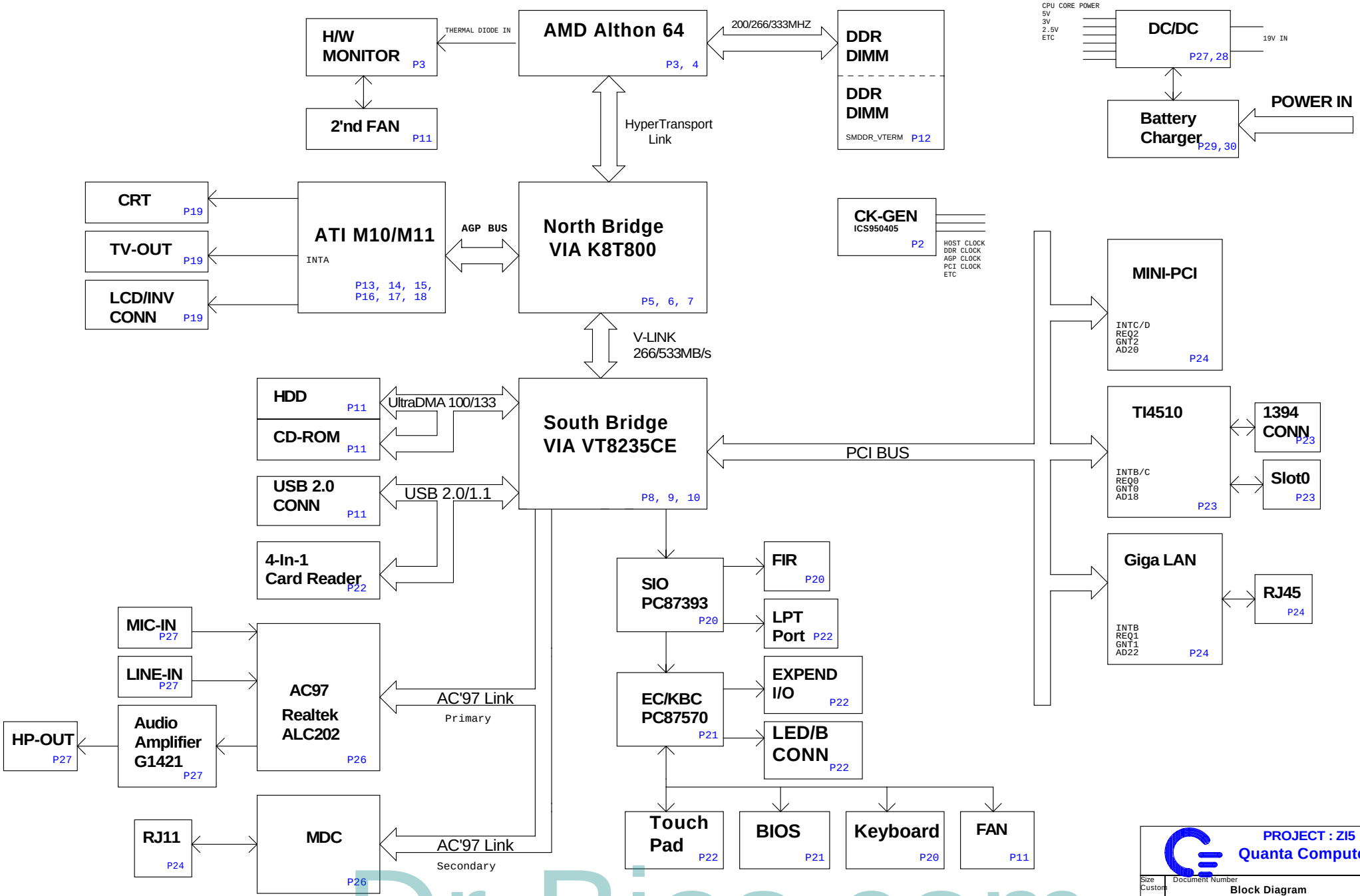
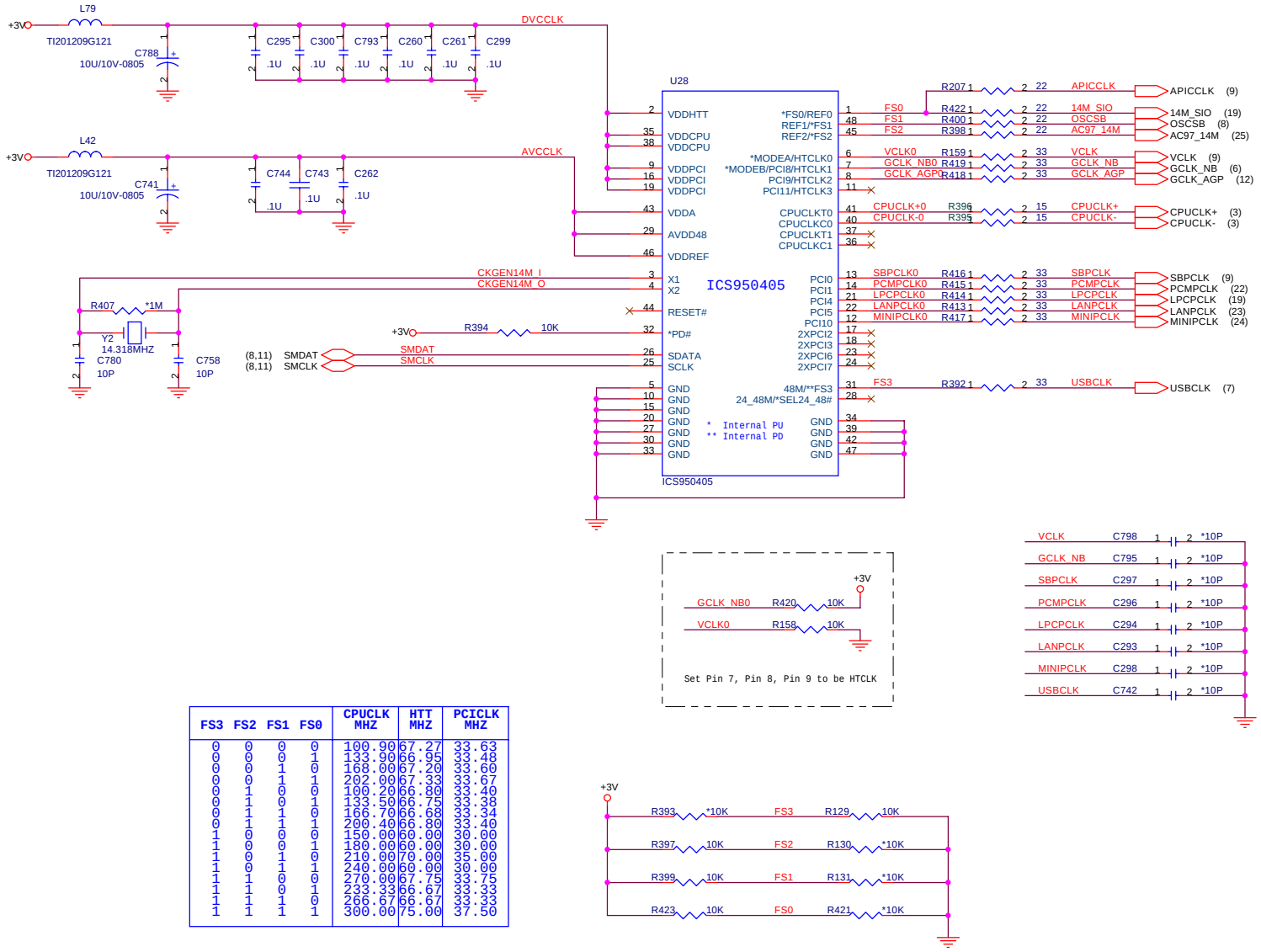
# ZI5 SYSTEM BLOCK DIAGRAM




PROJECT : ZI5
Quanta Computer Inc.

| Size | Document Number | Rev |
|---|---|---|
| Custom | Block Diagram | 1A |

Date: Tuesday, March 30, 2004 Sheet 1 of 32




| FS3 | FS2 | FS1 | FS0 | CPUCLK MHZ | HTT MHZ | PCICLK MHZ |
|---|---|---|---|---|---|---|
| 0 | 0 | 0 | 0 | 100.90 | 67.27 | 33.63 |
| 0 | 0 | 0 | 1 | 133.90 | 66.95 | 33.48 |
| 0 | 0 | 1 | 0 | 168.00 | 67.20 | 33.60 |
| 0 | 0 | 1 | 1 | 202.00 | 67.33 | 33.67 |
| 0 | 1 | 0 | 0 | 100.20 | 66.80 | 33.40 |
| 0 | 1 | 0 | 1 | 133.50 | 66.75 | 33.38 |
| 0 | 1 | 1 | 0 | 166.70 | 66.68 | 33.34 |
| 0 | 1 | 1 | 1 | 200.40 | 66.80 | 33.40 |
| 1 | 0 | 0 | 0 | 150.00 | 60.00 | 30.00 |
| 1 | 0 | 0 | 1 | 180.00 | 60.00 | 30.00 |
| 1 | 0 | 1 | 0 | 210.00 | 70.00 | 35.00 |
| 1 | 0 | 1 | 1 | 240.00 | 60.00 | 30.00 |
| 1 | 1 | 0 | 0 | 270.00 | 67.75 | 33.75 |
| 1 | 1 | 0 | 1 | 233.33 | 66.67 | 33.33 |
| 1 | 1 | 1 | 0 | 266.67 | 66.67 | 33.33 |
| 1 | 1 | 1 | 1 | 300.00 | 75.00 | 37.50 |



PROJECT : ZI5
Quanta Computer Inc.

| Size | Document Number | Rev |
|---|---|---|
| Custom | CLOCK GENERATOR | 1A |
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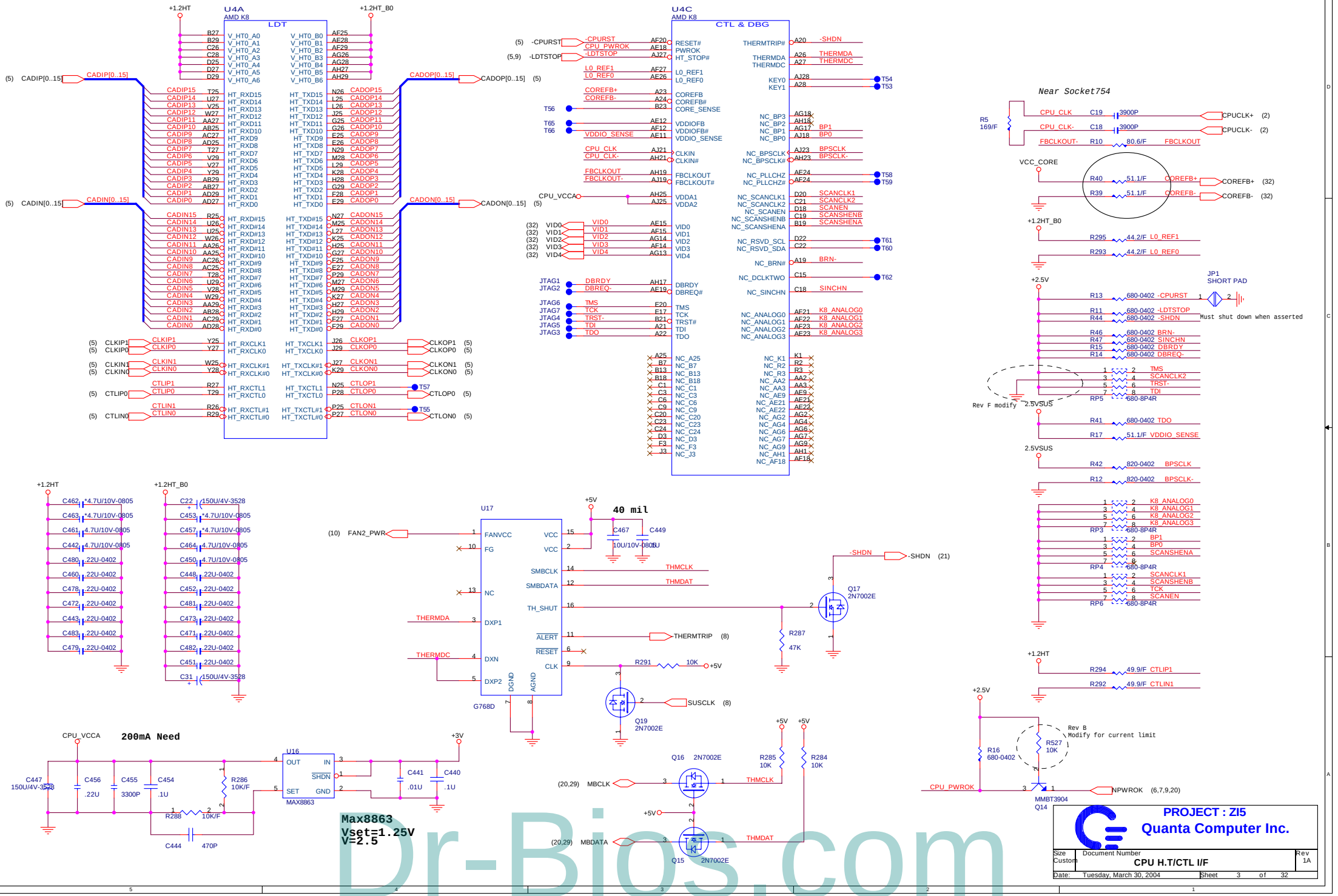
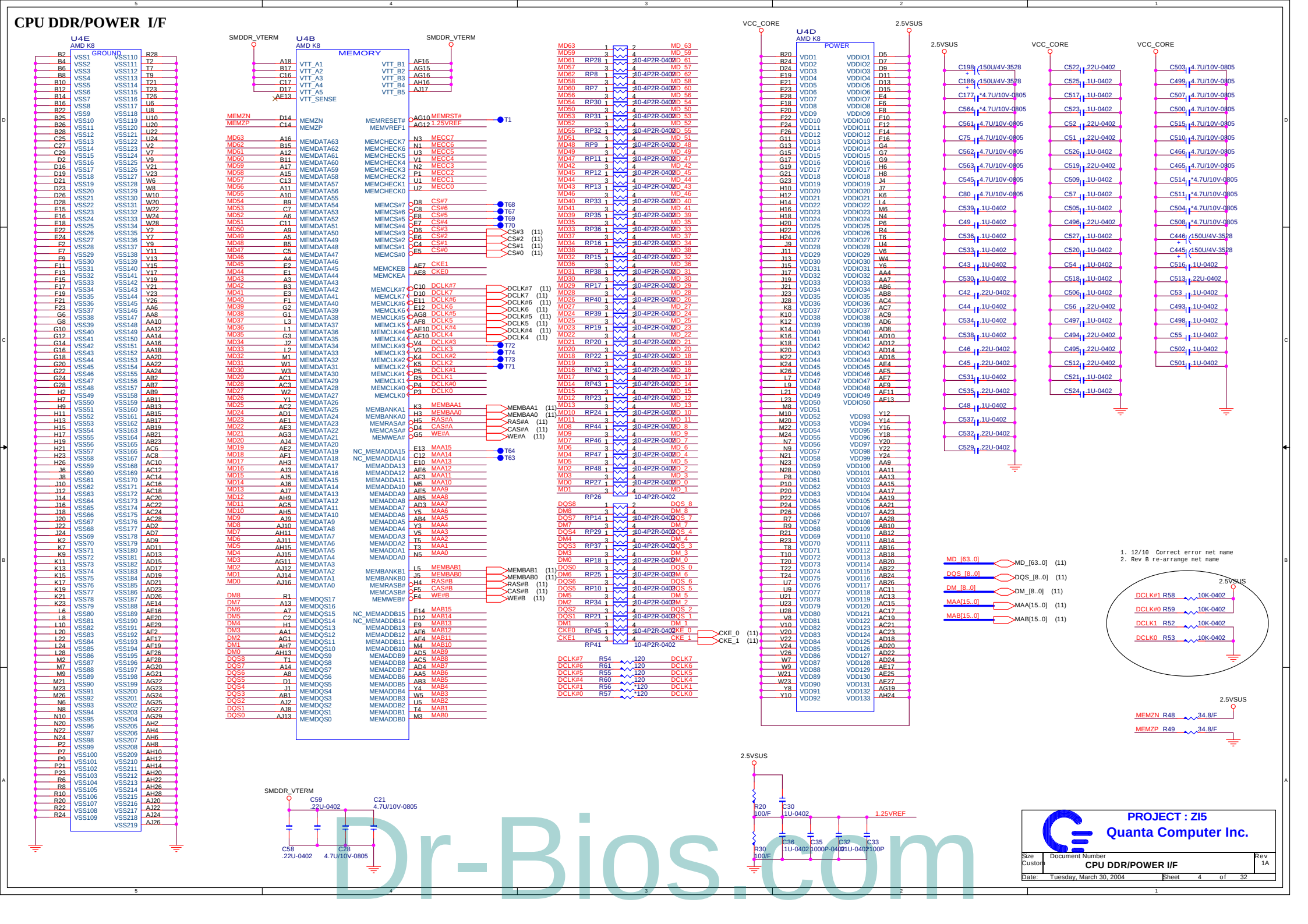
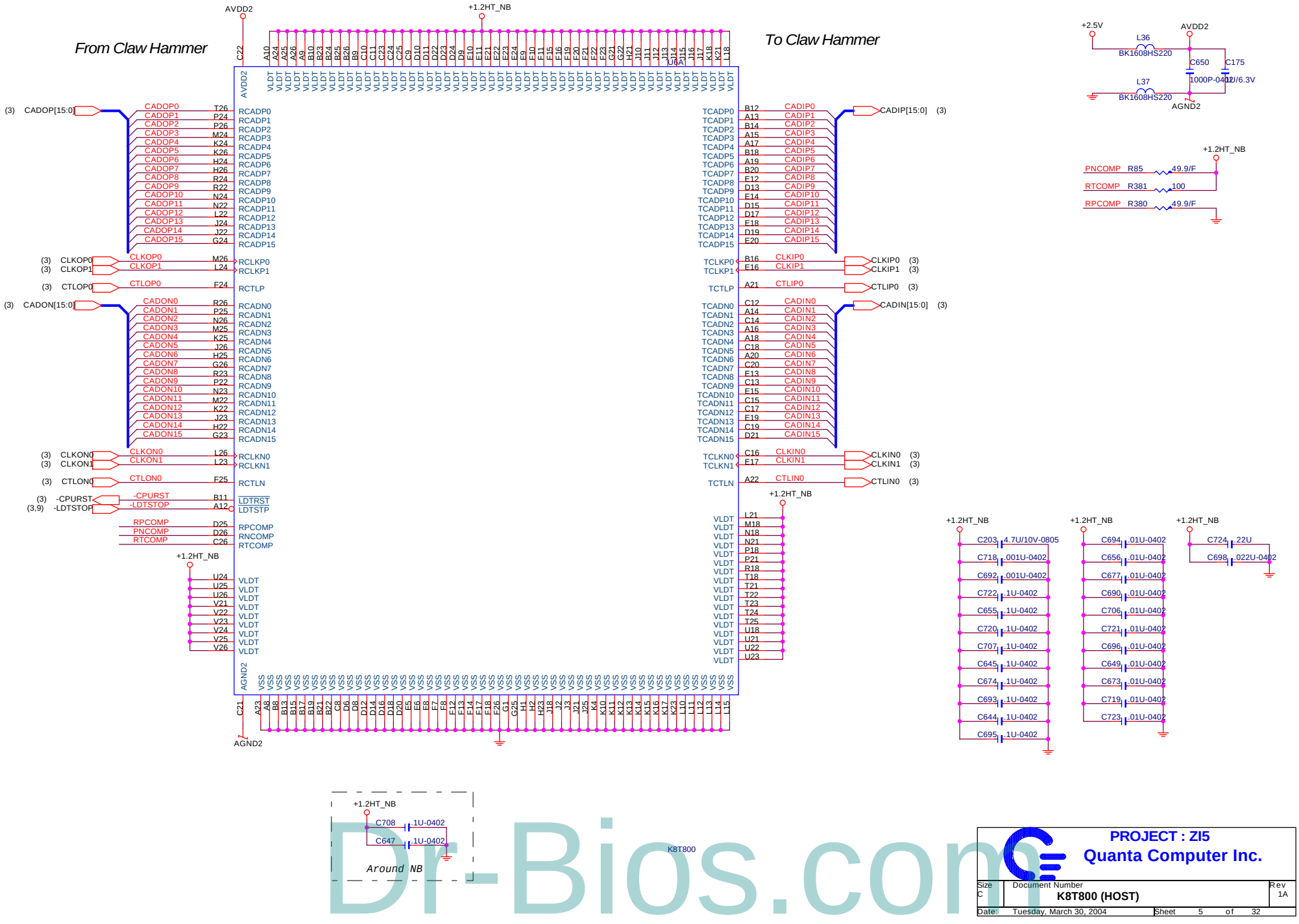
# CPU H.T/CTL I/F



