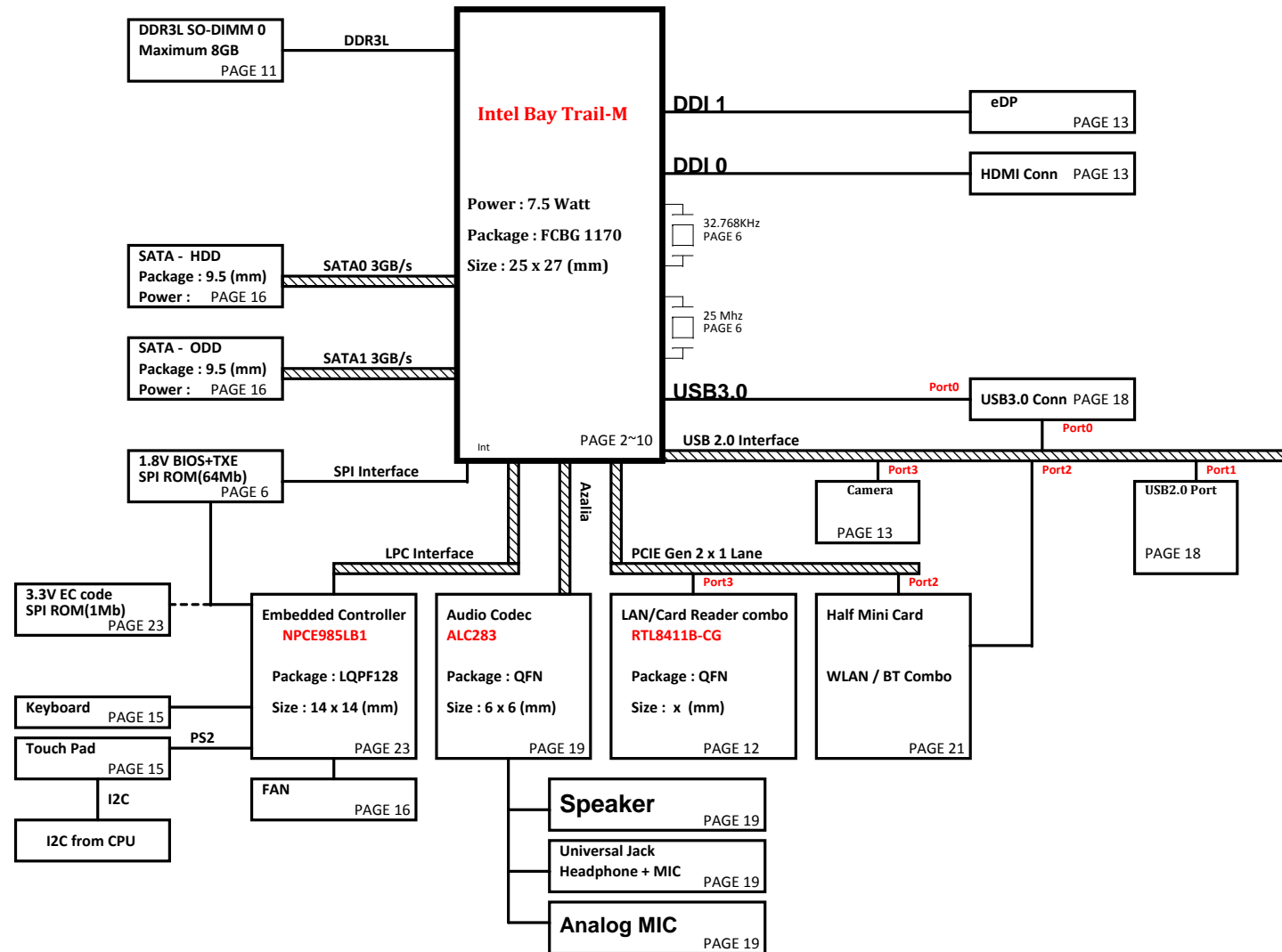


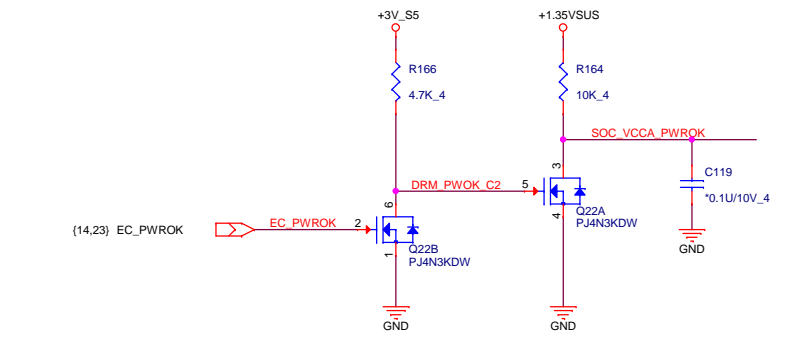
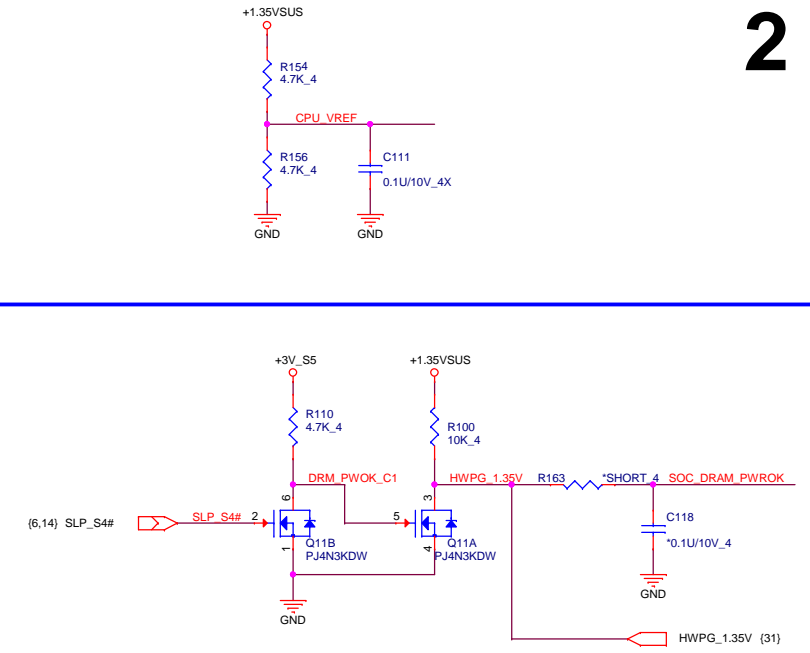
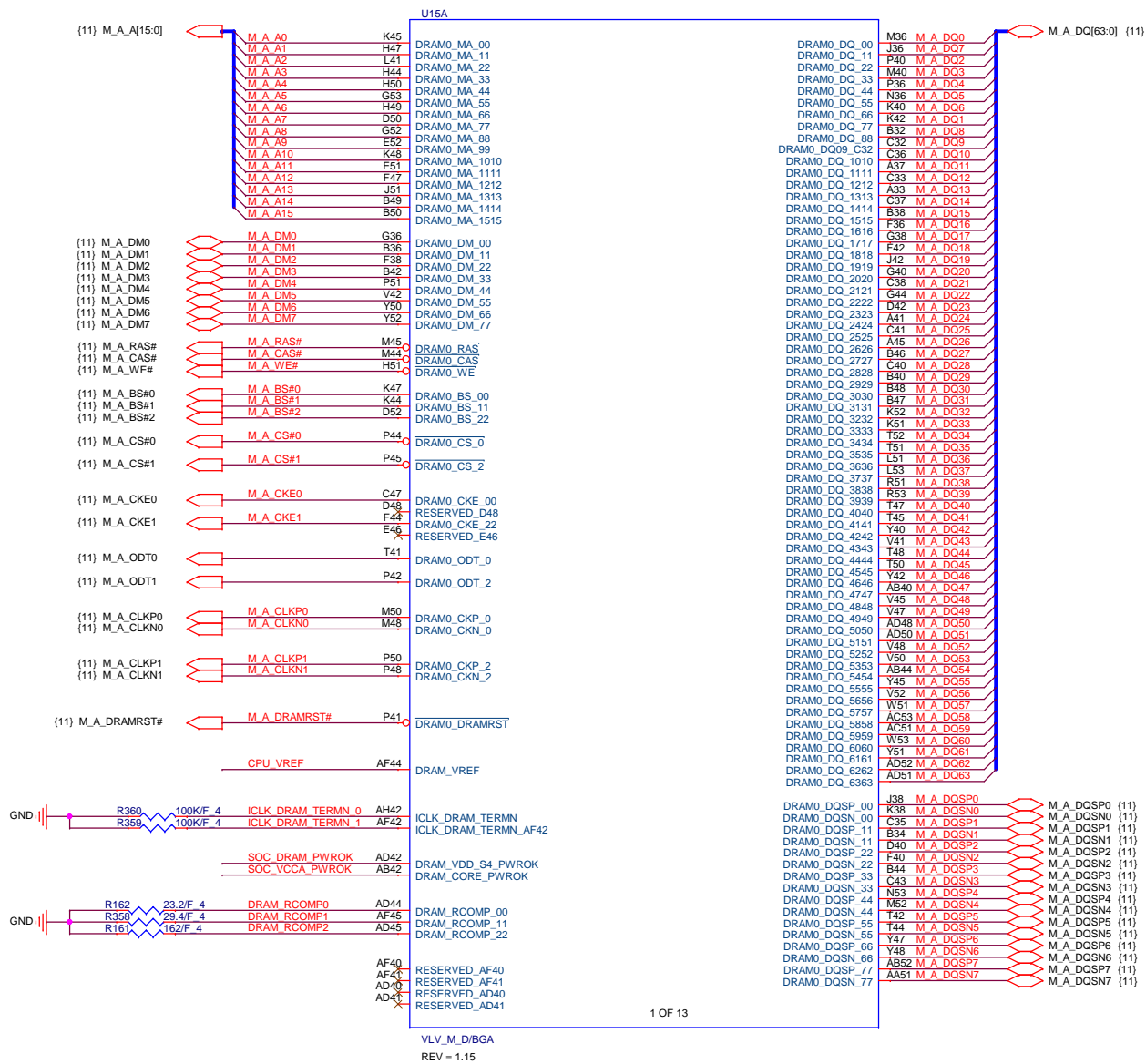
Z8A UMA(14")

Intel Bay Trail-M Platform Block Diagram

PCB 4L STACK UP

LAYER 1 : TOP
LAYER 2 : SVCC
LAYER 3 : SGND
LAYER 4 : BOT





Quanta Computer Inc.

