TAHITI-INTEGRATED

POWER DC/DC

- CPU VR — PG 42
- RUN POWER SW — PG 46
- DC/DC +3V_SRC +5VSUS — PG 45
- DRAM Power 1.8V, 0.9V — PG 43
- 1.5VSUS, 1.05V — PG 44
- AC/BATT CONNECTOR — PG 47
- BATT SELECTOR — PG 40
- BATT CHARGER — PG 41

Dothan (478 Micro-FCPGA) PG 3,4

4X133MHZ

CLOCKS PG 15

SYSTEM RESET CKT PG 39

Alviso-GM 1257 PCBGA PG 5,6,7,8,9

- DDR2-SODIMM1 PG 13,14 — 400/533 MHZ DDR II
- DDR2-SODIMM2 PG 13,14 — 400/533 MHZ DDR II

DMI interface

LVDS — **Panel Connector** PG 17

sDVO — **SI1362** PG 16 — DVI

TVOUT — **S-Video** PG 18

VGA — **CRT** PG 18

USB2.0 (P5,P7) — **2 Rear Ports** PG 32

USB2.0 (P4,P6) — **2 right Side** PG 32

USB2.0 (P1)

ICH6-M 609 BGA PG 10,11,12

- PATA — **PATA - HDD** PG 19
- SATA — **88SA8040** PG 19
- ATA 66/100 — **Internal Media Bay CD-ROM** PG 19
- USB2.0 1 port(P0)
- AC97
- LPC

33MHz PCI

- **LAN (100/10) BCM4401** PG 35
- **1394 CONN** PG 22
- **CARDBUS** PCI4515 PG 21
- **PCMCIA CON.** PG 21
- **MINI-PCI** Wireless LAN PG 23

E-Switch PI3L110Q PG 36 — **I/O Board CONN** PG 32

USB2.0 (P2) — **Bluetooth** PG 30

DOCKING CONNECTOR PG 38

SIO(Macallan 3) 256 Pins LBGA PG 25,26

DOCK LPC

X-Bus

PS/2

- **AUDIO** PG 31,32
  - **S/PDIF to DOCK** PG 38
  - **Audio Jacks** PG 34
- **MDC** PG 24
  - **RJ11 to DOCK** PG 38
  - **Tip Ring** PG 24

- **IrDA** PG 37
- **Keyboard** PG 26
- **Serial** PG 27
- **Parallel** PG 28
- **Touchpad** PG 30
- **Flash** PG 29

SWTICH & LED & IO CONN PG 32

FAN & THERMAL PG 31

QUANTA COMPUTER

Title	Schematic Block Diagram1	
Size	Document Number: Tahiti	Rev: 1A
Date: 星期二, 三月 29, 2005	Sheet 1 of 49	

INDEX

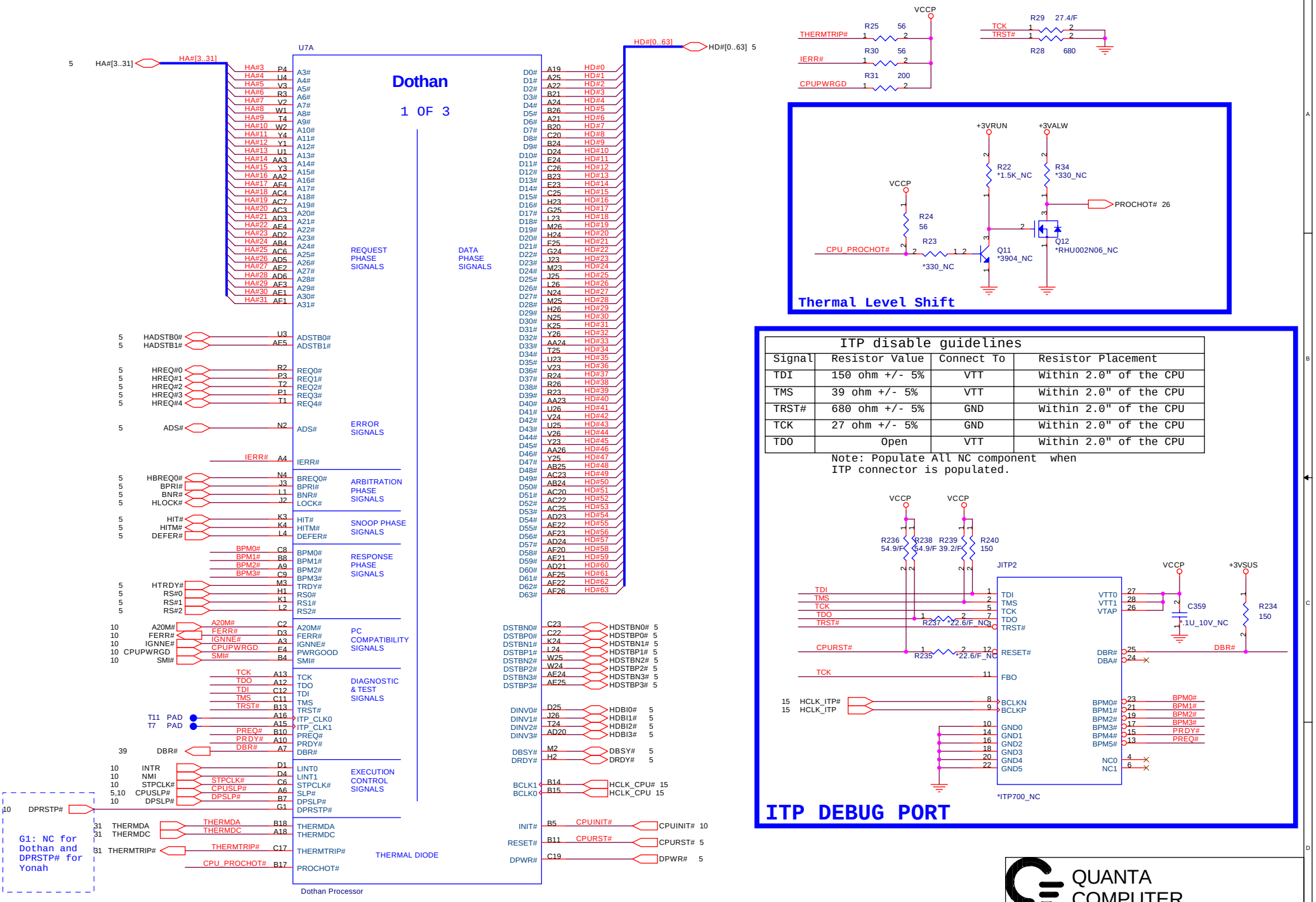
Pg#	Description	DNI LIST
1	Schematic Block Diagram 1	
2	Front Page	
3-4	Dothan	
5-9	Alviso	
10-12	ICH6	
13-14	DDRII SO-DIMM(200P)	
15	Clock Generator	
16	SI1362	
17	LCD Conn. & SSP	
18	CRT & TV Conn.	
19	SATA & IDE Conn.	
20	PAD & Screw Hole	
21	TI PIC4510	
22	CB/1394 CONN	
23	Mini PCI Conn.	
24	MDC Conn.	
25-26	SIO (LPC47N354)	
27	Parallel Port	
28	Serial Port	
29	Flash ROM	
30	Touch Pad CONN.& Bluetooth CONN	
31	Switch Board Conn. & LED & IO Board	
32	FAN & Thermal	
33-34	Audio CODEC (STAC9751) & Phone Jack	
35-36	LAN Interface	
37	FIR	
38	MISCELLANEA	
39	Docking Conn.	
40	SYSTEM RESET/POWER GOOD	
41-42	Battery Selector & Charger	
43	CPU Power	
44	1.8VSUS/0.9V	
45	1.5V/1.05V	
46	D/D Power	
47	RUN Power Switch	
48	RUN POWER SW	

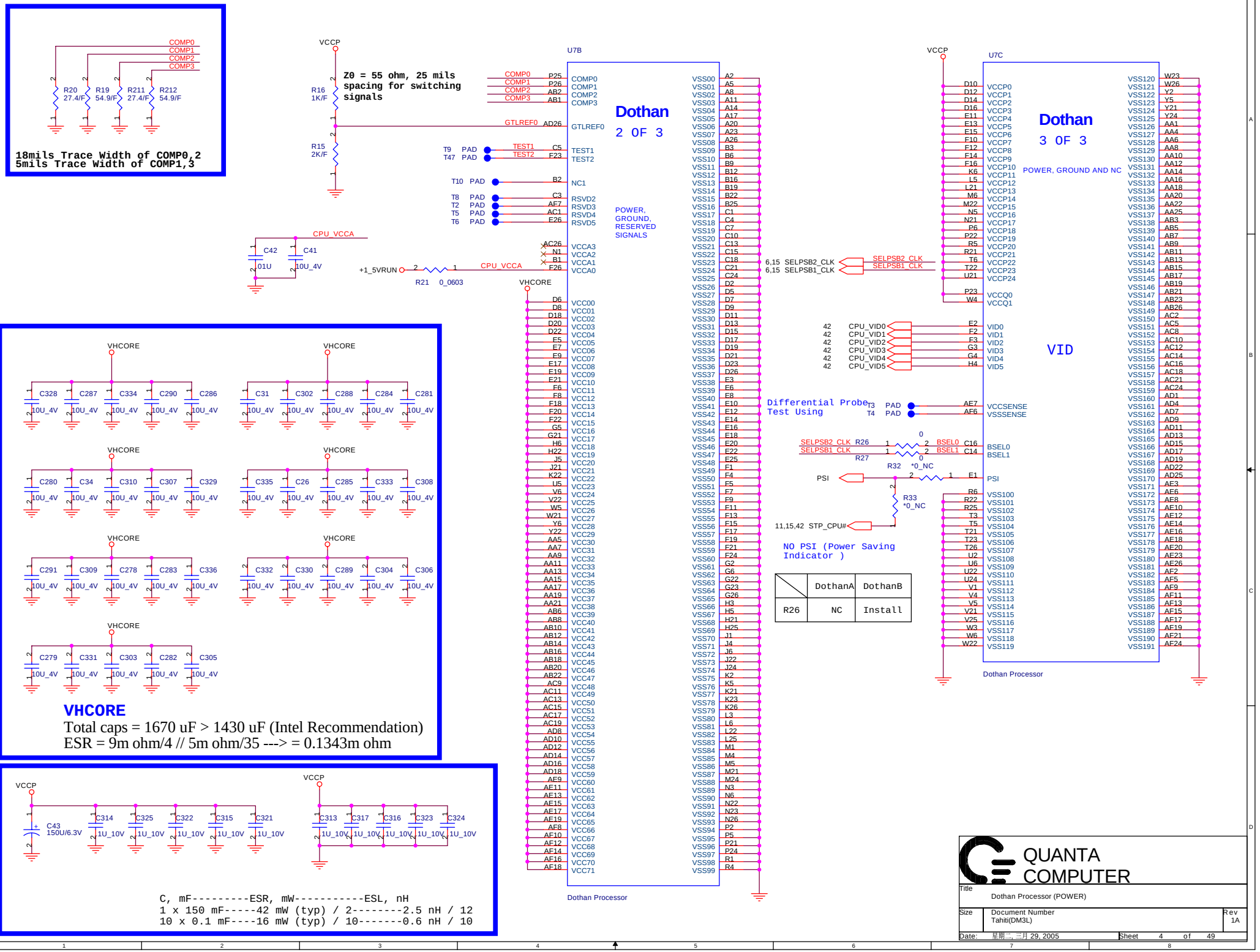
Power & Ground

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 Tahiti(DM3L)	Rev 1A
Date: 星期三, 三月 29, 2005	Sheet 2 of 49	


U7A
Dothan
1 OF 3
HA#[3..31]
HD#[0..63]
REQUEST PHASE SIGNALS
DATA PHASE SIGNALS
ERROR SIGNALS
ARBITRATION PHASE SIGNALS
SNOOP PHASE SIGNALS
RESPONSE PHASE SIGNALS
PC COMPATIBILITY SIGNALS
DIAGNOSTIC & TEST SIGNALS
EXECUTION CONTROL SIGNALS
THERMAL DIODE
Dothan Processor
G1: NC for Dothan and DPRSTP# for Yonah
THERMTRIP#
IERR#
CPUPWRGD
TCK
TRST#
R25 56
R30 56
R31 200
R29 27.4/F
R28 680
+3VRUN
+3VALW
R22 *1.5K_NC
R34 *330_NC
R24 56
R23 *330_NC
Q11 *3904_NC
Q12 *RHU002N06_NC
CPU_PROCHOT#
PROCHOT# 26
Thermal Level Shift
ITP disable guidelines
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
Note: Populate All NC component when ITP connector is populated.
JITP2
*ITP700_NC
ITP DEBUG PORT
QUANTA COMPUTER
Title
Dothan Processor (HOST)
Size
Document Number
Tahiti(DM3L)
Rev
1A
Date: 星期二, 三月 29, 2005
Sheet 3 of 49


COMP0
COMP1
COMP2
COMP3
R20 27.4/F
R19 54.9/F
R211 27.4/F
R212 54.9/F
18mils Trace Width of COMP0,2
5mils Trace Width of COMP1,3
VCCP
R16 1K/F
R15 2K/F
Z0 = 55 ohm, 25 mils spacing for switching signals
GTLREF0
T9 PAD
T47 PAD
TEST1
TEST2
T10 PAD
NC1
T8 PAD
T2 PAD
T5 PAD
T6 PAD
RSVD2
RSVD3
RSVD4
RSVD5
U7B
Dothan
2 OF 3
POWER, GROUND, RESERVED SIGNALS
Dothan Processor
CPU_VCCA
C42 01U
C41 10U_4V
+1_5VRUN
R21 0_0603
VCCA3
VCCA2
VCCA1
VCCA0
VHCORE
VCC00
VCC01
VCC02
VCC03
VCC04
VCC05
VCC06
VCC07
VCC08
VCC09
VCC10
VCC11
VCC12
VCC13
VCC14
VCC15
VCC16
VCC17
VCC18
VCC19
VCC20
VCC21
VCC22
VCC23
VCC24
VCC25
VCC26
VCC27
VCC28
VCC29
VCC30
VCC31
VCC32
VCC33
VCC34
VCC35
VCC36
VCC37
VCC38
VCC39
VCC40
VCC41
VCC42
VCC43
VCC44
VCC45
VCC46
VCC47
VCC48
VCC49
VCC50
VCC51
VCC52
VCC53
VCC54
VCC55
VCC56
VCC57
VCC58
VCC59
VCC60
VCC61
VCC62
VCC63
VCC64
VCC65
VCC66
VCC67
VCC68
VCC69
VCC70
VCC71
VSS00
VSS01
VSS02
VSS03
VSS04
VSS05
VSS06
VSS07
VSS08
VSS09
VSS10
VSS11
VSS12
VSS13
VSS14
VSS15
VSS16
VSS17
VSS18
VSS19
VSS20
VSS21
VSS22
VSS23
VSS24
VSS25
VSS26
VSS27
VSS28
VSS29
VSS30
VSS31
VSS32
VSS33
VSS34
VSS35
VSS36
VSS37
VSS38
VSS39
VSS40
VSS41
VSS42
VSS43
VSS44
VSS45
VSS46
VSS47
VSS48
VSS49
VSS50
VSS51
VSS52
VSS53
VSS54
VSS55
VSS56
VSS57
VSS58
VSS59
VSS60
VSS61
VSS62
VSS63
VSS64
VSS65
VSS66
VSS67
VSS68
VSS69
VSS70
VSS71
VSS72
VSS73
VSS74
VSS75
VSS76
VSS77
VSS78
VSS79
VSS80
VSS81
VSS82
VSS83
VSS84
VSS85
VSS86
VSS87
VSS88
VSS89
VSS90
VSS91
VSS92
VSS93
VSS94
VSS95
VSS96
VSS97
VSS98
VSS99
U7C
Dothan
3 OF 3
POWER, GROUND AND NC
VID
Dothan Processor
6,15 SELPSB2_CLK
6,15 SELPSB1_CLK
SELPSB2_CLK
SELPSB1_CLK
42 CPU_VID0
42 CPU_VID1
42 CPU_VID2
42 CPU_VID3
42 CPU_VID4
42 CPU_VID5
VID0
VID1
VID2
VID3
VID4
VID5
Differential Probe Test Using
T3 PAD
T4 PAD
VCCSENSE
VSSSENSE
SELPSB2_CLK R26
SELPSB1_CLK
R27
BSEL0
BSEL1
R32 *0_NC
PSI
R33 *0_NC
11,15,42 STP_CPU#
NO PSI (Power Saving Indicator)
DothanA
DothanB
R26 NC Install
C328 C287 C334 C290 C286
C31 C302 C288 C284 C281
C280 C34 C310 C307 C329
C335 C26 C285 C333 C308
C291 C309 C278 C283 C336
C332 C330 C289 C304 C306
C279 C331 C303 C282 C305
10U_4V
VHCORE
Total caps = 1670 uF > 1430 uF (Intel Recommendation)
ESR = 9m ohm/4 // 5m ohm/35 ---> = 0.1343m ohm
C43 150U/6.3V
C314 C325 C322 C315 C321
C313 C317 C316 C323 C324
1U_10V
C, mF---------ESR, mW----------ESL, nH
1 x 150 mF-----42 mW (typ) / 2--------2.5 nH / 12
10 x 0.1 mF----16 mW (typ) / 10-------0.6 nH / 10
QUANTA COMPUTER
Title
Dothan Processor (POWER)
Size
Document Number
Tahiti(DM3L)
Rev
1A
Date: 星期二, 三月 29, 2005
Sheet 4 of 49

HXRCOMP
R44
24.9/F

One pulled-down resistor per pin. Trace should be 10-mil wide with 20-mil spacing.

VCCP
R43
54.9/F
HXSCOMP

VCCP
R48
221/F
HXSWING
R50
100/F
C72
.1U_10V

Signal voltage level = 0.3125*VCCP. C1a=0.1 µF. C1b=0.1 µF.Trace should be 10-mil wide with 20-mil spacing..

HYRCOMP
R63
24.9/F

One pulled-down resistor per pin. Trace should be 10-mil wide with 20-mil spacing.

VCCP
R51
54.9/F
HYSCOMP

VCCP
R53
221/F
HYSWING
R56
100/F
C82
.1U_10V

Signal voltage level = 0.3125*VCCP. C1a=0.1 µF. C1b=0.1 µF.Trace should be 10-mil wide with 20-mil spacing..

Concern about Trace Length and Width

U11A

HD#[0..63] HD#[0..63] 3

HD#0 E4 HD0#
HD#1 E1 HD1#
HD#2 F4 HD2#
HD#3 H7 HD3#
HD#4 E2 HD4#
HD#5 F1 HD5#
HD#6 E3 HD6#
HD#7 D3 HD7#
HD#8 K7 HD8#
HD#9 F2 HD9#
HD#10 J7 HD10#
HD#11 J8 HD11#
HD#12 H6 HD12#
HD#13 F3 HD13#
HD#14 K8 HD14#
HD#15 H5 HD15#
HD#16 H1 HD16#
HD#17 H2 HD17#
HD#18 K5 HD18#
HD#19 K6 HD19#
HD#20 J4 HD20#
HD#21 G3 HD21#
HD#22 H3 HD22#
HD#23 J1 HD23#
HD#24 L5 HD24#
HD#25 K4 HD25#
HD#26 J5 HD26#
HD#27 P7 HD27#
HD#28 L7 HD28#
HD#29 J3 HD29#
HD#30 P5 HD30#
HD#31 L3 HD31#
HD#32 U7 HD32#
HD#33 V6 HD33#
HD#34 R6 HD34#
HD#35 R5 HD35#
HD#36 P3 HD36#
HD#37 T8 HD37#
HD#38 R7 HD38#
HD#39 R8 HD39#
HD#40 U8 HD40#
HD#41 R4 HD41#
HD#42 T4 HD42#
HD#43 T5 HD43#
HD#44 R1 HD44#
HD#45 T3 HD45#
HD#46 V8 HD46#
HD#47 U6 HD47#
HD#48 W6 HD48#
HD#49 U3 HD49#
HD#50 V5 HD50#
HD#51 W8 HD51#
HD#52 W7 HD52#
HD#53 U2 HD53#
HD#54 U1 HD54#
HD#55 Y5 HD55#
HD#56 Y2 HD56#
HD#57 V4 HD57#
HD#58 Y7 HD58#
HD#59 W1 HD59#
HD#60 W3 HD60#
HD#61 Y3 HD61#
HD#62 Y6 HD62#
HD#63 W2 HD63#

HXRCOMP C1 HXRCOMP
HXSCOMP C2 HXSCOMP
HXSWING D1 HXSWING
HYRCOMP T1 HYRCOMP
HYSCOMP L1 HYSCOMP
HYSWING P1 HYSWING

HOST

HA3# G9 HA#3
HA4# C9 HA#4
HA5# E9 HA#5
HA6# B7 HA#6
HA7# A10 HA#7
HA8# F9 HA#8
HA9# D8 HA#9
HA10# B10 HA#10
HA11# E10 HA#11
HA12# G10 HA#12
HA13# D9 HA#13
HA14# E11 HA#14
HA15# F10 HA#15
HA16# G11 HA#16
HA17# G13 HA#17
HA18# C10 HA#18
HA19# C11 HA#19
HA20# D11 HA#20
HA21# C12 HA#21
HA22# B13 HA#22
HA23# A12 HA#23
HA24# F12 HA#24
HA25# G12 HA#25
HA26# E12 HA#26
HA27# C13 HA#27
HA28# B11 HA#28
HA29# D13 HA#29
HA30# A13 HA#30
HA31# F13 HA#31

HA#[3..31] HA#[3..31] 3

HADS# E8 ADS# 3
HADSTB0# B9 HADSTB0# 3
HADSTB1# E13 HADSTB1# 3
HVREF J11
HBNR# A5 BNR# 3
HBPRI# D5 BPRI# 3
BREQ0# E7 HBREQ0# 3
HCPURST# H10 CPURST# 3

HCLKINN AB1 HCLK_MCH# 15
HCLKINP AB2 HCLK_MCH 15

HDBSY# C6 DBSY# 3
HDEFER# E6 DEFER# 3
HDINV#0 H8 HDBI0# 3
HDINV#1 K3 HDBI1# 3
HDINV#2 T7 HDBI2# 3
HDINV#3 U5 HDBI3# 3
HDPWR# G6 DPWR# 3
HDRDY# E7 DRDY# 3
HDSTBN0# G4 HDSTBN0# 3
HDSTBN1# K1 HDSTBN1# 3
HDSTBN2# R3 HDSTBN2# 3
HDSTBN3# V3 HDSTBN3# 3
HDSTBP0# G5 HDSTBP0# 3
HDSTBP1# K2 HDSTBP1# 3
HDSTBP2# R2 HDSTBP2# 3
HDSTBP3# W4 HDSTBP3# 3
HEDRDY# E6 T77 PAD
HHIT# D4 HIT# 3
HHITM# D6 HITM# 3
HLOCK# B3 HLOCK# 3
HPCREQ# A11 T15 PAD
HREQ0# A7 HREQ#0 3
HREQ1# D7 HREQ#1 3
HREQ2# B8 HREQ#2 3
HREQ3# C7 HREQ#3 3
HREQ4# A8 HREQ#4 3
HRS0# A4 RS#0 3
HRS1# C5 RS#1 3
HRS2# B4 RS#2 3
HCPUSLP# G8 HCPUSLP# GMCH
HTRDY# B5 HTRDY# 3

R37
1 2
0
CPUSLP# 3,10

ALVISO

VCCP
R284
100/F
HVREF
C381
.1U_10V
R276
200/F

Signal voltage level = 2/3 of VCCP. One 0.1 µF decoupling capacitor should be placed 100 mils or less from GMCH pin.

Concern about HVREF Trace Length & Width

Do not install R37 for Dothan-A and install for Dothan-B

QUANTA COMPUTER

Title	Alviso (Host)	
Size	Document Number Tahiti(DM3L)	Rev 1A
Date: 星期二, 三月 29, 2005	Sheet 5 of 49	

CFG[2:0]
001=FSB533
010=FSB800
101=FSB400

CFG6
R254
2.2K
Low=DDR2
High=DDR1

VCCP
R286
10K

U11C

DMI
DMIRXN0
DMIRXN1
DMIRXN2
DMIRXN3
DMIRXP0
DMIRXP1
DMIRXP2
DMIRXP3
DMITXN0
DMITXN1
DMITXN2
DMITXN3
DMITXP0
DMITXP1
DMITXP2
DMITXP3

DDR MUXING
SM_CK0
SM_CK1
SM_CK2
SM_CK3
SM_CK4
SM_CK5
SM_CK0#
SM_CK1#
SM_CK2#
SM_CK3#
SM_CK4#
SM_CK5#
SM_CKE0
SM_CKE1
SM_CKE2
SM_CKE3
SM_CS0#
SM_CS1#
SM_CS2#
SM_CS3#
SM_OCDCOMP0
SM_OCDCOMP1
SM_ODT0
SM_ODT1
SM_ODT2
SM_ODT3
SMRCOMPN
SMRCOMPP
SMVREF0
SMVREF1
SMXSLEWIN
SMXSLEWOUT
SMYSLEWIN
SMYSLEWOUT

CFG/RSVD
CFG0
CFG1
CFG2
CFG3
CFG4
CFG5
CFG6
CFG7
CFG8
CFG9
CFG10
CFG11
CFG12
CFG13
CFG14
CFG15
CFG16
CFG17
CFG18
CFG19
CFG20
RSVD21
RSVD22
RSVD23
RSVD24
RSVD25
RSVD26
RSVD27

PM
BM_BUSY#
EXT_TS#
EXT_TS1#
THRMTRIP#
PWROK
RSTIN#

LCK
DREF_CLKN
DREF_CLKP
DREF_SSCLKN
DREF_SSCLKP

NC
NC1
NC2
NC3
NC4
NC5
NC6
NC7
NC8
NC9
NC10
NC11

ALVISO

SELSPB1_CLK 4,15
SELSPB2_CLK 4,15

R273
*2.2K_NC
Low=DMIx2
High=DMIx4

R269 *1K_NC
R271 *1K_NC

+2.5VRUN

R49
56

PM_EXTTS#0
PM_EXTTS#1
PM_BMBUSY# 11
THERMTRIP_GMCH# 31
IMVP_PWRGD 11,39,42
PLTRST# 10,11,16,19,25
R312 100

REFCLK/SSCLK
DOT96# 15
DOT96 15
DREFSSCLK# R
DREFSSCLK R

R315
*40.2/F_NC
R314
*40.2/F_NC
SMDDR_VREF

U11F

MISC
SDVOCTRL_DATA
SDVOCTRL_CLK
GCLKN
GCLKP

TV
TVDAC_A
TVDAC_B
TVDAC_C
TV_REFSET
TV_IRTNA
TV_IRTNB
TV_IRTNC

VGA
DDCCLK
DDCDATA
BLUE
BLUE#
GREEN
GREEN#
RED
RED#
VSYNC
HSYNC
REFSET

LVDS
LBKLT_CTRL
LBKLT_EN
LCTLA_CLK
LCTLB_DATA
LDDC_CLK
LDDC_DATA
LVDD_EN
LIBG
LVBG
LVREFH
LVREFL
LACLKN
LACLKP
LBCLKN
LBCLKP
LADATAN0
LADATAN1
LADATAN2
LADATAP0
LADATAP1
LADATAP2
LBDATAN0
LBDATAN1
LBDATAN2
LBDATAP0
LBDATAP1
LBDATAP2

PCI-EXPRESS GRAPHICS
EXP_COMPI
EXP_ICOMPO
EXP_RXN0
EXP_RXN1
EXP_RXN2
EXP_RXN3
EXP_RXN4
EXP_RXN5
EXP_RXN6
EXP_RXN7
EXP_RXN8
EXP_RXN9
EXP_RXN10
EXP_RXN11
EXP_RXN12
EXP_RXN13
EXP_RXN14
EXP_RXN15
EXP_RXP0
EXP_RXP1
EXP_RXP2
EXP_RXP3
EXP_RXP4
EXP_RXP5
EXP_RXP6
EXP_RXP7
EXP_RXP8
EXP_RXP9
EXP_RXP10
EXP_RXP11
EXP_RXP12
EXP_RXP13
EXP_RXP14
EXP_RXP15
EXP_TXN0
EXP_TXN1
EXP_TXN2
EXP_TXN3
EXP_TXN4
EXP_TXN5
EXP_TXN6
EXP_TXN7
EXP_TXN8
EXP_TXN9
EXP_TXN10
EXP_TXN11
EXP_TXN12
EXP_TXN13
EXP_TXN14
EXP_TXN15
EXP_TXP0
EXP_TXP1
EXP_TXP2
EXP_TXP3
EXP_TXP4
EXP_TXP5
EXP_TXP6
EXP_TXP7
EXP_TXP8
EXP_TXP9
EXP_TXP10
EXP_TXP11
EXP_TXP12
EXP_TXP13
EXP_TXP14
EXP_TXP15

VCC3G_PCIE
R268 24.9/F
VCC3G_PCIE_R
SDVOB_INT- 16
SDVOB_INT+ 16
SDVOB_R- C
SDVOB_G- C
SDVOB_B- C
SDVOB_CLK- C
SDVOB_R+ C
SDVOB_G+ C
SDVOB_B+ C
SDVOB_CLK+ C

SMDDR_VREF
C714 1U_10V
C715 1U_10V
Place these 2 Caps near Alviso SMVREF pins.

