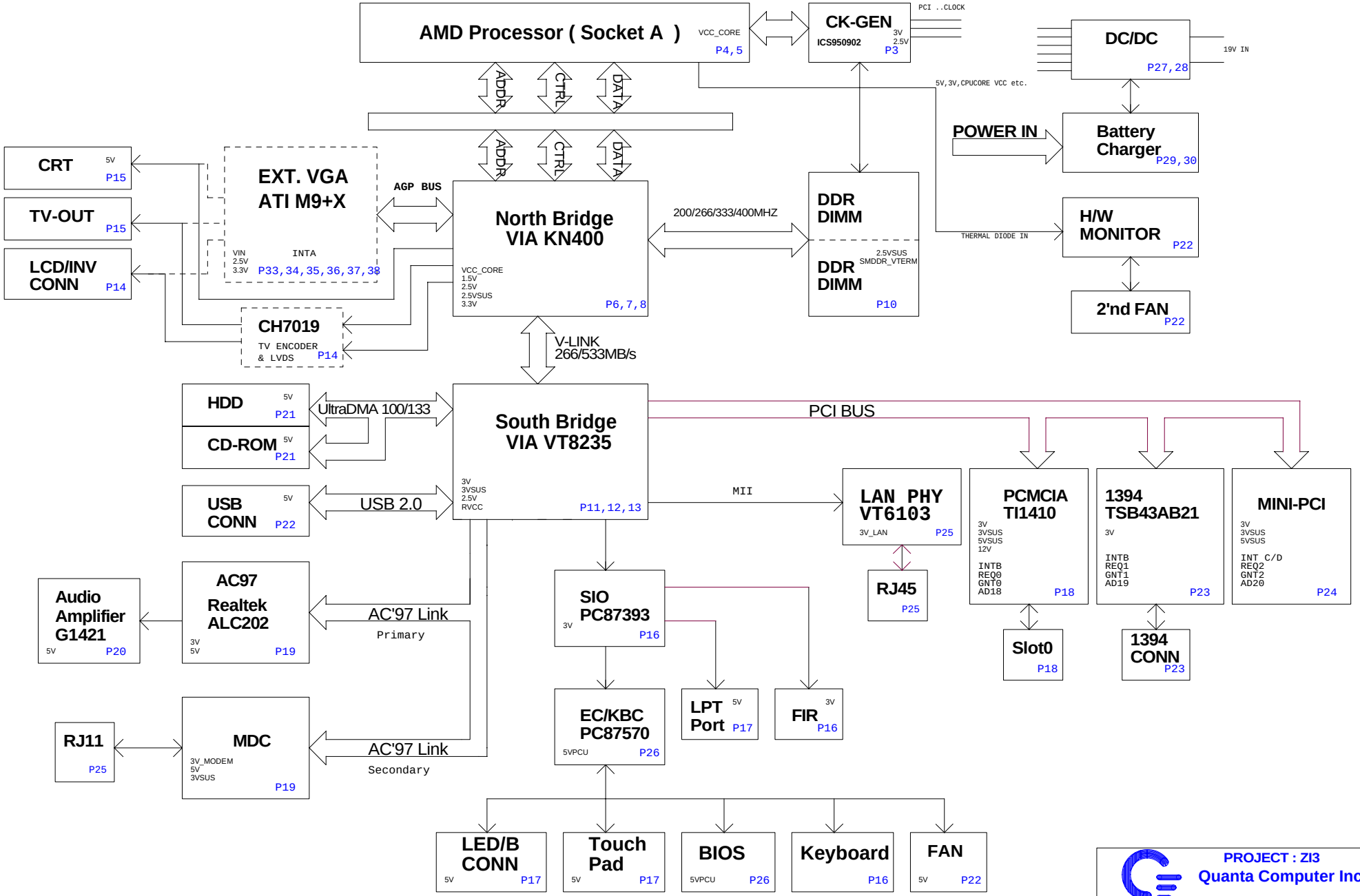
ZI3 SYSTEM BLOCK DIAGRAM



PROJECT : ZI3
Quanta Computer Inc.

Size	Document Number	Rev
Custom	Block Diagram	1A

Date: Wednesday, September 24, 2003 Sheet 1 of 38

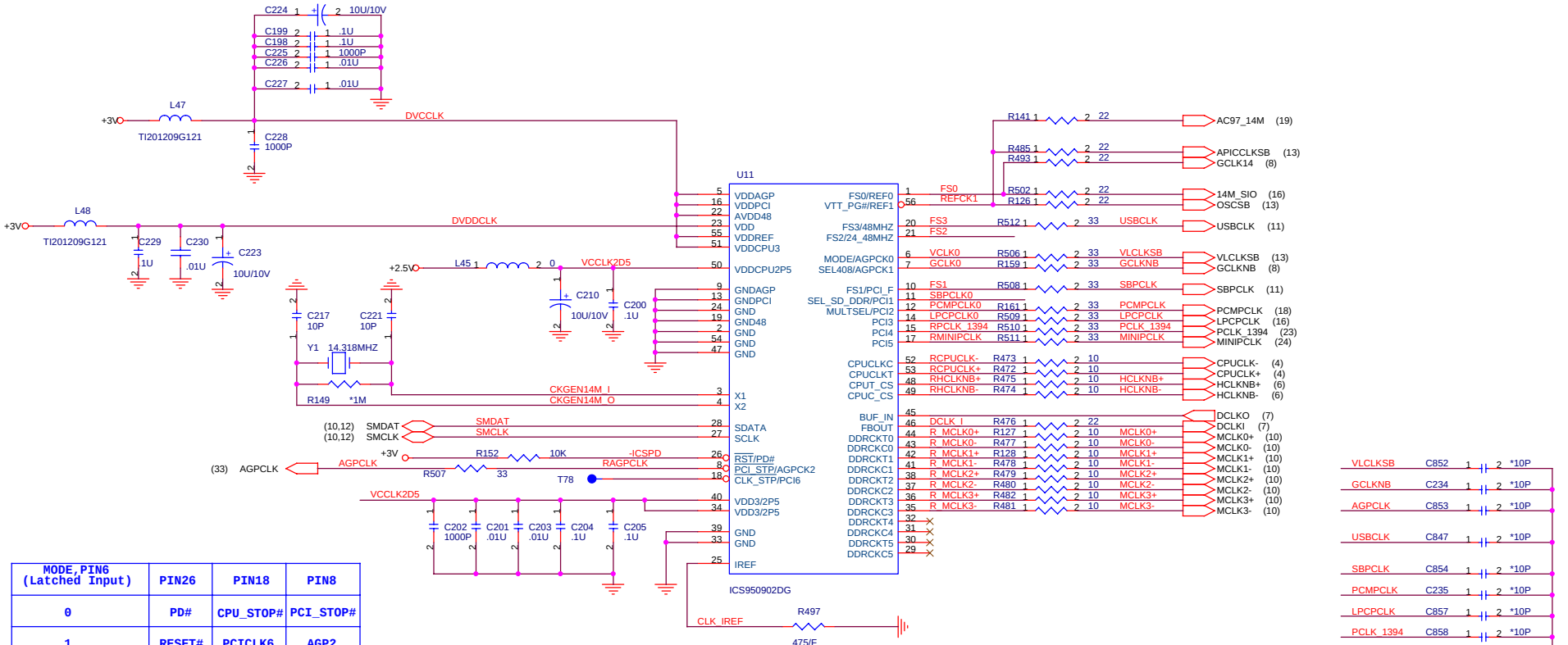
Voltage Rails	Description	ON S0~S1	ON S3	ON S4	ON S5	Control signal
VCC_CORE	Core voltage for Processor	X				VR_ON
SMDDR_VTERM	1.25V for DDR Termination voltage	X				MAINON
+1.8V		X				MAINON
1.5VGA	VGA core power	X				MAINON
+1.5V		X				MAINON
2.5VSUS		X	X			SUSON
+2.5V		X				MAINON
3VPCU		X	X	X	X	VL
3VSUS		X	X			SUSON
+3V		X				MAINON
5VPCU		X	X	X	X	VL
5VSUS		X	X			SUSON
+5V		X				MAINON
12V		X				MAINON
12VOUT		X	X	X	X	VL
RVCC		X	X	X		RVCC_ON
VIN	**POWER SOURCE**	X	X	X	X	

PCI DEVICE	IDSEL#	REQ/GNT#	Interrupts
PCI1410	AD18	-REQ0/-GNT0	-INTB
TSB43AB21	AD19	-REQ1/-GNT1	-INTB
MINI-PCI	AD20	-REQ2/-GNT2	-INTC/-INTD
ATi M9+XC			-INTA

PROJECT : ZI3

Quanta Computer Inc.

Size	Document Number	Rev
A4	**INFORMATION**	1A
Date: Wednesday, September 24, 2003	Sheet 2 of 38	



MODE,PIN6 (Latched Input)	PIN26	PIN18	PIN8
0	PD#	CPU_STOP#	PCI_STOP#
1	RESET#	PCICLK6	AGP2

FS3	FS2	FS1	FS0	CPUCLK MHZ	AGP MHZ	PCICLK MHZ
0	0	0	0	160.00	80.00	40.00
0	0	0	1	164.00	82.00	41.00
0	0	1	0	166.60	66.60	33.30
0	0	1	1	170.00	68.00	34.00
0	1	0	0	175.00	70.00	35.00
0	1	0	1	180.00	72.00	36.00
0	1	1	0	185.00	74.00	37.00
0	1	1	1	190.00	76.00	38.00
1	0	0	0	66.80	66.80	33.40
1	0	0	1	100.90	67.27	33.63
1	0	1	0	133.60	66.80	33.40
1	0	1	1	200.40	66.80	33.40
1	1	0	0	66.60	66.60	33.30
1	1	0	1	100.00	66.60	33.30
1	1	1	0	200.00	68.60	33.30
1	1	1	1	133.30	68.60	33.30

FSB CLOCK
SELECT BY FS1

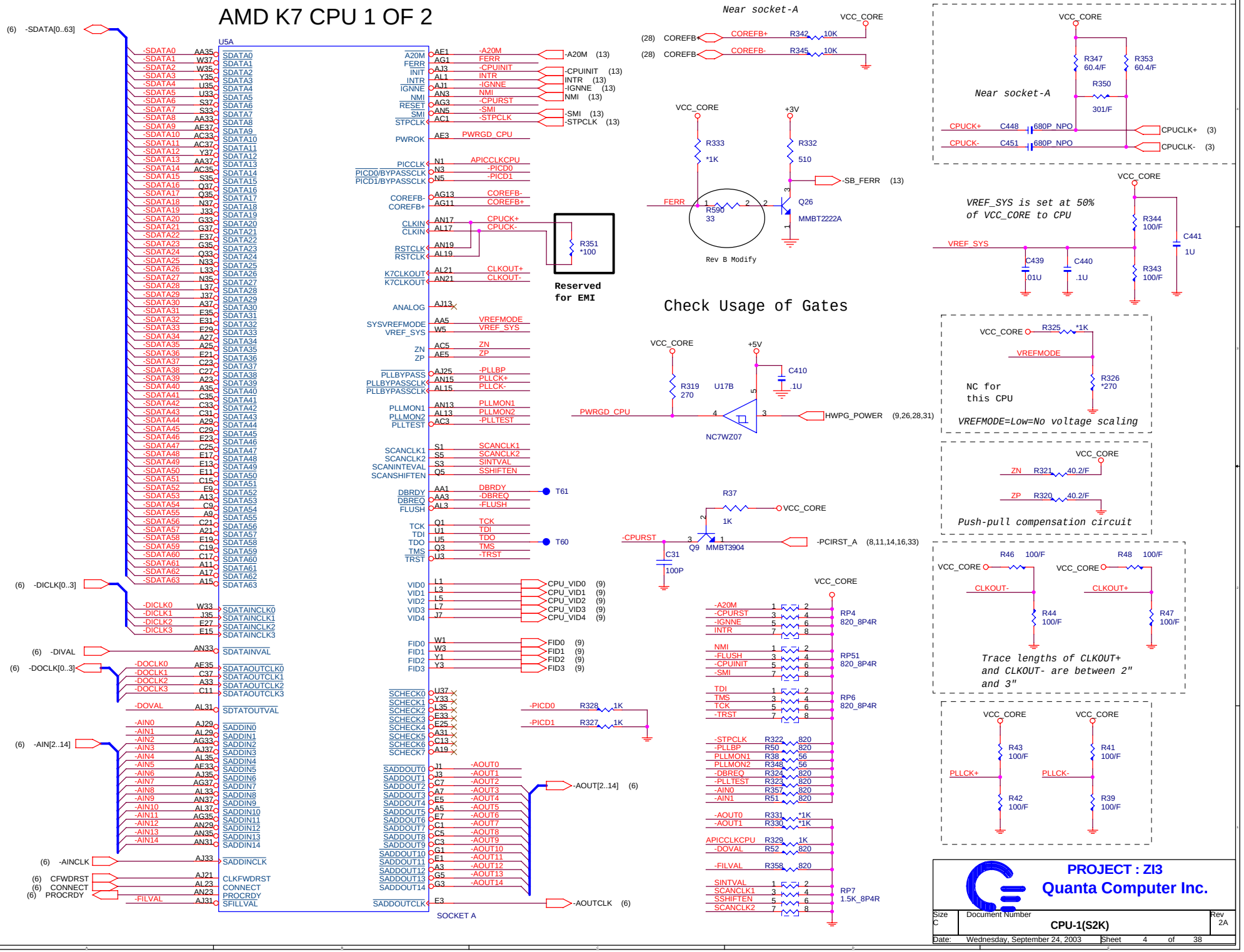
CPU FSB SENSE TABLE	CLKGEN SETTING				CPU CLK
FSB_SENSE	FS3	FS2	FS1	FS0	
0	1	1	1	1	133MHZ
1	1	1	0	1	100MHZ

FS3/48MHZ : INTERNAL 120K PULL-UP RESISTOR TO VDD
FS2/24_48MHZ : INTERNAL 120K PULL-UP RESISTOR TO VDD
FS1/PCI_F : INTERNAL 120K PULL-DOWN RESISTOR TO GND
FS0/REF0 : INTERNAL 120K PULL-UP RESISTOR TO VDD

PROJECT : ZI3
Quanta Computer Inc.

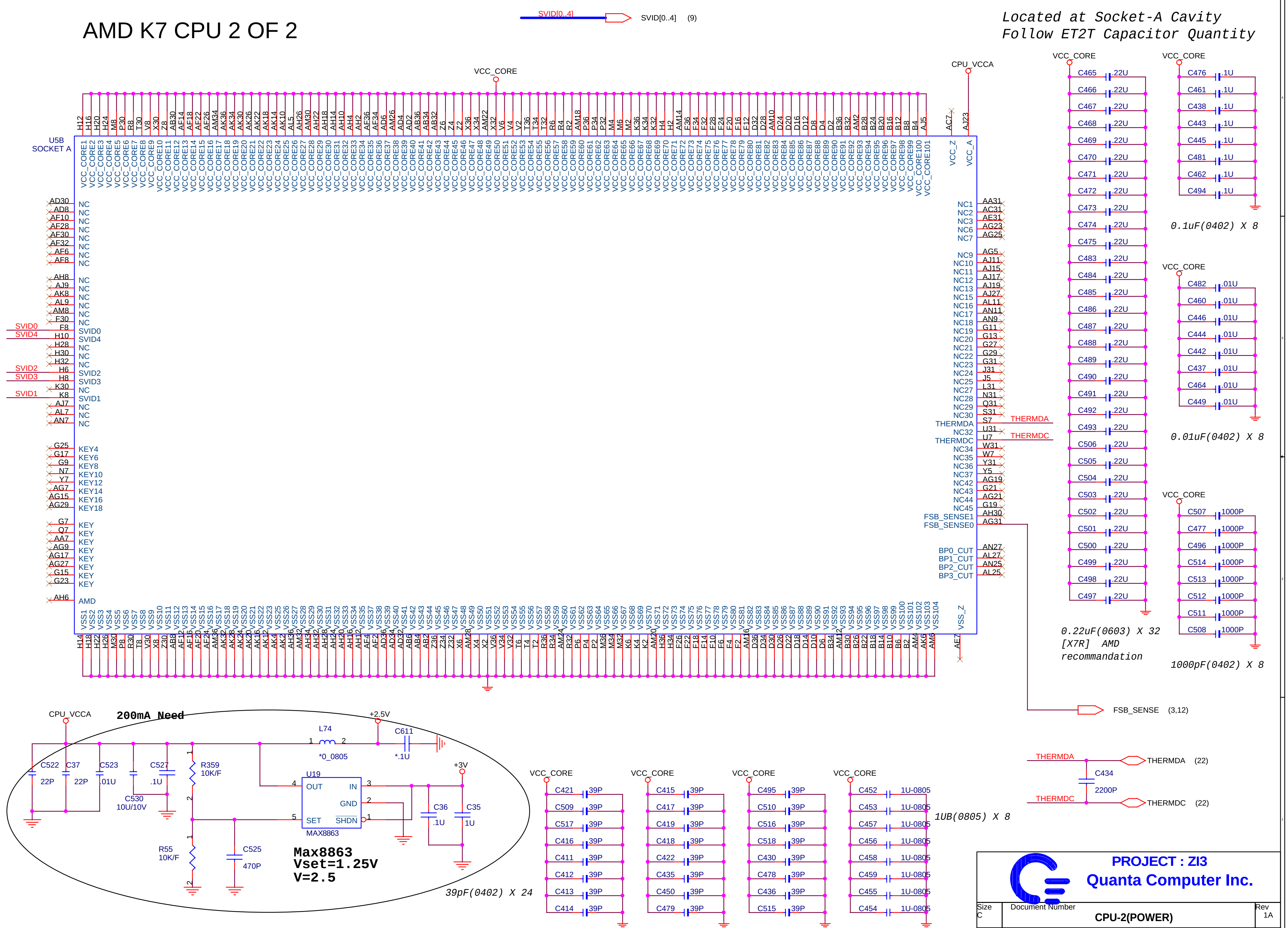
Size	Document Number	Rev
Custom	CLOCK GENERATOR	2A
Date: Wednesday, September 24, 2003	Sheet 3 of 38	

AMD K7 CPU 1 OF 2



BANS

AMD K7 CPU 2 OF 2



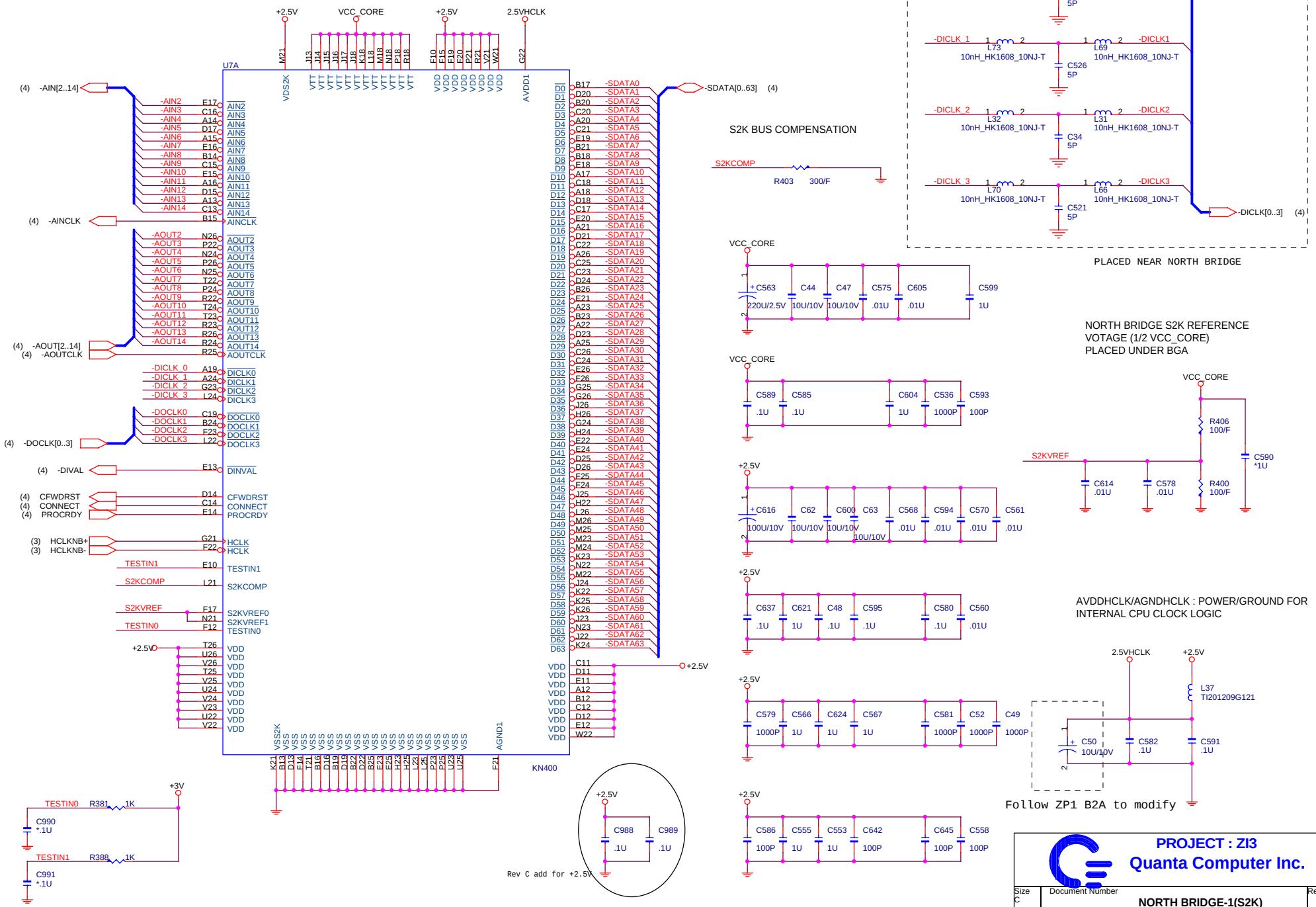
PROJECT : ZI3

Quanta Computer Inc.

