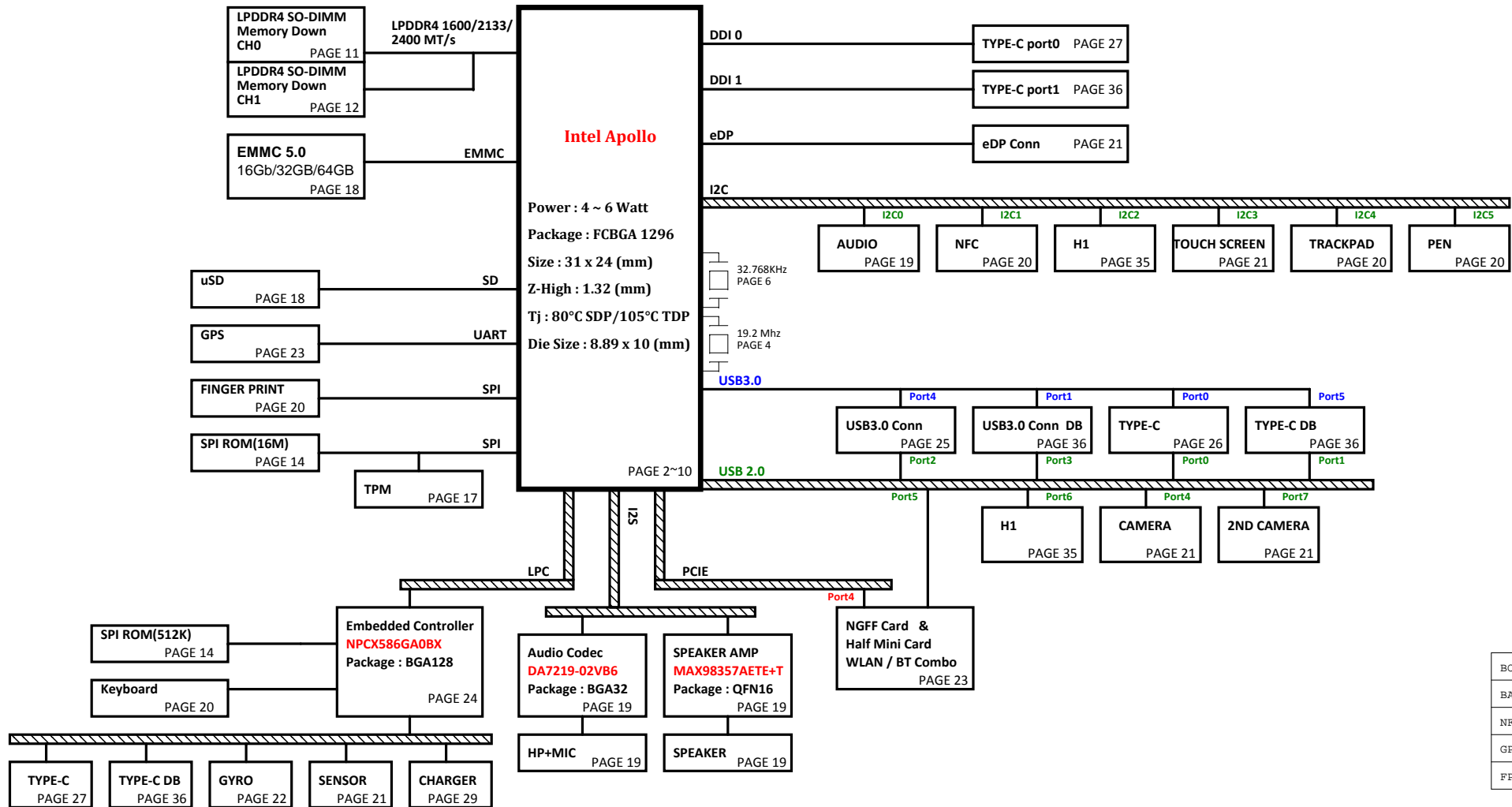


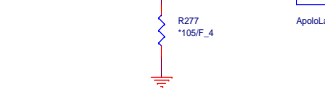
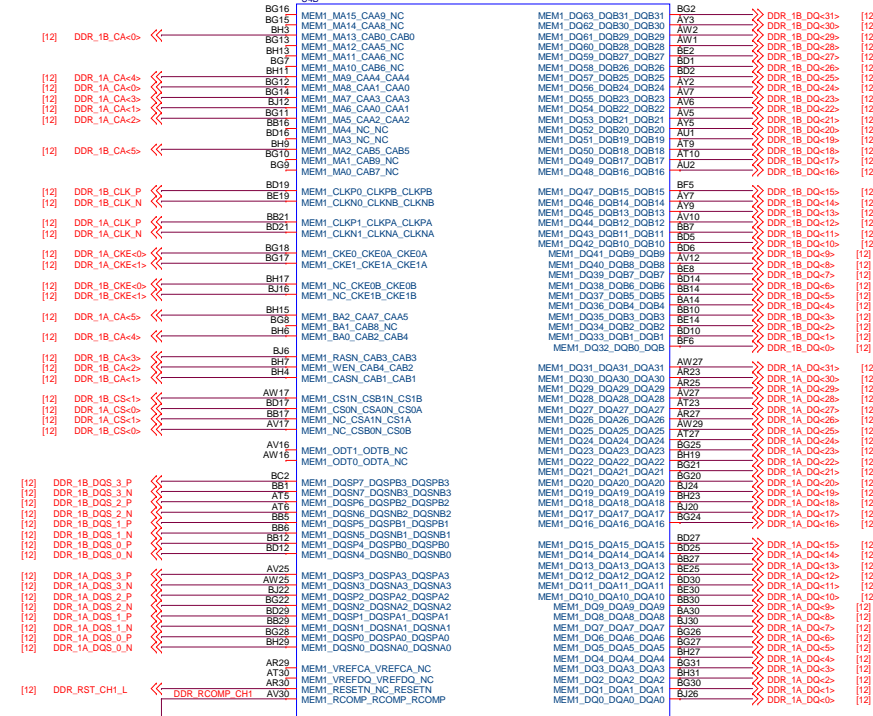
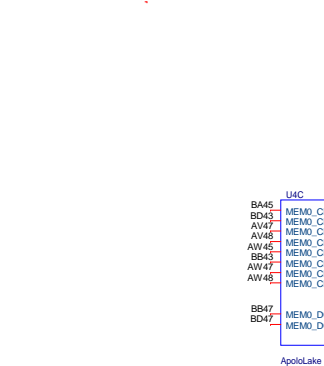
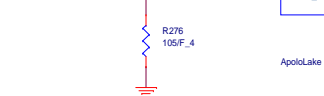
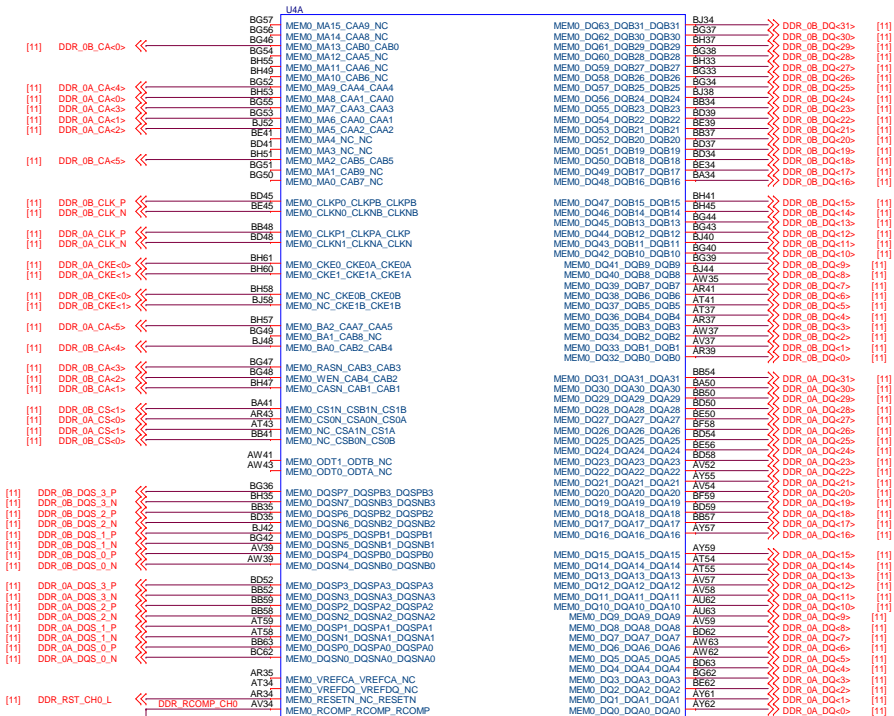
# Intel Apollo Platform Block Diagram

PCB 6L STACK UP

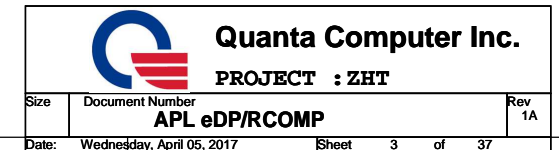
LAYER 1 : TOP  
LAYER 2 : VCC  
LAYER 3 : IN1  
LAYER 4 : IN2  
LAYER 5 : GND  
LAYER 6 : BOT



BOM value option	
BAR@	Barometer
NFC@	NFC
GPS@	GPS
FP@	Finger Print



## TYPE-C PORT 0



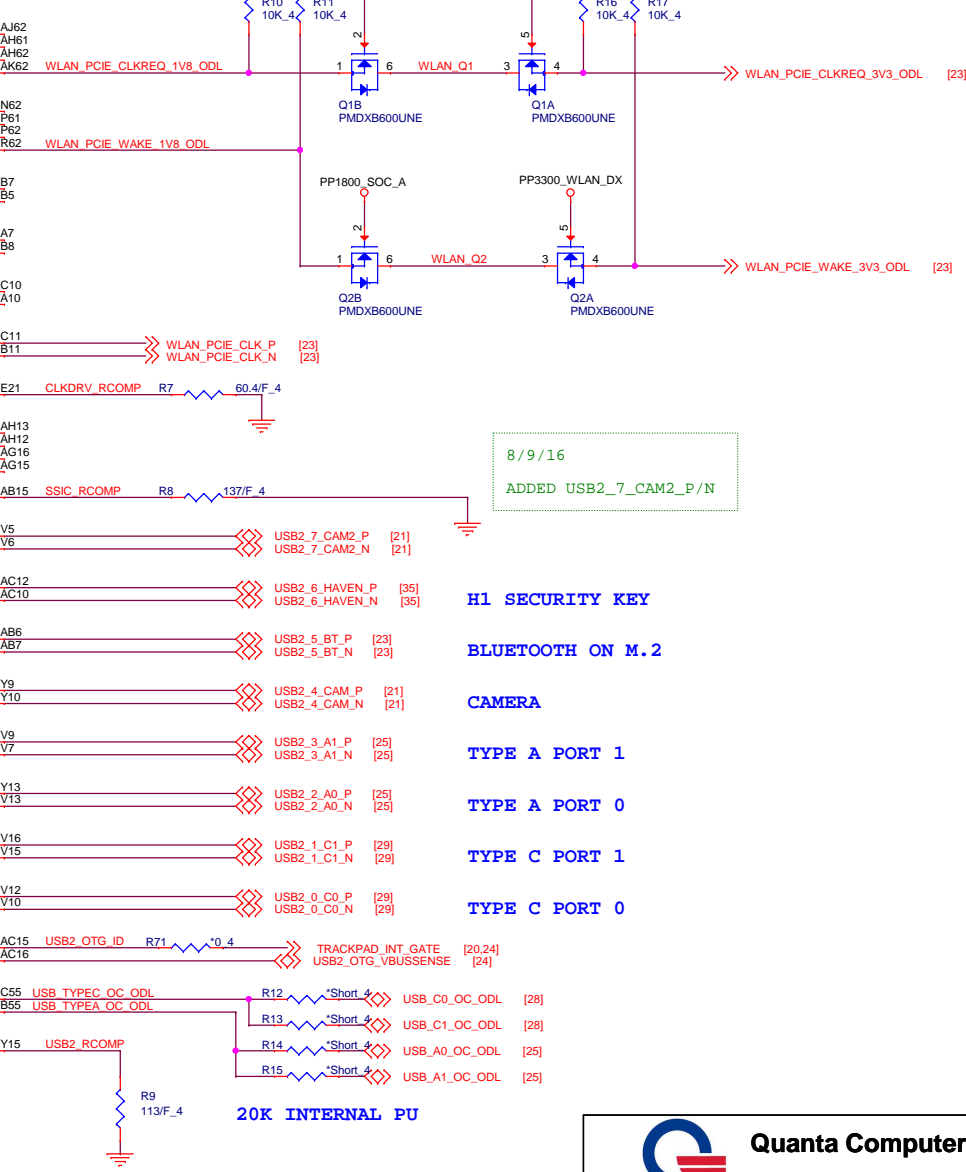
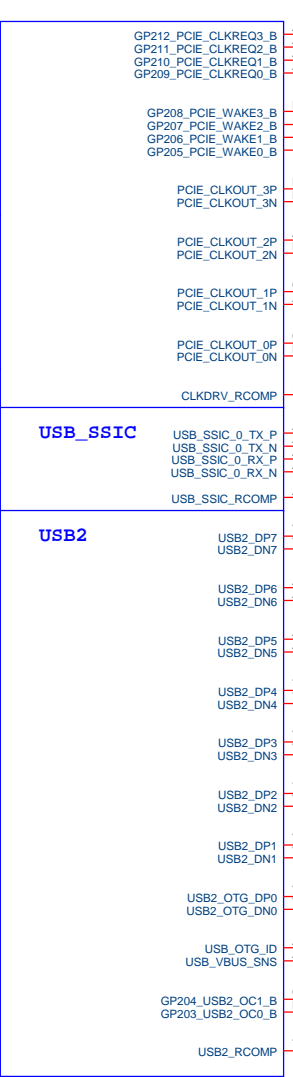
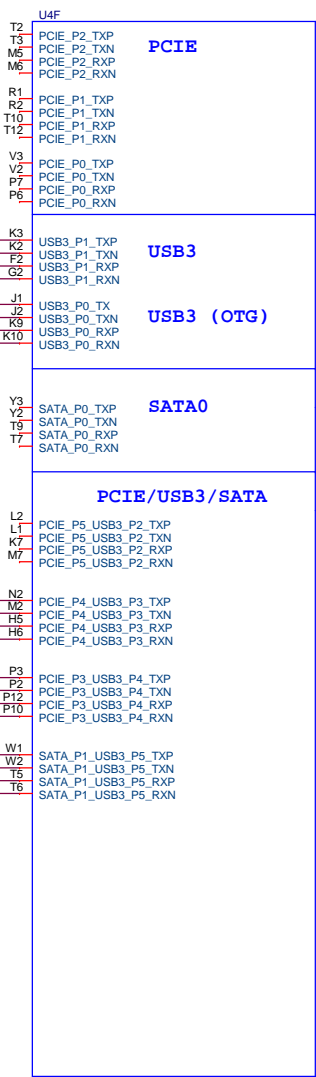
11/11/16  
RENAMED USB3\_5\_A1\_X TO USB3\_5\_C1\_X  
RENAMED USB3\_1\_C1\_X TO USB3\_1\_A1\_X

TYPE A PORT 1  
TYPE C PORT 0

TYPE C PORT 0

TYPE A PORT 0

TYPE C PORT 1



Quanta Computer Inc.