PROJECT : Z8A


Size Document Number Valley 1/9 (DDRA) Rev 1A

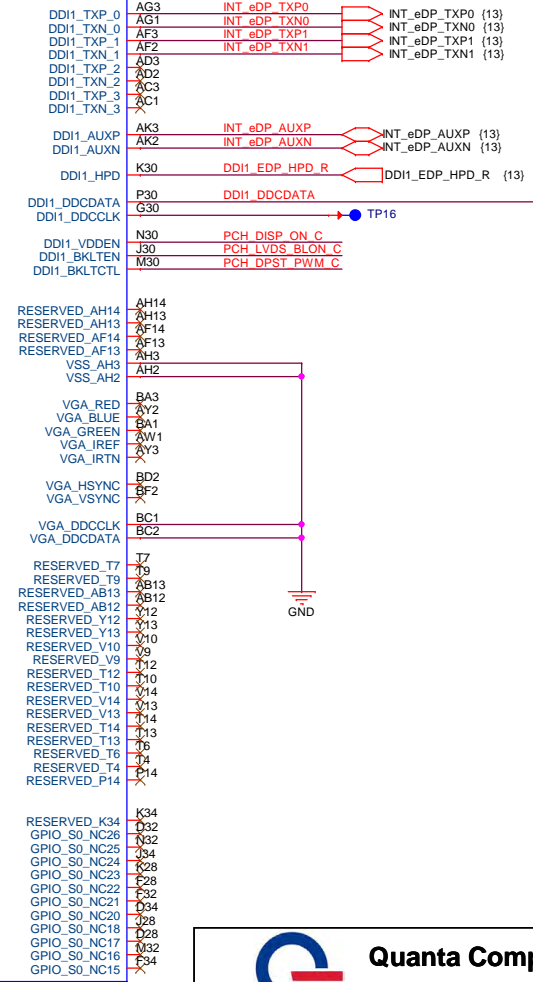
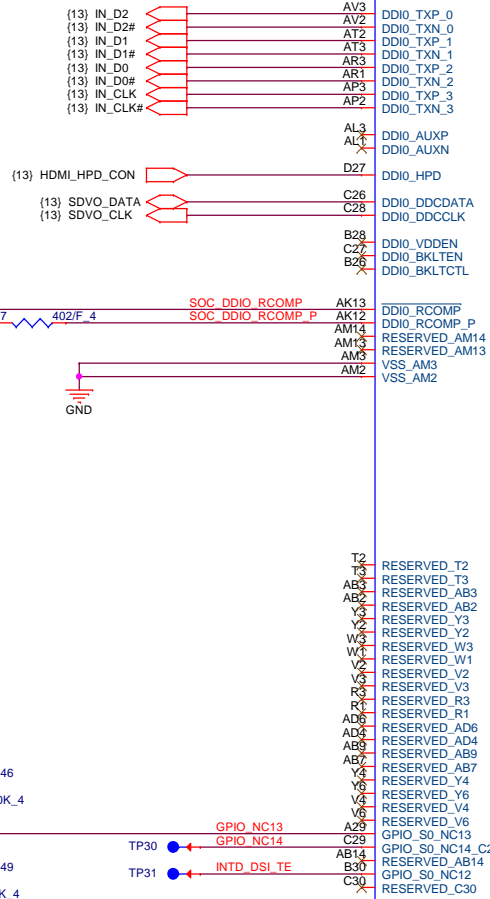
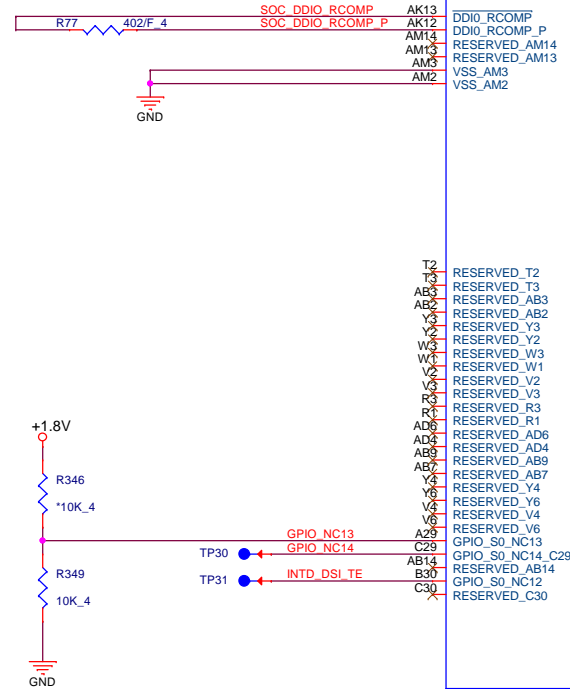
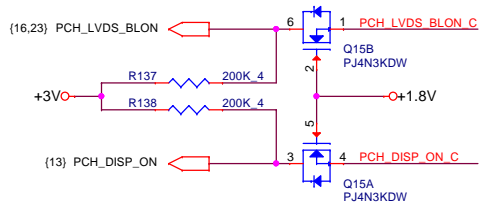
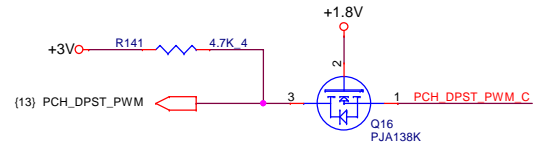
Date: Thursday, July 31, 2014 Sheet 2 of 33

2 OF 13

AT41  DRAM1_DRAMRST


DRAM1_DQSP_00	BF40
DRAM1_DQSN_00	BD40
DRAM1_DQSP_11	BC35
DRAM1_DQSN_11	BH34
DRAM1_DQSN_11	BA38
DRAM1_DQSP_22	BY38
DRAM1_DQSN_22	BH44
DRAM1_DQSP_33	BC43
DRAM1_DQSN_33	AU53
DRAM1_DQSP_44	AV52
DRAM1_DQSN_44	AP42
DRAM1_DQSP_55	AP44
DRAM1_DQSN_55	AK47
DRAM1_DQSP_66	AK48
DRAM1_DQSN_66	AH52
DRAM1_DQSP_77	AJ51
DRAM1_DQSN_77	

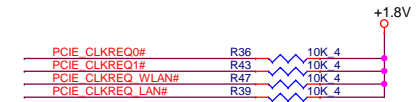
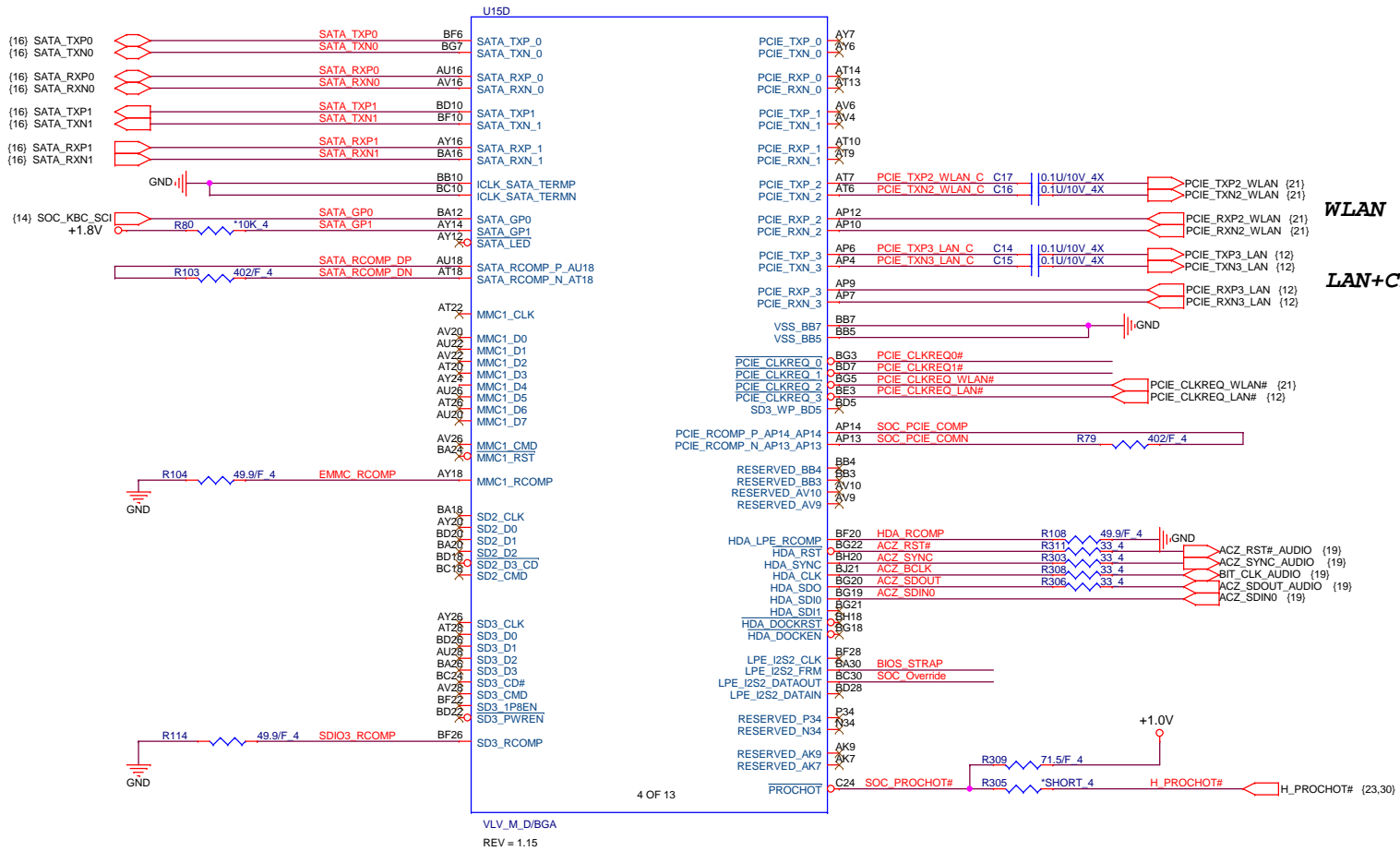
 <div> Quanta Computer Inc. PROJECT : Z8A </div>		
Size	Document Number	Rev
	Valley 2/9 (DDRB)	1A
Date:	Thursday, July 31, 2014	Sheet 3 of 33



3 OF 13

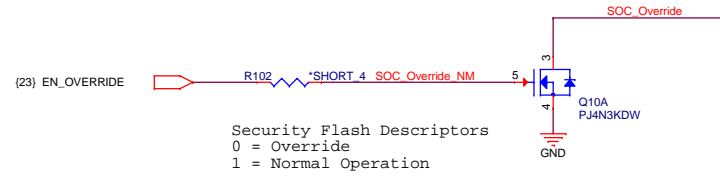
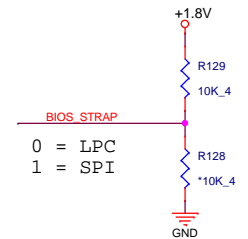
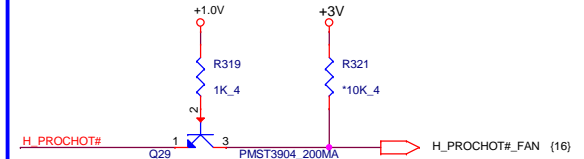
VLV_M_D/BGA
REV = 1.15

 Quanta Computer Inc. PROJECT : Z8A		Rev
		1A
Size	Document Number	
Valley 3/9 (Display)		
Date:	Thursday, July 31, 2014	Sheet 4 of 33



WLAN

LAN+CR



Security Flash Descriptors
0 = Override
1 = Normal Operation

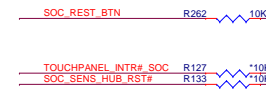
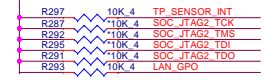
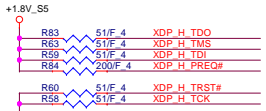
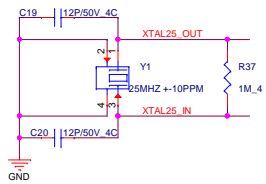


AC Present: This input pin indicates when the platform is plugged into AC power.

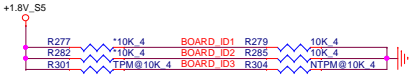


Quanta Computer Inc.
PROJECT : Z8A

Size	Document Number	Rev
	Valley 4/9 (SD/PCIE/SATA)	1A
Date:	Thursday, July 31, 2014	Sheet 5 of 33

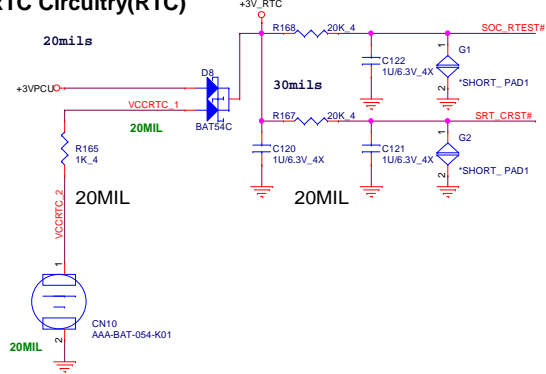


BOARD ID

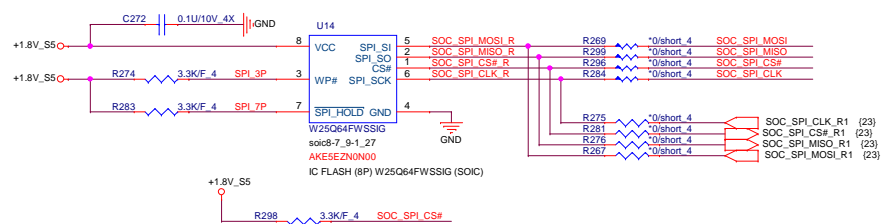


BOARD_ID1 No use (Default "L")
BOARD_ID2 "R1" W/ touch panel; "Low" W/O touch panel
BOARD_ID3 "H" for TPM; "L" for W/O TPM

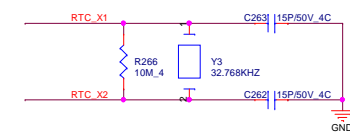
RTC Circuitry(RTC)

