ZL8

CPU CORE
SENTECH
SC451ITSTR
Page:23

SYSTEM 3V/5V
MAXIM
MAX1999
+3VPCU
+3V_S5/+3VSUS
+3V
+5VPCU
+5VSUS
+5V
+15V Page:24

+1.8VSUS
+1.8V
+0.9VSUS
+0.9V ON
NCP5214
+1.5V SENTECH
SC1470
+1.5V_S5
SI9183-AD
+2.5V SENTECH
SC1565
+1.05V SENTECH
SC4215
Page:25

BATTERY CHARGER
MAXIM
MAX8724
Page:26

CLOCK GEN
ICS954206
Page:4

CELERON-M/PENTIUM-M
INTEL Mobile_479 CPU
Page:2, 3

HOST BUS 533/400MHZ

NB
INTEL
ALVISO 915GM
Page: 5, 6 , 7, 8

DDR-II SODIMM1 Page: 10
DDR-II SODIMM2 Page: 10
DDR-II

RGB
LVDS

CRT Page: 11
LVDS Page: 11

(Option)
MINI-PCIE slot
Wireless LAN
Page: 16

DMI I/F

SB
INTEL
ICH6-M
Page: 12 , 13 , 14

PATA HDD Page: 16
IDE-ODD Page: 16
ATA 66/100
ATA 66/100

PCI-E BUS
PCI BUS 33MHZ
USB 2.0
HD Audio
LPC 33MHZ

TI PCMCIA
PCI1510A (L-F)
AD17
REQ1# / GNT1#
INTC#
Page: 18

TYPE II SLOT
Page: 18

MINI-PCI
Wireless LAN
AD20
REQ2# / GNT2#
INTB# , INTD#
Page: 16

REALTEK
RTL8100CL
AD24
REQ0# / GNT0#
INTA#
Page: 17

RJ45
Page: 17

AUDIO CODEC
Realtek
ALC260 (ALC883)
Page: 19

AMP
MAX9755
Page: 20

MODEM
Page: 19

KBC
NS
PC97551
Page: 21

MIC IN Page: 19
SPEAKER Page: 20
LINE OUT Page: 20
RJ11 Page: 17

Touchpad Page: 22
Keyboard Page: 22
FLASH Page: 21
FAN Page: 22

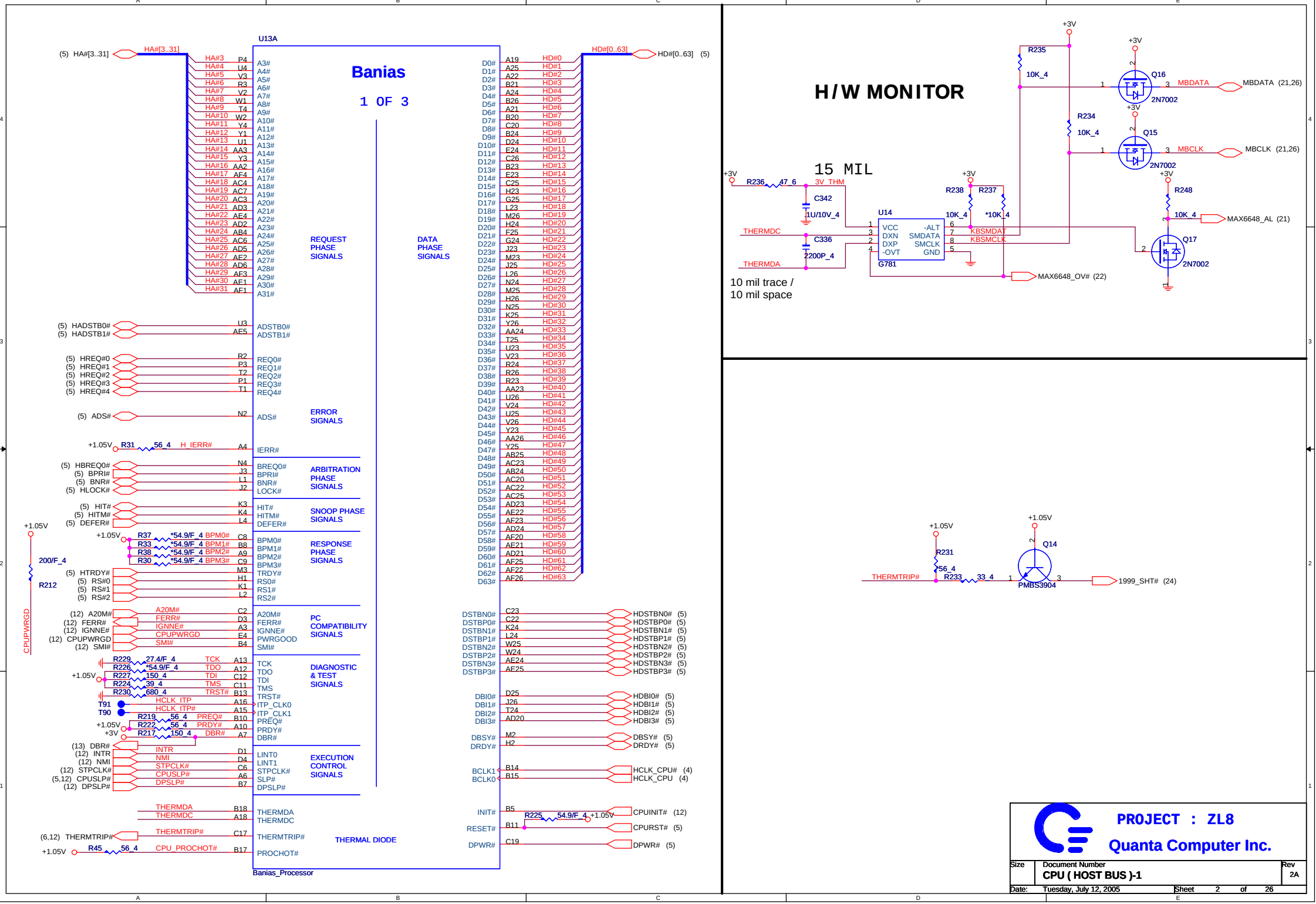
SYSTEM
USB PORT *3
USB2,3,5 Page:16

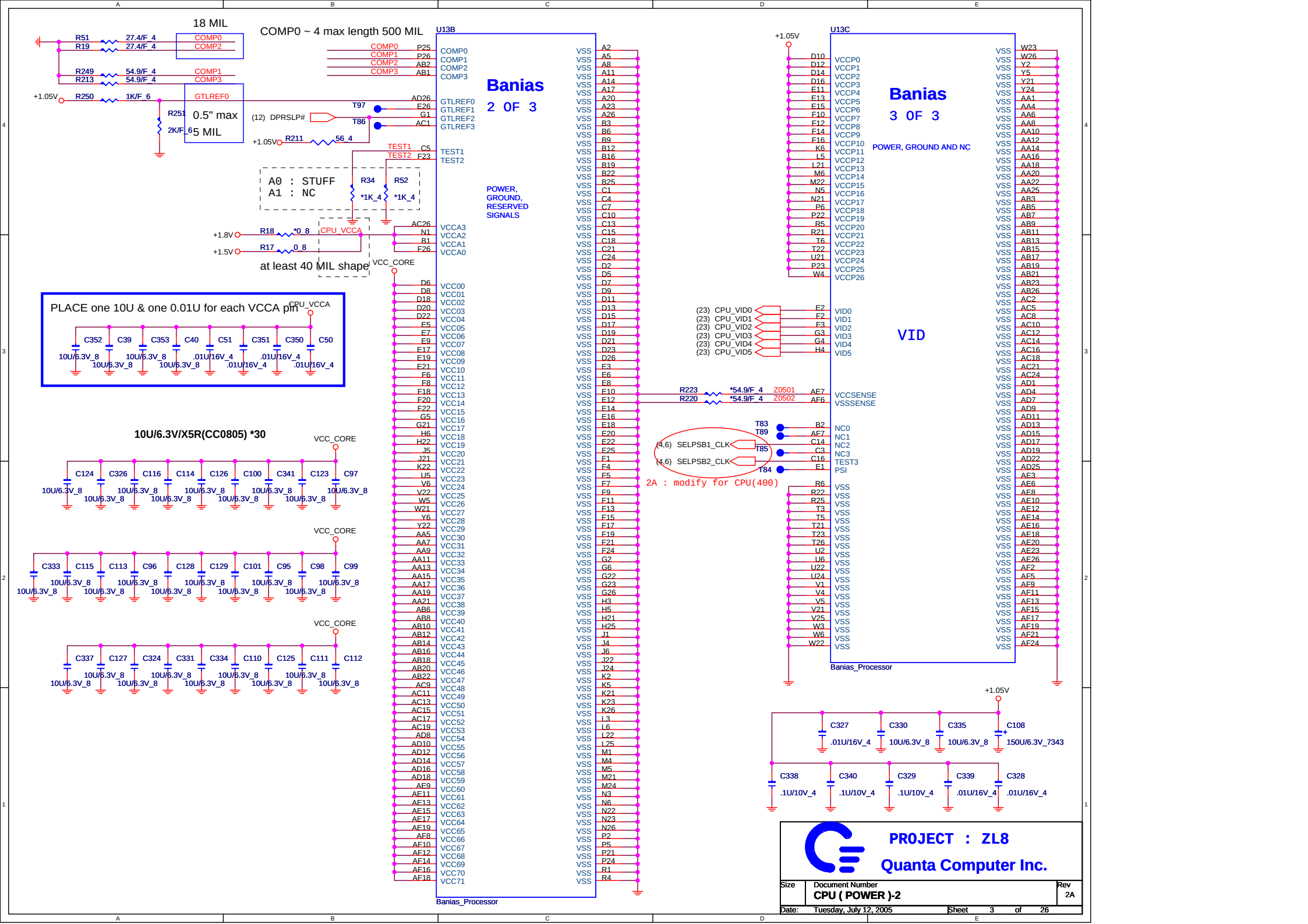
Bluetooth
USB
interface
USB4 Page:16

PROJECT : ZL8
Quanta Computer Inc.

Size	Document Number	Rev
	BLOCK DIAGRAM	2A

Date: Tuesday, July 12, 2005 Sheet 1 of 26


U13A
Banias
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
Banias_Processor
H/W MONITOR
15 MIL
10 mil trace /
10 mil space
U14
G781
Q16
Q15
Q17
Q14
2N7002
PMBS3904
MBDATA (21,26)
MBCLK (21,26)
MAX6648_AL (21)
MAX6648_OV# (22)
1999_SHT# (24)
PROJECT : ZL8
Quanta Computer Inc.
CPU (HOST BUS)-1
Tuesday, July 12, 2005


18 MIL
COMP0 ~ 4 max length 500 MIL
R51 27.4/F_4 COMP0
R19 27.4/F_4 COMP2
R249 54.9/F_4 COMP1
R213 54.9/F_4 COMP3
+1.05V R250 1K/F_6 GTLREF0
R251 2K/F_6 0.5" max 5 MIL
(12) DPRSLP# T97 T86
+1.05V R211 56_4
TEST1 TEST2
A0 : STUFF
A1 : NC
R34 *1K_4
R52 *1K_4
+1.8V R18 *0_8 CPU_VCCA
+1.5V R17 0_8
at least 40 MIL shape
VCC_CORE
PLACE one 10U & one 0.01U for each VCCA pin
CPU_VCCA
C352 C39 C353 C40 C51 C351 C350 C50
10U/6.3V_8 .01U/16V_4
10U/6.3V/X5R(CC0805) *30
VCC_CORE
C124 C326 C116 C114 C126 C100 C341 C123 C97
C333 C115 C113 C96 C128 C129 C101 C95 C98 C99
C337 C127 C324 C331 C334 C110 C125 C111 C112
U13B
Banias
2 OF 3
POWER, GROUND, RESERVED SIGNALS
Banias_Processor
U13C
Banias
3 OF 3
POWER, GROUND AND NC
VID
(23) CPU_VID0
(23) CPU_VID1
(23) CPU_VID2
(23) CPU_VID3
(23) CPU_VID4
(23) CPU_VID5
R223 *54.9/F_4 Z0501
R220 *54.9/F_4 Z0502
VCCSENSE
VSSSENSE
T83 T89 T85 T84
(4,6) SELPSB1_CLK
(4,6) SELPSB2_CLK
2A : modify for CPU(400)
NC0 NC1 NC2 NC3 TEST3 PSI
Banias_Processor
+1.05V
C327 .01U/16V_4
C330 10U/6.3V_8
C335 10U/6.3V_8
C108 150U/6.3V_7343
C338 .1U/10V_4
C340 .1U/10V_4
C329 .1U/10V_4
C339 .01U/16V_4
C328 .01U/16V_4
PROJECT : ZL8
Quanta Computer Inc.
Size
Document Number
CPU (POWER)-2
Rev
2A
Date: Tuesday, July 12, 2005
Sheet 3 of 26

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

DOTHAN-A 400

DOTHAN-A 533

2A : modify for RAM

2A : modify for CPU select

2A : modify for Signal Quality

SMbus address D2

U17 ICS954206

C363 33P_4 CG_XIN — Y2 14.318MHZ/20PF — C364 33P_4 CG_XOUT

C358 *10P_4

R260 12_4 R312 4.7K_4 SELPSB2_CLK

L35 ACB2012L-120_8 CLKVDD

C366 10U/10V_8 C371 .047U/10V_4 C370 .047U/10V_4

R84 1_6 VDD_CKGREF — C361 .047U/10V_4

R269 2.2_6 VDD_CKG_48 — C372 10U/10V_8 C367 .047U/10V_4

L34 ACB2012L-120_8 VDD_CKG_CPU — C365 10U/10V_8 C368 .047U/10V_4 C369 .1U/10V_4 R267 2.2_6

VDDA_CKG — C360 .047U/10V_4 C359 10U/10V_8

R261 *1K_4 R104 *1K_4 R91 10K_4

SELPSB2_CLK SELPSB1_CLK SELPSB0_CLK

R57 *0_4 R103 *0_4 R90 *10K_4

Iref=5mA, Ioh=4*Iref — R56 475/F_6 IREF

RP32 10K_4P2R_S

Q18 2N7002 (13,16) PDAT_SMB SMBDT SMBDT (10)

Q19 2N7002 (13,16) PCLK_SMB SMBCK SMBCK (10)