# CPU DDR/POWER I/F



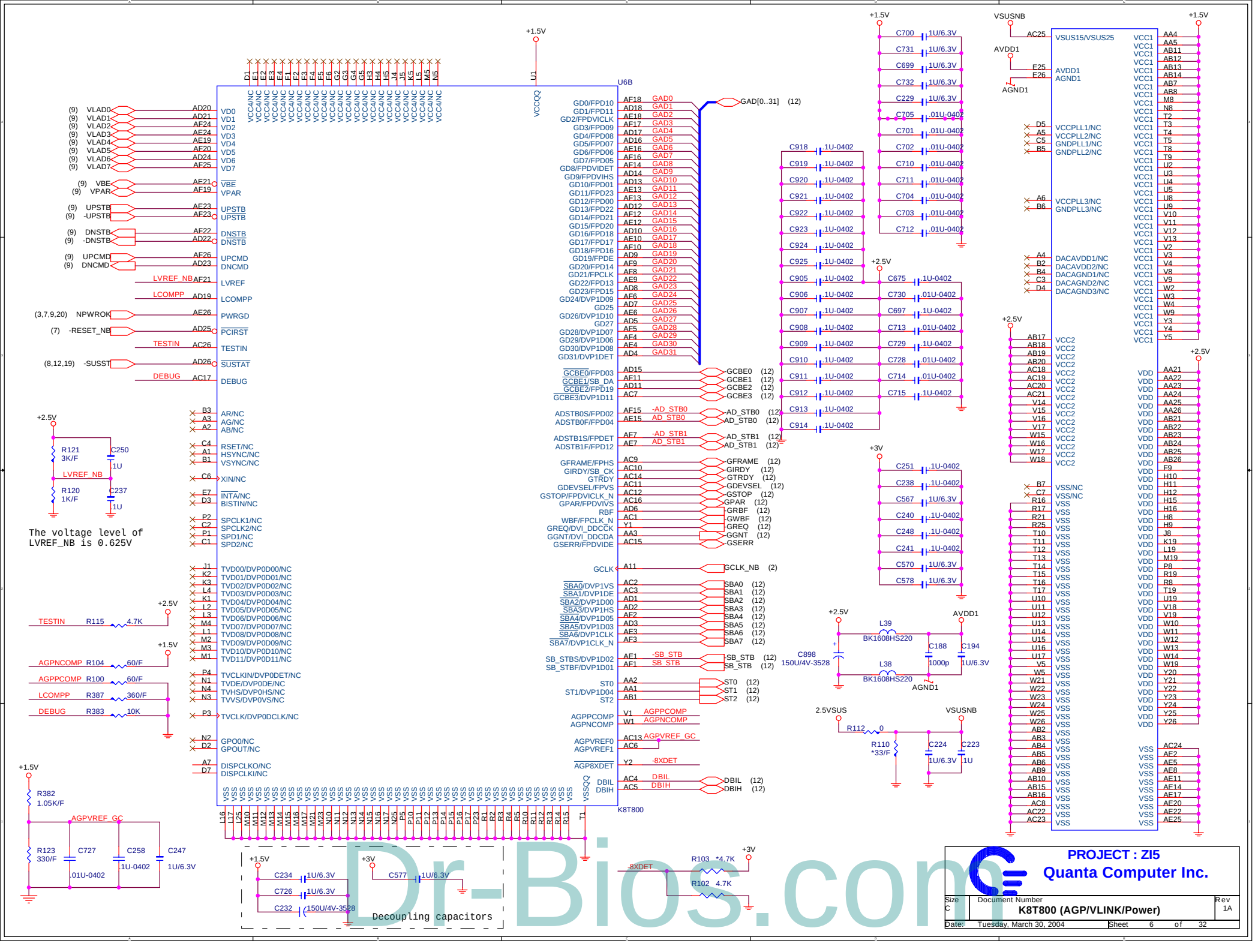


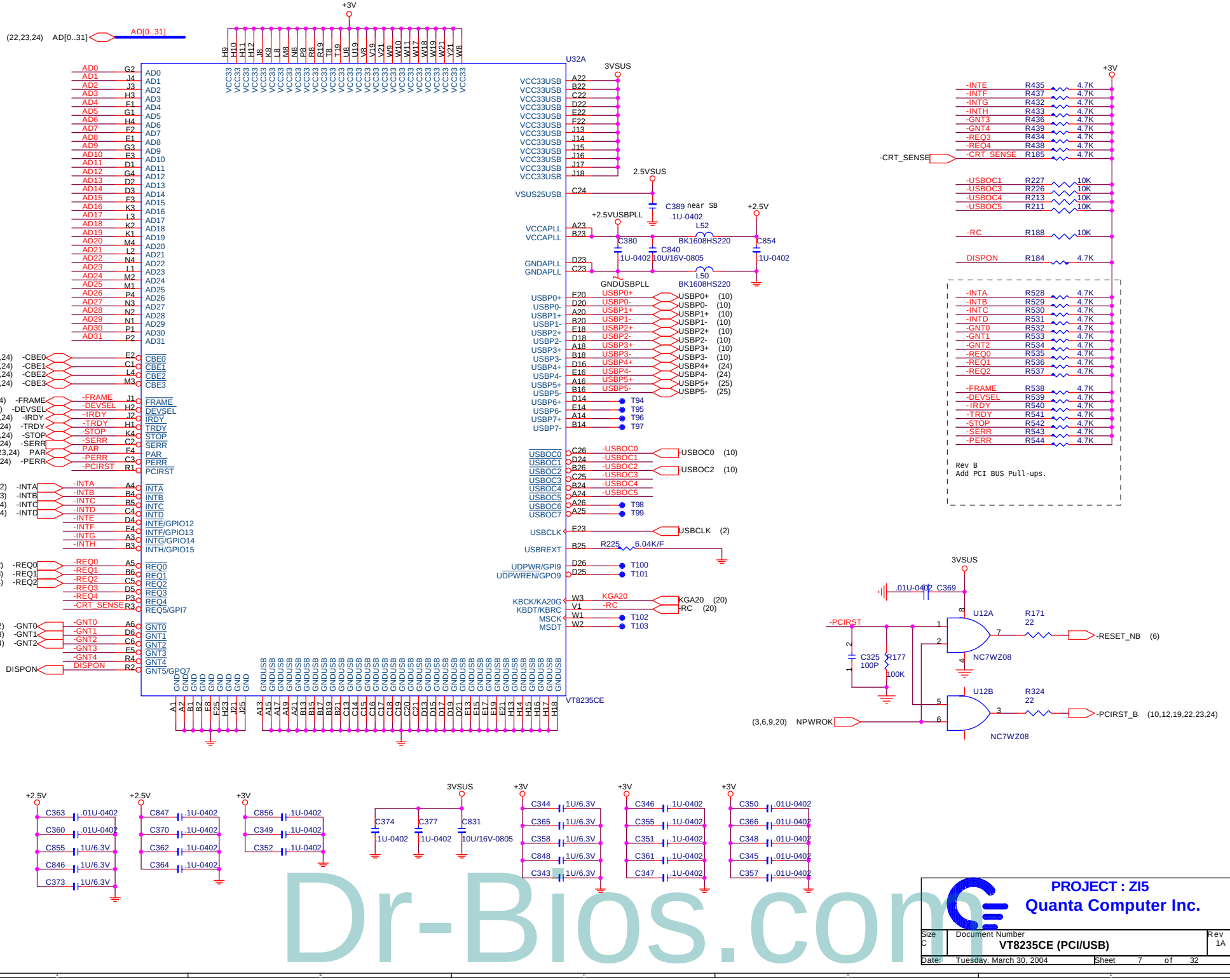



PROJECT : ZI5

Quanta Computer Inc.

| Size | Document Number | Rev |
|---|---|---|
| C | K8T800 (HOST) | 1A |
| Date: Tuesday, March 30, 2004 | Sheet 5 of 32 | |


U6B
K8T800
U1
VCCQQ
VSSQQ
+1.5V
+2.5V
+3V
VSUSNB
2.5VSUS
AVDD1
AGND1
VSUS15/VSUS25
VCCPLL1/NC
VCCPLL2/NC
GNDPLL1/NC
GNDPLL2/NC
VCCPLL3/NC
GNDPLL3/NC
DACAVDD1/NC
DACAVDD2/NC
DACAGND1/NC
DACAGND2/NC
DACAGND3/NC
VCC2
VDD
VSS/NC
VSS
VCC1
GAD[0..31] (12)
GCLK_NB (2)
AGPVREF_GC
-8XDET
DBIL (12)
DBIH (12)
SBA0 (12)
SBA1 (12)
SBA2 (12)
SBA3 (12)
SBA4 (12)
SBA5 (12)
SBA6 (12)
SBA7 (12)
SB_STB (12)
ST0 (12)
ST1 (12)
ST2 (12)
AD_STB0 (12)
AD_STB1 (12)
GFRAME (12)
GIRDY (12)
GTRDY (12)
GDEVSEL (12)
GSTOP (12)
GPAR (12)
GRBF (12)
GWBF (12)
GREQ (12)
GGNT (12)
GSERR
GCBE0 (12)
GCBE1 (12)
GCBE2 (12)
GCBE3 (12)
VLAD0
VLAD1
VLAD2
VLAD3
VLAD4
VLAD5
VLAD6
VLAD7
VBE
VPAR
UPSTB
-UPSTB
DNSTB
-DNSTB
UPCMD
DNCMD
LVREF_NB
LCOMPP
NPWROK
-RESET_NB
TESTIN
-SUSST
DEBUG
R121 3K/F
C250 1U
R120 1K/F
C237 1U
The voltage level of LVREF_NB is 0.625V
TESTIN R115 4.7K
AGPNCOMP R104 60/F
AGPPCOMP R100 60/F
LCOMPP R387 360/F
DEBUG R383 10K
R382 1.05K/F
R123 330/F
C727 .01U-0402
C258 1U-0402
C247 1U/6.3V
C234 1U/6.3V
C726 1U/6.3V
C232 150U/4V-3528
C577 1U/6.3V
Decoupling capacitors
R103 *4.7K
R102 4.7K
C898 150U/4V-3528
L39 BK1608HS220
L38 BK1608HS220
C188 1000p
C194 1U/6.3V
R112 0
R110 *33/F
C224 1U/6.3V
C223 1U
PROJECT : ZI5
Quanta Computer Inc.
Size C
Document Number
K8T800 (AGP/VLINK/Power)
Rev 1A
Date: Tuesday, March 30, 2004
Sheet 6 of 32


U32A
VT8235CE
AD[0..31]
(22,23,24) AD[0..31]
+3V
3VSUS
2.5VSUS
+2.5V
+2.5VUSBPLL
GNDUSBPLL
VCCAPLL
GNDAPLL
VSUS25USB
USBP0+
USBP0-
USBP1+
USBP1-
USBP2+
USBP2-
USBP3+
USBP3-
USBP4+
USBP4-
USBP5+
USBP5-
USBP6+
USBP6-
USBP7+
USBP7-
USBOC0
USBOC1
USBOC2
USBOC3
USBOC4
USBOC5
USBOC6
USBOC7
USBCLK
USBREXT
UDPWR/GPI9
UDPWREN/GPO9
KBCK/KA20G
KBDT/KBRC
MSCK
MSDT
C389 near SB .1U-0402
C380 .1U-0402
C840 10U/16V-0805
C854 1U-0402
L52 BK1608HS220
L50 BK1608HS220
R225 6.04K/F
KGA20
-RC
-CRT_SENSE
-INTE R435 4.7K
-INTF R437 4.7K
-INTG R432 4.7K
-INTH R433 4.7K
-GNT3 R436 4.7K
-GNT4 R439 4.7K
-REQ3 R434 4.7K
-REQ4 R438 4.7K
-CRT_SENSE R185 4.7K
-USBOC1 R227 10K
-USBOC3 R226 10K
-USBOC4 R213 10K
-USBOC5 R211 10K
-RC R188 10K
DISPON R184 4.7K
-INTA R528 4.7K
-INTB R529 4.7K
-INTC R530 4.7K
-INTD R531 4.7K
-GNT0 R532 4.7K
-GNT1 R533 4.7K
-GNT2 R534 4.7K
-REQ0 R535 4.7K
-REQ1 R536 4.7K
-REQ2 R537 4.7K
-FRAME R538 4.7K
-DEVSEL R539 4.7K
-IRDY R540 4.7K
-TRDY R541 4.7K
-STOP R542 4.7K
-SERR R543 4.7K
-PERR R544 4.7K
Rev B
Add PCI BUS Pull-ups.
-PCIRST
-RESET_NB (6)
U12A
U12B
R171 22
R324 22
C325 100P
R177 100K
.01U-0402 C369
NC7WZ08
NPWROK (3,6,9,20)
-PCIRST_B (10,12,19,22,23,24)
C363 .01U-0402
C360 .01U-0402
C855 1U/6.3V
C846 1U/6.3V
C373 1U/6.3V
C847 1U-0402
C370 1U-0402
C362 1U-0402
C364 1U-0402
C856 1U-0402
C349 1U-0402
C352 1U-0402
C374 1U-0402
C377 1U-0402
C831 10U/16V-0805
C344 1U/6.3V
C365 1U/6.3V
C358 1U/6.3V
C848 1U/6.3V
C343 1U/6.3V
C346 .1U-0402
C355 .1U-0402
C351 .1U-0402
C361 .1U-0402
C347 .1U-0402
C350 .01U-0402
C366 .01U-0402
C348 .01U-0402
C345 .01U-0402
C357 .01U-0402
PROJECT : ZI5
Quanta Computer Inc.
Size C
Document Number VT8235CE (PCI/USB)
Rev 1A
Date: Tuesday, March 30, 2004
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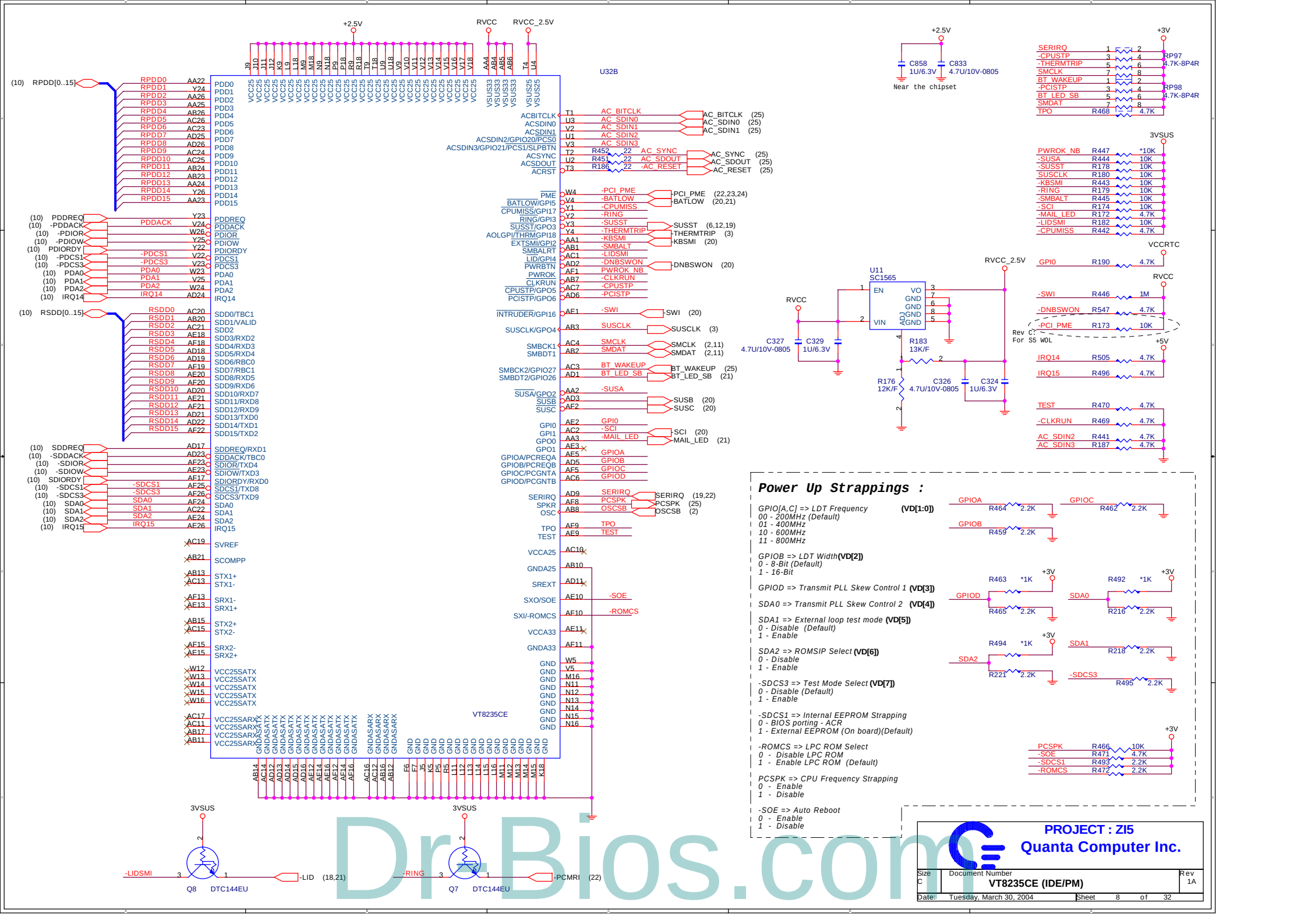
U32B
VT8235CE
+2.5V
RVCC
RVCC_2.5V
3VSUS
+3V
VCCRTC
+5V
U11
SC1565
Near the chipset
Rev C
For S5 WOL
Power Up Strappings :
GPIO[A,C] => LDT Frequency (VD[1:0])
00 - 200MHz (Default)
01 - 400MHz
10 - 600MHz
11 - 800MHz
GPIOB => LDT Width(VD[2])
0 - 8-Bit (Default)
1 - 16-Bit
GPIOD => Transmit PLL Skew Control 1 (VD[3])
SDA0 => Transmit PLL Skew Control 2 (VD[4])
SDA1 => External loop test mode (VD[5])
0 - Disable (Default)
1 - Enable
SDA2 => ROMSIP Select (VD[6])
0 - Disable
1 - Enable
-SDCS3 => Test Mode Select (VD[7])
0 - Disable (Default)
1 - Enable
-SDCS1 => Internal EEPROM Strapping
0 - BIOS porting - ACR
1 - External EEPROM (On board)(Default)
-ROMCS => LPC ROM Select
0 - Disable LPC ROM
1 - Enable LPC ROM (Default)
PCSPK => CPU Frequency Strapping
0 - Enable
1 - Disable
-SOE => Auto Reboot
0 - Enable
1 - Disable
PROJECT : ZI5
Quanta Computer Inc.
VT8235CE (IDE/PM)
Tuesday, March 30, 2004
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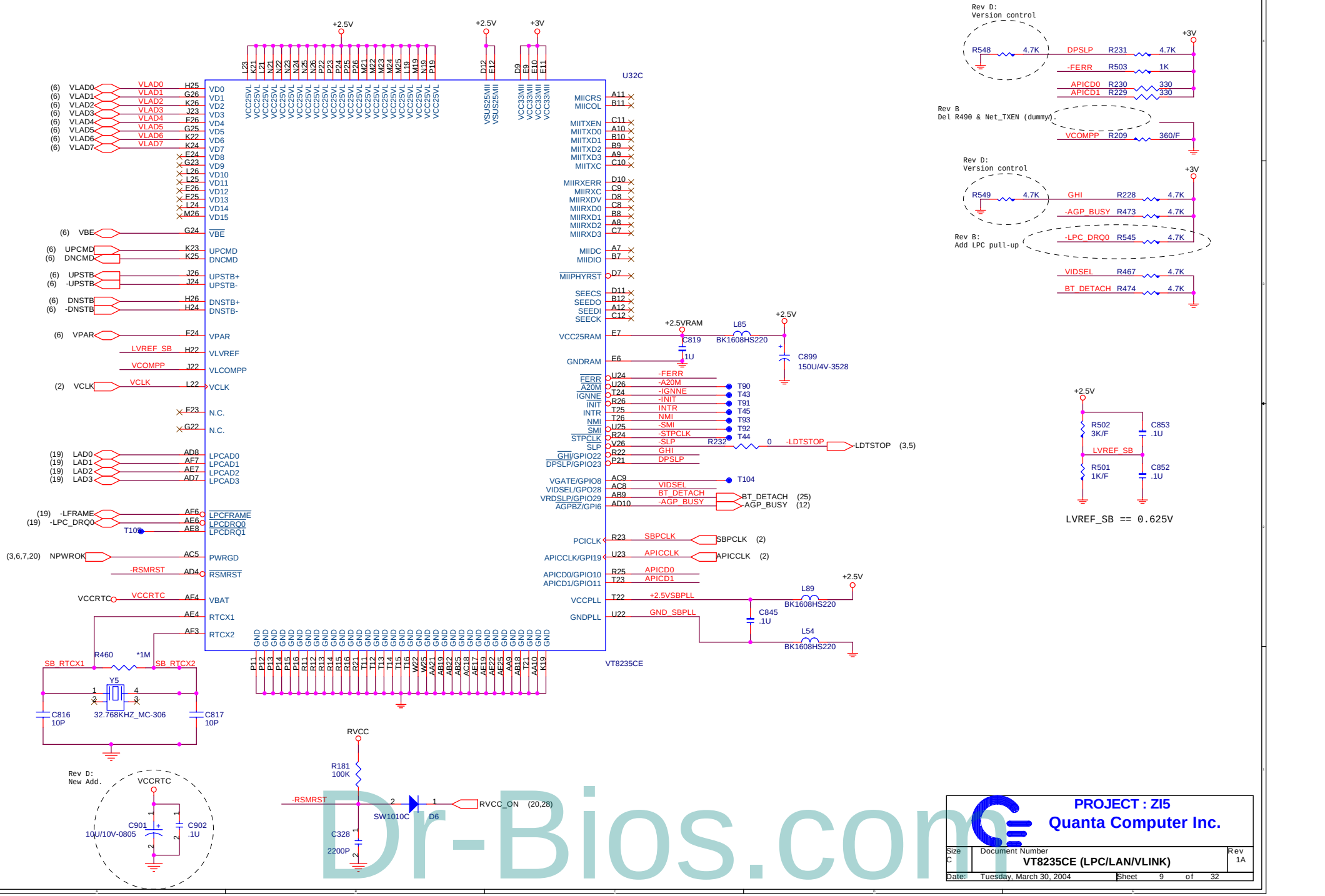
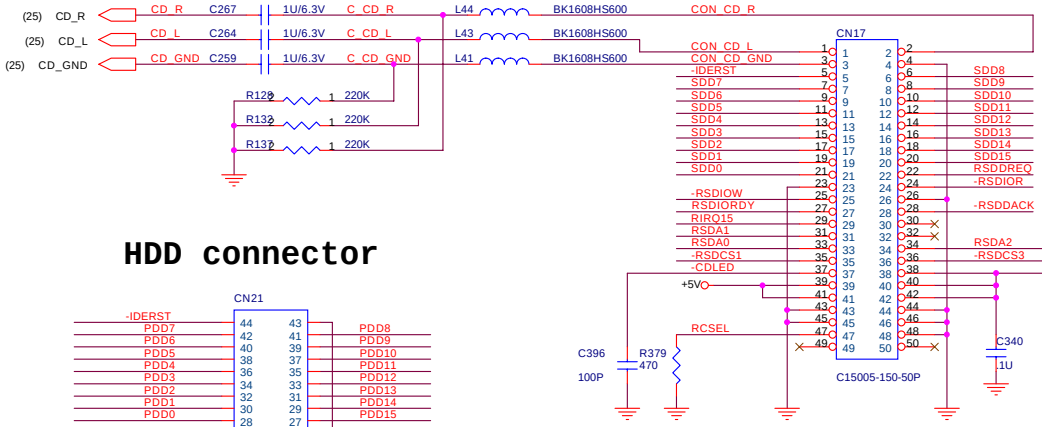
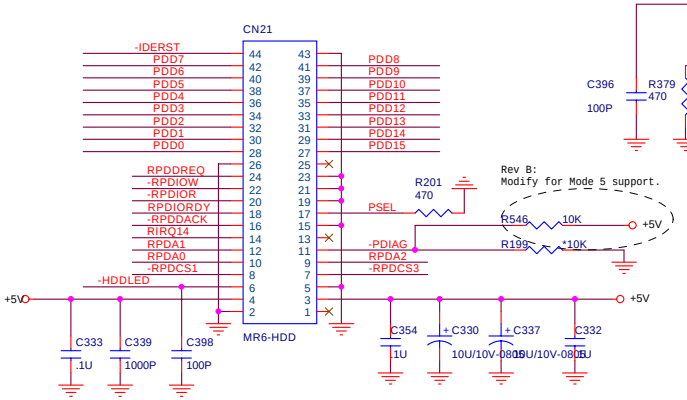
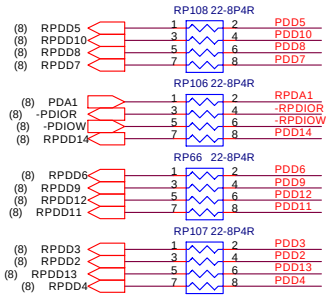

