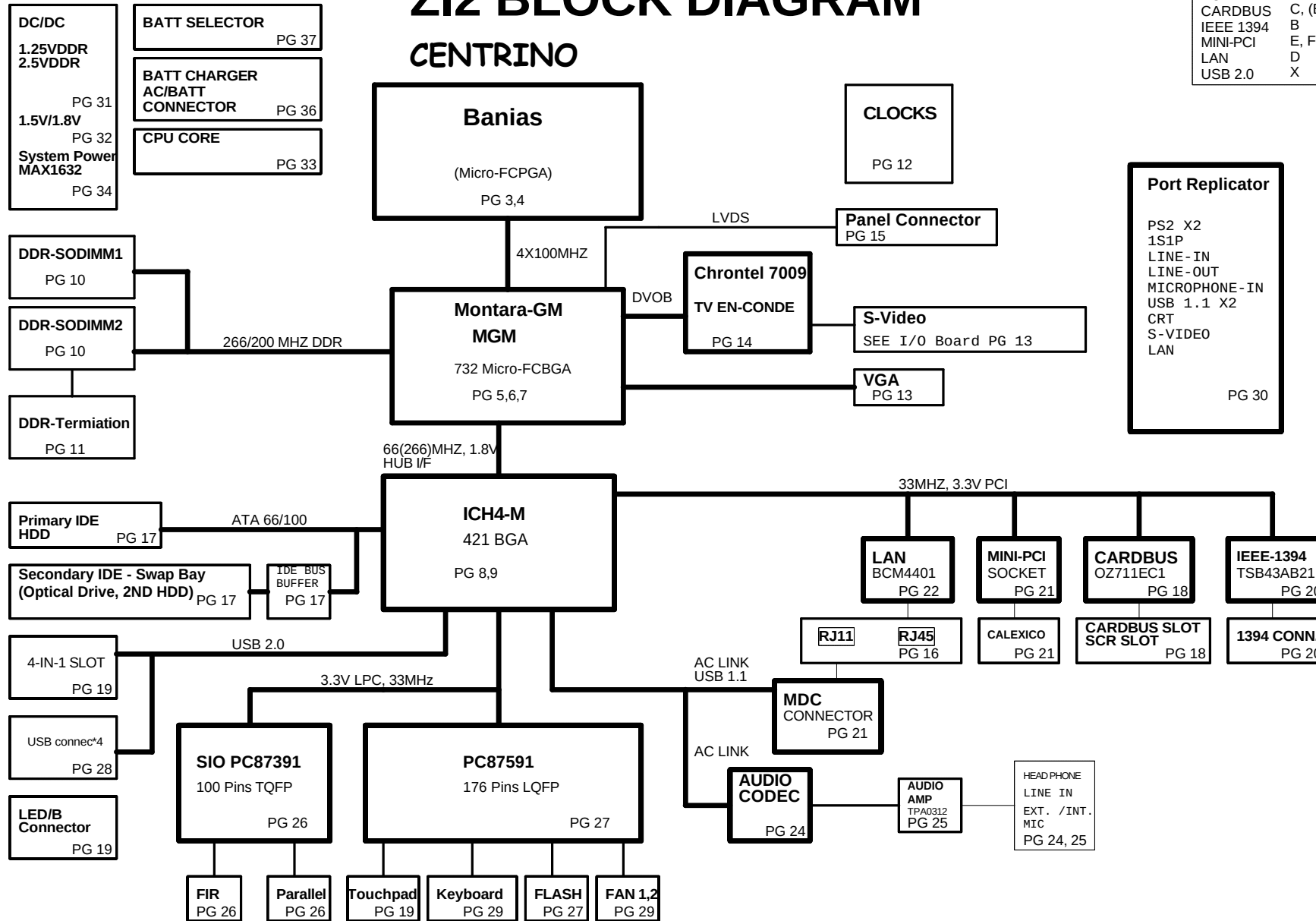


		5		4		3		2		1		
MODEL :		REV :	CHANGE LIST :							PAGE	FROM	TO
Z12 MB	1A	FIRST RELEASE : ECN NO. E200302-3095							1	1A		
	1B	MODIFY BOM : ECN NO. E200303-0277 PAGE05 : R495 CHANGE TO 127 ohm 1% PAGE06 : C604 & C654 CHANGE TO 220uF / 2.5V PAGE18 : D4 CHANGE TO CH715F PAGE26 : D35 DON'T STUFF PAGE33 : PU6 CHANGE TO MAX1907AETL , PQ15 & PQ23 CHANGE TO FDB7045L , PC46 CHANGE TO 220pF PAGE36 : PU13 CHANGE TO LM358AM							2	1A		
	1C	MODIFY BOM : ECN NO. E200303-2680 PAGE03 : Q40 CHANGE FOOTPRINT FOR SMT ISSUE PAGE06 : SOLVE FOR I2C BUS CAN'T READ DATA PAGE07 : C560 CHANGE FOOTPRINT FOR ASSEMBLY ISSUE PAGE08 : SOLVE FOR PCIRST SIGNAL NOT GOOD ISSUE PAGE09 : STUFF R634 FOR LAN WORKING PAGE10 : DDR ADDRESS LINE CHANGE & ADD EMI SOLUTION PAGE12 : SOLVE FOR I2C BUS CAN'T READING PAGE14 : U10 CHANGE TO CH7011A-T & CHANGE Q86,Q87 FOR SMBUS READING PAGE15 : SOLVE FOR LCD BACKLIGHT OFF ISSUE PAGE16 : UPDATE 4 IN 1 BOARD'S ALLOCATION HOLE SIZE PAGE18 : SOLVE FOR 4 IN 1 CARD READER MODULE READING SIGNAL PAGE19 : CHANGE LCD CONNECTOR FOOTPRINT FOR SMT ISSUE PAGE21 : ADD Q88 Q89 PAGE23 : ADD EMI SOLUTION PAGE24 : SOLVE FOR AUDIO QUALITY PAGE25 : ADD EMI SOLUTION & SOLVE FOR AUDIO QUALITY PAGE28 : SOLVE FOR USB2.0 ISSUE PAGE27 : CHANGE Q23 FOOTPRINT FOR SMT ISSUE PAGE29 : ADD EMI SOLUTION PAGE30 : ADD EMI SOLUTION PAGE32 : PQ6 CHANGE TO SI4810DY							3	3B		
									4	3A		
									5	1B		
									6	2A		
									7	1C		
									8	3B		
									9	3D		
									10	1C		
									11	1A		
									12	3C		
									13	3B		
									14	3B		
									15	3A		
									16	3A		
									17	3B		
									2A	MODIFY BOM : ECN NO. E200303-3536 PAGE06 : ADD R480 FOR TV-OUT PAGE21 : DON'T STUFF R510 FOR MINI PCI LAN CARD DON'T WORK PAGE27 : DON'T STUFF R150 FOR PWROK SIGNAL QUALITY		
	3A	MODIFY BOM : ECN NO. E200304-2184 PAGE03 : SOLVE LEAKAGE CURRENT ISSUE (Q40) PAGE04 : CHANGE FOOTPRINT FOR SMT ISSUE PAGE09 : CHANGE R460 FOR USB2.0 EYE DIAGRAM PAGE12 : ADD CLK BYPASS CAPACITOR FOR SIGNAL QUALITY PAGE14 : SOLVE FOR TV-OUT NOT GOOD ISSUE PAGE15 : ADD ACER'S REQUEST (HOT-KEY FOR BACKLIGHT) PAGE16 : ADD FINGER FOR ASSEMBLY ISSUE PAGE19 : SOLVE LEAKAGE CURRENT ISSUE (Q57) PAGE23 : CHANGE PART FOR ASSEMBLY ISSUE PAGE24 : SOLVE AUDIO NOISE & VOLUME ISSUE PAGE25 : SOLVE AUDIO NOISE ISSUE PAGE26 : CHANGE PART BY PURCHASE DEPT REQUEST PAGE27 : SOLVE LEAKAGE CURRENT ISSUE (Q23) PAGE28 : CONNECT USB HUB OVER CURRENT SIGNAL 1&2 TOGETHER PAGE29 : DELETE UNUSED NET PAGE31 : CHANGE PART FOR ASSEMBLY ISSUE							19	3D		
									20	3B		
									21	3D		
									22	3B		
									23	3A		
									24	3B		
									25	3B		
									26	3A		
	3B	MODIFY BOM : ECN NO. E200305-1836 & E200305-2668 & E200306-0261 PAGE03 : DELETE ITP & SOLVE THERMAL SIGNAL MIXER PAGE08 : ENHANCE PCIRST SIGNAL QUALITY PAGE12 : ADD SUSC# FOR CLOCK POWERDOWN PAGE13 : SOLVE FOR ACER'S LCD MONITOR 1280X1024 NO DISPLAY ISSUE PAGE14 : SOLVE FOR VIEW SONIC'S MONITOR DISPLAY NO GOOD ISSUE PAGE17 : ENHANCE IDE RST SIGNAL PAGE18 : IMPROVE ICH_PME# SIGNAL PAGE19 : PREVENT SUPPEND LEAKAGE CURRENT ISSUE PAGE20 : IMPROVE ICH_PME# SIGNAL PAGE21 : IMPROVE ICH_PME# SIGNAL PAGE22 : SOLVE WAKE UP ON LAN ISSUE PAGE24 : SOLVE MIC SMALL VOLUME ISSUE PAGE25 : SOLVE PCMCIA DOS TEST NO SOUND ISSUE PAGE27 : SOLVE WAKE UP ON LAN ISSUE PAGE29 : PREVENT THERMAL SIGNAL UNPROBABLY WORK ISSUE PAGE35 : PREVENT DTC144EUA TRANSISTOR BAD CAUSE HDD NO POWER & REBOOT FAIL ISSUE							27	3B		
28									3D	3E		
29									3B			
30									1C			
31									3A			
32									1C			
33									1B			
34									1A			
35									3B			
36									1B			
37									1A			
3C	MODIFY BOM : ECN NO. E200306-1724 PAGE12 : MODIFY R244 TO 22 OHM 1% FOR USB CLOCK TIMEING ISSUE											
3D	PAGE09 : MODIFY ICH4 USB port 4 to Bluetooth PAGE19 : MODIFY 4IN1 USB port PAGE21 : MODIFY MDC USB port PAGE28 : MODIFY HUB USB port											
3E	PAGE28 : MODIFY HUB UPSTREAM PULL HIGH POWER											
 PROJECT : Z12 Quanta Computer Inc.		PROJECT : Z12		APPROVE BY: LAWRENCE CHAO		DRAWING BY: JACKY CHENG		REV E3E		COVER SHEET 1 OF 1		
		MB ASSY'S P/N : 31Z12MB0007		PROJECT LEADER: JIM HSU		DOCUMENT NO: 204		DATE :2003/07/25				

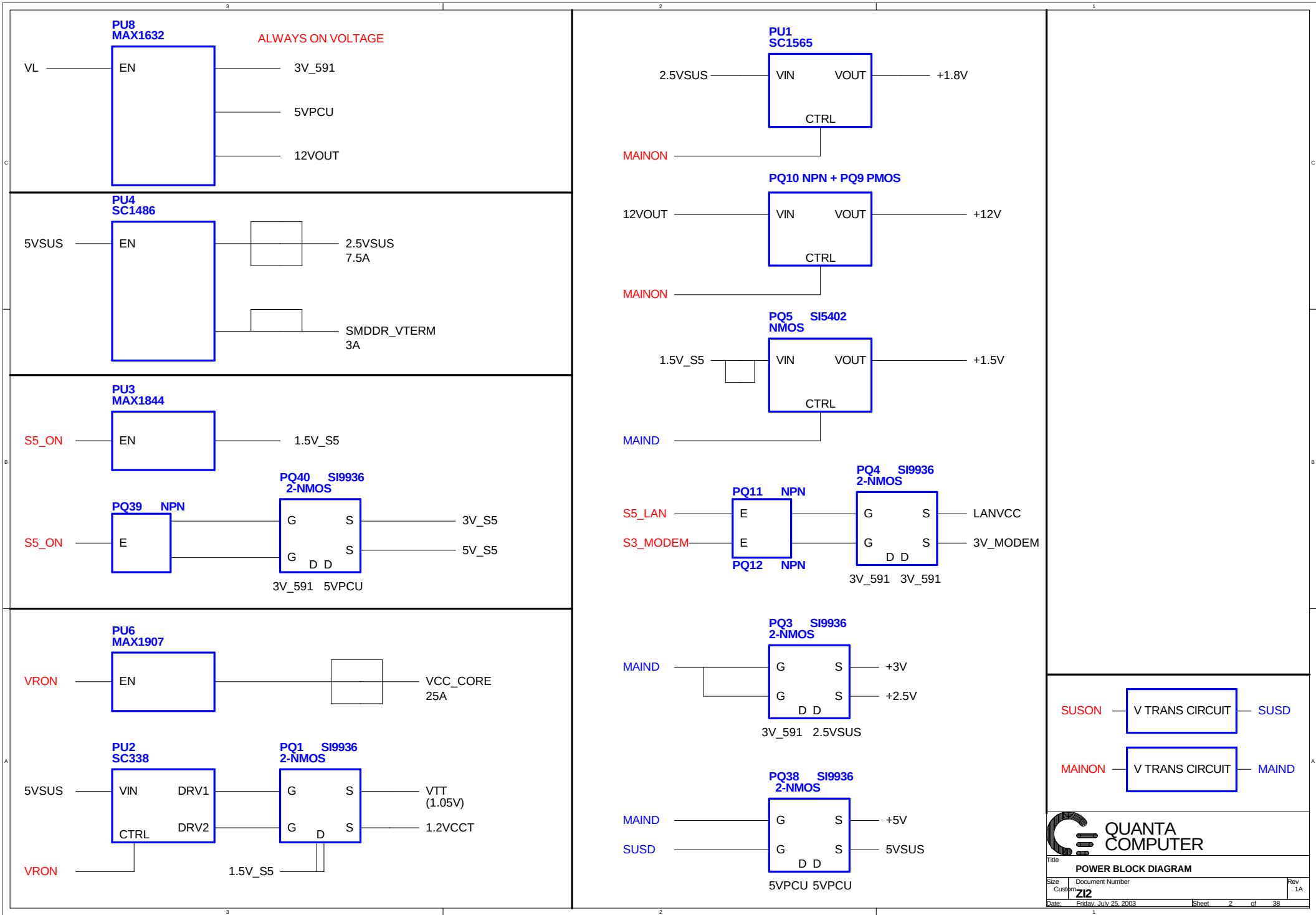
ZI2 BLOCK DIAGRAM

CENTRINO

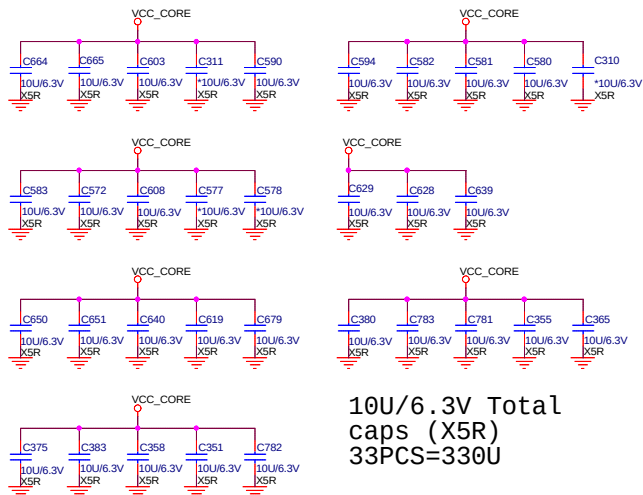
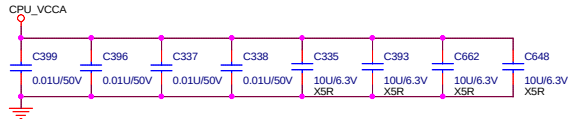
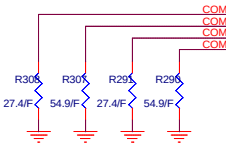
	PIRQ#	REQ#/GNT#	IDSEL
VGA	X	X	X
CARDBUS	C, (B)	3	22
IEEE 1394	B	2	23
MINI-PCI	E, F	1	20
LAN	D	0	18
USB 2.0	X	X	X



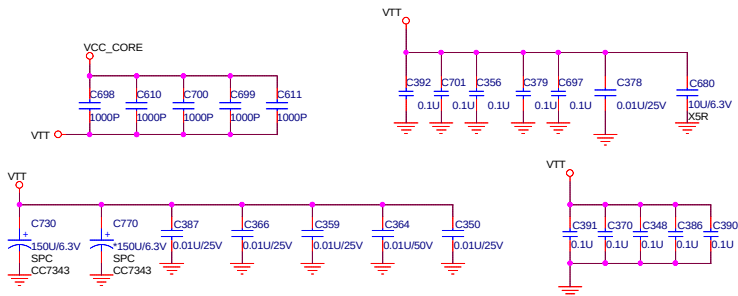
Title Schematic Block Diagram1		
Size	Document Number ZI2	Rev 1A
Date Friday, July 25, 2003	Sheet 1	of 38



These 4 Resistors need to place with 0.5" of CPU.
Comp0,2 trace need to be $z0=27.4\text{ ohm}$,
comp1,3 traces need to be $z0=55\text{ ohm}$.

