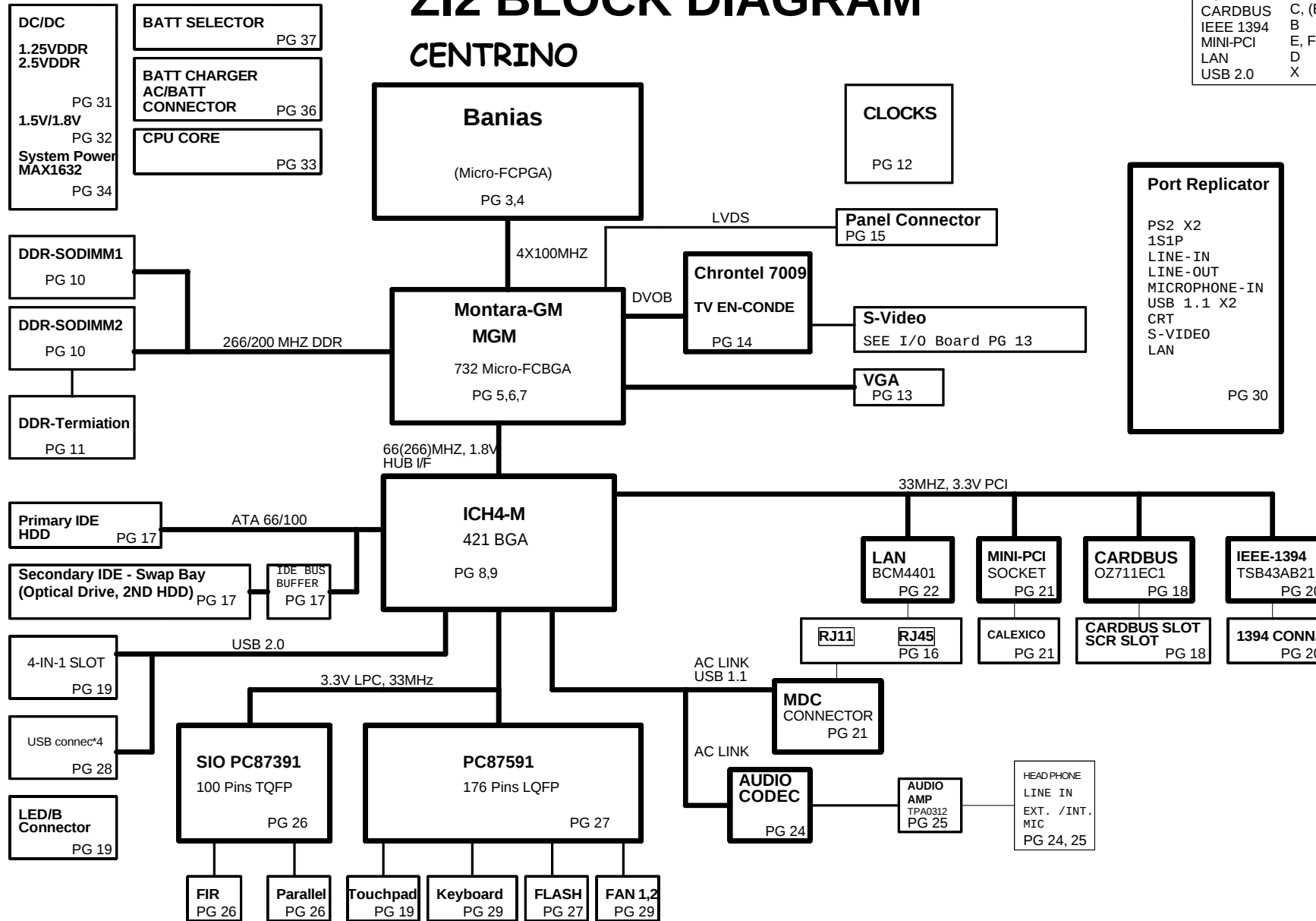


5		4		3		2		1			
MODEL :	REV :	CHANGE LIST :							PAGE	FROM	TO
Z12 MB	1A	FIRST RELEASE : ECN NO. E200302-3095							1	1A	
	1B	MODIFY BOM : ECN NO. E200303-0277							2	1A	
		PAGE05 : R495 CHANGE TO 127 ohm 1%							3	3B	
		PAGE06 : C604 & C654 CHANGE TO 220uF / 2.5V							4	3A	
		PAGE18 : D4 CHANGE TO CH715F							5	1B	
		PAGE26 : D35 DON'T STUFF							6	2A	
	PAGE33 : PU6 CHANGE TO MAX1907AETL , PQ15 & PQ23 CHANGE TO FDB7045L , PC46 CHANGE TO 220pF							7	1C		
	PAGE36 : PU13 CHANGE TO LM358AM							8	3B		
	1C	MODIFY BOM : ECN NO. E200303-2680							9	3D	
		PAGE03 : Q40 CHANGE FOOTPRINT FOR SMT ISSUE							10	1C	
		PAGE06 : SOLVE FOR I2C BUS CAN'T READ DATA							11	1A	
		PAGE07 : C560 CHANGE FOOTPRINT FOR ASSEMBLY ISSUE							12	3C	
		PAGE08 : SOLVE FOR PCIRST SIGNAL NOT GOOD ISSUE							13	3B	
		PAGE09 : STUFF R634 FOR LAN WORKING							14	3B	
		PAGE10 : DDR ADDRESS LINE CHANGE & ADD EMI SOLUTION							15	3A	
		PAGE12 : SOLVE FOR I2C BUS CAN'T READING							16	3A	
		PAGE14 : U10 CHANGE TO CH7011A-T & CHANGE Q86,Q87 FOR SMBUS READING							17	3B	
		PAGE15 : SOLVE FOR LCD BACKLIGHT OFF ISSUE							18	3B	
		PAGE16 : UPDATE 4 IN 1 BOARD'S ALCOLOCATION HOLE SIZE							19	3D	
		PAGE18 : SOLVE FOR 4 IN 1 CARD READER MODULE READING SIGNAL							20	3B	
		PAGE19 : CHANGE LCD CONNECTOR FOOTPRINT FOR SMT ISSUE							21	3D	
		PAGE21 : ADD Q88 Q89							22	3B	
		PAGE23 : ADD EMI SOLUTION							23	3A	
		PAGE24 : SOLVE FOR AUDIO QUALITY							24	3B	
		PAGE25 : ADD EMI SOLUTION & SOLVE FOR AUDIO QUALITY							25	3B	
PAGE28 : SOLVE FOR USB2.0 ISSUE							26	3A			
PAGE27 : CHANGE Q23 FOOTPRINT FOR SMT ISSUE							27	3B			
PAGE29 : ADD EMI SOLUTION							28	3D	3E		
PAGE30 : ADD EMI SOLUTION							29	3B			
PAGE32 : PQ6 CHANGE TO SI4810DY							30	1C			
2A		MODIFY BOM : ECN NO. E200303-3536							31	3A	
		PAGE06 : ADD R480 FOR TV-OUT							32	1B	
		PAGE21 : DON'T STUFF R510 FOR MINI PCI LAN CARD DON'T WORK							33	1B	
	PAGE27 : DON'T STUFF R150 FOR PWROK SIGNAL QUALITY							34	1A		
3A	MODIFY BOM : ECN NO. E200304-2184							35	3B		
	PAGE03 : SOLVE LEAKAGE CURRENT ISSUE (Q40)							36	1B		
	PAGE04 : CHANGE FOOTPRINT FOR SMT ISSUE							37	1A		
	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											
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										
3C	PAGE24 : SOLVE MTC 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										
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 : 31ZI2MB0007		PROJECT LEADER: JIM HSU		DOCUMENT NO: 204		DATE :2003/07/25			
5		4		3		2		1			

ZI2 BLOCK DIAGRAM

CENTRINO

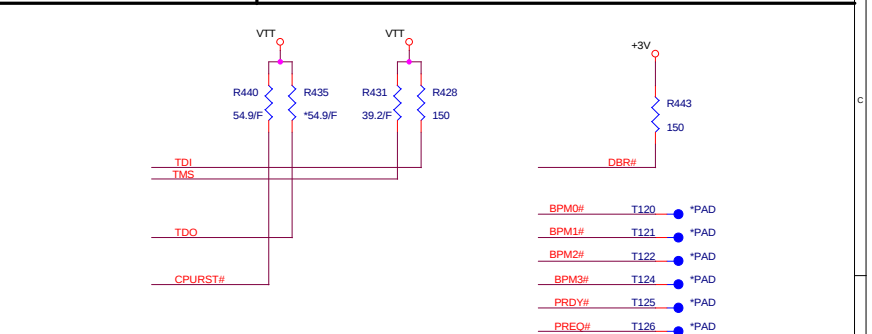
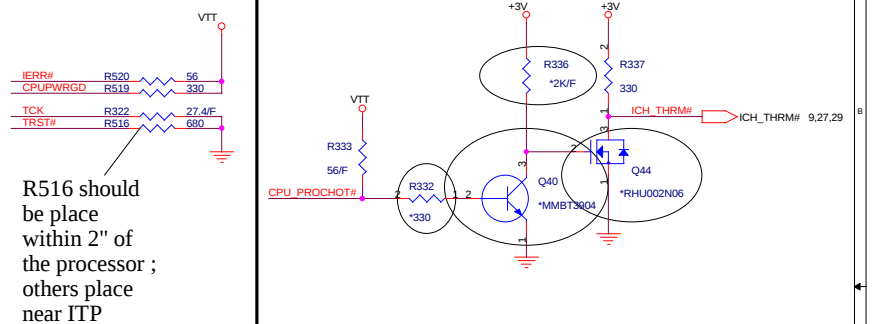
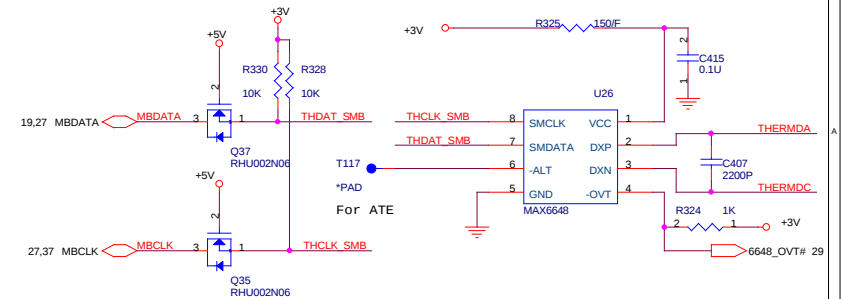
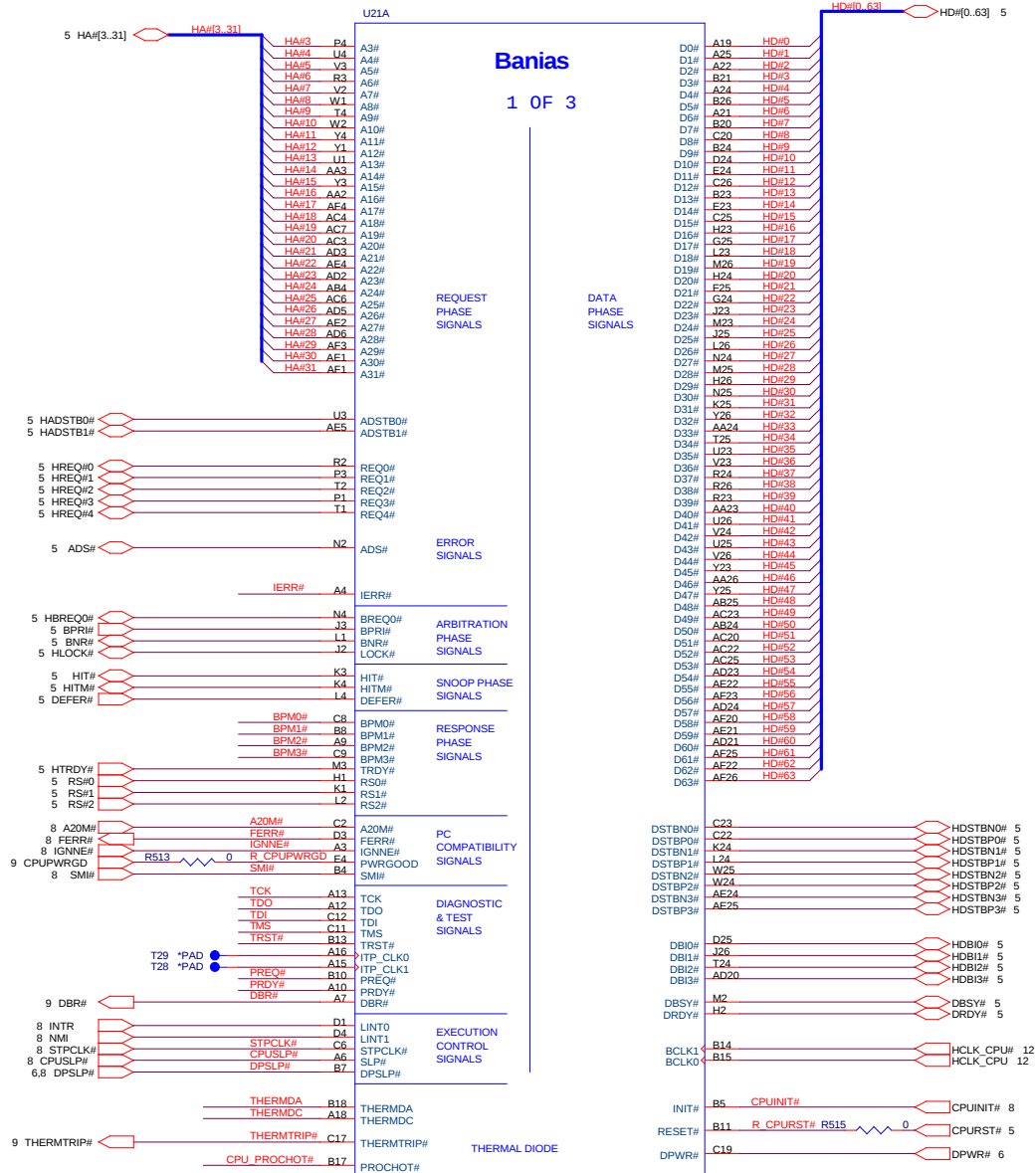
	PIRQ#	REQ#/GNT#	IDSEL
VGA	X	X	X
CARDBUS	C, (B)	3	22
IEEE 1394	B	2	23
MINI-PCI	E, F	1	20
LAN	D	0	18
USB 2.0	X	X	X



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

Banias

1 OF 3

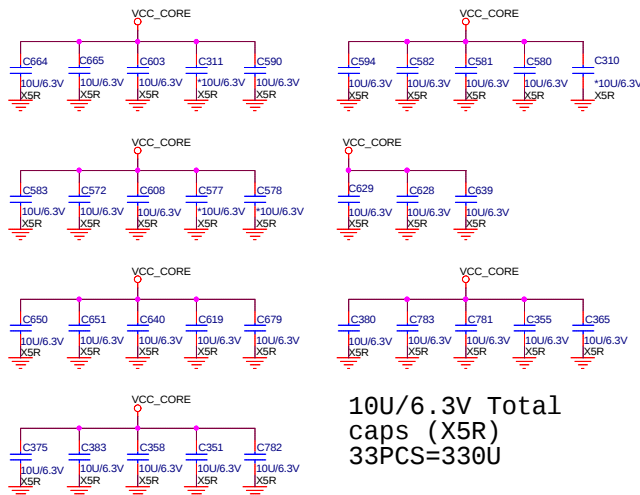
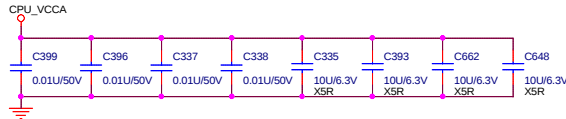
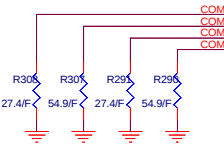


De1 ITP700
De1 R434, R439, C542, R442

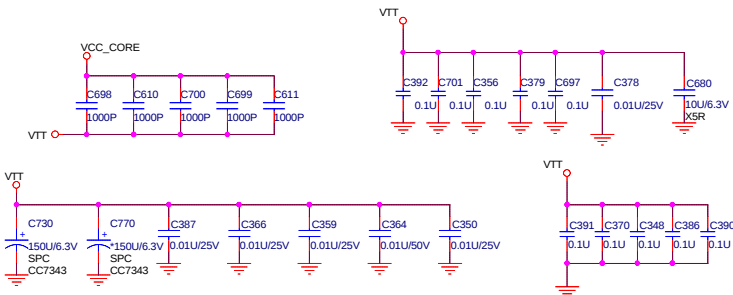


Title		Banias Processor (HOST)	
Size	Document Number	Z12	
Date	Friday, July 25, 2003	Sheet	3 of 38

These 4 Resistors need to place with 0.5" of CPU.
Comp0,2 trace need to be $z_0=27.4\ \text{ohm}$,
comp1,3 traces need to be $z_0=55\ \text{ohm}$.

