| MODEL: | REV: | CHANGE LIST: |
|---|---|---|
| ZL1<br>MotherBoard | 2A | FIRST RELEASE |
| | 2B | PAGE 18. MODIFY FOR AUDIO QUALITY |
| | 2C | PAGE02. 1.MODIFY MAX6648_AL# TO HIGH ACTIVE<br>PAGE11. 1.MODIFY FOR SIGNAL QUALITY<br>PAGE12. 1.MODIFY LAN LED 2. MODIFY LAN TRACE PULL HIGH<br>PAGE13. 1.MODIFY LAN LED 2. MODIFY DVO_AVDD<br>PAGE14. 1.MODIFY RGB BEAD VALUE<br>PAGE16. 1.REMOVE COMMON MODE CHOKE<br>PAGE17. 1.MODIFY 3_IN_1 CARD READER FOOTPRINT<br>PAGE18. 1.MODIFY LINE IN SIGNAL<br>PAGE19. 1.MODIFY LINE IN SIGNAL<br>PAGE20. 1.MODIFY USB_COMMON_MODE CHOKE 2. MODIFY MINI-PCI 3V_S5 TO 3VSUS<br>PAGE21. 1.MODIFY 97551 PIN 21<br>PAGE22. 1.MODIFY U30 PIN23 TO +5V<br>PAGE23. 1.MODIFY FOR EMI SOLUTION<br>PAGE24. 1.ADD EMI SOLUTION<br>PAGE28. 1.MODIFY PWRLED2 TO +3V 2. ADD TP ESD PROTECT 3. MODIFY LED CIRCUIT<br>PAGE29. 1.MODIFY FOR POWER SUHTDOWN ISSUE<br>PAGE31. 1.MODIFY FOR EMI SOLUTION<br>PAGE32. 1.CHANGE SOURCE<br>PAGE34. 1.MODIFY CHARGER CIRCUIT FOR COST DOWN |
| | 3A | PAGE13. 1.MODIFY LAN CABLE CONNECTOR FOOTPRINT<br>PAGE16. 1.ADD MULTI_FUNCTION_PIN FM_LED<br>PAGE17. 1.ADD TI SUGGESTION CIRCUIT<br>PAGE18. 1.MODIFY BEEP VALUE<br>PAGE19. 1.MODIFY L77 & L78 TO RESISTOR<br>PAGE20. 1.MODIFY SPRING QUANTITY<br>PAGE28. 1.MODIFY LED RESISTOR VALUE<br>PAGE29. 1.MODIFY LM358ADR CIRCUIT<br>PAGE33. 1.MODIFY LM393ADR CIRCUIT<br>PAGE34. 1.MODIFY LM393ADR CIRCUIT |
| | 3B | PAGE06. 1.MODIFY NB VCCASM BEAD ( L30 ) |
| | 3C | PAGE02. 1.MODIFY R598,,R599 TO 0402 SIZE<br>PAGE05. 1.DELETE C528 FOR REDUCE PCB BURN<br>PAGE24. 1.DELETE PAD5,PAD6 FOR SMT PRODUCTION SMOOTHLY<br>PAGE29. 1.DELETE PC88 FOR ENHANCE 12V OVERSHUT |
| | 3D | PAGE23. 1.MODIFY VGA_CORE POWER TO 1.3V |

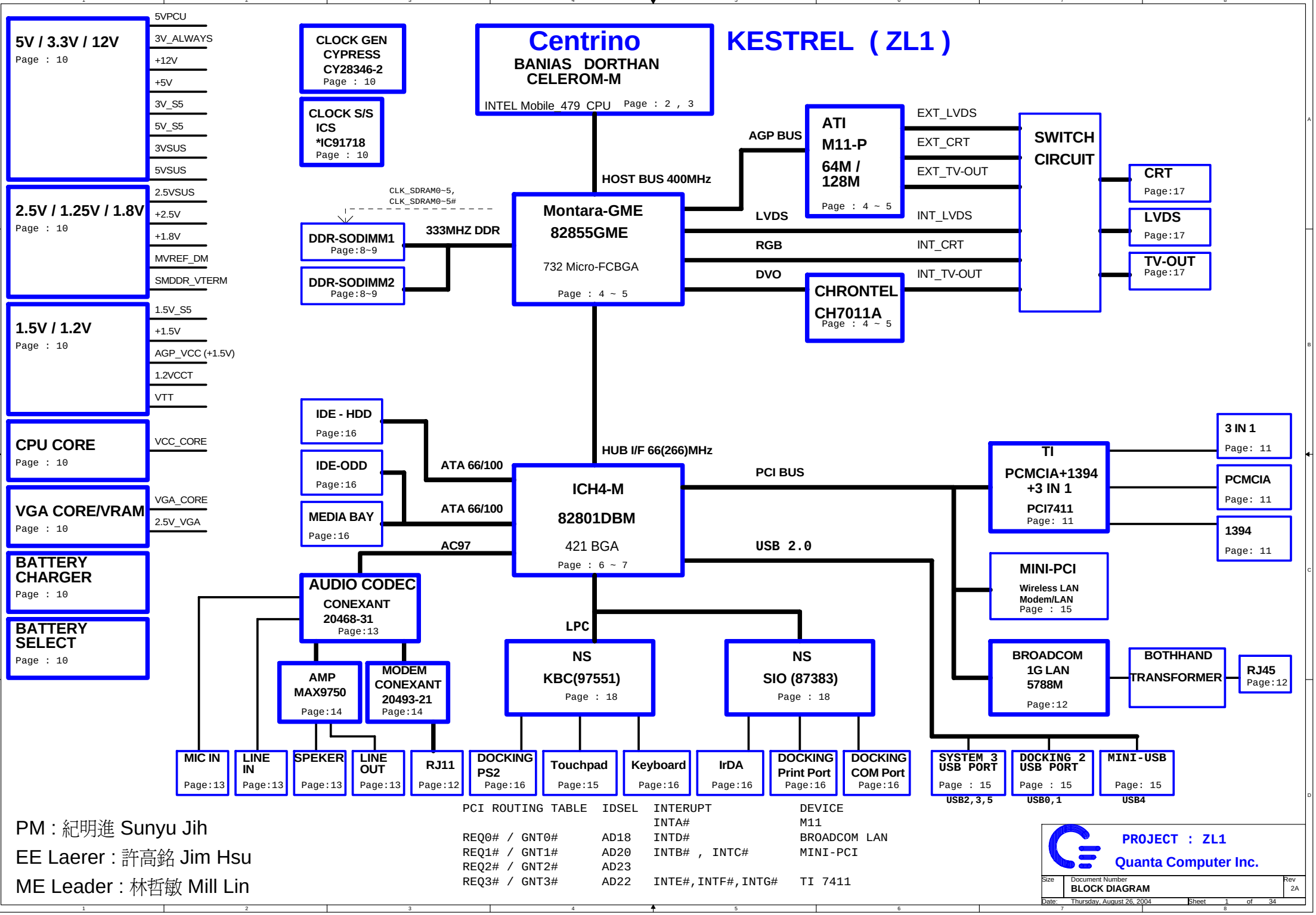
MODEL : ZL1 MB

| PAGE | FROM | TO |
|---|---|---|
| 1 | 2A | |
| 2 | 3C | |
| 3 | 2A | |
| 4 | 2A | |
| 5 | 3C | |
| 6 | 3B | |
| 7 | 2A | |
| 8 | 2A | |
| 9 | 2A | |
| 10 | 2A | |
| 11 | 2C | |
| 12 | 2C | |
| 13 | 3A | |
| 14 | 2C | |
| 15 | 2A | |
| 16 | 3A | |
| 17 | 3A | |
| 18 | 3A | |
| 19 | 3A | |
| 20 | 3A | |
| 21 | 2C | |
| 22 | 2C | |
| 23 | 2C | 3D |
| 24 | 3C | |
| 25 | 2A | |
| 26 | 2A | |
| 27 | 2A | |
| 28 | 3A | |
| 29 | 3C | |
| 30 | 2A | |
| 31 | 2C | |
| 32 | 2C | |
| 33 | 3A | |
| 34 | 3A | |



| | | | | |
|---|---|---|---|---|
| Quanta Computer Inc. | PROJECT : ZL1 | APPROVE BY: JIM HSU | DRAWING BY:JACKY CHENG | REV 3D |
| | MB ASSY'S P/N : 31ZL1MB0047 | PROJECT LEADER: JIM HSU | DOCUMENT NO: 204 | DATE :2004/08/19 |

COVER SHEET 1 OF 1




| PCI ROUTING TABLE | IDSEL | INTERUPT | DEVICE |
|---|---|---|---|
| | | INTA# | M11 |
| REQ0# / GNT0# | AD18 | INTD# | BROADCOM LAN |
| REQ1# / GNT1# | AD20 | INTB# , INTC# | MINI-PCI |
| REQ2# / GNT2# | AD23 | | |
| REQ3# / GNT3# | AD22 | INTE#,INTF#,INTG# | TI 7411 |

PM : 紀明進 Sunyu Jih

EE Laerer : 許高銘 Jim Hsu

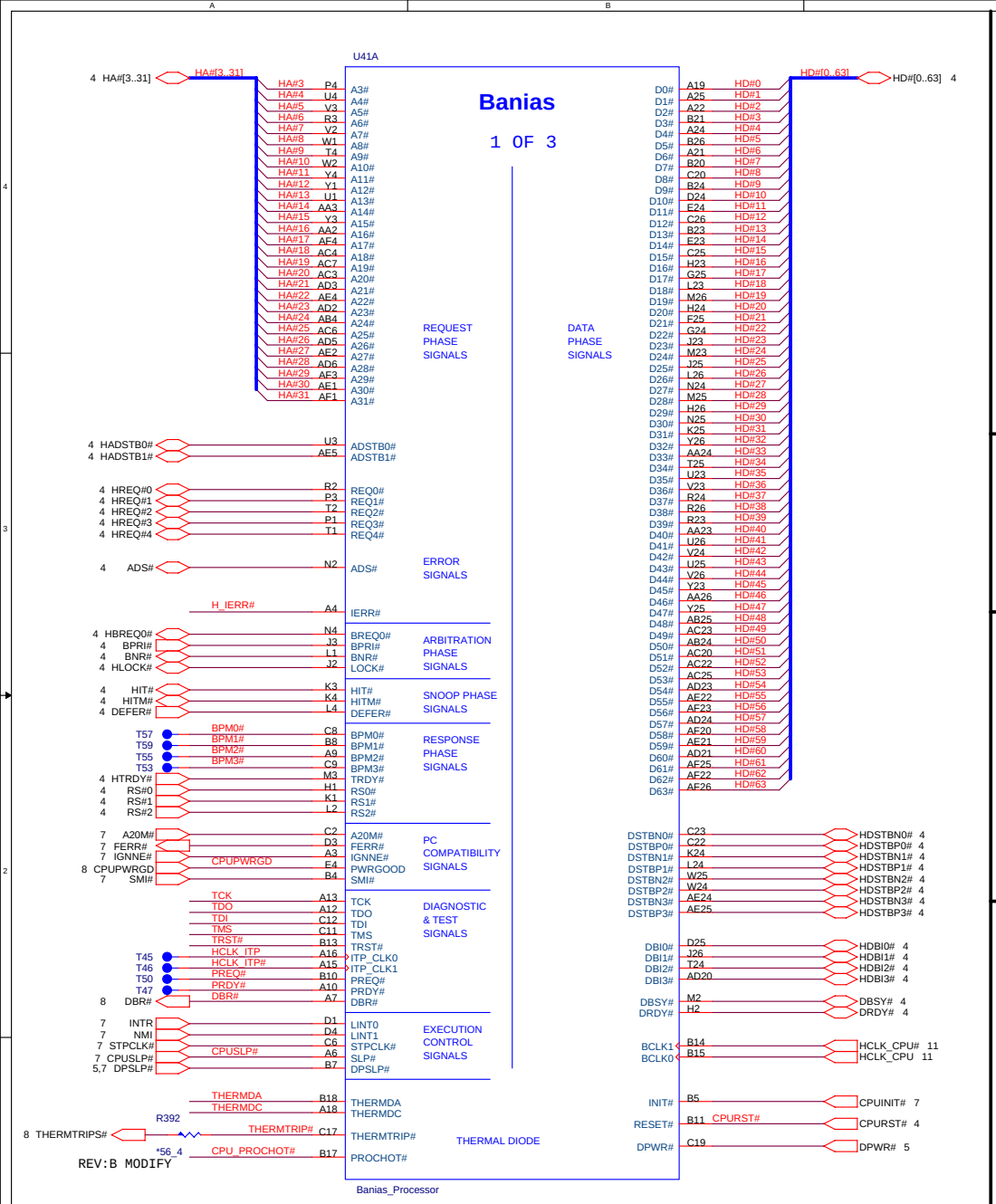
ME Leader : 林哲敏 Mill Lin

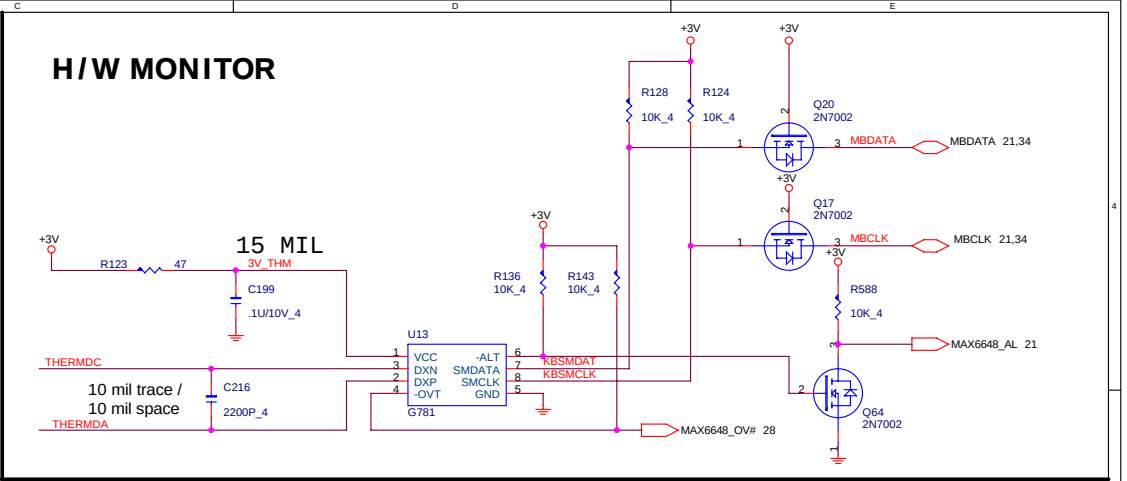
PROJECT : ZL1

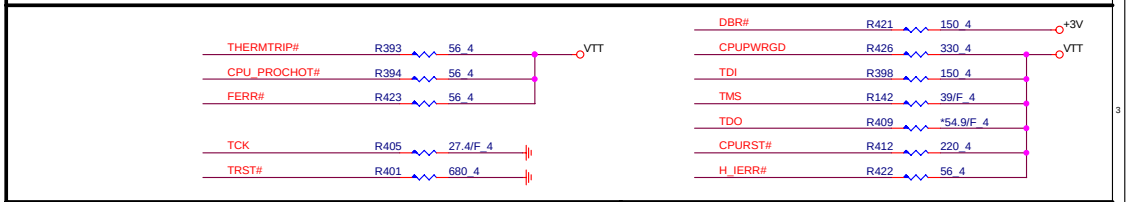
Quanta Computer Inc.

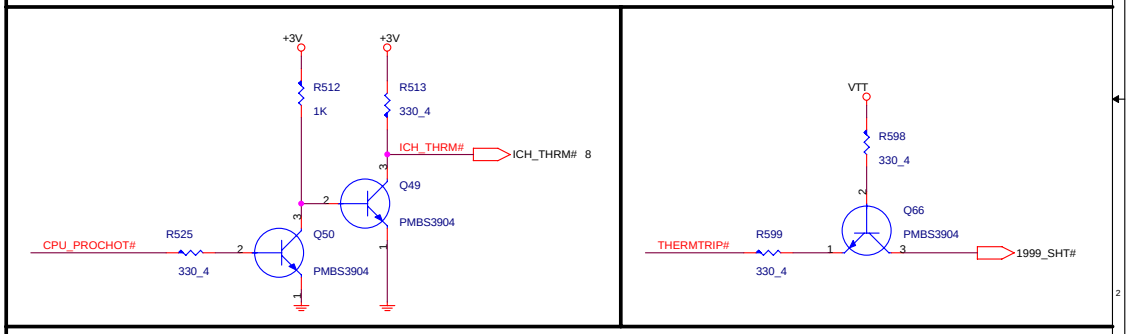
| Size | Document Number | Rev |
|---|---|---|
| | BLOCK DIAGRAM | 2A |

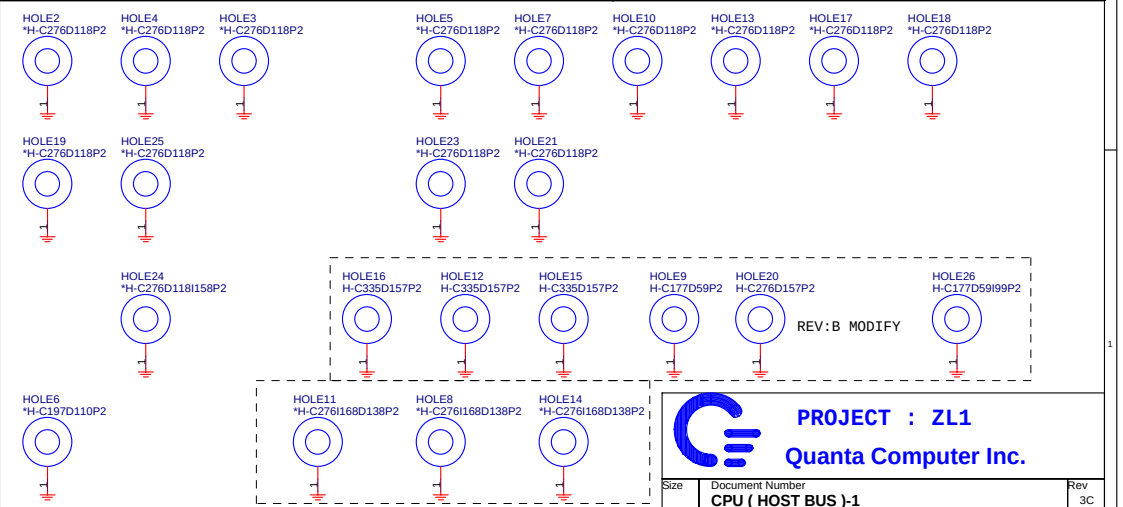
Date: Thursday, August 26, 2004 Sheet 1 of 34



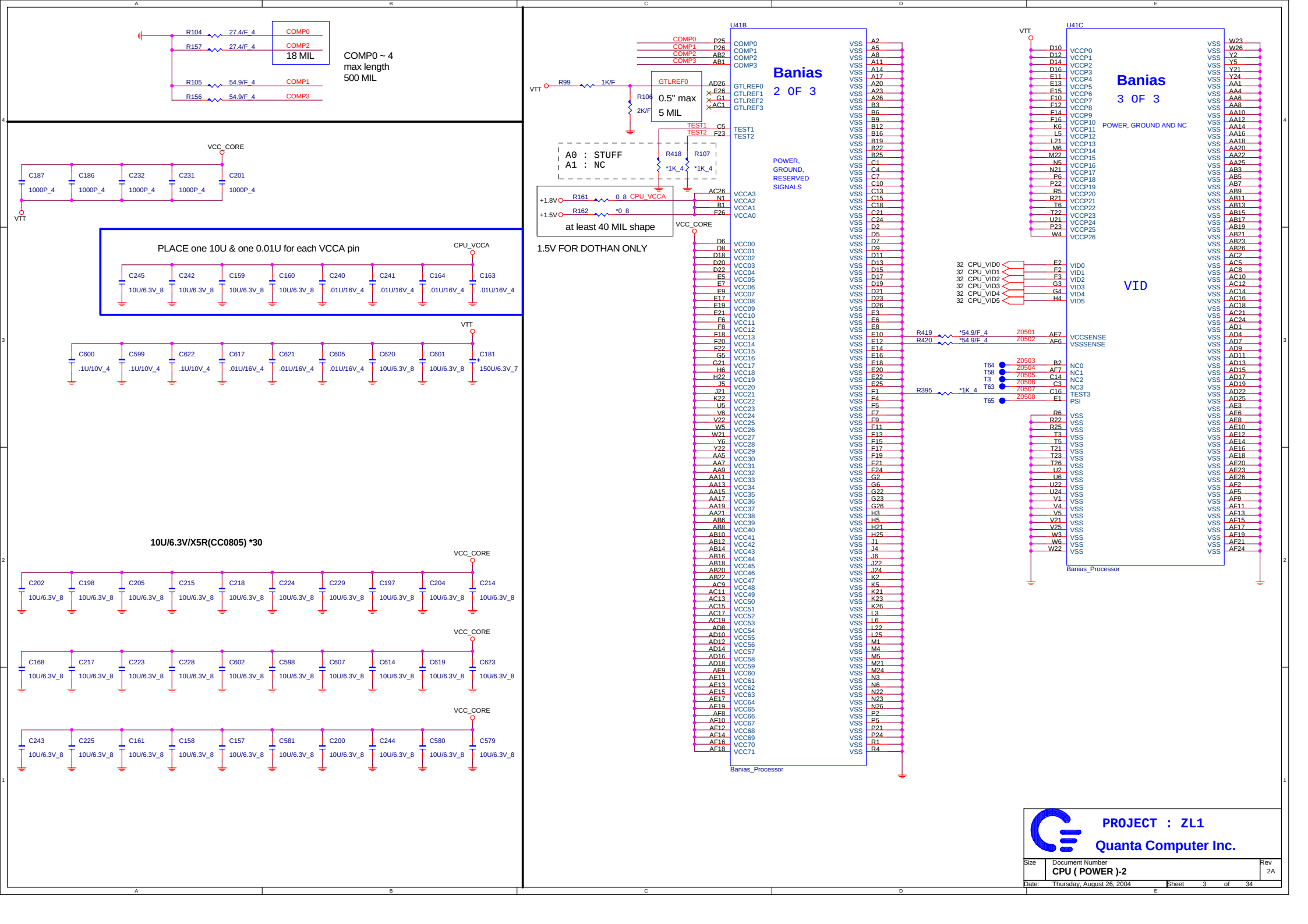



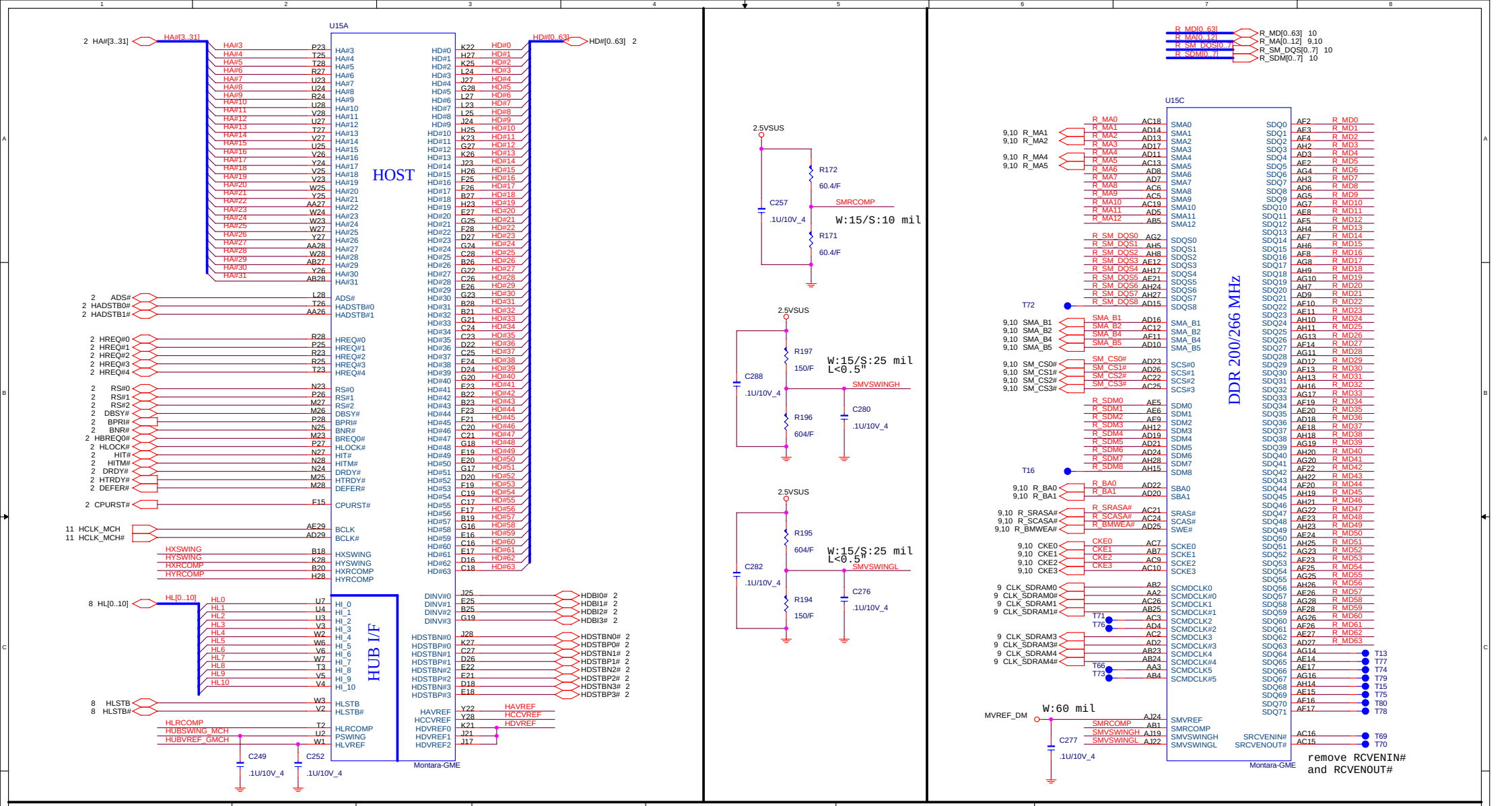

PROJECT : ZL1

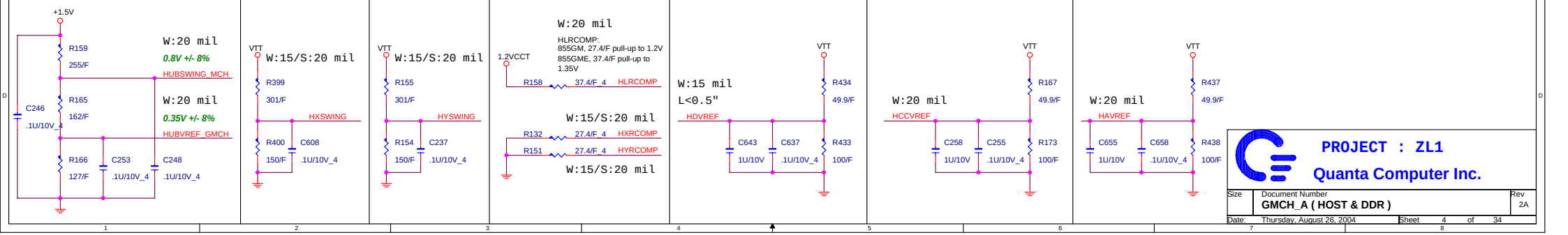
Quanta Computer Inc.