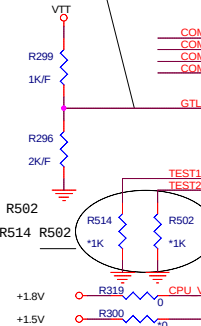


10U/6.3V Total
caps (X5R)
33PCS=330U



GT1REF: 2/3 VCCP+-2%
 $T < 0.5"$ 25 mils space

25 MILS (>50 MILS PREFERRED) SPACE
 $T < 0.5"$

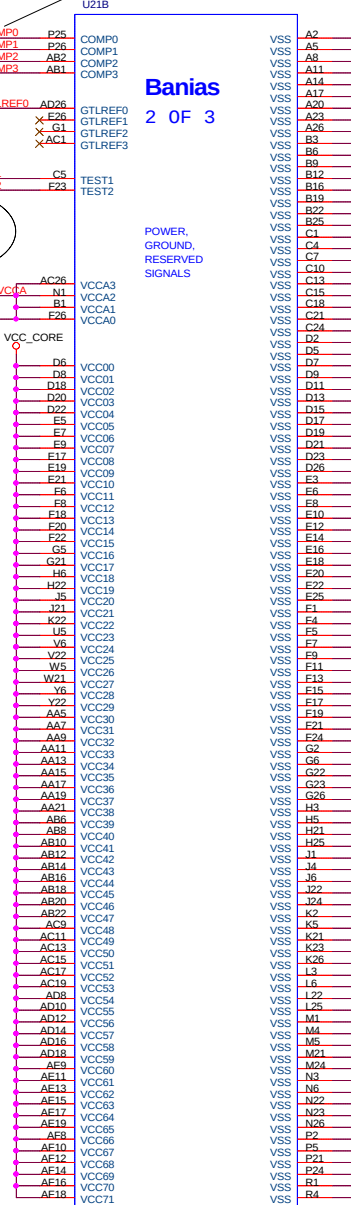


A0 CPU install R514 R502
A1 CPU not install R514 R502

1.5V option is not used.
It is ok to leave in there.

Banias
2 OF 3

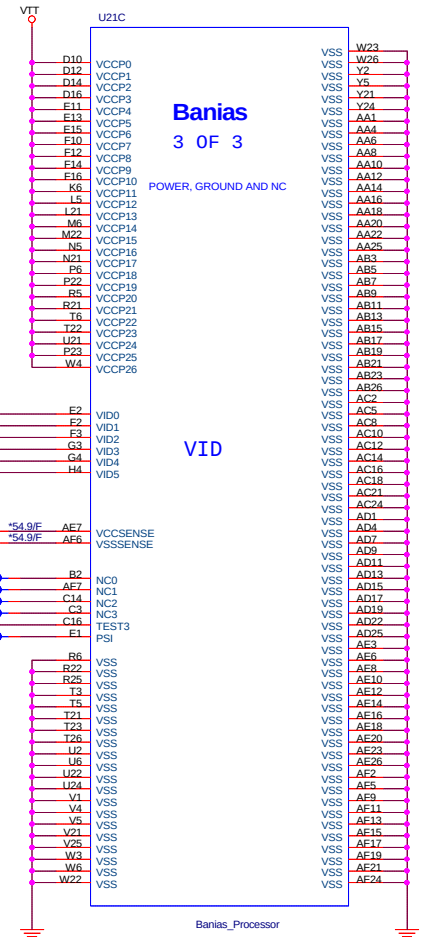
POWER, GROUND, RESERVED SIGNALS



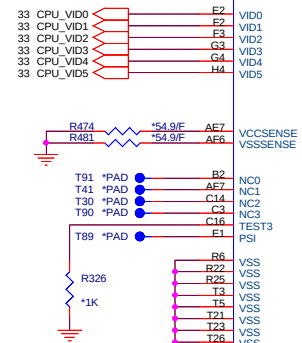
Banias_Processor

Banias
3 OF 3

POWER, GROUND AND NC



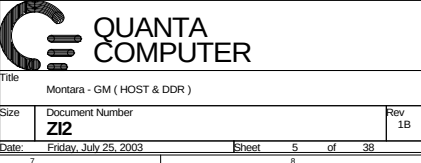
VID

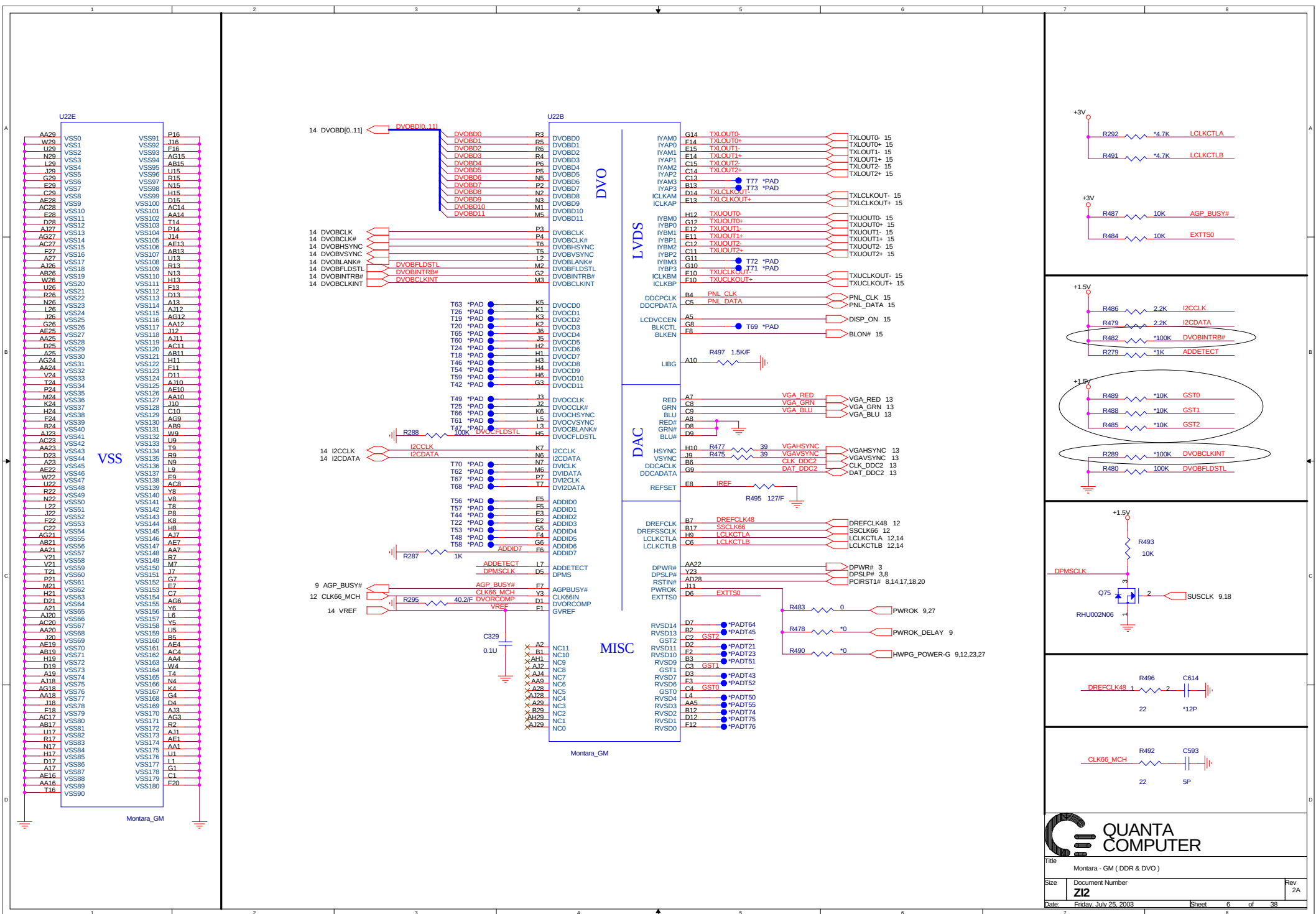


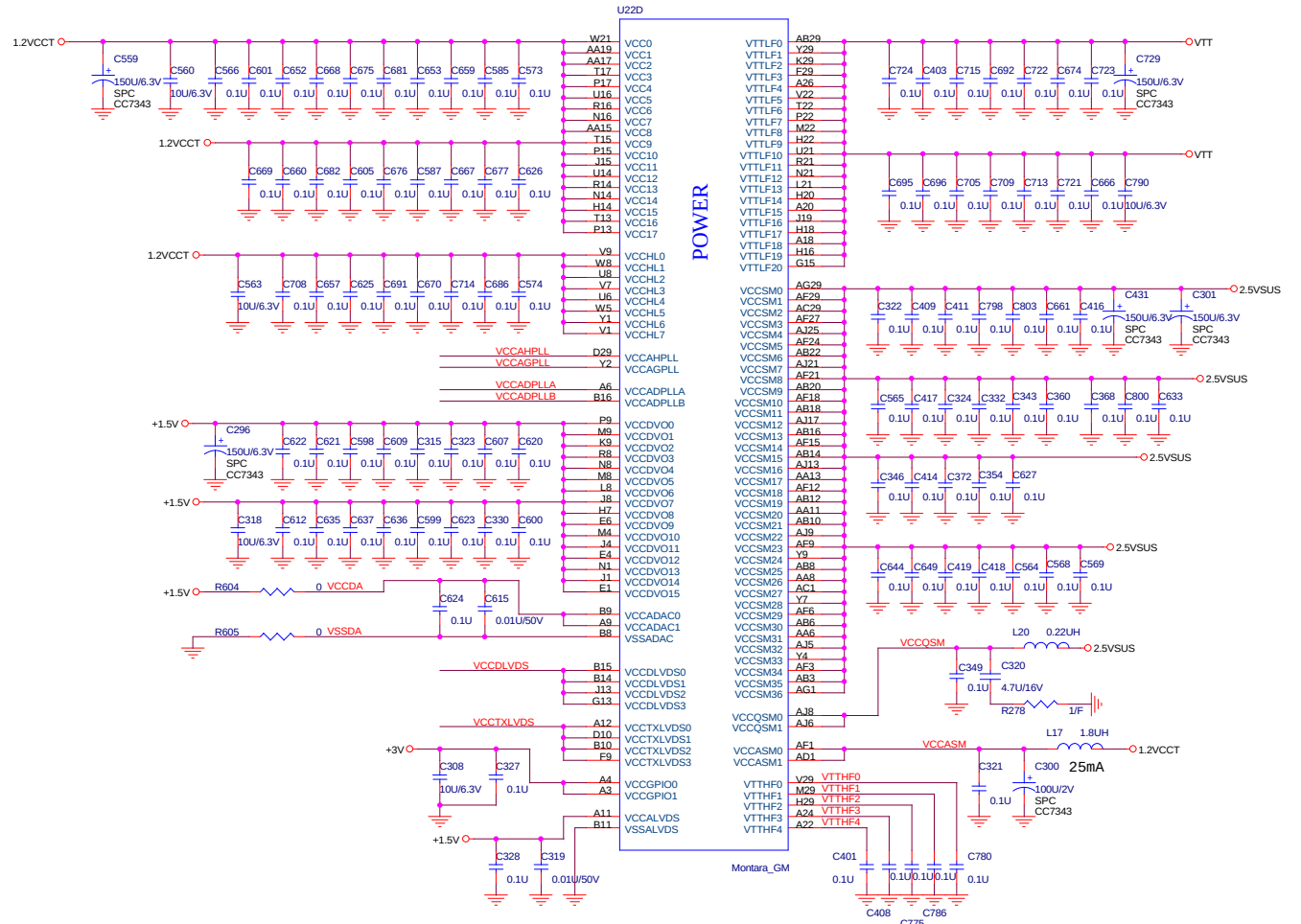
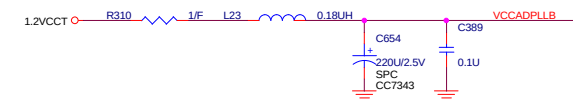
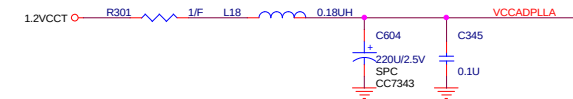
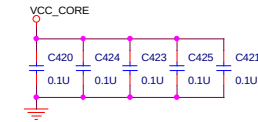
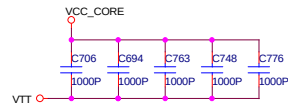
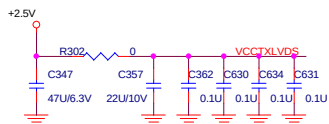
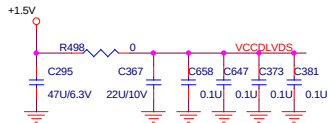
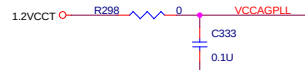
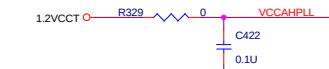
* VCC,BOOT 1.2V
VCC_CORE 1.468V
(DEEPER SLEEP) 0.956V
VTT 1.05V
VCCA 1.8V



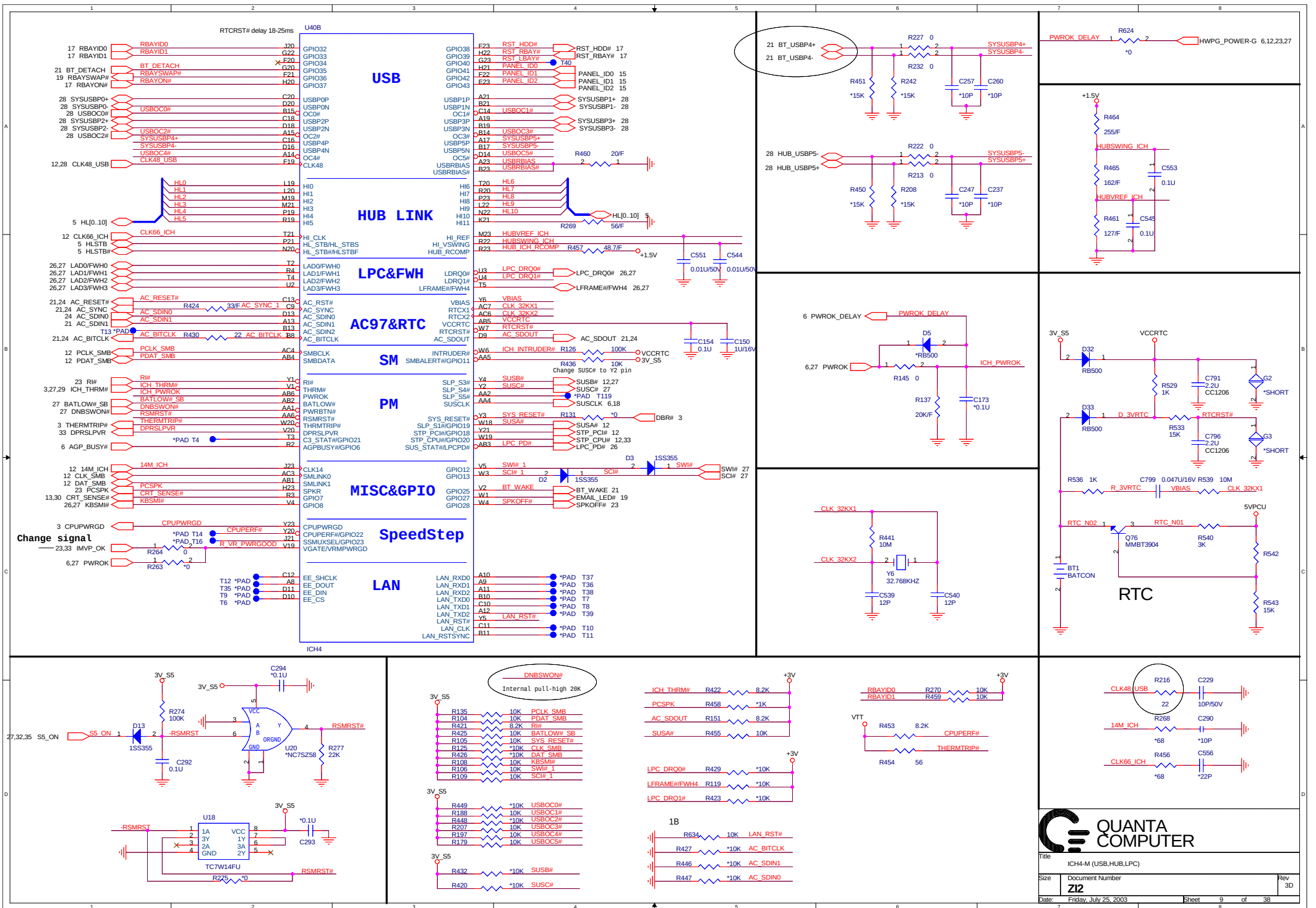
Title: Banias Processor (POWER)			
Size: Z12	Document Number: CC7343	Rev: 3A	
Date: Friday, July 25, 2003	Sheet: 4	of 38	

