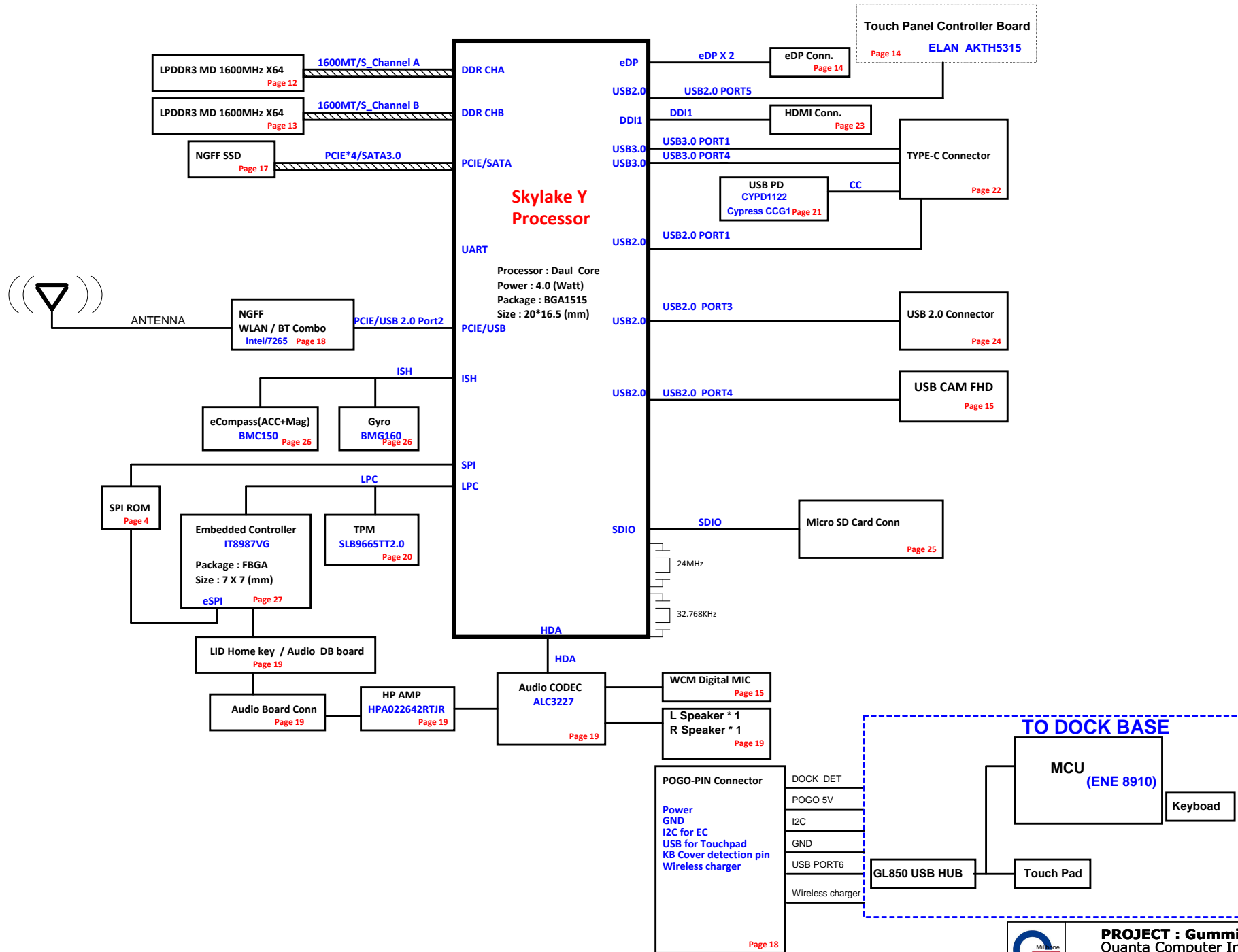


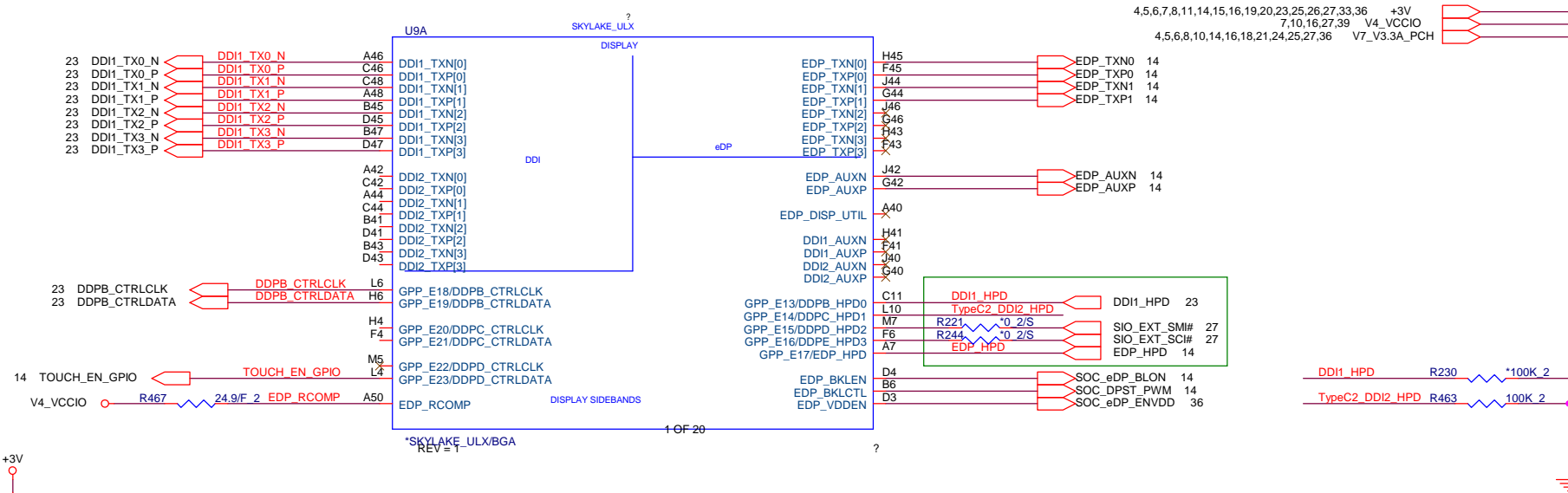
Gummi YB3B Block Diagram

01



PROJECT : Gummi
 Quanta Computer Inc.

Size	Document Number	Rev
	Block diagram	1A
Date:	Tuesday, October 27, 2015	Sheet 1 of 41



5/24: Modify

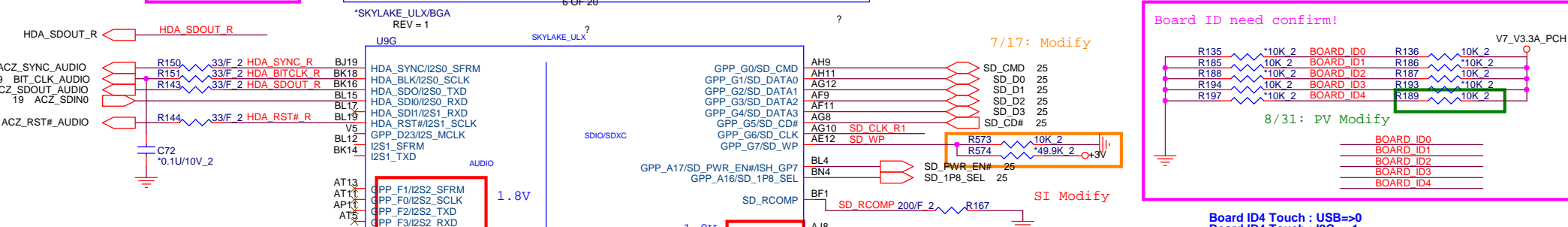
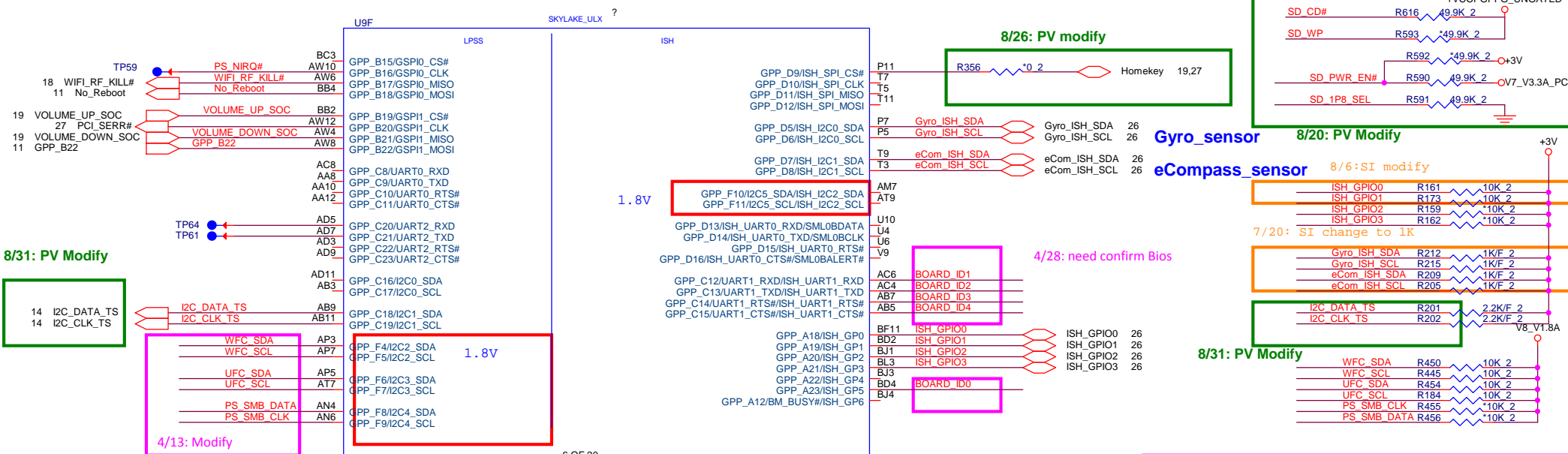


PROJECT : Gummi
Quanta Computer Inc.

Size	Document Number	Rev
	SKL-Y CPU (DD/EDP)	1A
Date:	Tuesday, October 27, 2015	Sheet 2 of 41

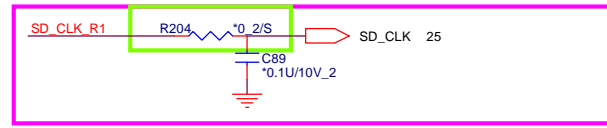






27 GPIO33_EC R149 1K/F 2 HDA_SDOUT_R 5/5: Modify

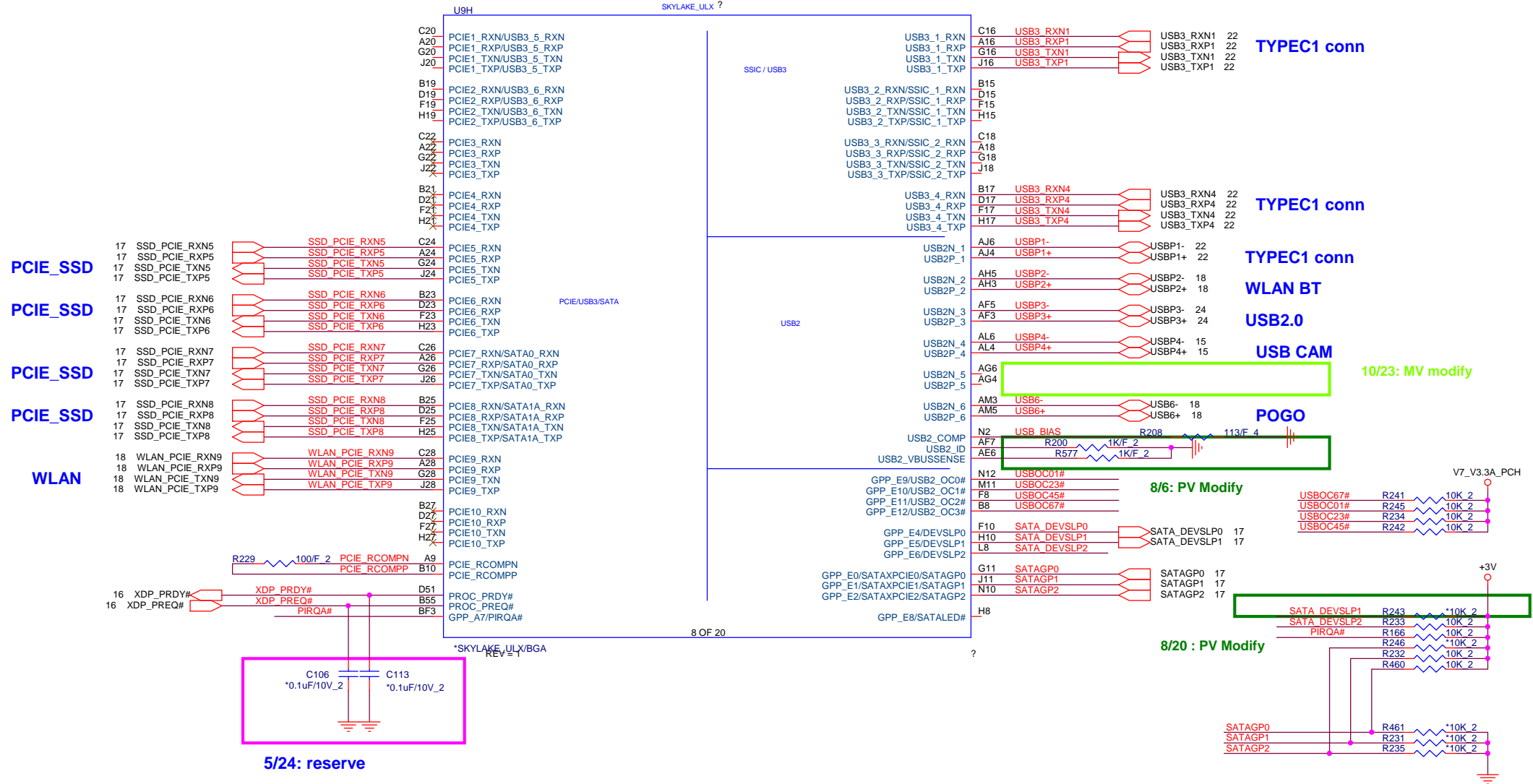
Security Flash Descriptors



Model	BOARD_ID4	BOARD_ID3	BOARD_ID2	BOARD_ID1	BOARD_ID0
Hynix 2G+2G=4G H9CCNNNBPTBLBR-NUD	1	0	0	0	0
Samsung 2G+2G=4G K3QF2F20EM-AGCF	1	0	0	1	0
Micron 4G+4G=8G EDFB164A1MA-JD-F	1	0	0	1	1
Hynix 4G+4G=8G H9CCNNNCPTMLBR-NUD	1	0	1	0	0
Samsung 4G+4G=8G K3QF4F40BM-AGCF	1	0	1	0	1

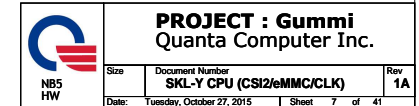
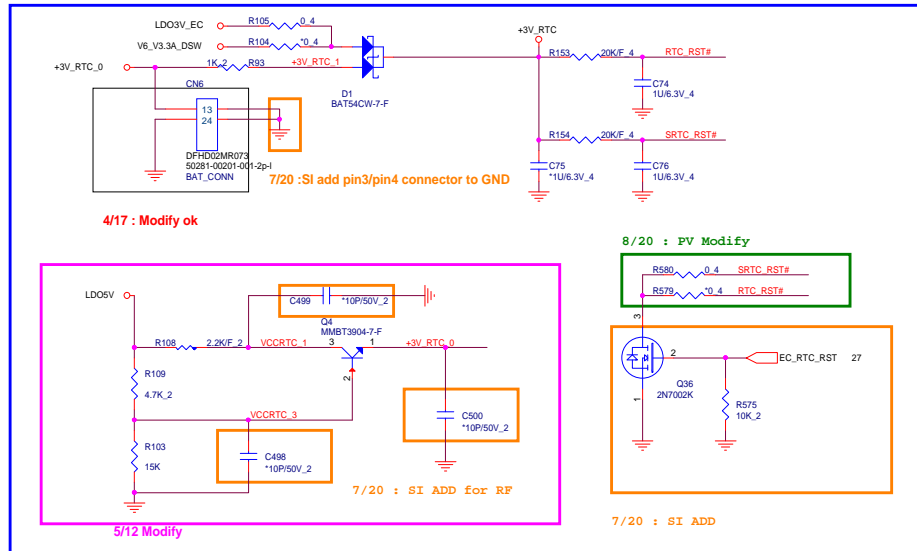
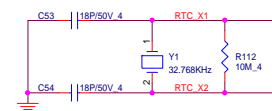
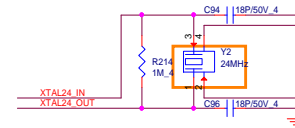
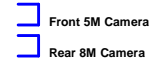
PROJECT : Gummi
Quanta Computer Inc.

