

# Y0B 13.3" INTEL SYSTEM DIAGRAM

1

+3VS5/+5VS5
PG.29
+1.05V/+1.5V
PG.30
CPU Core
PG.32
DDR3L
PG.31
Charger
PG.28

Memory DDR3L 4PCs (x16)	1600MT/s	DDR3 L Channel A
PG.12		
Memory DDR3L 4PCs (x16)	1600MT/s	DDR3 L Channel B
PG.13		

**Intel Bay Trail-M**

Power : 5 (Wat t)

Package : BGA1170

Size : 25 X 27 (mm)<sub>HP</sub>

PG.2~11

eMMC 32G	MMC
PAGE 23	

PCI-E x3	
LANE3	LANE1
Card Reader RTS5239	WLAN BT COMBO
PG.20	PG.26


KBC IT8987			
PG.27			
LPC Interface			
TPM SLB9665	KB	TP	ROM
PG. 21	PG. 22	PG. 22	PG. 6

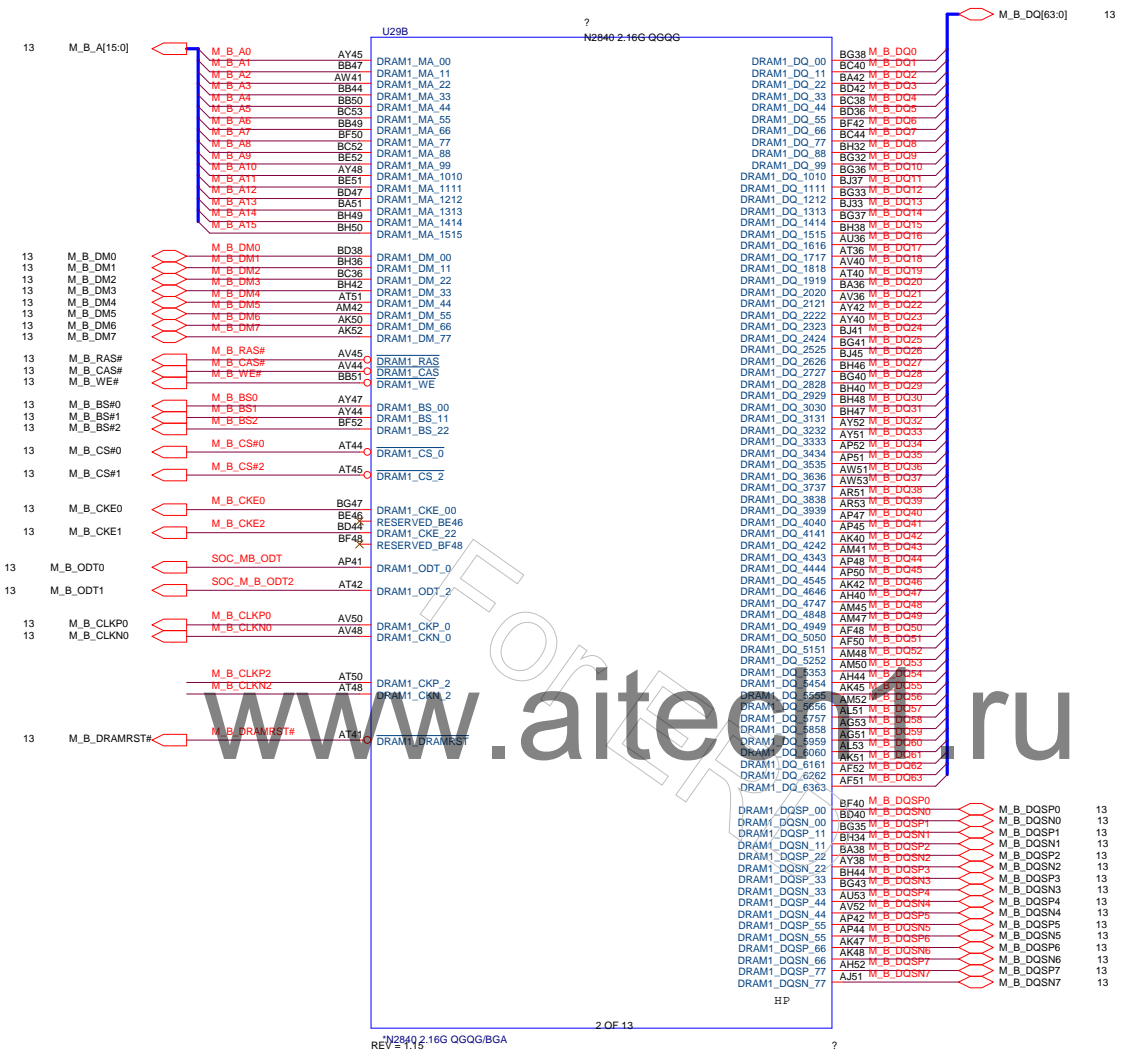
Azalia	
AUDIO CODEC ALC 3227	
PG.18	
Front Speaker	
PAGE 19	
Hp	Combo Jack
	PG. 19
MIC	

eDP	eDP	eDP
PG.16	PG.16	PG.16
DP to LVDS Converter RTD 2132	LVDS Interface	LVDS
PG.15		PG.16
DDI (5.4Gb/s)	DP Port0	HDMI
		PG.17
USB 3.0	USB2.0 /3.0 Combo X1	BT (combo card)
	PG.23	PG.26
	Port1	WWAN card
		PG.23
	USB2.0 HUB GL850	USB2.0*2
	PG.24	PG.23
USB 2.0	PORT0	Port1 & 2
	PORT2	
	PORT3	
Touch Screen	Webcam	
PG.16	PG.16	

Stackup
TOP
GND
IN1
IN2
VCC
BOT

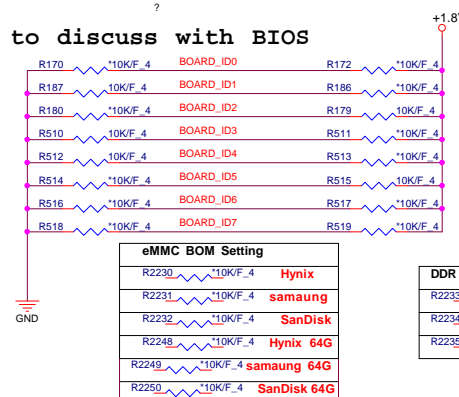








 <b>NB5</b>	<b>PROJECT : Y0B</b> <b>Quanta Computer Inc.</b>		
	<b>Size</b>	<b>Document Number</b> Valley 1/9 (DDRA)	<b>Rev</b> 1A
<b>Date: Wednesday, August 06, 2014</b>		<b>Sheet 2 of 35</b>	





Need to discuss with BIOS

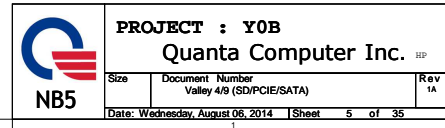


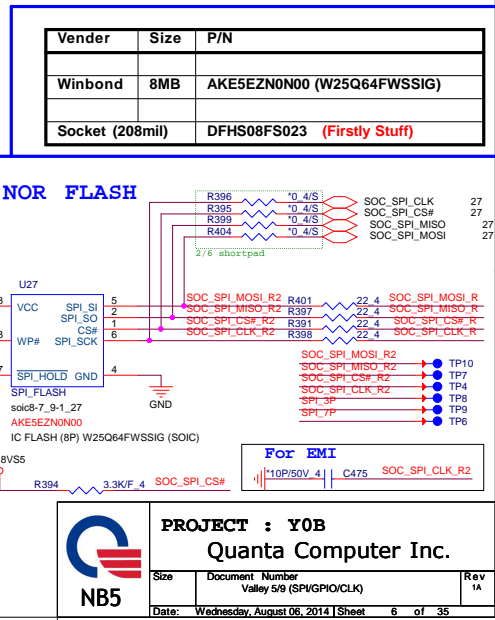
DDR BOM Setting	
R2233  *10K/F_4	R2251  *10K/F_4
R2234  *10K/F_4	R2252  *10K/F_4
R2235  *10K/F_4	R2253  *10K/F_4

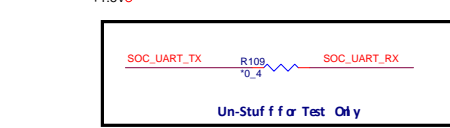


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Quanta Computer Inc.

Size	Document Number Valley 3/9 (Display)	Re 1/
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BLUEE R146: PV

