

PM : 紀明進 Sunyu Jih  
 EE Laerer : 許高銘 Jim Hsu  
 ME Leader : 林哲敏 Mill Lin

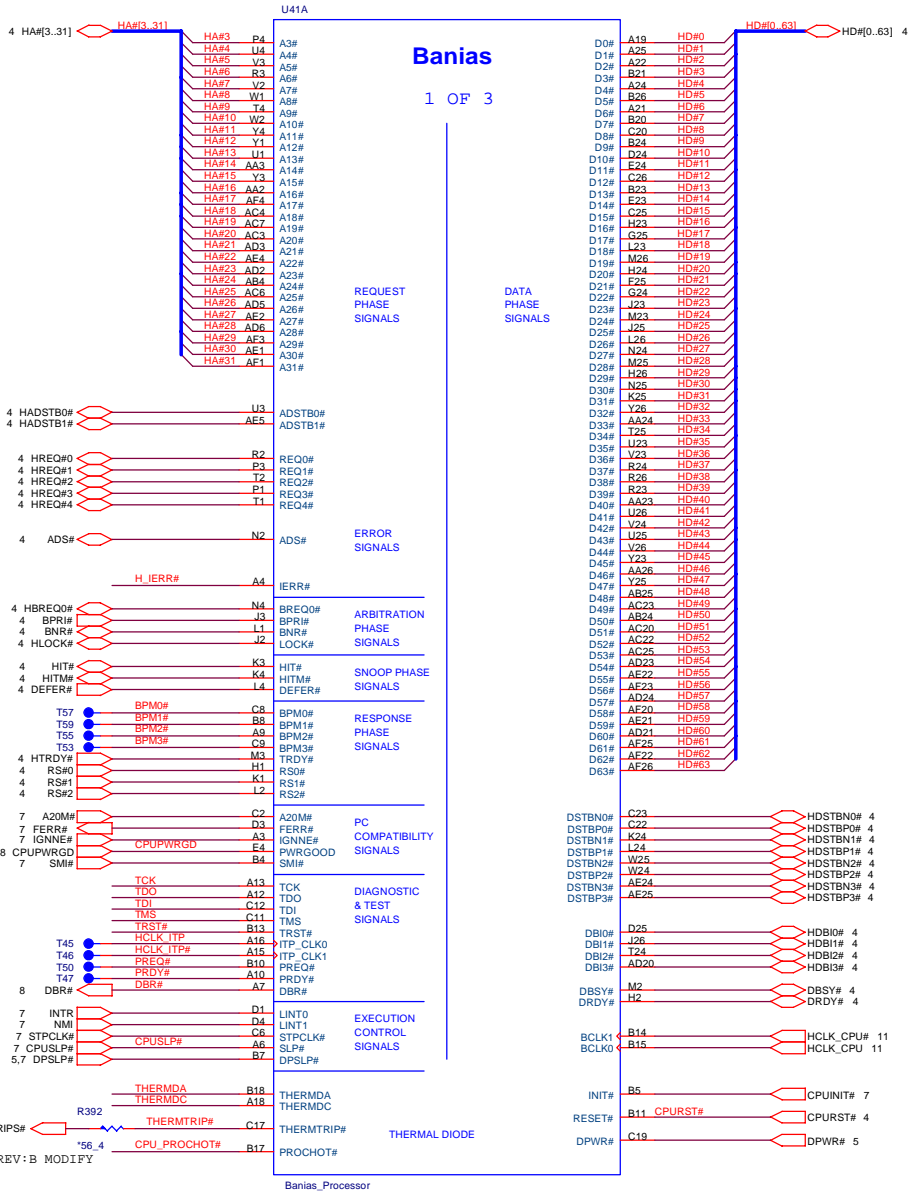
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REQ0# / GNT0#	AD18	INTA#	M11
REQ1# / GNT1#	AD20	INTD#	BROADCOM LAN
REQ2# / GNT2#	AD23	INTB# , INTC#	MINI-PCI
REQ3# / GNT3#	AD22	INTE# , INTF# , INTG#	TI 7411

**PROJECT : ZL1**  
**Quanta Computer Inc.**

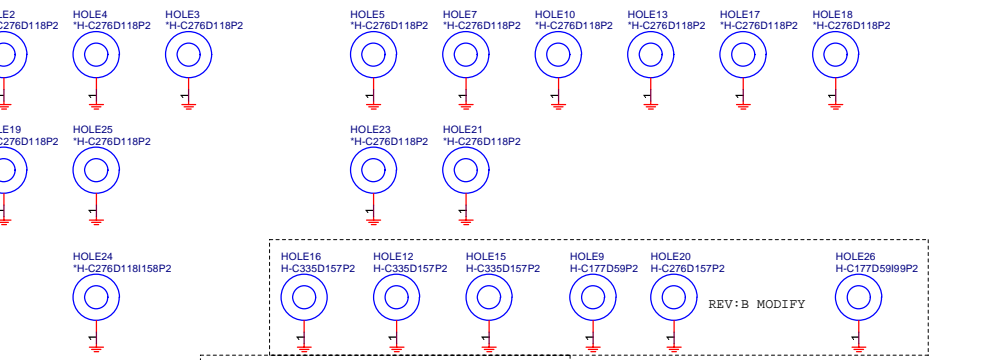
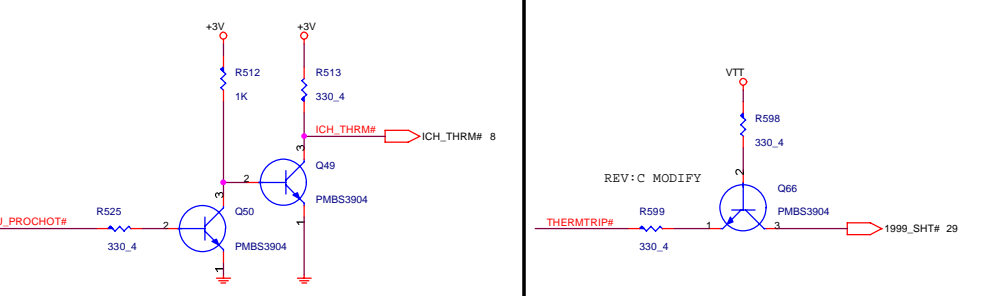
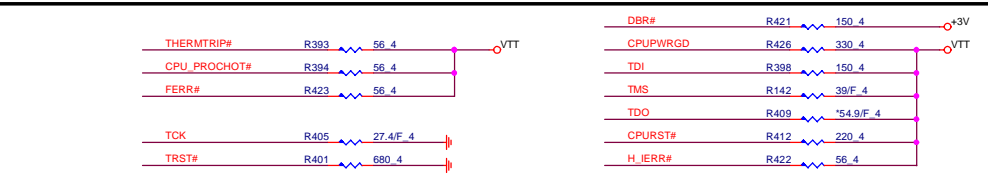
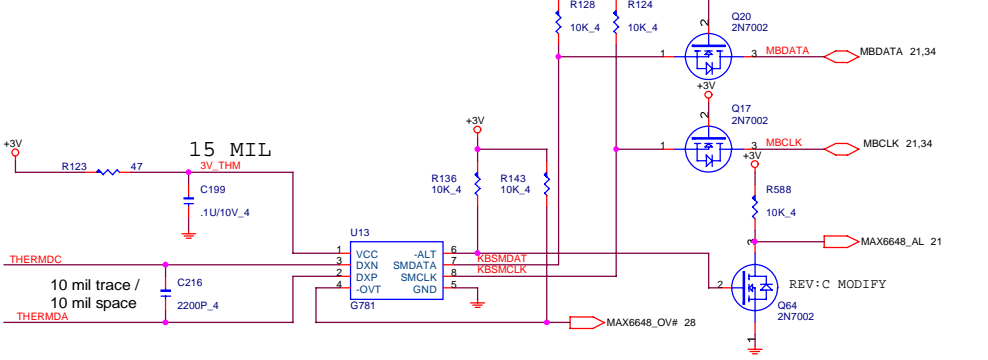
Size	Document Number	Rev
	<b>BLOCK DIAGRAM</b>	A1A
Date: Friday, June 04, 2004	Sheet 1 of 35	

# Banias

1 OF 3



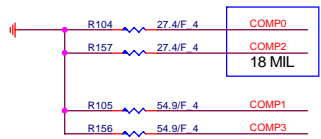
# H/W MONITOR



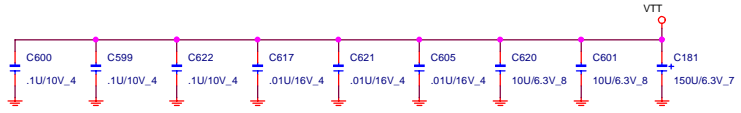
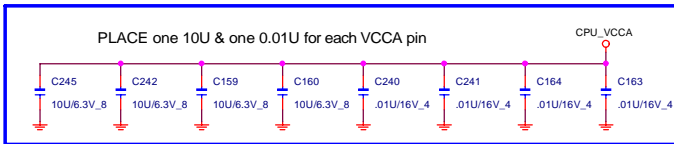
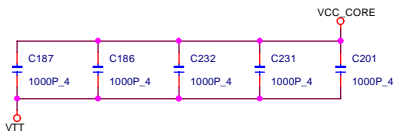
**PROJECT : ZL1**  
**Quanta Computer Inc.**

Size Document Number Rev  
**CPU (HOST BUS)-1** C3A

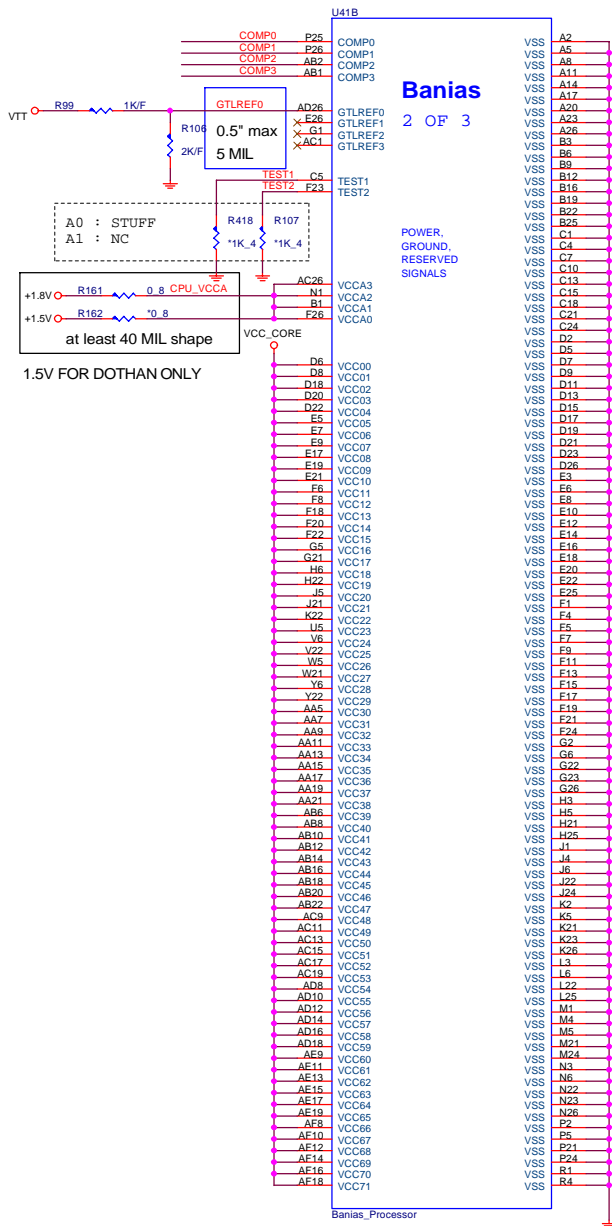
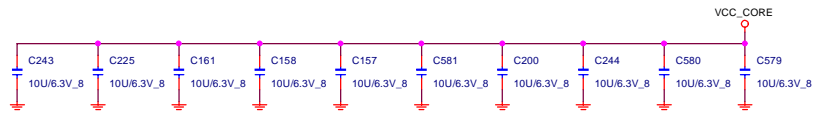
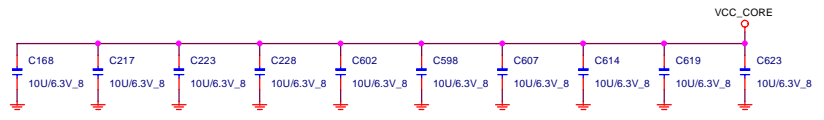
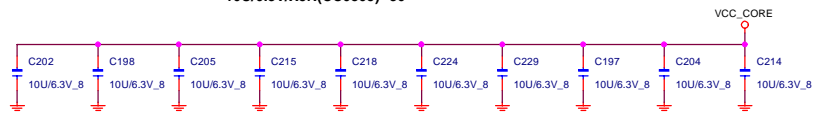
Date: Friday, June 04, 2004 Sheet 2 of 35



COMP0 - 4  
max length  
500 MIL

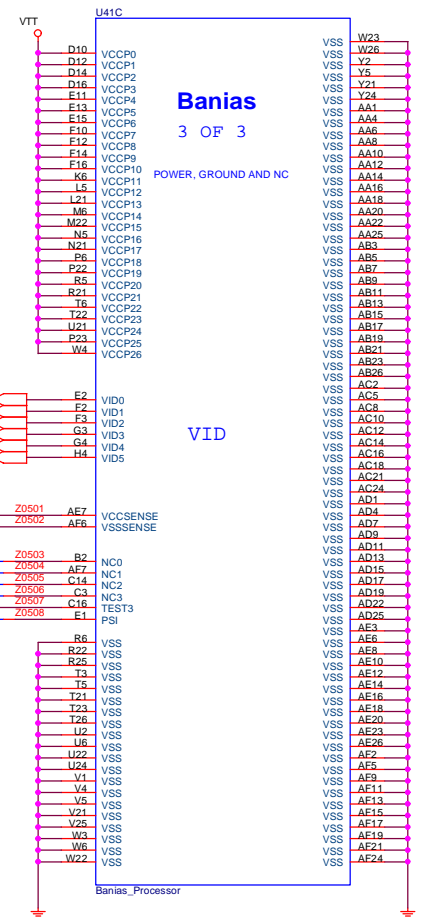


10U/6.3V/X5R(CC0805) \*30



Banias  
2 OF 3

POWER,  
GROUND,  
RESERVED  
SIGNALS



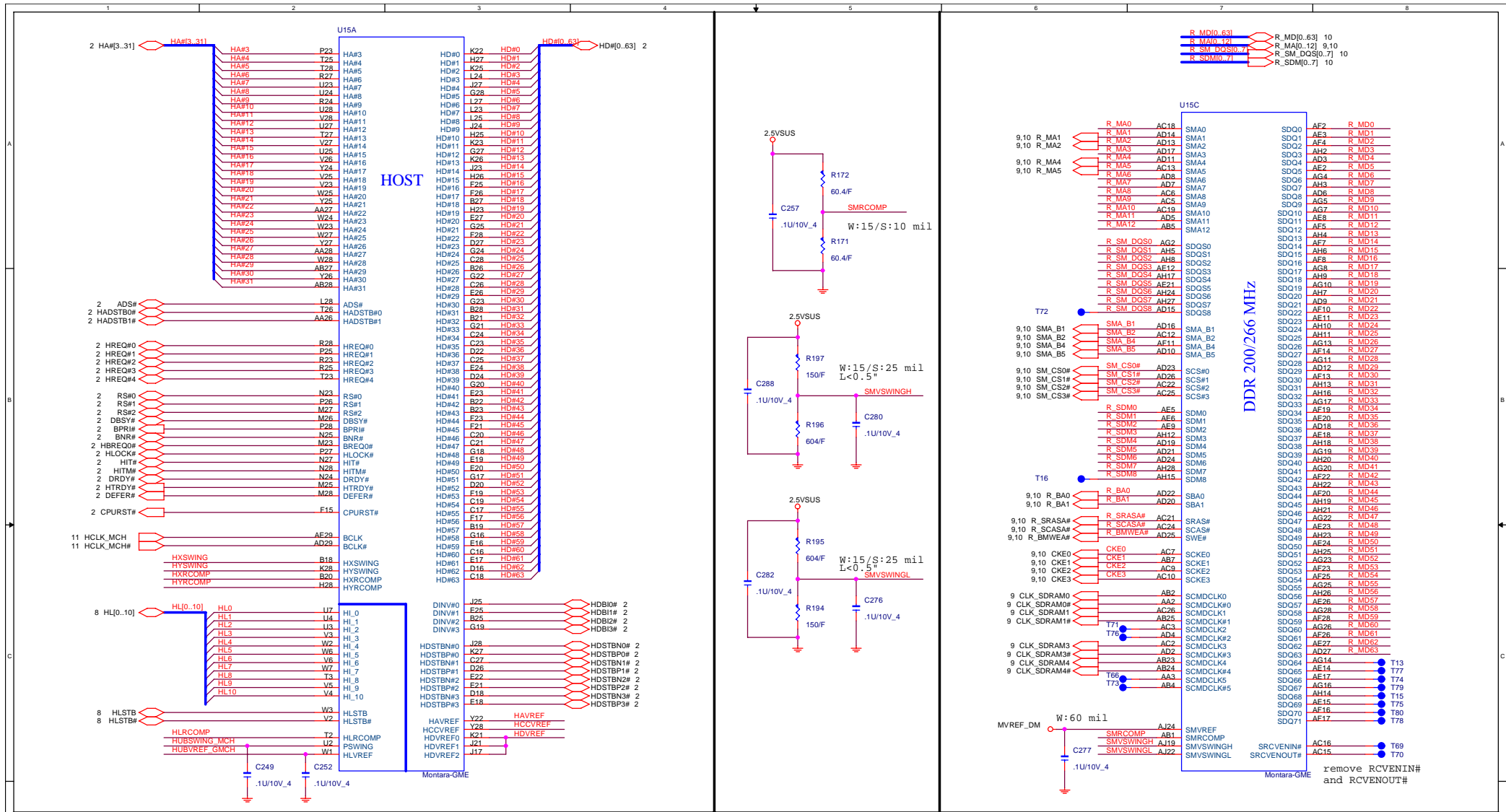
Banias  
3 OF 3

POWER, GROUND AND NC

VID

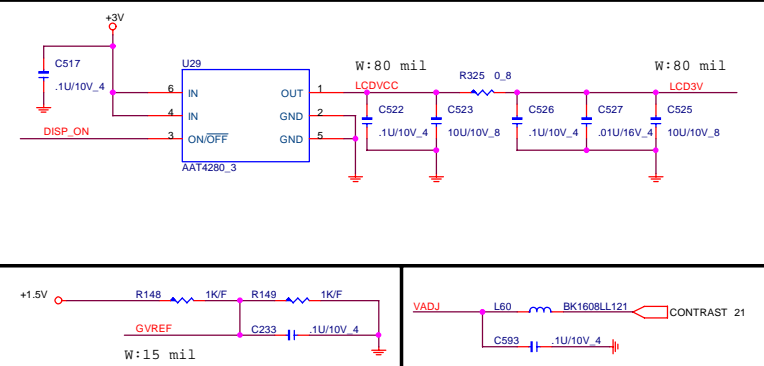
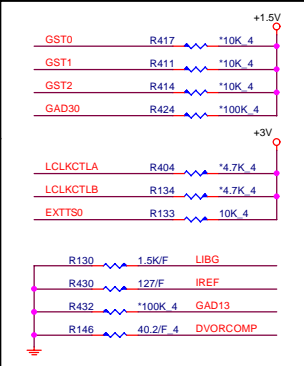
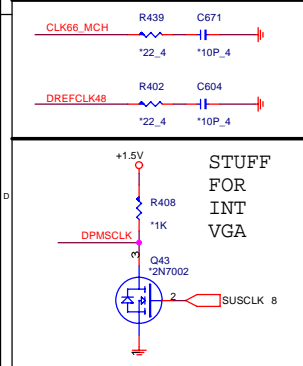
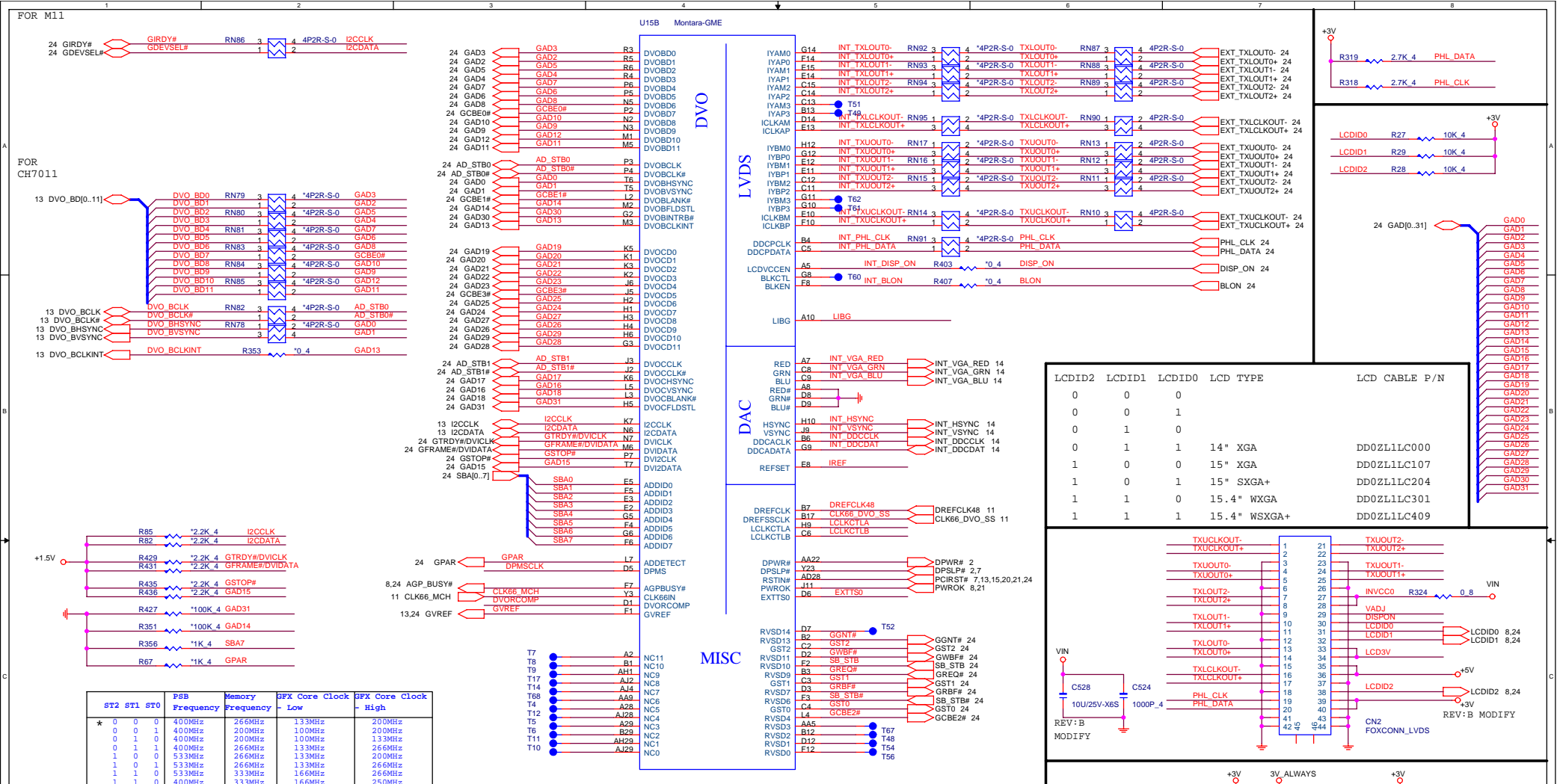
**PROJECT : ZL1**  
**Quanta Computer Inc.**

