

1. Schematic Page Description :

ZHQ/Hugo Schematic Ver : 1.0

- | | |
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| 06 -- Valley 4/9 (SD/PCIE/SATA) | 26 -- USB3/Charger/Hole |
| 07 -- Valley 5/9 (SPI/GPIO/CLK) | 27 -- KB/TP/HW RST |
| 08 -- Valley 6/9 (USB/LPC/I2C) | 28 -- KBC |
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| 10 -- Valley 8/9 (Power 2) | 30 -- SYSTEM 5V/3V (MPS670/671) |
| 11 -- Valley 9/9 (GND) | 31 -- Load Switch |
| 12 -- BTM XDP & APS | 32 -- DDR 1.35V(TPS51216) |
| 13 -- DDR3L MEMORY DOWNx16 CHA | 33 -- +1.05V/+1V(TPS54318) |
| 14 -- DDR3L MEMORY DOWNx16 CHB | 34 -- +VCC_CORE(ISL95833) |
| 15 -- Level Shifter (SOC_EC) | 35 -- LDO-1 (G9661) |
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I2C table

Function	Channel	Read	Write
Touch pad	I2C0	0x67	
Audio codec	I2C1	0x21	0x20
Light sensor	I2C4		

SMBus table

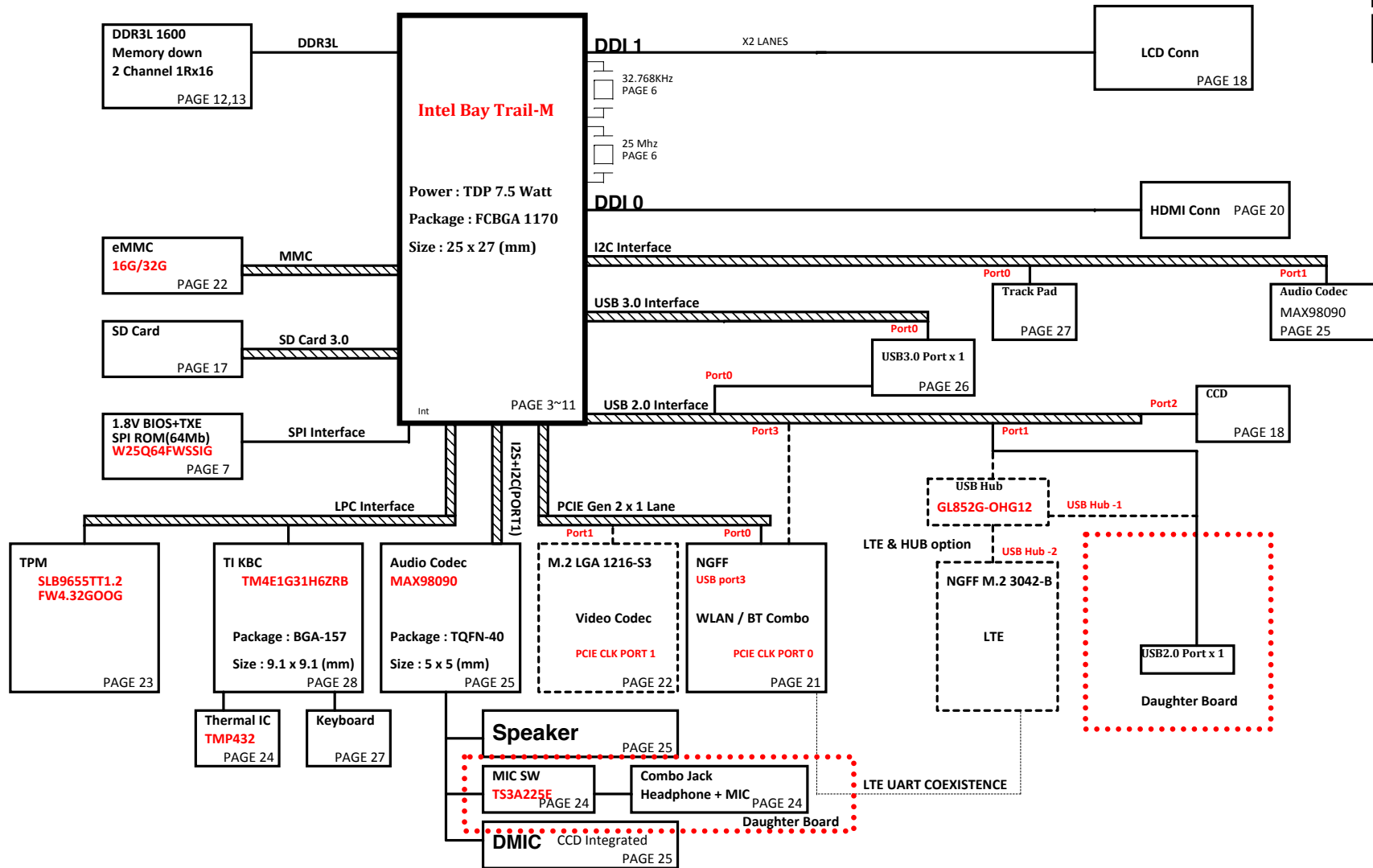
Function	Channel	Address
Battery	SMB0	
Thermal	SMB2	0x4C

Function	Channel
PP3300_DSW	0x42
PP5000	0x41
PP1350	0x49
PP1050_PCH	0x43
PP1000_PCH	0x47

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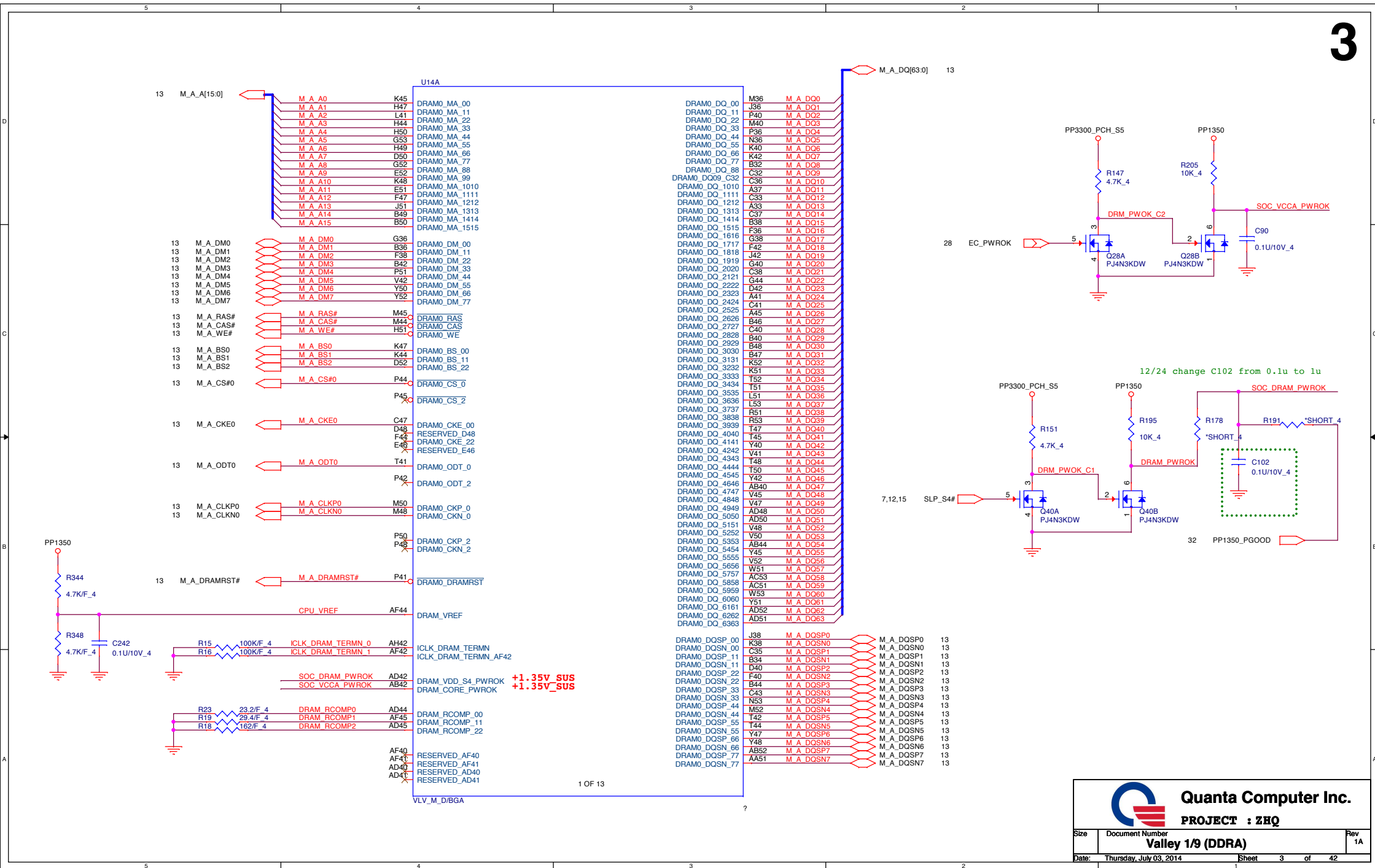
Intel Bay Trail-M Platform Block Diagram

SKU A DC N2820
AJSR1SGUT03 --CPU(1170P)N2820 2.13G SR1SG(FCBGA)STNBSQ



BQ24715 Battery Charger	TPS51216 PP1350
TPS51225 PP3300_DS/WPP5000	NB671GQ-Z PP1000_PCH
ISL95833HRTZ-T +VCC_CORE/+VCC_GFX	Thermal Protection Discharger

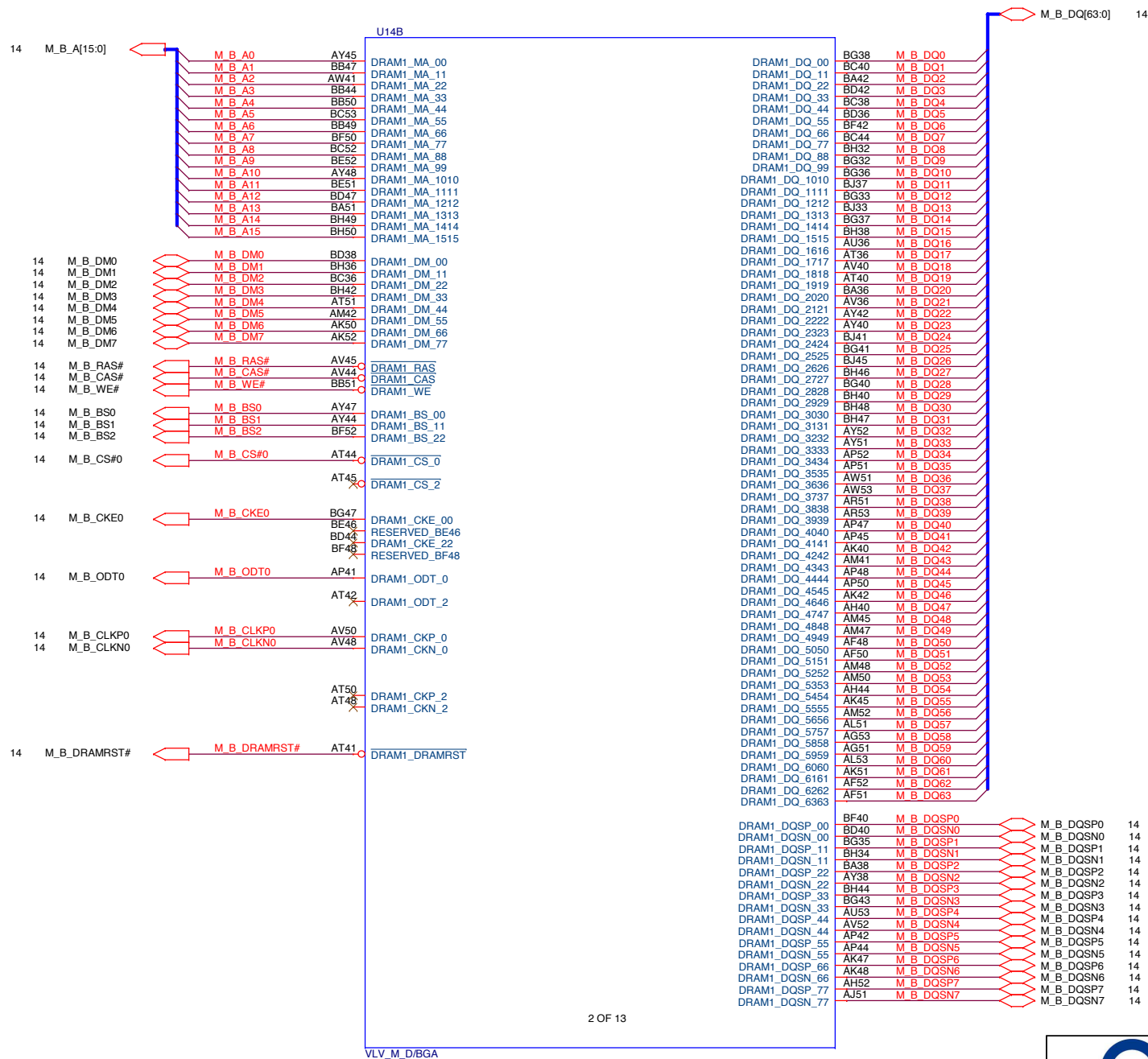
BOM value option:
SX@ => SOiX
NSX@=>none SOiX
HUB@=>USB HUB
3G@ => LTE
GD@ =>Google debug



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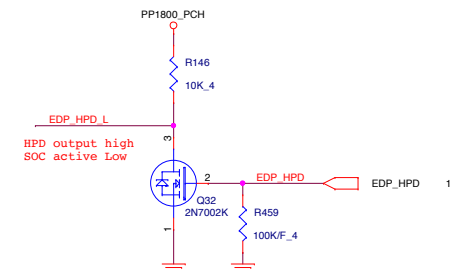
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Size	Document Number	Rev
	Valley 1/9 (DDR4)	1A
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Size	Document Number	Rev
	Valley 2/9 (DDR8)	1A
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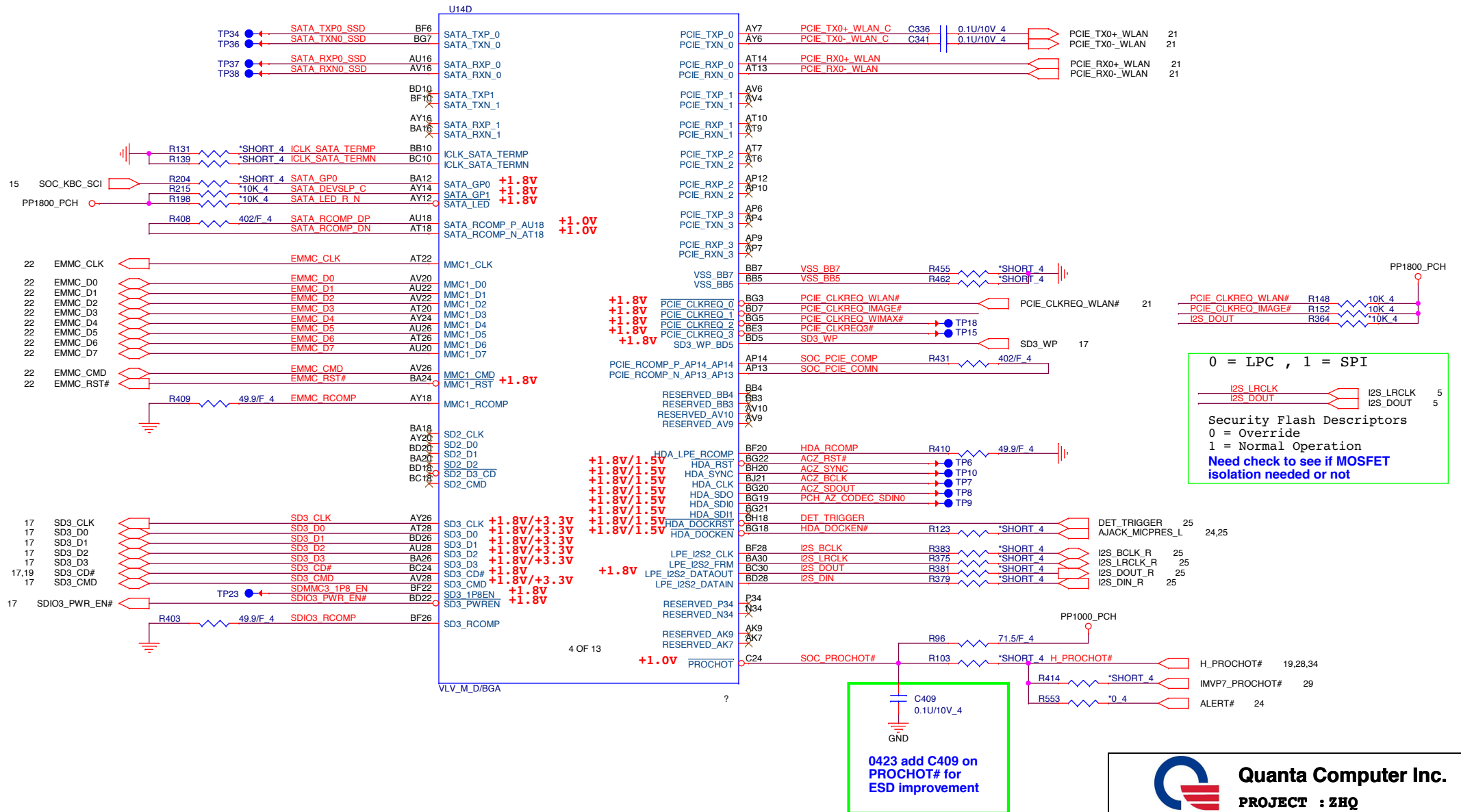


Pin Name	Strap description	Sampled	Configuration	Note
GPIO_SO_SC_56	Top Swap (A16 Override)	PWROK	0 = Top address bit is unchanged 1 = Top address bit is inverted	
LPE_I2S2_FRM	BIOS Boot Selection	PWROK	0 = LPC 1 = SPI	
GPIO_SO_SC_65	Security Flash Descriptors	PWROK	0 = Override 1 = Normal operation	
DDIO_DDCDATA	DDIO Detect	PWROK	0 = DDIO not detected 1 = DDIO detected	Pull up +1.8V at HDMI side
DDI1_DDCDATA	DDI1 Detect	PWROK	0 = DDIO not detected 1 = DDIO detected	
GPIO_SO_NC_13				

using SoC internal PU

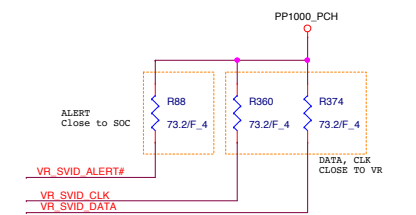
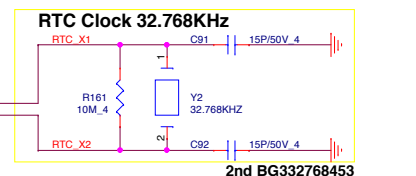
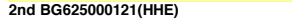
using SoC internal PU

using SoC internal PU

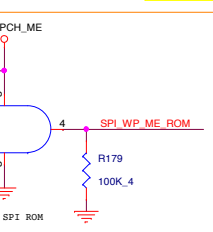
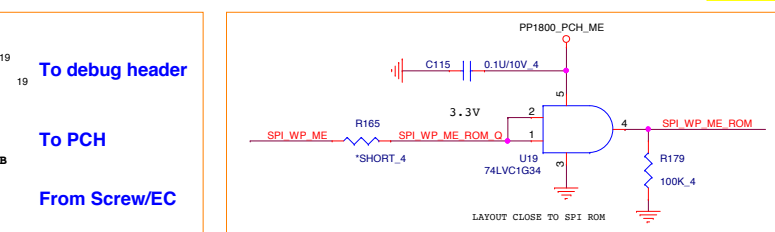
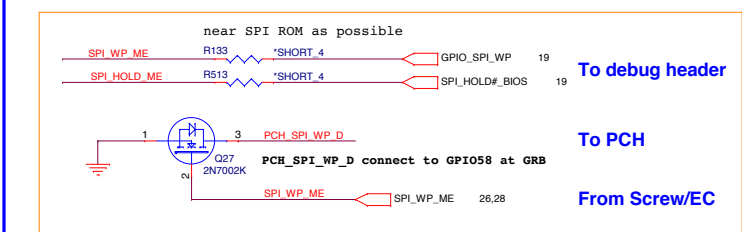
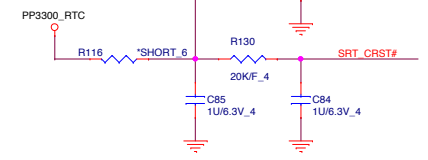


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	Valley 4/9 (SD/PCIE/SATA)	1A
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SPI_FLASH



Vender	RAM ID	Q P/N	Mfr. PN	Freq.	Size	Pice
Micron	0x000		MT41K256M16HA-125	1600MHz	4GB	8
Hynix	0x001	AKD5JGETW04	H5TC4G63AFR-PBA	1600MHz	4GB	8
Micron	0x010	AKD5DGLSTL07	MT41K128M16J3T-125M+K	1600MHz	2GB	8
Hynix	0x011	AKD5PGSTW03	H5TC4G63MFR-PBA	1600MHz	2GB	4
Micron	0x100		MT41K256M16HA-125	1600MHz	2GB	4
Hynix	0x101	AKD5JGETW04	H5TC4G63AFR-PBA	1600MHz	2GB	4
Kingston	0x110	AKD51PEC4STP02	D2516EC4B3GGB	1600MHz	4GB	8
Hynix	0x111	AKD5PGSTW03	H5TC4G63MFR-PBA	1600MHz	4GB	8

