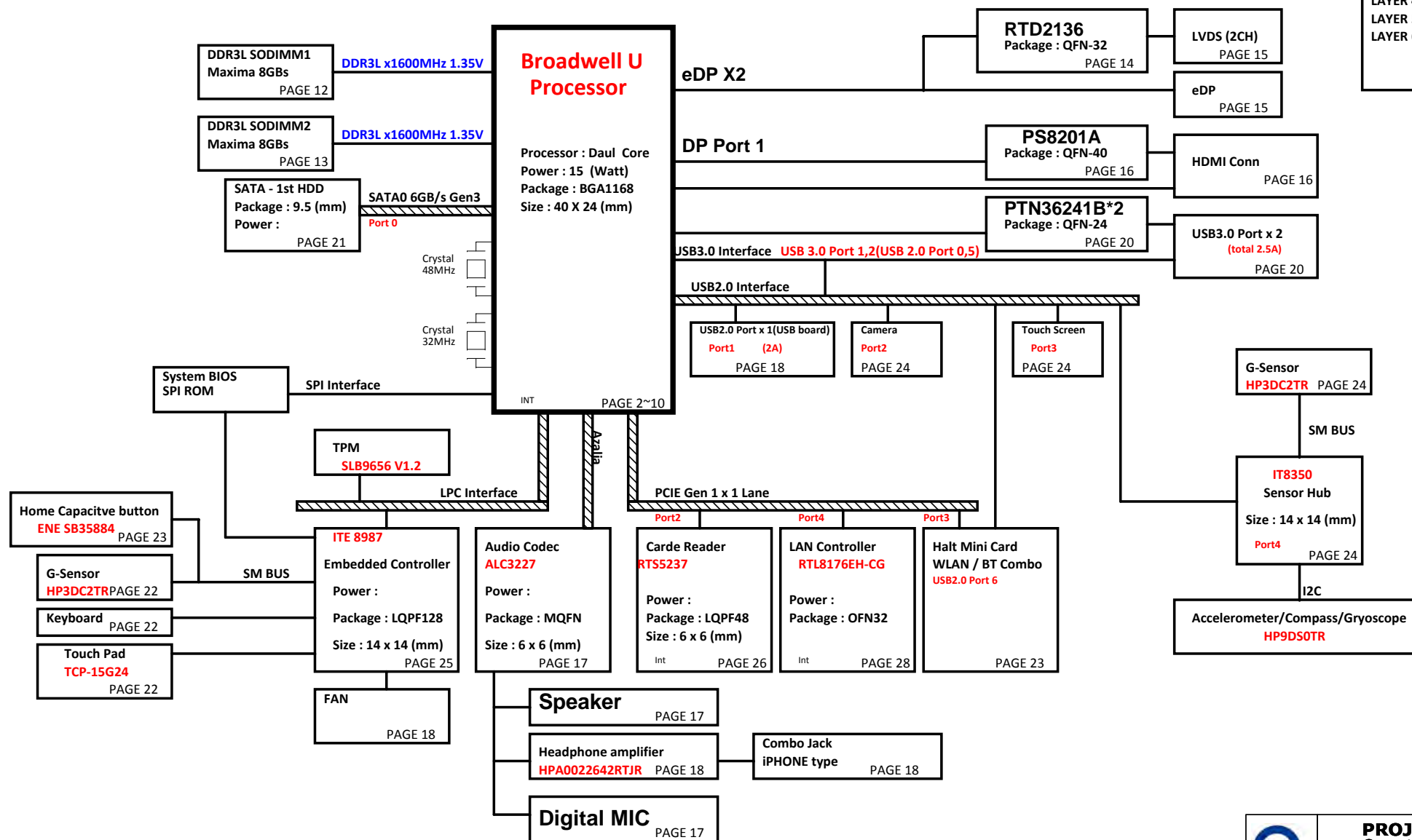


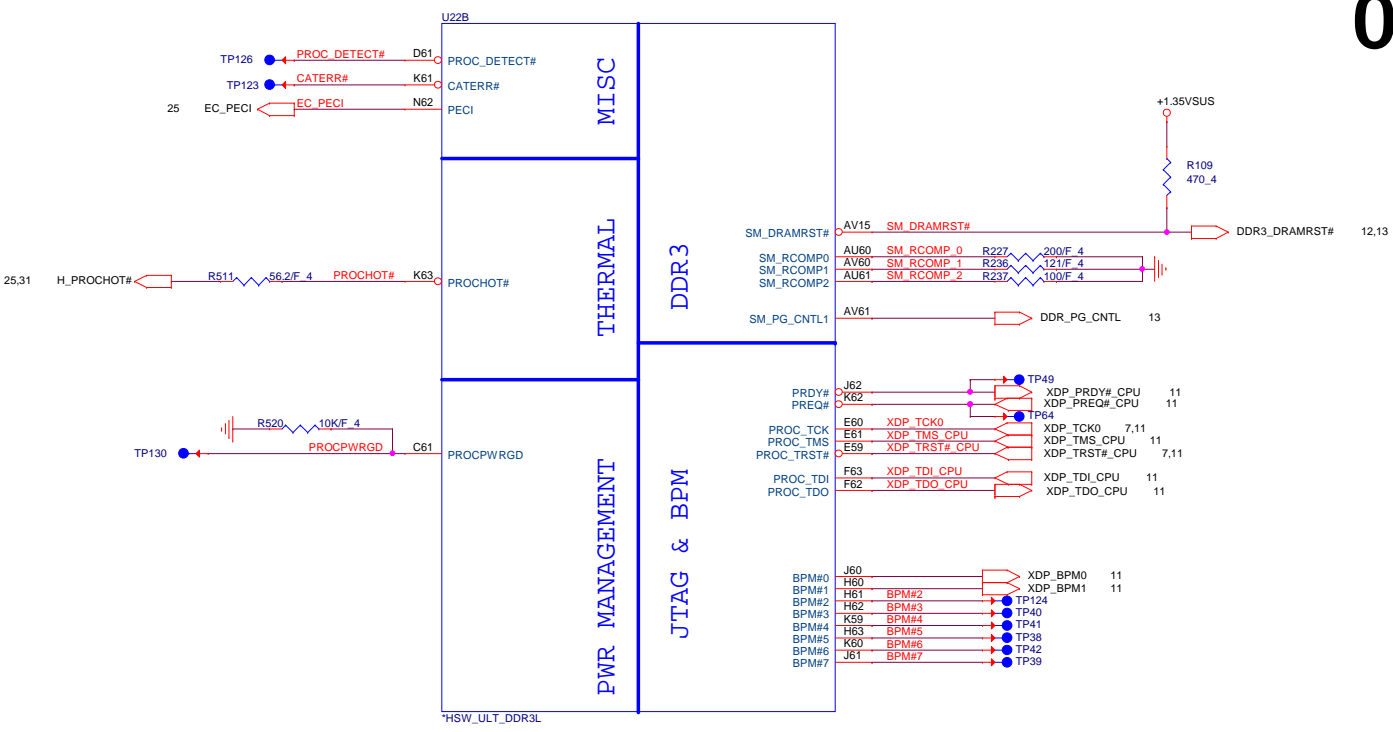
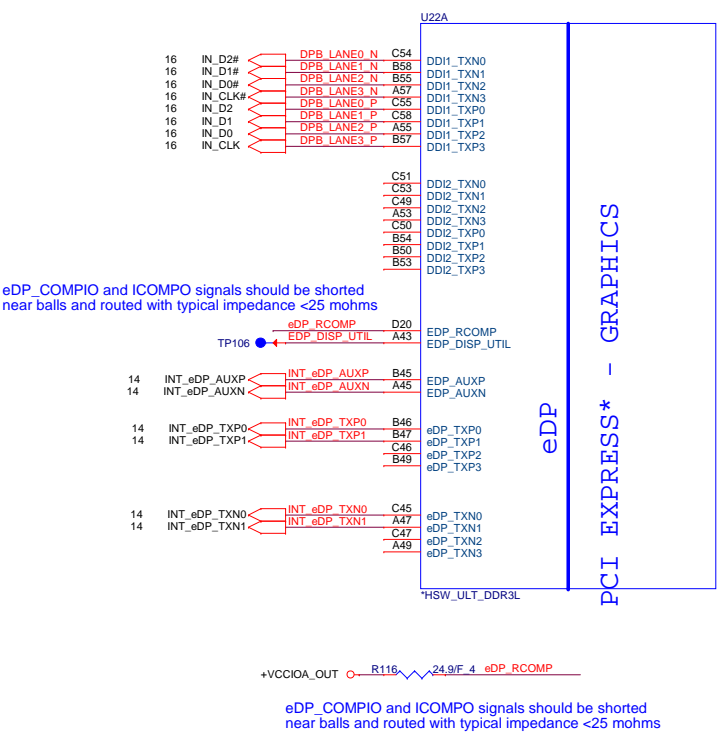
# 13"/15"