Size	Document Number	Rev
	<b>CPU (POWER)-2</b>	A1A
Date:	Friday, June 04, 2004	Sheet 3 of 35

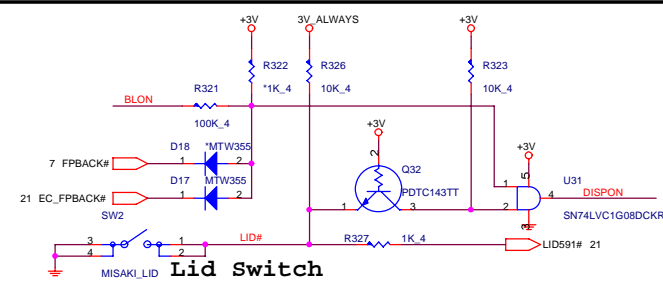
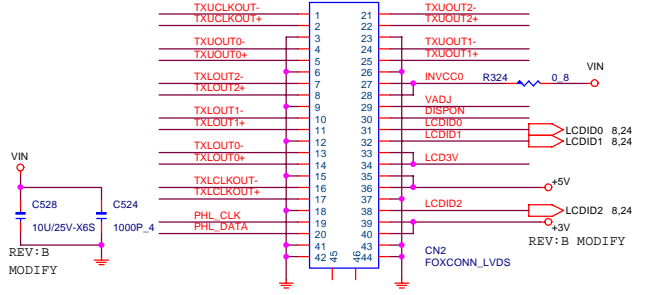


**PROJECT : ZL1**  
**Quanta Computer Inc.**

Size	Document Number	Rev
	<b>GMCH_A (HOST &amp; DDR)</b>	A1A
Date:	Friday, June 04, 2004	Sheet 4 of 35

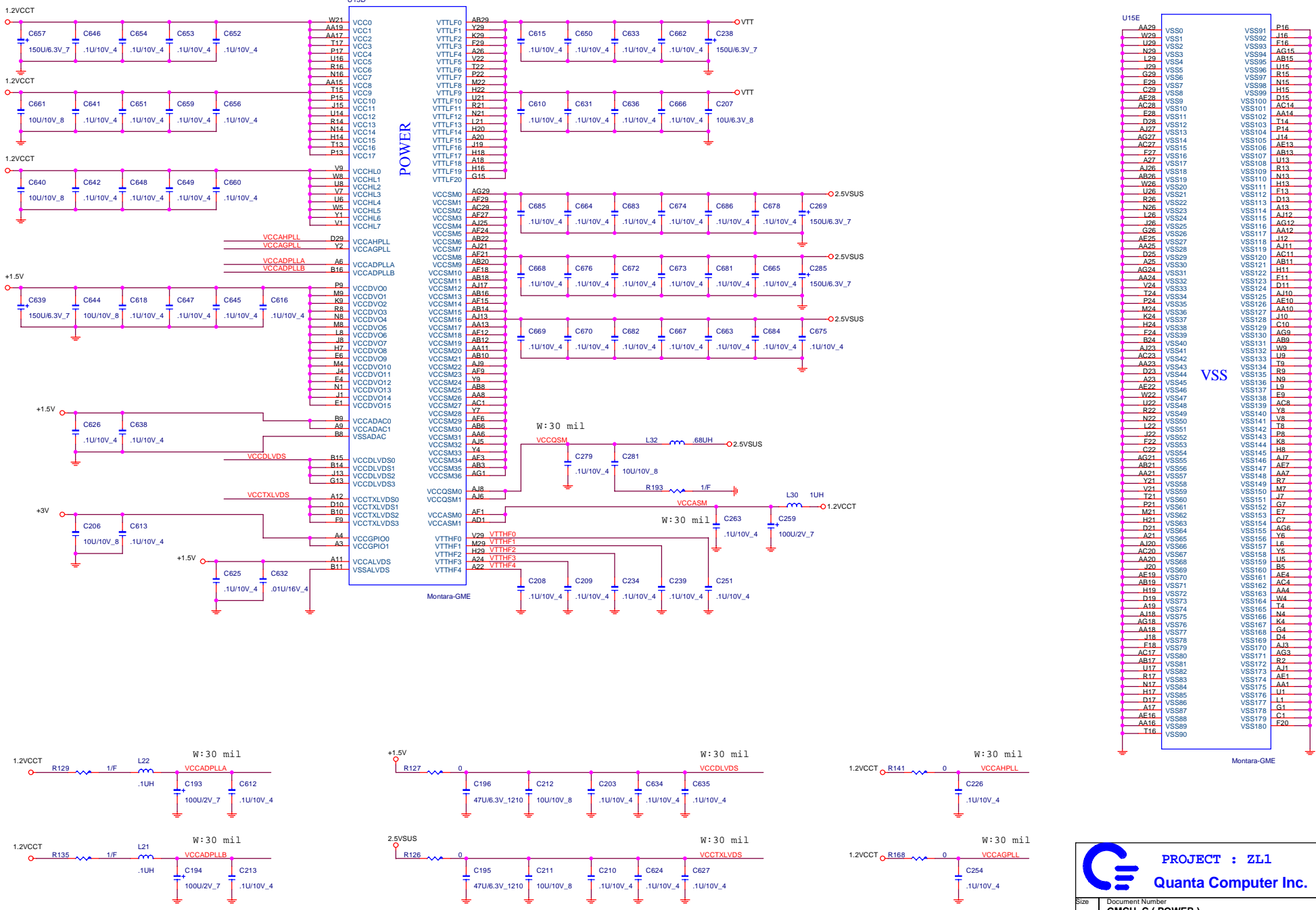


LCDID2	LCDID1	LCDID0	LCD TYPE	LCD CABLE P/N
0	0	0		
0	0	1		
0	1	0		
0	1	1	14" XGA	DD0ZLLC000
1	0	0	15" XGA	DD0ZLLC107
1	0	1	15" SXGA+	DD0ZLLC204
1	1	0	15.4" WXGA	DD0ZLLC301
1	1	1	15.4" WSXGA+	DD0ZLLC409



**PROJECT : ZL1**  
**Quanta Computer Inc.**

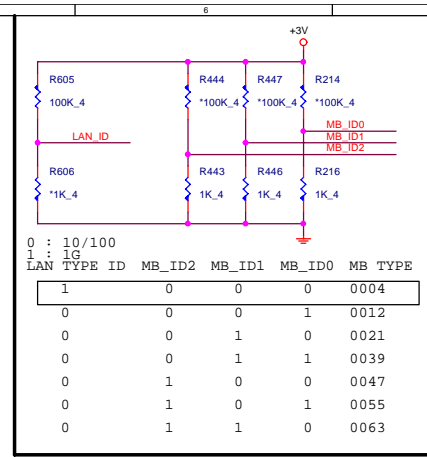
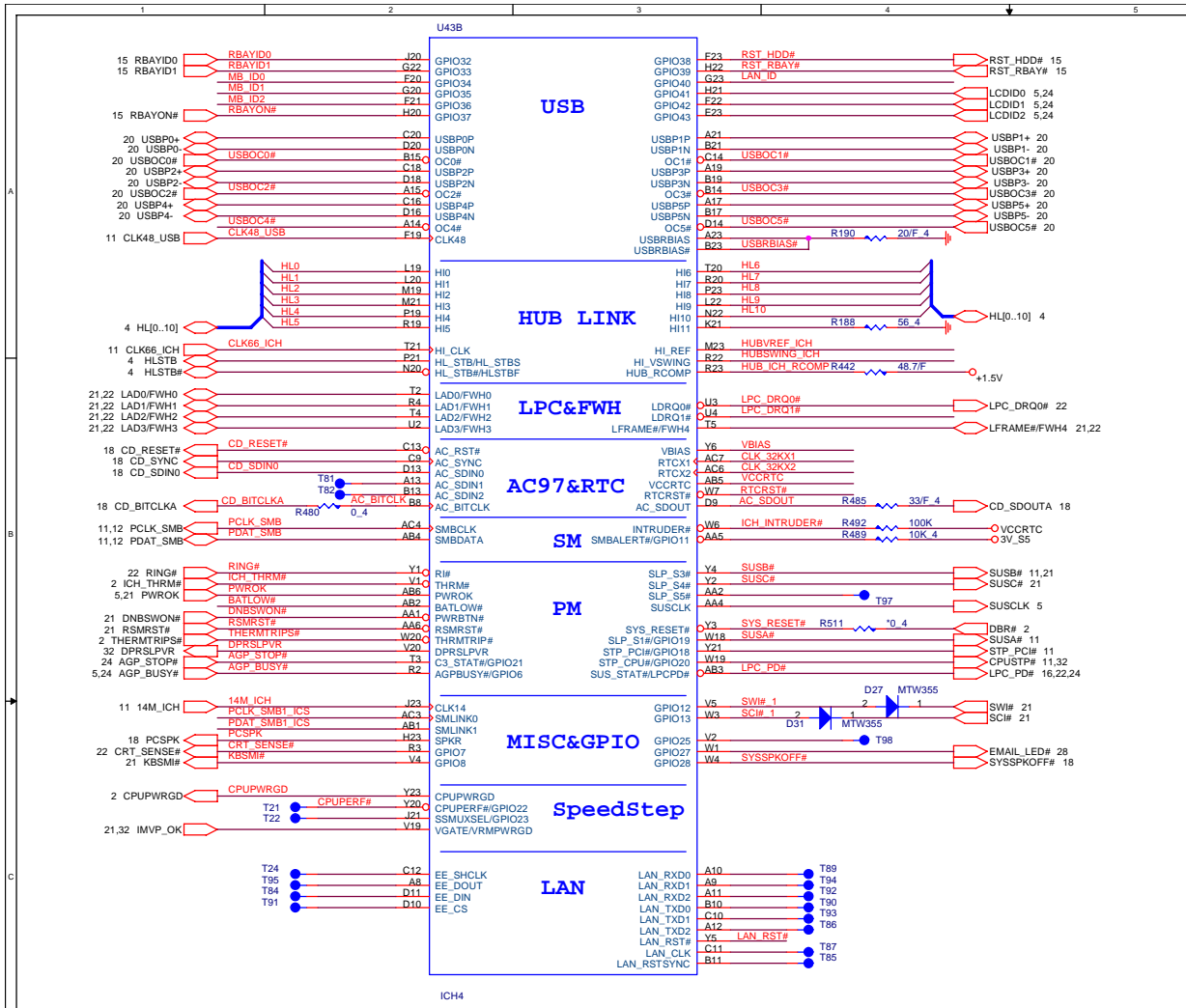
Size: Document Number  
**GMCH\_B (DVO & LVDS)**  
 Date: Friday, June 04, 2004  
 Sheet: 5 of 35  
 Rev: 82B



**PROJECT : ZL1**  
**Quanta Computer Inc.**

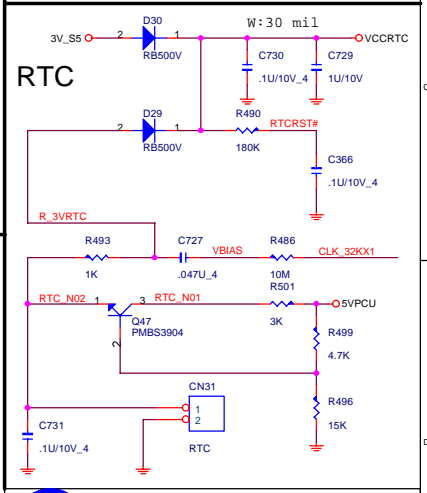
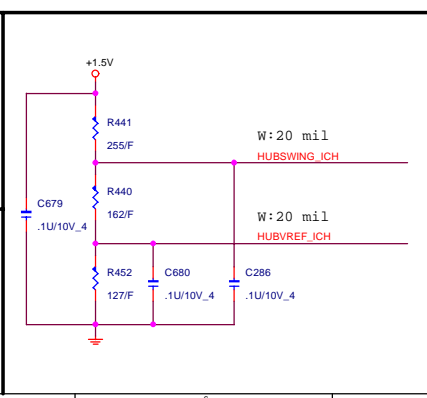
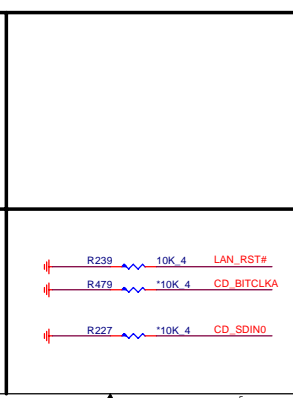
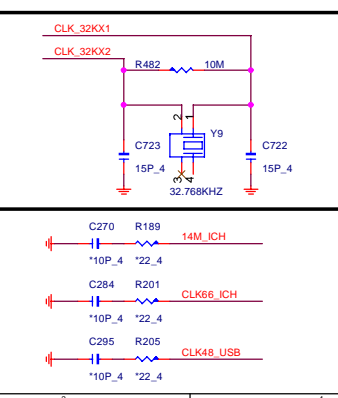
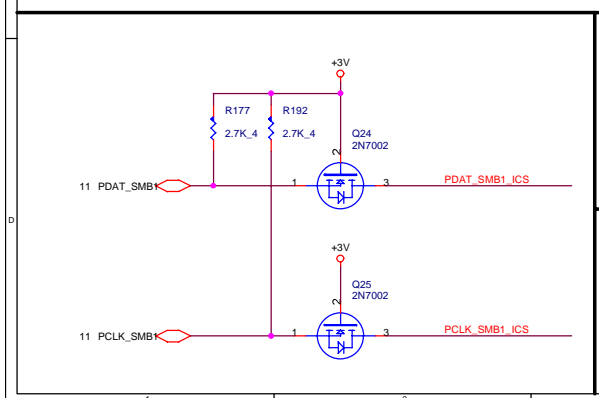
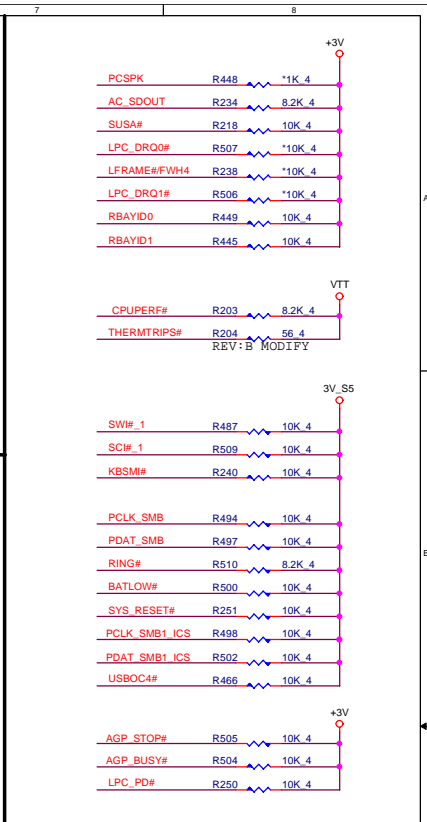
Size	Document Number	Rev
	<b>GMCH_C ( POWER )</b>	A1A
Date:	Friday, June 04, 2004	Sheet 6 of 35



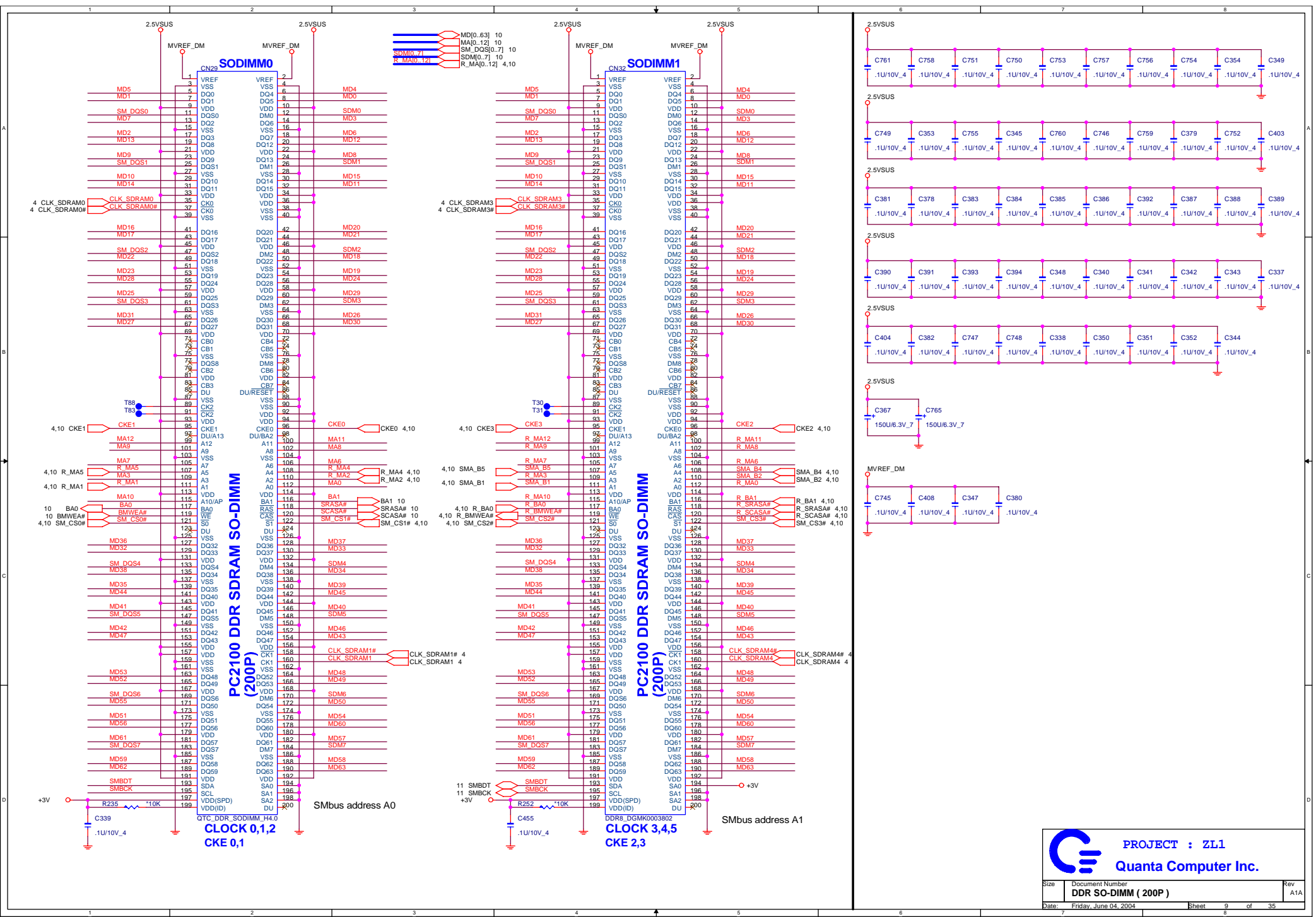


0 : 10/100  
1 : 1G

LAN TYPE	ID	MB_ID2	MB_ID1	MB_ID0	MB TYPE
1	0	0	0	0	0004
0	0	0	1	0	0012
0	0	1	0	0	0021
0	0	1	1	0	0039
0	1	0	0	0	0047
0	1	0	1	0	0055
0	1	1	0	0	0063



