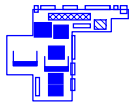


# AZEDA-INTEGRATED

**PWA: K3885, SCHEM: J3964**
**VER : 3A**

**RUN POWER SW** PG 48

**AC/BATT CONNECTOR** PG 50

**BATT SELECTOR** PG 43

**BATT CHARGER** PG 44

**Dothan/Yonah**
(478 Micro-FCPGA)
PG 4,5

**DC/DC +3V_SRC +5VSUS** PG 47

**CPU VR** PG 45

**CLOCKS** PG 16

**RESET CKT** PG 42

**Panel Connector** PG 20

4X133MHZ

LVDS

**Alviso**
1257 PCBGA
PG 6,7,8,9,10

sDVO

**SI1362** PG 17

DVI

TVOUT

**I/O(S-Video)** PG 33

VGA

**VGA** PG 21

**DDR-SODIMM1** PG 14,15

400/533 MHZ DDR II

**DDR-SODIMM2** PG 14,15

400/533 MHZ DDR II

DMI interface

USB2.0 (P5,P7)

USB2.0 (P4,P6)

**2 Rear Ports** PG 29

**2 Right Side(I/O)** PG 33

USB2.0 (P1)

**PATA - HDD** PG 22

**88SA8040** PG 22

SATA

**ICH6-M**
**609 BGA**
PG 11,12,13

33MHz PCI

**Q-SWITCH** PG 40

**DOCKING CONNECTOR** PG 41

**CARDBUS** PCI6515 PG 24

PCMCIA CON. PG 24

**MINI-PCI** Wireless LAN PG 25

**Internal Media Bay CD-ROM** PG 22

IDE

USB2.0 1 port(P0)

AC97

USB2.0 (P3)

USB2.0 (P2)

**Bluetooth** PG 32

LPC

PCIEx1

**BroadCom Lan(5751)** PG 37

**E-Switch** PI3L500 PG 38

**I/O(RJ45/Magnetics)** PG 33

**AUDIO** PG 35,36

**MDC** PG 26

**SIO(Macallan 3)**
256 Pins LBGA
PG 27,28

DOCK LPC

**S/PDIF to DOCK** PG 41

**Audio Jacks** PG 36

**RJ11 to DOCK** PG 41

**Tip Ring** PG 26

X-Bus

PS/2

**IrDA** PG 39

**Keyboard** PG 39

**Serial** PG 28

**Parallel** PG 29

**Touchpad/ Stick point** PG 32

**Flash** PG 31

QUANTA COMPUTER

| | | |
|---|---|---|
| Title | Schematic Block Diagram1 | |
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## INDEX

| Pg# | Description | DNI LIST |
|---|---|---|
| 1 | Schematic Block Diagram 1 | |
| 2 | Blank Page | |
| 3 | Front Page | |
| 4-5 | Dothan | |
| 6-10 | Alviso | |
| 11-13 | ICH6 | |
| 14-15 | DDRII SO-DIMM(200P) | |
| 16 | Clock Generator | |
| 17 | CH7306/7 | |
| 18-19 | Blank Pages | |
| 20 | LCD Conn. & SSP | |
| 21 | CRT & TV Conn. | |
| 22 | SATA & IDE Conn. | |
| 23 | Screw Hole | |
| 24 | TI PIC6515 | |
| 25 | Mini PCI Conn. | |
| 26 | MDC Conn. | |
| 27-28 | SIO (LPC47N354) | |
| 29 | SERIAL PORT & USB | |
| 30 | PARALLEL CONN. | |
| 31 | Flash ROM | |
| 32 | TOUCH PAD & BLUE TOOTH | |
| 33 | Switch Board Conn. & LED | |
| 34 | FAN & Thermal | |
| 35-36 | Audio CODEC (STAC9751) & Phone Jack | |
| 37-38 | LOM (BCM5751), Switch | |
| 39 | FIR | |
| 40-41 | Docking Conn. & Q-Switch | |
| 42 | Power Good | |
| 43-44 | Battery Selector & Charger | |
| 45 | CPU Power | |
| 46 | 1.8V,0.9V,1.5V,1.05V | |
| 47 | 3VALW/5V/3V/Power ON | |
| 48 | RUN Power Switch | |
| 49 | VGA DC/DC | |
| 50 | DCIN/Batt Conn. | |
| | | |

## Power & Ground

| Label | Pg# | Description | Control Signal |
|---|---|---|---|
| DC_IN+ | | AC ADAPTER (20V) | |
| PBATT+ | | MAIN BATTERY + (10~17V) | |
| PWR_SRC | | MAIN POWER (10~20V) | |
| RTC_PWR3_3V | | RTC & PCL POWER (3_3V) | |
| +12V | | +12V | DRUNPWROK |
| VHCORE | | CPU CORE POWER (1.25/1.15V) | RUNPWROK |
| V1_2RUN | | AGTL+ POWER (1.2V) | 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# |
| +5VFAN1, +5VFAN2 | | 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 | | AGP I/O POWER | |
| | | | |
| GND | ALL PAGES | DIGITAL GROUND | |
| | | | |
| GNDP | | CPU POWER GND | |
| CGNDP | | CHARGER GND | |
| DGNDP | | DC/DC POWER GND | |
| LANGND | | COMBO CONN GND | |

QUANTA COMPUTER

| | | |
|---|---|---|
| Title | Index, DNI, Power & Ground | |
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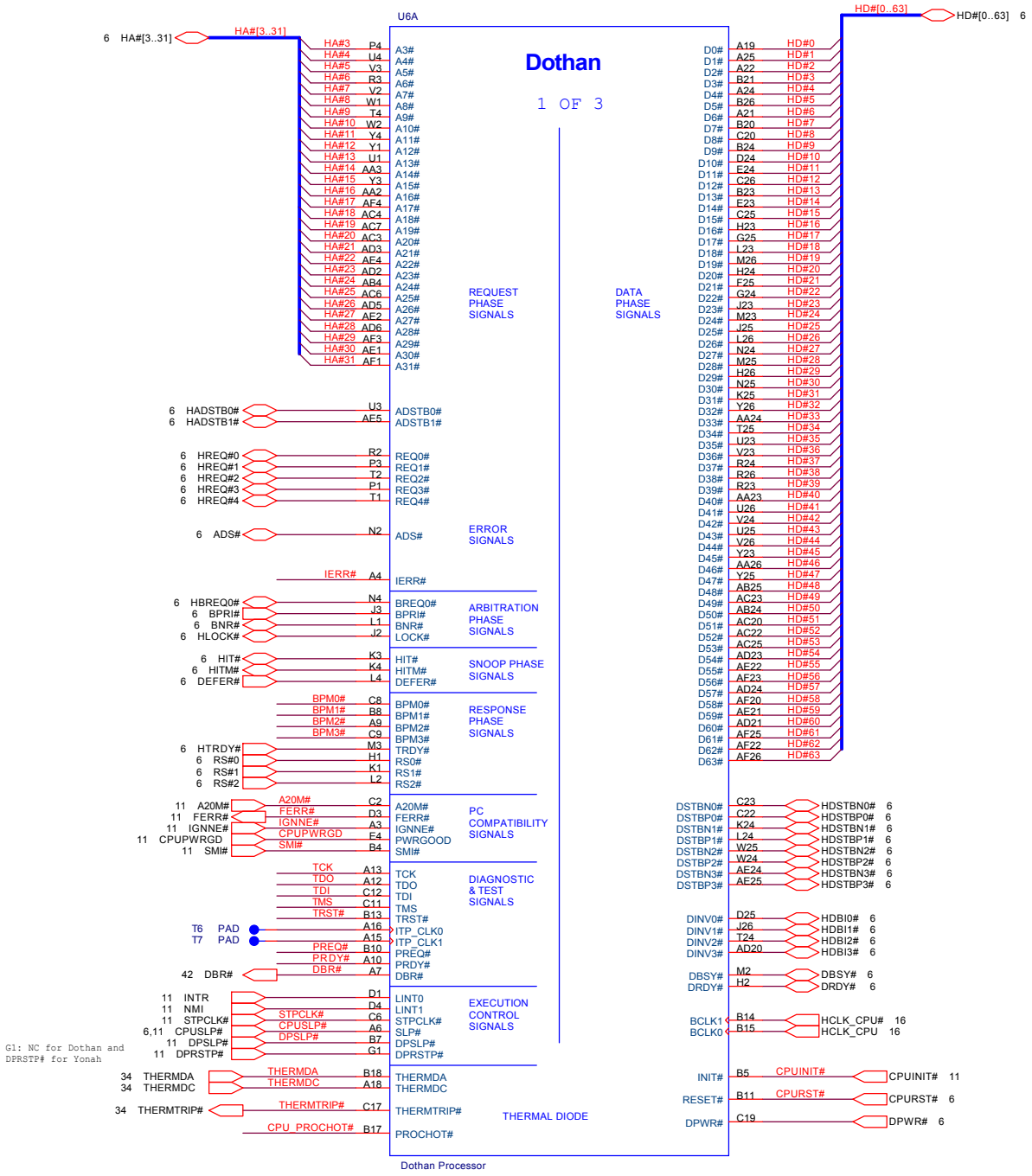
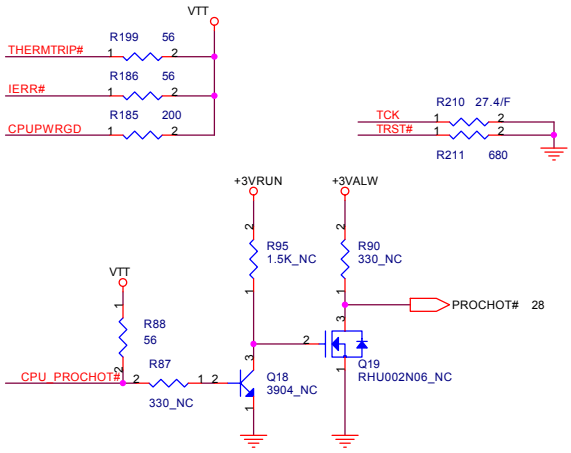
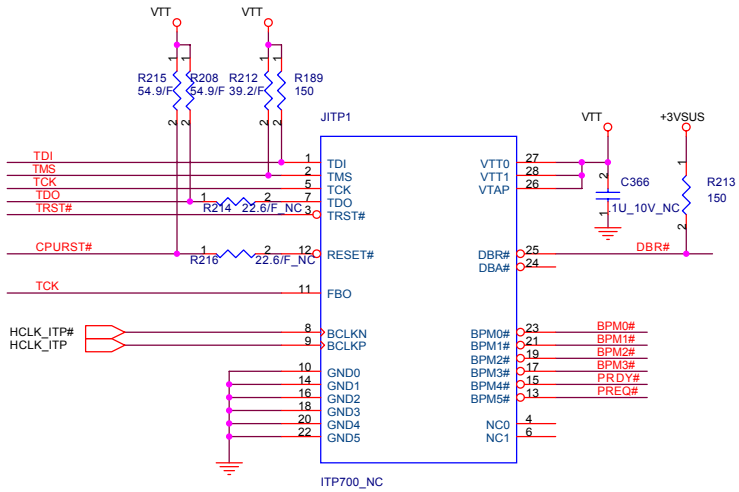



ITP disable guidelines

| 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 |
| ITP_EN | R268 Depop | +3VRUN | Close to CK410M Pin8 |

Note: Populate R214, R216, C366, and R268 when ITP connector is populated.




QUANTA COMPUTER

| | | |
|---|---|---|
| Title | Dothan Processor (HOST) | |
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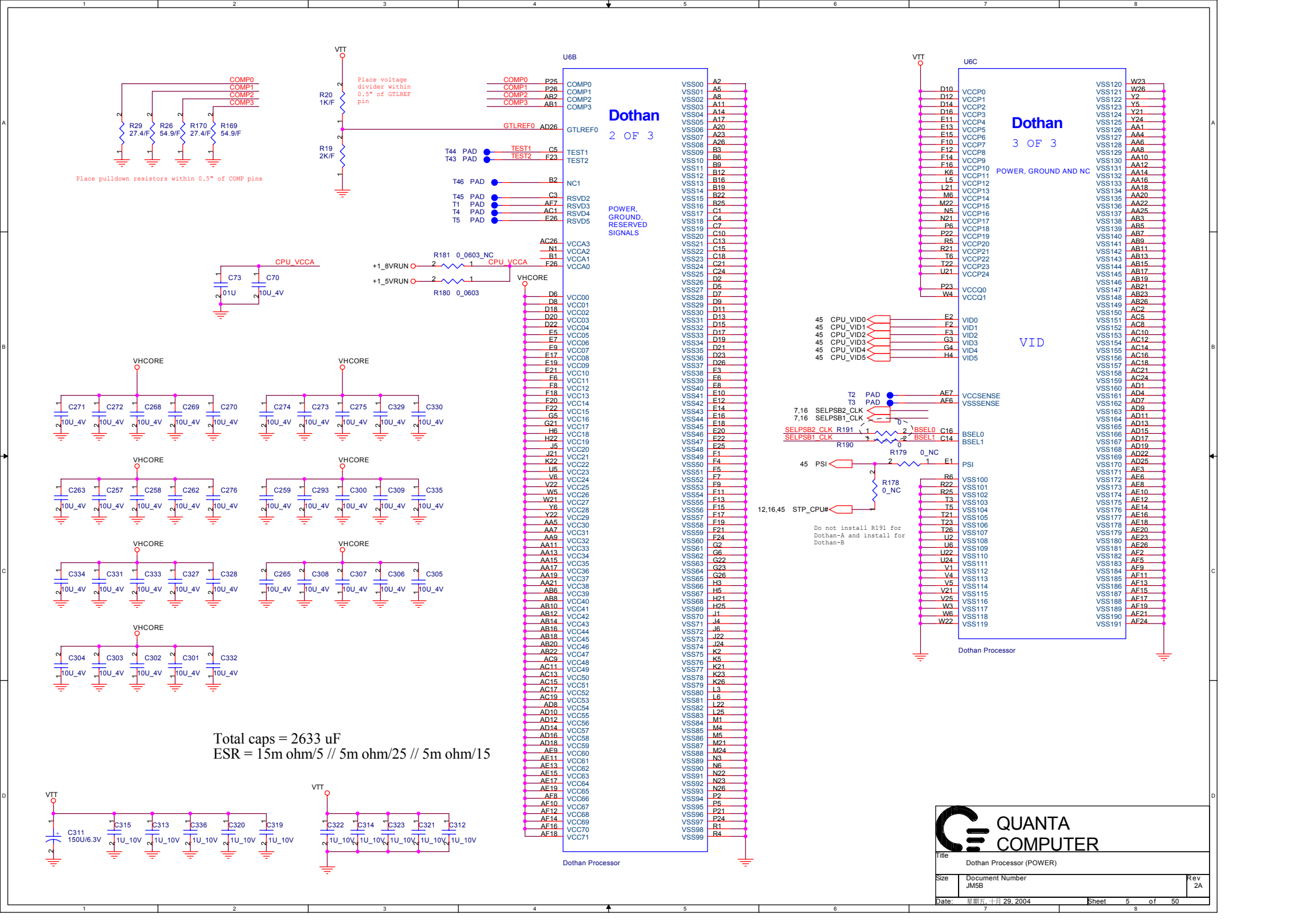
COMP0
COMP1
COMP2
COMP3
R29 27.4/F
R26 54.9/F
R170 27.4/F
R169 54.9/F
Place pulldown resistors within 0.5" of COMP pins
VTT
R20 1K/F
R19 2K/F
Place voltage divider within 0.5" of GTLREF pin
GTLREF0
TEST1
TEST2
NC1
RSVD2
RSVD3
RSVD4
RSVD5
U6B
Dothan
2 OF 3
POWER, GROUND, RESERVED SIGNALS
Dothan Processor
U6C
Dothan
3 OF 3
POWER, GROUND AND NC
VID
VCCSENSE
VSSSENSE
BSEL0
BSEL1
PSI
STP_CPU#
Dothan Processor
CPU_VCCA
VHCORE
+1_8VRUN
+1_5VRUN
R181 0_0603_NC
R180 0_0603
R179 0_NC
R178 0_NC
R190
R191
Do not install R191 for Dothan-A and install for Dothan-B
Total caps = 2633 uF
ESR = 15m ohm/5 // 5m ohm/25 // 5m ohm/15
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Dothan Processor (POWER)
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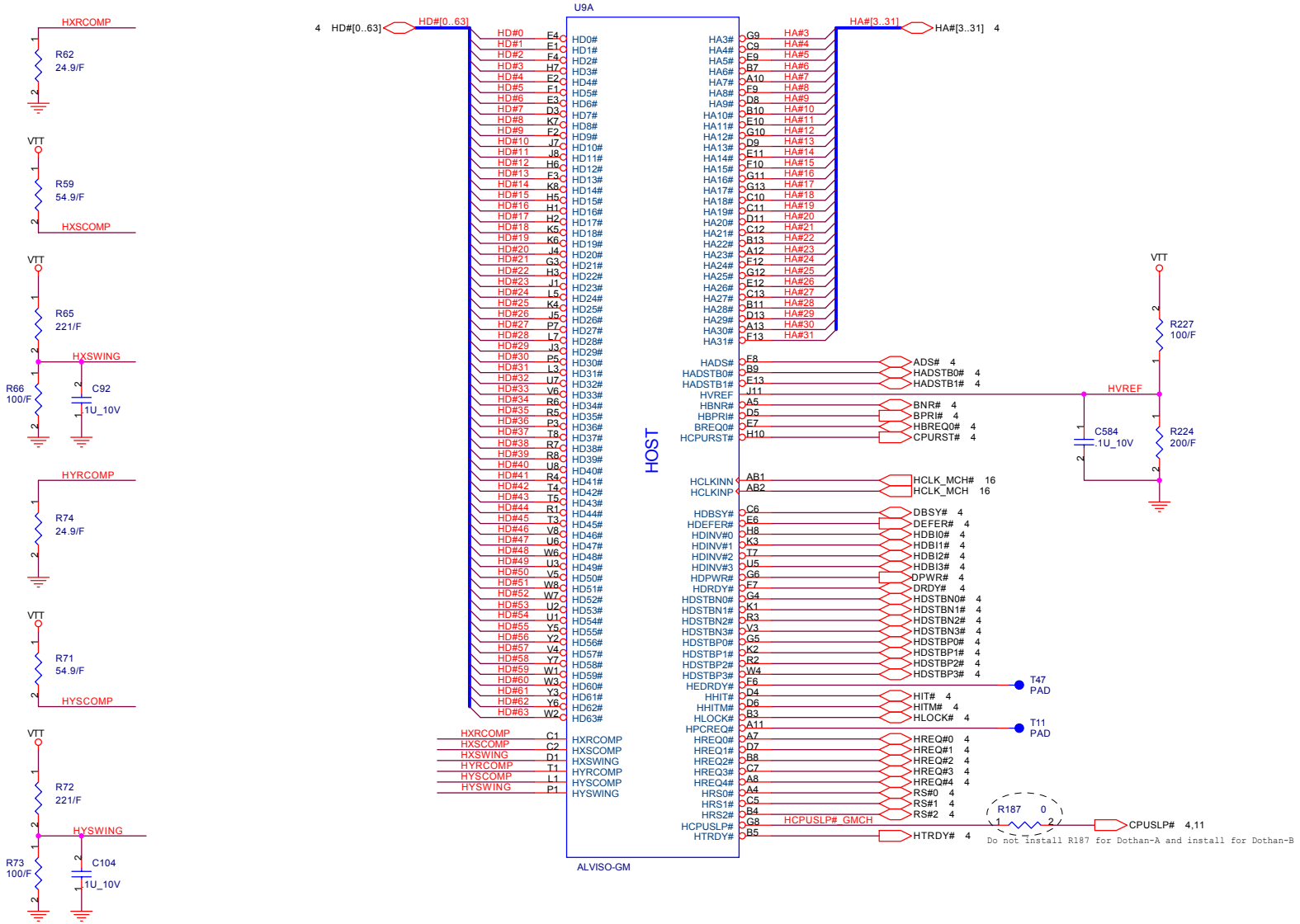


QUANTA COMPUTER

| | | |
|---|---|---|
| Title | Alviso (Host) | |
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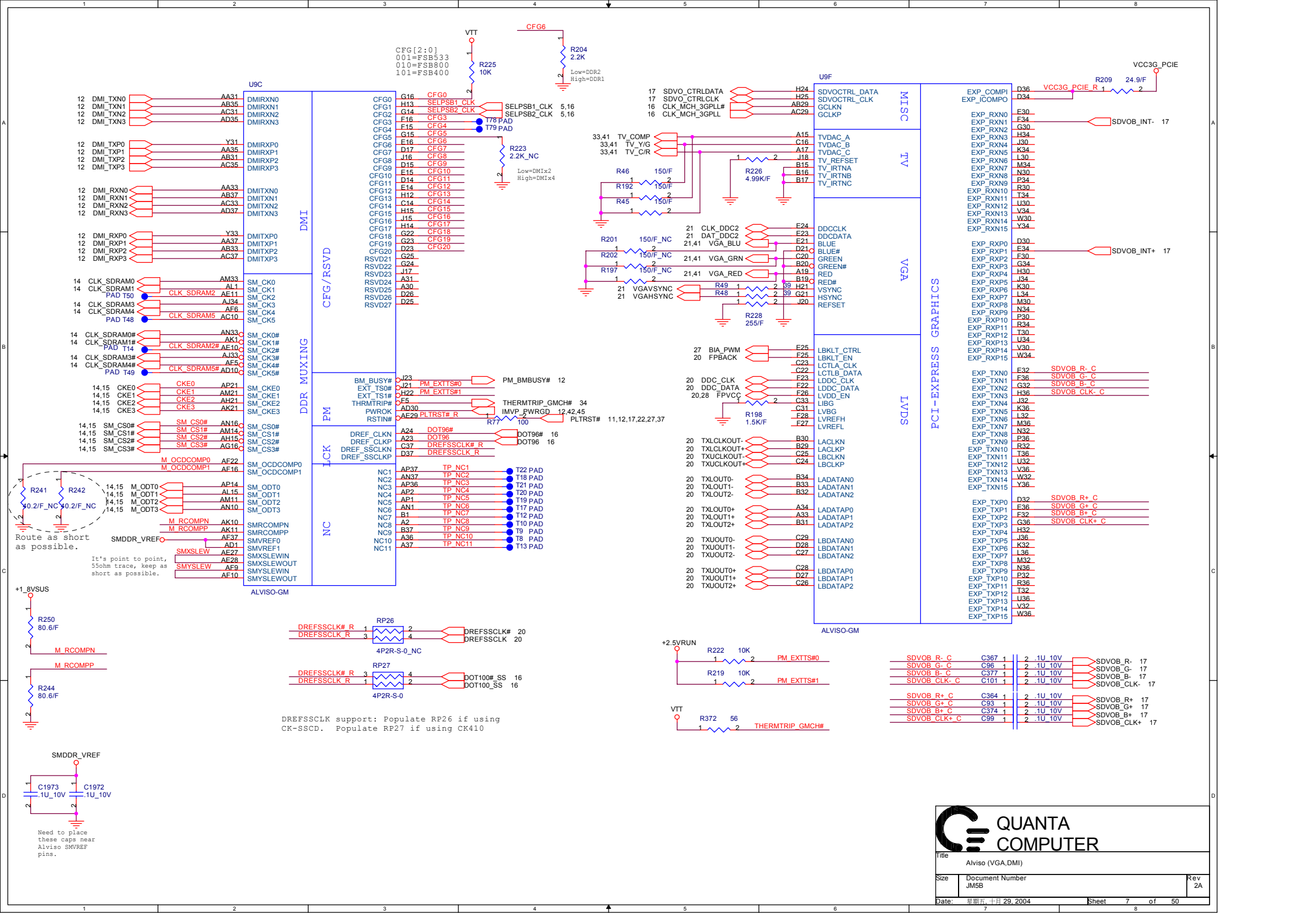
CFG[2:0]
001=FSB533
010=FSB800
101=FSB400
VTT
R225 10K
CFG6
R204 2.2K
Low=DDR2
High=DDR1
U9C
DMI
CFG/RSVD
DDR MUXING
PM
LCK
NC
ALVISO-GM
R223 2.2K_NC
Low=DMIx2
High=DMIx4
R46 150/F
R192 150/F
R45 150/F
R201 150/F_NC
R202 150/F_NC
R197 150/F_NC
R226 4.99K/F
R49
R48
R228 255/F
U9F
MISC
TV
VGA
LVDS
PCI-EXPRESS GRAPHICS
R198 1.5K/F
VCC3G_PCIE
R209 24.9/F
R241 40.2/F_NC
R242 40.2/F_NC
Route as short as possible.
It's point to point, 55ohm trace, keep as short as possible.
SMDDR_VREF
+1_8VSUS
R250 80.6/F
R244 80.6/F
M_RCOMPN
M_RCOMPP
RP26
4P2R-S-0_NC
RP27
4P2R-S-0
DREFSSCLK support: Populate RP26 if using CK-SSCD. Populate RP27 if using CK410
+2.5VRUN
R222 10K
R219 10K
R372 56
C1973 .1U_10V
C1972 .1U_10V
Need to place these caps near Alviso SMVREF pins.
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Alviso (VGA,DMI)
Size
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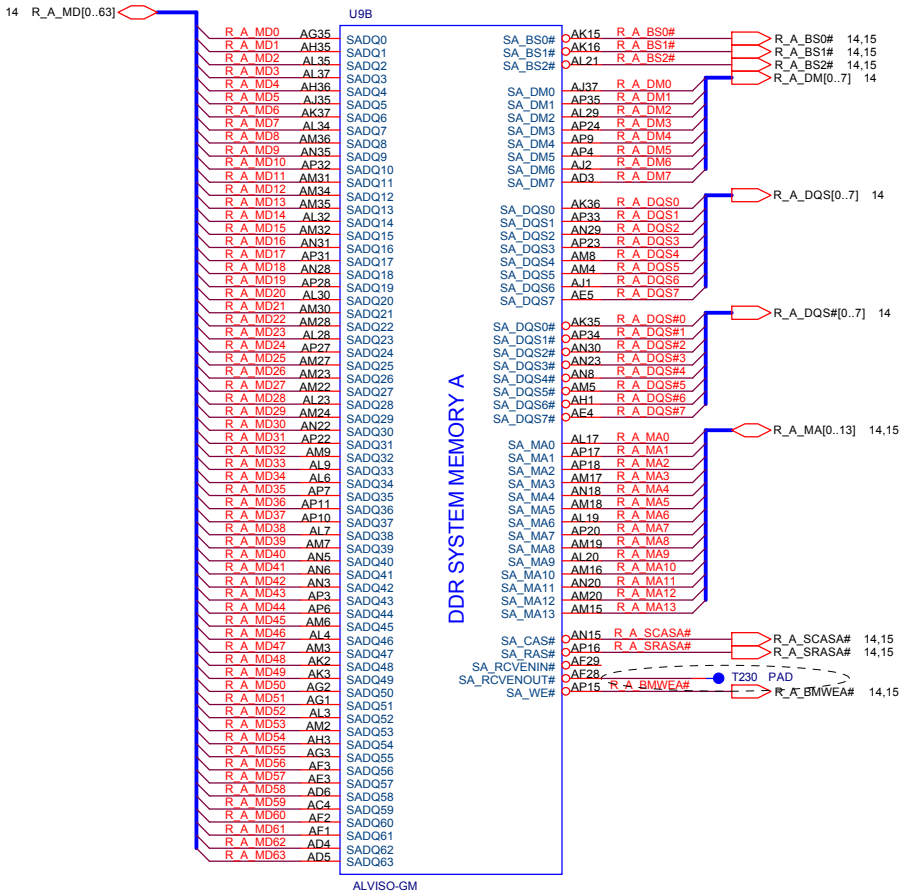