| Size | Document Number | Rev |
|---|---|---|
| | CPU ( HOST BUS )-1 | 3C |

Date: Thursday, August 26, 2004 Sheet 2 of 34


R104 27.4/F_4 COMP0
R157 27.4/F_4 COMP2
18 MIL
R105 54.9/F_4 COMP1
R156 54.9/F_4 COMP3
COMP0 ~ 4
max length
500 MIL
VCC_CORE
C187 C186 C232 C231 C201
1000P_4
VTT
PLACE one 10U & one 0.01U for each VCCA pin
CPU_VCCA
C245 C242 C159 C160 C240 C241 C164 C163
10U/6.3V_8
.01U/16V_4
VTT
C600 C599 C622 C617 C621 C605 C620 C601 C181
.1U/10V_4
.01U/16V_4
10U/6.3V_8
150U/6.3V_7
10U/6.3V/X5R(CC0805) *30
VCC_CORE
C202 C198 C205 C215 C218 C224 C229 C197 C204 C214
C168 C217 C223 C228 C602 C598 C607 C614 C619 C623
C243 C225 C161 C158 C157 C581 C200 C244 C580 C579
U41B
Banias
2 OF 3
POWER, GROUND, RESERVED SIGNALS
COMP0 COMP1 COMP2 COMP3
VTT R99 1K/F
R106 2K/F
GTLREF0
0.5" max
5 MIL
TEST1 TEST2
A0 : STUFF
A1 : NC
R418 R107 *1K_4
+1.8V R161 0_8 CPU_VCCA
+1.5V R162 *0_8
at least 40 MIL shape
VCC_CORE
1.5V FOR DOTHAN ONLY
VCCA3 VCCA2 VCCA1 VCCA0
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
VSS
Banias_Processor
U41C
Banias
3 OF 3
POWER, GROUND AND NC
VTT
VCCP0 VCCP1 VCCP2 VCCP3 VCCP4 VCCP5 VCCP6 VCCP7 VCCP8 VCCP9 VCCP10 VCCP11 VCCP12 VCCP13 VCCP14 VCCP15 VCCP16 VCCP17 VCCP18 VCCP19 VCCP20 VCCP21 VCCP22 VCCP23 VCCP24 VCCP25 VCCP26
32 CPU_VID0
32 CPU_VID1
32 CPU_VID2
32 CPU_VID3
32 CPU_VID4
32 CPU_VID5
VID0 VID1 VID2 VID3 VID4 VID5
VID
R419 *54.9/F_4 Z0501
R420 *54.9/F_4 Z0502
VCCSENSE
VSSSENSE
T64 T58 T3 T63 T65
Z0503 Z0504 Z0505 Z0506 Z0507 Z0508
R395 *1K_4
NC0 NC1 NC2 NC3 TEST3 PSI
Banias_Processor
PROJECT : ZL1
Quanta Computer Inc.
Size
Document Number
CPU ( POWER )-2
Rev
2A
Date: Thursday, August 26, 2004
Sheet 3 of 34




PROJECT : ZL1

Quanta Computer Inc.

| Size | Document Number | Rev |
|---|---|---|
| | GMCH_A ( HOST & DDR ) | 2A |

Date: Thursday, August 26, 2004 Sheet 4 of 34

FOR M11

FOR CH7011

U15B Montara-GME

DVO

LVDS

DAC

MISC

| LCDID2 | LCDID1 | LCDID0 | LCD TYPE | LCD CABLE P/N |
|---|---|---|---|---|
| 0 | 0 | 0 | | |
| 0 | 0 | 1 | | |
| 0 | 1 | 0 | | |
| 0 | 1 | 1 | 14" XGA | DD0ZL1LC000 |
| 1 | 0 | 0 | 15" XGA | DD0ZL1LC107 |
| 1 | 0 | 1 | 15" SXGA+ | DD0ZL1LC204 |
| 1 | 1 | 0 | 15.4" WXGA | DD0ZL1LC301 |
| 1 | 1 | 1 | 15.4" WSXGA+ | DD0ZL1LC409 |

| ST2 | ST1 | ST0 | PSB Frequency | Memory Frequency | GFX Core Clock - Low | GFX Core Clock - High |
|---|---|---|---|---|---|---|
| * 0 | 0 | 0 | 400MHz | 266MHz | 133MHz | 200MHz |
| 0 | 0 | 1 | 400MHz | 200MHz | 100MHz | 200MHz |
| 0 | 1 | 0 | 400MHz | 200MHz | 100MHz | 133MHz |
| 0 | 1 | 1 | 400MHz | 133MHz | 133MHz | 266MHz |
| 1 | 0 | 0 | 533MHz | 266MHz | 133MHz | 200MHz |
| 1 | 0 | 1 | 533MHz | 266MHz | 133MHz | 266MHz |
| 1 | 1 | 0 | 533MHz | 333MHz | 166MHz | 266MHz |
| 1 | 1 | 1 | 400MHz | 333MHz | 166MHz | 250MHz |

STUFF FOR INT VGA

W:80 mil

W:80 mil

W:15 mil

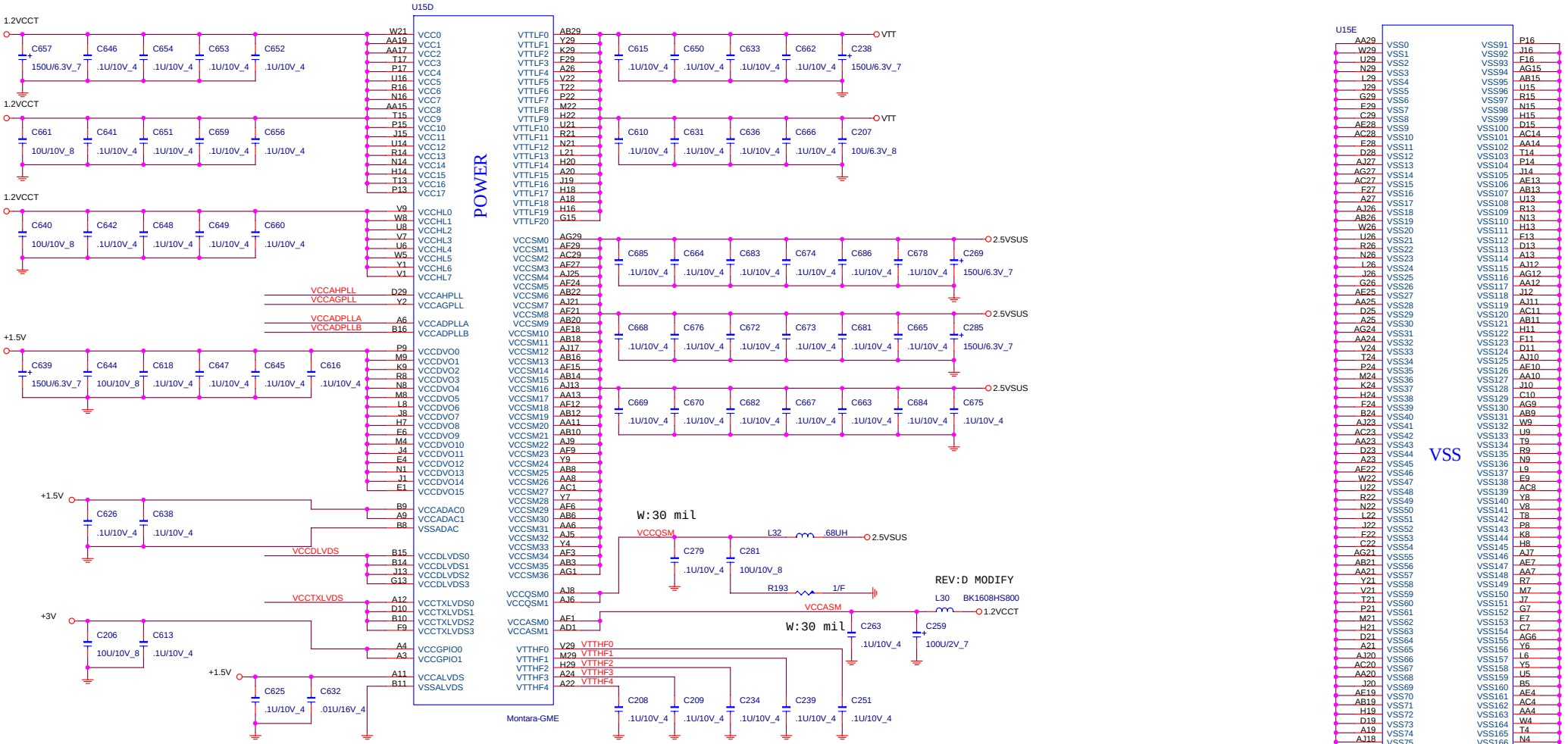
Lid Switch

PROJECT : ZL1

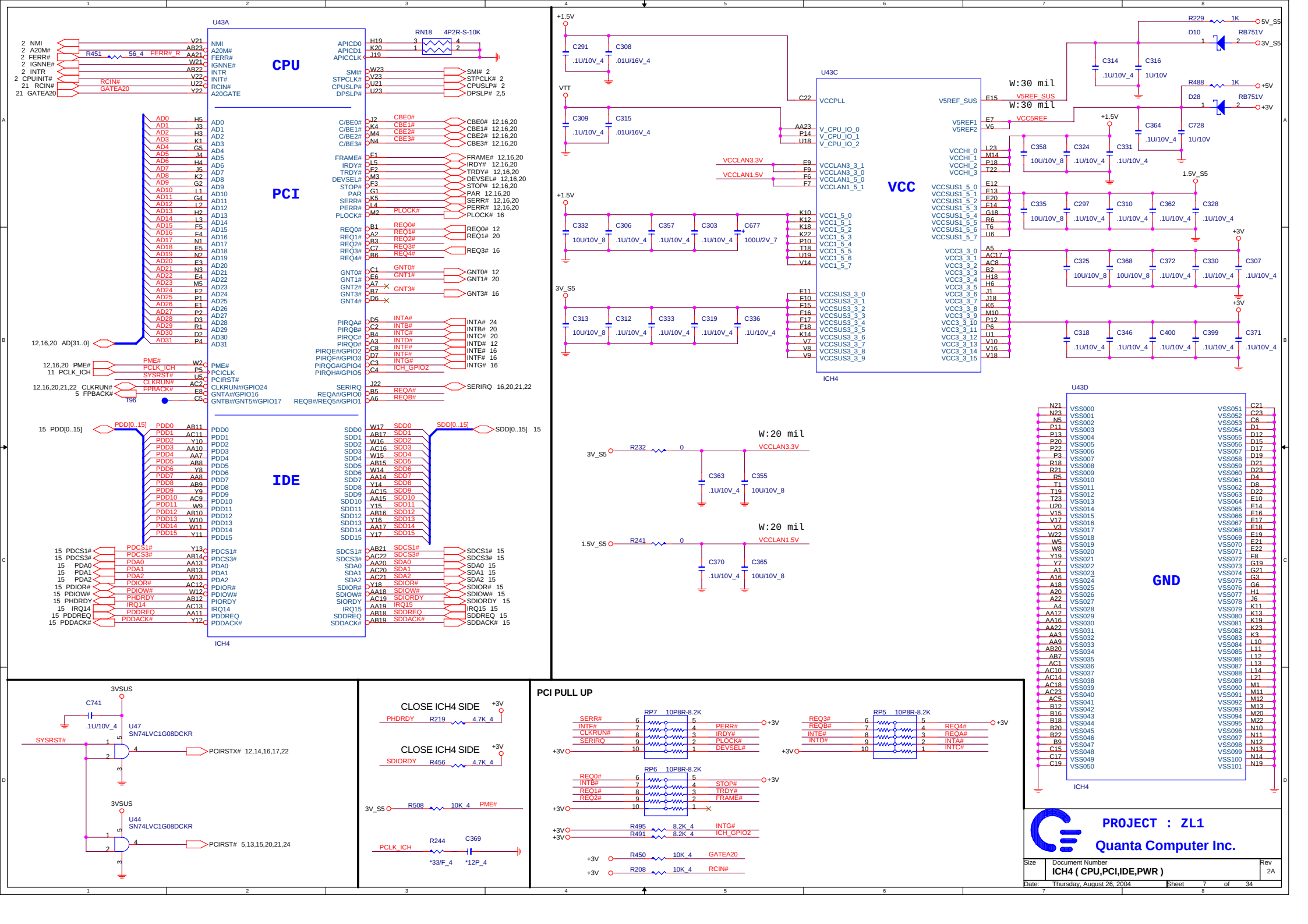
Quanta Computer Inc.

| Size | Document Number | Rev |
|---|---|---|
| | GMCH_B ( DVO & LVDS ) | 3C |

Date: Thursday, August 26, 2004 Sheet 5 of 34




| | | | |
|---|---|---|---|
| PROJECT : ZL1 | | | |
| Quanta Computer Inc. | | | |
| Size | Document Number | | Rev |
| | GMCH_C ( POWER ) | | 3B |
| Date: | Thursday, August 26, 2004 | Sheet 6 of 34 | |


U43A
CPU
PCI
IDE
ICH4
RN18 4P2R-S-10K
2 NMI
2 A20M#
2 FERR#
2 IGNNE#
2 INTR
2 CPUINIT#
21 RCIN#
21 GATEA20
R451 56_4 FERR# R
RCIN#
GATEA20
APICD0
APICD1
APICCLK
SMI#
STPCLK#
CPUSLP#
DPSLP#
SMI# 2
STPCLK# 2
CPUSLP# 2
DPSLP# 2,5
AD0
AD1
AD2
AD3
AD4
AD5
AD6
AD7
AD8
AD9
AD10
AD11
AD12
AD13
AD14
AD15
AD16
AD17
AD18
AD19
AD20
AD21
AD22
AD23
AD24
AD25
AD26
AD27
AD28
AD29
AD30
AD31
12,16,20 AD[31..0]
C/BE0#
C/BE1#
C/BE2#
C/BE3#
CBE0# 12,16,20
CBE1# 12,16,20
CBE2# 12,16,20
CBE3# 12,16,20
FRAME#
IRDY#
TRDY#
DEVSEL#
STOP#
PAR
SERR#
PERR#
PLOCK#
FRAME# 12,16,20
IRDY# 12,16,20
TRDY# 12,16,20
DEVSEL# 12,16,20
STOP# 12,16,20
PAR 12,16,20
SERR# 12,16,20
PERR# 12,16,20
PLOCK# 16
REQ0#
REQ1#
REQ2#
REQ3#
REQ4#
REQ0# 12
REQ1# 20
REQ3# 16
GNT0#
GNT1#
GNT3#
GNT4#
GNT0# 12
GNT1# 20
GNT3# 16
PIRQA#
PIRQB#
PIRQC#
PIRQD#
PIRQE#/GPIO2
PIRQF#/GPIO3
PIRQG#/GPIO4
PIRQH#/GPIO5
INTA# 24
INTB# 20
INTC# 20
INTD# 12
INTE# 16
INTF# 16
INTG# 16
ICH_GPIO2
SERIRQ
REQA#/GPIO0
REQB#/REQ5#/GPIO1
SERIRQ 16,20,21,22
PME#
PCLK_ICH
SYSRST#
CLKRUN#
FPBACK#
12,16,20 PME#
11 PCLK_ICH
12,16,20,21,22 CLKRUN#
5 FPBACK#
PME#
PCICLK
PCIRST#
CLKRUN#/GPIO24
GNTA#/GPIO16
GNTB#/GNT5#/GPIO17
T96
PDD[0..15]
15 PDD[0..15]
PDD0
PDD1
PDD2
PDD3
PDD4
PDD5
PDD6
PDD7
PDD8
PDD9
PDD10
PDD11
PDD12
PDD13
PDD14
PDD15
SDD0
SDD1
SDD2
SDD3
SDD4
SDD5
SDD6
SDD7
SDD8
SDD9
SDD10
SDD11
SDD12
SDD13
SDD14
SDD15
SDD[0..15]
SDD[0..15] 15
15 PDCS1#
15 PDCS3#
15 PDA0
15 PDA1
15 PDA2
15 PDIOR#
15 PDIOW#
15 PHDRDY
15 IRQ14
15 PDDREQ
15 PDDACK#
PDCS1#
PDCS3#
PDA0
PDA1
PDA2
PDIOR#
PDIOW#
PHDRDY
IRQ14
PDDREQ
PDDACK#
SDCS1#
SDCS3#
SDA0
SDA1
SDA2
SDIOR#
SDIOW#
SIORDY
IRQ15
SDDREQ
SDDACK#
SDCS1# 15
SDCS3# 15
SDA0 15
SDA1 15
SDA2 15
SDIOR# 15
SDIOW# 15
SIORDY 15
IRQ15 15
SDDREQ 15
SDDACK# 15
U43C
VCC
ICH4
VCCPLL
V_CPU_IO_0
V_CPU_IO_1
V_CPU_IO_2
VCCLAN3_3_1
VCCLAN3_3_0
VCCLAN1_5_0
VCCLAN1_5_1
VCCLAN3.3V
VCCLAN1.5V
VCC1_5_0
VCC1_5_1
VCC1_5_2
VCC1_5_3
VCC1_5_4
VCC1_5_5
VCC1_5_6
VCC1_5_7
VCCSUS3_3_0
VCCSUS3_3_1
VCCSUS3_3_2
VCCSUS3_3_3
VCCSUS3_3_4
VCCSUS3_3_5
VCCSUS3_3_6
VCCSUS3_3_7
VCCSUS3_3_8
VCCSUS3_3_9
V5REF_SUS
V5REF1
V5REF2
VCCHI_0
VCCHI_1
VCCHI_2
VCCHI_3
VCCSUS1_5_0
VCCSUS1_5_1
VCCSUS1_5_2
VCCSUS1_5_3
VCCSUS1_5_4
VCCSUS1_5_5
VCCSUS1_5_6
VCCSUS1_5_7
VCC3_3_0
VCC3_3_1
VCC3_3_2
VCC3_3_3
VCC3_3_4
VCC3_3_5
VCC3_3_6
VCC3_3_7
VCC3_3_8
VCC3_3_9
VCC3_3_10
VCC3_3_11
VCC3_3_12
VCC3_3_13
VCC3_3_14
VCC3_3_15
W:30 mil
W:20 mil
VCC5REF
+1.5V
VTT
+3V
3V_S5
1.5V_S5
+5V
U43D
GND
VSS000
VSS001
VSS002
VSS003
VSS004
VSS005
VSS006
VSS007
VSS008
VSS009
VSS010
VSS011
VSS012
VSS013
VSS014
VSS015
VSS016
VSS017
VSS018
VSS019
VSS020
VSS021
VSS022
VSS023
VSS024
VSS025
VSS026
VSS027
VSS028
VSS029
VSS030
VSS031
VSS032
VSS033
VSS034
VSS035
VSS036
VSS037
VSS038
VSS039
VSS040
VSS041
VSS042
VSS043
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VSS049
VSS050
VSS051
VSS052
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VSS055
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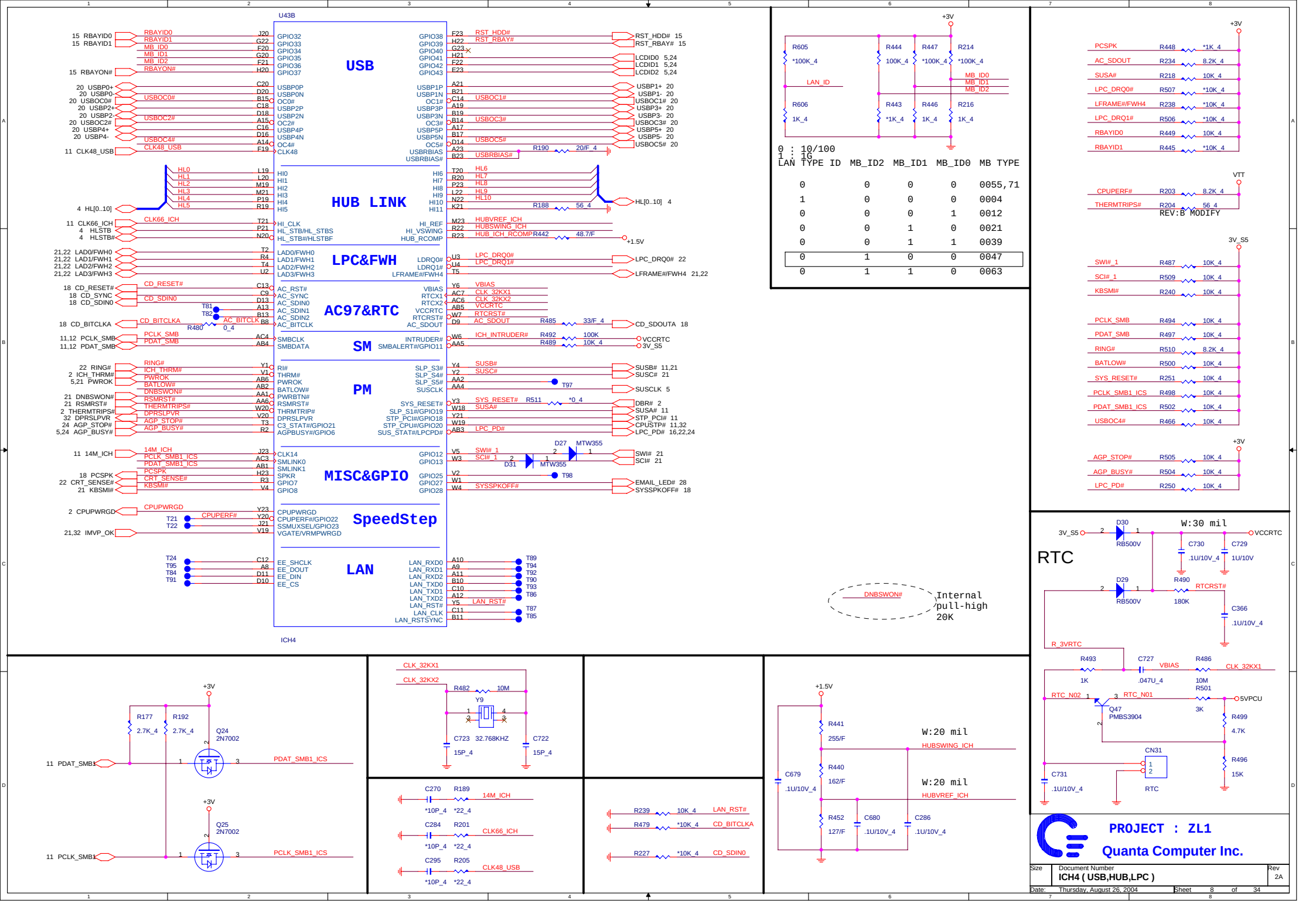
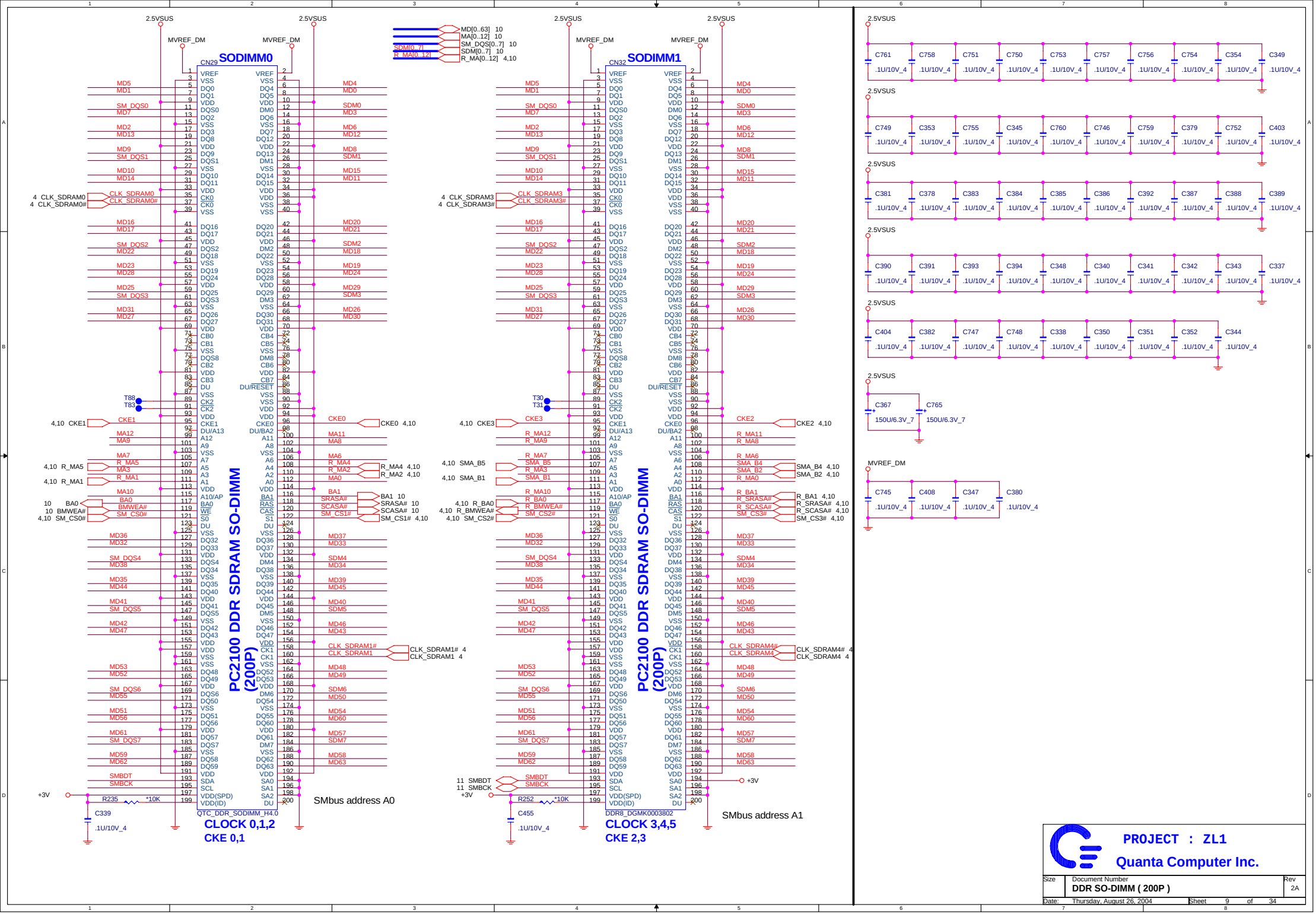
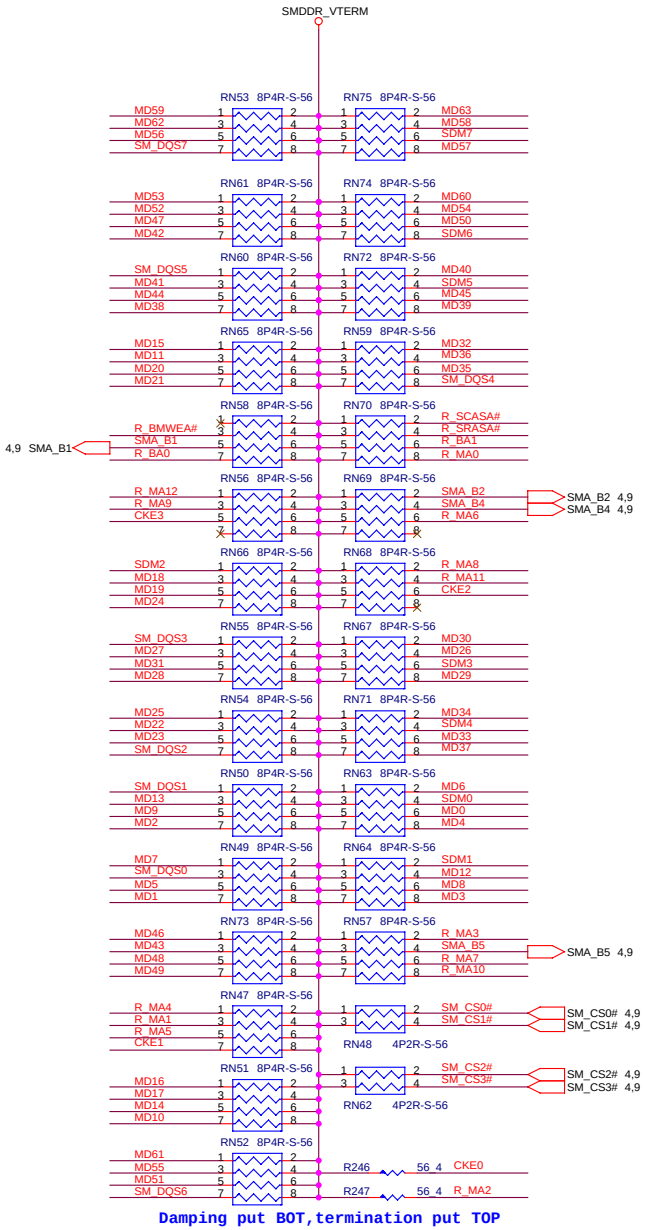
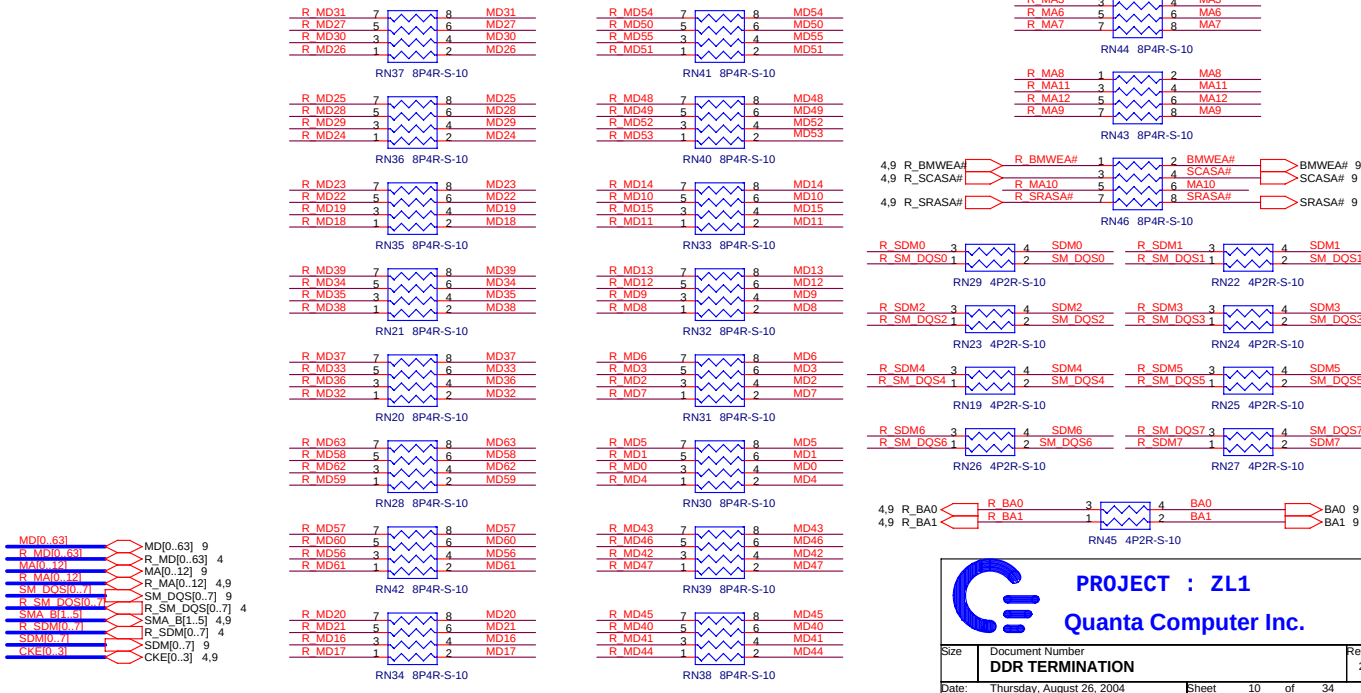
VSS059
VSS060
VSS061
VSS062
VSS063
VSS064
VSS065
VSS066
VSS067
VSS068
VSS069
VSS070
VSS071
VSS072
VSS073
VSS074
VSS075
VSS076
VSS077
VSS078
VSS079
VSS080
VSS081
VSS082
VSS083
VSS084
VSS085
VSS086
VSS087
VSS088
VSS089
VSS090
VSS091
VSS092
VSS093
VSS094
VSS095
VSS096
VSS097
VSS098
VSS099
VSS100
VSS101
3VSUS
U47
SN74LVC1G08DCKR
SYSRST#
PCIRSTX# 12,14,16,17,22
U44
SN74LVC1G08DCKR
PCIRST# 5,13,15,20,21,24
CLOSE ICH4 SIDE
PHDRDY
SDIORDY
R219 4.7K_4
R456 4.7K_4
R508 10K_4 PME#
PCLK_ICH
R244 *33/F_4
C369 *12P_4
PCI PULL UP
RP7 10P8R-8.2K
RP6 10P8R-8.2K
RP5 10P8R-8.2K
SERR#
INTF#
CLKRUN#
SERIRQ
PERR#
IRDY#
PLOCK#
DEVSEL#
REQ0#
INTB#
REQ1#
REQ2#
STOP#
TRDY#
FRAME#
REQ3#
REQB#
INTE#
INTD#
REQ4#
REQA#
INTA#
INTC#
R495 8.2K_4 INTG#
R491 8.2K_4 ICH_GPIO2
R450 10K_4 GATEA20
R208 10K_4 RCIN#
PROJECT : ZL1
Quanta Computer Inc.
Size
Document Number
ICH4 ( CPU,PCI,IDE,PWR )
Rev
2A
Date: Thursday, August 26, 2004
Sheet 7 of 34