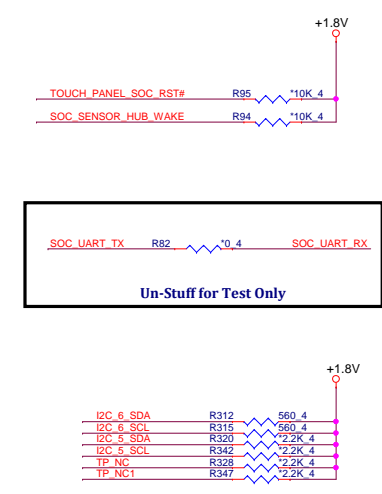


SPI NOR FLASH

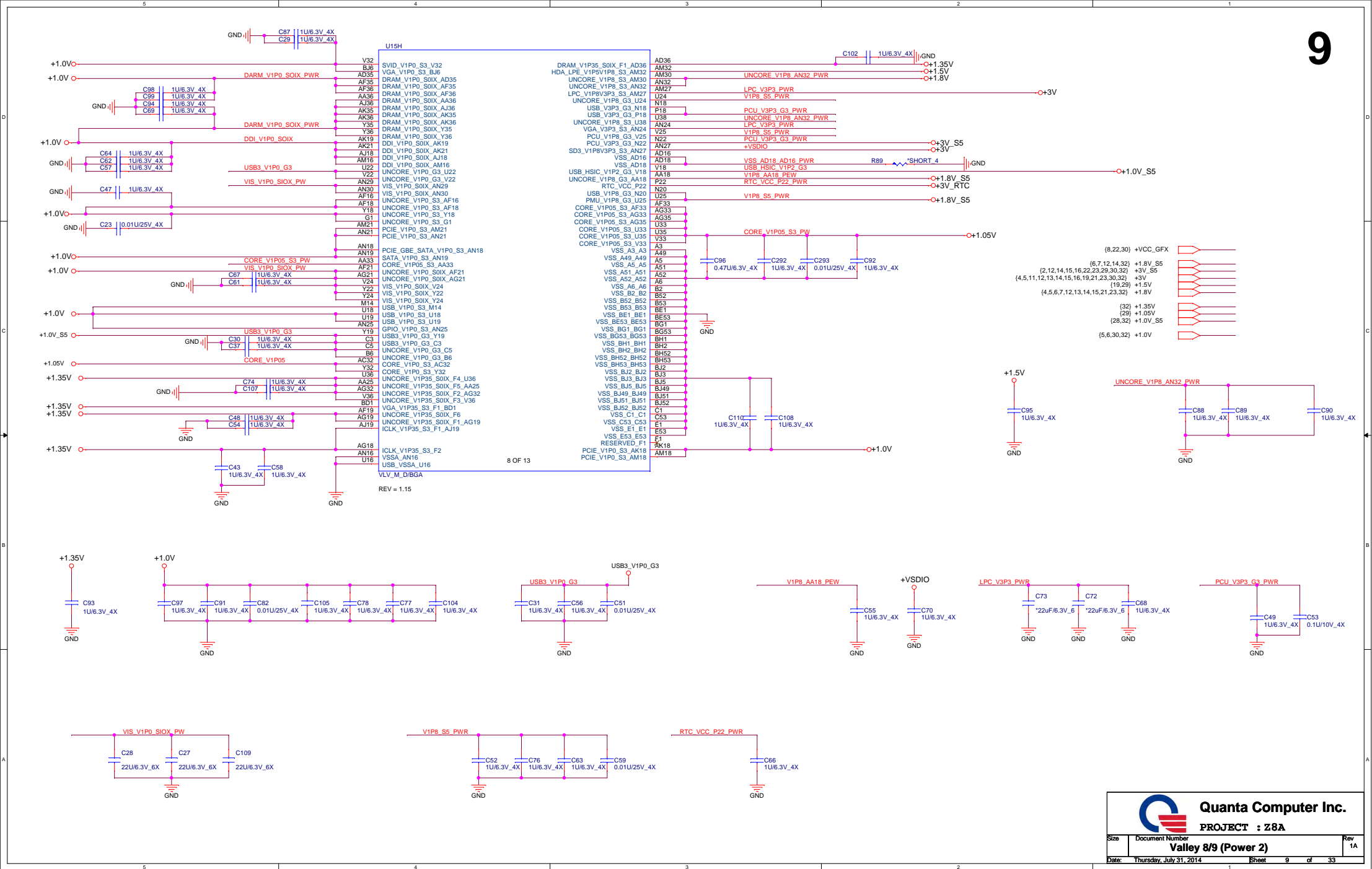


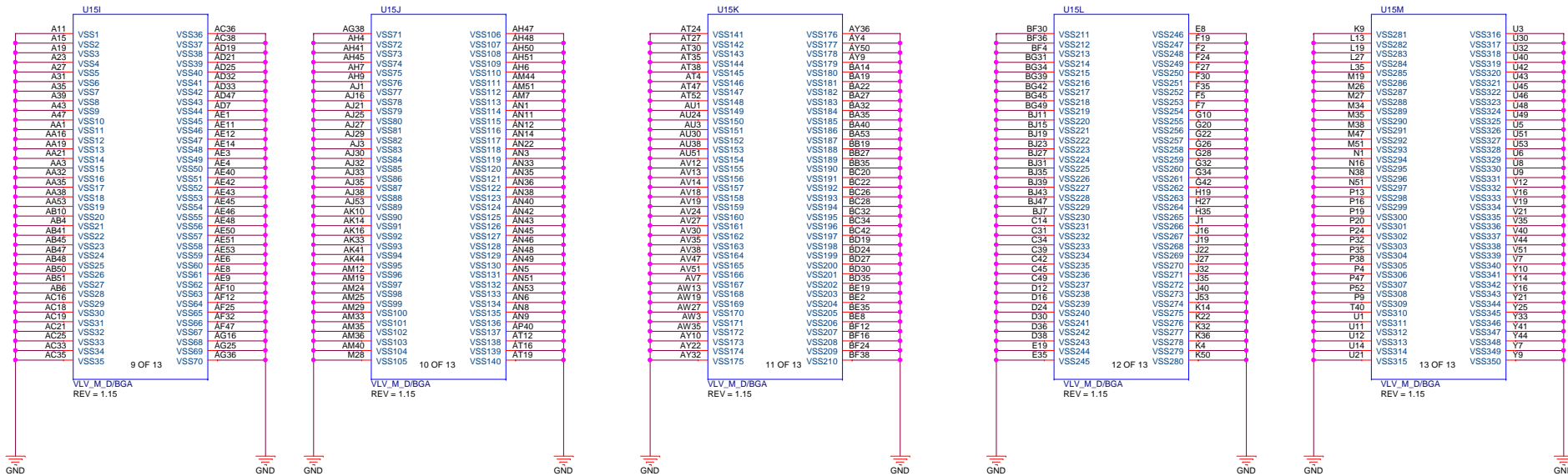
RTC Clock 32.768KHz



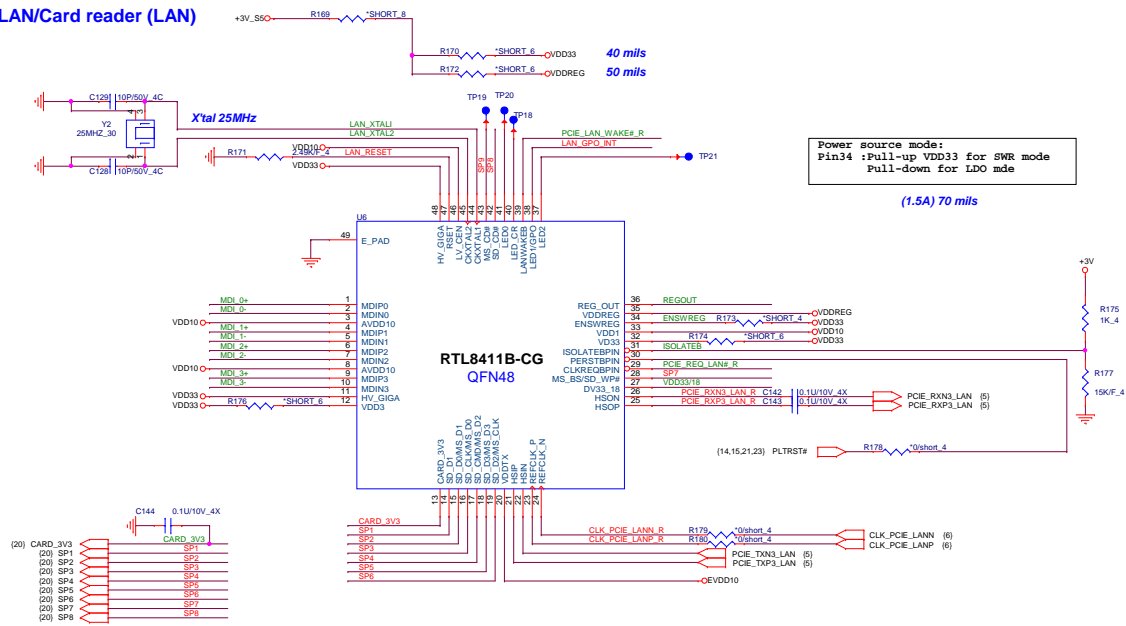


```
I2C pull up:
Standard/ Fast Mode --> 560 ohm
High speed mode --> CLK- 560 ohm;
                      DATA- 910 ohm
```

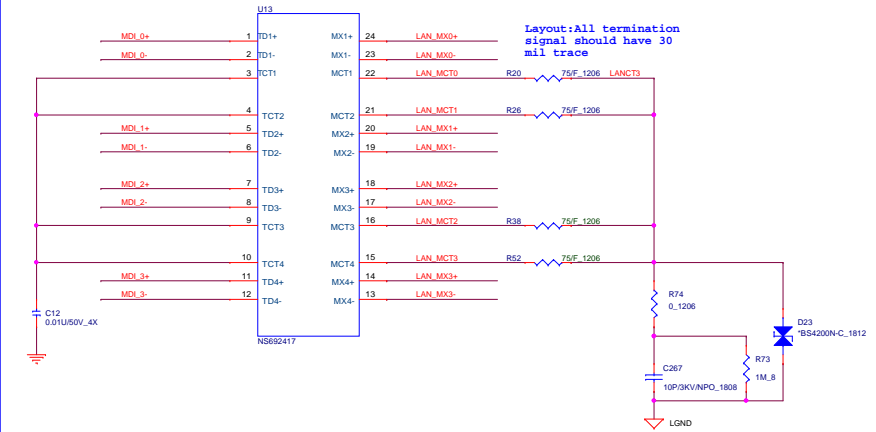





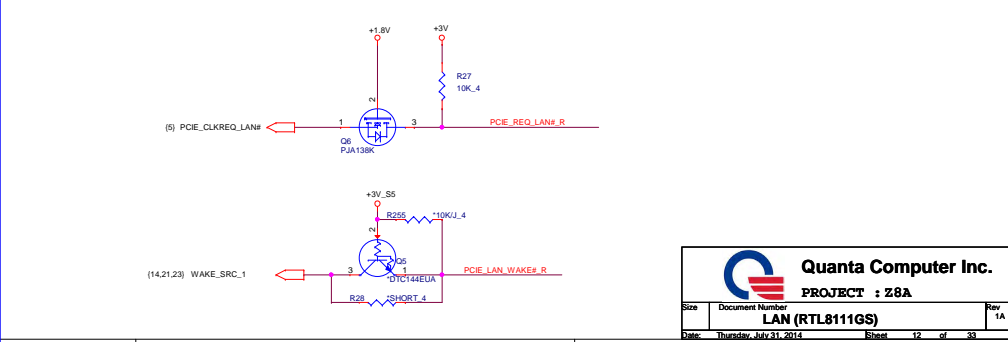
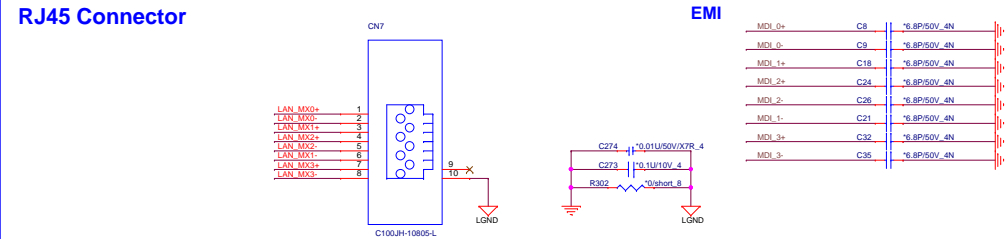
LAN/Card reader (LAN)