## Y61 Intel Crescent Bay ULT Platform Block Diagram

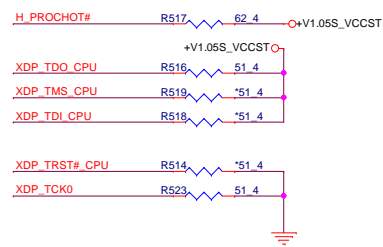
## PCB 6L STACK UP

LAYER 1 : TOP  
LAYER 2 : SGND  
LAYER 3 : IN1(High)  
LAYER 4 : IN2(Low)  
LAYER 5 : SVCC  
LAYER 6 : BOT

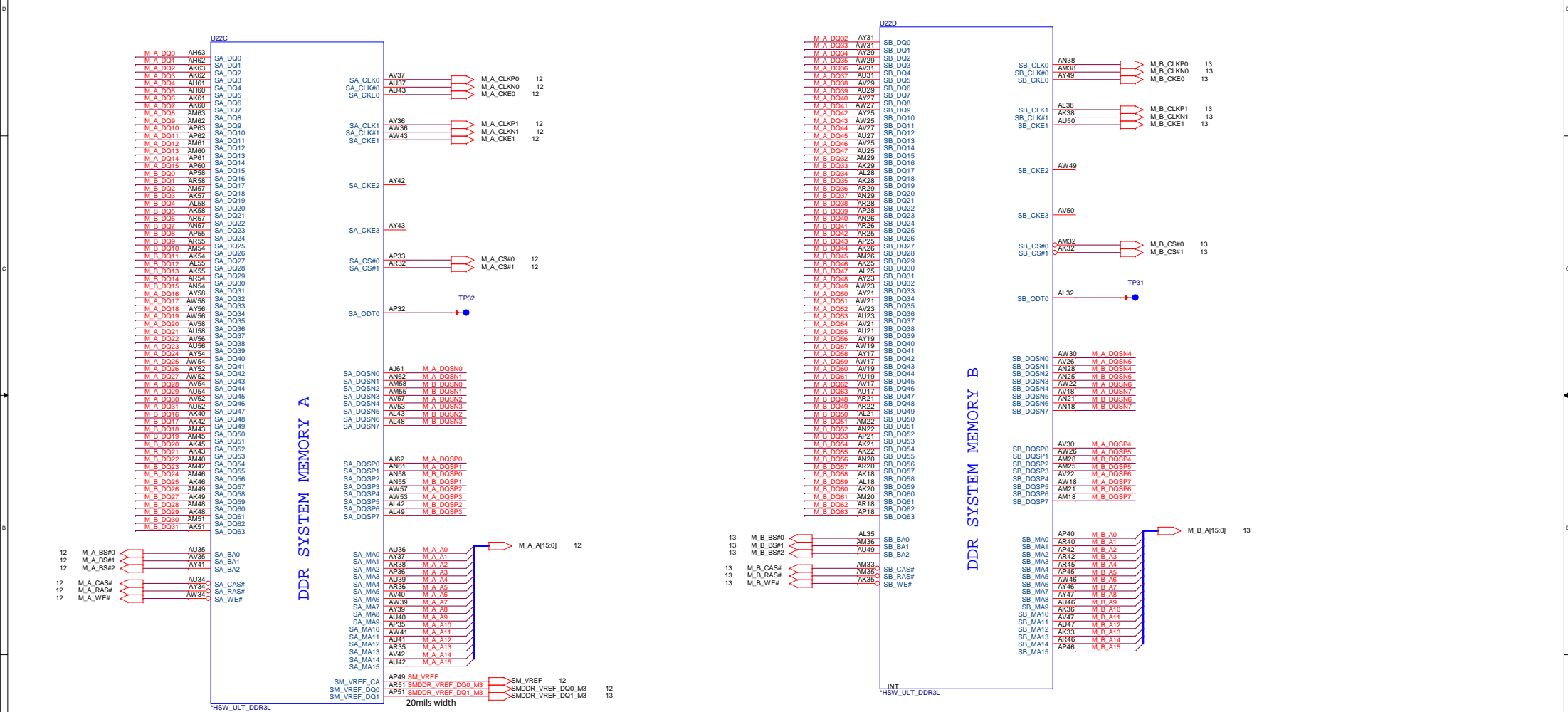




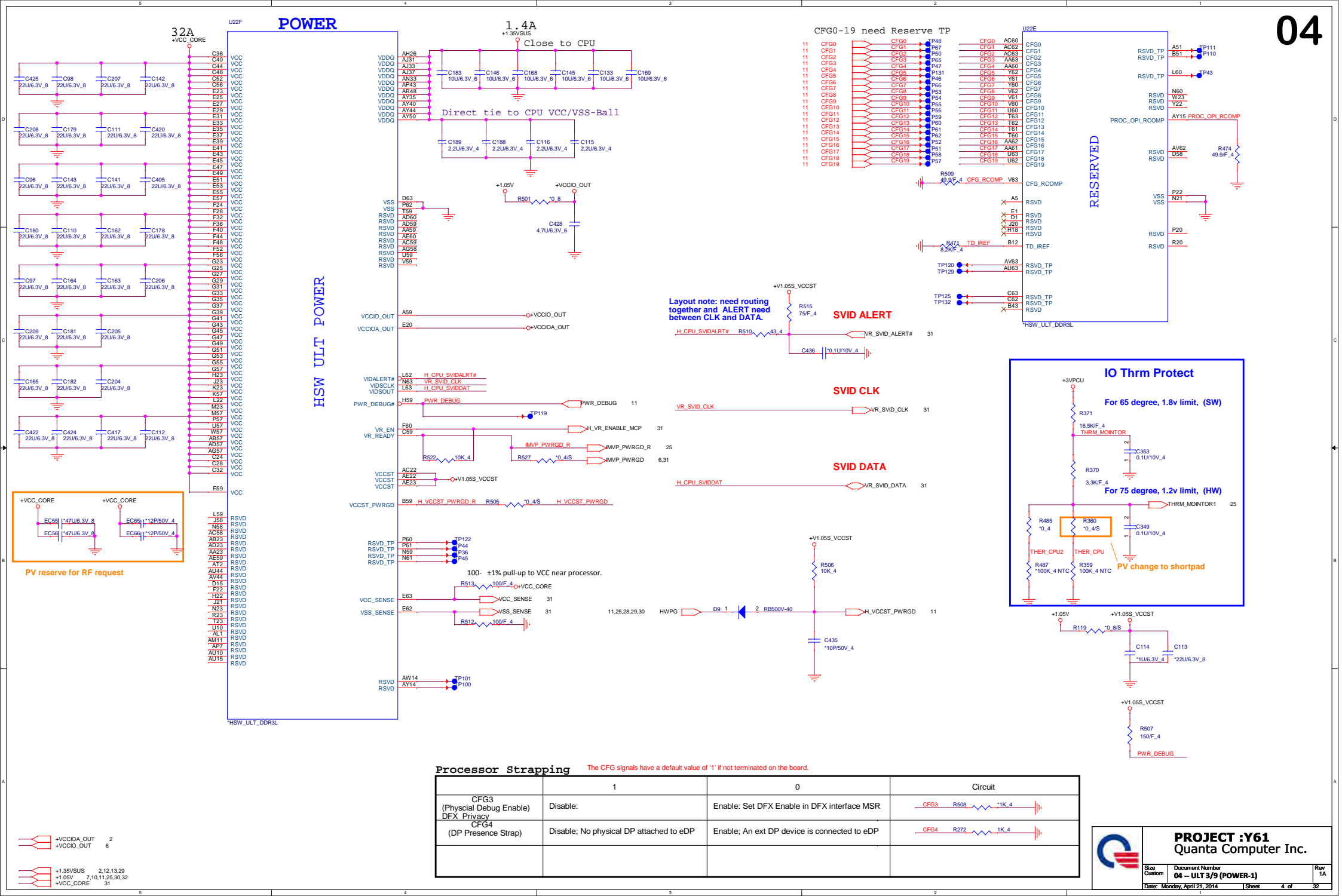
Processor pull-up (CPU)

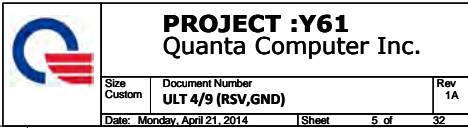


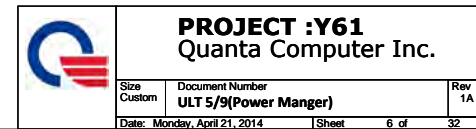
## Haswell ULT Processor (DDR3L)



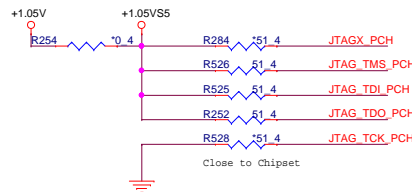
WWW.AliSaler.Com



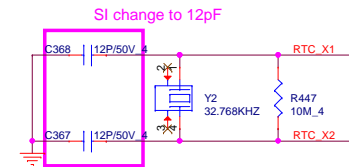




## 07



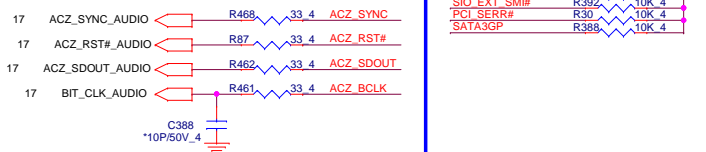
## RTC Clock 32.768KHz



30mils J1 \*SOLDERJUMPER-2

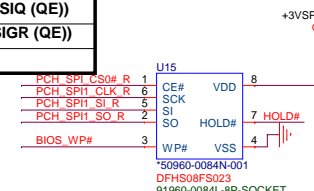


ACC_LED#	R391	10K	4	+3V
SIO_EXT_SMI#	R392	10K	4	
PCI_SERR#	R30	10K	4	
SATA3GP	R388	10K	4	



Vender	Size	P/N
EON	8MB	AKE3EZN0Q01 (EN25QH64-104HIP (QE))
Winbond	8MB	AKE3EFP0N07 (W25Q64FVSSIQ (QE))
GigaDevice	8MB	AKE3EGN0Q01 (GD25B64BSIGR (QE))
Socket		DFHS08FS023

**4M SPI ROM Socket**

[illegible]

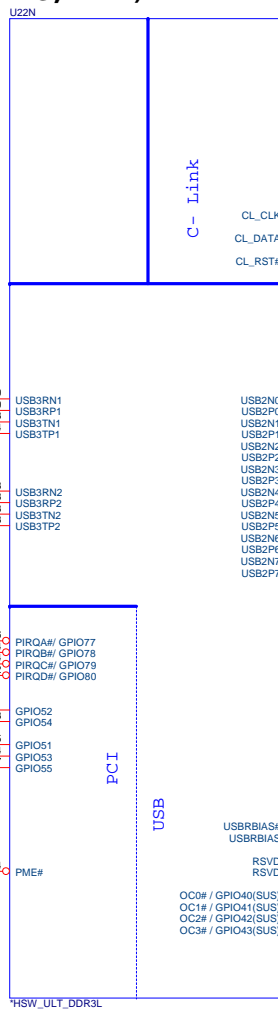
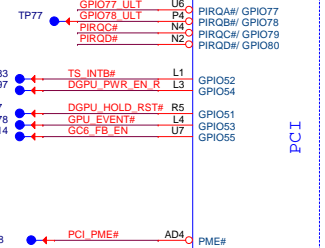
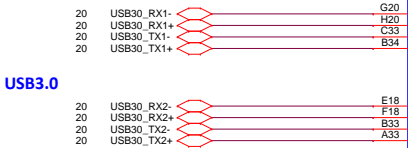
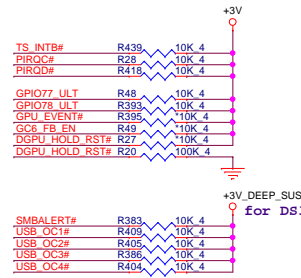
Pin Name	Strap description	Sampled	Configuration	Circuit						
SPKR	No reboot mode setting	PWROK	0 = Default (weak pull-down 20K) 1 = Setting to No-Reboot mode							
SDIO_D0 /GPIO66	Top-Block Swap	PWROK	0 = "top-block swap" mode 1 = Default (weak pull-up 20K)							
INTVRMEN	Integrated 1.05V VRM enable	ALWAYS	Should be always pull-up							
HDA_SDO /I2S0_TXD	Flash Descriptor Security Only for Interposer	PWROK	0 = Default (weak pull-down 20K) 1 = Can be Overriden							
GPIO0_MOSI /GPIO86	Boot BIOS Selection	PWROK	<table border="1"><thead><tr><th>GNT0#</th><th>Boot Location</th></tr></thead><tbody><tr><td>1</td><td>LPC</td></tr><tr><td>0</td><td>SPI(Default)</td></tr></tbody></table>	GNT0#	Boot Location	1	LPC	0	SPI(Default)	
GNT0#	Boot Location									
1	LPC									
0	SPI(Default)									
GPIO15	TLS Confidentiality	PWROK	0 = ME Crypto Transport Layer Security cipher suite with no confidentiality(Default) 1 = Intel ME Crypto TLS cipher suite with confidentiality							
DSWVRMEN	Deep Sx Well On-Die Voltage Regulator Enable	ALWAYS	Should be always pull-up							

<p><b>PROJECT :Y61</b>  <b>Quanta Computer Inc.</b></p>		
Size Custom	Document Number <b>ULT 6/9(SATA/HDA)</b>	Rev <b>1A</b>
Date: Monday, April 21, 2014	Sheet	7 of 22



## Lynx Point-LP Platform Controller Hub (HDA,JTAG,SATA)

### PCI/USB OC# Pull-up (CLG)



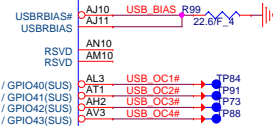
## Cardreader

## WLAN

## LA

USB2.0(M/B-1) (USBP0)  
 USB2.0(M/B-2) (USBP5)  
 USB2.0 Small board (USBP1)  
 Sensor Hub (USBP4)  
 Camera (USBP2)  
 WLAN (USBP6)  
 TS (USBP3)

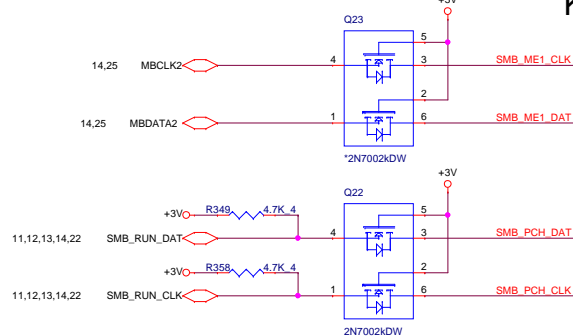
### Cardreader



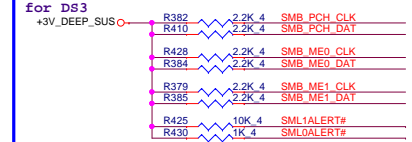
**CLK\_REQ/Strap Pin(CLG) +3V**



### SMBus/Pull-up(CLG)



## SMBus/Pull-up(CLG)

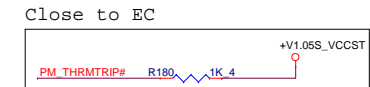
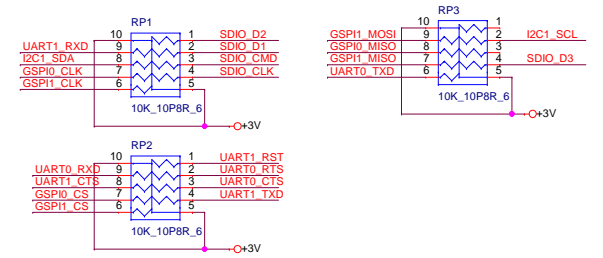


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Quanta Computer Inc.

