14" &15.6" ULV + GS45 Block Diagram

Rev: X01

SMT LABEL P/N

POWER

1.5VSUS & 0.75VTT (RT8207A) PG 32	CHARGER (MAX8731A)) PG 29
CPU CORE(ADP3211A) PG 31	1.05_VCCP(OZ8116) PG 30
RUN POWER SW PG 33	Power Button PG 27
AC/BATT CONNECTOR PG 34	

CULV
956P (FCBGA8)/10W
PG 3,4

800 MHz FSB

NORTH BRIDGE
Cantiga-SFF GS 45
12W
PG 5,6,7,8,9,10

DMI

SOUTH BRIDGE
ICH-9M SFF
PG 11,12,13,14

- FAN & Thermal EMC1423 PG 24
- CLOCK SLG8SP513V PG 15
- DDR 3 SO-DIMM PG 16,17 — DDR 3 800/1066
- DDR3 SO-DIMM PG 16,17 — DDR 3 800/1066
- RGB → CRT CONN PG 19
- PCIE → PI3VDP411LSZDE PG 28 → HDMI → HDMI CONN. PG 28
- LVDS → LVDS + CCD CONN PG 18
- RJ45/Magnetics PG 25 — Giga LAN RTL8111DL PG 25 — PCIE
- Half MINI-CARD WLAN PG 22 — USB, PCIE
- USB → USB CONN x 2
- USB, PCIE → MINI-CARD WWAN → SIM Card PG 22
- SATA → HDD 2.5" Conn
- SATA → ODD 2.5" Conn
- SYSTEM POWER 3V/5V (PM6686TR)
- USB → Bluetooth Conn
- HDA → Audio Codec ALC272
  - SPK AMP TPA6017A3
    - SPK Conn
    - HP Jack MIC Jack

Daughter Board 1 PG 26

Daughter Board 2 PG 26
- Card Reader CONN. SD/MMC/SDHC — Card Reader RTS5159E — USB
- USB CONN x 1 — USB

LPC

- T/P Conn PG 23 — PS2
- Keyboard PG 23 — 17X8
- EC ITE 8502 PG 20 — SPI
- BIOS 2MB PG 21

QUANTA COMPUTER

Title	Index & Power Status	
Size	Document Number UM2 UMA	Rev 2A
Date: Tuesday, May 26, 2009	Sheet 1 of 36	

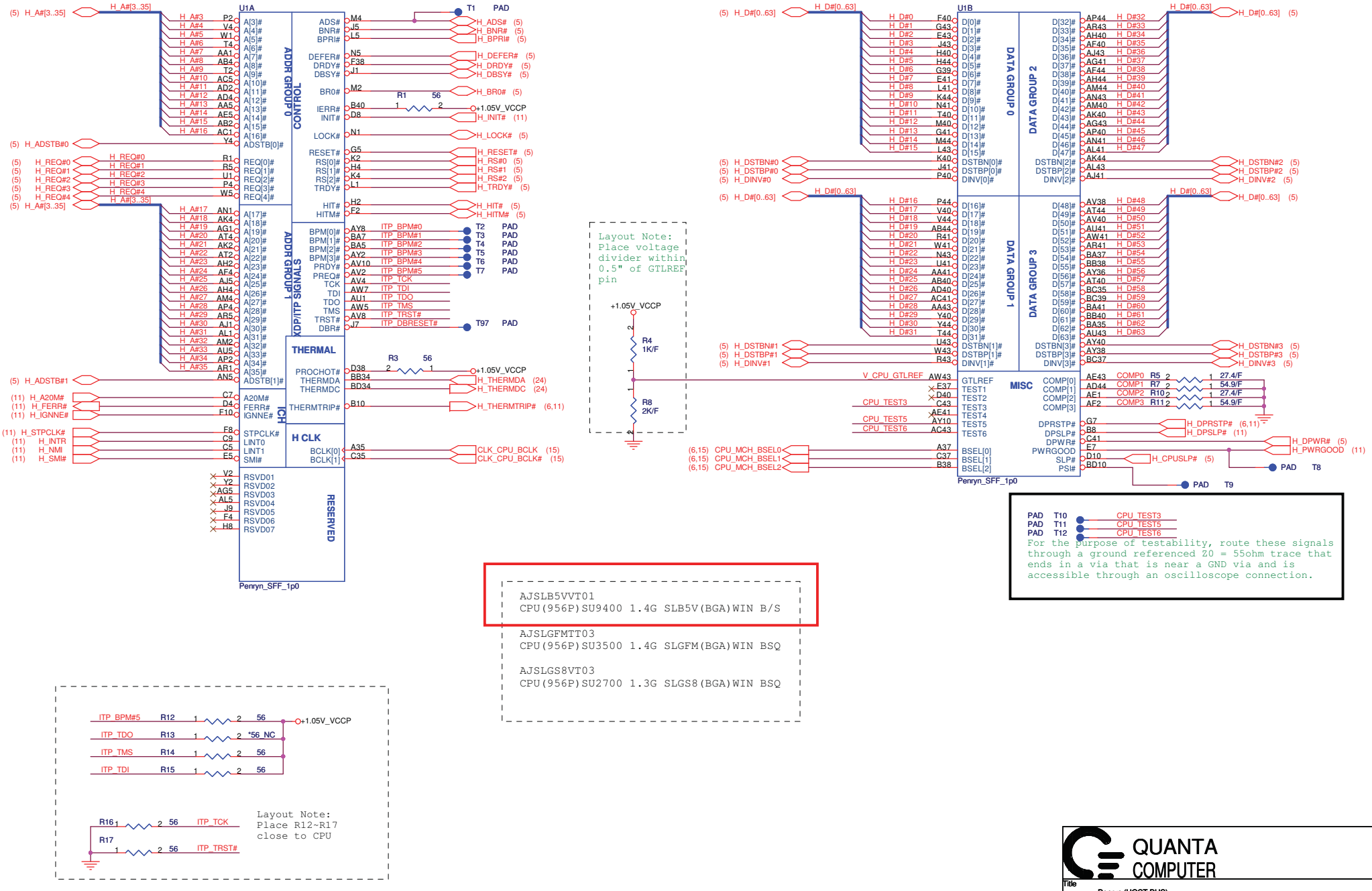
Table of Contents

POWER PLANE	VOLTAGE	PAGE	DESCRIPTION	CONTROL SIGNAL	ACTIVE IN
+PWR_SRC	10V~+19V	4,26,32,34,48,49,50,51,52,55	MAIN POWER		S0~S5
+RTC_CELL	+3.0V~+3.3V	11,14,31,32	RTC		S0~S5
+3.3V_ALW	+3.3V	3,13,26,31,32,34,36,37,38,44,46,49,52,53,54	8051 POWER	ALWON	S0~S5
+5V_ALW	+5V	35,36,46,48,49,52,53,54	LCD/CHARGE POWER	ALWON	S0~S5
+15V_ALW	+15V	26,36,37,52,53	LARGE POWER	+5V_ALW	S0~S5
+3.3V_LAN	+3.3V	42,43	LAN POWER	AUX_ON	
+5V_SUS	+5V	14,38,50,51,53	SLP_S5# CTRLD POWER	SUS_ON	
+3.3V_SUS	+3.3V	3,11,12,13,14,20,30,37,38,43,48,49,50,51,53	SLP_S5# CTRLD POWER	3.3V_SUS_ON	
+1.8V_SUS	+1.8V	6,8,9,15,48,49,50,53,55	SODIMM POWER	DDR_ON	
+0.9V_DDR_VTT	+0.9V	16,49,53	SODIMM POWER	0.9V_DDR_VTT_ON	
+5V_RUN	+5V	14,20,25,27,36,37,38,39,40,41,53	SLP_S3# CTRLD POWER	RUN_ON	
+3.3V_RUN	+3.3V	6,8,9,11,12,13,14,15,17,19,20,22,25,26,27,28, 30,33,34,36,38,39,40,41,42,53,55	SLP_S3# CTRLD POWER	3.3V_RUN_ON	
+1.8V_RUN	+1.8V	19,20,21,22,23,24,25,38,53	SDVO POWER	RUN_ON	
+1.5V_RUN	+1.5V	4,9,14,30,33,34,48,,53,55	CALISTOGA/ICH8 POWER	1.5V_RUN_ON	
+1.25V_RUN	+1.25V	6,9,14,49,53	CALISTOGA/ICH8 POWER	1.25V_RUN_ON	
+1.05V_VCCP	+1.05V	3,4,5,6,8,9,11,14,37,48,55	CPU/CALISTOGA/ICH8 POWER	1.05V_RUN_ON	
+VCC_CORE	+0.7V~+1.5V	4,51	CPU CORE POWER	IMVP_VR_ON	
+LCDVCC	+3.3V	26	LCD Power	LCDVCC_TST_EN & ENVDD	
+5V_MOD	+5V	36	Module Power	MODC_EN#	
+5V_HDD	+5V	36	HDD Power	HDDC_EN#	
+5V_ALW2	+5V	37,38.52,53	LED power source	LDO output	

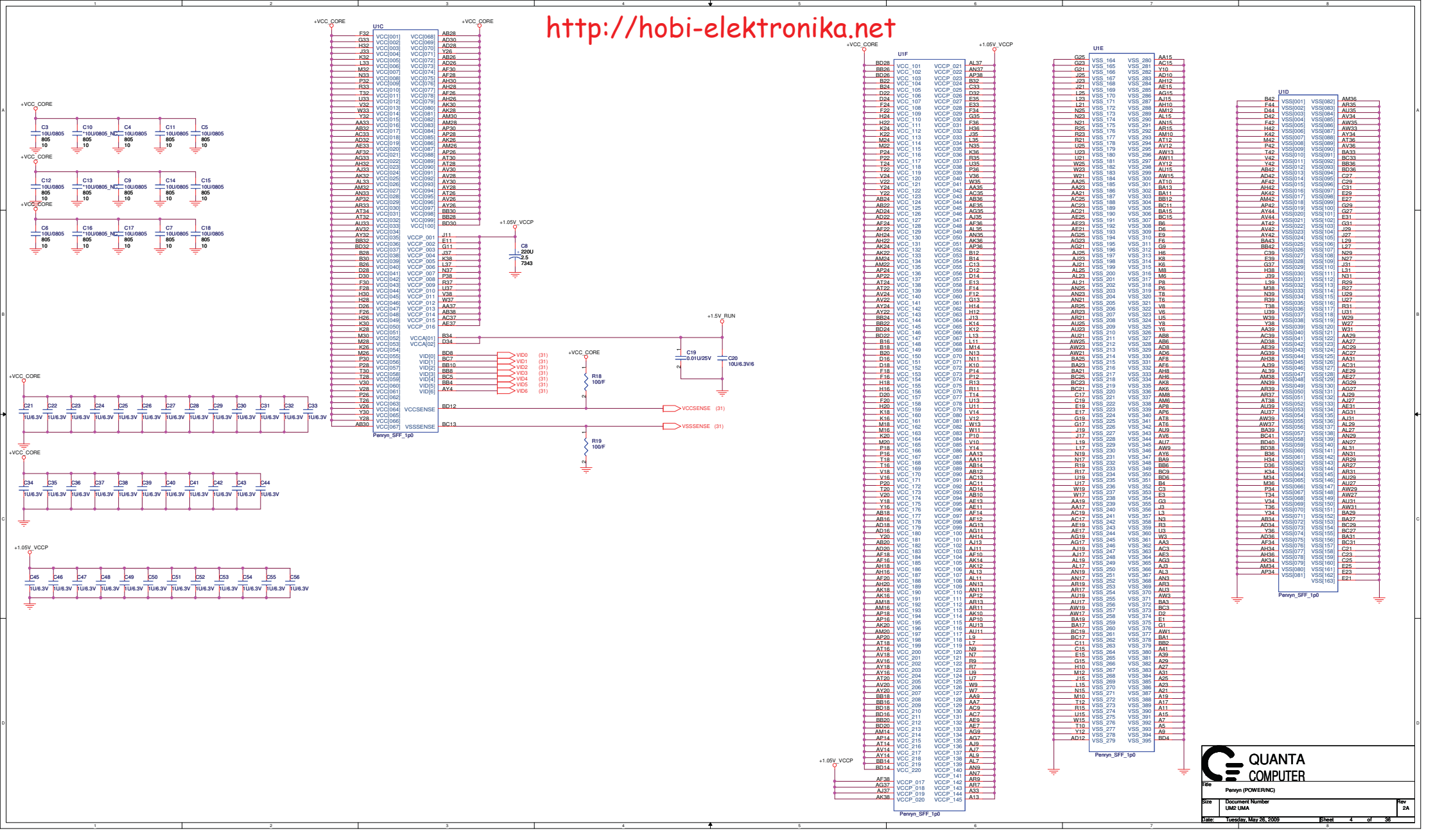
GND PLANE	PAGE	DESCRIPTION
8731AGND	46	
AGND_0.9V	49	
AGND_DC/DC	52	
AGND_DC2	48	
AGND_DDR	49	
AGND_ISL6260	51	
GND	ALL	

QUANTA COMPUTER

Title	Index & Power Status	
Size	Document Number: UM2 UMA	Rev: 2A
Date: Tuesday, May 26, 2009	Sheet 2 of 36	

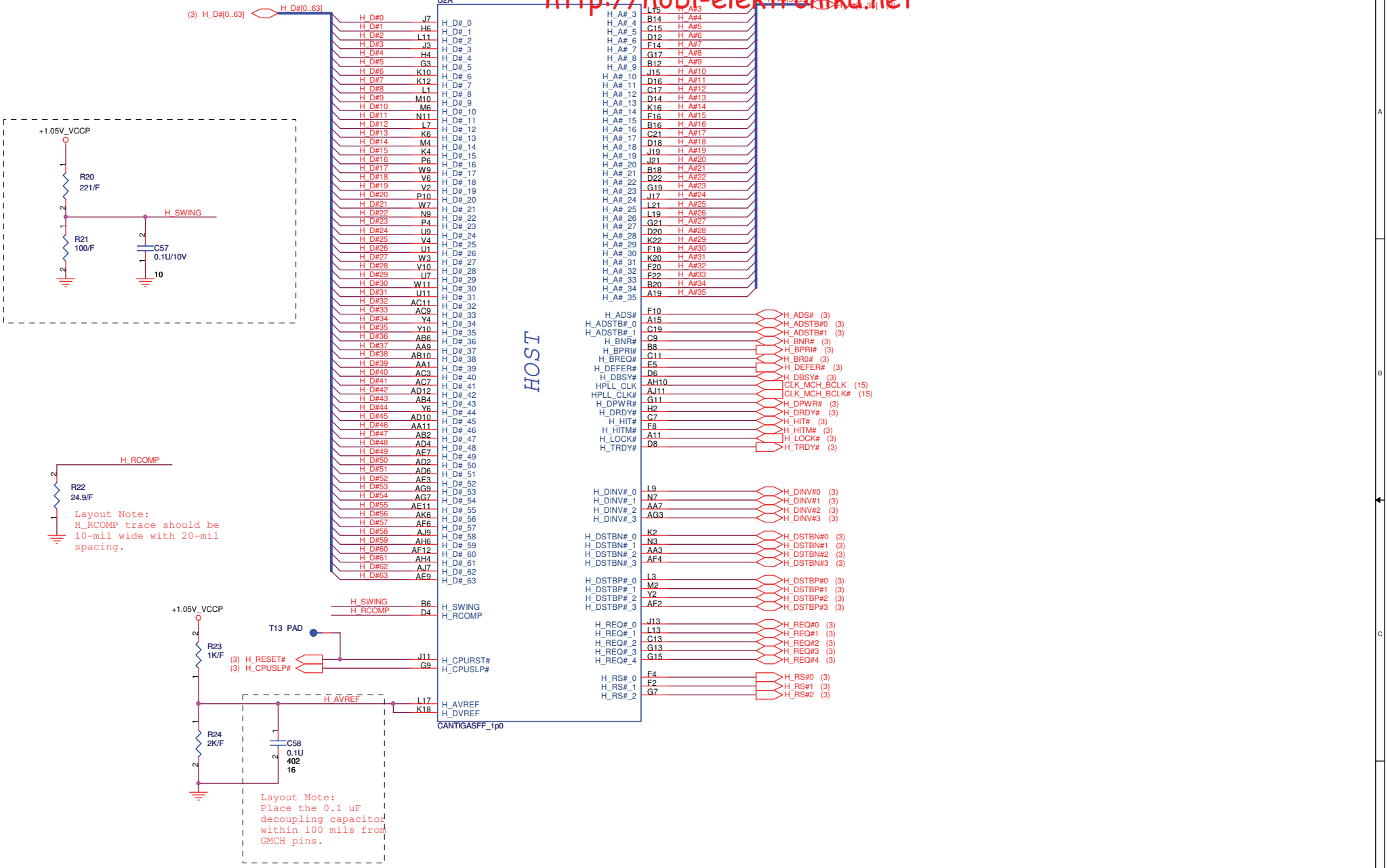


Title	Penryn (HOST BUS)		
Size	Document Number: UM2 UMA		Rev: 2A
Date:	Tuesday, May 26, 2009	Sheet 3 of 36	



Title	Pennyn (POWER/NC)
Size	Document Number: UM2 UMA; Rev: 2A
Date:	Tuesday, May 26, 2009
Sheet	4 of 36

QUANTA COMPUTER



QUANTA COMPUTER

Title	Cantiga_A (HOST)	
Size: Custom	Document Number: UM2 UMA	Rev: 2A
Date: Tuesday, May 26, 2009	Sheet 5 of 36	

