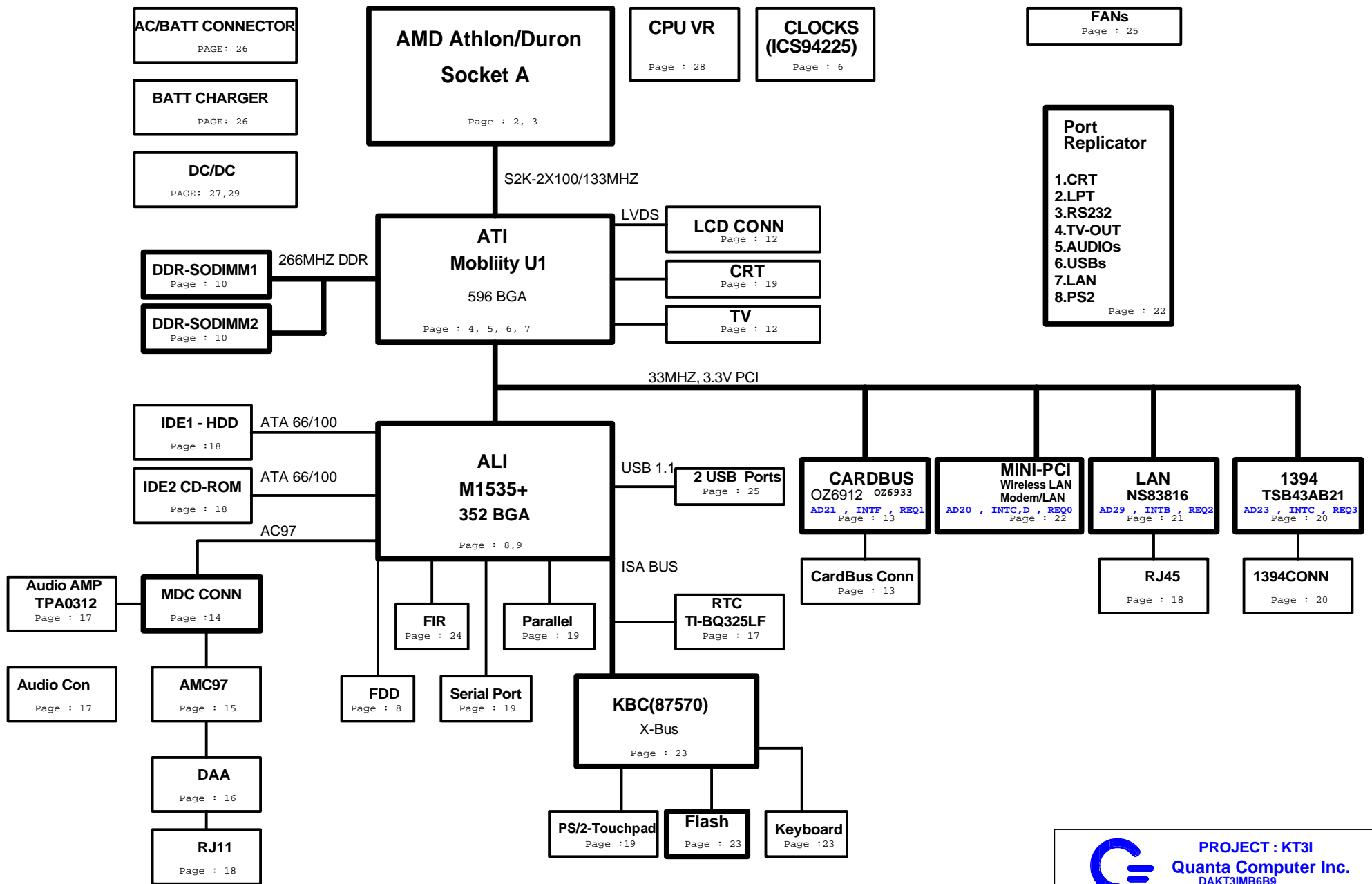
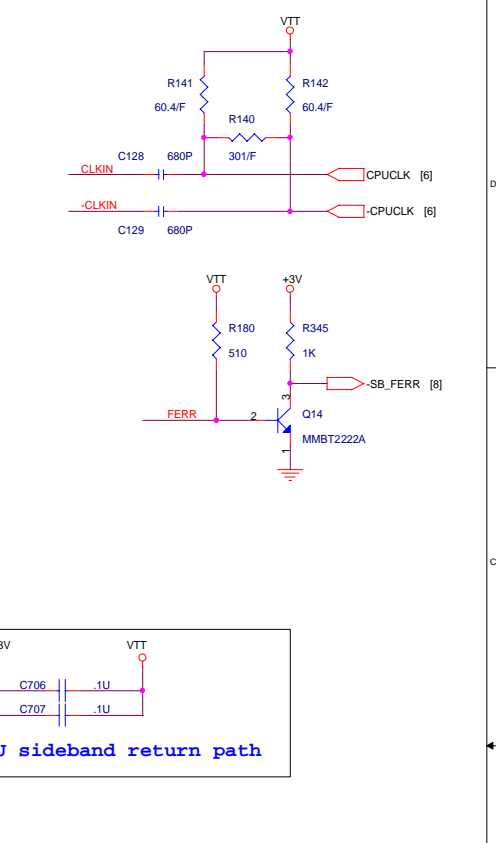
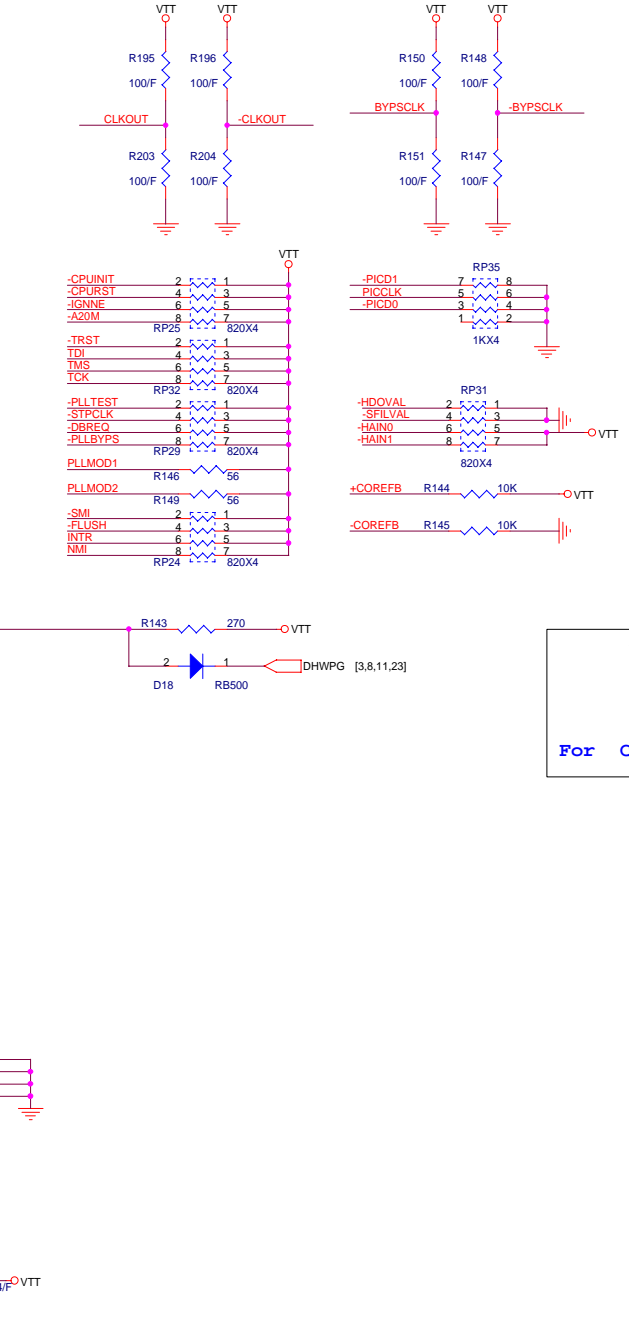
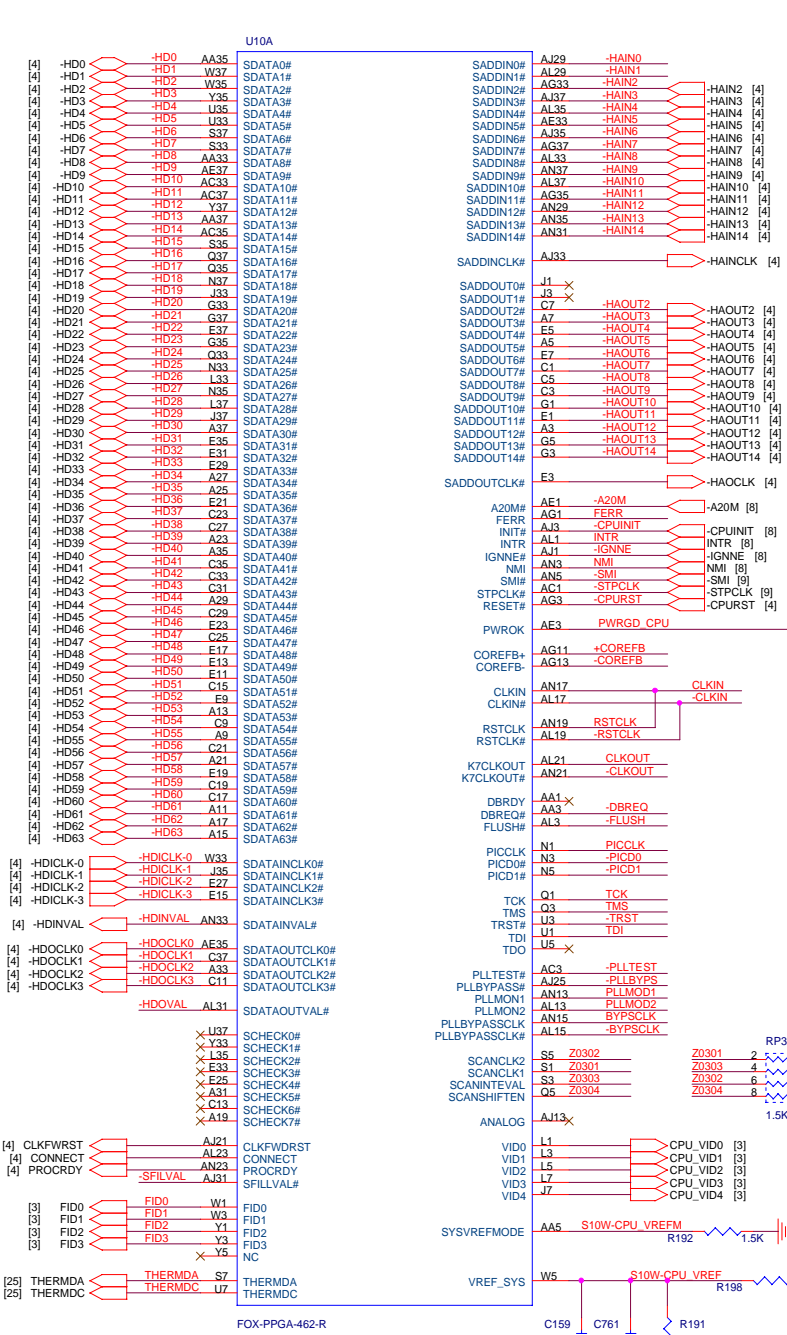


# T2.2





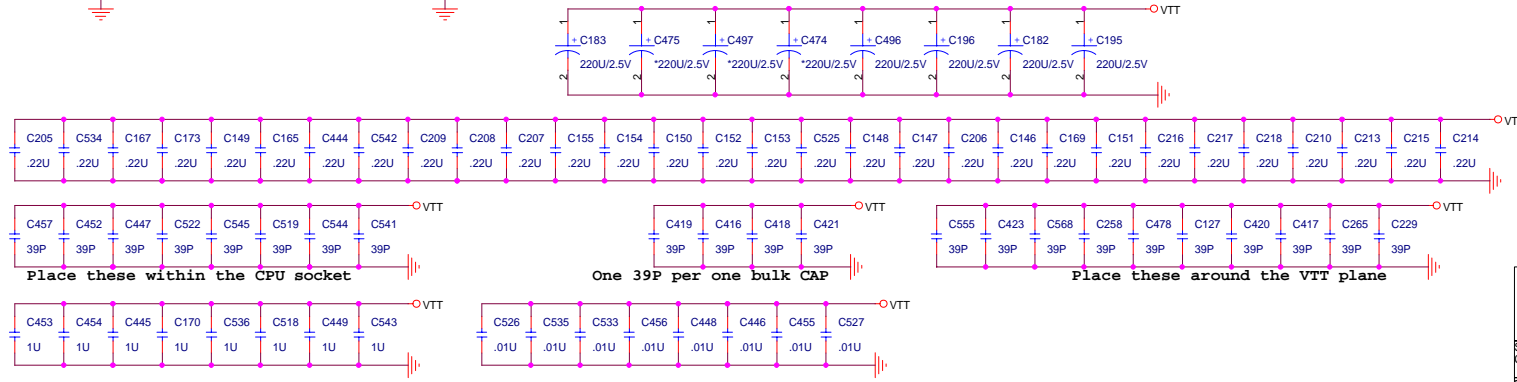
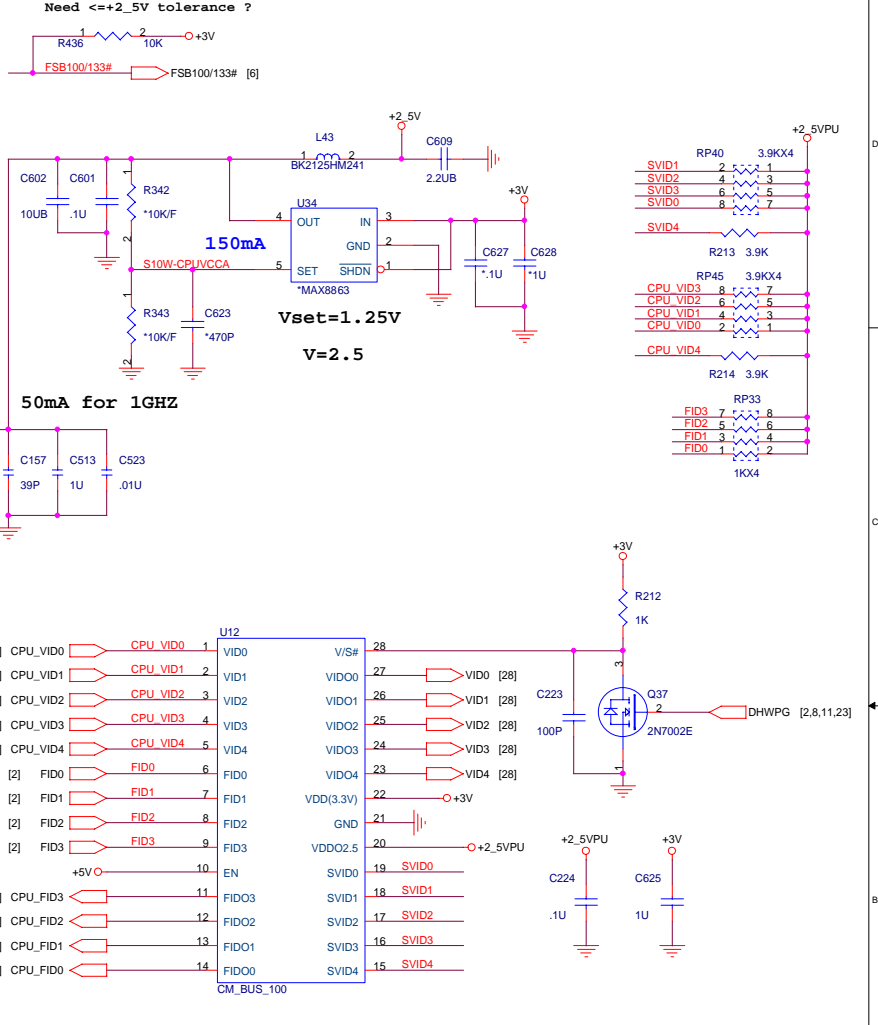
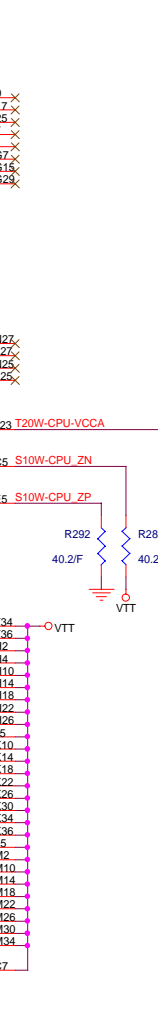
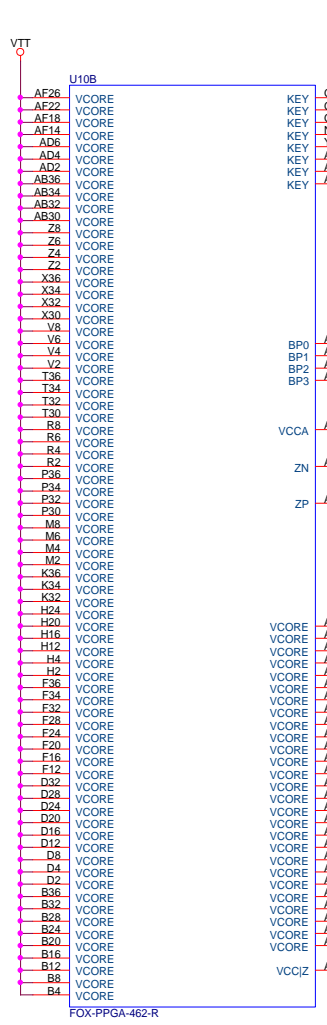
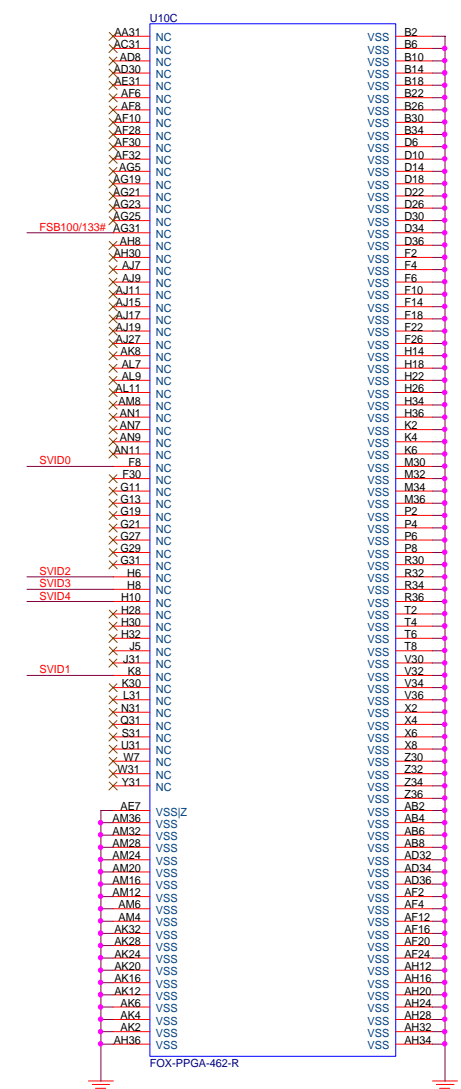
SYSCLK Multiplier Combinations

FID3	FID2	FID1	FID0	Clock Mode
0	0	0	0	11X
0	0	0	1	11.5X
0	0	1	0	12X
0	0	1	1	12.5X
0	1	0	0	5X
0	1	0	1	5.5X
0	1	1	0	6X
0	1	1	1	6.5X
1	0	0	0	7X
1	0	0	1	7.5X
1	0	1	0	8X
1	0	1	1	8.5X
1	1	0	0	9X
1	1	0	1	9.5X
1	1	1	0	10X
1	1	1	1	10.5X

