SHELBY-INTEGRATED

POWER DC/DC

- IMVP-6 CPU VR — PG 45
- RUN POWER SW — PG 47
- DC/DC +3V_SRC +5VSUS — PG 46
- DRAM Power 1.8V, 0.9V — PG 43
- 1.5VSUS, 1.05V — PG 44
- AC/BATT CONNECTOR — PG 48
- BATT SELECTOR — PG 41
- BATT CHARGER — PG 42

Yonah
(478 Micro-FCPGA)
PG 3,4

533/667 MHz FSB

CLOCKS ICS954301 — PG 17

SYSTEM RESET CKT — PG 40

SWTICH & LED & IO CONN — PG 33

FAN & THERMAL — PG 32

Panel Connector — PG 19

LVDS

Calistoga
1466 uFCBGA
PG 5,6,7,8,9,10

sDVO — **SI1362** PG 18 — DVI

TVOUT — **S-Video** PG 20

VGA — **CRT** PG 20

DDR2-SODIMM1 PG 15,16 — 400/533/667 MHZ DDR II

DDR2-SODIMM2 PG 15,16 — 400/533/667 MHZ DDR II

DMI X4 Interface

USB2.0 (P5,P6) — **2 Rear Ports** PG 33

USB2.0 (P3,P4) — **2 right Side** PG 33

USB2.0 (P7)

SATA - HDD PG 21 — SATA

Internal Media Bay CD-ROM PG 21 — ATA 66/100 / USB2.0(P2)

AC97/Azalia

ICH7-M
652 BGA
PG 11,12,13,14

33MHz PCI

1394 CONN PG 25

CARDBUS OZ711 PG 24

PCMCIA CON. PG 24

LAN (100/10) BCM4401 PG 36

USB2.0 (P0)

E-Switch PI3L110Q PG 37

I/O Board CONN PG 33

DOCKING CONNECTOR PG 39

PCIE — **MINI-PCIE** Wireless LAN PG 23

ECE_USB2.0(P1)

SPI

LPC

USB2.0 (P1)

AUDIO STAC9200 PG 34,35

MDC PG 26

SIO MEC5004 128KB Flash TMKBC 128 Pins VTQFP PG 27

BC

SIO ECE5018 Expander USB 2.0 Hub(4) 128 Pins VTQFP PG 28

ECE_USB2.0(P2) — **Bluetooth** PG 31

DOCK LPC

SPI

S/PDIF to DOCK PG 39

Audio Jacks PG 35

RJ11 to DOCK PG 39

Tip Ring PG 26

PS/2

Flash PG 30

Keyboard PG 27

Touchpad PG 31

IrDA PG 38

Serial PG 29

QUANTA COMPUTER

Title	Schematic Block Diagram1	
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INDEX

Pg#	Description	DNI LIST
1	Schematic Block Diagram 1	
2	Front Page	
3-4	Yonah	
5-10	Calistoga	
11-14	ICH7	
15-16	DDRII SO-DIMM(200P)	
17	Clock Generator	
18	SI1362	
19	LCD Conn. & SSP	
20	CRT & TV Conn.	
21	SATA & IDE Conn.	
22	PAD & Screw Hole	
23	MiniCard	
24	PCCARD&CONN	
25	1394	
26	MDC Conn.	
27-28	SIO (MEC5004 & ECE5018)	
29	Serial Port	
30	Flash ROM	
31	Touch Pad CONN.& Bluetooth CONN	
32	FAN & Thermal	
33	Switch Board Conn. & LED & IO Board	
34-35	Azelia CODEC (STAC9751) & Phone Jack	
36	LAN BCM4401 10/100	
37	LAN SWITCH / LAN POWER	
38	FIR	
39	Docking Conn.	
40	SYSTEM RESET/POWER GOOD	
41-42	Battery Selector & Charger	
43	1.8VSUS/0.9V	
44	1.5V/1.05V	
45	CPU Power	
46	D/D Power	
47	RUN Power Switch	
48	DCIN , Batt	
49	Power Block Diagram	
50	SMBUS Block Diagram	

Power & Ground

Label	Pg#	Description	Control Signal
DC_IN+		AC ADAPTER (20V)	
PBATT+		MAIN BATTERY + (10~17V)	
PWR_SRC		MAIN POWER (10~20V)	
VHCORE		CPU CORE POWER (1.25/1.15V)	RUNPWROK
1.05V		AGTL+ POWER (1.05V) I/O	RUNPWROK
+3VRUN		SLP_S3# CTRLD POWER	RUN_ON
+3VSUS		SLP_S5# CTRLD POWER	SUS_ON
+5VALW		8051 POWER (5V)	
+5VRUN		SLP_S3# CTRLD POWER	RUN_ON
+5VSUS		SLP_S5# CTRLD POWER	SUS_ON
+5VHDD		HDD POWER (5V)	HDDC_EN#
+5VMOD		MODULE POWER (5V)	MODC_EN#
STRB#/5V		EXTERNAL FDD POWER (5V)	FDD/LPT#
+5VRUN		FAN POWER (5V)	FAN_OFF/ON#
VDDA		AUDIO ANALOG POWER (5V)	RUN_ON
1_8VSUS		RESUME WELL IN ICH	
1_8VRUN		SLP_S3# CTRLD POWER	
+3VALW		8051 POWER (3V)	
V1_5RUN		ALVISO POWER Non-CPU I/O	
GND	ALL PAGES	DIGITAL GROUND	
		COMBO CONN GND	

QUANTA COMPUTER

Title	Index, DNI, Power & Ground	
Size	Document Number DM5	Rev 3A
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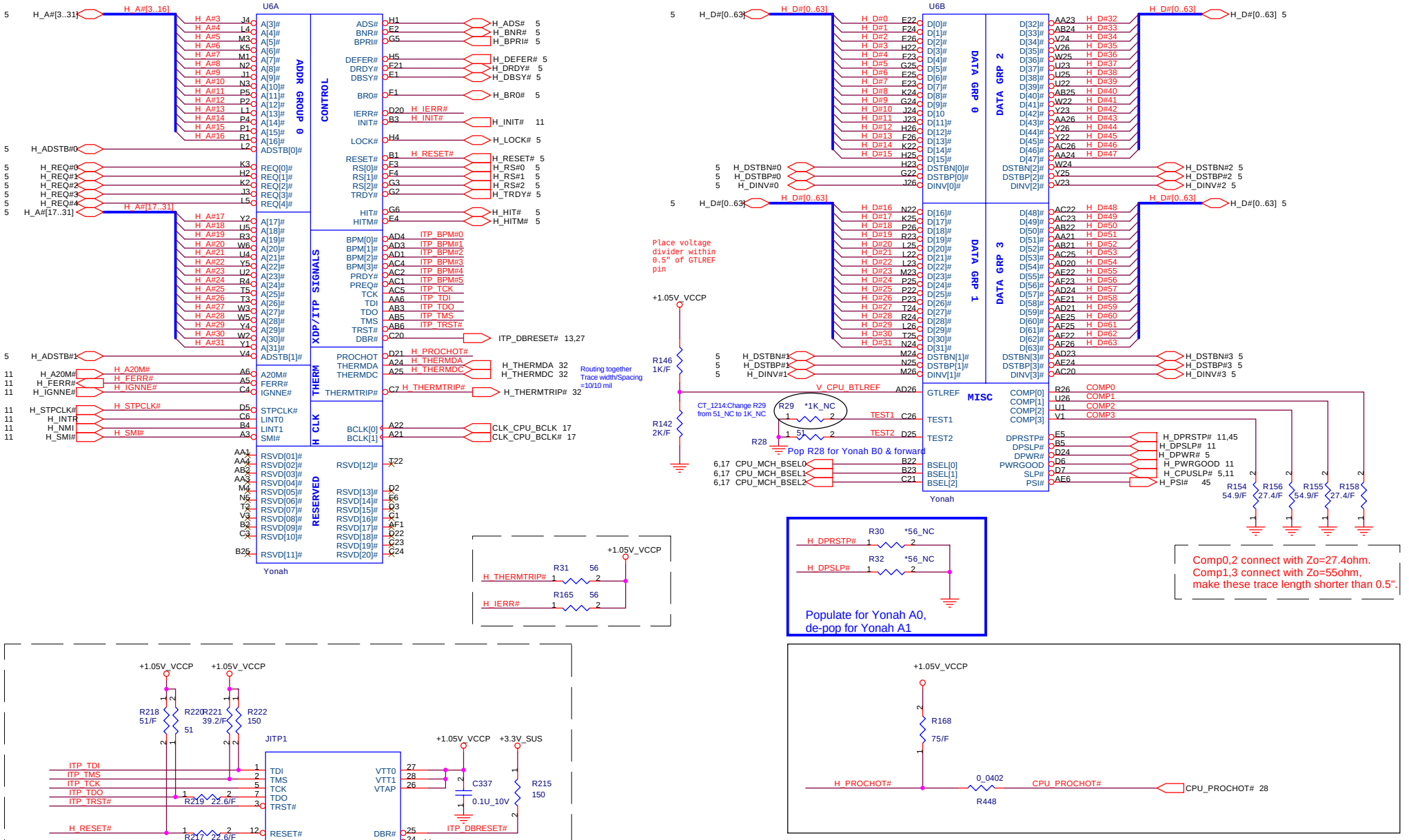
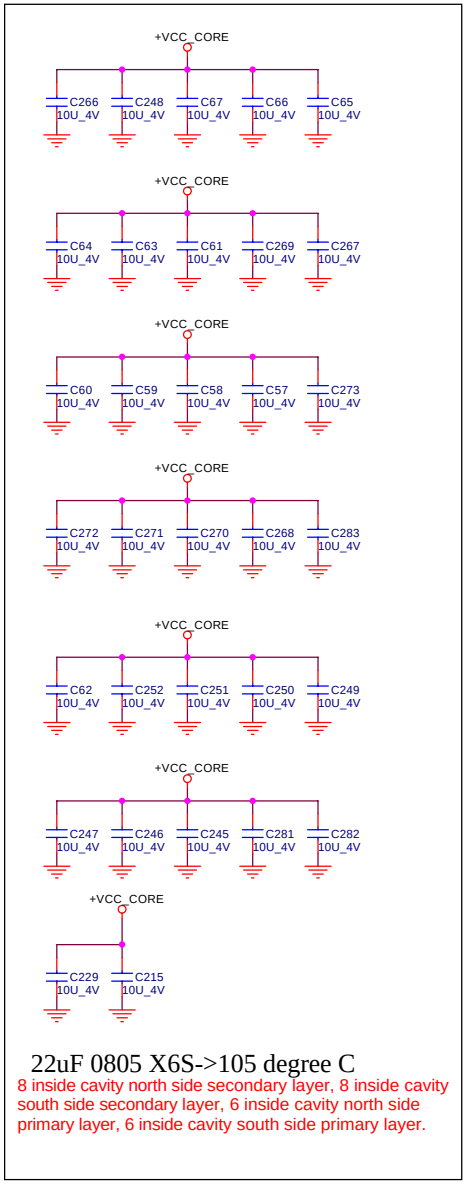
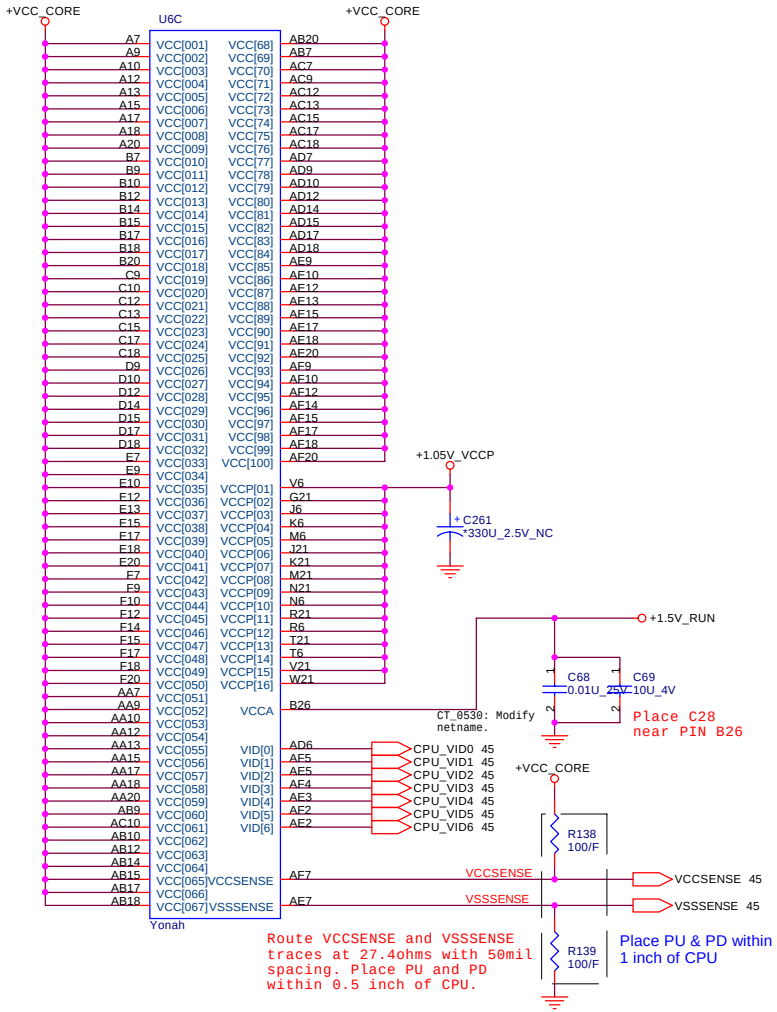
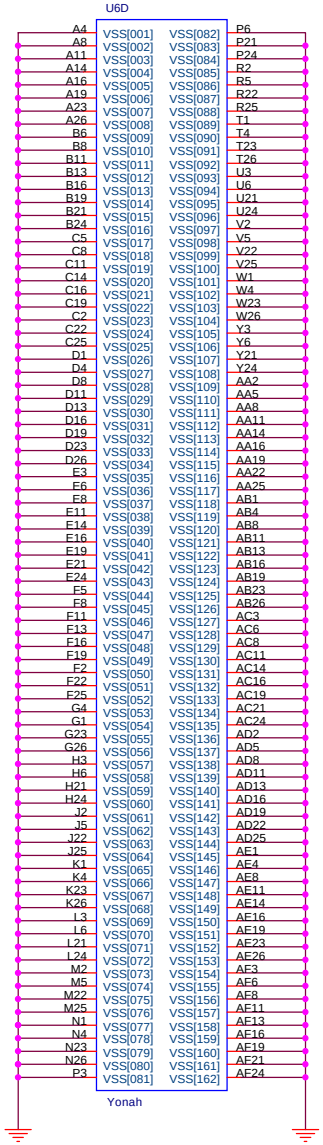
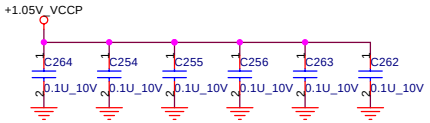


Signal	Resistor Value	Connect To	Resistor Placement
TDI	150 ohm +/- 5%	VTT	Within 2.0" of the CPU
TMS	39 ohm +/- 5%	VTT	Within 2.0" of the CPU
TRST#	680 ohm +/- 5%	GND	Within 2.0" of the CPU
TCK	27 ohm +/- 5%	GND	Within 2.0" of the CPU
TDO	Open	VTT	Within 2.0" of the CPU
ITP_EN	R268 Depop	+3VRUN	Close to CK410M Pin8









QUANTA COMPUTER

Title	Yonah Processor (POWER)	
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Layout note: H_XRCOMP & H_YRCOMP trace width and spcaing is 10/20 mil

H_XRCOMP — R50 24.9/F — H_YRCOMP — R57 24.9/F

Layout note: H_YSCOMP & H_XSCOMP resistor should be less than 0.5" inch.

+1.05V_VCCP — R48 54.9/F — H_XSCOMP

+1.05V_VCCP — R52 54.9/F — H_YSCOMP

H_SWING0,H_SWING1 should be 10mil wide & 20mil spacing.

H_SWING0,H_SWING1 Resistors & Caps should be placed within 0.5"

+1.05V_VCCP — R47 221/F — H_SWNG0 — R46 100/F — C321 0.1U_10V

+1.05V_VCCP — R54 221/F — H_SWNG1 — R55 100/F — C84 0.1U_10V

3 H_D#[0..63] — H_D#[0..63] — U7A

H_D#0	F1	H_D#_0	
H_D#1	J1	H_D#_1	
H_D#2	H1	H_D#_2	
H_D#3	J6	H_D#_3	
H_D#4	H3	H_D#_4	
H_D#5	K2	H_D#_5	
H_D#6	G1	H_D#_6	
H_D#7	G2	H_D#_7	
H_D#8	K9	H_D#_8	
H_D#9	K1	H_D#_9	
H_D#10	K7	H_D#_10	
H_D#11	J8	H_D#_11	
H_D#12	H4	H_D#_12	
H_D#13	J3	H_D#_13	
H_D#14	K11	H_D#_14	
H_D#15	G4	H_D#_15	
H_D#16	T10	H_D#_16	
H_D#17	W11	H_D#_17	
H_D#18	T3	H_D#_18	
H_D#19	U7	H_D#_19	
H_D#20	U9	H_D#_20	
H_D#21	U11	H_D#_21	
H_D#22	T11	H_D#_22	
H_D#23	W9	H_D#_23	
H_D#24	T1	H_D#_24	
H_D#25	T8	H_D#_25	
H_D#26	T4	H_D#_26	
H_D#27	W7	H_D#_27	
H_D#28	U5	H_D#_28	
H_D#29	T9	H_D#_29	
H_D#30	W6	H_D#_30	
H_D#31	T5	H_D#_31	
H_D#32	AB7	H_D#_32	
H_D#33	AA9	H_D#_33	
H_D#34	W4	H_D#_34	
H_D#35	W3	H_D#_35	
H_D#36	Y3	H_D#_36	
H_D#37	Y7	H_D#_37	
H_D#38	W5	H_D#_38	
H_D#39	Y10	H_D#_39	
H_D#40	AB8	H_D#_40	
H_D#41	W2	H_D#_41	
H_D#42	AA4	H_D#_42	
H_D#43	AA7	H_D#_43	
H_D#44	AA2	H_D#_44	
H_D#45	AA6	H_D#_45	
H_D#46	AA10	H_D#_46	
H_D#47	Y8	H_D#_47	
H_D#48	AA1	H_D#_48	
H_D#49	AB4	H_D#_49	
H_D#50	AC9	H_D#_50	
H_D#51	AB11	H_D#_51	
H_D#52	AC11	H_D#_52	
H_D#53	AB3	H_D#_53	
H_D#54	AC2	H_D#_54	
H_D#55	AD1	H_D#_55	
H_D#56	AD9	H_D#_56	
H_D#57	AC1	H_D#_57	
H_D#58	AD7	H_D#_58	
H_D#59	AC6	H_D#_59	
H_D#60	AB5	H_D#_60	
H_D#61	AD10	H_D#_61	
H_D#62	AD4	H_D#_62	
H_D#63	AC8	H_D#_63	

H_XRCOMP	E1	H_XRCOMP	
H_XSCOMP	E2	H_XSCOMP	
H_SWNG0	E4	H_XSWING	
H_YRCOMP	Y1	H_YRCOMP	
H_YSCOMP	U1	H_YSCOMP	
H_SWNG1	W1	H_YSWING	
17 CLK_MCH_BCLK	AG2	H_CLKIN	
17 CLK_MCH_BCLK#	AG1	H_CLKIN#	

H_A#_3	H9	H_A#3	
H_A#_4	C9	H_A#4	
H_A#_5	E11	H_A#5	
H_A#_6	G11	H_A#6	
H_A#_7	F11	H_A#7	
H_A#_8	G12	H_A#8	
H_A#_9	F9	H_A#9	
H_A#_10	H11	H_A#10	
H_A#_11	J12	H_A#11	
H_A#_12	G14	H_A#12	
H_A#_13	D9	H_A#13	
H_A#_14	J14	H_A#14	
H_A#_15	H13	H_A#15	
H_A#_16	J15	H_A#16	
H_A#_17	F14	H_A#17	
H_A#_18	D12	H_A#18	
H_A#_19	A11	H_A#19	
H_A#_20	C11	H_A#20	
H_A#_21	A12	H_A#21	
H_A#_22	A13	H_A#22	
H_A#_23	E13	H_A#23	
H_A#_24	G13	H_A#24	
H_A#_25	F12	H_A#25	
H_A#_26	B12	H_A#26	
H_A#_27	B14	H_A#27	
H_A#_28	C12	H_A#28	
H_A#_29	A14	H_A#29	
H_A#_30	C14	H_A#30	
H_A#_31	D14	H_A#31	

H_A#[3..31] — H_A#[3..31] 3

H_ADS#	E8	H_ADS# 3
H_ADSTB#_0	B9	H_ADSTB#0 3
H_ADSTB#_1	C13	H_ADSTB#1 3
H_VREF_0	J13	
H_BNR#	C6	H_BNR# 3
H_BPRI#	F6	H_BPRI# 3
H_BREQ#0	C7	H_BR0# 3
H_CPURST#	B7	H_RESET# 3
H_DBSY#	A7	H_DBSY# 3
H_DEFER#	C3	H_DEFER# 3
H_DPWR#	J9	H_DPWR# 3
H_DRDY#	H8	H_DRDY# 3
H_VREF_1	K13	
H_DINV#_0	J7	H_DINV#0 3
H_DINV#_1	W8	H_DINV#1 3
H_DINV#_2	U3	H_DINV#2 3
H_DINV#_3	AB10	H_DINV#3 3
H_DSTBN#_0	K4	H_DSTBN#0 3
H_DSTBN#_1	T7	H_DSTBN#1 3
H_DSTBN#_2	Y5	H_DSTBN#2 3
H_DSTBN#_3	AC4	H_DSTBN#3 3
H_DSTBP#_0	K3	H_DSTBP#0 3
H_DSTBP#_1	T6	H_DSTBP#1 3
H_DSTBP#_2	AA5	H_DSTBP#2 3
H_DSTBP#_3	AC5	H_DSTBP#3 3
H_HIT#	D3	H_HIT# 3
H_HITM#	D4	H_HITM# 3
H_LOCK#	B3	H_LOCK# 3
H_REQ#_0	D8	H_REQ#0 3
H_REQ#_1	G8	H_REQ#1 3
H_REQ#_2	B8	H_REQ#2 3
H_REQ#_3	F8	H_REQ#3 3
H_REQ#_4	A8	H_REQ#4 3
H_RS#_0	B4	H_RS#0 3
H_RS#_1	E6	H_RS#1 3
H_RS#_2	D6	H_RS#2 3
H_SLPCPU#	E3	H_CPUSLP# 3,11
H_TRDY#	E7	H_TRDY# 3

HOST

Calistoga

H_VREF decoupling cap should be placed within 100mils

+1.05V_VCCP — R212 100/F — H_VREF — R213 200/F — C336 0.1U_10V

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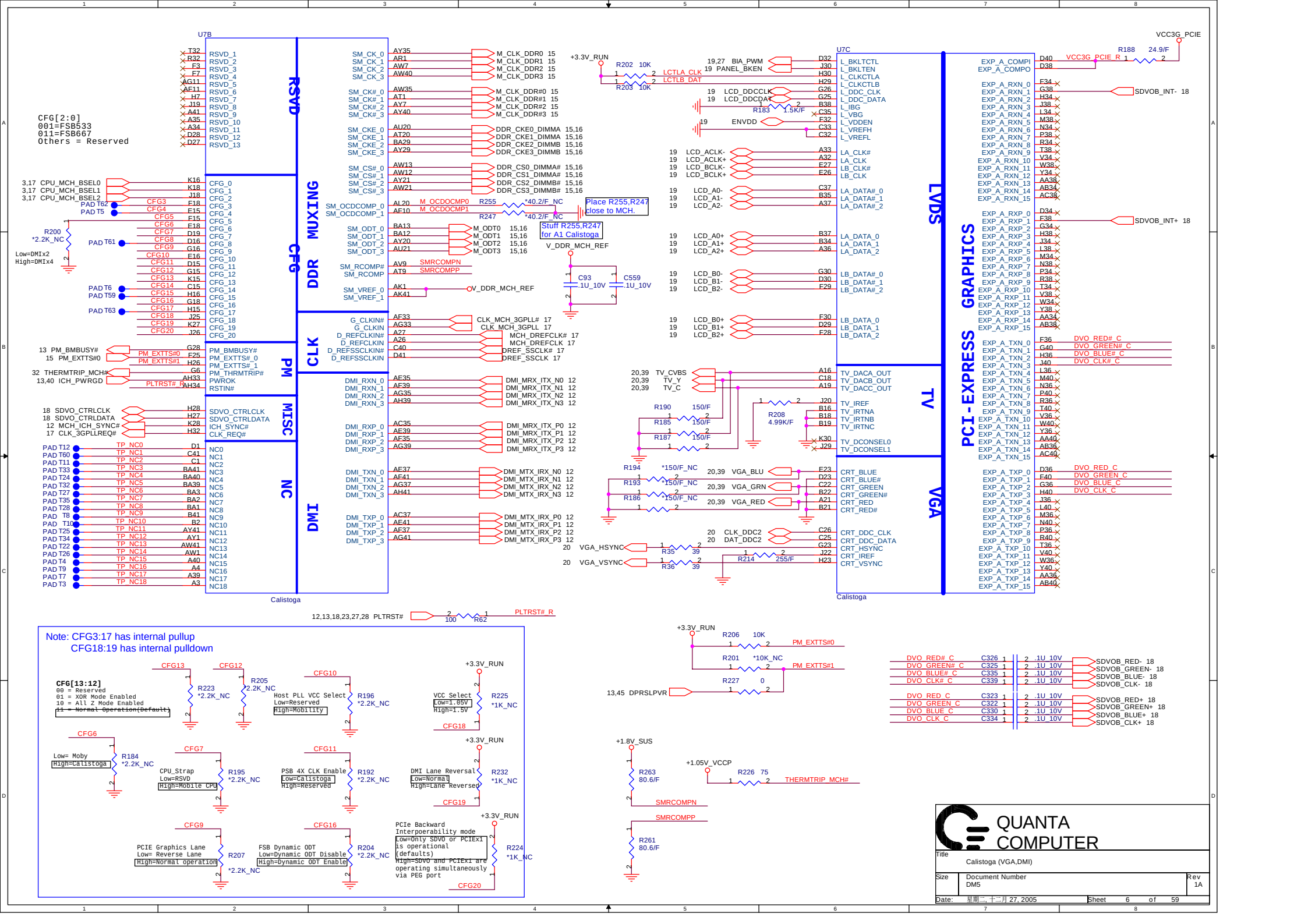
U7B
RSVD
CFG
DDR MUXING
CLK
PM
MISC
NC
DMI
Calistoga
CFG[2:0]
001=FSB533
011=FSB667
Others = Reserved
U7C
LVDS
TV
VGA
PCI-EXPRESS GRAPHICS
Calistoga
Note: CFG3:17 has internal pullup
CFG18:19 has internal pulldown
CFG[13:12]
00 = Reserved
01 = XOR Mode Enabled
10 = All Z Mode Enabled
11 = Normal Operation(Default)
Host PLL VCC Select
Low=Reserved
High=Mobility
VCC Select
Low=1.05V
High=1.5V
Low= Moby
High=Calistoga
CPU_Strap
Low=RSVD
High=Mobile CPU
PSB 4X CLK Enable
Low=Calistoga
High=Reserved
DMI Lane Reversal
Low=Normal
High=Lane Reversed
PCIE Graphics Lane
Low= Reverse Lane
High=Normal operation
FSB Dynamic ODT
Low=Dynamic ODT Disable
High=Dynamic ODT Enable
PCIe Backward Interpoerability mode
Low=Only SDVO or PCIEx1 is operational (defaults)
High=SDVO and PCIEx1 are operating simultaneously via PEG port
Place R255,R247 close to MCH.
Stuff R255,R247 for A1 Calistoga
QUANTA COMPUTER
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Calistoga (VGA,DMI)
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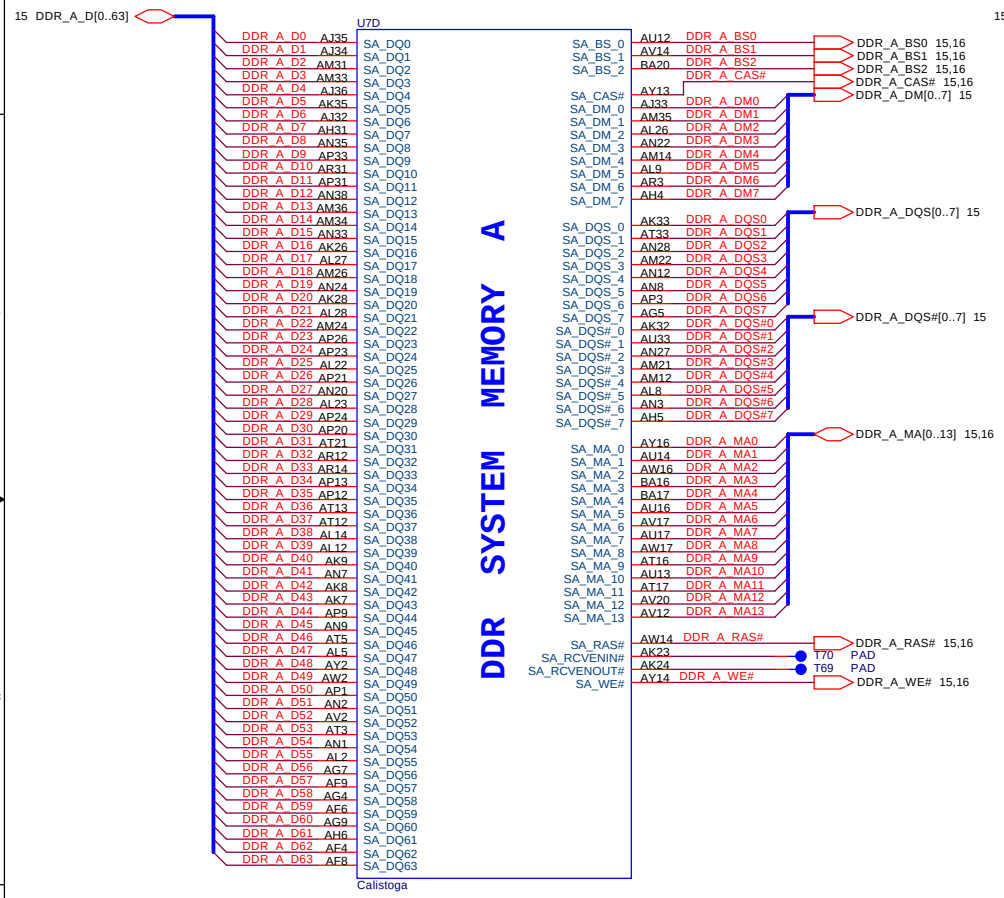