RAM ID

PP1800_PCH_SS

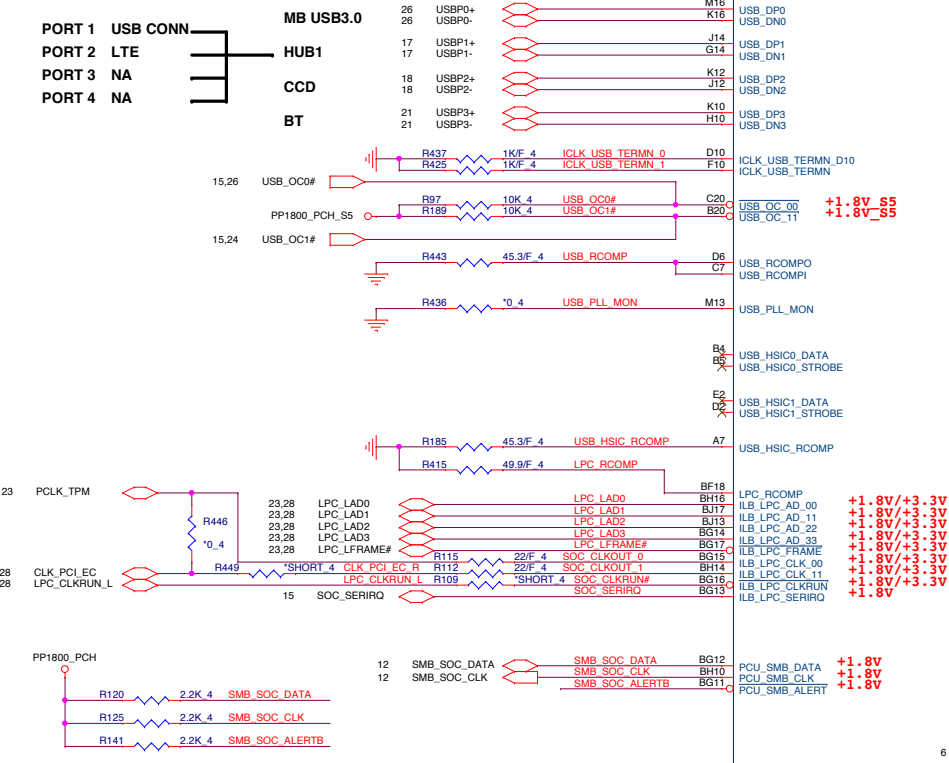
R186 1K 4 RAM ID0 R202 1K 4

R187 1K 4 RAM ID1 R203 1K 4

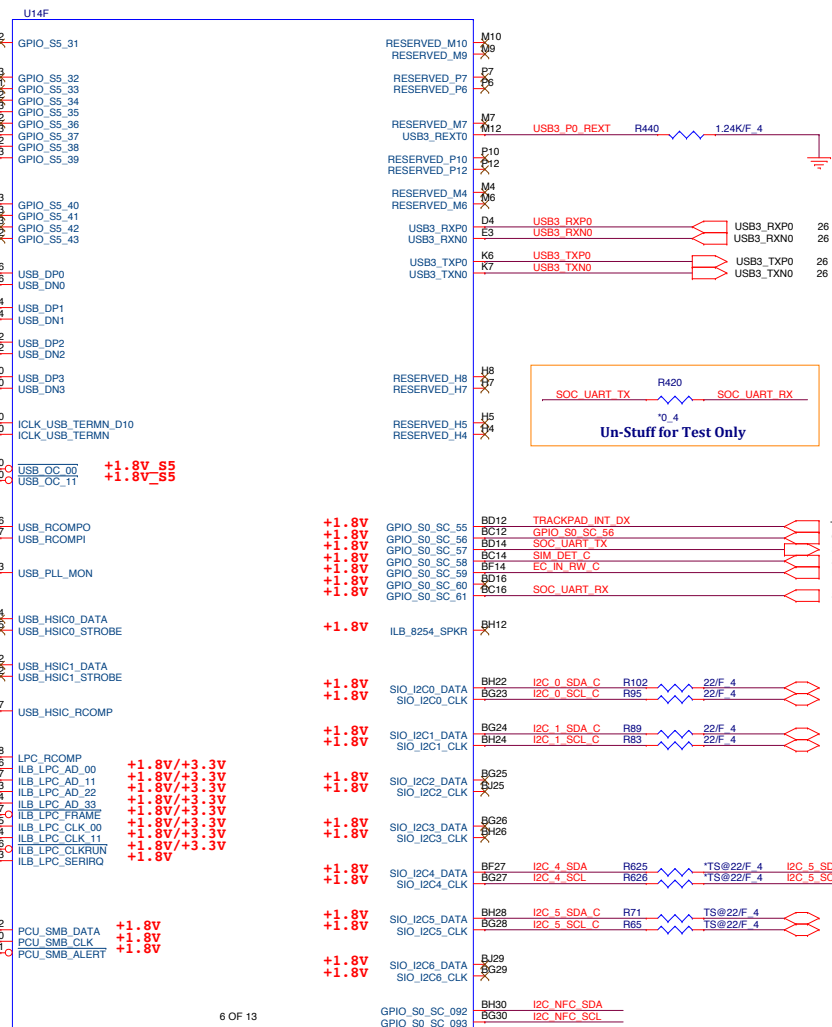
R196 1K 4 RAM ID2 R192 1K 4

H612 1K 4 RAM ID3 R193 1K 4

02/27 Reserve RAM_ID3 for memory BOM option.



GND  R483 0.4 SOC_CLKRUN#

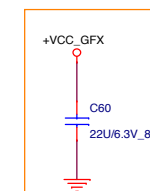
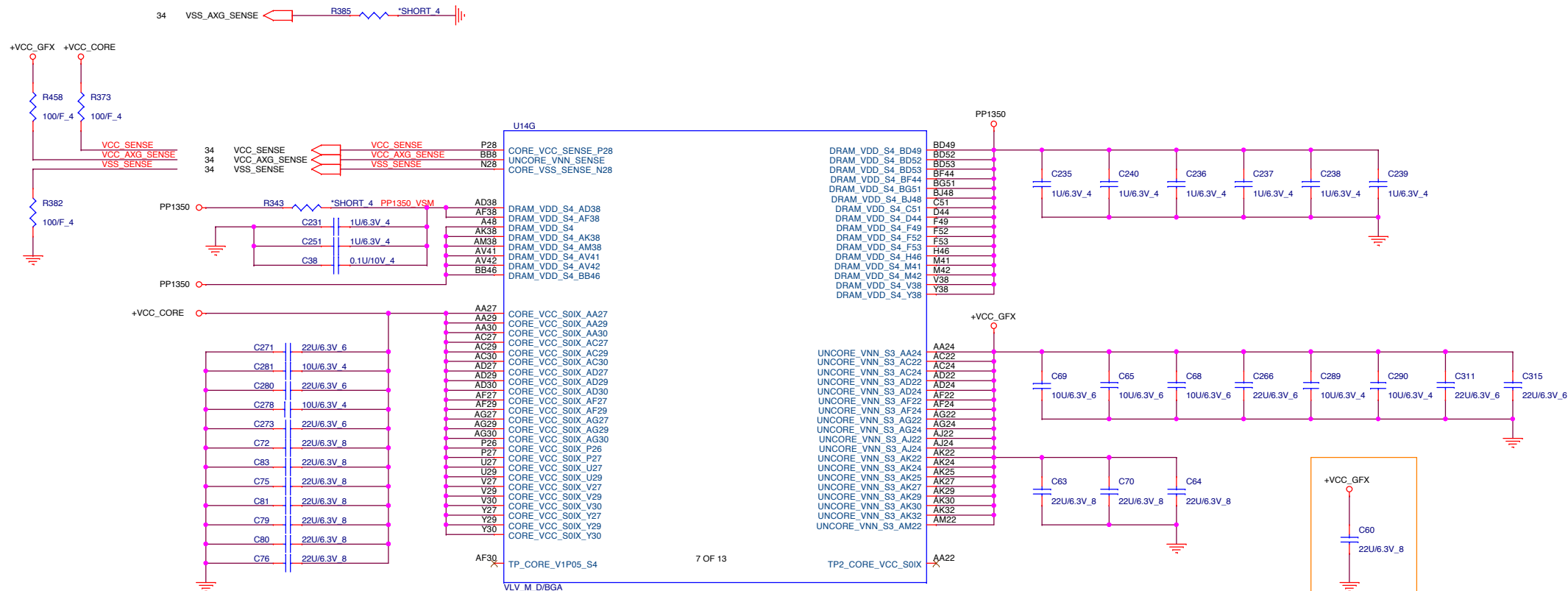


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	Valley 6/9 (USB/LPC/12C)	1A
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1031 for layout suggestion by intel,
VSS_AXG_SENSE didn't connect to VSS_SENSE,
will connect the GND via near VCC_AXG_SENSE

1031 for layout, add 0hm between
GND and VSS_AXG_SENSE



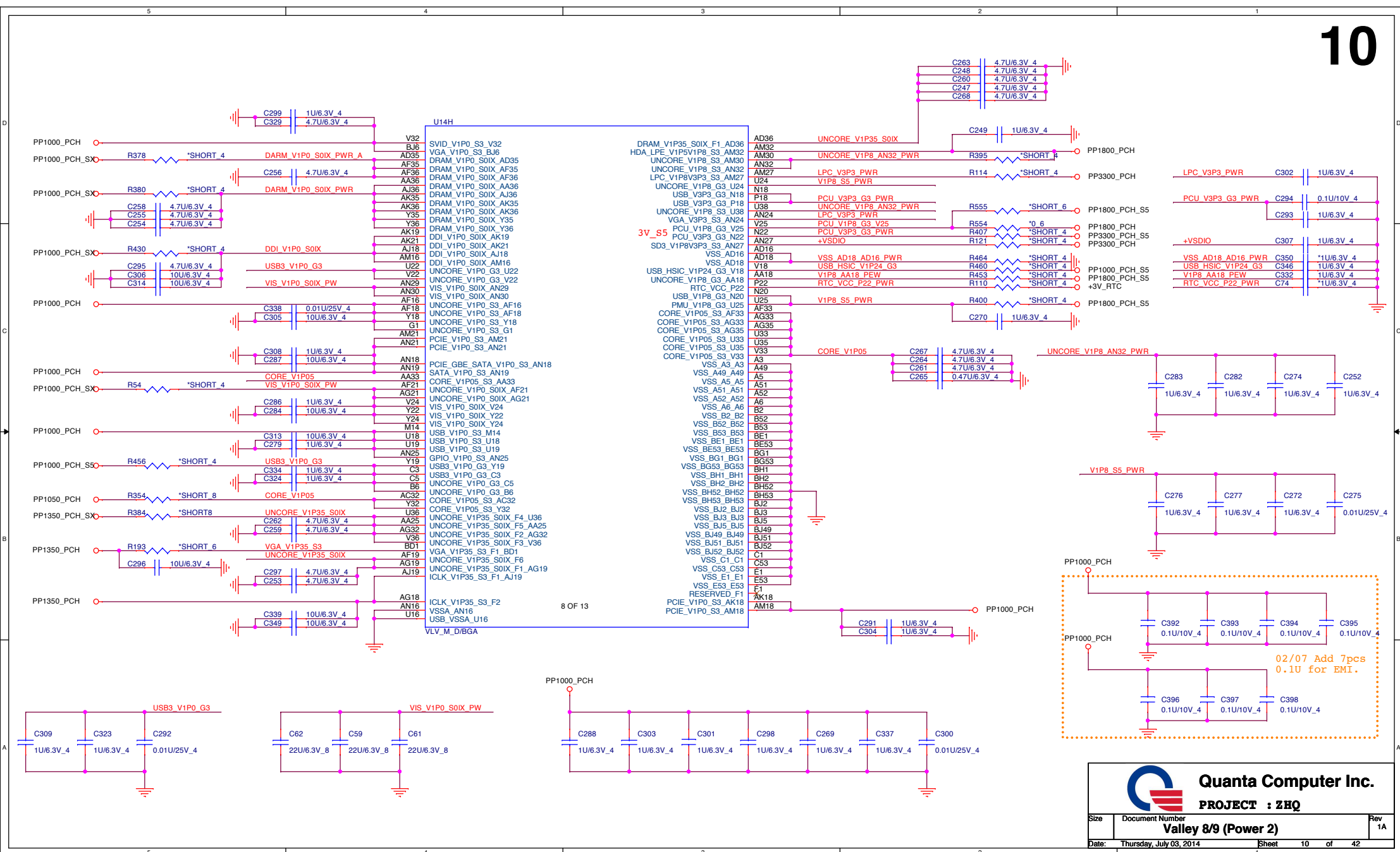
Change netname
for Layout

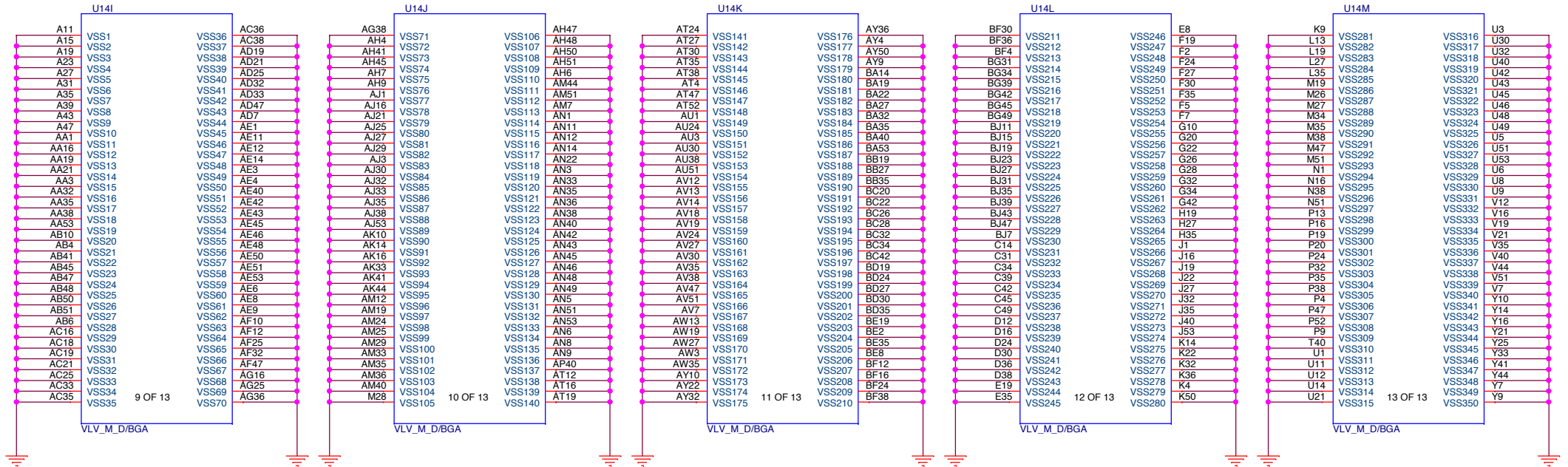


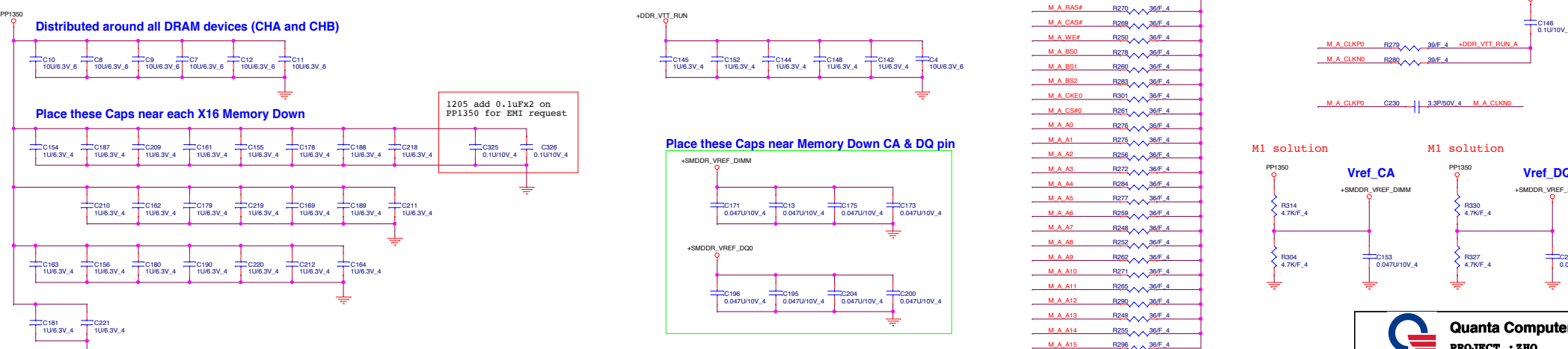
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	Valley 7/9 (Power 1)	1A
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<DDR>

BYTE2_16-23

BYTE3_24-31

BYTE0_0-7

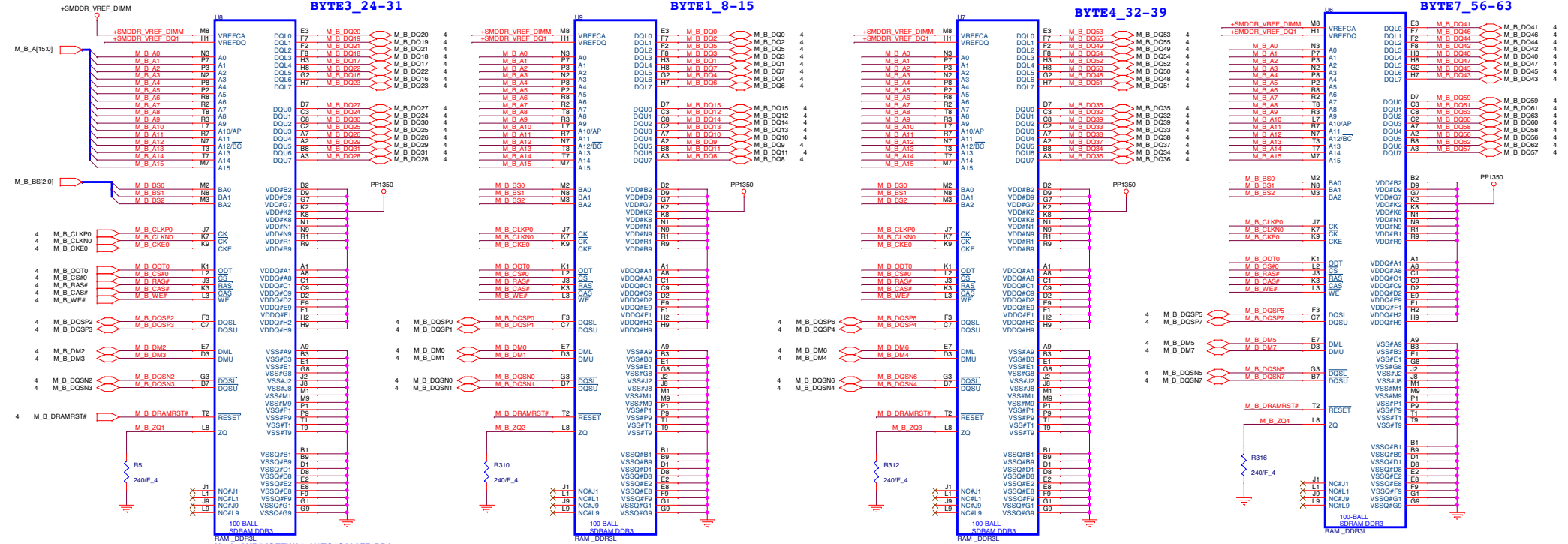
BYTE1_8-15

BYTE6_48-55

BYTE4_32-39

BYTE5_40-47

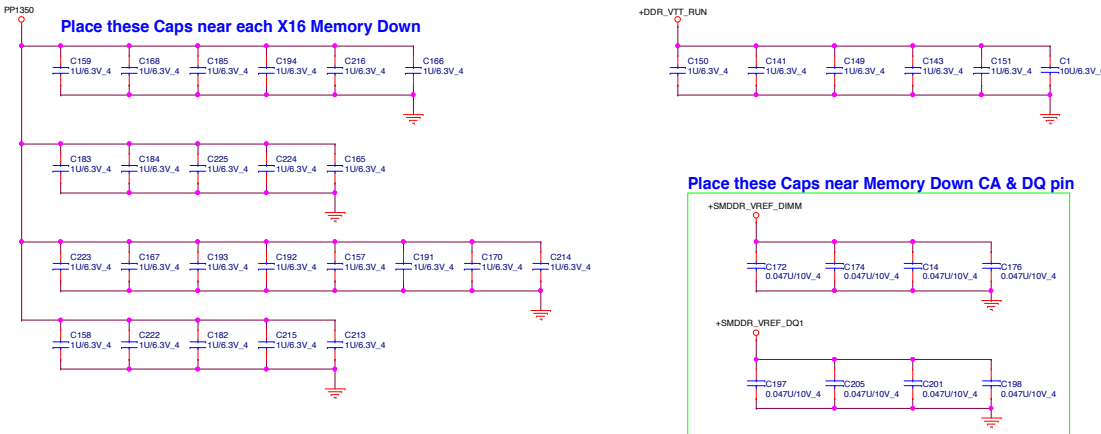
BYTE7_56-63



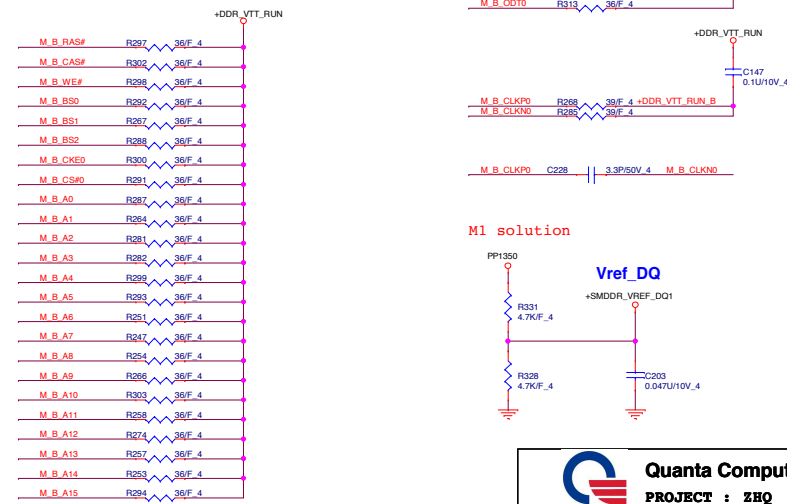
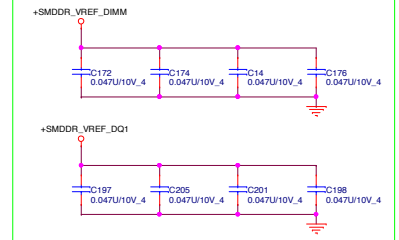
Hynix AKD5JGETW04-H5TCAG63AFR-PBA