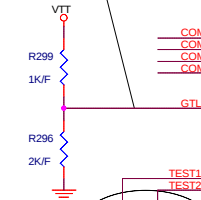


10U/6.3V Total
caps (X5R)
33PCS=330U



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

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

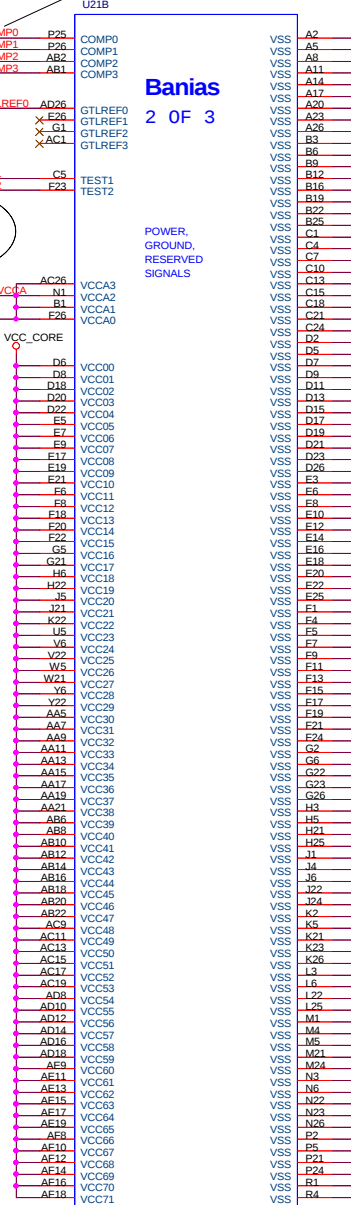


A0 CPU install R514 R502
A1 CPU not install R514 R502

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

Banias
2 OF 3

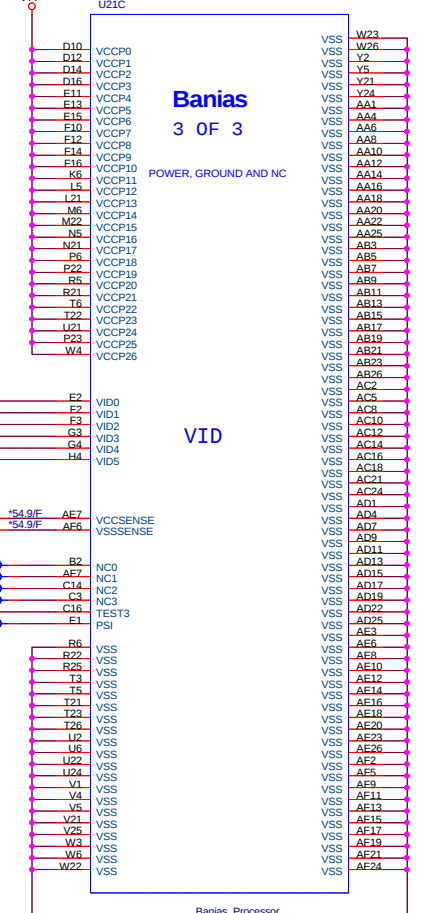
POWER, GROUND, RESERVED SIGNALS



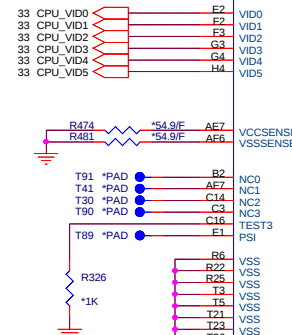
Banias_Processor

Banias
3 OF 3

POWER, GROUND AND NC

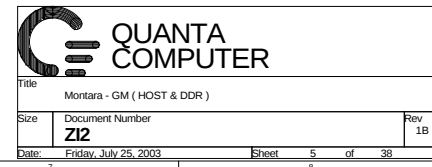


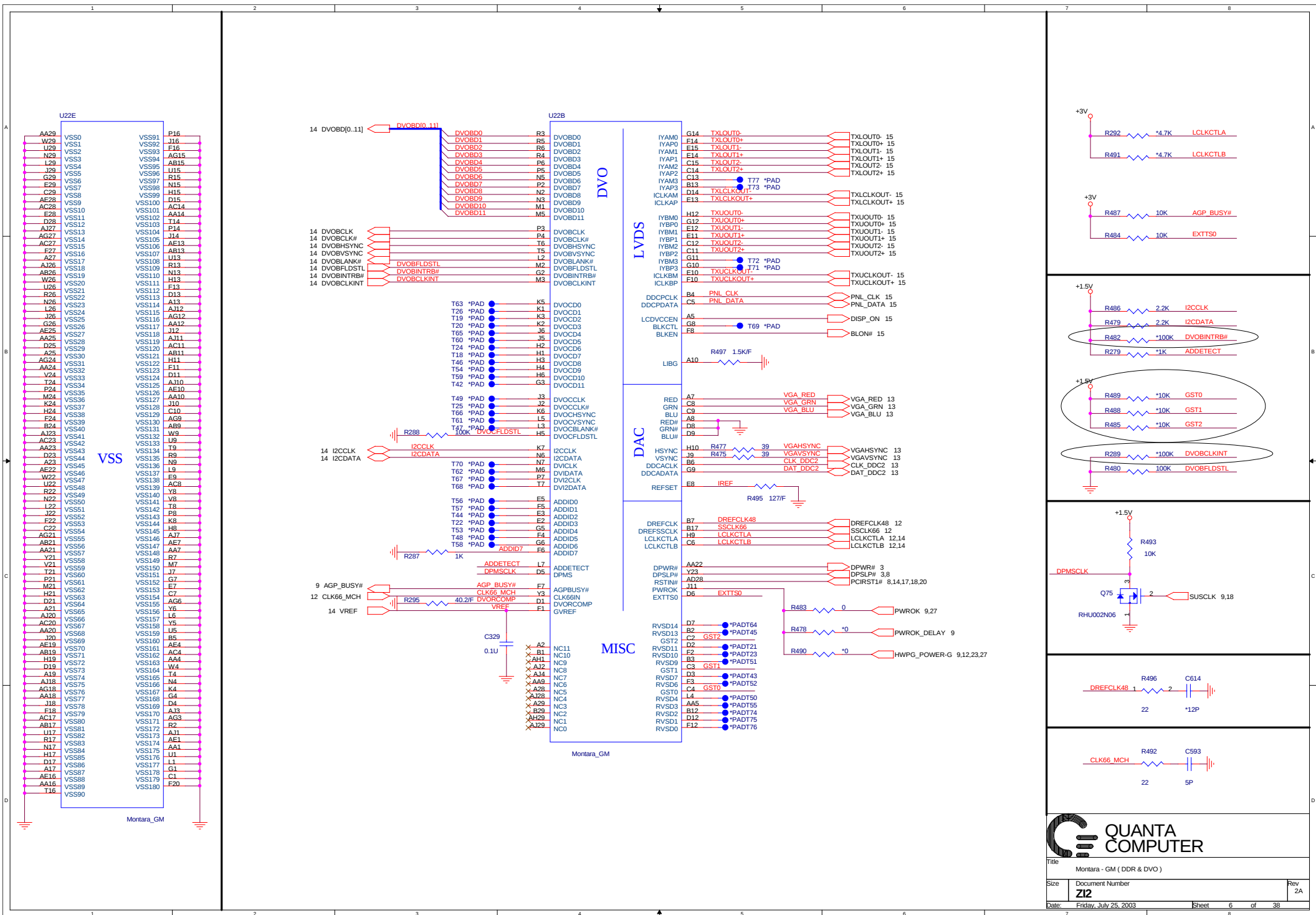
VID

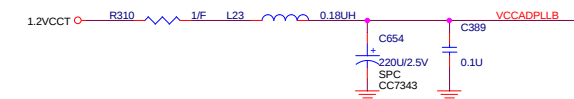


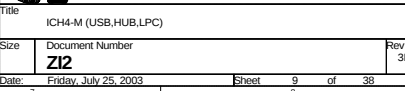
* VCC,BOOT 1.2V
VCC_CORE 1.468V
(DEEPER SLEEP) 0.956V
VTT 1.05V
VCCA 1.8V

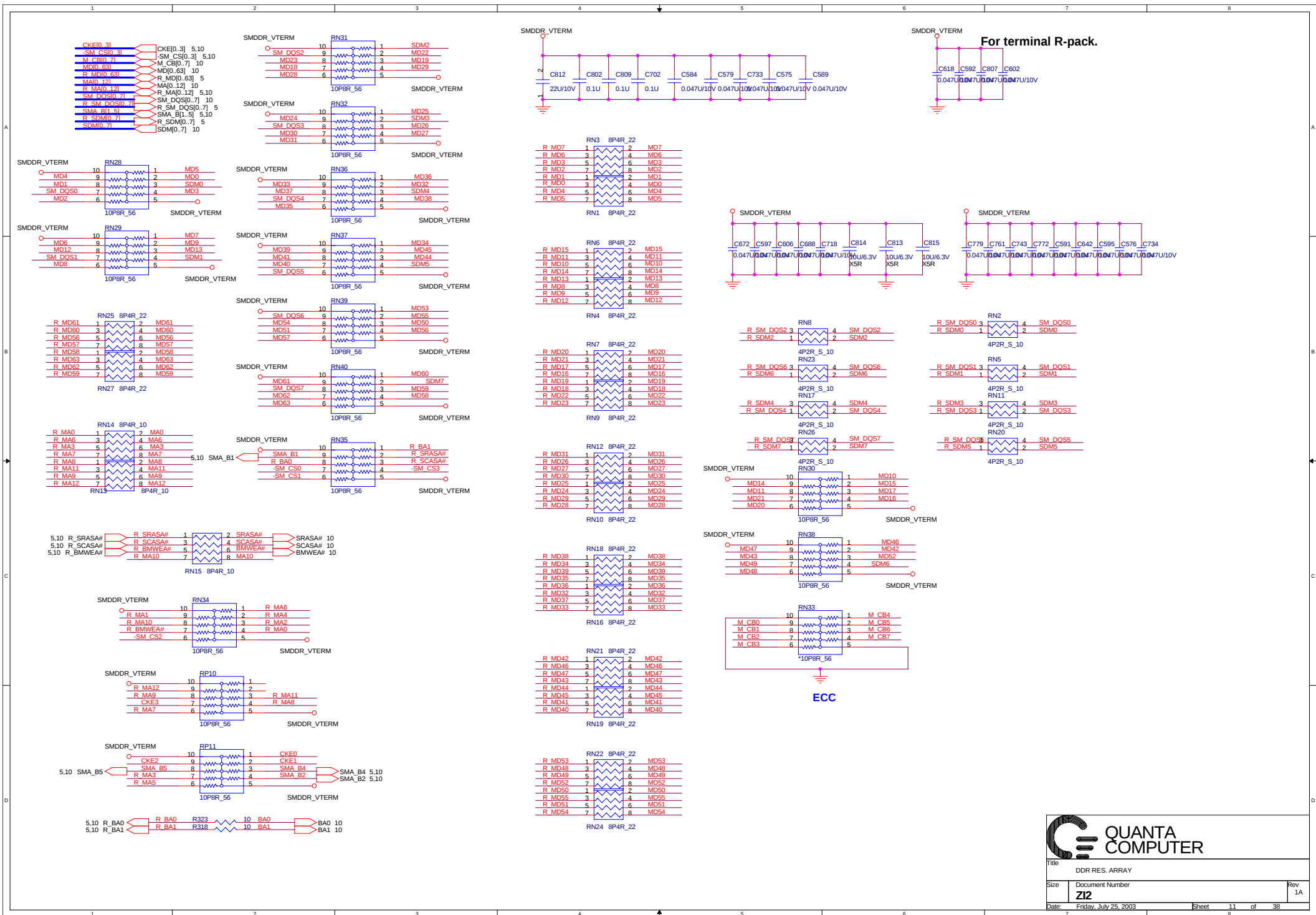


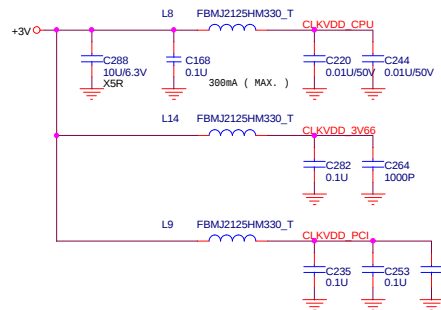
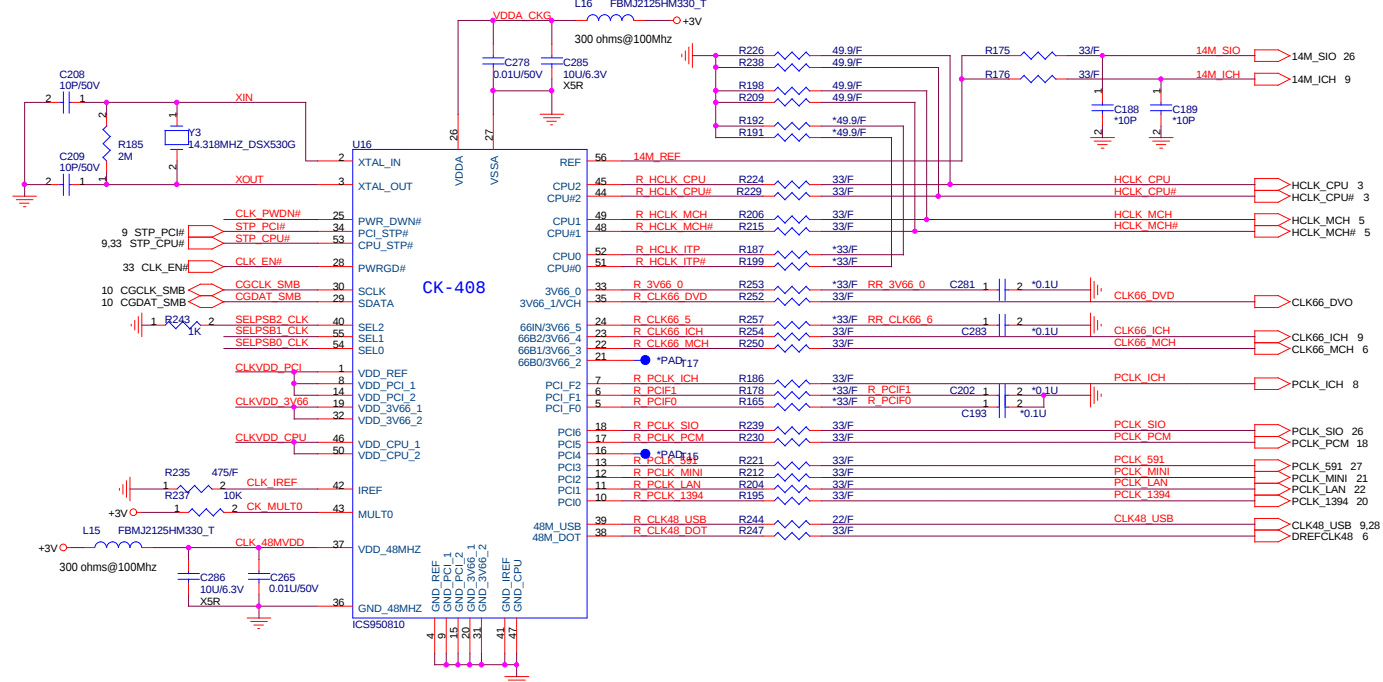
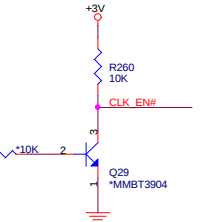