R140

3V3CARD

UNCORE\_V1P8\_AN32\_P1WR

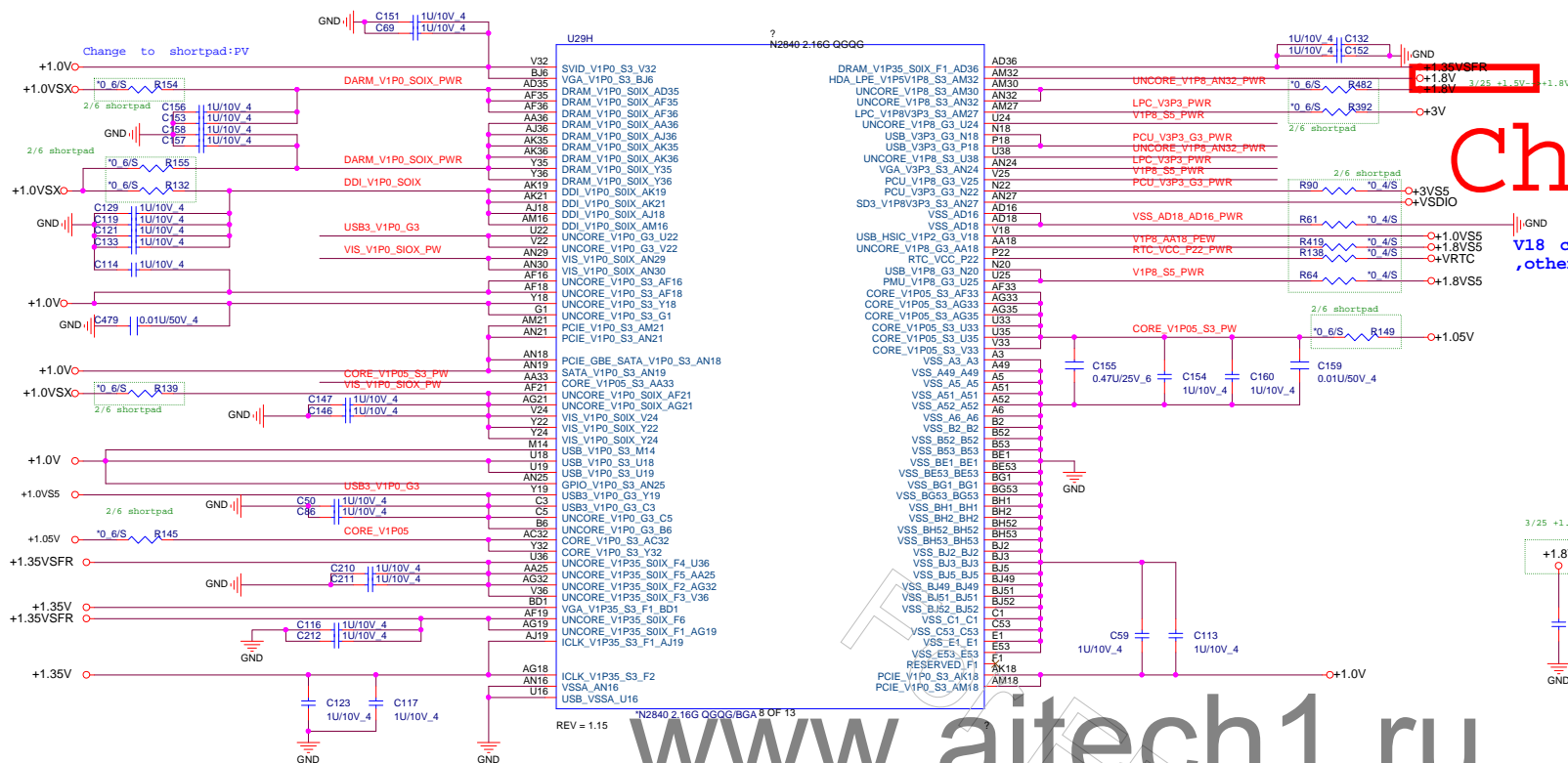
C169 1U/10V\_4

C493 1U/10V\_4

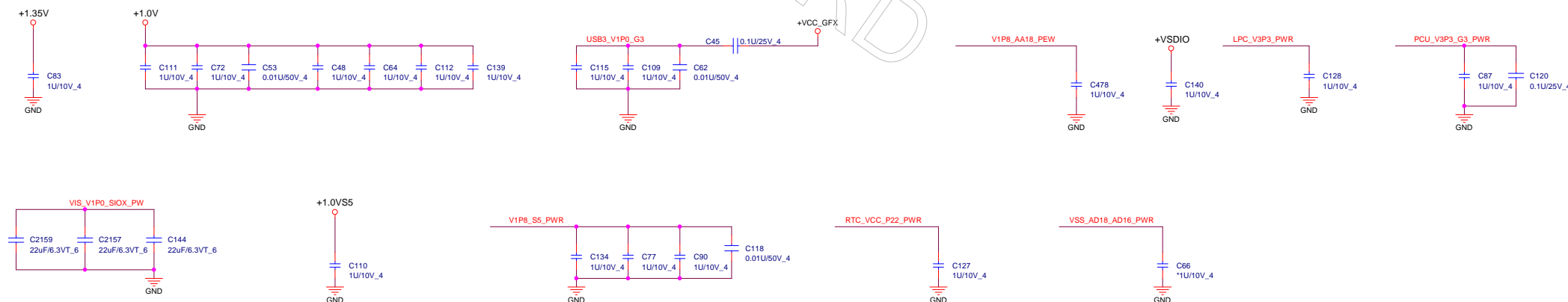
C497 1U/10V\_4

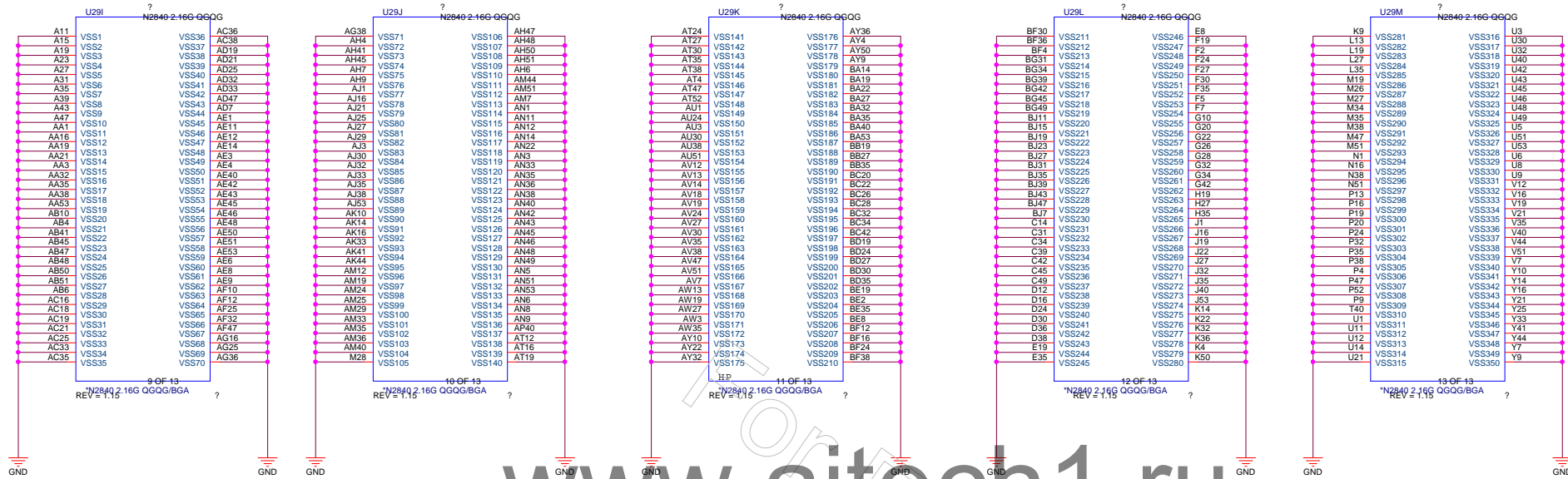
C496 1U/10V\_4

GND



16 \*N2840 2.16G QGOG/BGA 8 OF 13

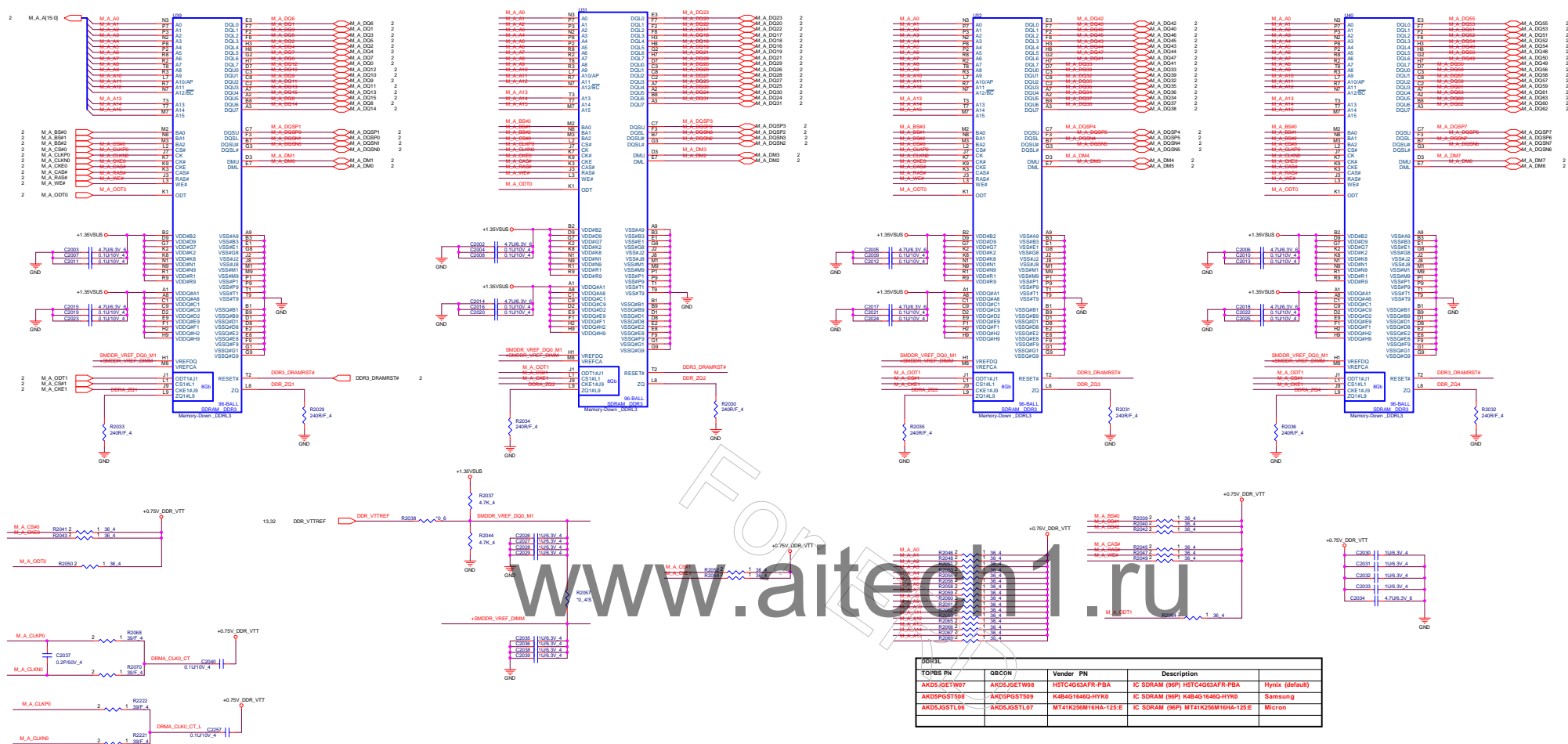




3/21 deleted XDP CN6

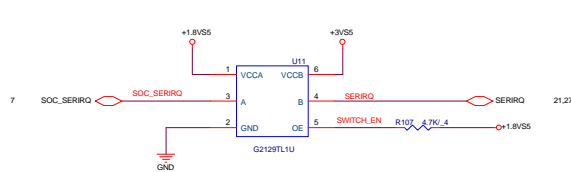
FORWARD

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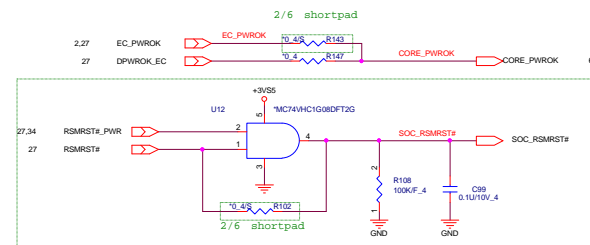
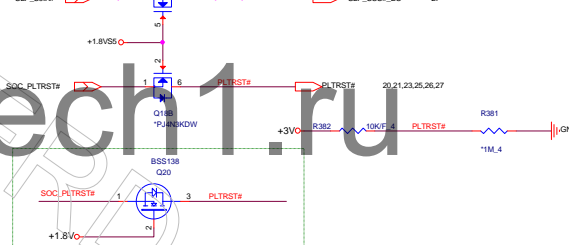
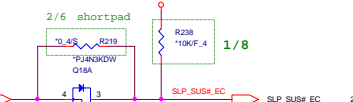
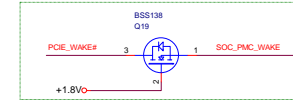
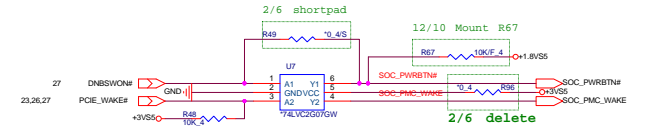
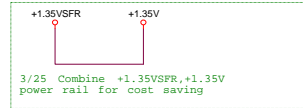
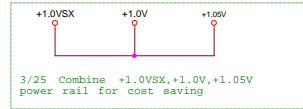
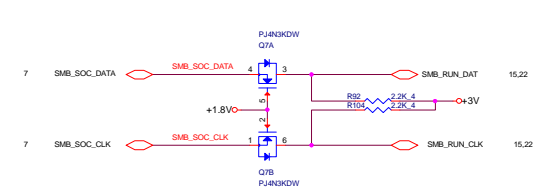
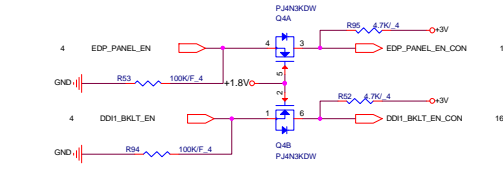