+1_8VSUS
R326 80.6/F
M_RCOMPN
M_RCOMPP
R318 80.6/F
On-Die OCD driver compensation (DDR2 only)

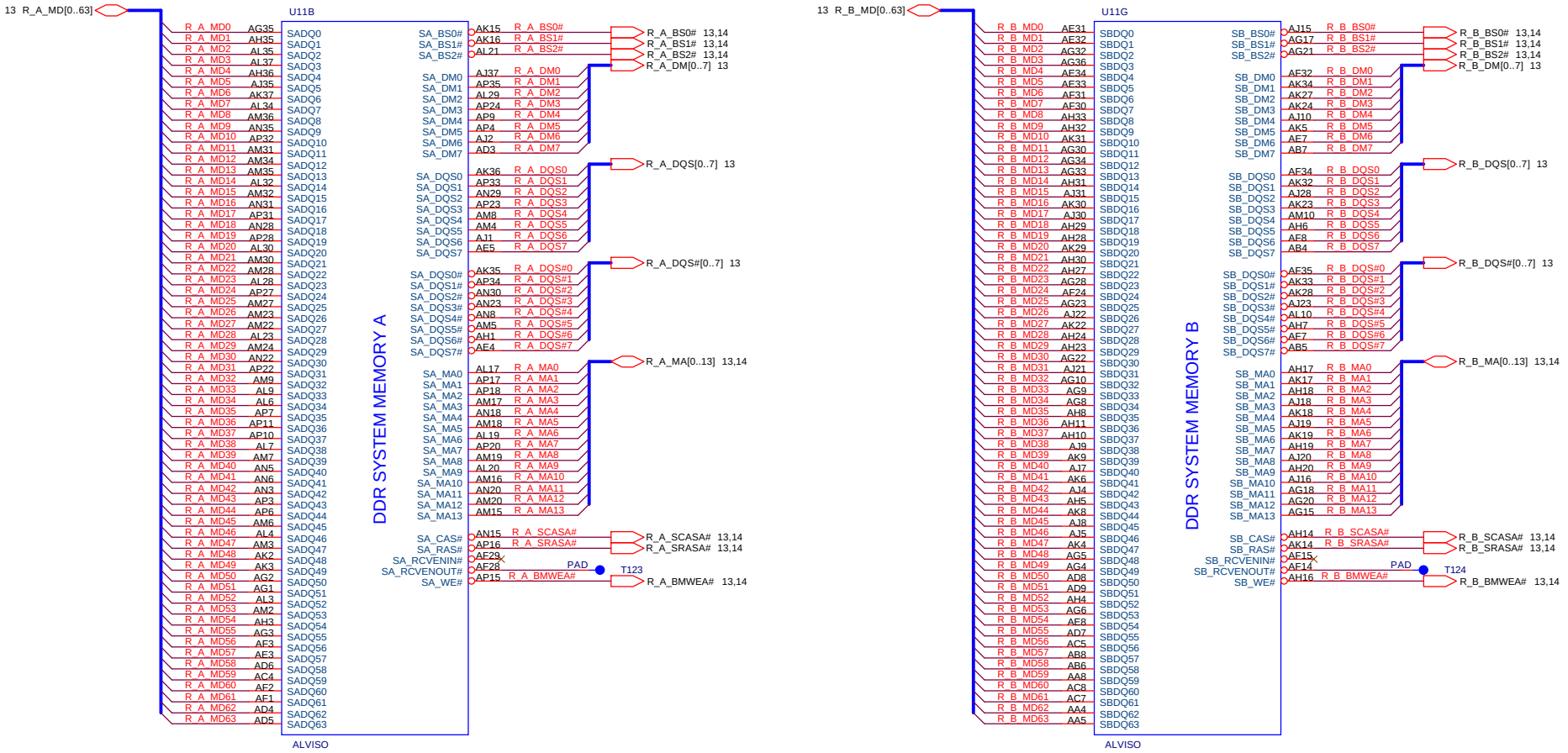
RP2
*4P2R-S-0_NC
RP12
4P2R-S-0
Populate RP2 if using CK-SSCD.
Populate Rp12 if using CK410M

+2.5VRUN
R282 10K
R283 10K
PM_EXTTS#0
PM_EXTTS#1
For Memory throttling
External Thermal Sensor Input

SDVO Output
C67 .1U_10V
C49 .1U_10V
C69 .1U_10V
C51 .1U_10V
C66 .1U_10V
C48 .1U_10V
C68 .1U_10V
C50 .1U_10V

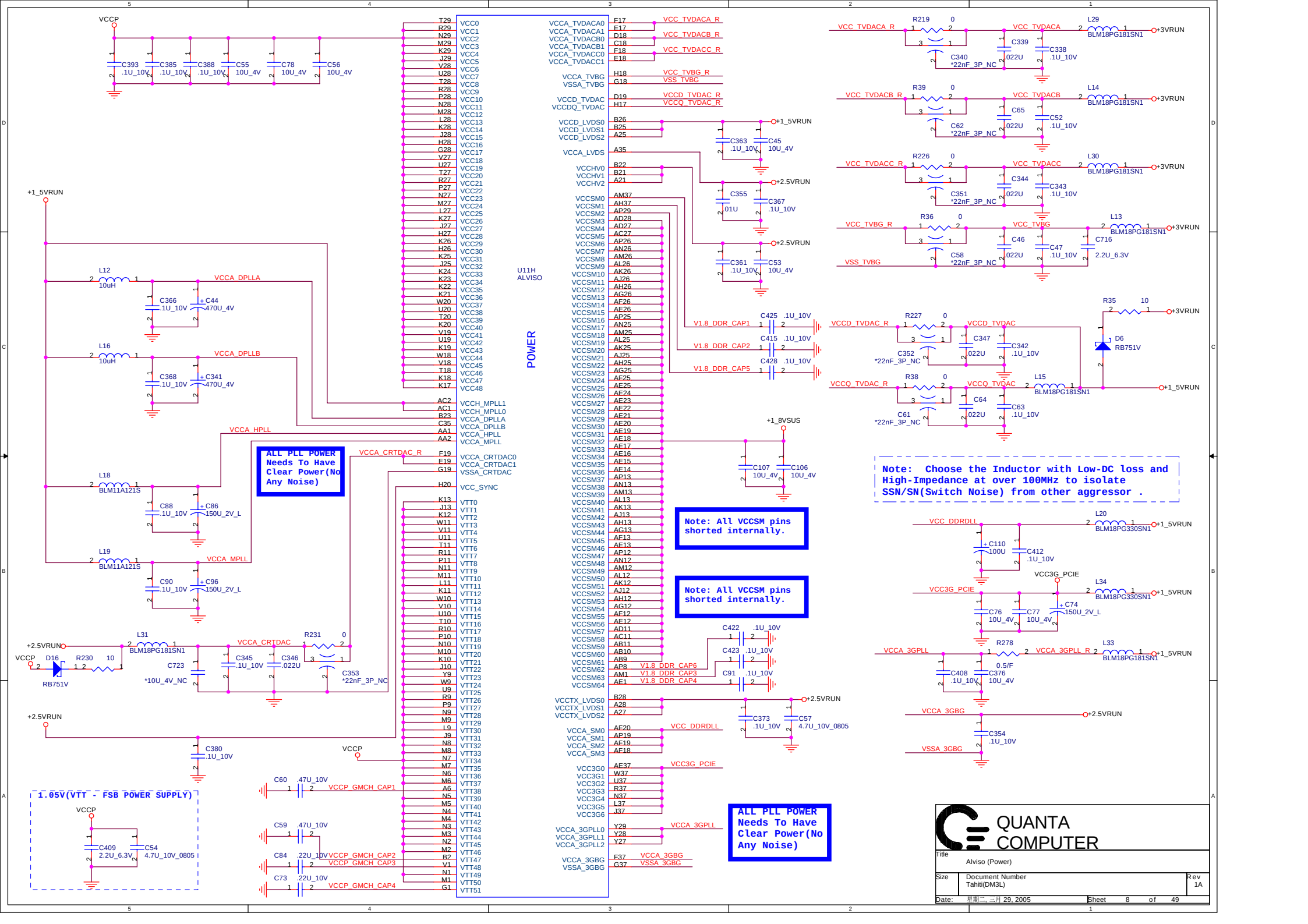
QUANTA COMPUTER

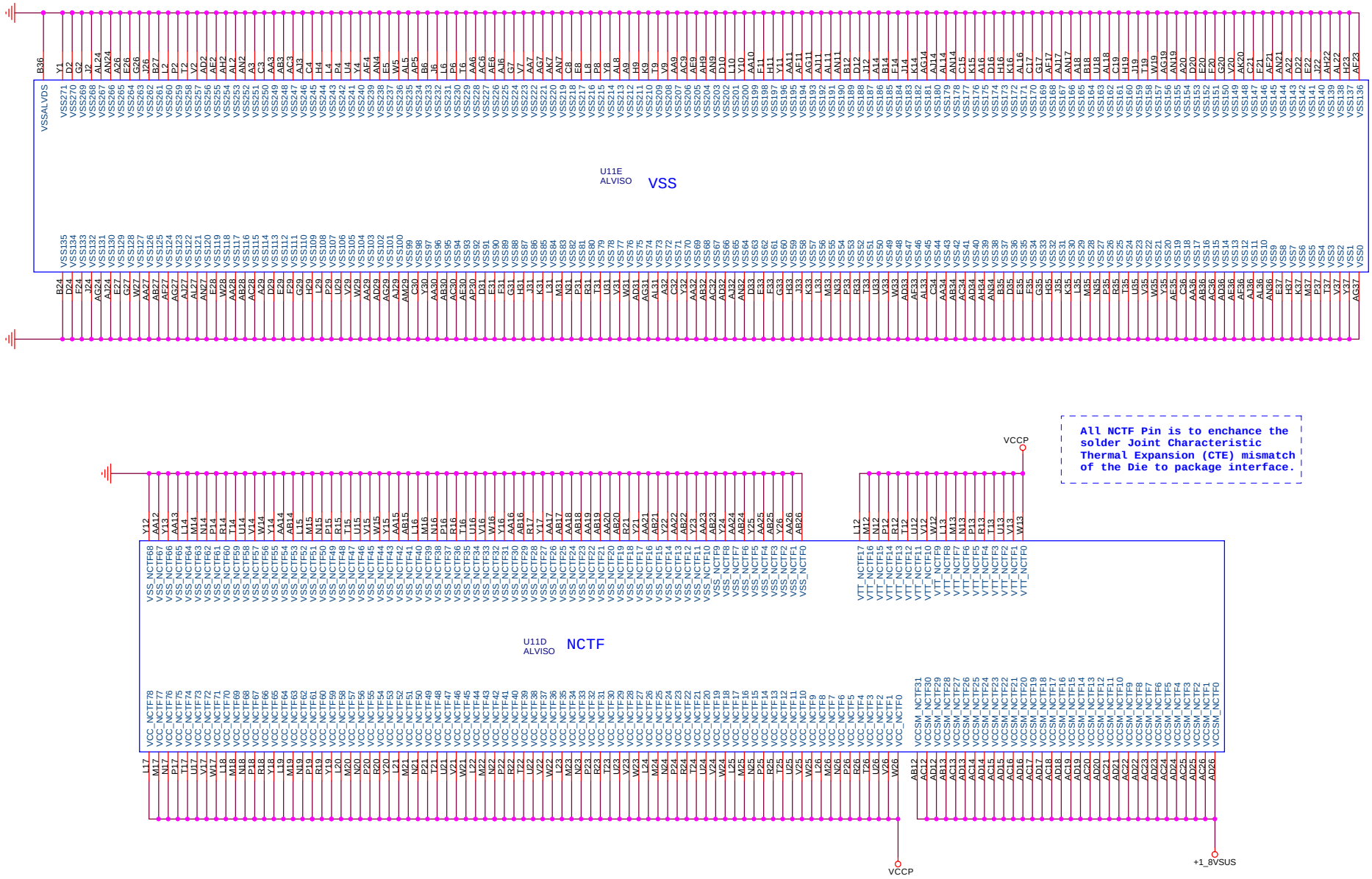
Title	Alviso (VGA,DMI)		
Size	Custom	Document Number Tahiti(DM3L)	Rev 1A
Date:	星期三, 三月 29, 2005	Sheet 6 of 49	



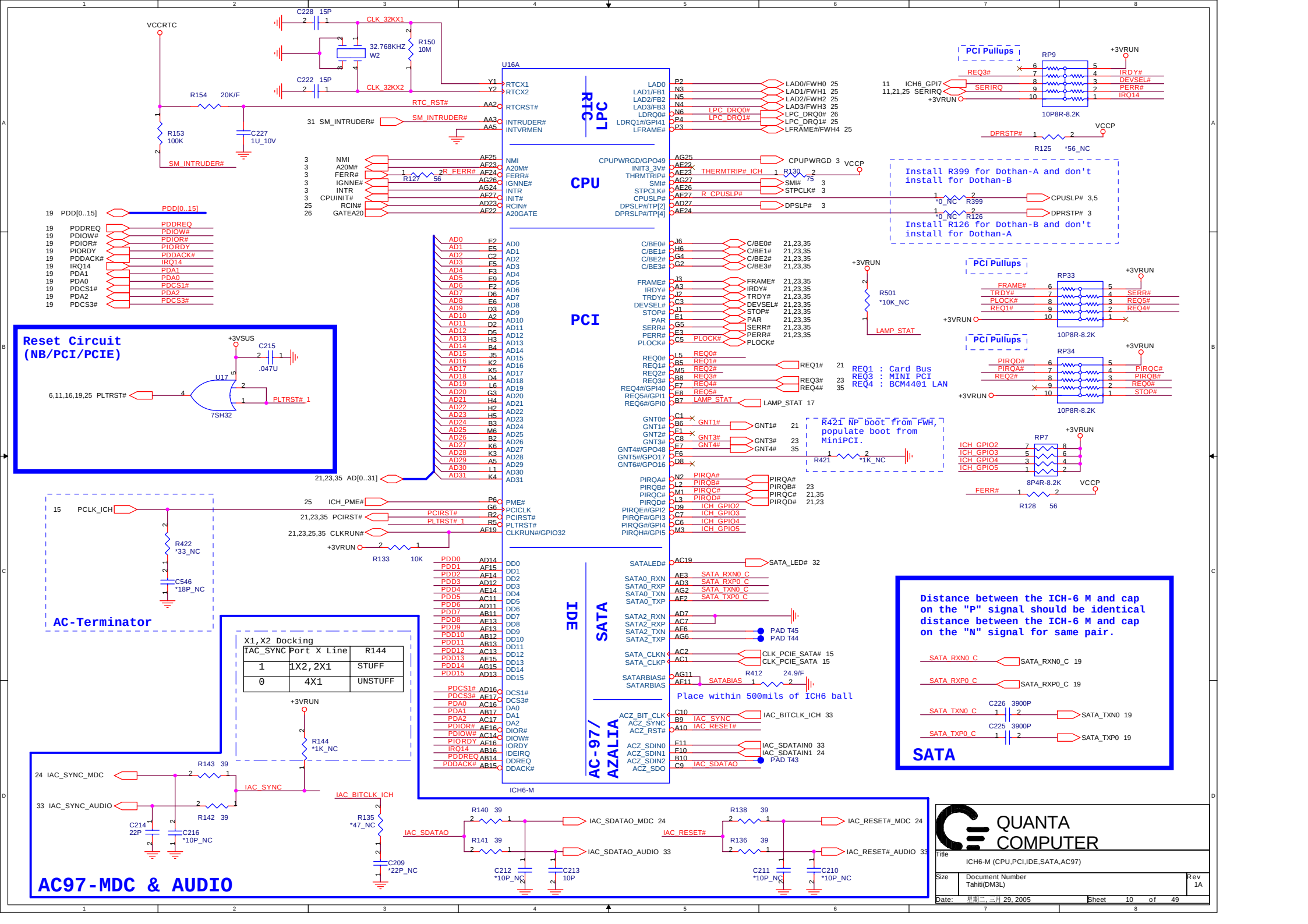
QUANTA COMPUTER

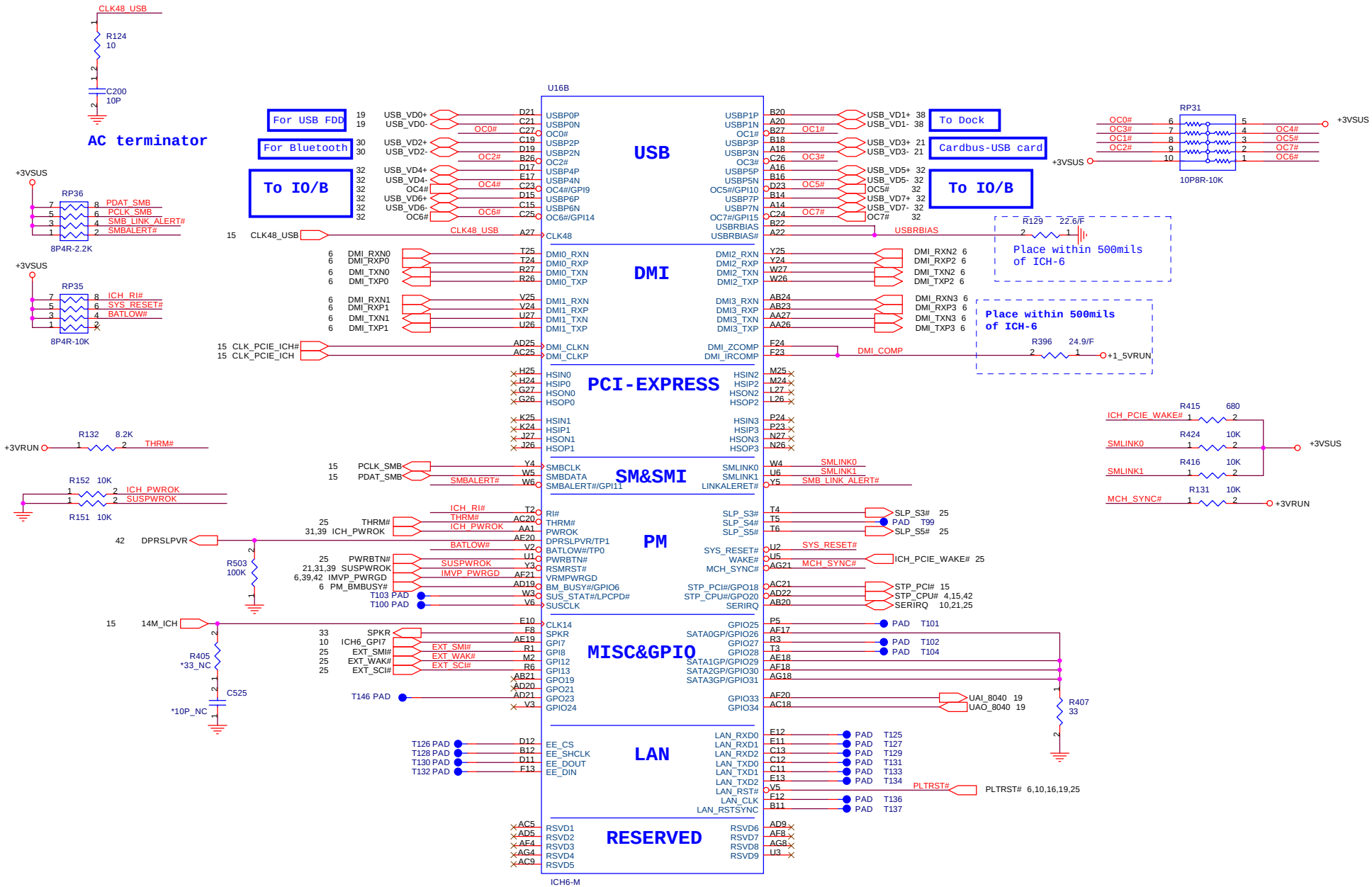
Title	Alviso (DDR)	
Size	Document Number: Tahiti(DM3L)	Rev: 1A
Date: 星期三, 三月 29, 2005	Sheet 7 of 49	


VCCP
C393 .1U_10V
C385 .1U_10V
C388 .1U_10V
C55 10U_4V
C78 10U_4V
C56 10U_4V
+1_5VRUN
L12 10uH
VCCA_DPLLA
C366 .1U_10V
C44 470U_4V
L16 10uH
VCCA_DPLLB
C368 .1U_10V
C341 470U_4V
VCCA_HPLL
L18 BLM11A121S
C88 .1U_10V
C86 150U_2V_L
L19 BLM11A121S
VCCA_MPLL
C90 .1U_10V
C96 150U_2V_L
ALL PLL POWER Needs To Have Clear Power(No Any Noise)
VCCA_CRTDAC_R
+2.5VRUN
L31 BLM18PG181SN1
VCCP
D16 RB751V
R230 10
VCCA_CRTDAC
C723 *10U_4V_NC
C345 .1U_10V
C346 .022U
R231 0
C353 *22nF_3P_NC
C380 .1U_10V
1.05V(VTT - FSB POWER SUPPLY)
C409 2.2U_6.3V
C54 4.7U_10V_0805
C60 .47U_10V
VCCP_GMCH_CAP1
C59 .47U_10V
C84 .22U_10V
VCCP_GMCH_CAP2
VCCP_GMCH_CAP3
C73 .22U_10V
VCCP_GMCH_CAP4
T29 VCC0
R29 VCC1
N29 VCC2
M29 VCC3
K29 VCC4
J29 VCC5
V28 VCC6
U28 VCC7
T28 VCC8
R28 VCC9
P28 VCC10
N28 VCC11
M28 VCC12
L28 VCC13
K28 VCC14
J28 VCC15
H28 VCC16
G28 VCC17
V27 VCC18
U27 VCC19
T27 VCC20
R27 VCC21
P27 VCC22
N27 VCC23
M27 VCC24
L27 VCC25
K27 VCC26
J27 VCC27
H27 VCC28
K26 VCC29
H26 VCC30
K25 VCC31
J25 VCC32
K24 VCC33
K23 VCC34
K22 VCC35
K21 VCC36
W20 VCC37
U20 VCC38
T20 VCC39
K20 VCC40
V19 VCC41
U19 VCC42
K19 VCC43
W18 VCC44
V18 VCC45
T18 VCC46
K18 VCC47
K17 VCC48
AC2 VCCH_MPLL1
AC1 VCCH_MPLL0
B23 VCCA_DPLLA
C35 VCCA_DPLLB
AA1 VCCA_HPLL
AA2 VCCA_MPLL
F19 VCCA_CRTDAC0
E19 VCCA_CRTDAC1
G19 VSSA_CRTDAC
H20 VCC_SYNC
K13 VTT0
J13 VTT1
K12 VTT2
W11 VTT3
V11 VTT4
U11 VTT5
T11 VTT6
R11 VTT7
P11 VTT8
N11 VTT9
M11 VTT10
L11 VTT11
K11 VTT12
W10 VTT13
V10 VTT14
U10 VTT15
T10 VTT16
R10 VTT17
P10 VTT18
N10 VTT19
M10 VTT20
K10 VTT21
J10 VTT22
Y9 VTT23
W9 VTT24
U9 VTT25
R9 VTT26
P9 VTT27
N9 VTT28
M9 VTT29
L9 VTT30
J9 VTT31
N8 VTT32
M8 VTT33
N7 VTT34
M7 VTT35
N6 VTT36
M6 VTT37
A6 VTT38
N5 VTT39
M5 VTT40
N4 VTT41
M4 VTT42
N3 VTT43
M3 VTT44
N2 VTT45
M2 VTT46
B2 VTT47
V1 VTT48
N1 VTT49
M1 VTT50
G1 VTT51
U11H ALVISO
POWER
VCCA_TVDACA0 F17
VCCA_TVDACA1 E17
VCCA_TVDACB0 D18
VCCA_TVDACB1 C18
VCCA_TVDACC0 F18
VCCA_TVDACC1 E18
VCC_TVDACA_R
VCC_TVDACB_R
VCC_TVDACC_R
VCCA_TVBG H18
VSSA_TVBG G18
VCC_TVBG_R
VSS_TVBG
VCCD_TVDAC D19
VCCDQ_TVDAC H17
VCCD_TVDAC_R
VCCQ_TVDAC_R
VCCD_LVDS0 B26
VCCD_LVDS1 B25
VCCD_LVDS2 A25
VCCA_LVDS A35
+1_5VRUN
C363 .1U_10V
C45 10U_4V
VCCHV0 B22
VCCHV1 B21
VCCHV2 A21
+2.5VRUN
C355 .01U
C367 .1U_10V
C361 .1U_10V
C53 10U_4V
VCCSM0 AM37
VCCSM1 AH37
VCCSM2 AP29
VCCSM3 AD28
VCCSM4 AD27
VCCSM5 AC27
VCCSM6 AP26
VCCSM7 AN26
VCCSM8 AM26
VCCSM9 AL26
VCCSM10 AK26
VCCSM11 AJ26
VCCSM12 AH26
VCCSM13 AG26
VCCSM14 AE26
VCCSM15 AE26
VCCSM16 AP25
VCCSM17 AN25
VCCSM18 AM25
VCCSM19 AL25
VCCSM20 AK25
VCCSM21 AJ25
VCCSM22 AH25
VCCSM23 AG25
VCCSM24 AF25
VCCSM25 AE25
VCCSM26 AE24
VCCSM27 AE23
VCCSM28 AE22
VCCSM29 AE21
VCCSM30 AE20
VCCSM31 AE19
VCCSM32 AE18
VCCSM33 AE17
VCCSM34 AE16
VCCSM35 AE15
VCCSM36 AE14
VCCSM37 AP13
VCCSM38 AN13
VCCSM39 AM13
VCCSM40 AL13
VCCSM41 AK13
VCCSM42 AJ13
VCCSM43 AH13
VCCSM44 AG13
VCCSM45 AF13
VCCSM46 AE13
VCCSM47 AP12
VCCSM48 AN12
VCCSM49 AM12
VCCSM50 AL12
VCCSM51 AK12
VCCSM52 AJ12
VCCSM53 AH12
VCCSM54 AG12
VCCSM55 AE12
VCCSM56 AE12
VCCSM57 AD11
VCCSM58 AC11
VCCSM59 AB11
VCCSM60 AB10
VCCSM61 AB9
VCCSM62 AP8
VCCSM63 AM1
VCCSM64 AE1
V1.8_DDR_CAP1
V1.8_DDR_CAP2
V1.8_DDR_CAP5
V1.8_DDR_CAP6
V1.8_DDR_CAP3
V1.8_DDR_CAP4
C425 .1U_10V
C415 .1U_10V
C428 .1U_10V
C422 .1U_10V
C423 .1U_10V
C91 .1U_10V
+1_8VSUS
C107 10U_4V
C106 10U_4V
Note: All VCCSM pins shorted internally.
Note: All VCCSM pins shorted internally.
VCCTX_LVDS0 B28
VCCTX_LVDS1 A28
VCCTX_LVDS2 A27
+2.5VRUN
C373 .1U_10V
C57 4.7U_10V_0805
VCCA_SM0 AF20
VCCA_SM1 AP19
VCCA_SM2 AF19
VCCA_SM3 AF18
VCC_DDRDLL
VCC3G0 AE37
VCC3G1 W37
VCC3G2 U37
VCC3G3 R37
VCC3G4 N37
VCC3G5 L37
VCC3G6 J37
VCC3G_PCIE
VCCA_3GPLL0 Y29
VCCA_3GPLL1 Y28
VCCA_3GPLL2 Y27
VCCA_3GPLL
VCCA_3GBG F37
VSSA_3GBG G37
VCCA_3GBG
VSSA_3GBG
ALL PLL POWER Needs To Have Clear Power(No Any Noise)
VCC_TVDACA_R
R219 0
VCC_TVDACA
L29 BLM18PG181SN1
+3VRUN
C339
C340 *22nF_3P_NC
C338 .1U_10V
VCC_TVDACB_R
R39 0
VCC_TVDACB
L14 BLM18PG181SN1
C65
C62 *22nF_3P_NC
C52 .1U_10V
VCC_TVDACC_R
R226 0
VCC_TVDACC
L30 BLM18PG181SN1
C344
C351 *22nF_3P_NC
C343 .1U_10V
VCC_TVBG_R
R36 0
VCC_TVBG
L13 BLM18PG181SN1
C46
C58 *22nF_3P_NC
C47 .1U_10V
C716 2.2U_6.3V
VSS_TVBG
VCCD_TVDAC_R
R227 0
VCCD_TVDAC
C347
C352 *22nF_3P_NC
C342 .1U_10V
R35 10
D6 RB751V
VCCQ_TVDAC_R
R38 0
VCCQ_TVDAC
L15 BLM18PG181SN1
C64
C61 *22nF_3P_NC
C63 .1U_10V
Note: Choose the Inductor with Low-DC loss and High-Impedance at over 100MHz to isolate SSN/SN(Switch Noise) from other aggressor .
VCC_DDRDLL
L20 BLM18PG330SN1
C110 100U
C412 .1U_10V
VCC3G_PCIE
L34 BLM18PG330SN1
C76 10U_4V
C77 10U_4V
C74 150U_2V_L
VCCA_3GPLL
R278
VCCA_3GPLL_R
L33 BLM18PG181SN1
C408 .1U_10V
C376 0.5/F 10U_4V
VCCA_3GBG
C354 .1U_10V
QUANTA COMPUTER
Title
Alviso (Power)
Size
Document Number
Tahiti(DM3L)
Rev
1A
Date: 星期二, 三月 29, 2005
Sheet 8 of 49