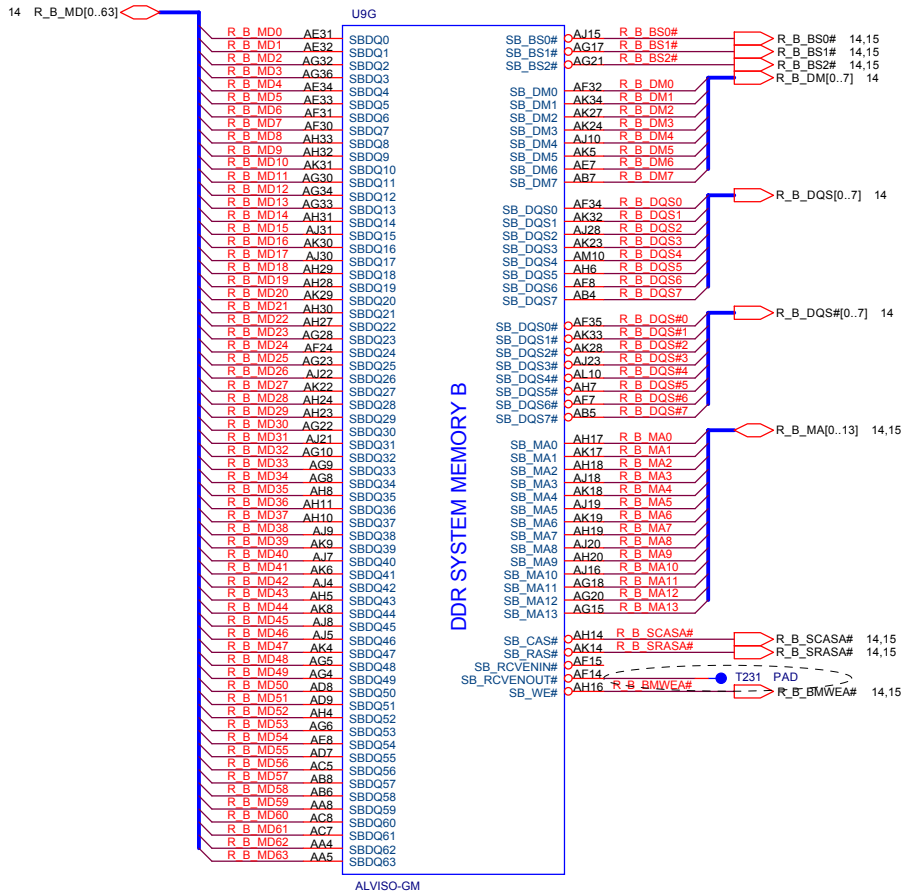


QUANTA COMPUTER

| | | |
|---|---|---|
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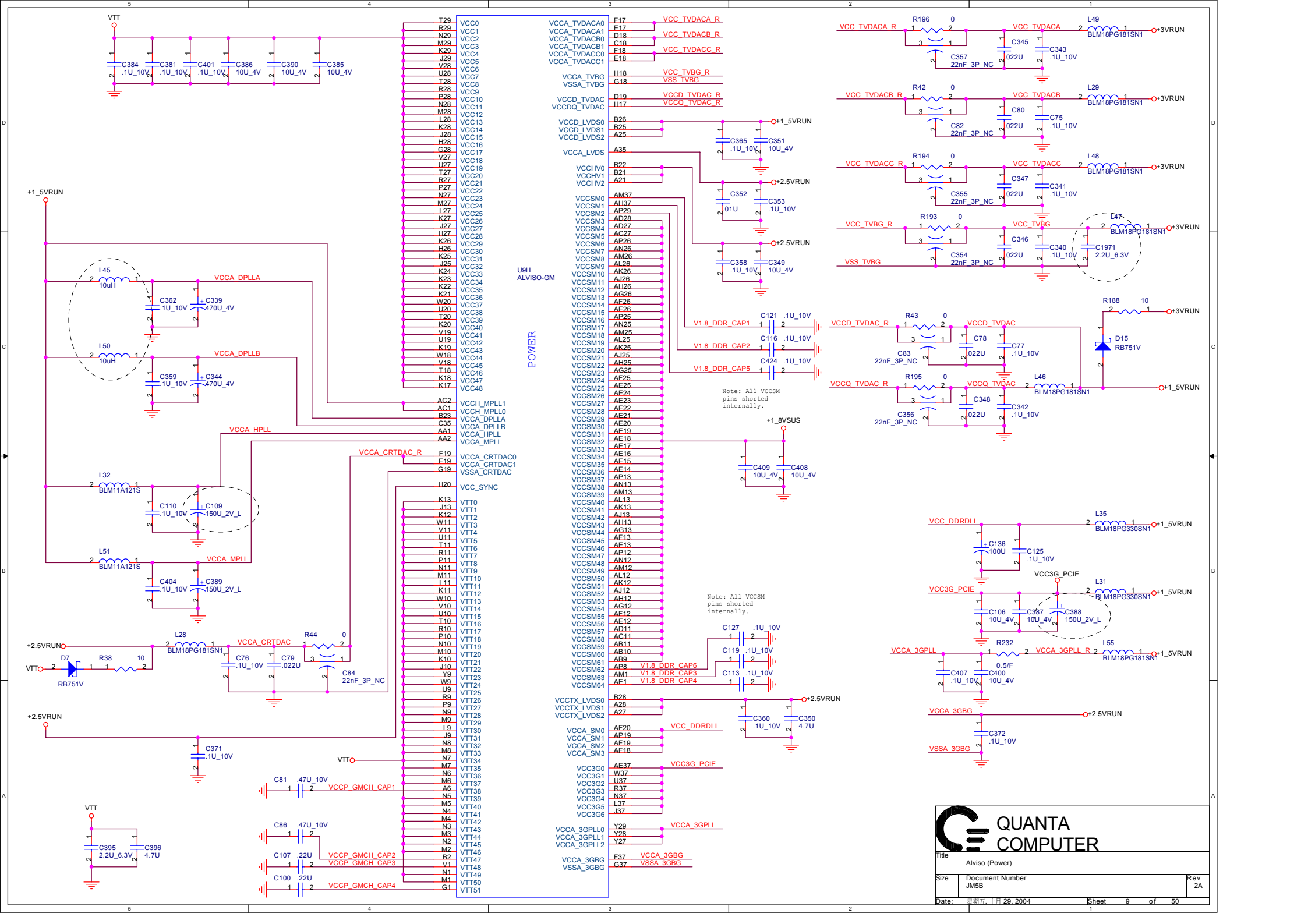
VTT
C384 .1U_10V
C381 .1U_10V
C401 .1U_10V
C386 10U_4V
C390 10U_4V
C385 10U_4V
+1_5VRUN
L45 10uH
C362 .1U_10V
C339 470U_4V
VCCA_DPLLA
L50 10uH
C359 .1U_10V
C344 470U_4V
VCCA_DPLLB
VCCA_HPLL
L32 BLM11A121S
C110 .1U_10V
C109 150U_2V_L
L51 BLM11A121S
C404 .1U_10V
C389 150U_2V_L
VCCA_MPLL
+2.5VRUN
L28 BLM18PG181SN1
VCCA_CRTDAC
R44 0
C76 .1U_10V
C79 .022U
C84 22nF_3P_NC
D7 RB751V
R38 10
VTT
VCCA_CRTDAC_R
C371 .1U_10V
C81 .47U_10V
VCCP_GMCH_CAP1
C86 .47U_10V
VCCP_GMCH_CAP2
C107 .22U
VCCP_GMCH_CAP3
C100 .22U
VCCP_GMCH_CAP4
C395 2.2U_6.3V
C396 4.7U
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
U9H ALVISO-GM
POWER
VCCA_TVDACA0 F17
VCCA_TVDACA1 E17
VCCA_TVDACB0 D18
VCCA_TVDACB1 C18
VCCA_TVDACC0 F18
VCCA_TVDACC1 E18
VCCA_TVBG H18
VSSA_TVBG G18
VCCD_TVDAC D19
VCCDQ_TVDAC H17
VCC_TVDACA_R
VCC_TVDACB_R
VCC_TVDACC_R
VCC_TVBG_R
VSS_TVBG
VCCD_TVDAC_R
VCCQ_TVDAC_R
VCCD_LVDS0 B26
VCCD_LVDS1 B25
VCCD_LVDS2 A25
VCCA_LVDS A35
C365 .1U_10V
C351 10U_4V
VCCHV0 B22
VCCHV1 B21
VCCHV2 A21
C352 01U
C353 .1U_10V
C358 .1U_10V
C349 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 AF26
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 AF12
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
C121 .1U_10V
C116 .1U_10V
C424 .1U_10V
C127 .1U_10V
C119 .1U_10V
C113 .1U_10V
Note: All VCCSM pins shorted internally.
+1_8VSUS
C409 10U_4V
C408 10U_4V
VCCTX_LVDS0 B28
VCCTX_LVDS1 A28
VCCTX_LVDS2 A27
C360 .1U_10V
C350 4.7U
VCCA_SM0 AF20
VCCA_SM1 AP19
VCCA_SM2 AF19
VCCA_SM3 AF18
VCC_DDRDLL
VCCG0 AE37
VCCG1 W37
VCCG2 U37
VCCG3 R37
VCCG4 N37
VCCG5 L37
VCCG6 J37
VCC3G_PCIE
VCCA_3GPLL0 Y29
VCCA_3GPLL1 Y28
VCCA_3GPLL2 Y27
VCCA_3GPLL
VCCA_3GBG F37
VCCA_3GBG G37
VSSA_3GBG
R196 0
L49 BLM18PG181SN1
C345 .022U
C343 .1U_10V
C357 22nF_3P_NC
R42 0
L29 BLM18PG181SN1
C80 .022U
C75 .1U_10V
C82 22nF_3P_NC
R194 0
L48 BLM18PG181SN1
C347 .022U
C341 .1U_10V
C355 22nF_3P_NC
R193 0
L47 BLM18PG181SN1
C346 .022U
C340 .1U_10V
C1971 2.2U_6.3V
C354 22nF_3P_NC
+3VRUN
R43 0
C78 .022U
C77 .1U_10V
C83 22nF_3P_NC
R188 10
D15 RB751V
R195 0
L46 BLM18PG181SN1
C348 .022U
C342 .1U_10V
C356 22nF_3P_NC
L35 BLM18PG330SN1
C136 100U
C125 .1U_10V
L31 BLM18PG330SN1
C106 10U_4V
C387 10U_4V
C388 150U_2V_L
R232 0.5/F
L55 BLM18PG181SN1
C407 .1U_10V
C400 10U_4V
C372 .1U_10V
QUANTA COMPUTER
Title
Alviso (Power)
Size
Document Number
JM5B
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2A
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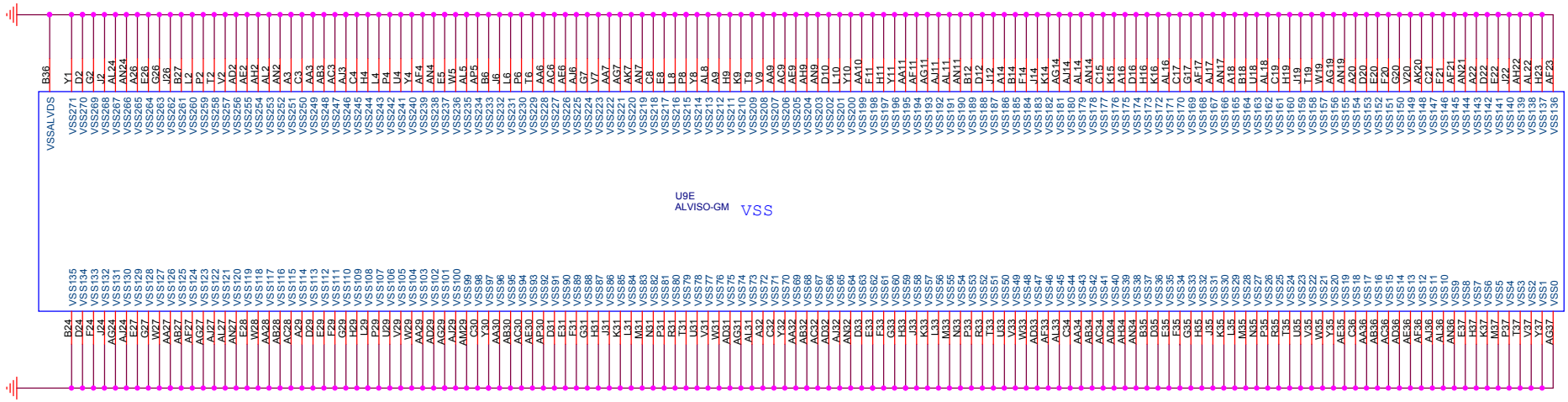


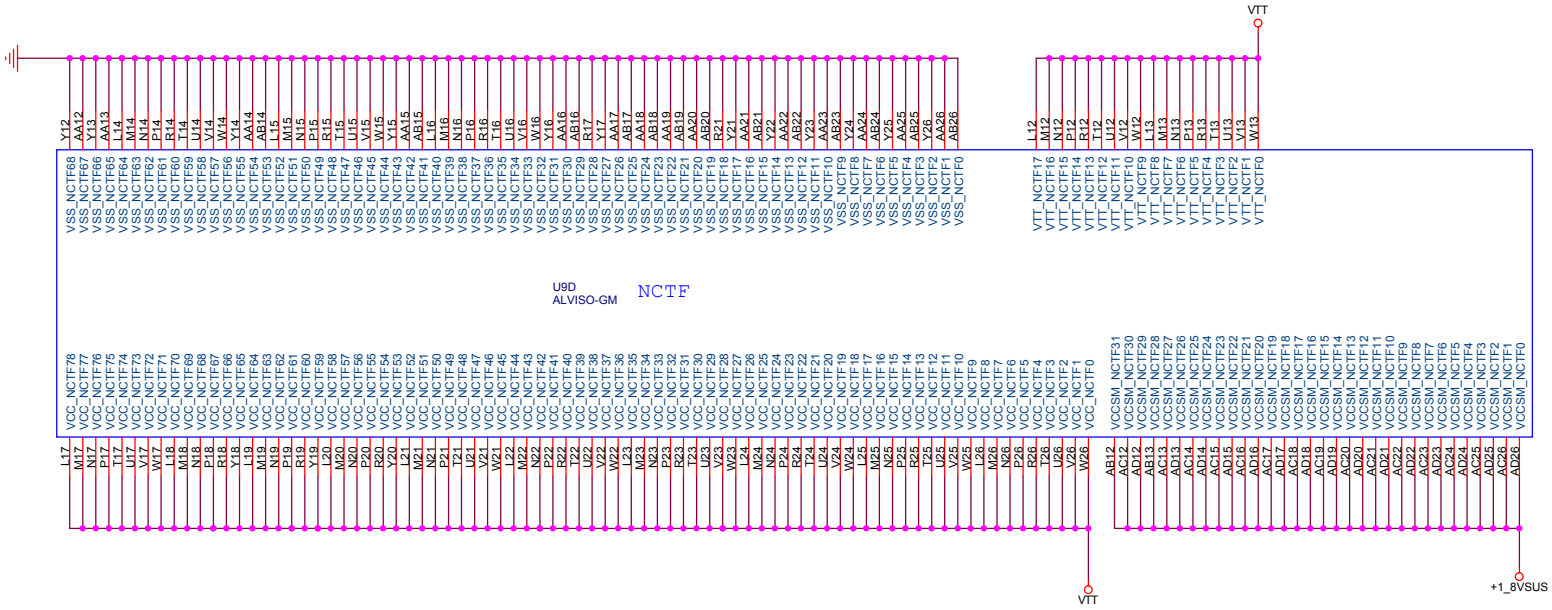


QUANTA COMPUTER

| | | |
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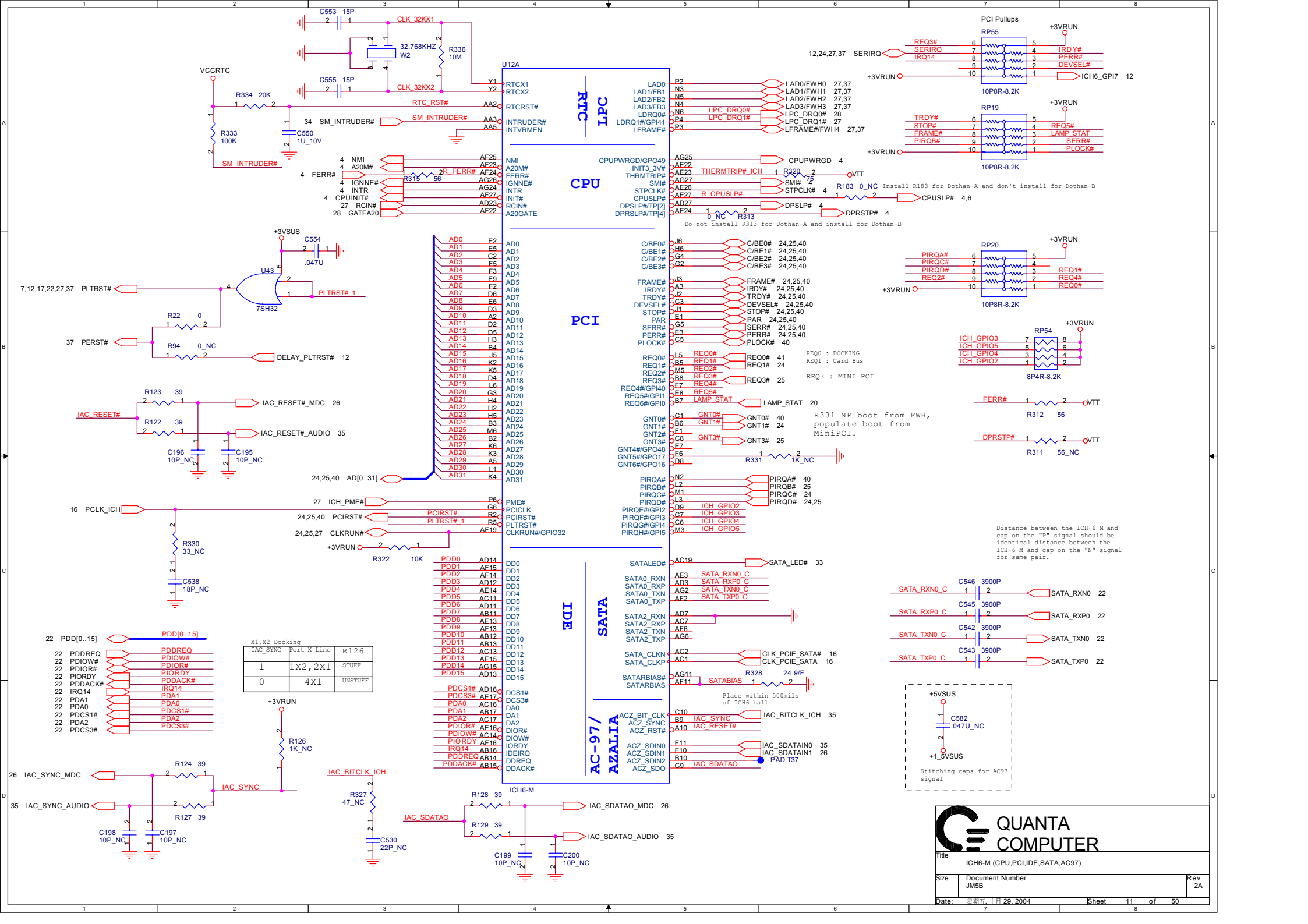
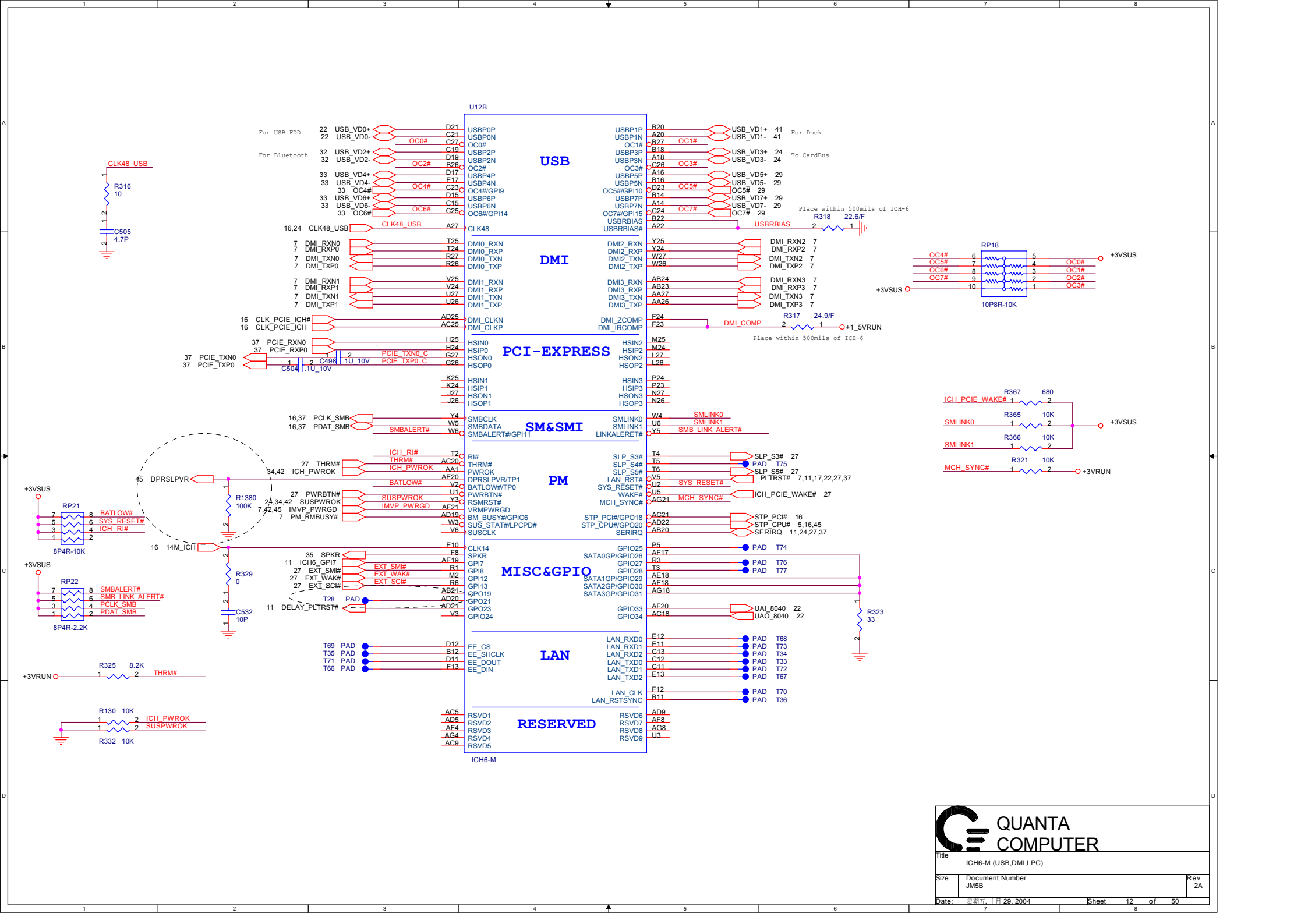



| | |
|---|---|
| Title | ICH6-M (CPU,PCI,IDE,SATA,AC97) |
| Size | Document Number JM5B |
| Rev | 2A |
| Date: | 星期五, 十月 29, 2004 |
| Sheet | 11 of 50 |

