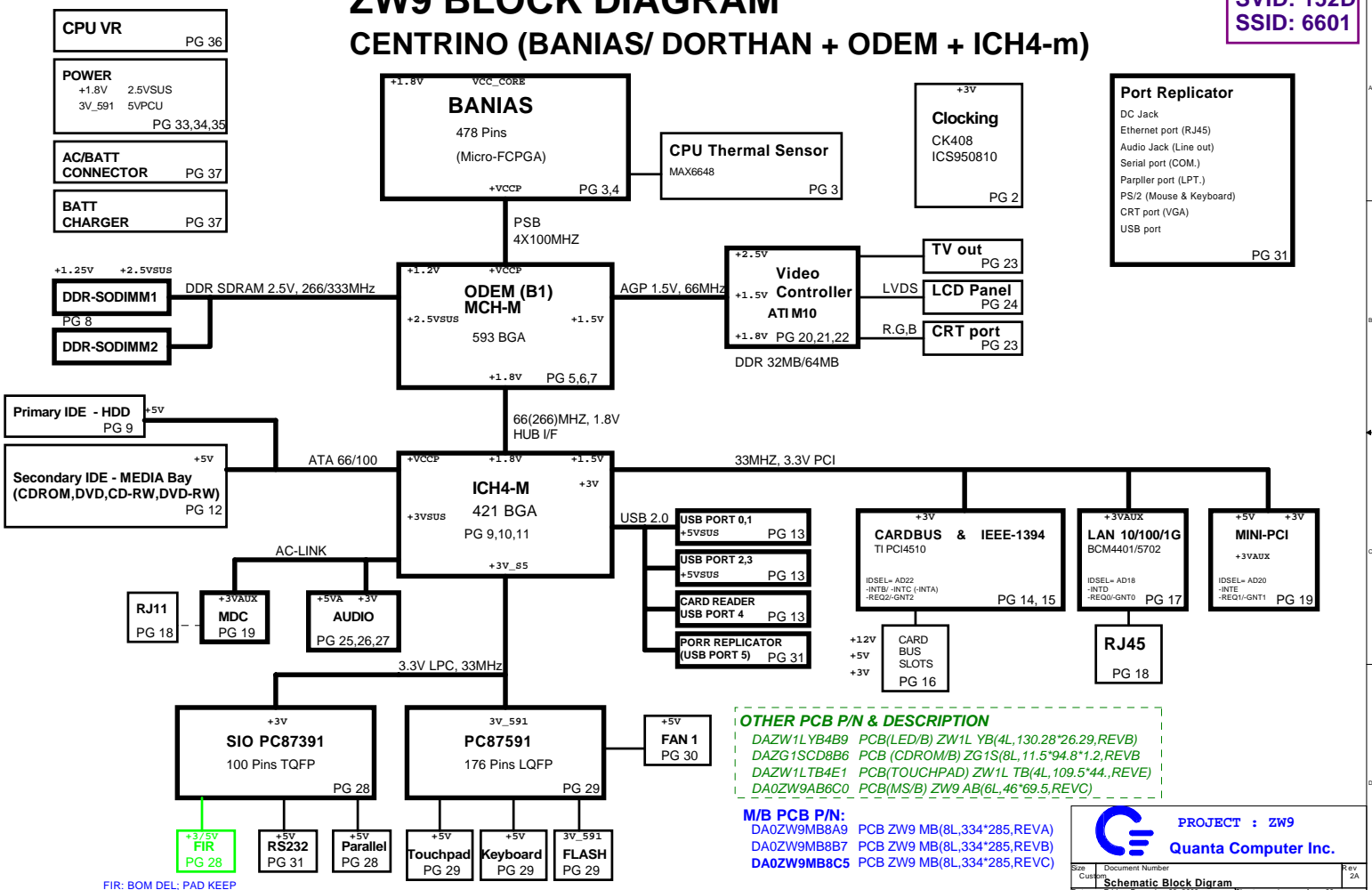


# ZW9 BLOCK DIAGRAM

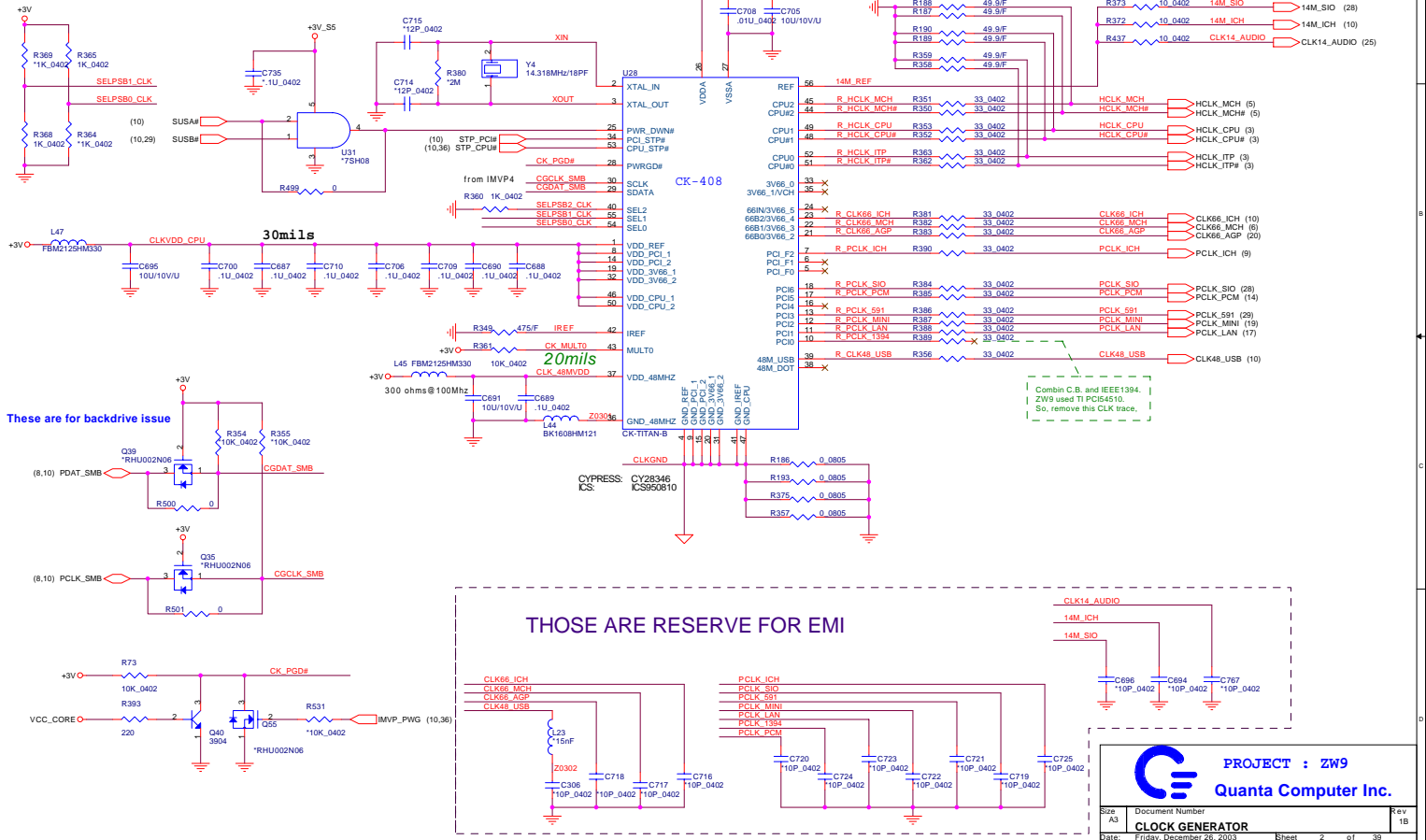
## CENTRINO (BANIAS/ DORTHAN + ODEM + ICH4-m)

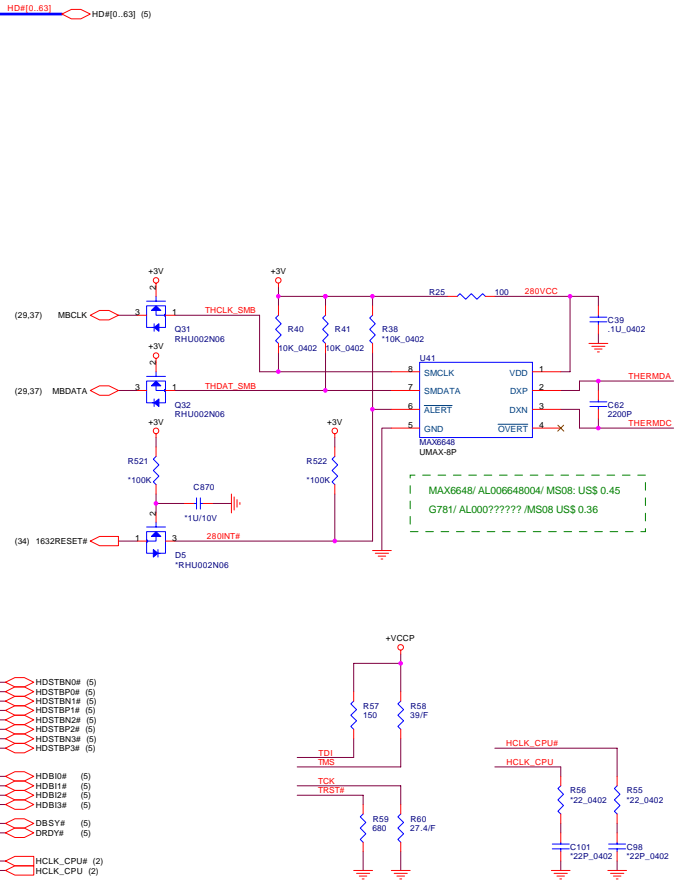
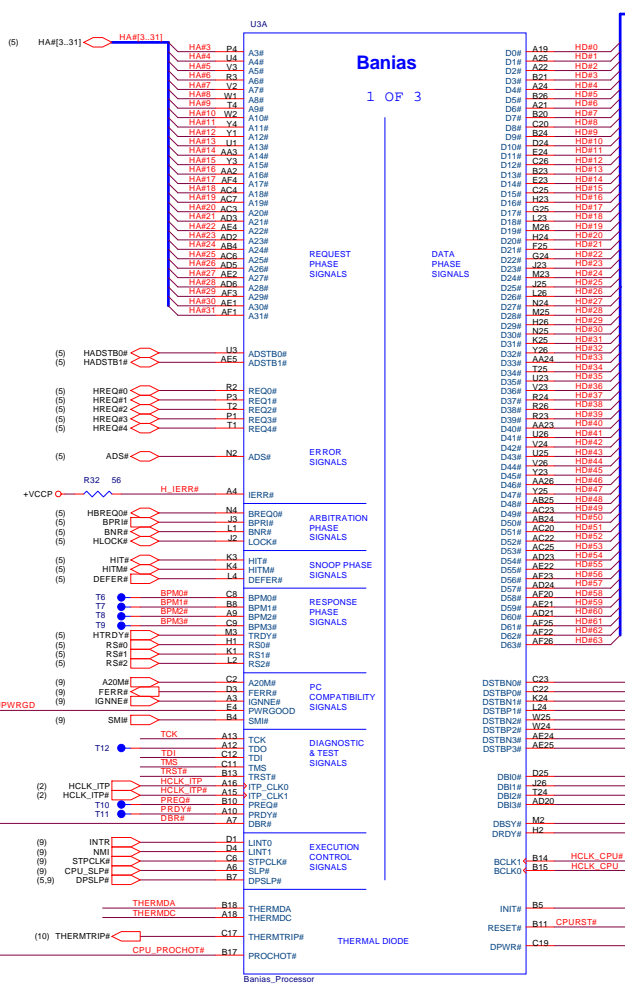
SVID: 152D  
SSID: 6601



FIR: BOM DEL; PAD KEEP

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

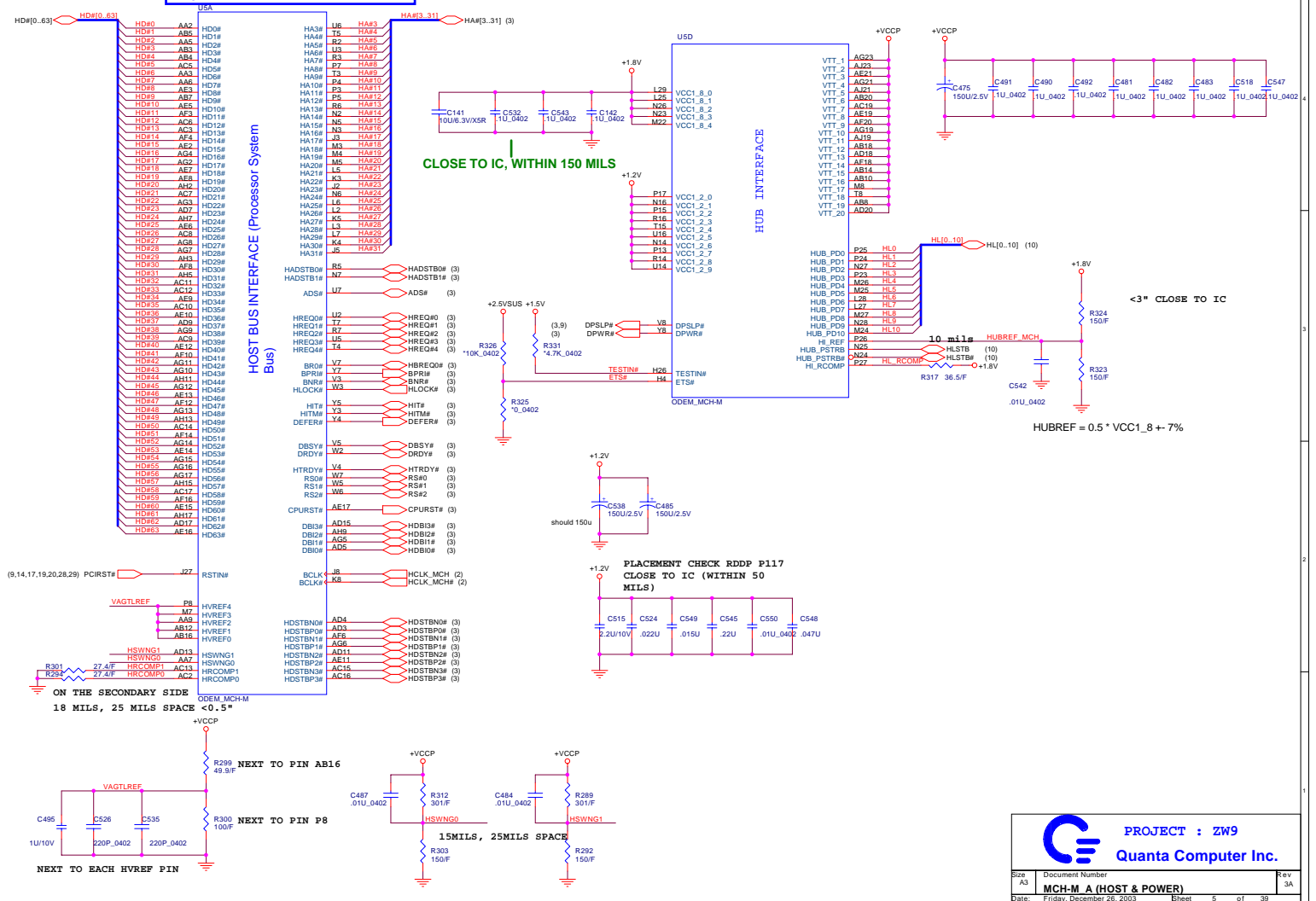




**PROJECT : ZW9**  
**Quanta Computer Inc.**

Size: A3 | Document Number: **BANIAS CPU - A** | Rev: 1B  
 Date: Friday, December 26, 2003 | Sheet: 3 of 39

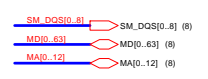




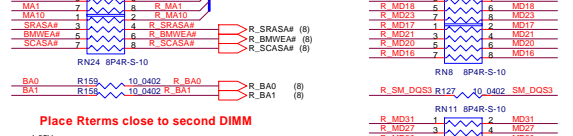
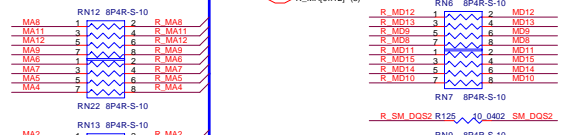
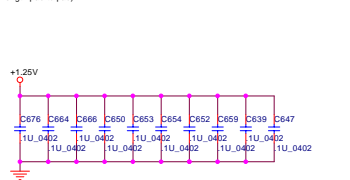
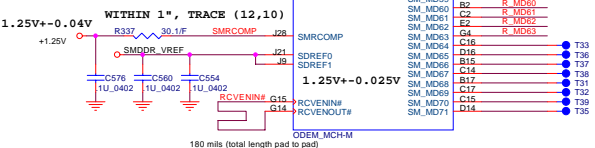
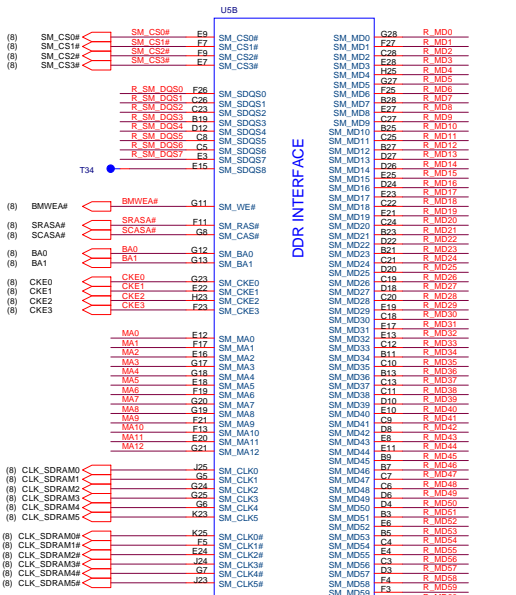
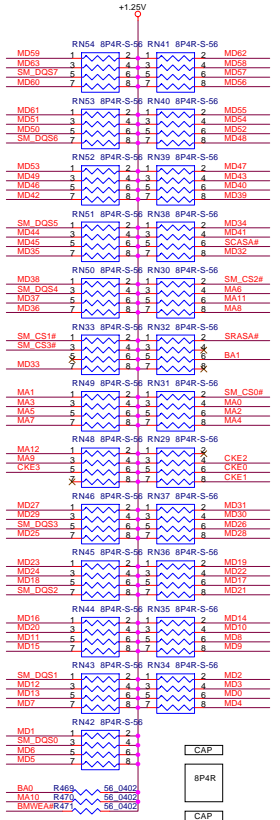
**PROJECT : ZW9**  
**Quanta Computer Inc.**