HCLK_CPU R257 49.9/F_4 — HCLK_CPU# R256 49.9/F_4

HCLK_MCH R255 49.9/F_4 — HCLK_MCH# R254 49.9/F_4

CLK_MCH_3GPLL R253 49.9/F_4 — CLK_MCH_3GPLL# R252 49.9/F_4

DOT96 R275 49.9/F_4 — DOT96# R274 49.9/F_4

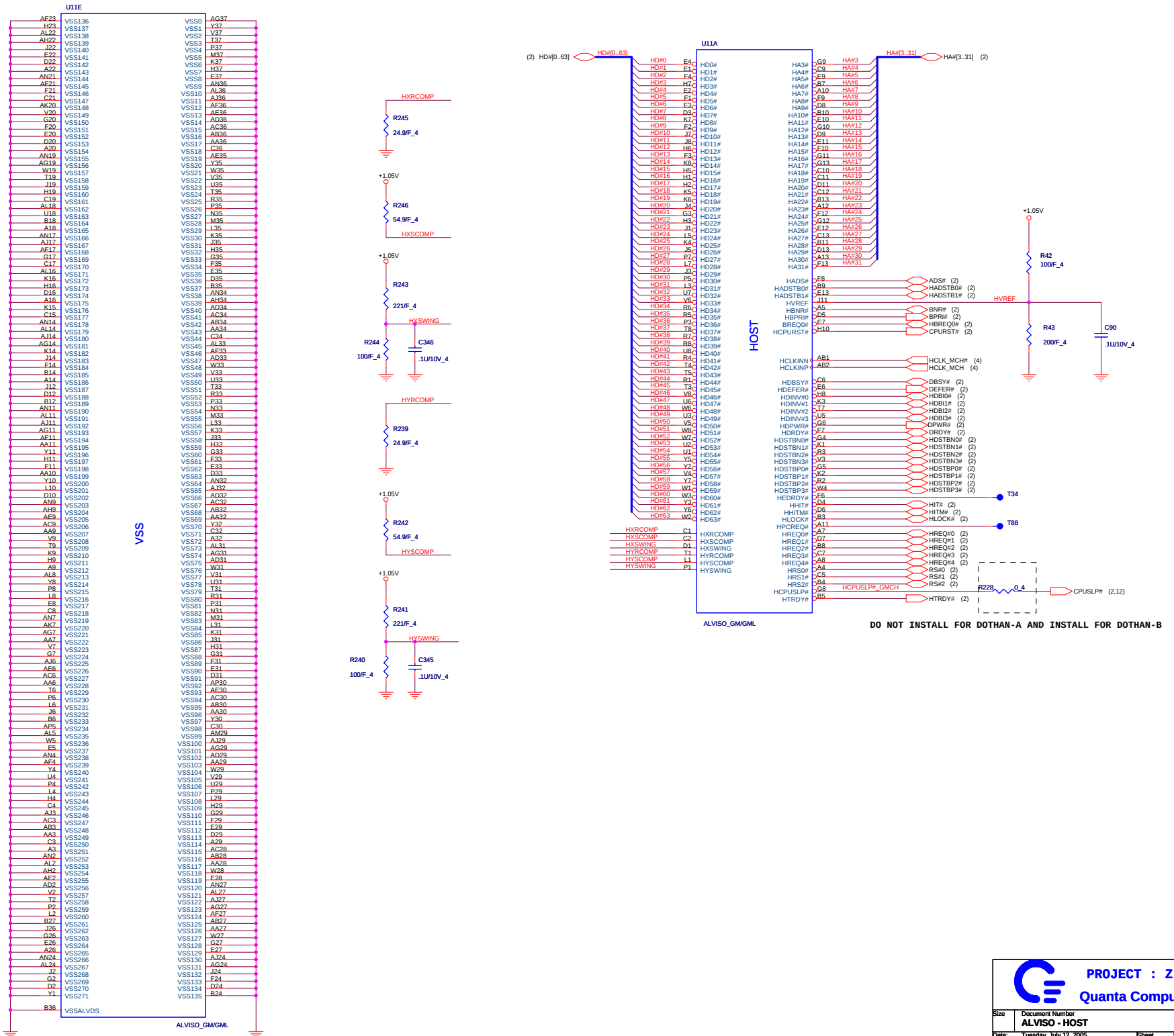
DREFSSCLK R273 49.9/F_4 — DREFSSCLK# R272 49.9/F_4

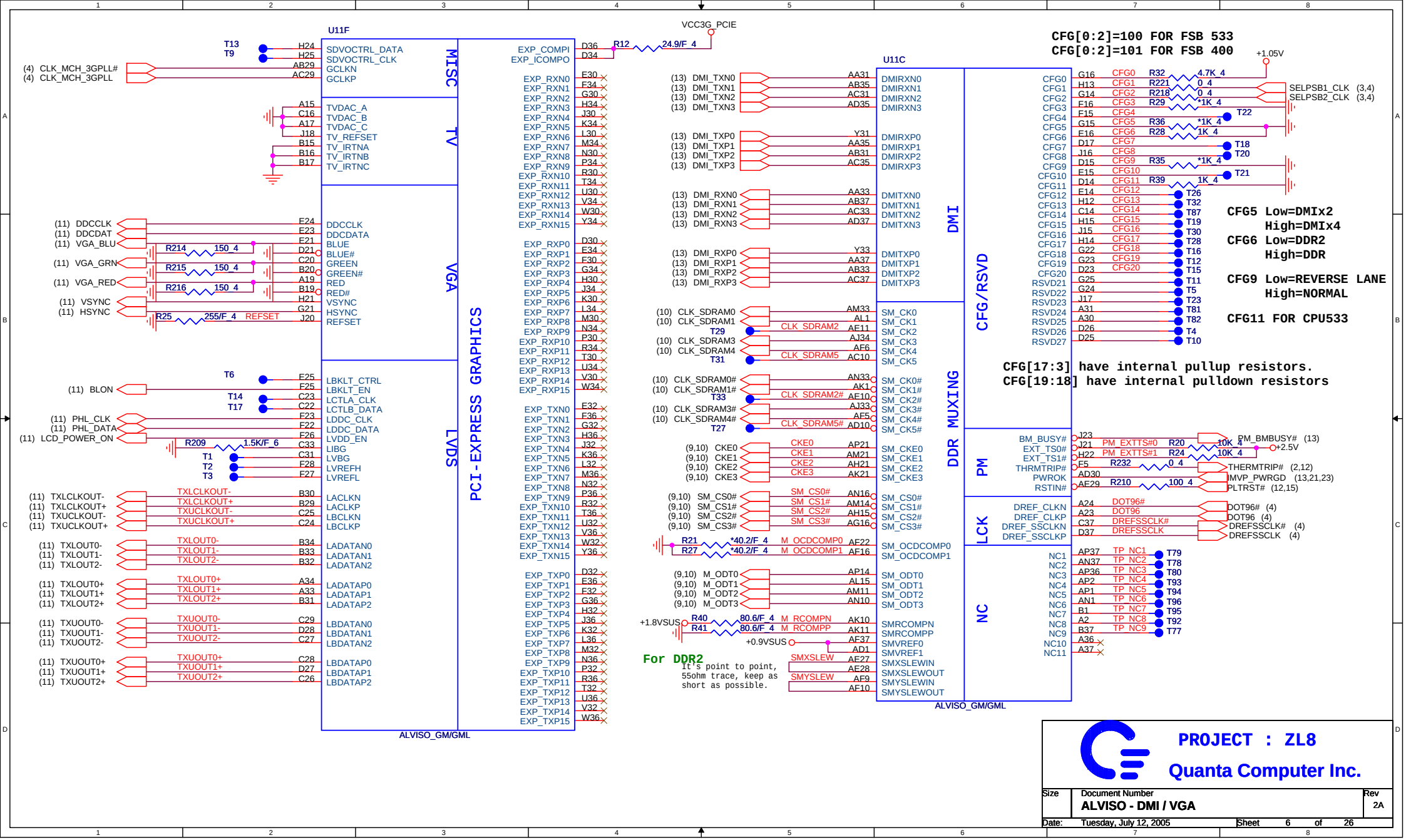
CLK_PCIE_MINI R102 49.9/F_4 — CLK_PCIE_MINI# R101 49.9/F_4

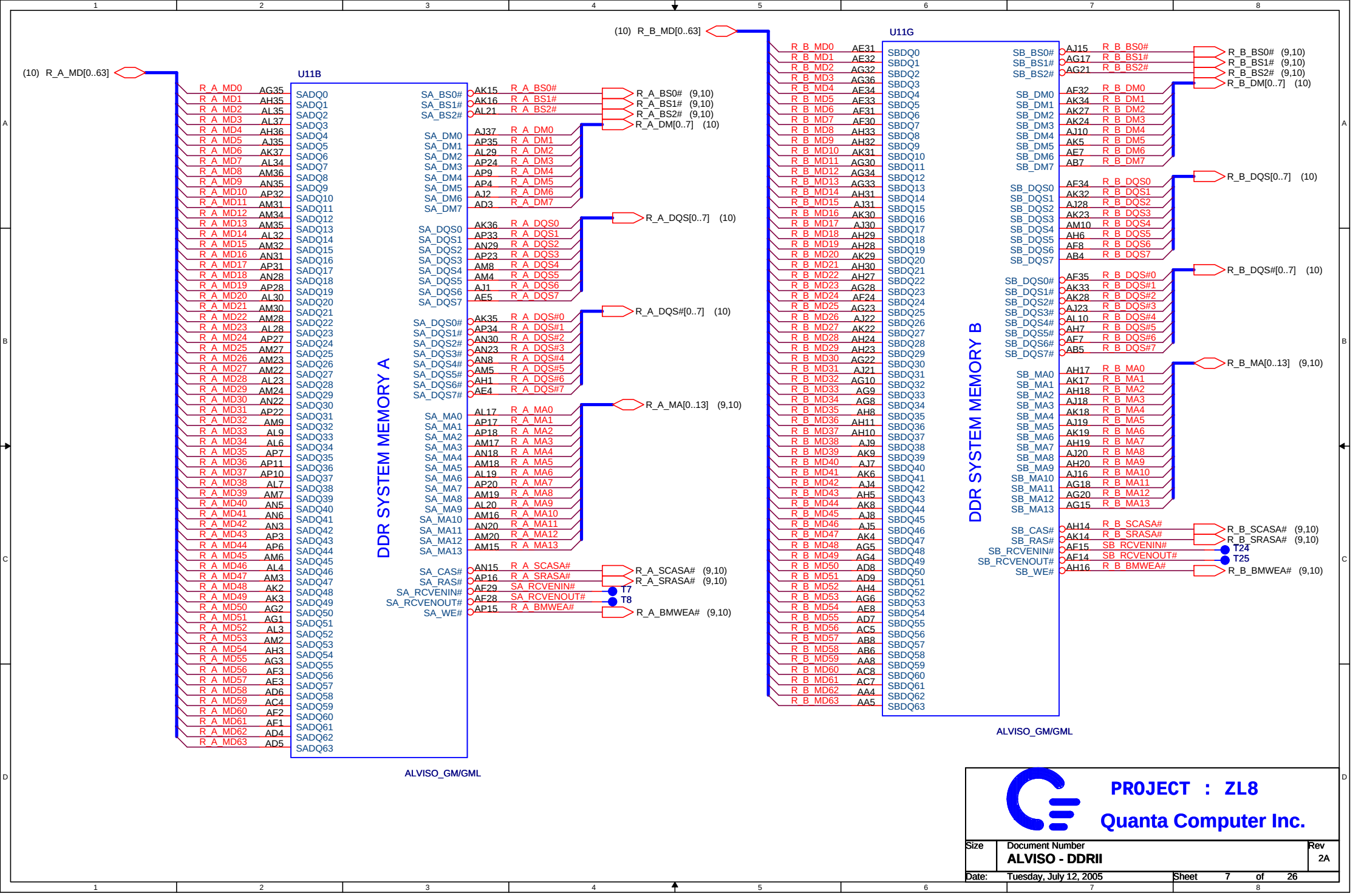
CLK_PCIE_ICH R271 49.9/F_4 — CLK_PCIE_ICH# R270 49.9/F_4

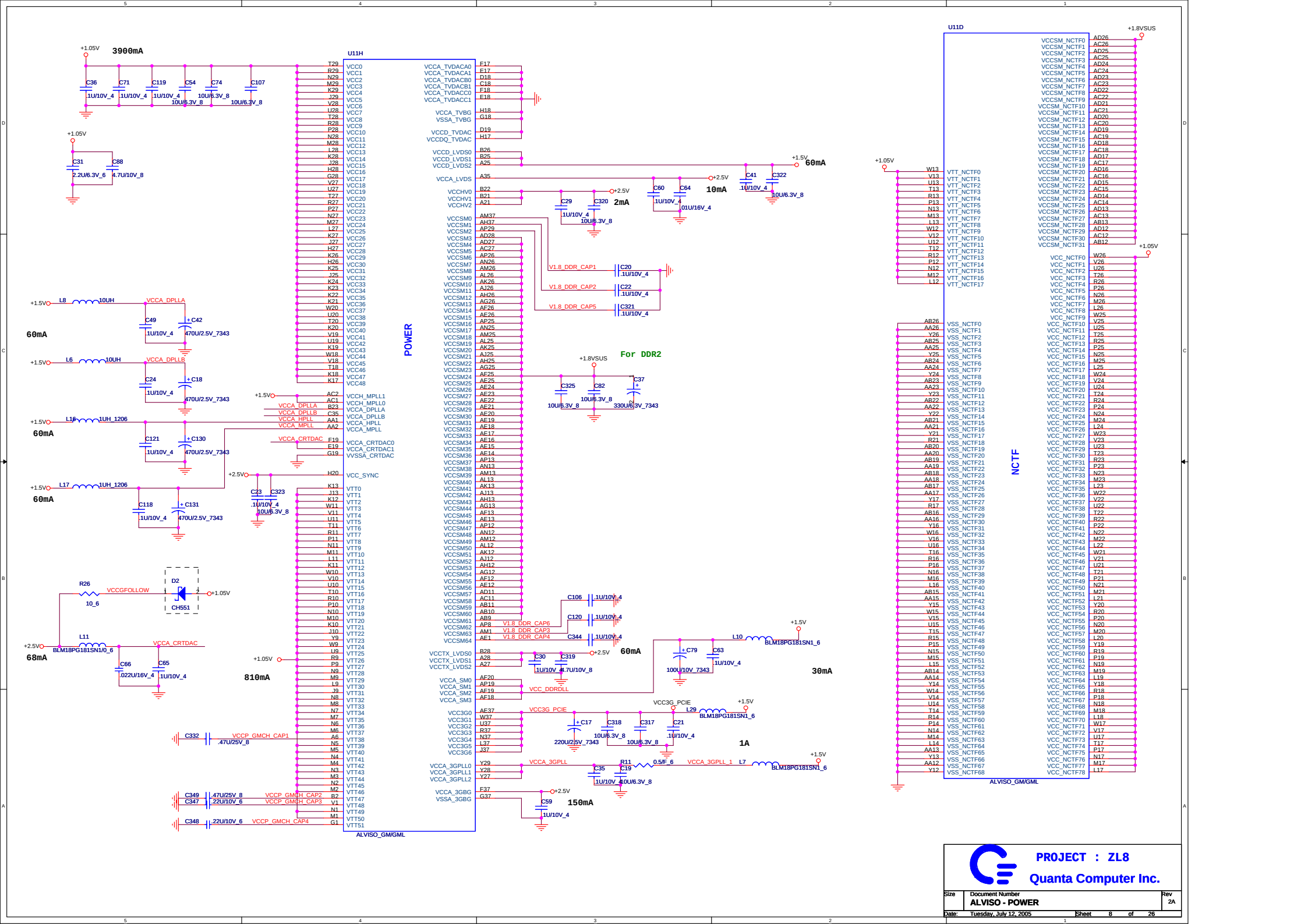
C179 15P_4 C182 *10P_4 C181 *10P_4 C362 *10P_4 C373 *10P_4 C180 *10P_4

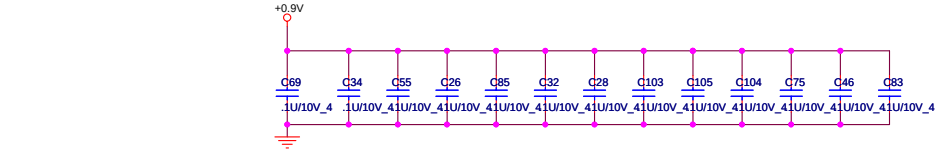
<OrgName>	PROJECT : ZL8		
<OrgAddr1>	Quanta Computer Inc.		
Size	Document Number: CLK GEN		Rev: 2A
Date: Tuesday, July 12, 2005	Sheet 4 of 26		


U11E
VSS
ALVISO_GM/GML
U11A
HOST
ALVISO_GM/GML
HXRCOMP
HYSCOMP
HYSWING
R245
24.9/F_4
R246
54.9/F_4
R243
221/F_4
R244
100/F_4
C346
.1U/10V_4
R239
24.9/F_4
R242
54.9/F_4
R241
221/F_4
R240
100/F_4
C345
.1U/10V_4
+1.05V
HD#[0..63]
HA#[3..31]
HVREF
R42
100/F_4
R43
200/F_4
C90
.1U/10V_4
R228
0_4
T34
T88
HCPUSLP#_GMCH
CPUSLP# (2,12)
DO NOT INSTALL FOR DOTHAN-A AND INSTALL FOR DOTHAN-B
PROJECT : ZL8
Quanta Computer Inc.
Size
Document Number
ALVISO - HOST
Rev
2A
Date: Tuesday, July 12, 2005
Sheet 5 of 26