**PROJECT : KT31**  
**Quanta Computer Inc.**  
**DAKT31MB689**

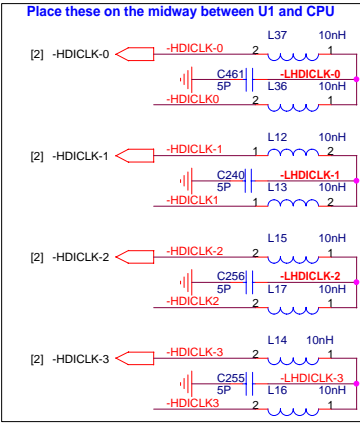
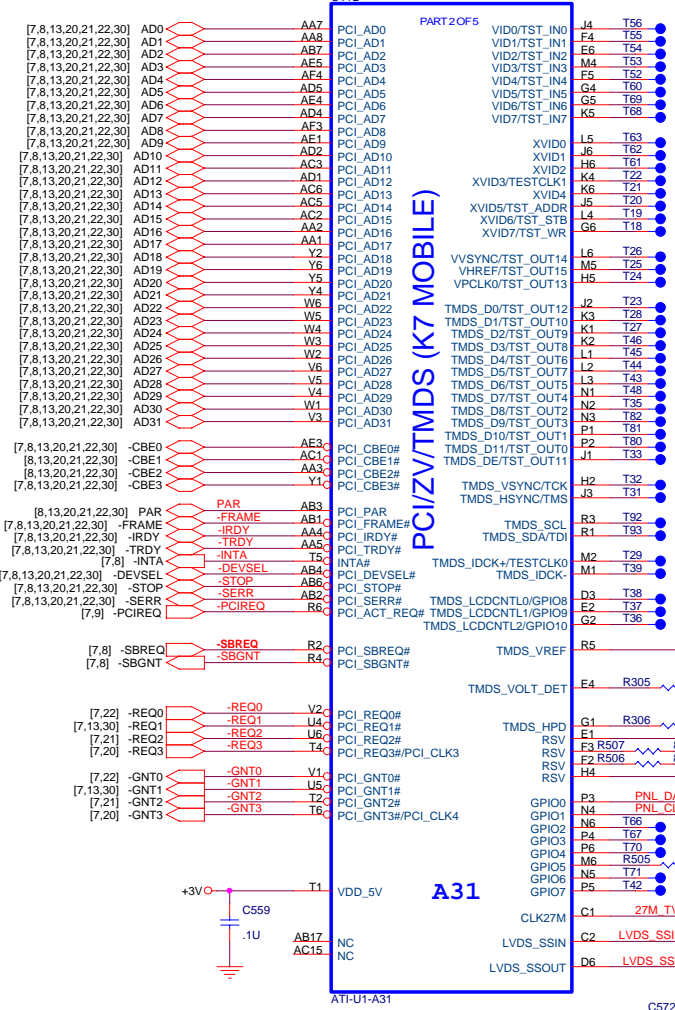
Size Custom Document Number Rev 3A  
**CPU SOCKET A I**

Date: Wednesday, March 19, 2003 Sheet 2 of 29

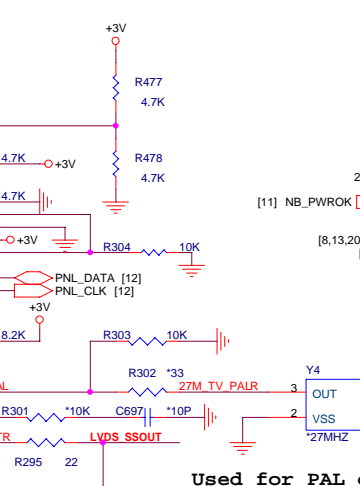


**PROJECT : KT3I**  
**Quanta Computer Inc.**  
**DAKT3IMB6B9**

Size Custom Document Number Rev 3A  
**CPU SOCKET A II**  
 Date: Wednesday, March 19, 2003 Sheet 3 of 29

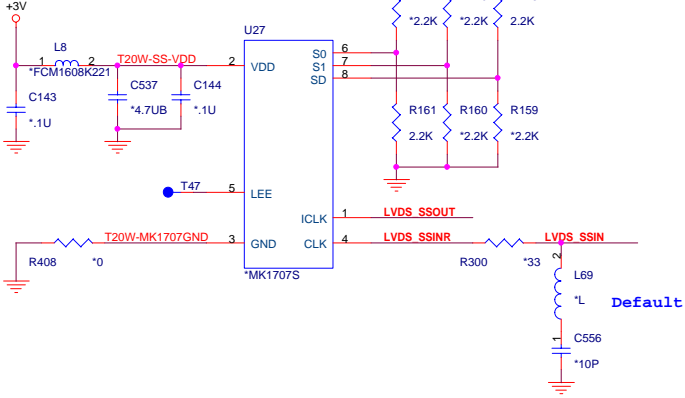


This is for SPWG

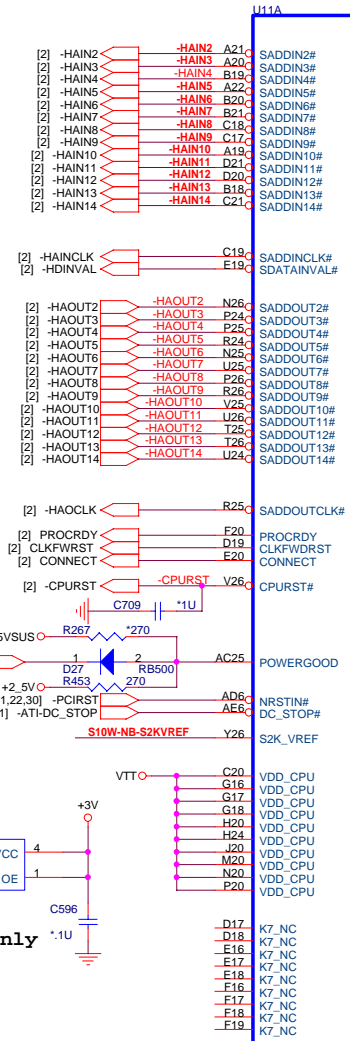


Used for PAL only

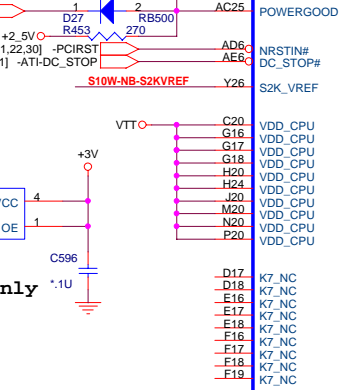
Spread Spectrum



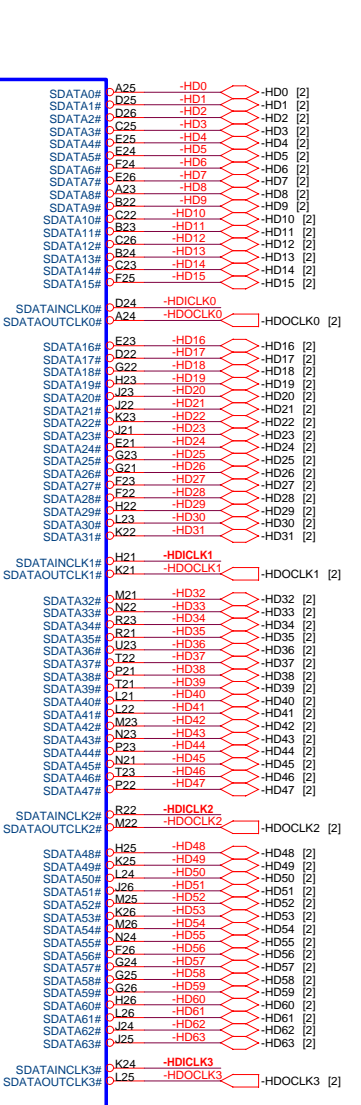
SD	S1	S0	DIRECTION	% SPREAD
GND	GND	GND	DOWN	.6
GND	GND	DNI	DOWN	.8
GND	GND	+3.3V	DOWN	1.25
GND	DNI	GND	DOWN CENTER	+5 -1.5
GND	DNI	+3.3V	DOWN CENTER	+5 -2.5
GND	+3.3V	GND	DOWN CENTER	+5 -3
GND	+3.3V	DNI	DOWN	5
+3.3V	GND	GND	CENTER	+/- .35
+3.3V	GND	DNI	CENTER	+/- .5
+3.3V	DNI	GND	CENTER	+/- .8
+3.3V	DNI	DNI	CENTER	+/- 1.1
+3.3V	DNI	+3.3V	CENTER	+/- 1.4
+3.3V	+3.3V	DNI	CENTER	+/- 2.5



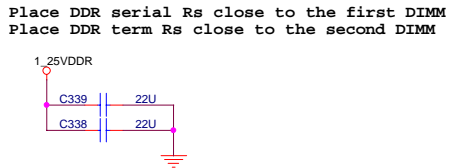
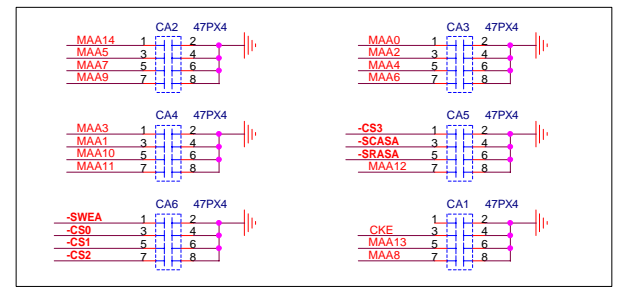
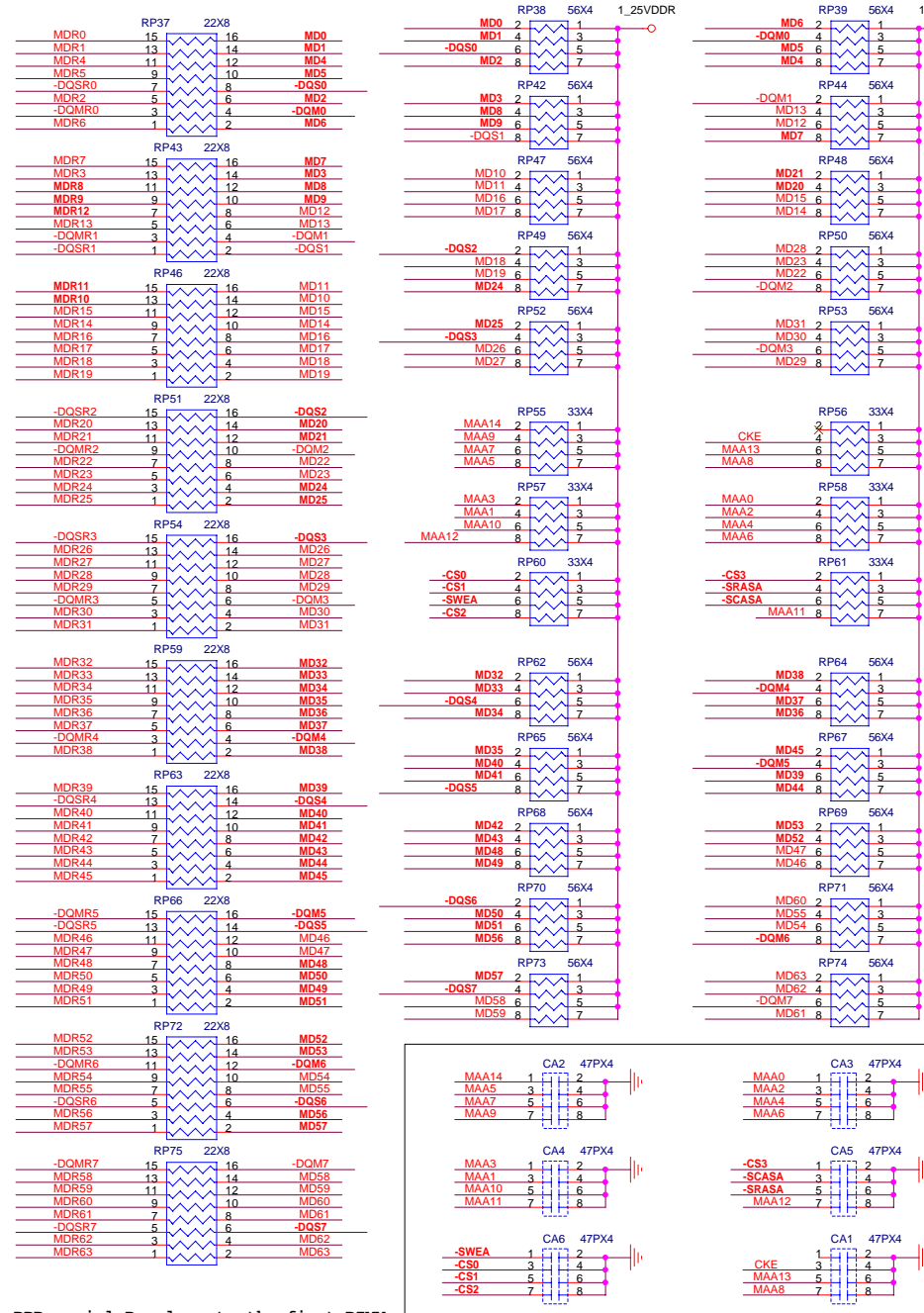
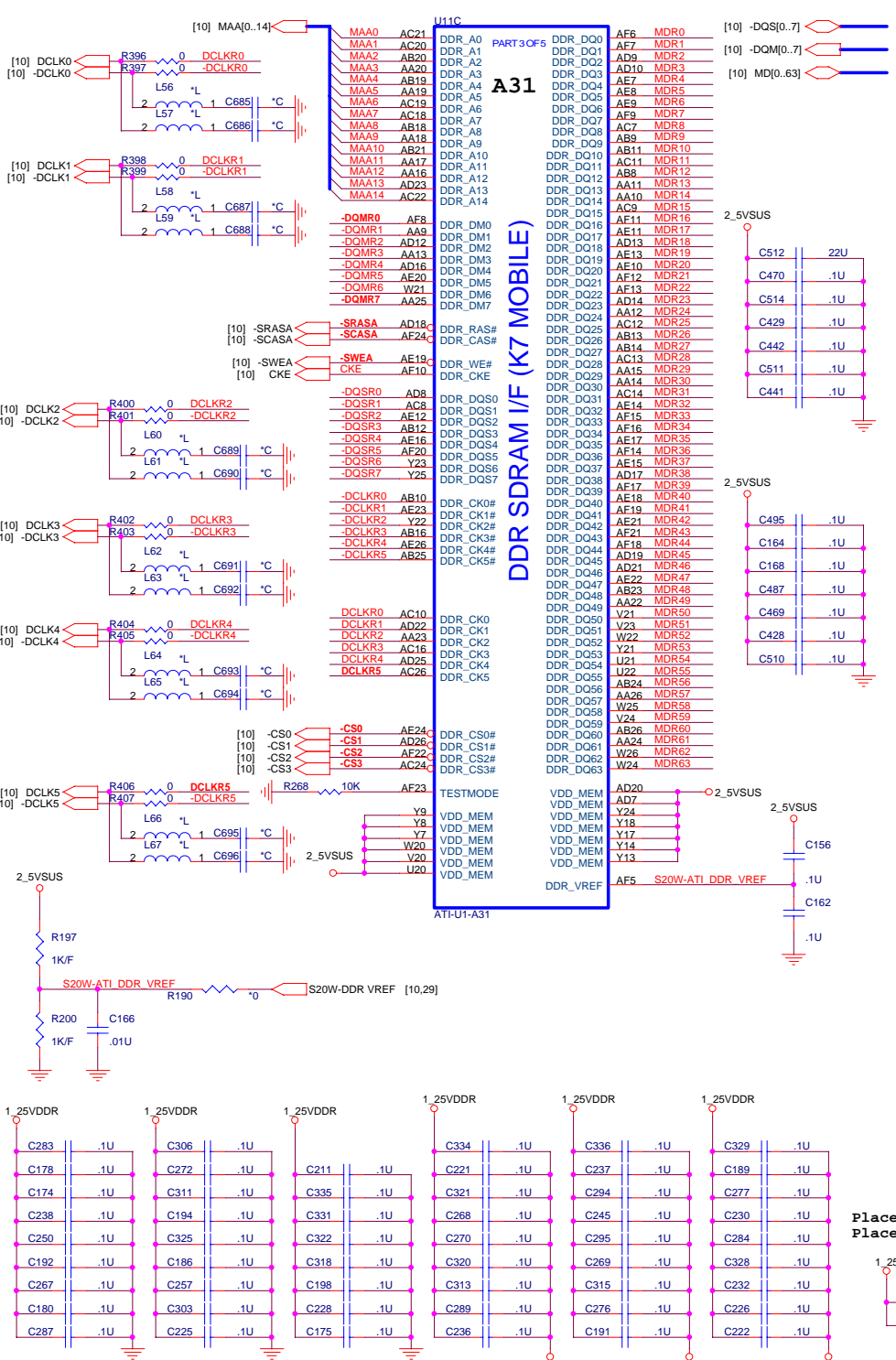
S2K I/F (K7 MOBILE)



A31

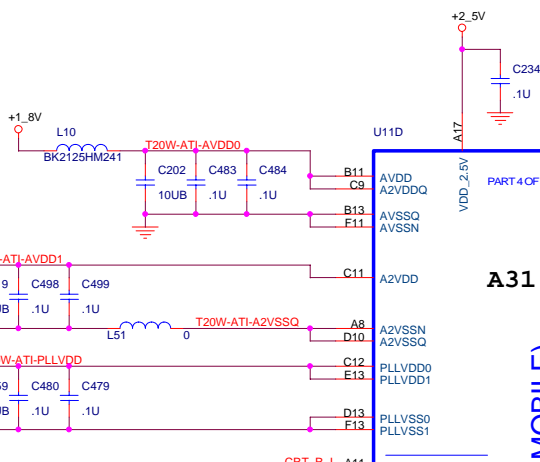
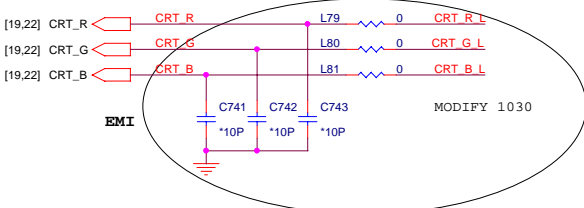


PROJECT : KT31  
Quanta Computer Inc.  
DAKT31MB6B9

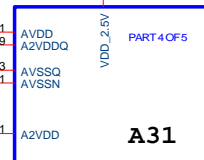
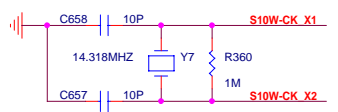
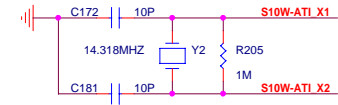


Size	Document Number	Rev
	<b>ATI-U1 DDR(Term,Damp)</b>	<b>3A</b>
Date:	Wednesday, March 19, 2003	Sheet 5 of 29

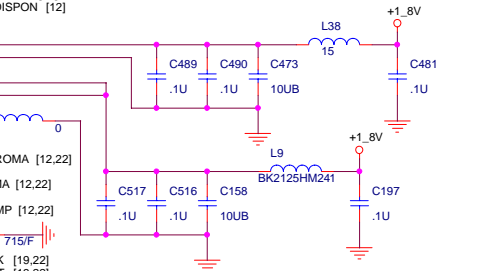
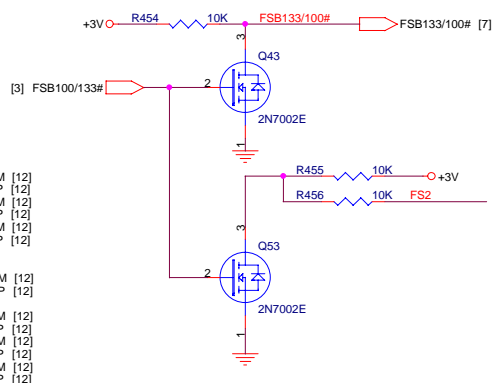




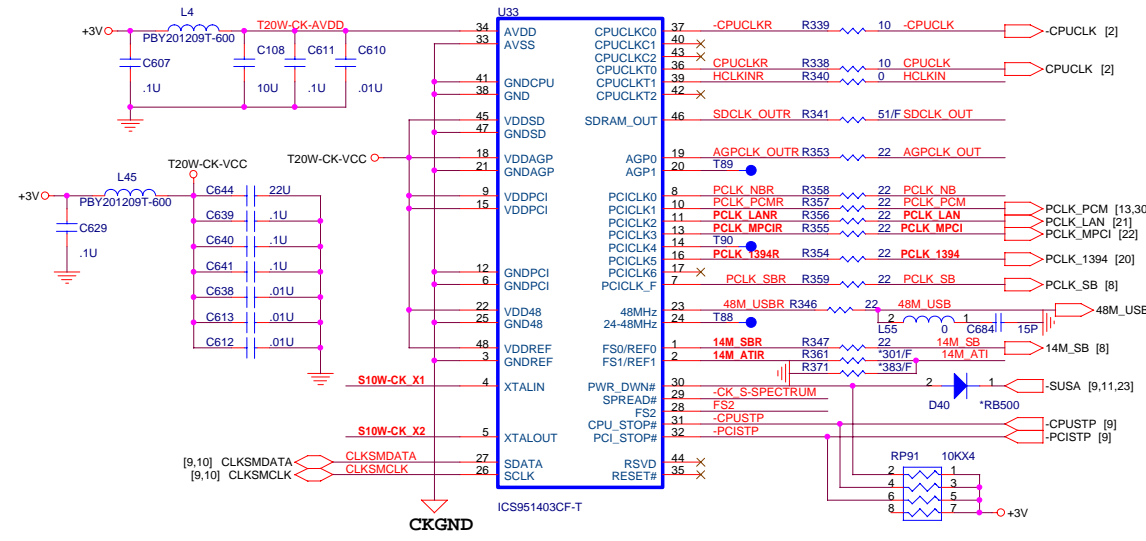
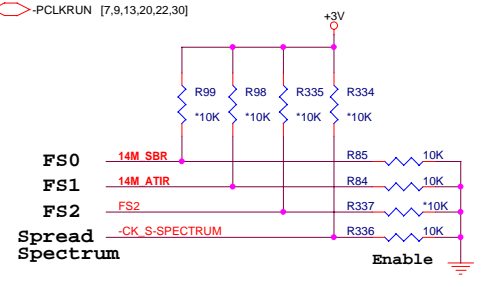
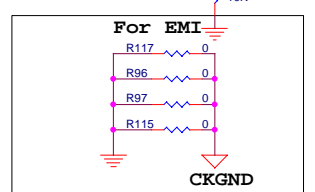
Try to save the 14.318MHz crystal for ATI after A-TEST



**A31**  
**LVDS**  
**CLK, DISPLAY (K7 MOBILE)**  
**TV**  
**CLK GEN**



This can be no connect ?