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

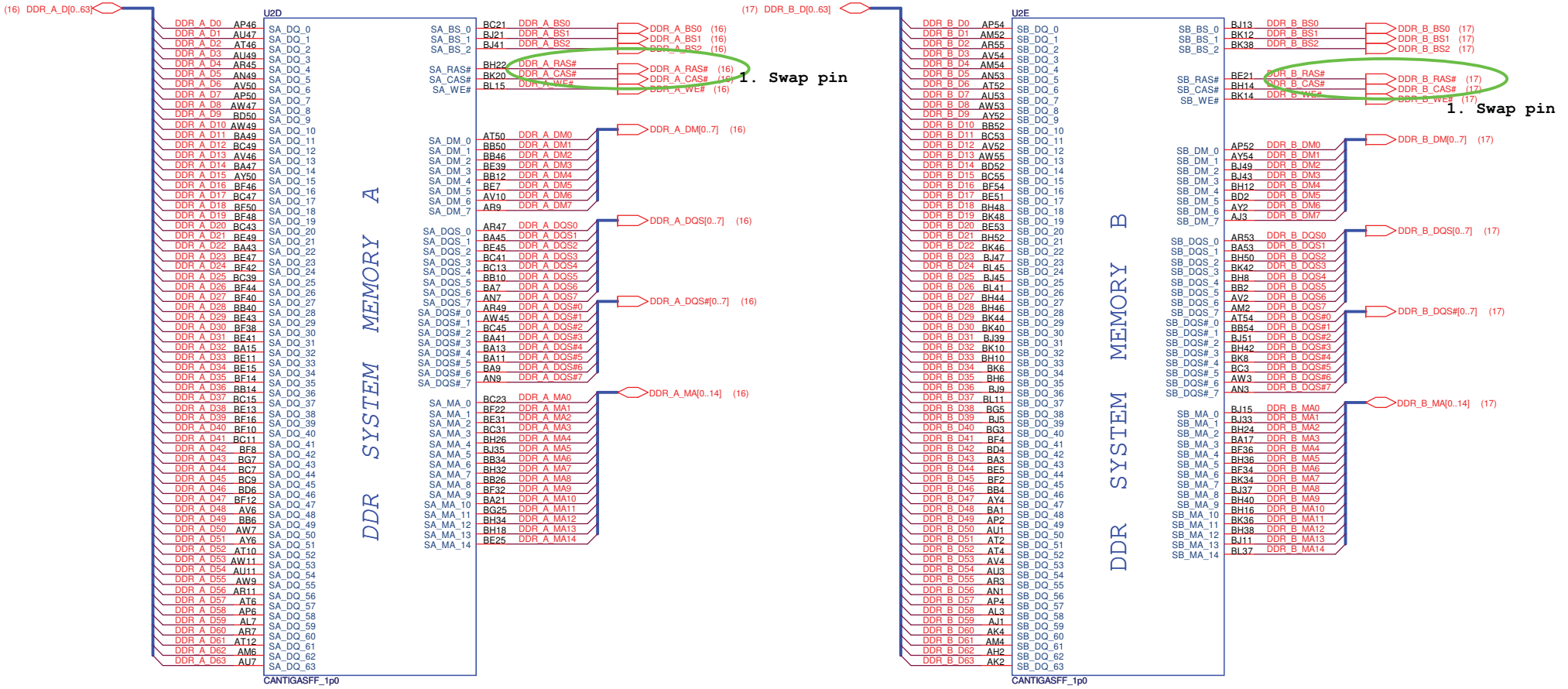
CFG5	DMI X2 Select	Low=DMIx2 High=DMIx4(Default)
CFG9	PCI Express Graphic Lane	Low= Reveise Lane High=Normal operation
CFG16	FSB Dynamic ODT	Low=Dynamic ODT Disable High=Dynamic ODT Enable(default).
CFG19	DMI Lane Reversal	Low=Normal(default). High=Lane Reversed
CFG20	SDVO/PCIE Concurrent Operation	Low=Only SDVO or PCIEx1 is operational (defaults) High=SDVO and PCIEx1 are operating simultaneously via PEG port
SDVO_CTRL_DATA	SDVO Present.	Low=No SDVO Device Present (default) High=SDVO Device Present

SDVO/HDMI/DP Configuration	SDVO_CTRLDATA	DDPC_CTRLDATA
PEG	0	0
PEG	0	1
SDVO Enabled	1	0
SDVO/HDMI/DP Enabled	1	1

DDPC_CTRL_DATA & SDVO_CTRL_DATA straps should both be high to enable DisplayPort.

QUANTA COMPUTER

Title	Cantiga_B (VGA,DMI)	
Size	Document Number UM2 UMA	Rev 2A
Date: Tuesday, May 26, 2009	Sheet 6 of 36	



QUANTA COMPUTER		
Title: Cantiga_C (DDR3)		
Size	Document Number: UM2 UMA	Rev: 2A
Date: Tuesday, May 26, 2009	Sheet 7 of 36	

U2G

+1.5V_SUS

VCC_SM_1 BB36
VCC_SM_2 BE35
VCC_SM_3 AW34
VCC_SM_4 AW32
VCC_SM_5 BK30
VCC_SM_6 BH30
VCC_SM_7 BF30
VCC_SM_8 BD30
VCC_SM_9 BB30
VCC_SM_10 AW30
VCC_SM_11 BL29
VCC_SM_12 BJ29
VCC_SM_13 BG29
VCC_SM_14 BE29
VCC_SM_15 BC29
VCC_SM_16 BA29
VCC_SM_17 AY29
VCC_SM_18 BK28
VCC_SM_19 BH28
VCC_SM_20 BF28
VCC_SM_21 BD28
VCC_SM_22 BB28
VCC_SM_23 BL27
VCC_SM_24 BJ27
VCC_SM_25 BG27
VCC_SM_26 BE27
VCC_SM_27 BC27
VCC_SM_28 BA27
VCC_SM_29 AY27
VCC_SM_30 AW26
VCC_SM_31 BF24
VCC_SM_32 BL19
VCC_SM_33 BB16

VCC SM POWER

+1.05V_VCCP

W32 VCC_AXG_1
AG31 VCC_AXG_2
AE31 VCC_AXG_3
AD31 VCC_AXG_4
AC31 VCC_AXG_5
AA31 VCC_AXG_6
Y31 VCC_AXG_7
W31 VCC_AXG_8
AH29 VCC_AXG_9
AG29 VCC_AXG_10
AF29 VCC_AXG_11
AD29 VCC_AXG_12
AC29 VCC_AXG_13
AA29 VCC_AXG_14
Y29 VCC_AXG_15
W29 VCC_AXG_16
AH28 VCC_AXG_17
AG28 VCC_AXG_18
AE28 VCC_AXG_19
AA28 VCC_AXG_20
AH27 VCC_AXG_21
AG27 VCC_AXG_22
AE27 VCC_AXG_23
AD27 VCC_AXG_24
AC27 VCC_AXG_25
AA27 VCC_AXG_26
Y27 VCC_AXG_27
W27 VCC_AXG_28
AH25 VCC_AXG_29
AD25 VCC_AXG_30
AC25 VCC_AXG_31
W25 VCC_AXG_32
AJ24 VCC_AXG_33
AH24 VCC_AXG_34
AG24 VCC_AXG_35
AE24 VCC_AXG_36
AD24 VCC_AXG_37
AC24 VCC_AXG_38
AA24 VCC_AXG_39
Y24 VCC_AXG_40
W24 VCC_AXG_41
AM22 VCC_AXG_42
AL22 VCC_AXG_43
AJ22 VCC_AXG_44
AH22 VCC_AXG_45
AG22 VCC_AXG_46
AE22 VCC_AXG_47
AD22 VCC_AXG_48
AC22 VCC_AXG_49
AA22 VCC_AXG_50
AM21 VCC_AXG_51
AL21 VCC_AXG_52
AJ21 VCC_AXG_53
AH21 VCC_AXG_54
AD21 VCC_AXG_55
AC21 VCC_AXG_56
AA21 VCC_AXG_57
Y21 VCC_AXG_58
W21 VCC_AXG_59
AM16 VCC_AXG_60
AL16 VCC_AXG_61

VCC GFX

AG13 VCC_AXG_SENSE
AE13 VSS_AXG_SENSE

VCC_AXG_NCTF_1 T32
VCC_AXG_NCTF_2 U31
VCC_AXG_NCTF_3 T31
VCC_AXG_NCTF_4 R31
VCC_AXG_NCTF_5 U29
VCC_AXG_NCTF_6 T29
VCC_AXG_NCTF_7 R29
VCC_AXG_NCTF_8 U28
VCC_AXG_NCTF_9 U27
VCC_AXG_NCTF_10 T27
VCC_AXG_NCTF_11 R27
VCC_AXG_NCTF_12 U25
VCC_AXG_NCTF_13 T25
VCC_AXG_NCTF_14 R25
VCC_AXG_NCTF_15 U24
VCC_AXG_NCTF_16 U22
VCC_AXG_NCTF_17 T22
VCC_AXG_NCTF_18 R22
VCC_AXG_NCTF_19 U21
VCC_AXG_NCTF_20 T21
VCC_AXG_NCTF_21 R21
VCC_AXG_NCTF_22 AM19
VCC_AXG_NCTF_23 AL19
VCC_AXG_NCTF_24 AH19
VCC_AXG_NCTF_25 AG19
VCC_AXG_NCTF_26 AE19
VCC_AXG_NCTF_27 AD19
VCC_AXG_NCTF_28 AC19
VCC_AXG_NCTF_29 W19
VCC_AXG_NCTF_30 U19
VCC_AXG_NCTF_31 AM18
VCC_AXG_NCTF_32 AL18
VCC_AXG_NCTF_33 AJ18
VCC_AXG_NCTF_34 AH18
VCC_AXG_NCTF_35 AG18
VCC_AXG_NCTF_36 AE18
VCC_AXG_NCTF_37 AD18
VCC_AXG_NCTF_38 AC18
VCC_AXG_NCTF_39 AA18
VCC_AXG_NCTF_40 Y18
VCC_AXG_NCTF_41 W18
VCC_AXG_NCTF_42 U18
VCC_AXG_NCTF_43 T18
VCC_AXG_NCTF_44 R18

VCC GFX NCTF

VCC_AXG_62 AJ16
VCC_AXG_63 AH16
VCC_AXG_64 AD16
VCC_AXG_65 AC16
VCC_AXG_66 AA16
VCC_AXG_67 U16
VCC_AXG_68 T16
VCC_AXG_69 R16
VCC_AXG_70 AM15
VCC_AXG_71 AL15
VCC_AXG_72 AJ15
VCC_AXG_73 AH15
VCC_AXG_74 AG15
VCC_AXG_75 AE15
VCC_AXG_76 AA15
VCC_AXG_77 Y15
VCC_AXG_78 W15
VCC_AXG_79 U15
VCC_AXG_80 T15

VCC GFX

CANTIGASFF_1p0

+1.05V_VCCP

Layout Note:
370 mils from edge.

C72 220U/2.5V/73 7343 2.5
C73 22U/4V/8 805 4
C76 0.22U/10V/6 603 10
C74 0.22U/10V/6 603 10
C75 0.1U/10V 10

Layout Note:
Inside GMCH cavity.

Layout Note:
370 mils from edge.

+1.05V_VCCP

C80 22U/4V/8
C79 10U/6.3V/6
C78 1U/10V/6
C77 0.47U/10V/6
C81 0.1U/10V
C82 0.1U/10V

+1.5V_SUS

C86 220U/2.5V/73 7343 2.5
C83 22U/4V/8
C84 22U/4V/8
C85 0.1U/10V

VCCSM_LF1 AU45
VCCSM_LF2 BF52
VCCSM_LF3 BB38
VCCSM_LF4 BA19
VCCSM_LF5 BE9
VCCSM_LF6 AU9
VCCSM_LF7 AL9

VCC SM LF

C87 0.1U/10V
C88 0.1U/10V
C89 0.22U/10V/6
C90 0.22U/10V/6
C91 0.47U/10V/6
C92 1U/10V/6
C93 1U/10V/6

U2F

AT41 VCC_1
AR41 VCC_2
AN41 VCC_3
AJ41 VCC_4
AH41 VCC_5
AD41 VCC_6
AC41 VCC_7
Y41 VCC_8
W41 VCC_9
AT40 VCC_10
AM40 VCC_11
AL40 VCC_12
AJ40 VCC_13
AH40 VCC_14
AG40 VCC_15
AE40 VCC_16
AD40 VCC_17
AC40 VCC_18
AA40 VCC_19
Y40 VCC_20
AN35 VCC_21
AM35 VCC_22
AJ35 VCC_23
AH35 VCC_24
AD35 VCC_25
AC35 VCC_26
W35 VCC_27
AM34 VCC_28
AL34 VCC_29
AJ34 VCC_30
AH34 VCC_31
AG34 VCC_32
AE34 VCC_33
AD34 VCC_34
AC34 VCC_35
AA34 VCC_36
Y34 VCC_37
W34 VCC_38
AM32 VCC_39
AL32 VCC_40
AJ32 VCC_41
AH32 VCC_42
AE32 VCC_43
AD32 VCC_44
AA32 VCC_45
AM31 VCC_46
AL31 VCC_47
AJ31 VCC_48
AH31 VCC_49
AM29 VCC_50
AL29 VCC_51
AM28 VCC_52
AL28 VCC_53
AJ28 VCC_54
AM27 VCC_55
AL27 VCC_56
AM25 VCC_57
AL25 VCC_58
AJ25 VCC_59
AM24 VCC_60
N36 VCC_61

VCC CORE

CANTIGASFF_1p0

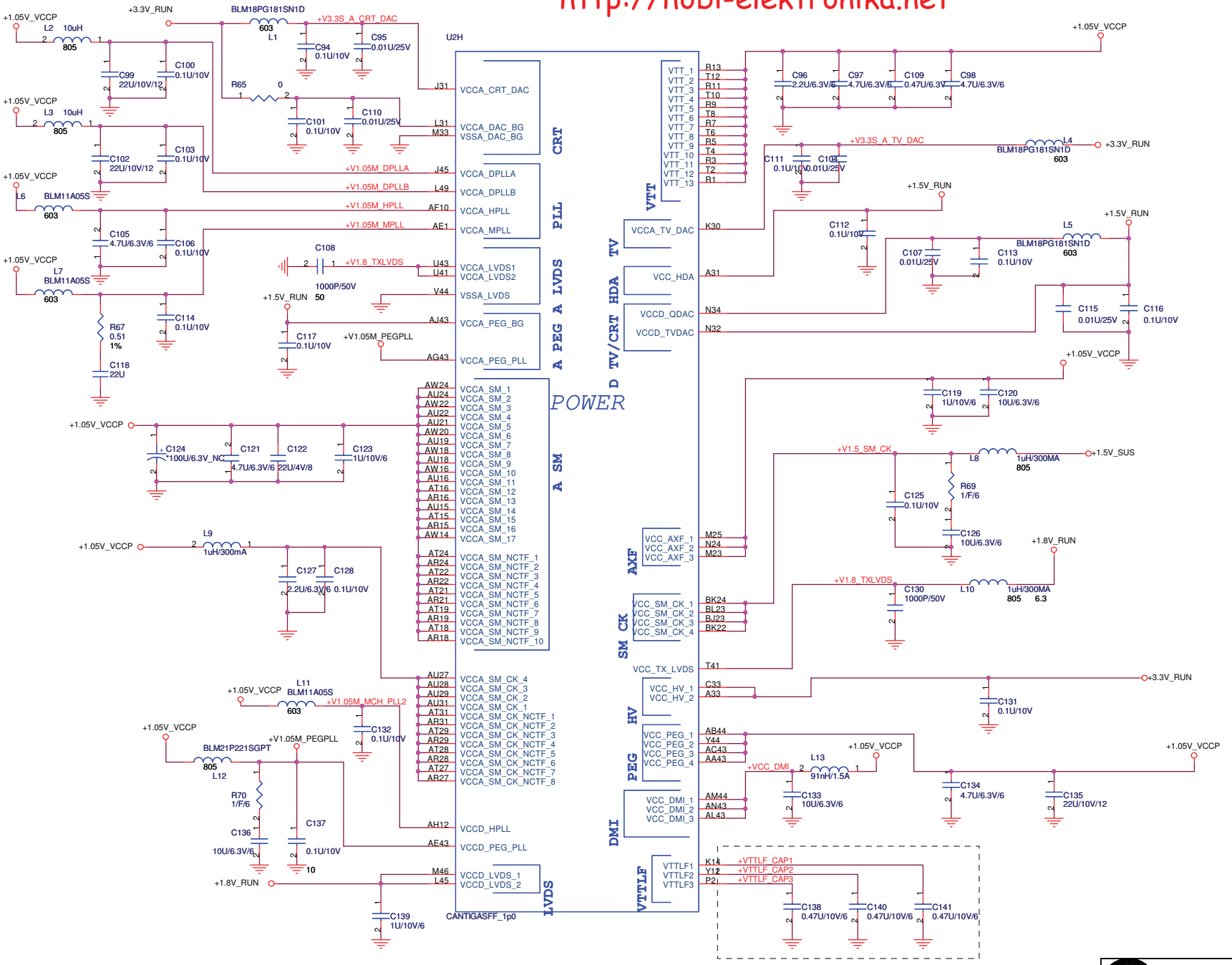
+1.05V_VCCP

VCC_NCTF_1 AT38
VCC_NCTF_2 AR38
VCC_NCTF_3 AN38
VCC_NCTF_4 AM38
VCC_NCTF_5 AL38
VCC_NCTF_6 AG38
VCC_NCTF_7 AE38
VCC_NCTF_8 AA38
VCC_NCTF_9 Y38
VCC_NCTF_10 W38
VCC_NCTF_11 U38
VCC_NCTF_12 T38
VCC_NCTF_13 R38
VCC_NCTF_14 AT37
VCC_NCTF_15 AR37
VCC_NCTF_16 AN37
VCC_NCTF_17 AM37
VCC_NCTF_18 AL37
VCC_NCTF_19 AJ37
VCC_NCTF_20 AH37
VCC_NCTF_21 AG37
VCC_NCTF_22 AE37
VCC_NCTF_23 AD37
VCC_NCTF_24 AC37
VCC_NCTF_25 AA37
VCC_NCTF_26 Y37
VCC_NCTF_27 W37
VCC_NCTF_28 U37
VCC_NCTF_29 T37
VCC_NCTF_30 R37
VCC_NCTF_31 AT35
VCC_NCTF_32 AR35
VCC_NCTF_33 U35
VCC_NCTF_34 AT34
VCC_NCTF_35 AR34
VCC_NCTF_36 U34
VCC_NCTF_37 T34
VCC_NCTF_38 R34

