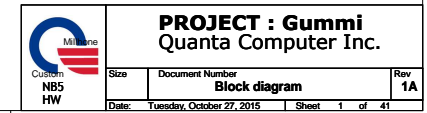
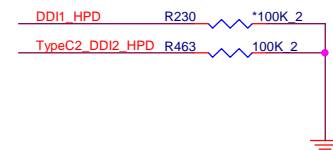
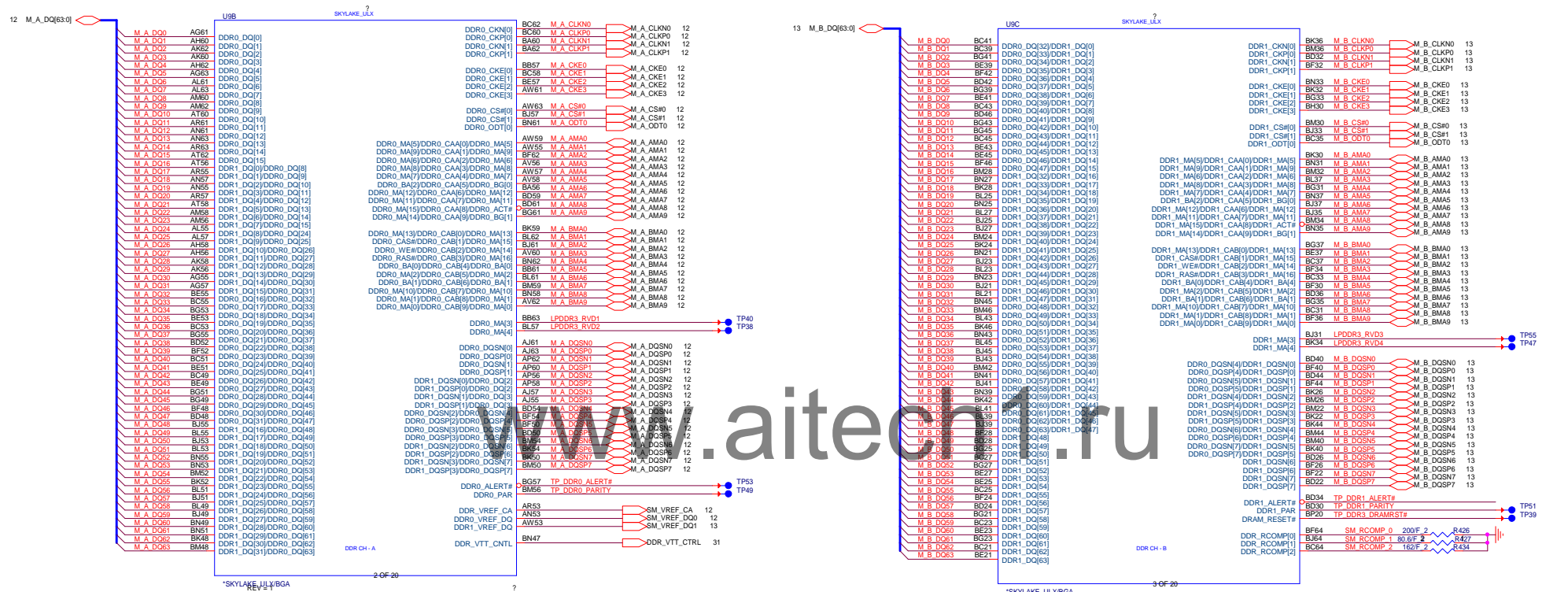
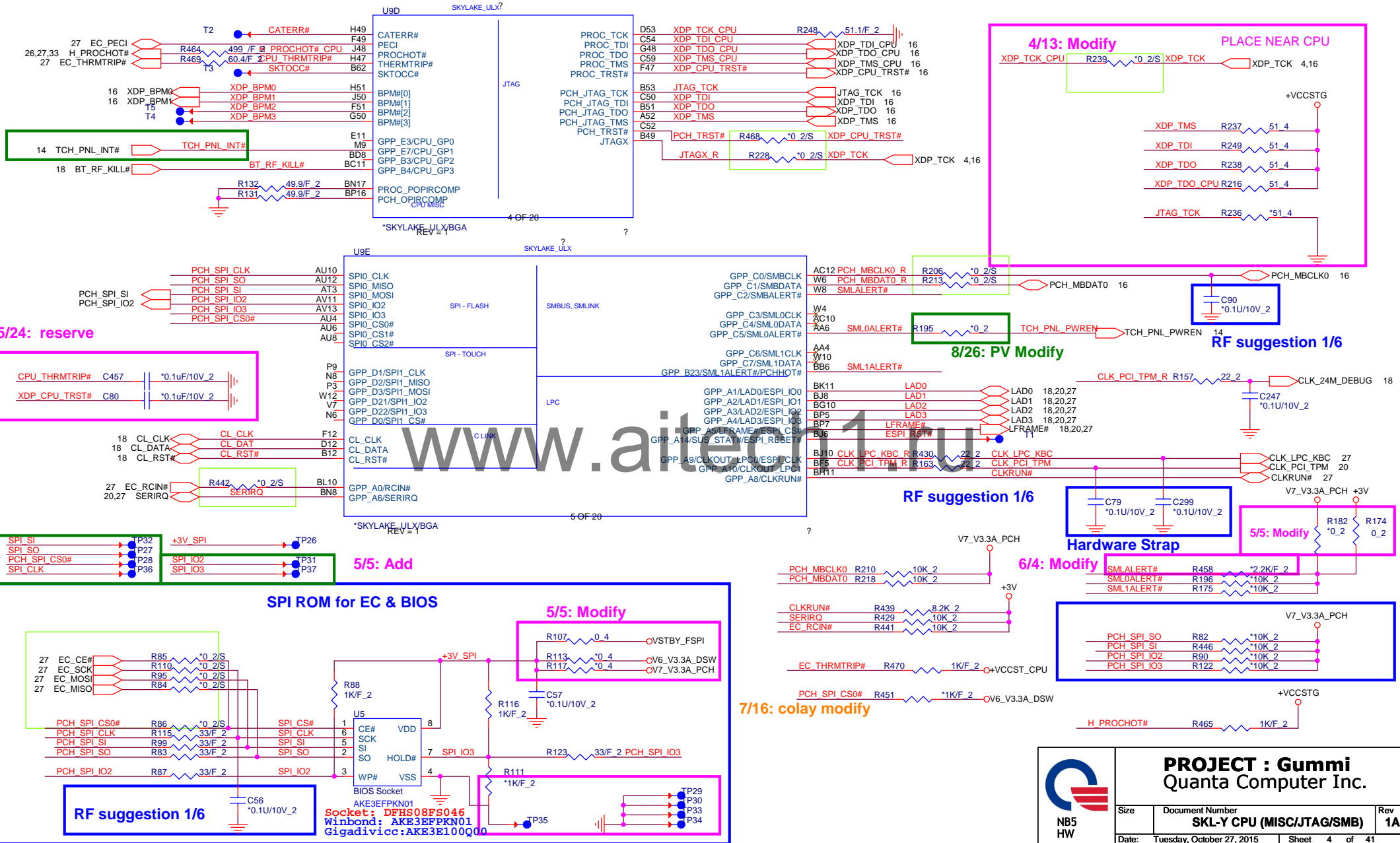


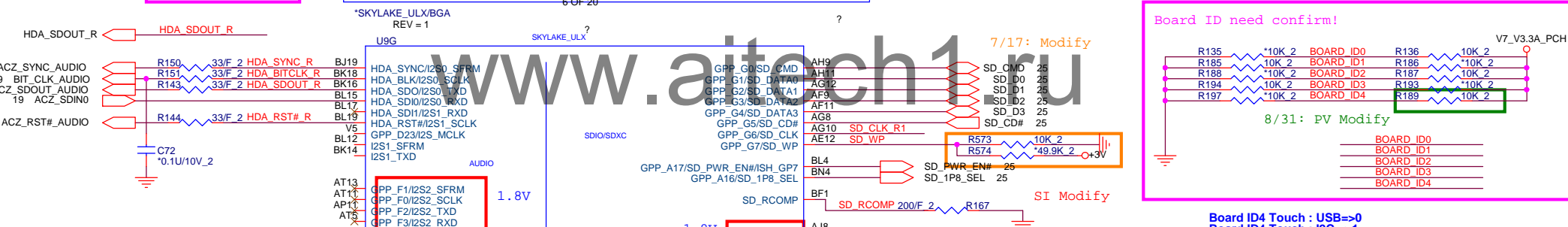
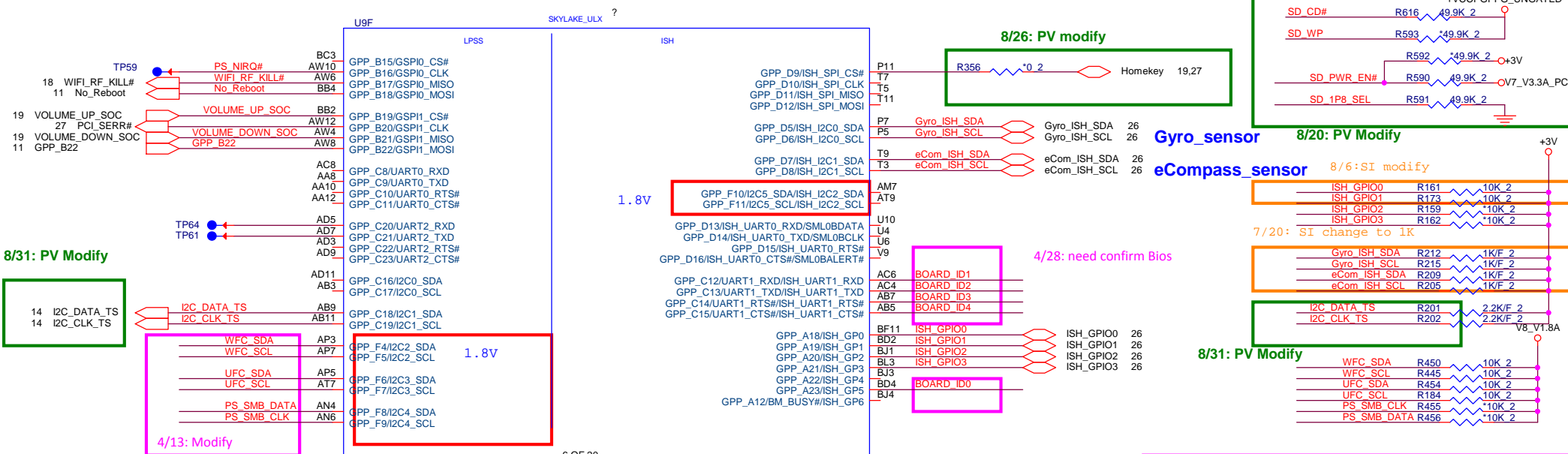
# 01





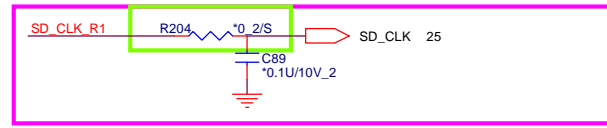






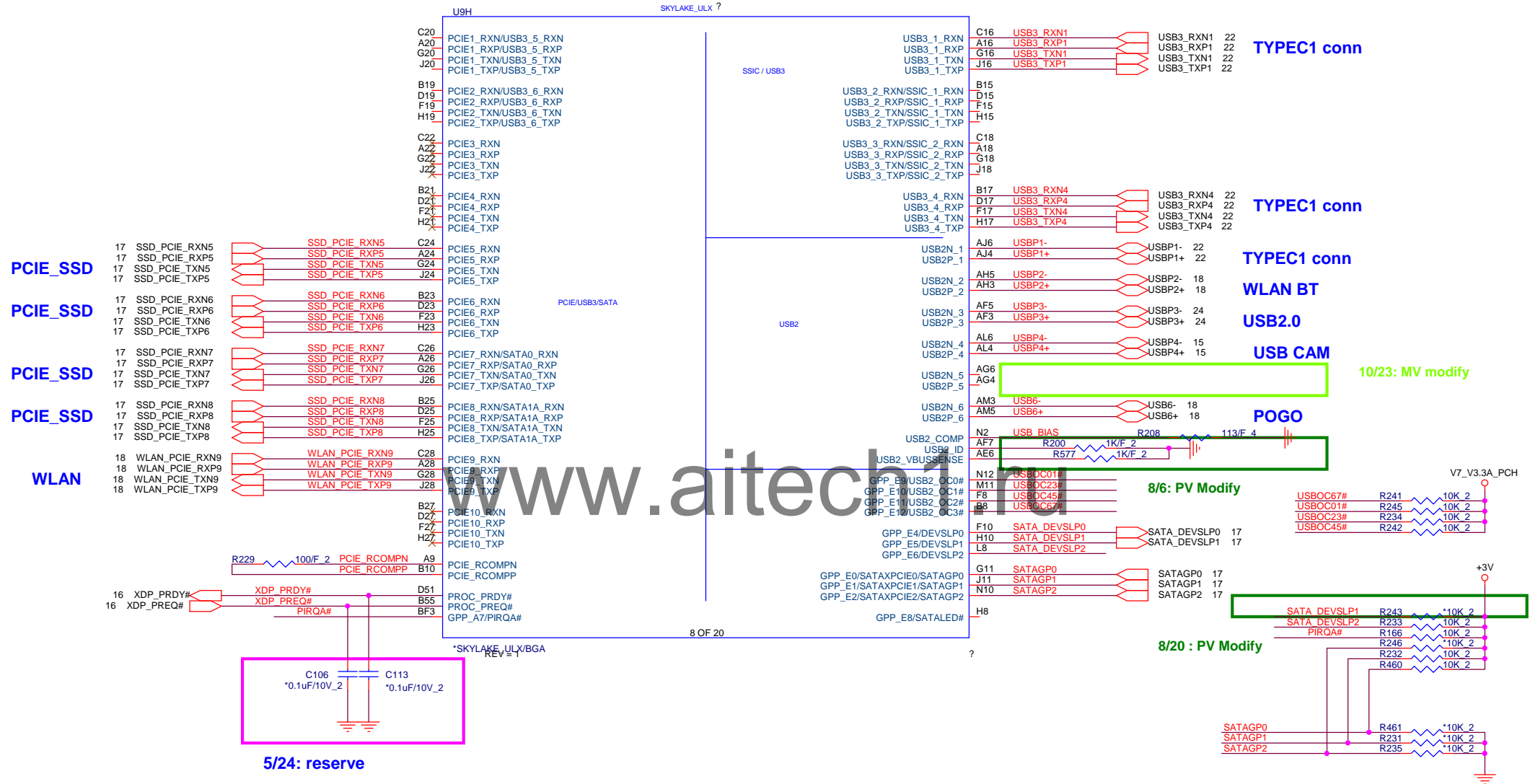
Model	BOARD_ID4	BOARD_ID3	BOARD_ID2	BOARD_ID1	BOARD_ID0
Hynix 2G+2G=4G H9CCNNNBPTBLBR-NUD	1	0	0	0	0
Samsung 2G+2G=4G K3QF2F20EM-AGCF	1	0	0	1	0
Micron 4G+4G=8G EDFB164A1MA-JD-F	1	0	0	1	1
Hynix 4G+4G=8G H9CCNNNCPTMLBR-NUD	1	0	1	0	0
Samsung 4G+4G=8G K3QF4F40BM-AGCF	1	0	1	0	1