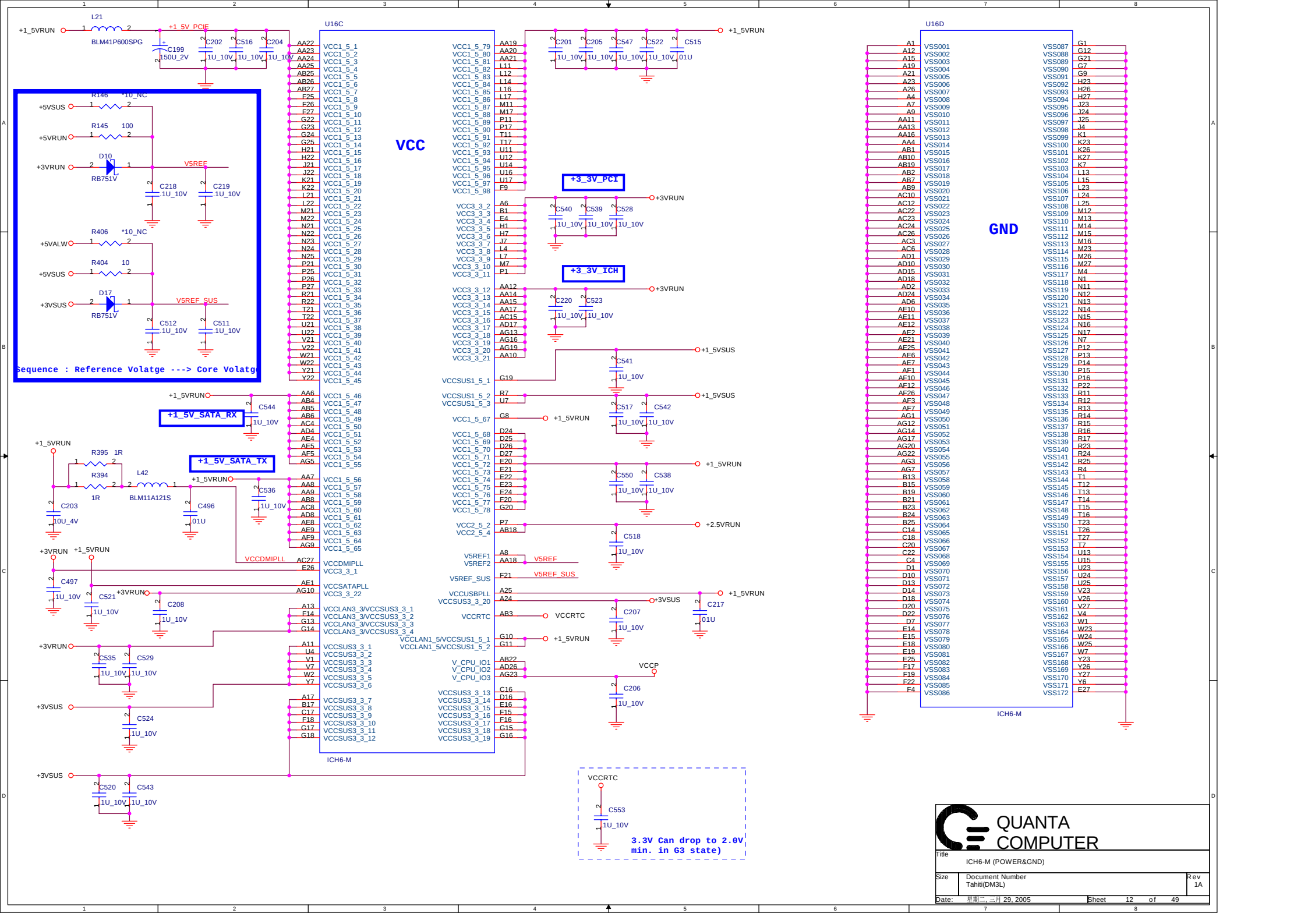
QUANTA COMPUTER			
Title	Alviso (VSS,NCTF)		
Size	Document Number Tahiti(DM3L)		Rev 1A
Date: 星期三, 三月 29, 2005		Sheet 9 of 49	

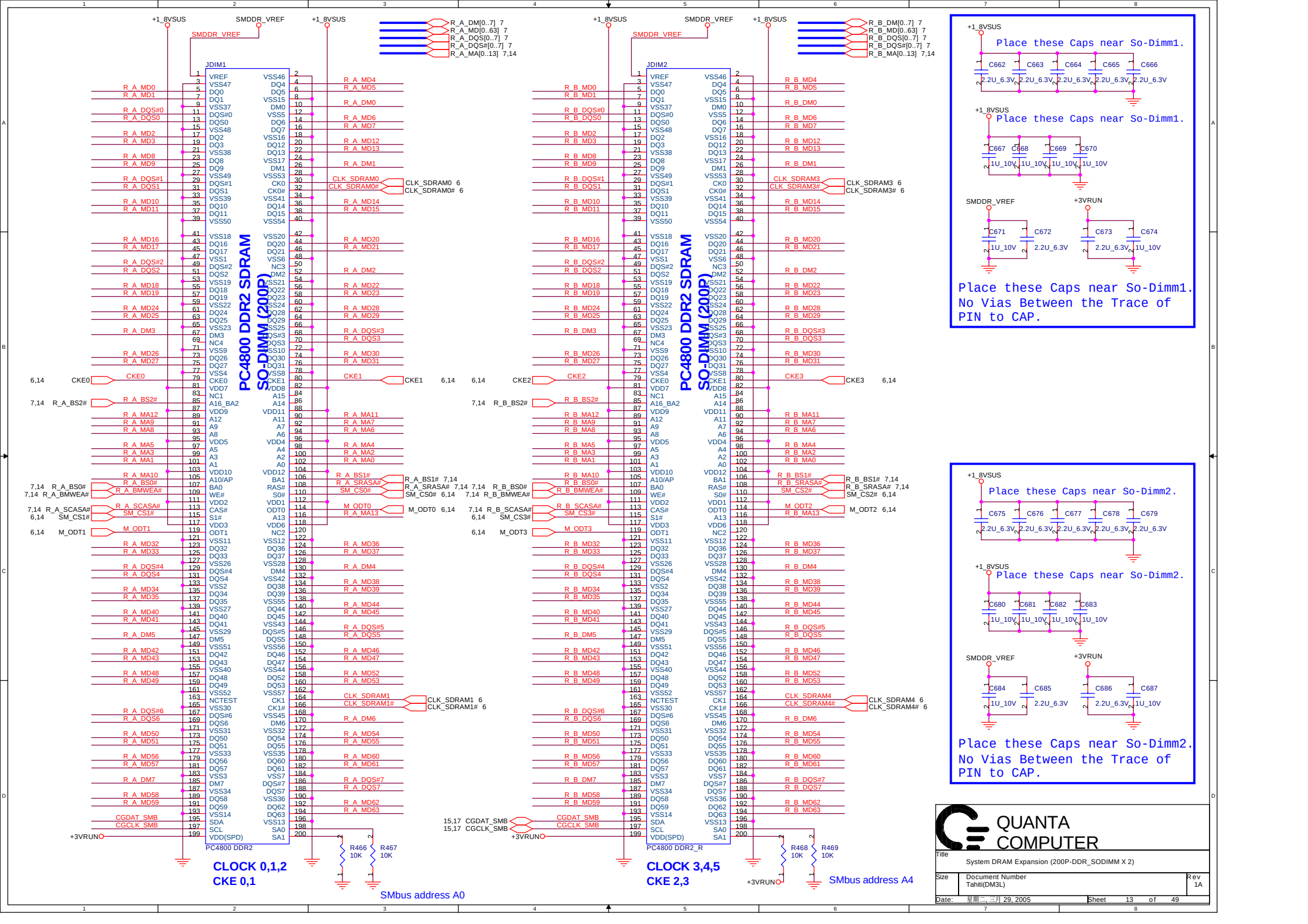

U16A
RTC
LPC
CPU
PCI
IDE
SATA
AC-97/ AZALIA
ICH6-M
Reset Circuit (NB/PCI/PCIE)
AC-Terminator
X1,X2 Docking
IAC_SYNC | Port X Line | R144
1 | 1X2,2X1 | STUFF
0 | 4X1 | UNSTUFF
AC97-MDC & AUDIO
PCI Pullups
Install R399 for Dothan-A and don't install for Dothan-B
Install R126 for Dothan-B and don't install for Dothan-A
REQ1 : Card Bus
REQ3 : MINI PCI
REQ4 : BCM4401 LAN
R421 NP boot from FWH, populate boot from MiniPCI.
Distance between the ICH-6 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.
SATA
QUANTA COMPUTER
ICH6-M (CPU,PCI,IDE,SATA,AC97)
Tahiti(DM3L)
1A
星期二, 三月 29, 2005
10 of 49



QUANTA COMPUTER

Title	ICH6-M (USB,DMI,LPC)	
Size	Document Number: Tahiti(DM3L)	Rev: 1A
Date: 星期三, 三月 29, 2005	Sheet 11 of 49	


U16C
VCC
ICH6-M
U16D
GND
ICH6-M
+1_5VRUN
+1_5V_PCIE
BLM41P600SPG
C199 150U_2V
C202 1U_10V
C516 1U_10V
C204 1U_10V
R146 *10_NC
R145 100
D10 RB751V
V5REF
C218 .1U_10V
C219 .1U_10V
R406 *10_NC
R404 10
D17 RB751V
V5REF_SUS
C512 .1U_10V
C511 .1U_10V
Sequence : Reference Volatge ---> Core Volatge
+1_5V_SATA_RX
C544 1U_10V
+1_5V_SATA_TX
R395 1R
R394 1R
L42 BLM11A121S
C203 10U_4V
C496 .01U
C536 1U_10V
C497 1U_10V
C521 1U_10V
C208 1U_10V
C535 1U_10V
C529 1U_10V
C524 1U_10V
C520 1U_10V
C543 1U_10V
C201 1U_10V
C205 1U_10V
C547 1U_10V
C522 1U_10V
C515 .01U
+3_3V_PCI
C540 1U_10V
C539 1U_10V
C528 1U_10V
+3_3V_ICH
C220 1U_10V
C523 1U_10V
C541 1U_10V
C517 1U_10V
C542 1U_10V
C550 1U_10V
C538 1U_10V
C518 1U_10V
C207 1U_10V
C217 .01U
C206 1U_10V
C553 1U_10V
3.3V Can drop to 2.0V min. in G3 state)
QUANTA COMPUTER
Title
ICH6-M (POWER&GND)
Size
Document Number
Tahiti(DM3L)
Rev
1A
Date: 星期三, 三月 29, 2005
Sheet 12 of 49

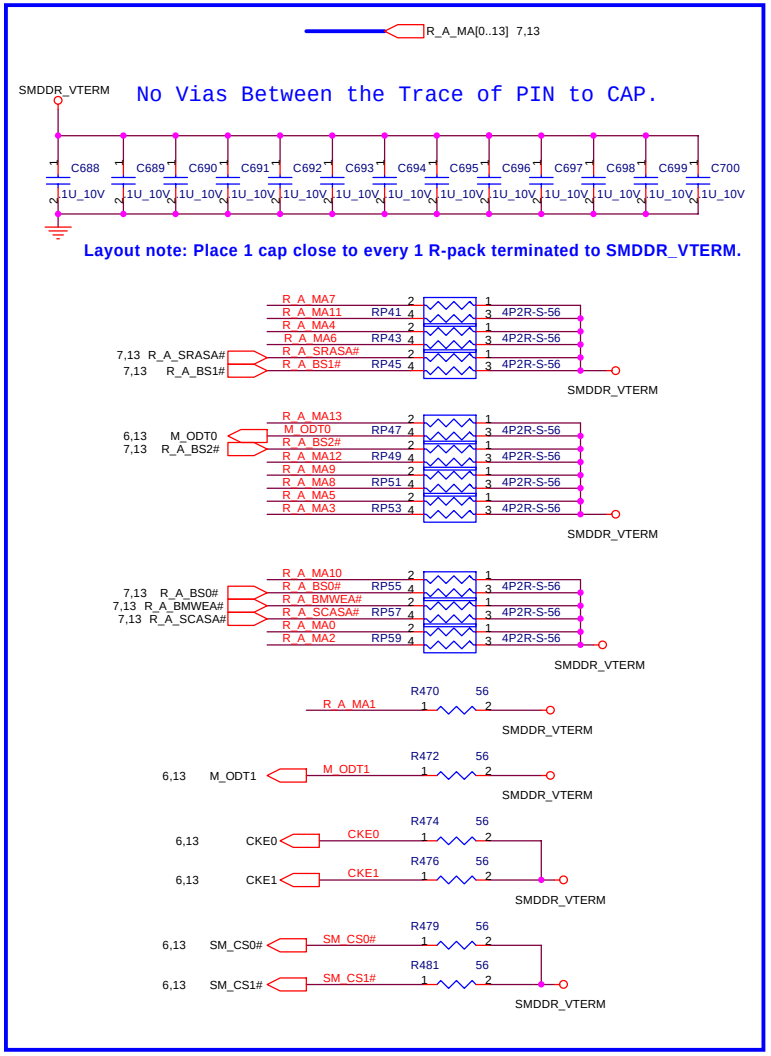


QUANTA COMPUTER

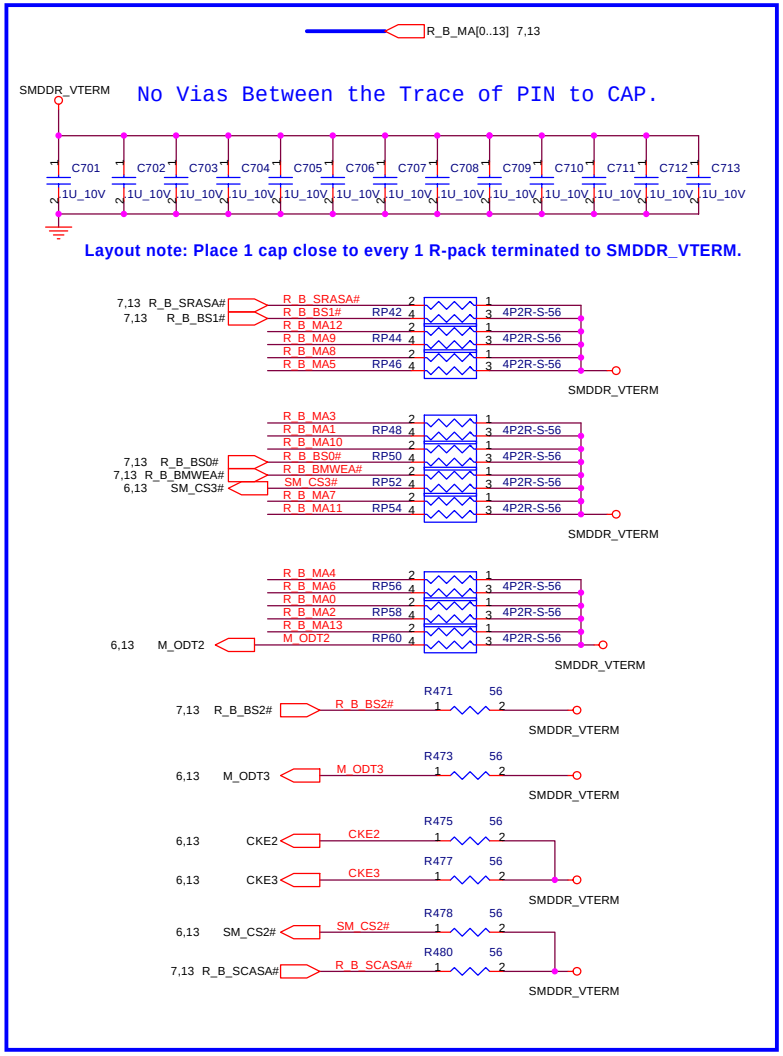
Title	System DRAM Expansion (200P-DDR_SODIMM X 2)	
Size	Document Number: Tahiti(DM3L)	Rev: 1A
Date: 星期二, 三月 29, 2005	Sheet 13 of 49	

DDRII DUAL CHANNEL A,B.

DDRII A CHANNEL



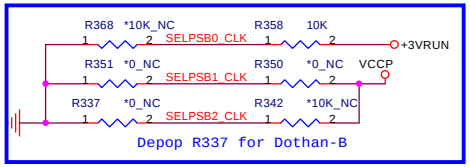
DDRII B CHANNEL

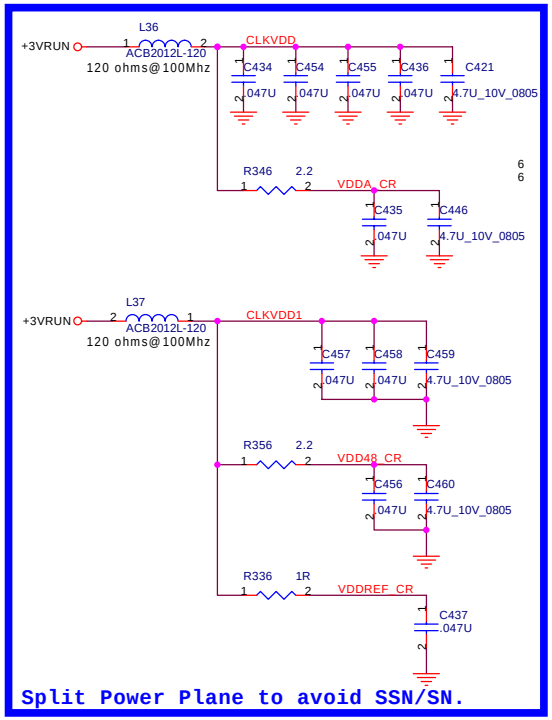


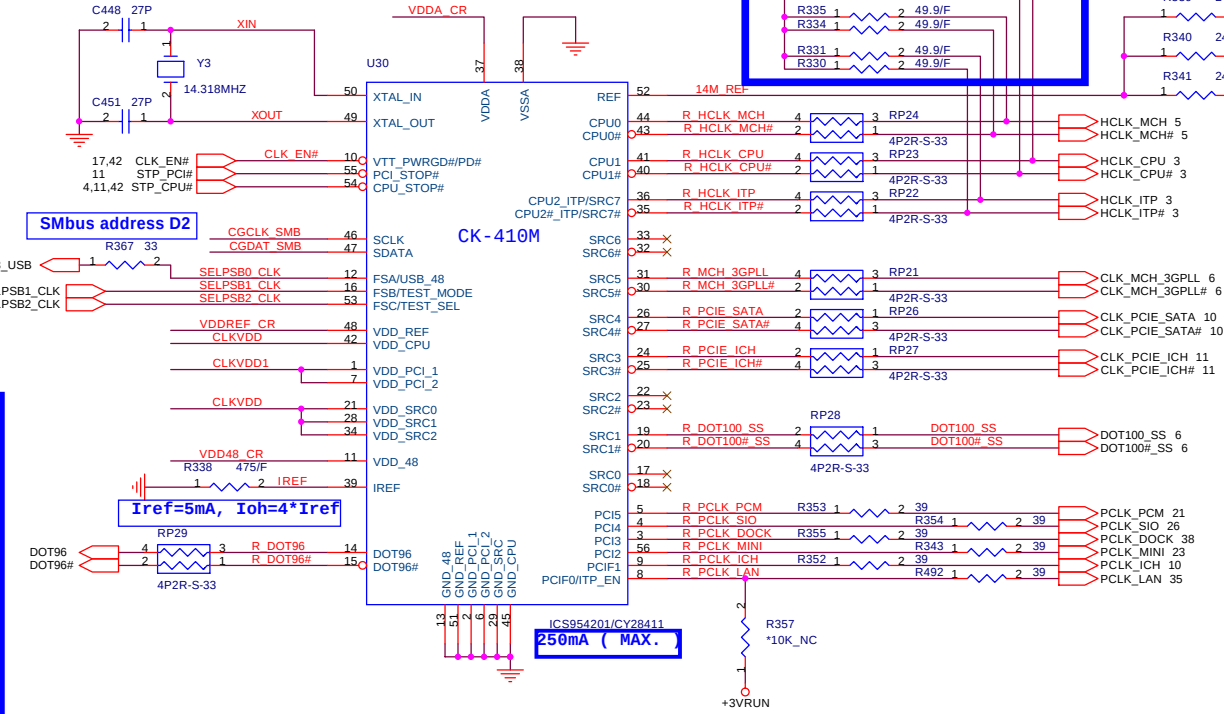
QUANTA COMPUTER

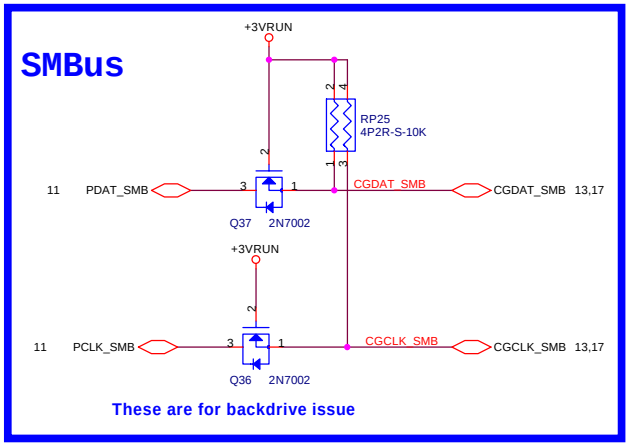
Title	DDR RES.ARRAY	
Size	Document Number Tahiti(DM3L)	Rev 1A
Date: 星期三, 三月 29, 2005	Sheet 14 of 49	

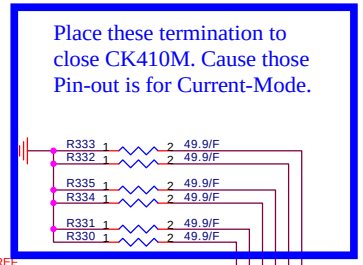
FSC	FSB	FSA	CPU	SRC	PCI
1	0	1	100	100	33
0	0	1	133	100	33
0	1	1	166	100	33
0	1	0	200	100	33
0	0	0	266	100	33
1	0	0	333	100	33
1	1	0	400	100	33
1	1	1	RSVD	100	33

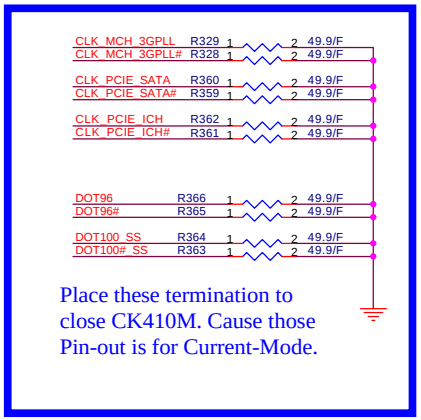






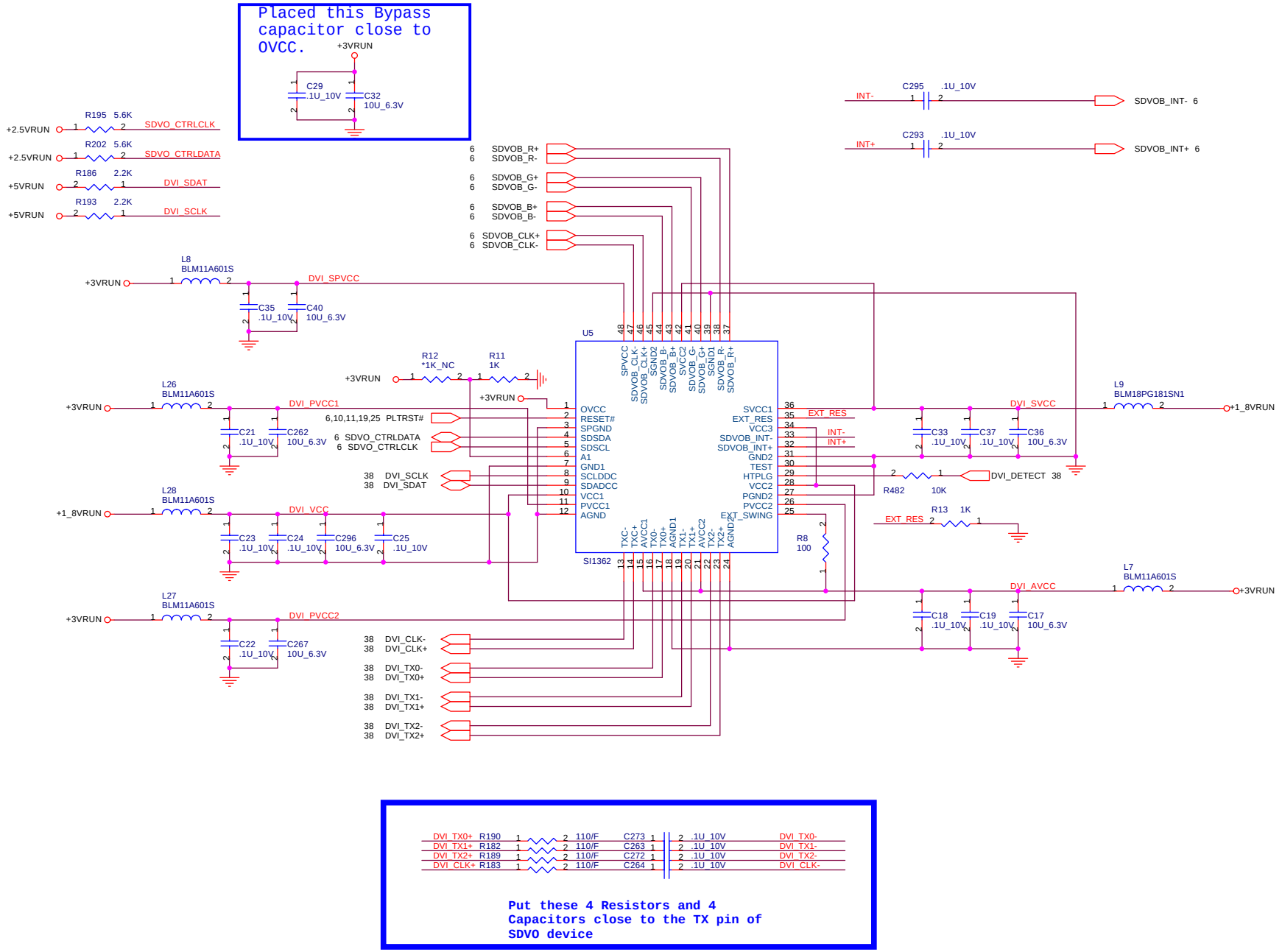






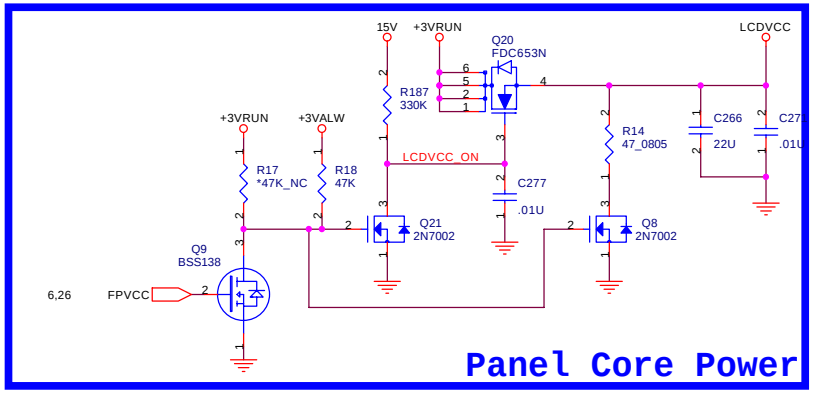
QUANTA COMPUTER

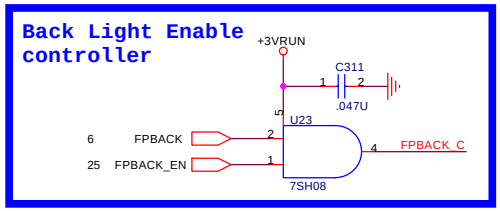
Title	CLOCK GENERATOR	
Size	Document Number: Tahiti(DM3L)	Rev: 1A
Date: 星期三, 三月 29, 2005	Sheet 15 of 49	

