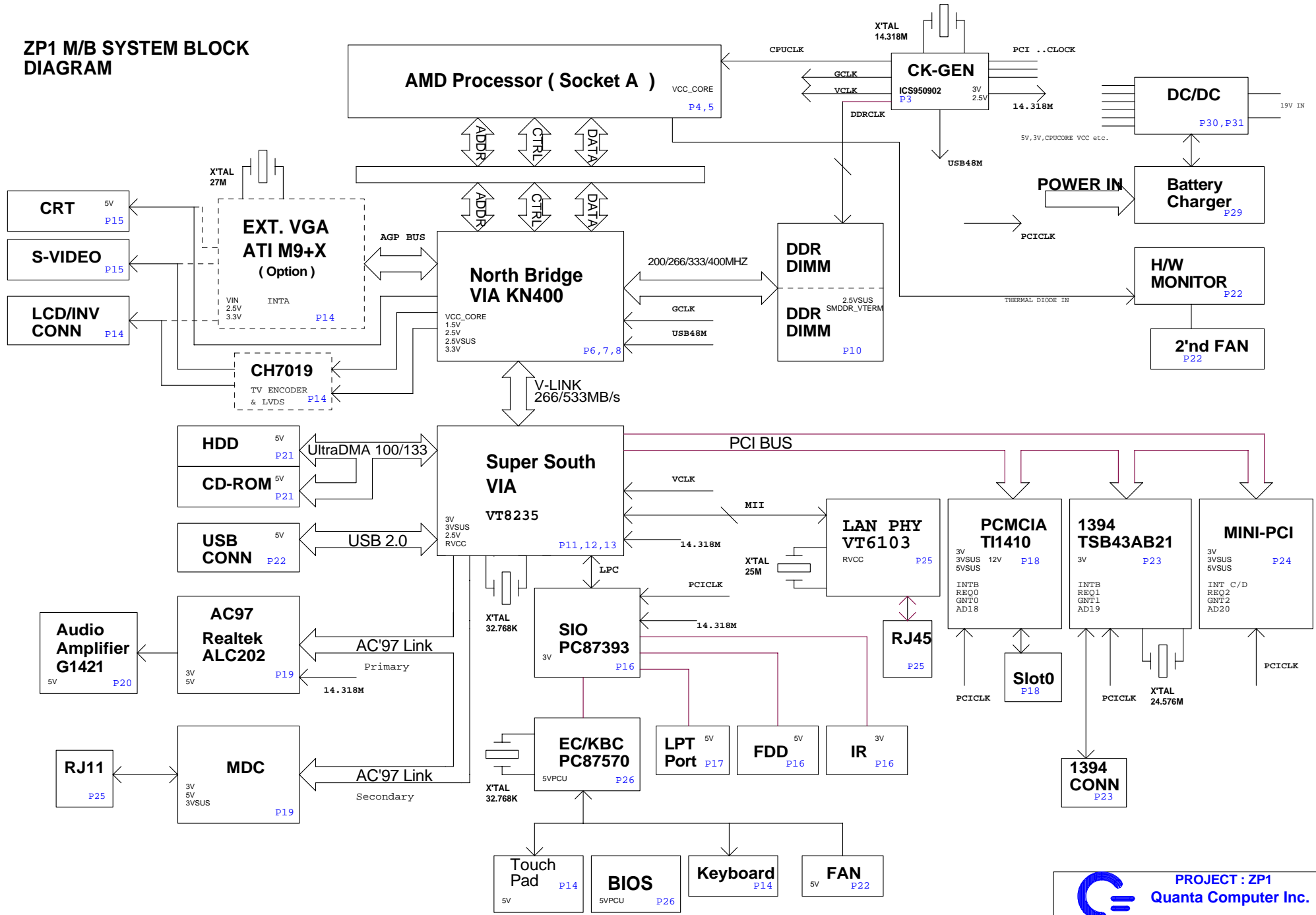


MODEL	REV	CHANGE LIST	Model	ZP1 M/B BOARD	
			Page	FM	TO
ZP1 M/B BOARD	1A	First Release	1	1A	
	2A	Reference ECN E200305-1522	2	1A	
			3	2A	
			4	3A	
			5	3C	
			6	2A	3H
			7	2A	
			8	2B	
			9	3A	
			10	1A	
			11	3A	
			12	2A	
			13	2A	
			14	2A	
			15	2A	
			16	2C	
			17	3A	
			18	1A	
			19	3G	
	20	3C			
	21	2A			
	22	3D			
	23	3A			
	24	3F			
	25	2A			
	26	2A			
	27	2A			
	28	2C			
	29	2A			
	30	3B			
	31	3E			
	32	3C			



PROJECT : ZP1	PCBA NO.31ZP1MB0002	REV:3H	DOC. NO: 204		
APPROVED BY : Jason Liu	CHECK BY: Jason Liu	DRAWING BY: Roger Lee	DATE :09/16/2003	SHEET 1	

ZP1 M/B SYSTEM BLOCK DIAGRAM



Voltage Rails	Core voltage for Processor	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
SMDDR_VREF	1.25V for DDR Reference Voltage	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	

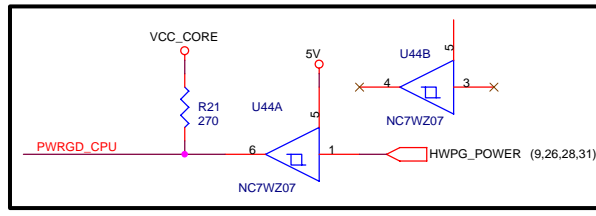
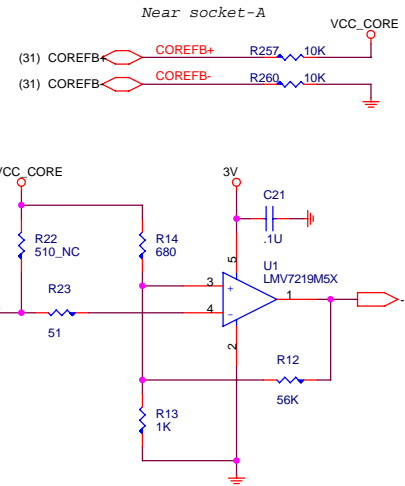
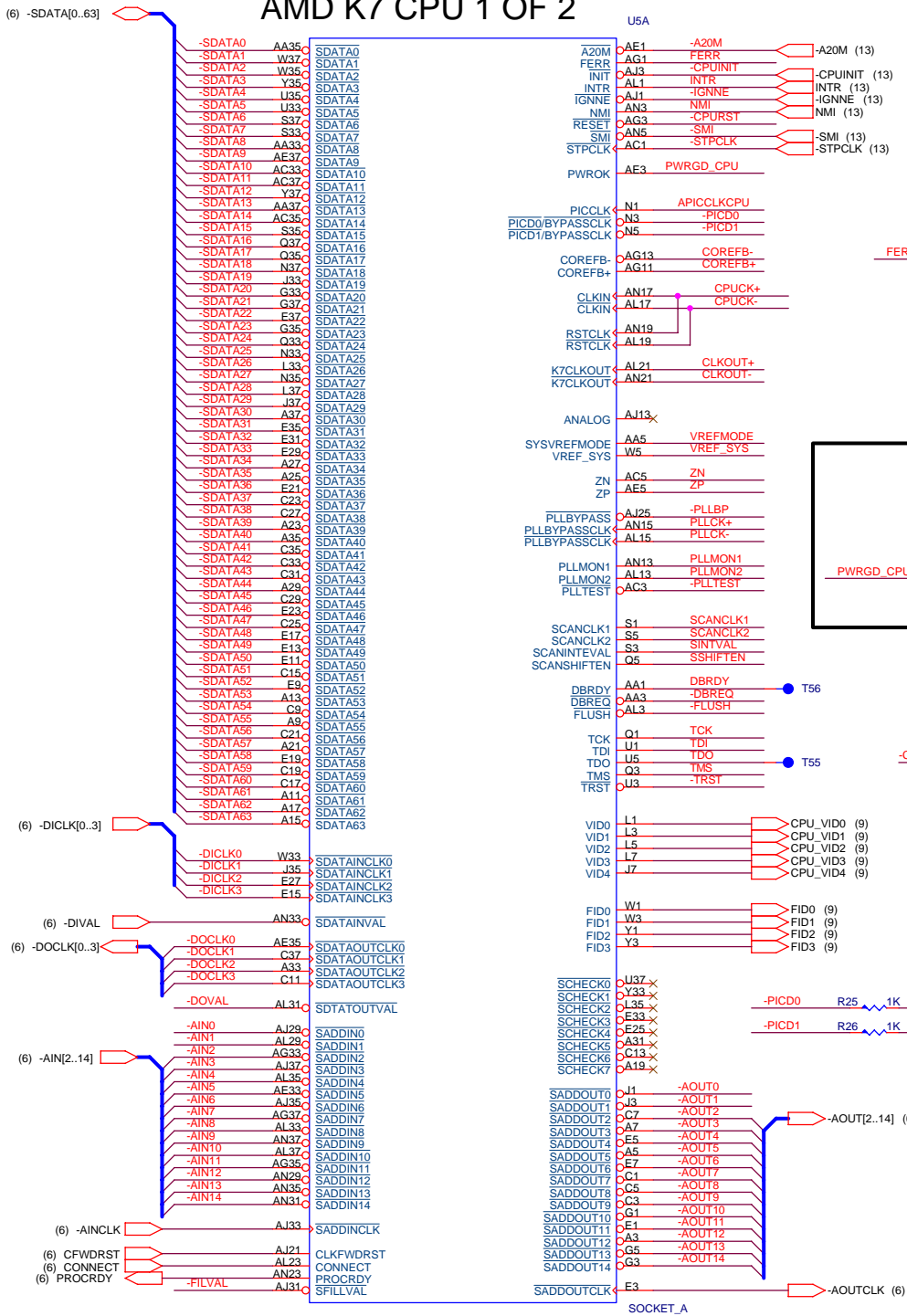
PCI DEVICE	IDSEL#	REQ/GNT#	Interrupts
CB1410	AD18	-REQ0/-GNT0	INTB
TSB43AB21	AD19	-REQ1/-GNT1	INTB
MINI-PCI	AD20	-REQ2/-GNT2	INT C/D
AGP			INTA



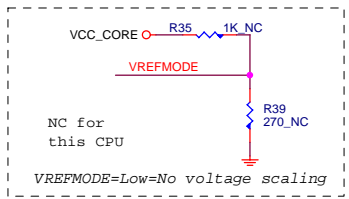
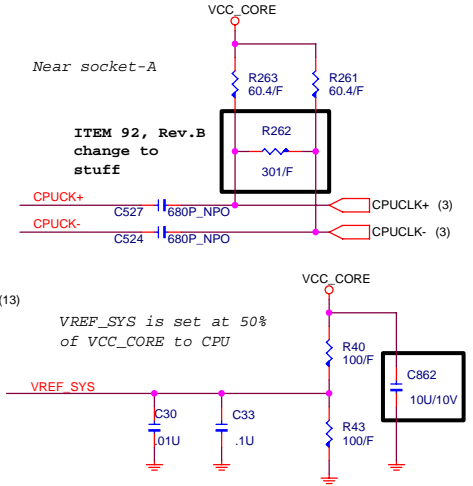
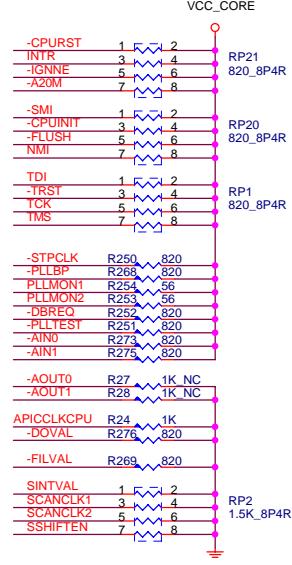
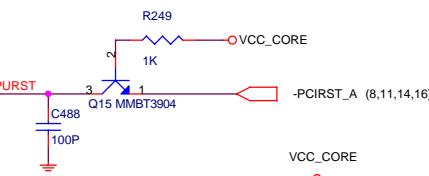
PROJECT : ZP1
Quanta Computer Inc.

Size A4	Document Number	Rev 1A
INFORMATION		
Date: Wednesday, September 17, 2003	Sheet 2	of 32

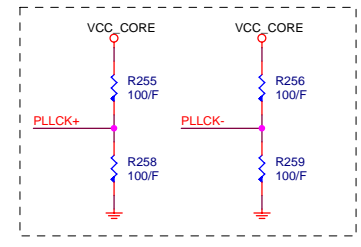
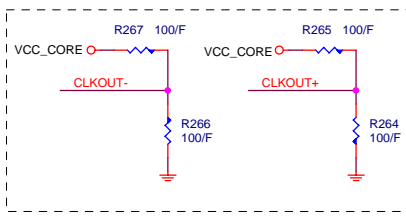
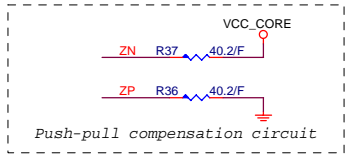
AMD K7 CPU 1 OF 2



ITEM 30, Rev.B modify this circuit



ITEM 134, Rev.D change from 1u to 10u

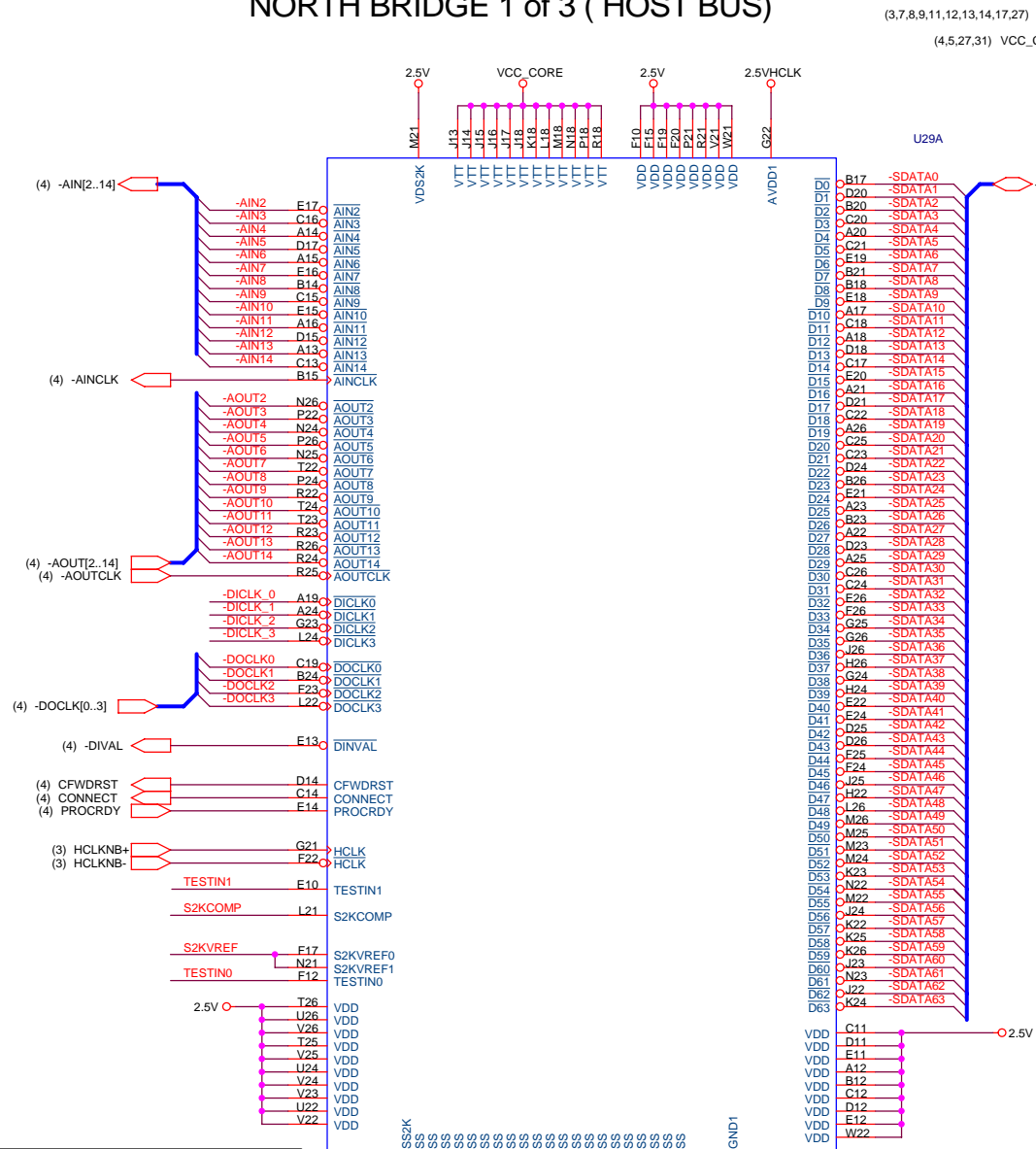


PROJECT : ZP1
Quanta Computer Inc.