PROJECT : ZHT

Size Document Number Rev 1A

APL PCIE/USB/SATA

Date: Wednesday, April 05, 2017 Sheet 4 of 37



11/11/16  
DNS R19, R179

8/31/16  
CHANGED R19/R179 TO 2.2K

10/14/16  
RENAMED GP83 TO DMIC\_CAM2\_DATA  
REMOVED TP4

6/6/16  
ADDED TP TO PCH\_I2C\_ISH0\_SCL  
ADDED TP TO PCH\_I2C\_ISH0\_SDA  
ADDED TP TO ISH\_GPIO\_8  
  
ADDED R478  
ADDED DMIC\_CLK2  
CHANGED DMIC\_CLK TO DMIC\_CLK1  
CHANGED DMIC\_CLK\_R TO DMIC\_CLK1\_R

11/11/16  
CHANGED R30,R31,R38,R39 TO 2,2K  
STUFFED R30,R31

6/30/16  
DNS R30, R31

10/26/16  
ADDED R522  
ADDED IMIC\_STRAP AND TABLE

12/6/16  
ADDED R532, R533  
ADDED R534, SHIPPING\_STRAP

8/15/16  
REMOVED PCH\_I2C\_ISH0\_SCL/SDA  
REMOVED TP81/TP82  
ADDED PCH\_I2C\_PEN\_SCL/SDA  
ADDED R511, R512

ADDED PEN\_PDCT\_ODL TO GP24  
ADDED PEN\_INT\_ODL TO GP13  
ADDED PEN\_RESET TO GP35

REMOVED GPIO\_35 NET  
REMOVED TP2

8/17/16  
SWITCHED PCH\_I2C\_PEN\_SCL/SDA

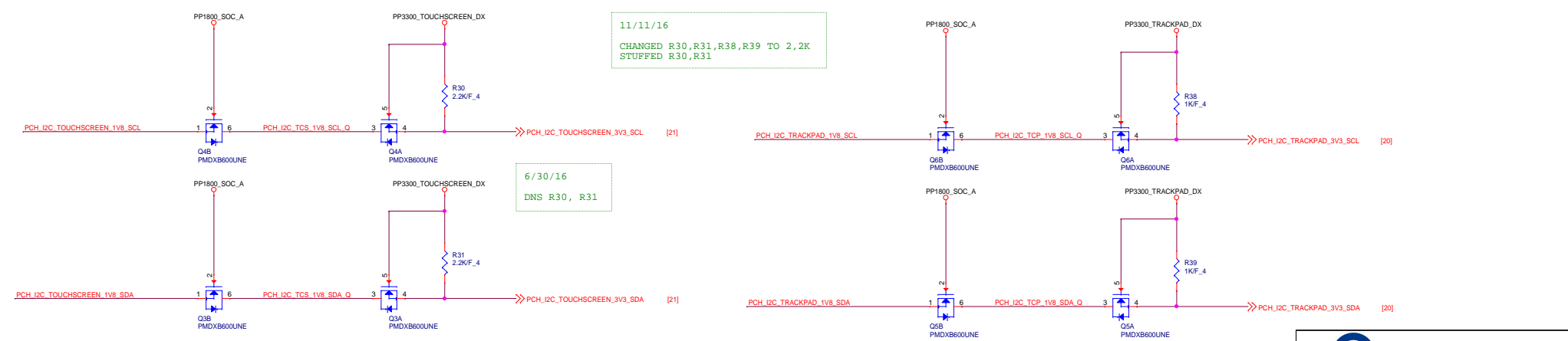
8/30/16  
REMOVED GPIO\_82 NET  
MOVED TP4 TO M52

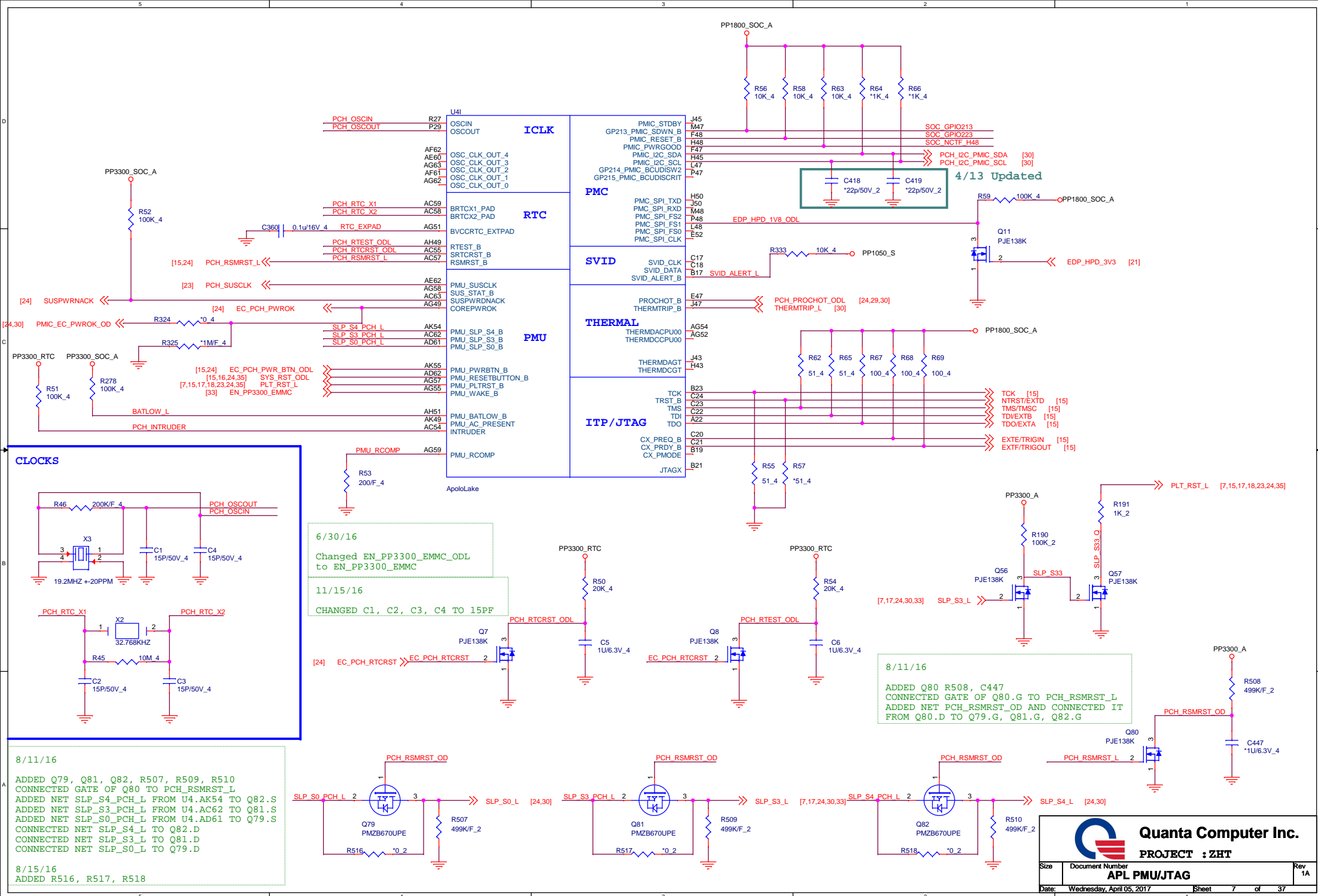
6/23/16  
ADDED TRACKPAD\_INT\_1V8\_ODL TO GP15  
RENAMED TRC\_DATA0[3] TO FP\_INT\_L

11/11/16  
DNS R40,R42

8/23/16  
CHANGED FP\_INT\_L TO FP\_INT

CONFIG_STRAP1	CONFIG_STRAP2	CONFIG
PU	PU	CONFIG_0
PU	PD	CONFIG_1
PU	Z	CONFIG_2
PD	PU	CONFIG_3
PD	PD	CONFIG_4
PD	Z	CONFIG_5
Z	PU	CONFIG_6
Z	PD	CONFIG_7
*Z	*Z	CONFIG_8



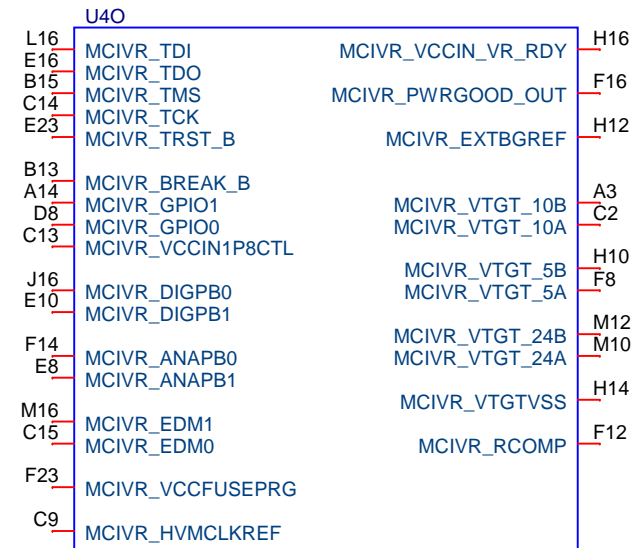




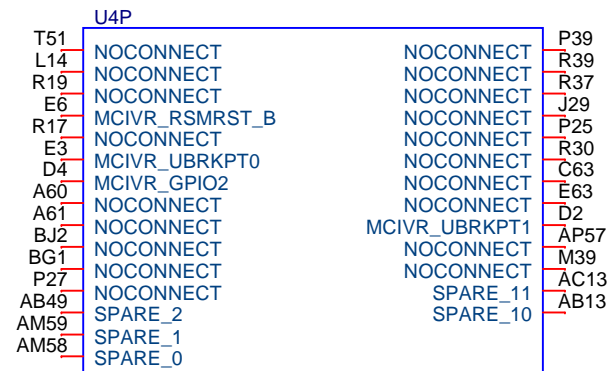








ApoloLake



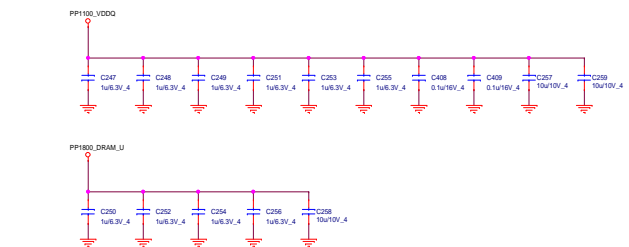
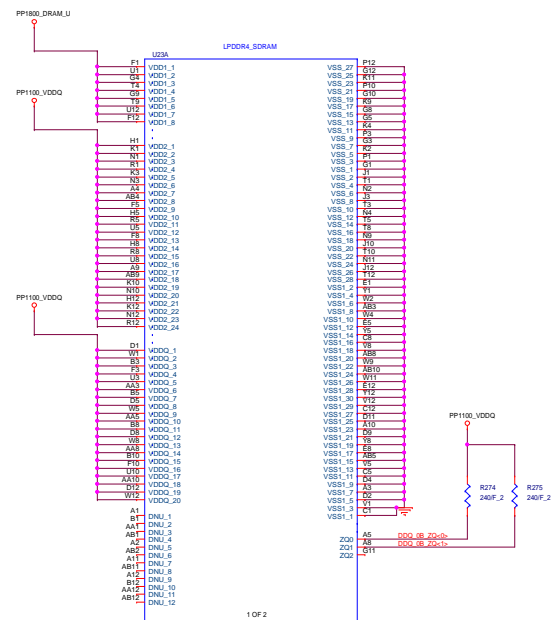
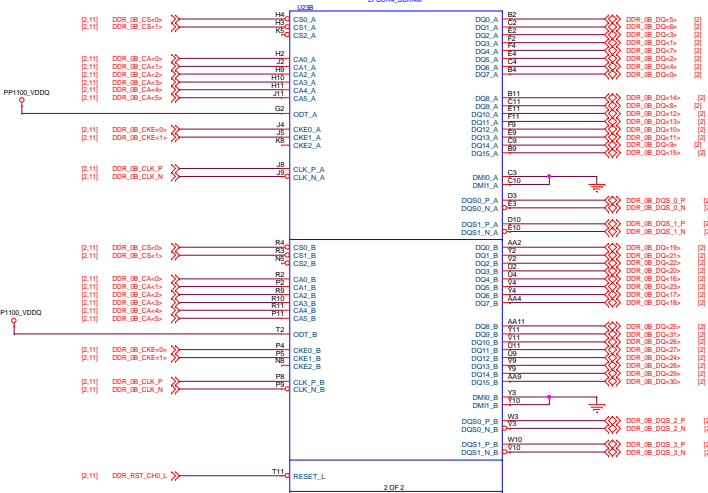
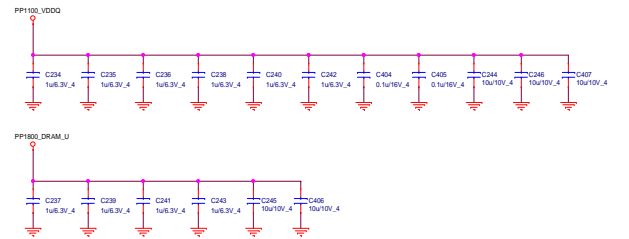
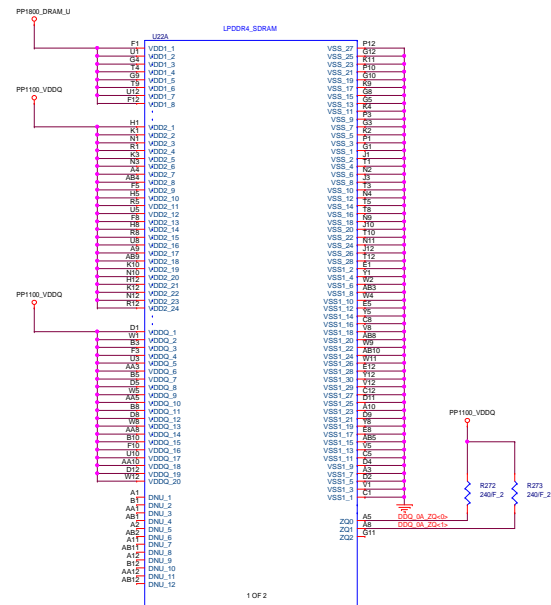
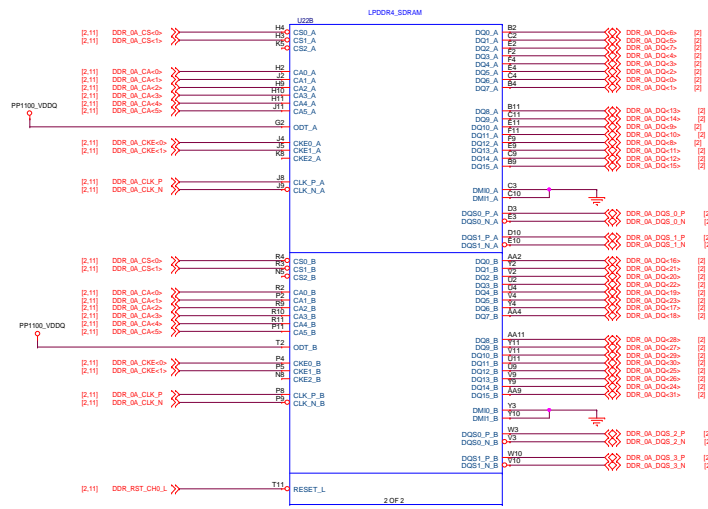
ApoloLake