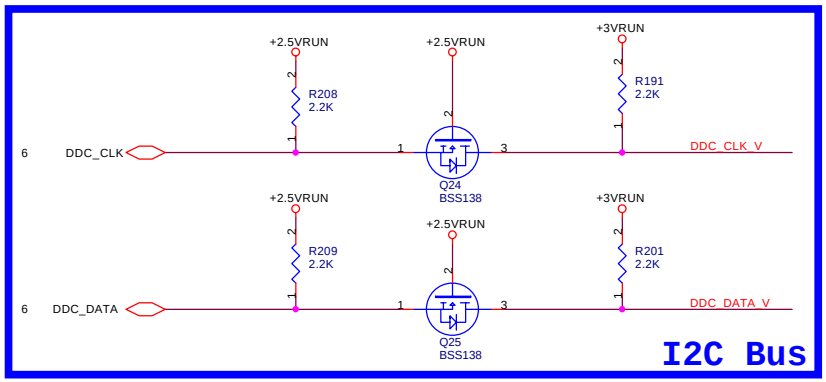


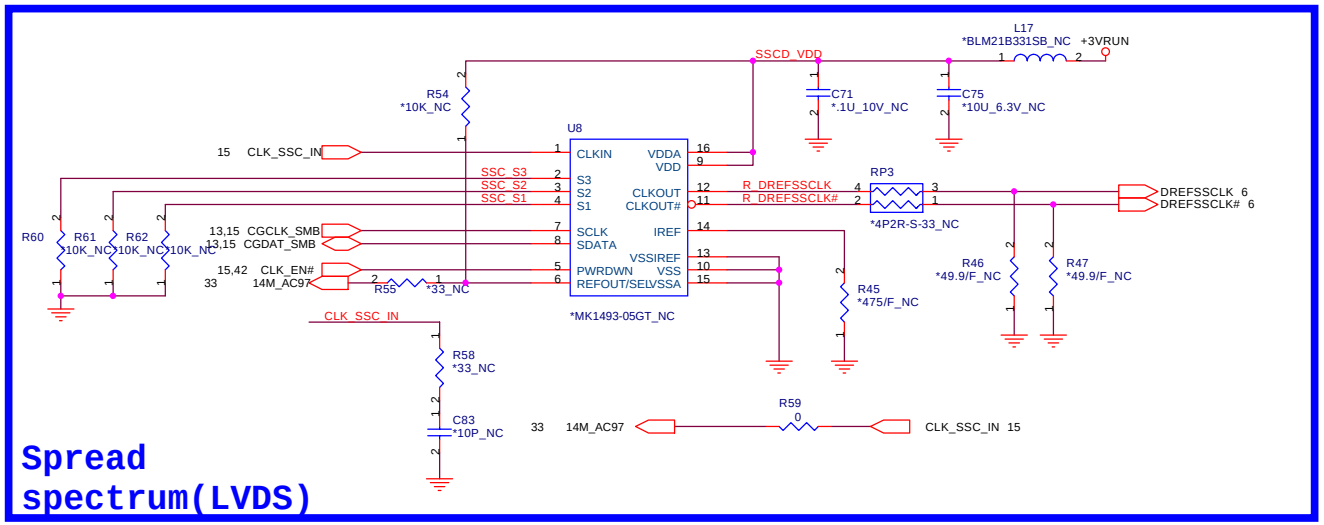
QUANTA COMPUTER

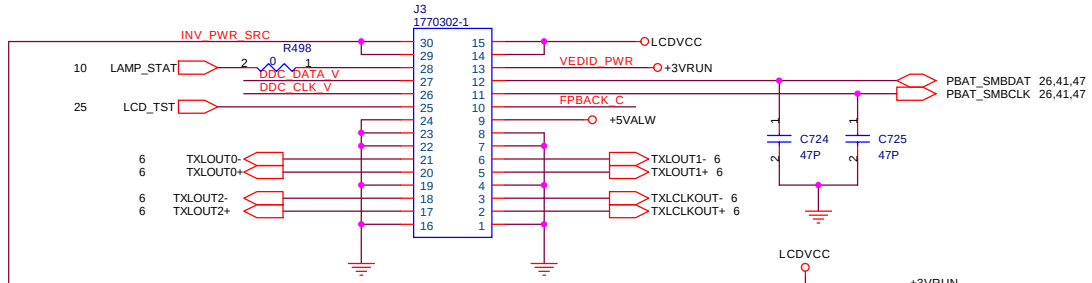
Title	SIL 1362 DVI	
Size	Document Number: Tahiti(DM3L)	Rev: 1A
Date: 星期三, 三月 29, 2005	Sheet 16 of 49	

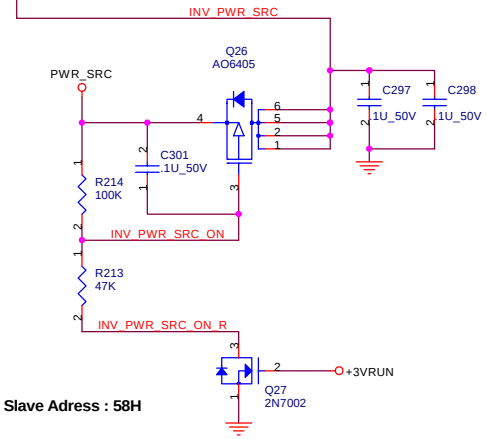


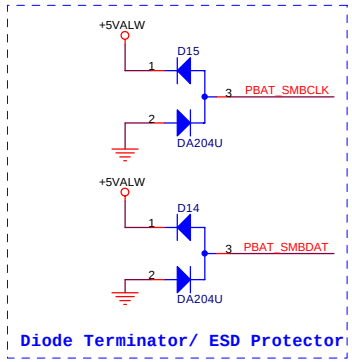






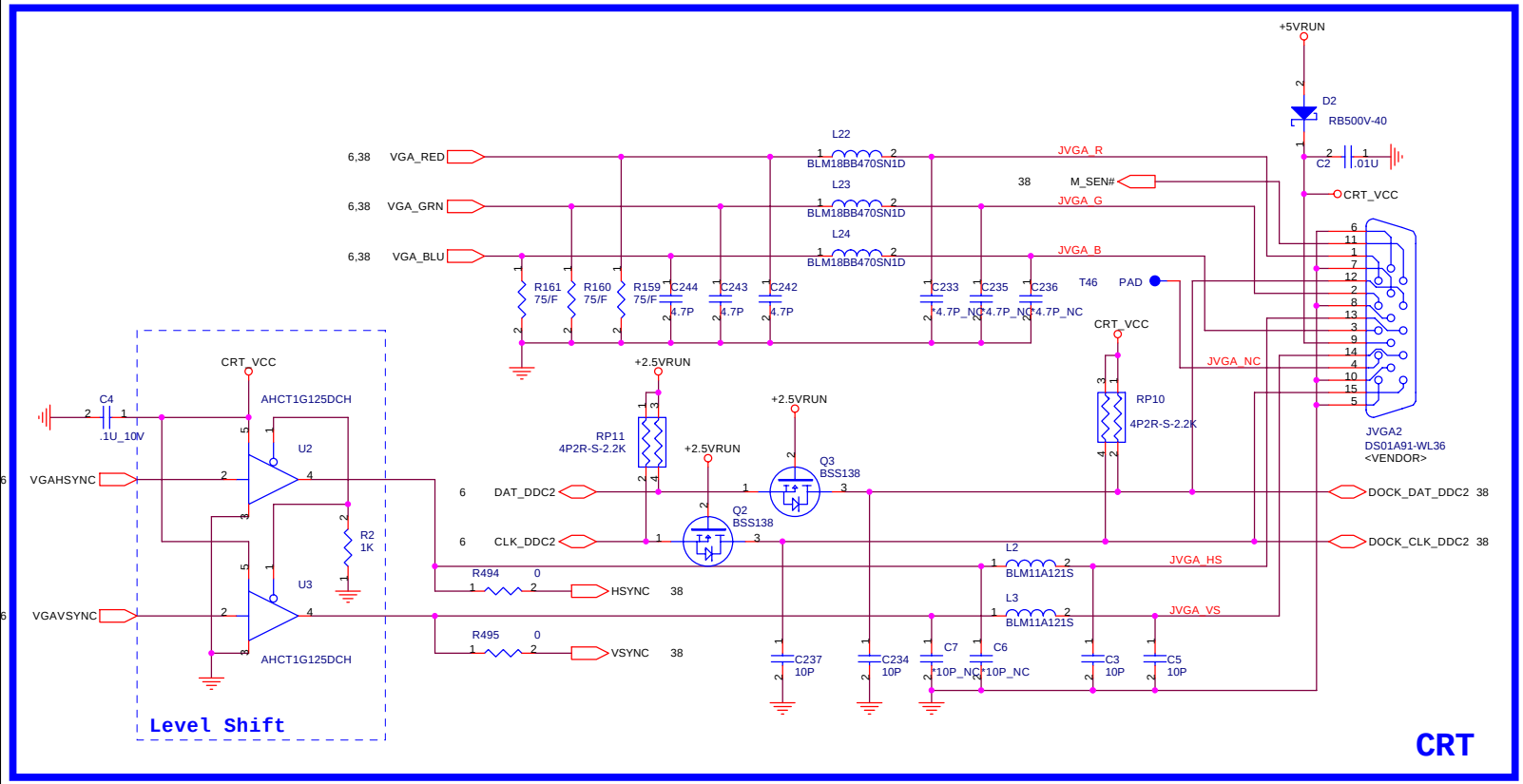


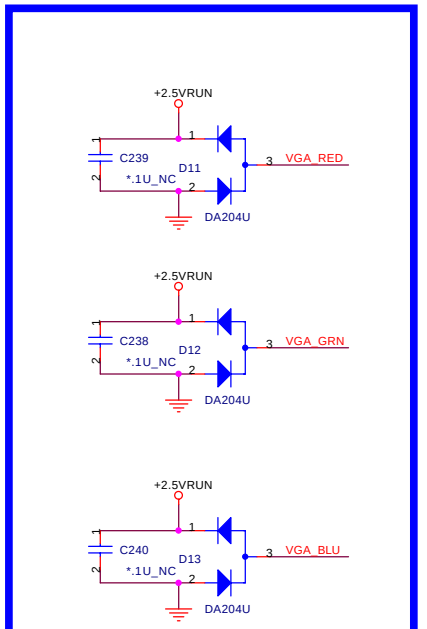


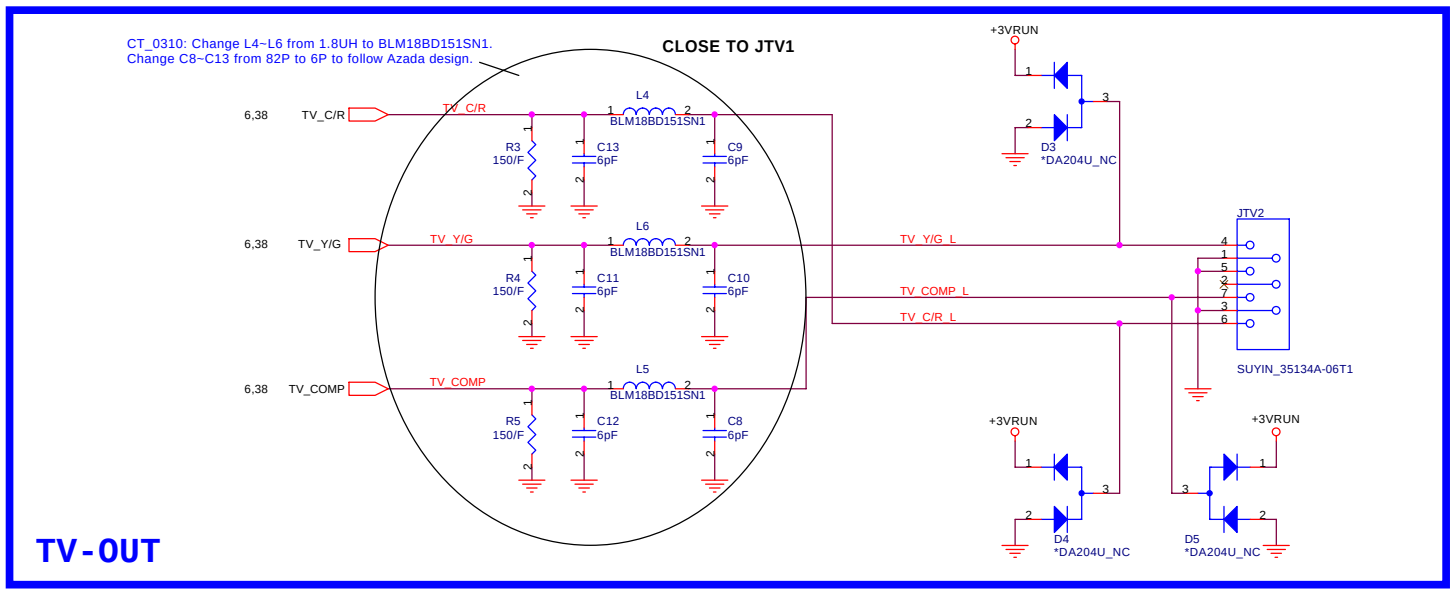


QUANTA COMPUTER

Title	LCD CONN&CK-SSCD	
Size	Document Number: Tahiti(DM3L)	Rev: 1A
Date: 星期三, 三月 29, 2005	Sheet 17 of 49	

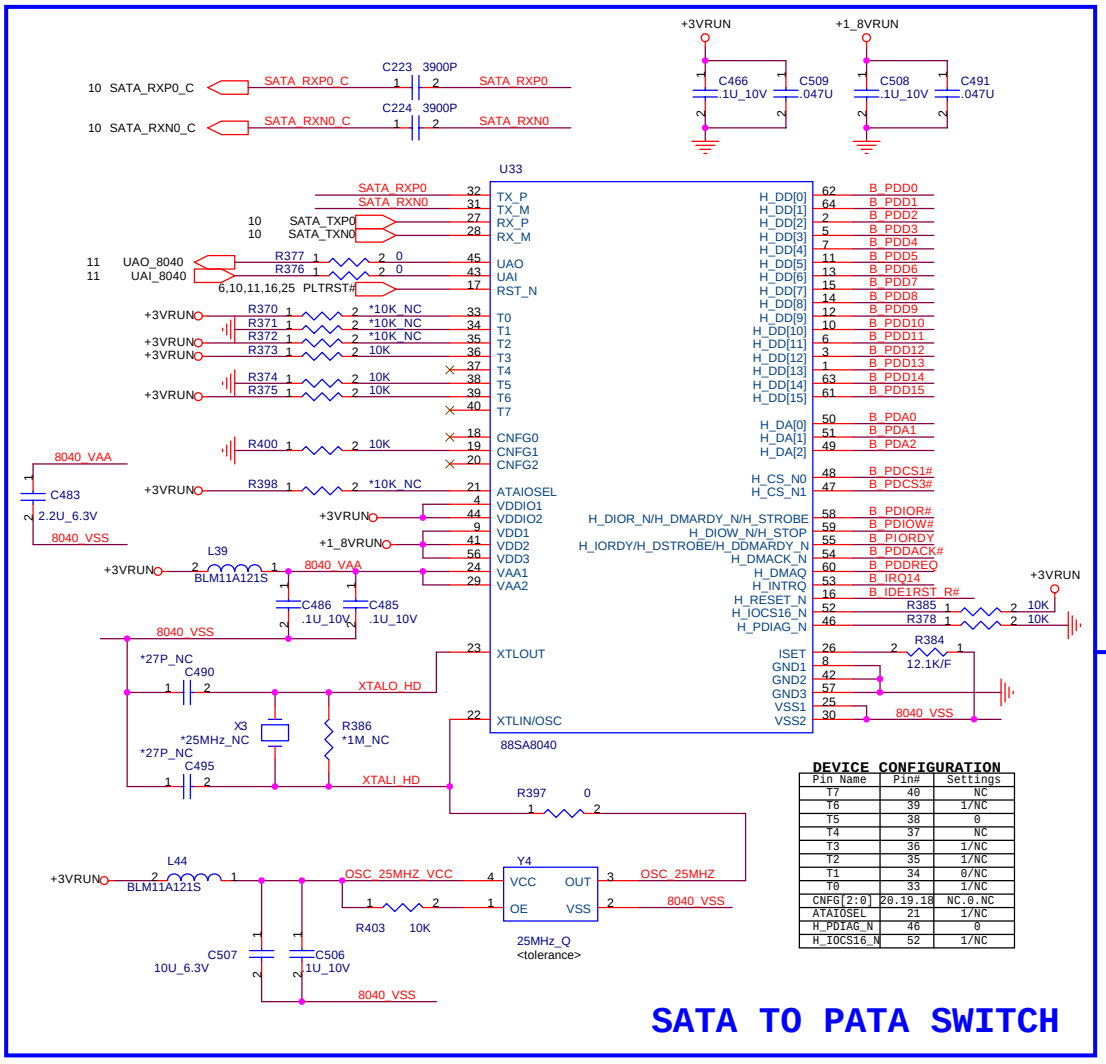


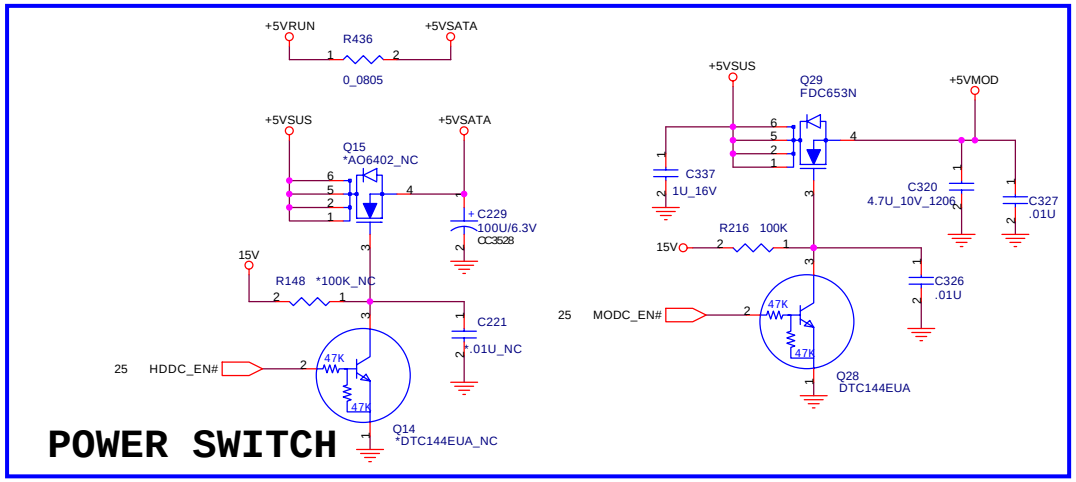


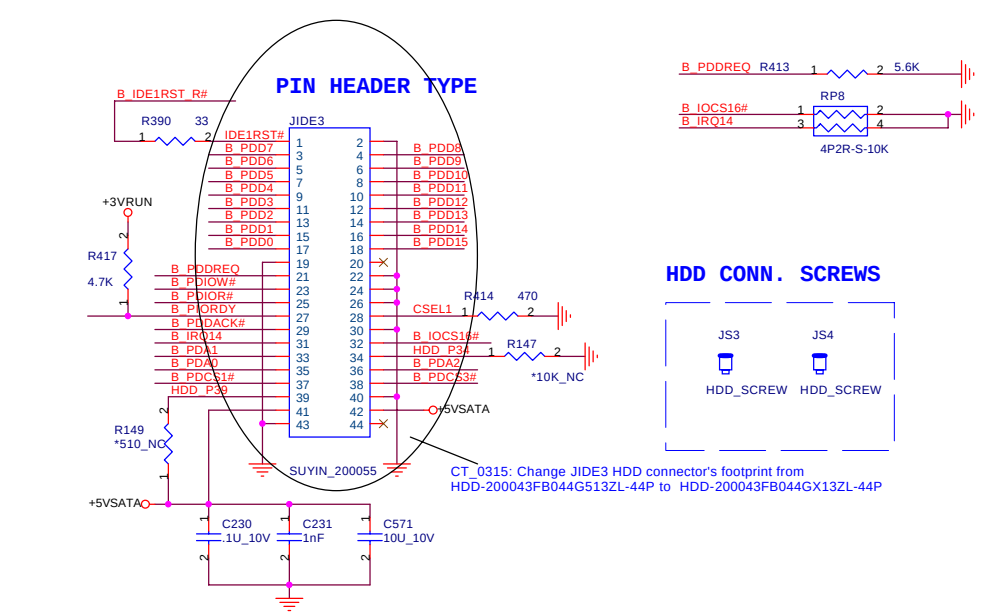


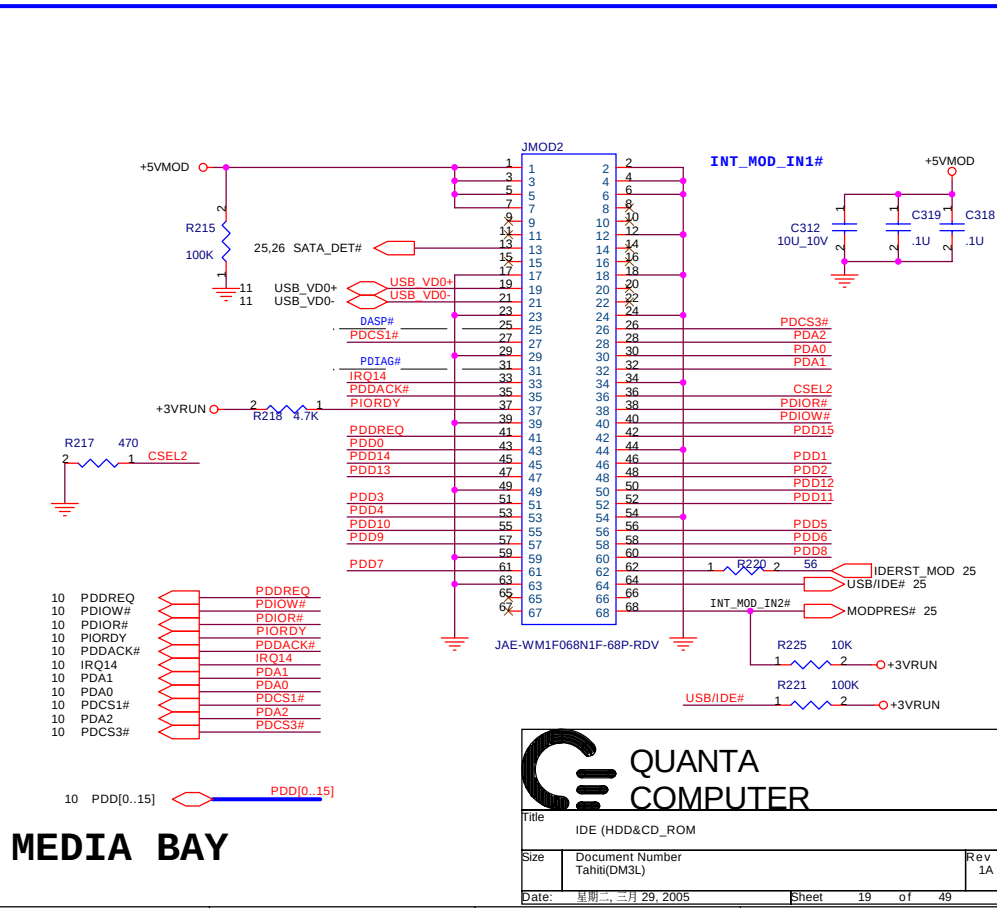
QUANTA COMPUTER

Title	CRT&TV CONN	
Size	Document Number: Tahiti(DM3L)	Rev: 1A
Date: 星期二, 三月 29, 2005	Sheet 18 of 49	









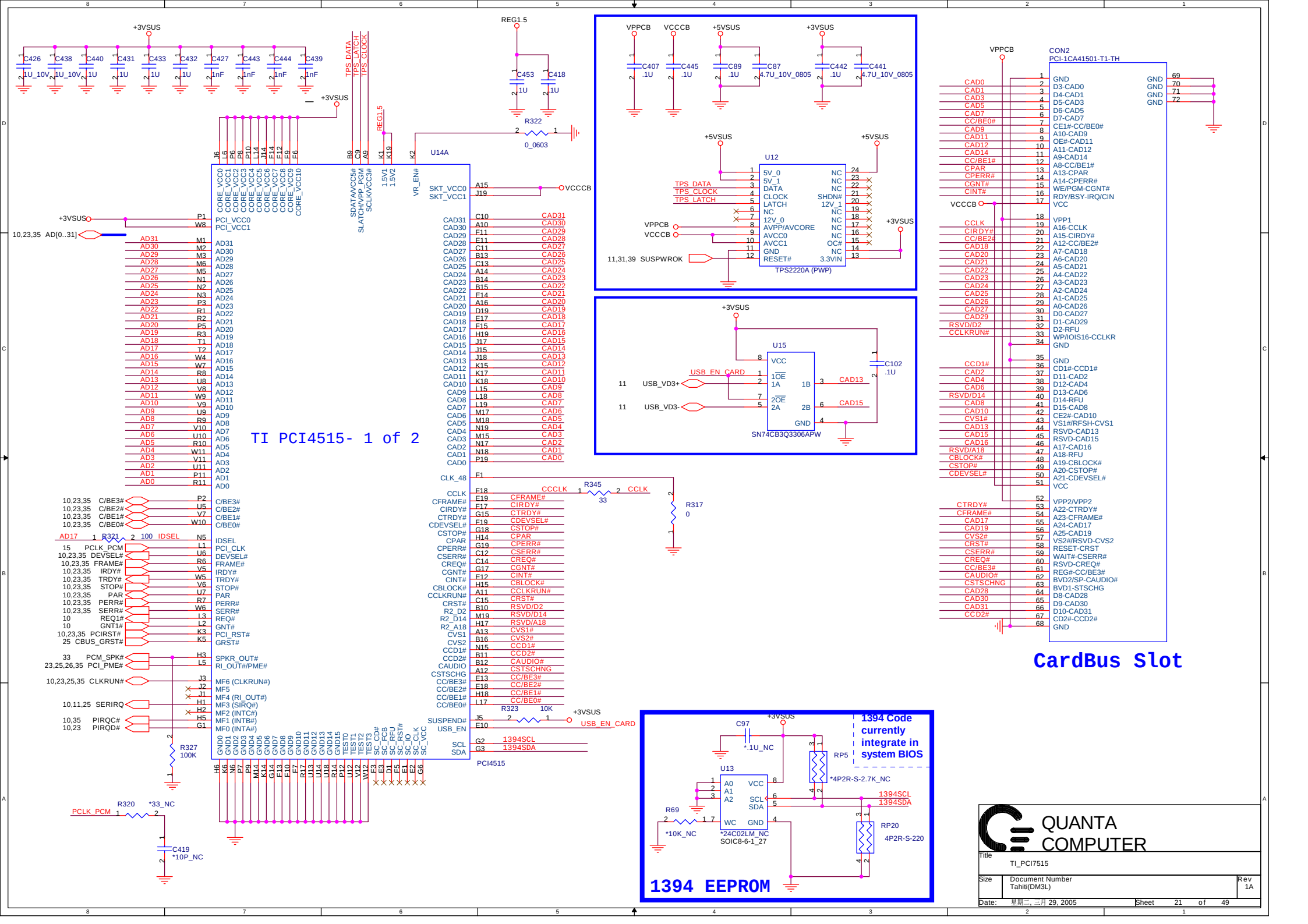
QUANTA COMPUTER

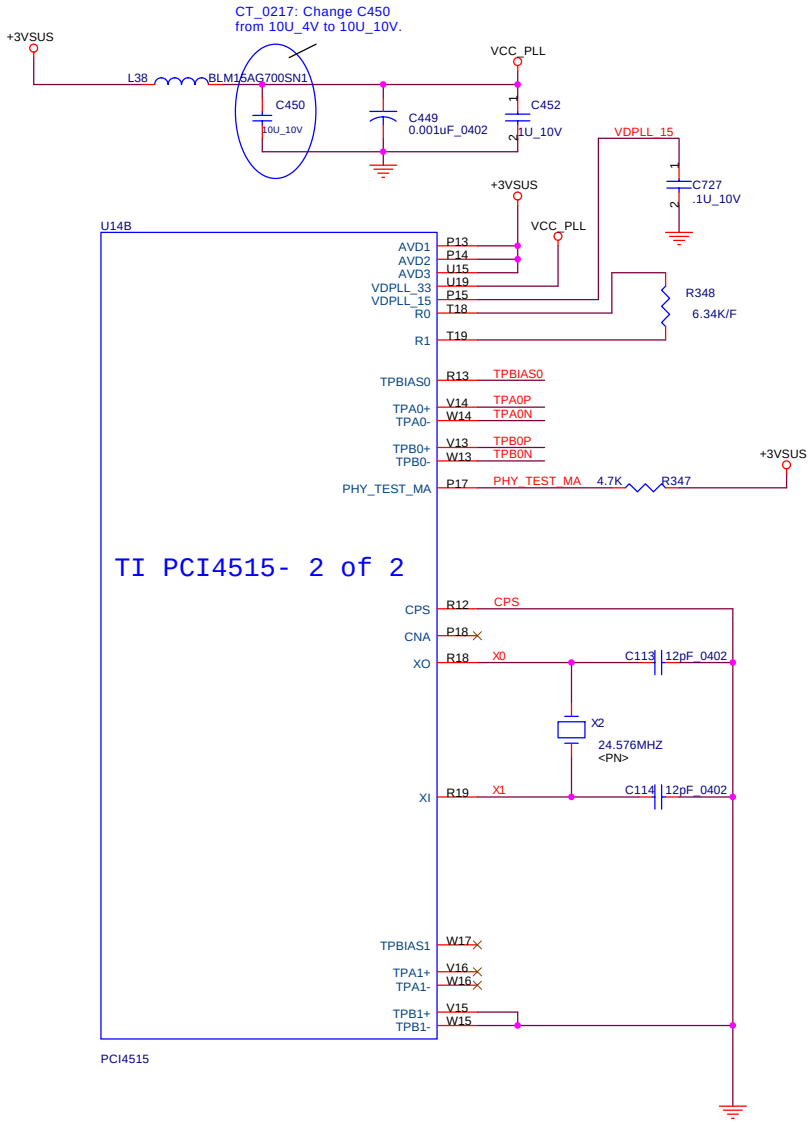
Title	IDE (HDD&CD_ROM
Size	Document Number: Tahiti(DM3L) — Rev: 1A
Date:	星期三, 三月 29, 2005 — Sheet 19 of 49