Size Custom	Document Number <b>ULT 7/9 (PCIe/USB/CLK)</b>	Rev 1A
Date: Monday, April 21, 2014	Sheet 8 of	32

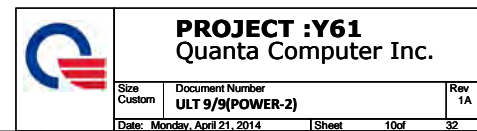
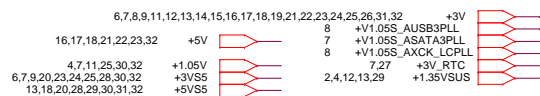
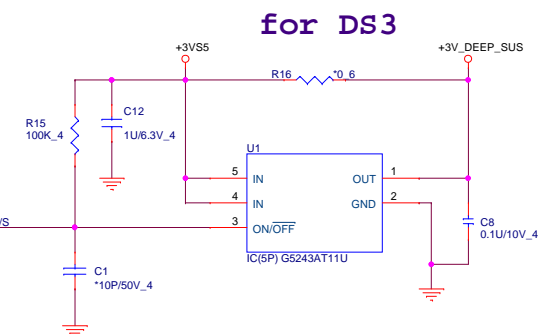


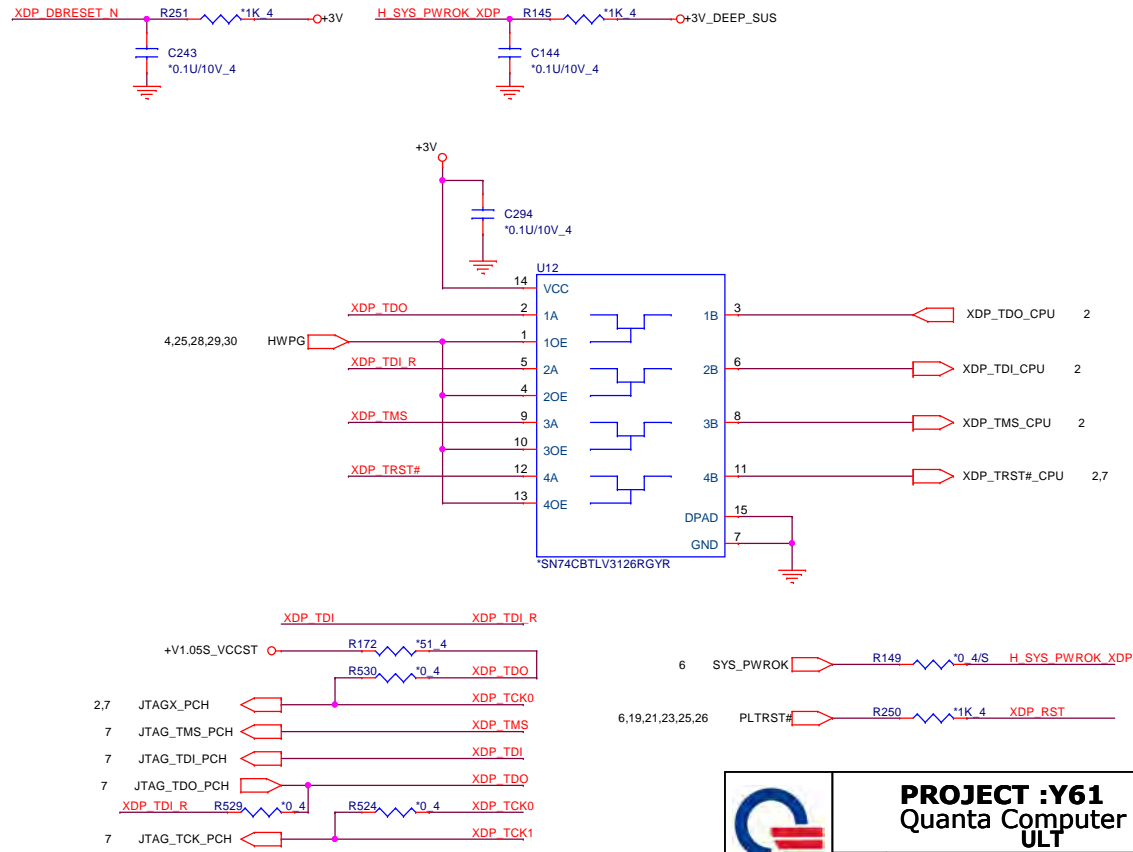
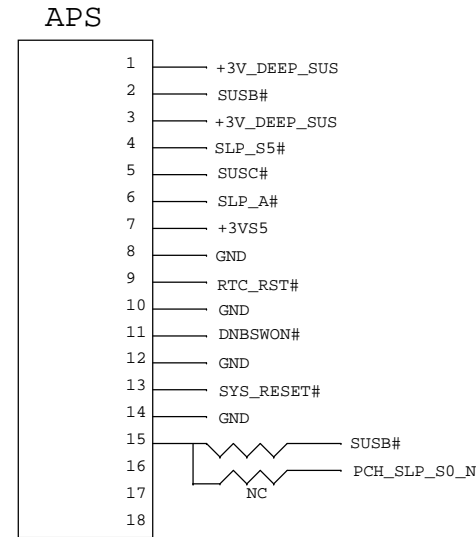
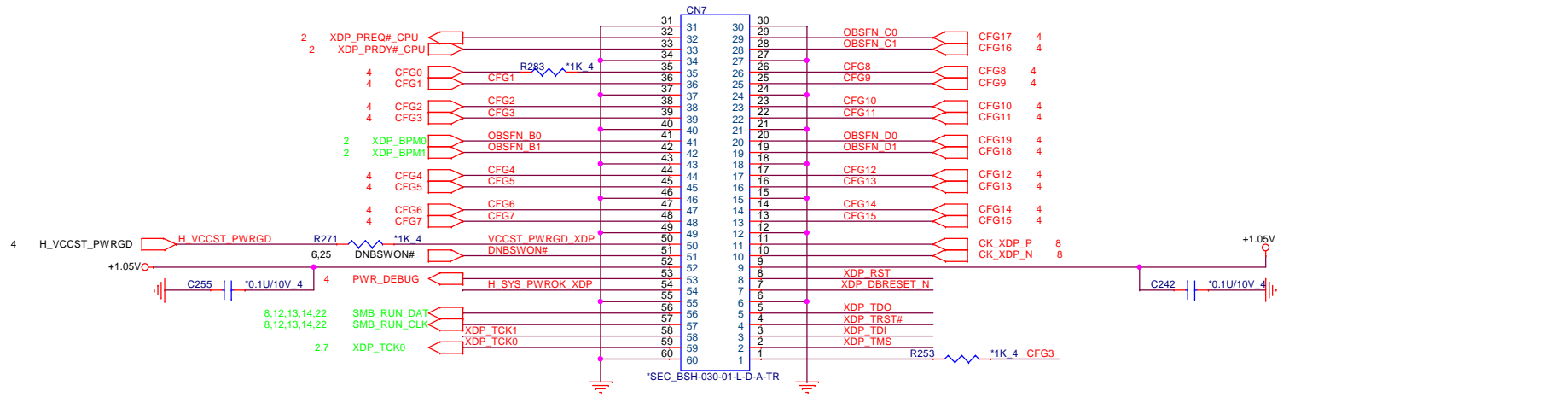
09

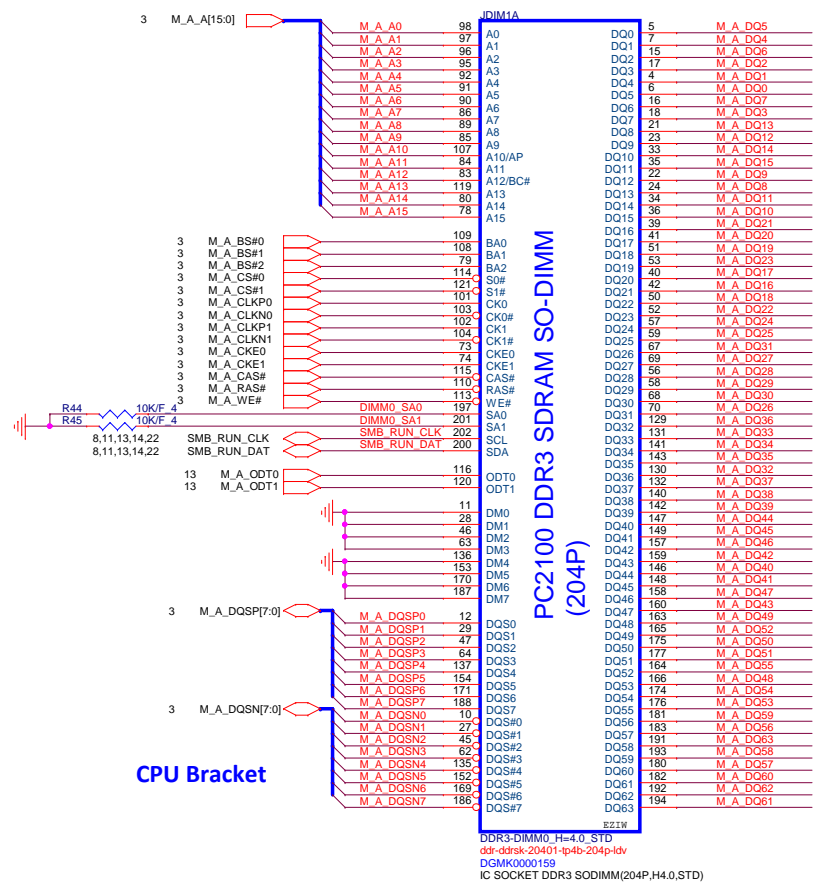


The diagram illustrates the +3V\_DEEP\_SUS supply network. It features a common ground connection on the left and a common +3V\_DEEP\_SUS output on the right. Five parallel branches connect these points, each containing a resistor and a board ID label. The components are as follows:

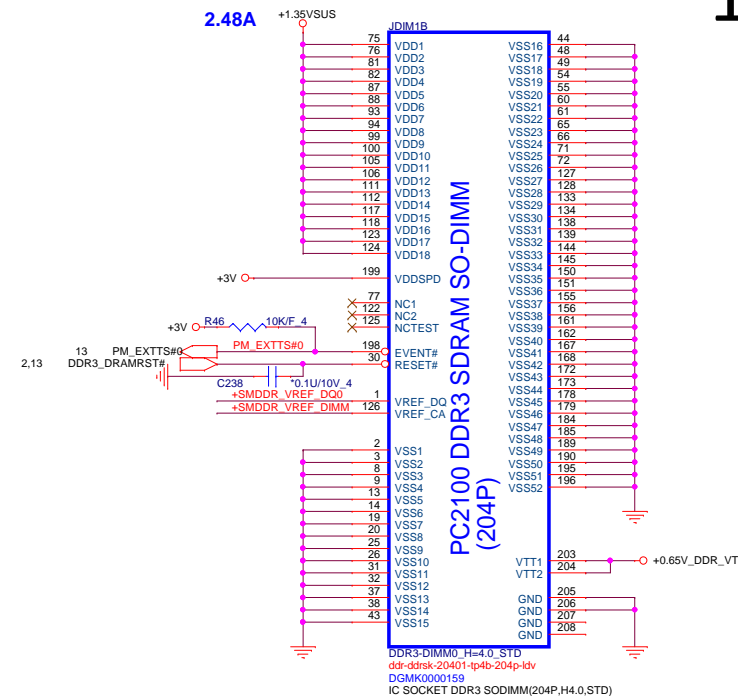
Resistor	Value	Board ID
R63	*10K 4	BOARD_ID0
R51	*10K 4	
R427	*10K 4	BOARD_ID1
R406	*10K 4	
R24	*10K 4	BOARD_ID2
R25	*10K 4	
R39	*10K 4	BOARD_ID3
R38	*10K 4	
R34	*10K 4	BOARD_ID4
R52	*10K 4	
R61	*10K 4	BOARD_ID5
R32	*10K 4	