U43B
USB
HUB LINK
LPC&FWH
AC97&RTC
SM
PM
MISC&GPIO
SpeedStep
LAN
ICH4
0 : 10/100
1 : 1G
LAN TYPE ID MB_ID2 MB_ID1 MB_ID0 MB TYPE
0 0 0 0 0055,71
1 0 0 0 0004
0 0 0 1 0012
0 0 1 0 0021
0 0 1 1 0039
0 1 0 0 0047
0 1 1 0 0063
REV:B MODIFY
RTC
PROJECT : ZL1
Quanta Computer Inc.
ICH4 ( USB,HUB,LPC )
Thursday, August 26, 2004


SODIMM0
CN29
PC2100 DDR SDRAM SO-DIMM (200P)
QTC_DDR_SODIMM_H4.0
CLOCK 0,1,2
CKE 0,1
SMbus address A0
SODIMM1
CN32
PC2100 DDR SDRAM SO-DIMM (200P)
DDR8_DGMK0003802
CLOCK 3,4,5
CKE 2,3
SMbus address A1
2.5VSUS
MVREF_DM
+3V
C339
.1U/10V_4
R235 *10K
C455
R252 *10K
C761 C758 C751 C750 C753 C757 C756 C754 C354 C349
C749 C353 C755 C345 C760 C746 C759 C379 C752 C403
C381 C378 C383 C384 C385 C386 C392 C387 C388 C389
C390 C391 C393 C394 C348 C340 C341 C342 C343 C337
C404 C382 C747 C748 C338 C350 C351 C352 C344
C367 150U/6.3V_7
C765 150U/6.3V_7
C745 C408 C347 C380
.1U/10V_4
PROJECT : ZL1
Quanta Computer Inc.
Size
Document Number
DDR SO-DIMM ( 200P )
Rev
2A
Date: Thursday, August 26, 2004
Sheet 9 of 34




## For terminal R-pack.

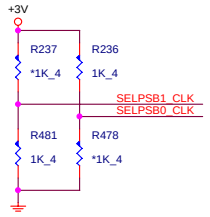



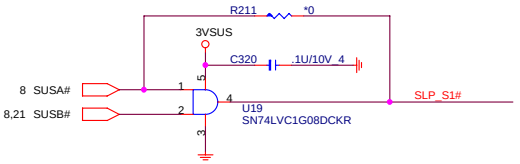

**PROJECT : ZL1**

**Quanta Computer Inc.**

| Size | Document Number | Rev |
|---|---|---|
| | DDR TERMINATION | 2A |
| Date: Thursday, August 26, 2004 | Sheet 10 of 34 | |

| S2 | S1 | S0 | CPU | 3V66[0..4] | 3V66_5/66IN |
|---|---|---|---|---|---|
| 1 | 0 | 0 | 66 | 66IN | 66 Input |
| 1 | 0 | 1 | 100 | 66IN | 66 Input |
| 1 | 1 | 0 | 200 | 66IN | 66 Input |
| 1 | 1 | 1 | 133 | 66IN | 66 Input |
| 0 | 0 | 0 | 66 | 66 | 66 |
| 0 | 0 | 1 | 100 | 66 | 66 |
| 0 | 1 | 0 | 200 | 66 | 66 |
| 0 | 1 | 1 | 133 | 66 | 66 |



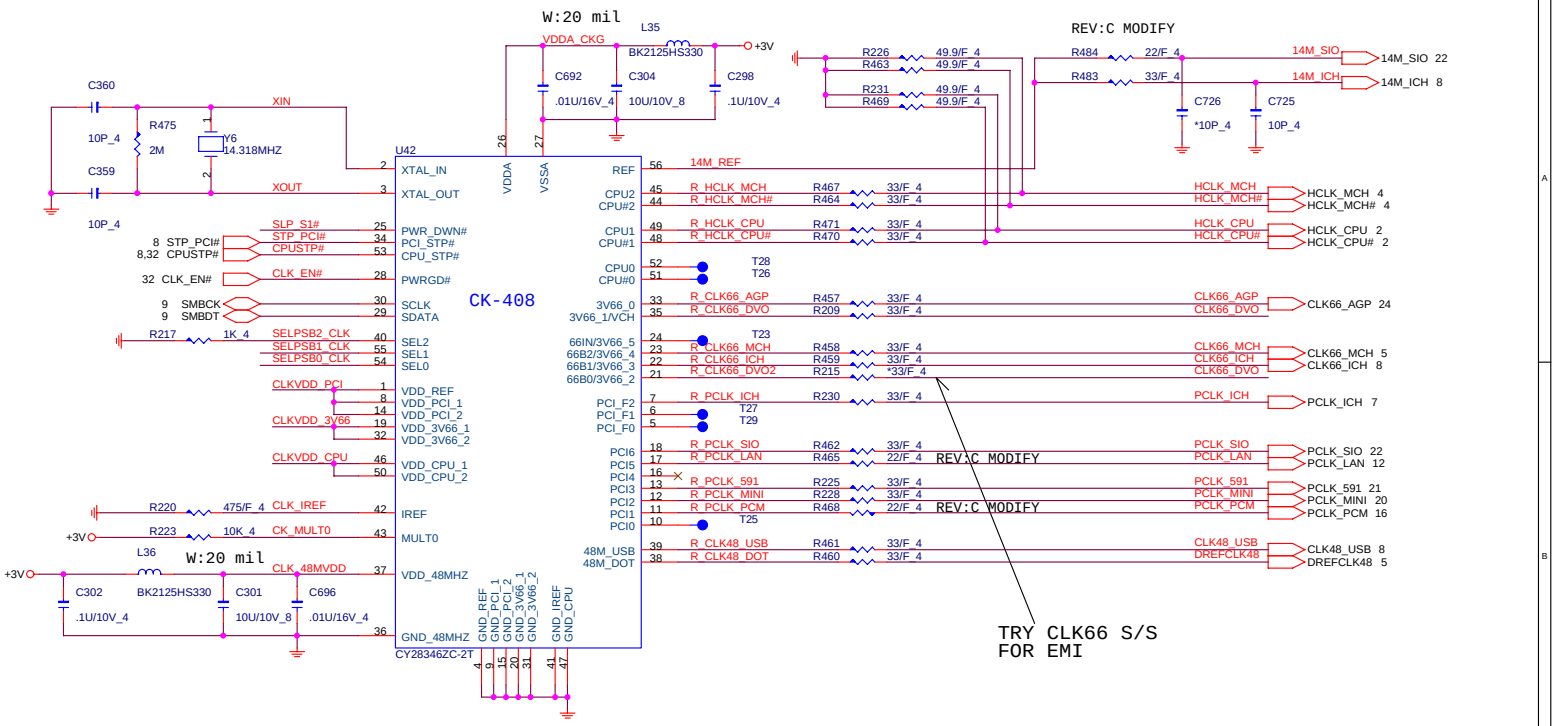



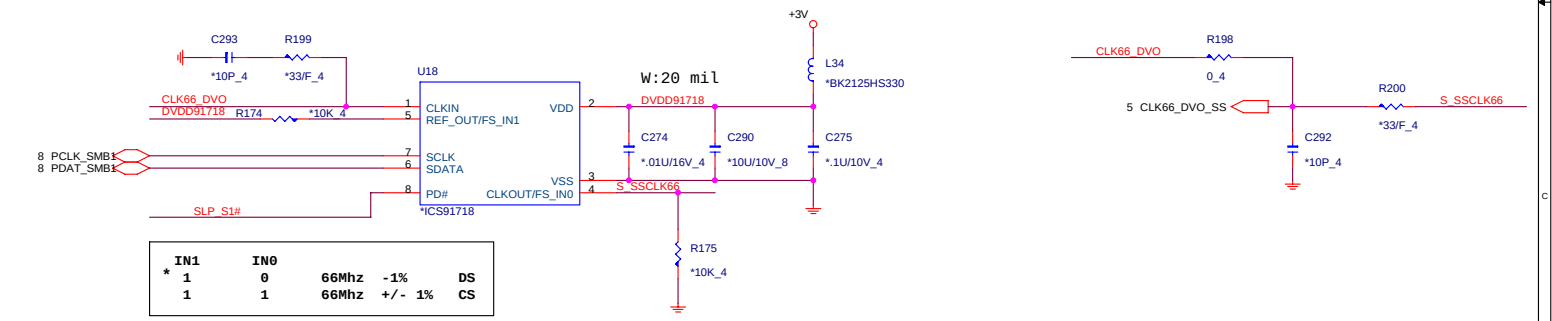

| | 3V66_1/VCH | |
|---|---|---|
| SMBus Byte 0 , Bit 5 = 0 | 66 MHz | W S/S |
| SMBus Byte 0 , Bit 5 = 1 | 48 MHz | W/O S/S |

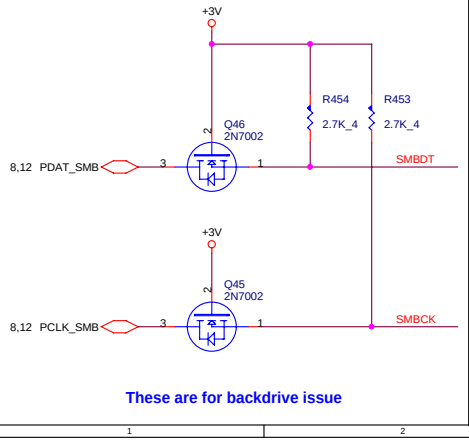
Byte 0 , Bit 7 = 0 Disable Spread Spectrum

Byte 0 , Bit 7 = 1 Enable Spread Spectrum

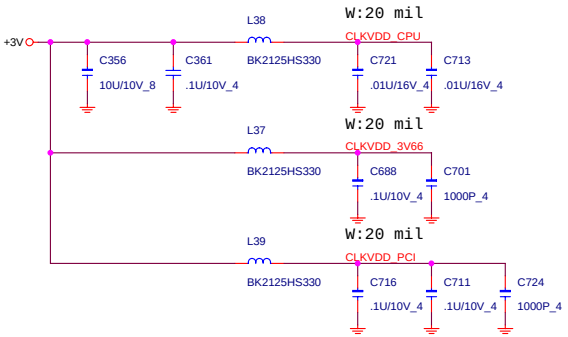
| Byte 4 Bit 7 | Byte 5 Bit 7 | Byte 5 Bit 6 | Spread Mode | Spread % |
|---|---|---|---|---|
| SS2 | SS1 | SS0 | | |
| 0 | 0 | 0 | DOWN | +0.00 , -0.25 |
| 0 | 0 | 1 | DOWN | +0.00 , -0.50 |
| 0 | 1 | 0 | DOWN | +0.00 , -0.75 |
| 0 | 1 | 1 | DOWN | +0.00 , -1.00 |
| 1 | 0 | 0 | CENTER | +0.13 , -0.13 |
| 1 | 0 | 1 | CENTER | +0.25 , -0.25 |
| 1 | 1 | 0 | CENTER | +0.37 , -0.37 |
| 1 | 1 | 1 | CENTER | +0.50 , -1.50 |

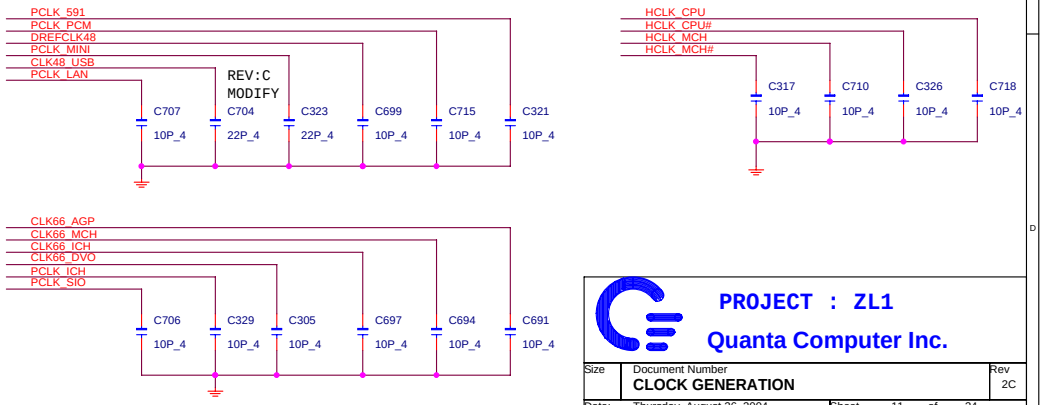



These are for backdrive issue

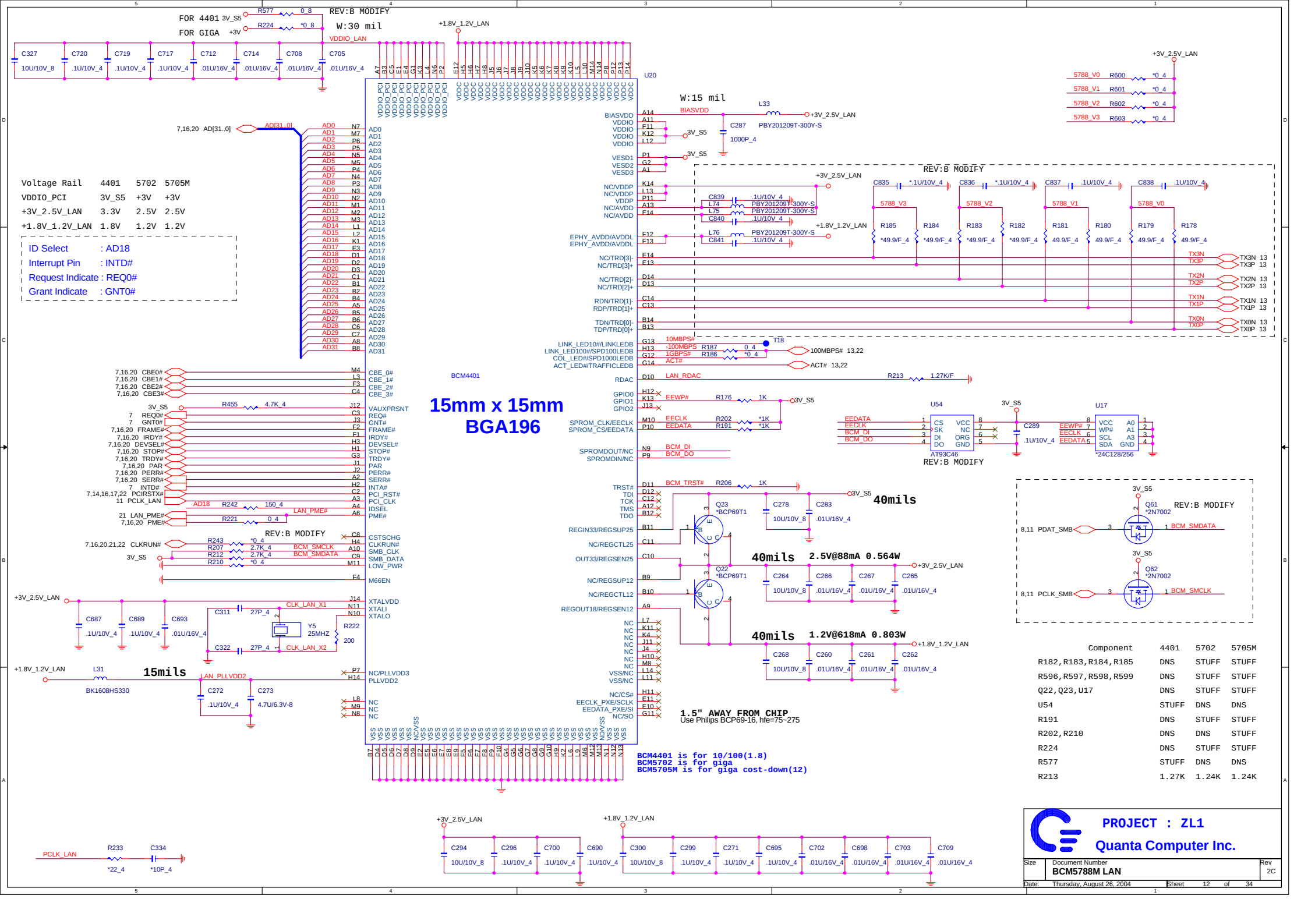



**PROJECT : ZL1**

**Quanta Computer Inc.**

| Size | Document Number | Rev |
|---|---|---|
| | CLOCK GENERATION | 2C |
| Date: Thursday, August 26, 2004 | Sheet 11 of 34 | |



