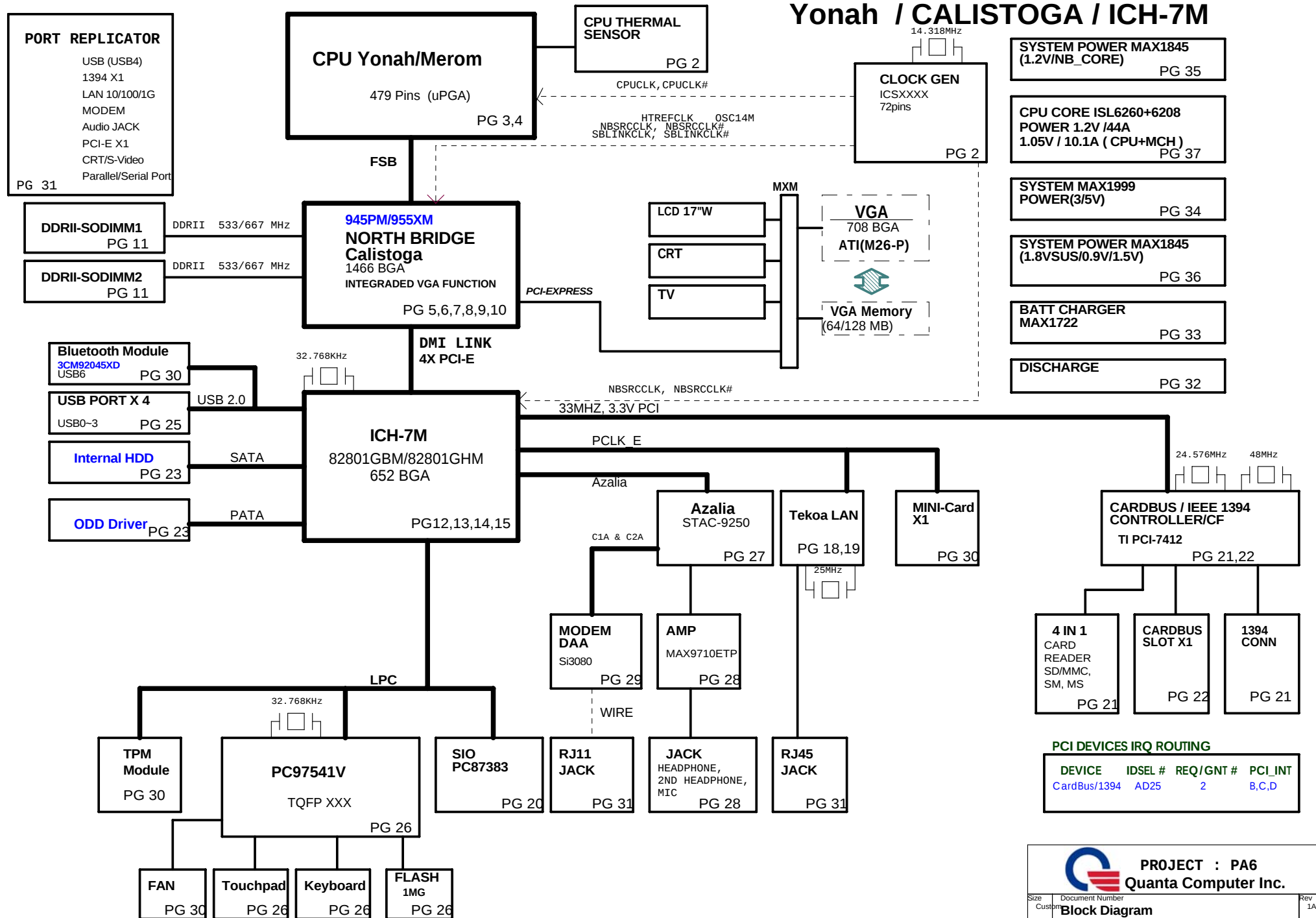
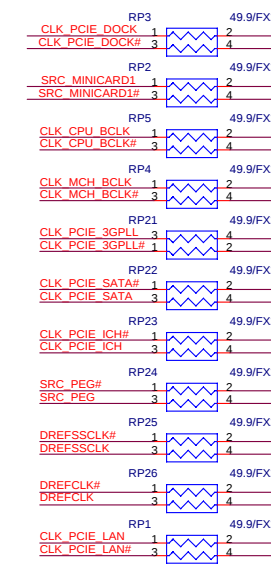


PA6 BLOCK DIAGRAM

Yonah / CALISTOGA / ICH-7M



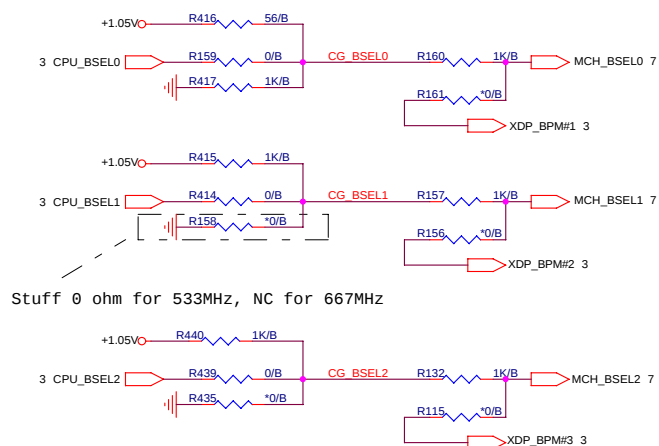
PROJECT : PA6
 Quanta Computer Inc.



(48 MHz)

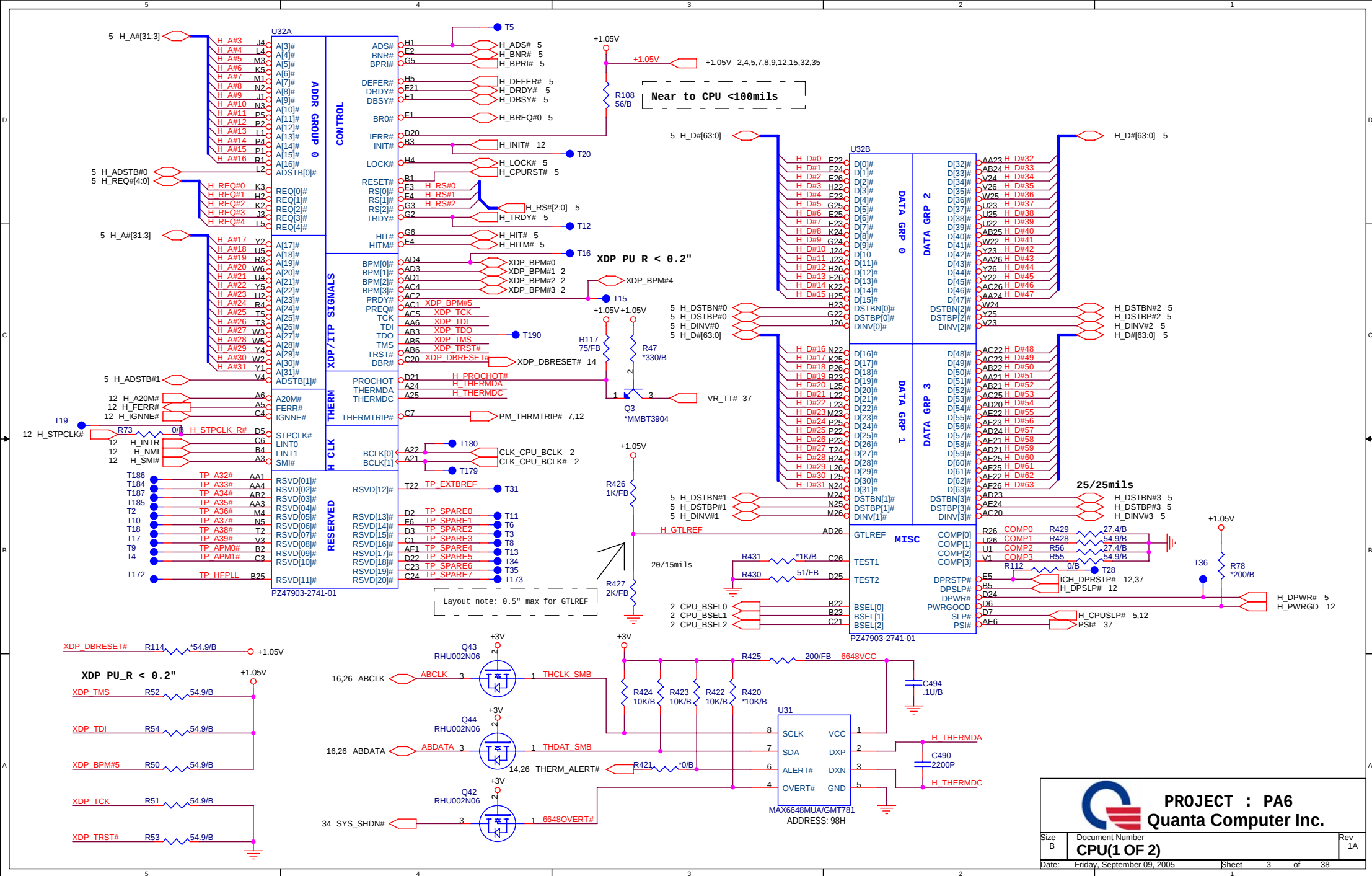


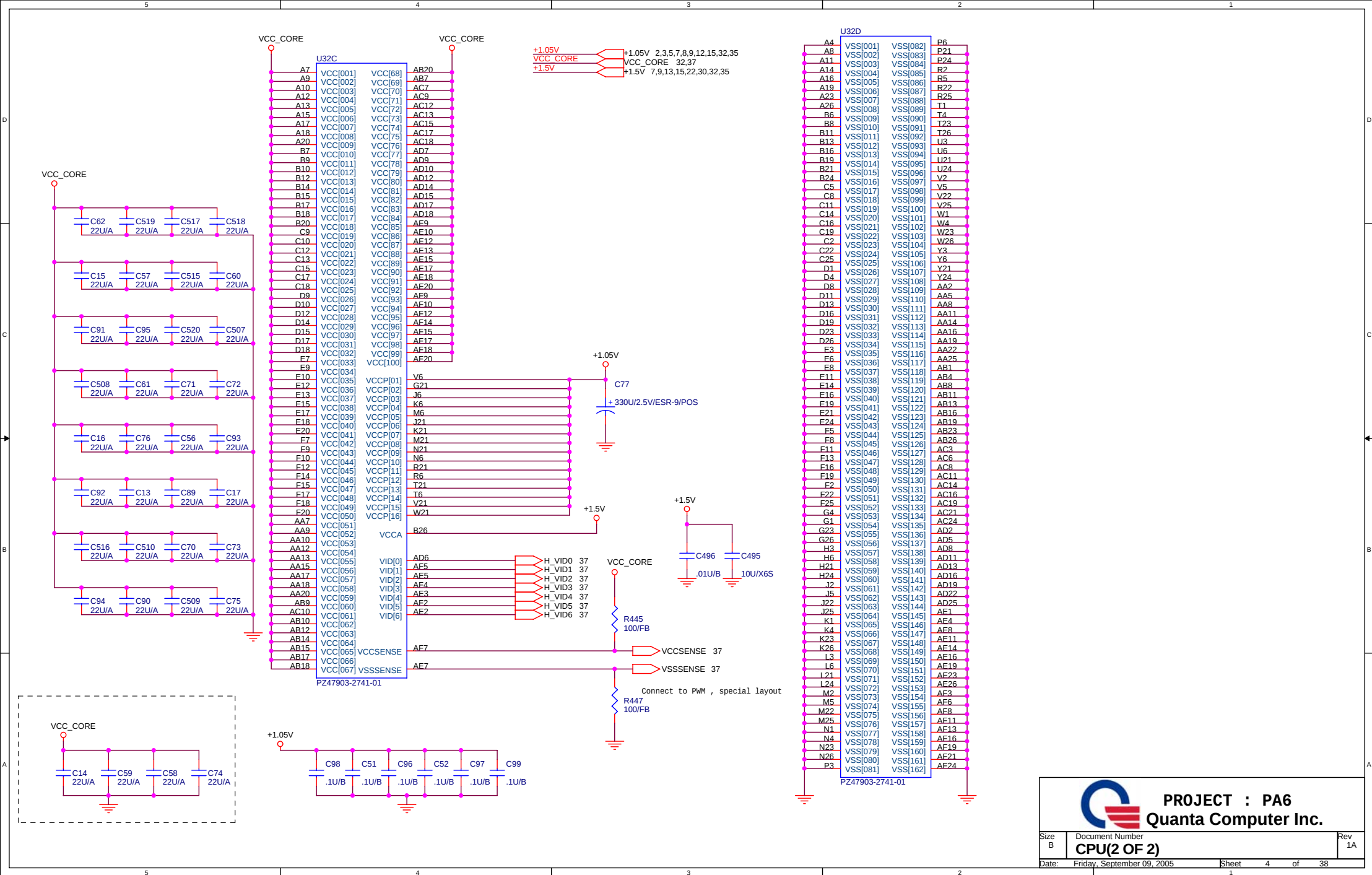
Place these termination to close CK410M.



Stuf 0 ohm for 533MHz, NC for 667MHz

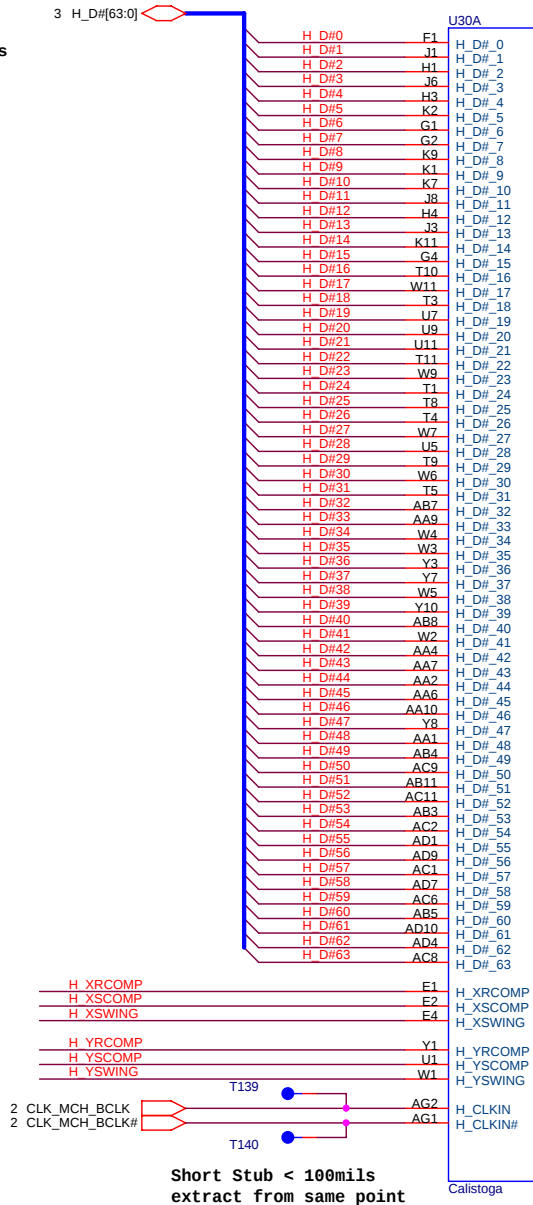
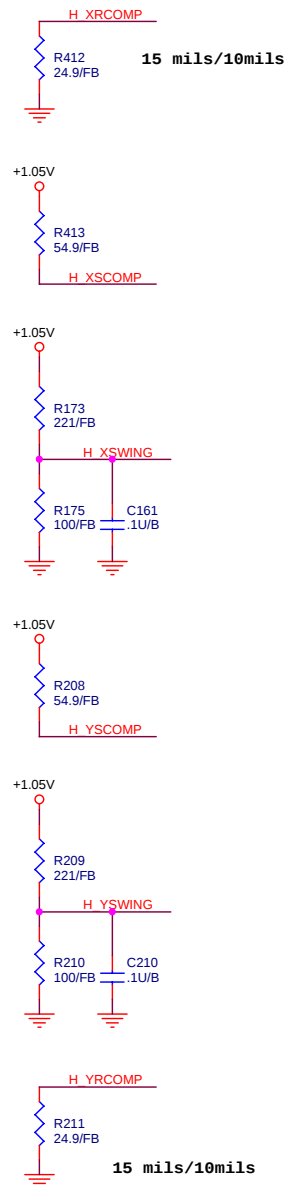