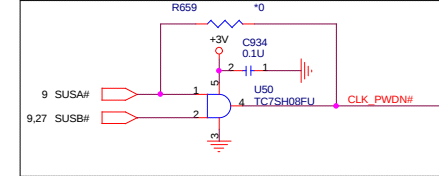
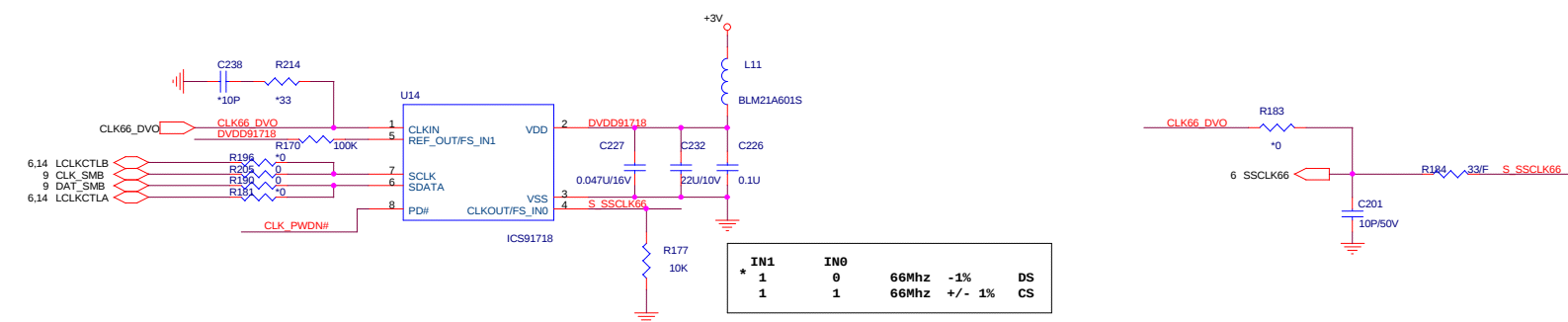
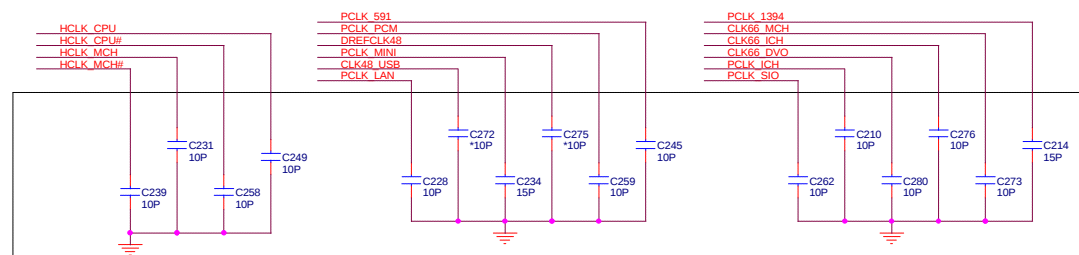




These are for backdrive issue

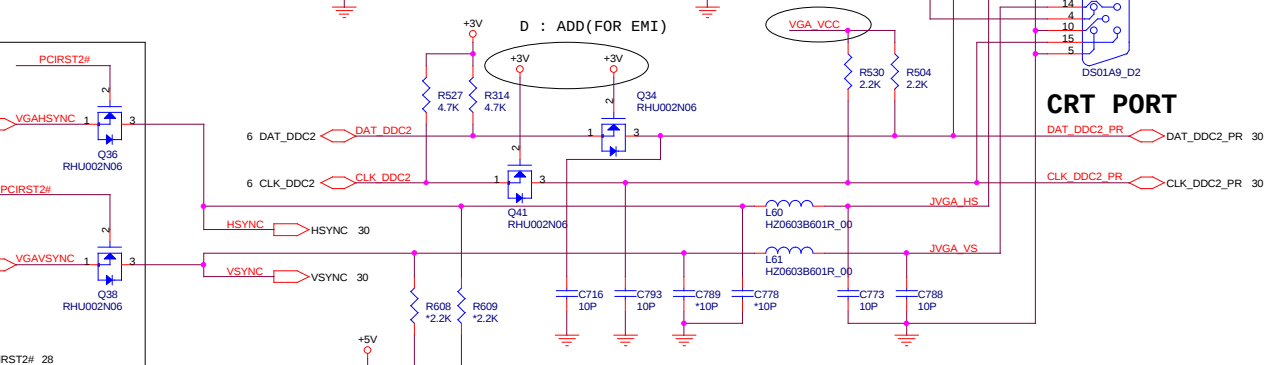
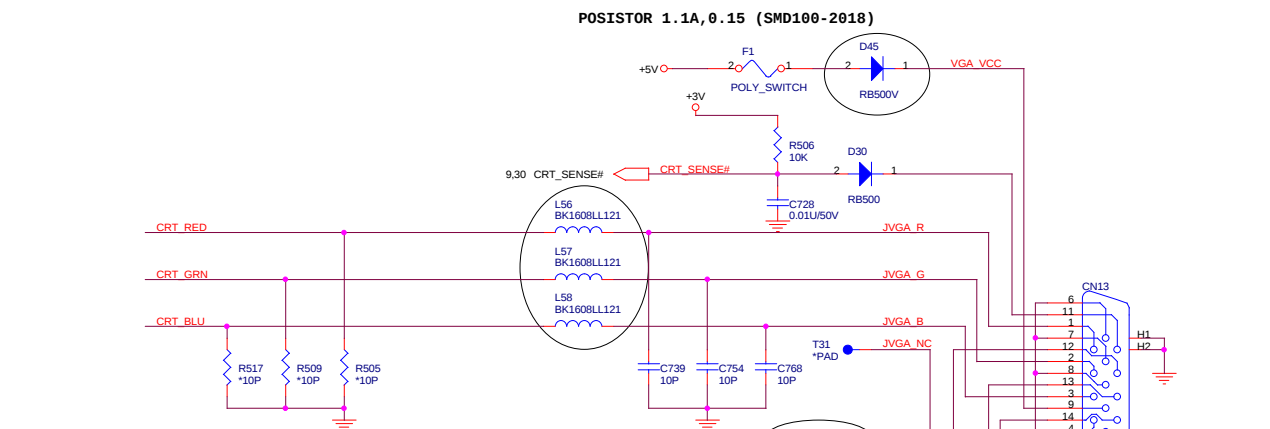
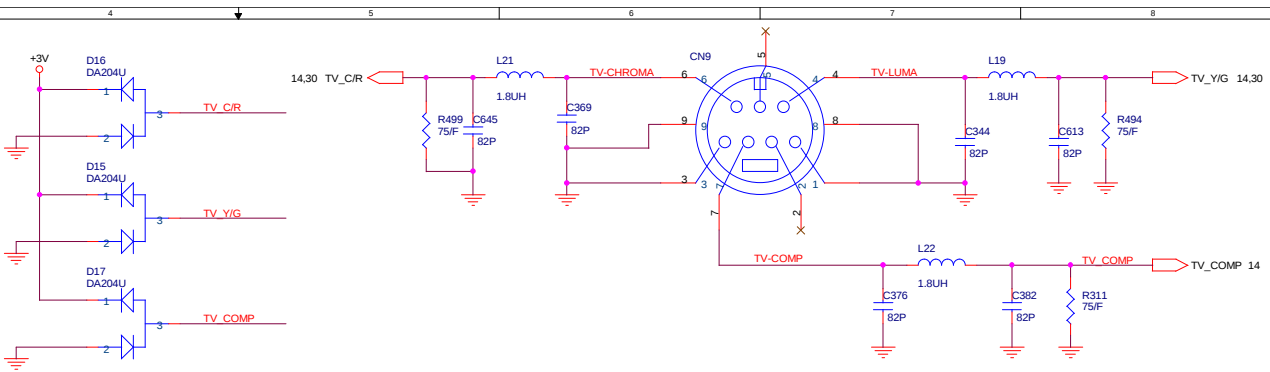
9 PDAT_SMB 3 1 10K R259 10K R258 +5V +3V CGDAT_SMB Q31 RHU002N06

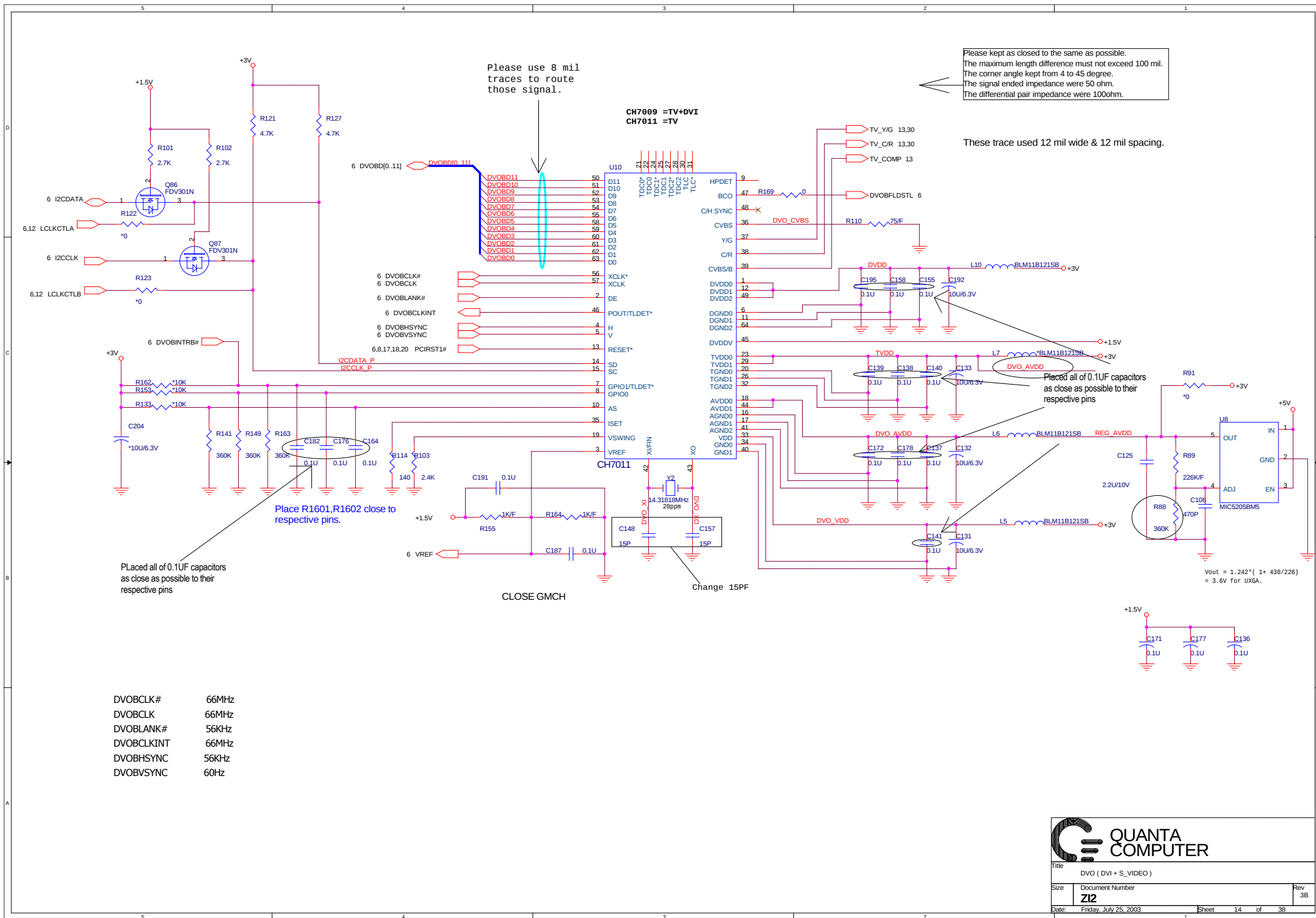
9 PCLK_SMB 3 1 10K R258 +5V CGCLK_SMB Q30 RHU002N06



Title **CLOCK GENERATOR**

Size	Document Number	Rev
Custom	Z12	30
Date:	Friday, July 25, 2003	Sheet 12 of 38





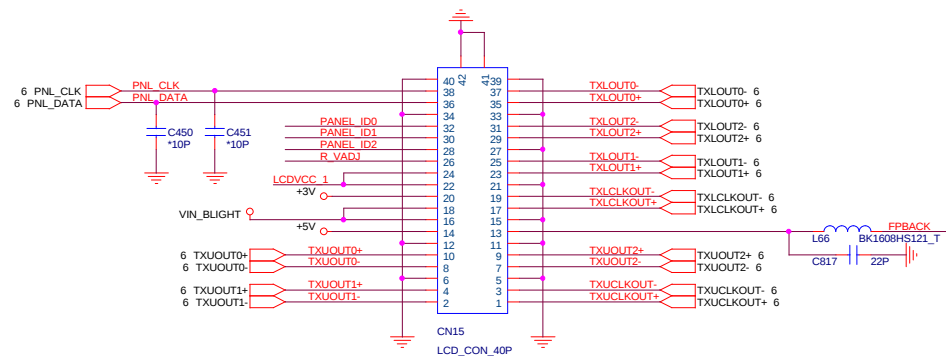
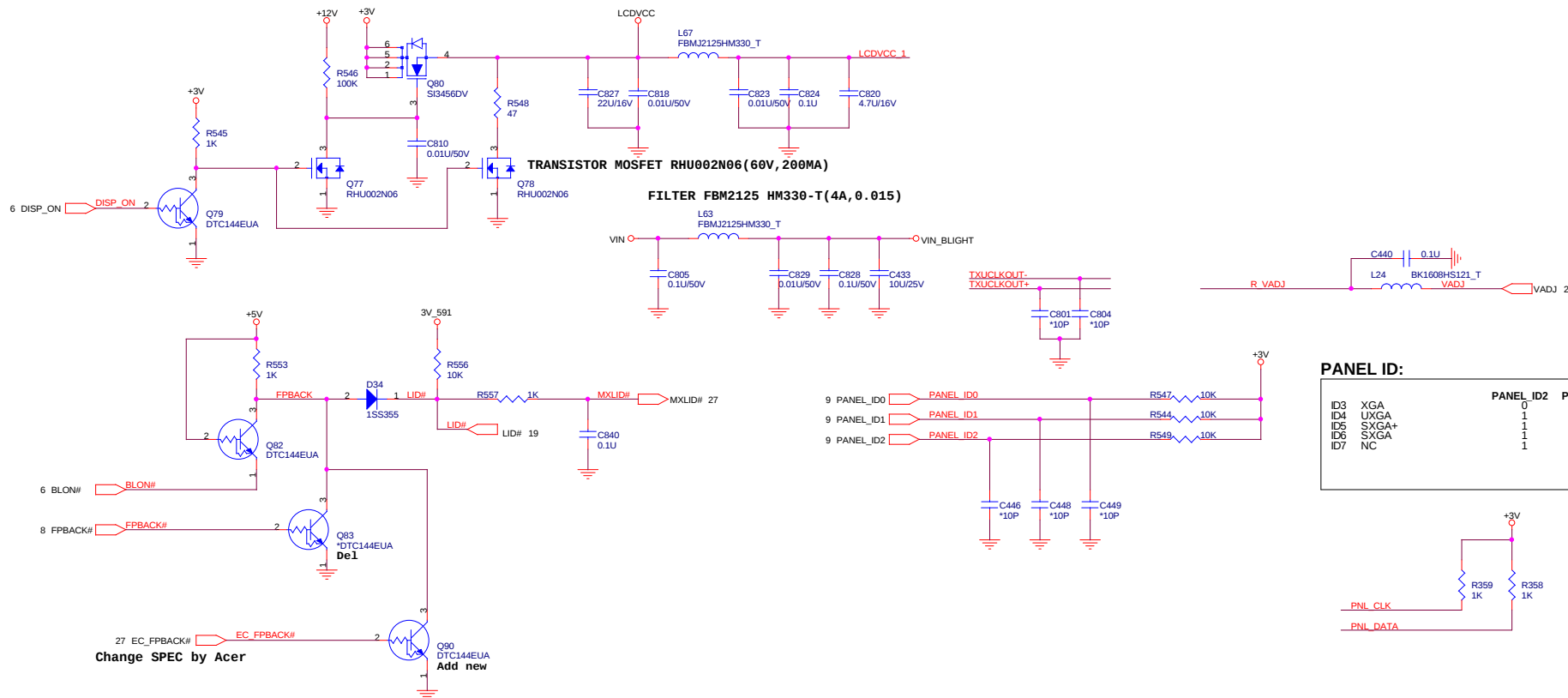
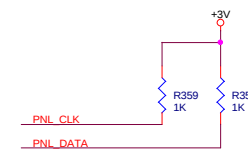
FILTER FBM2125 HM330-T(4A,0.015)