Size	Document Number	Rev
	SKL-Y CPU (LPSS/ISH/HDA)	1A
Date:	Tuesday, October 27, 2015	Sheet 5 of 41



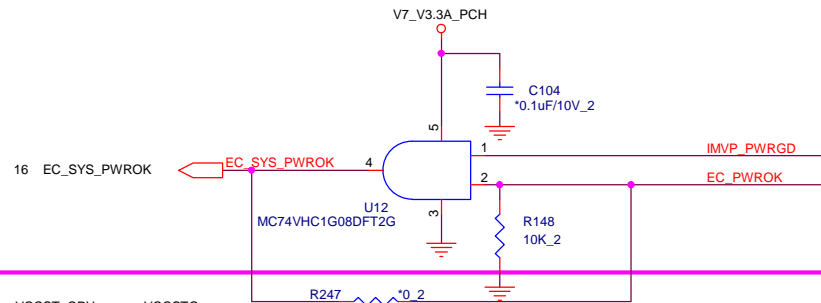
PROJECT : Gummi Quanta Computer Inc.

Size	Document Number	Rev
	SKL-Y CPU (PCIE/USB3)	1A
Date: Tuesday, October 27, 2015	Sheet 6 of 41	





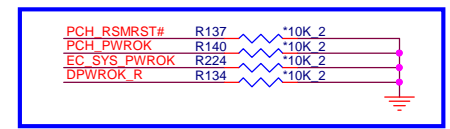
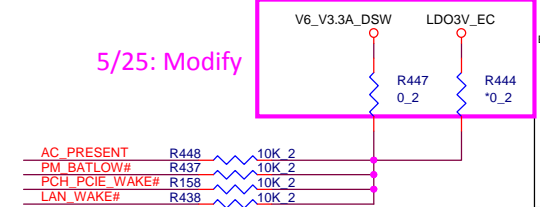
5/24: reserve



The schematic shows two signal traces:

- PCH_VRALERT#**: This trace passes through resistor R170 (10K) and connects to pin V7-V3.3A_PCH.
- SYS_RST#**: This trace passes through resistor R226 (10K) and connects to the +3V supply.

5/25: Modify

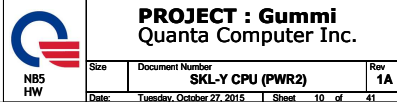


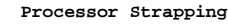
7/10: SI modify



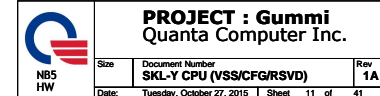
PROJECT : Gummi
Quanta Computer Inc.

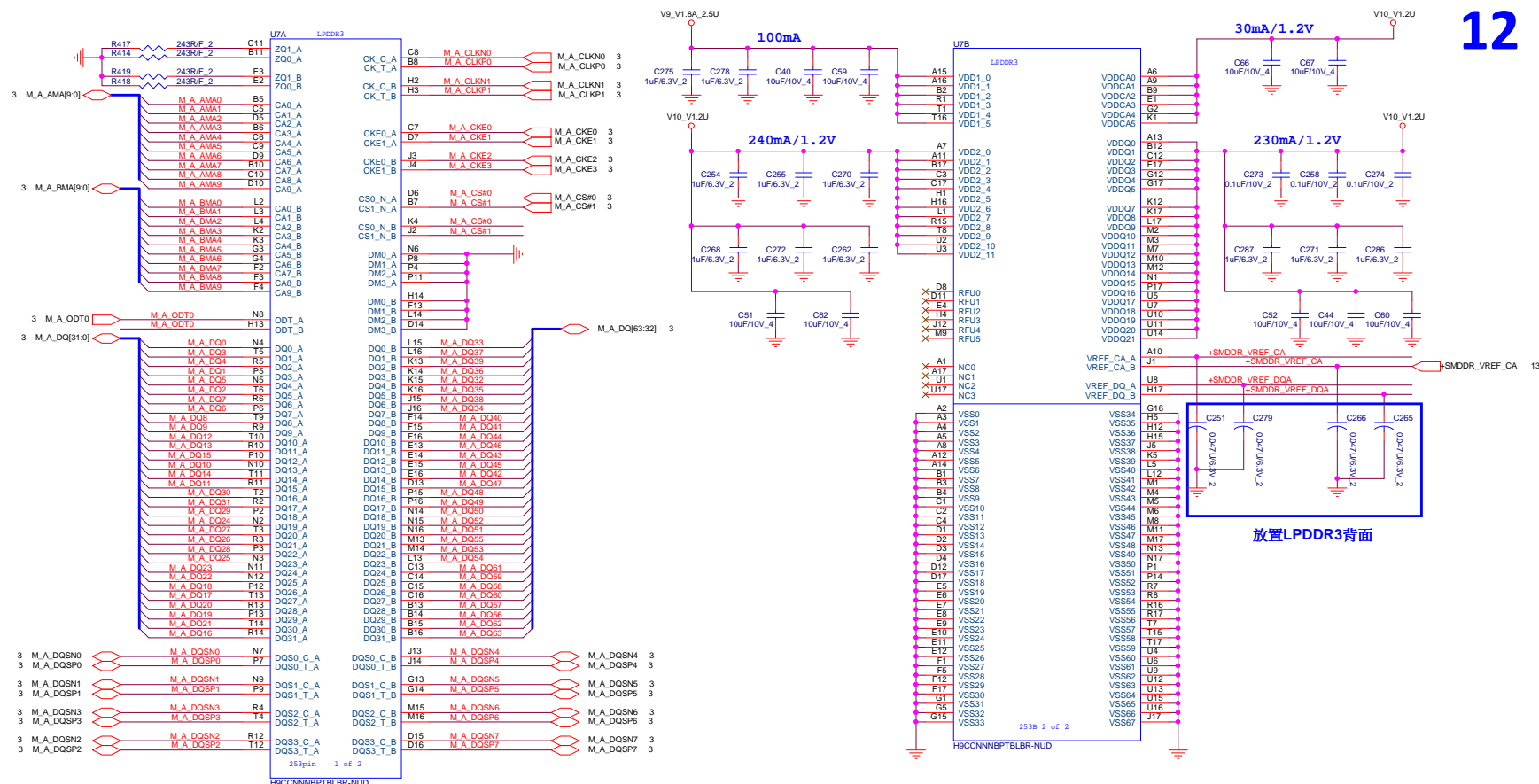
Size	Document Number SKL-Y CPU (PWR MANAGE)	Rev 1A
Date:	Tuesday, December 08, 2015	Sheet 8 of 41

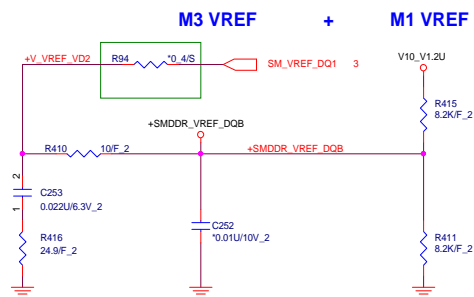
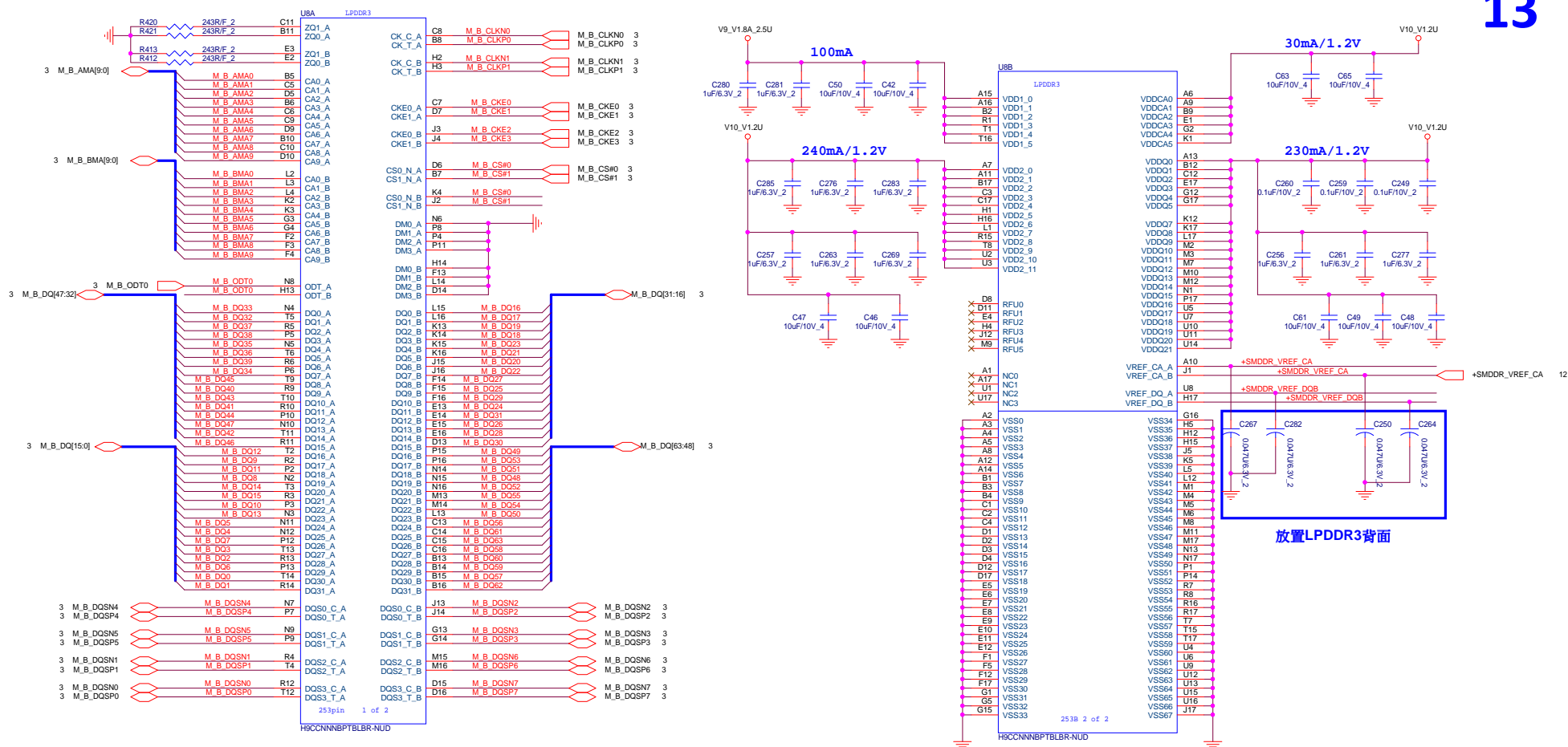




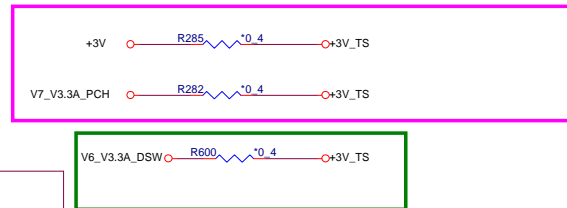
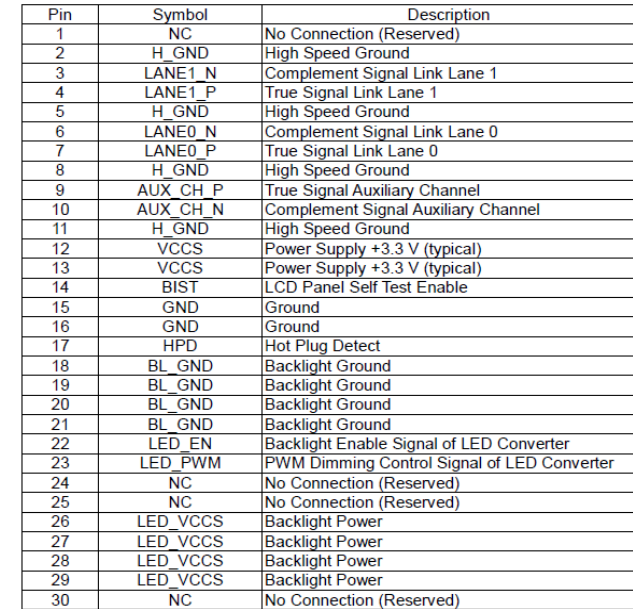
Security Flash Descriptors