Size	Document Number	Rev
C	CPU-2(POWER)	1A

Date: Wednesday, September 24, 2003 Sheet 5 of 38

NORTH BRIDGE 1 of 3 (HOST BUS)



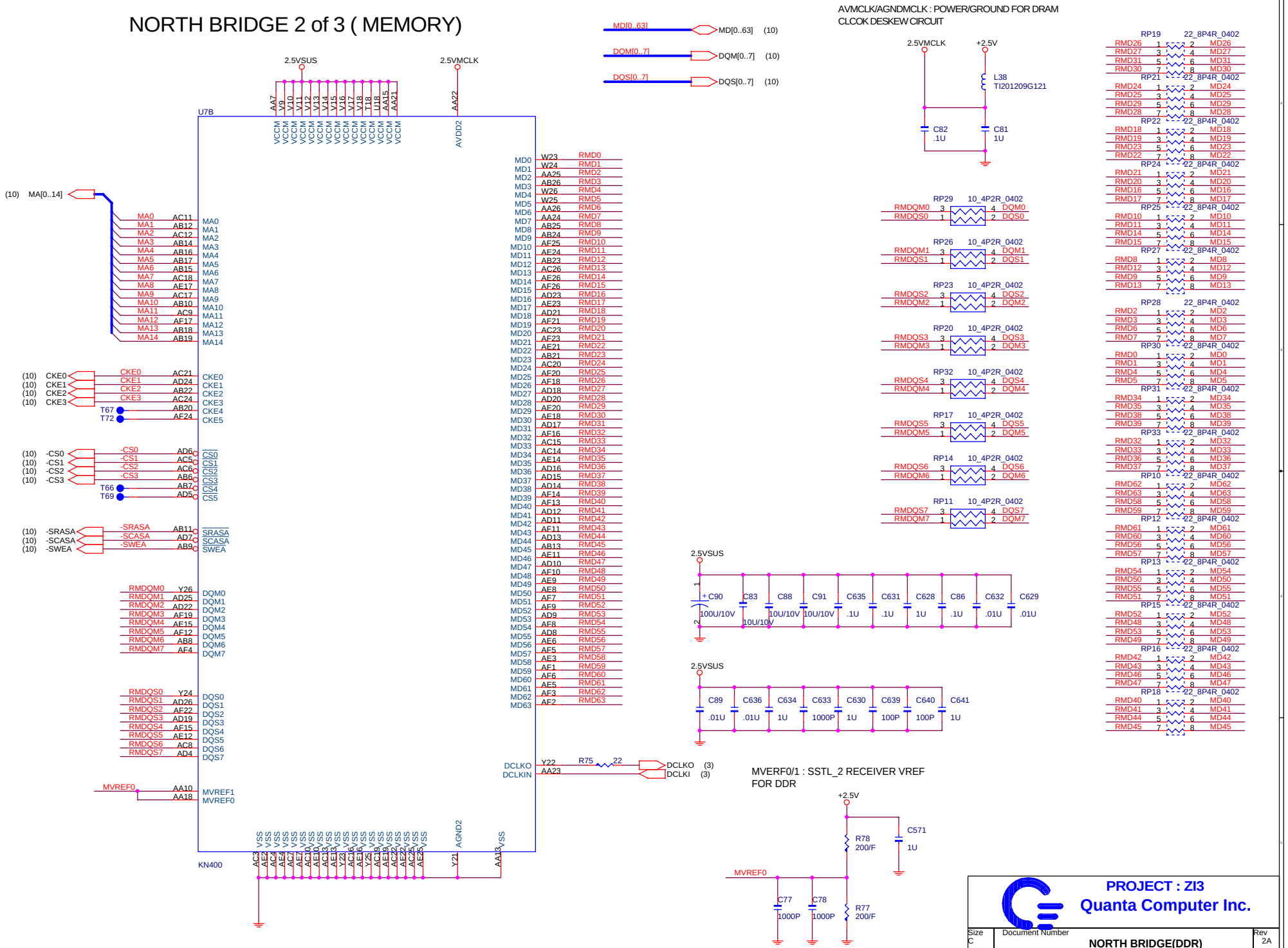
PROJECT : ZI3

Quanta Computer Inc.

Size	Document Number	Rev
C	NORTH BRIDGE-1(S2K)	2A

Date: Wednesday, September 24, 2003 Sheet 6 of 38

NORTH BRIDGE 2 of 3 (MEMORY)



PROJECT : ZI3

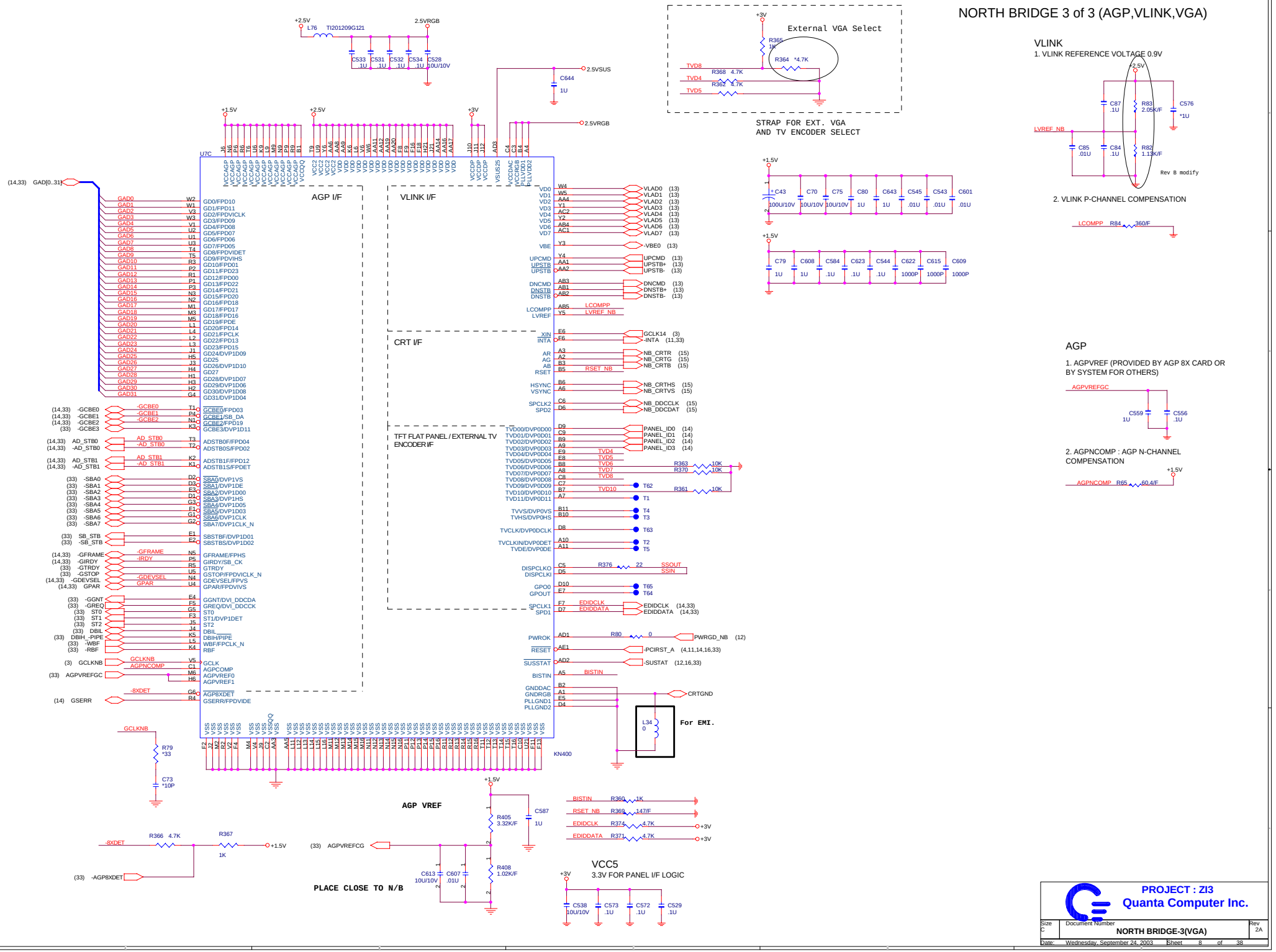
Quanta Computer Inc.

Size	Document Number	Rev
C	NORTH BRIDGE(DDR)	2A

Date: Wednesday, September 24, 2003 Sheet 7 of 38

BANKS

NORTH BRIDGE 3 of 3 (AGP,VLINK,VGA)

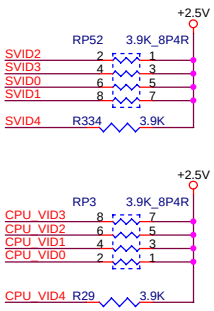


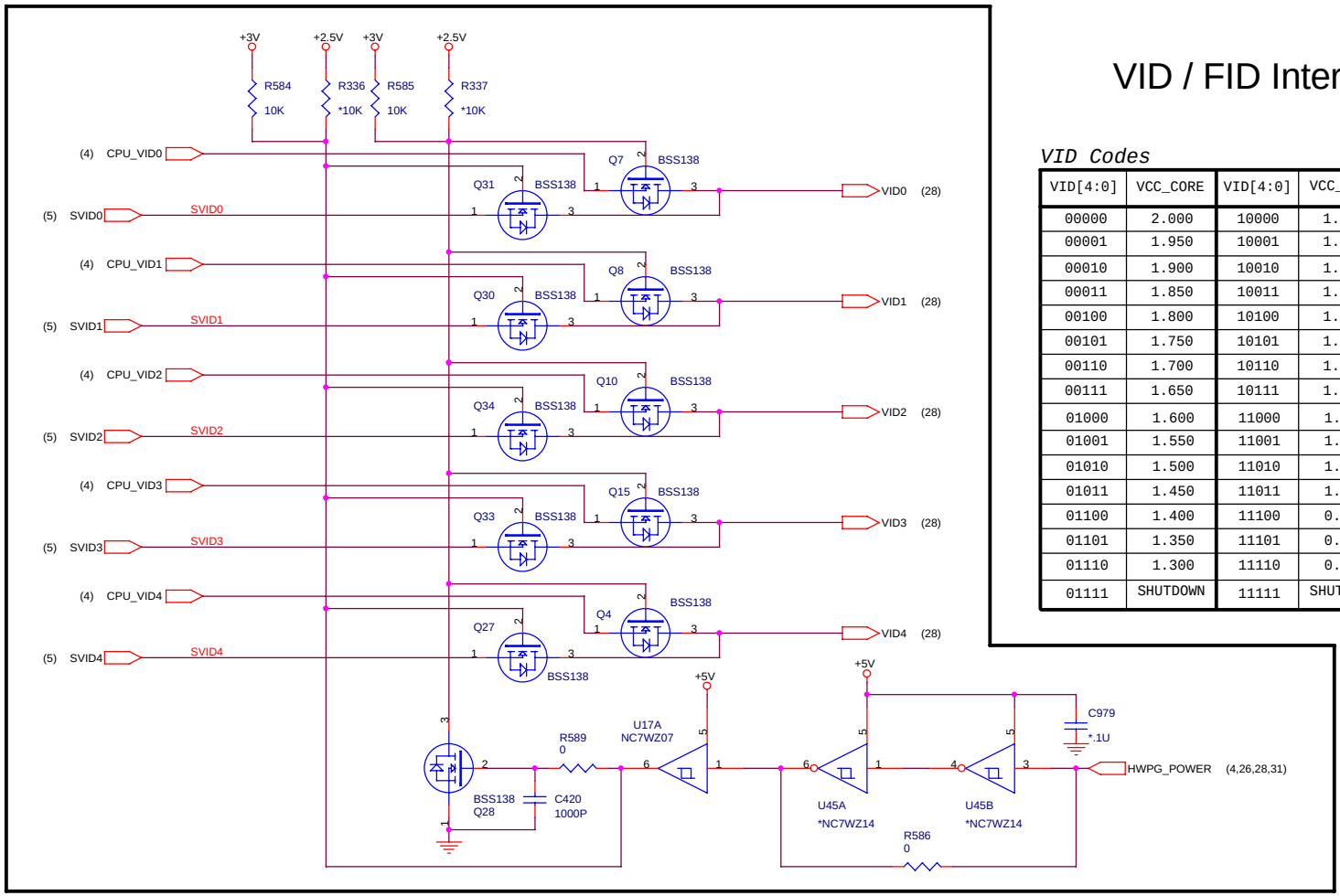
PROJECT : ZI3
Quanta Computer Inc.

Size	Document Number	Rev
C	NORTH BRIDGE-3(VGA)	2A

Date: Wednesday, September 24, 2003 Sheet 8 of 38

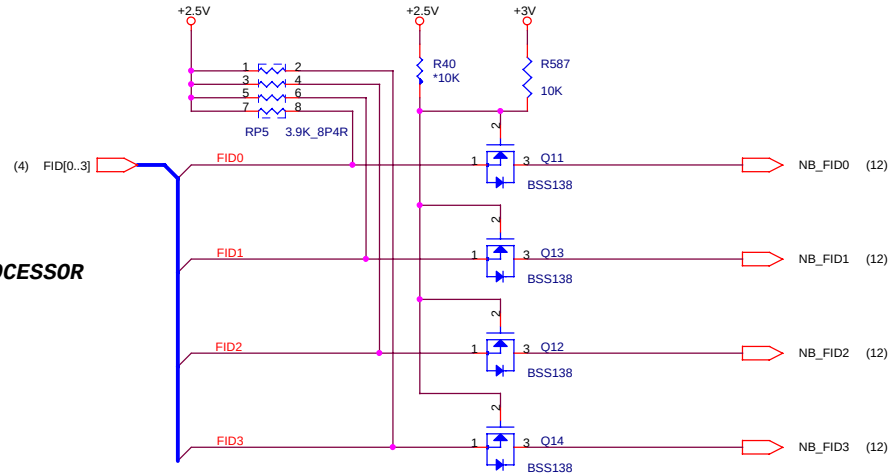
VID / FID Interface





VID Codes

VID[4:0]	VCC_CORE	VID[4:0]	VCC_CORE
00000	2.000	10000	1.275
00001	1.950	10001	1.250
00010	1.900	10010	1.225
00011	1.850	10011	1.200
00100	1.800	10100	1.175
00101	1.750	10101	1.150
00110	1.700	10110	1.125
00111	1.650	10111	1.100
01000	1.600	11000	1.075
01001	1.550	11001	1.050
01010	1.500	11010	1.025
01011	1.450	11011	1.000
01100	1.400	11100	0.975
01101	1.350	11101	0.950
01110	1.300	11110	0.925
01111	SHUTDOWN	11111	SHUTDOWN



FROM PROCESSOR

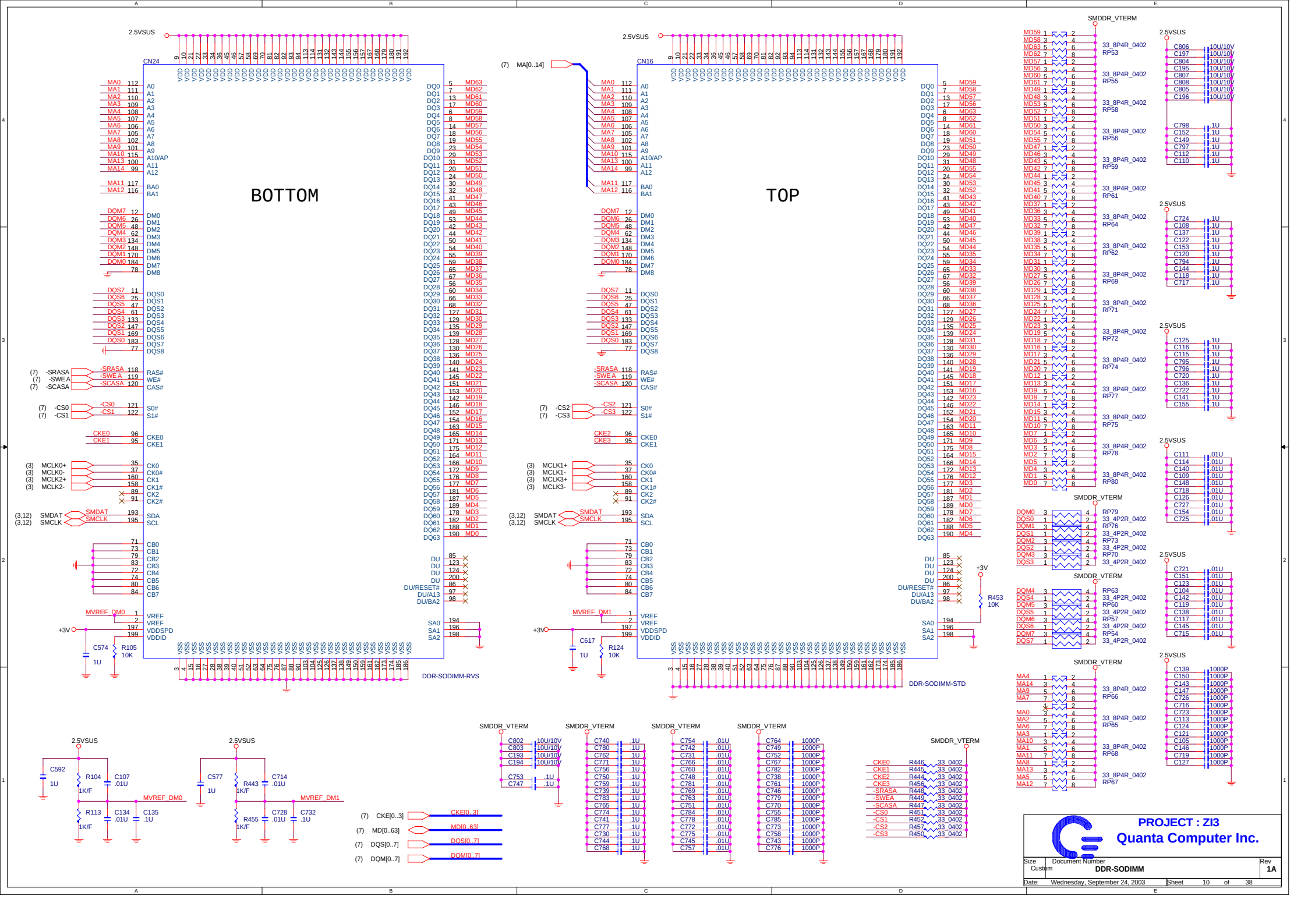
TO SB STRAPPING

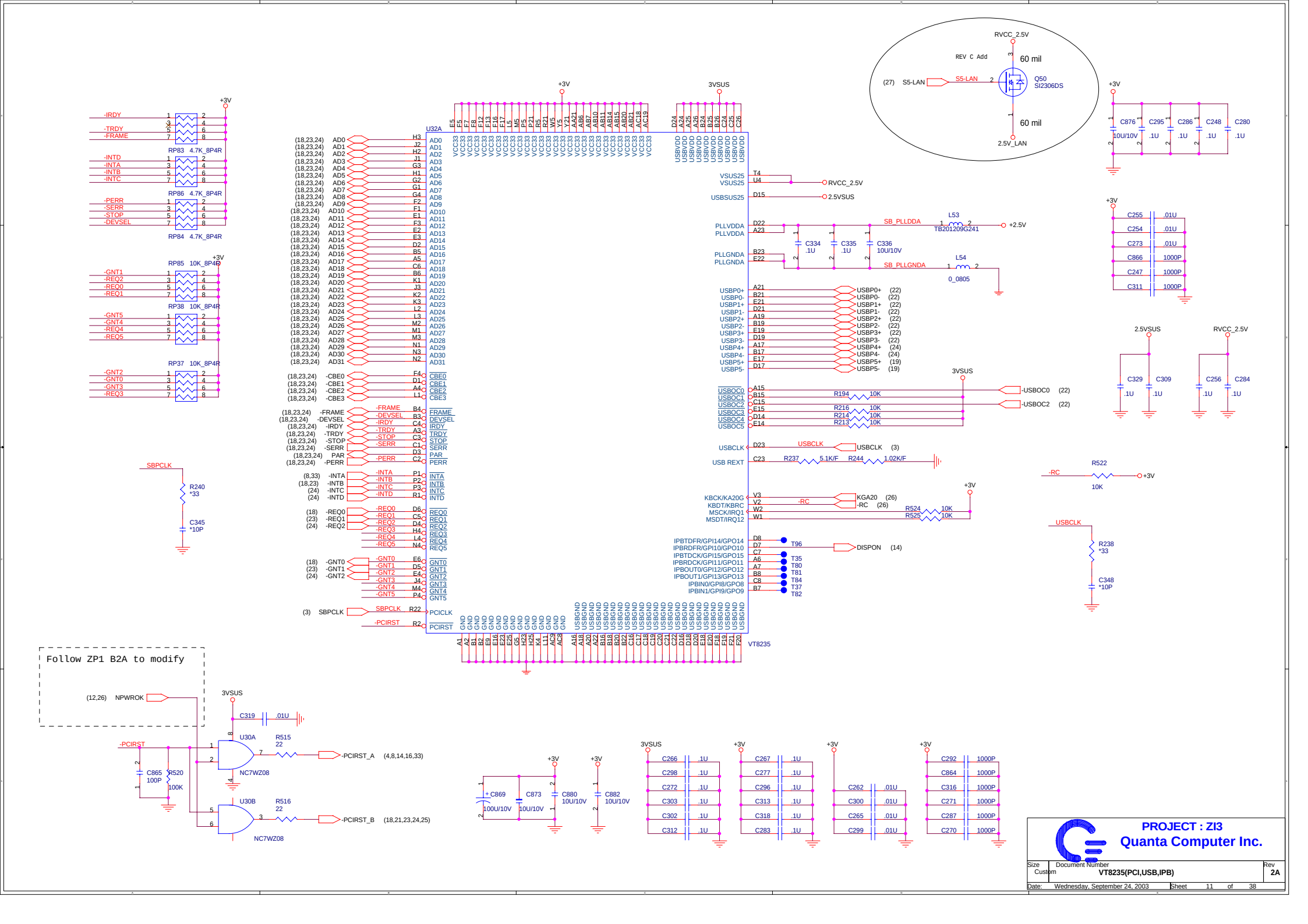
FID Codes

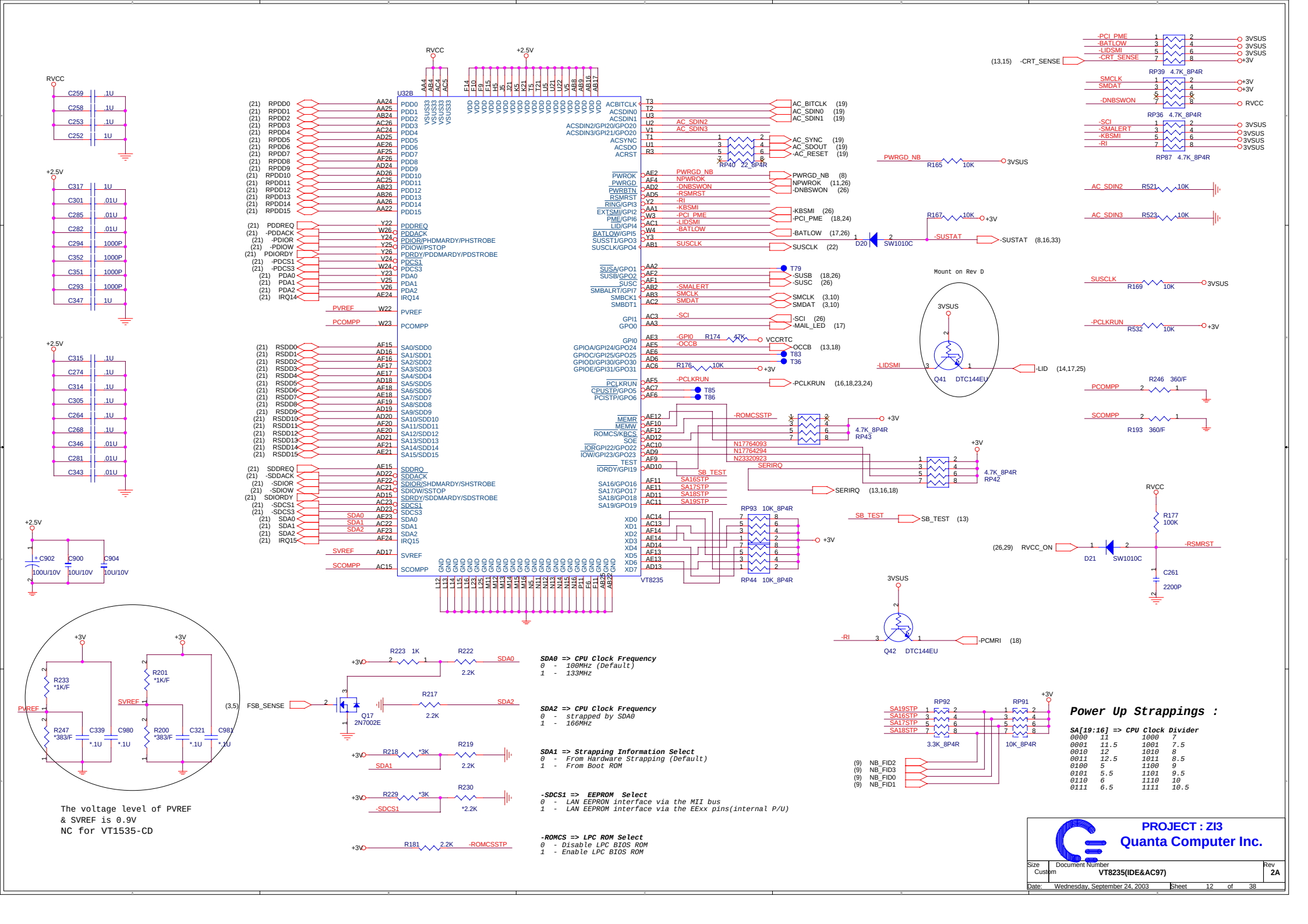
Four-Bit FID	Clock Multiplier	Four-Bit FID	Clock Multiplier
0000	11.0	1000	7.0
0001	11.5	1001	7.5
0010	12.0	1010	8.0
0011	12.5	1011	8.5
0100	5.0	1100	9.0
0101	5.5	1101	9.5
0110	6.0	1110	10.0
0111	6.5	1111	10.5