Vendor	P/N	
Hynix	AKD5JGETW04	DDR3L 1600MHz 4Gb
Elpida	AKD5JGST400	DDR3L 1333MHz 4Gb
	AKD5JGST404	DDR3L 1333MHz 4Gb

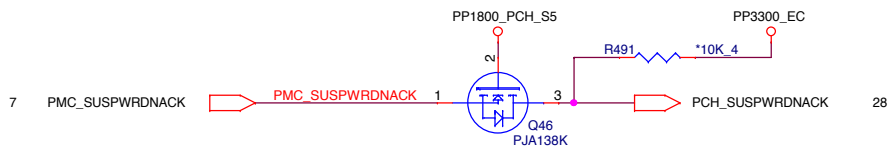
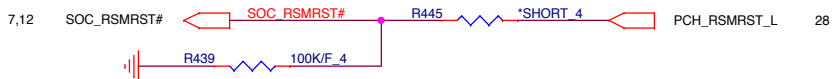
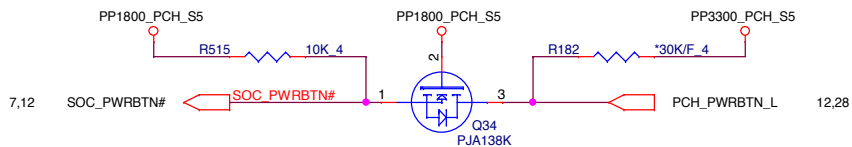
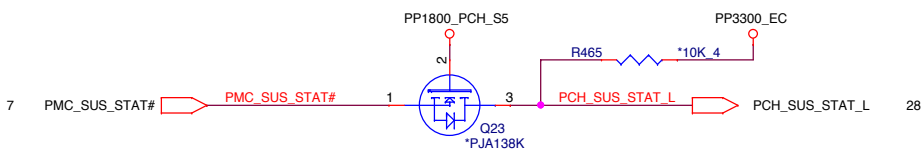
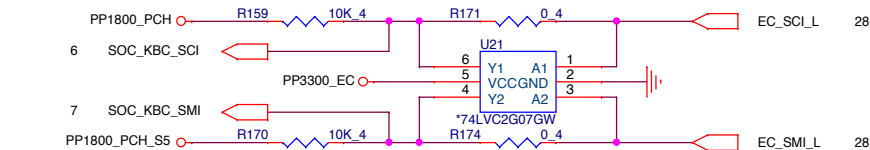
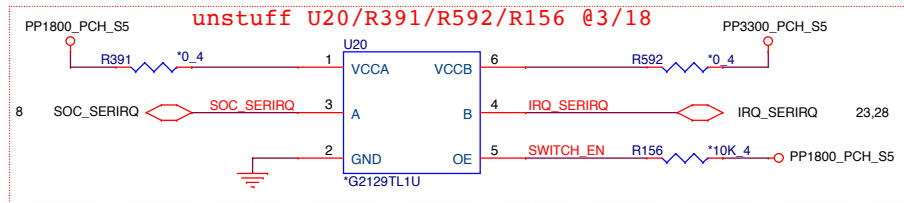
Place these Caps near each X16 Memory Down



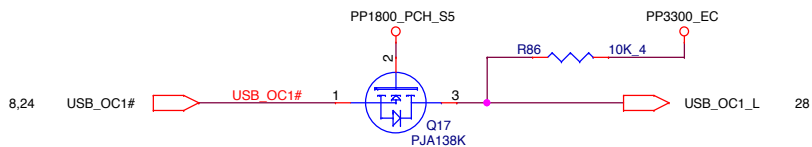
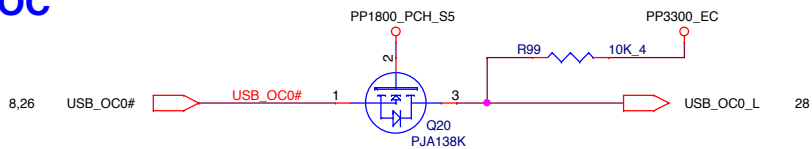
Place these Caps near Memory Down CA & DQ pin



PWRON SEQUENCE

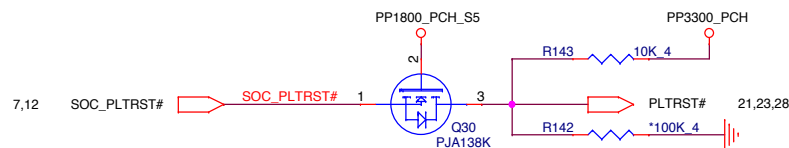
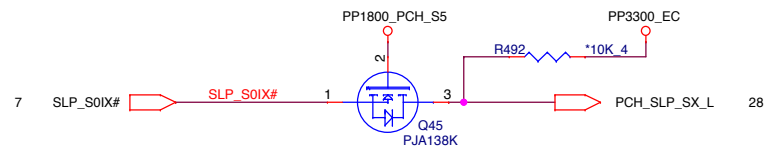
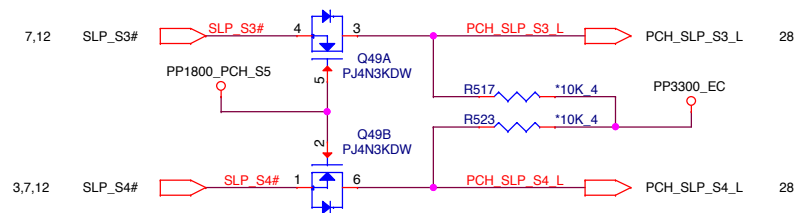


USB OC



PWRON SEQUENCE

15



02/27 Cancel level shift for S3 leakage on PP1800_PCH issue.

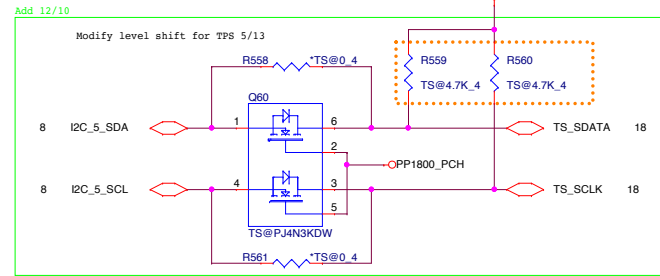


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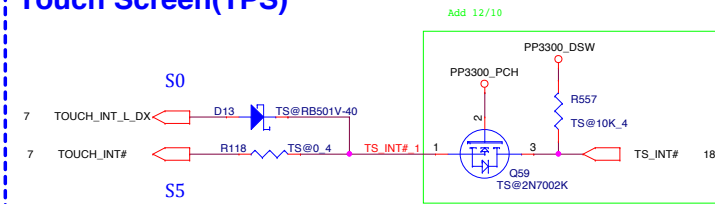
Size	Document Number	Rev
	Level Shifter (SOC_EC)	1A

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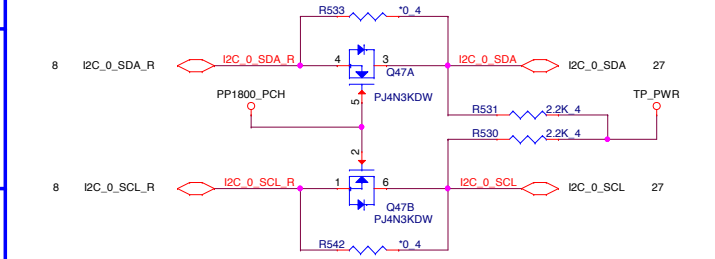
Touch Panel level shift(TPS)



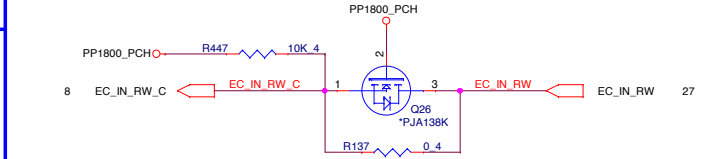
Touch Screen(TPS)



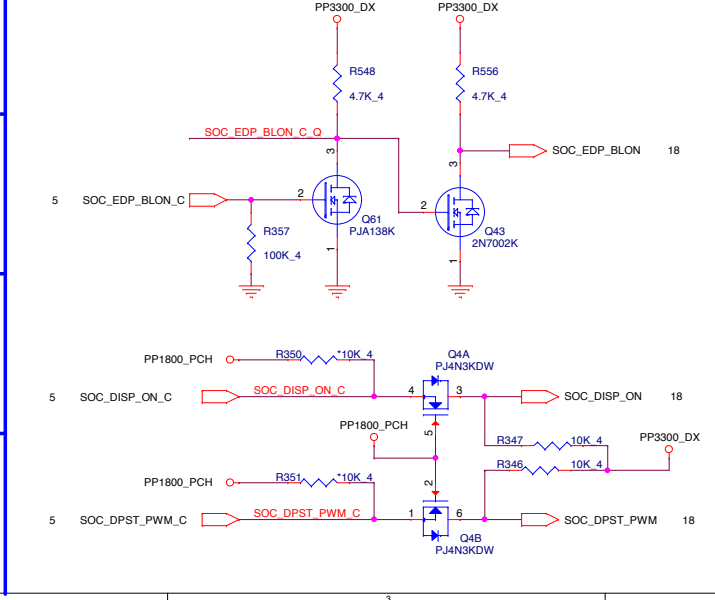
Track Pad



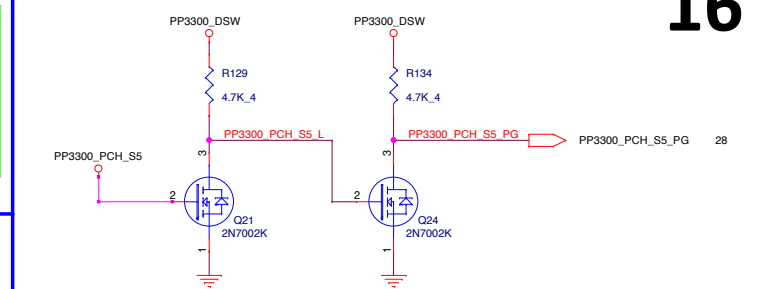
HW RESET



eDP control pin

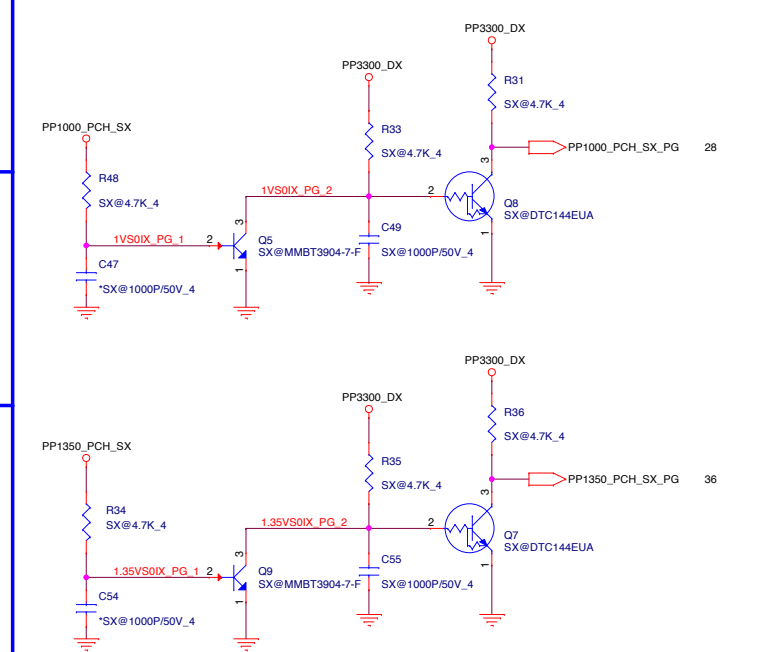


S5 Power Good(+3V_S5)

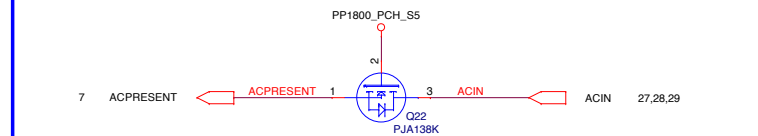


S0iX Power Good

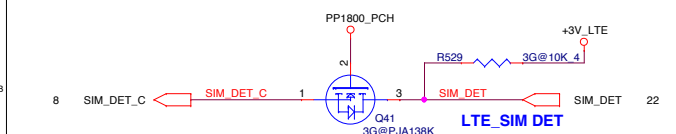
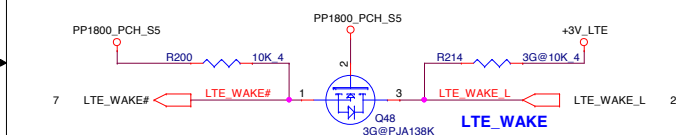
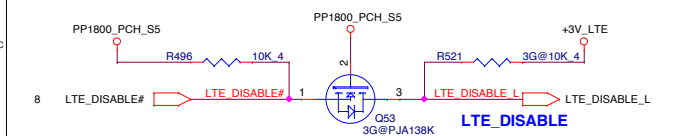
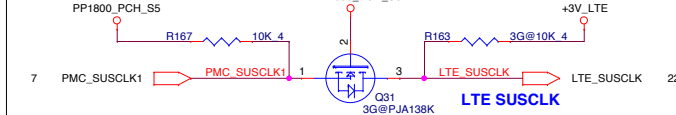
for proto type only, can remove at MP stage if S0ix is not needed



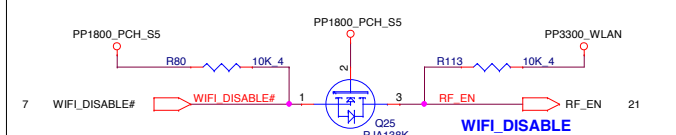
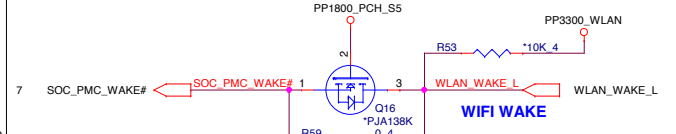
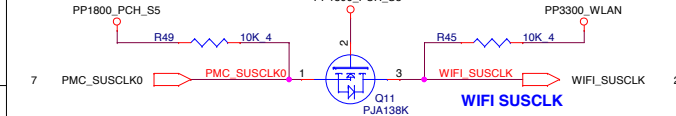
AC Detect



LTE



WIFI



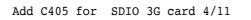
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Level Shifter (SOC_DEV)
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This is full size SD card

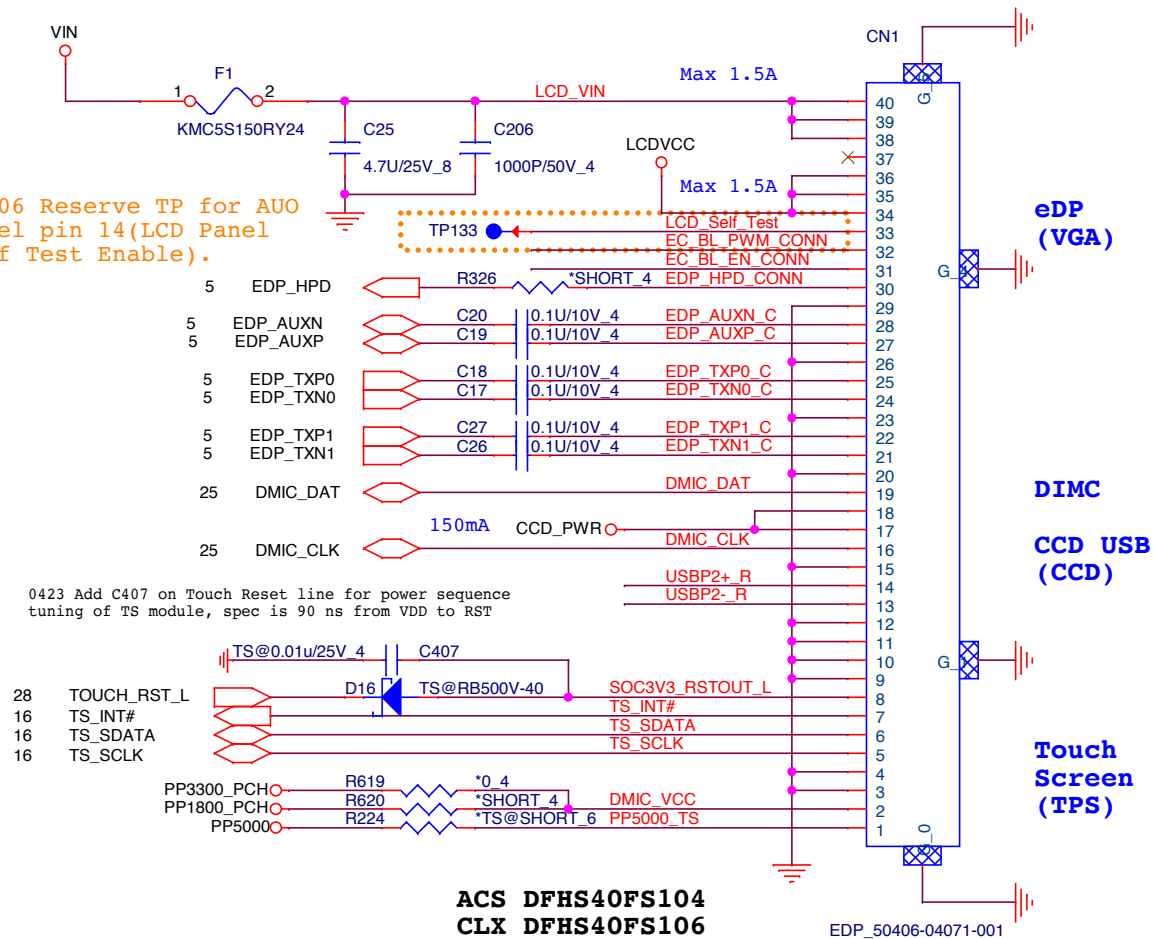


17



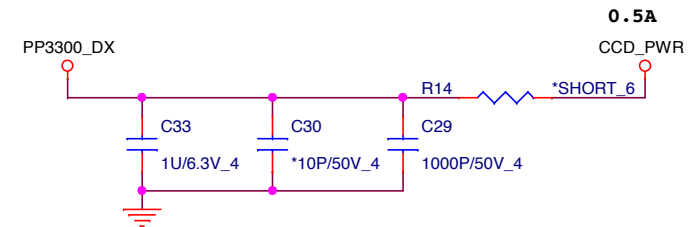
LCD CONN

02/06 Reserve TP for AU0 panel pin 14(LCD Panel Self Test Enable).