QUANTA COMPUTER


U12B
USB
DMI
PCI-EXPRESS
SM&SMI
PM
MISC&GPIO
LAN
RESERVED
ICH6-M
CLK48_USB
R316 10
C505 4.7P
For USB FDD
For Bluetooth
For Dock
To CardBus
USBP0P
USBP0N
USBP1P
USBP1N
USBP2P
USBP2N
USBP3P
USBP3N
USBP4P
USBP4N
USBP5P
USBP5N
USBP6P
USBP6N
USBP7P
USBP7N
USBRBIAS
USBRBIAS#
CLK48
Place within 500mils of ICH-6
R318 22.6/F
DMI0_RXN
DMI0_RXP
DMI0_TXN
DMI0_TXP
DMI1_RXN
DMI1_RXP
DMI1_TXN
DMI1_TXP
DMI2_RXN
DMI2_RXP
DMI2_TXN
DMI2_TXP
DMI3_RXN
DMI3_RXP
DMI3_TXN
DMI3_TXP
DMI_CLKN
DMI_CLKP
DMI_ZCOMP
DMI_IRCOMP
R317 24.9/F
Place within 500mils of ICH-6
HSIN0
HSIP0
HSON0
HSOP0
HSIN1
HSIP1
HSON1
HSOP1
HSIN2
HSIP2
HSON2
HSOP2
HSIN3
HSIP3
HSON3
HSOP3
C498 .1U_10V
C504 .1U_10V
SMBCLK
SMBDATA
SMBALERT#/GPI11
SMLINK0
SMLINK1
LINKALERT#
RI#
THRM#
PWROK
DPRSLPVR/TP1
BATLOW#/TP0
PWRBTN#
RSMRST#
VRMPWRGD
BM_BUSY#/GPIO6
SUS_STAT#/LPCPD#
SUSCLK
SLP_S3#
SLP_S4#
SLP_S5#
LAN_RST#
SYS_RESET#
WAKE#
MCH_SYNC#
STP_PCI#/GPIO18
STP_CPU#/GPIO20
SERIRQ
CLK14
SPKR
GPI7
GPI8
GPI12
GPI13
GPO19
GPO21
GPO23
GPO24
GPIO25
SATA0GP/GPIO26
GPIO27
GPIO28
SATA1GP/GPIO29
SATA2GP/GPIO30
SATA3GP/GPIO31
GPIO33
GPIO34
EE_CS
EE_SHCLK
EE_DOUT
EE_DIN
LAN_RXD0
LAN_RXD1
LAN_RXD2
LAN_TXD0
LAN_TXD1
LAN_TXD2
LAN_CLK
LAN_RSTSYNC
RSVD1
RSVD2
RSVD3
RSVD4
RSVD5
RSVD6
RSVD7
RSVD8
RSVD9
RP18
10P8R-10K
R367 680
R365 10K
R366 10K
R321 10K
ICH_PCIE_WAKE#
SMLINK0
SMLINK1
MCH_SYNC#
+3VSUS
+3VRUN
+1_5VRUN
RP21
8P4R-10K
RP22
8P4R-2.2K
R1380 100K
R329 0
C532 10P
R323 33
R325 8.2K
R130 10K
R332 10K
ICH_PWROK
SUSPWROK
THRM#
DPRSLPVR
14M_ICH
SPKR
ICH6_GPI7
EXT_SMI#
EXT_WAK#
EXT_SCI#
DELAY_PLTRST#
BATLOW#
SYS_RESET#
ICH_RI#
SMBALERT#
SMB_LINK_ALERT#
PCLK_SMB
PDAT_SMB
IMVP_PWRGD
SUSPWROK
PWRBTN#
PM_BMBUSY#
SLP_S3#
SLP_S5#
PLTRST#
SYS_RESET#
ICH_PCIE_WAKE#
STP_PCI#
STP_CPU#
SERIRQ
UAI_8040
UAO_8040
SMLINK0
SMLINK1
SMB_LINK_ALERT#
USBRBIAS
DMI_COMP
DMI_RXN2
DMI_RXP2
DMI_TXN2
DMI_TXP2
DMI_RXN3
DMI_RXP3
DMI_TXN3
DMI_TXP3
PCIE_TXN0_C
PCIE_TXP0_C
CLK_PCIE_ICH#
CLK_PCIE_ICH
PCIE_RXN0
PCIE_RXP0
PCIE_TXN0
PCIE_TXP0
PCLK_SMB
PDAT_SMB
SMBALERT#
USB_VD0+
USB_VD0-
USB_VD1+
USB_VD1-
USB_VD2+
USB_VD2-
USB_VD3+
USB_VD3-
USB_VD4+
USB_VD4-
USB_VD5+
USB_VD5-
USB_VD6+
USB_VD6-
USB_VD7+
USB_VD7-
OC0#
OC1#
OC2#
OC3#
OC4#
OC5#
OC6#
OC7#
PAD T68
PAD T73
PAD T34
PAD T33
PAD T72
PAD T67
PAD T70
PAD T36
PAD T74
PAD T75
PAD T76
PAD T77
QUANTA COMPUTER
Title
ICH6-M (USB,DMI,LPC)
Size
Document Number
JM5B
Rev
2A
Date:
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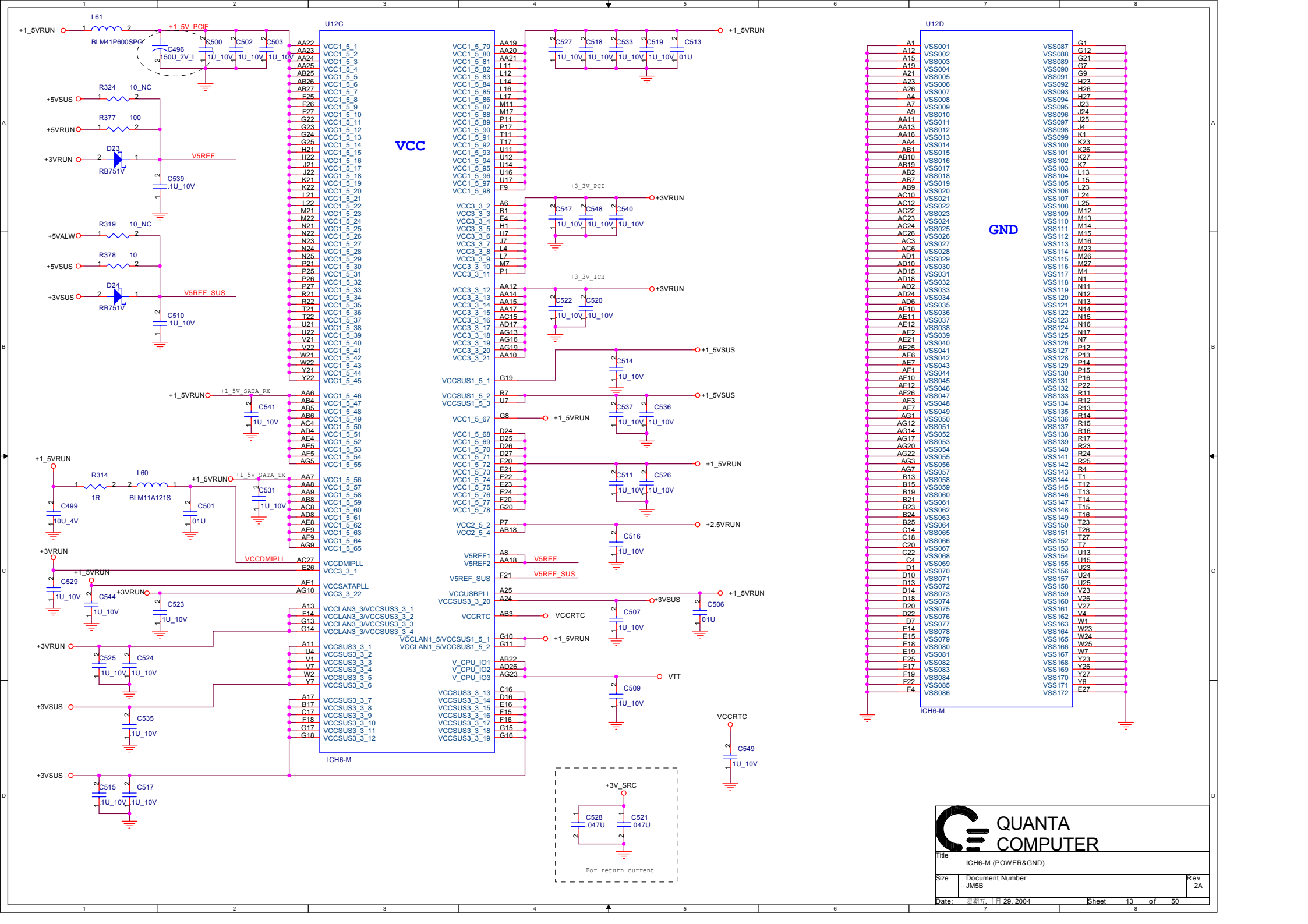
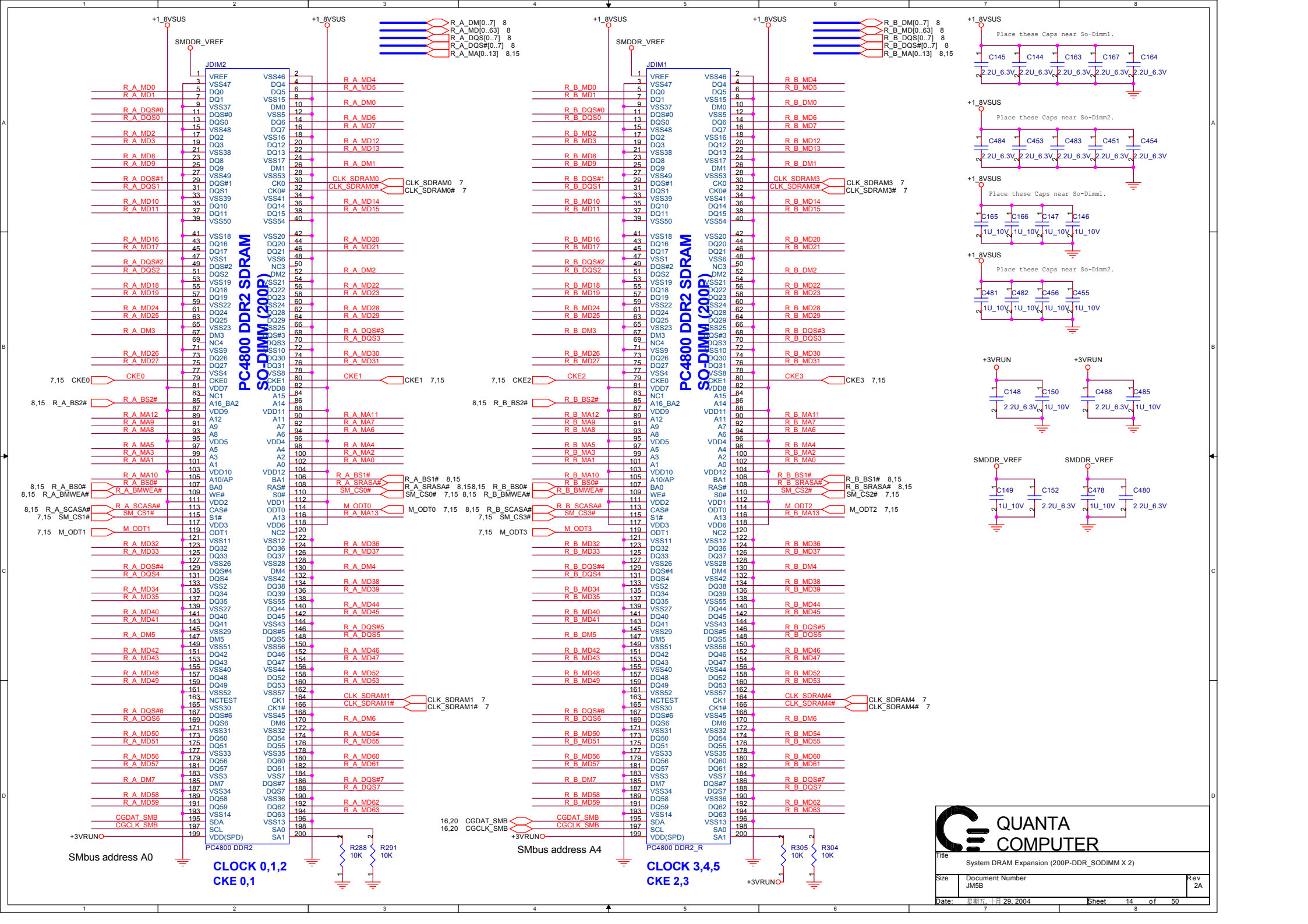
of
50




QUANTA COMPUTER

| | | |
|---|---|---|
| Title | ICH6-M (POWER&GND) | |
| Size | Document Number JM5B | Rev 2A |
| Date: 星期五, 十月 29, 2004 | Sheet 13 of 50 | |


JDIM2
PC4800 DDR2 SDRAM SO-DIMM (200P)
PC4800 DDR2
SMbus address A0
CLOCK 0,1,2
CKE 0,1
JDIM1
PC4800 DDR2_R
SMbus address A4
CLOCK 3,4,5
CKE 2,3
SMDDR_VREF
+1_8VSUS
+3VRUN
R_A_DM[0..7] 8
R_A_MD[0..63] 8
R_A_DQS[0..7] 8
R_A_DQS#[0..7] 8
R_A_MA[0..13] 8,15
R_B_DM[0..7] 8
R_B_MD[0..63] 8
R_B_DQS[0..7] 8
R_B_DQS#[0..7] 8
R_B_MA[0..13] 8,15
Place these Caps near So-Dimm1.
Place these Caps near So-Dimm2.
C145 C144 C163 C167 C164 2.2U_6.3V
C484 C453 C483 C451 C454 2.2U_6.3V
C165 C166 C147 C146 1U_10V
C481 C482 C456 C455 1U_10V
C148 C150 2.2U_6.3V 1U_10V
C488 C485 2.2U_6.3V 1U_10V
C149 C152 1U_10V 2.2U_6.3V
C478 C480 1U_10V 2.2U_6.3V
R288 10K
R291 10K
R305 10K
R304 10K
QUANTA COMPUTER
Title
System DRAM Expansion (200P-DDR_SODIMM X 2)
Size
Document Number
JM5B
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2A
Date:
星期五, 十月 29, 2004
Sheet 14 of 50

R_A_MA[0..13] 8,14

R_B_MA[0..13] 8,14

SMDDR_VTERM

C494 C495 C493 C492 C491 C490 C489 C442 C441 C445 C444 C443 C440

1U_10V

**Layout note: Place 1 cap close to every 1 R-pack terminated to SMDDR_VTERM.**

SMDDR_VTERM

C187 C191 C135 C186 C188 C189 C190 C129 C134 C130 C131 C132 C133

1U_10V

**Layout note: Place 1 cap close to every 1 R-pack terminated to SMDDR_VTERM.**

8,14 R_A_SRASA#
8,14 R_A_BS1#
R_A_MA7 R_A_MA11 R_A_MA4 R_A_MA6 R_A_SRASA# R_A_BS1#
RP42 RP43 RP45
4P2R-S-56
SMDDR_VTERM

7,14 M_ODT0
8,14 R_A_BS2#
R_A_MA13 M_ODT0 R_A_BS2# R_A_MA12 R_A_MA9 R_A_MA8 R_A_MA5 R_A_MA3
RP46 RP49 RP50 RP51
4P2R-S-56
SMDDR_VTERM

8,14 R_A_BS0#
8,14 R_A_BMWEA#
8,14 R_A_SCASA#
R_A_MA10 R_A_BS0# R_A_BMWEA# R_A_SCASA# R_A_MA0 R_A_MA2
RP52 RP53 RP44
4P2R-S-56
SMDDR_VTERM

8,14 R_B_SRASA#
8,14 R_B_BS1#
R_B_SRASA# R_B_BS1# R_B_MA12 R_B_MA9 R_B_MA8 R_B_MA5
RP14 RP11 RP10
4P2R-S-56
SMDDR_VTERM

R_B_MA3 R_B_MA1 R_B_MA10 R_B_BS0# R_B_BMWEA# R_B_SCASA# R_B_MA7 R_B_MA11
8,14 R_B_BS0#
8,14 R_B_BMWEA#
8,14 R_B_SCASA#
RP9 RP8 RP7 RP17
4P2R-S-56
SMDDR_VTERM

R_B_MA4 R_B_MA6 R_B_MA0 R_B_MA2 R_B_MA13 M_ODT2
7,14 M_ODT2
RP16 RP15 RP13
4P2R-S-56
SMDDR_VTERM

7,14 CKE0
7,14 CKE1
7,14 CKE2
7,14 CKE3
CKE0 CKE1 CKE2 CKE3
R306 R287 R110 R119
56
SMDDR_VTERM

7,14 SM_CS0#
7,14 SM_CS1#
7,14 SM_CS2#
7,14 SM_CS3#
SM_CS0# SM_CS1# SM_CS2# SM_CS3#
R286 R307 R120 R108
56
SMDDR_VTERM

7,14 M_ODT1
7,14 M_ODT3
8,14 R_B_BS2#
M_ODT1 M_ODT3 R_A_MA1 R_B_BS2#
R308 R107 R309 R109
56
SMDDR_VTERM

QUANTA COMPUTER

| | | |
|---|---|---|
| Title | DDR RES.ARRAY | |
| Size | Document Number JM5B | Rev 2A |
| Date: 星期五, 十月 29, 2004 | Sheet 15 of 50 | |

| 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 |

Place these termination
to close CK410M.

U36
CK-410M
ICS954201BG-T/CY28411
250mA ( MAX. )

SMbus address D2

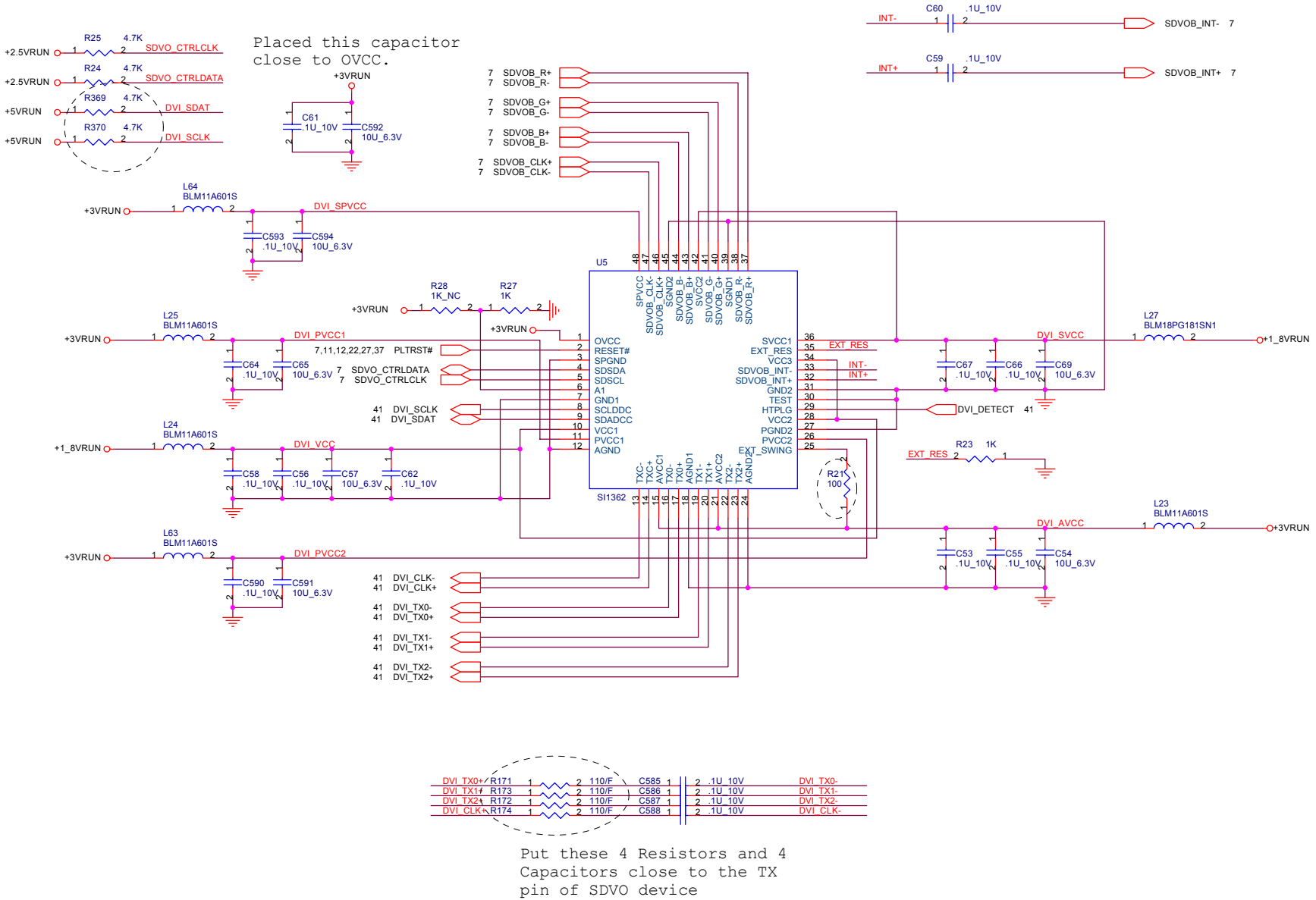
Depop R81 for Dothan-B

Place these termination
to close CK410M.

These are for backdrive issue

QUANTA COMPUTER

| | | |
|---|---|---|
| Title | CLOCK GENERATOR | |
| Size | Document Number JM5B | Rev 2A |
| Date: 星期五, 十月 29, 2004 | Sheet 16 of 50 | |




| | | | |
|---|---|---|---|
| QUANTA COMPUTER | | | |
| Title | Sil 1362 | | |
| Size | Document Number JM5B | | Rev 2A |
| Date: 星期五, 十月 29, 2004 | | Sheet 17 of 50 | |

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|---|---|---|
| Title | | |
| Size | Document Number JM5B | Rev 1A |
| Date: 星期五, 十月 29, 2004 | Sheet 18 of 50 | |

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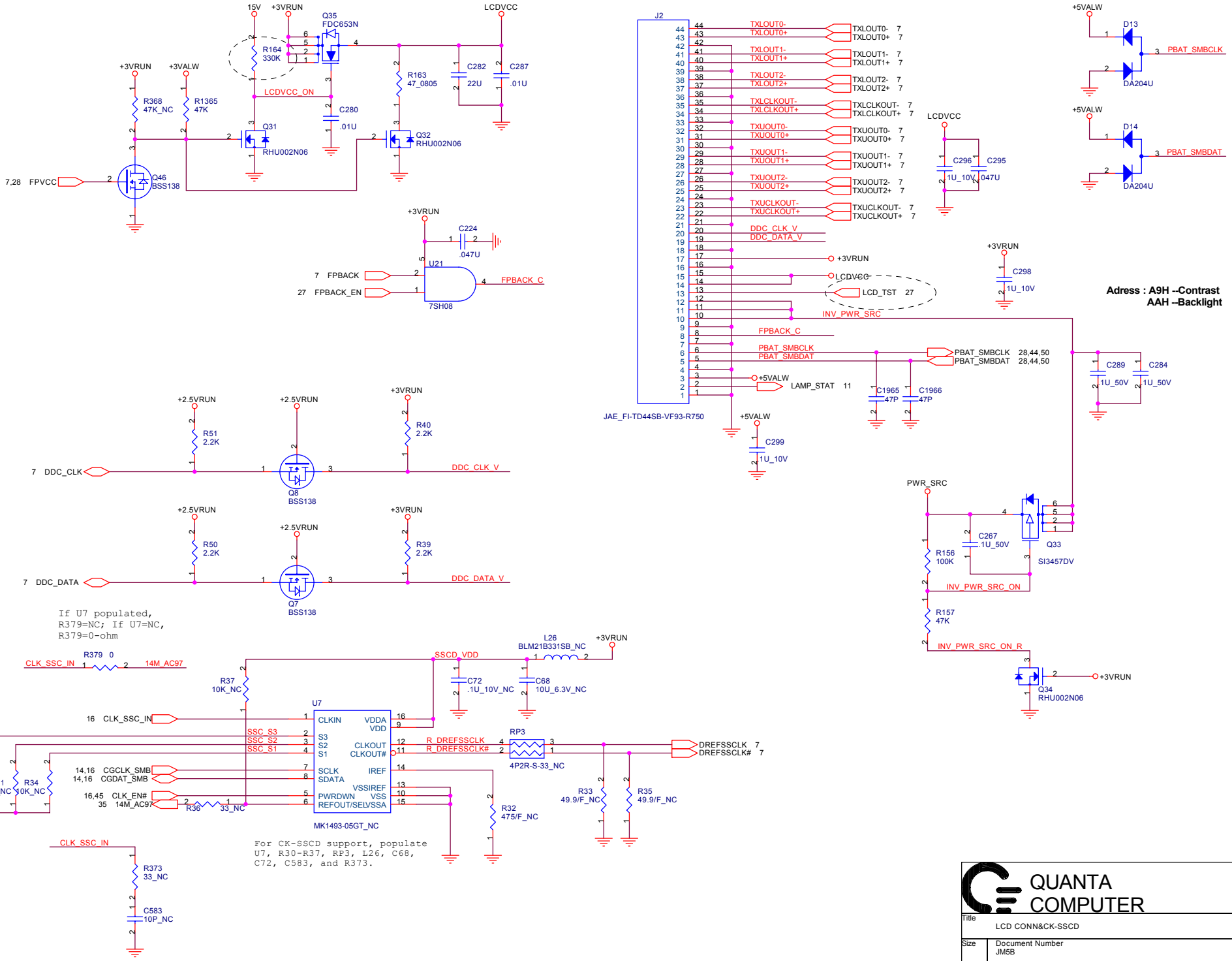
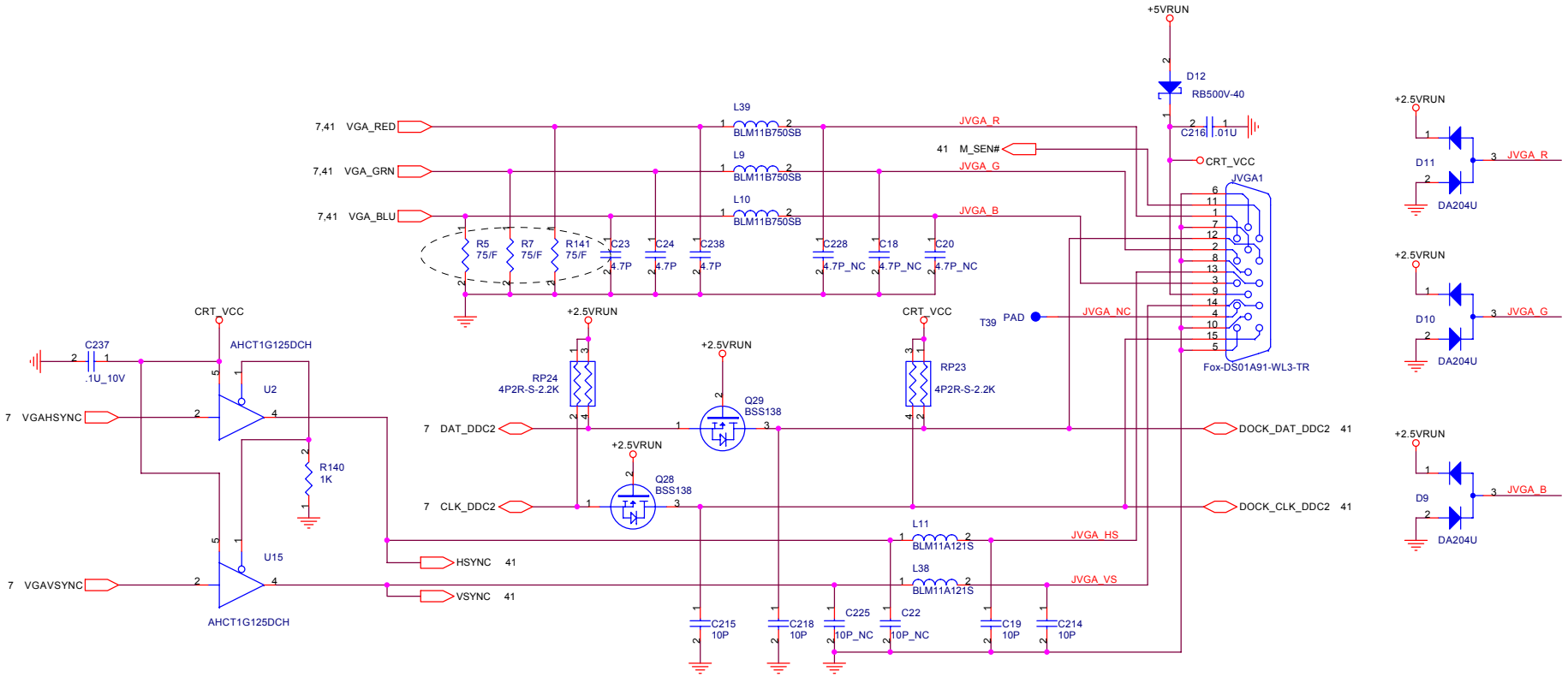
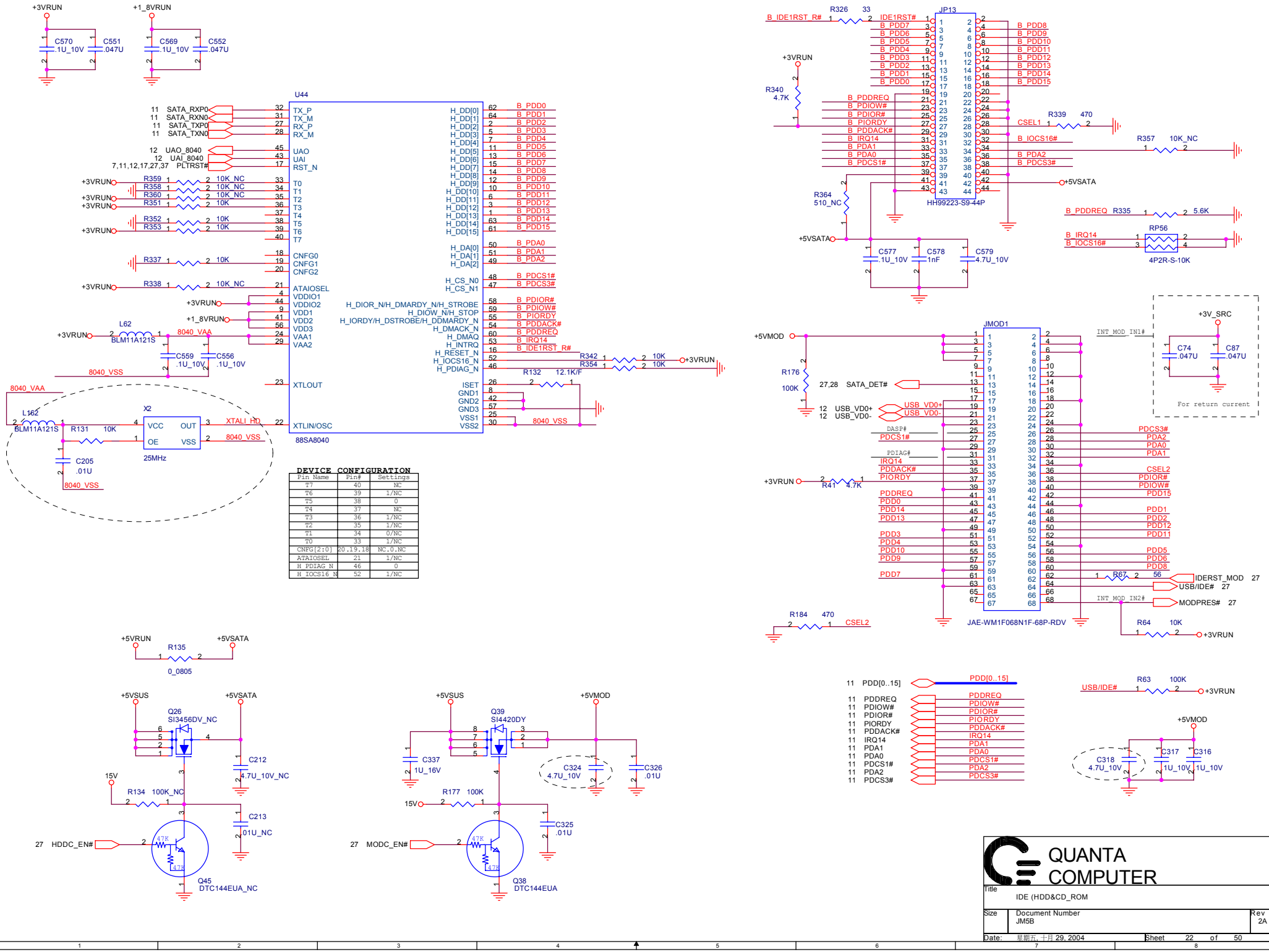



| | | |
|---|---|---|
| QUANTA COMPUTER | | |
| Title | LCD CONN&CK-SSCD | |
| Size | Document Number JM5B | Rev 2A |
| Date: 星期五, 十月 29, 2004 | Sheet 20 of 50 | |