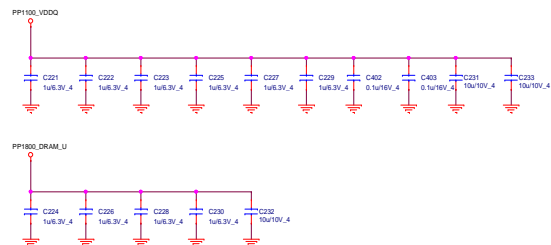
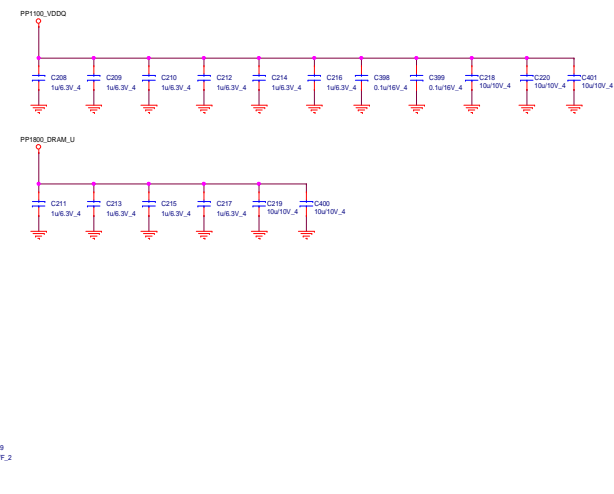


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**PROJECT : ZHT**

Size	Document Number	Rev
	<b>APL NO CONNECT</b>	1A
Date:	Wednesday, April 05, 2017	Sheet 10 of 37

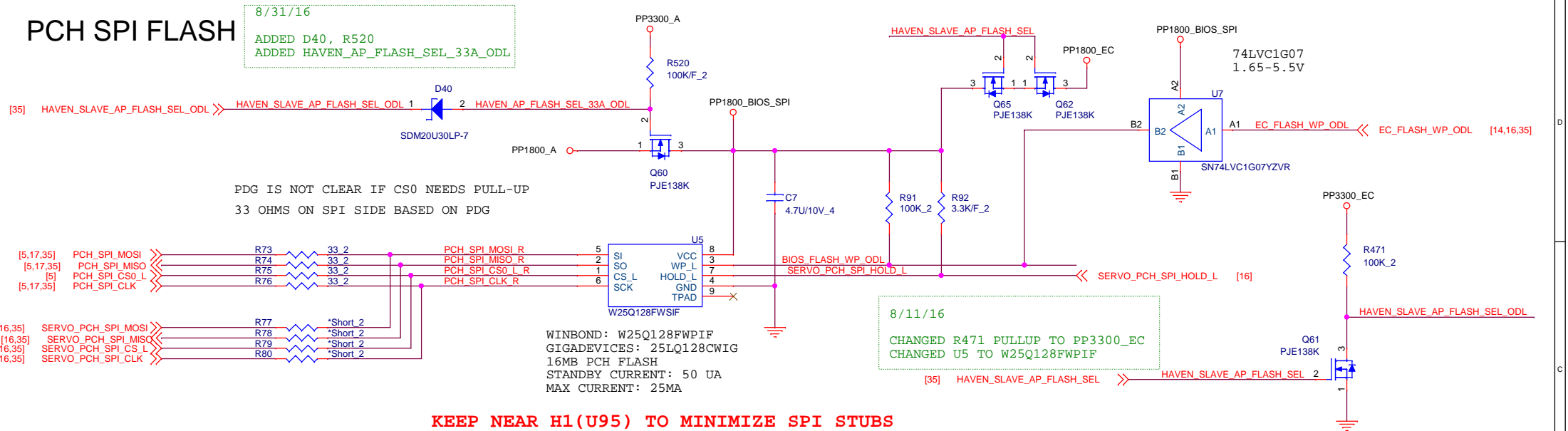






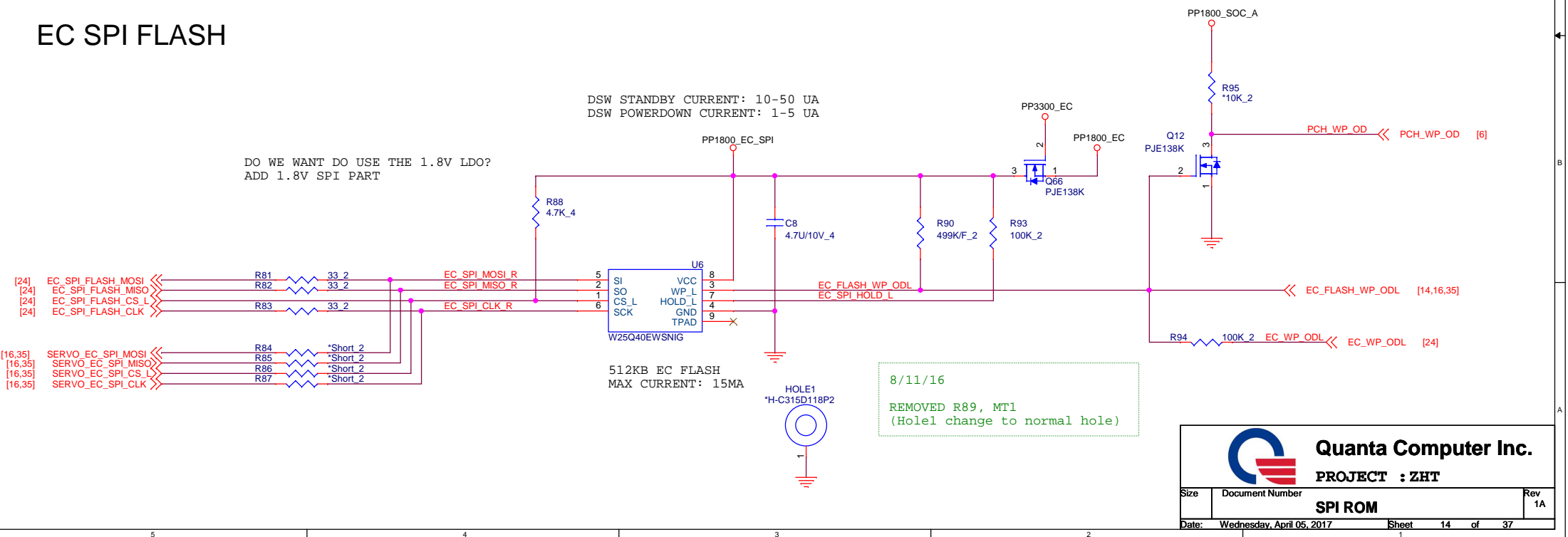
PCH SPI FLASH


8/31/16  
ADDED D40, R520  
ADDED HAVEN\_AP\_FLASH\_SEL\_33A\_ODL



EC SPI FLASH

DO WE WANT DO USE THE 1.8V LDO?  
ADD 1.8V SPI PART

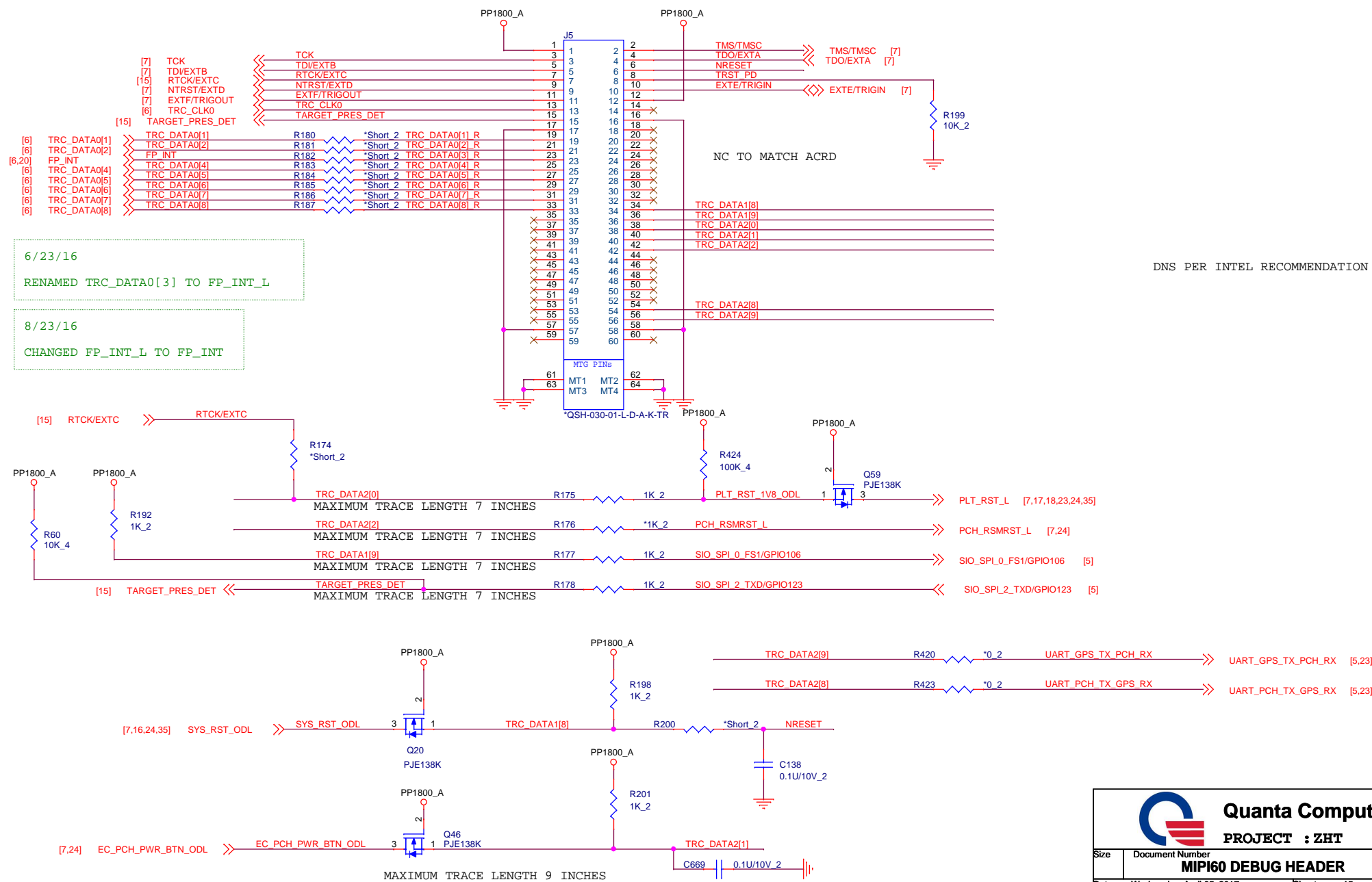




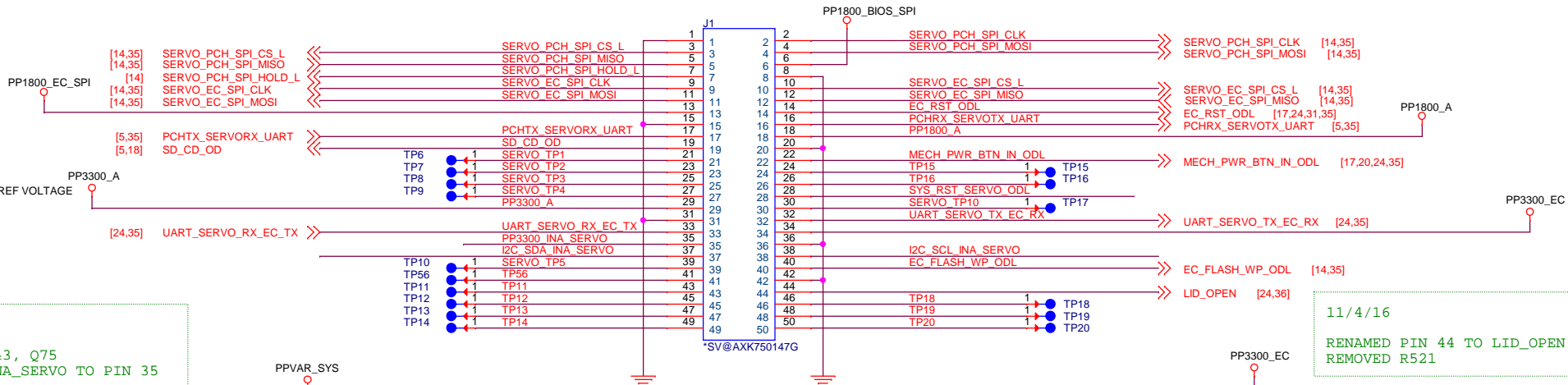
**Quanta Computer Inc.**

**PROJECT : ZHT**

Size	Document Number	Rev 1A
<b>SPI ROM</b>		
Date:	Wednesday, April 05, 2017	Sheet 14 of 37

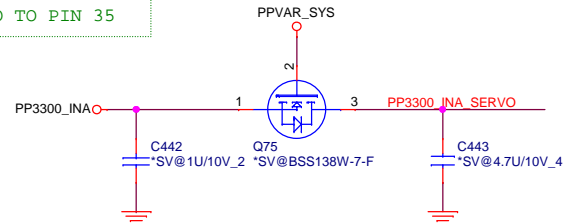






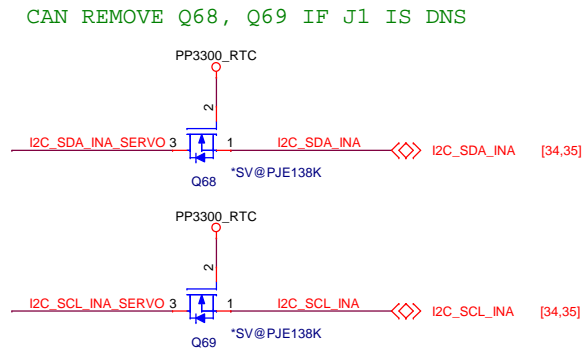
6/23/16  
 ADDED C442, C443, Q75  
 ADDED PP3300\_INA\_SERVO TO PIN 35

11/4/16  
 RENAMED PIN 44 TO LID\_OPEN  
 REMOVED R521



6/6/16  
 ADDED Q68, Q69  
 ADDED D36  
 RENAMED I2C\_SDA\_INA TO I2C\_SDA\_INA\_SERVO  
 RENAMED I2C\_SCL\_INA TO I2C\_SCL\_INA\_SERVO  
 RENAMED SYS\_RST\_ODL TO SYS\_RST\_SERVO\_ODL  
 REMOVED PP3300\_INA CONNECTION TO PIN 35 OF J1

