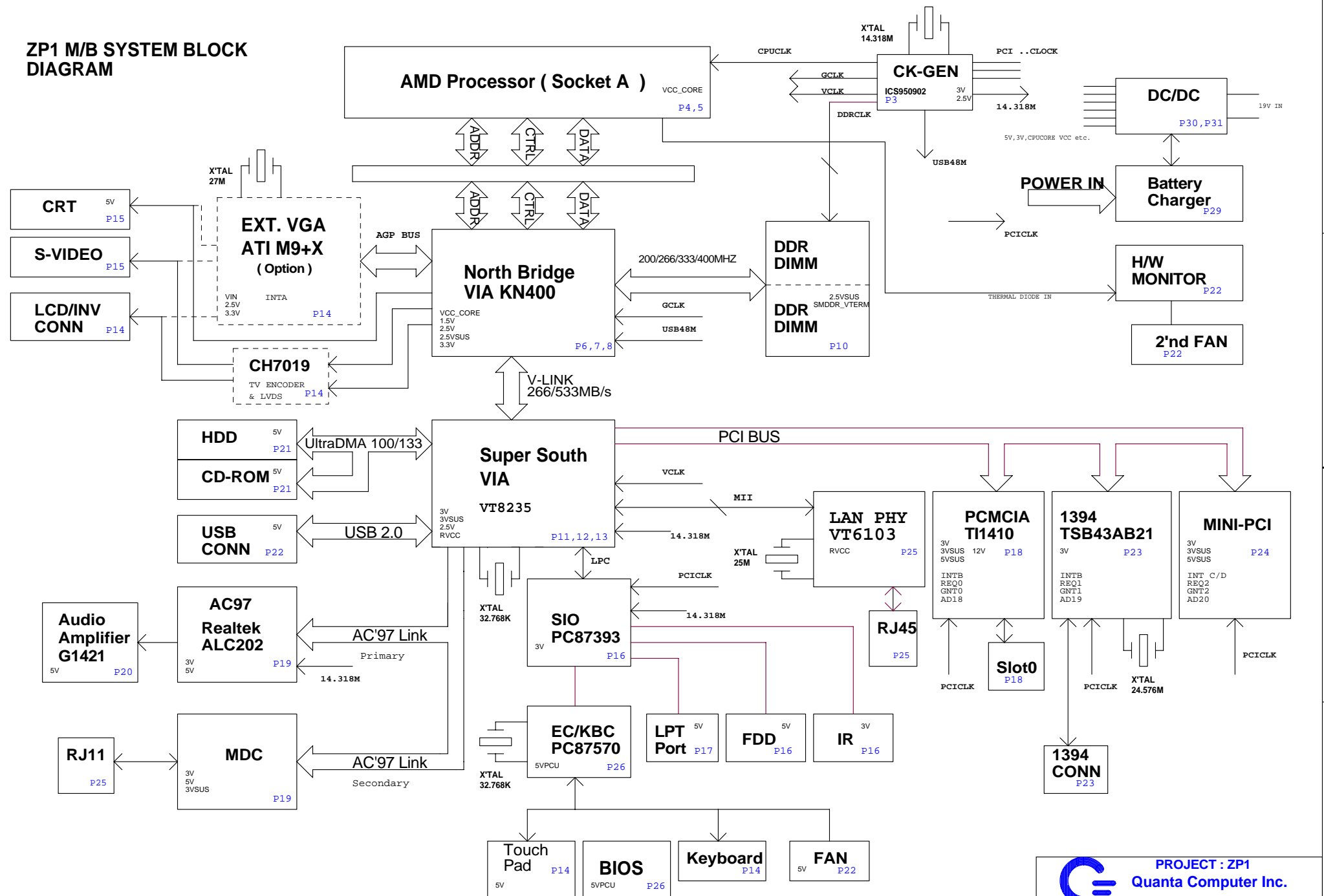



MODEL	REV	CHANGE LIST	Model	ZP1 M/B BOARD		
			Page	FM	TO	
ZP1 M/B BOARD	1A	First Release	1	1A		
			2	1A		
	2A	Reference ECN E200305-1522	3	2A		
			4	3A		
	2B	Reference ECN E200306-0644	5	3C		
			6	2A	3H	
	2C	Reference ECN E200306-1596	7	2A		
			8	2B		
	3A	Reference ECN E200307-0524	9	3A		
			10	1A		
	3B	Reference ECN E200307-3020	11	3A		
			12	2A		
	3C	Reference ECN E200308-0364	13	2A		
			14	2A		
	3D	Reference ECN E200308-0959	15	2A		
			16	2C		
	3E	Reference ECN E200308-2158	17	3A		
			18	1A		
	3F	Reference ECN E200309-0195	19	3G		
			20	3C		
	3G	Reference ECN E200309-1215	21	2A		
			22	3D		
	3H	Reference ECN E200309-1599	23	3A		
			24	3F		
				25	2A	
				26	2A	
				27	2A	
				28	2C	
				29	2A	
				30	3B	
				31	3E	
				32	3C	

## ZP1 M/B SYSTEM BLOCK DIAGRAM



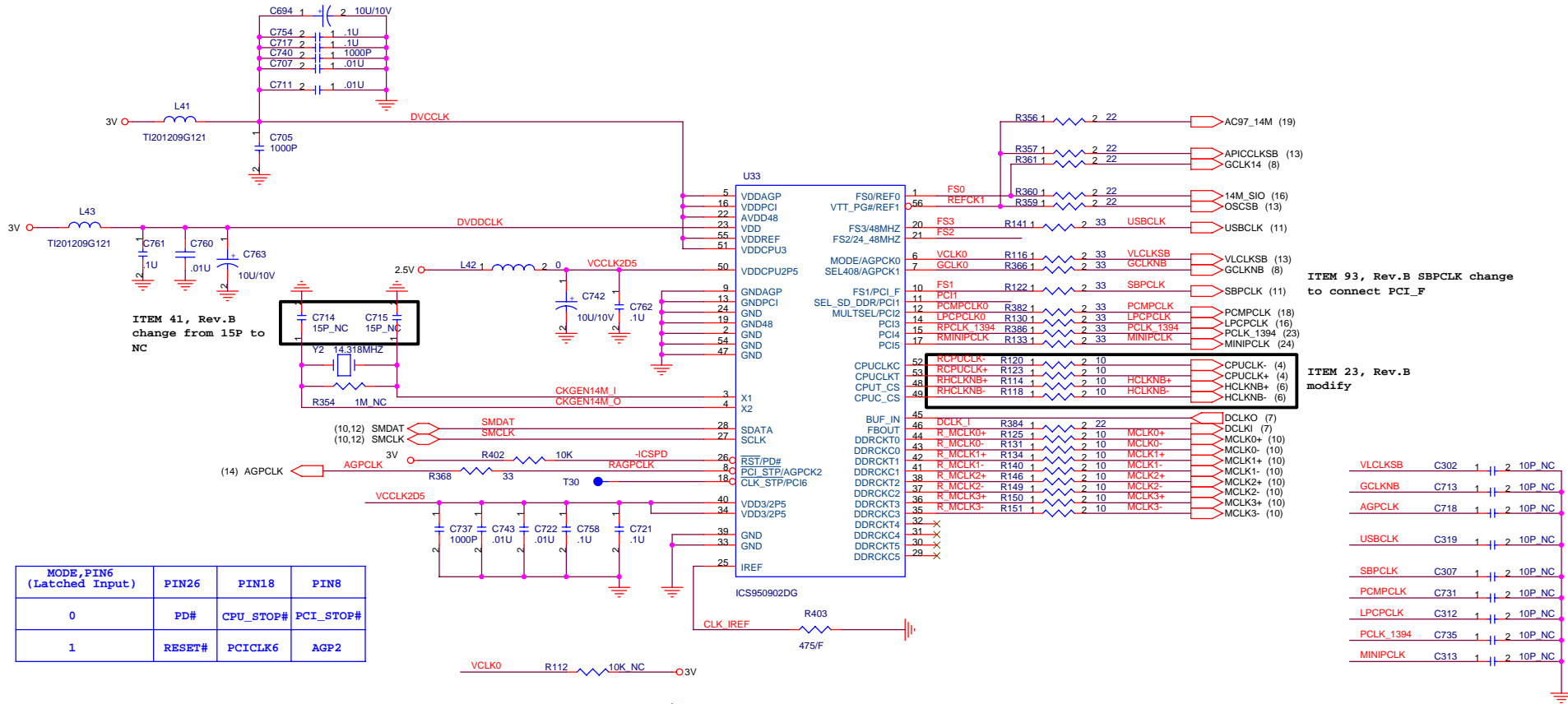
Voltage Rails	Core voltage for Processor	ON S0~S1	ON S3	ON S4	ON S5	Control signal
VCC_CORE	Core voltage for Processor	X				VR_ON
SMDDR_VTERM	1.25V for DDR Termination voltage	X				MAINON
SMDDR_VREF	1.25V for DDR Reference Voltage	X				MAINON
1.5V		X				MAINON
2.5VSUS		X	X			SUSON
2.5V		X				MAINON
3VPCU		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



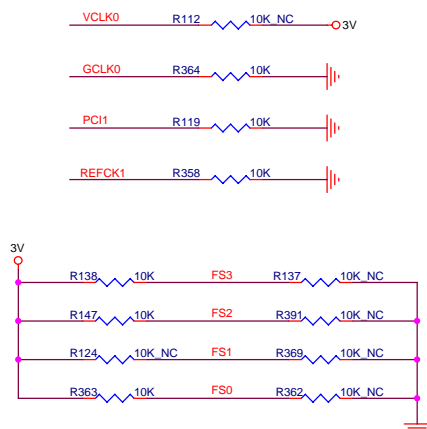
PROJECT : ZP1  
Quanta Computer Inc.

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

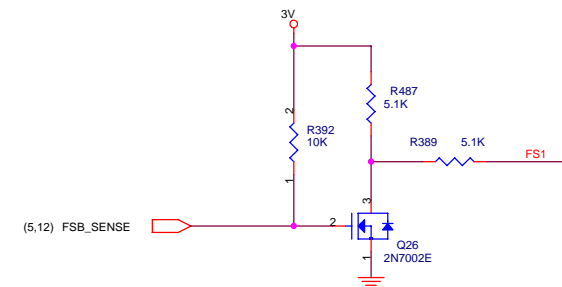


MODE, PIN6 (Latched Input)	PIN26	PIN18	PIN8
0	PD#	CPU_STOP#	PCI_STOP#
1	RESET#	PCICLK6	AGP2

FS3	FS2	FS1	FS0	CPUCCLK 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	83.30	41.67
0	0	1	1	170.00	85.00	42.50
0	1	0	0	175.00	87.50	43.75
0	1	0	1	180.00	90.00	45.00
0	1	1	0	185.00	92.50	46.25
0	1	1	1	190.00	95.00	47.50
1	0	0	0	66.60	33.30	16.67
1	0	0	1	100.90	50.45	25.10
1	0	1	0	133.60	66.80	33.40
1	0	1	1	200.40	100.20	50.00
1	1	0	0	66.60	33.30	16.67
1	1	0	1	100.00	50.00	25.00
1	1	1	0	200.00	100.00	50.00
1	1	1	1	133.30	66.65	33.33



VCLCKSB	C302	1	2	10P_NC
GCLKNB	C713	1	2	10P_NC
AGPCLK	C718	1	2	10P_NC
USBCLK	C319	1	2	10P_NC
SBPCLK	C307	1	2	10P_NC
PCMPCLK	C731	1	2	10P_NC
LPCPCLK	C312	1	2	10P_NC
PCLK_1394	C735	1	2	10P_NC
MINIPCLK	C313	1	2	10P_NC



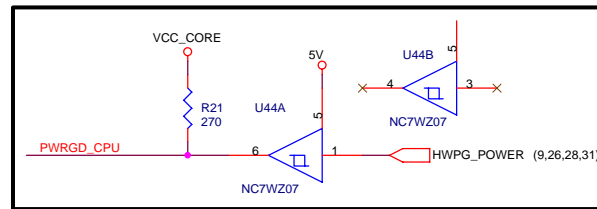
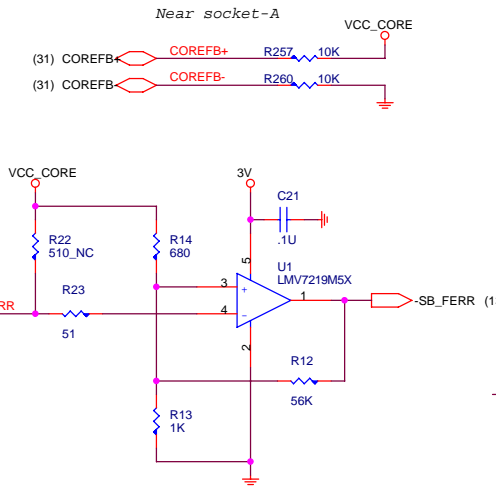
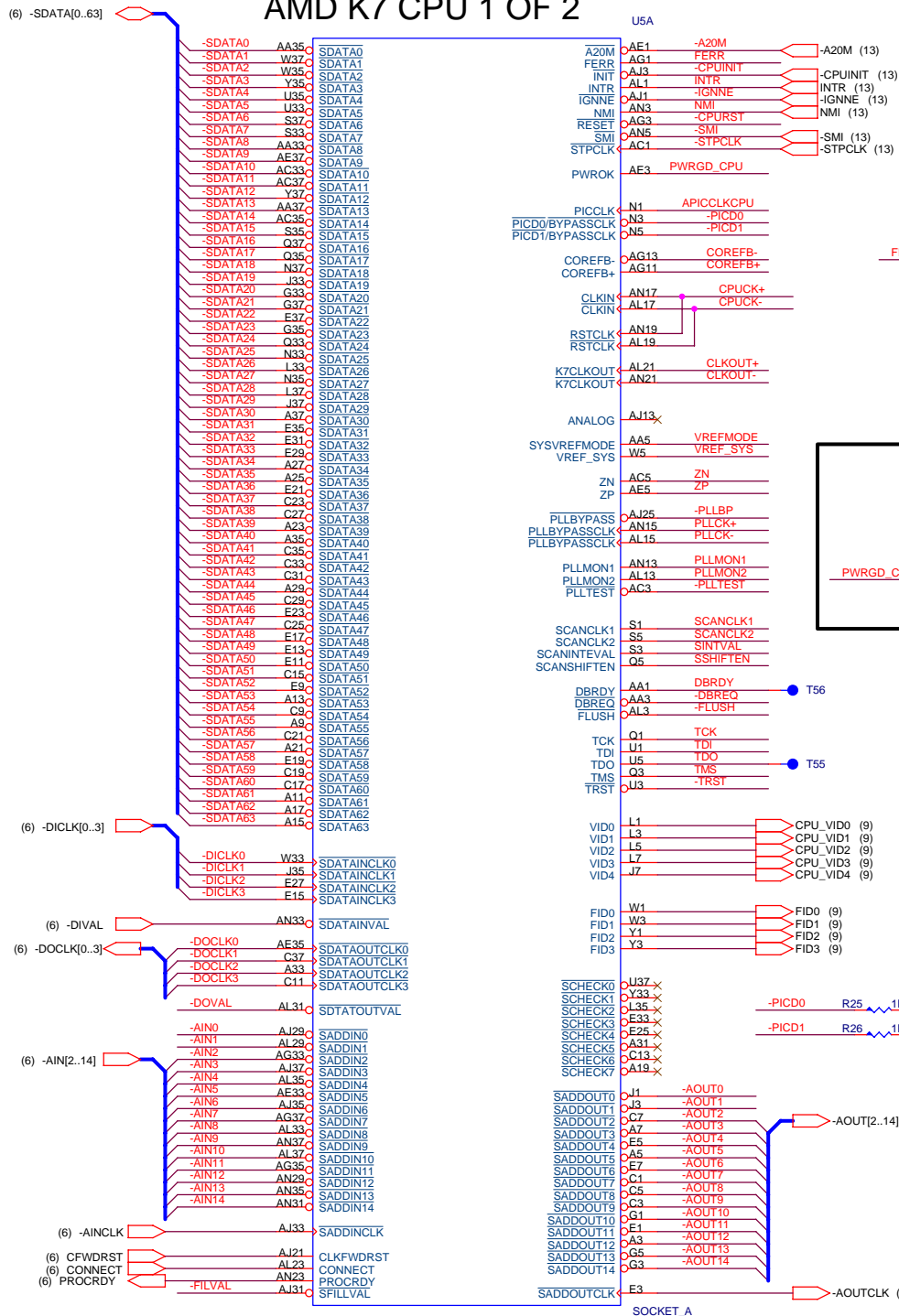
CPU FSB SENSE TABLE	CLKGEN SETTING				CPU CLK
FSB_SENSE	FS3	FS2	FS1	FS0	
0	1	1	1	1	133MHZ
1	1	1	0	1	100MHZ