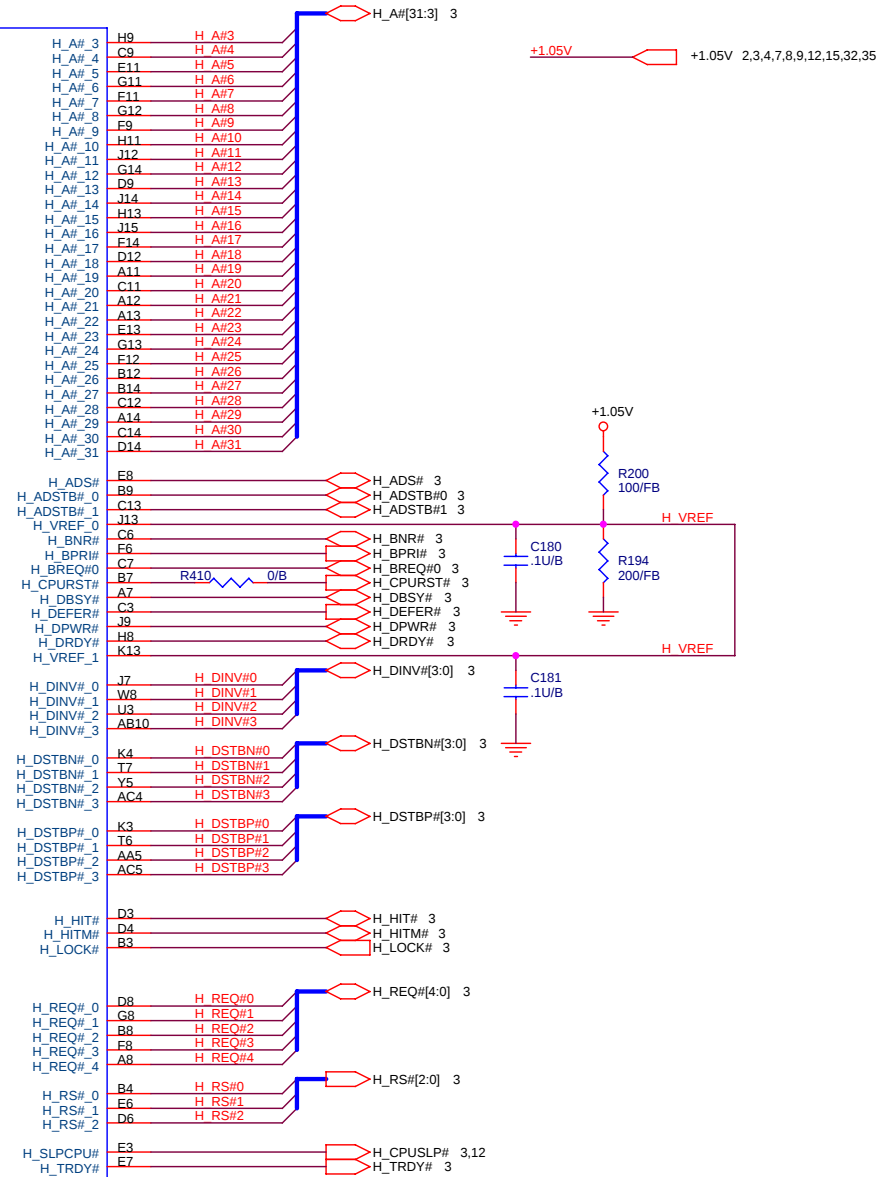


PROJECT : PA6
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Size B	Document Number CPU(2 OF 2)	Rev 1A
Date:	Friday, September 09, 2005	Sheet 4 of 38

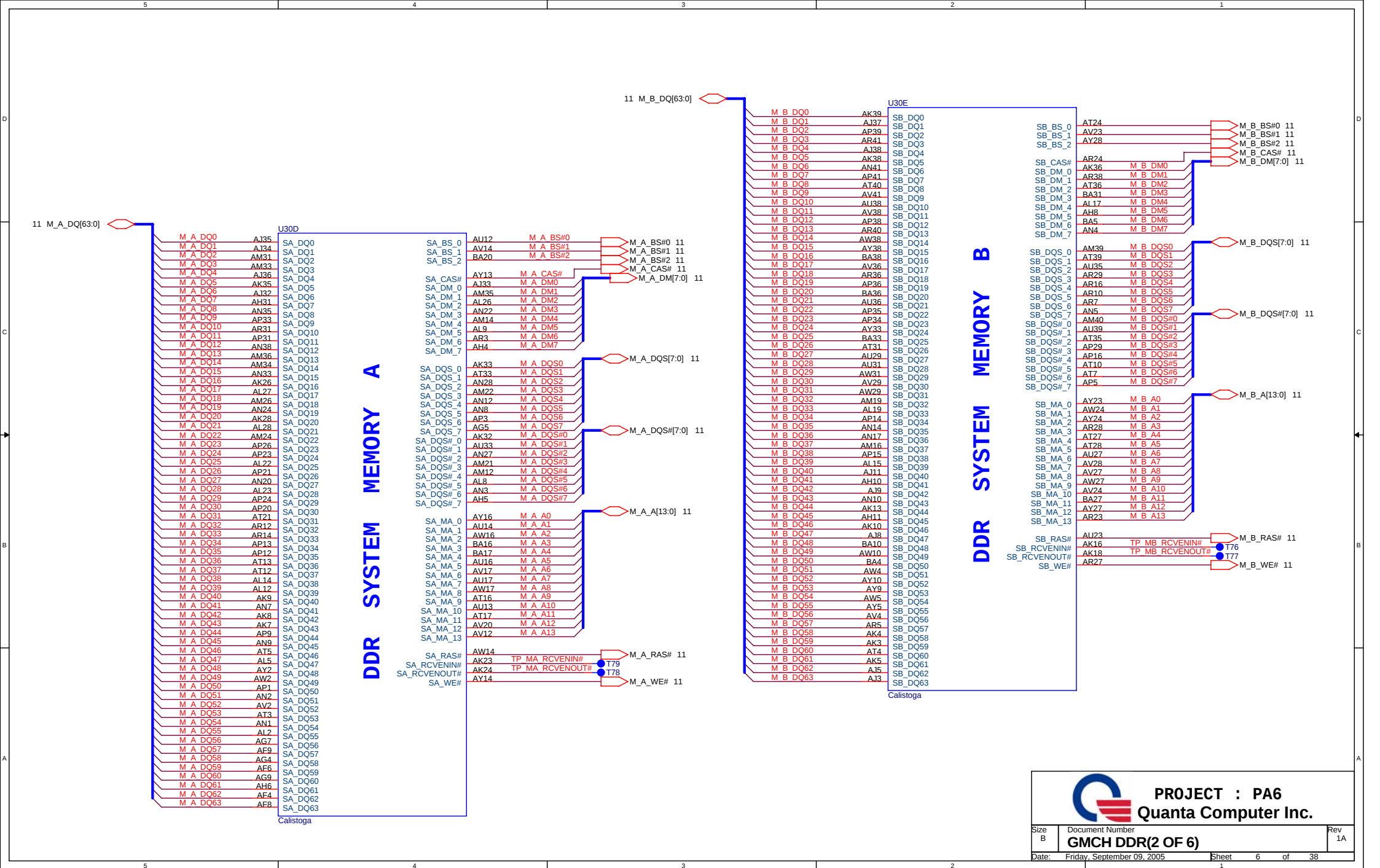


HOST



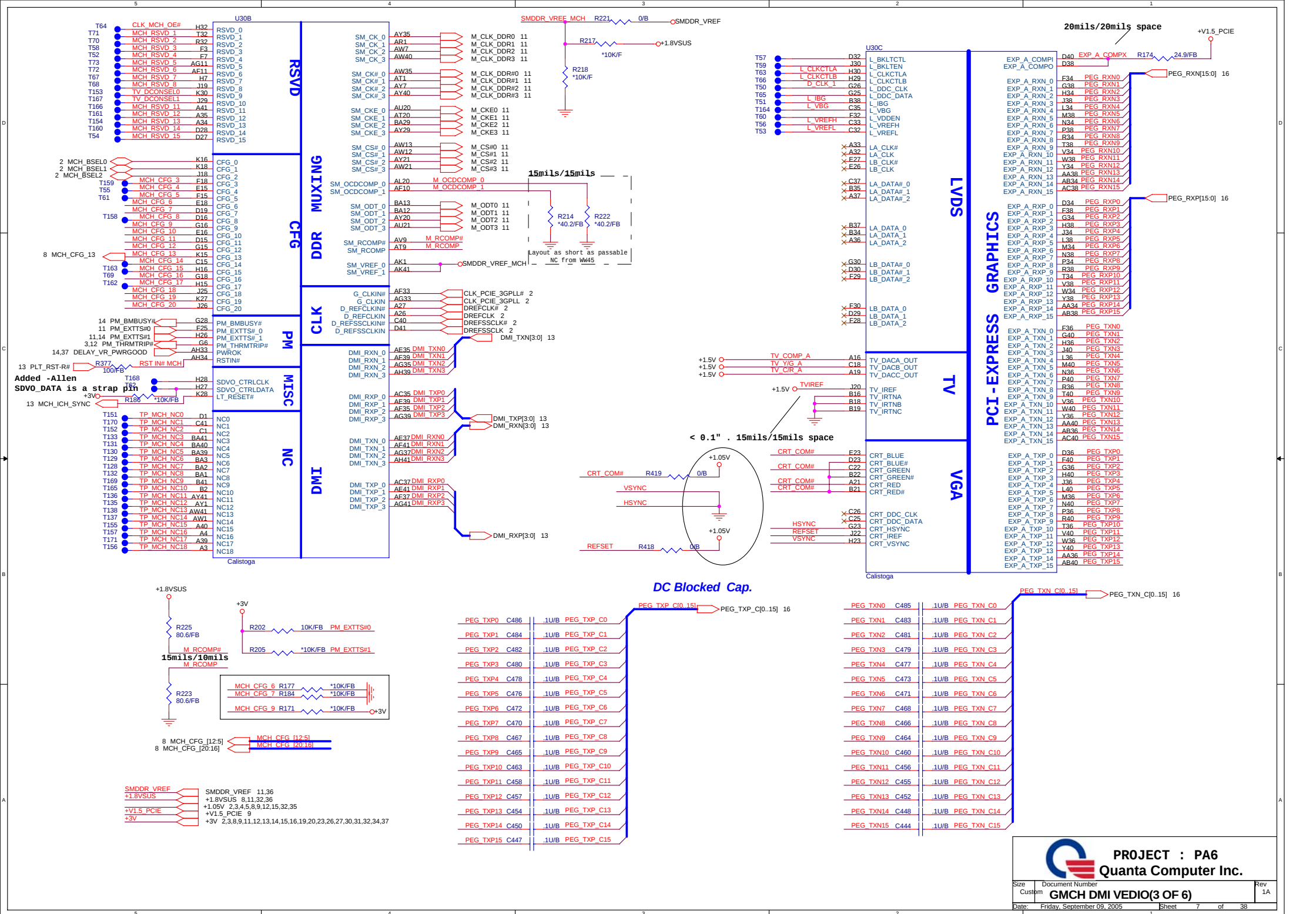
PROJECT : PA6
Quanta Computer Inc.

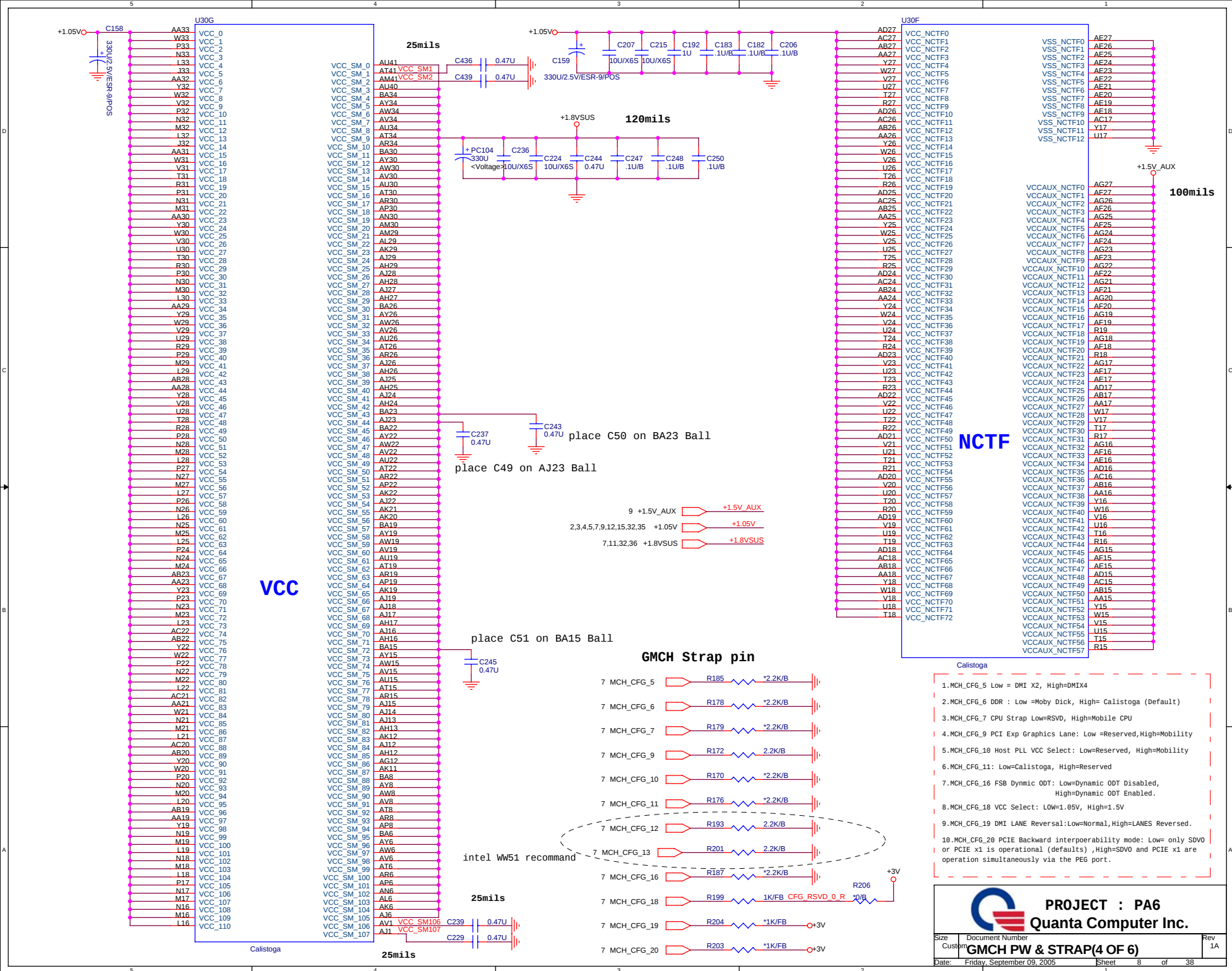
Size B	Document Number	Rev 1A
	GMCH HOST(1 OF 6)	
Date:	Friday, September 09, 2005	Sheet 5 of 38

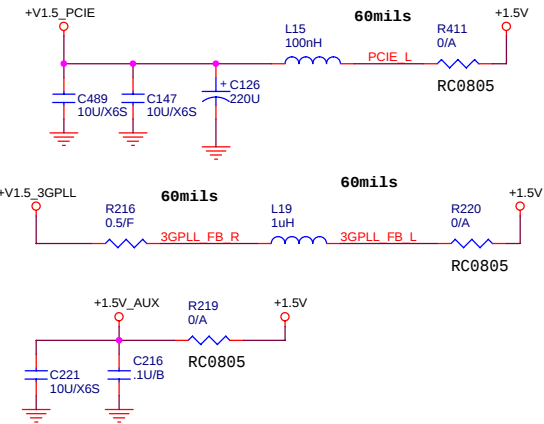
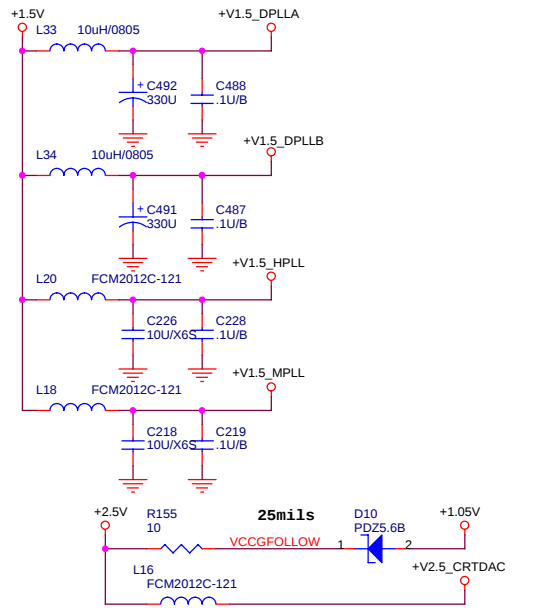


PROJECT : PA6
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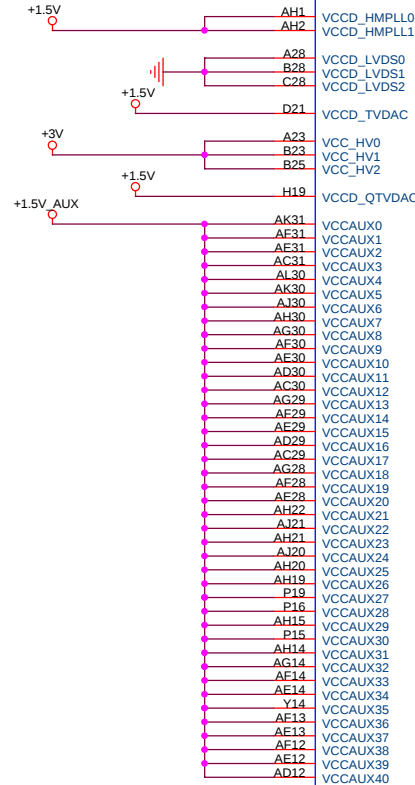
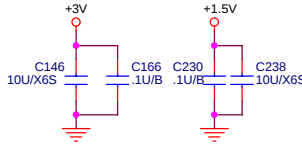
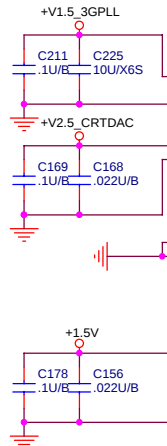
Size B	Document Number	Rev 1A
	GMCH DDR(2 OF 6)	
Date:	Friday, September 09, 2005	Sheet 6 of 38