# SERVO HEADER

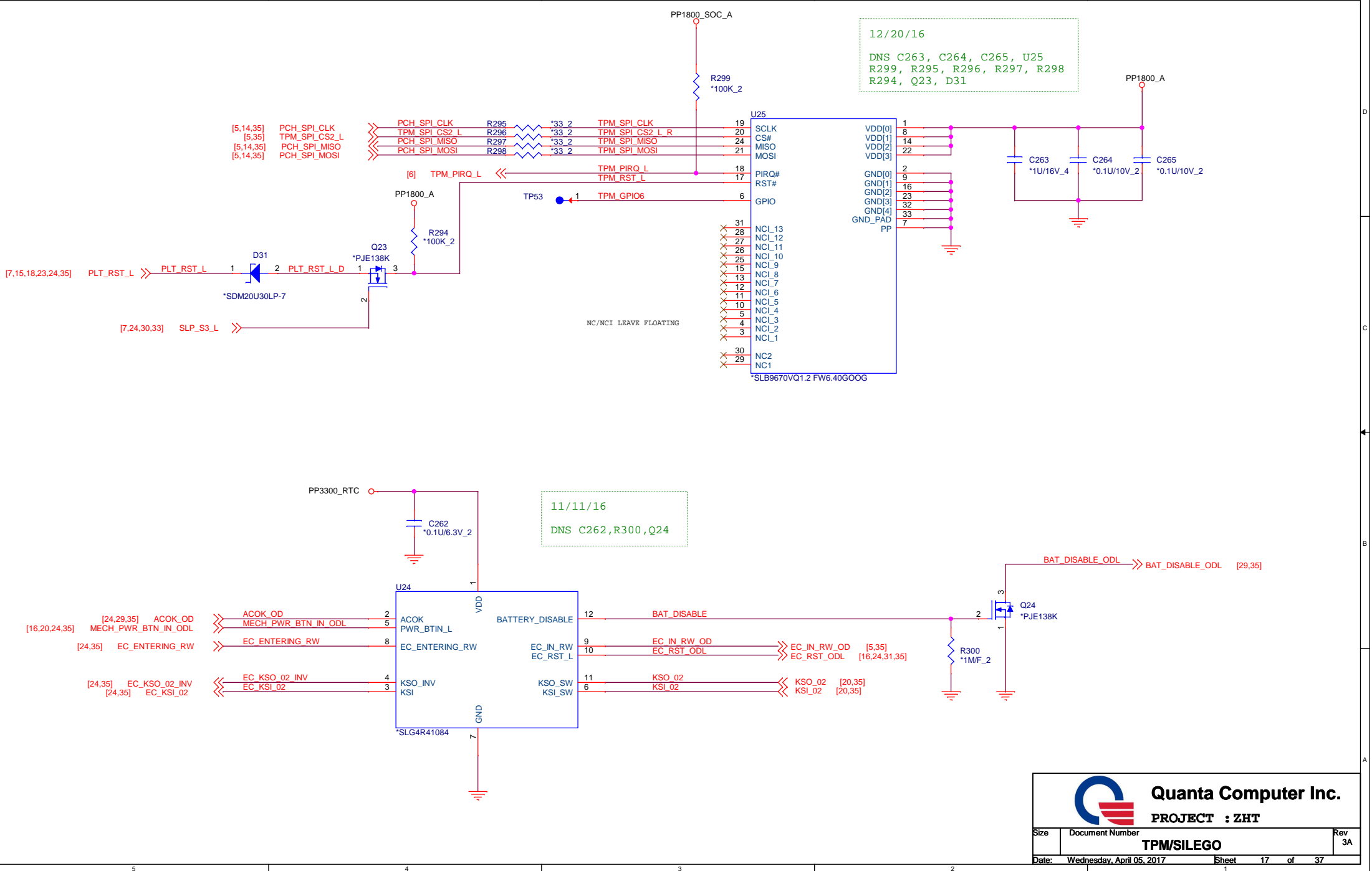


CAN REMOVE Q68, Q69 IF J1 IS DNS

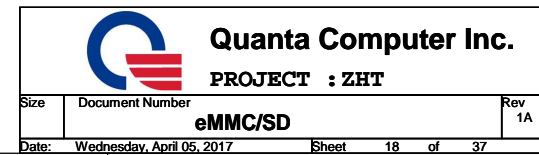
8/30/16  
 REMOVED D36  
 ADDED R519, U44  
 8/31/16  
 ADDED R521  
 ADDED LID\_OPEN\_SERVO  
 MADE R519 1M

**Quanta Computer Inc.**  
 PROJECT : ZHT

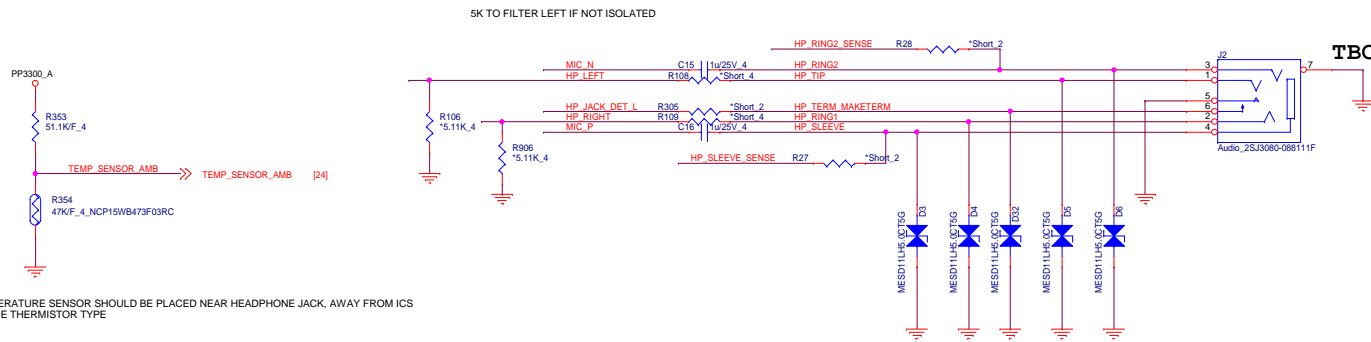
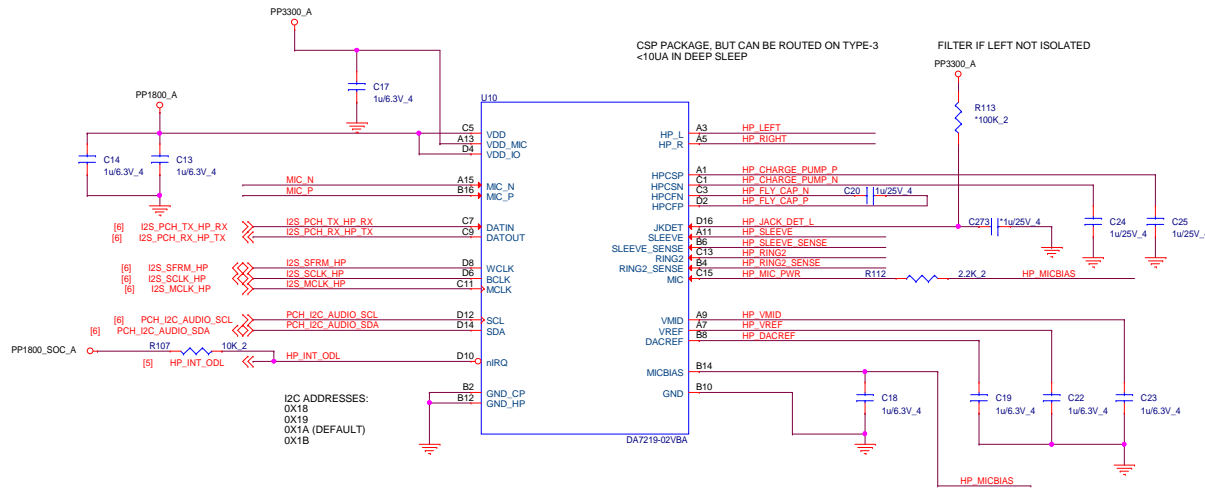
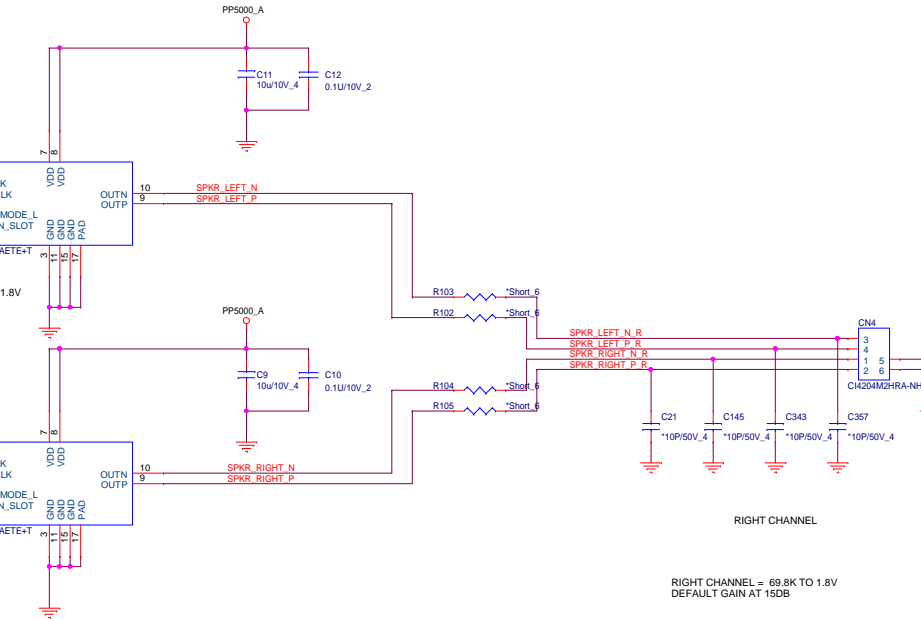
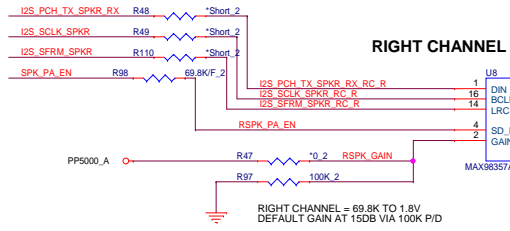
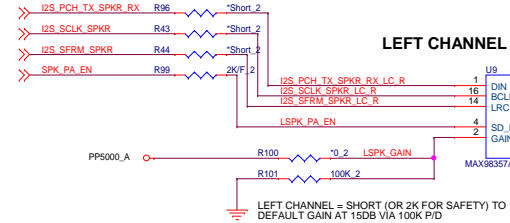
Size	Document Number	Rev 1A
SERVO		
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## 150 UA SLEEP CURRENT



- [6] I2S\_PCH\_TX\_SPKR\_RX  
[6] I2S\_SCLK\_SPKR  
[6] I2S\_SFRM\_SPKR  
[6] SPK\_PA\_EN



AMBIENT TEMPERATURE SENSOR SHOULD BE PLACED NEAR HEADPHONE JACK, AWAY FROM ICS  
DO NOT CHANGE THERMISTOR TYPE

1/11/16

DNS C185,C186,J10

Modify the pins assignment to meet Quanta's layout symbol rule

6/6/16

CHANGED ALL POWER ON FP CONNECTOR TO 1.8V

8/23/16

CHANGED FP\_INT\_L TO FP\_INT

SUBJECT TO CHANGE PER QUANTA REQUEST

NPC300 MODULE I2C ADDR: 0X29  
NPC300 I2C MAX FREQ = 3.4MHZ

[6] NFC\_INT\_L <- NFC\_INT\_L  
[6] PCH\_I2C\_NFC\_SDA <- PCH\_I2C\_NFC\_SDA  
[6] PCH\_I2C\_NFC\_SCL <- PCH\_I2C\_NFC\_SCL  
[6] NFC\_RESET\_ODL <- NFC\_RESET\_ODL  
[6] NFC\_FW\_DL <- NFC\_FW\_DL

PP1800\_SENSOR\_S

PP5000\_NFC\_S  
PP1800\_SENSOR\_S

R251  
NFC@100K\_2

C191  
NFC@1U/10V\_2

C193  
NFC@0.1U/10V\_2

C187  
NFC@10u/6.3V\_4

C188  
NFC@0.1U/10V\_2

C189  
NFC@0.1U/10V\_2

C194  
NFC@0.1U/10V\_2

J11

NFC@NFC\_FFC\_15P

THE PURPOSE OF THIS CIRCUIT IS TO ALLOW A SINGLE KEYBOARD MATRIX FOR BOTH A CONVERTIBLE AND CLAMHELL SKU

STUFF THESE FOR KEYBOARD LOCK BUTTON

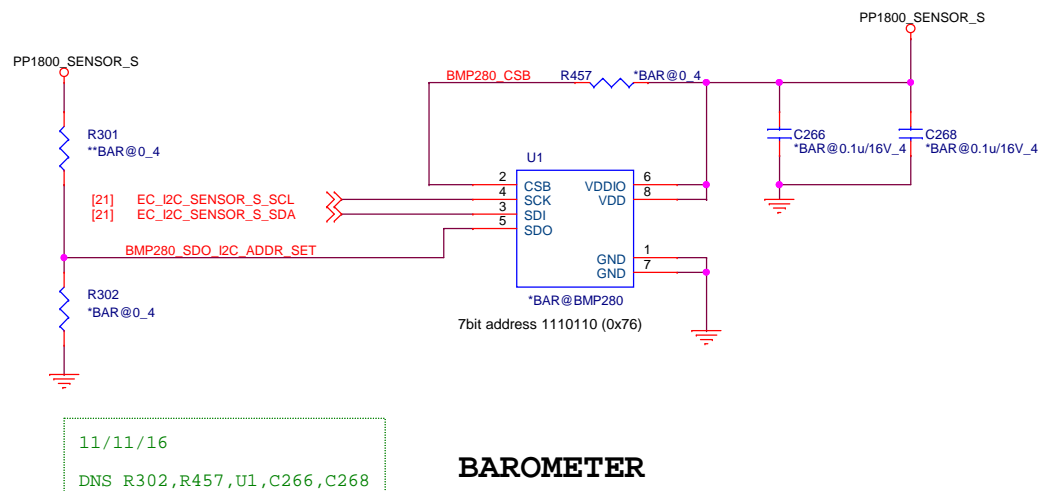
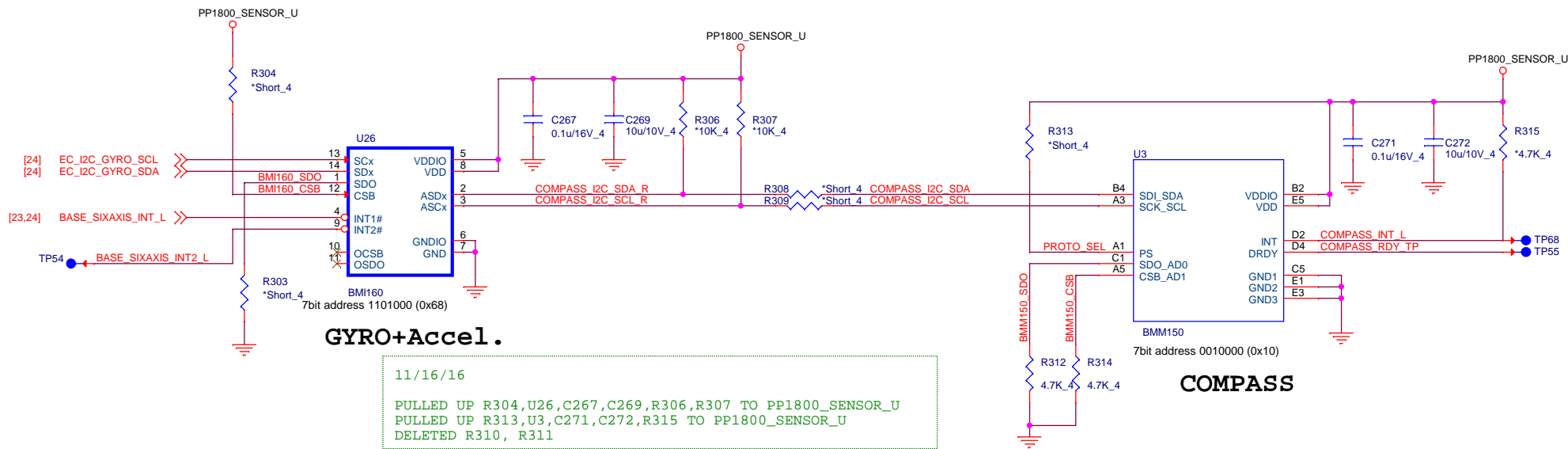
STUFF THESE FOR POWER BUTTON (DETACHABLE)