VCC NCTF POWER

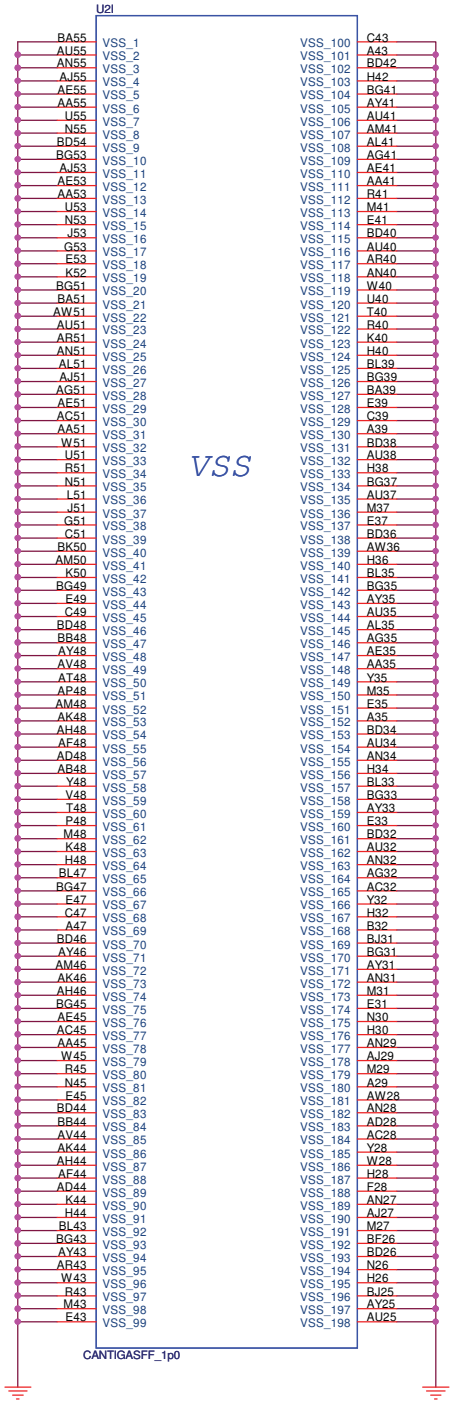
QUANTA COMPUTER

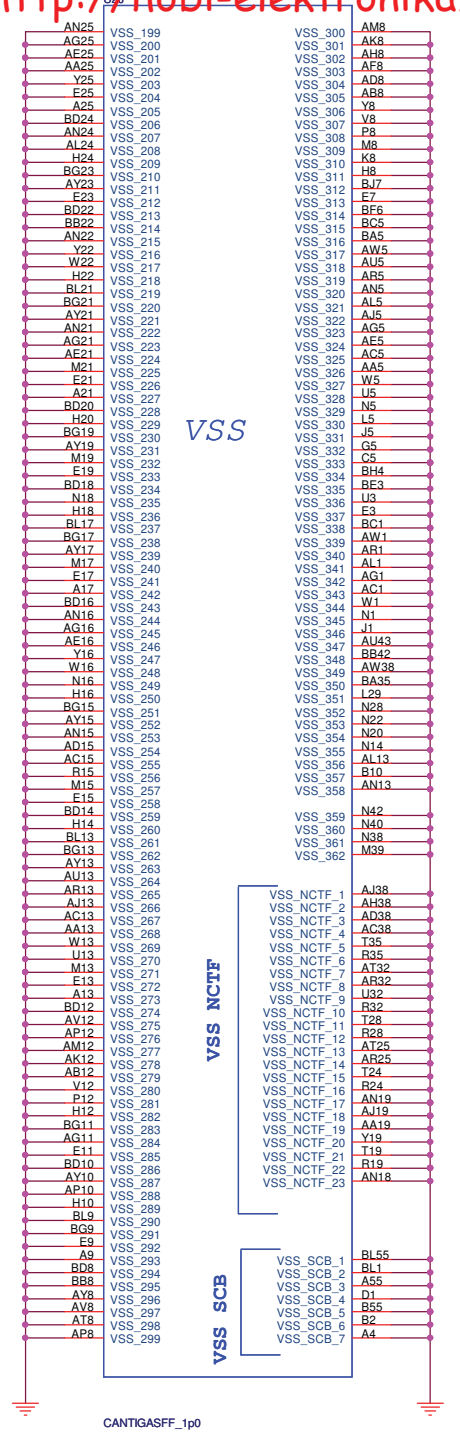
Title	Cantiga_D (VCC,NCTF)	
Size	Document Number UM2 UMA	Rev 2A
Date: Tuesday, May 26, 2009	Sheet 8 of 36	



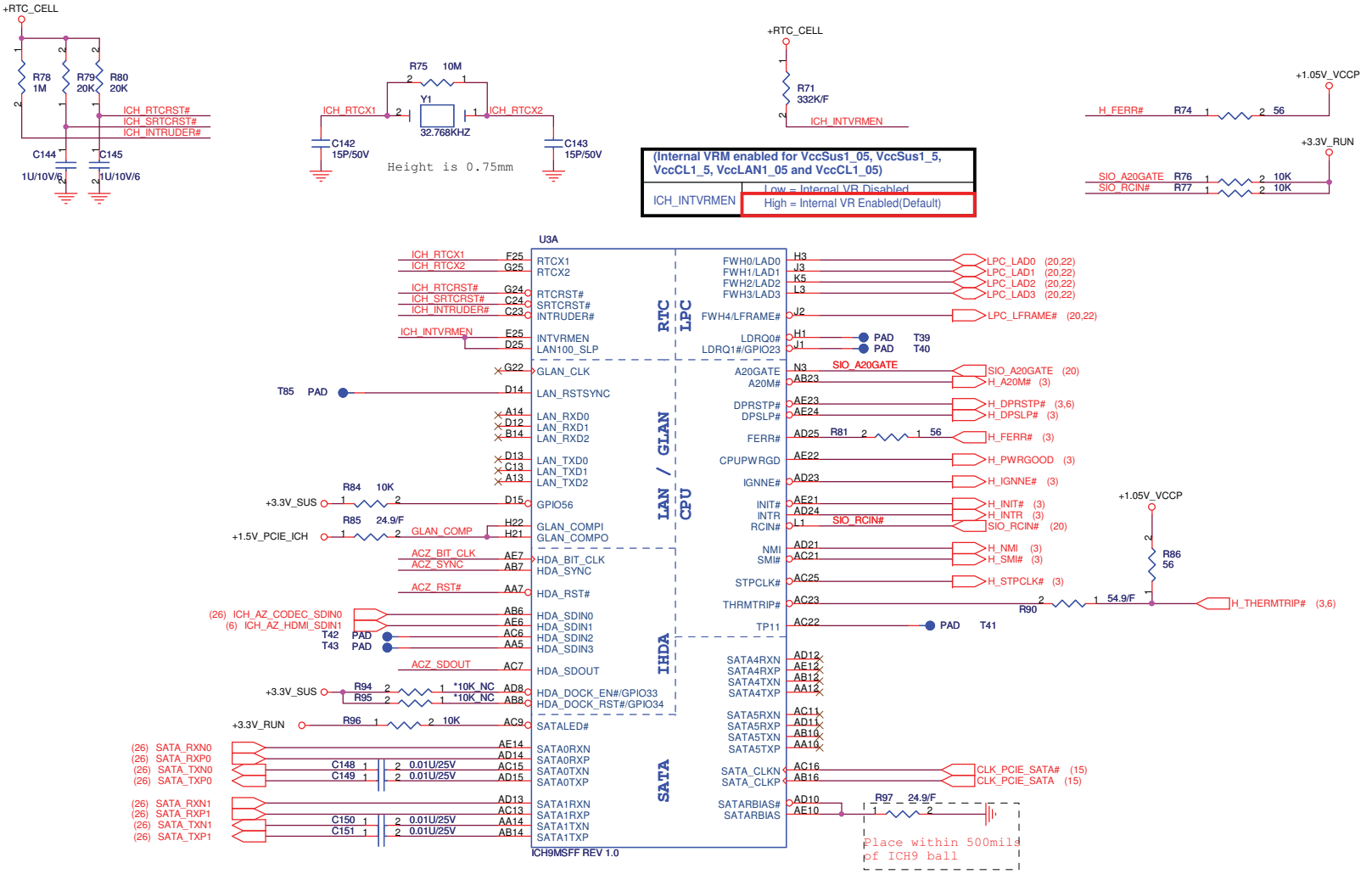
Title	Cantiga_E (POWER)	
Size	Document Number: UM2 UMA	Rev: 2A
Date: Tuesday, May 26, 2009	Sheet 9 of 36	

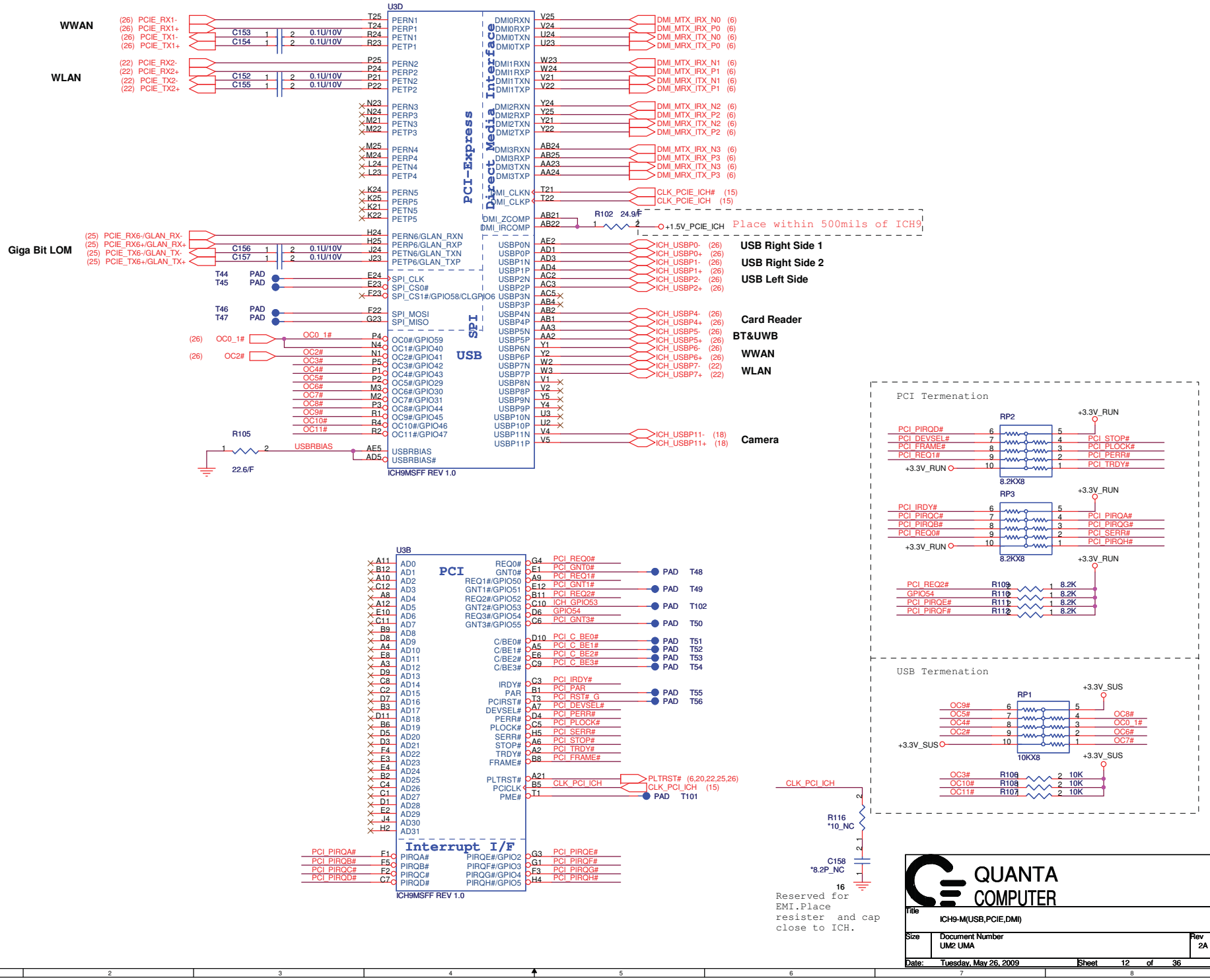
QUANTA COMPUTER

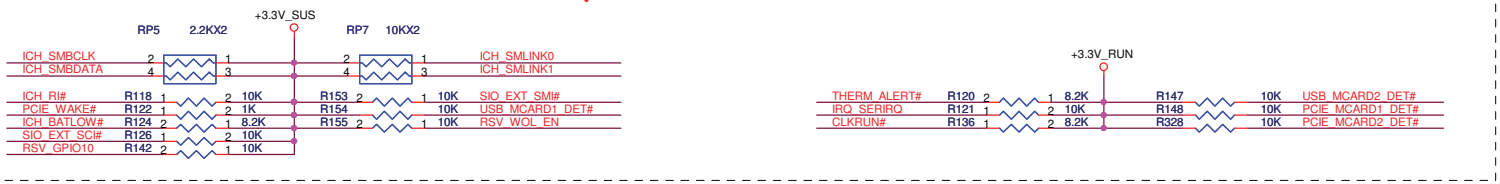


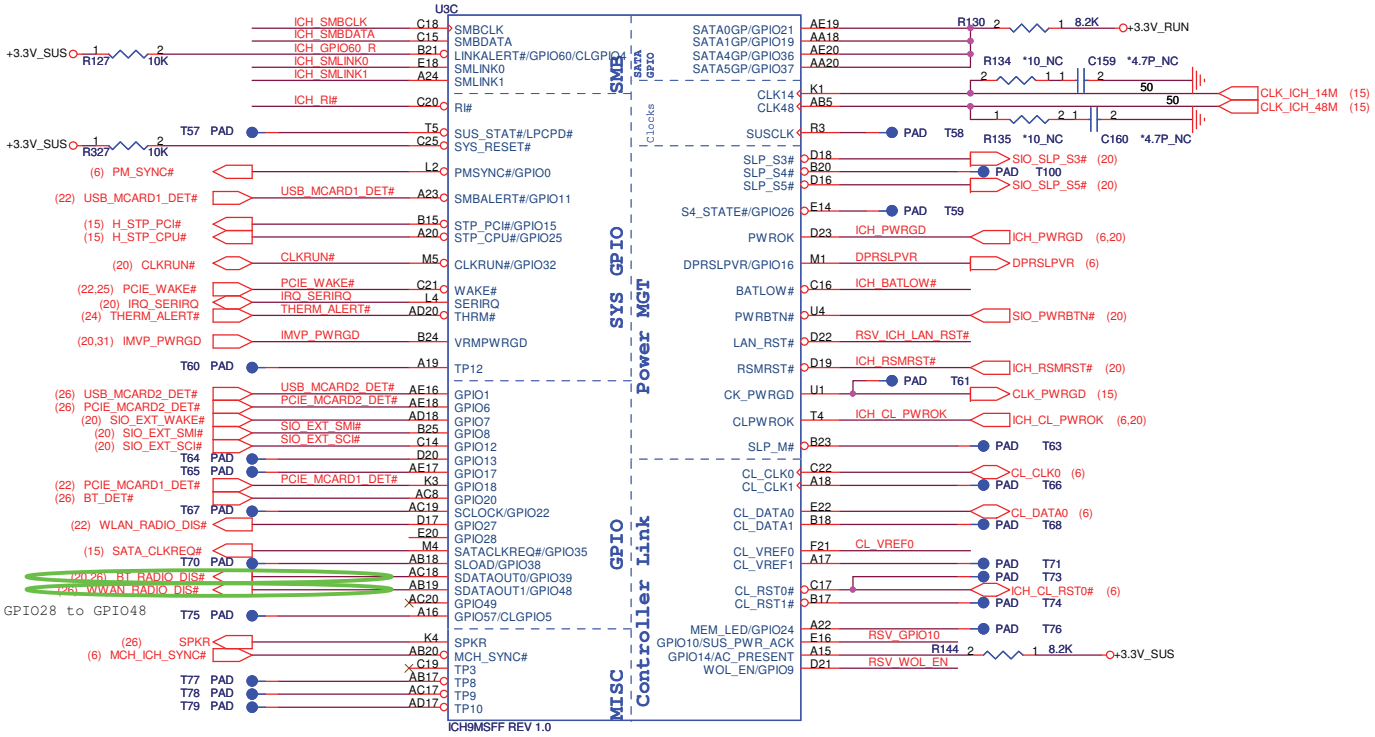


QUANTA COMPUTER		
Title: Cantiga_F (VSS)		
Size	Document Number: UM2 UMA	Rev: 2A
Date: Tuesday, May 26, 2009	Sheet 10 of 36	







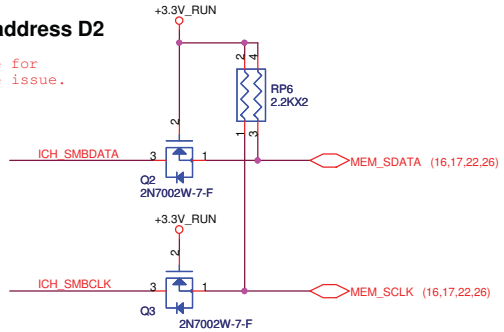


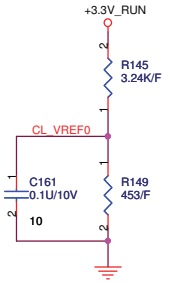
12. Change BT_RADIO_DIS# to SB

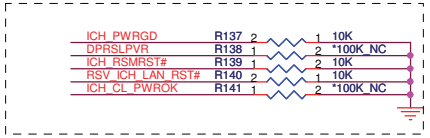
13. change WWAN_RADIO_DIS# from GPIO28 to GPIO48

SMbus address D2

These are for backdrive issue.