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

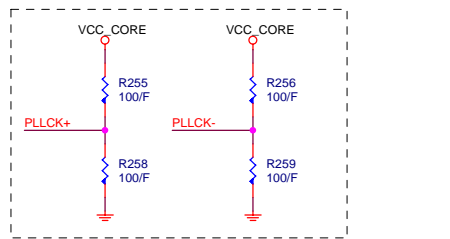
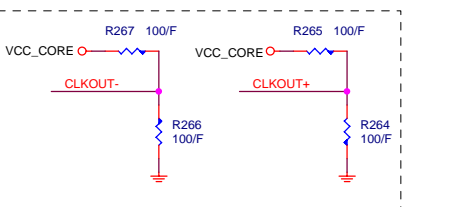
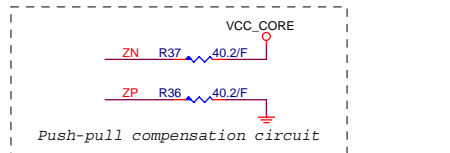
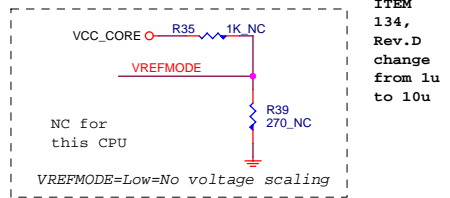
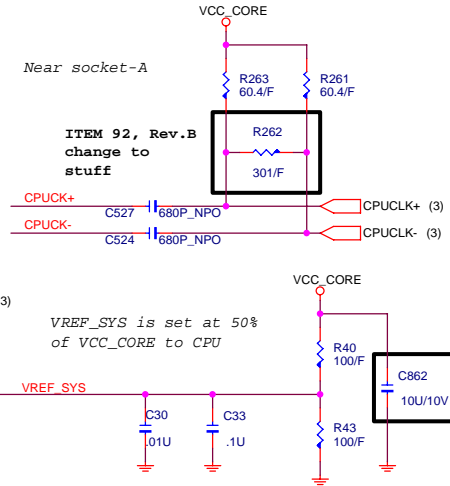
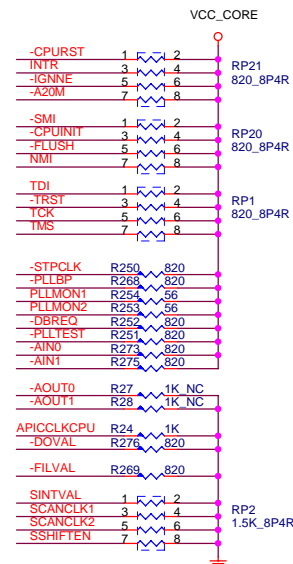
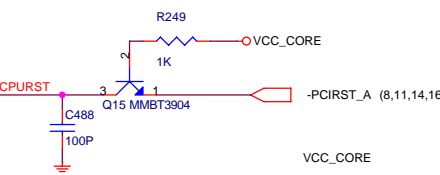
**PROJECT : ZP1**  
**Quanta Computer Inc.**

Size Custom	Document Number	Rev 2A
<b>CLOCK GENERATOR</b>		
Date:	Wednesday, September 17, 2003	Sheet 3 of 32

# AMD K7 CPU 1 OF 2



ITEM 30, Rev.B modify this circuit



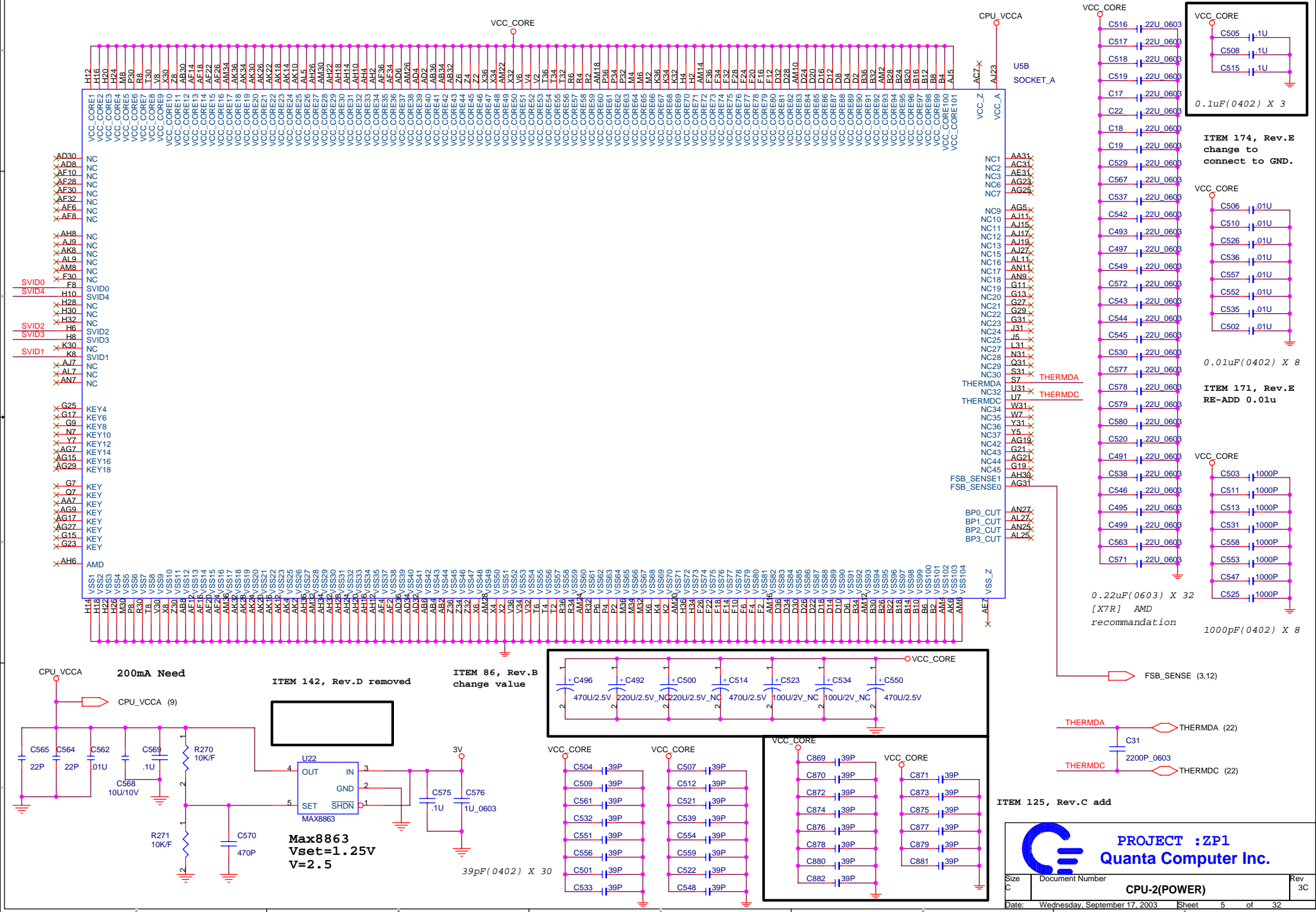
**PROJECT : ZP1**  
**Quanta Computer Inc.**

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

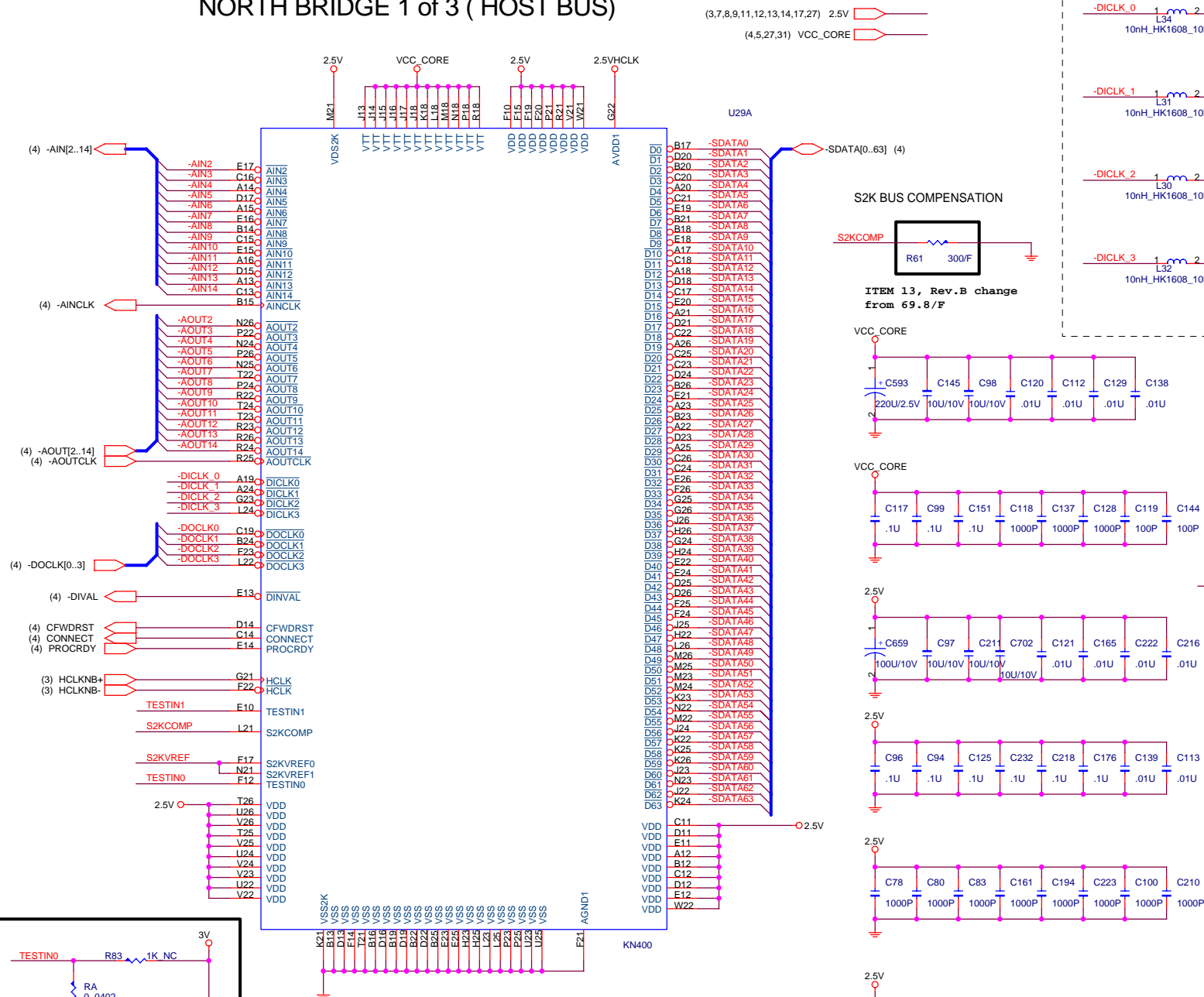
Date: Wednesday, September 17, 2003 Sheet 4 of 32

## AMD K7 CPU 2 OF 2

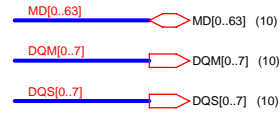
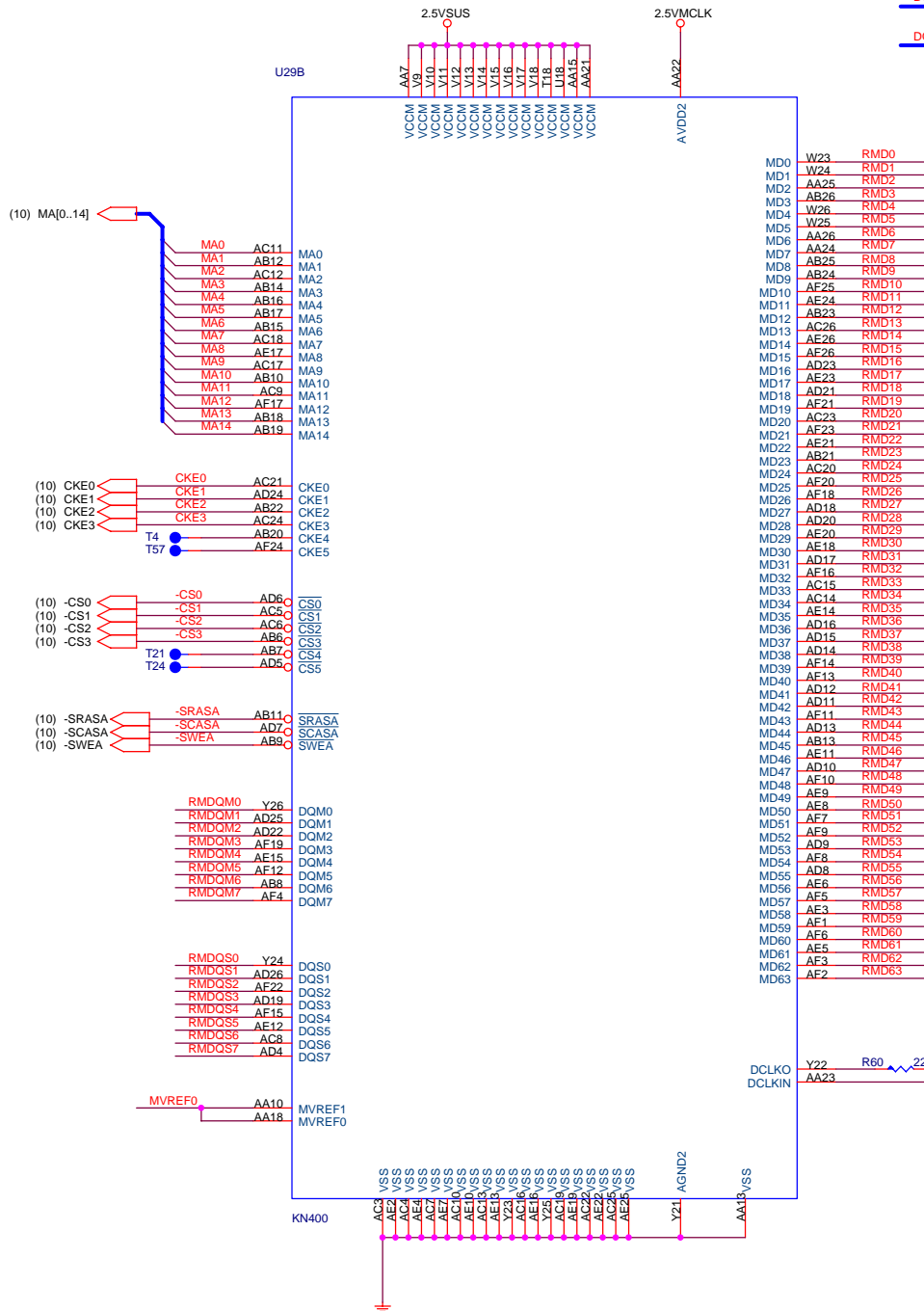
Located at Socket-A Cavity