Security Flash Descriptors



**PROJECT : Gummi**  
Quanta Computer Inc.

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



# PROJECT : Gummi Quanta Computer Inc.

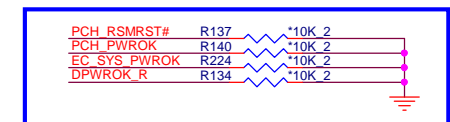
Size	Document Number	Rev
	SKL-Y CPU (PCIE/USB3)	1A
Date: Tuesday, October 27, 2015	Sheet 6 of 41	







5/24: reserve

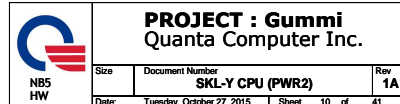


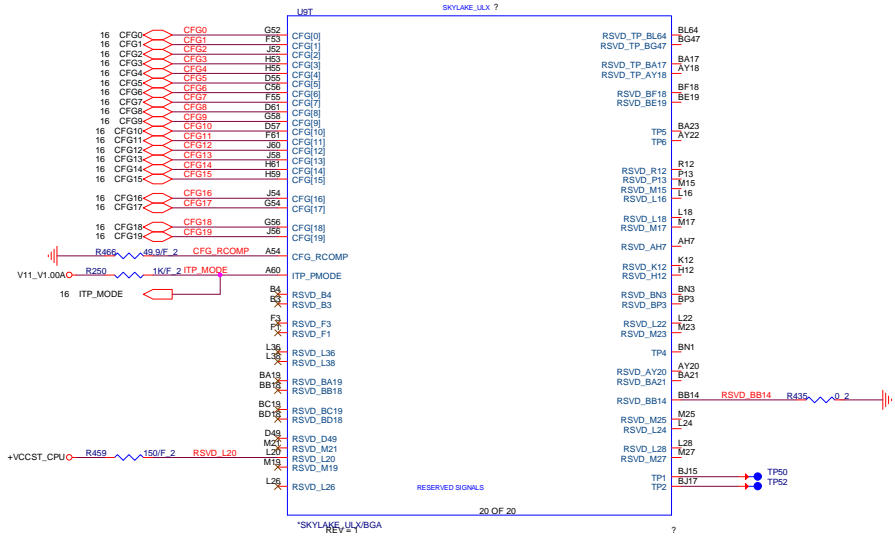
**PROJECT : Gummi**  
Quanta Computer Inc.

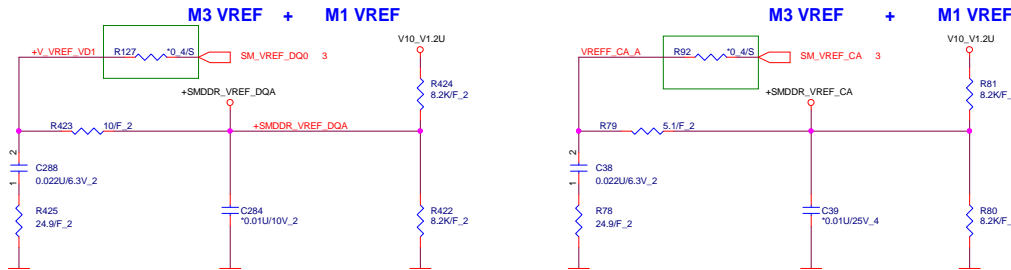
Size	Document Number <b>SKL-Y CPU (PWR MANAGE)</b>	Rev <b>1A</b>
Date:	Tuesday, December 08, 2015	Sheet 8 of 41

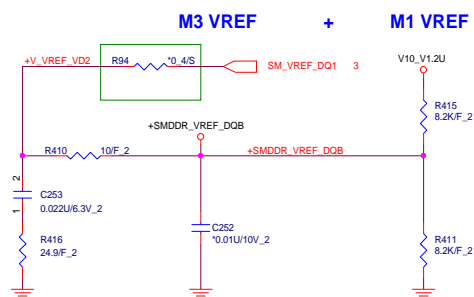
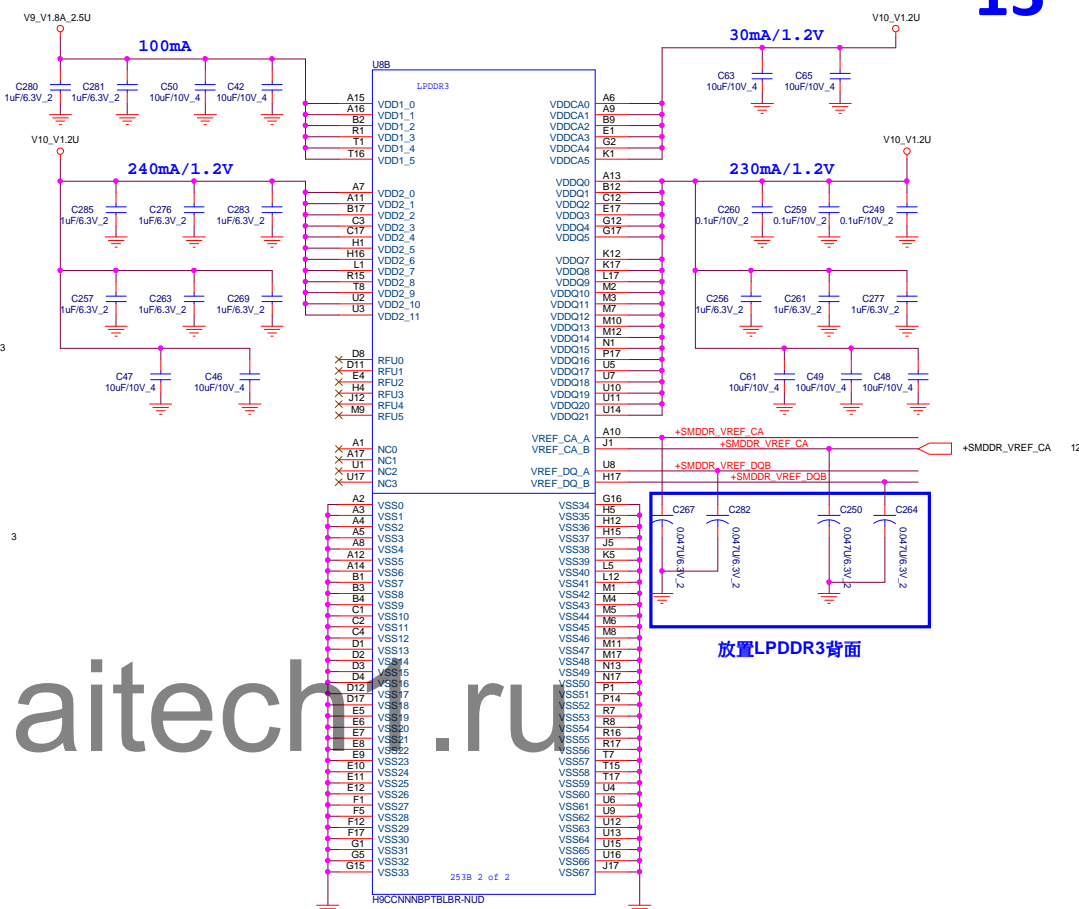
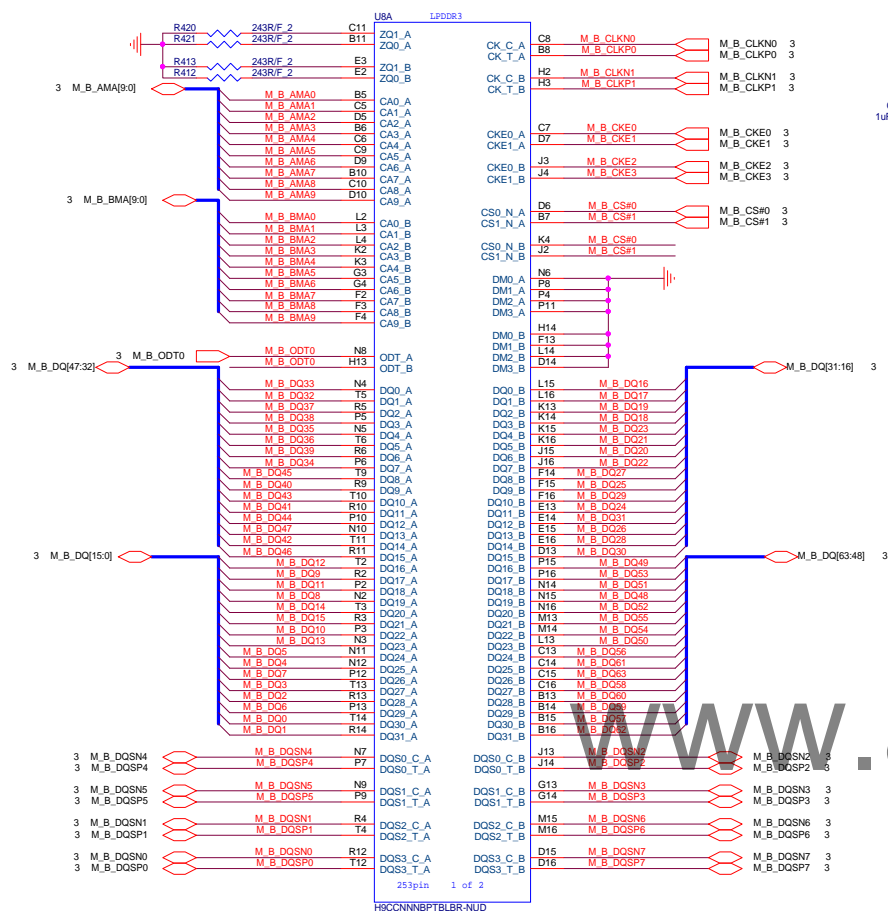




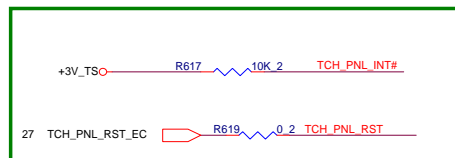






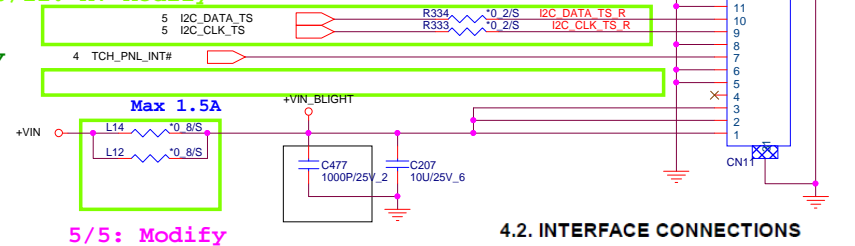


10,12,31,39	V10_V1.2U	
12,36	V9_V1.8A_2.5U	
3,12	SM_VREF_CA	
3	SM_VREF_DQ1	



## 10/22: MV Modify

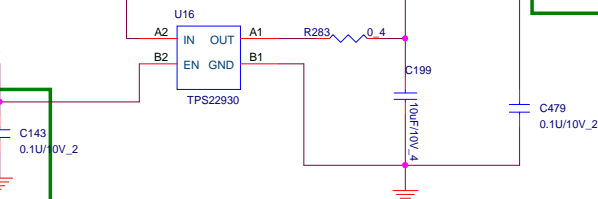
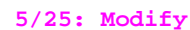
## 8/31: PV Modify



## 4.2. INTERFACE CONNECTIONS

## PIN ASSIGNMENT

Pin	Symbol	Description
1	NC	No Connection (Reserved)
2	H_GND	High Speed Ground
3	LANE1_N	Complement Signal Link Lane 1
4	LANE1_P	True Signal Link Lane 1
5	H_GND	High Speed Ground
6	LANE0_N	Complement Signal Link Lane 0
7	LANE0_P	True Signal Link Lane 0
8	H_GND	High Speed Ground
9	AUX_CH_P	True Signal Auxiliary Channel
10	AUX_CH_N	Complement Signal Auxiliary Channel
11	H_GND	High Speed Ground
12	VCCS	Power Supply +3.3 V (typical)
13	VCCS	Power Supply +3.3 V (typical)
14	BIST	LCD Panel Self Test Enable
15	GND	Ground
16	GND	Ground
17	HPD	Hot Plug Detect
18	BL_GND	Backlight Ground
19	BL_GND	Backlight Ground
20	BL_GND	Backlight Ground
21	BL_GND	Backlight Ground
22	LED_EN	Backlight Enable Signal of LED Converter
23	LED_PWM	PWM Dimming Control Signal of LED Converter
24	NC	No Connection (Reserved)
25	NC	No Connection (Reserved)
26	LED_VCCS	Backlight Power
27	LED_VCCS	Backlight Power
28	LED_VCCS	Backlight Power
29	LED_VCCS	Backlight Power
30	NC	No Connection (Reserved)