CCD Power(CCD)

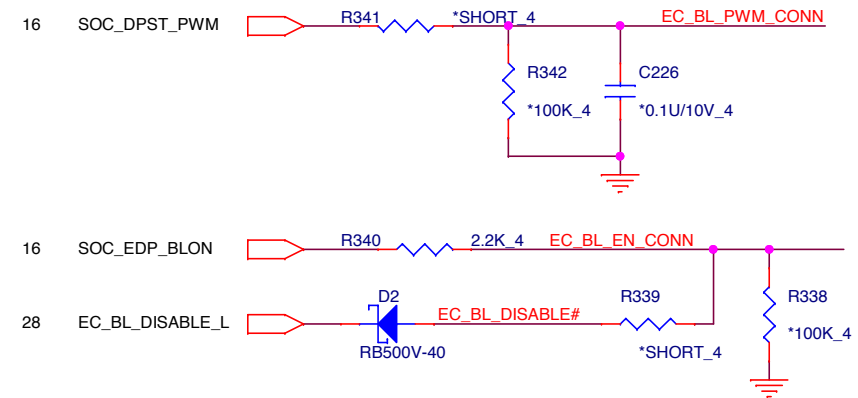
18



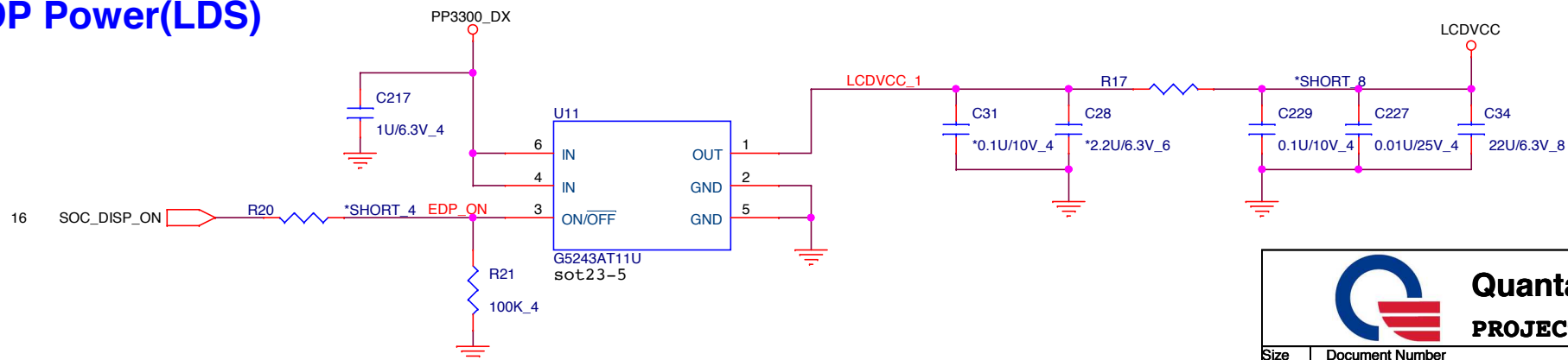
CCD USB(CCD)



eDP panel control(LDS)



eDP Power(LDS)



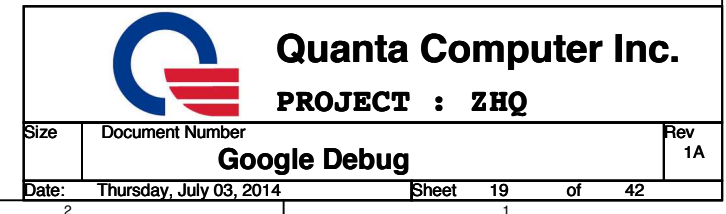
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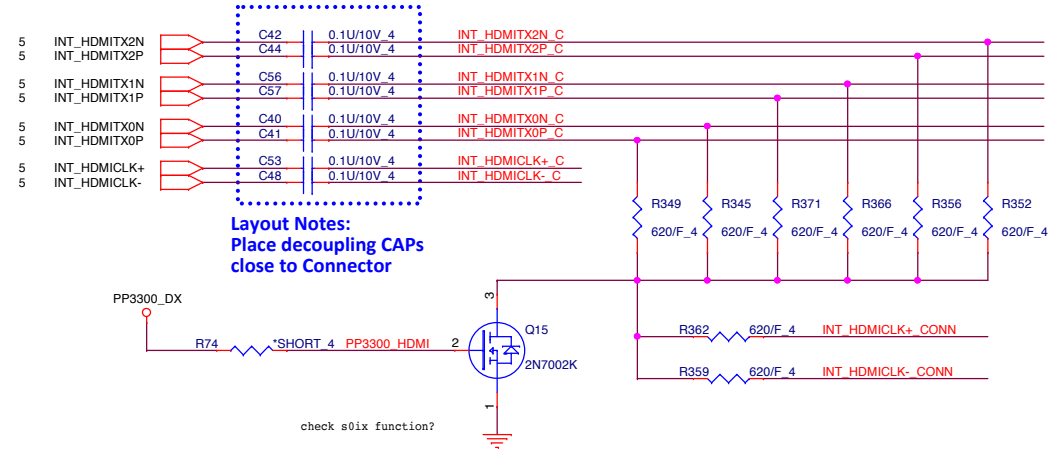
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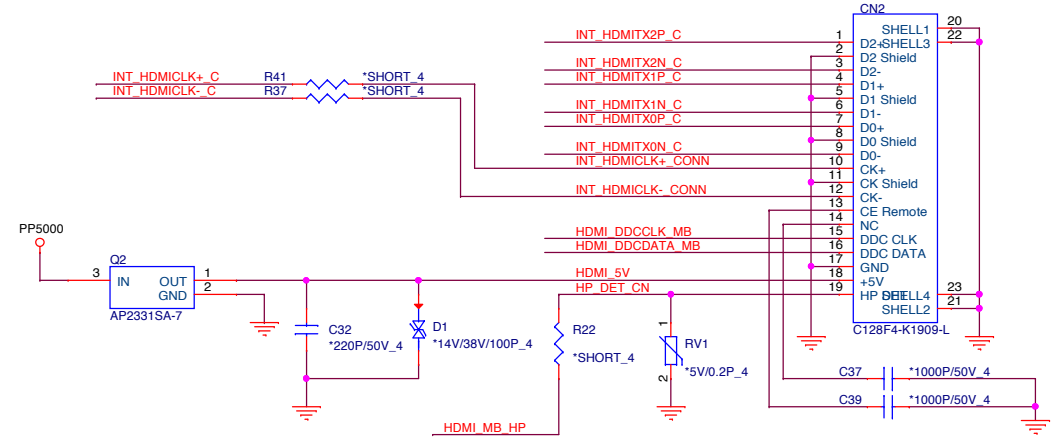
PIN7	OD	PIN39	OD	PIN49	OD
PIN14	OD	PIN41	OD	PIN50	OD
PIN19	OD	PIN43	OD		
PIN22	OD	PIN44	OD		
PIN28	OD	PIN45	OD		
PIN30	OD	PIN46	OD		
PIN37	OD	PIN47	OD		
PIN38	OD	PIN48	OD		



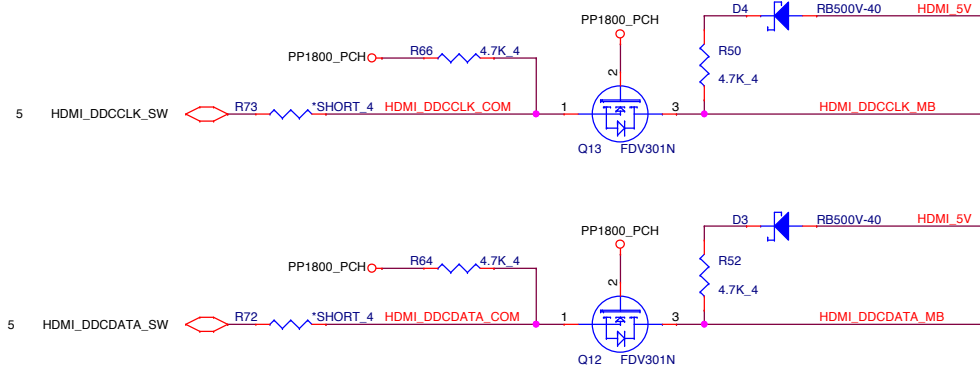
HDMI Cost Reduced level shift (HDM)



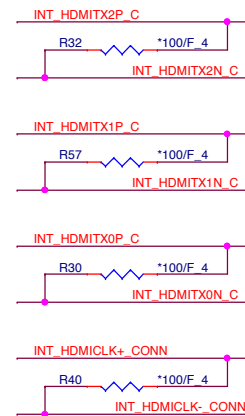
HDMI connector (HDM)



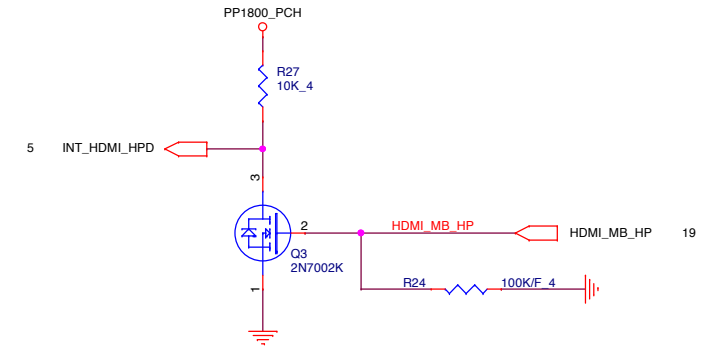
HDMI DDC (HDM)



EMI



HDMI-detect (HDM)



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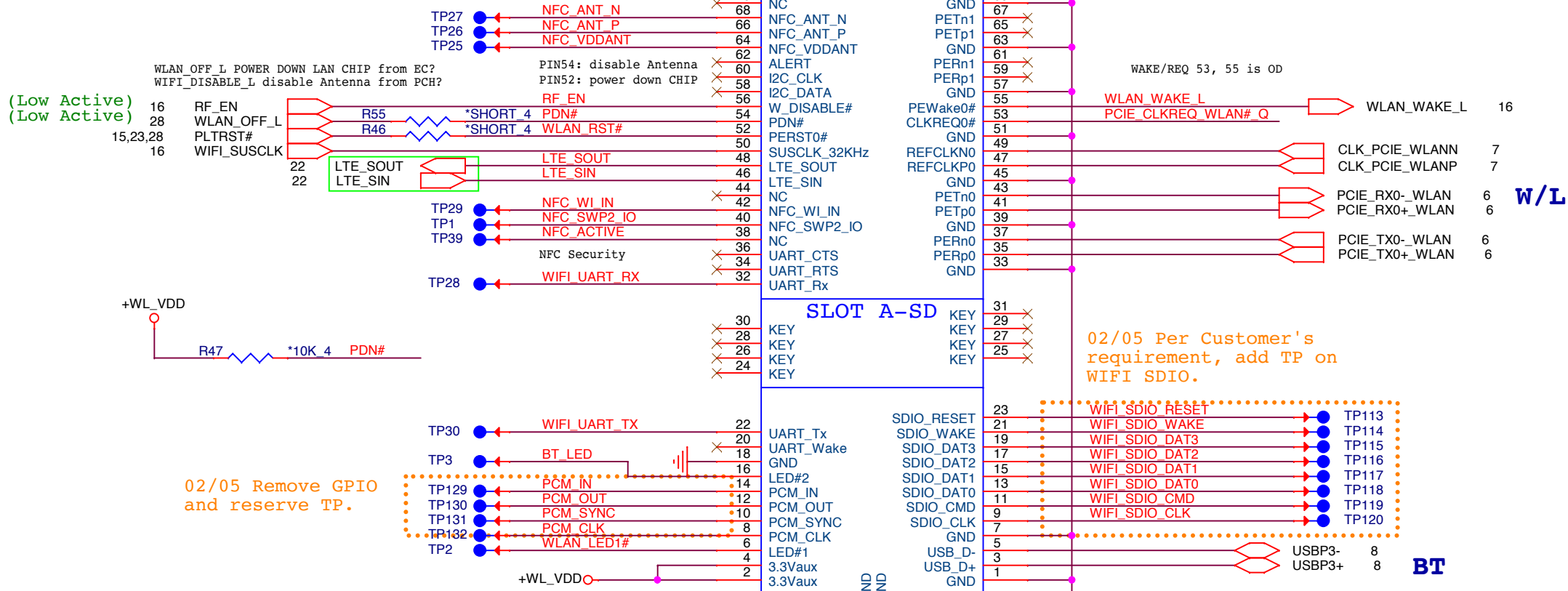
Size	Document Number	Rev
		1A

HDMI

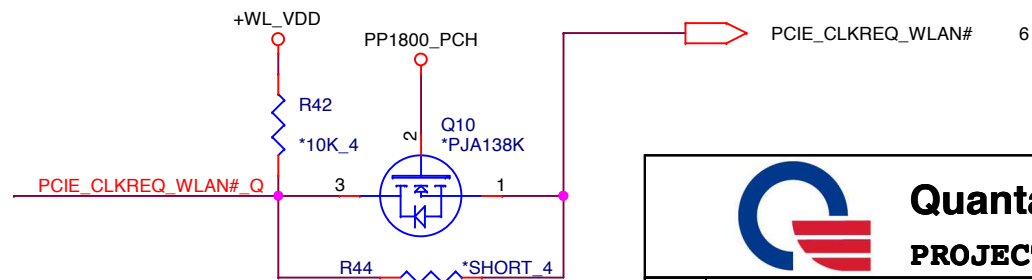
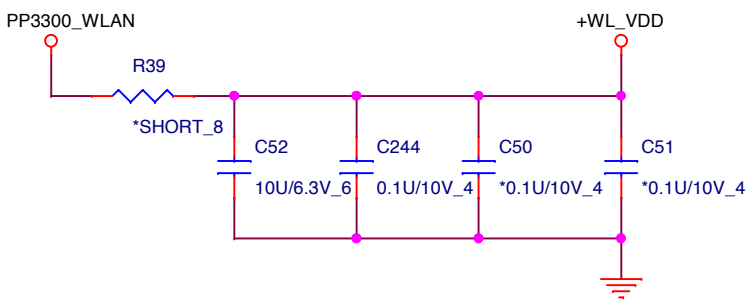
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WIFI/BT COMBO NGFF E KEY(MNC)

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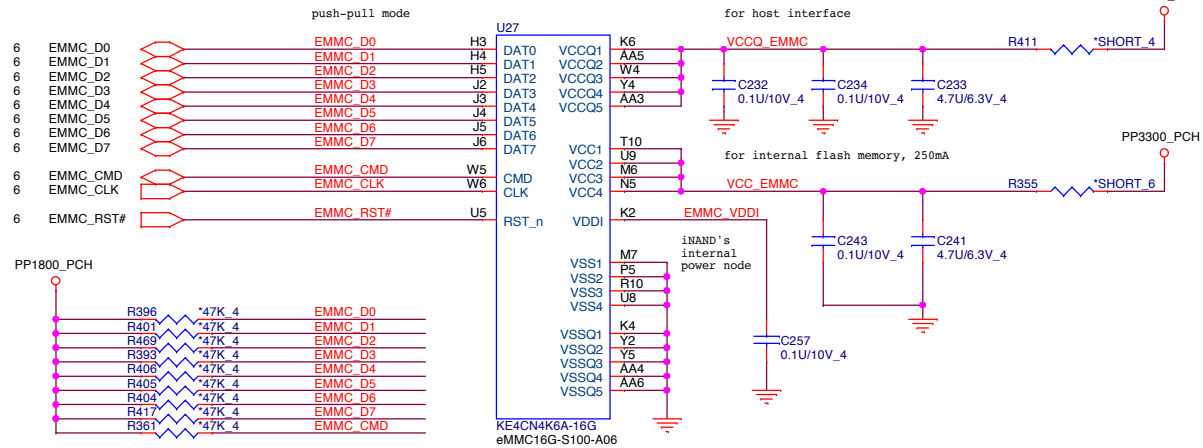


WL/BT NGFF Power

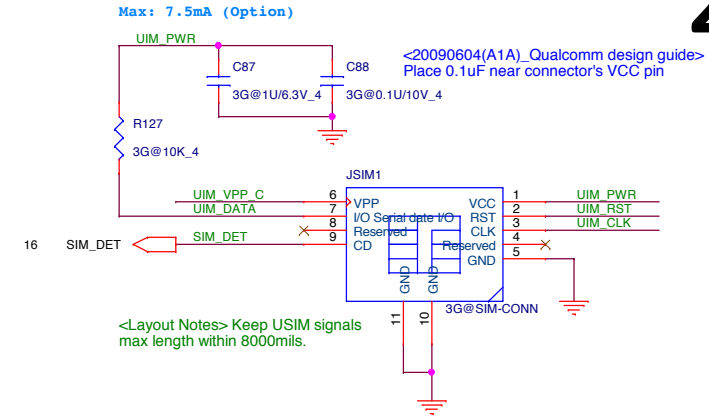


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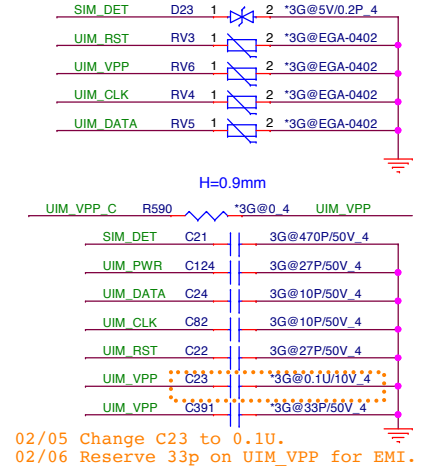
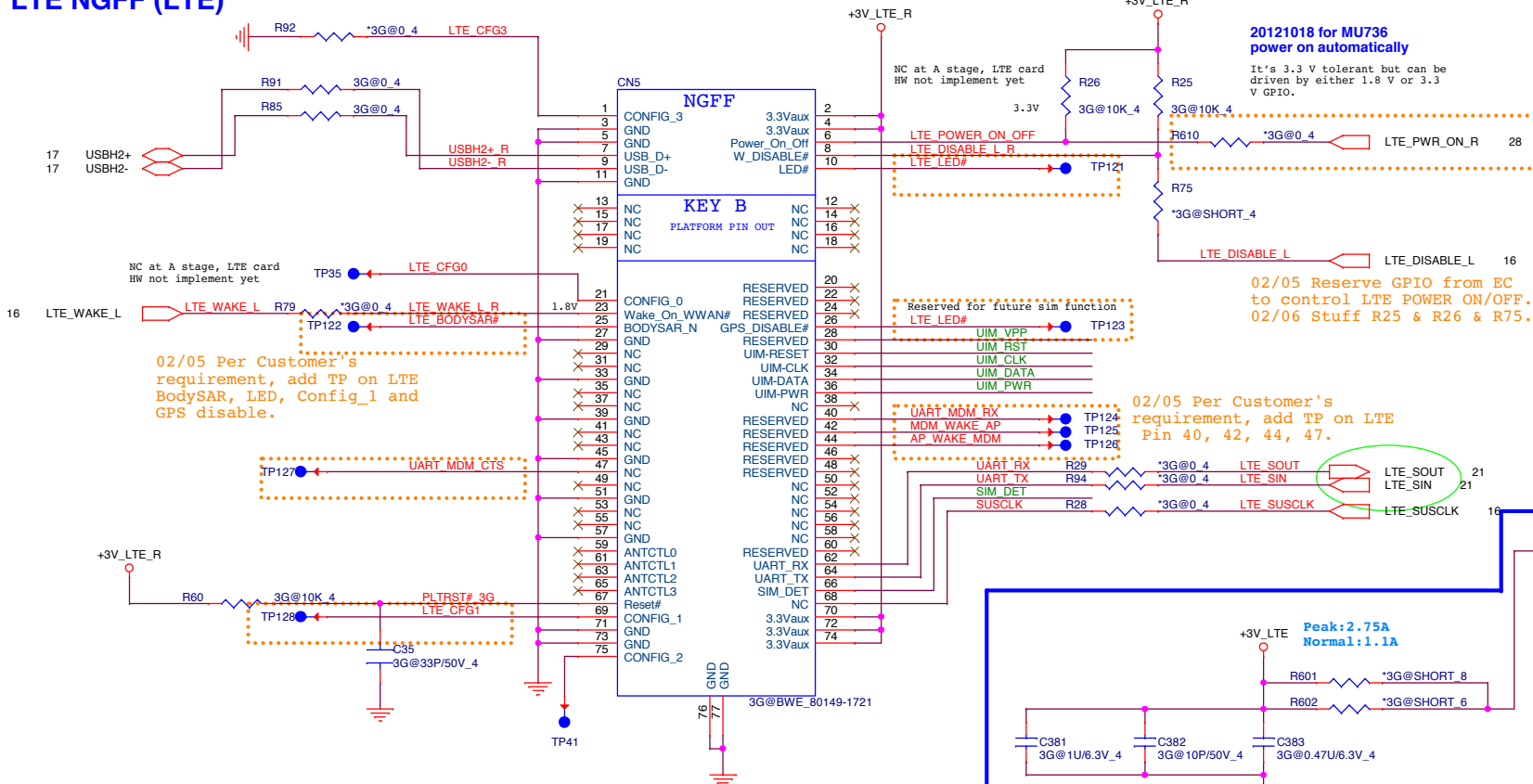
EMMC (MMC)



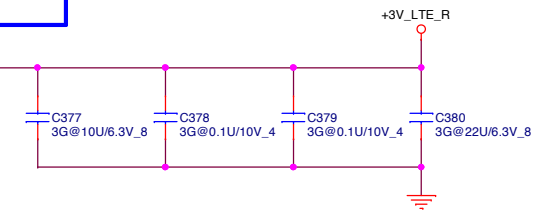
MultiMedia SIM (MNC)



LTE NGFF (LTE)