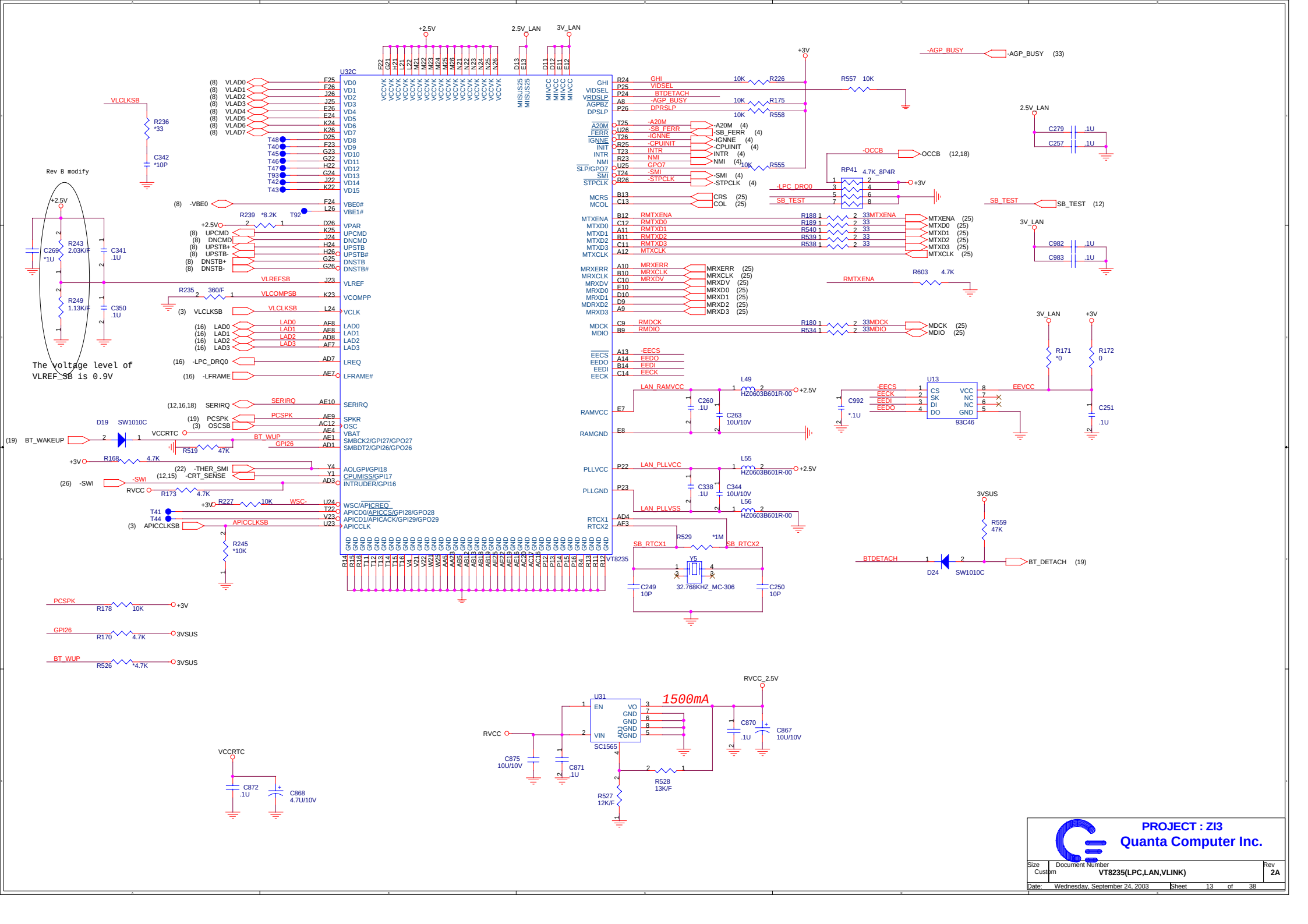
PROJECT : ZI3
Quanta Computer Inc.

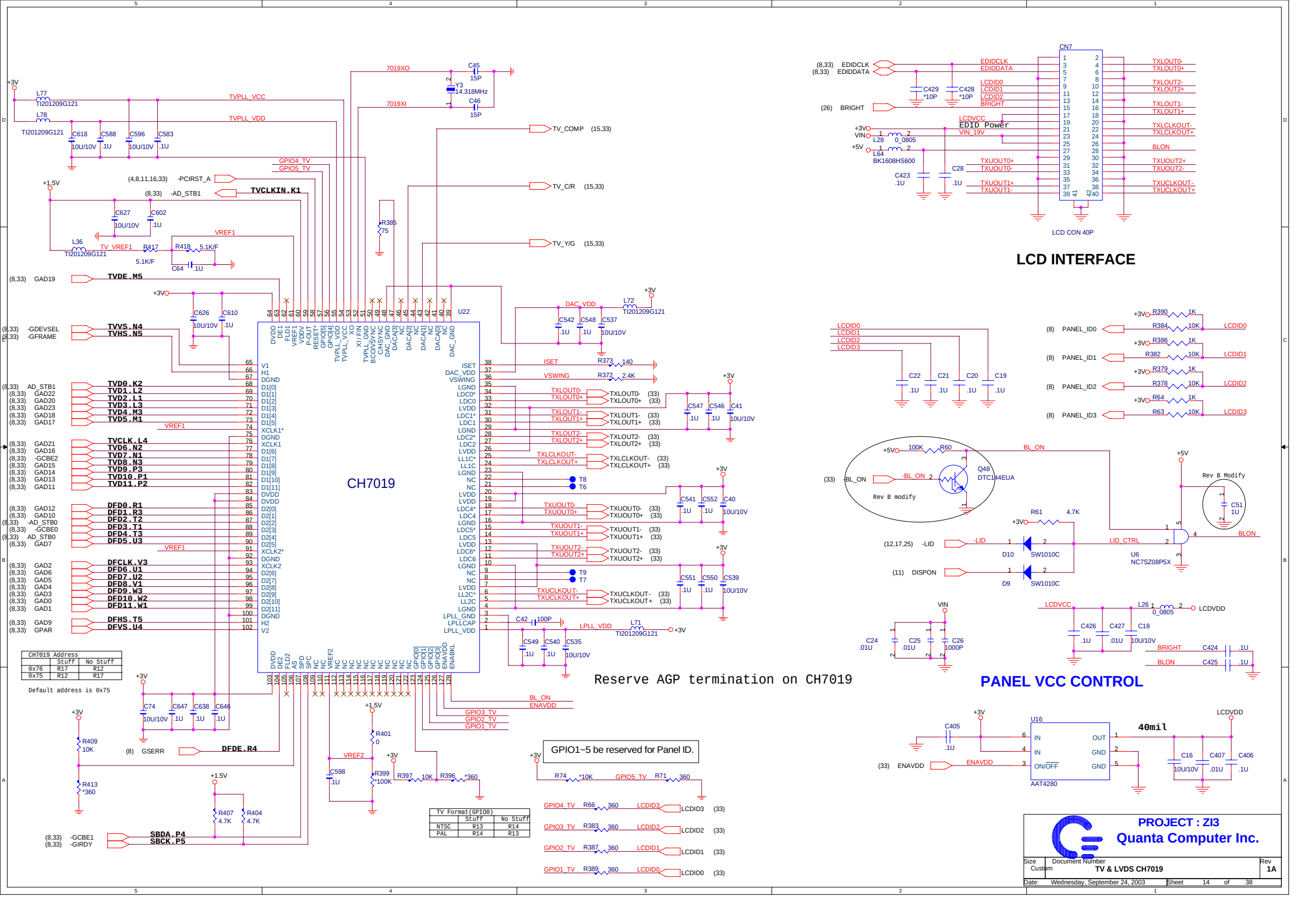
Size	Document Number	Rev
	CPU VID/FID INTERFACE	2A
Date: Wednesday, September 24, 2003	Sheet 9 of 38	

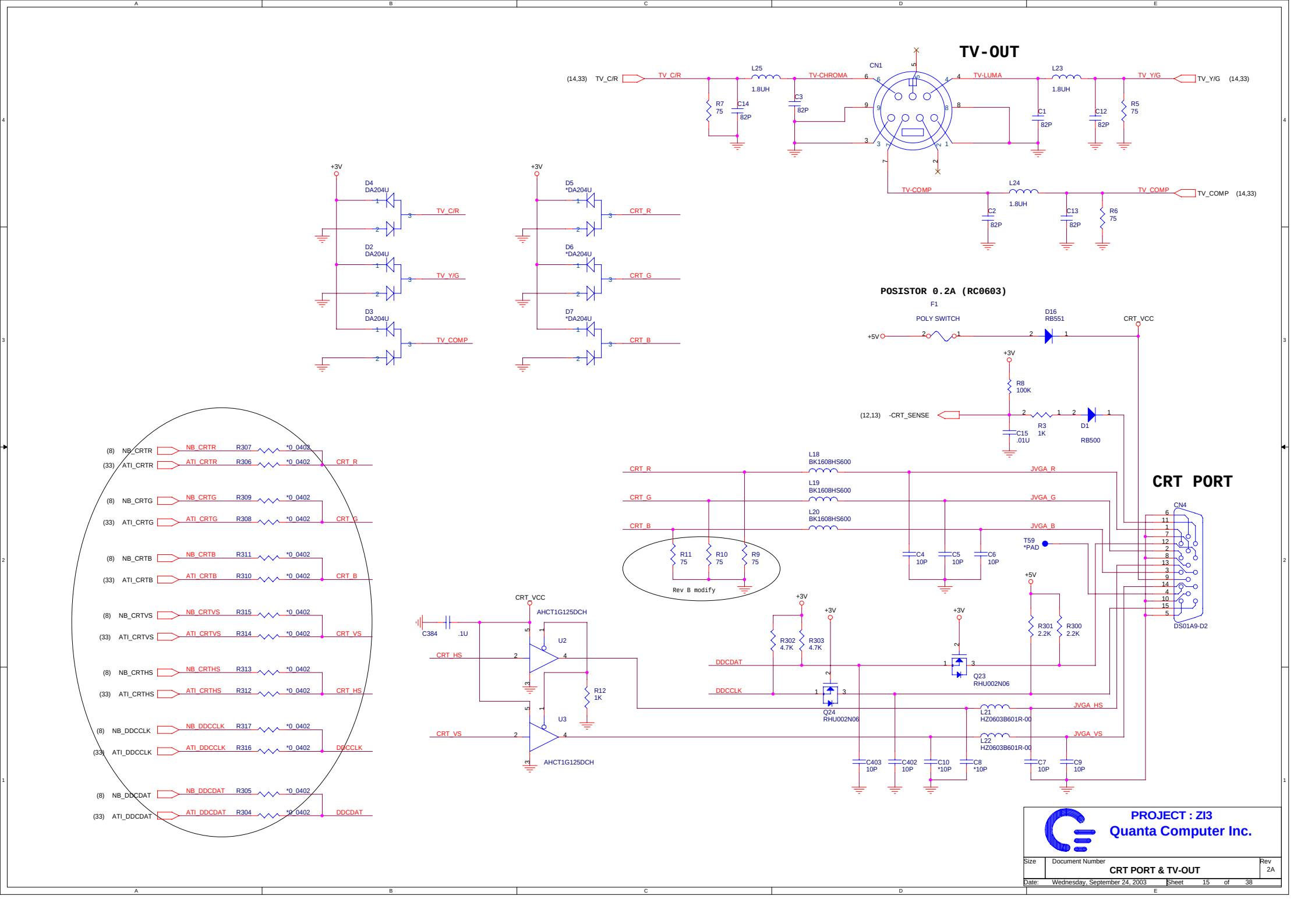

BOTTOM
TOP
CN24
CN16
DDR-SODIMM-RVS
DDR-SODIMM-STD
SMDDR_VTERM
2.5VSUS
MVREF_DM0
MVREF_DM1
PROJECT : ZI3
Quanta Computer Inc.
DDR-SODIMM
Size
Custom
Document Number
Rev
1A
Date: Wednesday, September 24, 2003
Sheet 10 of 38


RVCC_2.5V
REV C Add
60 mil
(27) S5-LAN
S5-LAN
Q50
SI2306DS
60 mil
2.5V_LAN
+3V
C876 10U/10V
C295 .1U
C286 .1U
C248 .1U
C280 .1U
-IRDY
-TRDY
-FRAME
RP83 4.7K_8P4R
-INTD
-INTA
-INTB
-INTC
RP86 4.7K_8P4R
-PERR
-SERR
-STOP
-DEVSEL
RP84 4.7K_8P4R
RP85 10K_8P4R
-GNT1
-REQ2
-REQ0
-REQ1
RP38 10K_8P4R
-GNT5
-GNT4
-REQ4
-REQ5
RP37 10K_8P4R
-GNT2
-GNT0
-GNT3
-REQ3
U32A
3VSUS
VSUS25
USBSUS25
PLLVDDA
PLLGNDA
VSUS25 RVCC_2.5V
USBSUS25 2.5VSUS
PLLVDDA SB_PLLDDA L53 TB201209G241 +2.5V
C334 .1U
C335 .1U
C336 10U/10V
PLLGNDA SB_PLLGNDA L54 0_0805
C255 .01U
C254 .01U
C273 .01U
C866 1000P
C247 1000P
C311 1000P
USBP0+ USBP0- USBP1+ USBP1- USBP2+ USBP2- USBP3+ USBP3- USBP4+ USBP4- USBP5+ USBP5-
2.5VSUS
RVCC_2.5V
C329 .1U
C309 .1U
C256 .1U
C284 .1U
USBOC0 USBOC1 USBOC2 USBOC3 USBOC4 USBOC5
R194 10K
R216 10K
R214 10K
R213 10K
-USBOC0 (22)
-USBOC2 (22)
USBCLK
USB REXT
R237 5.1K/F
R244 1.02K/F
USBCLK (3)
SBPCLK
R240 *33
C345 *10P
R522 10K
-RC
KBCK/KA20G
KBDT/KBRC
MSCK/IRQ1
MSDT/IRQ12
KGA20 (26)
-RC (26)
R524 10K
R525 10K
USBCLK
R238 *33
C348 *10P
IPBTDFR/GPI14/GPO14
IPBRDFR/GPI10/GPO10
IPBTDCK/GPI15/GPO15
IPBRDCK/GPI11/GPO11
IPBOUT0/GPI12/GPO12
IPBOUT1/GPI13/GPO13
IPBIN0/GPI8/GPO8
IPBIN1/GPI9/GPO9
T96 DISPON (14)
T35 T80 T81 T84 T37 T82
-INTA -INTB -INTC -INTD
-REQ0 -REQ1 -REQ2 -REQ3 -REQ4 -REQ5
-GNT0 -GNT1 -GNT2 -GNT3 -GNT4 -GNT5
-FRAME -DEVSEL -IRDY -TRDY -STOP -SERR -PAR -PERR
SBPCLK R22
-PCIRST R2
PCICLK
PCIRST
VT8235
Follow ZP1 B2A to modify
(12,26) NPWROK
C319 .01U
-PCIRST
U30A
U30B
R515 22
R516 22
-PCIRST_A (4,8,14,16,33)
-PCIRST_B (18,21,23,24,25)
C865 100P
R520 100K
NC7WZ08
C869 100U/10V
C873 10U/10V
C880 10U/10V
C882 10U/10V
C266 C298 C272 C303 C302 C312 .1U
C267 C277 C296 C313 C318 C283 .1U
C262 C300 C265 C299 .01U
C292 C864 C316 C271 C287 C270 1000P
PROJECT : ZI3
Quanta Computer Inc.
Size Custom
Document Number VT8235(PCI,USB,IPB)
Rev 2A
Date: Wednesday, September 24, 2003
Sheet 11 of 38

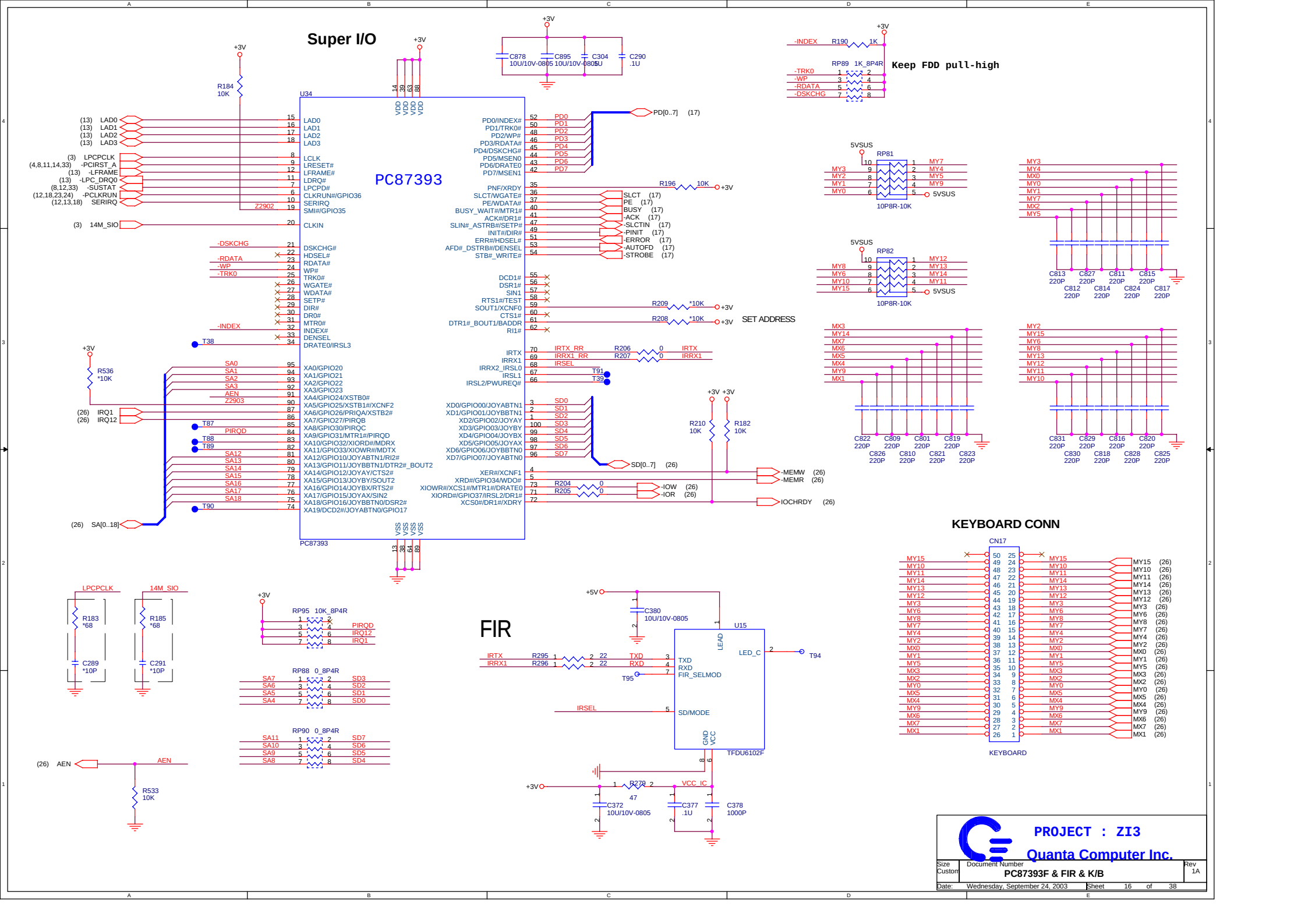

RVCC
+2.5V
U32B
VT8235
PDD0
PDD1
PDD2
PDD3
PDD4
PDD5
PDD6
PDD7
PDD8
PDD9
PDD10
PDD11
PDD12
PDD13
PDD14
PDD15
PDDREQ
PDDACK
PDIOR/PHDMARDY/PHSTROBE
PDIOW/PSTOP
PDRDY/PDDMARDY/PDSTROBE
PDCS1
PDCS3
PDA0
PDA1
PDA2
IRQ14
PVREF
PCOMPP
SA0/SDD0
SA1/SDD1
SA2/SDD2
SA3/SDD3
SA4/SDD4
SA5/SDD5
SA6/SDD6
SA7/SDD7
SA8/SDD8
SA9/SDD9
SA10/SDD10
SA11/SDD11
SA12/SDD12
SA13/SDD13
SA14/SDD14
SA15/SDD15
SDDRQ
SDDACK
SDIOR/SHDMARDY/SHSTROBE
SDIOW/SSTOP
SDRDY/SDDMARDY/SDSTROBE
SDCS1
SDCS3
SDA0
SDA1
SDA2
IRQ15
SVREF
SCOMPP
ACBITCLK
ACSDIN0
ACSDIN1
ACSDIN2/GPI20/GPO20
ACSDIN3/GPI21/GPO20
ACSYNC
ACSDO
ACRST
PWROK
PWRGD
PWRBTN
RSMRST
RING/GPI3
EXTSMI/GPI2
PME/GPI6
LID/GPI4
BATLOW/GPI5
SUSST1/GPO3
SUSCLK/GPO4
SUSA/GPO1
SUSB/GPO2
SUSC
SMBALRT/GPI7
SMBCK1
SMBDT1
GPI1
GPO0
GPI0
GPIOA/GPI24/GPO24
GPIOC/GPI25/GPO25
GPIOD/GPI30/GPO30
GPIOE/GPI31/GPO31
PCLKRUN
CPUSTP/GPO5
PCISTP/GPO6
MEMR
MEMW
ROMCS/KBCS
SOE
IORGPI22/GPO22
IOW/GPI23/GPO23
TEST
IORDY/GPI19
SA16/GPO16
SA17/GPO17
SA18/GPO18
SA19/GPO19
XD0
XD1
XD2
XD3
XD4
XD5
XD6
XD7
AC_BITCLK (19)
AC_SDIN0 (19)
AC_SDIN1 (19)
AC_SDIN2
AC_SDIN3
AC_SYNC (19)
AC_SDOUT (19)
AC_RESET (19)
RP40 22_8P4R
PWRGD_NB
NPWROK (11,26)
DNBSWON (26)
RSMRST
RI
KBSMI (26)
PCI_PME (18,24)
LIDSMI
BATLOW (17,26)
SUSCLK (22)
T79
SUSB (18,26)
SUSC (26)
SMALERT
SMCLK (3,10)
SMDAT (3,10)
SCI (26)
MAIL_LED (17)
GPI0 R174 47K
OCCB (13,18)
T83
T36
R176 10K
PCLKRUN (16,18,23,24)
T85
T86
ROMCSSTP
4.7K_8P4R RP43
N17764093
N17764294
N23320923
SERIRQ
SERIRQ (13,16,18)
SB_TEST
SB_TEST (13)
RP93 10K_8P4R
RP44 10K_8P4R
R165 10K
R167 10K
D20 SW1010C
SUSTAT (8,16,33)
Mount on Rev D
Q41 DTC144EU
LID (14,17,25)
R169 10K
R532 10K
R246 360/F
R193 360/F
4.7K_8P4R RP42
R177 100K
D21 SW1010C
RSMRST
C261 2200P
(26,29) RVCC_ON
Q42 DTC144EU
PCMRI (18)
RP39 4.7K_8P4R
PCI_PME
BATLOW
LIDSMI
CRT_SENSE (13,15)
RP36 4.7K_8P4R
SMCLK
SMDAT
DNBSWON
RP87 4.7K_8P4R
SCI
SMALERT
KBSMI
RI
R521 10K
R523 10K
C259 .1U
C258 .1U
C253 .1U
C252 1U
C317 1U
C301 .01U
C285 .01U
C282 .01U
C294 1000P
C352 1000P
C351 1000P
C293 1000P
C347 1U
C315 .1U
C274 .1U
C314 .1U
C305 .1U
C264 .1U
C268 .1U
C346 .01U
C281 .01U
C343 .01U
C902 100U/10V
C900 10U/10V
C904 10U/10V
R233 *1K/F
R201 *1K/F
R247 *383/F
C339 *.1U
C980 *.1U
R200 *383/F
C321 *.1U
C981 *.1U
PVREF
SVREF
FSB_SENSE (3,5)
Q17 2N7002E
R223 1K
R222 2.2K
R217 2.2K
R218 *3K
R219 2.2K
R229 *3K
R230 *2.2K
R181 2.2K
SDA0 => CPU Clock Frequency
0 - 100MHz (Default)
1 - 133MHz
SDA2 => CPU Clock Frequency
0 - strapped by SDA0
1 - 166MHz
SDA1 => Strapping Information Select
0 - From Hardware Strapping (Default)
1 - From Boot ROM
-SDCS1 => EEPROM Select
0 - LAN EEPRON interface via the MII bus
1 - LAN EEPROM interface via the EExx pins(internal P/U)
-ROMCS => LPC ROM Select
0 - Disable LPC BIOS ROM
1 - Enable LPC BIOS ROM
RP92
RP91
3.3K_8P4R
10K_8P4R
NB_FID2
NB_FID3
NB_FID0
NB_FID1
Power Up Strappings :
SA[19:16] => CPU Clock Divider
0000 11 1000 7
0001 11.5 1001 7.5
0010 12 1010 8
0011 12.5 1011 8.5
0100 5 1100 9
0101 5.5 1101 9.5
0110 6 1110 10
0111 6.5 1111 10.5
The voltage level of PVREF
& SVREF is 0.9V
NC for VT1535-CD
PROJECT : ZI3
Quanta Computer Inc.
Size Custom
Document Number VT8235(IDE&AC97)
Rev 2A
Date: Wednesday, September 24, 2003
Sheet 12 of 38