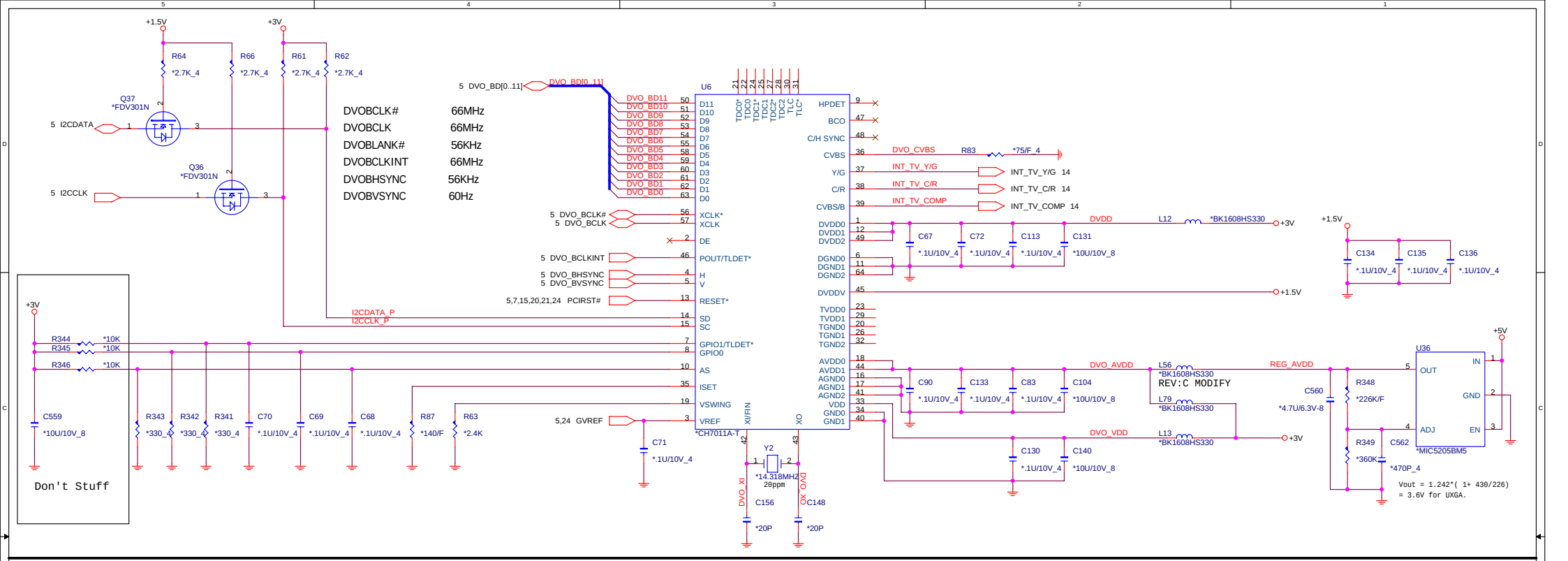

| Component | 4401 | 5702 | 5705M |
|---|---|---|---|
| R182,R183,R184,R185 | DNS | STUFF | STUFF |
| R596,R597,R598,R599 | DNS | STUFF | STUFF |
| Q22,Q23,U17 | DNS | STUFF | STUFF |
| U54 | STUFF | DNS | DNS |
| R191 | DNS | STUFF | STUFF |
| R202,R210 | DNS | DNS | STUFF |
| R224 | DNS | STUFF | STUFF |
| R577 | STUFF | DNS | DNS |
| R213 | 1.27K | 1.24K | 1.24K |

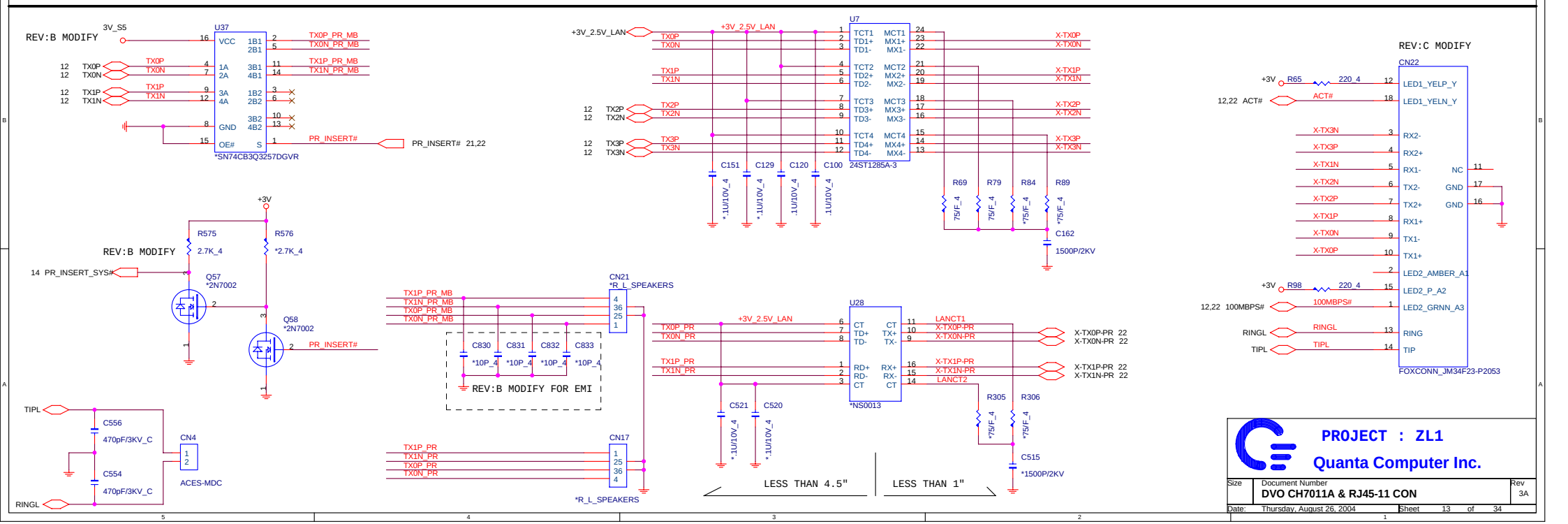
PROJECT : ZL1

Quanta Computer Inc.

| Size | Document Number | Rev |
|---|---|---|
| | BCM5788M LAN | 2C |

Date: Thursday, August 26, 2004 Sheet 12 of 34




**PROJECT : ZL1**

**Quanta Computer Inc.**

| Size | Document Number | Rev |
|---|---|---|
| | DVO CH7011A & RJ45-11 CON | 3A |

Date: Thursday, August 26, 2004 Sheet 13 of 34

REV:B MODIFY

13 PR_INSERT_SYS#

| SEL | FUNCTION |
|---|---|
| LOW | IN_B0 |
| HIGH | IN_B1 |

U27 — SN74LVC1G3157DCKR
PR_INSERT_SYS# → SEL; VGA_RED → COM; GND; VCC = +5V; IN_B1 = VGA_RED_SYS; IN_B0 = VGA_RED_PR → VGA_RED_PR 22

U26 — SN74LVC1G3157DCKR
PR_INSERT_SYS# → SEL; VGA_GRN → COM; GND; VCC = +5V; IN_B1 = VGA_GRN_SYS; IN_B0 = VGA_GRN_PR → VGA_GRN_PR 22

U25 — SN74LVC1G3157DCKR
PR_INSERT_SYS# → SEL; VGA_BLU → COM; GND; VCC = +5V; IN_B1 = VGA_BLU_SYS; IN_B0 = VGA_BLU_PR → VGA_BLU_PR 22

REV:C MODIFY

5 INT_VGA_RED — R389 *BLM15BB220SN1 — VGA_RED
5 INT_VGA_GRN — R390 *BLM15BB220SN1 — VGA_GRN
5 INT_VGA_BLU — R388 *BLM15BB220SN1 — VGA_BLU

5 INT_VSYNC — RN8 *4P2R-S-0 — VSYNC
5 INT_HSYNC — RN8 *4P2R-S-0 — HSYNC

5 INT_DDCCLK — RN6 *4P2R-S-0 — DDCCLK
5 INT_DDCDAT — RN6 *4P2R-S-0 — DDCDAT

REV:C MODIFY

24 EXT_VGA_RED — R366 BLM15BB220SN1 — VGA_RED
24 EXT_VGA_GRN — R367 BLM15BB220SN1 — VGA_GRN
24 EXT_VGA_BLU — R365 BLM15BB220SN1 — VGA_BLU

24 EXT_VSYNC — RN9 4P2R-S-0 — VSYNC
24 EXT_HSYNC — RN9 4P2R-S-0 — HSYNC

24 EXT_DDCCLK — RN7 4P2R-S-0 — DDCCLK
24 EXT_DDCDAT — RN7 4P2R-S-0 — DDCDAT

13 INT_TV_Y/G — R378 *0 — TV_Y/G
13 INT_TV_C/R — R379 *0 — TV_C/R
13 INT_TV_COMP — R377 *0 — TV_COMP

24 TV_Y/G — TV_Y/G
24 TV_C/R — TV_C/R
24 TV_COMP — TV_COMP

+3V

D2 *DA204U — VGA_RED
D14 *DA204U — VGA_BLU
D15 *DA204U — VGA_GRN

REV:B MODIFY

D36 *DA204U — VSYNC
D37 *DA204U — HSYNC

CRT PORT

F2 FUSE1A6V_POLY
+5V → F2 → D13 MTW355 → +5V_CRT2
+5V_CRT2 — C498 1U/10V_4

25 MIL

CN14 CRT_DFDS15FR0G6

VGA_RED_SYS — L2 0 — CRT_R1 — R2 75/F_4 — R4 75/F_4 — R5 75/F_4 — C6 10P_4 — C4 10P_4 — C2 10P_4
VGA_GRN_SYS — L5 0 — CRT_G1
VGA_BLU_SYS — L6 0 — CRT_B1

REV:C MODIFY

VSYNC — Q4 2N7002 — VSYNC1 — L4 BLM18BA220SN1 CRTVSYNC → CRTVSYNC 22
7,12,16,17,22 PCIRSTX# — R308 0
HSYNC — Q3 2N7002 — HSYNC1 — L3 BLM18BA220SN1 CRTHSYNC → CRTHSYNC 22

DDCCLK — Q30 2N7002 — R303 2.7K_4 — R3 2.7K_4 — CRTDCLK → CRTDCLK 22
R304 2.7K_4 — +3V
DDCDAT — R8 2.7K_4 — Q2 2N7002 — CRTDDAT → CRTDDAT 22

C7 10P_4 — C5 10P_4 — C497 10P_4 — C3 10P_4

S-VIDEO

CN25 TV_DFMD07FR222

TV_C/R_SYS — L15 1.8UH — TV-CHROMA — R112 75/F_4 — C182 100P_4 — C173 270P_4
TV-LUMA — L20 1.8UH — TV_Y/G_SYS — C188 270P_4 — C189 100P_4 — R119 75/F_4

REV:C MODIFY

TV-COMP — L18 1.8UH — TV_COMP — C180 270P_4 — C185 100P_4 — R113 75/F_4

REV:B MODIFY

U11 — SN74LVC1G3157DCKR
PR_INSERT_SYS# → SEL; TV_Y/G → COM; GND; VCC = +5V; IN_B1 = TV_Y/G_SYS; IN_B0 = TV_Y/G_PR → TV_Y/G_PR 22

U9 — SN74LVC1G3157DCKR
PR_INSERT_SYS# → SEL; TV_C/R → COM; GND; VCC = +5V; IN_B1 = TV_C/R_SYS; IN_B0 = TV_C/R_PR → TV_C/R_PR 22

PROJECT : ZL1
Quanta Computer Inc.

| Size | Document Number | Rev |
|---|---|---|
| | CRT & S-VIDEO | 2C |

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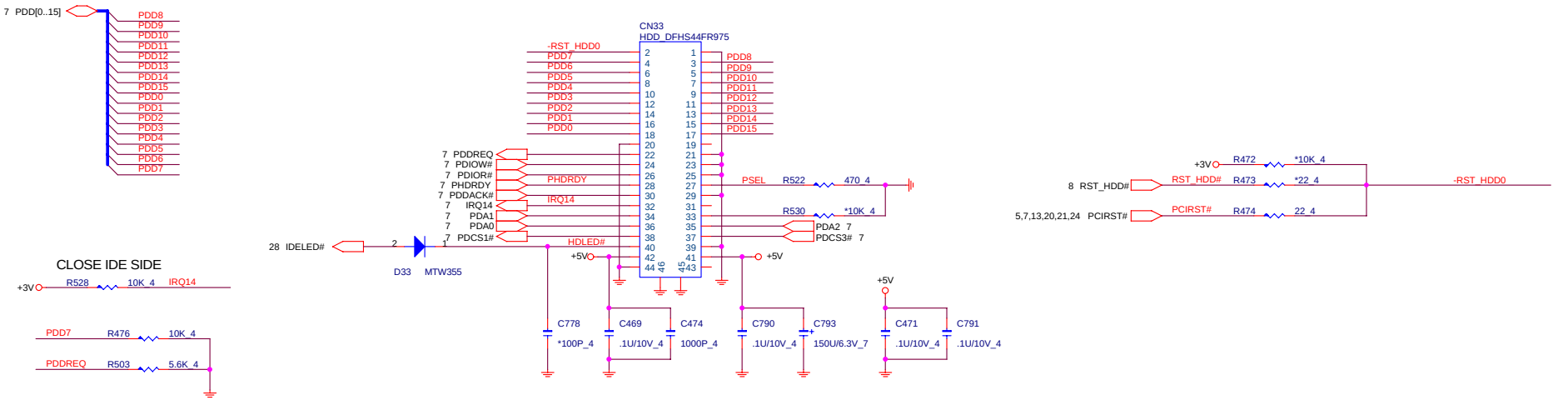
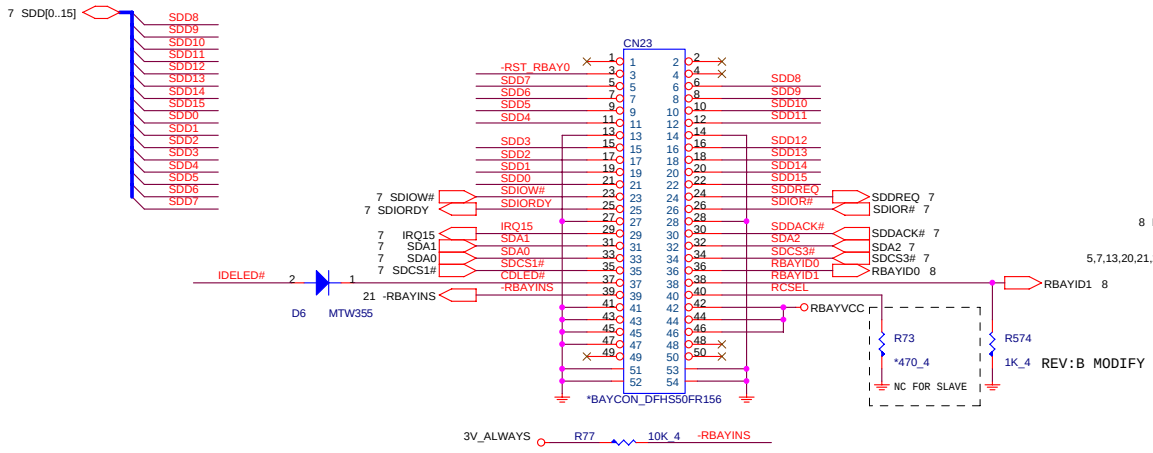
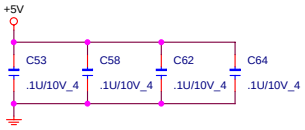
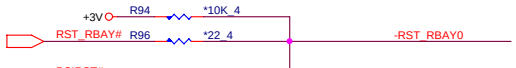
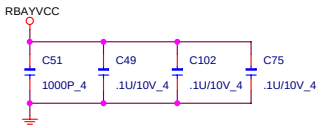


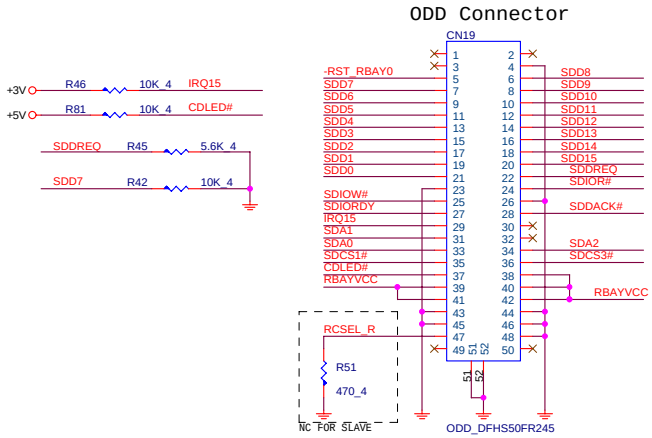



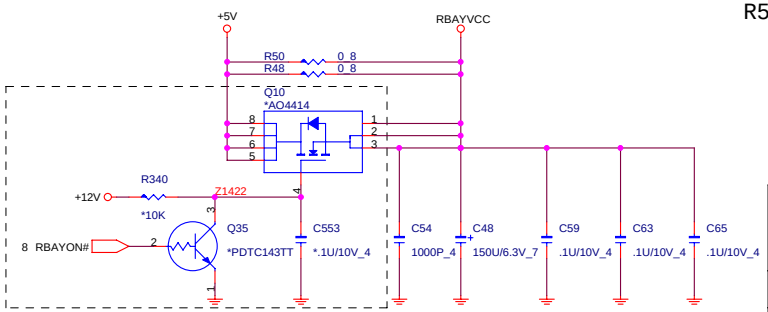




## BAY ID STATUS

| RBAYID0/ LBAYID0 | RBAYID1/ LBAYID1 | STATUS |
|---|---|---|
| 0 | 0 | FDD |
| 0 | 1 | HDD |
| 1 | 0 | CD/DVD |

| | W/O Media Bay | W Media Bay |
|---|---|---|
| R472,R473 | DNS | STUFF |
| R94,R96 | DNS | STUFF |
| R474,R101 | STUFF | DNS |
| R48,R50 | STUFF | DNS |
| Q10,Q35 | DNS | STUFF |
| R340,C553 | DNS | STUFF |
| R73,CN23 | DNS | STUFF |
| R51,CN19 | STUFF | DNS |
| R574 | STUFF | DNS |



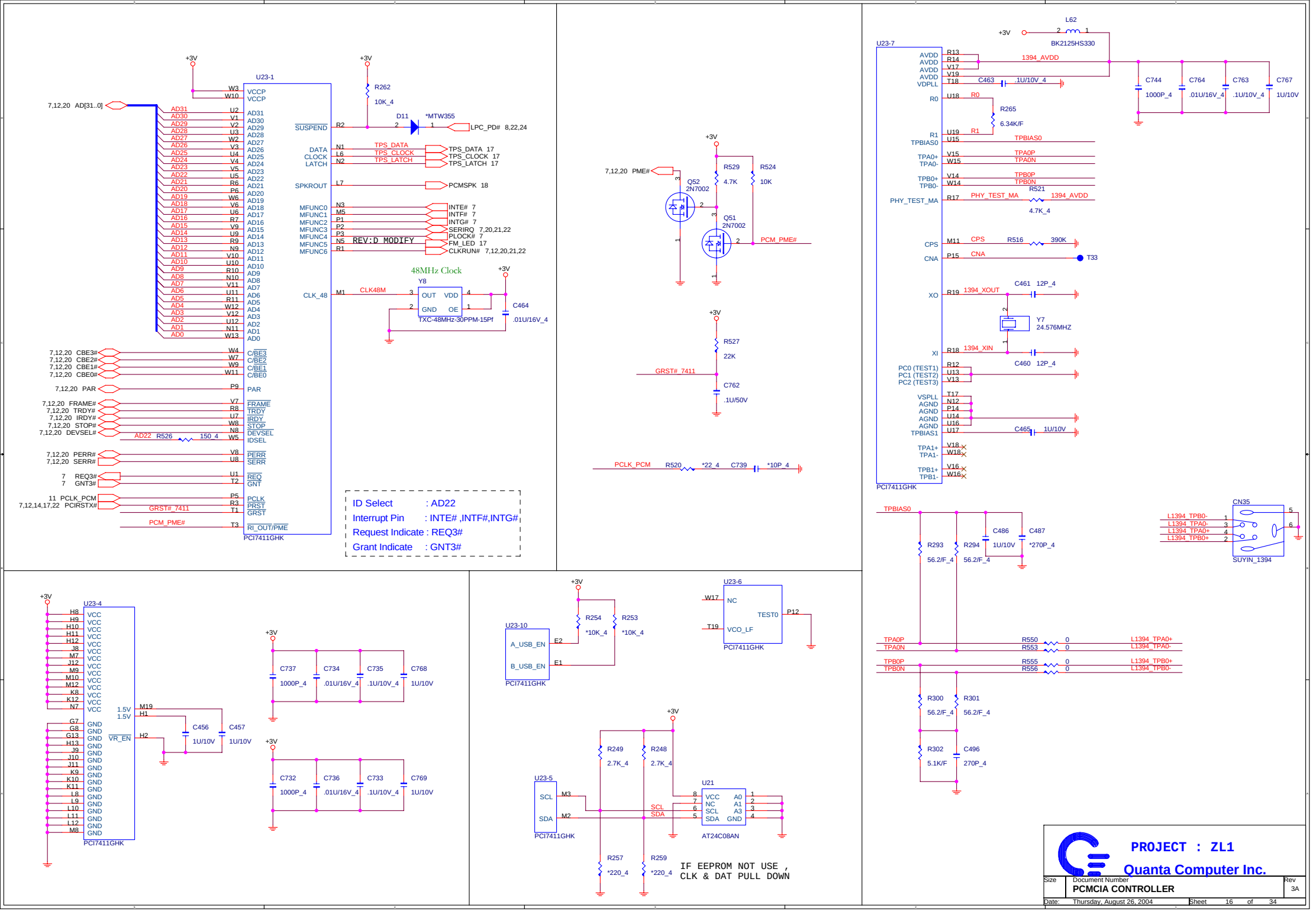



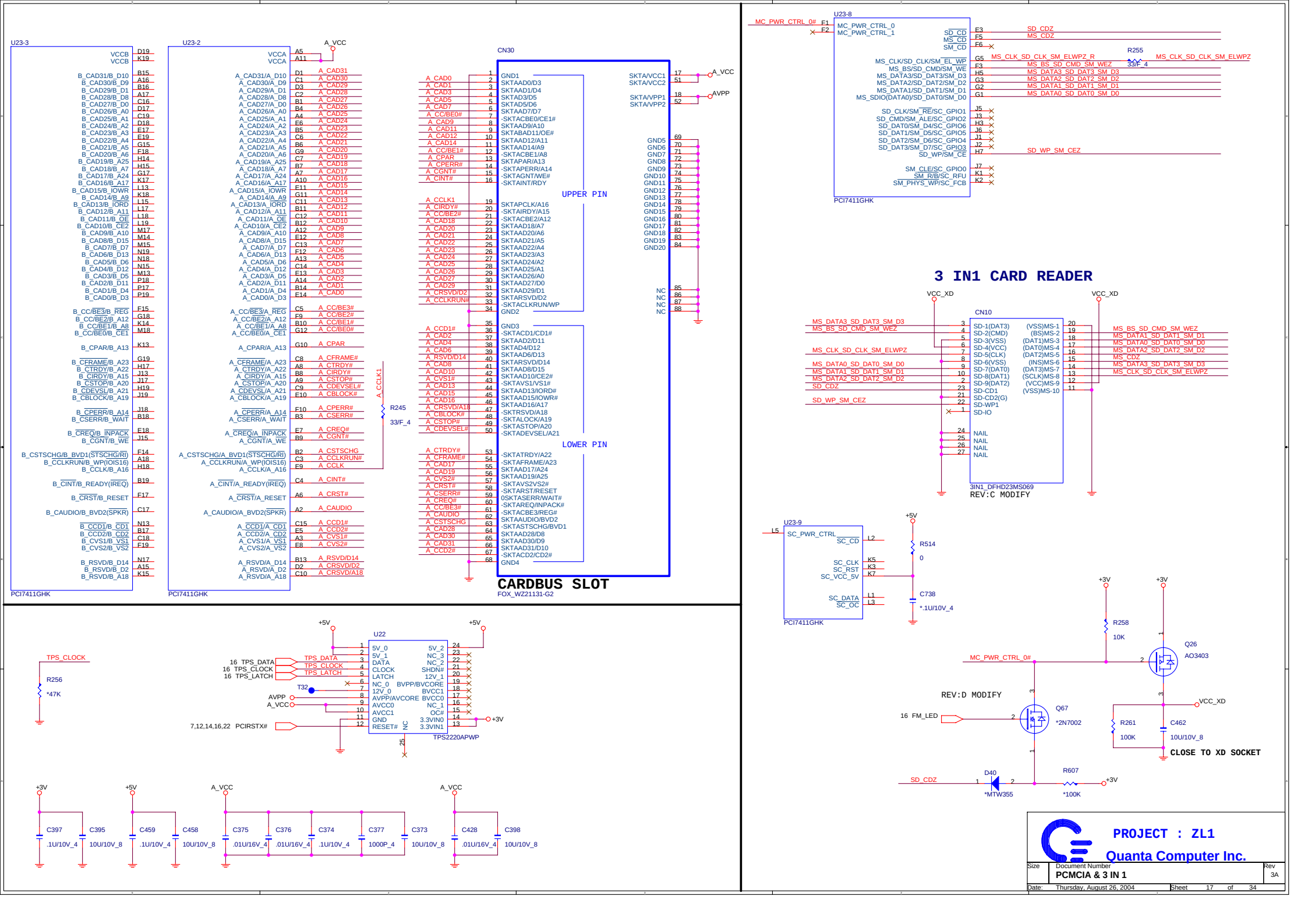

**PROJECT : ZL1**

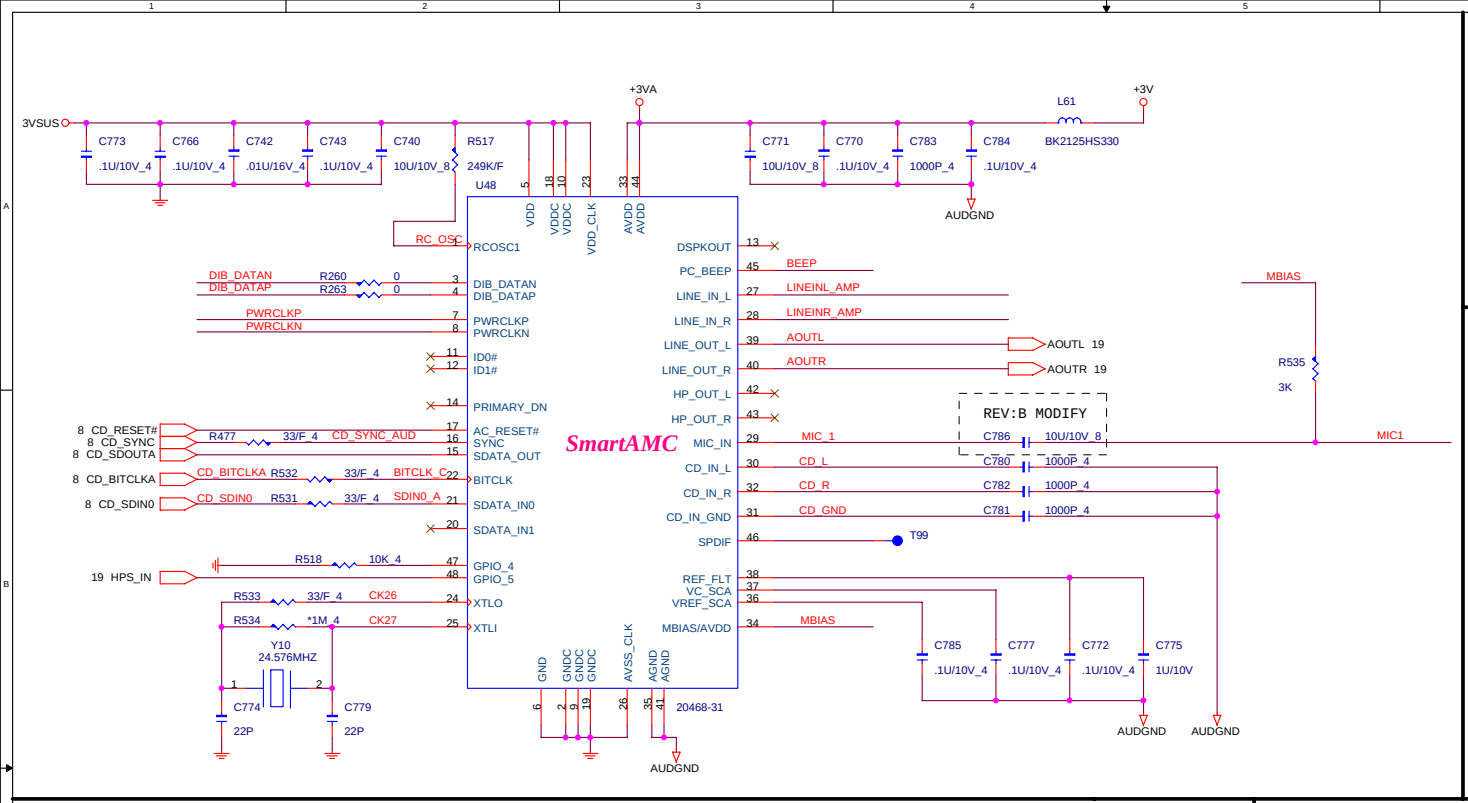
**Quanta Computer Inc.**

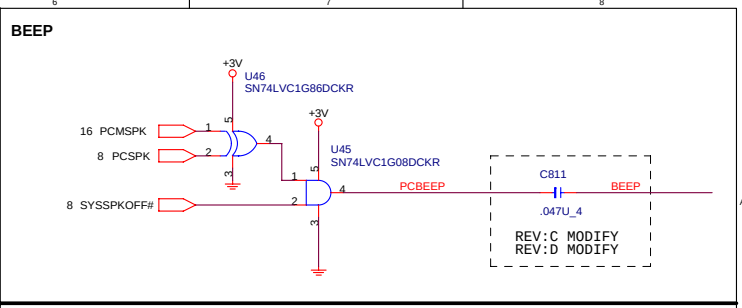
| Size | Document Number | Rev |
|---|---|---|
| | HDD & CDROM & MEDIA BAY | 2A |