10,11,32,39 V11\_V1.00A  
2,7,10,27,39 V4\_VCCIO  
2,4,5,6,8,10,14,18,21,24,25,27,36 V7\_V3.3A\_PCH  
2,4,5,6,7,8,11,14,15,19,20,23,25,26,27,33,36 +3V  
4,7,8,10,14,26,27,29,30,31,32,36,39 V6\_V3.3A\_DSW

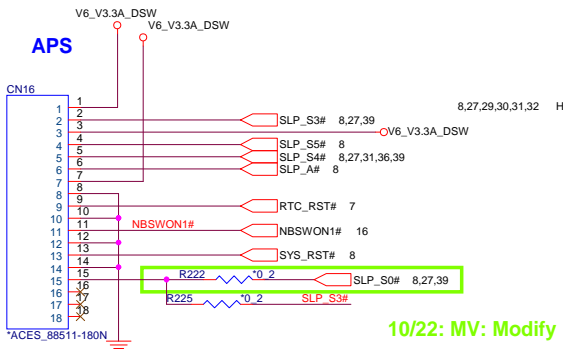
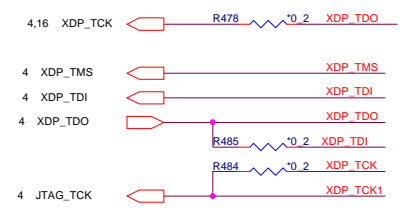
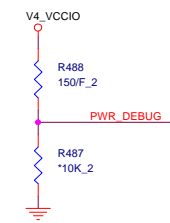
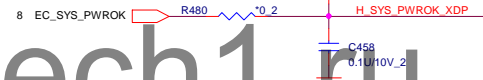
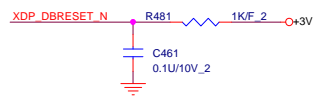
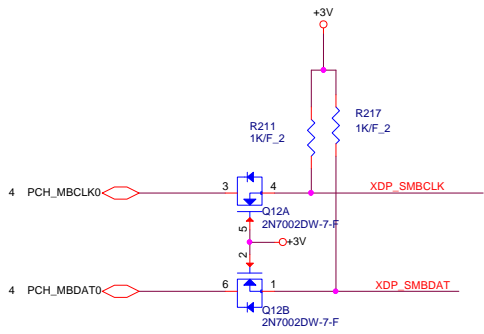
1016 Add R10577  
with 1K from CFG0  
to PWR\_DEBUG

10/22: MV Modify

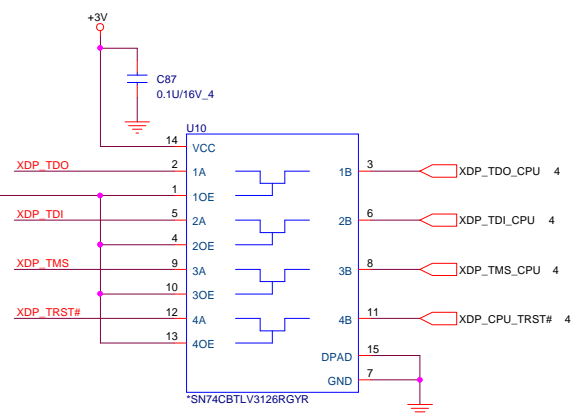
10/22: MV: Modify

CPU XDP

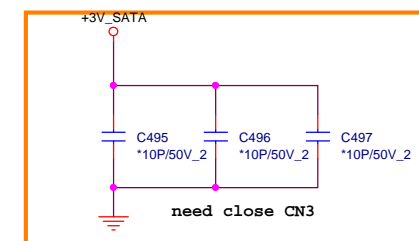
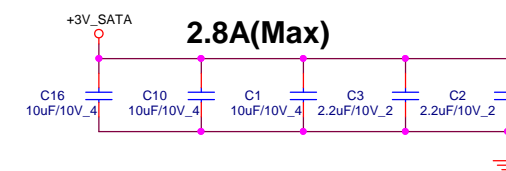
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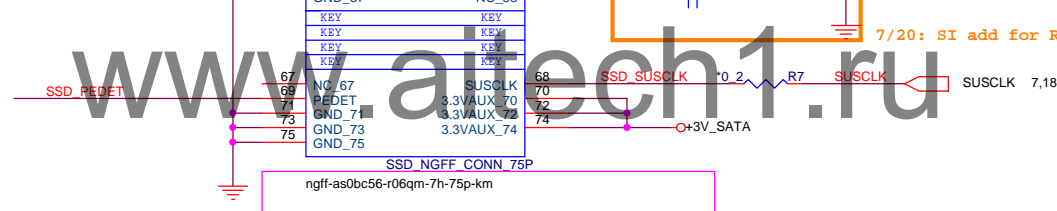
10/22: MV: Modify



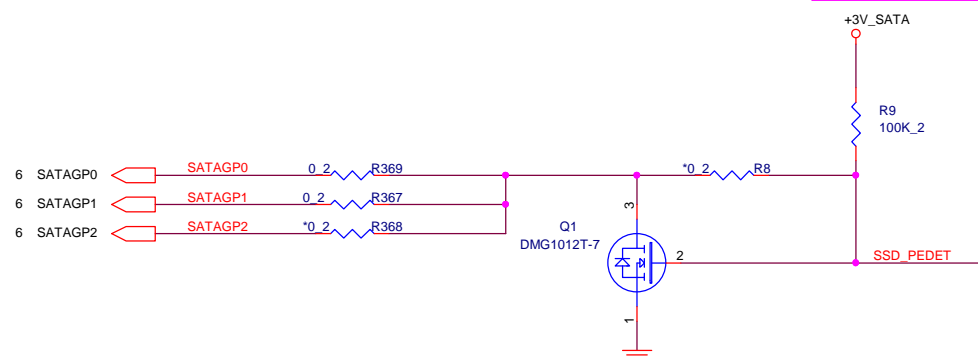
CN3	
NGFF	
GND_1	3.3Vaux_2
GND_3	3.3Vaux_4
PERn3	NC_6
PERn3	NC_8
GND_9	DAS/DSS#
PETn3	3.3Vaux_12
PETp3	3.3Vaux_14
GND_15	3.3Vaux_16
PERn2	3.3Vaux_18
PERp2	NC_20
GND_21	NC_22
PETn2	NC_24
PETp2	NC_26
GND_27	NC_28
PERn1	NC_30
PERp1	NC_32
GND_33	NC_34
PETn1	NC_36
PETp1	DEVSLP
GND_39	NC_40
PERn0/SATA_B+	NC_42
PERp0/SATA_B-	NC_44
GND_45	NC_46
PETn0/SATA_A-	NC_48
PETp0/SATA_A+	PERST#NC_50
GND_51	CLKREQ#NC_52
REFCLKN	PEWake#NC_54
REFCLKP	NC_56
GND_57	NC_58
KEY	KEY
KEY	KEY
KEY	KEY
KEY	KEY
NC_67	SUSCLK
PEDET	3.3Vaux_70
GND_71	3.3Vaux_72
GND_73	3.3Vaux_74
GND_75	



7/20: SI add for RF

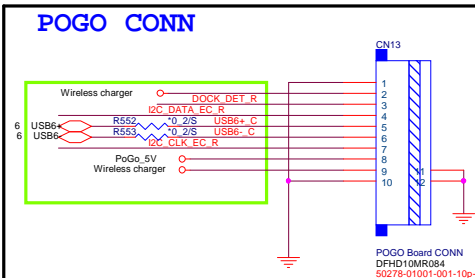
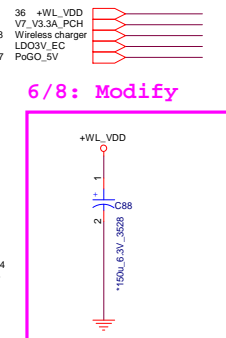
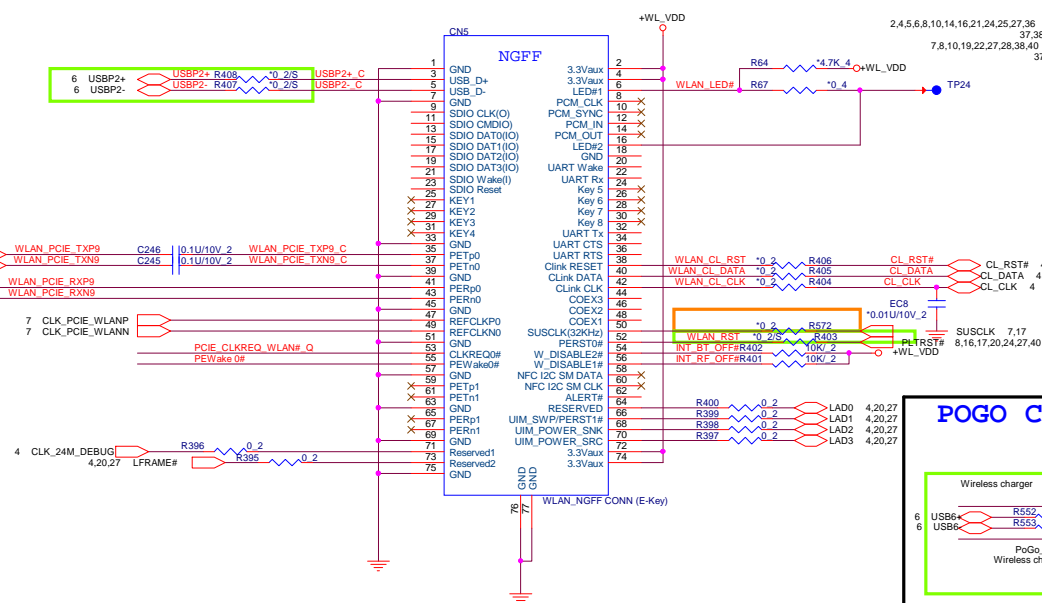


5/26: wait PN, FP isok



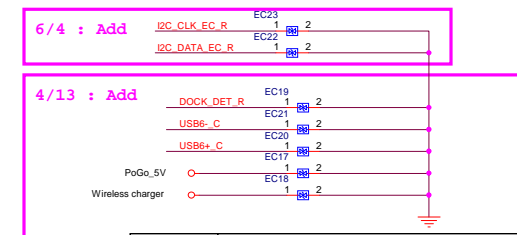
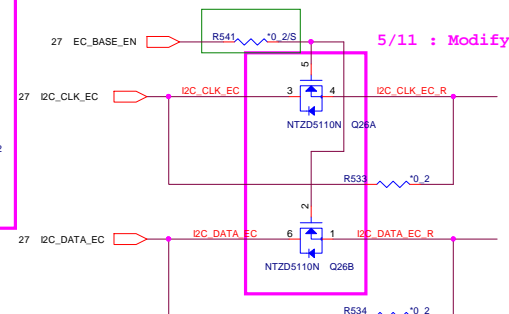
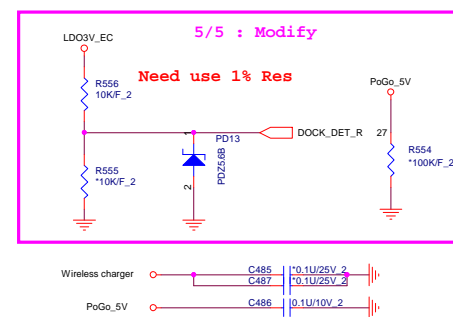
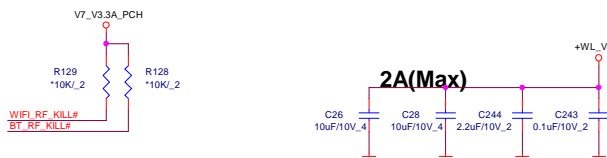
**PROJECT : Gummi**  
Quanta Computer Inc.