Size	Document Number	Rev
A3	MCH-M_A (HOST & POWER)	3A
Date:	Friday, December 26, 2003	Sheet 5 of 39

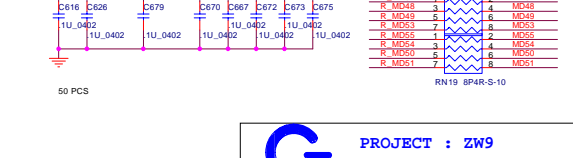
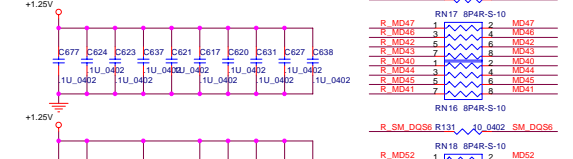
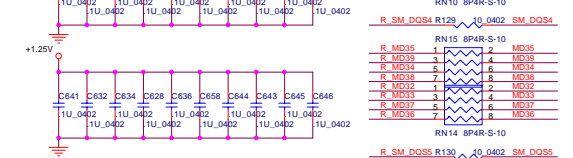




USE 8P4R-0402 package

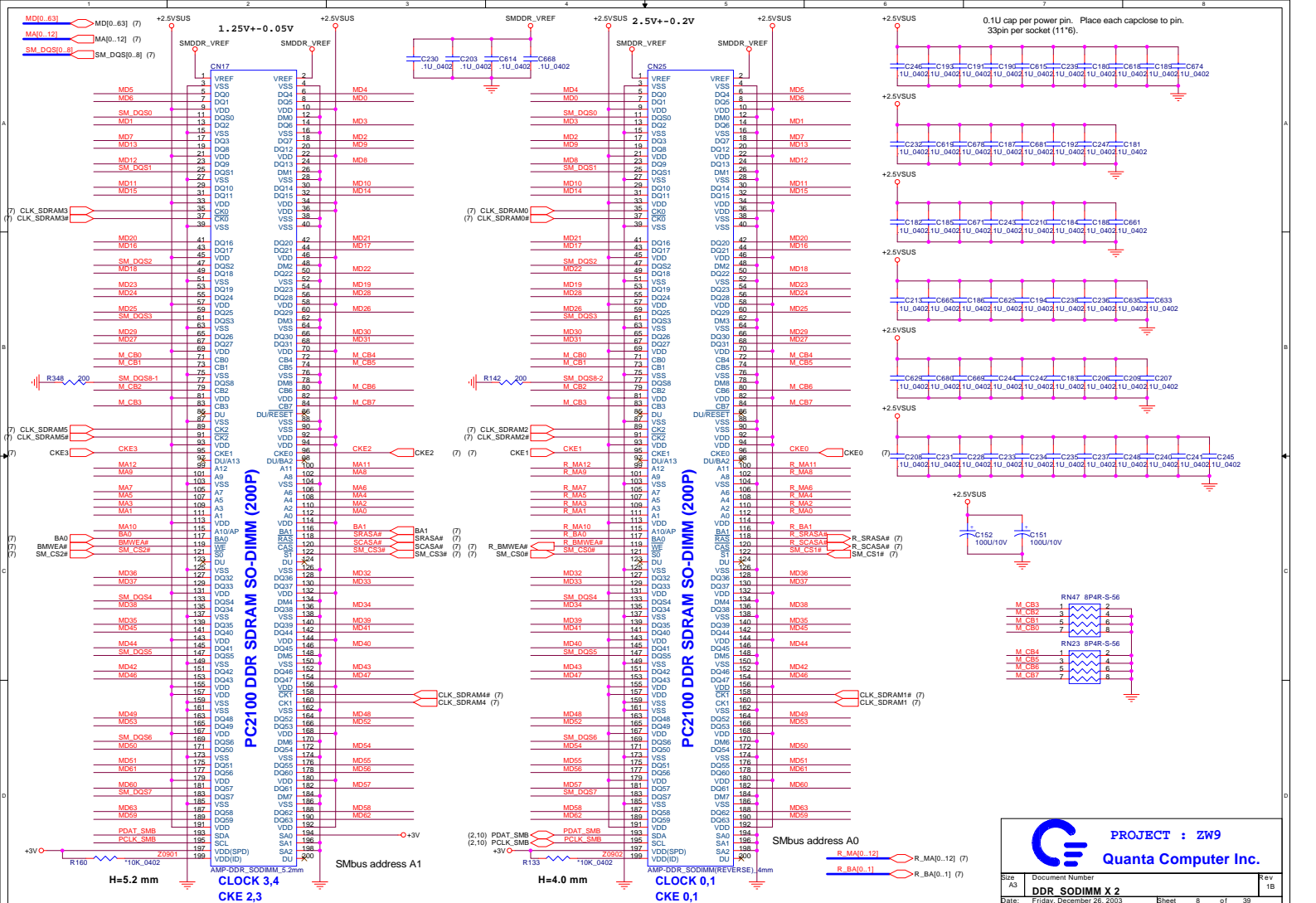


Place Rterms close to second DIMM



PROJECT : ZW9  
Quanta Computer Inc.

Size: A3 Document Number: MCH-M\_C(DDR)  
Date: Friday, December 26, 2003 Sheet: 7 of 39 Rev: 1B

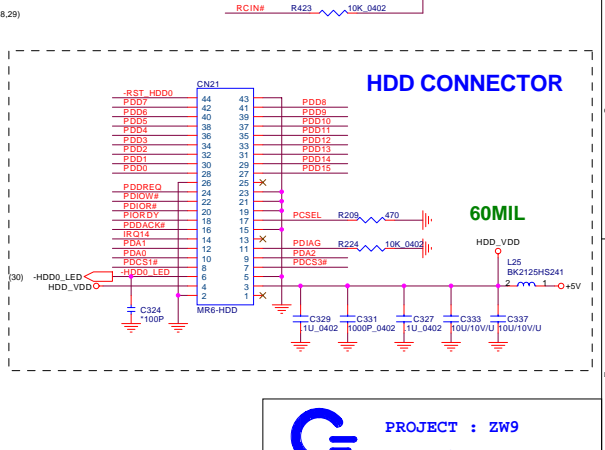
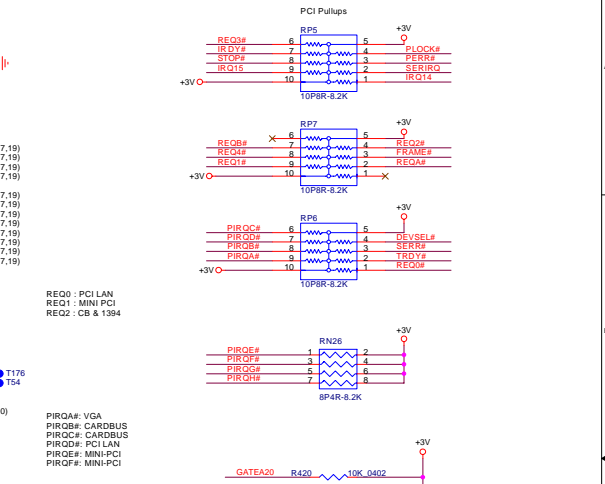
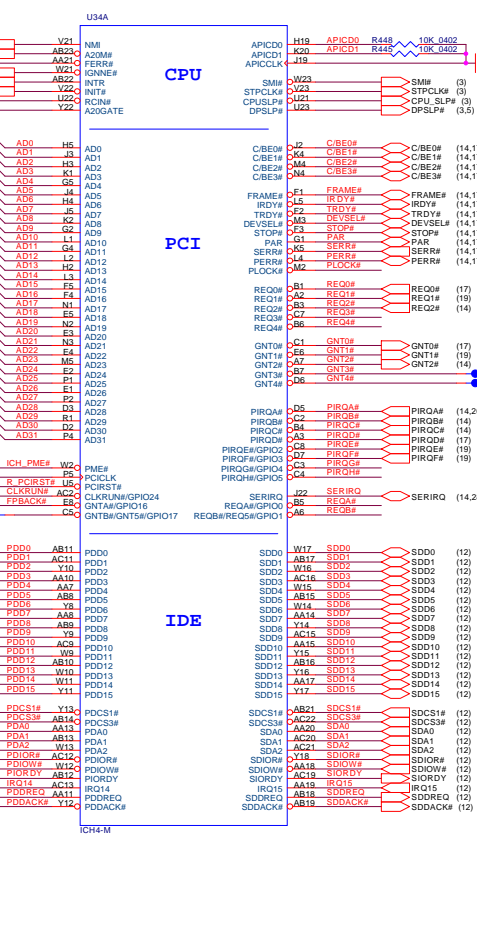
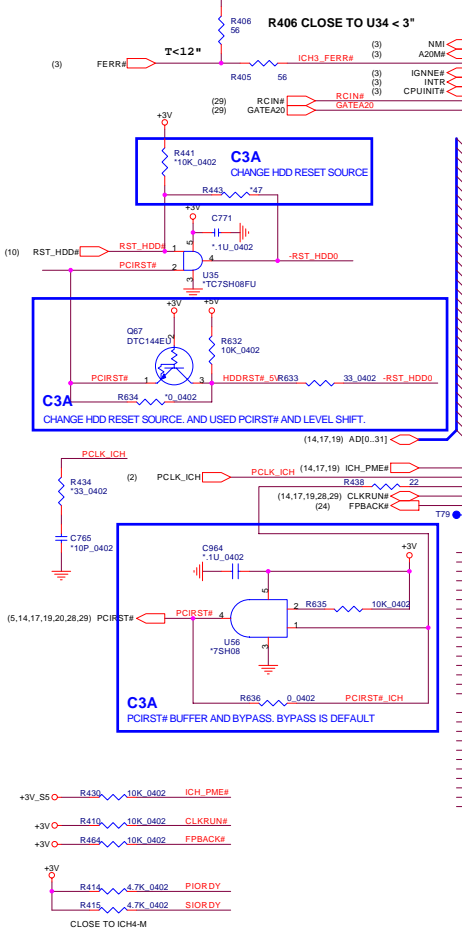


**PROJECT : ZW9**  
**Quanta Computer Inc.**

Size: A3  
 Date: Friday, December 26, 2003  
 Sheet: 8 of 38  
 Rev: 1B

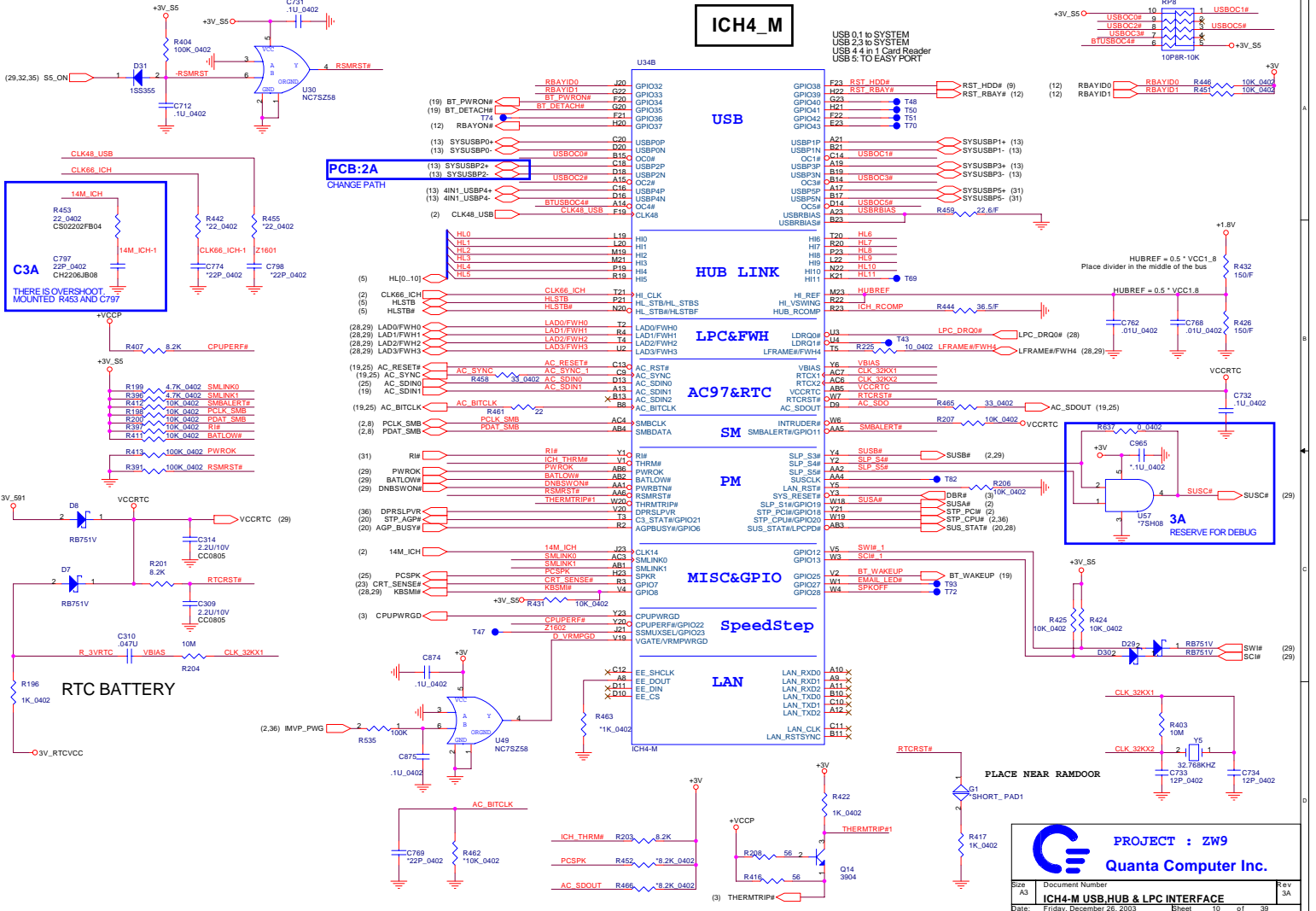


# ICH HUB



**PROJECT : ZW9**  
**Quanta Computer Inc.**  
 Size: Document Number  
 Custom: ICH4-M (CPU,PCI,IDE)  
 Date: Friday, December 29, 2006 Sheet 9 of 39 Rev 3A

# ICH4\_M

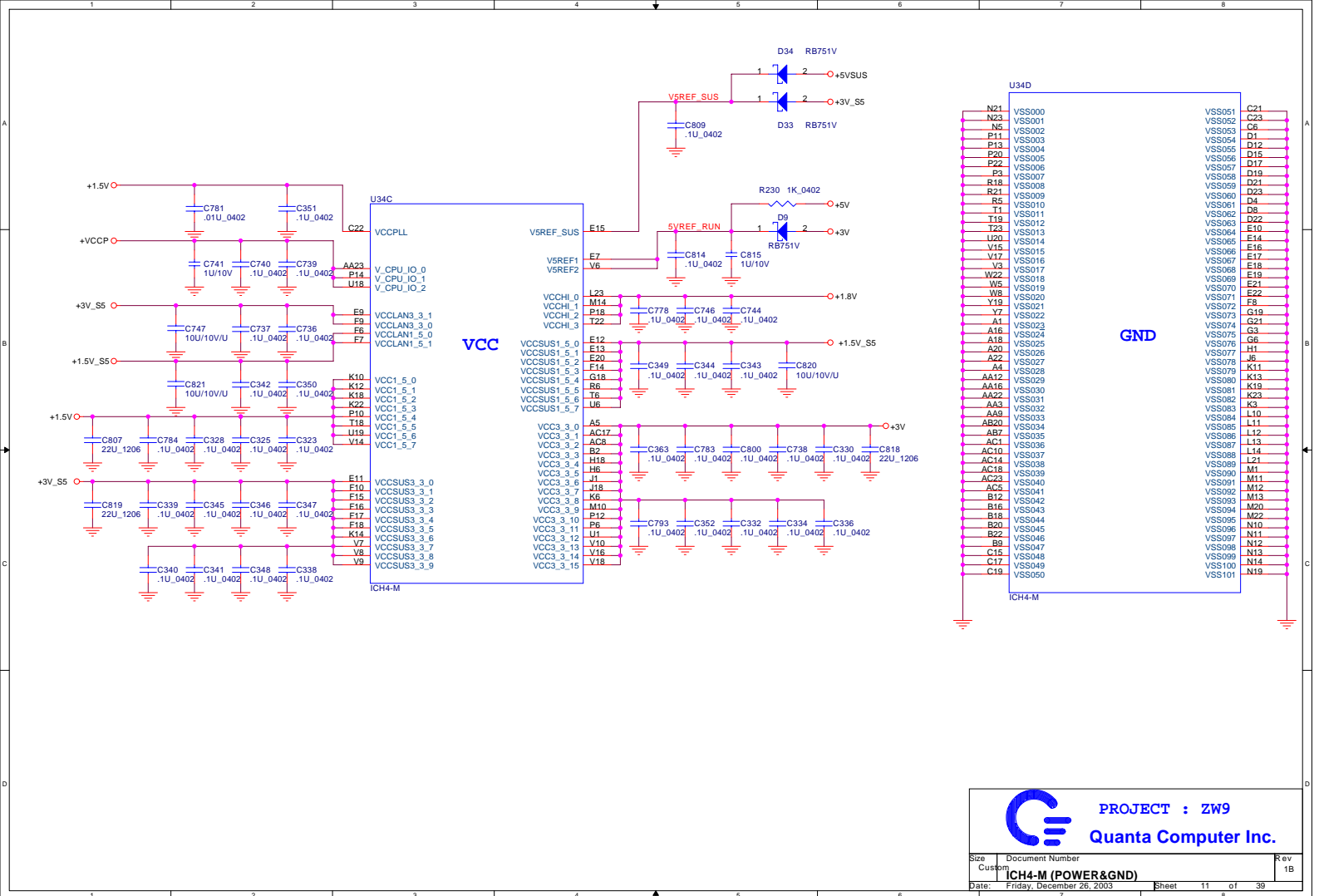


USB 0.1 to SYSTEM  
USB 2.3 to SYSTEM  
USB 4.4 to Card Reader  
USB 5. to EASY PORT