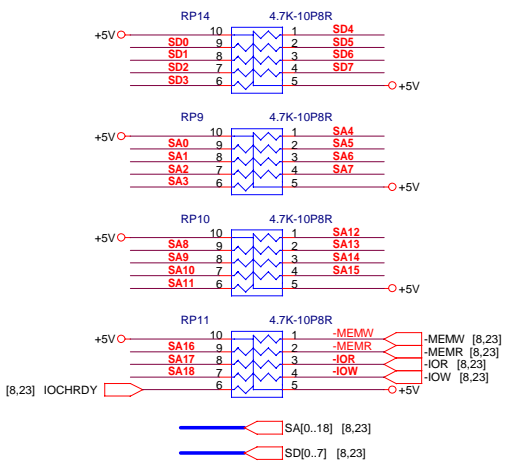
ICS951403 FREQUENCY SELECTION

FS3	FS2	FS1	FS0	CPU	SDRAM	PCICLK	AGP SEL=0
0	0	0	0	100.00	100.00	33.33	66.67
0	0	0	1	100.00	133.33	33.33	66.67
0	0	1	0	100.00	150.00	30.00	60.00
0	0	1	1	100.00	66.67	33.33	66.67
0	1	0	0	133.33	133.33	33.33	66.67
0	1	0	1	125.00	100.00	31.25	62.50
0	1	1	0	124.00	124.00	31.00	62.00
0	1	1	1	133.00	100.00	33.33	66.67

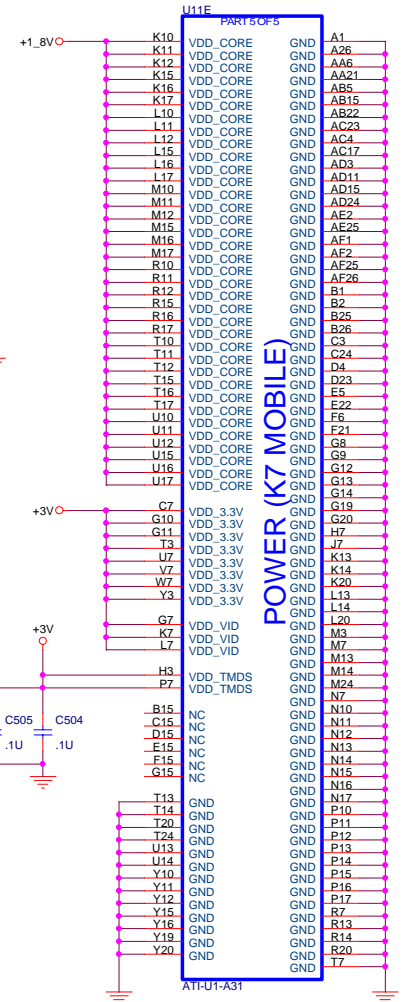
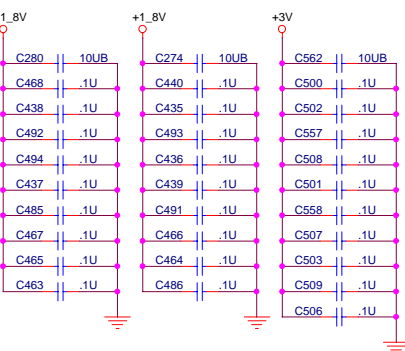
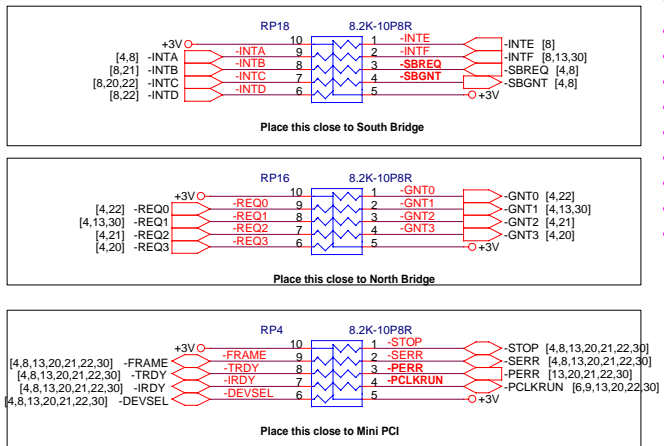
**PROJECT : KT31**  
**Quanta Computer Inc.**  
**DAKT31MB6B9**

Size	Document Number	Rev
	<b>ATI-U1 VID,CRT,TV&amp;CKGEN</b>	<b>3A</b>
Date:	Wednesday, March 19, 2003	Sheet 6 of 29

### ISA PU

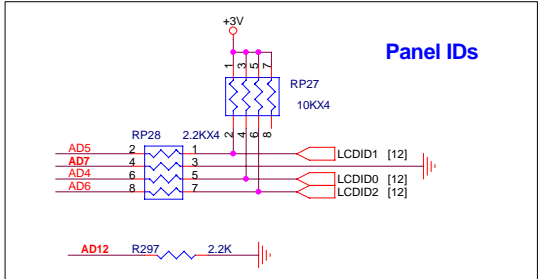


### PCI PU

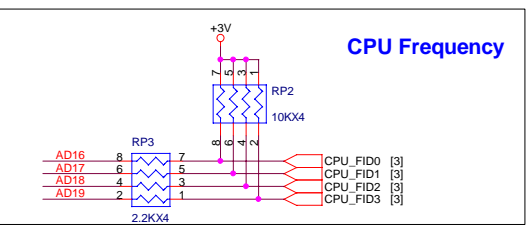


### POWER (K7 MOBILE)

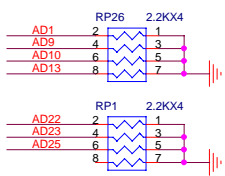
- AD0 R284 2.2K Use Internal AGP
- AD2 R278 \*10K +3V Disable Cal Defaults for CPU
- AD3 R280 2.2K PCI 33MHZ



- AD8 R288 2.2K Disable K7 outclk delay
- AD8 R291 10K Enable K7 outclk delay
- AD11 R293 2.2K Disable internal clock generator (A11 ASIC)
- AD14 R287 2.2K 1.2V Interface(Mobile)
- AD14 R283 \*10K 1.7V Interface(Desktop) (Auto-Calibration Default Value)
- AD15 R61 2.2K S2K Interface



- AD20 R46 2.2K REQ3/GNT3 used as REQ3/GNT3
- AD21 R58 2.2K Disable PLL Bypass mode
- AD24 R55 10K Disable INCLK\_Delay
- AD24 R55 10K Enable INCLK\_Delay
- AD26 R54 \*10K +3V 00:Default(Best Performance)
- AD27 R53 \*10K +3V 01:Slow CPU by one cycle for read data
- AD27 R53 \*10K +3V 10:Slow NB by one cycle for write data
- AD27 R53 \*10K +3V 11:Slow Both by one cycle for write data
- AD28 R52 \*10K +3V Disable Spread Spectrum
- AD28 R52 \*10K +3V Enable Spread Spectrum
- AD29 R41 \*10K +3V Use full Straps set
- AD29 R41 \*10K +3V Use reduce Straps set
- AD30 R50 10K +3V 00:66MHZ
- AD30 R50 10K +3V 01:100MHZ
- AD30 R50 10K +3V 10:166MHZ
- AD30 R50 10K +3V 11:133MHZ
- AD31 R39 \*10K +3V CLK Speed
- AD31 R418 2.2K FSB133/100# FSB133/100# [6]



- [4,9] -PCIREQ R309 \*10K +3V Disable internal clock generator (A12 ASIC)
- [4,9] -PCIREQ R308 2.2K +3V
- [4,8,13,20,21,22,30] -CBE3 R32 10K +3V Normal operation
- [4,8,13,20,21,22,30] -CBE0 R290 2.2K +3V Disable external SIP ROM

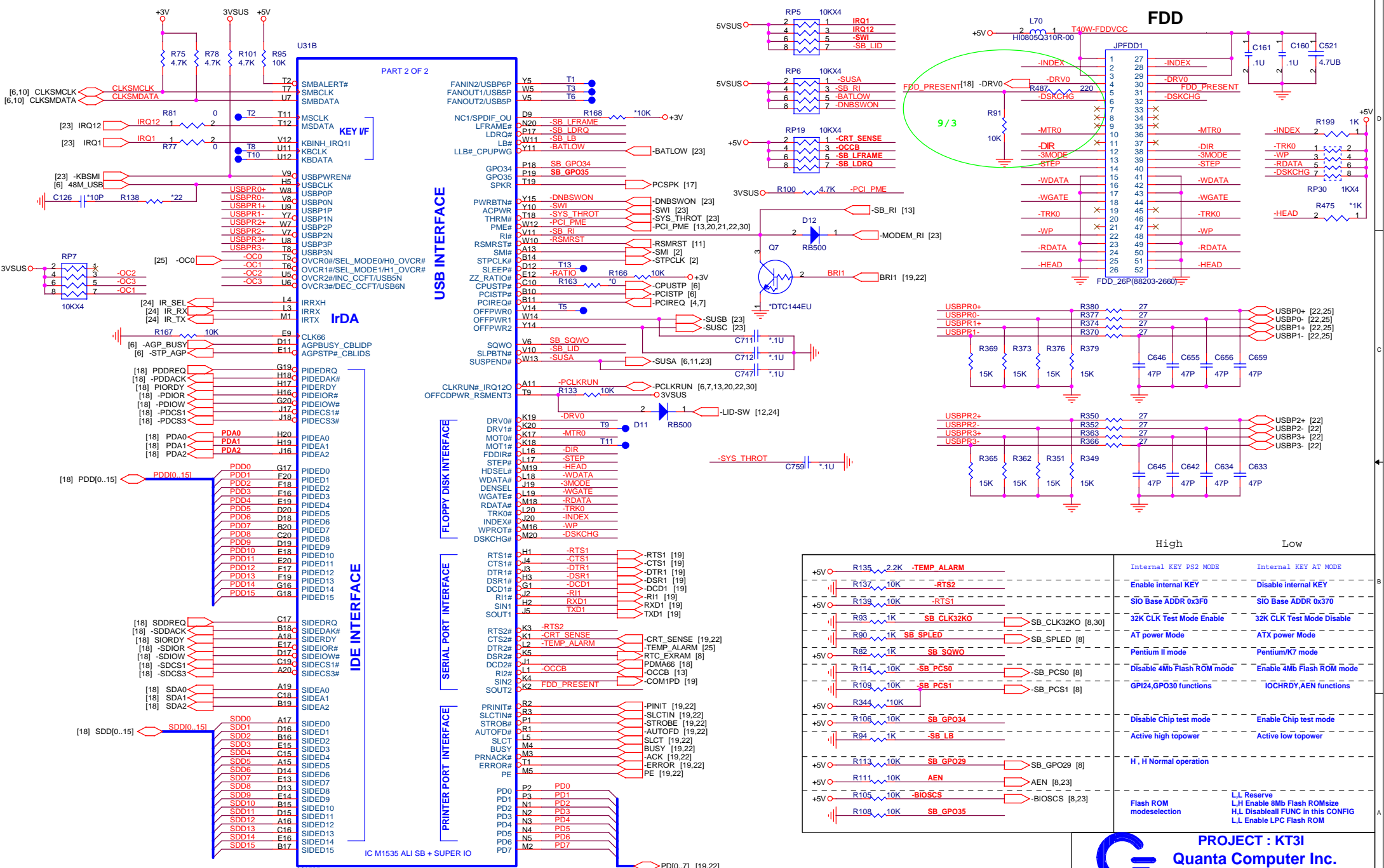
**PROJECT : KT31**  
**Quanta Computer Inc.**  
**DAKT31MB6B9**

Size	Document Number	Rev
	ATI-U1 PWR,GND	2A
Date:	Wednesday, March 19, 2003	Sheet 7 of 29


CPU\_FID3 [3]



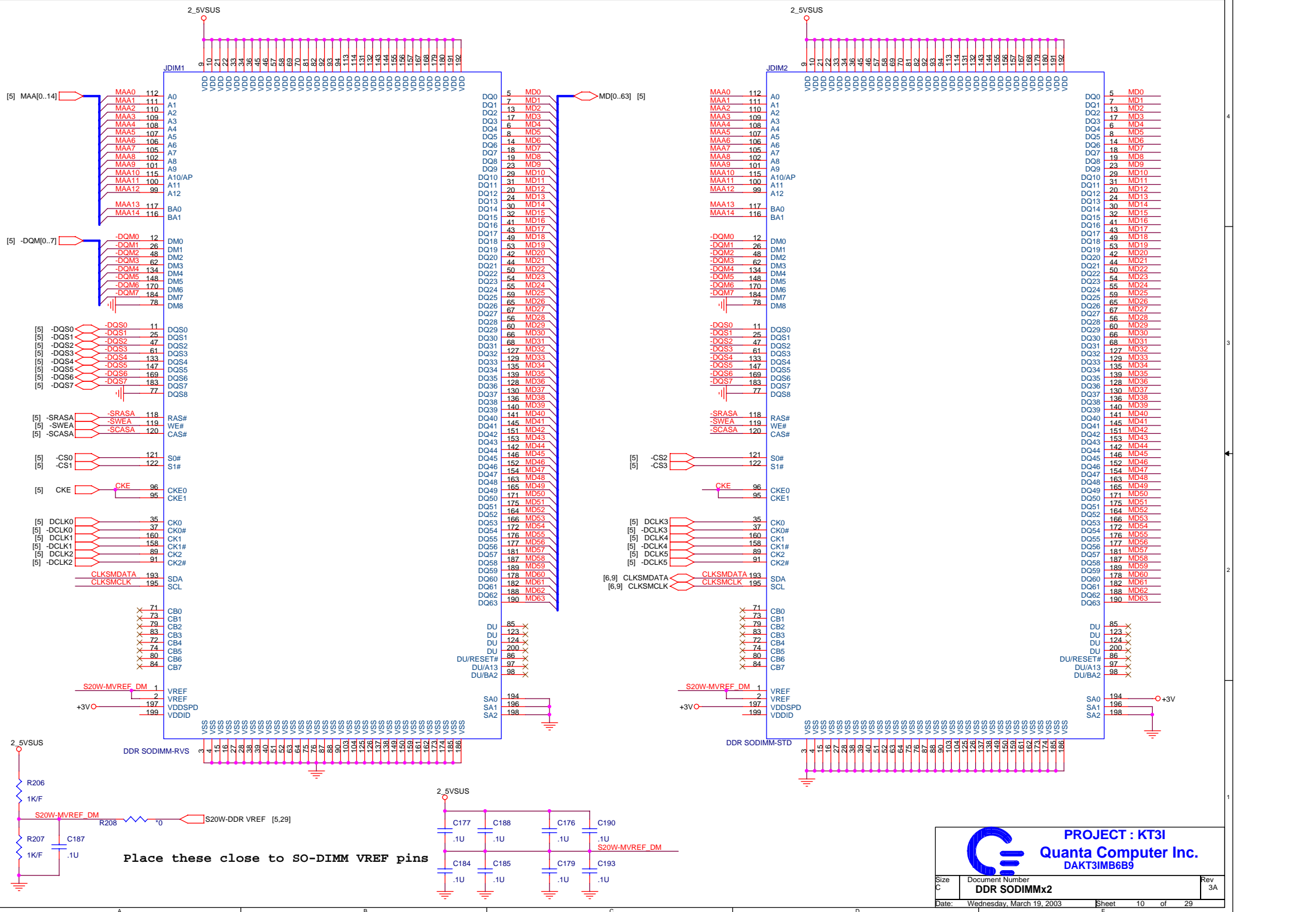




	High	Low
	Internal KEY PS2 MODE	Internal KEY AT MODE
	Enable internal KEY	Disable internal KEY
	SIO Base ADDR 0x3F0	SIO Base ADDR 0x370
	32K CLK Test Mode Enable	32K CLK Test Mode Disable
	AT power Mode	ATX power Mode
	Pentium II mode	Pentium/K7 mode
	Disable 4Mb Flash ROM mode	Enable 4Mb Flash ROM mode
	GP124,GPO30 functions	IOCHRDY,AEN functions
	Disable Chip test mode	Enable Chip test mode
	Active high topower	Active low topower
	H, H Normal operation	
	Flash ROM modeselection	L,L Reserve L,H Enable 8Mb Flash ROMsize H,L Disableall FUNC in this CONFIG L,L Enable LPC Flash ROM


**PROJECT : KT3I**  
**Quanta Computer Inc.**  
**DAKT3IMB6B9**

Size	Document Number	Rev
	<b>M1535+(IDE,FDD)</b>	3C
Date:	Wednesday, March 19, 2003	Sheet 9 of 29