Size	Document Number <b>SSD (NGFF CONN)</b>	Rev <b>1A</b>
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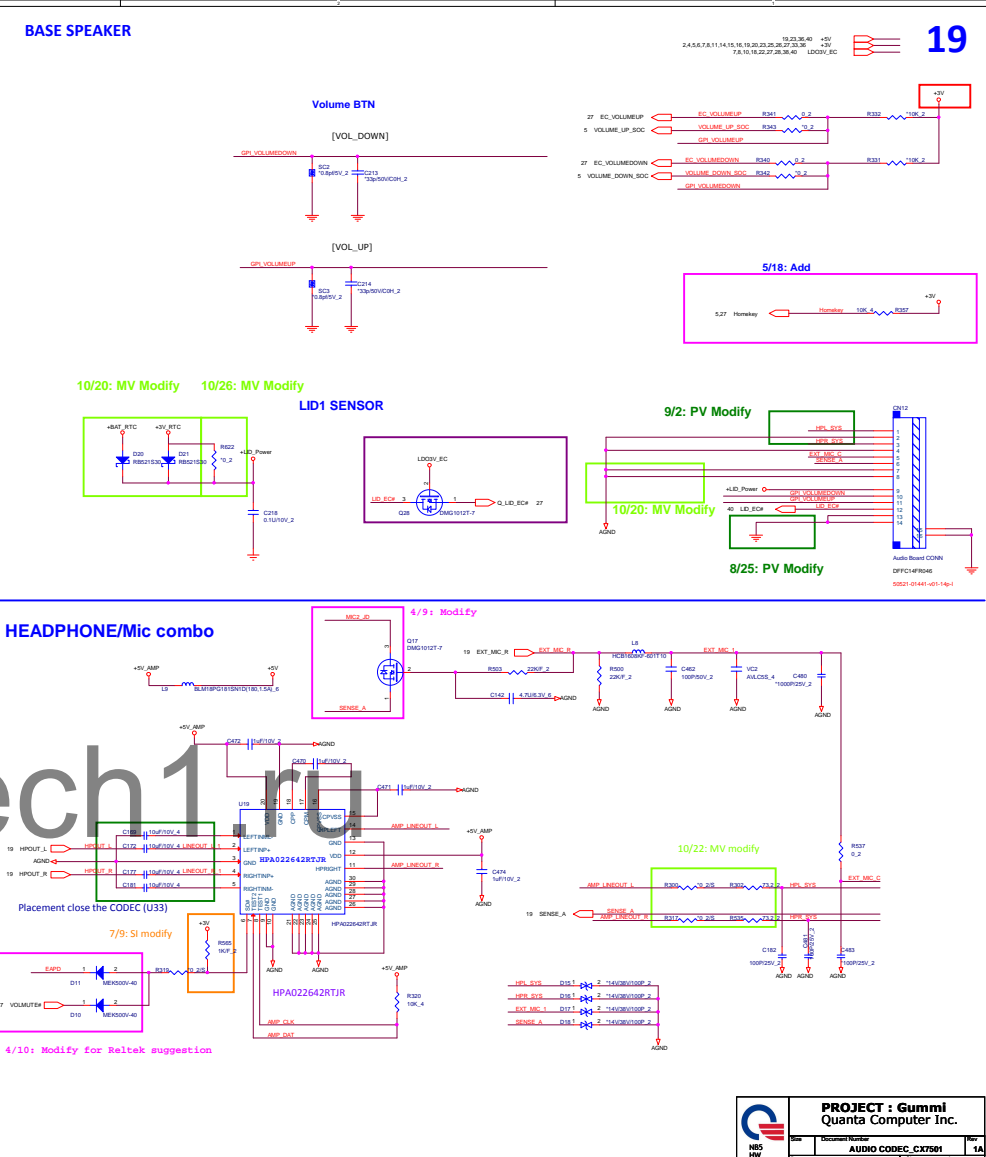
SKY-Y

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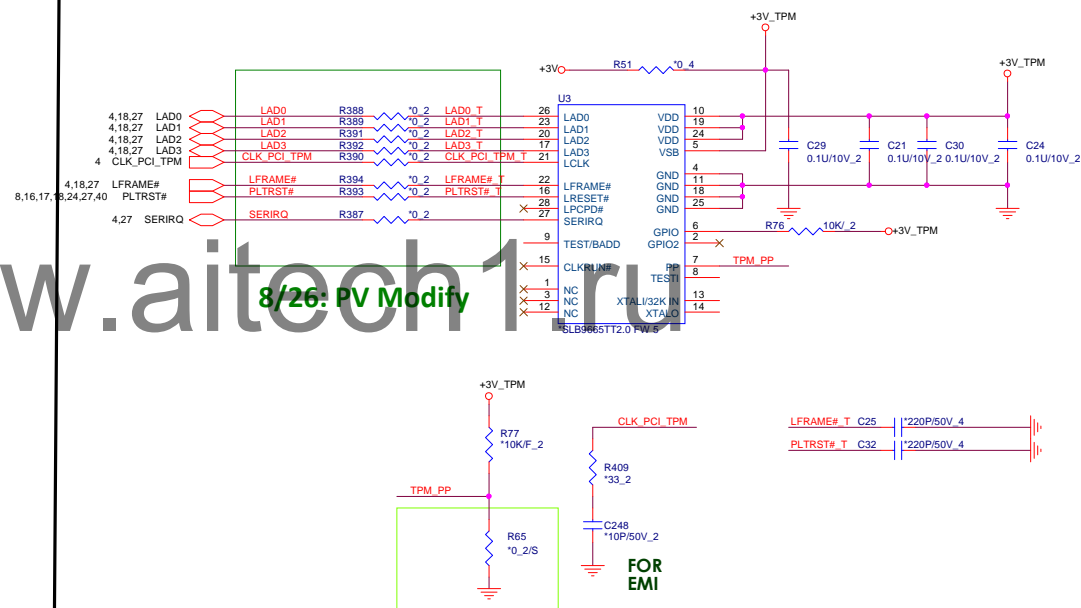


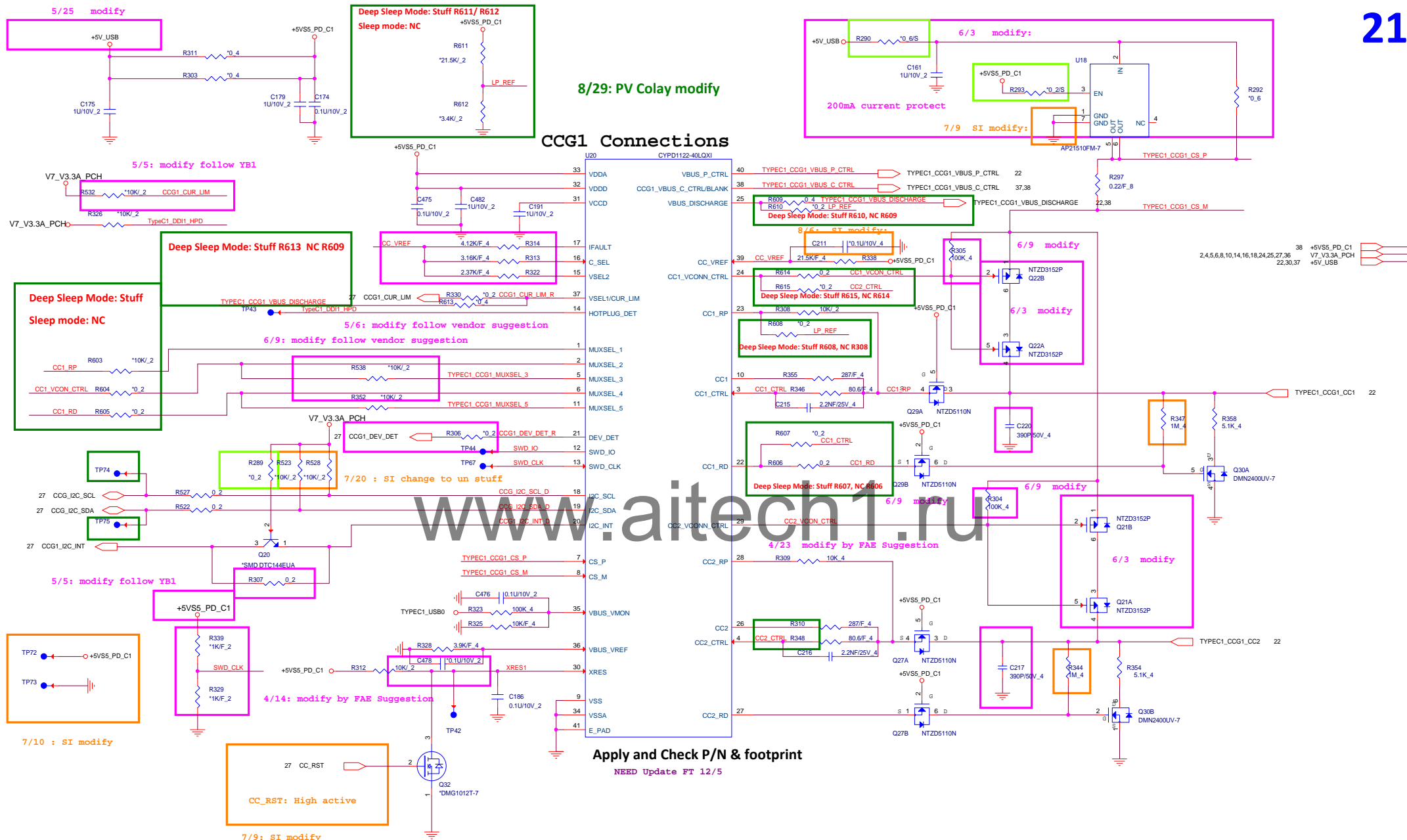
**PROJECT : Gummi**  
Quanta Computer Inc.

Size Custom	Document Number <b>WIFI/BT(NGFF) &amp; POGO</b>	Rev <b>1A</b>
Date: Monday, November 30, 2015		Sheet 18 of 41

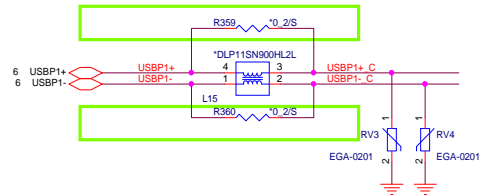


## 8/26: PV Modify





## USB2.0 ESD



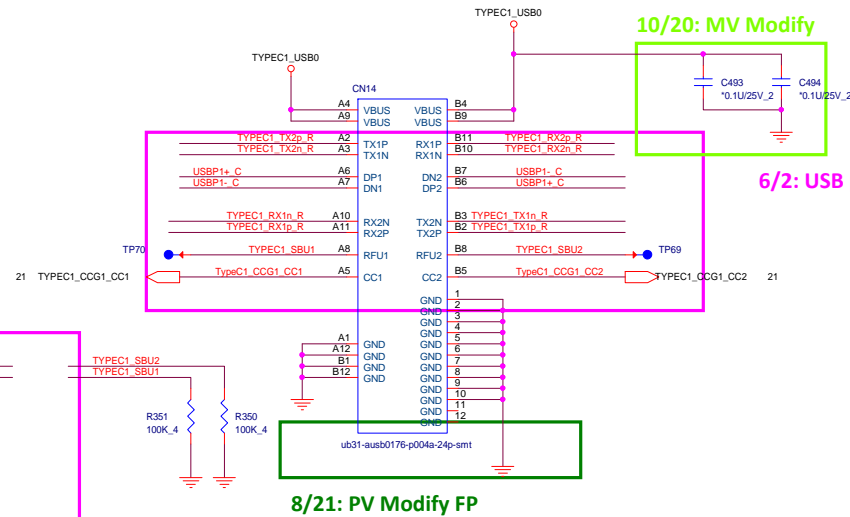
## Type C1\_HSIO\_ESD

USB3.0 PORT1 6 USB3\_TXP1 USB3\_TXN1 C221 0.1uF/10V\_2 TYPEC1\_TX1p\_R  
6 USB3\_TXN1 USB3\_TXN1 C219 0.1uF/10V\_2 TYPEC1\_TX1n\_R

6 USB3\_RXN1 USB3\_RXN1 TYPEC1\_RX1n\_R  
6 USB3\_RXP1 USB3\_RXP1 TYPEC1\_RX1p\_R

USB3.0 PORT4 6 USB3\_TXP4 USB3\_TXN4 C222 0.1uF/10V\_2 TYPEC1\_TX2p\_R  
6 USB3\_TXN4 USB3\_TXN4 C223 0.1uF/10V\_2 TYPEC1\_TX2n\_R

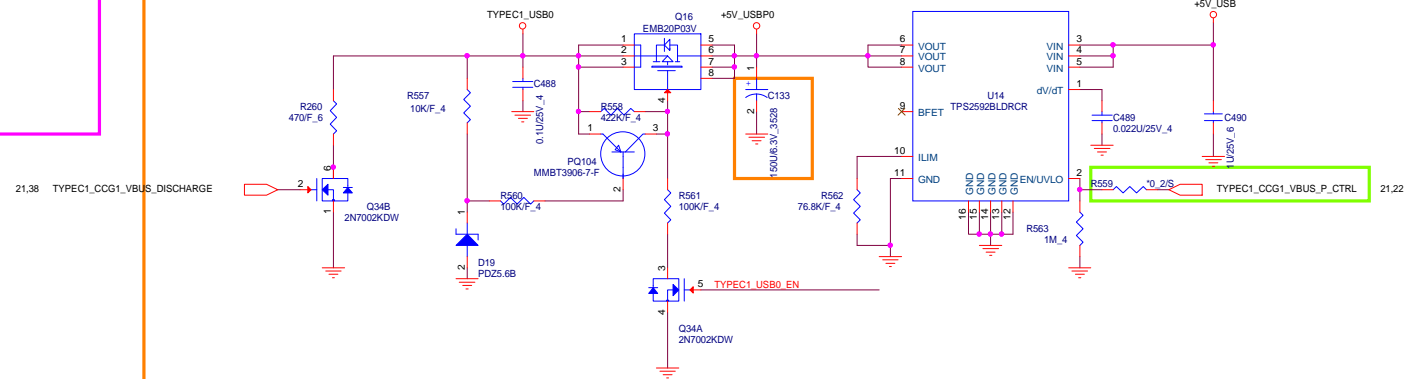
6 USB3\_RXN4 USB3\_RXN4 TYPEC1\_RX2n\_R  
6 USB3\_RXP4 USB3\_RXP4 TYPEC1\_RX2p\_R