**C3A**  
C797 22P\_0402  
CH2206JB08  
THERE IS OVERSHOOT  
MOUNTED R453 AND C797

**PCB:2A**  
CHANGE PATH

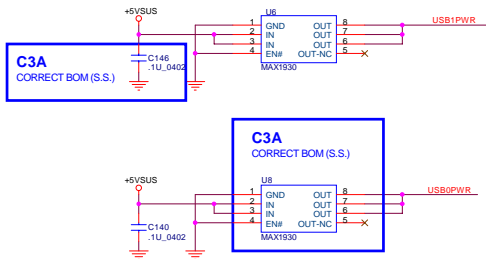
**PROJECT : ZW9**  
**Quanta Computer Inc.**



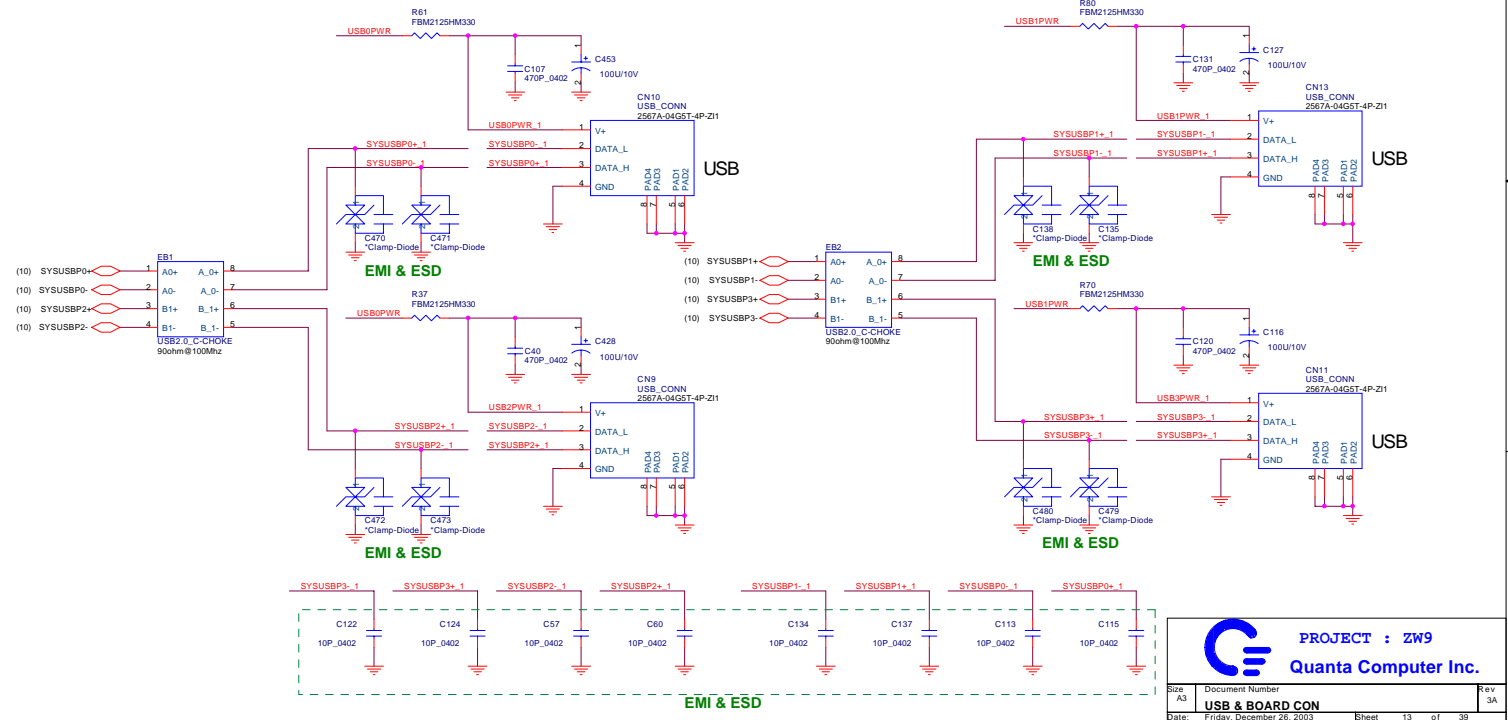
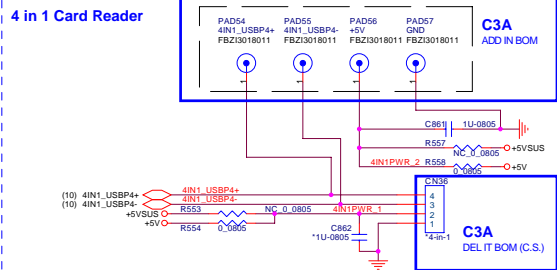
**PROJECT : ZW9**  
**Quanta Computer Inc.**

Size	Document Number	Rev
Cust	<b>CH4-M (POWER&amp;GND)</b>	1B
Date	Friday, December 26, 2003	Sheet 11 of 39



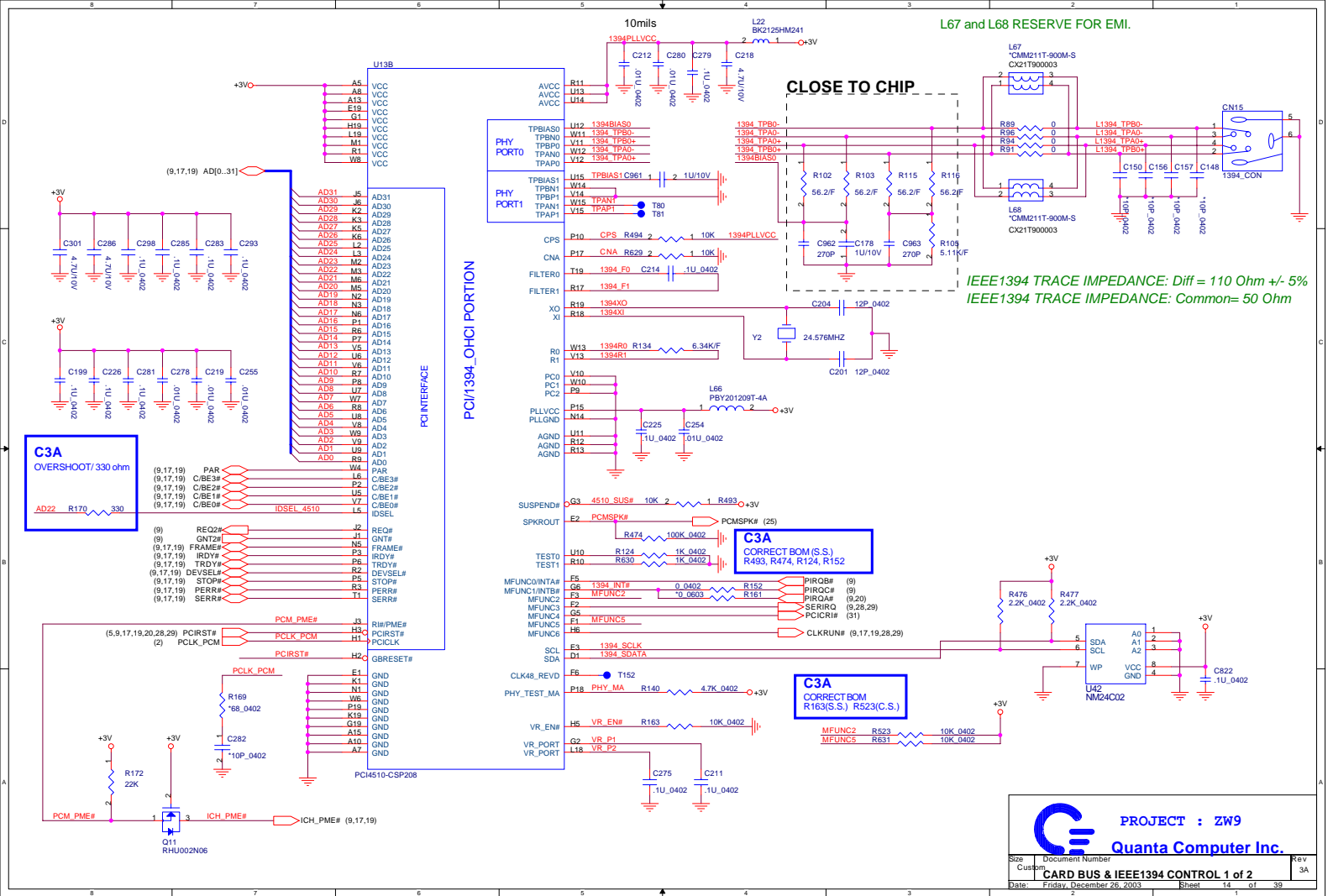


Don't separate this four PAD for the function as a CONN

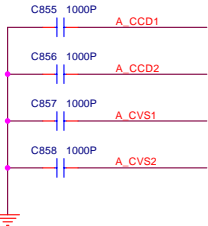
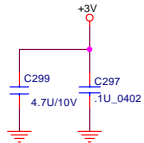
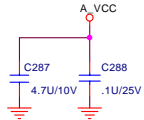
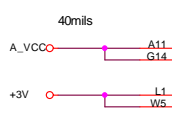


**PROJECT : ZW9**  
**Quanta Computer Inc.**

Size	Document Number	Rev
A3	USB & BOARD CON	3A
Date:	Friday, December 26, 2008	

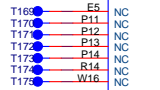
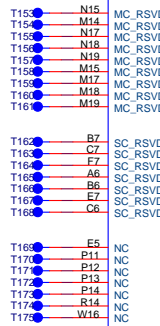
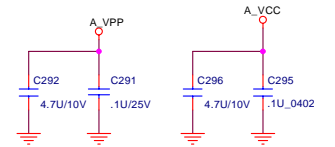
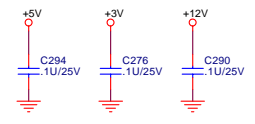
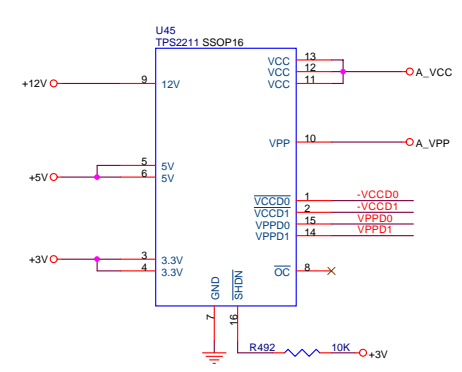
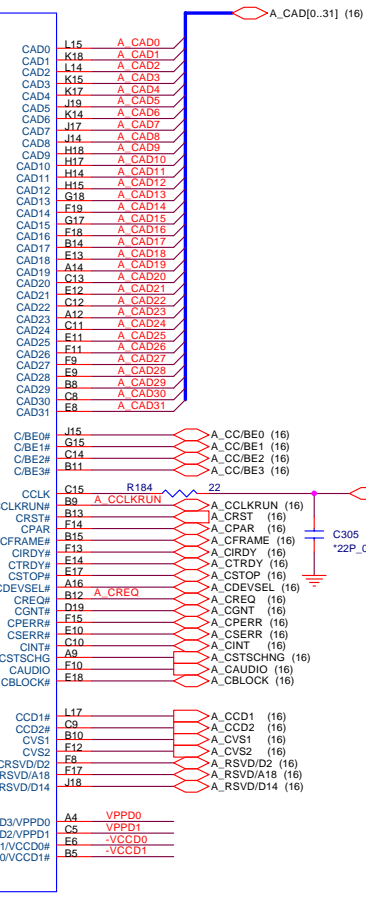


# CARDBUS Slot



U13A  
VCCCB  
VCCCB  
VCCP  
VCCP

CARDBUS PORTION

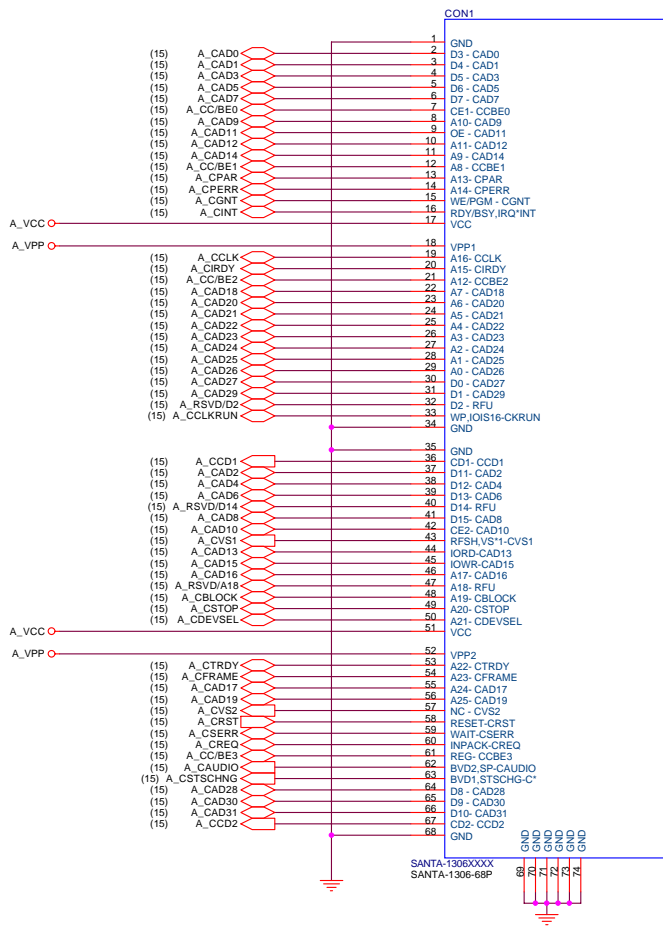



PCI4510-CSP208

**PROJECT : ZW9**  
**Quanta Computer Inc.**

Size	Document Number	Rev
Cust	CARD BUS & IEEE1394 CONTROL 2 of 2	2A
Date:	Friday, December 26, 2003	Sheet 15 of 39

# CARDBUS PCMCIA SOCKET

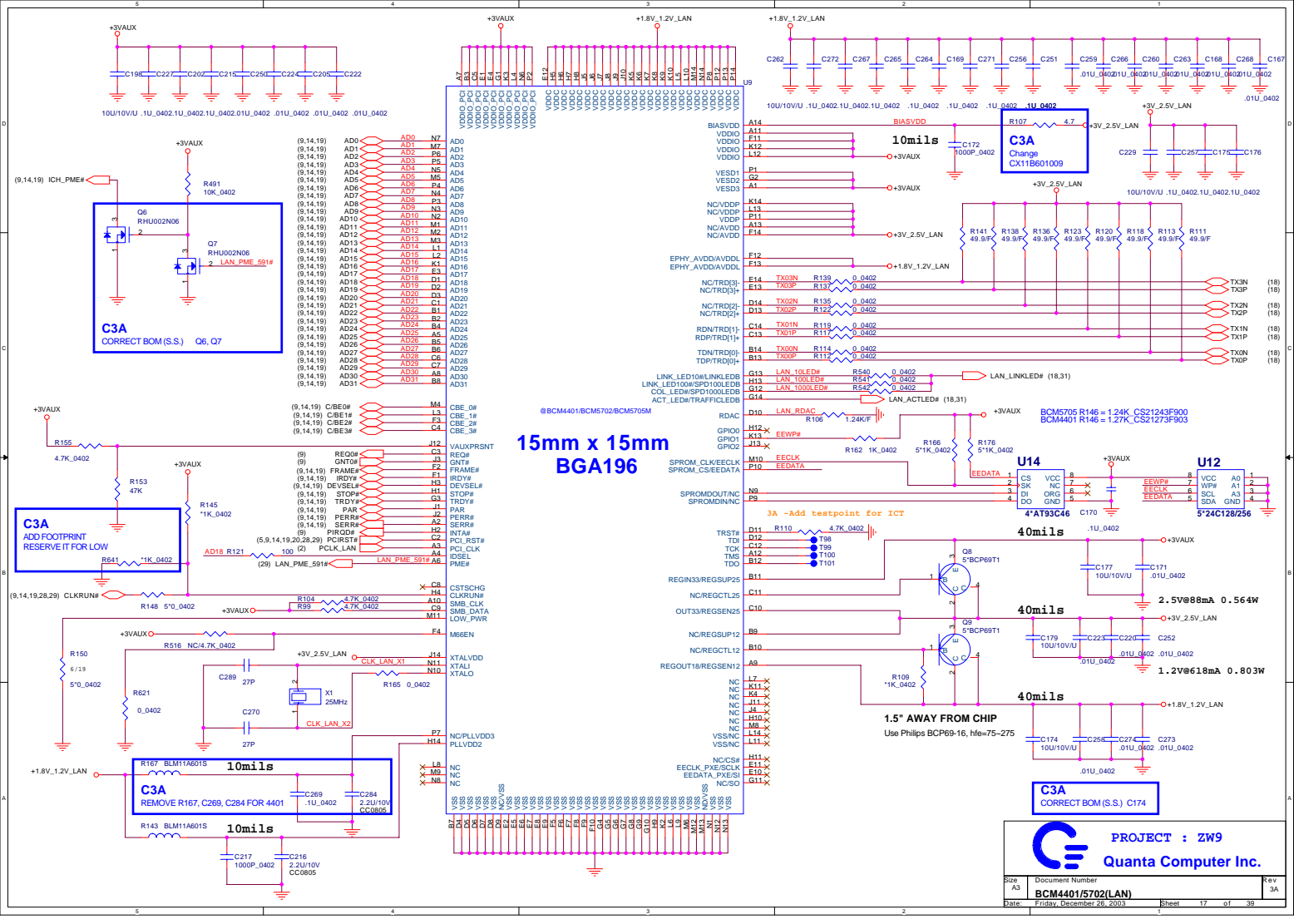




**PROJECT : ZW9**  
**Quanta Computer Inc.**

Size	Document Number	Rev	ZA
CARD BUS SLOT			
Date: Friday, December 26, 2003		Sheet 16 of 39	