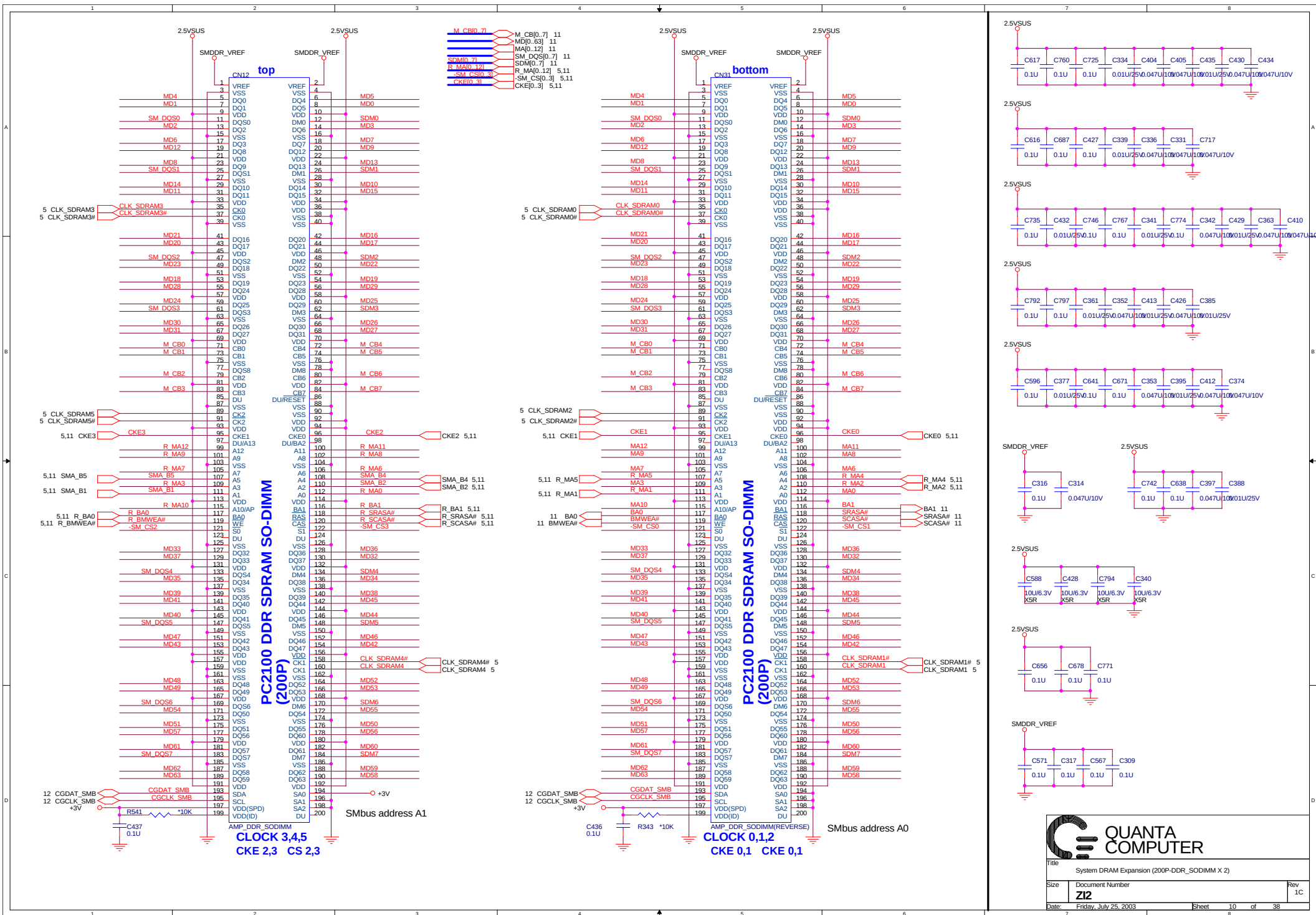


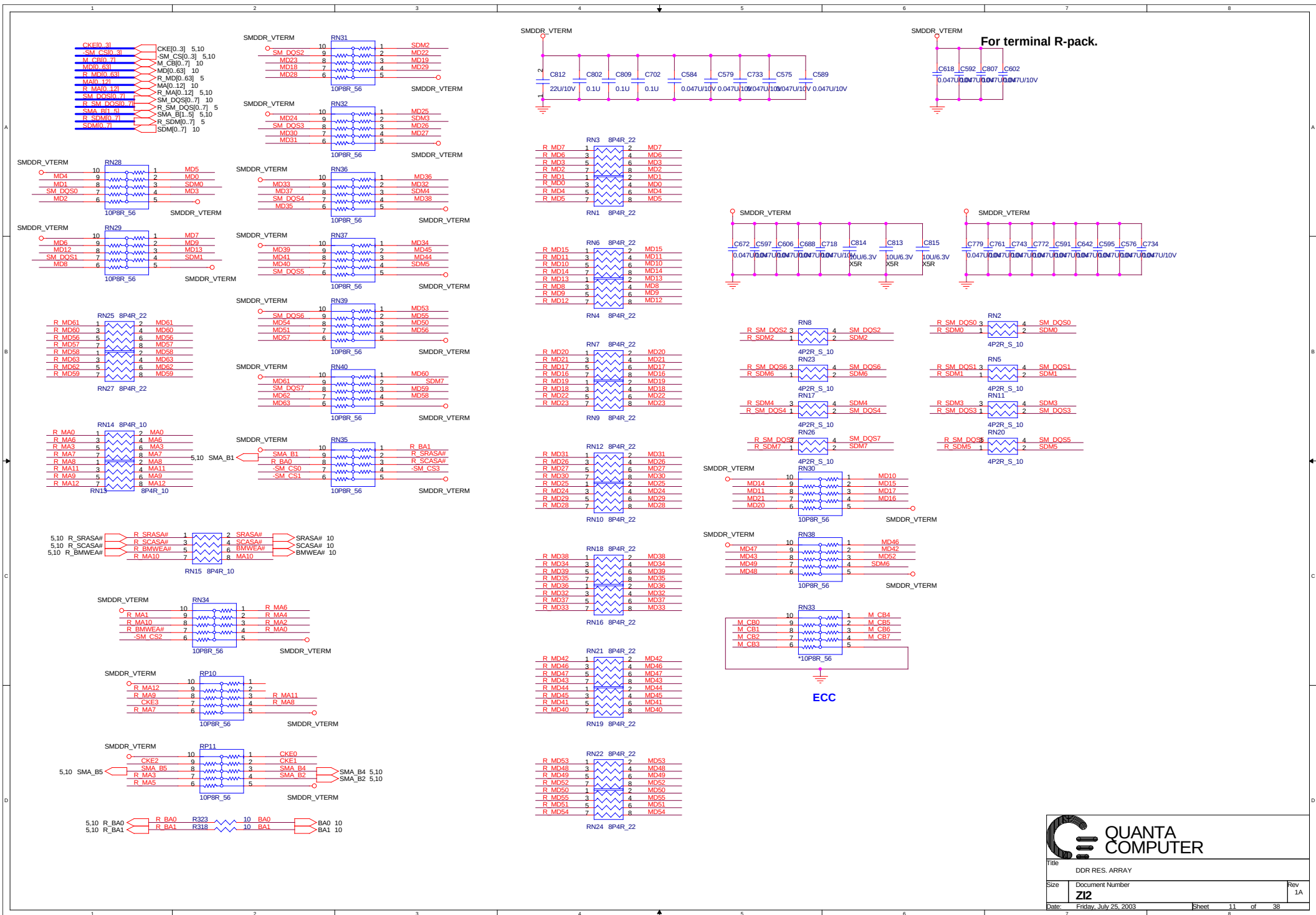


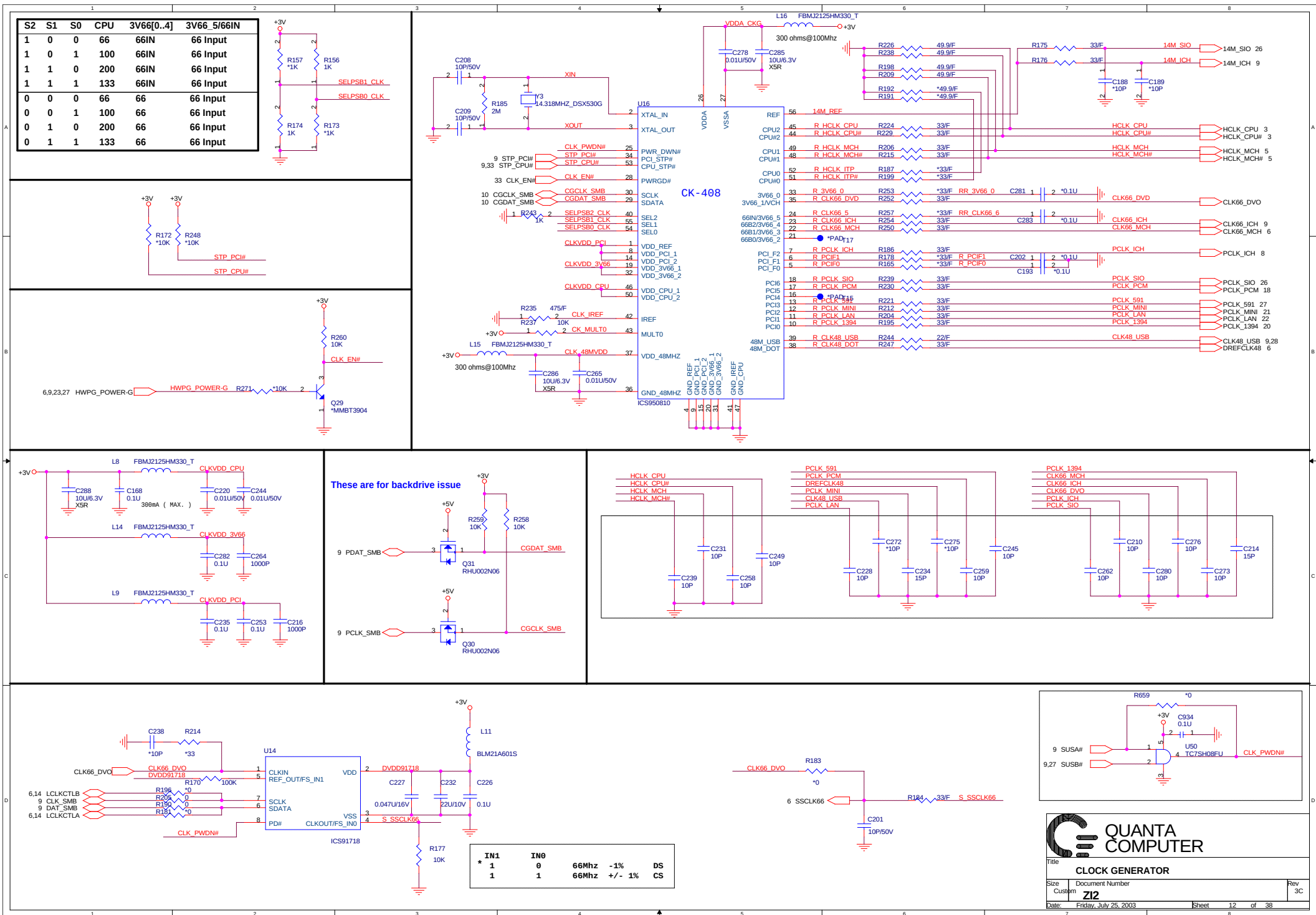


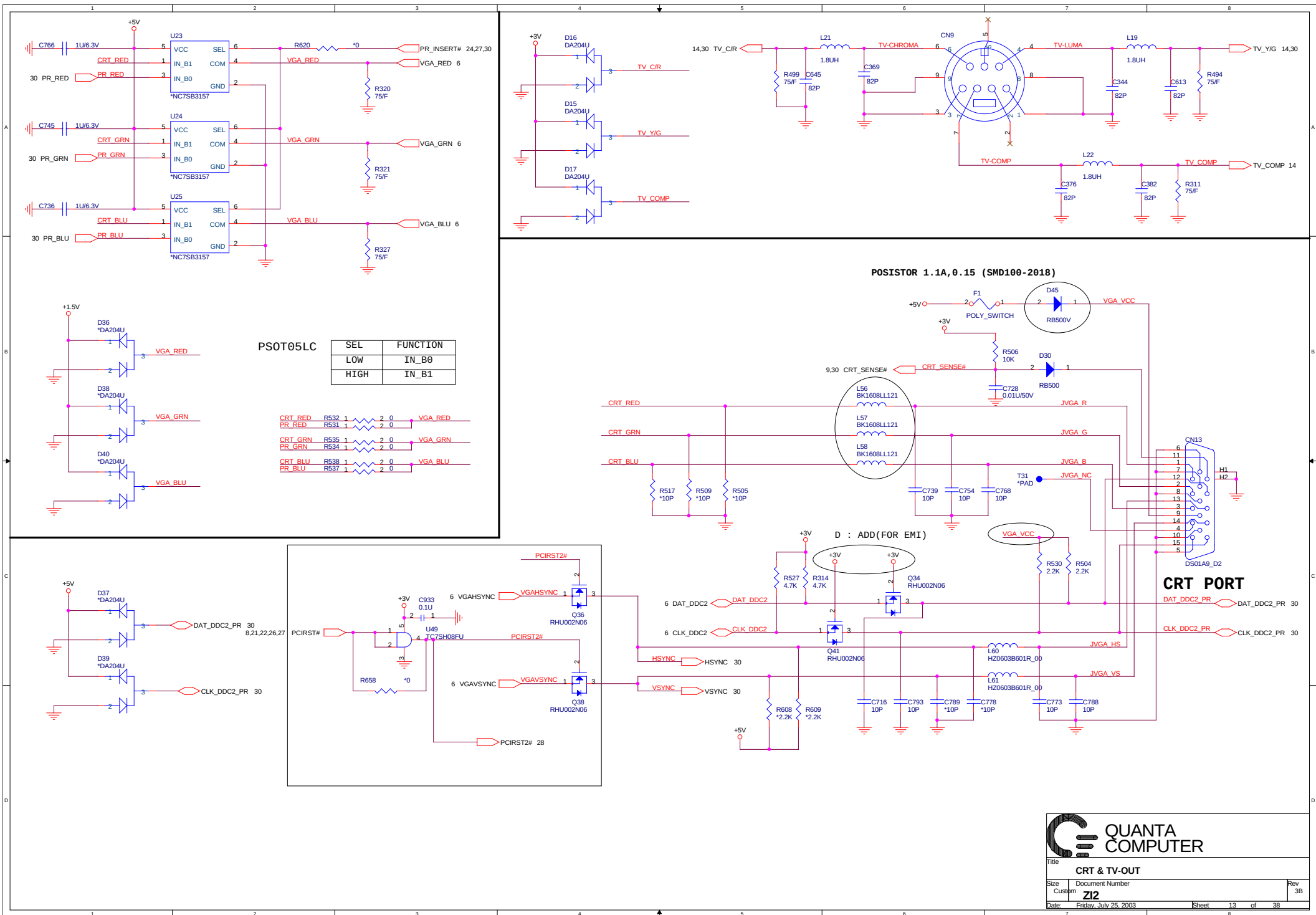
Title		
Montara - GM (POWER)		
Size	Document Number	Rev
Z12		1C
Date	Friday, July 25, 2003	Sheet 7 of 38