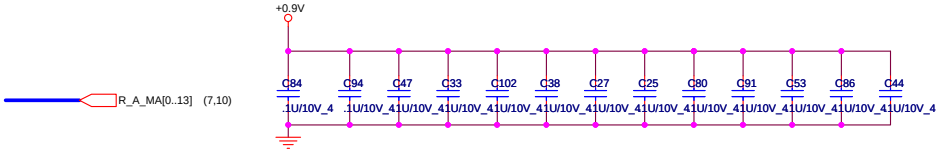

U11F
MISC
TV
VGA
LVDS
PCI-EXPRESS GRAPHICS
ALVISO_GM/GML
U11C
DMI
DDR MUXING
CFG/RSVD
PM
LCK
NC
ALVISO_GM/GML
VCC3G_PCIE
+1.05V
+2.5V
+1.8VSUS
+0.9VSUS
CFG[0:2]=100 FOR FSB 533
CFG[0:2]=101 FOR FSB 400
CFG5 Low=DMIx2
High=DMIx4
CFG6 Low=DDR2
High=DDR
CFG9 Low=REVERSE LANE
High=NORMAL
CFG11 FOR CPU533
CFG[17:3] have internal pullup resistors.
CFG[19:18] have internal pulldown resistors
For DDR2
It's point to point, 55ohm trace, keep as short as possible.
PROJECT : ZL8
Quanta Computer Inc.
ALVISO - DMI / VGA
Size
Document Number
Rev
2A
Date: Tuesday, July 12, 2005
Sheet 6 of 26


(10) R_A_MD[0..63]
U11B
DDR SYSTEM MEMORY A
ALVISO_GM/GML
(10) R_B_MD[0..63]
U11G
DDR SYSTEM MEMORY B
ALVISO_GM/GML
R_A_BS0# (9,10)
R_A_BS1# (9,10)
R_A_BS2# (9,10)
R_A_DM[0..7] (10)
R_A_DQS[0..7] (10)
R_A_DQS#[0..7] (10)
R_A_MA[0..13] (9,10)
R_A_SCASA# (9,10)
R_A_SRASA# (9,10)
R_A_BMWEA# (9,10)
R_B_BS0# (9,10)
R_B_BS1# (9,10)
R_B_BS2# (9,10)
R_B_DM[0..7] (10)
R_B_DQS[0..7] (10)
R_B_DQS#[0..7] (10)
R_B_MA[0..13] (9,10)
R_B_SCASA# (9,10)
R_B_SRASA# (9,10)
R_B_BMWEA# (9,10)
T7
T8
T24
T25
PROJECT : ZL8
Quanta Computer Inc.
Size
Document Number
ALVISO - DDRII
Rev
2A
Date: Tuesday, July 12, 2005
Sheet 7 of 26

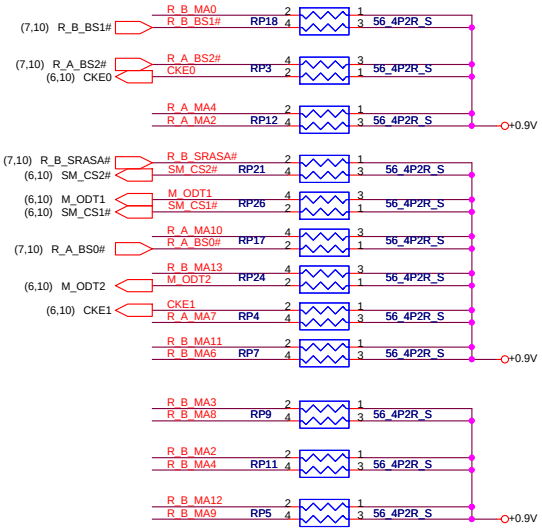

U11H
POWER
ALVISO_GM/GML
U11D
NCTF
ALVISO_GM/GML
For DDR2
3900mA
60mA
10mA
2mA
60mA
60mA
60mA
68mA
810mA
150mA
1A
30mA
PROJECT : ZL8
Quanta Computer Inc.
ALVISO - POWER
Tuesday, July 12, 2005

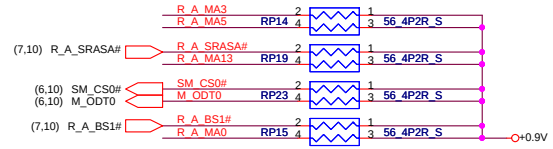


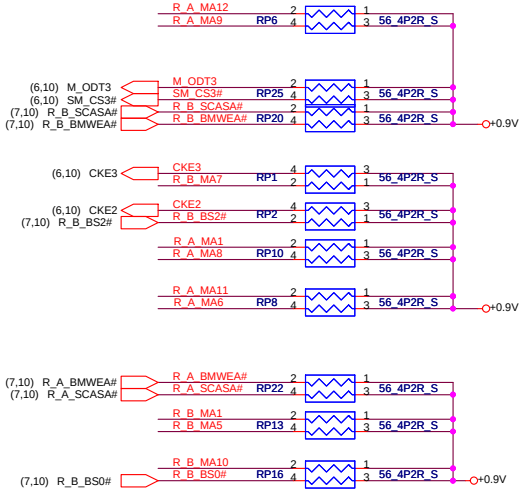
Layout note: Place one cap close to every 2 pullup resistors terminated to +0.9V



Layout note: Place one cap close to every 2 pullup resistors terminated to +0.9V





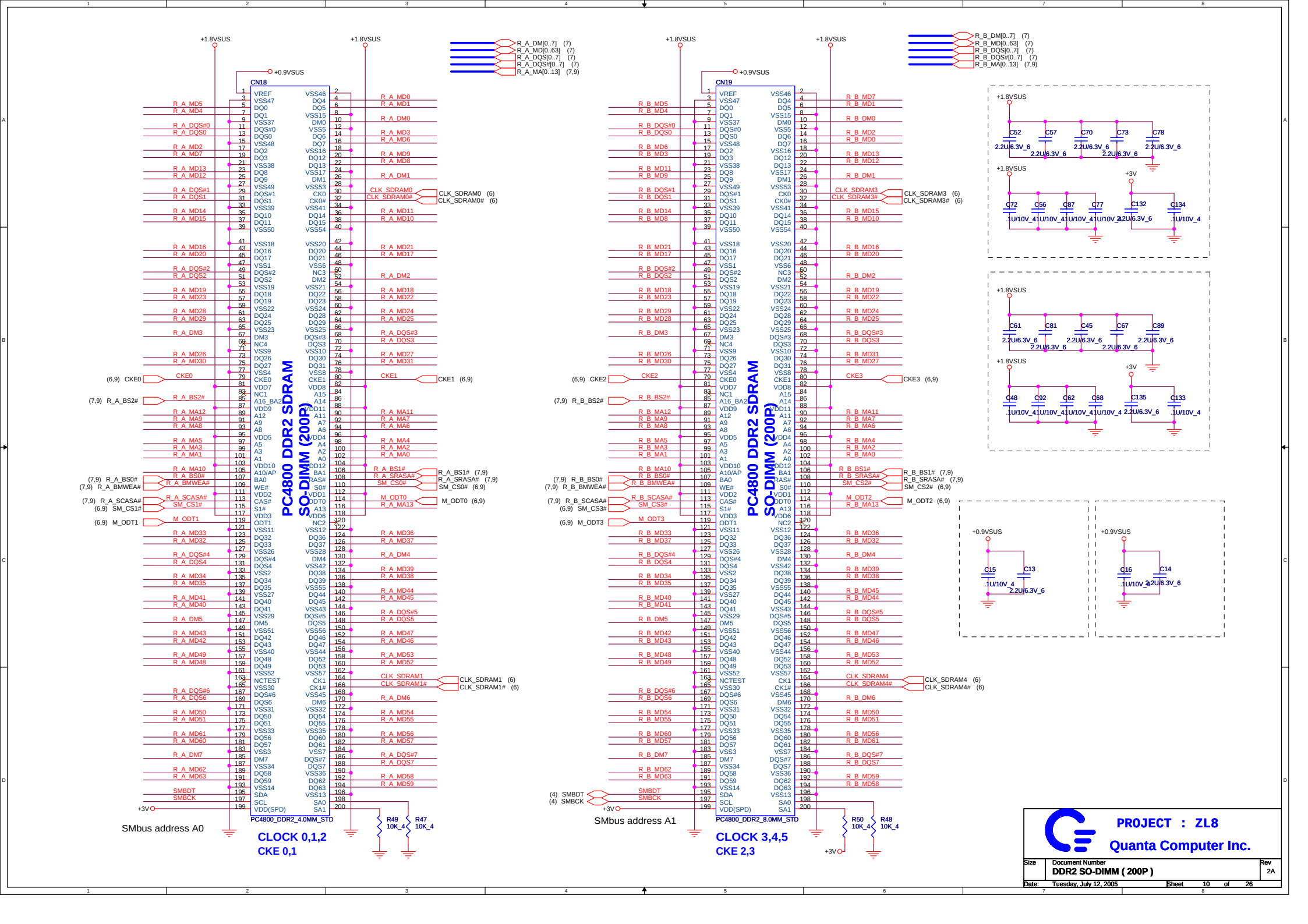


PROJECT : ZL8

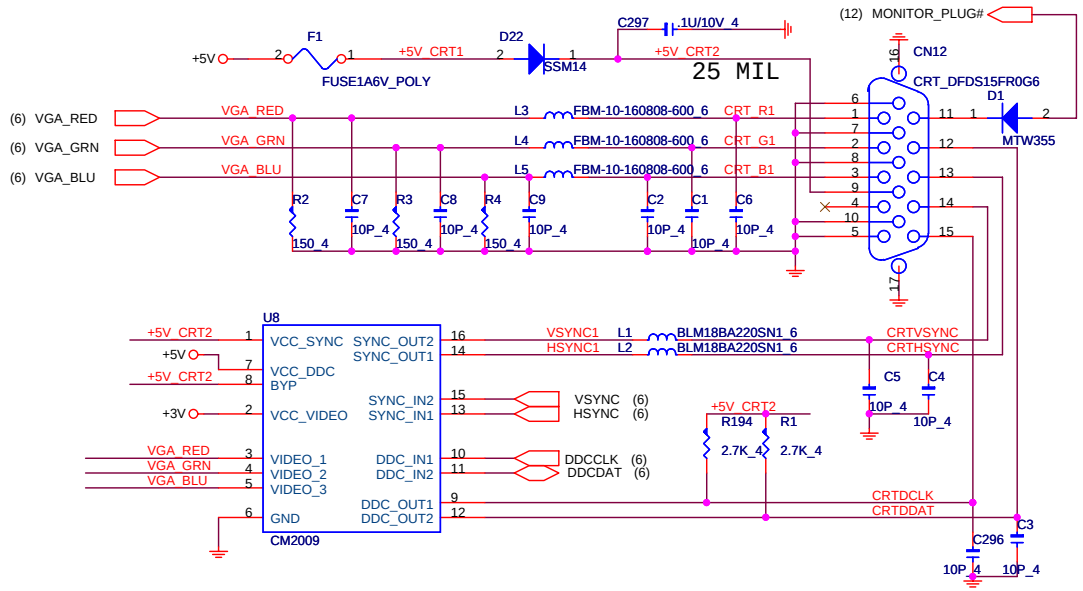
Quanta Computer Inc.

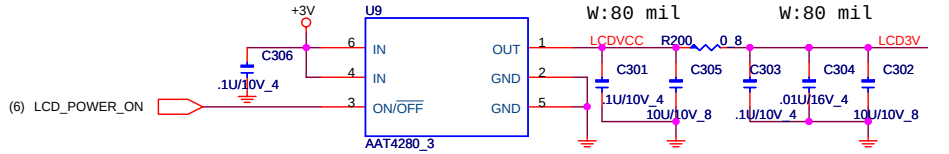
Size	Document Number	Rev
	DDR2 TERMINATION	2A

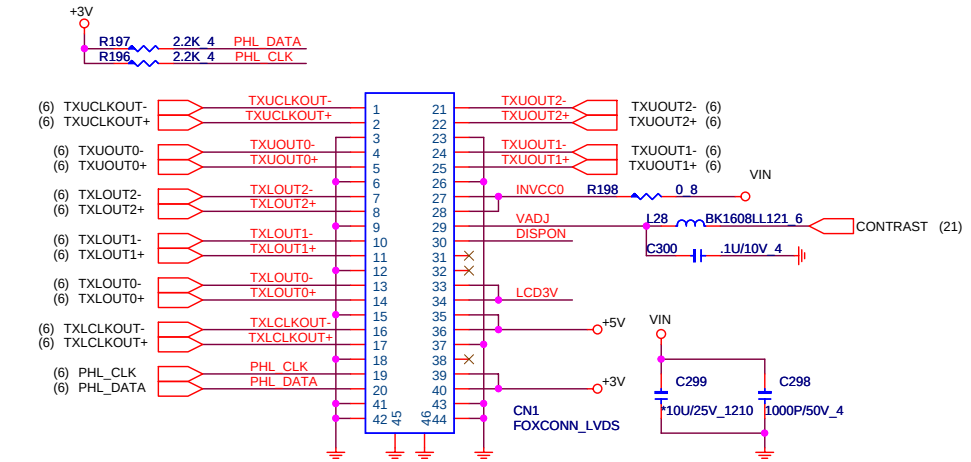
Date: Tuesday, July 12, 2005 Sheet 9 of 26


CN18
PC4800 DDR2 SDRAM SO-DIMM (200P)
PC4800_DDR2_4.0MM_STD
SMbus address A0
CLOCK 0,1,2
CKE 0,1
CN19
PC4800 DDR2 SDRAM SO-DIMM (200P)
PC4800_DDR2_8.0MM_STD
SMbus address A1
CLOCK 3,4,5
CKE 2,3
PROJECT : ZL8
Quanta Computer Inc.
DDR2 SO-DIMM (200P)
Tuesday, July 12, 2005
Sheet 10 of 26