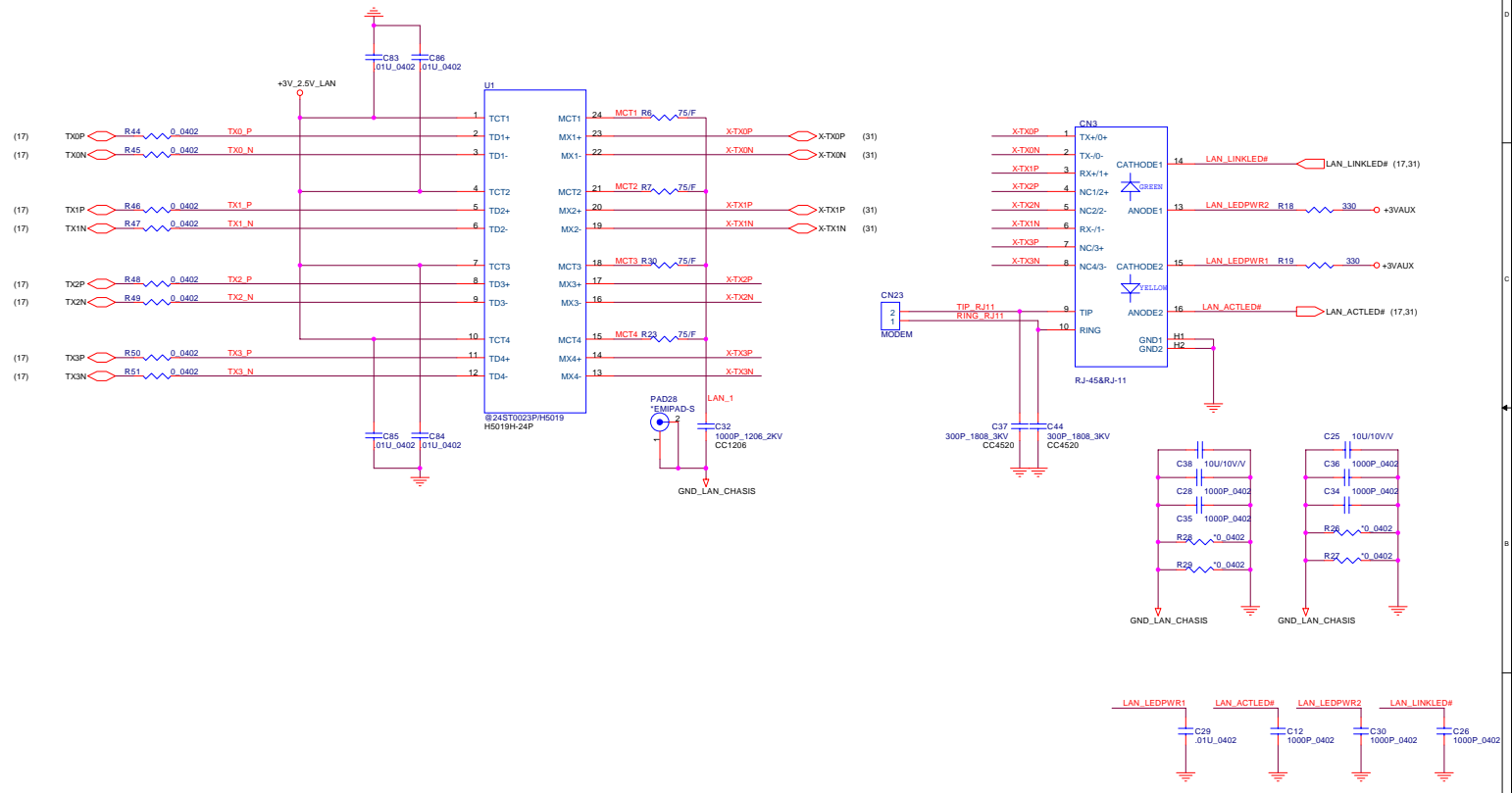




15mm x 15mm BGA196

**PROJECT : ZW9**  
**Quanta Computer Inc.**

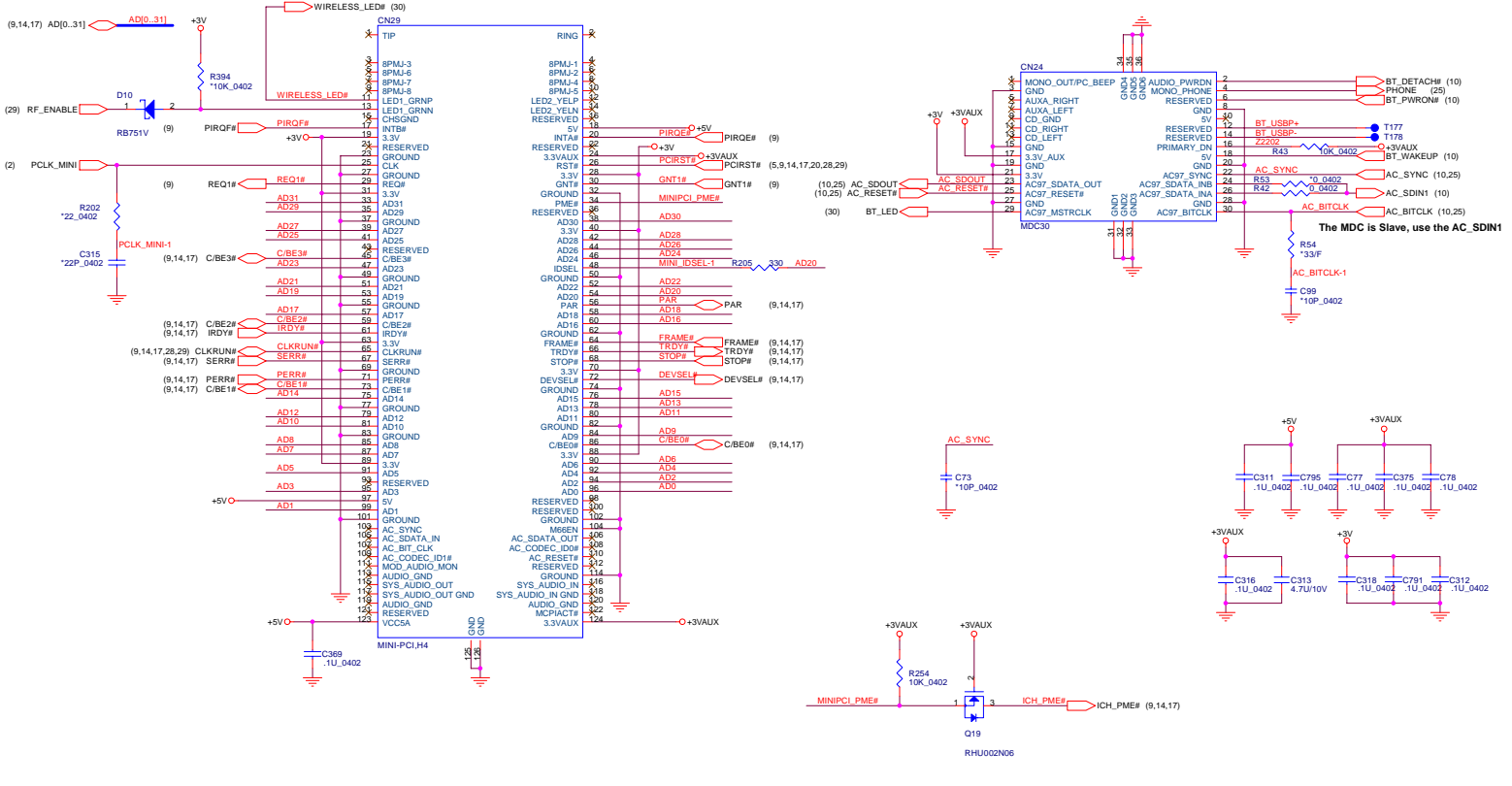
LAN TRACE IMPEDANCE= 100 Ohm +/- 10%



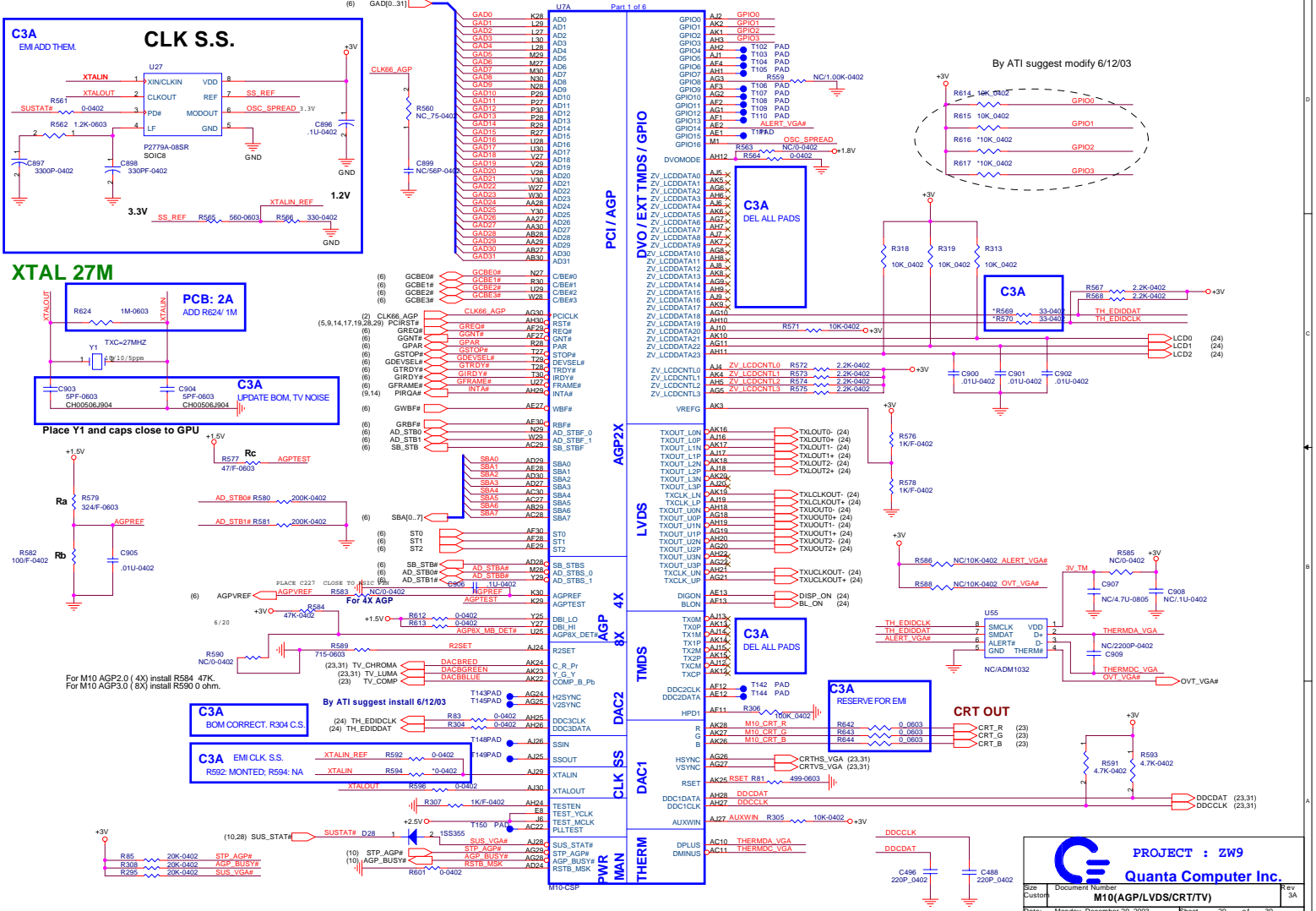
**PROJECT : ZW9**  
**Quanta Computer Inc.**

Size A3	Document Number <b>LAN-2 INTERFACE</b>	Rev 1B
Date: Friday, December 26, 2008	Sheet 18 of 39	

**THE MDC CONN I/F W/O BLUE TOOTH!!**



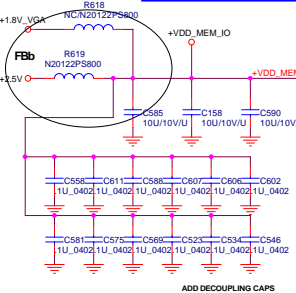
		PROJECT : ZW9	
		Quanta Computer Inc.	
Size	Document Number	Rev	
Cust#	MINI-PCI & MDC	1B	
Date	Friday, December 26, 2003	Sheet	19 of 39



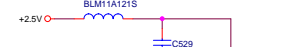
**VDDRH, VDDQ AND VDDR1 VOLTAGE SELECTION**