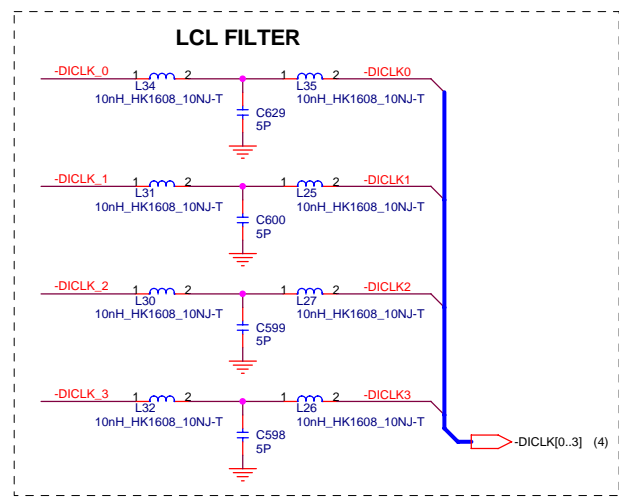
Size C Document Number **CPU-1(S2K)** Rev 3A

Date: Wednesday, September 17, 2003 Sheet 4 of 32

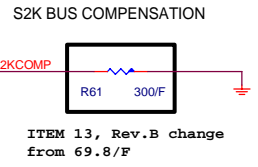
NORTH BRIDGE 1 of 3 (HOST BUS)



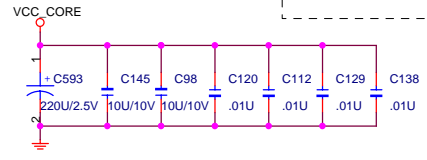
(3,7,8,9,11,12,13,14,17,27) 2.5V
 (4,5,27,31) VCC_CORE



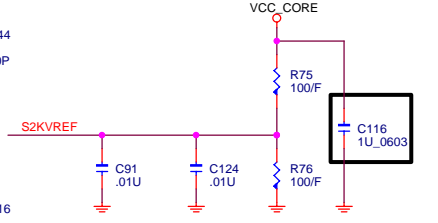
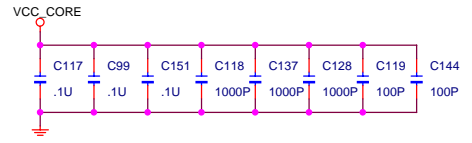
PLACED NEAR NORTH BRIDGE



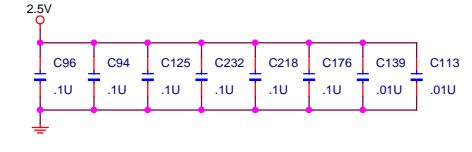
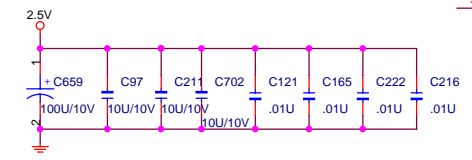
ITEM 13, Rev.B change from 69.8/F



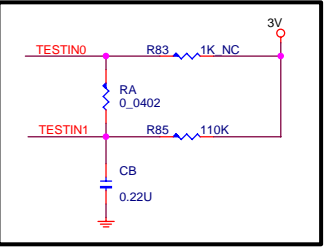
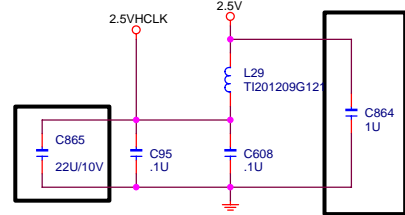
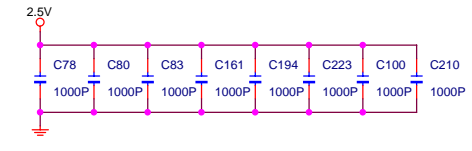
NORTH BRIDGE S2K REFERENCE VOTAGE (1/2 VCC_CORE)
 PLACED UNDER BGA




ITEM 75, Rev.B change from 0.1U



AVDDHCLK/AGNDHCLK : POWER/GROUND FOR INTERNAL CPU CLOCK LOGIC

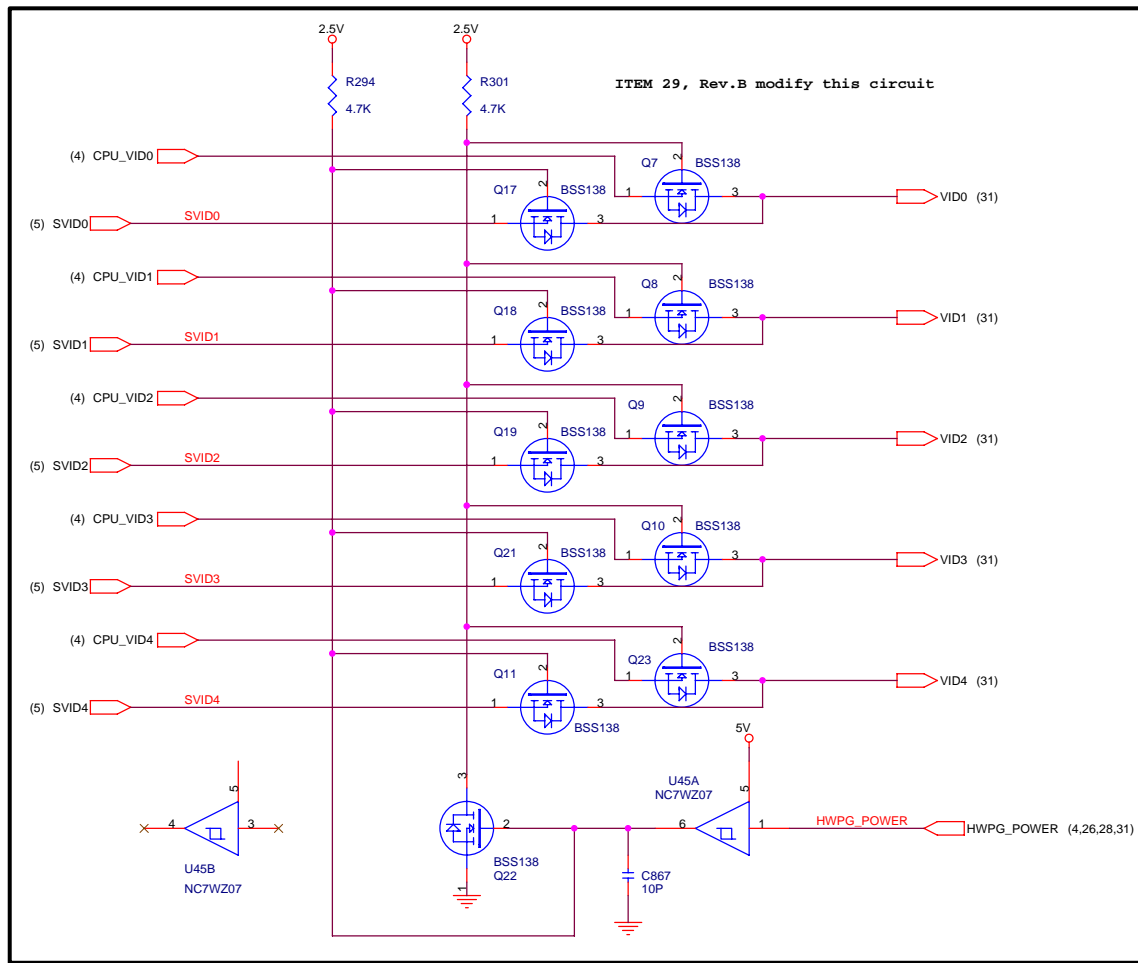
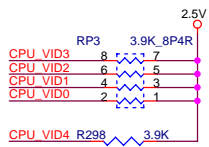
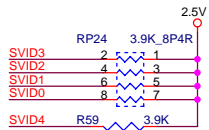




PROJECT : ZP1
Quanta Computer Inc.

Size C	Document Number	Rev 3H
NORTH BRIDGE-1(S2K)		
Date:	Wednesday, September 17, 2003	Sheet 6 of 32

AMD suggest 3.9K



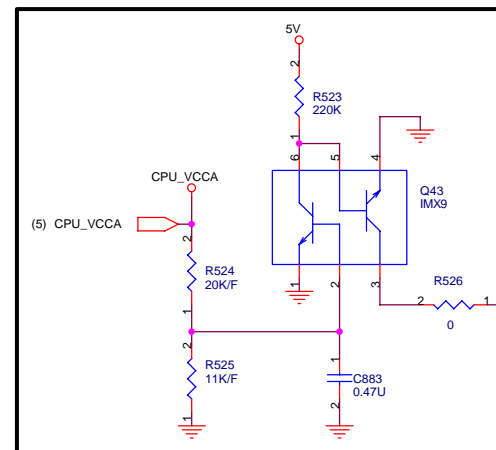
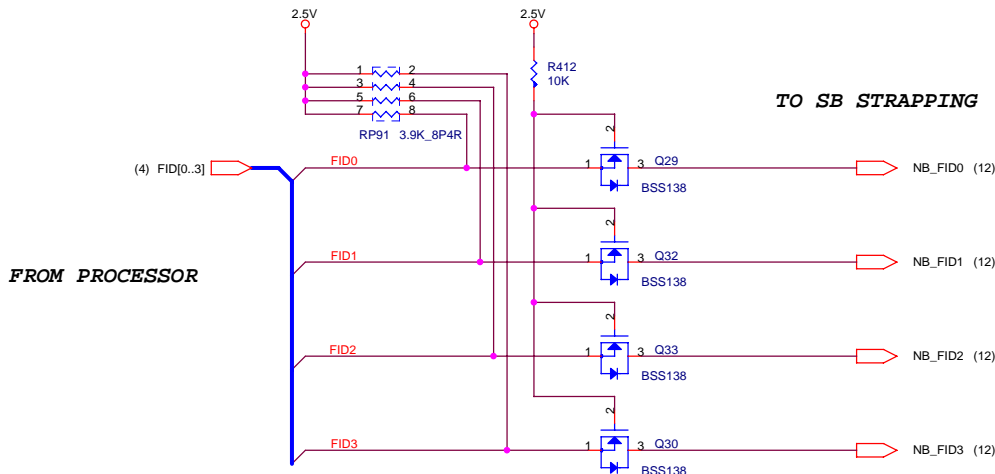
VID / FID Interface

VID Codes

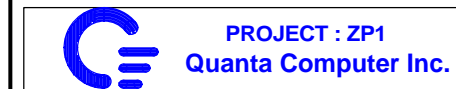
VID[4:0]	VCC_CORE	VID[4:0]	VCC_CORE
00000	2.000	10000	1.275
00001	1.950	10001	1.250
00010	1.900	10010	1.225
00011	1.850	10011	1.200
00100	1.800	10100	1.175
00101	1.750	10101	1.150
00110	1.700	10110	1.125
00111	1.650	10111	1.100
01000	1.600	11000	1.075
01001	1.550	11001	1.050
01010	1.500	11010	1.025
01011	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