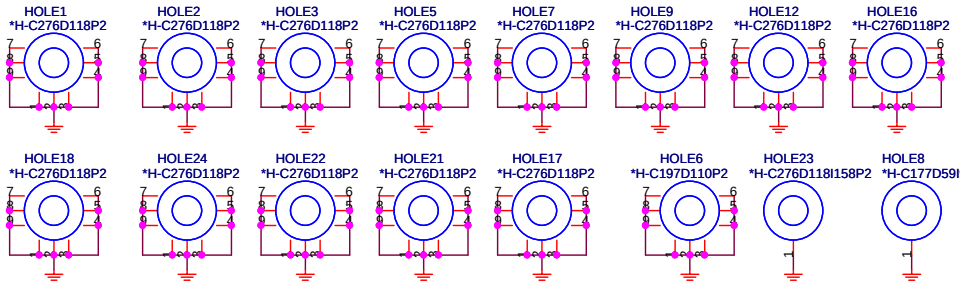
CRT PORT

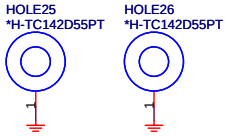




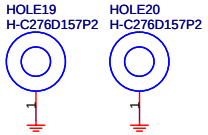


PCIE-CARD NUT

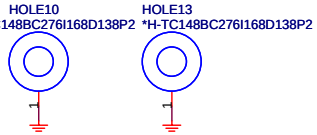




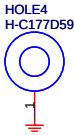
MDC1.5 NUT



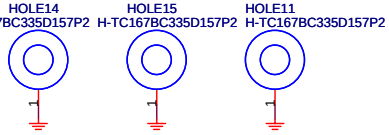
NB HEATSINK NUT

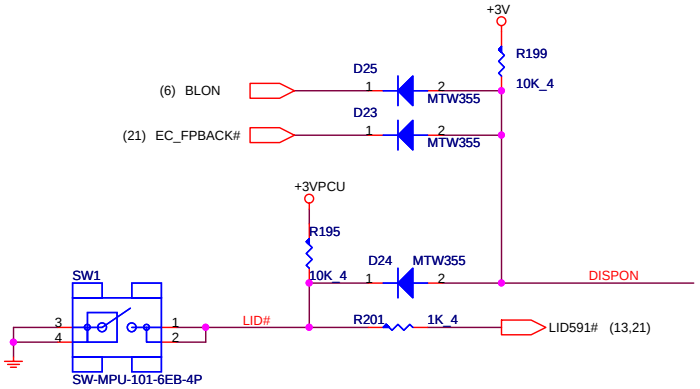


LED/B NUT



CPU NUT



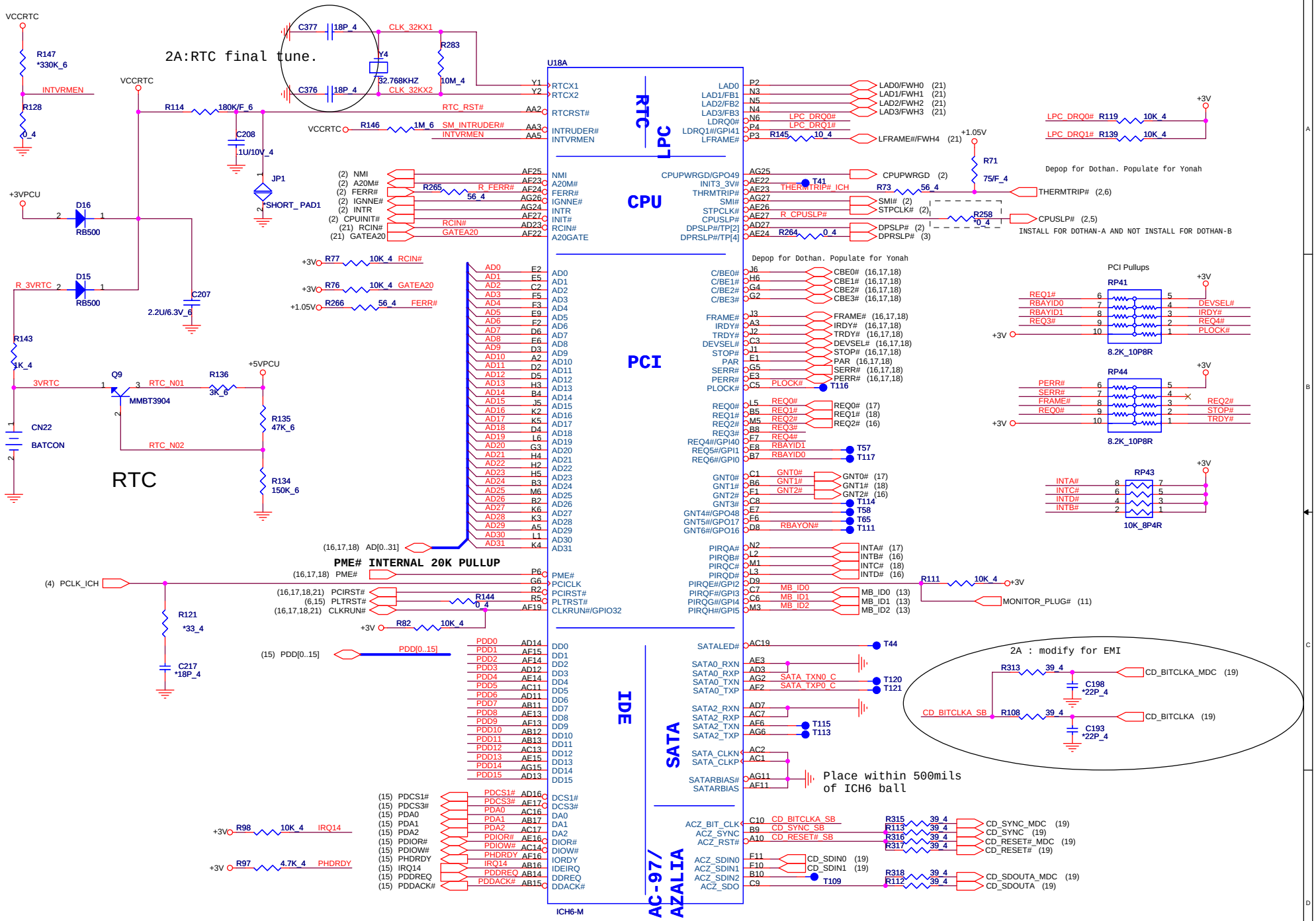


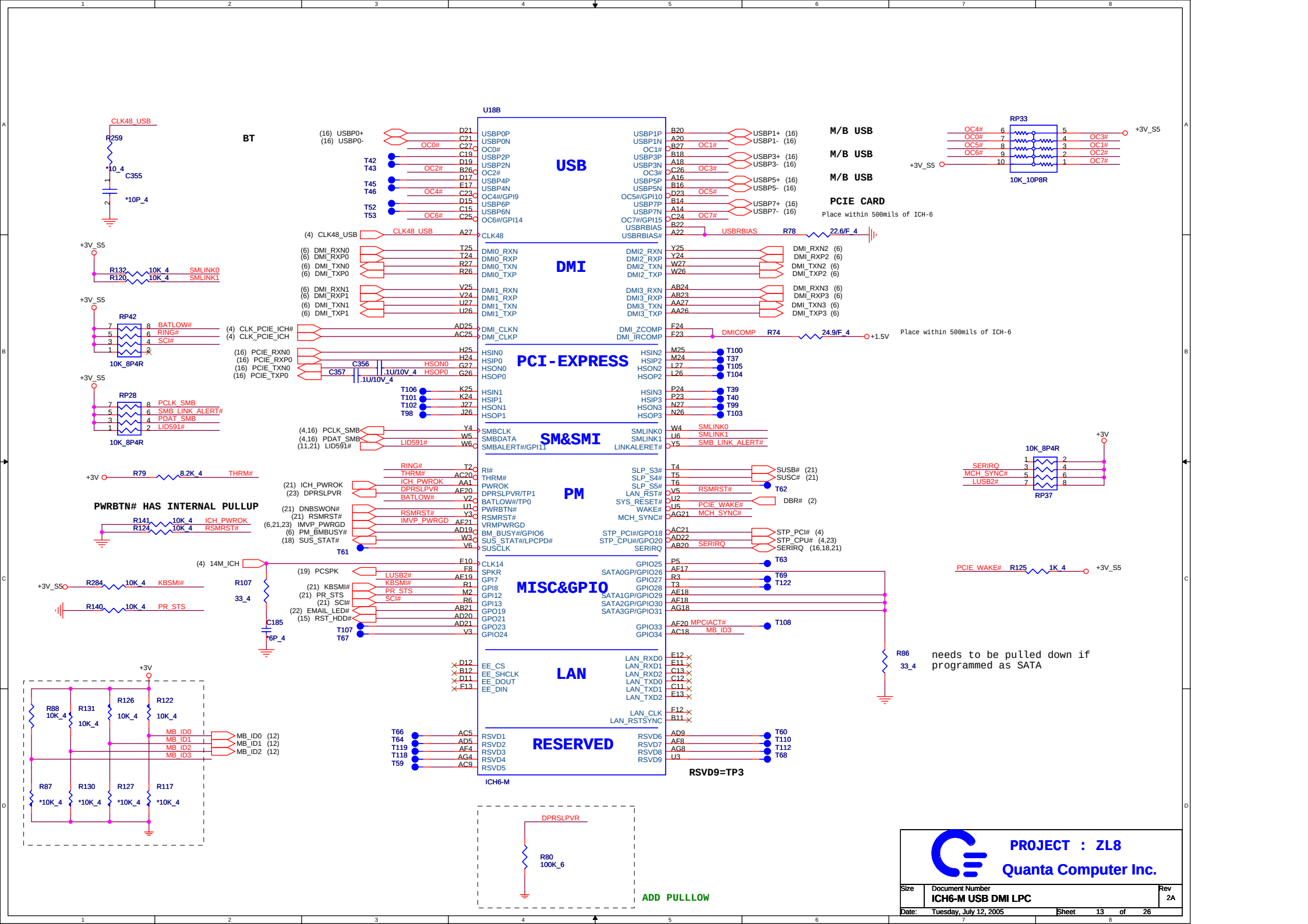
Lid Switch

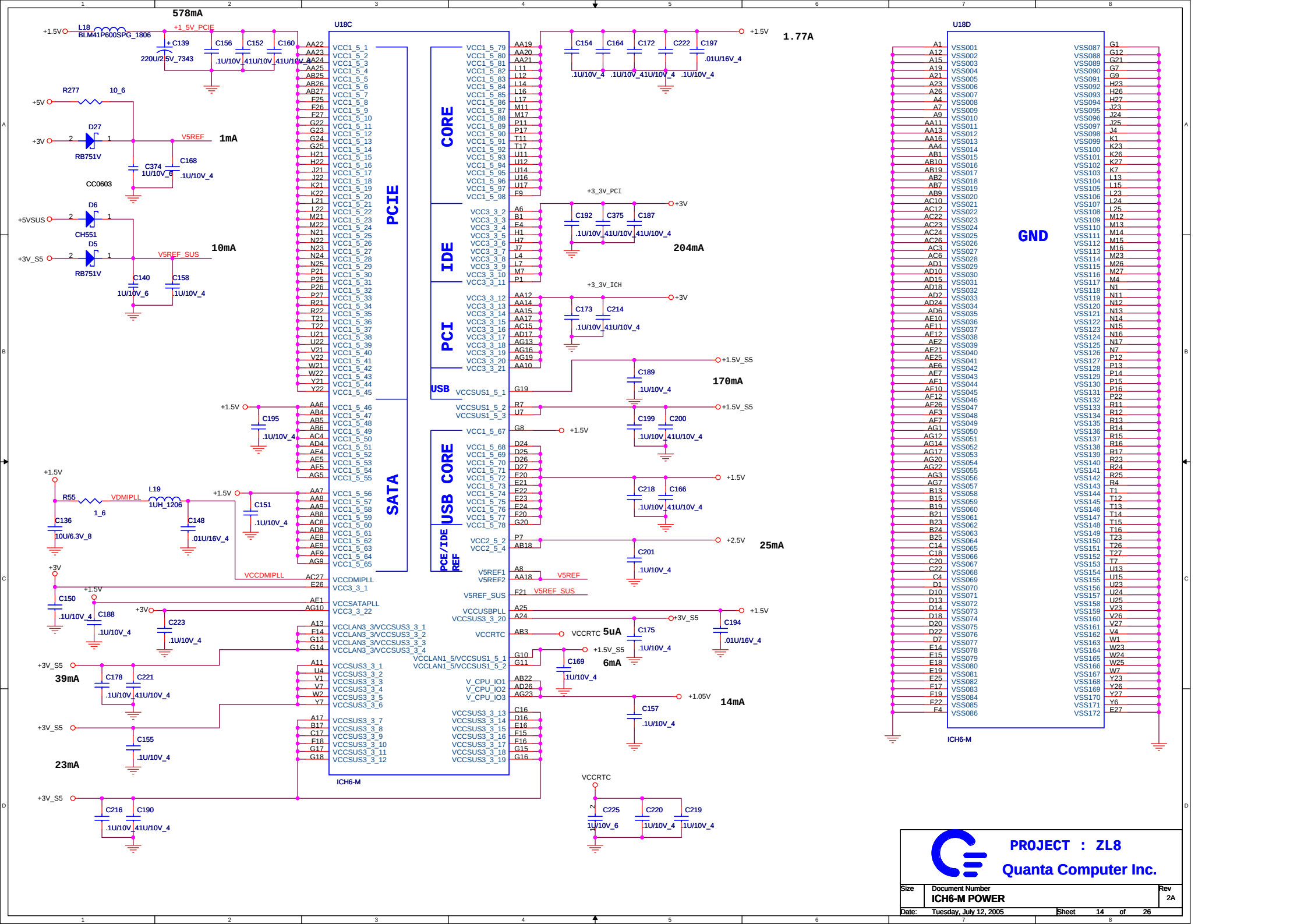
PROJECT : ZL8

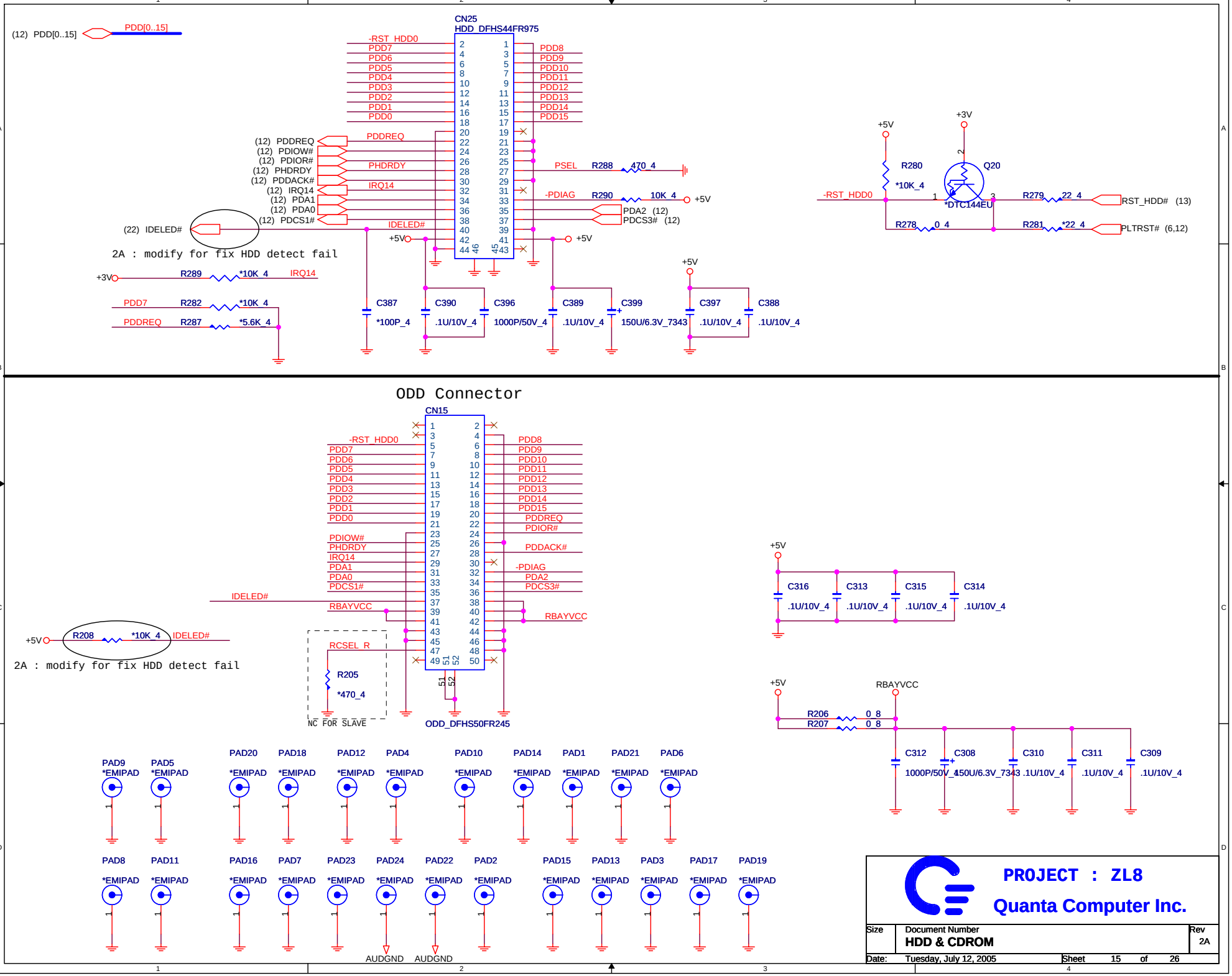
Quanta Computer Inc.