Transformer (LAN)

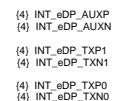
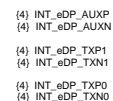
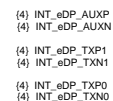
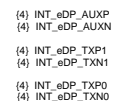
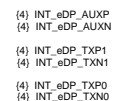
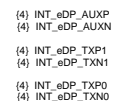
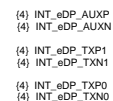
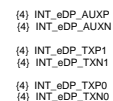
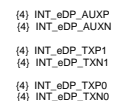
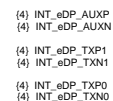
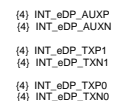
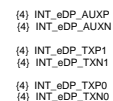
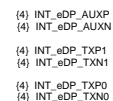
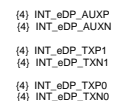
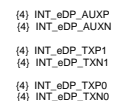
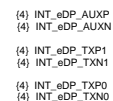
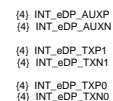
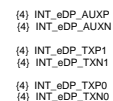
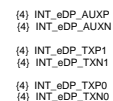
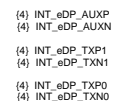
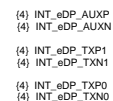
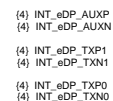
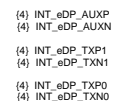
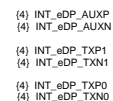
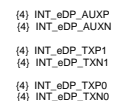
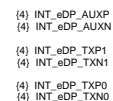
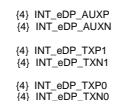
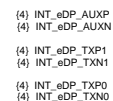
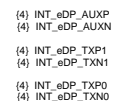
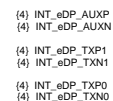
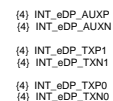
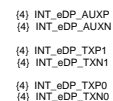
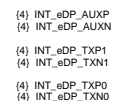
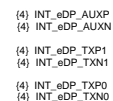
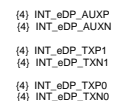
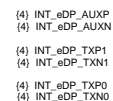
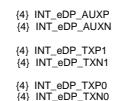
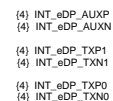
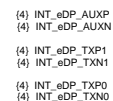
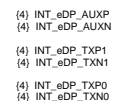
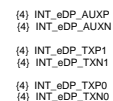
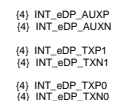
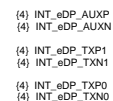
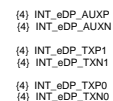
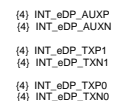
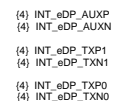
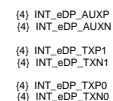
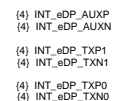
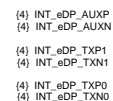
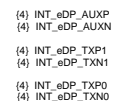
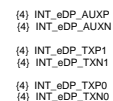
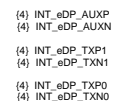
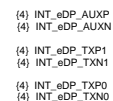
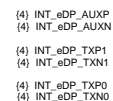
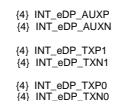
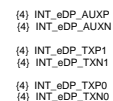
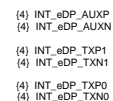
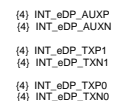
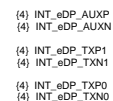
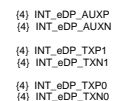
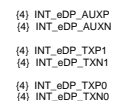
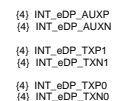
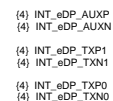
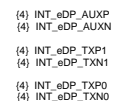
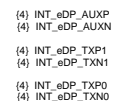
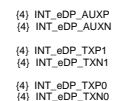
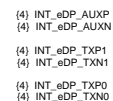
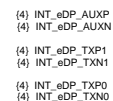
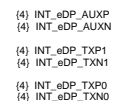
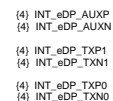
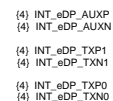
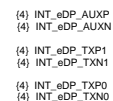
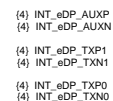
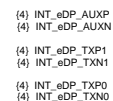
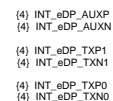
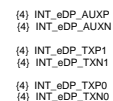
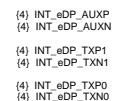
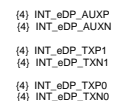
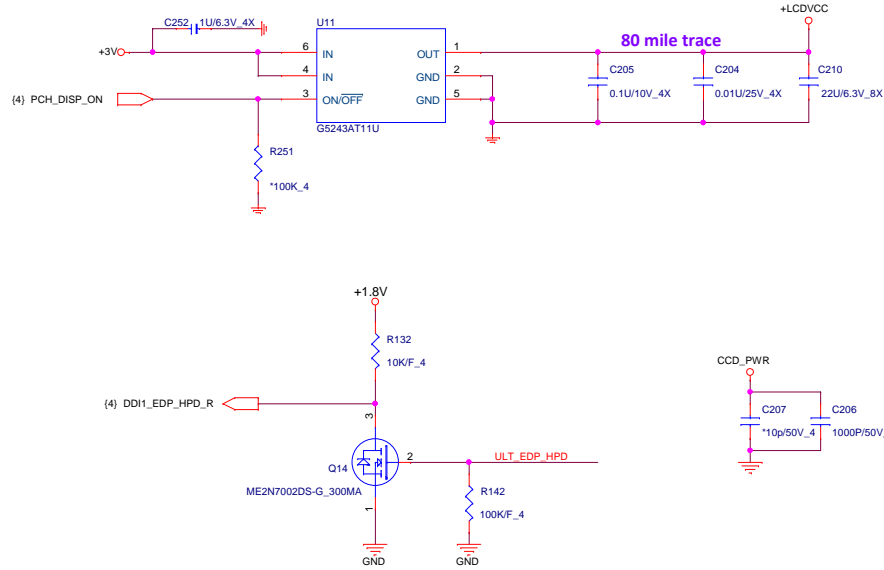


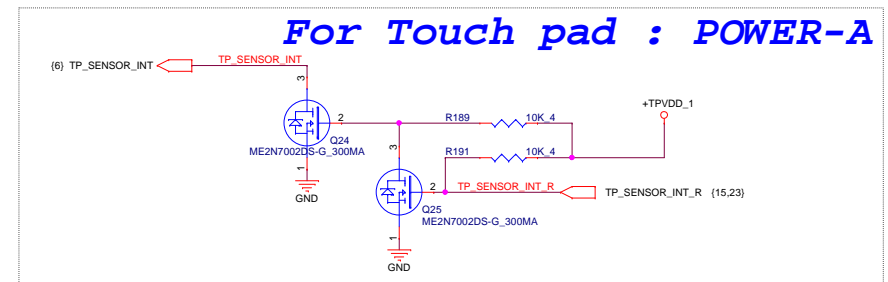
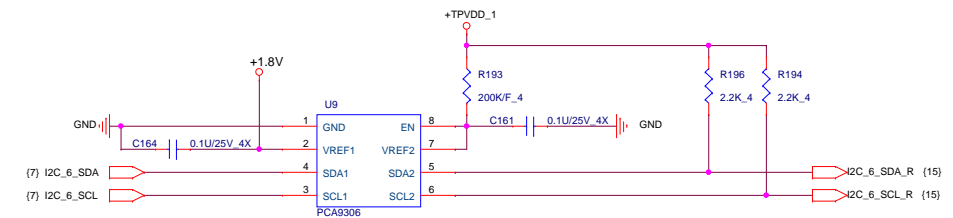
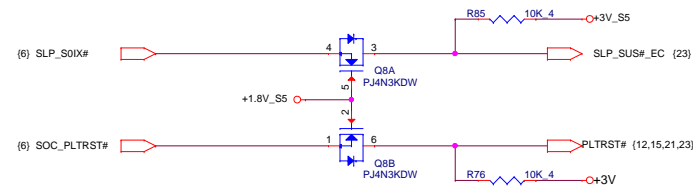
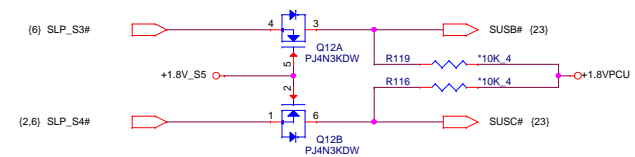
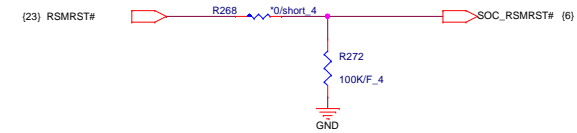
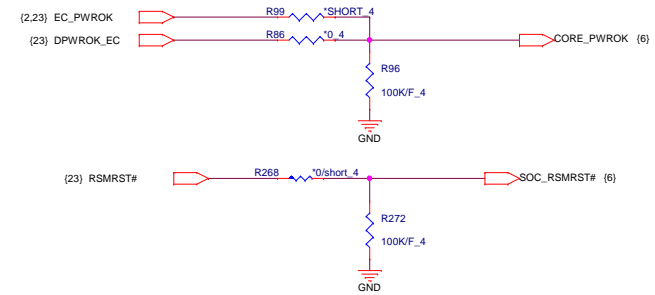
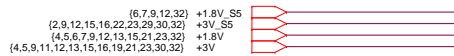
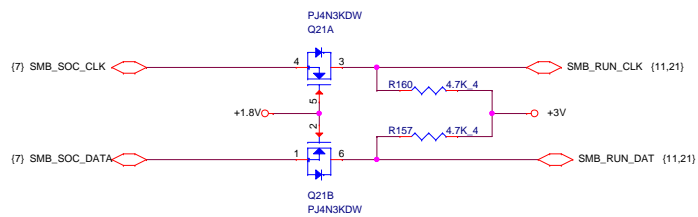
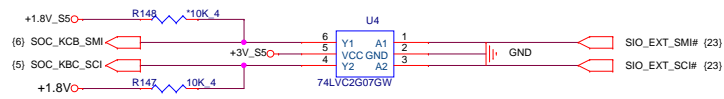
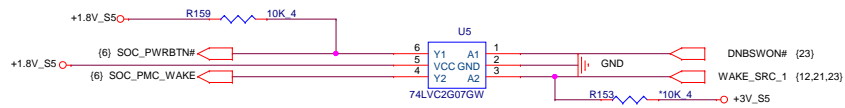
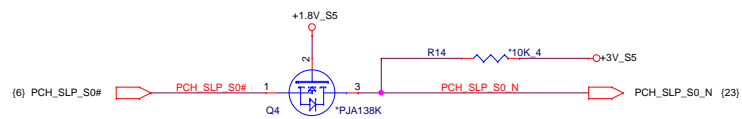
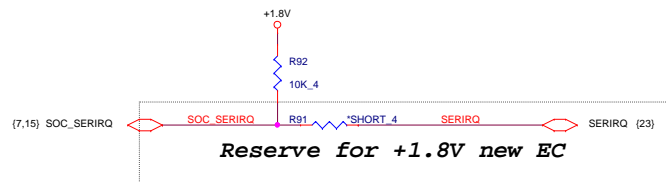
RJ45 Connector



LCD POWER SWITCH

13

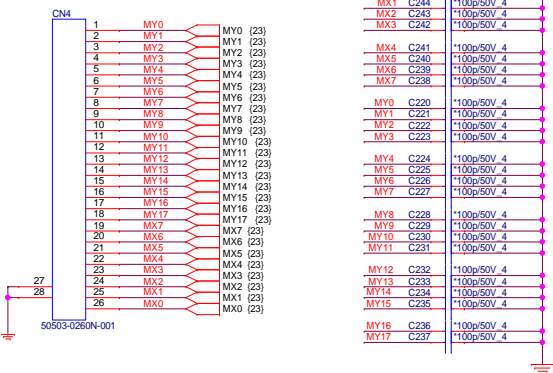




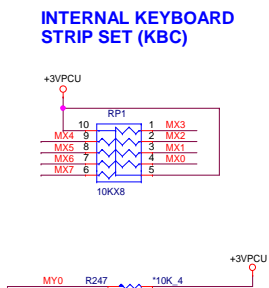
Quanta Computer Inc.
PROJECT : z8A

Size	Document Number	Rev
	Level Shifter	1A
Date:	Thursday, July 31, 2014	Sheet 14 of 33