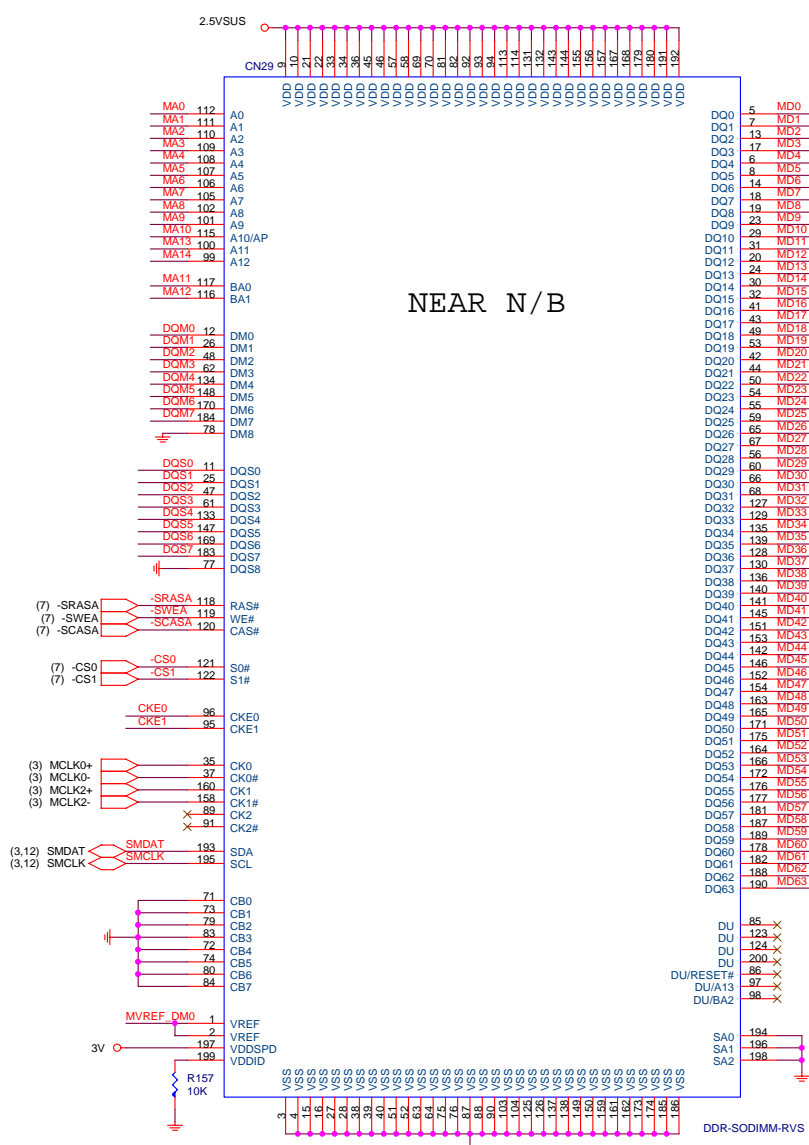
FID Codes

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

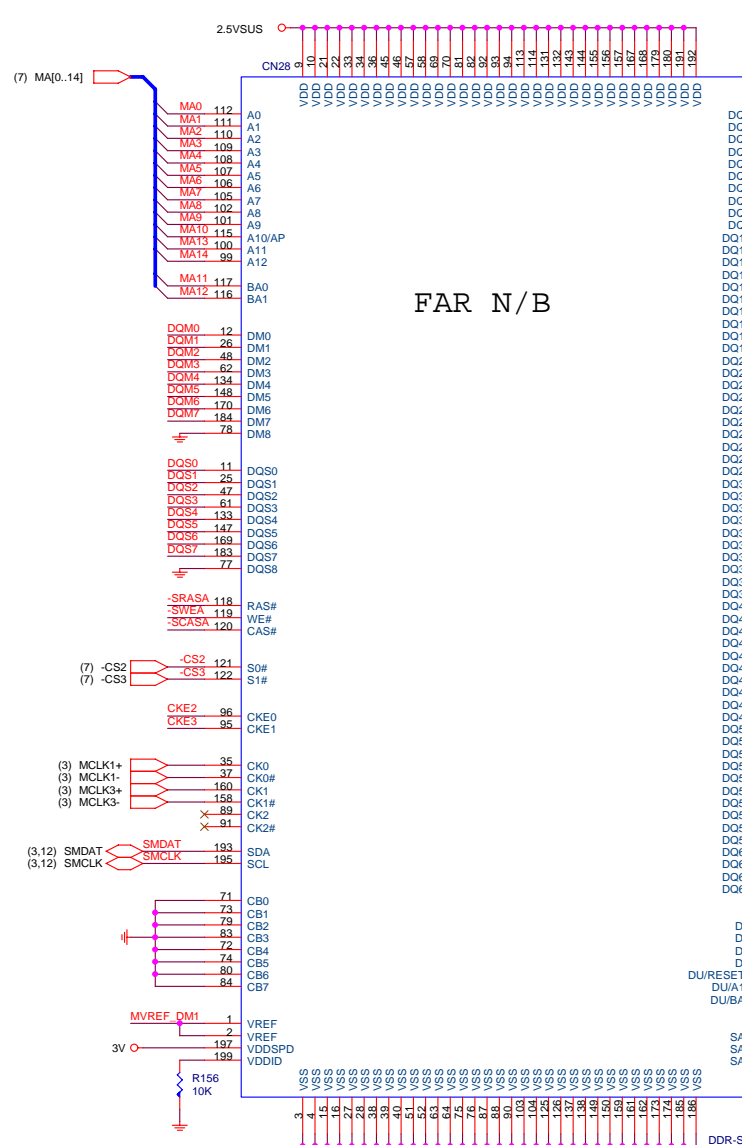


ITEM 131, Rev.D add

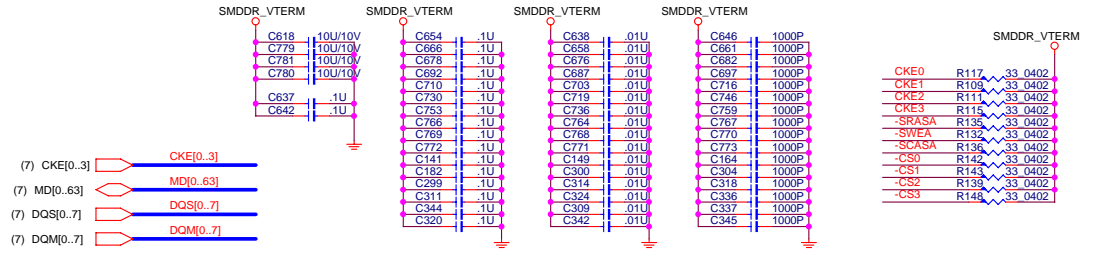
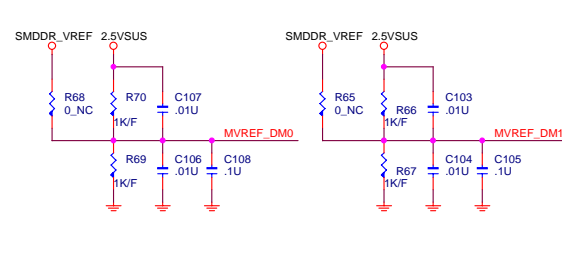
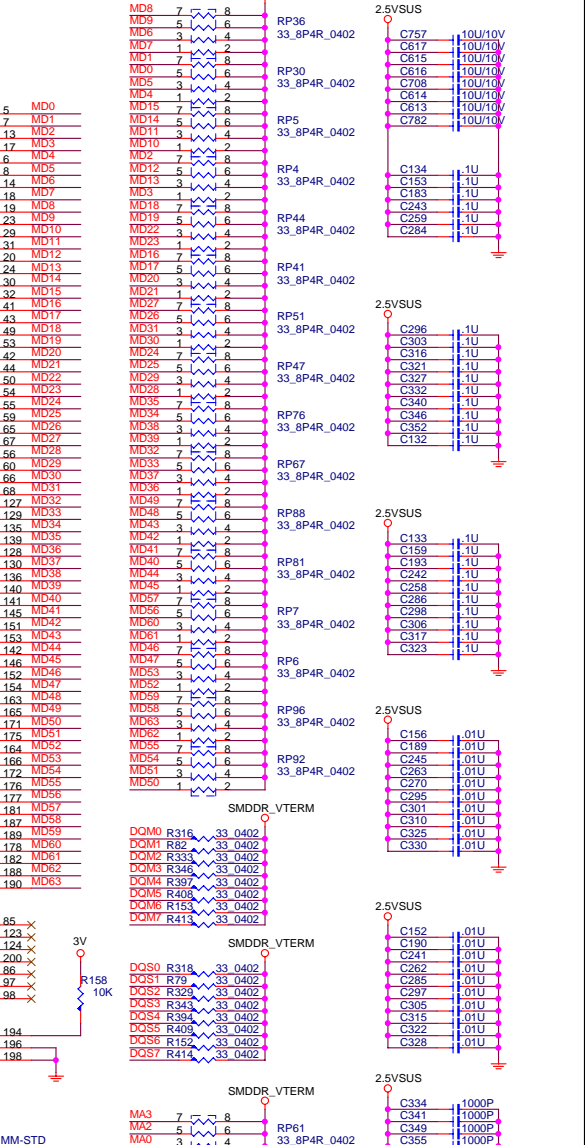




NEAR N/B



FAR N/B

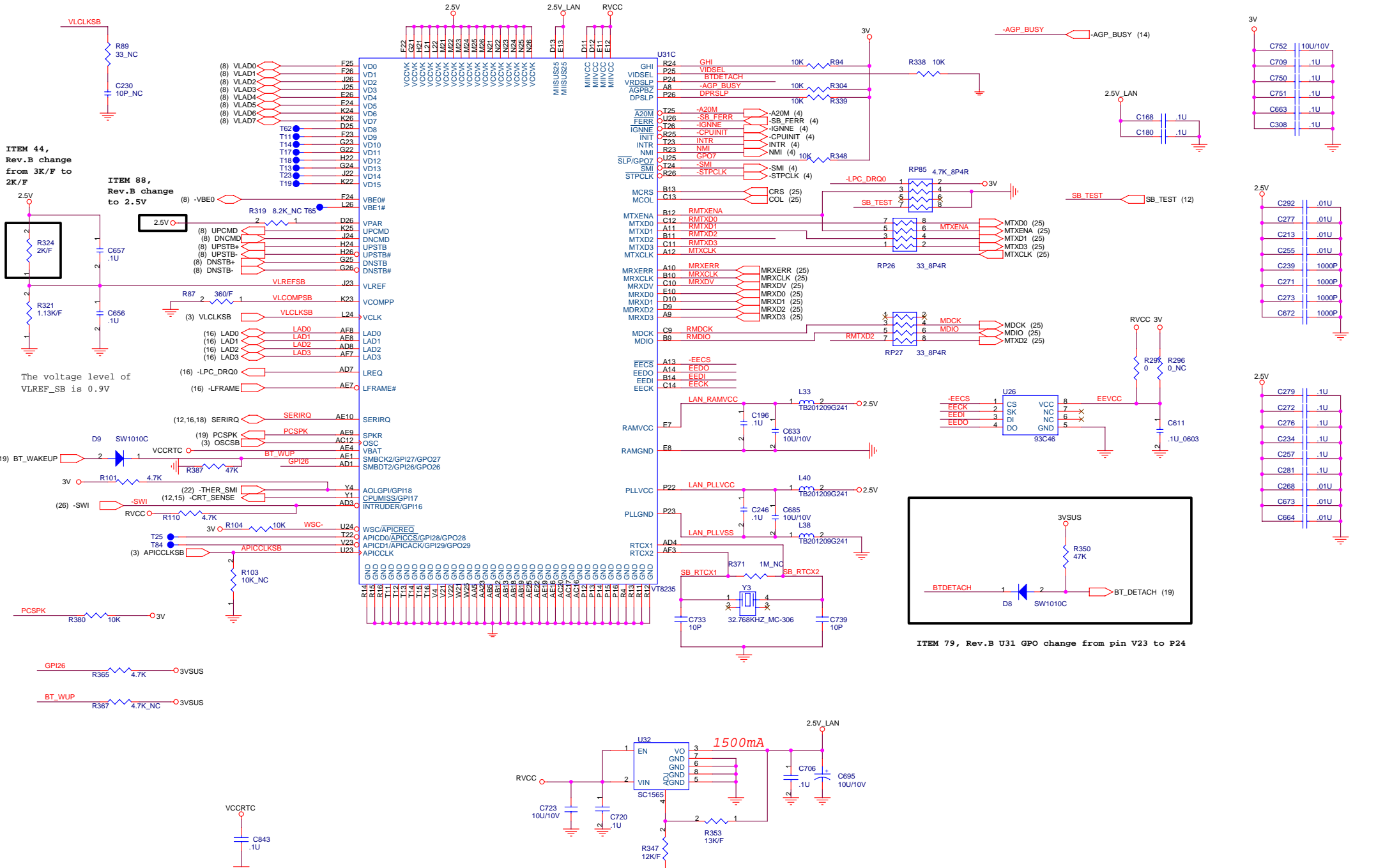


- (7) CKE[0..3]
- (7) MD[0..63]
- (7) DQS[0..7]
- (7) DQM[0..7]

PROJECT : ZP1

Quanta Computer Inc.

Size	Document Number	Rev	
Custom	DDR-SODIMM	1A	
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ITEM 44,
Rev.B change
from 3K/F to
2K/F

The voltage level of
VLREF_SB is 0.9V

(19) BT_WAKEUP

GPI26
BT_WUP

VCRTC

ITEM 88,
Rev.B change
to 2.5V

(12,16,18) SERIRQ

(22) -THER_SMI


(3) APICCLKSB

PCSPK

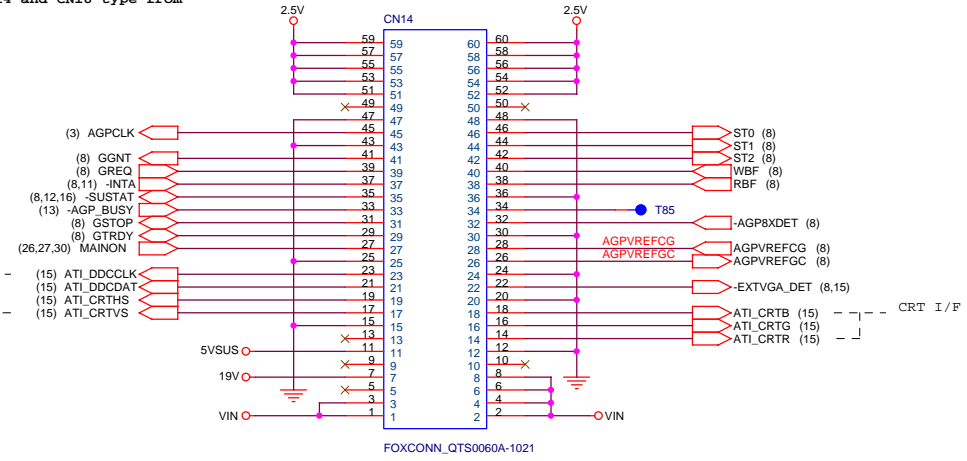
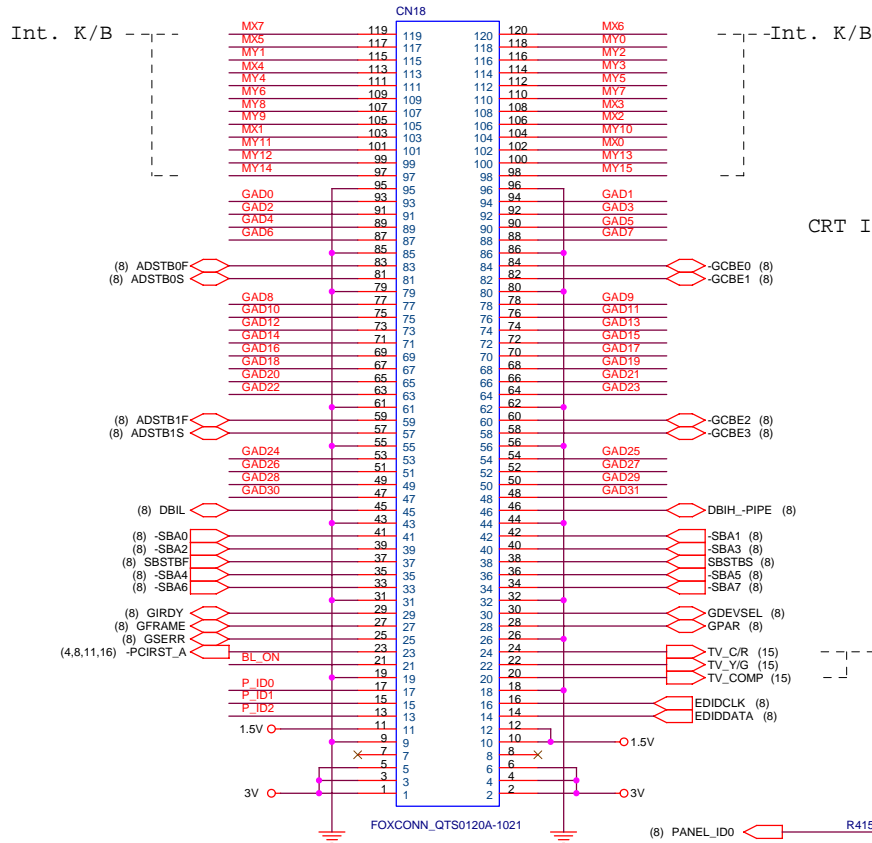
VCRTC