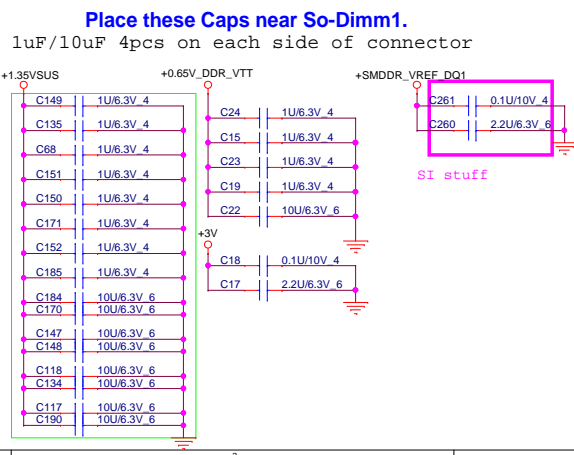
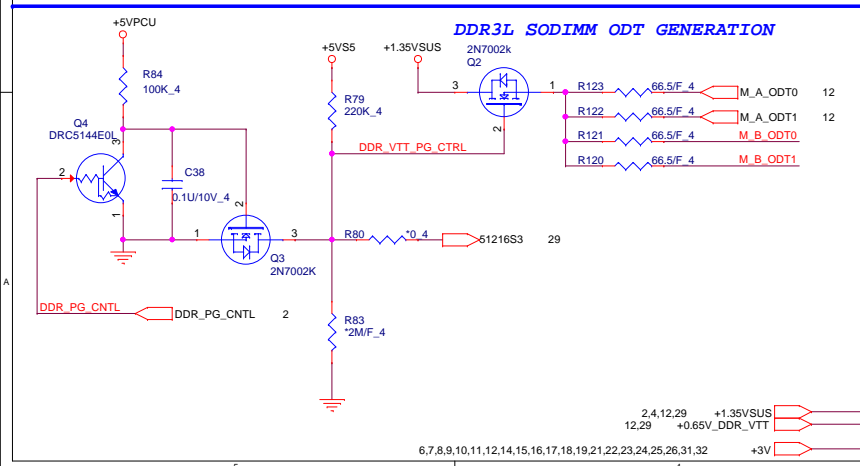
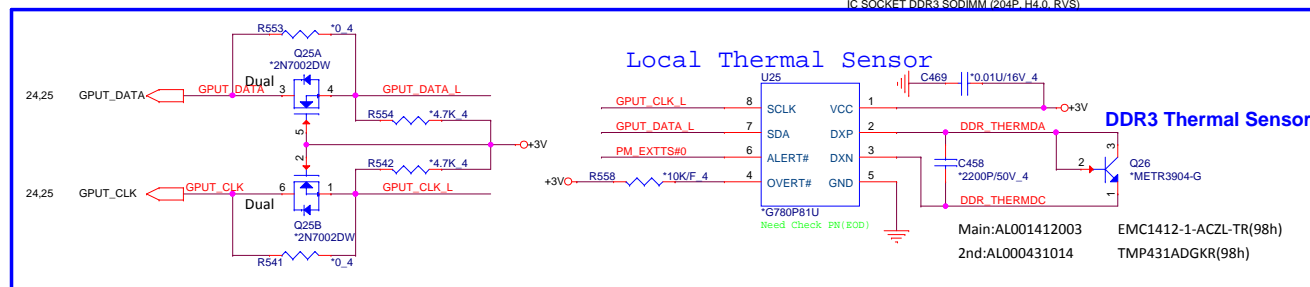
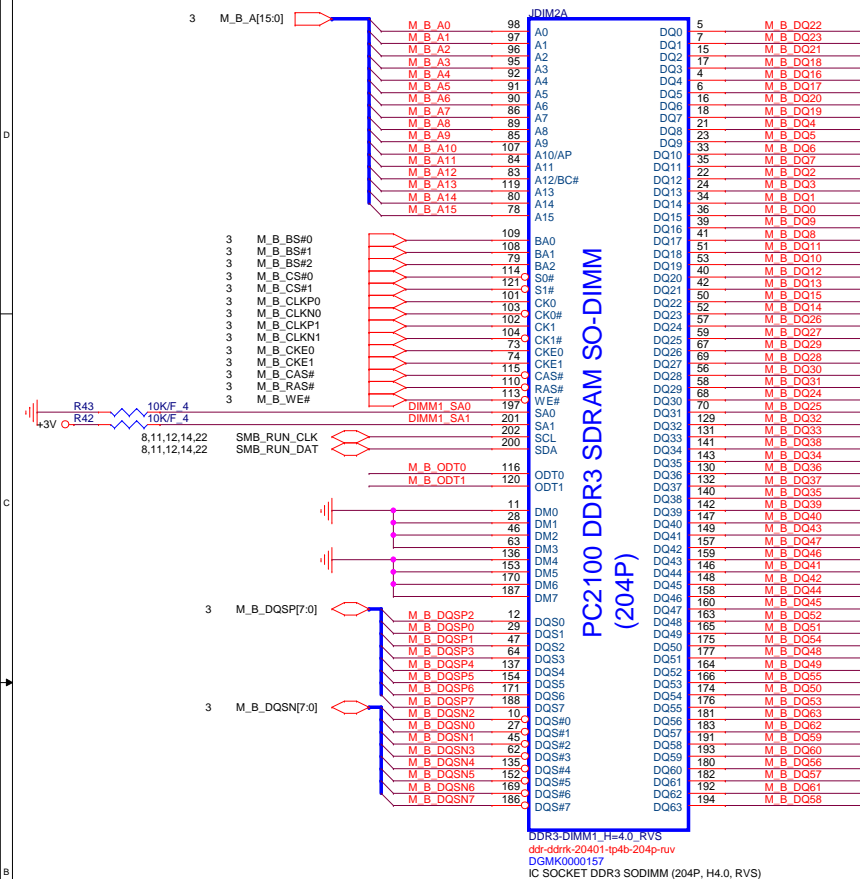


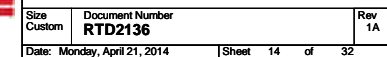




M\_A\_DQ[63:0] 3



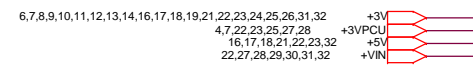
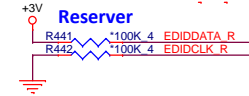
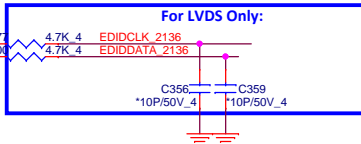
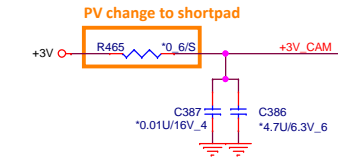
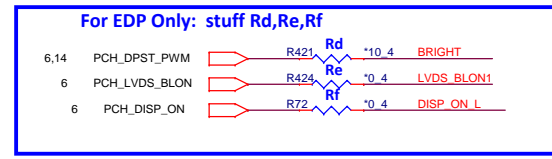
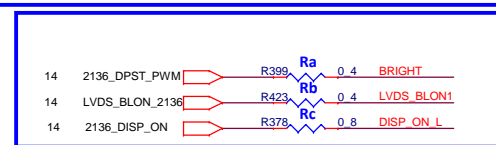
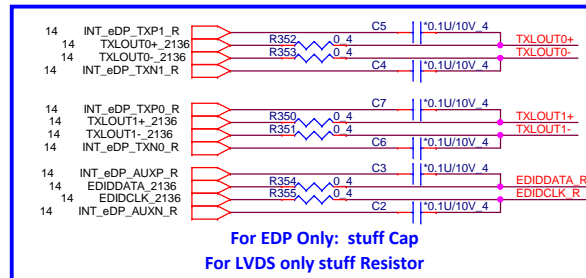
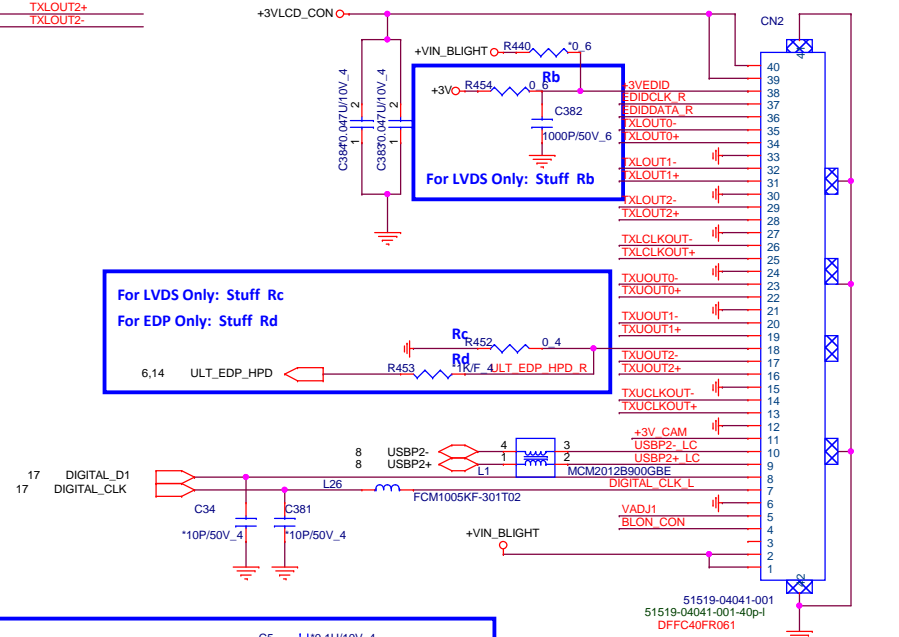
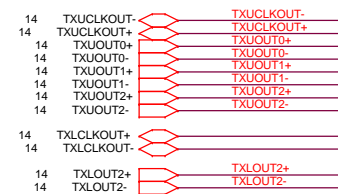
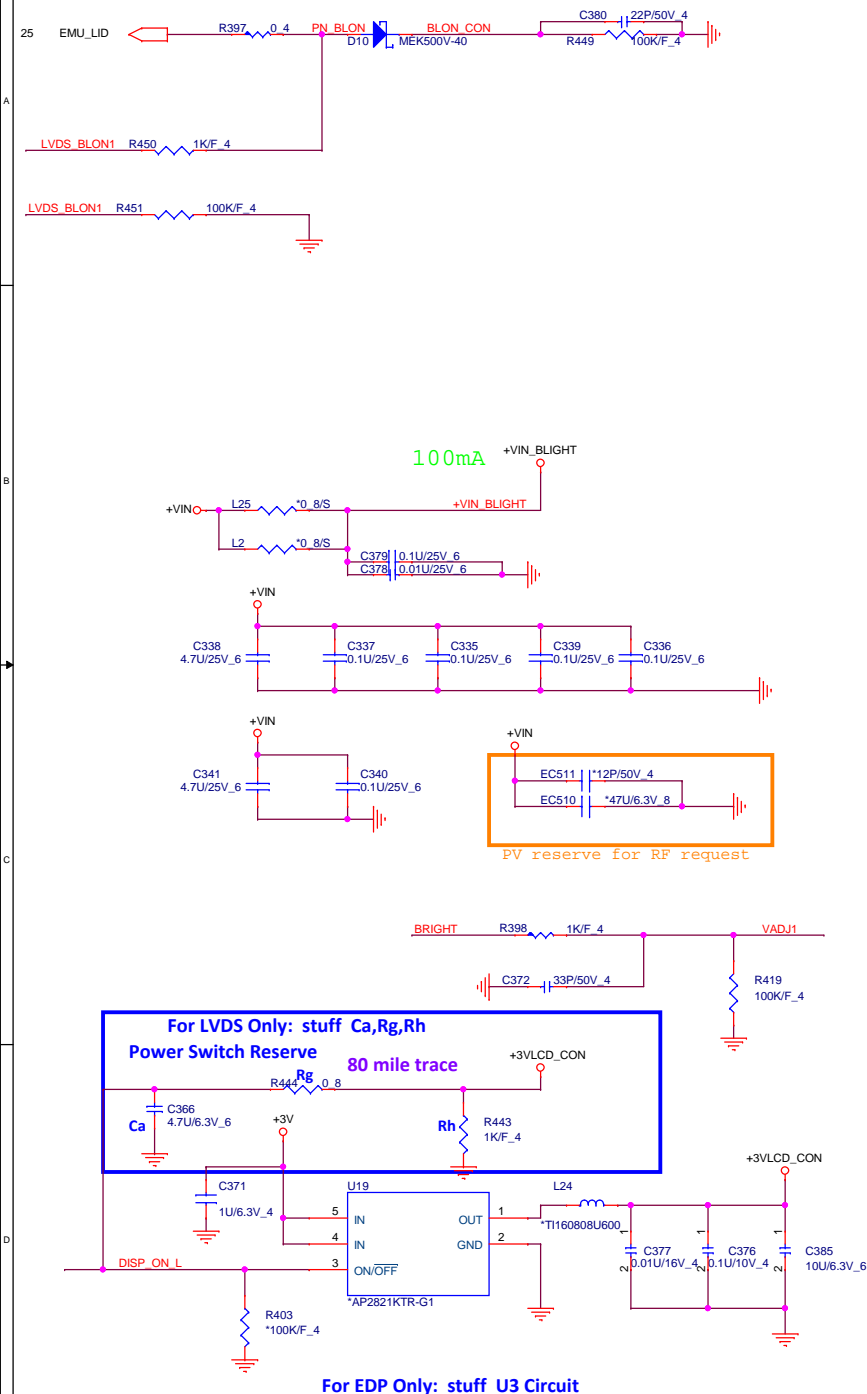