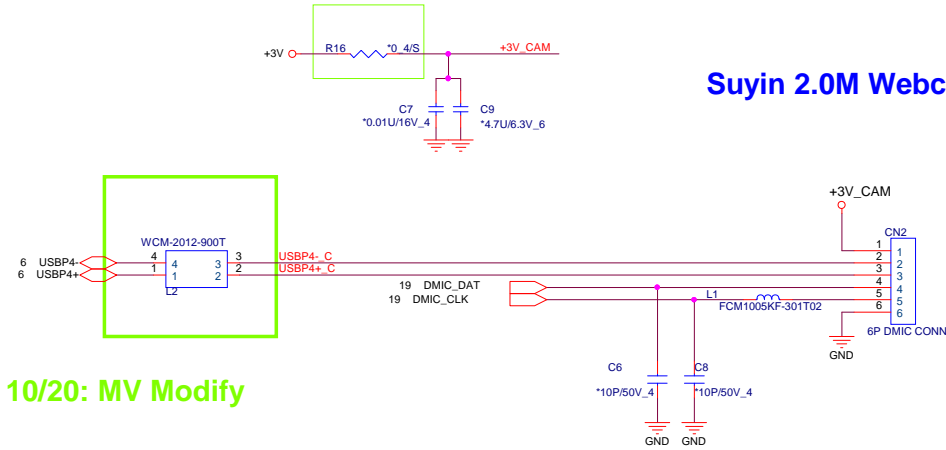


10,12,31,39 V10_V1.2U
 12,36 V9_V1.8A_2.5U
 3,12 SM_VREF_CA
 3 SM_VREF_DQ1



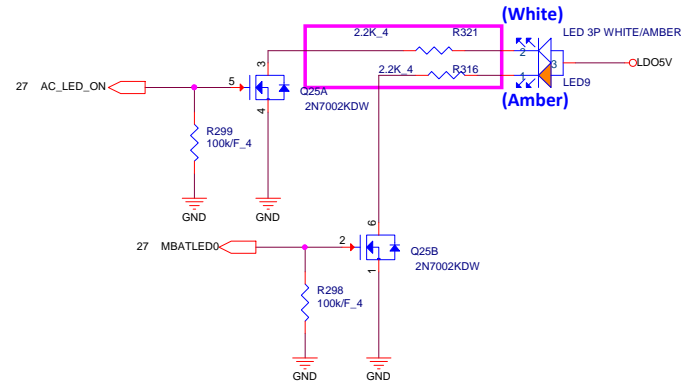


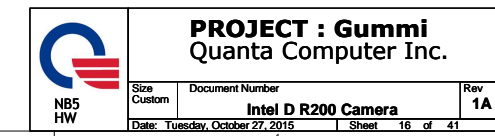
Suyin 2.0M Webcam / DMIC



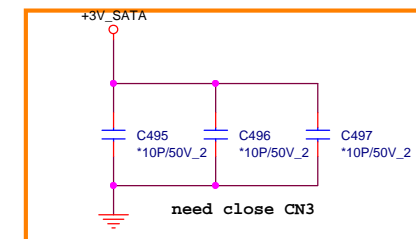
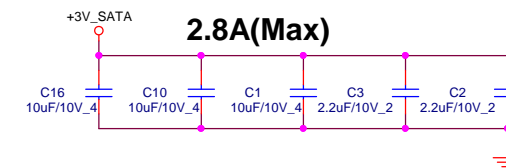
10/20: MV Modify

5/29: Modify





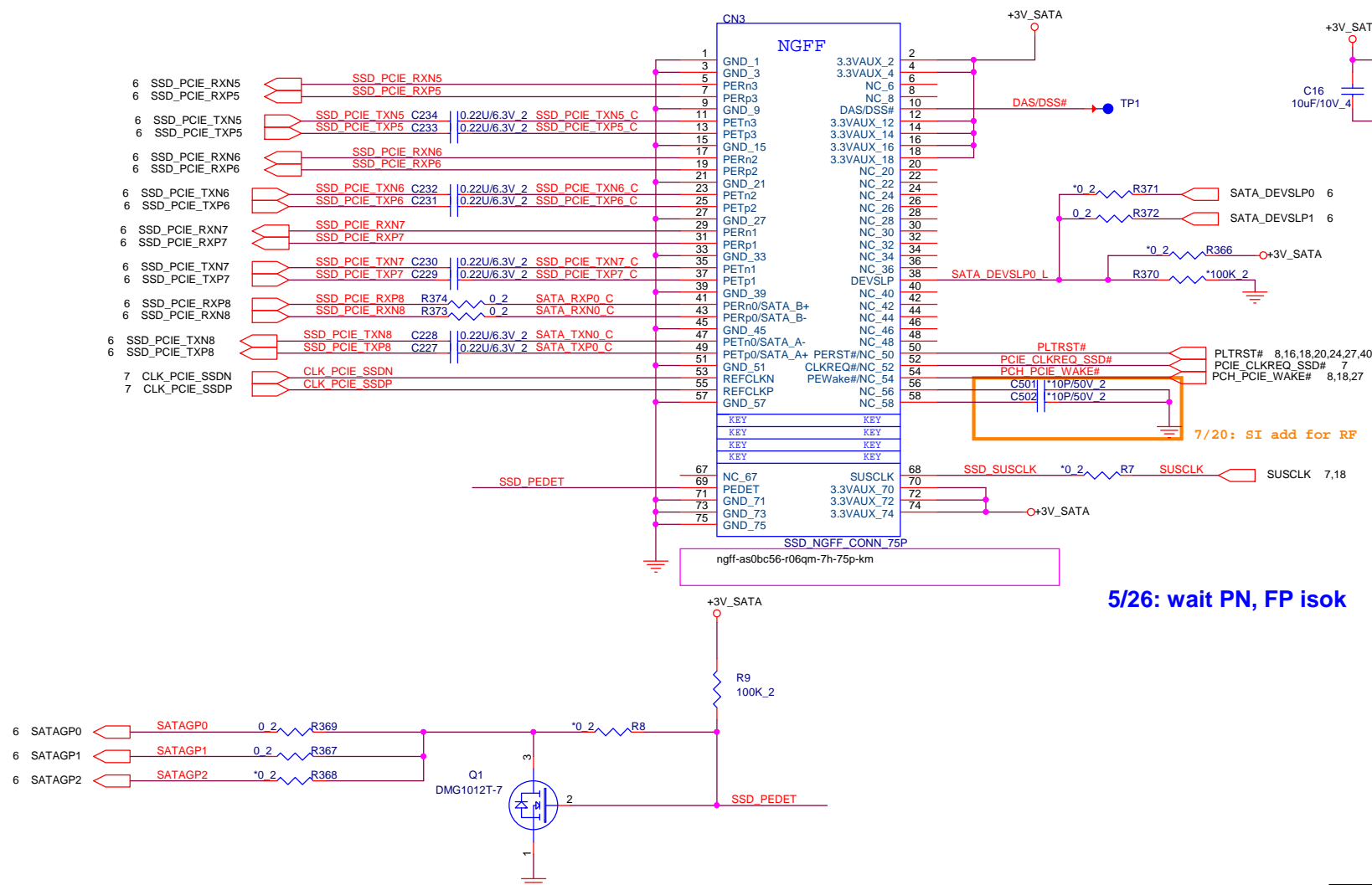
2.8A(Max)



7/20: SI add for RF

7/20: SI add for RF

5/26: wait PN, FP isok

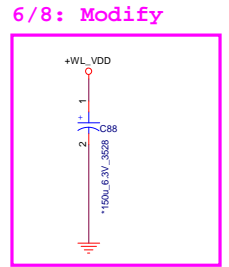
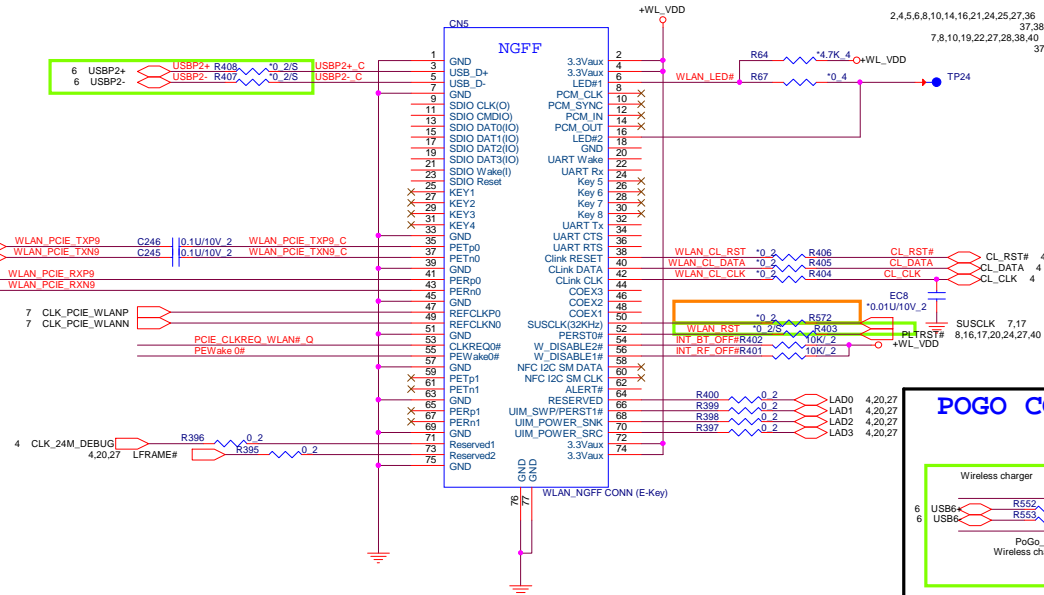
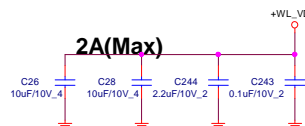
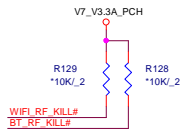
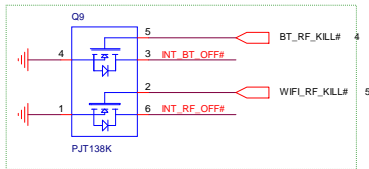
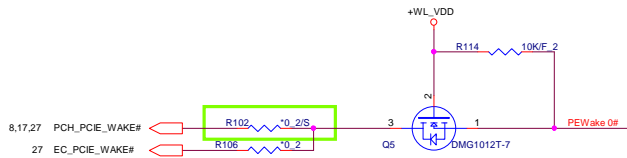
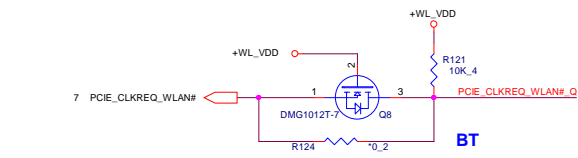


PROJECT : Gummi
Quanta Computer Inc.

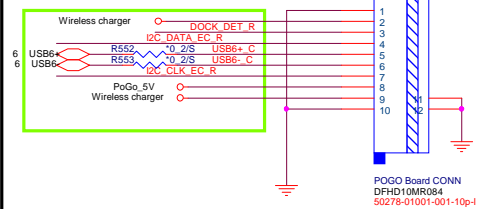
Size	Document Number SSD (NGFF CONN)	Rev 1A
Date: Tuesday, October 27, 2015	Sheet 17	of 41

WIFI/BT COMBO (NGFF E KEY)

18

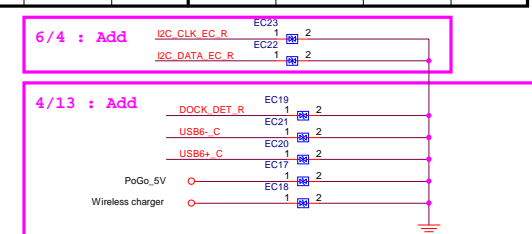
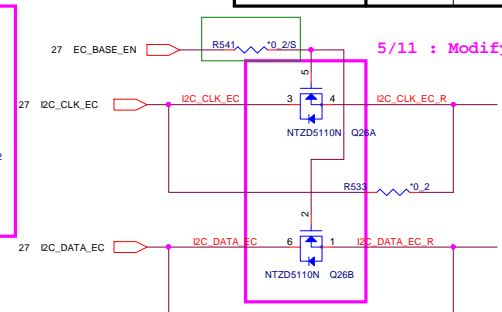
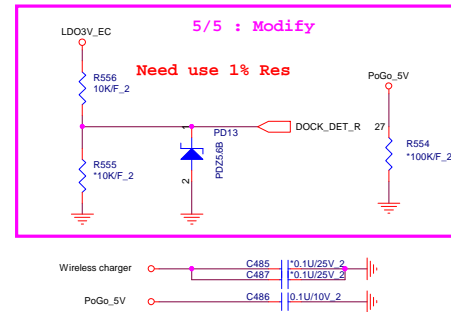


POGO CONN



SKY-Y

	KB/TP w/o Wireless charging				KB/TP with Wireless charging			
	Dock_DET	Slate PU (ohm)	Base PD (ohm)	DET_EC (V)	+5V_IN (V)	Slate PU (ohm)	Base PD (ohm)	DET_EC (V)
Stand alone		10K	N/A	+3.3V	0V	10K	N/A	+3.3V
Normally		10K	3K	+0.692V	+5V	10K	3K	+0.692V
Reversely		10K	20K	+2V	0V	10K	1.8K	+0.457V

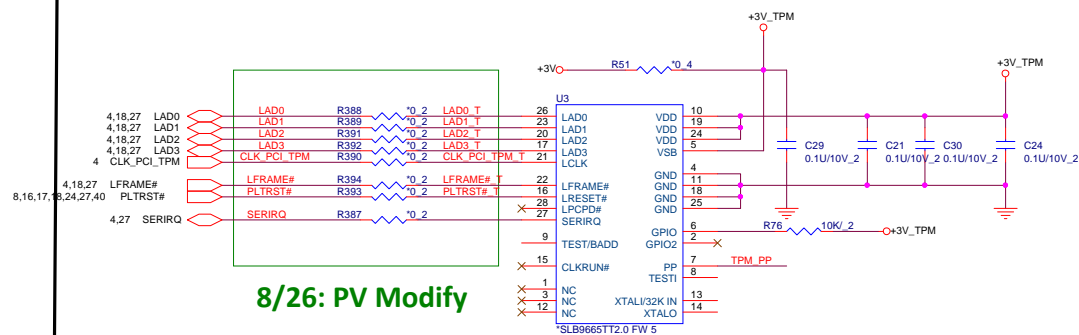


PROJECT : Gummi
Quanta Computer Inc.