LTE NGFF Power



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PROJECT : ZHQ

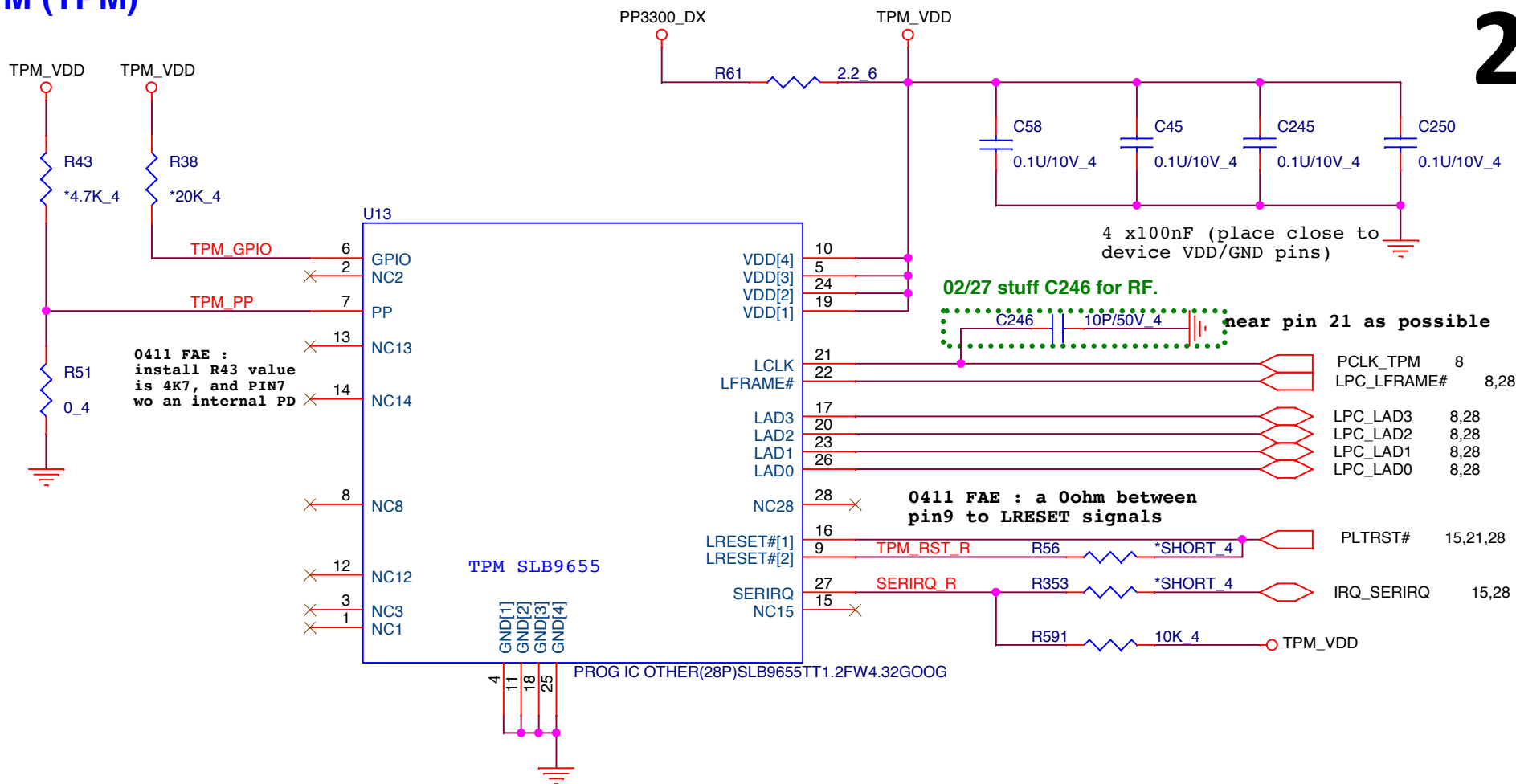
Size	Document Number	Rev
	EMMC / LTE NGFF	1A

Date: Thursday, July 03, 2014

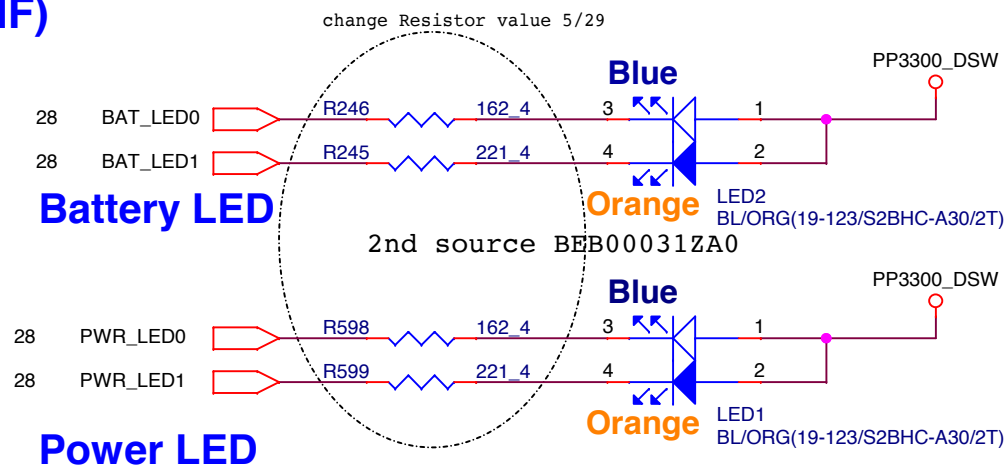
Sheet 22 of 42

TPM (TPM)

23



LED(UIF)

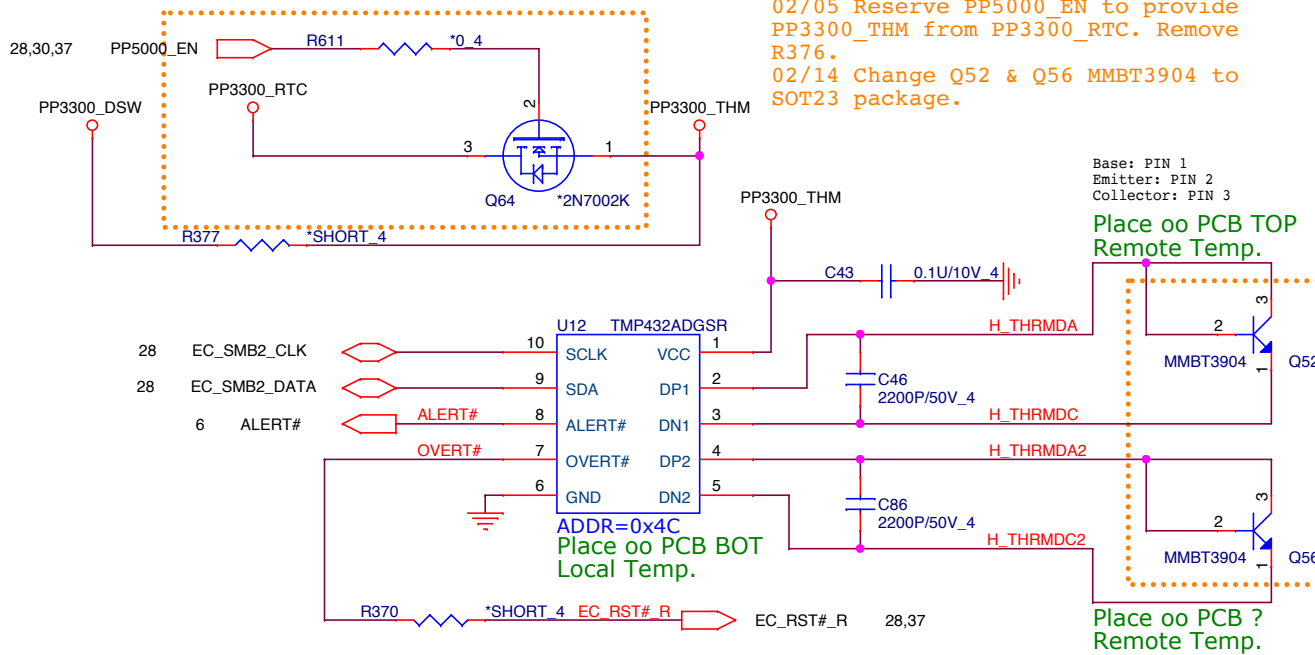


Quanta Computer Inc.

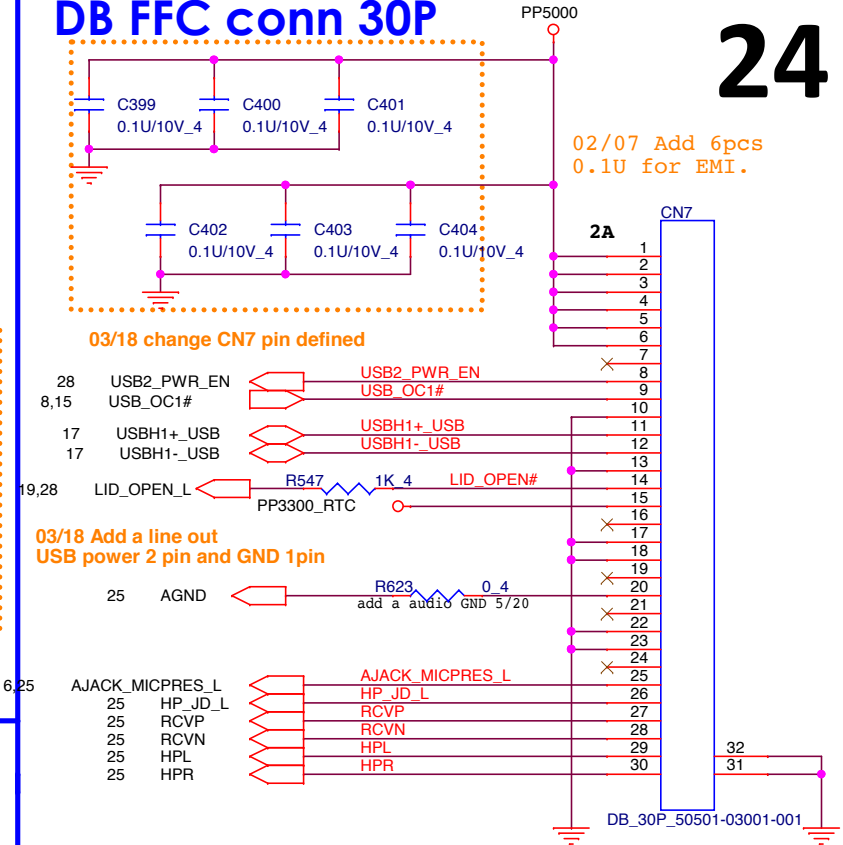
PROJECT : ZHQ

Size	Document Number	Rev
	TPM SLB9655 / LED	1A
Date:	Thursday, July 03, 2014	Sheet 23 of 42

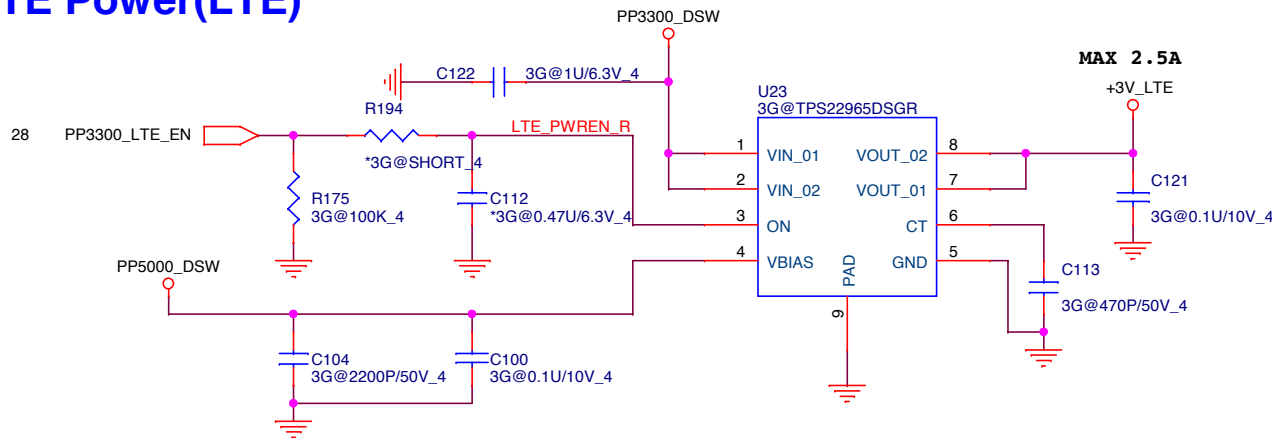
Thermal Sensor(THM)



DB FFC conn 30P



LTE Power(LTE)



USB 2.0_ILIM_SEL (USB)

01/28 remove USB ILIM SEL.



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PROJECT : ZHQ

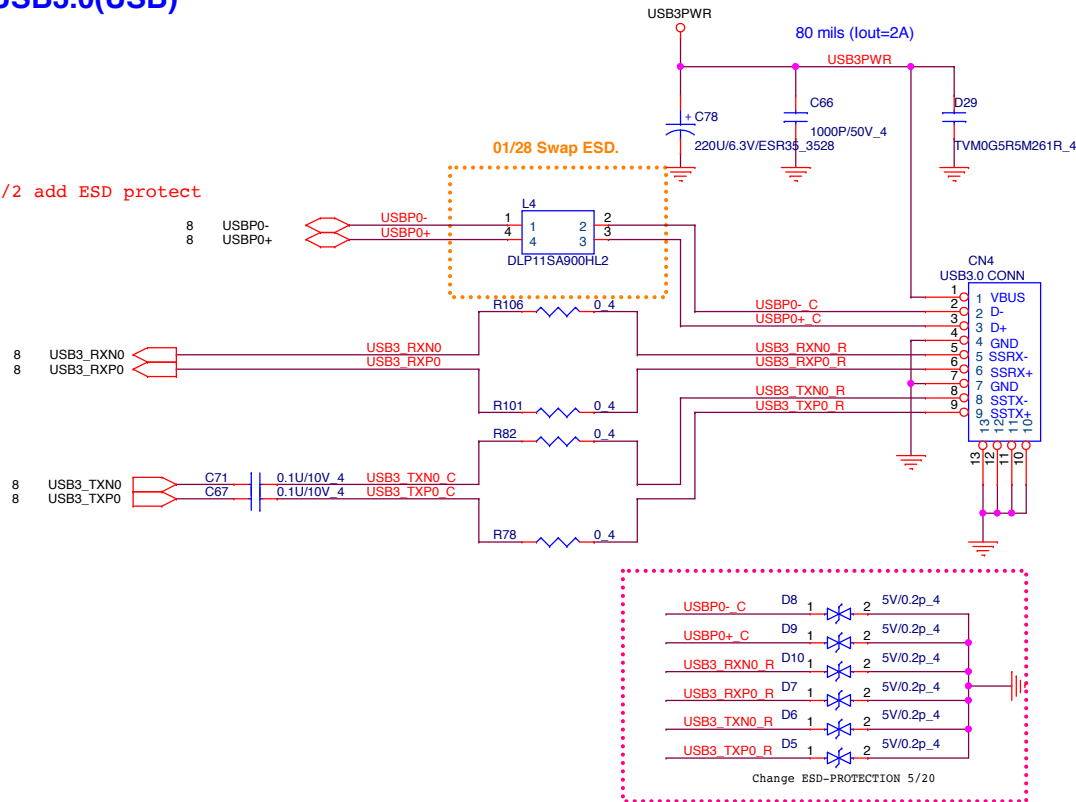
Size	Document Number	Rev
	DB/Thermal sensor/LTE PWR	1A

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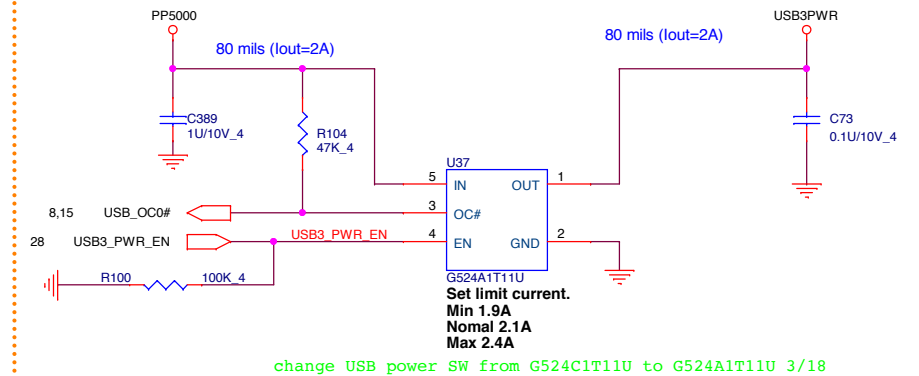
USB3.0(USB)

1/2 add ESD protect



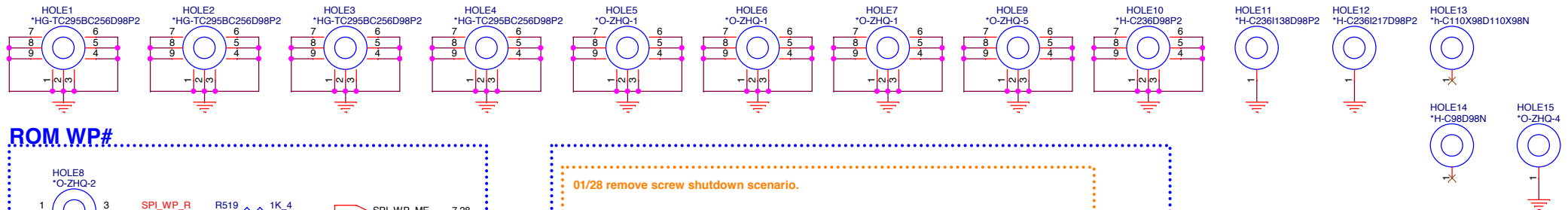
USB Switch

01/28 Change USB power chagreg to power switch.
Need update footprint.
02/11 Change USB power switch (U37) from G547F1P81U to G524C1T11U.

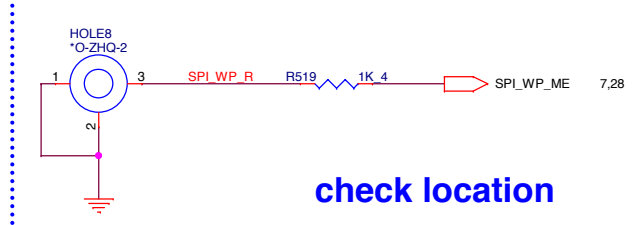


HOLE(OTH)

02/13 Update hole footprint.



ROM WP#



01/28 remove screw shutdown scenario.



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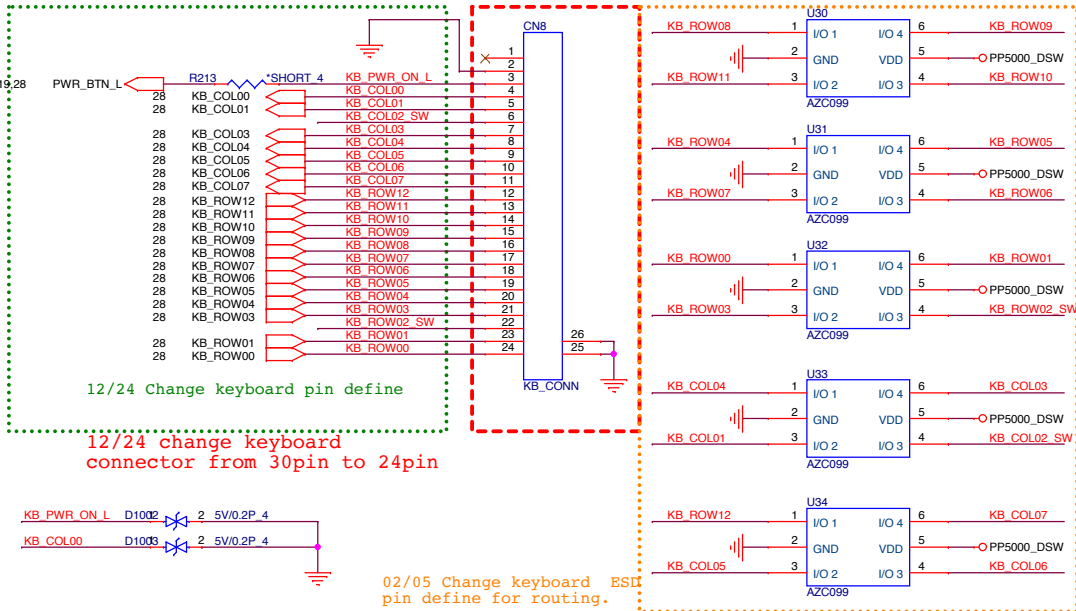
PROJECT : ZHQ

Size	Document Number	Rev
	USB3/Hole	1A

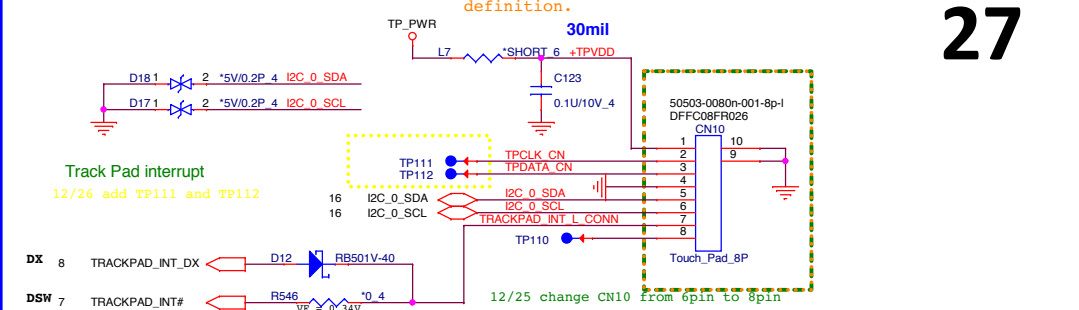
Date: Thursday, July 03, 2014

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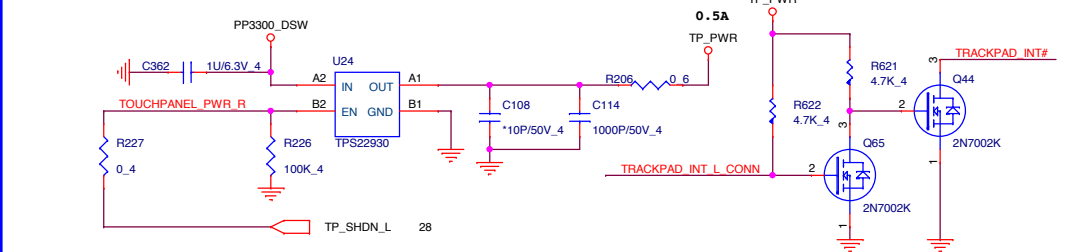
K/B (KBC)



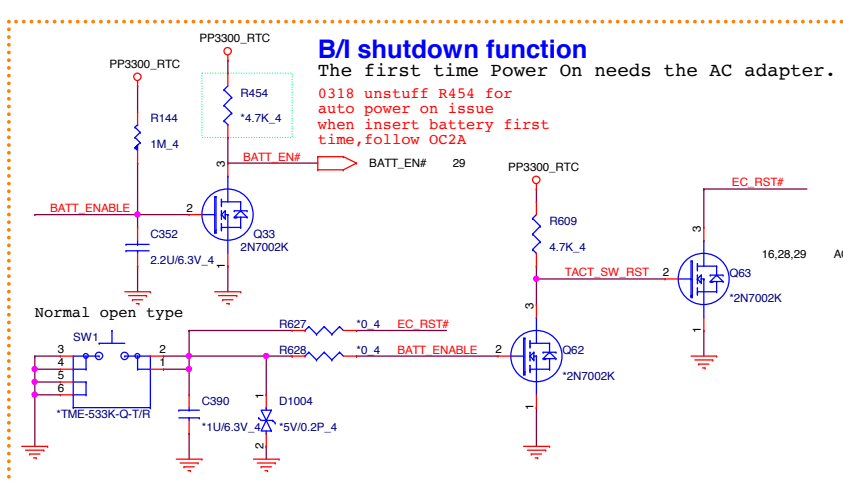
Track PAD BOARD CONN (TPD)



Track PAD Power(TPD)



HOLELESS RESET 2-CHIP(KBC)

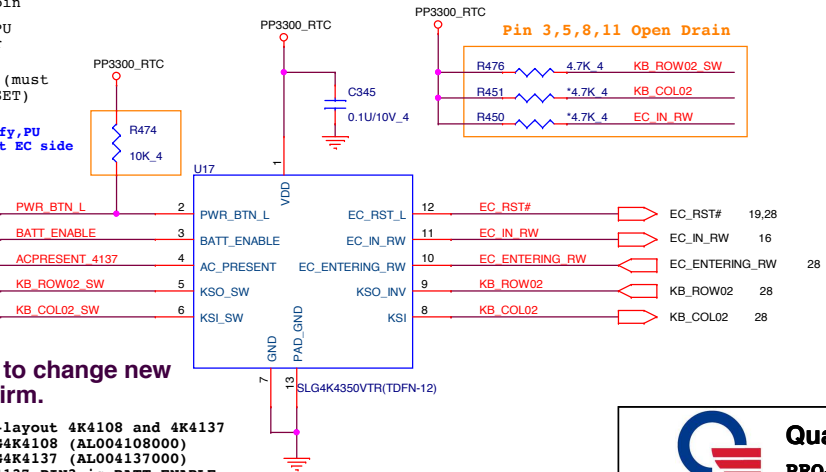


Connect to EC reset pin
 Connect to GPIO on CPU with PU to GPIO power well
 Connect to EC pin C5 (must be low when EC IN RESET)

5/15 modify, PU already at EC side

02/27 Reset IC needs to change new version, wait for confirm.