VCRTC

ITEM 79, Rev.B U31 GPO change from pin V23 to P24

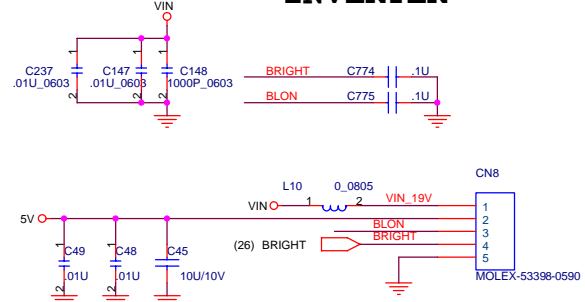
		PROJECT : ZP1	
		Quanta Computer Inc.	
Size	Document Number	Rev	
Custom	VT8235(LPC,LAN,VLINK)	2A	
Date:	Wednesday, September 17, 2003	Sheet	13 of 32

ITEM 82, Rev.B change CN14 and CN18 type from E & T to Foxconn

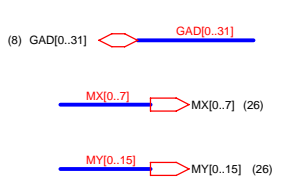
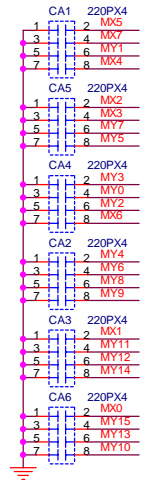


ITEM 46, Rev.B
remove ext. VGA
thermal I2C pin and
CRT

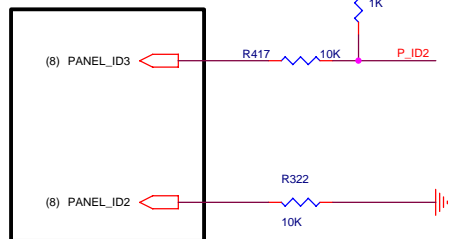
INVERTER

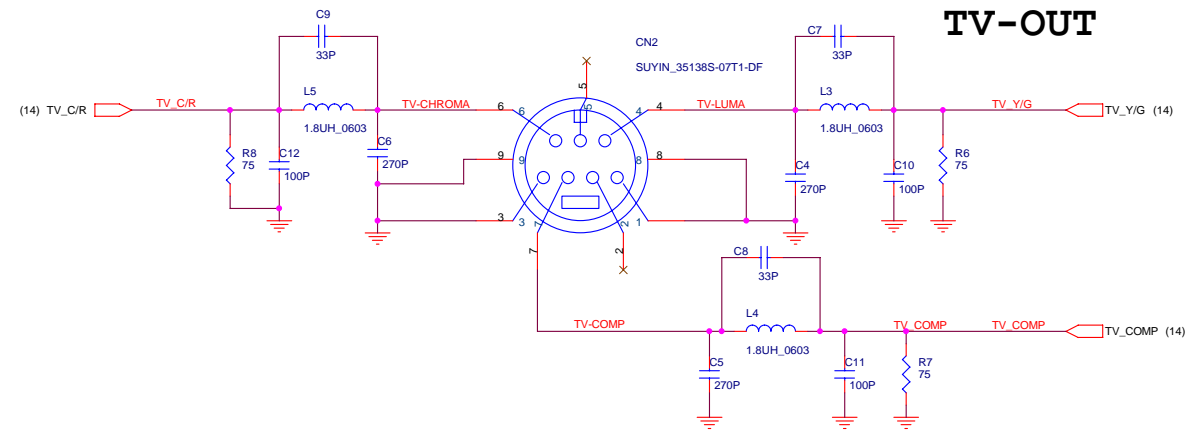
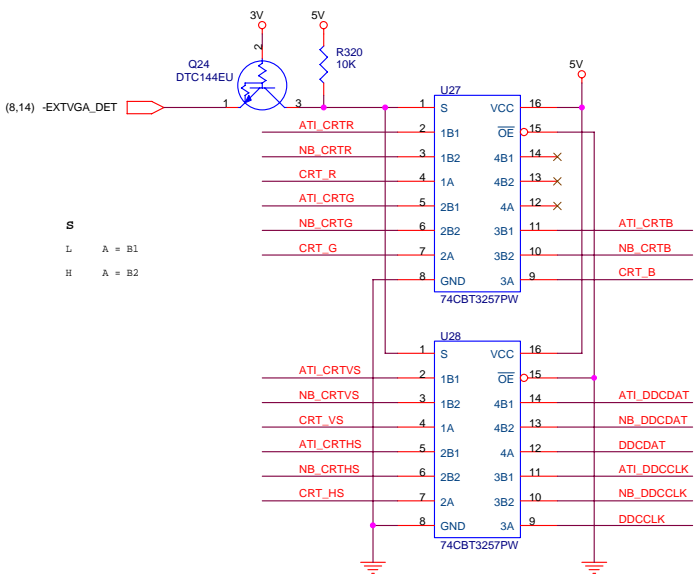


AGP 4X/8X I/F

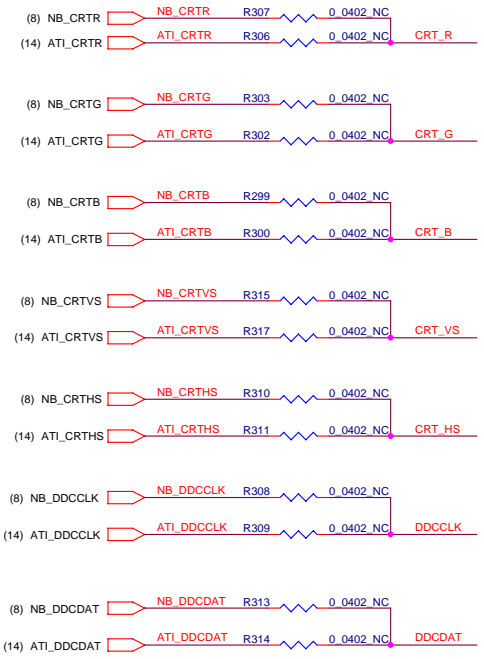


ITEM 42, Rev.B swap ID2 and ID3



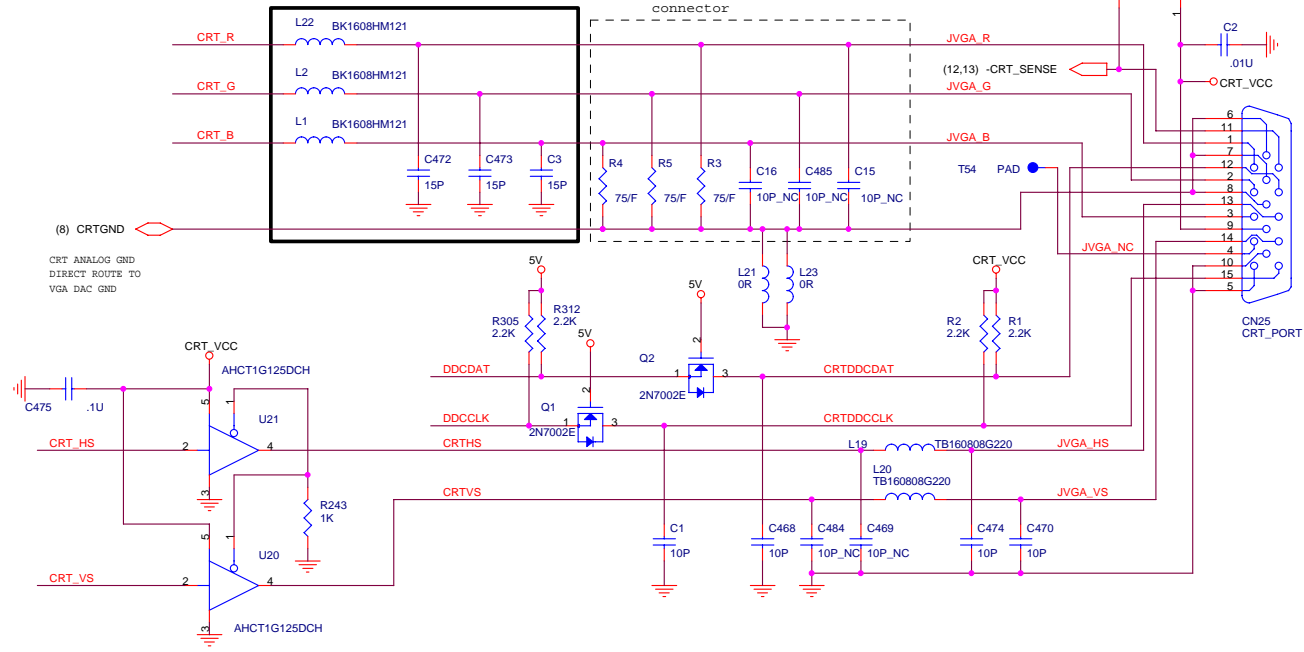


TV-OUT



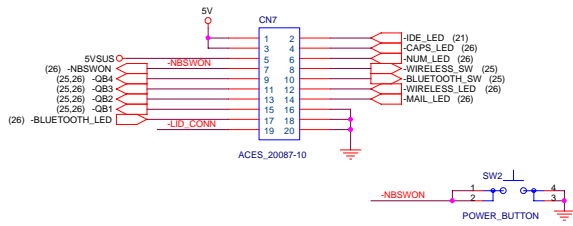
CRT PORT

ITEM 65 Rev.B change value and placed near U27 for EMI.

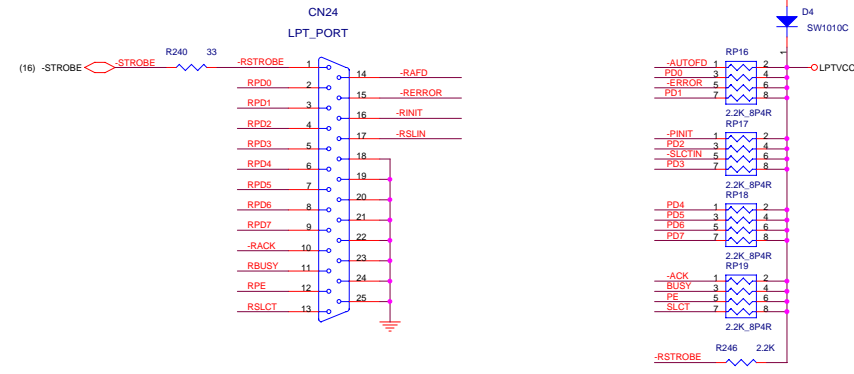


PROJECT : ZP1
Quanta Computer Inc.

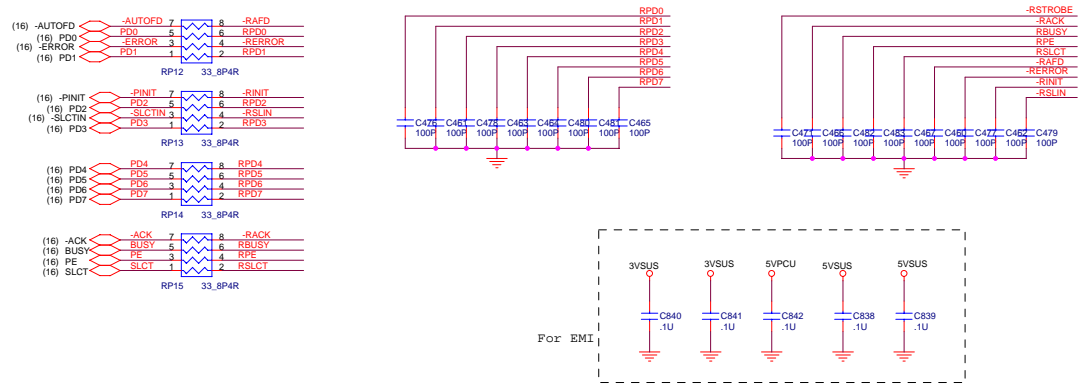
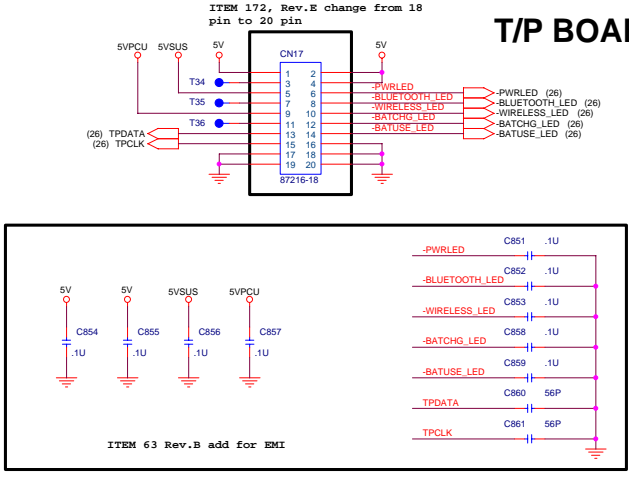
LED BOARD