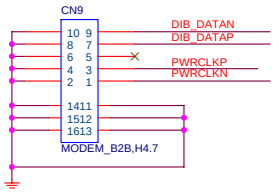
Date: Thursday, August 26, 2004 Sheet 15 of 34

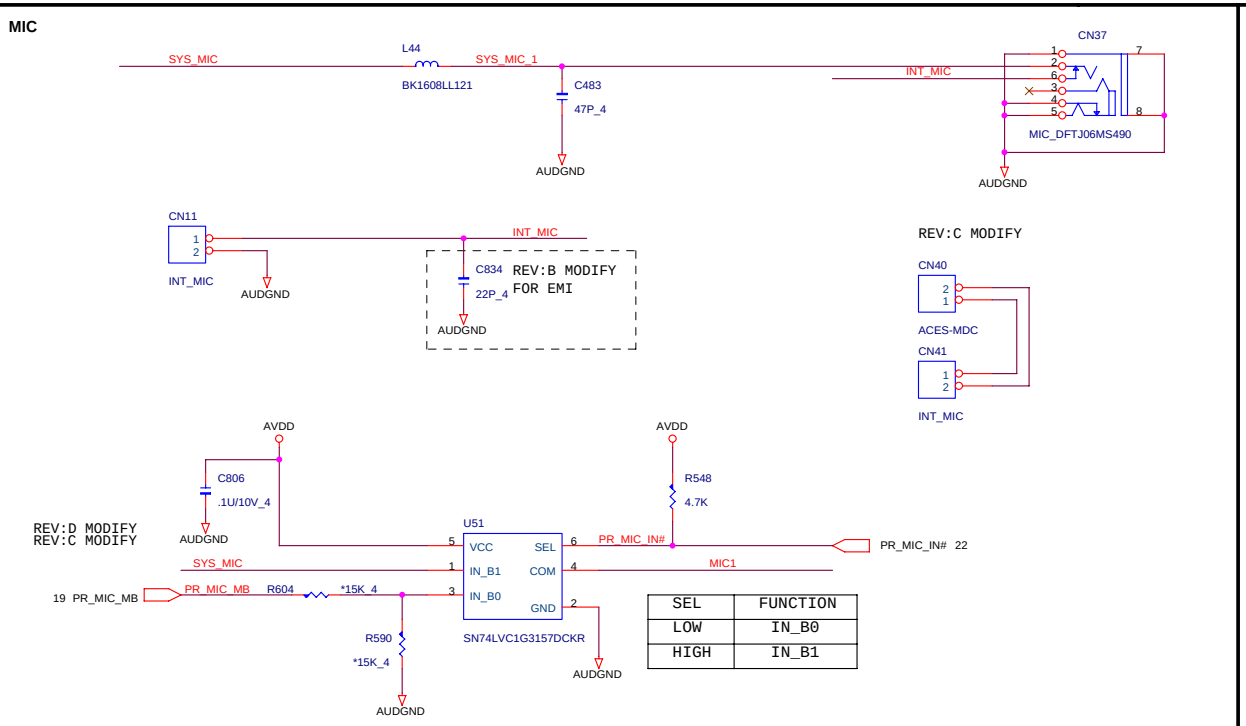

U23-1
PCI7411GHK
7,12,20 AD[31..0]
AD31 AD30 AD29 AD28 AD27 AD26 AD25 AD24 AD23 AD22 AD21 AD20 AD19 AD18 AD17 AD16 AD15 AD14 AD13 AD12 AD11 AD10 AD9 AD8 AD7 AD6 AD5 AD4 AD3 AD2 AD1 AD0
7,12,20 CBE3#
7,12,20 CBE2#
7,12,20 CBE1#
7,12,20 CBE0#
C/BE3 C/BE2 C/BE1 C/BE0
7,12,20 PAR
PAR
7,12,20 FRAME#
7,12,20 TRDY#
7,12,20 IRDY#
7,12,20 STOP#
7,12,20 DEVSEL#
FRAME TRDY IRDY STOP DEVSEL IDSEL
AD22 R526 150_4
7,12,20 PERR#
7,12,20 SERR#
PERR SERR
7 REQ3#
7 GNT3#
REQ GNT
11 PCLK_PCM
7,12,14,17,22 PCIRSTX#
GRST#_7411
PCLK PRST GRST
PCM_PME#
RI_OUT/PME
SUSPEND
R262 10K_4
D11 *MTW355
LPC_PD# 8,22,24
DATA TPS_DATA
CLOCK TPS_CLOCK
LATCH TPS_LATCH
TPS_DATA 17
TPS_CLOCK 17
TPS_LATCH 17
SPKROUT
PCMSPK 18
MFUNC0 INTE# 7
MFUNC1 INTF# 7
MFUNC2 INTG# 7
MFUNC3 SERIRQ 7,20,21,22
MFUNC4 PLOCK# 7
MFUNC5 FM_LED 17
MFUNC6 CLKRUN# 7,12,20,21,22
REV:D MODIFY
48MHz Clock
Y8
CLK48M
OUT VDD GND OE
TXC-48MHz-30PPM-15Pf
CLK_48
C464 .01U/16V_4
ID Select : AD22
Interrupt Pin : INTE# ,INTF#,INTG#
Request Indicate : REQ3#
Grant Indicate : GNT3#
7,12,20 PME#
Q52 2N7002
Q51 2N7002
R529 4.7K
R524 10K
PCM_PME#
R527 22K
GRST#_7411
C762 .1U/50V
PCLK_PCM R520 *22_4 C739 *10P_4
L62 BK2125HS330
U23-7
PCI7411GHK
AVDD AVDD AVDD AVDD VDPLL
1394_AVDD
C463 .1U/10V_4
C744 1000P_4
C764 .01U/16V_4
C763 .1U/10V_4
C767 1U/10V
R0 R265 6.34K/F
R1 TPBIAS0
TPA0+ TPA0-
TPB0+ TPB0-
PHY_TEST_MA R521 4.7K_4
CPS R516 390K
CNA T33
XO C461 12P_4
Y7 24.576MHZ
XI C460 12P_4
PC0 (TEST1) PC1 (TEST2) PC2 (TEST3)
VSPLL AGND AGND AGND AGND TPBIAS1
C465 1U/10V
TPA1+ TPA1-
TPB1+ TPB1-
CN35
SUYIN_1394
L1394_TPB0-
L1394_TPA0-
L1394_TPA0+
L1394_TPB0+
R293 56.2/F_4
R294 56.2/F_4
C486 1U/10V
C487 *270P_4
TPA0P TPA0N
TPB0P TPB0N
R550 R553 R555 R556 0
R300 56.2/F_4
R301 56.2/F_4
R302 5.1K/F
C496 270P_4
U23-4
VCC GND VR_EN
1.5V 1.5V
C456 1U/10V
C457 1U/10V
C737 1000P_4
C734 .01U/16V_4
C735 .1U/10V_4
C768 1U/10V
C732 1000P_4
C736 .01U/16V_4
C733 .1U/10V_4
C769 1U/10V
U23-10
A_USB_EN B_USB_EN
R254 *10K_4
R253 *10K_4
U23-6
NC VCO_LF TEST0
P12
U23-5
SCL SDA
R249 2.7K_4
R248 2.7K_4
U21
AT24C08AN
R257 *220_4
R259 *220_4
IF EEPROM NOT USE ,
CLK & DAT PULL DOWN
PROJECT : ZL1
Quanta Computer Inc.
Size
Document Number
PCMCIA CONTROLLER
Rev 3A
Date: Thursday, August 26, 2004
Sheet 16 of 34

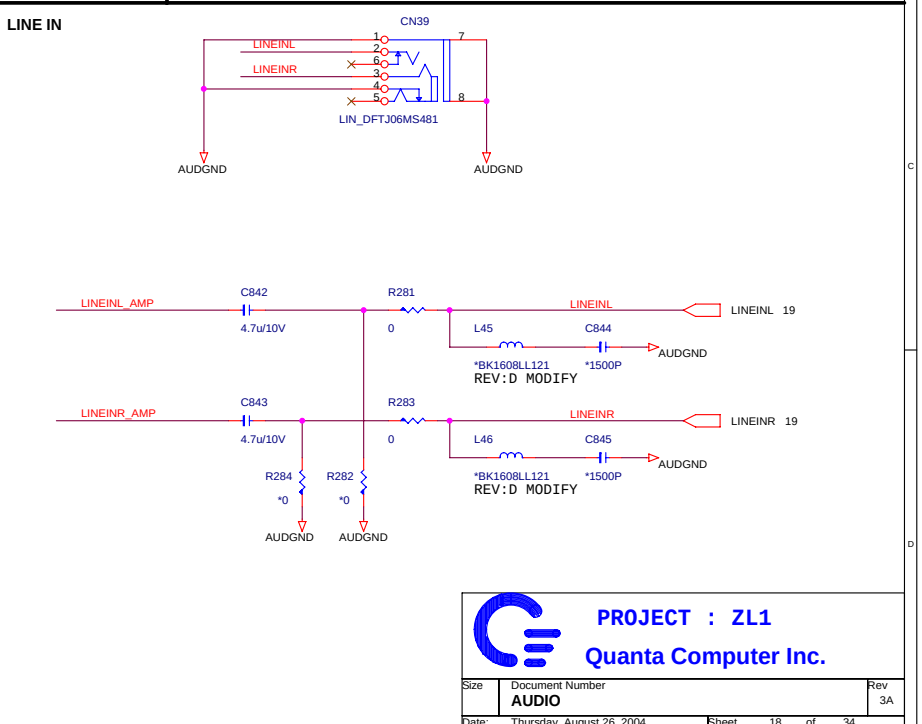

U23-3
PCI7411GHK
U23-2
PCI7411GHK
A_VCC
CN30
CARDBUS SLOT
FOX_WZ221131-G2
UPPER PIN
LOWER PIN
R245
33/F_4
A_CCLK1
U23-8
PCI7411GHK
MC_PWR_CTRL_0#
R255
33/F_4
3 IN1 CARD READER
CN10
3IN1_DFHD23MS069
REV:C MODIFY
VCC_XD
U23-9
PCI7411GHK
R514
0
C738
*.1U/10V_4
REV:D MODIFY
Q26
AO3403
Q67
*2N7002
R258
10K
R261
100K
C462
10U/10V_8
CLOSE TO XD SOCKET
D40
*MTW355
R607
*100K
U22
TPS2220APWP
TPS_CLOCK
R256
*47K
C397
.1U/10V_4
C395
10U/10V_8
C459
.1U/10V_4
C458
10U/10V_8
C375
.01U/16V_4
C376
.01U/16V_4
C374
.1U/10V_4
C377
1000P_4
C373
10U/10V_8
C428
.01U/16V_4
C398
10U/10V_8
PROJECT : ZL1
Quanta Computer Inc.
PCMCIA & 3 IN 1
Rev 3A
Thursday, August 26, 2004
Sheet 17 of 34


3VSUS
C773 .1U/10V_4
C766 .1U/10V_4
C742 .01U/16V_4
C743 .1U/10V_4
C740 10U/10V_8
R517 249K/F
+3VA
U48
VDD
VDDC
VDDC
VDD_CLK
AVDD
AVDD
L61
BK2125HS330
+3V
C771 10U/10V_8
C770 .1U/10V_4
C783 1000P_4
C784 .1U/10V_4
AUDGND
RC_OSC
RCOSC1
DIB_DATAN R260 0
DIB_DATAP R263 0
DIB_DATAN
DIB_DATAP
PWRCLKP
PWRCLKN
ID0#
ID1#
PRIMARY_DN
8 CD_RESET#
8 CD_SYNC
8 CD_SDOUTA
R477 33/F_4 CD_SYNC_AUD
AC_RESET#
SYNC
SDATA_OUT
8 CD_BITCLKA
CD_BITCLKA R532 33/F_4 BITCLK_C
BITCLK
8 CD_SDIN0
CD_SDIN0 R531 33/F_4 SDIN0_A
SDATA_IN0
SDATA_IN1
19 HPS_IN
R518 10K_4
GPIO_4
GPIO_5
R533 33/F_4 CK26
XTLO
R534 *1M_4 CK27
XTLI
Y10
24.576MHZ
C774 22P
C779 22P
GND
GNDC
GNDC
GNDC
AVSS_CLK
AGND
AGND
20468-31
AUDGND
DSPKOUT
PC_BEEP
BEEP
LINE_IN_L
LINEINL_AMP
LINE_IN_R
LINEINR_AMP
LINE_OUT_L
AOUTL
AOUTL 19
LINE_OUT_R
AOUTR
AOUTR 19
HP_OUT_L
HP_OUT_R
MIC_IN
MIC_1
REV:B MODIFY
C786 10U/10V_8
C780 1000P_4
C782 1000P_4
C781 1000P_4
CD_IN_L
CD_L
CD_IN_R
CD_R
CD_IN_GND
CD_GND
SPDIF
T99
REF_FLT
VC_SCA
VREF_SCA
MBIAS/AVDD
MBIAS
R535 3K
MIC1
C785 .1U/10V_4
C777 .1U/10V_4
C772 .1U/10V_4
C775 1U/10V
SmartAMC

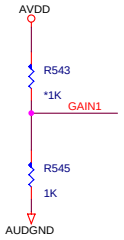

BEEP
+3V
U46
SN74LVC1G86DCKR
16 PCMSPK
8 PCSPK
+3V
U45
SN74LVC1G08DCKR
8 SYSSPKOFF#
PCBEEP
C811
.047U_4
BEEP
REV:C MODIFY
REV:D MODIFY


CN9
DIB_DATAN
DIB_DATAP
PWRCLKP
PWRCLKN
MODEM_B2B,H4.7

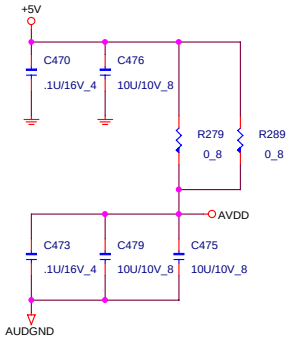

MIC
SYS_MIC
L44
BK1608LL121
SYS_MIC_1
C483
47P_4
AUDGND
INT_MIC
CN37
MIC_DFTJ06MS490
CN11
INT_MIC
C834 22P_4
REV:B MODIFY
FOR EMI
REV:C MODIFY
CN40
ACES-MDC
CN41
AVDD
C806 .1U/10V_4
R548 4.7K
REV:D MODIFY
REV:C MODIFY
U51
VCC
IN_B1
IN_B0
SEL
COM
GND
PR_MIC_IN#
PR_MIC_IN# 22
SYS_MIC
MIC1
19 PR_MIC_MB
PR_MIC_MB R604 *15K_4
R590 *15K_4
SN74LVC1G3157DCKR
SEL FUNCTION
LOW IN_B0
HIGH IN_B1

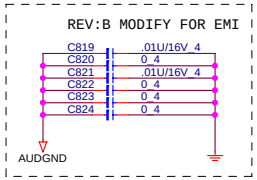

LINE IN
CN39
LINEINL
LINEINR
LIN_DFTJ06MS481
AUDGND
LINEINL_AMP
C842 4.7u/10V
R281 0
L45
C844 *1500P
*BK1608LL121
REV:D MODIFY
LINEINL
LINEINL 19
LINEINR_AMP
C843 4.7u/10V
R283 0
L46
C845 *1500P
LINEINR
LINEINR 19
R284 *0
R282 *0
PROJECT : ZL1
Quanta Computer Inc.
Size
Document Number
AUDIO
Rev
3A
Date: Thursday, August 26, 2004
Sheet 18 of 34

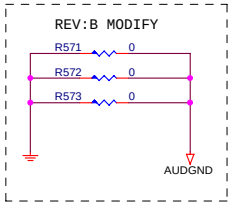
| GAIN1 | SPKR MODE | HP MODE |
|---|---|---|
| 0 | 10.5 | 3 |
| 1 | 9 | 0 |

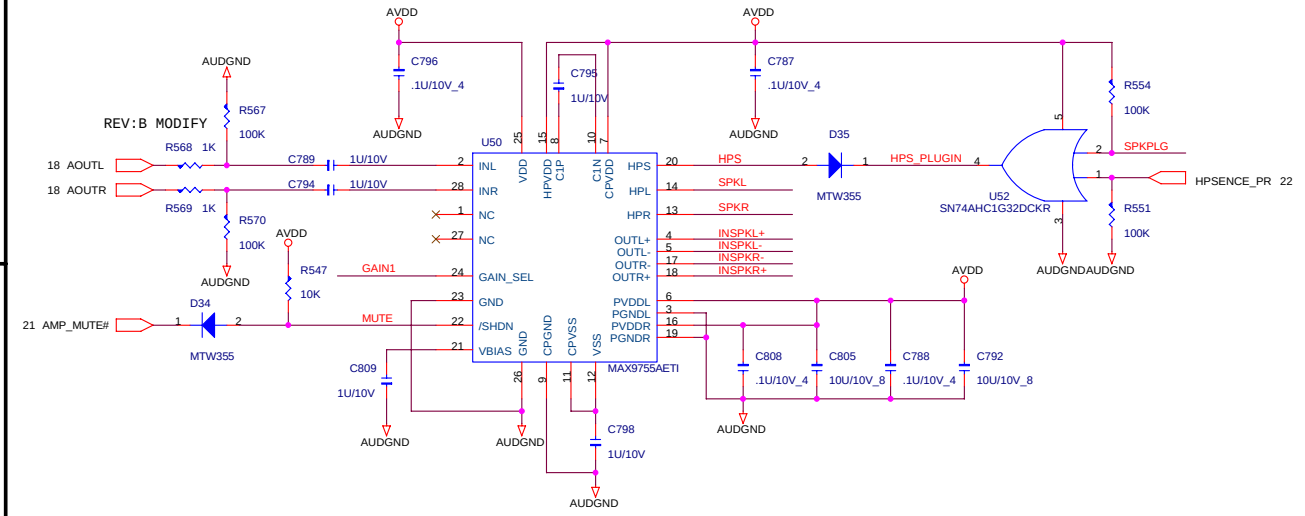


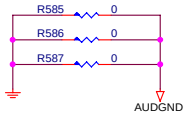

AMP POWER

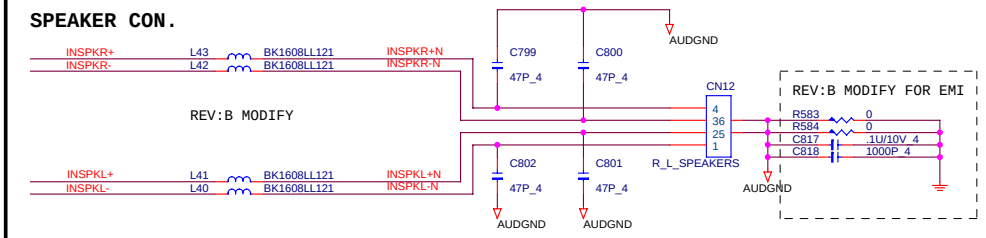


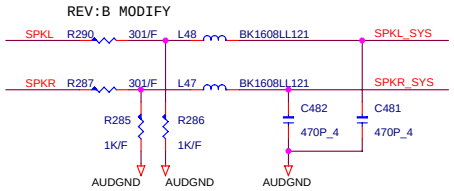



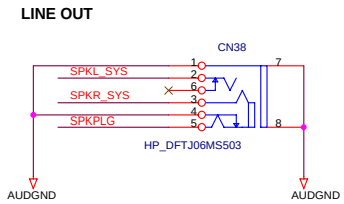



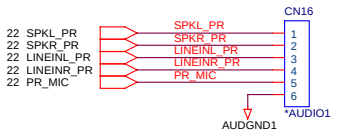



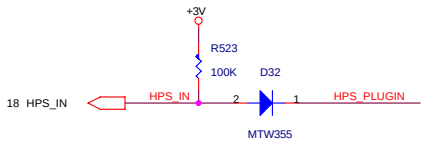



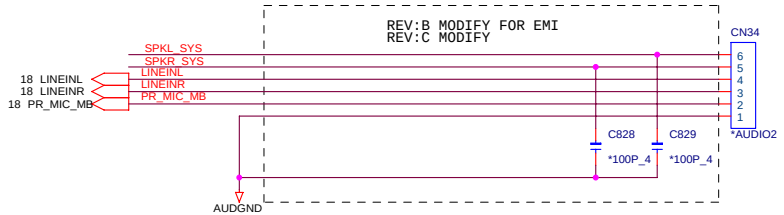




**PROJECT : ZL1**

**Quanta Computer Inc.**

| Size | Document Number | Rev |
|---|---|---|
| | **AUDIO AMP** | 3A |

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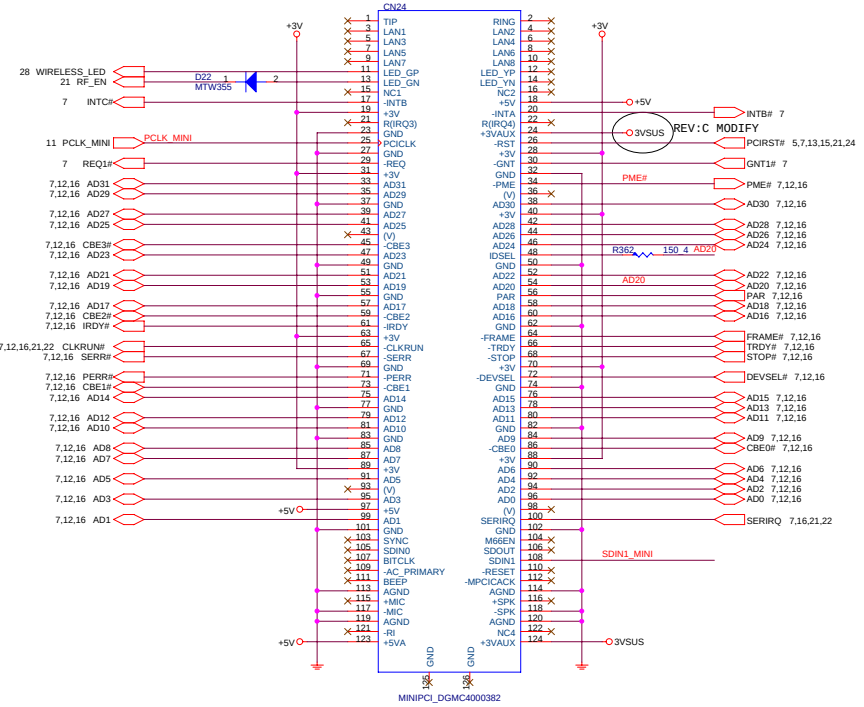
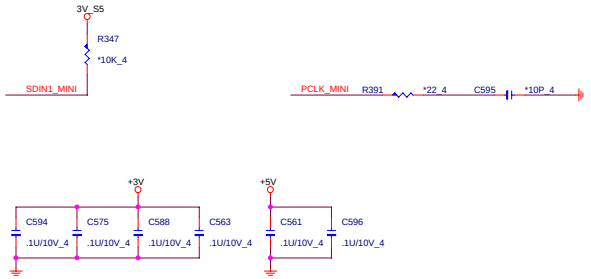
ID Select : AD20
Interrupt Pin : INTB# , INTC#
Request Indicate : REQ1#
Grant Indicate : GNT1#