U32C
VT8235
Rev B modify
The voltage level of
VLREF_SB is 0.9V
U31
SC1565
1500mA
RVCC_2.5V
U13
93C46
PROJECT : ZI3
Quanta Computer Inc.
VT8235(LPC,LAN,VLINK)
Wednesday, September 24, 2003


CH7019
U22
TVCLKIN.K1
TVDE.M5
TVVS.N4
TVHS.N5
TVD0.K2
TVD1.L2
TVD2.L1
TVD3.L3
TVD4.M3
TVD5.M1
TVCLK.L4
TVD6.N2
TVD7.N1
TVD8.N3
TVD9.P3
TVD10.P1
TVD11.P2
DFD0.R1
DFD1.R3
DFD2.T2
DFD3.T1
DFD4.T3
DFD5.U3
DFCLK.V3
DFD6.U1
DFD7.U2
DFD8.V1
DFD9.W3
DFD10.W2
DFD11.W1
DFHS.T5
DFVS.U4
DFDE.R4
SBDA.P4
SBCK.P5
7019XO
7019XI
TVPLL_VCC
TVPLL_VDD
TV_COMP (15,33)
TV_C/R (15,33)
TV_Y/G (15,33)
GPIO4_TV
GPIO5_TV
VREF1
VREF2
DAC_VDD
ISET
VSWING
TXLOUT0- TXLOUT0+
TXLOUT1- TXLOUT1+
TXLOUT2- TXLOUT2+
TXLCLKOUT- TXLCLKOUT+
TXUOUT0- TXUOUT0+
TXUOUT1- TXUOUT1+
TXUOUT2- TXUOUT2+
TXUCLKOUT- TXUCLKOUT+
LPLL_VDD
BL_ON
ENAVDD
GPIO3_TV
GPIO2_TV
GPIO1_TV
Reserve AGP termination on CH7019
GPIO1~5 be reserved for Panel ID.
CH7019 Address
Default address is 0x75
TV Format(GPIO0)
LCD CON 40P
LCD INTERFACE
PANEL VCC CONTROL
PROJECT : ZI3
Quanta Computer Inc.
TV & LVDS CH7019
Wednesday, September 24, 2003


TV-OUT
(14,33) TV_C/R
TV_C/R
L25
1.8UH
TV-CHROMA
CN1
TV-LUMA
L23
1.8UH
TV_Y/G
TV_Y/G (14,33)
R7 75
C14 82P
C3 82P
C1 82P
C12 82P
R5 75
TV-COMP
L24
1.8UH
TV_COMP
TV_COMP (14,33)
C2 82P
C13 82P
R6 75
+3V
D4 DA204U
TV_C/R
D2 DA204U
TV_Y/G
D3 DA204U
TV_COMP
D5 *DA204U
CRT_R
D6 *DA204U
CRT_G
D7 *DA204U
CRT_B
POSISTOR 0.2A (RC0603)
F1
POLY SWITCH
+5V
D16 RB551
CRT_VCC
R8 100K
(12,13) -CRT_SENSE
R3 1K
D1 RB500
C15 .01U
CRT PORT
(8) NB_CRTR
(33) ATI_CRTR
NB_CRTR R307 *0_0402
ATI_CRTR R306 *0_0402
CRT_R
(8) NB_CRTG
(33) ATI_CRTG
NB_CRTG R309 *0_0402
ATI_CRTG R308 *0_0402
CRT_G
(8) NB_CRTB
(33) ATI_CRTB
NB_CRTB R311 *0_0402
ATI_CRTB R310 *0_0402
CRT_B
(8) NB_CRTVS
(33) ATI_CRTVS
NB_CRTVS R315 *0_0402
ATI_CRTVS R314 *0_0402
CRT_VS
(8) NB_CRTHS
(33) ATI_CRTHS
NB_CRTHS R313 *0_0402
ATI_CRTHS R312 *0_0402
CRT_HS
(8) NB_DDCCLK
(33) ATI_DDCCLK
NB_DDCCLK R317 *0_0402
ATI_DDCCLK R316 *0_0402
DDCCLK
(8) NB_DDCDAT
(33) ATI_DDCDAT
NB_DDCDAT R305 *0_0402
ATI_DDCDAT R304 *0_0402
DDCDAT
L18 BK1608HS600
L19 BK1608HS600
L20 BK1608HS600
JVGA_R
JVGA_G
JVGA_B
R11 75
R10 75
R9 75
Rev B modify
C4 10P
C5 10P
C6 10P
T59 *PAD
CN4
DS01A9-D2
CRT_VCC
AHCT1G125DCH
C384 .1U
U2
U3
R12 1K
R302 4.7K
R303 4.7K
R301 2.2K
R300 2.2K
Q23 RHU002N06
Q24 RHU002N06
L21 HZ0603B601R-00
L22 HZ0603B601R-00
JVGA_HS
JVGA_VS
C403 10P
C402 10P
C10 *10P
C8 *10P
C7 10P
C9 10P
PROJECT : ZI3
Quanta Computer Inc.
Size
Document Number
CRT PORT & TV-OUT
Rev 2A
Date: Wednesday, September 24, 2003
Sheet 15 of 38

Super I/O

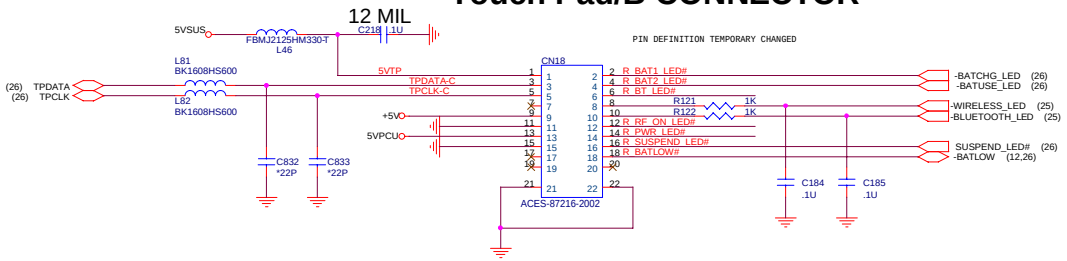


Size: Custom	Document Number: PC87393F & FIR & K/B		Rev: 1A
Date: Wednesday, September 24, 2003	Sheet 16 of 38		

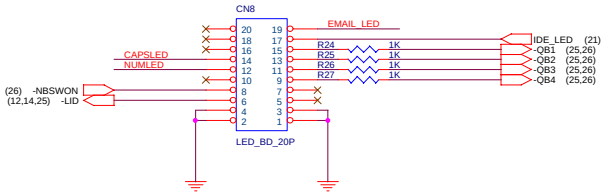
PROJECT : ZI3

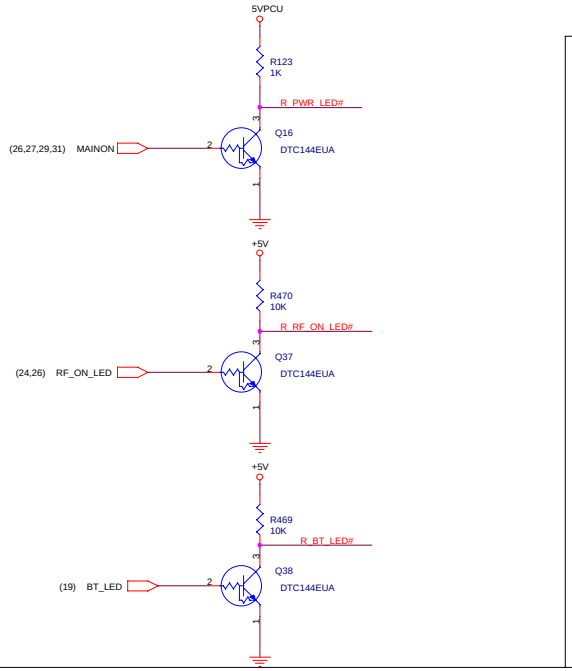
Quanta Computer Inc.

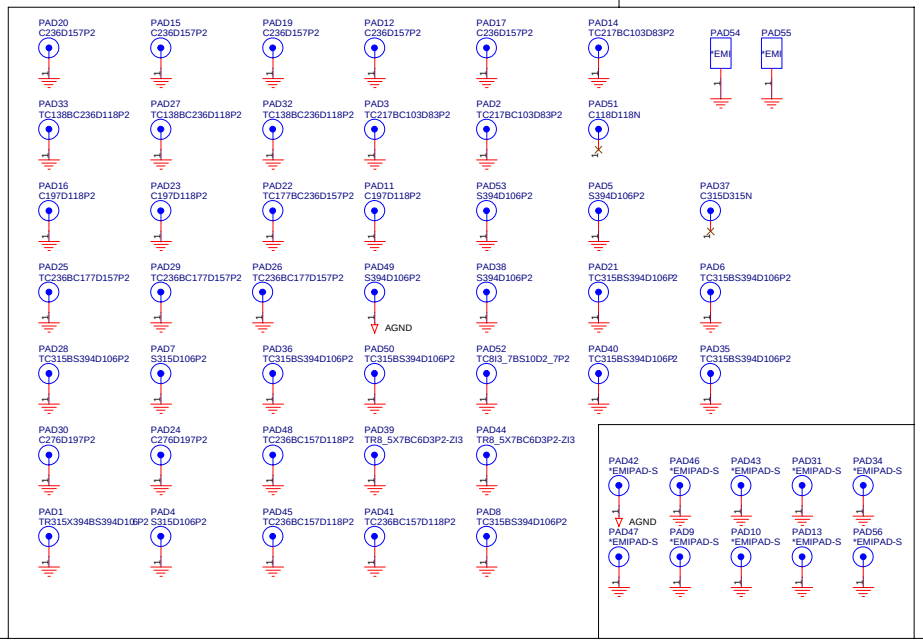
Touch Pad/B CONNECTOR

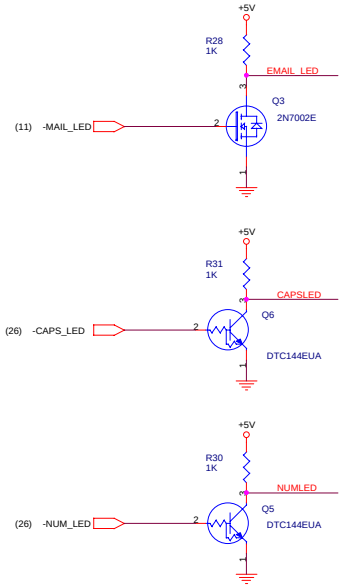


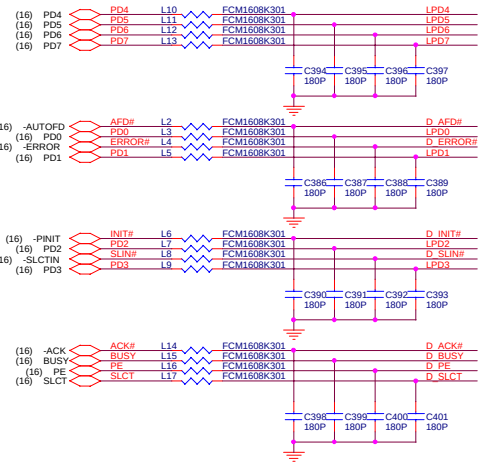
LED/B CONNECTOR



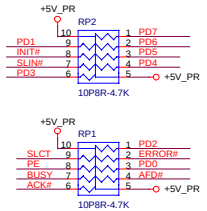




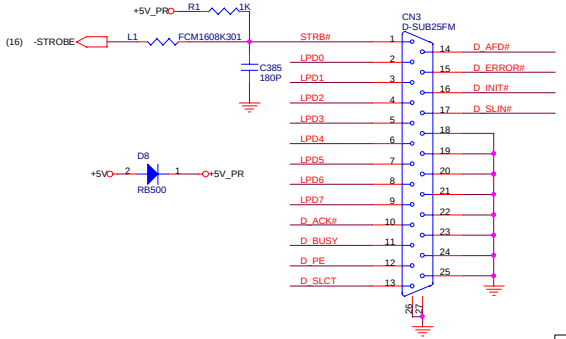




LPT



PRINT PORT

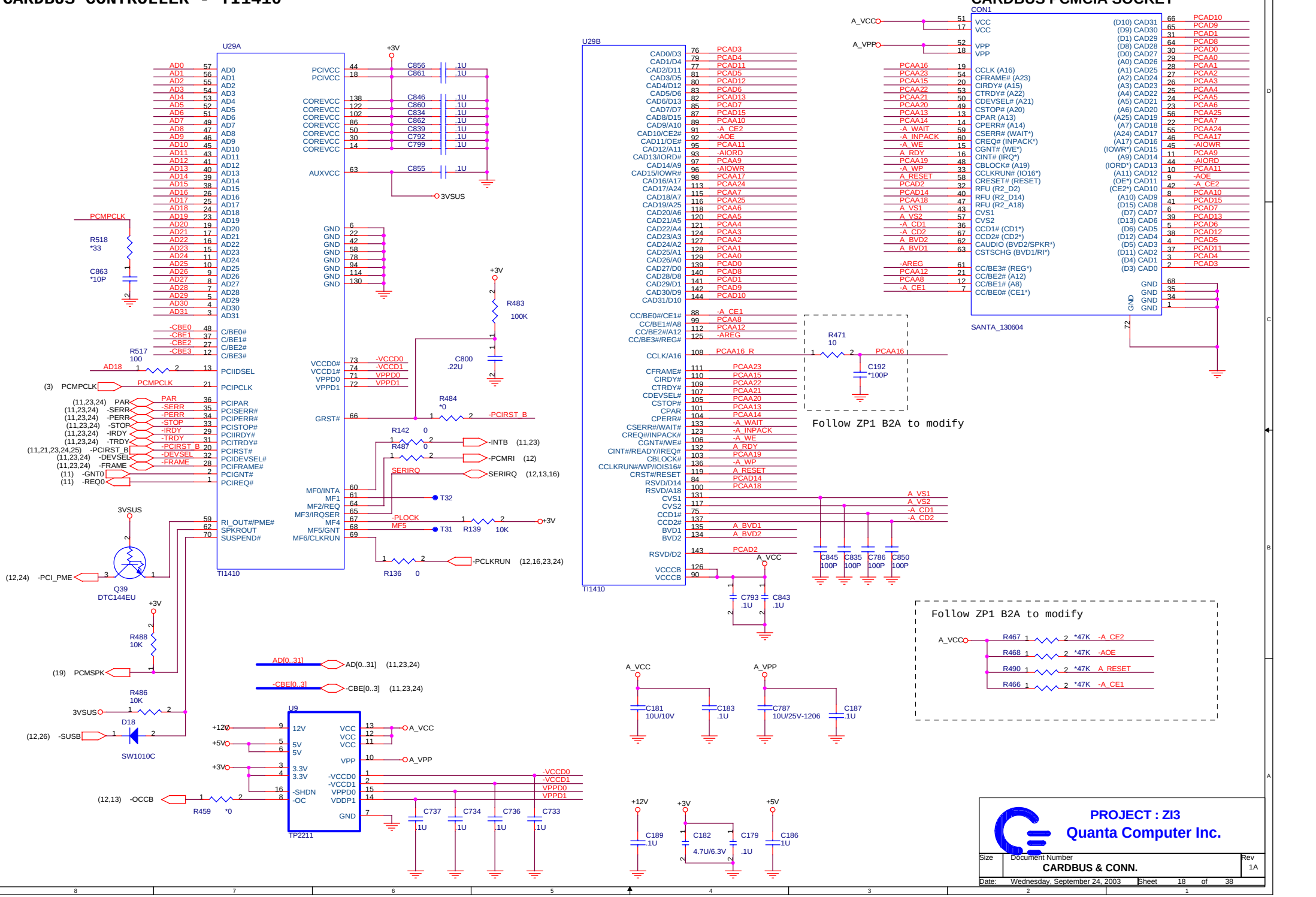


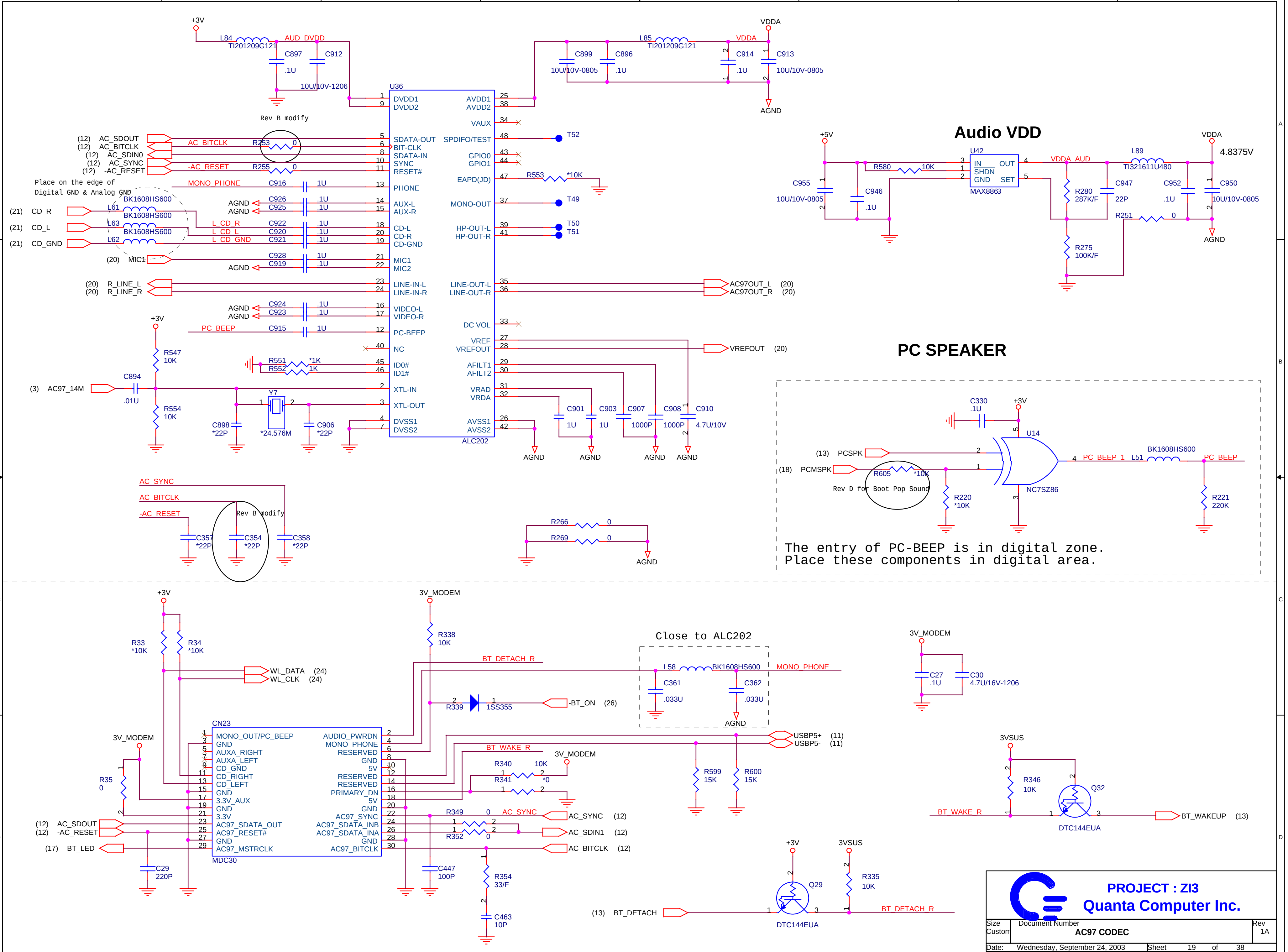
PROJECT : ZI3
Quanta Computer Inc.