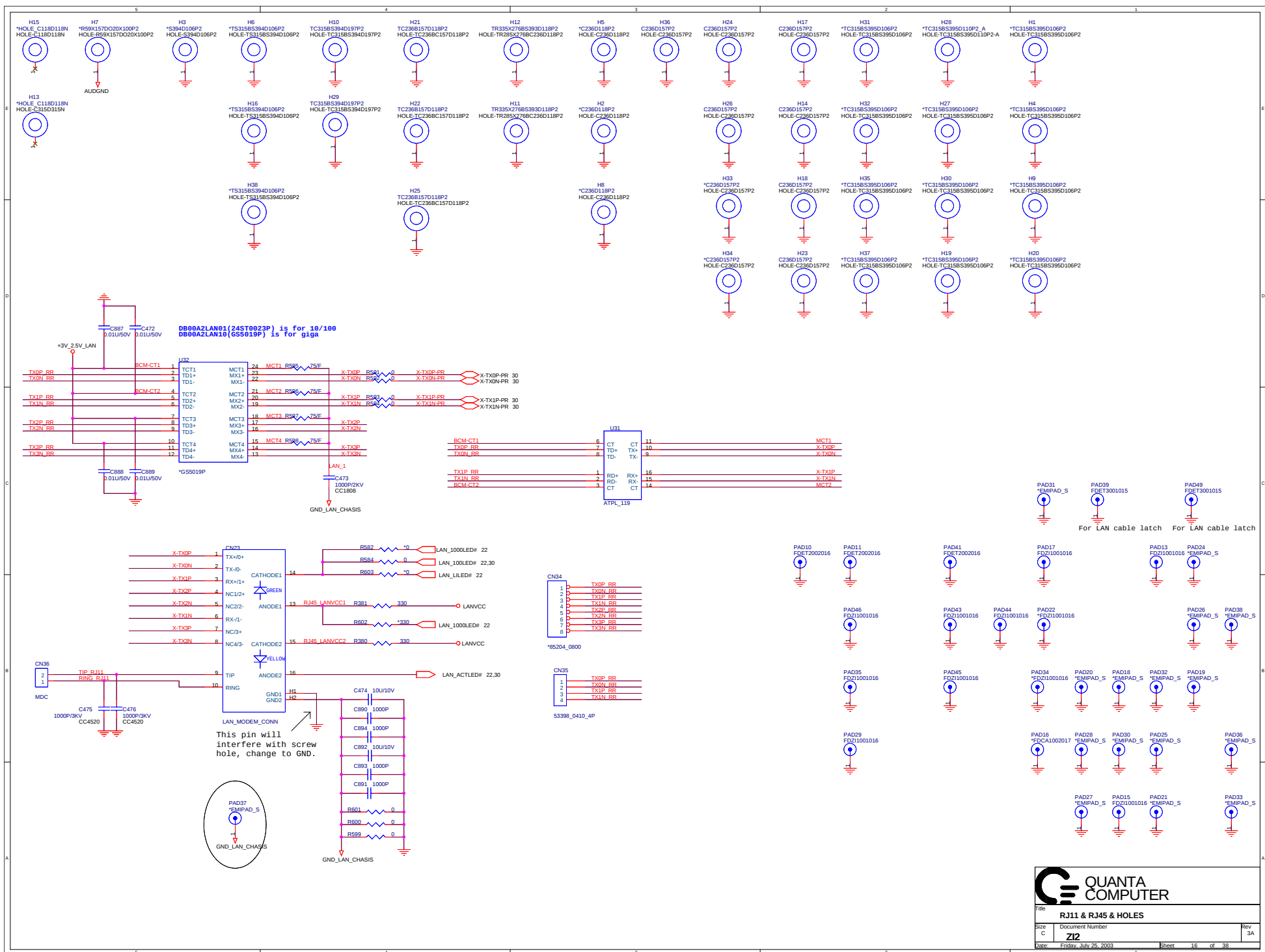
TRANSISTOR MOSFET RHU002N06(60V,200MA)

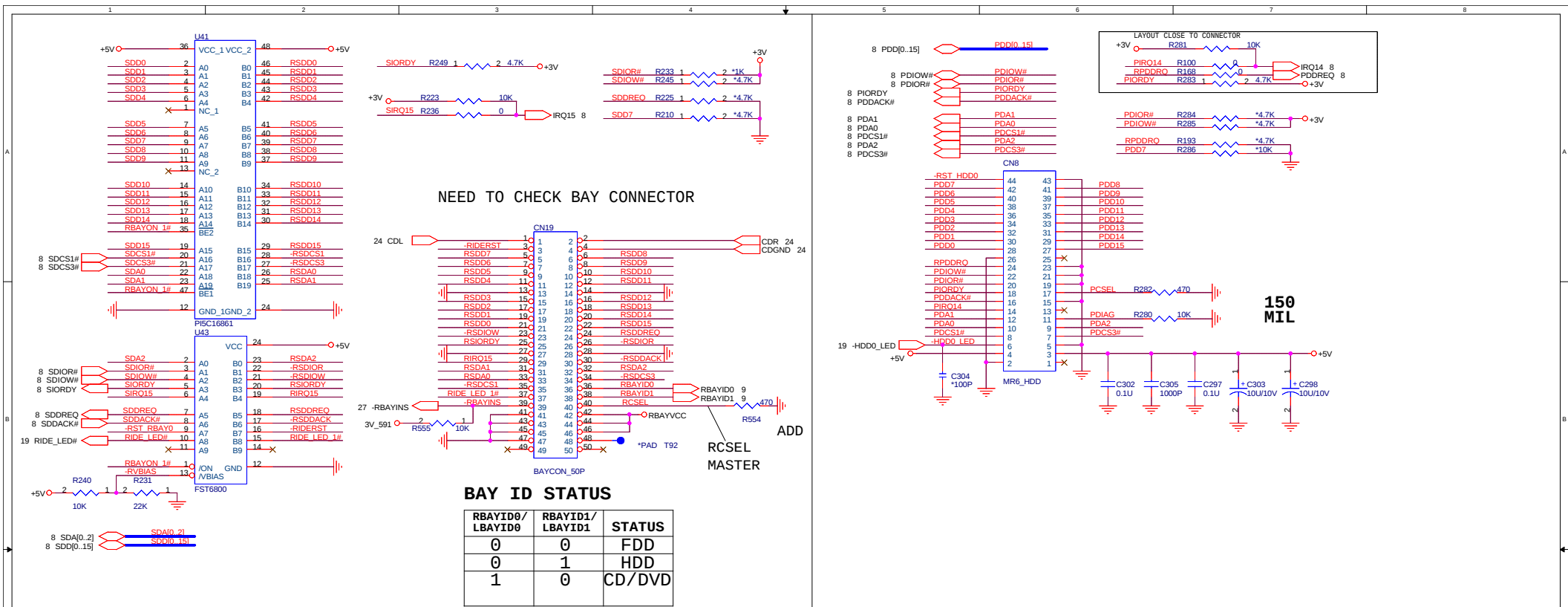
FILTER FBM2125 HM330-T(4A,0.015)

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

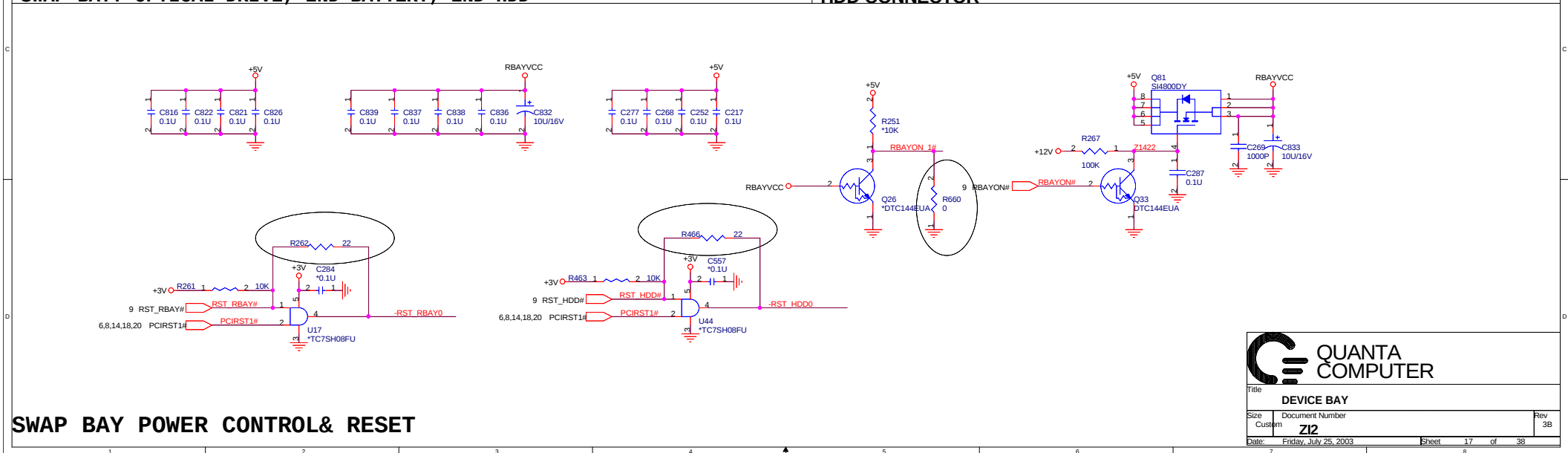


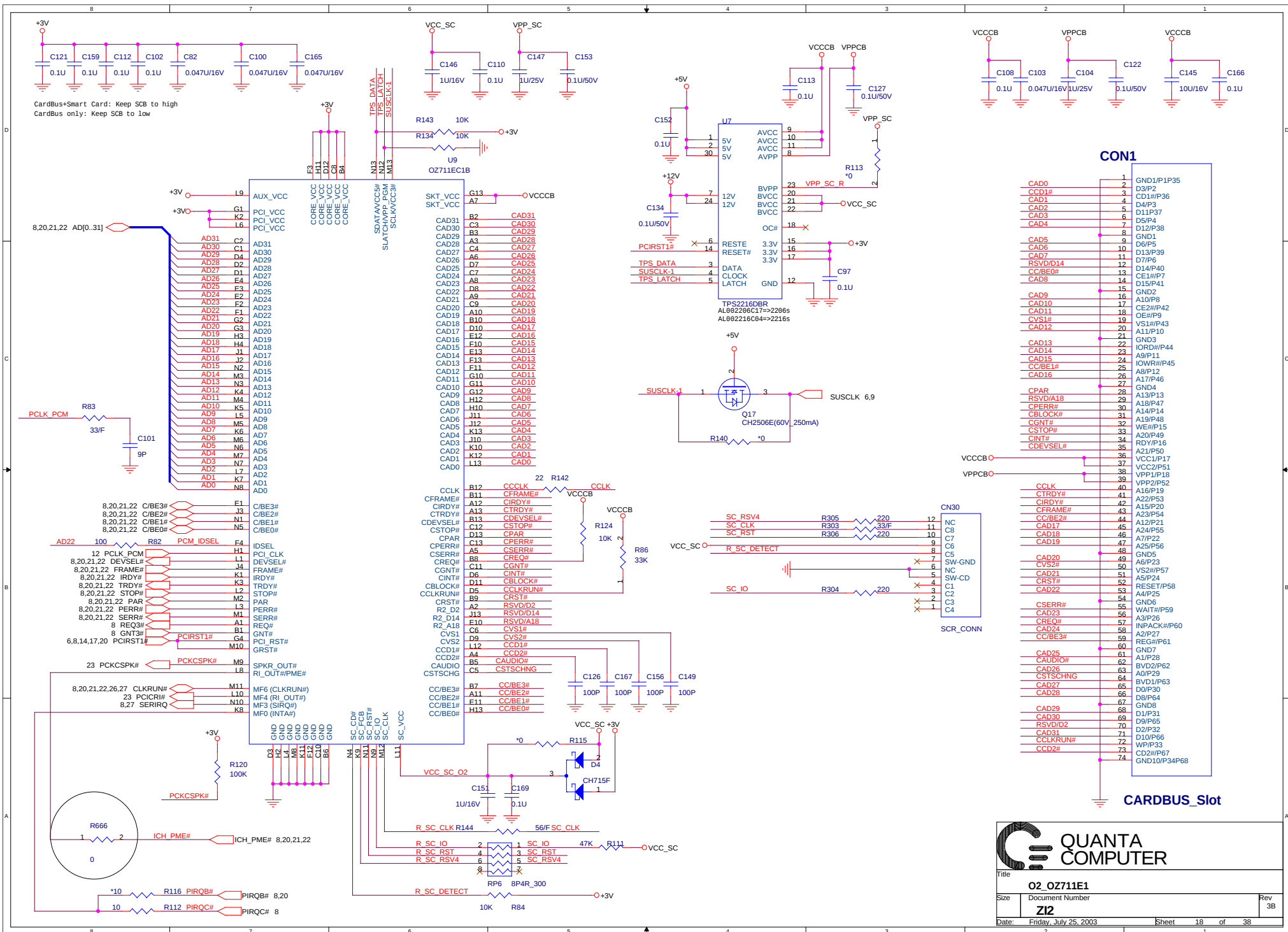




SWAP BAY: OPTICAL DRIVE, 2ND BATTERY, 2ND HDD

HDD CONNECTOR

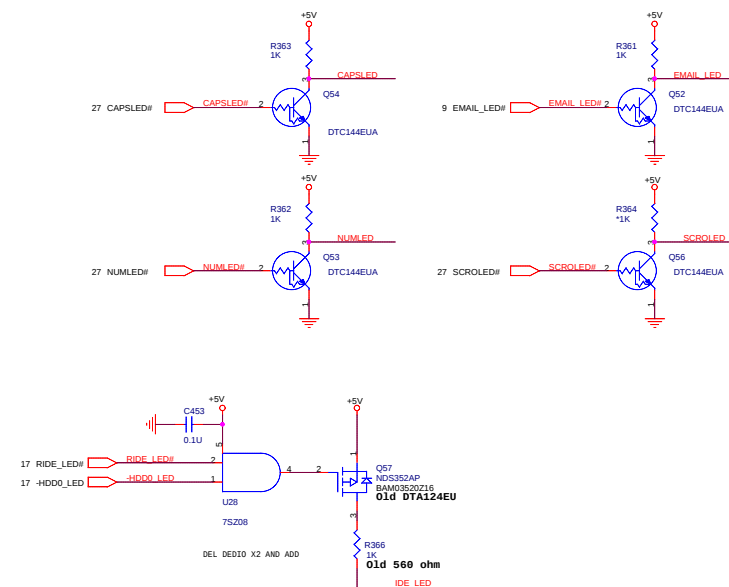
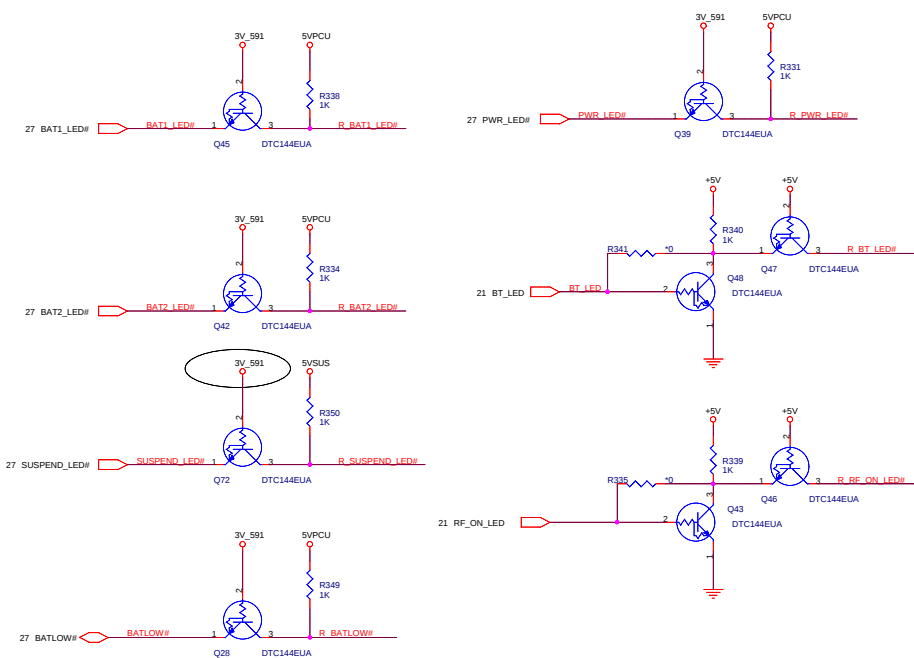
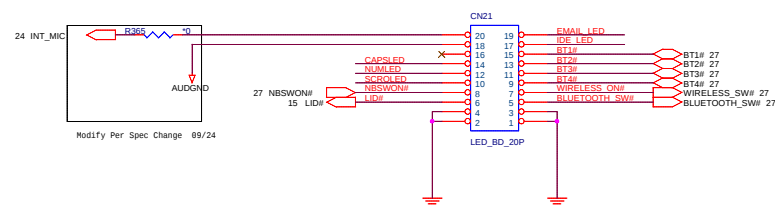




