	9	10/30/2006	2A	Change L39 to BLM18PG101SN1D and added C629 for Intel requirement.
	54	39-45	10/30/2006	2A	Power update schematic.
	55	29	10/30/2006	2A	Added 5021 co-layout schematic.
	56	13 & 24	10/30/2006	2A	Update WPAN_RADIO_DIS_MINI# circuit.
	57	23	10/30/2006	2A	Change SATA RX caps from DB to MB.
	58	14	11/01/2006	2A	Chnage R205 from 100 to 10 per GG requirement.
	59	39	11/01/2006	2A	Change PC52 to 4700pF pre GG requirement.
	60	24	11/01/2006	2A	Depopulate R156 & C173 & C158 per WWAN requirement.
	61	23&24	11/01/2006	2A	Added C649, C650, C651, R541, R561, R562 on CLK_REQ# per EMI requirement.
	62	32	11/01/2006	2A	Populate C639 and changed to 0.1uF per EMI requirement.
	63	39-45	11/02/2006	2A	Update power schematic1102-1 per power update.
	64	17	11/03/2006	2A	Added 0_0402 RSV resistor per EMI requirement.
	65	46	11/03/2006	2A	Added 2EMI spring for EMI requirement.
	66	17	11/07/2006	2A	Leverage JM7 to added ferri bead on FSA for EMI solution. PT used 0ohms for fine tune.
	67	17	11/07/2006	2A	Change R319 to 2.2K per Intel recommend value.
	68	34	11/07/2006	2A	De-populate Q48 to prevent thermal strip issue.
	69	12	11/08/2006	2A	Added C652 for EMI solve CCD USB issue.
70	32	11/08/2006	2A	Added U35 & R541 per audio 'po' issue reserved.	
71	17	11/09/2006	2A	Reserve L65 and used 0 ohms for Dawson check 14M noise emilination solution	
72	14,19,31, 37,38,39	11/09/2006	2A	Reserve PR66 (0 ohms) for RF concern 14M noise coupling from +5V_RUN power trace.	
73	23	11/09/2006	2A	Added decoupling caps of +5V_HDD for Cosica.	
74	12	11/10/2006	2A	Added OC# docupling caps per refer Dawson solution to avoid 48MHz noise.	
75	11,32	11/10/2006	2A	For 'PO' noise, change SPEAKER_DET# from U18.4 to U11.AE10. Change U35.1 connection to U18.4.	



Model	Item	Page	Date	Rev.	Description
C & G UMA	38	17,35	01/10/2006	3A	Per fine-tune table, change R99 from 91ohm to 33 ohm,and pop R133 and change from 33 to 10, C104 change to 4.7P,Pop C147 and change to 8.2P
	39	12,17	01/10/2006	3A	Per fine-tune table, change R81 from 91ohm to 33 ohm,and pop R200 and change to 33,C108 change to 10P,Pop C320 and change to 9P.
	40	13,17	01/10/2006	3A	Per fine-tune table, change R95 from 100ohm to 33 ohm,and pop R94 and change to 33, C395 change to 1P, Pop C93
	41	14	01/10/2006	3A	Footprint not match, change footprint size of R149 from 0402 to 0603
	42	29	01/11/2006	3A	Per GG list item 31, Chnagne the net name of 112 as CHIPSET_ID1
	43	29	01/11/2006	3A	For ST board ID, Pop R163, Depop R164
	44	37	01/11/2006	3A	Per GG list item 33, Add 0ohm_NC(R571) resistor pad connected from Coex1_BT_Active_MINI to Coex1_BT_Active
	45	18	01/15/2006	3A	Per GG list item 38, change R22 from 470 ohme to 100 ohms for LCD on/off timing EA requirement.
	46	33	01/15/2006	3A	Per GG list item 35, change C670,C671 to 33P
	47	22	01/15/2006	3A	Per RICHO's check result, apply 270pF(NC) for SD_CD# and MS_CD#.
	48	6	01/16/2006	3A	Per GG list item 40, Change R427 from 2.4K to 3.3K
	49	32	01/17/2006	3A	Audio solution for pass EMI 225MHz and 451MHz radiation emission test. Added R572, R578, R579 and R580 on AUD_SPK_L1, AUD_SPK_L2, AUD_SPK_R1, AUD_SPK_R2 trace
	50	33	01/17/2006	3A	Audio solution for pass EMI 225MHz and 451MHz radiation emission test. Added R581, R582, R583 and R584 on AUD_LINE_OUT,AUD_HP_OUT
	51	32	01/17/2006	3A	Added L48, L49 on +.3.3V_RUN and +VADD -- 600 ohm power bead.
	52	27	01/17/2006	3A	USB device radiates strong R/W noise when the full device normal working,especially USB daughter board and PCI express card.we suggest EE solution as follow. Added C675, C676, C677, C678 150pF.
	53	13,17	01/17/2006	3A	Per fine-tune table, change R65 to 33 ohm,and depop C71,R157 change to 33,Pop C180 and change to 6.8P.
	54	40,45	01/18/2006	3A	FL3,FL4 and FL5: Change footprint size as RC1210 and PN to FBMH3225HM202NT
	55	40	01/18/2006	3A	Add FL7 between PQ31 and +PWR_SRC
	56	44	01/18/2006	3A	Add FL8 and FL9 between +3.3V_ALW and +3.3V_ALWP
	57	40	01/19/2006	3A	Remove FL7 between PQ31 and +PWR_SRC. Because there is no spacing for layout.
	58	44	01/19/2006	3A	Remove PJP12
	59	44	01/19/2006	3A	For current ration concern, add a FL10
	60	32	01/19/2006	3A	Based on David mail, The pin 1, 9 need to populate both 0.1 uF // 560pF in Codec's +3.3V run power node. Added one .1uF on pin 40 for EMI requirement.-JM(0119)
61	46	01/19/2006	3A	Update TH9,TH10,TH14,TH15 footprint for ESC concern.	
62	32	01/19/2006	3A	C331,C332 change PN to CH33306KL14	
63	28	01/19/2006	3A	R110 and R123 change to 1M	