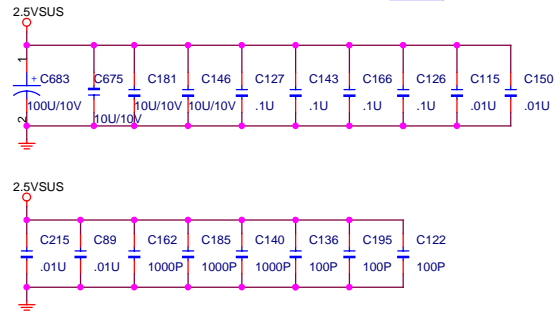
# NORTH BRIDGE 1 of 3 ( HOST BUS)



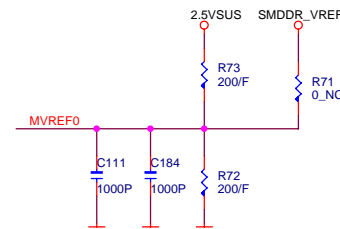
# NORTH BRIDGE 2 of 3 ( MEMORY)



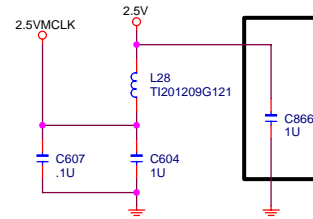
ITEM 14, Rev.B  
remove these 33p  
caps



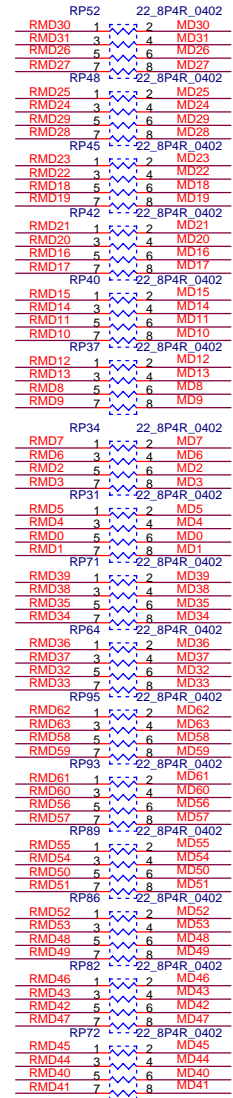
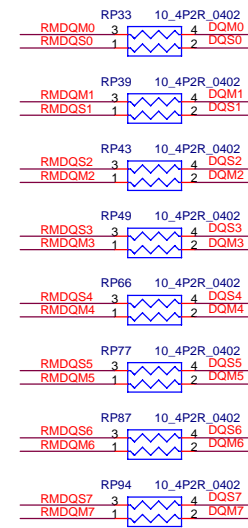
MVERF0/1 : SSTL\_2 RECEIVER VREF  
FOR DDR



AVMCLK/AGNDMCLK : POWER/GROUND FOR DRAM  
CLCOK DESKEW CIRCUIT

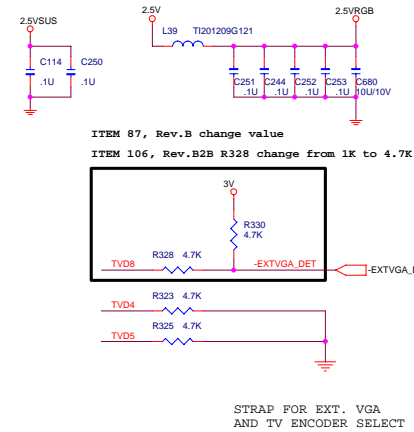
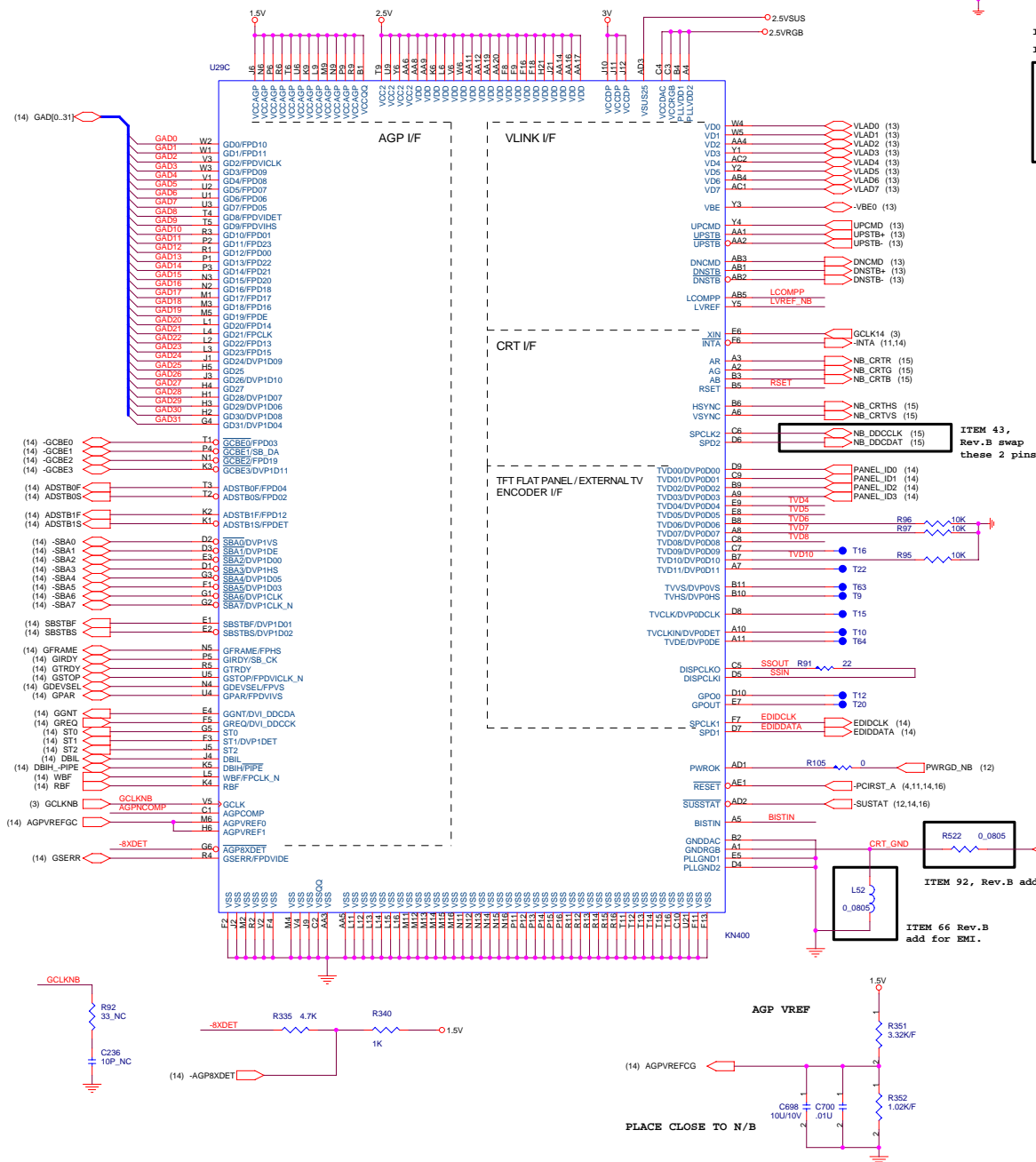


ITEM 89, Rev.B add



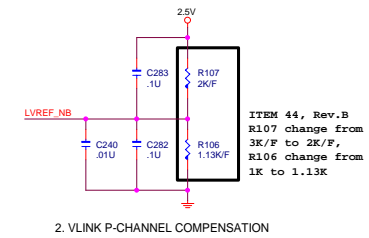


## NORTH BRIDGE 3 of 3 (AGP,VLINK,VGA)



## VLINK

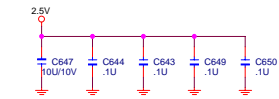
1. VLINK REFERENCE VOLTAGE 0.9V



## 2. VLINK P-CHANNEL COMPENSATION



### 3. VLINK INTERFACE POWER : VCC2



AGP

1. AGPVREF (PROVIDED BY AGP 8X CARD OR BY SYSTEM FOR OTHERS)

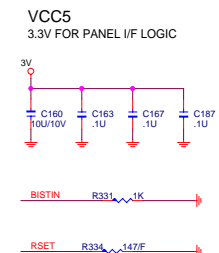
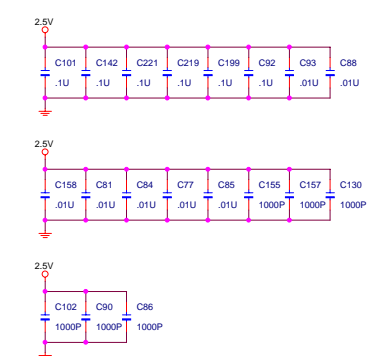


## 2. AGPNCOMP : AGP N-CHANNEL COMPENSATION

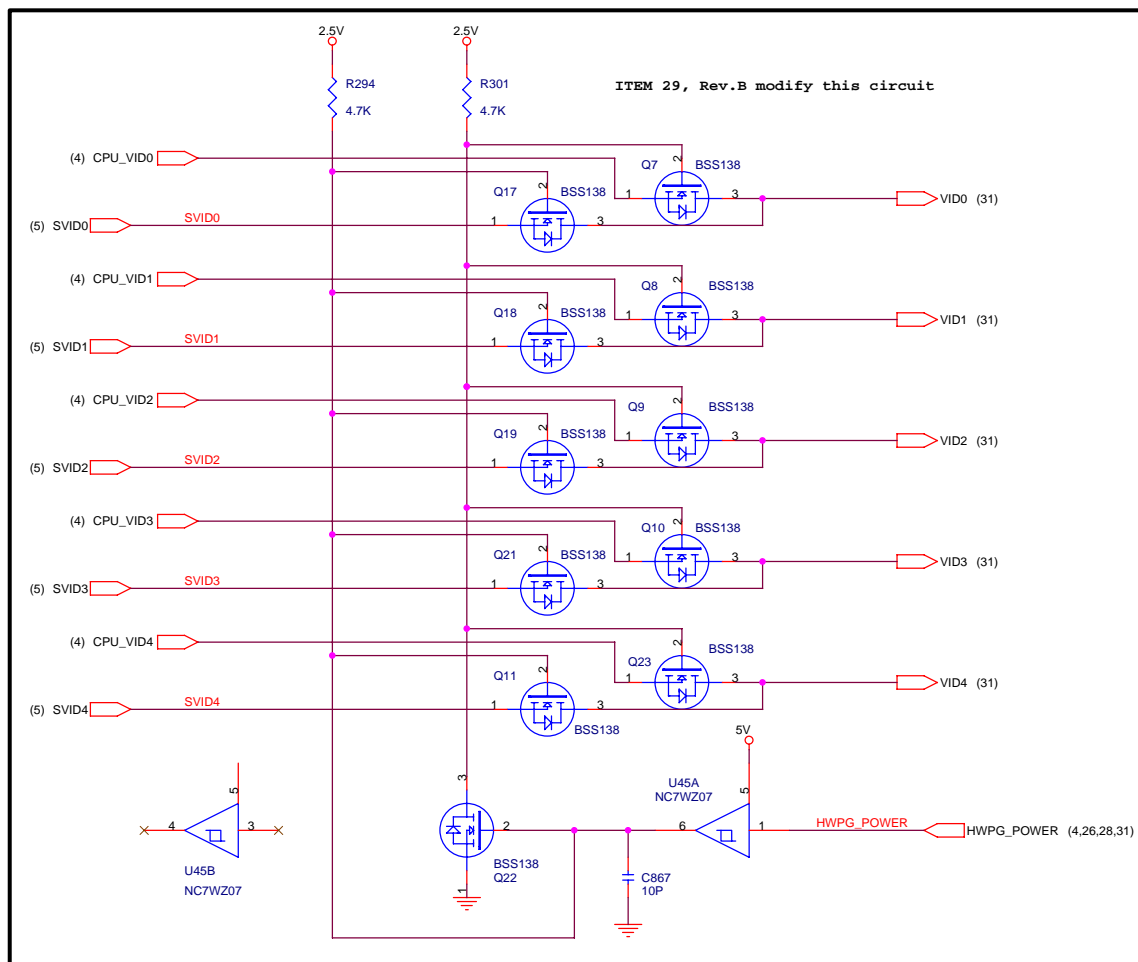
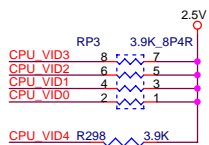
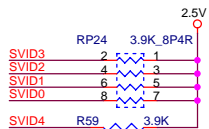


## VDD

2.5V NORTH BRIDGE VCORE



AMD suggest 3.9K



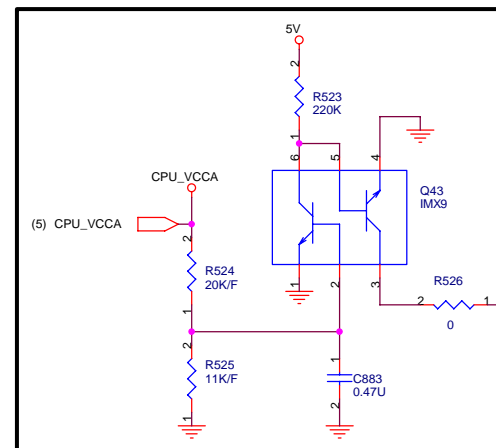
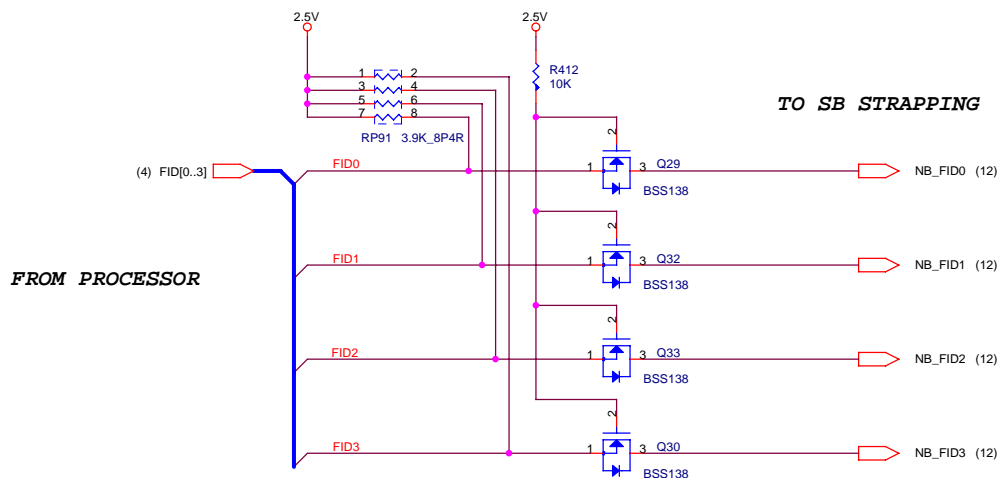
## VID / FID Interface