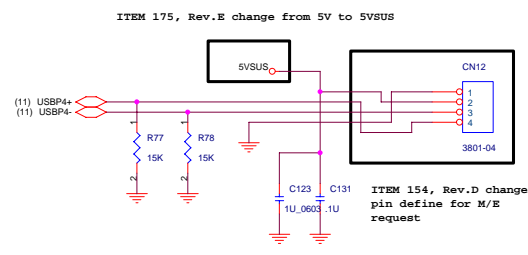
LPT



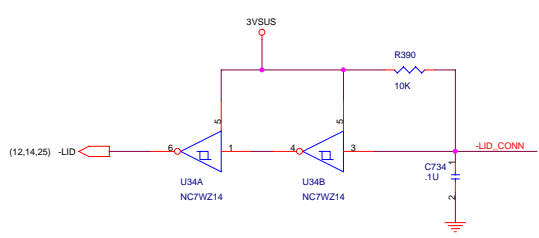
T/P BOARD



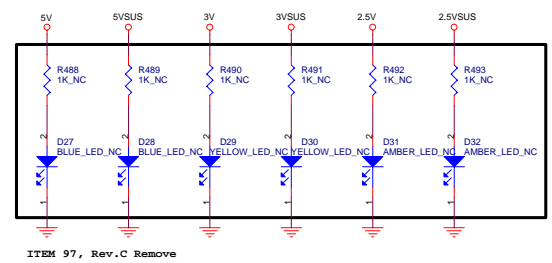
4 IN 1 CARD READER

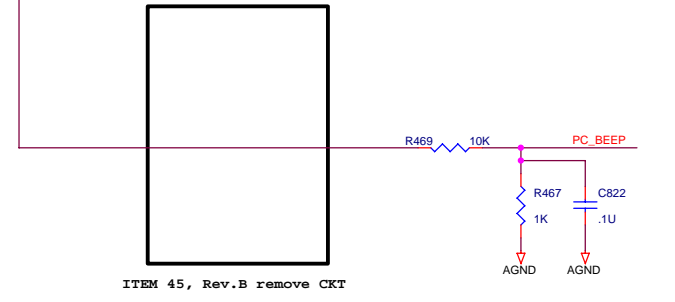
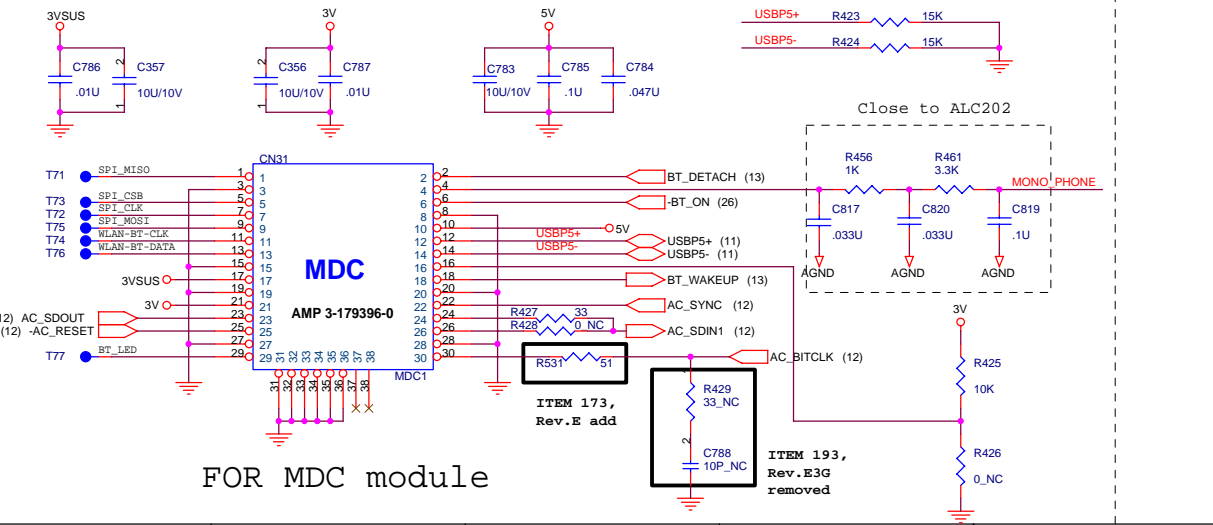
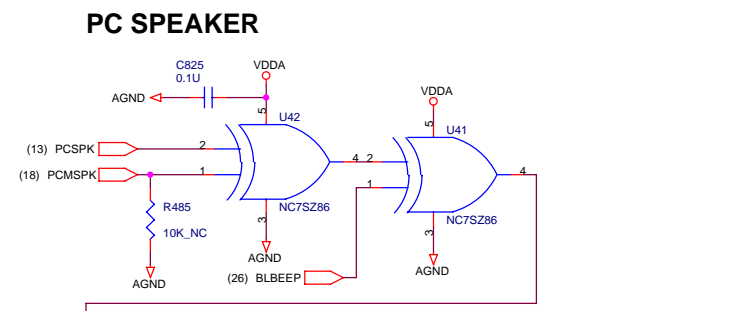
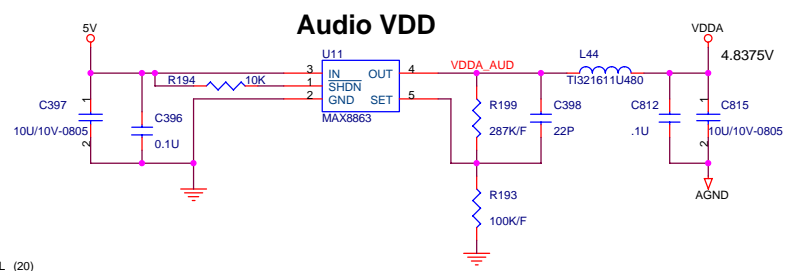
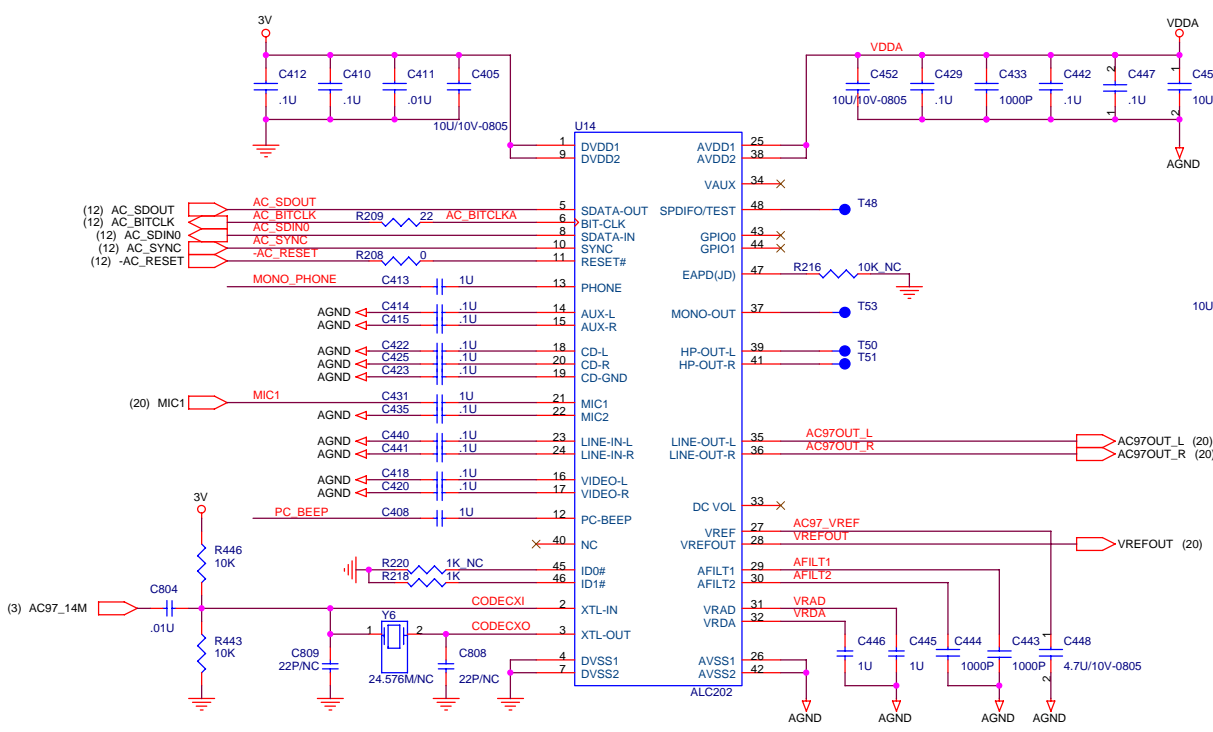


LID SWITCH



DEBUG LED



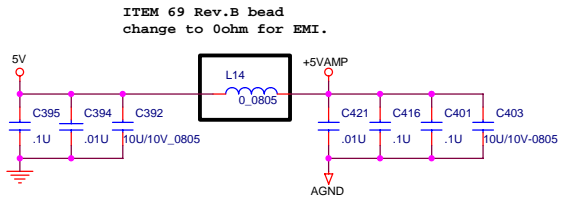


ITEM 45, Rev.B remove CKT

FOR MDC module

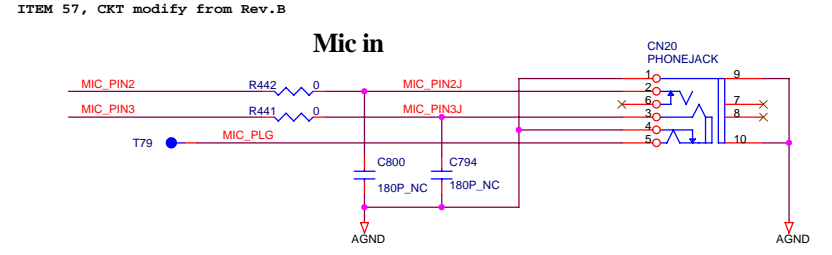
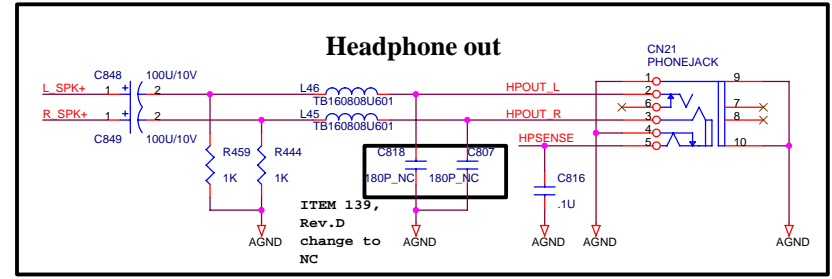
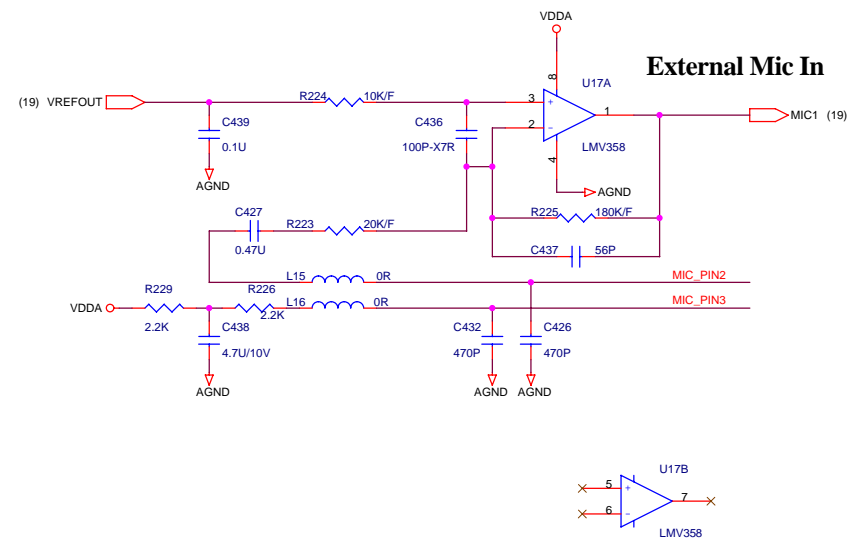
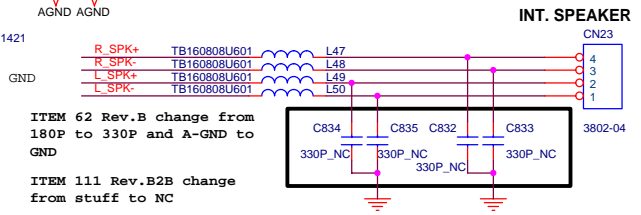
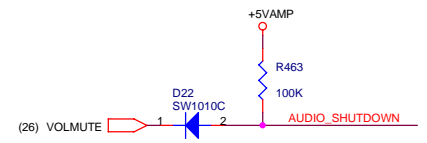
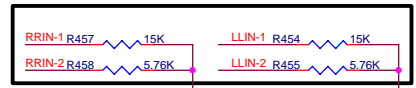
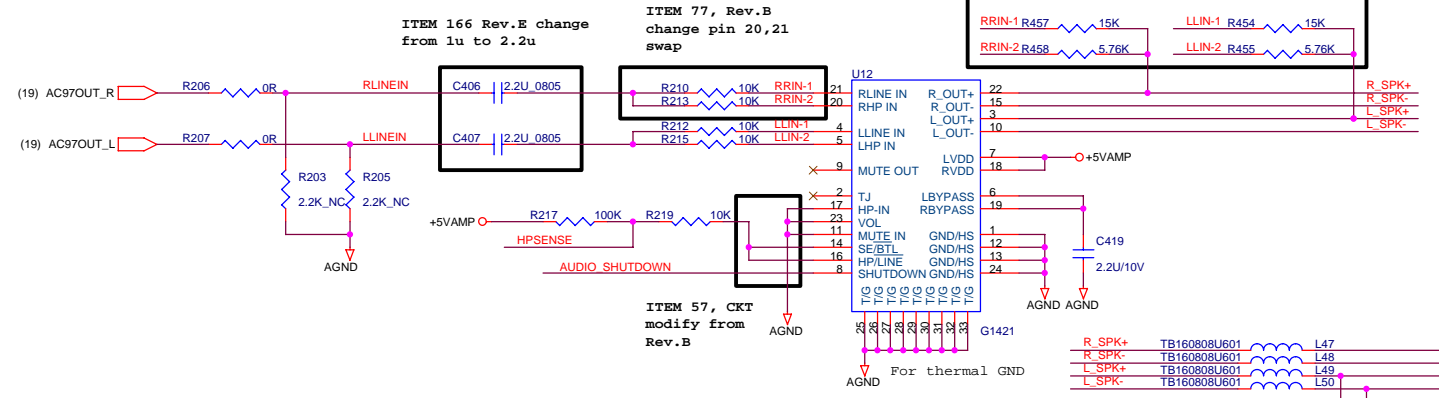
PROJECT : ZP1
Quanta Computer Inc.