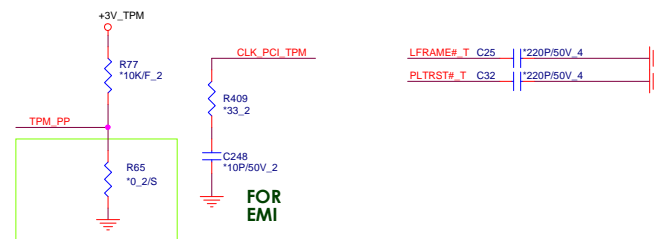
Size Custom Document Number **WIFI/BT(NGFF) & POGO** Rev **1A**

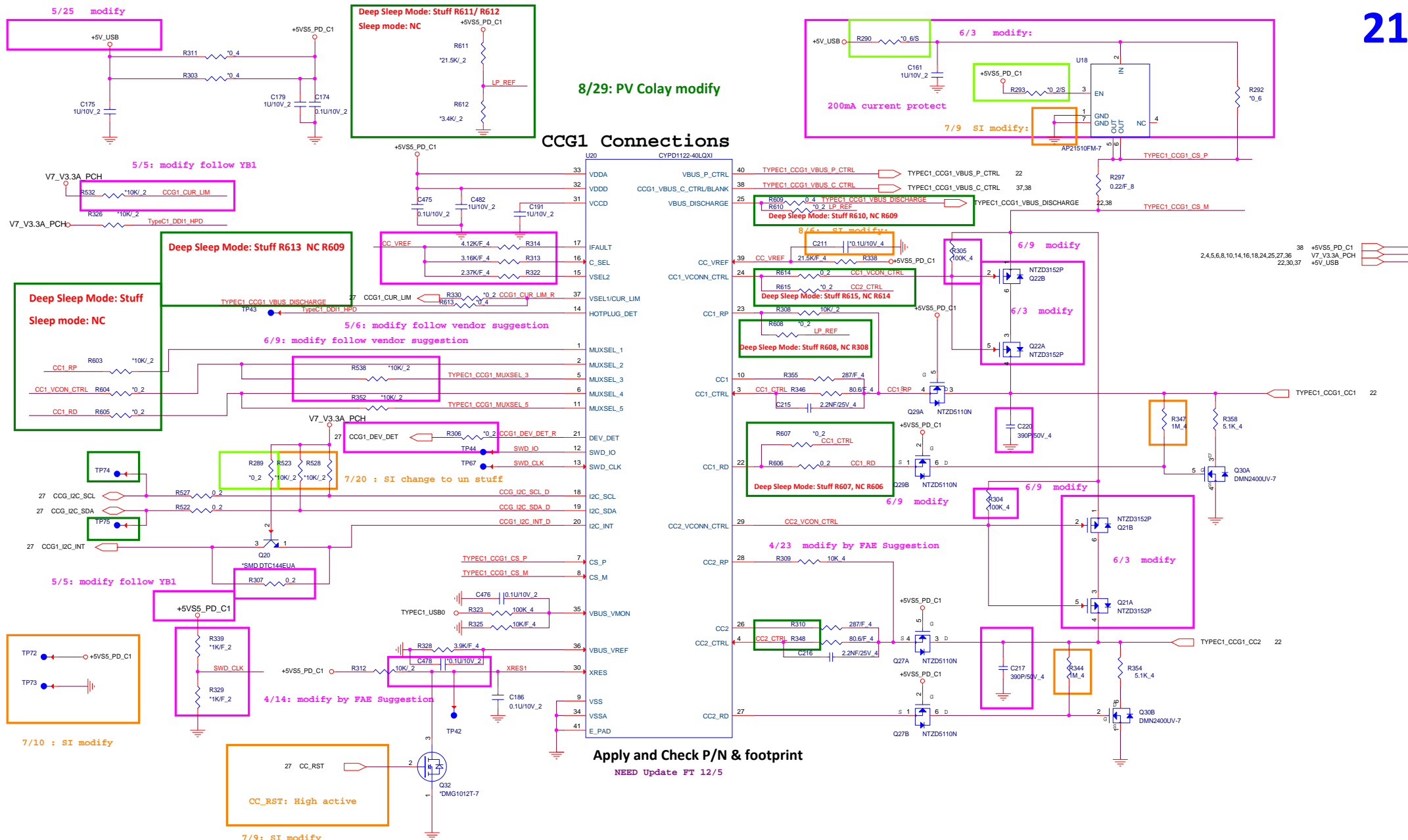
Date: Monday, November 30, 2015 Sheet 18 of 41

TPM (2.0)

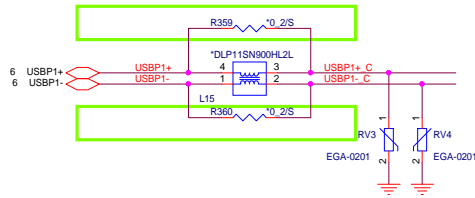


8/26: PV Modify

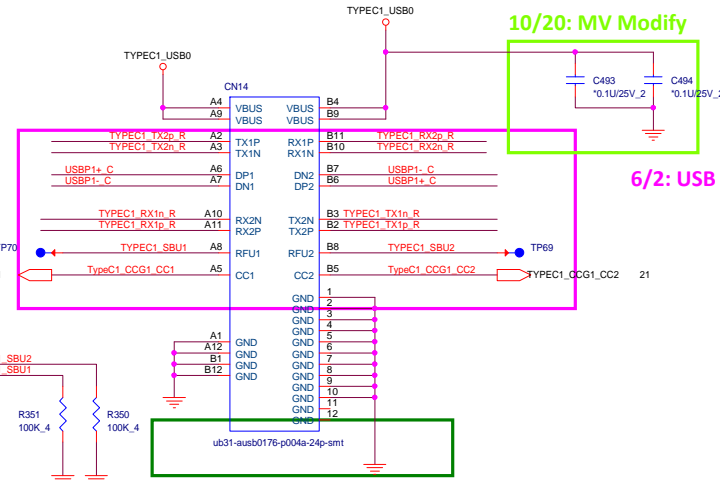




USB2.0 ESD



Type C1_HSIO_ESD



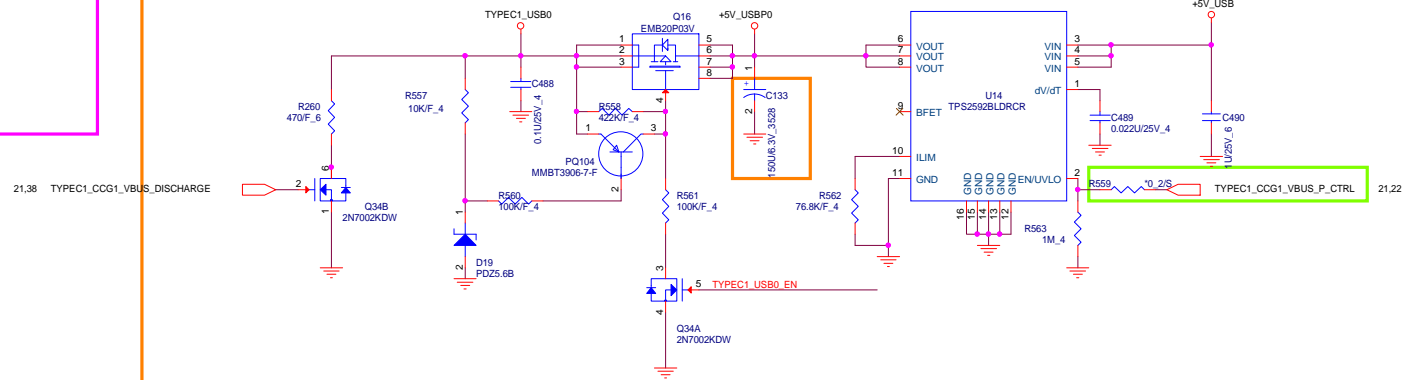
8/21: PV Modify FP

5/12: Modify

5/29: Modify

7/14 : SI Modify

7/9: SI Modify



21,38 TYPEC1_USB0
21,30,37 +5V_USB

22

3/30: New ADD for Micro HDMI

Follow P31

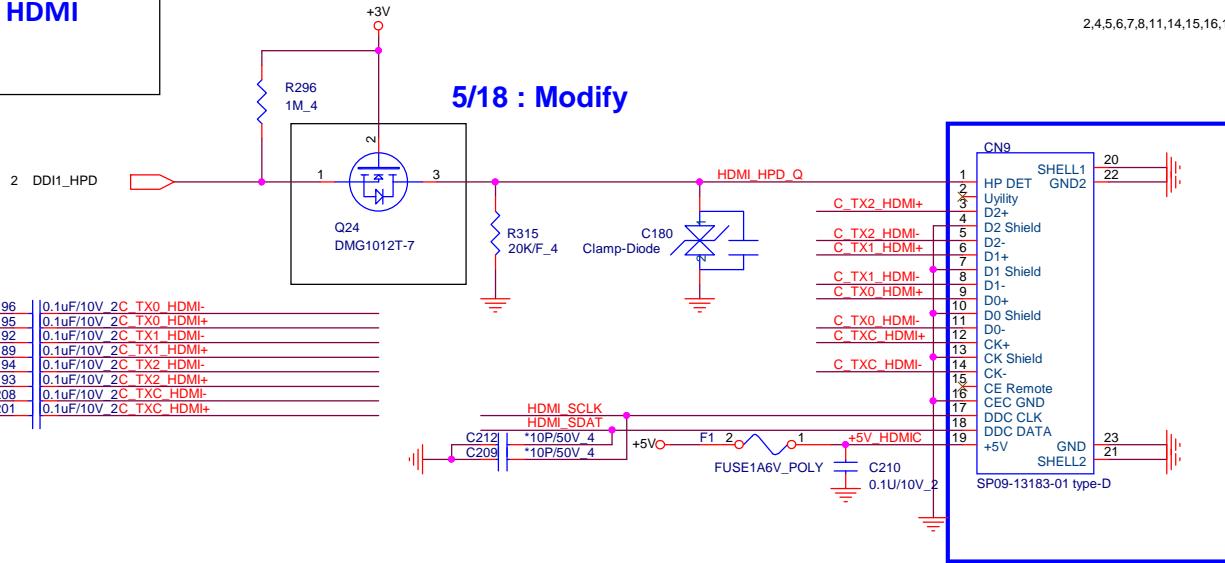
5/18 : Modify

2,4,5,6,7,8,11,14,15,16,19,20,25,26,27,33,36
19,36,40 +3V
+5V



23

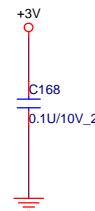
2	DDI1_TX2_N	DDI1_TX2_N	C196	0.1uF/10V_2C_TX0_HDMI-
2	DDI1_TX2_P	DDI1_TX2_P	C195	0.1uF/10V_2C_TX0_HDMI+
2	DDI1_TX1_N	DDI1_TX1_N	C192	0.1uF/10V_2C_TX1_HDMI-
2	DDI1_TX1_P	DDI1_TX1_P	C189	0.1uF/10V_2C_TX1_HDMI+
2	DDI1_TX0_N	DDI1_TX0_N	C194	0.1uF/10V_2C_TX2_HDMI-
2	DDI1_TX0_P	DDI1_TX0_P	C193	0.1uF/10V_2C_TX2_HDMI+
2	DDI1_TX3_N	DDI1_TX3_N	C208	0.1uF/10V_2C_TXC_HDMI-
2	DDI1_TX3_P	DDI1_TX3_P	C201	0.1uF/10V_2C_TXC_HDMI+



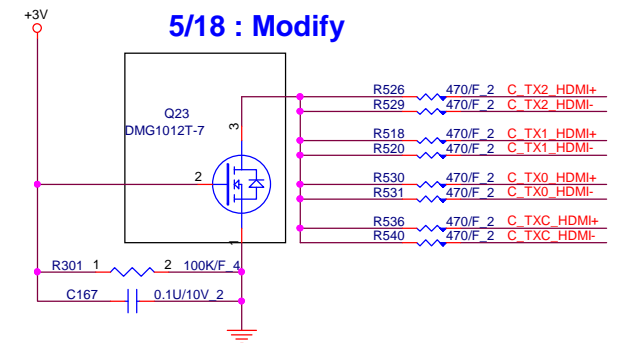
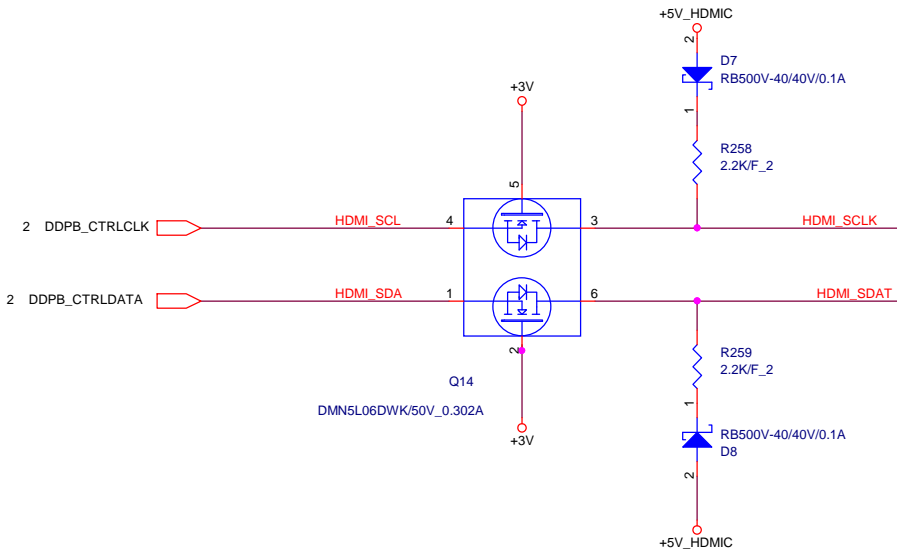
5/16 FP is NEW, need check pin define!

EMI Solution

C_TX2_HDMI+	R324	180/F_2	C_TX2_HDMI-
C_TX1_HDMI+	R318	180/F_2	C_TX1_HDMI-
C_TX0_HDMI+	R327	180/F_2	C_TX0_HDMI-
C_TXC_HDMI+	R335	180/F_2	C_TXC_HDMI-

