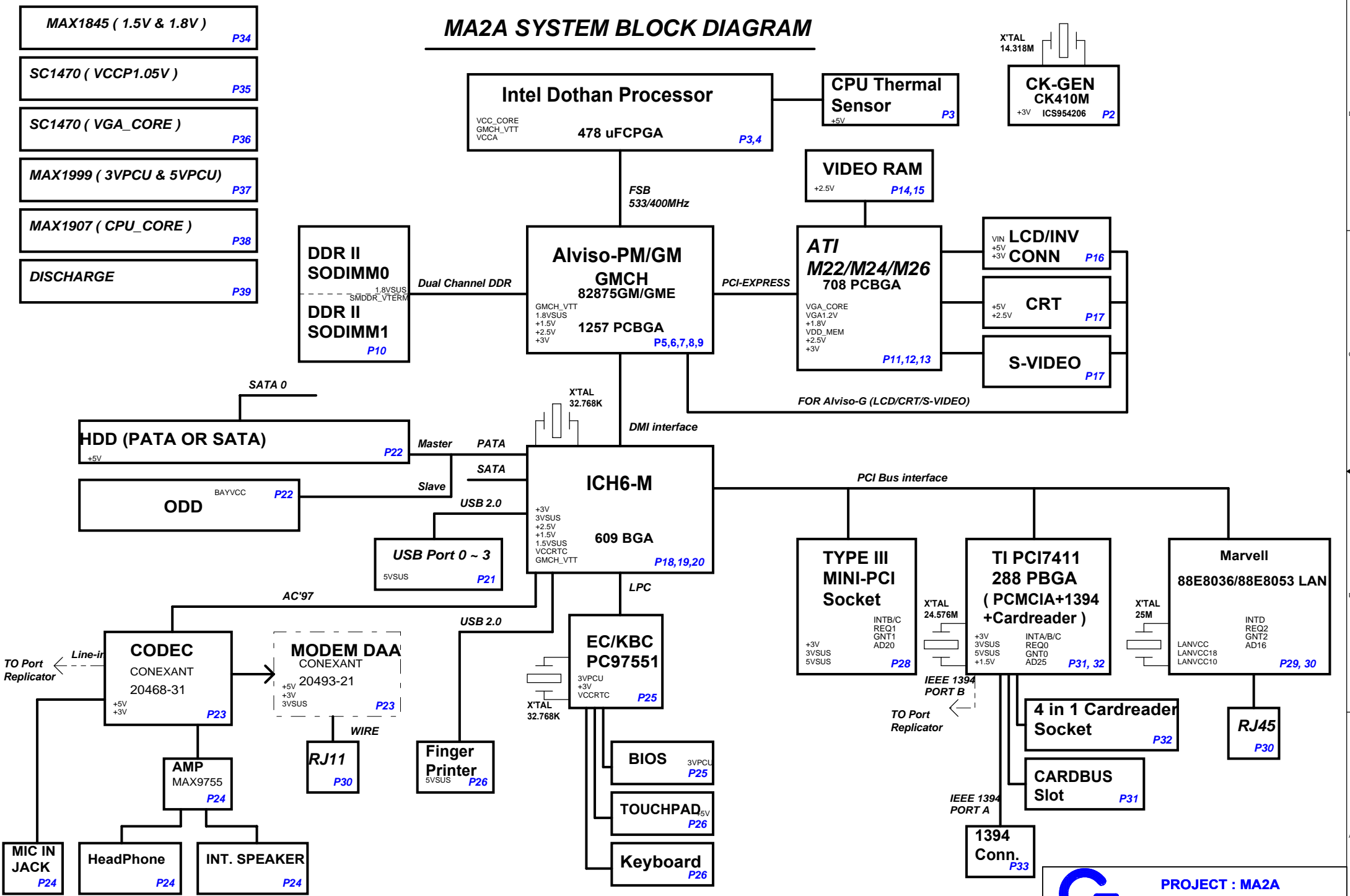
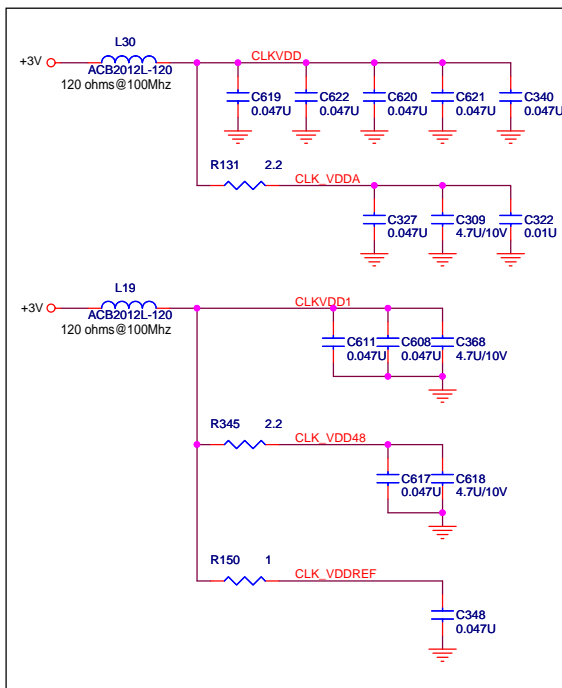


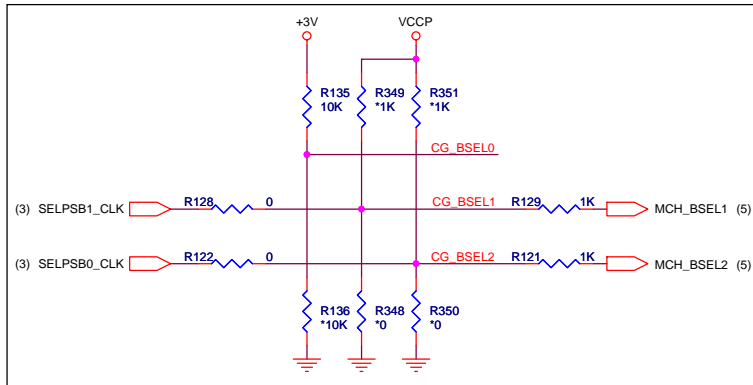
MODEL		REV	CHANGE LIST				Model	NT2 M/B BOARD	
							Page	FM	TO
MA2A M/B	3A	E200505-0479					1	3A	
	3B	E200505-3796					2	3A	
							3	3A	
							4	3A	
							5	3A	
							6	3A	
							7	3A	
							8	3A	
							9	3A	
							10	3A	
							11	3A	
							12	3B	
							13	3A	
							14	3A	
							15	3A	
							16	3A	
							17	3A	3C
							18	3A	3C
							19	3A	
							20	3A	
							21	3A	
							22	3A	
							23	3A	
							24	3A	
							25	3A	3C
							26	3B	
							27	3A	
							28	3A	
							29	3B	
							30	3B	
							31	3A	
					32	3A			
					33	3A			
					34	3A			
					35	3A			
					36	3A			
					37	3A			
					38	3A	3C		
					39	3A			

# MA2A SYSTEM BLOCK DIAGRAM

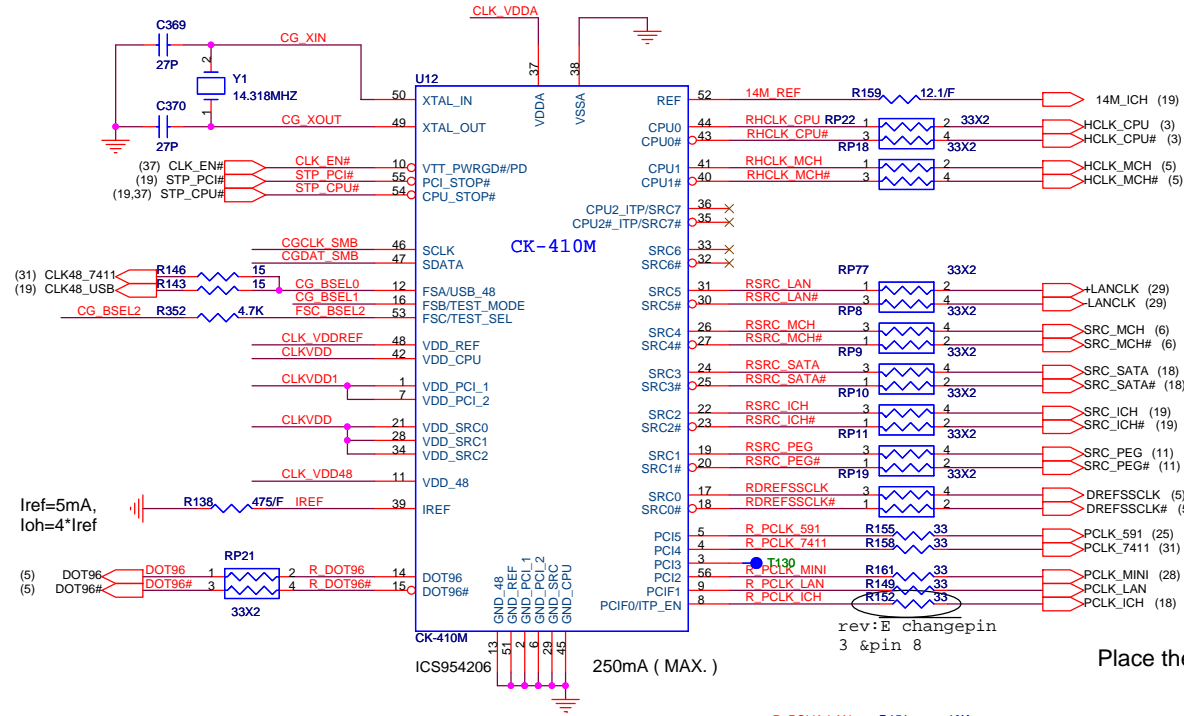




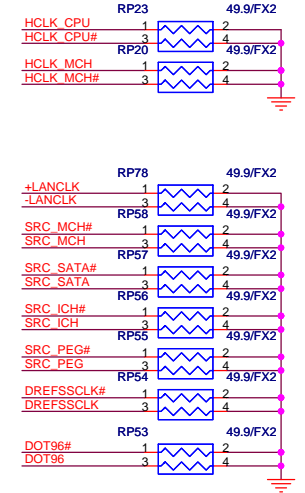
FSC	FSB	FSA	CPU	SRC	PCI	
1	0	1	100	100	33	Default
0	0	1	133	100	33	
0	1	1	166	100	33	
0	1	0	200	100	33	
0	0	0	266	100	33	
1	0	0	333	100	33	
1	1	0	400	100	33	
1	1	1	RESERVED			



Place these termination to close CK410M.

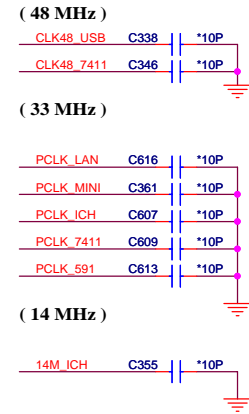
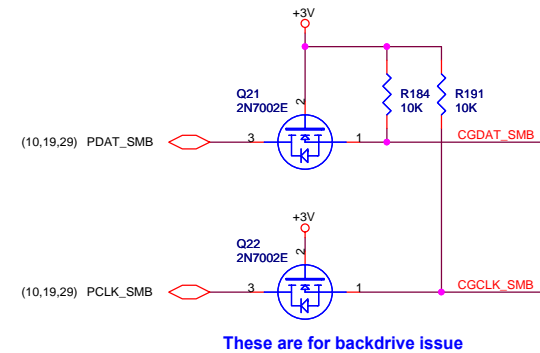


(3,8,10,11,12,13,16,17,18,19,20,22,25,26,28,34,35,36,37,39) +3V  
(3,4,5,6,8,9,18,20,34,39) VCCP



Place these termination to close CK410M.

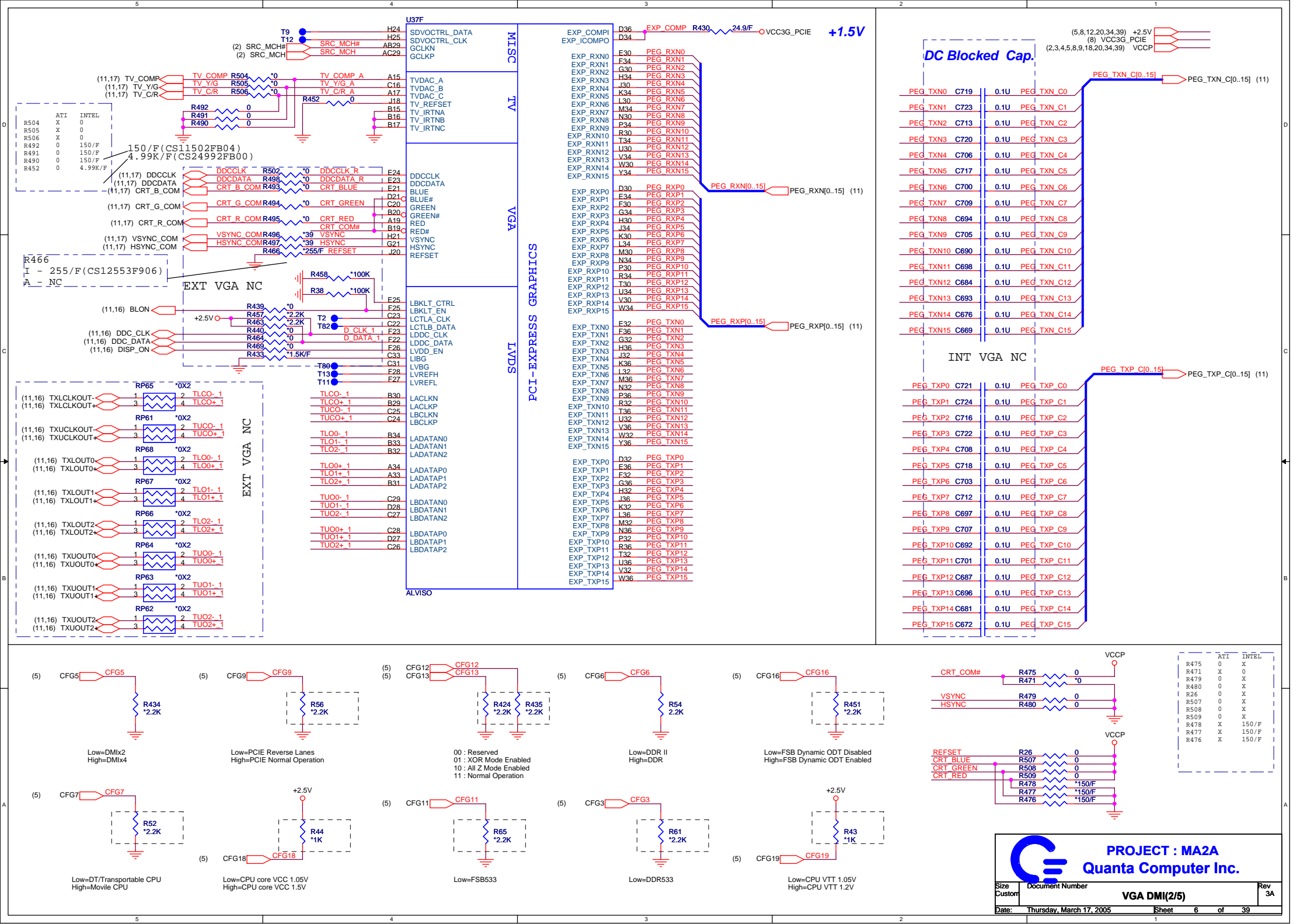
R\_PCLK\_LAN R151 10K +3V











(10) A\_MD[0..63]