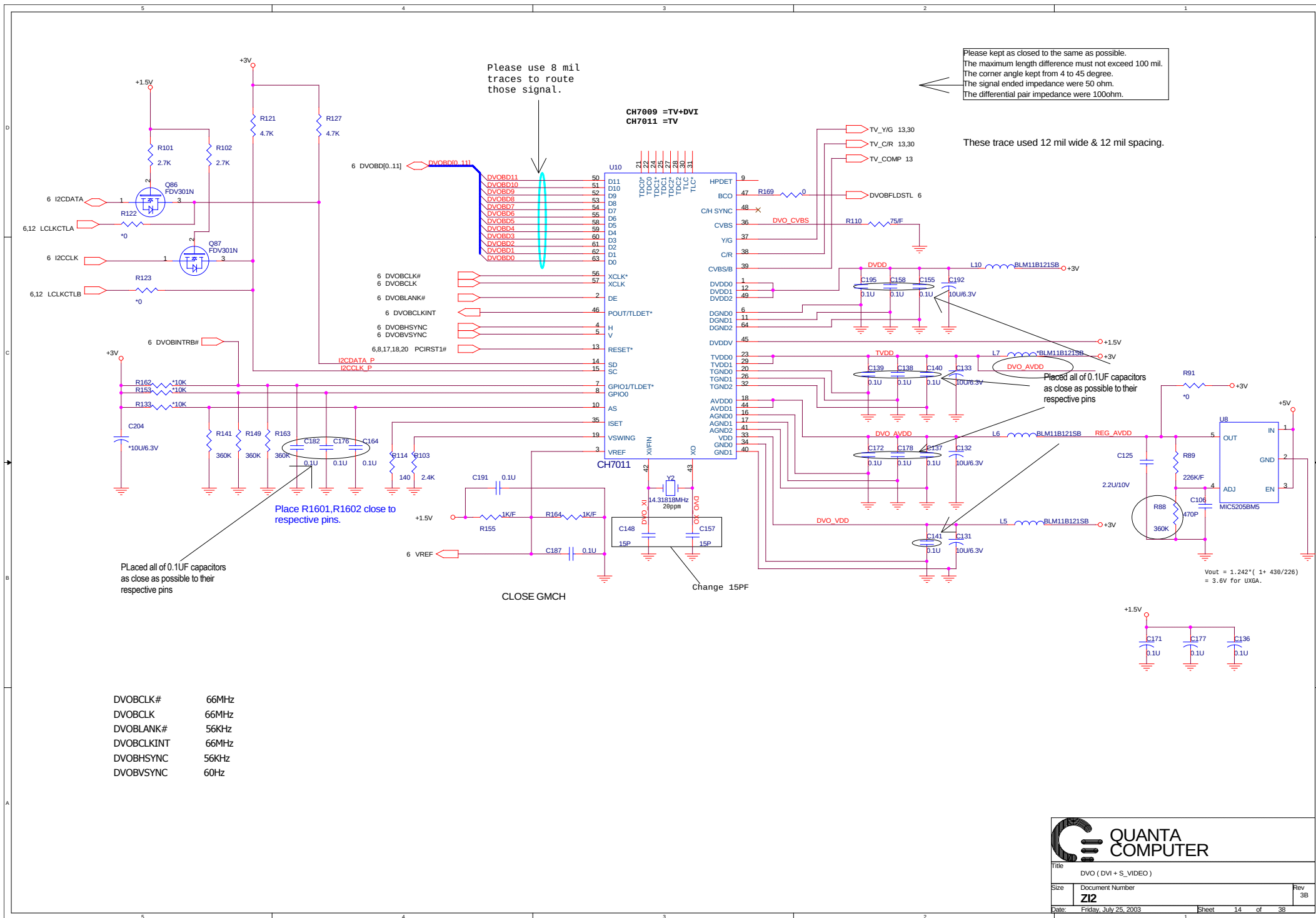












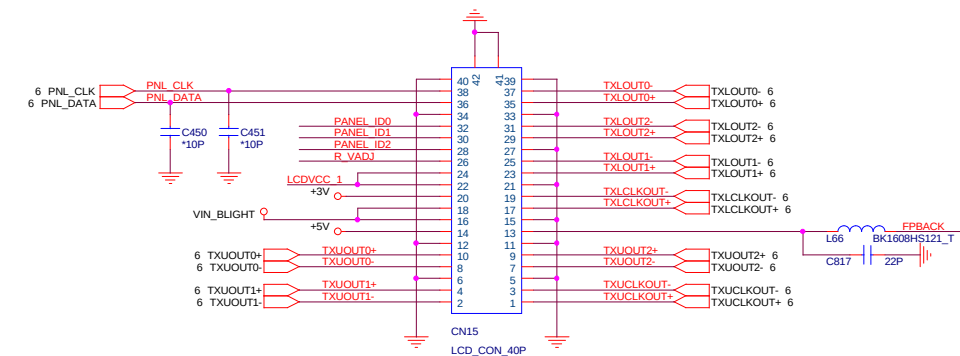
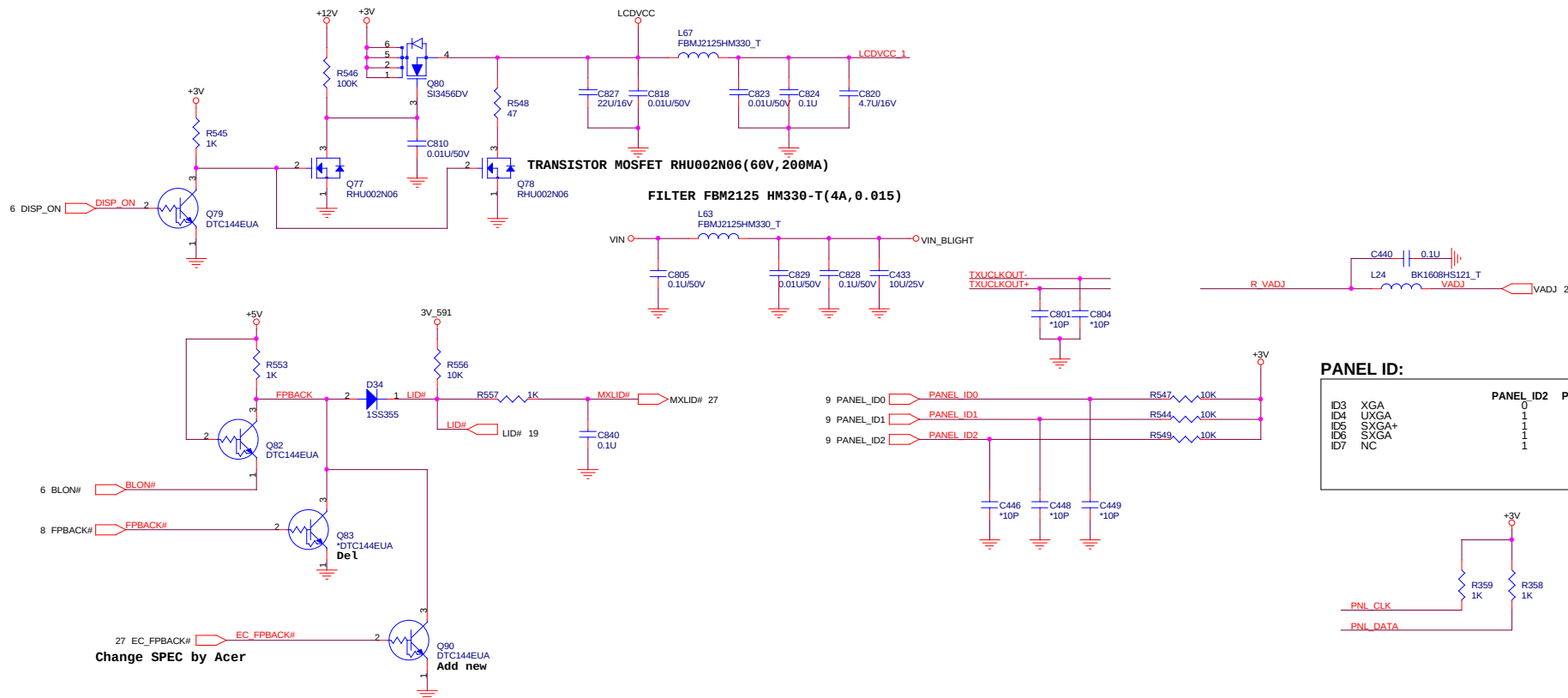
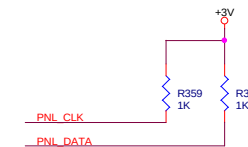
FILTER FBM2125 HM330-T(4A,0.015)

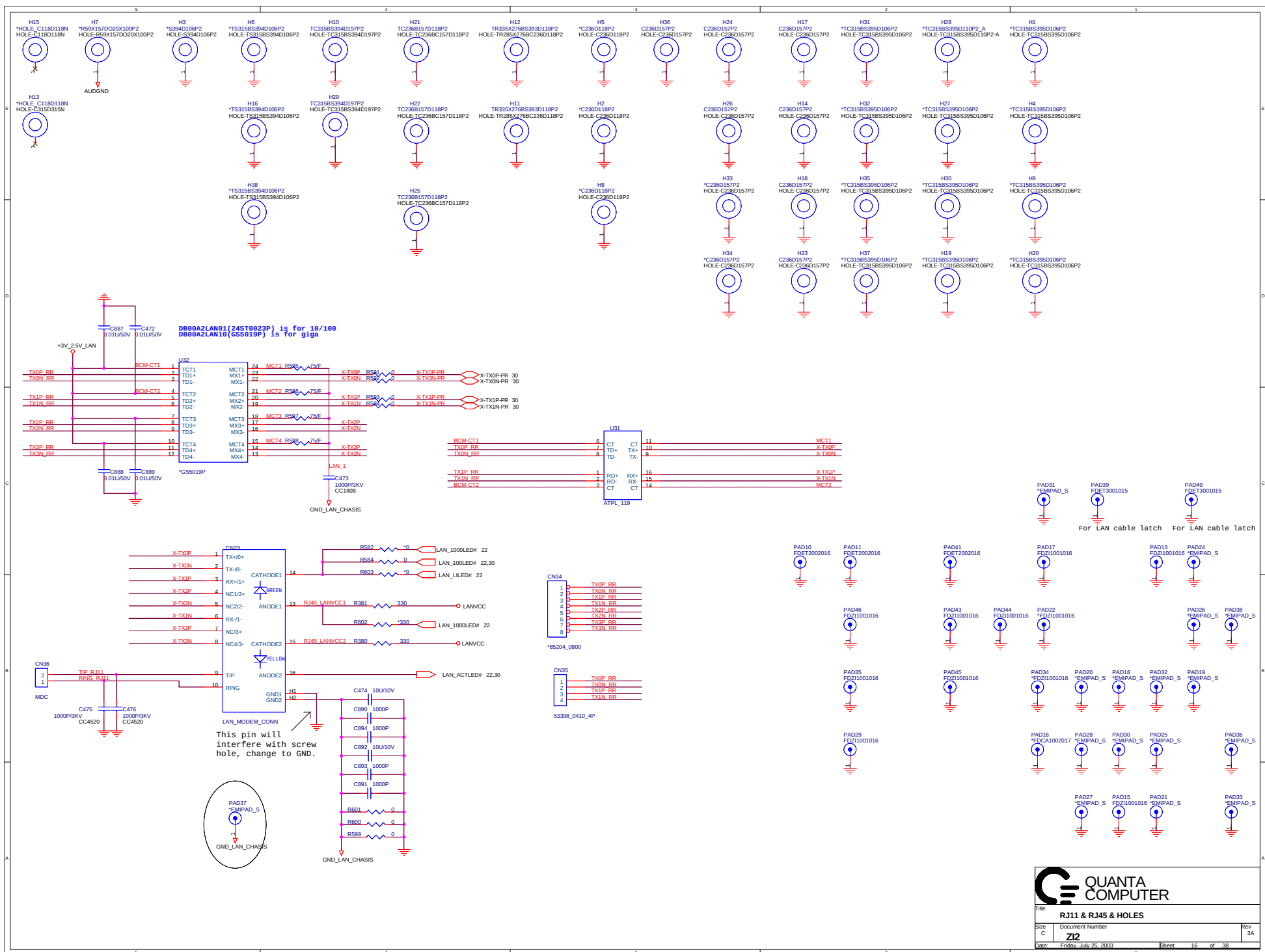
TRANSISTOR MOSFET RHU002N06(60V,200MA)

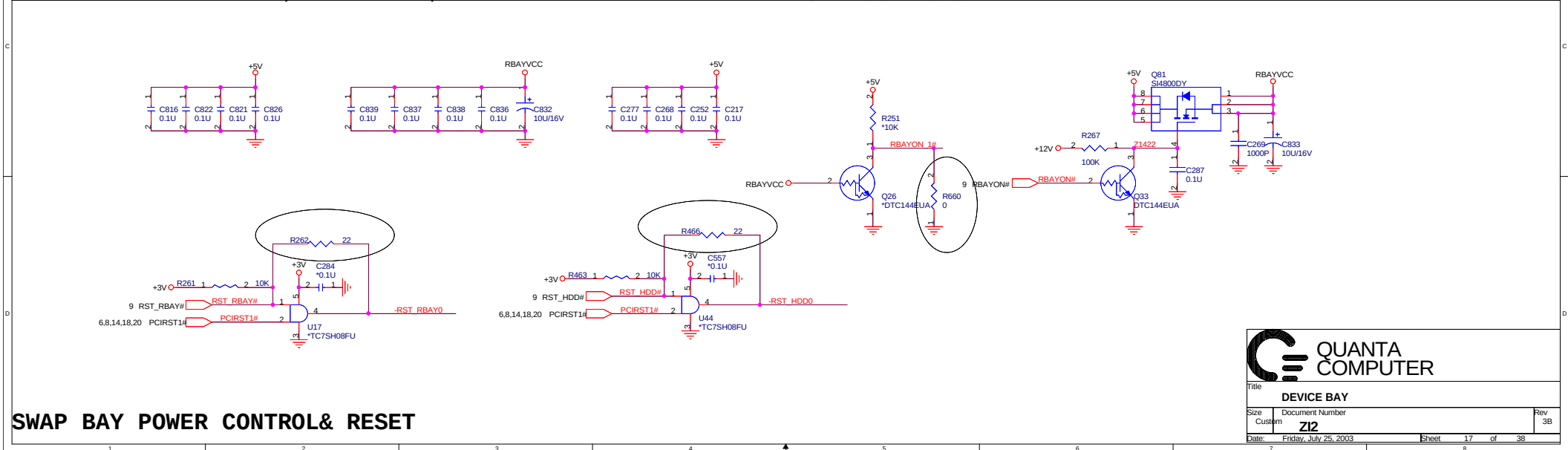
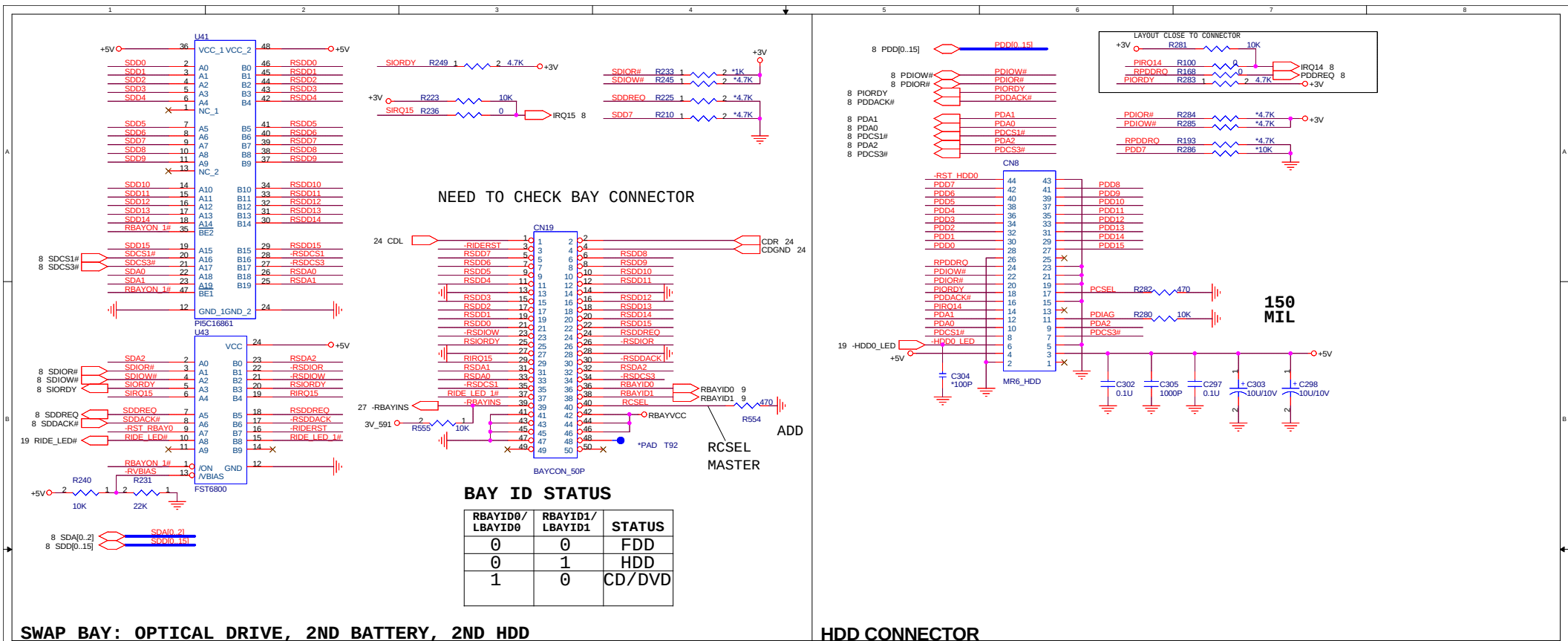
FILTER FBM2125 HM330-T(4A,0.015)