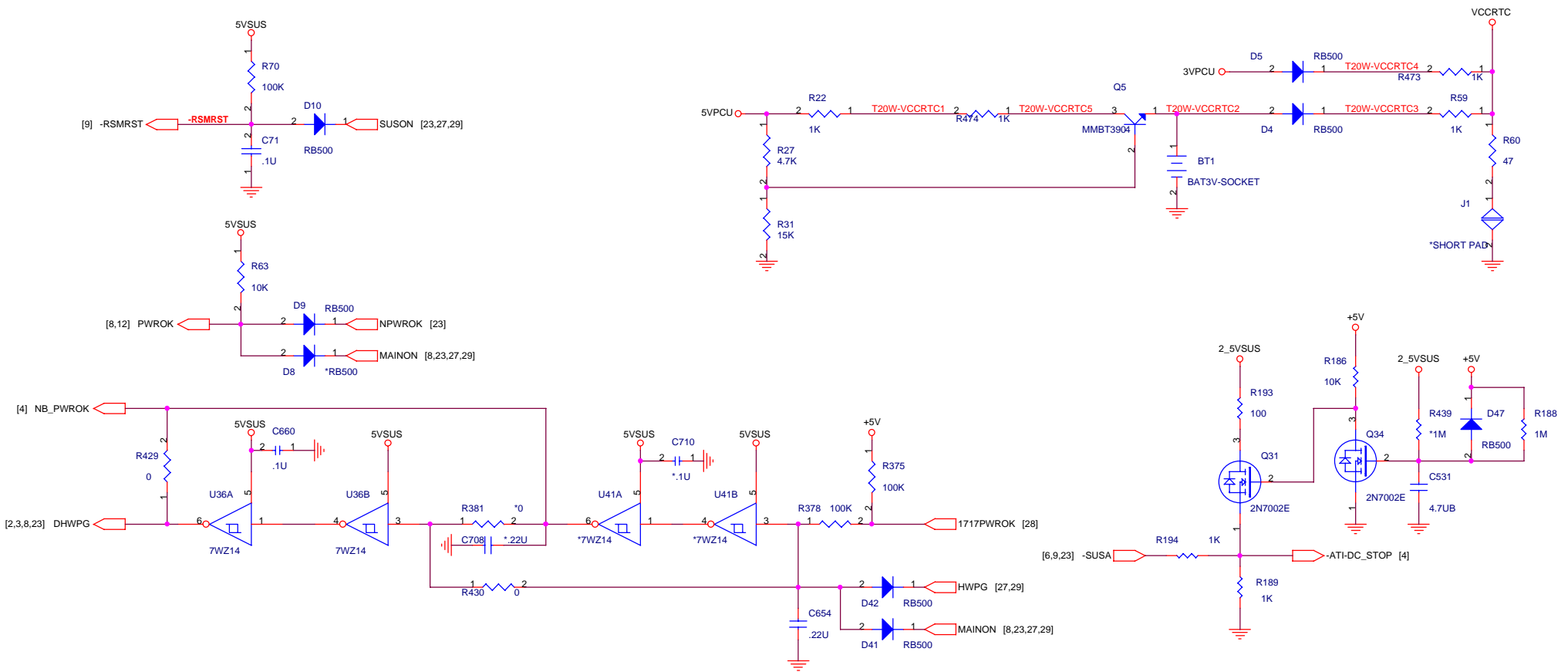
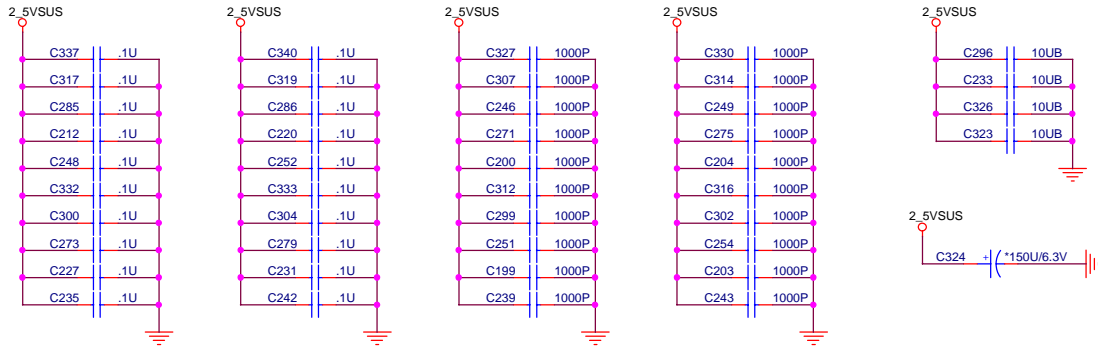


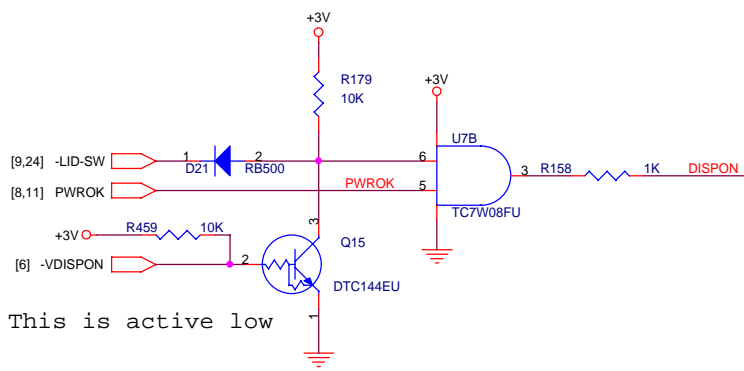
Place these close to SO-DIMM VREF pins

**PROJECT : KT3I**  
**Quanta Computer Inc.**  
**DAKT3IMB69**

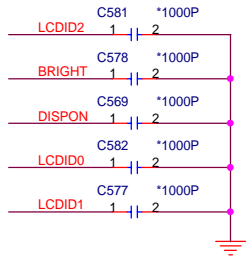
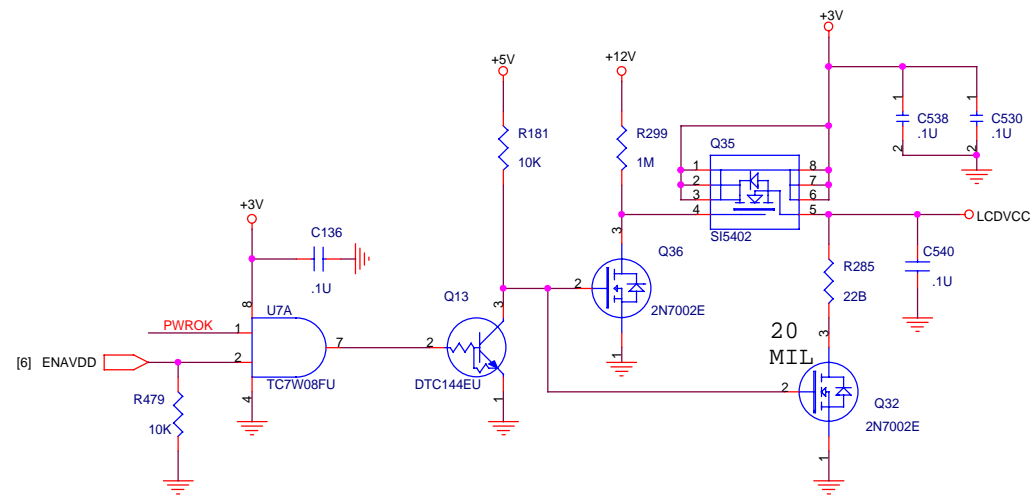
Size	Document Number	Rev
C	DDR SODIMMx2	3A
Date:	Wednesday, March 19, 2003	Sheet 10 of 29

For SO-DIMM

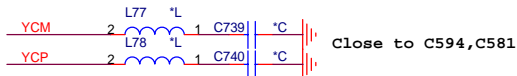




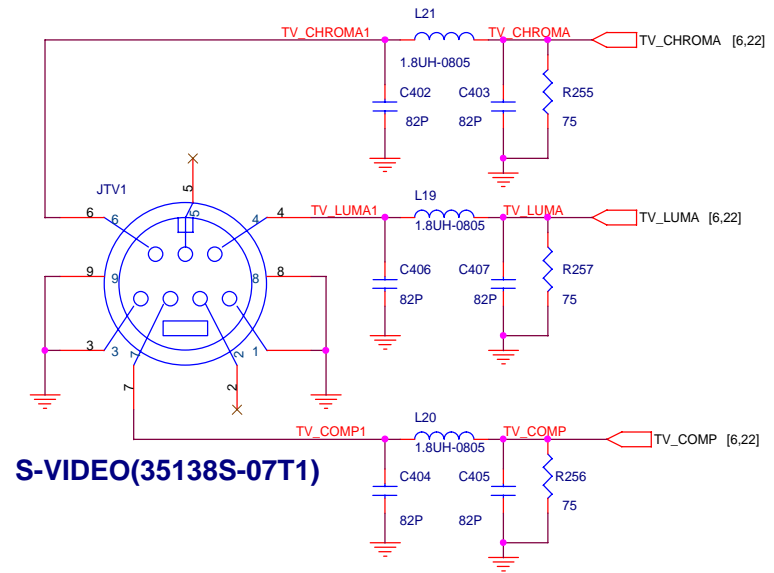
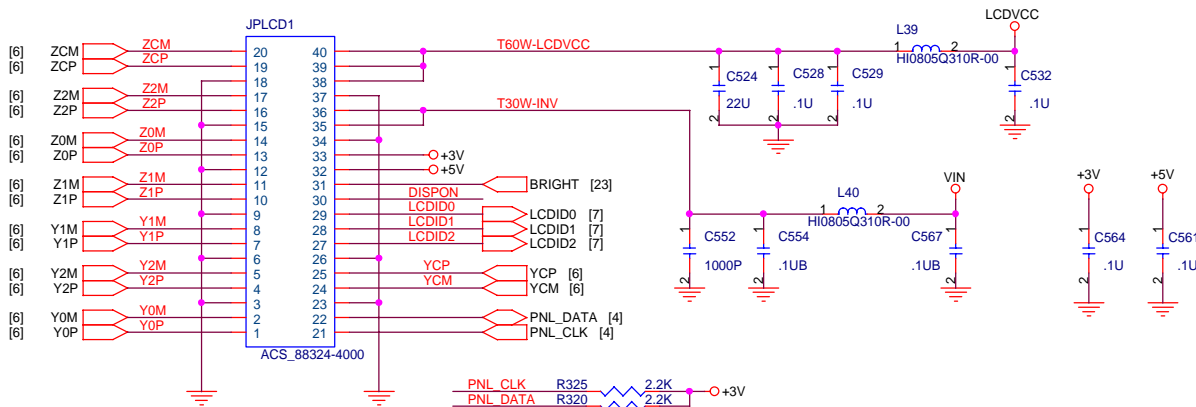
This is active low



LCDID0	LCDID1	LCDID2	
1	1	1	Non SPWG XGA 1024*768 TFT
0	1	1	SXGA 1400*1050 TFT
1	0	1	SPWG XGA 1024*768 TFT



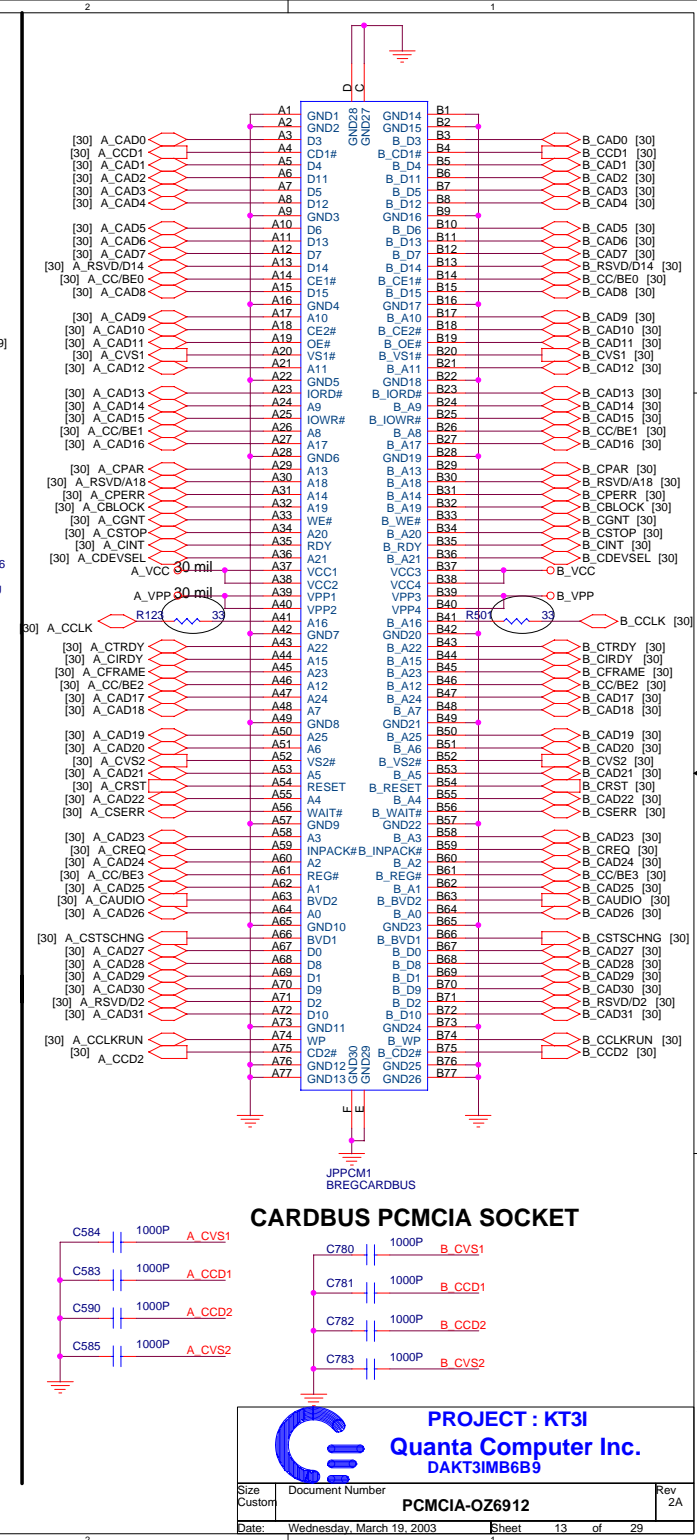
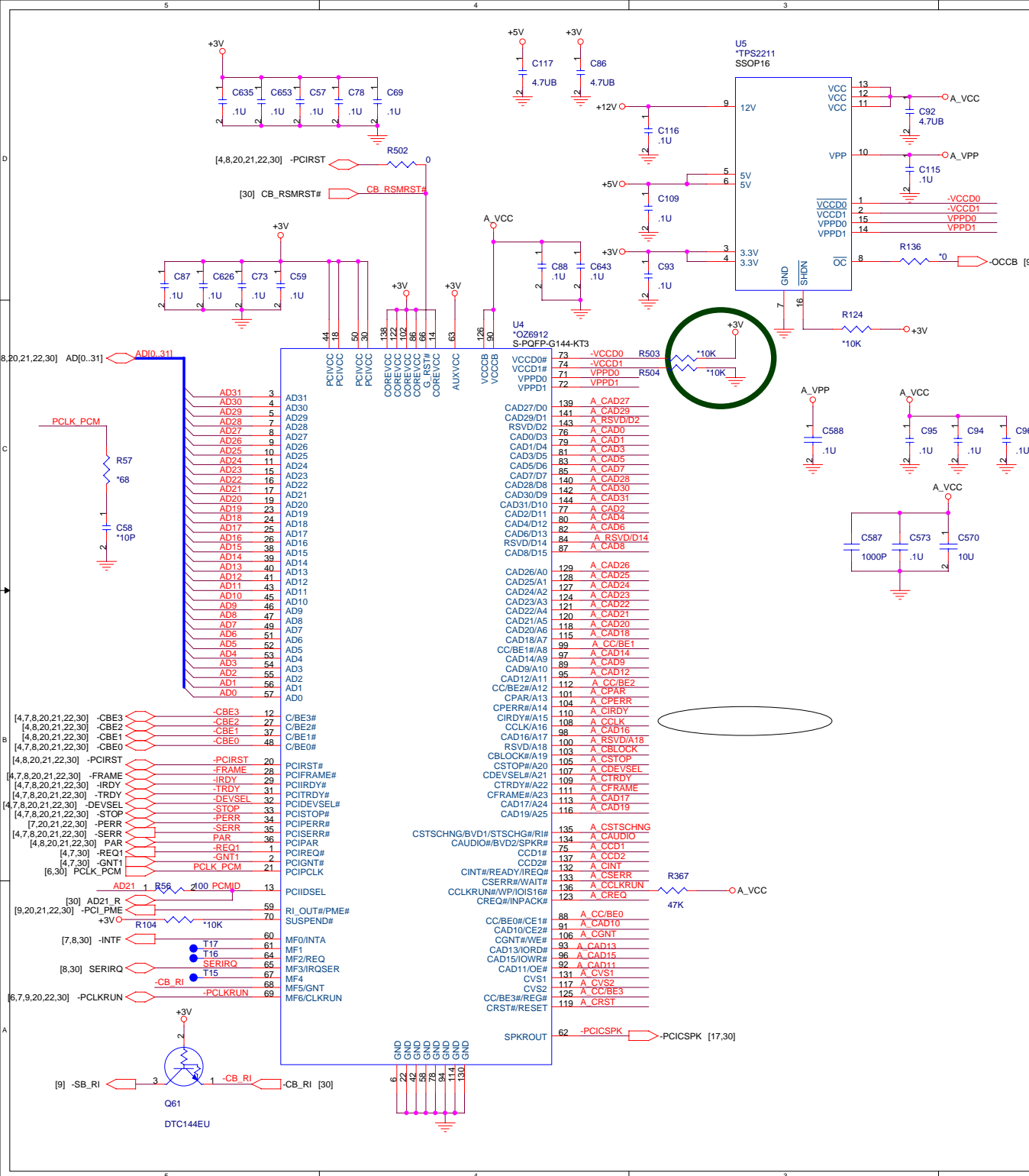
### LCD INTERFACE



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



**PROJECT : KT3I**  
**Quanta Computer Inc.**  
**DAKT3IMB6B9**



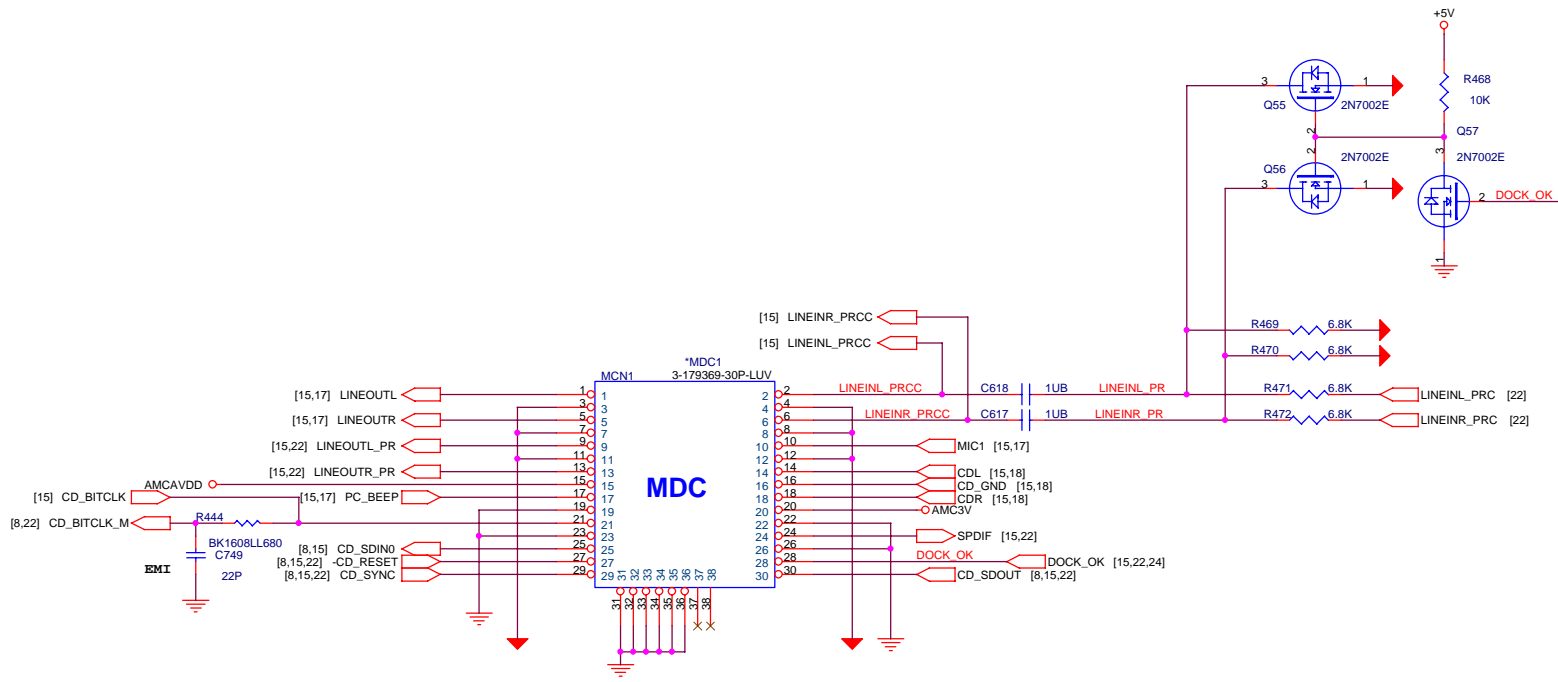
**PROJECT : KT3I**  
**Quanta Computer Inc.**  
**DAKT3IMB69**