### VID Codes

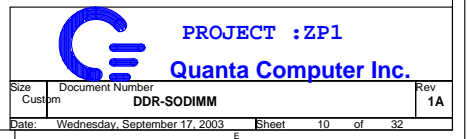
VID[4:0]	VCC_CORE	VID[4:0]	VCC_CORE
00000	2.000	10000	1.275
00001	1.950	10001	1.250
00010	1.900	10010	1.225
00011	1.850	10011	1.200
00100	1.800	10100	1.175
00101	1.750	10101	1.150
00110	1.700	10110	1.125
00111	1.650	10111	1.100
01000	1.600	11000	1.075
01001	1.550	11001	1.050
01010	1.500	11010	1.025
01011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

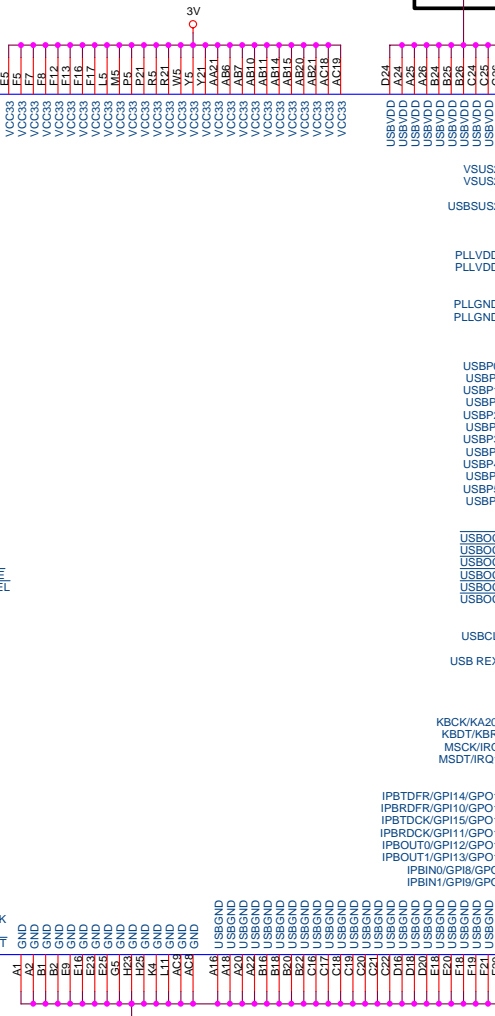
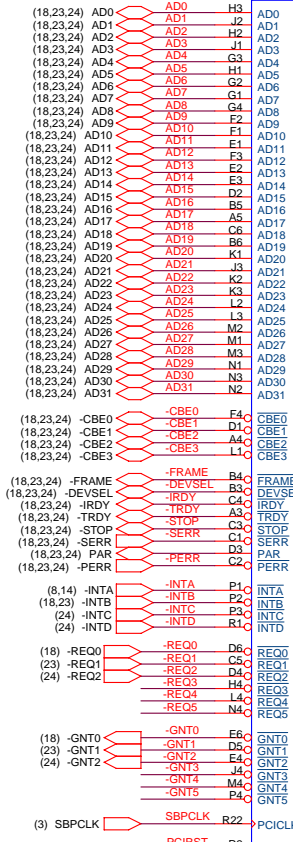
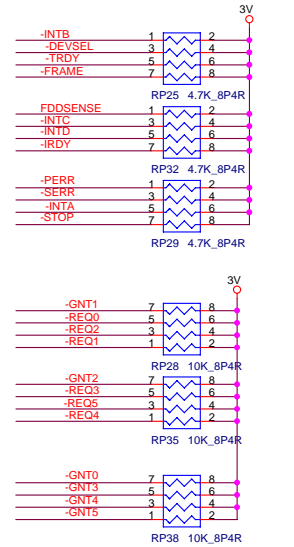
### FID Codes

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





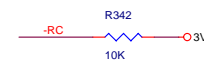
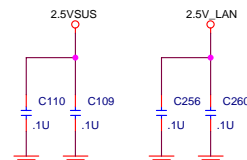
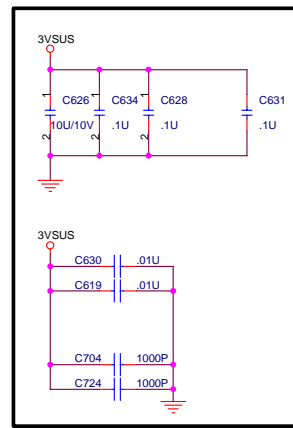
ITEM 160, Rev.D change from 3V to 3VSUS

ITEM 103, Rev.C change from 2.5V to 2.5VSUS

ITEM 69 Rev.B bead change to 0ohm for EMI.

ITEM 146, Rev.D change from 3V to 3VSUS and add R529, R530

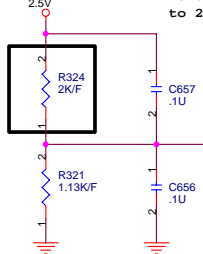
ITEM 167, Rev.E change from 3V to 3VSUS



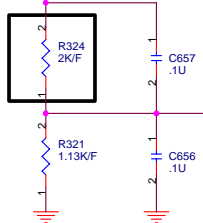
PROJECT : ZP1  
Quanta Computer Inc.



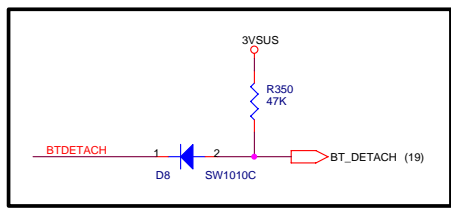
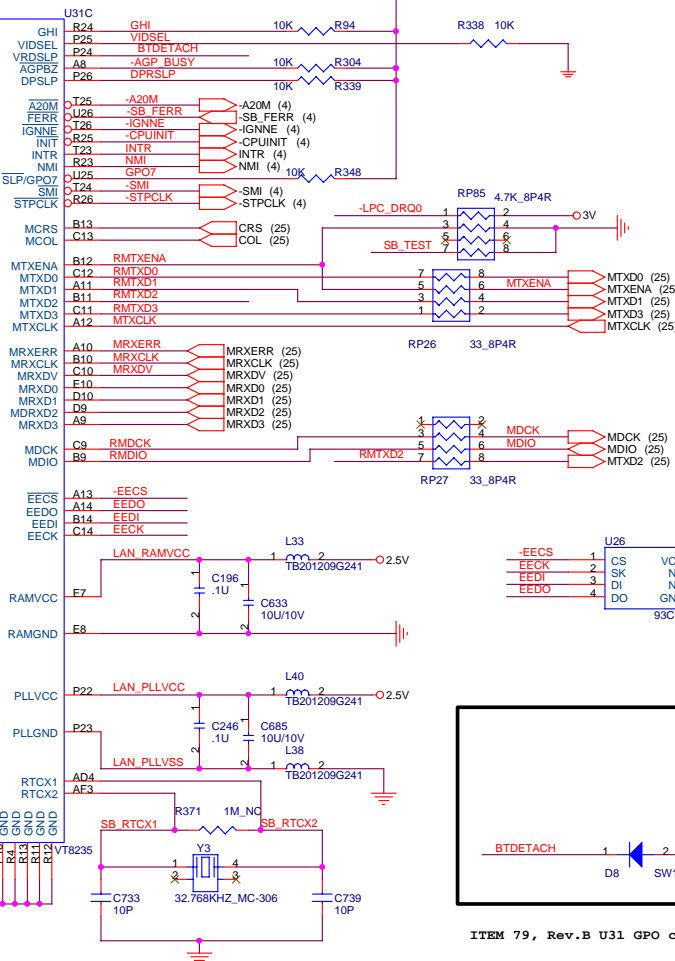
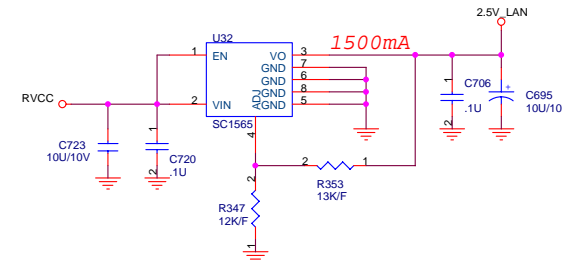
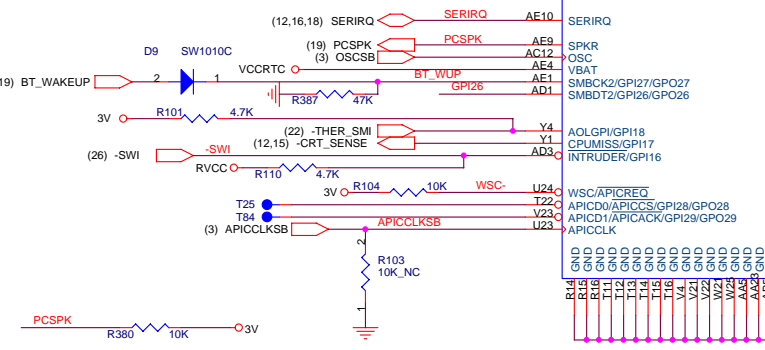
ITEM 44,  
Rev.B change  
from 3K/F to  
2K/F



ITEM 88,  
Rev.B change  
to 2.5V



The voltage level of  
VLREF\_SB is 0.9V

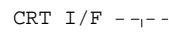


ITEM 79, Rev.B U31 GPO change from pin V23 to P24

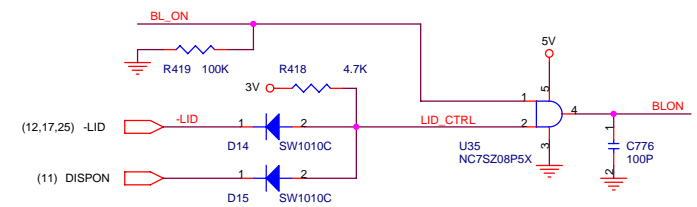
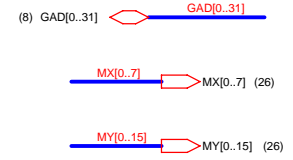


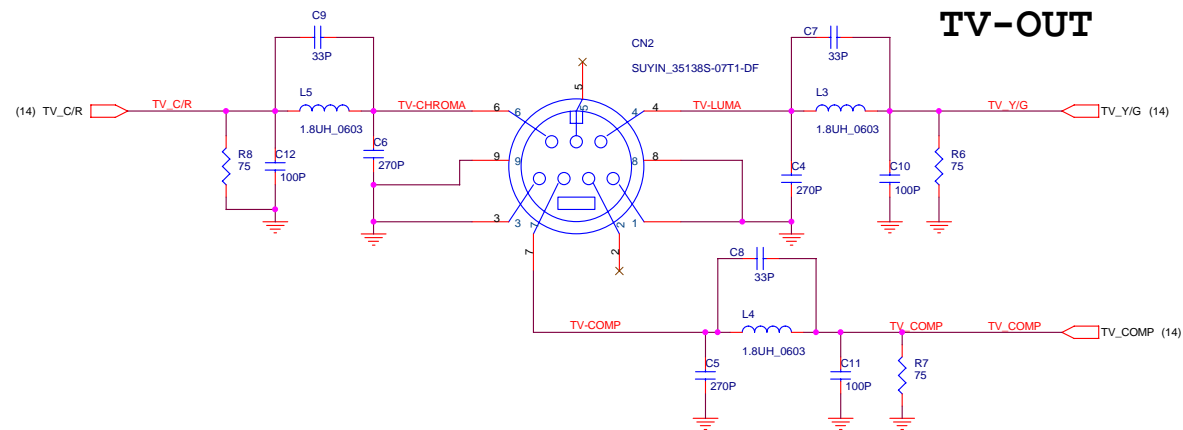
Int. K/B - -1- -

- -1- -Int. K/B

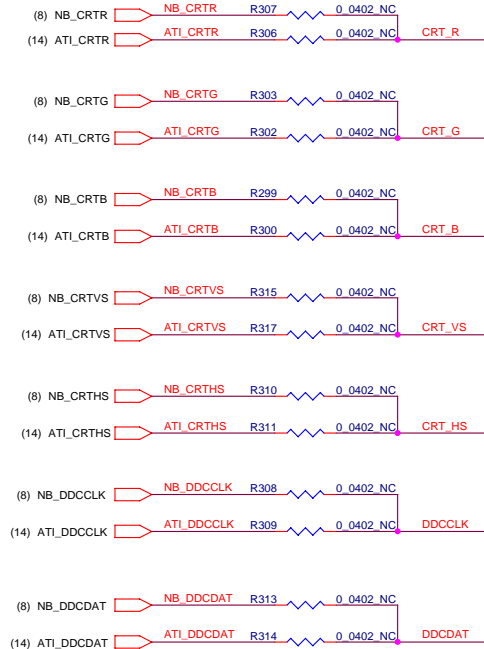


AGP 4X/8X I/F





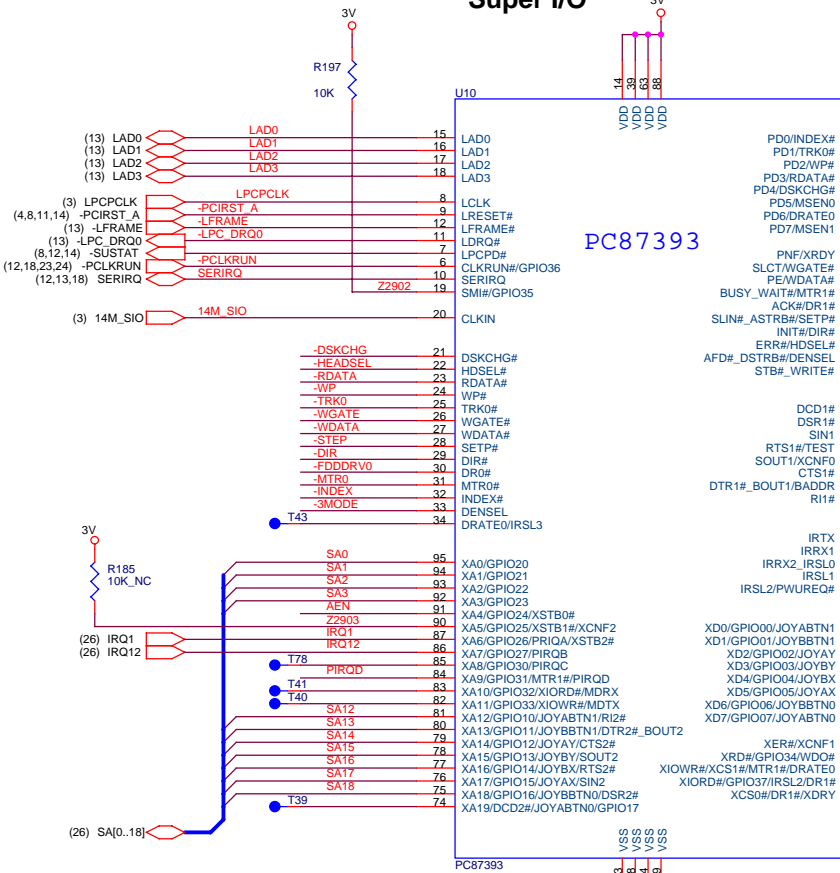
ITEM 65 Rev.B change value  
and placed near U27 for  
EMI.