TO PPS PN	QB CON	Vender PN	Description	
AKDSJGETW07	AKDSJGETW08	HSTC4G63AFR-PBA	IC SDRAM (96P) HSTC4G63AFR-PBA	Hynix (default)
AKDSPGST506	AKDSPGST509	K4B4G1646Q-HYK0	IC SDRAM (96P) K4B4G1646Q-HYK0	Samsung
AKDSJGSTL06	AKDSJGSTL07	MT41K256M16HA-125-E	IC SDRAM (96P) MT41K256M16HA-125-E	Micron

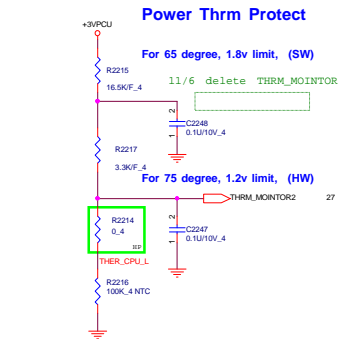
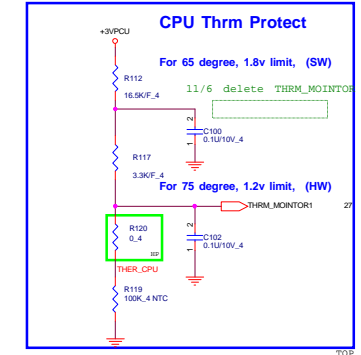




11/4 Delete duplicate TP lever shift

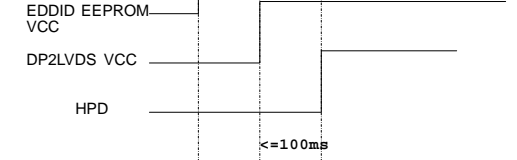


11/5 Add AND gate

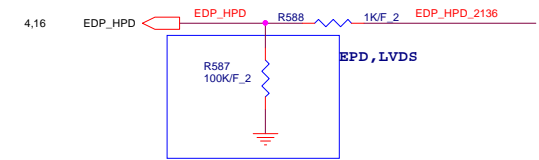
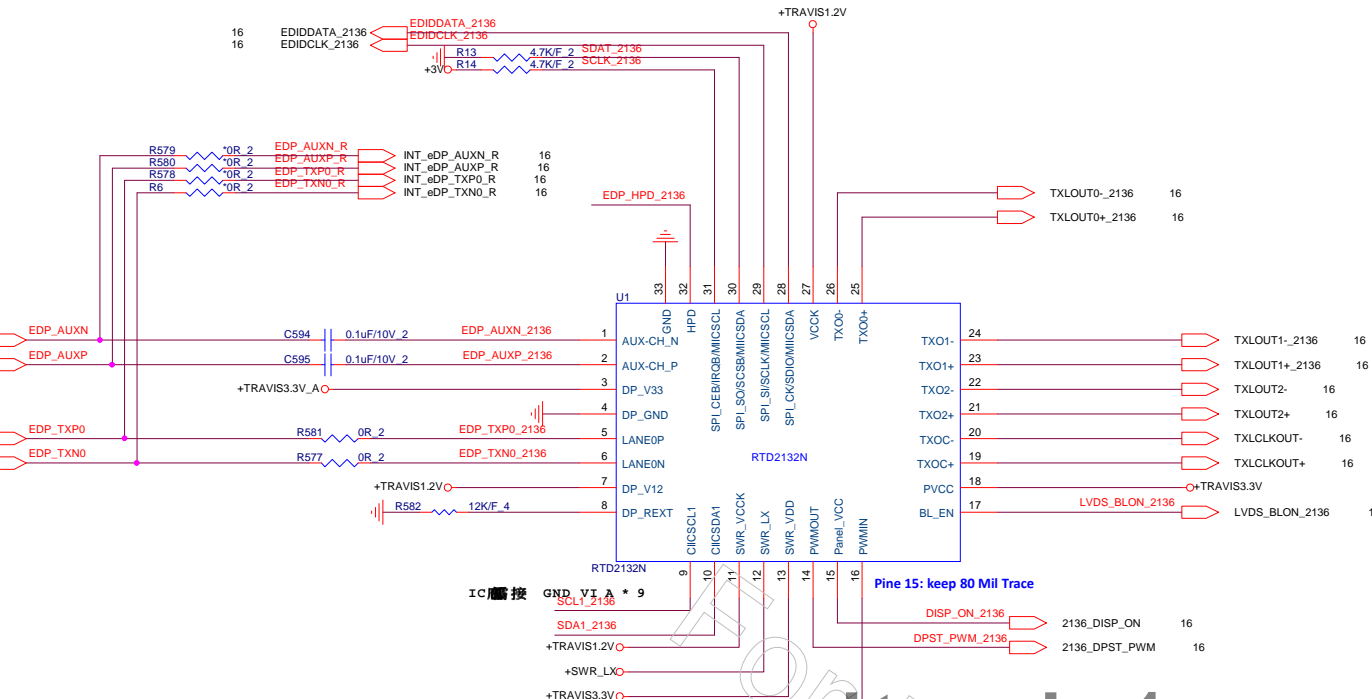


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Quanta Computer Inc.			
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NB5	Lead shift/Thermistor		A
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# RTD2136S Power Up Sequence 15

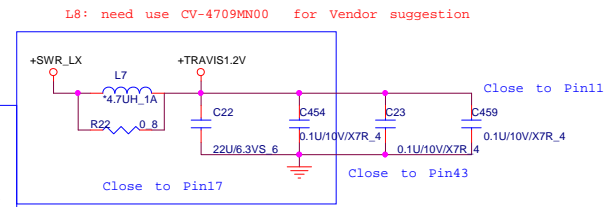
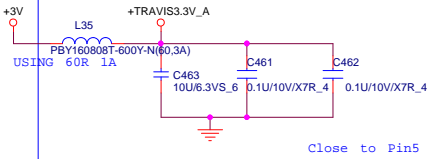
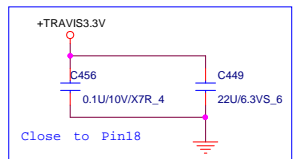
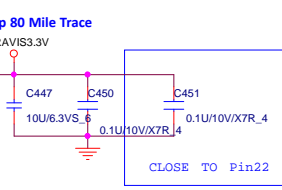
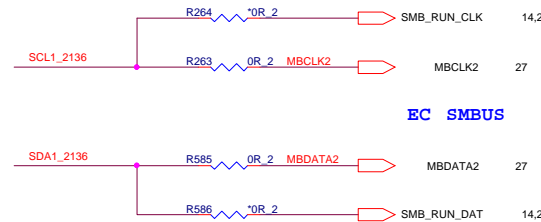


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Default : ROM ONLY MODE

		MODE_CFG0(PIN47)	
		0	1
MODE_CFG1(PIN48)	0	X	EP MODE
	1	ROM ONLY MODE	EEPROM MODE

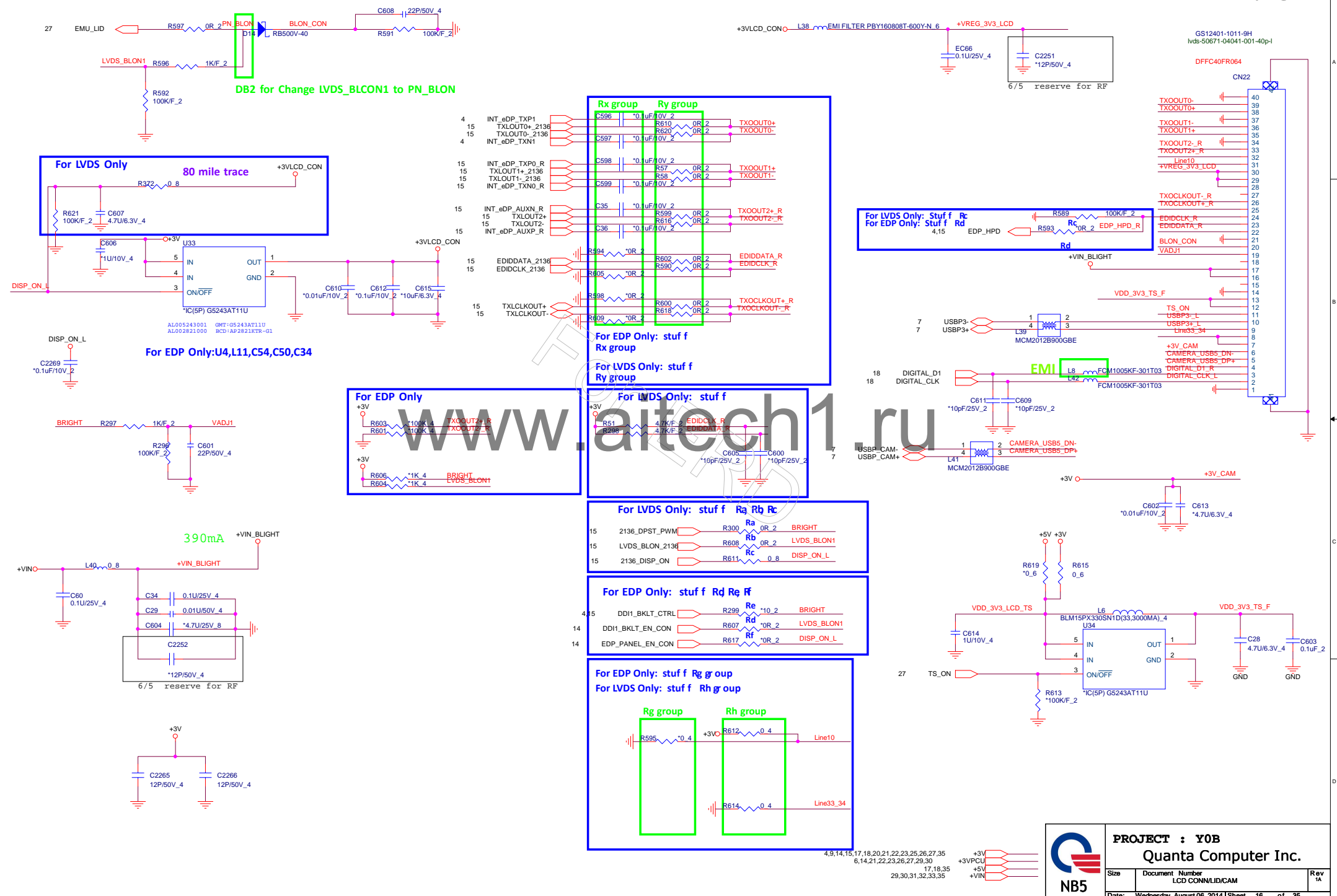


SWR MODE	LDO MODE
Stuff L8	Stuff R86

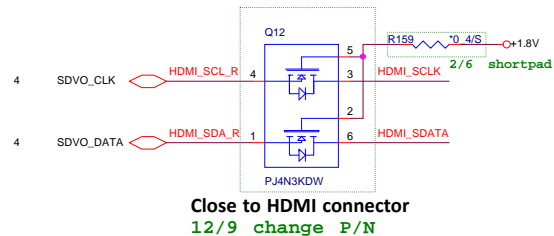
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**Quanta Computer Inc.**