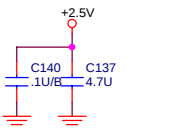
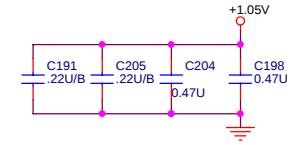
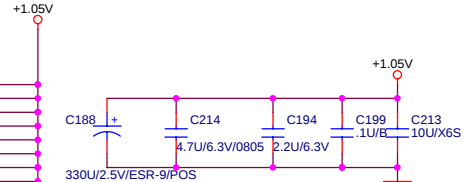
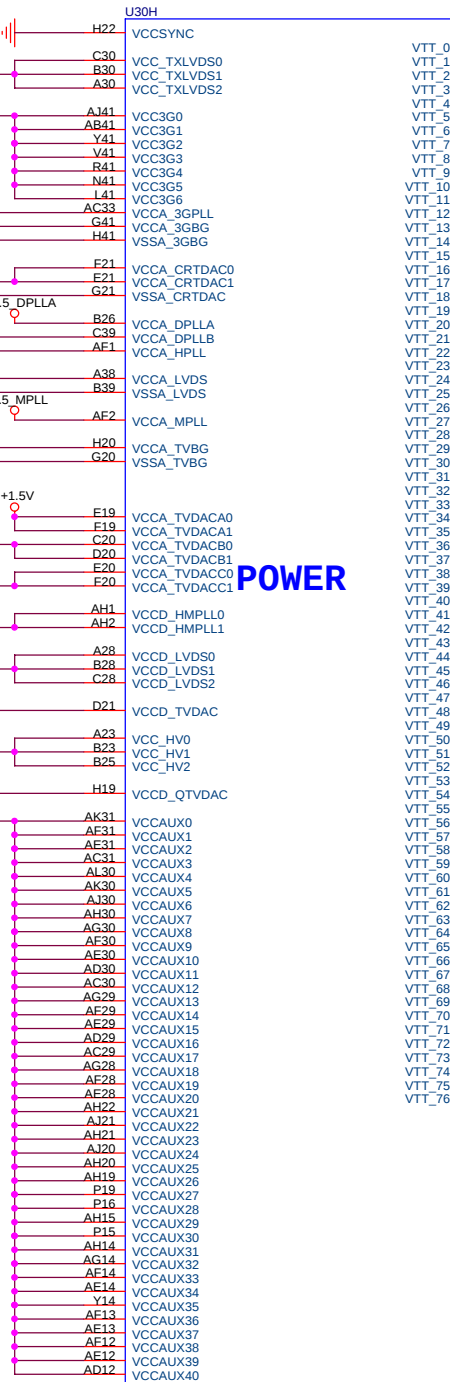




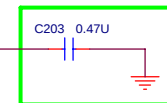
+1.05V 2,3,4,5,7,8,12,15,32,35
 +1.5V 4,7,13,15,22,30,32,35
 +V1.5 PCIE 7
 +2.5V 16,32,35
 +3V 2,3,7,8,11,12,13,14,15,16,19,20,23,26,27,30,31,32,34,37



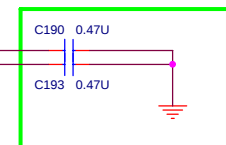
POWER

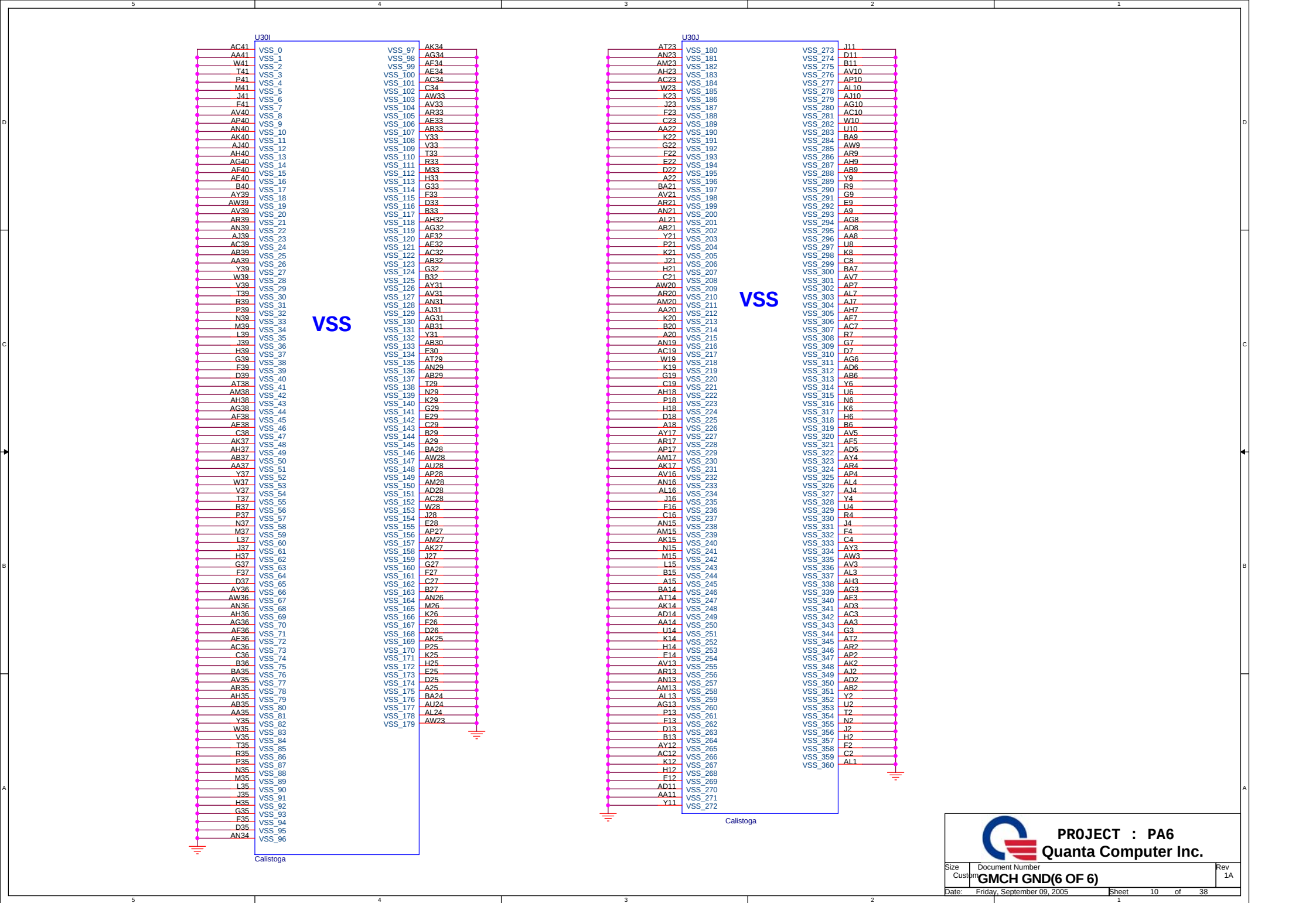


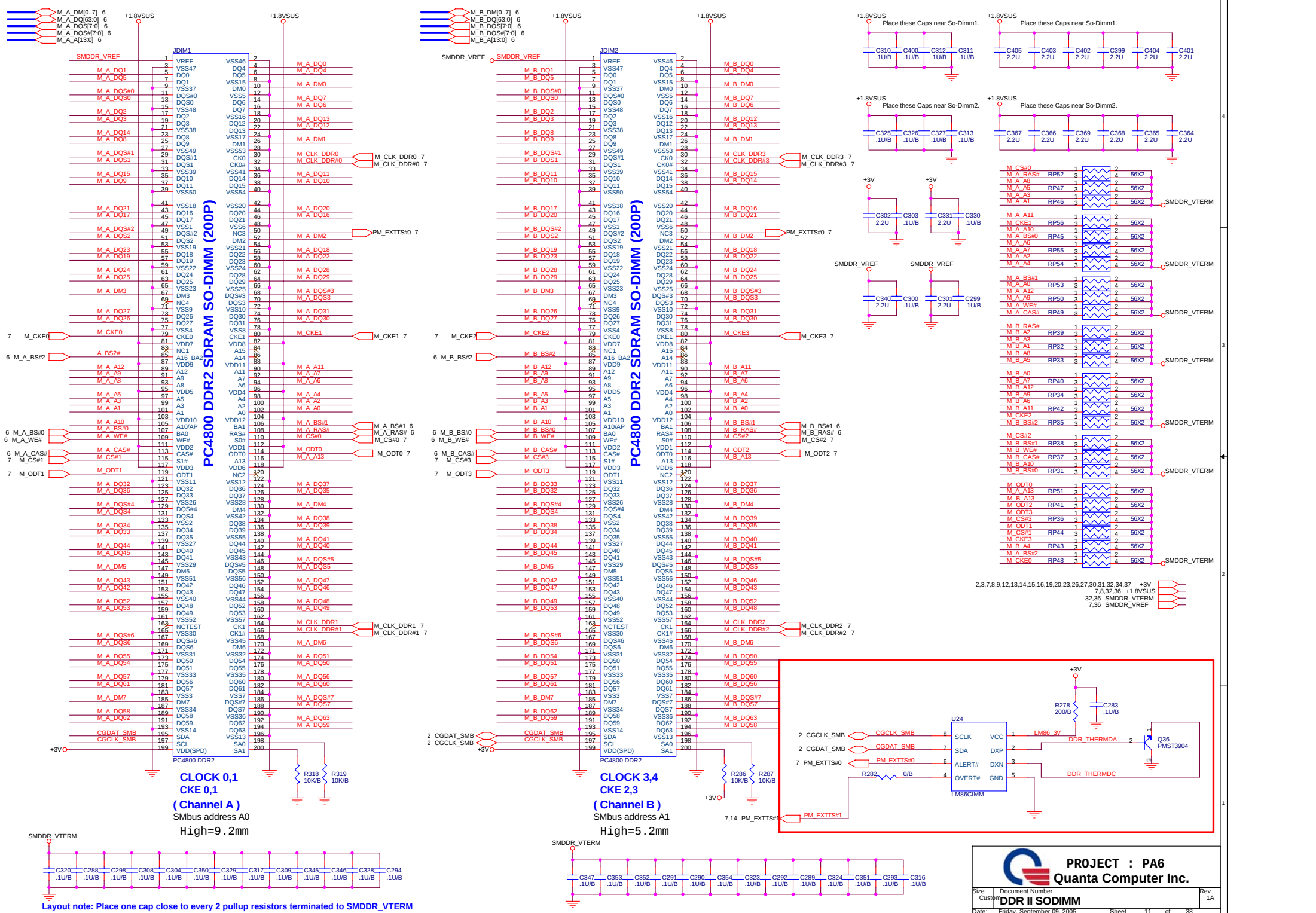
Shall Add more bypass caps for 1.05V



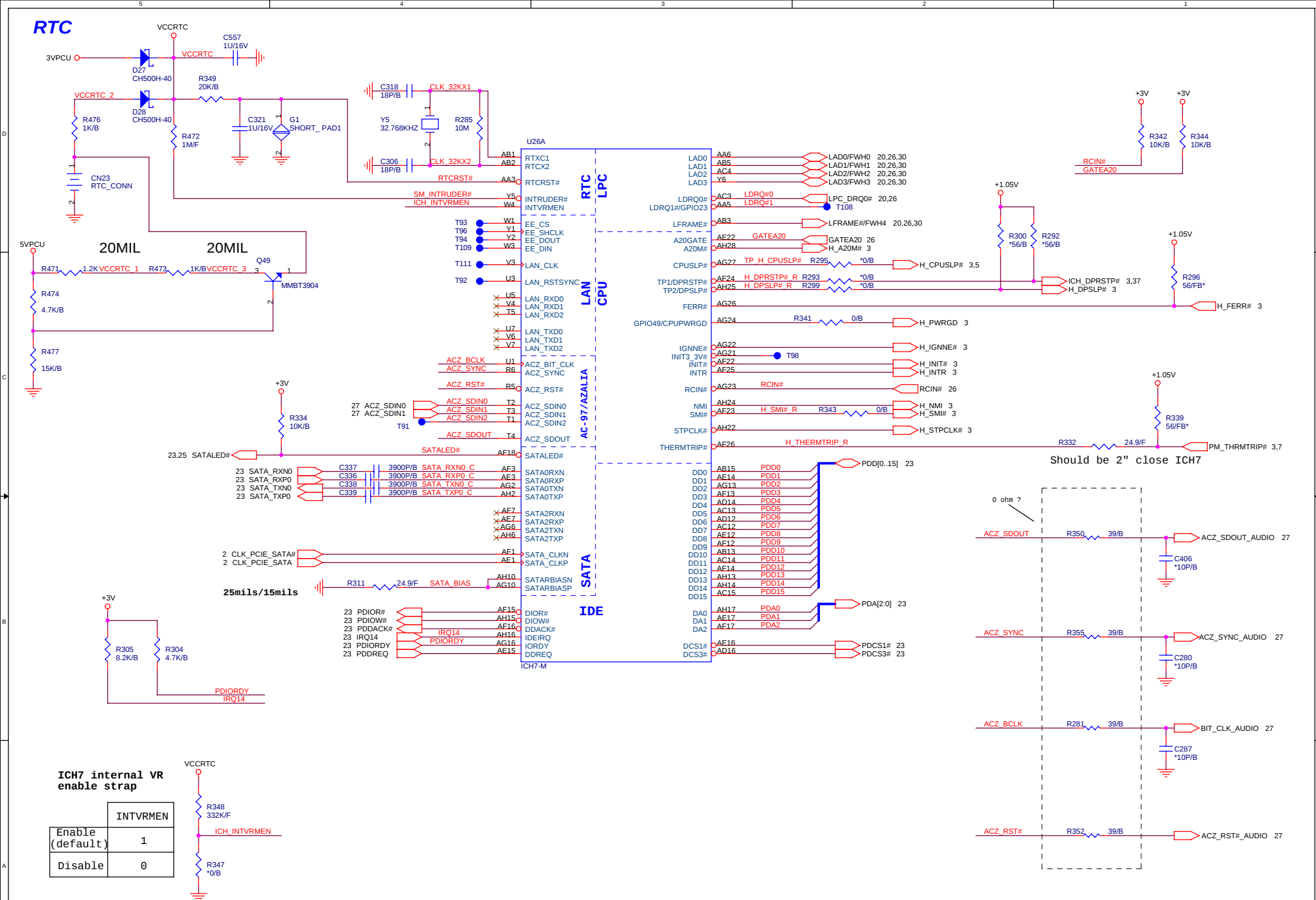
VTT_56 , VTT_71 and 72 are attached with 0.1u seperated .Checking







RTC



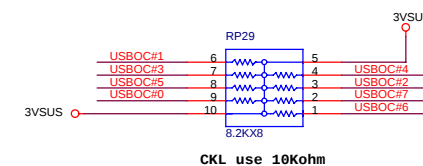
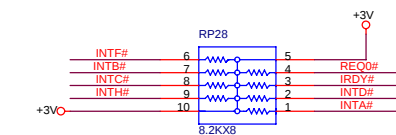
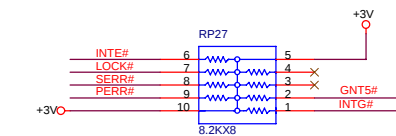
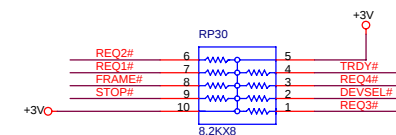
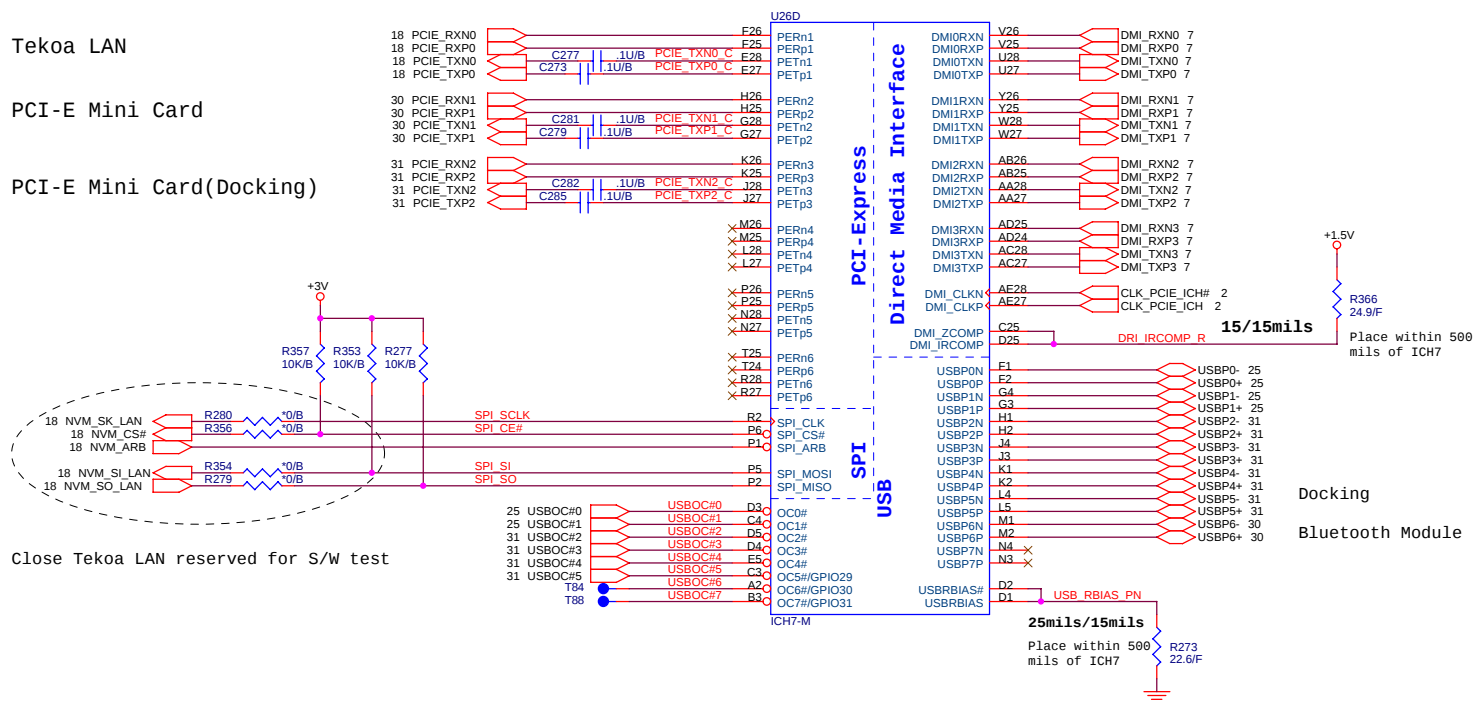
ICH7 internal VR enable strap	
	INTVRMEN
Enable (default)	1
Disable	0

Tekoa LAN

PCI-E Mini Card

PCI-E Mini Card(Docking)