A MD0 AG35  
A MD1 AH35  
A MD2 AL35  
A MD3 AL37  
A MD4 AH36  
A MD5 AH36  
A MD6 AJ35  
A MD7 AL34  
A MD8 AM36  
A MD9 AN35  
A MD10 AP32  
A MD11 AM31  
A MD12 AM31  
A MD13 AM34  
A MD14 AL32  
A MD15 AM32  
A MD16 AN31  
A MD17 AP31  
A MD18 AN28  
A MD19 AP28  
A MD20 AL30  
A MD21 AM30  
A MD22 AM28  
A MD23 AL28  
A MD24 AP27  
A MD25 AM27  
A MD26 AM23  
A MD27 AM22  
A MD28 AL23  
A MD29 AM24  
A MD30 AN22  
A MD31 AP22  
A MD32 AM9  
A MD33 AL9  
A MD34 AL6  
A MD35 AP7  
A MD36 AP11  
A MD37 AP10  
A MD38 AL7  
A MD39 AM7  
A MD40 AN5  
A MD41 AN6  
A MD42 AN3  
A MD43 AP3  
A MD44 AP6  
A MD45 AM6  
A MD46 AL4  
A MD47 AM3  
A MD48 AK2  
A MD49 AK3  
A MD50 AG2  
A MD51 AG1  
A MD52 AL3  
A MD53 AM2  
A MD54 AH3  
A MD55 AG3  
A MD56 AF3  
A MD57 AE3  
A MD58 AD6  
A MD59 AC4  
A MD60 AF2  
A MD61 AF1  
A MD62 AD4  
A MD63 AD5

U37B

DDR SYSTEM MEMORY A

SA\_BS0#  
SA\_BS1#  
SA\_BS2#  
SA\_DM0  
SA\_DM1  
SA\_DM2  
SA\_DM3  
SA\_DM4  
SA\_DM5  
SA\_DM6  
SA\_DM7  
SA\_DQS0  
SA\_DQS1  
SA\_DQS2  
SA\_DQS3  
SA\_DQS4  
SA\_DQS5  
SA\_DQS6  
SA\_DQS7  
SA\_DQS0#  
SA\_DQS1#  
SA\_DQS2#  
SA\_DQS3#  
SA\_DQS4#  
SA\_DQS5#  
SA\_DQS6#  
SA\_DQS7#  
SA\_MA0  
SA\_MA1  
SA\_MA2  
SA\_MA3  
SA\_MA4  
SA\_MA5  
SA\_MA6  
SA\_MA7  
SA\_MA8  
SA\_MA9  
SA\_MA10  
SA\_MA11  
SA\_MA12  
SA\_MA13  
SA\_CAS#  
SA\_RAS#  
SA\_RCVENIN#  
SA\_RCVENOUT#  
SA\_WE#

AK15 A BS0#  
AK16 A BS1#  
AL21 A BS2#  
AJ37 A DM0  
AP35 A DM1  
AL29 A DM2  
AP24 A DM3  
AP9 A DM4  
AP4 A DM5  
AJ2 A DM6  
AD3 A DM7  
AK36 A DQS0  
AP33 A DQS1  
AN29 A DQS2  
AP23 A DQS3  
AM8 A DQS4  
AM4 A DQS5  
AJ1 A DQS6  
AE5 A DQS7  
AK35 A DQS#0  
AP34 A DQS#1  
AN30 A DQS#2  
AN23 A DQS#3  
AN8 A DQS#4  
AM5 A DQS#5  
AH1 A DQS#6  
AE4 A DQS#7  
AL17 A MA0  
AP17 A MA1  
AP18 A MA2  
AM17 A MA3  
AN18 A MA4  
AM18 A MA5  
AL19 A MA6  
AP20 A MA7  
AM19 A MA8  
AL20 A MA9  
AM16 A MA10  
AN20 A MA11  
AM20 A MA12  
AM15 A MA13  
AN15 A SCASA#  
AP16 A SRASA#  
AF29 SA RCVENIN#  
AF28 SA RCVENOUT#  
AP15 A BMWEA#

A\_BS0# (10)  
A\_BS1# (10)  
A\_BS2# (10)  
A\_DM[0..7] (10)  
A\_DQS[0..7] (10)  
A\_DQS# [0..7] (10)  
A\_MA[0..13] (10)  
A\_SCASA# (10)  
A\_SRASA# (10)  
A\_BMWEA# (10)

(10) B\_MD[0..63]

B MD0 AE31  
B MD1 AE32  
B MD2 AG32  
B MD3 AG36  
B MD4 AE34  
B MD5 AE31  
B MD6 AE31  
B MD7 AF30  
B MD8 AH33  
B MD9 AH32  
B MD10 AK31  
B MD11 AG34  
B MD12 AG30  
B MD13 AG33  
B MD14 AH31  
B MD15 AJ31  
B MD16 AK30  
B MD17 AJ30  
B MD18 AH29  
B MD19 AH28  
B MD20 AK29  
B MD21 AH30  
B MD22 AH27  
B MD23 AG28  
B MD24 AF24  
B MD25 AG23  
B MD26 AJ22  
B MD27 AK22  
B MD28 AH24  
B MD29 AH23  
B MD30 AG22  
B MD31 AJ21  
B MD32 AG10  
B MD33 AG9  
B MD34 AG8  
B MD35 AH8  
B MD36 AH11  
B MD37 AH10  
B MD38 AJ9  
B MD39 AK9  
B MD40 AJ7  
B MD41 AK6  
B MD42 AJ4  
B MD43 AH5  
B MD44 AK8  
B MD45 AJ8  
B MD46 AJ5  
B MD47 AK4  
B MD48 AG5  
B MD49 AG4  
B MD50 AD8  
B MD51 AD9  
B MD52 AH4  
B MD53 AG6  
B MD54 AE9  
B MD55 AD7  
B MD56 AC5  
B MD57 AB8  
B MD58 AB6  
B MD59 AA8  
B MD60 AC8  
B MD61 AC7  
B MD62 AA4  
B MD63 AA5

U37G

DDR SYSTEM MEMORY B

SB\_BS0#  
SB\_BS1#  
SB\_BS2#  
SB\_DM0  
SB\_DM1  
SB\_DM2  
SB\_DM3  
SB\_DM4  
SB\_DM5  
SB\_DM6  
SB\_DM7  
SB\_DQS0  
SB\_DQS1  
SB\_DQS2  
SB\_DQS3  
SB\_DQS4  
SB\_DQS5  
SB\_DQS6  
SB\_DQS7  
SB\_DQS0#  
SB\_DQS1#  
SB\_DQS2#  
SB\_DQS3#  
SB\_DQS4#  
SB\_DQS5#  
SB\_DQS6#  
SB\_DQS7#  
SB\_MA0  
SB\_MA1  
SB\_MA2  
SB\_MA3  
SB\_MA4  
SB\_MA5  
SB\_MA6  
SB\_MA7  
SB\_MA8  
SB\_MA9  
SB\_MA10  
SB\_MA11  
SB\_MA12  
SB\_MA13  
SB\_CAS#  
SB\_RAS#  
SB\_RCVENIN#  
SB\_RCVENOUT#  
SB\_WE#

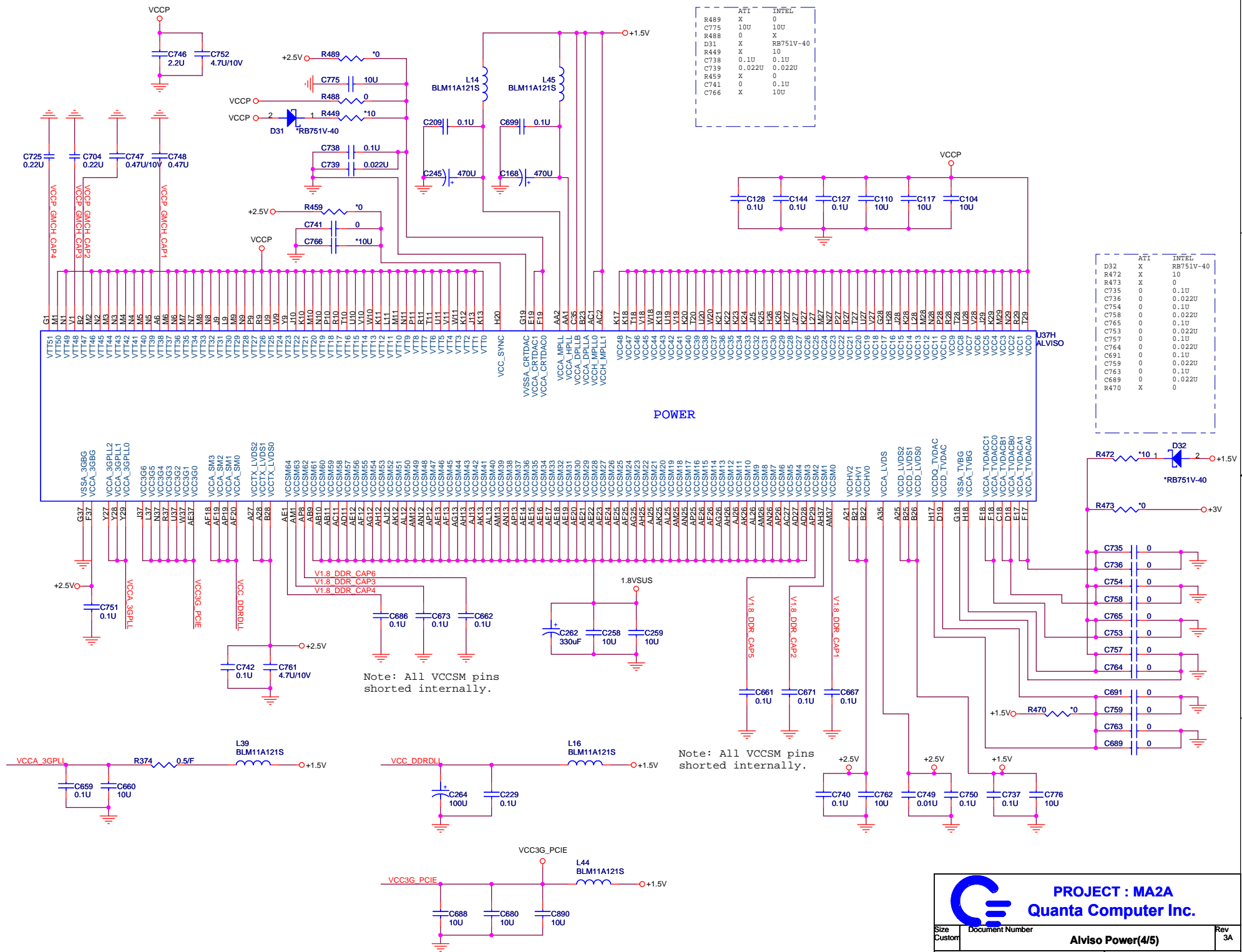
AJ15 B BS0#  
AG17 B BS1#  
AG21 B BS2#  
AF32 B DM0  
AK34 B DM1  
AK27 B DM2  
AK24 B DM3  
AJ10 B DM4  
AK5 B DM5  
AE7 B DM6  
AB7 B DM7  
AF34 B DQS0  
AK32 B DQS1  
AJ28 B DQS2  
AK23 B DQS3  
AM10 B DQS4  
AH6 B DQS5  
AF8 B DQS6  
AB4 B DQS7  
AF35 B DQS#0  
AK33 B DQS#1  
AK28 B DQS#2  
AJ23 B DQS#3  
AL10 B DQS#4  
AH7 B DQS#5  
AE7 B DQS#6  
AB5 B DQS#7  
AH17 B MA0  
AK17 B MA1  
AH18 B MA2  
AK18 B MA3  
AK19 B MA4  
AJ19 B MA5  
AK19 B MA6  
AH19 B MA7  
AJ20 B MA8  
AH20 B MA9  
AJ16 B MA10  
AG18 B MA11  
AG20 B MA12  
AG15 B MA13  
AH14 B SCASA#  
AK14 B SRASA#  
AF15 SB RCVENIN#  
AF14 SB RCVENOUT#  
AH16 B BMWEA#

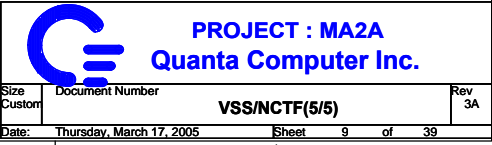
B\_BS0# (10)  
B\_BS1# (10)  
B\_BS2# (10)  
B\_DM[0..7] (10)  
B\_DQS[0..7] (10)  
B\_DQS# [0..7] (10)  
B\_MA[0..13] (10)  
B\_SCASA# (10)  
B\_SRASA# (10)  
B\_BMWEA# (10)