U32C
VT8235CE
+2.5V
+3V
+2.5VRAM
VLAD0
VLAD1
VLAD2
VLAD3
VLAD4
VLAD5
VLAD6
VLAD7
VBE
UPCMD
DNCMD
UPSTB
-UPSTB
DNSTB
-DNSTB
VPAR
LVREF_SB
VCOMPP
VCLK
LAD0
LAD1
LAD2
LAD3
-LFRAME
-LPC_DRQ0
NPWROK
-RSMRST
VCCRTC
SB_RTCX1
SB_RTCX2
R460
*1M
Y5
32.768KHZ_MC-306
C816
10P
C817
10P
-FERR
-A20M
-IGNNE
-INIT
INTR
NMI
-SMI
-STPCLK
-SLP
GHI
DPSLP
VIDSEL
BT_DETACH
-AGP_BUSY
SBPCLK
APICCLK
APICD0
APICD1
+2.5VSBPLL
GND_SBPLL
L89
L54
L85
BK1608HS220
C819
1U
C899
150U/4V-3528
C845
.1U
R232
0
-LDTSTOP
LDTSTOP (3,5)
BT_DETACH (25)
AGP_BUSY (12)
SBPCLK (2)
APICCLK (2)
T104
RVCC
R181
100K
-RSMRST
SW1010C
D6
RVCC_ON (20,28)
C328
2200P
Rev D:
New Add.
VCCRTC
C901
10U/10V-0805
C902
.1U
Rev D:
Version control
R548
4.7K
DPSLP
R231
4.7K
-FERR
R503
1K
APICD0
R230
330
APICD1
R229
330
Rev B
Del R490 & Net_TXEN (dummy)
VCOMPP
R209
360/F
Rev D:
Version control
R549
4.7K
GHI
R228
4.7K
-AGP_BUSY
R473
4.7K
Rev B:
Add LPC pull-up
-LPC_DRQ0
R545
4.7K
VIDSEL
R467
4.7K
BT_DETACH
R474
4.7K
R502
3K/F
C853
.1U
LVREF_SB
R501
1K/F
C852
.1U
LVREF_SB == 0.625V
PROJECT : ZI5
Quanta Computer Inc.
Size
C
Document Number
VT8235CE (LPC/LAN/VLINK)
Rev
1A
Date:
Tuesday, March 30, 2004
Sheet
9
of
32