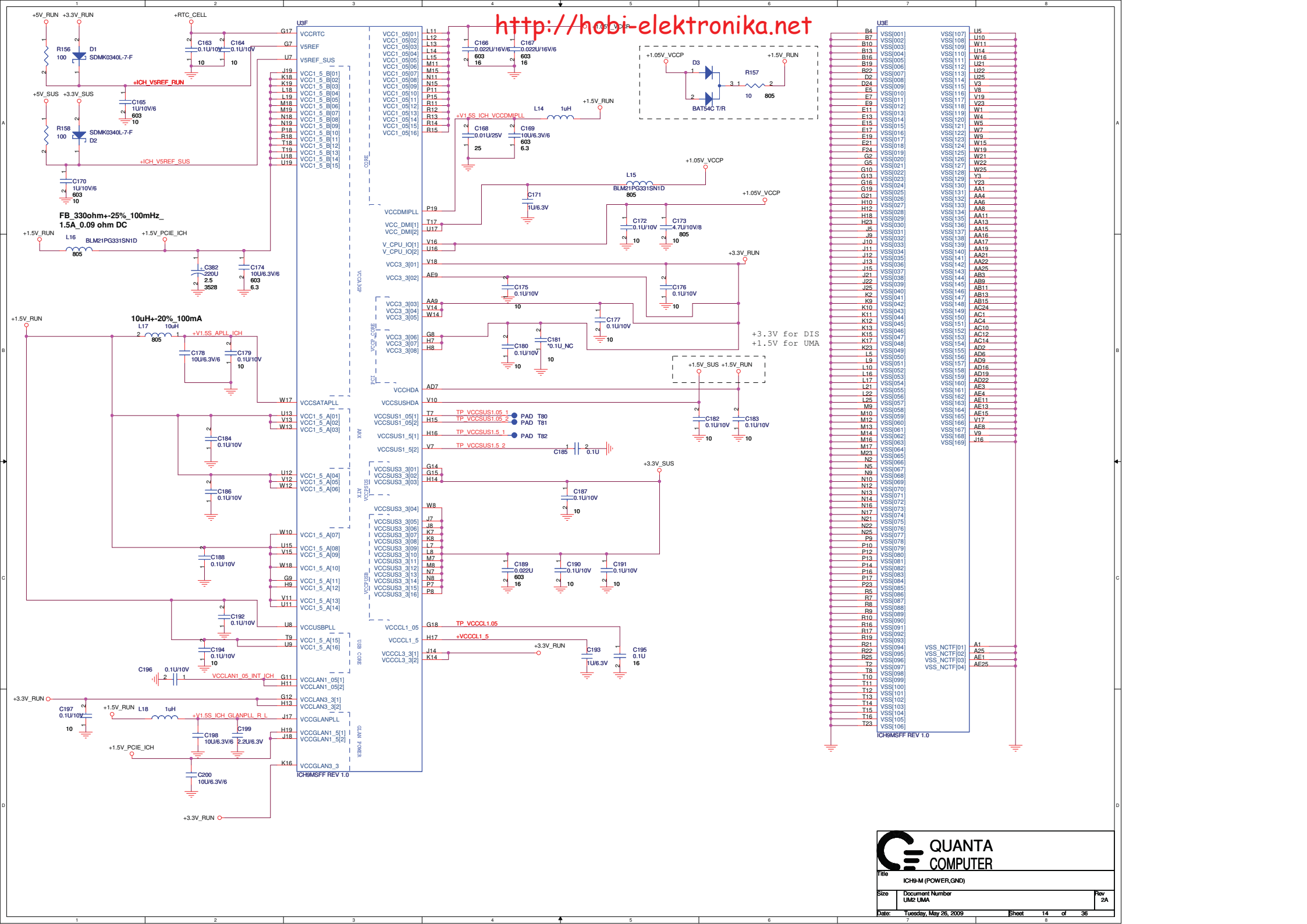






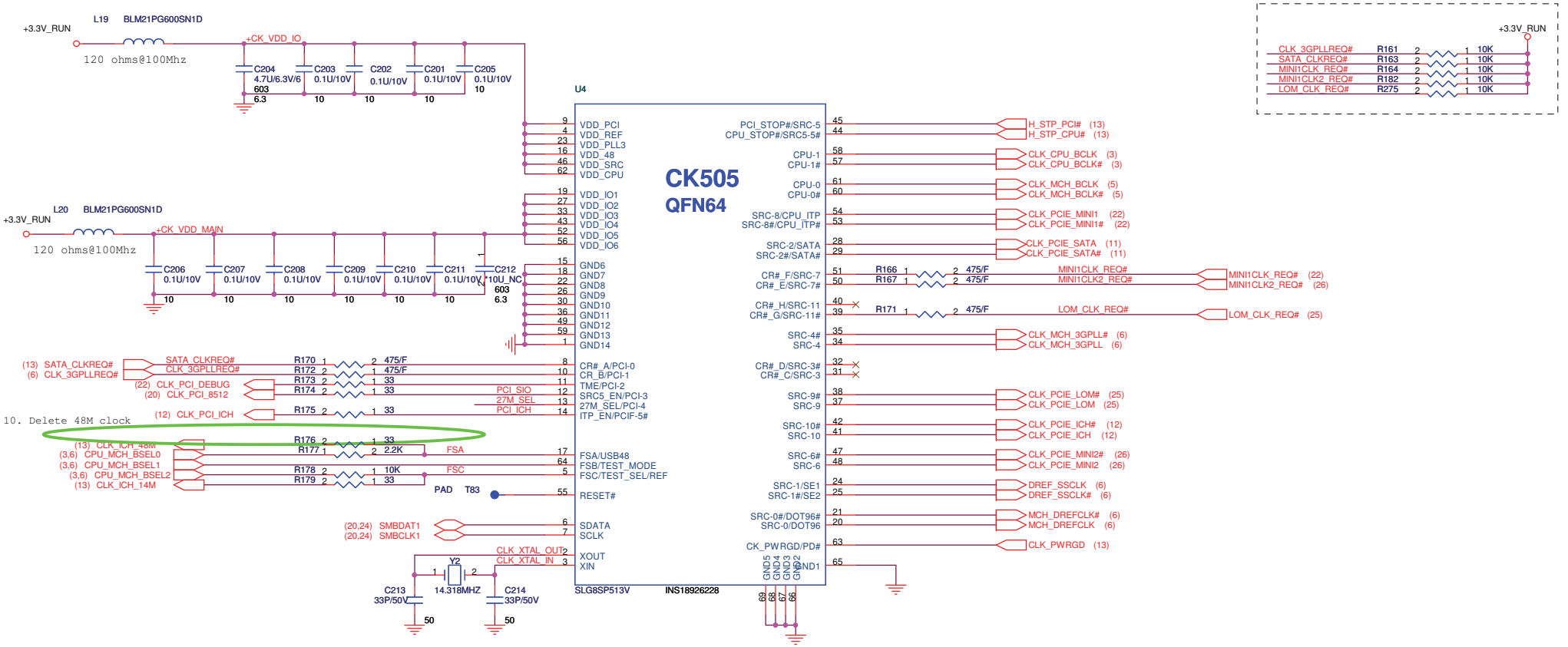
QUANTA COMPUTER

Title	ICH9-M (PM,GPIO,SMB)	
Size	Document Number UM2 UMA	Rev 2A
Date: Tuesday, May 26, 2009	Sheet 13 of 36	



Title	ICH9-M (POWER,GND)
Size	Document Number: UM2 UMA
Rev	2A
Date:	Tuesday, May 26, 2009
Sheet	14 of 36

QUANTA COMPUTER



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

27M_SEL

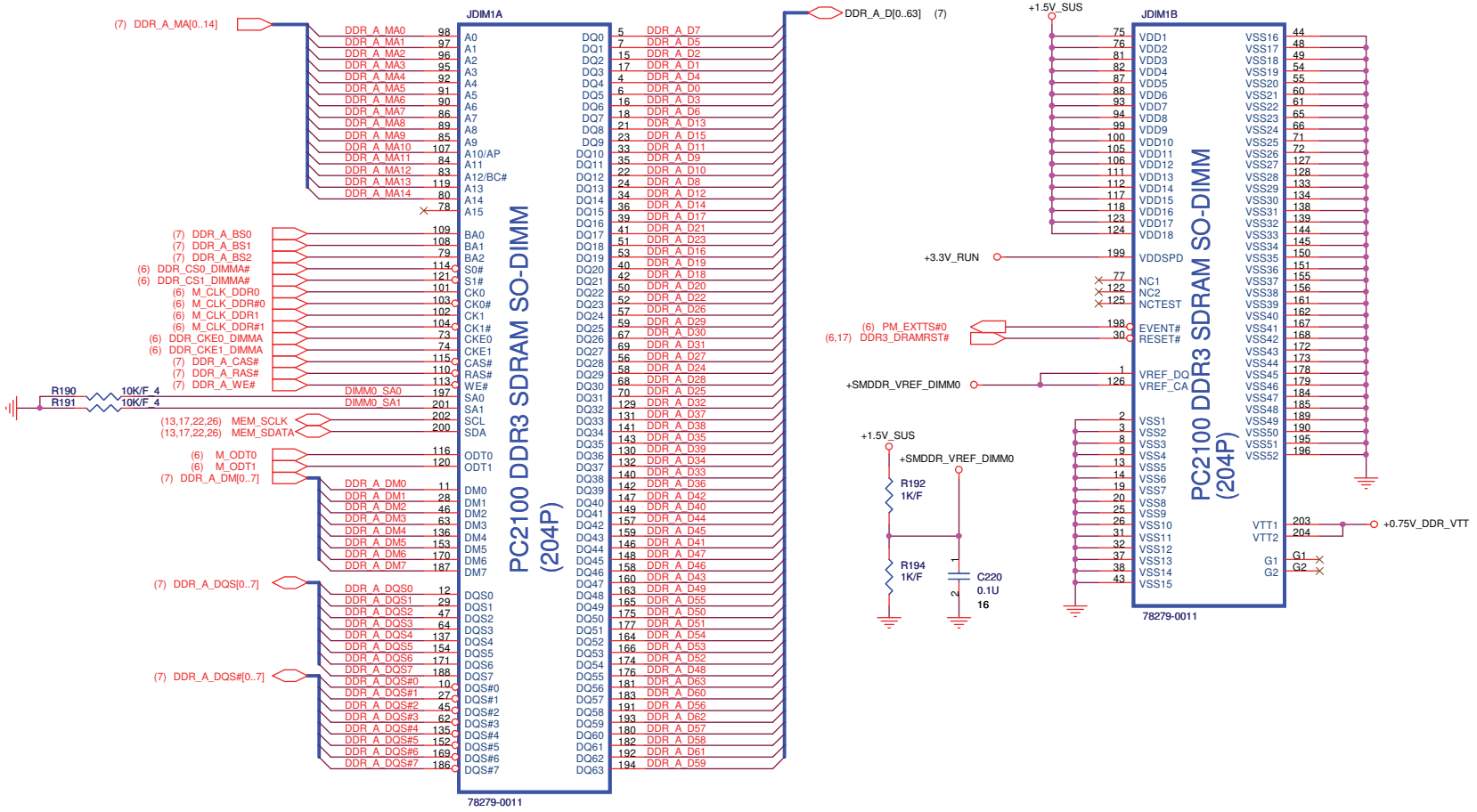
27M_SEL (PIN13)	PIN20	PIN21	PIN24	PIN25
0=UMA	DOT96T	DOT96C	100M_T	100M_C
1 = Disc. GRFX down	SRCT0	SRCC0	27Mout	27MSSout

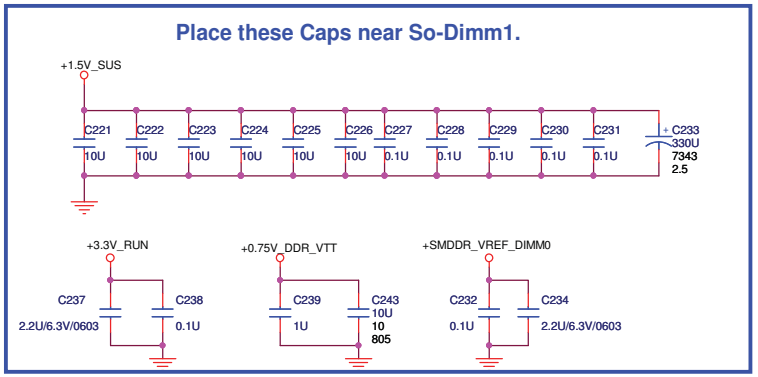
QUANTA COMPUTER

Title: CLOCK

Size: | Document Number: UM2 UMA | Rev: 2A

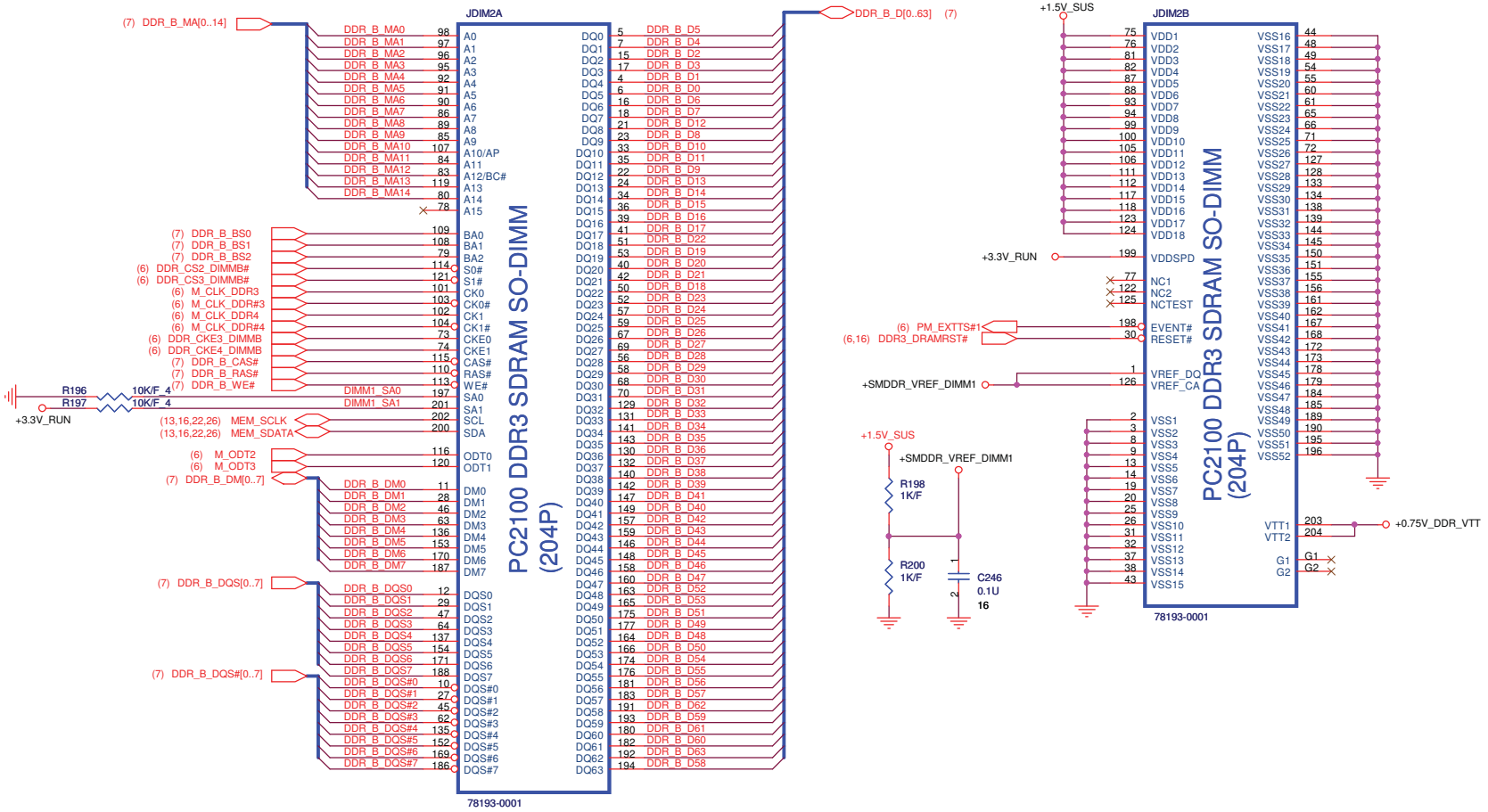
Date: Tuesday, May 26, 2009 | Sheet 15 of 36

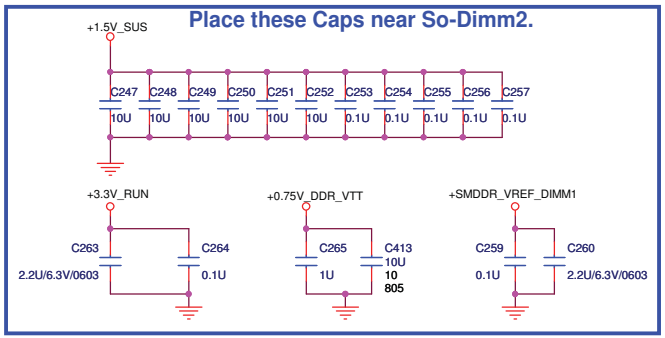




QUANTA COMPUTER

Title	DDR3 SO-DIMM1 (240P)	
Size	Document Number UM2 UMA	Rev 2A
Date: Tuesday, May 26, 2009	Sheet 16 of 36	

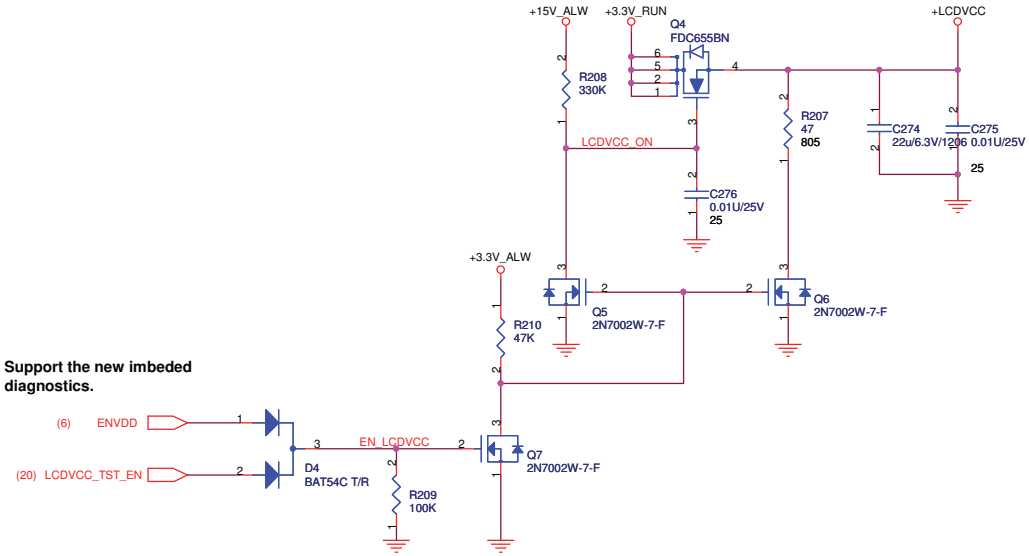


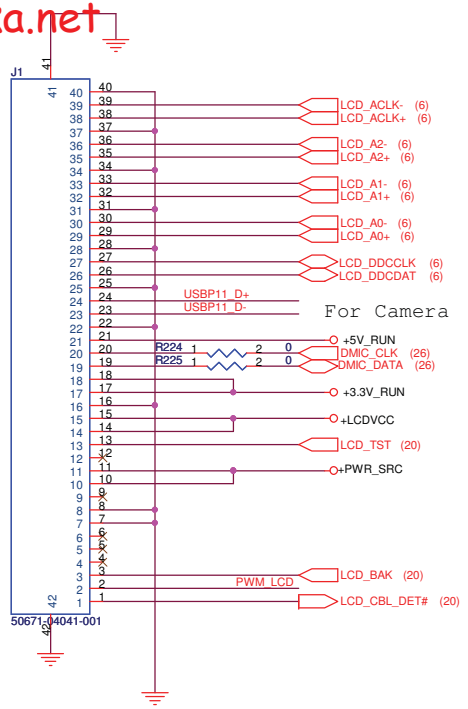


QUANTA COMPUTER

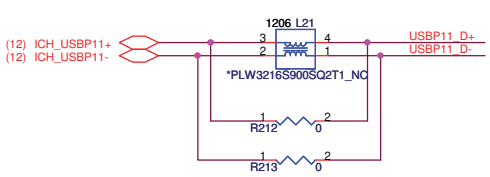
Title	DDR3 SO-DIMM2(240P)	
Size	Document Number: UM2 UMA	Rev: 2A
Date: Tuesday, May 26, 2009	Sheet 17 of 36	