Close Tekoa LAN reserved for S/W test

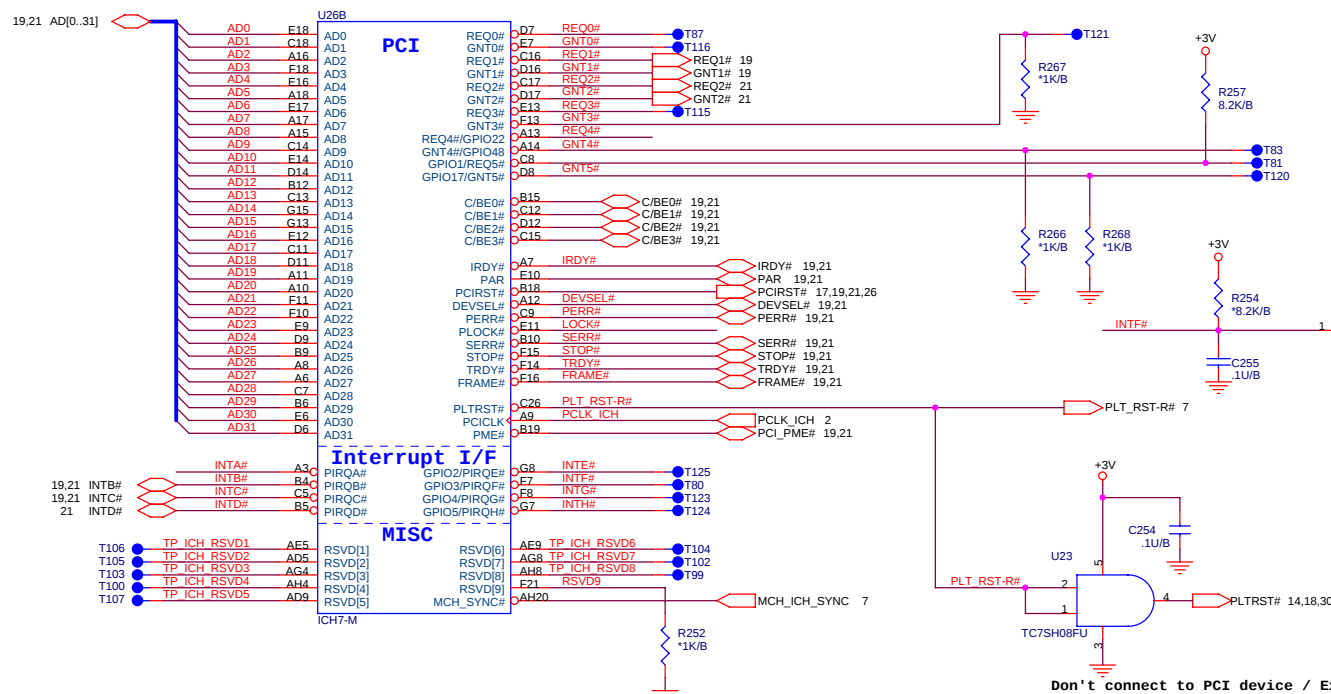


Docking

Bluetooth Module

ICH7 Boot BIOS select

	STRAP	GNT5# R1	GNT4# R2
LPC (default)	11	UNSTUFF	UNSTUFF
PCI	10	UNSTUFF	STUFF
SPI	01	STUFF	UNSTUFF



Crisis SW

PCI DEVICE	IDSEL#	REQ# / GNT#	Interrupts
PCI7412	AD25	REQ2# / GNT2#	INT B/C/D#

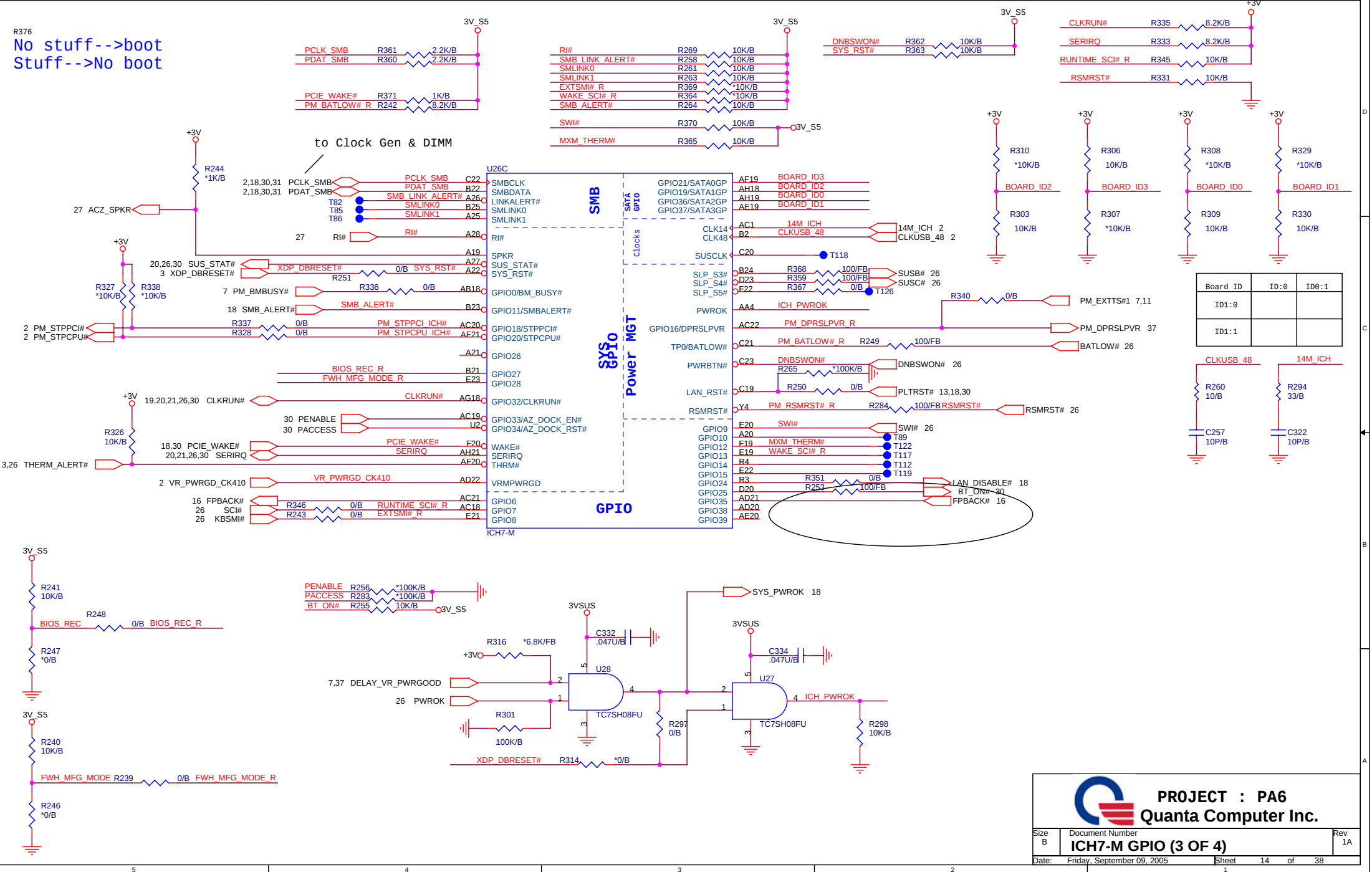


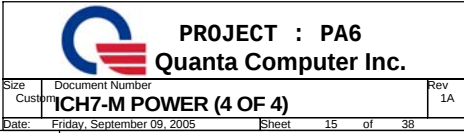
PROJECT : PA6
Quanta Computer Inc.

Size	Document Number	Rev
Custom	ICH7-M PCI-E(2 OF 4)	1A
Date:	Friday, September 09, 2005	Sheet 13 of 38

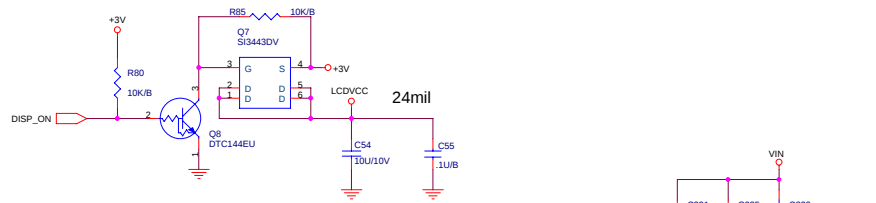
Don't connect to PCI device / Express card