Size Custom Document Number **PCMCIA-OZ6912** Rev 2A


Date: Wednesday, March 19, 2003 Sheet 13 of 29



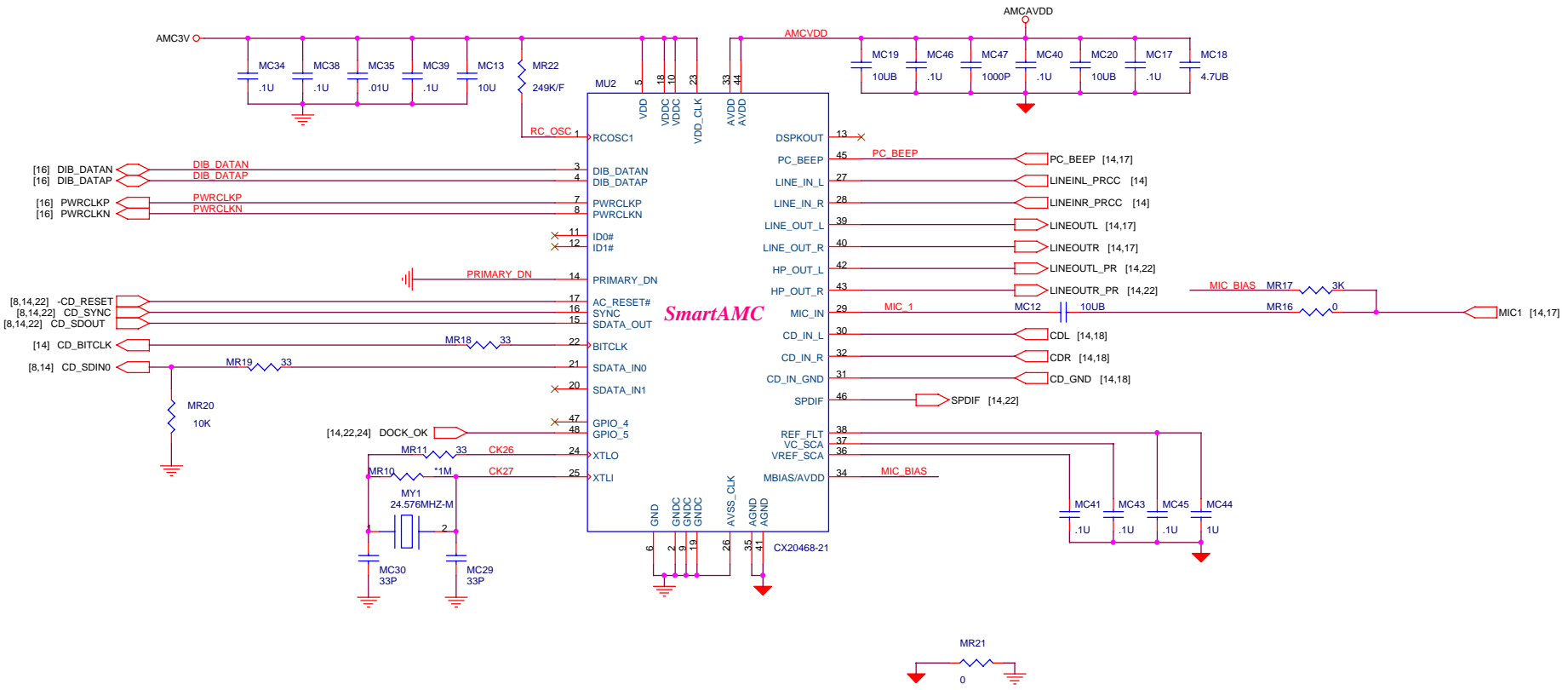
	DEFEATURE	FULL FUNCTION
R468	NO INSTALL	INSTALL
R469	0 OHM	6.8K
R470	0 OHM	6.8K
R471	NO INSTALL	INSTALL
R472	NO INSTALL	INSTALL
Q55	NO INSTALL	INSTALL
Q56	NO INSTALL	INSTALL
Q57	NO INSTALL	INSTALL

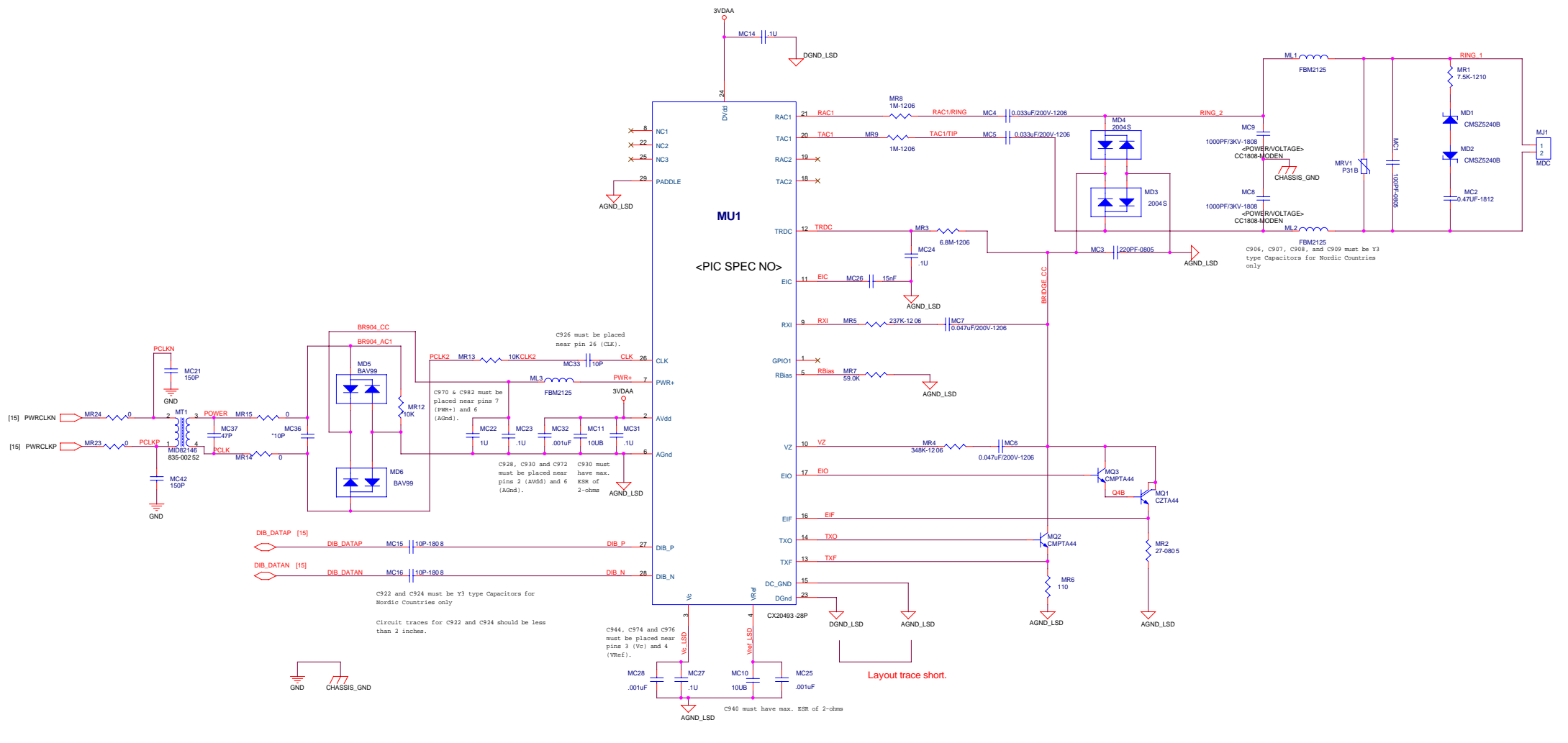


Treat MDC conn ,Smart DAA and CODEC as a daughter board

		PROJECT : KT31	
		Quanta Computer Inc. DAKT31MB6B9	
Size Custom	Document Number Modem CONN	Date: Wednesday, March 19, 2003	Rev 3C
Date: Wednesday, March 19, 2003		Sheet 14 of 29	8

The AMC20493-001 modem is used for mother board family MBAMC20493-00.





C926 must be placed near pin 26 (CLK).

C970 & C982 must be placed near pins 7 (PWR+) and 6 (AGnd).

C928, C930 and C972 must be placed near pins 2 (AVdd) and 6 (AGnd).

C930 must have max. ESR of 2-ohms

C922 and C924 must be Y3 type Capacitors for Nordic Countries only

Circuit traces for C922 and C924 should be less than 2 inches.

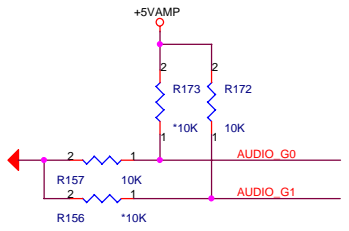
C944, C974 and C976 must be placed near pins 3 (Vc) and 4 (Vref).

C940 must have max. ESR of 2-ohms

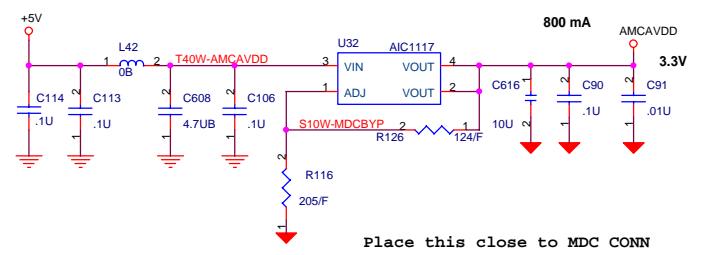
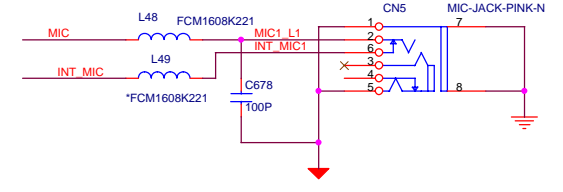
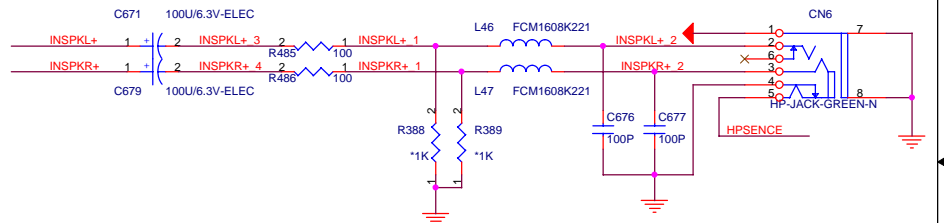
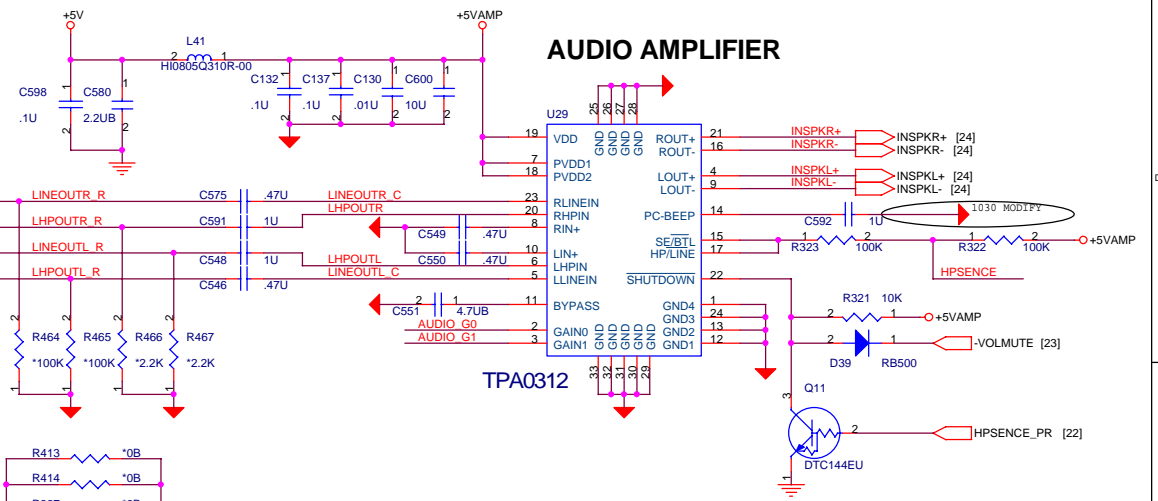
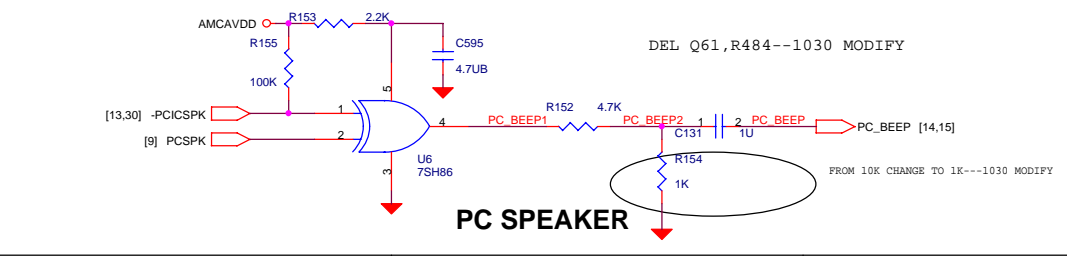
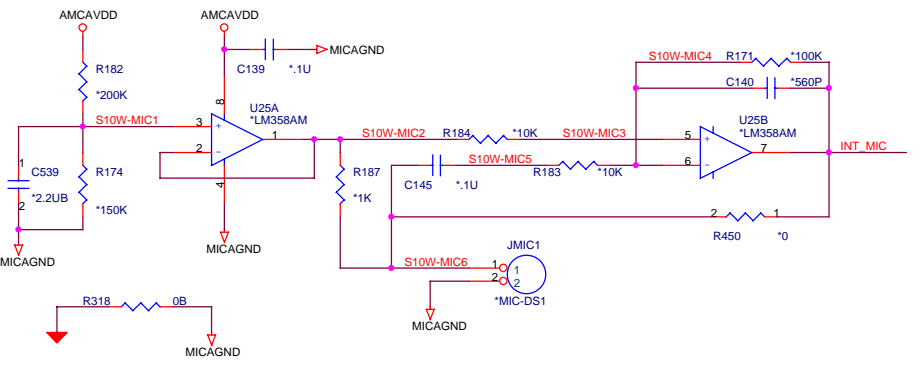
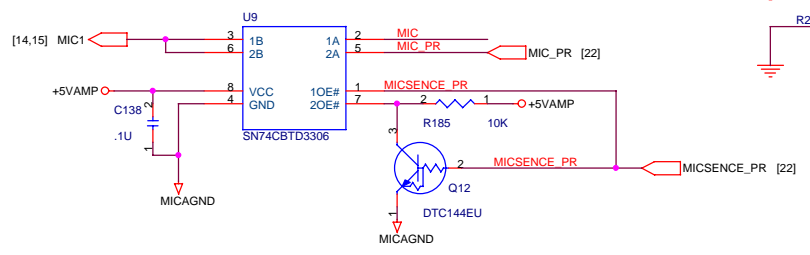
Layout trace short.

C906, C907, C908, and C909 must be Y3 type Capacitors for Nordic Countries only

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



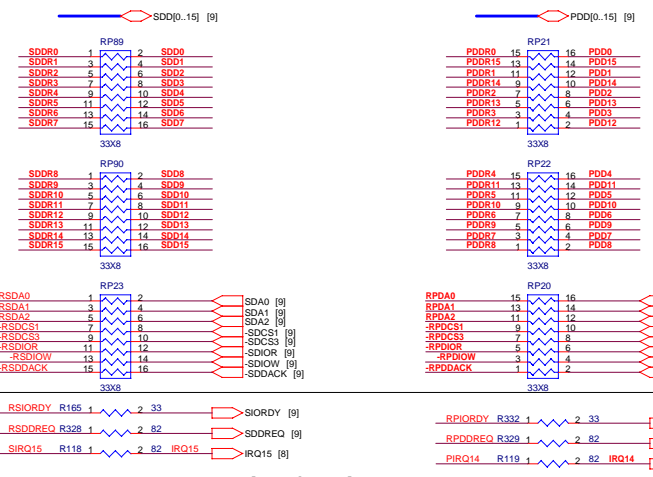
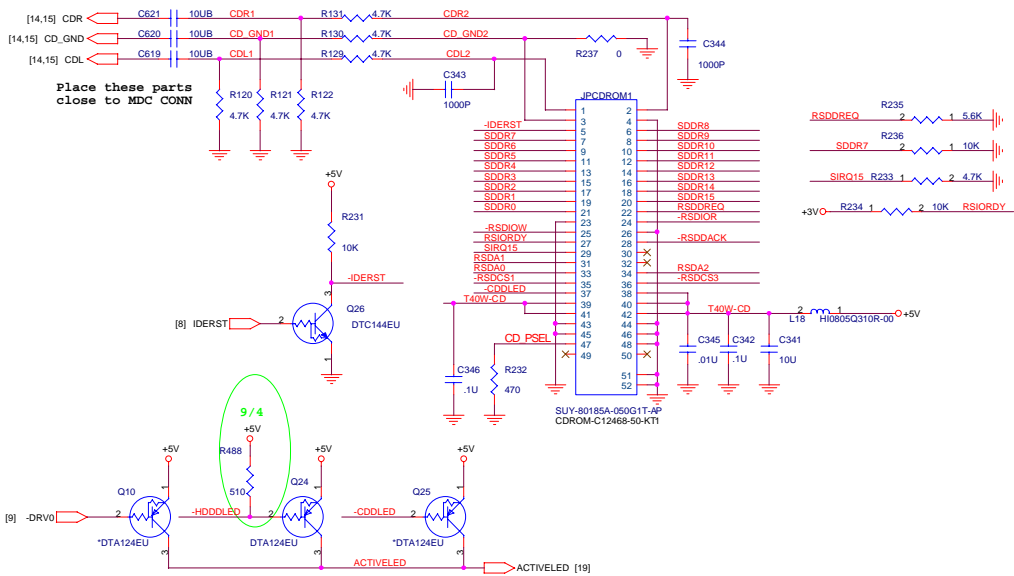
MIC\_PR  
Close to RJ11  
Close to H3 EMI  
Close to RP



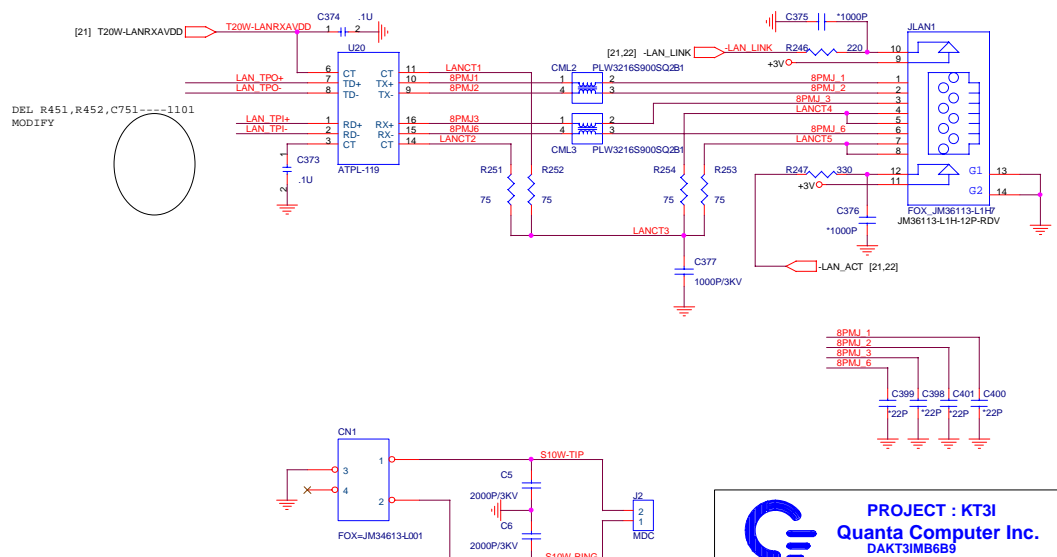
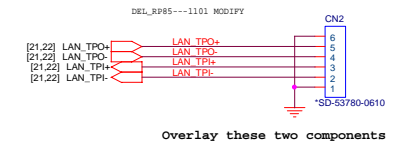
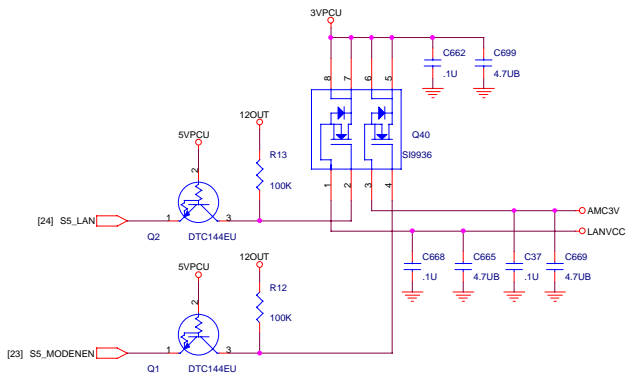
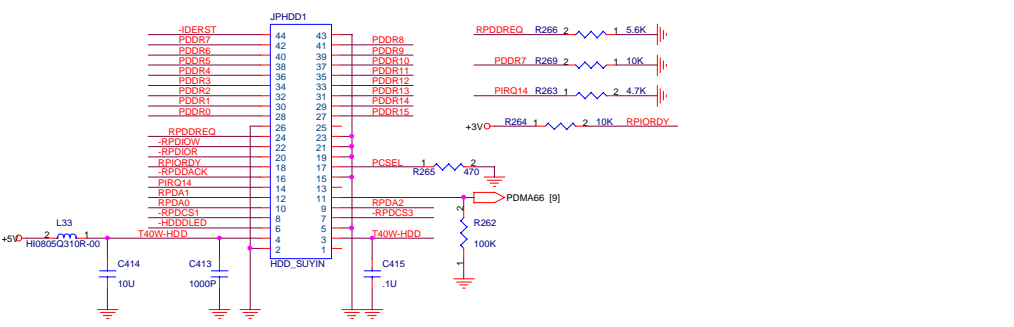
**PROJECT : KT3I**  
**Quanta Computer Inc.**  
**DAKT3IMB6B9**