KEYBOARD (KBC)

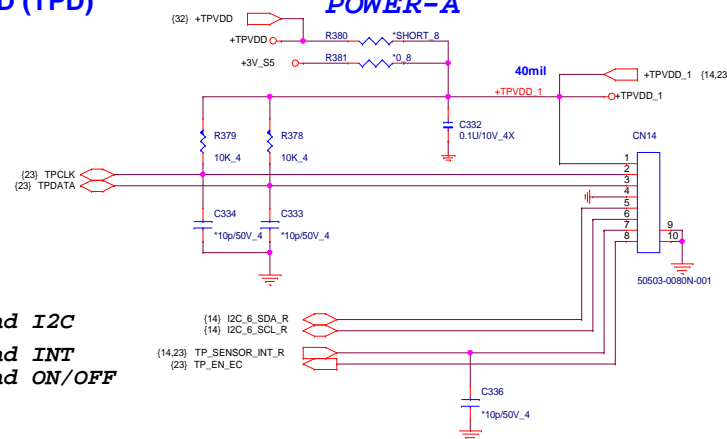


TOUCH PAD (TPD)

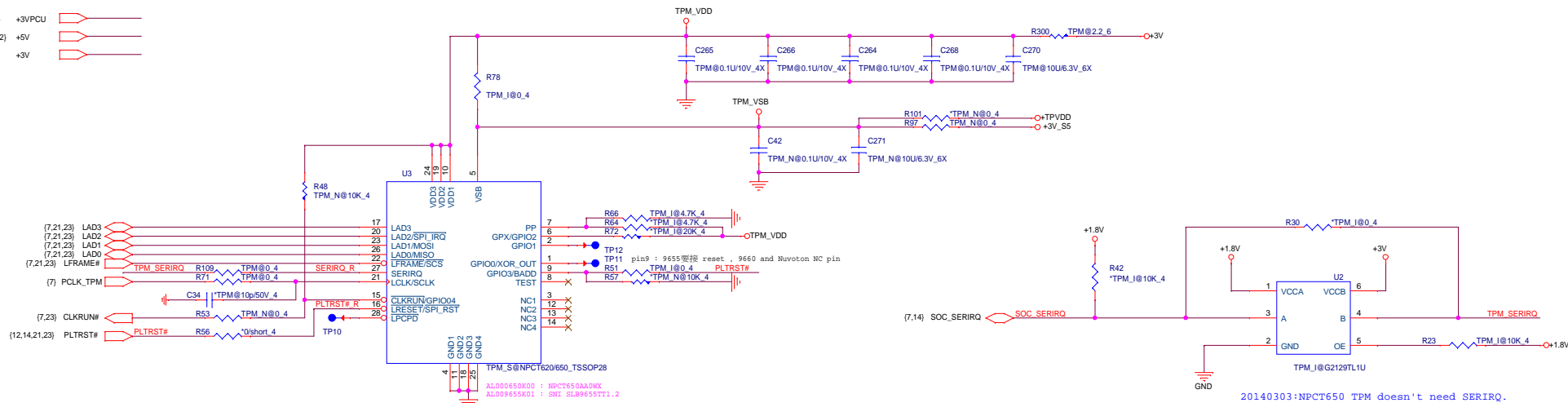


Touch pad I2C
Touch pad INT
Touch pad ON/OFF

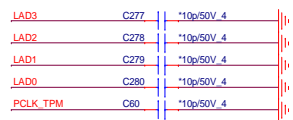
POWER-A



TPM (TPM)



```
TPM_N for 新唐
TPM_I for 英飛凌---- default
```





Battery indicator




HALL IC (HSR)

PWR button DB CON

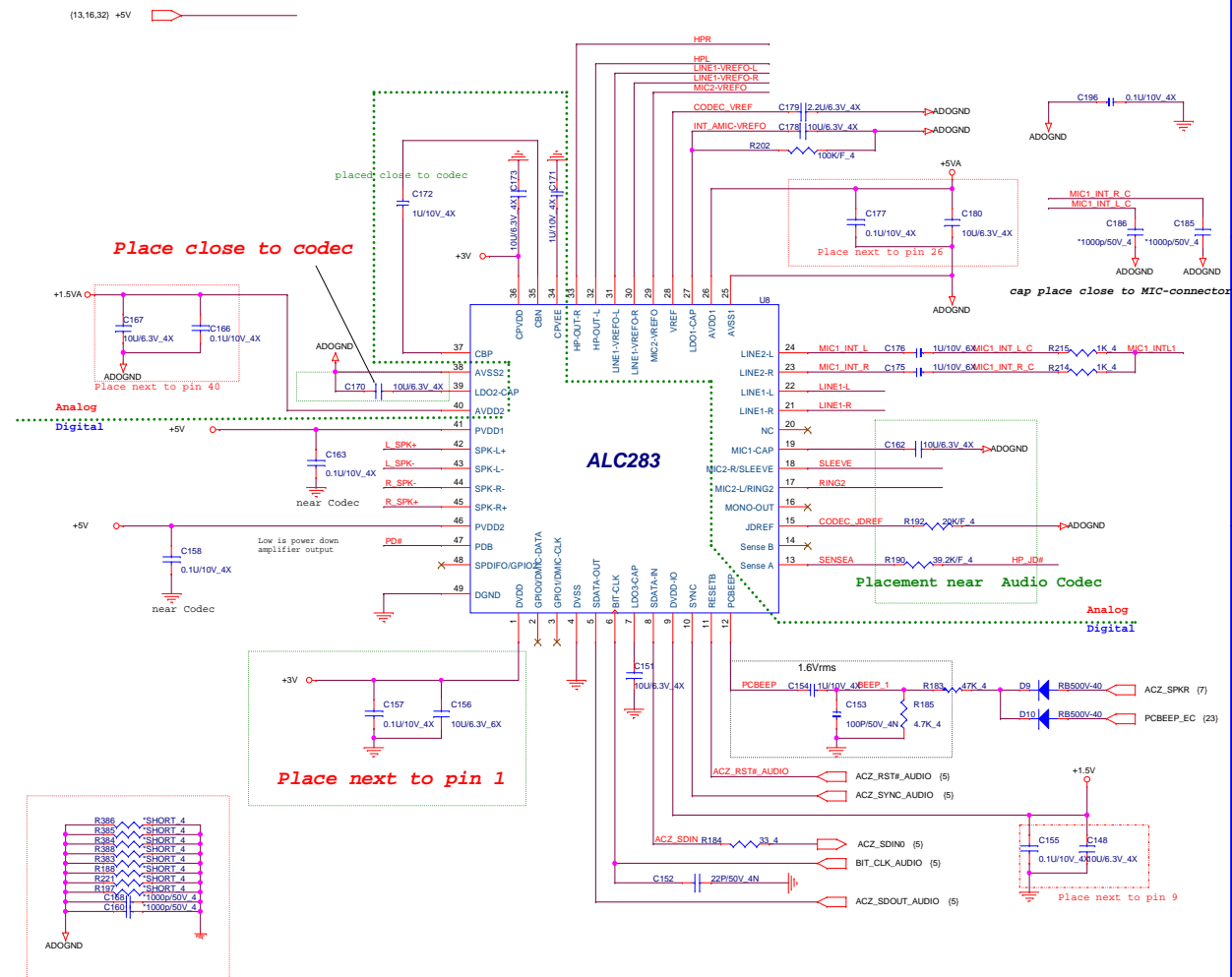
D
C
B
A

D
C
B
A

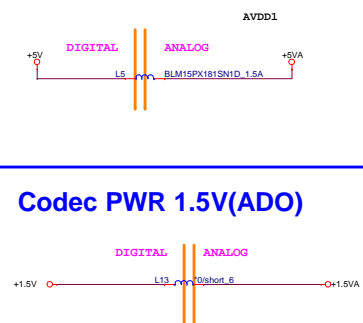
		
Quanta Computer Inc.		
PROJECT : Z8A		
Size	Document Number	Rev
	USB HUB -1	1A
Date:	Thursday, July 31, 2014	Sheet 17 of 33



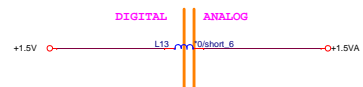
Codec(ADO)



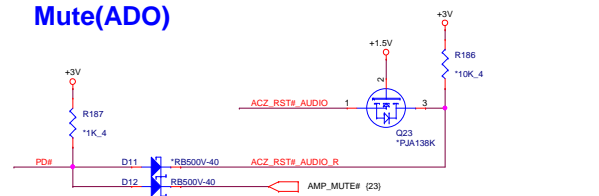
Codec PWR 5V(ADO)



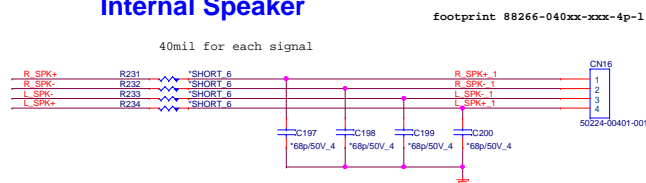
Codec PWR 1.5V(ADO)



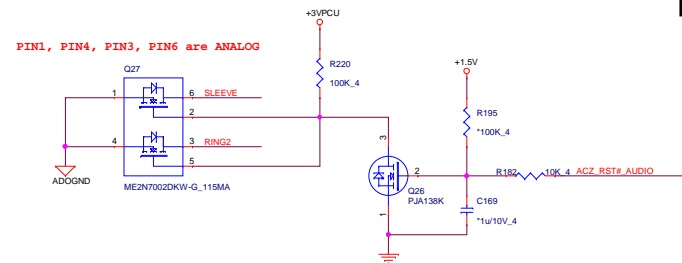
Mute(ADO)



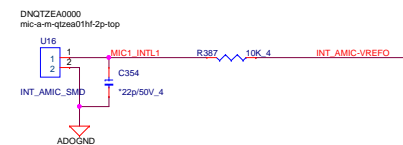
Internal Speaker



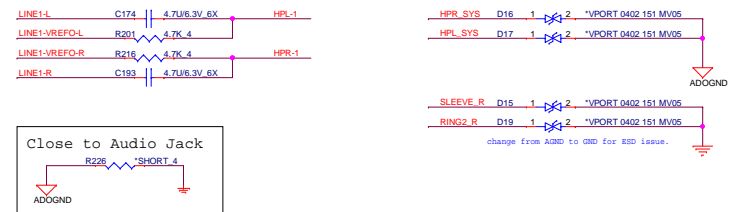
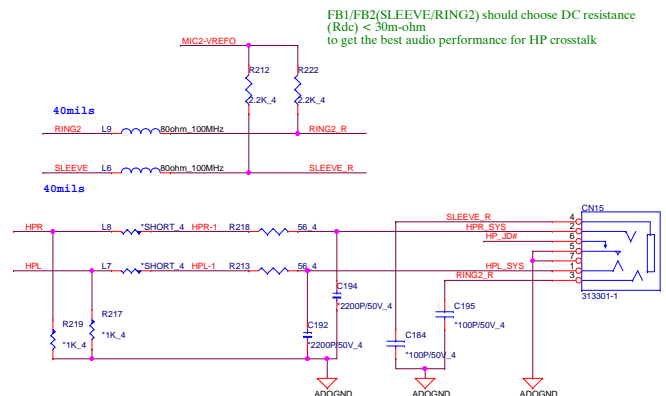
Grounding circuit(ADO)



INT MIC array



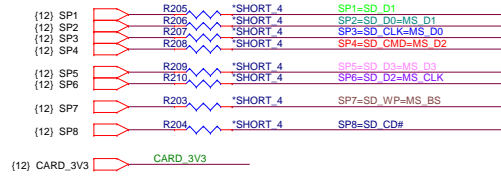
HEADPHONE/MIC/LINE combo



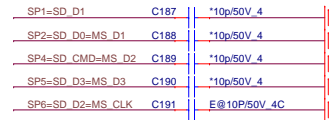
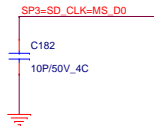
CARD READER CONNECTOR (MMC)