VDD_MEM_IO	FbA	FbB	FbC	FbD
1.8V (ELPDA)	IN	OUT	OUT	IN
2.5V	OUT	IN	IN	OUT

**C3A**  
CORRECT BOM (S.S.) C158



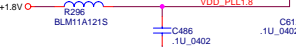
ADD DECOUPLING CAPS AS REQUIRED



ADD DECOUPLING CAPS AS REQUIRED



ADD DECOUPLING CAPS AS REQUIRED



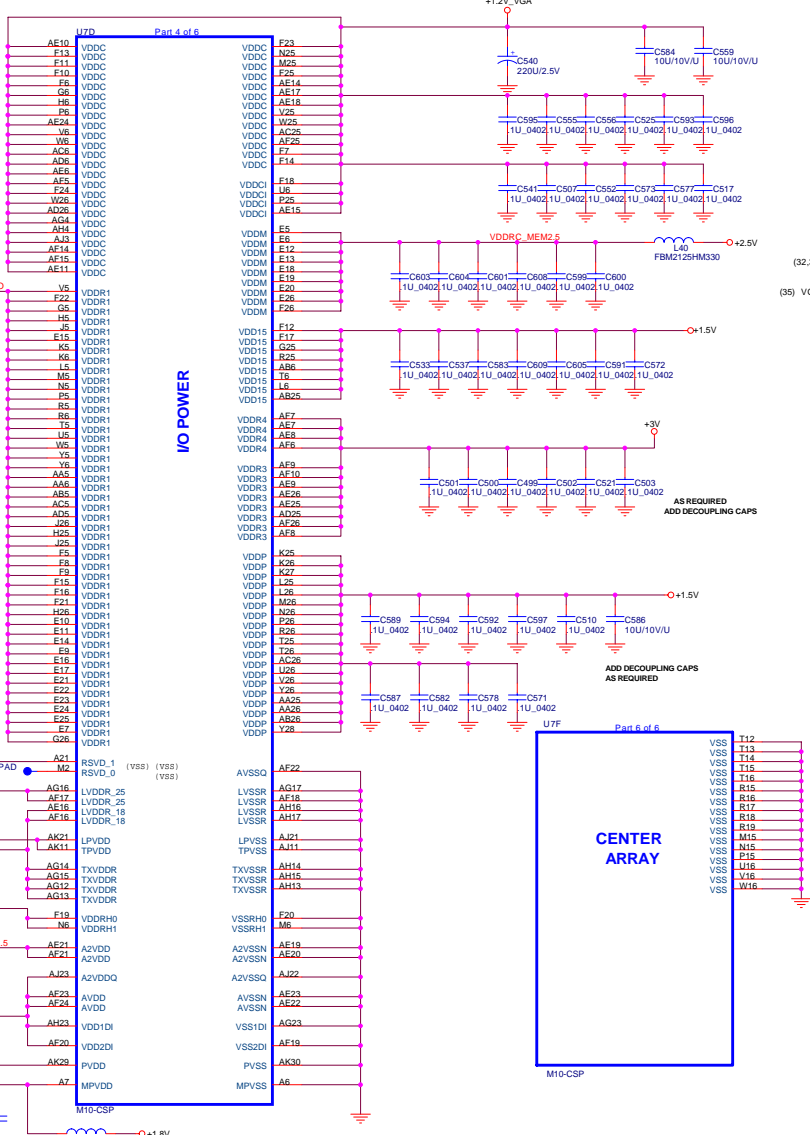
ADD DECOUPLING CAPS AS REQUIRED



ADD DECOUPLING CAPS AS REQUIRED

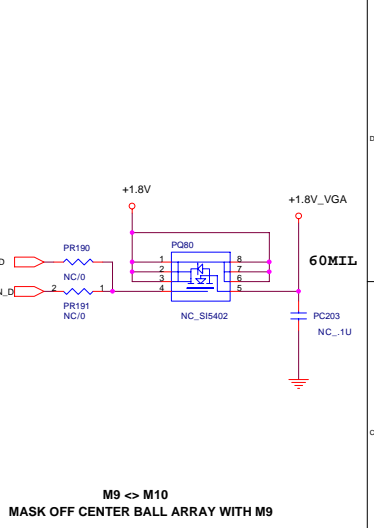


ADD DECOUPLING CAPS AS REQUIRED

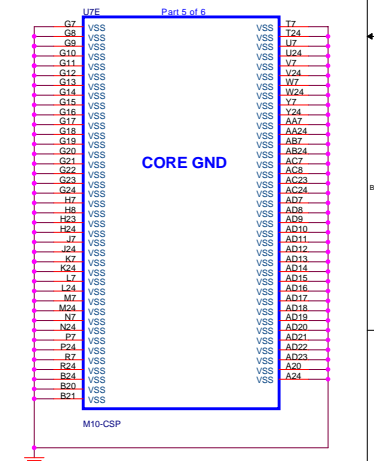


**I/O POWER**

**CENTER ARRAY**



M9 <-> M10  
MASK OFF CENTER BALL ARRAY WITH M9



**PROJECT : ZW9**  
**Quanta Computer Inc.**  
M10(CORE)  
Date: Friday, December 26, 2003 Sheet 21 of 38

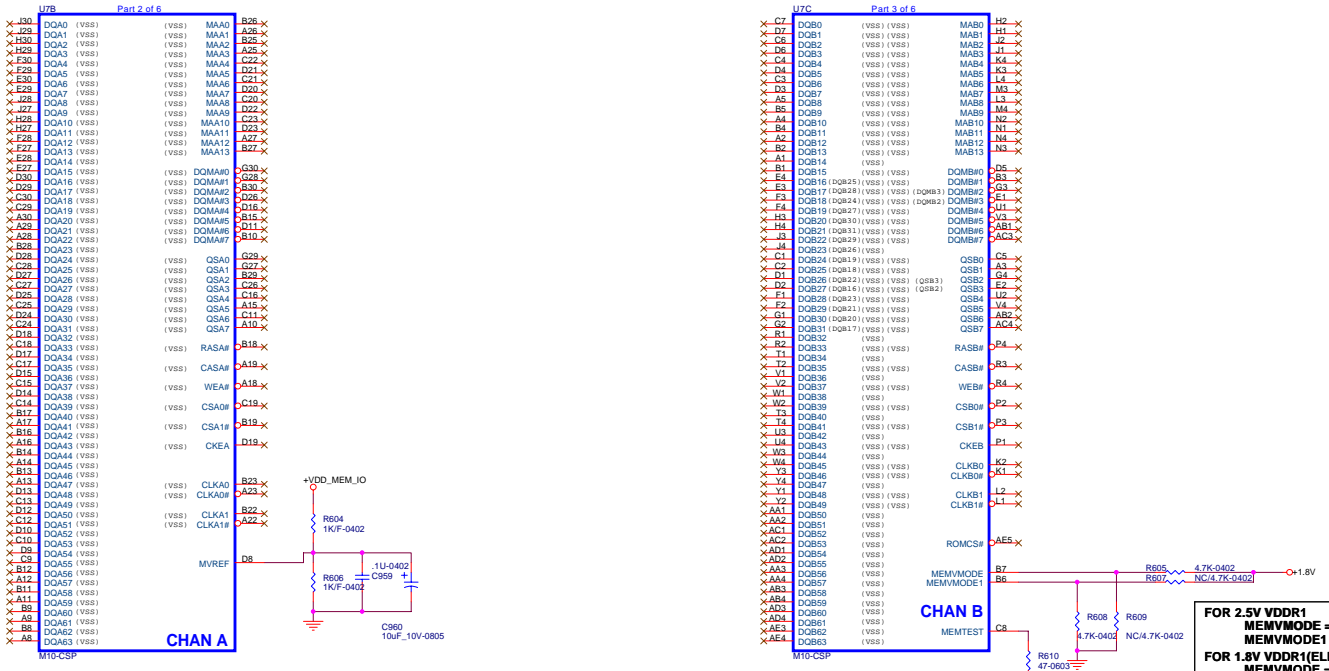
EXTERNAL MEMORY CAN BE CONNECTED TO CHANNEL B ON M9CSP32 AND M9+CSP32  
INTERNAL MEMORY IS CONNECTED TO CHANNEL A WITH SIGNALS AVAILABLE FOR TESTING ONLY ON M9CSP32 AND M9+CSP32

IT IS IMPORTANT TO HAVE NO MEMORY SIGNAL TRACE STUBS FROM THE UNUSED CHANNELS

ALL CHANNEL A AND B MEMORY SIGNALS ARE GROUNDS ON M9CSP64, M9+CSP64 AND M10CSP64  
SO ENSURE THEY ARE NOT CONNECTED TO GROUND ON THE BOARD IF M10CSP32 OR M9+CSP32 IS AN OPTION

NO EXTERNAL MEMORY CAN BE CONNECTED TO CHANNEL A OR B ON M10CSP32 OR M10CSP64

CHANNEL B MEMORY HAS BYTES 2 AND 3 SWAPPED AND SIGNALS ARE AVAILABLE FOR TESTING ONLY ON M10CSP32



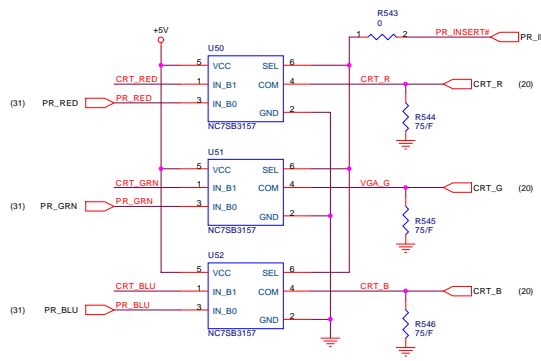
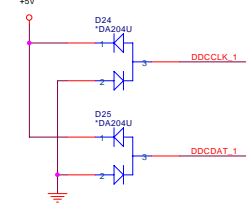
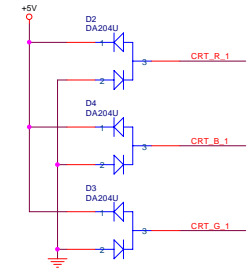
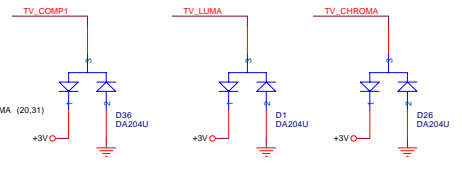
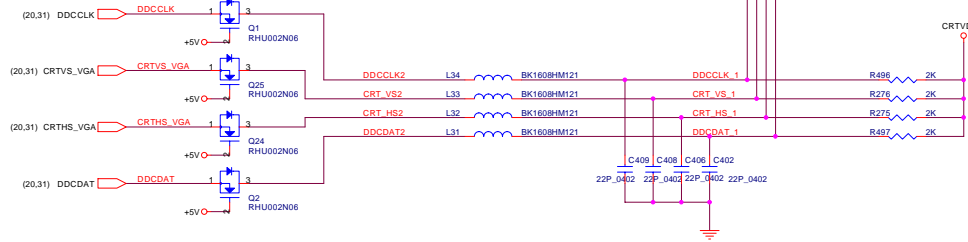
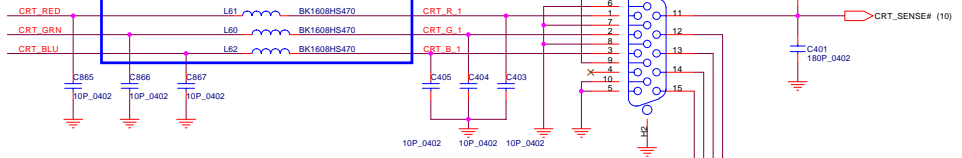
MVREF DIVIDER RESISTORS AND DECOUPLING CAPS MUST BE PLACED AS CLOSE AS POSSIBLE TO THE ASIC MVREF BALLS

FOR 2.5V VDDR1 MEMVMODE = 1.8V  
FOR 1.8V VDDR1(ELPIDA) MEMVMODE = GND  
SEE DESIGN GUIDE

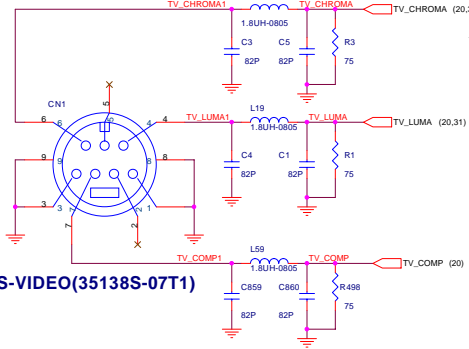
**PROJECT : ZW9**  
**Quanta Computer Inc.**  
 Size B Document Number **M10(MEMORY)** Rev 1B  
 Date: Friday, December 26, 2003 Sheet 22 of 38

**WAIT EMI CONFIRM**

**B2A** CHANGE TO THOSE NEW BEAD, EMI.  
**C3A** UPDATE BOM FOR EMI AND DEL L64, L65, L63

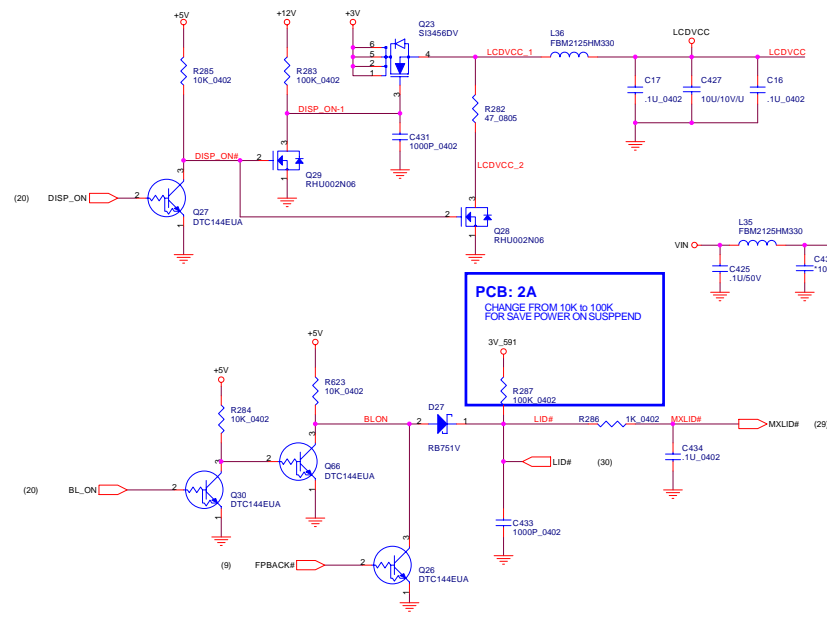


**S-VIDEO(35138S-07T1)**

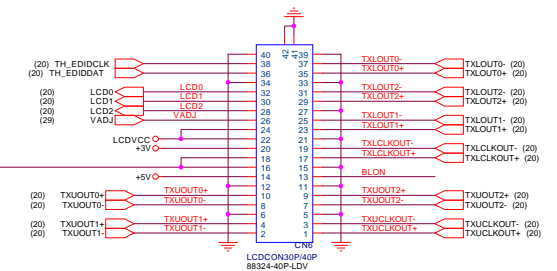


**PROJECT : ZW9**  
**Quanta Computer Inc.**

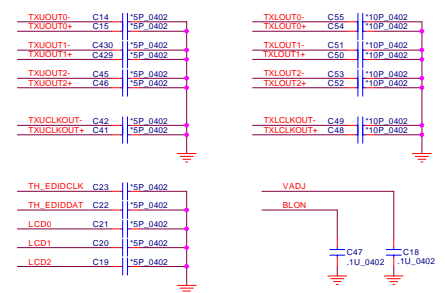
Size A3	Document Number	Rev 3A
<b>CRT &amp; TV DECODER</b>		
Date: Friday, December 26, 2008	Sheet 23	of 39



**PCB: 2A**  
 CHANGE FROM 10K TO 100K  
 FOR SAVE POWER ON SUSPEND



ID_HEX	LCDTYPE	LCD2	LCD1	LCD0
0		0	0	0
1		0	0	1
2		0	1	1
3	XGA	0	1	1
4	UXGA	1	0	0
5	SXGA+	1	0	1
6	SXGA	1	1	0
7		1	1	1



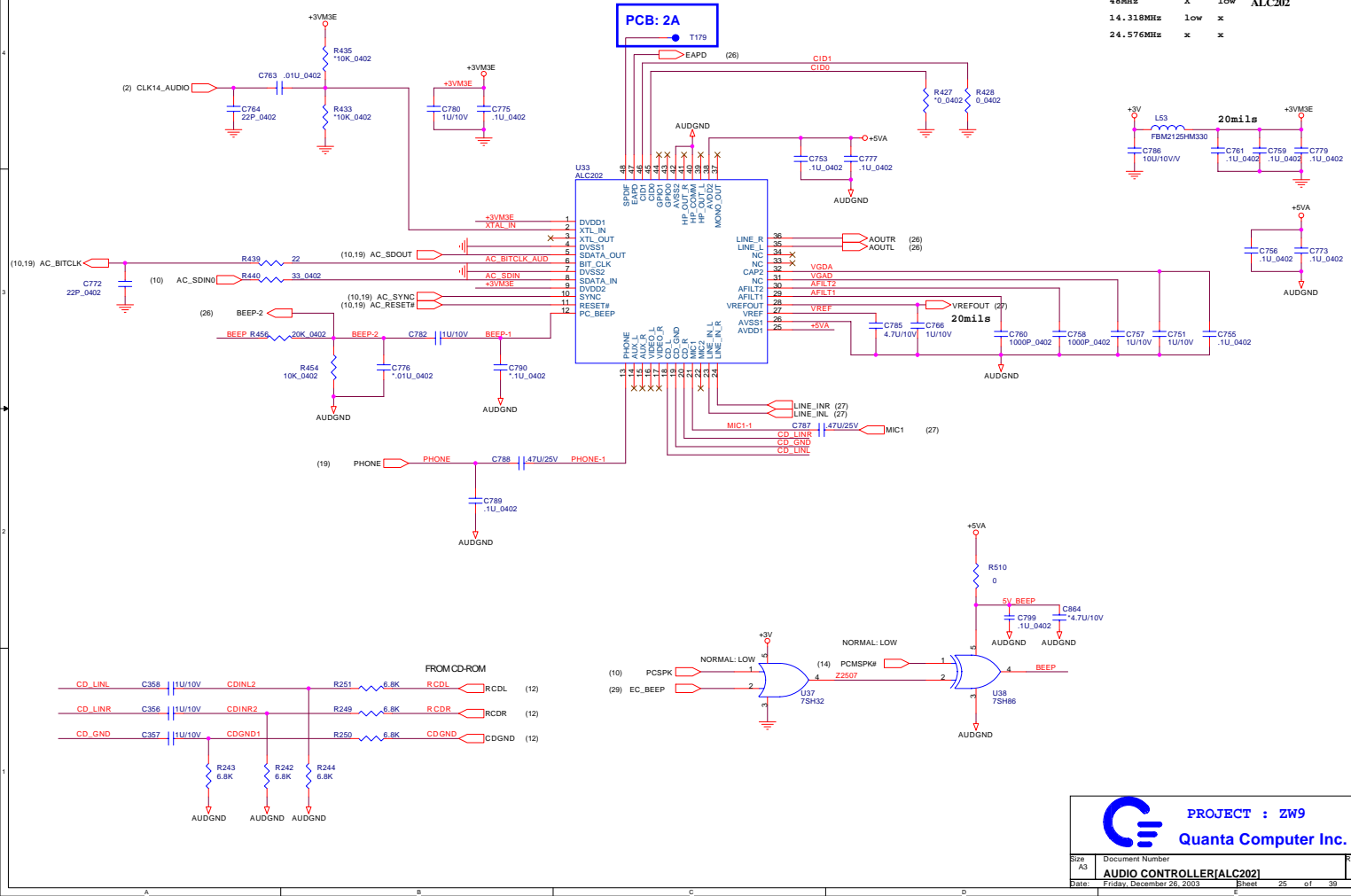
ID1	ID2	ID3	ID4	ID5	ID6	ID7	QDI	QDI	14.1" XGA	QD141X1LH12	0	0	1
									14.1" XGA	LP141X13	0	1	0
									15" XGA	LP150X05-A2C1	0	1	1
									15" XGA	CLAA150XH01	1	0	0
									15" SXGA+	CLAA150PA01	1	0	1
									HannStar	HSD150PK12	1	1	0
											1	1	1


**PROJECT : ZW9**  
**Quanta Computer Inc.**

Size: A3  
 Document Number: LCD CONN & LCDVCC  
 Date: Friday, December 26, 2003  
 Sheet: 34 of 39  
 Rev: 2A