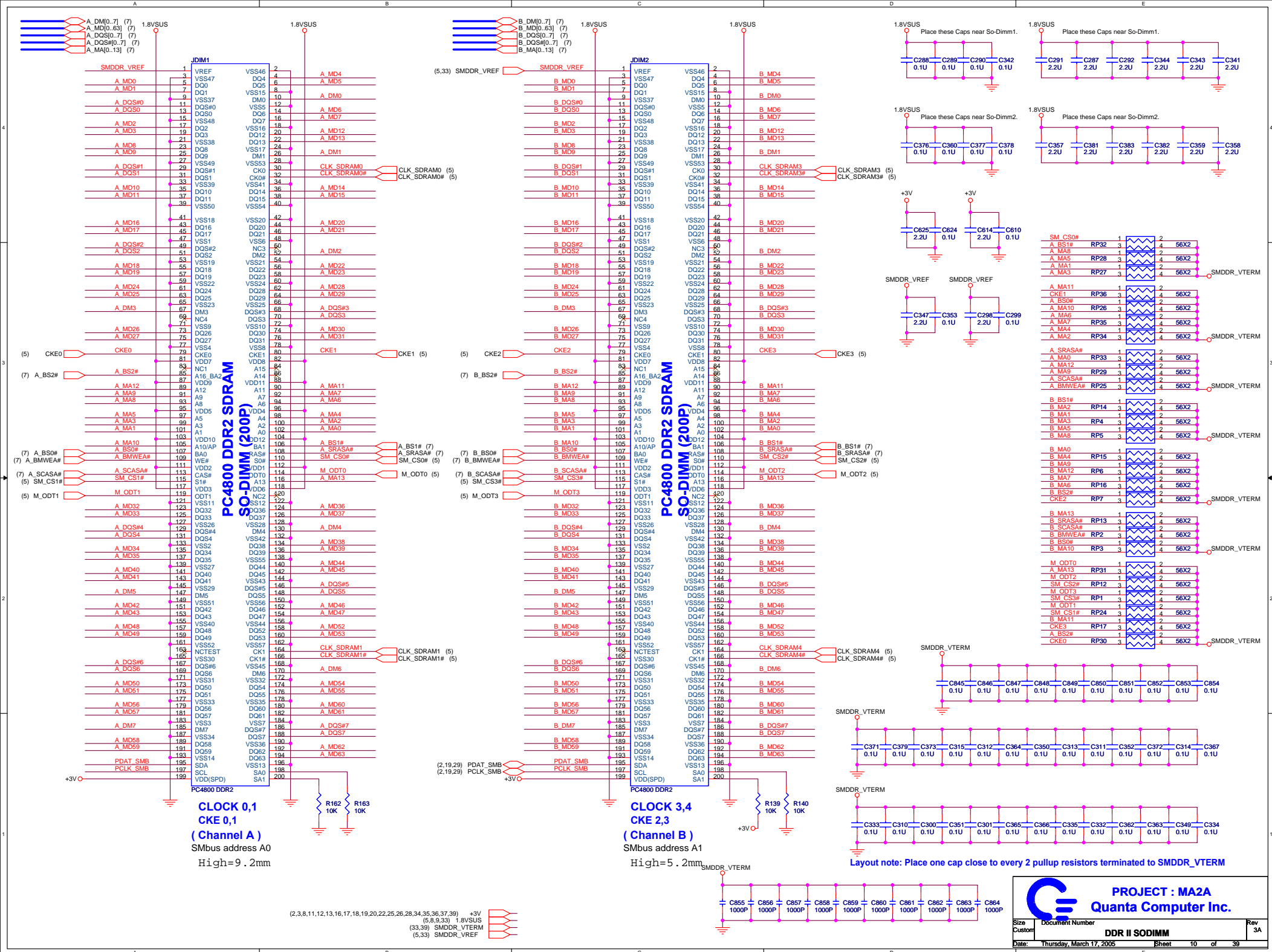
ALVISO

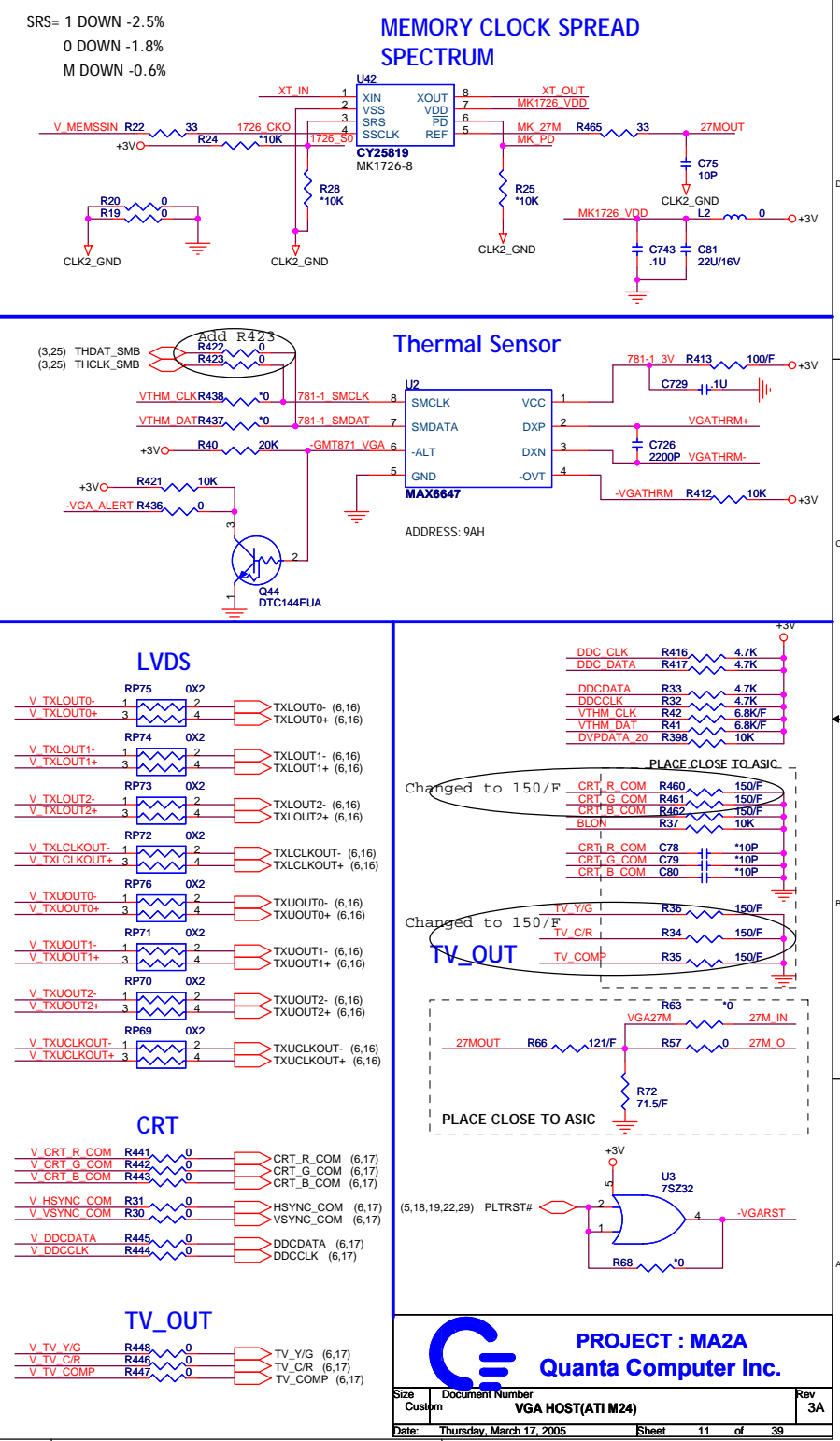
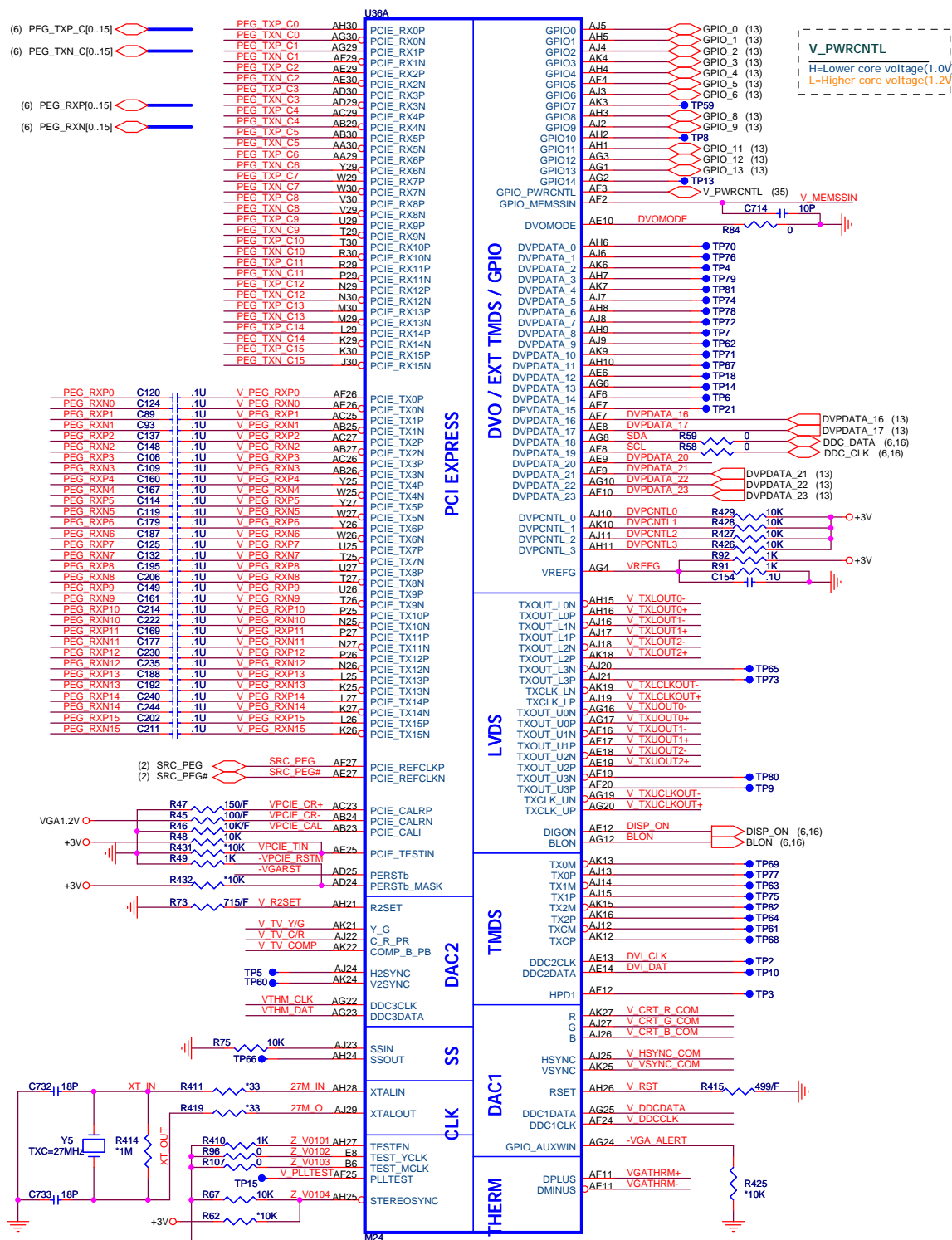


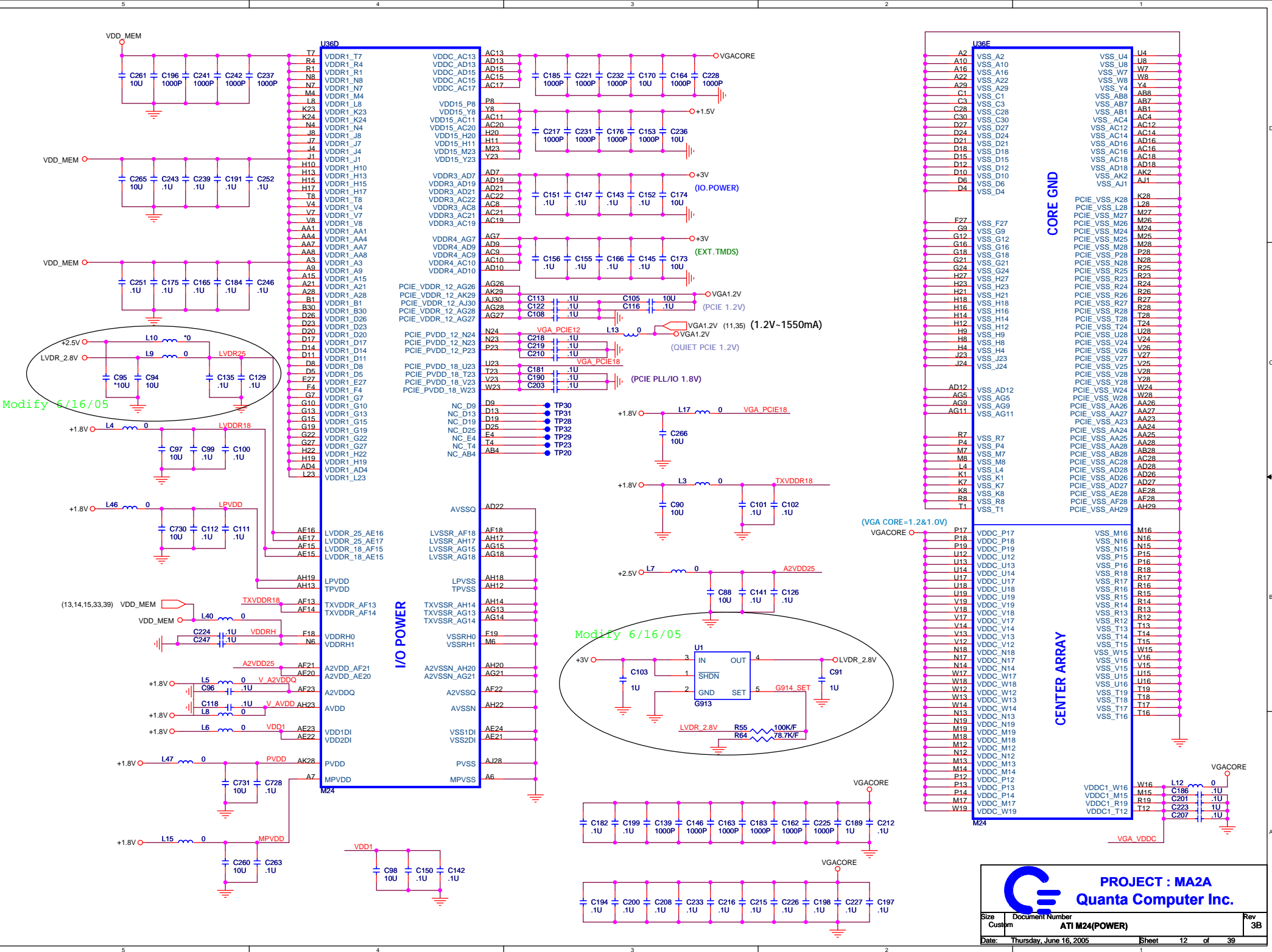
PROJECT : MA2A  
Quanta Computer Inc.