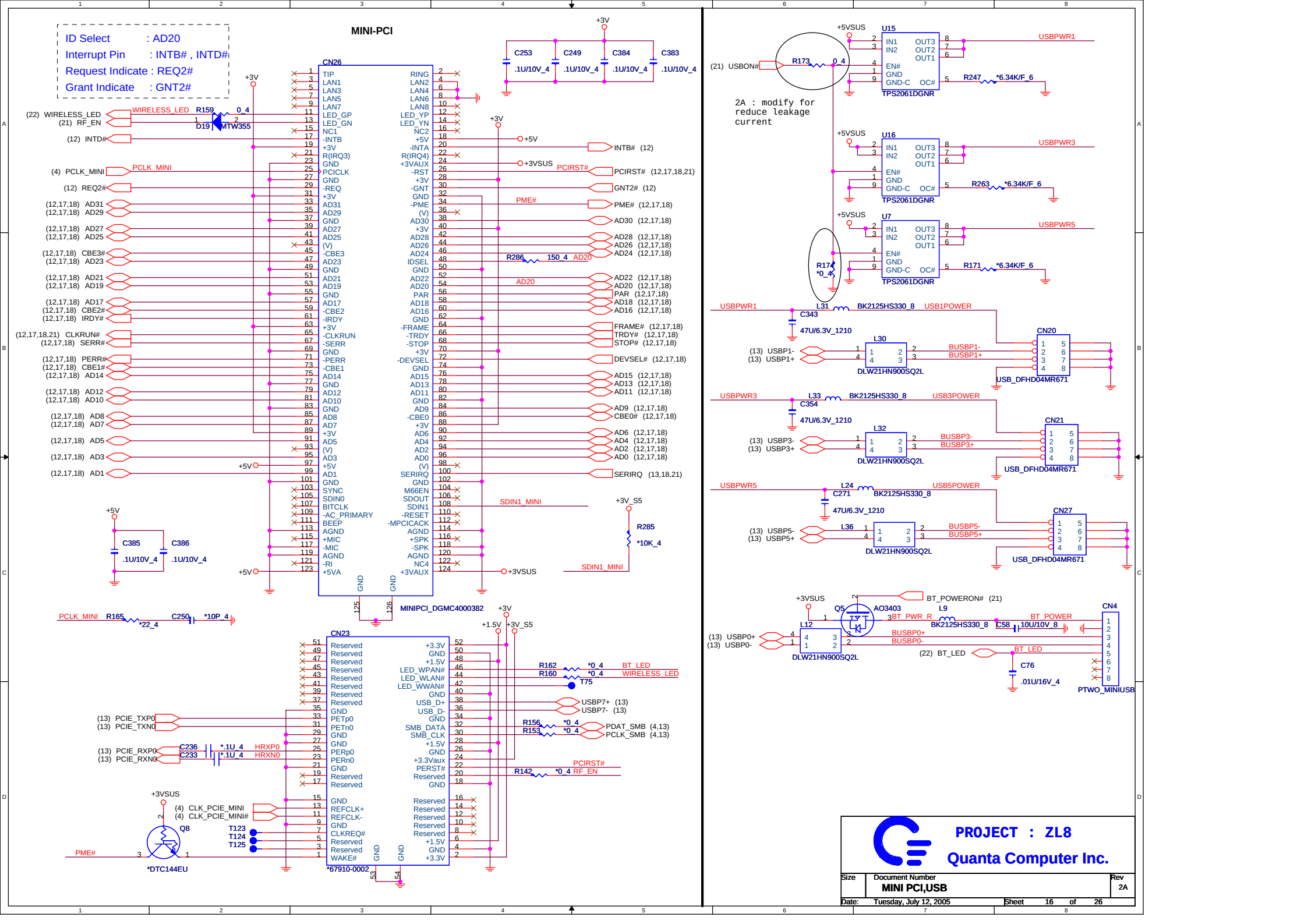
Size	Document Number	Rev
	LVDS,VGA Ports, LID, & HOLES	2A
Date: Tuesday, July 12, 2005	Sheet 11 of 26	


2A:RTC final tune.
RTC
PME# INTERNAL 20K PULLUP
U18A
RTC
LPC
CPU
PCI
IDE
SATA
AC-97/ AZALIA
ICH6-M
Depop for Dothan. Populate for Yonah
INSTALL FOR DOTHAN-A AND NOT INSTALL FOR DOTHAN-B
PCI Pullups
8.2K_10P8R
10K_8P4R
2A : modify for EMI
Place within 500mils of ICH6 ball
PROJECT : ZL8
Quanta Computer Inc.
ICH6-M CPU PCI IDE AC97
Tuesday, July 12, 2005
Sheet 12 of 26

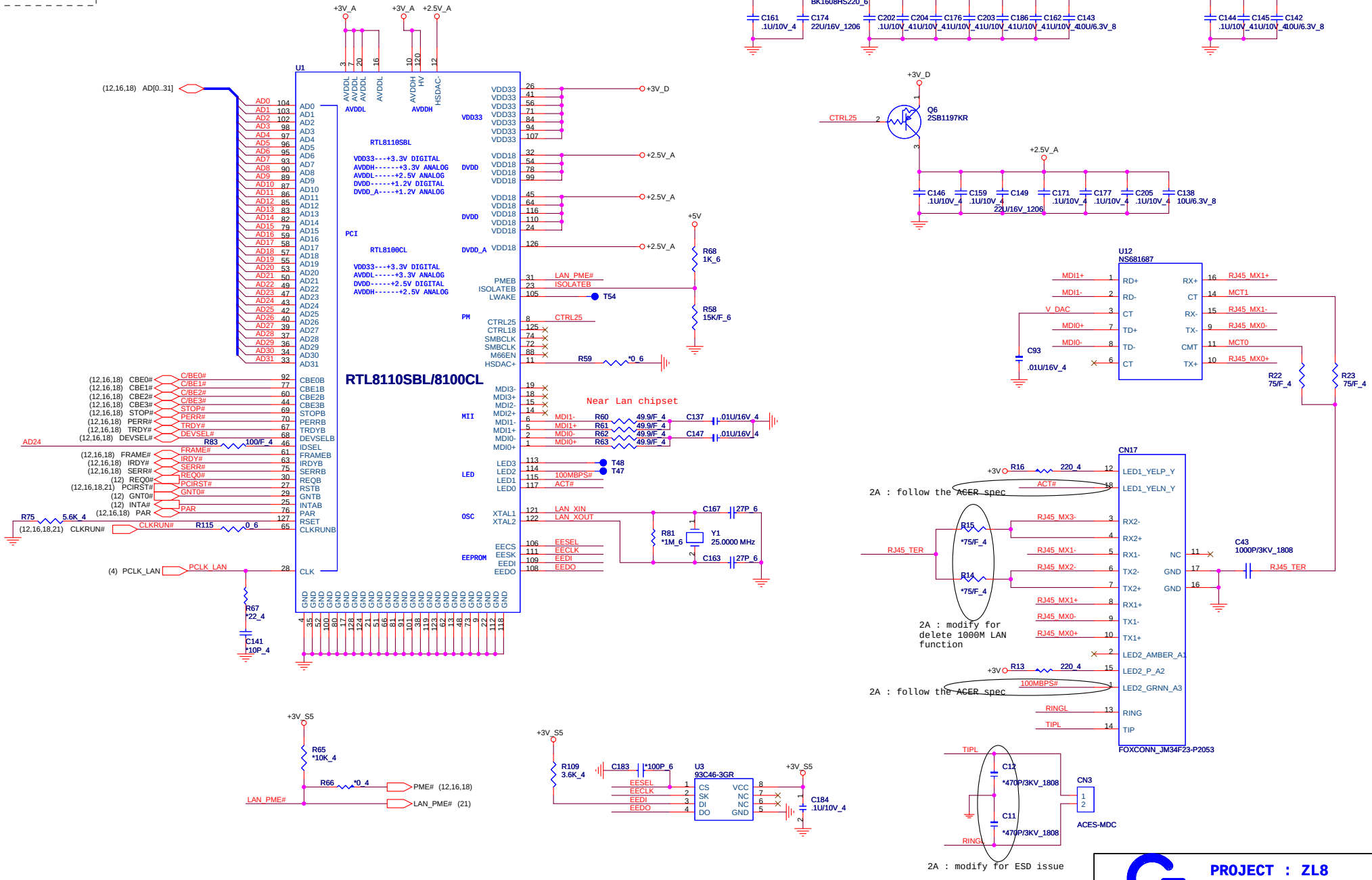

U18B
USB
DMI
PCI-EXPRESS
SM&SMI
PM
MISC&GPIO
LAN
RESERVED
ICH6-M
BT
M/B USB
M/B USB
M/B USB
PCIE CARD
Place within 500mils of ICH-6
Place within 500mils of ICH-6
PWRBTN# HAS INTERNAL PULLUP
RSVD9=TP3
needs to be pulled down if programmed as SATA
ADD PULLLOW
PROJECT : ZL8
Quanta Computer Inc.
ICH6-M USB DMI LPC
Tuesday, July 12, 2005
Sheet 13 of 26


578mA
1.77A
U18C
U18D
ICH6-M
GND
CORE
PCIE
IDE
PCI
USB
USB CORE
SATA
PCE/IDE REF
R277 10_6
D27 RB751V
D6 CH551
D5 RB751V
CC0603
L18 BLM41P600SPG_1806
L19 1UH_1206
R55 1_6
1mA
10mA
204mA
170mA
25mA
5uA
6mA
14mA
39mA
23mA
+3_3V_PCI
+3_3V_ICH
PROJECT : ZL8
Quanta Computer Inc.
ICH6-M POWER
Tuesday, July 12, 2005
Sheet 14 of 26


(12) PDD[0..15]
PDD[0..15]
CN25
HDD_DFHS44FR975
-RST_HDD0
PDD7
PDD6
PDD5
PDD4
PDD3
PDD2
PDD1
PDD0
PDD8
PDD9
PDD10
PDD11
PDD12
PDD13
PDD14
PDD15
(12) PDDREQ
(12) PDIOW#
(12) PDIOR#
(12) PHDRDY
(12) PDDACK#
(12) IRQ14
(12) PDA1
(12) PDA0
(12) PDCS1#
PDDREQ
PHDRDY
IRQ14
IDELED#
(22) IDELED#
2A : modify for fix HDD detect fail
PSEL R288 470_4
-PDIAG R290 10K_4 +5V
PDA2 (12)
PDCS3# (12)
+5V
+3V
R289 *10K_4 IRQ14
PDD7 R282 *10K_4
PDDREQ R287 *5.6K_4
C387 *100P_4
C390 .1U/10V_4
C396 1000P/50V_4
C389 .1U/10V_4
C399 150U/6.3V_7343
C397 .1U/10V_4
C388 .1U/10V_4
R280 *10K_4
Q20
*DTC144EU
-RST_HDD0
R279 22_4
RST_HDD# (13)
R278 0_4
R281 *22_4
PLTRST# (6,12)
ODD Connector
CN15
-RST_HDD0
PDD7
PDD6
PDD5
PDD4
PDD3
PDD2
PDD1
PDD0
PDD8
PDD9
PDD10
PDD11
PDD12
PDD13
PDD14
PDD15
PDDREQ
PDIOR#
PDDACK#
-PDIAG
PDA2
PDCS3#
PDIOW#
PHDRDY
IRQ14
PDA1
PDA0
PDCS1#
IDELED#
RBAYVCC
RCSEL_R
R205 *470_4
NC FOR SLAVE
ODD_DFHS50FR245
R208 *10K_4 IDELED#
2A : modify for fix HDD detect fail
C316 .1U/10V_4
C313 .1U/10V_4
C315 .1U/10V_4
C314 .1U/10V_4
R206 0_8
R207 0_8
C312 1000P/50V_4
C308 50U/6.3V_7343
C310 .1U/10V_4
C311 .1U/10V_4
C309 .1U/10V_4
PAD9 *EMIPAD
PAD5 *EMIPAD
PAD20 *EMIPAD
PAD18 *EMIPAD
PAD12 *EMIPAD
PAD4 *EMIPAD
PAD10 *EMIPAD
PAD14 *EMIPAD
PAD1 *EMIPAD
PAD21 *EMIPAD
PAD6 *EMIPAD
PAD8 *EMIPAD
PAD11 *EMIPAD
PAD16 *EMIPAD
PAD7 *EMIPAD
PAD23 *EMIPAD
PAD24 *EMIPAD
PAD22 *EMIPAD
PAD2 *EMIPAD
PAD15 *EMIPAD
PAD13 *EMIPAD
PAD3 *EMIPAD
PAD17 *EMIPAD
PAD19 *EMIPAD
AUDGND
AUDGND
PROJECT : ZL8
Quanta Computer Inc.
Size
Document Number
HDD & CDROM
Rev
2A
Date: Tuesday, July 12, 2005
Sheet 15 of 26


MINI-PCI
ID Select : AD20
Interrupt Pin : INTB# , INTD#
Request Indicate : REQ2#
Grant Indicate : GNT2#
CN26
MINIPCI_DGMC4000382
CN23
*67910-0002
*DTC144EU
2A : modify for reduce leakage current
U15
U16
U7
TPS2061DGNR
L31
L30
L32
L33
L24
L36
BK2125HS330_8
DLW21HN900SQ2L
CN20
CN21
CN27
USB_DFHD04MR671
Q5
AO3403
L9
L12
CN4
PTWO_MINIUSB
PROJECT : ZL8
Quanta Computer Inc.
MINI PCI,USB
Rev 2A
Tuesday, July 12, 2005
Sheet 16 of 26

ID Select : AD24
Interrupt Pin : INTA#
Request Indicate : REQ0#
Grant Indicate : GNT0#



PROJECT : ZL8
Quanta Computer Inc.