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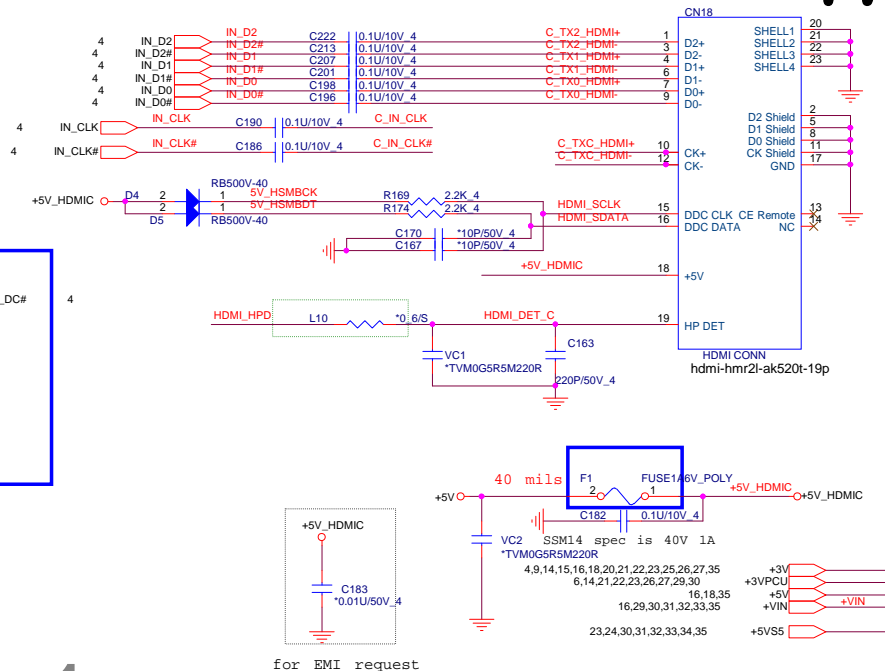
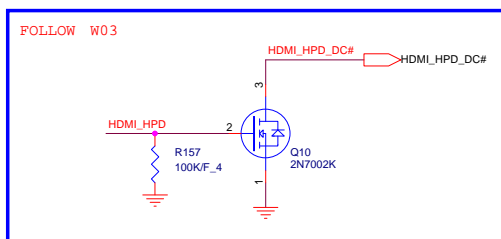
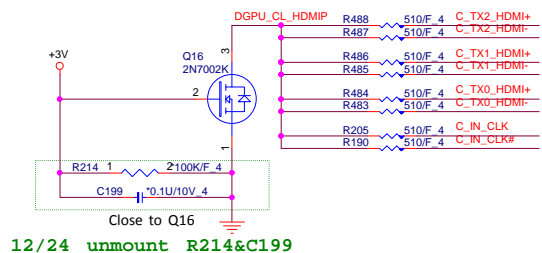
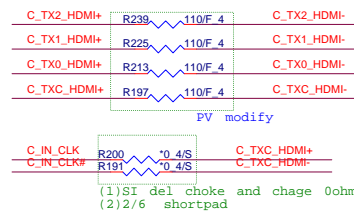




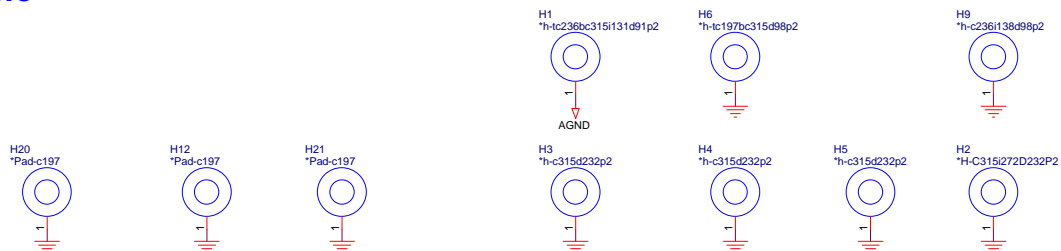
## HDMI SMBus Isolation



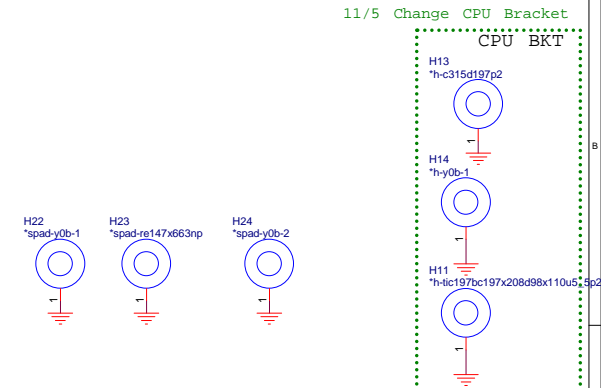
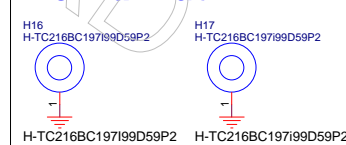
## EMI Solut i on

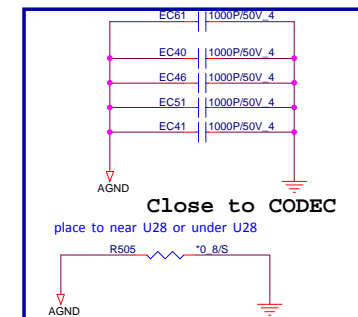
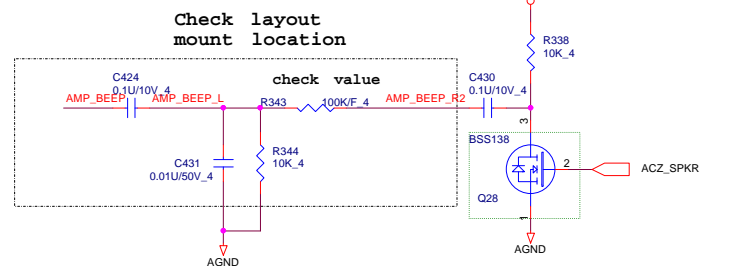
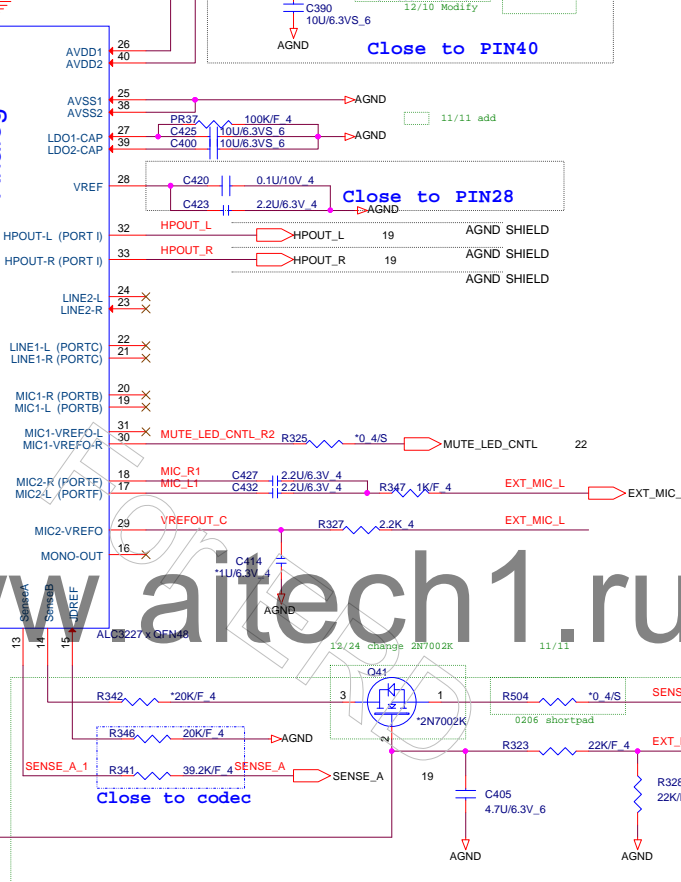
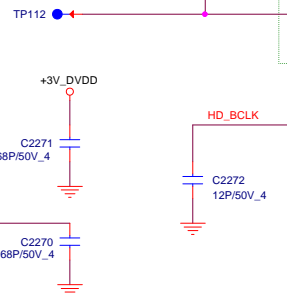
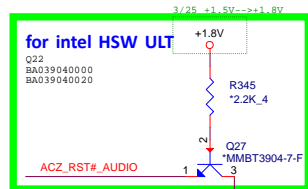
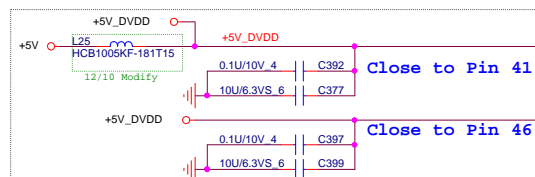
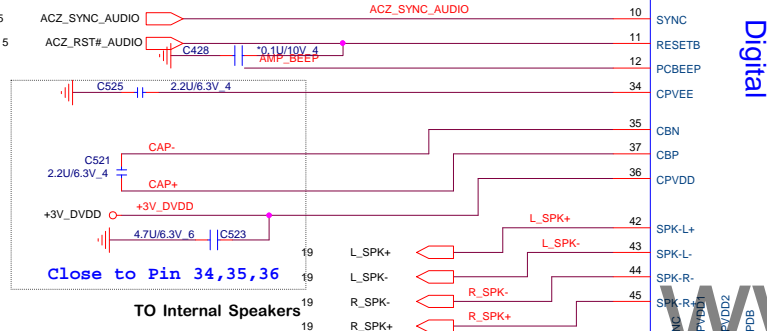
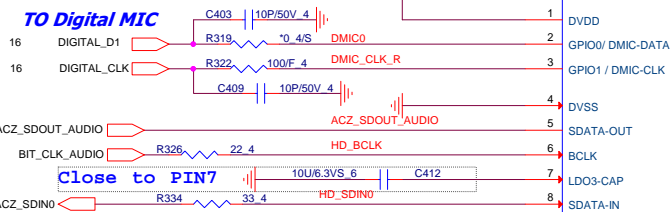
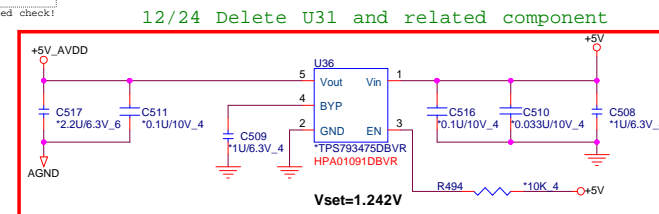
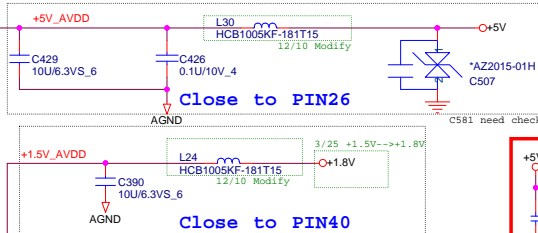
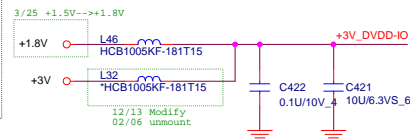