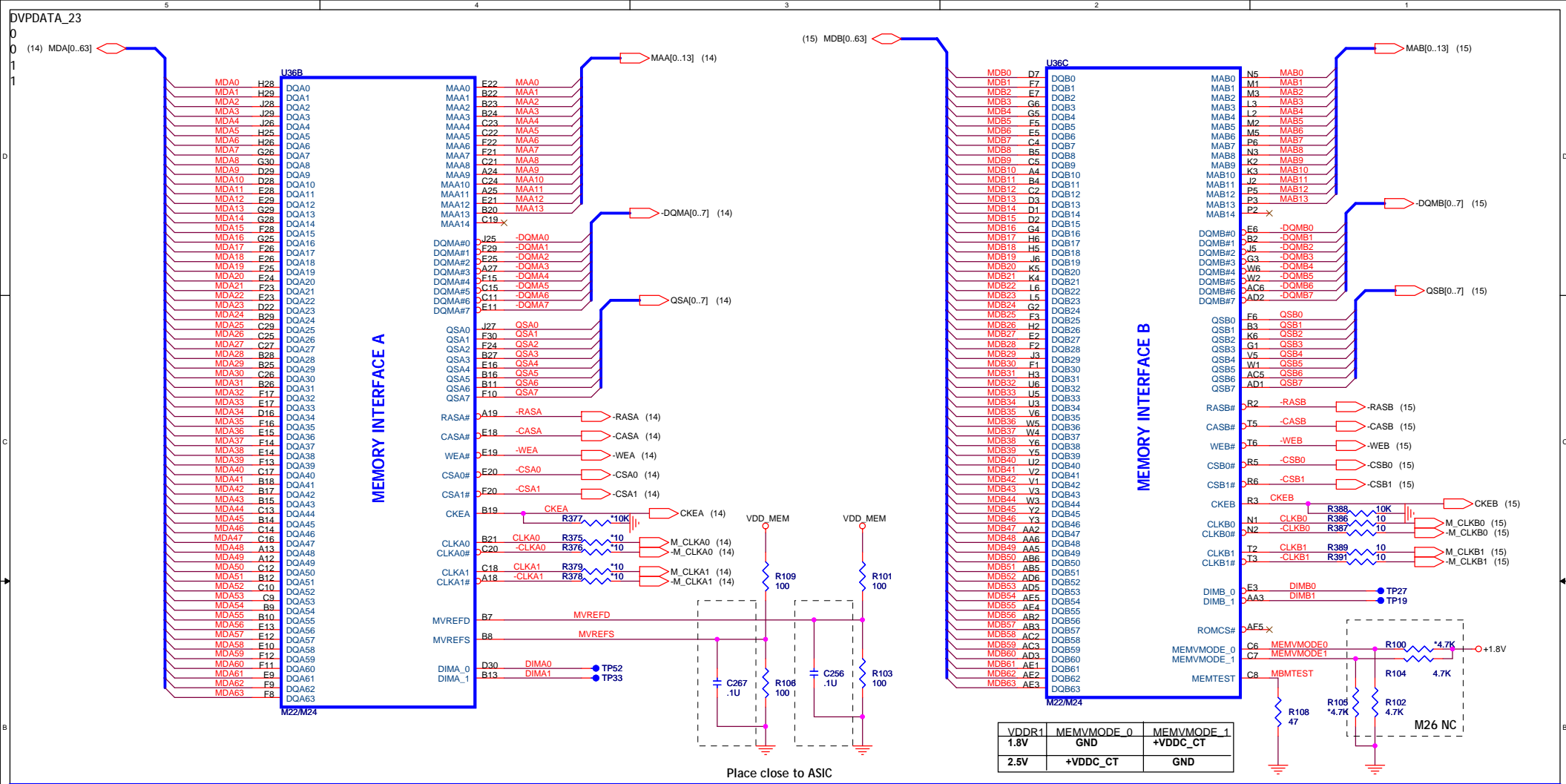










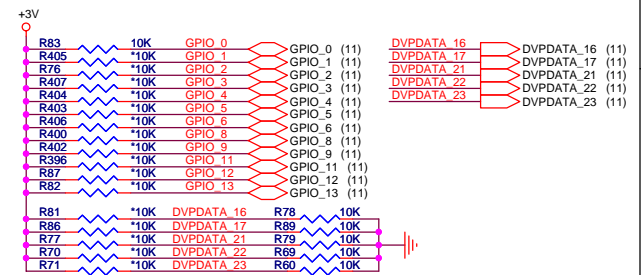


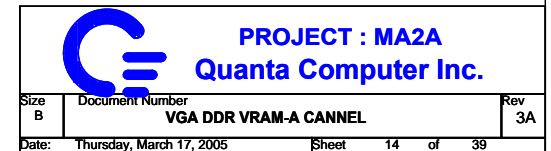
## STRAPS PIN

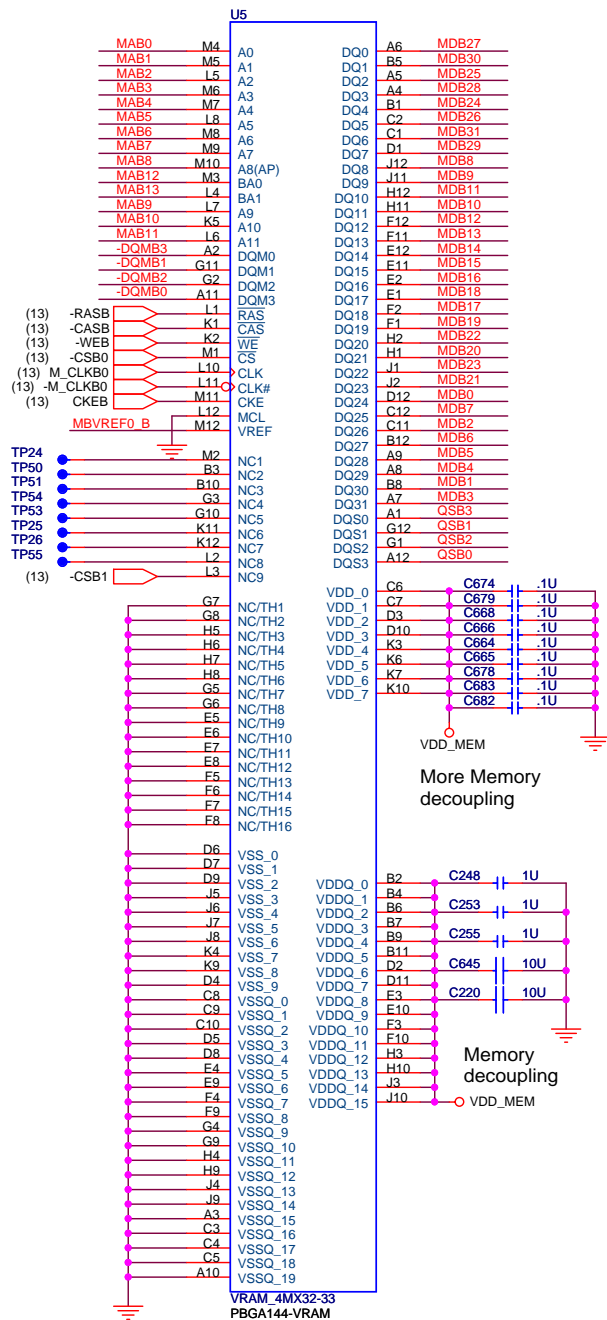
GPIO_0	PCI-Express Current Calibration Bandgap Backup
	0: use reference voltage from Bandgap 1: use reference voltage from resistor divider
GPIO_1	PCI-Express PLL Calibration force enable
	0: Disable PLL force calibration 1: Enable PLL force calibration
GPIO_(3,2)	00: PCI Express 1.0 mode 01: RESERVED 10: PCI Express 1.0 mode 11: RESERVED
GPIO_4	Turn off PCI-Express impedance / strength calibration
	0: enable 1: disable
GPIO_5	Bypass PCI-Express PLL
	0: Normal 1: Inject extra current for output buffer switching
GPIO_6	PCI-Express transmitter current compensation
	0: Normal 1: Inject extra current for output buffer switching

## STRAPS PIN

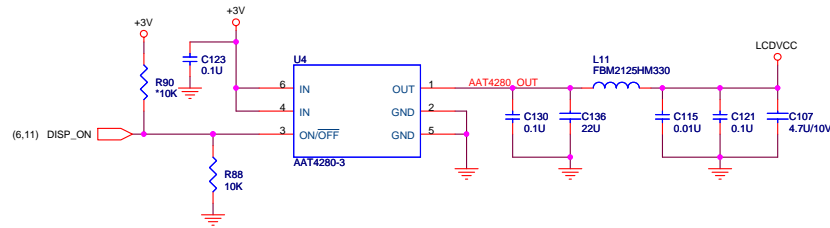
GPIO_8	Strap to set the debug muxes to bring out DEBUG signals even if registers are inaccessible
	ROMIDCFG
GPIO(9,13:11) INT P/D	0x0x: No ROM, CHG_ID=0 0x1x: No Rom, CHG_ID=1 1000: Parallel ROM, Chip ID'S from ROM 1000: Parallel ROM, Chip ID'S from ROM
DVPDATA_23-22 MEM TYPE	DVPDATA_23 DVPDATA_22 0 0 Samsung 8M x 32 (1.8V) - M24C 0 1 Samsung 4M x 32 (1.8V) - M24C 1 0 Hynix 8M x 32 (1.8V) - M24C 1 1 Hynix 4M x 32 (1.8V) - M24C



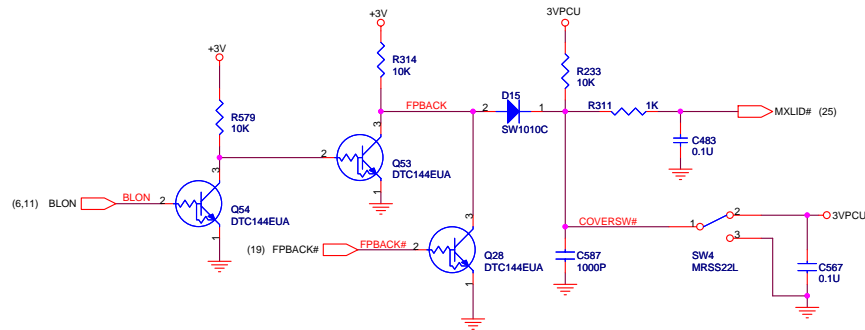




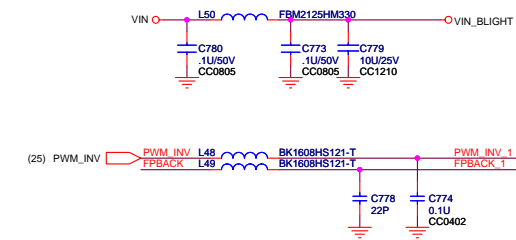
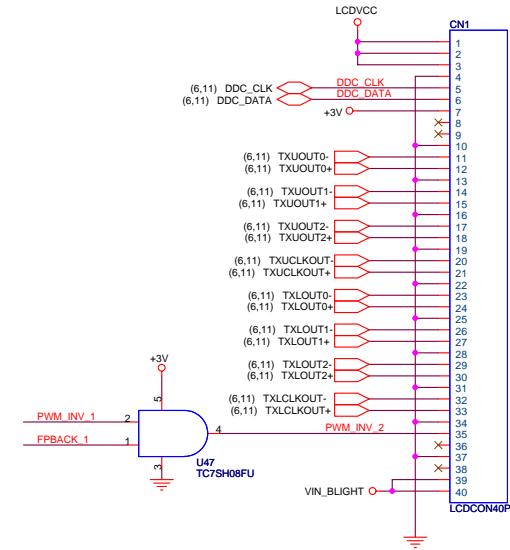
## PANEL VCC CONTROL



## BACKLIGHT CONTROL

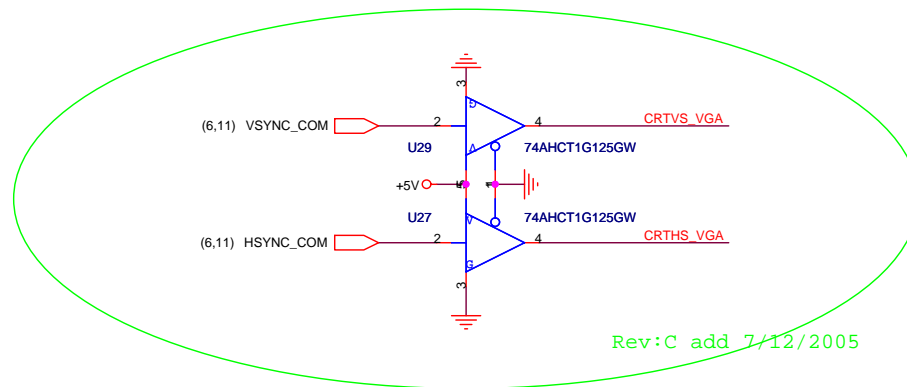
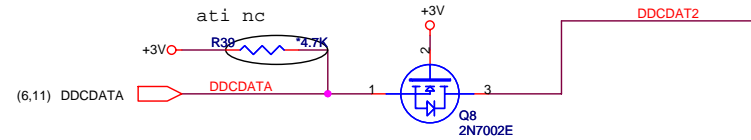
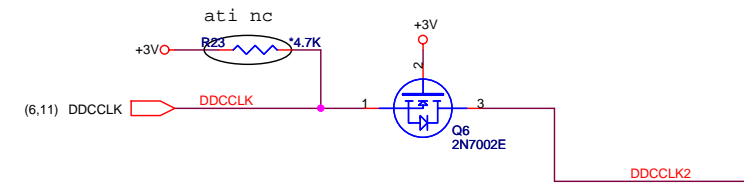


## LCD CONNECTOR

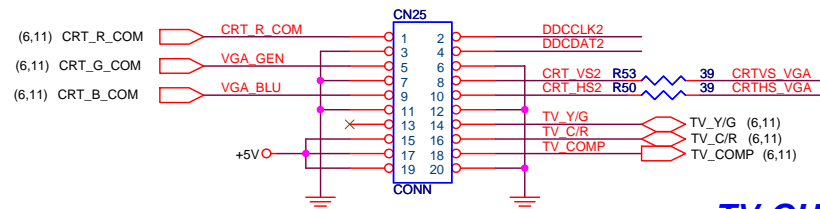


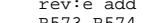
PROJECT : MA2A  
Quanta Computer Inc.

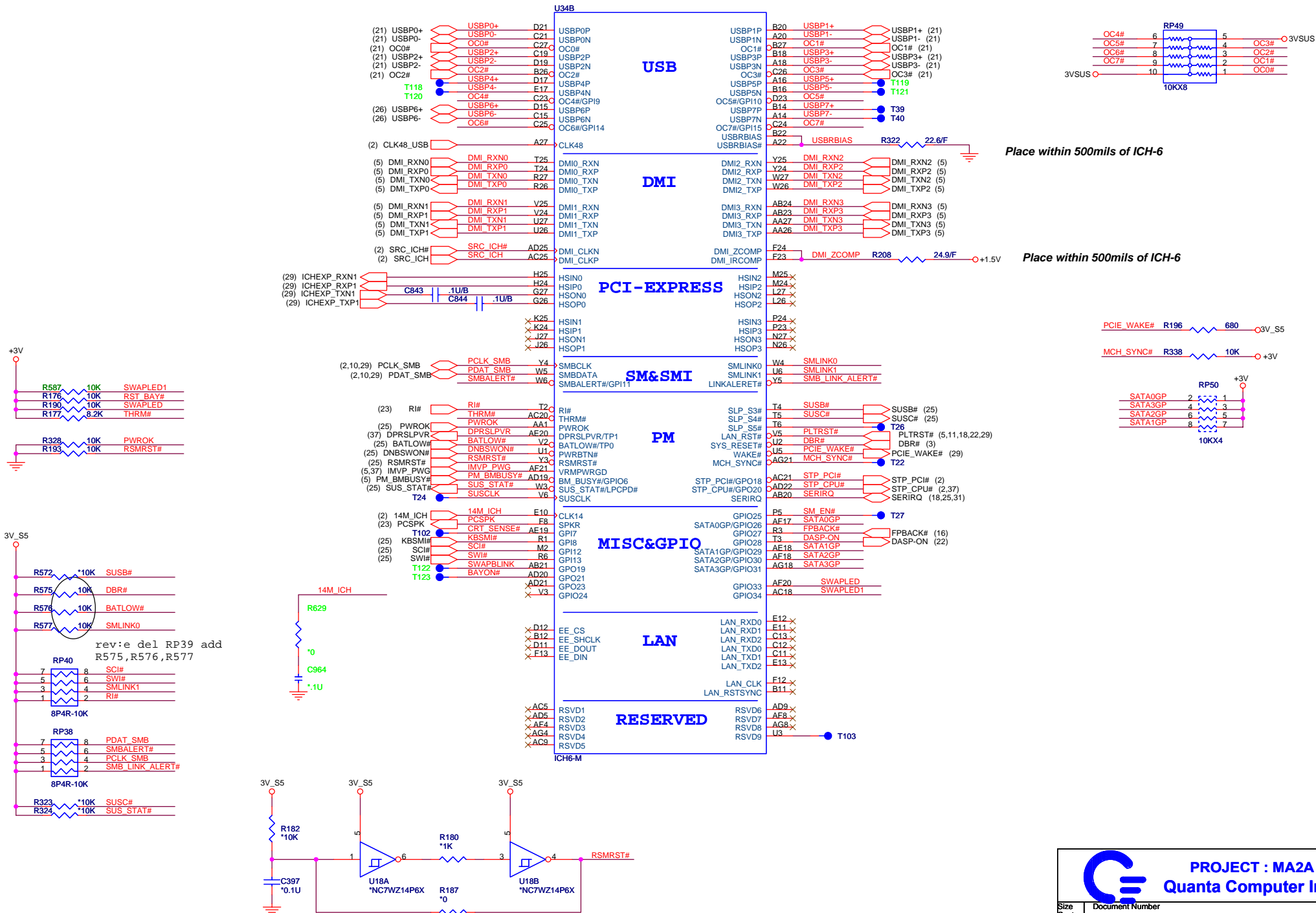
Size	Document Number	Rev
Custom	LCD LVDS CON	3A
Date:	Thursday, March 17, 2005	Sheet 16 of 39

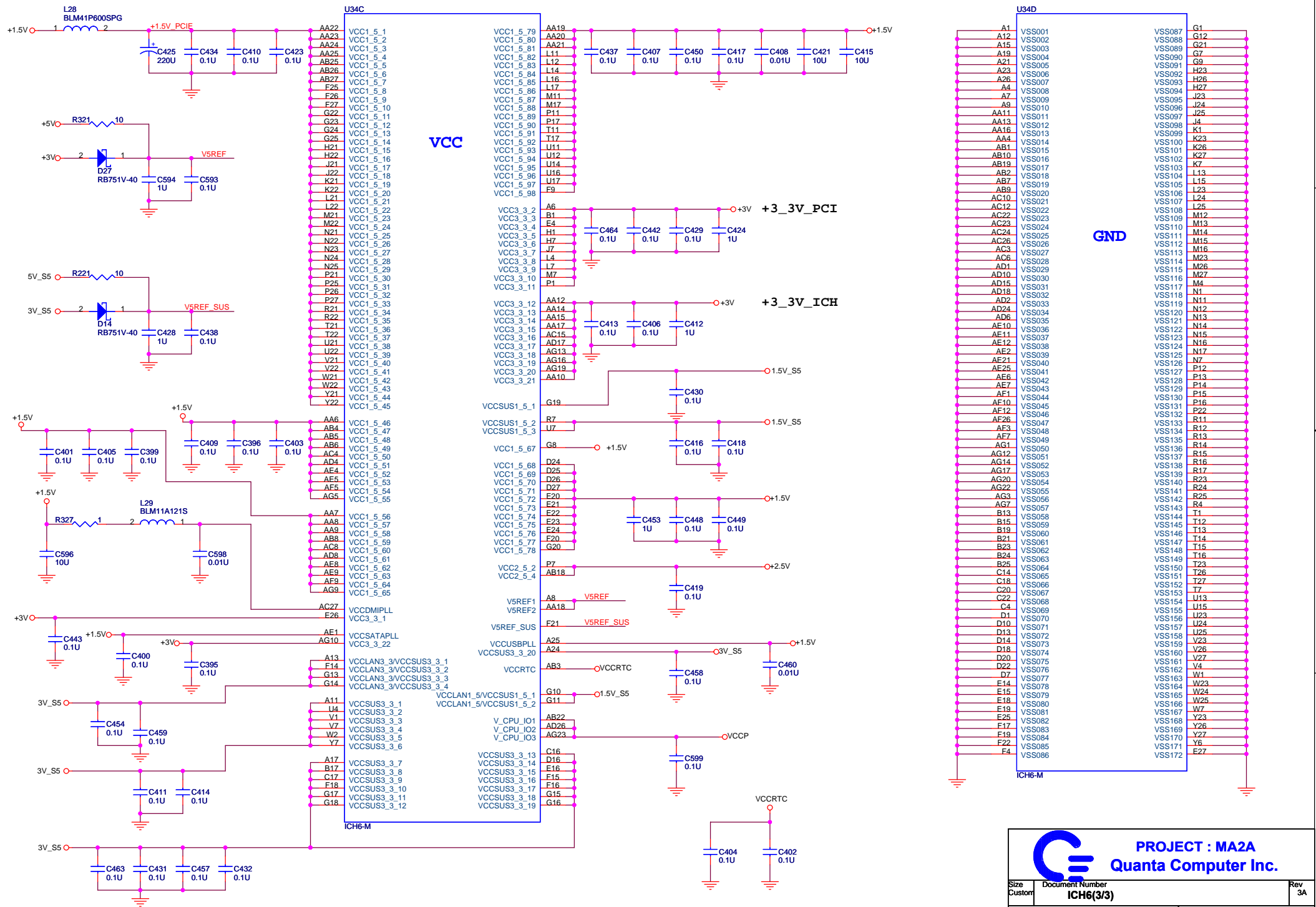


## CRT PORT

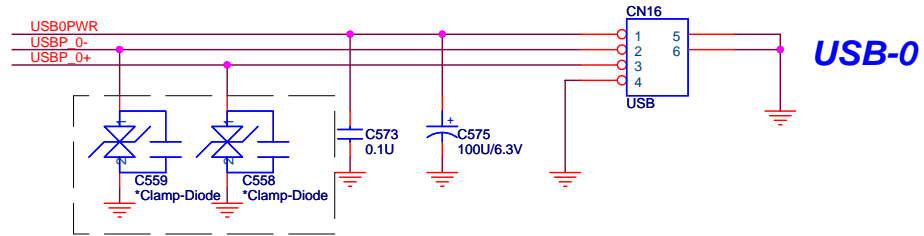
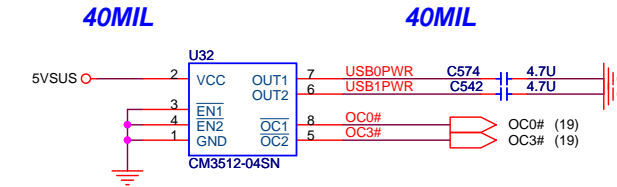