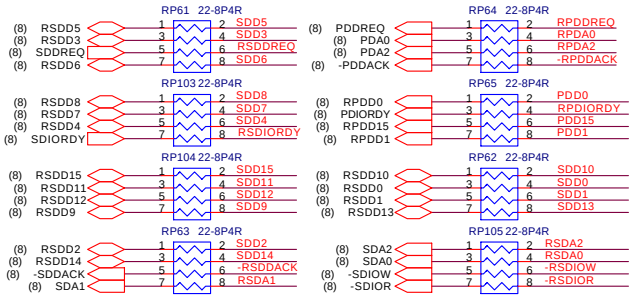
# ODD CONNECTOR

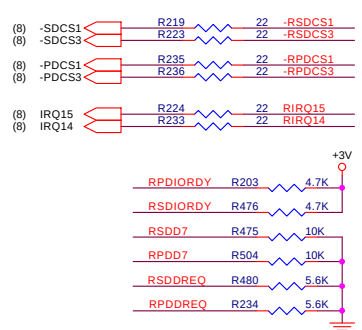



# HDD connector

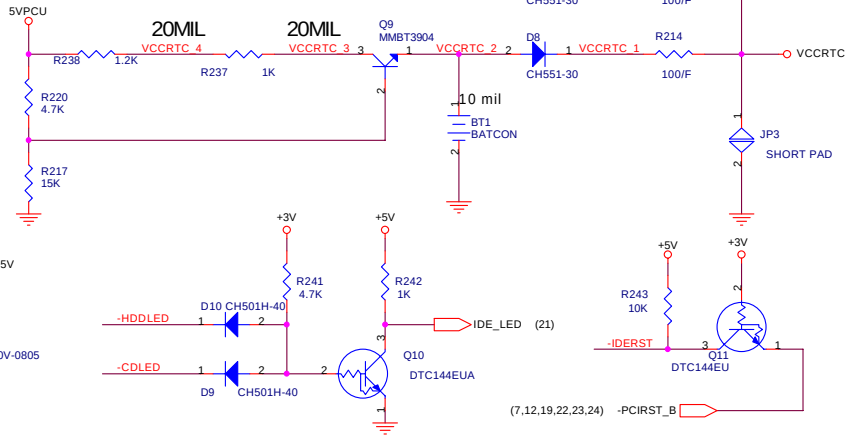


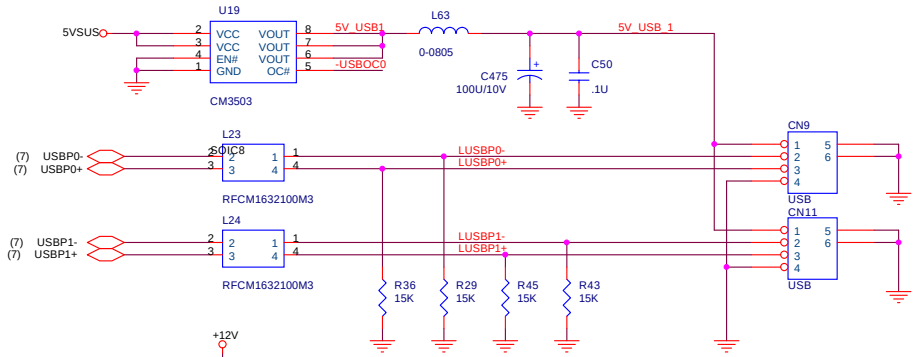



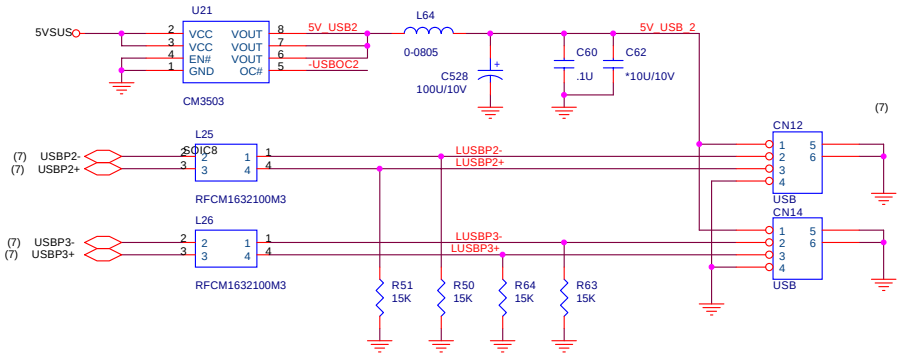



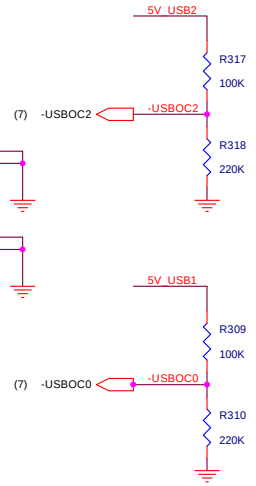



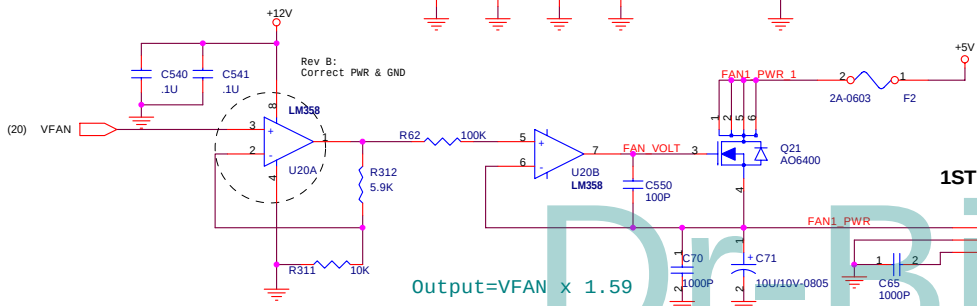

# RTC



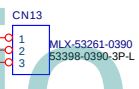



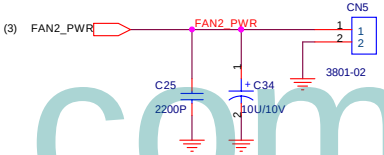




## 1ST FAN CONN



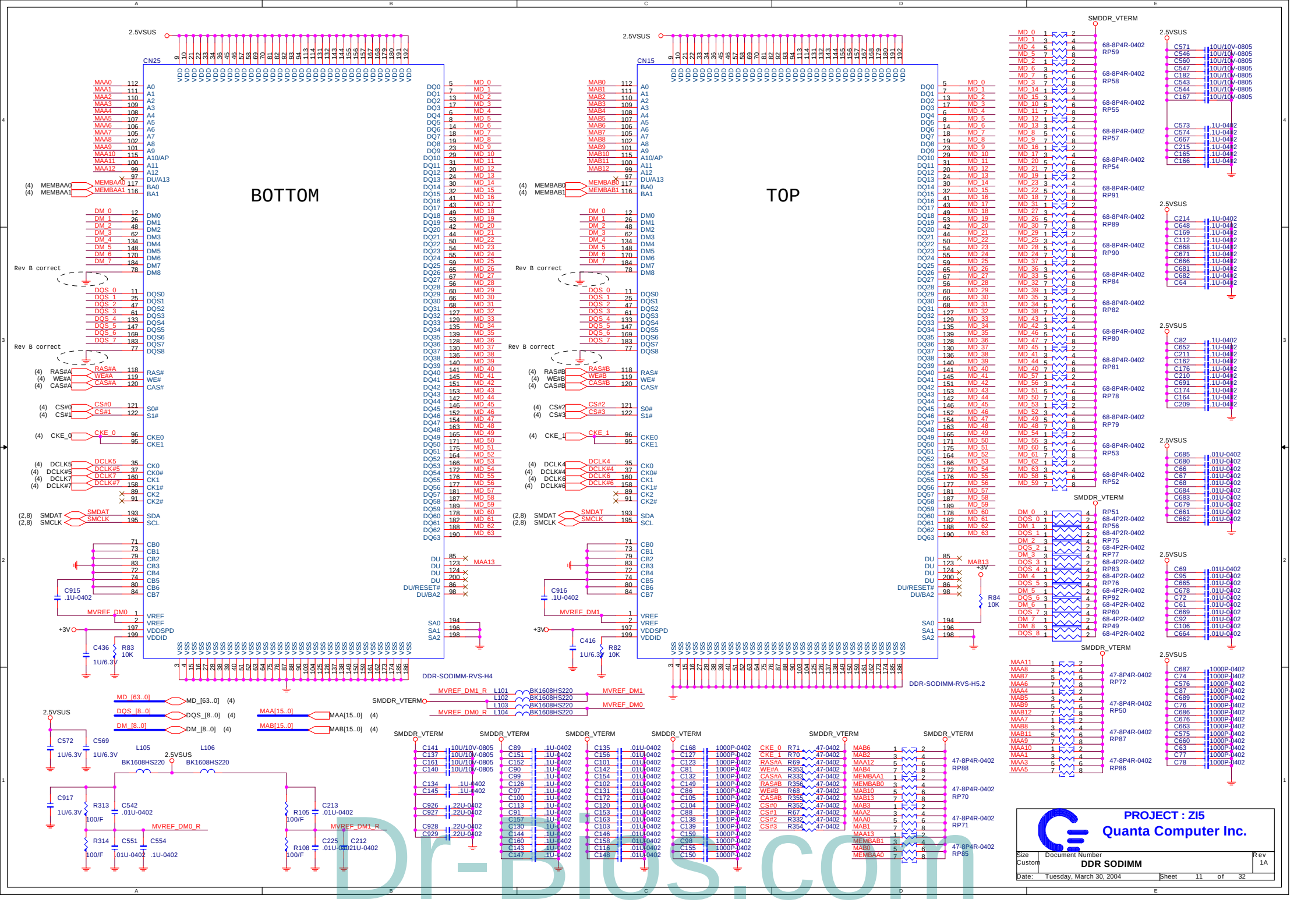

## Second FAN

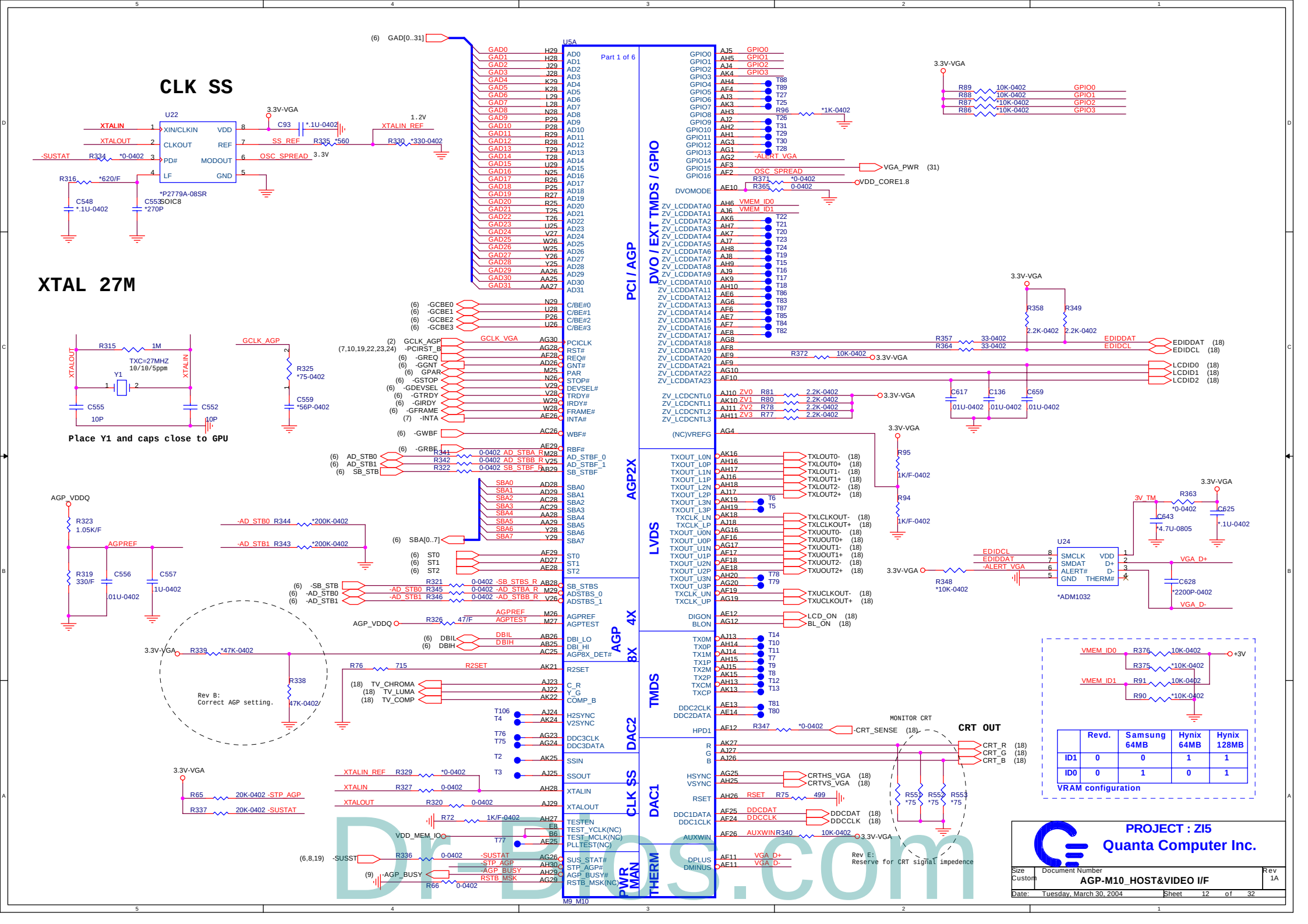


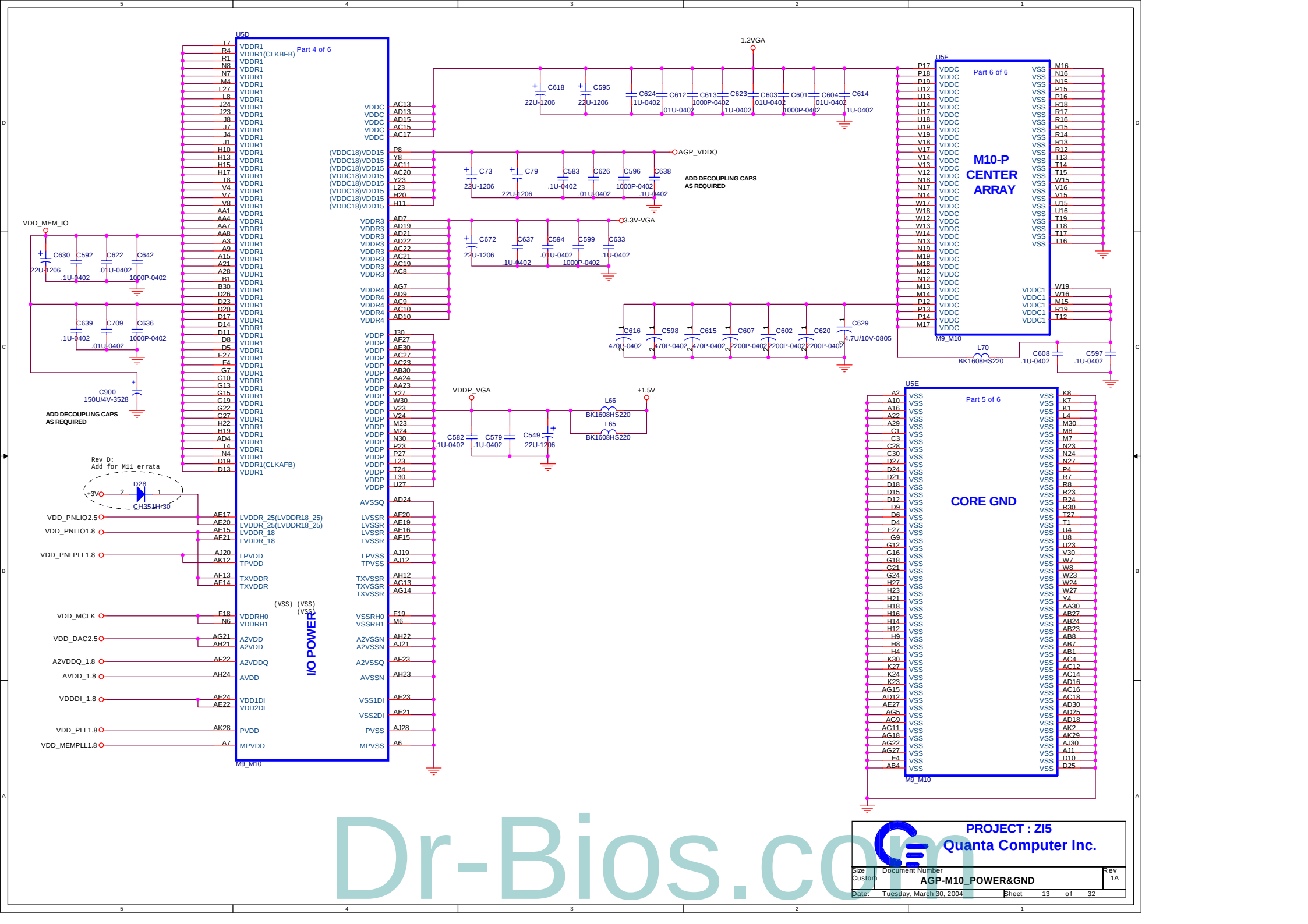



PROJECT : ZI5
Quanta Computer Inc.

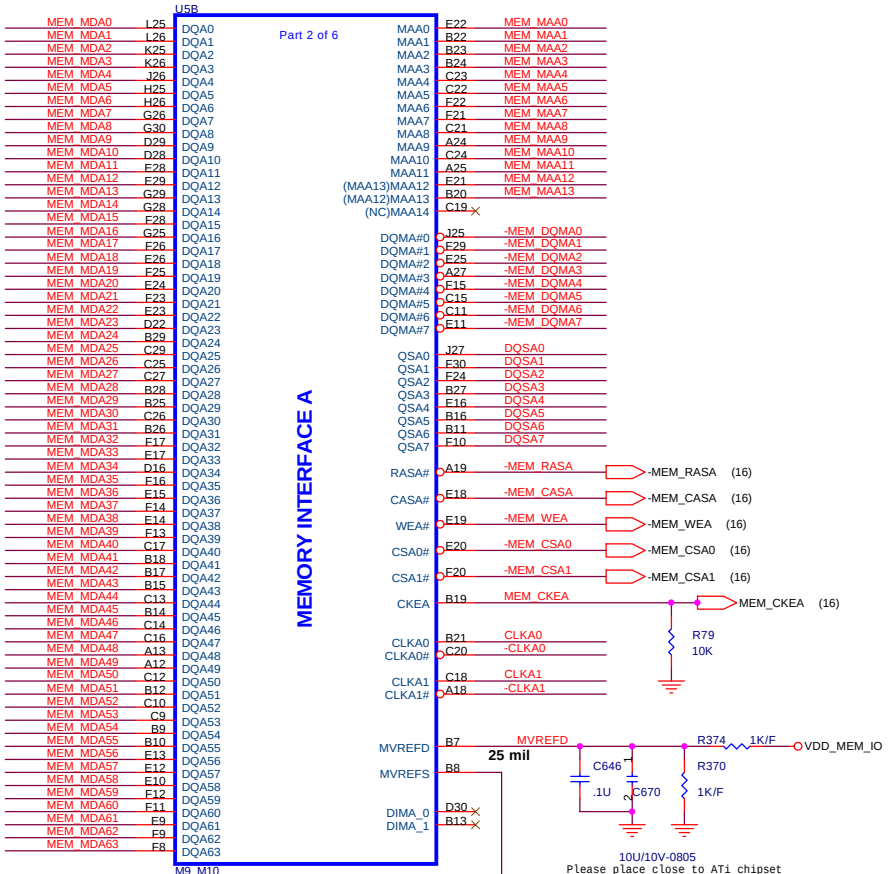
| Size | Document Number | Rev |
|---|---|---|
| Custom | IDE/RTC/USB/FAN | 1A |
| Date: Tuesday, March 30, 2004 | Sheet 10 of 32 | |


BOTTOM
TOP
CN25
CN15
2.5VSUS
SMDDR_VTERM
DDR-SODIMM-RVS-H4
DDR-SODIMM-RVS-H5.2
Rev B correct
MVREF_DM0
MVREF_DM1
MVREF_DM0_R
MVREF_DM1_R
PROJECT : ZI5
Quanta Computer Inc.
DDR SODIMM
Size Custom
Document Number
Rev 1A
Date: Tuesday, March 30, 2004
Sheet 11 of 32

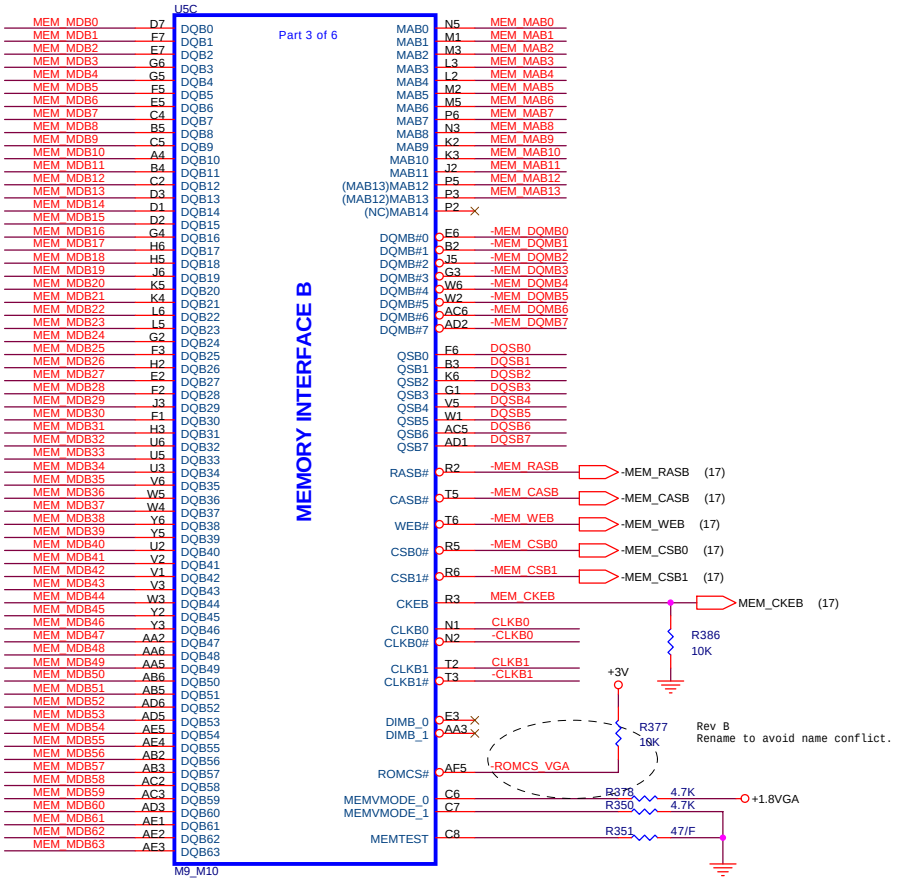

CLK SS
XTAL 27M
U5A
Part 1 of 6
PCI / AGP
DVO / EXT TMDS / GPIO
AGP2X
LVDS
TMDS
AGP 4X
AGP 8X
DAC2
CLK SS
DAC1
PWR MAN
THERM
U22
XTALIN
XTALOUT
-SUSTAT
XIN/CLKIN
CLKOUT
PD#
LF
VDD
REF
MODOUT
GND
*P2779A-08SR
SOIC8
3.3V-VGA
1.2V
SS_REF
OSC_SPREAD
XTALIN_REF
Place Y1 and caps close to GPU
TXC=27MHZ
10/10/5ppm
Y1
GCLK_AGP
GCLK_VGA
-PCIRST_B
-GREQ
-GGNT
-GPAR
-GSTOP
-GDEVSEL
-GTRDY
-GIRDY
-GFRAME
-INTA
-GWBF
-GRBF
AD_STB0
AD_STB1
SB_STB
SBA[0..7]
ST0
ST1
ST2
-SB_STB
-AD_STB0
-AD_STB1
AGP_VDDQ
AGPREF
DBIL
DBIH
TV_CHROMA
TV_LUMA
TV_COMP
R2SET
Rev B:
Correct AGP setting.
VDD_MEM_IO
-SUSST
-AGP_BUSY
-STP_AGP
-AGP_BUSY
RSTB_MSK
M9_M10
GPIO0
GPIO1
GPIO2
GPIO3
-ALERT_VGA
VGA_PWR (31)
VDD_CORE1.8
VMEM_ID0
VMEM_ID1
ZV_LCDDATA0
ZV_LCDDATA1
ZV_LCDDATA2
ZV_LCDDATA3
ZV_LCDDATA4
ZV_LCDDATA5
ZV_LCDDATA6
ZV_LCDDATA7
ZV_LCDDATA8
ZV_LCDDATA9
ZV_LCDDATA10
ZV_LCDDATA11
ZV_LCDDATA12
ZV_LCDDATA13
ZV_LCDDATA14
ZV_LCDDATA15
ZV_LCDDATA16
ZV_LCDDATA17
ZV_LCDDATA18
ZV_LCDDATA19
ZV_LCDDATA20
ZV_LCDDATA21
ZV_LCDDATA22
ZV_LCDDATA23
ZV_LCDCNTL0
ZV_LCDCNTL1
ZV_LCDCNTL2
ZV_LCDCNTL3
(NC)VREFG
EDIDDAT
EDIDCL
LCDID0
LCDID1
LCDID2
TXOUT_L0N
TXOUT_L0P
TXOUT_L1N
TXOUT_L1P
TXOUT_L2N
TXOUT_L2P
TXOUT_L3N
TXOUT_L3P
TXCLK_LN
TXCLK_LP
TXOUT_U0N
TXOUT_U0P
TXOUT_U1N
TXOUT_U1P
TXOUT_U2N
TXOUT_U2P
TXOUT_U3N
TXOUT_U3P
TXCLK_UN
TXCLK_UP
DIGON
BLON
LCD_ON (18)
BL_ON (18)
TX0M
TX0P
TX1M
TX1P
TX2M
TX2P
TXCM
TXCP
DDC2CLK
DDC2DATA
HPD1
-CRT_SENSE (18)
MONITOR CRT
CRT OUT
CRT_R (18)
CRT_G (18)
CRT_B (18)
HSYNC
VSYNC
CRTHS_VGA (18)
CRTVS_VGA (18)
RSET
DDC1DATA
DDC1CLK
DDCDAT (18)
DDCCLK (18)
AUXWIN
DPLUS
DMINUS
VGA_D+
VGA_D-
Rev E:
Reserve for CRT signal impedence
*ADM1032
VRAM configuration
Revd.
Samsung 64MB
Hynix 64MB
Hynix 128MB
ID1
ID0
PROJECT : ZI5
Quanta Computer Inc.
AGP-M10_HOST&VIDEO I/F
Tuesday, March 30, 2004
Sheet 12 of 32
Dr-Bios.com


U5D
Part 4 of 6
I/O POWER
M9_M10
1.2VGA
AGP_VDDQ
3.3V-VGA
VDDP_VGA
+1.5V
VDD_MEM_IO
ADD DECOUPLING CAPS AS REQUIRED
ADD DECOUPLING CAPS AS REQUIRED
Rev D:
Add for M11 errata
D28
CH351H-30
+3V
VDD_PNLIO2.5
VDD_PNLIO1.8
VDD_PNLPLL1.8
VDD_MCLK
VDD_DAC2.5
A2VDDQ_1.8
AVDD_1.8
VDDDI_1.8
VDD_PLL1.8
VDD_MEMPLL1.8
U5F
Part 6 of 6
M10-P CENTER ARRAY
M9_M10
L70
BK1608HS220
U5E
Part 5 of 6
CORE GND
M9_M10
PROJECT : ZI5
Quanta Computer Inc.
Size
Custom
Document Number
AGP-M10_POWER&GND
Rev
1A
Date: Tuesday, March 30, 2004
Sheet 13 of 32

## MEMORY CHANNEL A




## MEMORY CHANNEL B




(16) DQSA[7..0] DQSA[7..0]
(16) -MEM_DQMA[7..0] -MEM_DQMA[7..0]
(16) MEM_MAA[13..0] MEM_MAA[13..0]
(16) MEM_MDA[63..0] MEM_MDA[63..0]

(17) DQSB[7..0] DQSB[7..0]
(17) -MEM_DQMB[7..0] -MEM_DQMB[7..0]
(17) MEM_MAB[13..0] MEM_MAB[13..0]
(17) MEM_MDB[63..0] MEM_MDB[63..0]

RP73 10-4P2R-0402
CLKA0 2 4 -CLKA0 1 3 MEM_CLKA0 MEM_CLKA0 (16) -MEM_CLKA0 (16)
CLKA1 2 4 -CLKA1 1 3 MEM_CLKA1 MEM_CLKA1 (16) -MEM_CLKA1 (16)
RP74 10-4P2R-0402