Size	Document Number	Rev
	T/P & LED & LPT	1A
Date: Wednesday, September 24, 2003	Sheet 17 of 38	

CARDBUS CONTROLLER - TI1410

CARDBUS PCMCIA SOCKET





Audio VDD
PC SPEAKER
Close to ALC202
Rev B modify
Place on the edge of
Digital GND & Analog GND
Rev D for Boot Pop Sound
The entry of PC-BEEP is in digital zone.
Place these components in digital area.
U36
ALC202
DVDD1
DVDD2
AVDD1
AVDD2
VAUX
SDATA-OUT
BIT-CLK
SDATA-IN
SYNC
RESET#
SPDIFO/TEST
GPIO0
GPIO1
EAPD(JD)
PHONE
AUX-L
AUX-R
MONO-OUT
CD-L
CD-R
CD-GND
HP-OUT-L
HP-OUT-R
MIC1
MIC2
LINE-IN-L
LINE-IN-R
LINE-OUT-L
LINE-OUT-R
VIDEO-L
VIDEO-R
DC VOL
PC-BEEP
NC
VREF
VREFOUT
ID0#
ID1#
AFILT1
AFILT2
XTL-IN
XTL-OUT
VRAD
VRDA
DVSS1
DVSS2
AVSS1
AVSS2
L84 TI201209G121
L85 TI201209G121
AUD_DVDD
VDDA
AGND
+3V
+5V
(12) AC_SDOUT
(12) AC_BITCLK
(12) AC_SDIN0
(12) AC_SYNC
(12) -AC_RESET
MONO_PHONE
(21) CD_R
(21) CD_L
(21) CD_GND
(20) MIC1
(20) R_LINE_L
(20) R_LINE_R
PC_BEEP
(3) AC97_14M
AC97OUT_L (20)
AC97OUT_R (20)
VREFOUT (20)
U42
MAX8863
IN
SHDN
GND
OUT
SET
VDDA_AUD
L89 TI321611U480
4.8375V
U14
NC7SZ86
(13) PCSPK
(18) PCMSPK
PC_BEEP_1
L51 BK1608HS600
CN23
MDC30
MONO_OUT/PC_BEEP
AUXA_RIGHT
AUXA_LEFT
CD_GND
CD_RIGHT
CD_LEFT
3.3V_AUX
3.3V
AC97_SDATA_OUT
AC97_RESET#
AC97_MSTRCLK
AUDIO_PWRDN
MONO_PHONE
RESERVED
PRIMARY_DN
AC97_SYNC
AC97_SDATA_INB
AC97_SDATA_INA
AC97_BITCLK
3V_MODEM
3VSUS
WL_DATA (24)
WL_CLK (24)
BT_DETACH_R
BT_WAKE_R
-BT_ON (26)
L58 BK1608HS600
USBP5+ (11)
USBP5- (11)
AC_SYNC (12)
AC_SDIN1 (12)
AC_BITCLK (12)
(17) BT_LED
BT_WAKEUP (13)
(13) BT_DETACH
Q29 DTC144EUA
Q32 DTC144EUA
1SS355
Y7 *24.576M

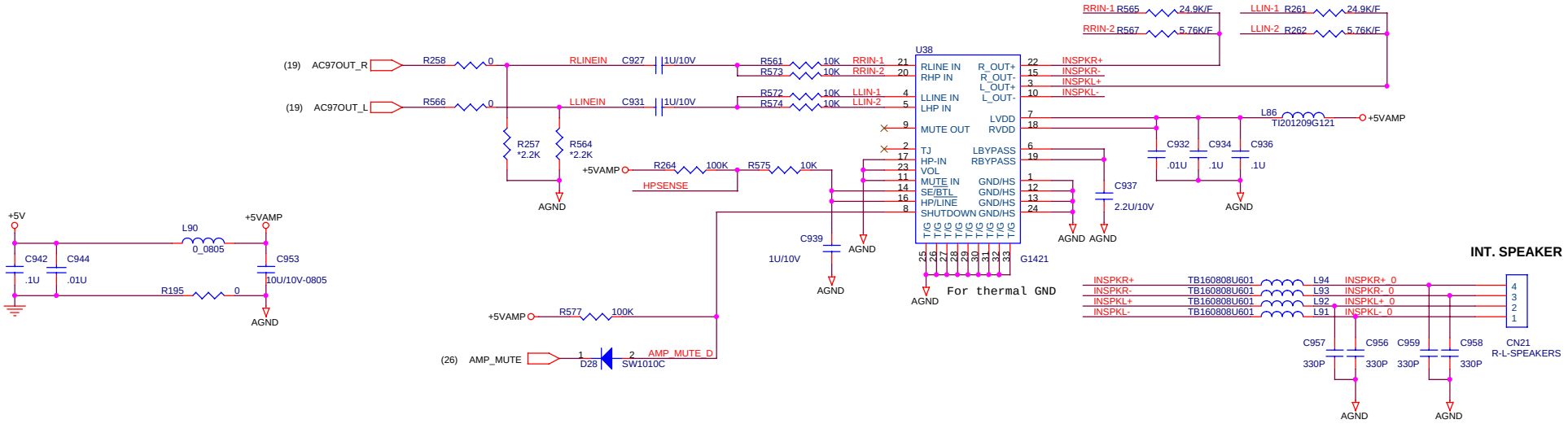
PROJECT : ZI3

Quanta Computer Inc.

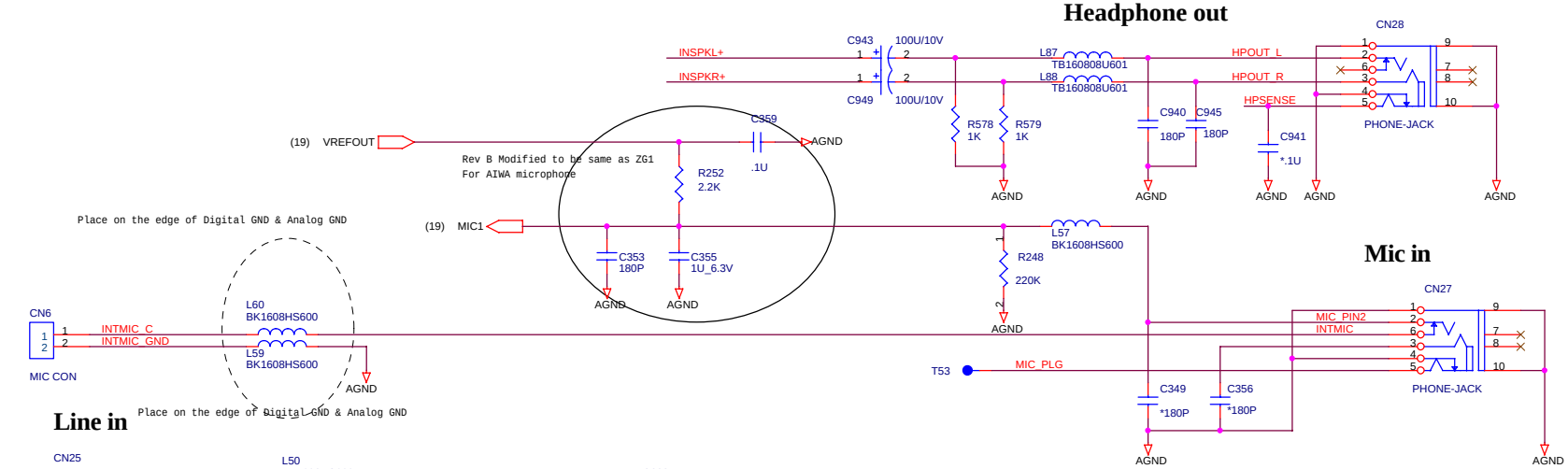
Size	Document Number	Rev
Custom	AC97 CODEC	1A

Date: Wednesday, September 24, 2003 | Sheet 19 of 38

Audio amplifier

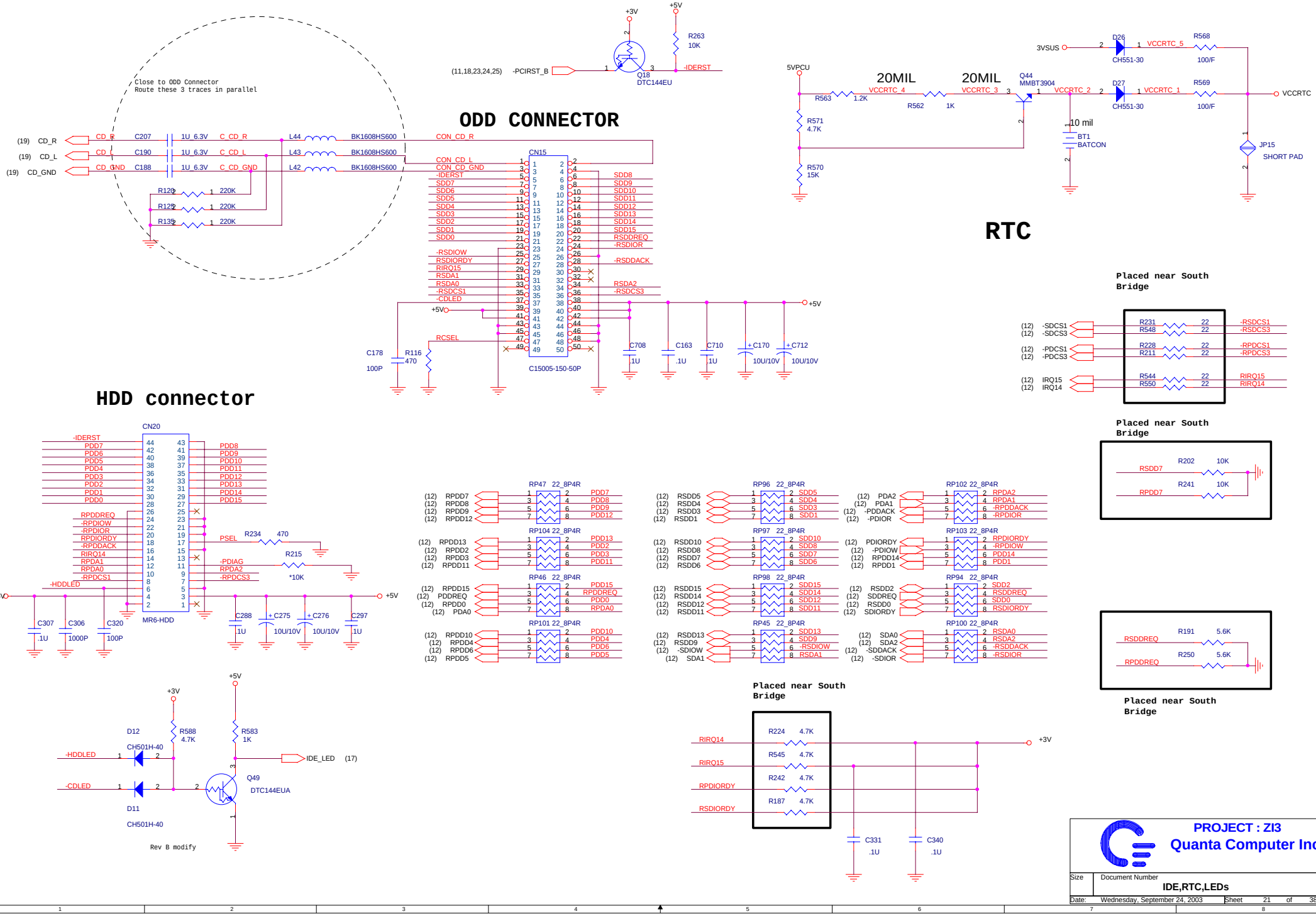


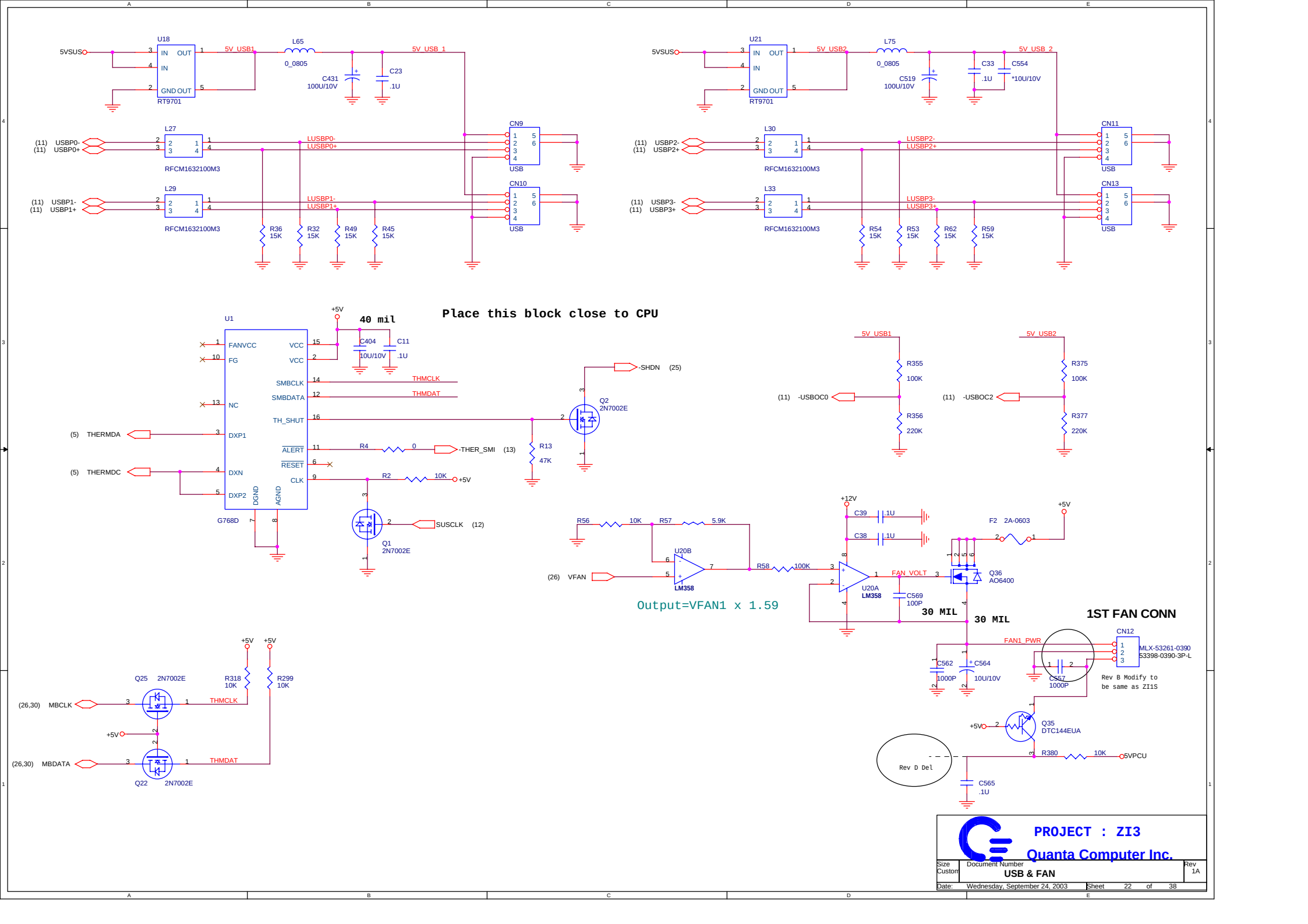
Headphone out



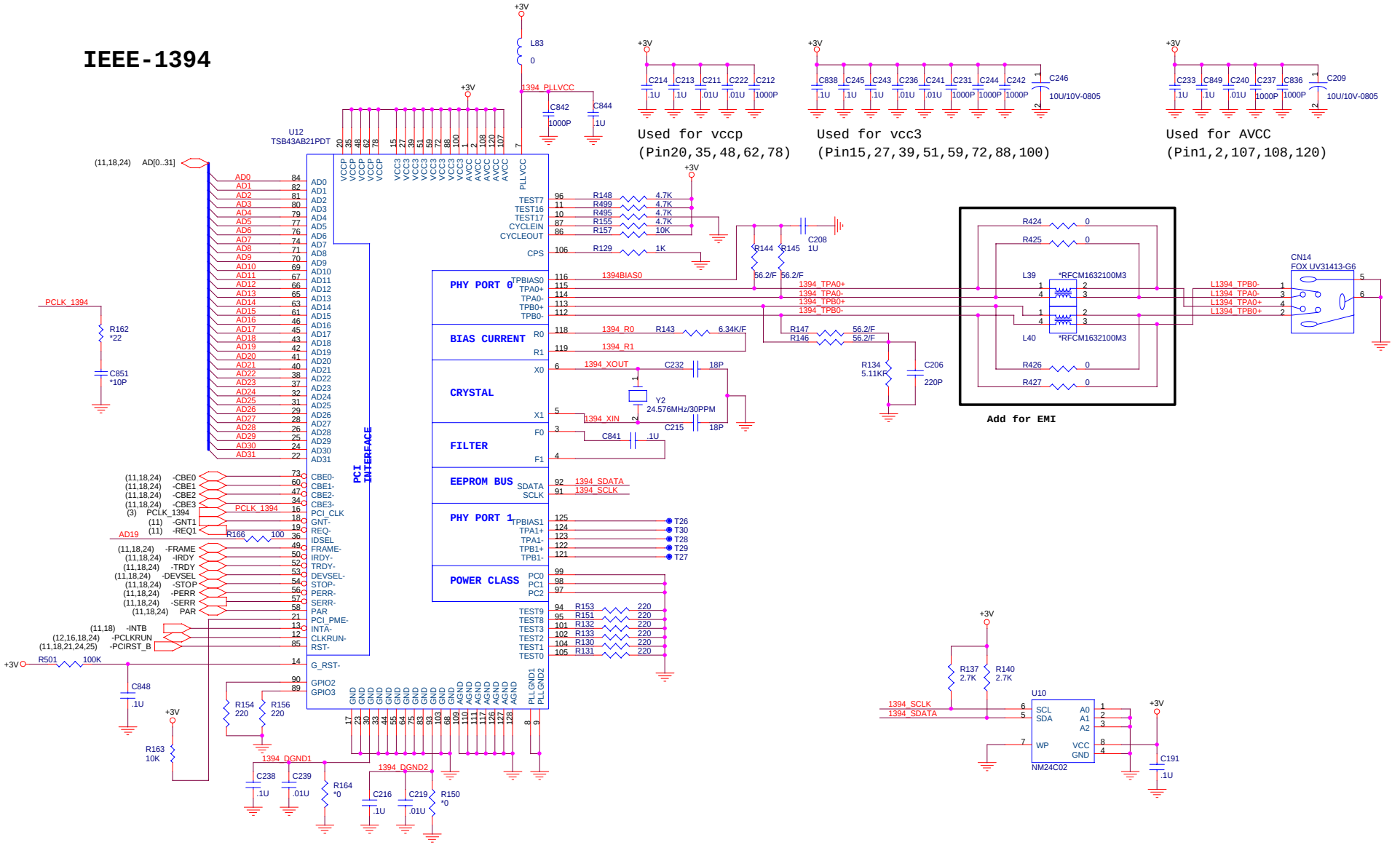
PROJECT : ZI3
Quanta Computer Inc.

Size	Document Number	Rev
Custom	AUDIO AMP & JACK	1A
Date: Wednesday, September 24, 2003	Sheet 20 of 38	


Close to ODD Connector
Route these 3 traces in parallel
ODD CONNECTOR
(19) CD_R
(19) CD_L
(19) CD_GND
CD_R
CD_L
CD_GND
C207
C190
C188
1U_6.3V
C_CD_R
C_CD_L
C_CD_GND
L44
L43
L42
BK1608HS600
R120
R125
R135
220K
CON_CD_R
CON_CD_L
CON_CD_GND
-IDERST
CN15
SDD7
SDD6
SDD5
SDD4
SDD3
SDD2
SDD1
SDD0
SDD8
SDD9
SDD10
SDD11
SDD12
SDD13
SDD14
SDD15
RSDDREQ
-RSDIOR
-RSDDACK
-RSDIOW
RSDIORDY
RIRQ15
RSDA1
RSDA0
-RSDCS1
-CDLED
RSDA2
-RSDCS3
RCSEL
C15005-150-50P
C178
100P
R116
470
C708
.1U
C163
.1U
C710
.1U
C170
10U/10V
C712
10U/10V
+5V
+3V
R263
10K
(11,18,23,24,25)
-PCIRST_B
Q18
DTC144EU
-IDERST
RTC
5VPCU
R563
1.2K
R571
4.7K
R570
15K
20MIL
VCCRTC_4
R562
1K
VCCRTC_3
Q44
MMBT3904
3VSUS
D26
CH551-30
VCCRTC_5
R568
100/F
VCCRTC_2
D27
CH551-30
VCCRTC_1
R569
100/F
VCCRTC
10 mil
BT1
BATCON
JP15
SHORT PAD
Placed near South Bridge
(12) -SDCS1
(12) -SDCS3
(12) -PDCS1
(12) -PDCS3
(12) IRQ15
(12) IRQ14
R231
R548
R228
R211
R544
R550
22
-RSDCS1
-RSDCS3
-RPDCS1
-RPDCS3
RIRQ15
RIRQ14
Placed near South Bridge
RSDD7
RPDD7
R202
R241
10K
HDD connector
CN20
-IDERST
PDD7
PDD6
PDD5
PDD4
PDD3
PDD2
PDD1
PDD0
PDD8
PDD9
PDD10
PDD11
PDD12
PDD13
PDD14
PDD15
RPDDREQ
-RPDIOW
-RPDIOR
RPDIORDY
-RPDDACK
RIRQ14
RPDA1
RPDA0
-RPDCS1
-HDDLED
MR6-HDD
PSEL
R234
470
R215
*10K
-PDIAG
RPDA2
-RPDCS3
C307
.1U
C306
1000P
C320
100P
C288
1U
C275
10U/10V
C276
10U/10V
C297
1U
RP47 22_8P4R
RP104 22_8P4R
RP46 22_8P4R
RP101 22_8P4R
(12) RPDD7
(12) RPDD8
(12) RPDD9
(12) RPDD12
(12) RPDD13
(12) RPDD2
(12) RPDD3
(12) RPDD11
(12) RPDD15
(12) PDDREQ
(12) RPDD0
(12) PDA0
(12) RPDD10
(12) RPDD4
(12) RPDD6
(12) RPDD5
RP96 22_8P4R
RP97 22_8P4R
RP98 22_8P4R
RP45 22_8P4R
(12) RSDD5
(12) RSDD4
(12) RSDD3
(12) RSDD1
(12) RSDD10
(12) RSDD8
(12) RSDD7
(12) RSDD6
(12) RSDD15
(12) RSDD14
(12) RSDD12
(12) RSDD11
(12) RSDD13
(12) RSDD9
(12) -SDIOW
(12) SDA1
SDD5
SDD4
SDD3
SDD1
SDD10
SDD8
SDD7
SDD6
SDD15
SDD14
SDD12
SDD11
SDD13
SDD9
-RSDIOW
RSDA1
RP102 22_8P4R
RP103 22_8P4R
RP94 22_8P4R
RP100 22_8P4R
(12) PDA2
(12) PDA1
(12) -PDDACK
(12) -PDIOR
(12) PDIORDY
(12) -PDIOW
(12) RPDD14
(12) RPDD1
(12) RSDD2
(12) SDDREQ
(12) RSDD0
(12) SDIORDY
(12) SDA0
(12) SDA2
(12) -SDDACK
(12) -SDIOR
RPDA2
RPDA1
-RPDDACK
-RPDIOR
RPDIORDY
-RPDIOW
RPDD14
PDD1
SDD2
RSDDREQ
SDD0
RSDIORDY
RSDA0
RSDA2
-RSDDACK
-RSDIOR
Placed near South Bridge
RSDDREQ
RPDDREQ
R191
R250
5.6K
Placed near South Bridge
RIRQ14
RIRQ15
RPDIORDY
RSDIORDY
R224
R545
R242
R187
4.7K
+3V
C331
.1U
C340
.1U
D12
CH501H-40
R588
4.7K
R583
1K
-HDDLED
IDE_LED
(17)
Q49
DTC144EUA
-CDLED
D11
CH501H-40
Rev B modify
PROJECT : ZI3
Quanta Computer Inc.
Size
Document Number
IDE,RTC,LEDs
Rev
2A
Date: Wednesday, September 24, 2003
Sheet 21 of 38