**Hole**



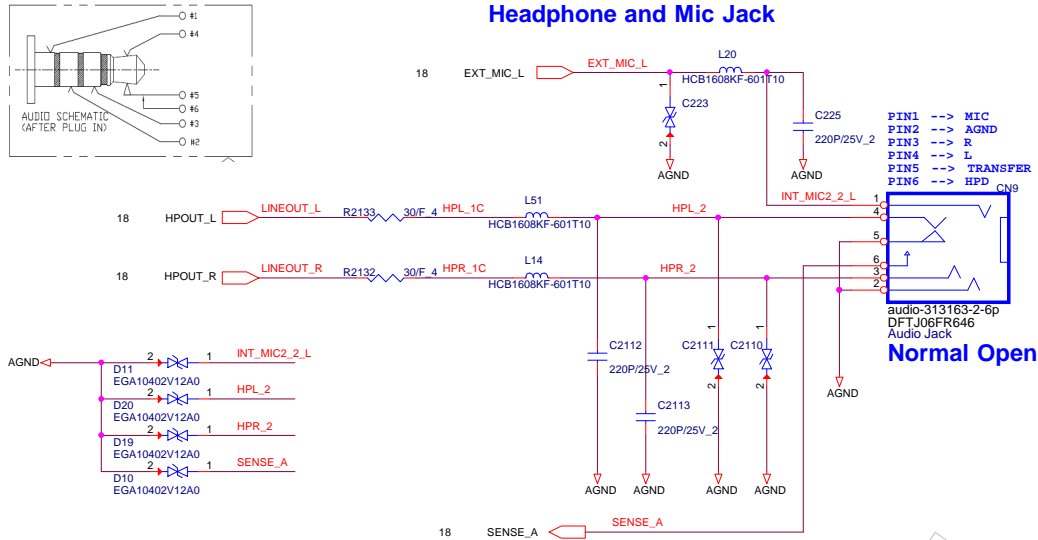
## Thermal Nut

**EMI**



## Head Phone out

## Headphone and Mic Jack

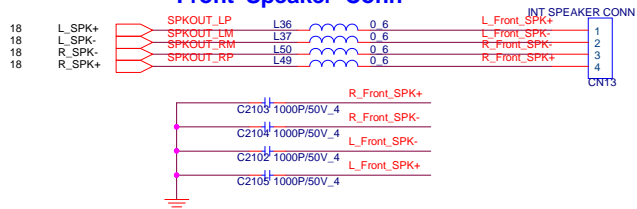


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## Int. SPEAKER

## Front Speaker Conn

Front speaker( from Amp)

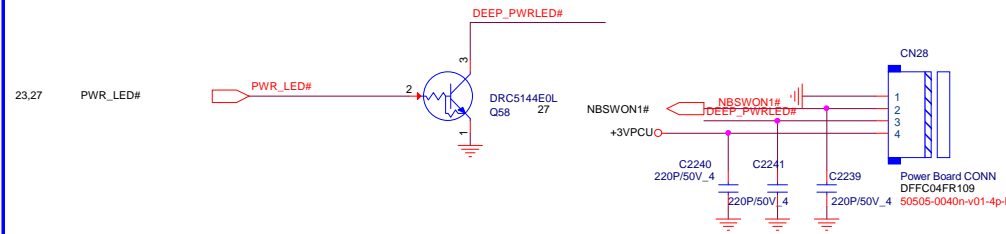




## 14" Menth Power Bottom Connector

11/14 Only for debug  
12/24 Delete debug power switch

Pin1 : +3VPCU(LIDSWITCH PWR)  
Pin2 : POWER LED  
Pin3 : LIDSWITCH  
Pin4 : GND  
Pin5 : GND  
Pin6 : POWERON#



## 13.3" Sangui ne Power Bottom Connector

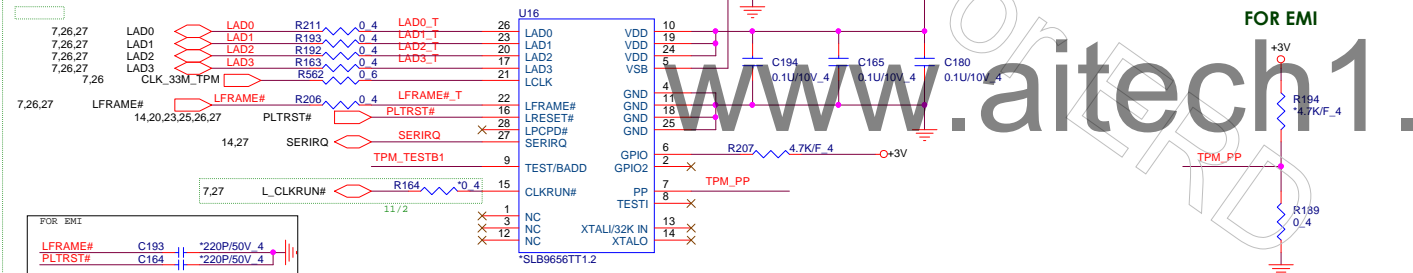
## 2/6 Unmount TPM and its related component

## TPM (1.2)

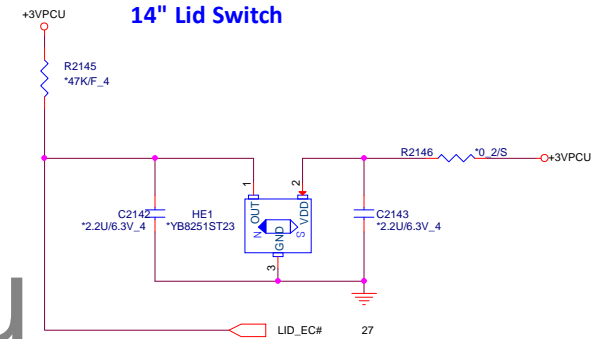
Address

	BADD
HIGH	4EH/4F (default)

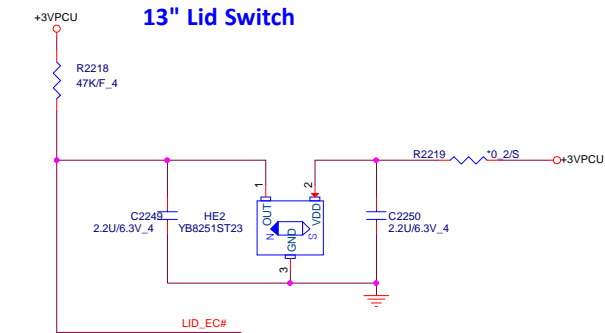
5/6 R562 for LPC\_CLK 3 branches, should be 12.5ohm