Share Pin

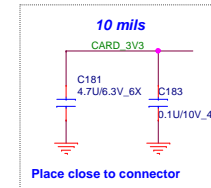
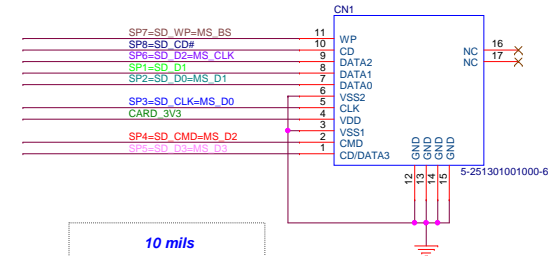
SP1	SD_D1		
SP2	SD_D0	MS_D1	
SP3	SD_CLK	MS_D0	
SP4	SD_CMD	MS_D2	
SP5	SD_D3	MS_D3	
SP6	SD_D2	MS_CLK	
SP7	SD_WP	MS_CS	
SP8	SD_CD#		
SP9		MS_INS#	

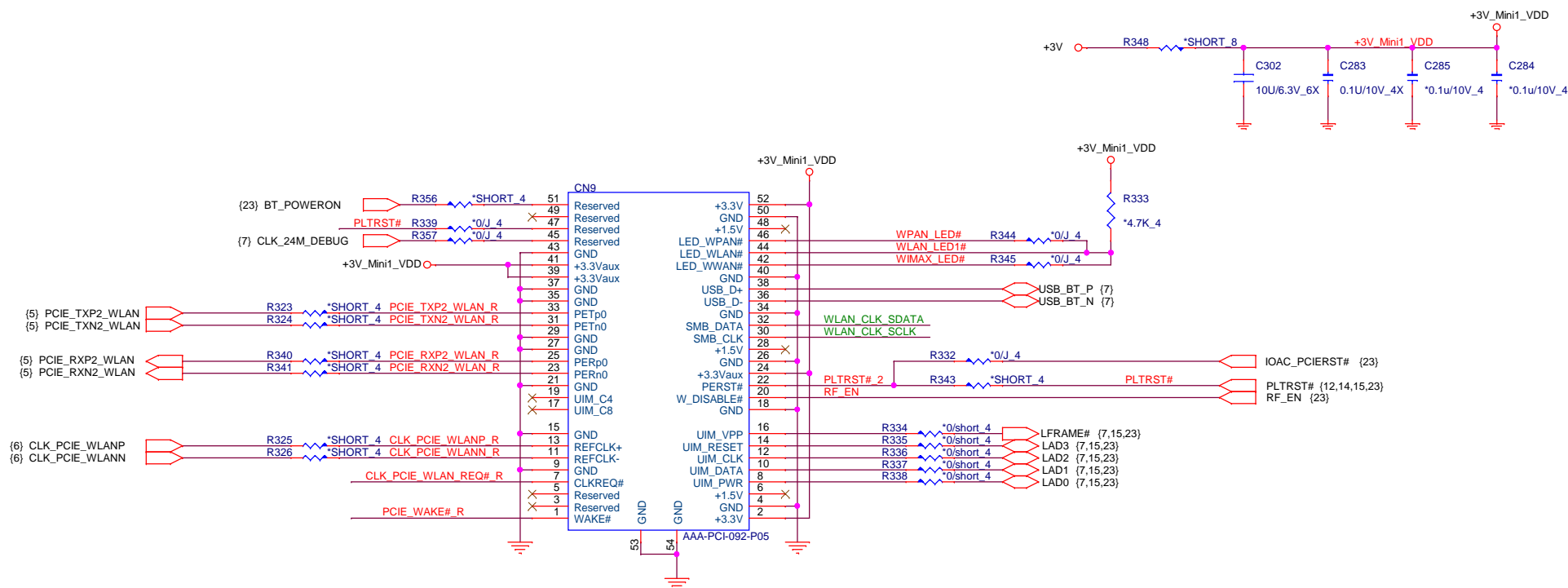


EMI

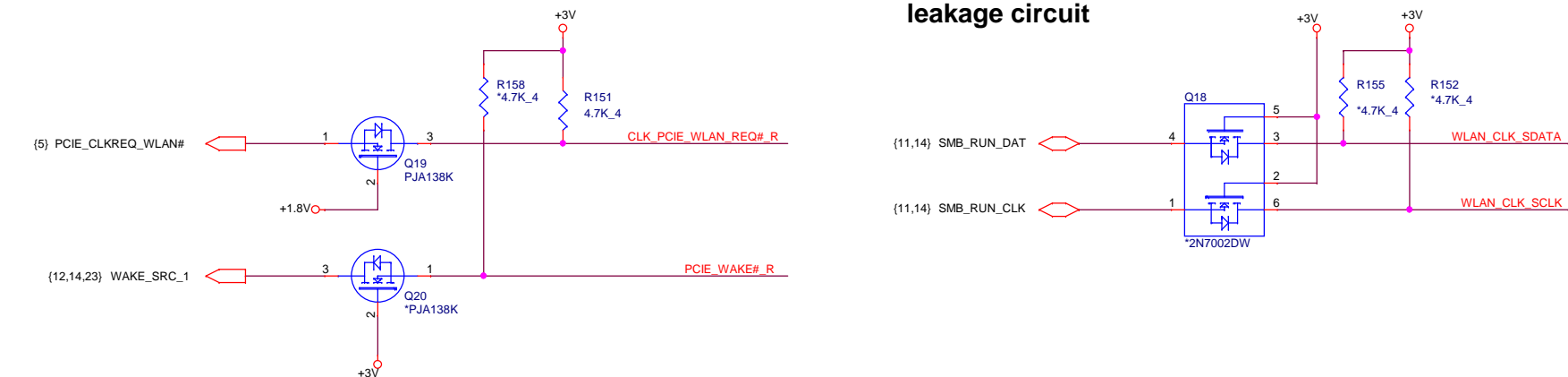


SD/MMC CARD READER (MMC)



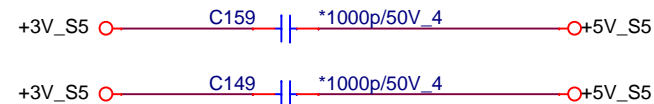
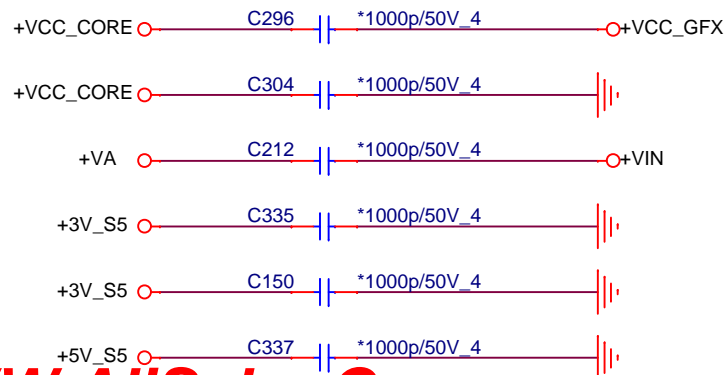
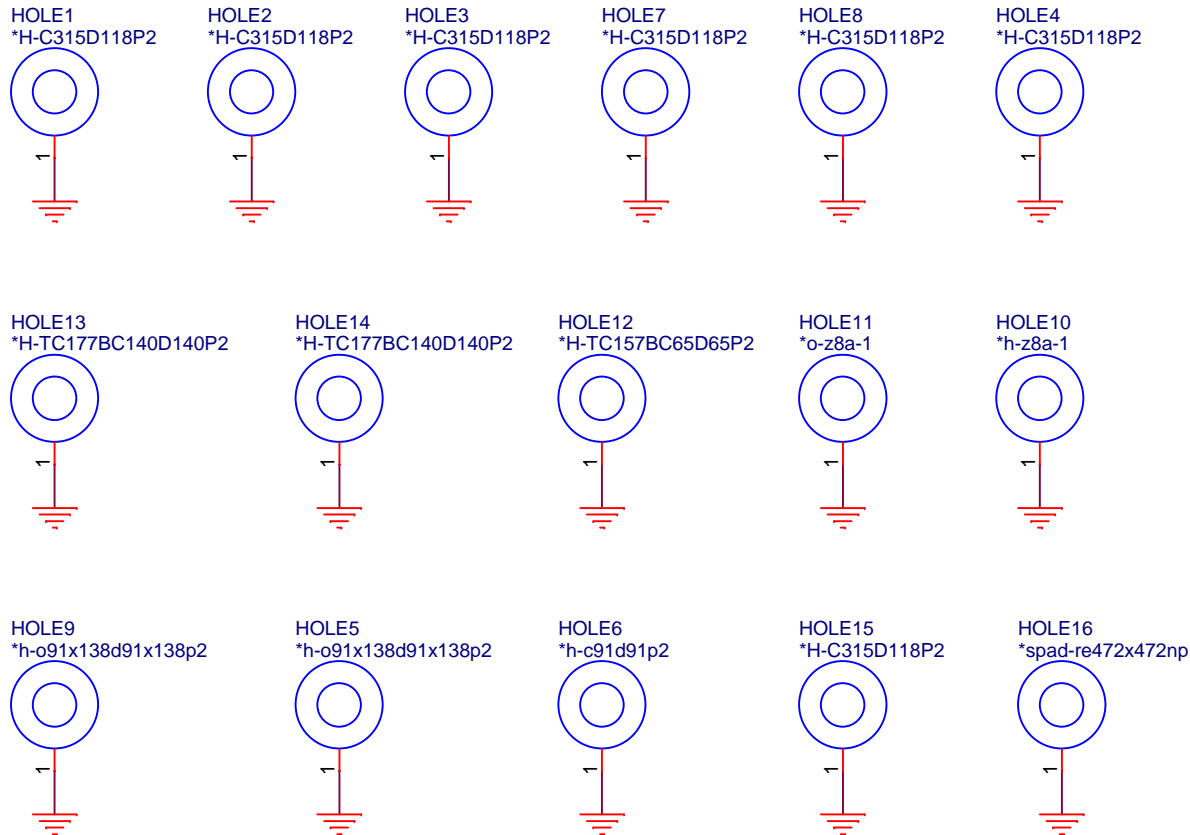


leakage circuit



{4,5,6,7,9,12,13,14,15,23,32} +1.8V

{4,5,9,11,12,13,14,15,16,19,23,30,32} +3V



Quanta Computer Inc.

PROJECT : Z8A

Size	Document Number	Rev
	Thermal / Hole	1A
Date:	Thursday, July 31, 2014	Sheet 22 of 33