No stuff-->boot
Stuff-->No boot

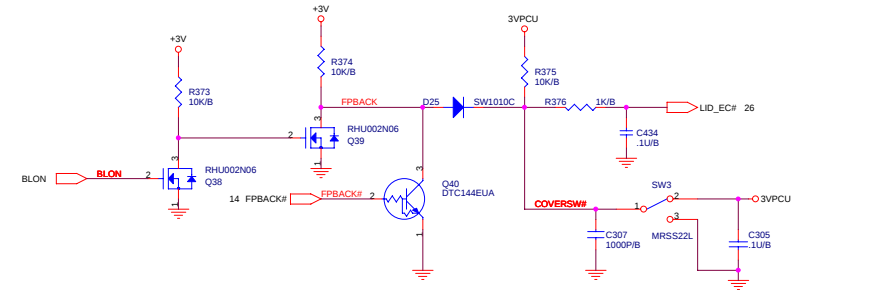




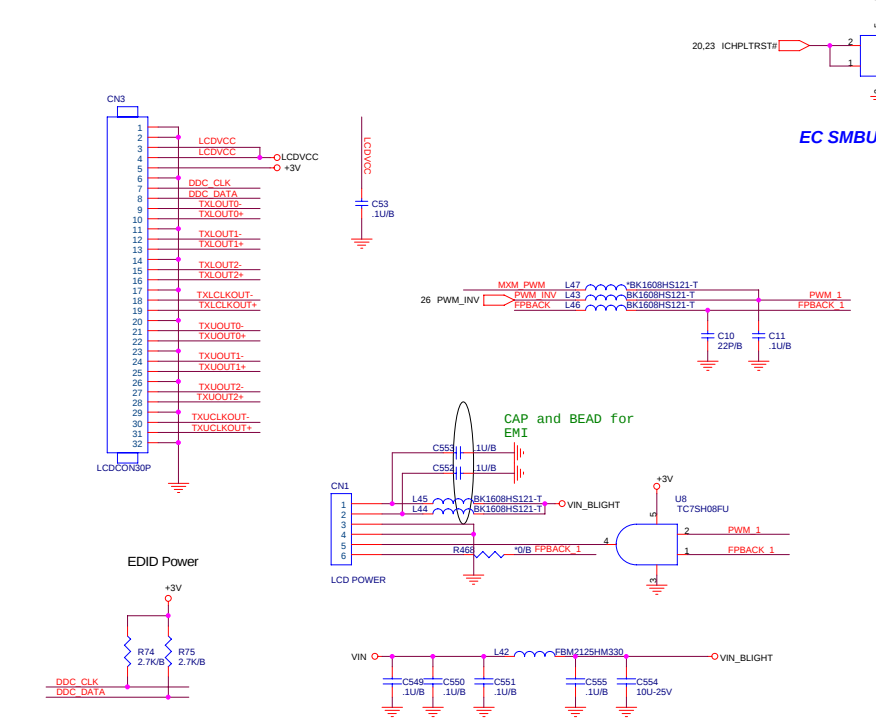
PANEL VCC CONTROL



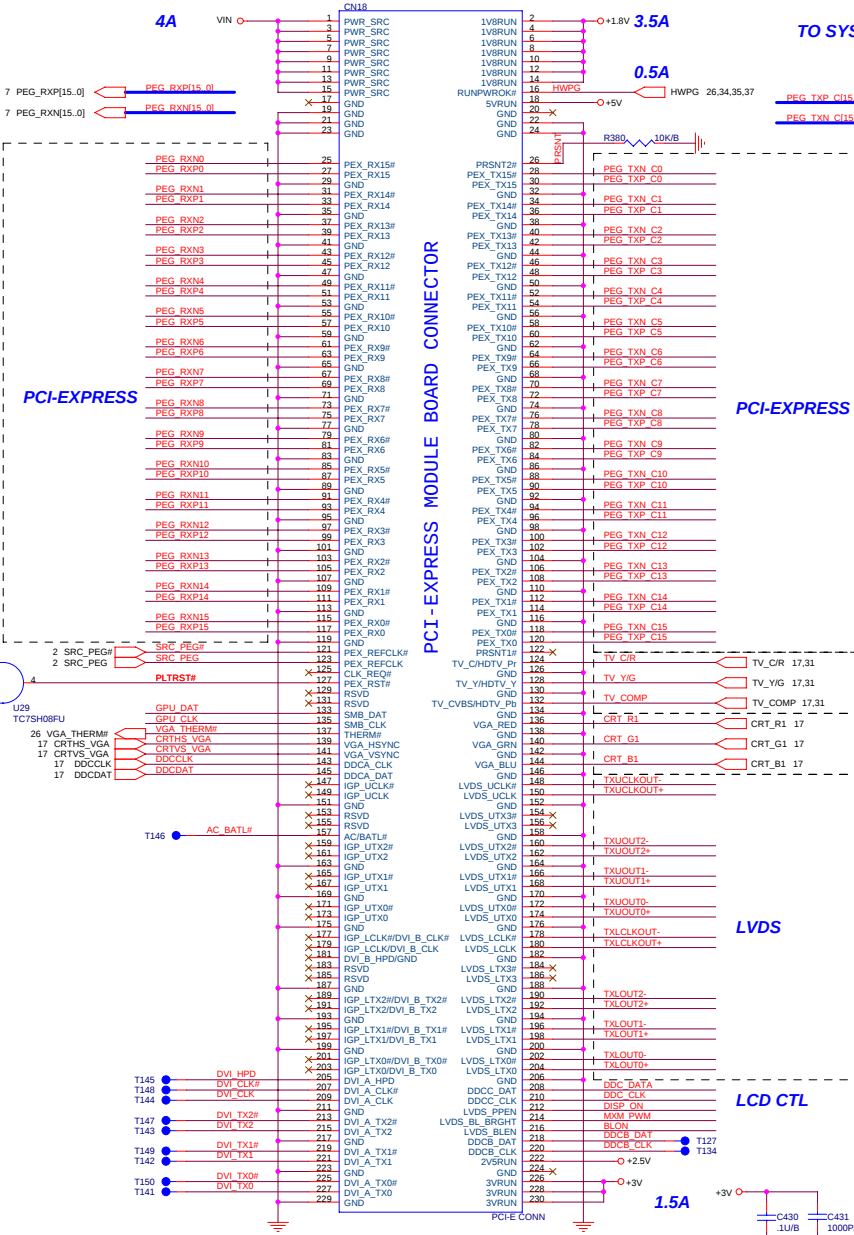
BACKLIGHT CONTROL



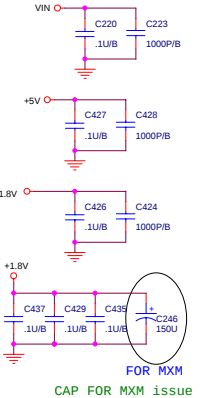
LCD CONNECTOR



GPU Daughter Card slot



TO SYSTEM POWER OK



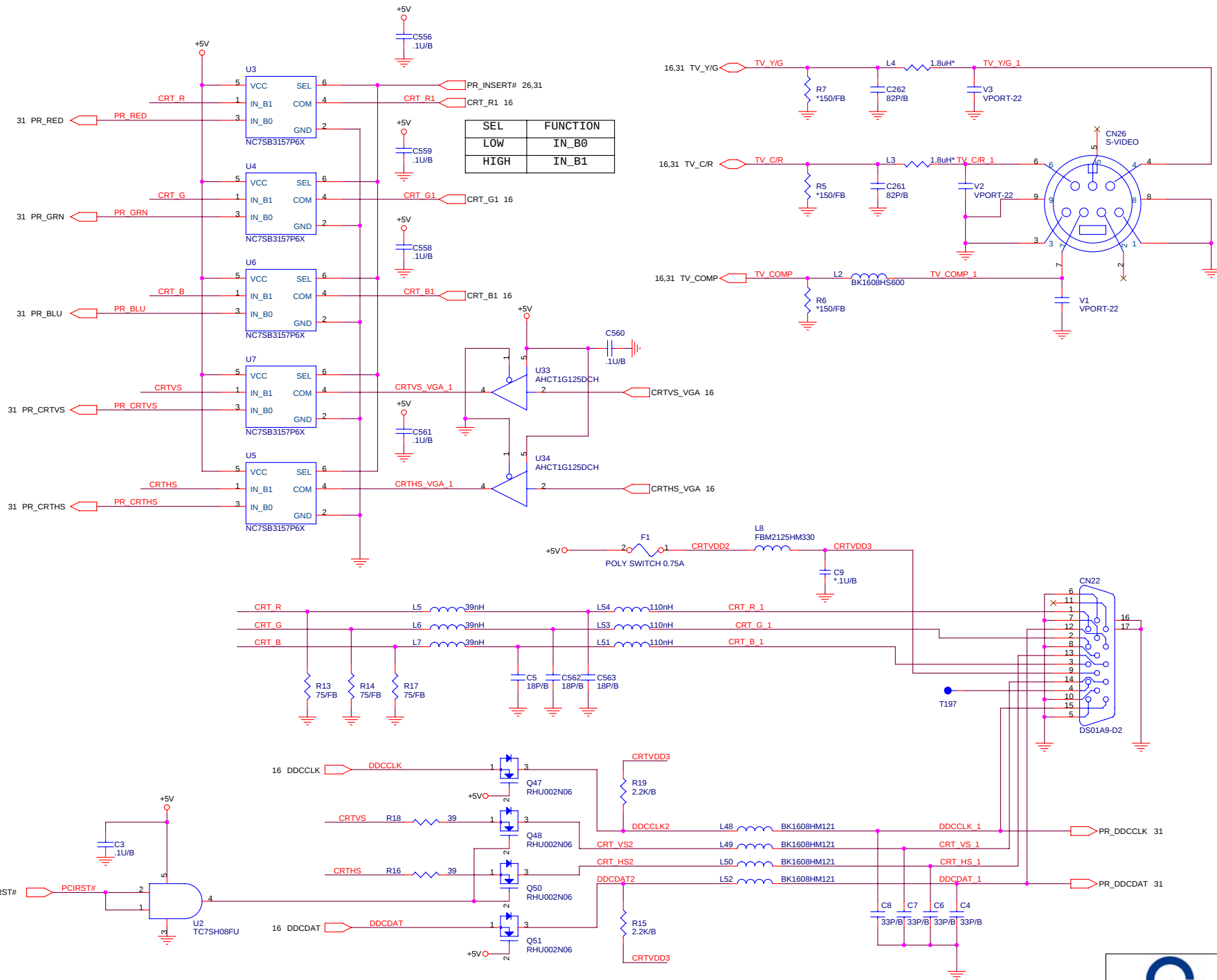
PCI-EXPRESS

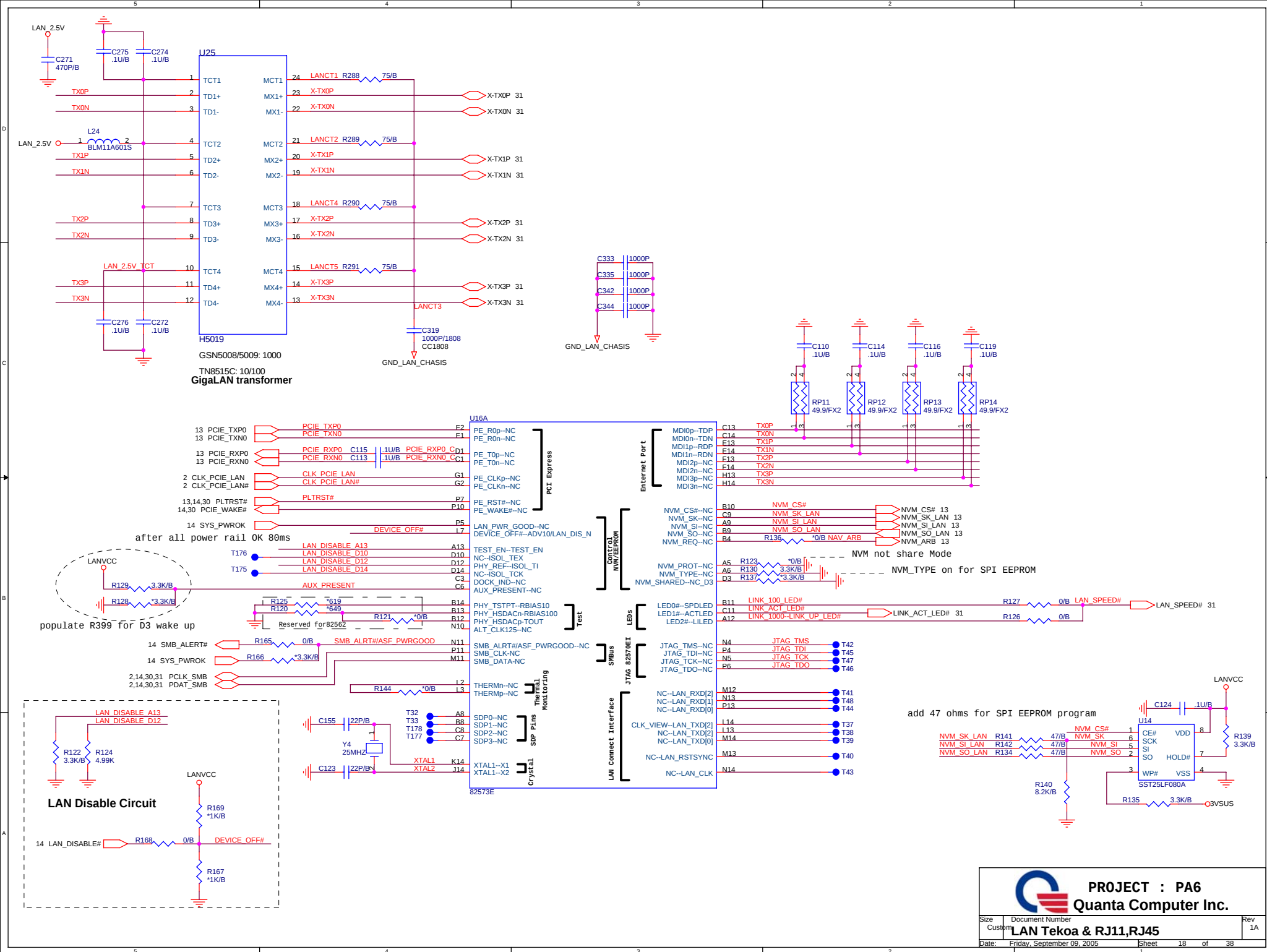
TV OUT

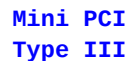
RGB OUT

LVDS

LCD CTL



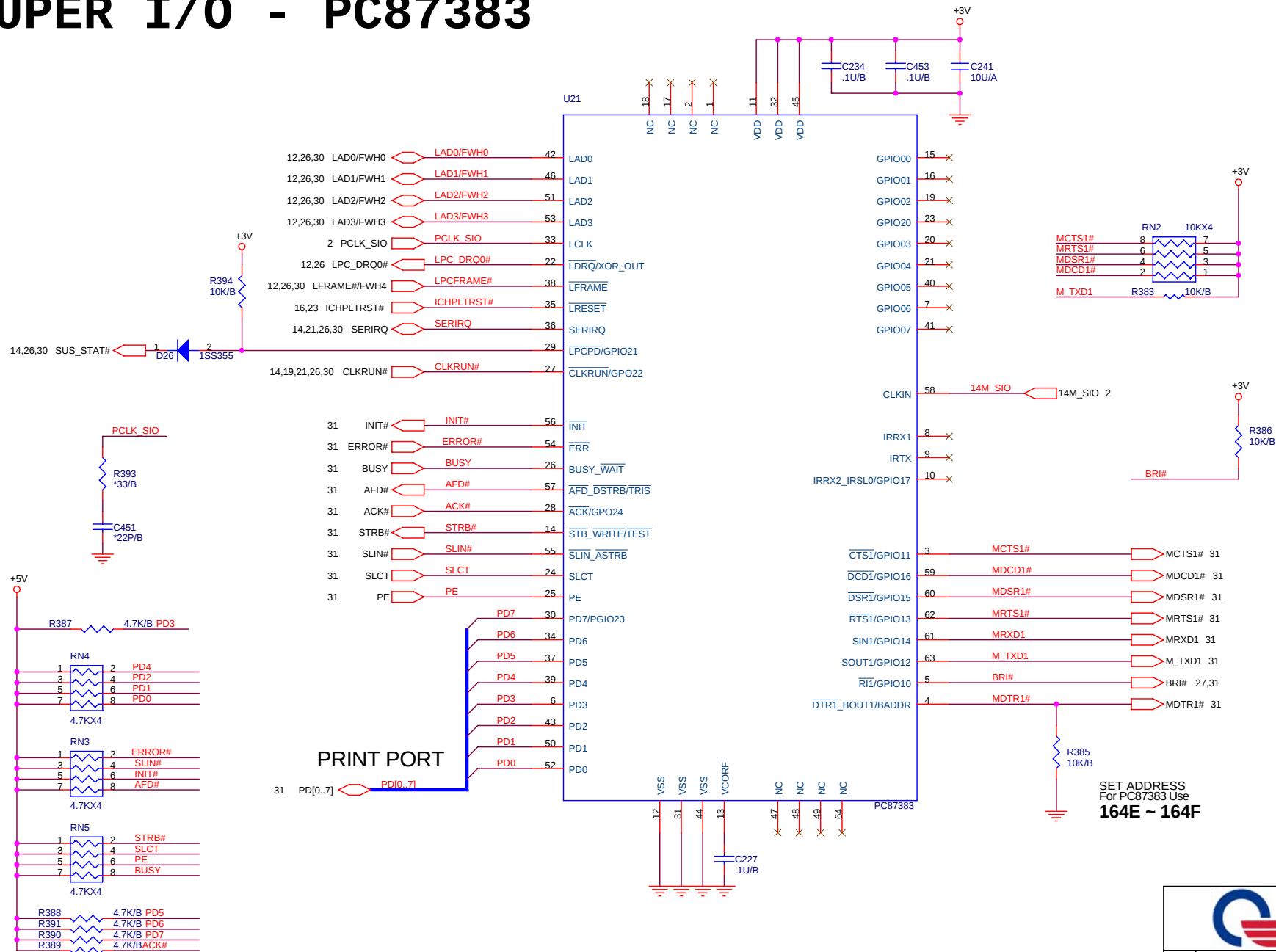




H=5.2

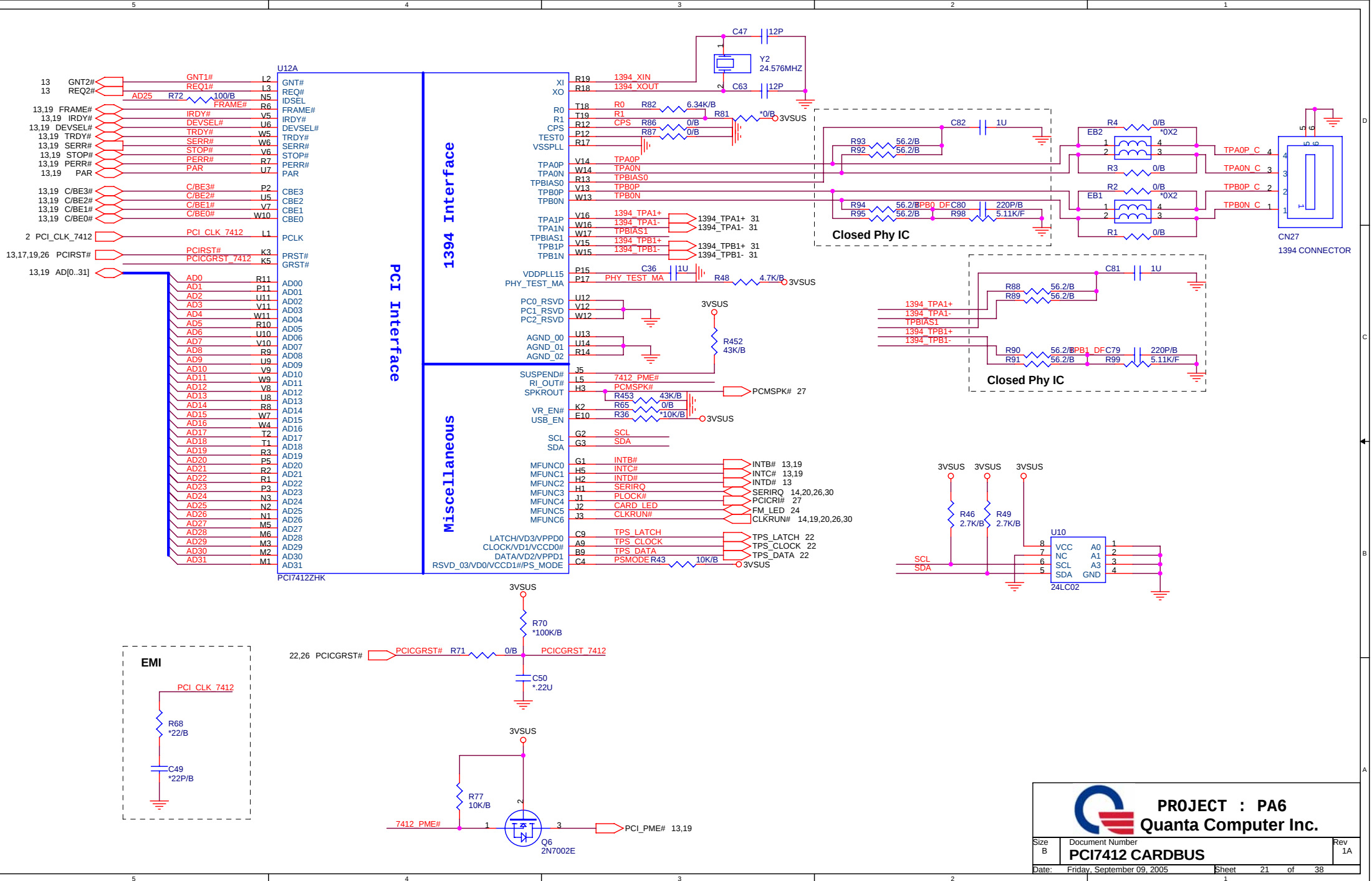
age
tion

SUPER I/O - PC87383

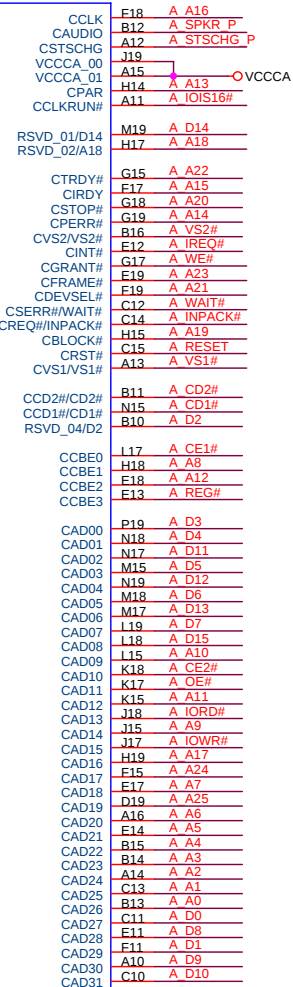


PROJECT : PA6
Quanta Computer Inc.

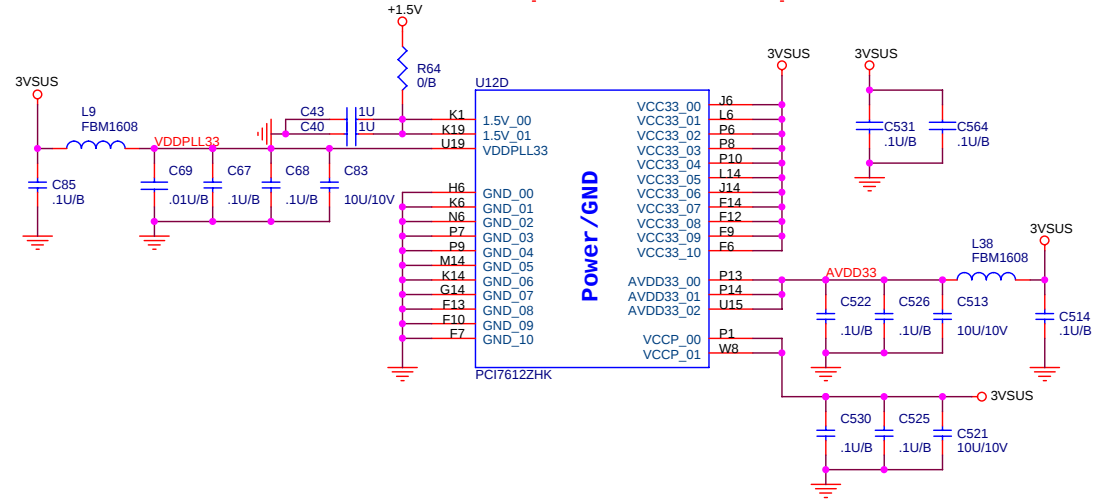
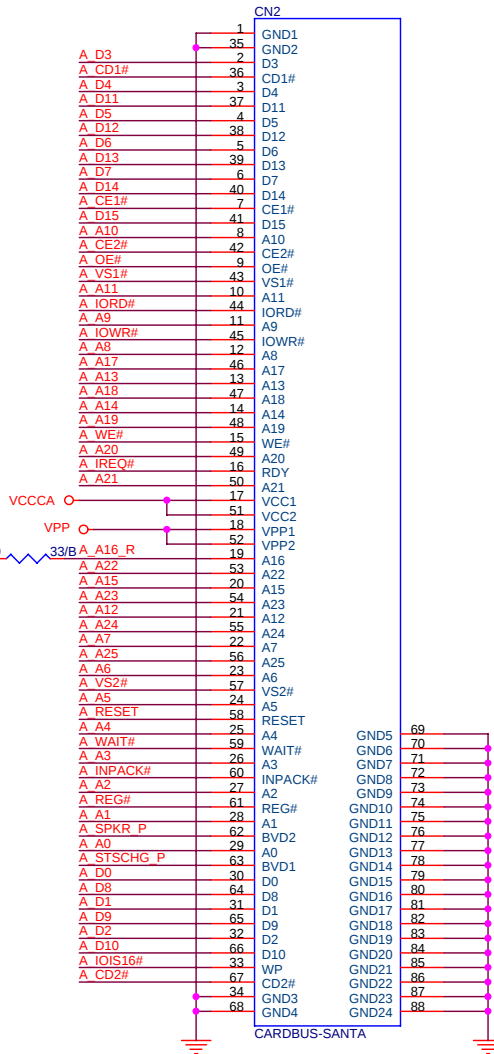
Size B	Document Number	Rev 1A
	SUPER I/O - PC87383	
Date:	Friday, September 09, 2005	Sheet 20 of 38



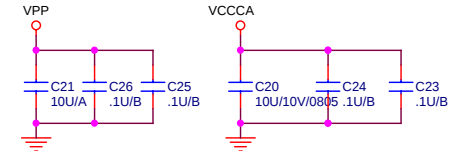
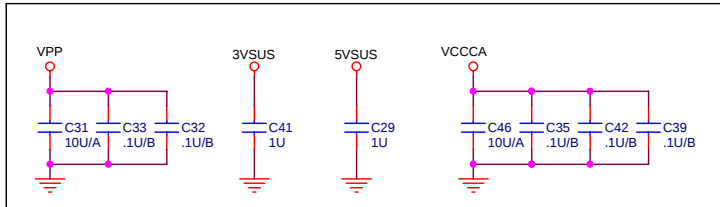
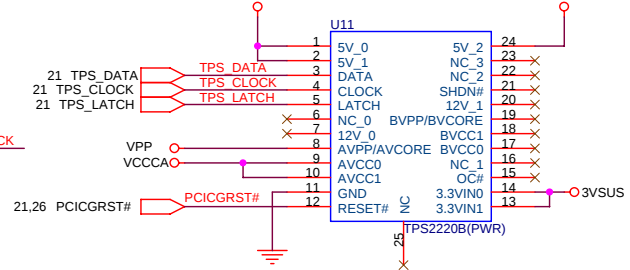
CardBus Interface