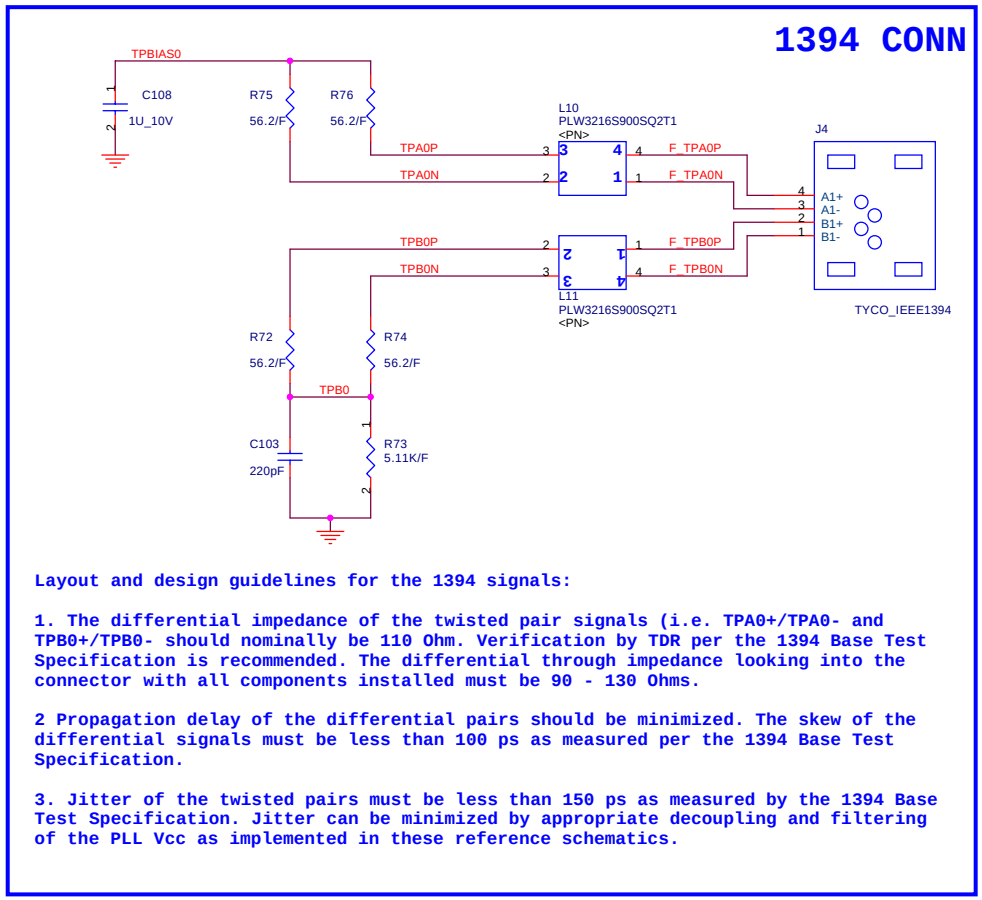
PV9 PAD138X98 GND
PV19 PAD197X98 GND
PV20 PAD197X98 GND
PV3 PAD197X98 GND
PV21 PAD138X98 GND
PV22 PAD138X98 GND
H16 h-c315d126p2-4
H18 h-c315d126p2-4
H23 h-c315d126p2-4
H17 h-c315d126p2-4
H21 h-c315d126p2-4
+3VSUS
C465 2200P
C531 2200P
C116 2200P
C111 2200P
+3VRUN
Stitching caps
PV12 PAD197X98 GND
PV16 PAD197X98 GND
PV15 PAD197X98 GND
H2 h-c315d126p2-4
H22 h-c315d126p2-4
H19 h-c315d126p2-4
H14 H-C315I166D126P2
PV7 PAD197X98 GND
PV13 PAD197X98 GND
PV14 PAD197X98 GND
PV2 PAD197X98 GND
PV8 PAD197X98 GND
PV23 *PAD138X98_NC GND
+5VSUS
C14 2200P
+3VRUN
Stitching caps
H8 h-c236d126p2-4
PV5 PAD138X98 GND
PV17 PAD138X98 GND
PV4 PAD197X98 GND
CT_0314:Change PV17 from PAD197x98 to PAD138x98 small size.
H13 h-c236d110p2-4
H12 h-c236d110p2-4
H20 h-c315d118p2-4
H15 h-c354d126p2
H3 h-tc177bc63d63pt
H5 h-c315d102p2
H6 h-c315d102p2
H11 h-c315d102p2
H10 h-c315d102p2
JS2
H24 h-tc236bc118d63p2
MDC_NUT
JS2 is mounted on H24(BOT).
H7 h-c236d126p2-4
H4 h-c256d126p2-4

QUANTA COMPUTER

Title	SCREW PAD	
Size	Document Number Tahiti(DM3L)	Rev 1A
Date: 星期二, 三月 29, 2005	Sheet 20 of 49	

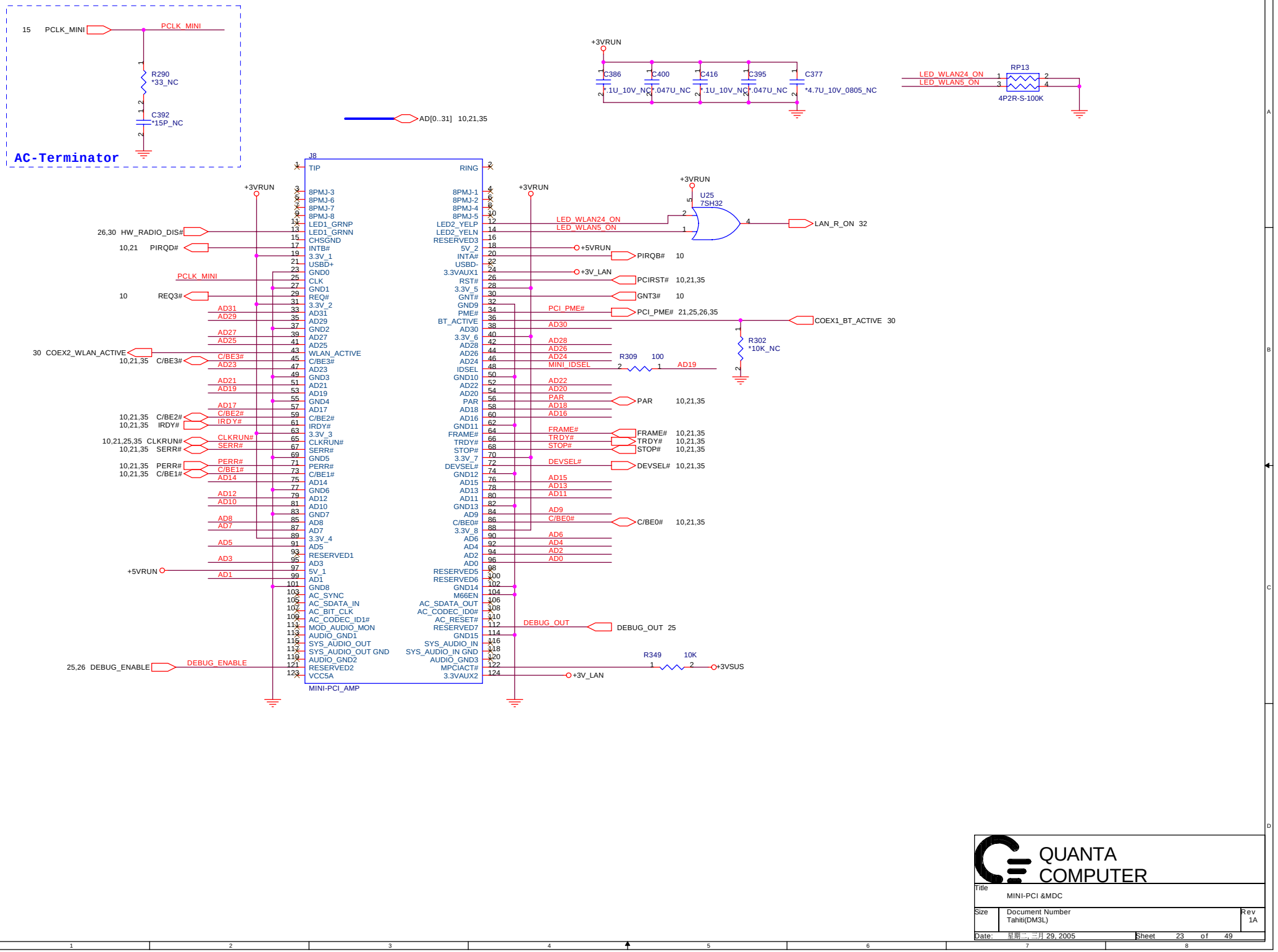

TI PCI4515- 1 of 2
PCI4515
CardBus Slot
1394 EEPROM
1394 Code currently integrate in system BIOS
TPS2220A (PWP)
SN74CB3Q3306APW
*24C02LM_NC
SOIC8-6-1_27
CON2
PCI-1CA41501-T1-TH
QUANTA COMPUTER
Title
TI_PCI7515
Size
Document Number
Tahiti(DM3L)
Rev
1A
Date:
星期二, 三月 29, 2005
Sheet
21
of
49



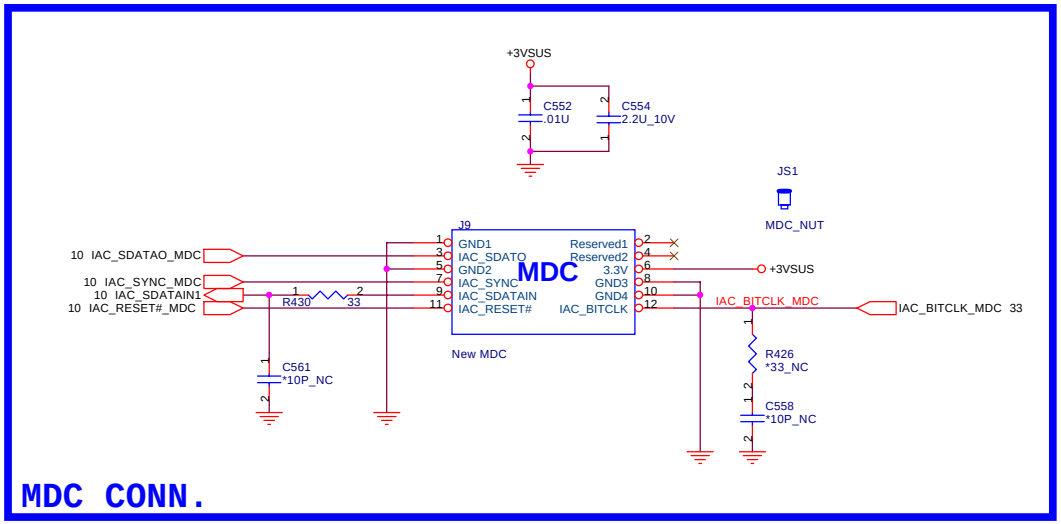


QUANTA COMPUTER

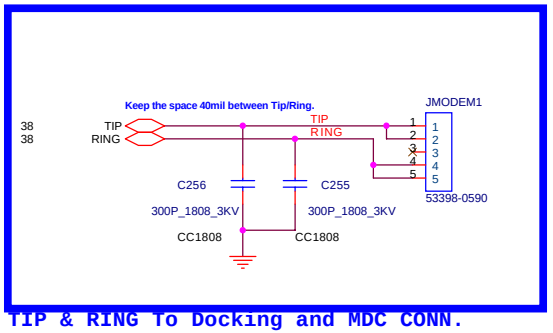
Title	TI_PCI7611_1394 & CONN	
Size	Document Number: Tahiti(DM3L)	Rev: 1A
Date: 星期三, 三月 29, 2005	Sheet 22 of 49	



	QUANTA COMPUTER		
Title	MINI-PCI &MDC		
Size	Document Number Tahiti(DM3L)		Rev 1A
Date:	星期三, 三月 29, 2005	Sheet 23 of 49	



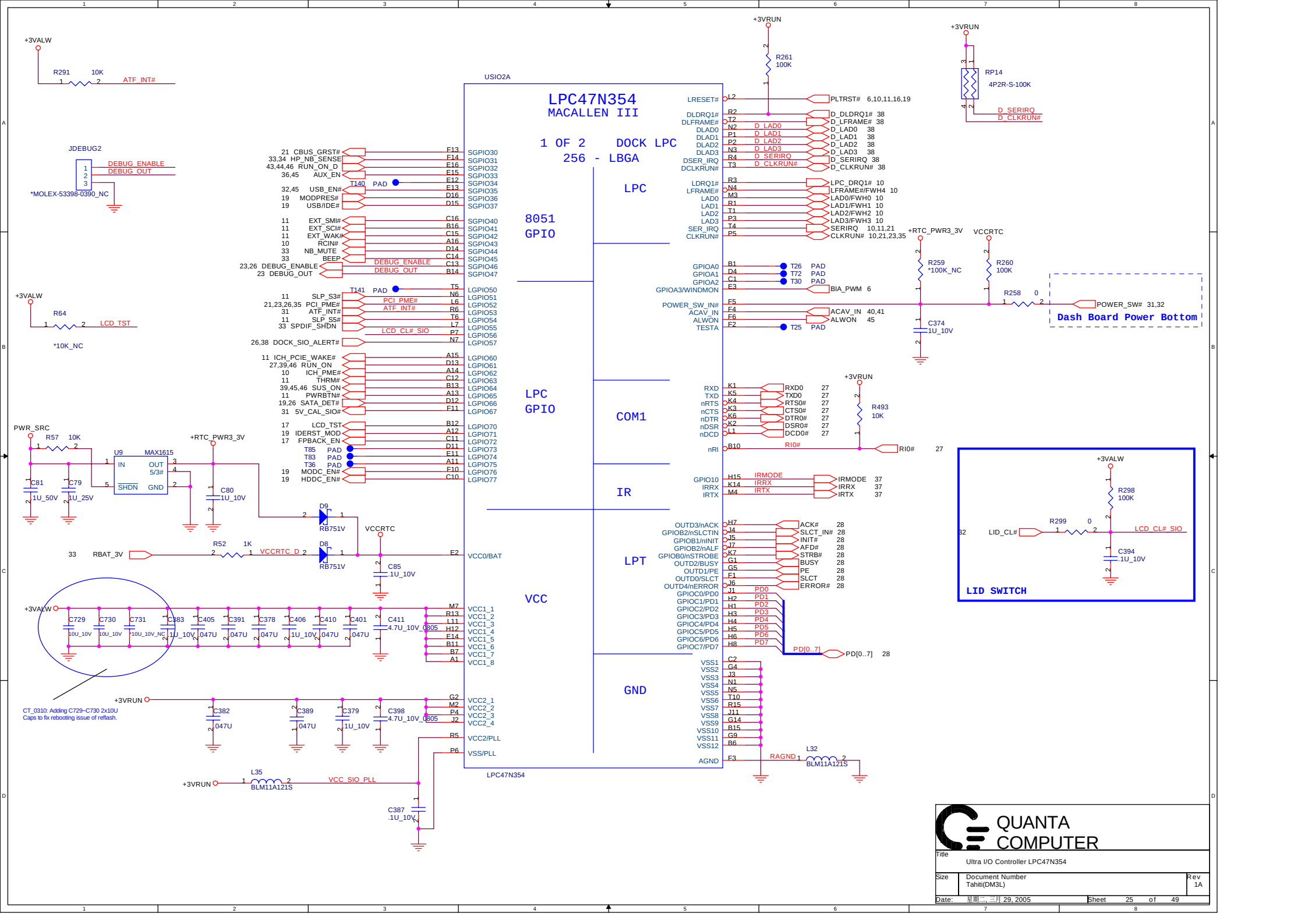
MDC CONN.

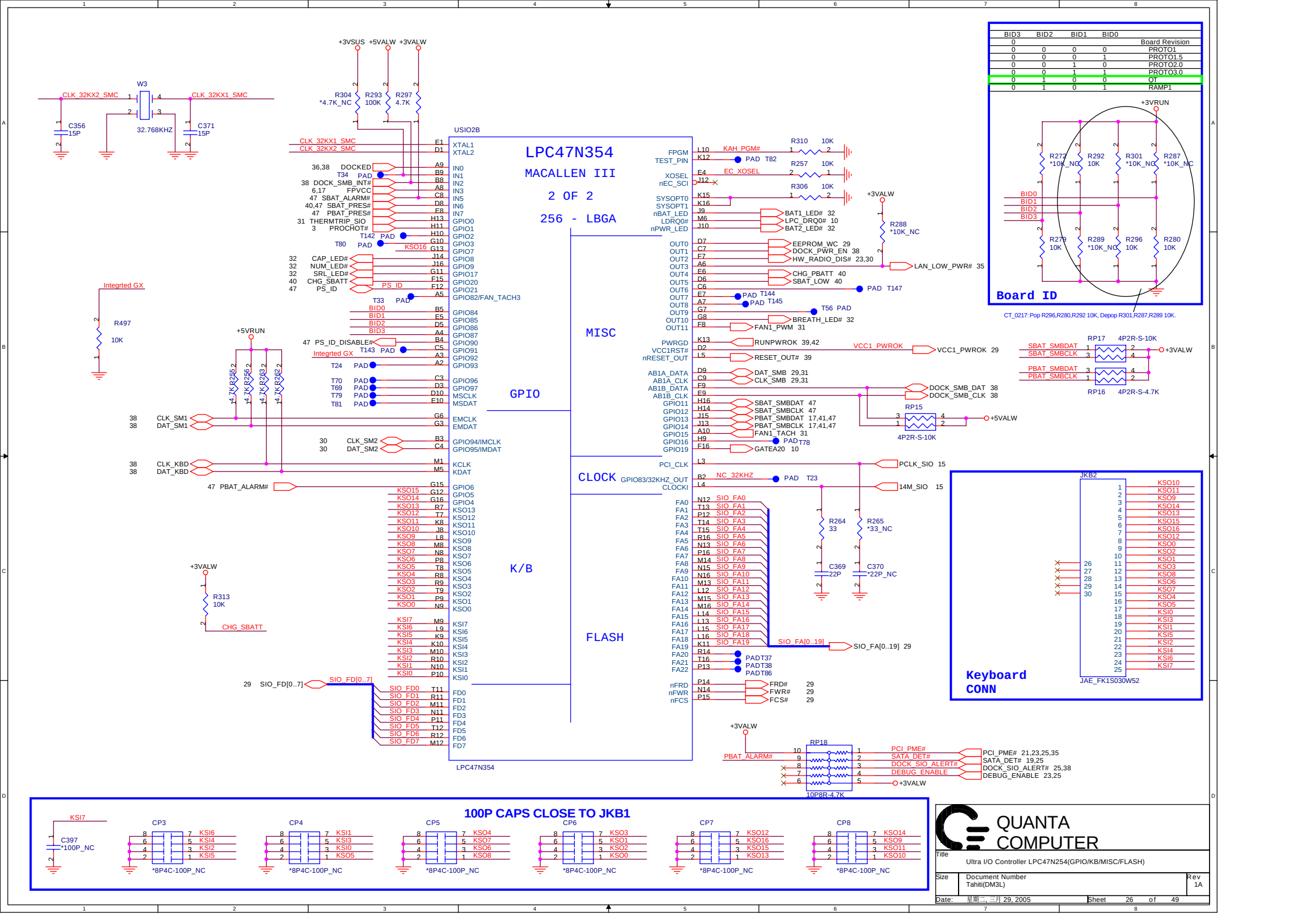


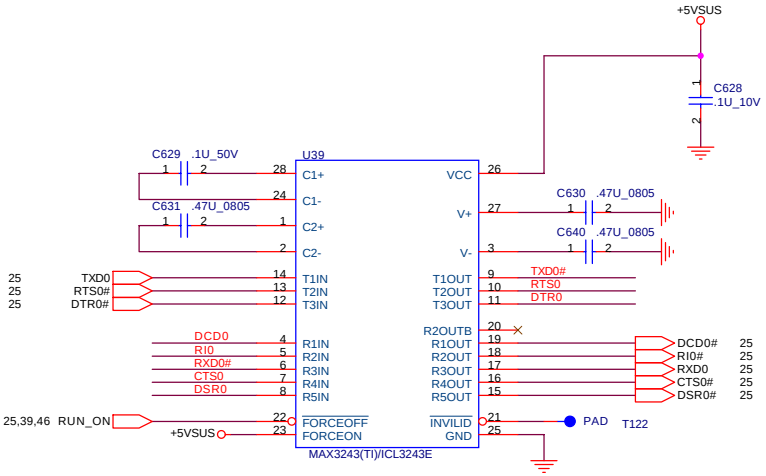
TIP & RING To Docking and MDC CONN.

QUANTA COMPUTER

Title	MDC CONN.	
Size	Document Number Tahiti(DM3L)	Rev 1A
Date: 星期三, 三月 29, 2005	Sheet 24 of 49	

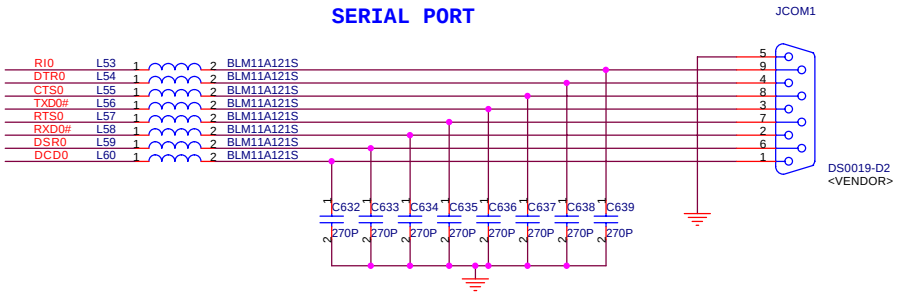

LPC47N354
MACALLEN III
1 OF 2 DOCK LPC
256 - LBGA
USIO2A
LPC
8051 GPIO
LPC GPIO
COM1
IR
LPT
VCC
GND
LPC47N354
+3VALW
R291 10K
ATF_INT#
JDEBUG2
DEBUG_ENABLE
DEBUG_OUT
*MOLEX-53398-0390_NC
R64
LCD_TST
*10K_NC
PWR_SRC
R57 10K
U9 MAX1615
C81 1U_50V
C79 1U_25V
C80 1U_10V
+RTC_PWR3_V
D9 RB751V
D8 RB751V
VCCRTC
R52 1K
VCCRTC_D
33 RBAT_3V
C729 C730 C731 C383 C405 C391 C378 C406 C410 C401 C411 4.7U_10V_0805
CT_0310: Adding C729~C730 2x10U
Caps to fix rebooting issue of reflash.
+3VRUN
C382 C389 C379 C398 4.7U_10V_0805
L35 BLM11A121S
VCC_SIO_PLL
C387 .1U_10V
+3VRUN
R261 100K
RP14 4P2R-S-100K
D_SERIRQ
D_CLKRUN#
LRESET# PLTRST# 6,10,11,16,19
DLDRQ1# D_DLDRQ1# 38
DLFRAME# D_LFRAME# 38
DLAD0 D_LAD0 D_LAD0 38
DLAD1 D_LAD1 D_LAD1 38
DLAD2 D_LAD2 D_LAD2 38
DLAD3 D_LAD3 D_LAD3 38
DSER_IRQ D_SERIRQ D_SERIRQ 38
DCLKRUN# D_CLKRUN# D_CLKRUN# 38
LDRQ1# LPC_DRQ1# 10
LFRAME# LFRAME#/FWH4 10
LAD0 LAD0/FWH0 10
LAD1 LAD1/FWH1 10
LAD2 LAD2/FWH2 10
LAD3 LAD3/FWH3 10
SER_IRQ SERIRQ 10,11,21
CLKRUN# CLKRUN# 10,21,23,35
+RTC_PWR3_V
VCCRTC
R259 *100K_NC
R260 100K
R258 0
POWER_SW# 31,32
Dash Board Power Bottom
C374 1U_10V
GPIOA0 T26 PAD
GPIOA1 T72 PAD
GPIOA2 T30 PAD
GPIOA3/WINDMON BIA_PWM 6
POWER_SW_IN#
ACAV_IN ACAV_IN 40,41
ALWON ALWON 45
TESTA T25 PAD
+3VRUN
R493 10K
RXD RXD0 27
TXD TXD0 27
nRTS RTS0# 27
nCTS CTS0# 27
nDTR DTR0# 27
nDSR DSR0# 27
nDCD DCD0# 27
nRI RI0# RI0# 27
GPIO10 IRMODE IRMODE 37
IRRX IRRX IRRX 37
IRTX IRTX IRTX 37
OUTD3/nACK ACK# 28
GPIOB2/nSLCTIN SLCT_IN# 28
GPIOB1/nINIT INIT# 28
GPIOB2/nALF AFD# 28
GPIOB0/nSTROBE STRB# 28
OUTD2/BUSY BUSY 28
OUTD1/PE PE 28
OUTD0/SLCT SLCT 28
OUTD4/nERROR ERROR# 28
PD0 PD1 PD2 PD3 PD4 PD5 PD6 PD7
PD[0..7] PD[0..7] 28
AGND RAGND L32 BLM11A121S
+3VALW
R298 100K
R299 0
LID_CL# LCD_CL# SIO
C394 .1U_10V
LID SWITCH
21 CBUS_GRST# SGPIO30
33,34 HP_NB_SENSE SGPIO31
43,44,46 RUN_ON_D SGPIO32
36,45 AUX_EN SGPIO33
T140 PAD SGPIO34
32,45 USB_EN# SGPIO35
19 MODPRES# SGPIO36
19 USB/IDE# SGPIO37
11 EXT_SMI# SGPIO40
11 EXT_SCI# SGPIO41
11 EXT_WAK# SGPIO42
10 RCIN# SGPIO43
33 NB_MUTE SGPIO44
33 BEEP SGPIO45
23,26 DEBUG_ENABLE SGPIO46
23 DEBUG_OUT SGPIO47
T141 PAD LGPIO50
11 SLP_S3# LGPIO51
PCI_PME# 21,23,26,35 PCI_PME# LGPIO52
31 ATF_INT# LGPIO53
11 SLP_S5# LGPIO54
33 SPDIF_SHDN LGPIO55
LCD_CL#_SIO LGPIO56
26,38 DOCK_SIO_ALERT# LGPIO57
11 ICH_PCIE_WAKE# LGPIO60
27,39,46 RUN_ON LGPIO61
10 ICH_PME# LGPIO62
11 THRM# LGPIO63
39,45,46 SUS_ON LGPIO64
11 PWRBTN# LGPIO65
19,26 SATA_DET# LGPIO66
31 5V_CAL_SIO# LGPIO67
17 LCD_TST LGPIO70
19 IDERST_MOD LGPIO71
17 FPBACK_EN LGPIO72
T85 PAD LGPIO73
T83 PAD LGPIO74
T36 PAD LGPIO75
19 MODC_EN# LGPIO76
19 HDDC_EN# LGPIO77
VCC0/BAT
VCC1_1 VCC1_2 VCC1_3 VCC1_4 VCC1_5 VCC1_6 VCC1_7 VCC1_8
VCC2_1 VCC2_2 VCC2_3 VCC2_4
VCC2/PLL
VSS/PLL
VSS1 VSS2 VSS3 VSS4 VSS5 VSS6 VSS7 VSS8 VSS9 VSS10 VSS11 VSS12
QUANTA COMPUTER
Title
Ultra I/O Controller LPC47N354
Size
Document Number
Tahiti(DM3L)
Rev
1A
Date: 星期三, 三月 29, 2005
Sheet 25 of 49


LPC47N354
MACALLEN III
2 OF 2
256 - LBGA
USIO2B
GPIO
MISC
CLOCK
K/B
FLASH
Board ID
Keyboard CONN
100P CAPS CLOSE TO JKB1
QUANTA COMPUTER
Ultra I/O Controller LPC47N254(GPIO/KB/MISC/FLASH)
Tahiti(DM3L)
Rev 1A
Sheet 26 of 49