+3VPC



TP EN 1

PROCHOT# {5,30}

100

3V_S5

R55

GND


R271
100K/E-4

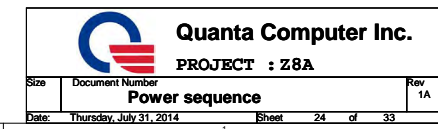


GND

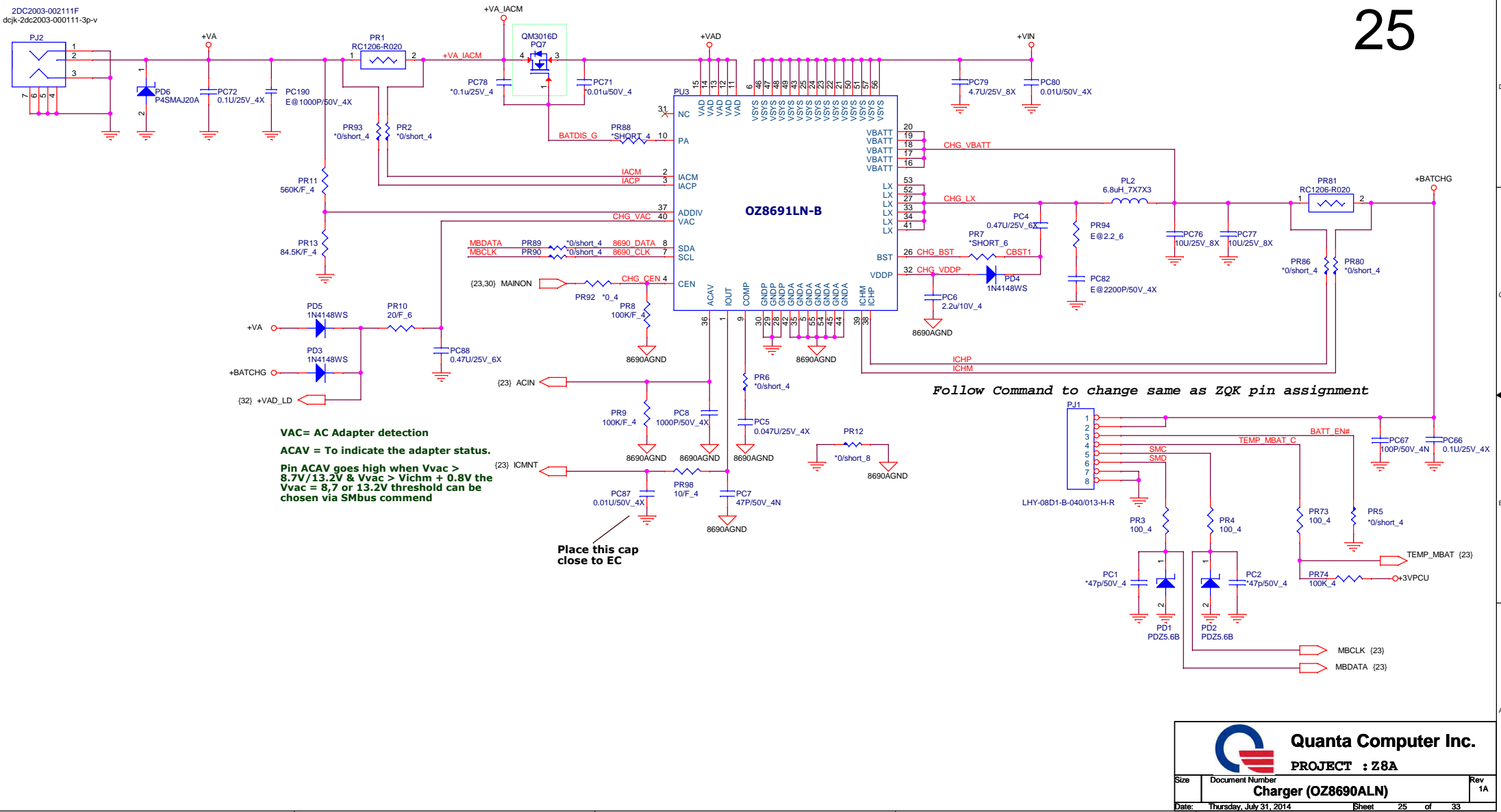
Computer Inc.

Rev	1A
-----	----

		Quanta Computer Inc. PROJECT : Z8A	
Size	Document Number	Rev	
	NPCE885/FLASH	1A	
Date:	Thursday, July 31, 2014	Sheet	23 of 33



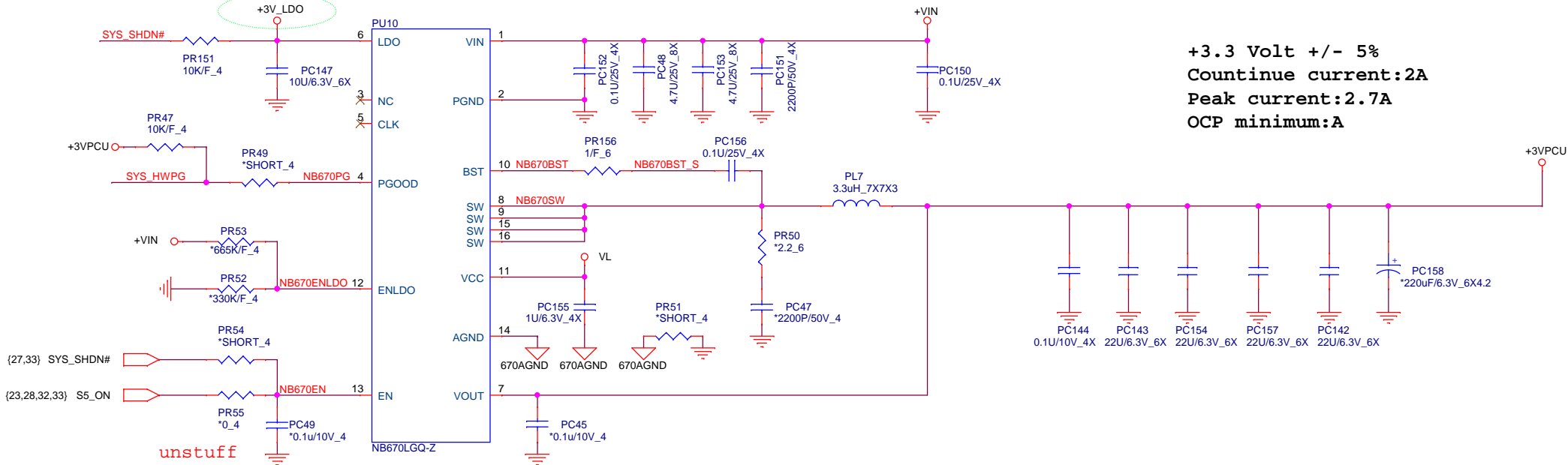
2DC2003-002111F
dcjk-2dc2003-000111-3p-v



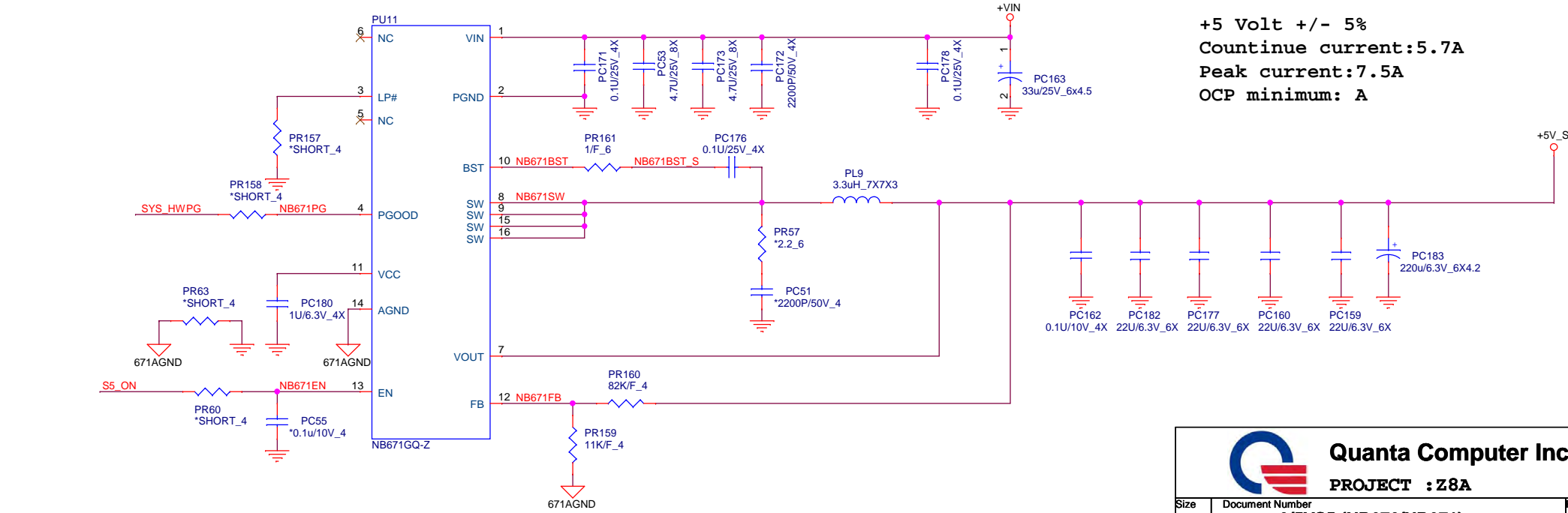
DC/DC +3VPCU/+5V_S5

+3VPCU {6,8,15,16,19,23,25,27,32}
+5V_S5 {18,22,28,29,30,31,32}

LDO (MAX) = 100mA

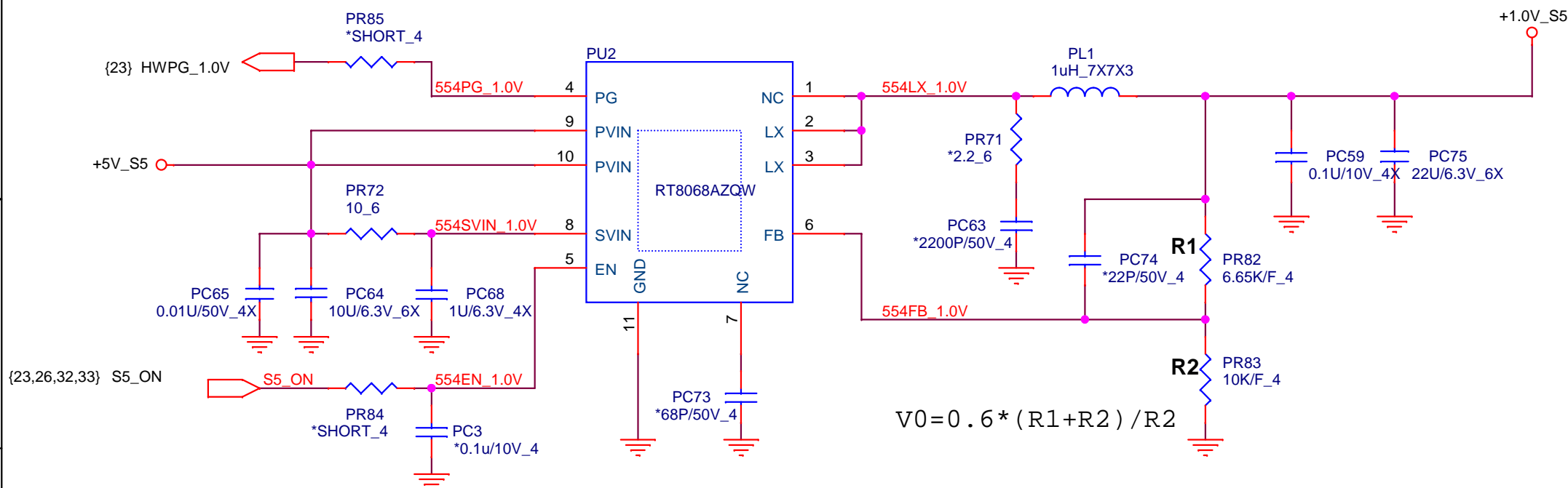


+3.3 Volt +/- 5%
Countinue current:2A
Peak current:2.7A
OCP minimum:A



+5 Volt +/- 5%
Countinue current:5.7A
Peak current:7.5A
OCP minimum: A


```
+1.0V Volt +/- 5%
Continue current:2.4A
Peak current:3.2A
OCP minimum:A
```