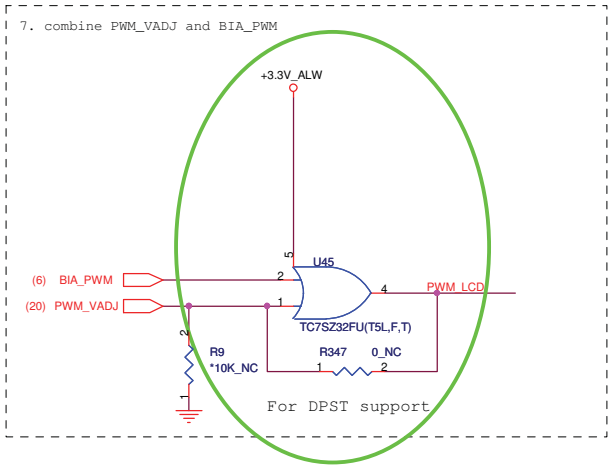
LCD

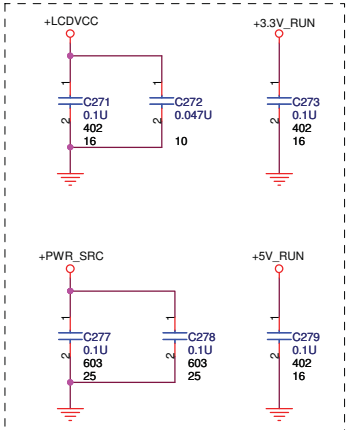




CCD



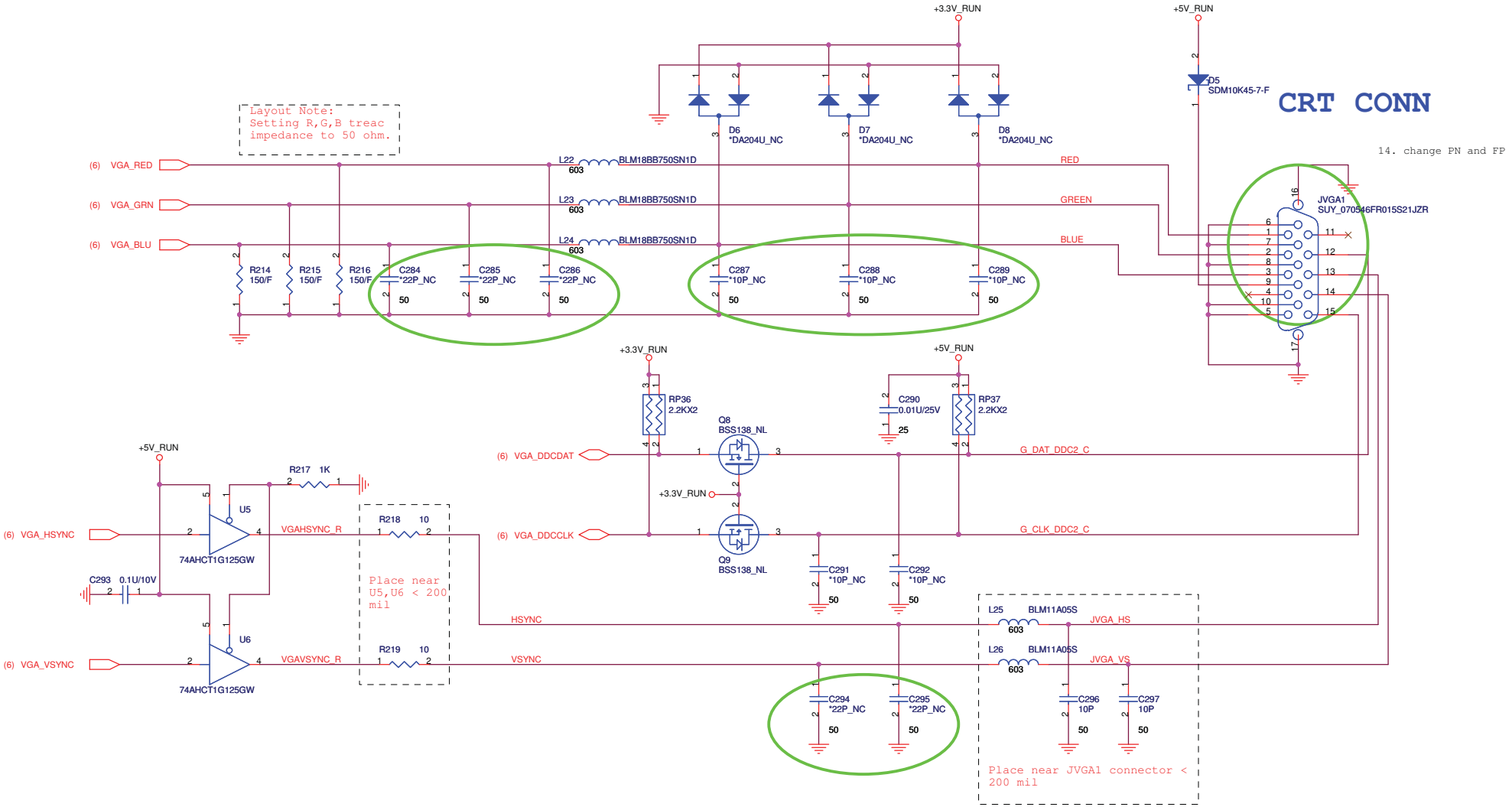




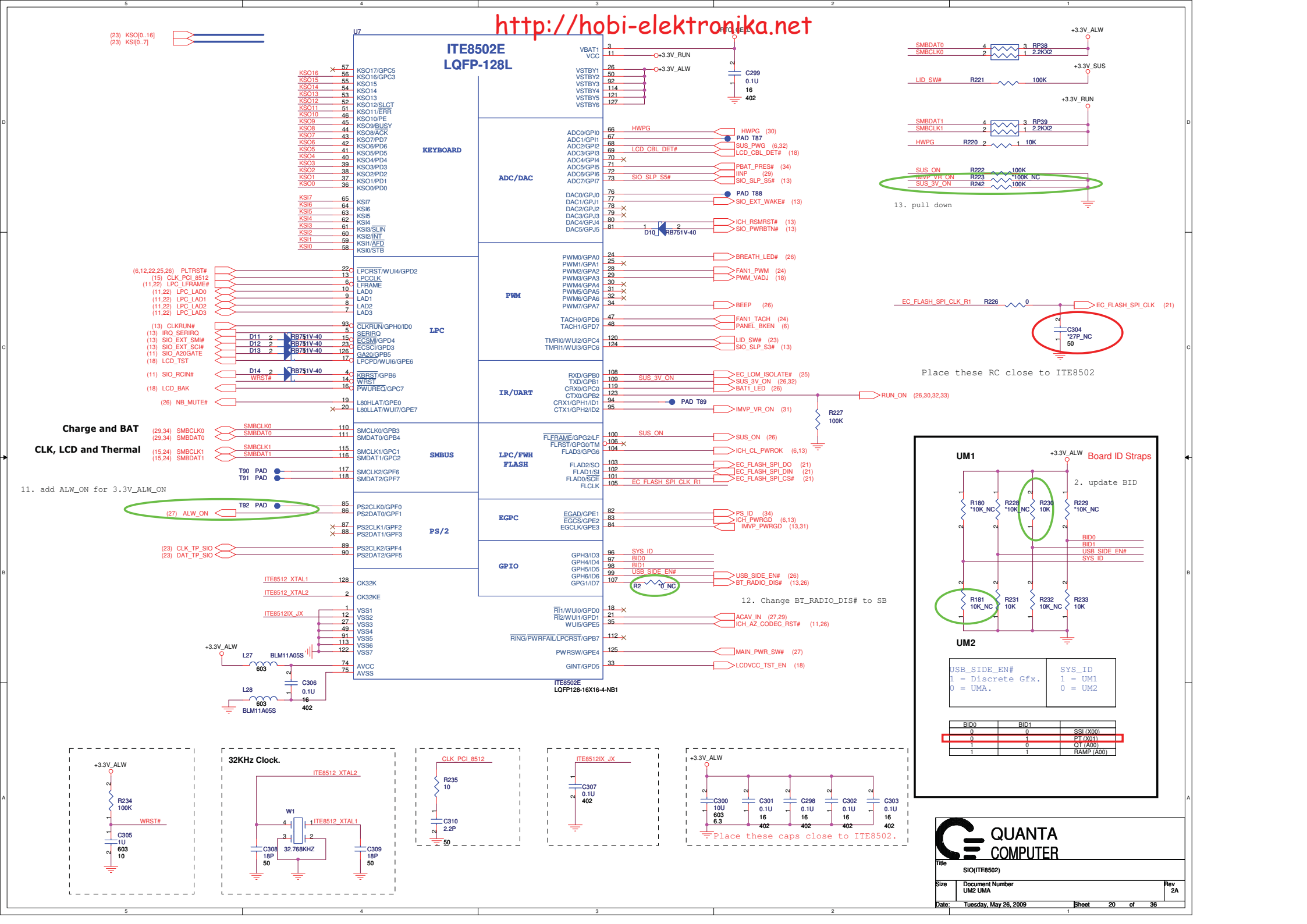
QUANTA COMPUTER

Title	LCD CONN & CCD	
Size	Document Number: UM2 UMA	Rev: 2A
Date: Tuesday, May 26, 2009	Sheet 18 of 36	

CRT CONN



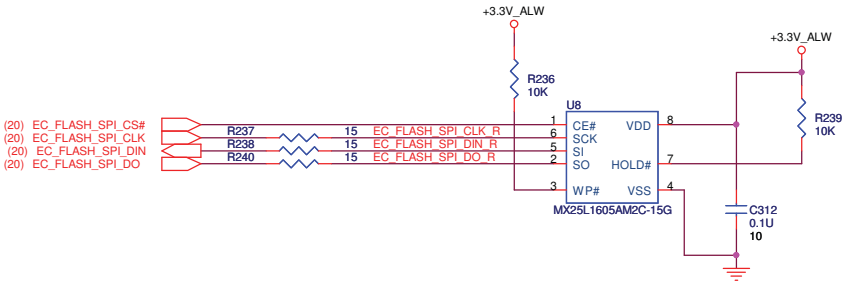
QUANTA COMPUTER		
Title: CRT CONN		
Size	Document Number: UM2 UMA	Rev: 2A
Date: Tuesday, May 26, 2009	Sheet 19 of 36	



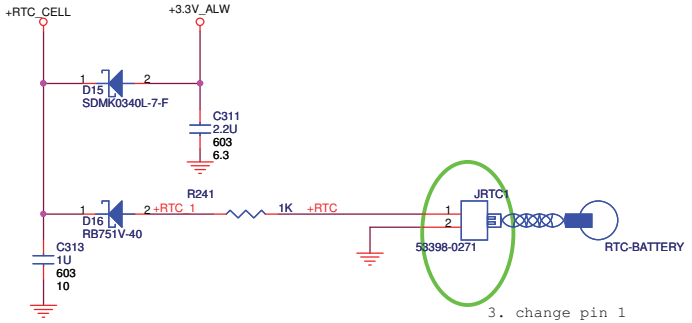
QUANTA COMPUTER

Title	SIO(ITE8502)	
Size	Document Number UM2 UMA	Rev 2A
Date: Tuesday, May 26, 2009	Sheet 20 of 36	

16Mbit (2M Byte), SPI



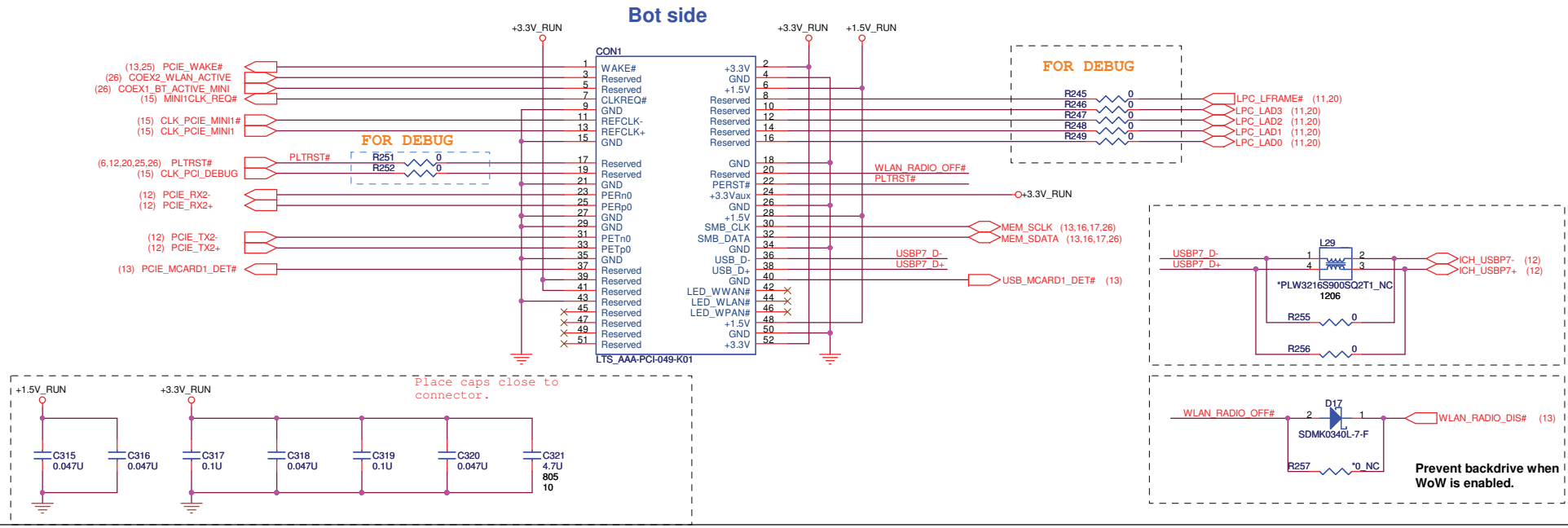
RTC BATTERY



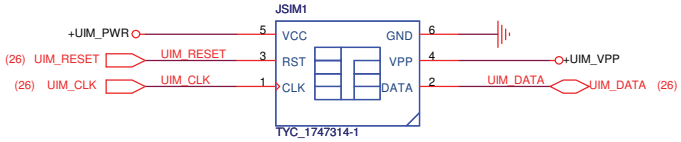
QUANTA COMPUTER		
Title: Flash / RTC		
Size	Document Number: UM2 UMA	Rev: 2A
Date: Tuesday, May 26, 2009	Sheet 21 of 36	

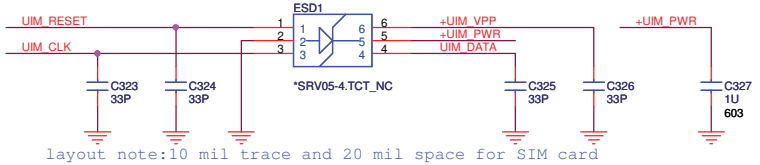
MiniCard WLAN connector (Half)

http://hobi-elektronika.net



SIM CONN





layout note:10 mil trace and 20 mil space for SIM card and UIM_PWR use 20mil

Place as close as possible to WWAN connector

QUANTA COMPUTER

Title	MDC CONN.	
Size	Document Number UM2 UMA	Rev 2A
Date: Tuesday, May 26, 2009	Sheet 22 of 36	

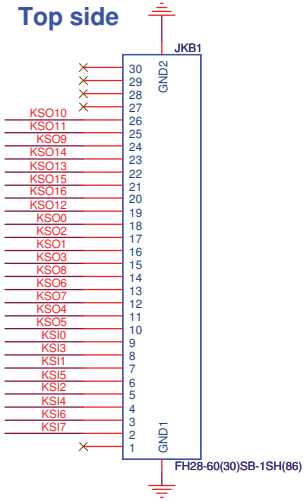
KEYBOARD CONN

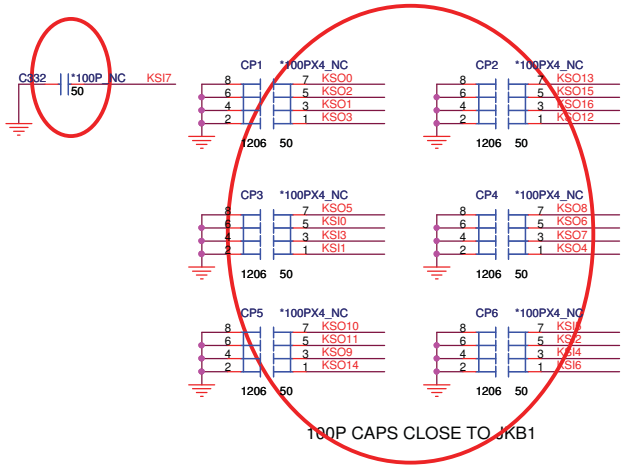
http://hobi-elektronika.net

(20) KSO[0..16]

(20) KSI[0..7]