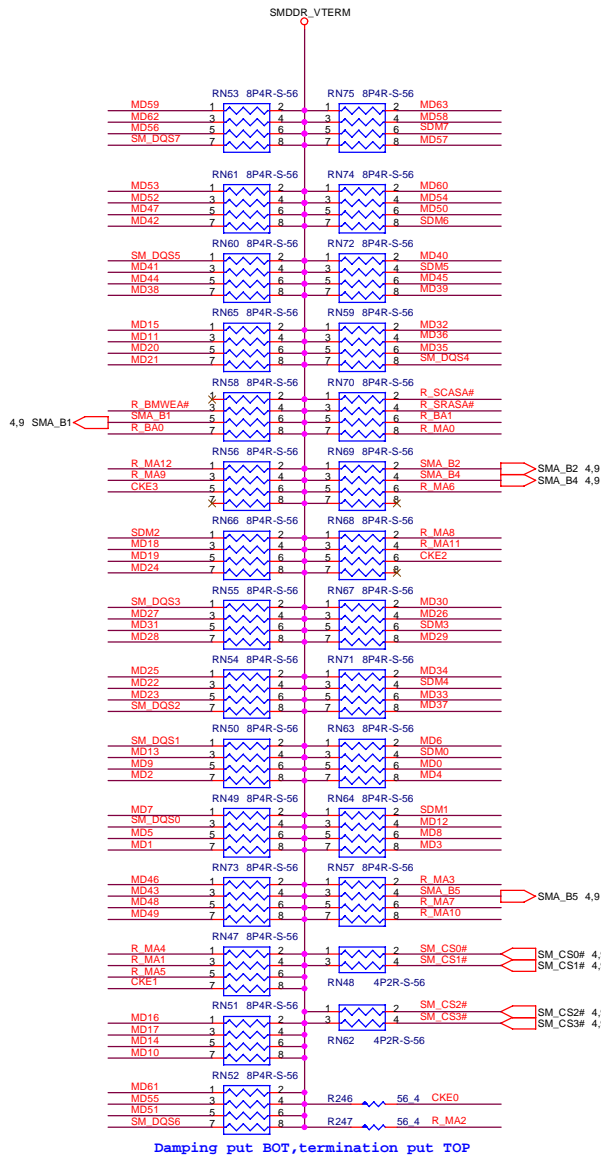




**PROJECT : ZL1**  
**Quanta Computer Inc.**

Size	Document Number	Rev
	<b>DDR SO-DIMM ( 200P )</b>	A1A

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4.9 SMA\_B1

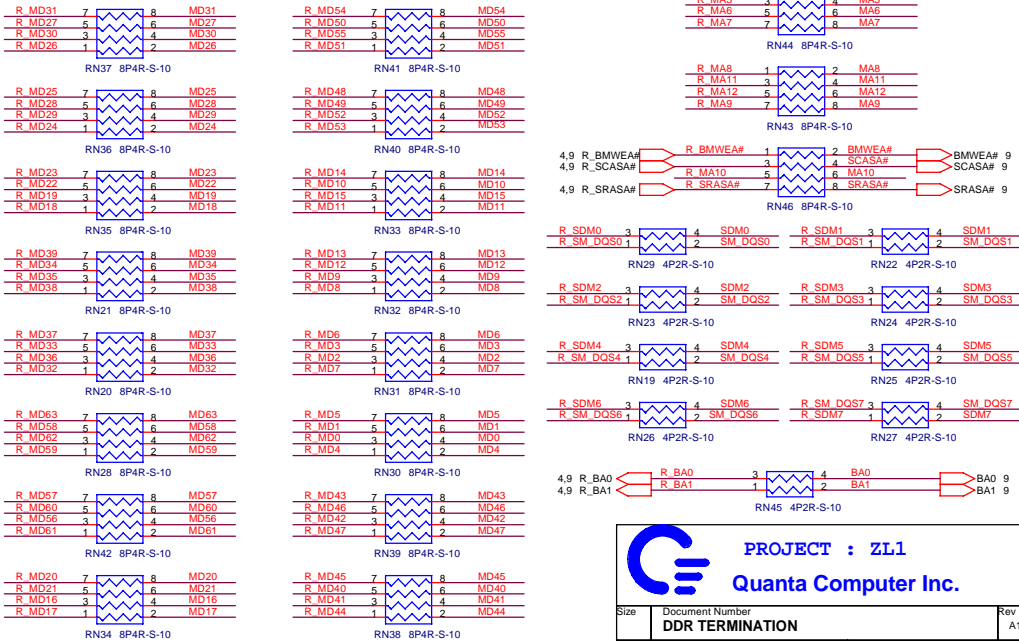
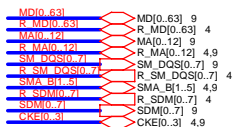
SMA\_B2 4.9  
SMA\_B4 4.9

SMA\_B5 4.9

SM\_CS0# 4.9  
SM\_CS1# 4.9

SM\_CS2# 4.9  
SM\_CS3# 4.9

Damping put BO7, termination put TOP



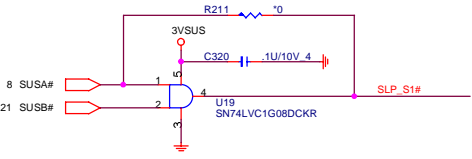
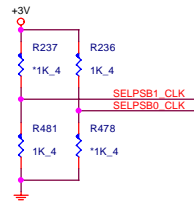
For terminal R-pack.



**PROJECT : ZL1**  
**Quanta Computer Inc.**

Size	Document Number	Rev
	<b>DDR TERMINATION</b>	A1A
Date:	Friday, June 04, 2004	Sheet 10 of 35

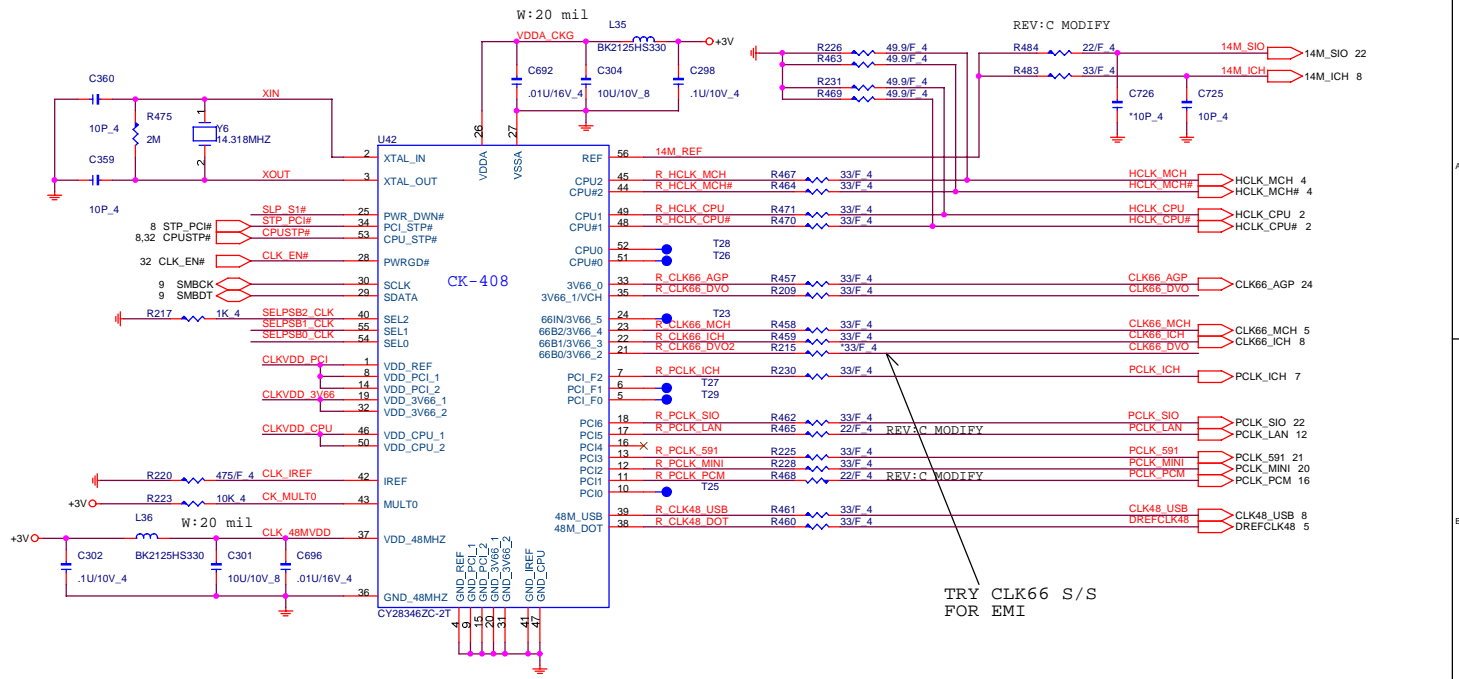
S2	S1	S0	CPU	3V66[0..4]	3V66_5/66IN
1	0	0	66	66IN	66 Input
1	0	1	100	66IN	66 Input
1	1	0	200	66IN	66 Input
1	1	1	133	66IN	66 Input
0	0	0	66	66	66
0	0	1	100	66	66
0	1	0	200	66	66
0	1	1	133	66	66



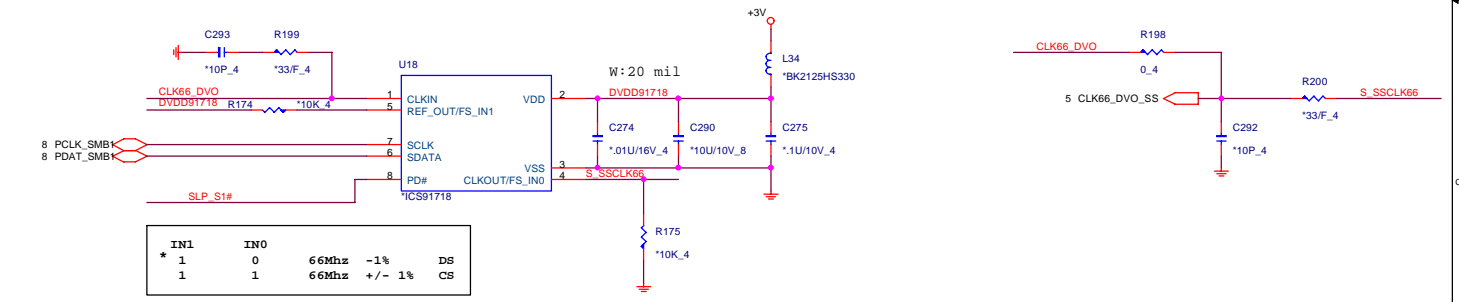
3V66\_1/VCH  
 SMBus Byte 0 , Bit 5 = 0    66 MHz    W    S/S  
 SMBus Byte 0 , Bit 5 = 1    48 MHz    W/O S/S

Byte 0 , Bit 7 = 0    Disable Spread Spectrum  
 Byte 0 , Bit 7 = 1    Enable Spread Spectrum

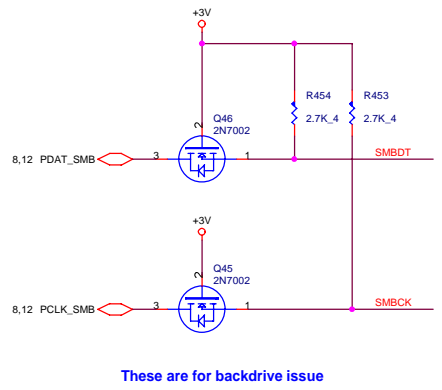
Byte 4 Bit 7	Byte 5 Bit 7	Byte 5 Bit 6	Spread Mode	Spread %
SS2	SS1	SS0		
0	0	0	DOWN	+0.00 , -0.25
0	0	1	DOWN	+0.00 , -0.50
0	1	0	DOWN	+0.00 , -0.75
0	1	1	DOWN	+0.00 , -1.00
1	0	0	CENTER	+0.13 , -0.13
1	0	1	CENTER	+0.25 , -0.25
1	1	0	CENTER	+0.37 , -0.37
1	1	1	CENTER	+0.50 , -1.50



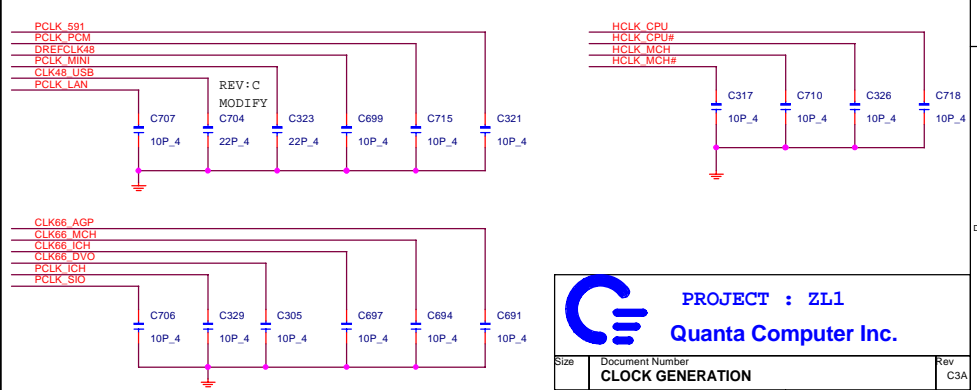
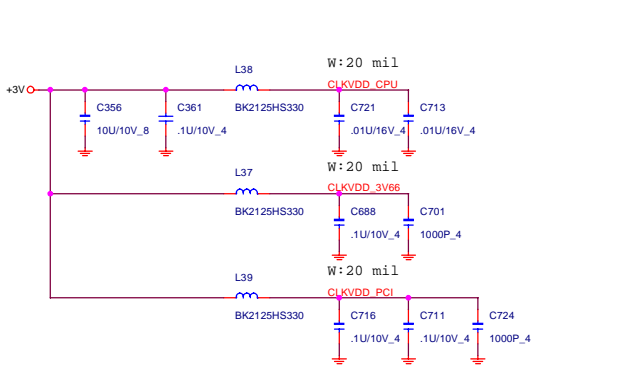
TRY CLK66 S/S FOR EMI



IN1	INO	66Mhz	-1%	DS
* 1	0	66Mhz	-1%	DS
1	1	66Mhz	+/- 1%	CS

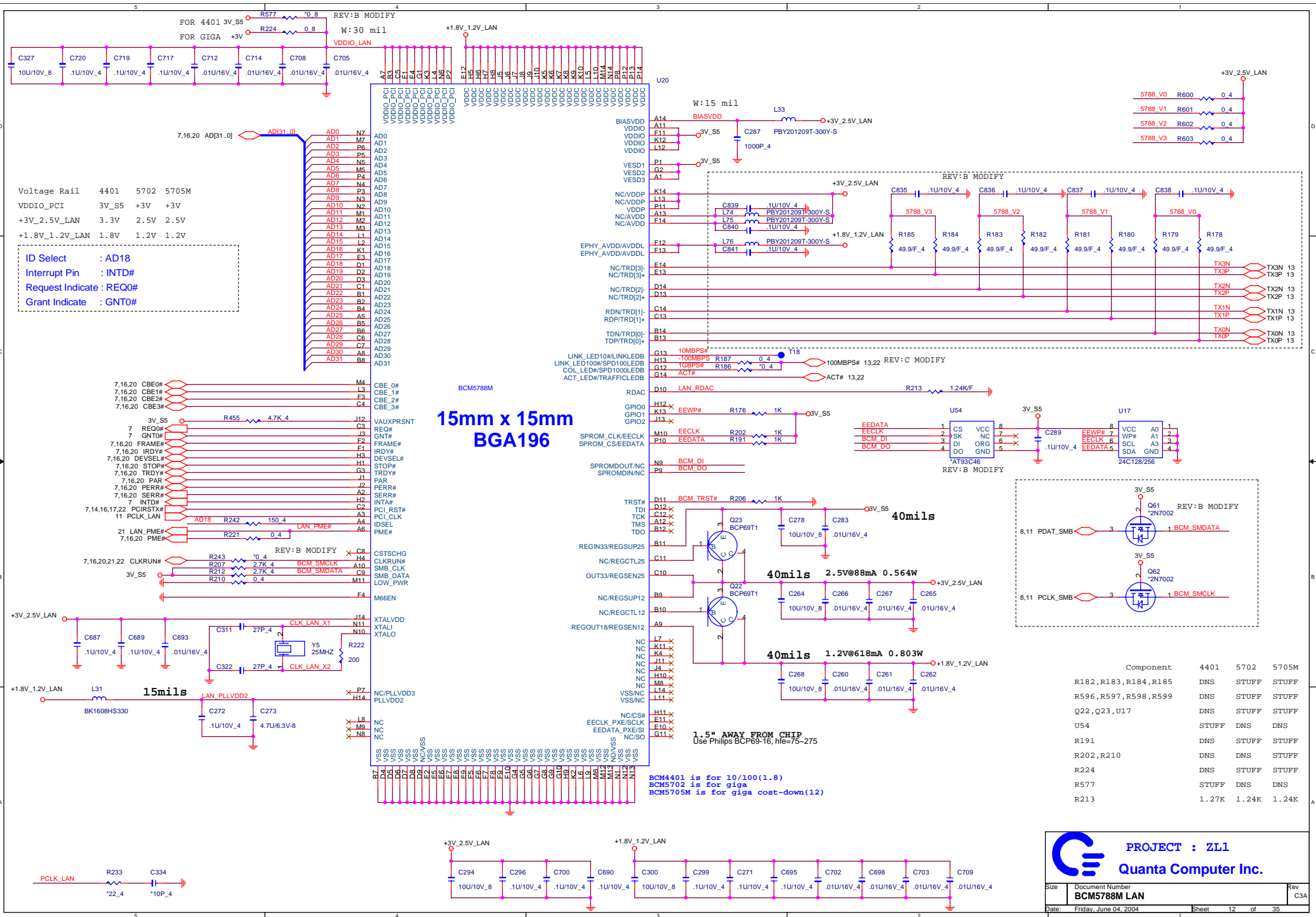


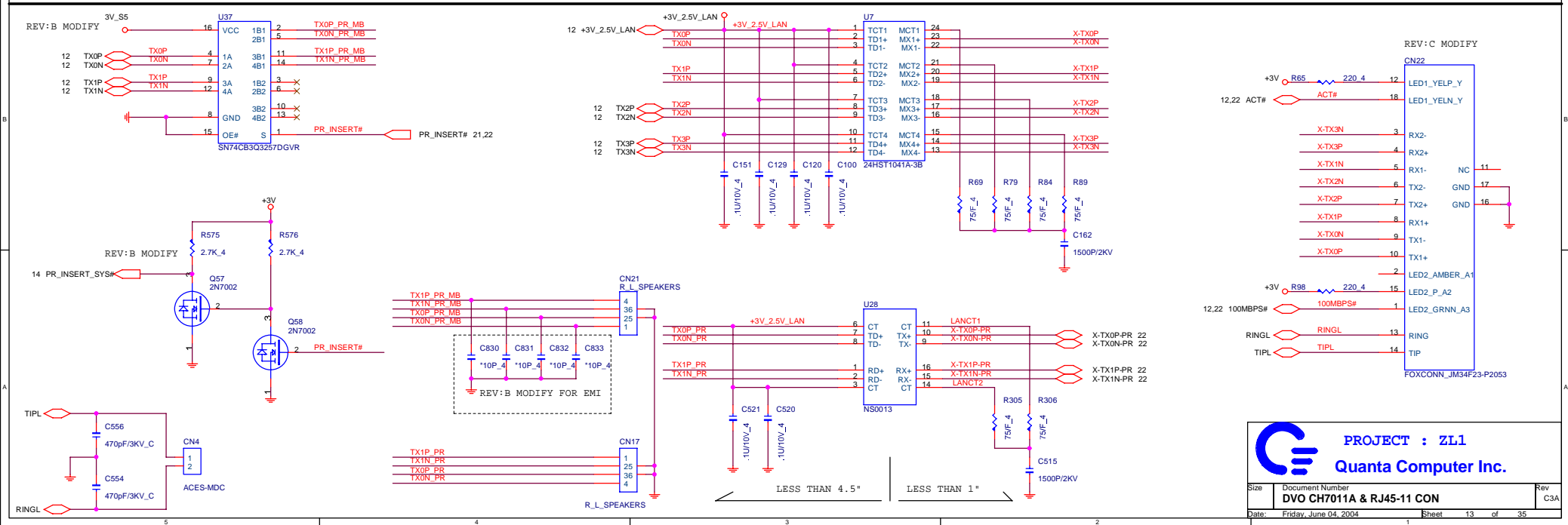
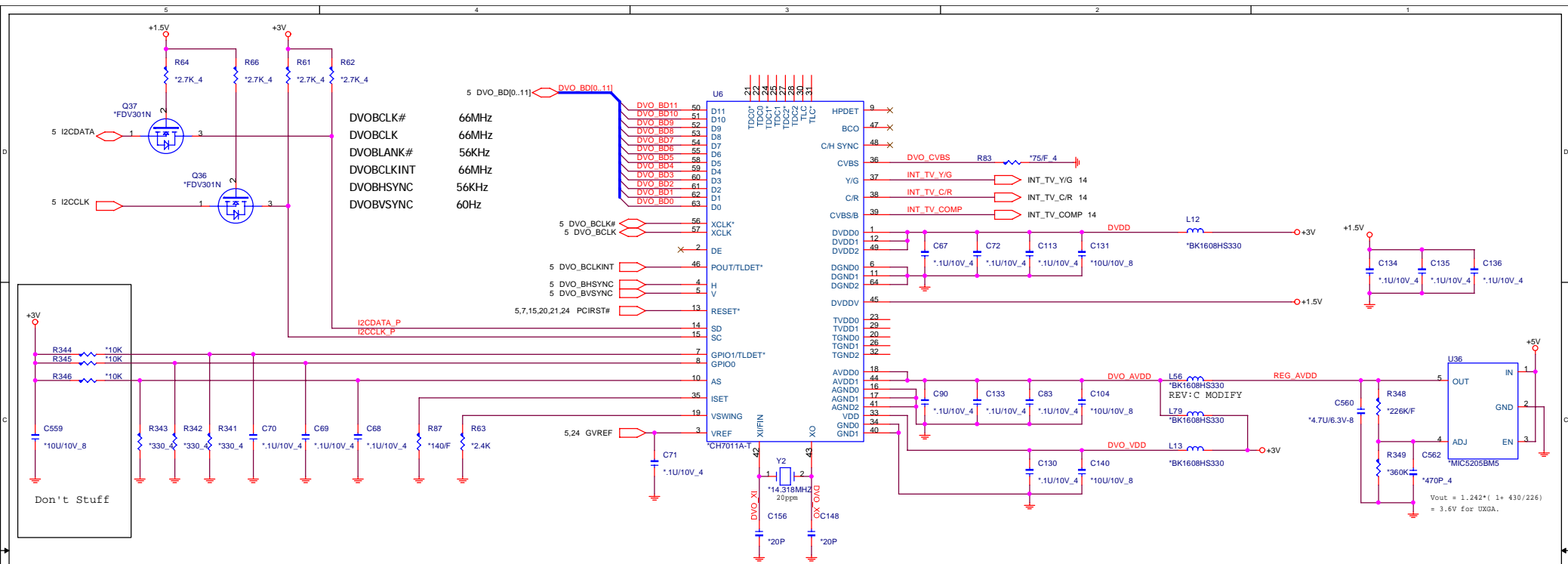
These are for backdrive issue