## LID Switch

**LVDS Conn.**

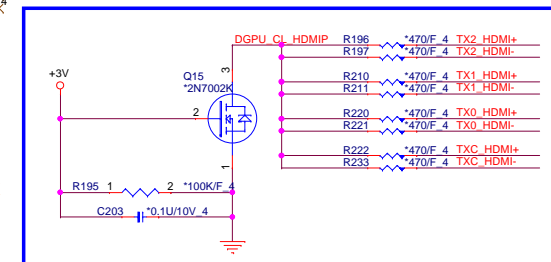
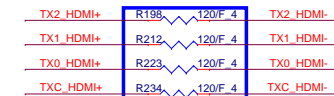
15



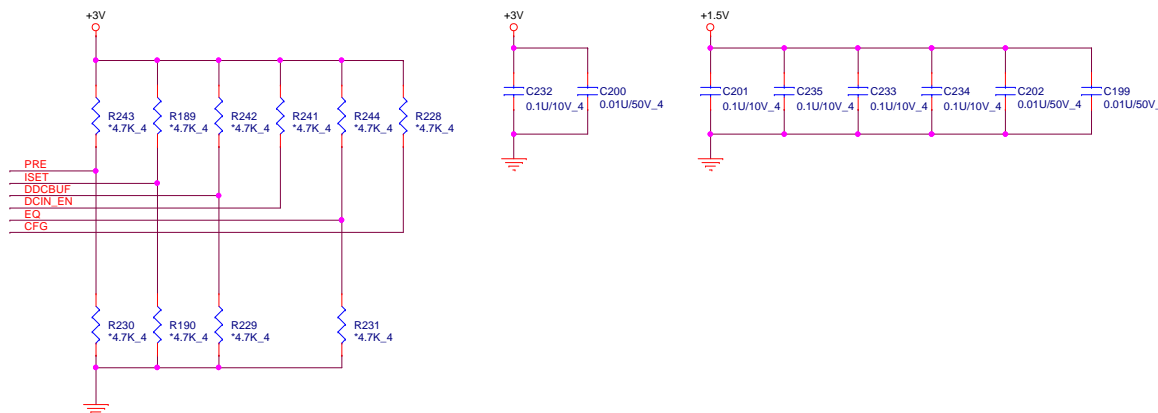
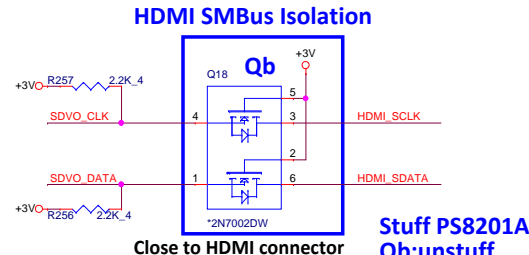
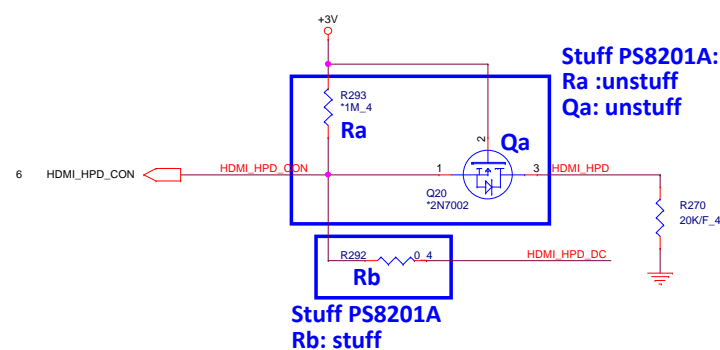
**PROJECT :Y61**  
Quanta Computer Inc.

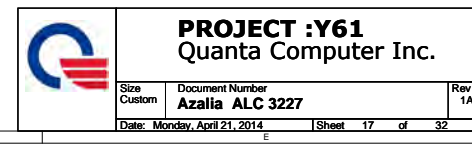
Size Custom	Document Number <b>LCD CONN/LID/CAM</b>	Rev 1A
Date: Monday, April 21, 2014		Sheet 15 of 32





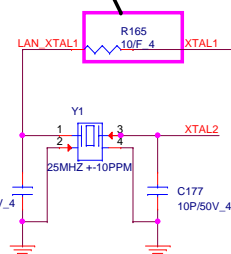
Stuff PS8201A:  
DEL ALL







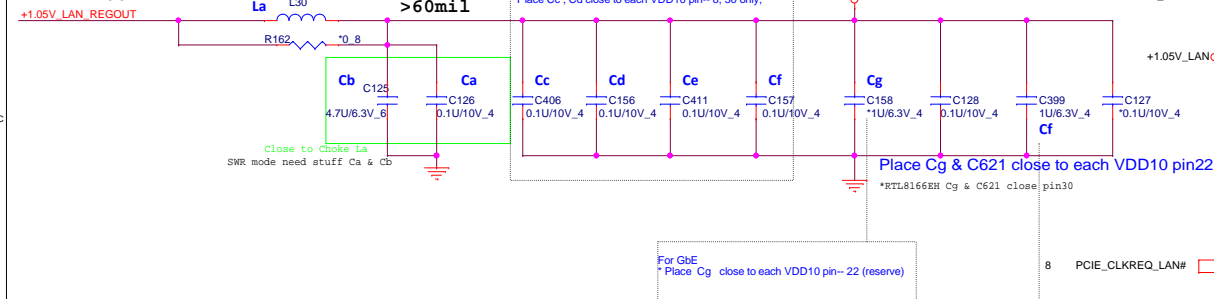
For EMI 0 ~ 22 ohm



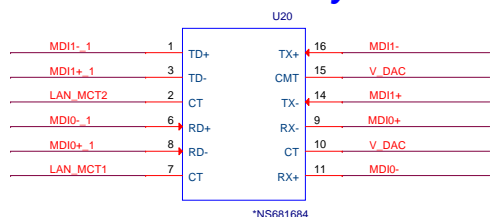
```
Trace<30 mil
Width > 60 mil
      >60mil
```

### Power trace Layout 寬度> 60mil

>60mil



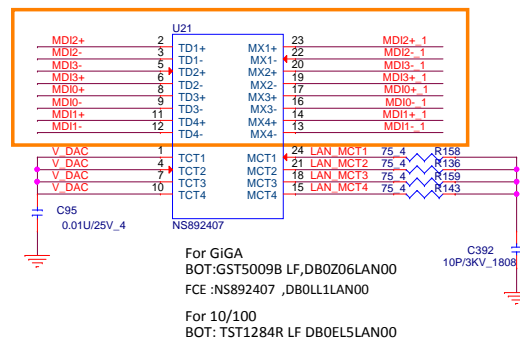
**10/100 only**



\*NS681684

BOT: TST1284R LF DB0EL5LAN00

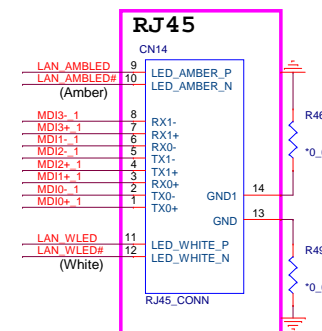
\* Place Cf close to each VDD10 pin-- 30 (reserve)



For GiGA  
BOT:GST5009B LF,DB0Z06LAN00  
FCE :NS892407 ,DB0LL1LAN00

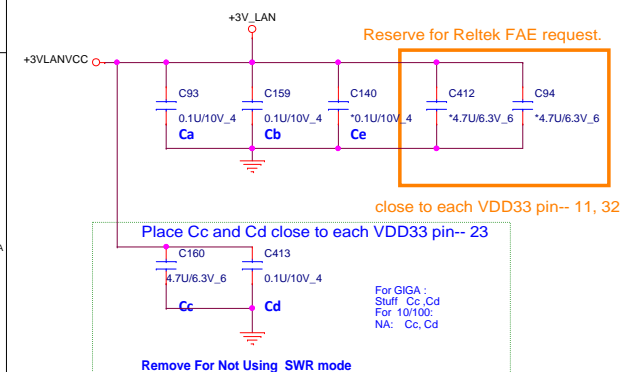
For 10/100  
BOT: TST1284R LF DB0EL5LAN00

## LAN conn



SI change footprint to  
ri45-2ri3060-128111f-12p

For 10/100  
 \* Stuff Ca and Ce only, close to each VDD33 pin-- 23, 32  
 For GIGA  
 \* Stuff Ca and Cb only, close to each VDD33 pin-- 11, 32



close to each VDD33 pin-- 11, 32

Place Cc and Cd close to each VDD33 pin-- 23

For GIGA :  
 Stuff Cc, C  
 For 10/100  
 NA: Cc, C

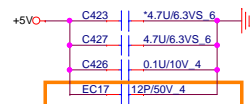
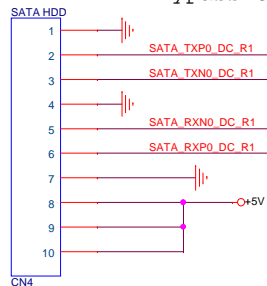
Remove For Not Using SWR mode

6,7,8,9,10,11,12,13,14,15,16,17,18,21,22,23,24,25,26,31,32



## SATA HDD Connector(Cable type)

Bypass CAP close conn



PV: stuff EC17 12pF,

SI add for co-lay use

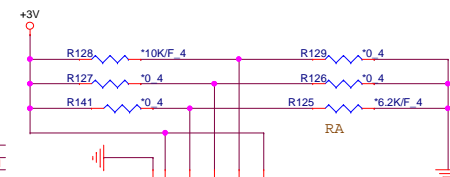
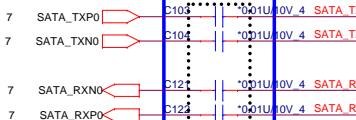
SATA_TXP0_DC_R1	R584	*0.4	SATA_TXP0_DC_R
SATA_TXN0_DC_R1	R586	*0.4	SATA_TXN0_DC_R
SATA_RXN0_DC_R1	R588	*0.4	SATA_RXN0_DC_R
SATA_RXP0_DC_R1	R587	*0.4	SATA_RXP0_DC_R