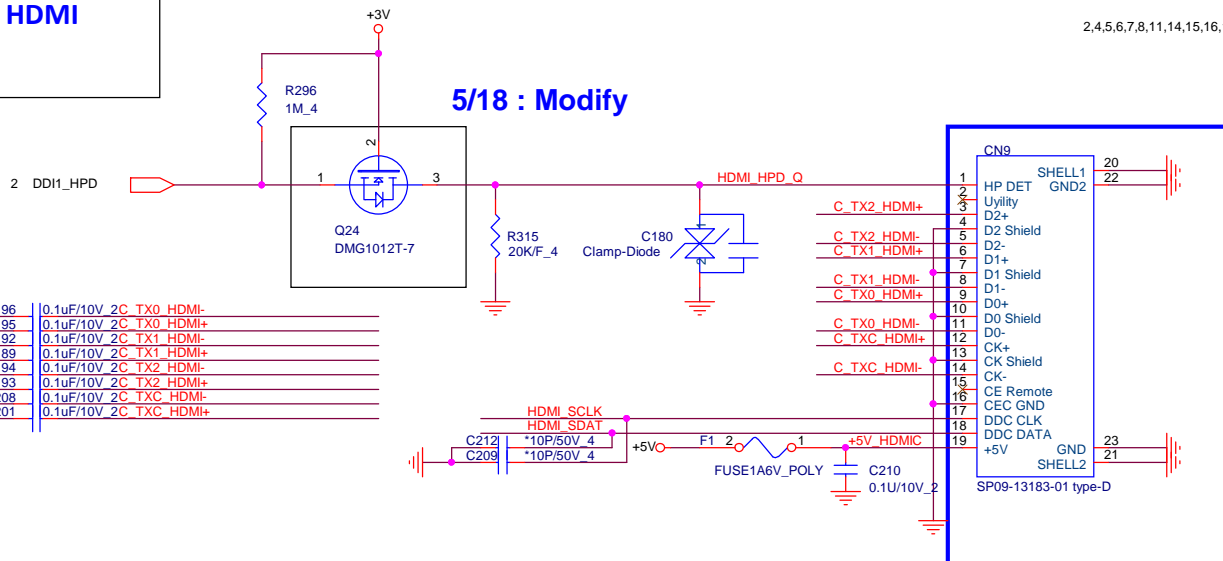
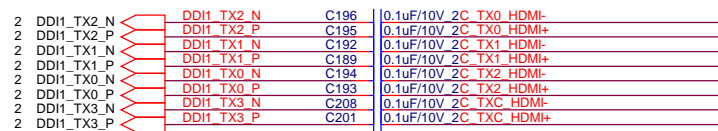
5/29: Modify

7/14: SI Modify

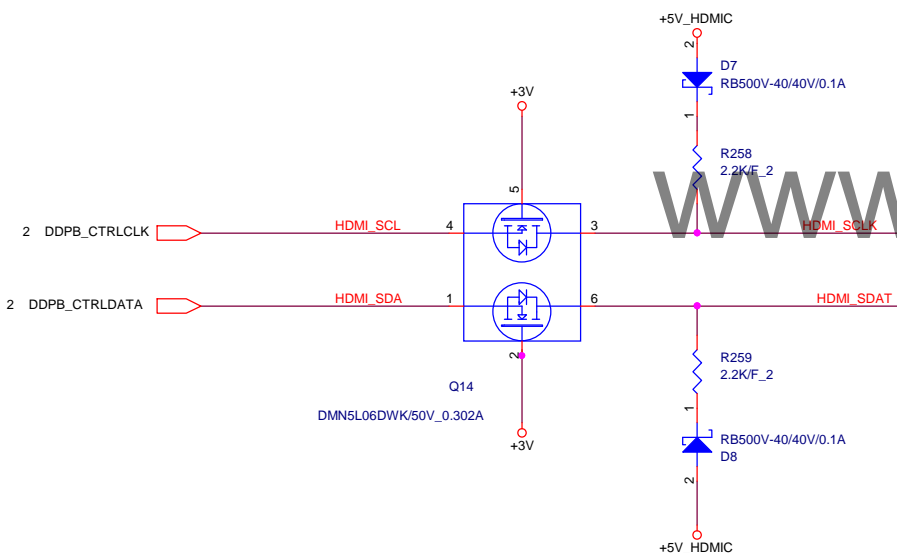
7/9: SI Modify



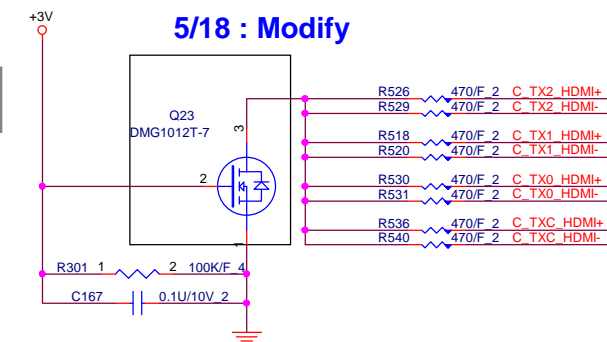
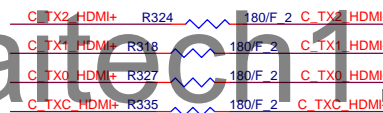




5/16 FP is NEW, need check pin define!



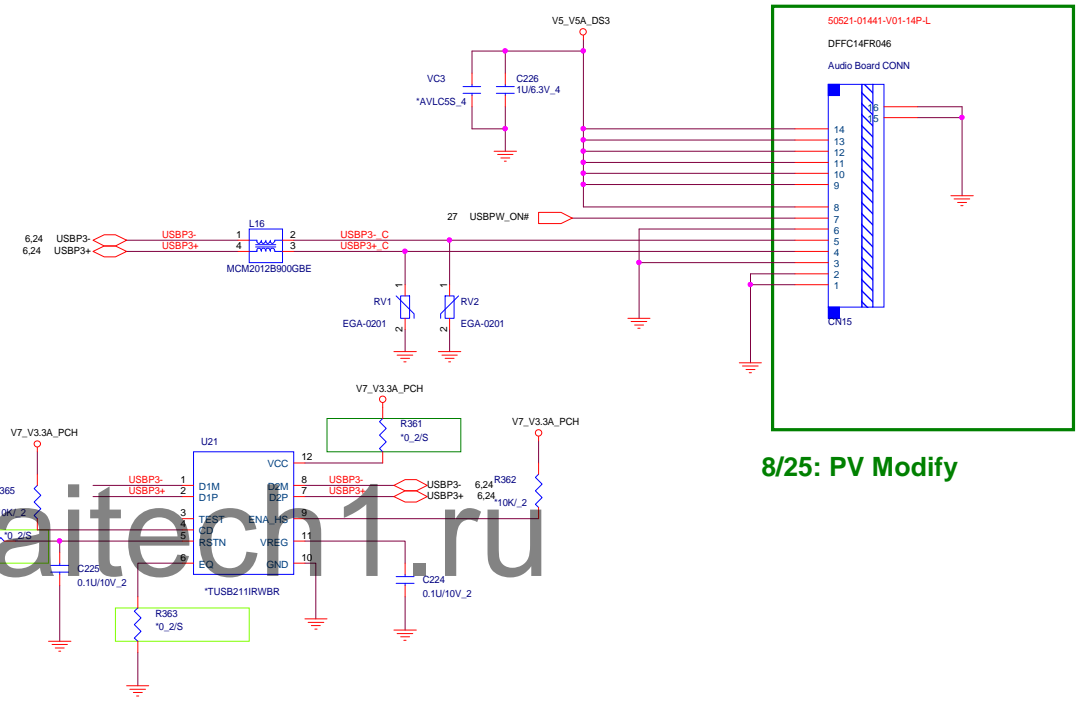
## EMI Solution



**PROJECT : Gummi**  
Quanta Computer Inc.

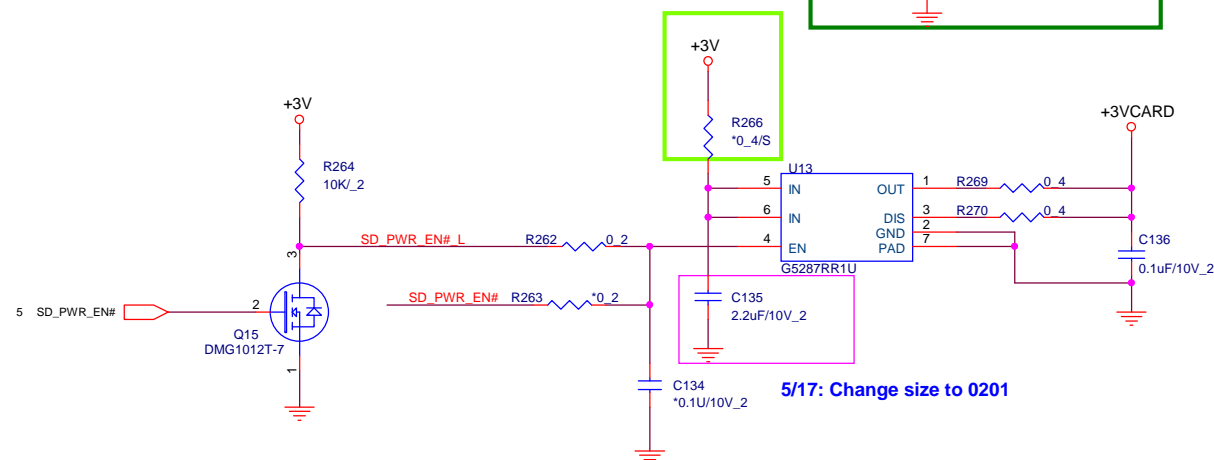
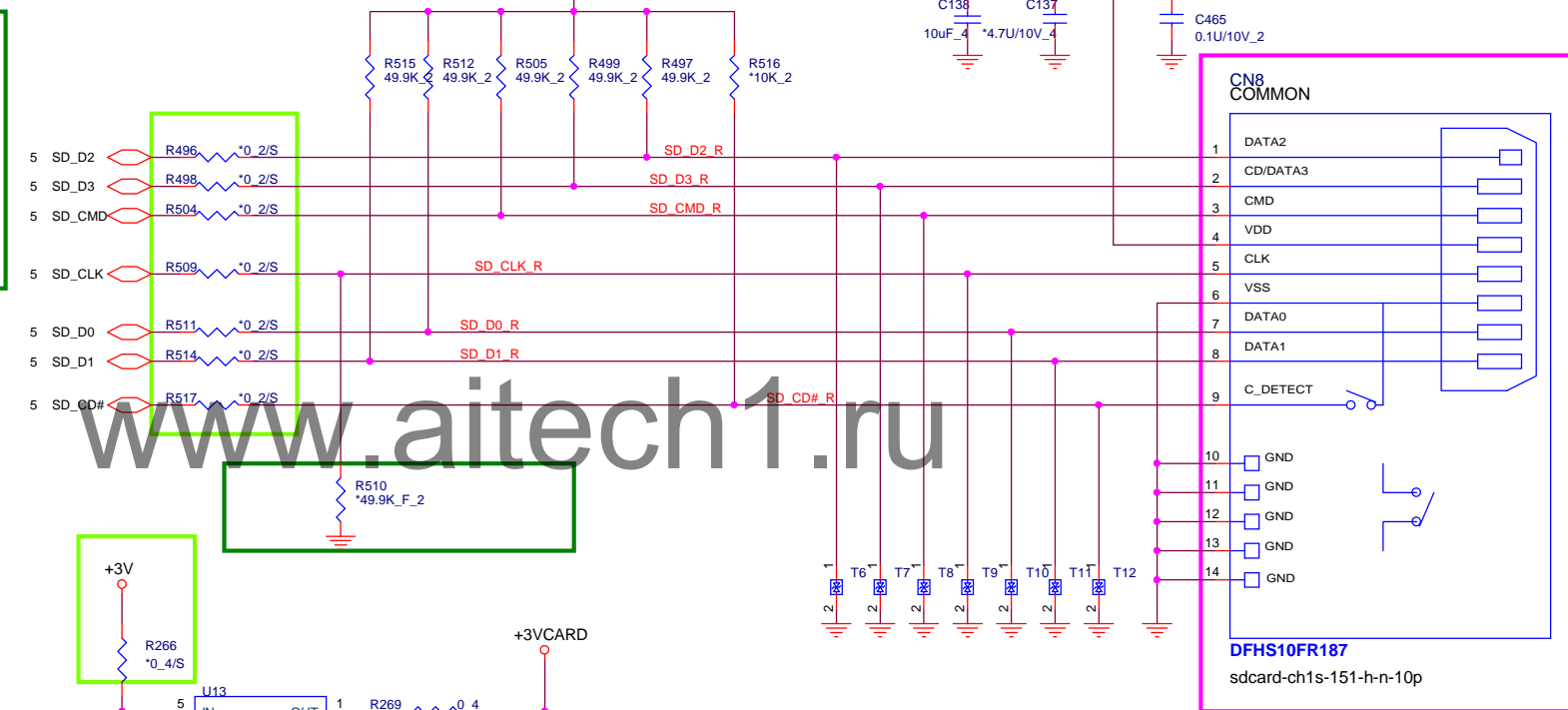
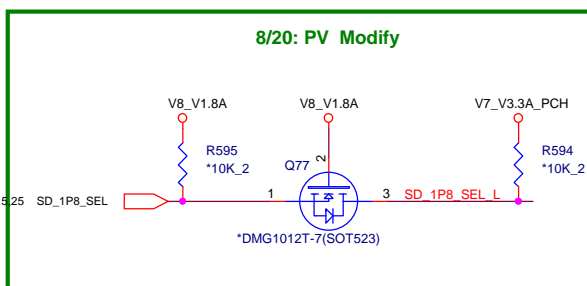
Size	Document Number <b>VBUS Provider _1</b>	Rev <b>1A</b>
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USB 2.0 Re\_Driver