External Clock	ID1	ID0	
48MHz	X	low	ALC202
14.318MHz	low	x	
24.576MHz	x	x	

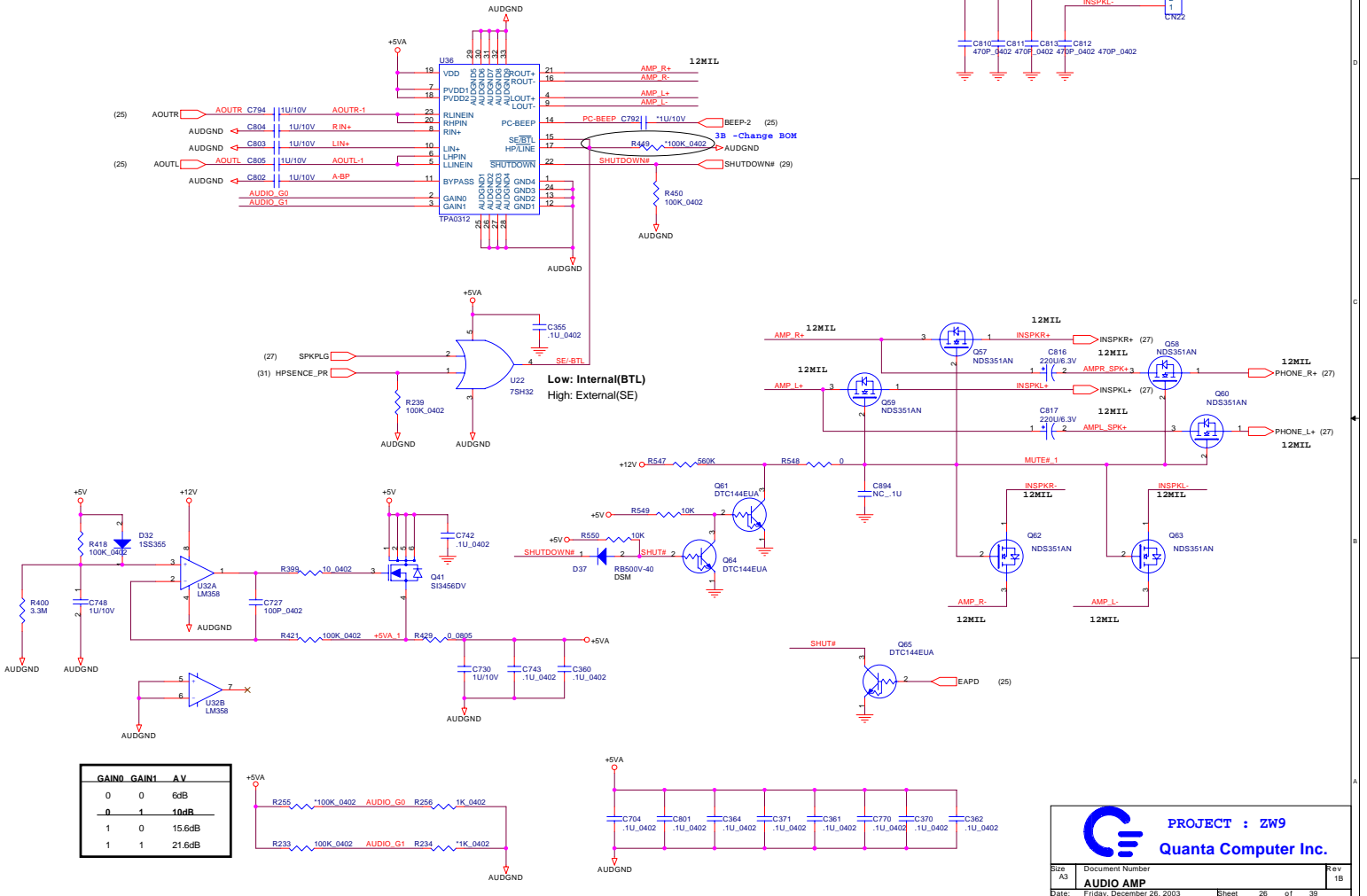




**PROJECT : ZW9**  
**Quanta Computer Inc.**

Size	Document Number	Rev
A3	AUDIO CONTROLLER[ALC202]	2A
Date:	Friday, December 26, 2003	Sheet 25 of 35

# Audio Amplifier

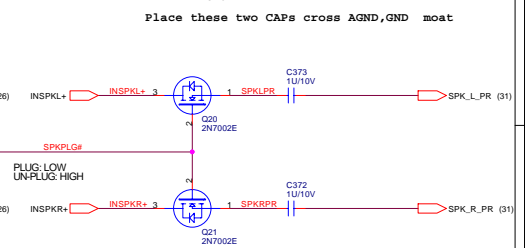
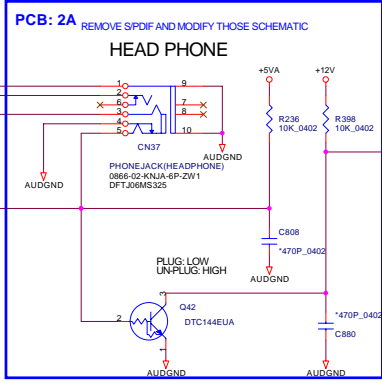
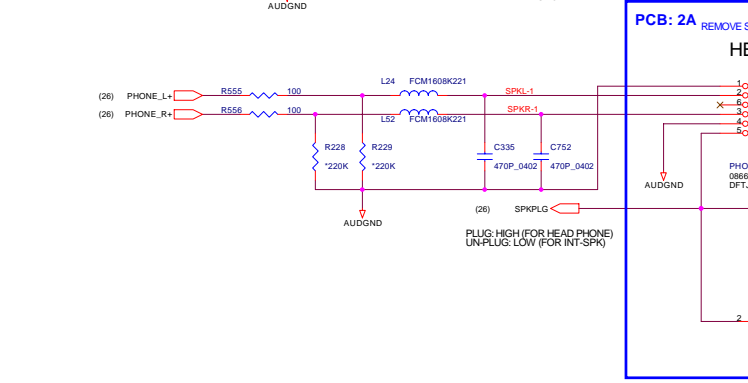
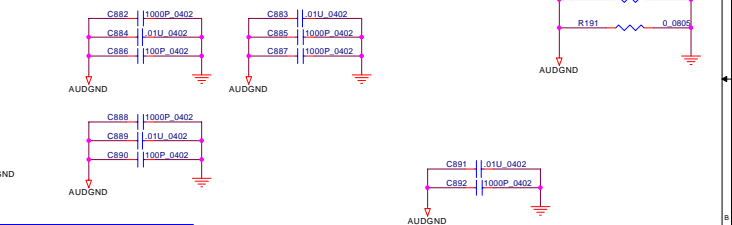
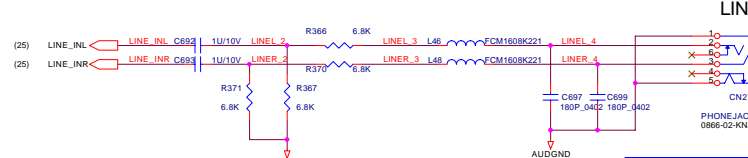
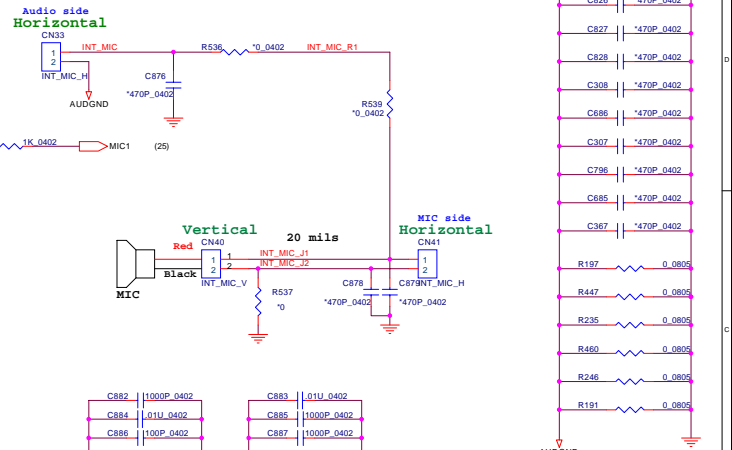
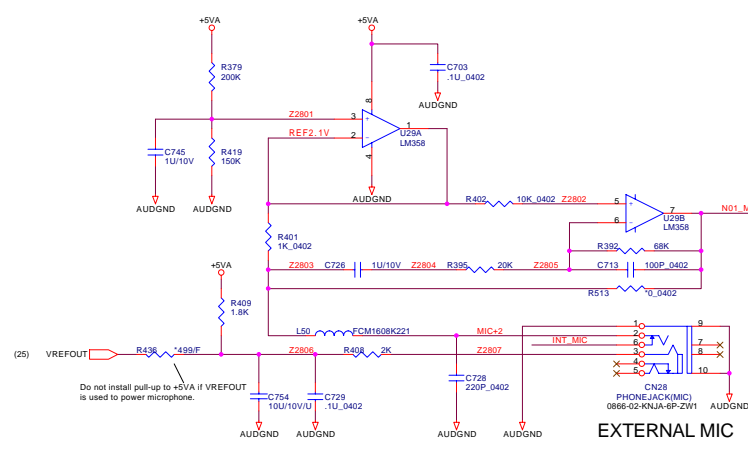


Low: Internal(BTL)  
High: External(SE)

GAIN0	GAIN1	A_V
0	0	6dB
0	1	10dB
1	0	15.6dB
1	1	21.6dB

**PROJECT : ZW9**  
**Quanta Computer Inc.**

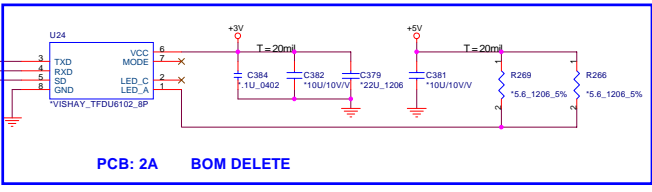
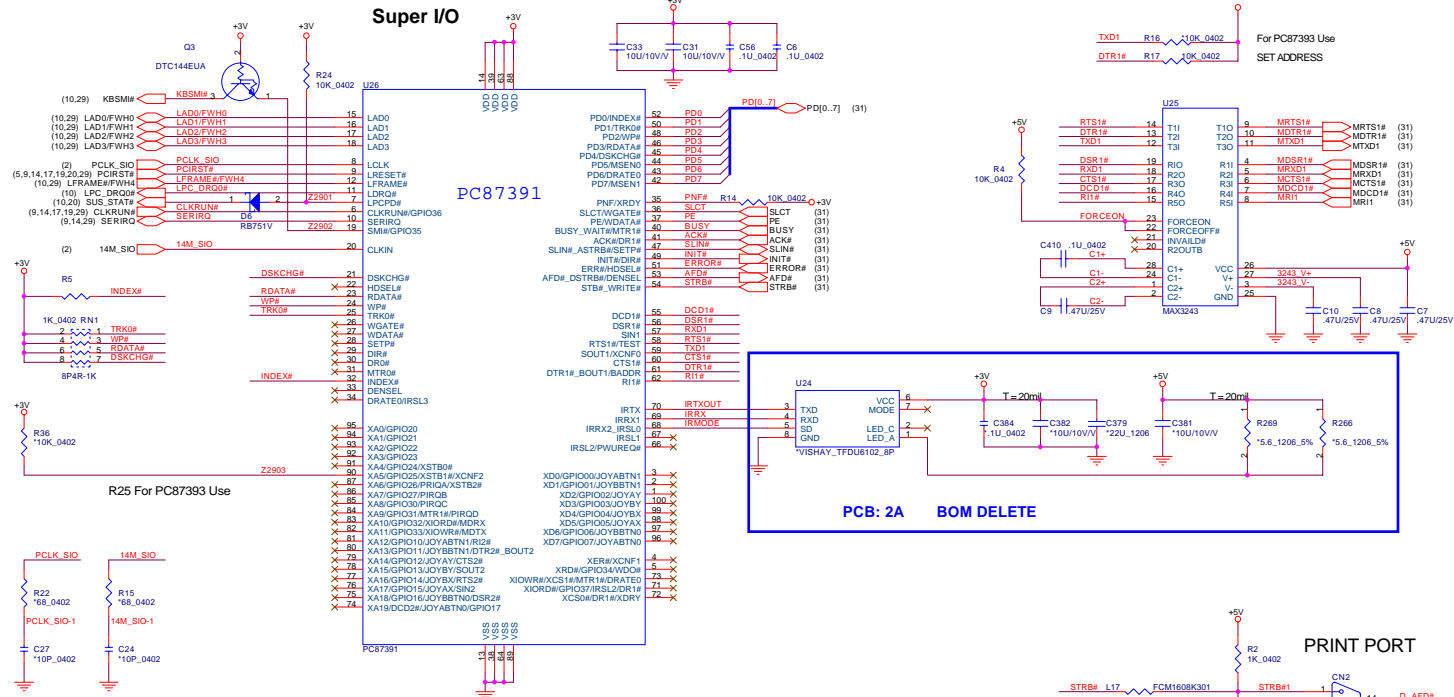
Size: A3  
Document Number: **AUDIO AMP**  
Date: Friday, December 26, 2003  
Sheet: 36 of 39  
Rev: 1B



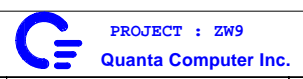
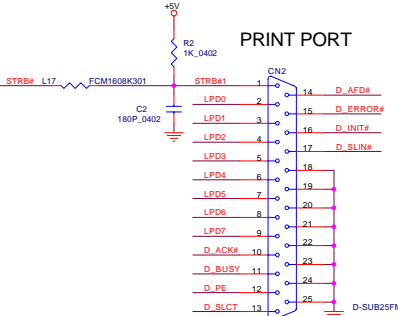
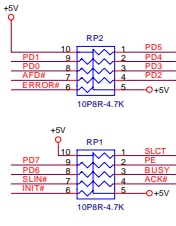
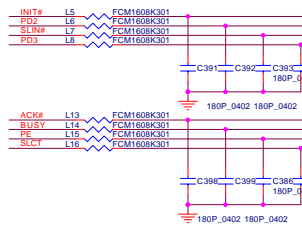
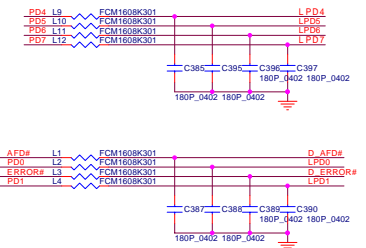
**PROJECT : ZW9**  
**Quanta Computer Inc.**

Size	Document Number	Rev
A3	AUDIO JACK	2A
Date:	Friday, December 26, 2003	Sheet 27 of 39

# Super I/O



PCB: 2A BOM DELETE

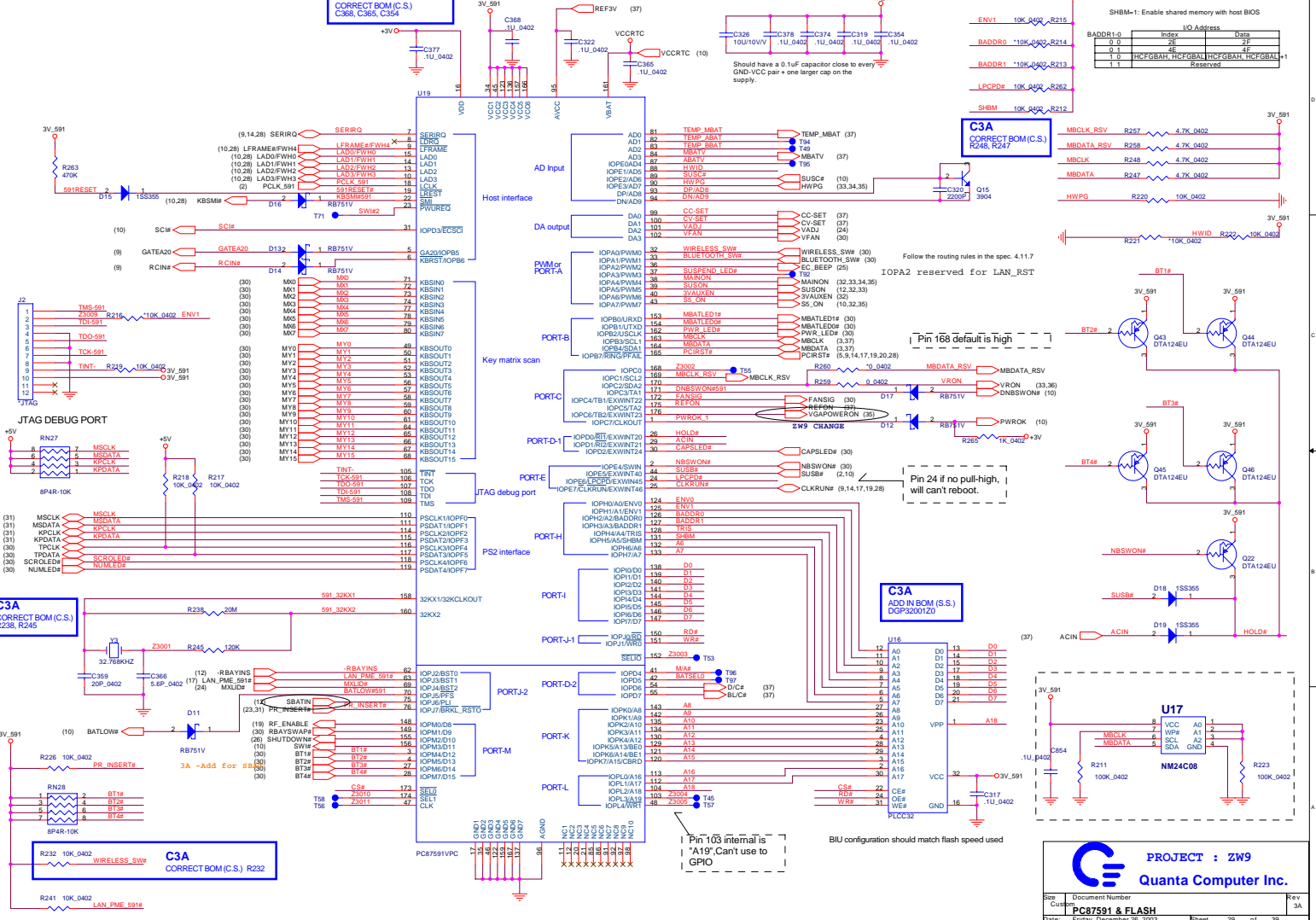


C3A  
CORRECT BOM (C.S.)  
C368, C365, C354

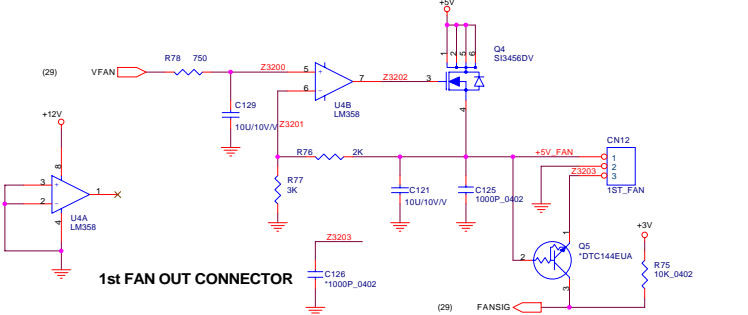
C3A  
CORRECT BOM (C.S.)  
R248, R247

C3A  
CORRECT BOM (C.S.)  
R238, R245

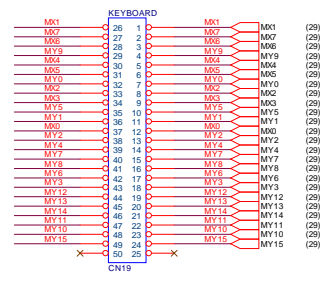
C3A  
ADD IN BOM (S.S.)  
DGP32001ZU



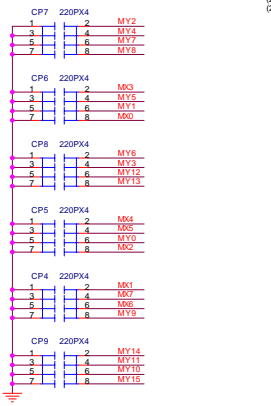
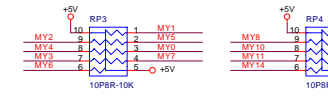
# TO LED BOARD 30P