U18
RT9701
5VSUS
5V_USB1
L65
0_0805
C431
100U/10V
C23
.1U
5V_USB_1
U21
RT9701
5V_USB2
L75
0_0805
C519
100U/10V
C33
.1U
C554
*10U/10V
5V_USB_2
L27
RFCM1632100M3
(11) USBP0-
(11) USBP0+
LUSBP0-
LUSBP0+
L29
RFCM1632100M3
(11) USBP1-
(11) USBP1+
LUSBP1-
LUSBP1+
R36 15K
R32 15K
R49 15K
R45 15K
CN9
CN10
USB
L30
RFCM1632100M3
(11) USBP2-
(11) USBP2+
LUSBP2-
LUSBP2+
L33
RFCM1632100M3
(11) USBP3-
(11) USBP3+
LUSBP3-
LUSBP3+
R54 15K
R53 15K
R62 15K
R59 15K
CN11
CN13
USB
Place this block close to CPU
U1
40 mil
+5V
C404
10U/10V
C11
.1U
FANVCC
FG
NC
DXP1
DXN
DXP2
DGND
AGND
G768D
VCC
VCC
SMBCLK
SMBDATA
TH_SHUT
ALERT
RESET
CLK
THMCLK
THMDAT
(5) THERMDA
(5) THERMDC
R4 0
-THER_SMI (13)
R2 10K
+5V
SUSCLK (12)
Q1
2N7002E
Q2
2N7002E
-SHDN (25)
R13
47K
5V_USB1
5V_USB2
R355
100K
R356
220K
(11) -USBOC0
R375
100K
R377
220K
(11) -USBOC2
R56 10K
R57 5.9K
U20B
LM358
(26) VFAN
R58 100K
U20A
LM358
+12V
C39 1U
C38 1U
C569
100P
FAN_VOLT
F2 2A-0603
Q36
AO6400
Output=VFAN1 x 1.59
30 MIL
30 MIL
1ST FAN CONN
CN12
MLX-53261-0390
53398-0390-3P-L
FAN1_PWR
C562
1000P
C564
10U/10V
C567
1000P
Rev B Modify to
be same as ZI1S
Q25 2N7002E
R318
10K
R299
10K
(26,30) MBCLK
THMCLK
(26,30) MBDATA
THMDAT
Q22 2N7002E
Q35
DTC144EUA
R380 10K
5VPCU
Rev D Del
C565
.1U
PROJECT : ZI3
Quanta Computer Inc.
Size
Custom
Document Number
USB & FAN
Rev
1A
Date: Wednesday, September 24, 2003
Sheet 22 of 38

IEEE-1394

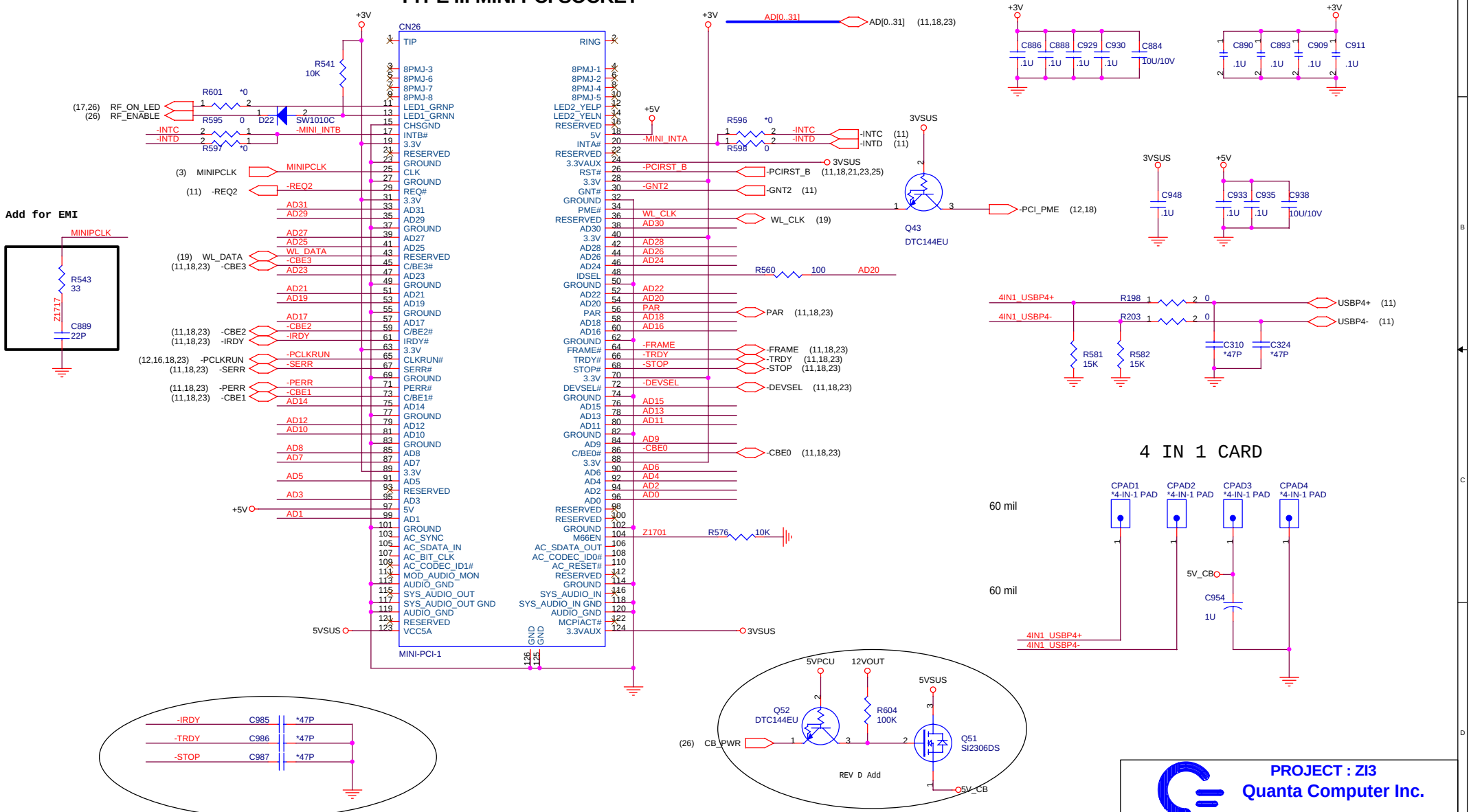


PROJECT : ZI3
Quanta Computer Inc.

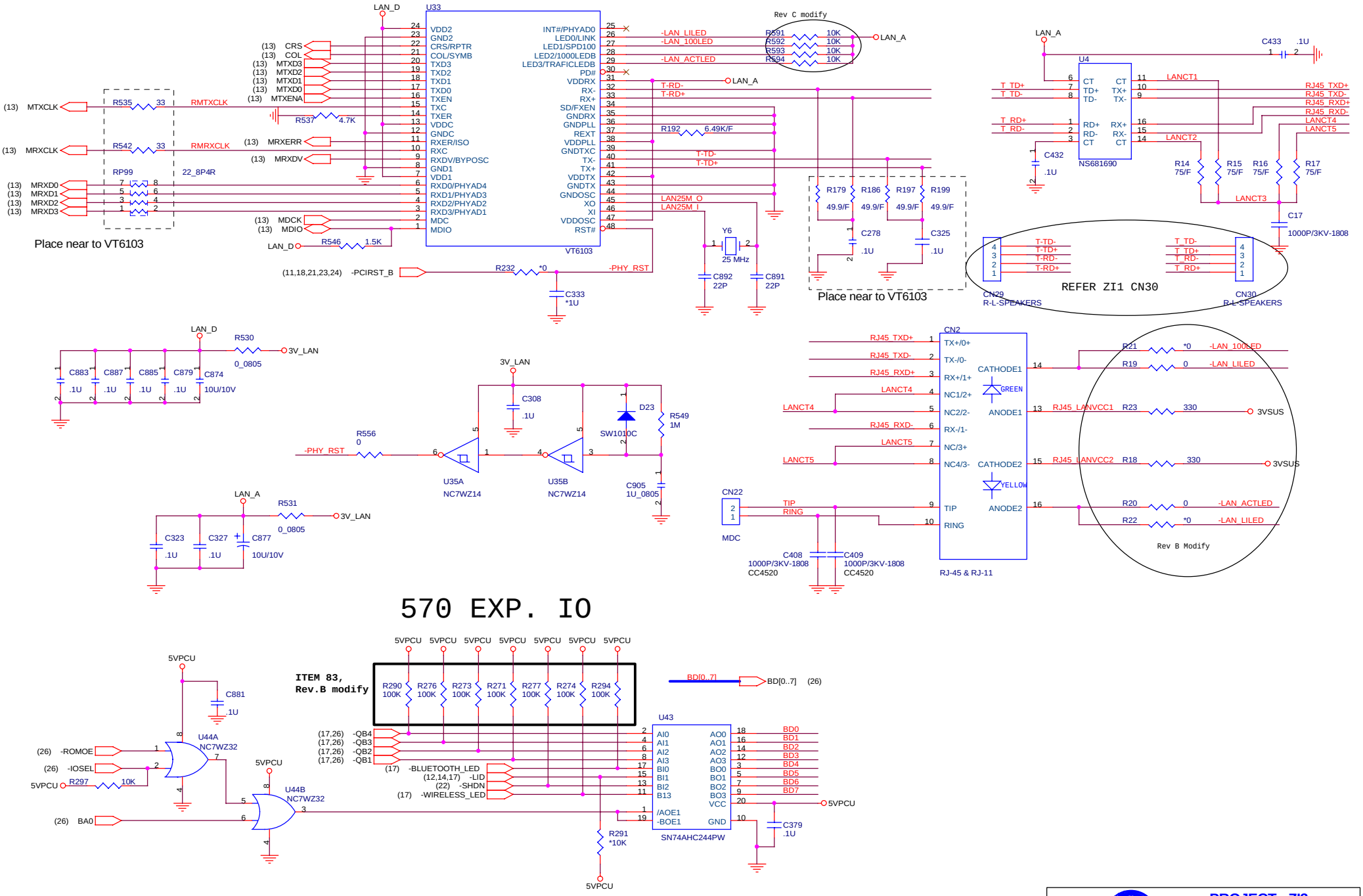
Size	Document Number	Rev
Custom	TSB43AB21(1394)	2A

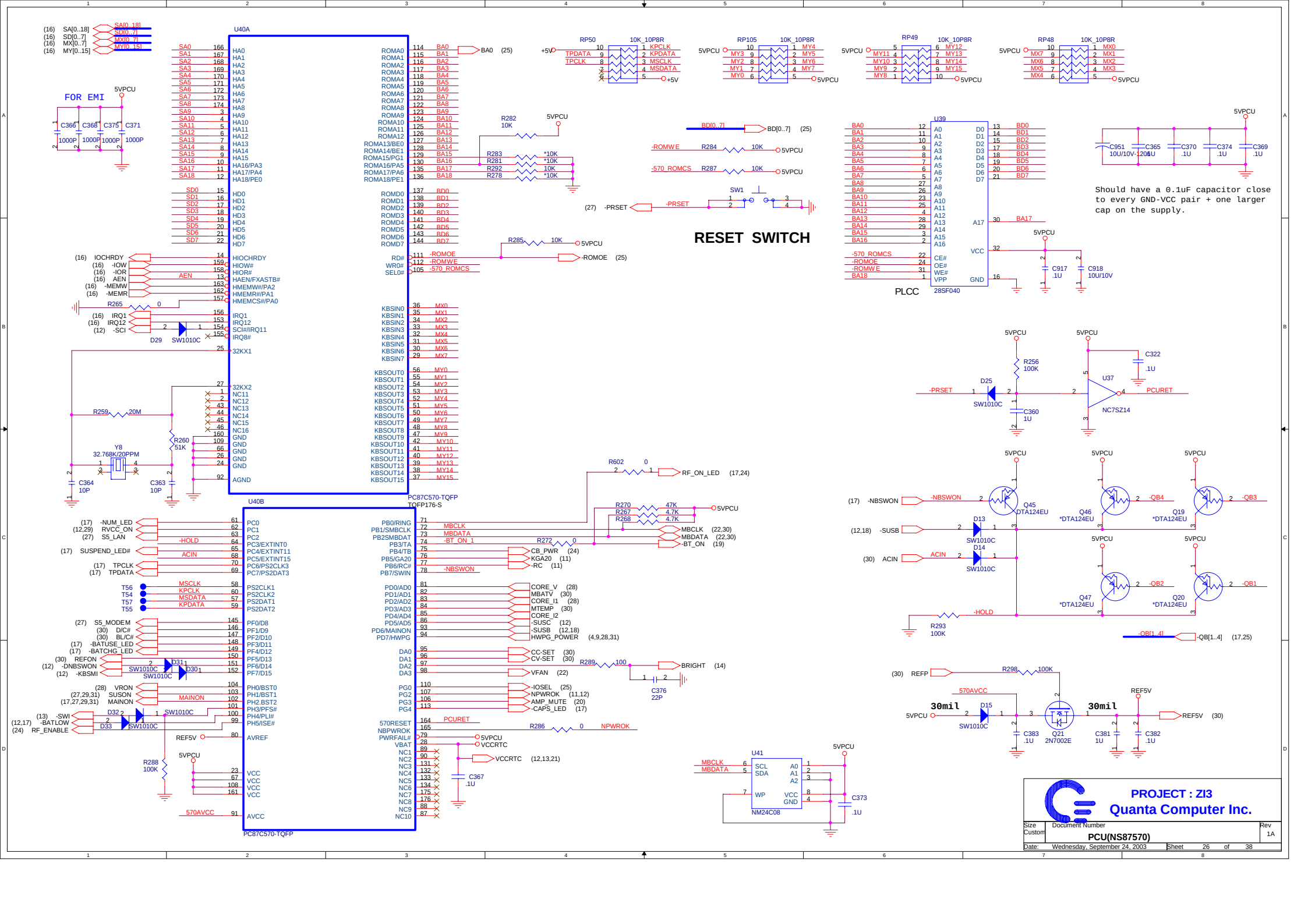
Date: Wednesday, September 24, 2003 Sheet 23 of 38

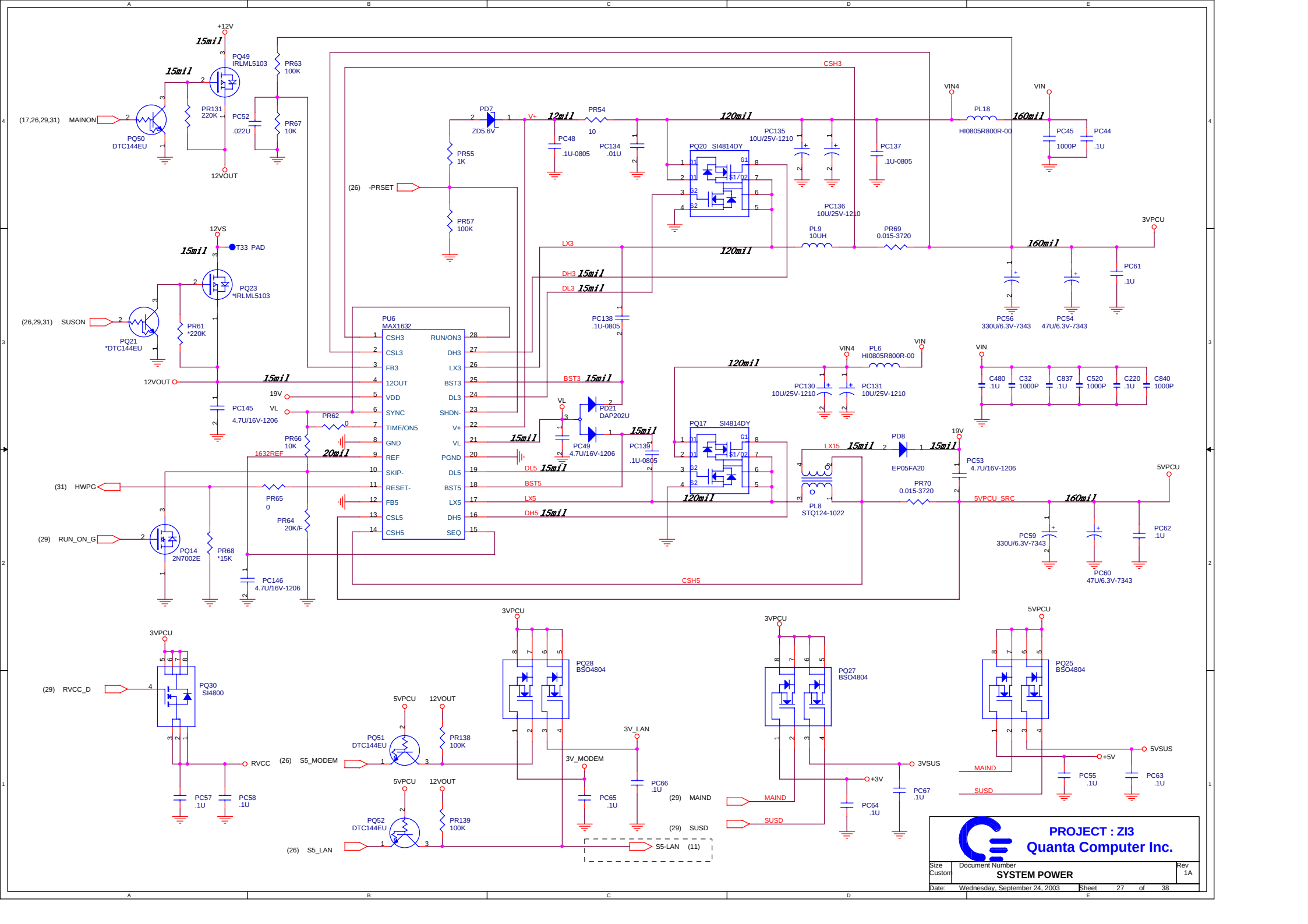
TYPE III MINI PCI SOCKET



PROJECT : ZI3			
Quanta Computer Inc.			
Size: Custom	Document Number: MINI PCI,4 IN 1 CARD		Rev: 2A
Date: Wednesday, September 24, 2003	Sheet 24 of 38		

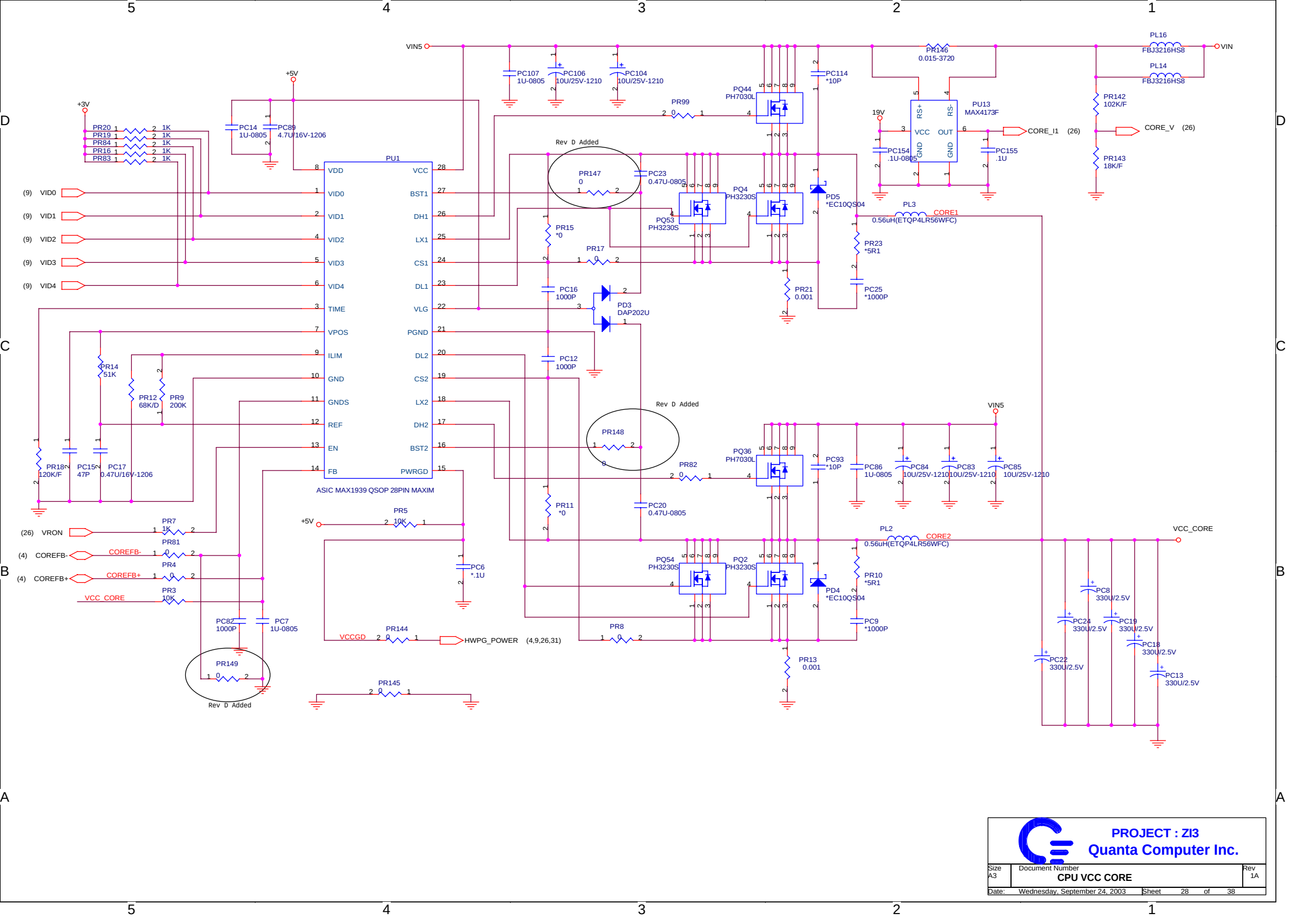

LAN_D
U33
VT6103
Rev C modify
LAN_A
Place near to VT6103
REFER ZI1 CN30
CN29
R-L-SPEAKERS
CN30
R-L-SPEAKERS
U4
NS681690
LANCT1
LANCT2
LANCT3
LANCT4
LANCT5
RJ45_TXD+
RJ45_TXD-
RJ45_RXD+
RJ45_RXD-
3V_LAN
U35A
NC7WZ14
U35B
NC7WZ14
SW1010C
CN2
RJ-45 & RJ-11
CN22
MDC
Rev B Modify
570 EXP. IO
ITEM 83,
Rev.B modify
U43
SN74AHC244PW
U44A
NC7WZ32
U44B
NC7WZ32
5VPCU
BD[0..7]
ITEM 74 Rev.B add pin15 -LID and R474 NC for
S/W request
PROJECT : ZI3
Quanta Computer Inc.
LAN PHY VT6103 + RJ11&RJ45, 570 EXP. IO
Wednesday, September 24, 2003
Sheet 25 of 38


U40A
U40B
PC87C570-TQFP
TQFP176-S
FOR EMI
5VPCU
RESET SWITCH
SW1
-PRSET
BD[0..7]
-ROMWE
-570_ROMCS
-ROMOE
U39
PLCC
28SF040
Should have a 0.1uF capacitor close to every GND-VCC pair + one larger cap on the supply.
U37
NC7SZ14
U41
NM24C08
PROJECT : ZI3
Quanta Computer Inc.
PCU(NS87570)
Wednesday, September 24, 2003



PROJECT : ZI3
Quanta Computer Inc.