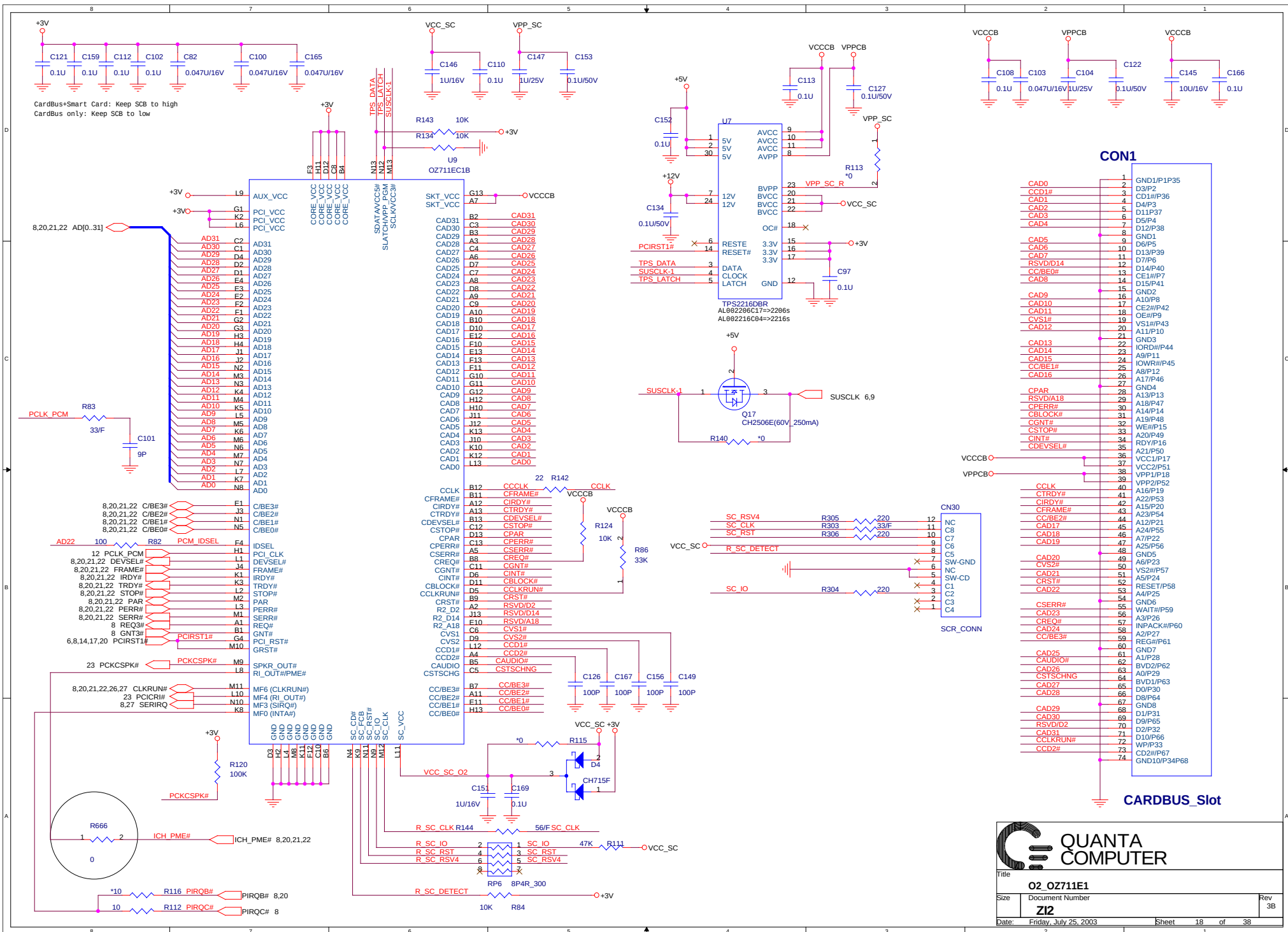
PANEL ID:

	PANEL_ID2	PANEL_ID1	PANEL_ID0
ID3 XGA	0	1	1
ID4 UXGA	1	0	0
ID5 SXGA+	1	0	1
ID6 SXGA	1	1	0
ID7 NC	1	1	1

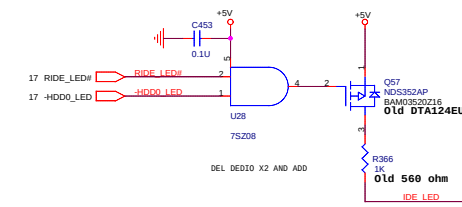
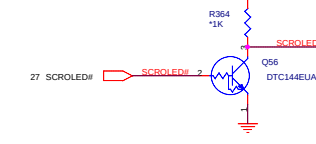
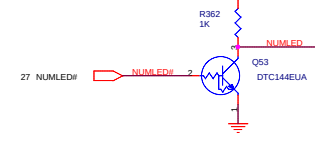
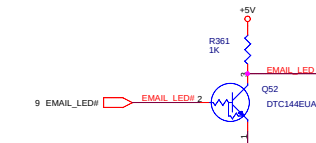
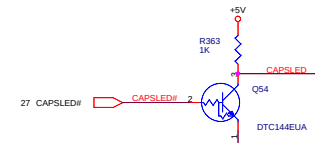
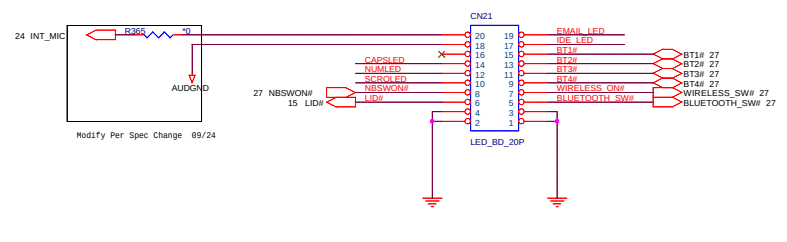
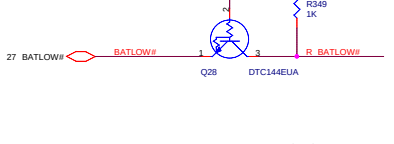
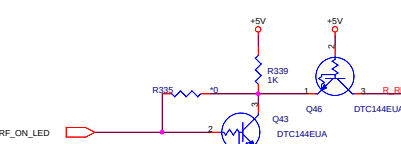
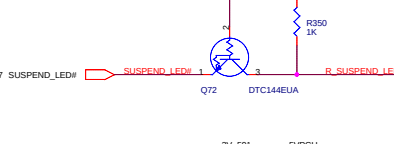
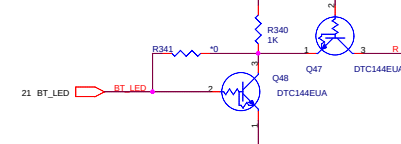
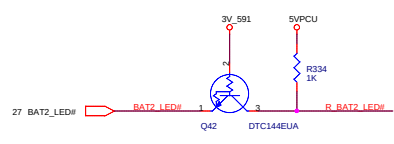
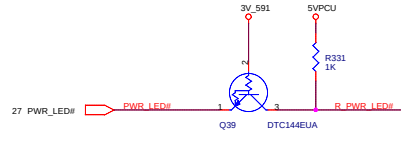
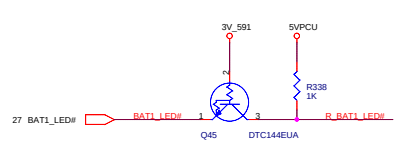
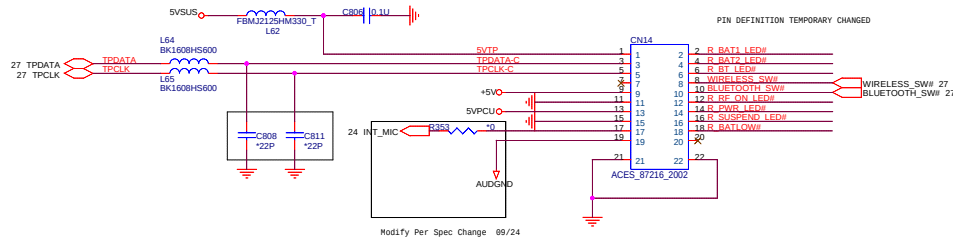






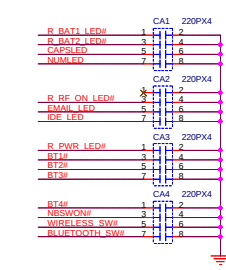
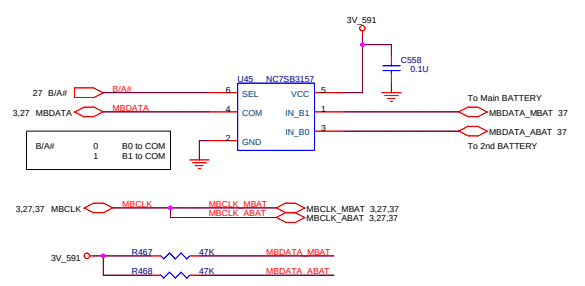
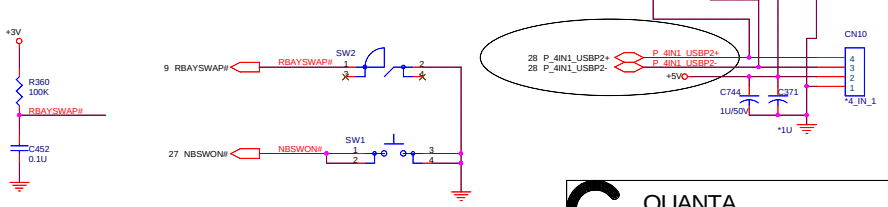


12 MIL

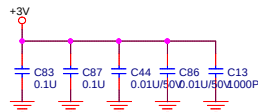


IDE LED CONTROL LOGIC

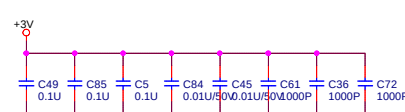
Don't separate this four PAD for the function as a CONN



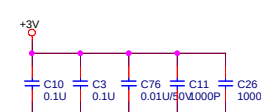
IEEE -1394



Used for vccp
(Pin20, 35, 48, 62, 78)



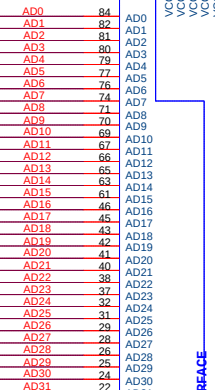
Used for vcc3
(Pin15, 27, 39, 51, 59, 72, 88, 100)



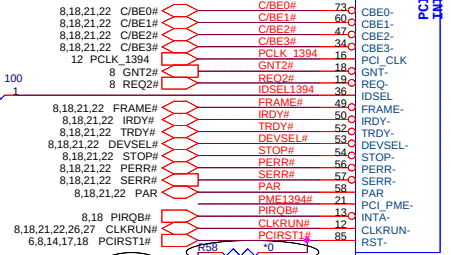
Used for AVCC
(Pin1, 2, 107, 108, 120)

ID Select : AD23
Interrupt Pin : PIRQB#
Request indicates : REQ2#
Grant indicates : GNT2#

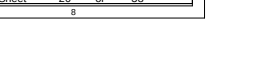
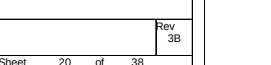
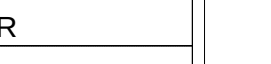
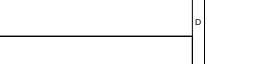
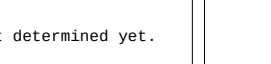
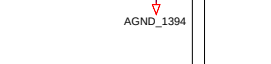
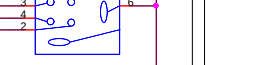
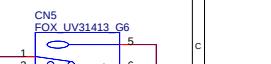
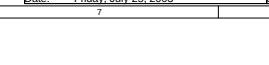
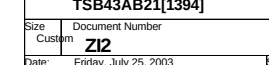
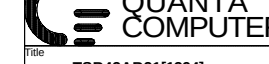
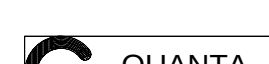
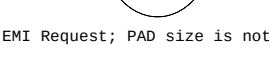
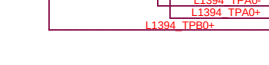
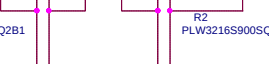
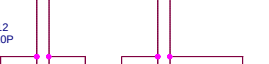
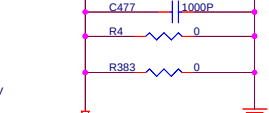
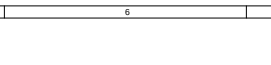
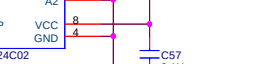
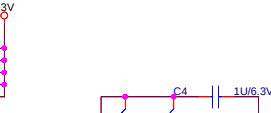
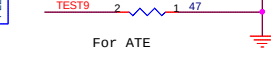
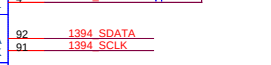
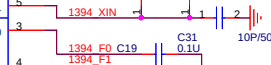
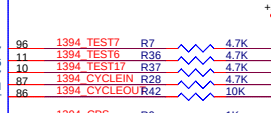
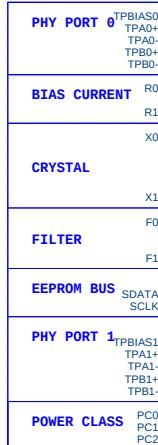
8.18,21,22 AD[0..31]



PCI INTERFACE



8.18,21,22 C/BE0#
8.18,21,22 C/BE1#
8.18,21,22 C/BE2#
8.18,21,22 C/BE3#
12 PCLK_1394
8 GNT2#
8 REQ2#
8.18,21,22 FRAME#
8.18,21,22 IRDY#
8.18,21,22 TRDY#
8.18,21,22 DEVSEL#
8.18,21,22 STOP#
8.18,21,22 PERR#
8.18,21,22 SERR#
8.18,21,22 PAR#
8.18 PIRQB#
8.18,21,22,26,27 CLKRUN#
6.8,14,17,18 PCIRST1#

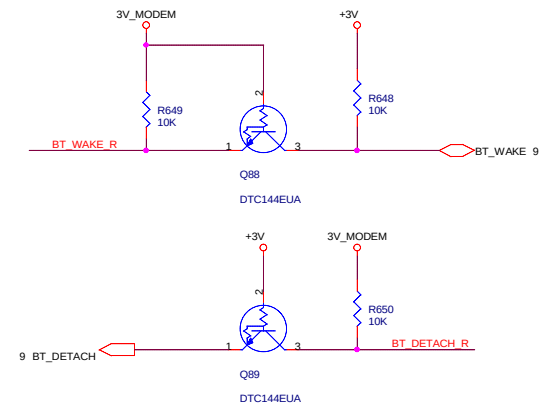
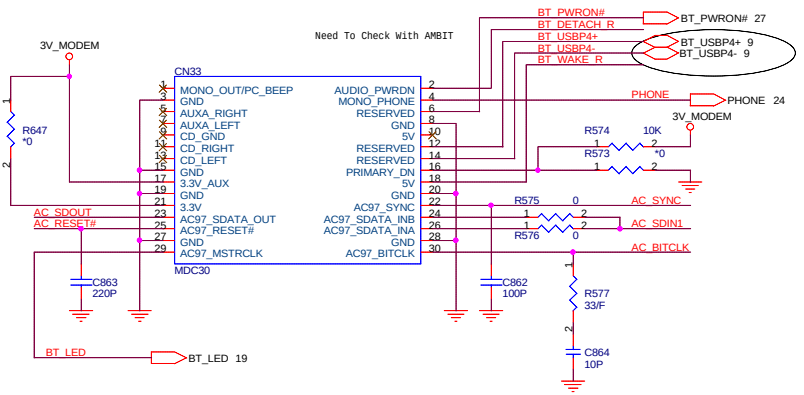
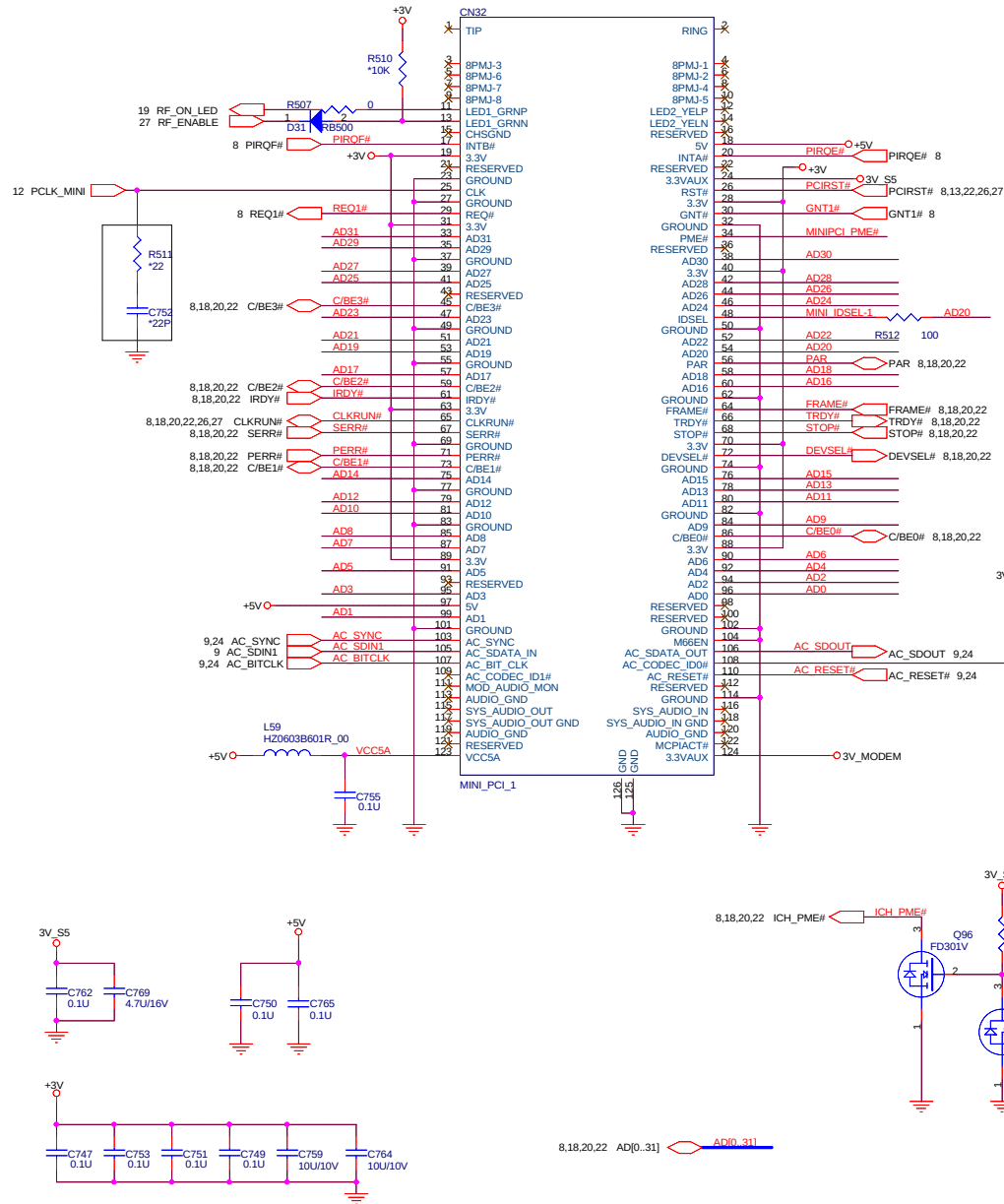