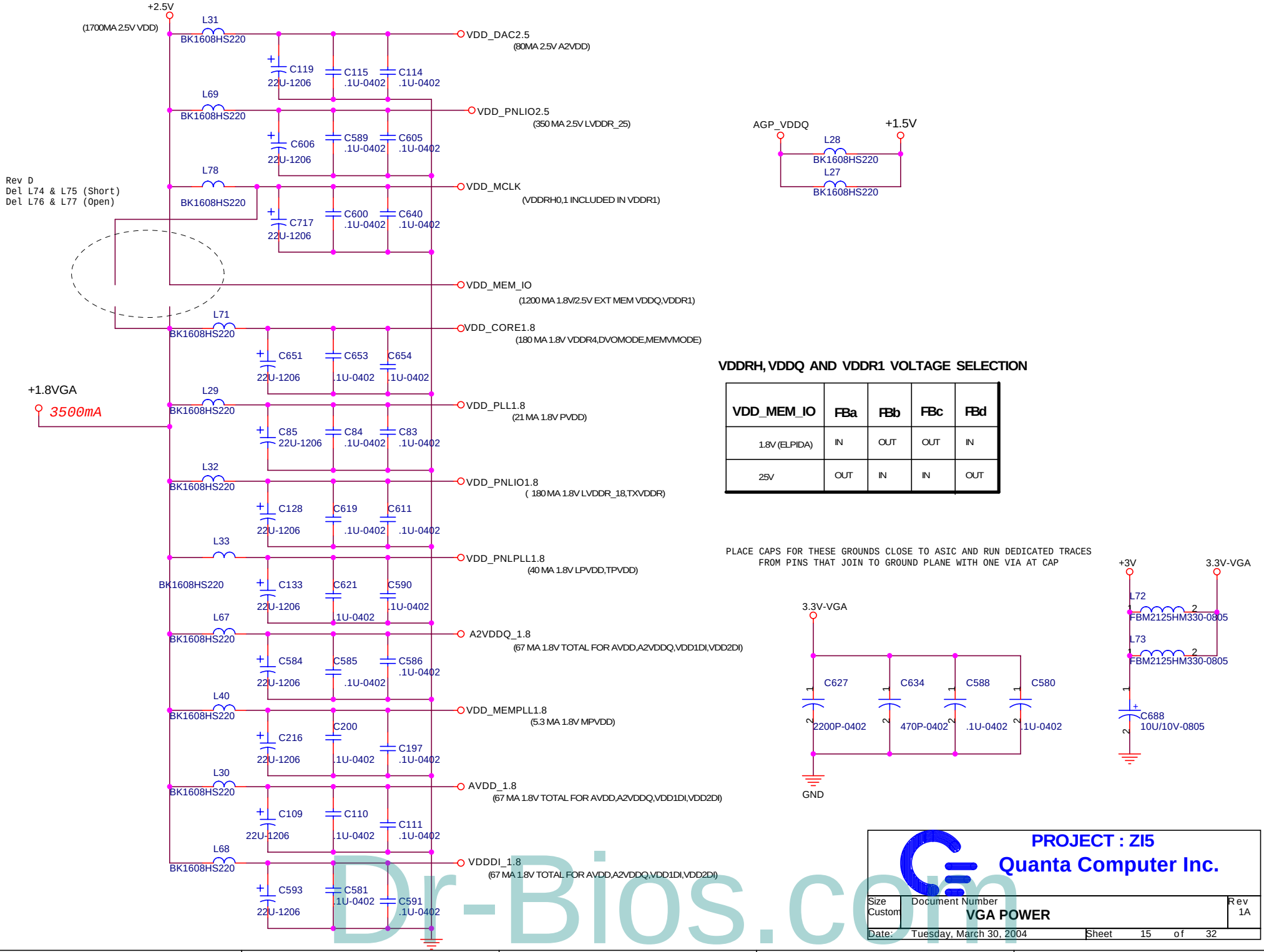
RP93 10-4P2R-0402
-CLKB0 2 4 CLKB0 1 3 -MEM_CLKB0 MEM_CLKB0 -MEM_CLKB0 (17) MEM_CLKB0 (17)
-CLKB1 4 2 CLKB1 3 1 -MEM_CLKB1 MEM_CLKB1 -MEM_CLKB1 (17) MEM_CLKB1 (17)
RP94 10-4P2R-0402

| MEMVMODE[1:0] | MEMORY IO VOLTAGE |
|---|---|
| 0 1 | 2.5V (DDR) |
| 1 0 | 1.8V (DDR) |
| 1 1 | 3.3V (SDR) |



PROJECT : ZI5
Quanta Computer Inc.

| Size | Document Number | Rev |
|---|---|---|
| Custom | AGP-M10_VRAM I/F | 1A |
| Date: Tuesday, March 30, 2004 | Sheet 14 of 32 | |

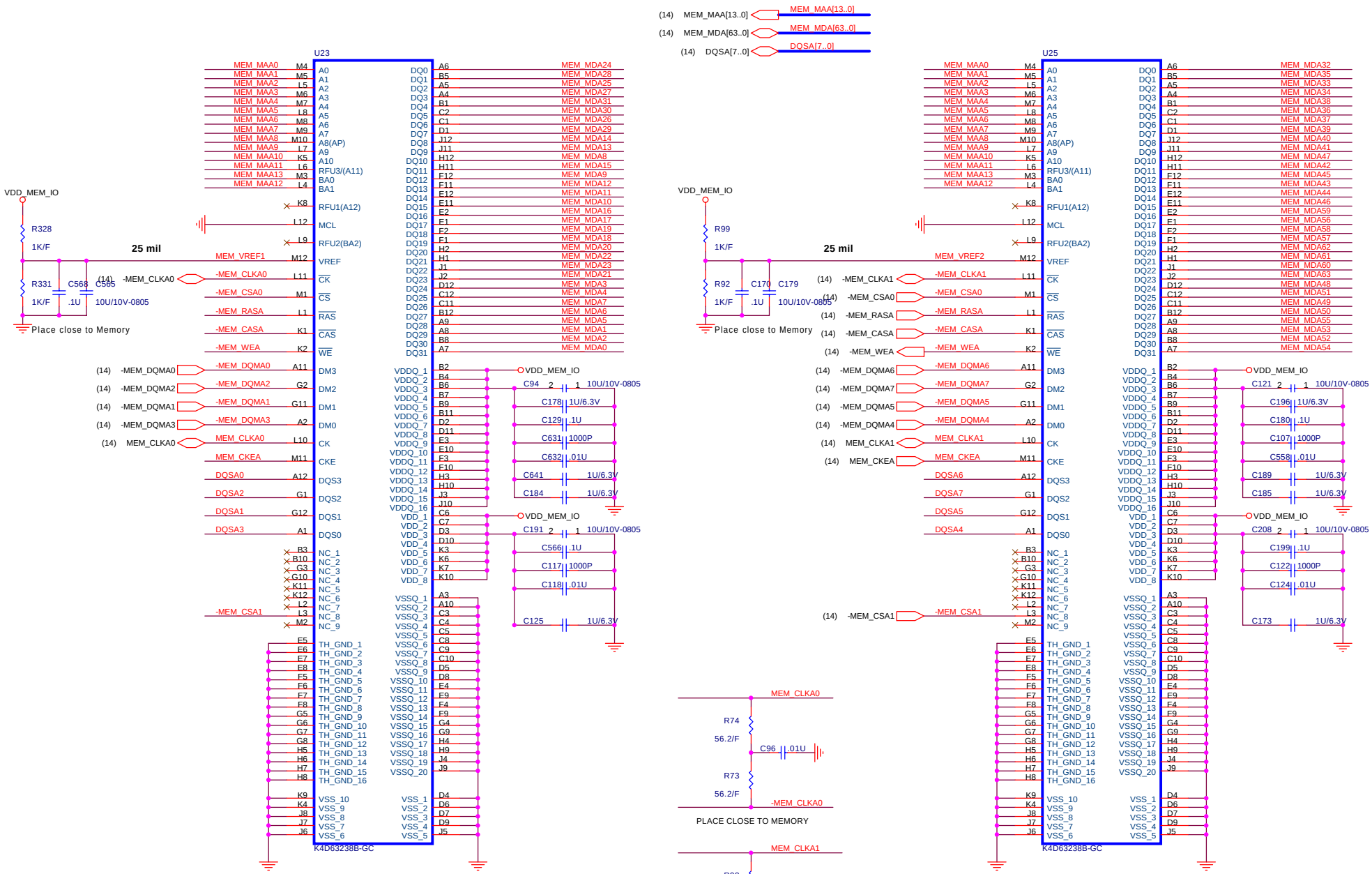





PROJECT : ZI5

Quanta Computer Inc.

| Size | Document Number | Rev |
|---|---|---|
| Custom | VGA POWER | 1A |
| Date: Tuesday, March 30, 2004 | Sheet 15 of 32 | |

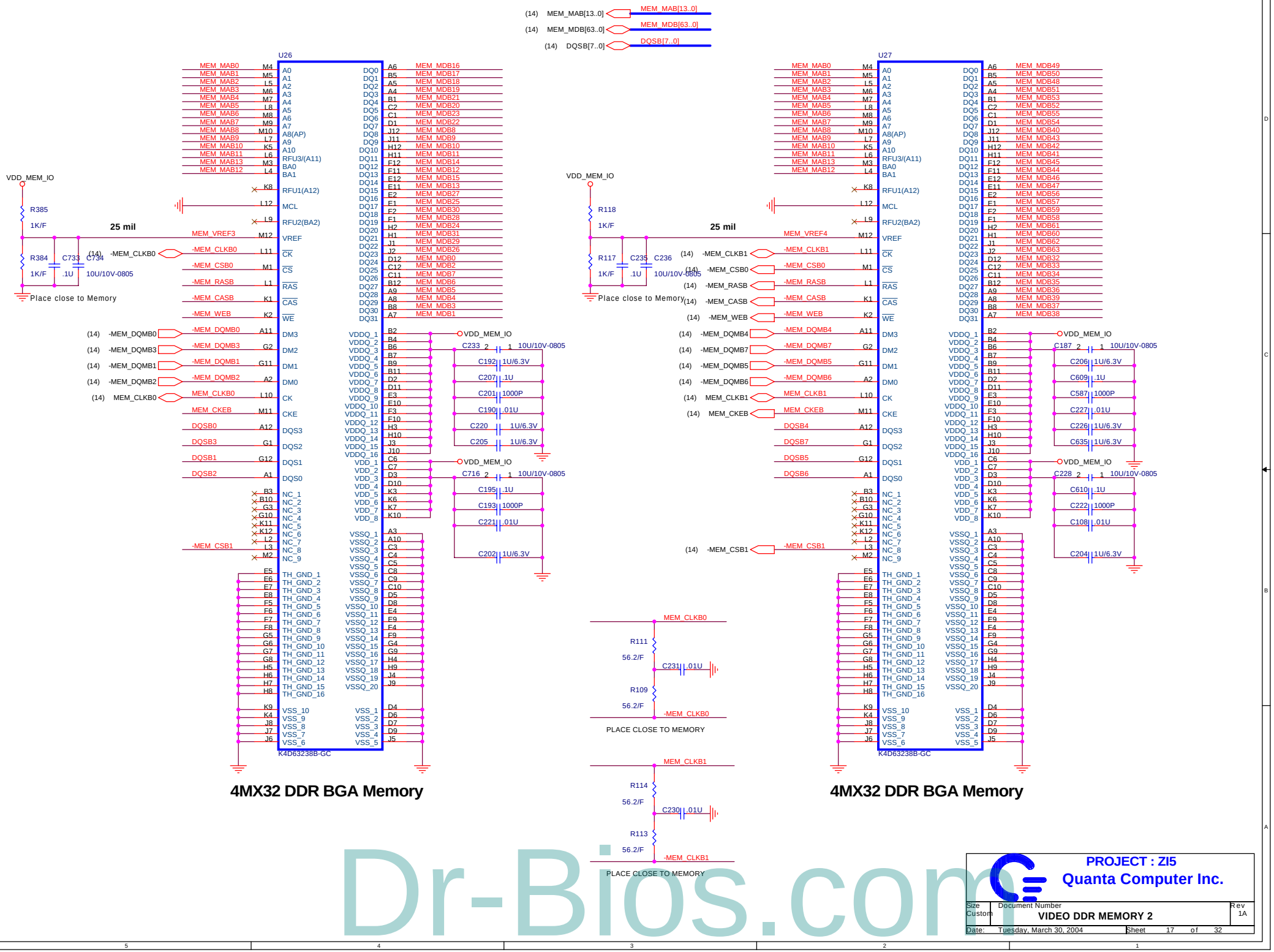


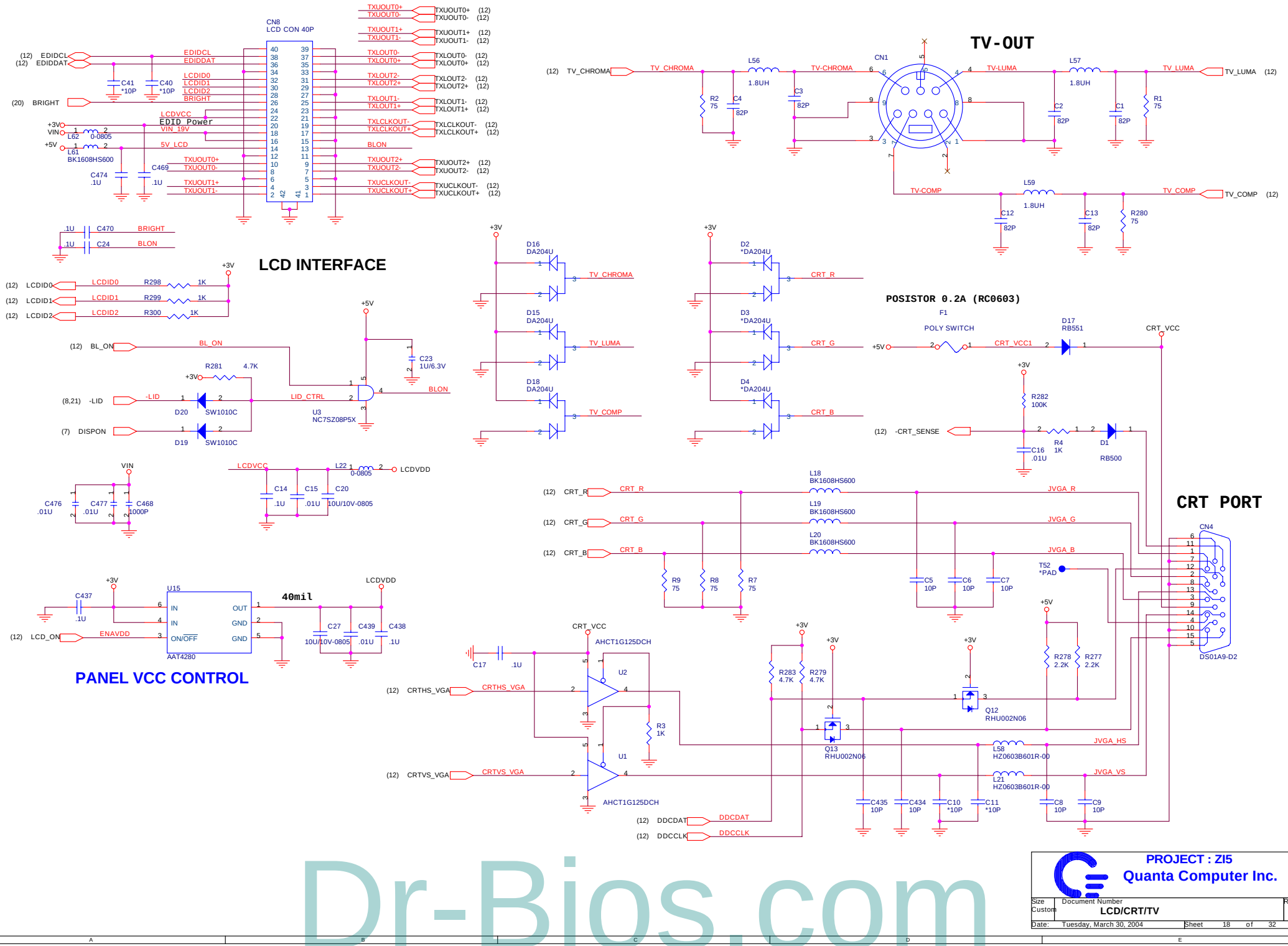



PROJECT : ZI5

Quanta Computer Inc.

| Size | Document Number | Rev |
|---|---|---|
| Custom | VIDEO DDR MEMORY 1 | 1A |
| Date: Tuesday, March 30, 2004 | Sheet 16 of 32 | |


(14) MEM_MAB[13..0]
MEM_MAB[13..0]
(14) MEM_MDB[63..0]
MEM_MDB[63..0]
(14) DQSB[7..0]
DQSB[7..0]
U26
U27
VDD_MEM_IO
R385
1K/F
25 mil
R384
1K/F
C733
.1U
C734
10U/10V-0805
Place close to Memory
MEM_VREF3
MEM_VREF4
-MEM_CLKB0
-MEM_CLKB1
-MEM_CSB0
-MEM_RASB
-MEM_CASB
-MEM_WEB
-MEM_DQMB0
-MEM_DQMB3
-MEM_DQMB1
-MEM_DQMB2
-MEM_DQMB4
-MEM_DQMB7
-MEM_DQMB5
-MEM_DQMB6
MEM_CLKB0
MEM_CLKB1
MEM_CKEB
-MEM_CSB1
DQSB0
DQSB3
DQSB1
DQSB2
DQSB4
DQSB7
DQSB5
DQSB6
K4D63238B-GC
C233
C192
C207
C201
C190
C220
C205
C716
C195
C193
C221
C202
C187
C206
C609
C587
C227
C226
C635
C228
C610
C222
C108
C204
R111
56.2/F
C231
.01U
R109
R114
C230
R113
PLACE CLOSE TO MEMORY
4MX32 DDR BGA Memory
PROJECT : ZI5
Quanta Computer Inc.
VIDEO DDR MEMORY 2
Size
Custom
Document Number
Rev
1A
Date: Tuesday, March 30, 2004
Sheet 17 of 32


CN8
LCD CON 40P
LCD INTERFACE
TV-OUT
CN1
POSISTOR 0.2A (RC0603)
F1
POLY SWITCH
CRT PORT
CN4
DS01A9-D2
PANEL VCC CONTROL
U15
AAT4280
40mil
U1
U2
U3
AHCT1G125DCH
NC7SZ08P5X
EDID Power
PROJECT : ZI5
Quanta Computer Inc.
LCD/CRT/TV
Tuesday, March 30, 2004
Sheet 18 of 32
Rev 1A
Dr-Bios.com