**MINI-PCI**





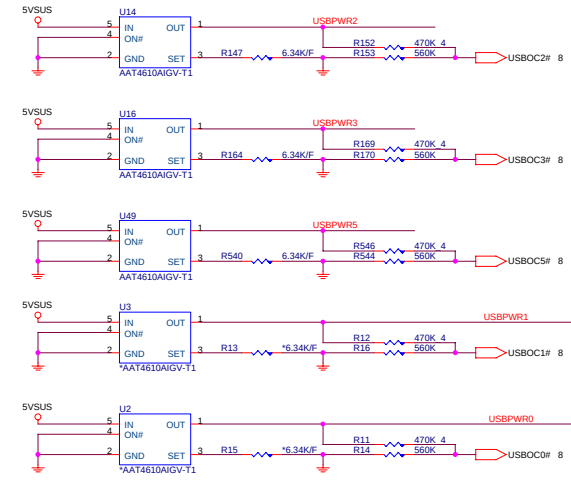


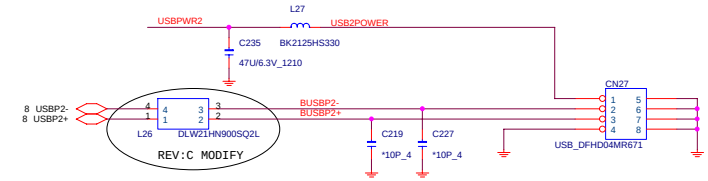
REV:D MODIFY

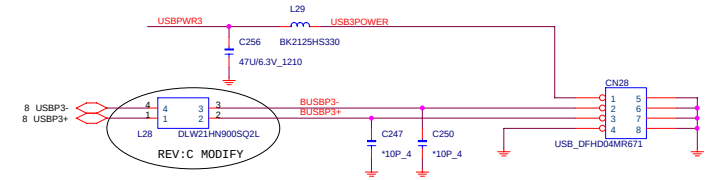
REV:D MODIFY

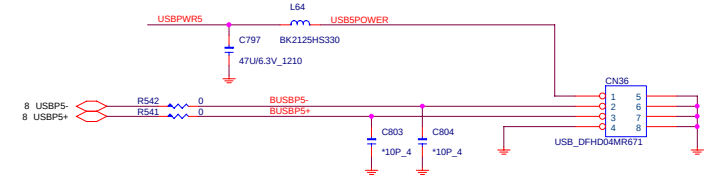
PAD27 PAD28 PAD31 PAD32 PAD33 PAD26 PAD34 PAD35 PAD36 PAD37

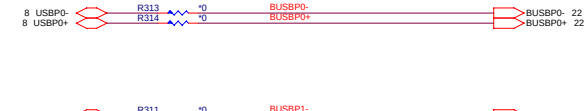
*EMIPAD142X91 *EMIPAD142X91 *EMIPAD142X91 *EMIPAD142X91 *EMIPAD142X91 *EMIPAD142X91 EMIPAD142X91 EMIPAD142X91 *EMIPAD142X91 EMIPAD142X91

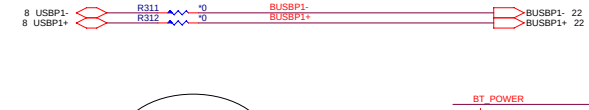


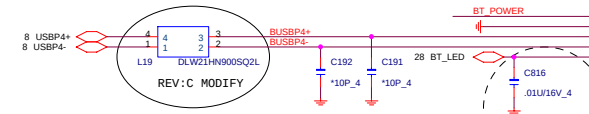



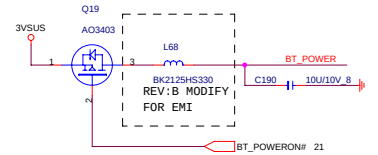




**PROJECT : ZL1**

**Quanta Computer Inc.**

| Size | Document Number | Rev |
|---|---|---|
| | MINI PCI,USB | 3A |

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LDRQ#(pin 8) internal is  no use

PCLK_591 R396 *22_4 C603 *10P_4

U12 AT24C08AN — MBCLK, MBDATA, SCL, SDA, WP, A0, A1, A2, VCC, GND — 3V_ALWAYS

CN7 *551_DEBUG — TX_551 — C815 *1000P_4 — REV:B MODIFY FOR EMI

REF3V — Q44 *2N7002 — 33,34 REFP — R428 0 — 591_AVCC — C628 .1U/10V_4 — C590 .1U/10V_4 — C630 .1U/10V_4 — C606 .1U/10V_4 — VCCRTC — +3V

C611 10U/10V_8 — C629 .1U/10V_4 — C609 .1U/10V_4 — C591 .1U/10V_4 — C583 .1U/10V_4 — 3V_ALWAYS

Should have a 0.1uF capacitor close to every GND-VCC pair + one larger cap on the supply.

U40 — VDD, VCC1, VCC2, VCC3, VCC4, VCC5, VCC6, AVCC, VBAT

Host interface: SERIRQ, LDRQ, LFRAME, LAD0, LAD1, LAD2, LAD3, LCLK, LRESET, SMI, PWUREQ, IOPD3/ECSCI, GA20/IOPB5, KBRST/IOPB6

AD Input: AD0 TEMP_MBAT, AD1 TEMP_ABAT, AD2 T37, AD3 T35, IOPE0/AD4 WIRELESS_SW#, IOPE1/AD5 BLUETOOTH_SW#, IOPE2/AD6 SUSC#, IOPE3/AD7 HWPG_591, DP/AD8, DN/AD9

DA output: DA0 CC-SET, DA1 CV-SET, DA2 CONTRAST, DA3 VFAN

PWM or PORTA: IOPA0/PWM0, IOPA1/PWM1, IOPA2/PWM2, IOPA3/PWM3 AMP_MUTE# 19, IOPA4/PWM4 BT1# 28, IOPA5/PWM5 BT2# 28, IOPA6/PWM6 BT3# 28, IOPA7/PWM7 BT4# 28

PORTB: IOPB0/URXD PWRLED# 28, IOPB1/UTXD TX_551, IOPB2/USCLK SUSLED# 28, IOPB3/SCL1 MBCLK, IOPB4/SDA1 MBDATA, IOPB7/RING/PFAIL PCIRST# 5,7,13,15,20,24

PORTC: IOPC0 REFON 33, IOPC1/SCL2 LID591# 5, IOPC2/SDA2, IOPC3/TA1, IOPC4/TB1/EXWINT22 FANSIG, IOPC5/TA2 EC_FPBACK# 5, IOPC6/TB2/EXWINT23 PWROK 5,8, IOPC7/CLKOUT

PORTD-1: IOPD0/RI1/EXWINT20 HOLD#, IOPD1/RI2/EXWINT21 ACIN, IOPD2/EXWINT24

PORTE: IOPE4/SWIN NBSWON# 28, IOPE5/EXWINT40 SUSB# 8,11, IOPE6/LPCPD/EXWIN45 T42, IOPE7/CLKRUN/EXWINT46 CLKRUN# 7,12,16,20,22

PORTH: IOPH0/A0/ENV0 ENV0, IOPH1/A1/ENV1 ENV1, IOPH2/A2/BADDR0 BADDR0, IOPH3/A3/BADDR1 BADDR1, IOPH4/A4/TRIS TRIS, IOPH5/A5/SHBM SHBM, IOPH6/A6 A6, IOPH7/A7 A7

PORTI: IOPI0/D0 D0, IOPI1/D1 D1, IOPI2/D2 D2, IOPI3/D3 D3, IOPI4/D4 D4, IOPI5/D5 D5, IOPI6/D6 D6, IOPI7/D7 D7

PORTJ-1: IOPJ0/RD# RD#, IOPJ1/WR0 WR#

SELIO

PORTD-2: IOPD4 M/A# 34, IOPD5 CELL-SET 33,34, IOPD6 D/C# 33,34, IOPD7 BL/C# 34

PORTK: IOPK0/A8 A8, IOPK1/A9 A9, IOPK2/A10 A10, IOPK3/A11 A11, IOPK4/A12 A12, IOPK5/A13/BE0 A13, IOPK6/A14/BE1 A14, IOPK7/A15/CBRD A15

PORTL: IOPL0/A16 A16, IOPL1/A17 A17, IOPL2/A18 A18, IOPL3/A19, IOPL4/WR1 BATLED0# 28, BATLED1# 28

Key matrix scan: KSIN0–KSIN7, KSOUT0–KSOUT15

JTAG debug port: TINT, TCK, TDO, TDI, TMS — T40, T39, T41, T43, T44

PS2 interface: PSCLK1/IOPF0, PSDAT1/IOPF1, PSCLK2/IOPF2, PSDAT2/IOPF3, PSCLK3/IOPF4, PSDAT3/IOPF5, PSCLK4/IOPF6, PSDAT4/IOPF7 — 22 MSCLK, 22 MSDATA, 22 KPCLK, 22 KPDATA, 28 TBCLK, 28 TBDATA, 28 CAPSLED#, 28 NUMLED# — RN96 8P4R-4.7K

32KX1/32KCLKOUT, 32KX2 — 591_32KX1, 591_32KX2 — R145 20M — Y4 32.768KHZ — R150 121K/F — C230 10P_4 — C236 10P_4

PORTJ-2: IOPJ2/BST0, IOPJ3/BST1, IOPJ4/BST2, IOPJ5/PFS, IOPJ6/PLI, IOPJ7/BRKL_RSTO — 15 -RBAYINS, 13,22 PR_INSERT# — T36, T34, T38

PORTM: IOPM0/D8, IOPM1/D9, IOPM2/D10, IOPM3/D11, IOPM4/D12, IOPM5/D13, IOPM6/D14, IOPM7/D15 — 20 RF_EN, 20 BT_POWERON#, 8 RSMRST# — 31,32 VRON, 23,29,30,31 MAINON, 23,29,30 SUSON, 29,31 S5_ON — CS# — SEL0, SEL1, CLK

PC97551 — GND1–GND7, AGND, NC1–NC10

REV:CMODIFY FOR 97551 ONLY — C597 1U/10V

3V_ALWAYS — R397 470K_4 — D23 MTW355 — D9 MTW355 — D25 MTW355 — D24 MTW355 — 7,16,20,22 SERIRQ — 8,22 LFRAME#/FWH4 — 8,22 LAD0/FWH0 — 8,22 LAD1/FWH1 — 8,22 LAD2/FWH2 — 8,22 LAD3/FWH3 — 11 PCLK_591 — 8 KBSMI# — 8 SWI# — 8 SCI# — 7 GATEA20 — 7 RCIN#

3VH_591 — Q21 *PDTA124EU — BT1# — HOLD# — Q18 *PDTA124EU — BT2# — HOLD# — Q15 *PDTA124EU — BT3# — HOLD# — Q13 *PDTA124EU — BT4# — HOLD#

+3V — R361 10K — Q38 PDTC143TT — 31 HWPG_VCCT — Q40 PDTC143TT — 29 HWPG_SYS — Q11 PDTC143TT — 23 HWPG_2V5-VGA — Q12 PDTC143TT — 30 HWPG_2V5 — Q39 PDTC143TT — 23 VGA_COREGD — Q41 PDTC143TT — 31 HWPG_1V5

8,32 IMVP_OK — U39 SN74LVC1G08DCKR — HWPG_591

3V_ALWAYS — ENV1 R406 10K_4 — BADDR0 R410 *10K_4 — BADDR1 R413 *10K_4 — BT_POWERON# R425 *10K_4 — SHBM R416 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 | |

3V_ALWAYS — MBCLK R125 4.7K_4 — MBDATA R131 4.7K_4 — +3V — WIRELESS_SW# R360 4.7K_4 — BLUETOOTH_SW# R358 4.7K_4

D26 MTW355 — DNBSWON# 8

3V_ALWAYS — R118 1K — 3VH_591 — Q16 PDTA124EU — NBSWON# — D21 MTW355 — 8,11 SUSB# — D20 MTW355 — 33 ACIN — HOLD# — R117 100K

U32 PLCC32 — A0–A19, D0–D7, VPP, CE#, OE#, WE#, VCC, GND — CS# 22, RD# 24, WR# 31

BIU configuration should match flash speed used

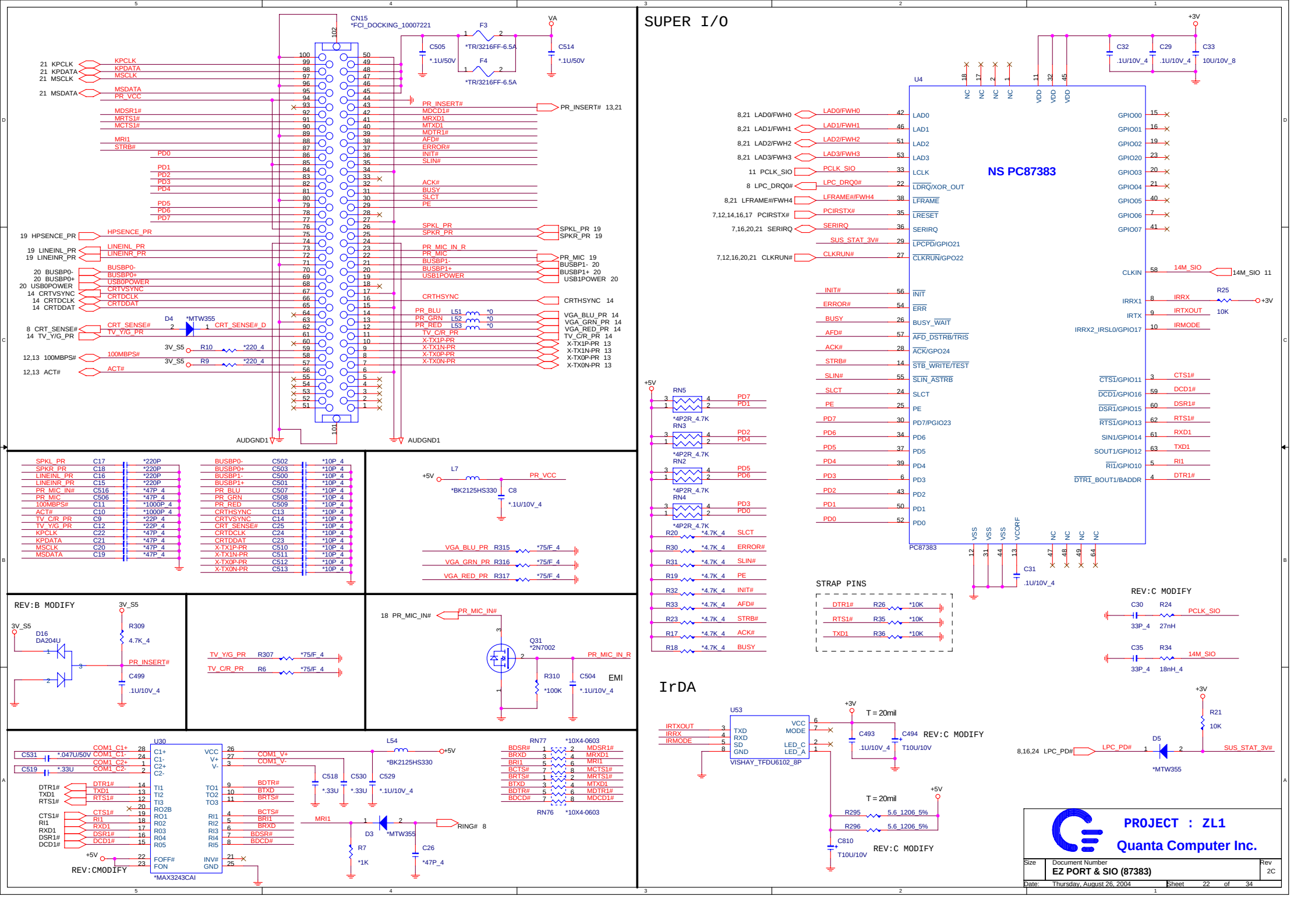
3V_ALWAYS — C40 .1U/10V_4

3V_S5 — R364 4.7K_4 — Q42 PDTC143TT — 12 LAN_PME# — 3V_S5 — 3V_ALWAYS — R387 *4.7K_4 — 591_PME#

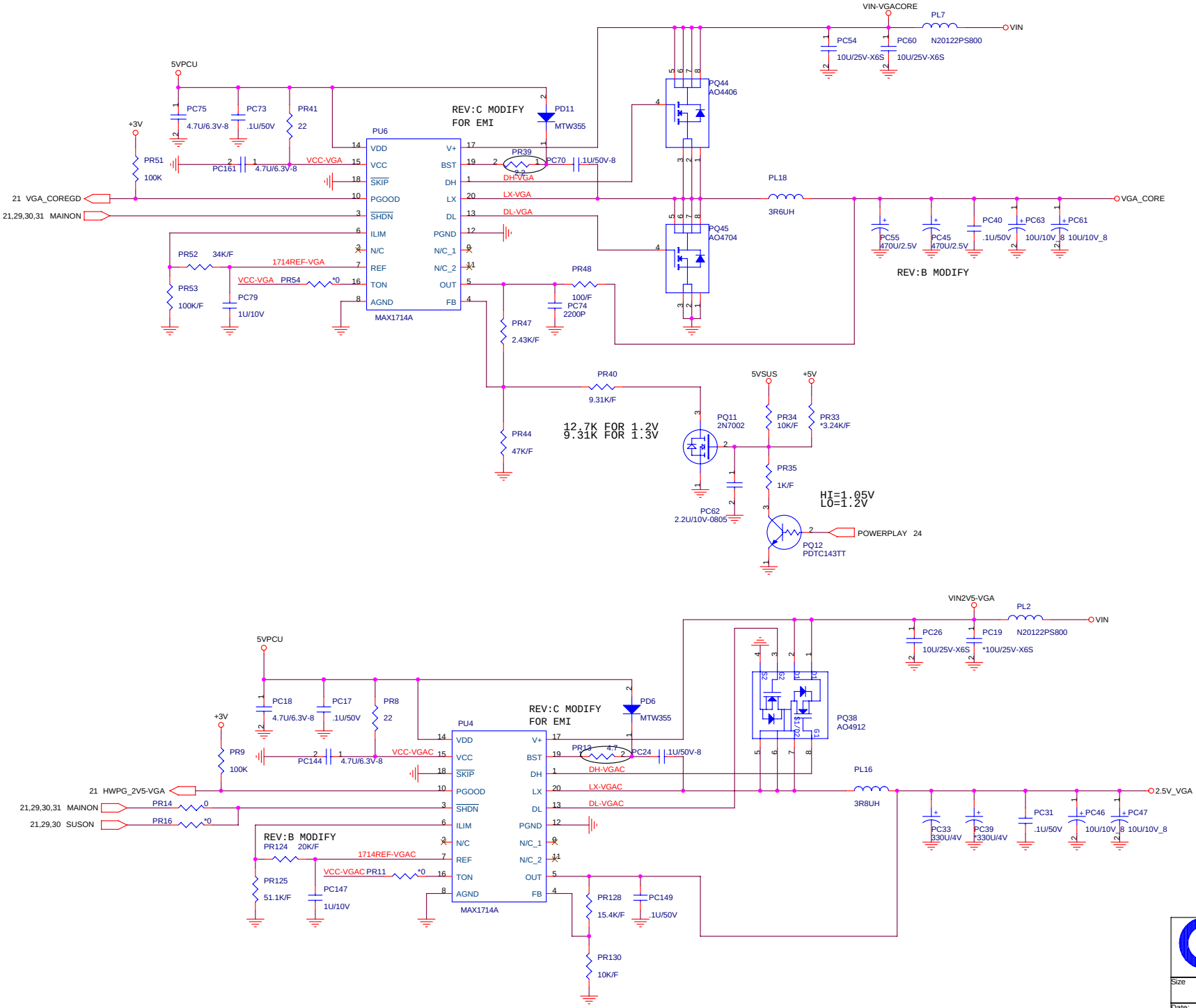
PROJECT : ZL1

Quanta Computer Inc.

| Size | Document Number | Rev |
|---|---|---|
| | 97551 & FLASH | 2C |
| Date: Thursday, August 26, 2004 | Sheet 21 of 34 | |


SUPER I/O
CN15
*FCI_DOCKING_10007221
NS PC87383
U4
PC87383
REV:B MODIFY
REV:C MODIFY
REV:CMODIFY
IrDA
STRAP PINS
U30
*MAX3243CAI
U53
VISHAY_TFDU6102_8P
PROJECT : ZL1
Quanta Computer Inc.
EZ PORT & SIO (87383)
Thursday, August 26, 2004

# M11 Core & BATTERY




| | | |
|---|---|---|
| Size | Document Number<br>VGA CORE / VRAM POWER | Rev<br>3D |
| Date: Thursday, August 26, 2004 | Sheet 23 of 34 | |

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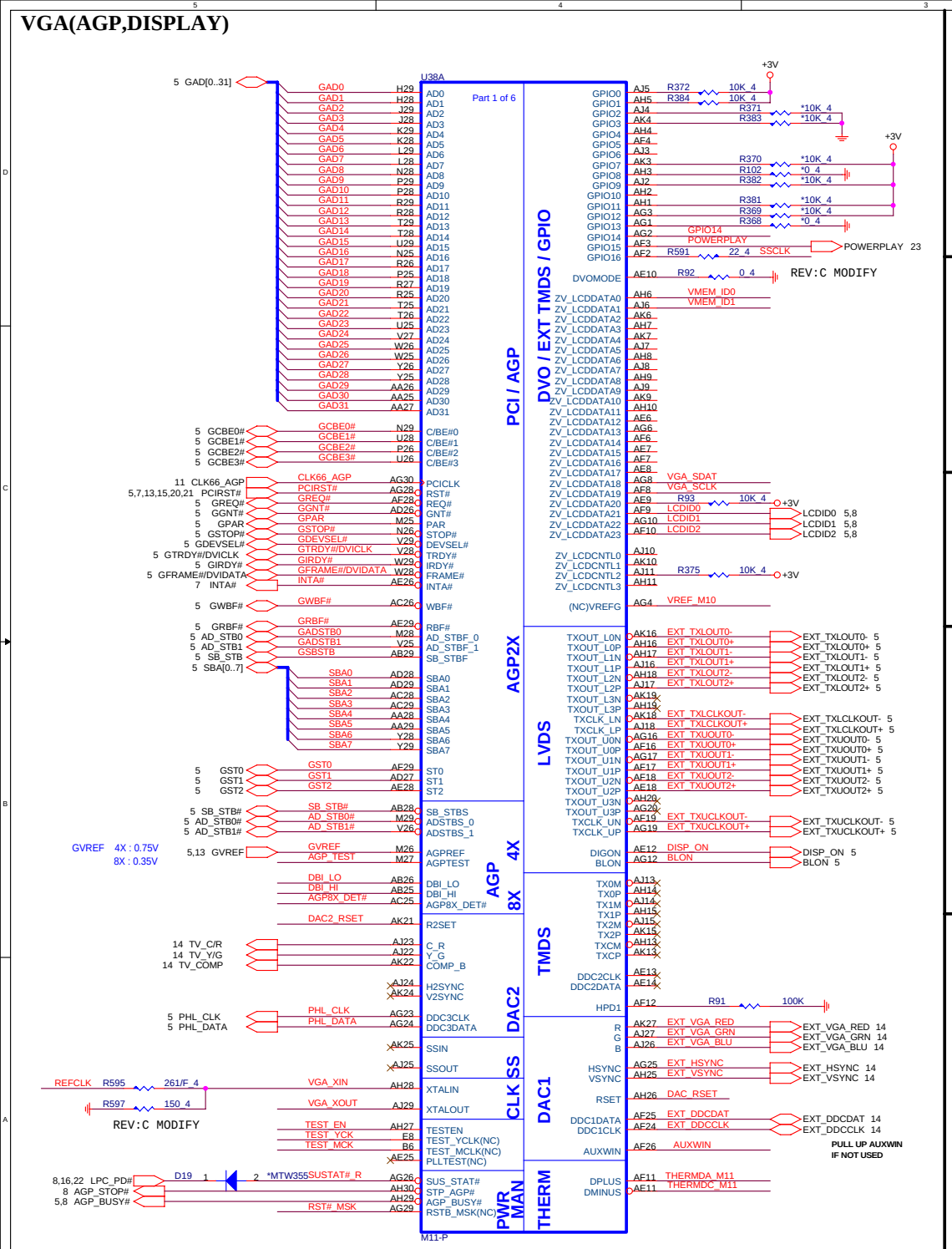
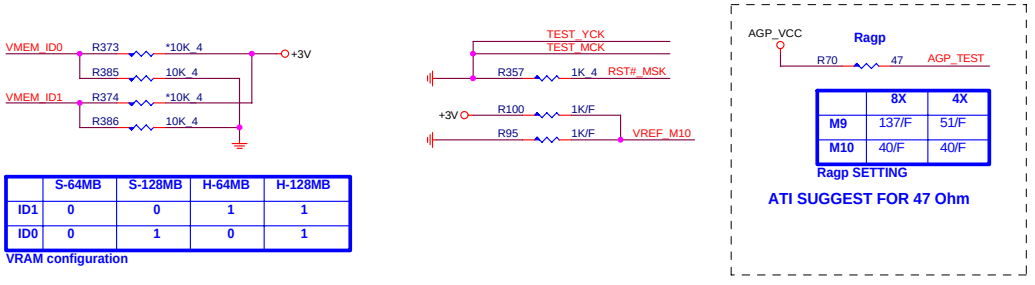
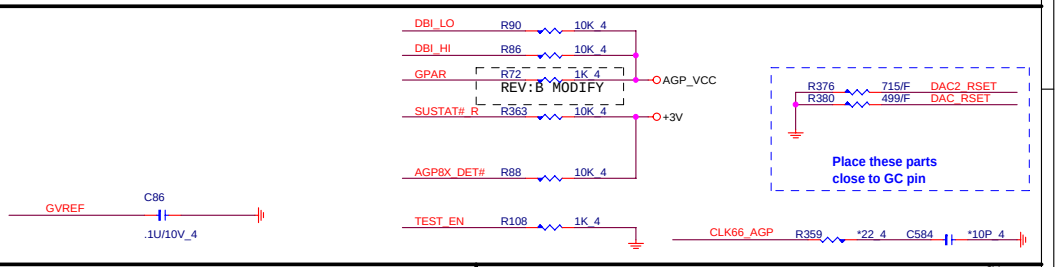
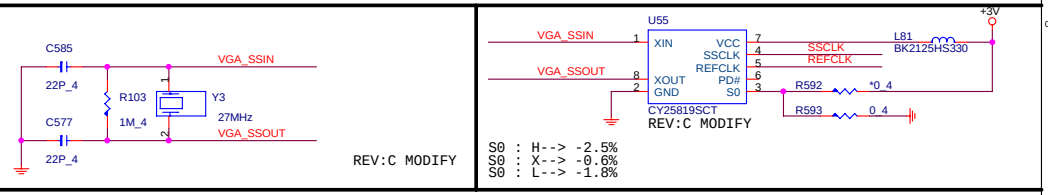
Quanta Computer Inc.