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

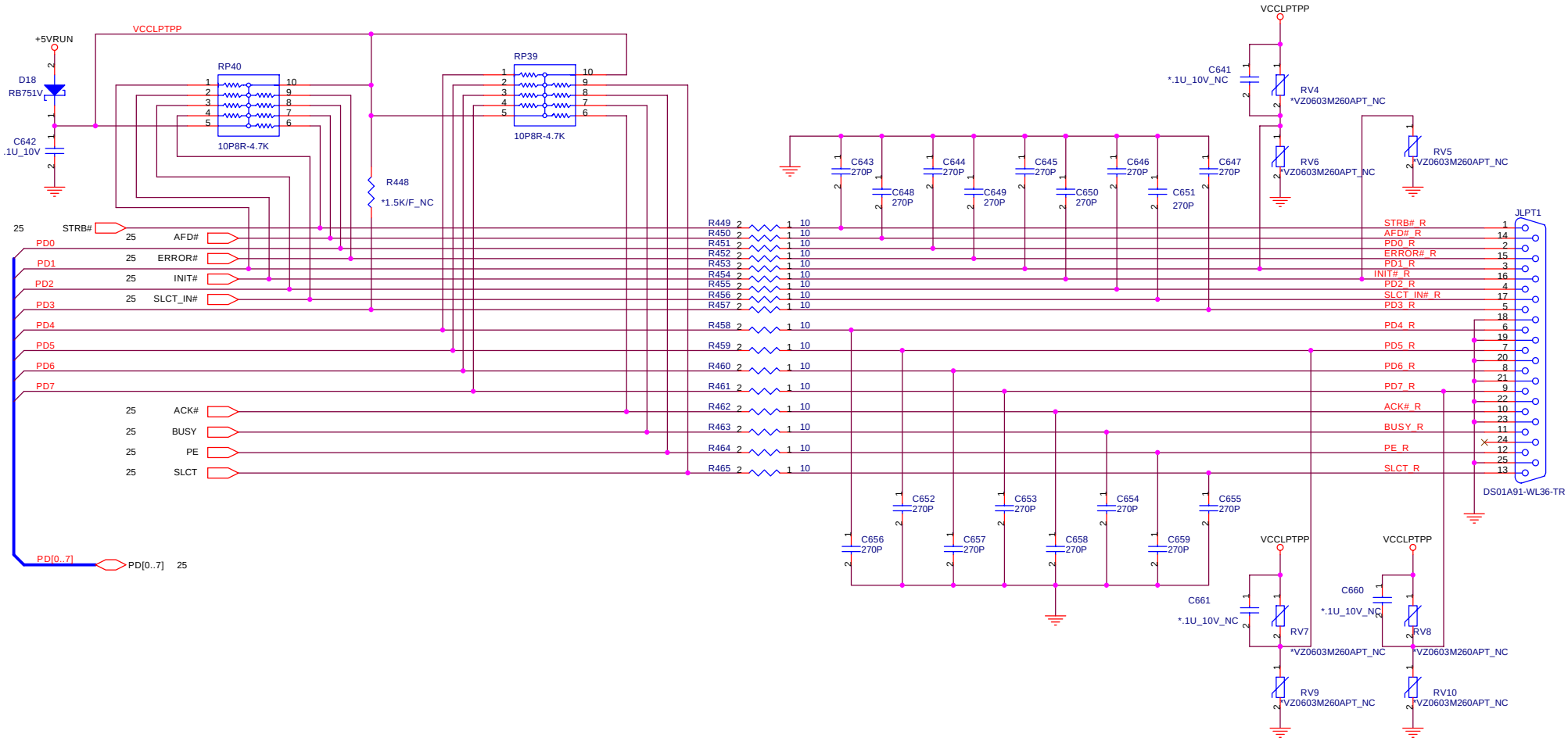
SERIAL PORT



Place them close to serial port

QUANTA COMPUTER

Title	SERIAL PORT & USB	
Size	Document Number Tahiti(DM3L)	Rev 1A
Date: 星期三, 三月 29, 2005	Sheet 27 of 49	

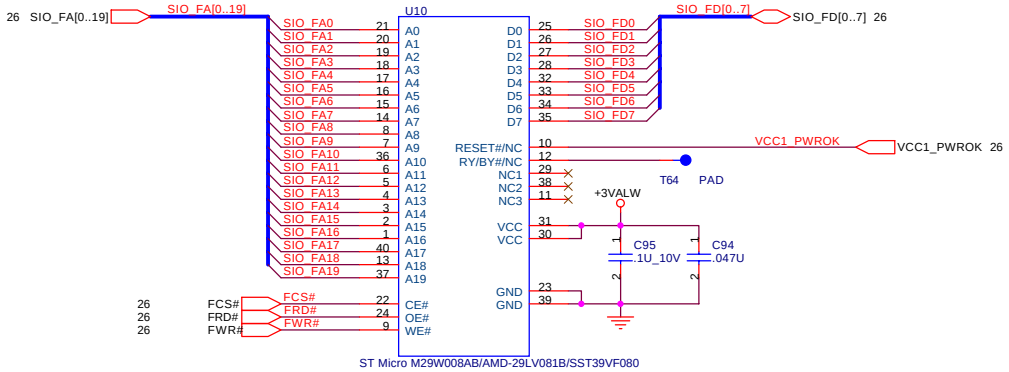


QUANTA COMPUTER

Title	PARALLEL CONN.	
Size	Document Number: Tahiti(DM3L)	Rev: 1A
Date: 星期三, 三月 29, 2005	Sheet 28 of 49	

BIOS FLASH MEMORY

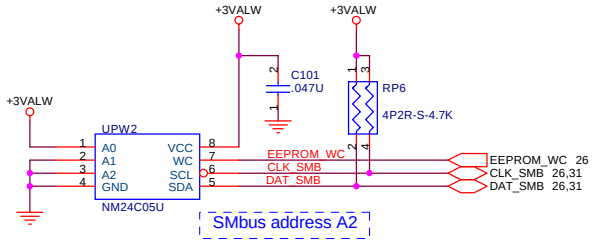
8Mbit (1M Byte),ISN'T PLCC TYPE



ST Micro M29W008AB/AMD-29LV081B/SST39VF080

AMD :Pin 10 is RESET# ; Pin12 is RY/BY#
SST :Pin10,12 are NC

1.AMD-29LV081B require MAX 500nS Tready for it's hardware reset.And MAX6326_UR29 has >100mS reset timing.So we can tie it's reset# pin to +3VALW directly.
2.SIO has internal 20 mS delay of VCC1_PWROK

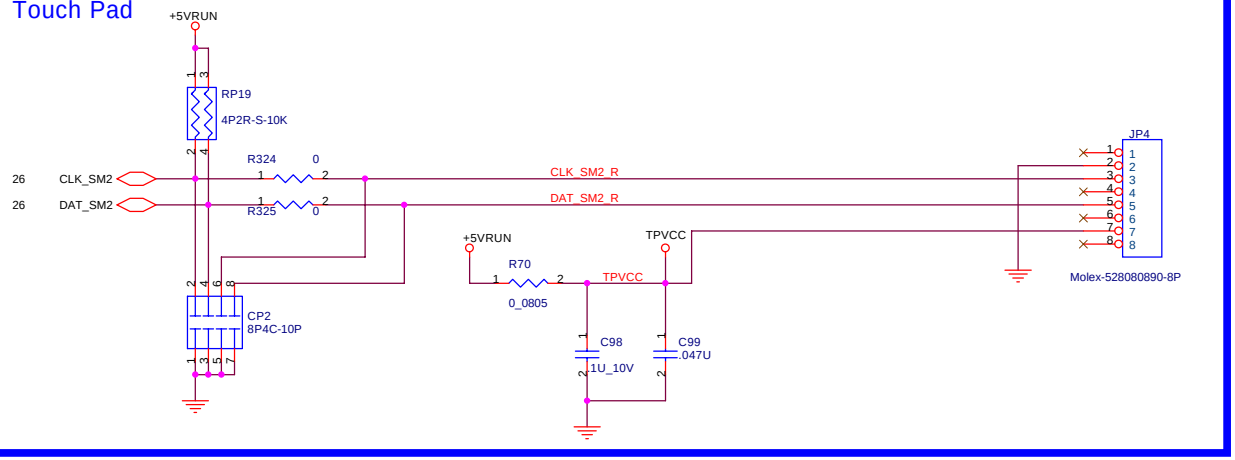


User Password

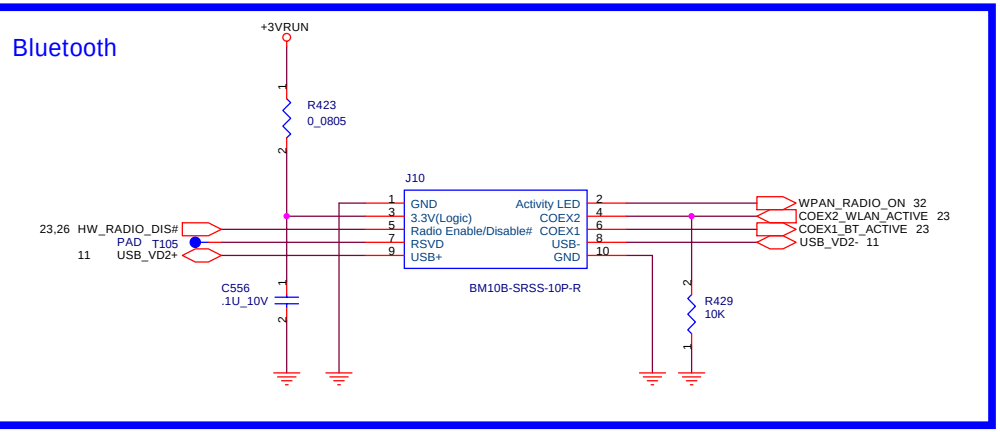
QUANTA COMPUTER

Title	FLASH	
Size	Document Number: Tahiti(DM3L)	Rev: 1A
Date: 星期二, 三月 29, 2005	Sheet 29 of 49	

Touch Pad



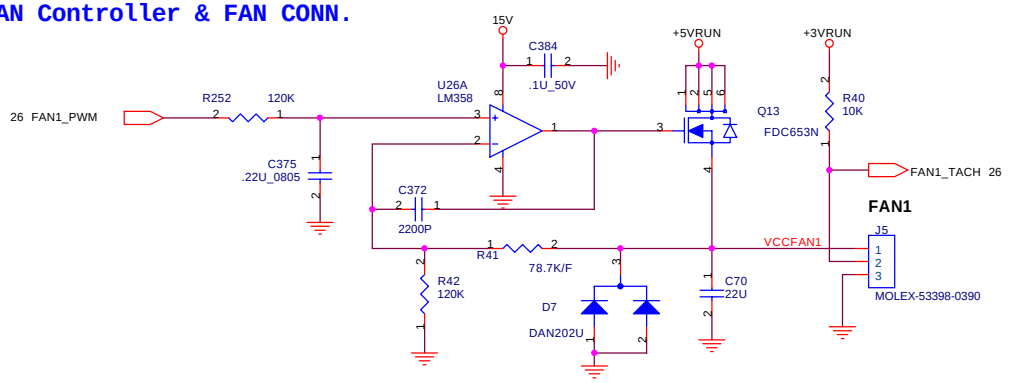
Bluetooth



QUANTA COMPUTER

Title	TOUCH PAD & BULE TOOTH	
Size	Document Number Tahiti(DM3L)	Rev 1A
Date: 星期二, 三月 29, 2005	Sheet 30 of 49	

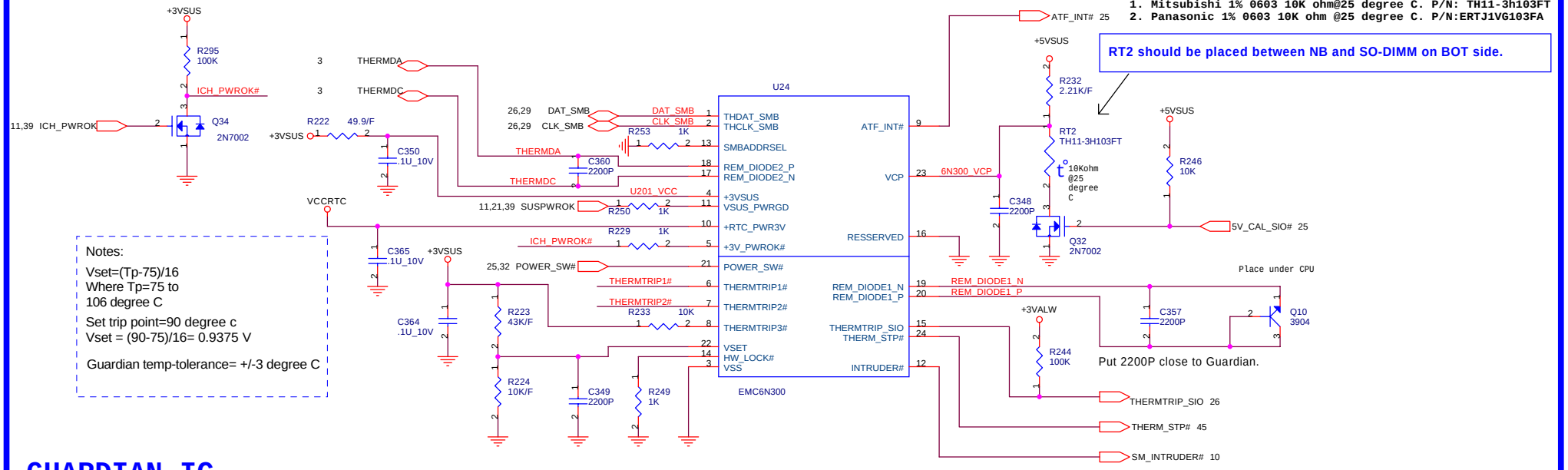
FAN Controller & FAN CONN.



GUARDIAN IC

RT2:
1. Mitsubishi 1% 0603 10K ohm@25 degree C. P/N: TH11-3h103FT
2. Panasonic 1% 0603 10K ohm @25 degree C. P/N:ERTJ1VG103FA

RT2 should be placed between NB and SO-DIMM on BOT side.



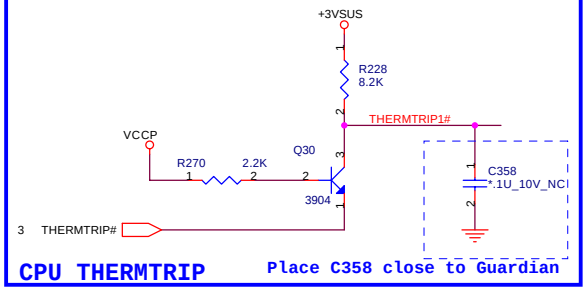
Notes:

Vset=(Tp-75)/16
Where Tp=75 to
106 degree C

Set trip point=90 degree c
Vset = (90-75)/16= 0.9375 V

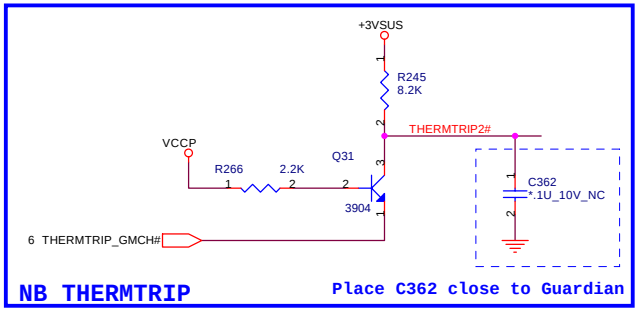
Guardian temp-tolerance= +/-3 degree C

CPU THERMTRIP



Place C358 close to Guardian

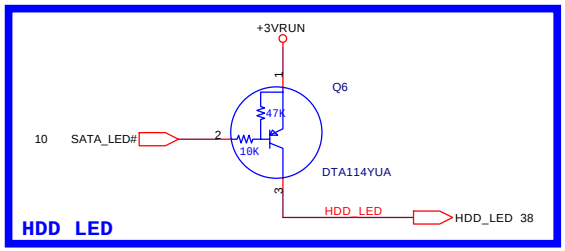
NB THERMTRIP

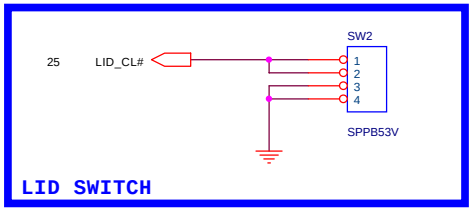


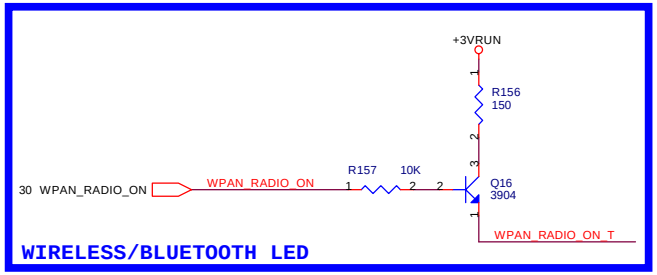
Place C362 close to Guardian

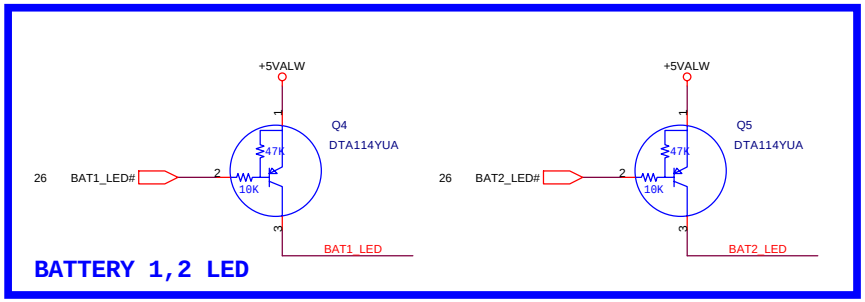
QUANTA COMPUTER

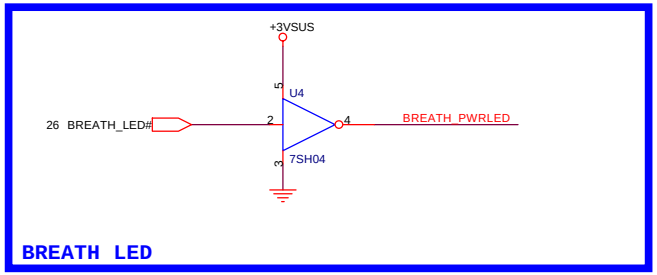
Title	FAN & THERMAL	
Size	Document Number: Tahiti(DM3L)	Rev: 1A
Date: 星期三, 三月 29, 2005	Sheet 31 of 49	

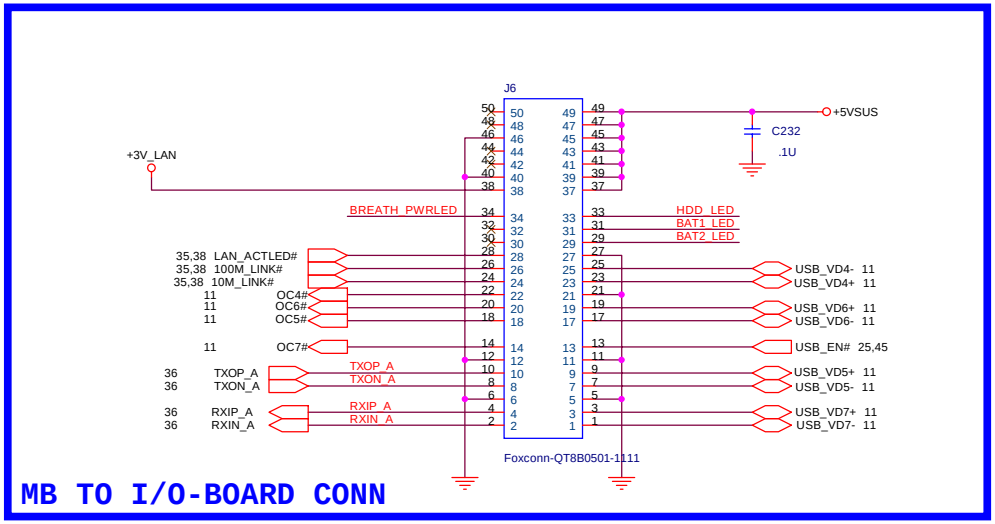


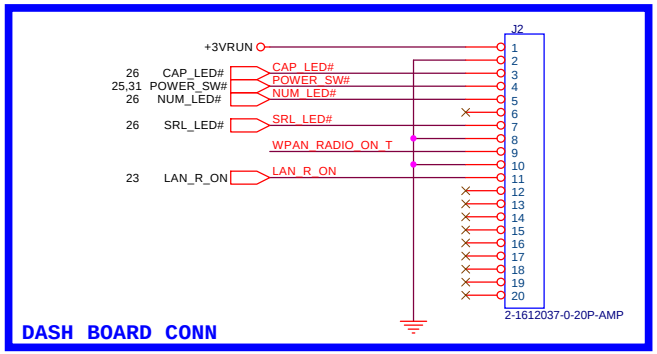






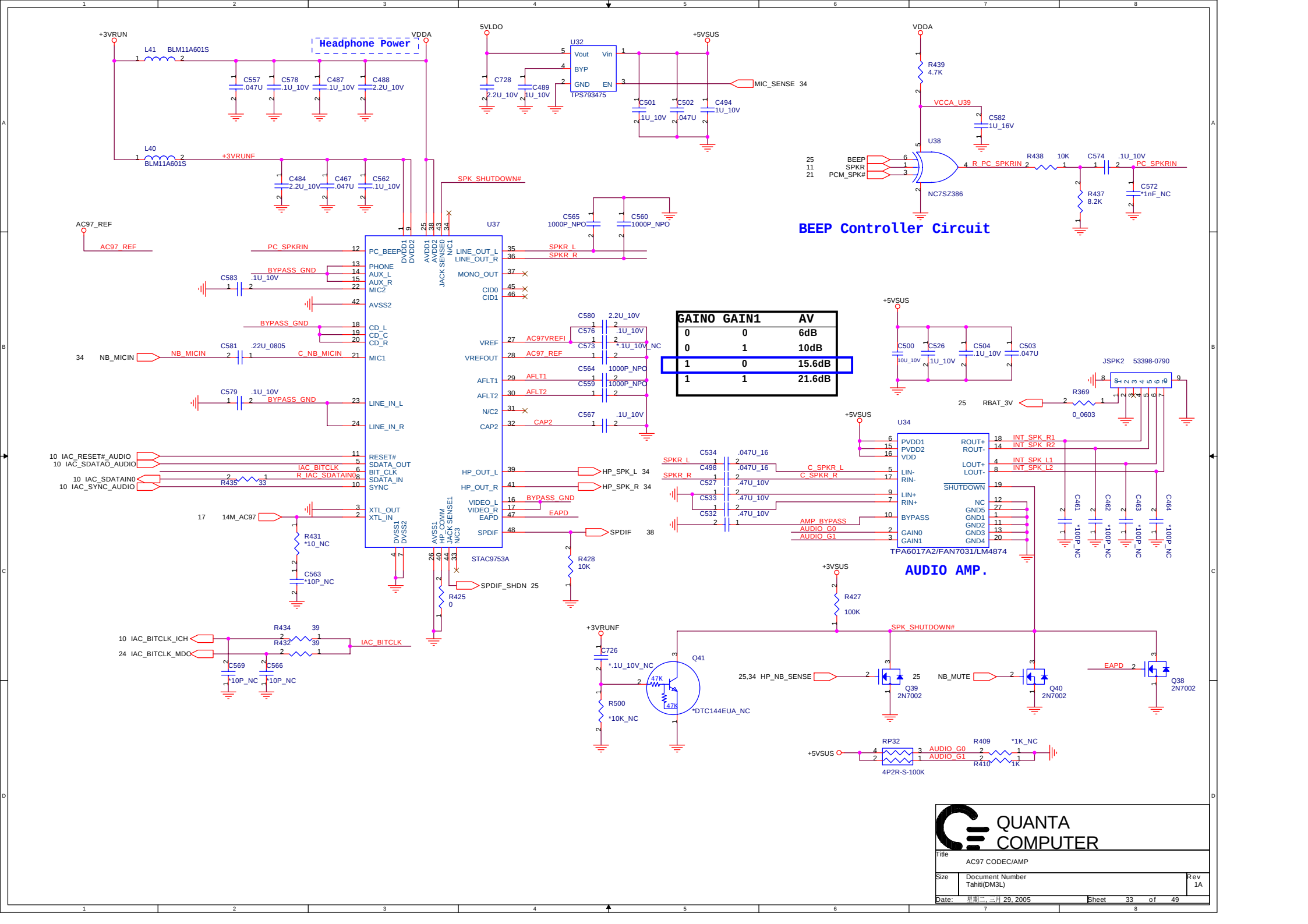


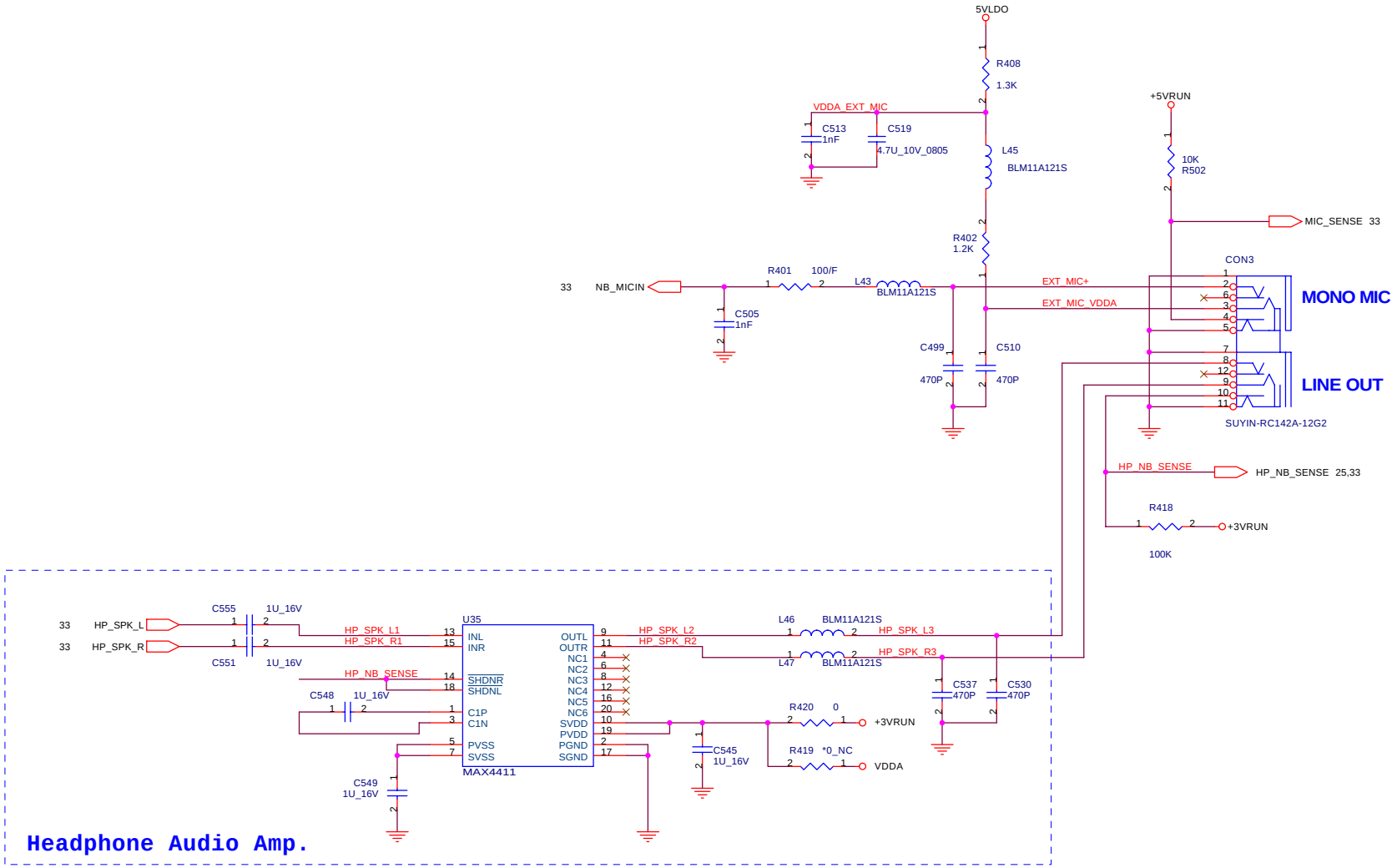




QUANTA COMPUTER

Title	SWITCH & LED	
Size	Document Number: Tahiti(DM3L)	Rev: 1A
Date: 星期三, 三月 29, 2005	Sheet 32 of 49	


Headphone Power
BEEP Controller Circuit
AUDIO AMP.
TPA6017A2/FAN7031/LM4874
STAC9753A
TPS793475
NC7SZ386
*DTC144EUA_NC
4P2R-S-100K
JSPK2 53398-0790
GAINO GAIN1 AV
0 0 6dB
0 1 10dB
1 0 15.6dB
1 1 21.6dB
QUANTA COMPUTER
Title AC97 CODEC/AMP
Size Document Number Tahiti(DM3L) Rev 1A
Date: 星期二, 三月 29, 2005 Sheet 33 of 49