THE PURPOSE OF THIS CIRCUIT IS TO ALLOW A SINGLE KEYBOARD MATRIX FOR BOTH A CONVERTIBLE AND CLAMHELL SKU

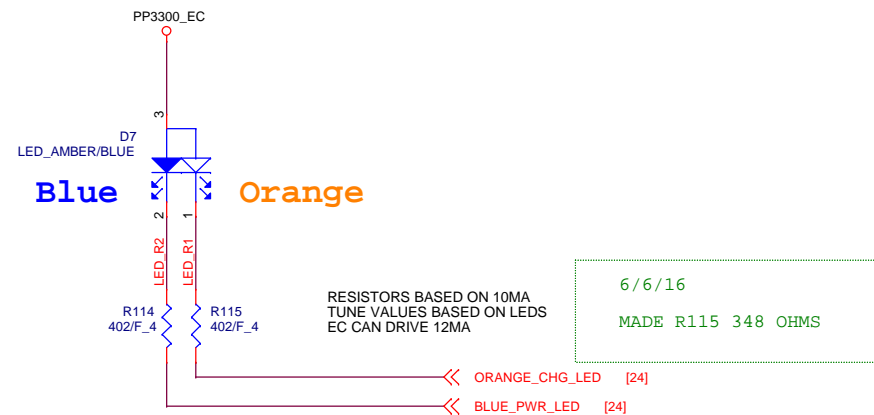
STUFF THESE FOR KEYBOARD POWER BUTTON

[illegible][illegible]





## CHARGE/BATTERY LED



**Quanta Computer Inc.**

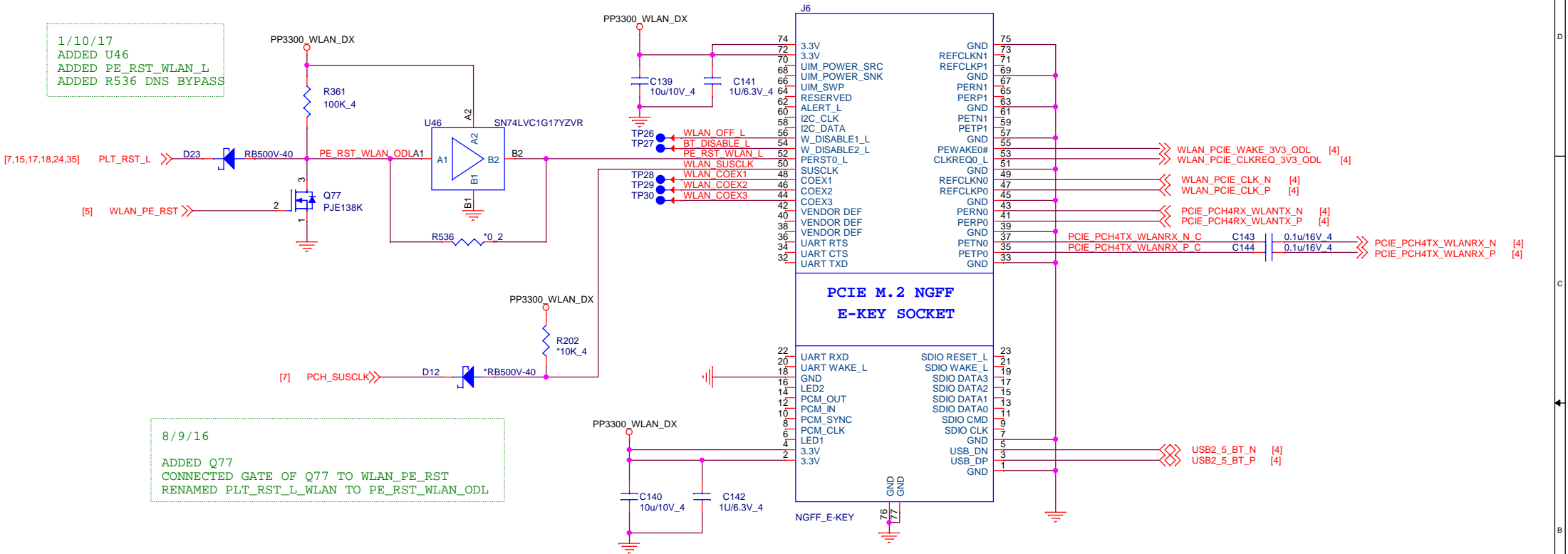
**PROJECT : ZHT**

Size	Document Number	Rev
	<b>COMPASS, BARO, GYRO, LID</b>	3A

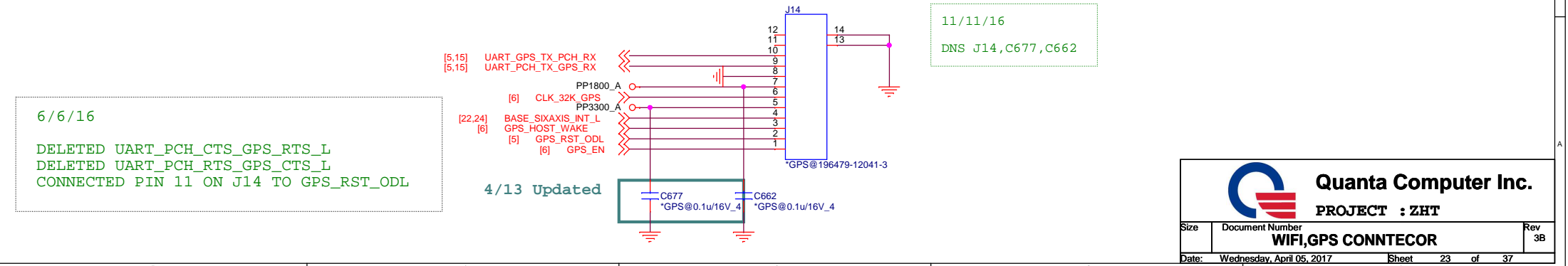
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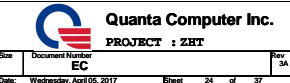