SATA_TXP0_DC_R2	R589	*0.4	SATA_TXP0_DC_R
SATA_TXN0_DC_R2	R591	*0.4	SATA_TXN0_DC_R
SATA_RXN0_DC_R2	R588	*0.4	SATA_RXN0_DC_R
SATA_RXP0_DC_R2	R590	*0.4	SATA_RXP0_DC_R

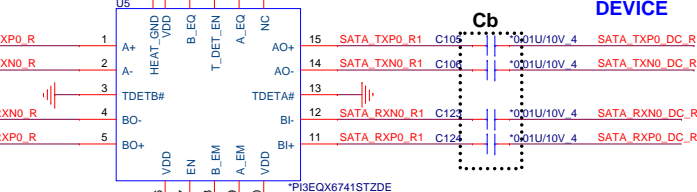
## SATA Re-driver

Ra &amp; Rb need place close

HOST

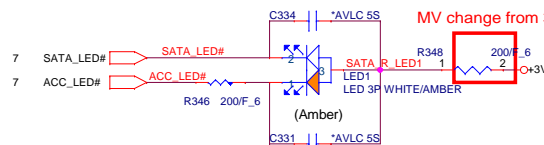


DEVICE

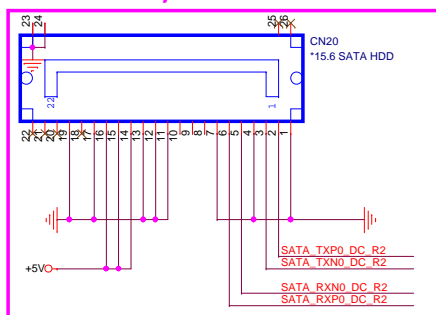
SATA re-driver IC  
stuff Rb,Cb , unstuff Ra,Caunstuff SATA re-driver IC  
stuff Ra,Ca , unstuff Rb,Cb

## SATA LED

MV change from 39ohm to 200ohm for ID



## SI-co-lay SATA HDD Connector

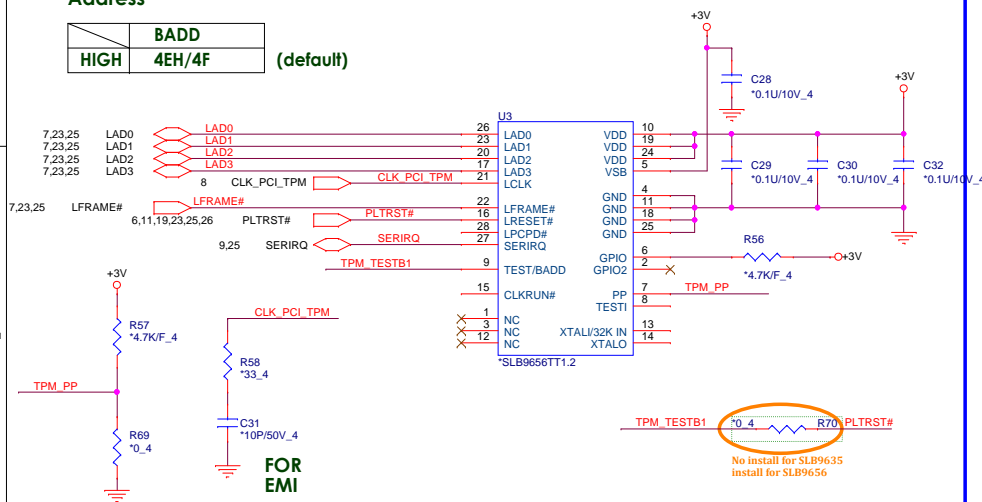


footprint check OK

## TPM (1.2)

Address

	BADD
HIGH	4EH/4F (default)



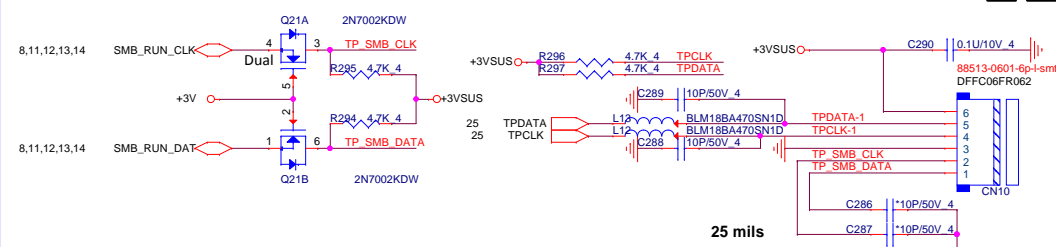
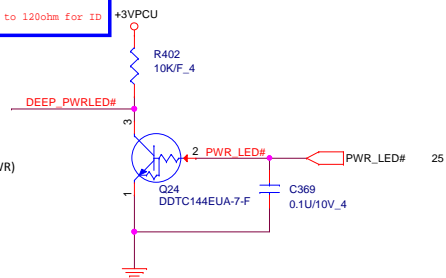
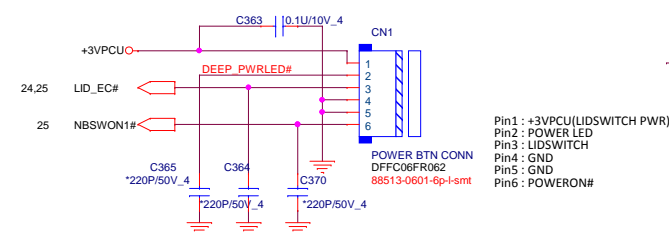
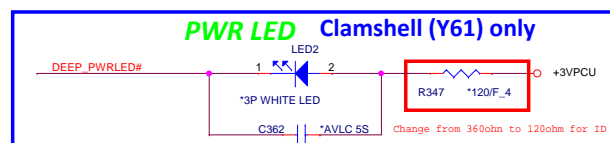
6,7,8,9,10,11,12,13,14,15,16,17,18,19,22,23,24,25,26,31,32 +3V  
16,17,18,22,23,32 +5V  
4,7,22,23,25,27,28 +3VPCU  
27 BATT+



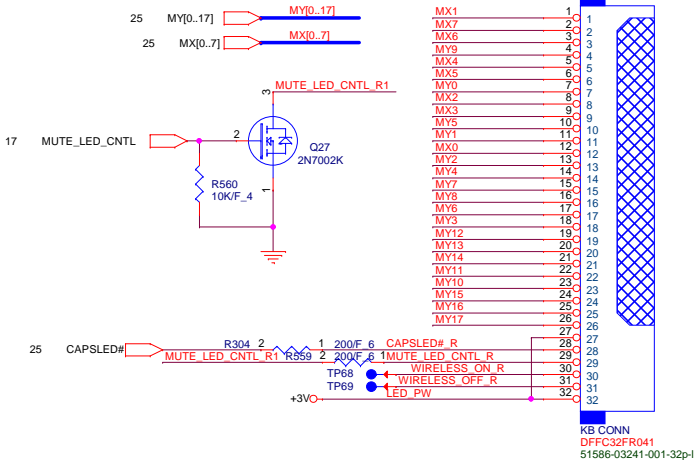
**PROJECT :Y61**  
**Quanta Computer Inc.**

Size	Document Number	Rev
Custom	HDD/mSATA/FAN/LED	1A
Date: Monday, April 21, 2014	Sheet 21 of 32	

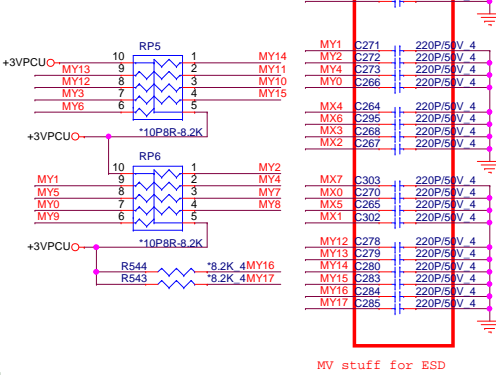
## Touch Pad Connector



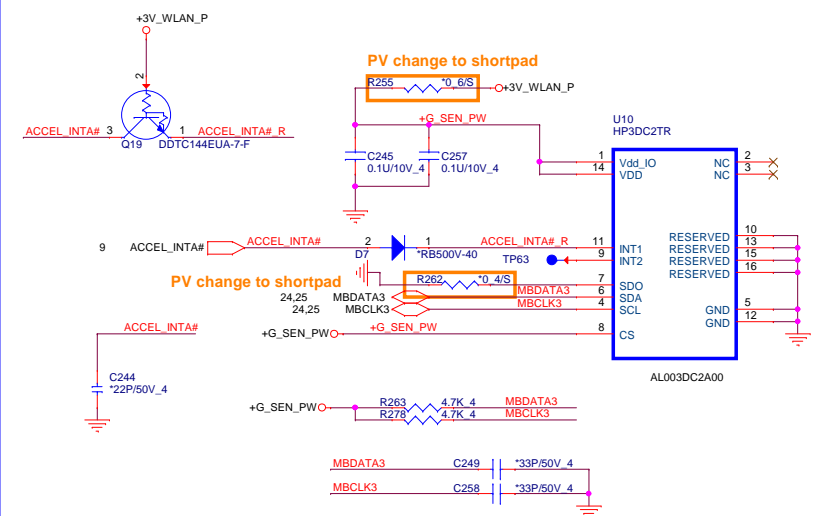
## KEYBOARD Con.



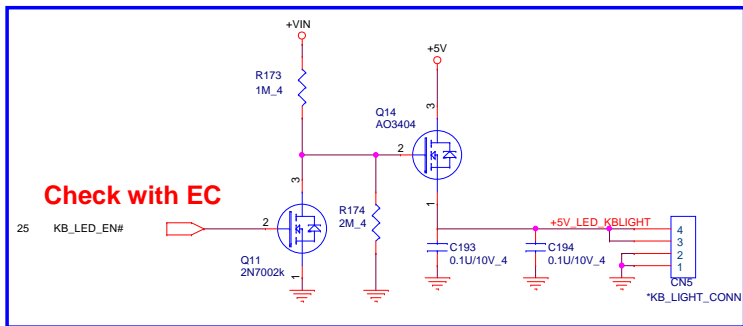
## KEYBOARD PULL-UP



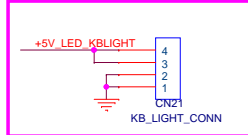
## Accelerometer Sensor



**15" KB backlight only**



## Co-lay








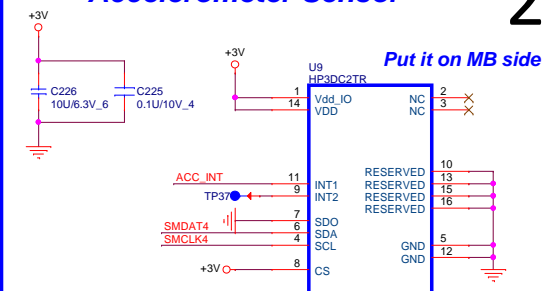
### PV change footprint



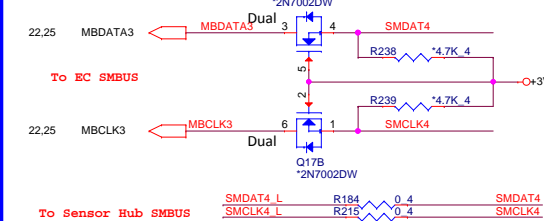
	<b>PROJECT :Y61</b> Quanta Computer Inc.		
	Size Custom	Document Number <b>WLAN/G-Sensor/G-CLK/TS</b>	Rev 1A
	Date: Monday, April 21, 2014	Sheet 23of	32

## Accelerometer Sensor

Put it on MB side



## Close to U9



To APU 9 ACCEL\_INTH# R488 0.4 ACC\_INT

Reserved SMBus channel 0 for debugging & updating FW  
Reserved  
SMBus channel 4 for connecting the Sensor (G-sensor)

## Reserved TX/RX for debugging

if no use ADC function,  
please pull down to GND  
SMINTx for sensor interrupt

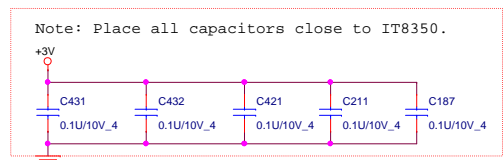
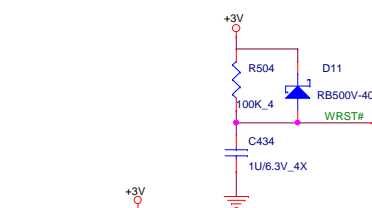
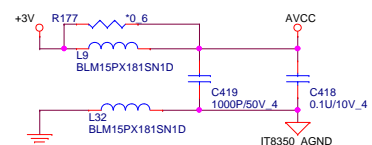
## GPG2 can't floating

External crystal is must be item  
when USB func. is used !