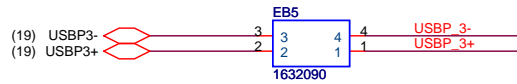
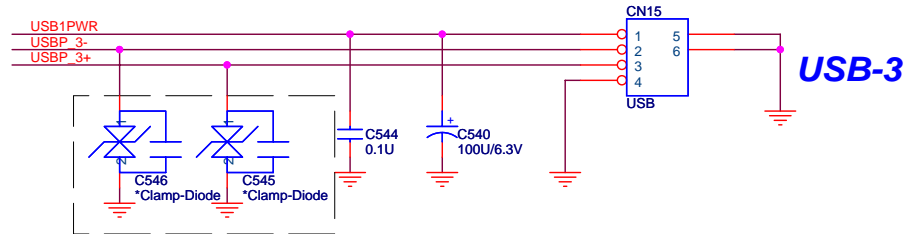
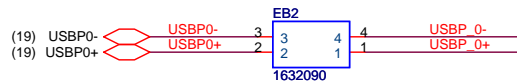




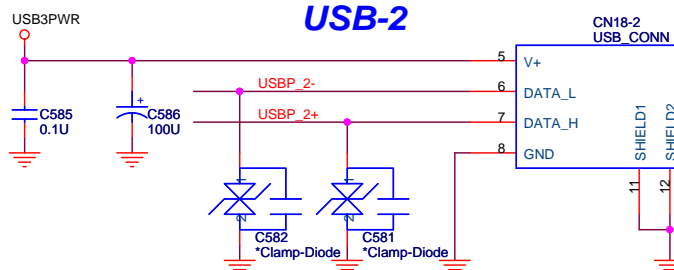
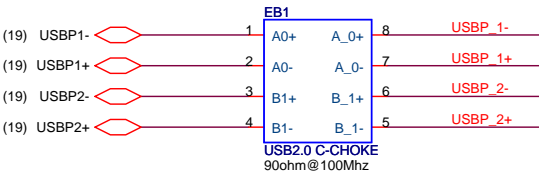
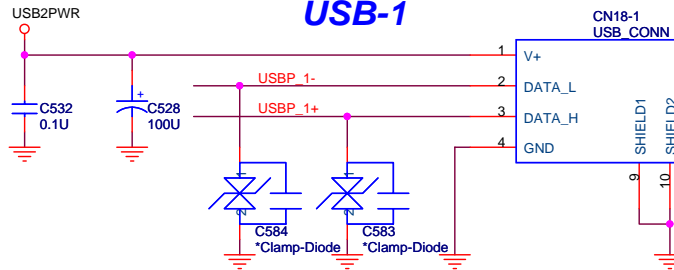
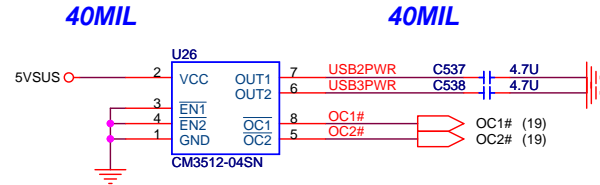
## LEFT SIDE



## LEFT SIDE



## USB-1



(26,28,31,34,36,37,39) 5VSUS

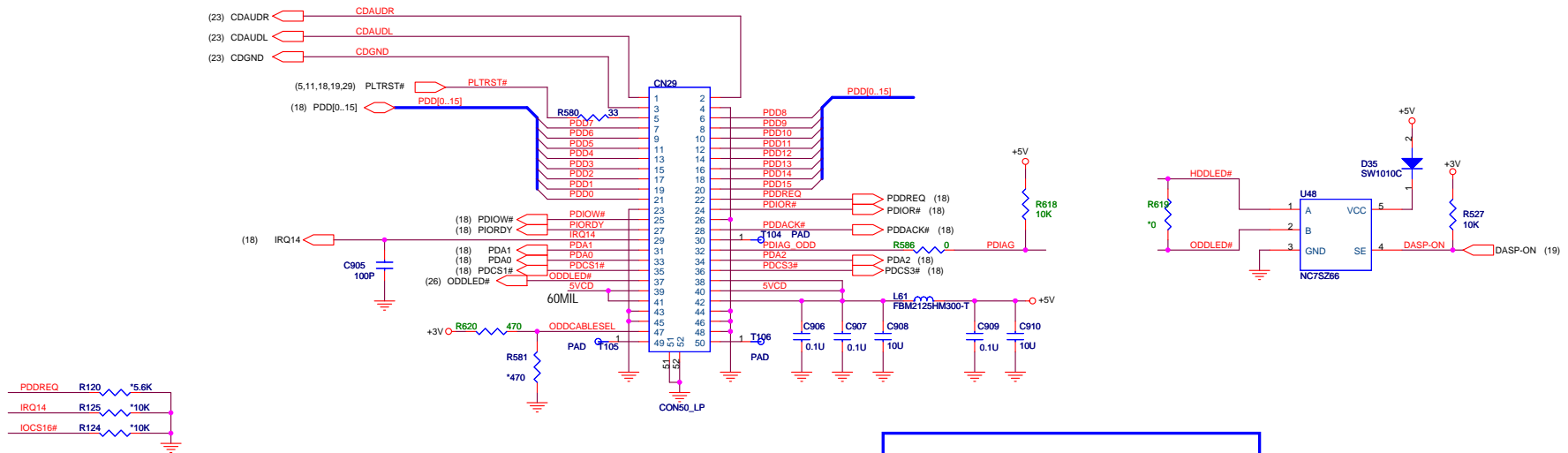


PROJECT : MA2A  
Quanta Computer Inc.

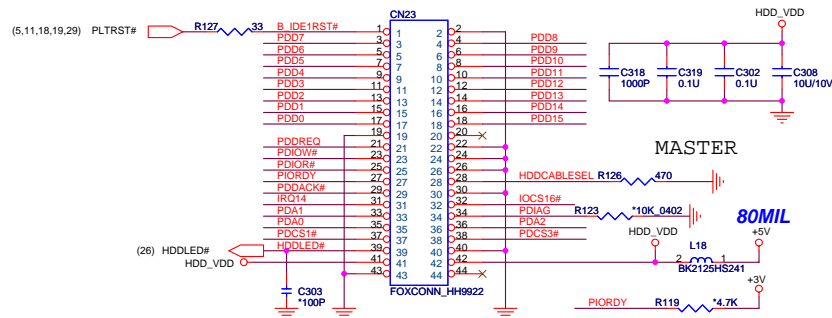
Size	Document Number	Rev
Custom	USB Ports	3A
Date:	Thursday, March 17, 2005	Sheet 21 of 39

For fix ODD change 0427

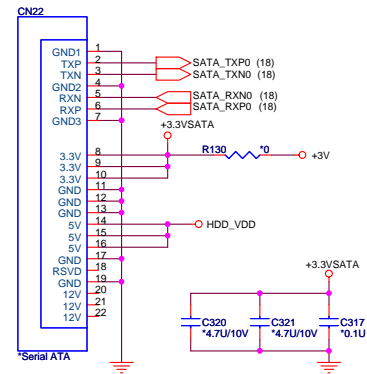
## CD-ROM connector




## HDD CONNECTOR



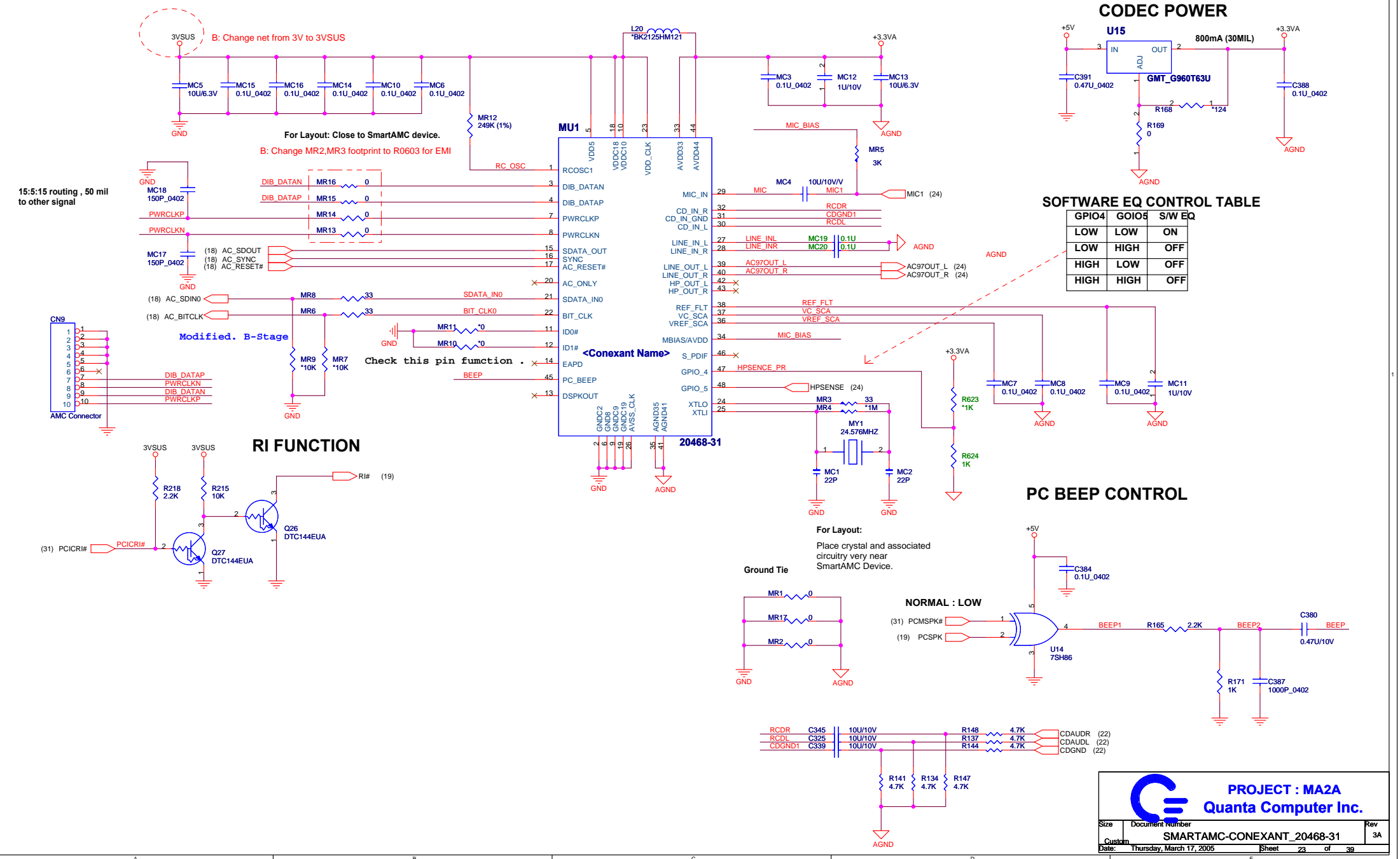
## SATA CONNECTOR



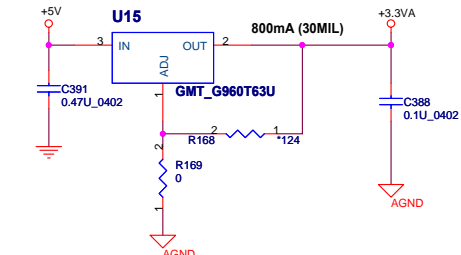
**PROJECT : MA2A**  
**Quanta Computer Inc.**

Size	Document Number	Rev
Custom	IDE (HDD&CD_ROM	3A
Date:	Thursday, March 17, 2005	Sheet 22 of 39

For Layout:  
Place decoupling caps near the power pins of  
SmartAMC device.