QUANTA COMPUTER

| | | |
|---|---|---|
| Title | CRT&TV CONN | |
| Size | Document Number JM5B | Rev 2A |
| Date: 星期五, 十月 29, 2004 | Sheet 21 of 50 | |


+3VRUN
+1_8VRUN
C570 .1U_10V
C551 .047U
C569 .1U_10V
C552 .047U
U44
88SA8040
TX_P
TX_M
RX_P
RX_M
UAO
UAI
RST_N
T0
T1
T2
T3
T4
T5
T6
T7
CNFG0
CNFG1
CNFG2
ATAIOSEL
VDDIO1
VDDIO2
VDD1
VDD2
VDD3
VAA1
VAA2
XTLOUT
XTLIN/OSC
H_DD[0]
H_DD[1]
H_DD[2]
H_DD[3]
H_DD[4]
H_DD[5]
H_DD[6]
H_DD[7]
H_DD[8]
H_DD[9]
H_DD[10]
H_DD[11]
H_DD[12]
H_DD[13]
H_DD[14]
H_DD[15]
H_DA[0]
H_DA[1]
H_DA[2]
H_CS_N0
H_CS_N1
H_DIOR_N/H_DMARDY_N/H_STROBE
H_DIOW_N/H_STOP
H_IORDY/H_DSTROBE/H_DDMARDY_N
H_DMACK_N
H_DMAQ
H_INTRQ
H_RESET_N
H_IOCS16_N
H_PDIAG_N
ISET
GND1
GND2
GND3
VSS1
VSS2
B_PDD0
B_PDD1
B_PDD2
B_PDD3
B_PDD4
B_PDD5
B_PDD6
B_PDD7
B_PDD8
B_PDD9
B_PDD10
B_PDD11
B_PDD12
B_PDD13
B_PDD14
B_PDD15
B_PDA0
B_PDA1
B_PDA2
B_PDCS1#
B_PDCS3#
B_PDIOR#
B_PDIOW#
B_PIORDY
B_PDDACK#
B_IRQ14
B_IDE1RST_R#
SATA_RXP0
SATA_RXN0
SATA_TXP0
SATA_TXN0
UAO_8040
UAI_8040
PLTRST#
R359 10K_NC
R358 10K_NC
R360 10K_NC
R351 10K
R352 10K
R353 10K
R337 10K
R338 10K_NC
L62 BLM11A121S
8040_VAA
C559 .1U_10V
C556 .1U_10V
8040_VSS
L162 BLM11A121S
X2
VCC
OUT
OE
VSS
25MHz
R131 10K
XTALI_HD
C205 .01U
R342 10K
R354 10K
R132 12.1K/F
R326 33
IDE1RST#
JP13
R340 4.7K
B_PDDREQ
B_PDIOW#
B_PDIOR#
B_PIORDY
B_PDDACK#
B_IRQ14
B_PDA1
B_PDA0
B_PDCS1#
B_PDCS3#
B_IOCS16#
CSEL1
R339 470
R357 10K_NC
+5VSATA
R364 510_NC
HH99223-S9-44P
B_PDDREQ R335 5.6K
RP56
4P2R-S-10K
C577 .1U_10V
C578 1nF
C579 4.7U_10V
+5VMOD
JMOD1
R176 100K
27,28 SATA_DET#
12 USB_VD0+
12 USB_VD0-
USB_VD0+
USB_VD0-
DASP#
PDCS1#
PDIAG#
IRQ14
PDDACK#
PIORDY
R41 4.7K
PDDREQ
PDD0
PDD14
PDD13
PDD3
PDD4
PDD10
PDD9
PDD7
PDCS3#
PDA2
PDA0
PDA1
CSEL2
PDIOR#
PDIOW#
PDD15
PDD1
PDD2
PDD12
PDD11
PDD5
PDD6
PDD8
R67 56
IDERST_MOD 27
USB/IDE# 27
INT_MOD_IN2#
MODPRES# 27
R64 10K
JAE-WM1F068N1F-68P-RDV
R184 470
INT_MOD_IN1#
+3V_SRC
C74 .047U
C87 .047U
For return current
DEVICE CONFIGURATION
Pin Name | Pin# | Settings
T7 | 40 | NC
T6 | 39 | 1/NC
T5 | 38 | 0
T4 | 37 | NC
T3 | 36 | 1/NC
T2 | 35 | 1/NC
T1 | 34 | 0/NC
T0 | 33 | 1/NC
CNFG[2:0] | 20,19,18 | NC,0,NC
ATAIOSEL | 21 | 1/NC
H_PDIAG_N | 46 | 0
H_IOCS16_N | 52 | 1/NC
+5VRUN
+5VSATA
R135 0_0805
+5VSUS
Q26 SI3456DV_NC
C212 4.7U_10V_NC
15V
R134 100K_NC
C213 .01U_NC
27 HDDC_EN#
Q45 DTC144EUA_NC
Q39 SI4420DY
C337 1U_16V
C324 4.7U_10V
C326 .01U
R177 100K
C325 .01U
27 MODC_EN#
Q38 DTC144EUA
11 PDD[0..15]
PDD[0..15]
11 PDDREQ
11 PDIOW#
11 PDIOR#
11 PIORDY
11 PDDACK#
11 IRQ14
11 PDA1
11 PDA0
11 PDCS1#
11 PDA2
11 PDCS3#
R63 100K
USB/IDE#
C318 4.7U_10V
C317 1U_10V
C316 1U_10V
QUANTA COMPUTER
Title
IDE (HDD&CD_ROM
Size
Document Number
JM5B
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2A
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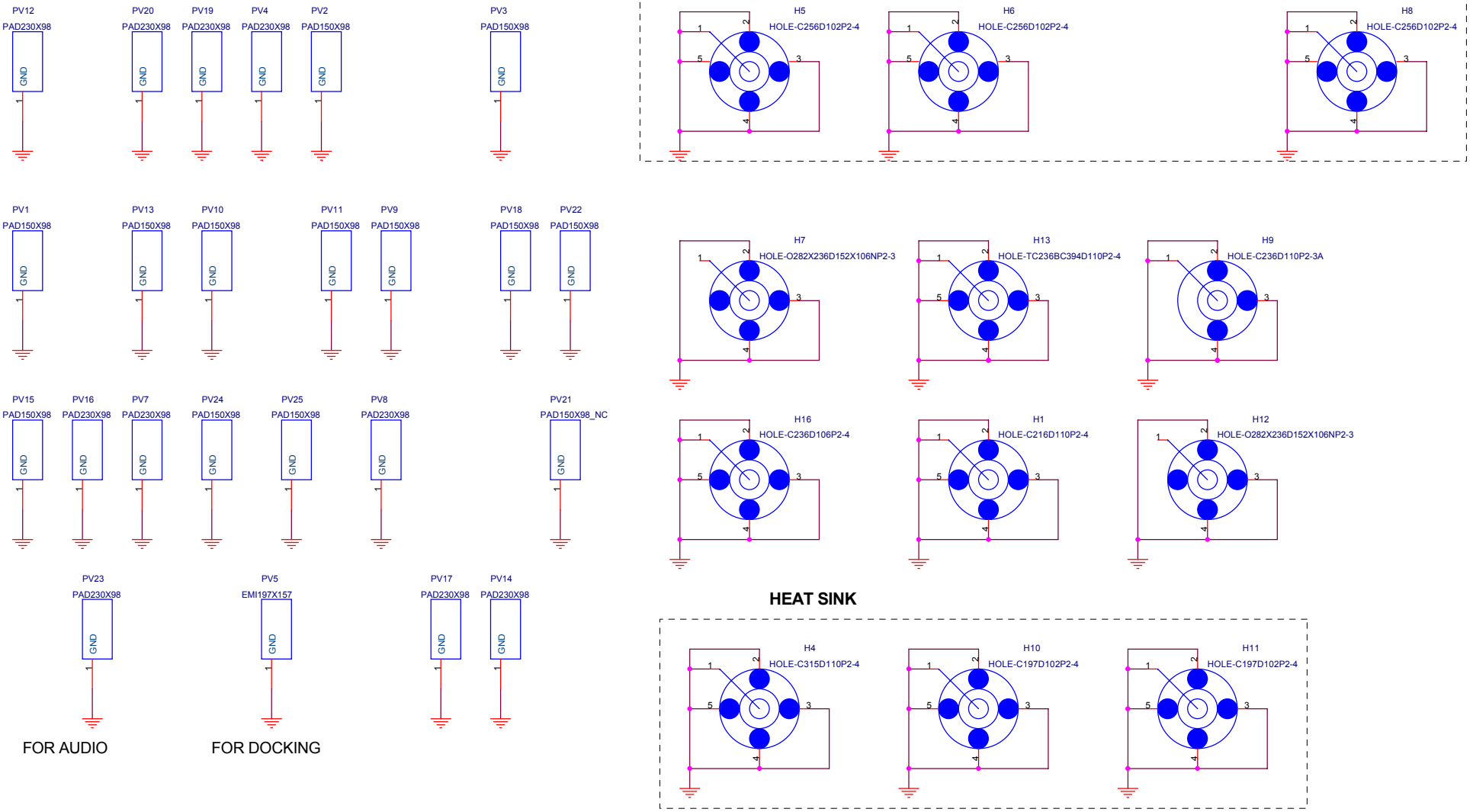
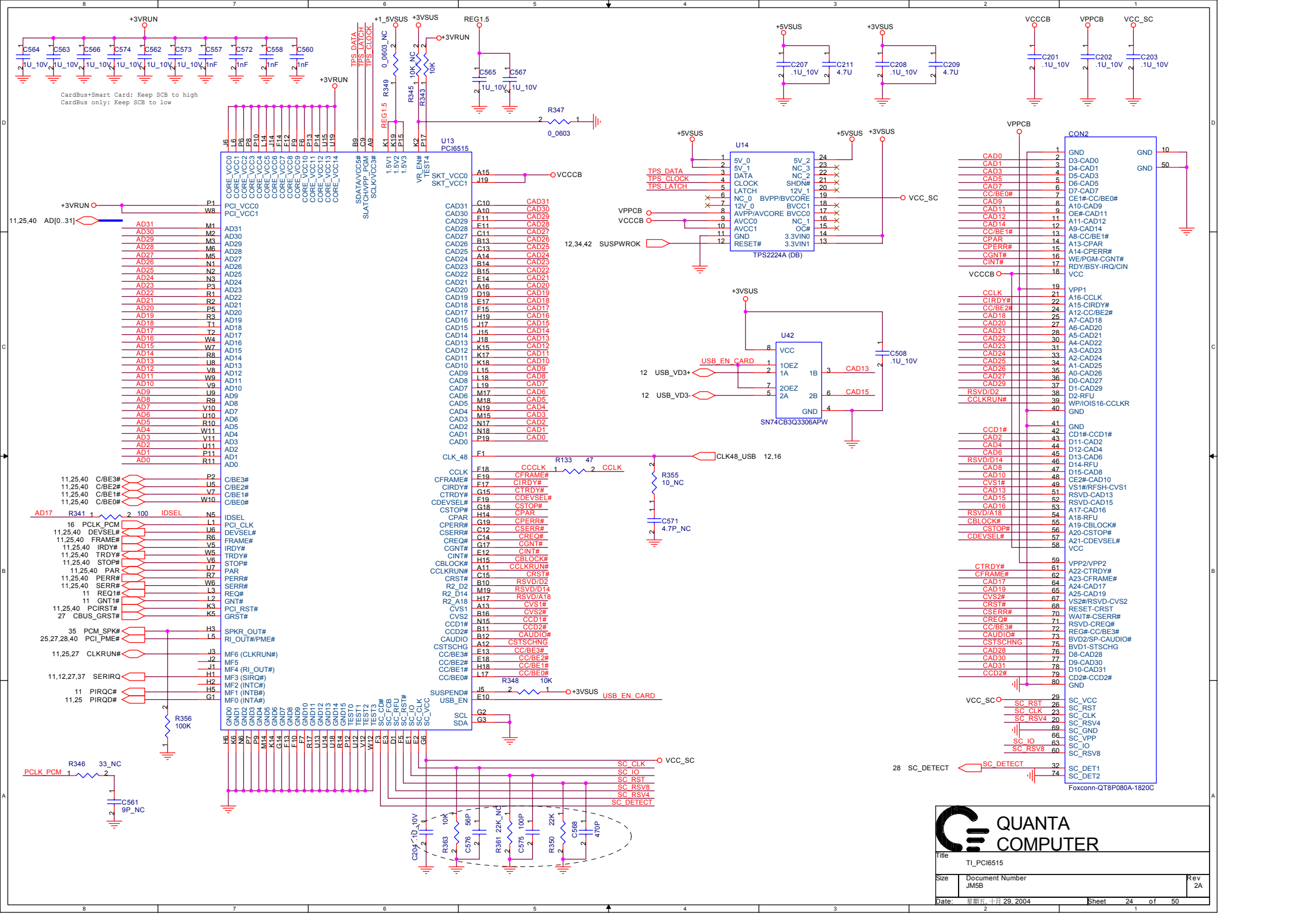
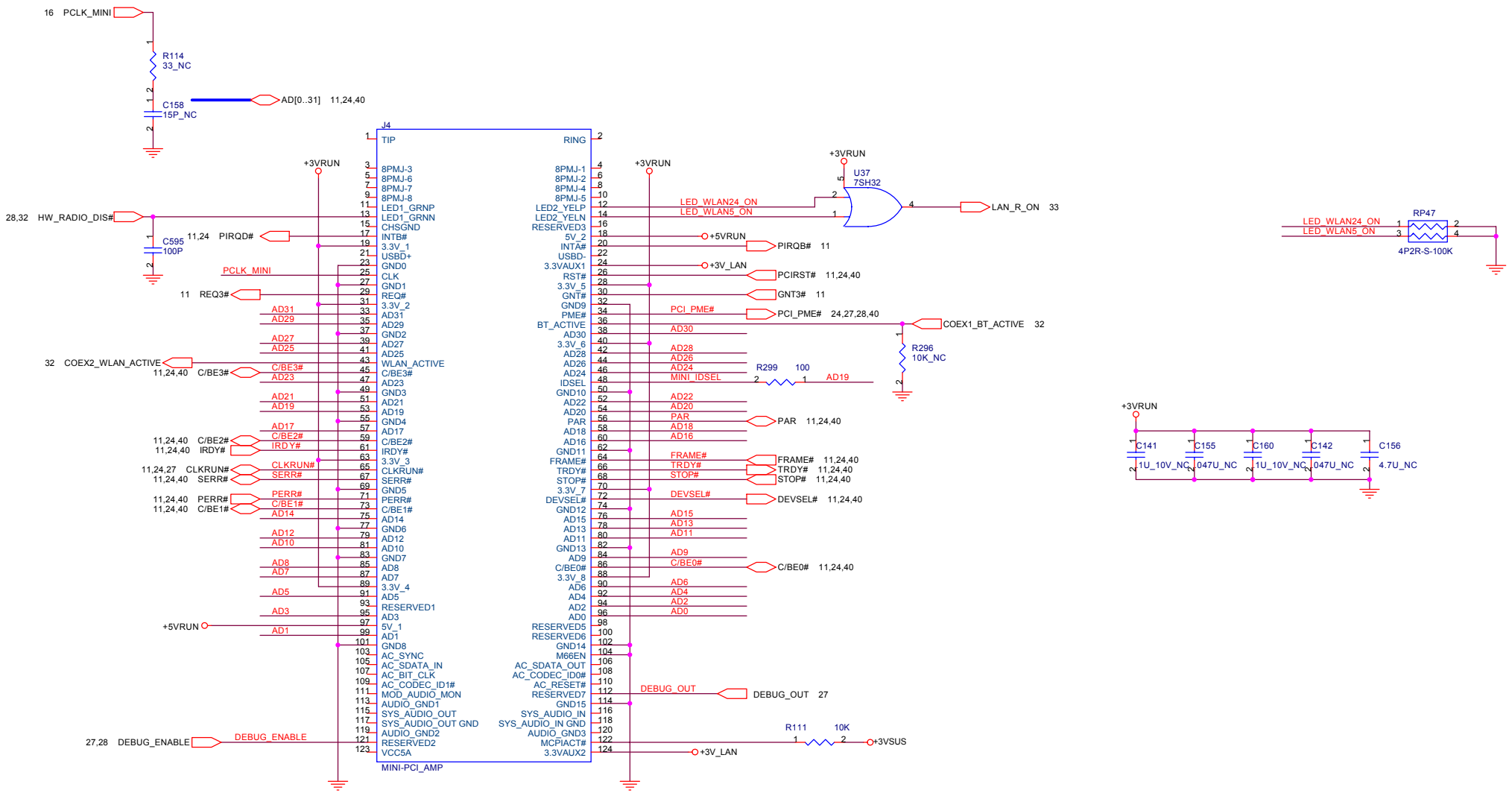



QUANTA COMPUTER

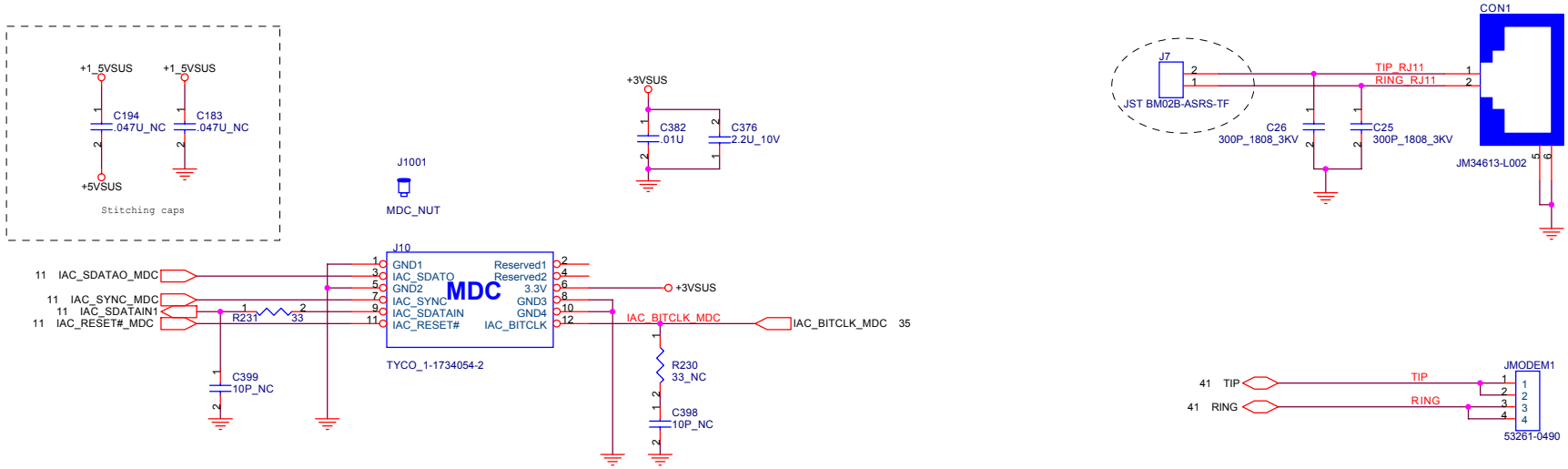
| | | |
|---|---|---|
| Title | SCREW PAD | |
| Size | Document Number JM5B | Rev 2A |
| Date: 星期五, 十月 29, 2004 | Sheet 23 of 51 | |


+3VRUN
C564 1U_10V
C563 1U_10V
C566 1U_10V
C574 1U_10V
C562 1U_10V
C573 1U_10V
C557 1nF
C572 1nF
C558 1nF
C560 1nF
CardBus+Smart Card: Keep SCB to high
CardBus only: Keep SCB to low
+1_5VSUS
+3VSUS
REG1.5
TPS_DATA
TPS_LATCH
TPS_CLOCK
0_0603_NC
R349
R345 10K_NC
R343 10K
C565 1U_10V
C567 1U_10V
R347 0_0603
U13
PCI6515
SKT_VCC0
SKT_VCC1
A15
J19
VCCCB
P1
W8
PCI_VCC0
PCI_VCC1
11,25,40 AD[0..31]
AD31 M1
AD30 M2
AD29 M3
AD28 M6
AD27 M5
AD26 N1
AD25 N2
AD24 N3
AD23 P3
AD22 R1
AD21 R2
AD20 P5
AD19 R3
AD18 T1
AD17 T2
AD16 W4
AD15 W7
AD14 R8
AD13 U8
AD12 V8
AD11 W9
AD10 V9
AD9 U9
AD8 R9
AD7 V10
AD6 U10
AD5 R10
AD4 W11
AD3 V11
AD2 U11
AD1 P11
AD0 R11
C10 CAD31
A10 CAD30
F11 CAD29
E11 CAD28
C11 CAD27
B13 CAD26
C13 CAD25
A14 CAD24
B14 CAD23
B15 CAD22
E14 CAD21
A16 CAD20
D19 CAD19
E17 CAD18
F15 CAD17
H19 CAD16
J17 CAD15
J15 CAD14
J18 CAD13
K15 CAD12
K17 CAD11
K18 CAD10
L15 CAD9
L18 CAD8
L19 CAD7
M17 CAD6
M18 CAD5
N19 CAD4
M15 CAD3
N17 CAD2
N18 CAD1
P19 CAD0
CLK_48
F1
R133 47
CLK48_USB 12,16
R355 10_NC
C571 4.7P_NC
CCLK F18 CCCLK
CFRAME# F19 CFRAME#
CIRDY# F17 CIRDY#
CTRDY# G15 CTRDY#
CDEVSEL# F19 CDEVSEL#
CSTOP# G18 CSTOP#
CPAR H14 CPAR
CPERR# G19 CPERR#
CSERR# C12 CSERR#
CREQ# C14 CREQ#
CGNT# G17 CGNT#
CINT# E12 CINT#
CBLOCK# H15 CBLOCK#
CCLKRUN# A11 CCLKRUN#
CRST# C15 CRST#
R2_D2 B10 RSVD/D2
R2_D14 M19 RSVD/D14
R2_A18 H17 RSVD/A18
CVS1 A13 CVS1#
CVS2 B16 CVS2#
CCD1# N15 CCD1#
CCD2# B11 CCD2#
CAUDIO B12 CAUDIO#
CSTSCHG A12 CSTSCHNG
CC/BE3# E13 CC/BE3#
CC/BE2# E18 CC/BE2#
CC/BE1# H18 CC/BE1#
CC/BE0# L17 CC/BE0#
11,25,40 C/BE3# P2
11,25,40 C/BE2# U5
11,25,40 C/BE1# V7
11,25,40 C/BE0# W10
C/BE3#
C/BE2#
C/BE1#
C/BE0#
AD17 R341 1 2 100 IDSEL N5
IDSEL
16 PCLK_PCM L1
PCI_CLK
11,25,40 DEVSEL# U6
DEVSEL#
11,25,40 FRAME# R6
FRAME#
11,25,40 IRDY# V5
IRDY#
11,25,40 TRDY# W5
TRDY#
11,25,40 STOP# V6
STOP#
11,25,40 PAR U7
PAR
11,25,40 PERR# R7
PERR#
11,25,40 SERR# W6
SERR#
11 REQ1# L3
REQ#
11 GNT1# L2
GNT#
11,25,40 PCIRST# K3
PCI_RST#
27 CBUS_GRST# K5
GRST#
35 PCM_SPK# H3
25,27,28,40 PCI_PME# L5
SPKR_OUT#
RI_OUT#/PME#
11,25,27 CLKRUN# J3
MF6 (CLKRUN#)
J2
MF5
J1
MF4 (RI_OUT#)
11,12,27,37 SERIRQ H1
MF3 (SIRQ#)
H2
MF2 (INTC#)
11 PIRQC# H5
MF1 (INTB#)
11,25 PIRQD# G1
MF0 (INTA#)
R356 100K
R346 33_NC
PCLK_PCM
C561 9P_NC
SUSPEND# J5
USB_EN E10
R348 10K
+3VSUS
USB_EN_CARD
SCL G2
SDA G3
SC_CLK
SC_IO
SC_RST
SC_RSV8
SC_RSV4
SC_DETECT
VCC_SC
C204 .1U_10V
R363 10K
C576 56P
R361 22K_NC
C575 100P
R350 22K
C568 470P
U14
TPS2224A (DB)
5V_0
5V_1
DATA
CLOCK
LATCH
NC_0
12V_0
AVPP/AVCORE
AVCC0
AVCC1
GND
RESET#
5V_2
NC_3
NC_2
SHDN#
12V_1
BVPP/BVCORE
BVCC1
BVCC0
NC_1
OC#
3.3VIN0
3.3VIN1
TPS_DATA
TPS_CLOCK
TPS_LATCH
VPPCB
VCCCB
12,34,42 SUSPWROK
VCC_SC
C207 .1U_10V
C211 4.7U
C208 .1U_10V
C209 4.7U
C201 .1U_10V
C202 .1U_10V
C203 .1U_10V
U42
SN74CB3Q3306APW
VCC
1OEZ
1A
1B
2OEZ
2A
2B
GND
USB_EN_CARD
12 USB_VD3+
12 USB_VD3-
CAD13
CAD15
C508 .1U_10V
CON2
Foxconn-QT8P080A-1820C
CAD0 CAD1 CAD3 CAD5 CAD7 CC/BE0# CAD9 CAD11 CAD12 CAD14 CC/BE1# CPAR CPERR# CGNT# CINT#
CCLK CIRDY# CC/BE2# CAD18 CAD20 CAD21 CAD22 CAD23 CAD24 CAD25 CAD26 CAD27 CAD29 RSVD/D2 CCLKRUN#
CCD1# CAD2 CAD4 CAD6 RSVD/D14 CAD8 CAD10 CVS1# CAD13 CAD15 CAD16 RSVD/A18 CBLOCK# CSTOP# CDEVSEL#
CTRDY# CFRAME# CAD17 CAD19 CVS2# CRST# CSERR# CREQ# CC/BE3# CAUDIO# CSTSCHNG CAD28 CAD30 CAD31 CCD2#
GND 10
GND 50
D3-CAD0 D4-CAD1 D5-CAD3 D6-CAD5 D7-CAD7 CE1#-CC/BE0# A10-CAD9 OE#-CAD11 A11-CAD12 A9-CAD14 A8-CC/BE1# A13-CPAR A14-CPERR# WE/PGM-CGNT# RDY/BSY-IRQ/CIN VCC
VPP1 A16-CCLK A15-CIRDY# A12-CC/BE2# A7-CAD18 A6-CAD20 A5-CAD21 A4-CAD22 A3-CAD23 A2-CAD24 A1-CAD25 A0-CAD26 D0-CAD27 D1-CAD29 D2-RFU WP/IOIS16-CCLKR GND
GND CD1#-CCD1# D11-CAD2 D12-CAD4 D13-CAD6 D14-RFU D15-CAD8 CE2#-CAD10 VS1#/RFSH-CVS1 RSVD-CAD13 RSVD-CAD15 A17-CAD16 A18-RFU A19-CBLOCK# A20-CSTOP# A21-CDEVSEL# VCC
VPP2/VPP2 A22-CTRDY# A23-CFRAME# A24-CAD17 A25-CAD19 VS2#/RSVD-CVS2 RESET-CRST WAIT#-CSERR# RSVD-CREQ# REG#-CC/BE3# BVD2/SP-CAUDIO# BVD1-STSCHG D8-CAD28 D9-CAD30 D10-CAD31 CD2#-CCD2# GND
SC_VCC SC_RST SC_CLK SC_RSV4 SC_GND SC_VPP SC_IO SC_RSV8
SC_DET1 SC_DET2
28 SC_DETECT
QUANTA COMPUTER
Title TI_PCI6515
Size Document Number JM5B Rev 2A
Date: 星期五, 十月 29, 2004 Sheet 24 of 50