32.768kHz clock lines:

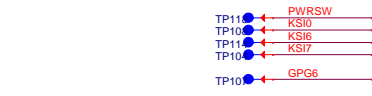
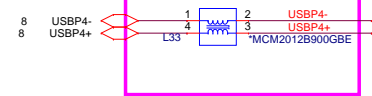
- If possible, please avoid using any through-hole.
- Please make the trace length short, and the trace width wide enough.
- The spacing to the closest neighbor should be wide enough.

Note: Place all capacitors close to IT8350.

IT8350E  
LQFP-48

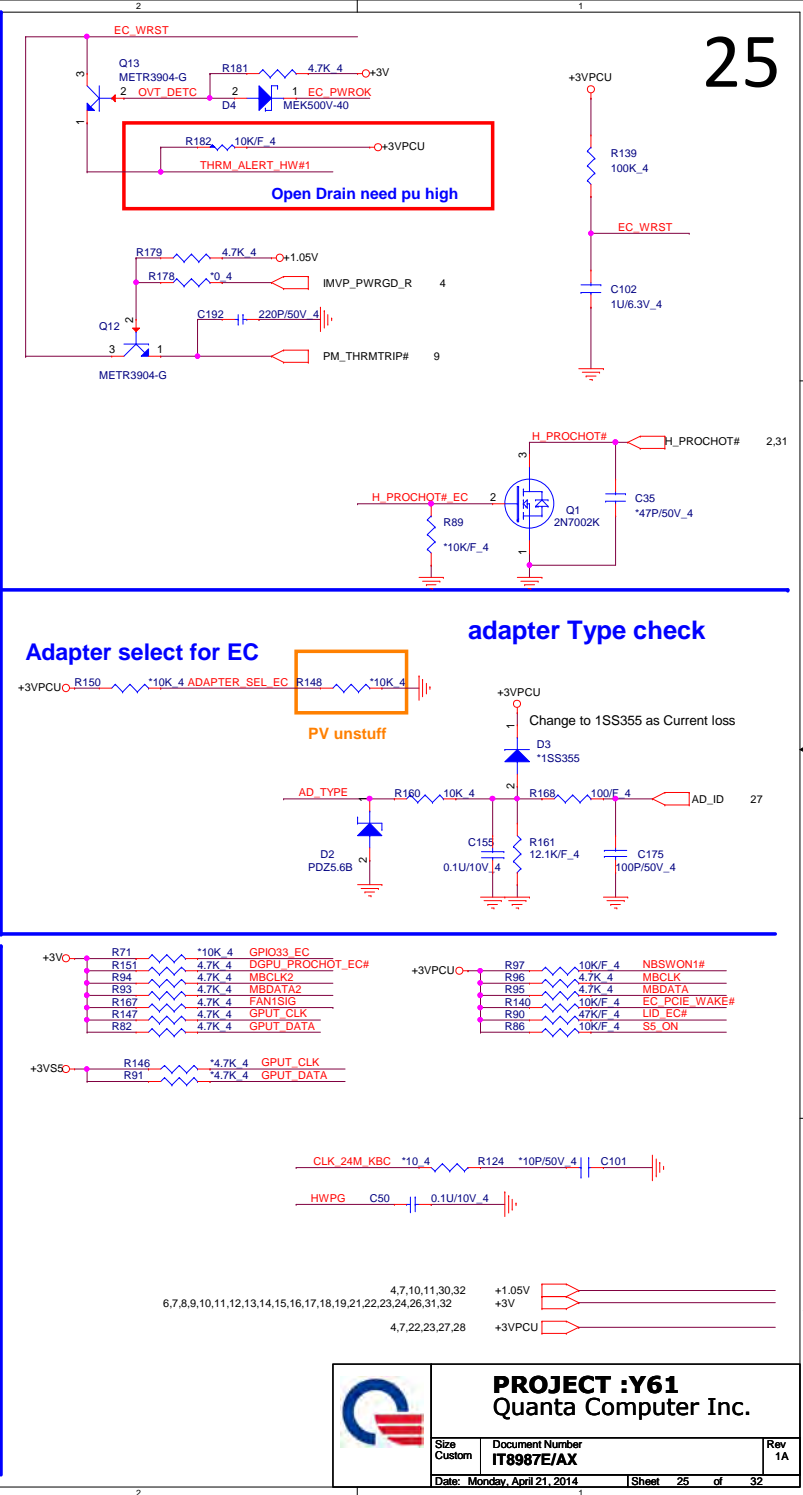
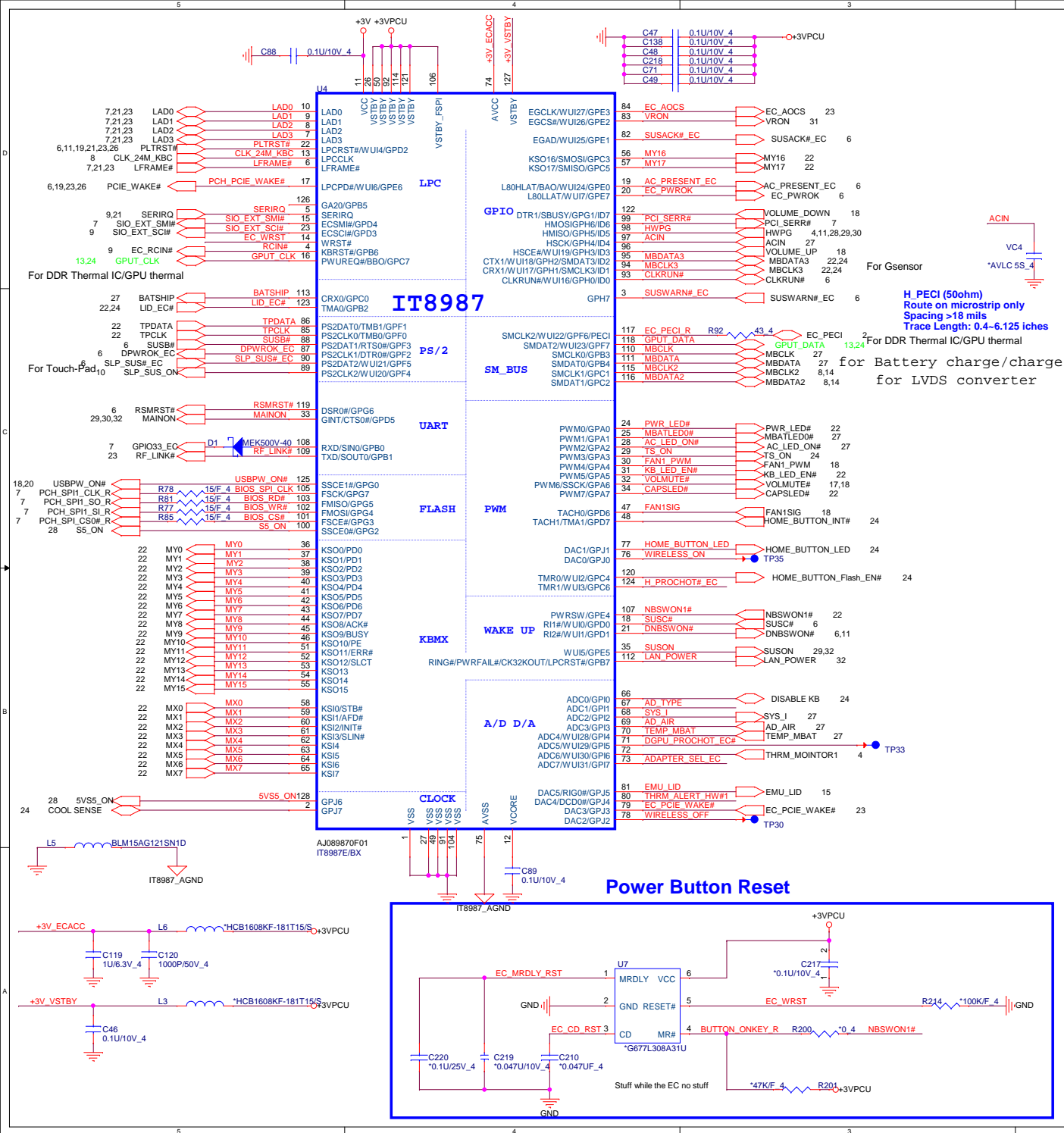
## USB for Host

SI short L33



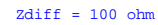
**PROJECT :Y61**  
**Quanta Computer Inc.**

Size	Document Number	Rev
Custom	ITE8350/HP9DS0/HP3DC2	1A
Date: Monday, April 21, 2014	Sheet 24 of 32	



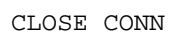
**PROJECT :Y61**  
**Quanta Computer Inc.**

Size	Document Number	Rev
Custom	IT8987E/AX	1A
Date: Monday, April 21, 2014	Sheet 25 of 32	