# VGA(AGP,DISPLAY)

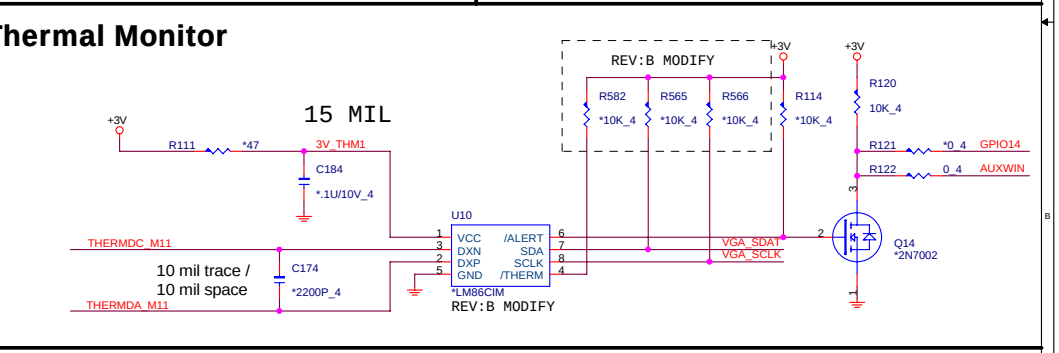


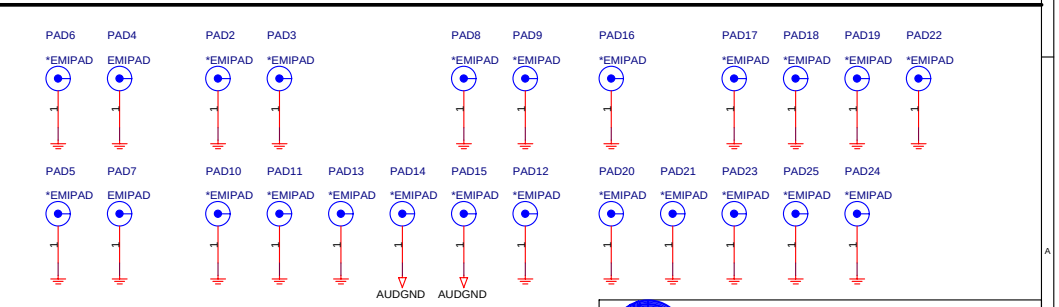




## Thermal Monitor



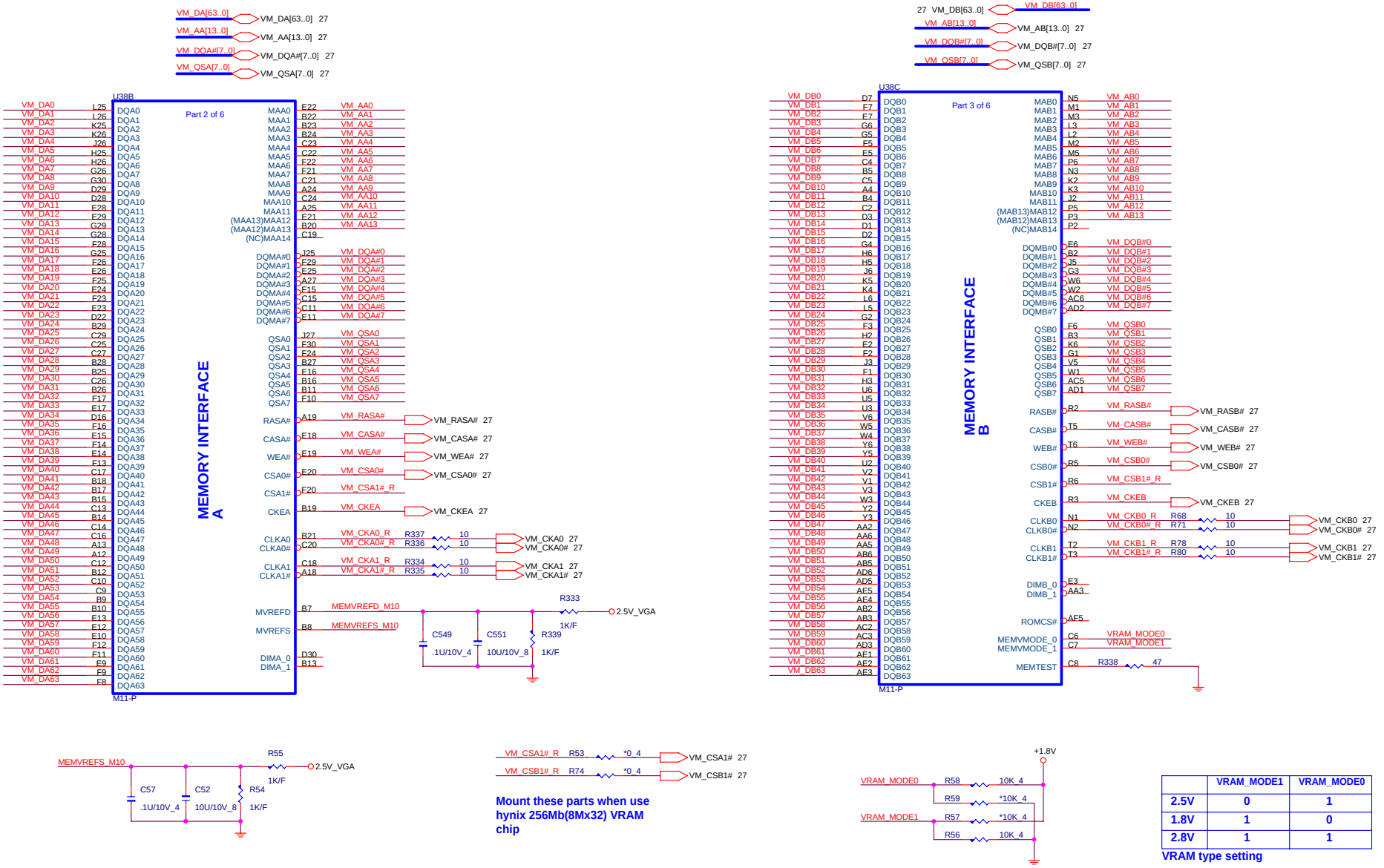

**PROJECT : ZL1**

**Quanta Computer Inc.**

| Size | Document Number | Rev |
|---|---|---|
| | M11 ( AGP,DISPLAY ) | 3C |

Date: Thursday, August 26, 2004 Sheet 24 of 34

# VGA(MEMORY I/F)




**Mount these parts when use hynix 256Mb(8Mx32) VRAM chip**

| | VRAM_MODE1 | VRAM_MODE0 |
|---|---|---|
| 2.5V | 0 | 1 |
| 1.8V | 1 | 0 |
| 2.8V | 1 | 1 |

**VRAM type setting**

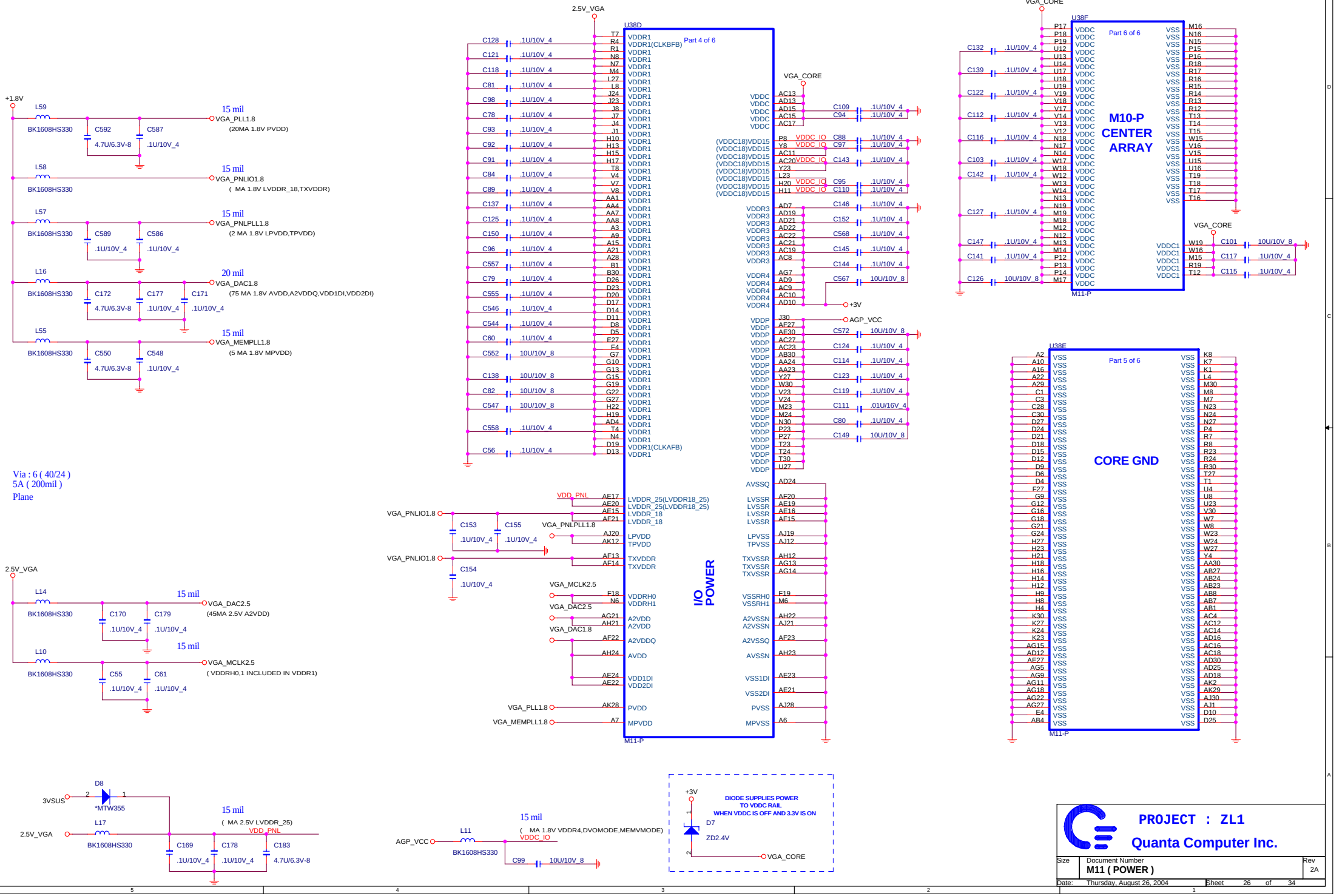
**PROJECT : ZL1**

**Quanta Computer Inc.**

| Size | Document Number | Rev |
|---|---|---|
| | M11 ( MEMORY I/F ) | 2A |

Date: Thursday, August 26, 2004 Sheet 25 of 34

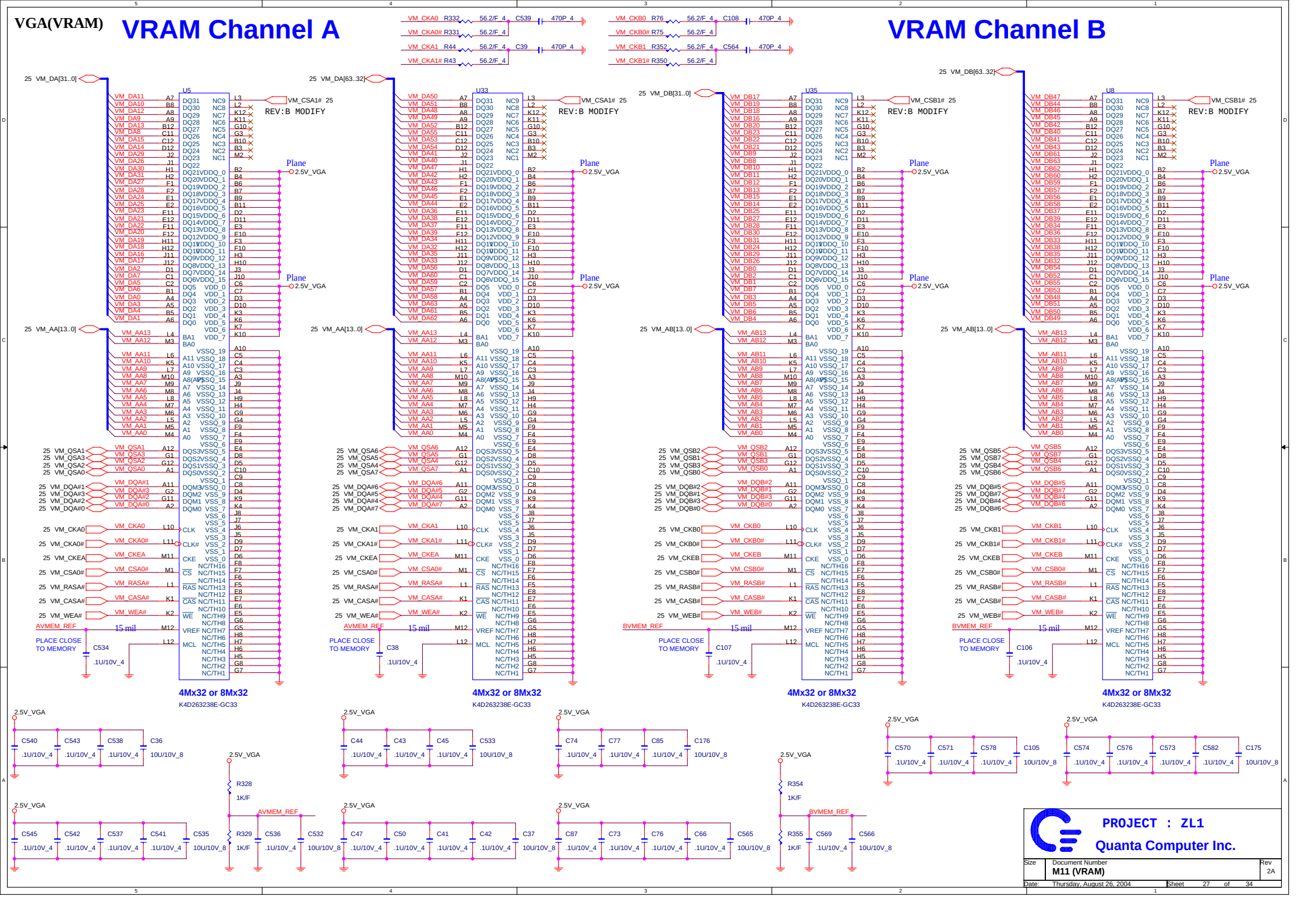
# VGA(POWER)


+1.8V
L59
BK1608HS330
C592
4.7U/6.3V-8
C587
.1U/10V_4
15 mil
VGA_PLL1.8
(20MA 1.8V PVDD)
L58
BK1608HS330
15 mil
VGA_PNLIO1.8
( MA 1.8V LVDDR_18,TXVDDR)
L57
BK1608HS330
C589
.1U/10V_4
C586
.1U/10V_4
15 mil
VGA_PNLPLL1.8
(2 MA 1.8V LPVDD,TPVDD)
L16
BK1608HS330
C172
4.7U/6.3V-8
C177
.1U/10V_4
C171
.1U/10V_4
20 mil
VGA_DAC1.8
(75 MA 1.8V AVDD,A2VDDQ,VDD1DI,VDD2DI)
L55
BK1608HS330
C550
4.7U/6.3V-8
C548
.1U/10V_4
15 mil
VGA_MEMPLL1.8
(5 MA 1.8V MPVDD)
Via : 6 ( 40/24 )
5A ( 200mil )
Plane
2.5V_VGA
L14
BK1608HS330
C170
.1U/10V_4
C179
.1U/10V_4
15 mil
VGA_DAC2.5
(45MA 2.5V A2VDD)
L10
BK1608HS330
C55
.1U/10V_4
C61
.1U/10V_4
15 mil
VGA_MCLK2.5
( VDDRH0,1 INCLUDED IN VDDR1)
D8
3VSUS
2
1
*MTW355
L17
2.5V_VGA
BK1608HS330
C169
.1U/10V_4
C178
.1U/10V_4
C183
4.7U/6.3V-8
15 mil
( MA 2.5V LVDDR_25)
VDD_PNL
2.5V_VGA
U38D
Part 4 of 6
C128 .1U/10V_4
C121 .1U/10V_4
C118 .1U/10V_4
C81 .1U/10V_4
C98 .1U/10V_4
C78 .1U/10V_4
C93 .1U/10V_4
C92 .1U/10V_4
C91 .1U/10V_4
C84 .1U/10V_4
C89 .1U/10V_4
C137 .1U/10V_4
C125 .1U/10V_4
C150 .1U/10V_4
C96 .1U/10V_4
C557 .1U/10V_4
C79 .1U/10V_4
C555 .1U/10V_4
C546 .1U/10V_4
C544 .1U/10V_4
C60 .1U/10V_4
C552 10U/10V_8
C138 10U/10V_8
C82 10U/10V_8
C547 10U/10V_8
C558 .1U/10V_4
C56 .1U/10V_4
VDDR1
VDDR1(CLKBFB)
VDDR1(CLKAFB)
VGA_CORE
VDDC
(VDDC18)VDD15
VDDR3
VDDR4
C109 .1U/10V_4
C94 .1U/10V_4
C88 .1U/10V_4
C97 .1U/10V_4
C143 .1U/10V_4
C95 .1U/10V_4
C110 .1U/10V_4
C146 .1U/10V_4
C152 .1U/10V_4
C568 .1U/10V_4
C145 .1U/10V_4
C144 .1U/10V_4
C567 10U/10V_8
+3V
AGP_VCC
C572 10U/10V_8
C124 .1U/10V_4
C114 .1U/10V_4
C123 .1U/10V_4
C119 .1U/10V_4
C111 .01U/16V_4
C80 .1U/10V_4
C149 10U/10V_8
VDDP
AVSSQ
LVSSR
LPVSS
TPVSS
TXVSSR
VSSRH0
VSSRH1
A2VSSN
A2VSSQ
AVSSN
VSS1DI
VSS2DI
PVSS
MPVSS
VDD_PNL
VGA_PNLIO1.8
C153 .1U/10V_4
C155 .1U/10V_4
VGA_PNLPLL1.8
C154 .1U/10V_4
LVDDR_25(LVDDR18_25)
LVDDR_18
LPVDD
TPVDD
TXVDDR
VGA_MCLK2.5
VGA_DAC2.5
VGA_DAC1.8
VDDRH0
VDDRH1
A2VDD
A2VDDQ
AVDD
VDD1DI
VDD2DI
VGA_PLL1.8
VGA_MEMPLL1.8
PVDD
MPVDD
I/O POWER
M11-P
U38F
Part 6 of 6
C132 .1U/10V_4
C139 .1U/10V_4
C122 .1U/10V_4
C112 .1U/10V_4
C116 .1U/10V_4
C103 .1U/10V_4
C142 .1U/10V_4
C127 .1U/10V_4
C147 .1U/10V_4
C141 .1U/10V_4
C126 10U/10V_8
VDDC
M10-P
CENTER
ARRAY
M11-P
VGA_CORE
C101 10U/10V_8
C117 .1U/10V_4
C115 .1U/10V_4
VDDC1
U38E
Part 5 of 6
CORE GND
VSS
M11-P
AGP_VCC
L11
BK1608HS330
C99 10U/10V_8
15 mil
( MA 1.8V VDDR4,DVOMODE,MEMVMODE)
VDDC_IO
+3V
D7
ZD2.4V
VGA_CORE
DIODE SUPPLIES POWER
TO VDDC RAIL
WHEN VDDC IS OFF AND 3.3V IS ON
PROJECT : ZL1
Quanta Computer Inc.
Size
Document Number
M11 ( POWER )
Rev
2A
Date: Thursday, August 26, 2004
Sheet 26 of 34

VGA(VRAM)

# VRAM Channel A

# VRAM Channel B




PROJECT : ZL1

Quanta Computer Inc.