Top side

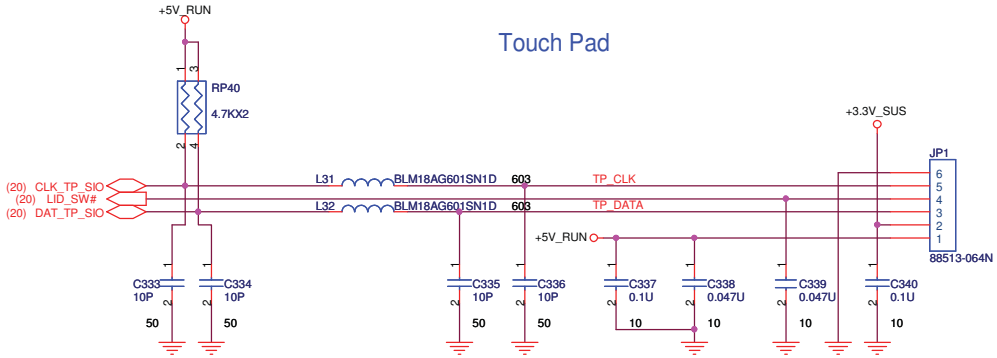




100P CAPS CLOSE TO JKB1

Touch Pad CONN

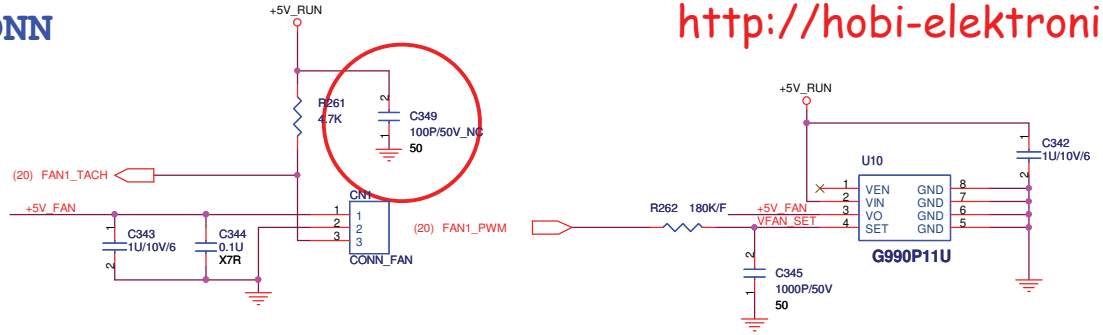
Touch Pad



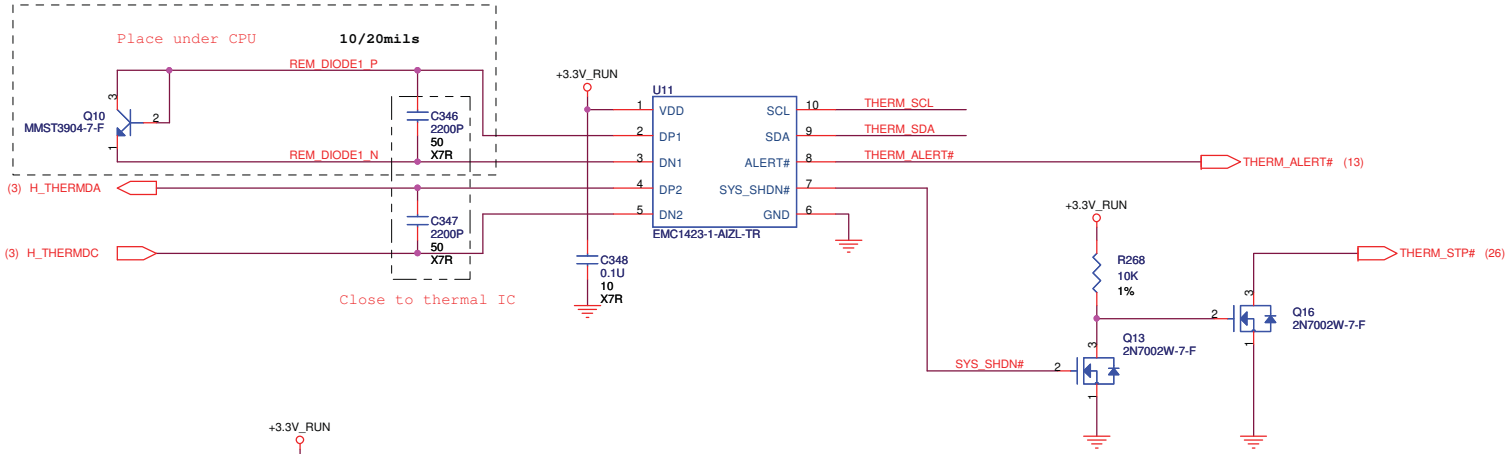
QUANTA COMPUTER

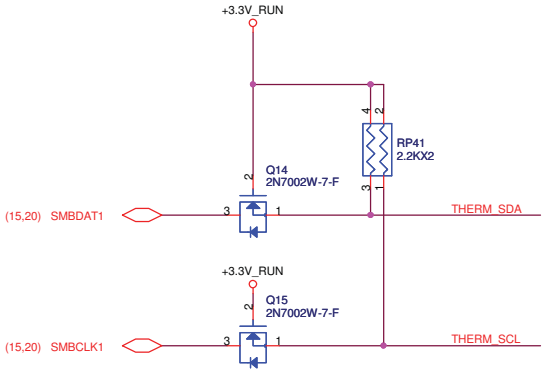
Title	TOUCH PAD, KEYBOAD	
Size	Document Number UM2 UMA	Rev 2A
Date: Tuesday, May 26, 2009	Sheet 23 of 36	

FAN CONN

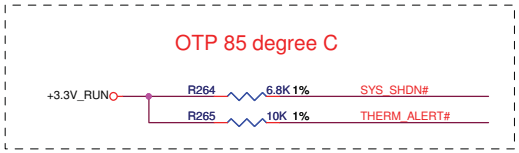


THERMAL IC



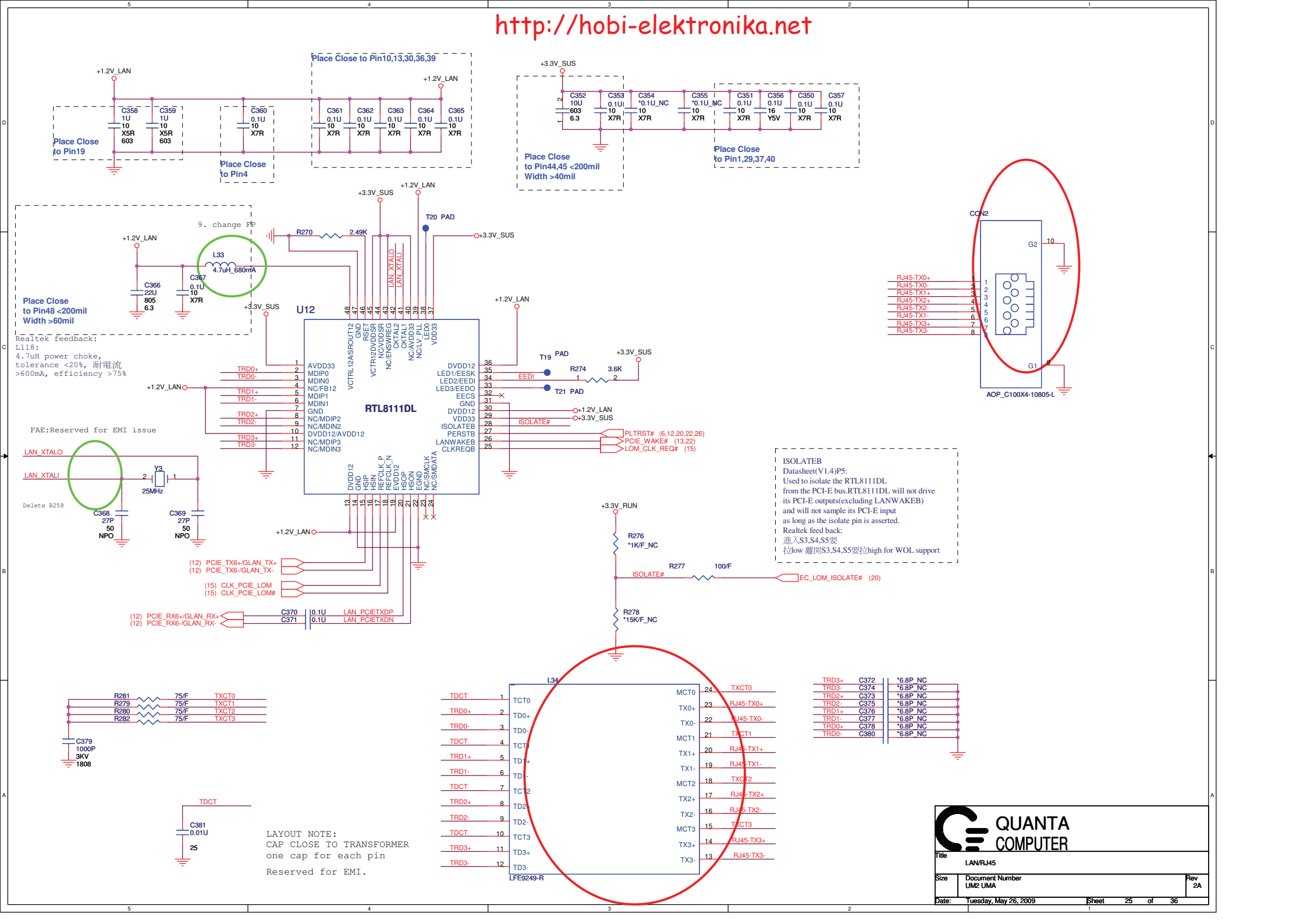


SMbus address 0x98



QUANTA COMPUTER

Title	FAN & THERMAL	
Size	Document Number UM2 UMA	Rev 2A
Date: Tuesday, May 26, 2009	Sheet 24 of 36	

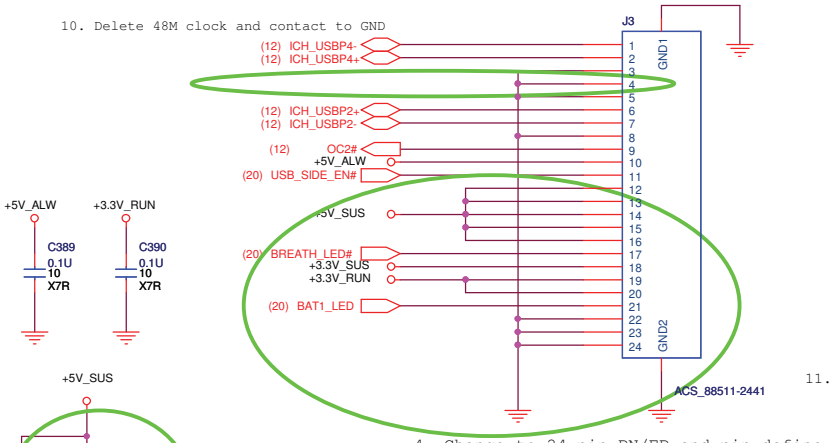


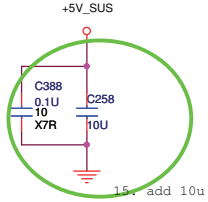
QUANTA COMPUTER		
Title	LAN/RJ45	
Size	Document Number: UM2 UMA	Rev: 2A
Date: Tuesday, May 26, 2009	Sheet 25 of 36	

To CardReader Board

Cable connect to DB directly
DB need to reverse pin definition with MB

10. Delete 48M clock and contact to GND



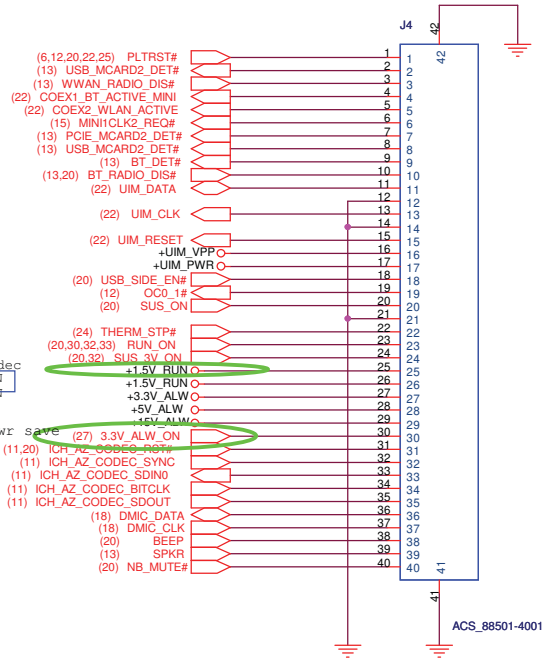


15. add 10u

4. Change to 24 pin PN/FP and pin define

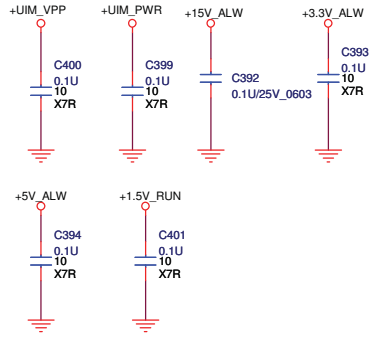
To I/O Board

FFC connect to DB with one turn
DB need to follow pin definition with MB



8. Add power for codec
UMA > +1.5V_RUN
DIS > +3.3V_RUN

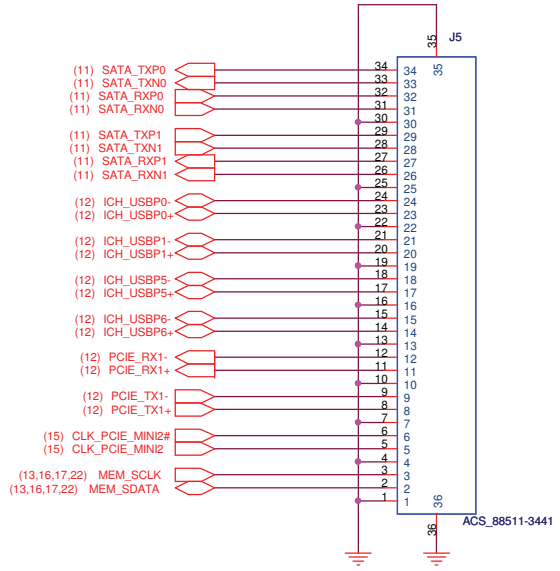
11. add 3.3V_ALW_ON for pwr save



0.5 mm Pitch , 0.5 Amperes (per pin)

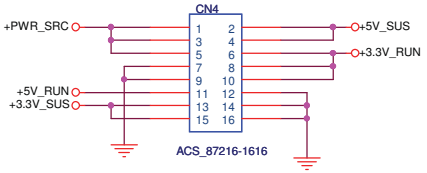
To I/O Board

Cable connect to DB directly
DB need to reverse pin definition with MB
Zo=95

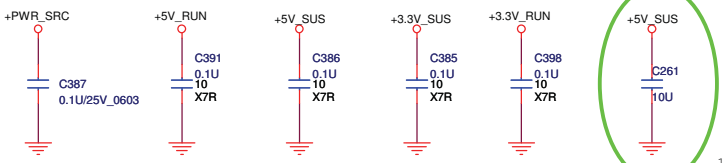


0.5 mm Pitch , 0.5 Amperes (per pin)

To I/O Board



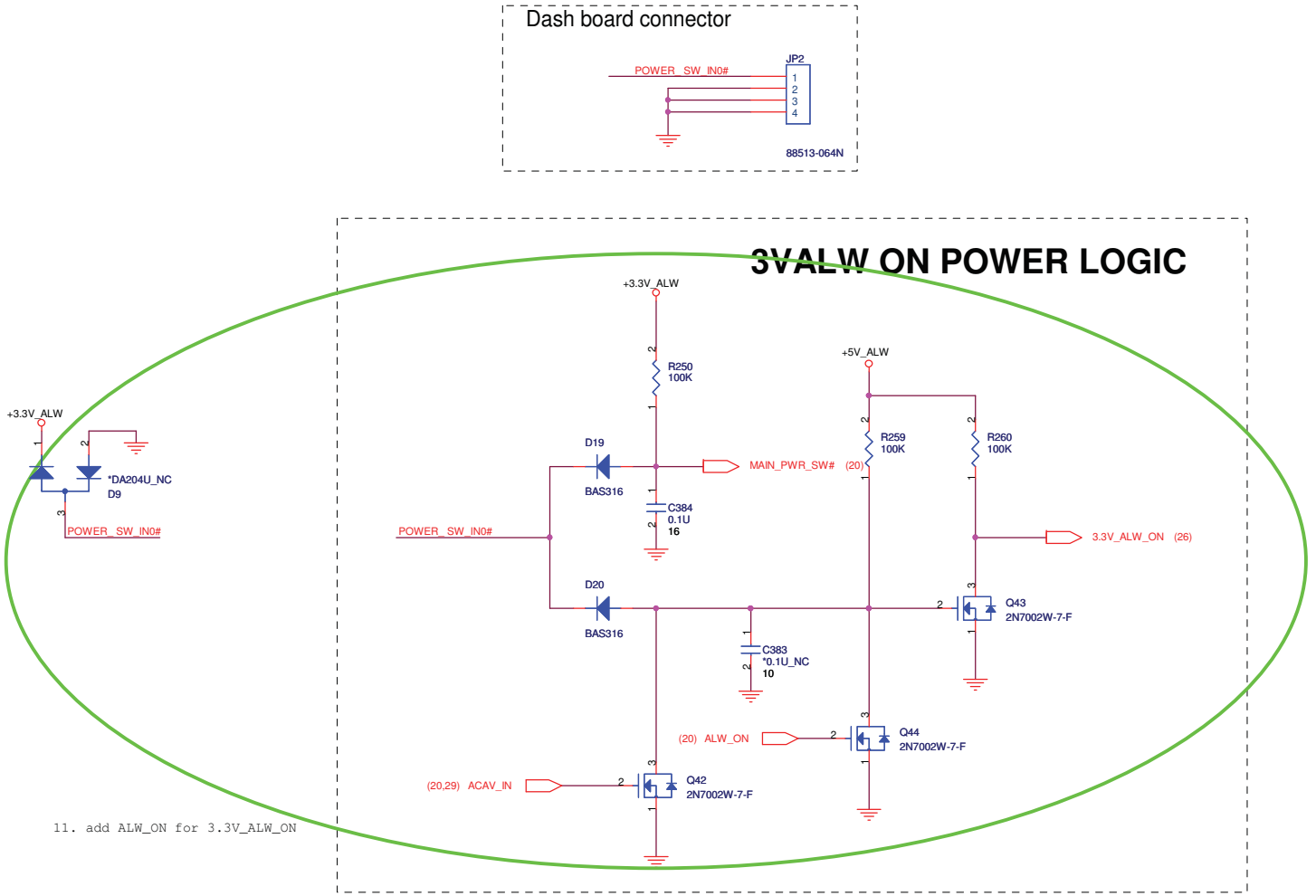
1.00 mm Pitch , 1 Amperes (per pin)