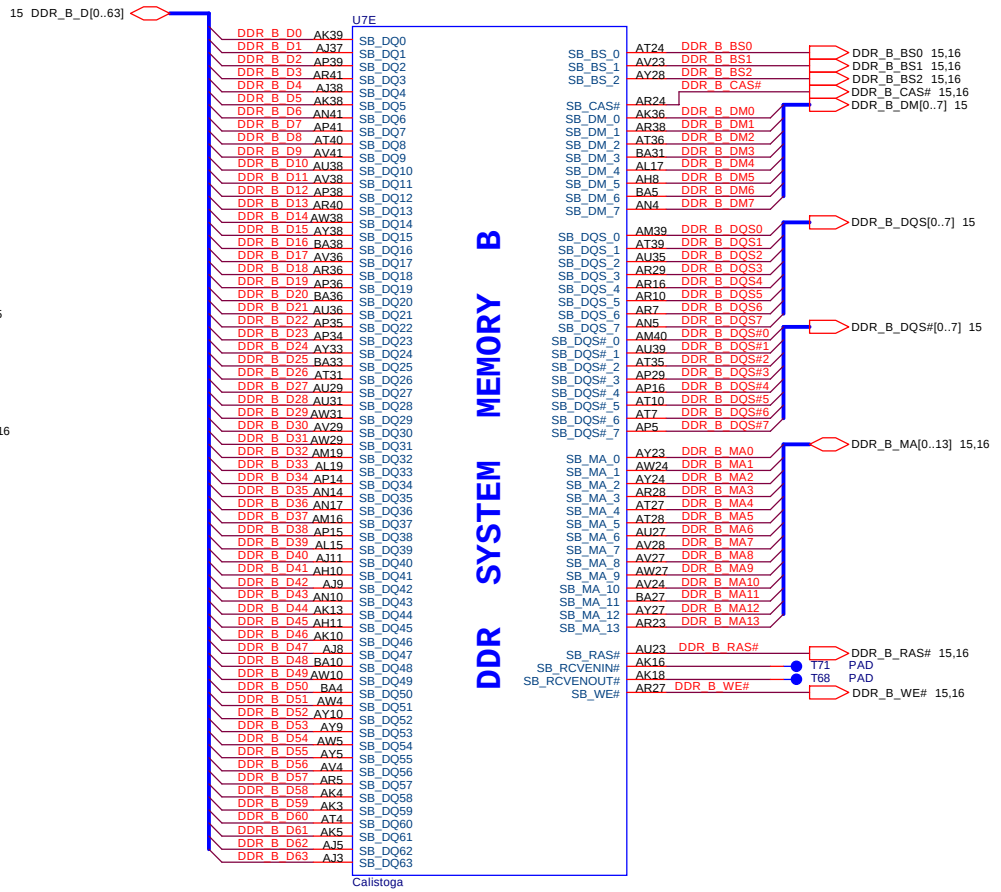

QUANTA COMPUTER

Title	Calistoga (DDR2)	
Size: Custom	Document Number: DM5	Rev: 1A
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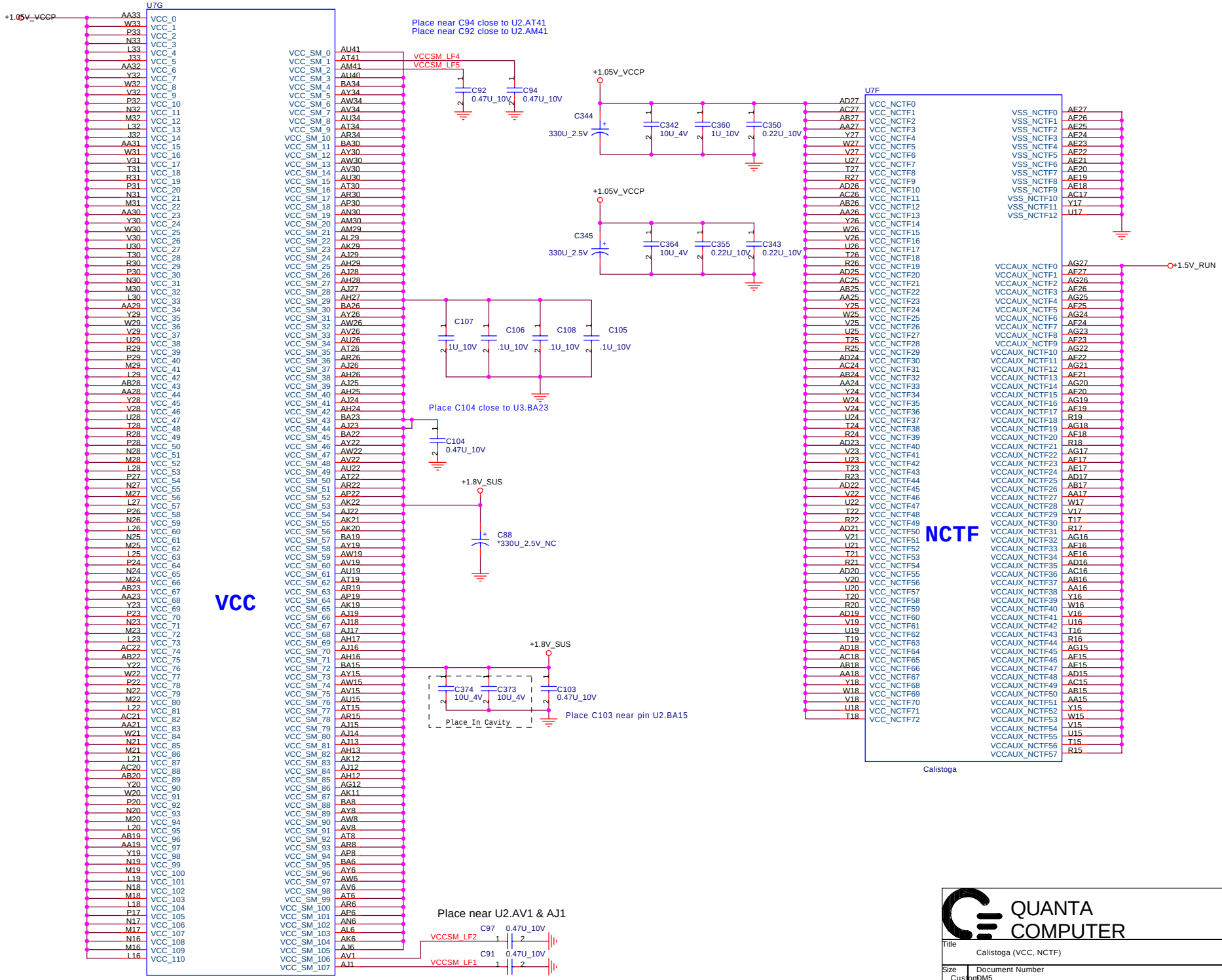

QUANTA COMPUTER

Title	Calistoga (VCC, NCTF)	
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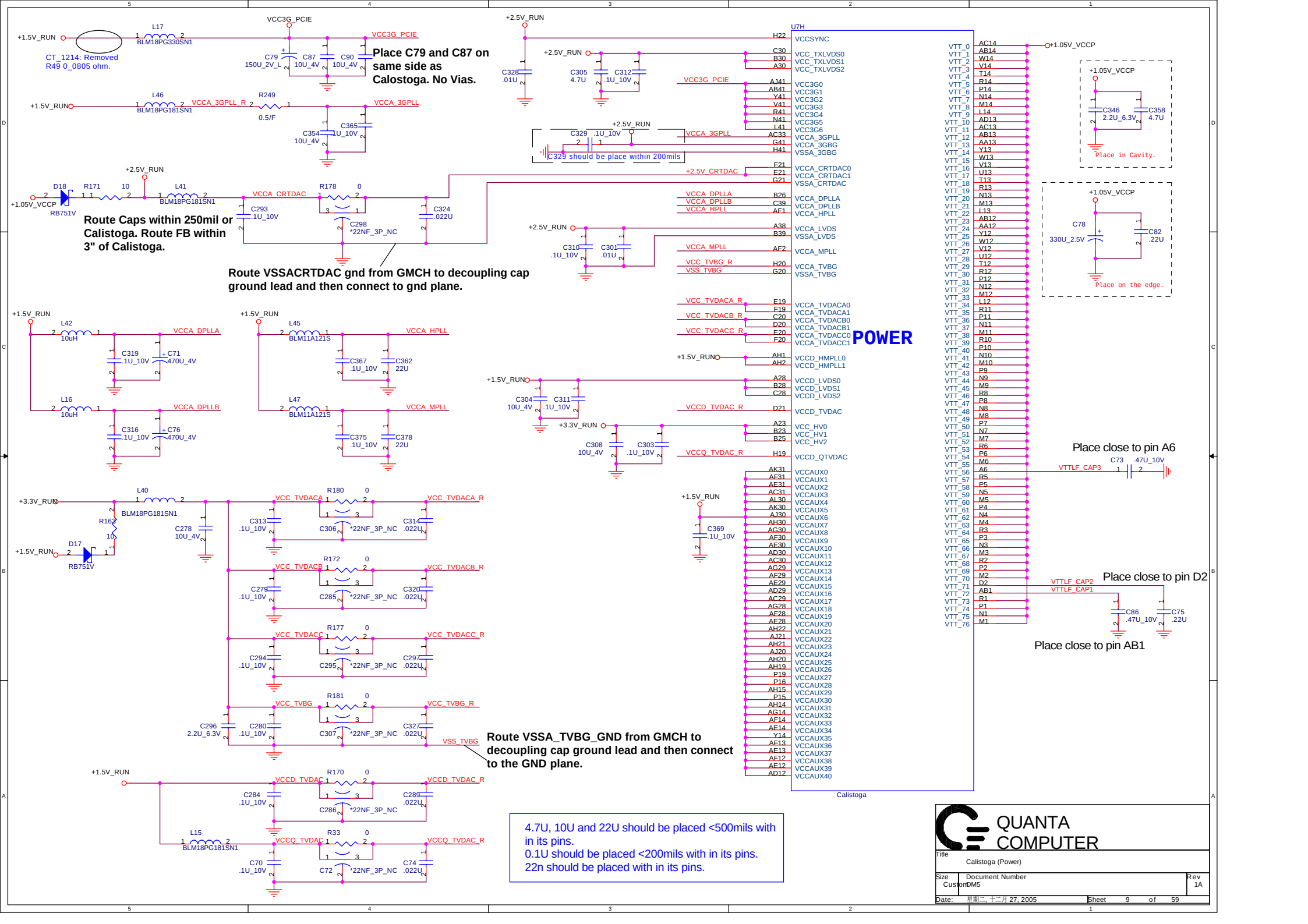
Place C79 and C87 on same side as Calostoga. No Vias.
CT_1214: Removed R49 0_0805 ohm.
Route Caps within 250mil or Calistoga. Route FB within 3" of Calistoga.
Route VSSACRTDAC gnd from GMCH to decoupling cap ground lead and then connect to gnd plane.
Route VSSA_TVBG_GND from GMCH to decoupling cap ground lead and then connect to the GND plane.
C329 should be place within 200mils
Place in Cavity.
Place on the edge.
Place close to pin A6
Place close to pin D2
Place close to pin AB1
POWER
Calistoga
4.7U, 10U and 22U should be placed <500mils with in its pins.
0.1U should be placed <200mils with in its pins.
22n should be placed with in its pins.
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Calistoga (Power)
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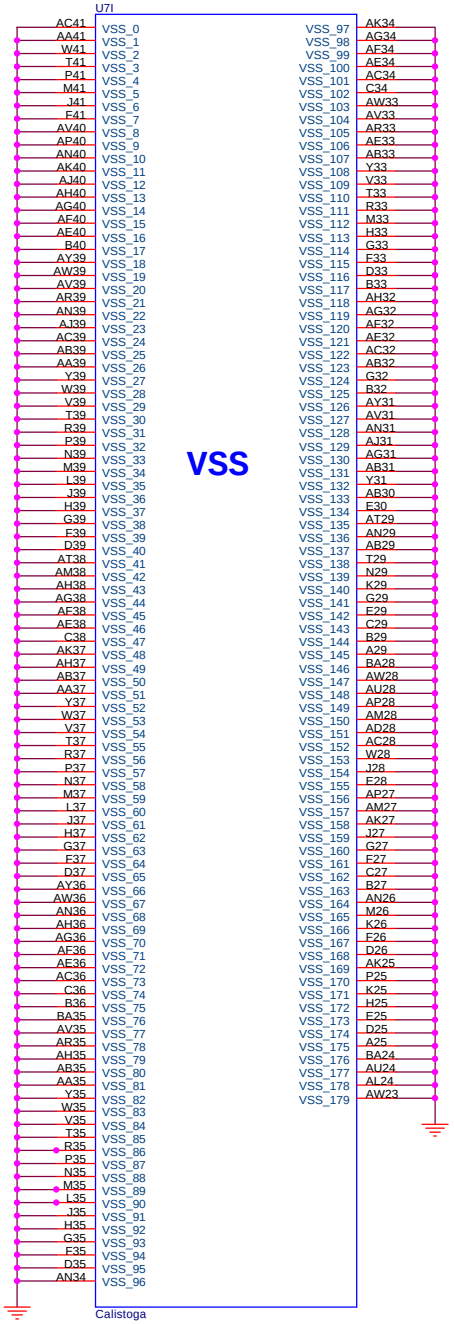

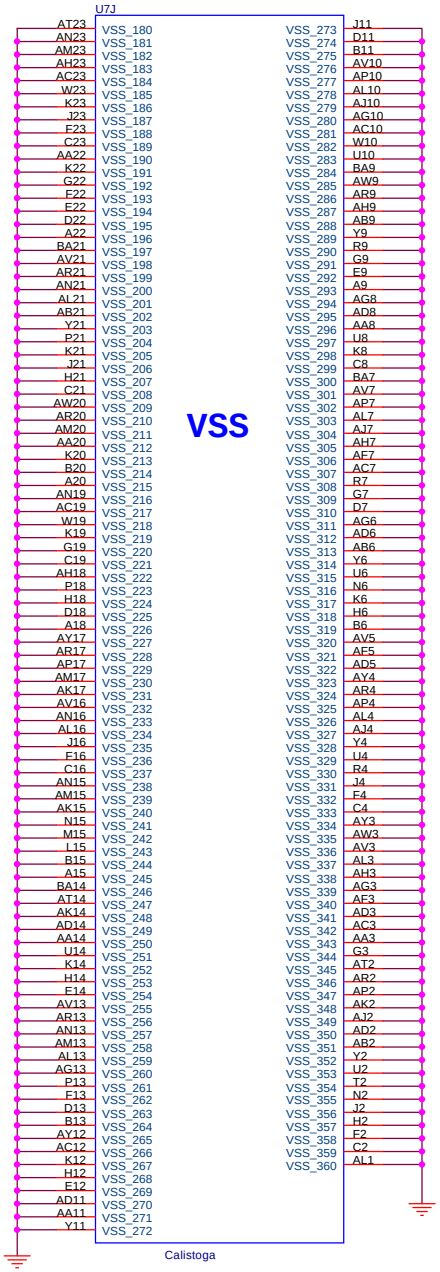

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Title	Calistoga (VSS,NCTF)	
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32.768KHZ

R110 10M

W1

R439 0_0402

ICH_RTCX1 ICH_RTCX2

C177 15P_50V

32.768KHZ

C178 15P_50V

+RTC_CELL

R416 1M

R415 332K/F

R417 20K

ICH_RTCRST#

SM_INTRUDER#

SM_INTVRMEN

R403 *0_NC

C532 1U_10V

Pop R1580 & no pop R1581 to disable internal VR.

U9A

ICH7-M

RTC

LPC

LAN

CPU

AC-97/AZALIA

SATA

IDE

ICH_RTCX1 AB1 RTXC1

ICH_RTCX2 AB2 RTXC2

ICH_RTCRST# AA3 RTCRST#

SM_INTRUDER# Y5 INTRUDER#

SM_INTVRMEN W4 INTVRMEN

T54 PAD W1 EE_CS

T55 PAD Y1 EE_SHCLK

T49 PAD Y2 EE_DOUT

T50 PAD W3 EE_DIN

T94 PAD V3 LAN_CLK

T96 PAD U3 LAN_RSTSYNC

T88 PAD U5 LAN_RXD0

T89 PAD V4 LAN_RXD1

T95 PAD T5 LAN_RXD2

T83 PAD U7 LAN_TXD0

T84 PAD V6 LAN_TXD1

T85 PAD V7 LAN_TXD2

ACZ_BIT_CLK U1 ACZ_BIT_CLK

ACZ_SYNC R6 ACZ_SYNC

ACZ_RST# R5 ACZ_RST#

34 ICH_AZ_CODEC_SDIN0 T2 ACZ_SDIN0

26 ICH_AZ_MDC_SDIN1 T3 ACZ_SDIN1

T52 PAD T1 ACZ_SDIN2

ACZ_SDOUT T4 ACZ_SDOUT

33 SATA_ACT# SATA_ACT# AE18 SATALED#

21 SATA_RX0- SATA_RX0- AE3 SATA0RXN

21 SATA_RX0+ SATA_RX0+ AE3 SATA0RXP

SATA_C_TX0- AG2 SATA0TXN

SATA_C_TX0+ AH2 SATA0TXP

AE7 SATA2RXN

AE7 SATA2RXP

AG6 SATA2TXN

AH6 SATA2TXP

17 CLK_PCIE_SATA# AE1 SATA_CLKN

17 CLK_PCIE_SATA AE1 SATA_CLKP

Place within 500mils of ICH6 ball

R393 24.9/F SATABIAS

AH10 SATARBIASN

AG10 SATARBIASP

21 IDE_DIOR# IDE_DIOR# AE15 DIOR#

21 IDE_DIOW# IDE_DIOW# AH15 DIOW#

21 IDE_DDACK# IDE_DDACK# AE16 DDACK#

21 IDE_IRQ IDE_IRQ AH16 IDEIRQ

21 IDE_DIORDY IDE_DIORDY AG16 IORDY

21 IDE_DDREQ IDE_DDREQ AE15 DDREQ

LAD0 AA6 LPC_LAD0 27,28

LAD1 AB5 LPC_LAD1 27,28

LAD2 AC4 LPC_LAD2 27,28

LAD3 Y6 LPC_LAD3 27,28

LDRQ0# AC3 LPC_LDRQ0#

LDRQ1#/GPIO23 AA5 LPC_LDRQ1#

LFRAME# AB3 LPC_LFRAME# 27,28

A20GATE AE22 SIO_A20GATE

A20M# AH28 H_A20M# 3

CPUSLP# AG27 R_CPUSLP#

TP1/DPRSTP# AE24

TP2/DPSLP# AH25

FERR# AG26 H_FERR# 3

GPIO49/CPUPWRGD AG24 H_PWRGOOD 3

IGNNE# AG22 H_IGNNE# 3

INIT3_3V# AG21

INIT# AF22 H_INIT# 3

INTR AF25 H_INTR 3

RCIN# AG23 SIO_RCIN# 27

NMI AH24 H_NMI 3

SMI# AF23 H_SMI# 3

STPCLK# AH22 H_STPCLK# 3

THERMTRIP# AF26 THERMTRIP# ICH

DD0 AB15 IDE_DD0

DD1 AF14 IDE_DD1

DD2 AG13 IDE_DD2

DD3 AF13 IDE_DD3

DD4 AD14 IDE_DD4

DD5 AC13 IDE_DD5

DD6 AD12 IDE_DD6

DD7 AC12 IDE_DD7

DD8 AE12 IDE_DD8

DD9 AF12 IDE_DD9

DD10 AB13 IDE_DD10

DD11 AC14 IDE_DD11

DD12 AF14 IDE_DD12

DD13 AH13 IDE_DD13

DD14 AH14 IDE_DD14

DD15 AC15 IDE_DD15

IDE_DD[0..15] IDE_DD[0..15] 21

DA0 AH17 IDE_DA0

DA1 AF17 IDE_DA1

DA2 AF17 IDE_DA2

DCS1# AE16 IDE_DCS1#

DCS3# AD16 IDE_DCS3#

IDE_DA0 21

IDE_DA1 21

IDE_DA2 21

IDE_DCS1# 21

IDE_DCS3# 21

LPC_LAD0 27,28

LPC_LAD1 27,28

LPC_LAD2 27,28

LPC_LAD3 27,28

LPC_LDRQ0# 28

LPC_LDRQ1# 28

LPC_LFRAME# 27,28

SIO_A20GATE 27

H_A20M# 3

R97 *0_NC

H_CPUSLP# 3,5

R364 0

H_DPRSTP# 3,45

R99 0

H_DPSLP# 3

H_FERR# 3

H_PWRGOOD 3

H_IGNNE# 3

H_INIT# 3

H_INTR 3

SIO_RCIN# 27

H_NMI 3

R366 0

H_SMI# 3

H_STPCLK# 3

THERMTRIP# ICH

IDE_DD[0..15] 21

R99 & R366 can be removed on RTS

H_FERR# R361 56 +1.05V_VCCP

H_DPRSTP# R365 *56_NC +1.05V_VCCP

H_DPSLP# R363 *56_NC +1.05V_VCCP

+3.3V_RUN

R372 10K

R369 10K

SIO_A20GATE

SIO_RCIN#

+1.05V_VCCP

R96 56

THERMTRIP# ICH

C167 *0.1U_10V_NC

C472 3900P_25V

C469 3900P_25V

21 SATA_TX0- SATA_C_TX0-

21 SATA_TX0+ SATA_C_TX0+

Distance between the ICH-7 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.