| Size | Document Number | Rev |
|---|---|---|
| | M11 (VRAM) | 2A |

Date: Thursday, August 26, 2004 Sheet 27 of 34

## INT K/B

REV:C MODIFY

CN5

KB_DFFC25FR029

3V_ALWAYS

RP4 RP3 RP2 — 10KX8

CA5 CA6 CA9 CA7 CA8 CA4 — 220PX4

## FAN CONTROL

U34B LM358ADR

U34A LM358ADR

Q9 AO6402

Q33 AO6402

Q34 2N7002

REV:B MODIFY

30 MIL

MAX6648_OV# 2

21 FANSIG

CN20 FAN

## TOUCH PAD

20 MIL

L25 BK2125HS330

L23 L24 BK1608LL121

REV:C MODIFY

CN8 TP_DFHD06MS618

D38 D39 *DA204U

REV:C MODIFY

REV:C MODIFY
REV:D MODIFY

3V_ALWAYS

LED3 LED_G/Y_LTST-C155KGJSKT

LED2 LED_G/Y_LTST-C155KGJSKT

CA3 CA2 *220PX4

CN3 LED_DFHS14FS172

SW3 MISAKI_SWITCH_WL

SW4 MISAKI_SWITCH_BT

REV:D MODIFY
REV:C MODIFY

REV:B MODIFY
REV:C MODIFY
REV:D MODIFY

Q6 Q8 Q5 Q7 2N7002

REV:B MODIFY

Q28 Q29 2N7002

LED4 LED_Y_LTST-C190KFKT

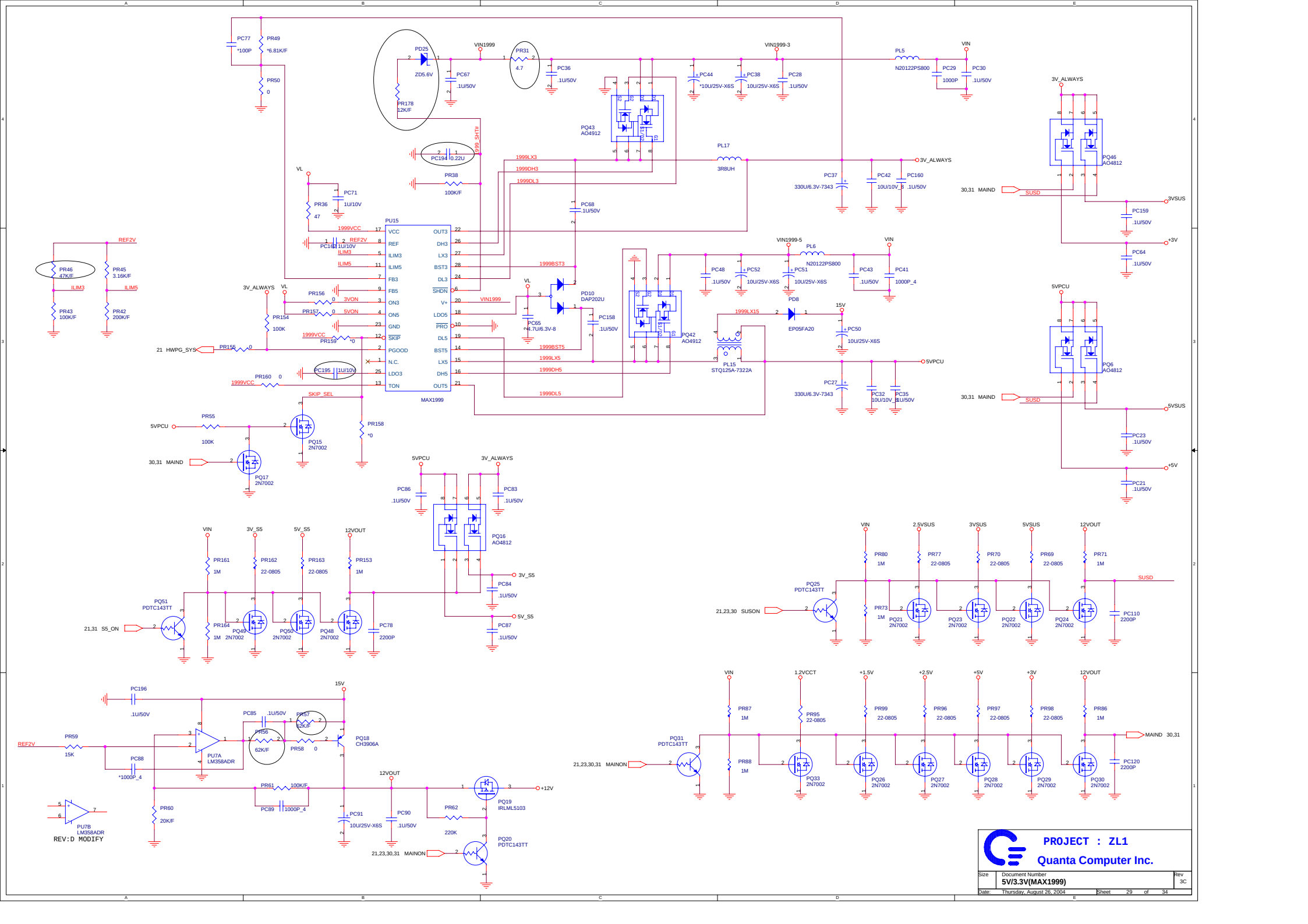
LED5 LTST-C191TBKT-Q1

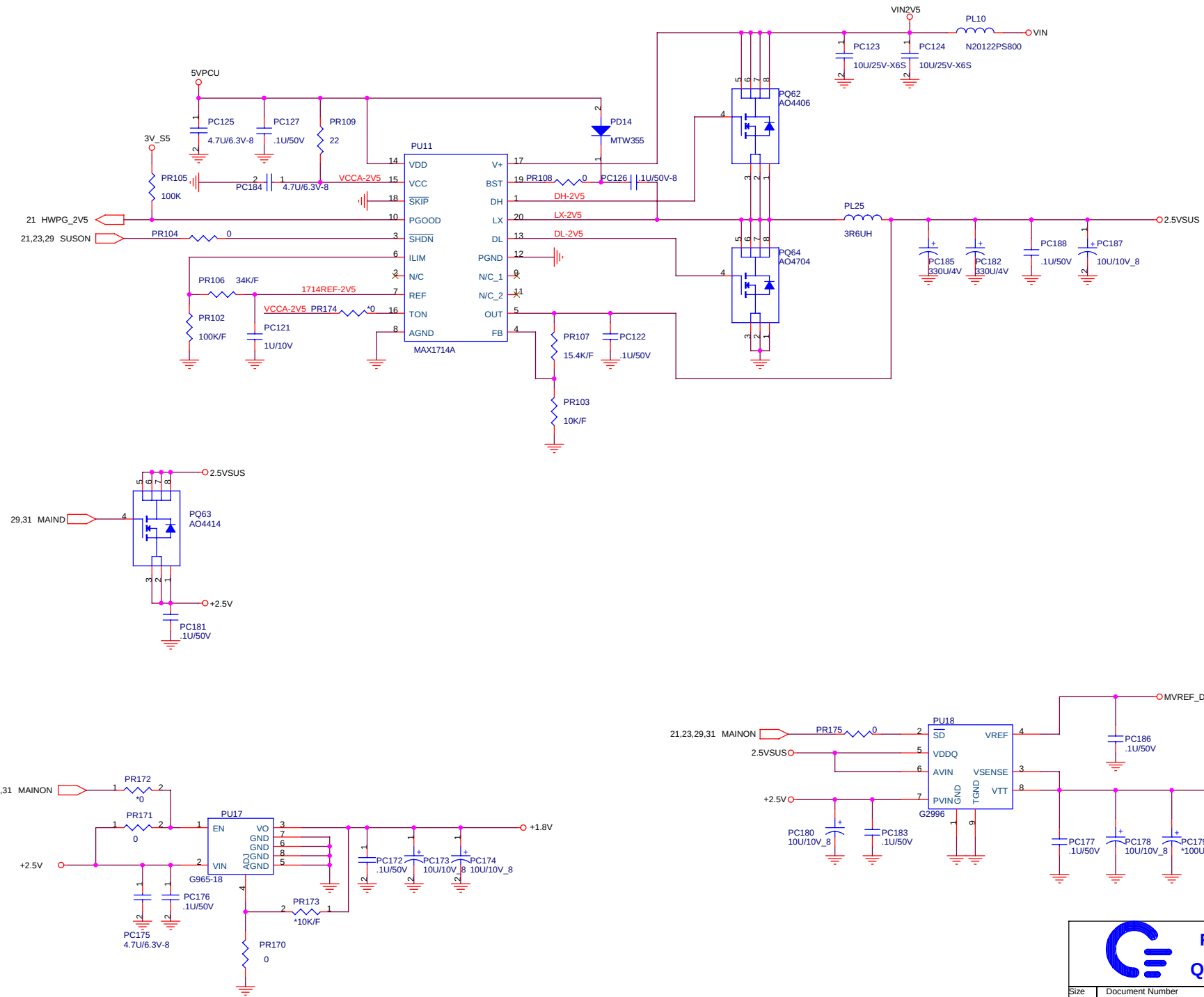
**PROJECT : ZL1**

**Quanta Computer Inc.**

| Size | Document Number | Rev |
|---|---|---|
| | T/P,FAN,SWITCH,LED,K/B | 3A |

Date: Thursday, August 26, 2004 Sheet 28 of 34

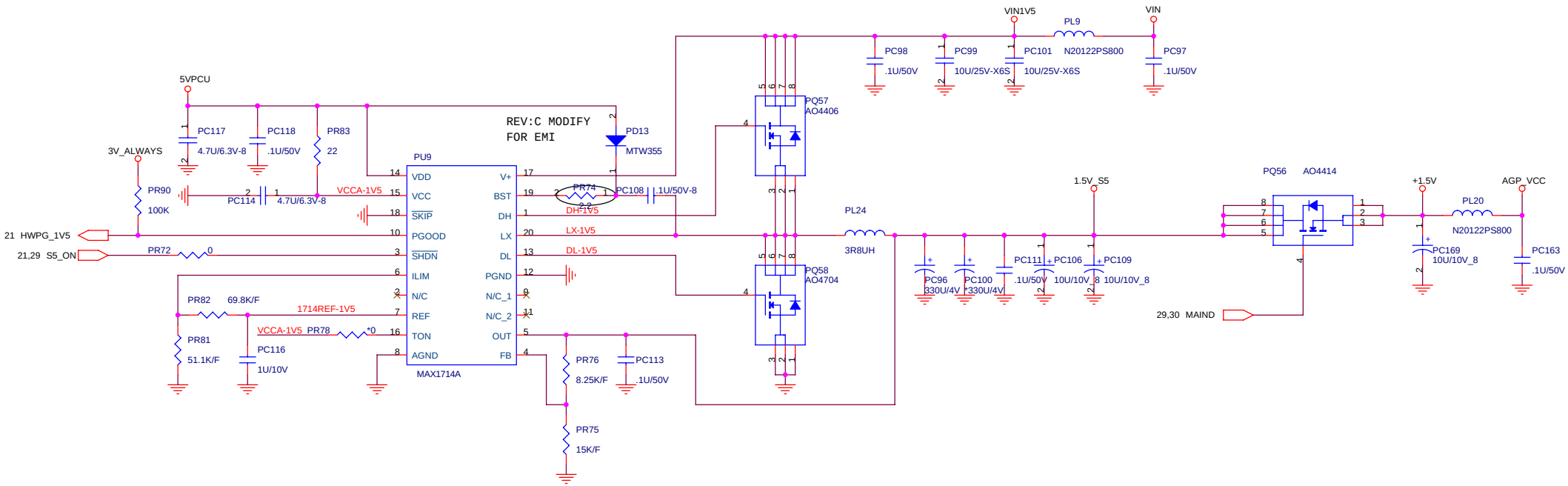

PROJECT : ZL1
Quanta Computer Inc.
Size
Document Number
5V/3.3V(MAX1999)
Rev
3C
Date: Thursday, August 26, 2004
Sheet 29 of 34
MAX1999
REV:D MODIFY
VIN1999
VIN1999-3
VIN1999-5
VIN
3V_ALWAYS
5VPCU
15V
VL
REF2V
ILIM3
ILIM5
1999VCC
SKIP_SEL
3VON
5VON
HWPG_SYS
1999LX3
1999DH3
1999DL3
1999BST3
1999LX5
1999DH5
1999BST5
1999LX15
1999DL5
3V_S5
5V_S5
SUSD
MAIND
SUSON
MAINON
S5_ON
+12V
+3V
+5V
3VSUS
5VSUS
2.5VSUS
12VOUT
1.2VCCT
+1.5V
+2.5V

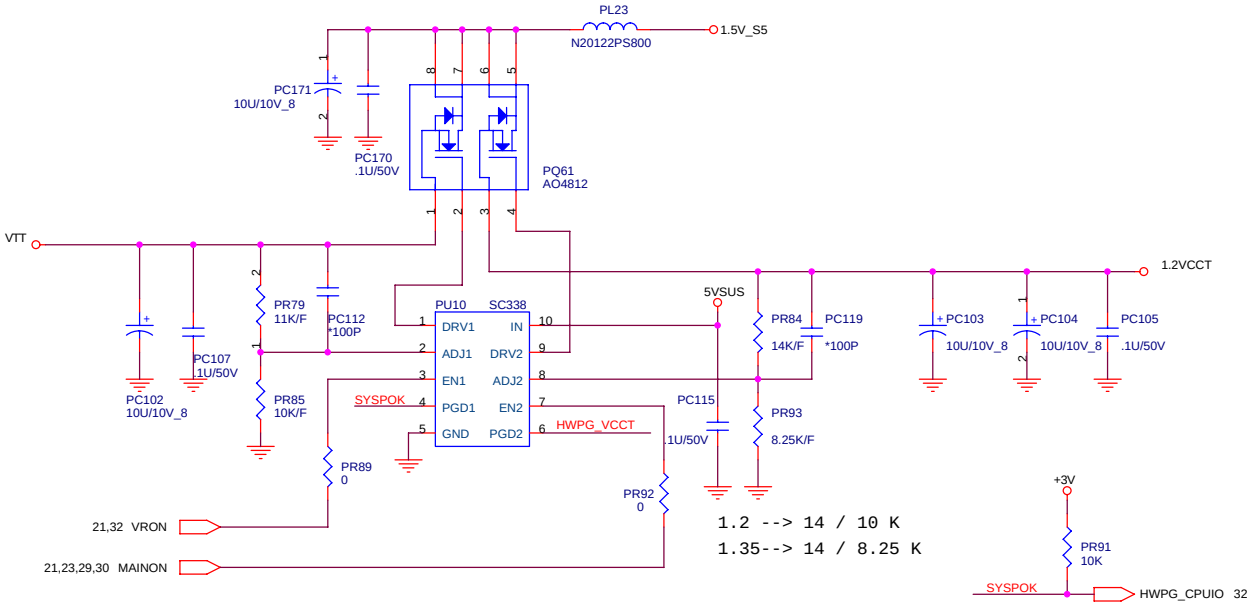


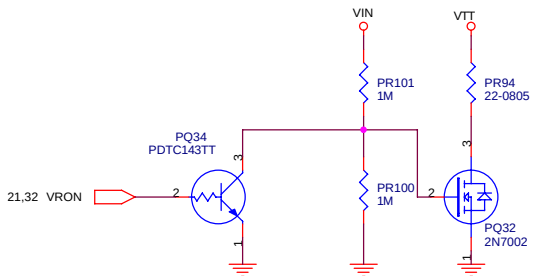

PROJECT : ZL1

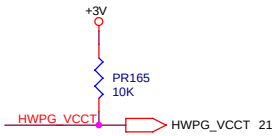
Quanta Computer Inc.

| Size | Document Number | Rev |
|---|---|---|
| | 2.5VSUS / +1.25TERM | 2A |
| Date: Thursday, August 26, 2004 | Sheet 30 of 34 | |



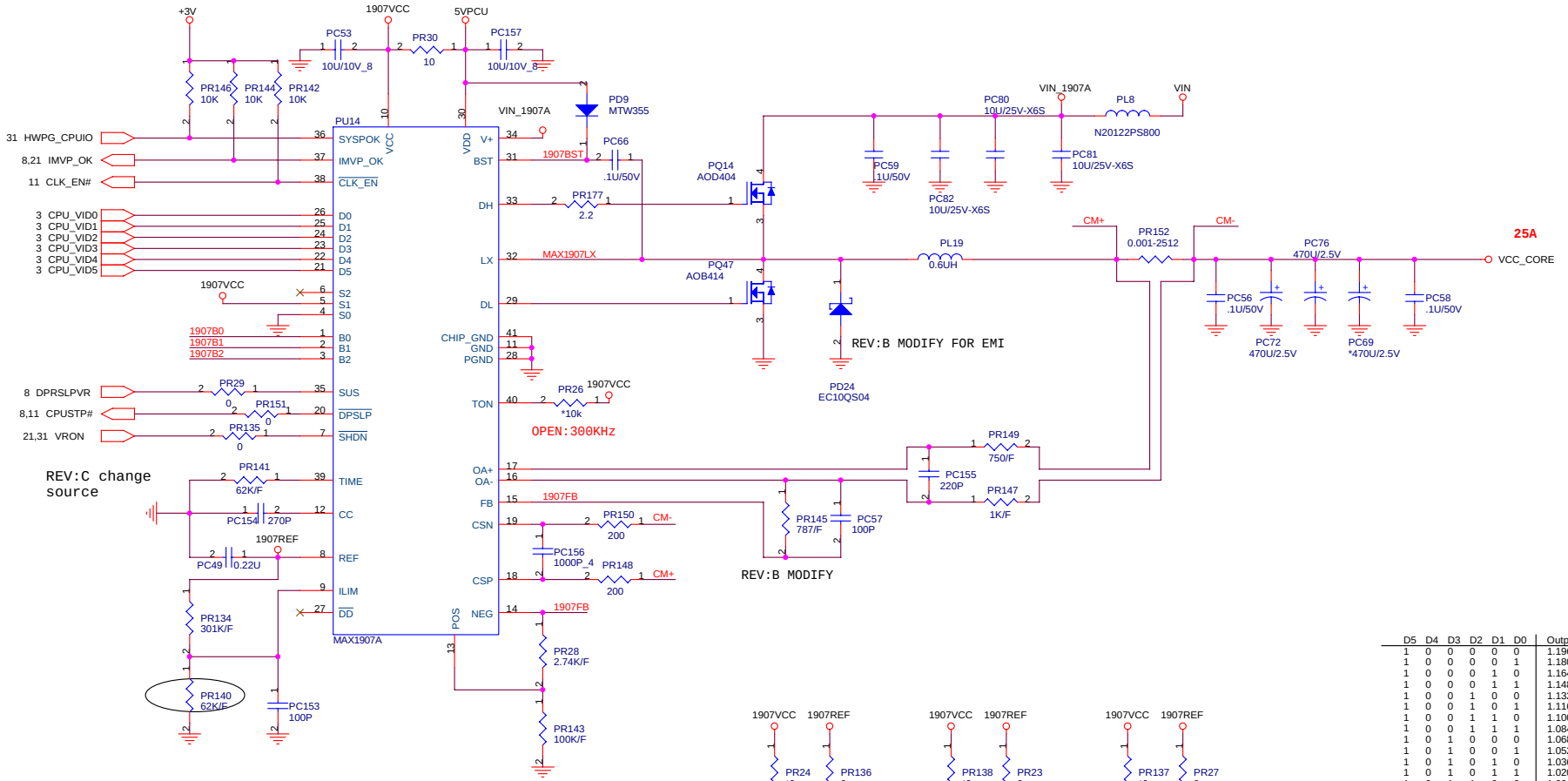




**PROJECT : ZL1**

**Quanta Computer Inc.**

| Size | Document Number | Rev |
|---|---|---|
| | **+1.5 / CPUIO** | 2C |
| Date: Thursday, August 26, 2004 | Sheet 31 of 34 | |




| 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 |

SUSPEND MODE (SUS=HIGH)

| S2 | S1 | S0 | Output |
|---|---|---|---|
| OPEN | VCC | GND | 0.748V |

VCC_BOOT

| B2 | B1 | B0 | Output |
|---|---|---|---|
| GND | GND | GND | 1.708V |
| REF | REF | REF | 1.372V |
| OPEN | OPEN | OPEN | 1.036V |
| VCC | VCC | VCC | 0.700V |
| REF | VCC | VCC | 1.212V |

PROJECT : ZL1

Quanta Computer Inc.

| Size | Document Number | Rev |
|---|---|---|
| | CPU CORE (MAX1907) | 2C |

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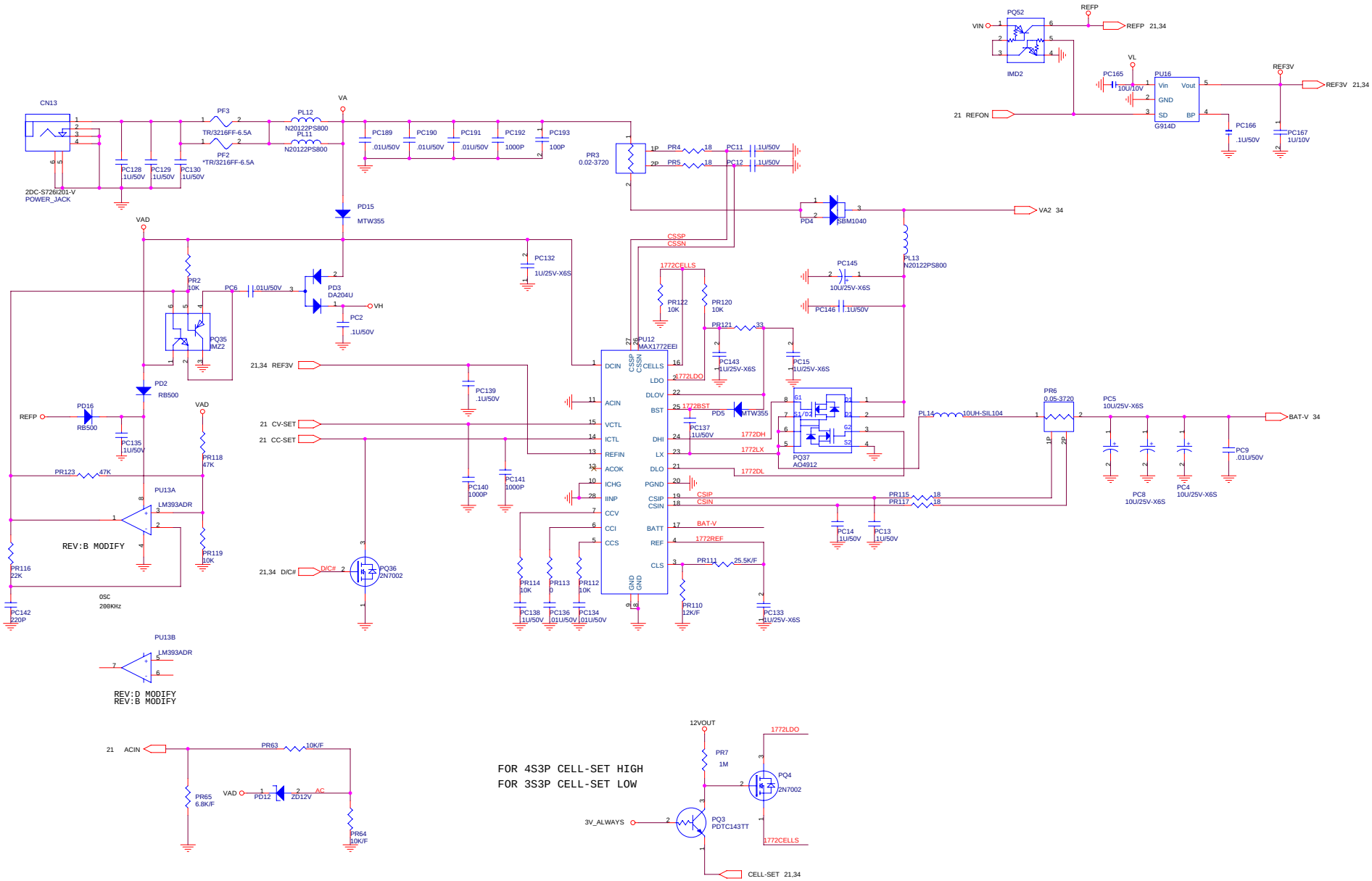


PROJECT : ZL1

Quanta Computer Inc.

| Size | Document Number | Rev |
|---|---|---|
| | BATTERY CHARGER | 3A |

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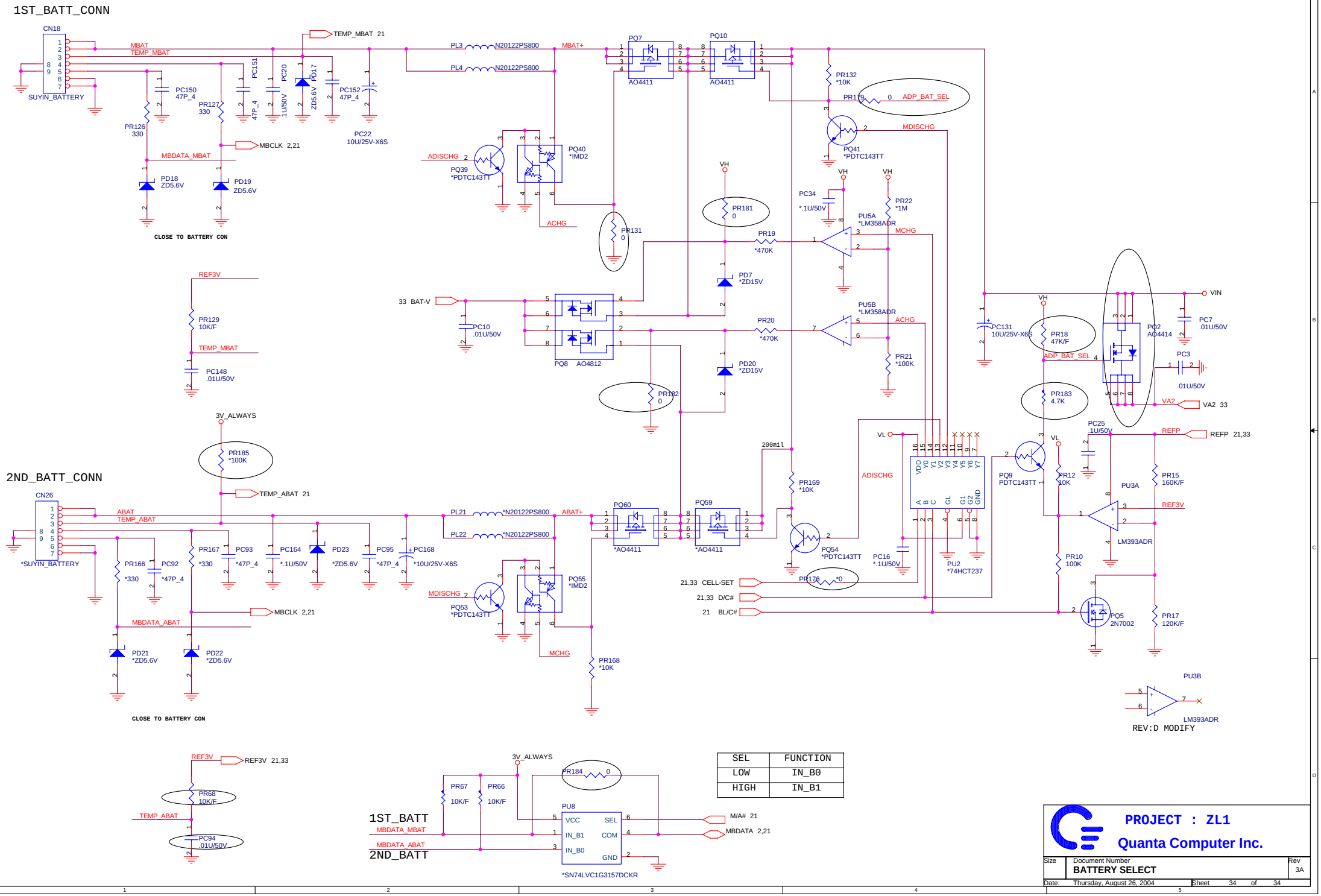
1ST_BATT_CONN
CN18
SUYIN_BATTERY
MBAT
TEMP_MBAT
TEMP_MBAT 21
PL3 N20122PS800
PL4 N20122PS800
MBAT+
PQ7
PQ10
AO4411
PC150 47P_4
PR127 330
PR126 330
PC151 47P_4
PC20 .1U/50V
PD17 ZD5.6V
PC152 47P_4
PC22 10U/25V-X6S
MBCLK 2,21
MBDATA_MBAT
PD18 ZD5.6V
PD19 ZD5.6V
CLOSE TO BATTERY CON
PR132 *10K
PR179 0 ADP_BAT_SEL
MDISCHG
PQ41 *PDTC143TT
ADISCHG 2
PQ39 *PDTC143TT
PQ40 *IMD2
ACHG
PR131 0
VH
PR181 0
PC34 *.1U/50V
PU5A *LM358ADR
PR22 *1M
MCHG
PR19 *470K
PD7 *ZD15V
33 BAT-V
PC10 .01U/50V
PQ8 AO4812
PR20 *470K
PD20 *ZD15V
PR182 0
PU5B *LM358ADR
PR21 *100K
REF3V
PR129 10K/F
TEMP_MBAT
PC148 .01U/50V
3V_ALWAYS
PR185 *100K
2ND_BATT_CONN
CN26
*SUYIN_BATTERY
TEMP_ABAT 21
ABAT
TEMP_ABAT
PL21 *N20122PS800
PL22 *N20122PS800
ABAT+
PQ60
PQ59
*AO4411
PR166 *330
PC92 *47P_4
PR167 *330
PC93 *47P_4
PC164 *.1U/50V
PD23 *ZD5.6V
PC95 *47P_4
PC168 *10U/25V-X6S
MBCLK 2,21
MBDATA_ABAT
PD21 *ZD5.6V
PD22 *ZD5.6V
CLOSE TO BATTERY CON
MDISCHG 2
PQ53 *PDTC143TT
PQ55 *IMD2
MCHG
PR168 *10K
200mil
PR169 *10K
PQ54 *PDTC143TT
PR176 *0
PC16 *.1U/50V
ADISCHG
VL
PU2 *74HCT237
21,33 CELL-SET
21,33 D/C#
21 BL/C#
PQ9 PDTC143TT
PR12 10K
PR10 100K
PQ5 2N7002
PR17 120K/F
PU3A
LM393ADR
PR15 160K/F
REF3V
PC25 1U/50V
REFP
REFP 21,33
PR18 47K/F
PR183 4.7K
ADP_BAT_SEL
PQ2 AO4414
PC7 .01U/50V
PC3 .01U/50V
VA2
VA2 33
VIN
PC131 10U/25V-X6S
PU3B
LM393ADR
REV:D MODIFY
REF3V
REF3V 21,33
PR68 10K/F
TEMP_ABAT
PC94 .01U/50V
3V_ALWAYS
PR184 0
PR67 10K/F
PR66 10K/F
1ST_BATT
MBDATA_MBAT
MBDATA_ABAT
2ND_BATT
PU8
VCC
IN_B1
IN_B0
SEL
COM
GND
M/A# 21
MBDATA 2,21
*SN74LVC1G3157DCKR
SEL FUNCTION
LOW IN_B0
HIGH IN_B1
PROJECT : ZL1
Quanta Computer Inc.
Size
Document Number
BATTERY SELECT
Rev
3A
Date: Thursday, August 26, 2004
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