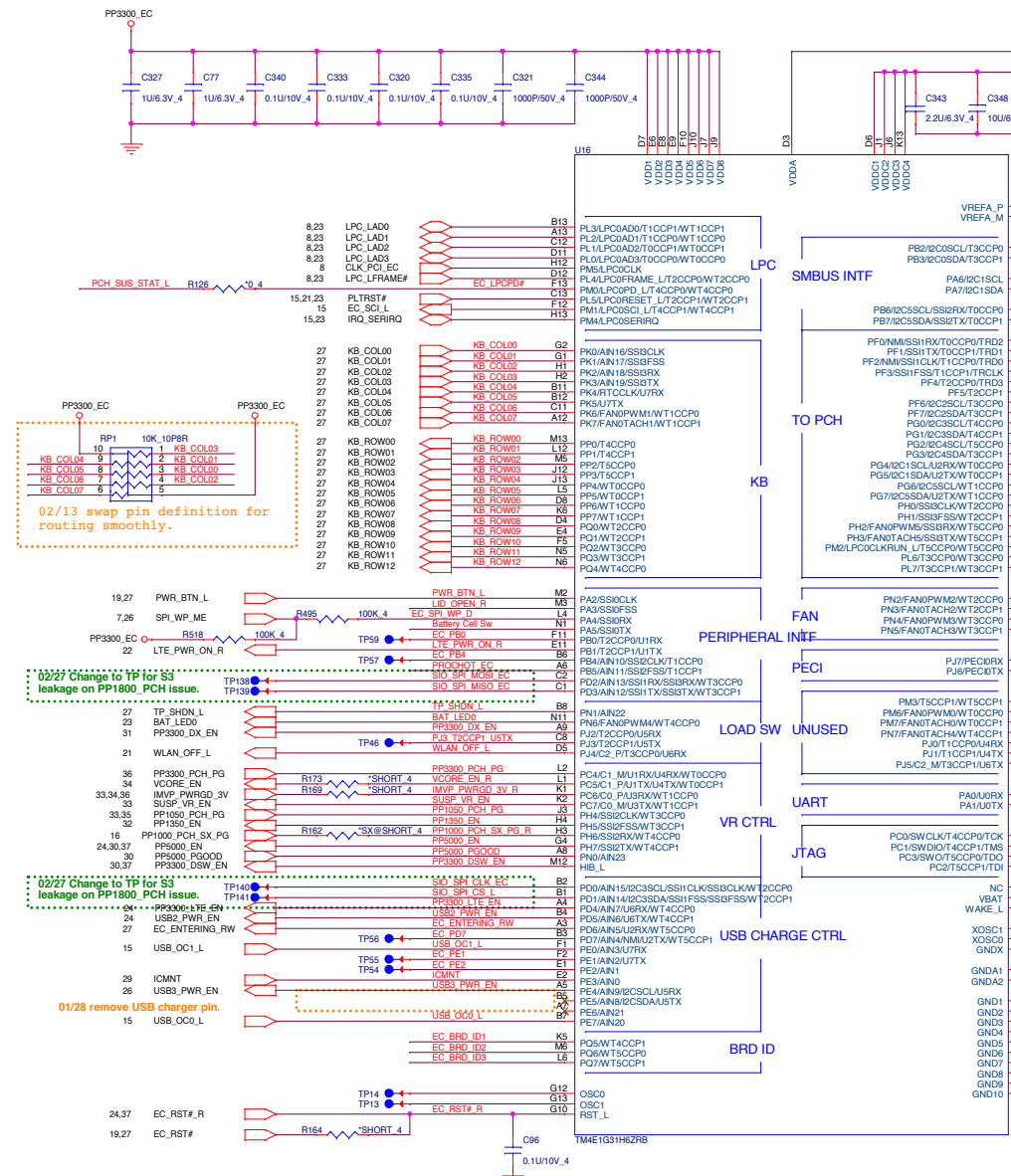
co-layout 4K4108 and 4K4137
 SLG4K4108 (AL004108000)
 SLG4K4137 (AL004137000)
 4K4137 PIN3 is BATT_ENABLE
 4K4137 PIN4 is AC_PRESENT



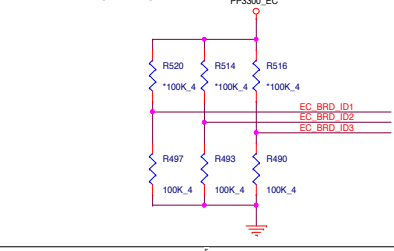
Quanta Computer Inc.
PROJECT : ZHQ

Size	Document Number	Rev
		1A
Date:	Thursday, July 03, 2014	Sheet 27 of 42

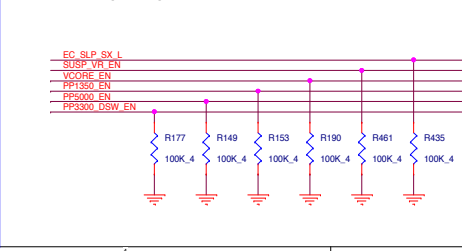
EC(KBC)



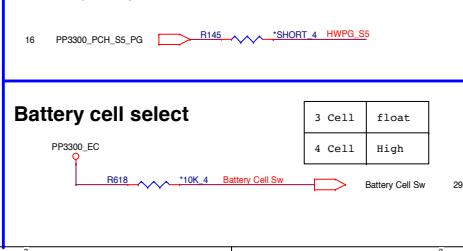
Board_ID(KBC)



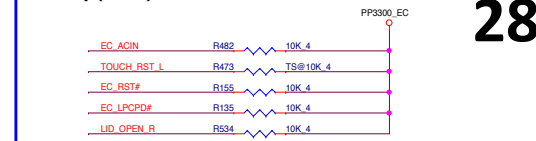
Pull-down(KBC)



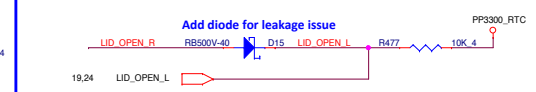
HWPG(KBC)



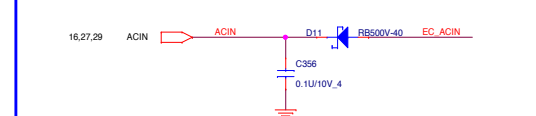
Pull-up(KBC)



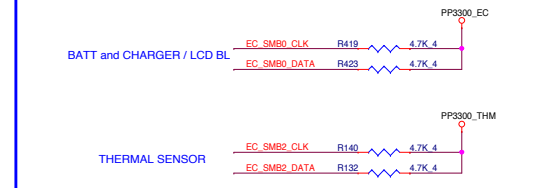
LID_OPEN(KBC)



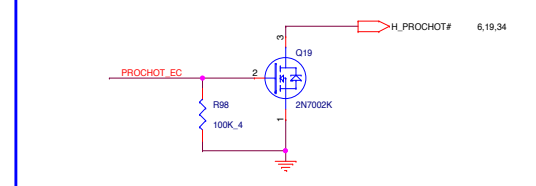
ACIN_EC(KBC)



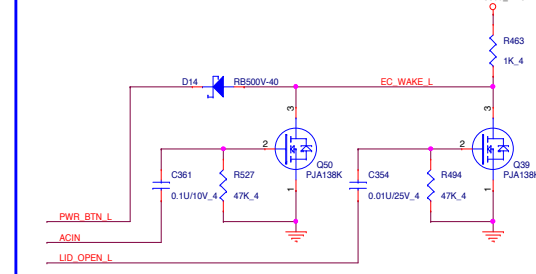
SM BUS/12C PU(KBC)



PROCHOT_EC(KBC)



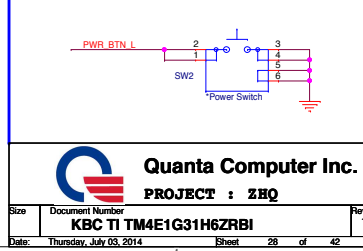
EC HIB WAKE SOURCES



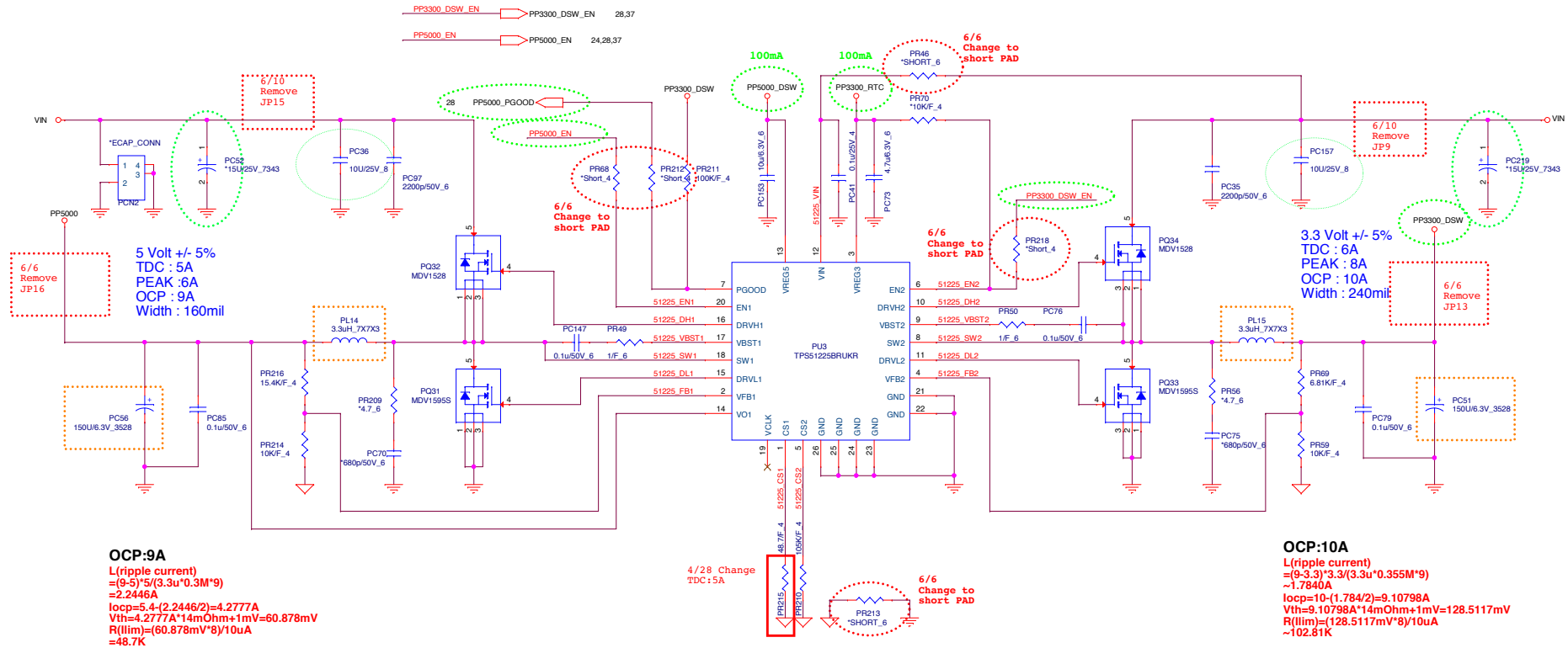
OD pin list

- EC_REST_L
- BAT_LED0
- BAT_LED1
- PCH_RSMRST_L
- SMBUS
- IRQ_SERIRQ
- EC_BL_DISABLE_L

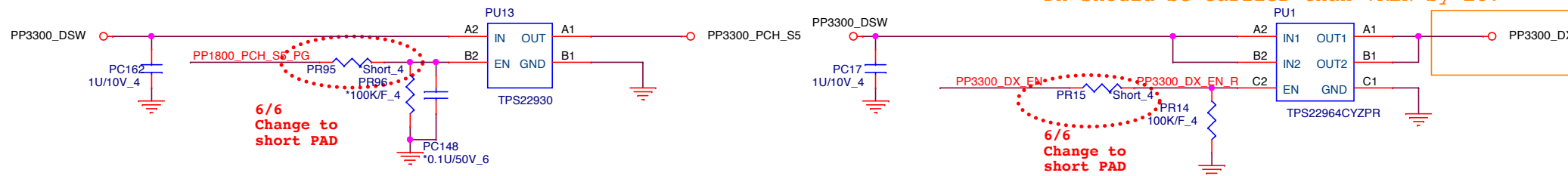
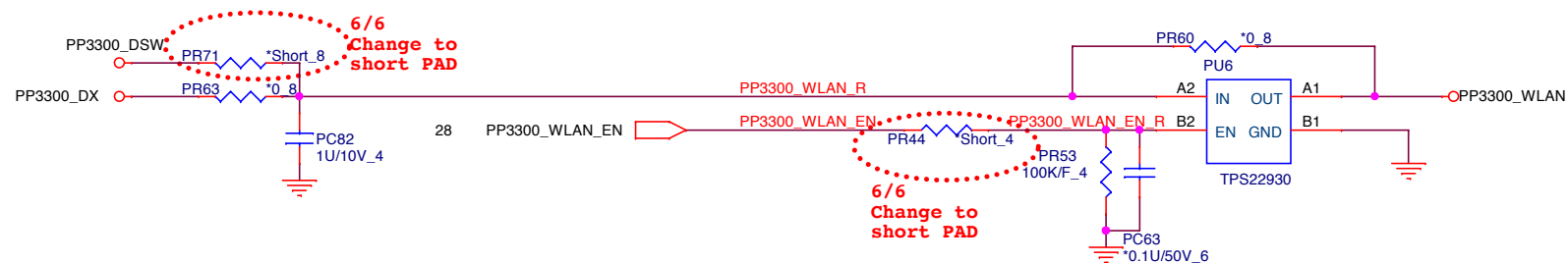
For testing only



28



36 PP1800_PCH_S5_PG PP1800_PCH_S5_PG
 28 PP3300_DX_EN PP3300_DX_EN



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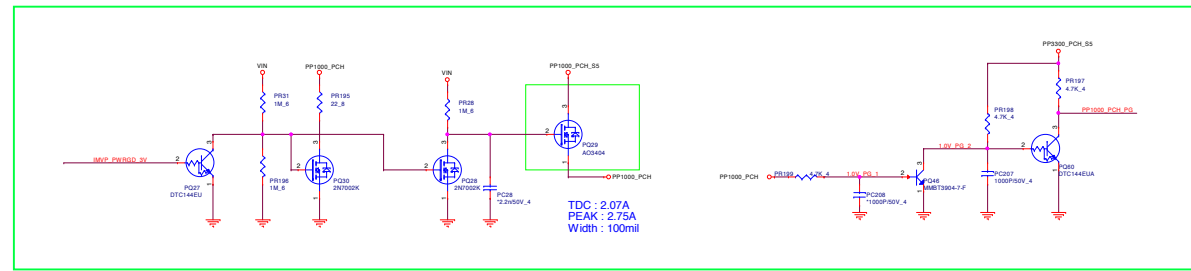
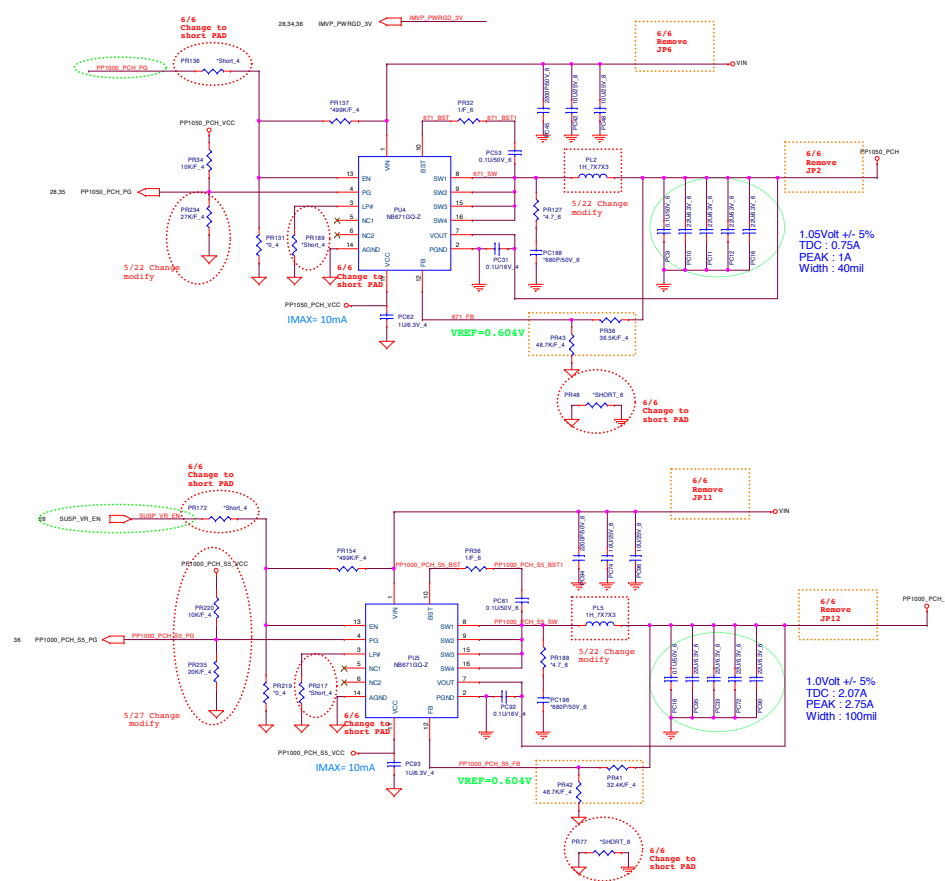
PROJECT :