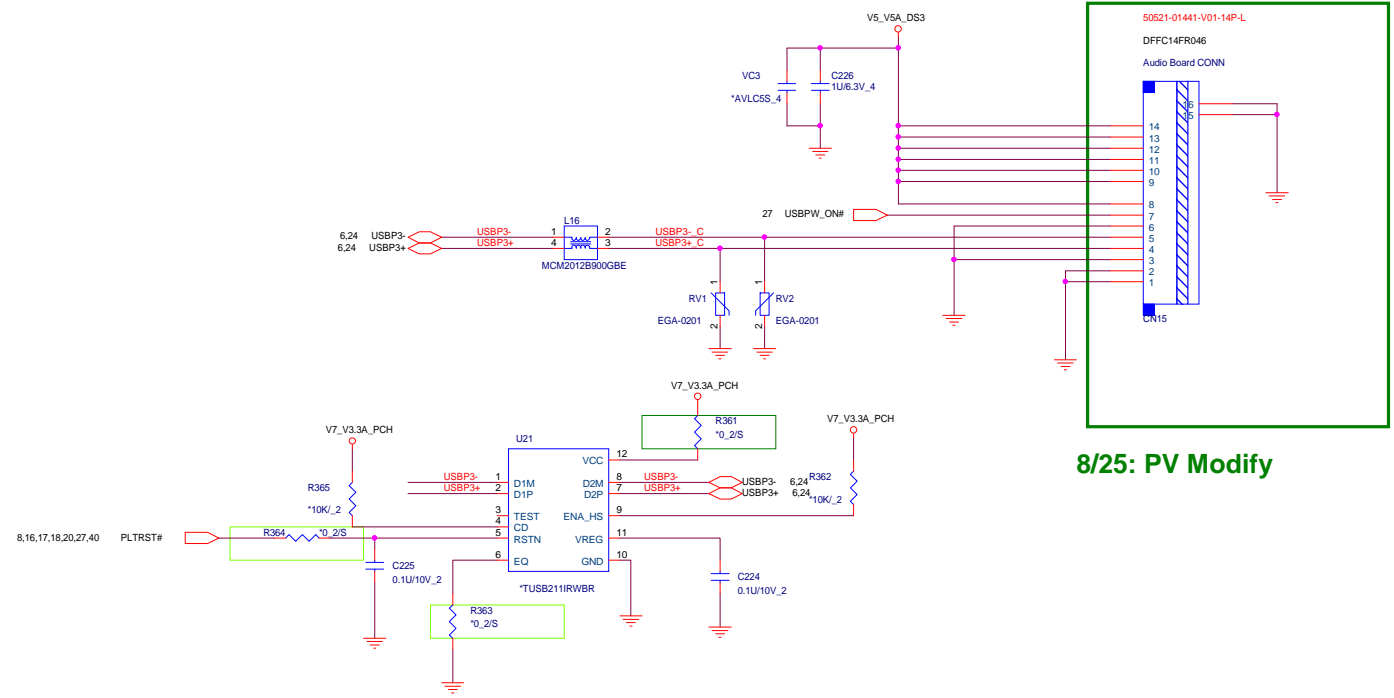


5/18 : Modify



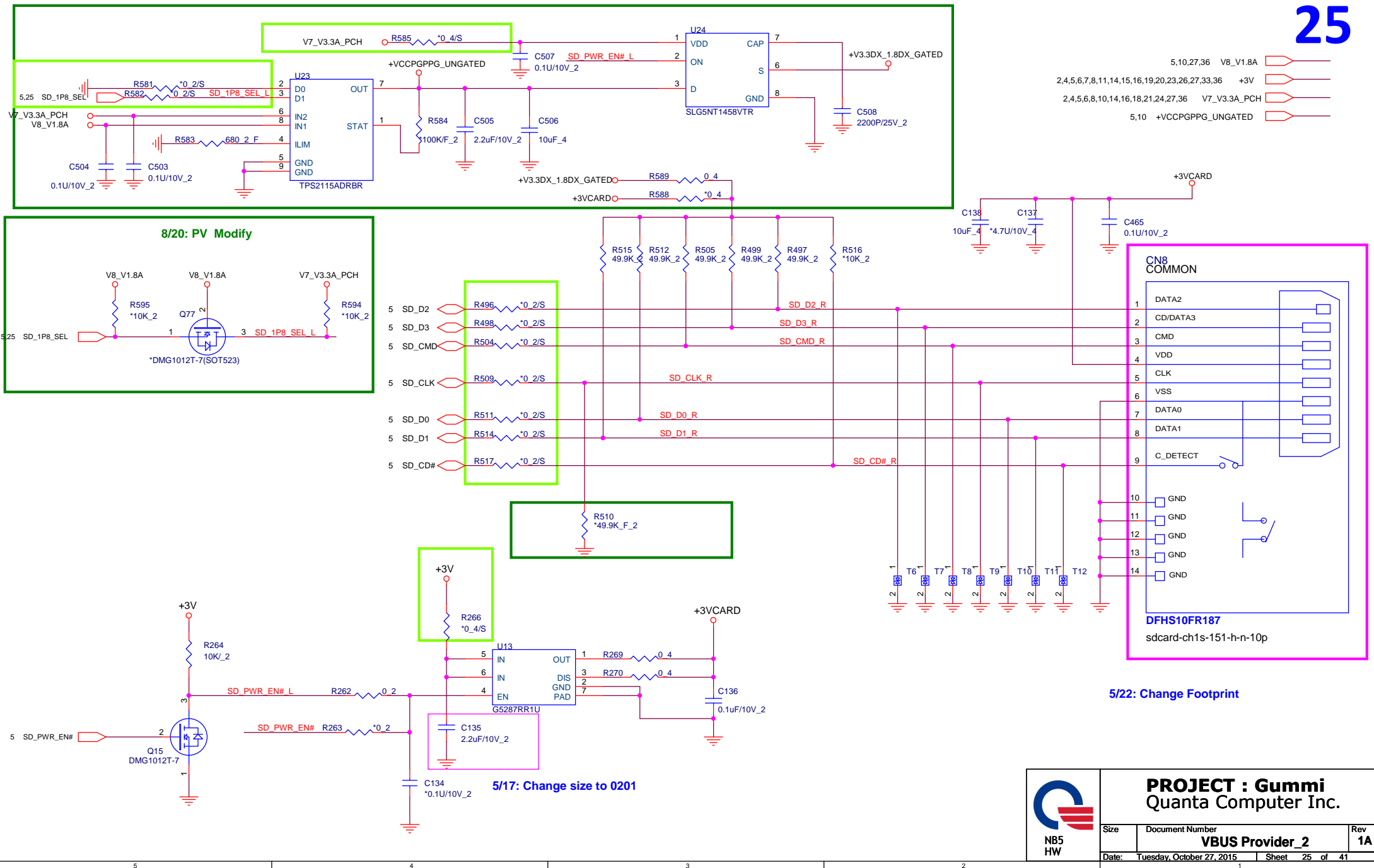
PROJECT : Gummi
Quanta Computer Inc.

Size	Document Number	Rev
	VBUS Provider _1	1A
Date:	Tuesday, October 27, 2015	Sheet 23 of 41

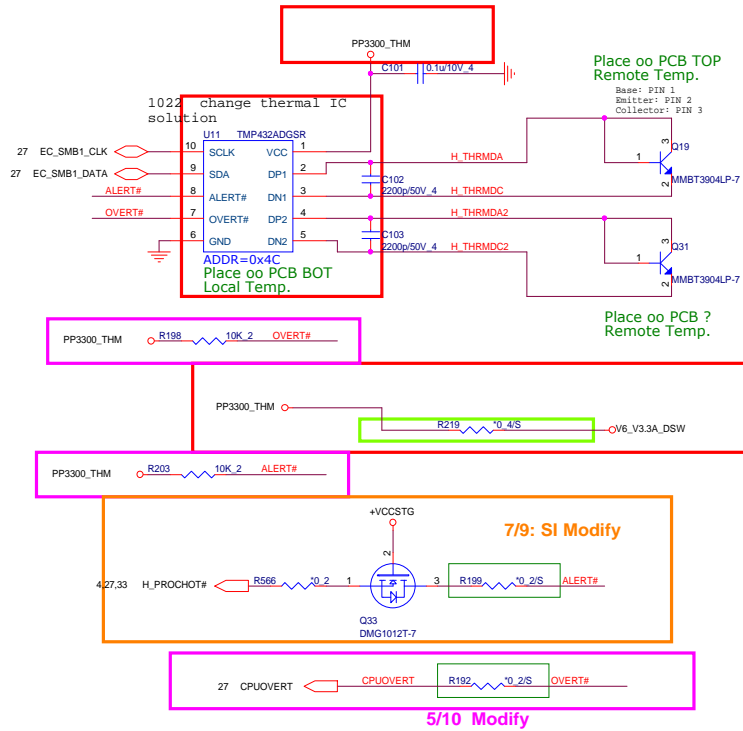


8/25: PV Modify

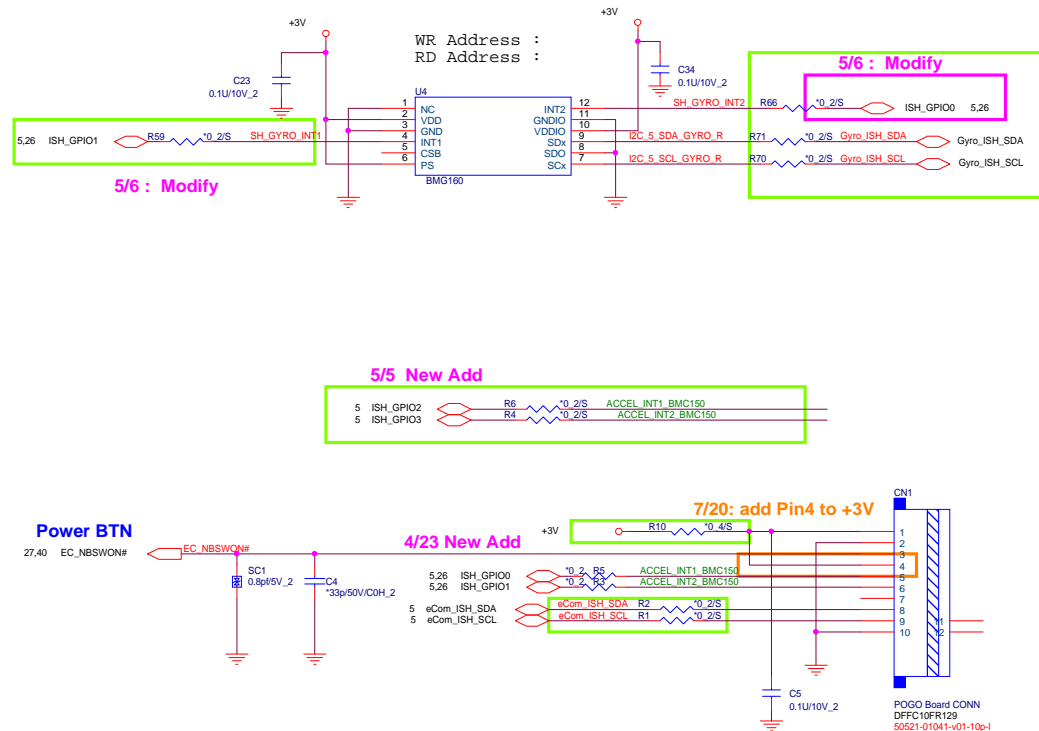
USB 2.0 Re_Driver



Thermal Sensor(THM)



Gyroscope (BMG160)

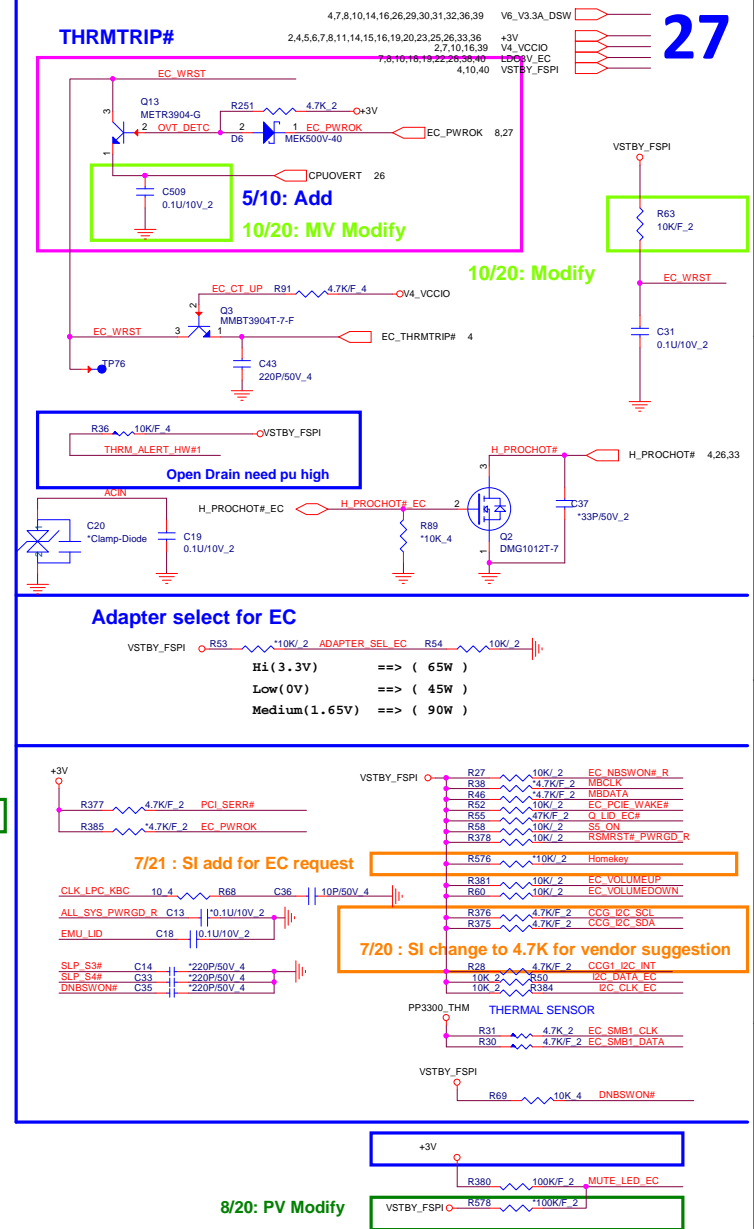


E-compass/Magnetometer/Accelerometer (BMC150)