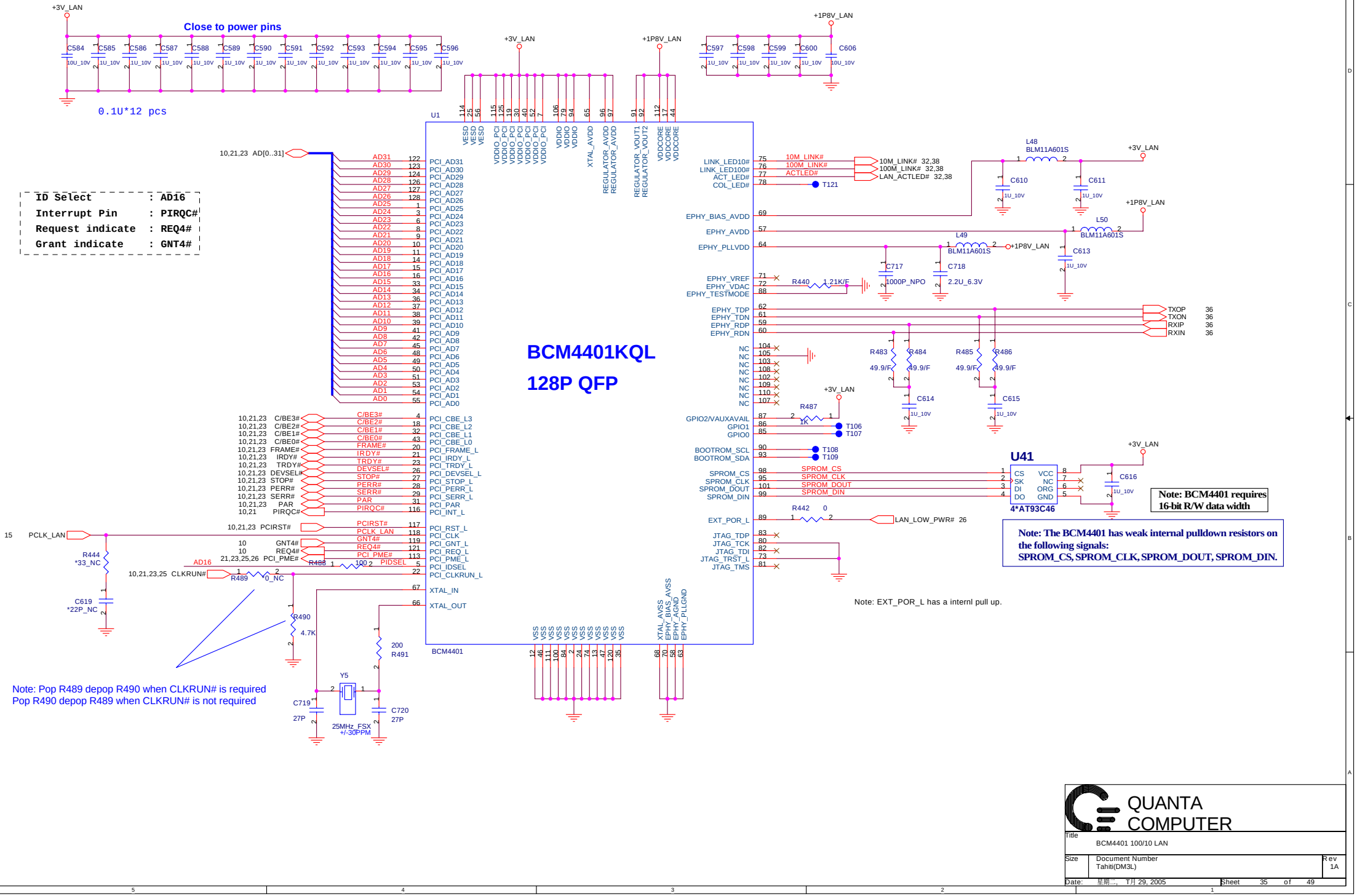


QUANTA COMPUTER

Title	AUDIO HEADPHONE CONN	
Size	Document Number: Tahiti(DM3L)	Rev: 1A
Date: 星期三, 三月 29, 2005	Sheet 34 of 49	

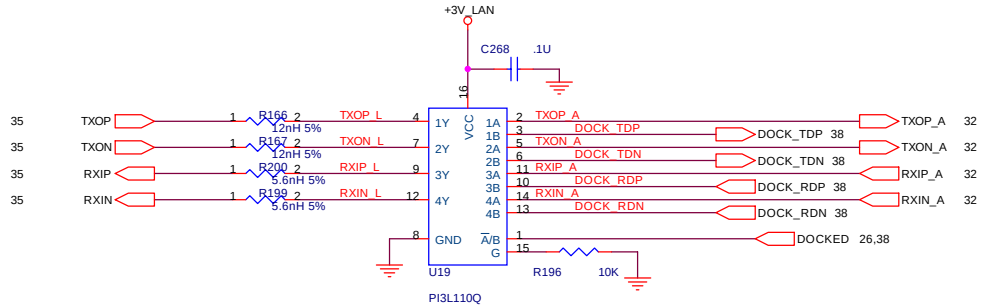
LAN-BCM4401KFB(10/100M)

BCM4401--10/100

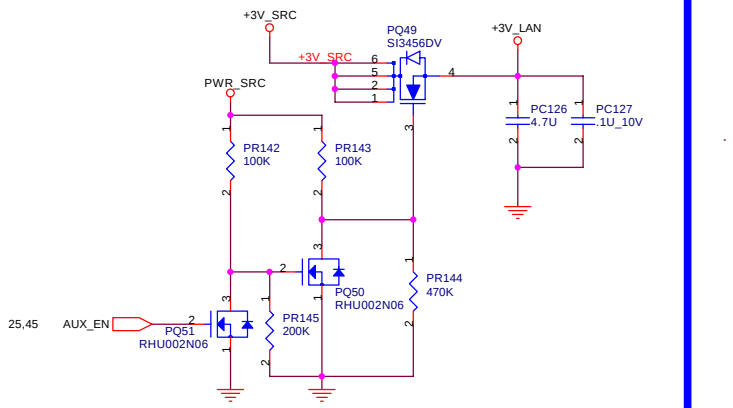


Title	BCM4401 100/10 LAN
Size	Document Number: Tahiti(DM3L)
Rev	1A
Date:	星期二, 7月 29, 2005
Sheet	35 of 49

QUANTA COMPUTER



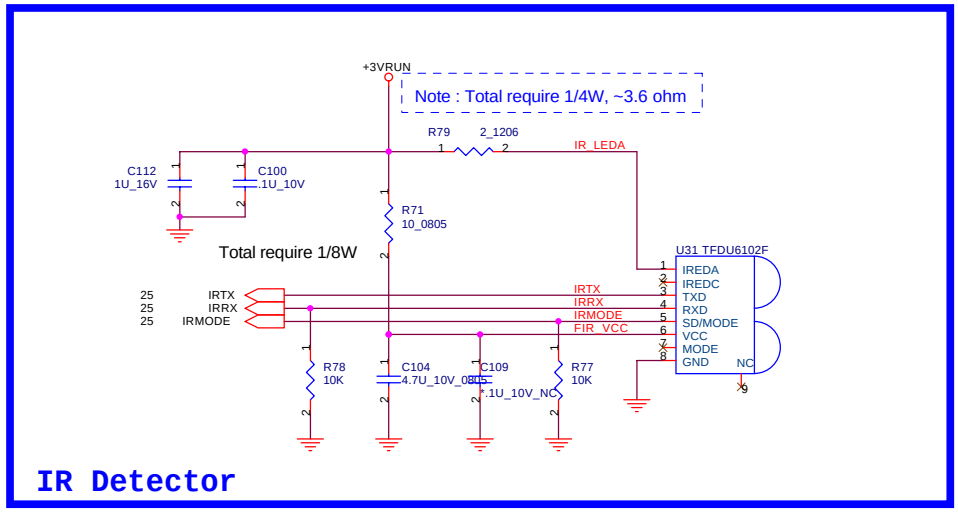
10/100LAN_E-SWITCH



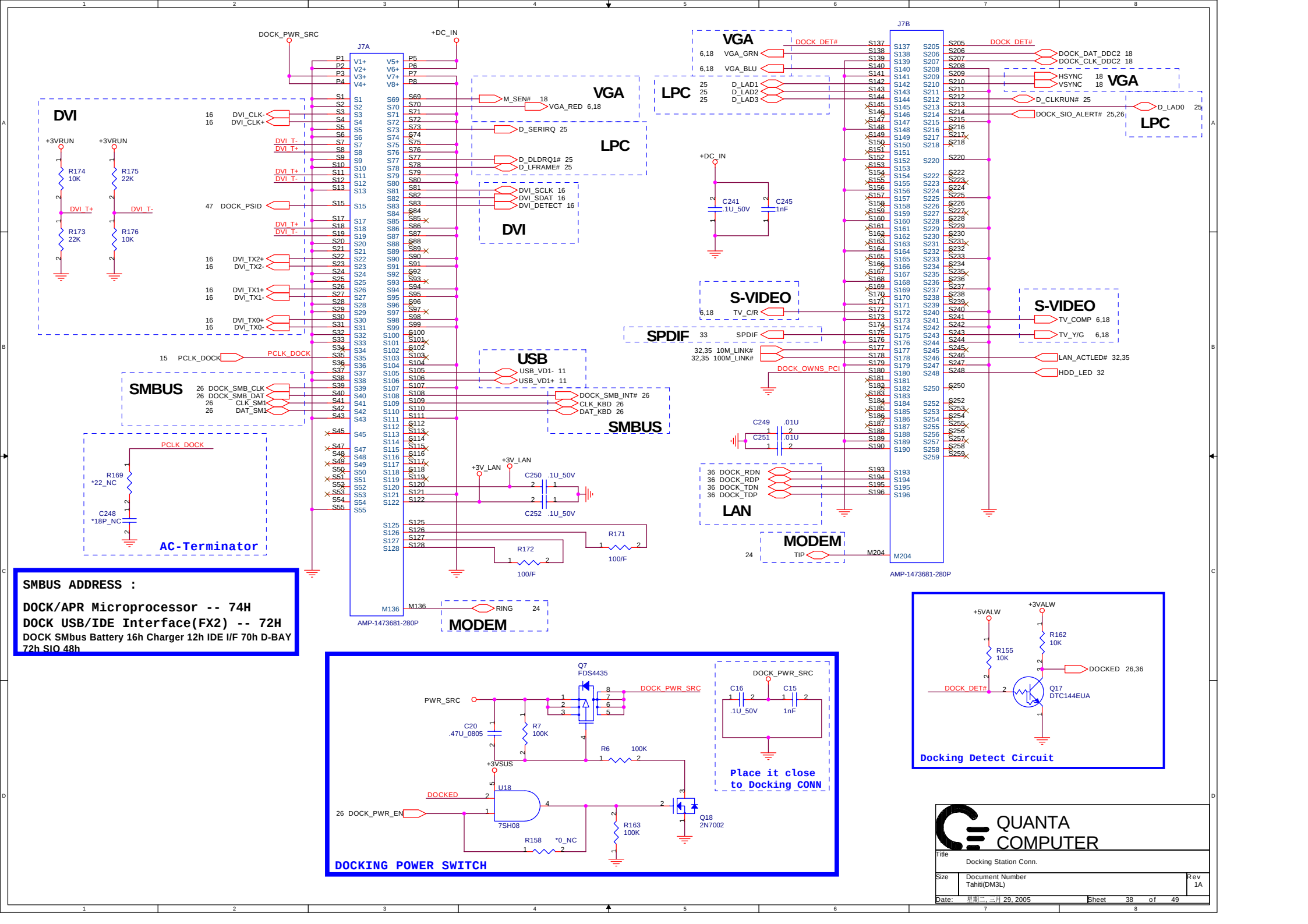
LAN POWER

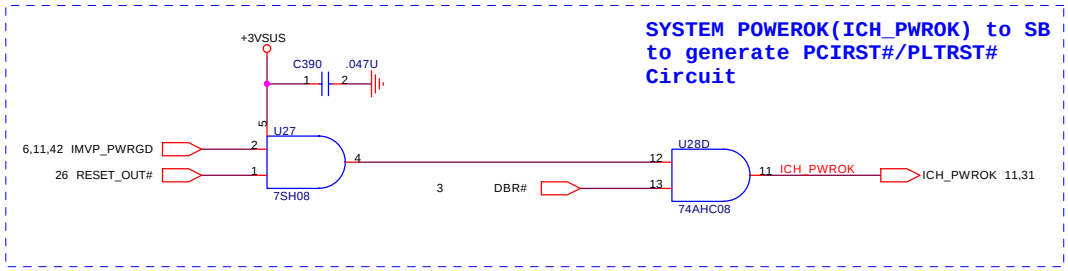
QUANTA COMPUTER

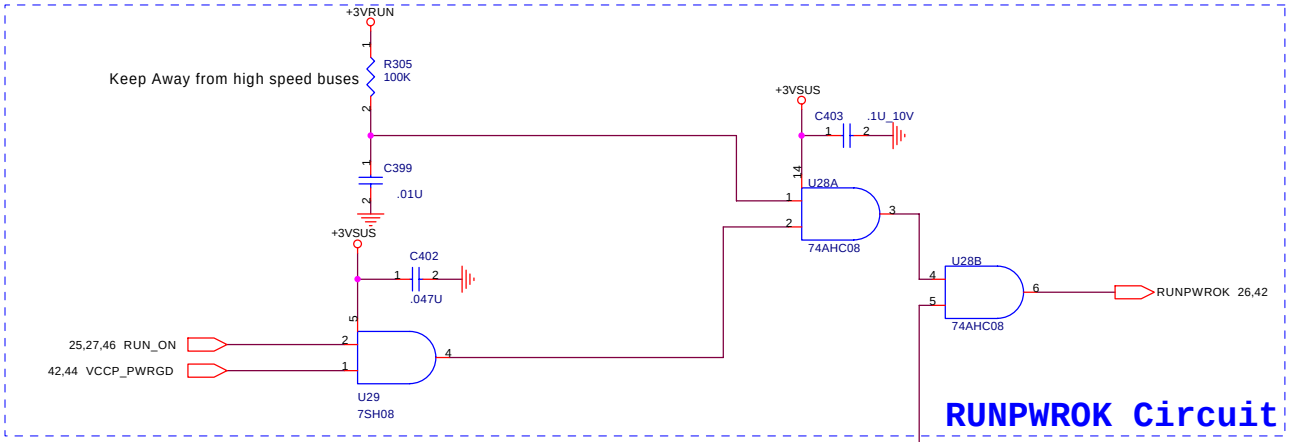
Title	LAN SWITCH/LAN POWER	
Size	Document Number Tahiti(DM3L)	Rev 1A
Date: 星期三, 三月 29, 2005	Sheet 36 of 49	

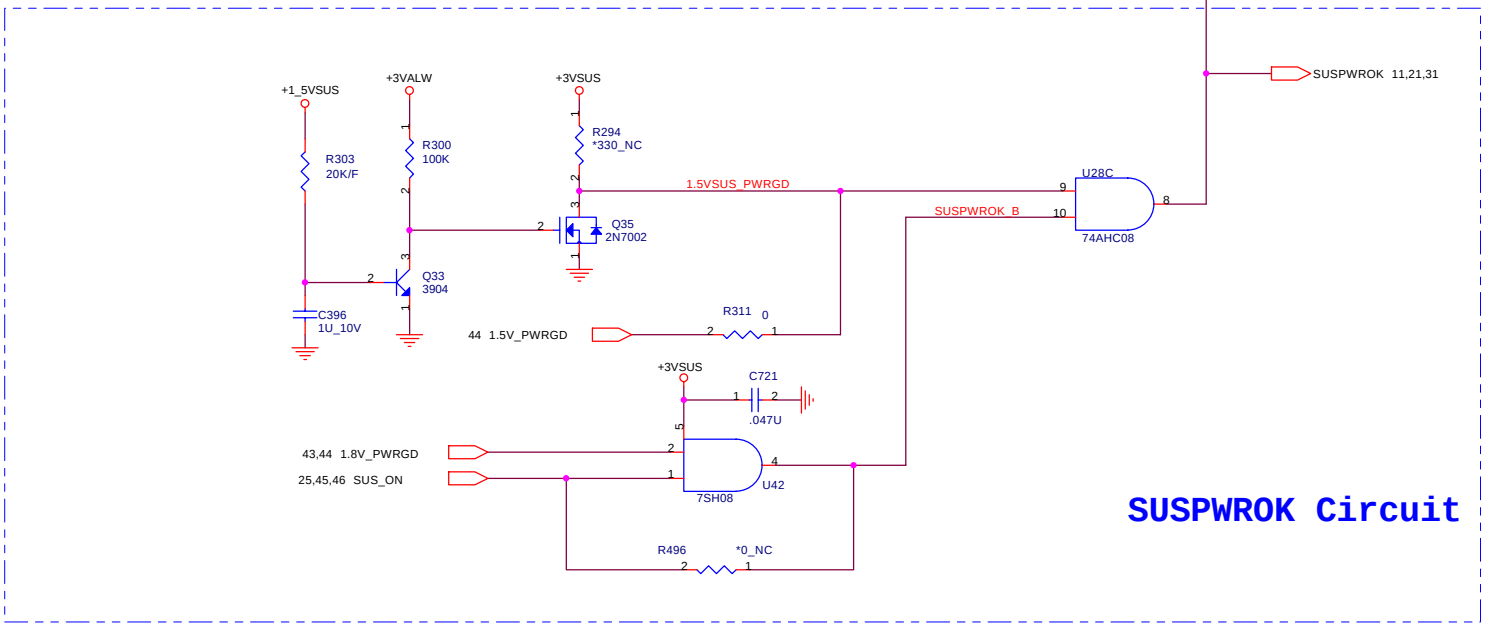


QUANTA COMPUTER		
Title: FIR		
Size	Document Number: Tahiti(DM3L)	Rev: 1A
Date: 星期三, 三月 29, 2005	Sheet 37 of 49	


DOCK_PWR_SRC
+DC_IN
J7A
AMP-1473681-280P
DVI
VGA
LPC
S-VIDEO
SPDIF
USB
SMBUS
LAN
MODEM
J7B
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
AC-Terminator
DOCKING POWER SWITCH
Place it close to Docking CONN
Docking Detect Circuit
QUANTA COMPUTER
Title
Docking Station Conn.
Size
Document Number
Tahiti(DM3L)
Rev
1A
Date:
星期三, 三月 29, 2005
Sheet
38
of
49

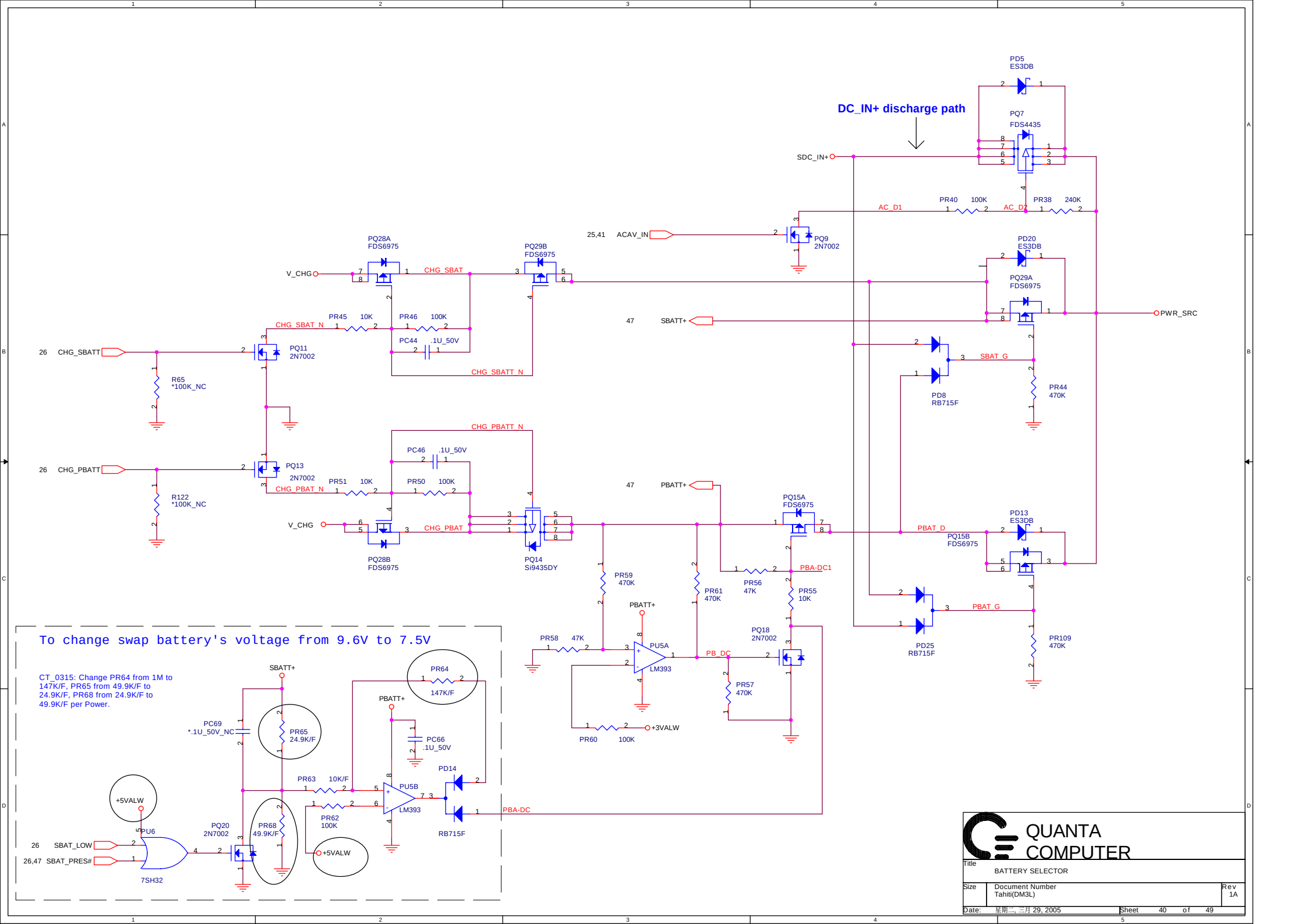




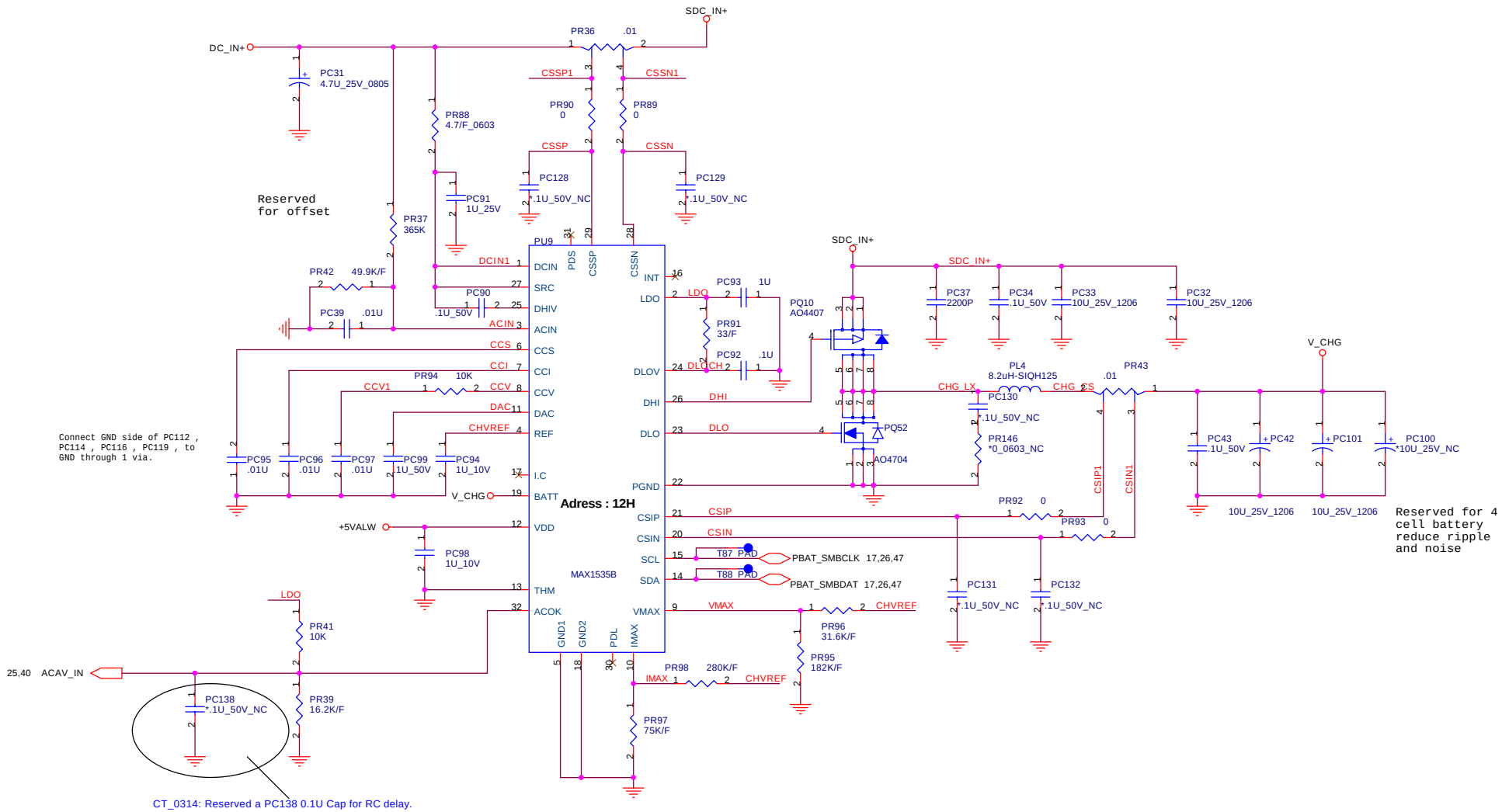


QUANTA COMPUTER

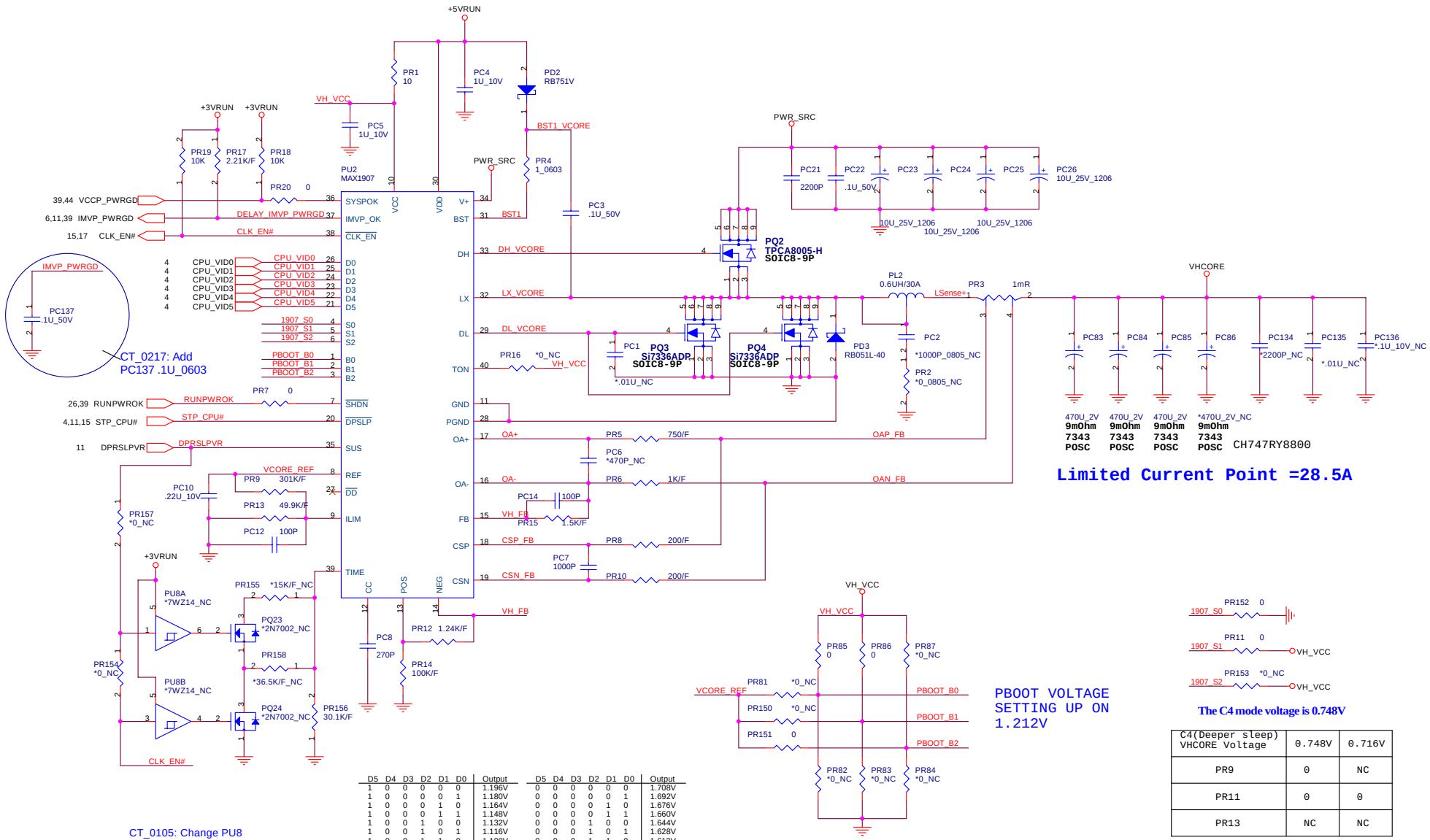
Title	SYSTEM RESET/POWER GOOD	
Size	Document Number Tahiti(DM3L)	Rev 1A
Date: 星期三, 三月 29, 2005	Sheet 39 of 49	