Size	Document Number	Rev
	Load Switch	1A

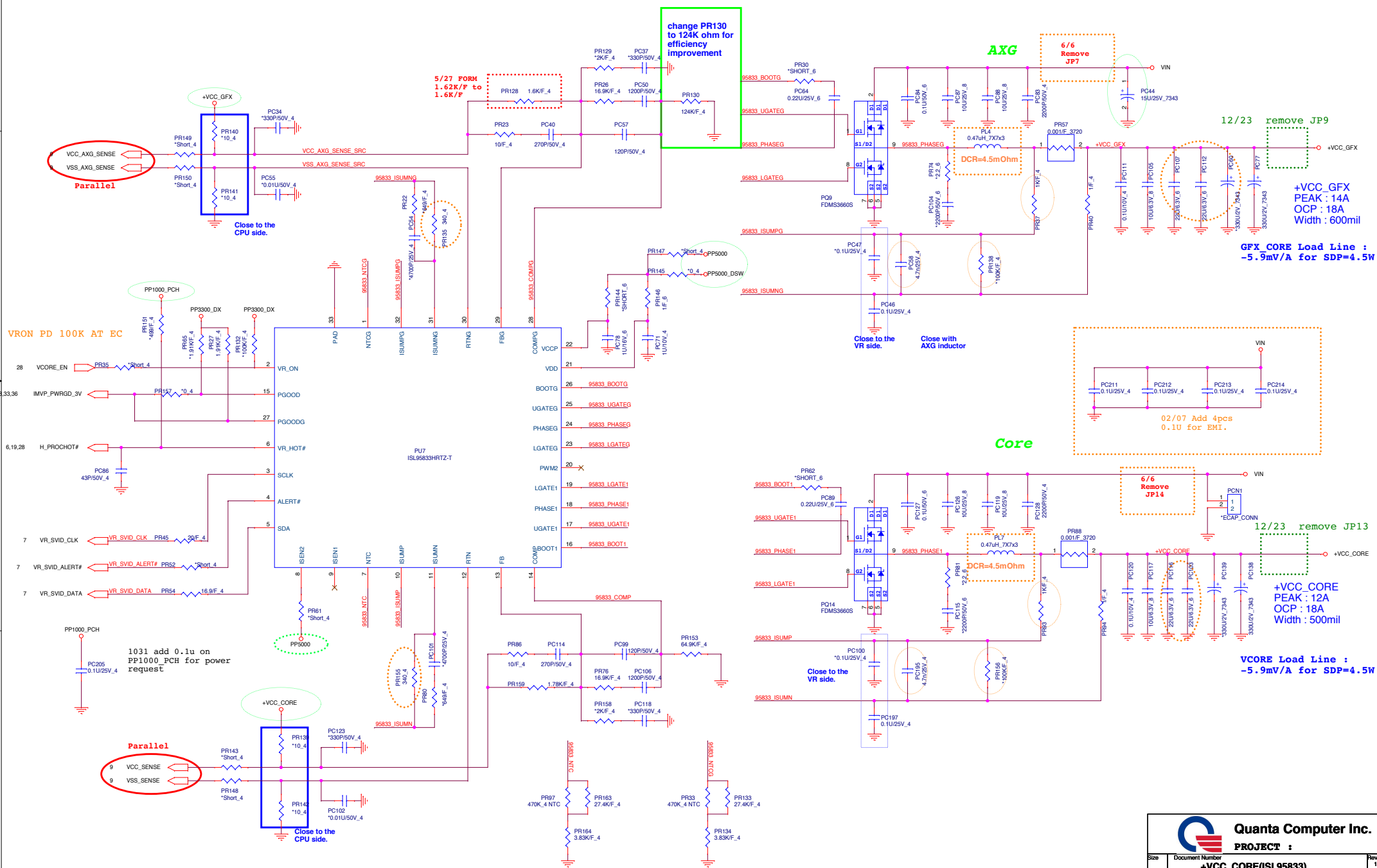
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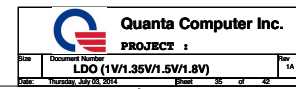
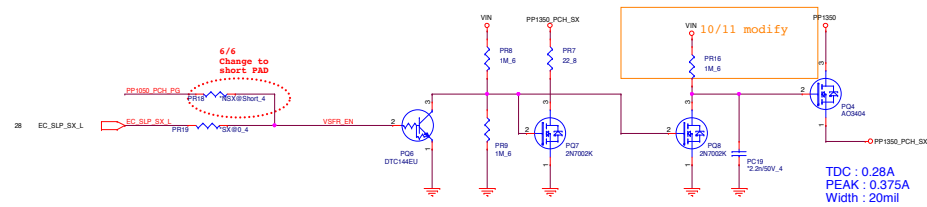


6/10 Ramp Remove PU20

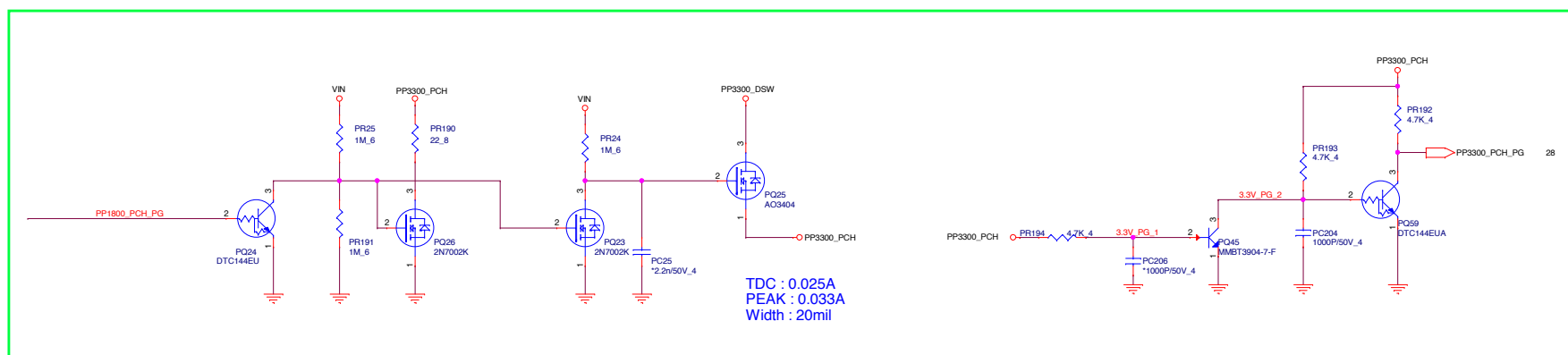
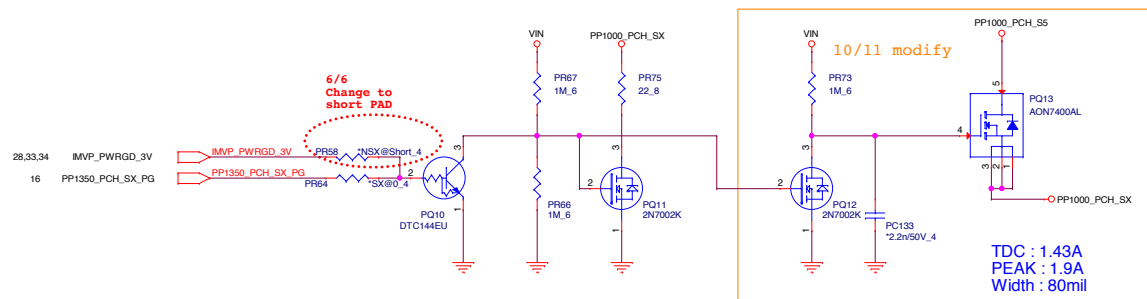
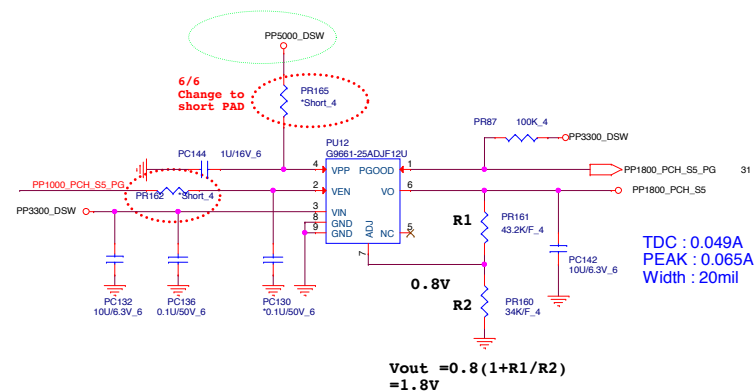


6/10 Ramp Renove PU21,PU23





35 PP1800_PCH_PG
33 PP1000_PCH_SS_PG



Thermal protect

12/23 add thermal protect
01/28 Customer confirm

Thermal protection

Need fine tune
for thermal protect point

Note placement position

```
02/05: Reserve EC_RST#_R
to shutdown PP3300_DSW.
02/06: Rmove R612.
```

For EC control thermal protection (output 3.3V)



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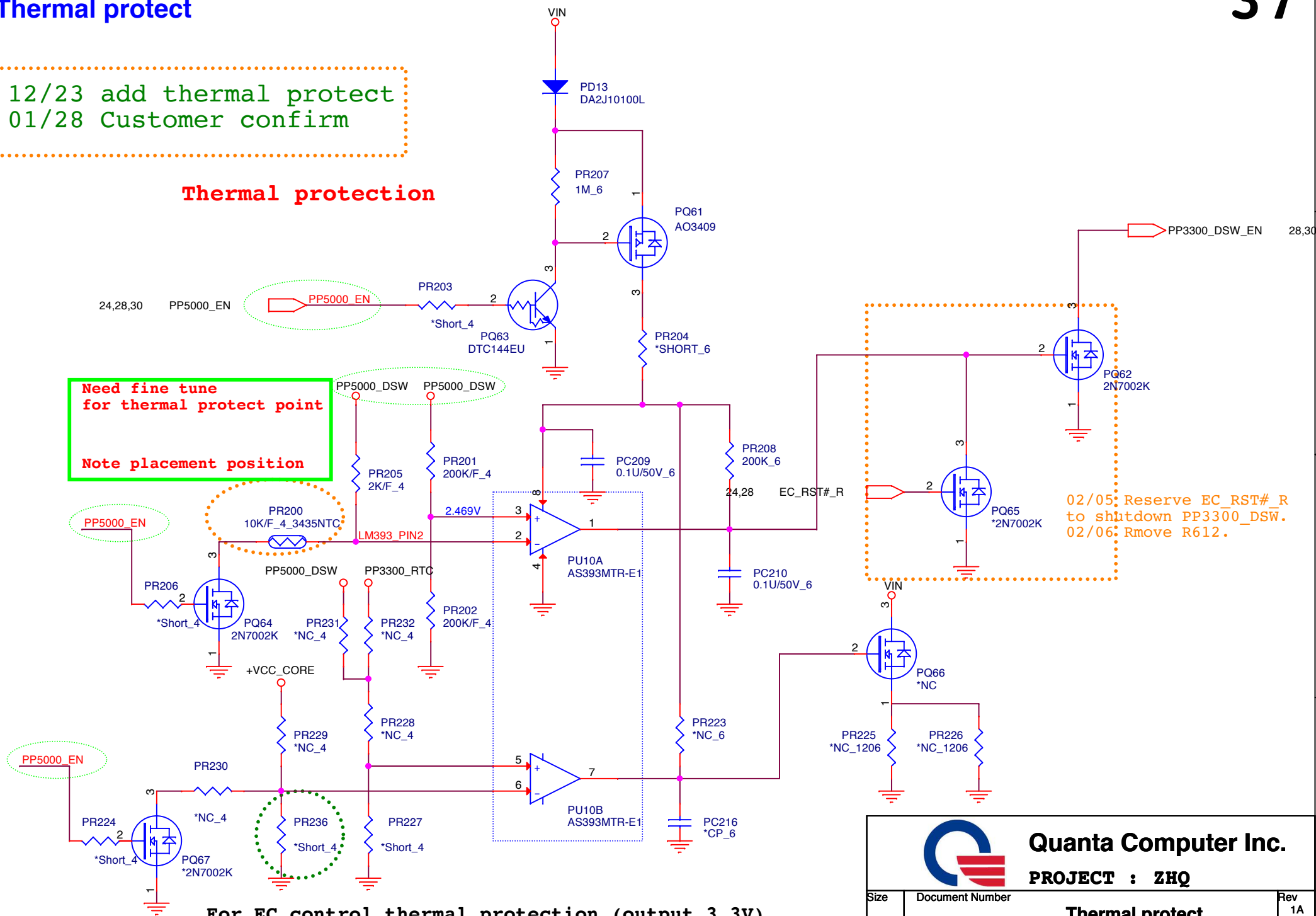
PROJECT : ZHQ

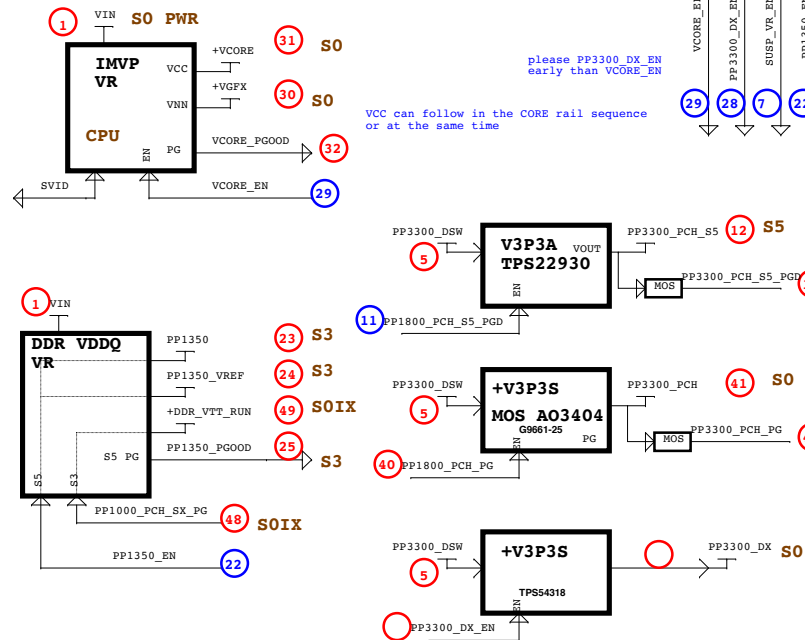
Thermal protect

Rev
1A

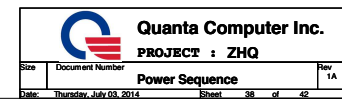
Date: Thursday, July 03, 2014

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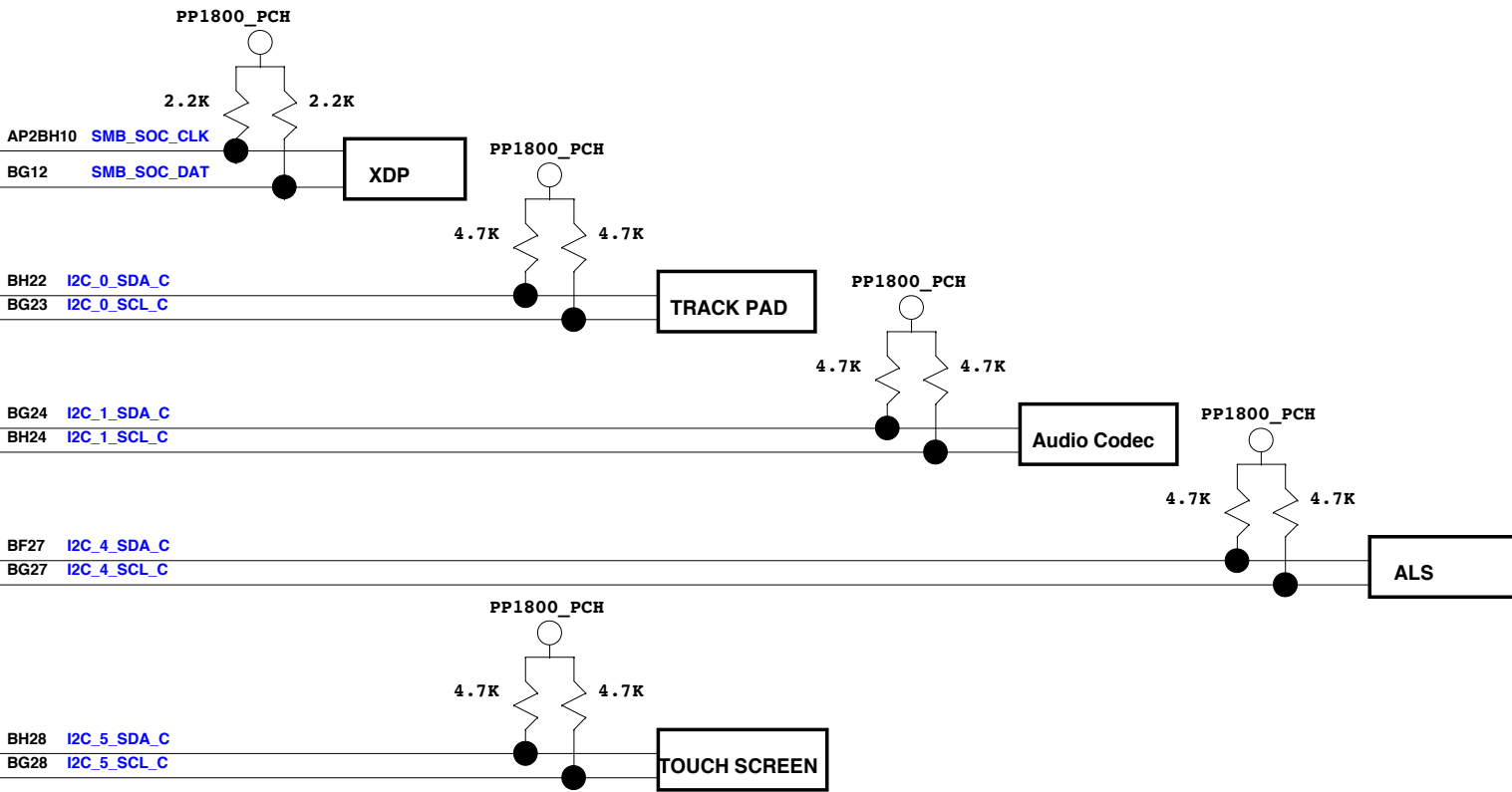
a 10us to 2000us delay is required between rails to avoid inrush current caused by multiple loads turning on simultaneously and fast charging of VR output decoupling



SMBUS

Bay-trail M

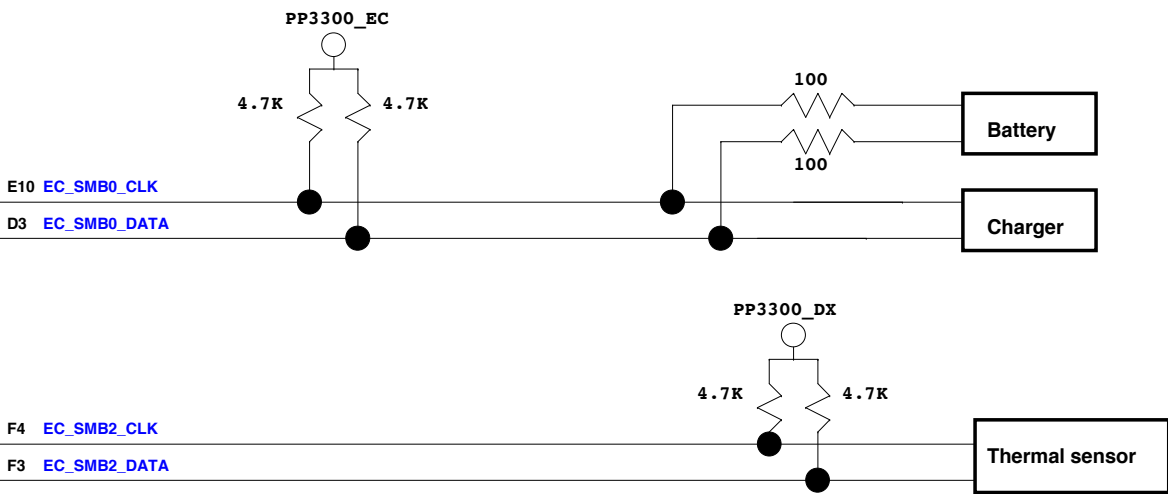
I2C



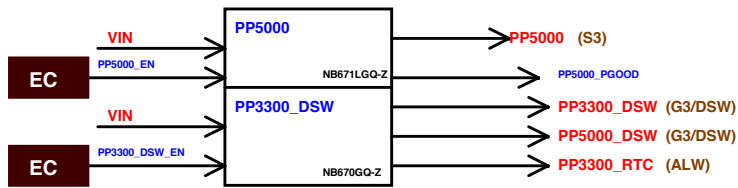
KBC

TI

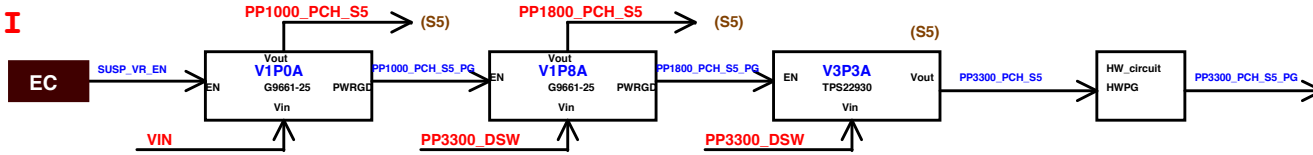
SMBUS



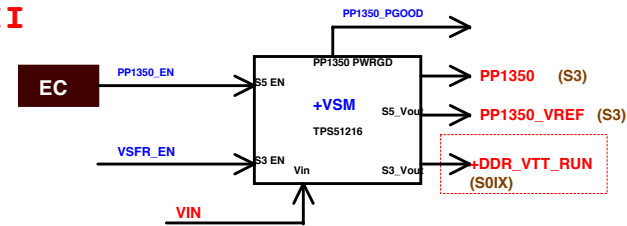
I



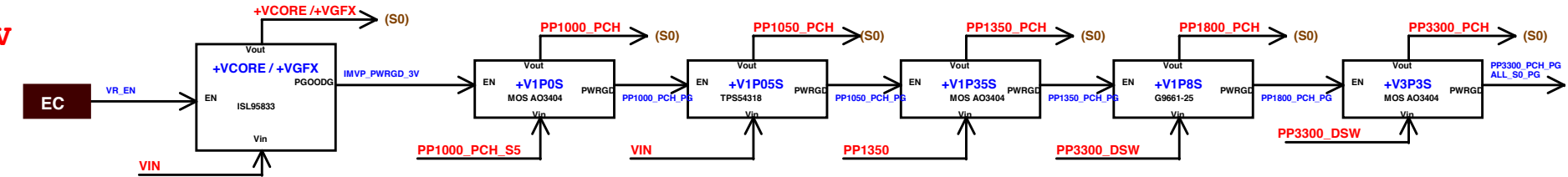
II



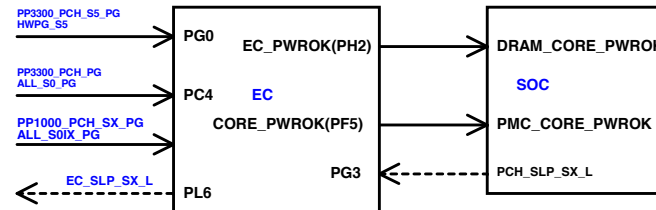
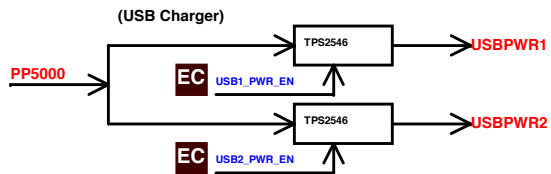
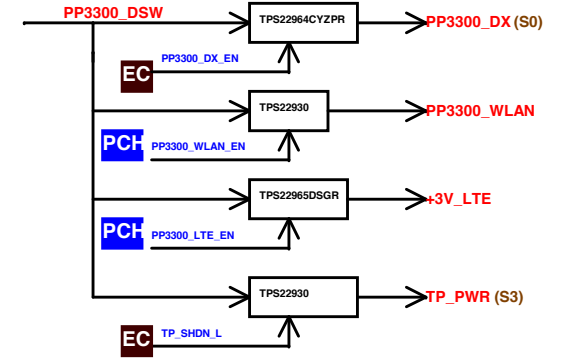
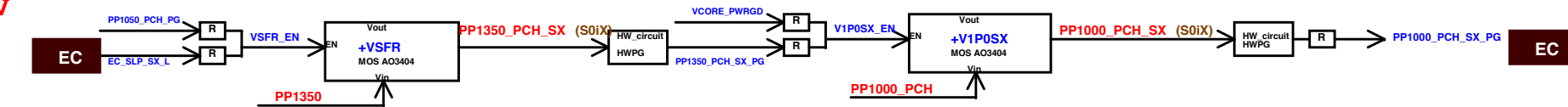
III