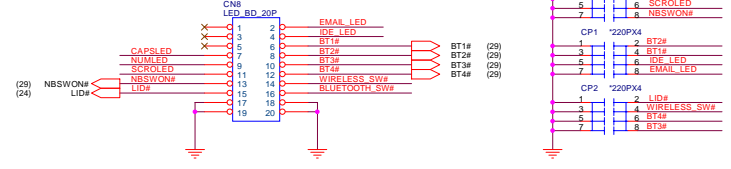
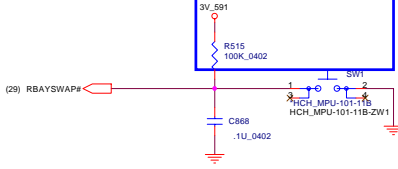
## Check Keyboard matrix



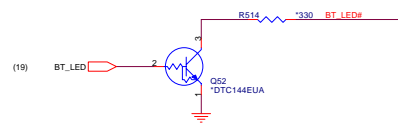
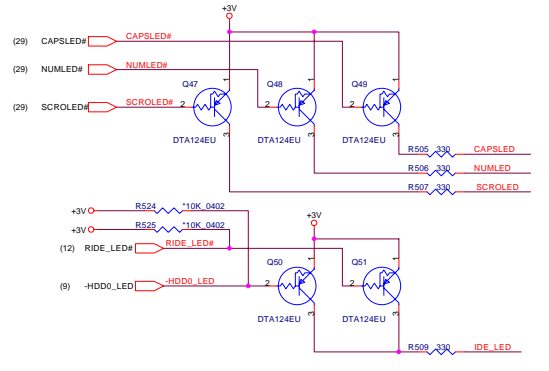
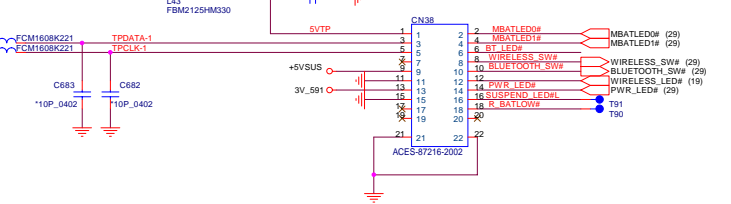
## KEYBOARD



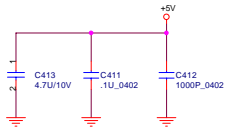
**PCB: 2A**  
CHANGE FROM 10K to 100K FOR SAVE POWER ON SUSPEND



## 12 MIL Check E11 LED, TP boards VCC level

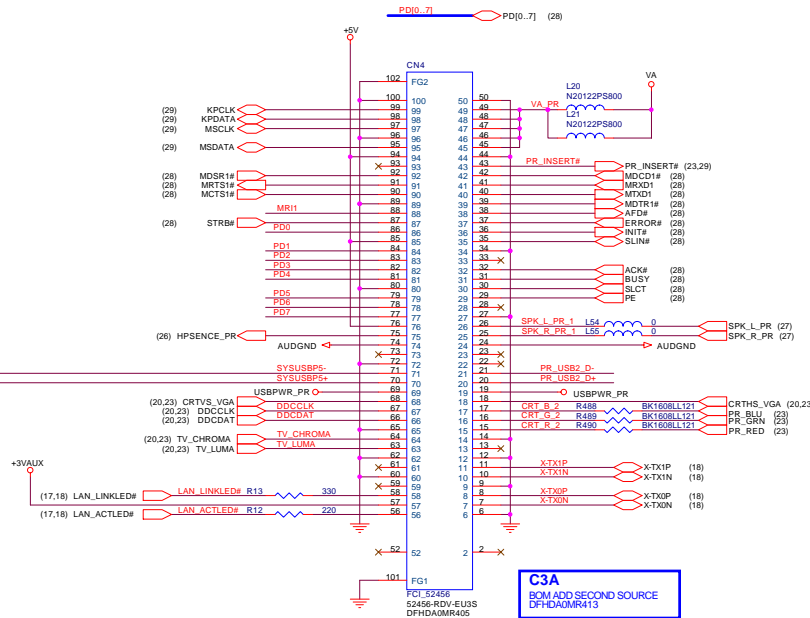


**PROJECT : ZW9**  
**Quanta Computer Inc.**

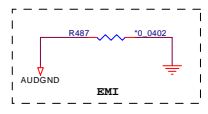
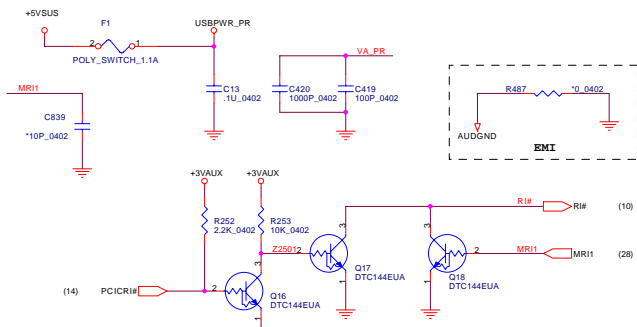
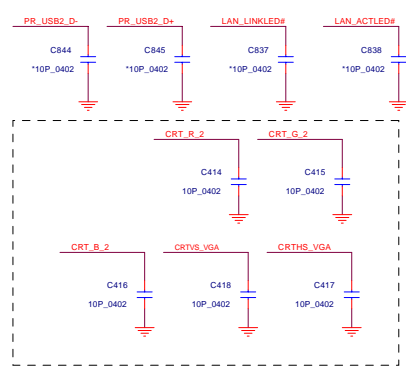
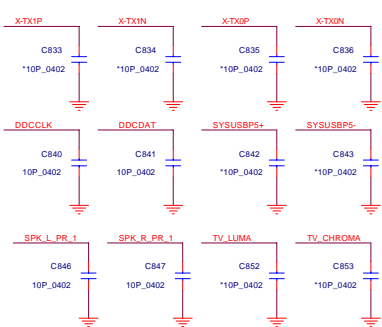


**B2A**  
 BYPASS SYSUSBP5+ TO PR.  
 BYPASS SYSUSBP2+ TO MR.  
 RE-ROUTING THOSE USB TRACE FOR SIMPLE!  
 NOTE: DEL U46, U47, U53, U54, R511, R512, C893, C895

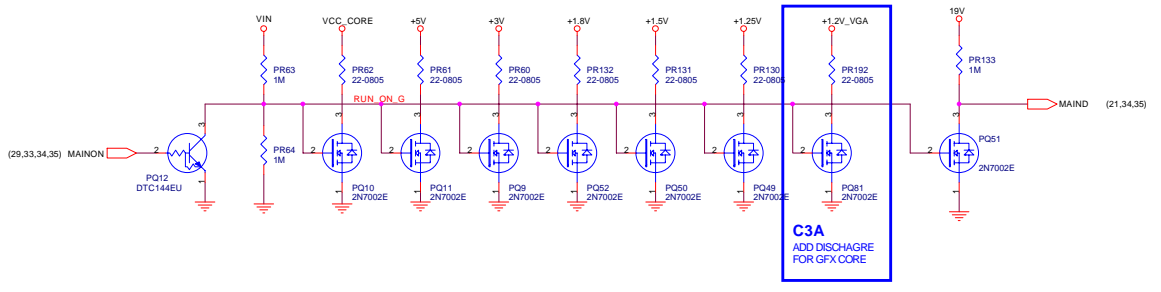
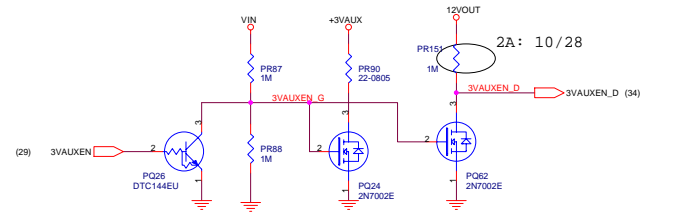
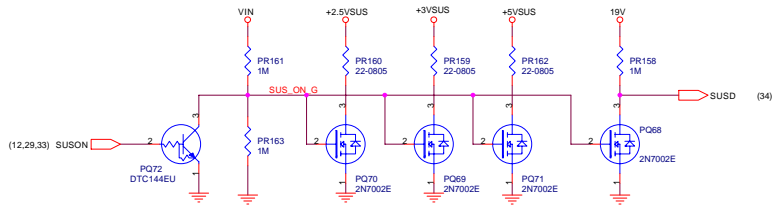
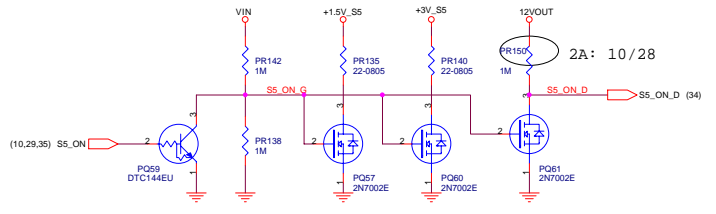
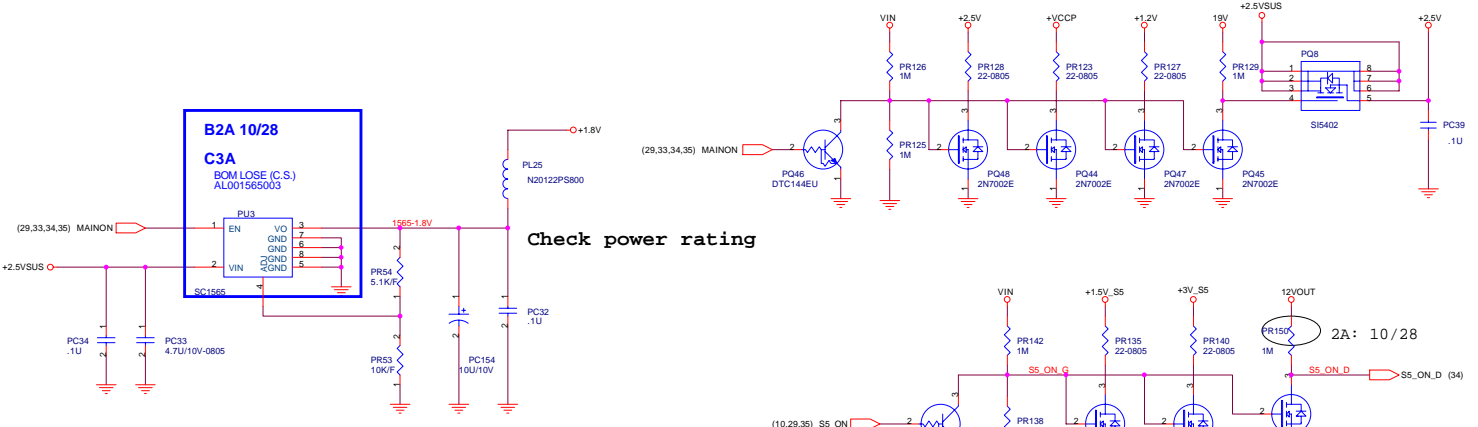
**C3A**  
 SWAP THOSE TRACE.



**C3A**  
 BOM ADD SECOND SOURCE  
 DFHDADM4413



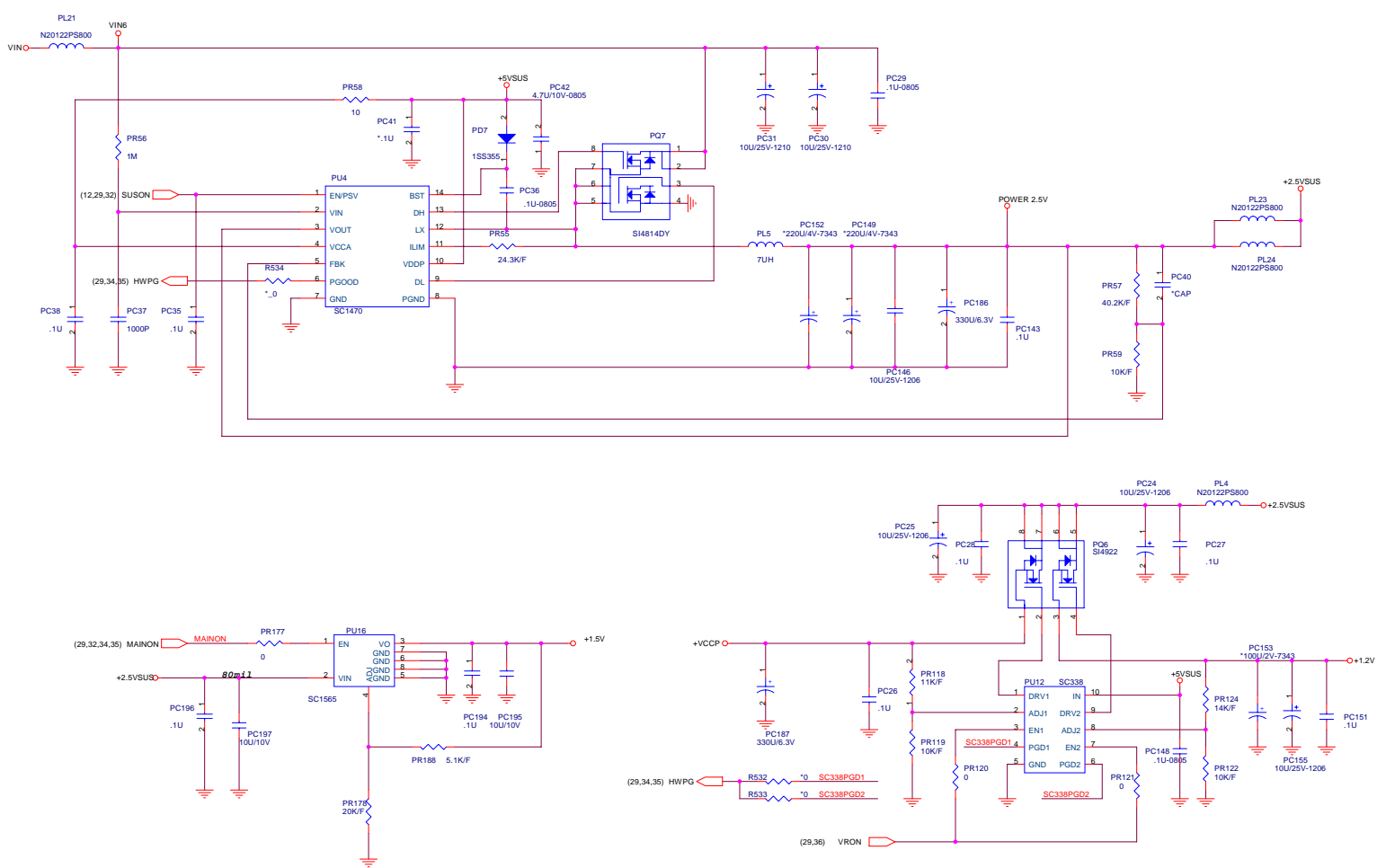
**PROJECT : ZW9**  
**Quanta Computer Inc.**