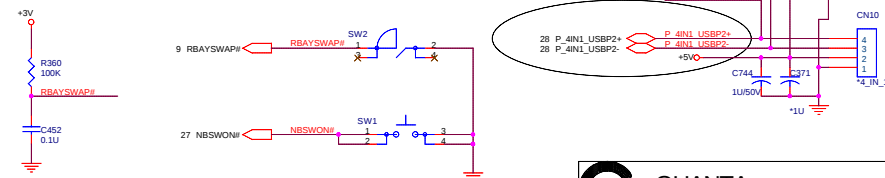
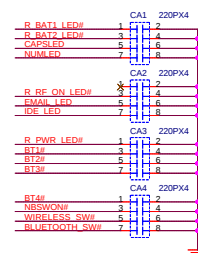
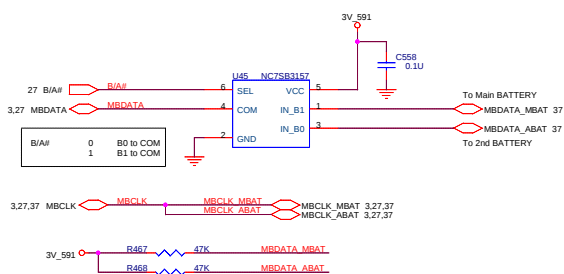
The image displays a detailed PCB layout for the ACES_87Z16_2002 module. The layout includes the following components and connections:

- Power and Ground:** A 5VSUS pin is connected to a 5V supply. A 0.1uF capacitor is placed near the 5V pin. Ground connections are shown for various pins and components.
- Microcontroller:** The FBMJ2125HM330_T L62 is the central microcontroller.
- Memory:** L64 (BK1608H5600) and L65 (BK1608H5600) are 16Kbit SRAM chips.
- Connectors:**
 - CN14:** A 24-pin connector with pins 1-19 connected to the microcontroller and pins 20-24 connected to the ACES_87Z16_2002 module.
 - TPDATA:** A 27-pin connector with pins 1-19 connected to the microcontroller and pins 20-27 connected to the ACES_87Z16_2002 module.
- Other Components:**
 - C808, C811:** 22pF capacitors connected to pins 24 and 25.
 - TPCLK:** A 27-pin connector with pins 1-19 connected to the microcontroller and pins 20-27 connected to the ACES_87Z16_2002 module.
 - TPCLK:** A 27-pin connector with pins 1-19 connected to the microcontroller and pins 20-27 connected to the ACES_87Z16_2002 module.
 - TPCLK:** A 27-pin connector with pins 1-19 connected to the microcontroller and pins 20-27 connected to the ACES_87Z16_2002 module.

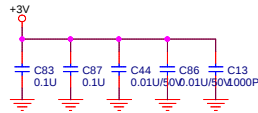
The layout is titled "PCB DEFINITION TEMPORARY CHANGED" and includes a date stamp "09/24".



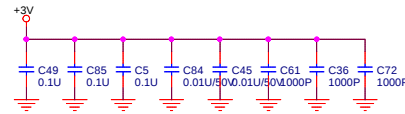
Don't separate this
four PAD for the
function as a CONN



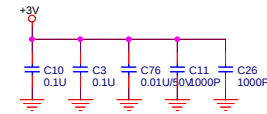
IEEE -1394



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



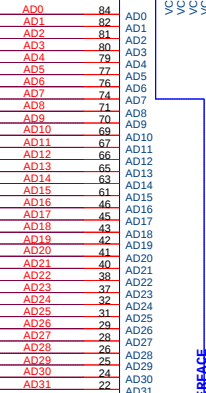
Used for vcc3
(Pin15, 27, 39, 51, 59, 72, 88, 100)



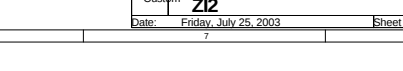
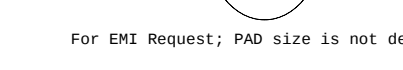
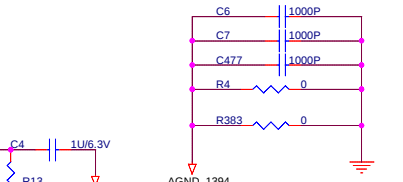
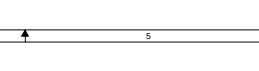
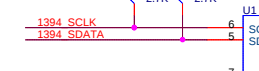
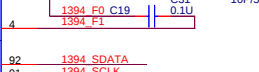
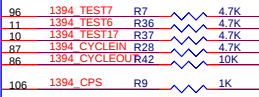
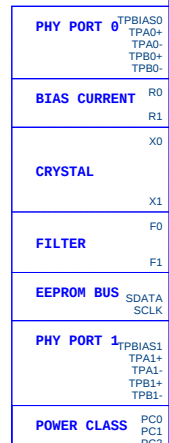
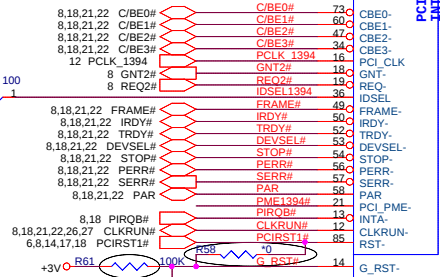
Used for AVCC
(Pin1, 2, 107, 108, 120)

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

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



PCI INTERFACE

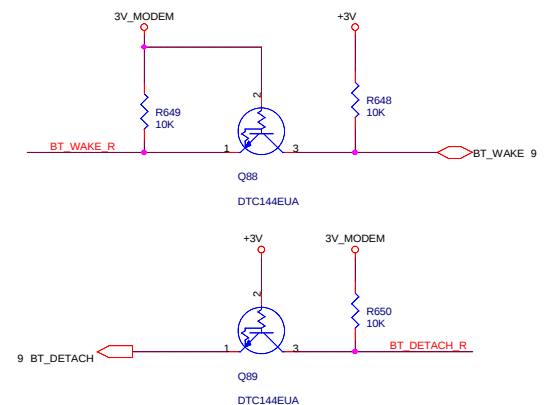
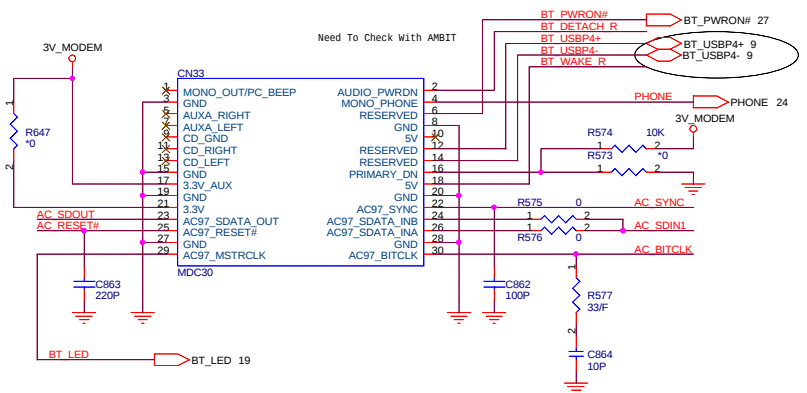
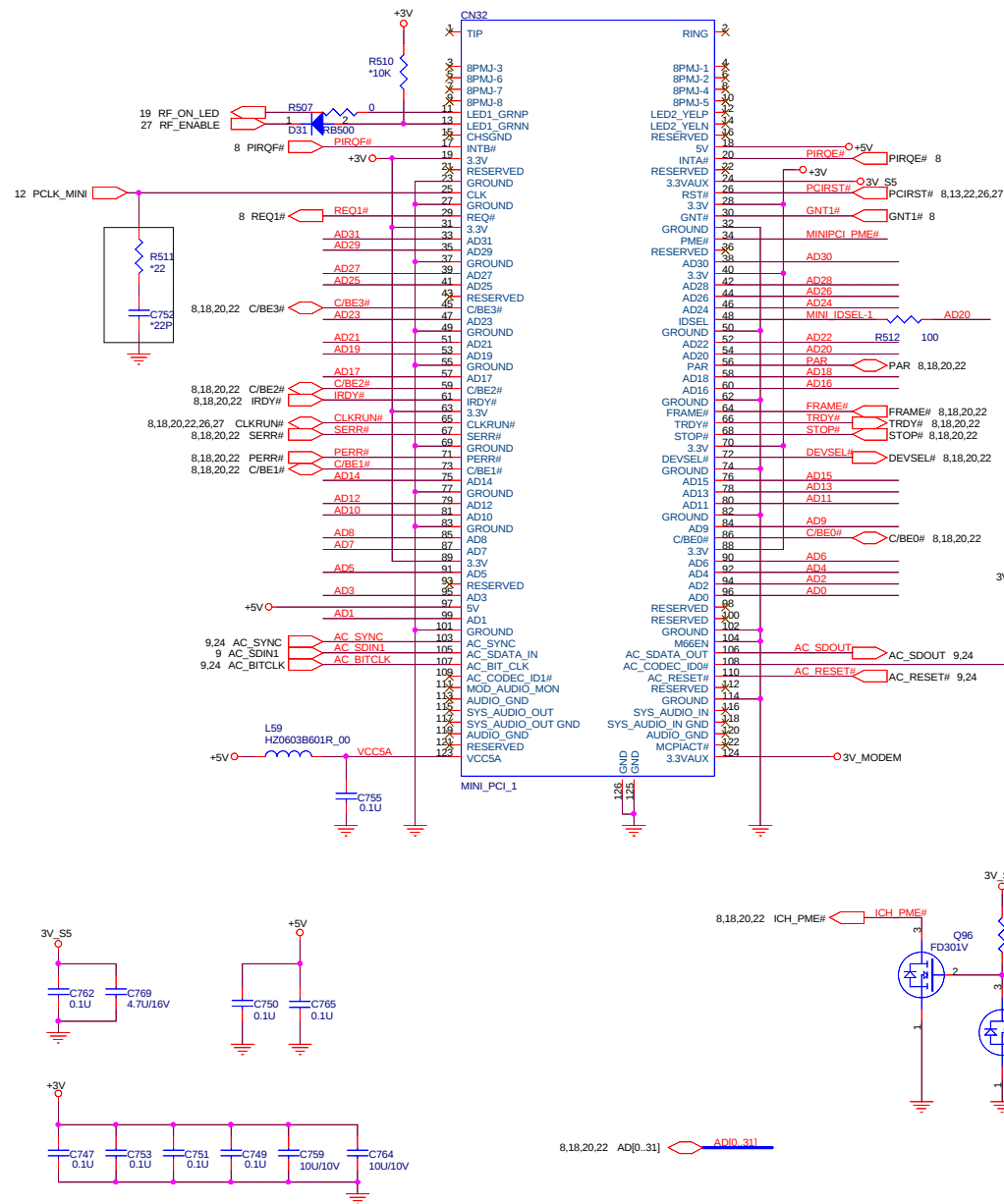


For EMI Request; PAD size is not determined yet.

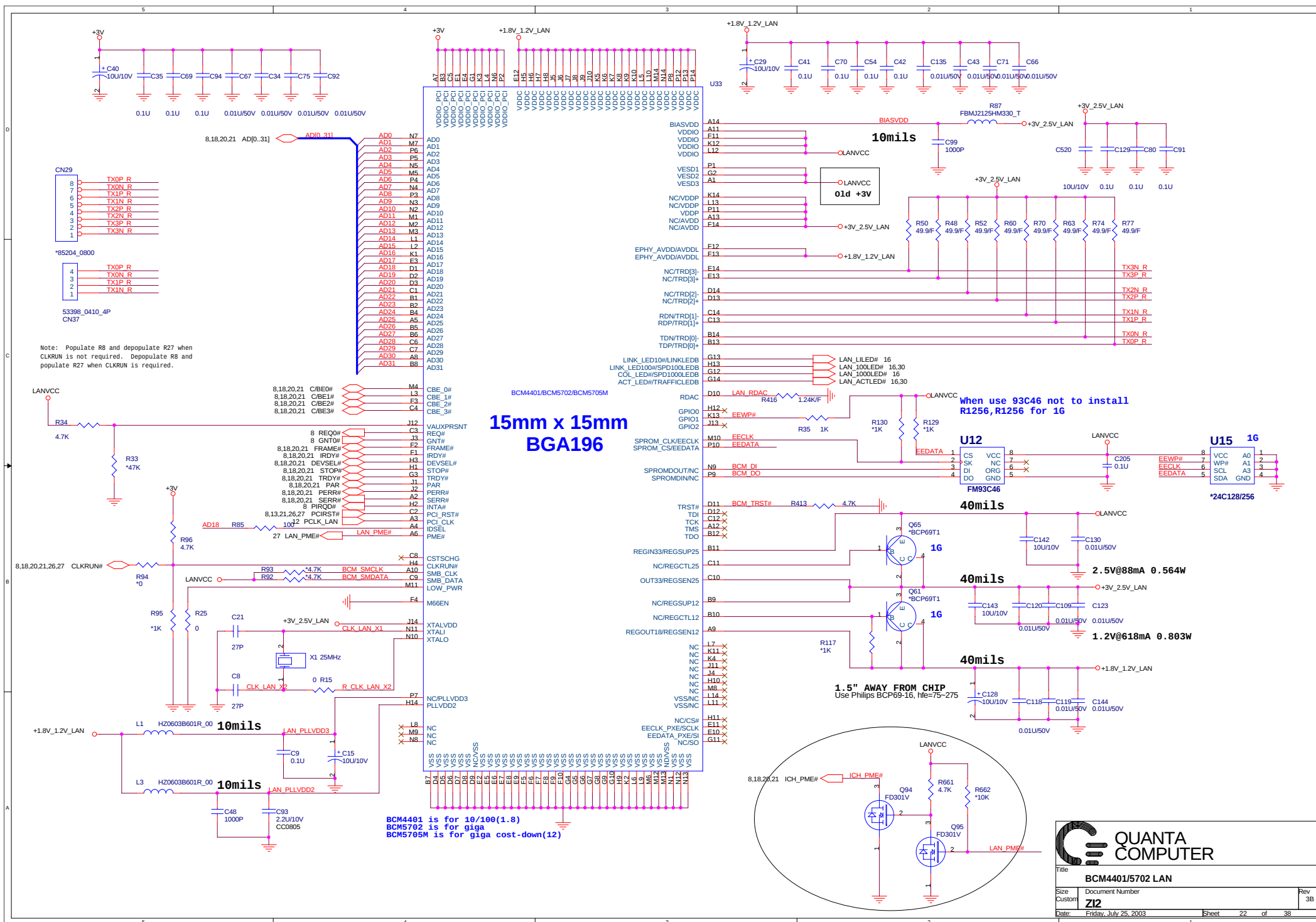


Title	TSB43AB21[1394]		
Size	Document Number	Rev 3B	
Custom	Z12		
Date	Friday, July 25, 2003	Sheet	20 of 38