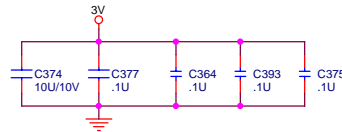
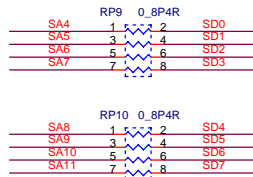
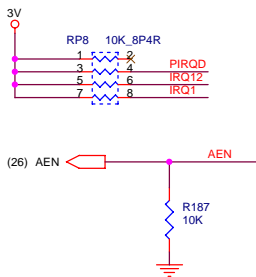
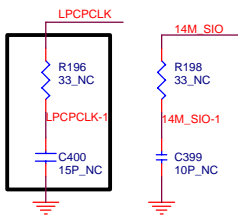


# Super I/O

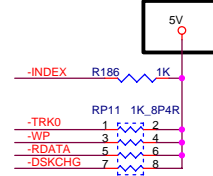
PC87393



ITEM 59, Rev.B remove



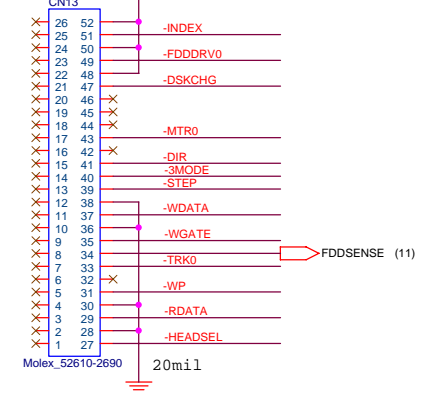
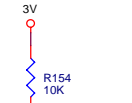
ITEM 124, change from 3V to 5V



26

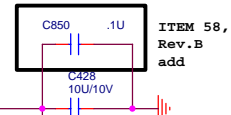
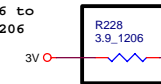
1

SET ADDRESS

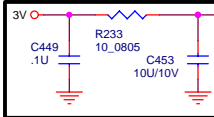


ITEM 96, Rev.C remove reserved serial port

ITEM 78, Rev.B change from 0.1206 to 3.9.1206

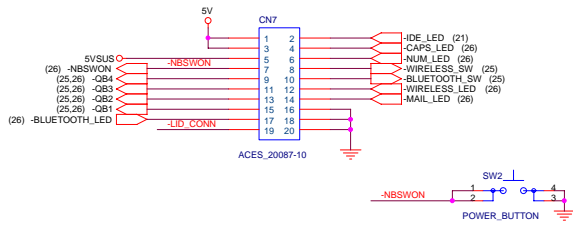


ITEM 58, CKT modify from Rev.B

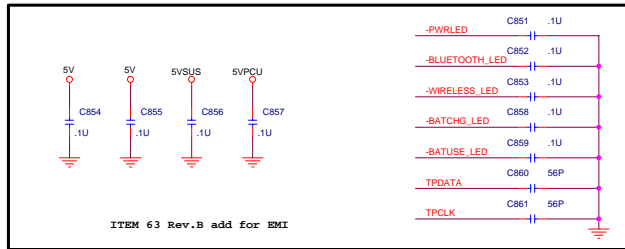
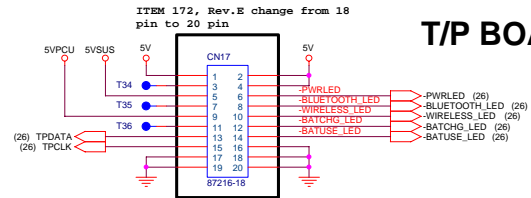


PROJECT : ZP1  
Quanta Computer Inc.

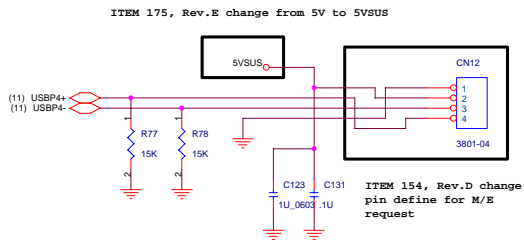
## LED BOARD



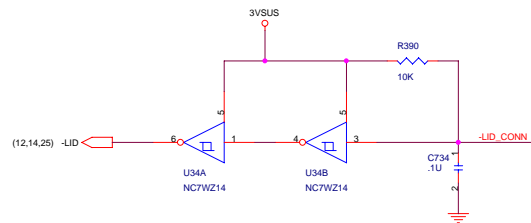
## T/P BOARD



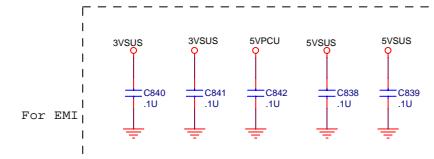
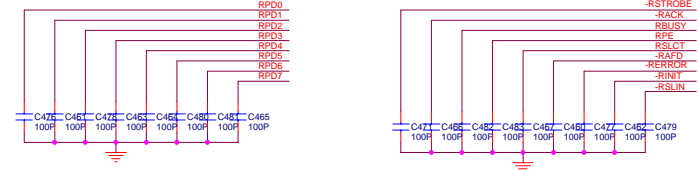
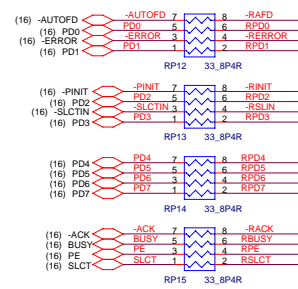
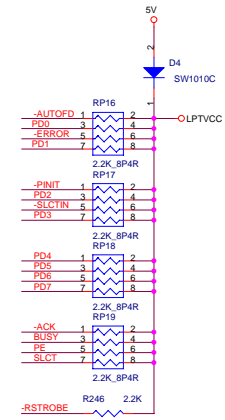
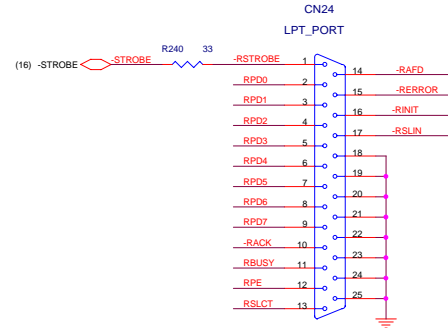
## 4 IN 1 CARD READER



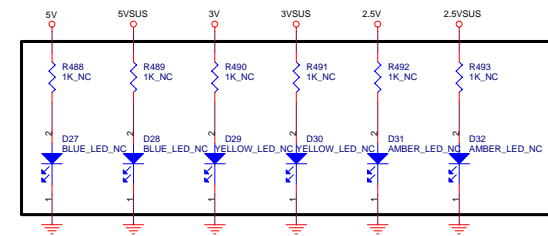
## LID SWITCH



LPT



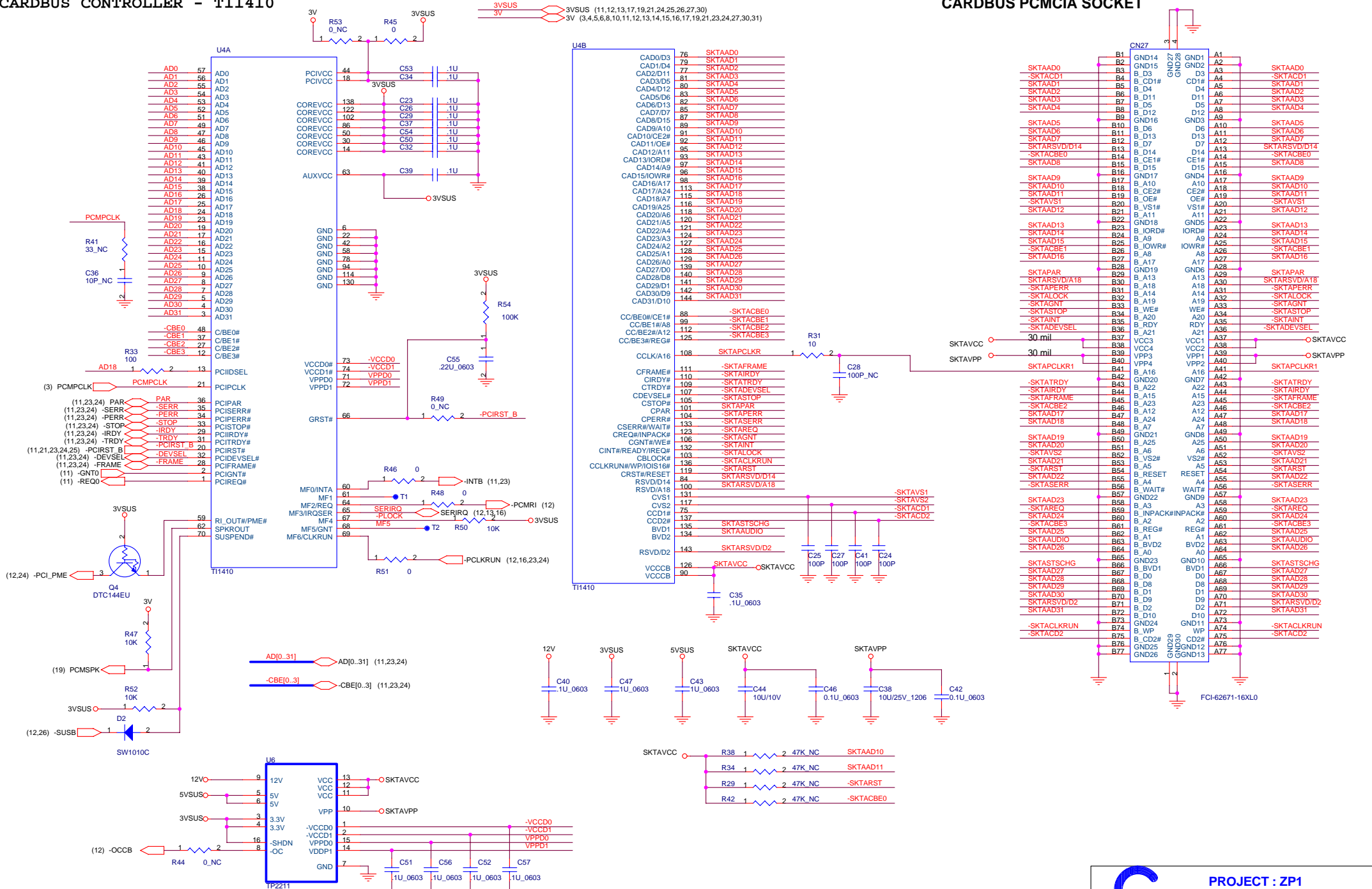
## DEBUG LED



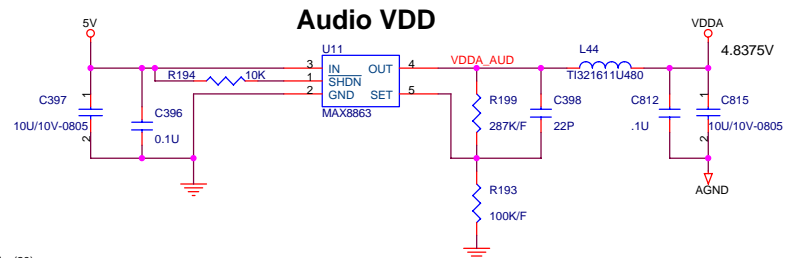
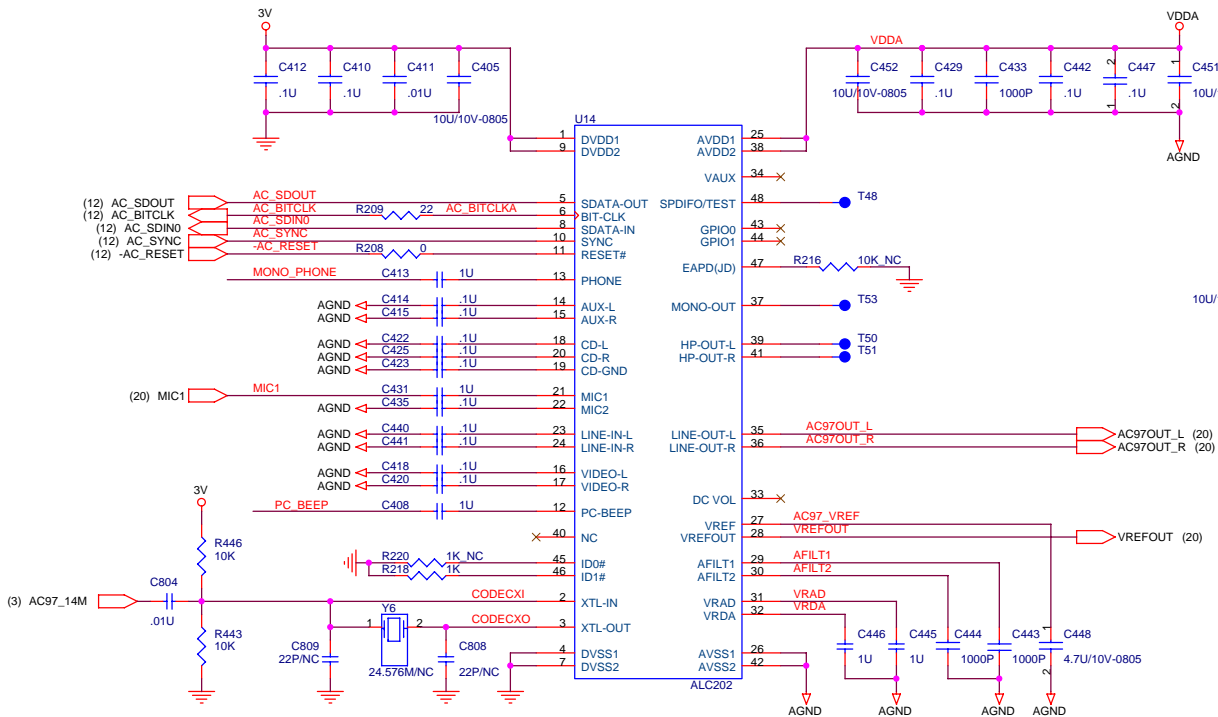
ITEM 97, Rev.C Remove

# CARDBUS CONTROLLER - TI1410

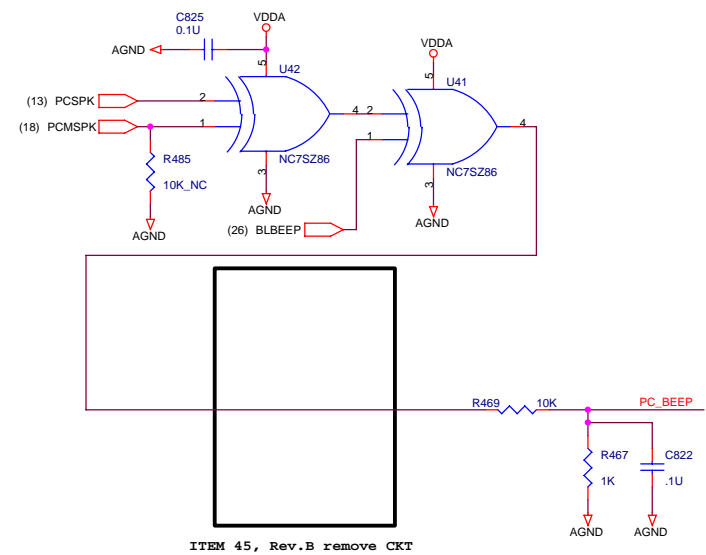
# CARDBUS PCMCIA SOCKET



PROJECT : ZP1  
Quanta Computer Inc.