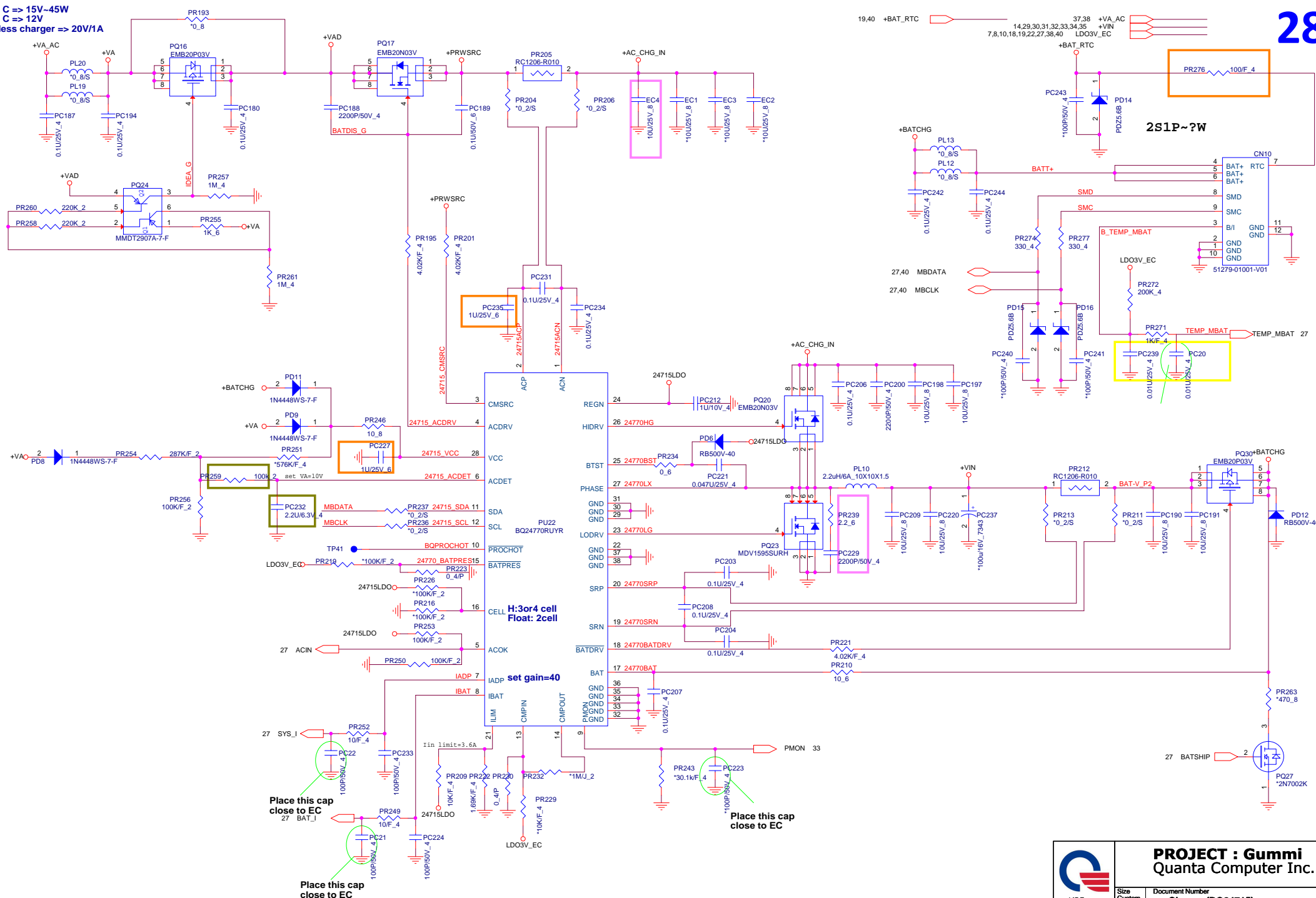
Keepout area is around 10mm

WR Address : 0x3C
RD Address : 0x3D

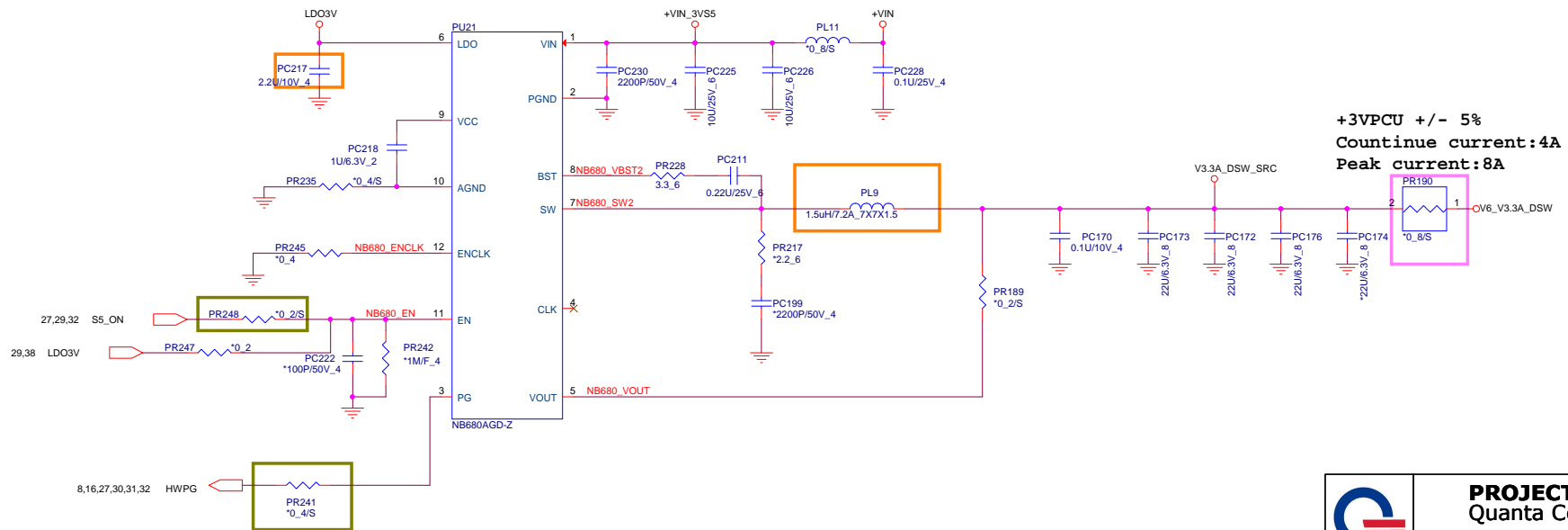
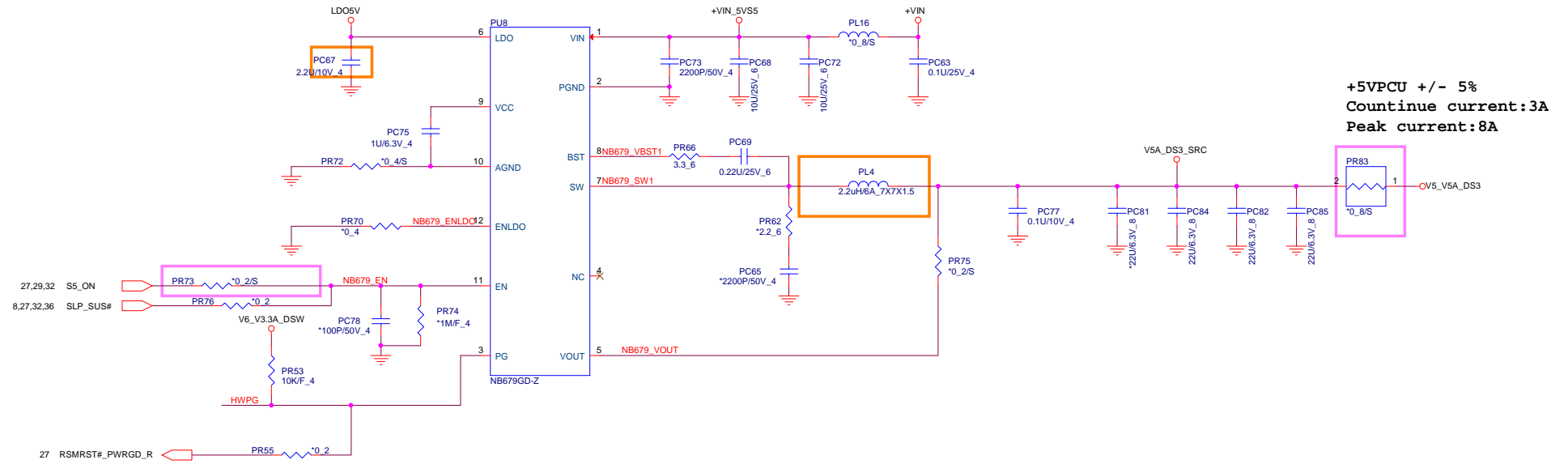
27

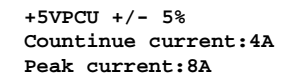


Type C => 15V~45W
Type C => 12V
Wireless charger => 20V/1A



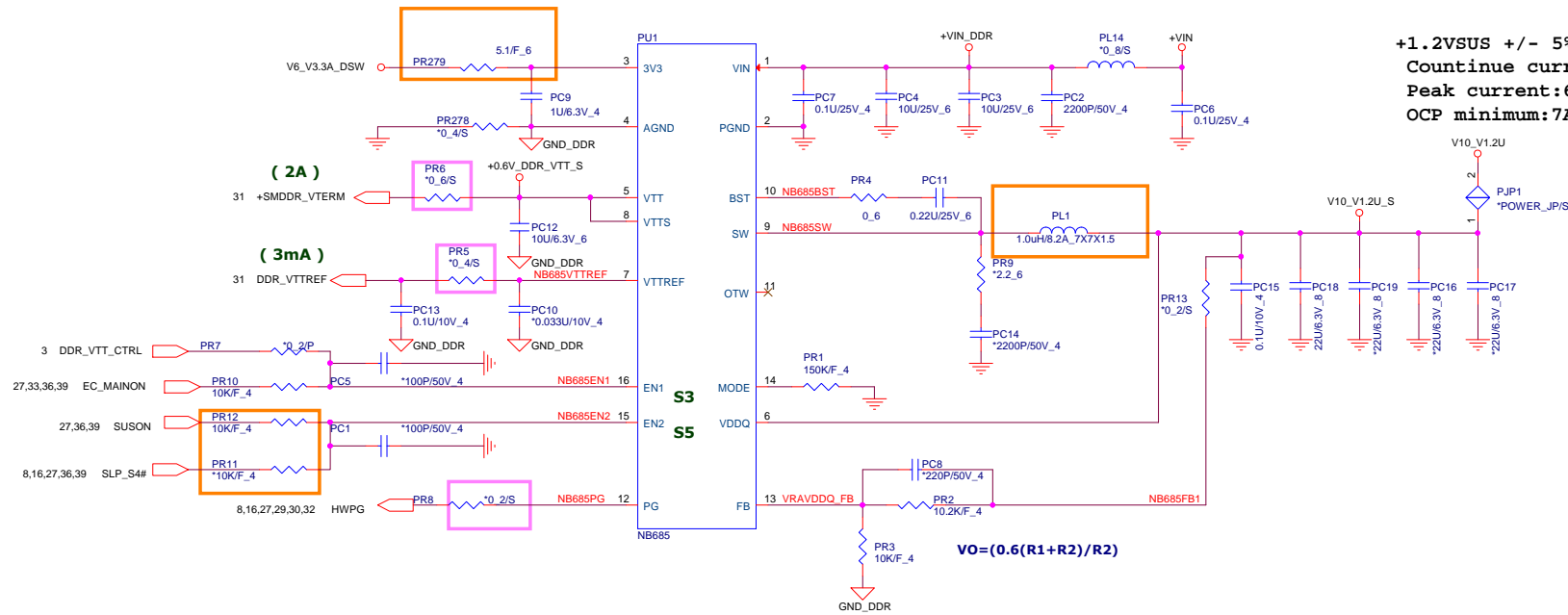
14,28,30,31,32,33,34,35 +VIN
 8,24,32,33,34,35,36,39 V5_V5A_DS3
 4,7,8,10,14,16,26,27,30,31,32,36,39 V6_V3.3A_DSW
 7,15,38 LDO5V
 29,38 LDO3V





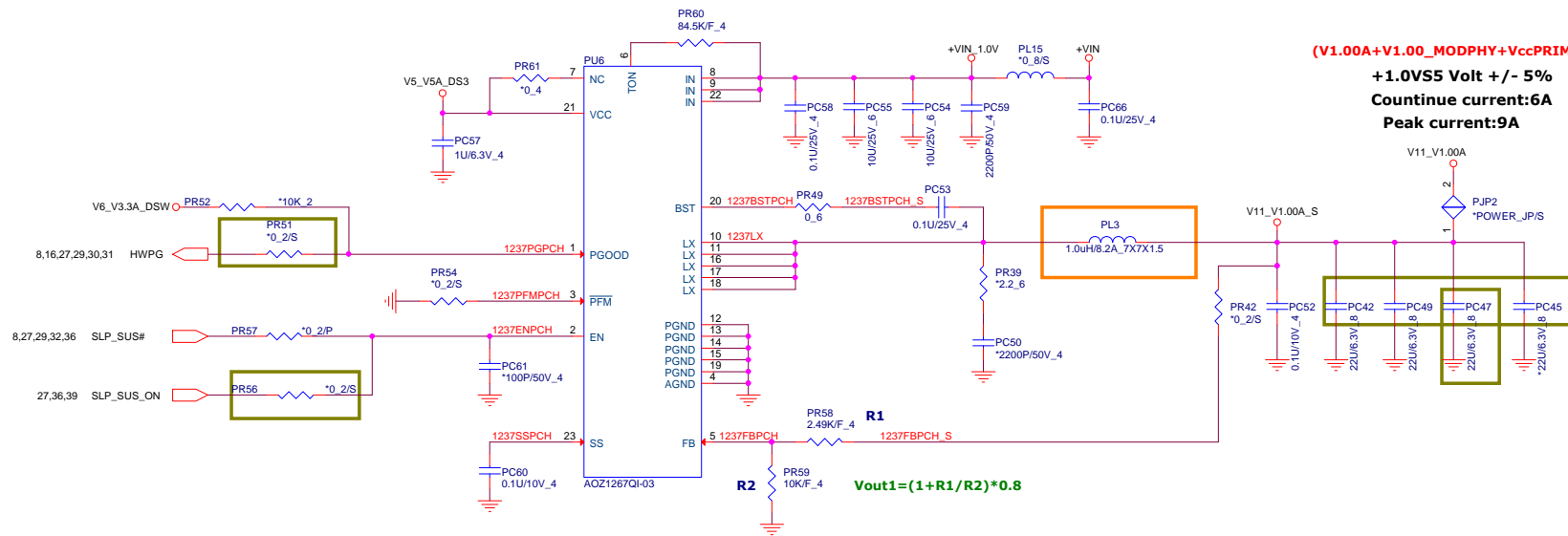
14,28,29,30,32,33,34,35 +VIN
10,12,13,39 V10_V1.2U
4,7,8,10,14,16,26,27,29,30,32,36,39 V6_V3.3A_DSW
31 +SMDDR_VTERM
31 DDR_VTTREF

+1.2VSUS +/- 5%
Countinue current:5A
Peak current:6A
OCP minimum:7A

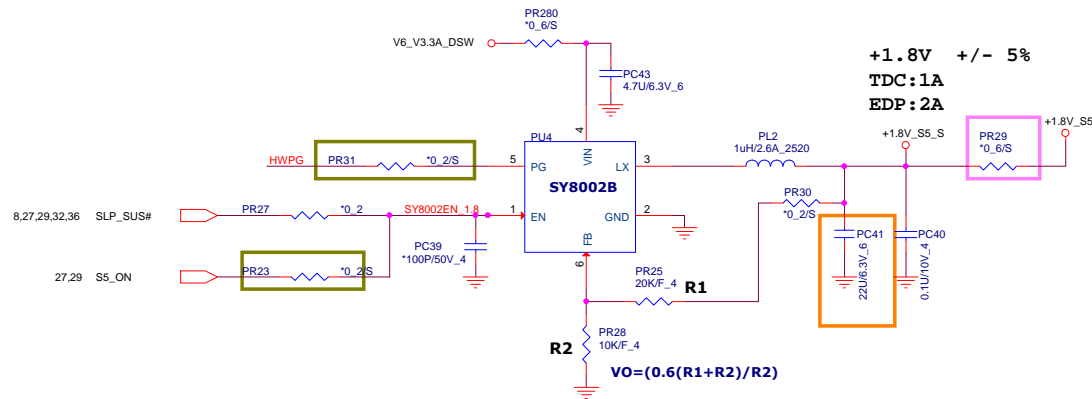


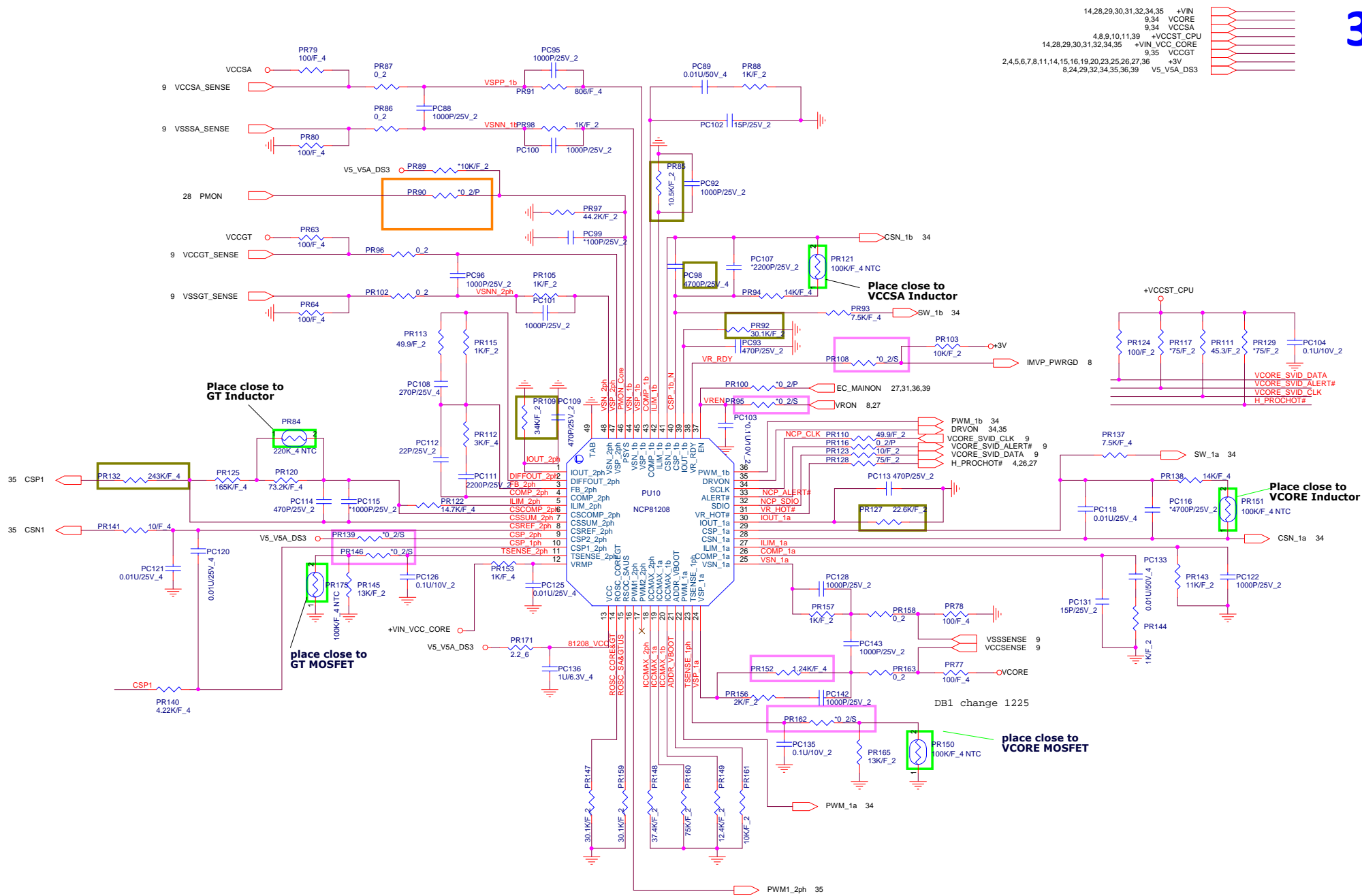
PROJECT : Gummi
Quanta Computer Inc.