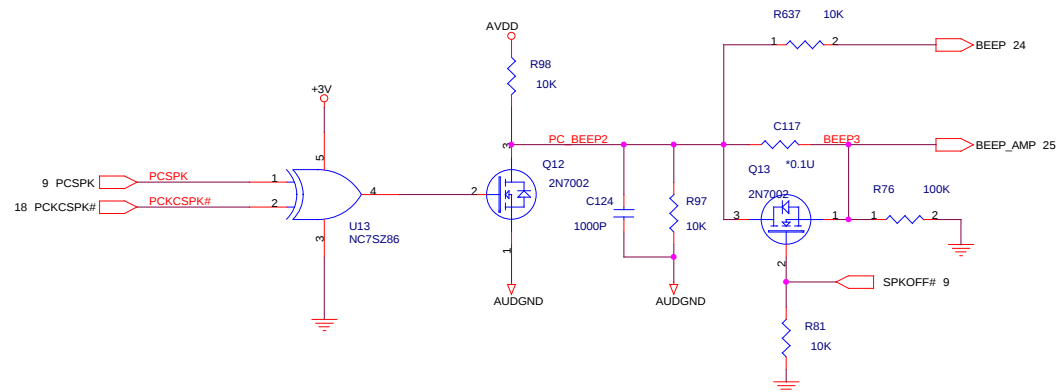
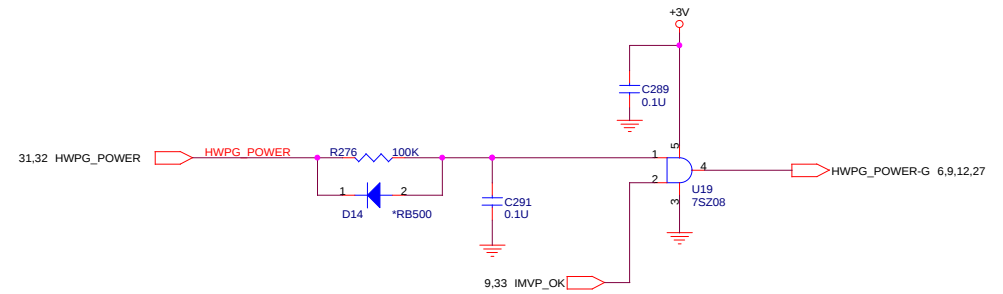
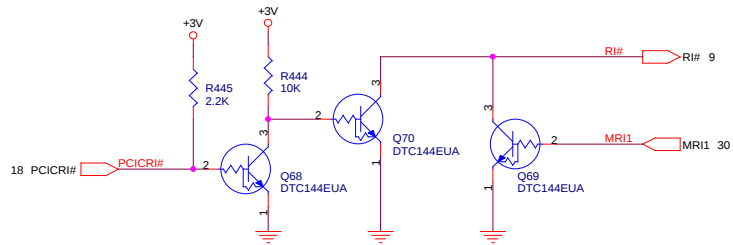
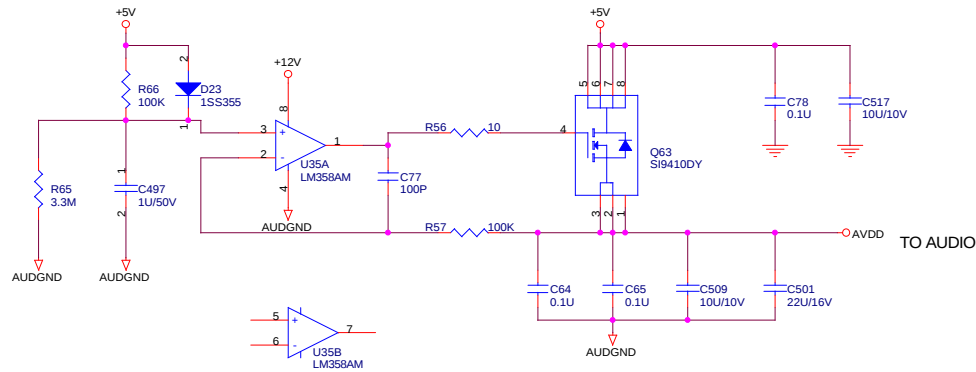
```
ID Select      : AD20
Interrupt Pin   : PIRQ# , PIRQ#
Request indicates : REQ1#
Grant indicates  : GNT1#
```



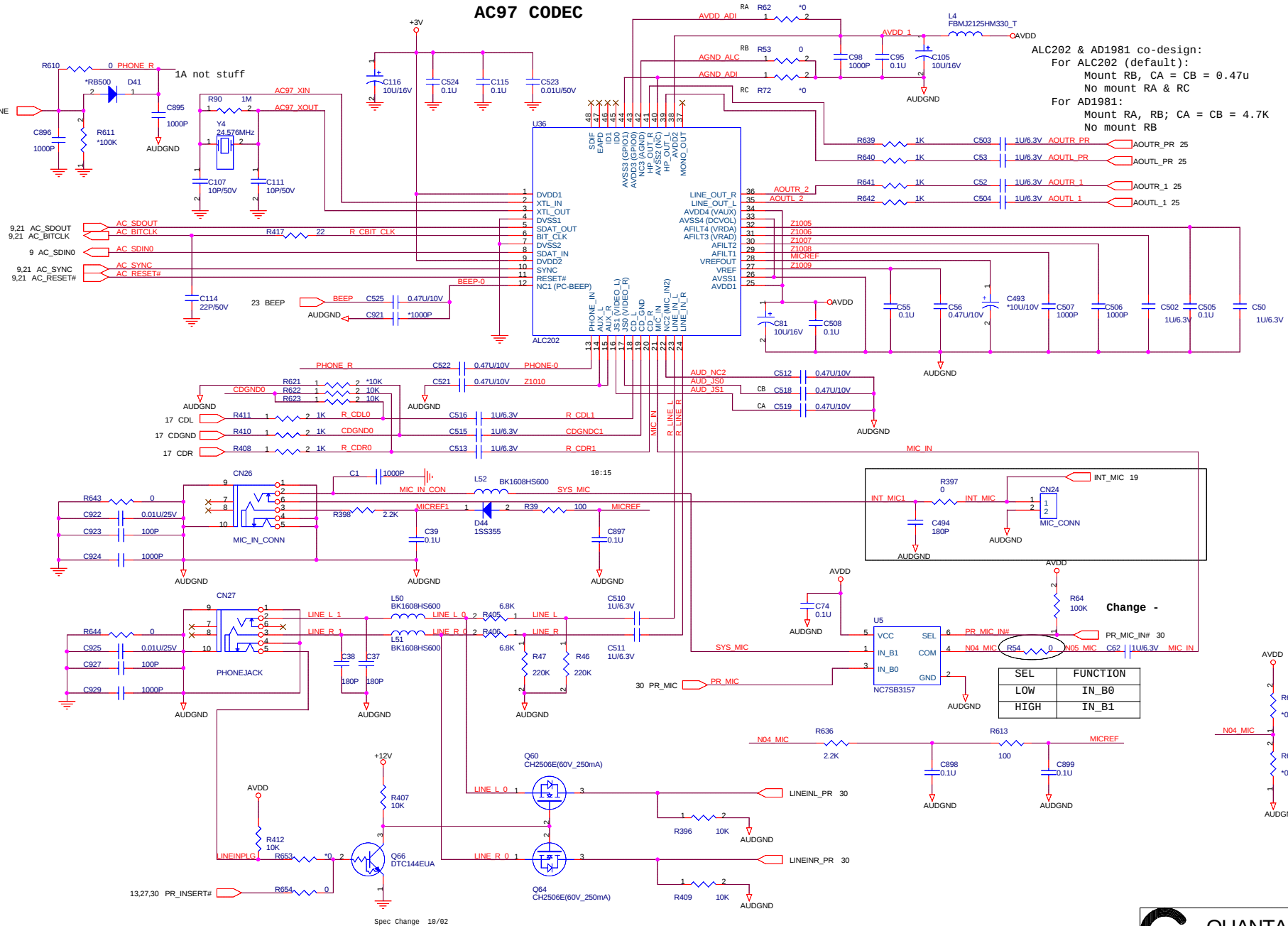
Title			
MINI-PCI & MDC			
Size	Document Number	Rev	
Custom	Z12	3D	
Date:	Friday, July 25, 2003	Sheet	21 of 38



AUDIO POWER



AC97 CODEC



Title
ACP7 CODEC

Size Document Number

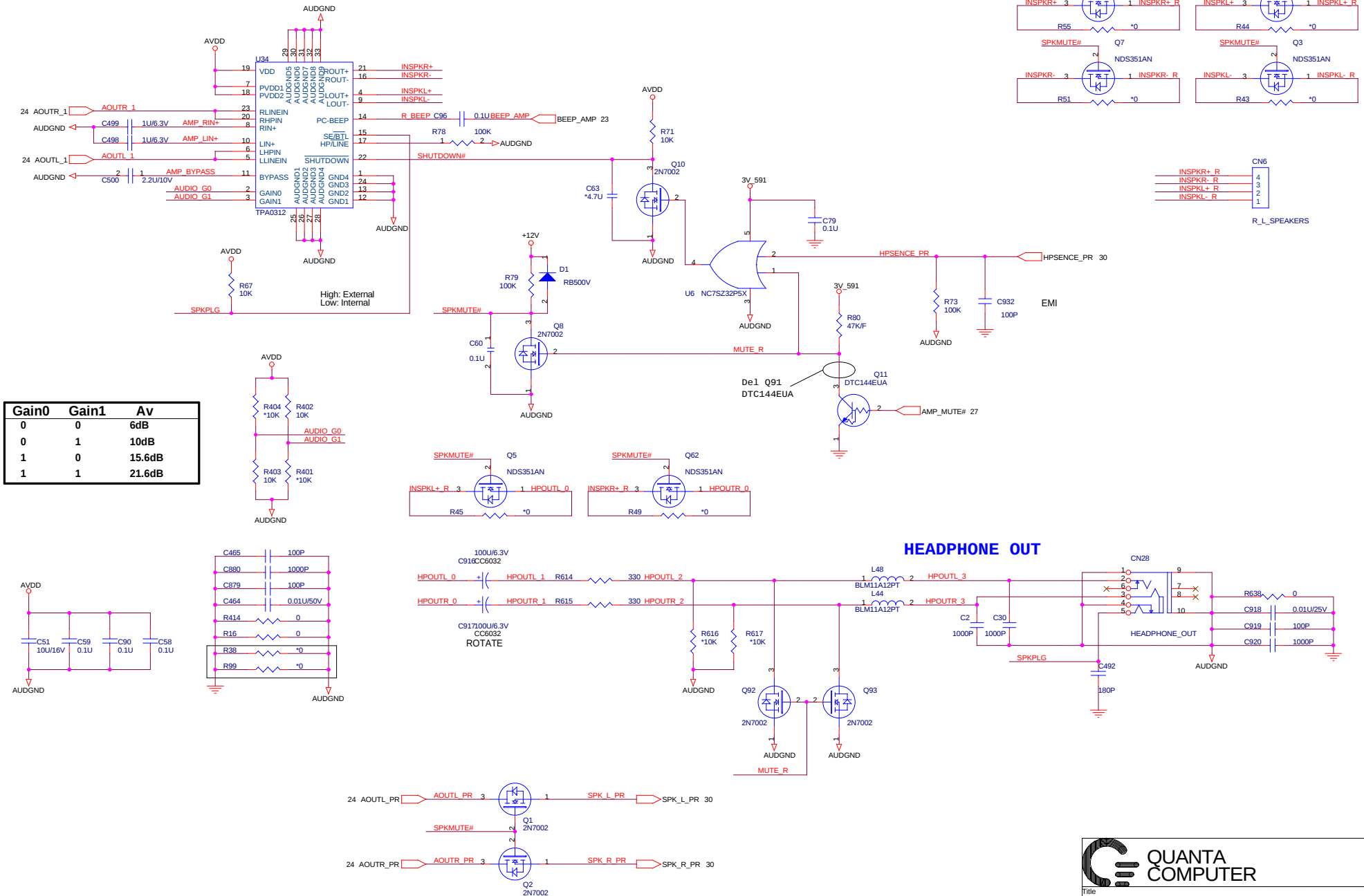
Customer
Z12

Date Friday, July 25, 2003

Sheet 24 of 38

Rev
3B

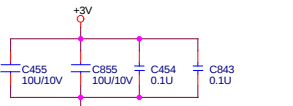
Audio Amplifier



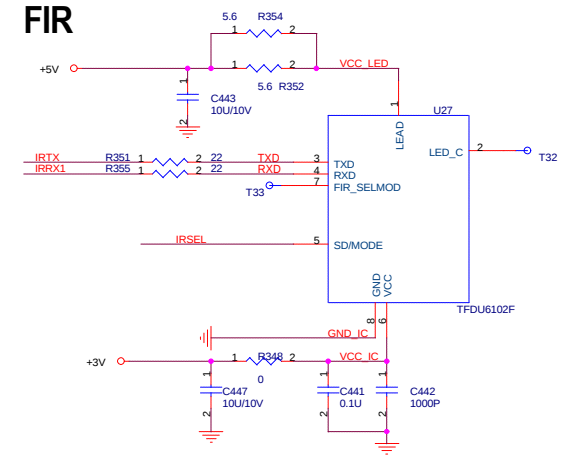
Super I/O

PC87391

PC87391VJG

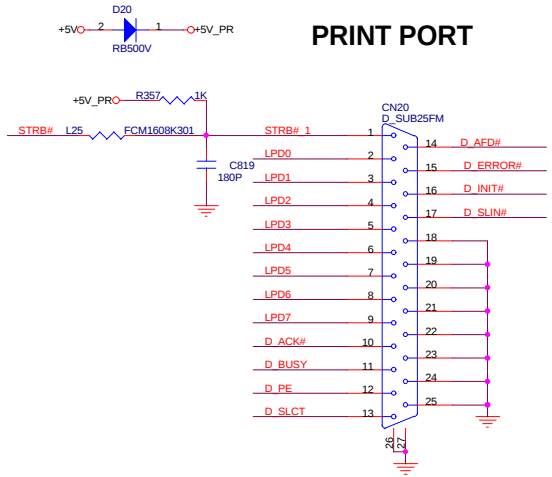


FIR



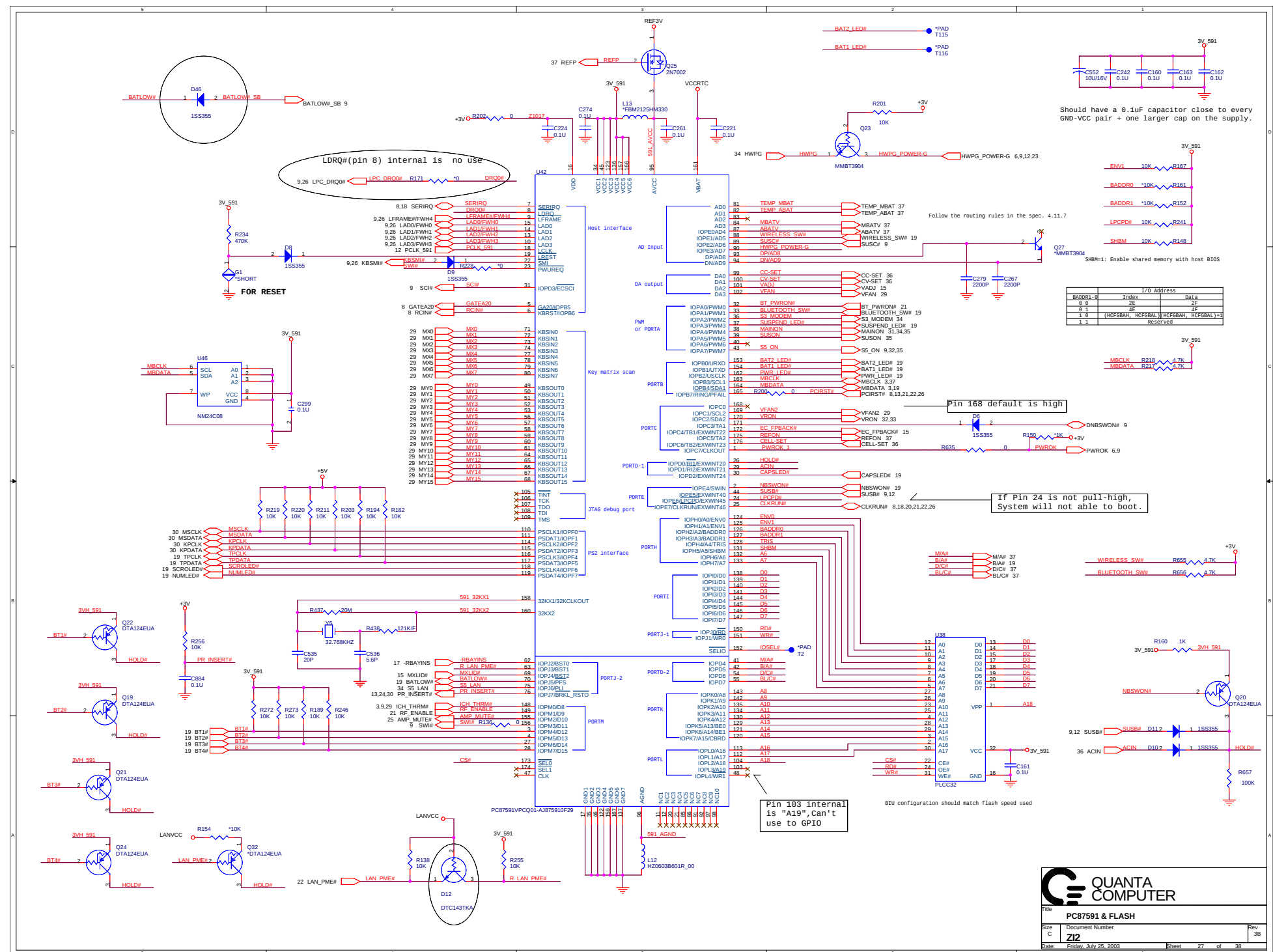
40mil: Power/ GND
35mil: VCC_LED, VCC_IC, GND_IC
10mil: TXD, RXD, IRSEL, IRTX, IRRX1