## 14" Lid Switch



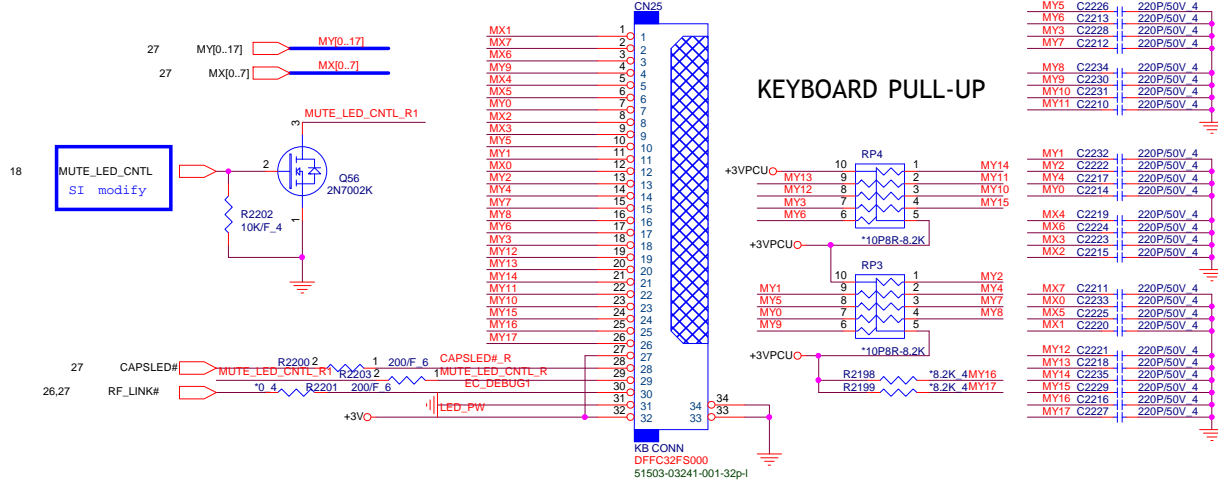
## 13" Lid Switch



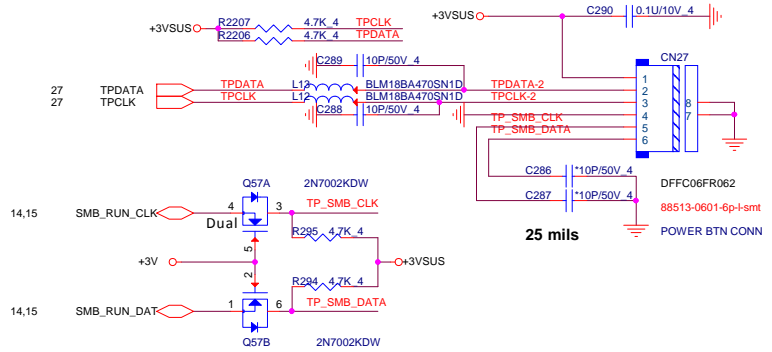
## FAN

4,9,14,15,16,17,18,20,22,23,25,26,27,35 +3V  
16,17,18,35 +5V  
6,14,22,23,26,27,29,30 +3VPCU

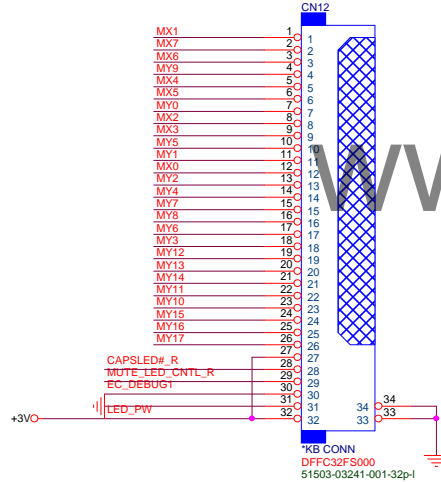
### 13.3" Sangü ne KEYBOARD Con



### 13.3" Sangü ne Touch Pad Connect α




### 14" Mèrt h KEYBOARD Con



### 14" Mèrt h Touch Pad Connect α

4,9,14,15,16,17,18,20,21,23,25,26,27,35  
16,17,18,35  
6,14,21,23,26,27,29,30

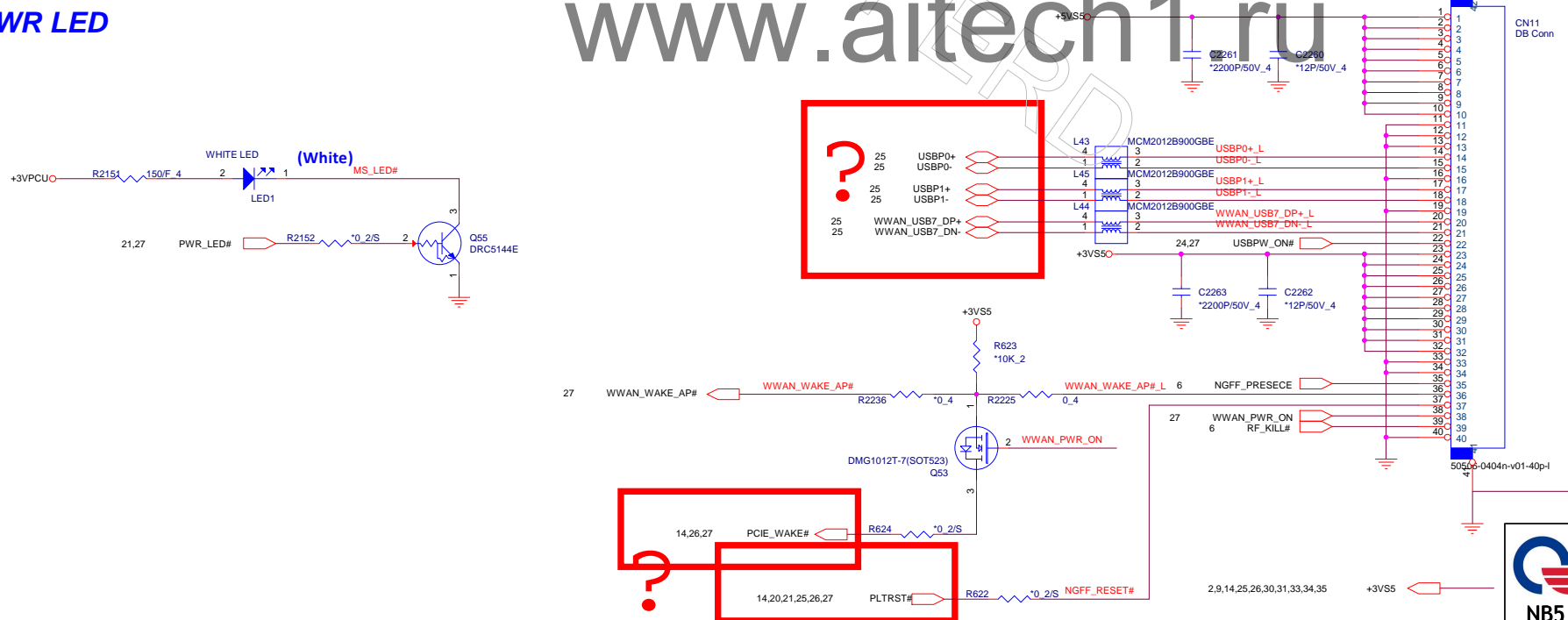
 NB5	PROJECT : Y0B			
	Quanta Computer Inc.			
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		TP/KB	1A	
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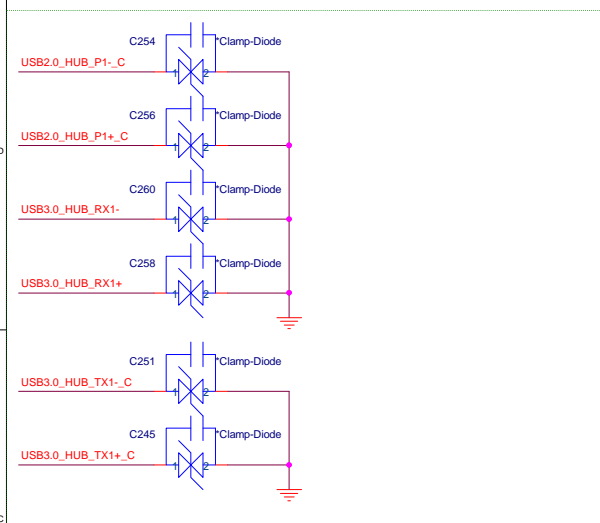


SanDisk-32G  
fbga169-samsung-kmhog0000m-0.5s  
footprint : BGA\_169 BGA\_153  
BGA\_169 PIN :14 mmx18 mm  
BGA\_169 PIN :12 mmx16 mm  
BGA\_153 PIN :15 mmx13 mm

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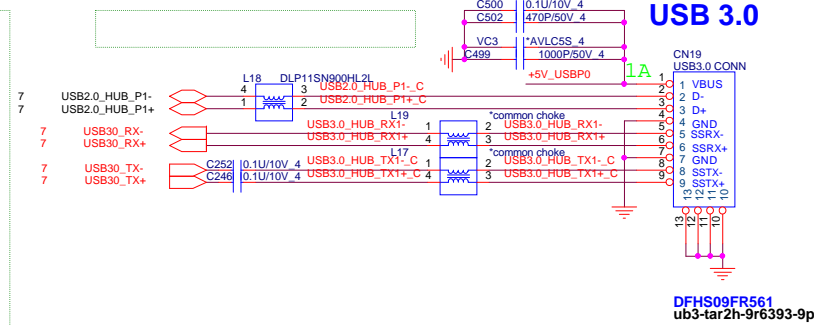


## USB 2.0/3.0 Combo

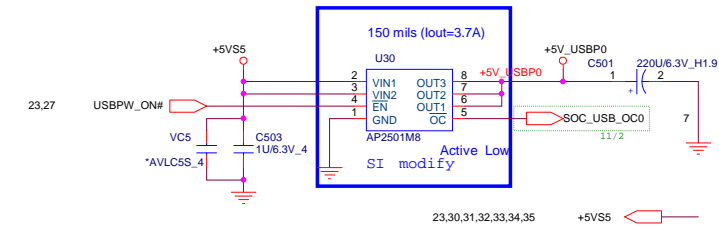


11/1 modify

2/10 delete R259 & R261 to mount L18 for EMI



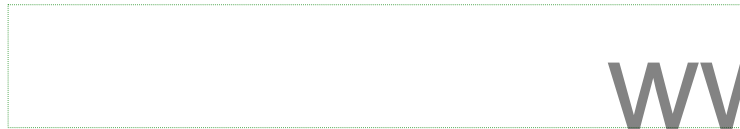
## USB 3.0



2/6 shortpad

## Leap Motion

11/7 Delete Leap motion



## Accelerometer Sensor

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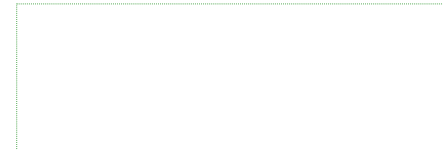
## Fingerprint Conn

11/7 Delete Fingerprint CONN



## Green CLK Circuitry


10/30 delete Green Clock

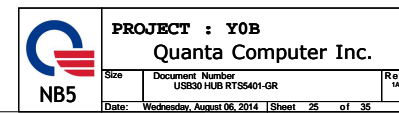


## Touch screen

4,9,14,15,16,17,18,20,21,22,23,25,26,27,35  
16,17,18,35

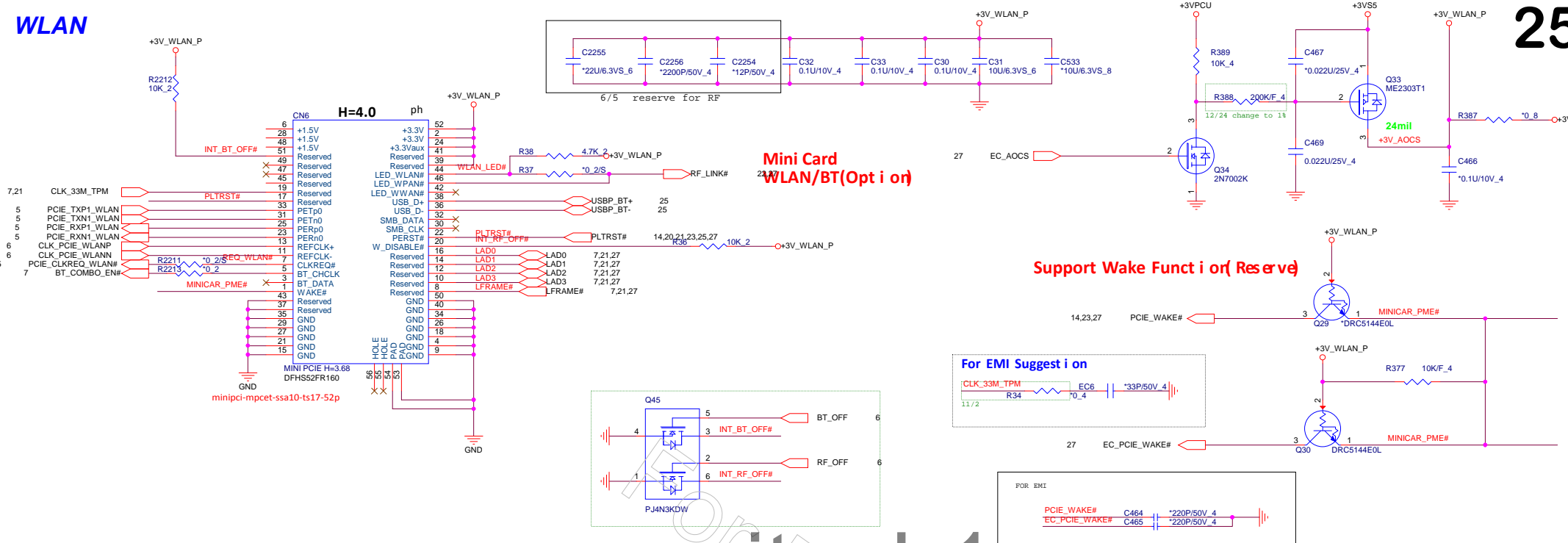
+3V  
+5V

		PROJECT : Y0B	
		Quanta Computer Inc.	
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# WLAN