+3.3V_RUN

R381 8.2K IDE_IRQ

R8 *10K_NC SATA_ACT#

X1,X2 Docking

IAC_SYNC	Port X Line	R126
1	1X2,2X1	STUFF
0	4X1	UNSTUFF

R8 can be removed on RTS

ACZ_SYNC

R411 33 ICH_AZ_MDC_SYNC 26

R412 33 ICH_AZ_CODEC_SYNC 34

ACZ_SDOUT

R106 33 ICH_AZ_MDC_SDOUT 26

R111 33 ICH_AZ_CODEC_SDOUT 34

ACZ_BIT_CLK

R108 33 ICH_AZ_MDC_BITCLK 26

R109 33 ICH_AZ_CODEC_BITCLK 34

C180 *27P_50V_NC

C179 *27P_50V_NC

ACZ_RST#

R107 33 ICH_AZ_MDC_RST# 26

R112 33 ICH_AZ_CODEC_RST# 34

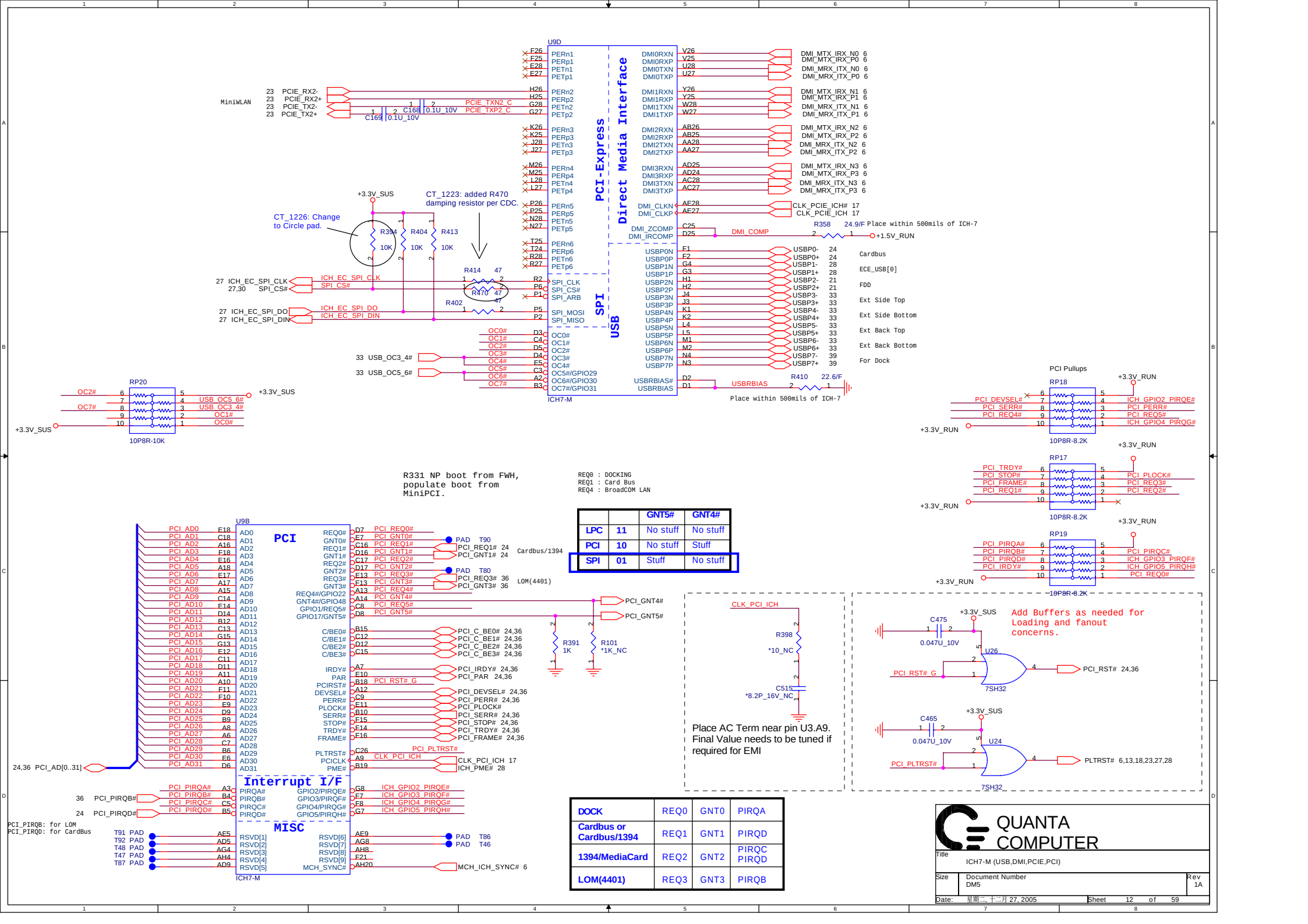
Place All Series Term close to ICH except for the SDIN input lines, which should be close to the source. All resister value should tuned during EA. Placement of R87,R88,R91,R92 should be Equal distance to the "T" split trace point as R89,R90,R93,R94. resp. Basically, keep the same distance from "T" for all seriess termination resistor.

QUANTA COMPUTER

Title: ICH7-M (CPU,IDE,SATA,LPC,AC97)

Size: Document Number: DM5 Rev: 1A

Date: 星期二, 十二月 27, 2005 Sheet 11 of 59

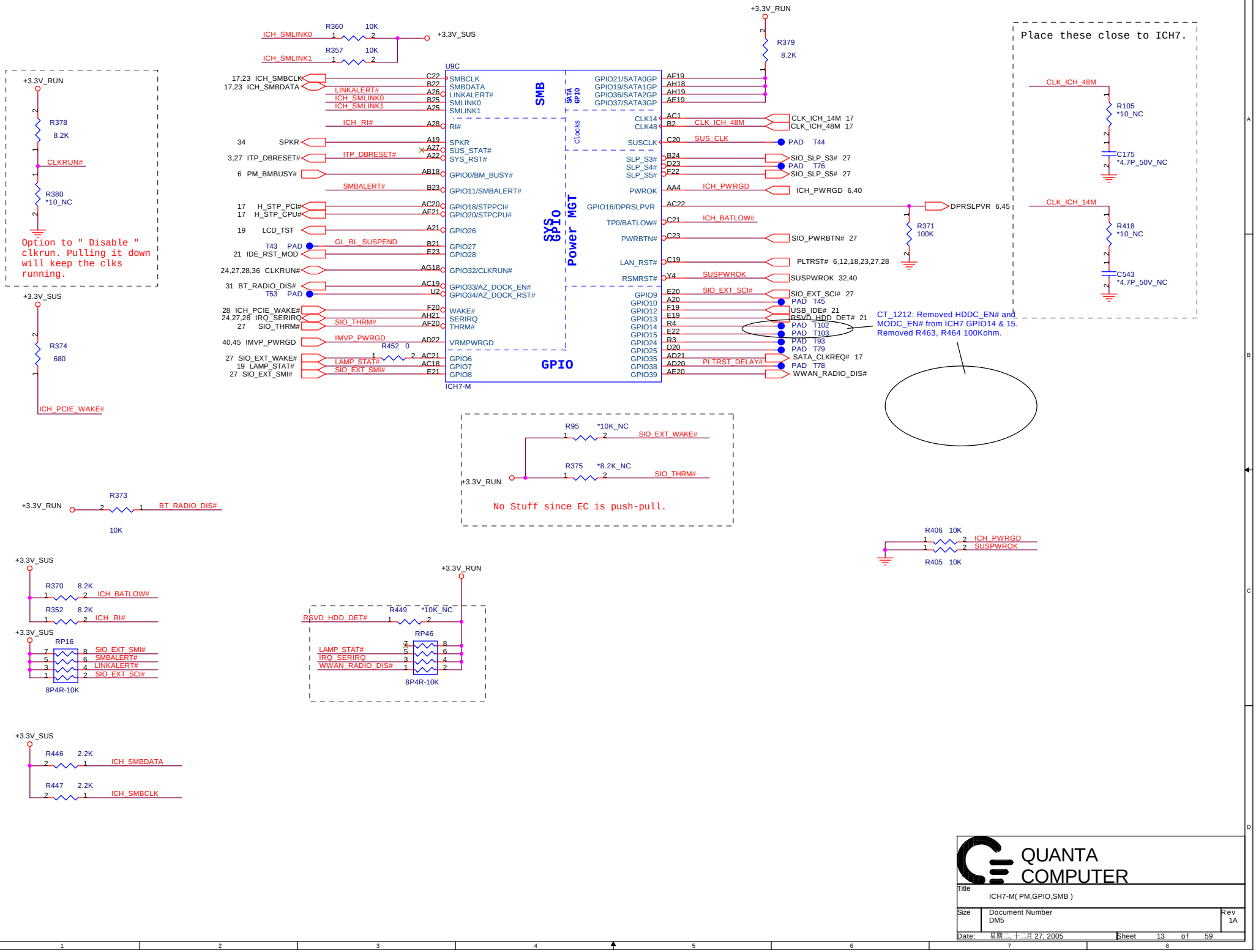


		GNT5#	GNT4#
LPC	11	No stuff	No stuff
PCI	10	No stuff	Stuff
SPI	01	Stuff	No stuff

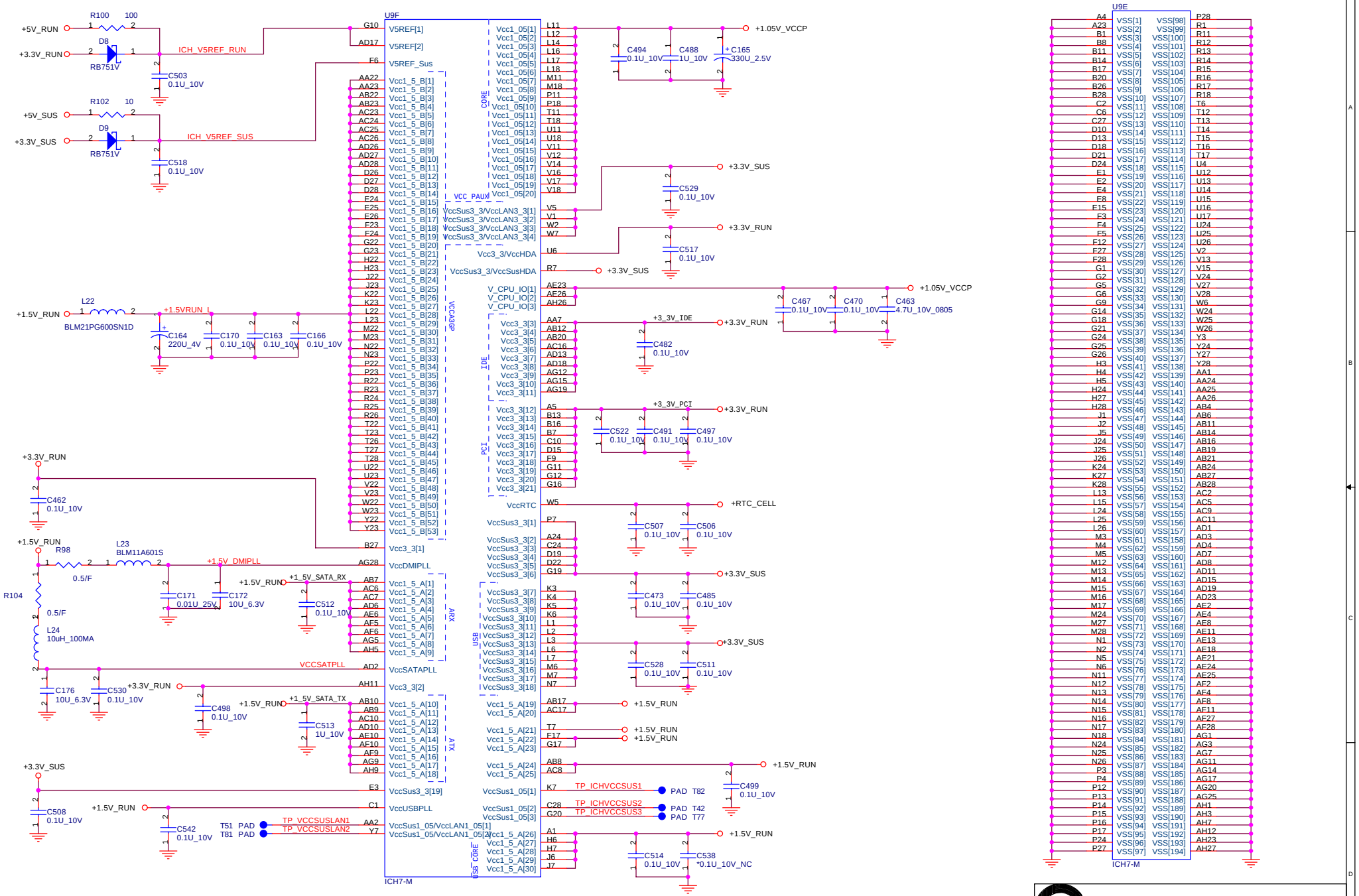
DOCK	REQ0	GNT0	PIRQA
Cardbus or Cardbus/1394	REQ1	GNT1	PIRQD
1394/MediaCard	REQ2	GNT2	PIRQC PIRQD
LOM(4401)	REQ3	GNT3	PIRQB

QUANTA COMPUTER

Title	ICH7-M (USB,DMI,PCIE,PCI)	
Size	Document Number DM5	Rev 1A
Date: 星期三, 十二月 27, 2005	Sheet 12 of 59	



QUANTA COMPUTER		
Title: ICH7-M(PM,GPIO,SMB)		
Size	Document Number: DM5	Rev: 1A
Date: 星期三, 十二月 27, 2005	Sheet 13 of 59	


U9F
ICH7-M
U9E
ICH7-M
R100
100
+5V_RUN
+3.3V_RUN
D8
RB751V
ICH_V5REF_RUN
C503
0.1U_10V
R102
10
+5V_SUS
+3.3V_SUS
D9
RB751V
ICH_V5REF_SUS
C518
0.1U_10V
L22
+1.5V_RUN
BLM21PG600SN1D
+1.5VRUN_L
C164
220U_4V
C170
0.1U_10V
C163
0.1U_10V
C166
0.1U_10V
C462
0.1U_10V
R98
0.5/F
L23
BLM11A601S
+1.5V_DMIPLL
R104
0.5/F
L24
10uH_100MA
C171
0.01U_25V
C172
10U_6.3V
+1.5V_SATA_RX
C512
0.1U_10V
VCCSATPLL
C176
10U_6.3V
C530
0.1U_10V
C498
0.1U_10V
+1.5V_SATA_TX
C513
1U_10V
C508
0.1U_10V
C542
0.1U_10V
T51 PAD
T81 PAD
TP_VCCSUSLAN1
TP_VCCSUSLAN2
C494
0.1U_10V
C488
1U_10V
C165
330U_2.5V
+1.05V_VCCP
C529
0.1U_10V
C517
0.1U_10V
C482
0.1U_10V
C522
0.1U_10V
C491
0.1U_10V
C497
0.1U_10V
C507
0.1U_10V
C506
0.1U_10V
C473
0.1U_10V
C485
0.1U_10V
C528
0.1U_10V
C511
0.1U_10V
C499
0.1U_10V
TP_ICHVCCSUS1
TP_ICHVCCSUS2
TP_ICHVCCSUS3
PAD T82
PAD T42
PAD T77
C514
0.1U_10V
C538
*0.1U_10V_NC
C467
0.1U_10V
C470
0.1U_10V
C463
4.7U_10V_0805
+RTC_CELL
CORE
VCC_PAUX
IDE
PCI
USB
AC97
ATA
ATX
USB CORE
VCCA3GP
+3V_IDE
+3V_PCI
VSS[1] VSS[2] VSS[3] VSS[4] VSS[5] VSS[6] VSS[7] VSS[8] VSS[9] VSS[10] VSS[11] VSS[12] VSS[13] VSS[14] VSS[15] VSS[16] VSS[17] VSS[18] VSS[19] VSS[20] VSS[21] VSS[22] VSS[23] VSS[24] VSS[25] VSS[26] VSS[27] VSS[28] VSS[29] VSS[30] VSS[31] VSS[32] VSS[33] VSS[34] VSS[35] VSS[36] VSS[37] VSS[38] VSS[39] VSS[40] VSS[41] VSS[42] VSS[43] VSS[44] VSS[45] VSS[46] VSS[47] VSS[48] VSS[49] VSS[50] VSS[51] VSS[52] VSS[53] VSS[54] VSS[55] VSS[56] VSS[57] VSS[58] VSS[59] VSS[60] VSS[61] VSS[62] VSS[63] VSS[64] VSS[65] VSS[66] VSS[67] VSS[68] VSS[69] VSS[70] VSS[71] VSS[72] VSS[73] VSS[74] VSS[75] VSS[76] VSS[77] VSS[78] VSS[79] VSS[80] VSS[81] VSS[82] VSS[83] VSS[84] VSS[85] VSS[86] VSS[87] VSS[88] VSS[89] VSS[90] VSS[91] VSS[92] VSS[93] VSS[94] VSS[95] VSS[96] VSS[97] VSS[98] VSS[99] VSS[100] VSS[101] VSS[102] VSS[103] VSS[104] VSS[105] VSS[106] VSS[107] VSS[108] VSS[109] VSS[110] VSS[111] VSS[112] VSS[113] VSS[114] VSS[115] VSS[116] VSS[117] VSS[118] VSS[119] VSS[120] VSS[121] VSS[122] VSS[123] VSS[124] VSS[125] VSS[126] VSS[127] VSS[128] VSS[129] VSS[130] VSS[131] VSS[132] VSS[133] VSS[134] VSS[135] VSS[136] VSS[137] VSS[138] VSS[139] VSS[140] VSS[141] VSS[142] VSS[143] VSS[144] VSS[145] VSS[146] VSS[147] VSS[148] VSS[149] VSS[150] VSS[151] VSS[152] VSS[153] VSS[154] VSS[155] VSS[156] VSS[157] VSS[158] VSS[159] VSS[160] VSS[161] VSS[162] VSS[163] VSS[164] VSS[165] VSS[166] VSS[167] VSS[168] VSS[169] VSS[170] VSS[171] VSS[172] VSS[173] VSS[174] VSS[175] VSS[176] VSS[177] VSS[178] VSS[179] VSS[180] VSS[181] VSS[182] VSS[183] VSS[184] VSS[185] VSS[186] VSS[187] VSS[188] VSS[189] VSS[190] VSS[191] VSS[192] VSS[193] VSS[194]
QUANTA COMPUTER
Title
ICH7-M (POWER&GND)
Size
Document Number
DM5
Rev
1A
Date:
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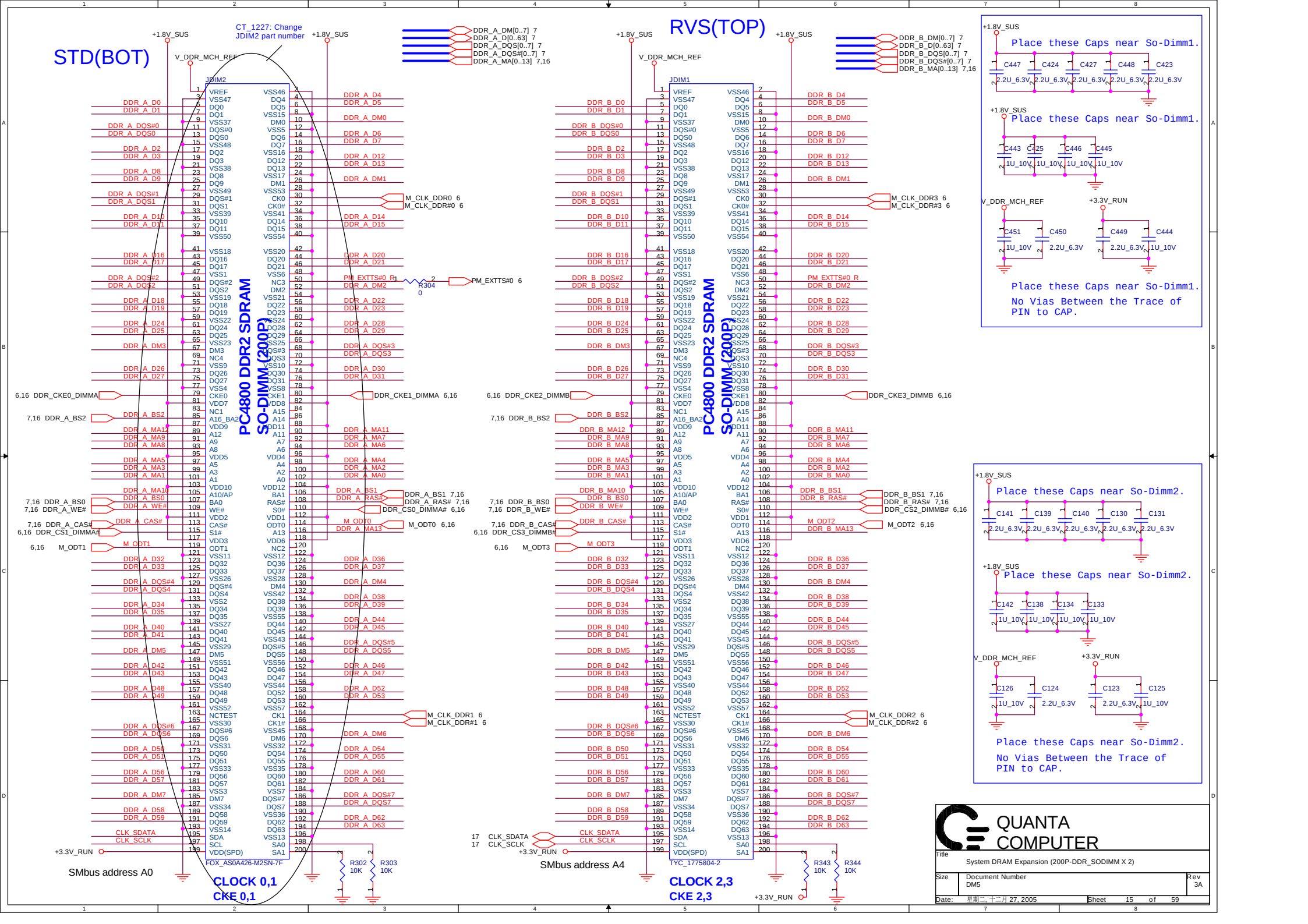

STD(BOT)
RVS(TOP)
CT_1227: Change JDIM2 part number
JDIM2
JDIM1
FOX_AS0A426-M2SN-7F
TYC_1775804-2
PC4800 DDR2 SDRAM SO-DIMM (200P)
SMbus address A0
SMbus address A4
CLOCK 0,1
CKE 0,1
CLOCK 2,3
CKE 2,3
Place these Caps near So-Dimm1.
Place these Caps near So-Dimm1.
Place these Caps near So-Dimm1.
No Vias Between the Trace of PIN to CAP.
Place these Caps near So-Dimm2.
Place these Caps near So-Dimm2.
Place these Caps near So-Dimm2.
No Vias Between the Trace of PIN to CAP.
QUANTA COMPUTER
System DRAM Expansion (200P-DDR_SODIMM X 2)
Document Number DM5
Rev 3A
Sheet 15 of 59

DDRII DUAL CHANNEL A,B.

DDRII A CHANNEL

DDR_A_MA[0..13] 7,15

+0.9V_DDR_VTT

No Vias Between the Trace of PIN to CAP.

C410 C408 C409 C405 C404 C155 C143 C154 C151 C150 C452 C406 C407
1U_10V 1U_10V 1U_10V 1U_10V 1U_10V 1U_10V 1U_10V 1U_10V 1U_10V 1U_10V 1U_10V 1U_10V 1U_10V

Layout note: Place 1 cap close to every 1 R-pack terminated to +0.9V_DDR_VTT.

DDR_A_MA7, DDR_A_MA11 RP28, DDR_A_MA4, DDR_A_MA6 RP25, DDR_A_RAS# — 7,15 DDR_A_RAS#, 7,15 DDR_A_BS1 RP27 — 4P2R-S-56 → +0.9V_DDR_VTT

DDR_A_MA13, M_ODT0 RP26, DDR_A_BS2, DDR_A_MA12 RP44, DDR_A_MA9, DDR_A_MA8 RP43, DDR_A_MA5, DDR_A_MA3 RP42 — 6,15 M_ODT0, 7,15 DDR_A_BS2 — 4P2R-S-56 → +0.9V_DDR_VTT

DDR_A_MA10, DDR_A_BS0 RP41 — 7,15 DDR_A_BS0, 7,15 DDR_A_WE#, DDR_A_CAS# RP40 — 7,15 DDR_A_CAS#, DDR_A_MA0, DDR_A_MA2 RP24 — 4P2R-S-56 → +0.9V_DDR_VTT

DDR_A_MA1 — R347 56 → +0.9V_DDR_VTT

6,15 M_ODT1 — M_ODT1 — R345 56 → +0.9V_DDR_VTT

6,15 DDR_CKE0_DIMMA — DDR_CKE0_DIMMA — R346 56
6,15 DDR_CKE1_DIMMA — DDR_CKE1_DIMMA — R299 56 → +0.9V_DDR_VTT

6,15 DDR_CS0_DIMMA# — DDR_CS0_DIMMA# — R298 56
6,15 DDR_CS1_DIMMA# — DDR_CS1_DIMMA# — R348 56 → +0.9V_DDR_VTT

DDRII B CHANNEL

DDR_B_MA[0..13] 7,15

+0.9V_DDR_VTT

No Vias Between the Trace of PIN to CAP.

C111 C112 C113 C114 C115 C453 C144 C117 C153 C152 C149 C148 C116
1U_10V 1U_10V 1U_10V 1U_10V 1U_10V 1U_10V 1U_10V 1U_10V 1U_10V 1U_10V 1U_10V 1U_10V 1U_10V

Layout note: Place 1 cap close to every 1 R-pack terminated to +0.9V_DDR_VTT

7,15 DDR_B_RAS#, 7,15 DDR_B_BS1 — DDR_B_RAS#, DDR_B_BS1 RP12, DDR_B_MA12, DDR_B_MA9 RP8, DDR_B_MA8, DDR_B_MA5 RP7 — 4P2R-S-56 → +0.9V_DDR_VTT

DDR_B_MA3, DDR_B_MA1 RP6, DDR_B_MA10, DDR_B_BS0 RP5 — 7,15 DDR_B_BS0, 7,15 DDR_B_WE#, DDR_B_CAS# RP4 — 7,15 DDR_B_CAS#, DDR_B_MA7, DDR_B_MA11 RP14 — 4P2R-S-56 → +0.9V_DDR_VTT

DDR_B_MA4, DDR_B_MA6 RP10, DDR_B_MA0, DDR_B_MA2 RP13, DDR_B_MA13 — 6,15 M_ODT2 — M_ODT2 RP11 — 4P2R-S-56 → +0.9V_DDR_VTT

7,15 DDR_B_BS2 — DDR_B_BS2 — R77 56 → +0.9V_DDR_VTT

6,15 M_ODT3 — M_ODT3 — R75 56 → +0.9V_DDR_VTT

6,15 DDR_CKE2_DIMMB — DDR_CKE2_DIMMB — R78 56
6,15 DDR_CKE3_DIMMB — DDR_CKE3_DIMMB — R88 56 → +0.9V_DDR_VTT

6,15 DDR_CS2_DIMMB# — DDR_CS2_DIMMB# — R89 56
6,15 DDR_CS3_DIMMB# — DDR_CS3_DIMMB# — R76 56 → +0.9V_DDR_VTT

QUANTA COMPUTER

Title	DDR RES.ARRAY	
Size	Document Number DM5	Rev 1A
Date: 星期三, 十二月 27, 2005	Sheet 16 of 59	

FSC	FSB	FSA	CPU	SRC	PCI	
1	0	1	100	100	33	
0	0	1	133	100	33	533MHZ
0	1	1	166	100	33	667MHZ
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	

Close to Clock GEN.

Place these termination to close CK410M.

SMbus address D2

ICS954305

ICS954305B 250mA (MAX.)