Size	Document Number	Rev	
Custom	AC97 CODEC	3G	
Date: Wednesday, September 17, 2003		Sheet	19 of 32

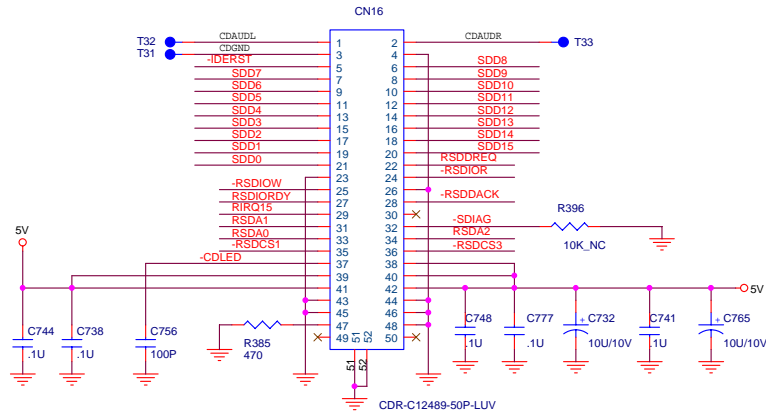


Audio amplifier

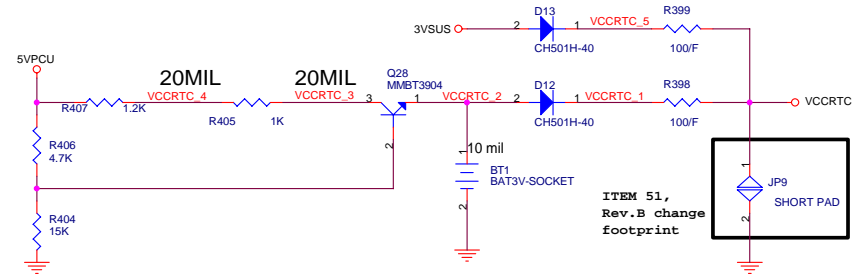
ITEM 81, Rev.B modify
ITEM 111, Rev.B2B change R454,R457 from 24.9K to 15K



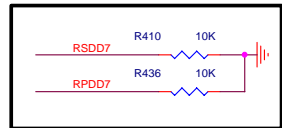
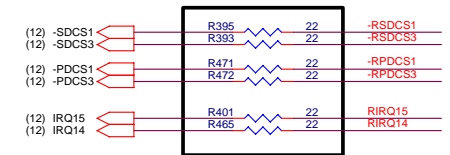
ODD CONNECTOR



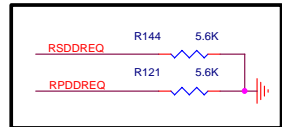
RTC



ITEM 38, Rev.B modify, placed near South Bridge

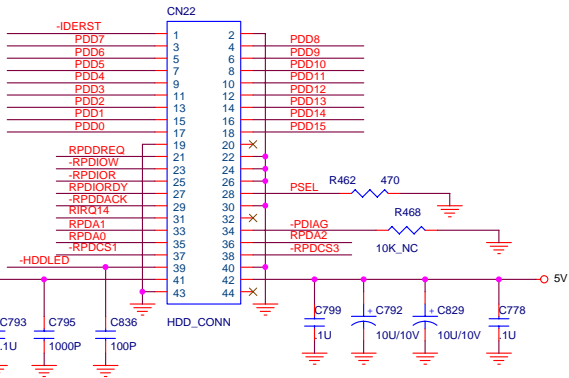
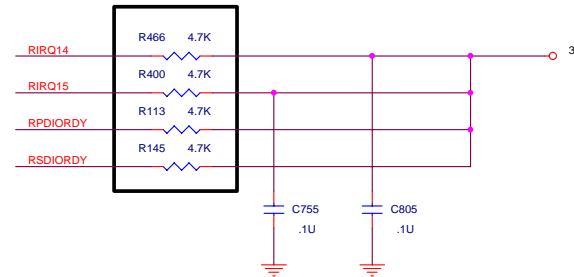


ITEM 35, Rev.B modify, placed near South Bridge



ITEM 36, Rev.B modify, placed near South Bridge

Placed near VT8235

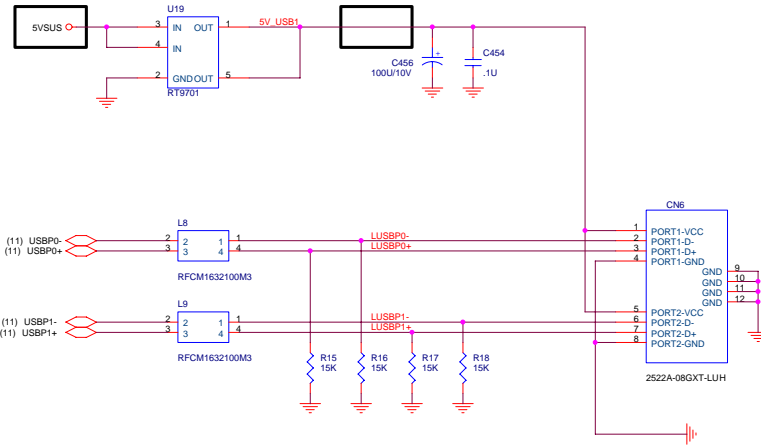


HDD connector



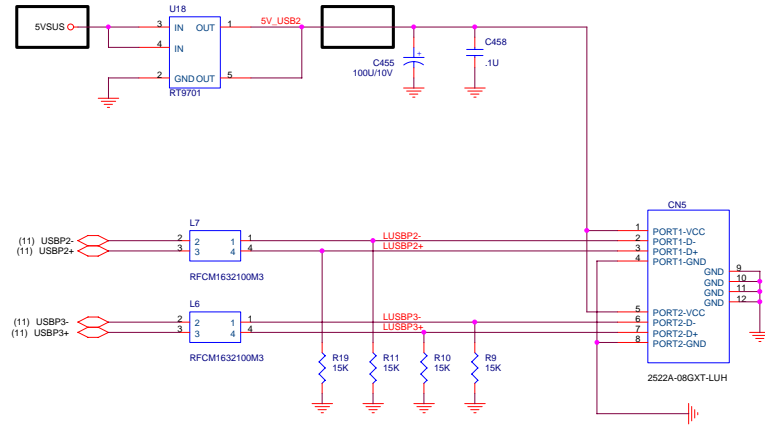
ITEM 103,
Rev.C change
from 5V to
5VSUS

Rev.C remove
reserved
0_0805

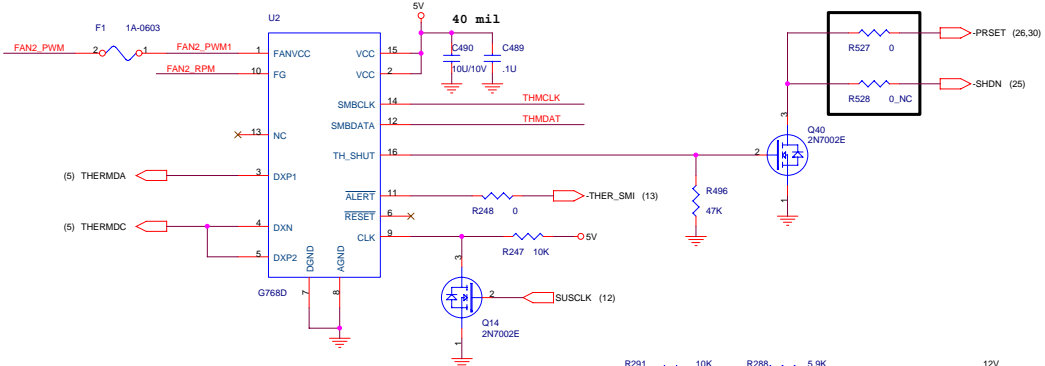


ITEM 103,
Rev.C change
from 5V to
5VSUS

Rev.C remove
reserved
0_0805

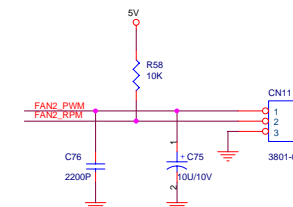


ITEM 145, Rev.D add



Output=VFAN1 x 1.59

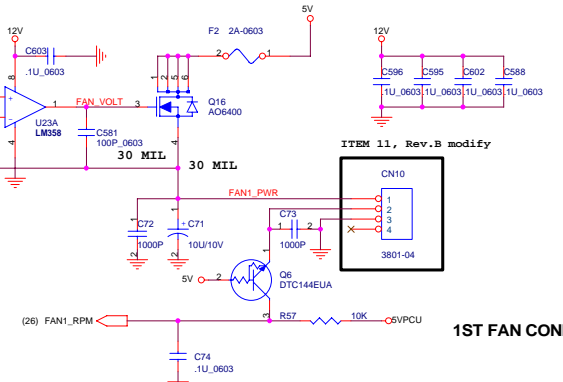
Second FAN



ITEM 146, Rev.D remove
over current event to
system



ITEM 11, Rev.B modify



1ST FAN CONN

(16) SA[0..18] SAIO_18i
 (16) SD[0..7] SDIO_7i
 (14) MX[0..7] MXIO_7i
 (14) MY[0..15] MYIO_15i

U38A
 SA0 166 HA0
 SA1 167 HA1
 SA2 168 HA2
 SA3 169 HA3
 SA4 170 HA4
 SA5 171 HA5
 SA6 172 HA6
 SA7 173 HA7
 SA8 174 HA8
 SA9 4 HA9
 SA10 3 HA10
 SA11 5 HA11
 SA12 6 HA12
 SA13 7 HA13
 SA14 8 HA14
 SA15 9 HA15
 SA16 10 HA16/PA3
 SA17 11 HA17/PA4
 SA18 12 HA18/PE0

SD0 15 HD0
 SD1 16 HD1
 SD2 17 HD2
 SD3 18 HD3
 SD4 19 HD4
 SD5 20 HD5
 SD6 21 HD6
 SD7 22 HD7

HIOCHRDY 124 HIOCHRDY
 159C HIOQW#
 158C HIOR#
 13C HAEN/FXASTB#
 163C HMEMW/PA2
 162C HMEMR/PA1
 157C HMEMCS#/PA0

IRQ1 156 IRQ1
 153 IRQ12
 154C SC1#/IRQ11
 155C IRQ0#

32KX1 25
 32KX2 27
 NC11 1
 NC12 2
 NC13 43
 NC14 44
 NC15 45
 NC16 46
 109 R439 51K
 66
 26
 92
 AGND

U38B
 PC0 61
 PC1 62
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ROMA0 114 BA0
 ROMA1 115 BA1
 ROMA2 116 BA2
 ROMA3 117 BA3
 ROMA4 118 BA4
 ROMA5 119 BA5
 ROMA6 120 BA6
 ROMA7 121 BA7
 ROMA8 122 BA8
 ROMA9 123 BA9
 ROMA10 124 BA10
 ROMA11 125 BA11
 ROMA12 126 BA12
 ROMA13/BE0 127 BA13
 ROMA14/BE1 128 BA14
 ROMA15/PG1 129 BA15
 ROMA16/PA5 135 BA17
 ROMA17/PA6 136 BA18
 ROMA18/PE1

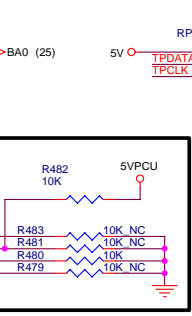
ROMD0 137 BD0
 ROMD1 138 BD1
 ROMD2 139 BD2
 ROMD3 140 BD3
 ROMD4 141 BD4
 ROMD5 142 BD5
 ROMD6 143 BD6
 ROMD7 144 BD7

RDI 111 -ROMOE
 WR0# 112 -ROMWE
 SEL0# 105 -S70 ROMCS

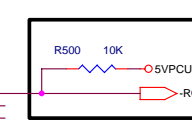
KBSIN0 36 MX0
 KBSIN1 35 MX1
 KBSIN2 34 MX2
 KBSIN3 33 MX3
 KBSIN4 32 MX4
 KBSIN5 31 MX5
 KBSIN6 30 MX6
 KBSIN7 29 MX7

KBSOUT0 56 MY0
 KBSOUT1 55 MY1
 KBSOUT2 54 MY2
 KBSOUT3 53 MY3
 KBSOUT4 52 MY4
 KBSOUT5 51 MY5
 KBSOUT6 50 MY6
 KBSOUT7 49 MY7
 KBSOUT8 48 MY8
 KBSOUT9 47 MY9
 KBSOUT10 46 MY10
 KBSOUT11 45 MY11
 KBSOUT12 44 MY12
 KBSOUT13 43 MY13
 KBSOUT14 42 MY14
 KBSOUT15 41 MY15

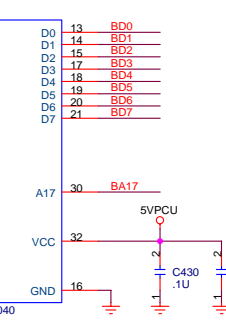
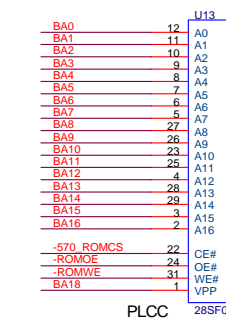
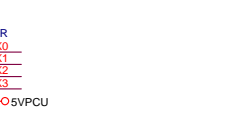
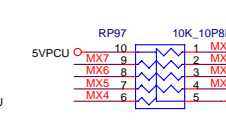
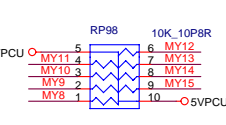
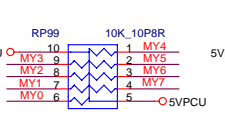
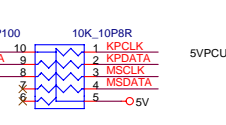
PB0/RING 71
 PB1/SMBCLK 72
 PB2/SMBDATA 73
 PB3/TA 74
 PB4/TB 75
 PB5/GA20 76
 PB6/RCA# 77
 PB7/SVIN 78
 PBO/AD0 81
 PD1/AD1 82
 PD2/AD2 83
 PD3/AD3 84
 PD4/AD4 85
 PD5/AD5 86
 PD6/MAINON 87
 PD7/HWPG 88
 DA0 95
 DA1 96
 DA2 97
 DA3 98
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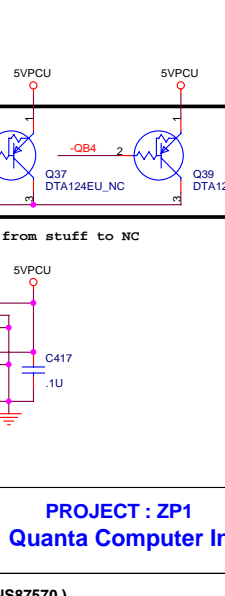
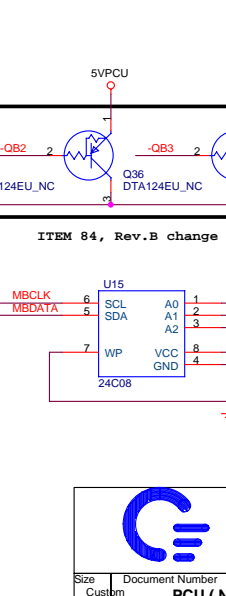
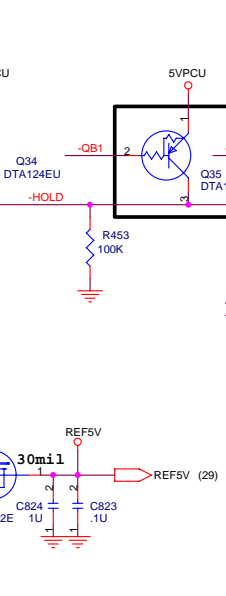
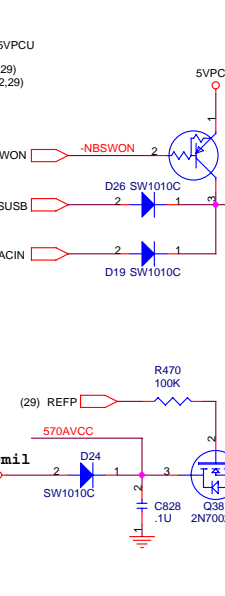
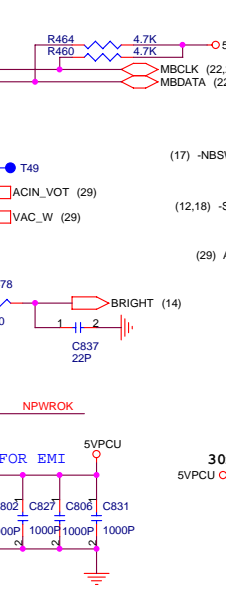
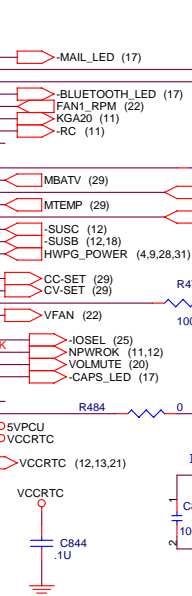
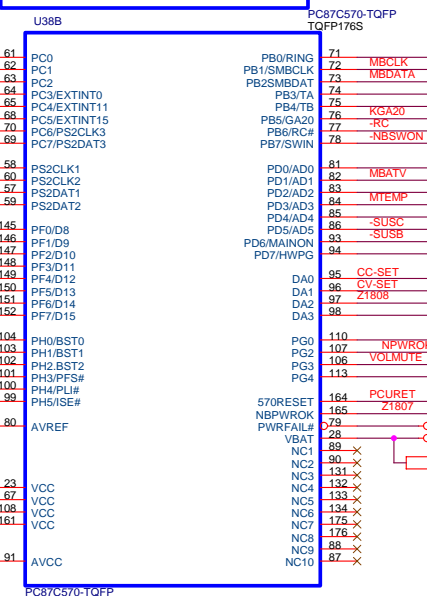
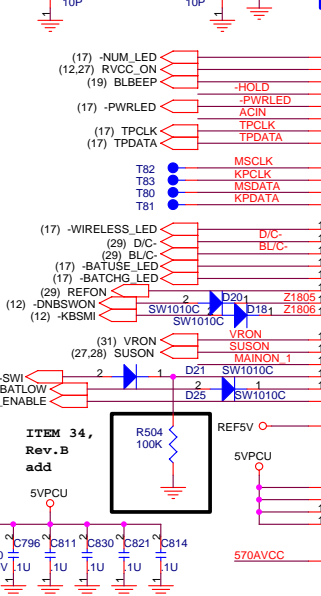
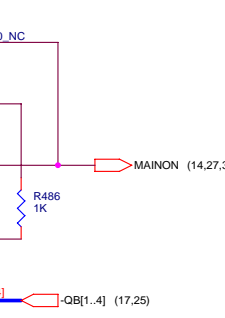
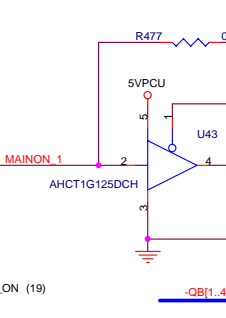
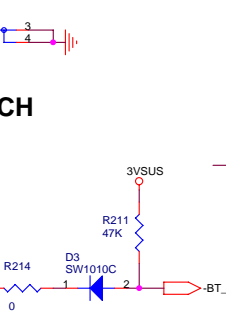
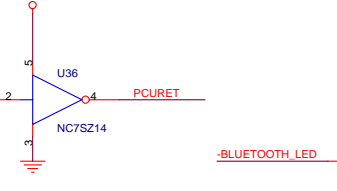
ITEM 34, Rev.B R482
 change from NC to stuff,
 R481 change from stuff
 to NC