QUANTA COMPUTER			
Title	BATTERY SELECTOR		
Size	Document Number Tahiti(DM3L)		Rev 1A
Date:	星期二, 三月 29, 2005	Sheet 40 of 49	



	QUANTA COMPUTER	
Title	Battery Charger	
Size	Document Number Tahiti(DM3L)	Rev 1A
Date:	星期二, 三月 29, 2005	Sheet 41 of 49



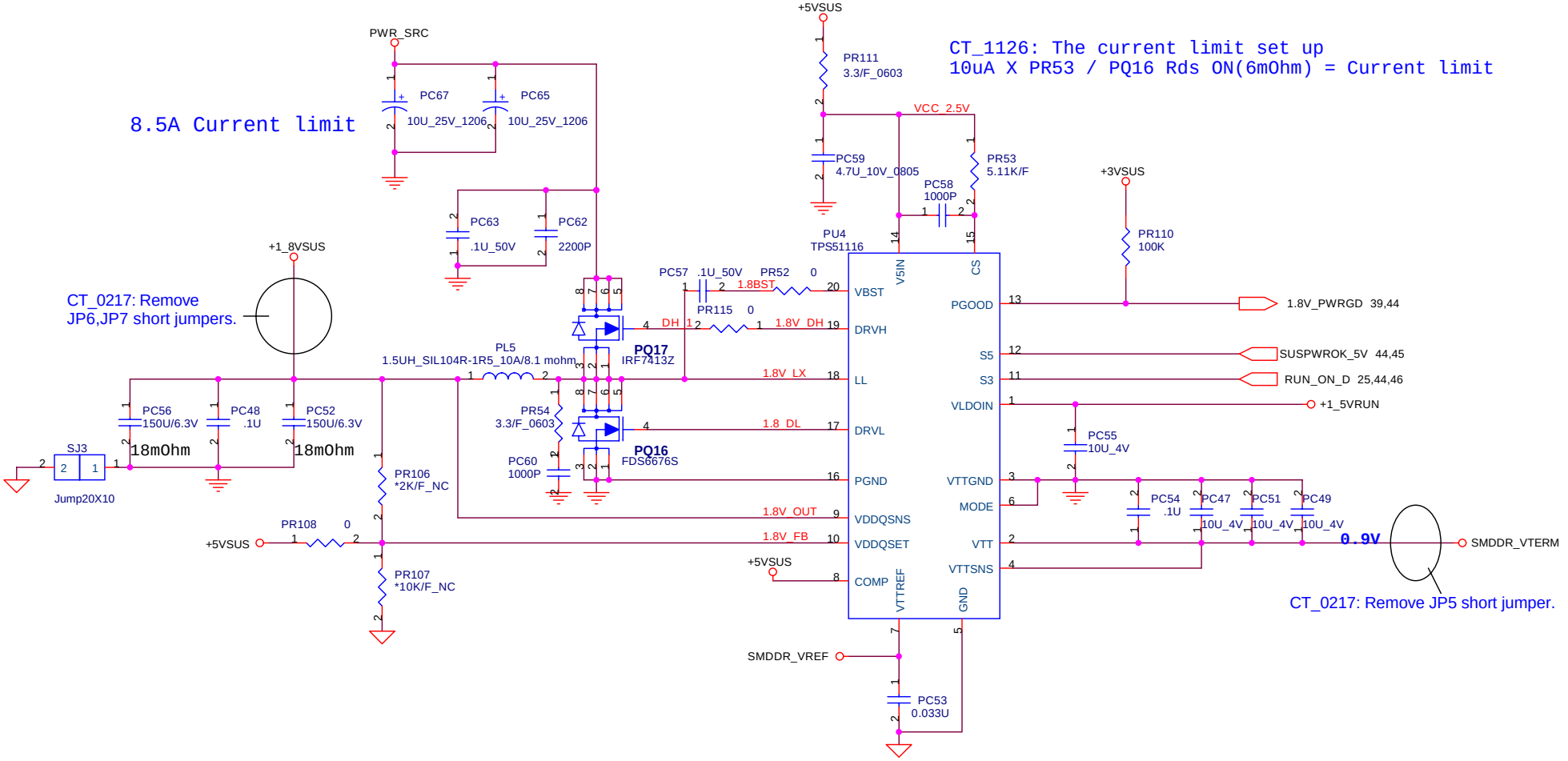
C4(Deeper sleep) VHCORE Voltage	0.748V	0.716V
PR9	0	NC
PR11	0	0
PR13	NC	NC

D5	D4	D3	D2	D1	D0	Output
1	0	0	0	0	0	1.196V
1	0	0	0	0	1	1.180V
1	0	0	0	1	0	1.164V
1	0	0	0	1	1	1.148V
1	0	0	1	0	0	1.132V
1	0	0	1	0	1	1.116V
1	0	0	1	1	0	1.100V
1	0	0	1	1	1	1.084V
1	0	1	0	0	0	1.068V
1	0	1	0	0	1	1.052V
1	0	1	0	1	0	1.036V
1	0	1	0	1	1	1.020V
1	0	1	1	0	0	1.004V
1	0	1	1	0	1	0.988V
1	0	1	1	1	0	0.972V
1	0	1	1	1	1	0.956V
1	1	0	0	0	0	0.940V
1	1	0	0	0	1	0.924V
1	1	0	0	1	0	0.908V
1	1	0	0	1	1	0.892V
1	1	0	1	0	0	0.876V
1	1	0	1	0	1	0.860V
1	1	0	1	1	0	0.844V
1	1	0	1	1	1	0.828V
1	1	1	0	0	0	0.812V
1	1	1	0	0	1	0.796V
1	1	1	0	1	0	0.780V
1	1	1	0	1	1	0.764V
1	1	1	1	0	0	0.748V
1	1	1	1	0	1	0.732V
1	1	1	1	1	0	0.716V
1	1	1	1	1	1	0.700V

D5	D4	D3	D2	D1	D0	Output
0	0	0	0	0	0	1.708V
0	0	0	0	0	1	1.692V
0	0	0	0	1	0	1.676V
0	0	0	0	1	1	1.660V
0	0	0	1	0	0	1.644V
0	0	0	1	0	1	1.628V
0	0	0	1	1	0	1.612V
0	0	0	1	1	1	1.596V
0	0	1	0	0	0	1.580V
0	0	1	0	0	1	1.564V
0	0	1	0	1	0	1.548V
0	0	1	0	1	1	1.532V
0	0	1	1	0	0	1.516V
0	0	1	1	0	1	1.500V
0	0	1	1	1	0	1.484V
0	0	1	1	1	1	1.468V
0	1	0	0	0	0	1.452V
0	1	0	0	0	1	1.436V
0	1	0	0	1	0	1.420V
0	1	0	0	1	1	1.404V
0	1	0	1	0	0	1.388V
0	1	0	1	0	1	1.372V
0	1	0	1	1	0	1.356V
0	1	0	1	1	1	1.340V
0	1	1	0	0	0	1.324V
0	1	1	0	0	1	1.308V
0	1	1	0	1	0	1.292V
0	1	1	0	1	1	1.276V
0	1	1	1	0	0	1.260V
0	1	1	1	0	1	1.244V
0	1	1	1	1	0	1.228V
0	1	1	1	1	1	1.212V

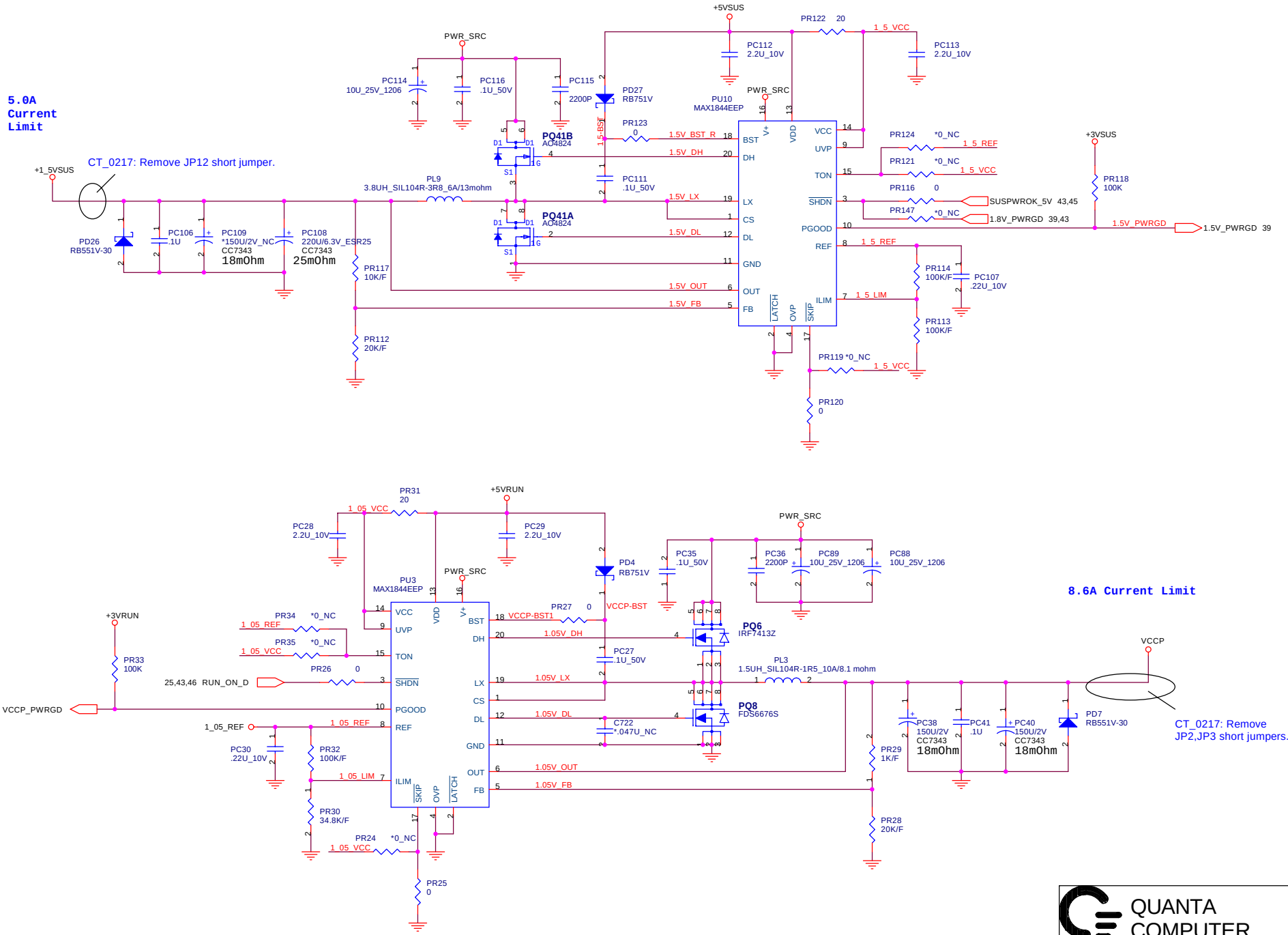
QUANTA COMPUTER

Title	CPU POWER	
Size	Document Number DM3B	Rev 1A
Date: 星期二, 三月 29, 2005	Sheet 42 of 49	



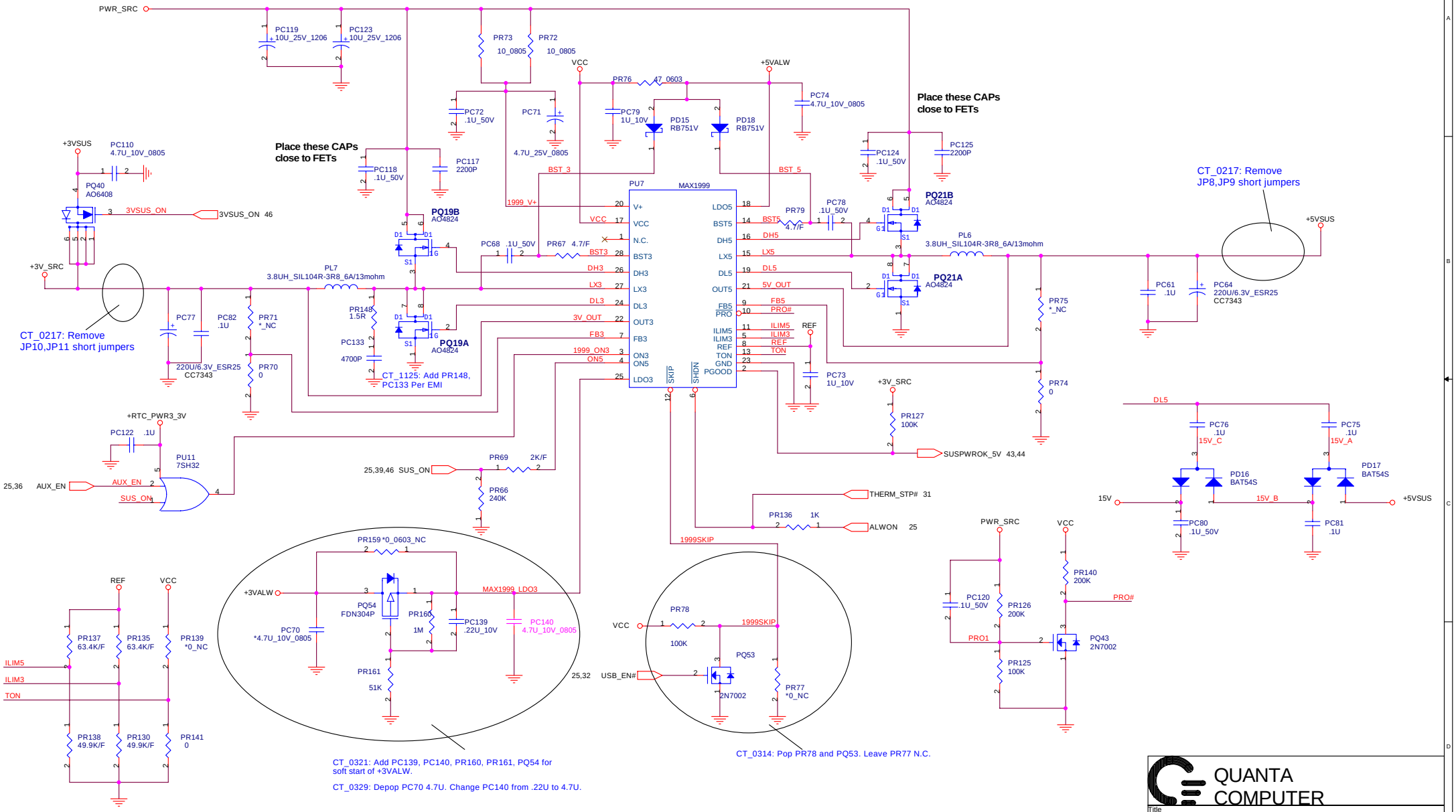
QUANTA COMPUTER

Title	1.8V,0.9V	
Size	Document Number Tahiti(DM3L)	Rev 1A
Date: 星期二, 三月 29, 2005	Sheet 43 of 49	



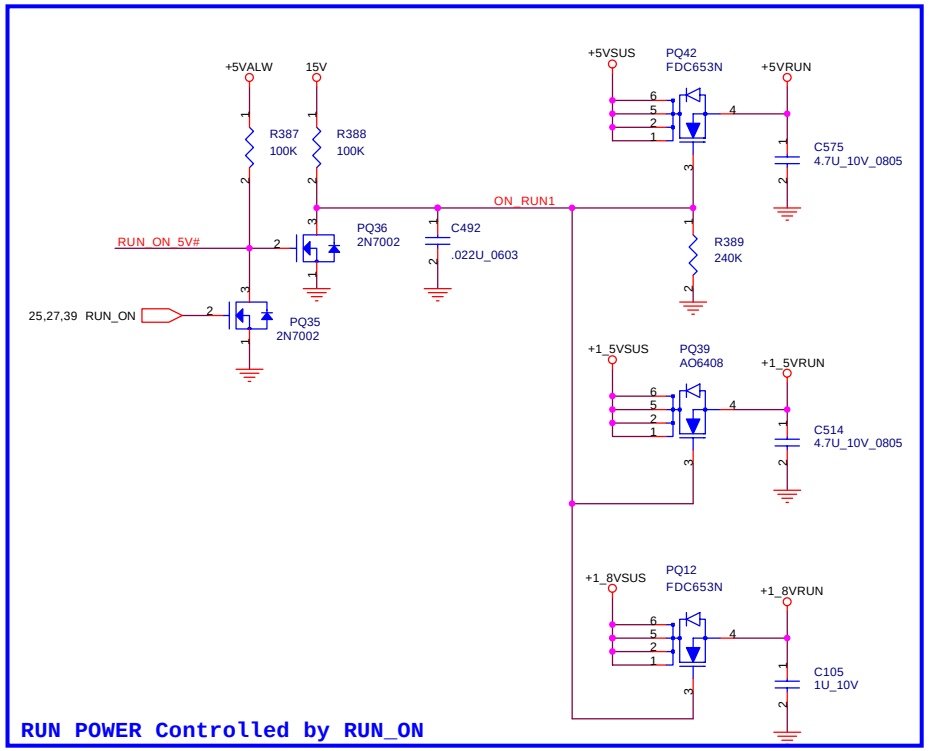
QUANTA COMPUTER

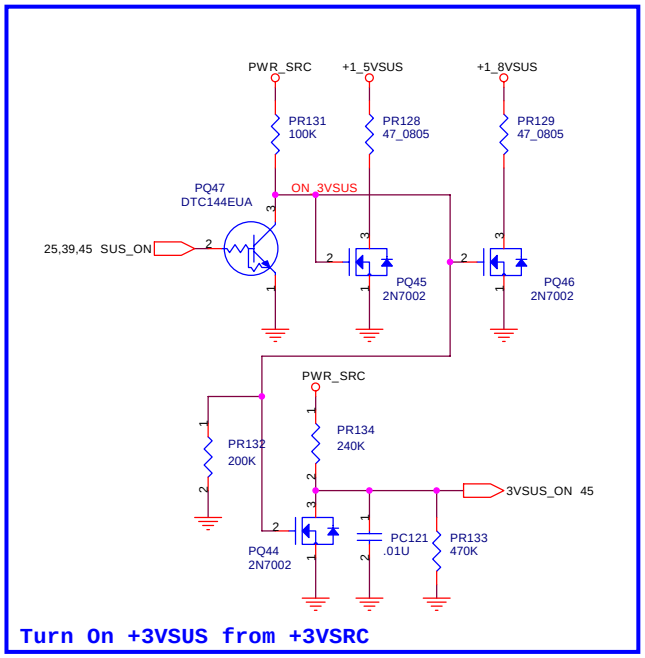
Title	1.5V,1.05V	
Size	Document Number: Tahiti(DM3L)	Rev: 1A
Date: 星期三, 三月 29, 2005	Sheet 44 of 49	

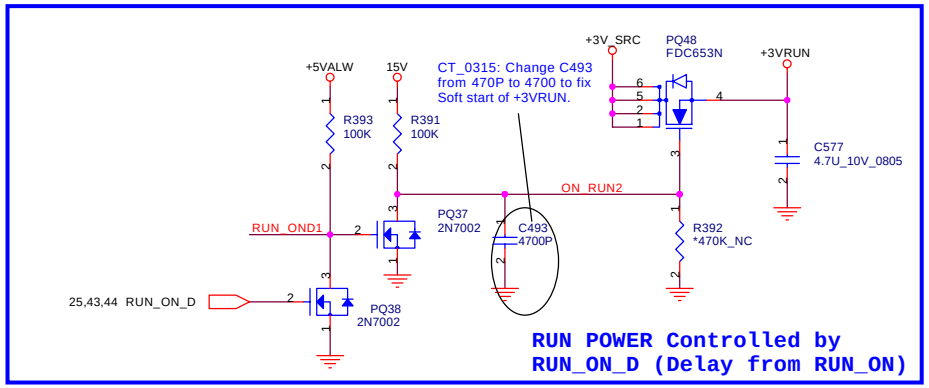


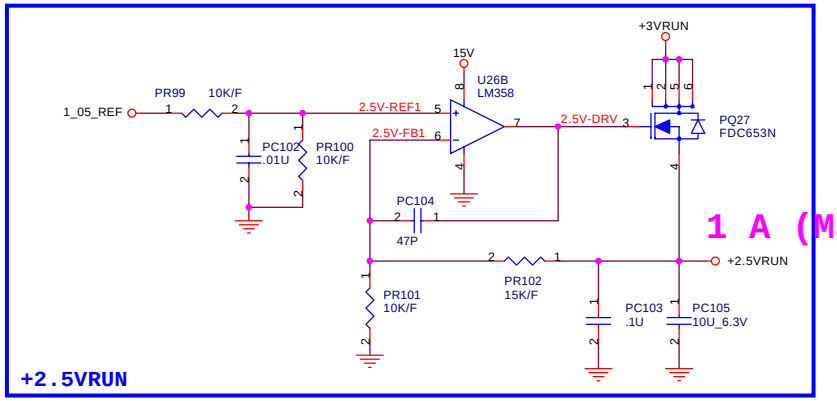
QUANTA COMPUTER

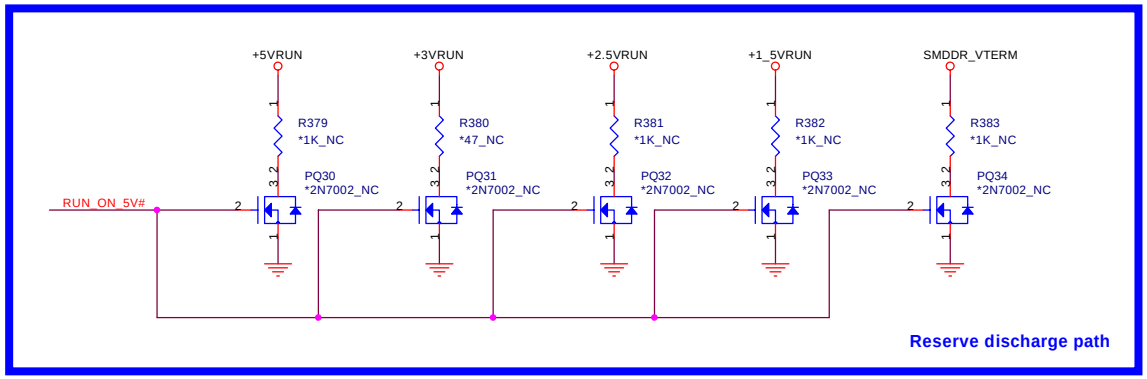
Title	3VALW,5V,3V, power on	
Size	Document Number Tahiti(DM3L)	Rev 1A
Date: 星期二, 三月 29, 2005	Sheet 45 of 49	





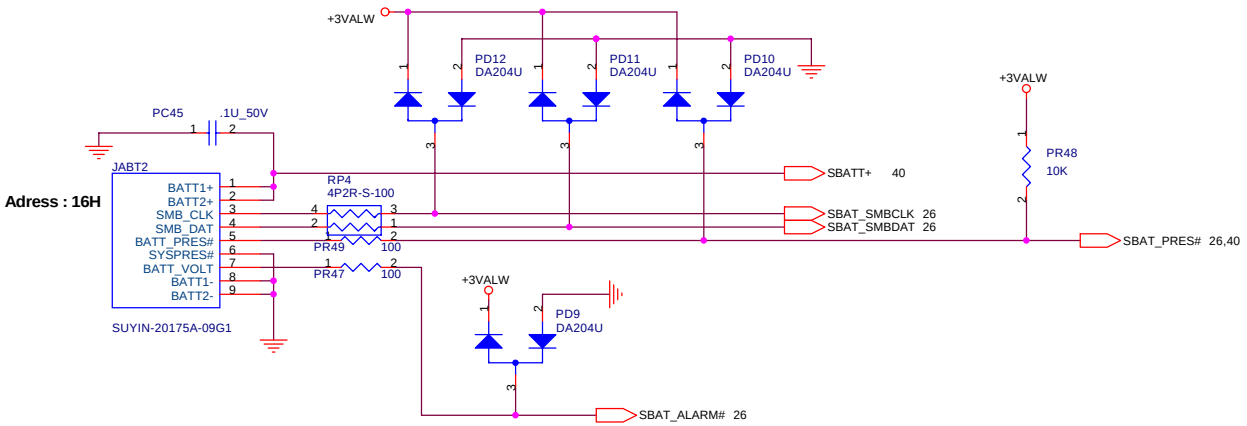


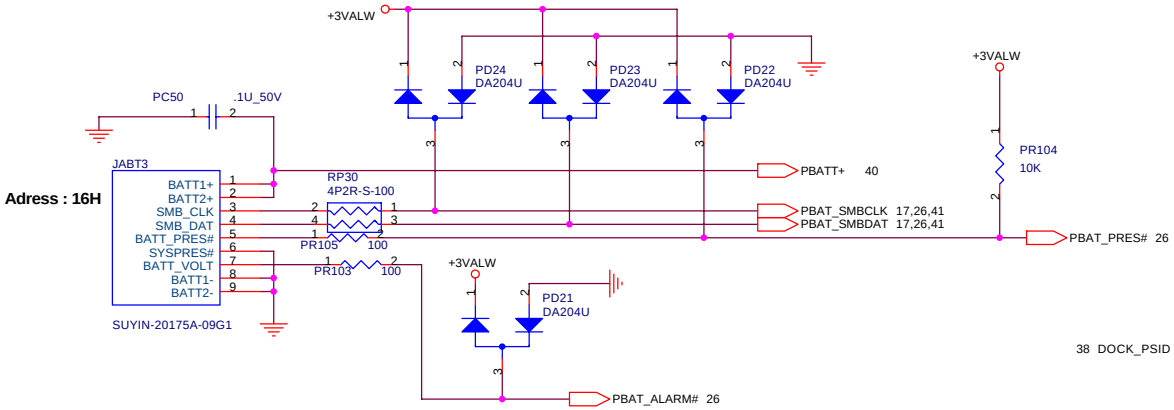


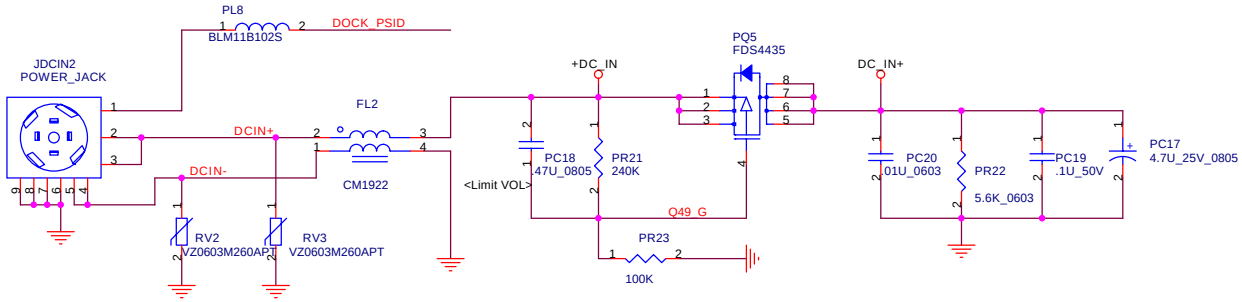


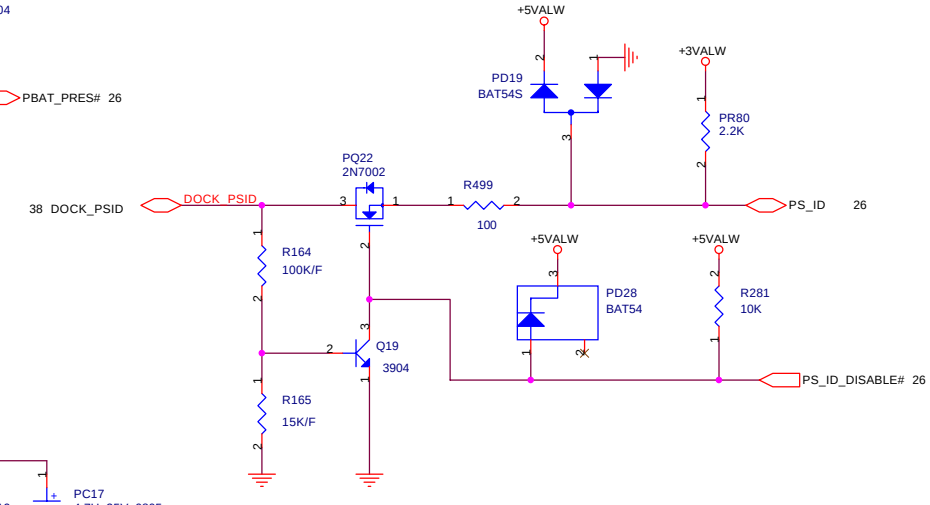
QUANTA COMPUTER

Title	RUN POWER SW	
Size	Document Number: Tahiti(DM3L)	Rev: 1A
Date: 星期二, 三月 29, 2005	Sheet 46 of 49	









QUANTA COMPUTER

Title	DCIN,BATT CONNECTOR	
Size	Document Number Tahiti(DM3L)	Rev 1A
Date: 星期二, 三月 29, 2005	Sheet 47 of 49	