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Custom	TPA0312&Audio Jack	3D
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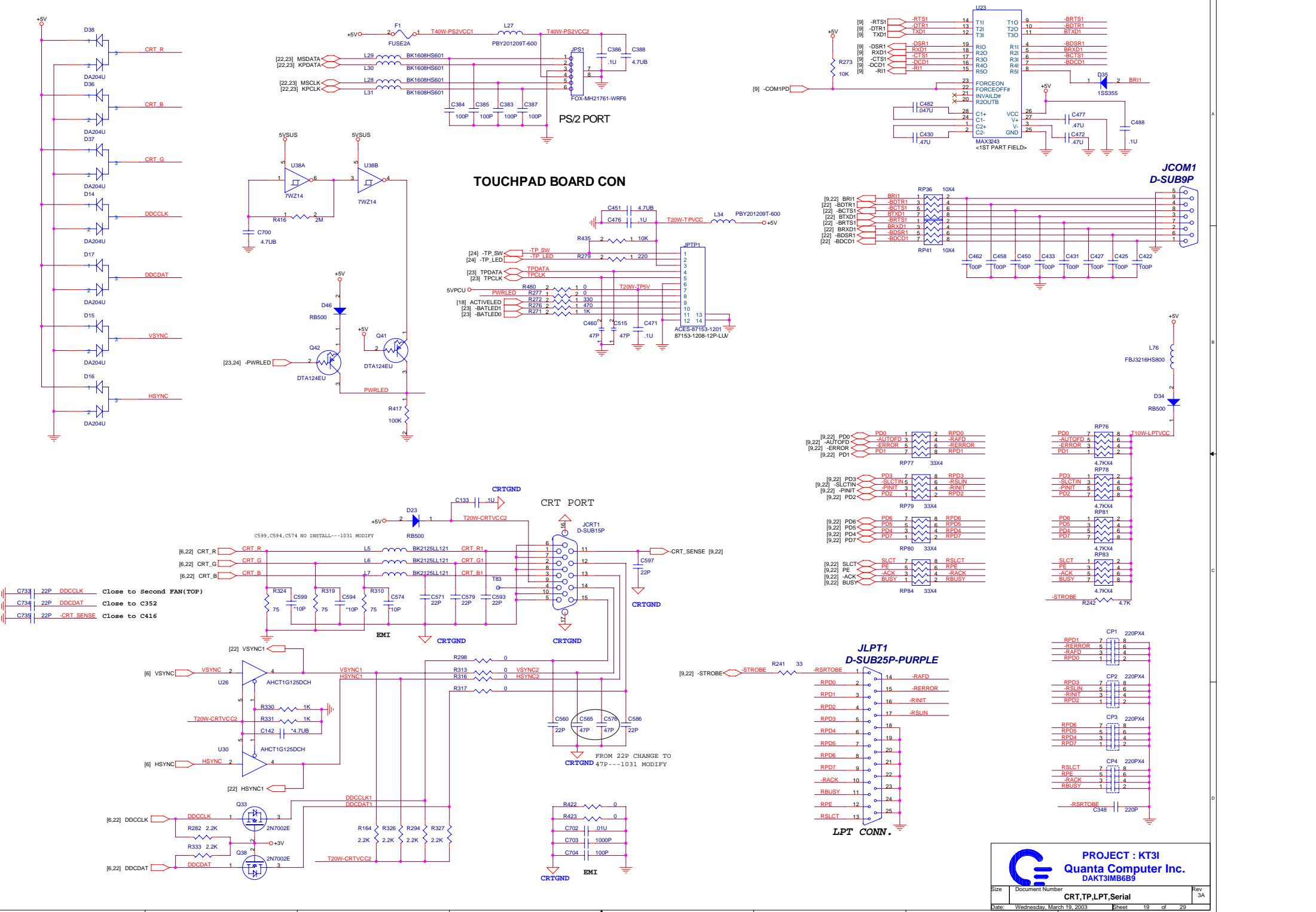
# CD-ROM CONNECTOR

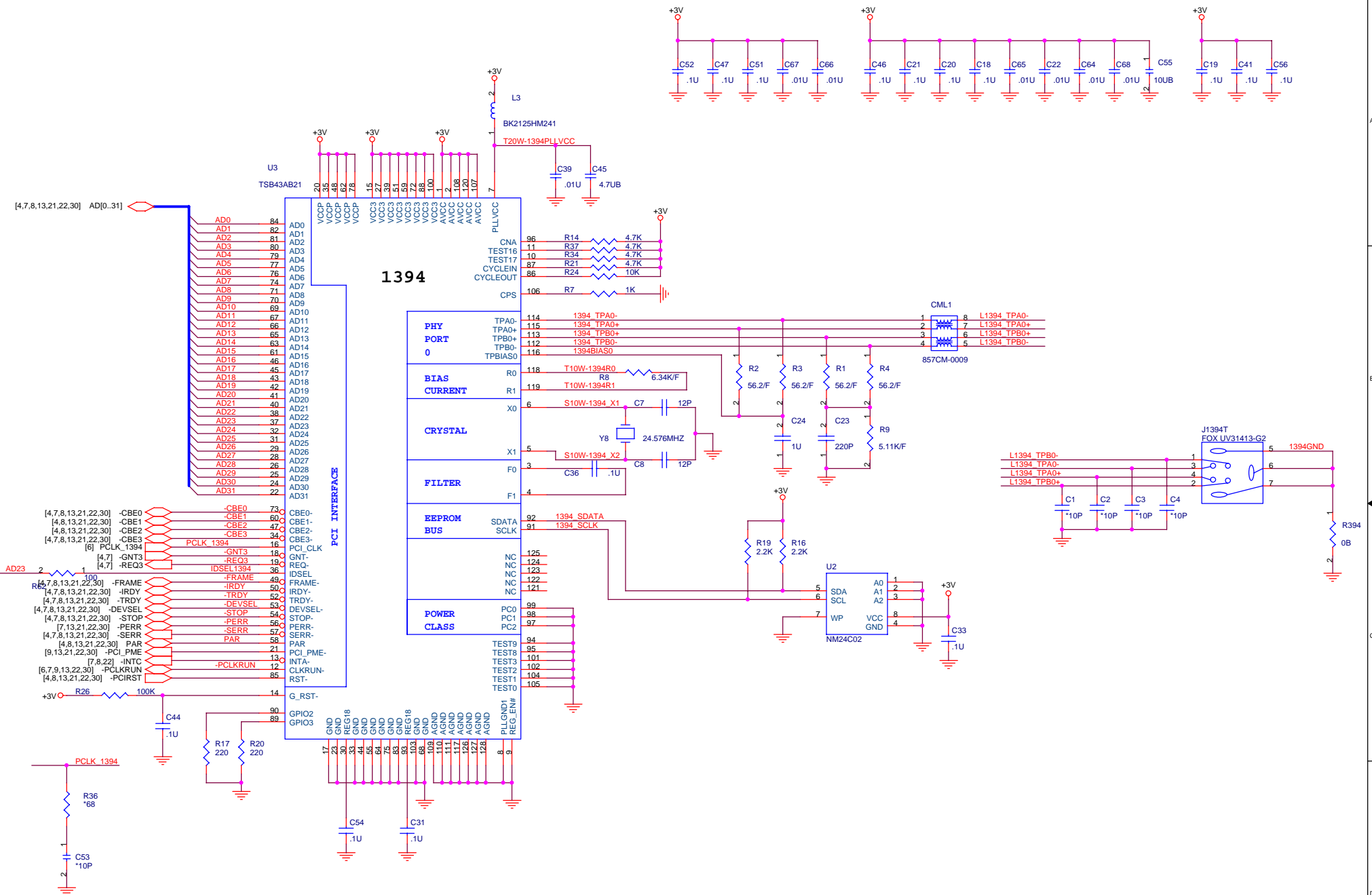


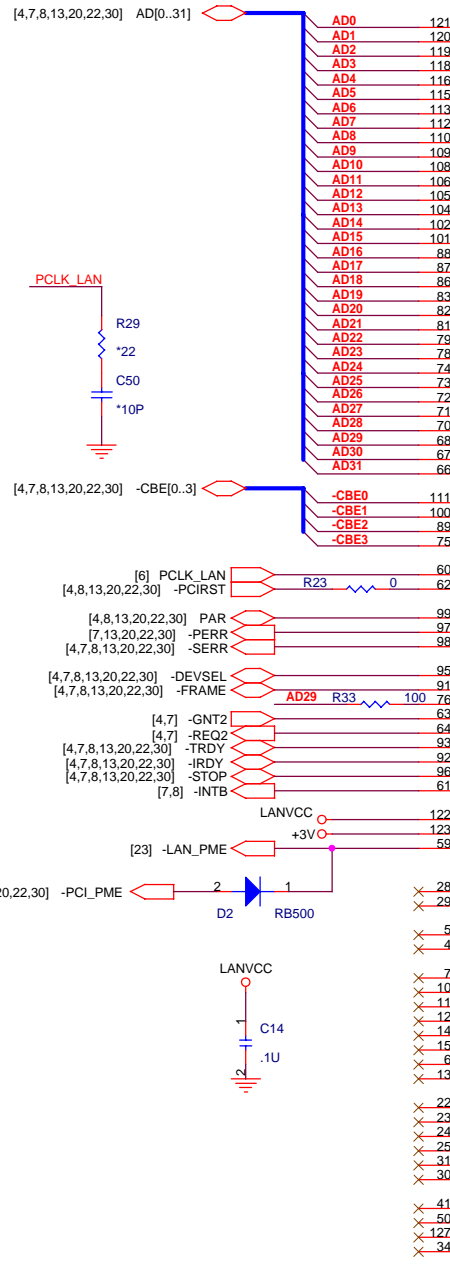
# HDD CONNECTOR







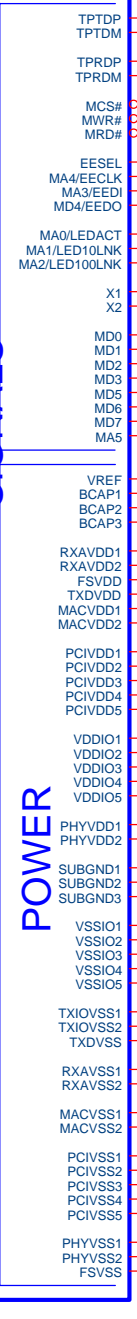




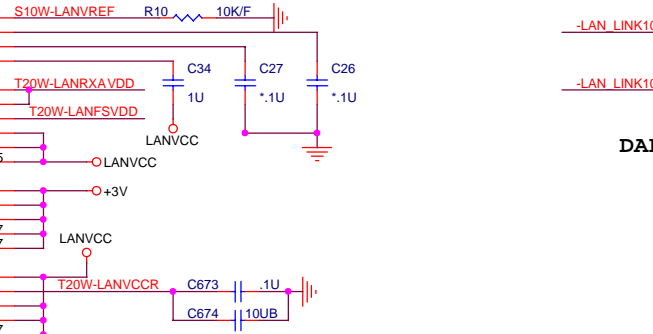
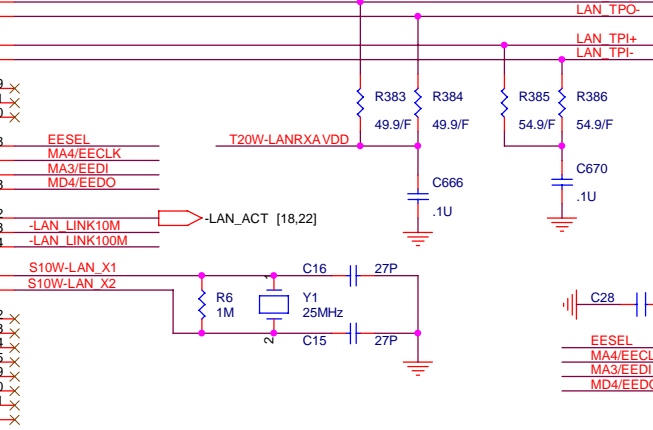
**PCI SIGNALS**

**MII**

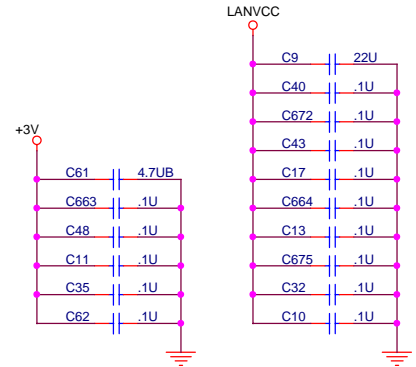
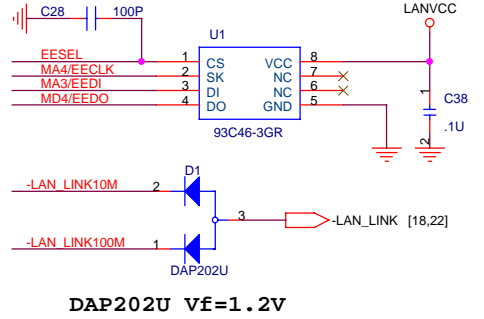
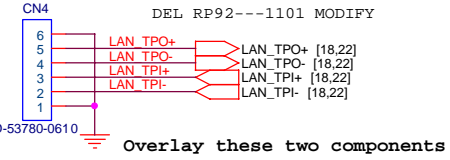
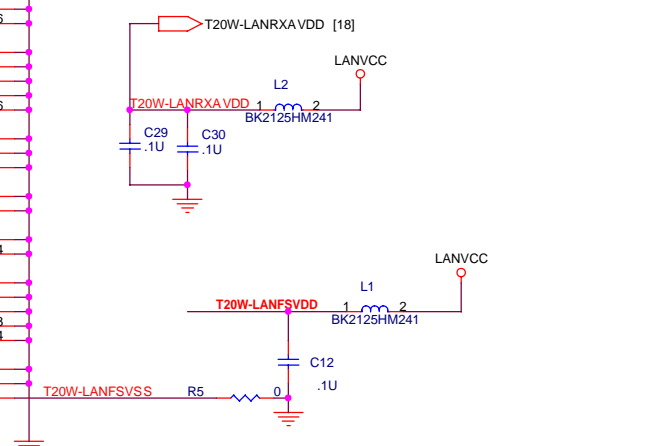
**POWER**



Place R383,R384 and C666 close to Transformer because transformer is very far from LAN chip in KT3

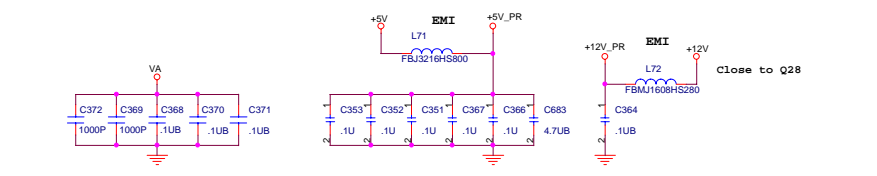
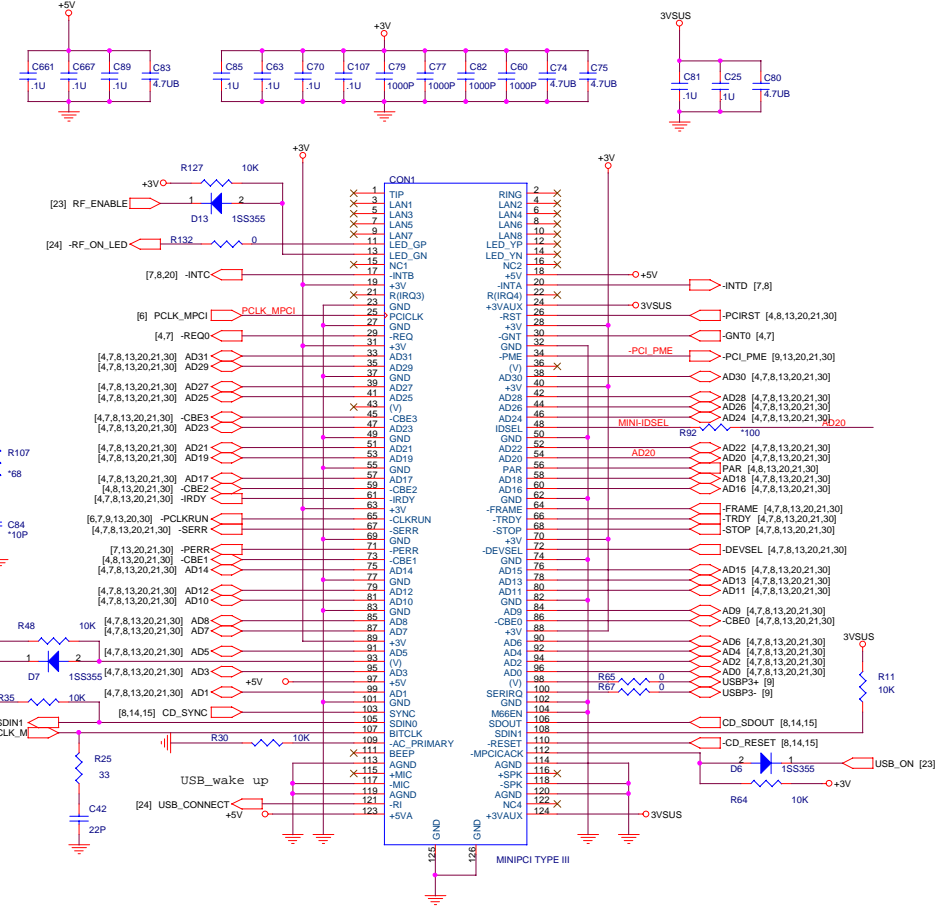