$$V_0 = 0.6 * (R_1 + R_2) / R_2$$

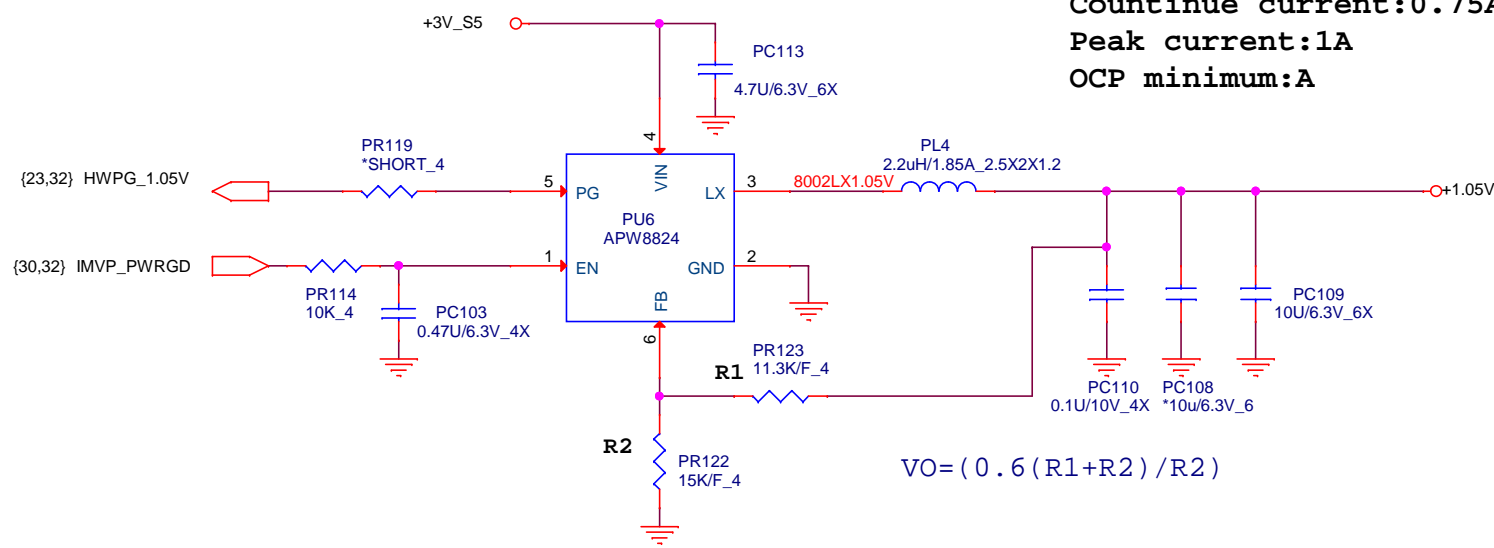


PROJECT : Z8A

Size	Document Number +1.0V	Rev 1A
Date:	Thursday, July 31, 2014	Sheet 28 of 33

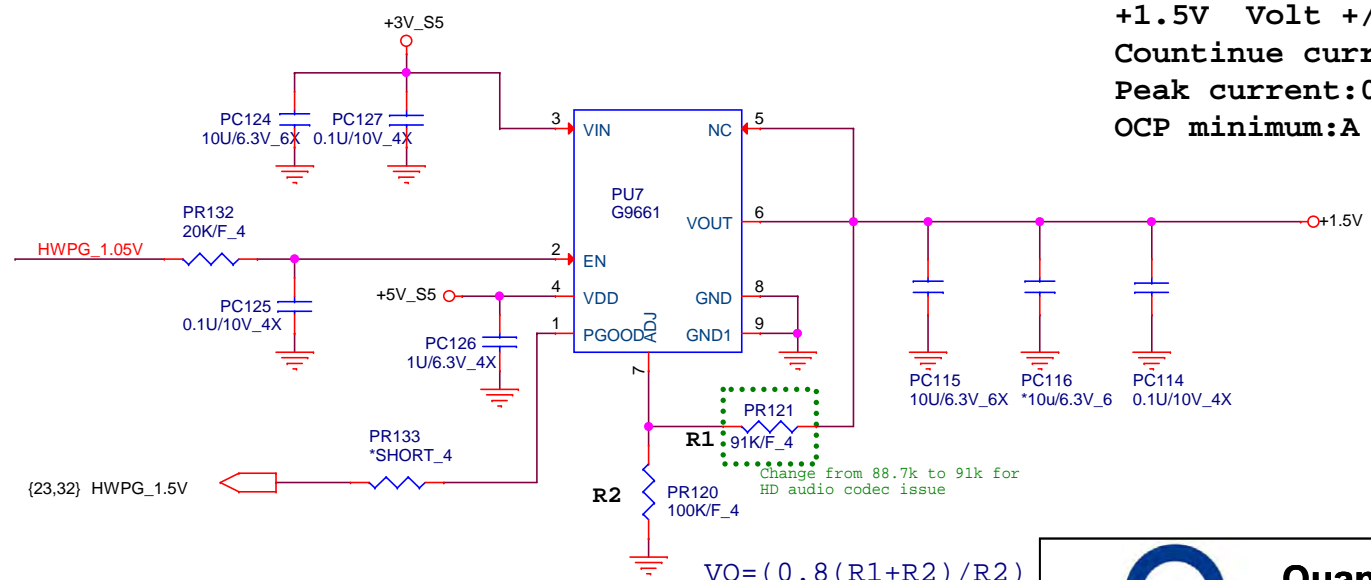
{2,9,12,14,15,16,22,23,30,32} +3V_S5
 {9} +1.05V
 {9,19} +1.5V

+1.05V Volt +/- 5%
Countinue current:0.75A
Peak current:1A
OCp minimum:A



$$VO = (0.6 (R1 + R2) / R2)$$

+1.5V Volt +/- 5%
Countinue current:0.023A
Peak current:0.03A
OCp minimum:A



$$VO = (0.8 (R1 + R2) / R2)$$

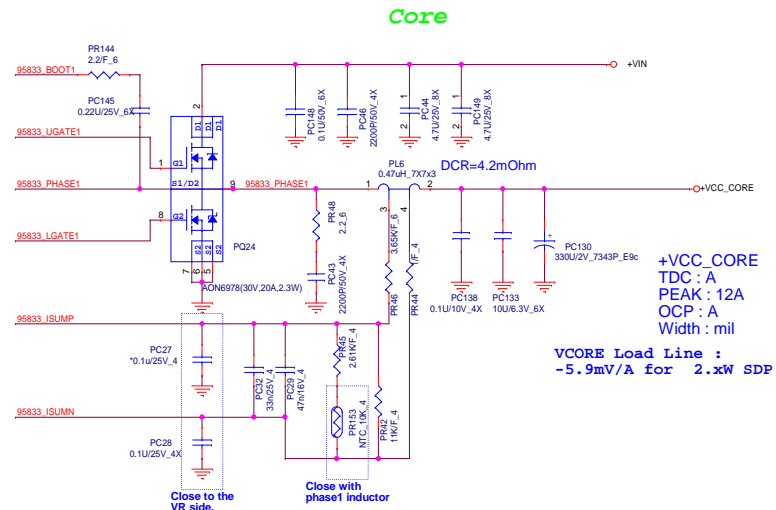
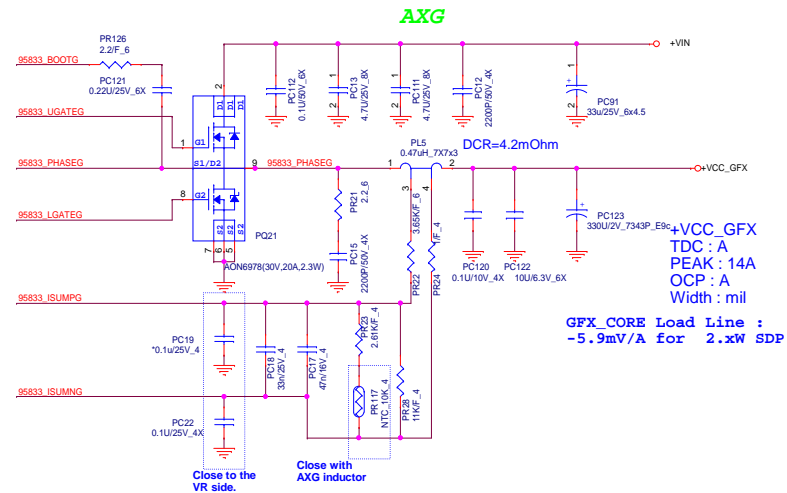
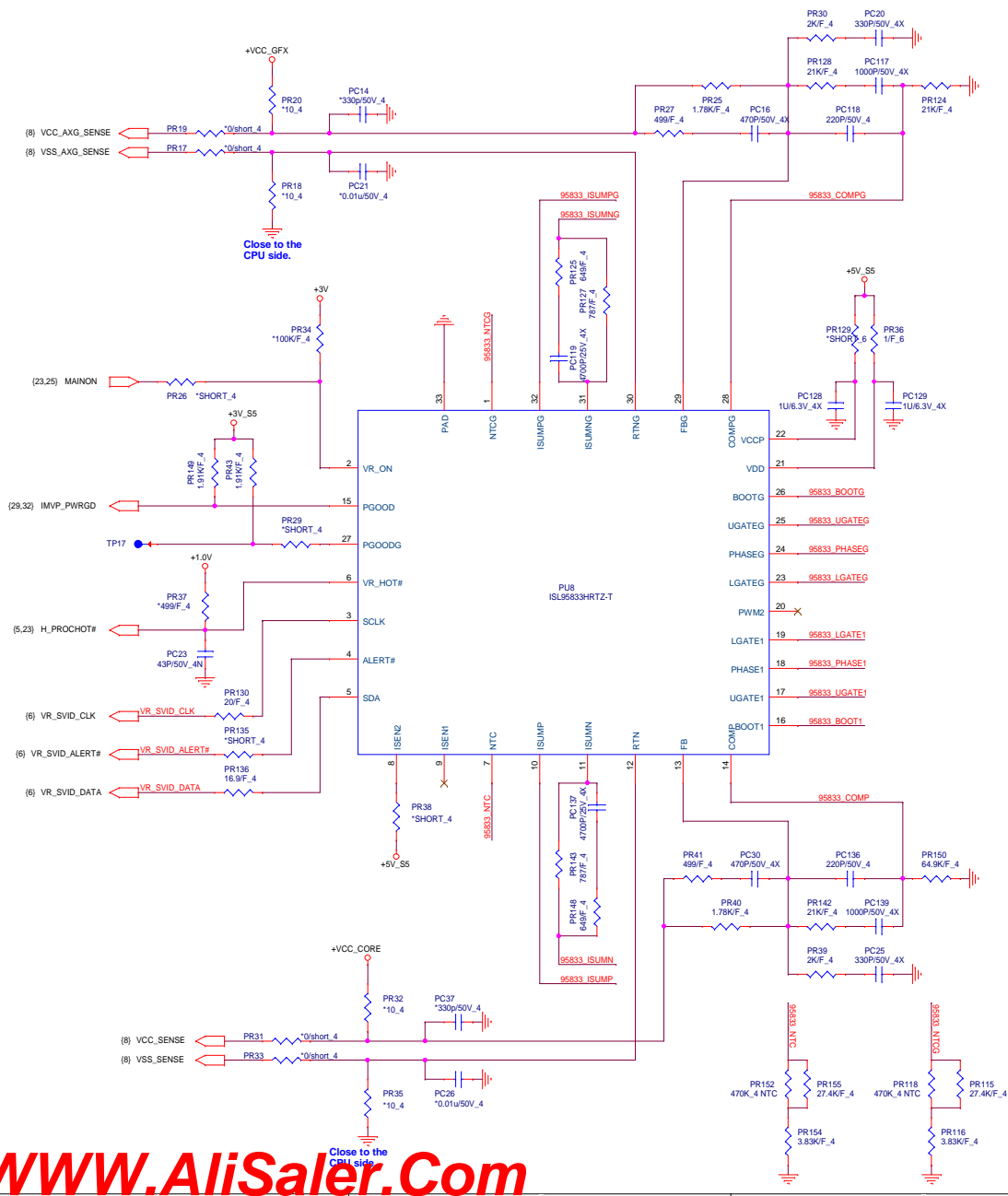
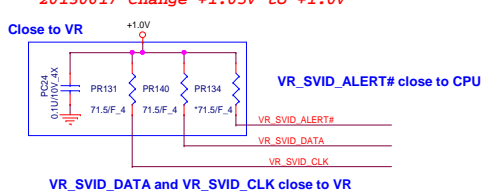
$R2 < 120Kohm$

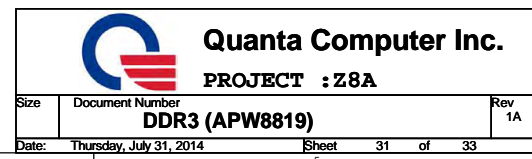
Quanta Computer Inc.

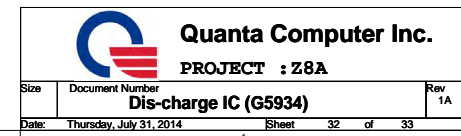
PROJECT : Z8A

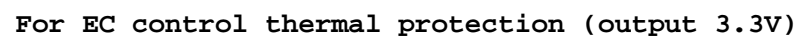
Size	Document Number +1.05V	Rev 1A
Date:	Thursday, July 31, 2014	Sheet 29 of 33

20130617 Change +1.05V to +1.0V









Model	REV	CHANGE LIST
Z8A MB	A1A	1.First Release
	C3A	1.Change C19/C20 value from 10P to 12P for crystal Vendor EA suggestion 2.Swap USB3+/USB3- signals to correct pin define for CCD yellow mark issue 3.Change L4 to 90 ohm common mode chock for EMI 4.Change Hole10 and Hole16 footprint for ME DXF update 5.Reverse D24 and D25 ESD components for ESD 6.Add PC190 1000p cap for EMI suggestion 7.Mount PR94 and PC82 for EMI suggestion
	E3A	1.Change R223,R224,R225,R227 value for LED brightness 2.Change Hole5 and Hole6 and Hole9 and Hole10 footprint for ME DXF update

 Quanta Computer Inc.		DOC NO.	PROJECT MODEL :	Z8A	APPROVED BY:		DATE:
PROJECT : Z8A			PART NUMBER		DRAWING BY:		REVISION:

WWW.AliSaler.Com