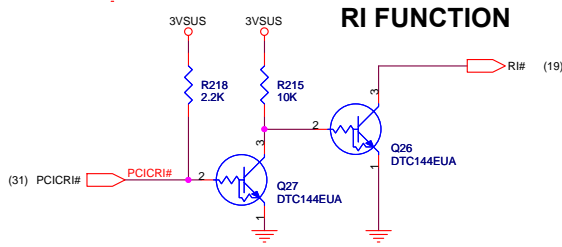
CODEC POWER



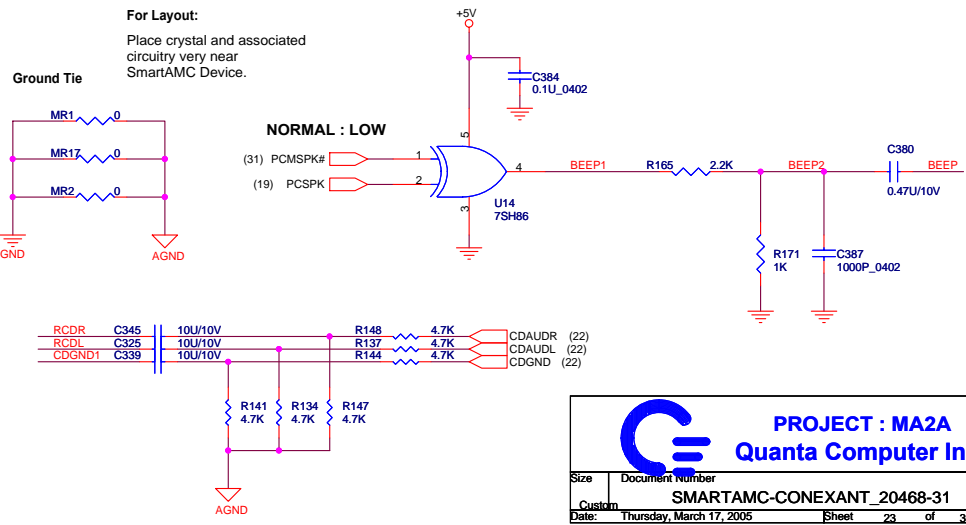
SOFTWARE EQ CONTROL TABLE

GPIO4	GOIO5	S/W EQ
LOW	LOW	ON
LOW	HIGH	OFF
HIGH	LOW	OFF
HIGH	HIGH	OFF

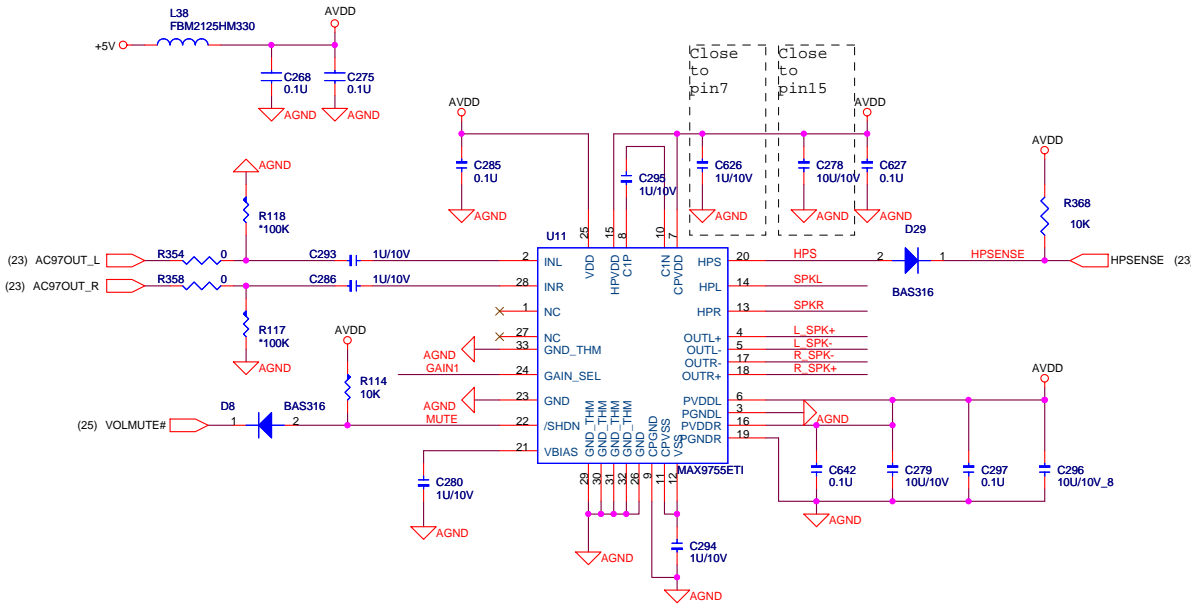
RI FUNCTION



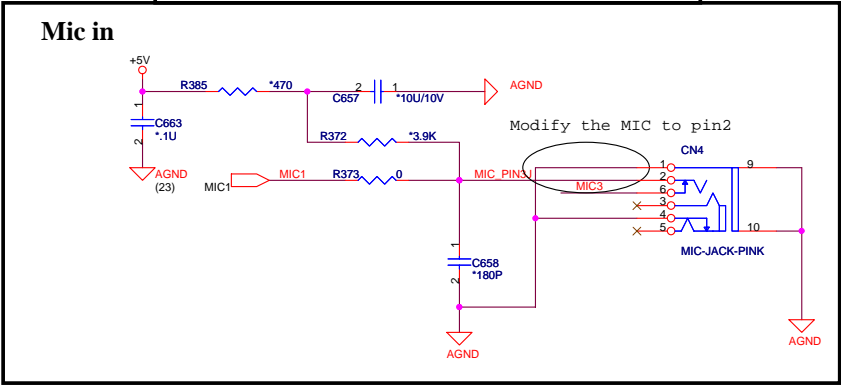
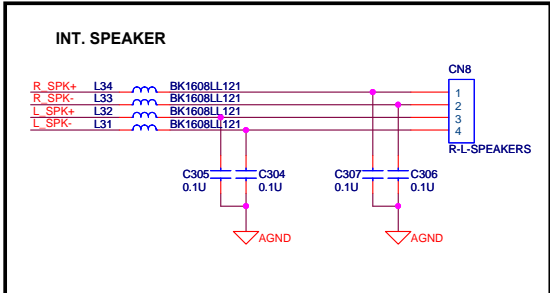
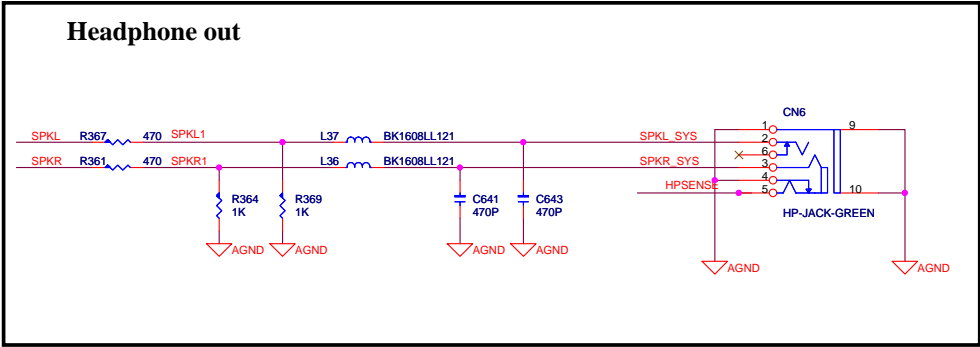
PC BEEP CONTROL



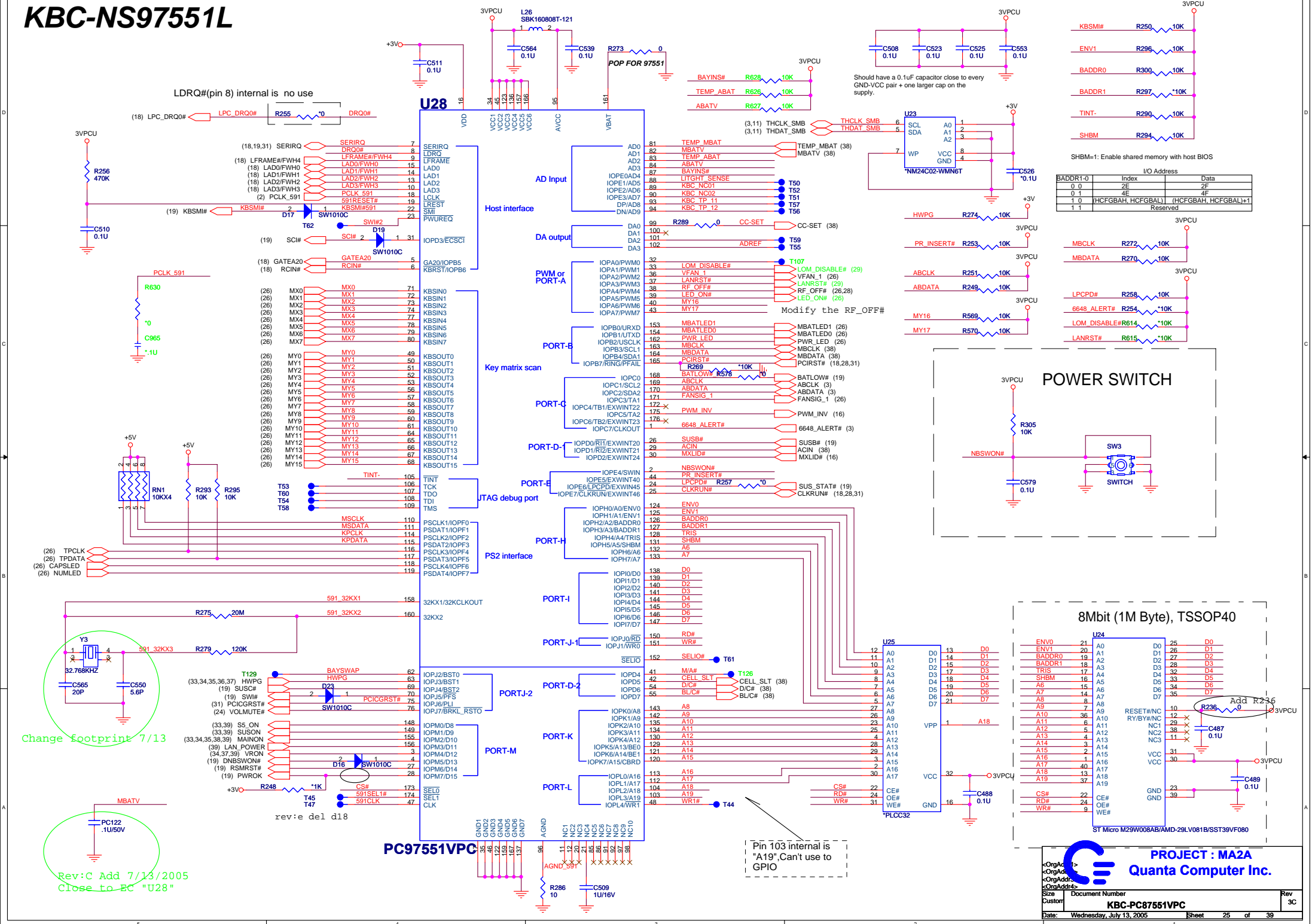
# AUDIO AMPLIFIER-MAX9755



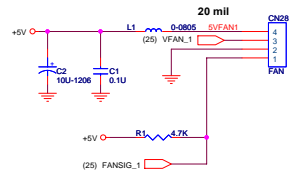
GAIN1	SPKR MODE	HP MODE
0	10.5	3
1	9	0



***KBC-NS97551L***

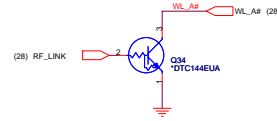
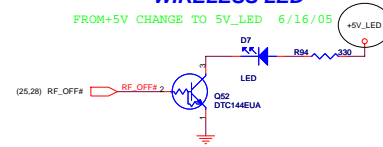


## FAN OUT PWM CONNECTOR

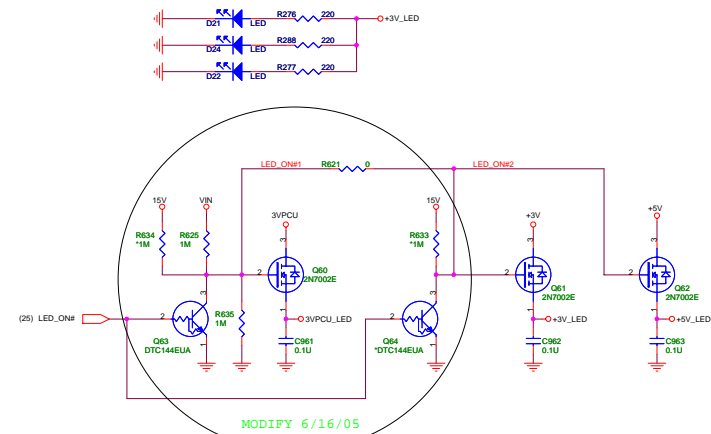
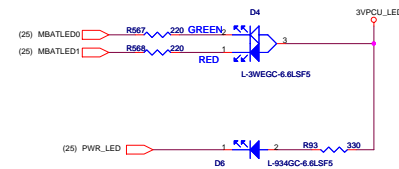
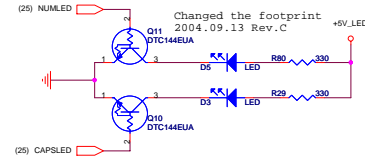
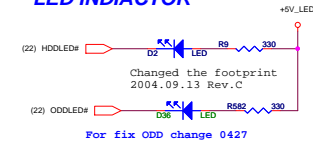


## WIRELESS LED

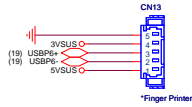
FROM +5V CHANGE TO 5V\_LED 6/16/05



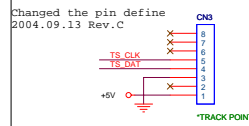
## LED INDIACTOR



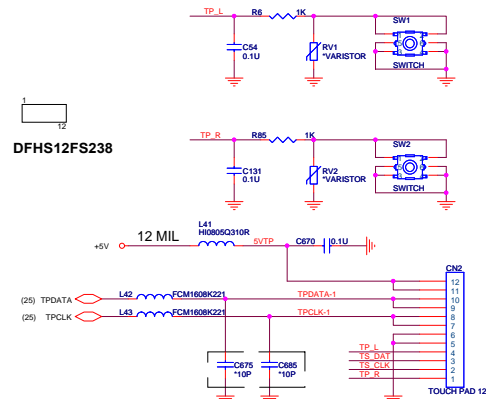
## FINGER PRINT



## TRACK POINT



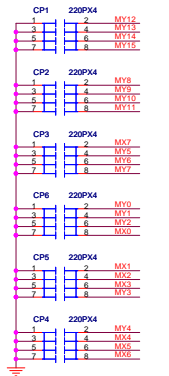
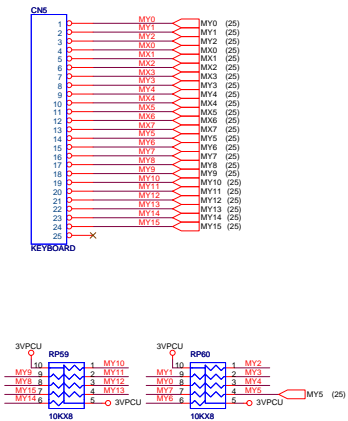
## TOUCHPAD