ITEM 34, Rev.B add
 R500,R502,R503 pull up

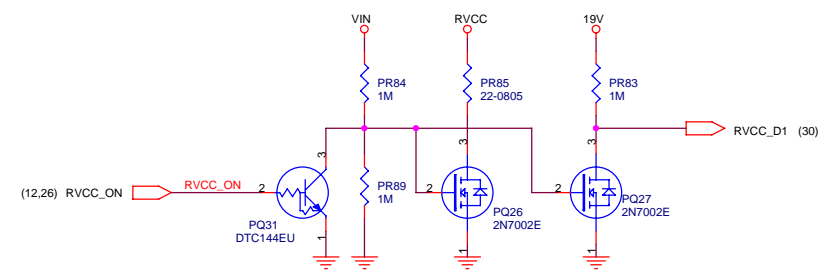
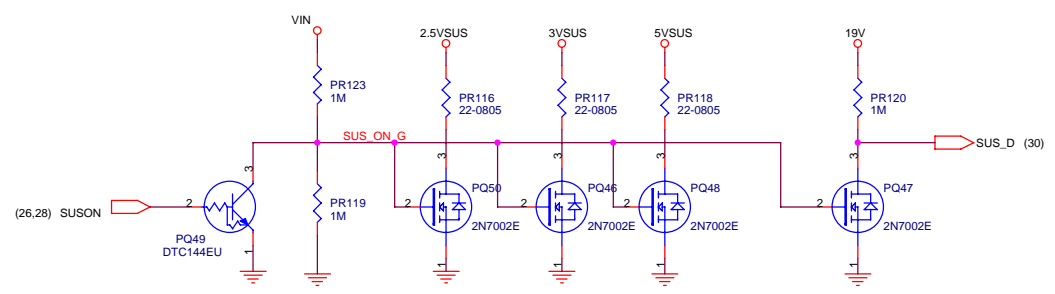
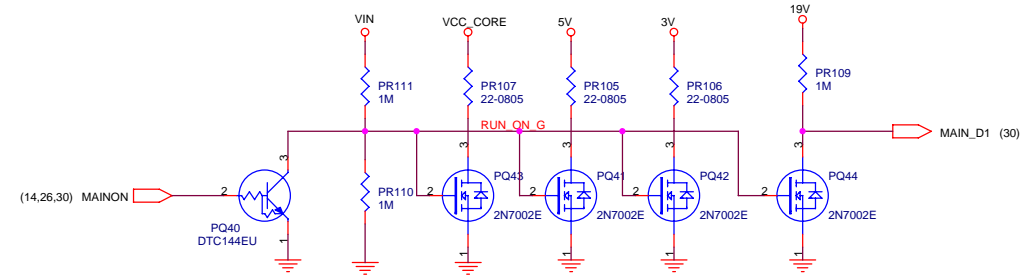
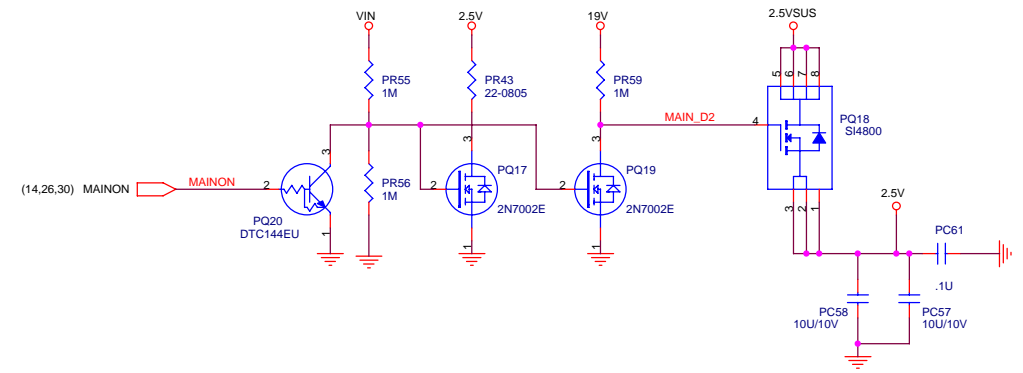
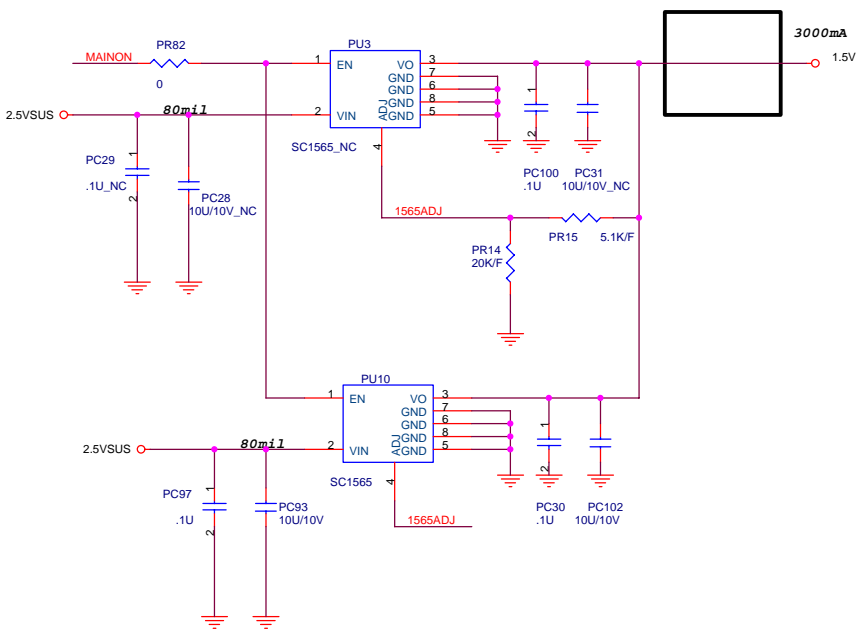


RESET SWITCH



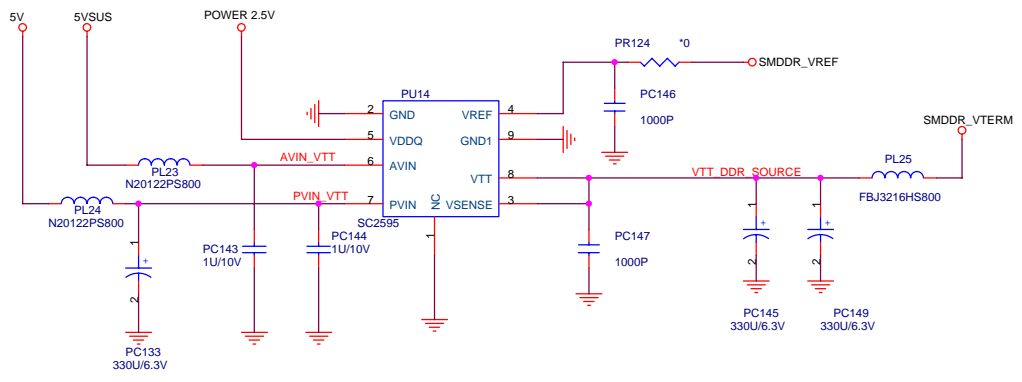
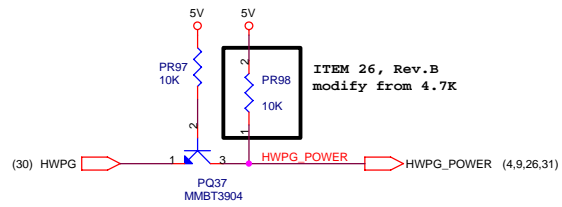
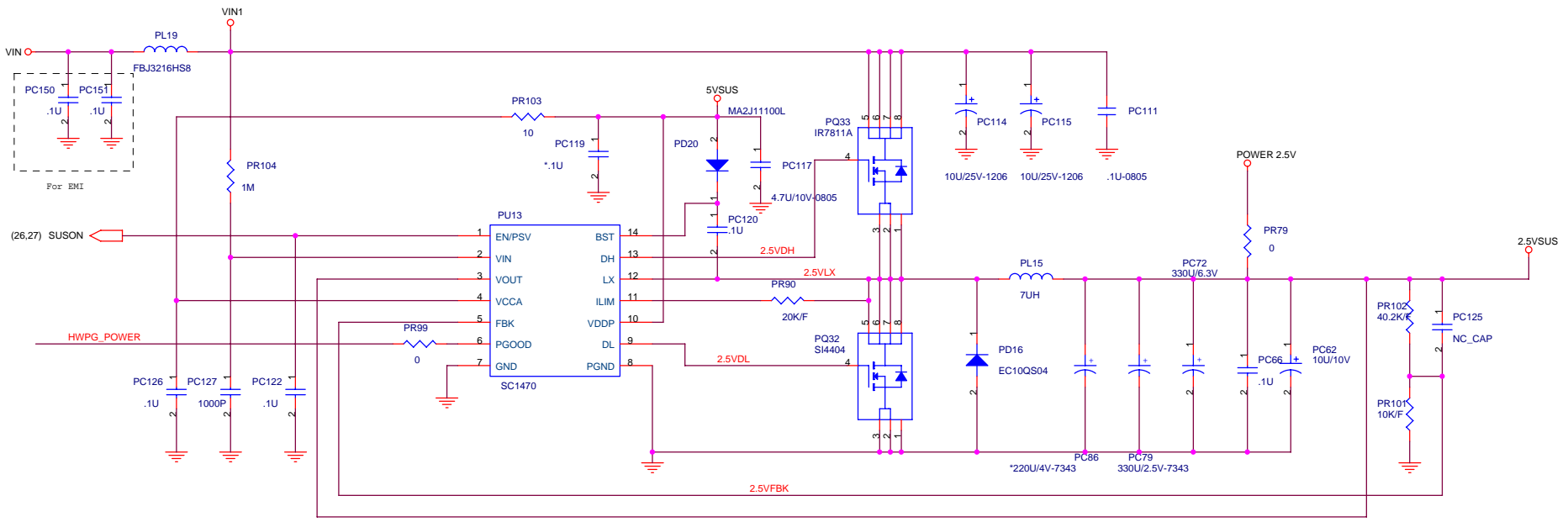
PROJECT : ZP1
 Quanta Computer Inc.
 Size: Custom Document Number: PCU (NS8750)
 Date: Wednesday, September 17, 2003 Sheet 26 of 32 Rev 2A