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adapter Type check

Hi(3.3V)	==> ( 65W )	1/8 dummy D6011 for power request
Low(0V)	==> ( 45W )	+3VPCU
Medium(1.65V)	==> ( 90W )	Change to 1SS355 as Current loss

11/6 Change EC ADP define

11/11 delete GPIO33 EC pull up register

CLK\_33M\_KBC

10V

R218 4.7K

10P/50V

C244

0.1uF/10V

C218

0.1uF/10V

C202

11/13 add SOIX Cap

## EC

3/25 delete EC ROM and its related D

FORWARD

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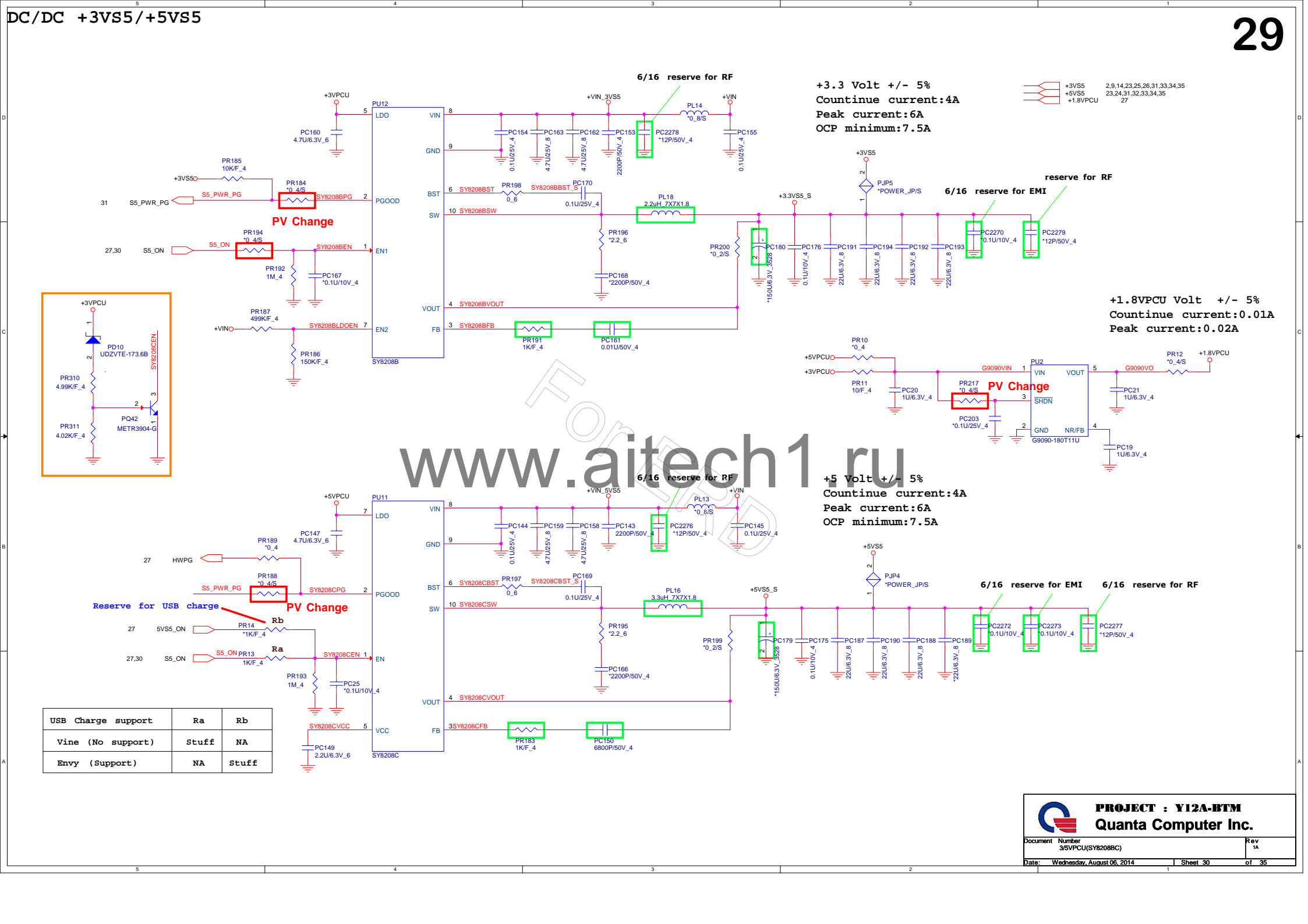


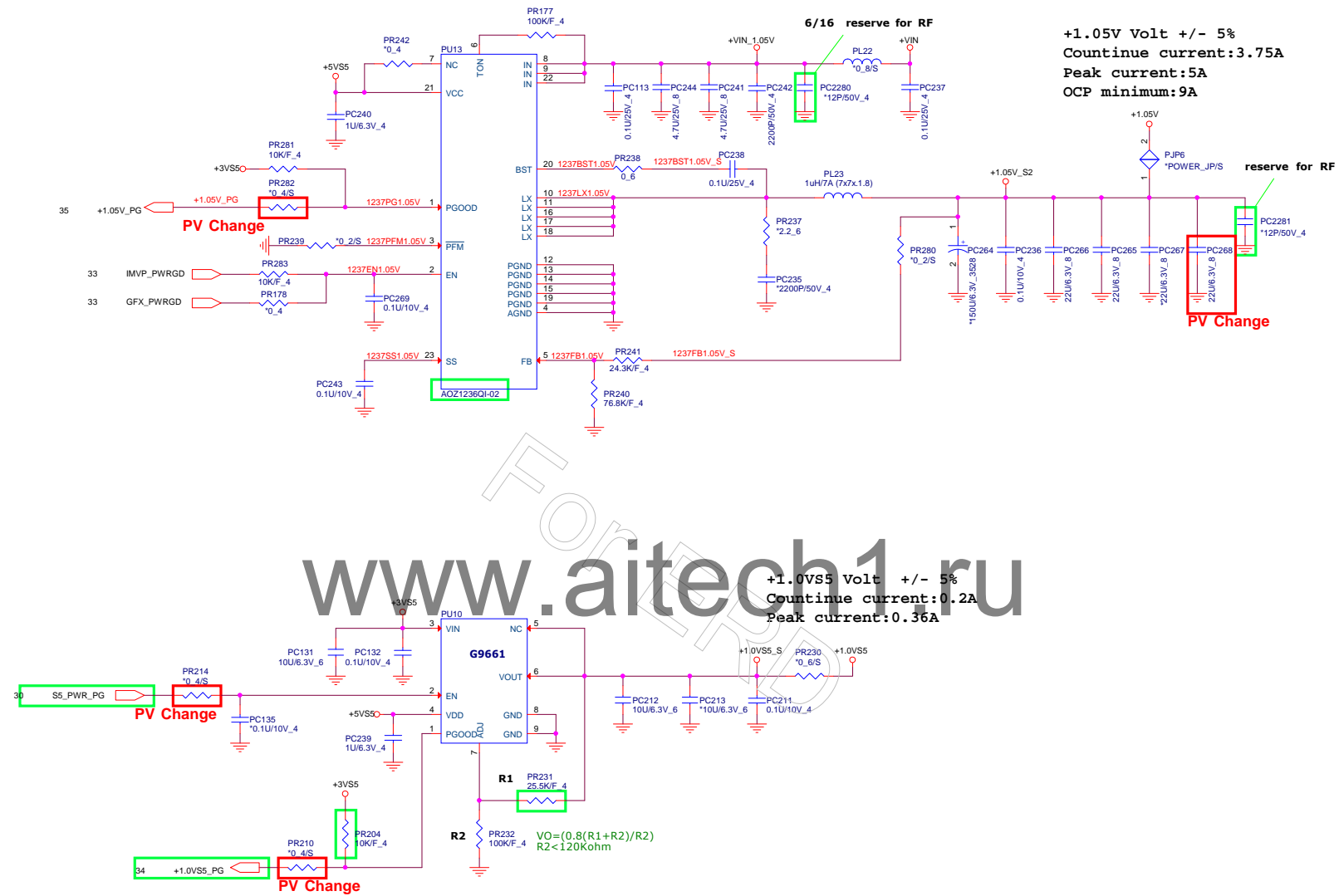
**PROJECT : Y0B**  
**Quanta Computer Inc.**