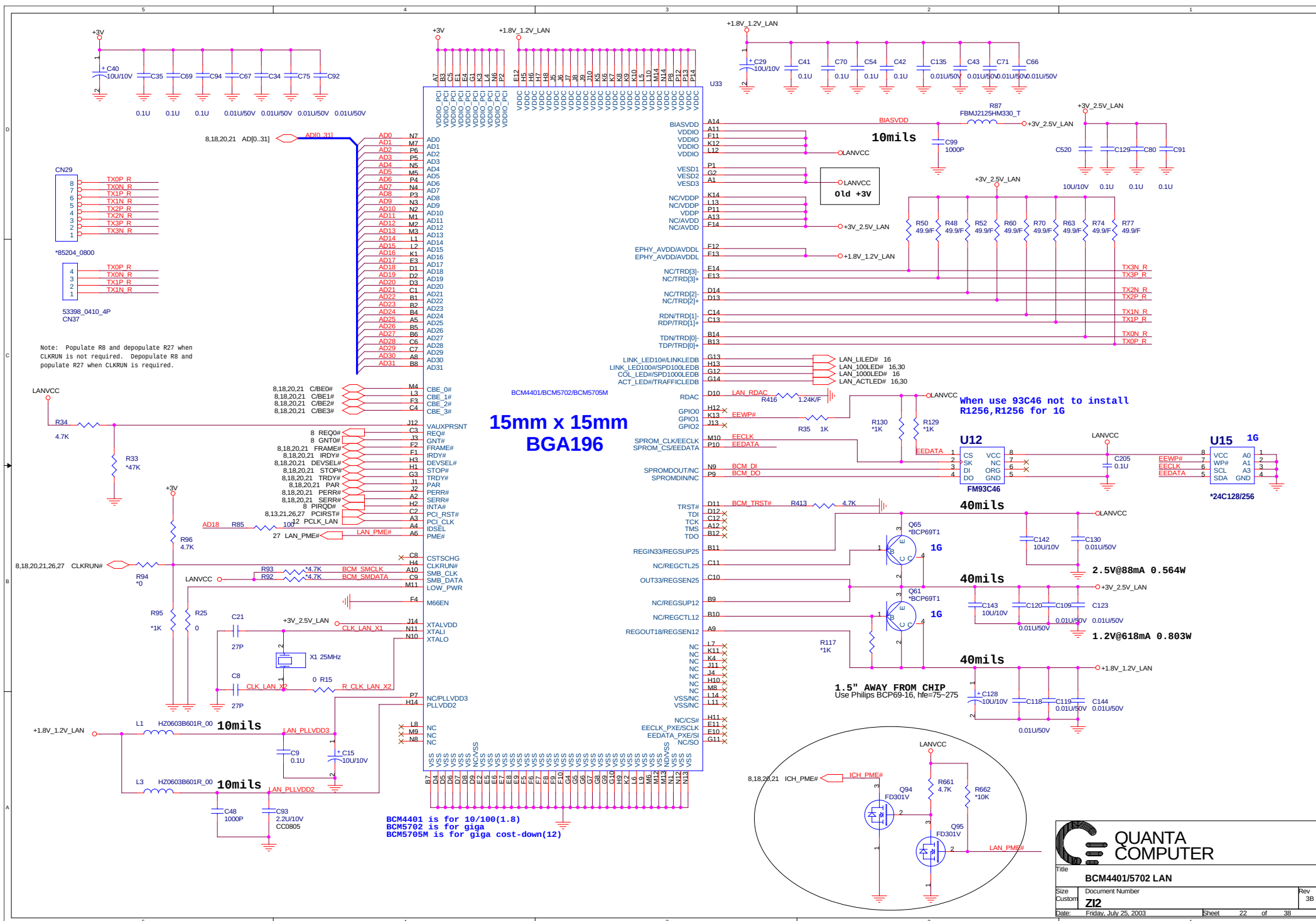
For EMI Request; PAD size is not determined yet.



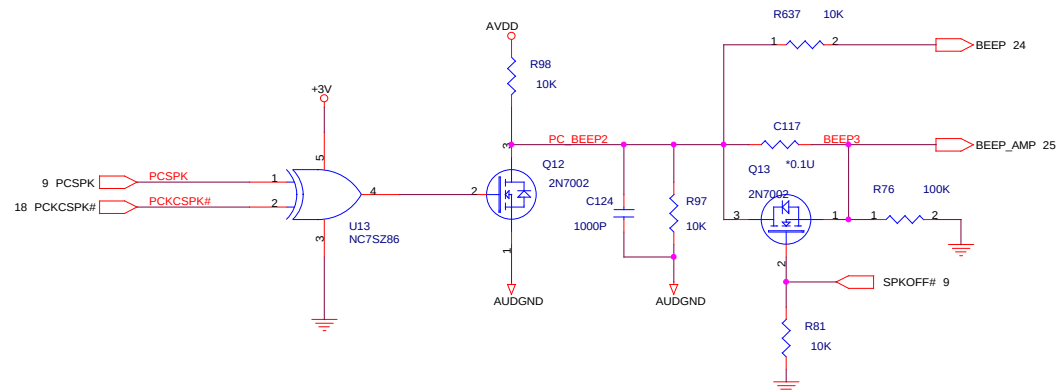
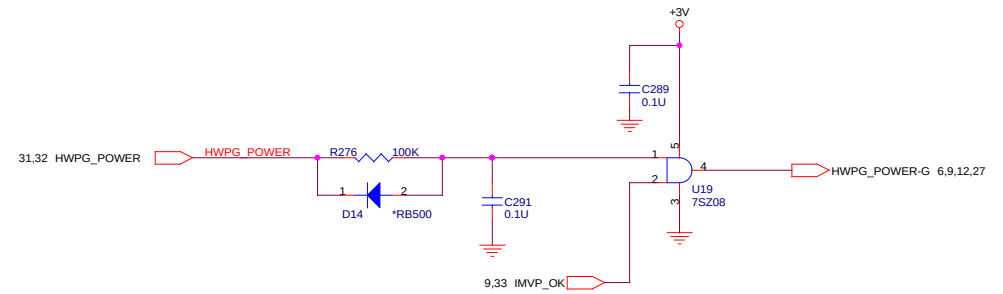
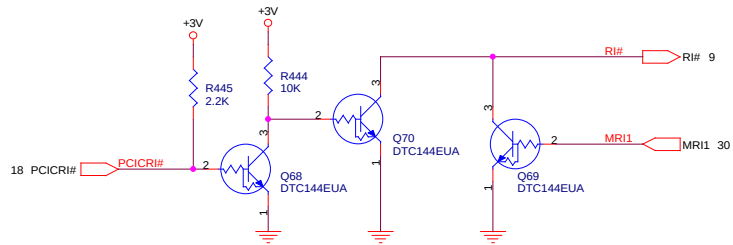
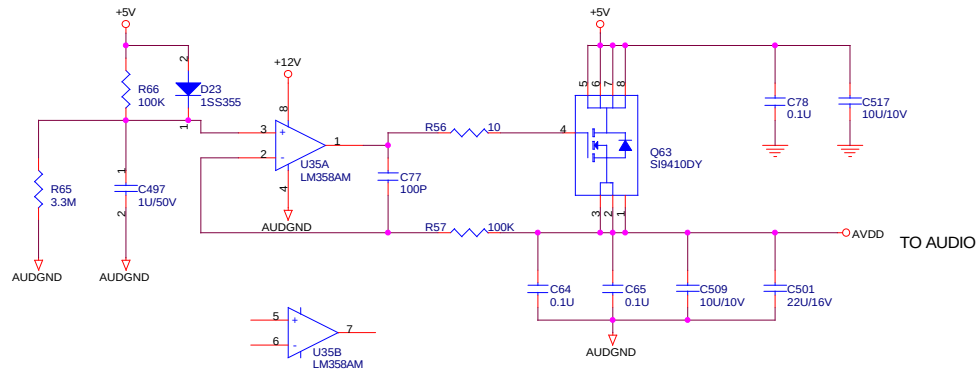
Title	TSB43AB21[1394]		
Size	Document Number	Rev 3B	
Custom	Z12		
Date	Friday, July 25, 2003	Sheet	20 of 38

ID Select : AD20
Interrupt Pin : PIRQE# , PIRQF#
Request indicates : REQ1#
Grant indicates : GNT1#

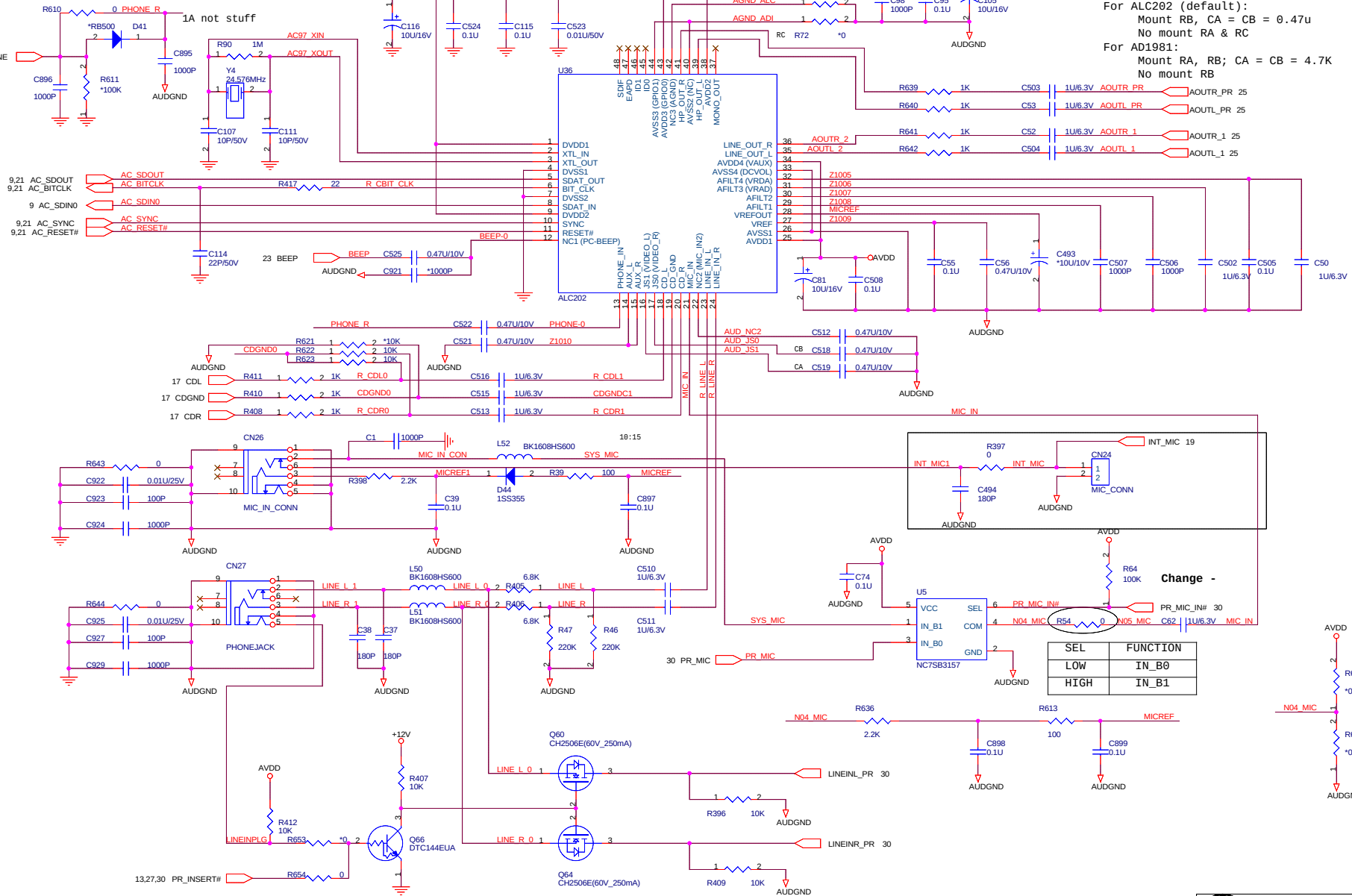




AUDIO POWER



AC97 CODEC



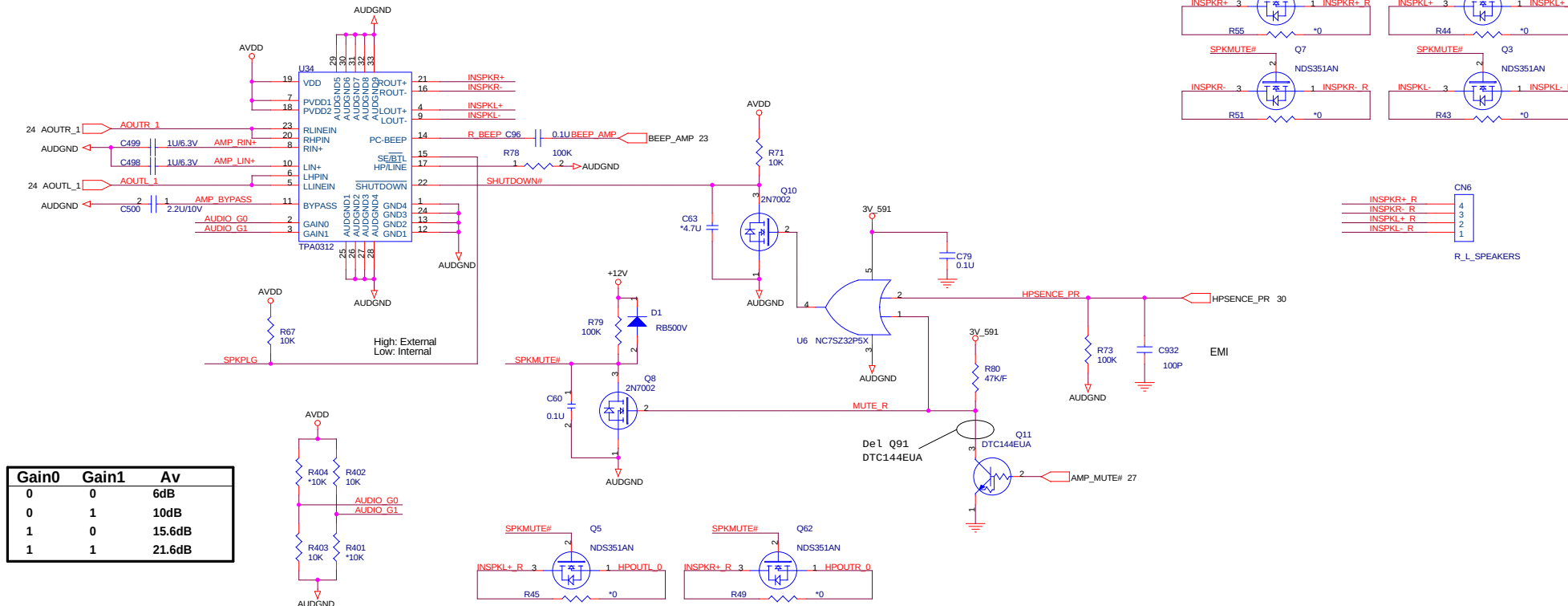
Spec Change 18/02



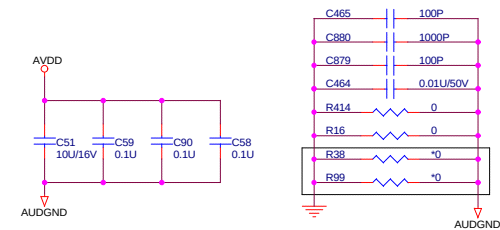
ACP7 CODEC

Title: ACP7 CODEC
 Size: Custom
 Date: Friday, July 25, 2003
 Sheet: 24 of 38
 Rev: 38