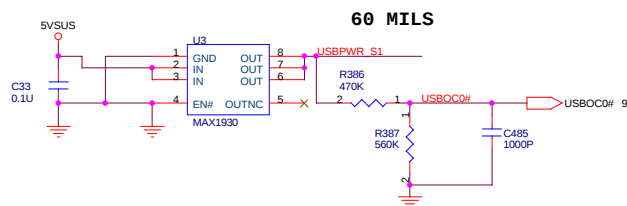
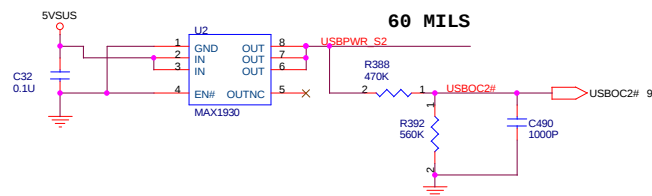
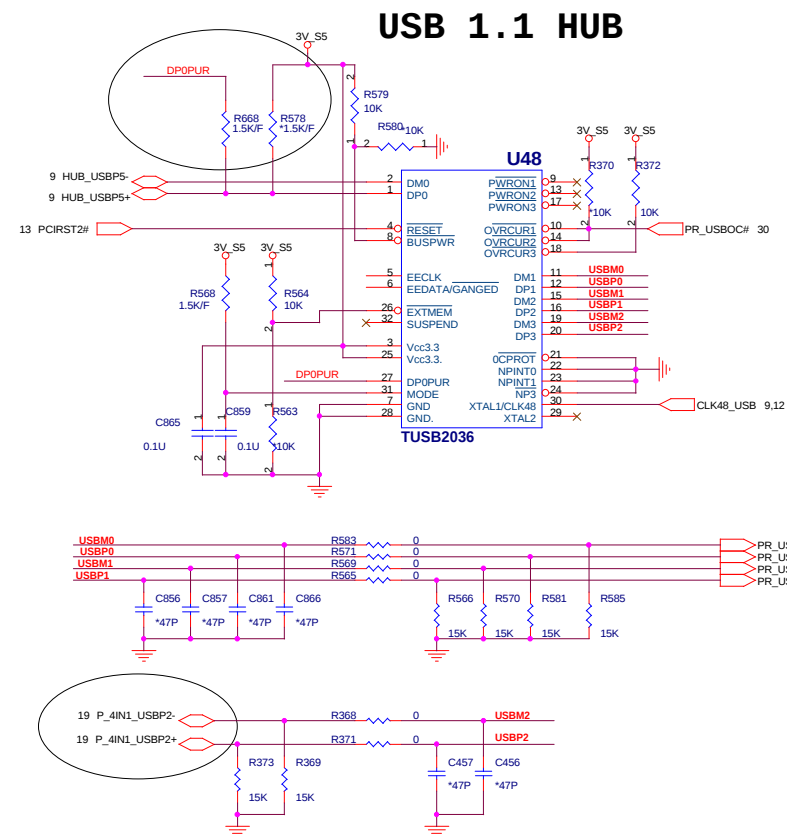
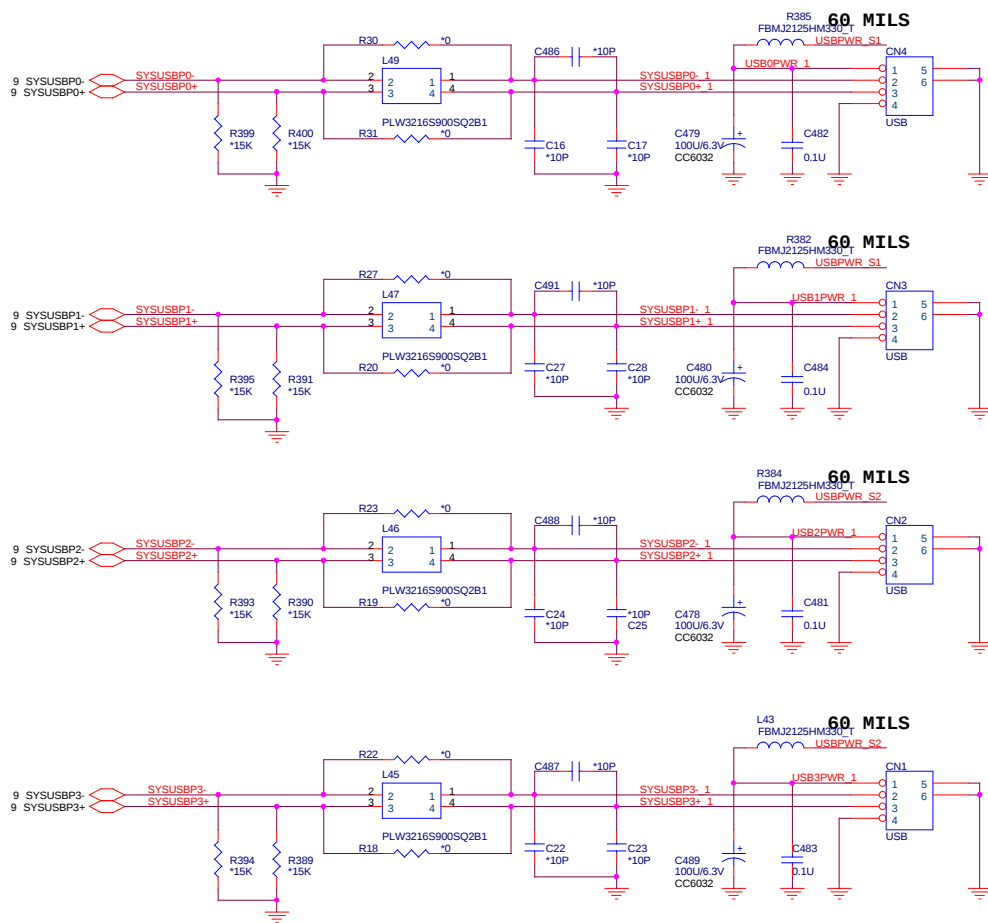
PRINT PORT

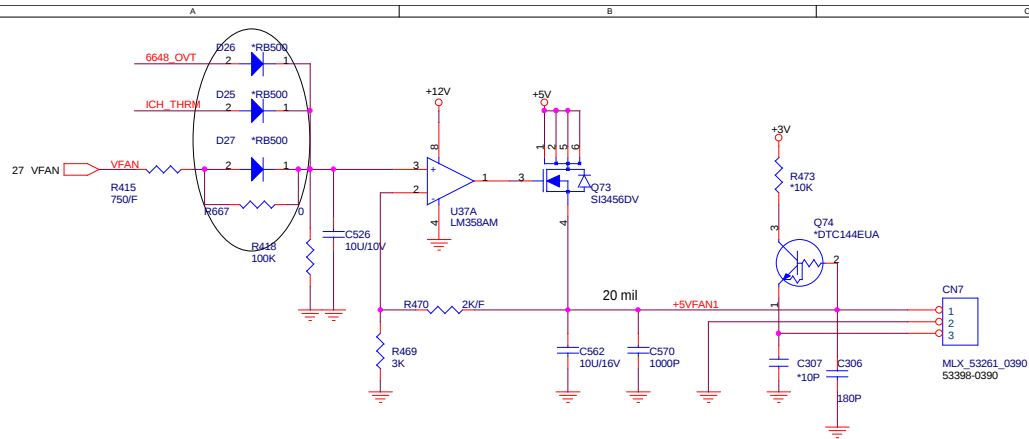



**QUANTA
COMPUTER**

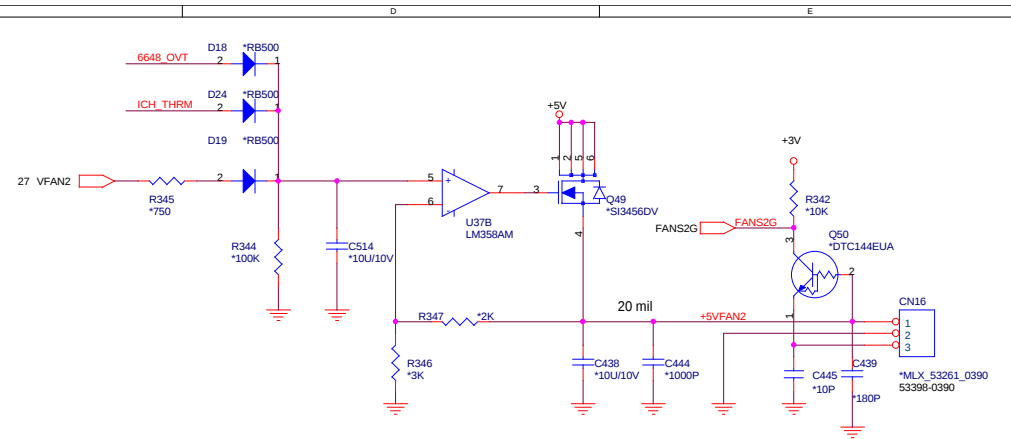
Title SUPER I/O NS37391		
Size Custom	Document Number Z12	Rev 3A
Date Friday, July 25, 2003	Sheet 26 of 38	



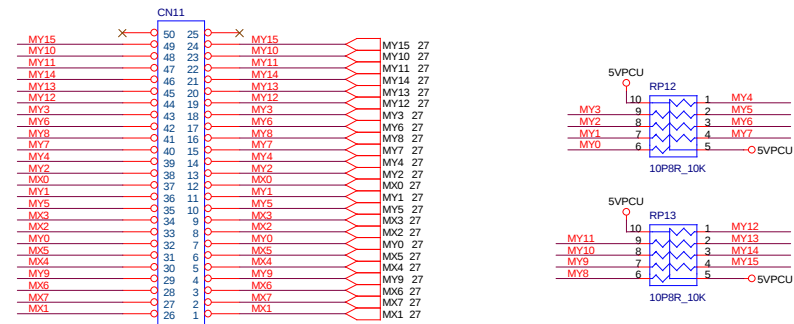
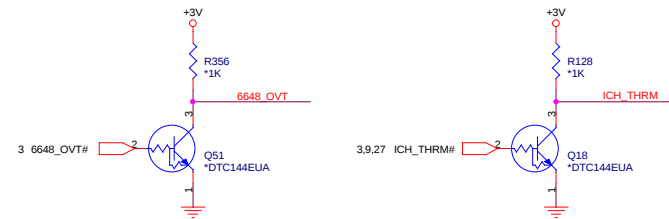