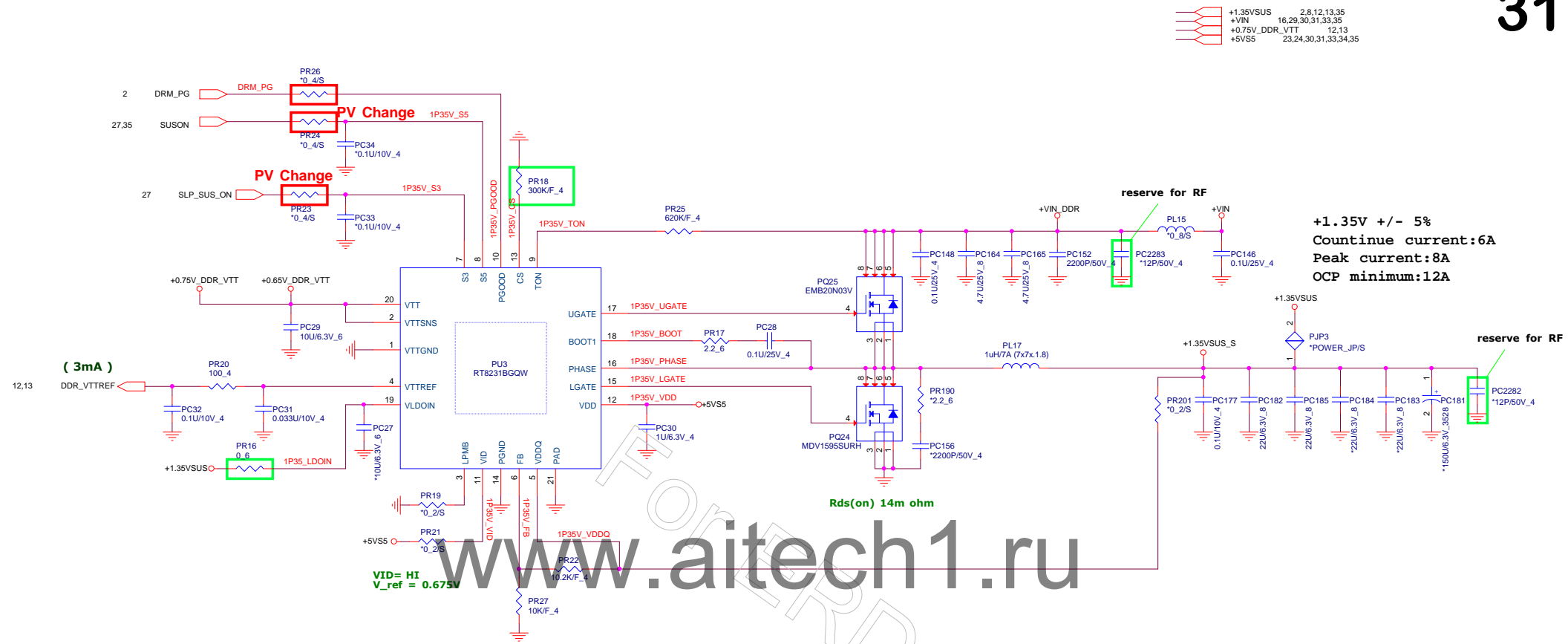
Size	Document Number	Rev
	RTL 8161/RJ45	1A
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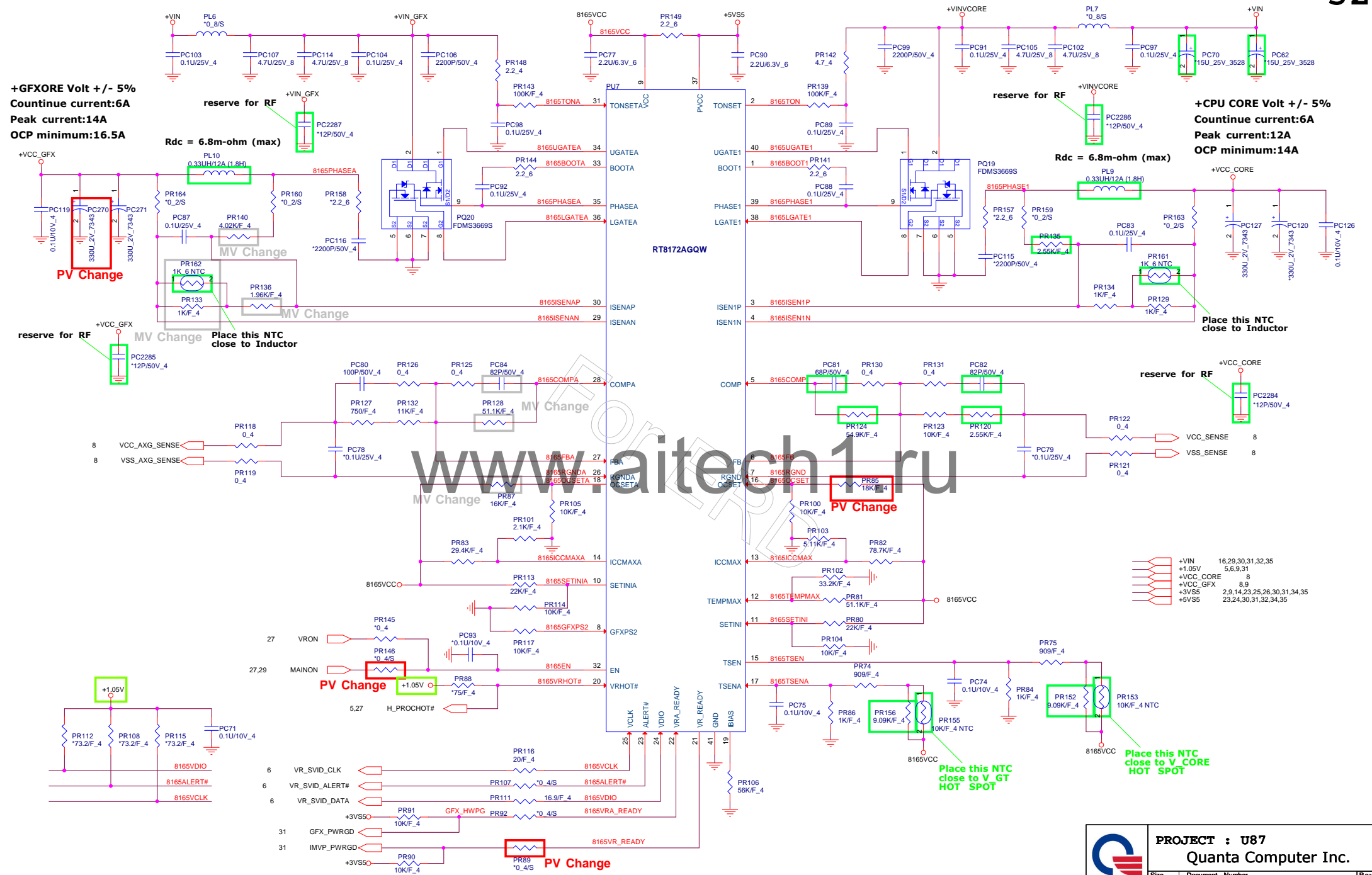
[illegible]






**+GFXORE Volt +/- 5%**  
**Countinue current:6A**  
**Peak current:14A**  
**OCP minimum:16.5A**

**+CPU CORE Volt +/- 5%**  
**Countinue current:6A**  
**Peak current:12A**  
**OCP minimum:14A**



+VIN	16,29,30,31,32,35
+1.05V	5,6,9,31
+VCC_CORE	8
+VCC_GFX	8,9
+3VS5	2,9,14,23,25,26,30,31,34,35
+5VS5	23,24,30,31,32,34,35



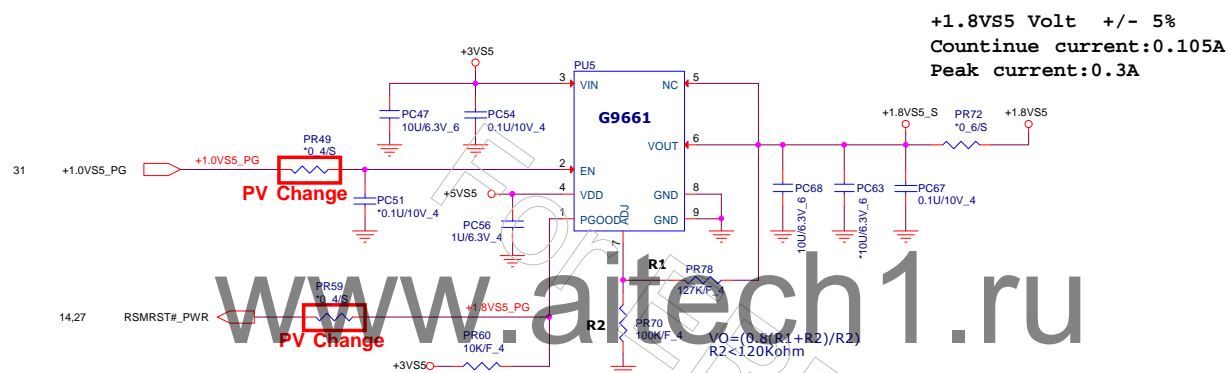
**PROJECT : U87**

**Quanta Computer Inc.**

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6,7,9,14,35  
2,9,14,23,25,26,30,31,33,35  
23,24,30,31,32,33,35

+1.8VS5  
+3VS5  
+5VS5



**PROJECT : Y12A-BTM**  
**Quanta Computer Inc.**

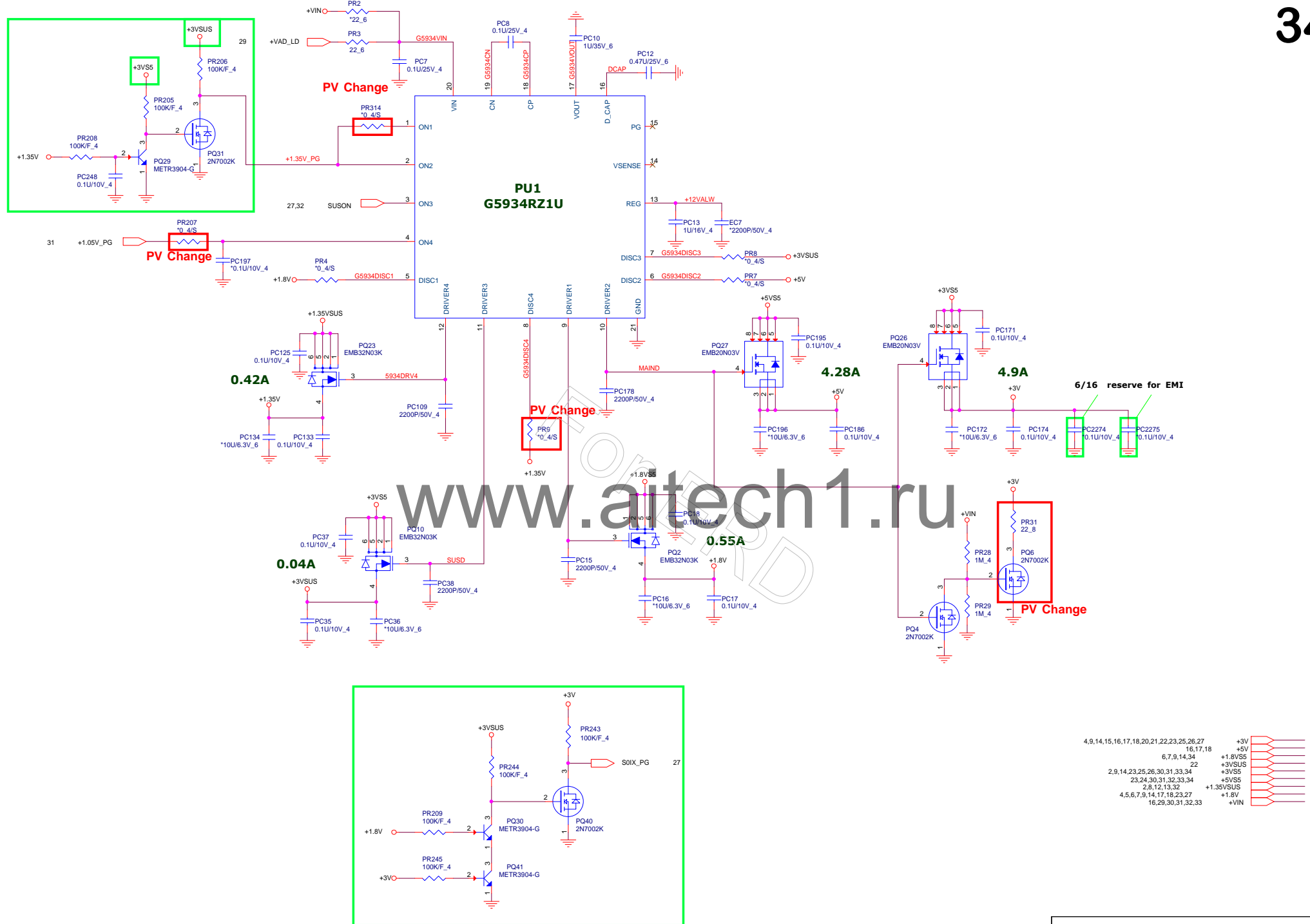
Document Number  
1.0VS5/1.8VS5/1.24VS5

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4,9,14,15,16,17,18,20,21,22,23,25,26,27	+3V
6,7,9,14,34	+5V
22	+1.8VSS
2,9,14,23,25,26,30,31,33,34	+3VSUS
23,24,30,31,32,33,34	+3VS5
2,8,12,13,32	+5VS5
4,5,6,7,8,14,17,18,23,27	+1.35VSUS
16,29,30,31,32,33	+1.8V
	+VIN