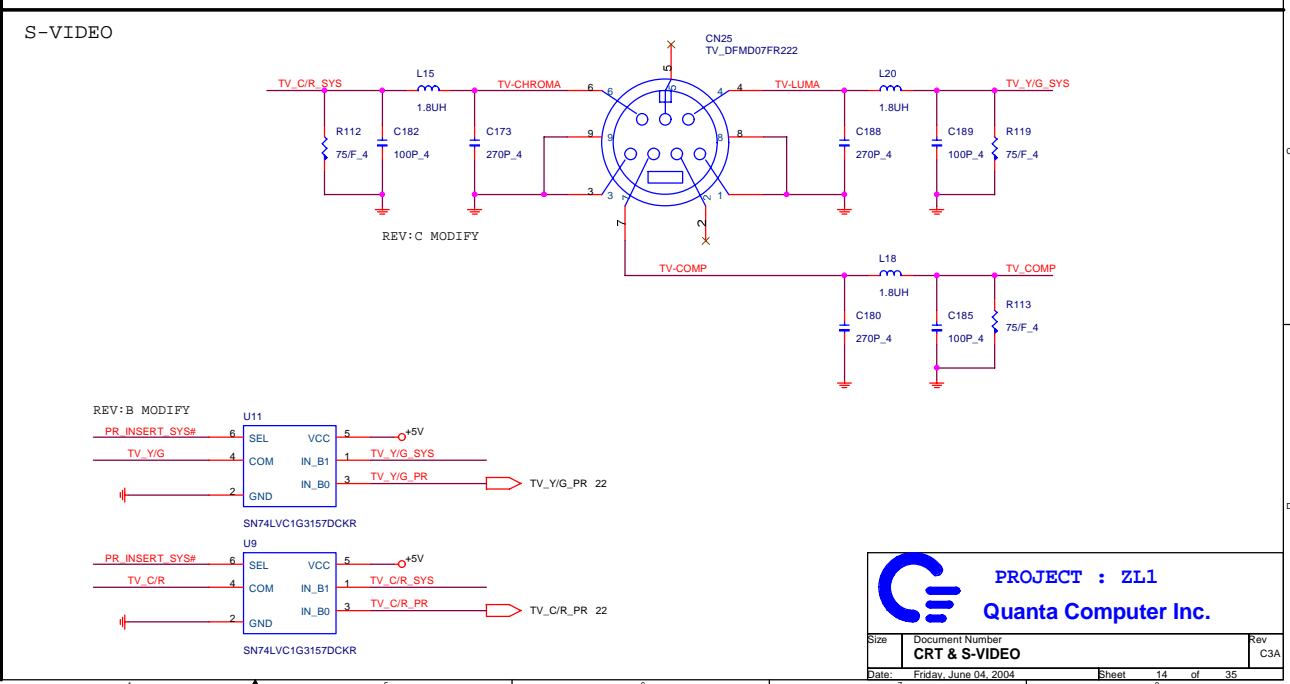
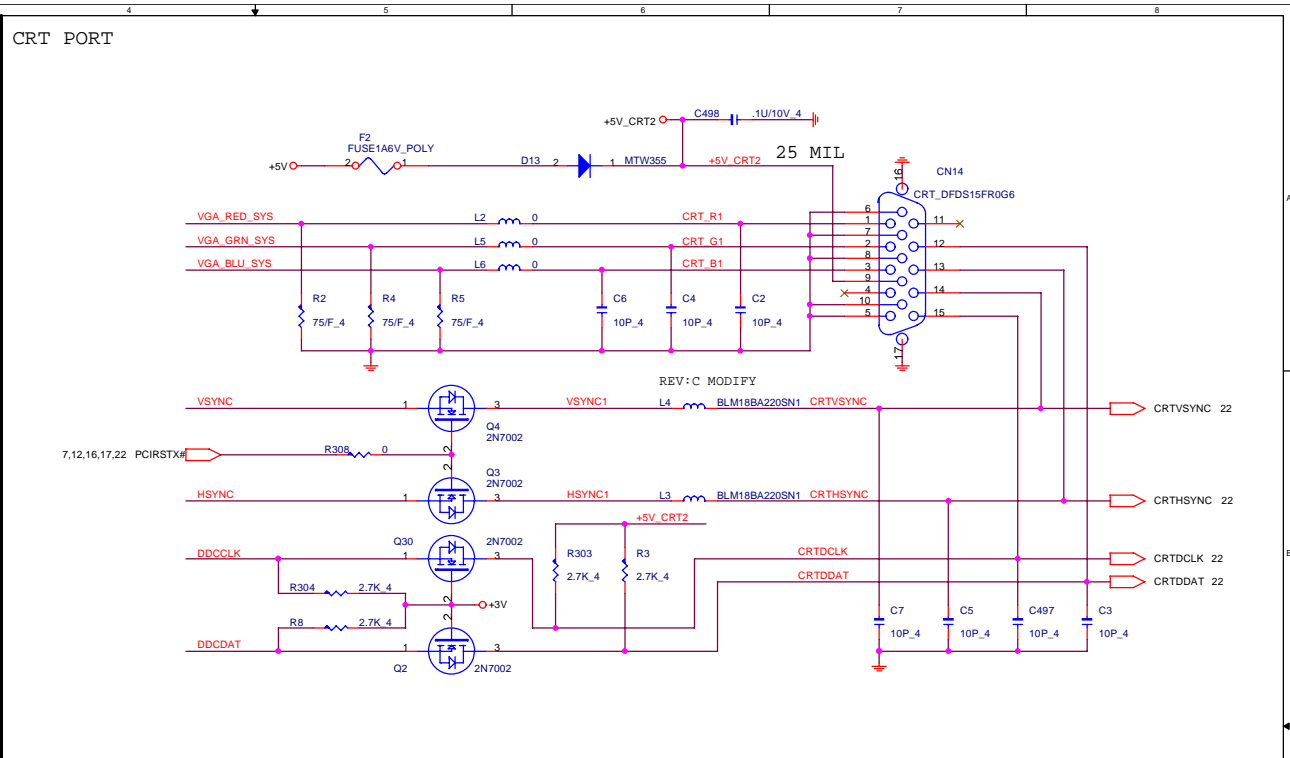
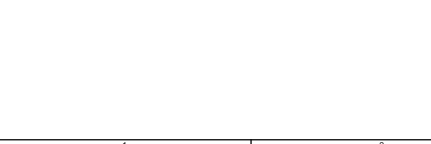
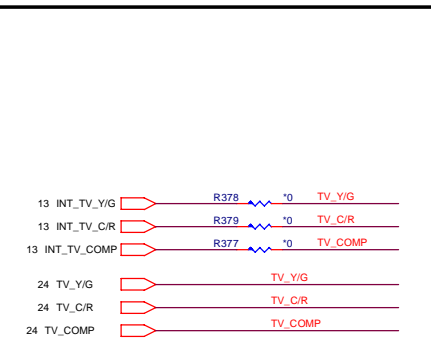
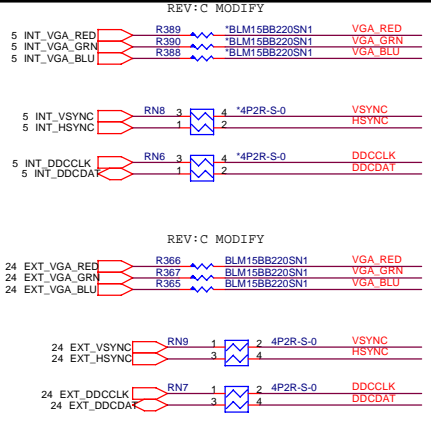
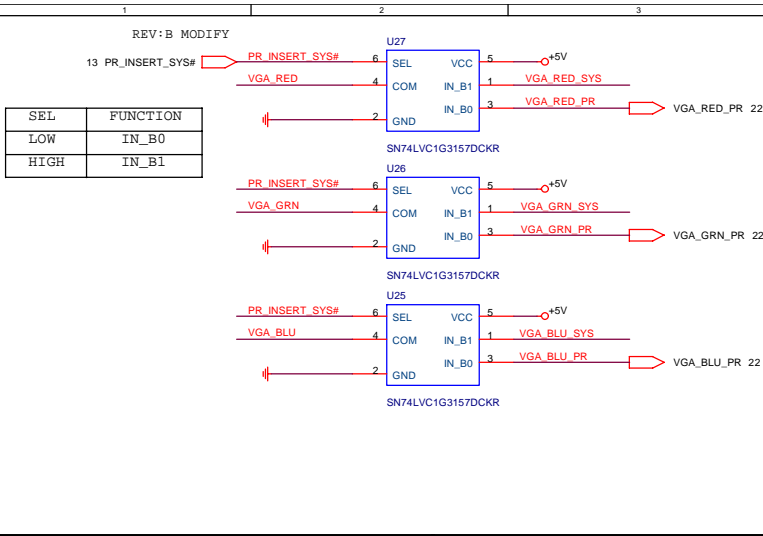


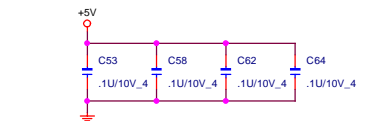
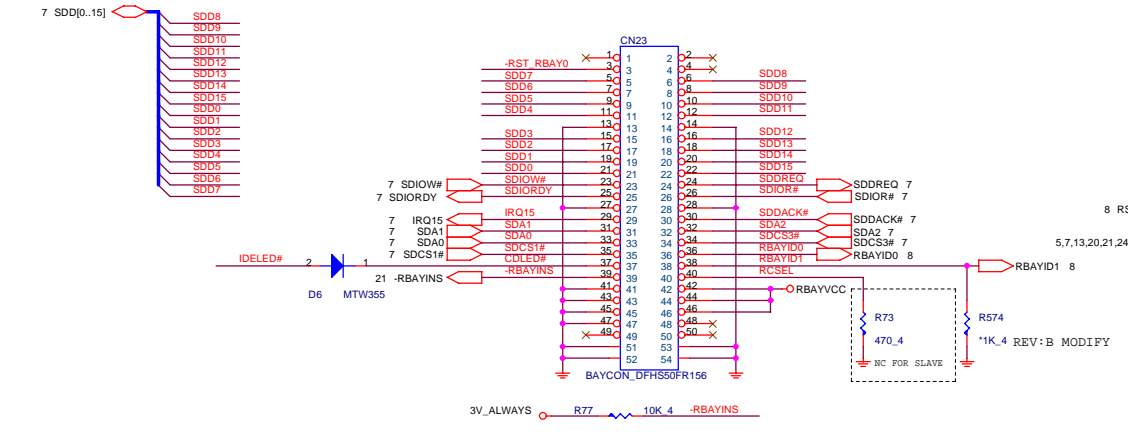
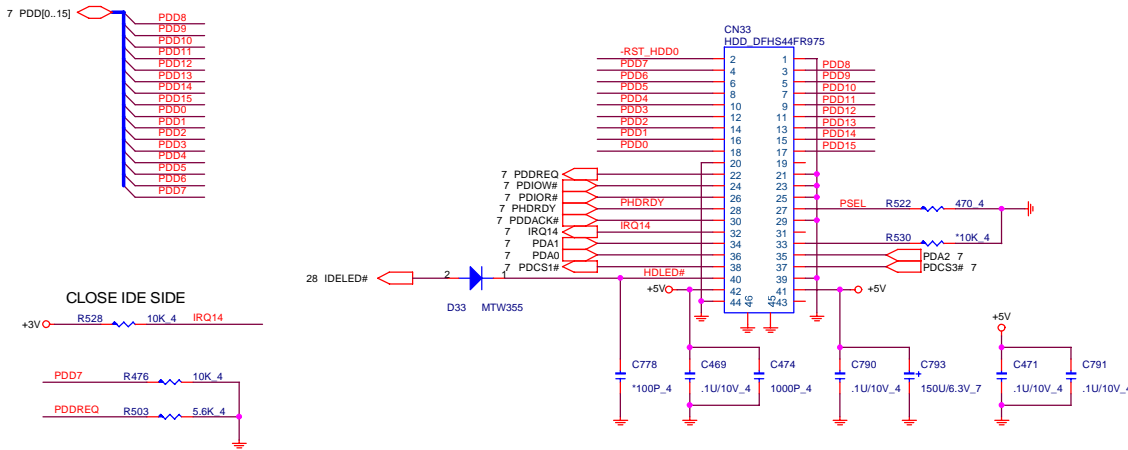
**PROJECT : ZL1**  
**Quanta Computer Inc.**

Size: Document Number: **CLOCK GENERATION** Rev: C3A  
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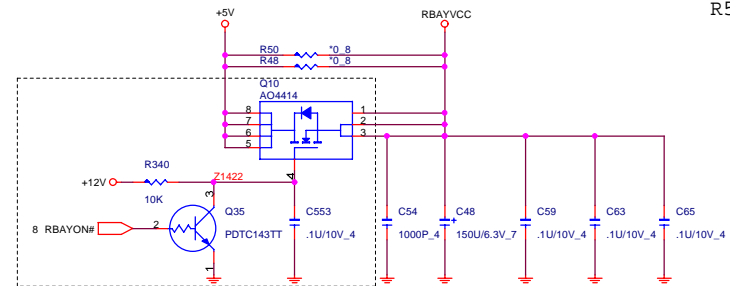
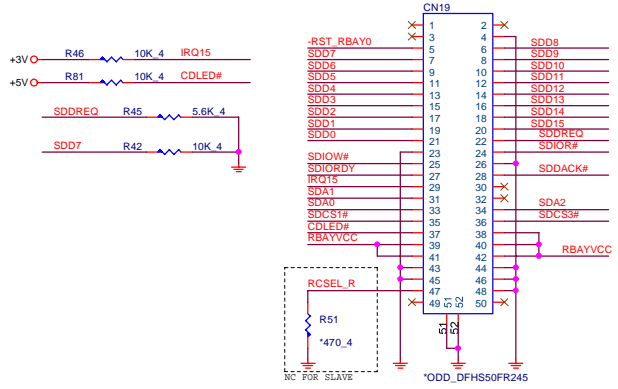


**BAY ID STATUS**

RBAYID0/ LBAYID0	RBAYID1/ LBAYID1	STATUS
0	0	FDD
0	1	HDD
1	0	CD/DVD

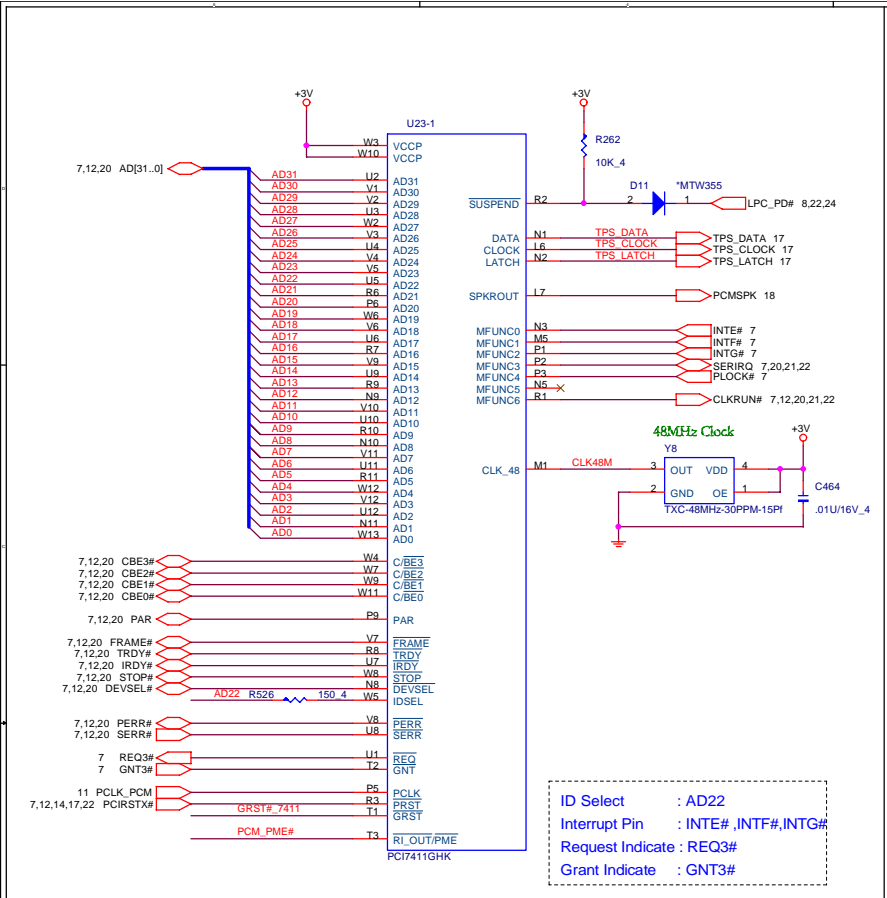
- W/O Media Bay
- W Media Bay
- R472, R473 DNS STUFF
- R94, R96 DNS STUFF
- R474, R101 STUFF DNS
- R48, R50 STUFF DNS
- Q10, Q35 DNS STUFF
- R340, C553 DNS STUFF
- R73, CN23 DNS STUFF
- R51, CN19 STUFF DNS
- R574 STUFF DNS

**ODD Connector**

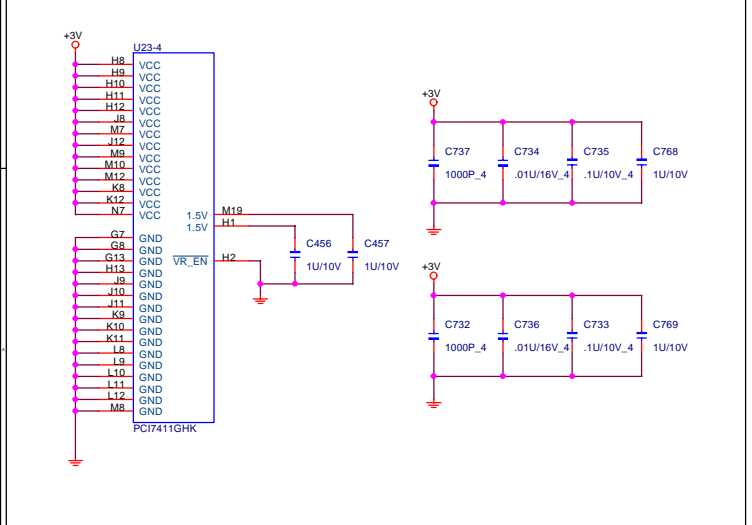
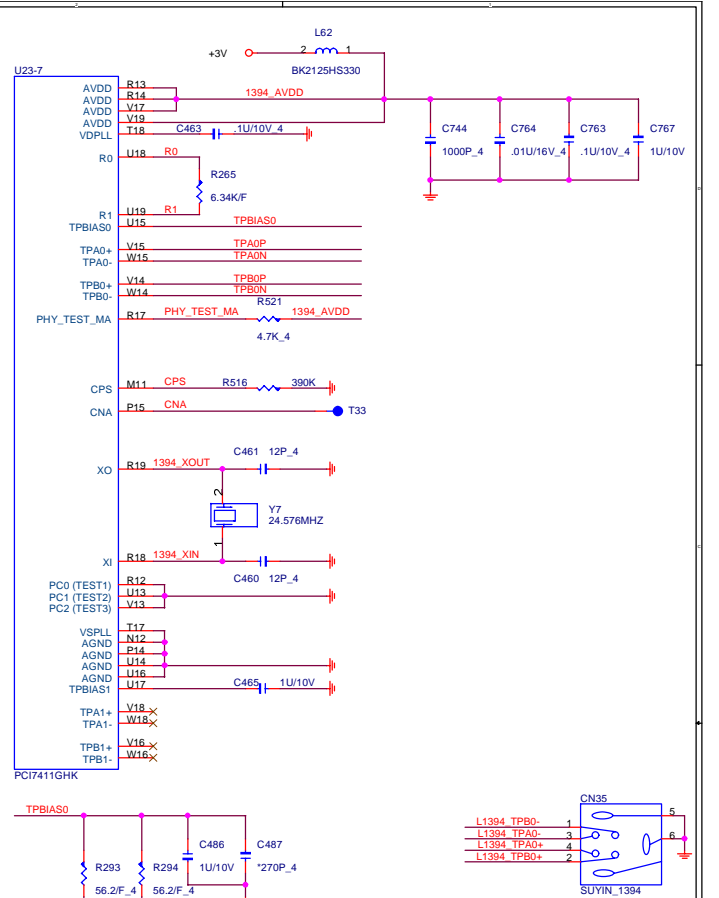
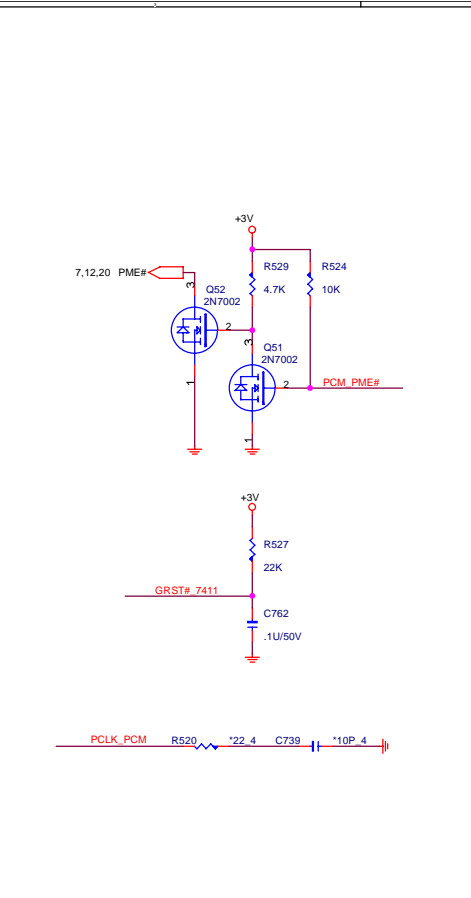