Size	Document Number	Rev
Custom	SYSTEM POWER	1A
Date: Wednesday, September 24, 2003	Sheet 27 of 38	

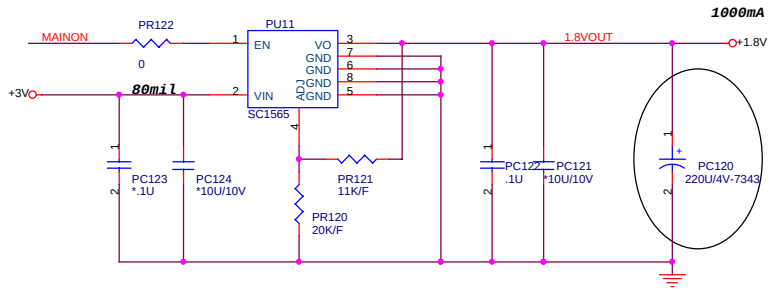


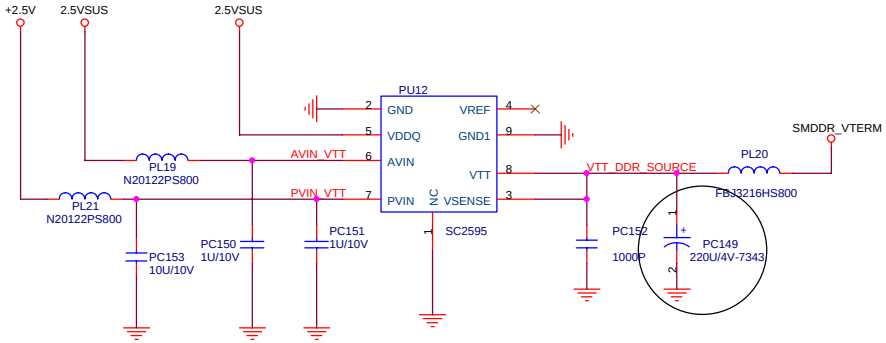
PROJECT : ZI3

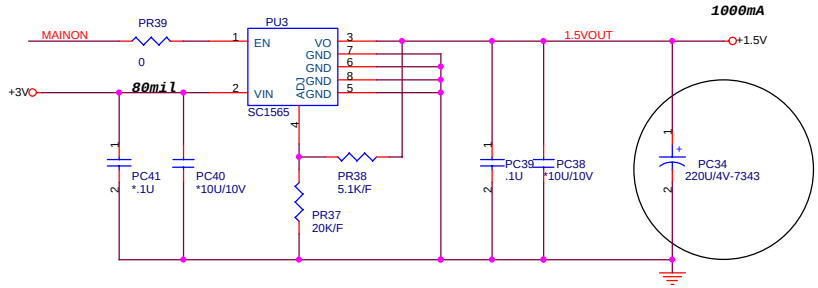
Quanta Computer Inc.

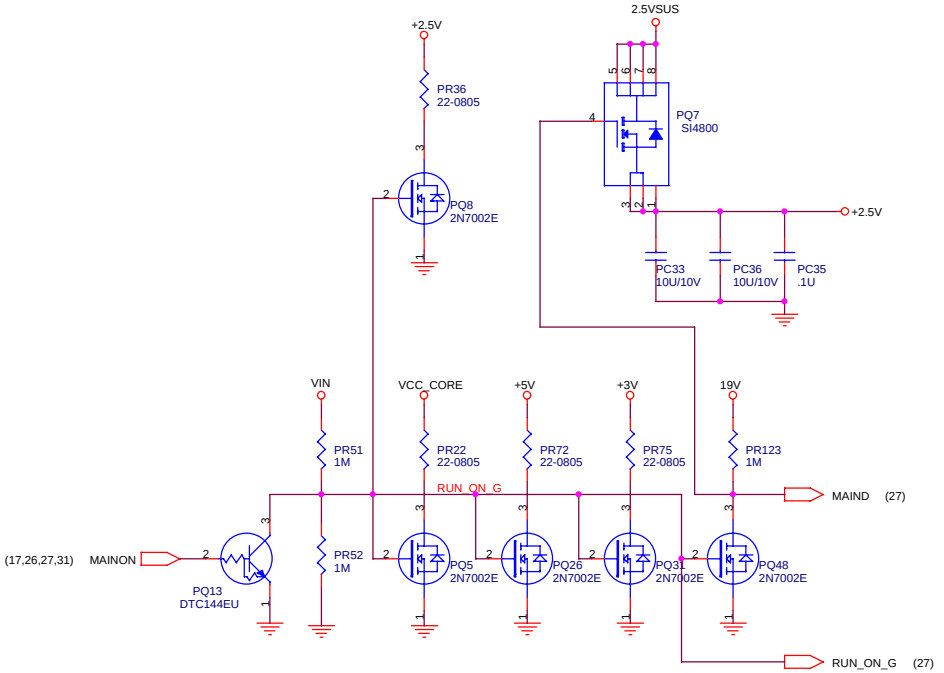
Size	Document Number	Rev
A3	CPU VCC CORE	1A

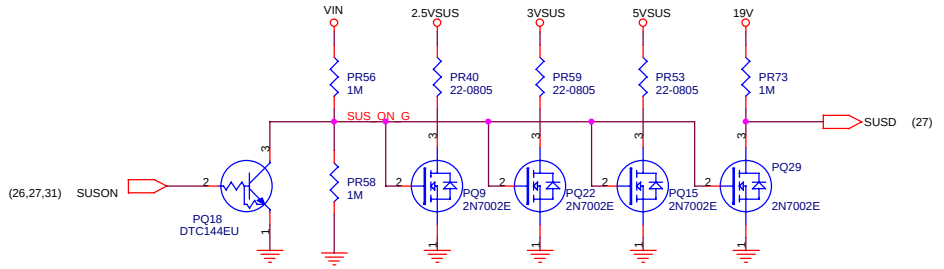
Date: Wednesday, September 24, 2003 Sheet 28 of 38

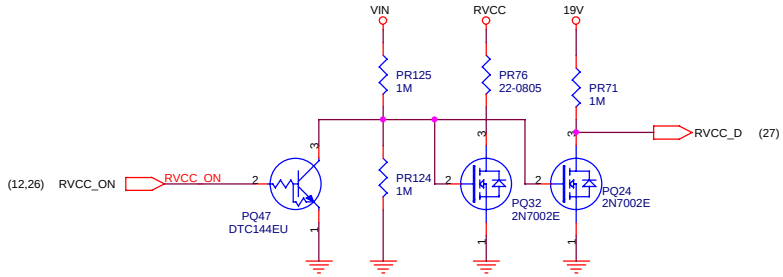








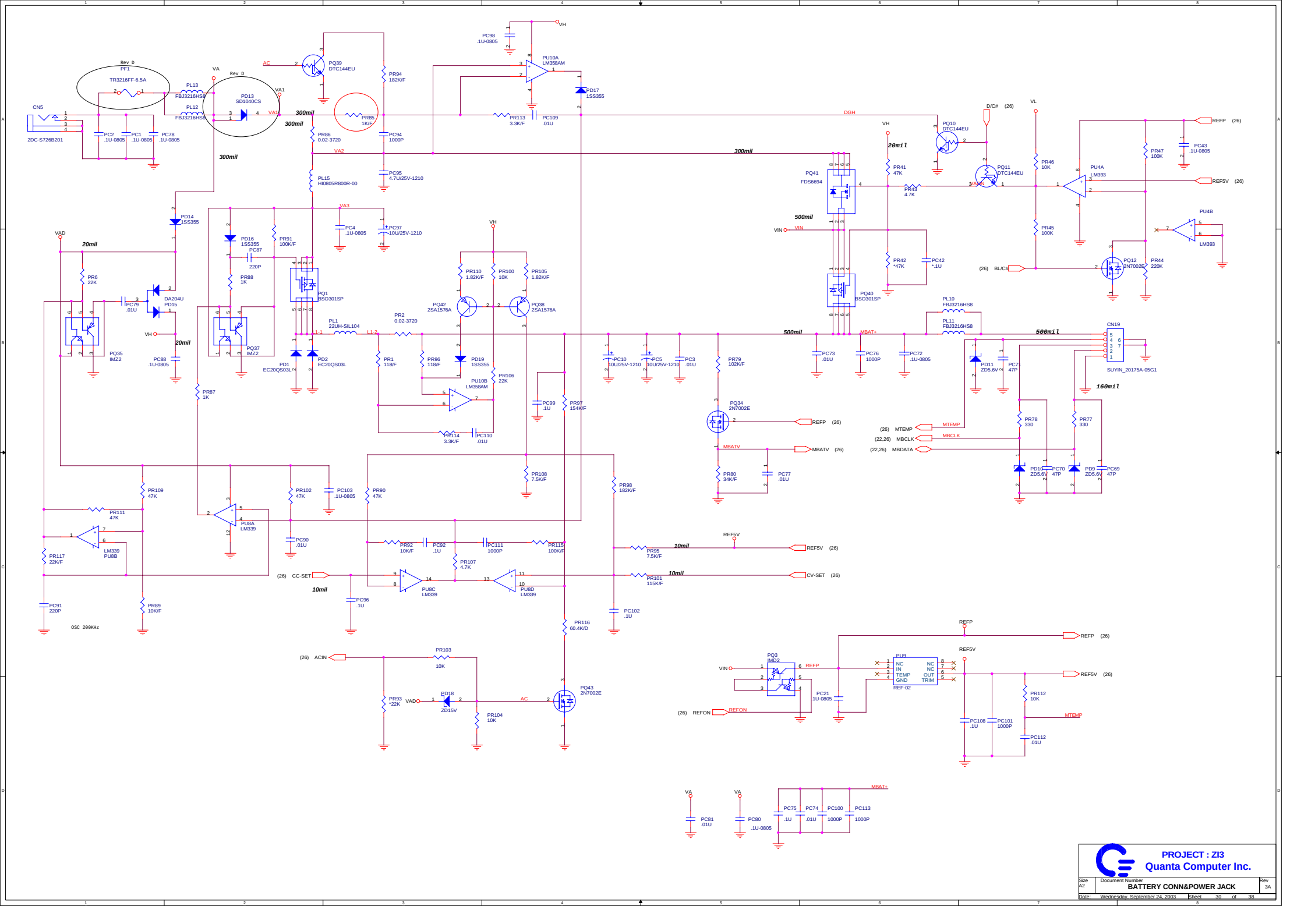


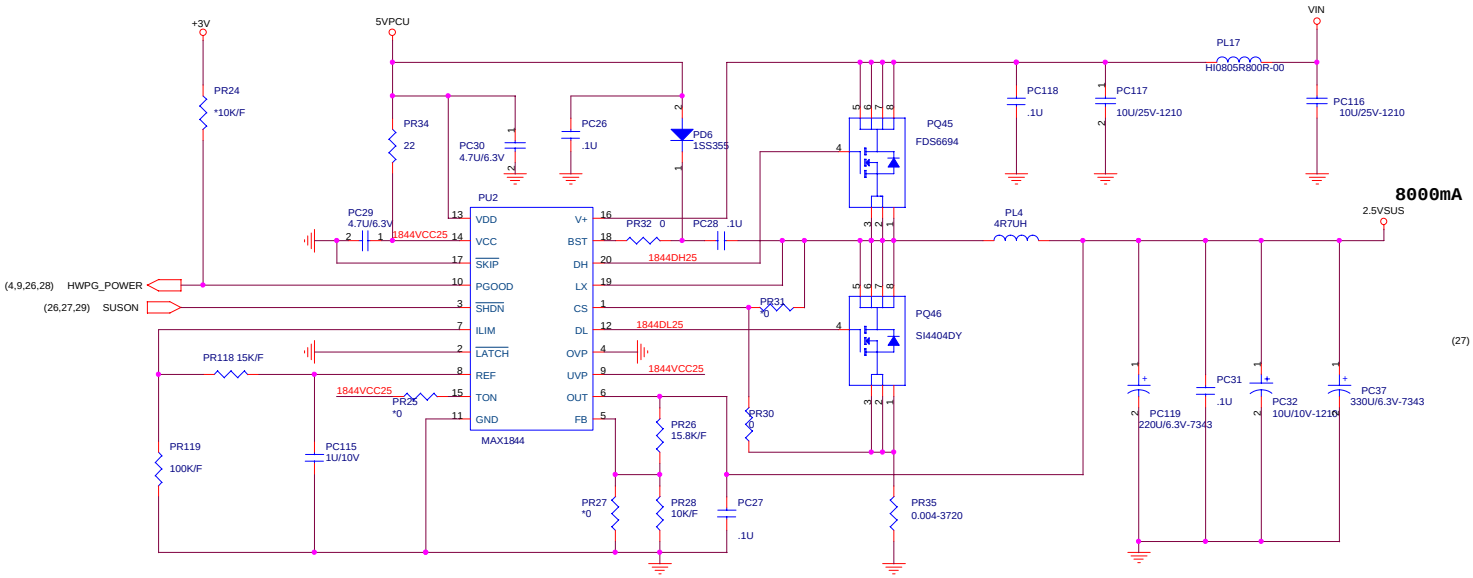


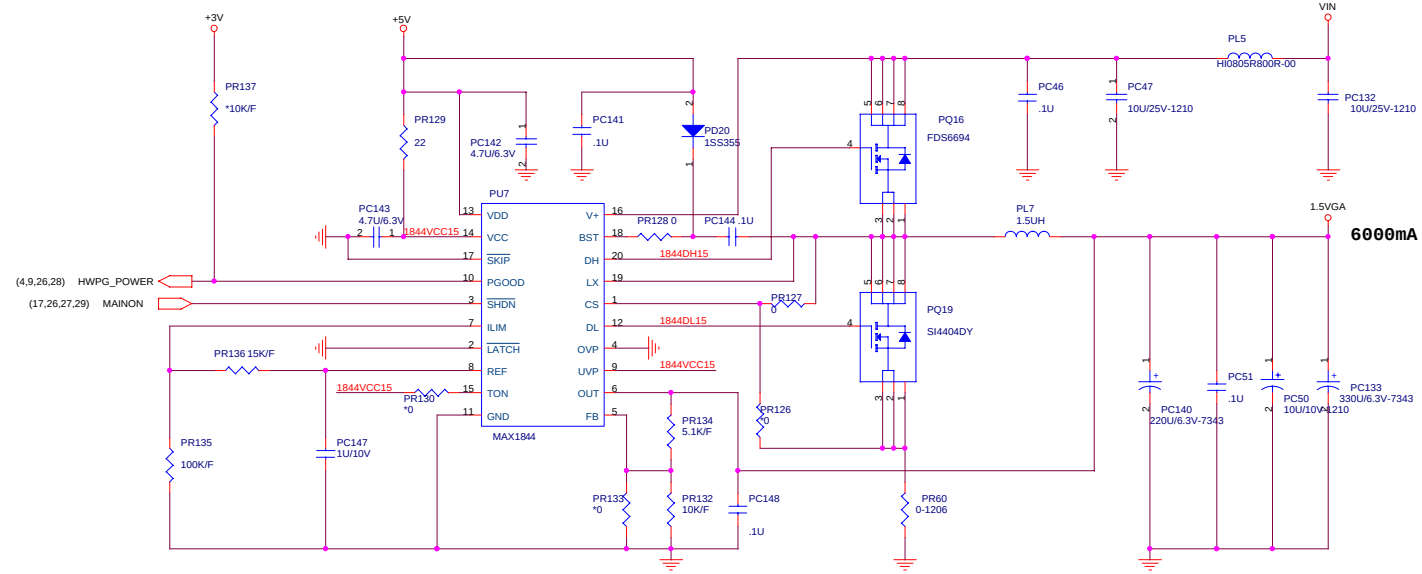
PROJECT : ZI3

Quanta Computer Inc.

Size	Document Number	Rev
Custom	DISCHARGE CIRCUIT	1A
Date: Wednesday, September 24, 2003	Sheet 29 of 38	


CN5
2DC-S726B201
PF1
TR3216FF-6.5A
PL13
FBJ3216HS8
PL12
FBJ3216HS8
PD13
SD1040CS
PC2 .1U-0805
PC1 .1U-0805
PC78 .1U-0805
PQ39
DTC144EU
PR84
182K/F
PC98
.1U-0805
PU10A
LM358AM
PD17
1SS355
PR85
1K/F
PR86
0.02-3720
PR113
3.3K/F
PC109
.01U
PC94
1000P
PC95
4.7U/25V-1210
PL15
HI0805R800R-00
PD14
1SS355
PD16
1SS355
PR91
100K/F
PC87
220P
PR88
1K
PC4
.1U-0805
PC97
10U/25V-1210
PQ1
BSO301SP
PR87
1K
PR6
22K
PC79
.01U
DA204U
PD15
PQ35
IMZ2
PC88
.1U-0805
PQ37
IMZ2
PD1
EC20QS03L
PD2
EC20QS03L
PQ42
2SA1576A
PQ38
2SA1576A
PR110
1.82K/F
PR100
10K
PR105
1.82K/F
PL1
22UH-SIL104
PR2
0.02-3720
PR1
118/F
PR96
118/F
PD19
1SS355
PR106
22K
PU10B
LM358AM
PR114
3.3K/F
PC110
.01U
PC99
.1U
PR97
154K/F
PC10
10U/25V-1210
PC5
10U/25V-1210
PC3
.01U
PR79
102K/F
PQ41
FDS6694
PR41
47K
PR43
4.7K
PQ10
DTC144EU
PQ11
DTC144EU
PR42
*47K
PC42
*.1U
PQ40
BSO301SP
PC73
.01U
PC76
1000P
PC72
.1U-0805
PL10
FBJ3216HS8
PL11
FBJ3216HS8
PD11
ZD5.6V
PC71
47P
CN19
SUYIN_20175A-05G1
PR46
10K
PR45
100K
PU4A
LM393
PU4B
LM393
PR47
100K
PC43
.1U-0805
PQ12
2N7002E
PR44
220K
PR78
330
PR77
330
PD10
ZD5.6V
PC70
47P
PD9
ZD5.6V
PC69
47P
PQ34
2N7002E
PR80
34K/F
PC77
.01U
PR108
7.5K/F
PR98
182K/F
PR109
47K
PR111
47K
PR102
47K
PC103
.1U-0805
PR90
47K
PU8A
LM339
PU8B
LM339
PR117
22K/F
PC91
220P
PR89
10K/F
PC90
.01U
PR92
10K/F
PC92
.1U
PC111
1000P
PR115
100K/F
PR107
4.7K
PU8C
LM339
PU8D
LM339
PR95
7.5K/F
PR101
115K/F
PC96
.1U
PC102
.1U
PR116
60.4K/D
PR103
10K
PR93
*22K
PD18
ZD15V
PR104
10K
PQ43
2N7002E
PQ3
IMD2
PU9
REF-02
PC21
.1U-0805
PR112
10K
PC108
.1U
PC101
1000P
PC112
.01U
PC81
.01U
PC80
.1U-0805
PC75
.1U
PC74
.01U
PC100
1000P
PC113
1000P
VH
VA
VA1
VA2
VA3
VAD
VL
VIN
DGH
MBAT+
REFP
REF5V
MBATV
MTEMP
MBCLK
MBDATA
CC-SET
CV-SET
ACIN
REFON
D/C#
BL/C#
300mil
500mil
20mil
10mil
160mil
OSC 200KHz
PROJECT : ZI3
Quanta Computer Inc.
BATTERY CONN&POWER JACK
Size A2
Rev 3A
Wednesday, September 24, 2008
Sheet 30 of 38



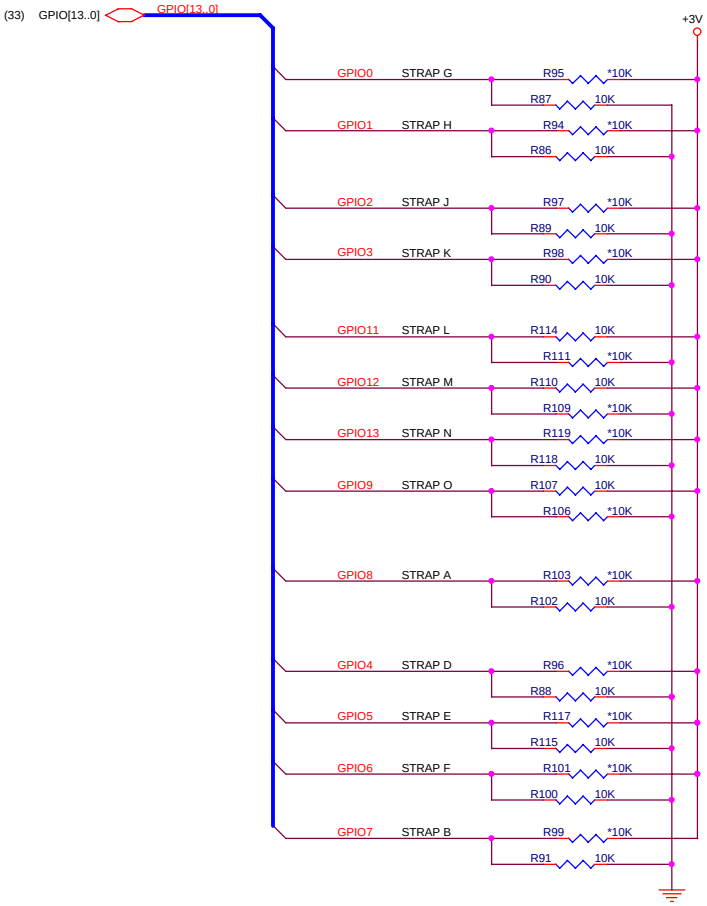


PROJECT : ZI3

Quanta Computer Inc.

Size	Document Number	Rev
Custom	SYS POWER 2.5V&DDR	2A
Date: Wednesday, September 24, 2003	Sheet 31 of 38	

OPTION STRAPS



STRAP H	STRAP G	AGP1X CLOCK FEEDBACK PHASE ADJUSTMENT WRT REFCLK (CPUCLK)
LOW	LOW	(DEFAULT) SEE PINOUT SPEC FOR OPTION SETTINGS

STRAP K	STRAP J	AGP CLOCK PHASE ADJUSTMENT BETWEEN X1 AND X2 CLOCK
LOW	LOW	(DEFAULT) SEE PINOUT SPEC FOR OPTION SETTINGS

STRAP O	STRAP N	STRAP M	STRAP L	ROM IDENTIFIER
HIGH	LOW	HIGH	HIGH	(DEFAULT) SEE PINOUT SPEC FOR OPTION SETTINGS

STRAP A	ID DISABLE
LOW	NORMAL OPERATION (DEFAULT)
HIGH	SHUT DOWN

STRAP D	STRAP E	STRAP F	BUS_TYPE
LOW	LOW	LOW	(DEFAULT) SEE PIN BASED STRAPS IN PINOUT SPEC

STRAP B	VGA
LOW	ENABLE (DEFAULT)
HIGH	DISABLE

NOTE: THE M7
SUPPORTS THE USE OF STRAP RESISTORS
(AS AN ALTERNATIVE TO CUSTOMIZED BIOS)
TO CONFIGURE CERTAIN ASPECTS OF THE GRAPHICS
SUBSYSTEM. THE USE OF EXTERNAL STRAPS
PROVIDES ADDED FLEXIBILITY AND EASE OF FUTURE
UPGRADE. STRAPPED VALUES ARE LOADED INTO
INTERNAL REGISTERS ON THE FIRST PCI
COMMAND AFTER RESET# IS INACTIVE.