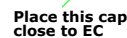


## Share Pin

SD / MMC

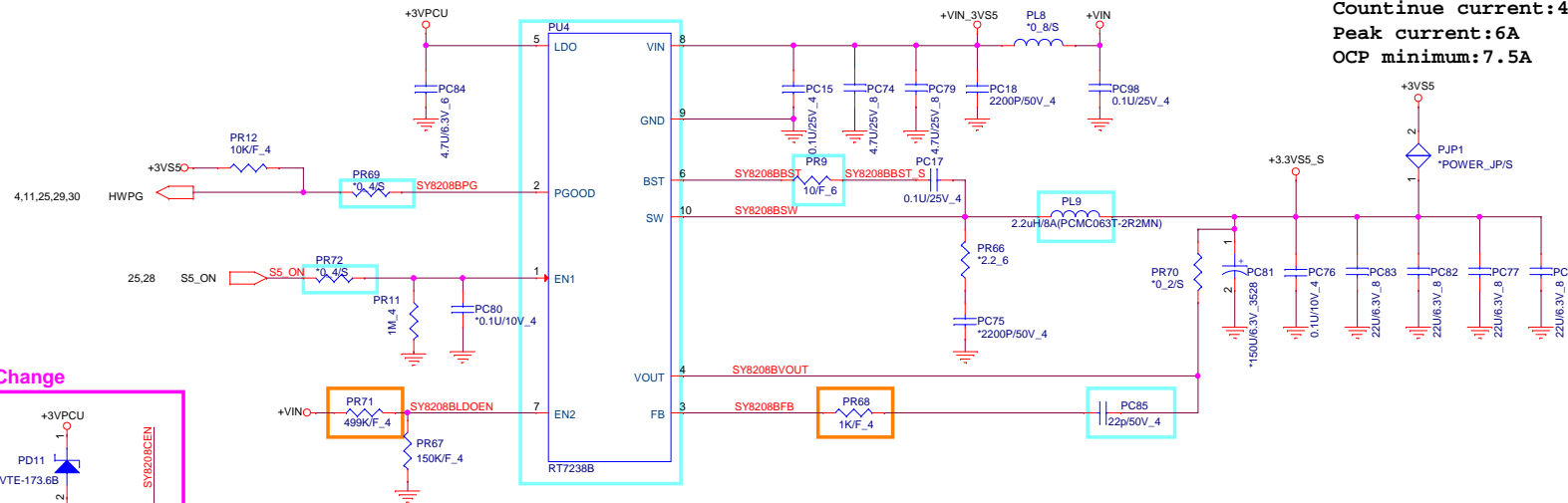


NEW Type

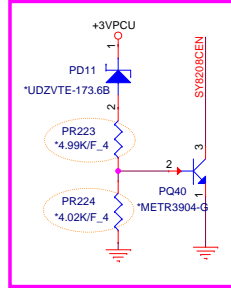


+3VS5 6,7,9,10,20,23,24,25,30,32  
+5VS5 13,18,20,29,30,31,32

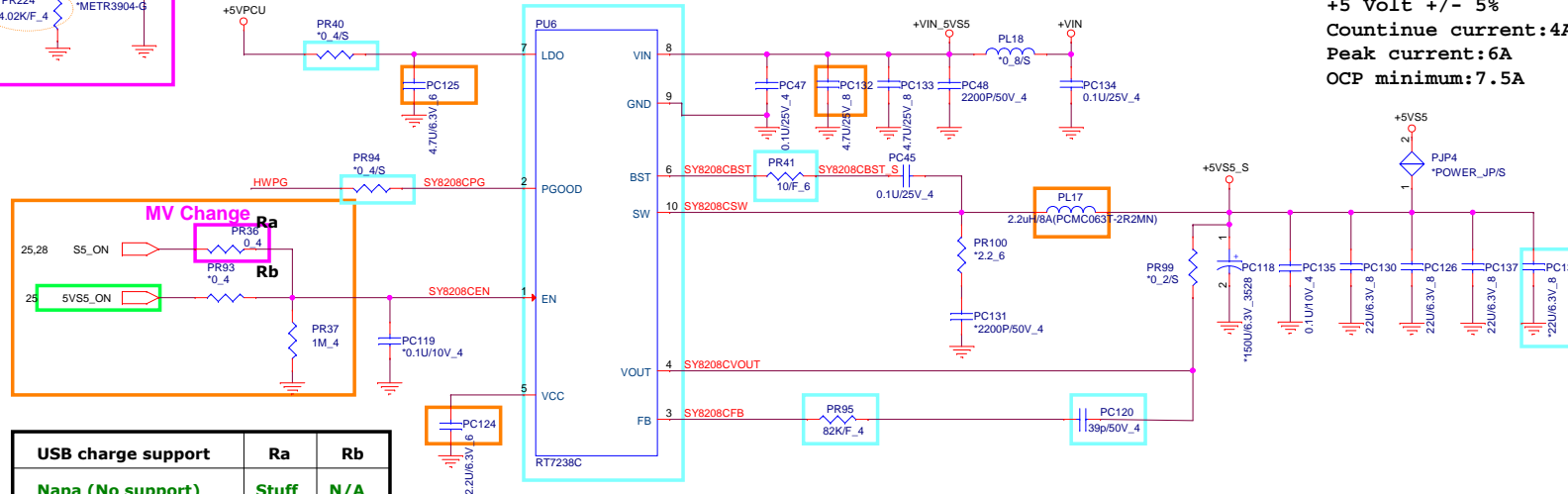
**+3.3 Volt +/- 5%**  
**Countinue current:4A**  
**Peak current:6A**  
**OCp minimum:7.5A**



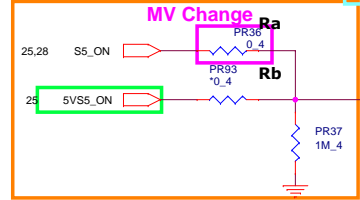
MV Change



**+5 Volt +/- 5%**  
**Countinue current:4A**  
**Peak current:6A**  
**OCp minimum:7.5A**



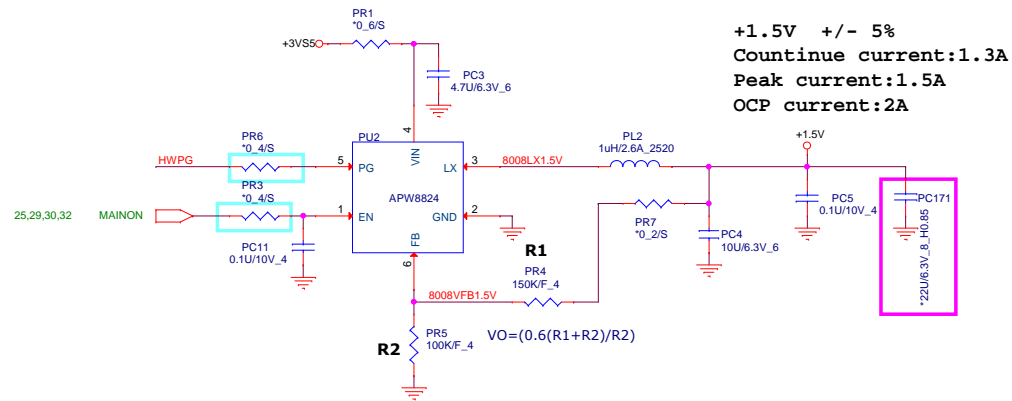
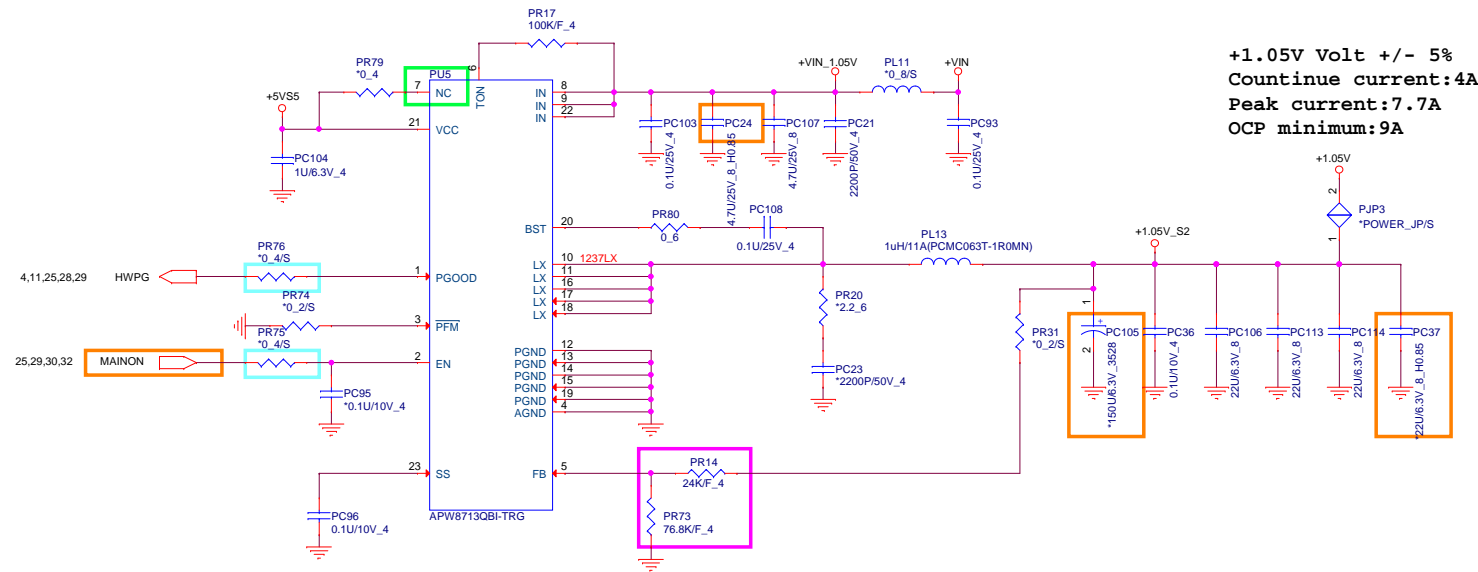
MV Change



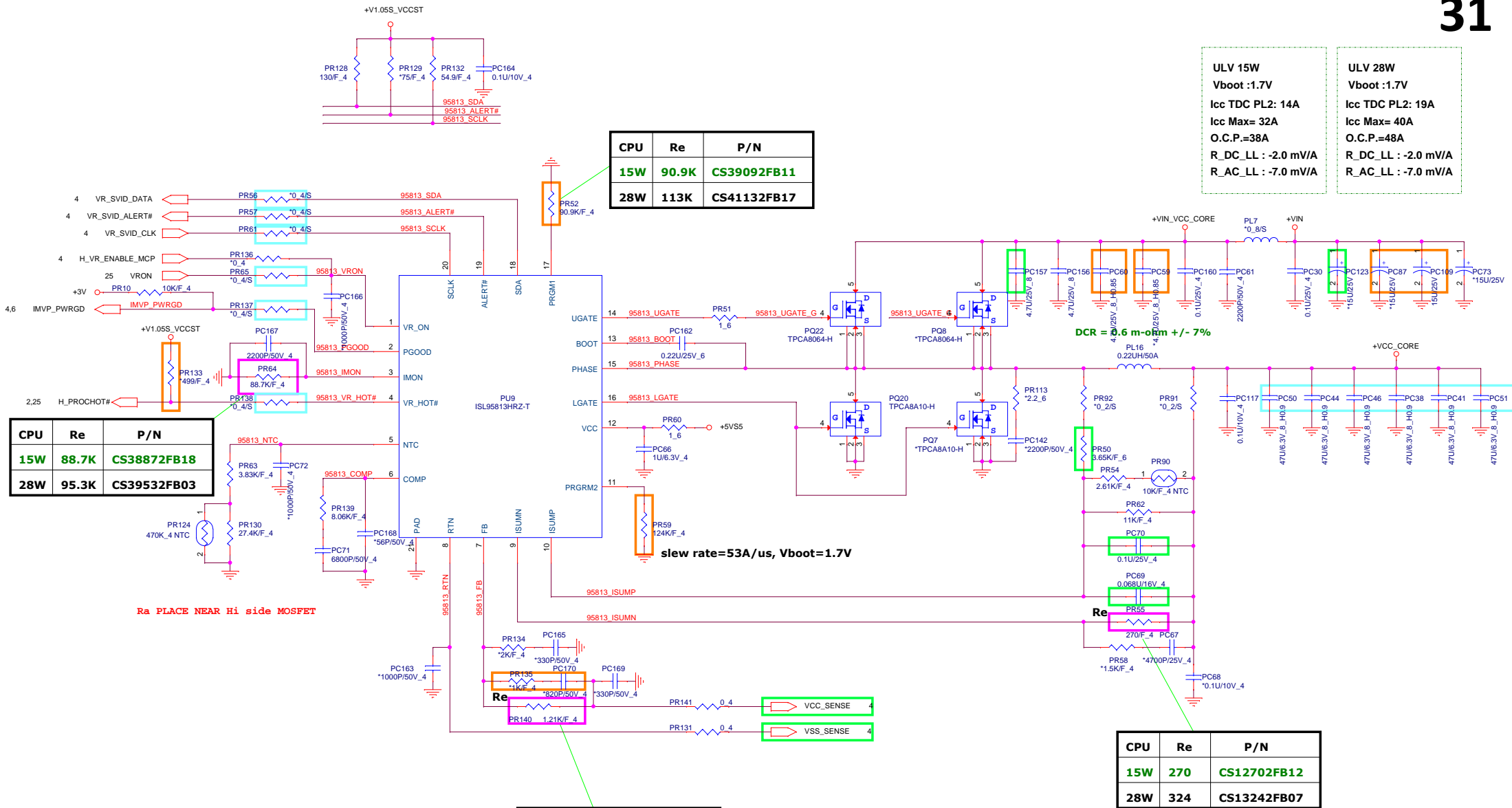
USB charge support	Ra	Rb
Napa (No support)	Stuff	N/A
Whisky (Support)	N/A	Stuff







+VIN 15,22,27,28,29,31,32  
+3VS5 6,7,9,10,20,23,24,25,28,32  
+5VS5 13,18,20,28,29,31,32  
+5VPCU 13,27,28



**PROJECT :NAPA**  
Quanta Computer Inc.

Size Document Number  
**CPU\_CORE(ISL95813) 15W** Rev 1A  
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