The difference between DP83816 and DP83815 is Pin 19

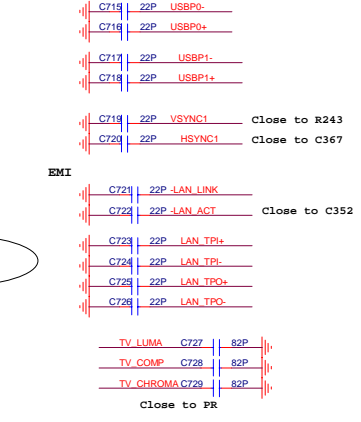
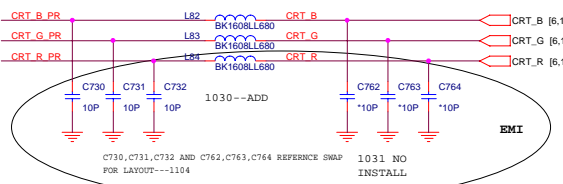
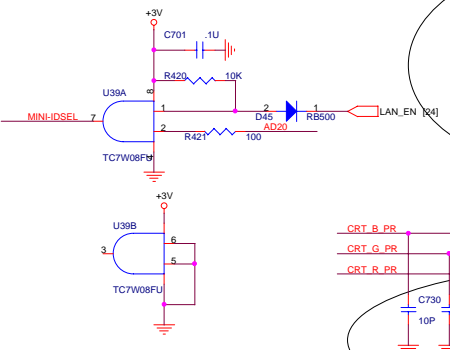
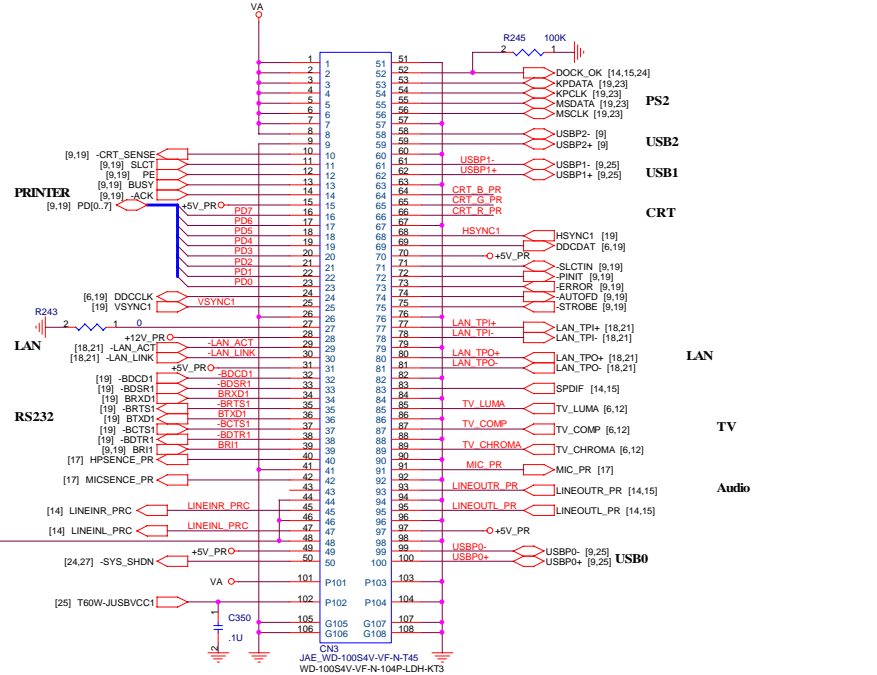


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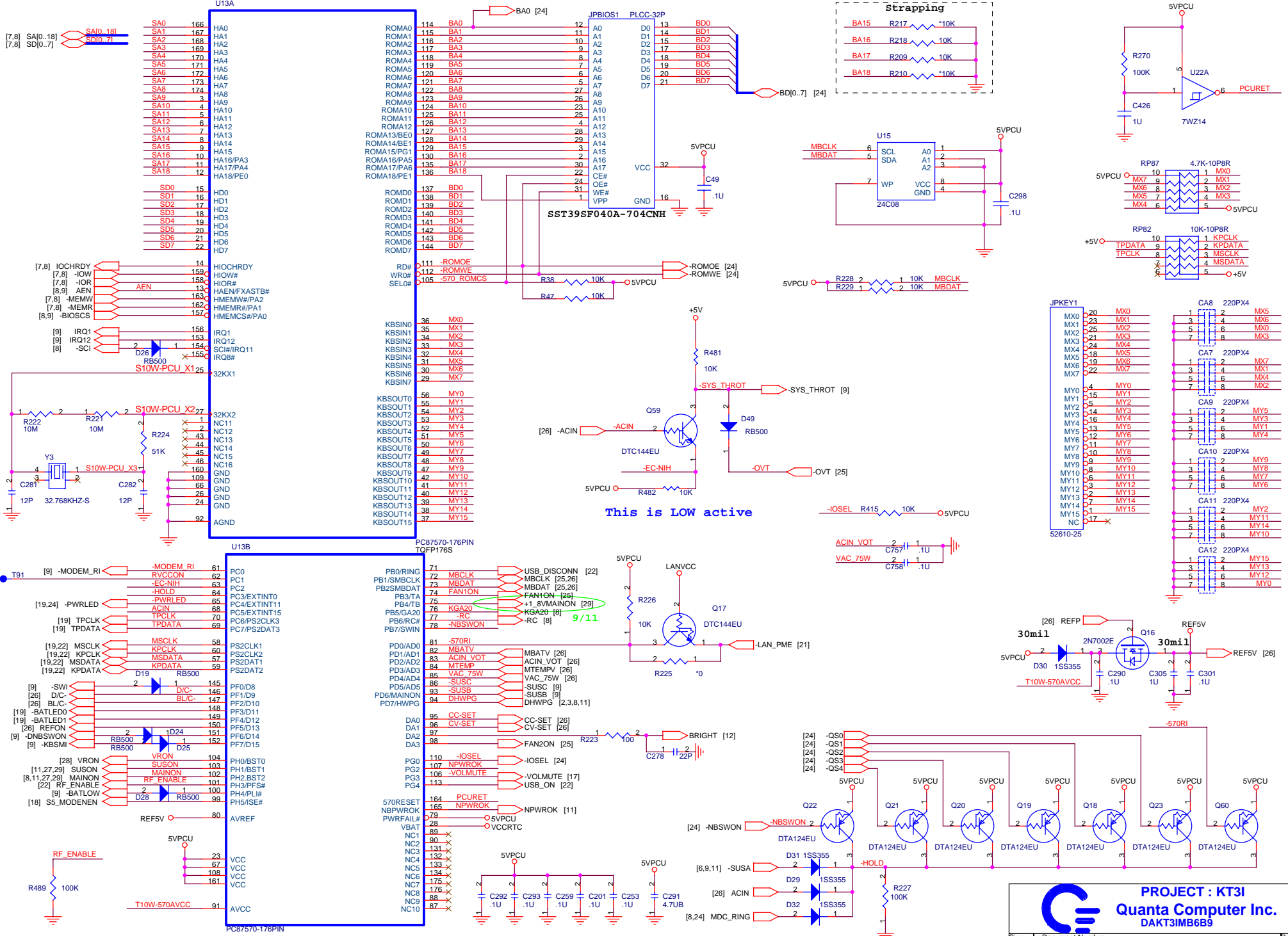
**PORT REPLICATOR Connector**



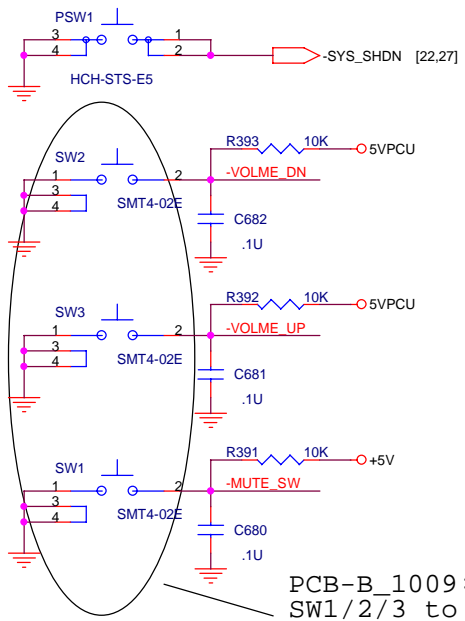
**PROJECT : KT31**  
**Quanta Computer Inc.**  
**DAKT31MB6B9**

Size Document Number **MINI-PCI&Port REP** Rev 3C

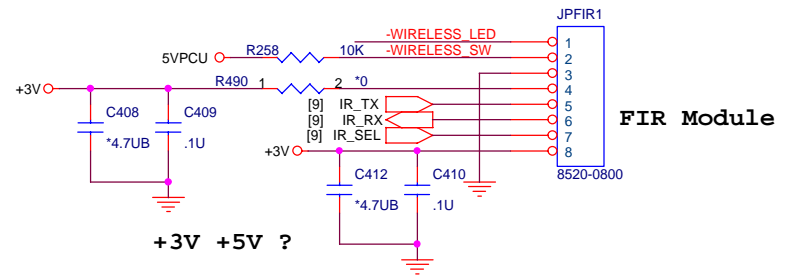
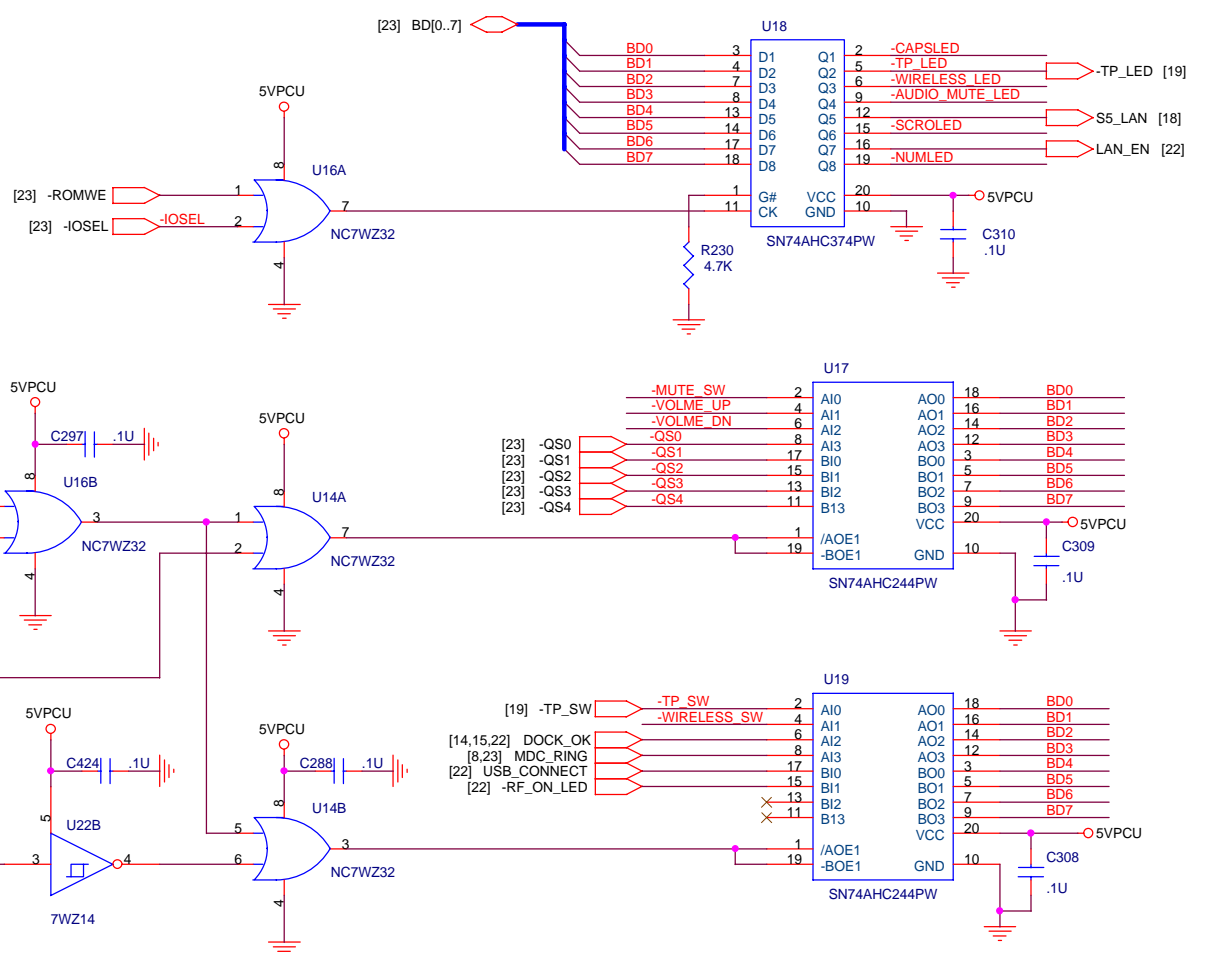
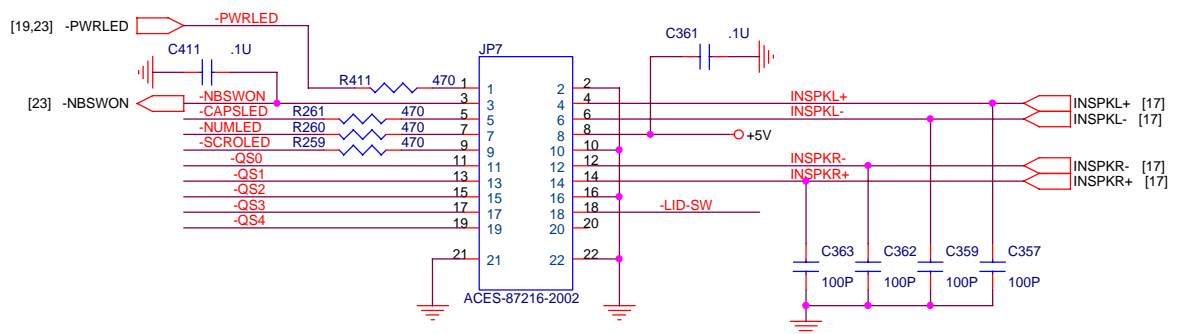
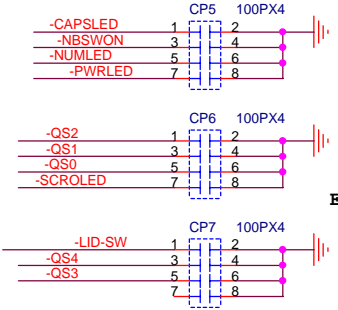
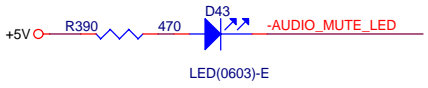
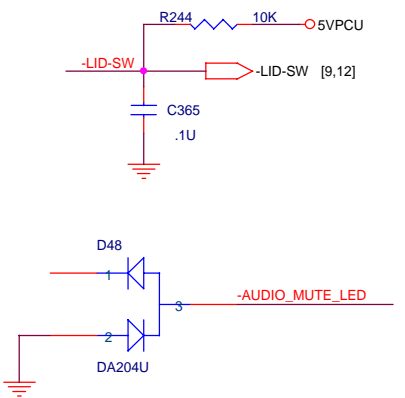
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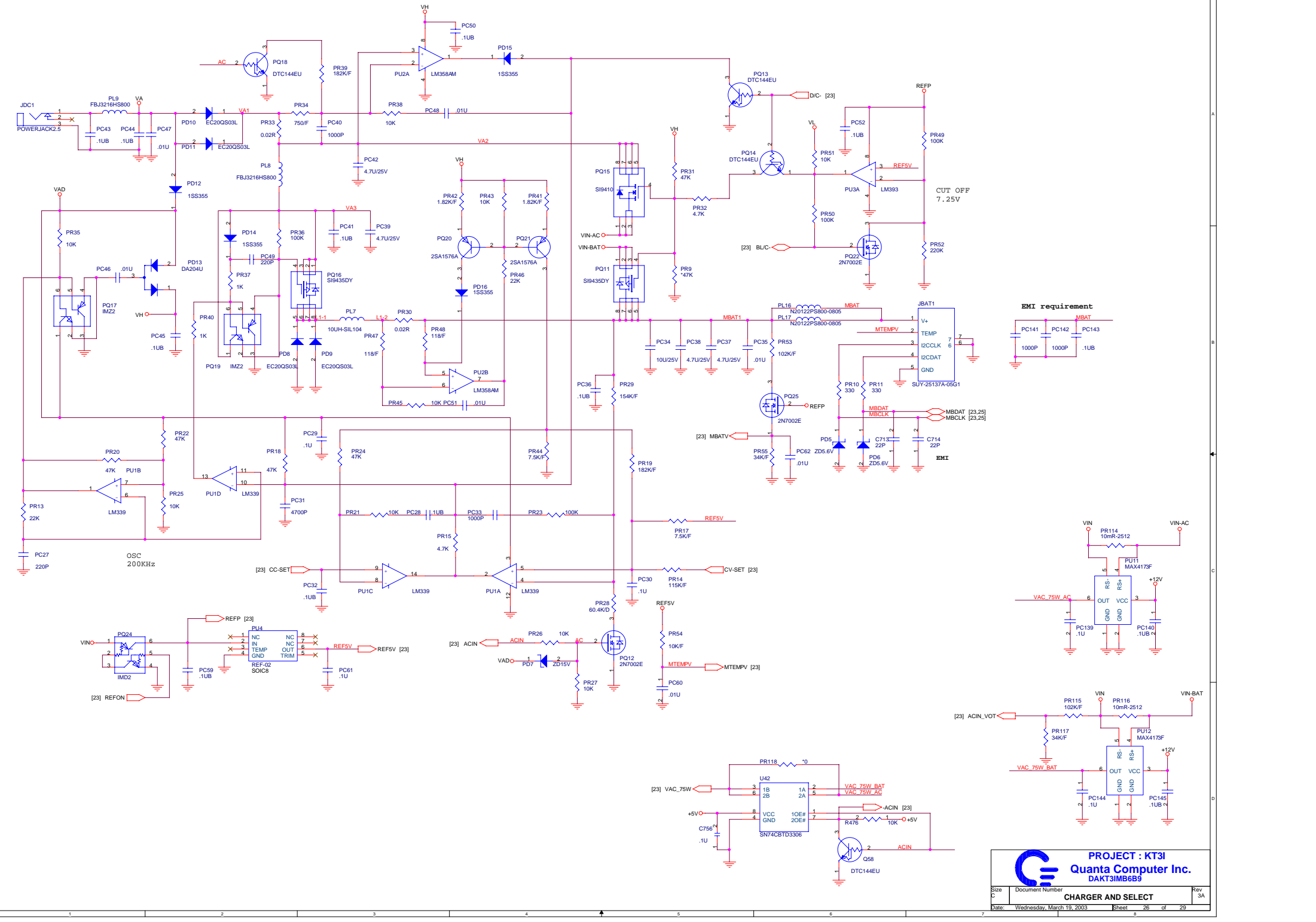
PCB-B\_1009: Change FP of SW1/2/3 to IT-1188E