8/25: PV Modify



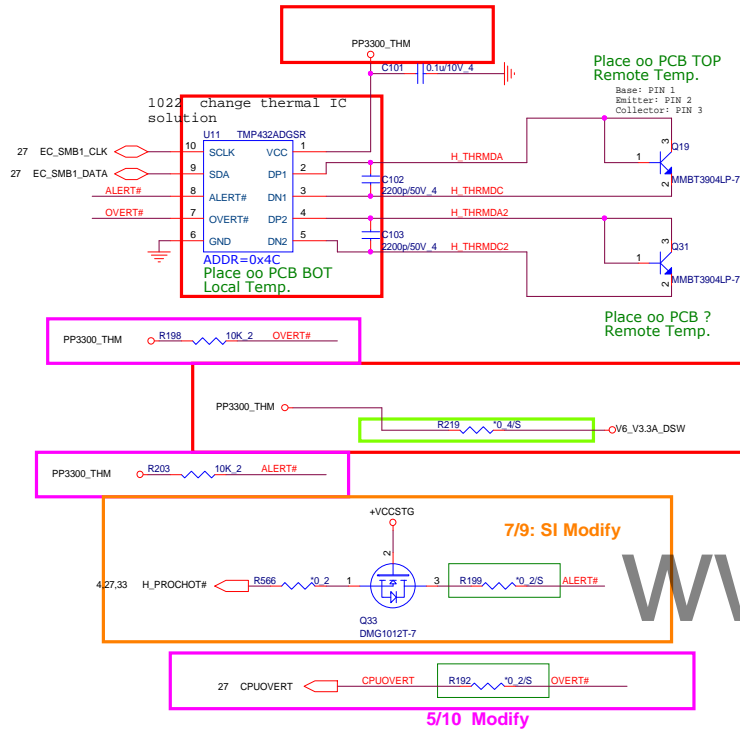
## 5/22: Change Footprint



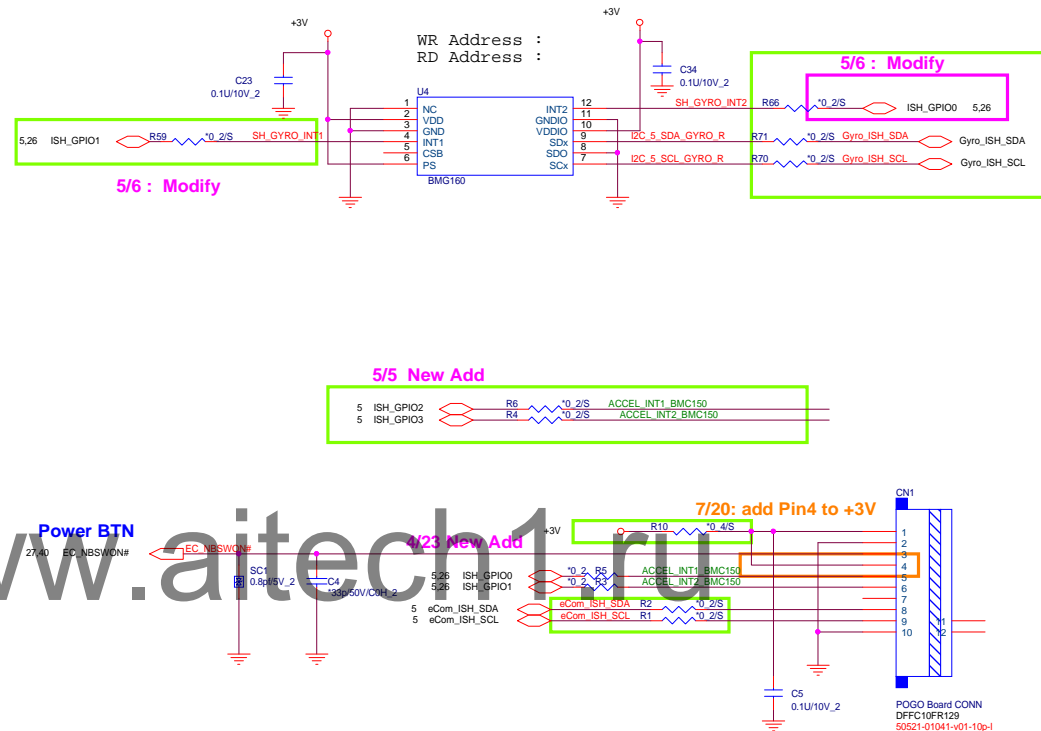
**PROJECT : Gummi**  
Quanta Computer Inc.

Size	Document Number <b>VBUS Provider_2</b>	Rev <b>1A</b>
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## Thermal Sensor(THM)



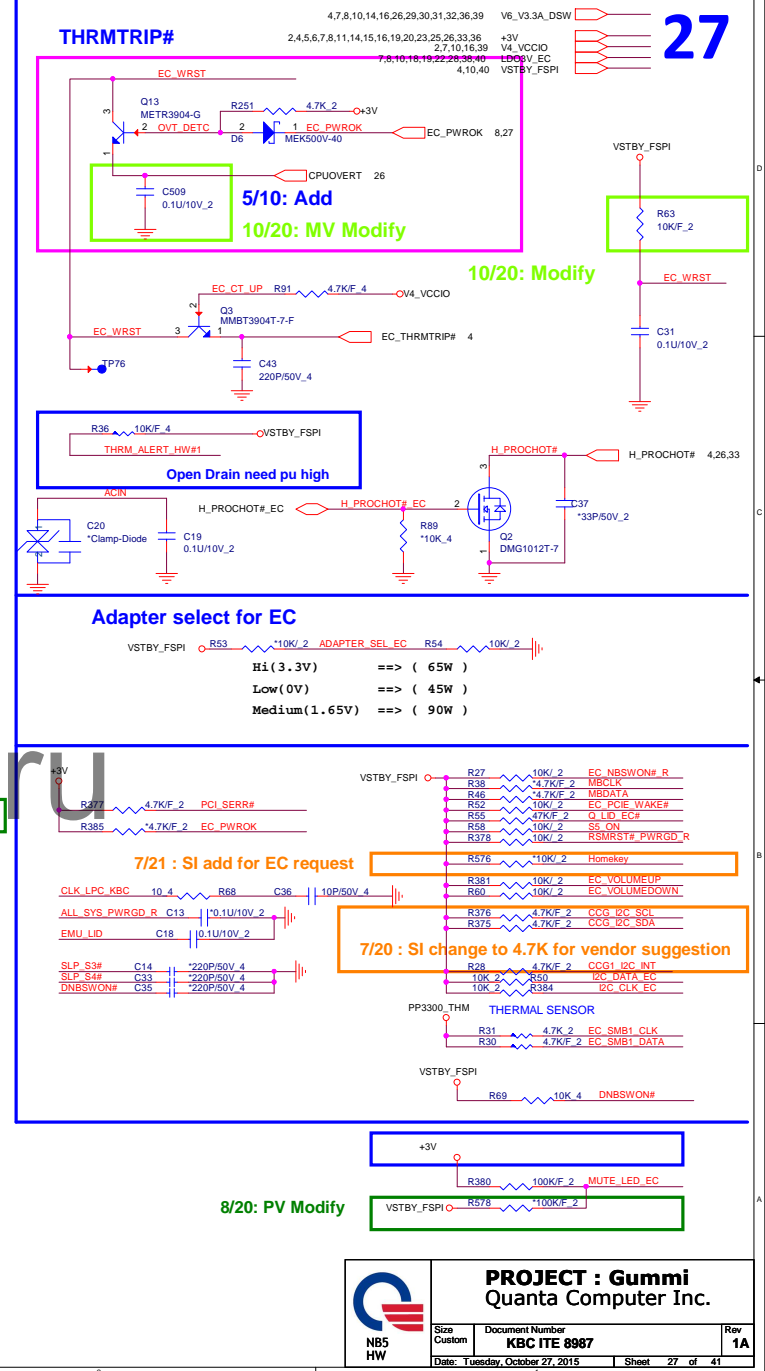
## Gyroscope (BMG160)



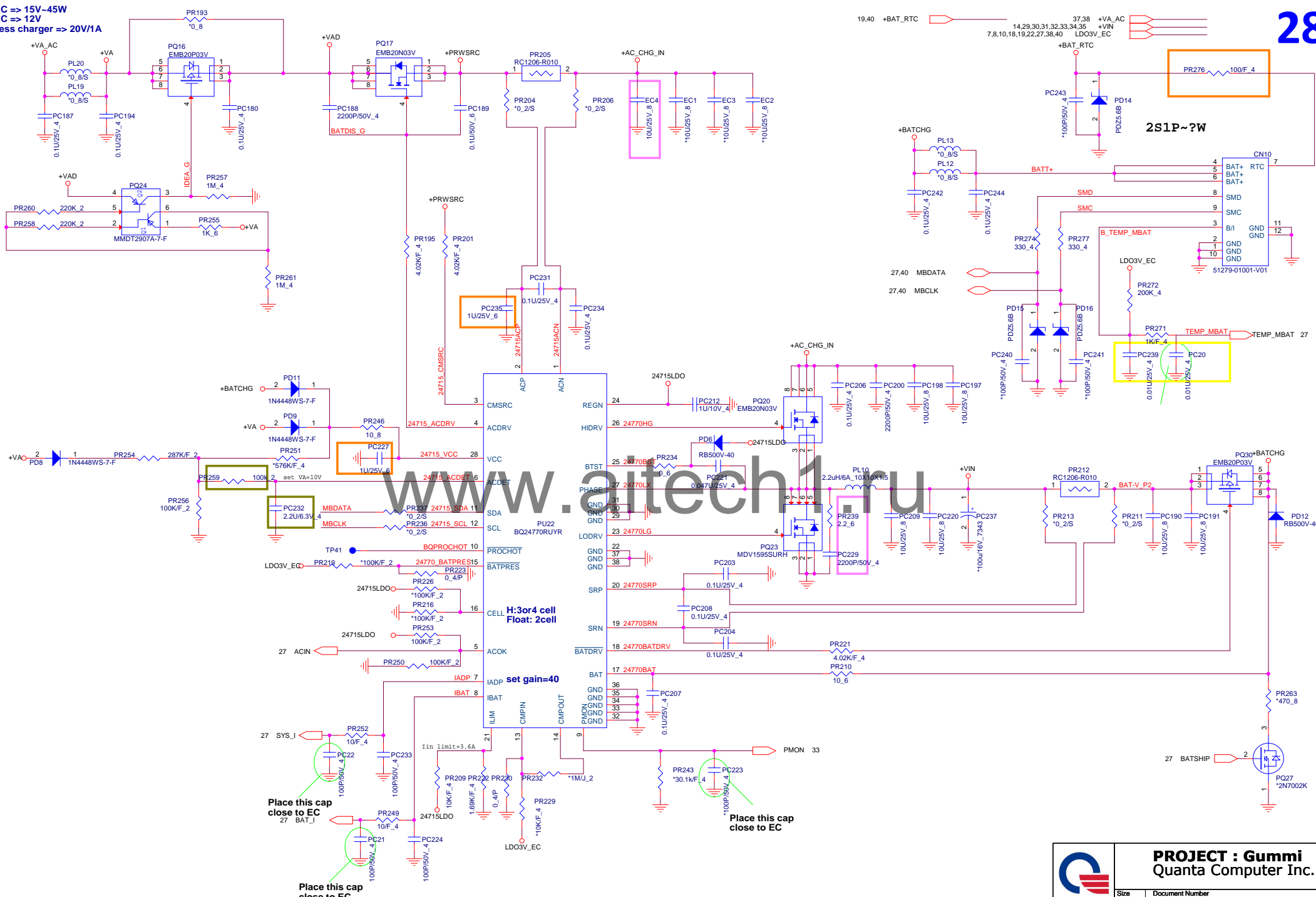
## E-compass/Magnetometer/Accelerometer (BMC150)

Keepout area is around 10mm

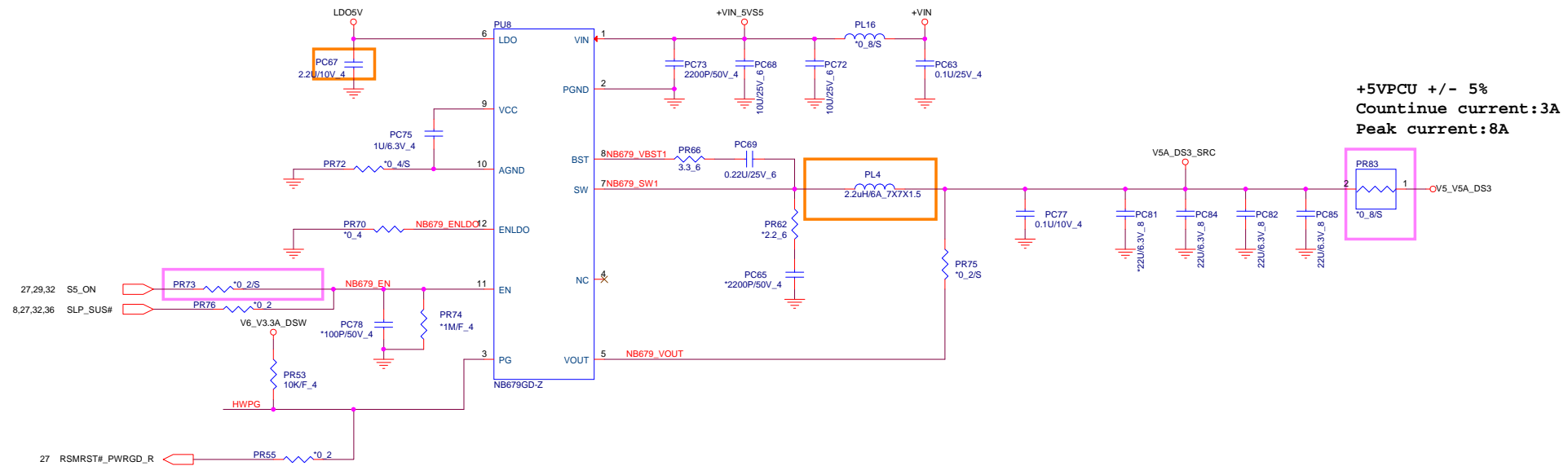
WR Address : 0x3C  
RD Address : 0x3D



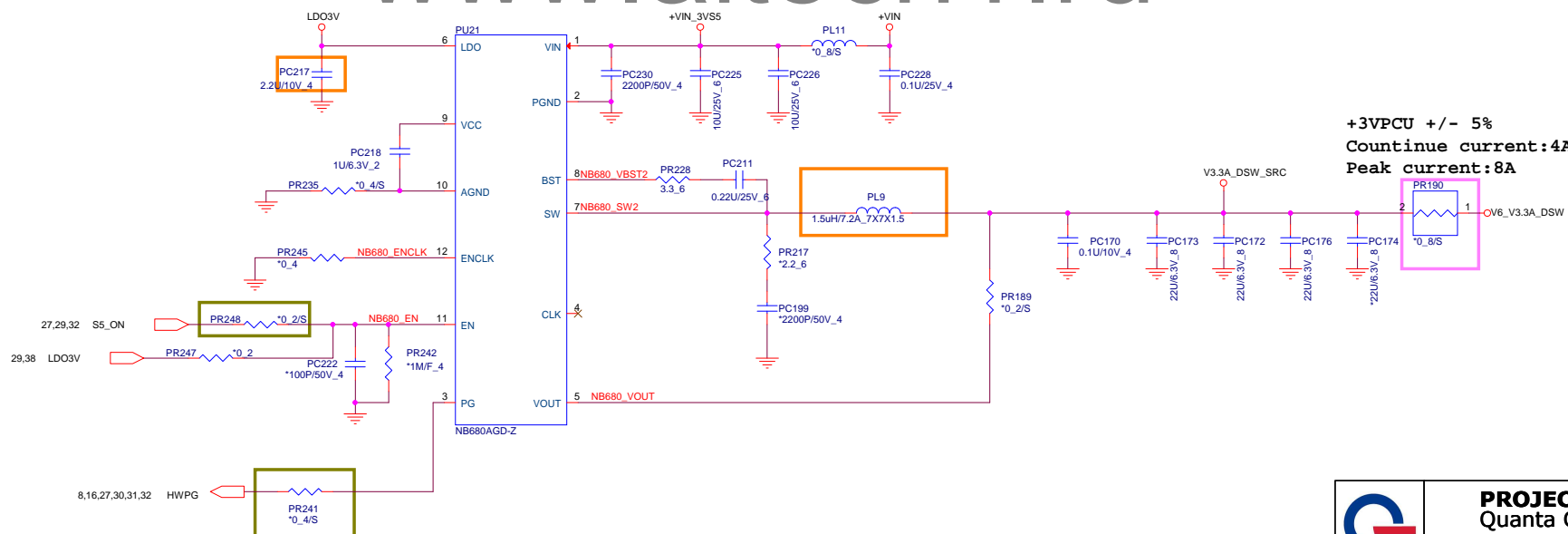
Type C => 15V~45W  
Type C => 12V  
Wireless charger => 20V/1A