# Super I/O

U31 PC87393

Keep FDD pull-high

SET ADDRESS

# FIR

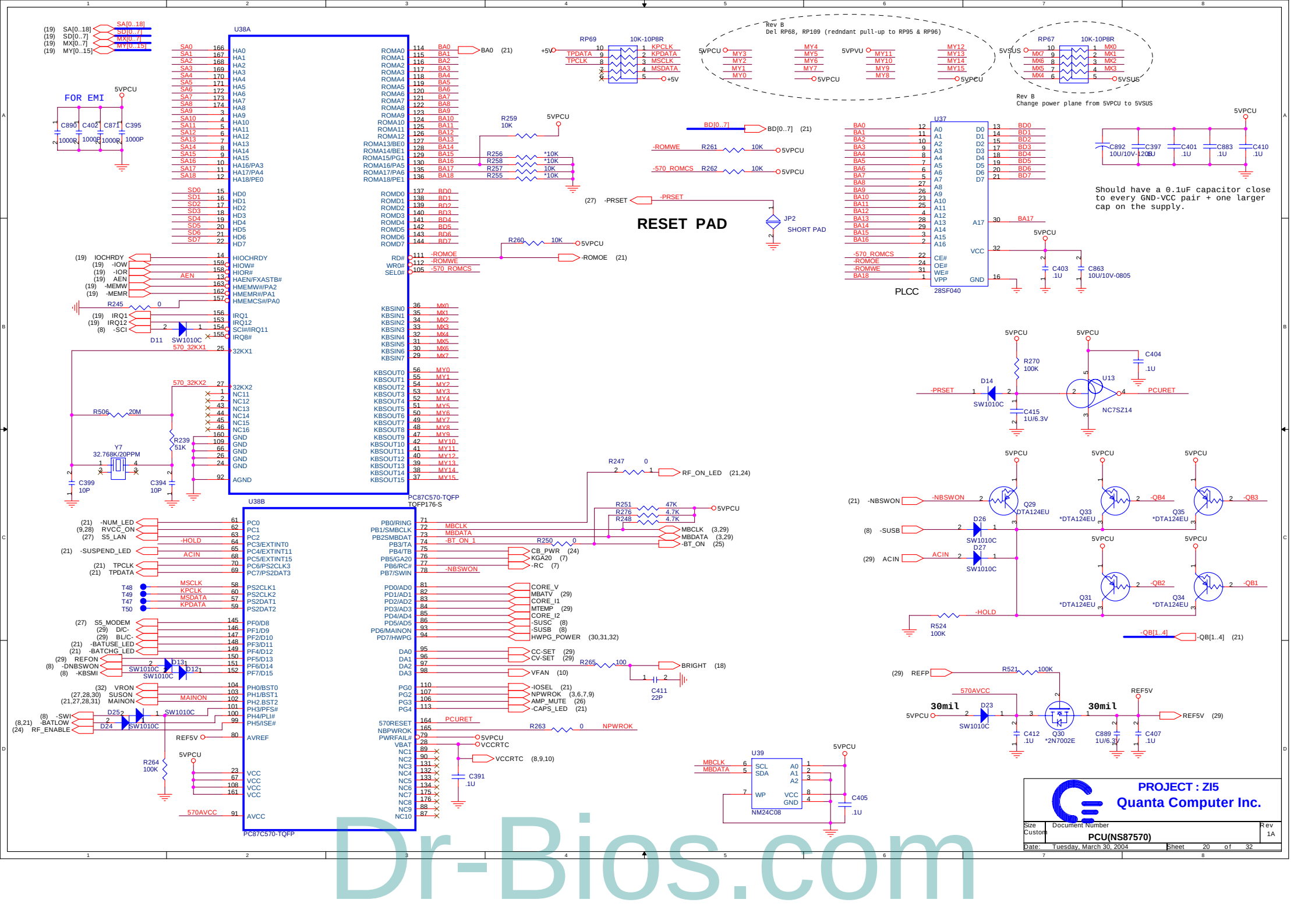
U14 TFDU6102F

KEYBOARD CONN

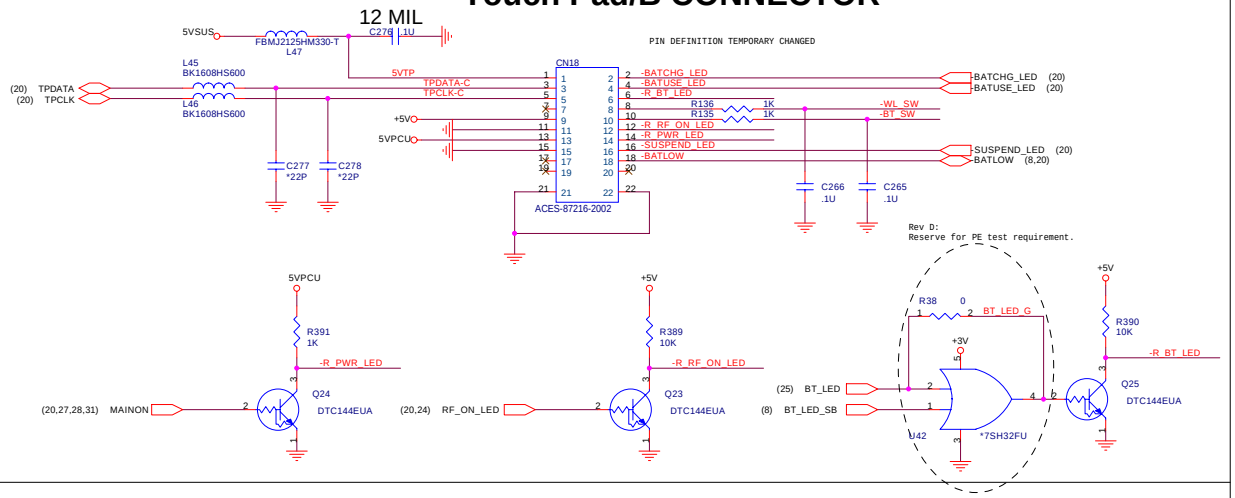
CN19 KEYBOARD



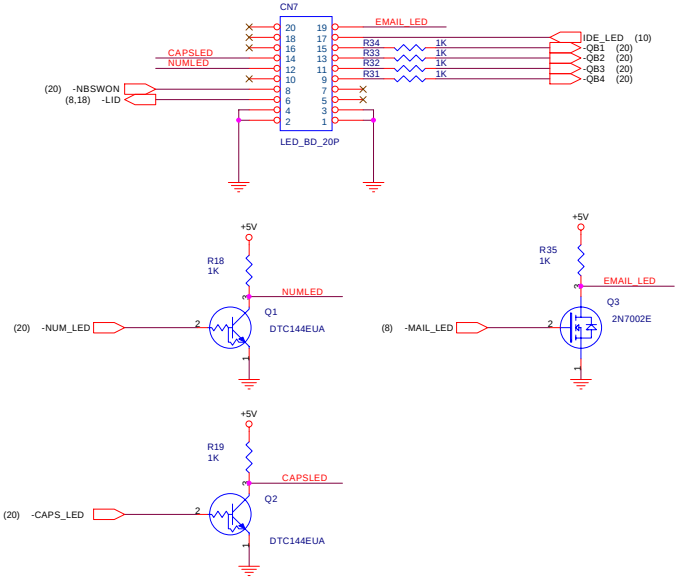
| | | | |
|---|---|---|---|
| PROJECT : ZI5 | | | |
| Quanta Computer Inc. | | | |
| Size: Custom | Document Number: PC87393F & FIR & K/B | | Rev: 1A |
| Date: Tuesday, March 30, 2004 | Sheet 19 of 32 | | |


Rev B
Del RP68, RP109 (redndant pull-up to RP95 & RP96)
Rev B
Change power plane from 5VPCU to 5VSUS
FOR EMI
U38A
U38B
PC87C570-TQFP
TQFP176-S
RESET PAD
JP2
SHORT PAD
U37
PLCC
28SF040
U39
NM24C08
Should have a 0.1uF capacitor close to every GND-VCC pair + one larger cap on the supply.
PROJECT : ZI5
Quanta Computer Inc.
PCU(NS87570)
Tuesday, March 30, 2004
Sheet 20 of 32

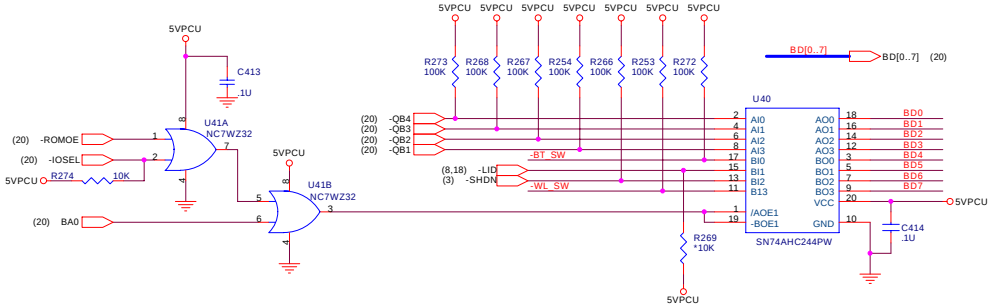
# Touch Pad/B CONNECTOR



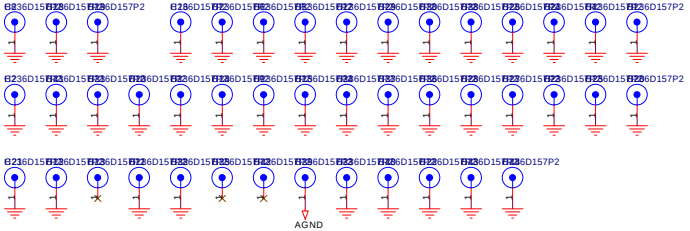

# LED/B CONNECTOR



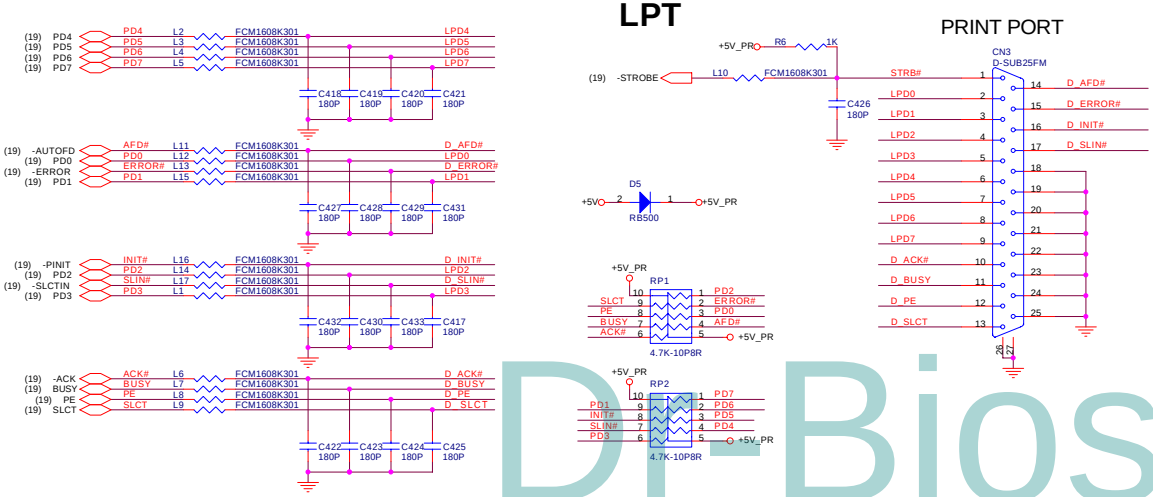

# 570 EXPEND I/O




# Screw Holes



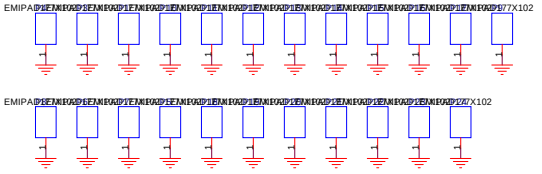

# LPT




# PRINT PORT



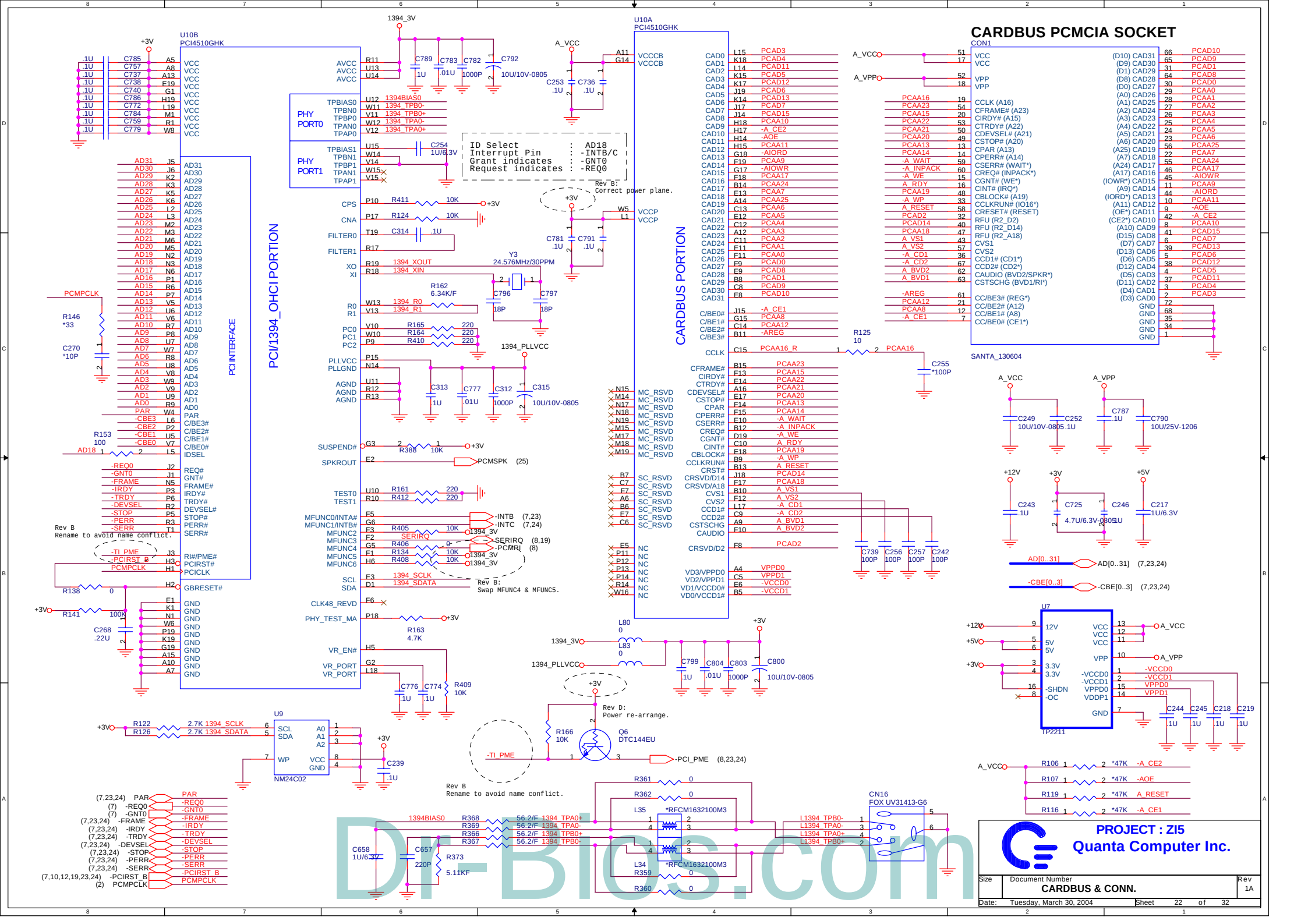

# EMI Pads





PROJECT : ZI5
Quanta Computer Inc.

| Size | Document Number | Rev |
|---|---|---|
| | T/P & LED & LPT & 570IO & Screw Holes | 1A |
| Date: Tuesday, March 30, 2004 | Sheet 21 of 32 | |


CARDBUS PCMCIA SOCKET
CON1
SANTA_130604
U10B
PCI4510GHK
U10A
PCI4510GHK
PCI/1394_OHCI PORTION
PCI INTERFACE
CARDBUS PORTION
PHY PORT0
PHY PORT1
ID Select : AD18
Interrupt Pin : -INTB/C
Grant indicates : -GNT0
Request indicates : -REQ0
Rev B:
Correct power plane.
Rev B
Rename to avoid name conflict.
Rev B:
Swap MFUNC4 & MFUNC5.
Rev D:
Power re-arrange.
Rev B
Rename to avoid name conflict.
U9
NM24C02
U7
TP2211
CN16
FOX UV31413-G6
PROJECT : ZI5
Quanta Computer Inc.
CARDBUS & CONN.
Tuesday, March 30, 2004

3V_LAN & +3V are from system power

# BCM5788M LAN

| | |
|---|---|
| ID Select | : AD22 |
| Interrupt Pin | : -INTB |
| Request indicates | : -REQ1 |
| Grant indicates | : -GNT1 |

**15mm x 15mm**
**BGA196**

BCM5788M

Rev D:
Reserve connectors for fly-wire.

10:10:20

**40mils** 3V_LAN
**2.5V@88mA 0.564W** +3V_2.5V_LAN
**40mils**
**1.2V@618mA 0.803W** +1.8V_1.2V_LAN
**40mils**

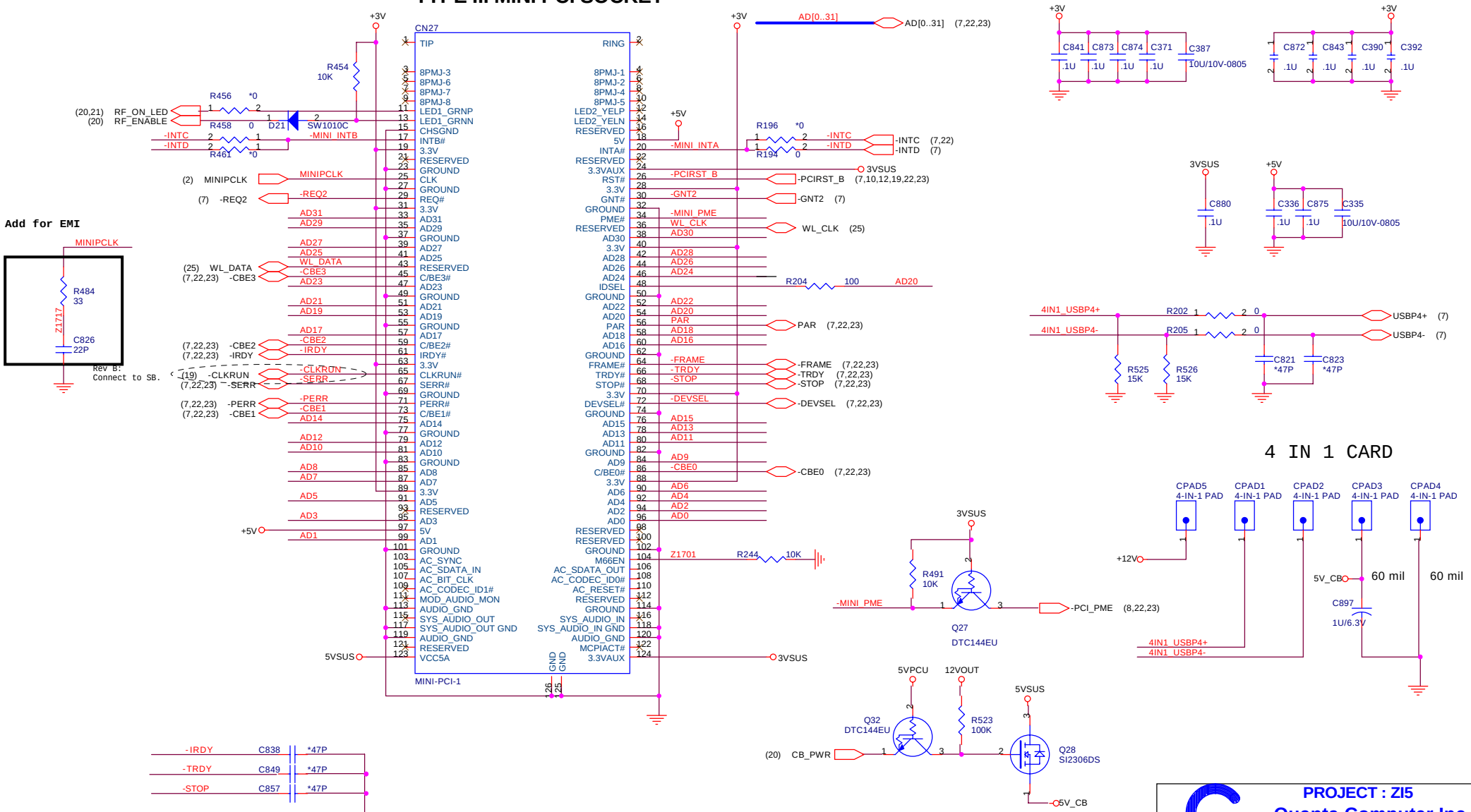
**1.5" AWAY FROM CHIP**
Use Philips BCP69-16, hfe=75~275

PROJECT : ZI5
Quanta Computer Inc.

| | | |
|---|---|---|
| Size: Custom | Document Number: LAN BCM5788 | Rev: 1A |
| Date: Tuesday, March 30, 2004 | Sheet 23 of 32 | |

```
ID Select          :  AD20
Interrupt Pin      : -INTC/D
Grant indicates    : -GNT2
Request indicates  : -REQ2
```