ITEM 85, Rev.B remove jumper



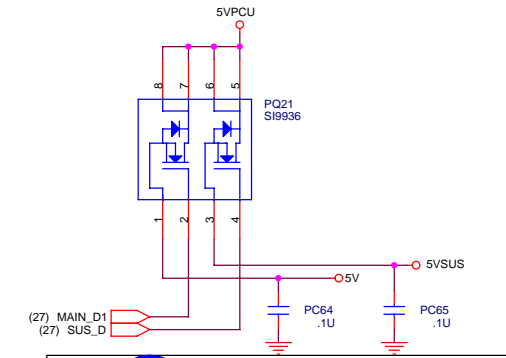
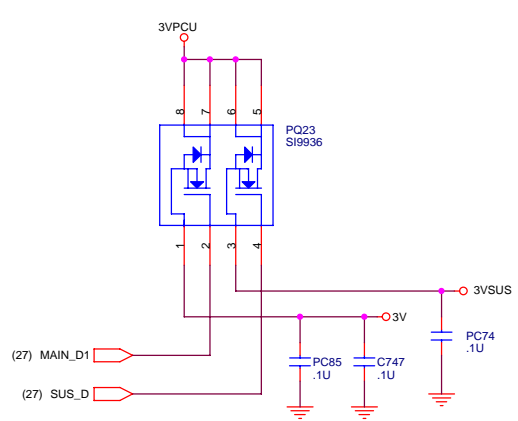
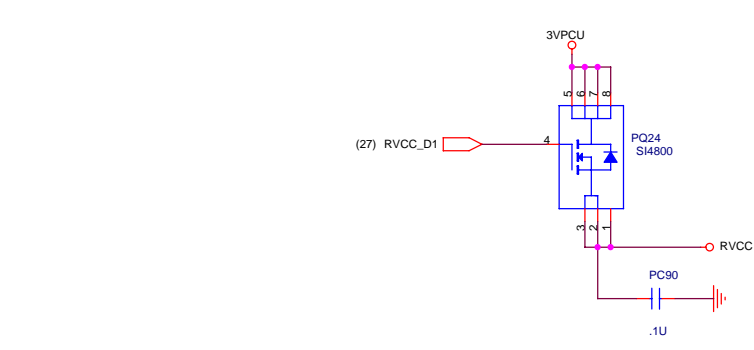
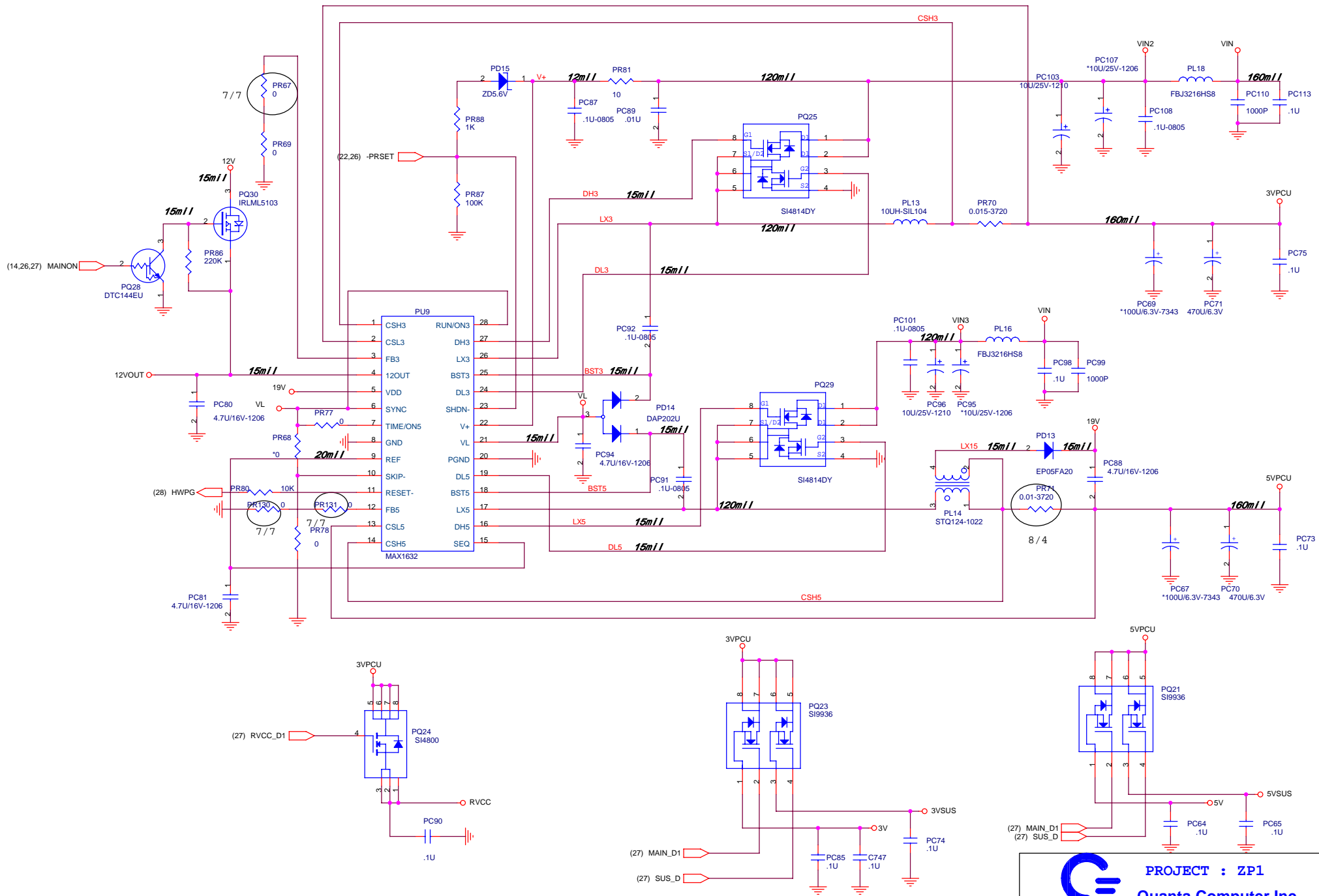
PROJECT : ZP1
Quanta Computer Inc.

Size	Document Number	Rev
Custom	DISCHARGE CIRCUIT	2A
Date:	Wednesday, September 17, 2003	Sheet 27 of 32



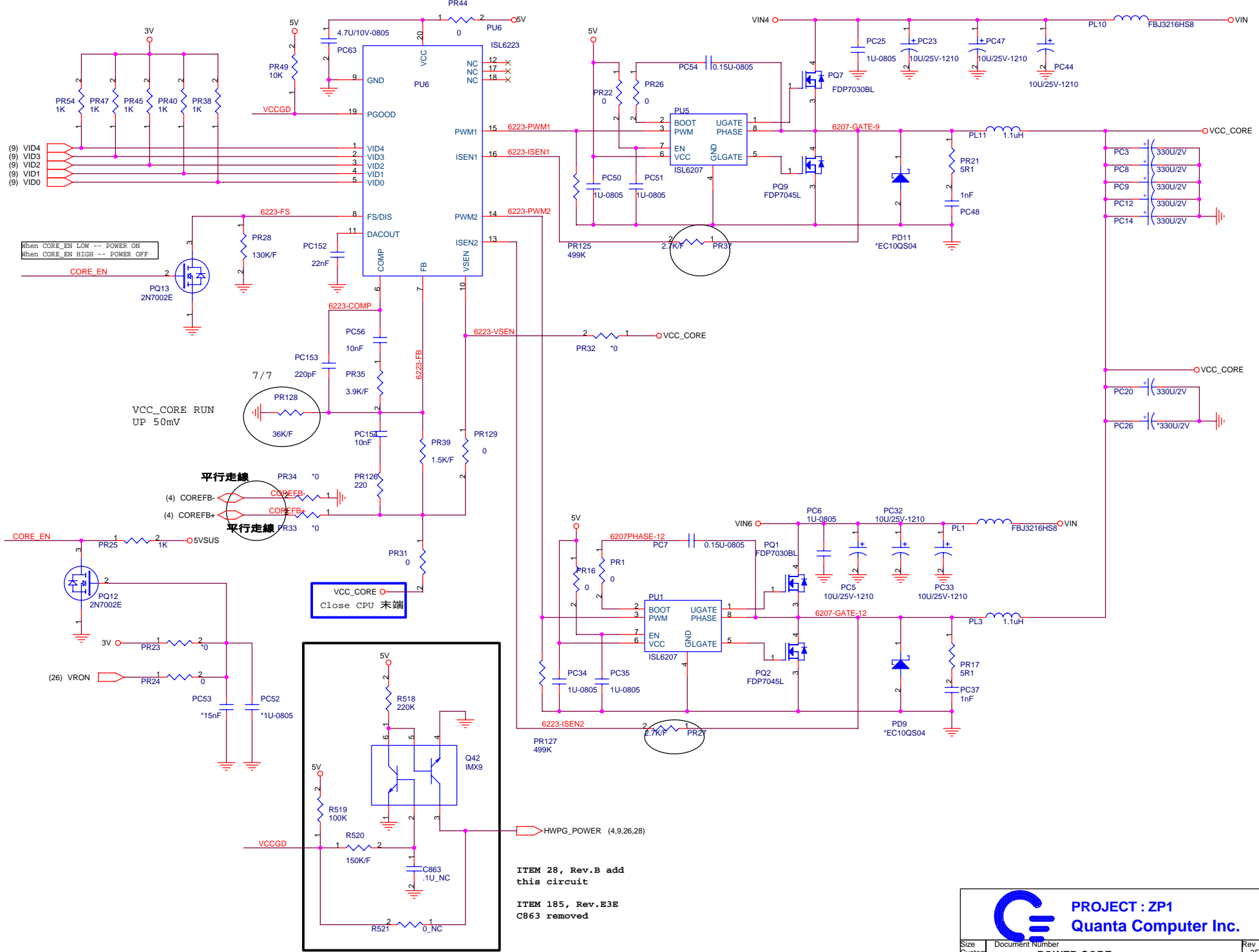
PROJECT : ZP1
Quanta Computer Inc.

Size Custom	Document Number SYS POWER 2.5V&DDR	Rev 2C
Date: Wednesday, September 17, 2003		Sheet 28 of 32



PROJECT : ZP1
Quanta Computer Inc.

Size	Document Number	Rev
Custom	SYSTEM POWER	3B
Date:	Wednesday, September 17, 2003	Sheet 30 of 32



VCC_CORE RUN UP 50mV

平行走線
COREFB-
COREFB+

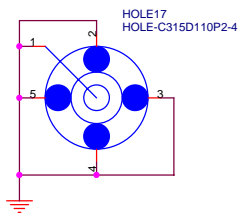
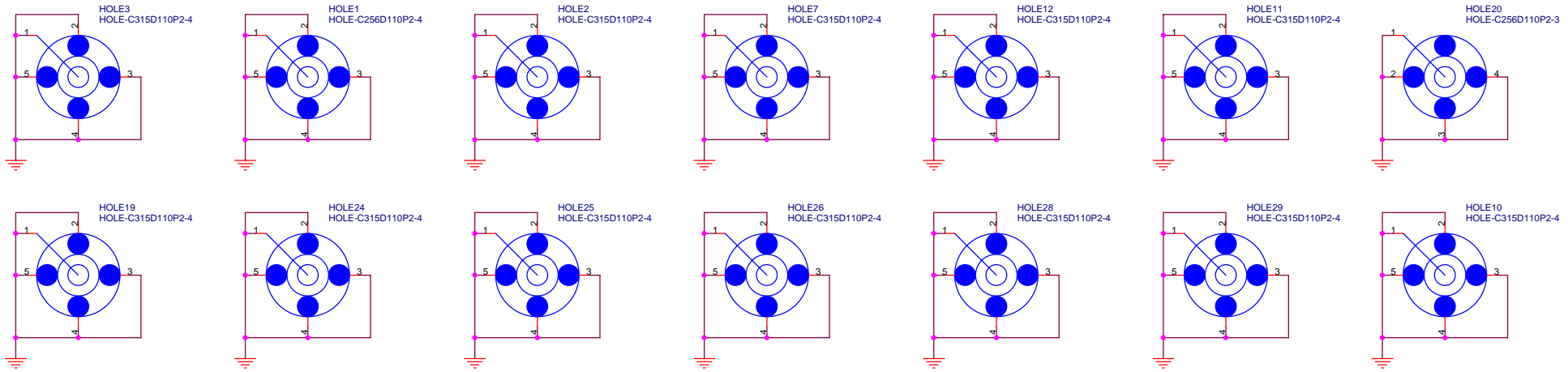
VCC_CORE
Close CPU 末端

ITEM 28, Rev.B add this circuit
ITEM 185, Rev.E3E C863 removed

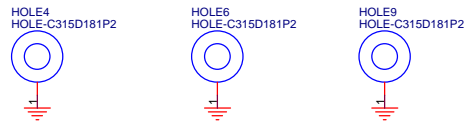
PROJECT : ZP1
Quanta Computer Inc.

Size	Document Number	Rev
Custom	POWER CORE	3E
Date:	Wednesday, September 17, 2003	Sheet 31 of 32

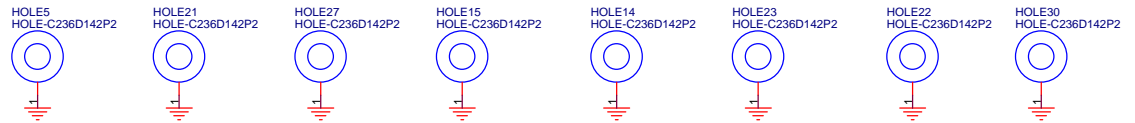
A



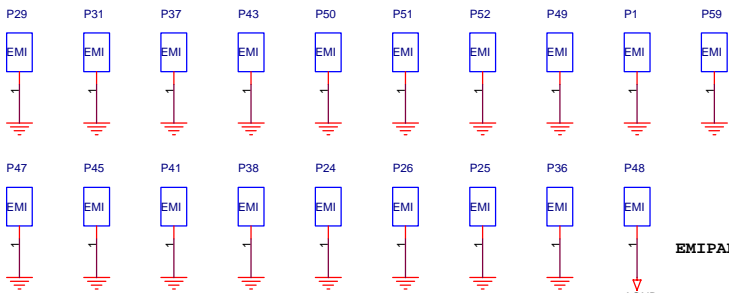
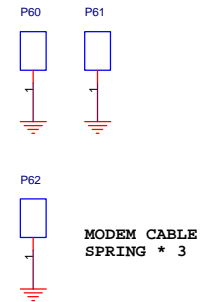
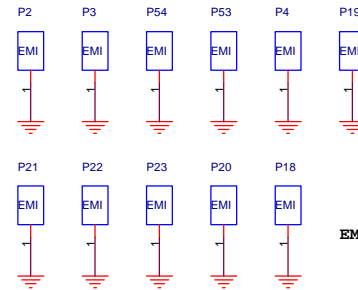
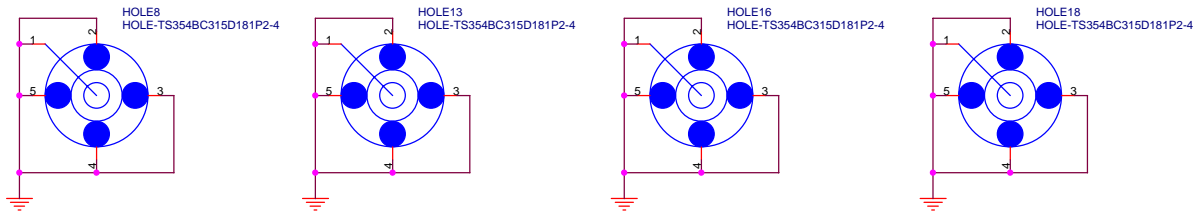
d



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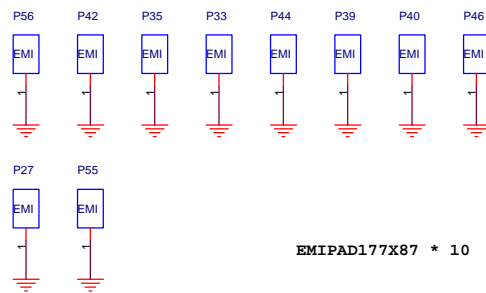


f

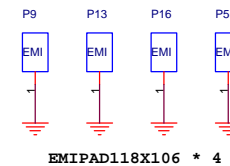


EMIPAD161X106 * 19

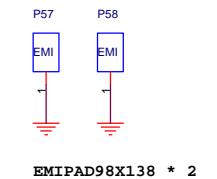
AGND



EMIPAD177X87 * 10



EMIPAD118X106 * 4



EMIPAD98X138 * 2

PROJECT : ZP1
Quanta Computer Inc.

Size Custom	Document Number EMI Fense & Screw Holes	Rev 3C
Date: Wednesday, September 17, 2003	Sheet 32 of 32	

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