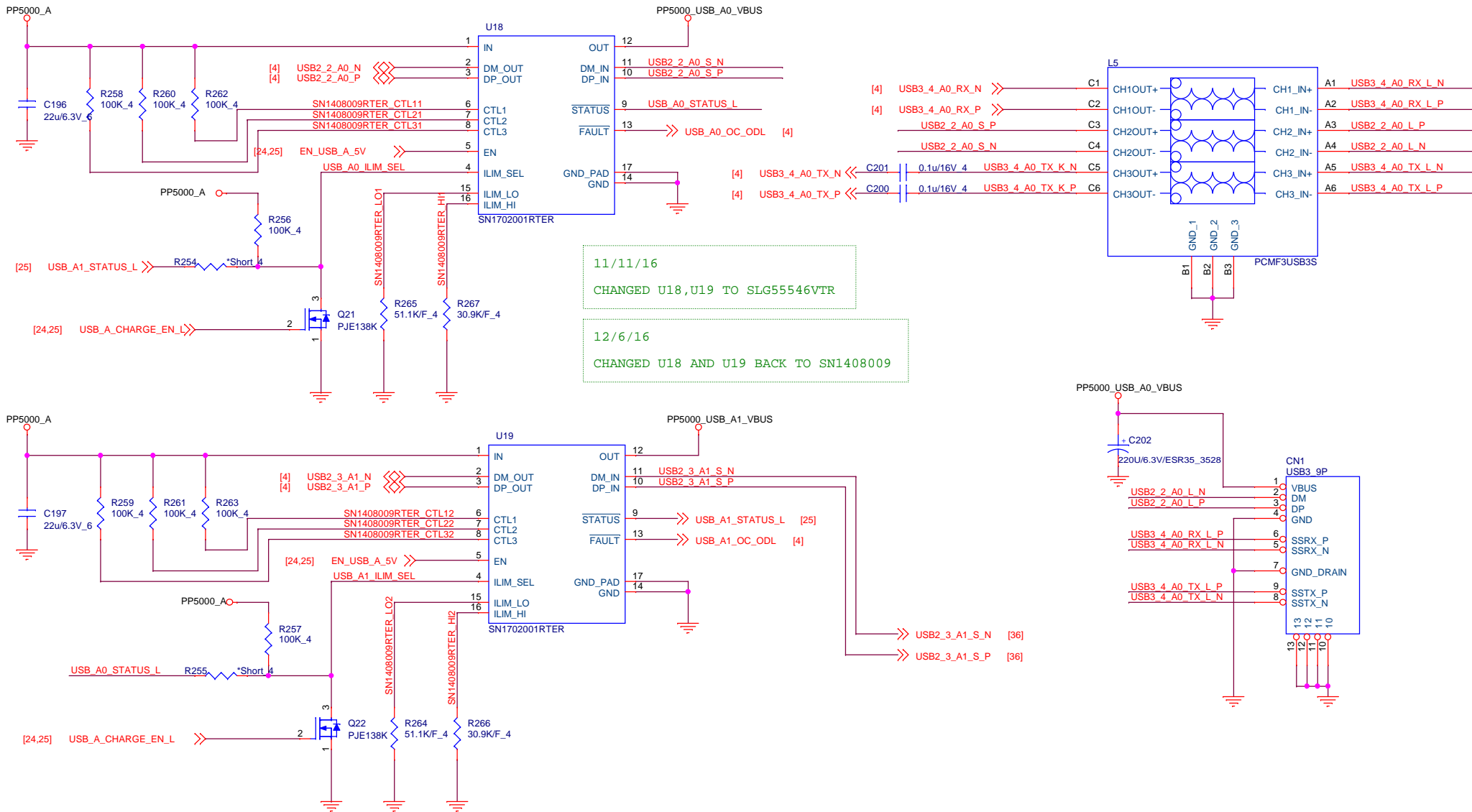
M.2 connector



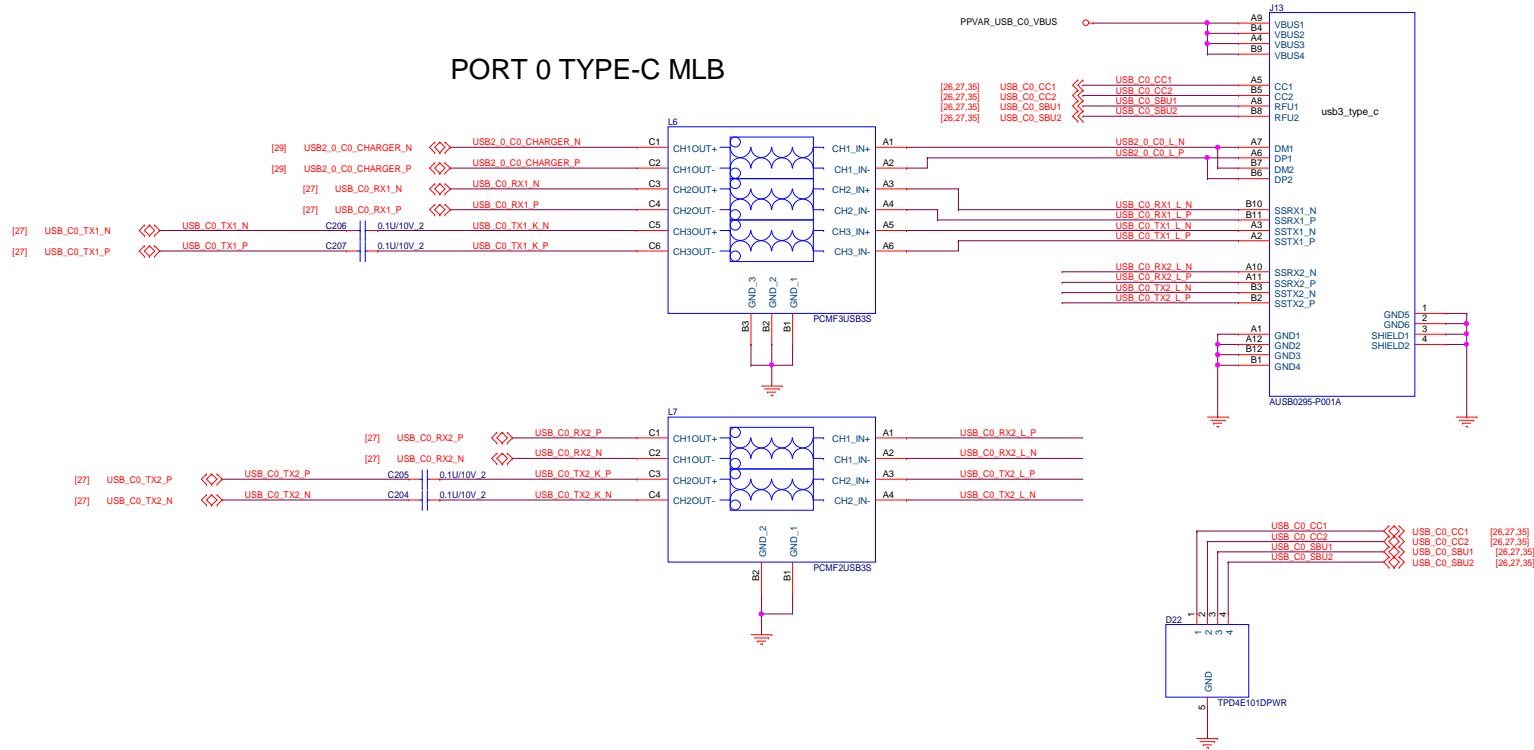
GPS connector

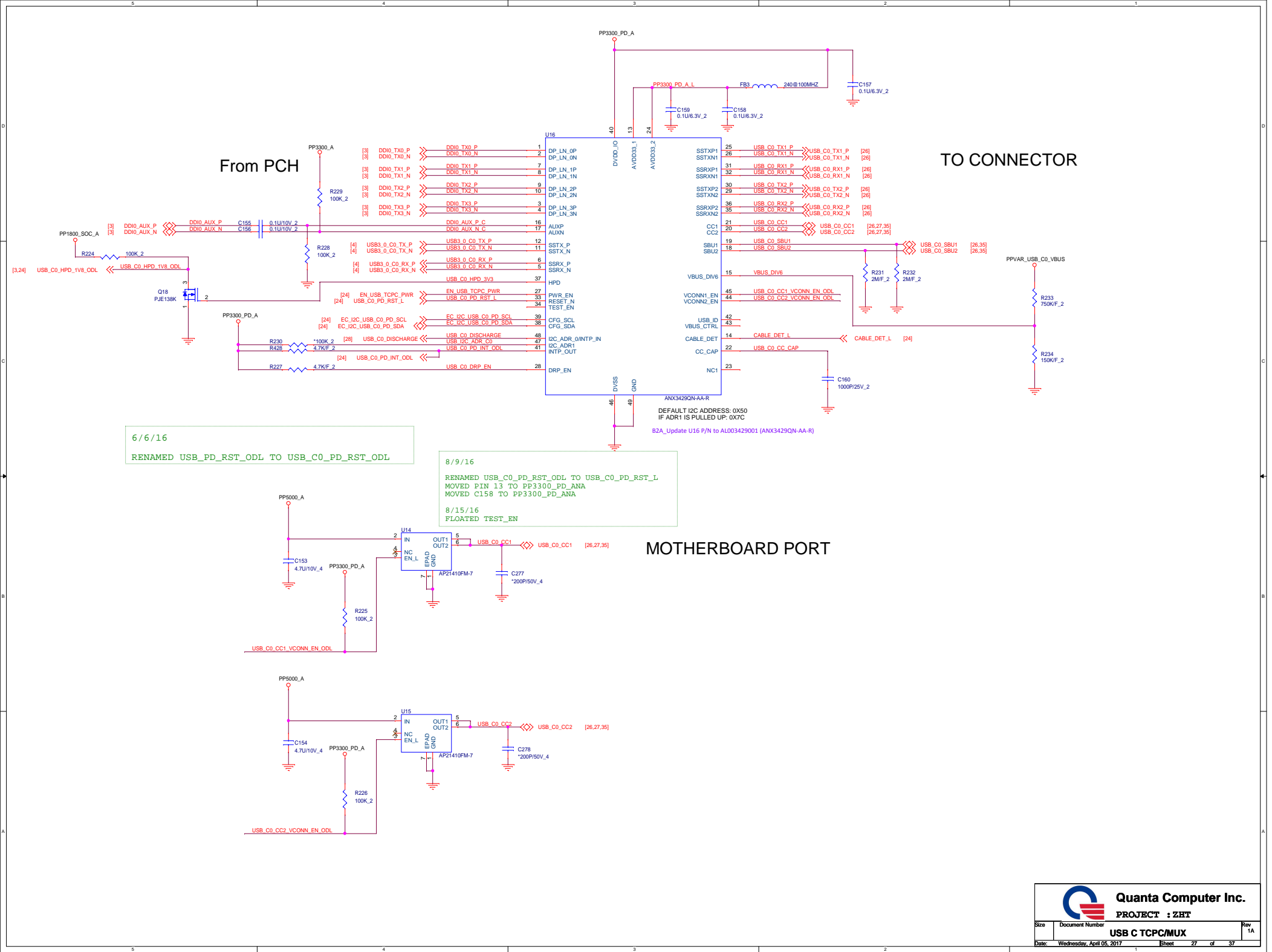






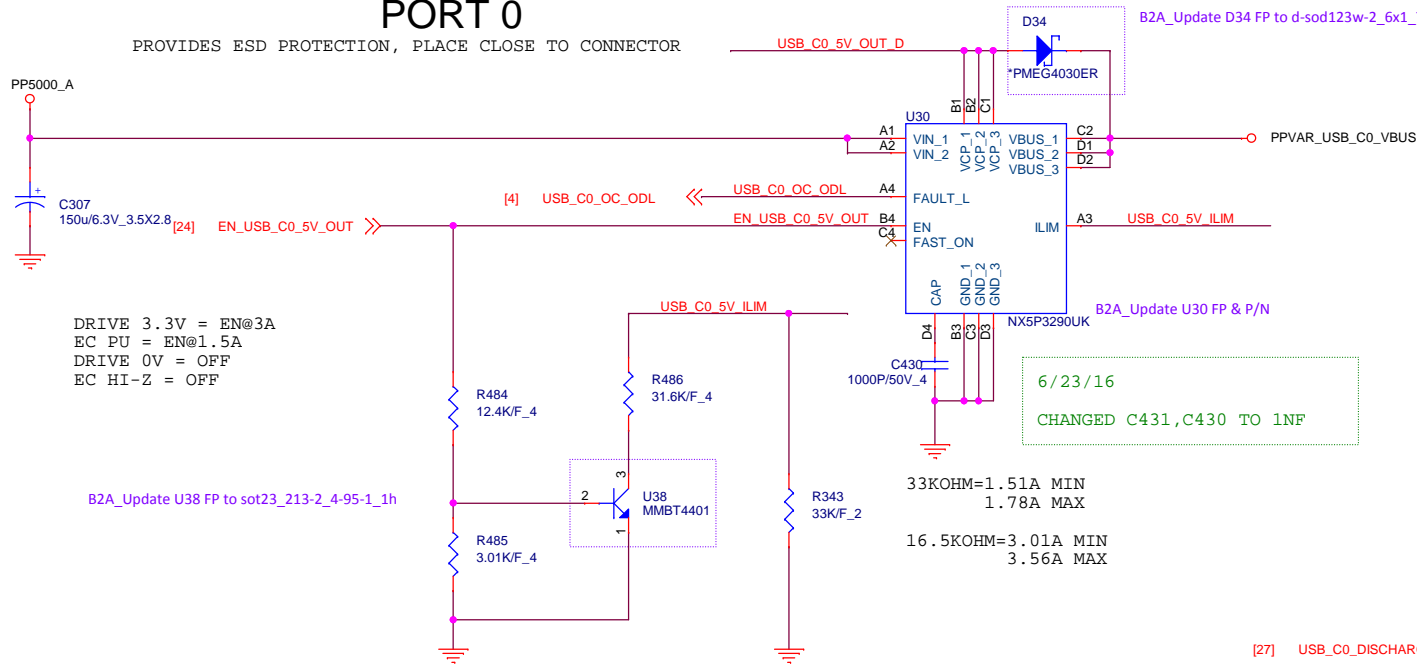
## PORT 0 TYPE-C MLB





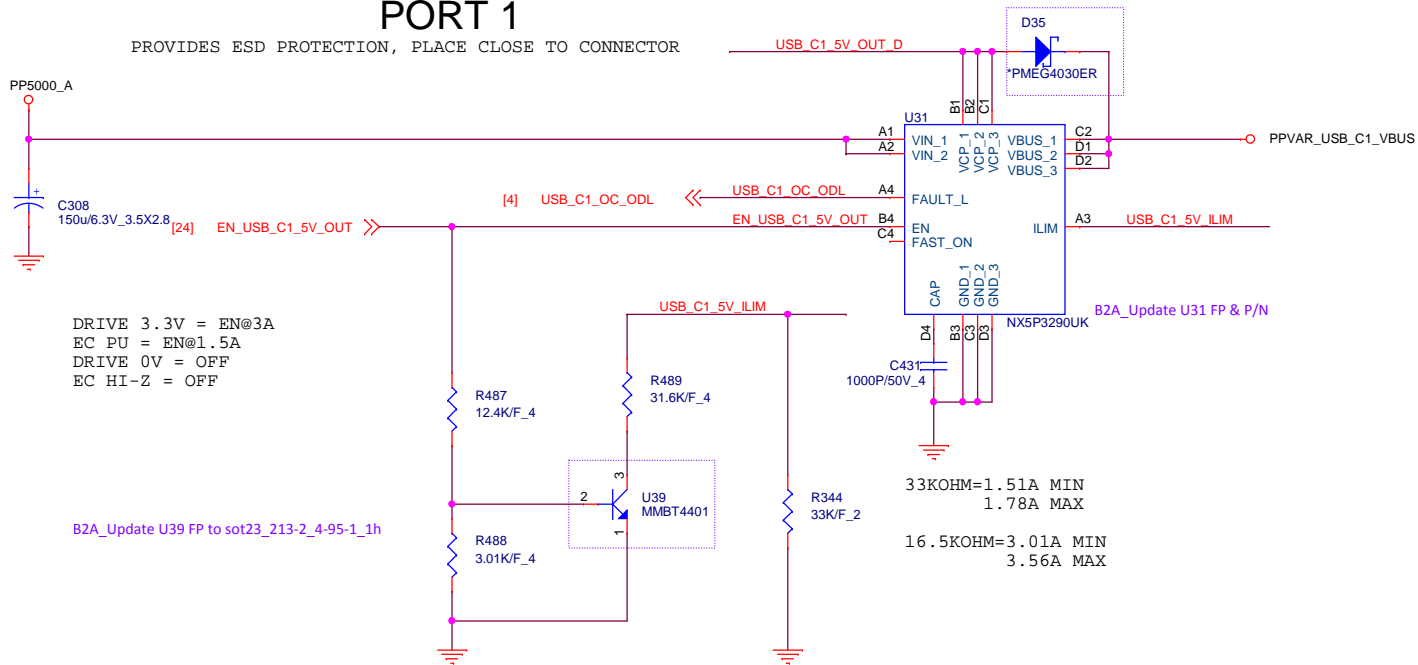
# PORT 0

PROVIDES ESD PROTECTION, PLACE CLOSE TO CONNECTOR



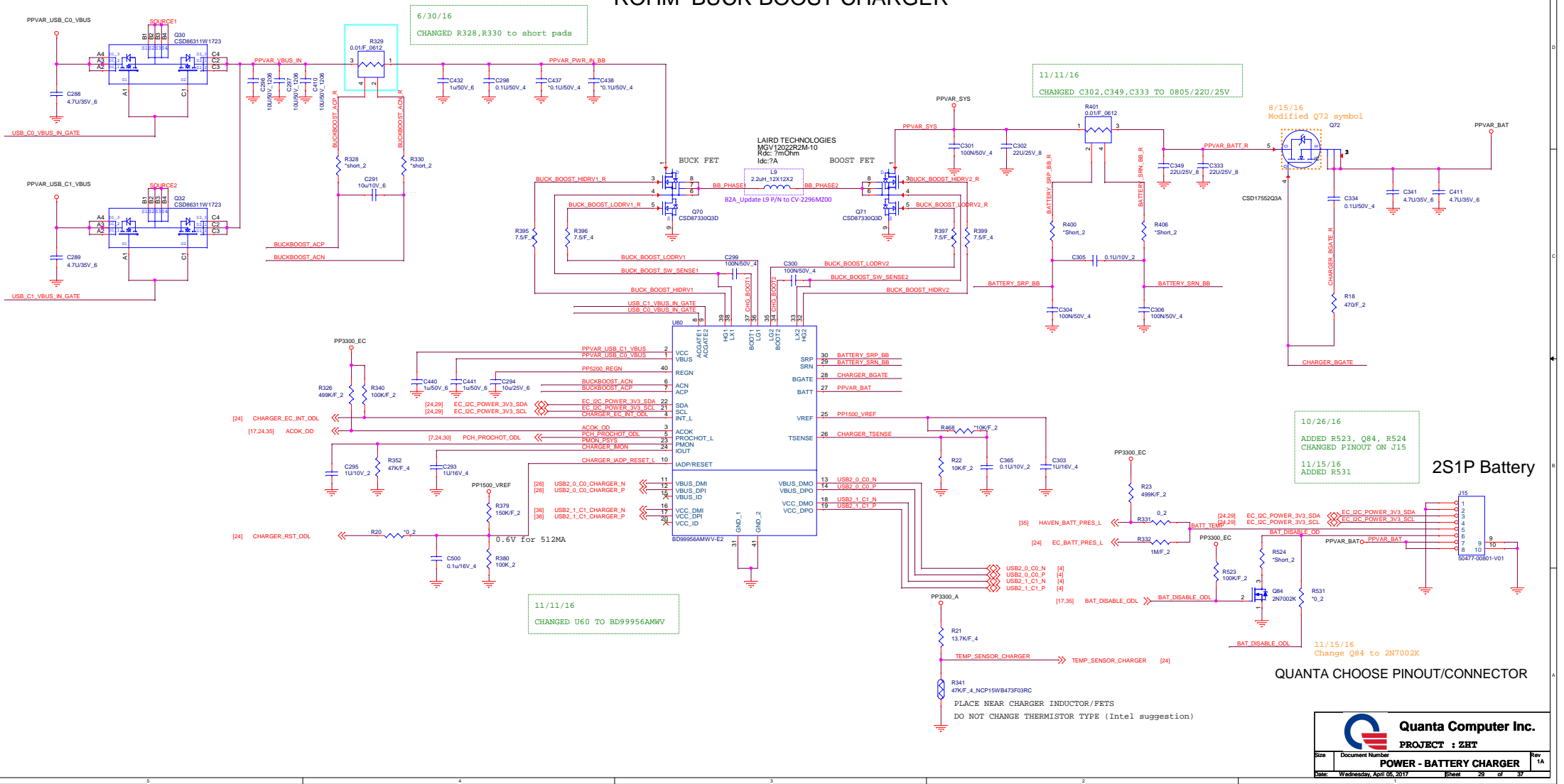
# PORT 1

PROVIDES ESD PROTECTION, PLACE CLOSE TO CONNECTOR



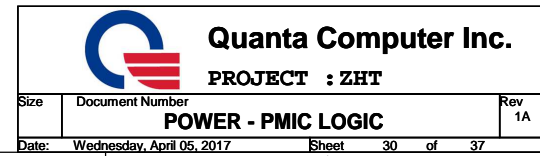
POWER - BATTERY CHARGER

ROHM BUCK-BOOST CHARGER

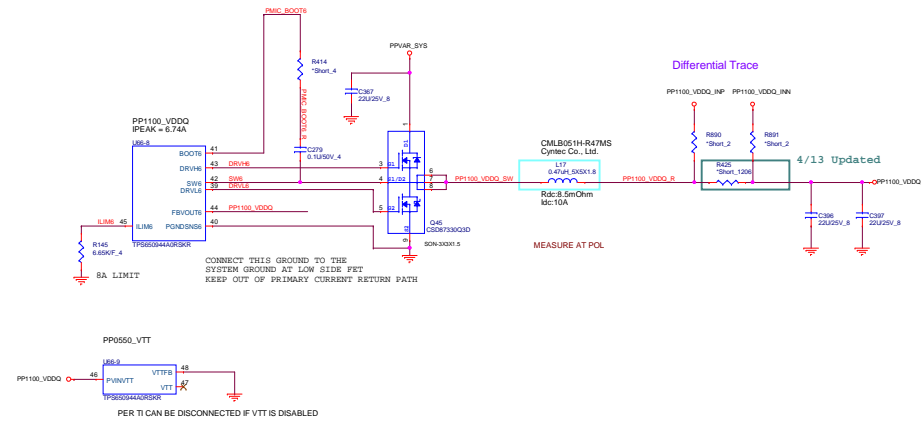
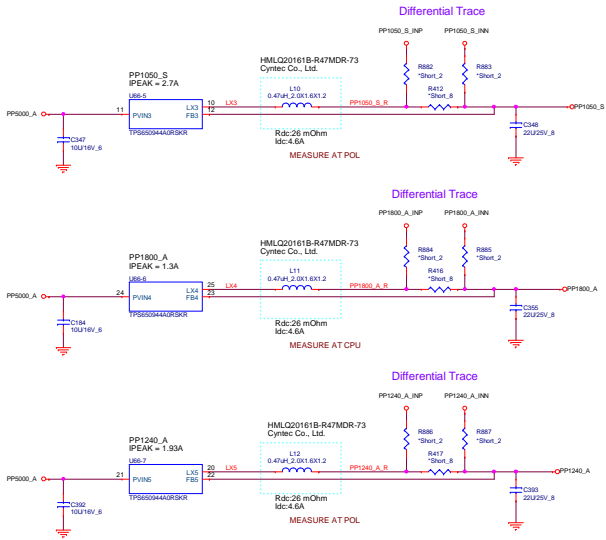
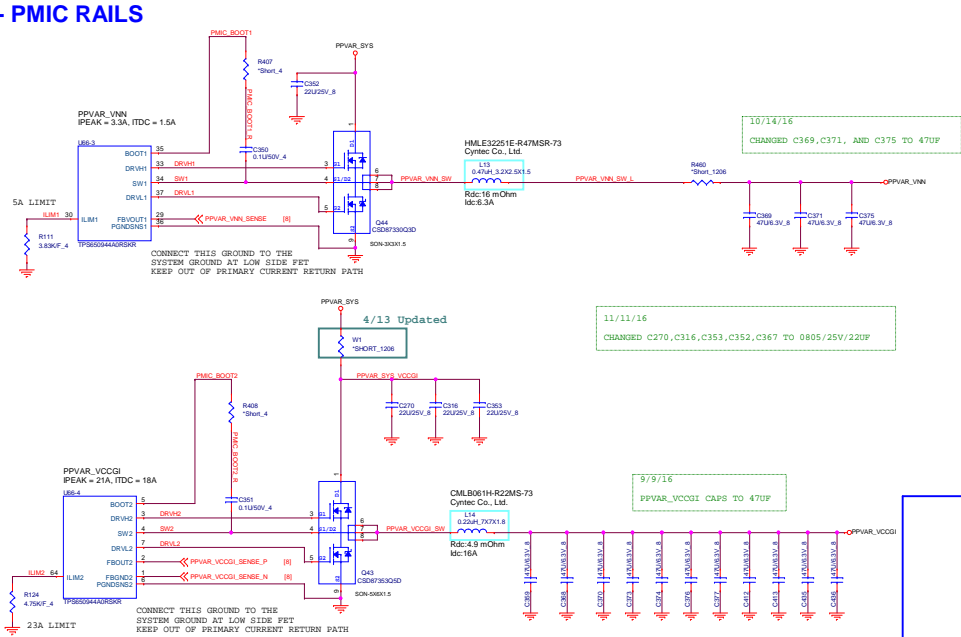