Size	Document Number	Rev
	LAN RTL8110SBL/8100CL	2A

Date: Tuesday, July 12, 2005 Sheet 17 of 26

ID Select : AD17
Interrupt Pin : INTC#
Request Indicate : REQ1#
Grant Indicate : GNT1#

CARDBUS SLOT

CN24

U4-1

U4-2

U4-4

U6 TPS2211A

PCI1510PGE

FOX_WZ21131-G2

Near Slot

Near Chipset

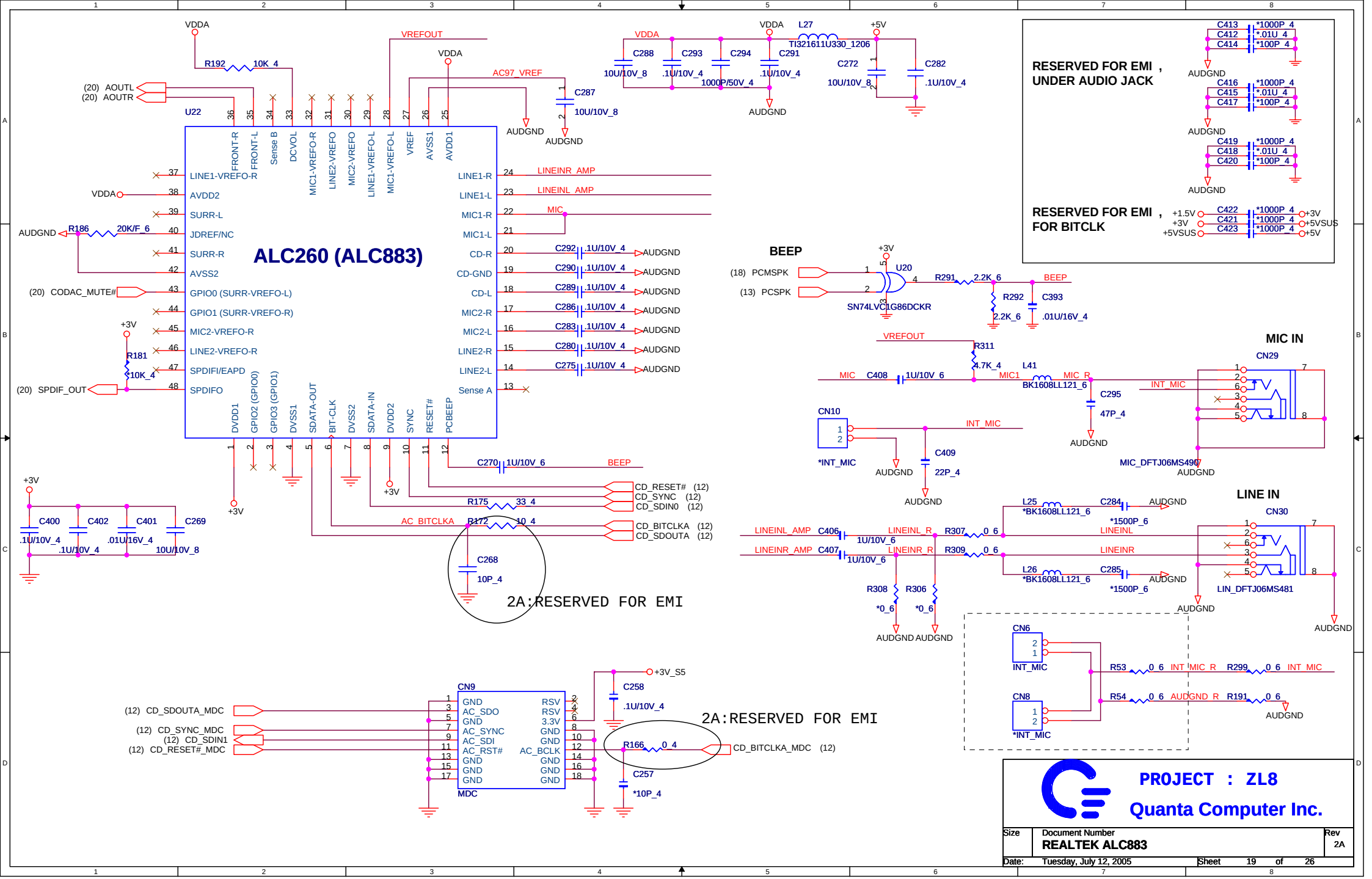
+3V Plane

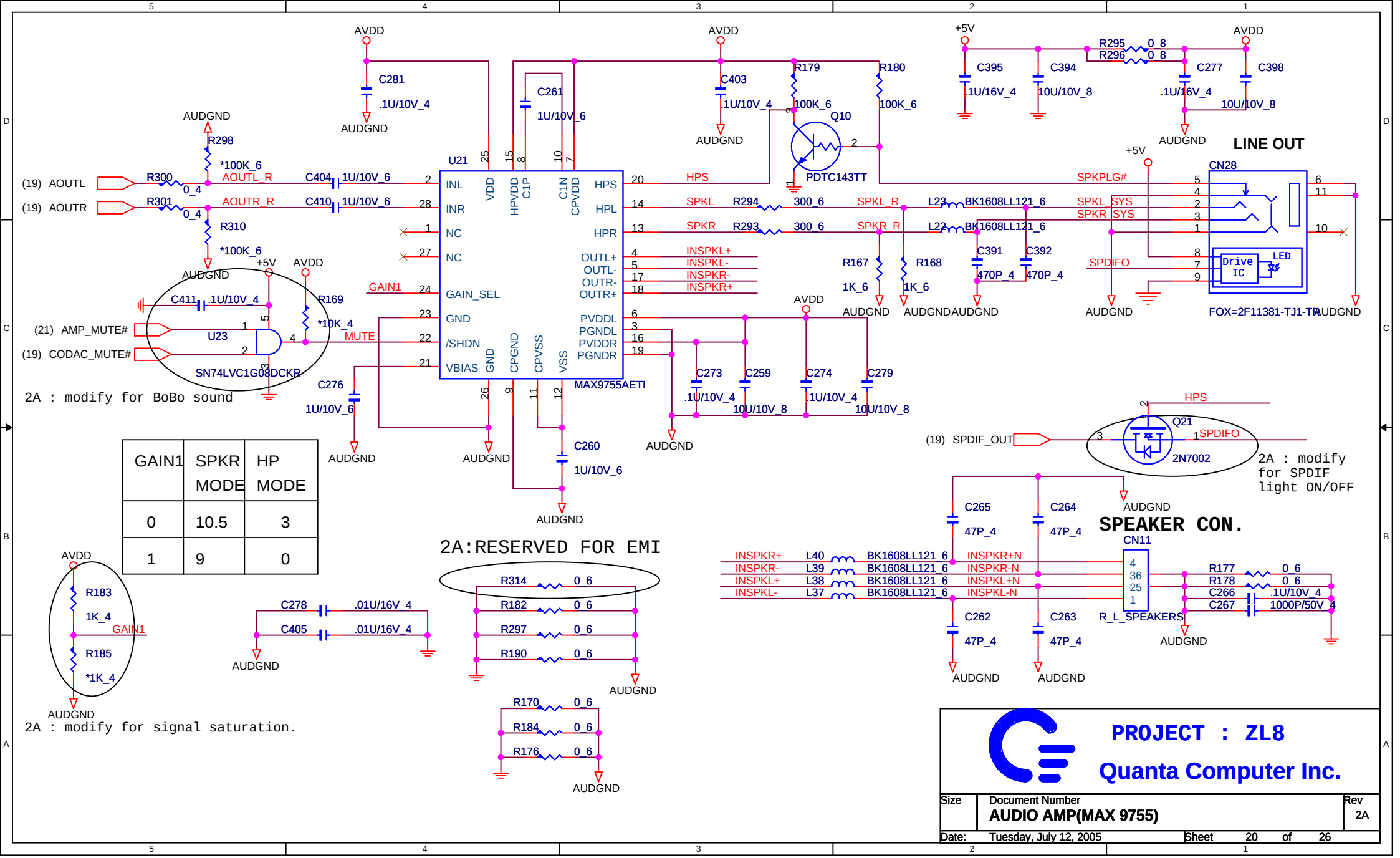
PROJECT : ZL8

Quanta Computer Inc.

Size	Document Number	Rev
	PCMCIA CONTROLLER	2A

Date: Tuesday, July 12, 2005 Sheet 18 of 26


ALC260 (ALC883)
U22
R192 10K_4
R186 20K/F_6
R181 10K_4
R175 33_4
R172 10_4
C268 10P_4
C270 1U/10V_6
C287 10U/10V_8
C288 10U/10V_8
C293 .1U/10V_4
C294 1000P/50V_4
C291 .1U/10V_4
L27 TI321611U330_1206
C272 10U/10V_8
C282 .1U/10V_4
C292 .1U/10V_4
C290 .1U/10V_4
C289 .1U/10V_4
C286 .1U/10V_4
C283 .1U/10V_4
C280 .1U/10V_4
C275 .1U/10V_4
C400 .1U/10V_4
C402 .1U/10V_4
C401 .01U/16V_4
C269 10U/10V_8
2A:RESERVED FOR EMI
RESERVED FOR EMI , UNDER AUDIO JACK
C413 *1000P_4
C412 *.01U_4
C414 *100P_4
C416 *1000P_4
C415 *.01U_4
C417 *100P_4
C419 *1000P_4
C418 *.01U_4
C420 *100P_4
RESERVED FOR EMI , FOR BITCLK
C422 *1000P_4
C421 *1000P_4
C423 *1000P_4
BEEP
U20
SN74LVC1G86DCKR
R291 2.2K_6
R292 2.2K_6
C393 .01U/16V_4
MIC IN
CN29
MIC_DFTJ06MS490
R311 4.7K_4
C408 1U/10V_6
L41 BK1608LL121_6
C295 47P_4
CN10
*INT_MIC
C409 22P_4
LINE IN
CN30
LIN_DFTJ06MS481
L25 *BK1608LL121_6
L26 *BK1608LL121_6
C284 *1500P_6
C285 *1500P_6
C406 1U/10V_6
C407 1U/10V_6
R307 0_6
R309 0_6
R308 *0_6
R306 *0_6
CN6
CN8
R53 0_6
R54 0_6
R299 0_6
R191 0_6
CN9
MDC
C258 .1U/10V_4
C257 *10P_4
R166 0_4
2A:RESERVED FOR EMI
PROJECT : ZL8
Quanta Computer Inc.
REALTEK ALC883
Tuesday, July 12, 2005
Sheet 19 of 26