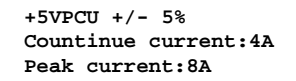
14,28,30,31,32,33,34,35 +VIN  
 8,24,32,33,34,35,36,39 V5\_V5A\_DS3  
 4,7,8,10,14,16,26,27,30,31,32,36,39 V6\_V3.3A\_DSW  
 7,15,38 LDO5V  
 29,38 LDO3V




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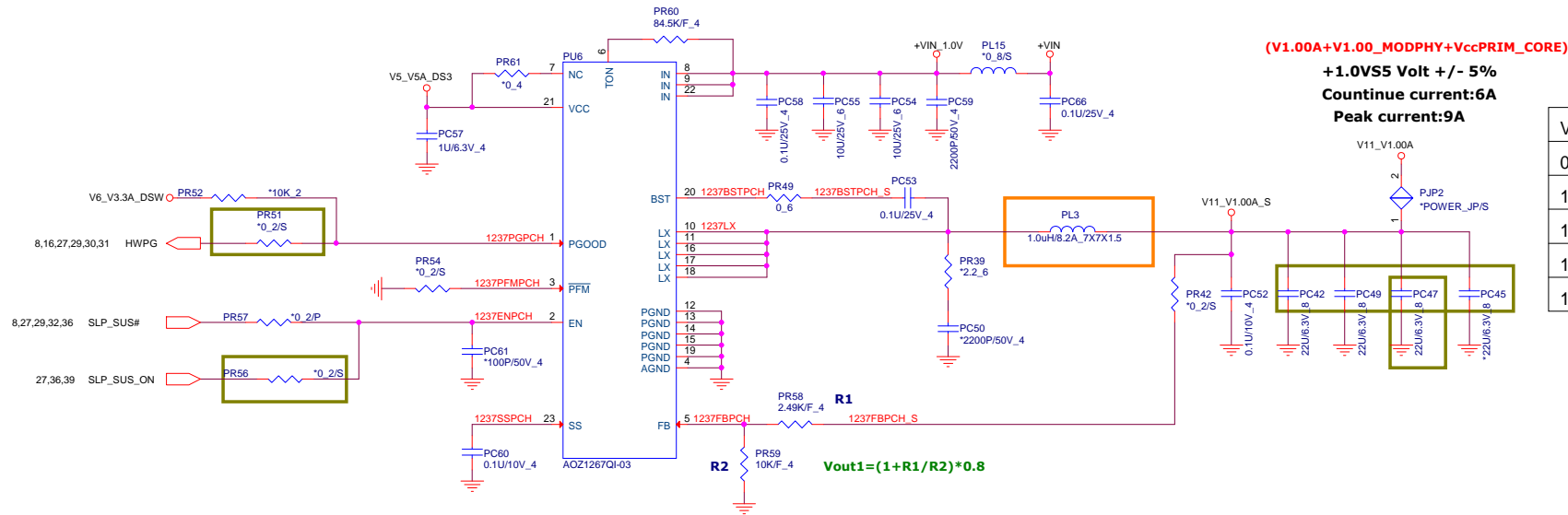






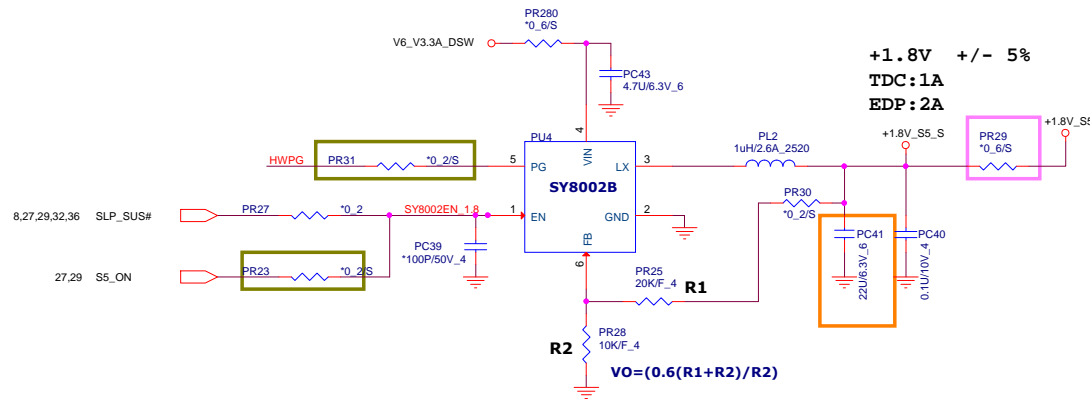
 NB5 HW	<b>PROJECT : Gummi</b> <b>Quanta Computer Inc.</b>		
	Size Custom	Document Number <b><i>SYSTEM 5V/3V (NB6794NB681)</i></b>	Rev 1A
	Date: Tuesday, October 27, 2015	Sheet 30 of 44	

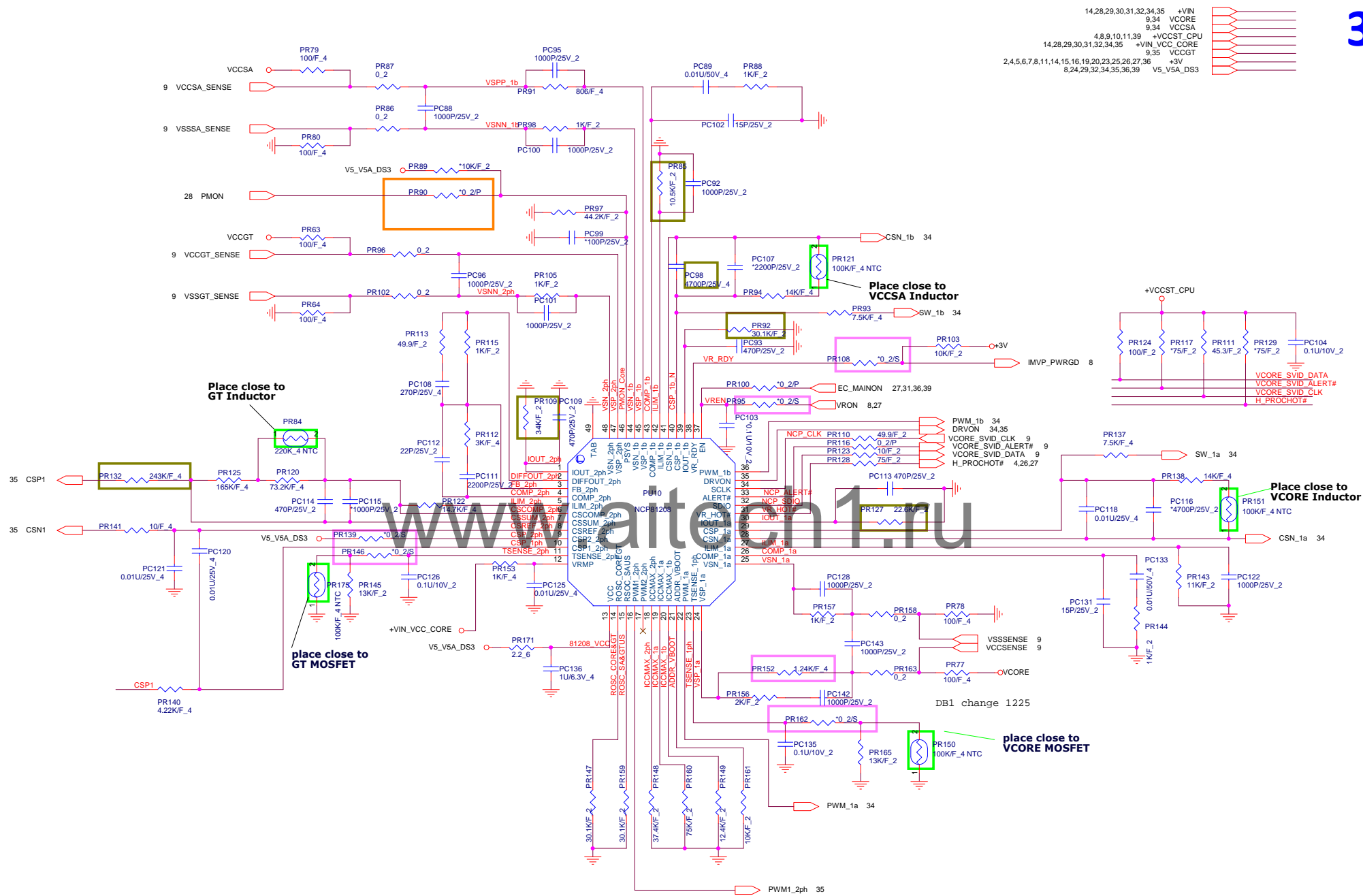


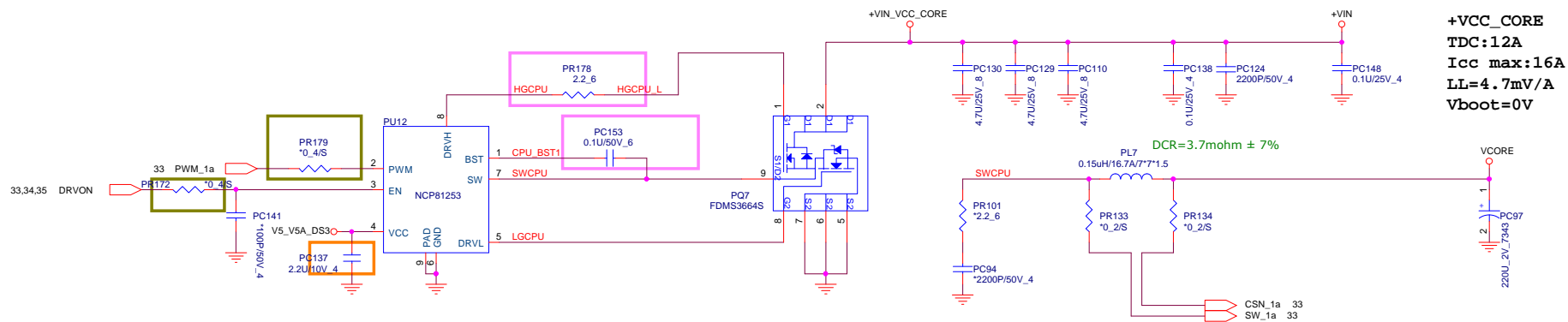


Vo	Rton
0.95V	82k
1V	84.5k
1.05V	95.3k
1.35V	113k
1.5V	127k

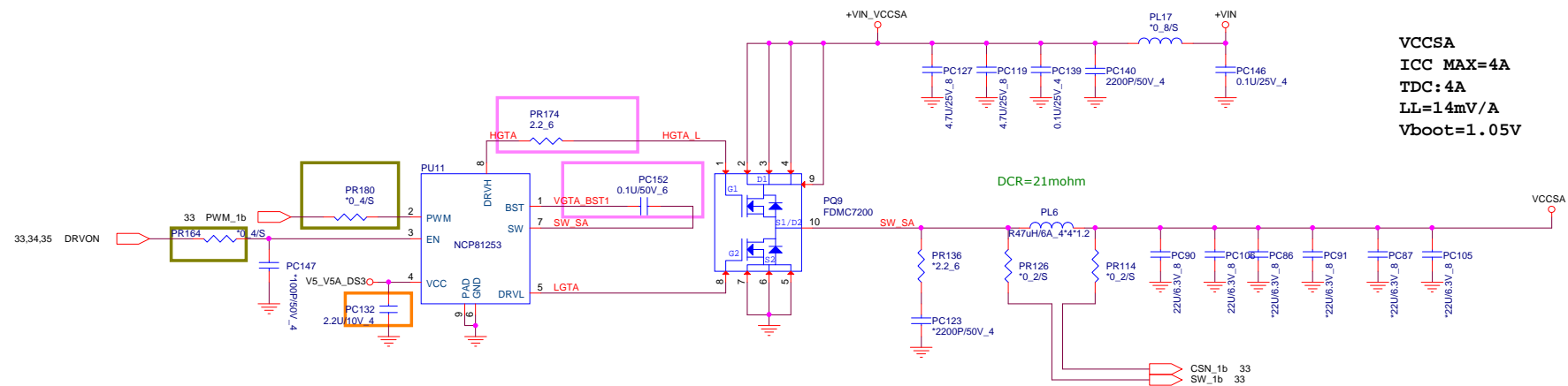
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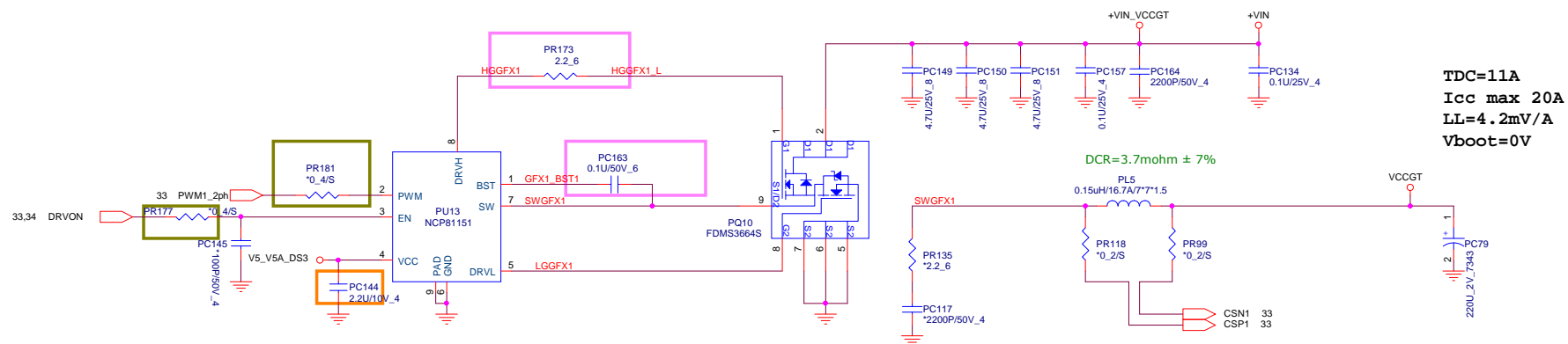