Title EMI & Screw hole		
Size	Document Number C & G UMA	Rev 2A
Date:	Friday, January 19, 2007	Sheet 54 of 60

Model	Item	Page	Date	Rev.	Description
C & G UMA	1	29	21/12/2006	3A	Add R564,move the 'PLATFORM_BID' signal from SATA DB to MB
	2	34	21/12/2006	3A	Pop Q48, per JM's mail.
	3	35,36	21/12/2006	3A	Base on internal notice,Change L7,L46 P/N from CX8LM152000 to CX5LM152000;L47,R66 P/N from CX5LM152000 to CX8LM152000.
	4	17	21/12/2006	3A	Base on internal notice, L65: Change QCI PN from CS00003J951 to CX08T250000
	5	18	21/12/2006	3A	Base on internal notice, Delete location C26 at CH31004KB17
	6	37	21/12/2006	3A	Per "Reference Schematic & Checklist Updates" mail, Change R560 from 0 to 10K
	7	46	01/02/2006	3A	Add a TH.
	8	32,33	01/02/2006	3A	Per EMI request, to reserve the filtering components for MIC signals.
	9	22	01/02/2006	3A	Add a switch, to prevnet XD card no detect issue. 0110: Reserve R570
	10	39-45	01/02/2006	3A	Power update schematic.
	11	14	01/03/2006	3A	C482 change the footprint to CC0402-C.
	12	32	01/04/2006	3A	Per GG list item 2:add 100kohm resistor (R567) between pin 40 and +3.3V_RUN and a 1000pF cap (C672 below) from Pin 40 to ground
	13	28,29	01/04/2006	3A	Per GG list item 3:DOCK_SMB_PME# should be pulled up to +5V_ALW DOCK_SMB_ALERT# should be pulled up to +3.3V_ALW
	14	24	01/04/2006	3A	Per GG list item 6: add series resistors(0ohm) on host debug signal.
	15	24	01/05/2006	3A	Per GG list item 7: Change the pin BT_ACTIVE# to LED_WPAN#
	16	24	01/05/2006	3A	Per GG list item 10: Add a series 0ohm resistor on the trace of pin 46 of J3
	17	37	01/05/2006	3A	Per GG list item 11: Delete the offpage connection of BT_ACTIVE#
	18	37	01/05/2006	3A	Per GG list item 12:Add a 10K pull down on J2 pin2. and R190 100K NC.
	19	31	01/05/2006	3A	Per GG list item 13: Change TP MB connector JTP1 pin9 from +3.3V_RUN to +5V_ALW
	20	28	01/05/2006	3A	Per GG list item 17: NC R382
	21	29	01/05/2006	3A	Per GG list item 20: BIOS ROM 1M change to 2M
	22	32	01/05/2006	3A	Per GG list item 24: Pop R274
	23	17	01/05/2006	3A	Per GG list item 18: R96 change to 2.2K
	24	33	01/05/2006	3A	Per GG list item 19: CCD soft-start circuit correct and Add reserve 0 ohm for remove Camera VCCD_ON. JM: For layout placement spacing concern, I need removed R569,R570,R571,R572.
	25	12,27	01/05/2006	3A	Per GG list item 25: USB_OC4_8# channel separate
	26	46	01/08/2006	3A	Per Derating report, C383,C377,C398,C10,C25,C319,C387,C16,C19,C324 change part number to CH41004M912
	27	37	01/08/2006	3A	Per GG list item 15, R67 47K change to 0 ohm and R561 10K change to 47K.
	28	23	01/08/2006	3A	Per GG list item 1:+5V_ALW2 changes to +3.3V_ALW2 Pop R576, Depop R546
	29	12,13	01/08/2006	3A	Per GG list item 15: PCIE_MCARD2_DET# from GPIO20 to ICH8 GPIO5/PIRQH# pin B3.(GPIO20 add test pad)
	30	13	01/08/2006	3A	Per GG list item 15: Add R577 (4.7K) series resistor at ICH8 pin AH12 (USB_MCARD1_DET#).
	31	21	01/08/2006	3A	Depop C266, for R5C833
	32	30	01/08/2006	3A	Delete RTC battery PN for moving to ME BOM
	33	20,21	01/08/2006	3A	Change U15 PN from 5C832 to R5C833
	34	14,19,31 37,38,39	01/09/2006	3A	RF had request split +5V_RUN for 14MHz noise fine tune resistor PR66 on PT stage. Now removed PR66 and change net name from +5V_RUN2 to +5V_RUN.
	35	17	01/10/2006	3A	Per fine-tune table, change PR3 from 22 ohm to 10 ohm.
	36	17,28	01/10/2006	3A	Per fine-tune table, change R97 from 100ohm to 51 ohm,and pop R129,C113 change to 10P,Pop C141 and change to 2.2P
	37	17,20	01/10/2006	3A	Per fine-tune table, change R98 from 100ohm to 10 ohm,and pop R198 and change from 10 to 22, C116 change to 10P, Pop C215 and change to 1P



Title EMI & Screw hole		
Size	Document Number C & G UMA	Rev 2A
Date:	Friday, January 19, 2007	Sheet 55 of 60