15. add 10u

QUANTA COMPUTER

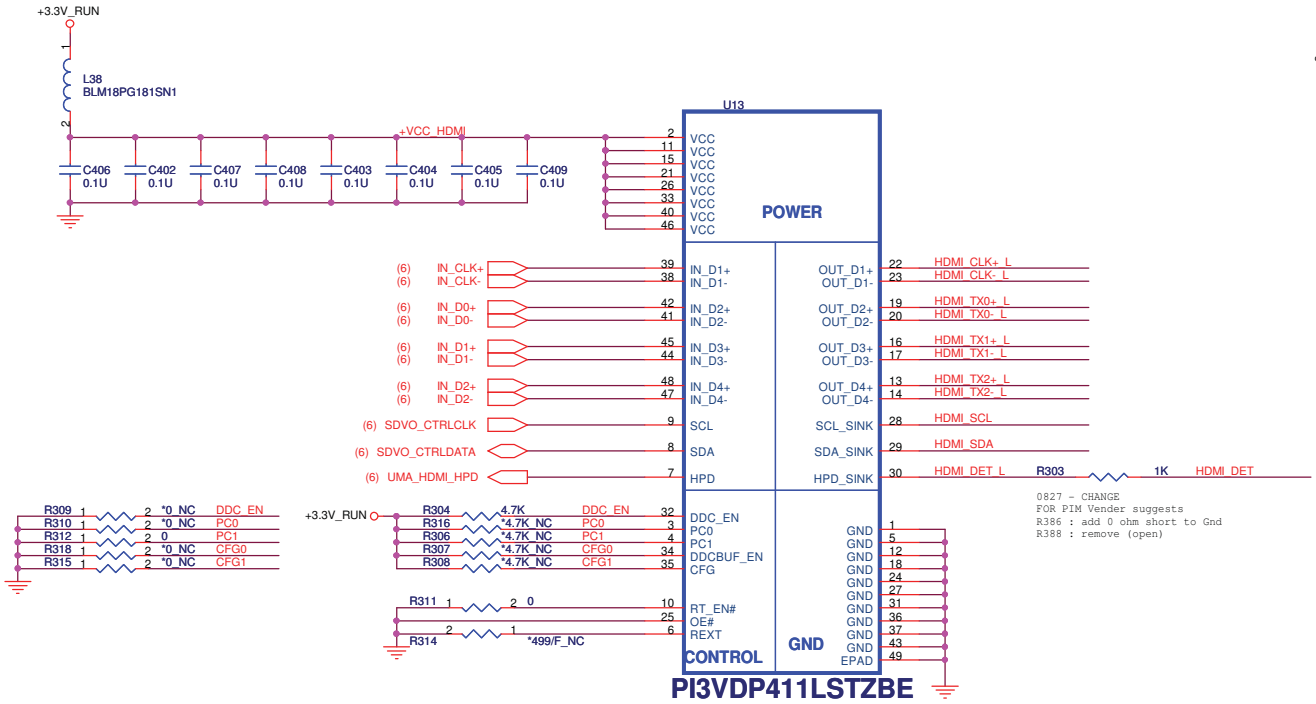
Title	IO BOARD	
Size	Document Number UM2 UMA	Rev 2A
Date: Tuesday, May 26, 2009	Sheet 26 of 36	



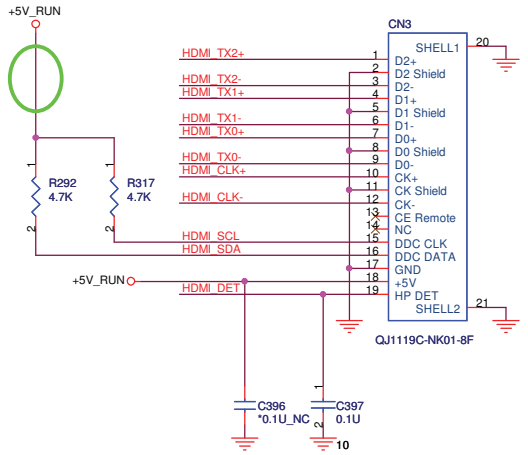
QUANTA COMPUTER

Title	POWER SWITCH	
Size	Document Number UM2 UMA	Rev 2A
Date: Tuesday, May 26, 2009	Sheet 27 of 36	

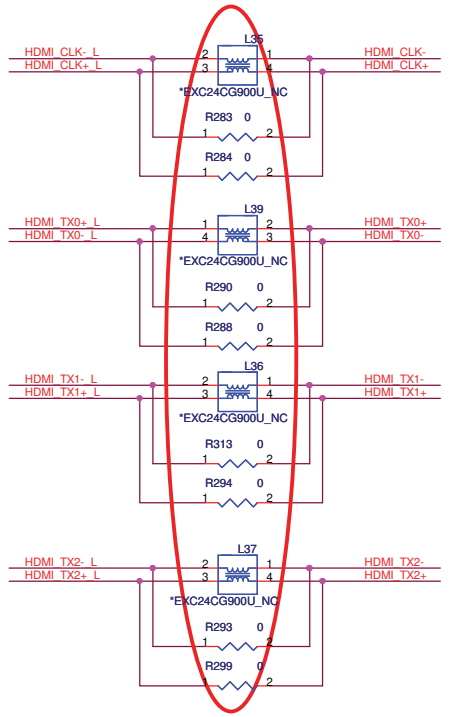
HDMI Connector



Delete R285



Reserve for EMI and close to HDMI CONN



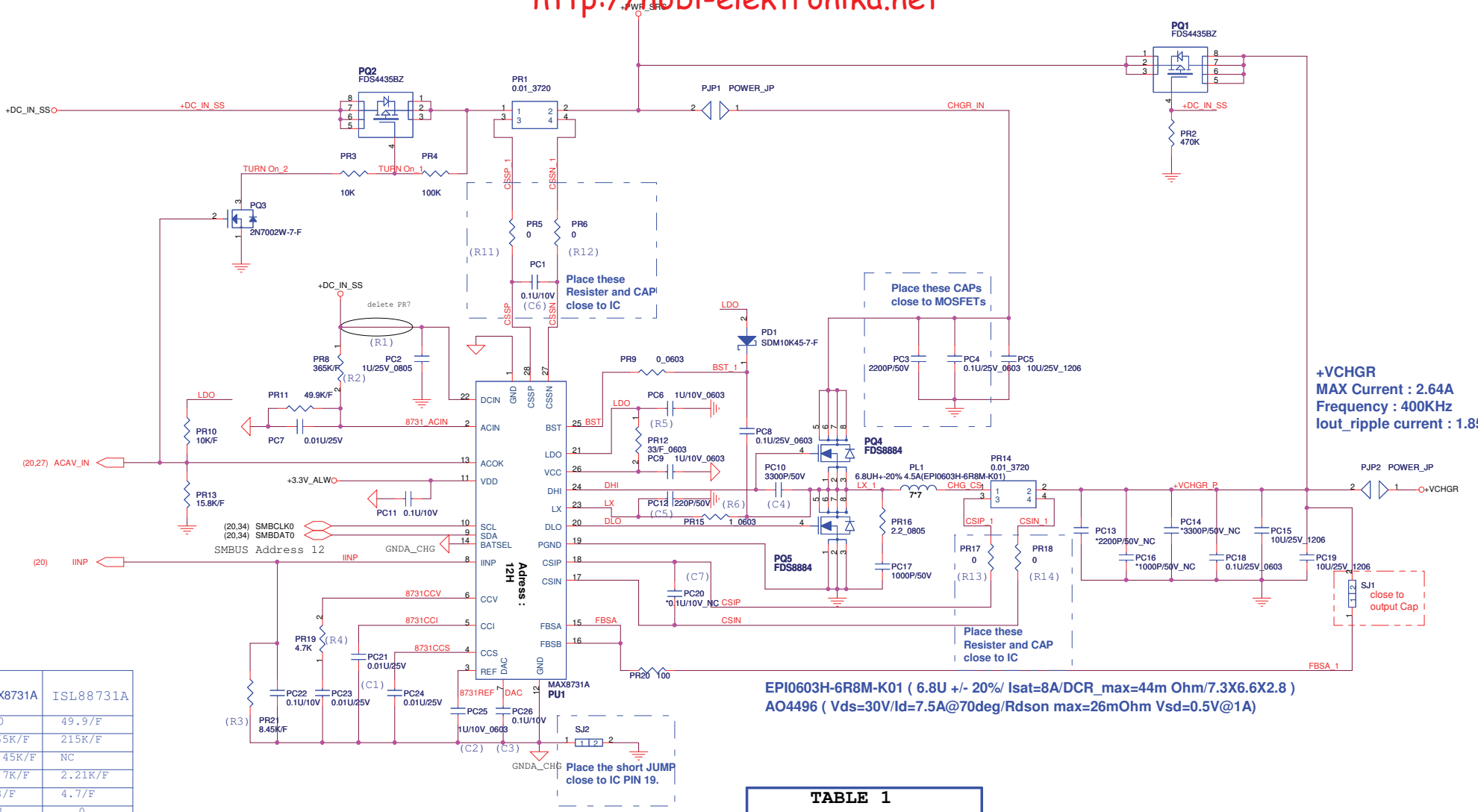
0827 - CHANGE
FOR PIM Vender suggests
R386 : add 0 ohm short to Gnd
R388 : remove (open)

EQUALIZATION SETTING
PC1:PC0=0:0 8dB
PC1:PC0=0:1 4dB Recommanded
PC1:PC0=1:0 12dB
PC1:PC0=1:1 0dB

SCLZ/SDAZ Low-level input/output Voltage
CFG1:CFG0=0:0 VIL:<0.4V VOL:0.6V (Default)
CGF1:CGF0=0:1 VIL:<0.36V VOL:0.55V
CGF1:CGF0=1:0 VIL:<0.44V VOL:0.65V
CGF1:CGF0=1:1 VIL:<0.36V VOL:0.6V

QUANTA COMPUTER

Title	HDMI	
Size	Document Number: UM2 UMA	Rev: 2A
Date: Tuesday, May 26, 2009	Sheet 28 of 36	



+VCHGR
MAX Current : 2.64A
Frequency : 400KHz
Iout_ripple current : 1.85A

EPI0603H-6R8M-K01 (6.8U +/- 20%/ Isat=8A/DCR_max=44m Ohm/7.3X6.6X2.8)
AO4496 (Vds=30V/Id=7.5A@70deg/Rdson max=26mOhm Vsd=0.5V@1A)

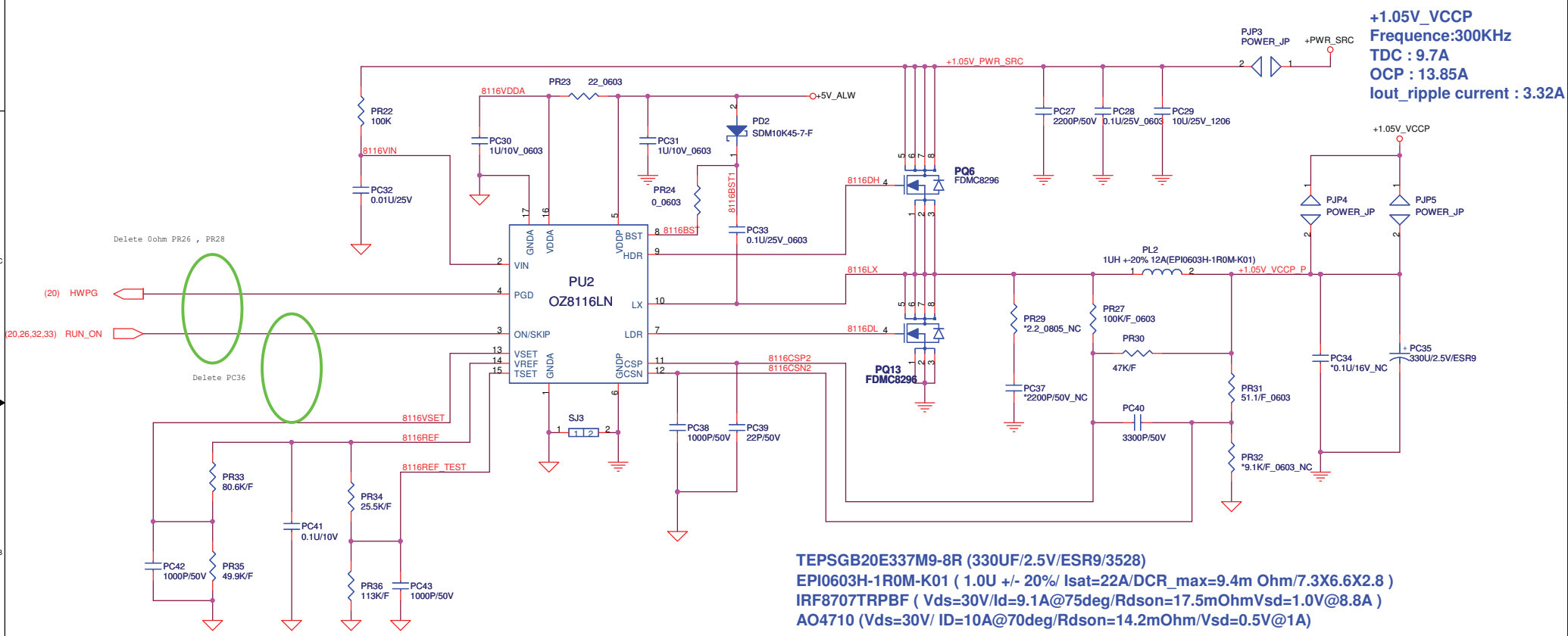
	MAX8731A	ISL88731A
R1	0	49.9/F
R2	365K/F	215K/F
R3	8.45K/F	NC
R4	4.7K/F	2.21K/F
R5	33/F	4.7/F
R6	1	0
R7	NC	NC
R8	0	0
R9	NC	NC
R10	0	0
R11	0	10/F
R12	0	10/F
R13	0	10/F
R14	0	10/F
C1	0.01uF	NC
C2	1uF	NC
C3	0.1uF	NC
C4	3300PF	NC
C5	220PF	NC
C6	NC	0.1uF
C7	NC	0.1uF

TABLE 1

ADAPTER(W)	TRIP CURRENT (A)
65	3.17
90	4.43
130	6.43
150	7.43
200	9.75
230	11.28

QUANTA COMPUTER

Title	Charger (MAX8731A)	
Size	Document Number UM2 UMA	Rev 2A
Date: Tuesday, May 26, 2009	Sheet 29 of 36	

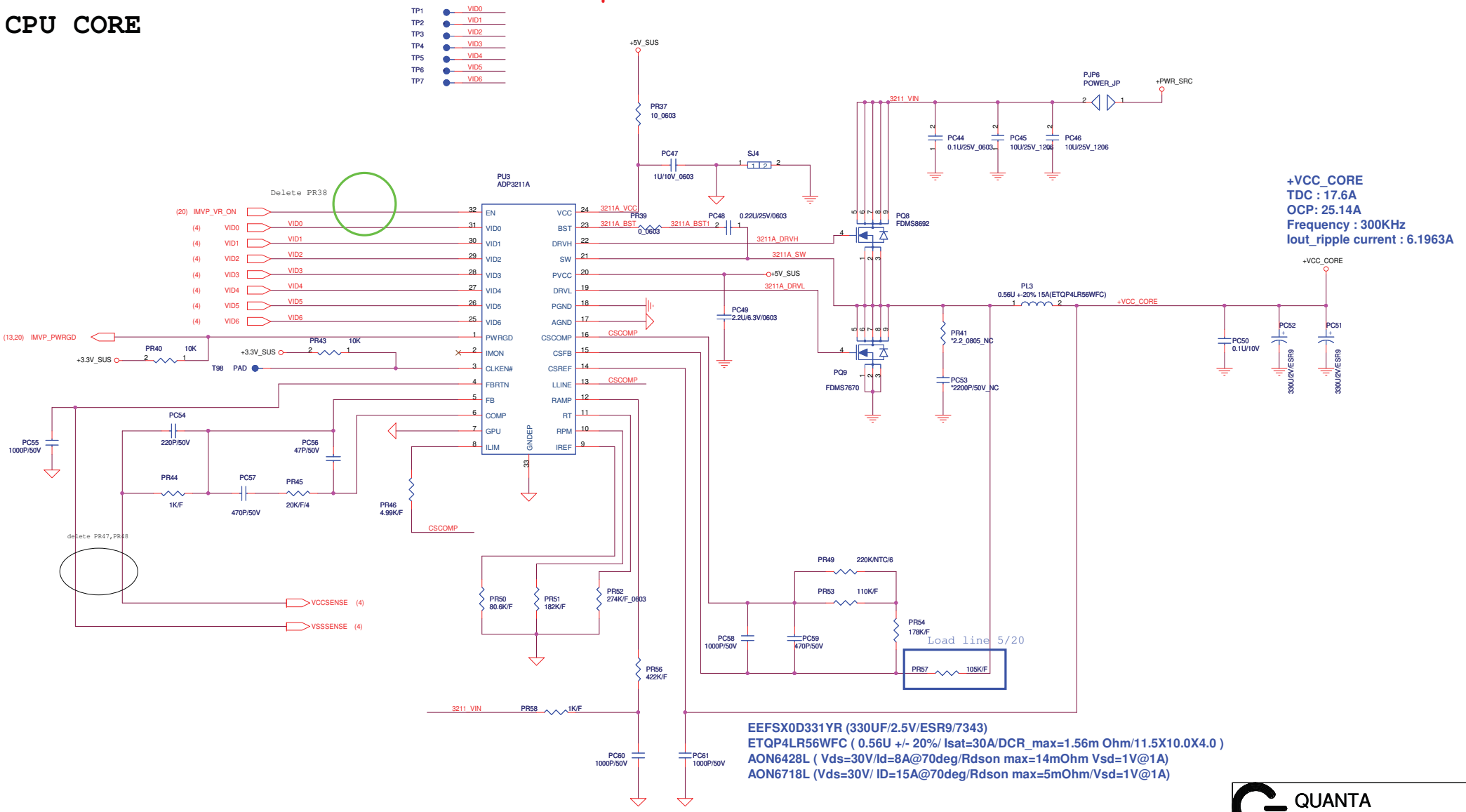


TEPSGB20E337M9-8R (330UF/2.5V/ESR9/3528)
EPI0603H-1R0M-K01 (1.0U +/- 20%/ Isat=22A/DCR_max=9.4m Ohm/7.3X6.6X2.8)
IRF8707TRPBF (Vds=30V/Id=9.1A@75deg/Rdson=17.5mOhmVsd=1.0V@8.8A)
AO4710 (Vds=30V/ ID=10A@70deg/Rdson=14.2mOhm/Vsd=0.5V@1A)

QUANTA COMPUTER

Title	1.05_VCCP(OZ8116)	
Size	Document Number: UM2 UMA	Rev: 2A
Date: Tuesday, May 26, 2009	Sheet 30 of 36	