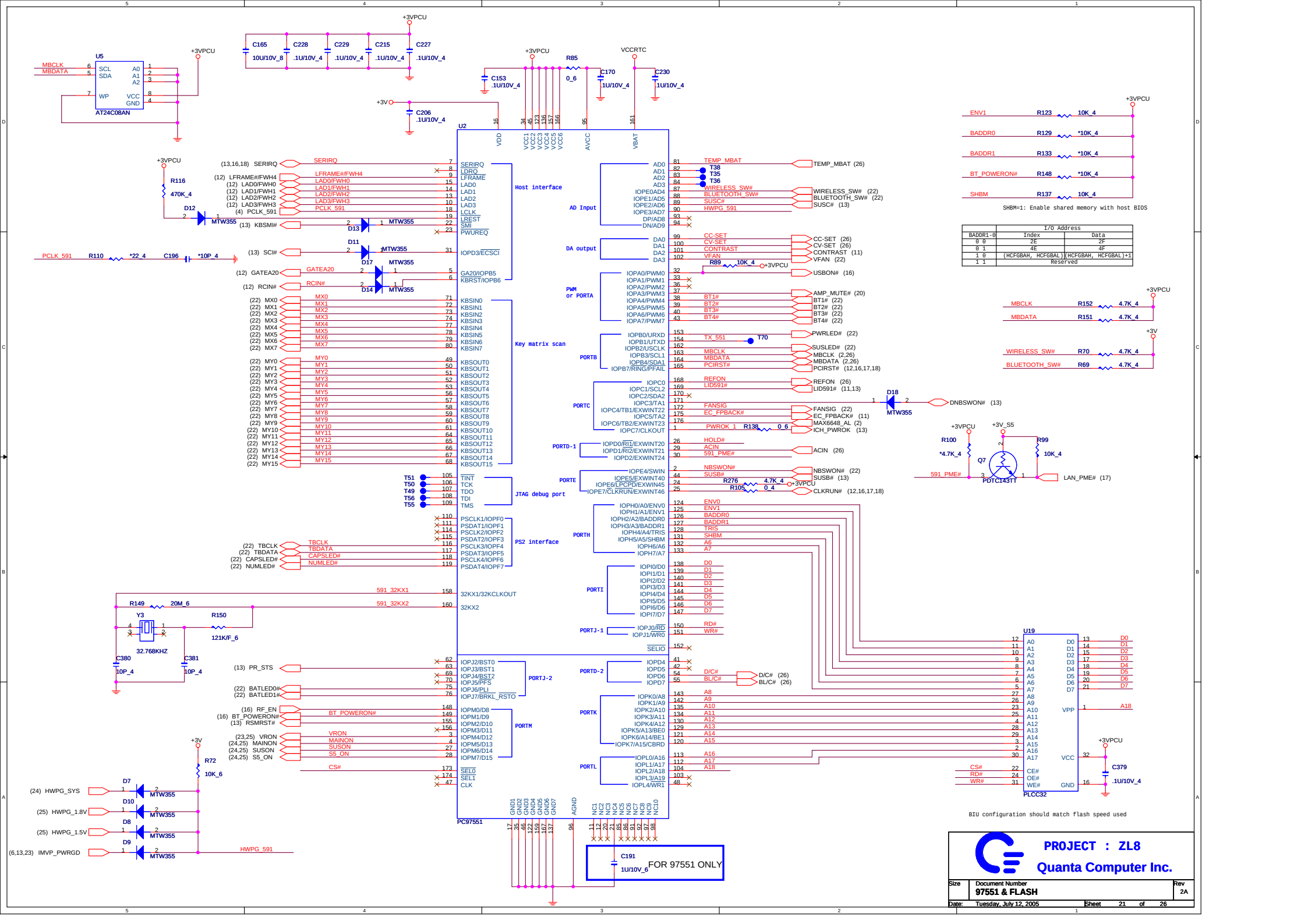


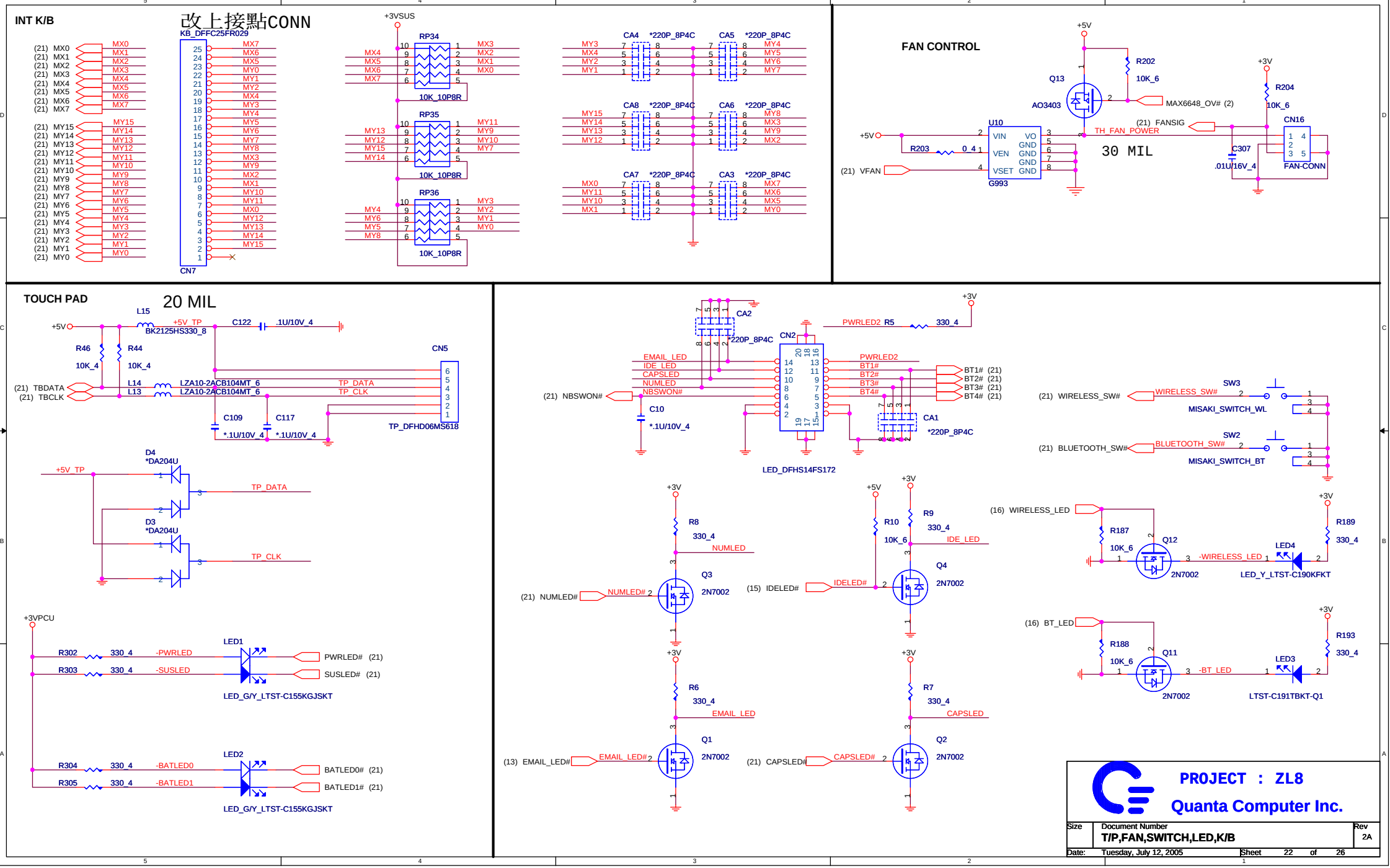
GAIN1	SPKR MODE	HP MODE
0	10.5	3
1	9	0

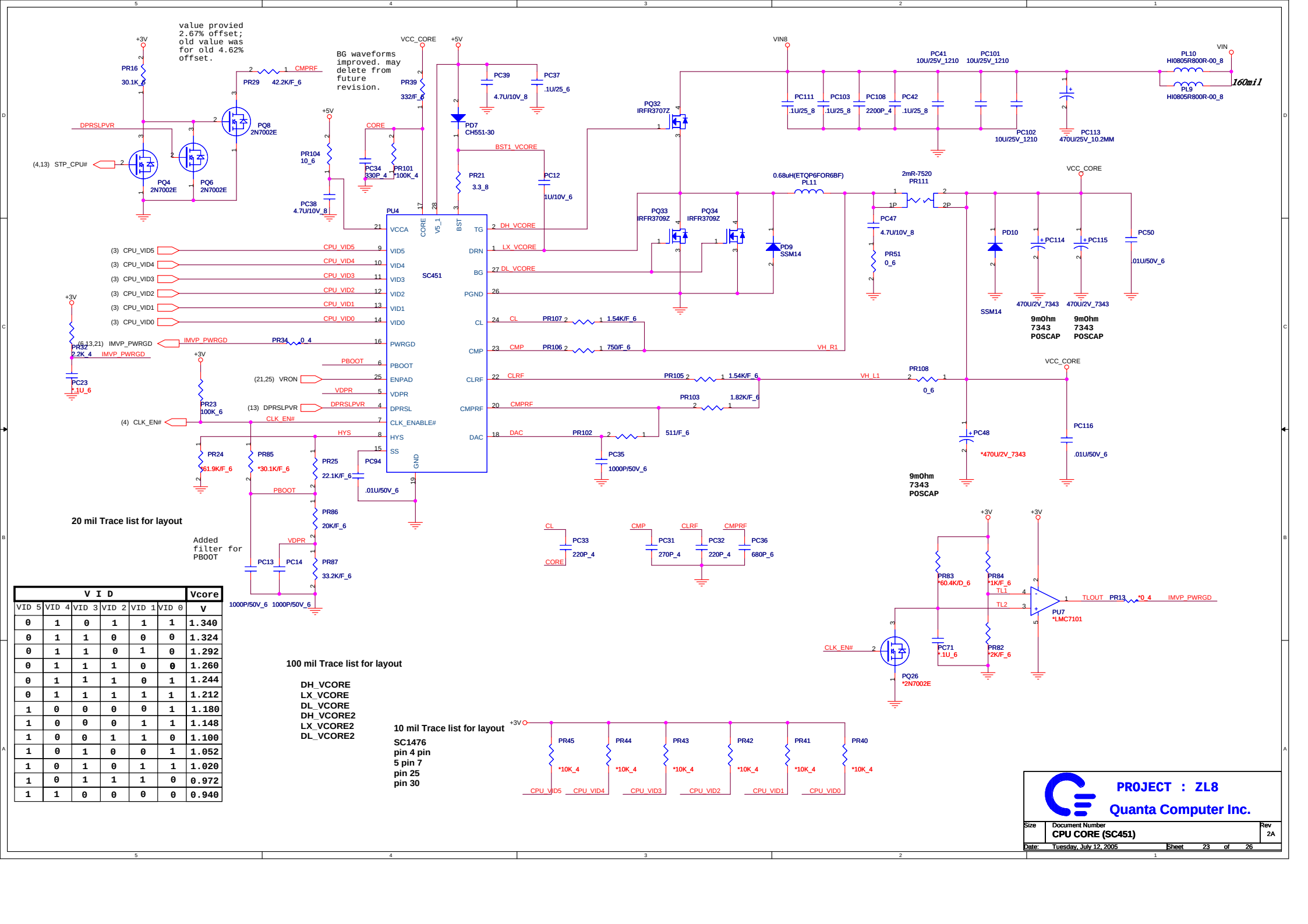
PROJECT : ZL8

Quanta Computer Inc.

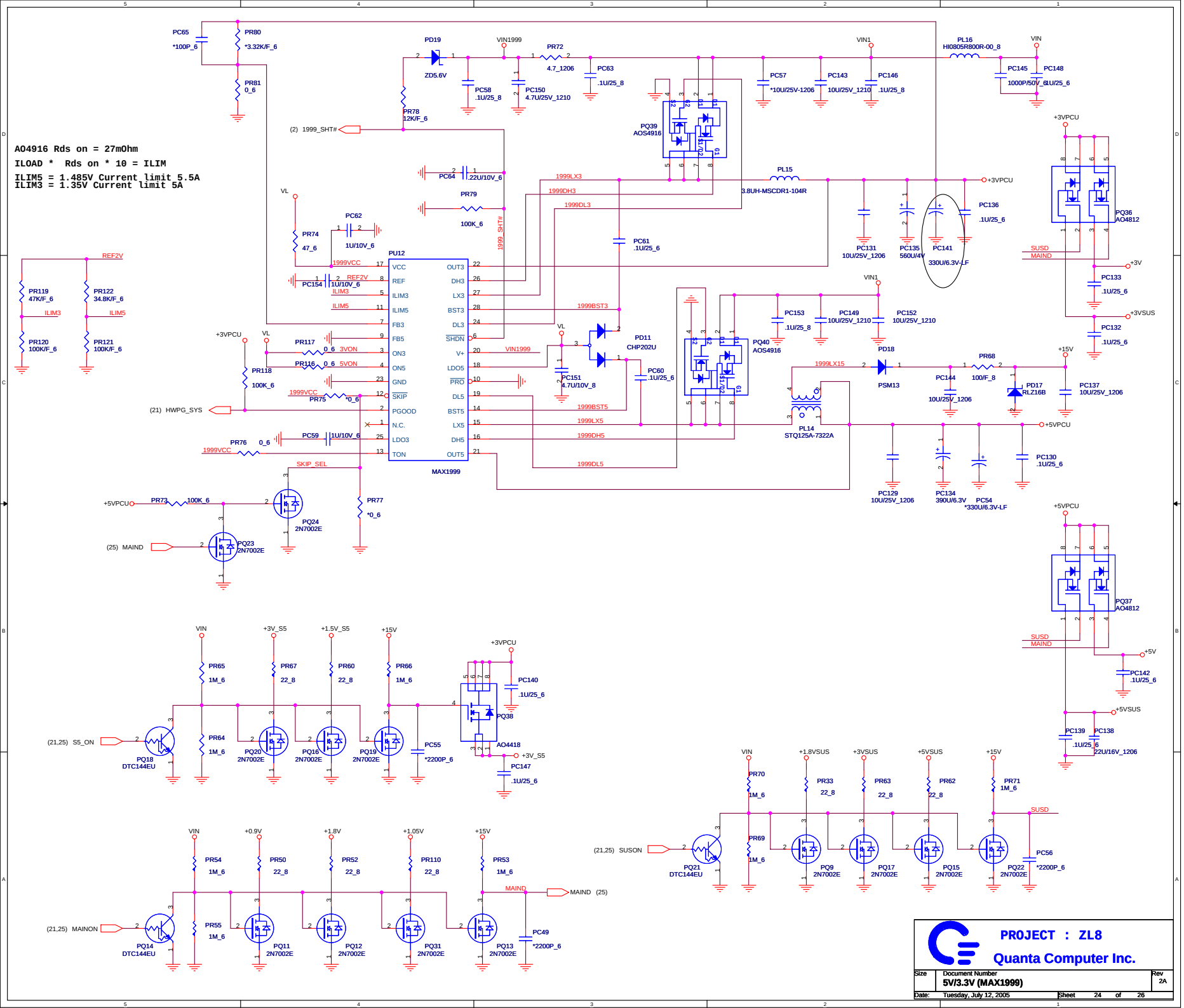
Size	Document Number	Rev
	AUDIO AMP(MAX 9755)	2A
Date: Tuesday, July 12, 2005	Sheet 20 of 26	

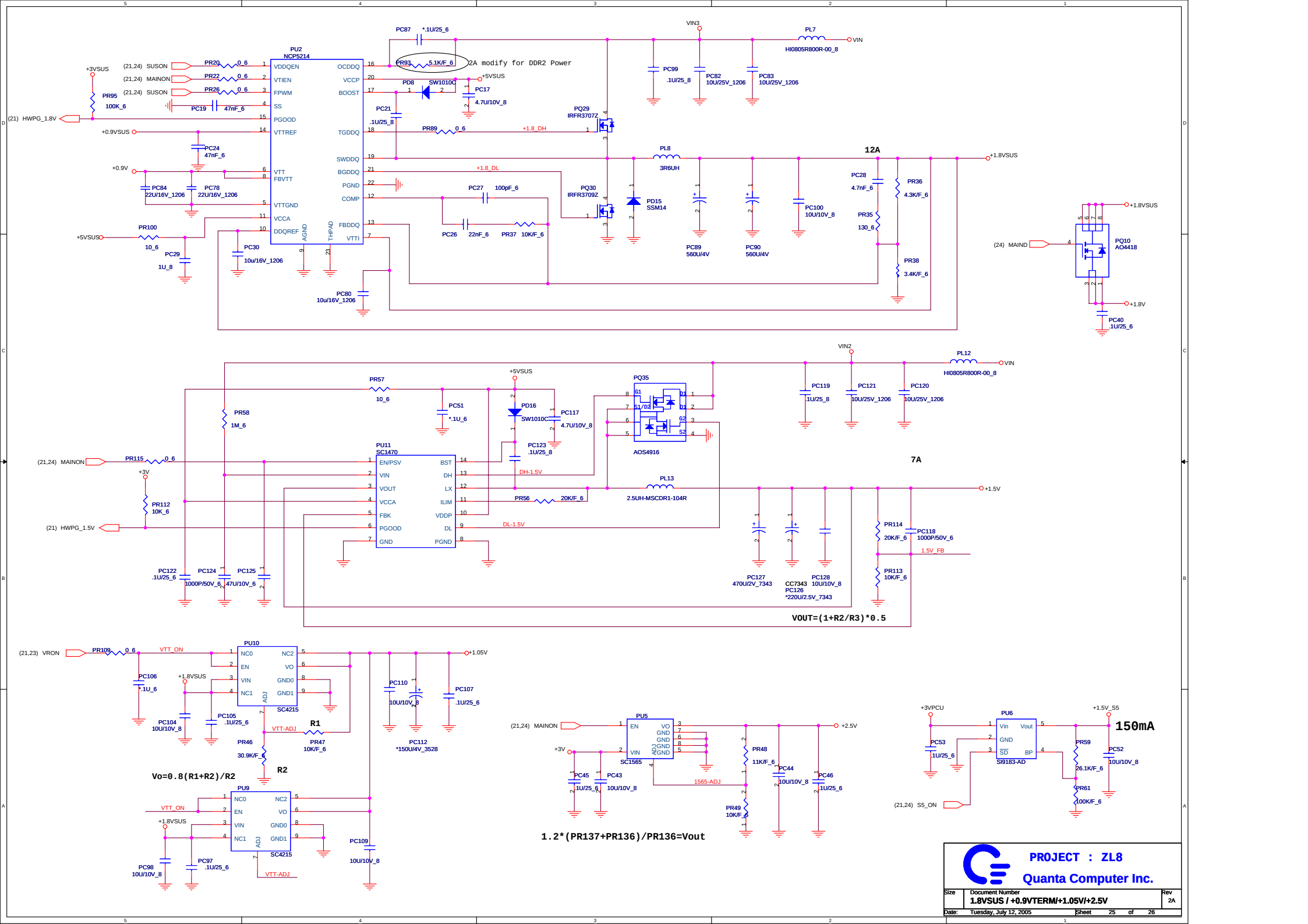

U5
AT24C08AN
MBCLK
MBDATA
SCL
SDA
WP
A0
A1
A2
VCC
GND
+3VPCU
C165 10U/10V_8
C228 .1U/10V_4
C229 .1U/10V_4
C215 .1U/10V_4
C227 .1U/10V_4
C153 .1U/10V_4
R85 0_6
C170 .1U/10V_4
VCCRTC
C230 .1U/10V_4
+3V
C206 .1U/10V_4
U2
PC97551
VDD
VCC1
VCC2
VCC3
VCC4
VCC5
VCC6
AVCC
VBAT
Host interface
SERIRQ
LDRQ
LFRAME
LAD0
LAD1
LAD2
LAD3
LCLK
LRESET
SMI
PWUREQ
AD Input
DA output
PWM or PORTA
PORTB
Key matrix scan
PORTC
PORTD-1
PORTE
JTAG debug port
PS2 interface
PORTH
PORTI
PORTJ-1
PORTJ-2
PORTD-2
PORTK
PORTM
PORTL
32KX1/32KCLKOUT
32KX2
SELIO
SEL0
SEL1
CLK
AGND
GND1
GND2
GND3
GND4
GND5
GND6
GND7
NC1
NC2
NC3
NC4
NC5
NC6
NC7
NC8
NC9
NC10
TEMP_MBAT (26)
WIRELESS_SW# (22)
BLUETOOTH_SW# (22)
SUSC# (13)
HWPG_591
CC-SET (26)
CV-SET (26)
CONTRAST (11)
VFAN (22)
USBON# (16)
AMP_MUTE# (20)
BT1# (22)
BT2# (22)
BT3# (22)
BT4# (22)
PWRLED# (22)
SUSLED# (22)
MBCLK (2,26)
MBDATA (2,26)
PCIRST# (12,16,17,18)
REFON (26)
LID591# (11,13)
DNBSWON# (13)
FANSIG (22)
EC_FPBACK# (11)
MAX6648_AL (2)
ICH_PWROK (13)
ACIN (26)
NBSWON# (22)
SUSB# (13)
CLKRUN# (12,16,17,18)
D/C# (26)
BL/C# (26)
RF_EN (16)
BT_POWERON# (16)
RSMRST# (13)
VRON (23,25)
MAINON (24,25)
SUSON (24,25)
S5_ON (24,25)
CS#
HWPG_SYS (24)
HWPG_1.8V (25)
HWPG_1.5V (25)
IMVP_PWRGD (6,13,23)
C191 1U/10V_6 FOR 97551 ONLY
U19
PLCC32
BIU configuration should match flash speed used
ENV1 R123 10K_4
BADDR0 R129 *10K_4
BADDR1 R133 *10K_4
BT_POWERON# R148 *10K_4
SHBM R137 10K_4
SHBM=1: Enable shared memory with host BIOS
I/O Address
BADDR1-0 | Index | Data
0 0 | 2E | 2F
0 1 | 4E | 4F
1 0 | (HCFGBAH, HCFGBAL) | (HCFGBAH, HCFGBAL)+1
1 1 | Reserved
MBCLK R152 4.7K_4
MBDATA R151 4.7K_4
WIRELESS_SW# R70 4.7K_4
BLUETOOTH_SW# R69 4.7K_4
R100 *4.7K_4
Q7 PDTC143TT
R99 10K_4
591_PME# LAN_PME# (17)
PROJECT : ZL8
Quanta Computer Inc.
Size
Document Number 97551 & FLASH
Rev 2A
Date: Tuesday, July 12, 2005
Sheet 21 of 26