**PROJECT : ZL1**  
**Quanta Computer Inc.**

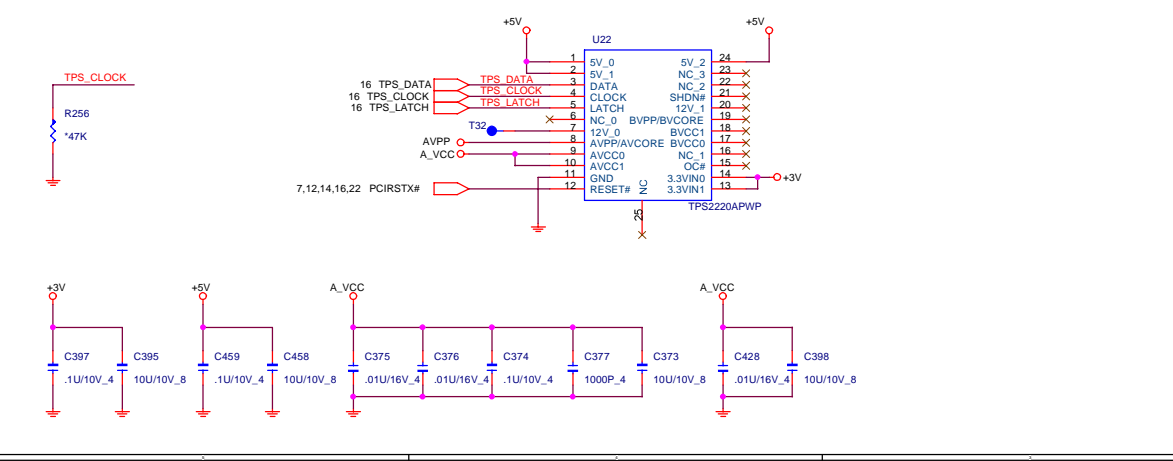
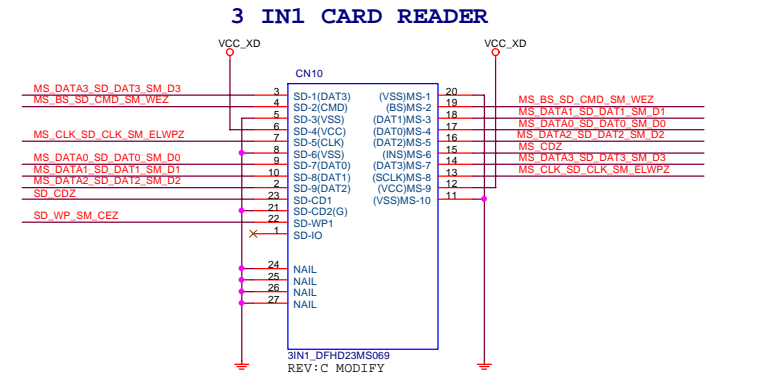
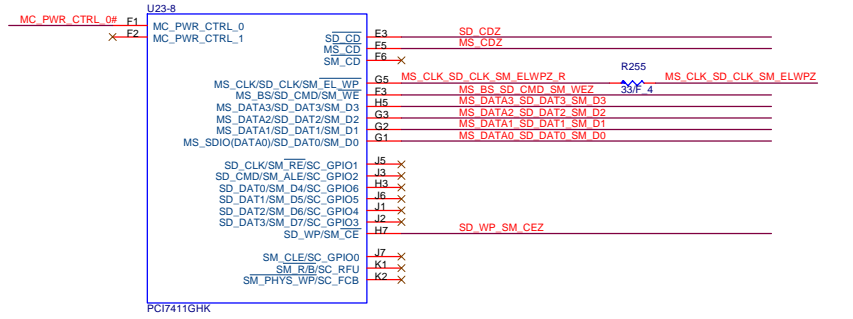
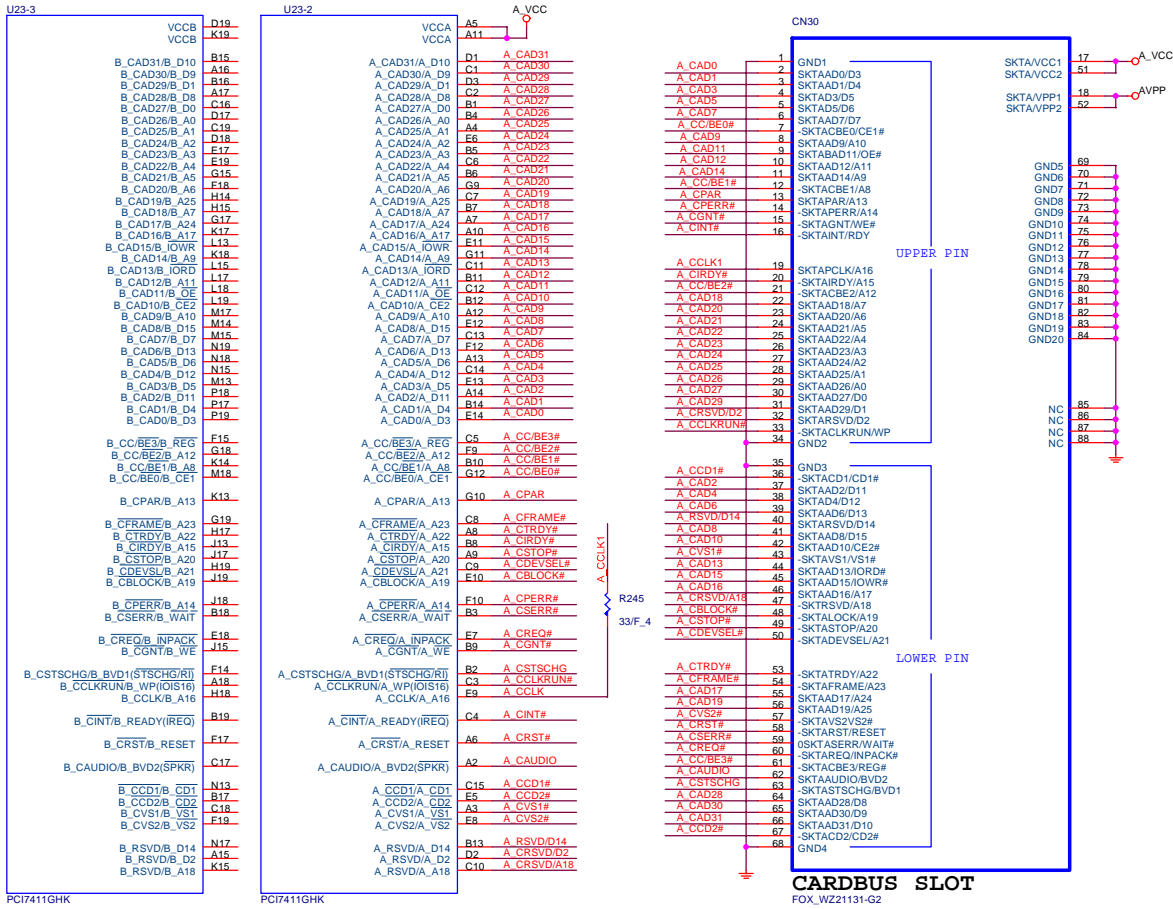
Size	Document Number	Rev
Date:	HDD & CDROM & MEDIA BAY	82B
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ID Select : AD22  
 Interrupt Pin : INTE# ,INTF# ,INTG#  
 Request Indicate : REQ3#  
 Grant Indicate : GNT3#

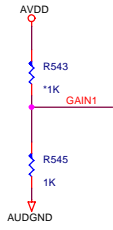




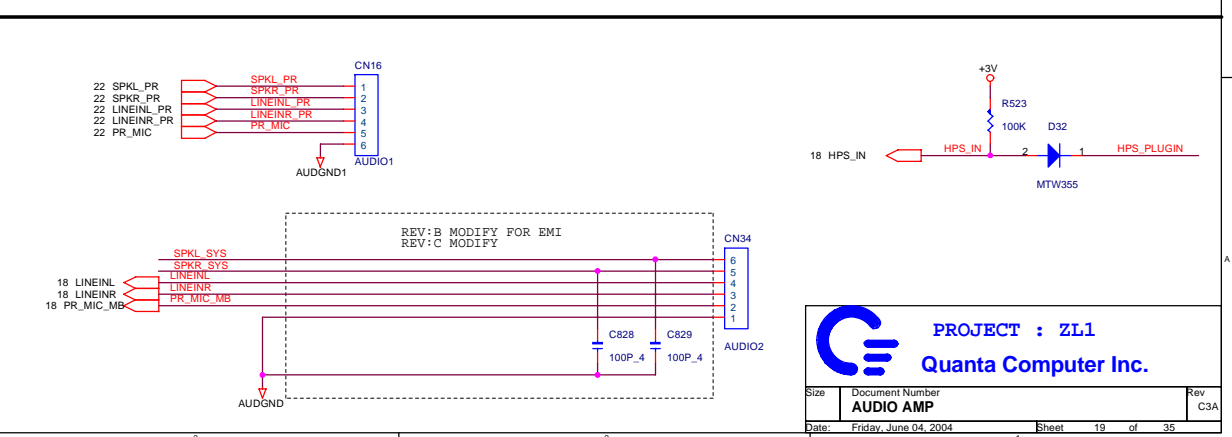
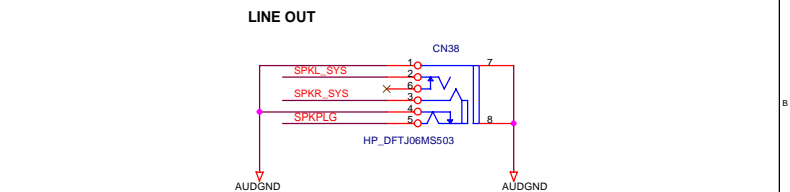
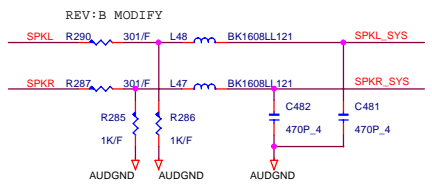
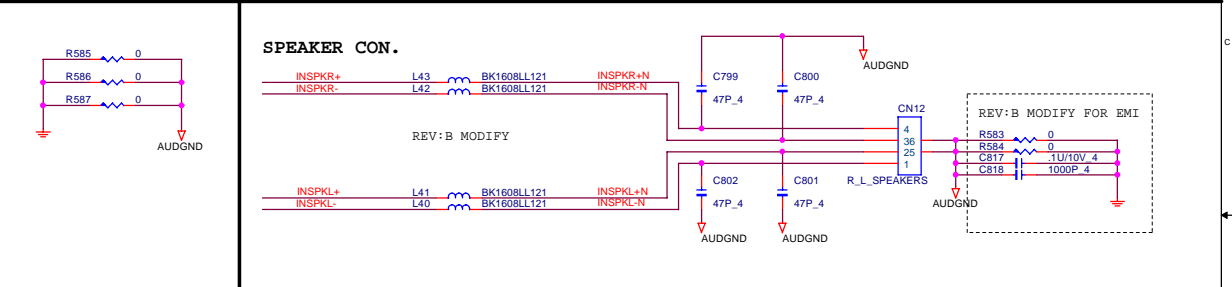
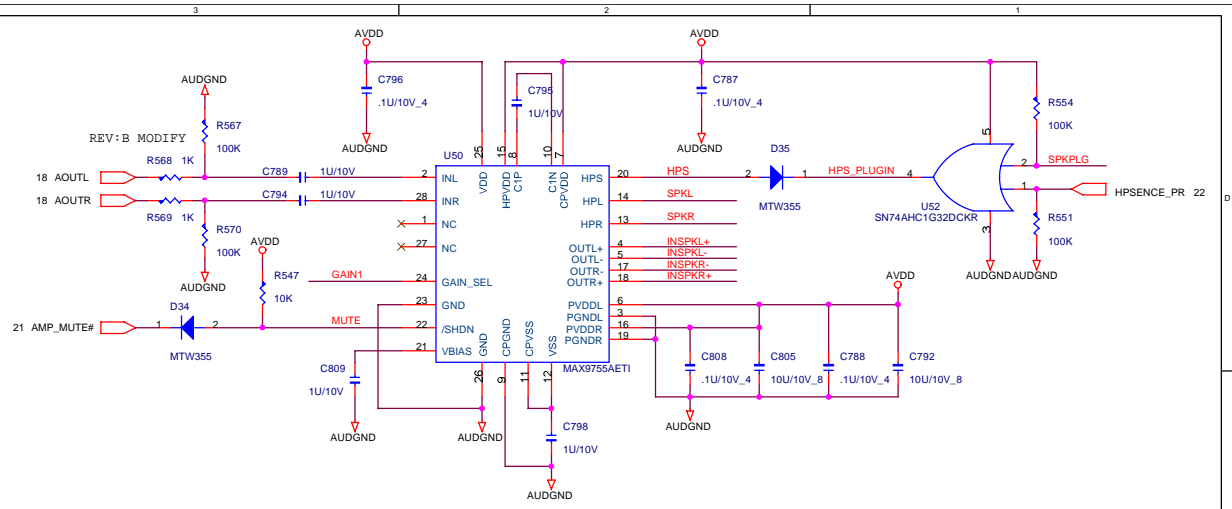
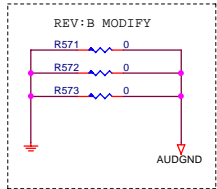
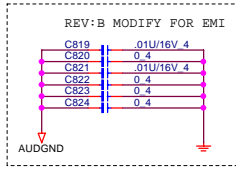
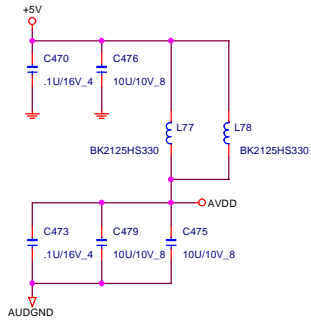




GAIN1	SPKR MODE	HP MODE
0	10.5	3
1	9	0



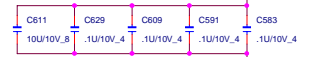
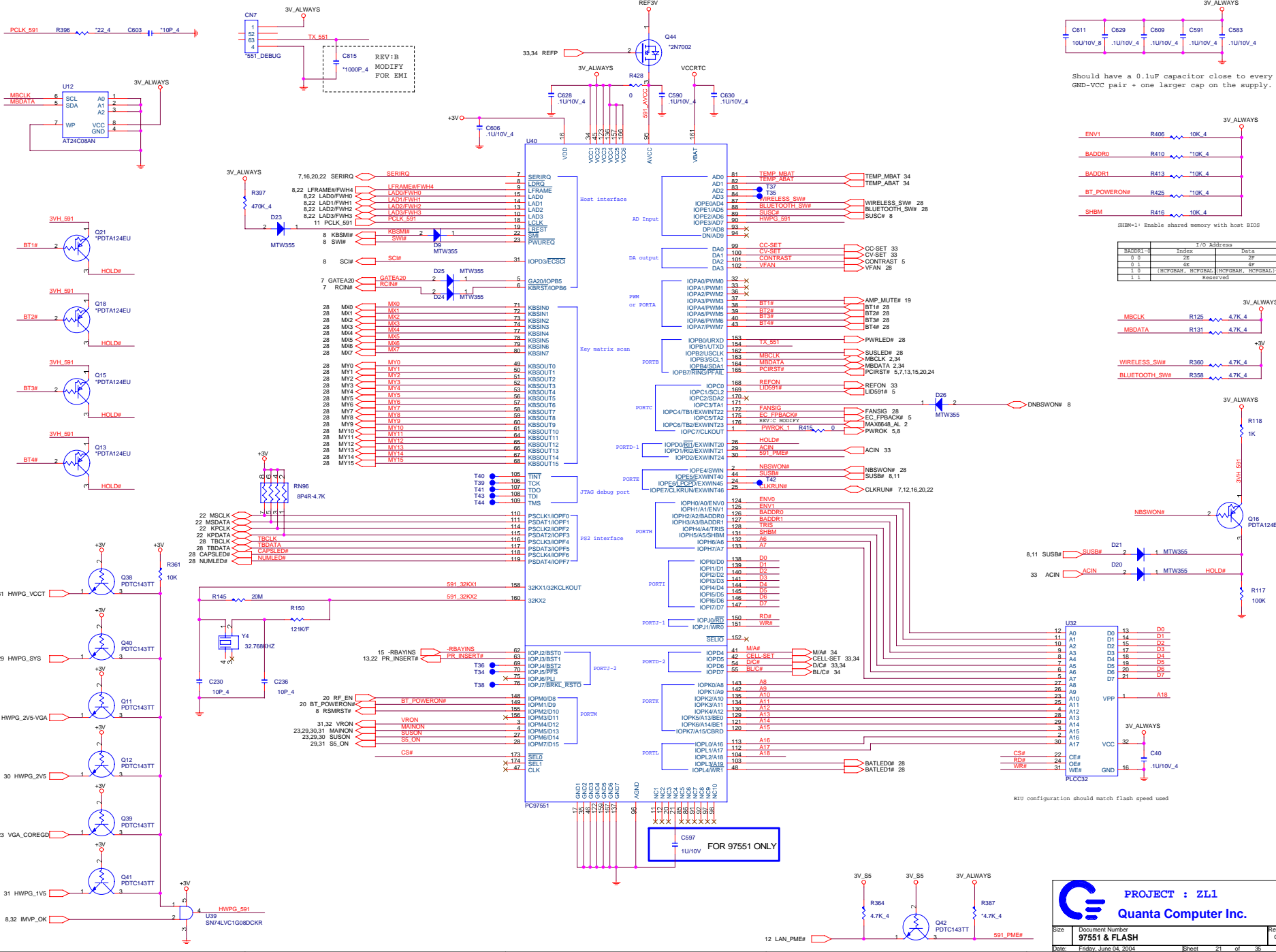
AMP POWER



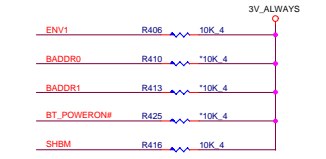
**PROJECT : ZL1**  
**Quanta Computer Inc.**

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	<b>AUDIO AMP</b>	C3A
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LDRQ#(pin 8) internal is no use

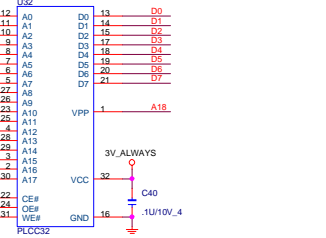
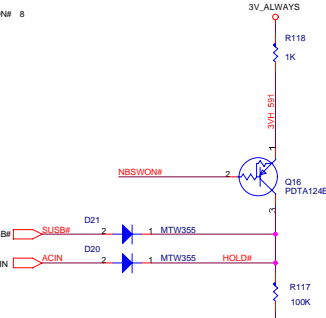
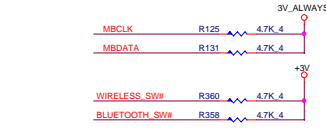


Should have a 0.1uF capacitor close to every GND-VCC pair + one larger cap on the supply.



SHRM#1: Enable shared memory with host BIOS

I/O Address		
BA0R1-1	Index	Data
0 0	2E	2F
0 1	4E	4F
1 0	(Reserved)	(Reserved)
1 1	(Reserved)	(Reserved)

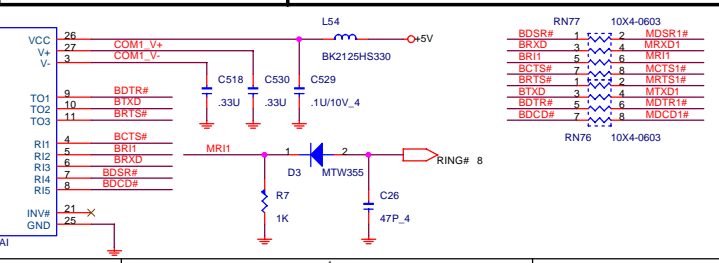
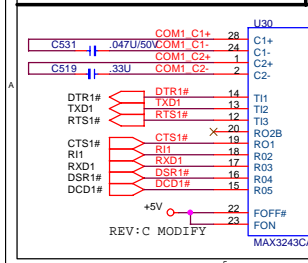
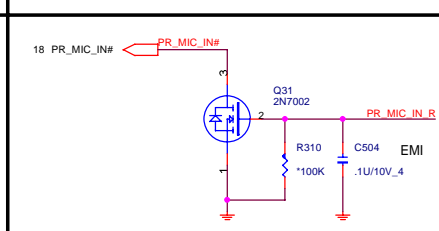
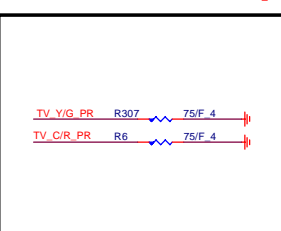
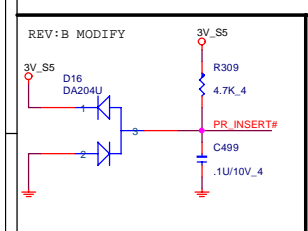
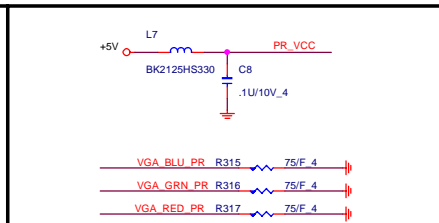
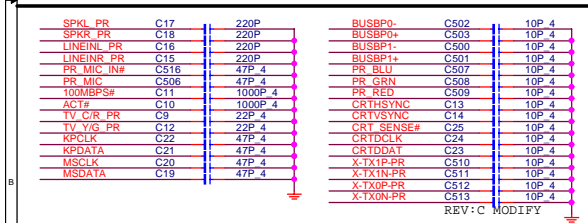
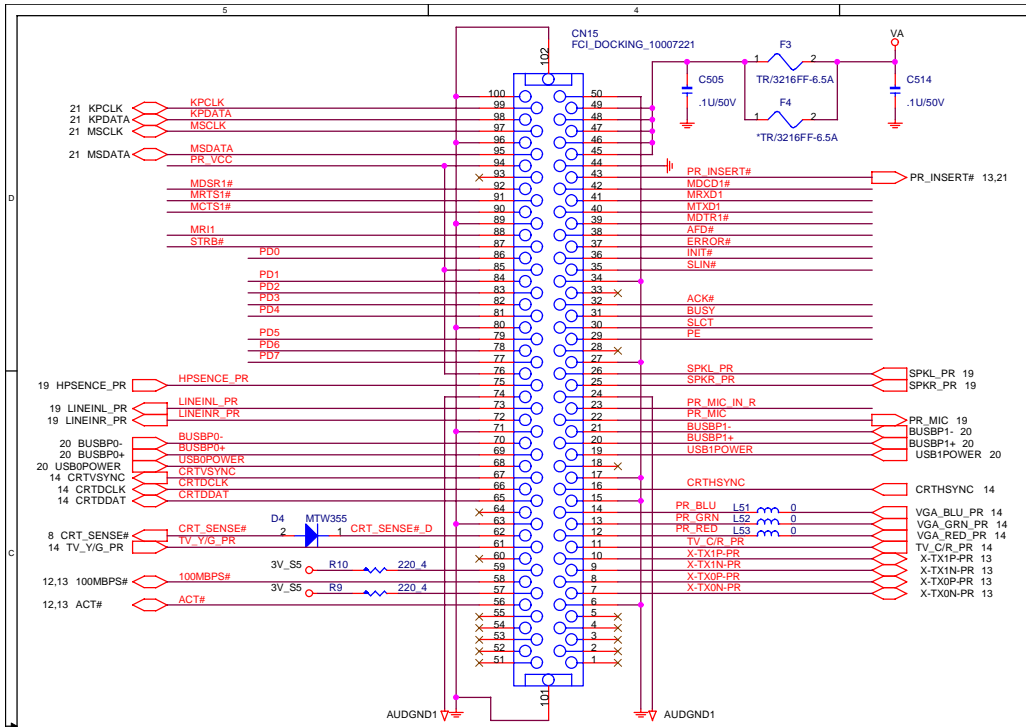