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

These are for backdrive issue

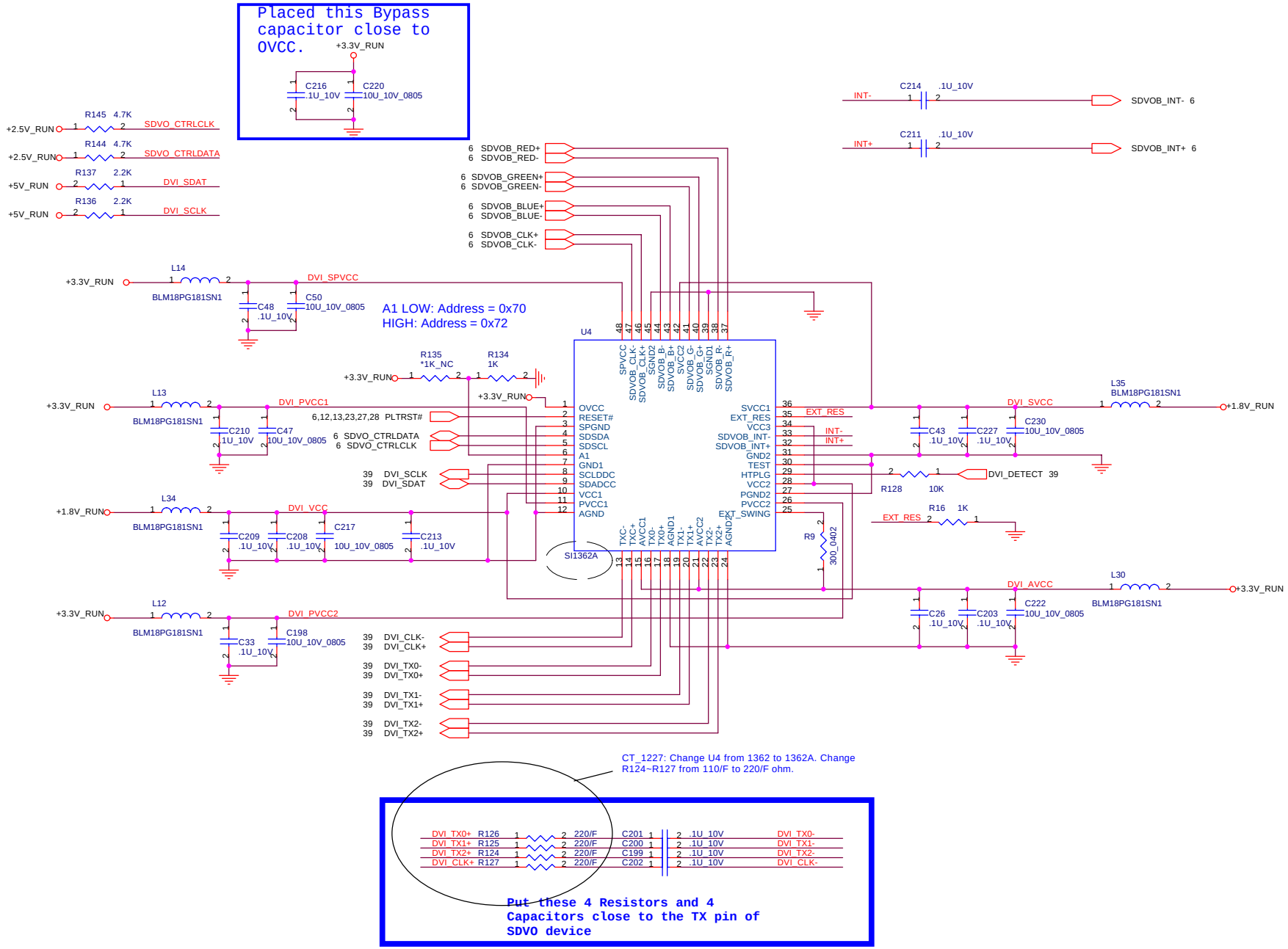
Place these termination to close CK410M.

QUANTA COMPUTER

Title: CLOCK GENERATOR

Size: | Document Number: DM5 | Rev: 1A

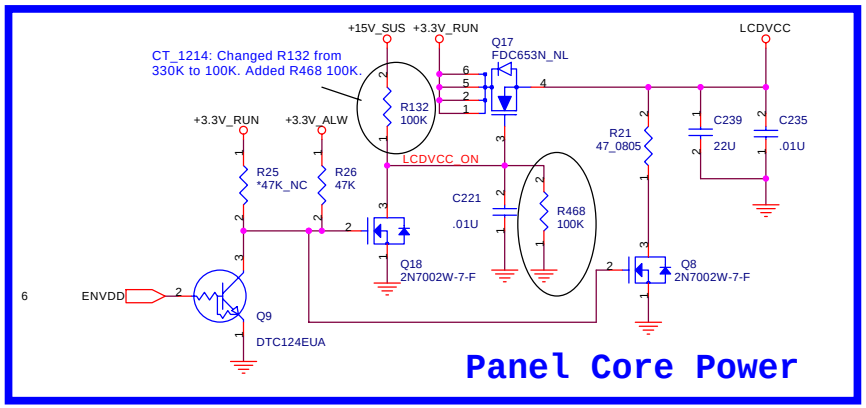
Date: 星期三, 十二月 27, 2005 | Sheet 17 of 59

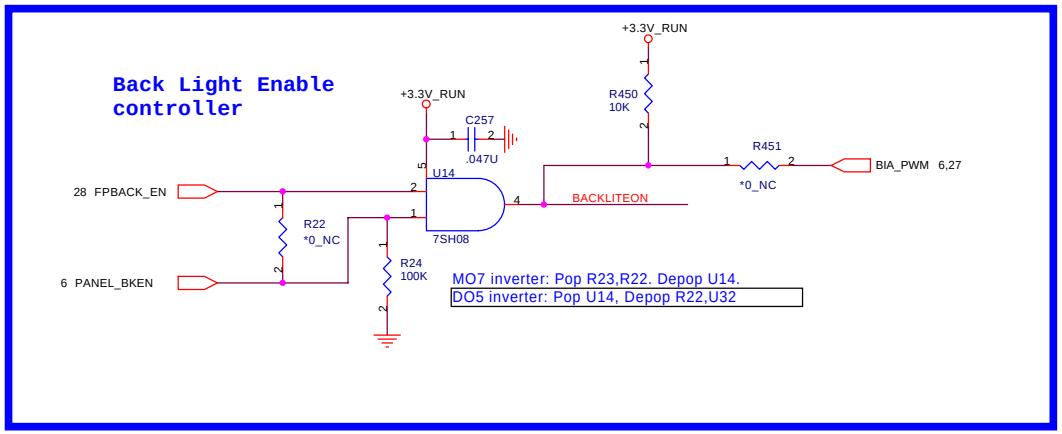


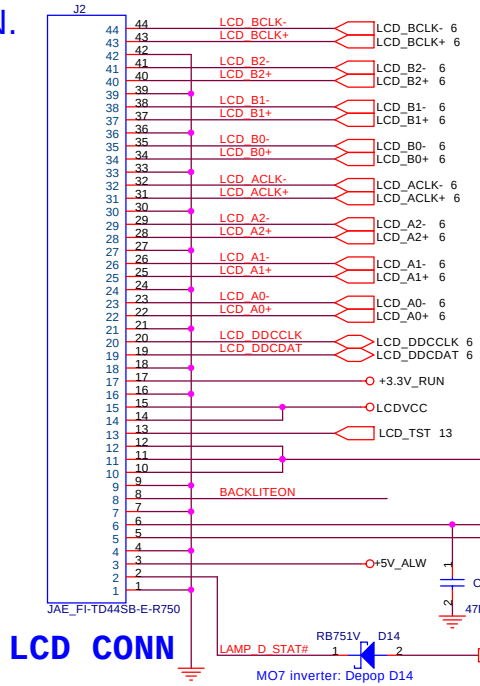
QUANTA COMPUTER

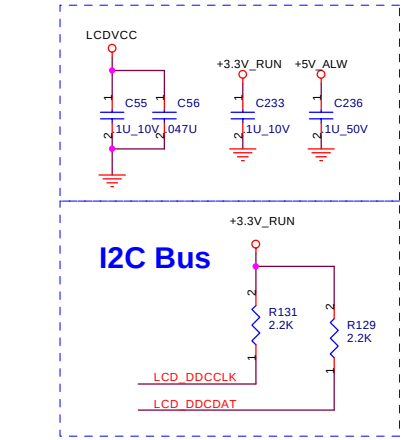
Title	SIL 1362 DVI	
Size: Custom	Document Number: DM5	Rev: 3A
Date: 星期三, 十二月 27, 2005	Sheet 18 of 59	

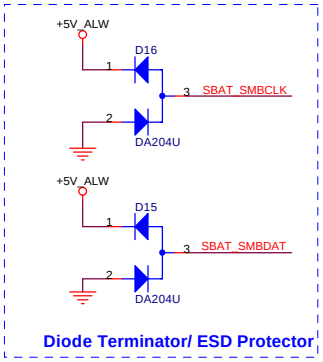
Need to apply P/N for new J2 CONN.



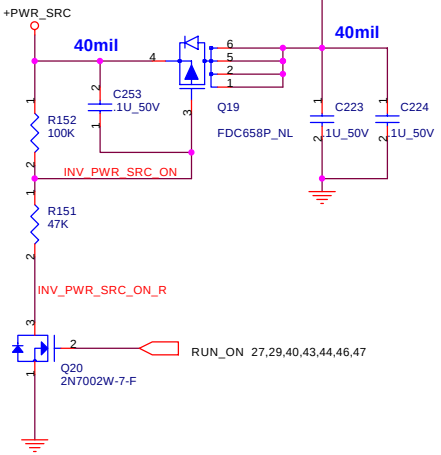






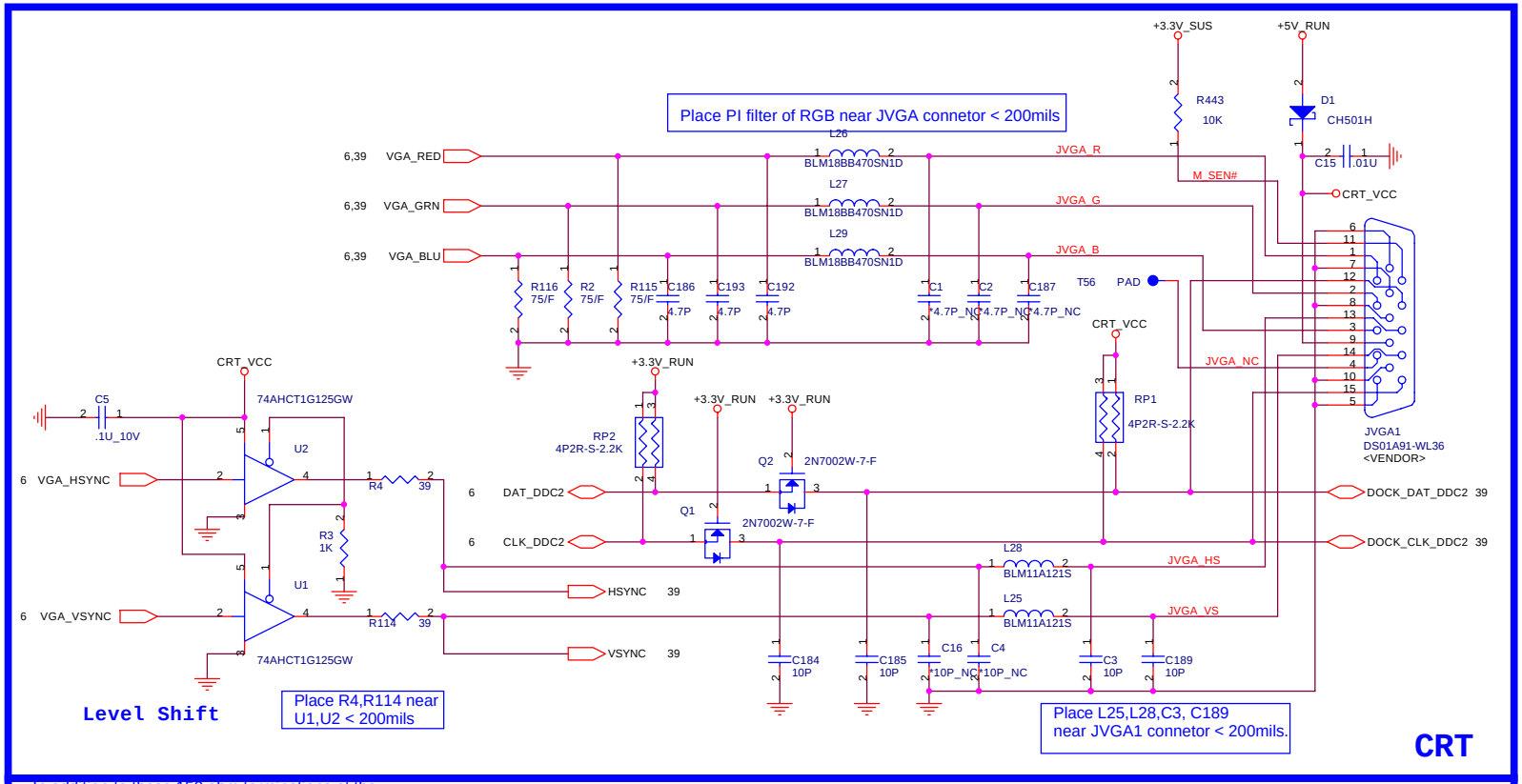


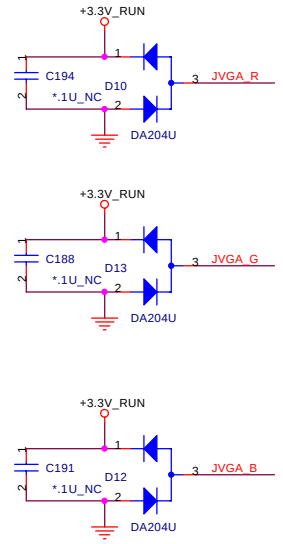
Adress : A9H --Contrast
AAH --Backlight



QUANTA COMPUTER

Title	LCD CONN&CK-SSCD	
Size	Document Number DM5	Rev 1A
Date: 星期三, 十二月 27, 2005	Sheet 19 of 59	

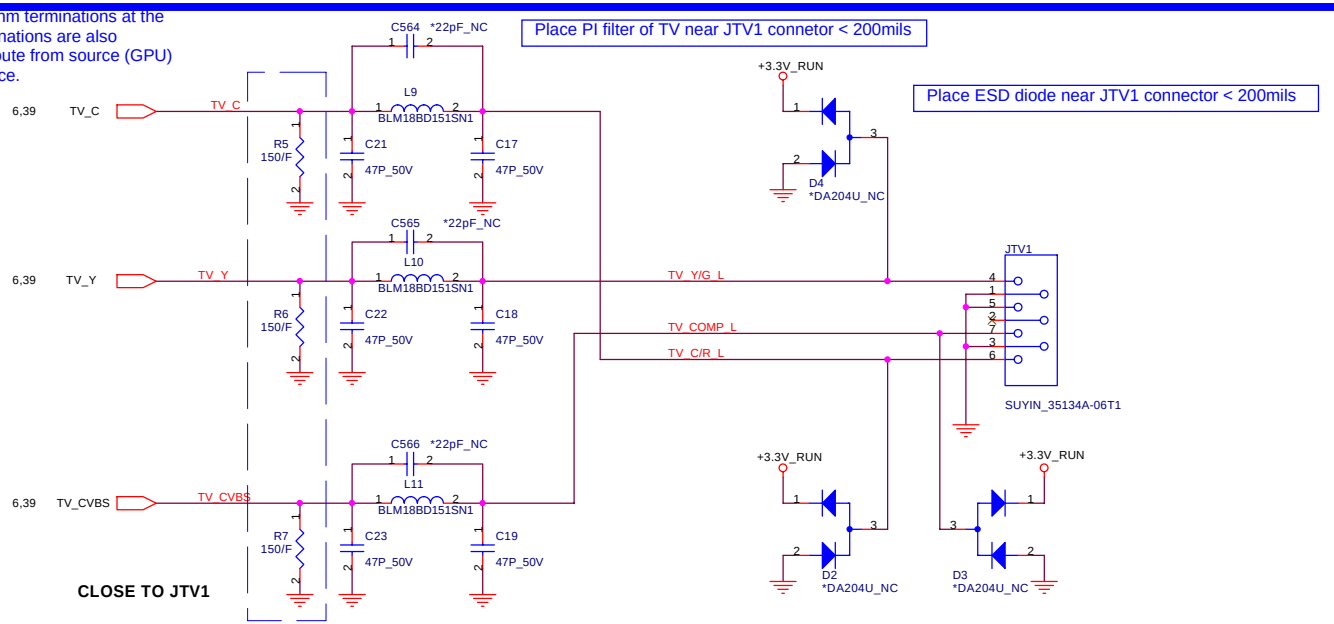




ESD Protector

Place ESD diodes near JVGA connetor < 200mils

In addition to these 150 ohm terminations at the connector, 150 ohm terminations are also required at the Source. Route from source (GPU) at 50 ohm terget impedance.



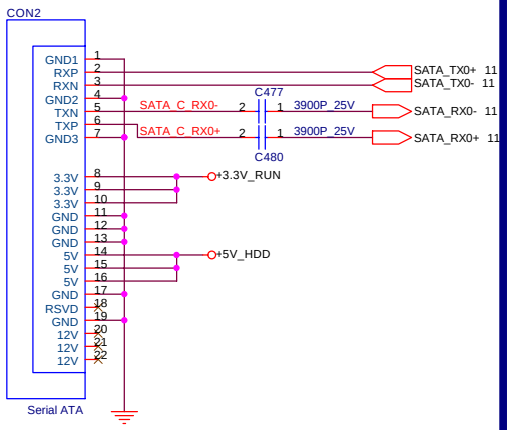
TV-OUT

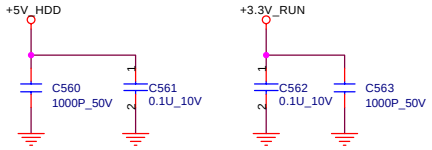
CLOSE TO JTV1

QUANTA COMPUTER

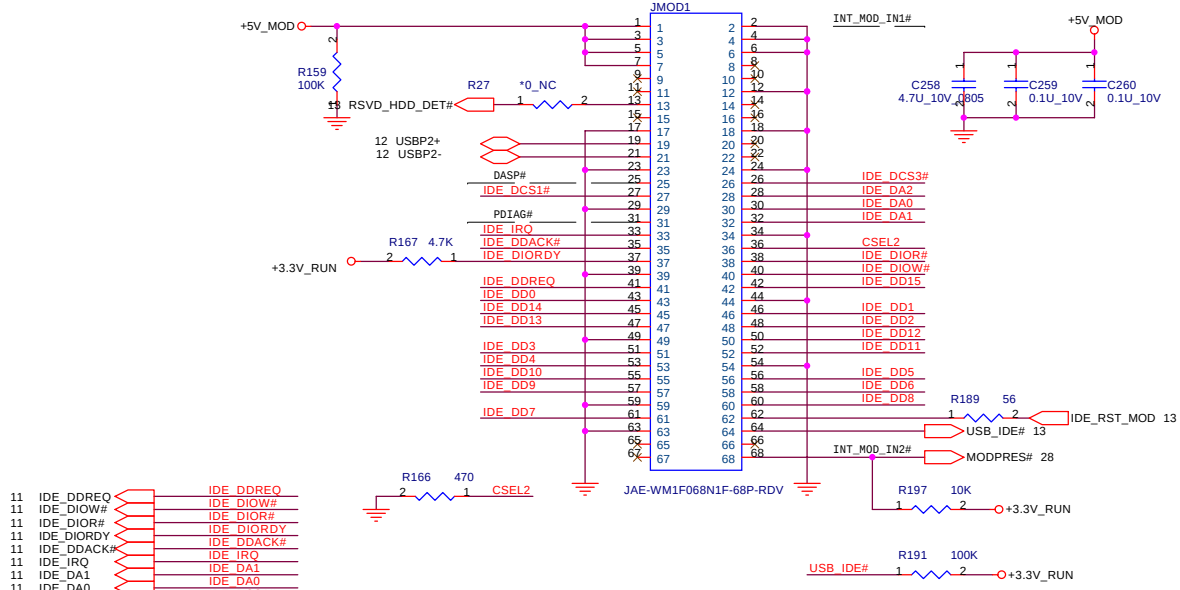
Title	CRT&TV CONN	
Size	Document Number DM5	Rev 1A
Date: 星期三, 十二月 27, 2005	Sheet 20 of 59	

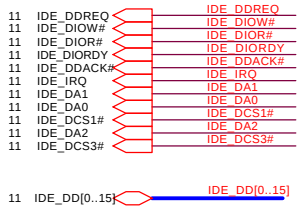
Check SATA Footprint



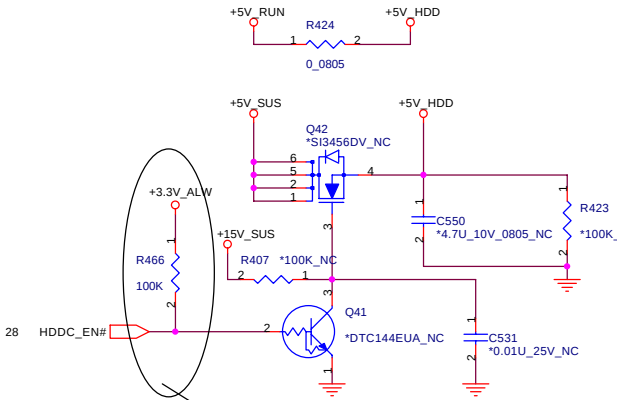


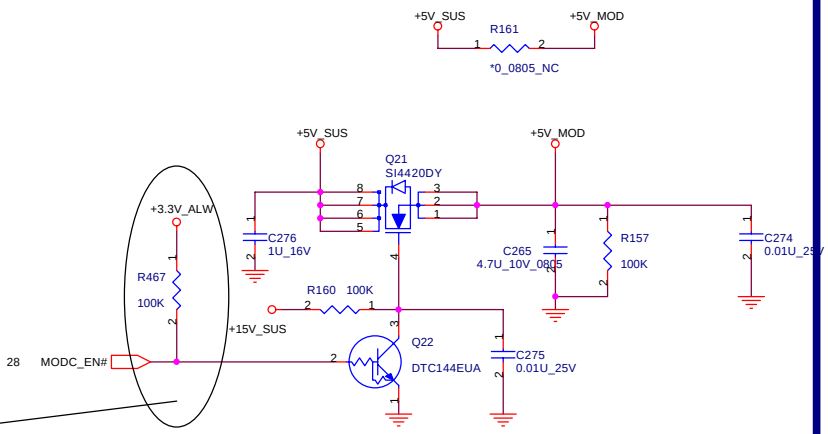
SATA HDD CONN





MEDIA BAY





CT_1212: Added pull up R466 & R467 100K to HDDC_EN# & MODC_EN# per MO7 schematics.

POWER SWITCH

QUANTA COMPUTER

Title	IDE (HDD&CD_ROM	
Size	Document Number DM5	Rev 1A
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PV16 PAD197X98 GND
PV8 PAD197X98 GND
PV11 PAD197X98 GND
PV14 PAD197X98 GND

PV17 PAD197X98 GND
PV18 PAD197X98 GND
PV7 PAD197X98 GND
PV10 *PAD197X98_NC GND

CT_1226: Depop PV10 per mechancial request/EMI confirmed

PV15 PAD197X98 GND
PV12 PAD197X98 GND
PV1 PAD197X98 GND

PV5 PAD138X98 GND
PV6 PAD138X98 GND
PV9 PAD138X98 GND
PV2 PAD138X98 GND
PV3 *PAD138X98_NC GND

Stitching caps

+3.3V_SUS	+3.3V_SUS		
C338 2200P	C394 2200P	C356 2200P	C421 2200P
+3.3V_RUN	+3.3V_RUN		

Stitching caps for IDE traces referencing to SVCC

+5V_SUS	+SBATT	+3.3V_RUN
C83 2200P	C147 2200P	C174 2200P
+PWR_SRC	+PWR_SRC	+PWR_SRC

Stitching caps for PCI traces referencing to SVCC

+3.3V_RUN	+1.8V_SUS	+3.3V_RUN	+3.3V_RUN	+1.8V_SUS	+1.5V_RUN	
C454 2200P	C156 2200P	C42 2200P	C40 2200P	C372 2200P	C277 2200P	
+1.8V_SUS	+PWR_SRC	+PWR_SRC	+5V_SUS	+1.5V_RUN	+PWR_SRC	

H1 h-c315d126p2-4
H21 h-c315d126p2-4
H20 h-c315d126p2-2
H16 h-c315d126p2-4
H17 H-C315D110P2-4
CT_1215: Change H17 from 3.2mm to 2.8mm.
H22 h-c315d126p2-4
H15 h-c315d126p2-2
H18 h-c315d126p2-4
H13 H-C315I166D126P2
H8 h-c236d126p2-4

CT_1215: Change CPU screw holes (H6,H7,H9,H10) from 2.6mm to 2.5mm.

CPU SCREW HOLES

H6 H-C236D98I142BC276P2
H9 H-C236D98I142BC276P2
H7 H-C236D98I142BC276P2
H10 H-C236D98I142BC276P2

CT_1215: Change H4 hole diameter from 3.9mm to 4.3 per ME.

H12 h-c236d110p2-4
H11 h-TC276BC236D110P2-4
H19 h-c315d118p2-4
H14 h-c354d126p2

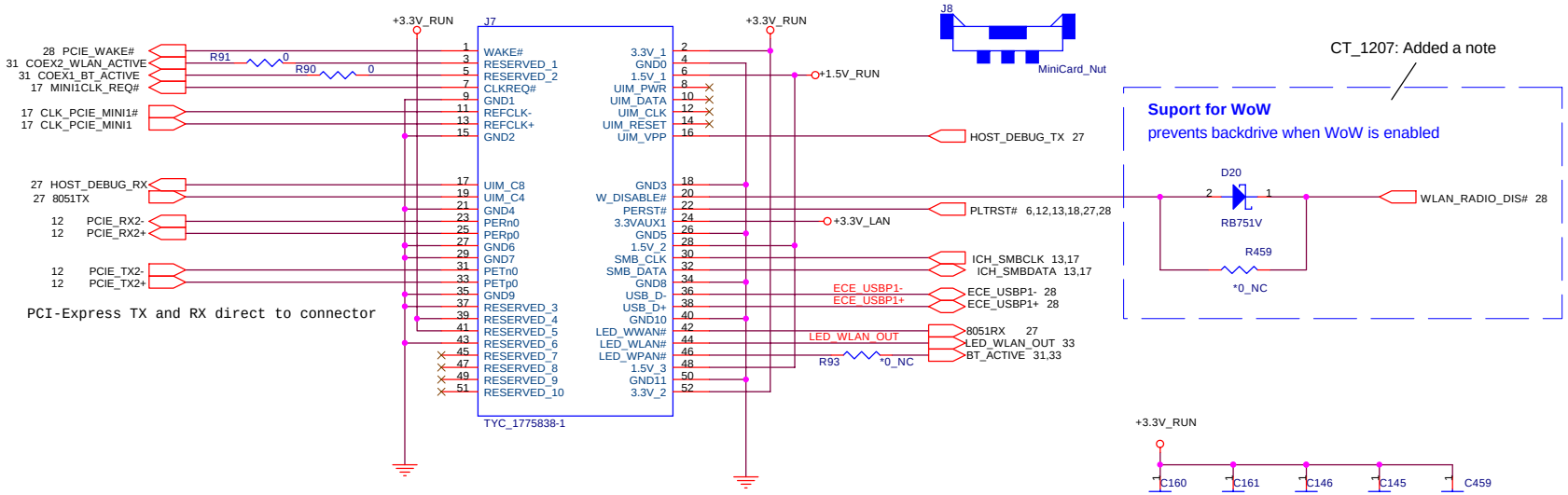
CT_1215: Change H23 from H-OB189X31D189X31N to H-OB189X28D189X28N. Change H24 to a irregular shape hole per ME request.