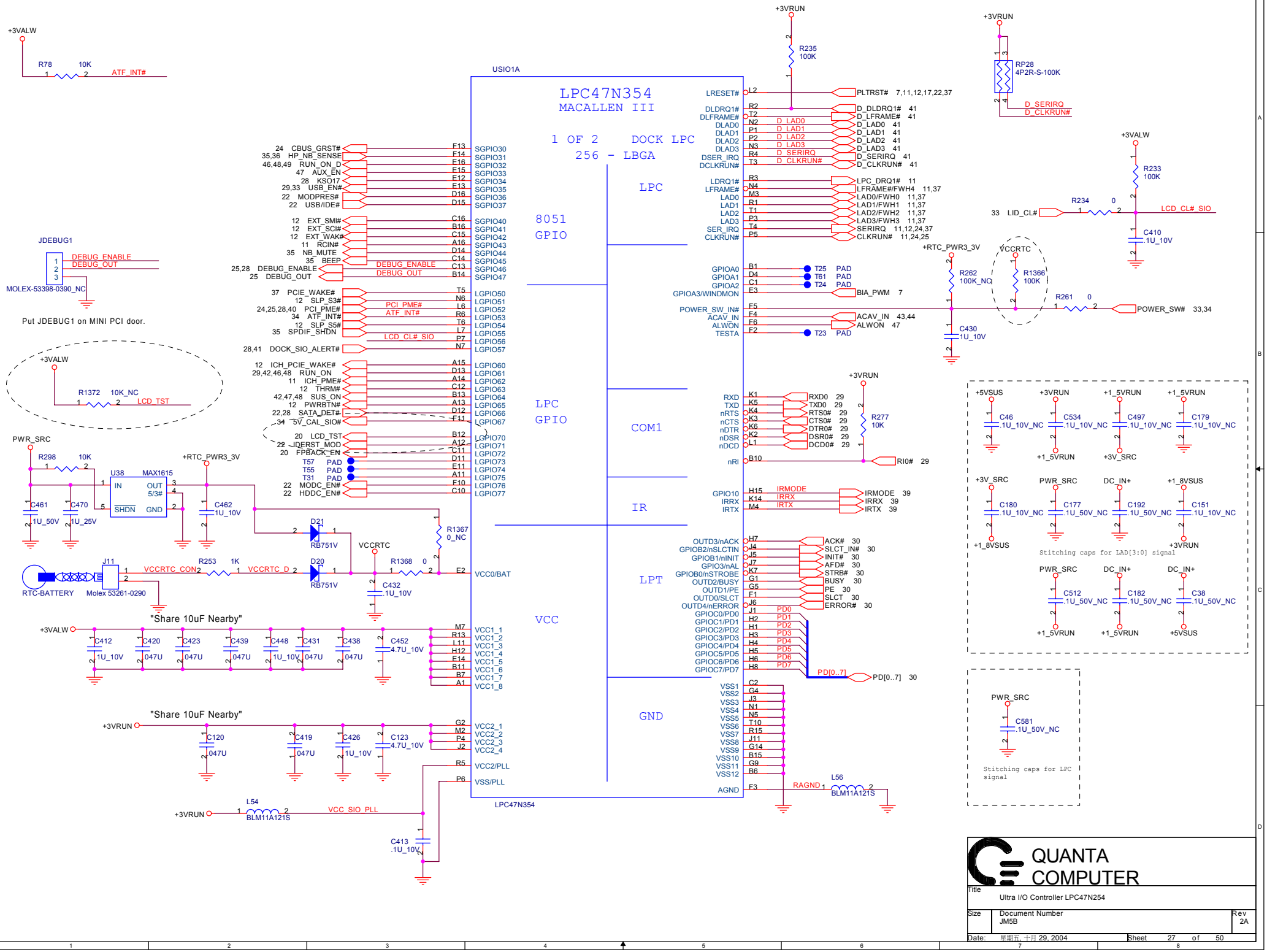


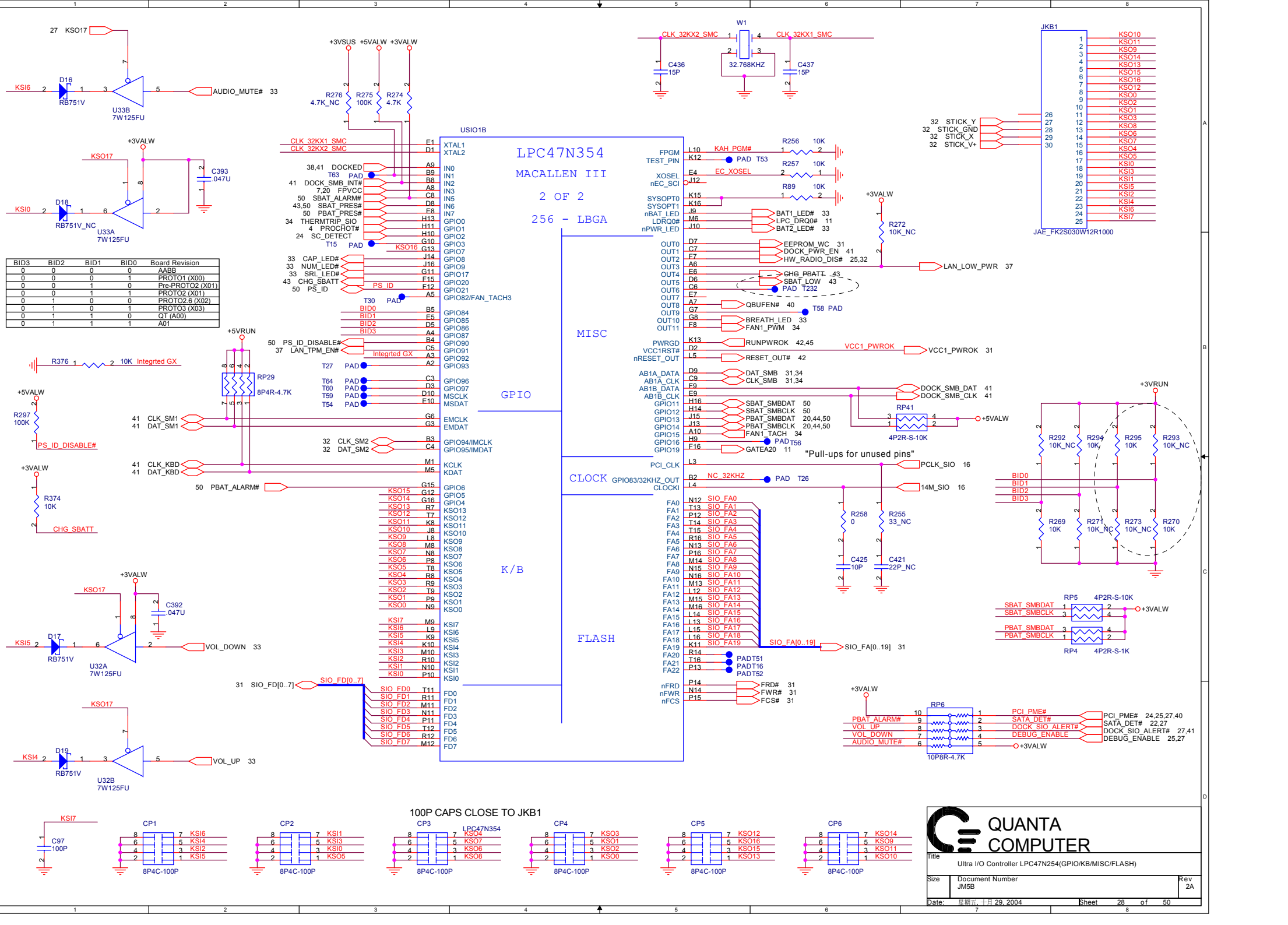

QUANTA COMPUTER

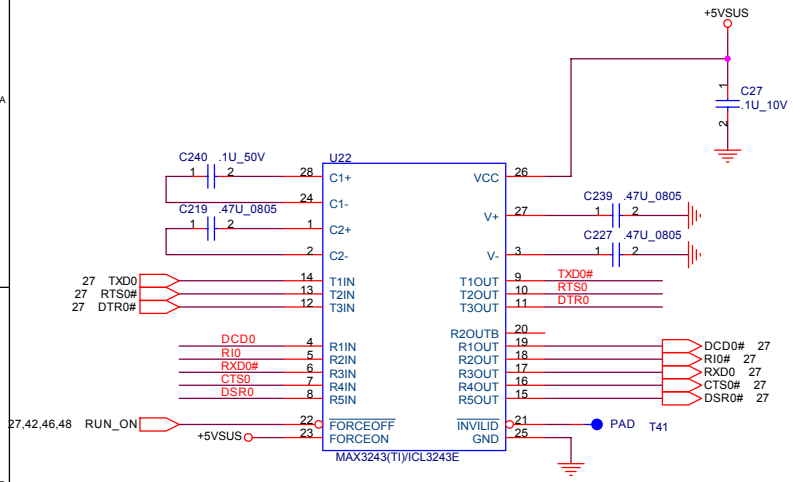
| | | |
|---|---|---|
| Title | MINI-PCI &MDC | |
| Size | Document Number JM5B | Rev 2A |
| Date: 星期五, 十月 29, 2004 | Sheet 25 of 50 | |



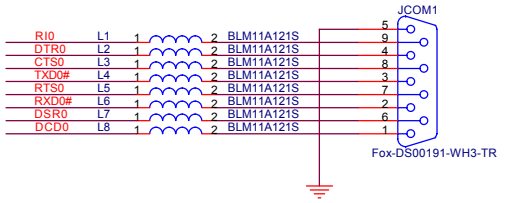

| | | |
|---|---|---|
| QUANTA COMPUTER | | |
| Title: MDC CONN. | | |
| Size | Document Number: JM5B | Rev: 2A |
| Date: 星期五, 十月 29, 2004 | Sheet 26 of 50 | |


LPC47N354
MACALLEN III
1 OF 2 DOCK LPC
256 - LBGA
USIO1A
LPC
8051
GPIO
LPC
GPIO
COM1
IR
LPT
VCC
GND
LPC47N354
+3VALW
R78 10K ATF_INT#
JDEBUG1
DEBUG_ENABLE
DEBUG_OUT
MOLEX-53398-0390_NC
Put JDEBUG1 on MINI PCI door.
R1372 10K_NC LCD_TST
PWR_SRC
R298 10K
U38 MAX1615
IN OUT 5/3# SHDN GND
C461 1U_50V
C470 1U_25V
+RTC_PWR3_3V
C462 1U_10V
D21 RB751V
D20 RB751V
R1367 0_NC
VCCRTC
R1368 0
R253 1K
VCCRTC_CON
VCCRTC_D
J11
RTC-BATTERY
Molex 53261-0290
VCC0/BAT
"Share 10uF Nearby"
C412 1U_10V
C420 .047U
C423 .047U
C439 .047U
C448 1U_10V
C431 .047U
C438 .047U
C452 4.7U_10V
VCC1_1
VCC1_2
VCC1_3
VCC1_4
VCC1_5
VCC1_6
VCC1_7
VCC1_8
"Share 10uF Nearby"
+3VRUN
C120 .047U
C419 .047U
C426 1U_10V
C123 4.7U_10V
VCC2_1
VCC2_2
VCC2_3
VCC2_4
VCC2/PLL
VSS/PLL
L54 BLM11A121S
VCC_SIO_PLL
C413 .1U_10V
24 CBUS_GRST#
35,36 HP_NB_SENSE
46,48,49 RUN_ON_D
47 AUX_EN
28 KSO17
29,33 USB_EN#
22 MODPRES#
22 USB/IDE#
SGPIO30
SGPIO31
SGPIO32
SGPIO33
SGPIO34
SGPIO35
SGPIO36
SGPIO37
12 EXT_SMI#
12 EXT_SCI#
12 EXT_WAK#
11 RCIN#
35 NB_MUTE
35 BEEP
25,28 DEBUG_ENABLE
25 DEBUG_OUT
SGPIO40
SGPIO41
SGPIO42
SGPIO43
SGPIO44
SGPIO45
SGPIO46
SGPIO47
37 PCIE_WAKE#
12 SLP_S3#
24,25,28,40 PCI_PME#
34 ATF_INT#
12 SLP_S5#
35 SPDIF_SHDN
28,41 DOCK_SIO_ALERT#
LCD_CL# SIO
LGPIO50
LGPIO51
LGPIO52
LGPIO53
LGPIO54
LGPIO55
LGPIO56
LGPIO57
12 ICH_PCIE_WAKE#
29,42,46,48 RUN_ON
11 ICH_PME#
12 THRM#
42,47,48 SUS_ON
12 PWRBTN#
22,28 SATA_DET#
34 5V_CAL_SIO#
20 LCD_TST
22 IDERST_MOD
20 FPBACK_EN
T57 PAD
T55 PAD
T31 PAD
22 MDC_EN#
22 HDDC_EN#
LGPIO60
LGPIO61
LGPIO62
LGPIO63
LGPIO64
LGPIO65
LGPIO66
LGPIO67
LGPIO70
LGPIO71
LGPIO72
LGPIO73
LGPIO74
LGPIO75
LGPIO76
LGPIO77
LRESET#
PLTRST# 7,11,12,17,22,37
DLDRQ1#
DLFRAME#
DLAD0
DLAD1
DLAD2
DLAD3
DSER_IRQ
DCLKRUN#
D_DLDRQ1# 41
D_LFRAME# 41
D_LAD0 41
D_LAD1 41
D_LAD2 41
D_LAD3 41
D_SERIRQ 41
D_CLKRUN# 41
LDRQ1#
LFRAME#
LAD0
LAD1
LAD2
LAD3
SER_IRQ
CLKRUN#
LPC_DRQ1# 11
LFRAME#/FWH4 11,37
LAD0/FWH0 11,37
LAD1/FWH1 11,37
LAD2/FWH2 11,37
LAD3/FWH3 11,37
SERIRQ 11,12,24,37
CLKRUN# 11,24,25
GPIOA0
GPIOA1
GPIOA2
GPIOA3/WINDMON
BIA_PWM 7
POWER_SW_IN#
ACAV_IN
ALWON
TESTA
ACAV_IN 43,44
ALWON 47
T25 PAD
T61 PAD
T24 PAD
T23 PAD
RXD
TXD
nRTS
nCTS
nDTR
nDSR
nDCD
nRI
RXD0 29
TXD0 29
RTS0# 29
CTS0# 29
DTR0# 29
DSR0# 29
DCD0# 29
RI0# 29
R277 10K
GPIO10
IRRX
IRTX
IRMODE
IRRX
IRTX
IRMODE 39
IRRX 39
IRTX 39
OUTD3/nACK
GPIOB2/nSLCTIN
GPIOB1/nINIT
GPIO3/nAL
GPIOB0/nSTROBE
OUTD2/BUSY
OUTD1/PE
OUTD0/SLCT
OUTD4/nERROR
ACK# 30
SLCT_IN# 30
INIT# 30
AFD# 30
STRB# 30
BUSY 30
PE 30
SLCT 30
ERROR# 30
GPIOC0/PD0
GPIOC1/PD1
GPIOC2/PD2
GPIOC3/PD3
GPIOC4/PD4
GPIOC5/PD5
GPIOC6/PD6
GPIOC7/PD7
PD0
PD1
PD2
PD3
PD4
PD5
PD6
PD7
PD[0..7]
PD[0..7] 30
VSS1
VSS2
VSS3
VSS4
VSS5
VSS6
VSS7
VSS8
VSS9
VSS10
VSS11
VSS12
AGND
RAGND
L56 BLM11A121S
+3VRUN
R235 100K
RP28 4P2R-S-100K
D_SERIRQ
D_CLKRUN#
+3VALW
R233 100K
R234 0
33 LID_CL#
LCD_CL# SIO
C410 .1U_10V
+RTC_PWR3_3V
VCCRTC
R262 100K_NC
R1366 100K
R261 0
POWER_SW# 33,34
C430 1U_10V
+5VSUS
+3VRUN
+1_5VRUN
+1_5VRUN
C46 .1U_10V_NC
C534 .1U_10V_NC
C497 .1U_10V_NC
C179 .1U_10V_NC
+1_5VRUN
+3V_SRC
+3V_SRC
PWR_SRC
DC_IN+
+1_8VSUS
C180 .1U_10V_NC
C177 .1U_50V_NC
C192 .1U_50V_NC
C151 .1U_10V_NC
+1_8VSUS
+3VRUN
Stitching caps for LAD[3:0] signal
PWR_SRC
DC_IN+
DC_IN+
C512 .1U_50V_NC
C182 .1U_50V_NC
C38 .1U_50V_NC
+1_5VRUN
+1_5VRUN
+5VSUS
PWR_SRC
C581 .1U_50V_NC
Stitching caps for LPC signal
QUANTA COMPUTER
Title
Ultra I/O Controller LPC47N254
Size
Document Number
JM5B
Rev
2A
Date: 星期五, 十月 29, 2004
Sheet 27 of 50

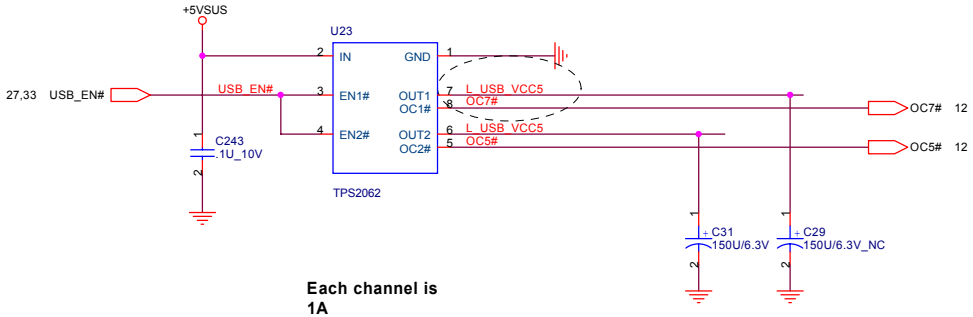

LPC47N354
MACALLEN III
2 OF 2
256 - LBGA
USIO1B
GPIO
MISC
CLOCK
K/B
FLASH
LPC47N354
100P CAPS CLOSE TO JKB1
"Pull-ups for unused pins"
QUANTA COMPUTER
Ultra I/O Controller LPC47N254(GPIO/KB/MISC/FLASH)
Document Number JM5B
Rev 2A
Sheet 28 of 50
Date: 星期五, 十月 29, 2004



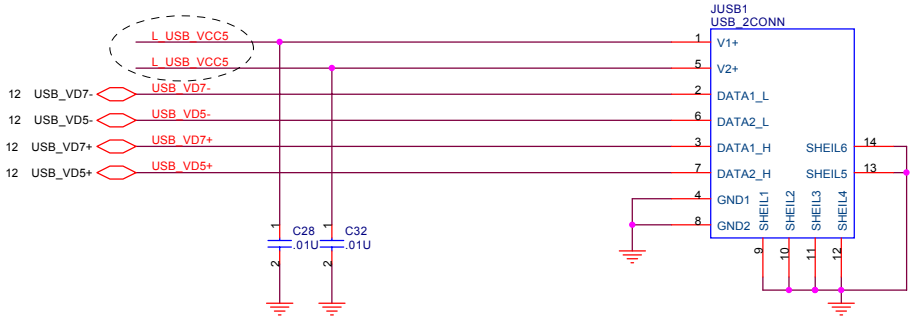

**If MAX3243 pin 22 tied to RUN_ON,then it can not support Ring Out**




Place these beads close to JCOM1 as soon as possible

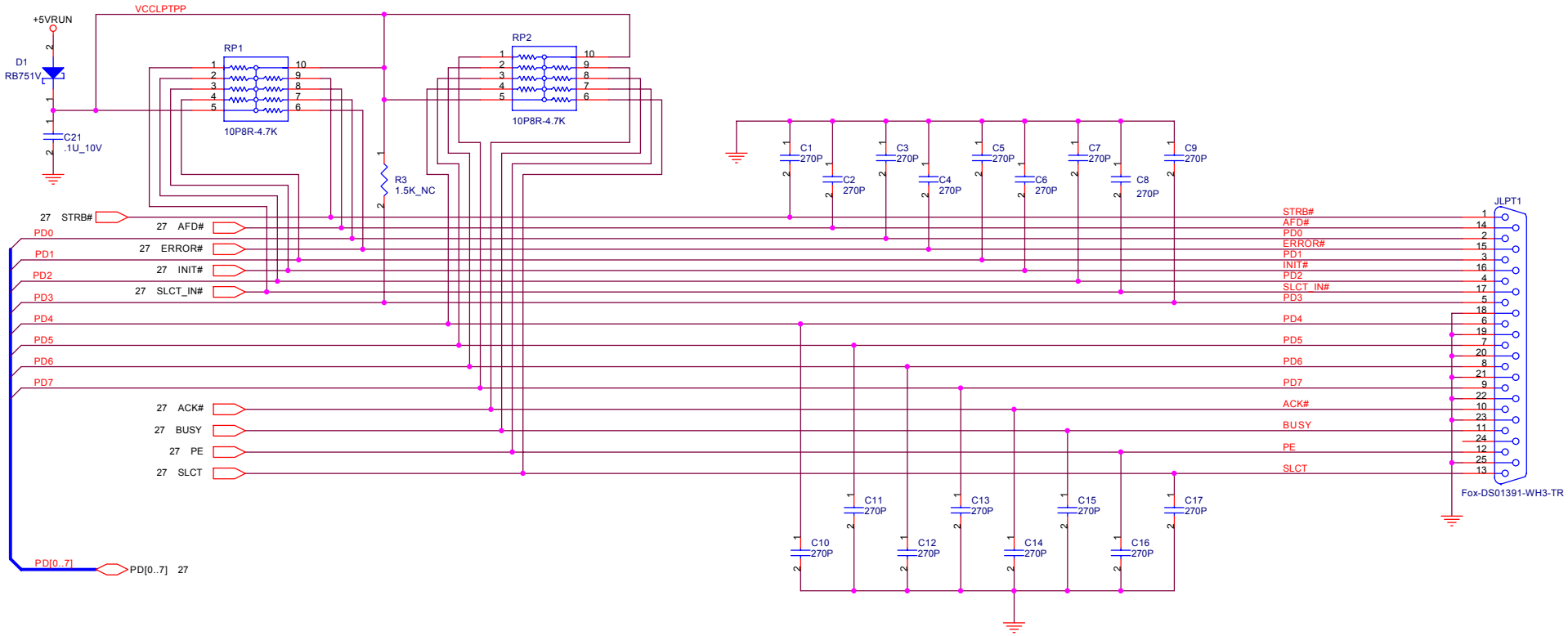



**Each channel is 1A**




QUANTA COMPUTER

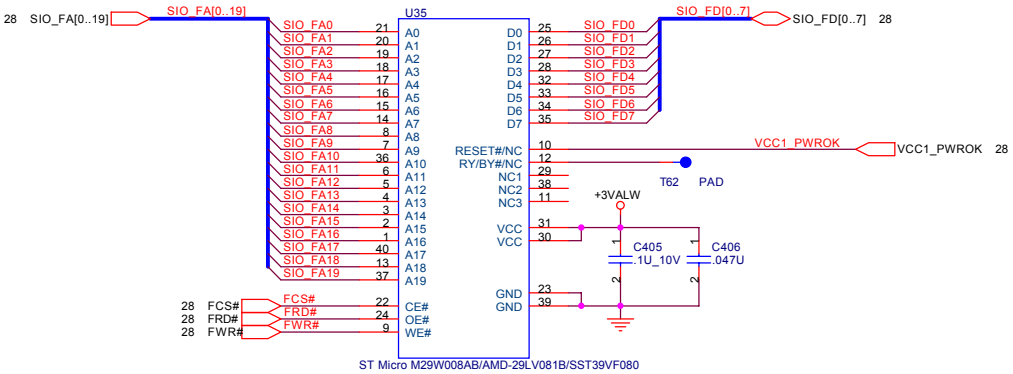
| | | |
|---|---|---|
| Title | SERIAL PORT & USB | |
| Size | Document Number JM5B | Rev 2A |
| Date: 星期五, 十月 29, 2004 | Sheet 29 of 50 | |