BTU configuration should match flash speed used

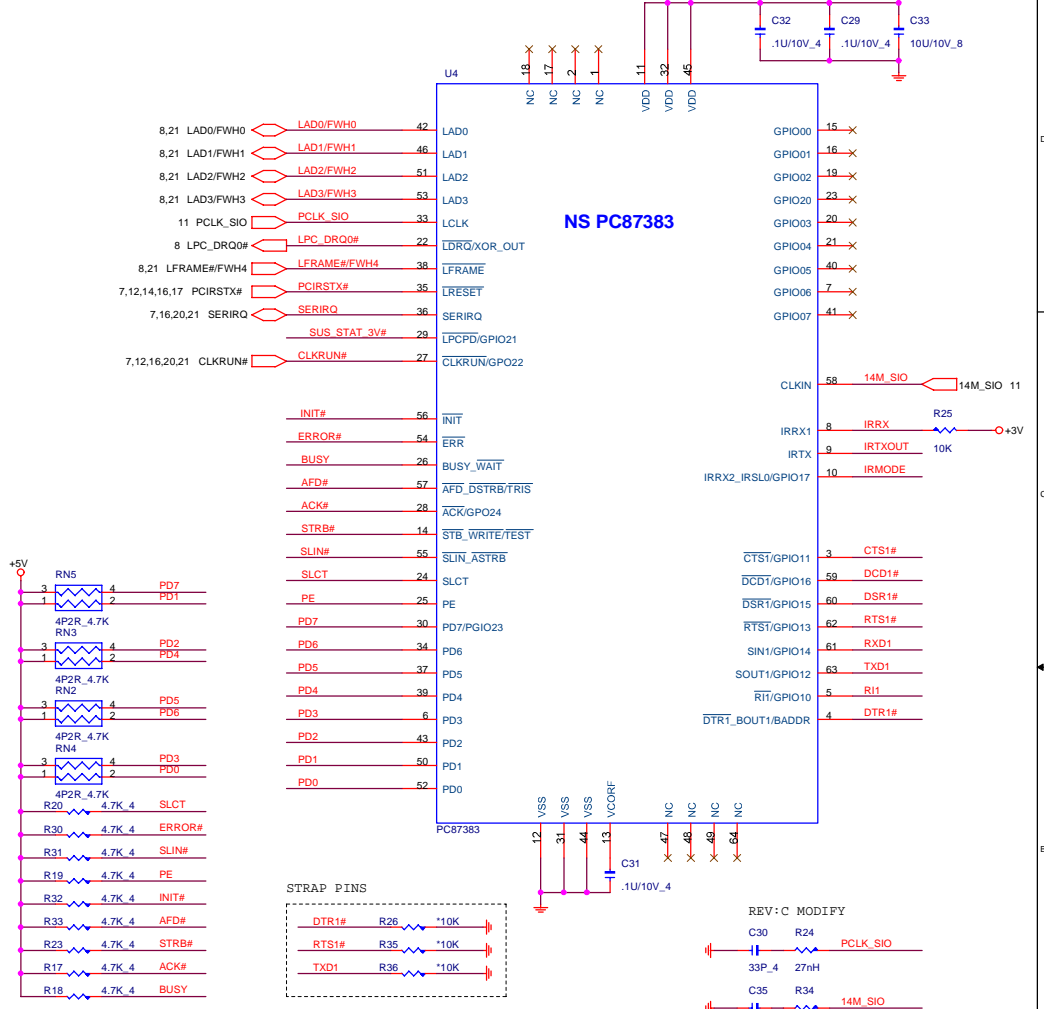
**PROJECT : ZL1**  
**Quanta Computer Inc.**

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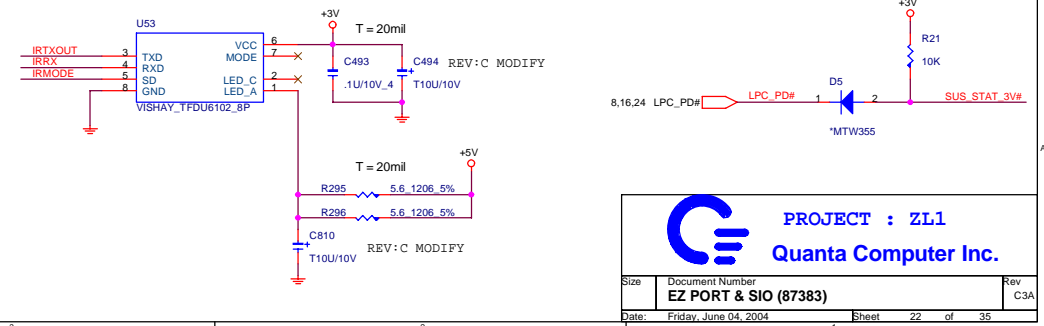




SUPER I/O



IrDA

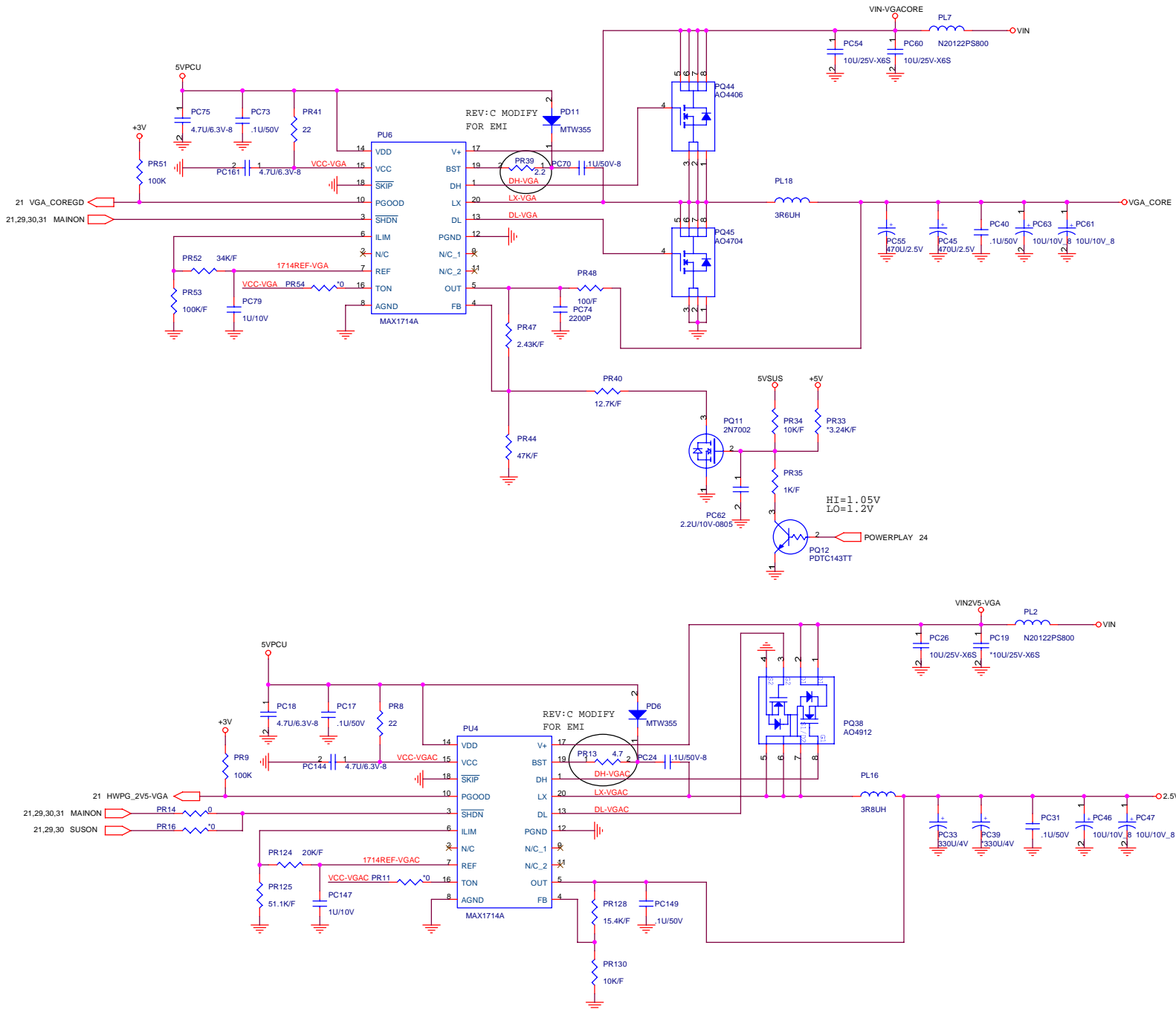


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**Quanta Computer Inc.**

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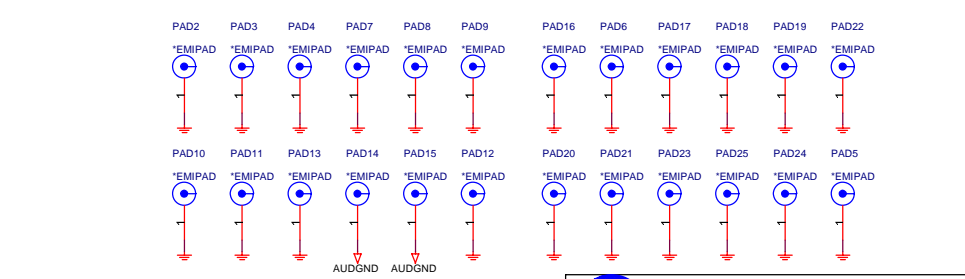
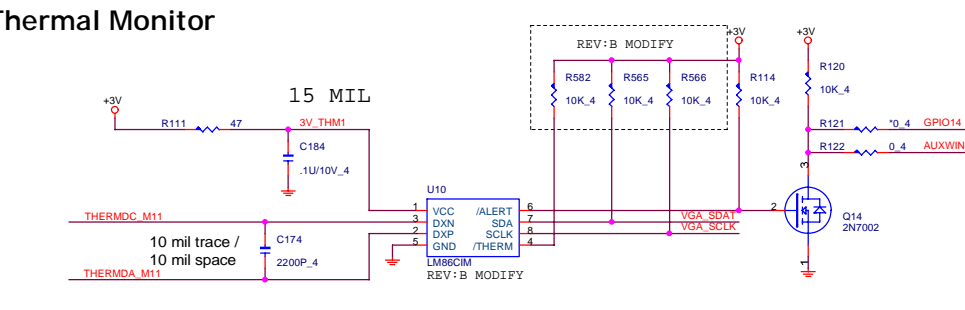
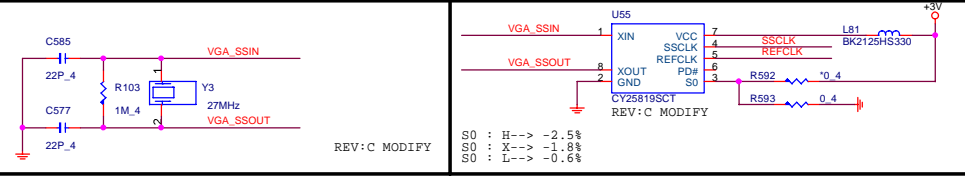
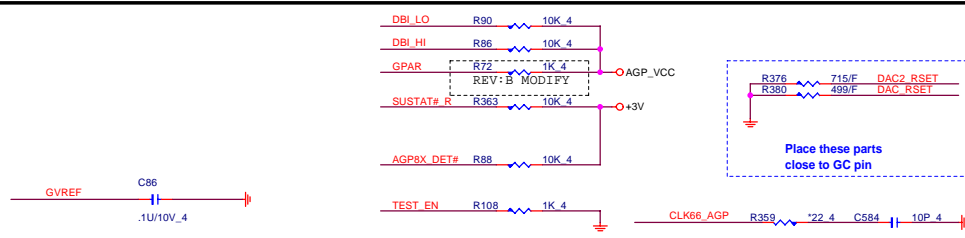
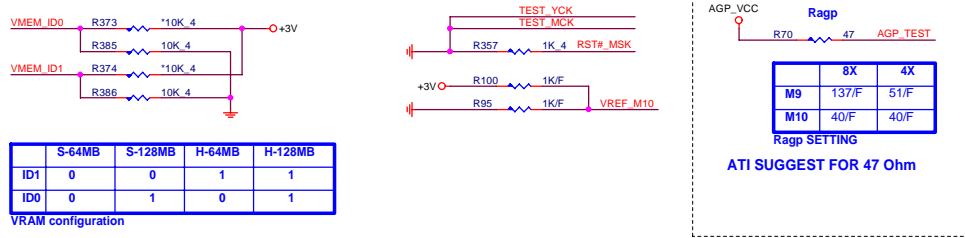
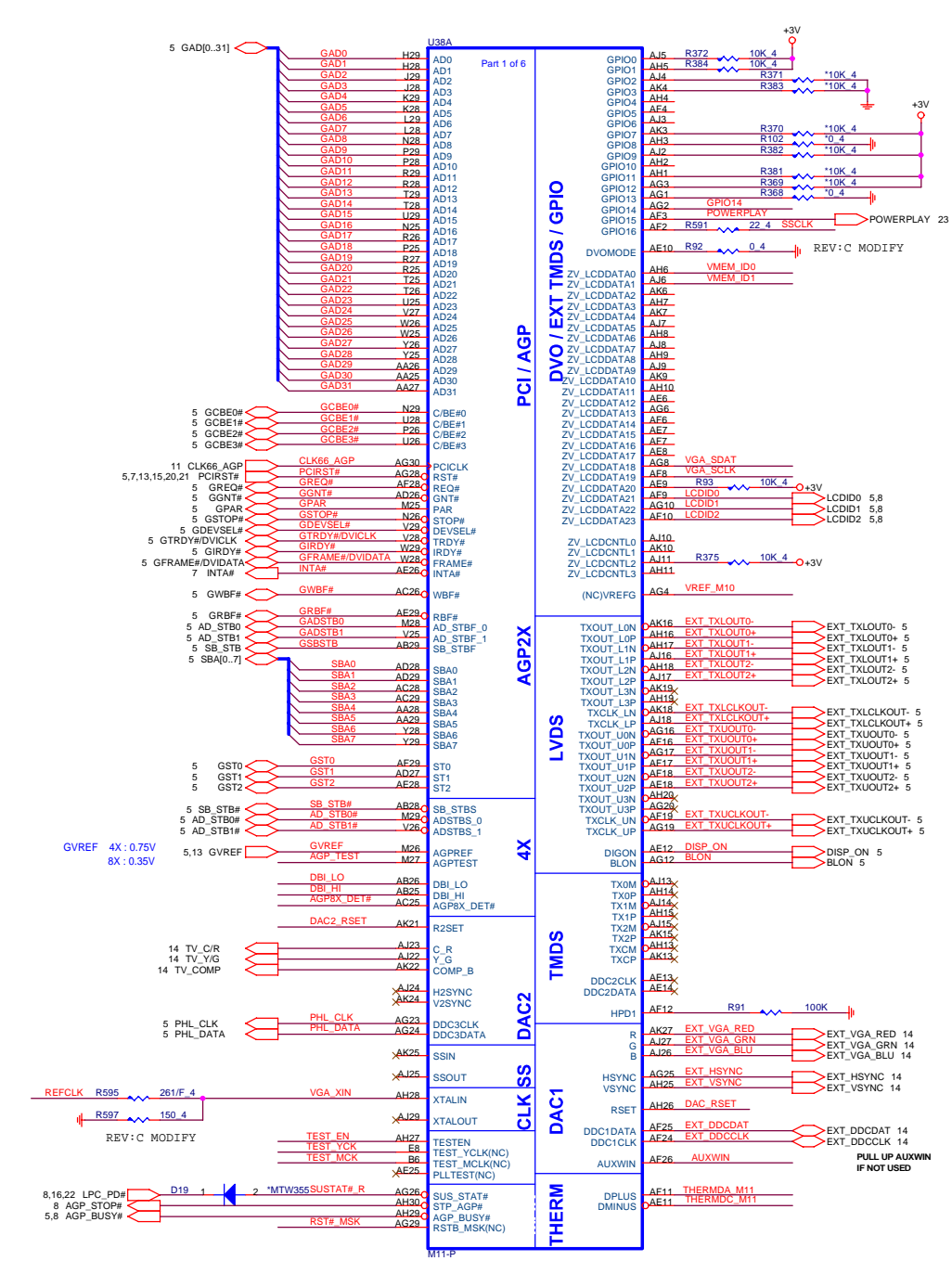
# M11 Core & BATTERY



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**Quanta Computer Inc.**

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	<b>VGA CORE / VRAM POWER</b>	C3A
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# VGA (AGP, DISPLAY)

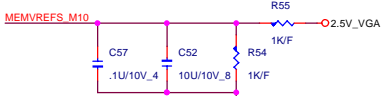
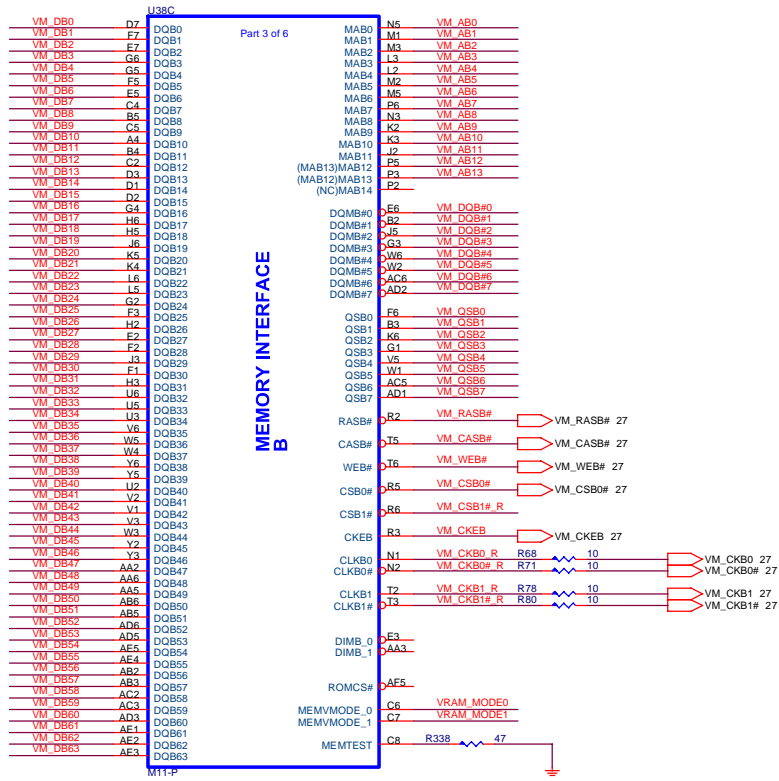
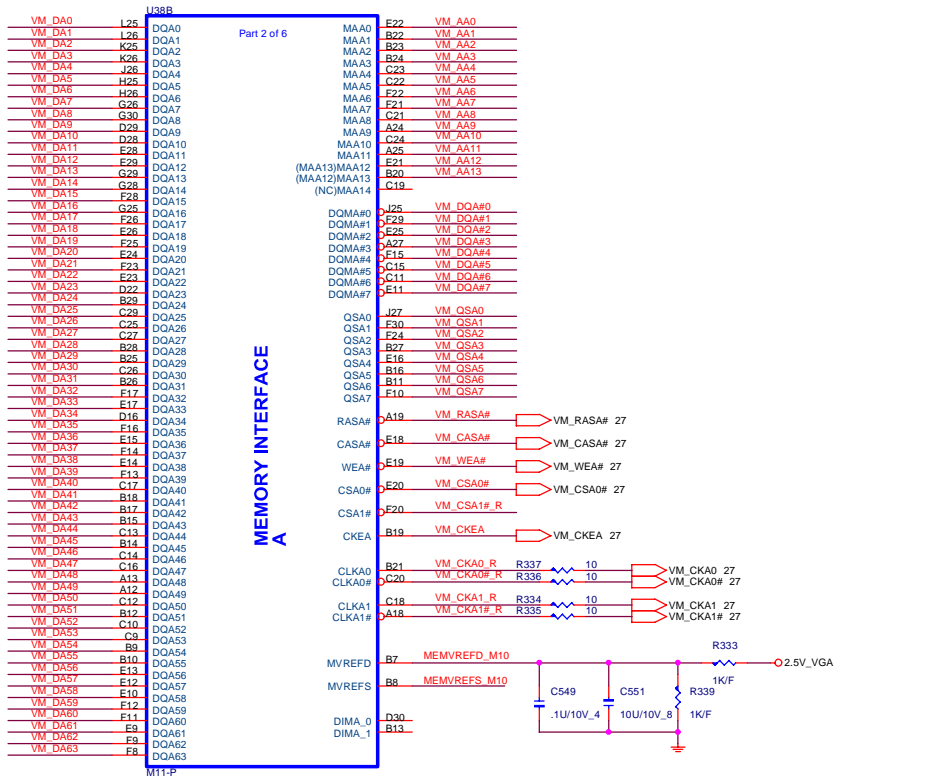
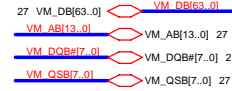
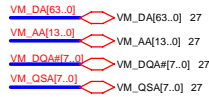


**PROJECT : ZL1**  
**Quanta Computer Inc.**

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# VGA(MEMORY I/F)