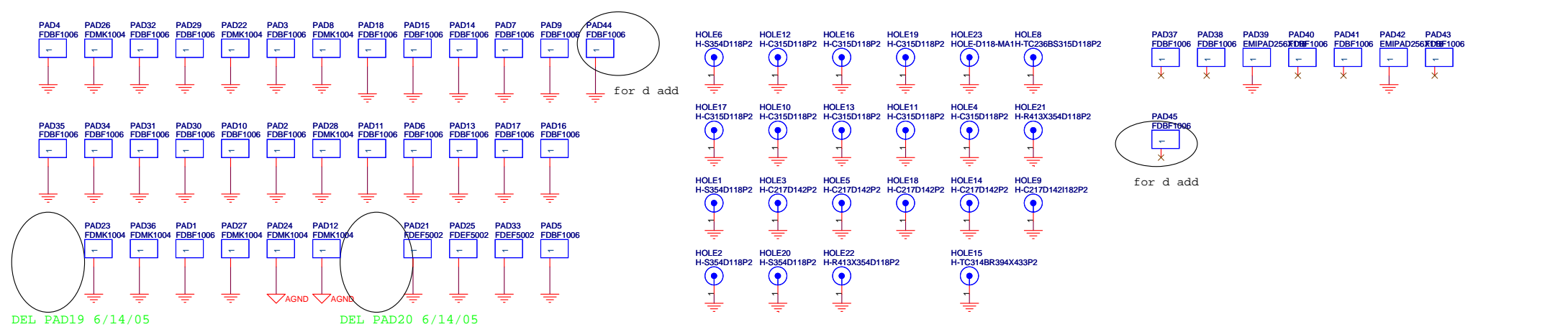



DFHS12FS238

E: Change the PN and footprint from DFHS12FS238 to DFHS12FS238

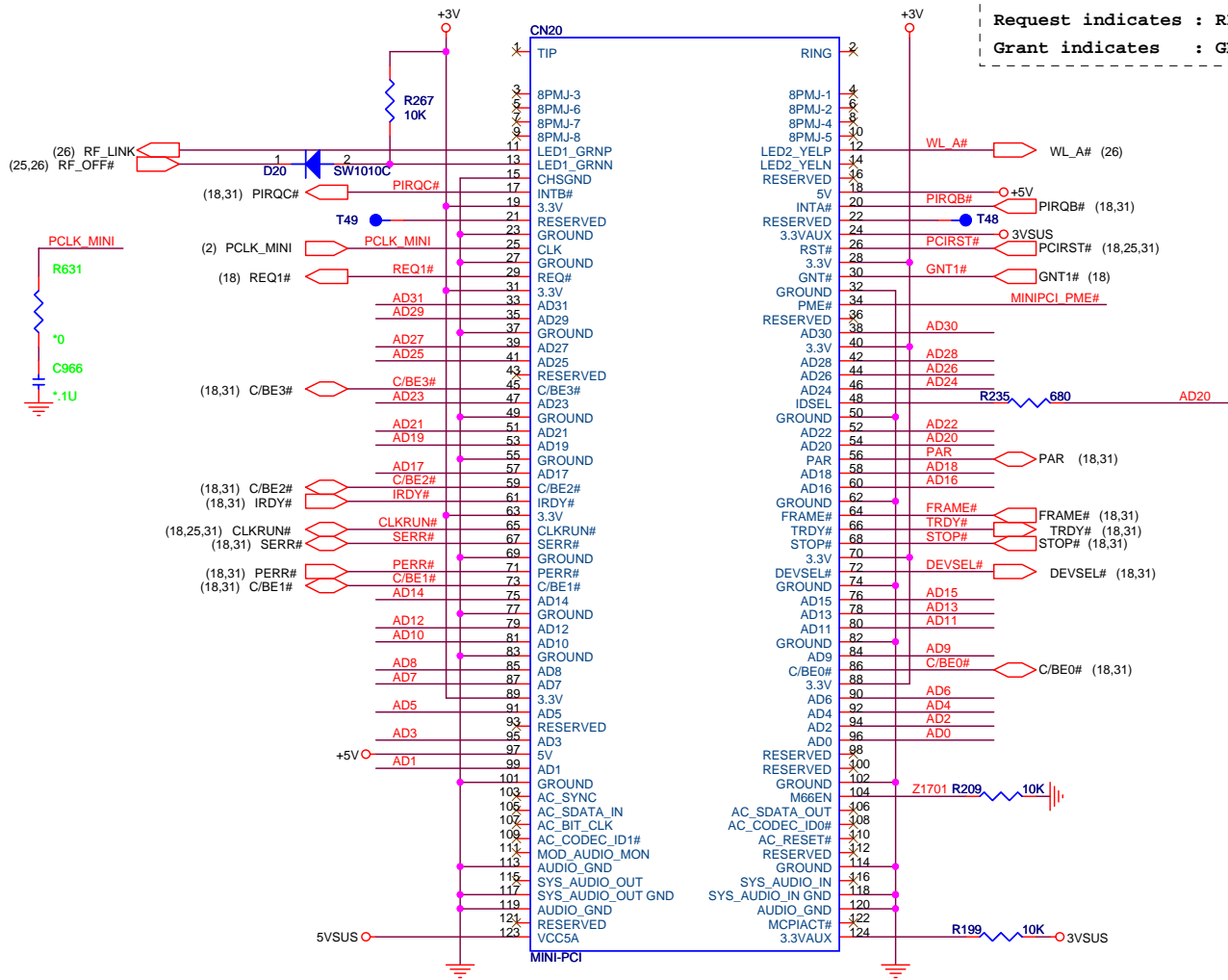
## KEYBOARD



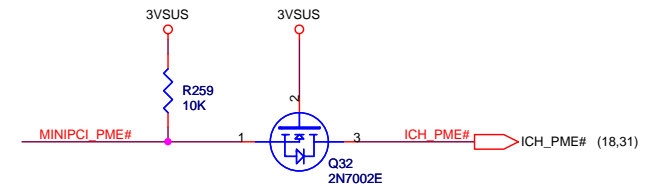
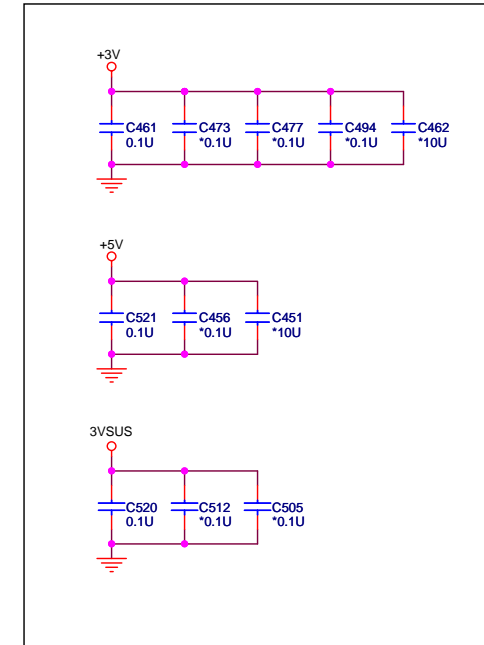


			<b>PROJECT : MA2A</b>	
			<b>Quanta Computer Inc.</b>	
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# TYPE III MINI PCI SOCKET



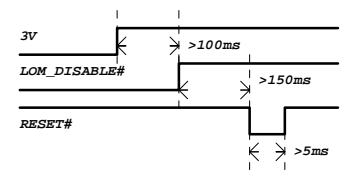
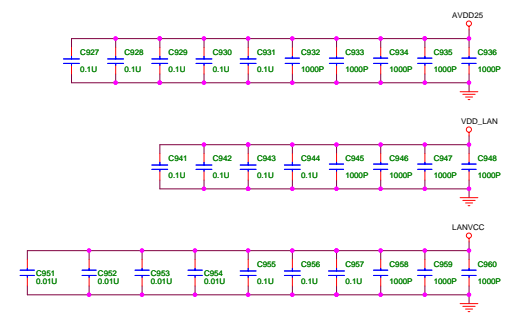
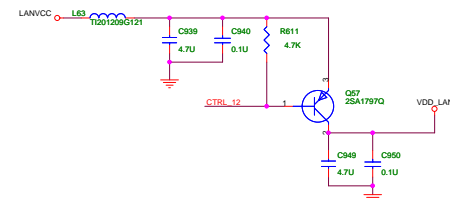
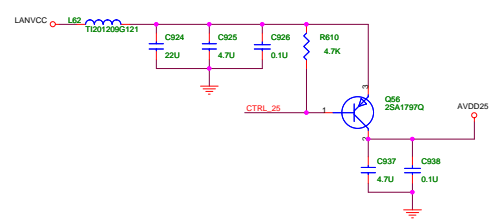
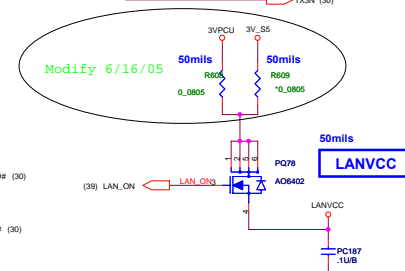
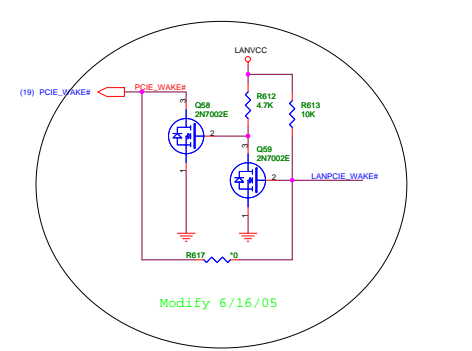
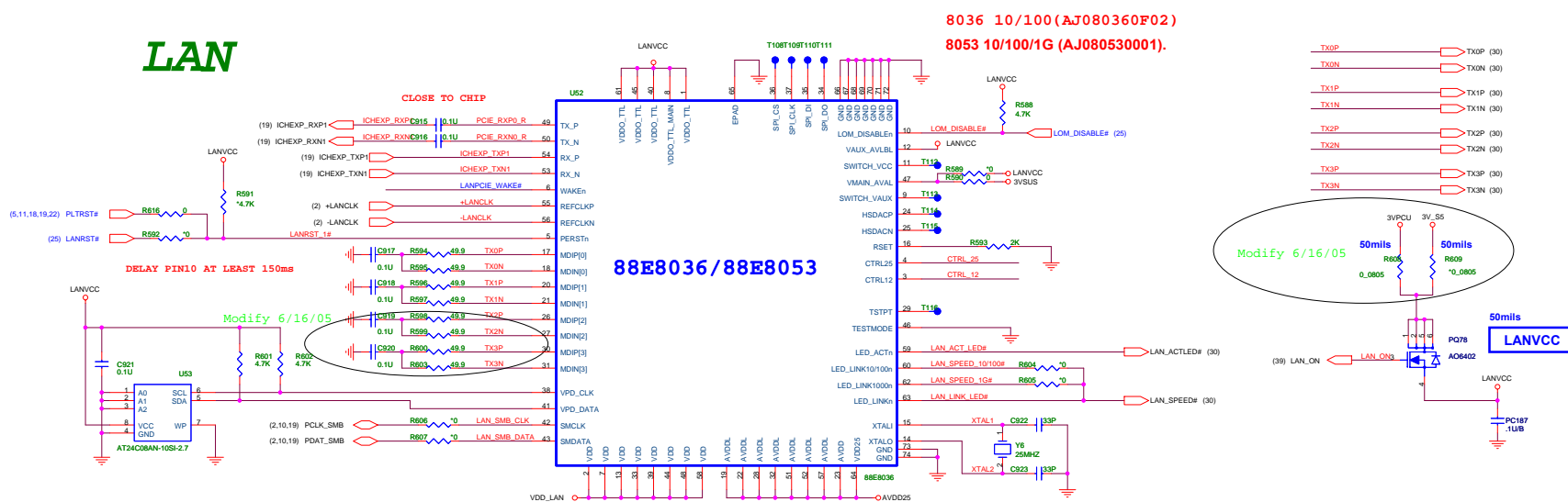
ID Select : AD20  
Interrupt Pin : PIRQB# , PIRQC#  
Request indicates : REQ1#  
Grant indicates : GNT1#



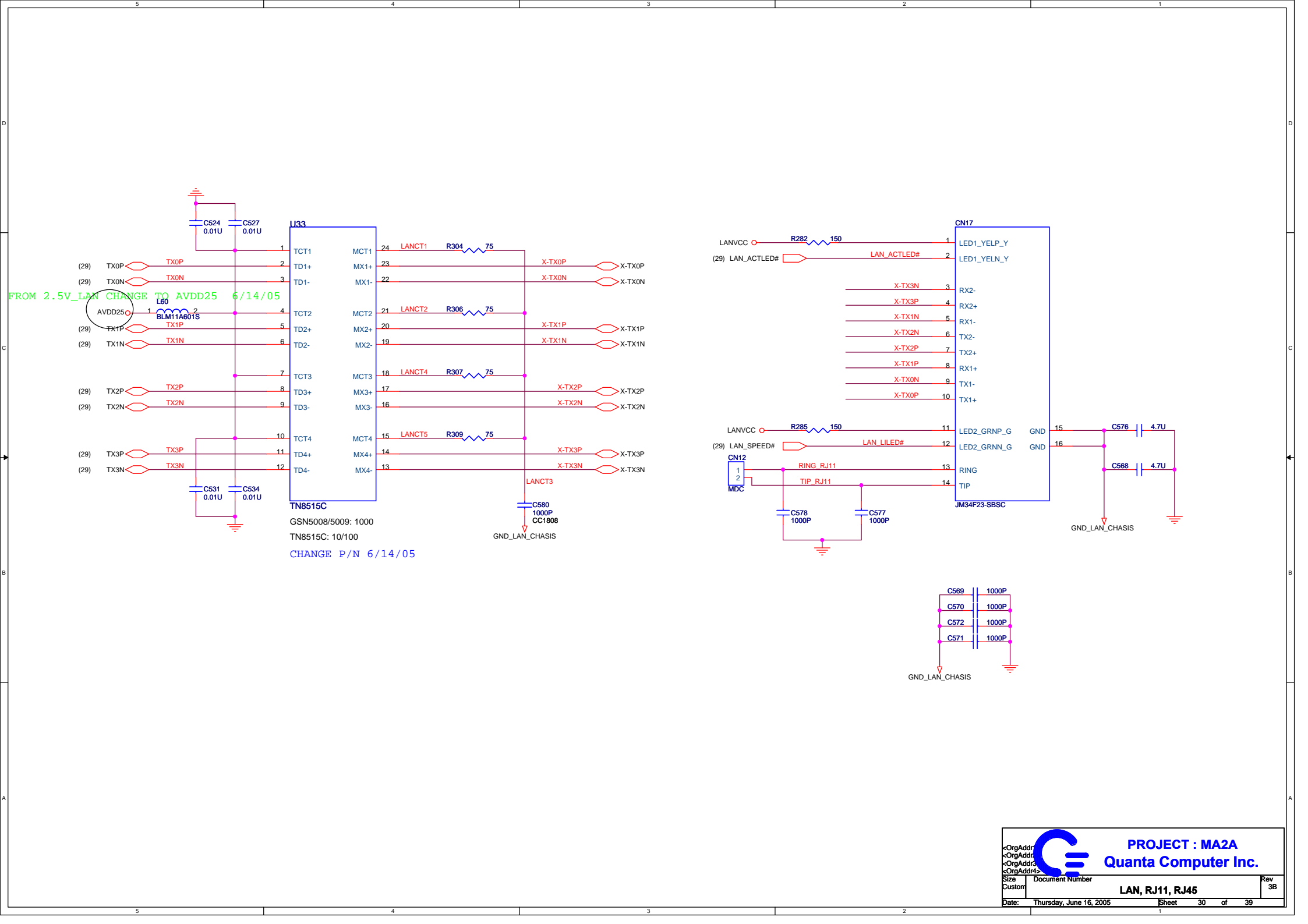
PROJECT : MA2A  
Quanta Computer Inc.

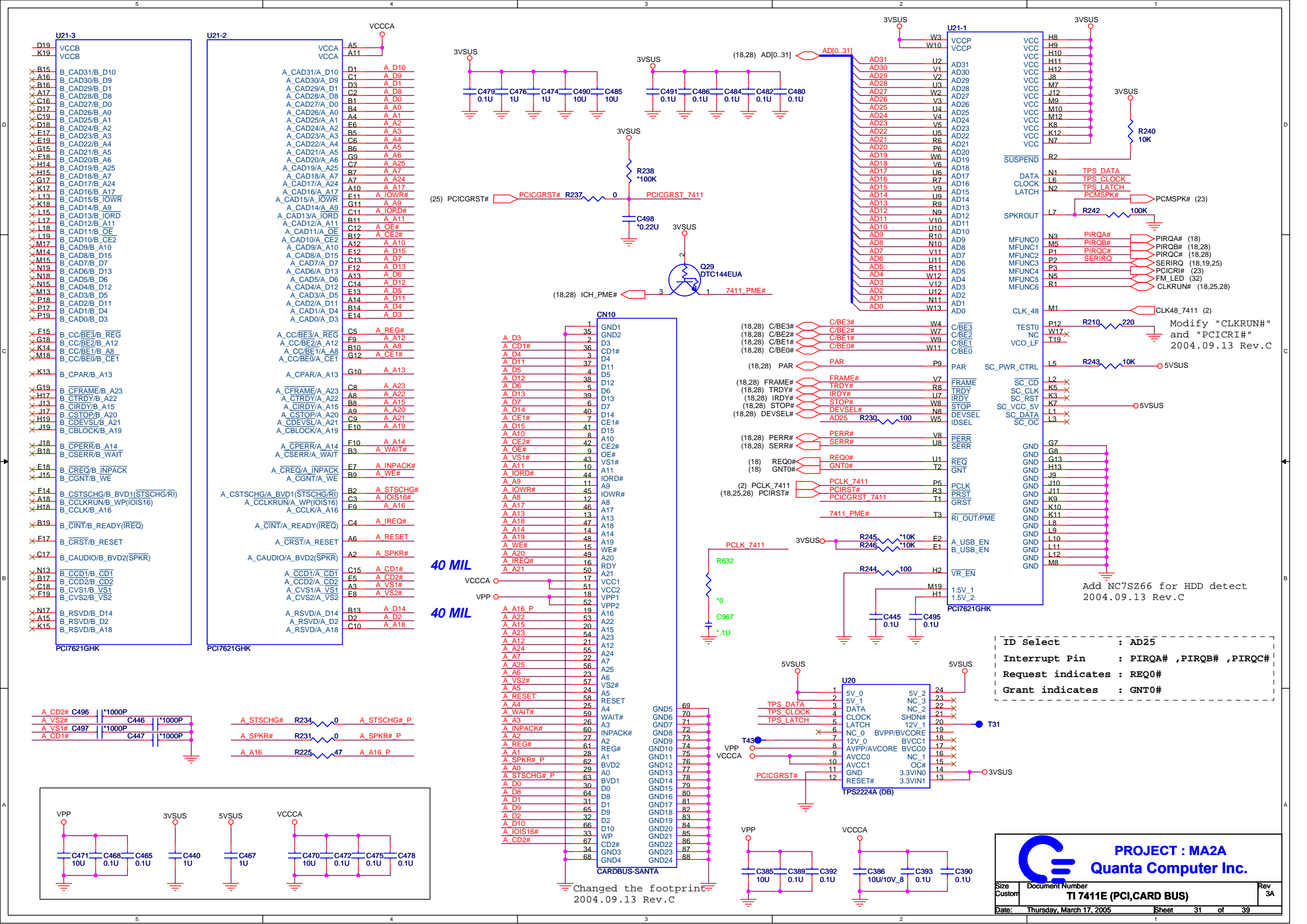
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# LAN