Size	Document Number	Rev
	DDR4 (NB685)	1A
Date: Tuesday, October 27, 2015		
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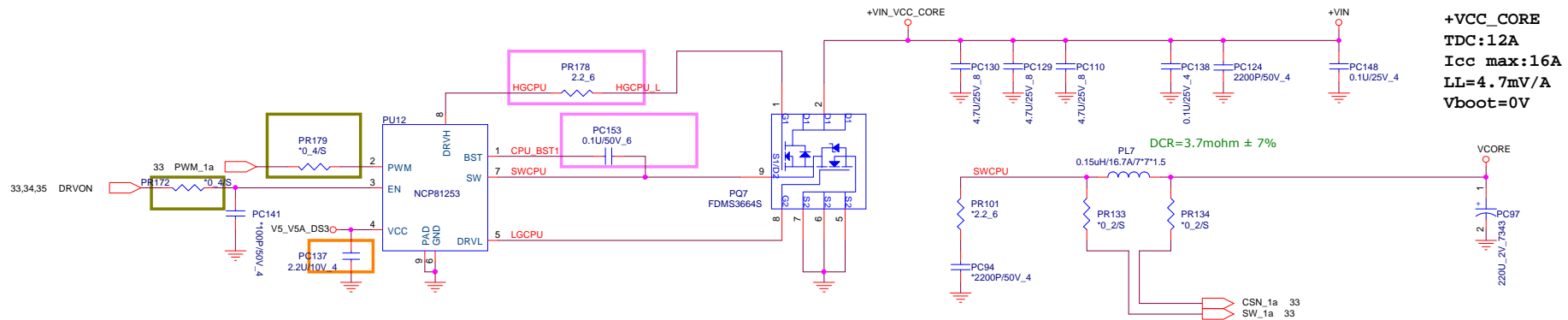


Vo	Rton
0.95V	82k
1V	84.5k
1.05V	95.3k
1.35V	113k
1.5V	127k



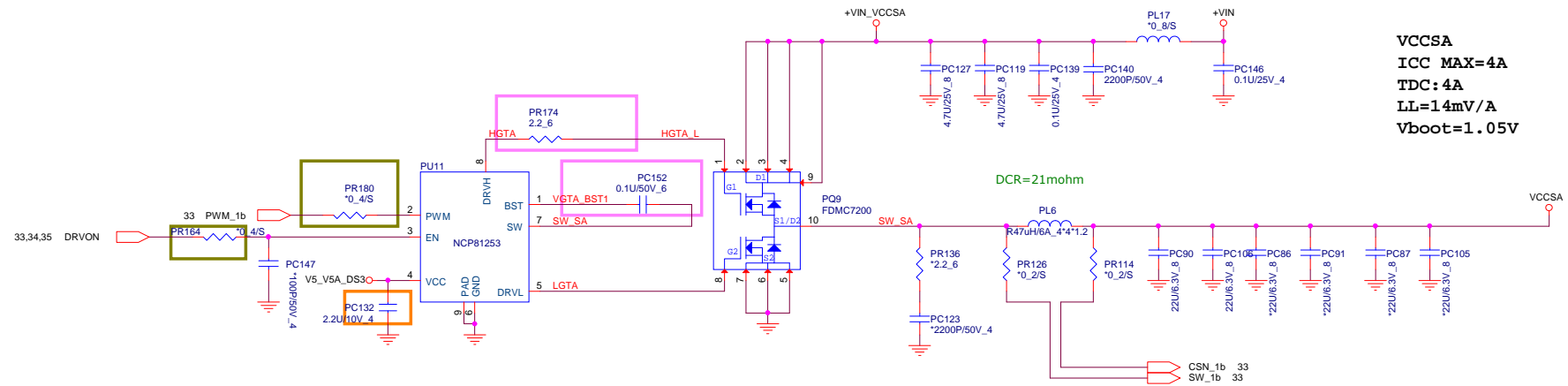


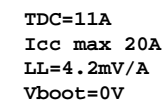
CPU CORE



34

VCCSA



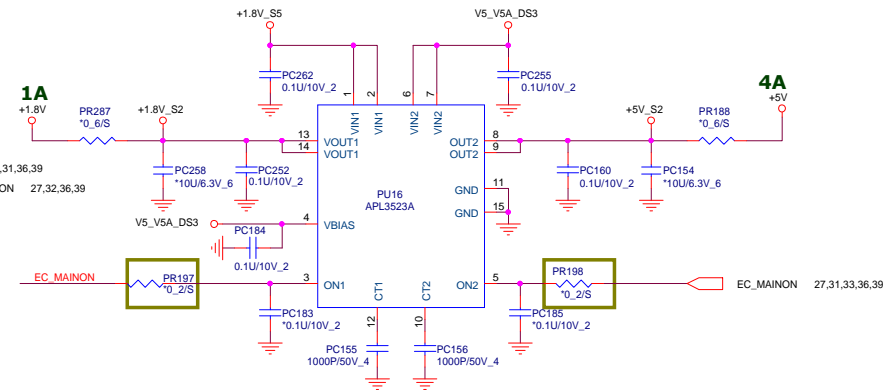
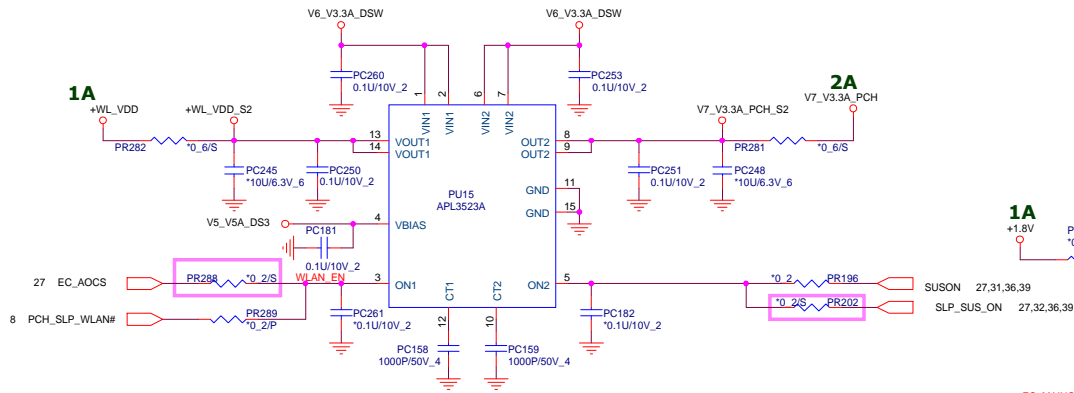
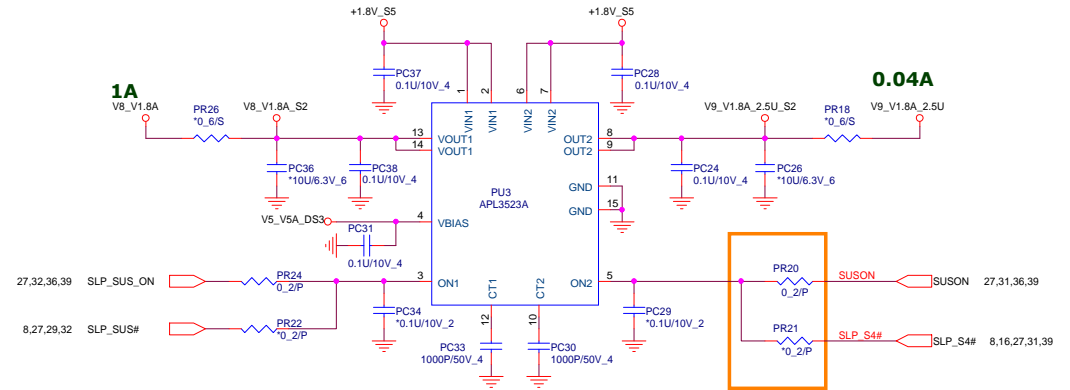
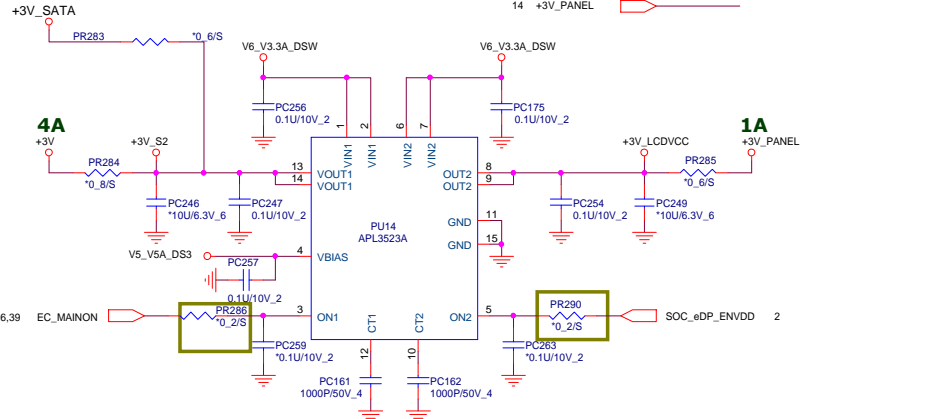


4,7,8,10,14,16,26,27,29,30,31,32,39 V6_V3.3A_DSW
 2,4,5,6,8,10,14,16,18,21,24,25,27 V7_V3.3A_PCH
 17 +3V_SATA
 2,4,5,6,7,8,11,14,15,16,19,20,23,25,26,27,33 +3V
 14 +3V_PANEL

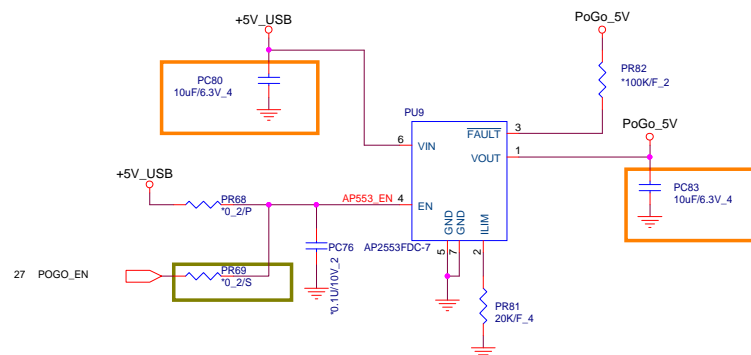
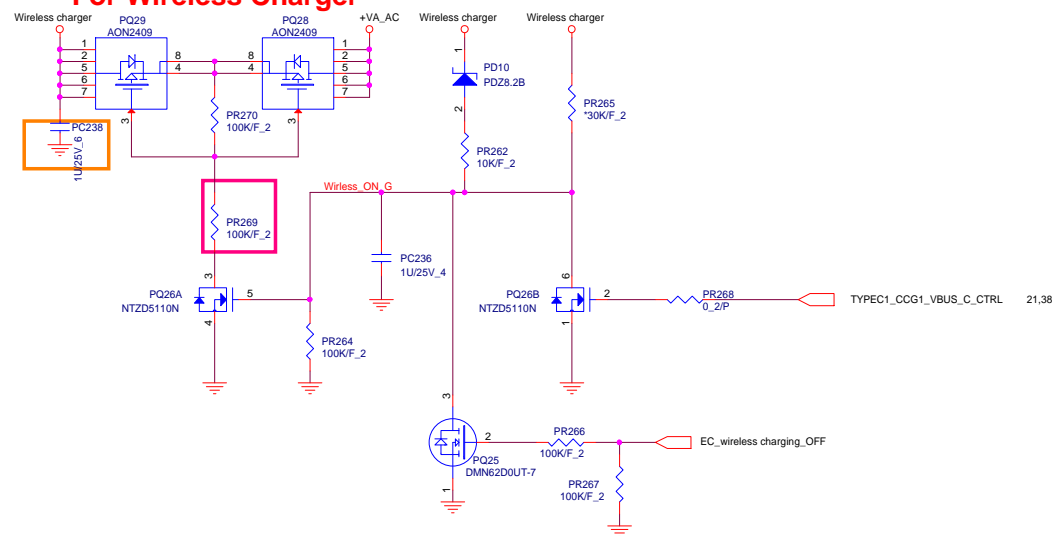
8,24,29,32,33,34,35,39 V5_V5A_DS3
 19,23,40 +5V
 18 +WL_VDD