QUANTA COMPUTER

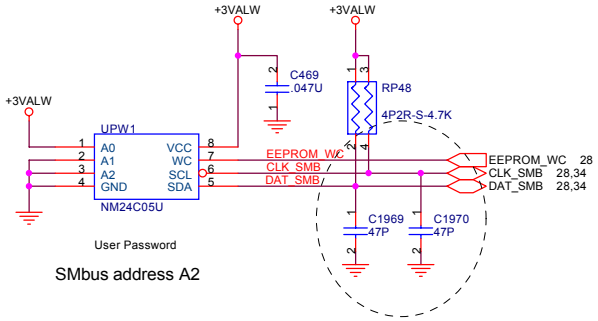
| | | |
|---|---|---|
| Title | PARALLEL CONN. | |
| Size | Document Number JM5B | Rev 2A |
| Date: 星期五, 十月 29, 2004 | Sheet 30 of 50 | |

# 8Mbit (1M Byte),NO PLCC TYPE




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

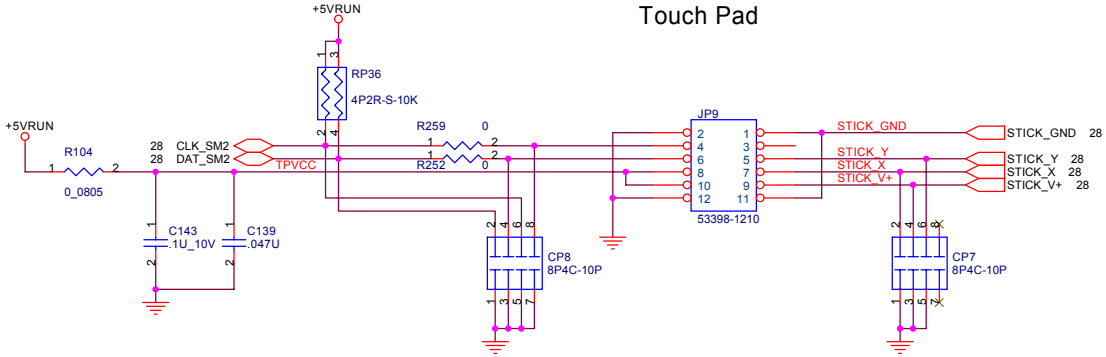
**1.AMD-29LV081B require MAX 500nS Tready for it's hardware reset.And MAX6326_UR29 has >100mS reset timing.So we can tie it's reset# pin to +3VALW directly.**
**2.SIO has internal 20 mS delay of VCC1_PWROK**



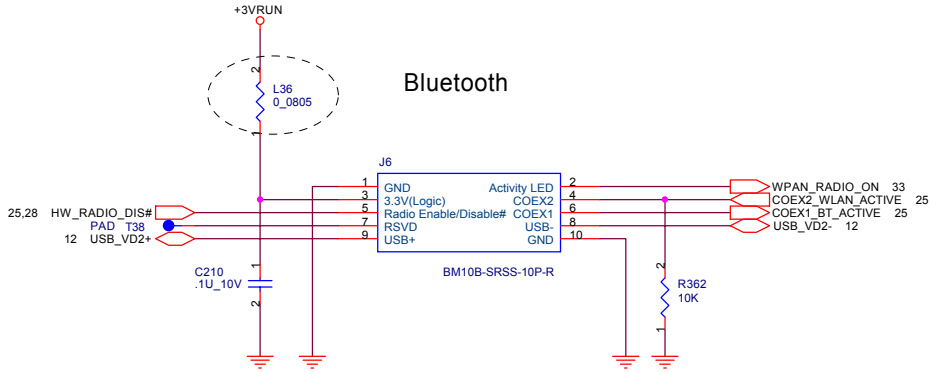

QUANTA COMPUTER

| | | |
|---|---|---|
| Title | FLASH | |
| Size | Document Number JM5B | Rev 2A |
| Date: 星期五, 十月 29, 2004 | Sheet 31 of 50 | |

## Touch Pad

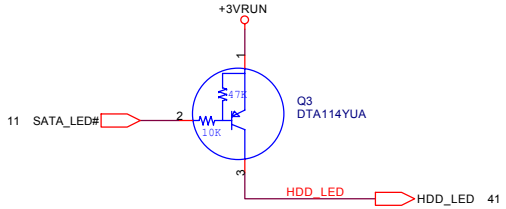


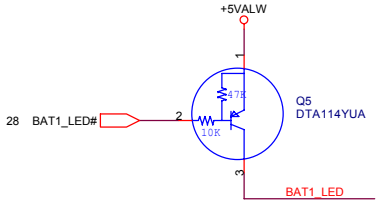

## Bluetooth

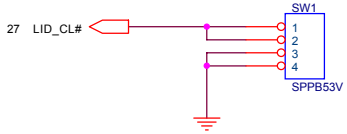


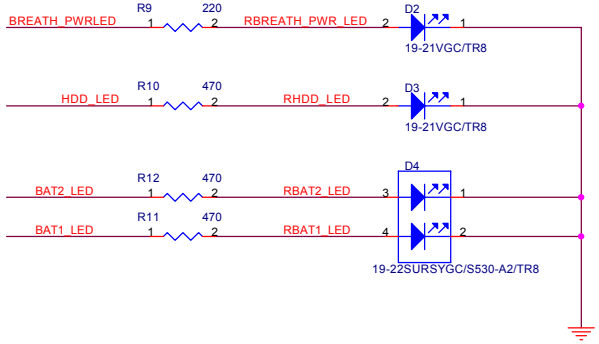

QUANTA COMPUTER

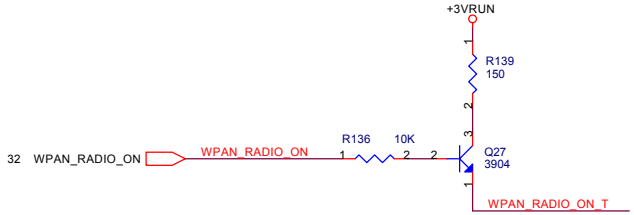
| | | |
|---|---|---|
| Title | TOUCH PAD & BULE TOOTH | |
| Size | Document Number JM5B | Rev 2A |
| Date: 星期五, 十月 29, 2004 | Sheet 32 of 50 | |

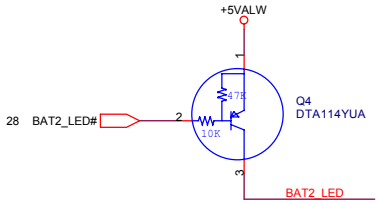


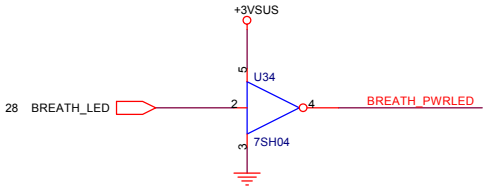



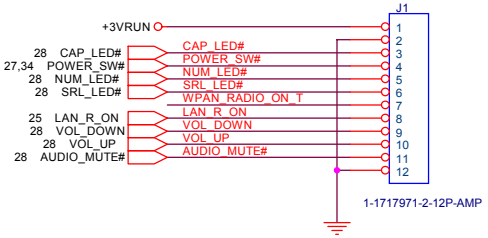



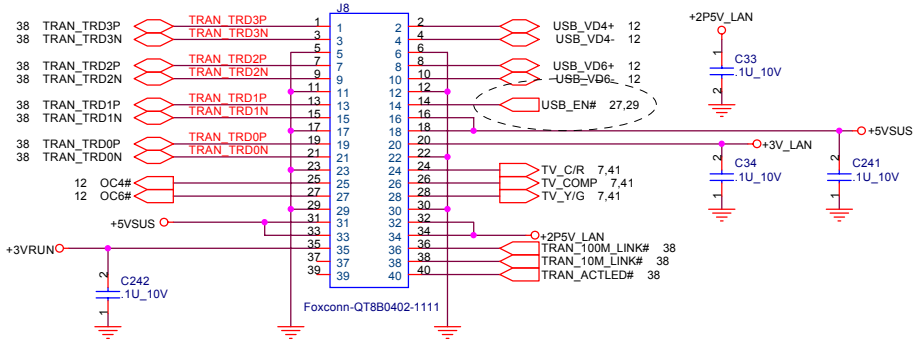



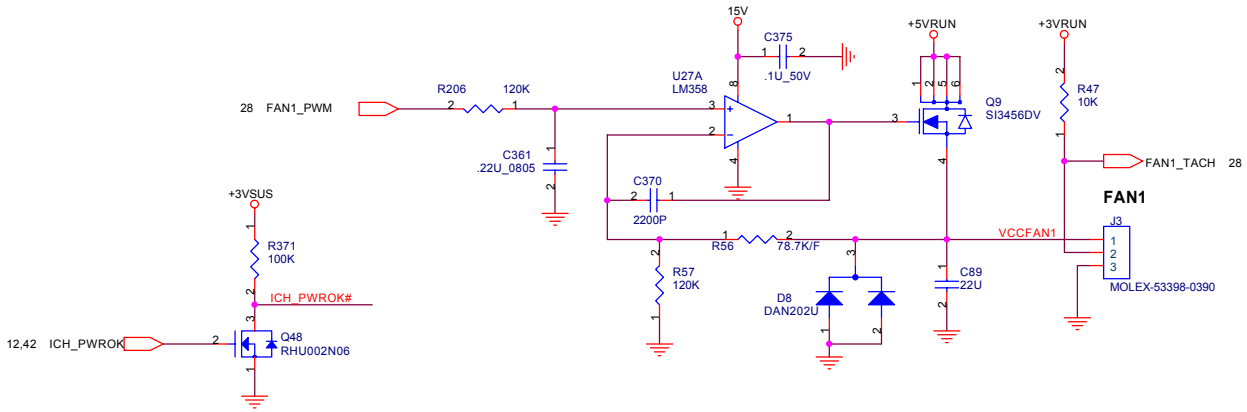



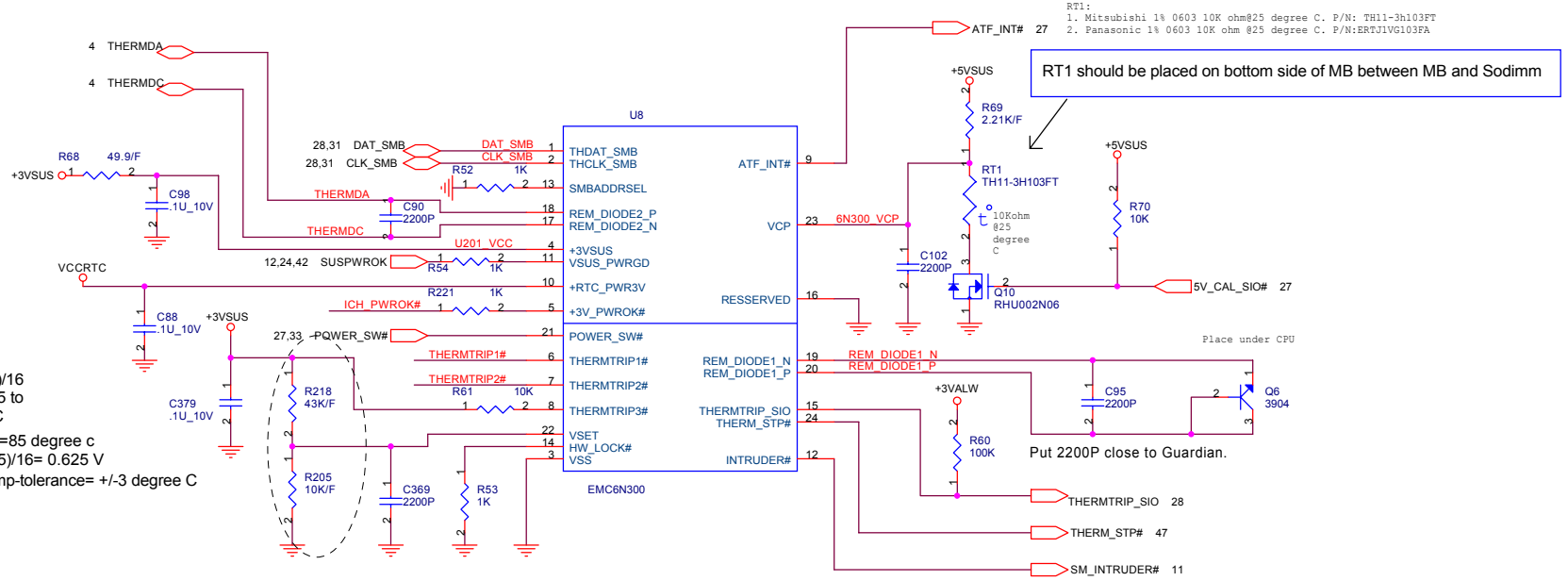



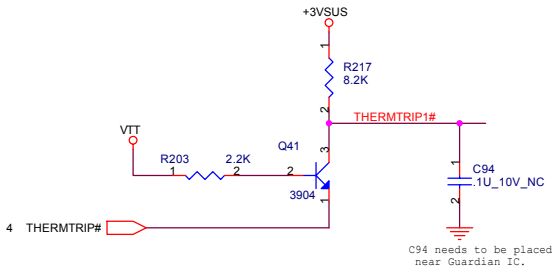



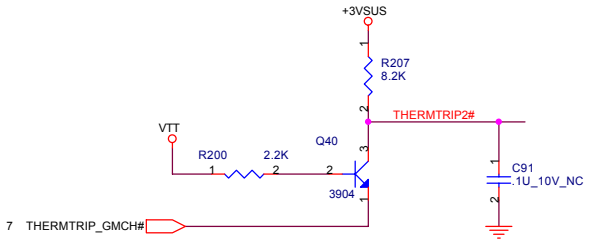

QUANTA COMPUTER

| | | |
|---|---|---|
| Title | SWITCH & LED | |
| Size | Document Number JM5B | Rev 2A |
| Date: 星期五, 十月 29, 2004 | Sheet 33 of 50 | |



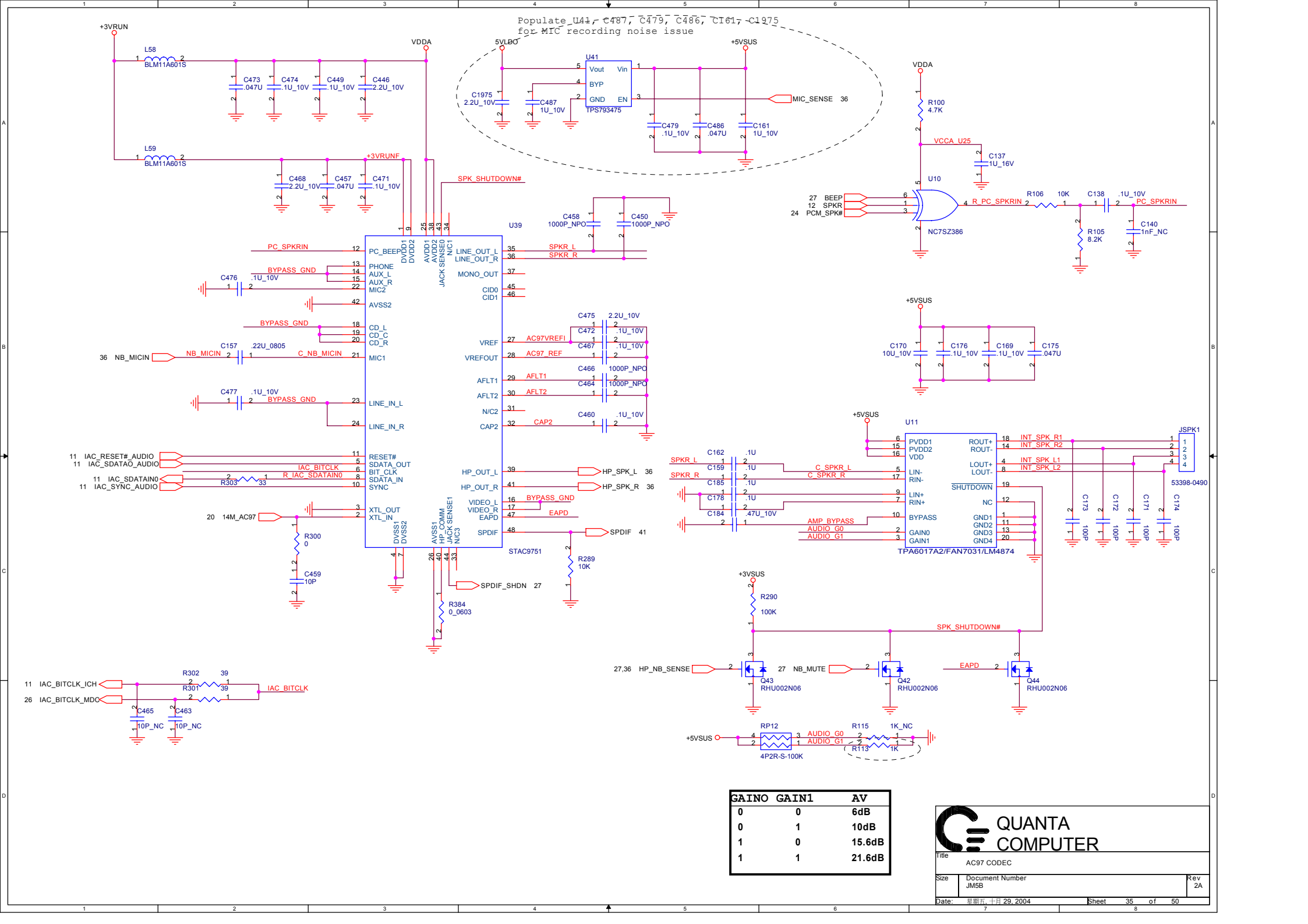




QUANTA COMPUTER

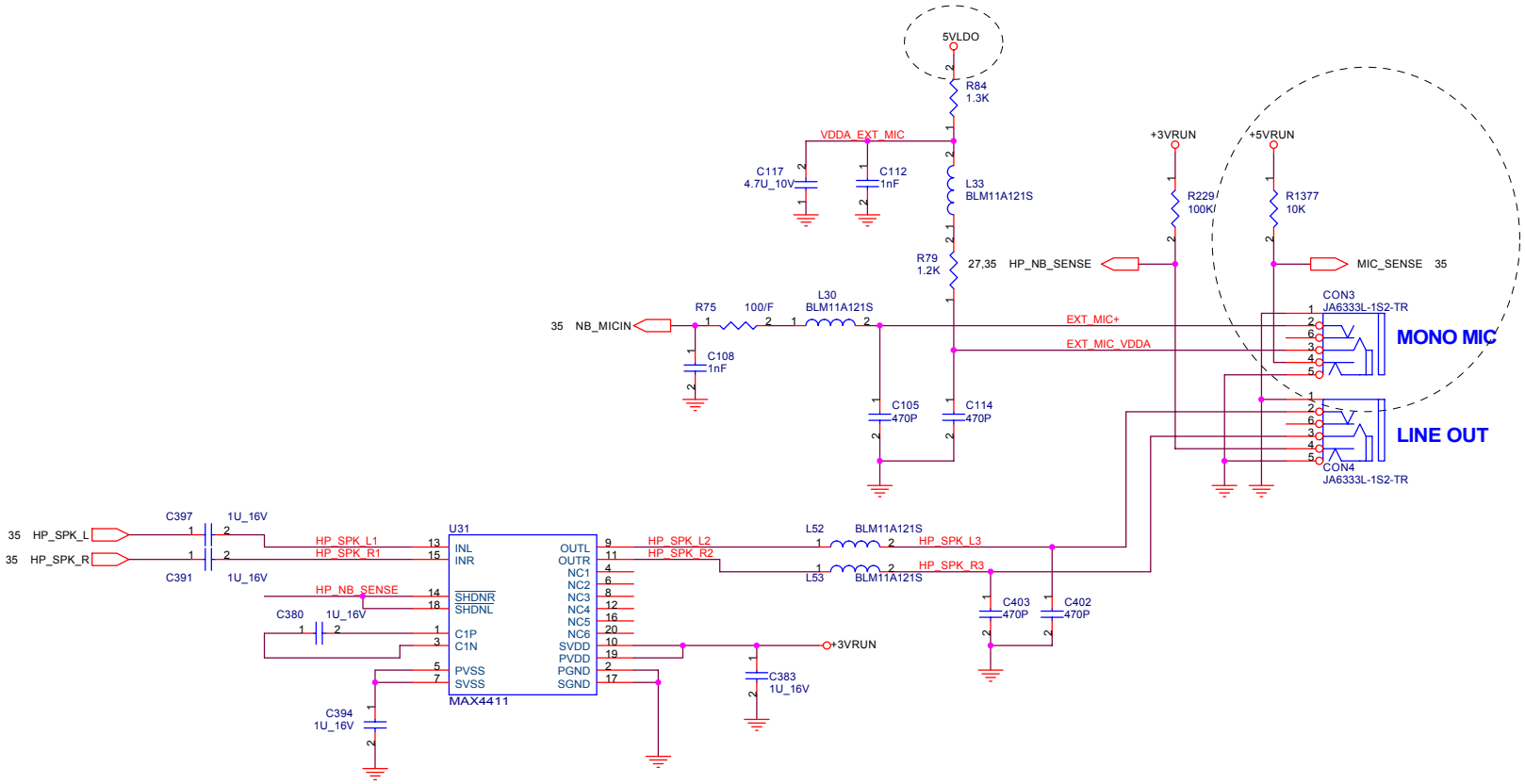
| | | |
|---|---|---|
| Title | FAN & THERMAL | |
| Size | Document Number JM5B | Rev 2A |
| Date: 星期五, 十月 29, 2004 | Sheet 34 of 50 | |




| GAINO | GAIN1 | AV |
|---|---|---|
| 0 | 0 | 6dB |
| 0 | 1 | 10dB |
| 1 | 0 | 15.6dB |
| 1 | 1 | 21.6dB |

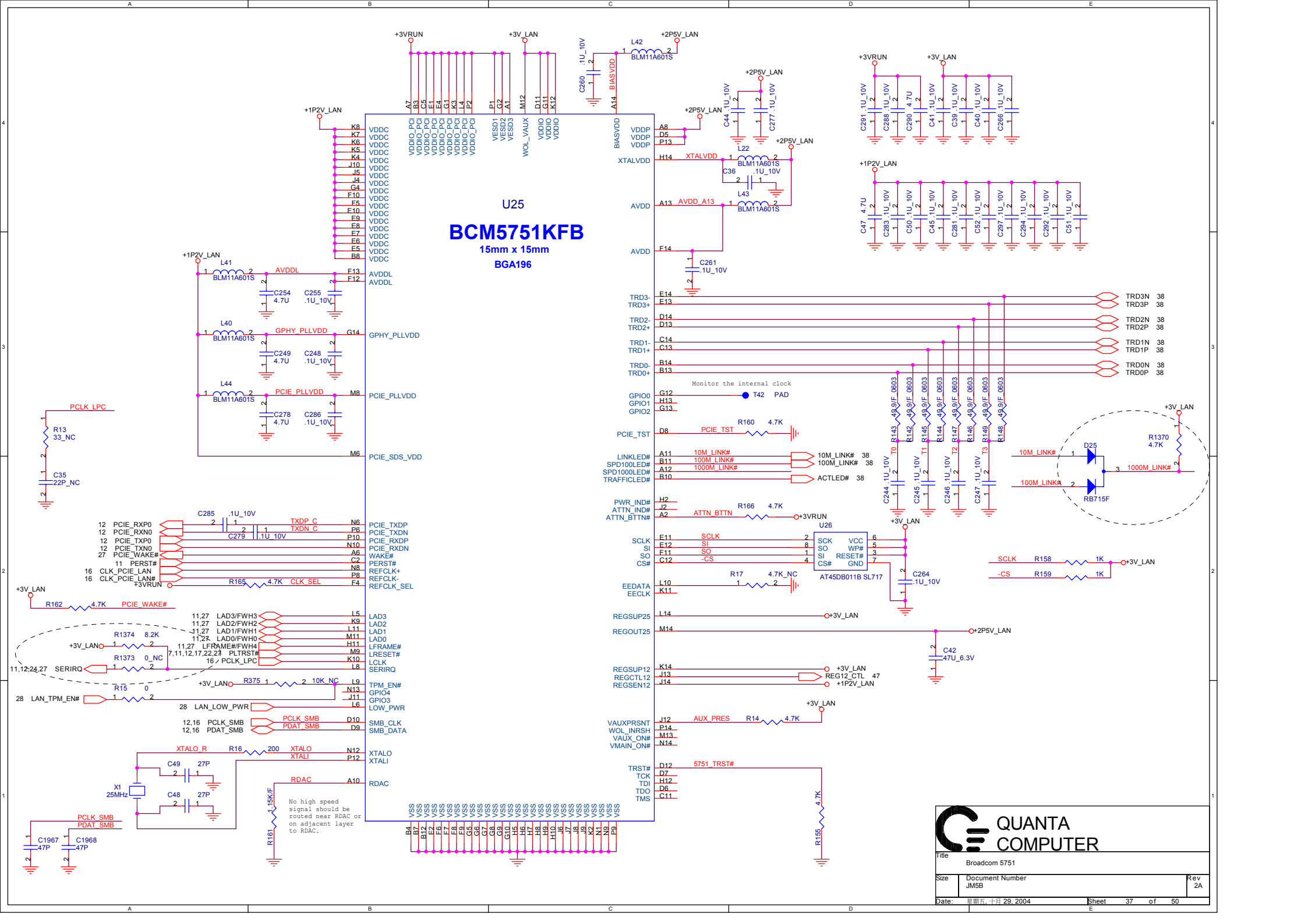
QUANTA COMPUTER

| | | |
|---|---|---|
| Title | AC97 CODEC | |
| Size | Document Number JM5B | Rev 2A |
| Date: 星期五, 十月 29, 2004 | Sheet 35 of 50 | |