H23 H-OB189X28D189X28N
H24

H5 H-TC276BC236D126P2
H4 H-C276D169P2
H3 H-TC256BC236D126P2

QUANTA COMPUTER

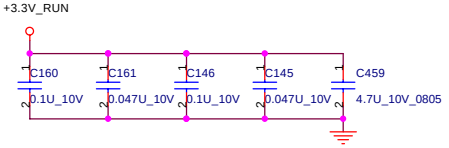
Title	SCREW PAD	
Size	Document Number DM5	Rev 3A
Date: 星期二, 十二月 27, 2005	Sheet 22 of 59	

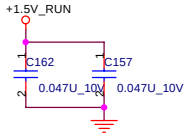


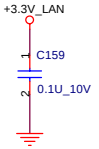
CT_1207: Added a note

Suport for WoW

prevents backdrive when WoW is enabled







QUANTA COMPUTER

Title	MINI-PCI	
Size	Document Number DM5	Rev 1A
Date: 星期三, 十二月 27, 2005	Sheet 23 of 59	

OZ711EZ1
128 PIN LQFP

U17

these 1394 signals are high speed differential pairs and must be kept equal length with a differential impedance (Zo) of 110 ohms.

Please these parts nearOZ711EZ1.

R244 5.9K/F

IEEE 1394 (8)

PC CARD SOCKET (32)

PCI HOST BUS (46)

MISCELLANEOUS (4)

PC CARD INTERFACE (27)

POWER PLANE (11)

OZ711EZ1TN

Please these parts near OZ711EZ1.

CON1
PCI-1CA41501-T1-TH

CardBus Slot

Reserved for EMI

Place these caps near OZ711EZ1.

Place these caps near OZ2532.

Place these caps near connector.

U18
20 PIN SSOP
OZ2532L

Power Switch (PCMCIA)

Title	PCCARD
Size	Document Number DM5
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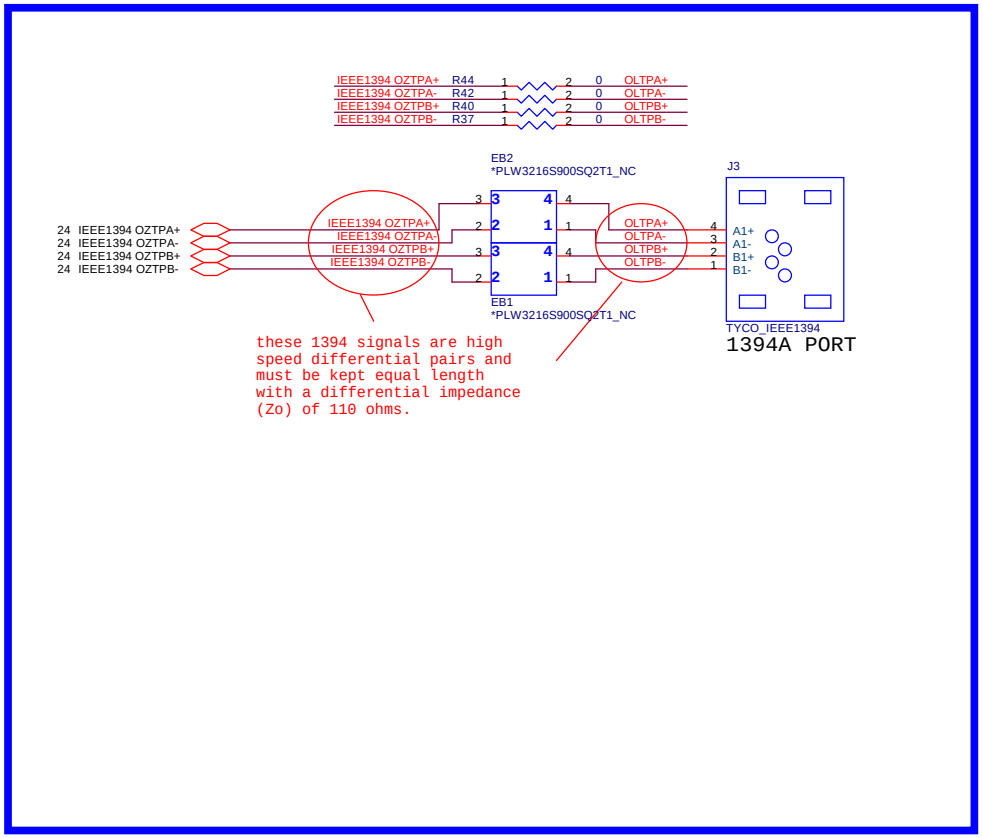
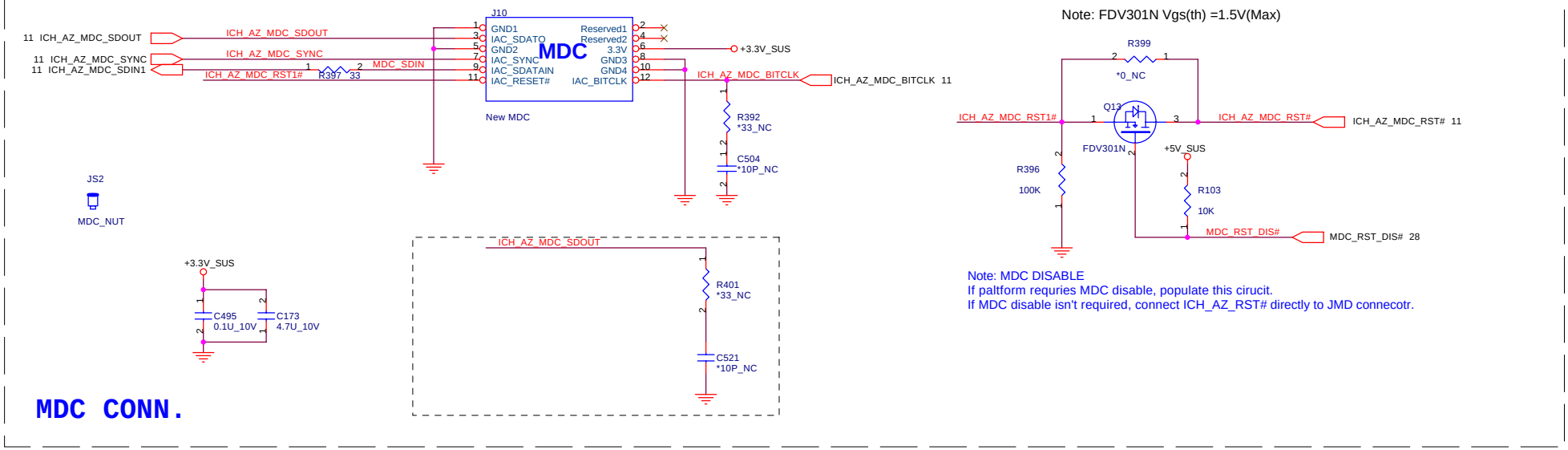
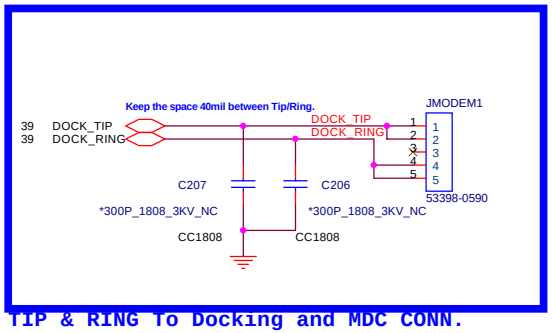
QUANTA COMPUTER



QUANTA COMPUTER

Title	ExpressCard/SmartCard	
Size	Document Number JM6	Rev 1A
Date: 星期三, 十二月 27, 2005	Sheet 25 of 59	





TIP & RING To Docking and MDC CONN.

QUANTA COMPUTER

Title	MDC CONN.	
Size	Document Number DM5	Rev 1A
Date: 星期三, 十二月 27, 2005	Sheet 26 of 59	

MEC5004 EC-07
128 PIN VTQFP

USIO1

PCI POWER SIRQ
LPC BUS (6)
HOST /8051 SPI (8)
SFR GPIO (13)
ACCESS BUS(4)
KEYBOARD /MOUSE (30)
GPIO (22)
MISCELLANEOUS (9)
BC
POWER SWITCH (6)
POWER PLANES (14)
CLOCK

MEC5004

Place close to pin 58.

"Share 10uF Nearby"

EC5004 Rev C Pop.
EC5004 Rev D De-Pop

1 = Discrete.
0 = UMA.

1 = Enabled.
0 = Disabled

Flash Recovery.

Low = Write Protected.

Flash Write Protect bottom 4K of internal bootblock flash.

Keyboard CONN

HRS FH28D-50(25)SB-1SH(86)

Power Switch

32 kHz Clock.

Make accessible without remoing board from chassis.

Not Stuff 0 ohm when doing Flash recovery

Debug Serial Port Flash Recovery Port.

Cory_0824:Changed C96 and C80 from 0.047u to 0.1u follow M07 A04.

QUANTA COMPUTER

Title	Ultra I/O Controller MEC5004
Size	Document Number DM5
Rev	1A
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ECE5018 Midway 128 PIN VTQFP

USIO2

Board ID Straps

+3.3V_ALW

R290 *10K_NC, R291 *10K_NC, R292 10K, R293 10K

BID0, BID1, BID2, BID3

R306 10K, R307 10K, R308 *10K_NC, R309 *10K_NC

BID3	BID2	BID1	BID0	Board Revision
0	0	0	0	ENG1(M00)
0	0	0	1	ENG2(X00)
0	0	1	0	ENG3 (X01)
0	0	1	1	ENG4 (X02)
0	1	0	0	RAMP

CT_1207: Pop R293 and Depop R309 for board ID change(X02)

RP32

+3.3V_ALW

RP32 8P4R-10K

1 PCIE_WAKE#
3 SYS_PME#
5 DOCK_SIO_ALERT#
7 SBAT_ALARM#

R271 10K PBAT_ALARM#

R322 *10K_NC DBAY_MODPRES#

R274 *10K_NC SC_DET#

GPIO (25)

23	PCIE_WAKE#	PCIE_WAKE#	97 GPIOA[0]
24,36	SYS_PME#	SYS_PME#	98 GPIOA[1]
39	DOCK_SIO_ALERT#	DOCK_SIO_ALERT#	99 GPIOA[2]
48	PBAT_PRES#		100 GPIOA[3]
41,48	SBAT_PRES#		101 GPIOA[4]
41	CHG_PBATT		102 GPIOA[5]
41	CHG_SBATT		103 GPIOA[6]
41	SBAT_LOW		104 GPIOA[7]
		BID0	112 GPIOF[4]
		BID1	111 GPIOF[5]
		BID2	110 GPIOF[6]
		BID3	109 GPIOF[7]
13	ICH_PCIE_WAKE#		88 GPIOG[0]
12	ICH_PME#		89 GPIOG[1]
32	THERMTRIP_SIO		90 GPIOG[2]
	PAD T40		91 GPIOG[3]
	PAD T39		92 GPIOG[4]
19	FPBACK_EN		93 GPIOG[5]
	PAD T41	CB_HWSPND#	94 GPIOG[6]
3	CPU_PROCHOT#	CPU_PROCHOT#	95 GPIOG[7]
39	DOCK_PWR_EN		26 GPIOH[4]
		SNIFFER_WIRELESS_ON/OFF#	27 GPIOH[5]
21	MODPRES#		32 GPIOH[6]
		SC_DET#	33 GPIOH[7]
23	WLAN_RADIO_DIS#		105 OUT65

USB (19)

R84 12K/F, R82 10K, +3.3V_ALW

			127 RBIAS
			126 ATEST
		ECE5018 XTAL2	122 XTAL2
		ECE5018 XTAL1	123 XTAL1/CLKIN
ICH(P5)	12 USBP1+		9 USBDP0
	12 USBP1-		10 USBDN0
WLAN	23 ECE_USBP1+		13 USBDP1
	23 ECE_USBP1-		12 USBDN1
Bluetooth	31 ECE_USBP2+		15 USBDP2
	31 ECE_USBP2-		16 USBDN2
NO Use	PAD T72	ECE_USBP3+	19 USBDP3
	PAD T73	ECE_USBP3-	18 USBDN3
NO Use	PAD T38	ECE_USBP4+	21 USBDP4
	PAD T37	ECE_USBP4-	22 USBDN4
	PAD T30		63 GPIOD[3]/VBUS_DET
36	LOM_LOW_PWR#		28 GPIOD[4]/OCS1_N
34	AUDIO_AVDD_ON		29 GPIOD[5]/OCS2_N
34	BEEP		30 GPIOD[6]/OCS3_N
42	ADAPT_TRIP_SEL		31 GPIOD[7]/OCS4_N

POWER PLANES (21)

VDDA	125 VDDA33PLL
	8 VDDA33_0
	14 VDDA33_1
	20 VDDA33_2
	11 VSS_0
	17 VSS_1
	23 VSS_2
	36 VSS_3
	51 VSS_4
	72 VSS_5
	87 VSS_6
	96 VSS_7
	121 VSS_8
	128 VSS_9
+3.3V_ALW	34 VCC1_0
	57 VCC1_1
	85 VCC1_2
	108 VCC1_3
	119 VCC1_4
	120 VDD18
	86 CAP_LDO
	124 VDDA18PLL

C419 4.7U_6.3V, C434 0.1U_10V, C128 4.7U_6.3V, C420 4.7U_6.3V

ECE5018

PCI POWER SIRQ (3)

CLKRUN#	37	CLKRUN# 13,24,27,36
PCI_CLK	56	CLK_PCI_SIO_2 17
SER_IRQ	39	IRQ_SERIRQ 13,24,27

LPC BUS (8)

LAD0	54	LPC_LAD0 11,27
LAD1	52	LPC_LAD1 11,27
LAD2	49	LPC_LAD2 11,27
LAD3	47	LPC_LAD3 11,27
LFRAME#	42	LPC_LFRAME# 11,27
LRESET#	41	PLTRST# 6,12,13,18,23,27
LDRQ0#	46	LPC_LDRQ0# 11
LDRQ1#	44	LPC_LDRQ1# 11

DOCKING LPC (8)

DLAD0	55	D_LAD0 39
DLAD1	53	D_LAD1 39
DLAD2	50	D_LAD2 39
DLAD3	48	D_LAD3 39
DLFRAME#	43	D_LFRAME# 39
DCLK_RUN#	38	D_CLKRUN# 39
DLDRQ1#	45	D_DLDRQ1# 39
DSER_IRQ	40	D_SERIRQ 39

BC

BC_CLK	60	BC_CLK 27
BC_DAT	59	BC_DAT 27
BC_INT#	58	BC_INT# 27

PARALLEL PORT (17)

GPIOB[0]/INIT#	65	
GPIOB[1]/SLCTIN#	66	
GPIOB[2]/PD0	82	HP_NB_SENSE 34,35
GPIOB[3]/PD1	81	DOCK_HP_MUTE# 34
GPIOB[4]/PD2	80	5V_CAL_SIO2# T98 PAD
GPIOB[5]/PD3	79	
GPIOB[6]/PD4	78	5V_CAL_SIO# T99 PAD
GPIOB[7]/PD5	77	IMVP6_PROCHOT# IMVP6_PROCHOT# 45
GPIOC[0]/PD6	76	SPDIF_SHDN 34
GPIOC[1]/PD7	75	
GPIOC[2]/SLCT	67	MDC_RST_DIS# 26
GPIOC[3]/PE	68	ADAPT_OC 42
GPIOC[4]/BUSY	69	
GPIOC[5]/ACK#	70	
GPIOC[6]/ERROR#	71	
GPIOC[7]/ALF#	73	NB_MUTE NB_MUTE 34,35
GPIOD[0]/STROBE#	74	AC_OFF 42,48

Cory_0819:Moved Nets name NB_Mute to Pin73.

UART (8)

GPIOE[0]/RxD	1	RXD0 RXD0 29
GPIOE[1]/TxD	2	TXD0 TXD0 29
GPIOE[2]/RTS#	3	RTS0# RTS0# 29
GPIOE[3]/DSR#	4	DSR0# DSR0# 29
GPIOE[4]/CTS#	5	CTS0# CTS0# 29
GPIOE[5]/DTR#	84	DTR0# DTR0# 29
GPIOE[6]/RI#	83	RI0# RI0# 29
GPIOE[7]/DCD#	6	DCD0# DCD0# 29

IRCC (8)

IRTX	113	IRTX 38
IRRX	114	IRRX 38
GPIOD[1]/CIRTX	61	SBAT_ALARM# SBAT_ALARM# 48
GPIOD[2]/CIRRX	62	PBAT_ALARM# PBAT_ALARM# 48
GPIOF[0]/IRMODE/IRRX3A	118	DBAY_MODPRES# T74 PAD
GPIOF[1]/IRRX2	117	USB_BACK_EN# 33
GPIOF[2]/IRTX2	116	USB_SIDE_EN# 33
GPIOF[3]/IRMODE/IRRX3B	115	IRMODE 38

SIO RESET (4)

GPIOH[0]	24	DOCKED 37,39
GPIOH[1]	25	T36 PAD
SYSOPT1/GPIOH[2]	106	HDDC_EN# HDDC_EN# 21
SYSOPT0/GPIOH[3]	107	MODC_EN# MODC_EN# 21

CT_1212: Added HDDC_EN# and MODC_EN# to ECE5018 GPIOH2 & 3.

MISCELLANEOUS (4)

14 MHz_IN	64	CLK_SIO_14M CLK_SIO_14M 17
TEST_PIN	35	T29 PAD
PWRGD	7	RUNPWROK 27,40,45

Place closely pin USIO2.

CLK_PCI_SIO_2, R272 *10_NC, C391 *4.7P_50V_NC

DOCKING PULLED UP

+3.3V_RUN, RP23 4P2R-S-100K

D_CLKRUN#, D_SERIRQ

+3.3V_RUN, R273 100K, D_DLDRQ1#

+3.3V_RUN

R73 *100K_NC, SNIFFER_WIRELESS_ON/OFF#, C109 *1U_10V_NC

Cory_0824:Let R73 and C109 NC, not used Sniffer.

+3.3V_SUS

R74 10K, RI0#

CLK_SIO_14M

R270 *10_NC, C389 *4.7P_50V_NC

R329 1M, W3 24MHz, R328 0

ECE5018 XTAL1, ECE5018 XTAL2

C437 33P_50V, C438 33P_50V

+3.3V_ALW

L19 BLM18PG181SN1

VDDA

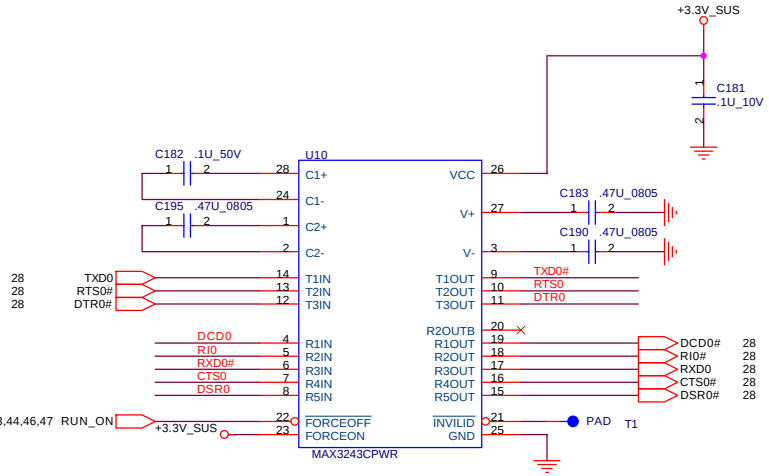
C120 4.7U_10V_0805, C110 4.7U_10V_0805, C122 0.1U_10V, C118 0.1U_10V, C431 0.1U_10V

C119 0.1U_10V, C392 0.1U_10V, C390 0.1U_10V, C432 0.1U_10V, C433 0.1U_10V

Place these caps near ECE5018.

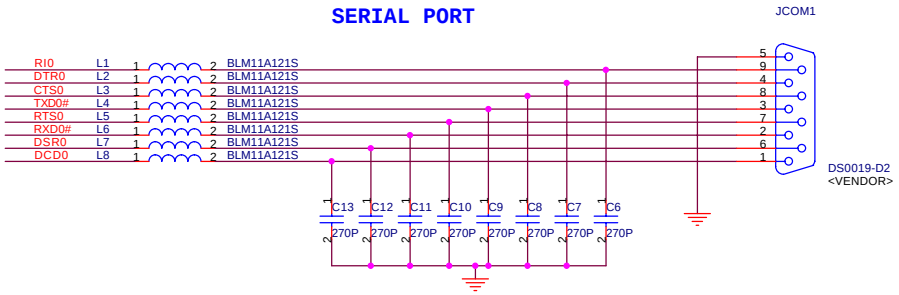
QUANTA COMPUTER

Title	Ultra I/O Controller EEC5018	
Size	Document Number DM5	Rev 1A
Date: 星期二, 十二月 27, 2005	Sheet 28 of 59	



If MAX3243 pin 22 tied to RUN_ON,then it can not support Ring Out

SERIAL PORT

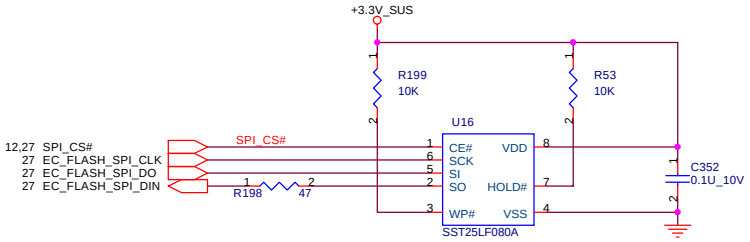


Place them close to serial port

QUANTA COMPUTER

Title	SERIAL PORT & USB	
Size	Document Number DM5	Rev 1A
Date: 星期三, 十二月 27, 2005	Sheet 29 of 59	

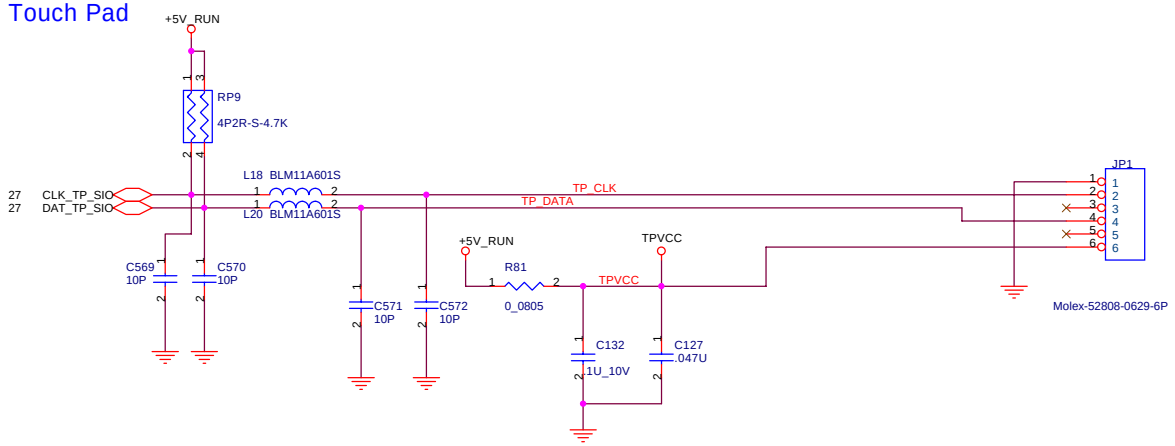
8Mbit (1M Byte), SPI



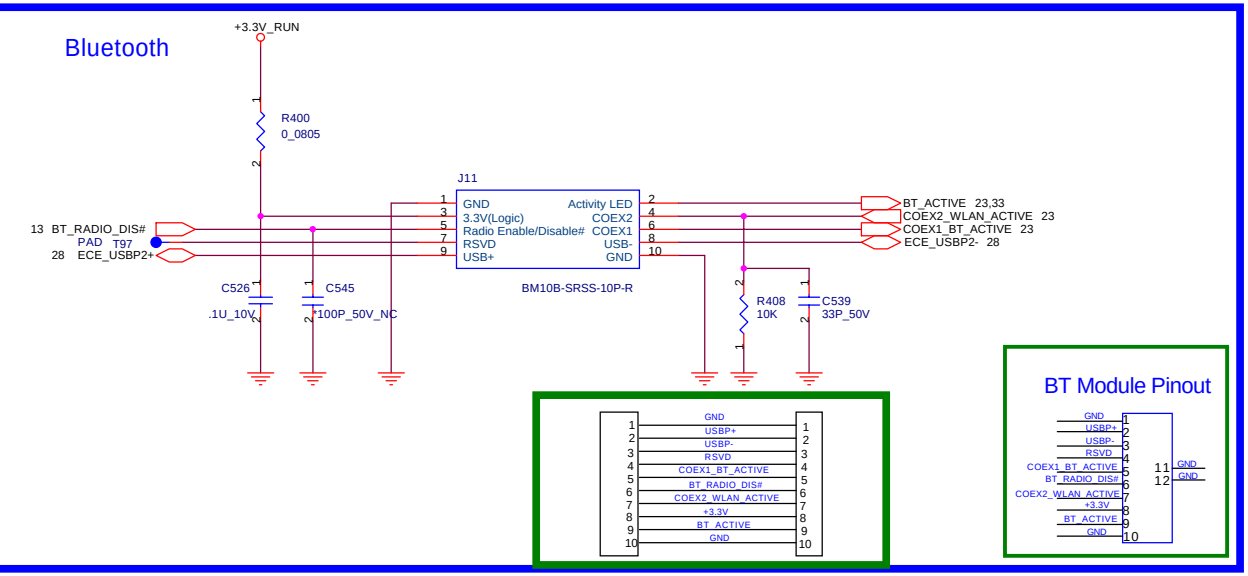
QUANTA COMPUTER

Title	FLASH	
Size	Document Number DM5	Rev 1A
Date: 星期三, 十二月 27, 2005	Sheet 30 of 59	

Touch Pad

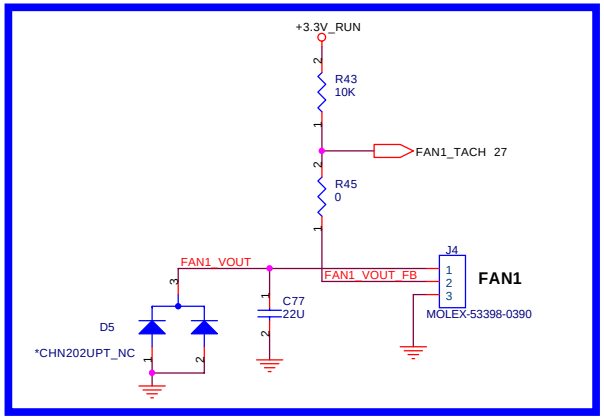


Bluetooth



QUANTA COMPUTER

Title	TOUCH PAD & BULE TOOTH	
Size	Document Number DM5	Rev 3A
Date: 星期二, 十二月 27, 2005	Sheet 31 of 59	



H_THERMDA & H_THERMDC routing together. Trace width/Spacing = 10/10 mil

Put 2200P close to Guardian.