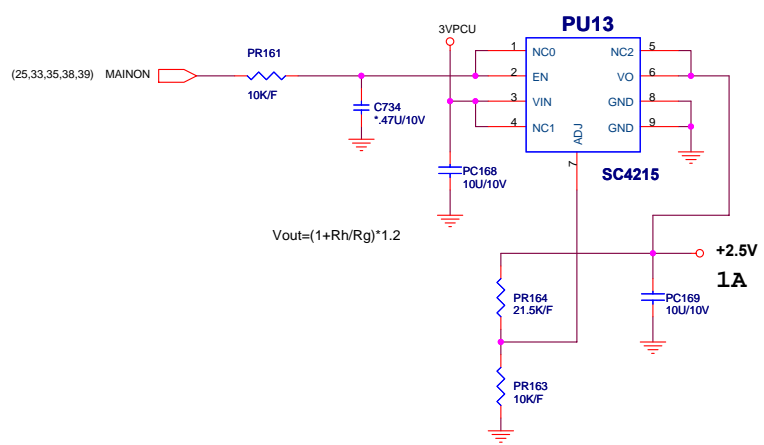
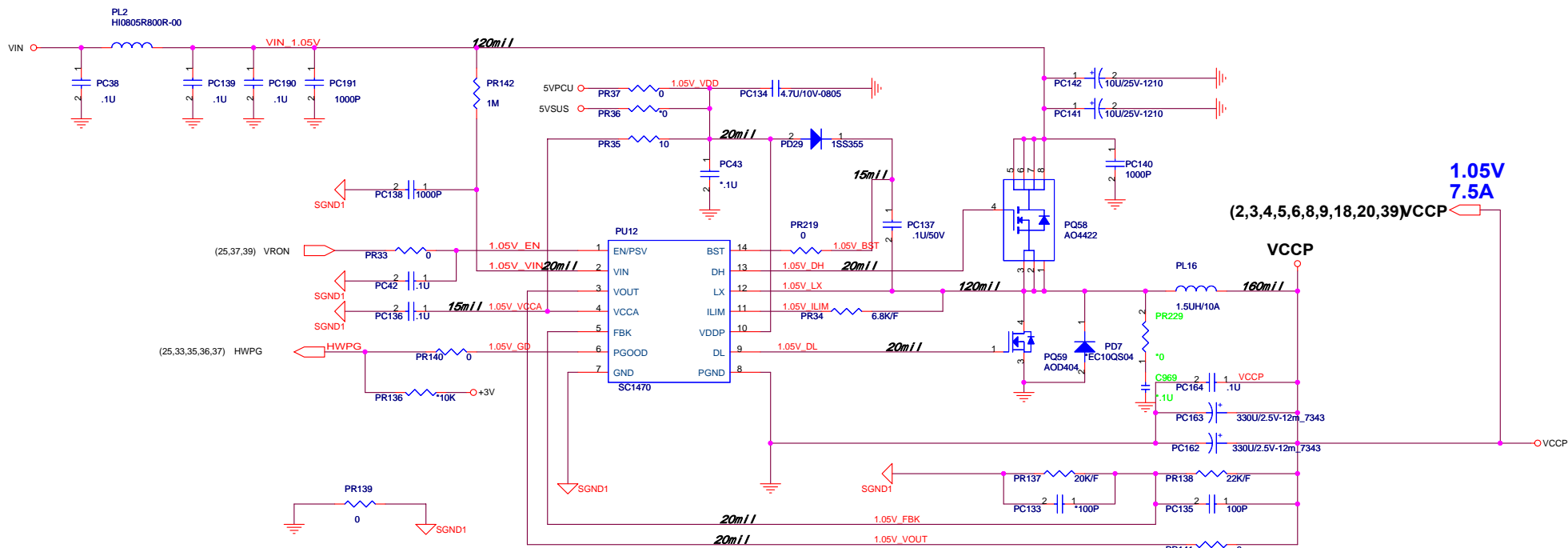
PIN number	88E8053	88E8036
34	SPI_DO (Unused)	NC
35	SPI_DI (Unused)	NC
36	SPI_CS (Unused)	NC
37	SPI_CLK (Unused)	NC
26	MDIP2	NC
27	MDIN2	NC
30	MDIP3	NC
31	MDIN3	NC
42	NC	NC
43	NC	NC
60	LINK 10M/100M	LINK 10M
62	LINK 1000M	LINK 100M
16	RESISTOR 5K	RESISTOR 2K
64	2.5V	NC









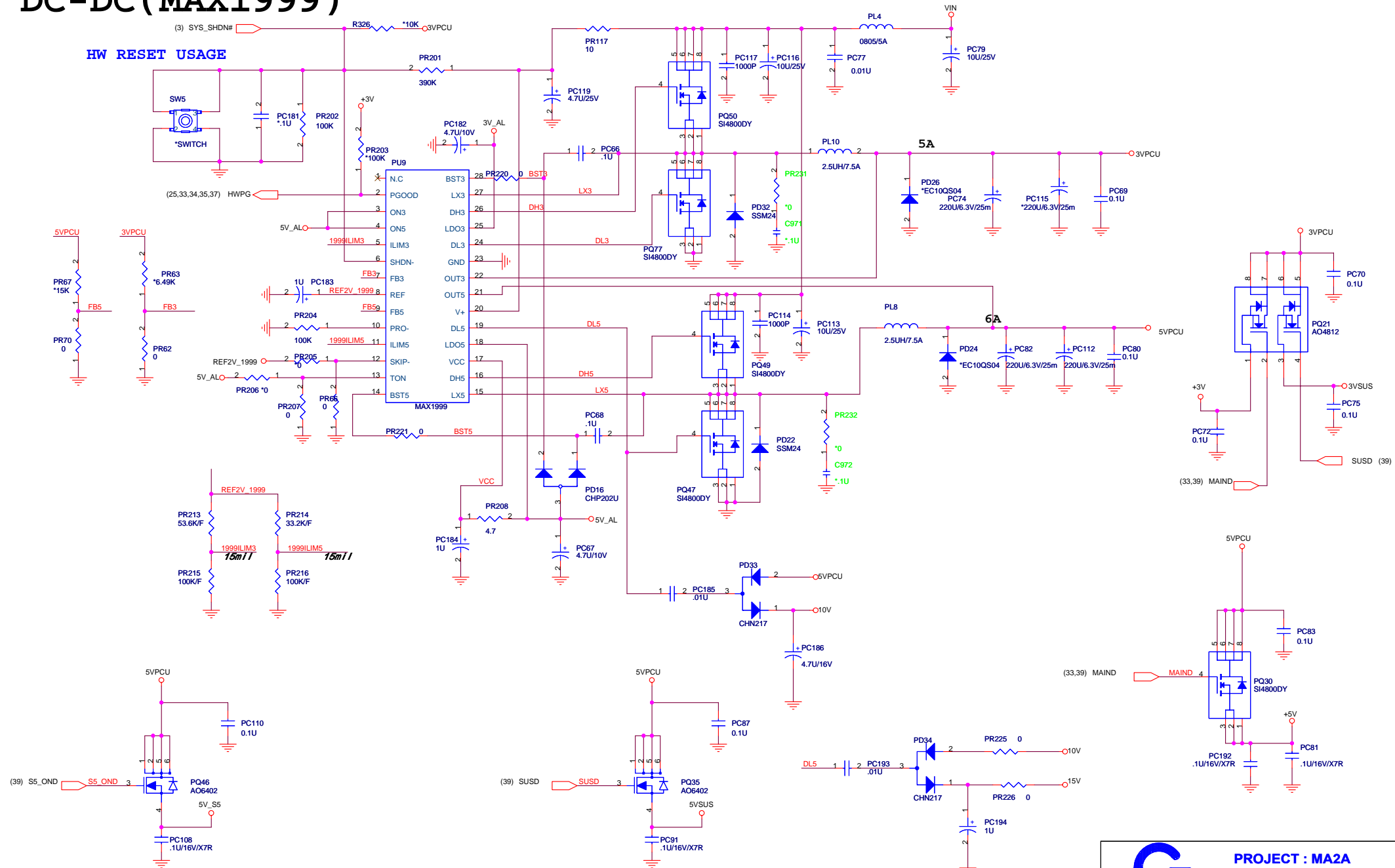


[illegible]

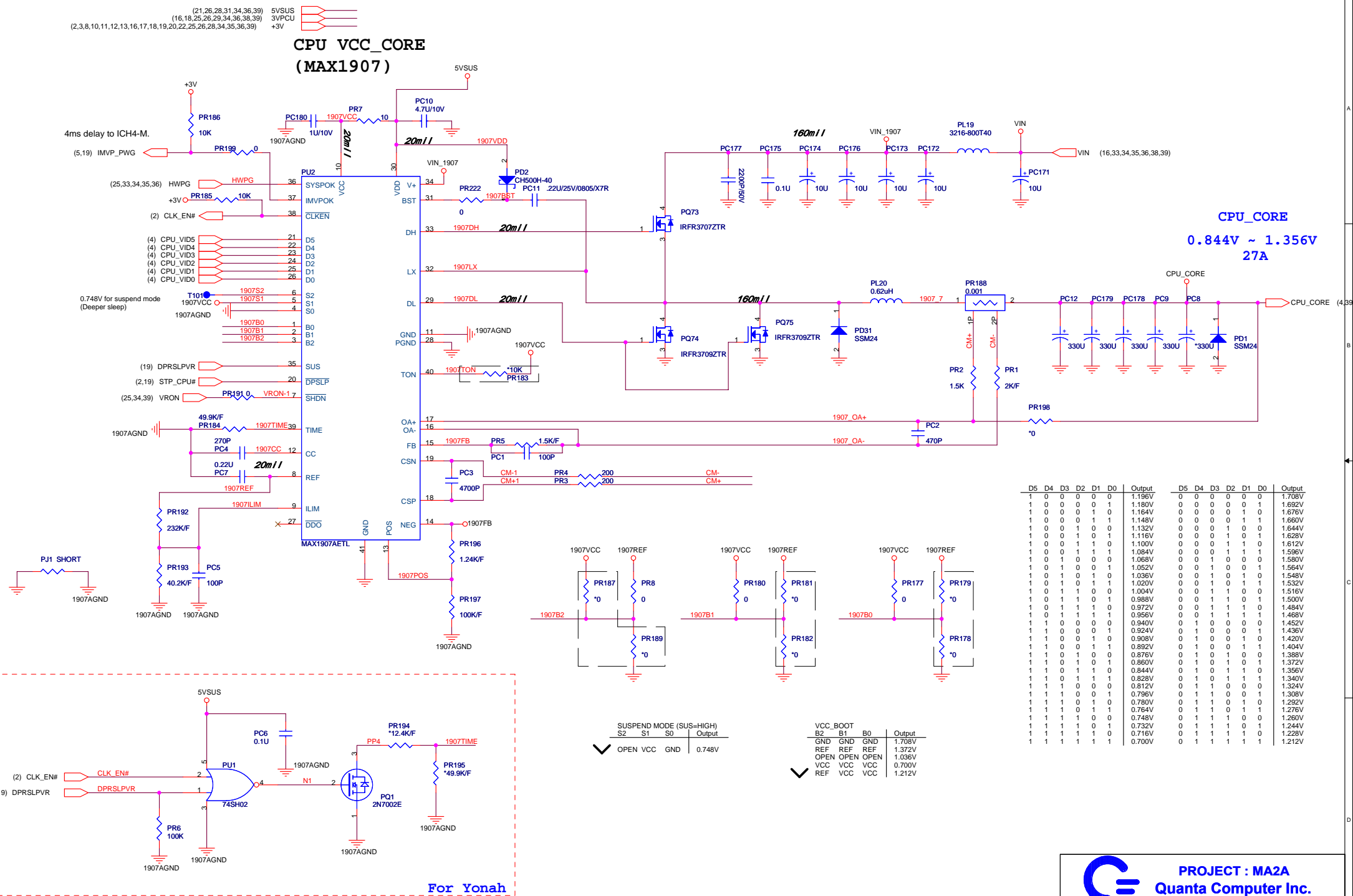
VGACORECTL	M24
HI	1.0V
LO	1.2V
PR156	24.9KF

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

# DC-DC (MAX1999)

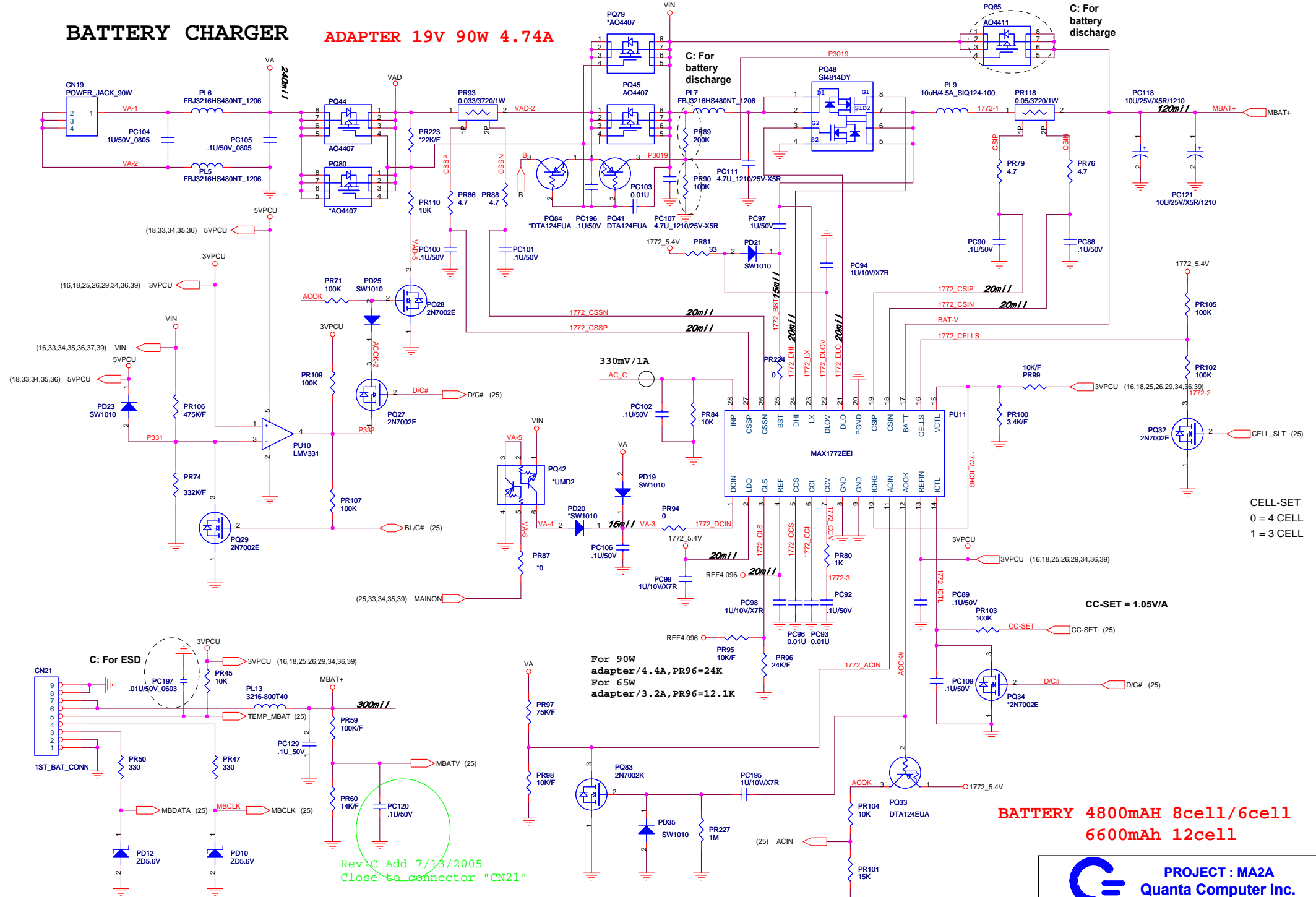


# CPU VCC\_CORE (MAX1907)



# BATTERY CHARGER

ADAPTER 19V 90W 4.74A



**PROJECT : MA2A**  
**Quanta Computer Inc.**

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Custom	CHARGER	3C

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