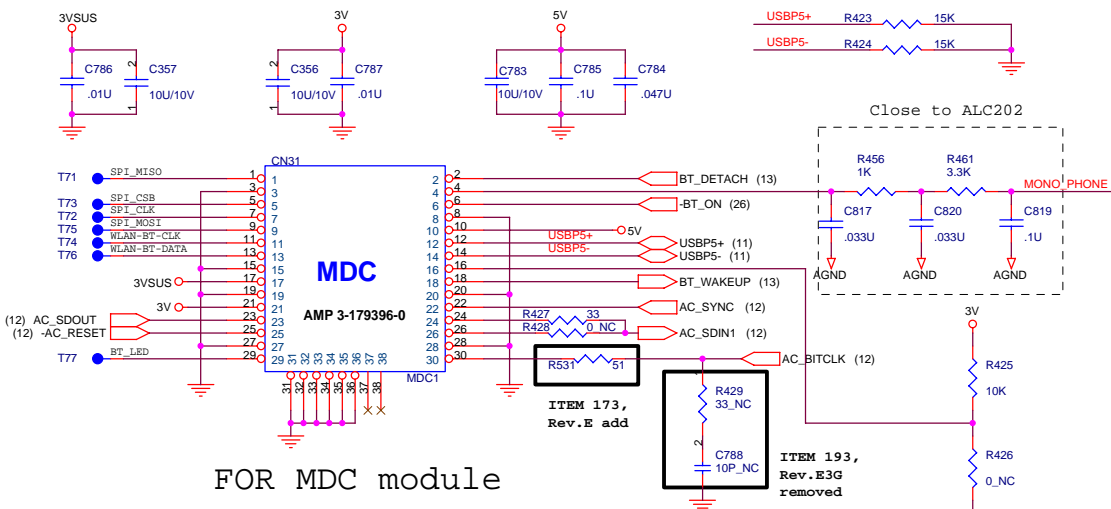


## PC SPEAKER



ITEM 45, Rev.B remove CKT

FOR MDC module



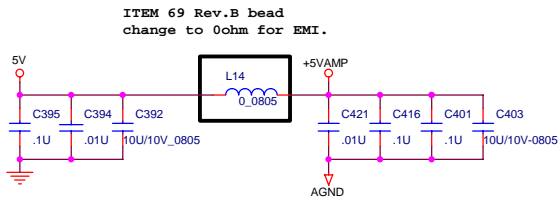
ITEM 173, Rev.E add

ITEM 193, Rev.E3G removed

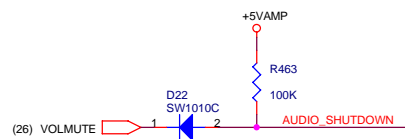
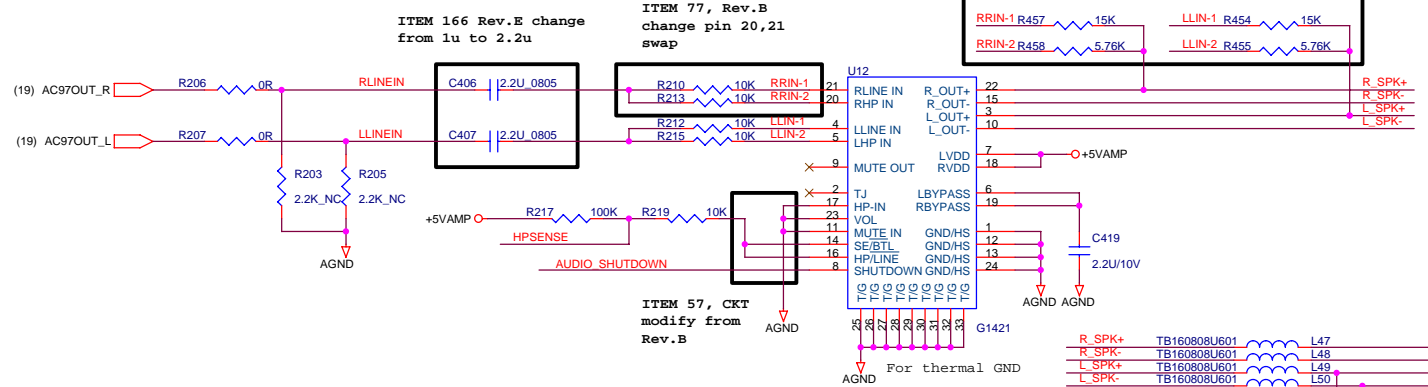


**PROJECT : ZP1**  
**Quanta Computer Inc.**

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

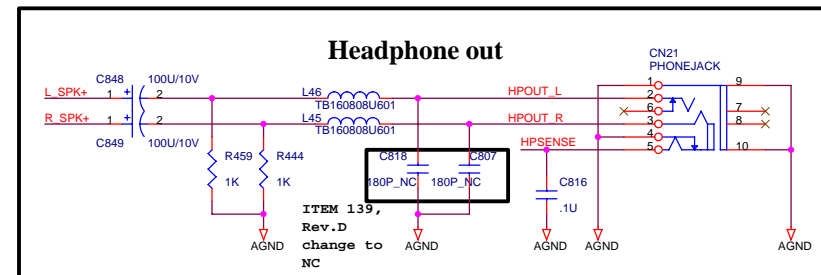
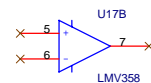
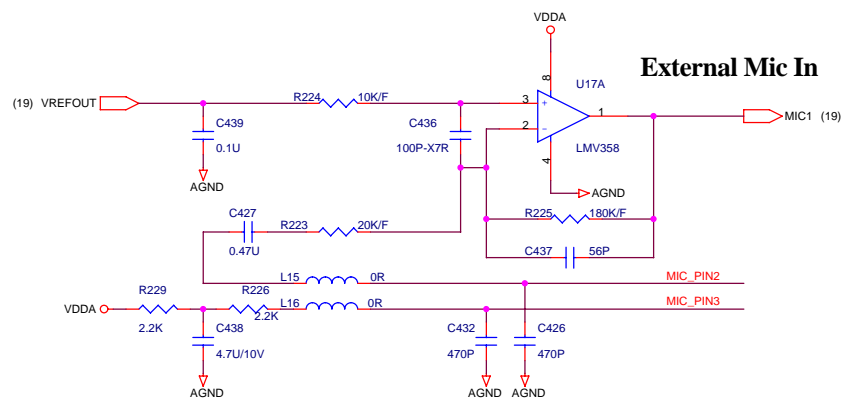
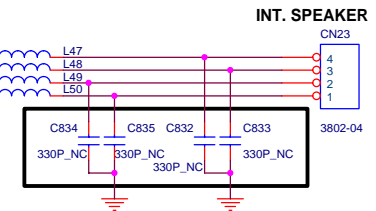


## Audio amplifier

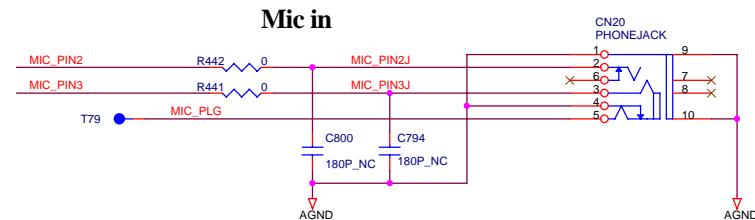


ITEM 62 Rev.B change from 180P to 330P and A-GND to GND

ITEM 111 Rev.B2B change from stuff to NC



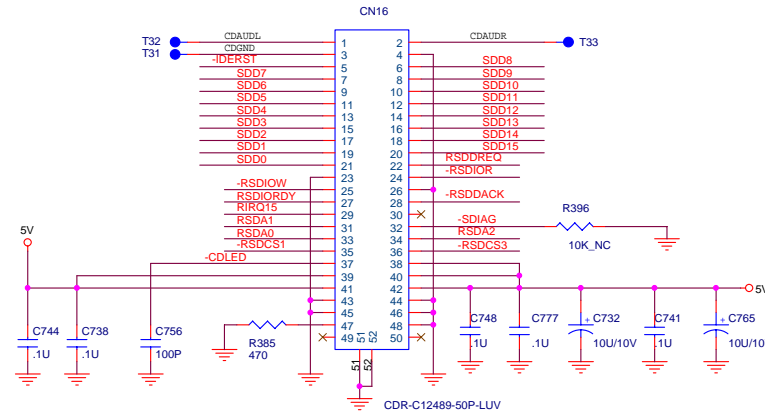
ITEM 57, CKT modify from Rev.B



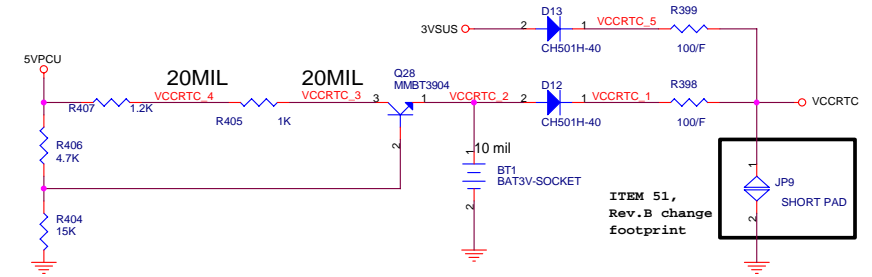
PROJECT : ZP1  
Quanta Computer Inc.

Size	Document Number	Rev
Custom	AUDIO AMP & JACK	3C
Date:	Wednesday, September 17, 2003	Sheet 20 of 32

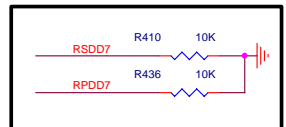
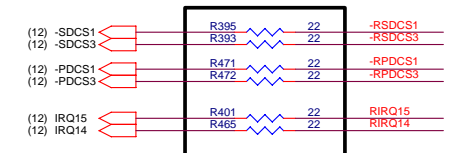
## ODD CONNECTOR



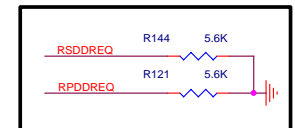
## RTC



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

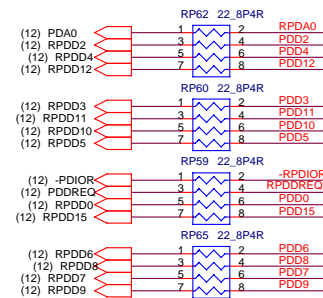
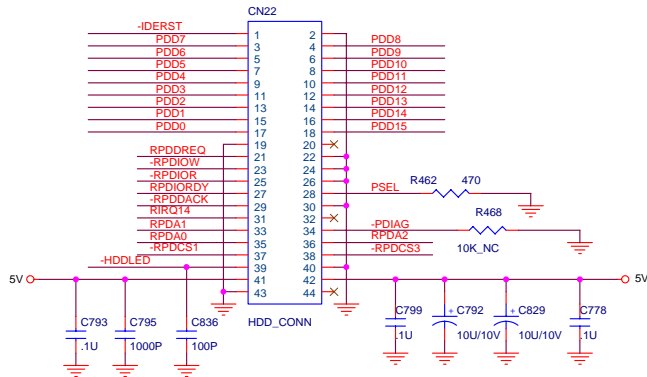