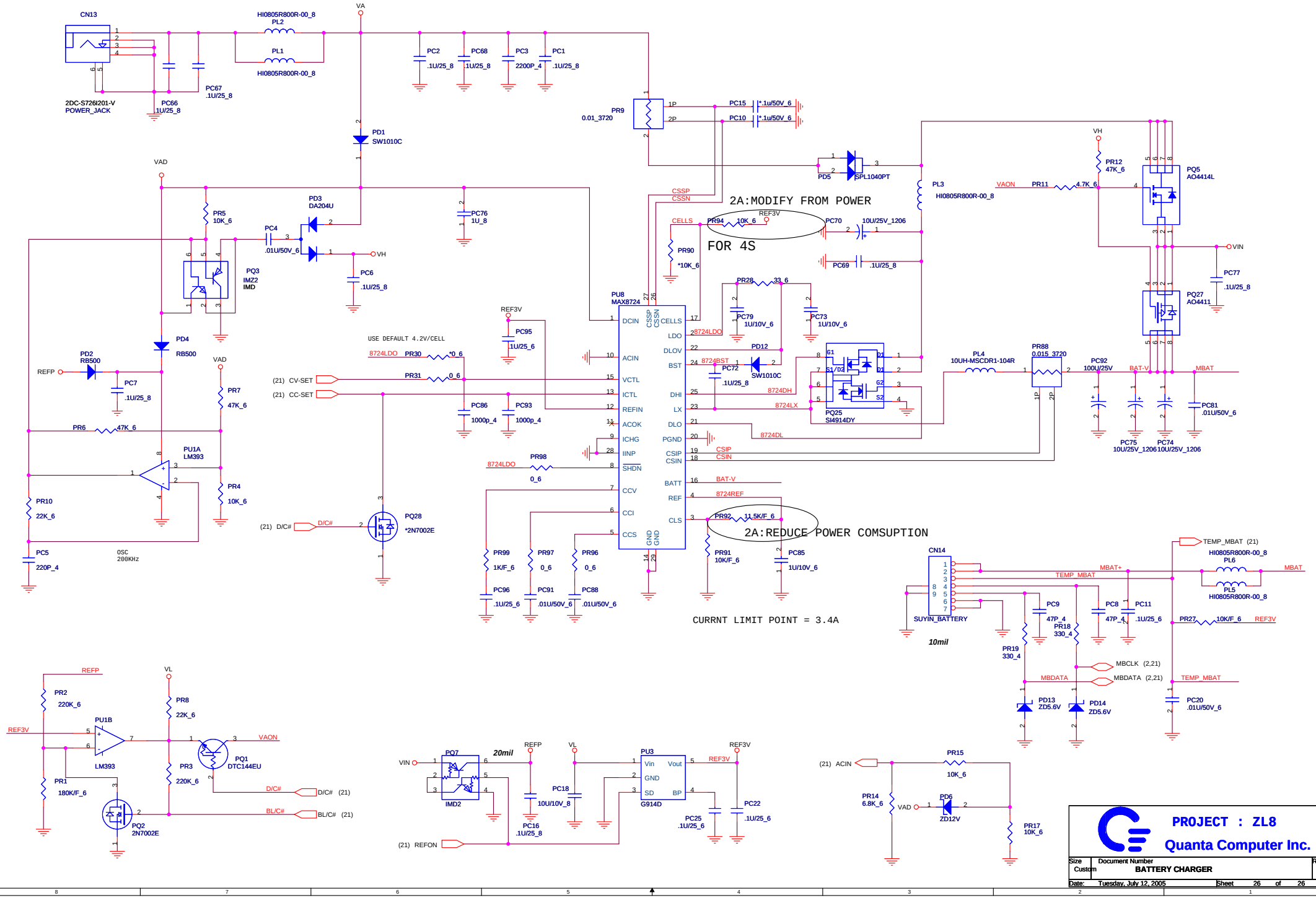

INT K/B
改上接點CONN
KB_DFFC25FR029
CN7
RP34
RP35
RP36
10K_10P8R
CA4 *220P_8P4C
CA5 *220P_8P4C
CA8 *220P_8P4C
CA6 *220P_8P4C
CA7 *220P_8P4C
CA3 *220P_8P4C
FAN CONTROL
Q13
AO3403
U10
G993
R202
10K_6
R204
R203
0_4
CN16
FAN-CONN
C307
.01U/16V_4
TH_FAN_POWER
30 MIL
MAX6648_OV# (2)
(21) FANSIG
(21) VFAN
TOUCH PAD
20 MIL
L15
BK2125HS330_8
C122
.1U/10V_4
R46
R44
10K_4
L14
L13
LZA10-2ACB104MT_6
TP_DATA
TP_CLK
C109
C117
*.1U/10V_4
CN5
TP_DFHD06MS618
D4
D3
*DA204U
LED1
LED_G/Y_LTST-C155KGJSKT
LED2
R302
R303
R304
R305
330_4
-PWRLED
-SUSLED
-BATLED0
-BATLED1
PWRLED# (21)
SUSLED# (21)
BATLED0# (21)
BATLED1# (21)
CA2
CN2
*220P_8P4C
LED_DFHS14FS172
PWRLED2
R5
CA1
C10
(21) NBSWON#
BT1# (21)
BT2# (21)
BT3# (21)
BT4# (21)
SW3
SW2
MISAKI_SWITCH_WL
MISAKI_SWITCH_BT
(21) WIRELESS_SW#
(21) BLUETOOTH_SW#
(16) WIRELESS_LED
(16) BT_LED
Q12
Q11
2N7002
LED4
LED3
LED_Y_LTST-C190KFKT
LTST-C191TBKT-Q1
R187
R188
R189
R193
-WIRELESS_LED
-BT_LED
R8
R9
R10
R6
R7
Q3
Q4
Q1
Q2
NUMLED
IDE_LED
EMAIL_LED
CAPSLED
(21) NUMLED#
(15) IDELED#
(13) EMAIL_LED#
(21) CAPSLED#
PROJECT : ZL8
Quanta Computer Inc.
Size
Document Number
T/P,FAN,SWITCH,LED,K/B
Rev
2A
Date: Tuesday, July 12, 2005
Sheet 22 of 26



V I D						Vcore
VID 5	VID 4	VID 3	VID 2	VID 1	VID 0	V
0	1	0	1	1	1	1.340
0	1	1	0	0	0	1.324
0	1	1	0	1	0	1.292
0	1	1	1	0	0	1.260
0	1	1	1	0	1	1.244
0	1	1	1	1	1	1.212
1	0	0	0	0	1	1.180
1	0	0	0	1	1	1.148
1	0	0	1	1	0	1.100
1	0	1	0	0	1	1.052
1	0	1	0	1	1	1.020
1	0	1	1	1	0	0.972
1	1	0	0	0	0	0.940


AO4916 Rds on = 27mOhm
ILOAD * Rds on * 10 = ILIM
ILIM5 = 1.485V Current limit 5.5A
ILIM3 = 1.35V Current limit 5A
MAX1999
PU12
PD19
ZD5.6V
PL16
HI0805R800R-00_8
PL15
3.8UH-MSCDR1-104R
PL14
STQ125A-7322A
PD11
CHP202U
PD18
PSM13
PD17
RLZ16B
PQ39
AOS4916
PQ40
AOS4916
PQ36
AO4812
PQ37
AO4812
PQ38
AO4418
PQ18
DTC144EU
PQ14
DTC144EU
PQ21
DTC144EU
PQ20
2N7002E
PQ16
2N7002E
PQ19
2N7002E
PQ24
2N7002E
PQ23
2N7002E
PQ11
2N7002E
PQ12
2N7002E
PQ31
2N7002E
PQ13
2N7002E
PQ9
2N7002E
PQ17
2N7002E
PQ15
2N7002E
PQ22
2N7002E
(2) 1999_SHT#
(21) HWPG_SYS
(25) MAIND
(21,25) S5_ON
(21,25) MAINON
(21,25) SUSON
1999LX3
1999DH3
1999DL3
1999BST3
1999LX15
1999BST5
1999LX5
1999DH5
1999DL5
1999VCC
VIN1999
SKIP_SEL
+3VPCU
+5VPCU
+3V
+3VSUS
+5V
+5VSUS
+15V
SUSD
MAIND
PROJECT : ZL8
Quanta Computer Inc.
Document Number
5V/3.3V (MAX1999)
Rev
2A
Date: Tuesday, July 12, 2005
Sheet 24 of 26


PU2
NCP5214
VDDQEN
VTIEN
FPWM
SS
PGOOD
VTTREF
VTT
FBVTT
VTTGND
VCCA
DDQREF
AGND
THPAD
OCDDQ
VCCP
BOOST
SWDDQ
TGDDQ
BGDDQ
PGND
COMP
FBDDQ
VTTI
PC87 *.1U/25_6
PR93 5.1K/F_6
2A modify for DDR2 Power
PD8 SW1010C
PC17 4.7U/10V_8
PC21 .1U/25_8
PR89 0_6
+1.8_DH
+1.8_DL
PQ29 IRFR3707Z
PQ30 IRFR3709Z
PD15 SSM14
PL8 3R6UH
PC27 100pF_6
PC26 22nF_6
PR37 10K/F_6
PC99 .1U/25_8
PC82 10U/25V_1206
PC83 10U/25V_1206
PL7 HI0805R800R-00_8
PC89 560U/4V
PC90 560U/4V
PC100 10U/10V_8
PC28 4.7nF_6
PR36 4.3K/F_6
PR35 130_6
PR38 3.4K/F_6
12A
PQ10 AO4418
PC40 .1U/25_6
PR95 100K_6
PC19 47nF_6
PC24 47nF_6
PC84 22U/16V_1206
PC78 22U/16V_1206
PR100 10_6
PC29 1U_8
PC30 10u/16V_1206
PC80 10u/16V_1206
PR20 0_6
PR22 0_6
PR26 0_6
(21,24) SUSON
(21,24) MAINON
(21,24) SUSON
(21) HWPG_1.8V
+3VSUS
+0.9VSUS
+0.9V
+5VSUS
+1.8VSUS
(24) MAIND
+1.8V
VIN3
VIN
PU11
SC1470
EN/PSV
VIN
VOUT
VCCA
FBK
PGOOD
GND
BST
DH
LX
ILIM
VDDP
DL
PGND
PR57 10_6
PC51 *.1U_6
PR58 1M_6
PD16 SW1010C
PC117 4.7U/10V_8
PC123 .1U/25_8
PQ35 AOS4916
PC119 1U/25_8
PC121 10U/25V_1206
PC120 10U/25V_1206
PL12 HI0805R800R-00_8
PL13 2.5UH-MSCDR1-104R
PR56 20K/F_6
DH-1.5V
DL-1.5V
PR115 0_6
PR112 10K_6
PC122 .1U/25_6
PC124 1000P/50V_6
PC125 47U/10V_6
PC127 470U/2V_7343
CC7343 PC126 *220U/2.5V_7343
PC128 10U/10V_8
PR114 20K/F_6
PC118 1000P/50V_6
PR113 10K/F_6
1.5V_FB
7A
VOUT=(1+R2/R3)*0.5
(21,24) MAINON
(21) HWPG_1.5V
+3V
+1.5V
VIN2
PU10
SC4215
NC0
EN
VIN
NC1
NC2
VO
GND0
GND1
ADJ
PR109 0_6
VTT_ON
PC106 *.1U_6
PC104 10U/10V_8
PC105 .1U/25_6
PR46 30.9K/F_6
VTT-ADJ
R1
R2
PR47 10K/F_6
PC110 10U/10V_8
PC112 *150U/4V_3528
PC107 .1U/25_6
+1.05V
(21,23) VRON
Vo=0.8(R1+R2)/R2
PU9
PC98 10U/10V_8
PC97 .1U/25_6
PC109 10U/10V_8
PU5
SC1565
EN
VIN
VO
GND
ADJ
PR48 11K/F_6
PC45 1U/25_6
PC43 10U/10V_8
PC44 10U/10V_8
PC46 1U/25_6
PR49 10K/F_6
1565-ADJ
+2.5V
1.2*(PR137+PR136)/PR136=Vout
+3VPCU
+1.5V_S5
PU6
SI9183-AD
Vin
Vout
GND
SD
BP
PC53 1U/25_6
PR59 26.1K/F_6
PC52 10U/10V_8
PR61 100K/F_6
(21,24) S5_ON
150mA
PROJECT : ZL8
Quanta Computer Inc.
Size
Document Number
1.8VSUS / +0.9VTERM/+1.05V/+2.5V
Rev
2A
Date: Tuesday, July 12, 2005
Sheet 25 of 26


CN13
2DC-S726I201-V
POWER_JACK
HI0805R800R-00_8
PL2
PL1
HI0805R800R-00_8
PC67 .1U/25_8
PC66 .1U/25_8
VA
PC2 .1U/25_8
PC68 1U/25_8
PC3 2200P_4
PC1 .1U/25_8
PD1 SW1010C
PR9 0.01_3720
PC15 *.1u/50V_6
PC10 *.1u/50V_6
PD5 SPL1040PT
PL3 HI0805R800R-00_8
VAON
PR11 4.7K_6
VH
PR12 47K_6
PQ5 AO4414L
PQ27 AO4411
VIN
PC77 .1U/25_8
VAD
PR5 10K_6
PD3 DA204U
PC4 .01U/50V_6
PC76 1U_8
PQ3 IMZ2 IMD
PC6 .1U/25_8
CSSP
CSSN
2A:MODIFY FROM POWER
FOR 4S
CELLS
PR94 10K_6
REF3V
PC70 10U/25V_1206
PR90 *10K_6
PC69 .1U/25_8
PR28 33_6
PC79 1U/10V_6
PC73 1U/10V_6
PD12 SW1010C
PC72 .1U/25_8
PQ25 SI4914DY
PL4 10UH-MSCDR1-104R
PR88 0.015_3720
PC92 100U/25V
BAT-V
MBAT
PC75 10U/25V_1206
PC74 10U/25V_1206
PC81 .01U/50V_6
PU8 MAX8724
DCIN
CELLS
LDO
DLOV
BST
DHI
LX
DLO
PGND
CSIP
CSIN
BATT
REF
CLS
ACIN
VCTL
ICTL
REFIN
ACOK
ICHG
IINP
SHDN
CCV
CCI
CCS
GND
8724LDO
8724BST
8724DH
8724LX
8724DL
8724REF
BAT-V
USE DEFAULT 4.2V/CELL
8724LDO PR30 *0_6
PR31 0_6
(21) CV-SET
(21) CC-SET
PC95 .1U/25_6
PC86 1000p_4
PC93 1000p_4
PR98 0_6
PR99 1K/F_6
PR97 0_6
PR96 0_6
PC96 .1U/25_6
PC91 .01U/50V_6
PC88 .01U/50V_6
PR92 11.5K/F_6
PR91 10K/F_6
PC85 1U/10V_6
2A:REDUCE POWER COMSUPTION
CURRNT LIMIT POINT = 3.4A
REFP
PD2 RB500
PC7 .1U/25_8
PD4 RB500
PR6 47K_6
PR7 47K_6
PU1A LM393
PR10 22K_6
PR4 10K_6
PC5 220P_4
OSC 200KHz
(21) D/C#
D/C#
PQ28 *2N7002E
CN14
SUYIN_BATTERY
10mil
TEMP_MBAT (21)
HI0805R800R-00_8
PL6
PL5
HI0805R800R-00_8
MBAT+
TEMP_MBAT
MBAT
PC9 47P_4
PC8 47P_4
PC11 .1U/25_6
PR18 330_4
PR19 330_4
PR27 10K/F_6
REF3V
MBCLK (2,21)
MBDATA (2,21)
MBDATA
TEMP_MBAT
PD13 ZD5.6V
PD14 ZD5.6V
PC20 .01U/50V_6
REFP
VL
PR2 220K_6
PR8 22K_6
REF3V
PU1B LM393
PR1 180K/F_6
PR3 220K_6
PQ1 DTC144EU
VAON
D/C#
D/C# (21)
BL/C#
BL/C# (21)
PQ2 2N7002E
PQ7 IMD2
20mil
VIN
REFP
VL
PC18 10U/10V_8
PC16 .1U/25_8
(21) REFON
PU3 G914D
Vin
Vout
GND
SD
BP
REF3V
PC25 .1U/25_6
PC22 .1U/25_6
(21) ACIN
PR15 10K_6
PR14 6.8K_6
VAD
PD6 ZD12V
PR17 10K_6
PROJECT : ZL8
Quanta Computer Inc.
Size Custom
Document Number BATTERY CHARGER
Rev 2A
Date: Tuesday, July 12, 2005
Sheet 26 of 26