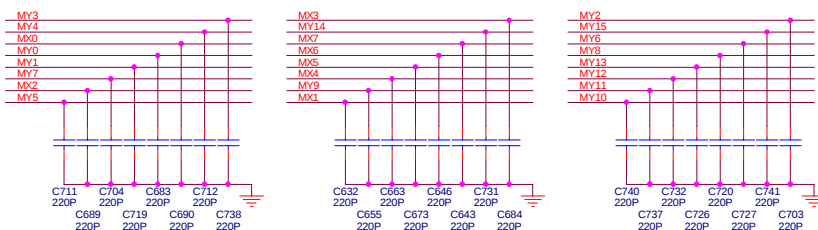
1st FAN OUT CONNECTOR

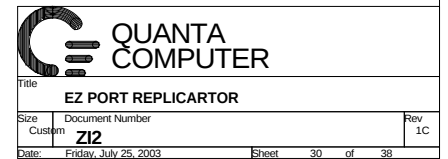


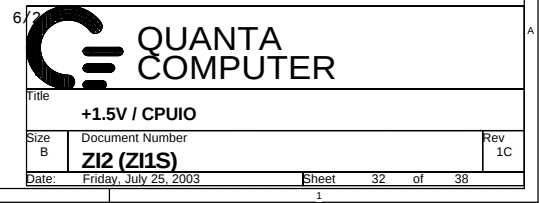
2nd FAN OUT CONNECTOR

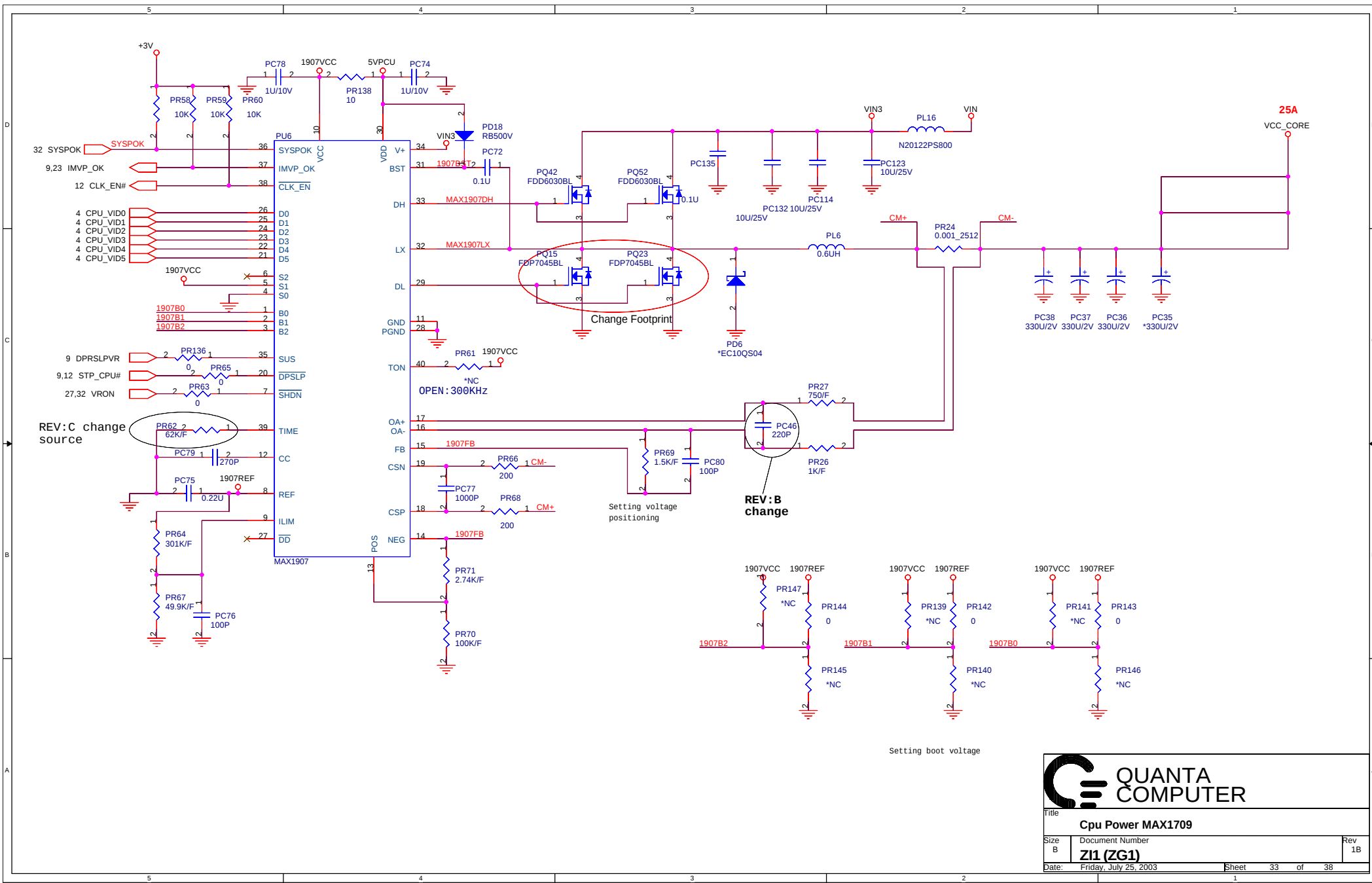


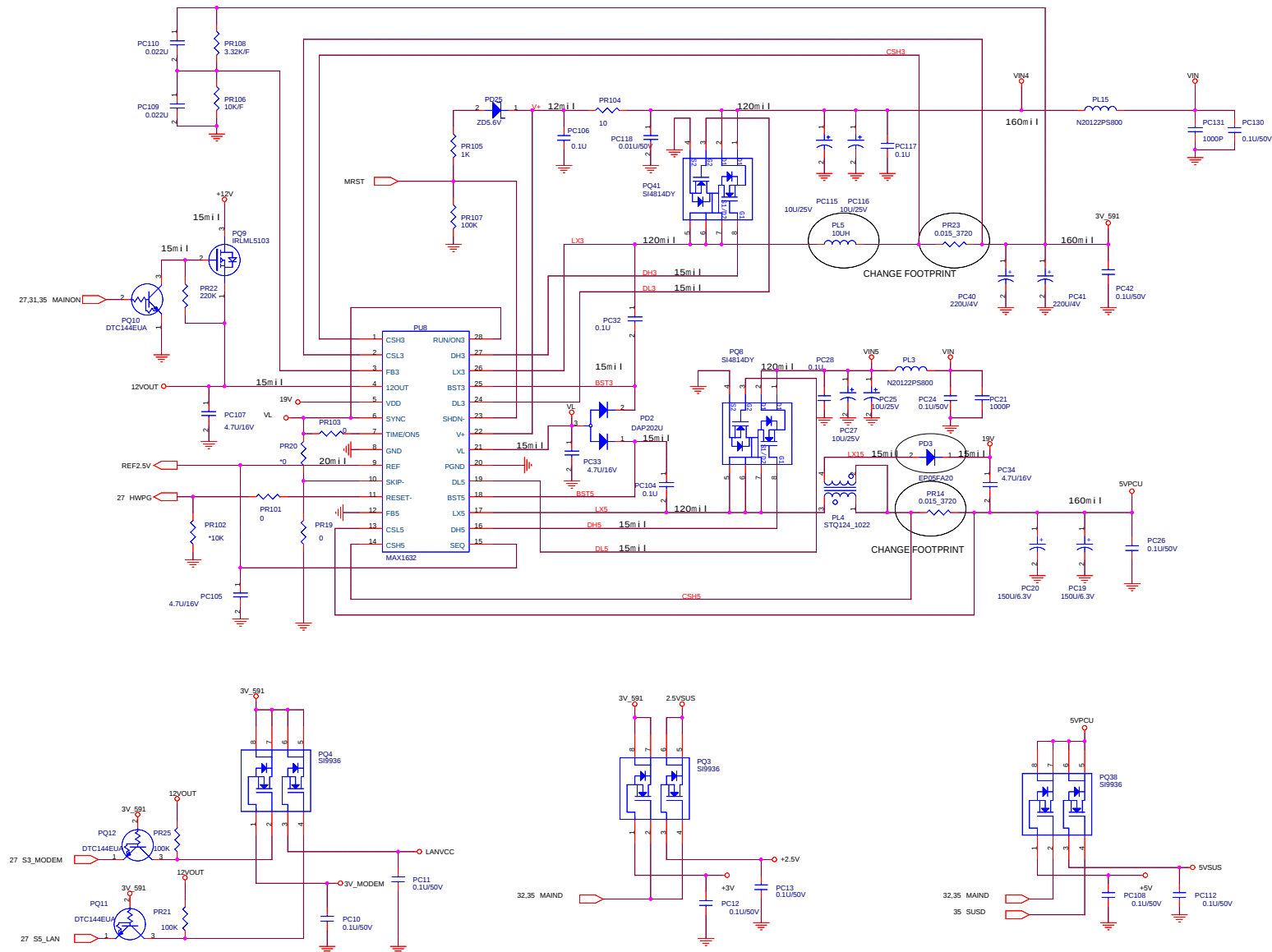
KEYBOARD

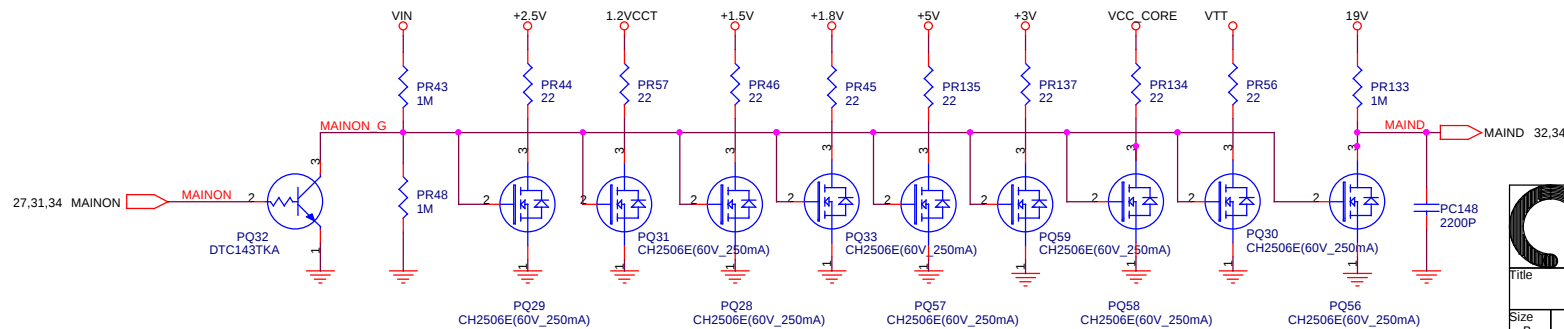
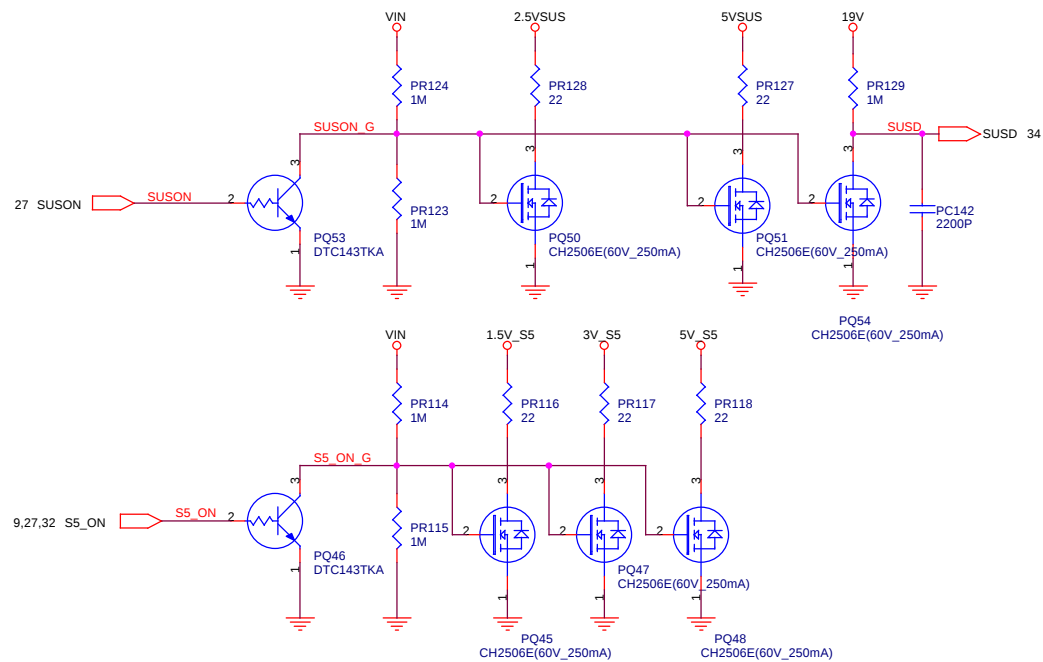
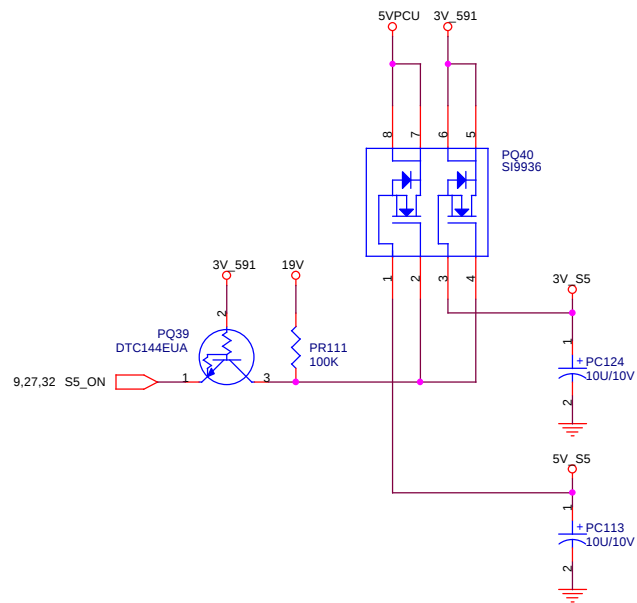




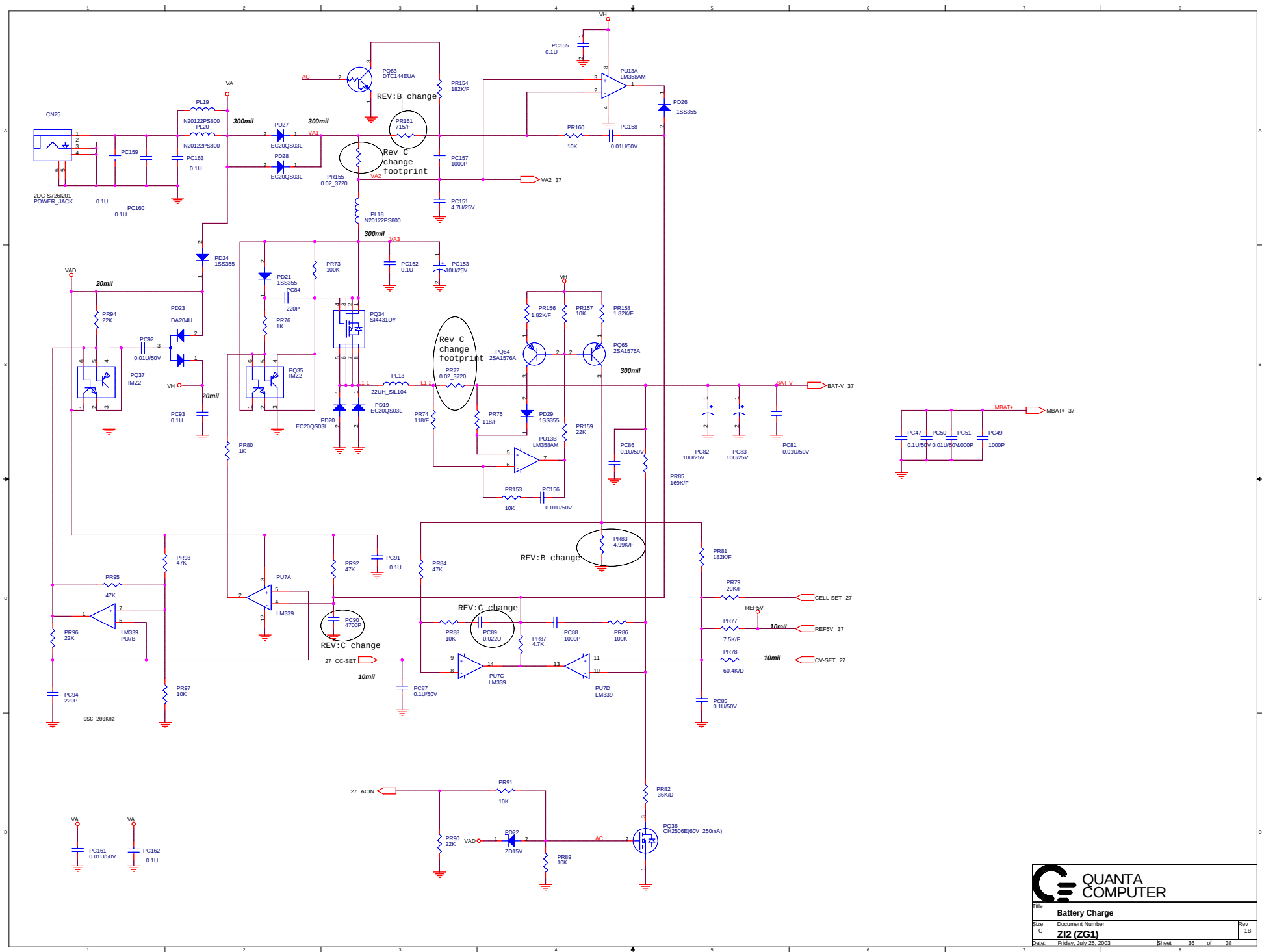




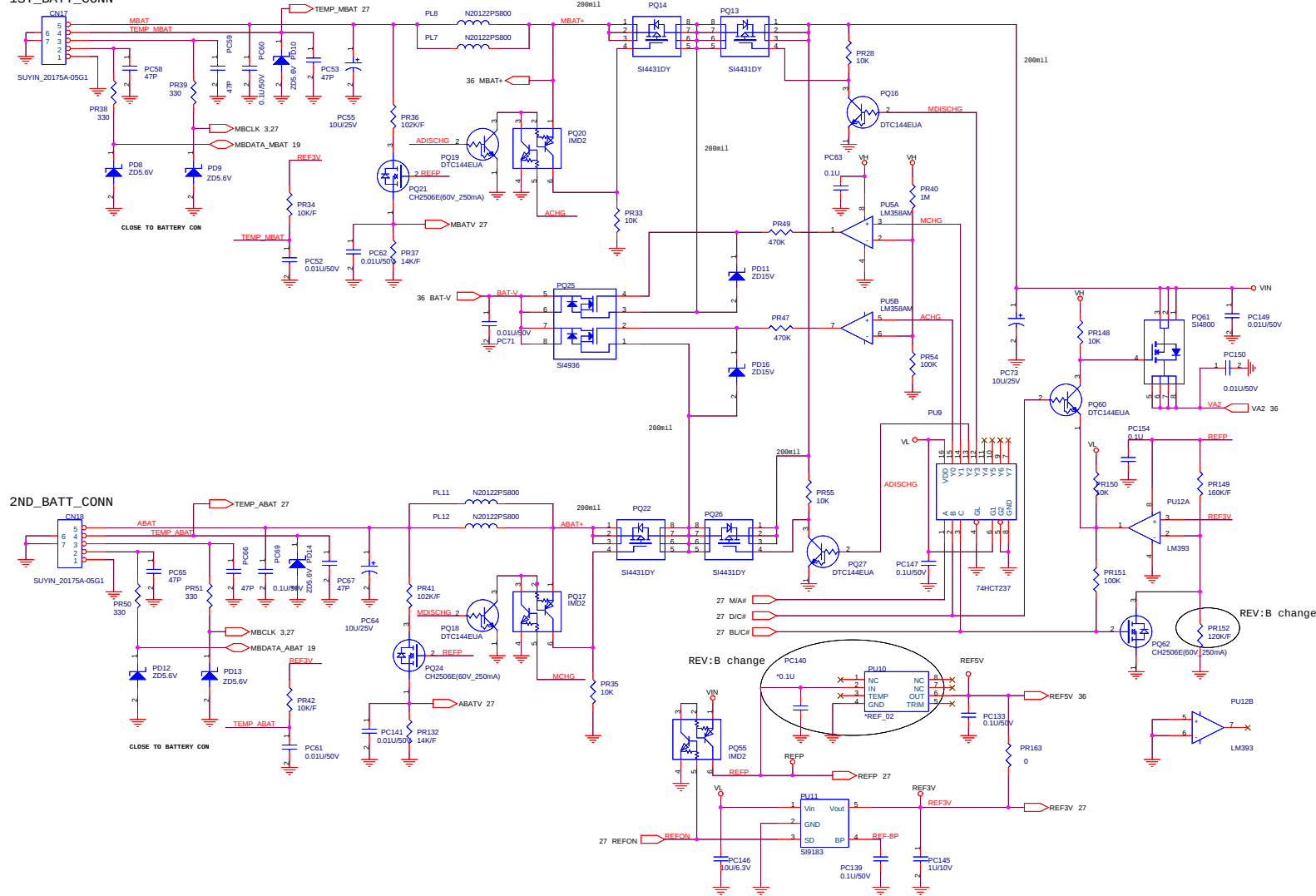




Title		
Discharge Circuit		
Size B	Document Number	Rev 3B
Z12 (ZG1)		
Date:	Friday, July 25, 2003	Sheet 35 of 38



1ST_BATT_CONN



Title			Battery Select
Size	C	Document Number	
			Z12 (ZG1)
Date	Friday, July 25, 2023	Sheet	27 of 38