3 H_THERMDA

3 H_THERMDC

C300 2200P

U15

27 DAT_SMB — DAT_SMB — SMDATA

27 CLK_SMB — CLK_SMB — SMBCLK

+3.3V_SUS — R38 7.5K/F — LDO_SHDN# — LDO_SHDN#_ADDR

THERMDA — DP2

THERMDC — DN2

R231 49.9/F — +3.3V_SUS — +3VSUS_THRM — +3VSUS VSUS_PWRGD

C333 .1U_10V

+RTC_CELL — +RTC_PWR3V

13,40 SUSPWROK — R41 1K

R211 1K — 40 ICH_PWRGD# — ICH_PWRGD# — +3V_PWROK#

C331 .1U_10V

27,33 POWER_SW# — POWER_SW#

THERMTRIP1# — THERMTRIP1#

THERMTRIP2# — THERMTRIP2#

C288 .1U_10V — R169 147K/F — R210 8.2K — THERM_VGA# — THERMTRIP3#

R176 1K — VSET

R173 41.2K/F — C292 2200P — HW_LOCK# — VSS

Put 2200P close to Guardian.

REM_DIODE3_N

Q31 MMST3904-7-F — C393 *2200P_NC — C309 2200P

Place near the bottom SODIMM

REM_DIODE3_P

Put 2200P close to Diode

REM_DIODE3_N & _P routing together.

Trace width/Spacing = 10/10 mil

DP3

DN3

FAN_OUT — FAN1_VOUT

FAN_DAC — T57 PAD

GPIO1

GPIO2

GPIO3

GPIO4

GPIO5

THERMAL PAD

40mils

EMC4000_QFN40~D

ATF_INT# 27

ATF_INT# — 17

VCP1 — PAD T58

VCP2 — PAD T2

LDO_POK — 31 — 2.5V_RUN_PWRGD 40

REM_DIODE1_N & _P routing together.

Trace width/Spacing = 10/10 mil

Put 2200P close to Guardian.

Place under CPU

DN1 — REM_DIODE1_N

DP1 — REM_DIODE1_P

C291 2200P — C290 *2200P_NC — Q10 MMST3904-7-F

Put 2200P close to Diode

THERMTRIP_SIO — 30

ACAV_CLR — 4 — ACAV_IN 27,41,42

+3.3V_ALW — R175 10K

+RTC_CELL — R39 *10K_NC

SYS_SHDN# — 22

LDO_SET — 24 — LDO_SET

THERMTRIP_SIO 28

THERM_STP# 46

LDO_OUT — 25

LDO_OUT — 27 — +2.5V_RUN

LDO_IN — 26

LDO_IN — 28 — LDO_IN_EMC4000

20mils

R179 0_0805 — +3.3V_RUN

R182 0_0805

C299 *.1U_10V_NC — C302 1U_10V — C315 *.1U_10V_NC — C287 10U_10V_0805

VDD_5V — 5

40mils

+5V_RUN

C317 10U_10V_0805 — C318 .1U_10V

+2.5V_RUN

R442 *31.5K_NC

LDO_SET

R34 1K

Notes:

Vset=(Tp-75)/21
Where Tp=75 to 106 degree C

Set trip point=85 degree c
Vset = (85-75)/16= 0.625 V
Guardian temp-tolerance= +/-3 degree C

+3.3V_SUS — R229 8.2K — THERMTRIP1#

+1.05V_VCCP — R242 2.2K — Q26 MMST3904-7-F

C332 .1U_10V

3 H_THERMTRIP#

.1u Cap needs to be placed near Guardian IC.

+3.3V_SUS — R228 8.2K — THERMTRIP2#

+1.05V_VCCP — R241 2.2K — Q25 MMST3904-7-F

C341 .1U_10V

6 THERMTRIP_MCH#

QUANTA COMPUTER

Title	FAN & THERMAL	
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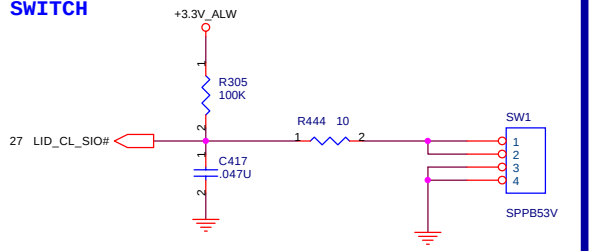
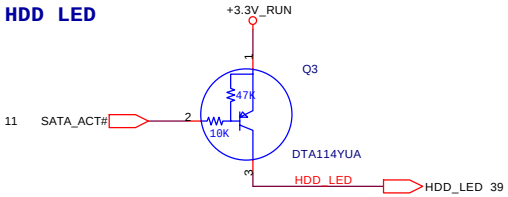
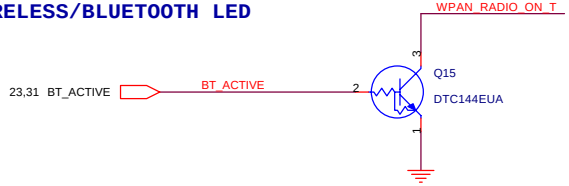
LID SWITCH



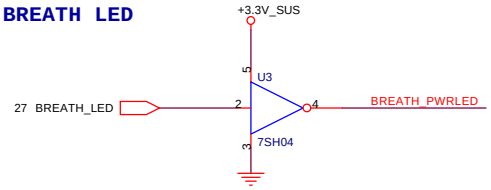
HDD LED



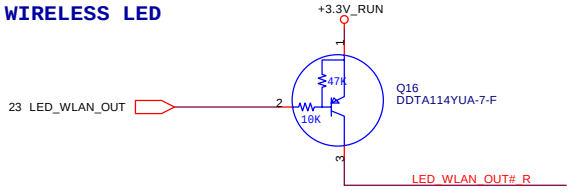
WIRELESS/BLUETOOTH LED



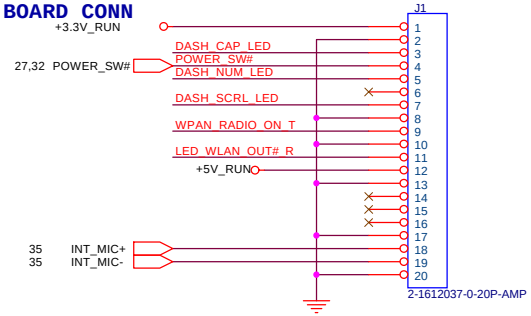
BREATH LED



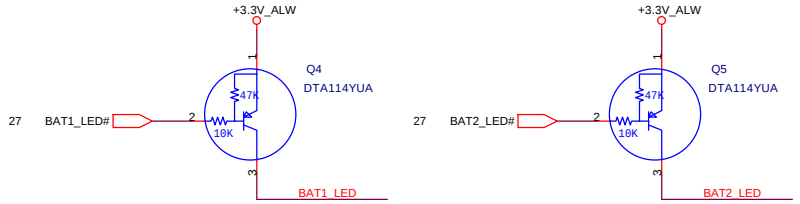
WIRELESS LED



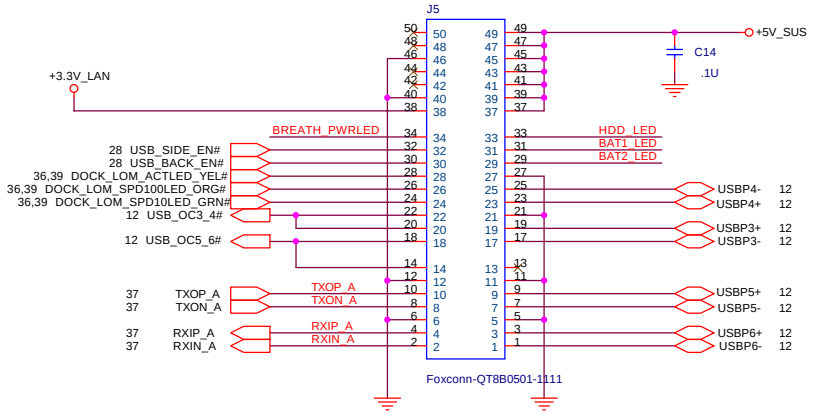
DASH BOARD CONN



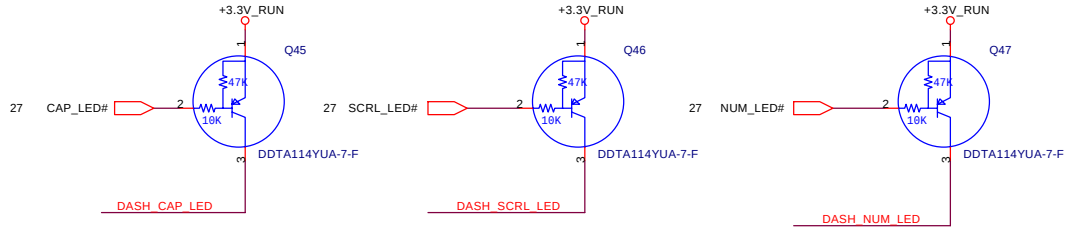
BATTERY 1,2 LED



MB TO I/O-BOARD CONN



CAP, SCRL, NUM LEDS



QUANTA COMPUTER

Title	SWITCH & LED	
Size	Document Number DM5	Rev 1A
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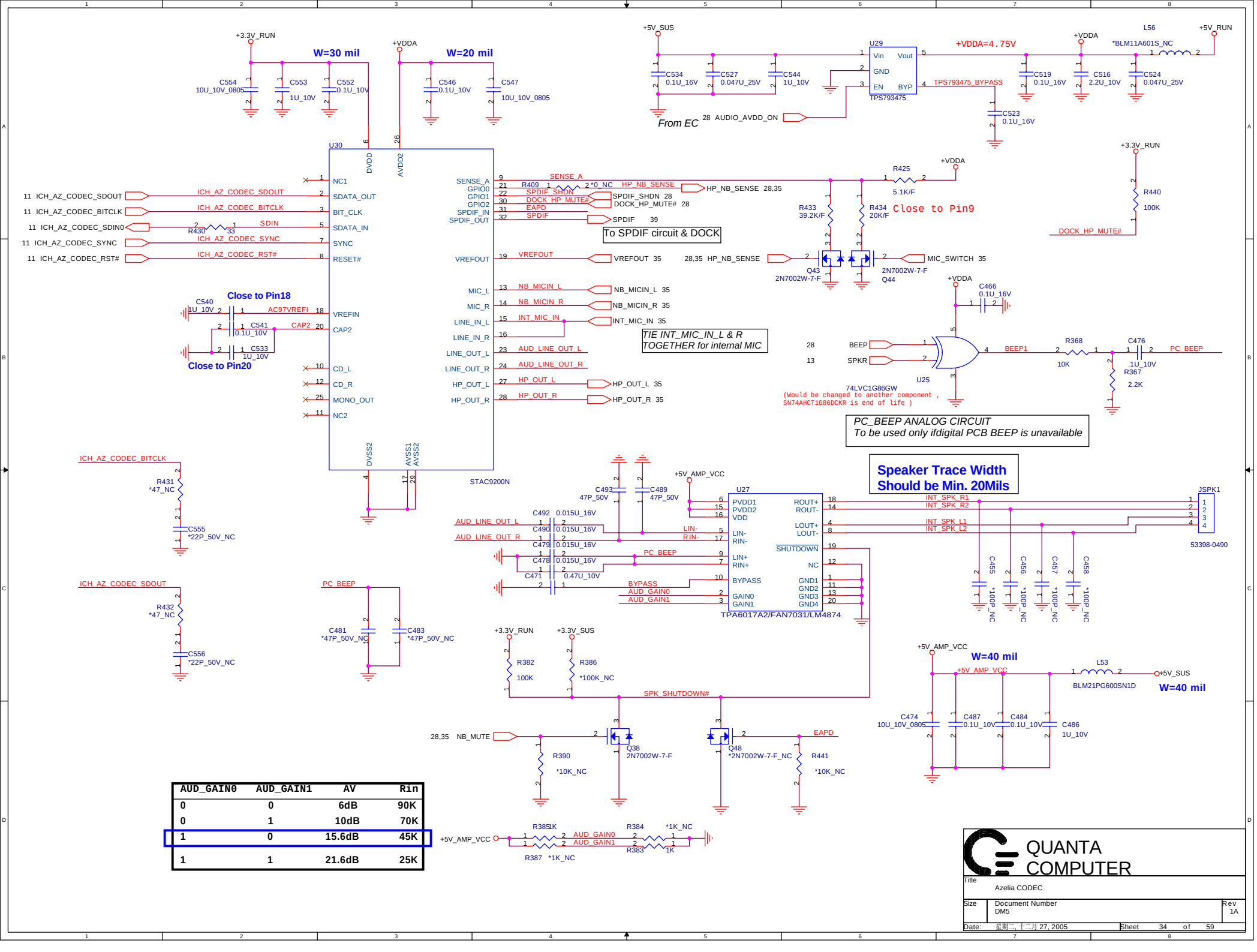

AUD_GAIN0	AUD_GAIN1	AV	Rin
0	0	6dB	90K
0	1	10dB	70K
1	0	15.6dB	45K
1	1	21.6dB	25K

QUANTA COMPUTER

Title	Azelia CODEC	
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CT_1226: Change C535 from 0402 to 0603.

34 VREFOUT

C535 1000P_NPO_0603

R349 4.7K

R353 4.7K

+3.3V_RUN

R362 100K

MIC_SWITCH 34

34 NB_MICIN_L

34 NB_MICIN_R

R351 4.99/F

R359 4.99/F

C461 2.2U_10V

C468 2.2U_10V

L51 BLM11A121S

L52 BLM11A121S

MIC_IN_L1

MIC_IN_R1

CON3

STEREO MIC LINE IN

HEADPHONE LINE OUT

SUYIN-RC142A-12G2

R350 20K

R356 20K

C460 100P_50V

C464 100P_50V

HP_NB_SENSE

HP_NB_SENSE 28,34

R395 100K

+3.3V_RUN

NB_MUTE 28,34

Q57 2N7002W-7-F

34 HP_OUT_L

34 HP_OUT_R

C501 1U_10V

C505 1U_10V

HP_SPK_L1

HP_SPK_R1

U28

INL

INR

SHDNR

SHDNL

C1P

C1N

PVSS

SVSS

MAX4411

OUTL

OUTR

NC1

NC2

NC3

NC4

NC5

NC6

SVDD

PVDD

PGND

SGND

HP_SPK_L2

HP_SPK_R2

L54 BLM11A121S

L55 BLM11A121S

HP_SPK_L3

HP_SPK_R3

L57 BLM11A601S

+3.3V_RUN

C502 100P_50V

C496 100P_50V

C509 47P_50V

C500 47P_50V

C525 1U_10V

C510 1U_10V

C520 1U_10V

CT_1212: Added Q57 on NB_MUTE net to fix power-off AUDIO POP noise issue (Follow Brewster & Keylargo)

Headphone Audio Amp.

Note: Mic trcace should be routed differentially.

+VDDA

R419 1K

R420 1K

R421 1K

R422 1K

C536 2.2U_10V

C537 2.2U_10V

33 INT_MIC+

33 INT_MIC-

R377 0

R376 0

J9

*MLX_53398-0271_NC

INT_R_MIC+

INT_R_MIC-

C548 0.1U_10V

C549 0.1U_10V

INT_MIC_C+

INT_MIC_C-

R427 10K

R428 10K

INT_MIC_OP+

INT_MIC_OP-

R426 100K

MIC_BIAS

R429 100K

U31B BA10358F E2

INT_MIC_IN_OP

Only Single INT MIC

C551 0.1U_10V

INT_MIC_IN 34

Only Single INT. MIC

U31A BA10358F E2

MIC_LM+

R436 100K

R435 100K

C557 2.2U_10V

Place close U43 related circuitry close to codec.

QUANTA COMPUTER

Title	AUDIO HEADPHONE CONN	
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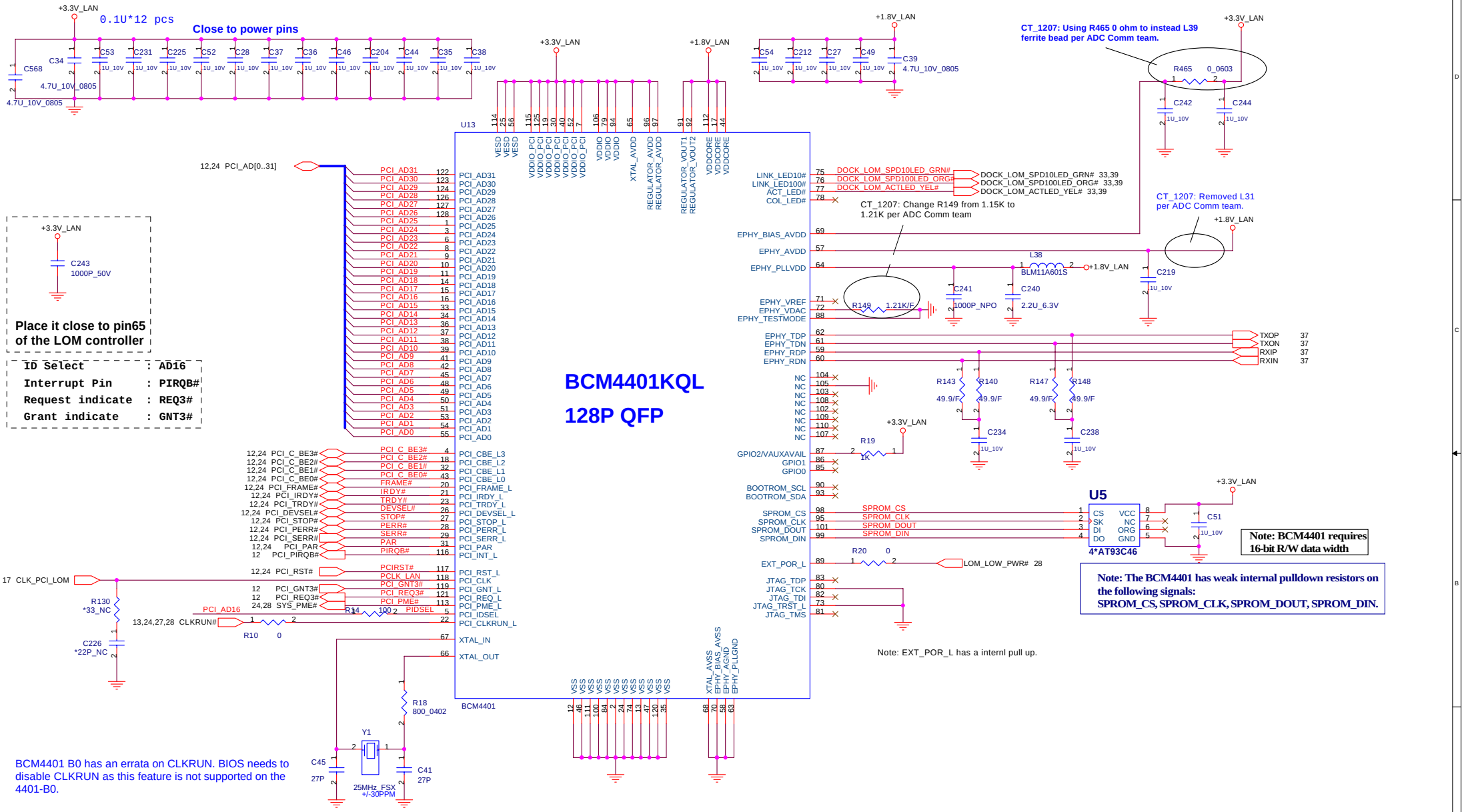
LAN-BCM4401KFB(10/100M)

BCM4401--10/100



Title	BCM4401 100/10 LAN			
Size	Document Number DM5			Rev 1A
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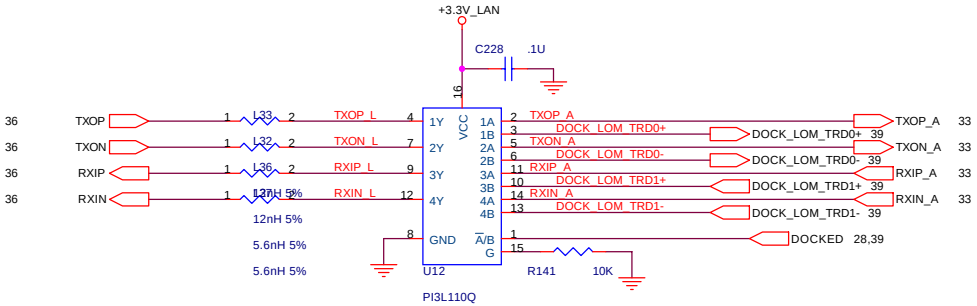
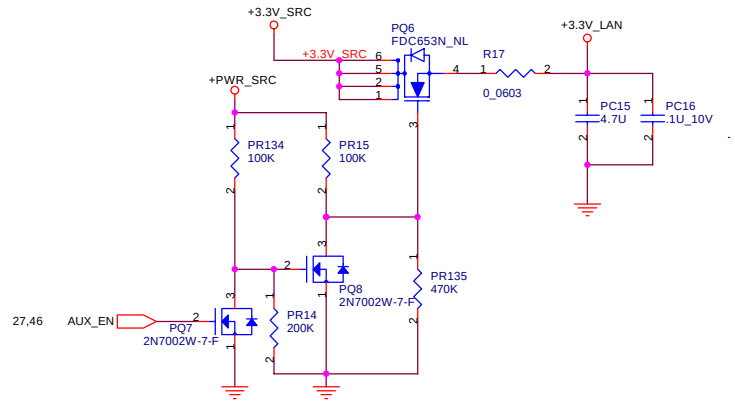


10/100LAN_E-SWITCH

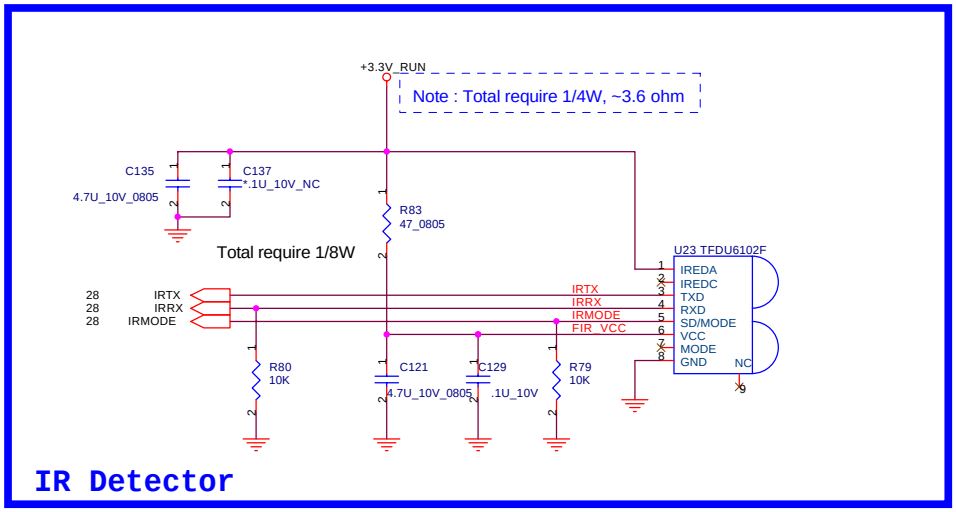
CT_1207: Removed ESD1 & ESD2 & C573, C574 per ADC Comm team B. Boes.