**PROJECT : ZW9**  
**Quanta Computer Inc.**

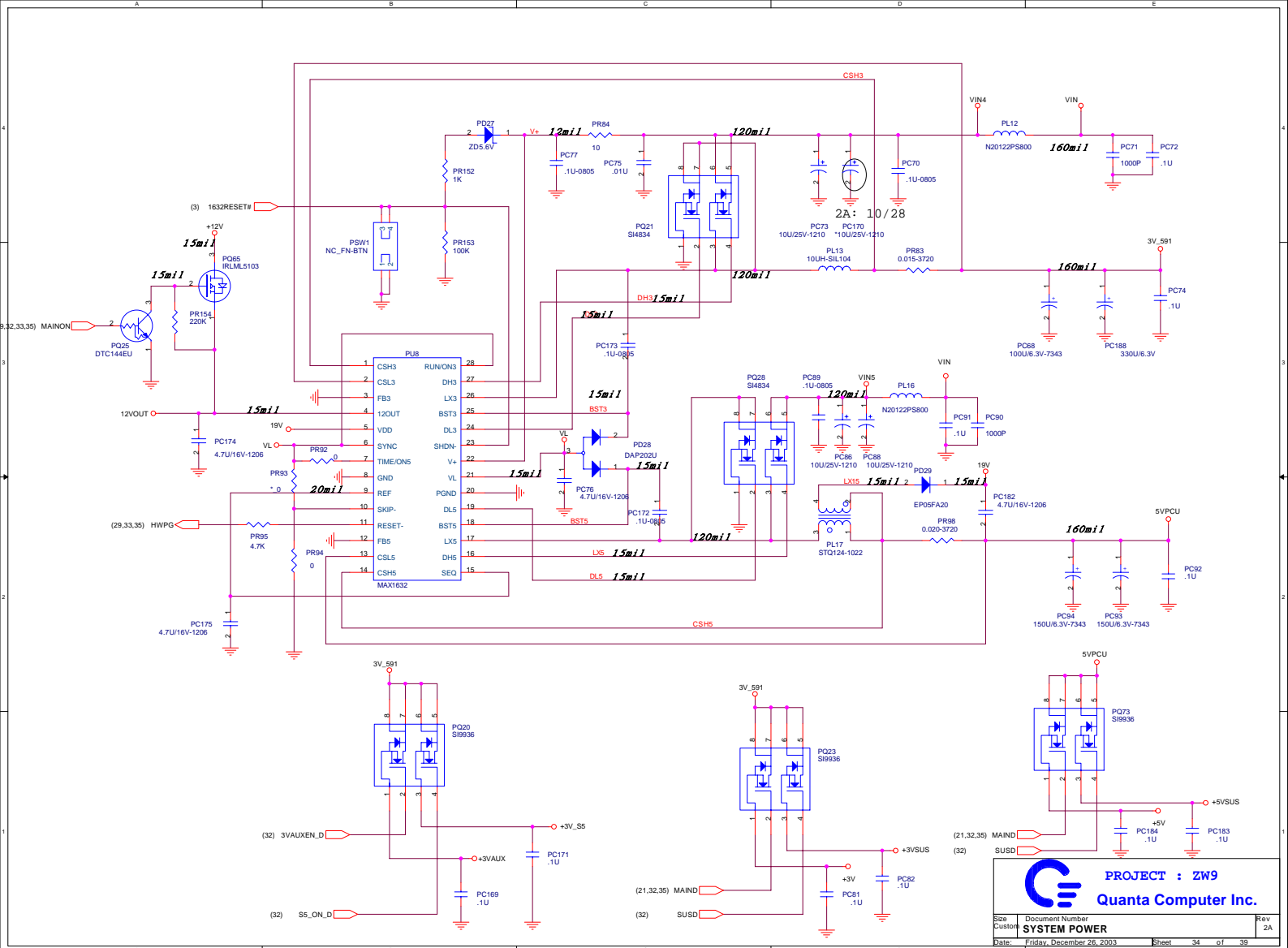
Size	Document Number	Rev
Custom	<b>DISCHARGE CIRCUIT</b>	3A
Date:	Friday, December 26, 2003	Sheet 32 of 39





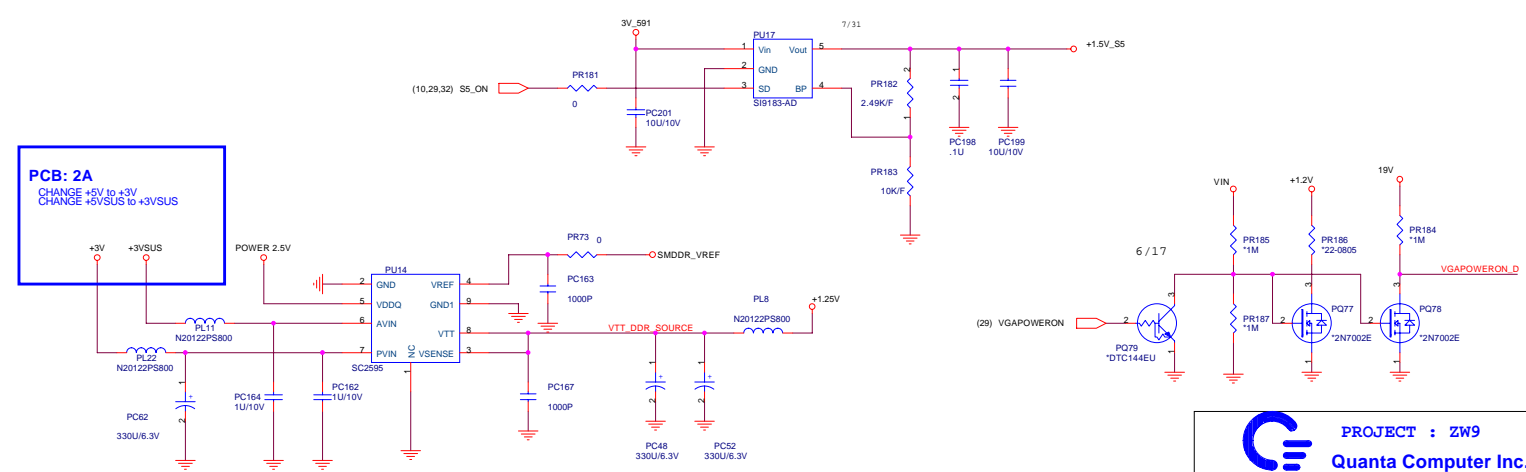
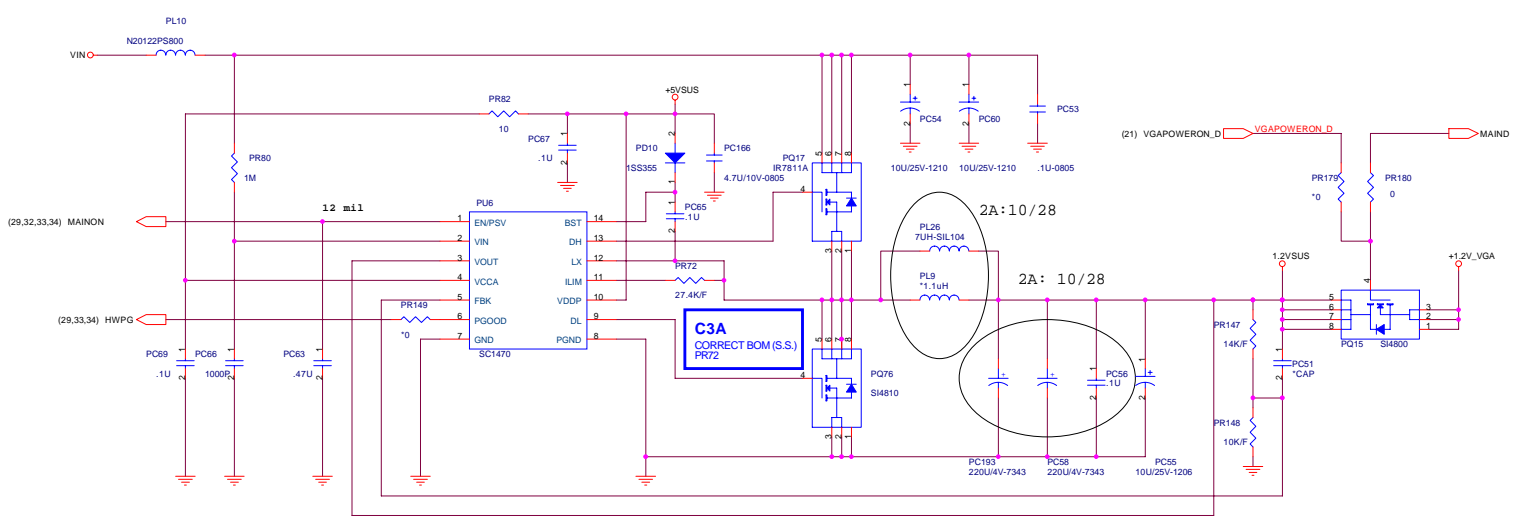
**PROJECT : ZW9**  
**Quanta Computer Inc.**

Size	Document Number	Rev
Cust	<b>SYS POWER 2.5V&amp; CPUIO</b>	1B
Date	Friday, December 26, 2003	Sheet 33 of 39



**PROJECT : ZW9**  
**Quanta Computer Inc.**

Size	Document Number	Rev
Customer	<b>SYSTEM POWER</b>	2A
Date:	Friday, December 26, 2003	Sheet 34 of 39



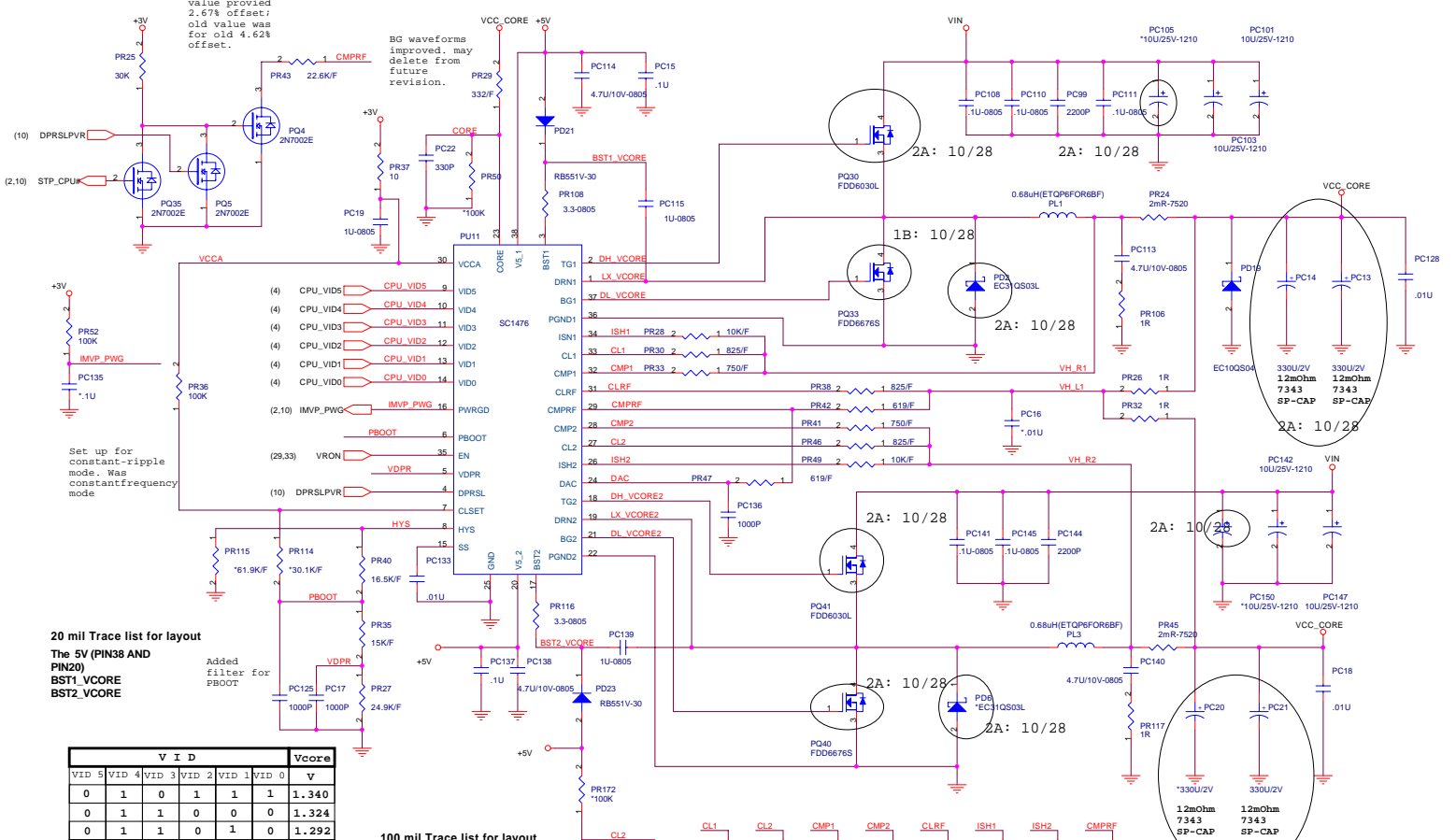
**PCB: 2A**  
 CHANGE +5V to +3V  
 CHANGE +5VSUS to +3VSUS

**PROJECT : ZW9**  
**Quanta Computer Inc.**

Size	Document Number	Rev
Custom	<b>POWER+ 1.2V &amp; DDR</b>	3A
Date:	Friday, December 26, 2003	Sheet 35 of 39

value provided  
2.67% offset;  
old value was  
for old 4.62%  
offset.

BG waveforms  
improved, may  
delete from  
future  
revision.



20 mil Trace list for layout  
The 5V (PIN38 AND  
PIN20)  
BST1\_VCORE  
BST2\_VCORE

V I D							Vcore
VID 5	VID 4	VID 3	VID 2	VID 1	VID 0	V	v
0	1	0	1	1	1	1	1.340
0	1	1	0	0	0	0	1.324
0	1	1	0	1	0	0	1.292
0	1	1	1	0	0	0	1.260
0	1	1	1	1	0	1	1.244
0	1	1	1	1	1	1	1.212
1	0	0	0	0	1	1	1.180
1	0	0	0	1	1	1	1.148
1	0	0	1	1	0	0	1.100
1	0	1	0	0	1	1	1.052
1	0	1	0	1	1	1	1.020
1	0	1	1	1	0	0	0.972
1	1	0	0	0	0	0	0.940

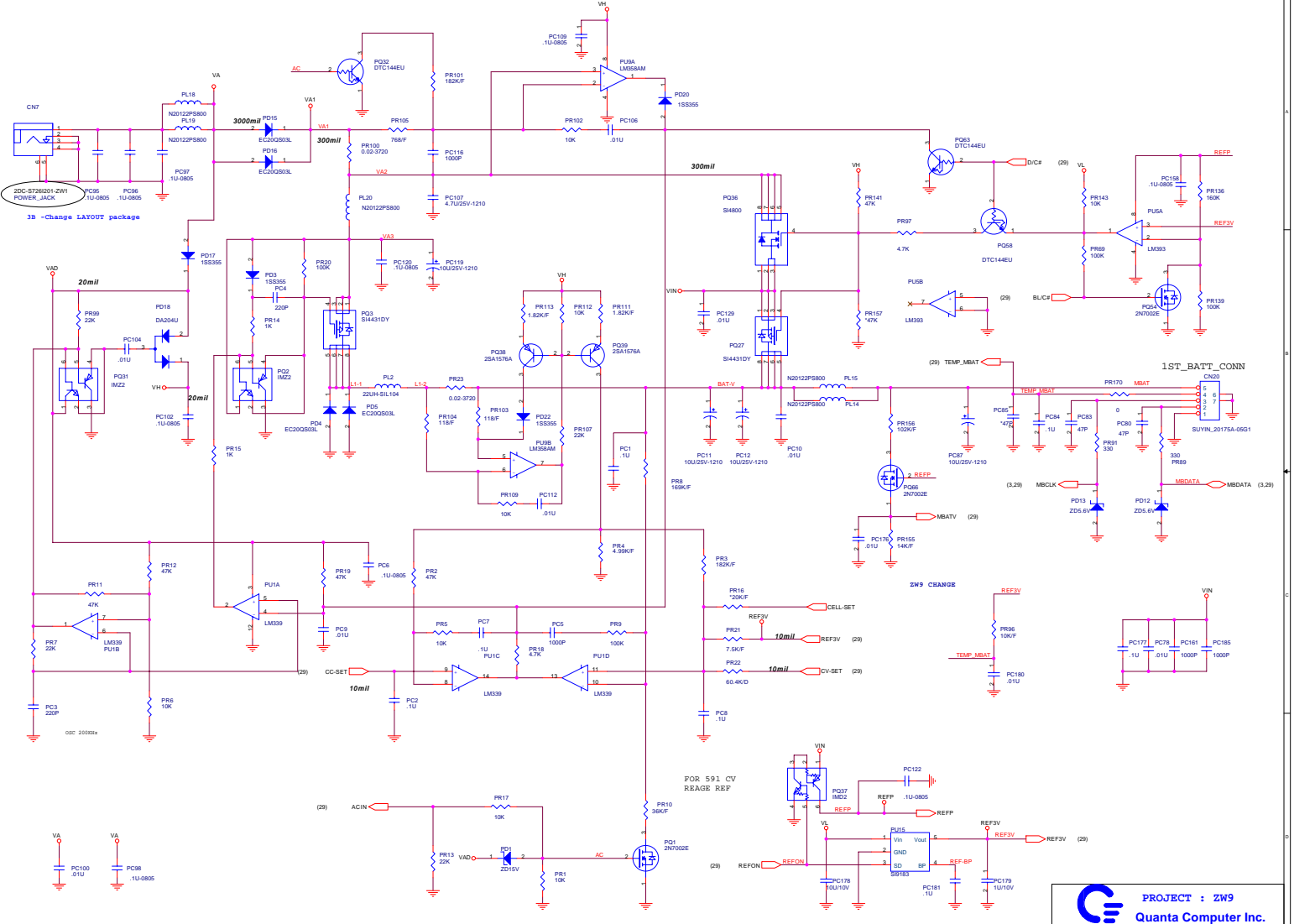
100 mil Trace list for layout


DH\_VCORE  
LX\_VCORE  
DL\_VCORE  
DH\_VCORE2  
LX\_VCORE2  
DL\_VCORE2

10 mil Trace list for layout  
SC1476  
pin 4  
pin 5  
pin 7  
pin 25  
pin 30

**PROJECT : ZW9**  
**Quanta Computer Inc.**

Size	Document Number	Rev
Custom	<b>CPU POWER</b>	2A
Date:	Friday, December 26, 2003	Sheet 36 of 39




**PROJECT : ZW9**  
**Quanta Computer Inc.**

Size	Document Number	Rev
C	<b>BATTERY CONN&amp;POWER JACK</b>	1B
Date	File Path	Page
	F:\Soc\Zw9\Zw9_09_2008	37 of 39