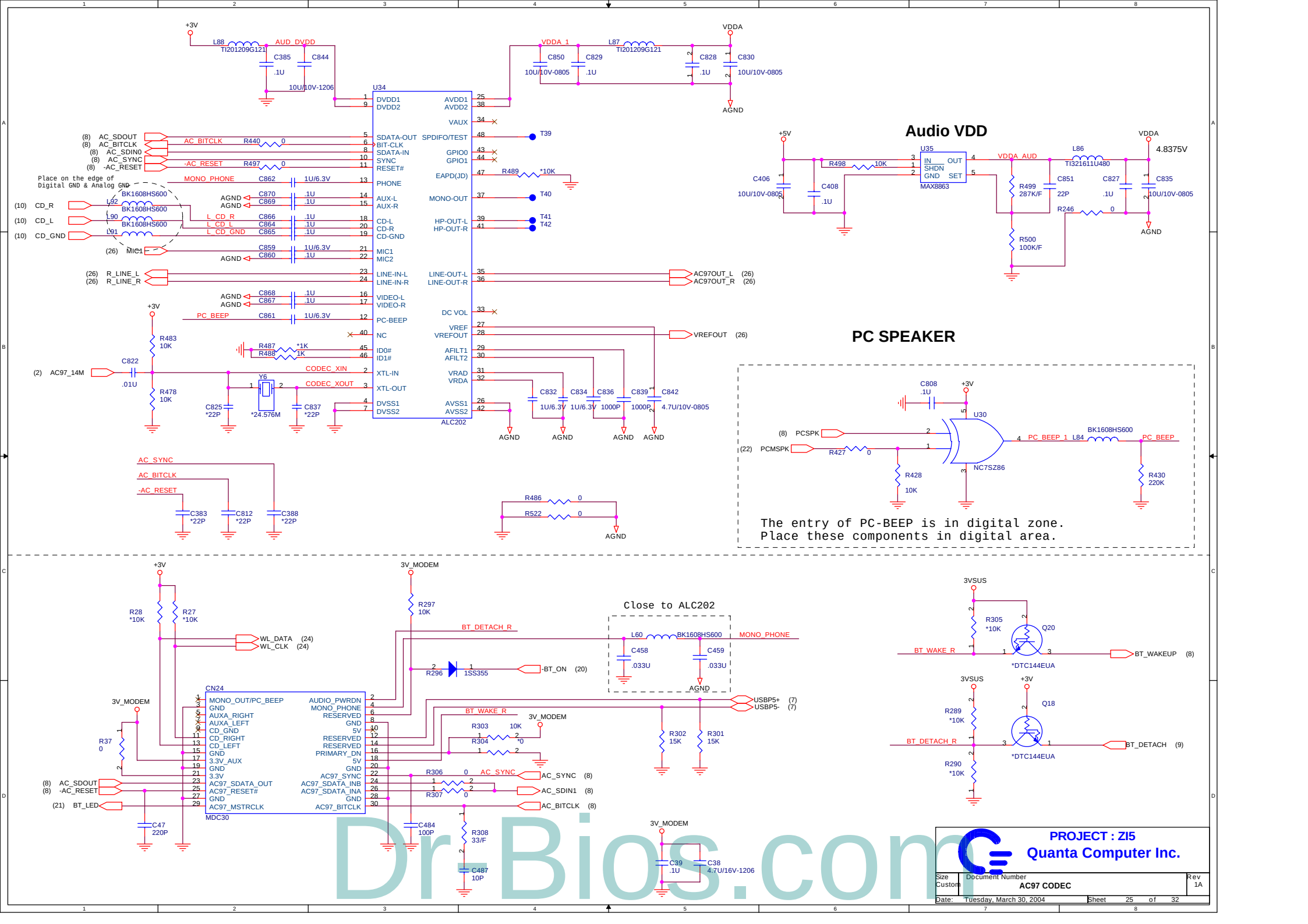
# TYPE III MINI PCI SOCKET



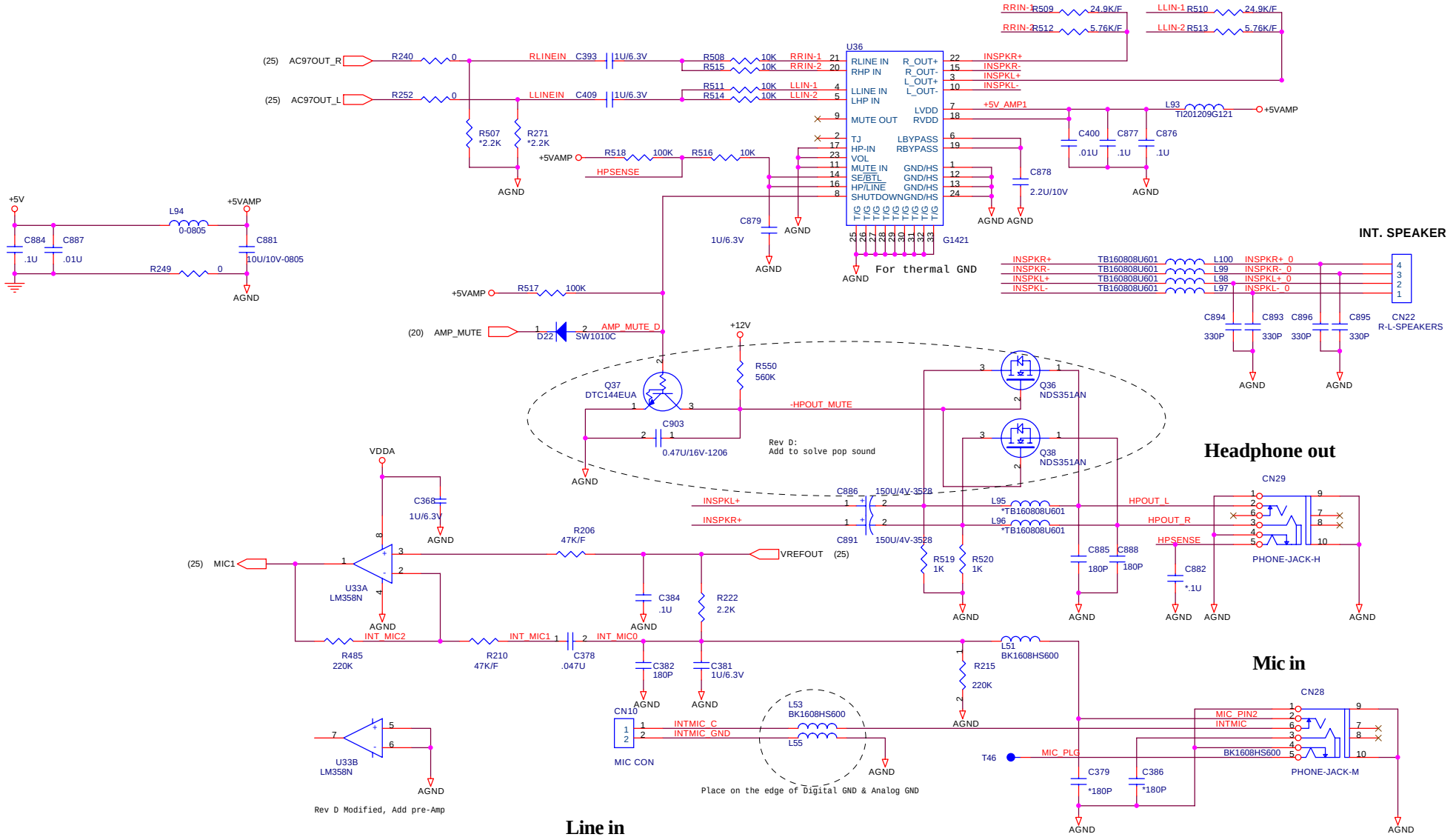



PROJECT : ZI5
Quanta Computer Inc.

| Size | Document Number | Rev |
|---|---|---|
| Custom | MINI PCI,4 IN 1 CARD | 2A |
| Date: Tuesday, March 30, 2004 | Sheet 24 of 32 | |

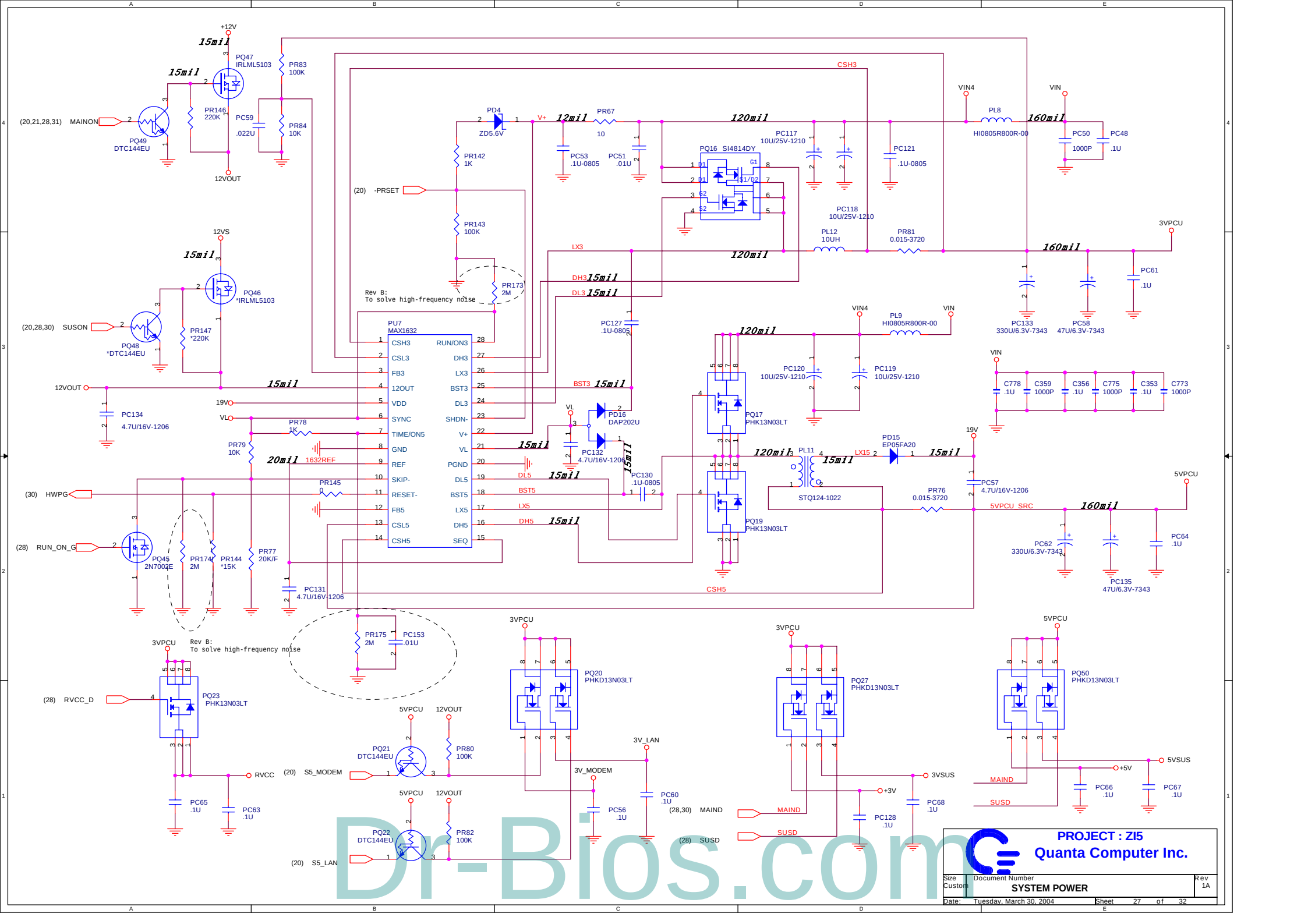

Audio VDD
PC SPEAKER
The entry of PC-BEEP is in digital zone.
Place these components in digital area.
Close to ALC202
U34
ALC202
MDC30
CN24
U35
MAX8863
U30
NC7SZ86
PROJECT : ZI5
Quanta Computer Inc.
AC97 CODEC
Size Custom
Document Number
Rev 1A
Date: Tuesday, March 30, 2004
Sheet 25 of 32

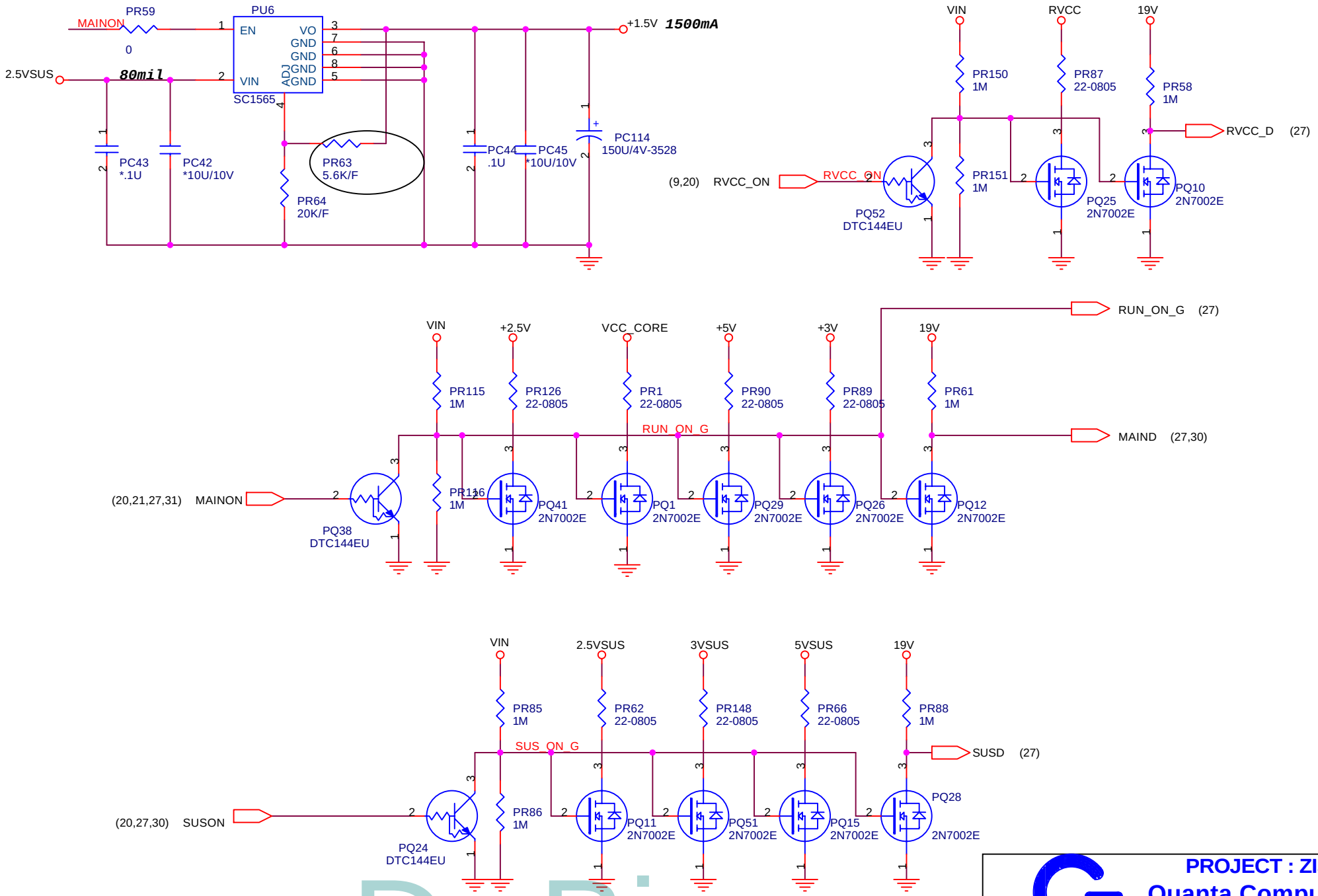
# Audio amplifier






| | | |
|---|---|---|
| PROJECT : ZI5 | | |
| Quanta Computer Inc. | | |
| Size: Custom | Document Number: AUDIO AMP & JACK | Rev: 1A |
| Date: Tuesday, March 30, 2004 | Sheet 26 of 32 | |


+12V
PQ47 IRLML5103
PR83 100K
PR146 220K
PC59 .022U
PR84 10K
PQ49 DTC144EU
(20,21,28,31) MAINON
12VOUT
PD4 ZD5.6V
V+
PR67 10
PC53 .1U-0805
PC51 .01U
PR142 1K
(20) -PRSET
PR143 100K
PQ16 SI4814DY
PC117 10U/25V-1210
PC121 .1U-0805
PC118 10U/25V-1210
CSH3
VIN4
PL8 HI0805R800R-00
VIN
PC50 1000P
PC48 .1U
3VPCU
PL12 10UH
PR81 0.015-3720
LX3
DH3
DL3
PR173 2M
Rev B:
To solve high-frequency noise
12VS
PQ46 *IRLML5103
(20,28,30) SUSON
PQ48 *DTC144EU
PR147 *220K
PU7 MAX1632
CSH3 RUN/ON3
CSL3 DH3
FB3 LX3
12OUT BST3
VDD DL3
SYNC SHDN-
TIME/ON5 V+
GND VL
REF PGND
SKIP- DL5
RESET- BST5
FB5 LX5
CSL5 DH5
CSH5 SEQ
PC127 .1U-0805
PC133 330U/6.3V-7343
PC58 47U/6.3V-7343
PC61 .1U
PL9 HI0805R800R-00
PC120 10U/25V-1210
PC119 10U/25V-1210
PQ17 PHK13N03LT
PD16 DAP202U
PC132 4.7U/16V-1206
PC130 .1U-0805
PD15 EP05FA20
PL11
STQ124-1022
PR76 0.015-3720
PC57 4.7U/16V-1206
5VPCU_SRC
PC62 330U/6.3V-7343
PC135 47U/6.3V-7343
PC64 .1U
C778 .1U
C359 1000P
C356 .1U
C775 1000P
C353 .1U
C773 1000P
PC134 4.7U/16V-1206
PR78 1K
PR79 10K
1632REF
PR145 0
(30) HWPG
(28) RUN_ON_G
PQ45 2N7002E
PR174 2M
PR144 *15K
PR77 20K/F
PC131 4.7U/16V-1206
PR175 2M
PC153 .01U
PQ23 PHK13N03LT
(28) RVCC_D
RVCC
PC65 .1U
PC63 .1U
PQ21 DTC144EU
PR80 100K
(20) S5_MODEM
PQ22 DTC144EU
PR82 100K
(20) S5_LAN
PQ20 PHKD13N03LT
3V_LAN
3V_MODEM
PC56 .1U
PC60 .1U
(28,30) MAIND
(28) SUSD
PQ27 PHKD13N03LT
3VSUS
+3V
PC128 .1U
PC68 .1U
PQ50 PHKD13N03LT
5VSUS
+5V
PC66 .1U
PC67 .1U
MAIND
SUSD
PROJECT : ZI5
Quanta Computer Inc.
Size Custom
Document Number
SYSTEM POWER
Rev 1A
Date: Tuesday, March 30, 2004
Sheet 27 of 32