CardBus Connector



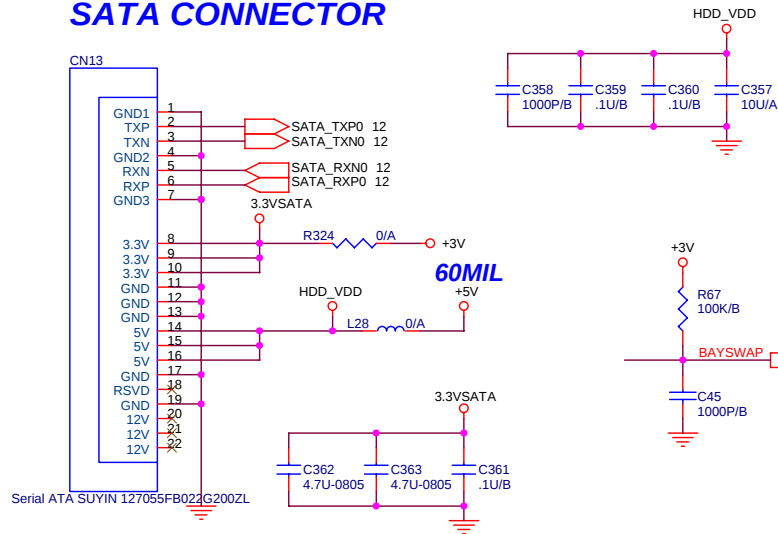
CARDBUS POWER SWITCH



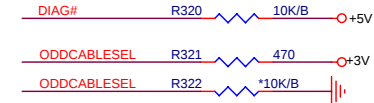
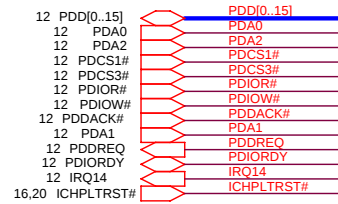
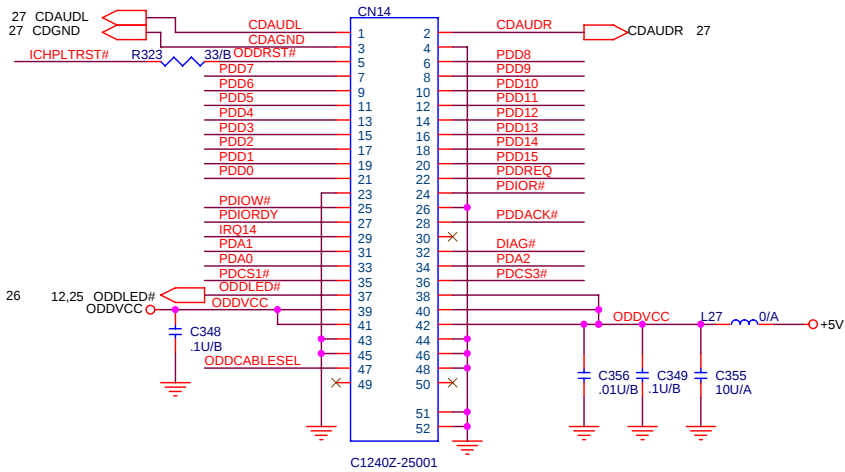
PROJECT : PA6
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Size B	Document Number	Rev 1A
PCI7412 CardBus Connector		
Date: Friday, September 09, 2005	Sheet 22 of 38	

SATA CONNECTOR



CD-ROM



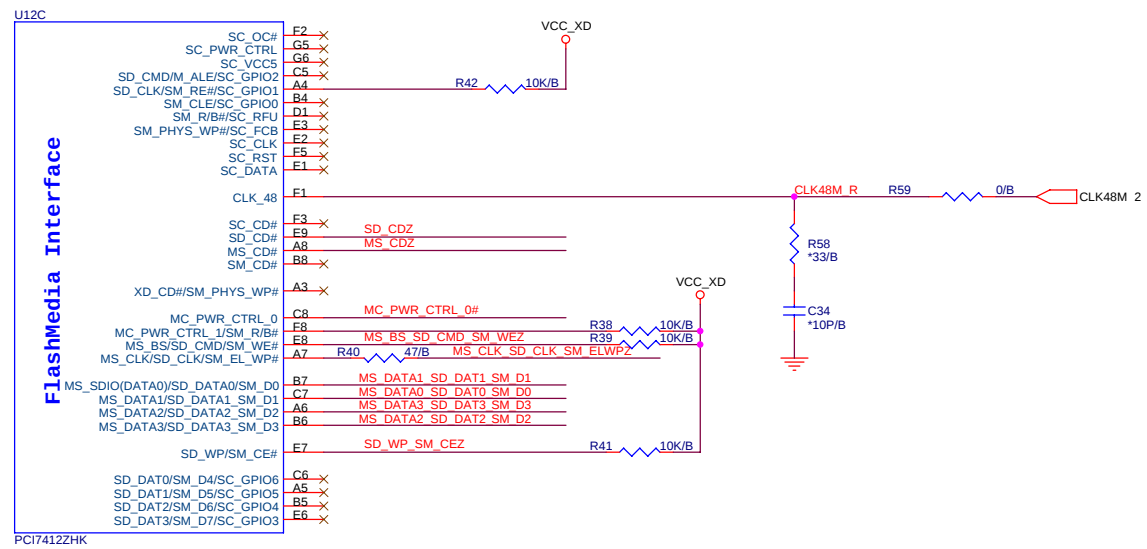
PLACEMENT NOTICE :

1. PUT THE BYPASS CAP AND INDUCTOR NEAR THE HDD AND ODD CONNECTOR
2. ALL DAMPING RESISTORS SHOULD NEAR ODD AND HDD CONNECOTR RESPECTIVELY
3. ALL PULLUP AND PULLDN SHOULD NEAR THE CONNECTOR
4. ALL IDE TRACE SHOULD KEEP 5:15 ID POSSIBLE AND 5:10 IS MINIMUM REQUIREMENT



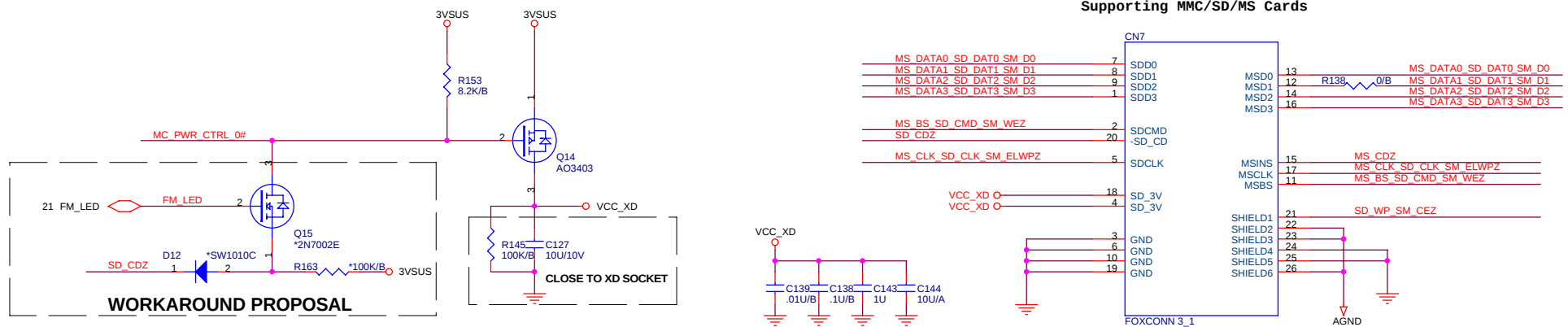
PROJECT : PA6
Quanta Computer Inc.

Size B	Document Number SATA HDD, CD-ROM	Rev 1A
Date: Friday, September 09, 2005	Sheet 23 of 38	

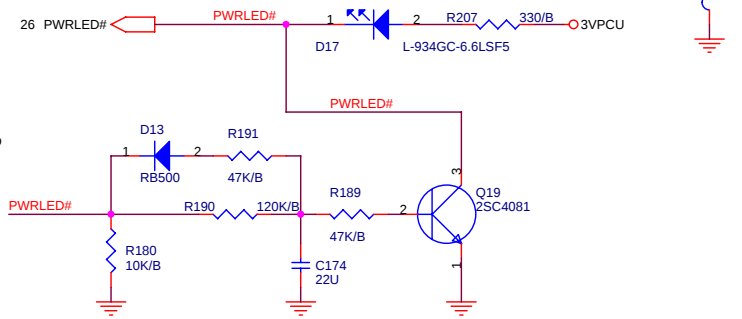
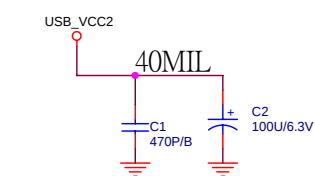
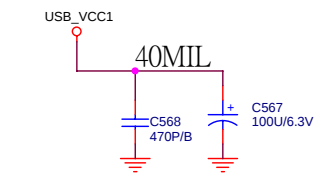
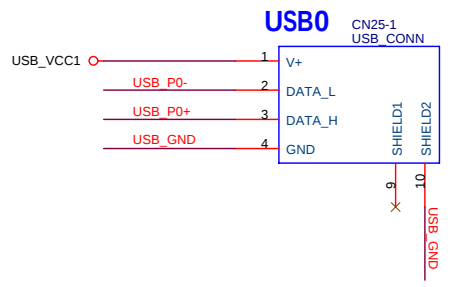
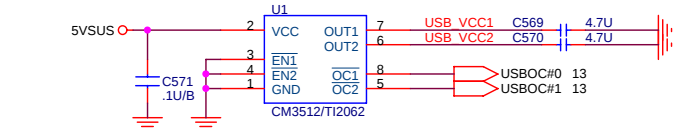
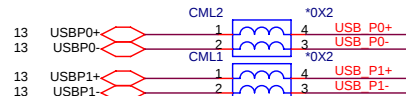
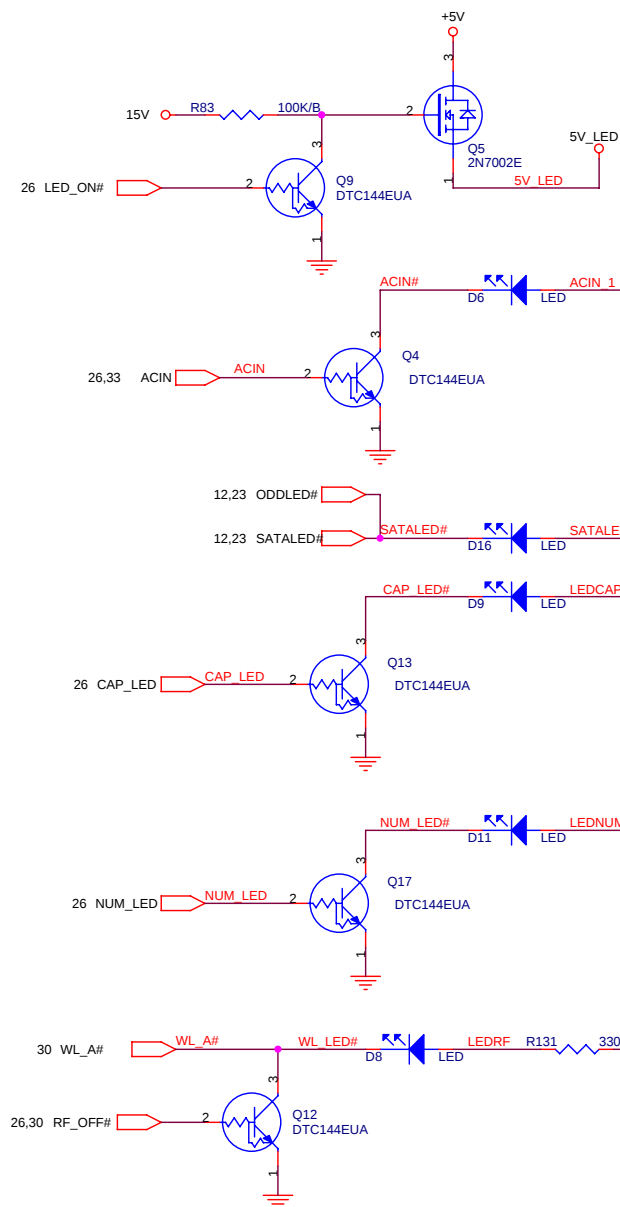


4 IN1 CARD READER

Supporting MMC/SD/MS Cards



PROJECT : PA6
Quanta Computer Inc.



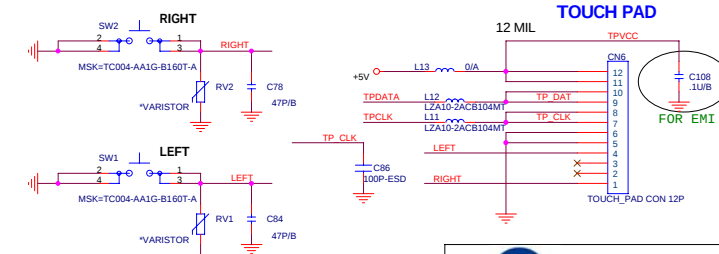
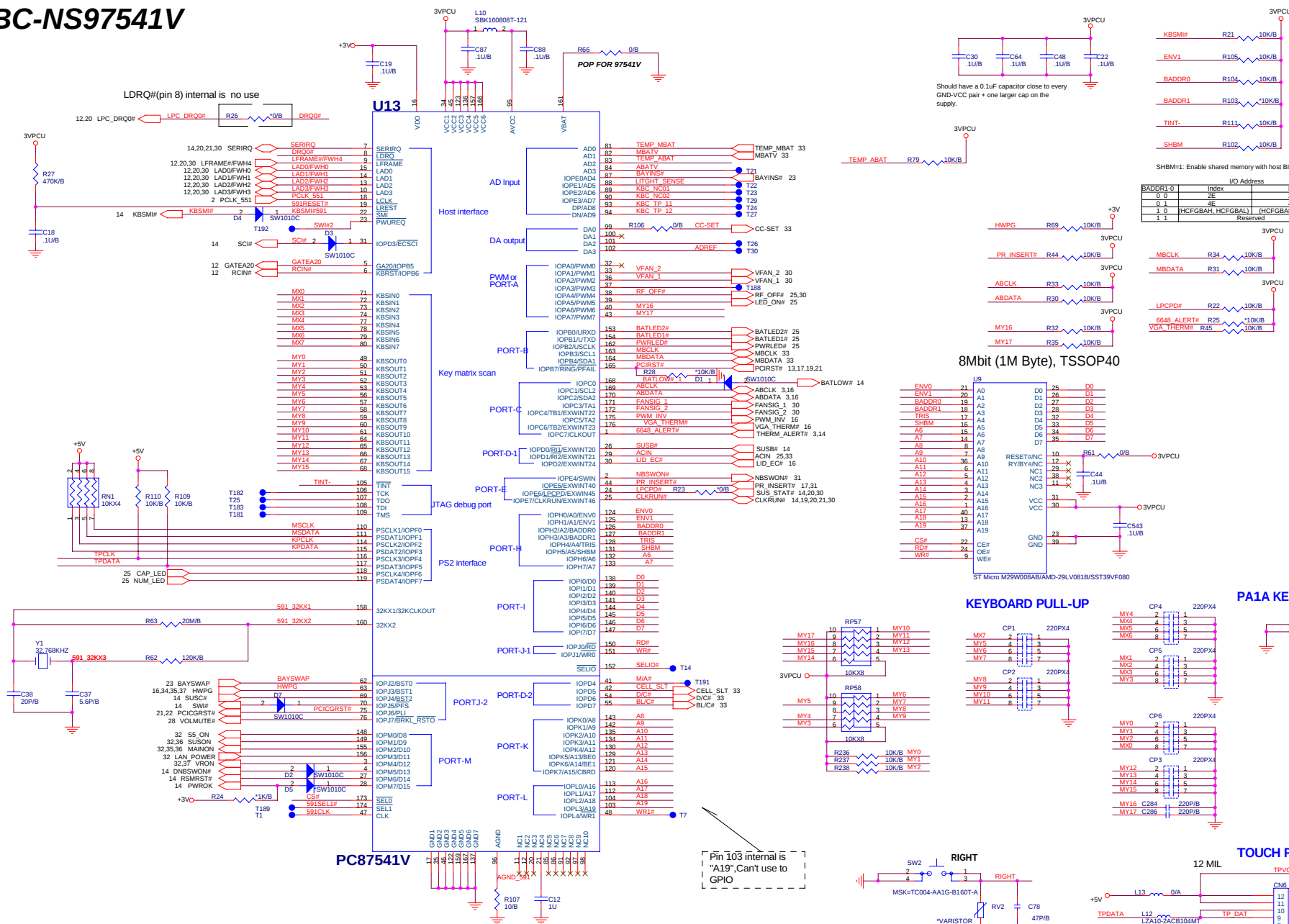