ITEM 35, Rev.B modify, placed near South Bridge

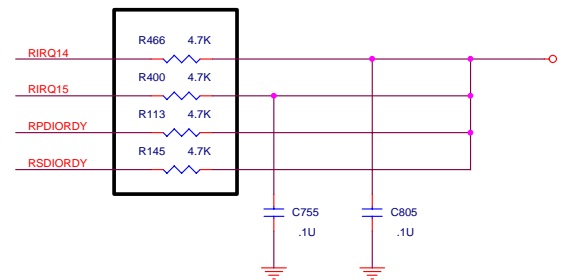


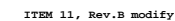
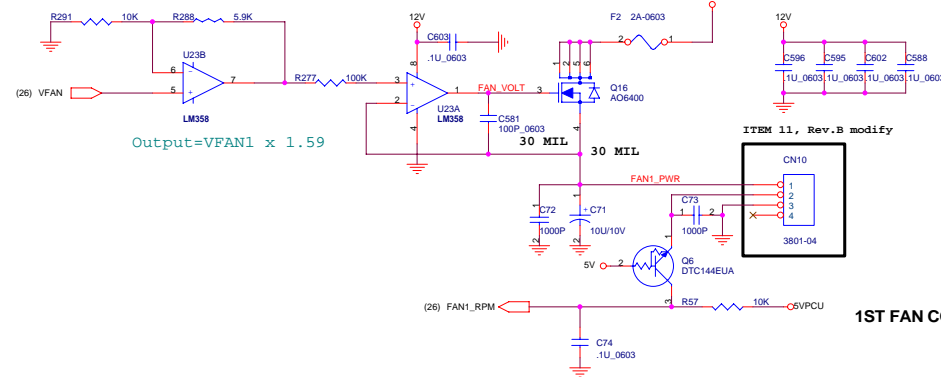
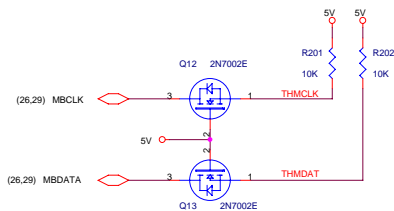
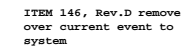
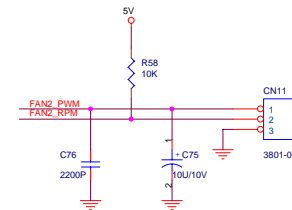
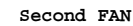
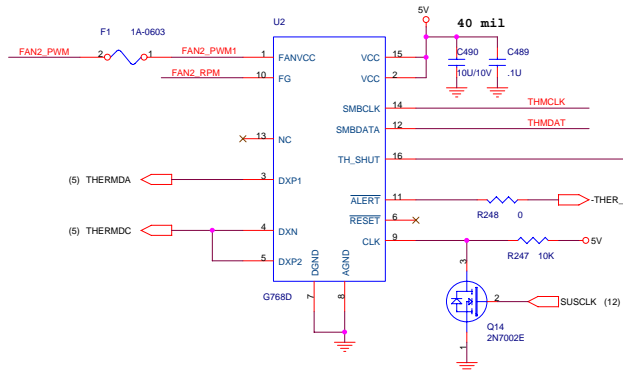
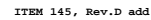
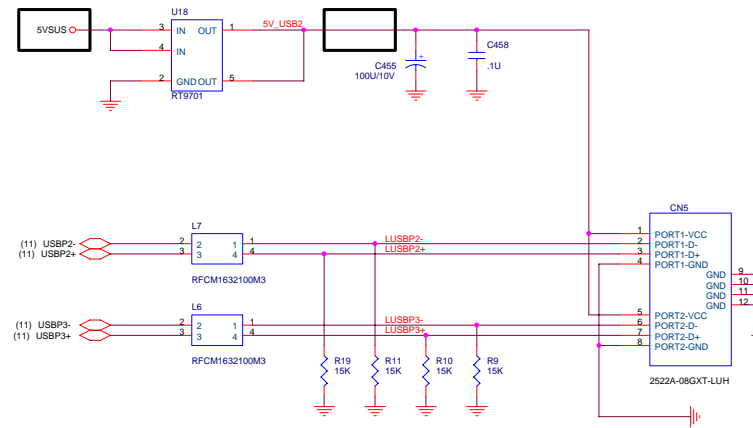
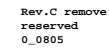
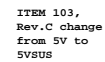
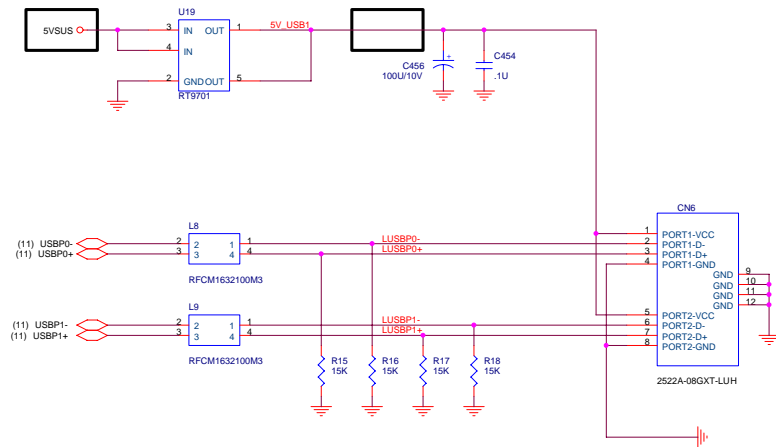
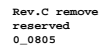
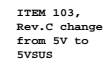
ITEM 36, Rev.B modify, placed near South Bridge

## HDD connector

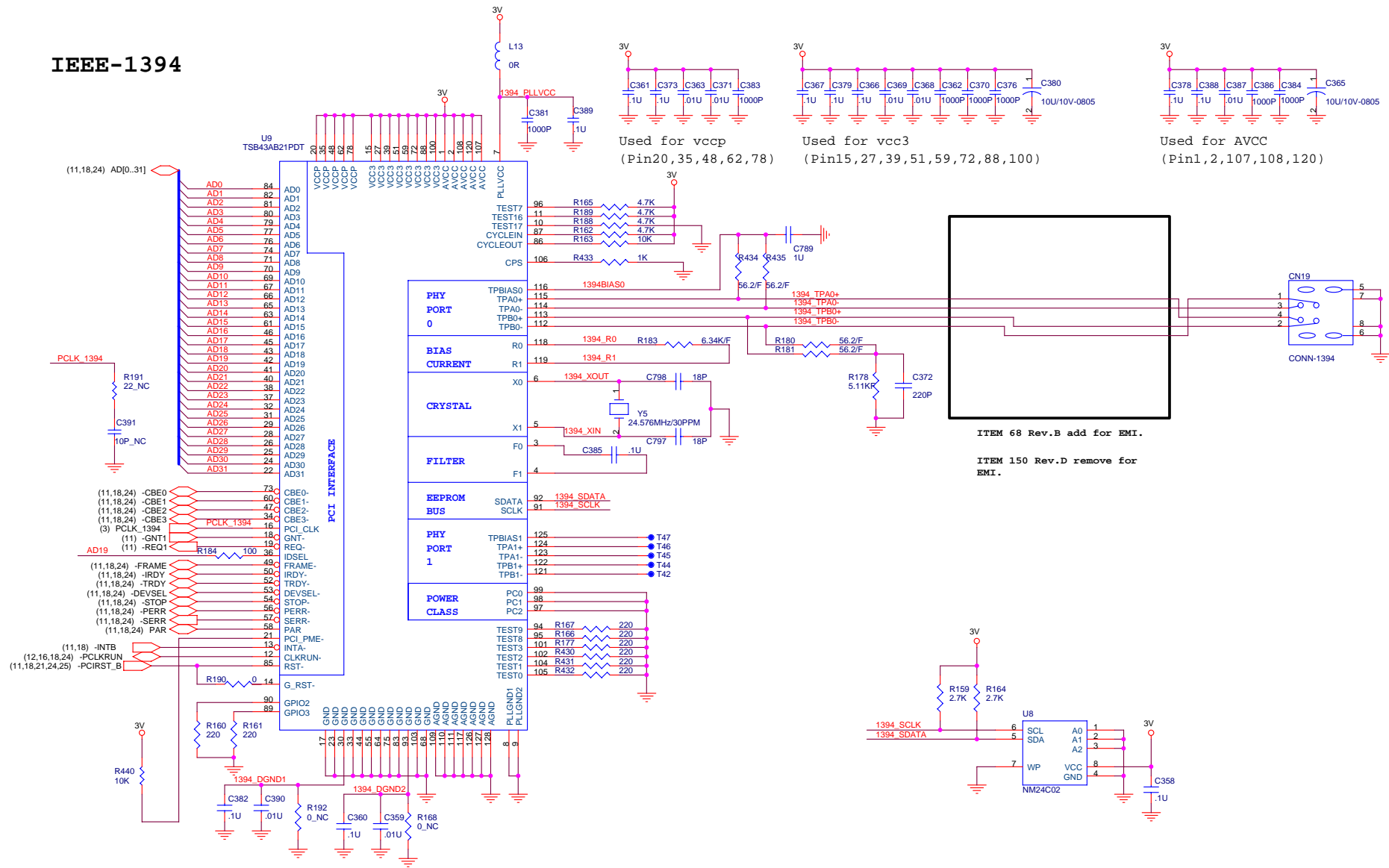


Placed near VT8235





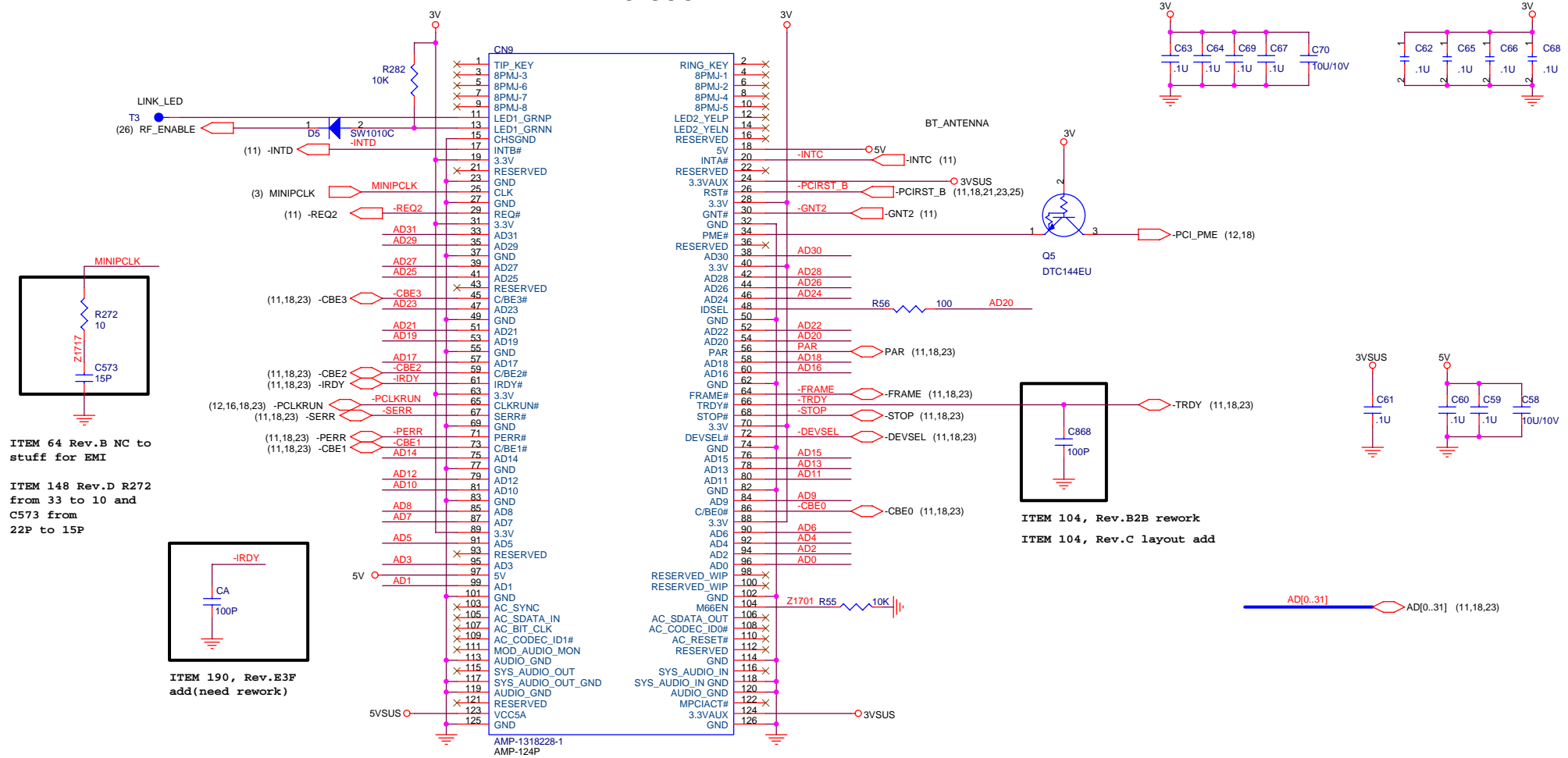
# IEEE-1394



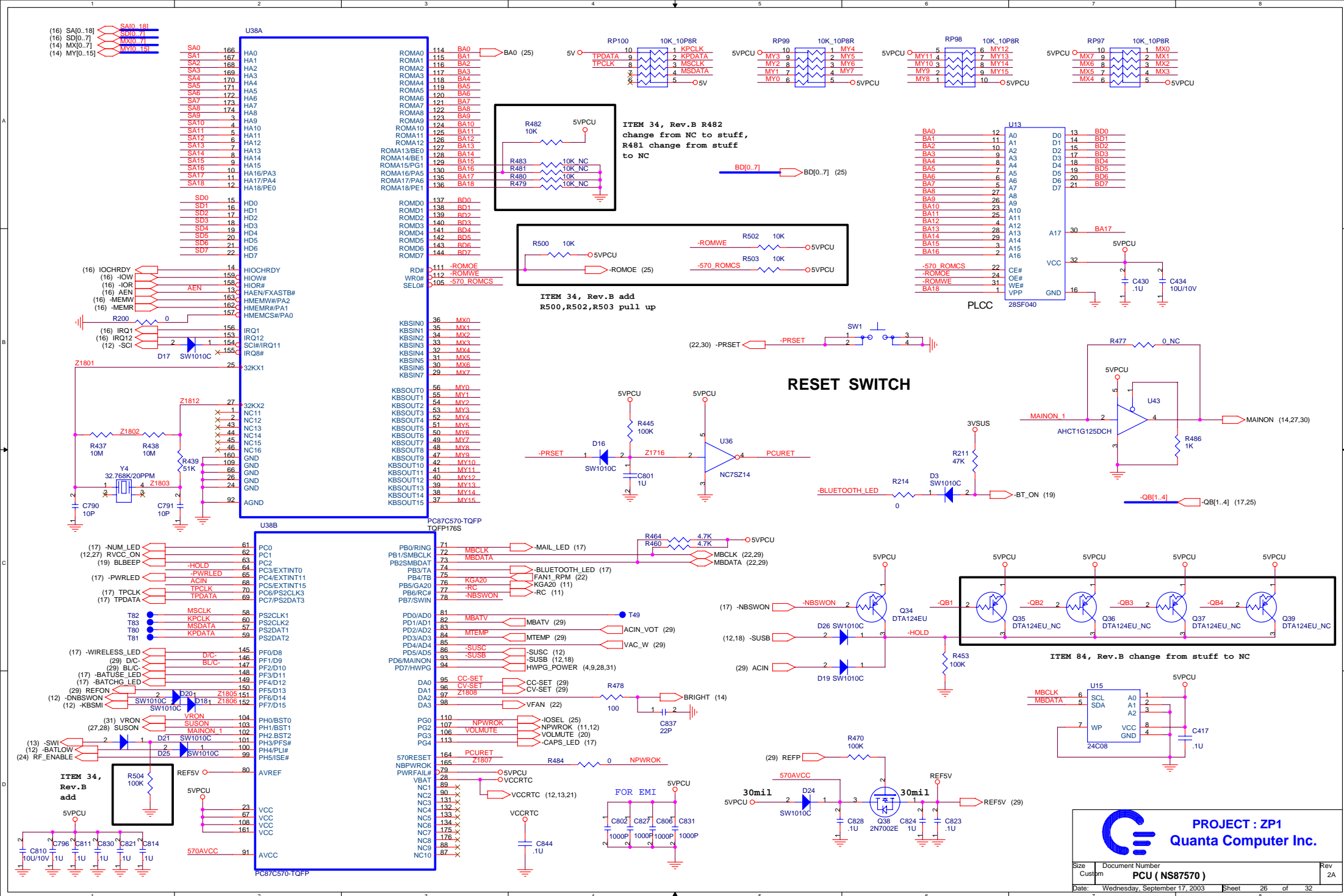
PROJECT : ZP1  
Quanta Computer Inc.