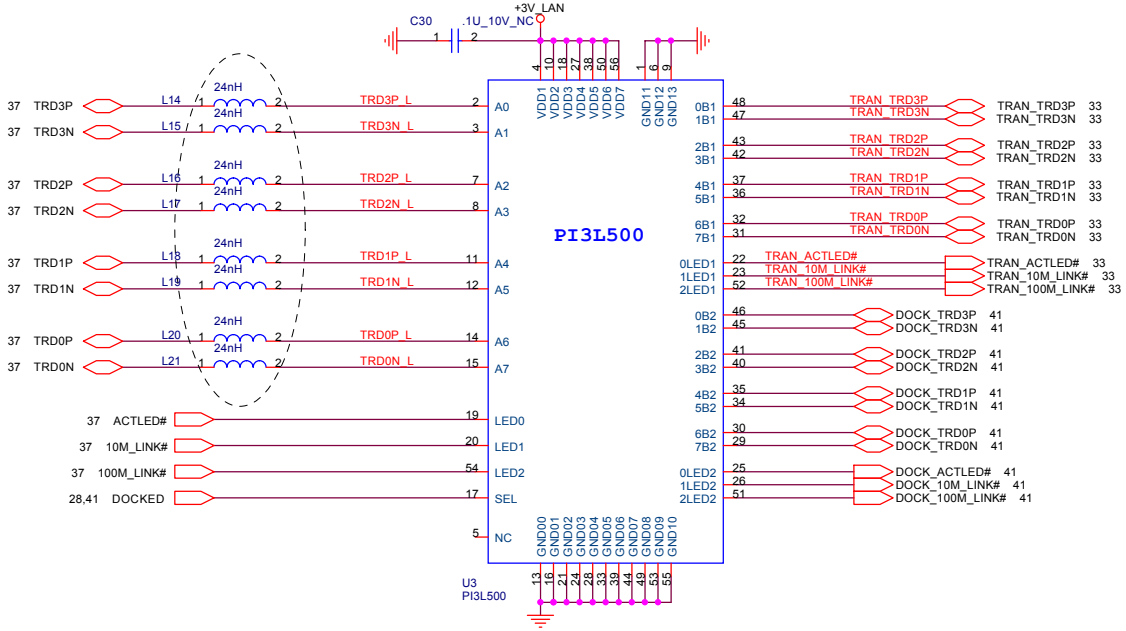



QUANTA COMPUTER

| | | |
|---|---|---|
| Title | AUDIO CONN | |
| Size | Document Number JM5B | Rev 2A |
| Date: 星期五, 十月 29, 2004 | Sheet 36 of 50 | |


U25
BCM5751KFB
15mm x 15mm
BGA196
+3VRUN
+3V_LAN
+2P5V_LAN
+1P2V_LAN
L42
BLM11A601S
L22
L43
L41
L40
L44
AVDDL
GPHY_PLLVDD
PCIE_PLLVDD
PCIE_SDS_VDD
TRD3N 38
TRD3P 38
TRD2N 38
TRD2P 38
TRD1N 38
TRD1P 38
TRD0N 38
TRD0P 38
Monitor the internal clock
T42 PAD
PCIE_TST
R160 4.7K
10M_LINK# 38
100M_LINK# 38
ACTLED# 38
PWR_IND#
ATTN_IND#
ATTN_BTTN#
R166 4.7K
+3VRUN
U26
AT45DB011B SL717
SCLK
SI
SO
-CS
EEDATA
EECLK
R17 4.7K_NC
C264 .1U_10V
REGSUP25
REGOUT25
C42 47U_6.3V
REGSUP12
REGCTL12
REGSEN12
REG12_CTL 47
VAUXPRSNT
WOL_INRSH
VAUX_ON#
VMAIN_ON#
AUX_PRES
R14 4.7K
TRST#
TCK
TDI
TDO
TMS
5751_TRST#
R155 4.7K
PCLK_LPC
R13 33_NC
C35 22P_NC
C285 .1U_10V
C279 .1U_10V
TXDP_C
TXDN_C
PCIE_RXP0
PCIE_RXN0
PCIE_TXP0
PCIE_TXN0
PCIE_WAKE#
PERST#
CLK_PCIE_LAN
CLK_PCIE_LAN#
R165 4.7K CLK_SEL
PCIE_TXDP
PCIE_TXDN
PCIE_RXDP
PCIE_RXDN
WAKE#
PERST#
REFCLK+
REFCLK-
REFCLK_SEL
R162 4.7K PCIE_WAKE#
R1374 8.2K
R1373 0_NC
SERIRQ
LAD3
LAD2
LAD1
LAD0
LFRAME#
LRESET#
LCLK
SERIRQ
R375 10K_NC
TPM_EN#
GPIO4
GPIO3
LOW_PWR
R15 0
LAN_TPM_EN#
LAN_LOW_PWR
PCLK_SMB
PDAT_SMB
SMB_CLK
SMB_DATA
XTALO_R
R16 200
XTALO
XTALI
X1
25MHz
C49 27P
C48 27P
RDAC
R161 1.15K/F
No high speed signal should be routed near RDAC or on adjacent layer to RDAC.
C1967 47P
C1968 47P
R1370 4.7K
D25
RB715F
10M_LINK#
100M_LINK#
1000M_LINK#
SCLK R158 1K
-CS R159 1K
QUANTA COMPUTER
Title
Broadcom 5751
Size
Document Number
JM5B
Rev
2A
Date: 星期五, 十月 29, 2004
Sheet 37 of 50

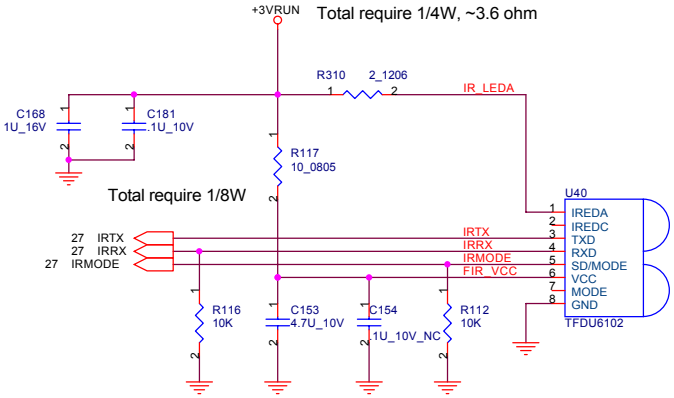
L14/L15/L16/L17/L18/L19/L20/L21 must be 0603




**SWITCH**

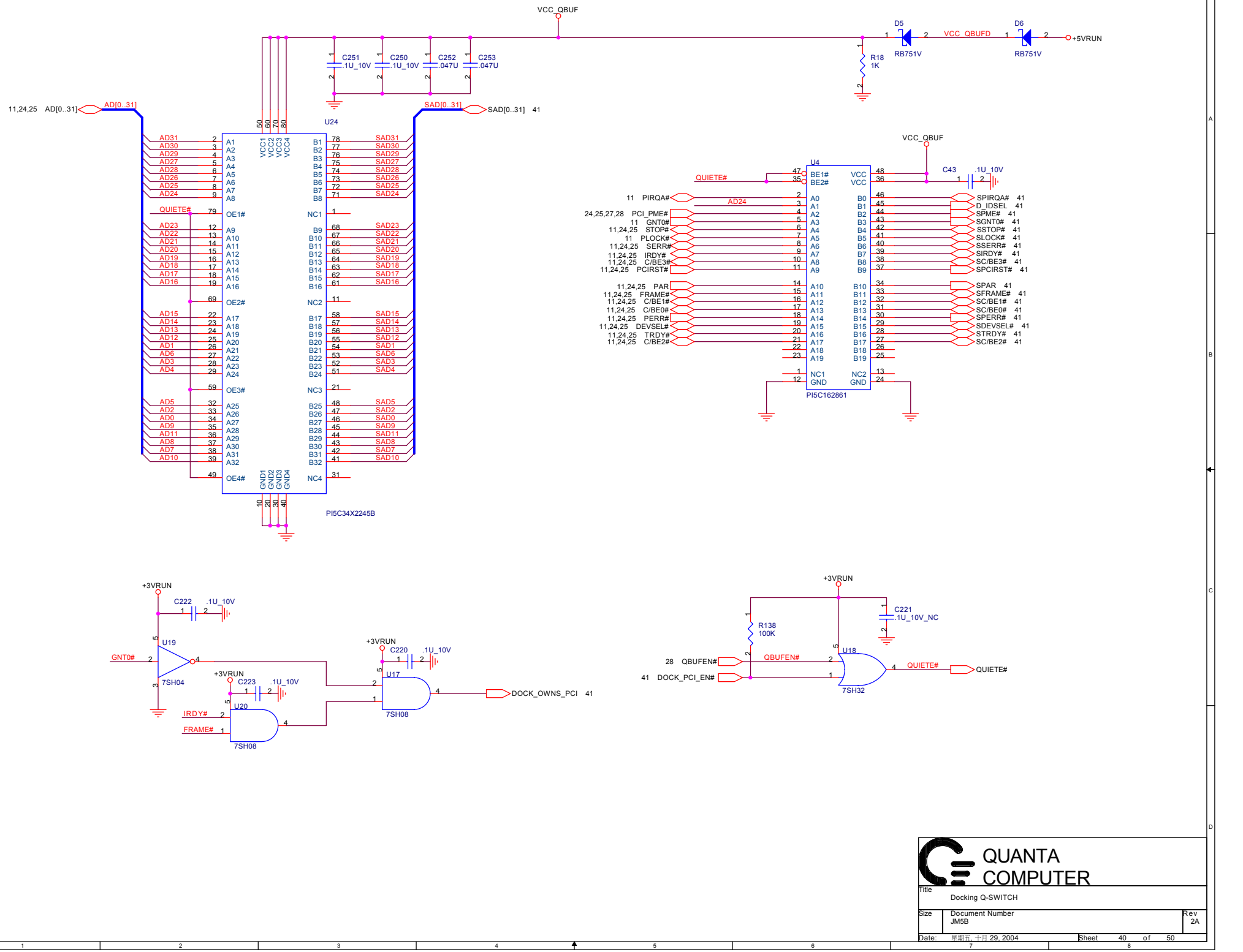
QUANTA COMPUTER

| | | |
|---|---|---|
| Title | LAN SWITCH | |
| Size | Document Number JM5B | Rev 2A |
| Date: 星期五, 十月 29, 2004 | Sheet 38 of 50 | |



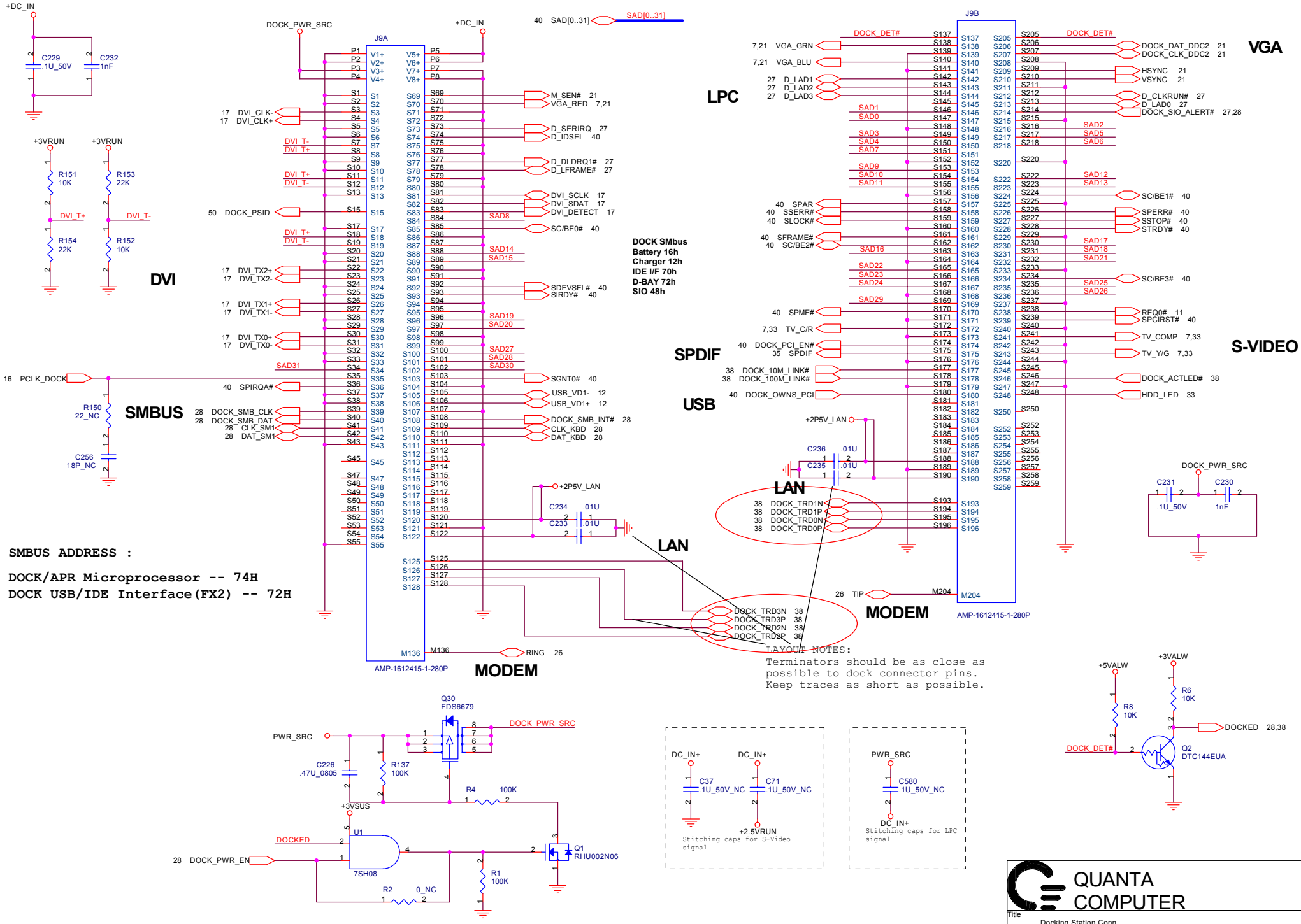

QUANTA COMPUTER

| | | |
|---|---|---|
| Title | FIR | |
| Size | Document Number JM5B | Rev 2A |
| Date: 星期五, 十月 29, 2004 | Sheet 39 of 50 | |




QUANTA COMPUTER

| | | |
|---|---|---|
| Title | Docking Q-SWITCH | |
| Size | Document Number JM5B | Rev 2A |
| Date: 星期五, 十月 29, 2004 | Sheet 40 of 50 | |


DVI
SMBUS
LPC
SPDIF
USB
LAN
MODEM
VGA
S-VIDEO
J9A
J9B
AMP-1612415-1-280P
DOCK SMbus
Battery 16h
Charger 12h
IDE I/F 70h
D-BAY 72h
SIO 48h
SMBUS ADDRESS :
DOCK/APR Microprocessor -- 74H
DOCK USB/IDE Interface(FX2) -- 72H
LAYOUT NOTES:
Terminators should be as close as possible to dock connector pins.
Keep traces as short as possible.
Stitching caps for S-Video signal
Stitching caps for LPC signal
QUANTA COMPUTER
Docking Station Conn.
JM5B
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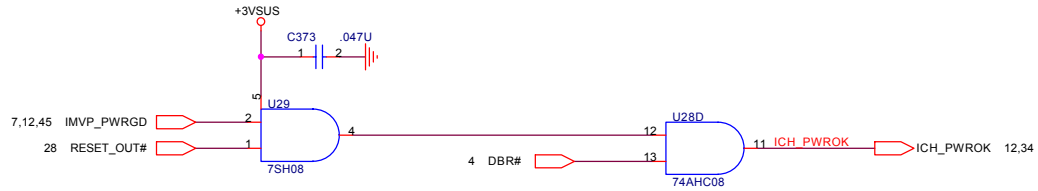
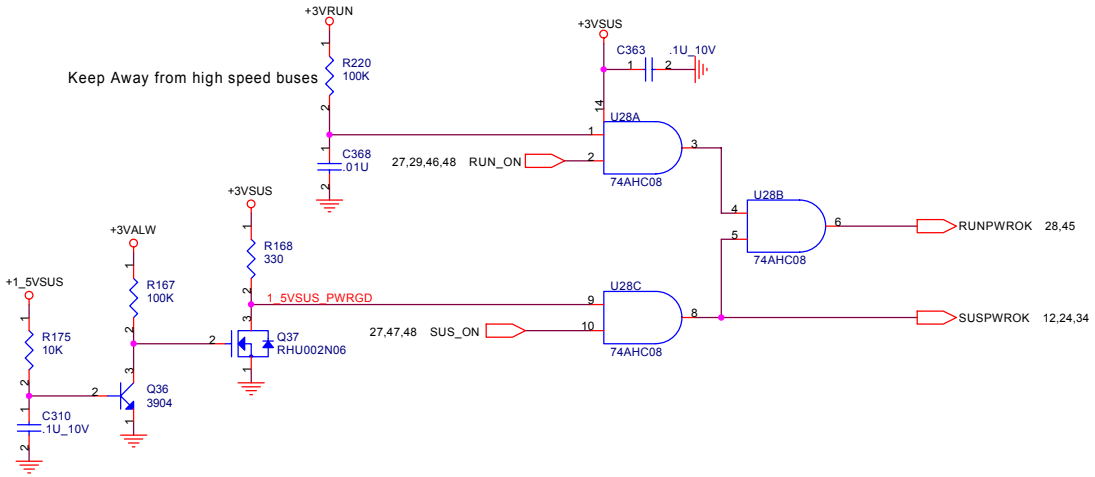
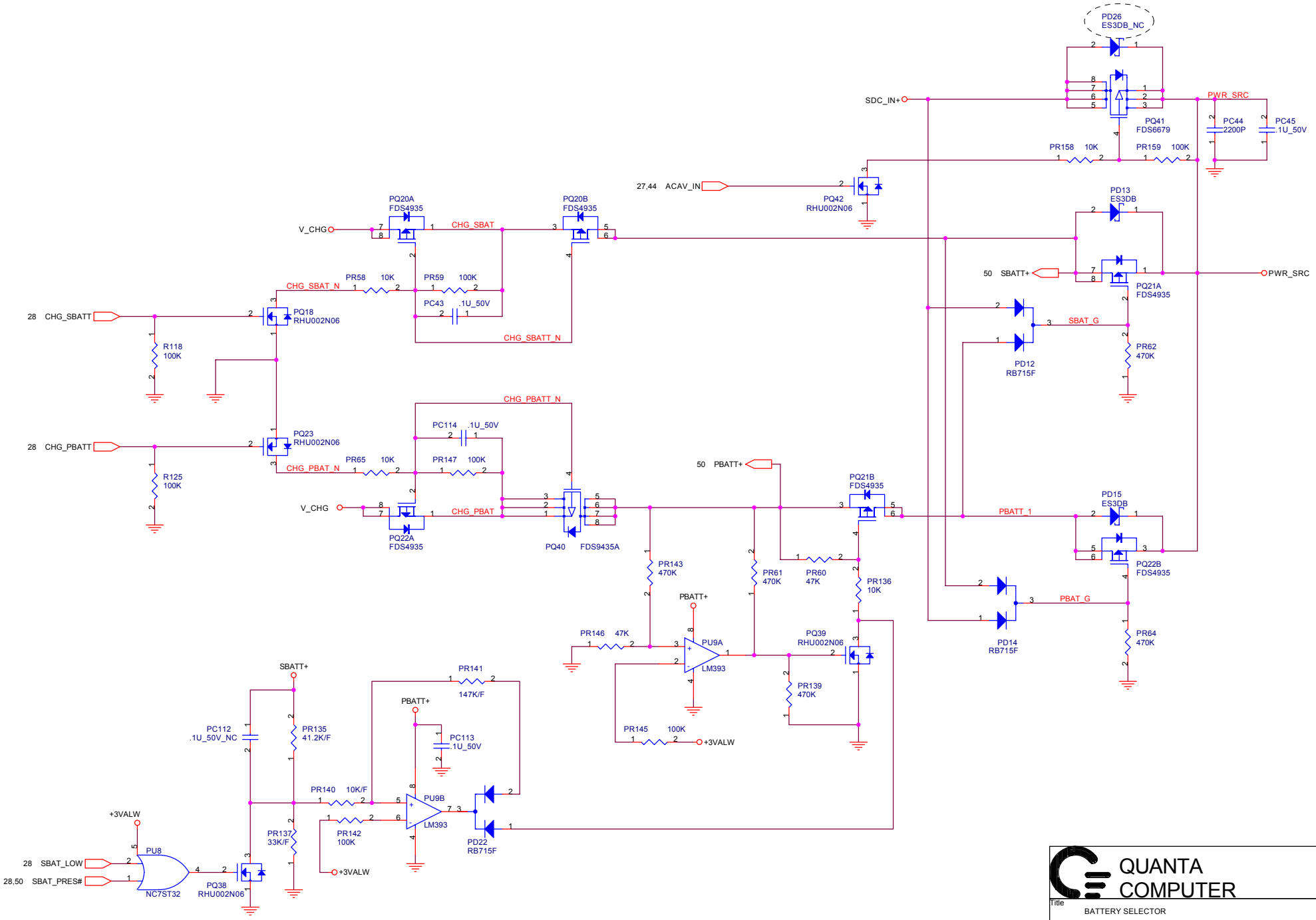


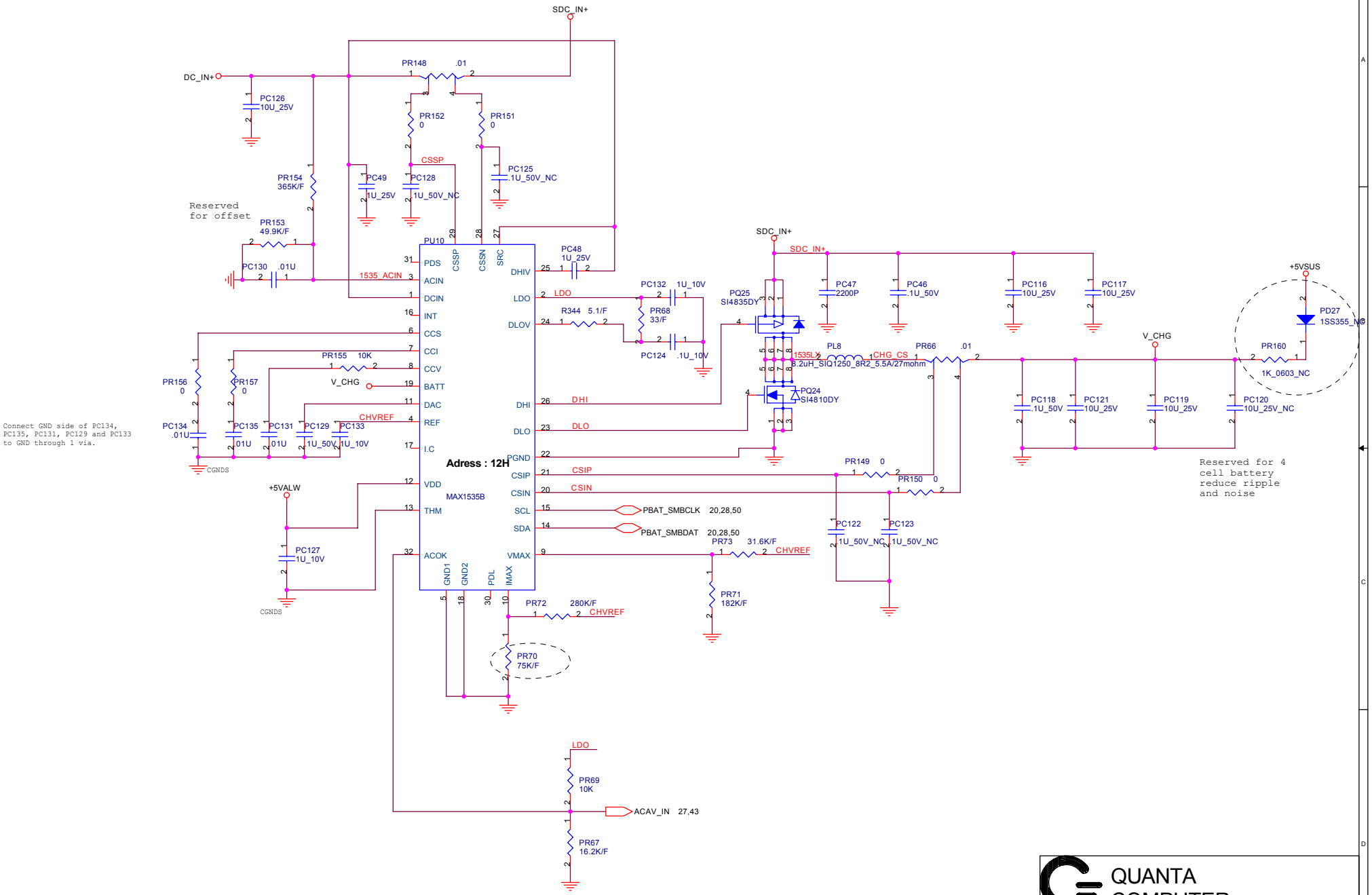

QUANTA COMPUTER

| | | |
|---|---|---|
| Title | POWER GOOD | |
| Size | Document Number JM5B | Rev 2A |
| Date: 星期五, 十月 29, 2004 | Sheet 42 of 50 | |