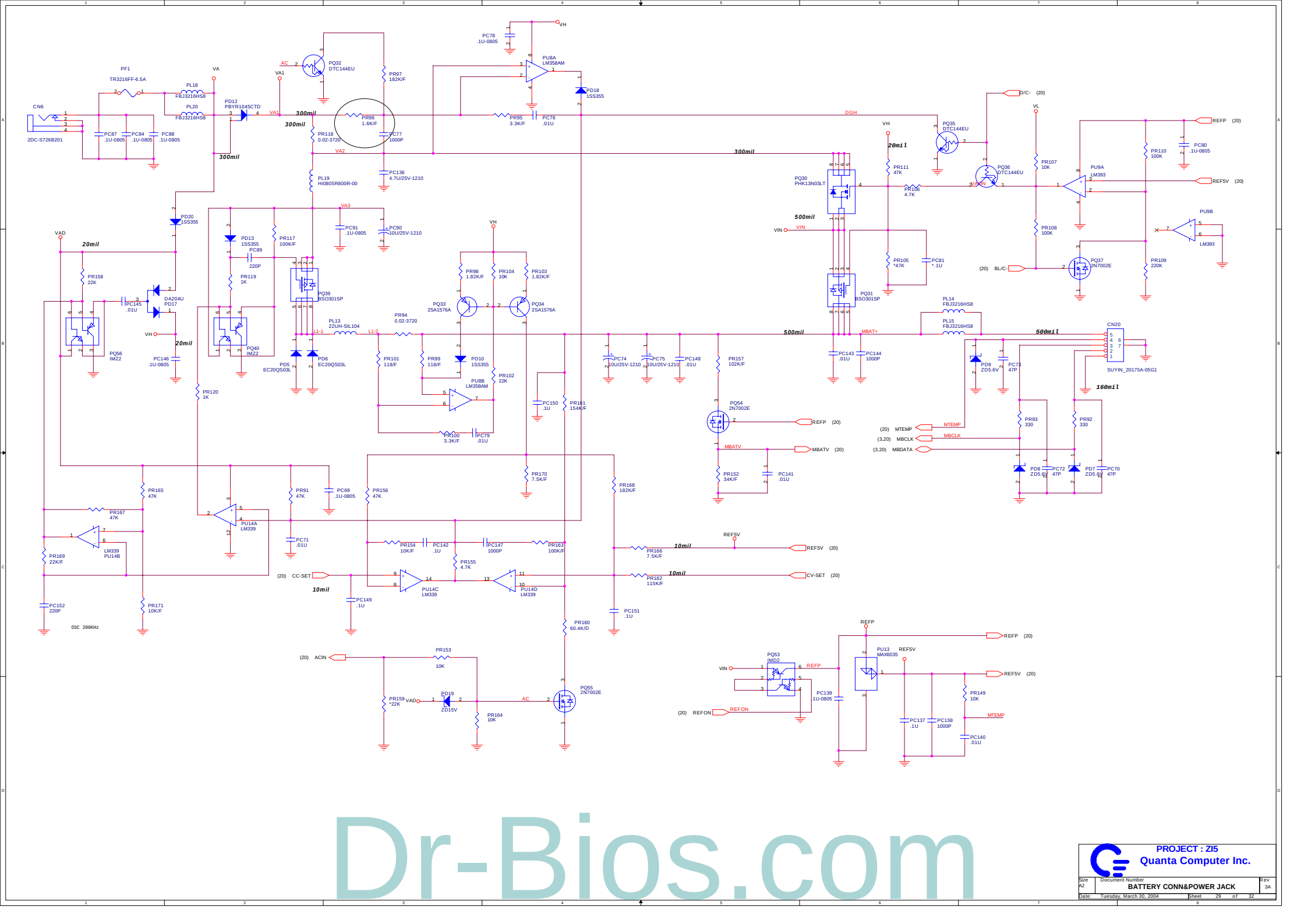





PROJECT : ZI5

Quanta Computer Inc.

| Size | Document Number | Rev |
|---|---|---|
| A4 | DISCHARGE CIRCUIT | 1A |
| Date: Tuesday, March 30, 2004 | Sheet 28 of 32 | |


CN6
2DC-S726B201
PF1
TR3216FF-6.5A
PL18
FBJ3216HS8
PL20
FBJ3216HS8
PD12
PBYR1045CTD
VA
VA1
VA2
VA3
300mil
PC87 .1U-0805
PC84 .1U-0805
PC88 .1U-0805
AC
PQ32
DTC144EU
PR87
182K/F
PR96
1.6K/F
PR118
0.02-3720
PC77
1000P
PC136
4.7U/25V-1210
PL19
HI0805R800R-00
PC78
.1U-0805
VH
PU8A
LM358AM
PD18
1SS355
PR95
3.3K/F
PC76
.01U
DGH
PQ35
DTC144EU
D/C- (20)
VL
PQ36
DTC144EU
PR107
10K
PU9A
LM393
PR110
100K
PC80
.1U-0805
REFP (20)
REF5V (20)
PU9B
LM393
PR108
100K
PR109
220K
PQ37
2N7002E
(20) BL/C-
PQ30
PHK13N03LT
PR111
47K
PR106
4.7K
20mil
500mil
VIN
PQ31
BSO301SP
PR105
*47K
PC81
*.1U
PD20
1SS355
PD13
1SS355
PC89
220P
PR117
100K/F
PC91
.1U-0805
PC90
10U/25V-1210
VAD
20mil
PR158
22K
PC145
.01U
DA204U
PD17
PQ56
IMZ2
PC146
.1U-0805
PR119
1K
PQ40
IMZ2
PR120
1K
PQ39
BSO301SP
PD5
EC20QS03L
PD6
EC20QS03L
PL13
22UH-SIL104
L1-1
L1-2
PR94
0.02-3720
PQ33
2SA1576A
PQ34
2SA1576A
PR98
1.82K/F
PR104
10K
PR103
1.82K/F
PR101
118/F
PR99
118/F
PD10
1SS355
PU8B
LM358AM
PR102
22K
PR100
3.3K/F
PC79
.01U
PC150
.1U
PR161
154K/F
PC74
.10U/25V-1210
PC75
10U/25V-1210
PC148
.01U
PR157
102K/F
PC143
.01U
PC144
1000P
MBAT+
PL14
FBJ3216HS8
PL15
FBJ3216HS8
500mil
160mil
CN20
SUYIN_20175A-05G1
PD9
ZD5.6V
PC73
47P
PR93
330
PR92
330
PD8
ZD5.6V
PC72
47P
PD7
ZD5.6V
PC70
47P
PQ54
2N7002E
REFP (20)
MBATV
MBATV (20)
PR152
34K/F
PC141
.01U
(20) MTEMP
(3,20) MBCLK
(3,20) MBDATA
MTEMP
MBCLK
PR165
47K
PR167
47K
PR169
22K/F
LM339
PU14B
PU14A
LM339
PC152
220P
OSC 200KHz
PR171
10K/F
PR91
47K
PC69
.1U-0805
PC71
.01U
PR156
47K
PR170
7.5K/F
PR168
182K/F
PR154
10K/F
PC142
.1U
PC147
1000P
PR163
100K/F
PR155
4.7K
(20) CC-SET
10mil
PU14C
LM339
PU14D
LM339
PC149
.1U
PC151
.1U
PR160
60.4K/D
REF5V
PR166
7.5K/F
PR162
115K/F
REF5V (20)
CV-SET (20)
(20) ACIN
PR153
10K
PR159
*22K
PD19
ZD15V
PR164
10K
PQ55
2N7002E
REFP
PQ53
IMD2
VIN
REFON
(20) REFON
PC139
.1U-0805
PU13
MAX6035
REF5V
PR149
10K
PC137
.1U
PC138
1000P
PC140
.01U
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Quanta Computer Inc.
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Document Number
BATTERY CONN&POWER JACK
Rev 3A
Date: Tuesday, March 30, 2004
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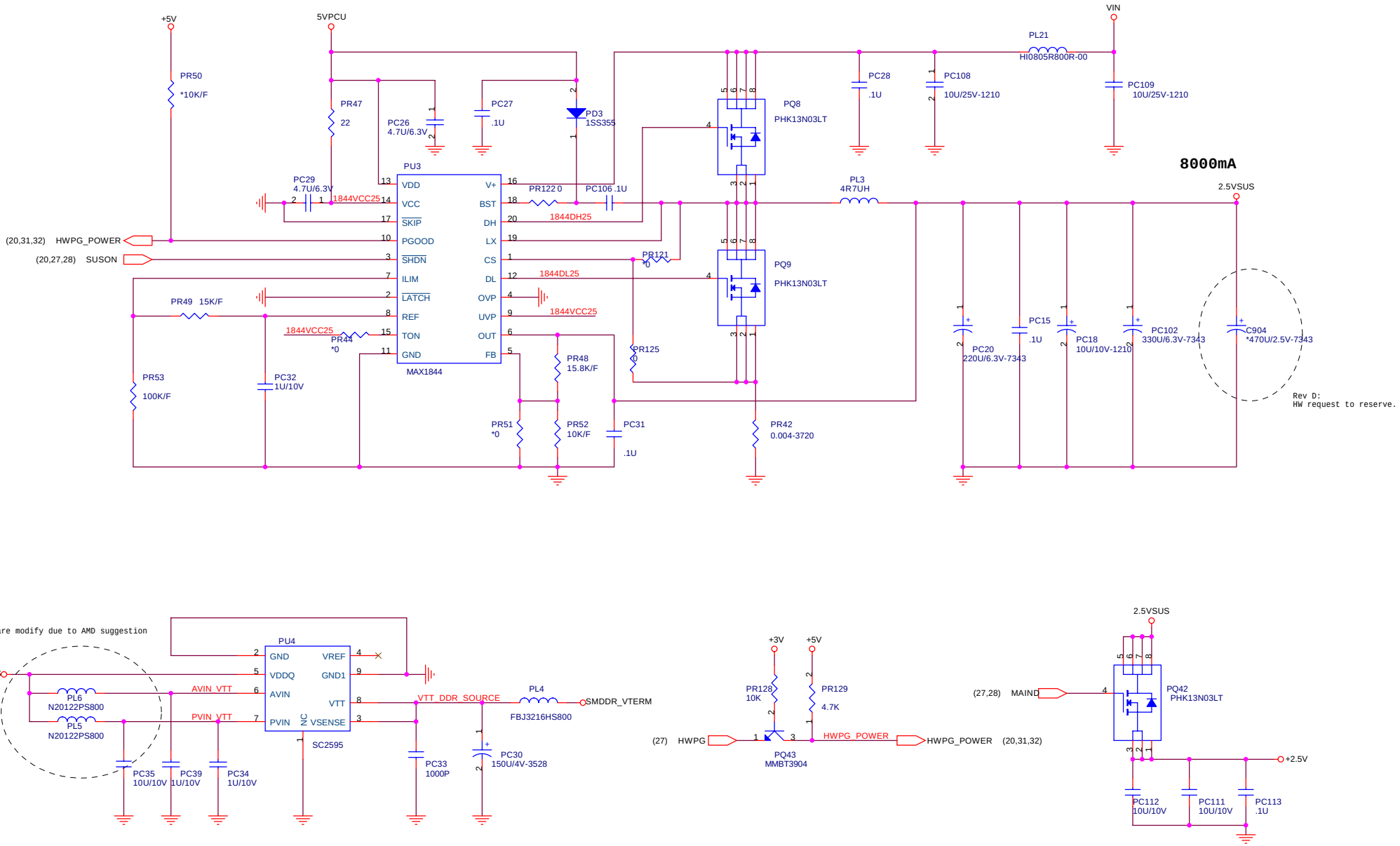




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Quanta Computer Inc.

| Size | Document Number | Rev |
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| A3 | SYS POWER 2.5V&DDR | 2A |

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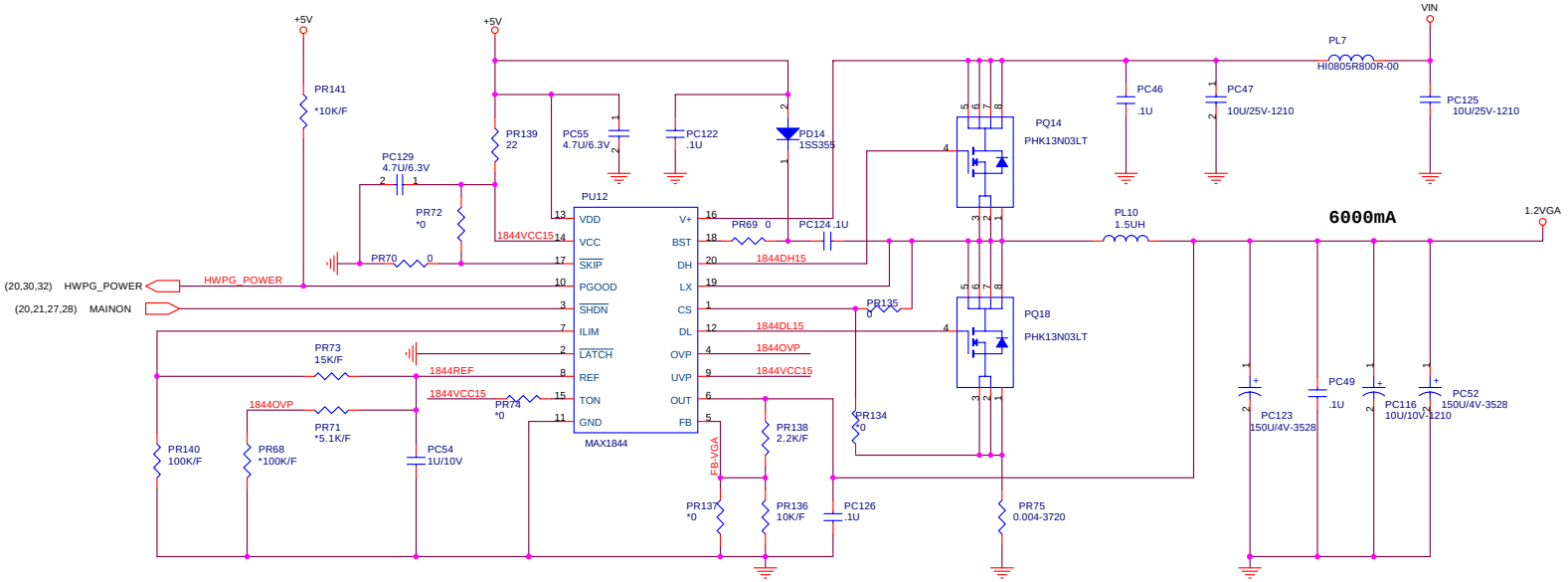


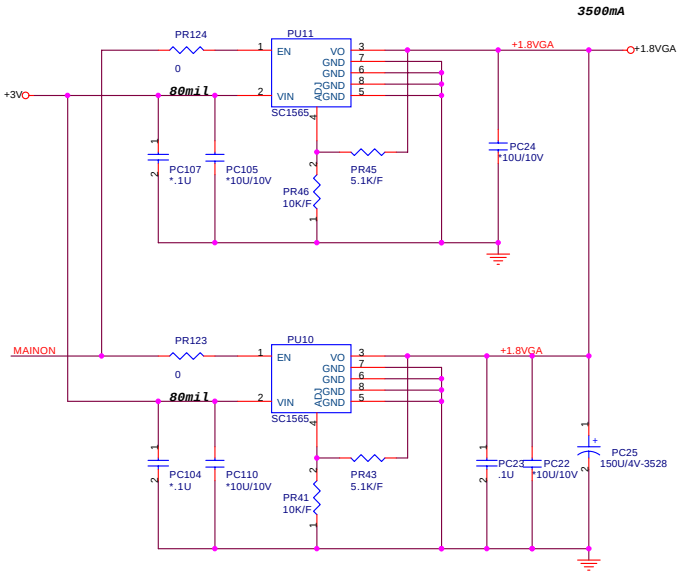


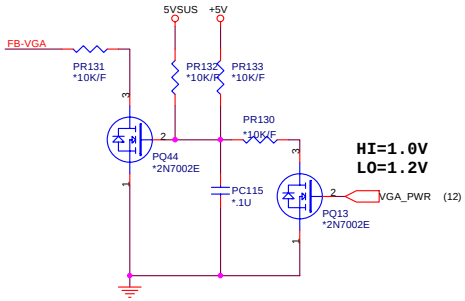


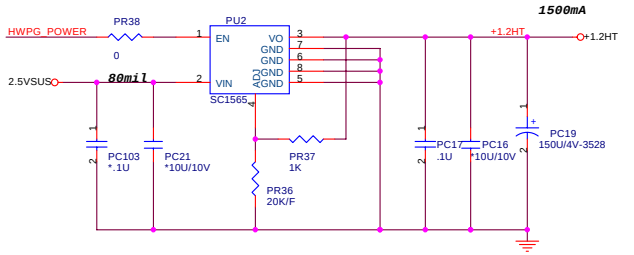


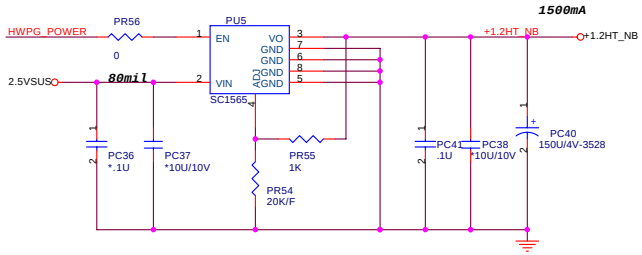




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| Size | Document Number | Rev |
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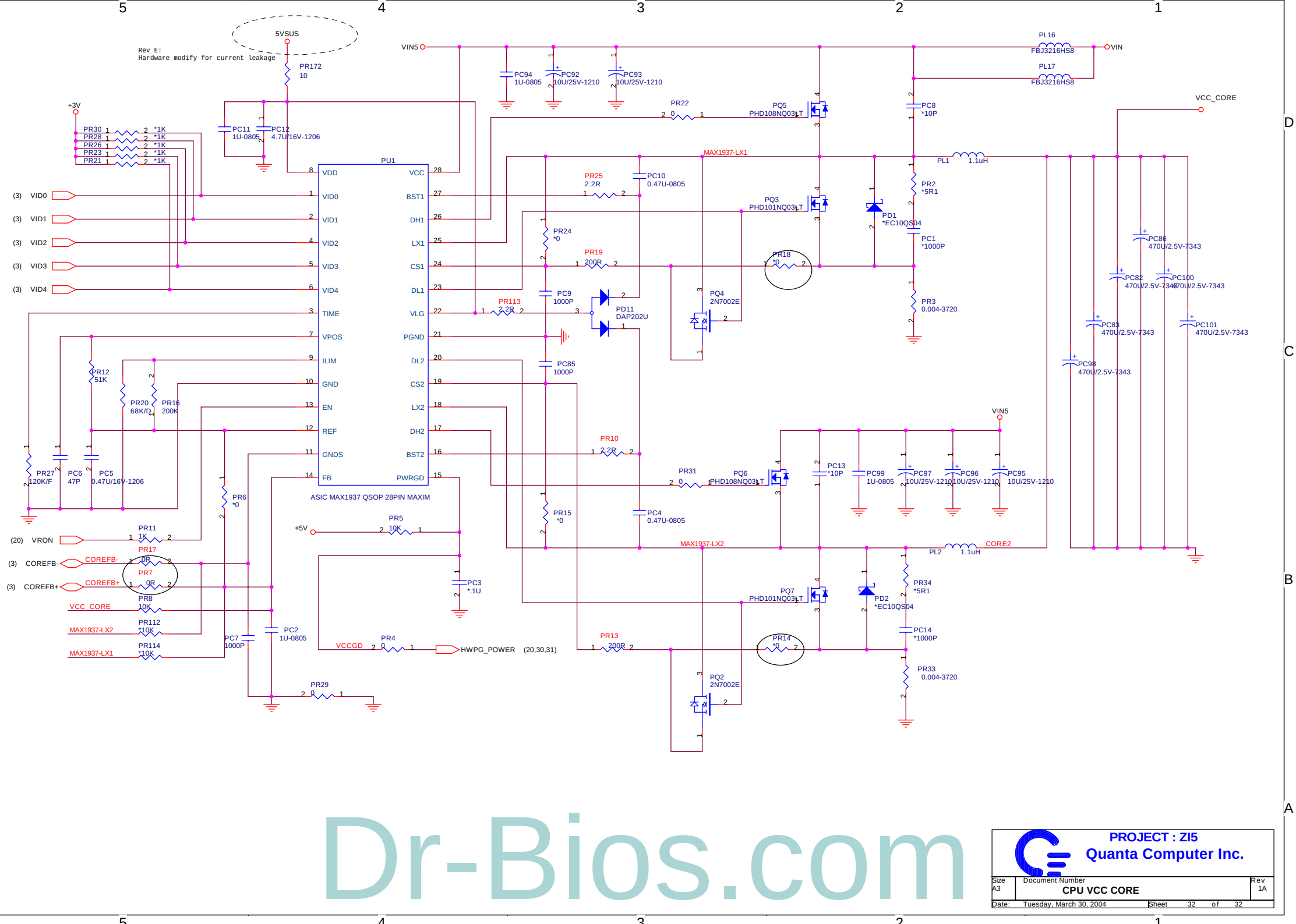




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|---|---|---|
| A3 | CPU VCC CORE | 1A |
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