CPU CORE

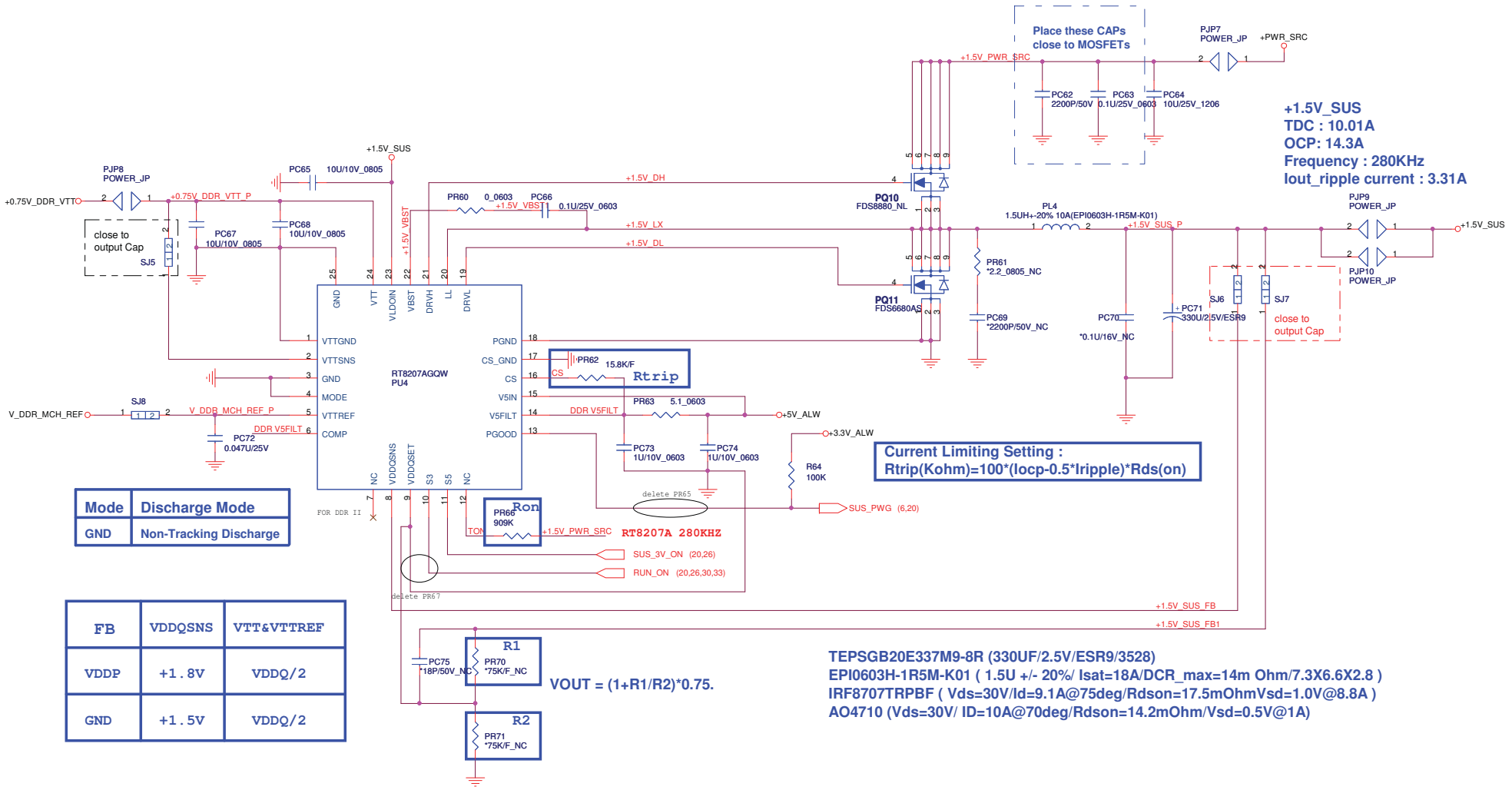


+VCC_CORE
TDC : 17.6A
OCP: 25.14A
Frequency : 300KHz
Iout_ripple current : 6.1963A

EEFSX0D331YR (330UF/2.5V/ESR9/7343)
ETQP4LR56WFC (0.56U +/- 20%/ Isat=30A/DCR_max=1.56m Ohm/11.5X10.0X4.0)
AON6428L (Vds=30V/Id=8A@70deg/Rdson max=14mOhm Vsd=1V@1A)
AON6718L (Vds=30V/ ID=15A@70deg/Rdson max=5mOhm/Vsd=1V@1A)

QUANTA COMPUTER

Title	CPU_(ADO3211A)	
Size	Document Number: UM2 UMA	Rev: 2A
Date: Tuesday, May 26, 2009	Sheet 31 of 36	



Mode	Discharge Mode
GND	Non-Tracking Discharge

FB	VDDQSNS	VTT&VTTREF
VDDP	+1.8V	VDDQ/2
GND	+1.5V	VDDQ/2

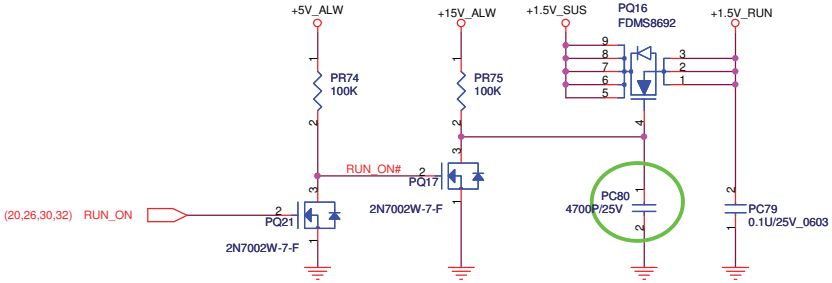
TEPSGB20E337M9-8R (330UF/2.5V/ESR9/3528)
EPI0603H-1R5M-K01 (1.5U +/- 20%/ Isat=18A/DCR_max=14m Ohm/7.3X6.6X2.8)
IRF8707TRPBF (Vds=30V/Id=9.1A@75deg/Rdson=17.5mOhmVsd=1.0V@8.8A)
AO4710 (Vds=30V/ ID=10A@70deg/Rdson=14.2mOhm/Vsd=0.5V@1A)

QUANTA COMPUTER

Title	1.8VSUS & 0.9VTT (RT8207A)	
Size	Document Number UM2 UMA	Rev 2A
Date: Tuesday, May 26, 2009	Sheet 32 of 36	

+1.5V_RUN

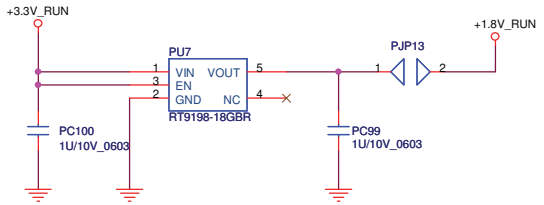
Max current(TDC) : 1.6A



6. change PT to 0402

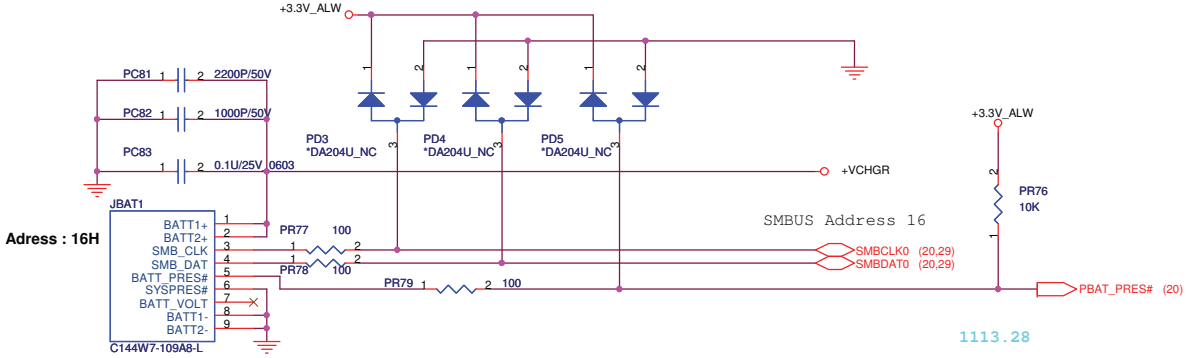
+1.8V_RUN

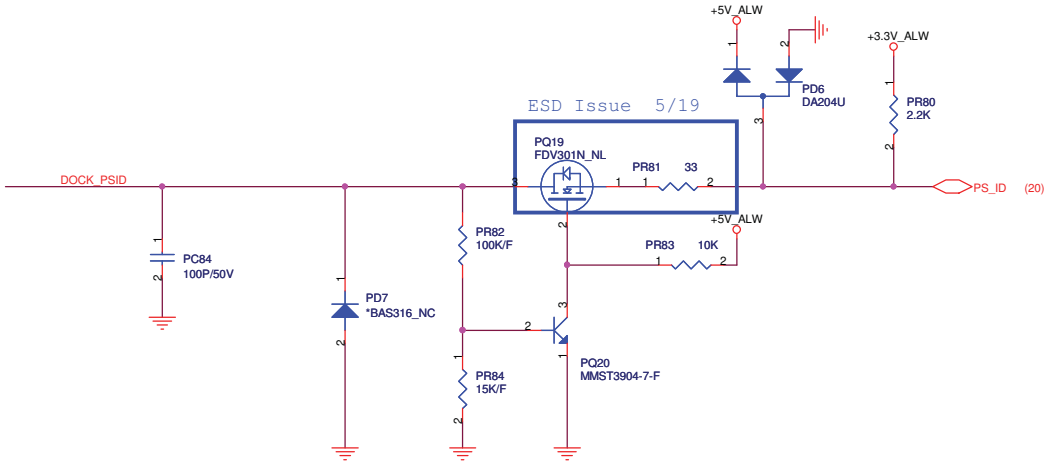
Max current(TDC)->105mA
For UMA

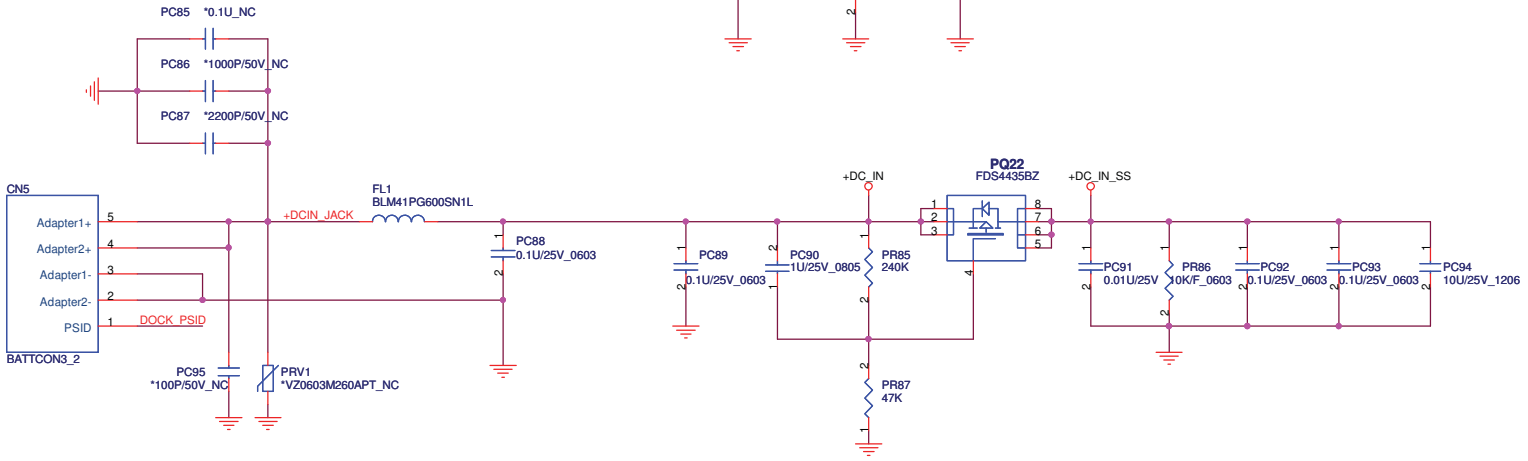


QUANTA COMPUTER

Title	RUN POWER SW	
Size	Document Number: UM2 UMA	Rev: 2A
Date: Tuesday, May 26, 2009	Sheet 33 of 36	

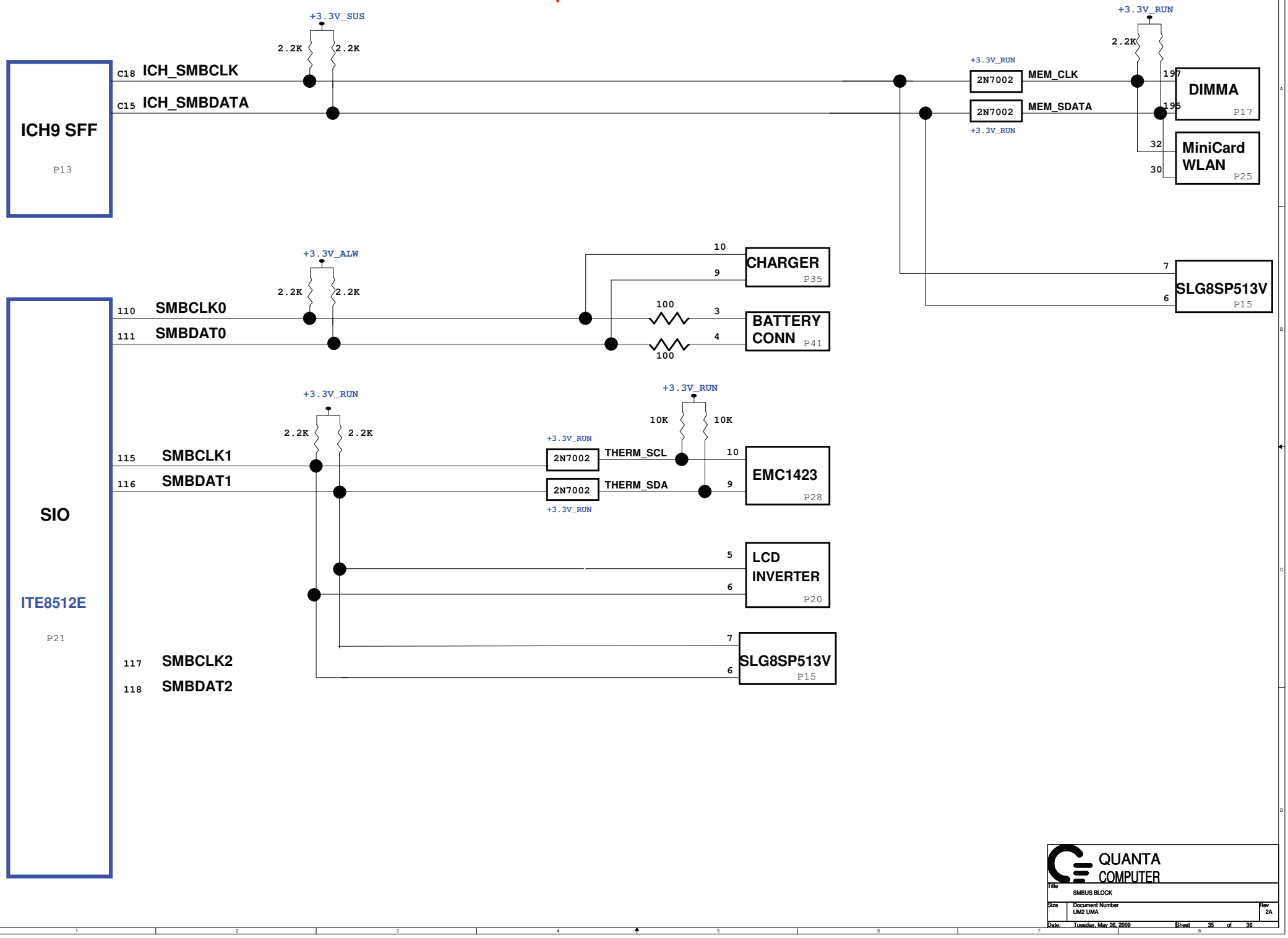






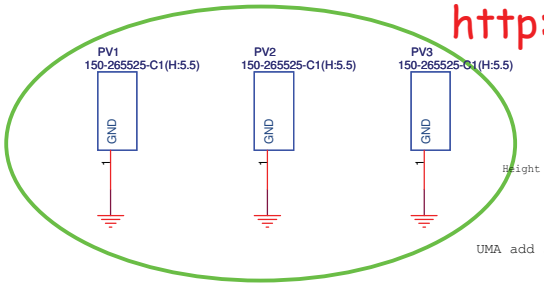
QUANTA COMPUTER

Title	DCIN,BATT CONNECTOR	
Size	Document Number UM2 UMA	Rev 2A
Date: Tuesday, May 26, 2009	Sheet 34 of 36	

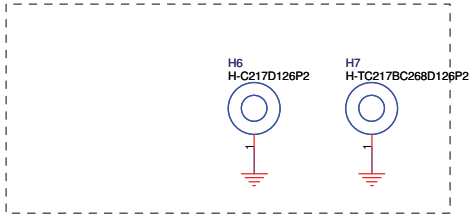


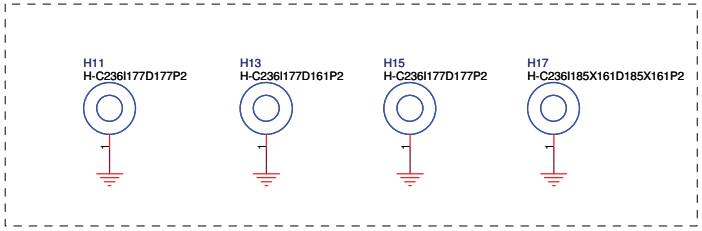
QUANTA COMPUTER

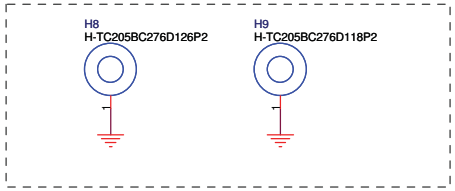
Title	SMBUS BLOCK	
Size	Document Number UM2 UMA	Rev 2A
Date: Tuesday, May 26, 2009	Sheet 35 of 36	

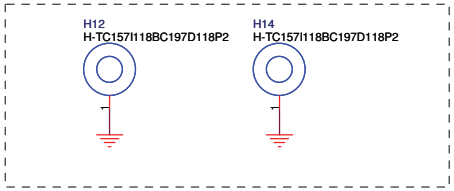


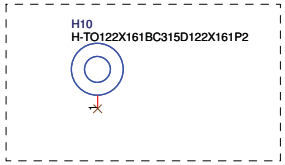
UMA add spring for EMI

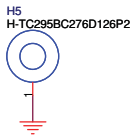


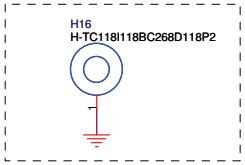


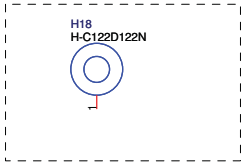












QUANTA COMPUTER

Title	PAD & SCREW & SPRING	
Size	Document Number UM2 UMA	Rev 2A
Date: Tuesday, May 26, 2009	Sheet 36 of 36	