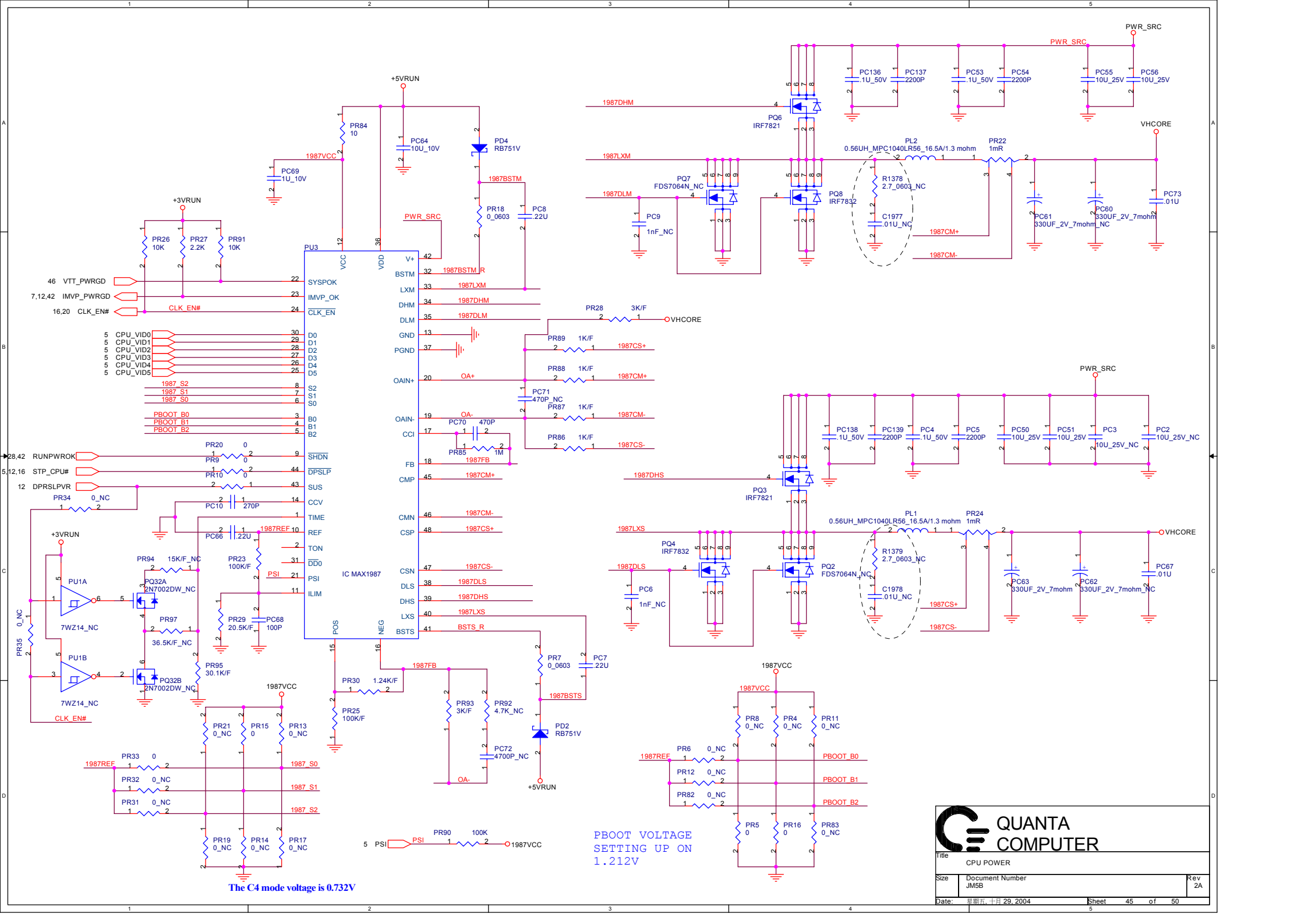

QUANTA COMPUTER

| | | |
|---|---|---|
| Title | BATTERY SELECTOR | |
| Size | Document Number JM5B | Rev 2A |
| Date: 星期五, 十月 29, 2004 | Sheet 43 of 50 | |




| | | |
|---|---|---|
| Title | Battery Charger | |
| Size | Document Number JM5B | Rev 2A |
| Date: 星期五, 十月 29, 2004 | Sheet 44 of 50 | |

QUANTA COMPUTER


PWR_SRC
VHCORE
+5VRUN
+3VRUN
1987VCC
PU3
IC MAX1987
PU1A
PU1B
7WZ14_NC
PQ32A
2N7002DW_NC
PQ32B
2N7002DW_NC
PQ6
IRF7821
PQ7
FDS7064N_NC
PQ8
IRF7832
PQ3
IRF7821
PQ4
IRF7832
PQ2
FDS7064N_NC
PD4
RB751V
PD2
RB751V
PL2
0.56UH_MPC1040LR56_16.5A/1.3 mohm
PL1
0.56UH_MPC1040LR56_16.5A/1.3 mohm
R1378
2.7_0603_NC
R1379
2.7_0603_NC
C1977
.01U_NC
C1978
.01U_NC
1987DHM
1987LXM
1987DLM
1987DHS
1987LXS
1987DLS
1987CM+
1987CM-
1987CS+
1987CS-
1987BSTM
1987BSTS
1987FB
1987REF
PSI
RUNPWROK
STP_CPU#
DPRSLPVR
VTT_PWRGD
IMVP_PWRGD
CLK_EN#
CPU_VID0
CPU_VID1
CPU_VID2
CPU_VID3
CPU_VID4
CPU_VID5
1987_S2
1987_S1
1987_S0
PBOOT_B0
PBOOT_B1
PBOOT_B2
OA+
OA-
BSTS_R
1987BSTM_R
PR84 10
PC64 10U_10V
PC69 1U_10V
PR18 0_0603
PC8 .22U
PR26 10K
PR27 2.2K
PR91 10K
PR28 3K/F
PR89 1K/F
PR88 1K/F
PR87 1K/F
PR86 1K/F
PC71 470P_NC
PC70 470P
PR85 1M
PR20 0
PR9 0
PR10 0
PC10 270P
PR34 0_NC
PC66 .22U
PR94 15K/F_NC
PR23 100K/F
PR29 20.5K/F
PC68 100P
PR97 36.5K/F_NC
PR95 30.1K/F
PR35 0_NC
PR30 1.24K/F
PR25 100K/F
PR93 3K/F
PR92 4.7K_NC
PC72 4700P_NC
PR7 0_0603
PC7 .22U
PR90 100K
PR21 0_NC
PR15 0
PR13 0_NC
PR33 0
PR32 0_NC
PR31 0_NC
PR19 0_NC
PR14 0_NC
PR17 0_NC
PR8 0_NC
PR4 0_NC
PR11 0_NC
PR6 0_NC
PR12 0_NC
PR82 0_NC
PR5 0
PR16 0
PR83 0_NC
PC9 1nF_NC
PC6 1nF_NC
PC136 .1U_50V
PC137 2200P
PC53 .1U_50V
PC54 2200P
PC55 10U_25V
PC56 10U_25V
PR22 1mR
PC61 330UF_2V_7mohm_NC
PC60 330UF_2V_7mohm_NC
PC73 .01U
PC138 .1U_50V
PC139 2200P
PC4 .1U_50V
PC5 2200P
PC50 10U_25V
PC51 10U_25V
PC3 10U_25V_NC
PC2 10U_25V_NC
PR24 1mR
PC63 330UF_2V_7mohm
PC62 330UF_2V_7mohm_NC
PC67 .01U
PBOOT VOLTAGE SETTING UP ON 1.212V
The C4 mode voltage is 0.732V
QUANTA COMPUTER
Title
CPU POWER
Size
Document Number
JM5B
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2A
Date:
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of
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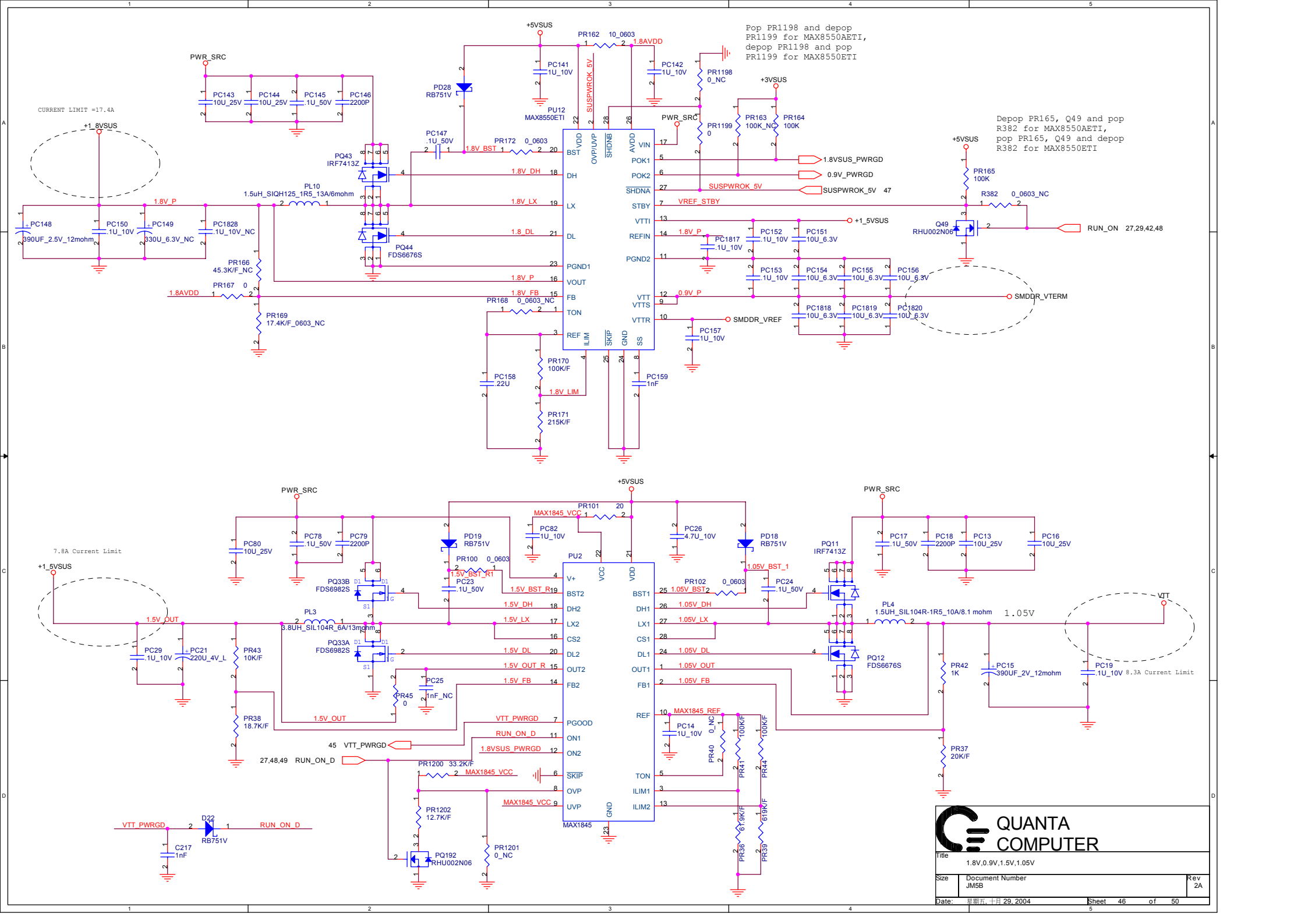
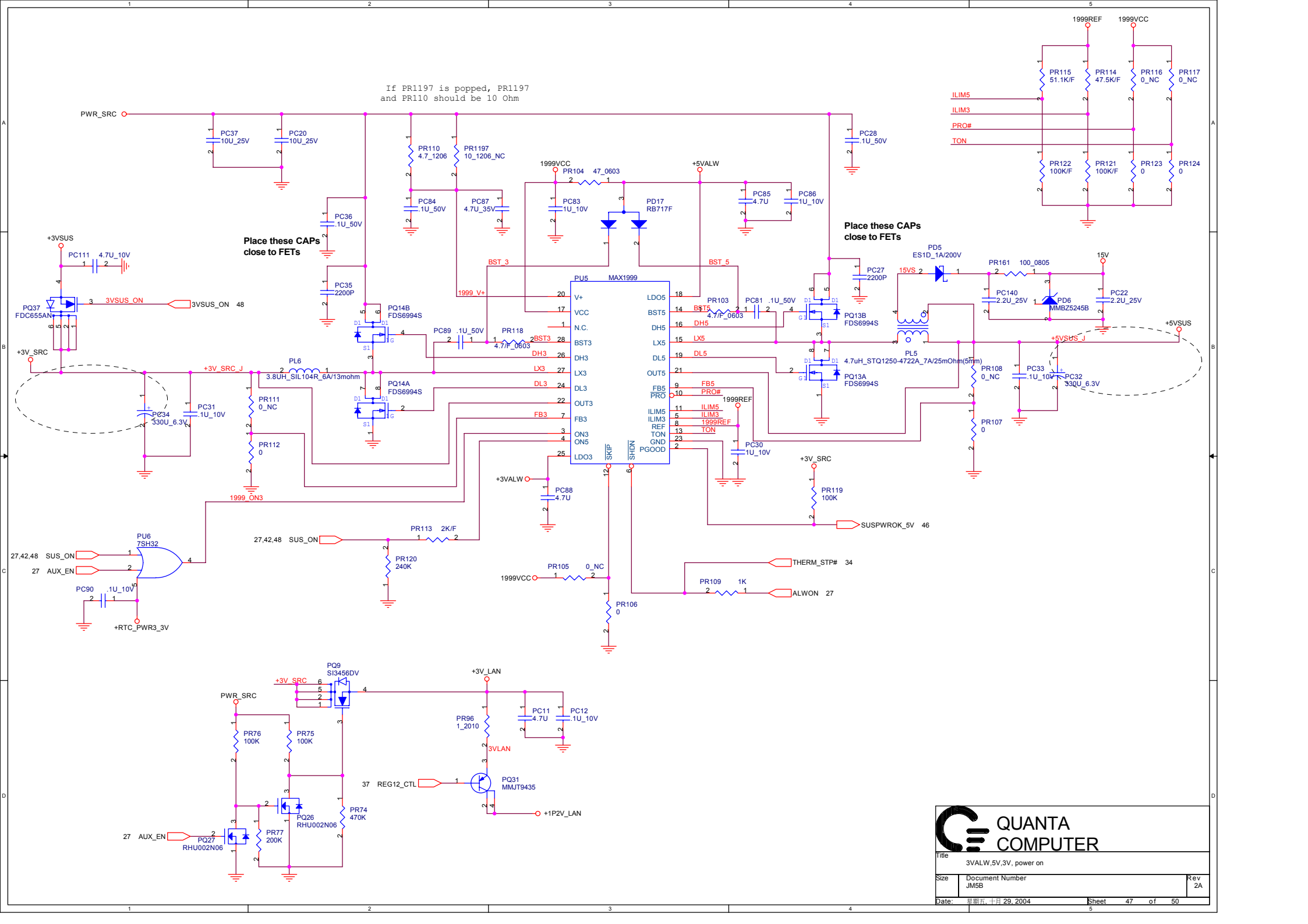
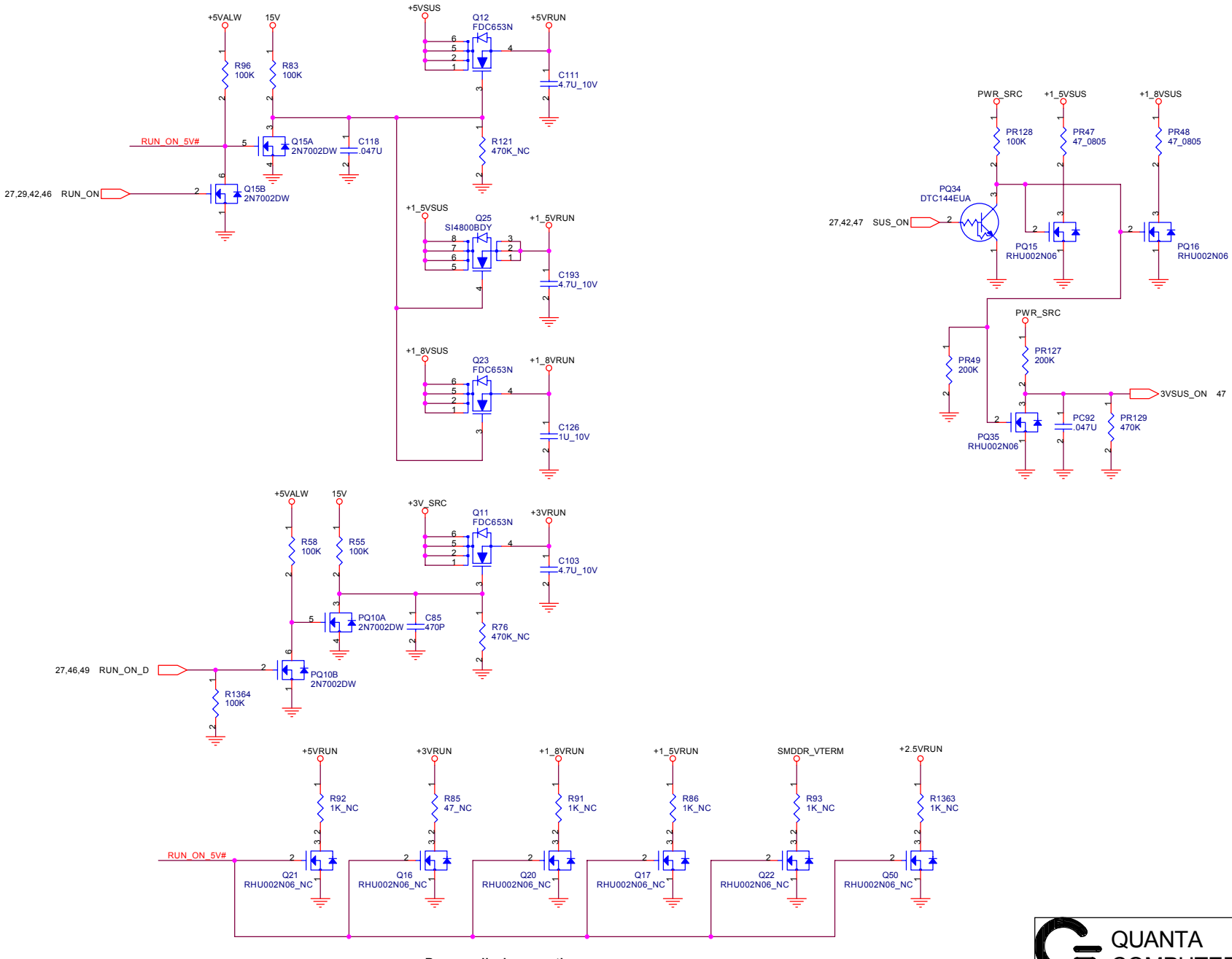

Pop PR1198 and depop PR1199 for MAX8550AETI, depop PR1198 and pop PR1199 for MAX8550ETI
Depop PR165, Q49 and pop R382 for MAX8550AETI, pop PR165, Q49 and depop R382 for MAX8550ETI
CURRENT LIMIT =17.4A
+1_8VSUS
PWR_SRC
PC143 10U_25V
PC144 10U_25V
PC145 .1U_50V
PC146 2200P
PD28 RB751V
PC147 .1U_50V
PR162 10_0603
+5VSUS
PC141 1U_10V
PC142 1U_10V
1.8AVDD
SUSPWROK_5V
PU12 MAX8550ETI
PR1198 0_NC
PR1199 0
+3VSUS
PR163 100K_NC
PR164 100K
PR172 0_0603
1.8V_BST
PQ43 IRF7413Z
PQ44 FDS6676S
PL10 1.5uH_SIQH125_1R5_13A/6mohm
1.8V_P
PC148 390UF_2.5V_12mohm
PC150 .1U_10V
PC149 330U_6.3V_NC
PC1828 .1U_10V_NC
PR166 45.3K/F_NC
PR167 0
PR169 17.4K/F_0603_NC
1.8V_DH
1.8V_LX
1.8_DL
1.8V_FB
PR168 0_0603_NC
PR170 100K/F
1.8V_LIM
PR171 215K/F
PC158 .22U
PC159 1nF
VIN
POK1
POK2
SHDNA
STBY
VTTI
REFIN
PGND2
VTT
VTTS
VTTR
VOUT
FB
TON
REF
ILIM
SKIP
GND
SS
1.8VSUS_PWRGD
0.9V_PWRGD
SUSPWROK_5V 47
VREF_STBY
+1_5VSUS
0.9V_P
SMDDR_VREF
PC157 1U_10V
PC152 .1U_10V
PC151 10U_6.3V
PC1817 .1U_10V
PC153 .1U_10V
PC154 10U_6.3V
PC155 10U_6.3V
PC156 10U_6.3V
PC1818 10U_6.3V
PC1819 10U_6.3V
PC1820 10U_6.3V
SMDDR_VTERM
PR165 100K
R382 0_0603_NC
Q49 RHU002N06
RUN_ON 27,29,42,48
7.8A Current Limit
+1_5VSUS
PC80 10U_25V
PC78 .1U_50V
PC79 2200P
PD19 RB751V
PR100 0_0603
PC23 .1U_50V
PC82 1U_10V
MAX1845_VCC
PR101 20
PC26 4.7U_10V
PD18 RB751V
PQ11 IRF7413Z
PC17 .1U_50V
PC18 2200P
PC13 10U_25V
PC16 10U_25V
PU2
PQ33B FDS6982S
PQ33A FDS6982S
PL3 3.8UH_SIL104R_6A/13mohm
1.5V_OUT
1.5V_BST_R1
1.5V_BST_R
1.5V_DH
1.5V_LX
1.5V_DL
1.5V_OUT_R
1.5V_FB
PC29 .1U_10V
PC21 220U_4V_L
PR43 10K/F
PR38 18.7K/F
PC25 1nF_NC
PR45 0
PR102 0_0603
PC24 .1U_50V
1.05V_BST_1
1.05V_BST2
1.05V_DH
1.05V_LX
1.05V_DL
1.05V_OUT
1.05V_FB
PL4 1.5UH_SIL104R-1R5_10A/8.1 mohm
1.05V
VTT
PC15 390UF_2V_12mohm
PC19 .1U_10V
8.3A Current Limit
PR42 1K
PR37 20K/F
PQ12 FDS6676S
V+
BST2
DH2
LX2
CS2
DL2
OUT2
FB2
PGOOD
ON1
ON2
SKIP
OVP
UVP
VCC
VDD
BST1
DH1
LX1
CS1
DL1
OUT1
FB1
REF
TON
ILIM1
ILIM2
GND
MAX1845
MAX1845_REF
PC14 1U_10V
PR40 0_NC
PR41 100K/F
PR44 100K/F
PR36 619K/F
PR39 619K/F
VTT_PWRGD
RUN_ON_D
45 VTT_PWRGD
27,48,49 RUN_ON_D
PR1200 33.2K/F
PR1202 12.7K/F
PR1201 0_NC
PQ192 RHU002N06
D22 RB751V
C217 1nF
QUANTA COMPUTER
Title
1.8V,0.9V,1.5V,1.05V
Size
Document Number
JM5B
Rev
2A
Date: 星期五, 十月 29, 2004
Sheet 46 of 50



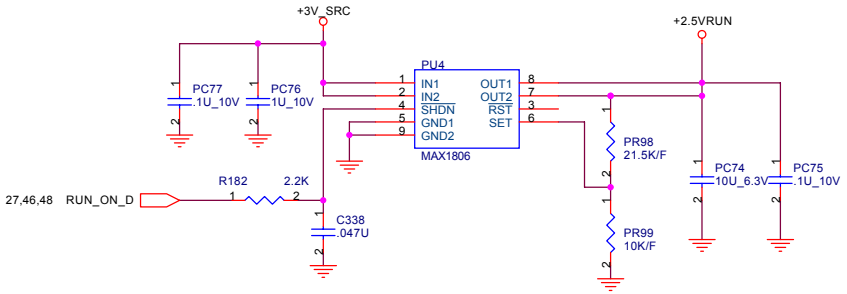

| | | |
|---|---|---|
| QUANTA COMPUTER | | |
| Title | 3VALW,5V,3V, power on | |
| Size | Document Number JM5B | Rev 2A |
| Date: 星期五, 十月 29, 2004 | Sheet 47 of 50 | |




**Reserve discharge path**

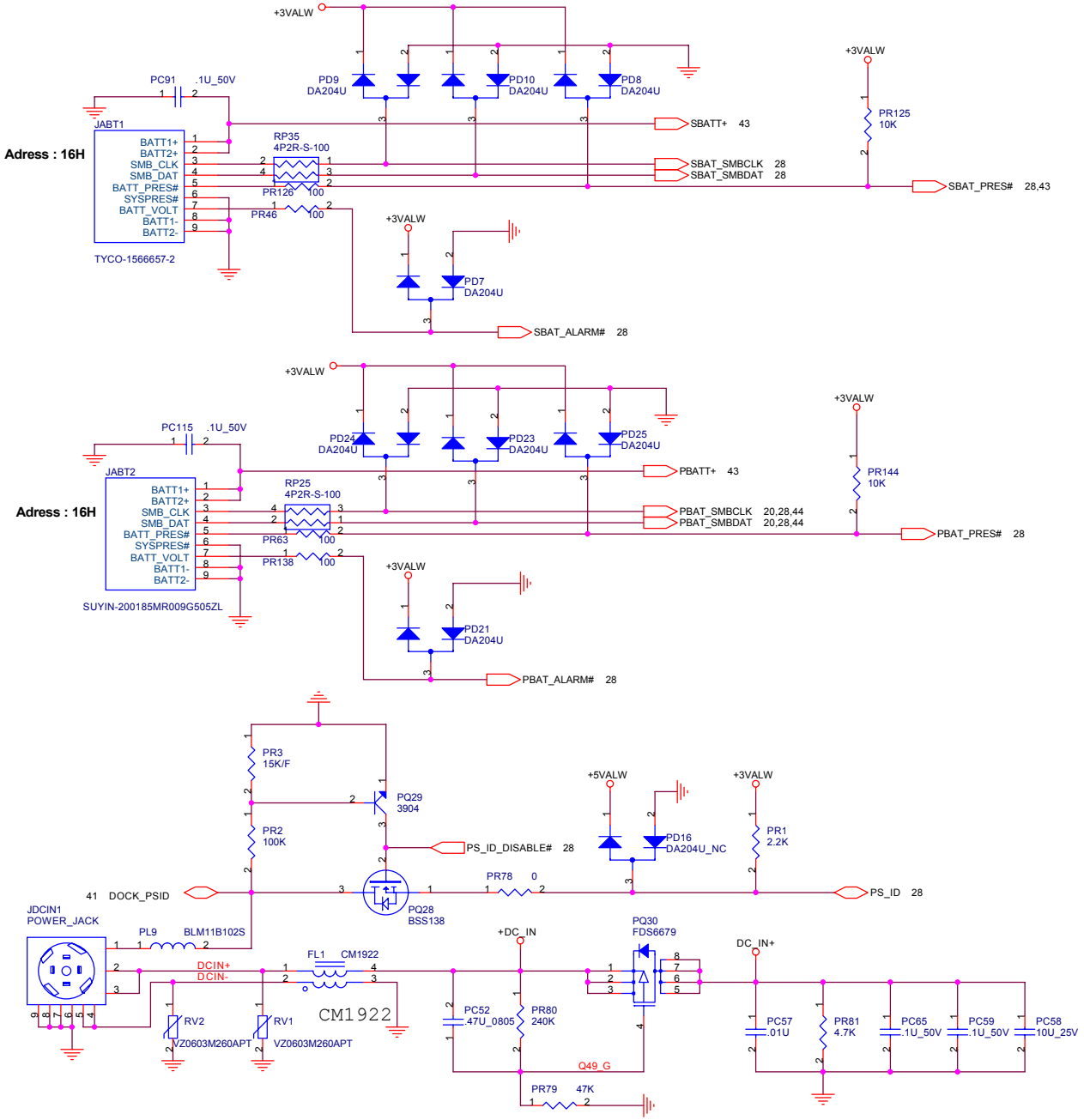
QUANTA COMPUTER

| | | |
|---|---|---|
| Title | RUN POWER SW | |
| Size | Document Number JM5B | Rev 2A |
| Date: 星期五, 十月 29, 2004 | Sheet 48 of 50 | |




QUANTA COMPUTER

| | | |
|---|---|---|
| Title | VGA DC/DC | |
| Size | Document Number JM5B | Rev 2A |
| Date: 星期五, 十月 29, 2004 | Sheet 49 of 50 | |




QUANTA COMPUTER

| | | |
|---|---|---|
| Title | DCIN,BATT CONNECTOR | |
| Size | Document Number JM5B | Rev 2A |
| Date: 星期五, 十月 29, 2004 | Sheet 50 of 50 | |