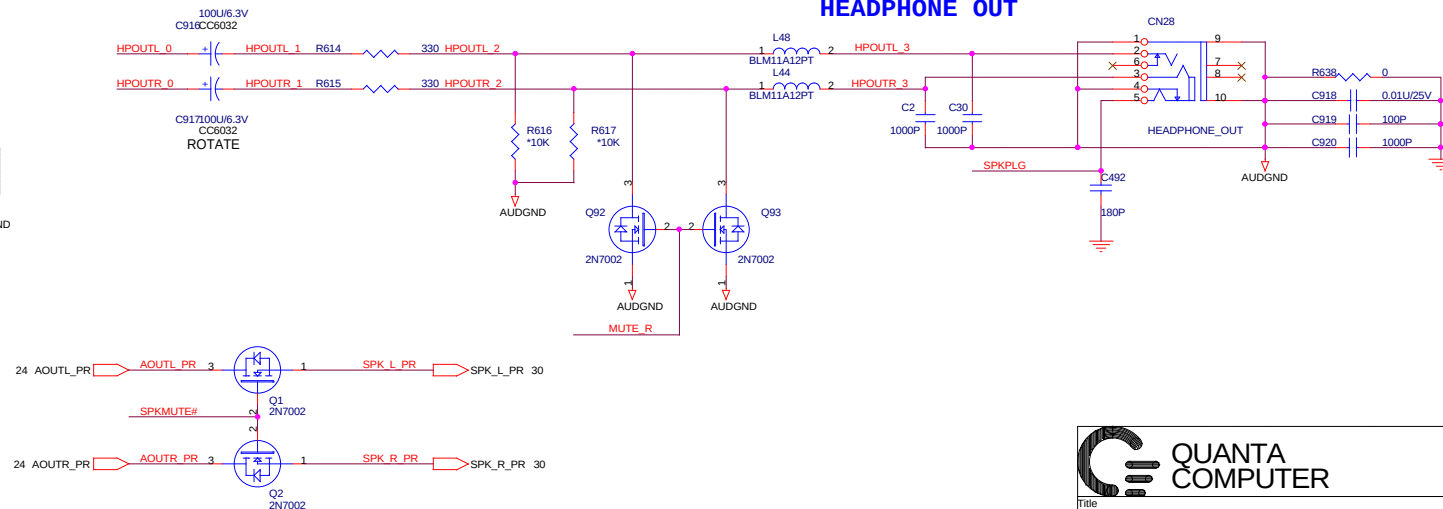
Audio Amplifier



Gain0	Gain1	Av
0	0	6dB
0	1	10dB
1	0	15.6dB
1	1	21.6dB



HEADPHONE OUT



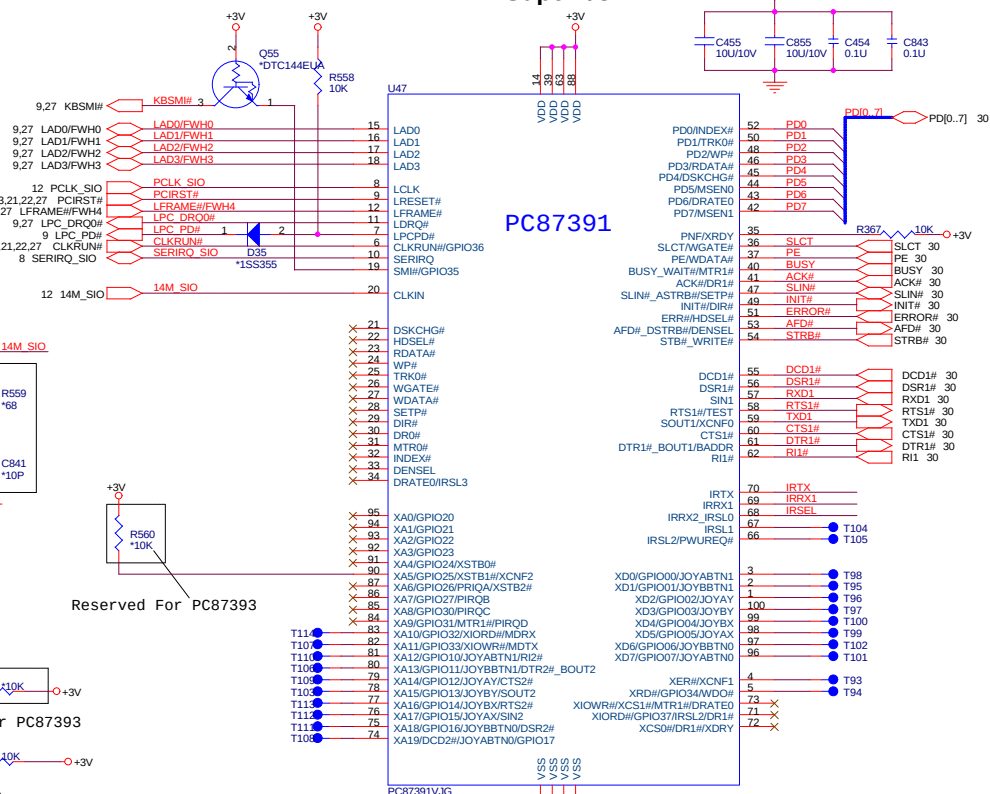
QUANTA

COMPUTER

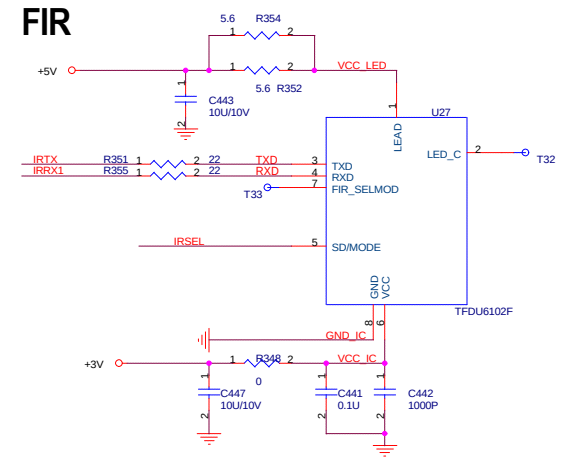
Title		AUDIO AMP	
Size	Custom	Document Number	Rev 3B
Date	Fri Jul 25, 2003	Sheet	25 of 38

Super I/O

PC87391

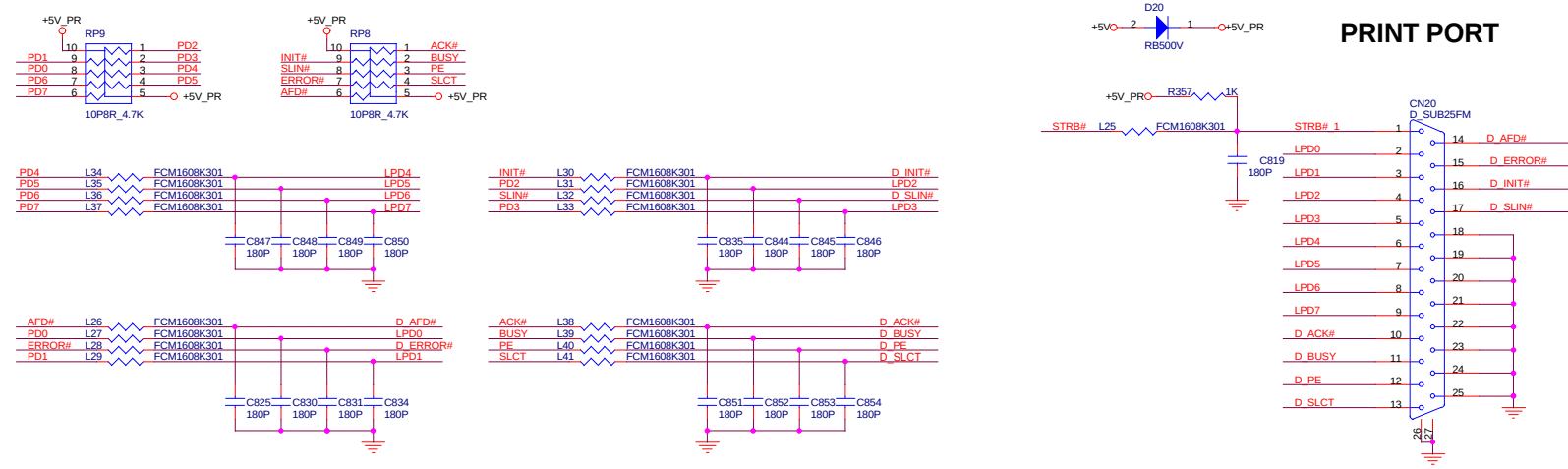


FIR



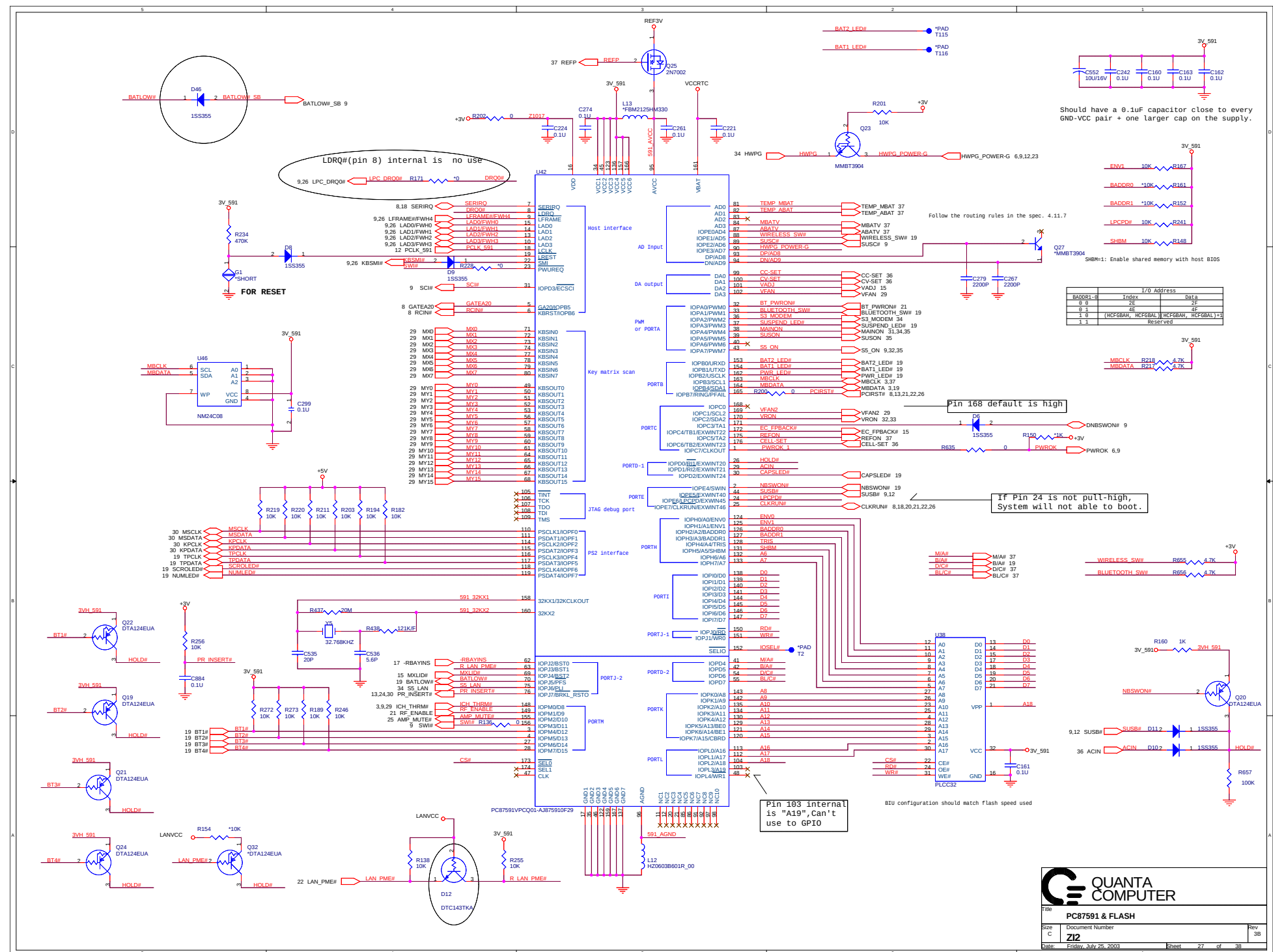
40mil: Power/ GND
 35mil: VCC_LED, VCC_IC, GND_IC
 10mil: TXD, RXD, IRSEL, IRTX, IRRX1