Mount these parts when use hynix 256Mb(8Mx32) VRAM chip

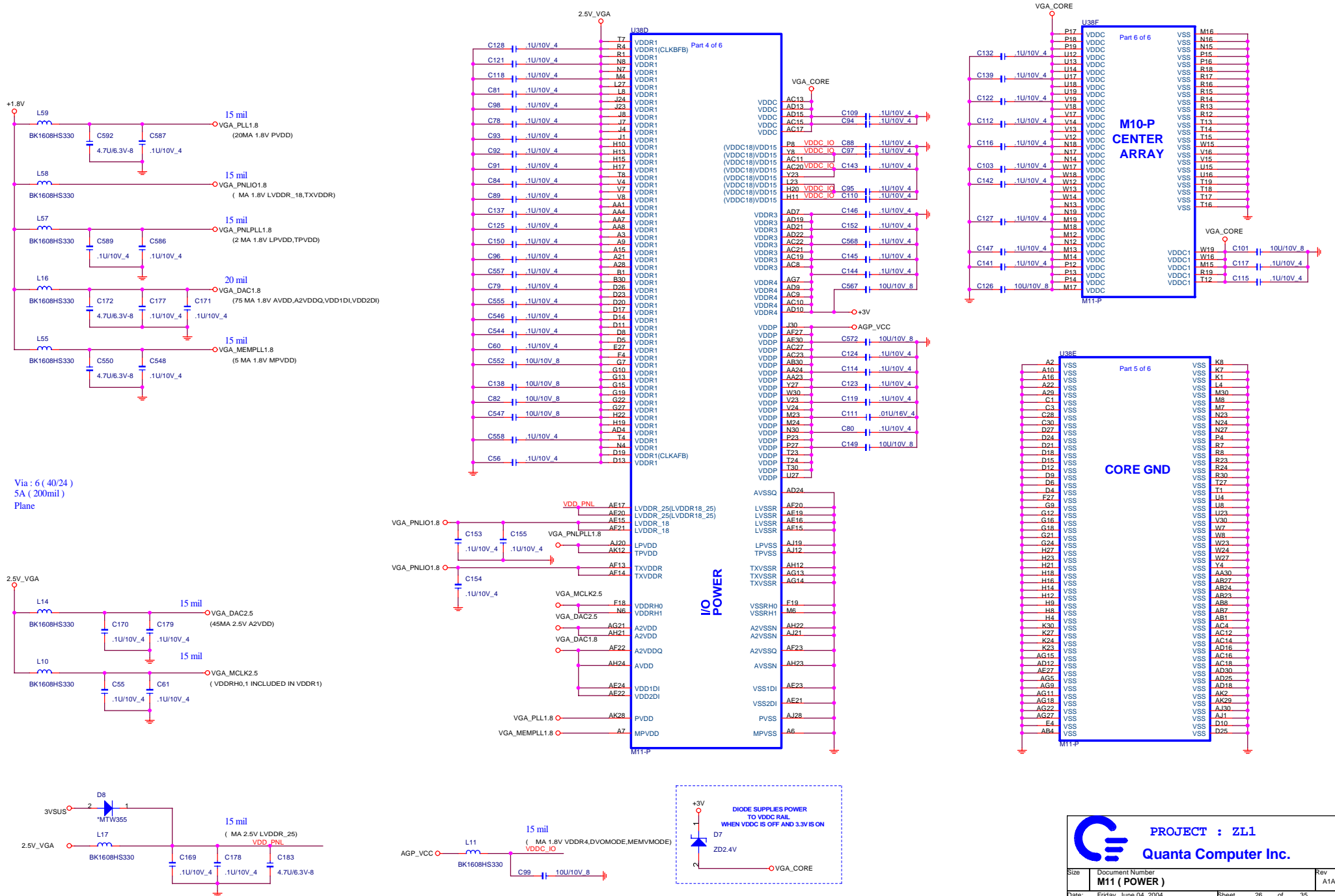
	VRAM_MODE1	VRAM_MODE0
2.5V	0	1
1.8V	1	0
2.8V	1	1


VRAM type setting

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**Quanta Computer Inc.**

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# VGA(POWER)



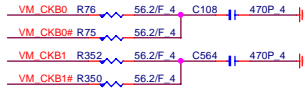
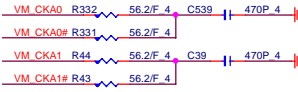


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**Quanta Computer Inc.**

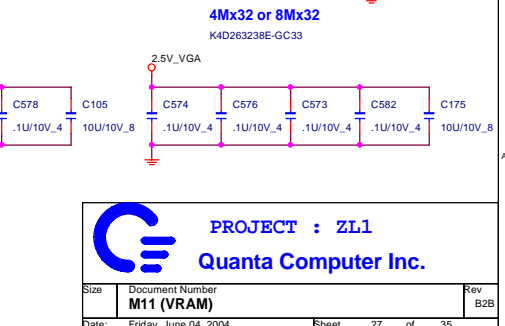
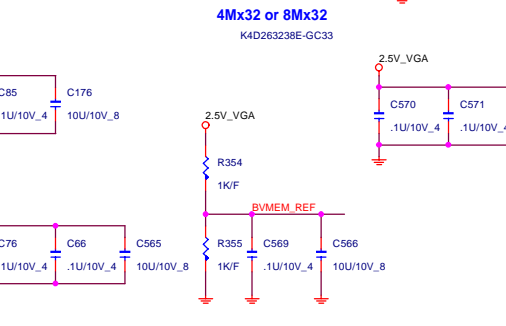
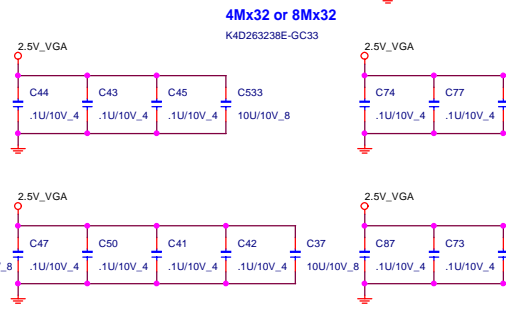
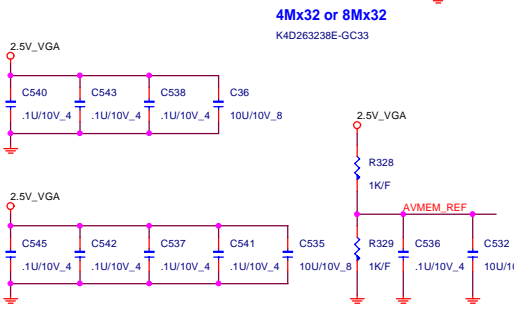
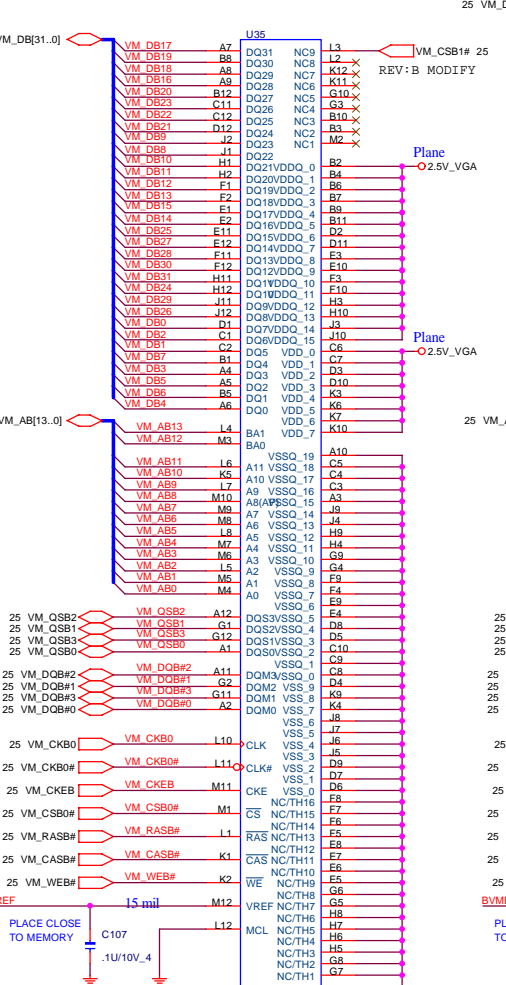
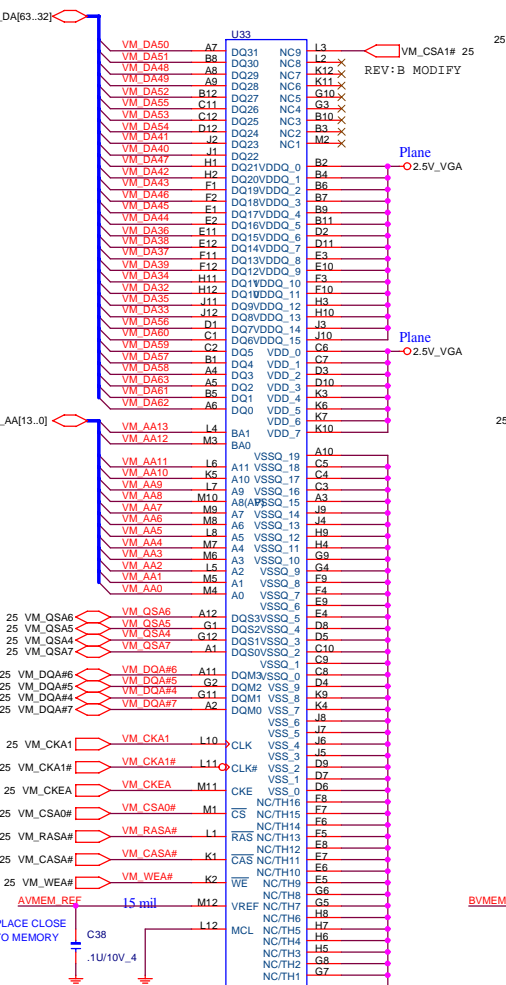
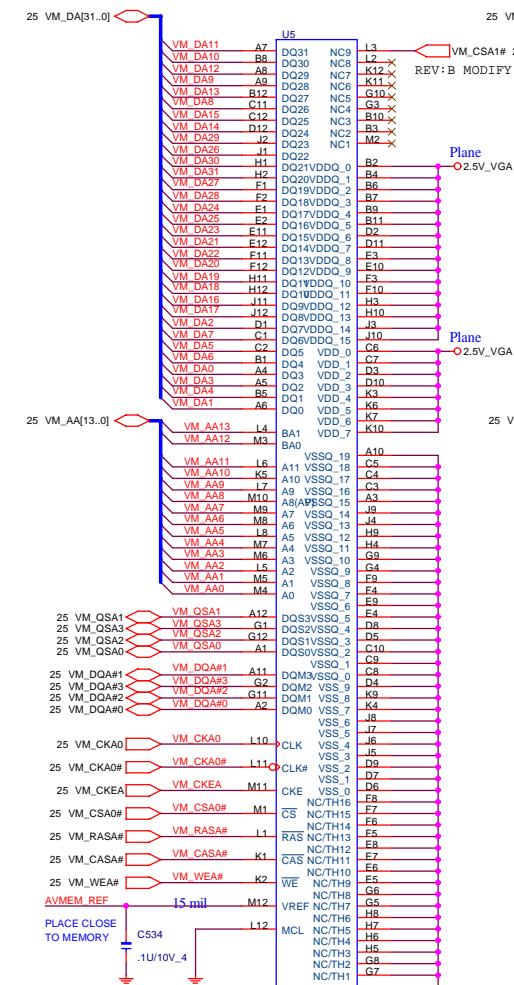
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VGA(VRAM)

VRAM Channel A

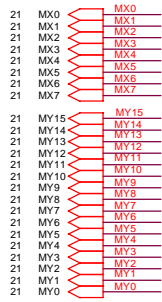


VRAM Channel B

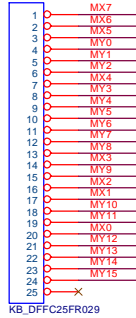


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Quanta Computer Inc.  
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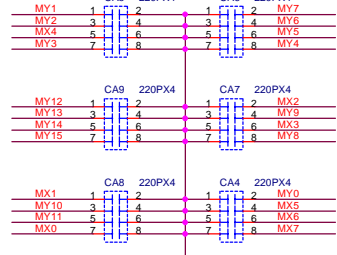
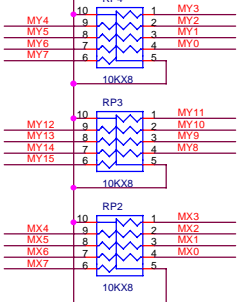
**INT K/B**



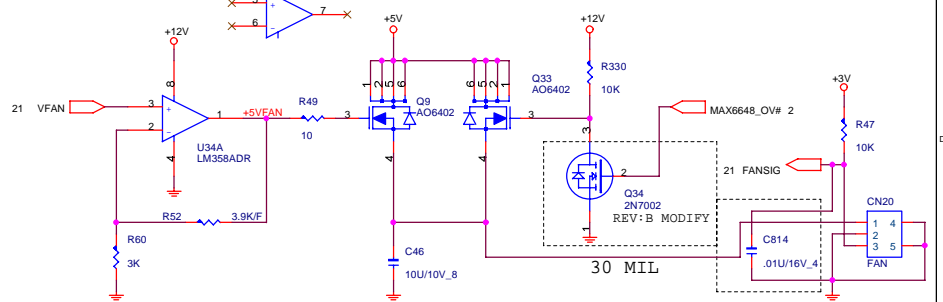
**REV:C MODIFY**



**3V\_ALWAYS**

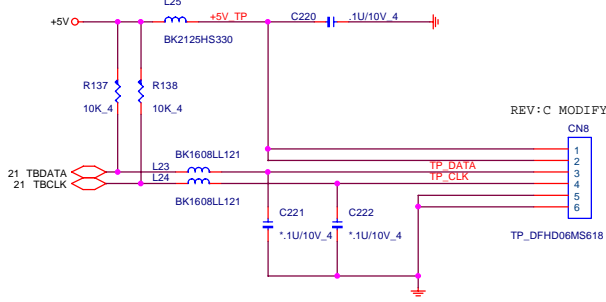


**FAN CONTROL**

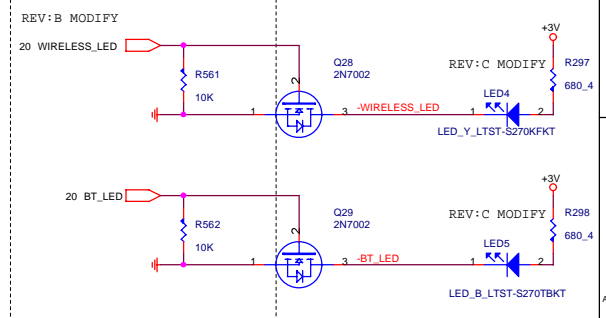
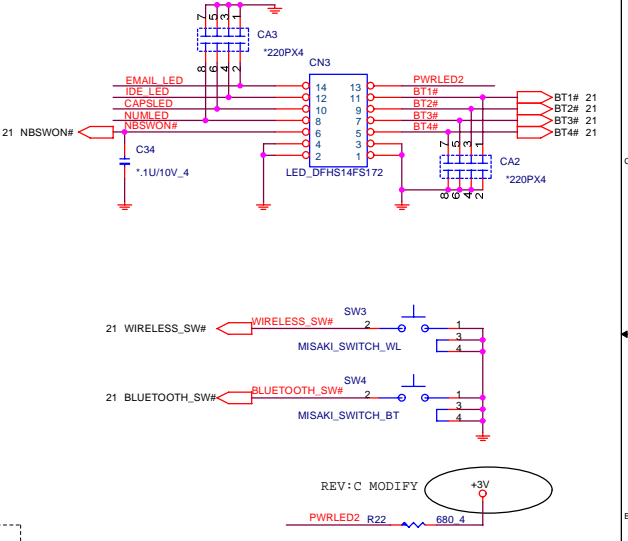
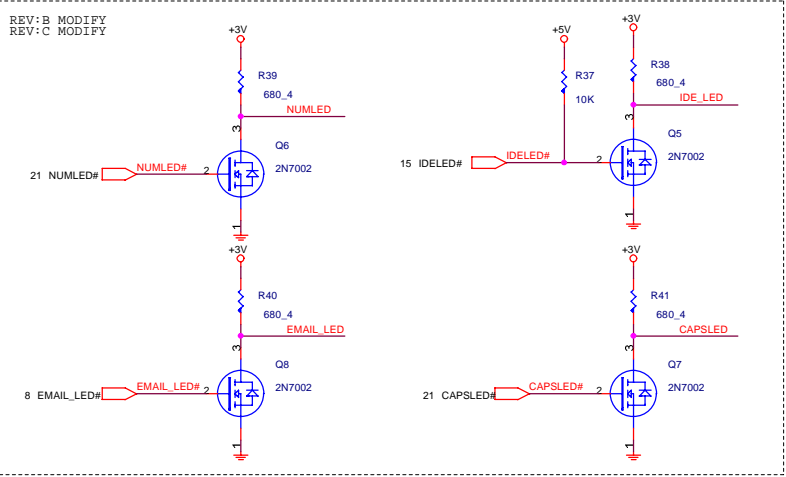
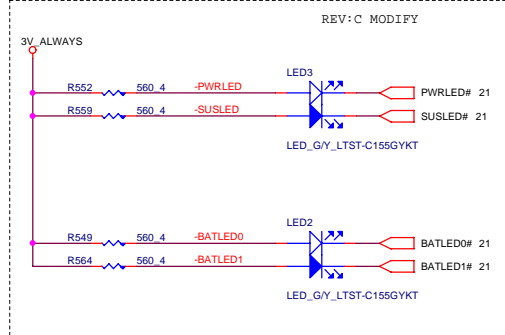
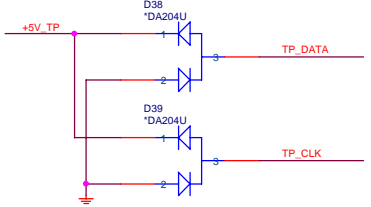