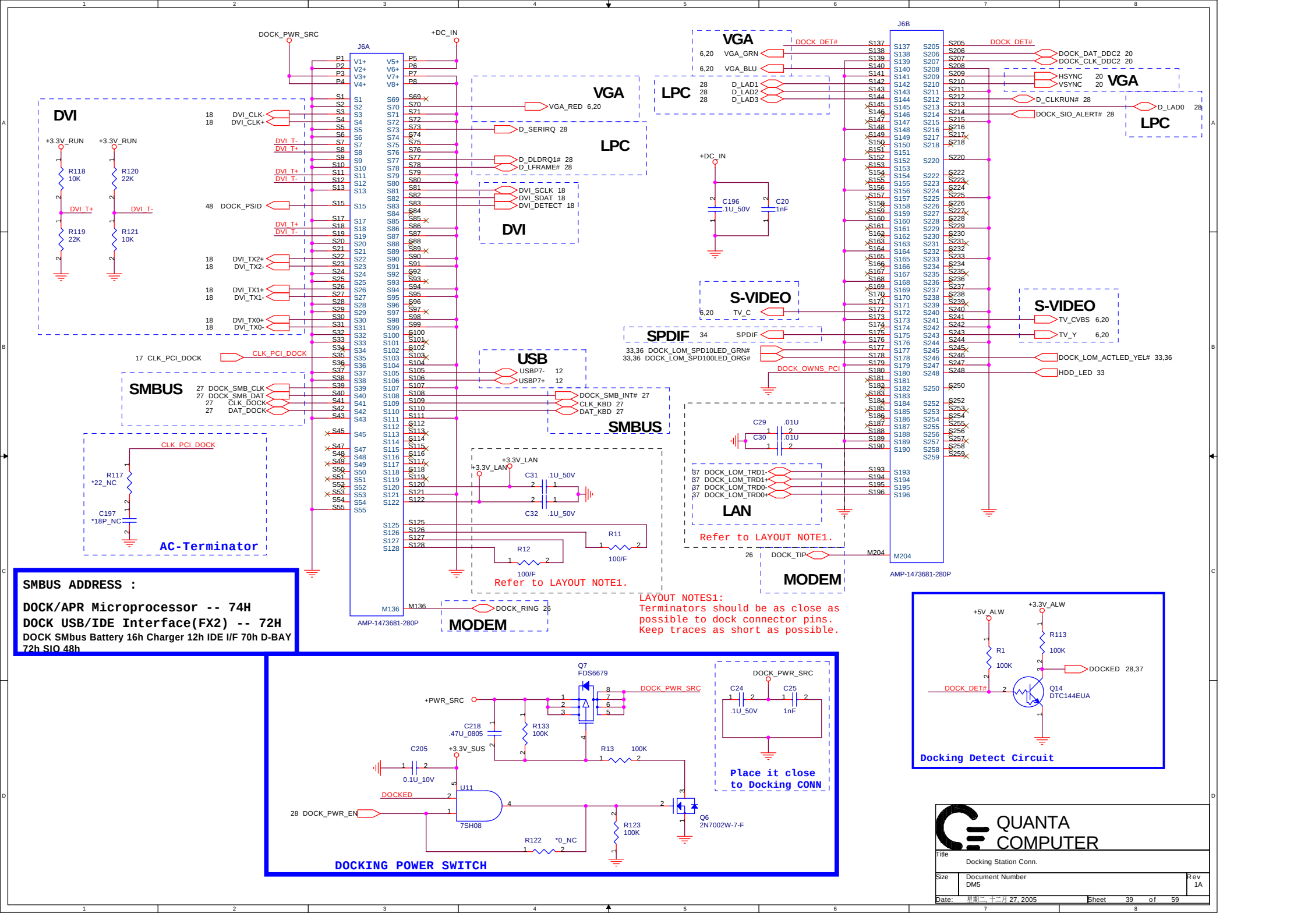
LAN POWER

QUANTA COMPUTER

Title	LAN SWITCH/LAN POWER	
Size: Custom	Document Number: DM5	Rev: 1A
Date: 星期二, 十二月 27, 2005	Sheet 37 of 59	



QUANTA COMPUTER		
Title: FIR		
Size	Document Number: DM5	Rev: 1A
Date: 星期三, 十二月 27, 2005	Sheet 38 of 59	


DOCK_PWR_SRC
+DC_IN
J6A
J6B
DVI
VGA
LPC
S-VIDEO
SPDIF
USB
SMBUS
LAN
MODEM
AC-Terminator
DOCKING POWER SWITCH
Docking Detect Circuit
Refer to LAYOUT NOTE1.
Place it close to Docking CONN
AMP-1473681-280P
SMBUS ADDRESS :
DOCK/APR Microprocessor -- 74H
DOCK USB/IDE Interface(FX2) -- 72H
DOCK SMbus Battery 16h Charger 12h IDE I/F 70h D-BAY 72h SIO 48h
LAYOUT NOTES1:
Terminators should be as close as possible to dock connector pins.
Keep traces as short as possible.
QUANTA COMPUTER
Title
Docking Station Conn.
Size
Document Number
DM5
Rev
1A
Date:
星期二, 十二月 27, 2005
Sheet
39
of
59

UMA Power Up Block Diagram

RUN POWER OPTIONS:

OPTION 1	R269, R275, R276 = 10K ohm Population: C387, C395, C396, Q29, Q32, Q33, R267, R296, R294. Depopulation: Q54, Q55, Q56, R460, R461, R462.
OPTION 2	R269, R275 = 200K ohm, R276 = 100K ohm. Population: Q54, Q55, Q56, R460, R461, R462. Depopulation: C387, C395, C396, Q29, Q32, Q33, R267, R296, R294.

+3.3V_RUN R269 10K Q54 *3906_NC +3.3V_SUS R267 100K R460 *4.7K_NC Q29 MMST3904 Q30 MMST3904 C387 0.1U_10V 5V_3V_1.8V_RUN_PWRGD

+5V_RUN R275 10K Q55 *3906_NC +5V_SUS R296 100K R461 *4.7K_NC Q33 MMST3904 Q35 MMST3904 C395 0.1U_10V 5V_3V_1.8V_RUN_PWRGD

+1.8V_RUN R276 10K Q56 *3906_NC +1.8V_SUS R294 100K R462 *4.7K_NC Q32 MMST3904 Q34 MMST3904 C396 0.1U_10V 5V_3V_1.8V_RUN_PWRGD

13,45 IMVP_PWRGD
27 RESET_OUT#
U20D 74AHC08
ICH_PWRGD
ICH_PWRGD 6,13
+3.3V_SUS R230 100K ICH_PWRGD# ICH_PWRGD# 32 Q24 2N7002W-7-F

Keep Away from high speed buses

+3.3V_RUN R320 20K C429 .01U
+3.3V_SUS C426 0.1U_10V U21A 7WZ14
+3.3V_SUS U21B 7WZ14
5V_3V_1.8V_RUN_PWRGD

+3.3V_SUS C403 0.1U_10V U20A 74AHC08
19,27,29,43,44,46,47 RUN_ON
U20B 74AHC08 RUNPWROK 27,28,45

+3.3V_SUS C388 0.1U_10V U19A 7WZ14
+3.3V_SUS U19B 7WZ14
43 SUSPWROK_1P8V
C386 0.1U_10V
R268 *0_NC
27,46,47 SUS_ON
U20C 74AHC08 SUSPWROK 13,32

32 2.5V_RUN_PWRGD R331 0
44 1.5V_RUN_PWRGD R324 0
44,45 1.05V_RUN_PWRGD R330 0

QUANTA COMPUTER

Title	SYSTEM RESET/POWER GOOD	
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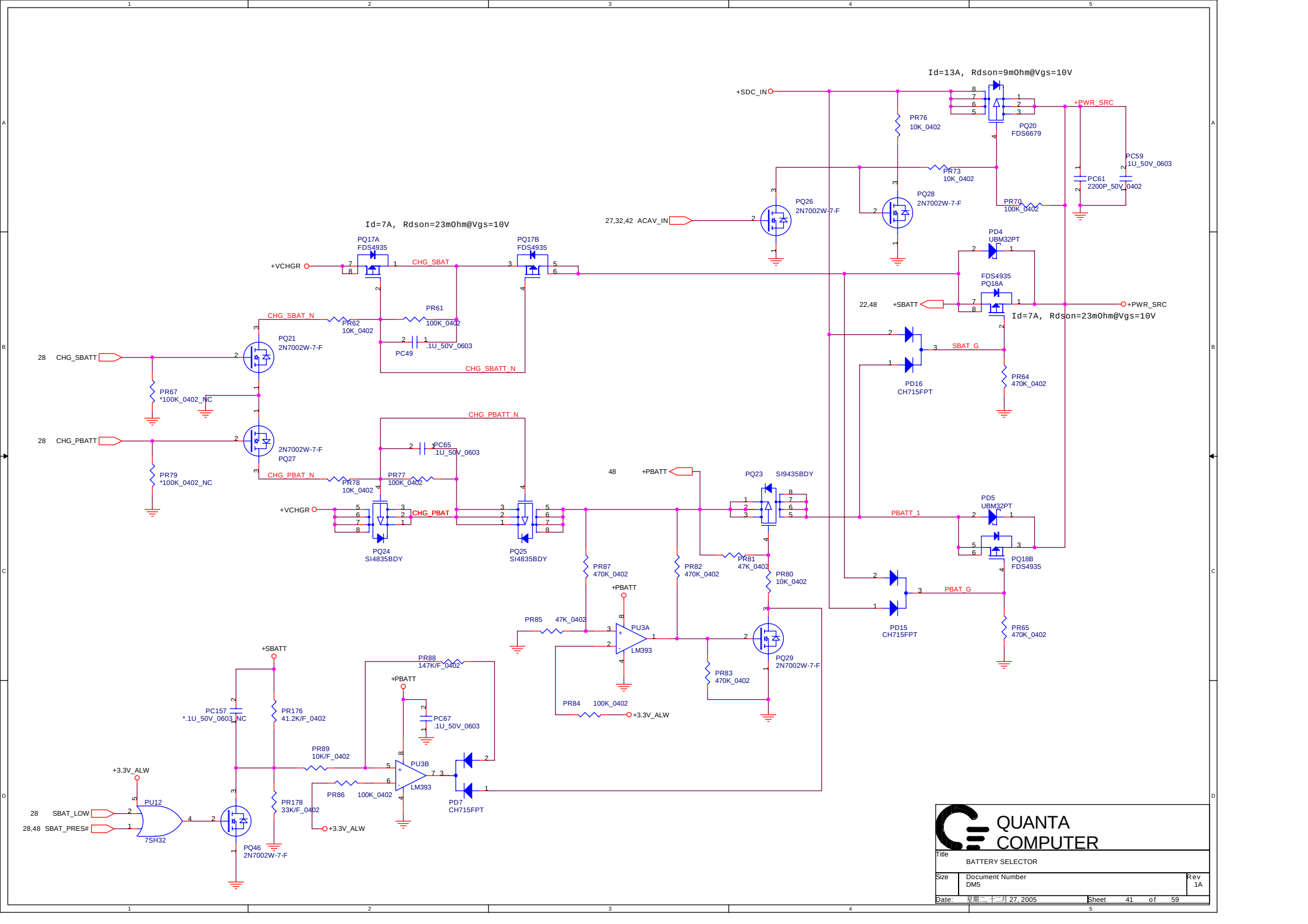

QUANTA COMPUTER

Title	BATTERY SELECTOR	
Size	Document Number DM5	Rev 1A
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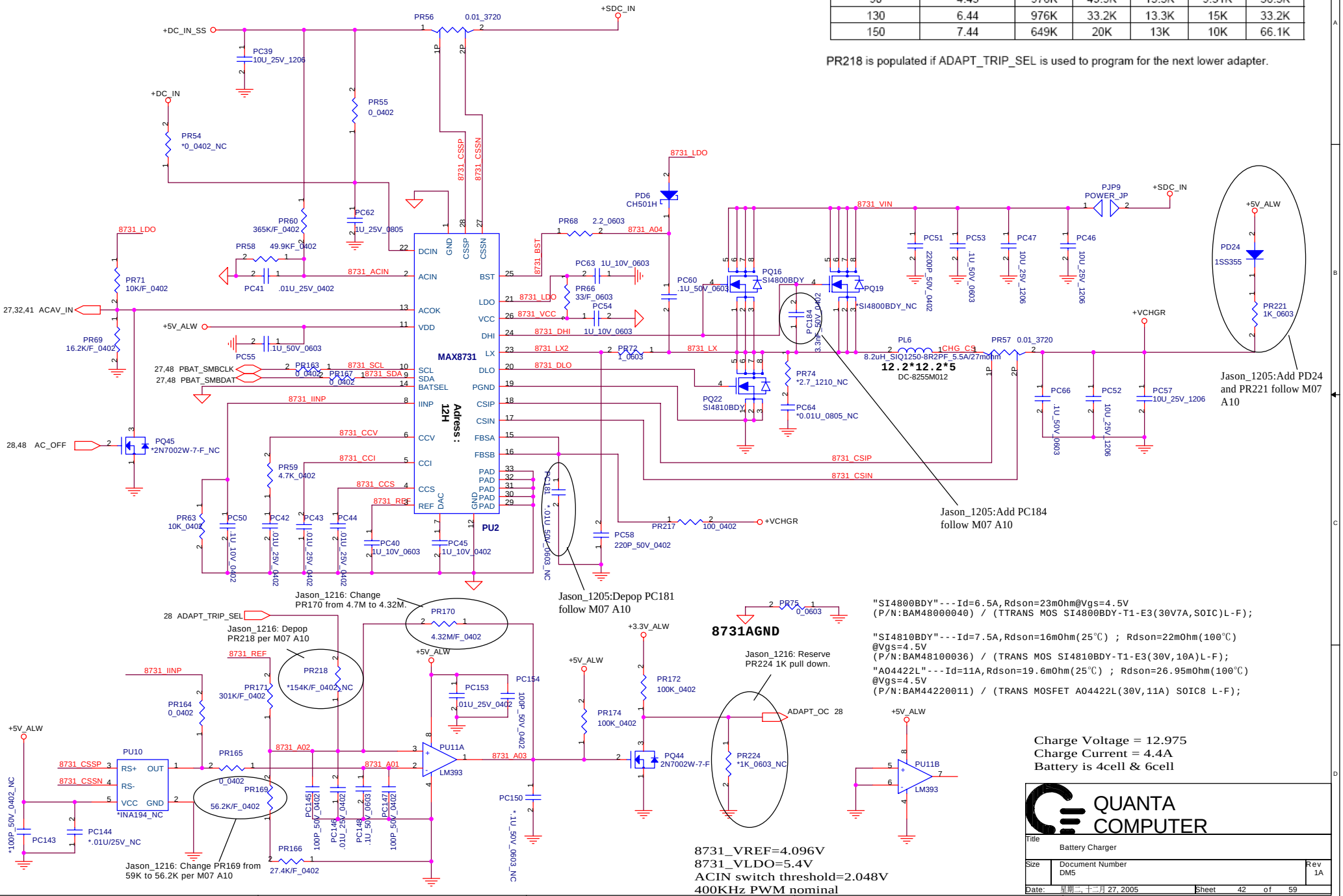
TABLE 1

ADAPTER (W)	TRIP CURRENT (A)	PR170	PR171	PR169	PR166	PR218
65	3.17	4.32M	301K	56.2K	27.4K	N/A
90	4.43	976K	49.9K	13.3K	9.31K	38.3K
130	6.44	976K	33.2K	13.3K	15K	33.2K
150	7.44	649K	20K	13K	10K	66.1K

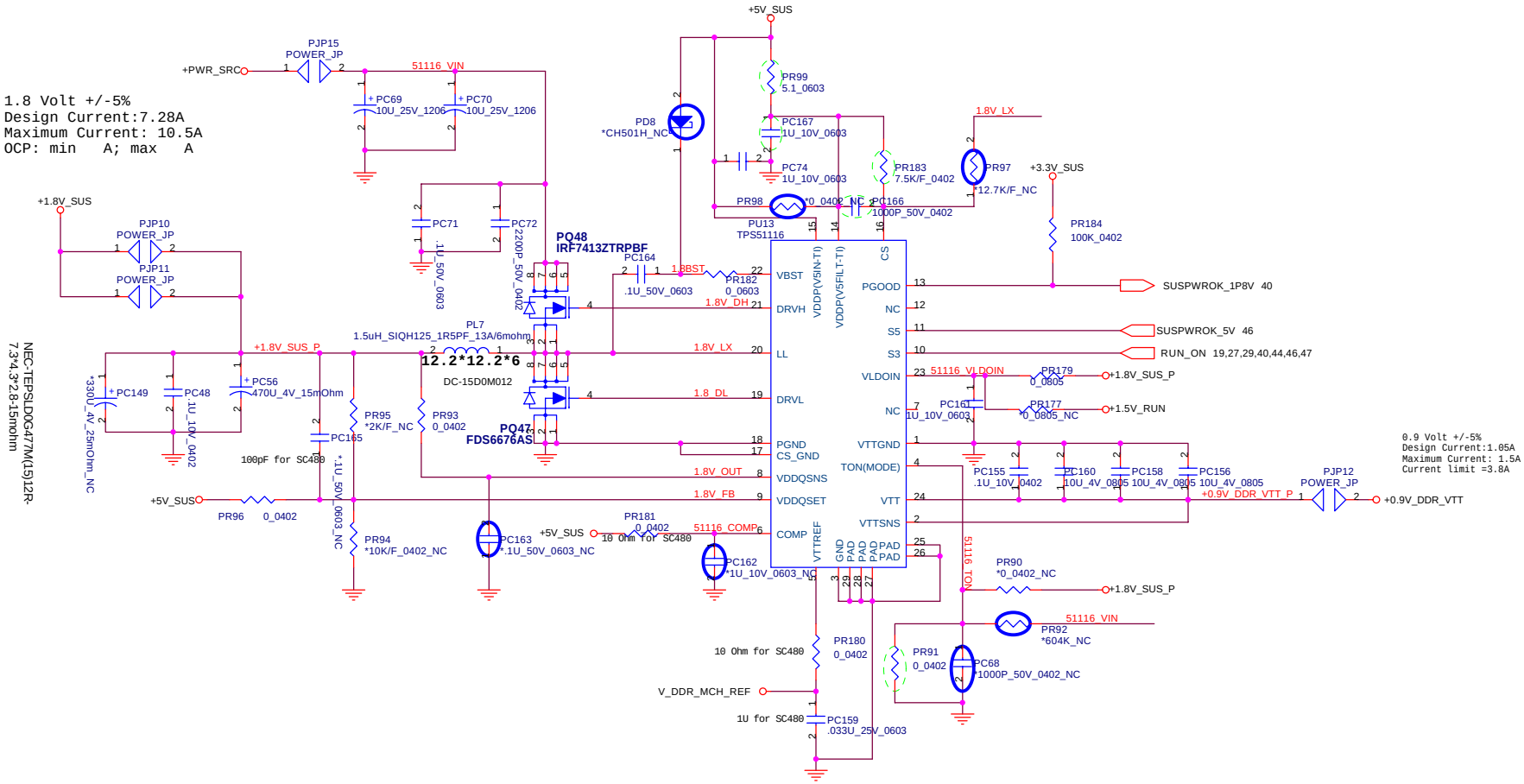
PR218 is populated if ADAPT_TRIP_SEL is used to program for the next lower adapter.



POP for TI51116

DePOP for TI51116

1.8 Volt +/-5%
Design Current:7.28A
Maximum Current: 10.5A
OCP: min A; max A



"IRF7413ZTRPBF"---Id=13A,Rdson=10.5mOhm@Vgs=4.5V
(P/N:BAM74130036) / (TRANS MOSFET IRF7413ZTRPBF(30V,13A)L-F);

"FDS6676AS"---Id=14.5A,Rdson=5.9mOhm(25℃)@Vgs=4.5V ; ,Rdson=8.11mOhm(100℃)@Vgs=4.5V
(P/N:BAM66760026) / (TRANS MOSFET FDS6676AS_NL(30V,14.5A)ROHS);
Use the worst-case value for RDS(ON) from the MOSFET data sheet, and add a margin of 0.5%/°C for the rise in RDS(ON) with temperature.

OCP=14A; Rdson=5.9mOhm(25℃)
OCP=10.6A; Rdson=8.11mOhm(100℃)

QUANTA COMPUTER

Title	1.8V,0.9V	
Size	Document Number DM5	Rev 1A
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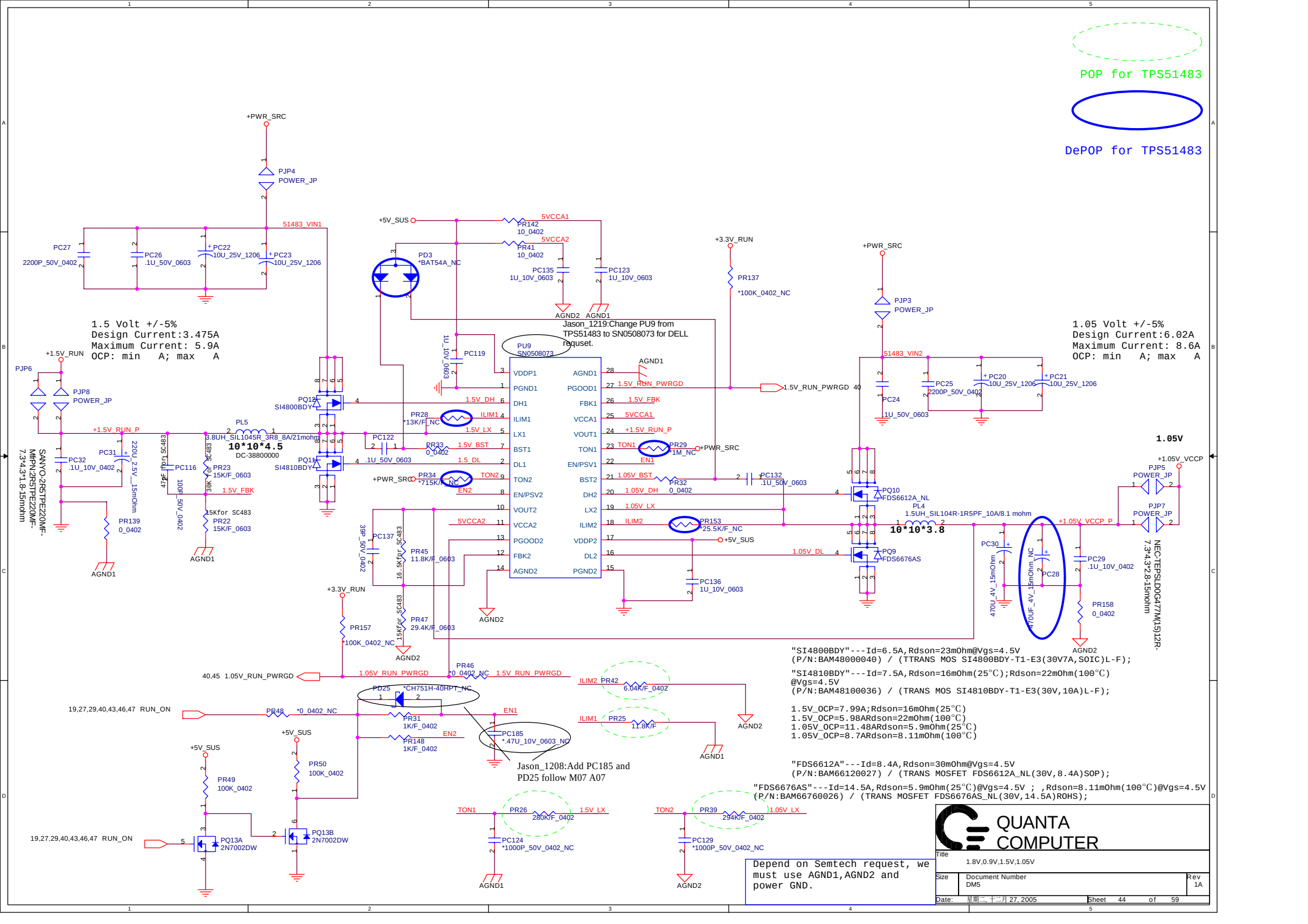
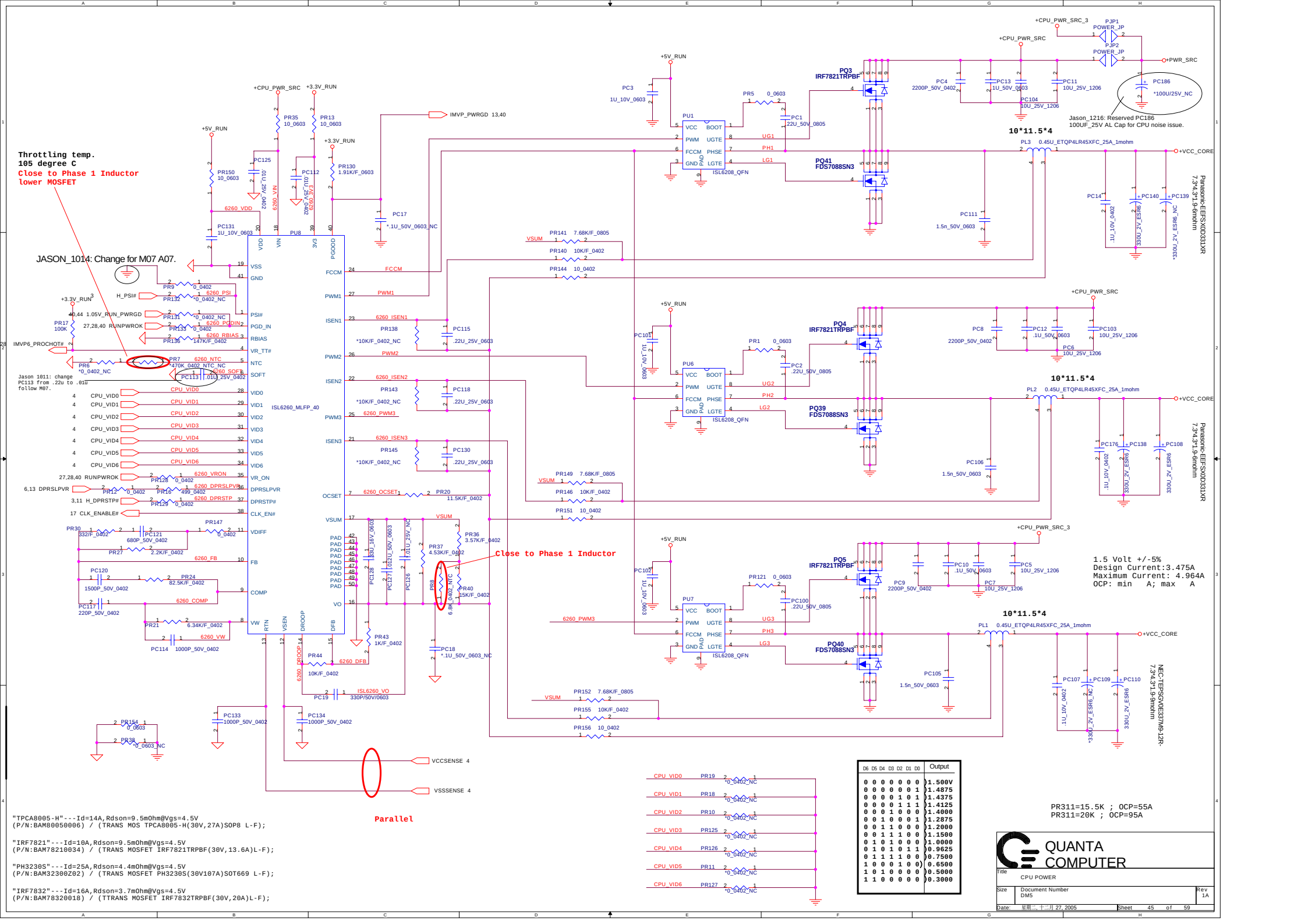
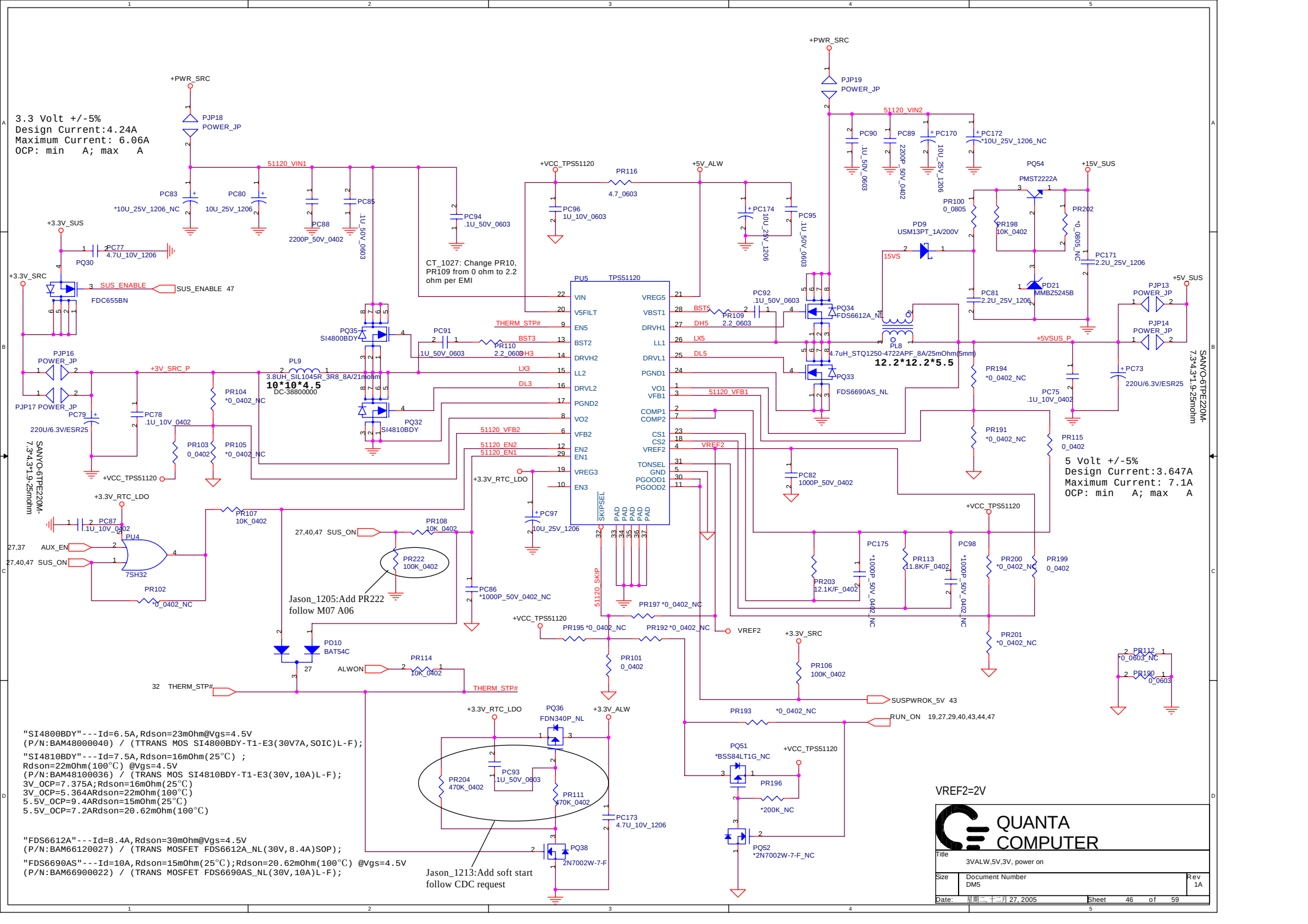
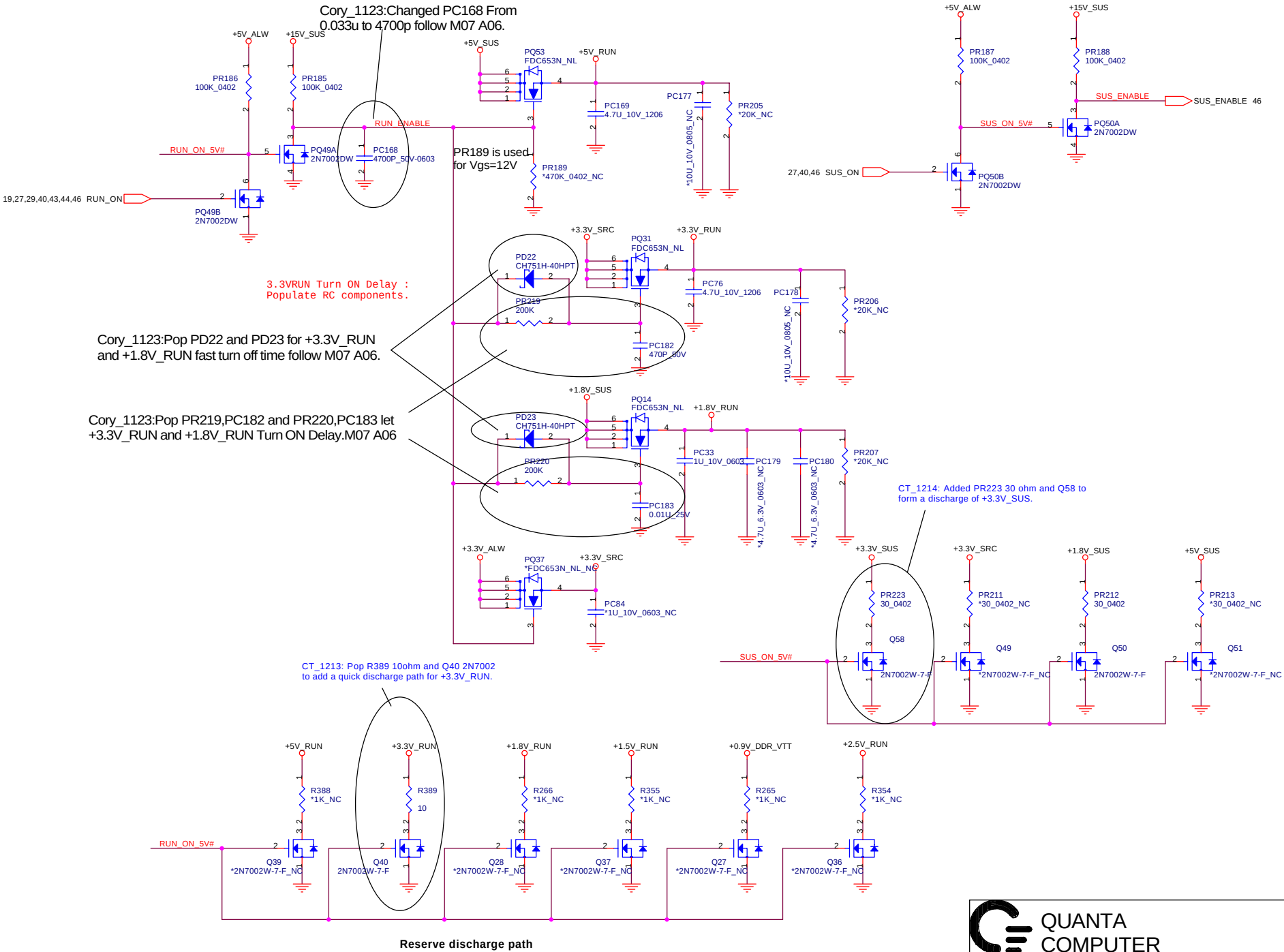