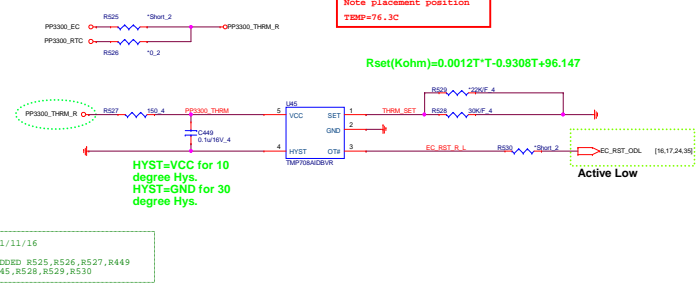
```
6/6/16
STUFFED D2
ADDED R475
CHANGED R32 TO 51K
ADDED D33
```



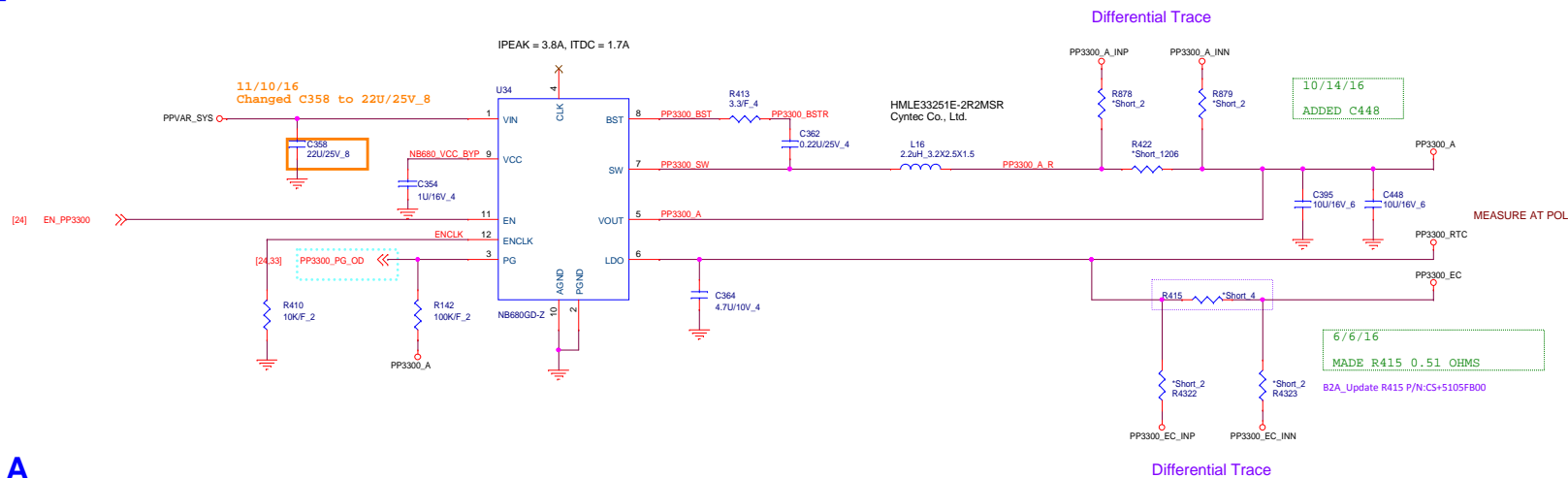
POWER - PMIC RAILS



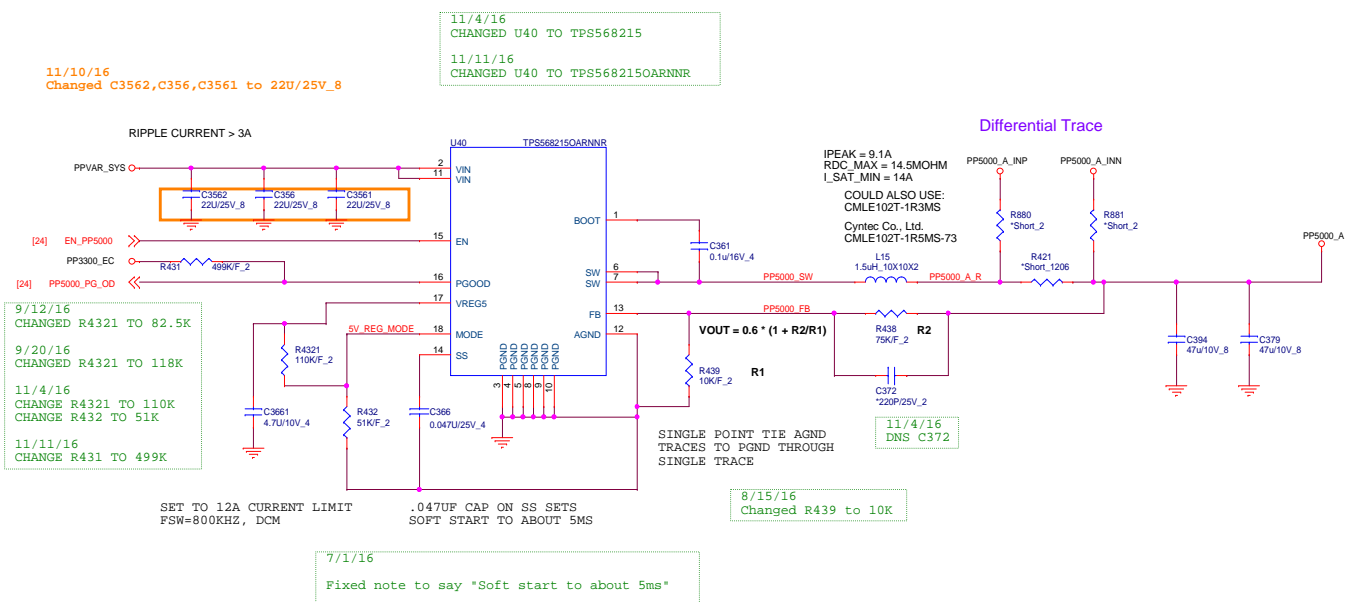
Thermal Protector



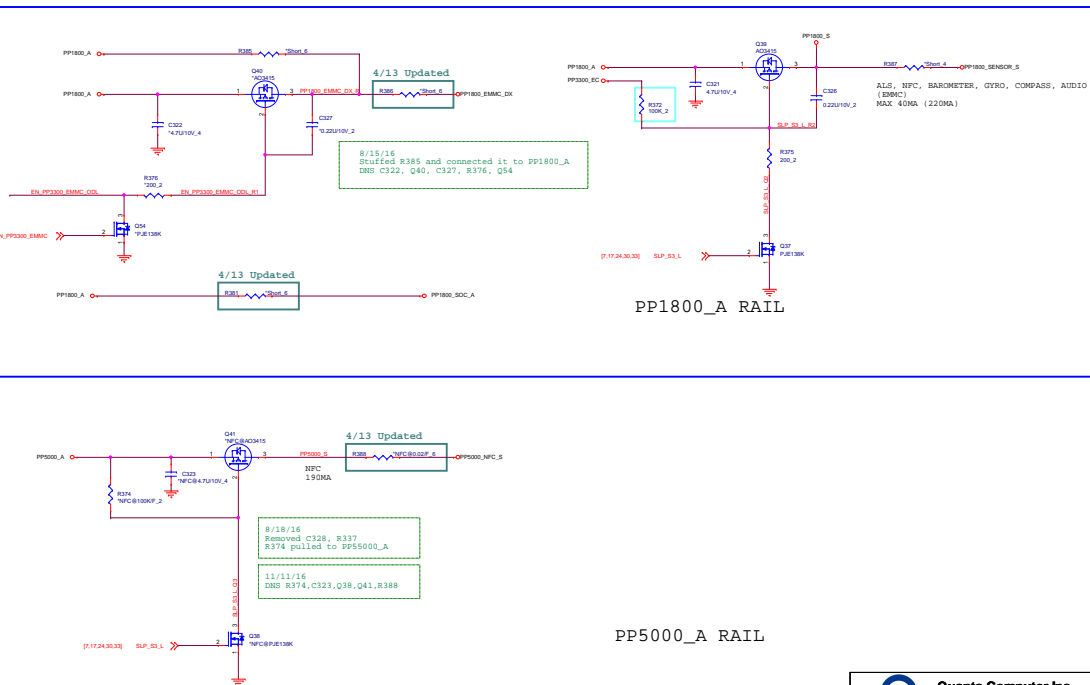
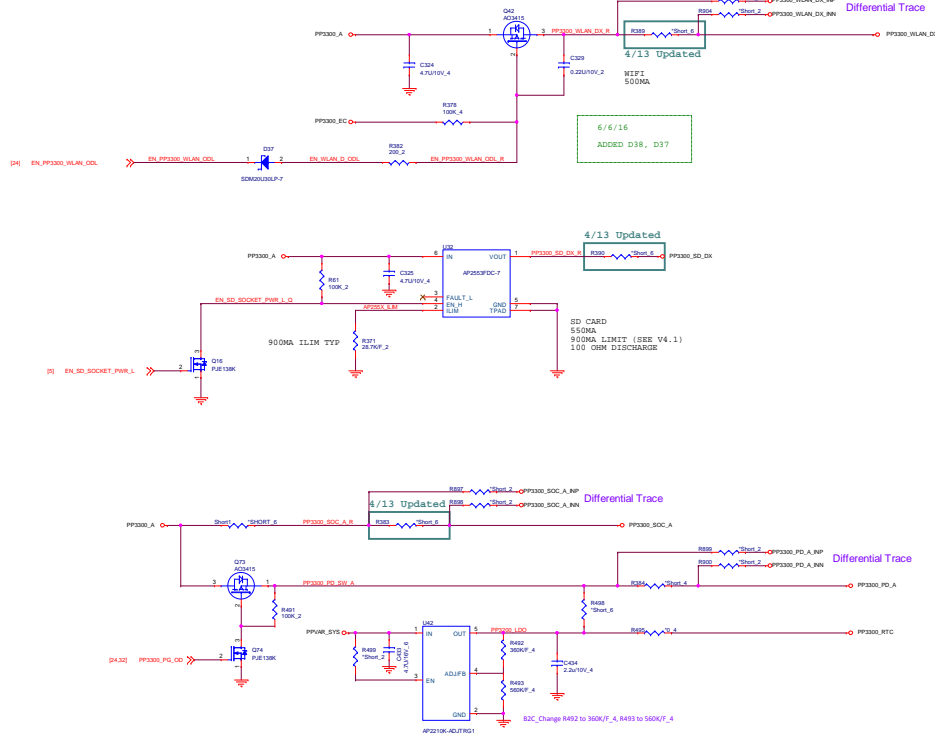
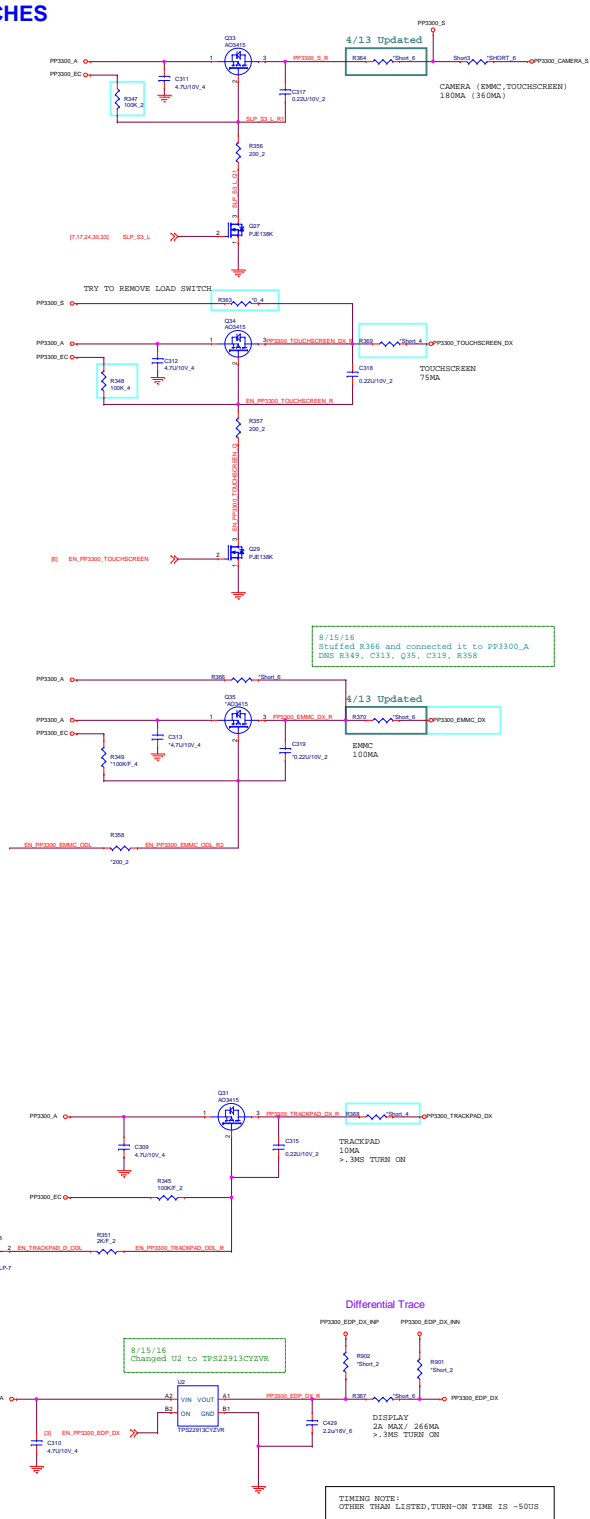
**PP3300\_A**