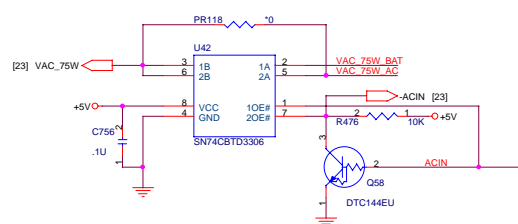
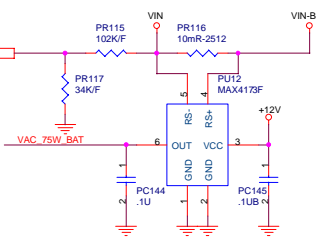
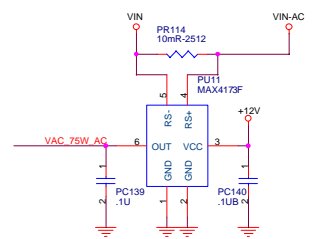
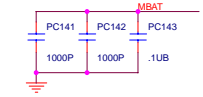
**PROJECT : KT3I**  
**Quanta Computer Inc.**  
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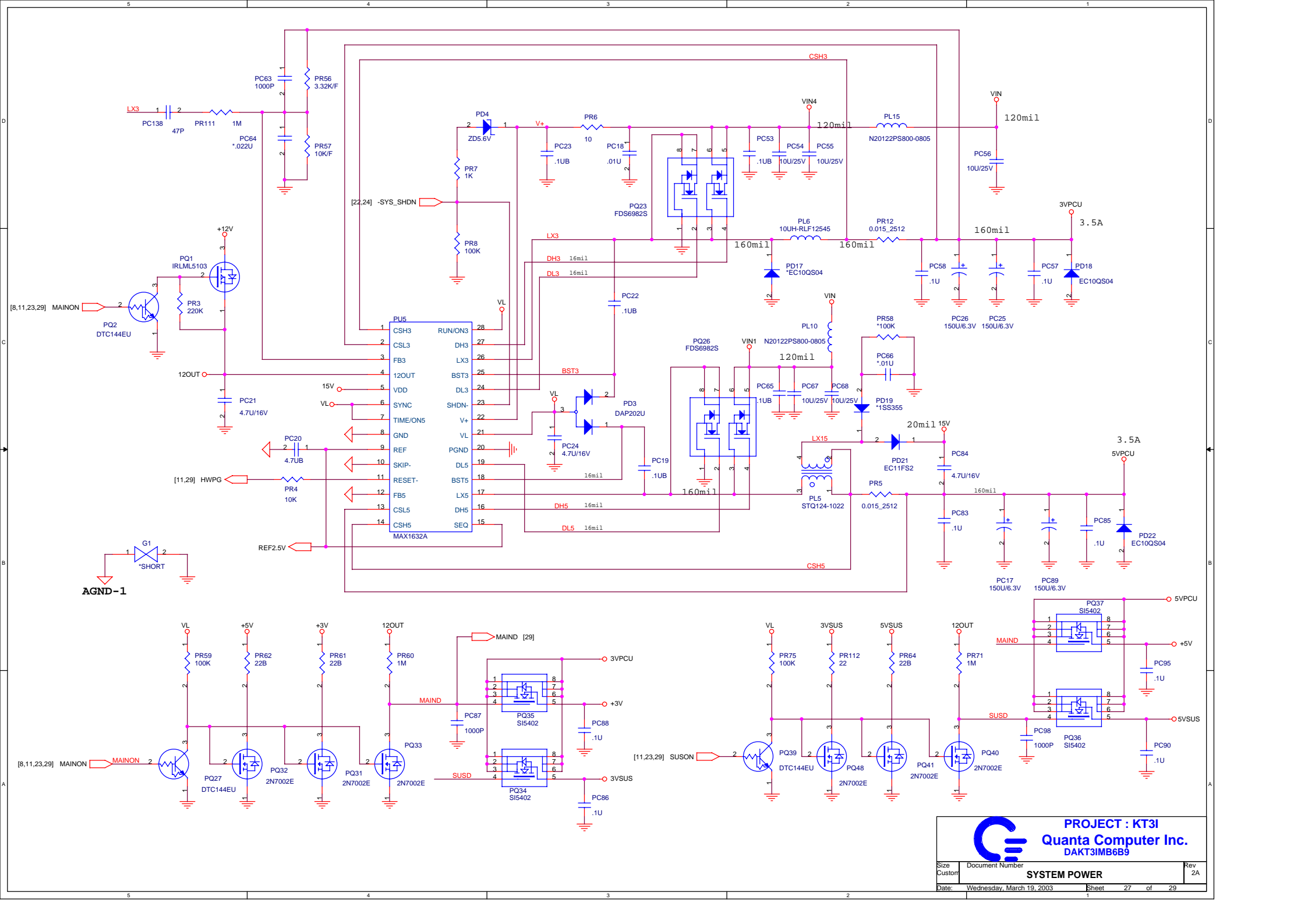





**EMI requirement**

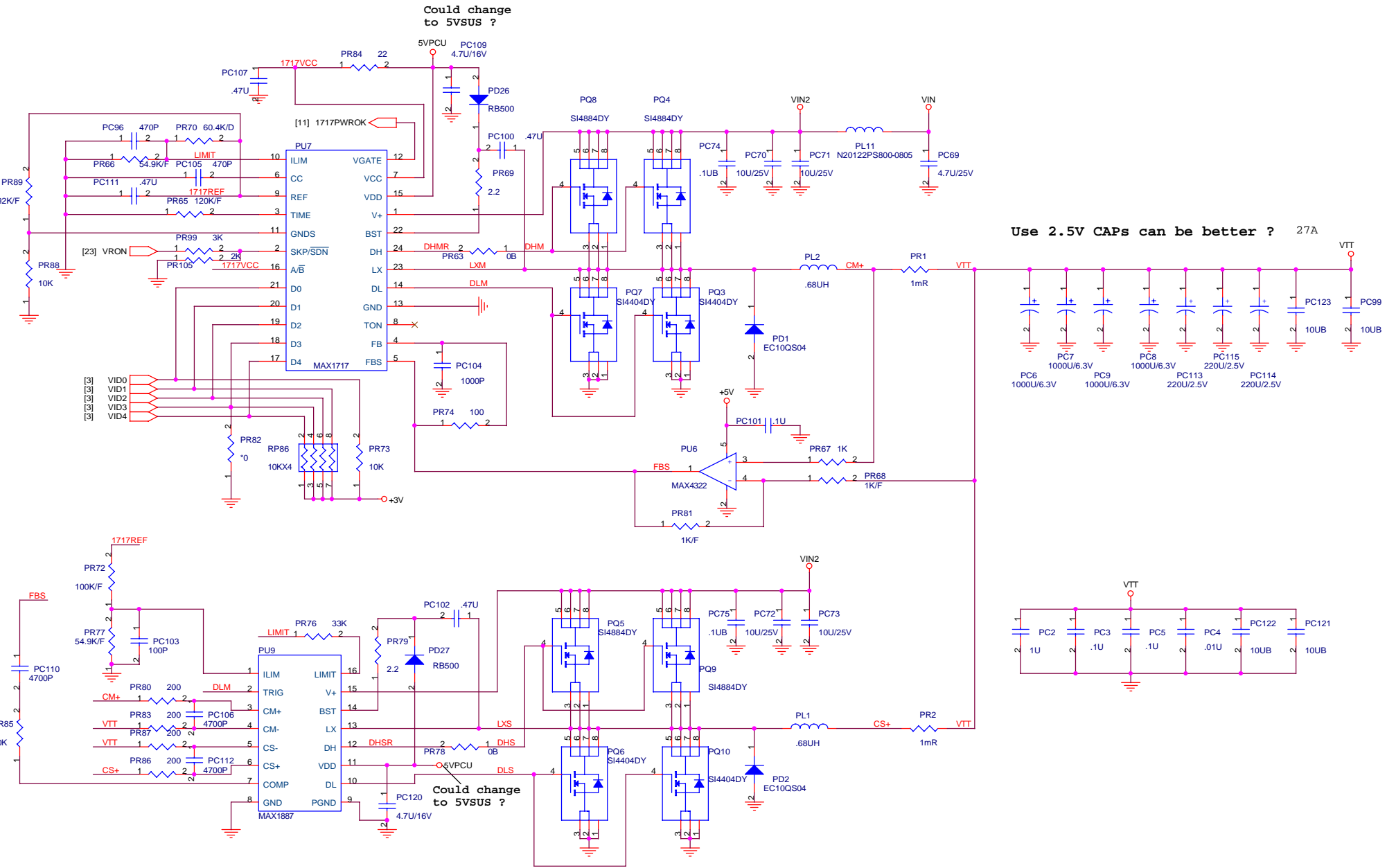


**PROJECT : KT31**  
**Quanta Computer Inc.**  
 DAKT31MB6B9

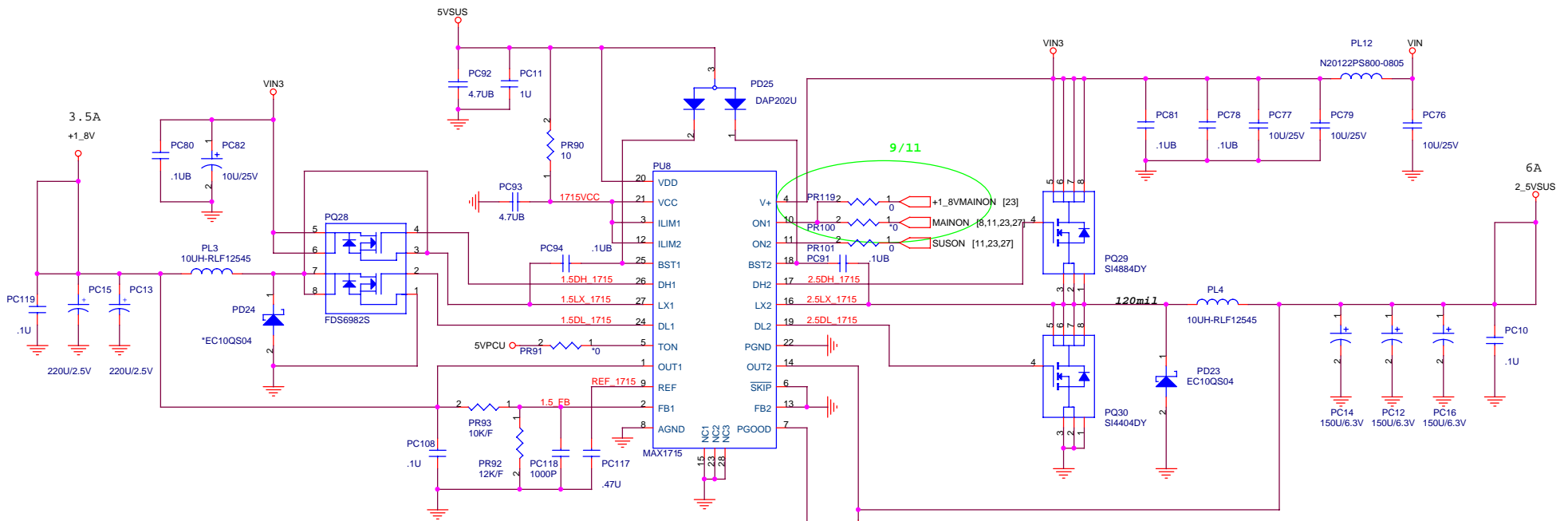



**PROJECT : KT3I**  
**Quanta Computer Inc.**  
**DAKT3IMB6B9**

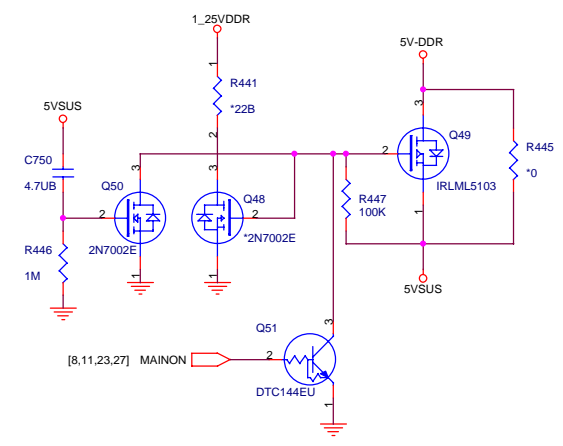
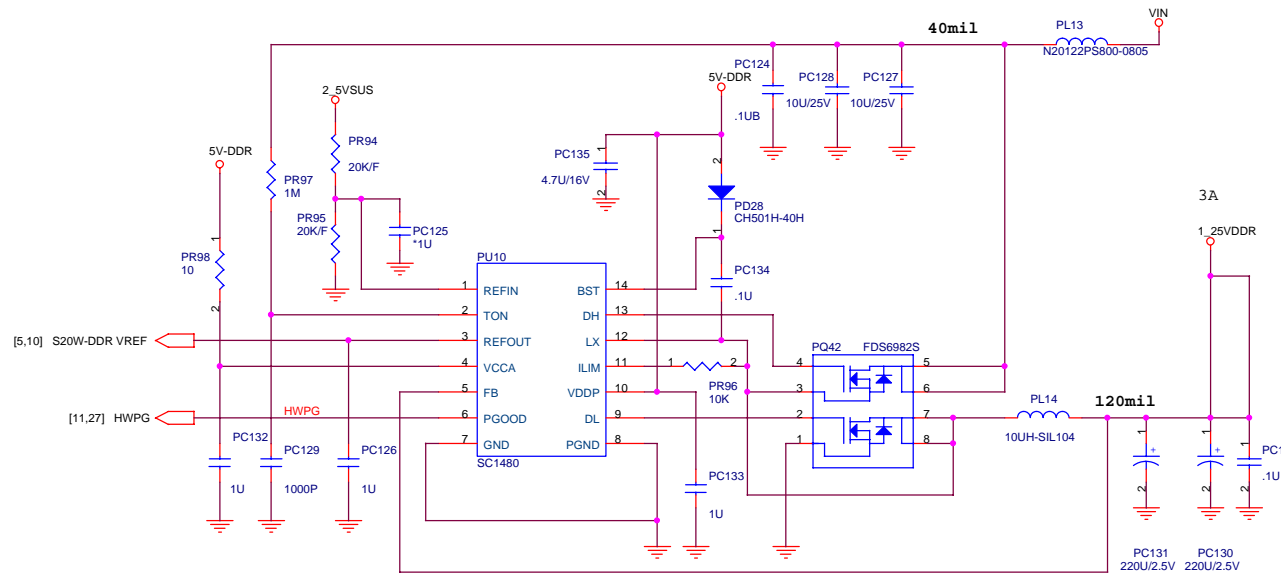
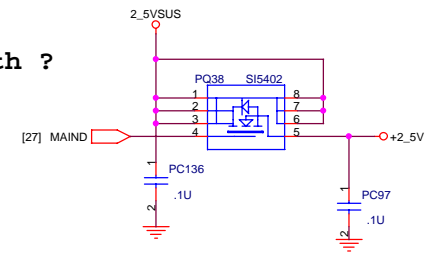
Size Custom	Document Number	Rev 2A
<b>SYSTEM POWER</b>		
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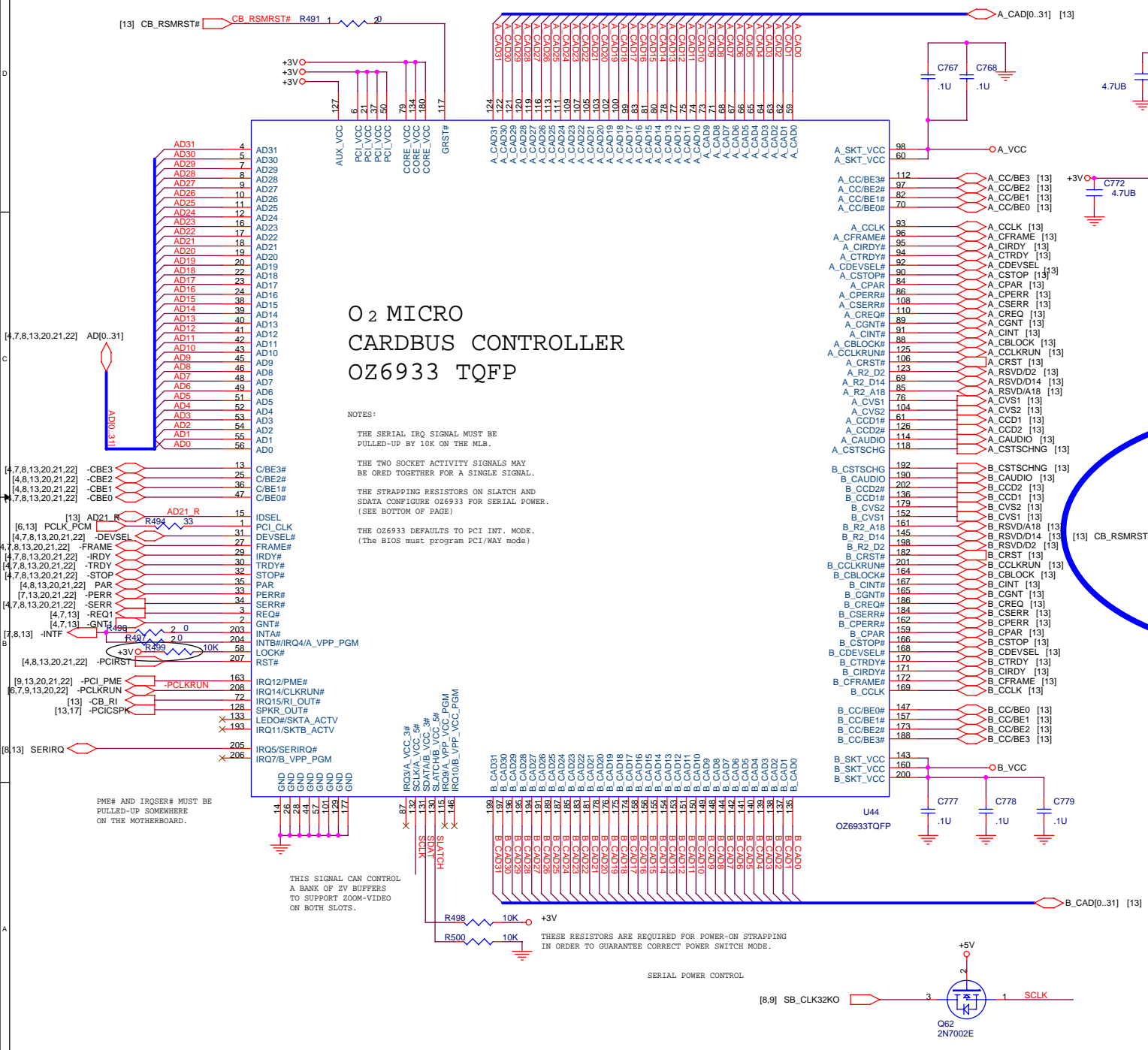
Need discharge path ?



**PROJECT : KT31**  
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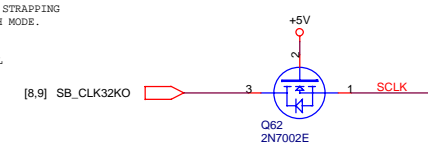
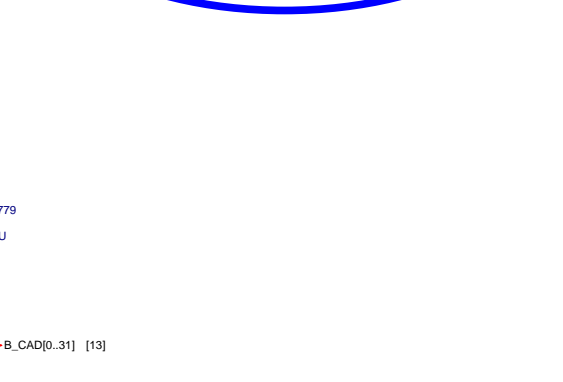
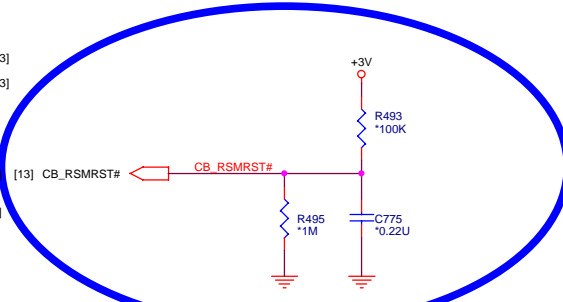
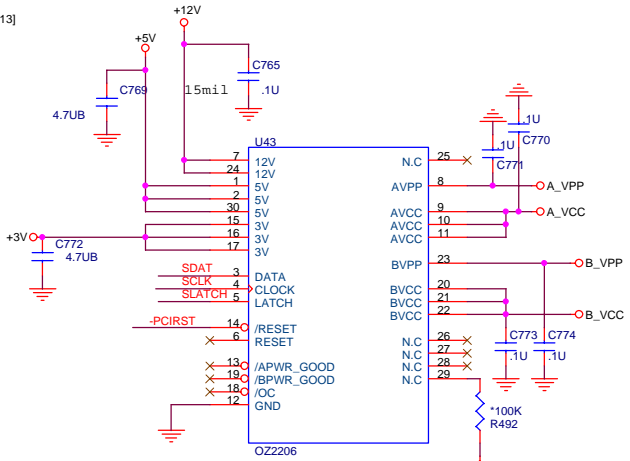
Size Custom	Document Number	Rev 3A
+1.8V, 2.5VSUS, +2.5V & 1.25VDDR		
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CONNECT PIN 117 TO A\_SKT\_VCC = OZ6933 CONTROLLER INSTALLED  
 CONNECT PIN 117 TO PCI\_RST# = ONLY SUPPORT D3\_HOT  
 CONNECT PIN 117 TO GRST# = D3-COLD SUPPORT WITH GRST# SIGNAL



## O2 MICRO CARDBUS CONTROLLER OZ6933 TQFP

NOTES:  
 THE SERIAL IRQ SIGNAL MUST BE PULLED-UP BY 10K ON THE MLB.  
 THE TWO SOCKET ACTIVITY SIGNALS MAY BE ORED TOGETHER FOR A SINGLE SIGNAL.  
 THE STRAPPING RESISTORS ON SLAT AND SDATA CONFIGURE OZ6933 FOR SERIAL AND PARALLEL MODES.  
 (SEE BOTTOM OF PAGE)  
 THE OZ6933 DEFAULTS TO PCI INT. MODE.  
 (The BIOS must program PCI/WAY mode)



**PROJECT : KT3I**  
**Quanta Computer Inc.**  
 DAKT3IMB6B9

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Custom				
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