10,11,16,32,39 V11_V1.00A
 4,8,9,10,26,39 +VCCSTG
 2,7,10,16,27,39 V4_VCCIO
 4,8,9,10,11,33,39 +VCCST_CPU
 9,33,34 VCCSA

5,10,25,27 V8_V1.8A
 12,13 V9_V1.8A_2.5U
 19 +1.8V



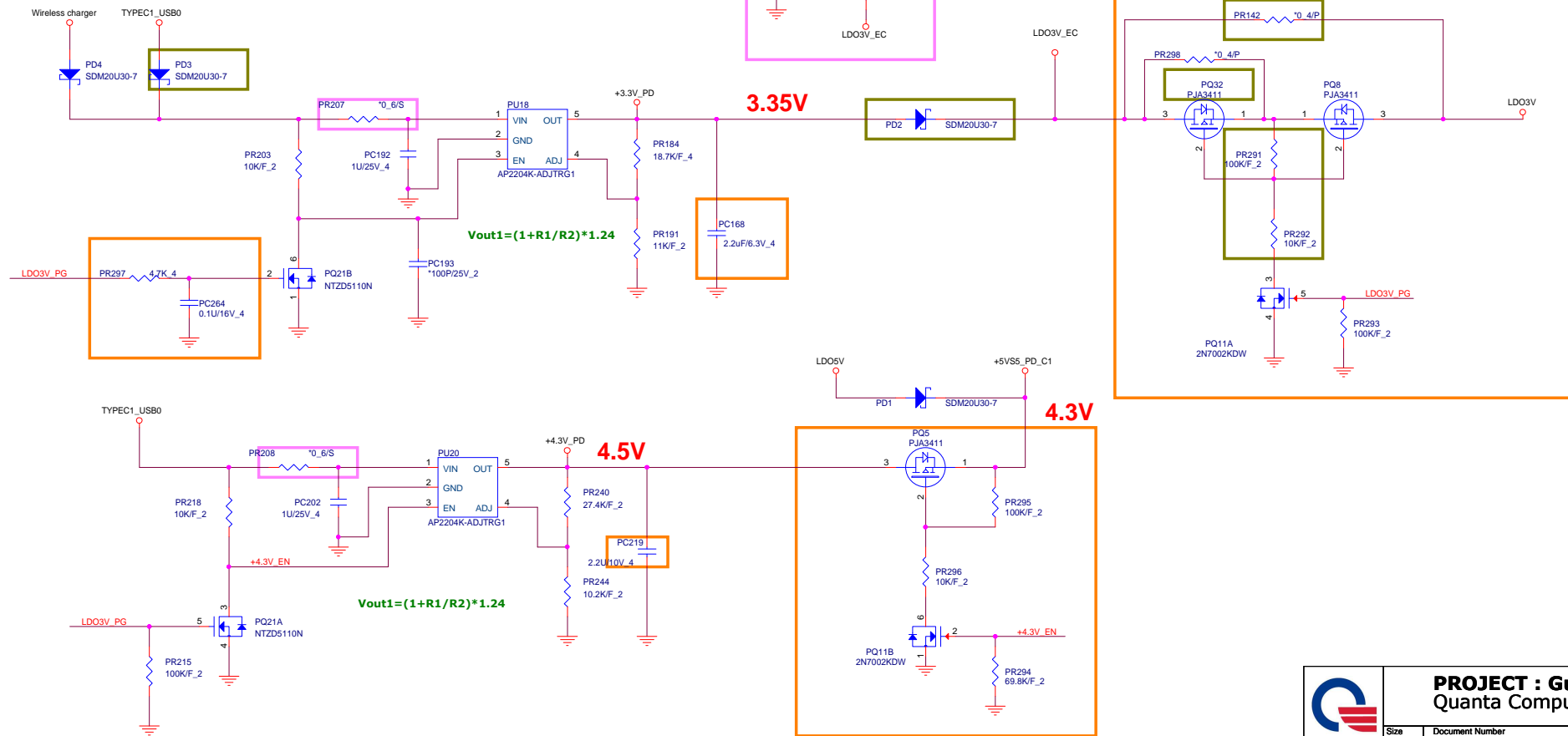
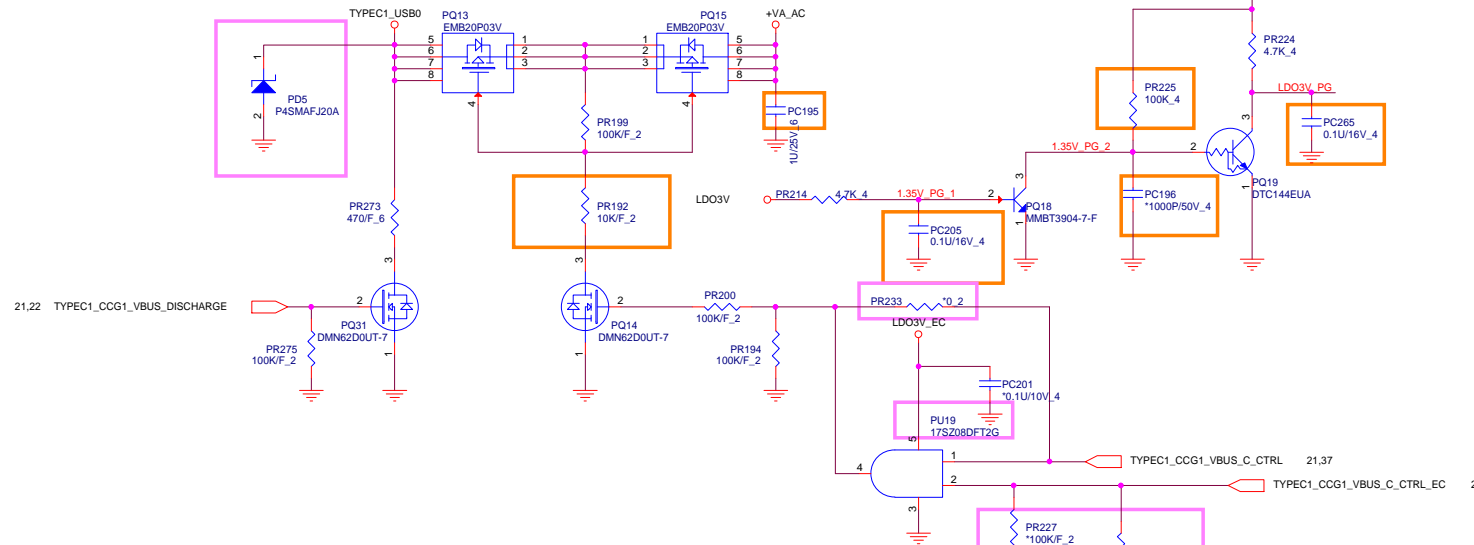
For Wireless Charger

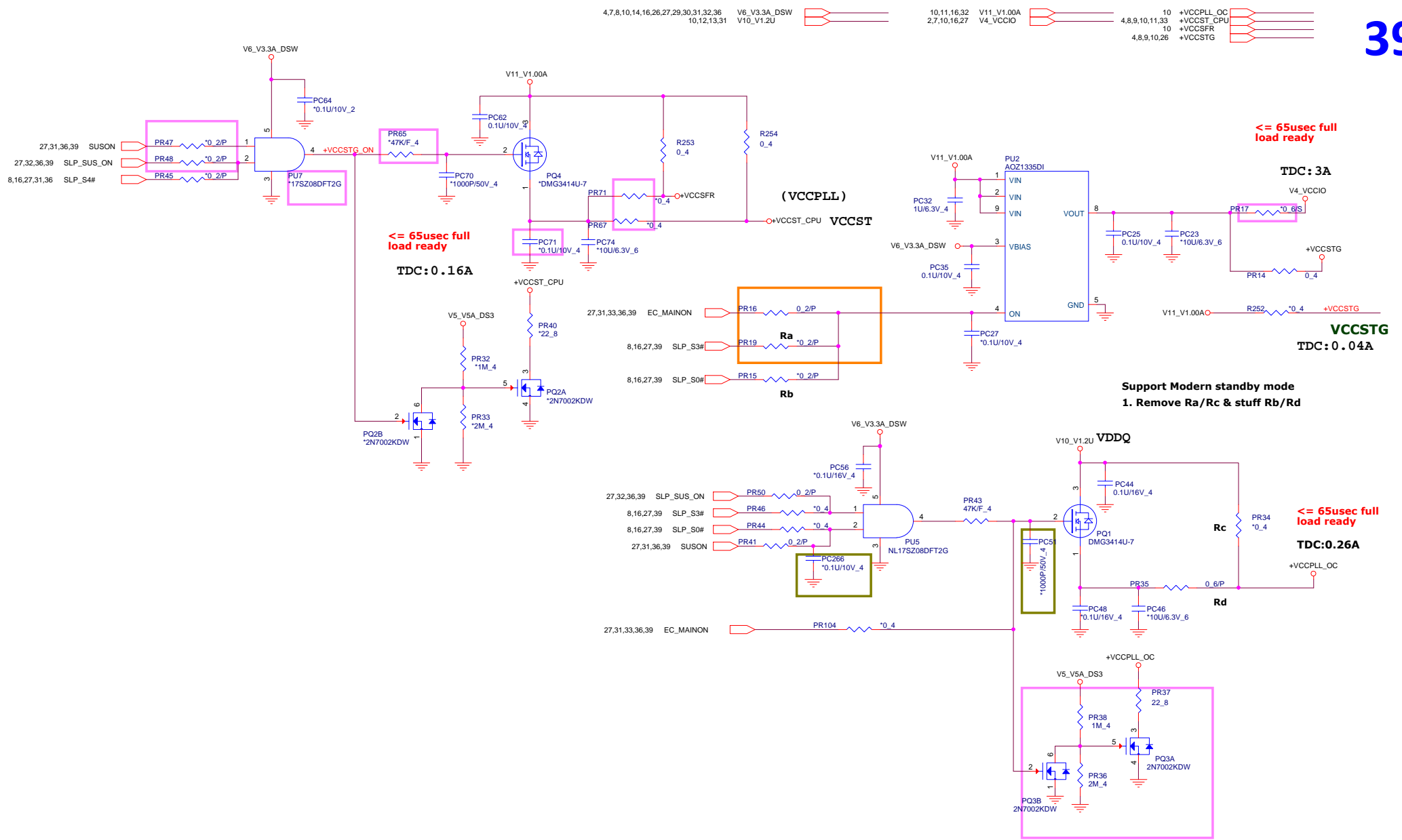


For TypeC PORT1

38

28,37	+VA_AC
21,22	TYPEC1_USB0
21	+5VSS_PD_C1
7,8,10,18,19,22,27,28,40	LDO3V_EC
29	LDO3V
7,15,29	LDO5V
18,37	Wireless charger





SCREW HOLE

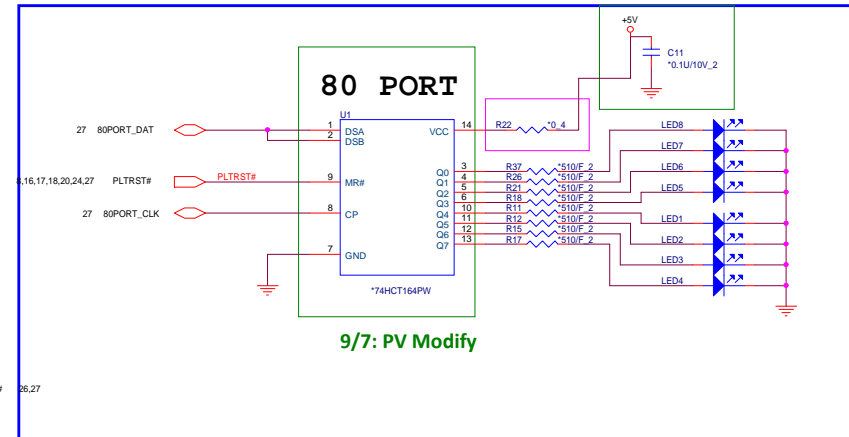
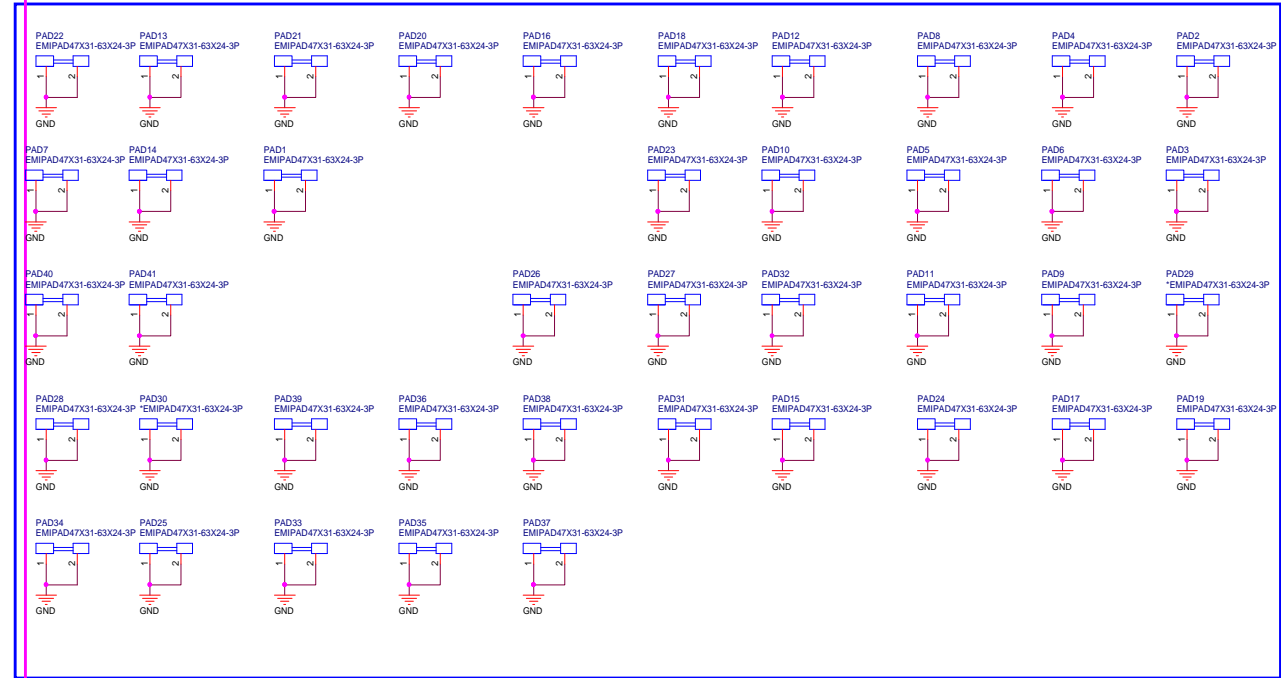
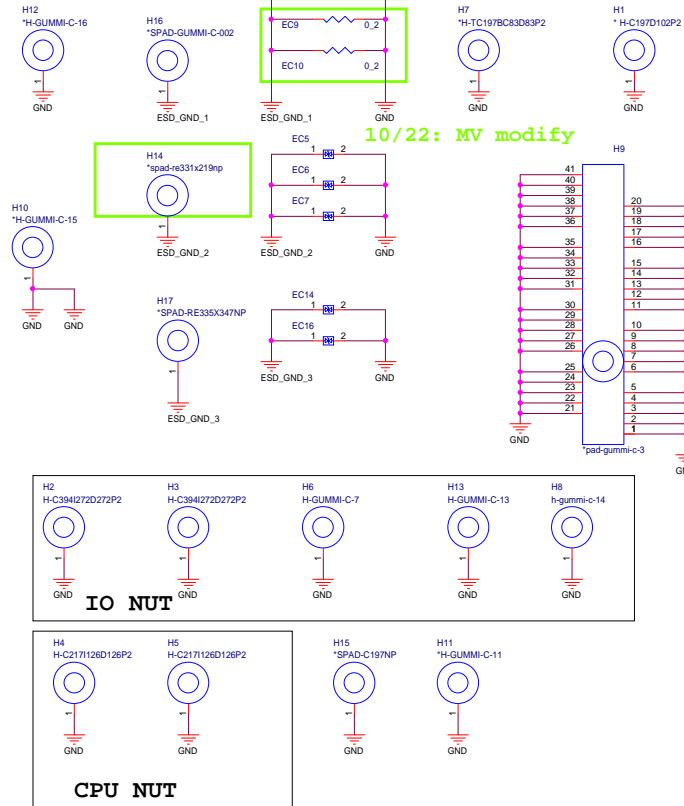
10/26: MV modify

BOT SHIELDING PAD

CLIP THERMAL SHIELDING

19,23,36 +5V LDO3V_EC
7,8,10,18,19,22,27,28,38 +BAT_RTC
19,28 +BAT_RTC
7,8,10,19 +3V_RTC
4,10,27 VSTBY_FSPI

40



9/7: PV Modify

8/21: PV Modify

Input	RD	CP	D	Output	Q
SD				H	L
L	H	X	X	H	L
H	L	X	X	L	H
L	L	X	X	H	H

[1] H = HIGH voltage level;
L = LOW voltage level;
X = don't care.

Input	RD	CP	D	Output	Q _{n+1}
SD				L	H
H	H	T	L	L	H
H	H	T	H	H	L

[1] H = HIGH voltage level;
L = LOW voltage level;
T = LOW-to-HIGH CP transition;
Q_{n+1} = state after the next LOW-to-HIGH CP transition.