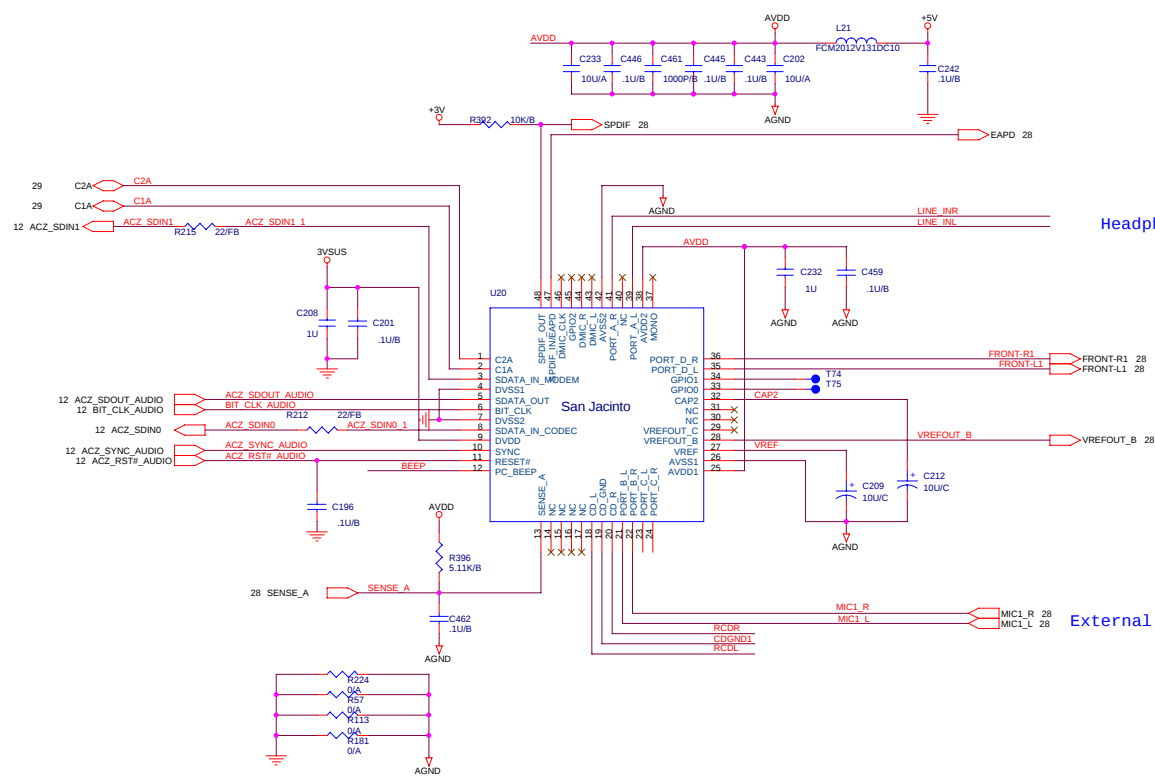
PROJECT : PA6

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Size B	Document Number	Rev 1A
USB Ports		
Date: Friday, September 09, 2005	Sheet 25 of 38	

KBC-NS97541V



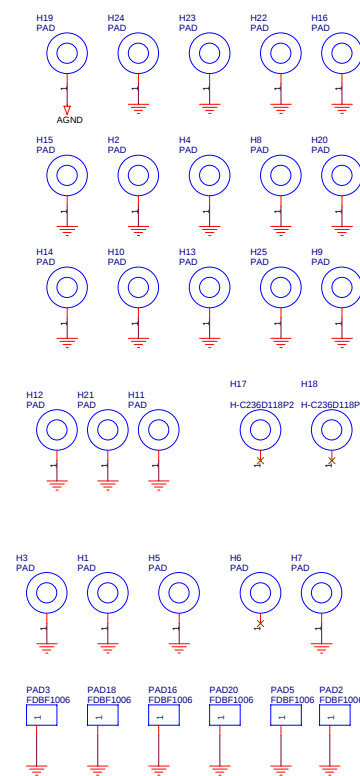
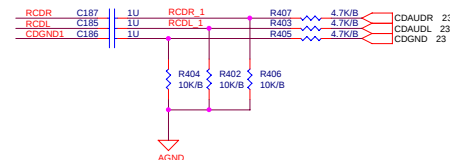
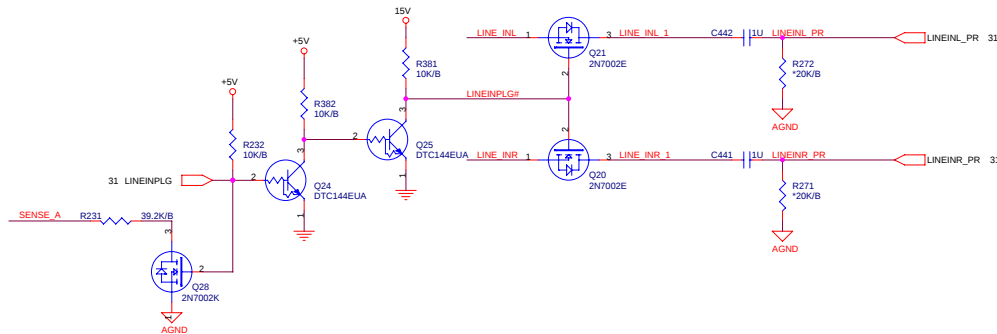
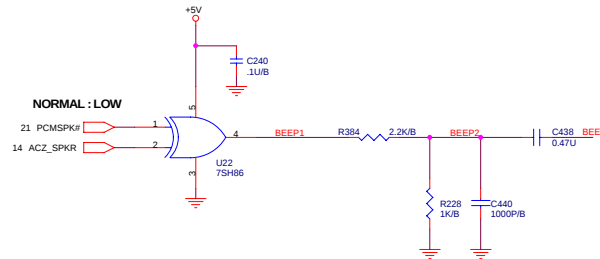
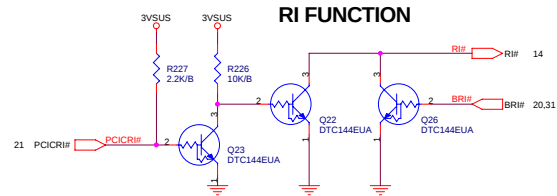


Headphone out

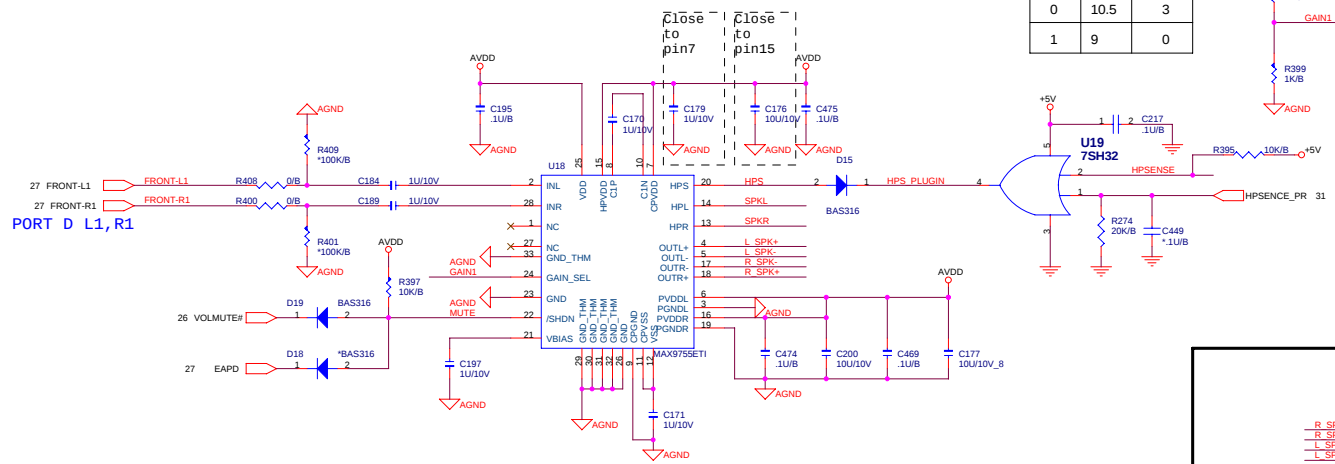
speakers

External mic

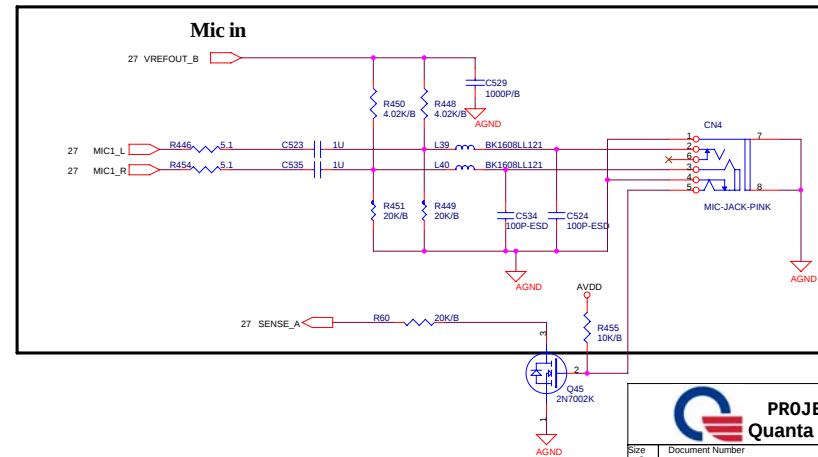
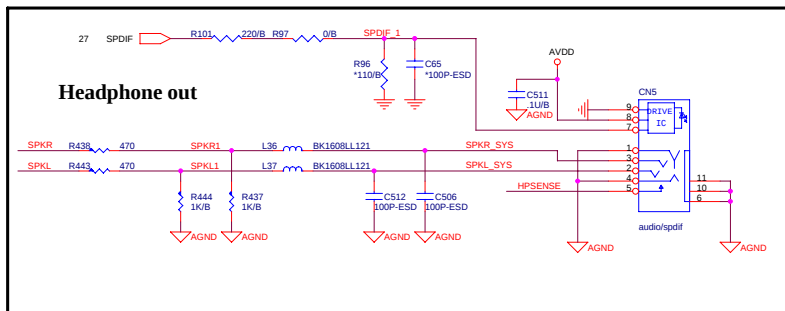
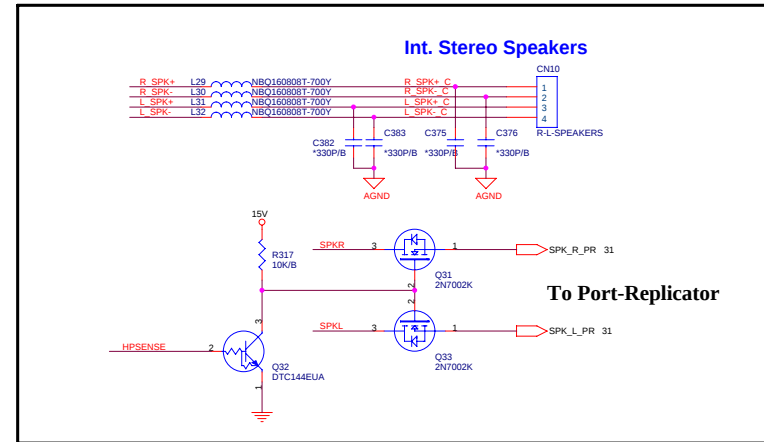
PC BEEP CONTROL



AUDIO AMPLIFIER-MAX9755

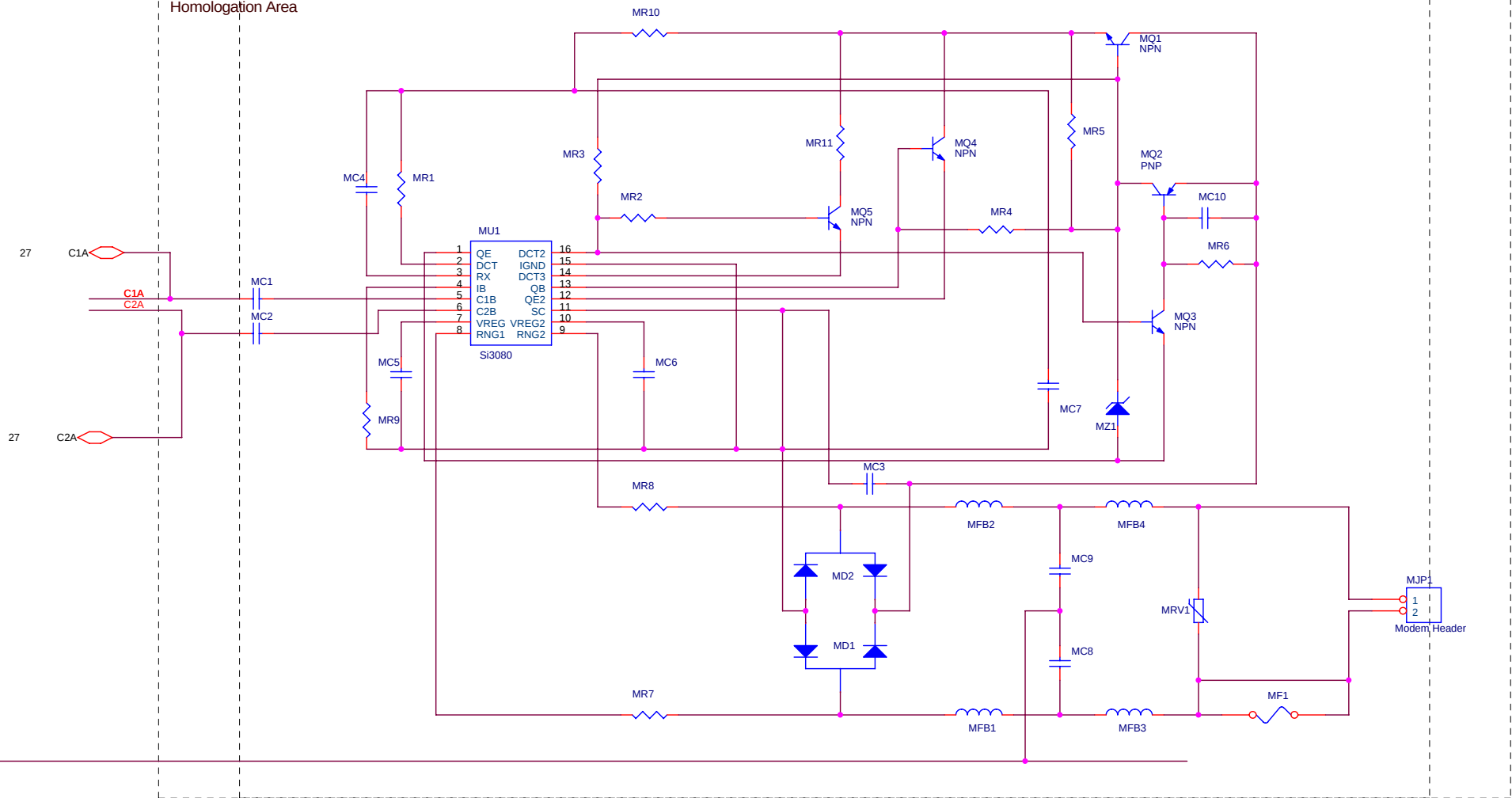


GAIN1	SPKR MODE	HP MODE
0	10.5	3
1	9	0



No Ground Plane In DAA Section

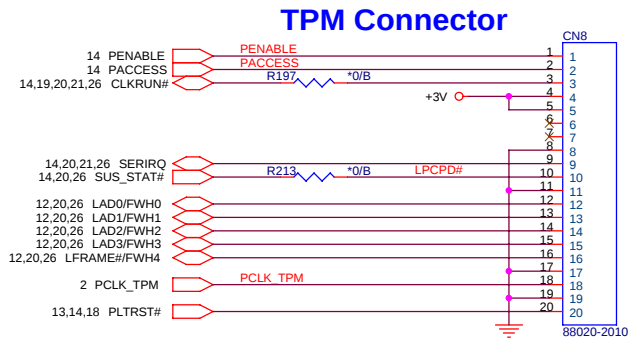
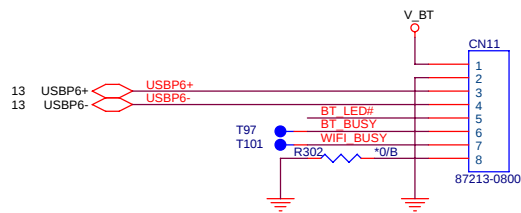
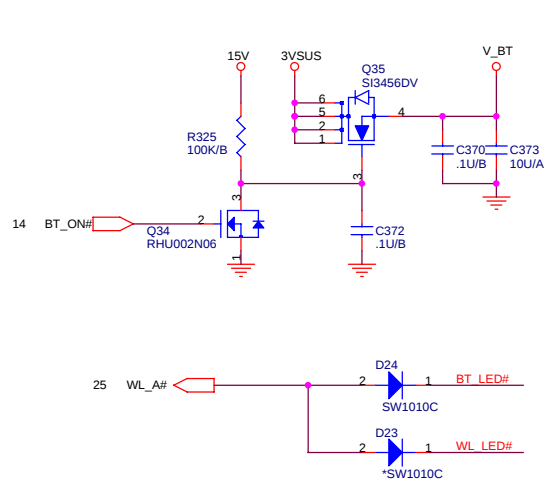
Homologation Area