POP for TPS51483
DePOP for TPS51483
1.5 Volt +/-5%
Design Current:3.475A
Maximum Current: 5.9A
OCP: min A; max A
1.05 Volt +/-5%
Design Current:6.02A
Maximum Current: 8.6A
OCP: min A; max A
Jason_1219:Change PU9 from TPS51483 to SN0508073 for DELL request.
Jason_1208:Add PC185 and PD25 follow M07 A07
Depend on Semtech request, we must use AGND1,AGND2 and power GND.
"SI4800BDY"---Id=6.5A,Rdson=23mOhm@Vgs=4.5V
(P/N:BAM48000040) / (TTRANS MOS SI4800BDY-T1-E3(30V7A,SOIC)L-F);
"SI4810BDY"---Id=7.5A,Rdson=16mOhm(25℃);Rdson=22mOhm(100℃)
@Vgs=4.5V
(P/N:BAM48100036) / (TRANS MOS SI4810BDY-T1-E3(30V,10A)L-F;
1.5V_OCP=7.99A;Rdson=16mOhm(25℃)
1.5V_OCP=5.98ARdson=22mOhm(100℃)
1.05V_OCP=11.48ARdson=5.9mOhm(25℃)
1.05V_OCP=8.7ARdson=8.11mOhm(100℃)
"FDS6612A"---Id=8.4A,Rdson=30mOhm@Vgs=4.5V
(P/N:BAM66120027) / (TRANS MOSFET FDS6612A_NL(30V,8.4A)SOP);
"FDS6676AS"---Id=14.5A,Rdson=5.9mOhm(25℃)@Vgs=4.5V ; ,Rdson=8.11mOhm(100℃)@Vgs=4.5V
(P/N:BAM66760026) / (TRANS MOSFET FDS6676AS_NL(30V,14.5A)ROHS);
QUANTA COMPUTER
Title 1.8V,0.9V,1.5V,1.05V
Size Document Number DM5 Rev 1A
Date: 星期二, 十二月 27, 2005 Sheet 44 of 59



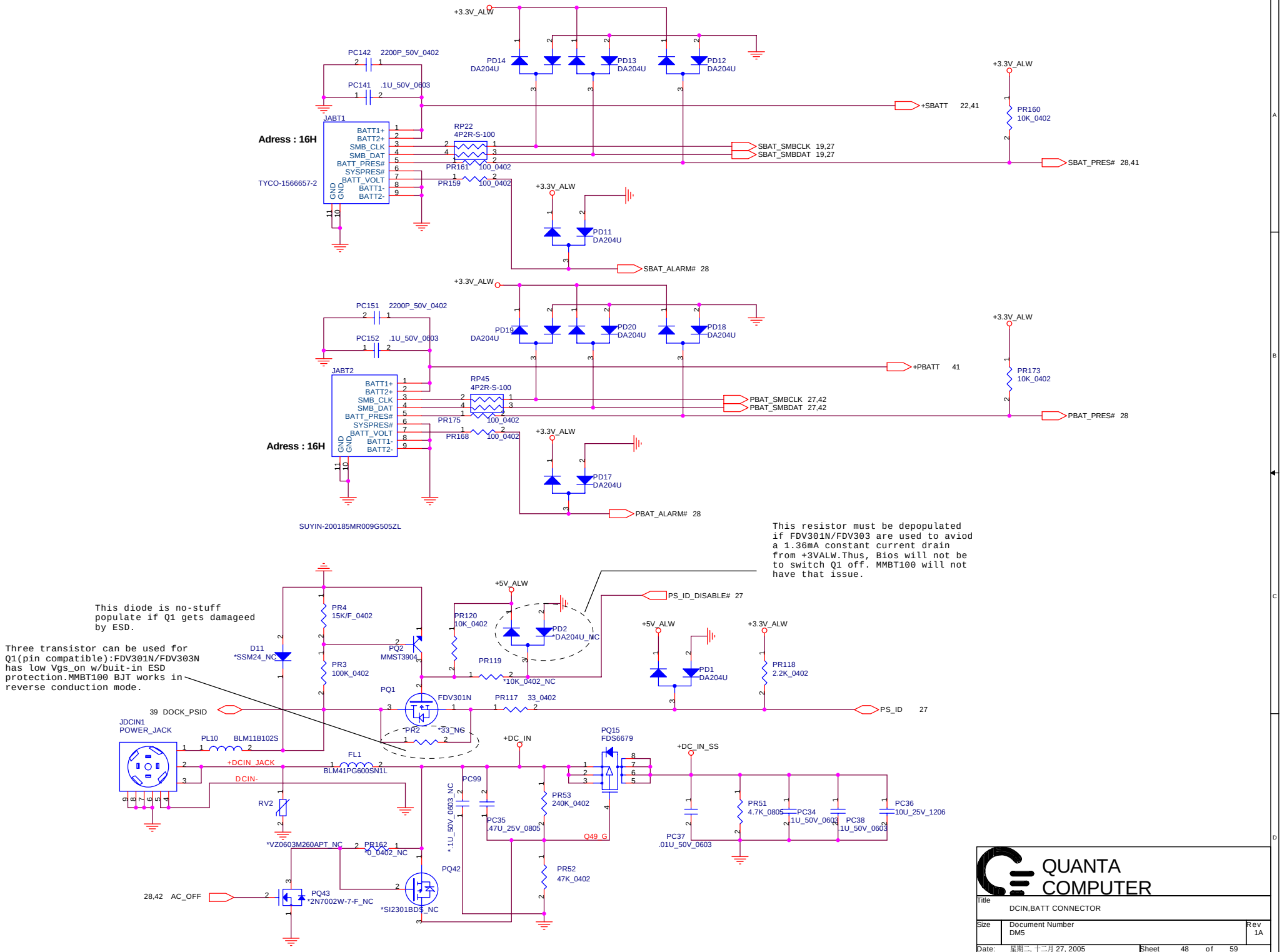
D6 D5 D4 D3 D2 D1 D0	Output
0 0 0 0 0 0 0	1.500V
0 0 0 0 0 0 1	1.4875
0 0 0 0 1 0 1	1.4375
0 0 0 0 1 1 1	1.4125
0 0 0 1 0 0 0	1.4000
0 0 1 0 0 0 1	1.2875
0 0 1 1 0 0 0	1.2000
0 0 1 1 1 0 0	1.1500
0 1 0 1 0 0 0	1.0000
0 1 0 1 0 1 1	0.9625
0 1 1 1 1 0 0	0.7500
1 0 0 0 1 0 0	0.6500
1 0 1 0 0 0 0	0.5000
1 1 0 0 0 0 0	0.3000


3.3 Volt +/-5%
Design Current:4.24A
Maximum Current: 6.06A
OCP: min A; max A
+PWR_SRC
PJP18 POWER_JP
51120_VIN1
PC83 *10U_25V_1206_NC
PC80 10U_25V_1206
PC88 2200P_50V_0402
PC85 .1U_50V_0603
PC94 .1U_50V_0603
+3.3V_SUS
PC77 4.7U_10V_1206
PQ30
+3.3V_SRC
SUS_ENABLE
SUS_ENABLE 47
FDC655BN
PJP16 POWER_JP
PJP17 POWER_JP
+3V_SRC_P
PC79 220U/6.3V/ESR25
PC78 .1U_10V_0402
PR103 0_0402
PR104 *0_0402_NC
PR105 *0_0402_NC
SANYO-6TPE220M-7.3*4.3*1.9-25mohm
PL9 3.8UH_SIL1045R_3R8_8A/21mohm 10*10*4.5 DC-38800000
PQ35 SI4800BDY
PQ32 SI4810BDY
PC91 1U_50V_0603
PR110 2.2_0603
BST3
DH3
LX3
DL3
THERM_STP#
51120_VFB2
51120_EN2
51120_EN1
+VCC_TPS51120
+3.3V_RTC_LDO
PC87 .1U_10V_0402
PR107 10K_0402
PU4 7SH32
27,37 AUX_EN
27,40,47 SUS_ON
PR102 *0_0402_NC
PR108 10K_0402
PR222 100K_0402
Jason_1205:Add PR222 follow M07 A06
PC86 *1000P_50V_0402_NC
PD10 BAT54C
PR114 10K_0402
ALWON
32 THERM_STP#
PU5 TPS51120
VIN V5FILT EN5 BST2 DRVH2 LL2 DRVL2 PGND2 VO2 VFB2 EN2 EN1 VREG3 EN3
VREG5 VBST1 DRVH1 LL1 DRVL1 PGND1 VO1 VFB1 COMP1 COMP2 CS1 CS2 VREF2 TONSEL GND PGOOD1 PGOOD2
SKIPSEL PAD PAD PAD PAD PAD
PC97 10U_25V_1206
51120_SKIP
PR116 4.7_0603
PC96 1U_10V_0603
+5V_ALW
PC174 10U_25V_1206
PC95 .1U_50V_0603
PC92 .1U_50V_0603
PR109 2.2_0603
PQ34 FDS6612A_NL
PQ33 FDS6690AS_NL
PC82 1000P_50V_0402
51120_VFB1
VREF2
PR197 *0_0402_NC
PR195 *0_0402_NC
PR192 *0_0402_NC
PR101 0_0402
PR106 100K_0402
PC175 *1000P_50V_0402_NC
PR203 12.1K/F_0402
PR113 11.8K/F_0402
PC98 *1000P_50V_0402_NC
PR200 *0_0402_NC
PR199 0_0402
PR201 *0_0402_NC
+3.3V_SRC
SUSPWROK_5V 43
PR193 *0_0402_NC
RUN_ON 19,27,29,40,43,44,47
PQ36 FDN340P_NL
PR204 470K_0402
PC93 1U_50V_0603
PR111 470K_0402
PC173 4.7U_10V_1206
PQ38 2N7002W-7-F
Jason_1213:Add soft start follow CDC request
PQ51 *BSS84LT1G_NC
PR196 *200K_NC
PQ52 *2N7002W-7-F_NC
VREF2=2V
CT_1027: Change PR10, PR109 from 0 ohm to 2.2 ohm per EMI
+PWR_SRC
PJP19 POWER_JP
51120_VIN2
PC90 .1U_50V_0603
PC89 2200P_50V_0402
PC170 10U_25V_1206
PC172 *10U_25V_1206_NC
PQ54 PMST2222A
+15V_SUS
PR100 0_0805
PR198 10K_0402
PR202 *0_0805_NC
PD9 USM13PT_1A/200V
15VS
PC171 2.2U_25V_1206
PC81 2.2U_25V_1206
PD21 MMBZ5245B
+5V_SUS
PJP13 POWER_JP
PJP14 POWER_JP
PL8 4.7uH_STQ1250-4722APF_8A/25mOhm(5mm) 12.2*12.2*5.5
+5VSUS_P
PR194 *0_0402_NC
PR191 *0_0402_NC
PC75 .1U_10V_0402
PC73 220U/6.3V/ESR25
PR115 0_0402
SANYO-6TPE220M-7.3*4.3*1.9-25mohm
5 Volt +/-5%
Design Current:3.647A
Maximum Current: 7.1A
OCP: min A; max A
PR112 *0_0603_NC
PR190 0_0603
"SI4800BDY"---Id=6.5A,Rdson=23mOhm@Vgs=4.5V
(P/N:BAM48000040) / (TTRANS MOS SI4800BDY-T1-E3(30V7A,SOIC)L-F);
"SI4810BDY"---Id=7.5A,Rdson=16mOhm(25℃) ;
Rdson=22mOhm(100℃) @Vgs=4.5V
(P/N:BAM48100036) / (TRANS MOS SI4810BDY-T1-E3(30V,10A)L-F);
3V_OCP=7.375A;Rdson=16mOhm(25℃)
3V_OCP=5.364ARdson=22mOhm(100℃)
5.5V_OCP=9.4ARdson=15mOhm(25℃)
5.5V_OCP=7.2ARdson=20.62mOhm(100℃)
"FDS6612A"---Id=8.4A,Rdson=30mOhm@Vgs=4.5V
(P/N:BAM66120027) / (TRANS MOSFET FDS6612A_NL(30V,8.4A)SOP);
"FDS6690AS"---Id=10A,Rdson=15mOhm(25℃);Rdson=20.62mOhm(100℃) @Vgs=4.5V
(P/N:BAM66900022) / (TRANS MOSFET FDS6690AS_NL(30V,10A)L-F);
QUANTA COMPUTER
Title 3VALW,5V,3V, power on
Size Document Number DM5 Rev 1A
Date: 星期二, 十二月 27, 2005 Sheet 46 of 59



QUANTA COMPUTER

Title	RUN POWER SW	
Size	Document Number DM5	Rev 1A
Date: 星期三, 十二月 27, 2005	Sheet 47 of 59	



QUANTA COMPUTER

Title	DCIN,BATT CONNECTOR	
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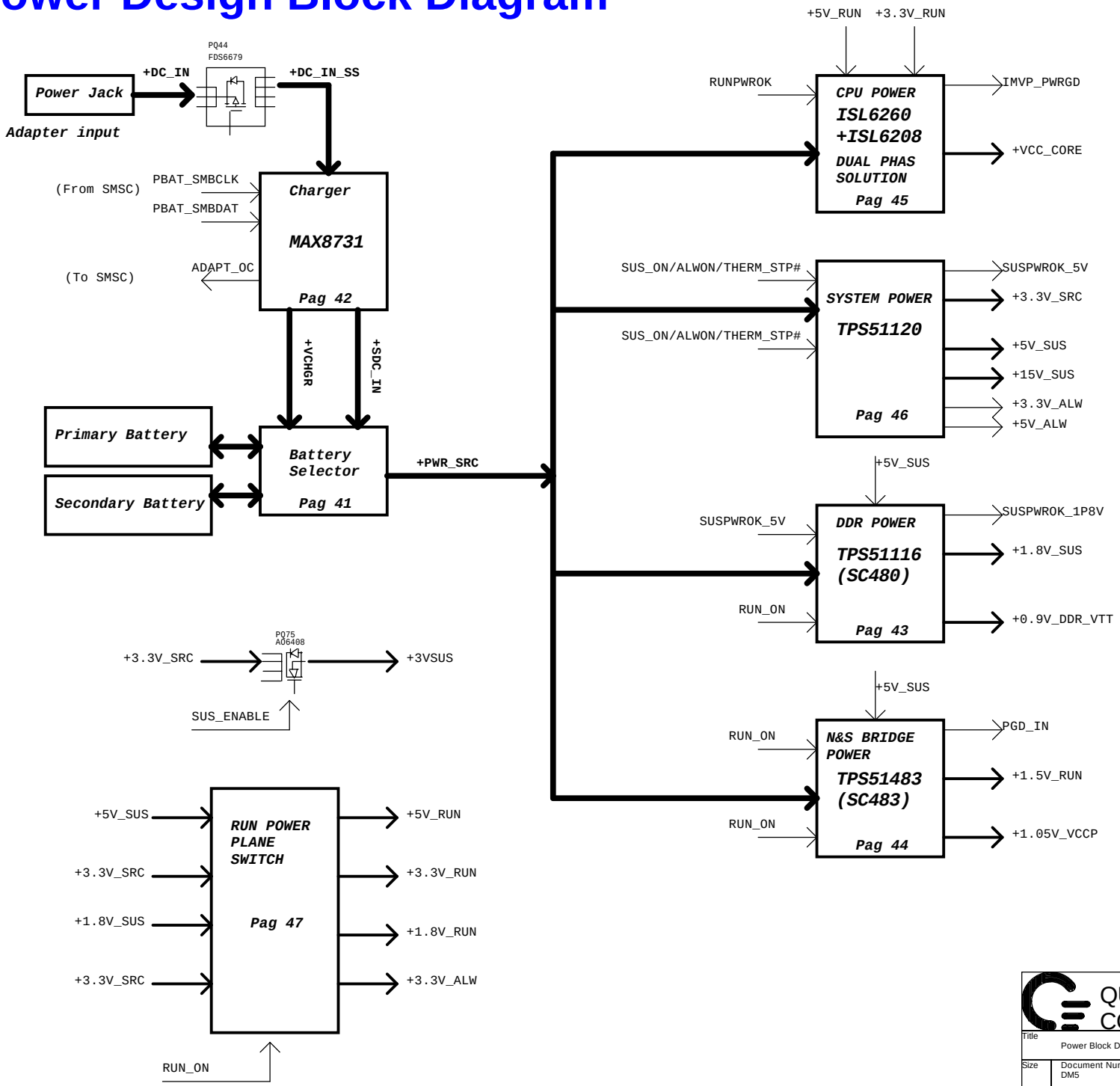
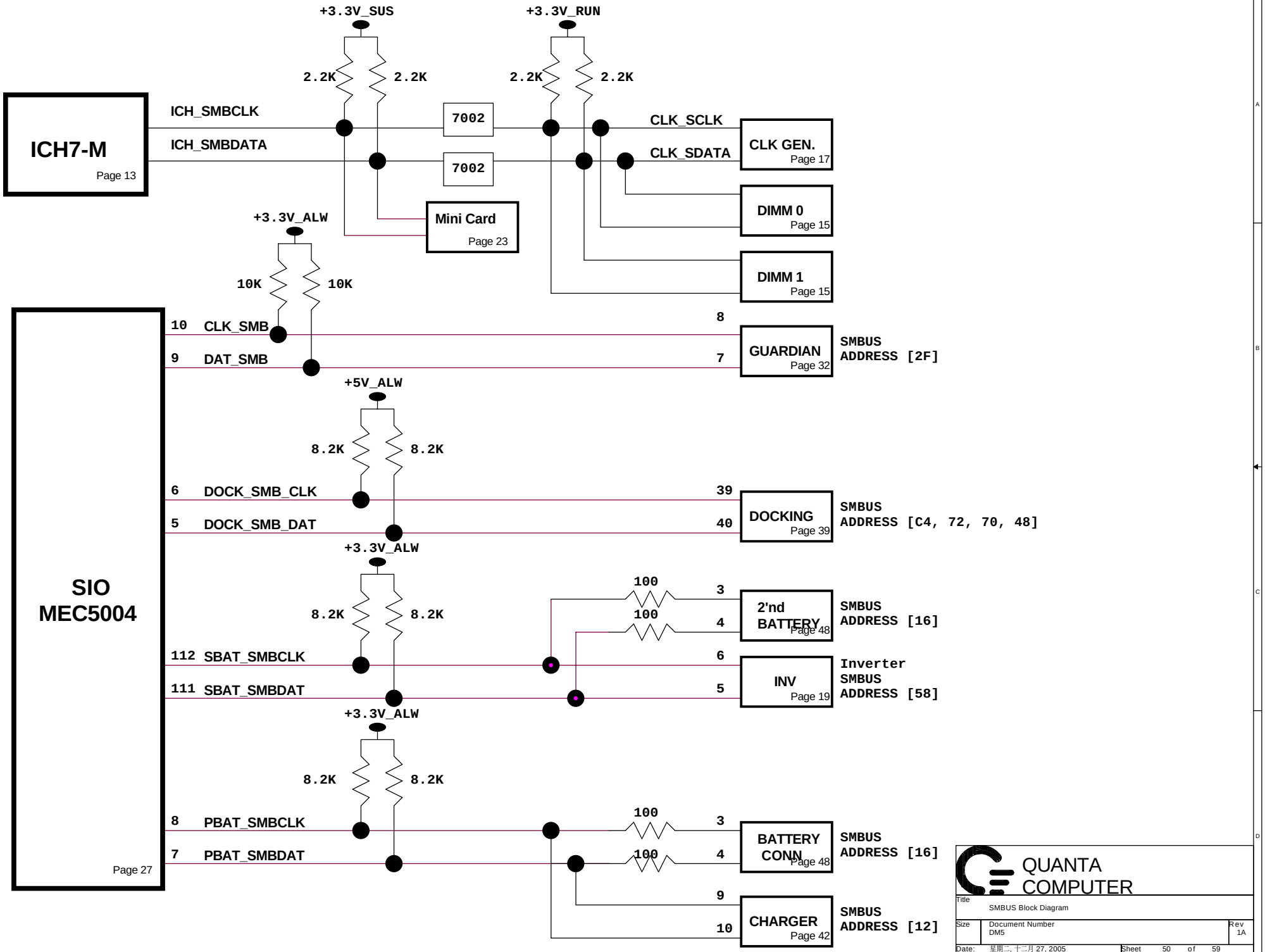
DM5 Power Design Block Diagram



QUANTA COMPUTER

Title	Power Block Diagram	
Size	Document Number DM5	Rev 1A
Date: 星期三, 十二月 27, 2005	Sheet 49 of 59	



QUANTA COMPUTER

Title	SMBUS Block Diagram	
Size	Document Number DM5	Rev 1A
Date: 星期三, 十二月 27, 2005	Sheet 50 of 59	