**TOUCH PAD**

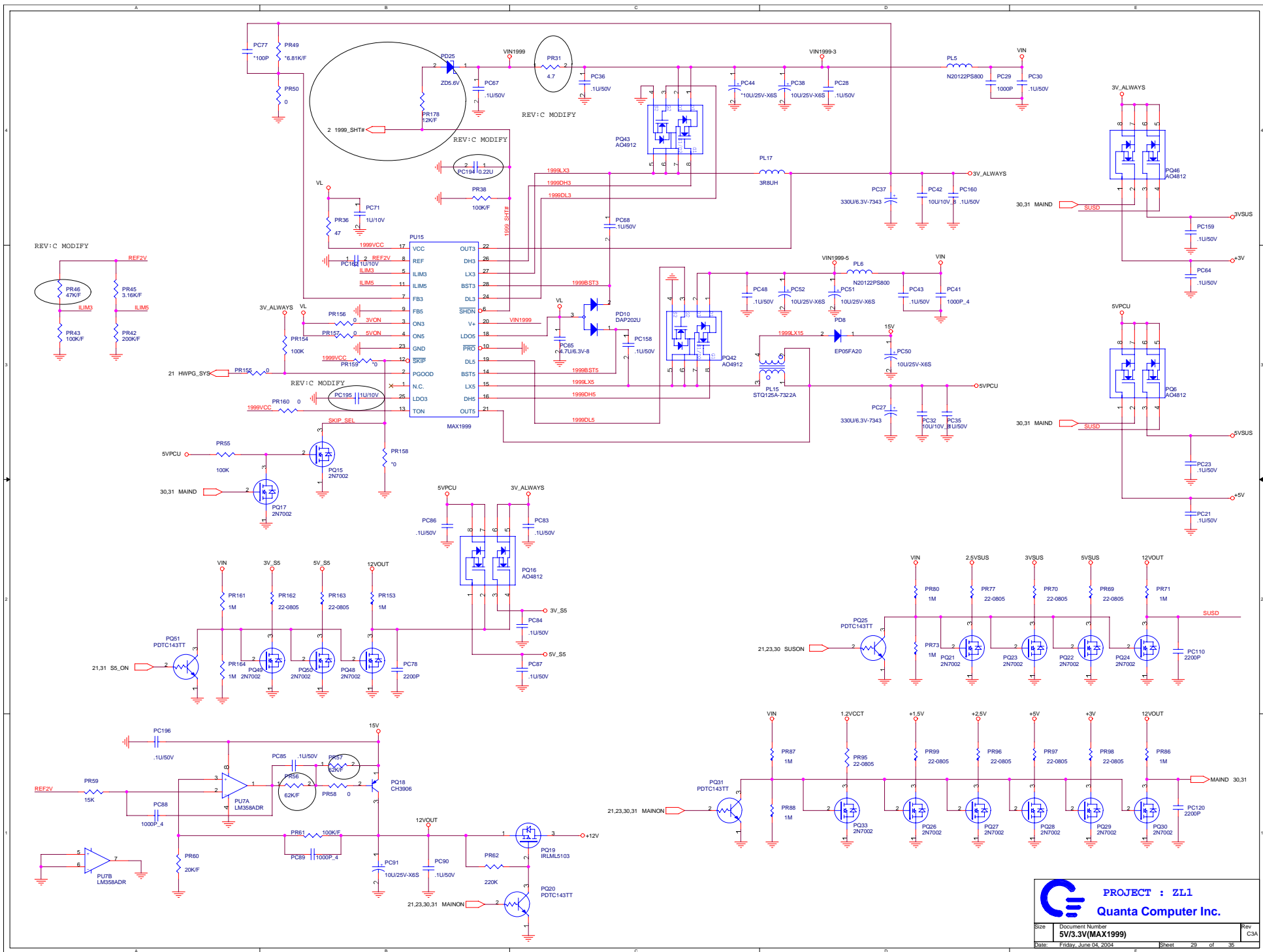
**20 MIL**

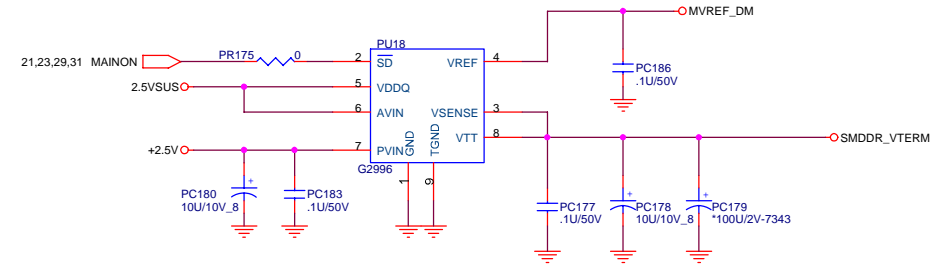
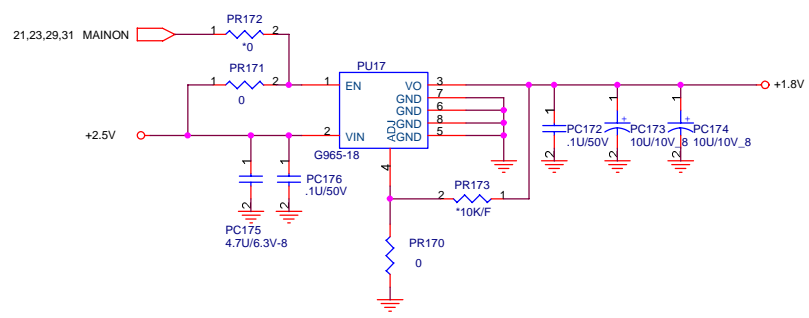
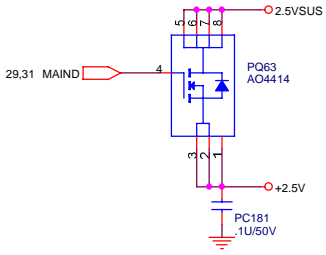
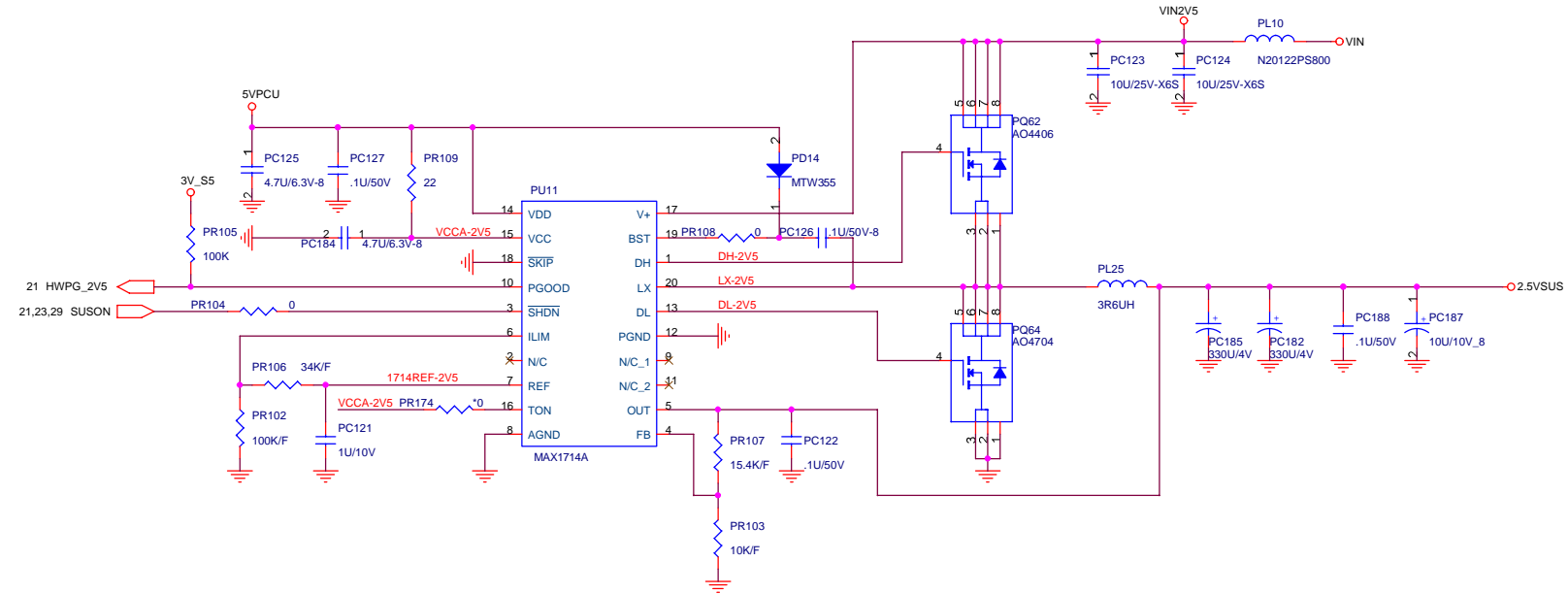



**REV:C MODIFY**



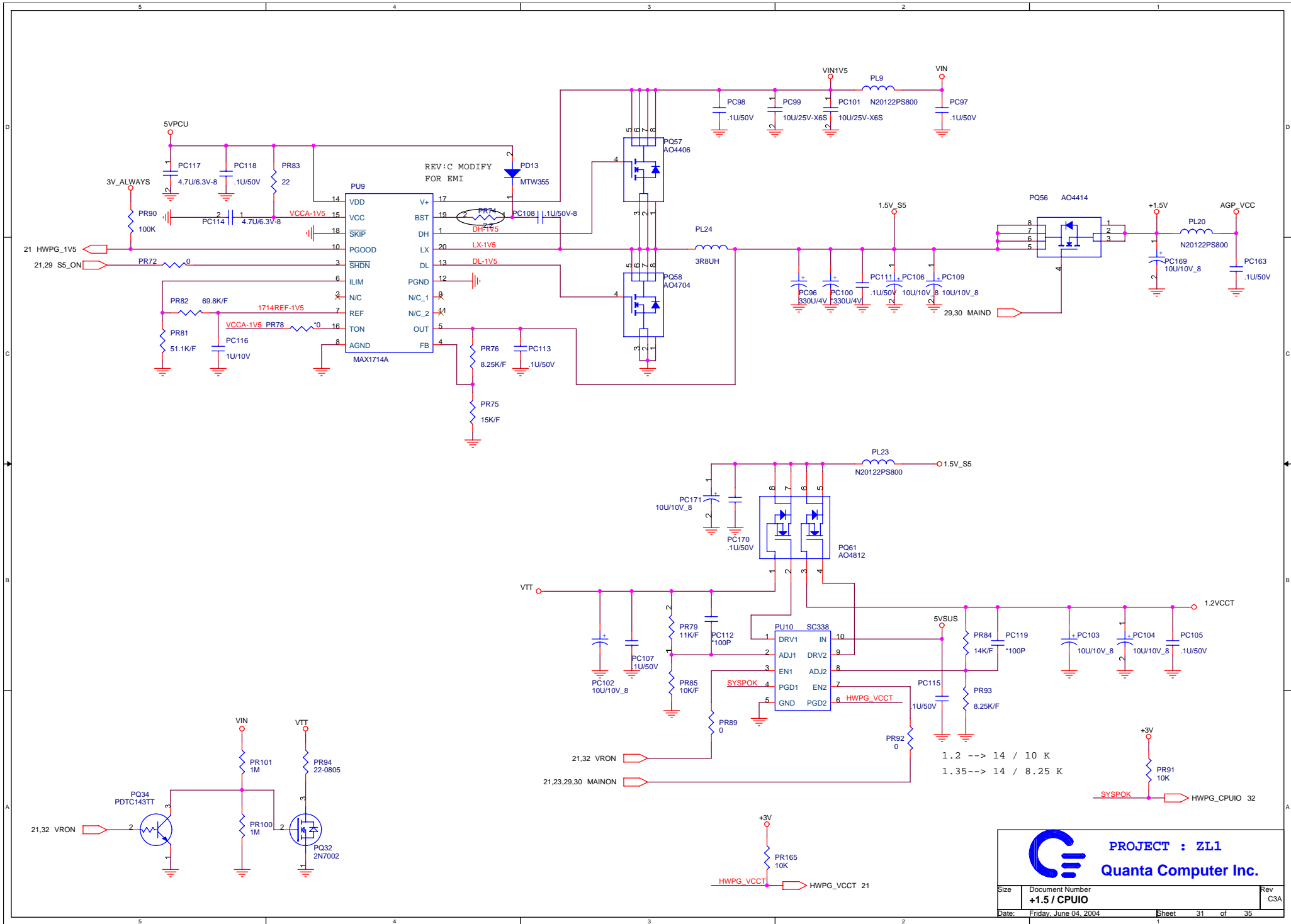
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**Quanta Computer Inc.**





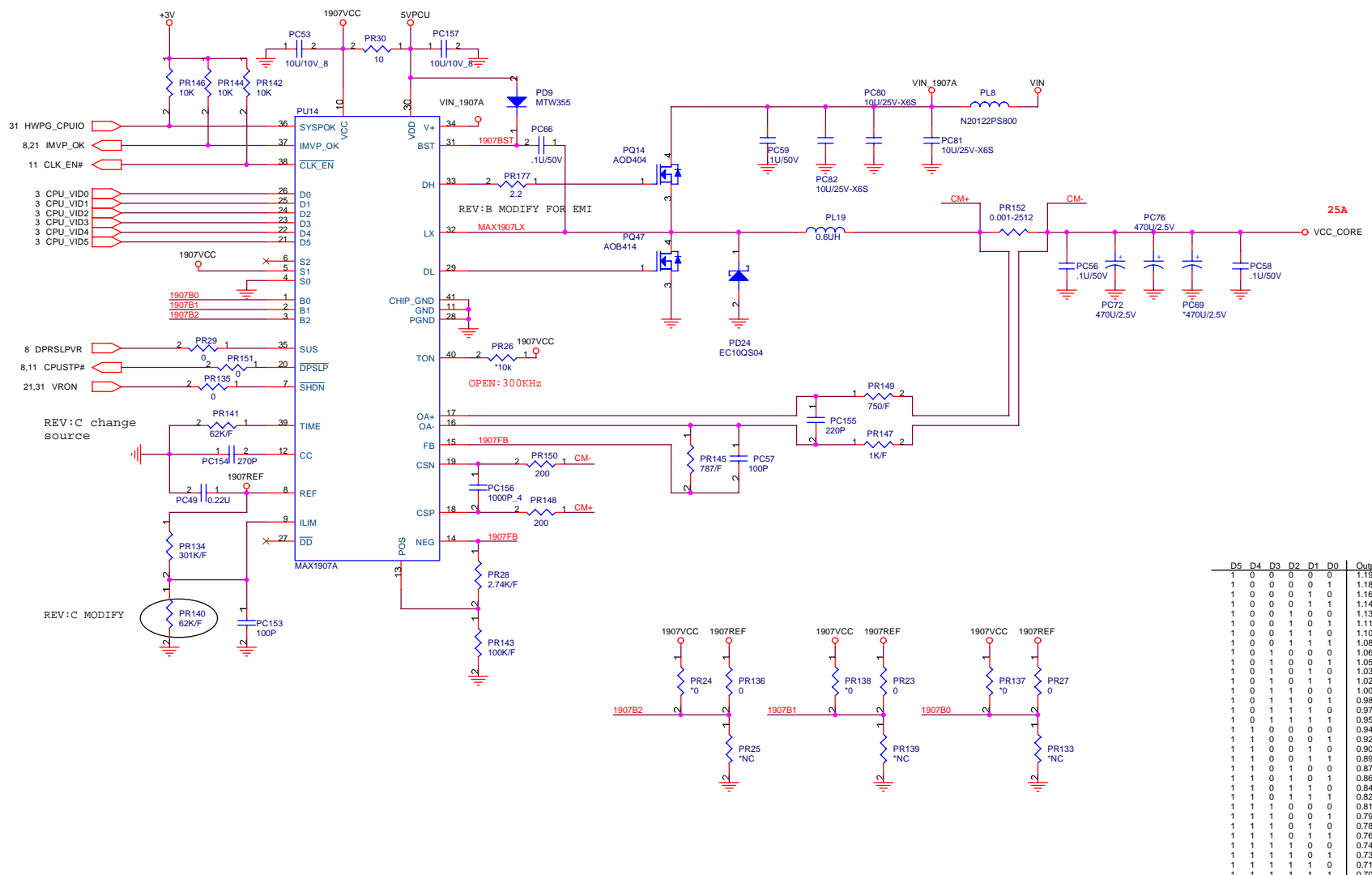

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**Quanta Computer Inc.**

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D5	D4	D3	D2	D1	D0	Output	D5	D4	D3	D2	D1	D0	Output
1	0	0	0	0	0	1.196V	0	0	0	0	0	0	1.708V
1	0	0	0	0	1	1.180V	0	0	0	0	0	1	1.692V
1	0	0	0	1	0	1.164V	0	0	0	0	1	0	1.676V
1	0	0	1	1	1	1.148V	0	0	0	1	0	1	1.660V
1	0	1	0	0	0	1.132V	0	0	1	0	0	0	1.644V
1	0	1	0	1	1	1.116V	0	0	1	0	1	0	1.628V
1	0	1	1	0	0	1.100V	0	0	1	1	0	0	1.612V
1	0	1	1	1	1	1.084V	0	0	1	1	1	1	1.596V
1	1	0	0	0	0	1.068V	0	1	0	0	0	0	1.580V
1	1	0	0	0	1	1.052V	0	1	0	0	1	0	1.564V
1	1	0	0	1	0	1.036V	0	1	0	1	0	1	1.548V
1	1	0	1	1	1	1.020V	0	1	1	0	1	1	1.532V
1	1	1	0	0	0	1.004V	0	1	1	1	0	0	1.516V
1	1	1	0	1	1	0.988V	0	1	1	1	1	1	1.500V
1	1	1	1	1	0	0.972V	0	1	1	1	1	0	1.484V
1	1	1	1	1	1	0.956V	0	1	1	1	1	1	1.468V
1	1	0	0	0	0	0.940V	0	1	0	0	0	0	1.452V
1	1	0	0	0	1	0.924V	0	1	0	0	1	0	1.436V
1	1	0	0	1	0	0.908V	0	1	0	1	0	1	1.420V
1	1	0	1	1	1	0.892V	0	1	1	0	1	1	1.404V
1	1	1	0	0	0	0.876V	0	1	1	1	0	0	1.388V
1	1	1	0	1	1	0.860V	0	1	1	1	1	1	1.372V
1	1	1	1	0	0	0.844V	0	1	1	1	1	0	1.356V
1	1	1	1	1	1	0.828V	0	1	1	1	1	1	1.340V
1	1	1	0	0	0	0.812V	0	1	1	0	0	0	1.324V
1	1	1	0	0	1	0.796V	0	1	1	0	1	0	1.308V
1	1	1	0	1	0	0.780V	0	1	1	0	1	0	1.292V
1	1	1	1	1	1	0.764V	0	1	1	1	1	1	1.276V
1	1	1	1	0	0	0.748V	0	1	1	1	0	0	1.260V
1	1	1	1	1	0	0.732V	0	1	1	1	1	0	1.244V
1	1	1	1	1	1	0.716V	0	1	1	1	1	1	1.228V
1	1	1	1	1	1	0.700V	0	1	1	1	1	1	1.212V

SUSPEND MODE (SUS=HIGH)

S2	S1	S0	Output
✓ OPEN	VCC	GND	0.748V

VCC\_BOOT

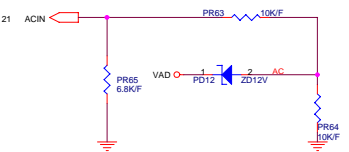
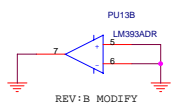
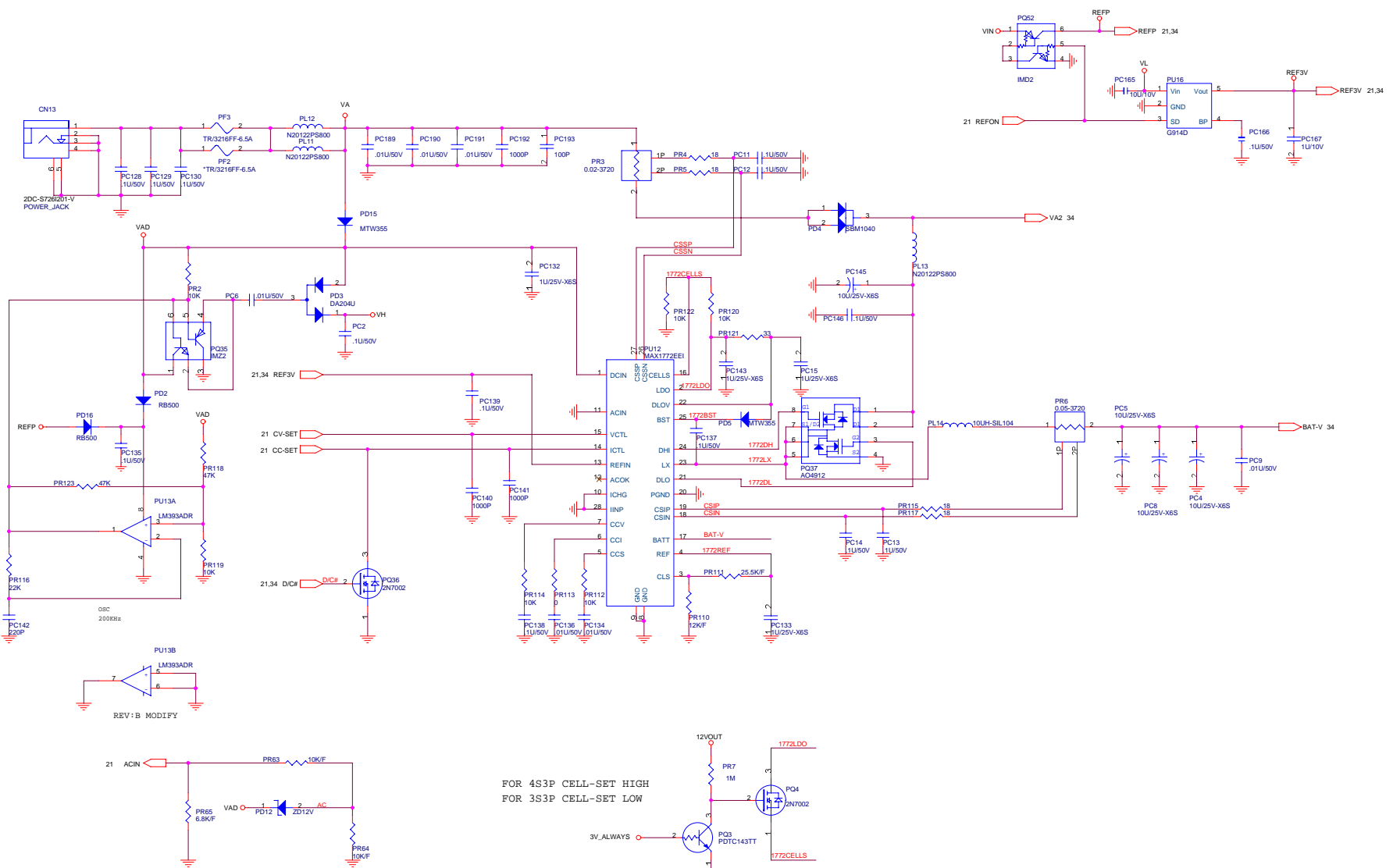
B2	B1	B0	Output
✓ GND	GND	GND	1.708V
REF	REF	REF	1.372V
OPEN	OPEN	OPEN	1.036V
VCC	VCC	VCC	0.700V
REF	VCC	VCC	1.212V



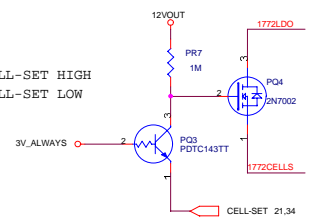
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**Quanta Computer Inc.**

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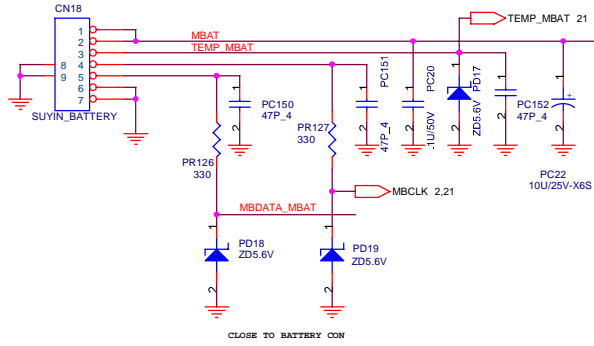




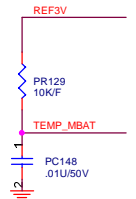
FOR 4S3P CELL-SET HIGH  
FOR 3S3P CELL-SET LOW



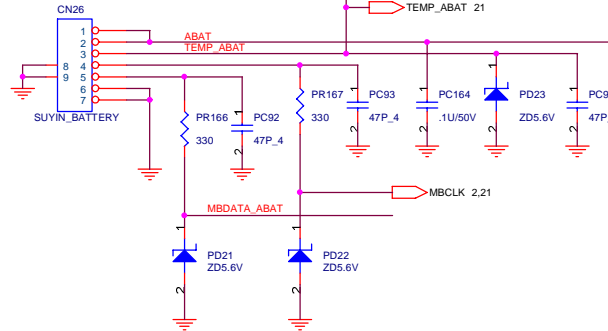
1ST\_BATT\_CONN



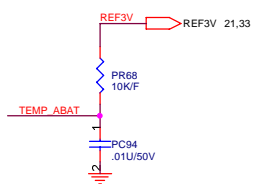
CLOSE TO BATTERY CON



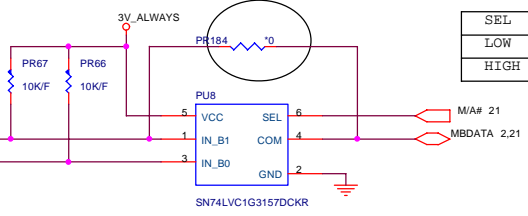
2ND\_BATT\_CONN



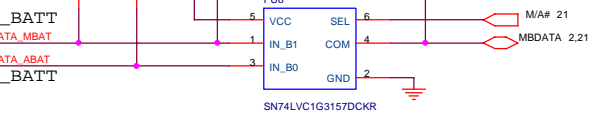
CLOSE TO BATTERY CON



1ST\_BATT  
MBDATA\_MBAT  
MBDATA\_ABAT  
2ND\_BATT



SEL	FUNCTION
LOW	IN_B0
HIGH	IN_B1




SN74LVC1G3157DCKR

SEL FUNCTION

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**Quanta Computer Inc.**

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MODEL:	REV:	CHANGE LIST:	PAGE	FROM	TO
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			3	A1A	
			4	A1A	
			5	B2B	
			6	A1A	
			7	A1A	
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			10	A1A	
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			12	B2B	C3A
			13	B2B	C3A
			14	B2B	C3A
			15	B2B	
			16	A1A	C3A
			17	A1A	C3A
			18	B2B	C3A
			19	B2B	C3A
			20	B2B	C3A
			21	A1A	C3A
			22	B2B	C3A
			23	B2B	C3A
			24	B2B	C3A
			25	A1A	
			26	A1A	
			27	B2B	
			28	B2B	C3A
			29	B2B	C3A
			30	A1A	
			31	A1A	C3A
			32	B2B	C3A
			33	B2B	
			34	B2B	C3A
			35	B2B	C3A
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