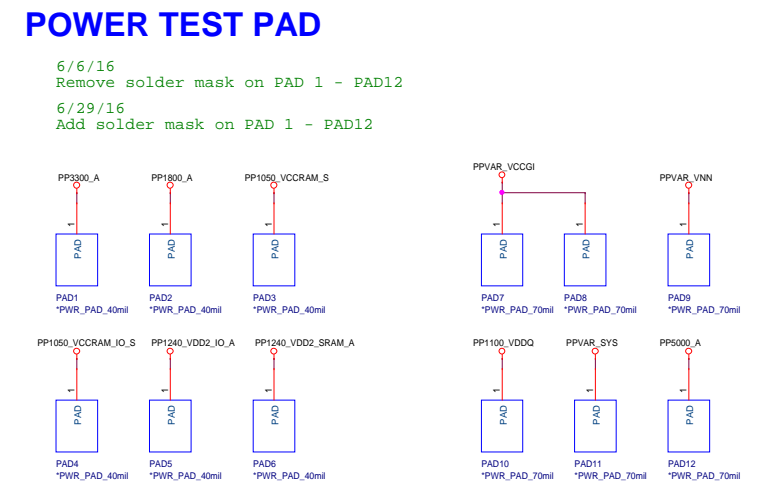
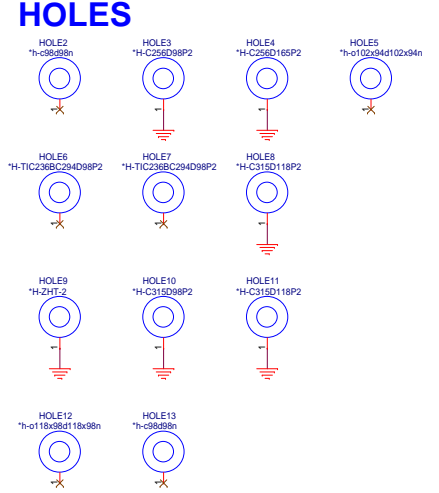
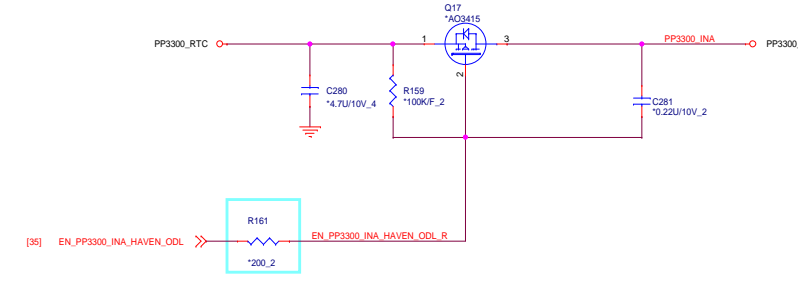
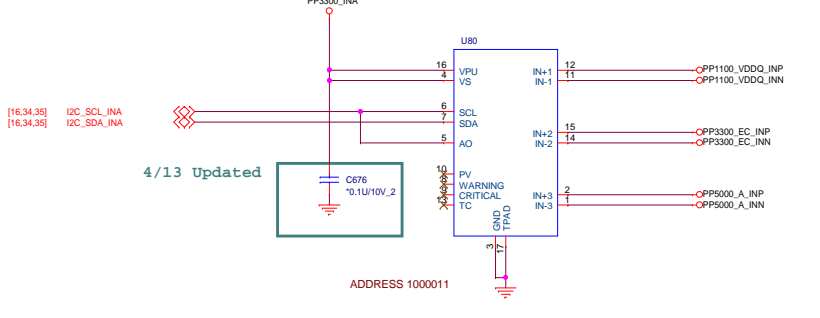
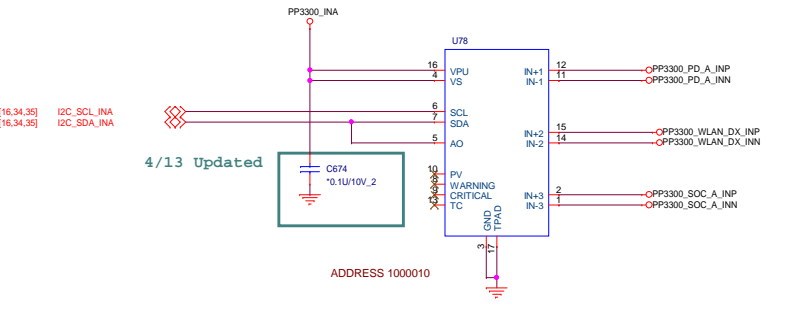
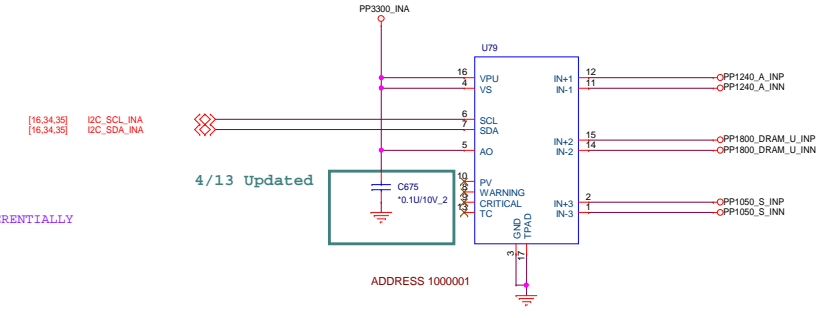
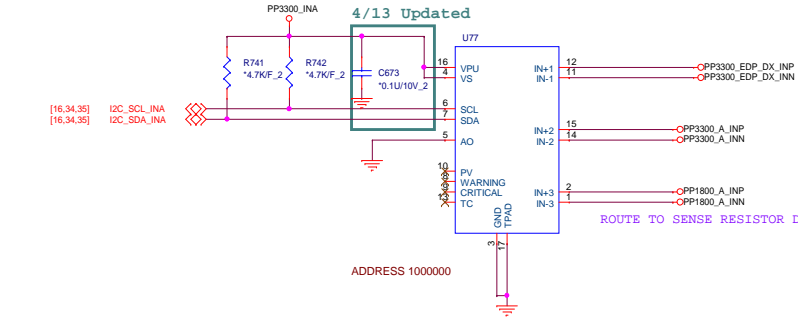


**PP5000\_A**

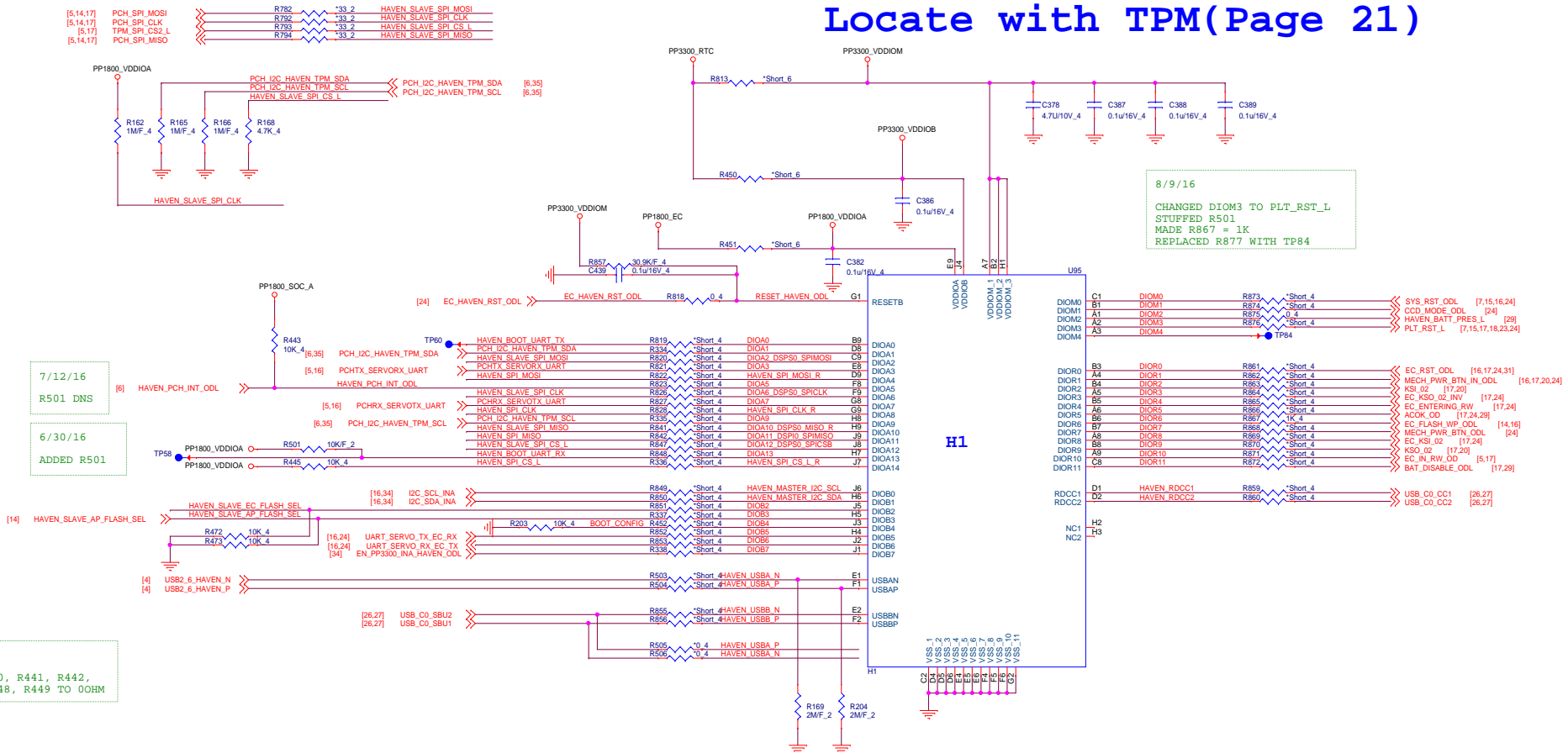


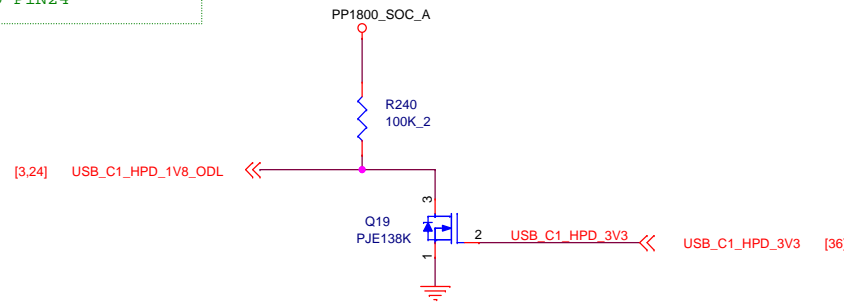
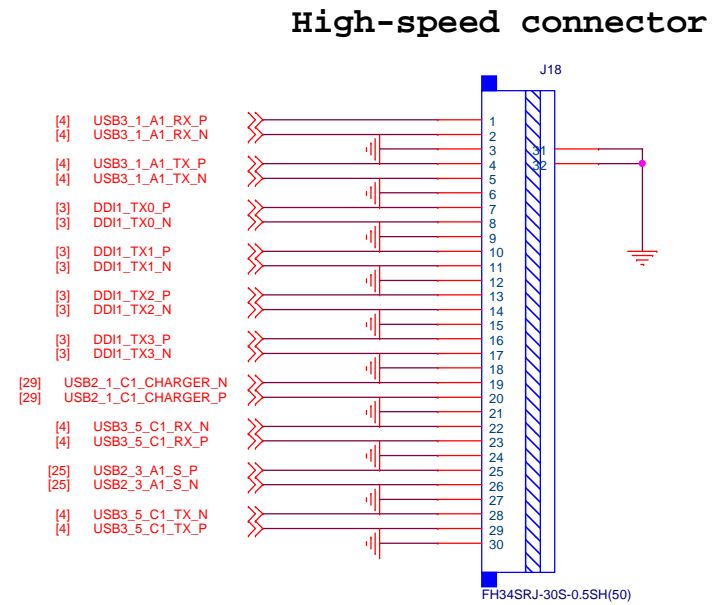
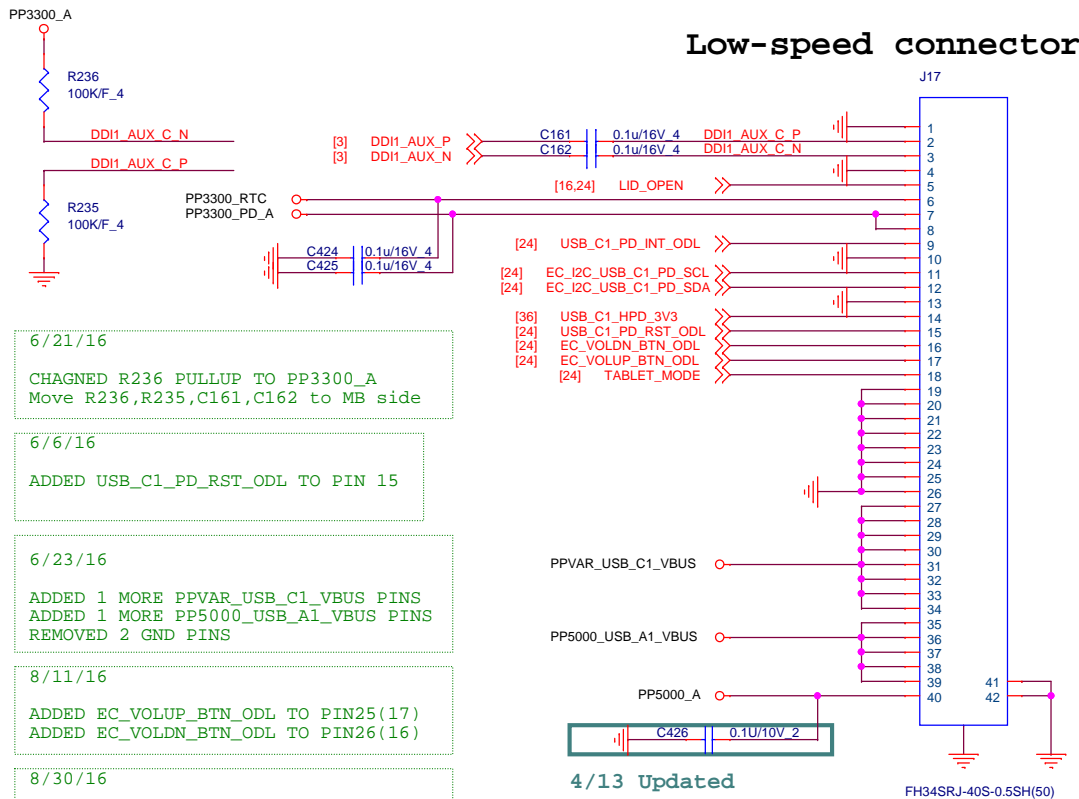
## POWER - LOAD SWITCHES





# Locate with TPM(Page 21)







[illegible]