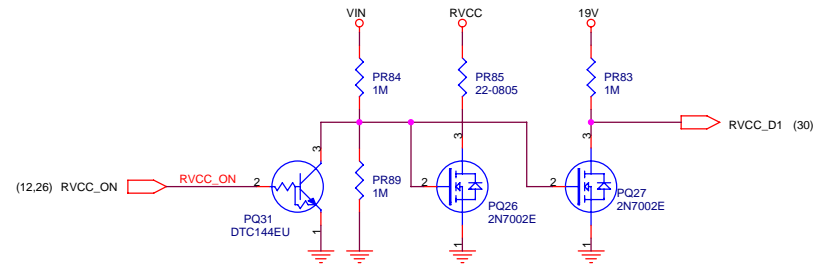
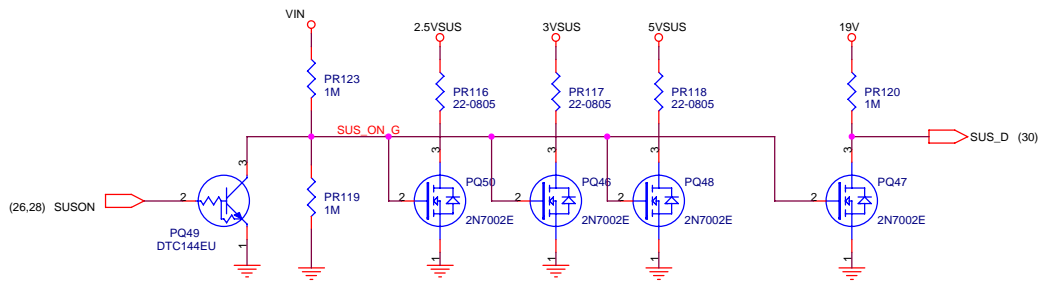
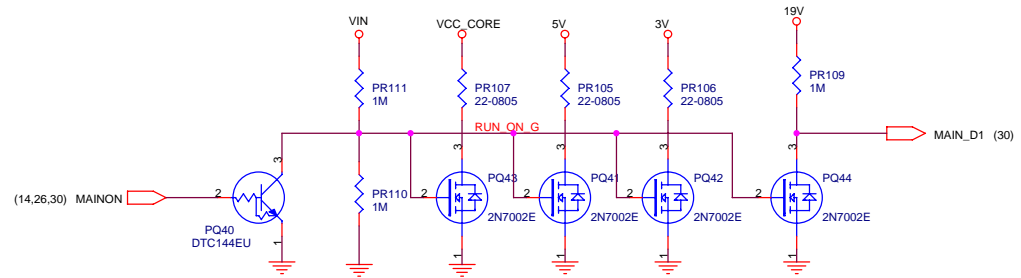
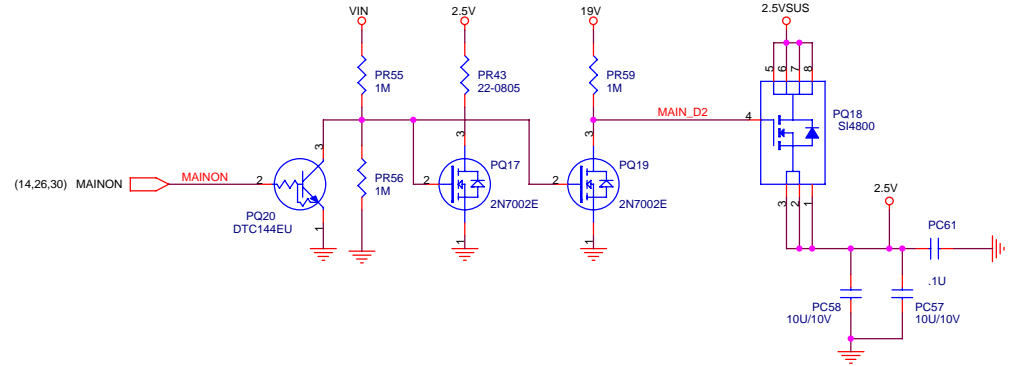
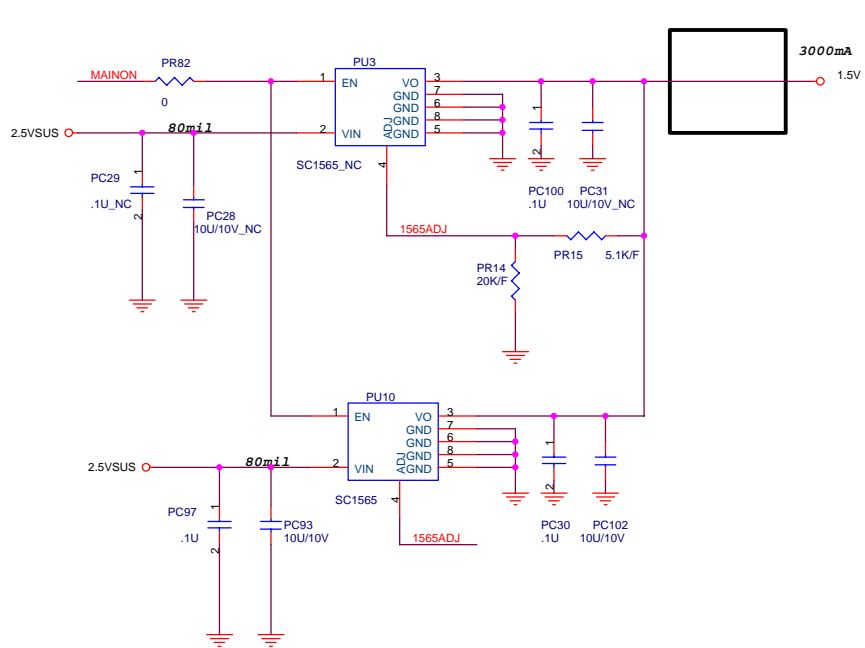
# TYPE III MINI PCI SOCKET







ITEM 85, Rev.B remove jumper



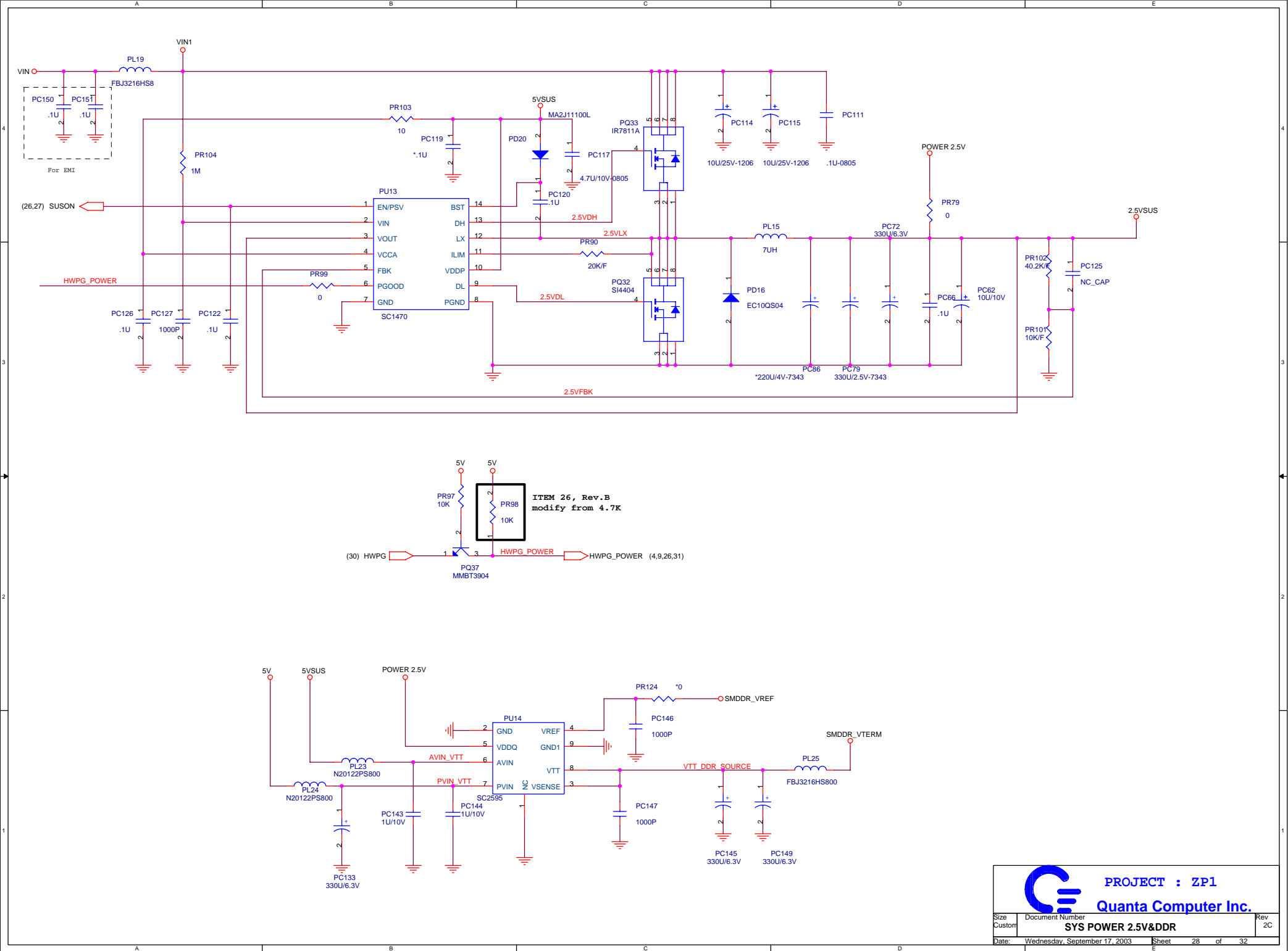
PROJECT : ZP1

**Quanta Computer Inc.**

Size	Document Number
Custom	<b>DISCHARGE CIRCUIT</b>

Date:	Wednesday, September 17, 2003	Sheet	27	of	32
-------	-------------------------------	-------	----	----	----

2A



PROJECT : ZP1  
 Quanta Computer Inc.

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

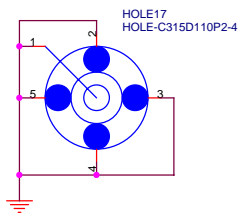
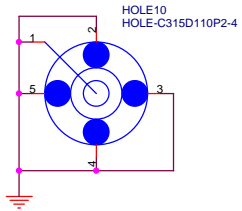
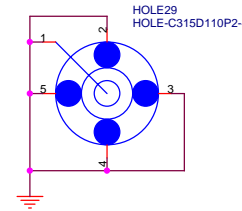
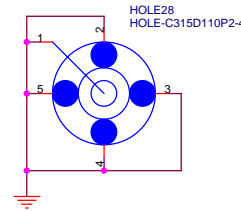
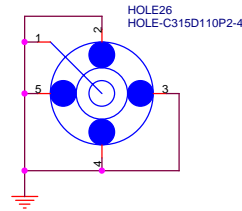
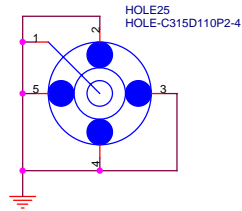
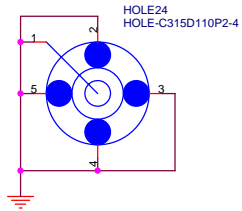
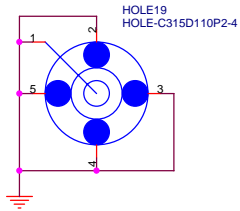
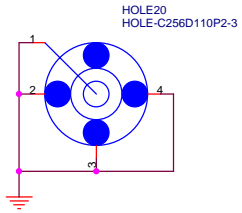
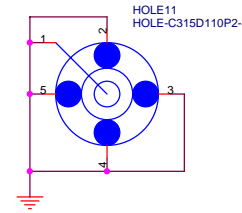
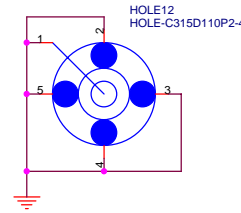
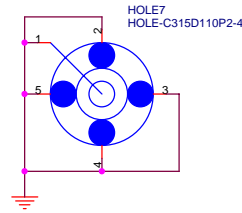
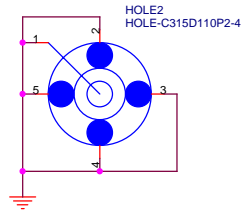
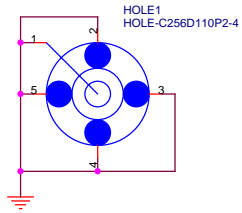
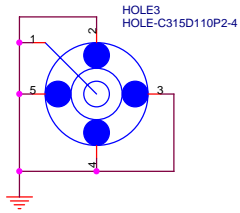




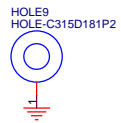
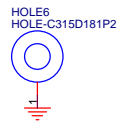
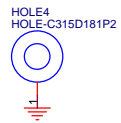




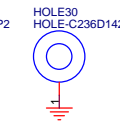
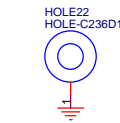
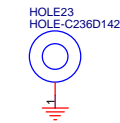
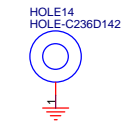
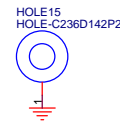
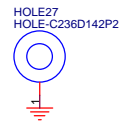
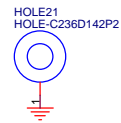
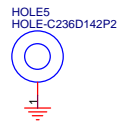
A



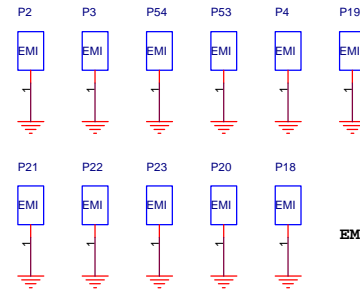
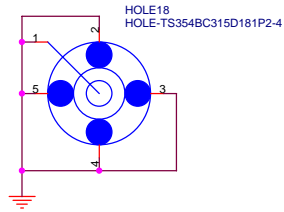
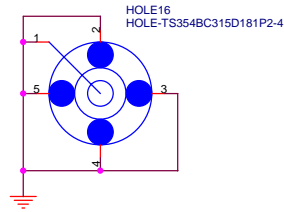
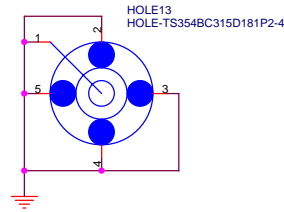
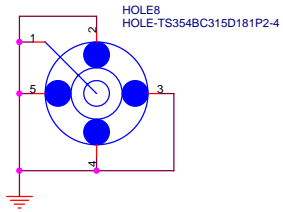
d



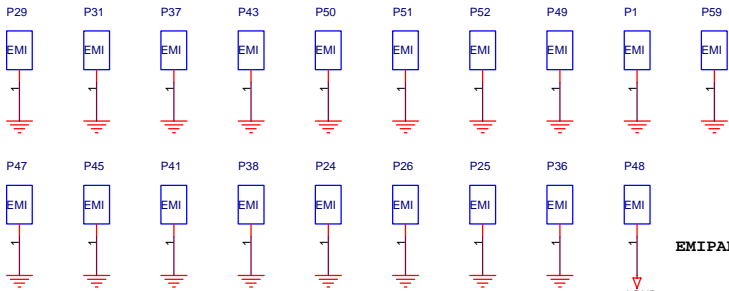
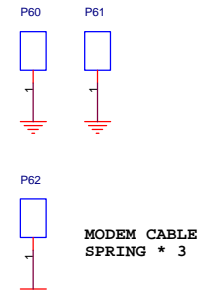
e



f

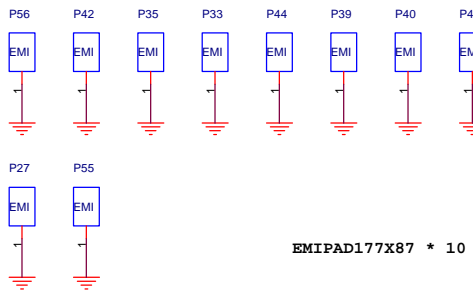


EMIPAD118X177 \* 11

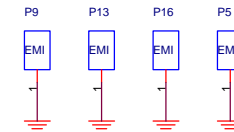


EMIPAD161X106 \* 19

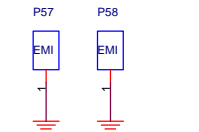
AGND



EMIPAD177X87 \* 10



EMIPAD118X106 \* 4



EMIPAD98X138 \* 2



PROJECT : ZP1  
Quanta Computer Inc.

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