NOTE:

THE I/O BUFFERS USE INTERNAL PULLDOWN RESISTOR.
THIS DICTATES THE FOLLOWING STRAP
CONFIGURATION:
STRAP TO VCC VIA 10K RESISTOR.
THIS PROVIDES THE LOGIC LEVELS SHOWN:
'0' WHEN 10K RESISTOR NOT INSTALLED
'1' WHEN 10K RESISTOR INSTALLED.

PROJECT : ZI3
Quanta Computer Inc.

Size	Document Number	Rev
Custom	AGP Bus Straps	1A
Date: Wednesday, September 24, 2003	Sheet 32 of 38	

GPIO[13:10] AND ZV_LCDDATA[23:16] MUST BE AVAILABLE FOR DEBUGGING CONNECTIONS , IF UNUSED , ENSURE TEST POINTS FOR ACCESSIBILITY

Video BIOS

SERIAL EEPROM BIOS

U26 M25P10 TYPE 1

SSC

U23 MK1707S /P1707

U8A Part 1 of 7

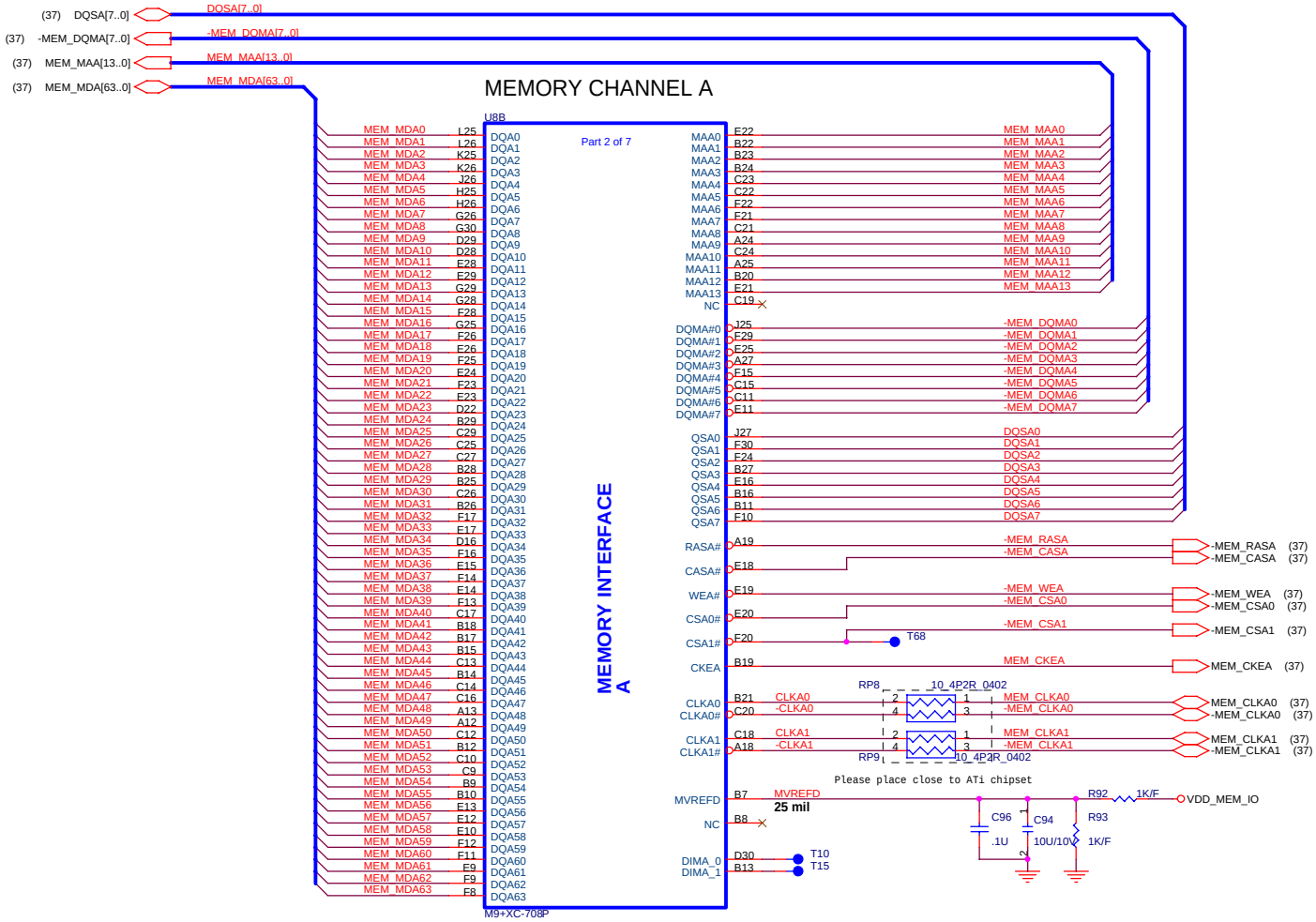
PCI / AGP | DVO / EXT TMDS / GPIO | AGP2X | LVDS | AGP 4X | AGP 8X | TMDS | DAC2 | CLK SS | DAC1 | PWR MAN | THERM

M9+XC-708P

AGP 8X : stuff R17,R20
AGP 4X : NC R17,R20

remove MAX6657 on revB

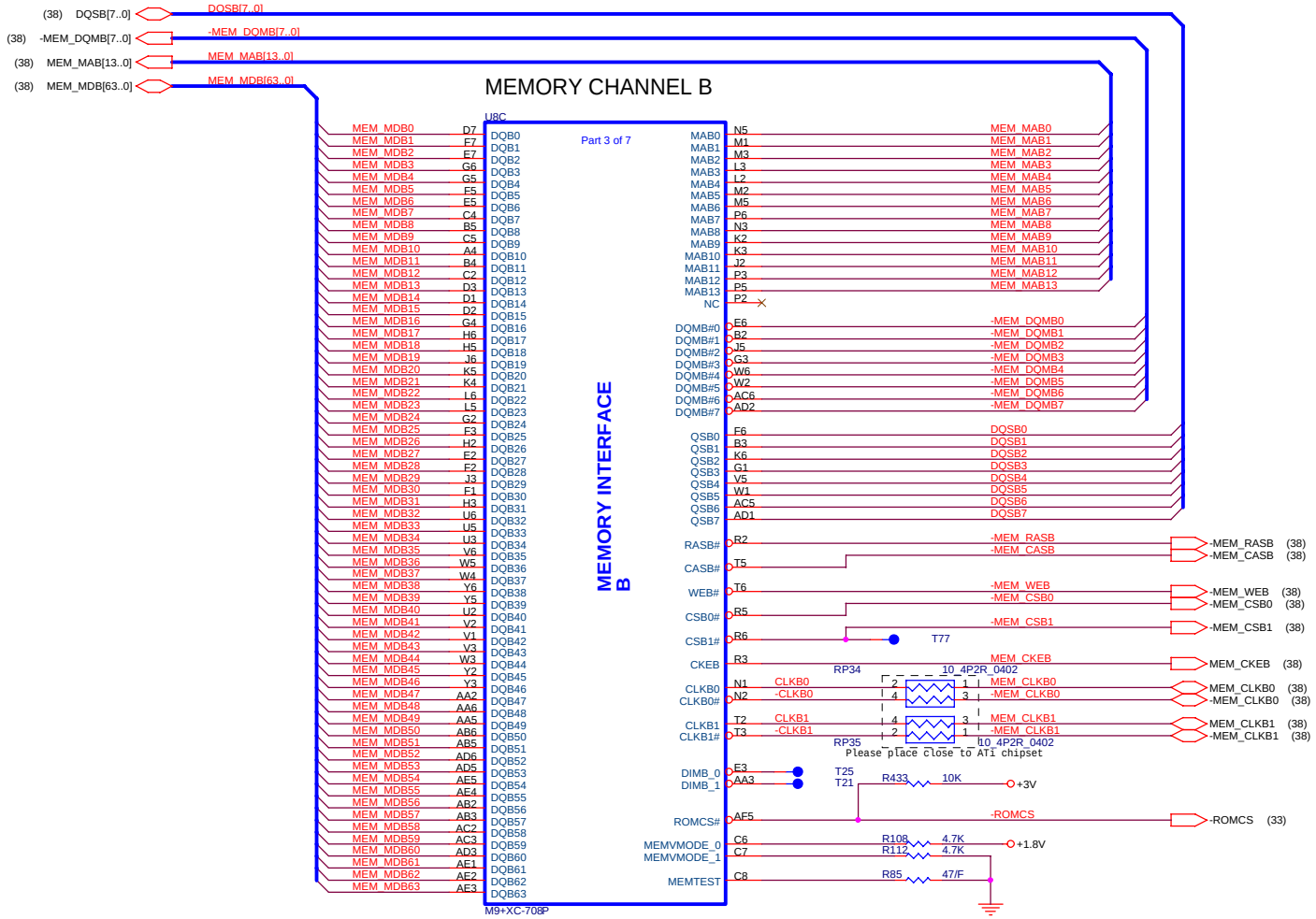
Project	PROJECT : ZI3
Company	Quanta Computer Inc.
Size / Custom	Document Number: ATi M9+X
Rev	1A
Date:	Wednesday, September 24, 2003
Sheet	33 of 38



PROJECT : ZI3

Quanta Computer Inc.

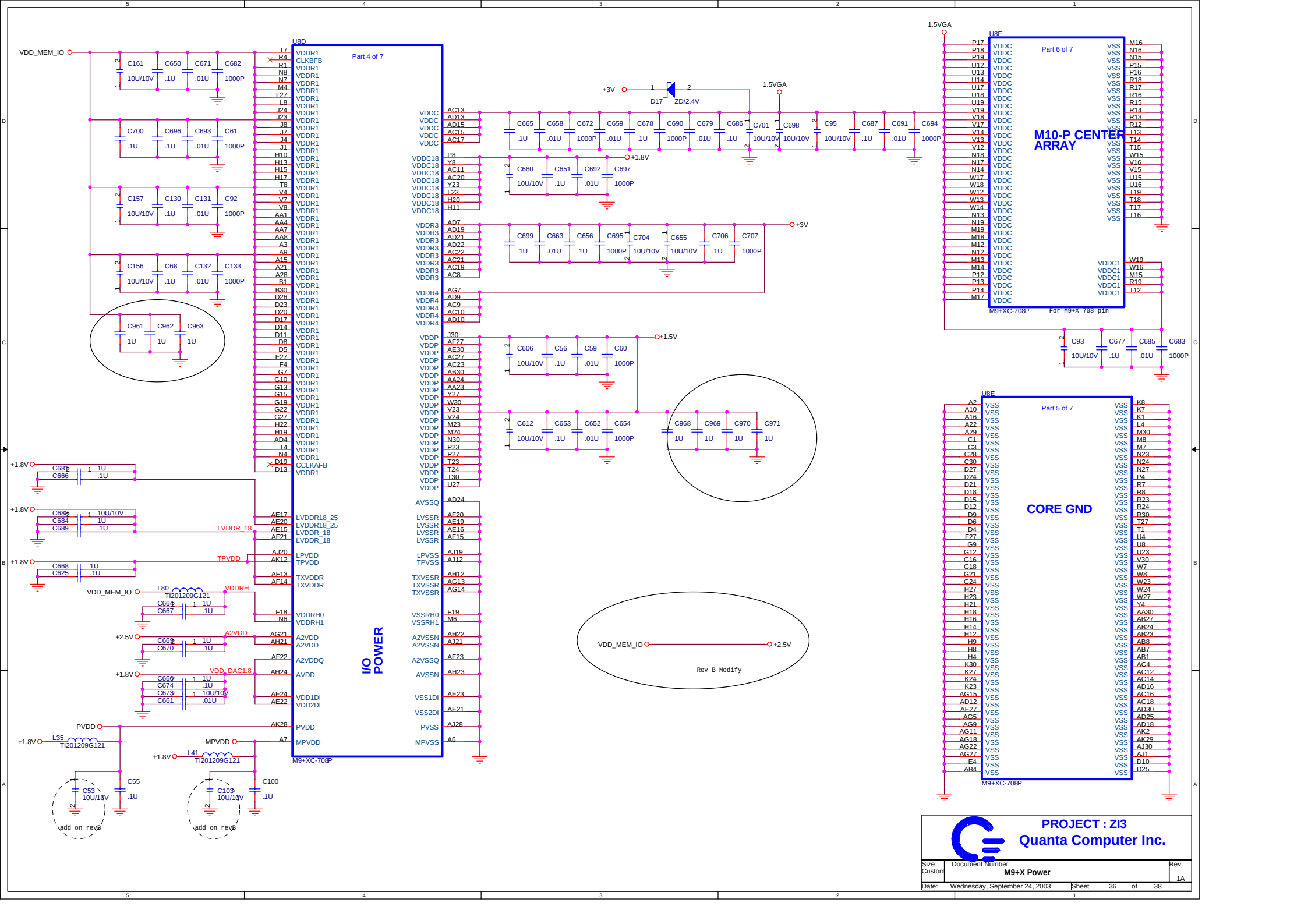
Size	Document Number	Rev
Custom	M9+X Memory Bus A	1A
Date: Wednesday, September 24, 2003	Sheet 34 of 38	



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

PROJECT : ZI3
Quanta Computer Inc.

Size	Document Number	Rev
Custom	M9+X Memory Bus B	1A
Date: Wednesday, September 24, 2003	Sheet 35 of 38	


U8D
Part 4 of 7
I/O POWER
M9+XC-708P
U8F
Part 6 of 7
M10-P CENTER ARRAY
M9+XC-708P
For M9+X 708 pin
U8F
Part 5 of 7
CORE GND
M9+XC-708P
1.5VGA
+3V
D17 ZD/2.4V
+1.8V
+1.5V
+2.5V
VDD_MEM_IO
LVDDR_18
TPVDD
VDDRH
A2VDD
VDD_DAC1.8
MPVDD
PVDD
L80 TI201209G121
L35 TI201209G121
L41 TI201209G121
add on rev B
add on rev B
Rev B Modify
PROJECT : ZI3
Quanta Computer Inc.
Size Custom
Document Number
M9+X Power
Rev 1A
Date: Wednesday, September 24, 2003
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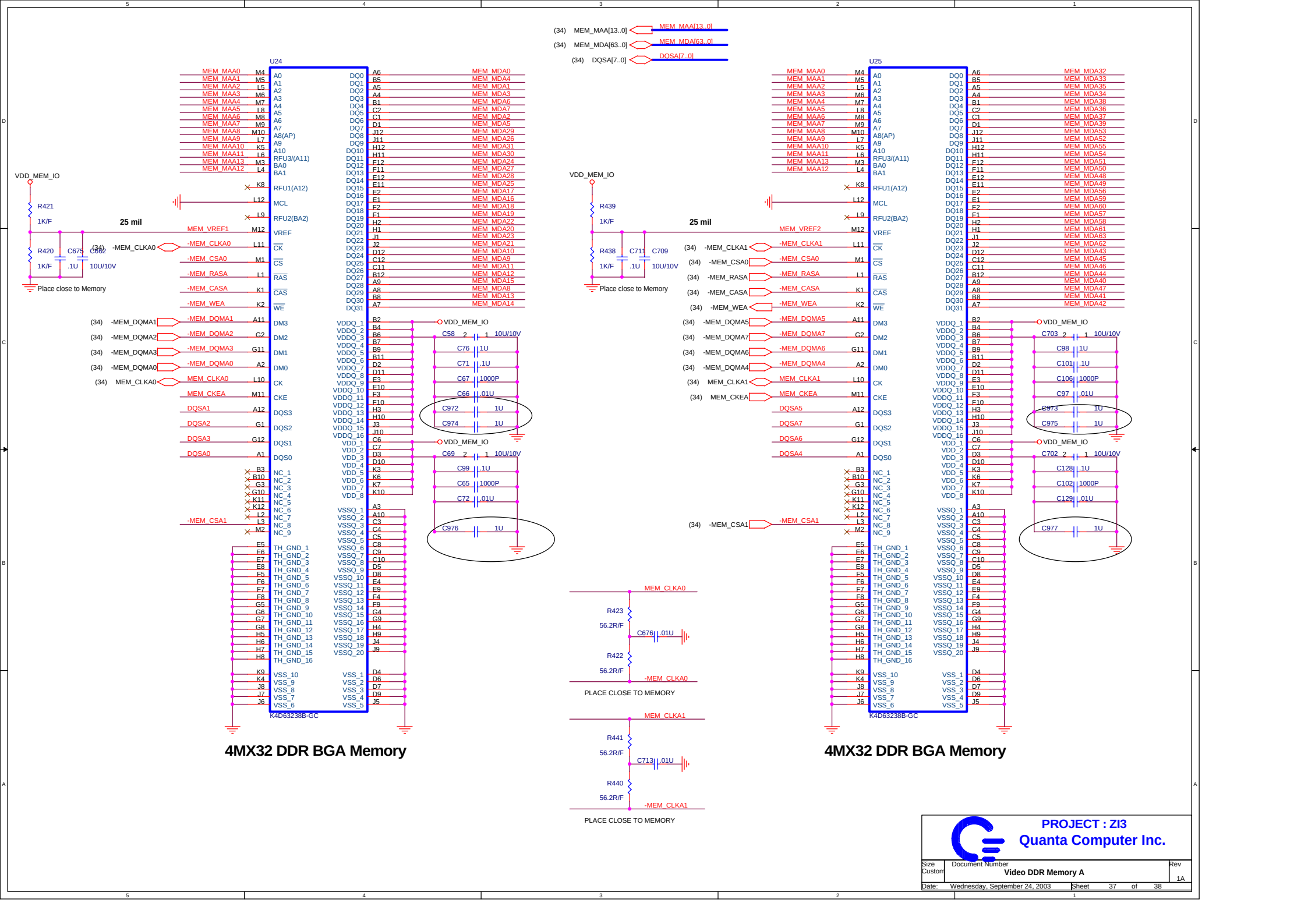
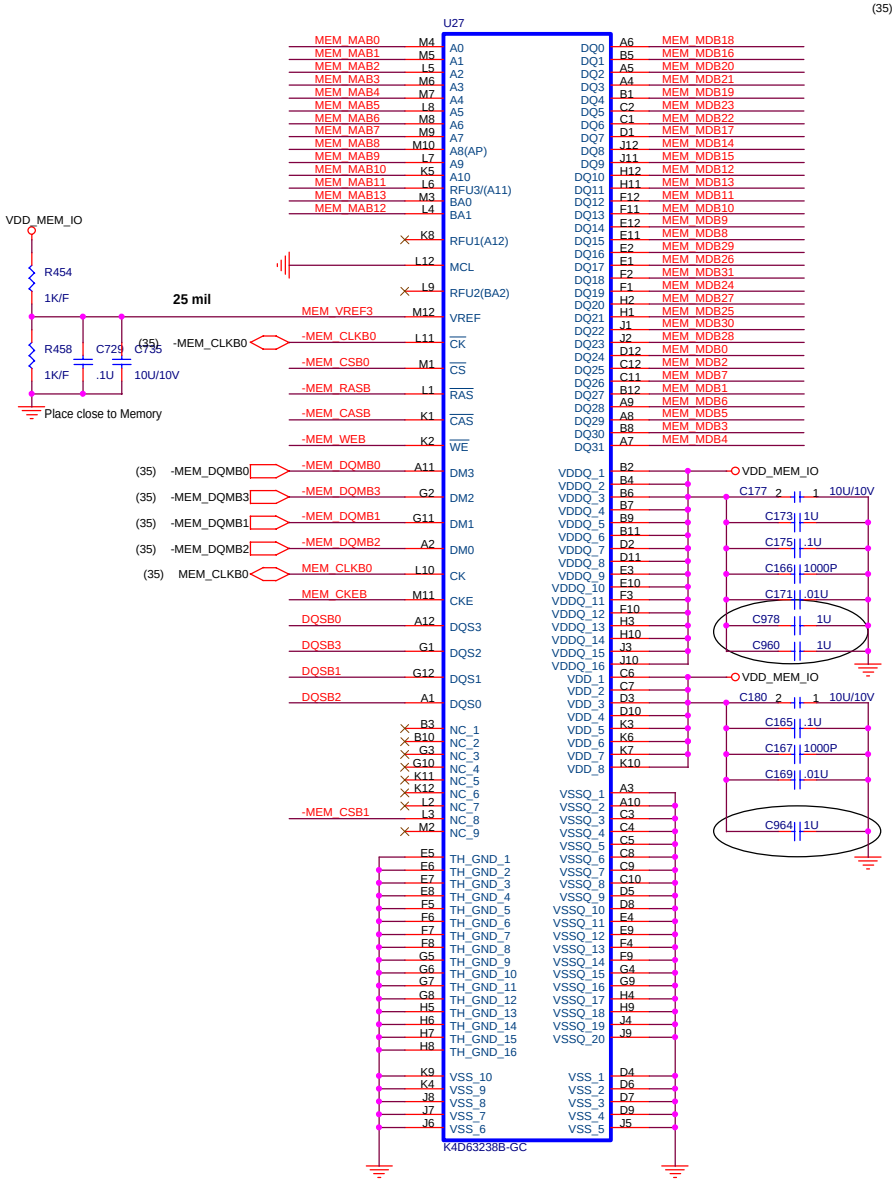
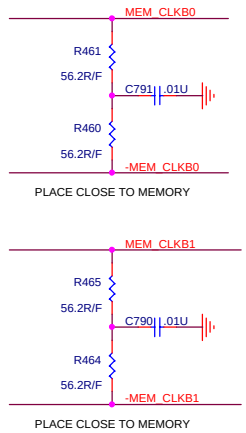

(34) MEM_MAA[13..0]
MEM_MAA[13..0]
(34) MEM_MDA[63..0]
MEM_MDA[63..0]
(34) DQSA[7..0]
DQSA[7..0]
U24
U25
VDD_MEM_IO
R421
1K/F
25 mil
R420
1K/F
C675
.1U
C682
10U/10V
Place close to Memory
MEM_VREF1
MEM_VREF2
-MEM_CLKA0
-MEM_CSA0
-MEM_RASA
-MEM_CASA
-MEM_WEA
-MEM_DQMA1
-MEM_DQMA2
-MEM_DQMA3
-MEM_DQMA0
MEM_CLKA0
MEM_CKEA
DQSA1
DQSA2
DQSA3
DQSA0
-MEM_CSA1
-MEM_CLKA1
-MEM_CSA0
-MEM_RASA
-MEM_CASA
-MEM_WEA
-MEM_DQMA5
-MEM_DQMA7
-MEM_DQMA6
-MEM_DQMA4
MEM_CLKA1
MEM_CKEA
DQSA5
DQSA7
DQSA6
DQSA4
-MEM_CSA1
K4D63238B-GC
4MX32 DDR BGA Memory
4MX32 DDR BGA Memory
R439
R438
C711
C709
R423
56.2R/F
C676
.01U
R422
MEM_CLKA0
PLACE CLOSE TO MEMORY
R441
C713
R440
MEM_CLKA1
PLACE CLOSE TO MEMORY
PROJECT : ZI3
Quanta Computer Inc.
Size Custom
Document Number
Video DDR Memory A
Rev 1A
Date: Wednesday, September 24, 2003
Sheet 37 of 38

(35) MEM_MAB[13..0] — MEM_MAB[13..0]
(35) MEM_MDB[63..0] — MEM_MDB[63..0]
(35) DQSB[7..0] — DQSB[7..0]



4MX32 DDR BGA Memory



4MX32 DDR BGA Memory

PROJECT : ZI3
Quanta Computer Inc.

Size	Document Number	Rev
Custom	Video DDR Memory B	1A
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