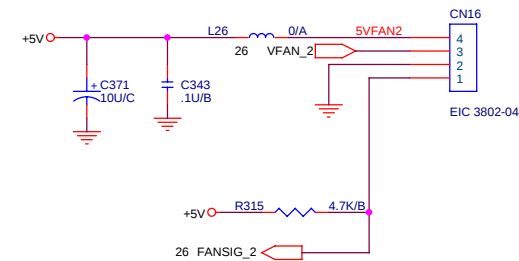
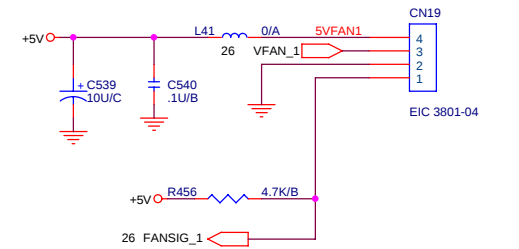
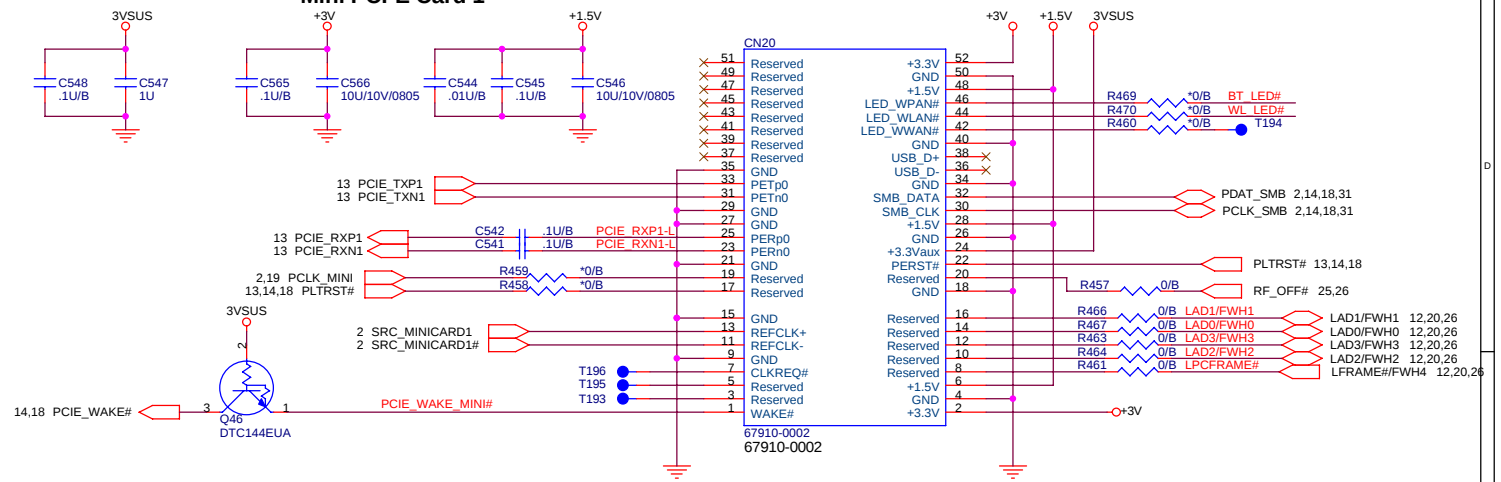
PROJECT : PA6
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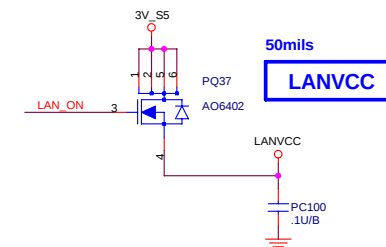
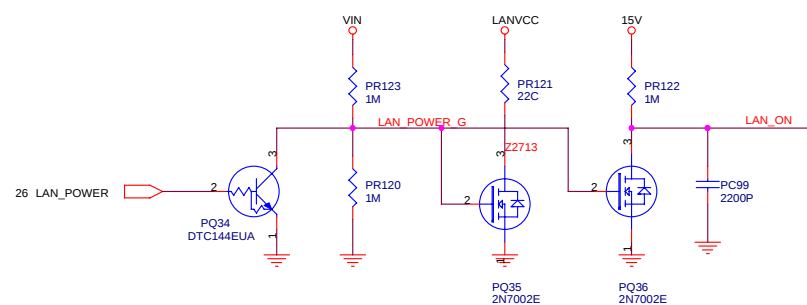
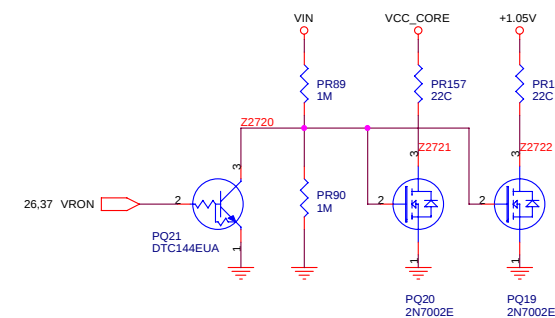
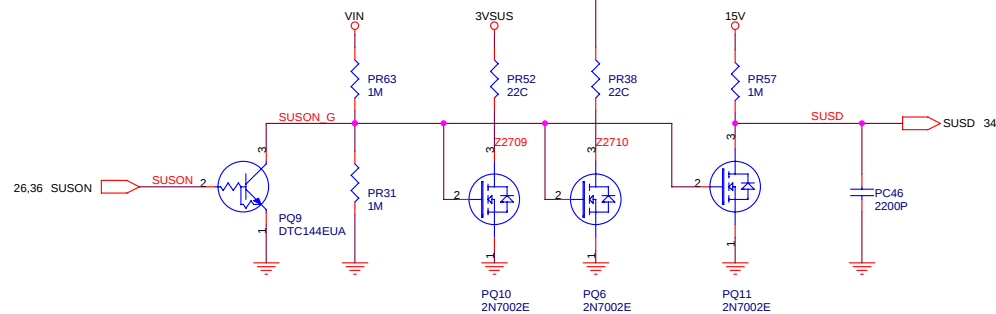
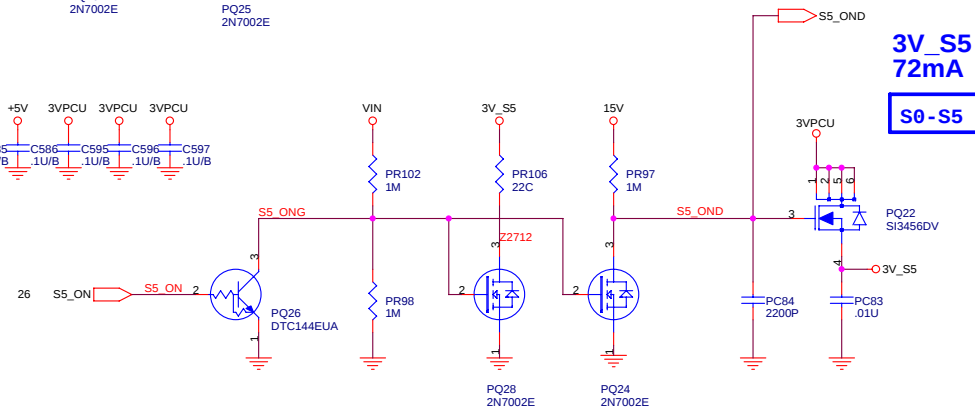
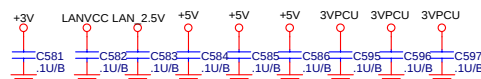
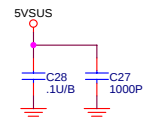
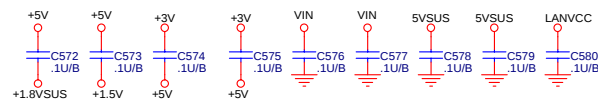
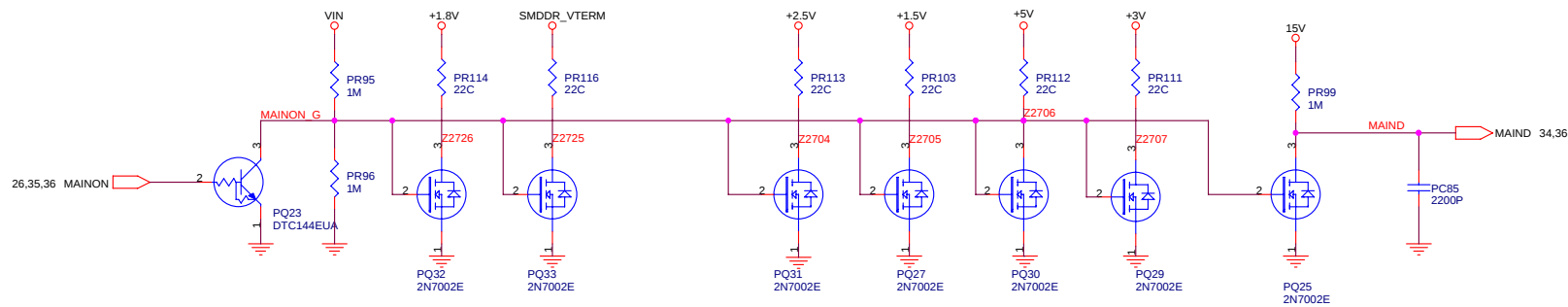
Size B	Document Number AMP/AUDIO CONN	Rev 1A
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BLUETOOTH CONNECTOR

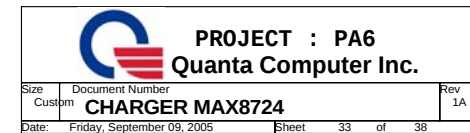


Mini PCI-E Card 1

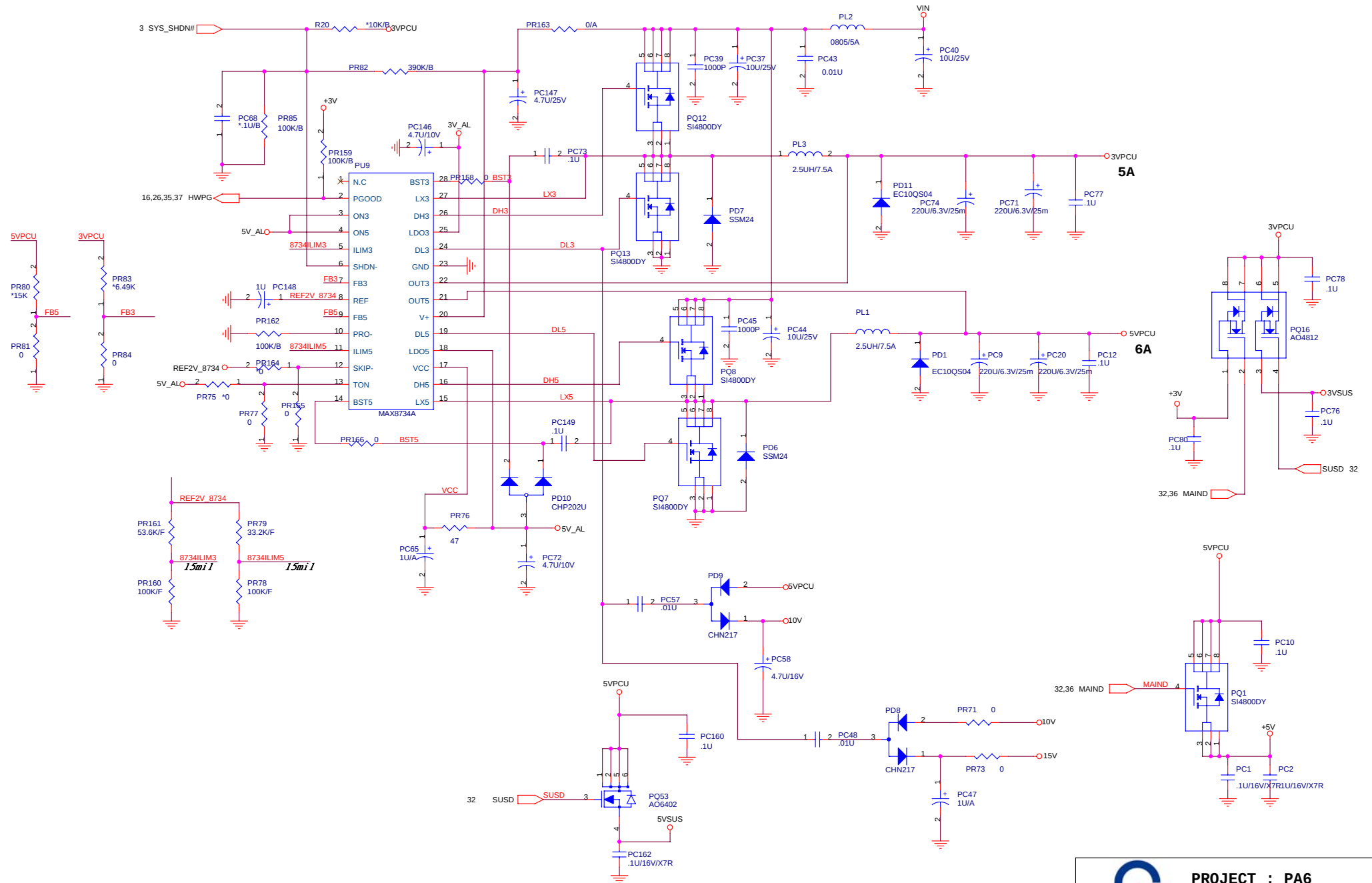




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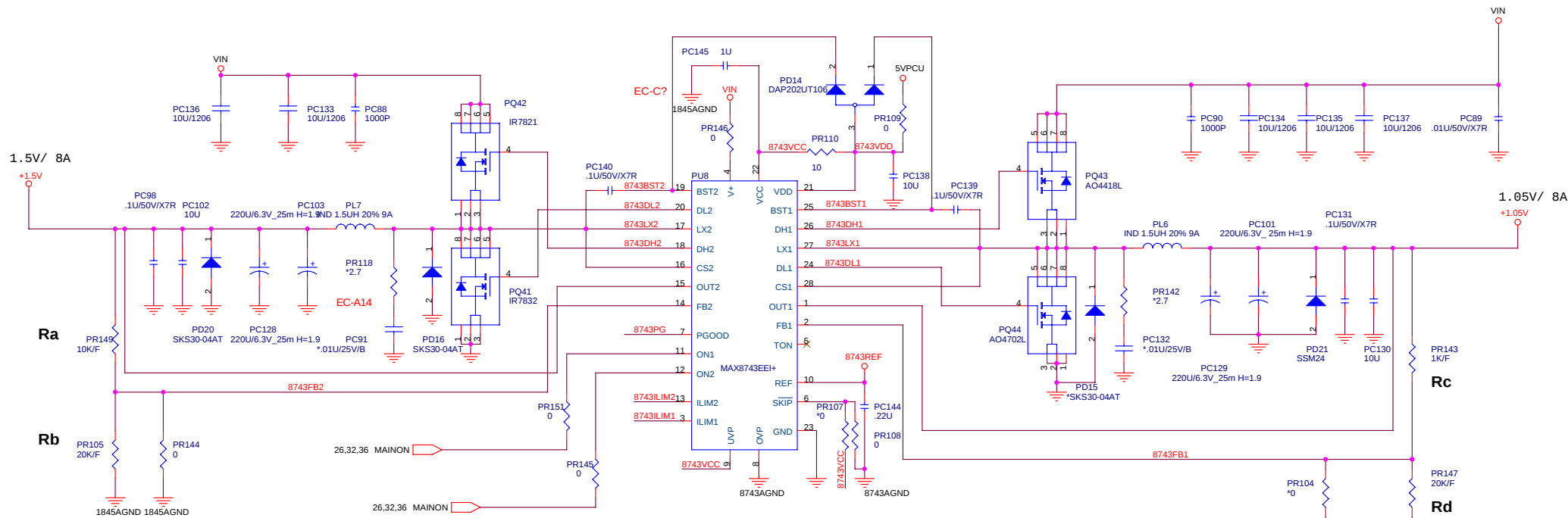


DC-DC (MAX8734A)



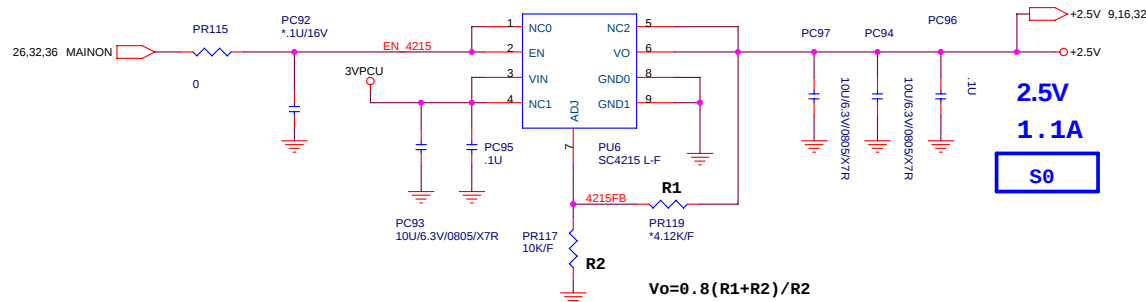
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$$V_{out} = (1 + R_a/R_b) \cdot 1$$

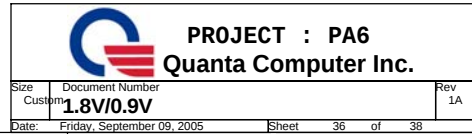
$$V_{out} = (1 + R_c/R_d) \cdot 1$$



$$V_o = 0.8 \cdot (R_1 + R_2) / R_2$$



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Throttling temp.
105 degree C

Intel Recommendation Option 1 :

250KHZ<= Fs <= 300K HZ
0.351uH<= Lo <=0.500uH +-20%
Low-Freq. Decoupling : ESR 1.5m Ohms ; ESL 1.8nH/6
SPCAP EEFSX0D331R * 6 or
POSCAP 2R5TPE330M9 * 6
Mid-Freq. Decoupling : 3m Ohms/32
MLCC 22uF_0805_X5R * 32 PCS.

Intel Recommendation Option 2 :

IMVP Spec. Rev. 0.8

(Nom.)	Yonah-2M	Meron
HFM	1.2875 V	1.1500 V
LFM	0.8375 V	0.8375 V
Deeper	0.7625 V	0.7625 V
VBOOT	1.2000 V	1.2000 V
SLOPE	-2.1 mV/A	-2.1 mV/A

(Max.)	Yonah-2M	Meron
HFM	36 A	44 A
LFM	9.5 A	12.5 A
Deeper	3.5 A	5.5 A
Dynamic	27 A	34.5 A
TDC	26 A	32 A

Vo	VID6	VID5	VID4	VID3	VID2	VID1	VID0
1.5000	0	0	0	0	0	0	0
1.4375	0	0	0	0	1	0	1
1.4000	0	0	0	1	0	0	0
1.3000	0	0	1	0	0	0	0
1.2875	0	0	1	0	0	0	1
1.2000	0	0	1	1	0	0	0
1.1500	0	0	1	1	1	0	0
1.1000	0	1	0	0	0	0	0
1.0000	0	1	0	1	0	0	0
0.9625	0	1	0	1	0	1	1
0.9000	0	1	1	0	0	0	0
0.8375	0	1	1	0	1	0	1
0.8000	0	1	1	1	0	0	0
0.7625	0	1	1	1	0	1	1
0.7500	0	1	1	1	1	0	0
0.7000	1	0	0	0	0	0	0
0.6000	1	0	0	1	0	0	0
0.5000	1	0	1	0	0	0	0
0.3000	1	1	0	0	0	0	0

CCM : Continuous Conduction Mode
DCM : Dis-Continuous Mode