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**PROJECT : Gummi**  
**Quanta Computer Inc.**

Size	Document Number	Rev
Custom	+VCORE/+VCCSA (NCP81253)	1A
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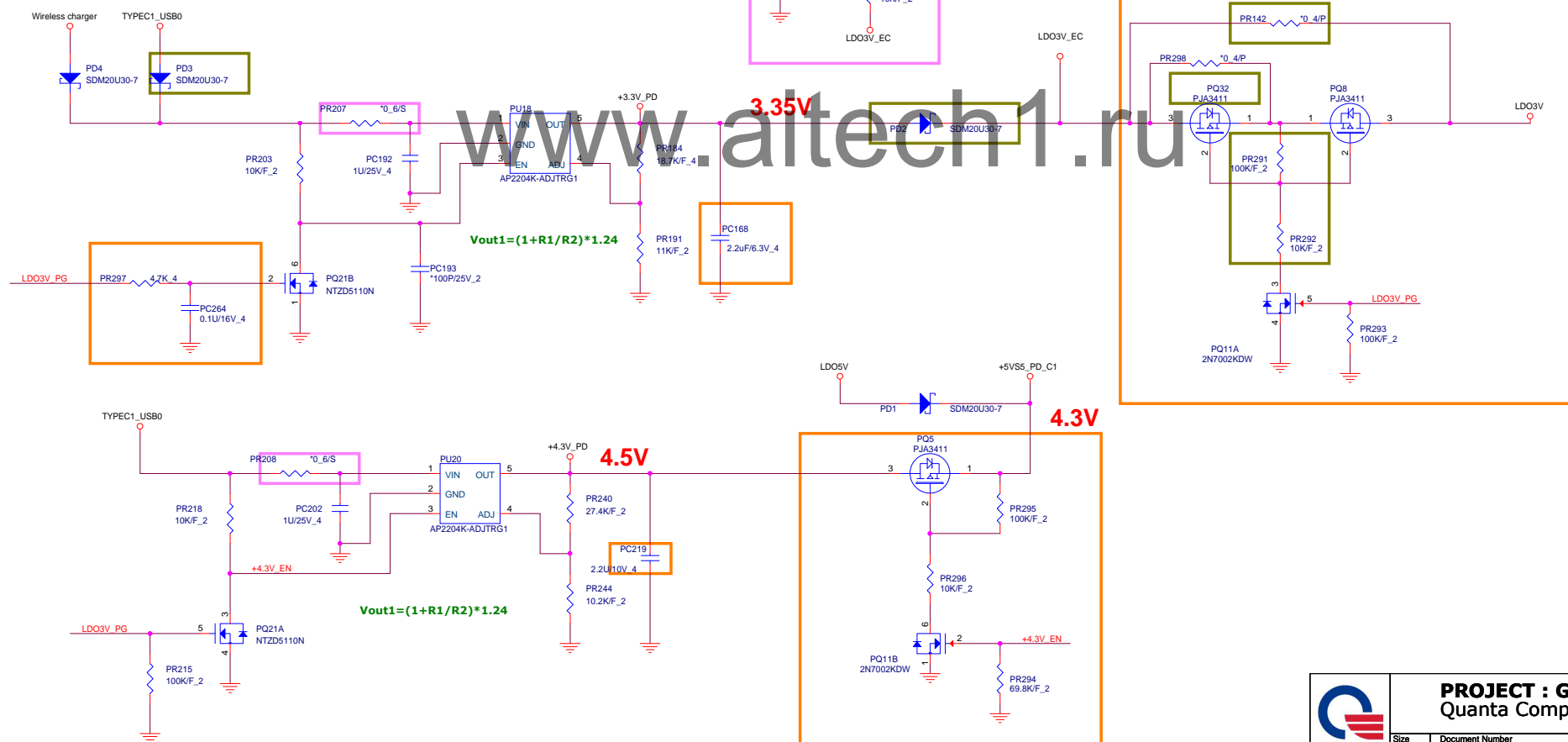


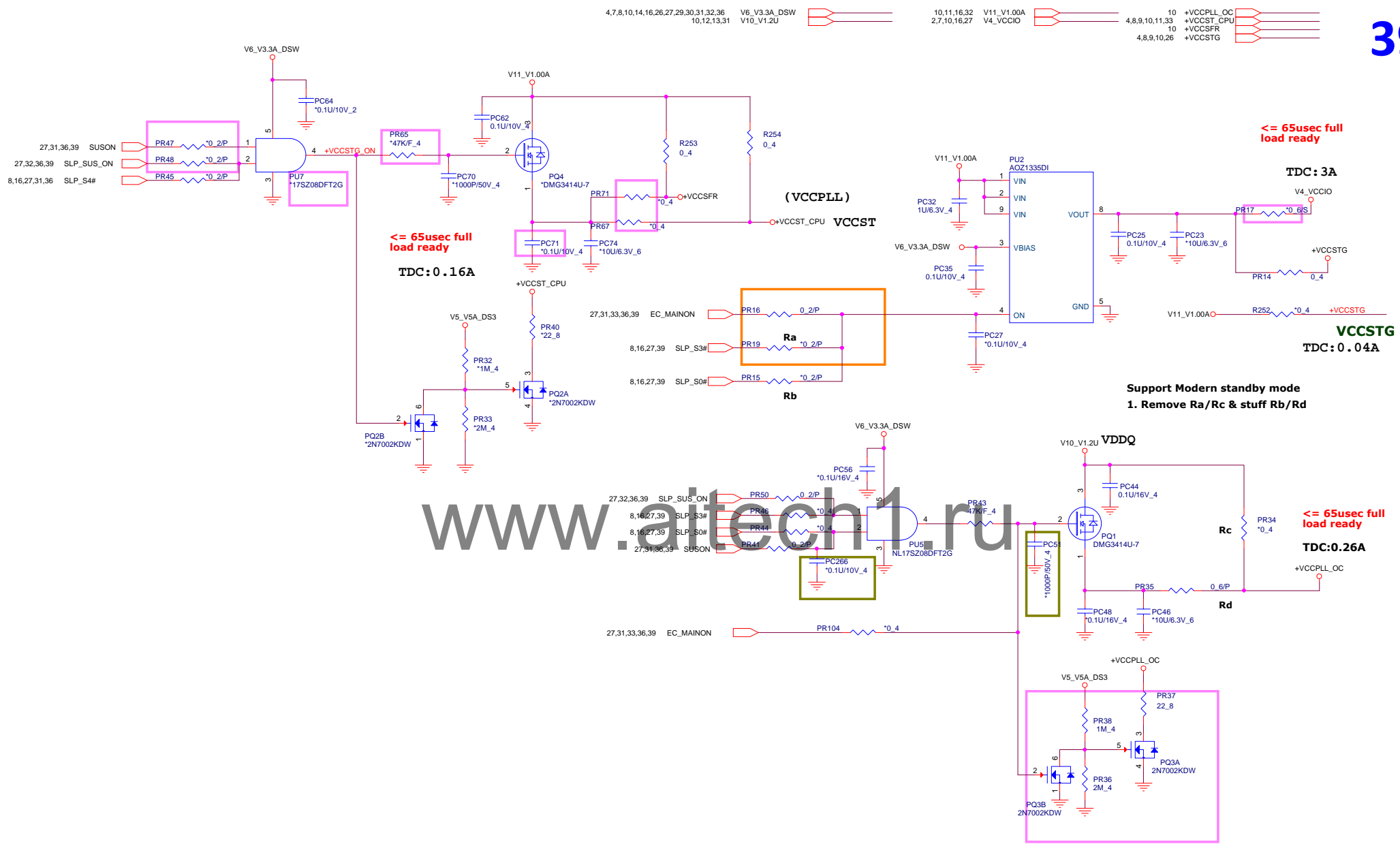
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[illegible]



# SCREW HOLE

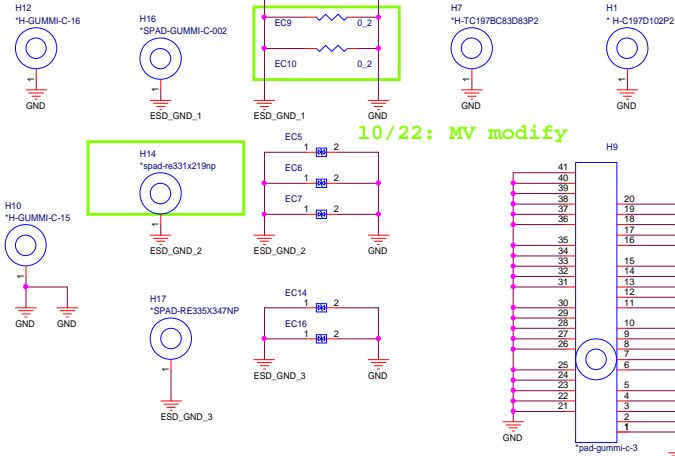
10/26: MV modify

# 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

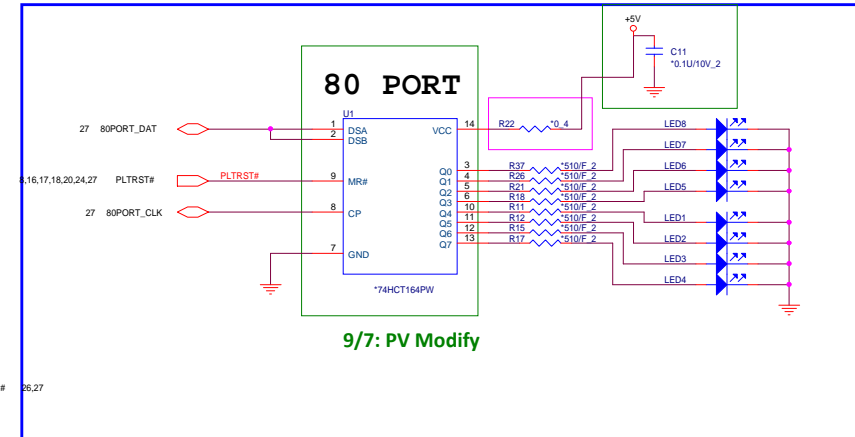
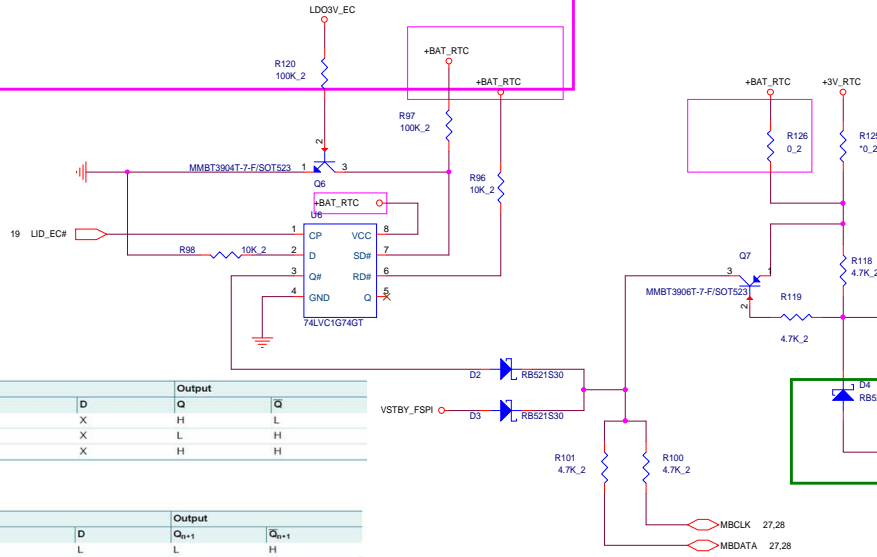
40



## IO NUT

## CPU NUT

www.aitech1.ru



9/7: PV Modify

8/21: PV Modify

Input	RD	CP	D	Output	Q
SD					
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 <sub>n+1</sub>
SD					
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<sub>n+1</sub> = state after the next LOW-to-HIGH CP transition.