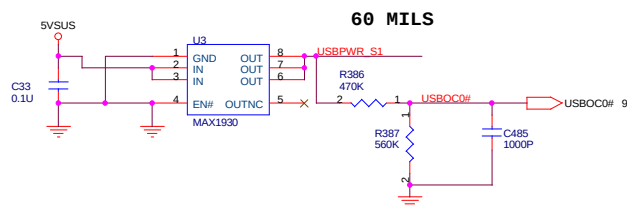
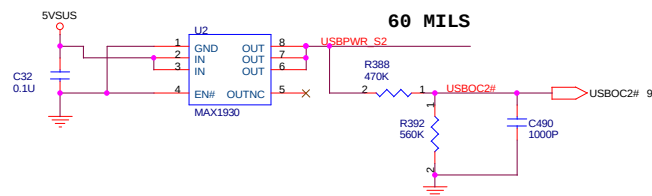
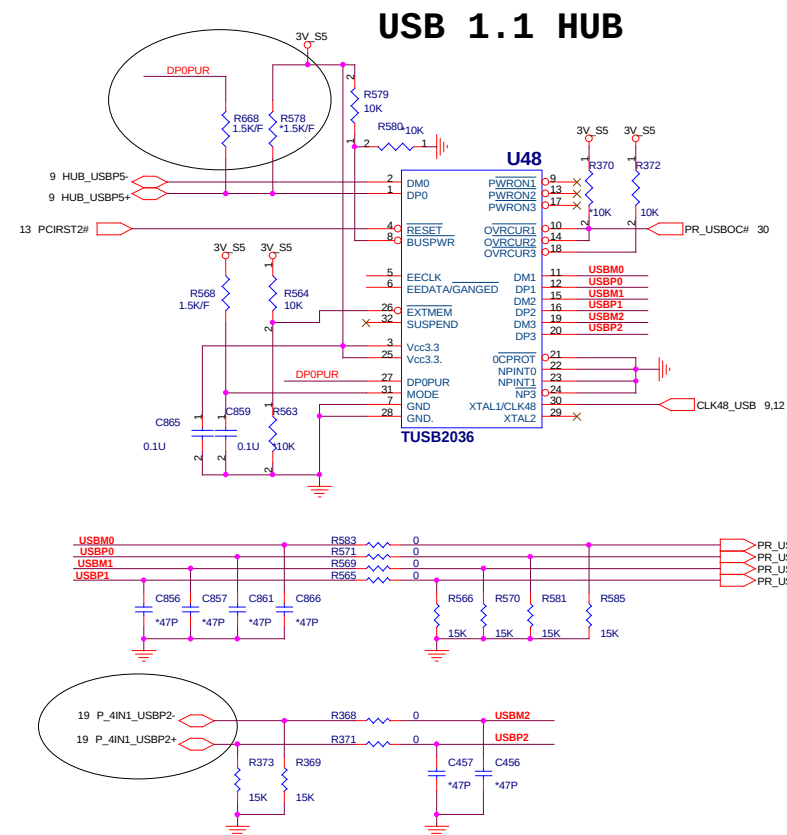
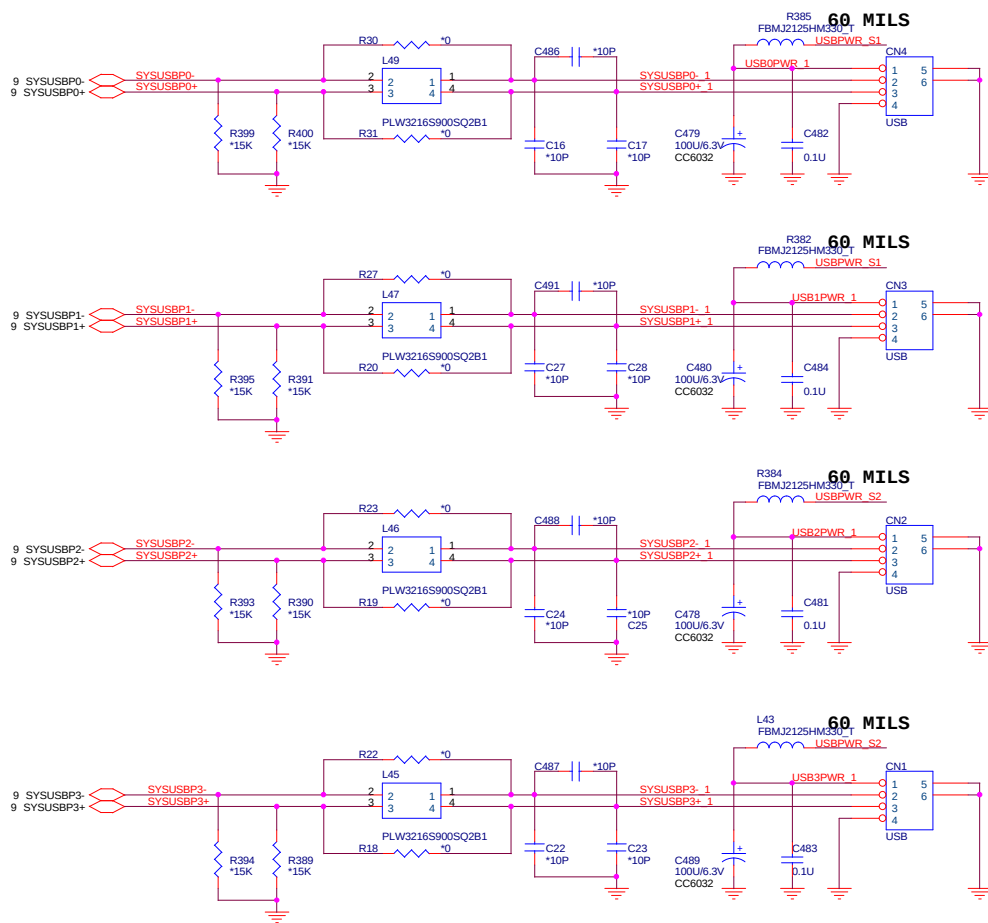
PRINT PORT



QUANTA
COMPUTER

Title SUPER I/O NS37391		
Size Custom	Document Number Z12	Rev 3A
Date Friday, July 25, 2003	Sheet 26	of 38





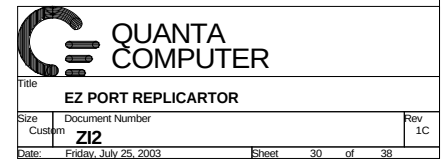
USB CONN.

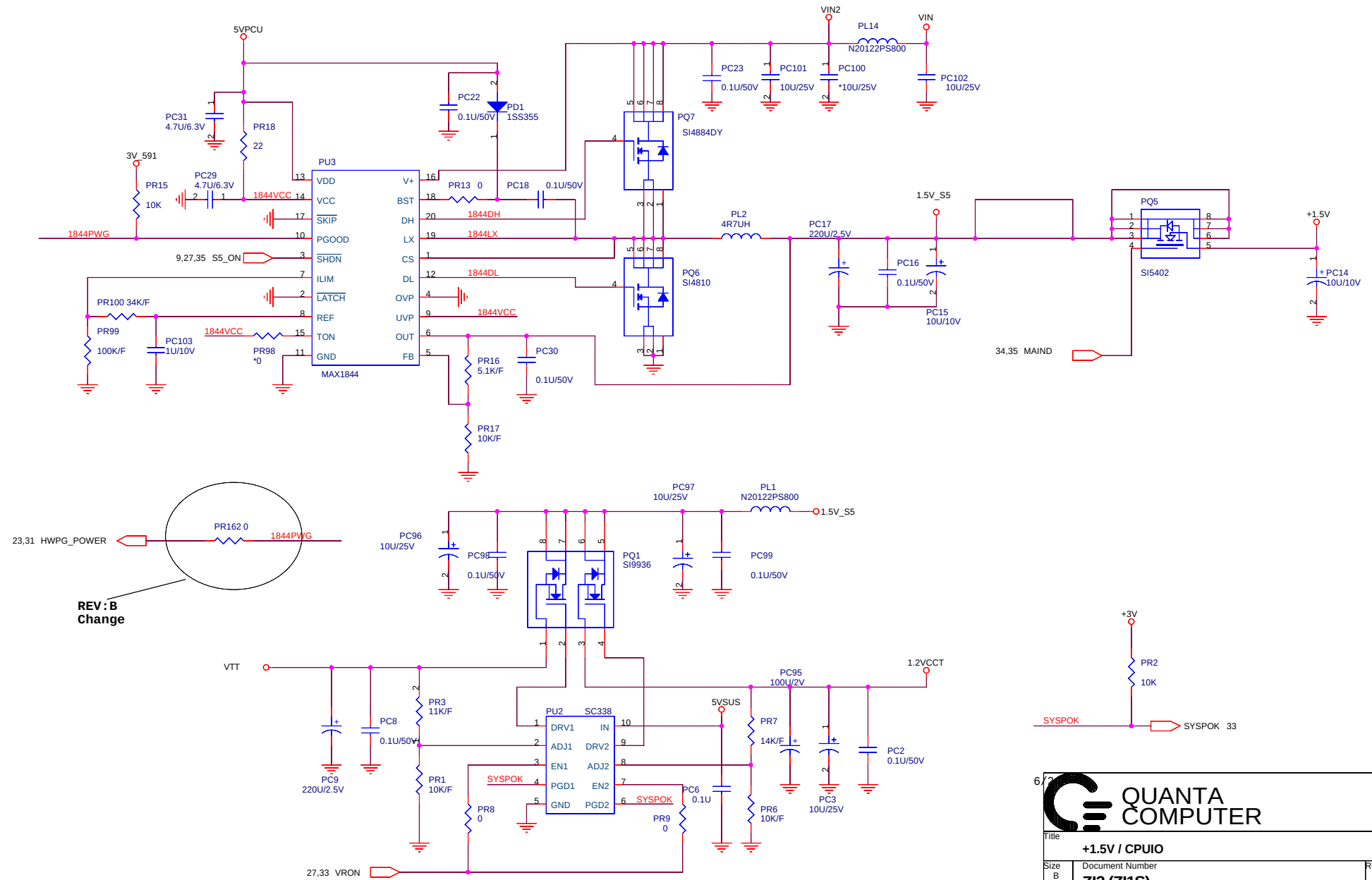
Size: Custom
Document Number: Z12

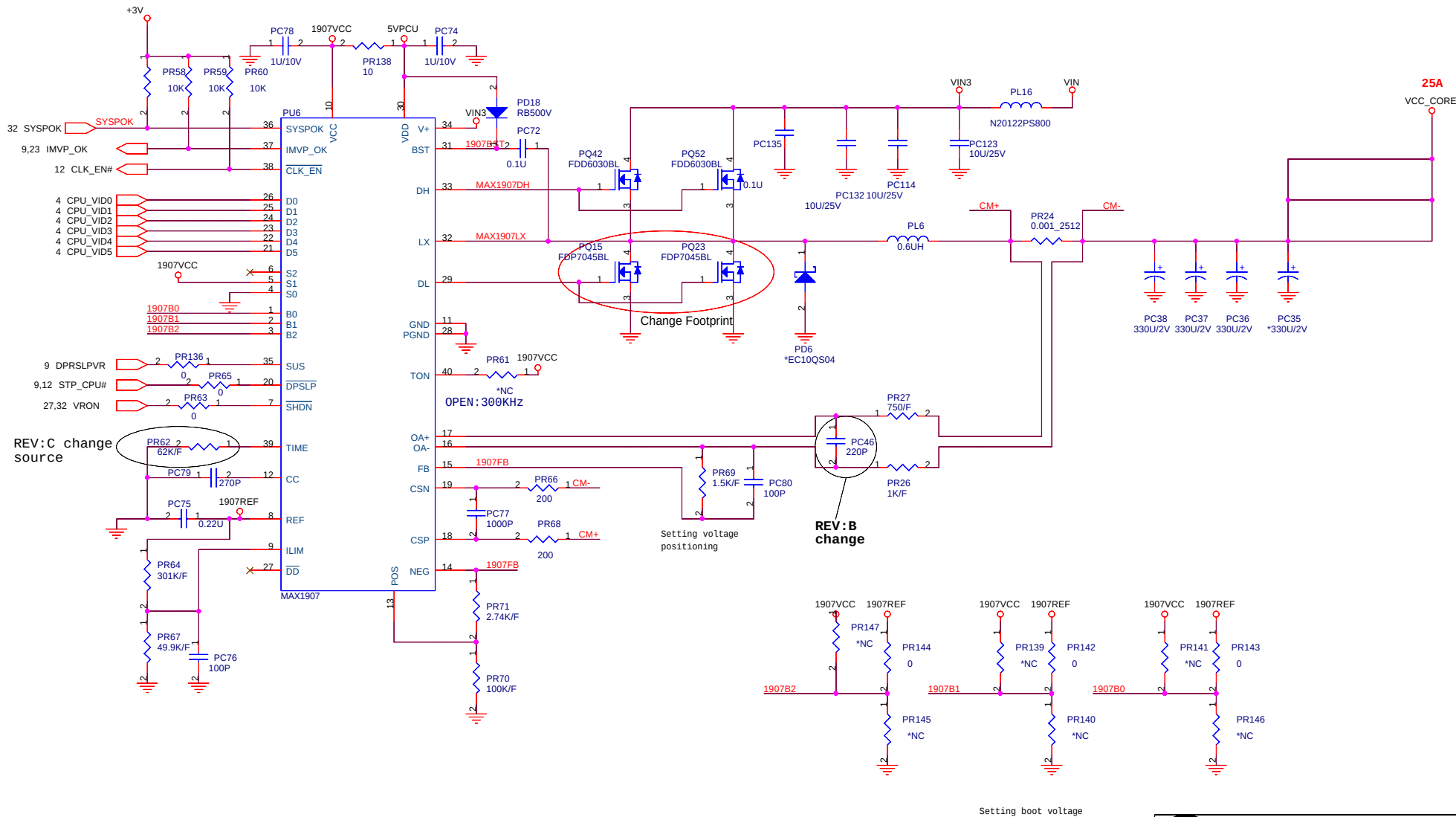
Date: Friday, July 25, 2003

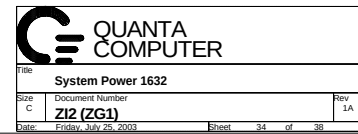
Sheet 28 of 38

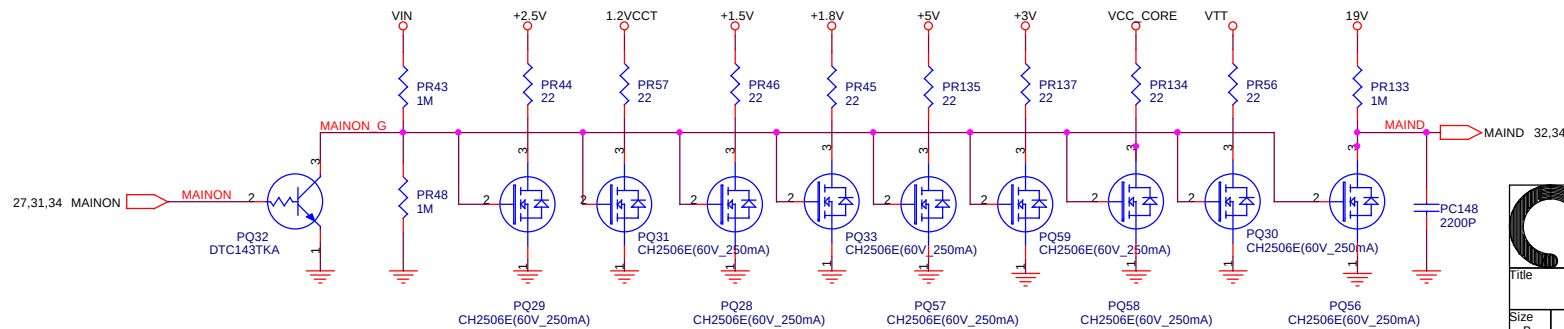
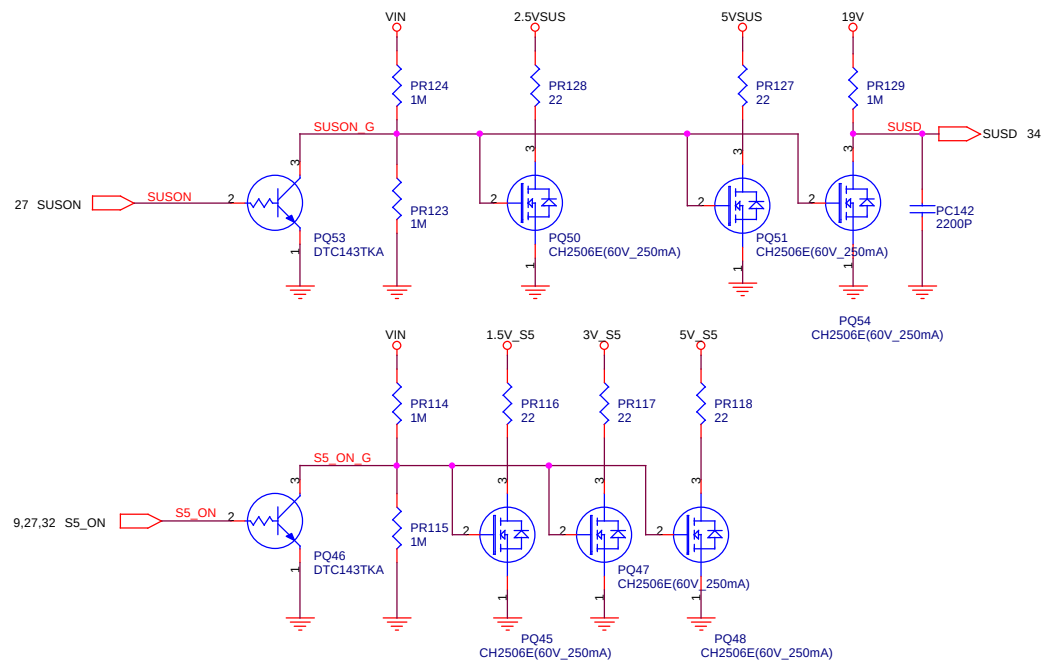
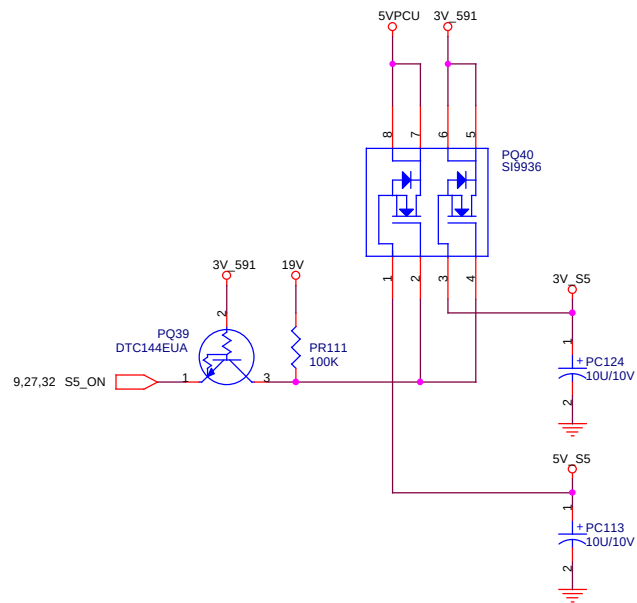
Rev 3E











Title		
Discharge Circuit		
Size B	Document Number	Rev 3B
Z12 (ZG1)		
Date: Friday, July 25, 2003	Sheet 35 of 38	