IV



V



Model		Version	CHANGE LIST			
		1A	12/23 1.(page37) add thermal protect 2.(page34) remove JP9,JP13 12/24 1.(page27) change keyboard pin define. 2.(page3) change C102 from 0.1u to 1u 3.(page27) change keyboard connector from 30pin to 24pin 12/25 1.(page27) change CN10 from 6pin to 8pin and TP pin define 2.(page27) change PP100 to PP10B 3.(page29) change charger solution from bq24715 to bq24717 4. change P/L-PLR from 7x7x1.8 choke to 7x7x3 12/26 1.(page 7,22) change R590 to R150 and R150 to R590 2.(page27) add TP111 and TP112 reserve for TP P52 3.(page24) remove PP3300_PCH_S5 and PP3300_RX on CN7 12/27 1.(page17) change R168 to DMP 2.(page26) change battery cut off switch SW1 from DSDATE2CK03 to DMP08TEPV00 3.(page26) change USB3.0 connector CN4 from DPFC30P8120 to DPB09P8J214 4.(page27) change TP connector CN10 from DPFC04P8050 to DPFC08P8026 12/31 1.(PAGE25) CHANGE DMC POWER FROM PP1800_PCH TO PP3300_PCH 1/2 1.(page26) add RSD U35 and U36 for USB3.0 1/3 1.(page20) change HDMI connector from DPFD19H8143 to DPFD19P8106 1/28 1.(page37) Confirm use Thermal protect. 2.(page26) Change to use USB power switch G547P1P81U. Reserve TI RSD solution and remove VARISTOR RSD. 3.(page26) Swap U36 and L4 D+/D- for routing. 4.(page28) Remove RMC USB_ILIM_SEL(Pin B5) & Charger Status(Pin A7) and page24 USB 2.0_ILIM_SEL. 5.(page24) Remove PFC USB power charger pin. 6.(page26) Remove screw shutdown scenario. 7.(page27) Add R1 shutdown function. 2/60 1.(page27) Change keyboard RSD pin define for routing. 2.(page21) Per Customer's requirement, Remove GPIO 4 reserve TP & reserve TP and add TP on WIFI SDIO. 3.(page22) Per Customer's requirement, add TP on LITE BodySW, LED, Config_1 and GPS disable. 4.(page22) Per Customer's requirement, add TP on LITE Pin 40, 42, 44, 47. 5.(page22) Reserve GPIO from IC to control LITE POWER ON/OFF. 6.(page22) Change C23 to 0.1u. 7.(page37) Reserve RC_RST#_B to thermal shutdown PP3300_DSM. 8.(page24) Reserve PP5000_RX to provide PP3300_TSM from PP3300_RTC. 9.(page24) Remove PP3300_DSM & PP3300_PCH_S5 & PP3300_RX because DR won't use it. 2/66 1.(page24) Remove R376. 2.(page37) Remove R612. 3.(page22) Stuff R25 & R26 & R75. Reserve 3lp on UIM_VPP for RMI. 4.(page18) Reserve TP for AIO panel pin 14(LCD Panel self Test Enable). 2/67 1.(page10) Add 7pca 0.10 for RMI. Location: C392-C398 2.(page24) Add 4pca 0.10 for RMI. Location: C399-C404 3.(page27) Swap TP pin definition. 4.(page34) Add 4pca 0.10 for RMI. Location: PC11-PC114 2/11 1.(page 11) Modify function code to RMC for RSD/RMI. 2.(page 11) Correct all items QPS & Q description. 3.(page 11) Correct Power items QPS that include P017 & P013 & P/L-PLR . 4.(page 26) Change USB power switch (U37) from G547P1P81U to G524C1T11U. 2/12 1.(page 26) Update USB3.0 connector & Hole footprint. 2.(page 28) Swap pin definition for routing smoothly. 2/14 1.(page 24) Change Q62 & Q66 M08T3904 to S0T23 package. 2/19 2.(page 08) Change RMIID to 001. 1.(page 29) Shortage issue, change to use P428R2J20A.			
		2A	2/27 1.(page 17) Change SD card to half card socket for ME request. 2.(page 34) Core/CPX efficiency improvement. P/L and P/L7 change from 0.24uH to 0.47uH. P/R30 and P/R62 change from 2.2ohm to 5ohm. P/R130 change from 21kohn to 12kohn 3.(page 7 & page 15 & page 28) S3 leakage on PP1800 PCH. Change SIO_SPT_CS#, SIO_SPT_MISO, SIO_SPT_MOSI, SIO_SPT_CLK to TP on page 7, cancel level shift on page 15 and change SIO_SPT_MOSI_EC, SIO_SPT_MISO_EC, SIO_SPT_CLK_EC and SIO_SPT_CS_L to TP on page 28. 4.(page 29) Cancel P/R112 and Add one diode RB500V-4 for S3 leakage on PP5000 issue. 5.(page 29) Un-stuff P/R103 for 3-cell battery. 6.(page 8) Reserve RAM_103 for memory ROM option. 7.(page 27) SLG Reset IC needs to change new version, wait for confirm. 8.(page 23) Stuff C246 for RF.			
		2B	3/19 1.(page 15) unstuff U20/R391/R592/R156 2.(page 17) Change SD card to full card socket for ME request. 3.(page 24) change CN7 pin defined ,Add 2nd headphone and add USB power/gnd pin 4.(page 25) Add 2nd headphone for Education 5.(page 26) change USB Power SW U37 from G524C1T110 to G524A1T110 6.(page 29-37) update power circuit 3/20 1.(page 28) Add PWR_LED1 pin on U16 G3 pin 2.(page 28) Add LTM_PWR_ON_8 pin on U16 R11 pin for LTM power on 3.(page 28) Add Battery rail select pin on U16 R1 pin for 3S/4S select 3/25 1.(page 18) CHANGE POWER FROM PP1800_PCH TO PP3300_PCH and add R619/R620 2.(page 10) C284, C287, C305 ,C313, C296, C339, C349, C314, C306 *9pca change from CML010K9B001(1u) to CML010M9B002(10u) 3.(page 10) C297, C260, C261, C268, C247, C248, C253, C259, C262, C254, C258, C255, C266, C295, C329, C261, C264, C267 *18pca 4.(page 29-37) Change from CML010K9B001(1u) to CML010M9B002(10u) 4.(page 29-37) update power circuit 3/31 1.(page 8) CHANGE DRAM ID table 2.(page 23) CHANGE LED to SL/CLK 4/62 1.(page 25) Remove DMC1 onboard circuit 2.(page 18) Add DMC1 pin at LVDS connector 4/63 1.(page 25) Remove 2nd headphone for Education 4/11 1.(page 29) Add PC217,PC218 and stuff PC1 for RMI 2.(page 26) unstuff R93,R87 and stuff L4 for RMI 3.(page 17) Add C405 and C406 for RSDIO 3G card 4/11 4/18 1.(page 22) CMS cabgns footprint from M0FF-B0149-2121-75P-RB-SMT to M0FF-B0149-2121-75P-RB 2.(page 29) Add PR233 for Battery Cell SW 3.(page 27) Change U24 from A022920000 to A022920000 for cost down 4/21 1.(page 17) C98/C97 change to 22p for crystal report 4/22 1.(page 11) Correct ROM 2.(page 27) Change R546 location and add Q44/Q45 on Track Pad INTF for leakage issue follow 0C9 3.(page 18) Add C407 on Touch Reset line for power sequence 4.(page 34) change PCH7,PC88,PC119,PC126 to 10uF follow 0C9			
DOC NO.	PROJECT MODEL :	Chrono	APPROVED BY:	DATE:		 Quanta Computer Inc. PROJECT : 849 Change list
	PART NUMBER:		DRAWING BY:	REVISION:		

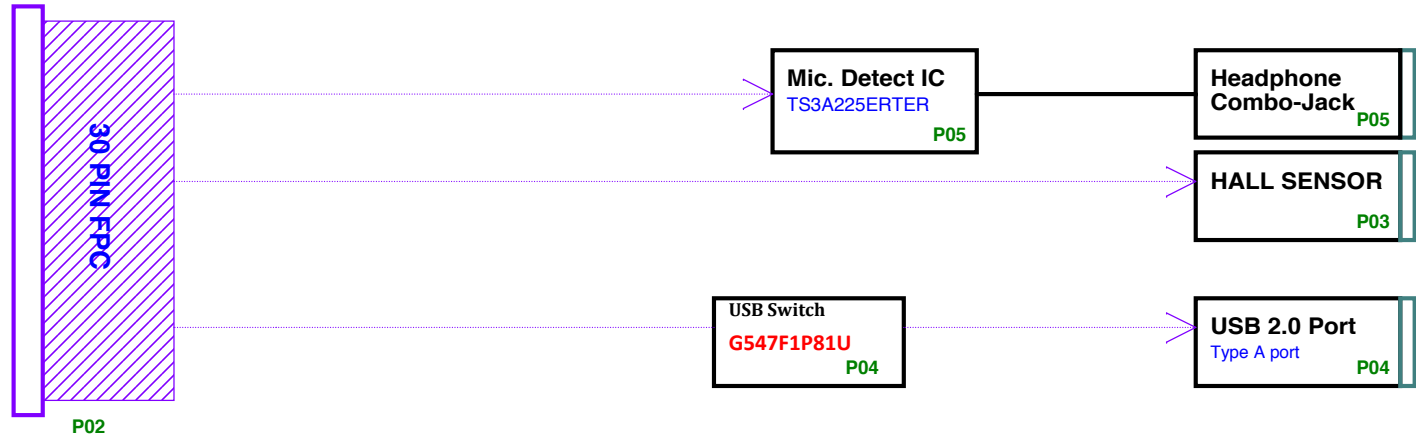
Model		Version	CHANGE LIST		41			
	2B	4/23	6.(page 31) Change PC29/PC13 to 10uF follow OC9 7.(page 31) PC124 change to 0.1u 8.(page 27) Change R144 from 4.7K to 1M and add a cap C152 2.2uF for Battery shipping mode by SIG4350, U17 change to SIG4K4350 9.(page 26) Change C78 to 220uF and Add C29 10.(page 7) add C408 on CORE_PWRON for ESD improvement 11.(page 6) add C409 on PROCHOTM for ESD improvement 12.(page 3) C102 to be changed to 0.1uF on DRAM_PWRON for ESD improvement					
		4/24	1.(page 8) reserve R433 for CLESTOW disable follow OC9 2.(page 27) unstuff U30,U31,U32,U33,U34 for ESD 3.(page 26) change PC36 to 10uF					
	3C	5/13	1.(page 16) Modify level shift circuit for TPS and BOM changed					
		5/20	1.(page 26) change ESD-PROTECTION and remove U35/U36 circuit 2.(page 24) Change DB pin defined and add a audio GND for audio issue					
		5/22	1.(page 25) Add R625 for Audio issue 2.(page 24) Change CN7 pin 29 connect to AGND for audio issue 3.(page 29) update power schematic 4.(page 33) update power schematic for power sequence					
		5/23	1.(page 33) Change PR234 from 20K to 27K and Correct PR235 AGND 2.(page A11) Correct BOM					
		5/26	1.(page 29) Change P22 connector from DFD008M125 to DFD008M201 2.(page 8) Add R625 and R626 for TP5 issue					
	3D	5/29	1.(page 23) Exchange LRD1 and LRD2 for icon issue 2.(page 23) change R589,R599,R246,R245 for LED Light					
			6/3	1.(page 26) LA change P/N from CX900HL2000 to CX900HL2002				
			6/6	2.(page 34) unstuff PC60 and PC139 for cost down 1.(page 28) change BC P/N to AR02Q2001 for T11 issue 2.(page 3) change R179/R193 to 0402 shortpad for cost down 3.(page 5) change R50/R61/R102/R402/R457/R160/R197 to 0402 shortpad for cost down 4.(page 6) change R103/R123/R131/R139/R204/R375/R279/R383/R383/R414/R455/R462 to 0402 shortpad for cost down 5.(page 7) change R81/R107/R133/R424/R448/R468/R470/R471/R479/R481/R513/R165 to 0402 shortpad and R116/R157 change to 0603 shortpad for cost down 6.(page 8) change R109/R449 to 0402 shortpad for cost down 7.(page 9) change R343/R385 to 0402 shortpad for cost down 8.(page 10) change R54/R110/R114/R121/R378/R380/R395/R400/R407/R430/R453/R456/R460/R464 to 0402 shortpad and R193/R555 change to 0603 shortpad,R354/R384 change to 0805 shortpad for cost down 9.(page 12) change R263/R307/R319/R320/R325/R332 to 0402 shortpad and R337 change to 0603 shortpad for cost down 10.(page 15) change R445 to 0402 shortpad for cost down 11.(page 17) change R489/R507/R524/R541/R549/R550/R552 to 0402 shortpad and R338 change to 0603 shortpad for cost down 12.(page 18) change R20/R324/R339/R341/R620 to 0402 shortpad and R14/R224 change to 0603 shortpad,R17 change to 0805 shortpad for cost down 13.(page 19) change R216/R222/R490/R505/R524/R535/R538/R546/R546/R565 to 0402 shortpad for cost down 14.(page 20) change R72/R73/R74 to 0402 shortpad for cost down 15.(page 21) change R44/R46/R55 to 0402 shortpad and R39 change to 0805 shortpad for cost down 16.(page 22) change R75/R411 to 0402 shortpad and R355/R602 change to 0603 shortpad, R601 change to 0805 shortpad for cost down 17.(page 23) change R56/R353 to 0402 shortpad for cost down 18.(page 24) change R370/R377/R194 to 0402 shortpad for cost down 19.(page 25) change R219/R223/R605/R606/R228 to 0402 shortpad and change R217/R229/R232/R233/R241 to 0603 shortpad for cost down 20.(page 27) change R213/R498 to 0402 shortpad and change L7 to 0603 shortpad for cost down 21.(page 28) change R145/R162/R164/R169/R173/R444 to 0402 shortpad for cost down				
6/9			1.(page 12) unstuff U10 and C16 for cost down 2.(page 29-36) 1.Remove : JP2,JP3,JP7,JP12,JP13,JP14,JP16,JP15,JP9,JP1,JP11,JP6 2.Change to shortpad_4: PR16,PR162,PR165,PR18,PR19,PR110,PR116,PR149,PR150,PR147,PR82,PR45,PR145,PR148,PR156,PR189,PR152,PR217,PR6,PR122,PR117,PR95,PR44,PR15,PR68,PR212,PR102,PR103,PR171,PR174,PR106,PR106 3.Change to shortpad_6: PR144,PR30,PR42,PR48,PR77,PR124,PR46,PR213,PR1,PR3,PR101,PR92,PR112. 4.Change to shortpad_8: PR91 5.Remove CURRENT POWER MISTION circuit : PR22,PR11,PR20,PR21,PC191,PC192,PC113,PC131,PC184,PC185,PC189,PC190,PC193,PC194. 6.Wamp Vin 7343 Capacity: PC219,PC220,PC221,PC222					
6/16			1.(page 37) PR236 and PR227 change to shortpad					
6/17		2.(page 27) unstuff SW1/Q62/Q63/R609 for Acer request remove reset function. 1.(page 27) modify RC reset circuit and Add D1002 and D1003 for ESD issue.						
6/23		1.(page 27) change U24 P/N from AL02902000 to AL02930000 for SMT issue 2.(page 27) SW1/C390/R627/R628 unstuff for removed SMT bottom 3.(page 18) Remove L1 for SMT request and R8,R9 change to shortpad_4 for cost down. 4.(page 20) Remove L2 for SMT request , R41,R39,R22 change to shortpad_4 for cost down. 5.(page 22) Remove L15 for SMT request . 5.(page 28) Remove L3,L5,R93,R87 for SMT request. 6.(page 24) PR63 change to shortpad_4 for cost down.						
		7/2	1.(page 37) change PR205 from 1.5K to 2K for throne request					
DOC NO.		PROJECT MODEL :	Chrome	APPROVED BY:		DATE:		 Quanta Computer Inc. PROJECT : 849 Change 062
		PART NUMBER:		DRAWING BY:		REVISION:		

Model	REV	CHANGE LIST				MODEL		
ZHQ	1A	2013/12/23 1. Release first version for ZHQ. 2. (Page 1)Update CN4 QPN , Footprint and Part Description 3. (Page 1)Remove LED1 and R1,R9 and R2 4. (Page 1) Remove NetName PWR LED0 and PWR LED1 5. (Page 1,2,3) Update Function code 6. (Page 1) Remove R6 ,R7 and AGND 2014/01/27 1. Change the page number Page 1 -> Page 3 , Page 2 -> Page 4 , Page 3 -> Page 5 , Page 4 -> Page 1 2. (Page 2)Add block diagram 2014/01/28 1. (Page 3)Remove CN4 ,Pin23, 24, 26 , Add one TP 2. (Page 4)Change USB charger to USB Switch 3. (Page 2)Change Block diagram 2014/02/03 1. (Page 3)Change CN4 Pin5 pin definition 2014/02/05 1. (Page 3)Remove CN4 Pin10,11,15 2014/02/07 1. (Page 4,5)Change USB2.0/Audio jack connector Part number 2014/02/10 1. (Page 3)Change CN4 input current form 1.5A to 2A 2. (Page 3)Base on DXF, remove the Hole7. 3. (Page 4)Change the C2 QPN. 2014/02/11 1. (Page 4)Change USB power switch (U1) from G547F1P81U to G524C1T11U. Change C3 value from 1U to 2.2U. 2014/02/12 1. (Page 3)Add 0.1u on PP5000 & PP3300_RTC for EMI. 2. (Page 3,4,5) Rename all location 2014/02/13 1. (Page 4)Change C1 from CH7101MT205 to CH7101MT202 2014/03/07 1. (Page 3) Change pin5 pin definiton from DET_TRIGGER_SW to HP_JD_L for Audio. 2014/03/24 1. (page 3) change CN1 pin defined , add USB power/gnd pin for ESD. 2. (page 4) change USB Power SW U2 from G524C1T11U to G524A1T11U for USB. 2014/04/03 1. (page 3) Remove CN3 Pin10 ,11 for Acer request 2014/04/10 1. (page 4) Remove R9,R10.And change L5 from CX1HN900000 to CX12B900000 for USB. 2014/04/14 1. (page 3) Change MR1 from AL008251000 to AL009132003 for Lid. 2014/04/23 1. (page 5) Add D7 , Stuff D1,D2,D3,D4 for ESD. 2014/05/05 1. (page 5) Separate it between AGND and DGND,Add R36,R37,R26,R38,R52,R53,C24,C23 for Audio 2014/05/07 1. (page 3) Separate it between AGND and DGND,Add R54 for Audio 2014/05/16 1. (page 5) Separate it between AGND and DGND,Nustuff R37,R26,R38,R52,R53,C24,C23 for Audio 2014/05/28 1. (page 5) Nustuff R36 for Audio 2014/06/23 1. (page 4) Remove R9,R10 for SMT request				Page 02		1A
						Page 03		1A
						Page 04		1A
						Page 05		1A

VER : 1A

BOM P/N	Description
*	ZHQ IO/B ASSY

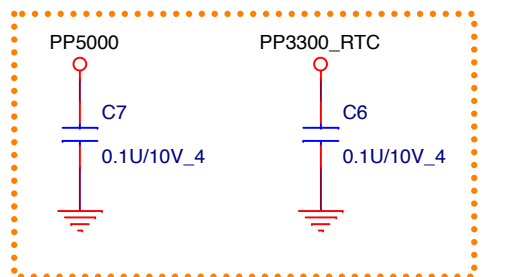
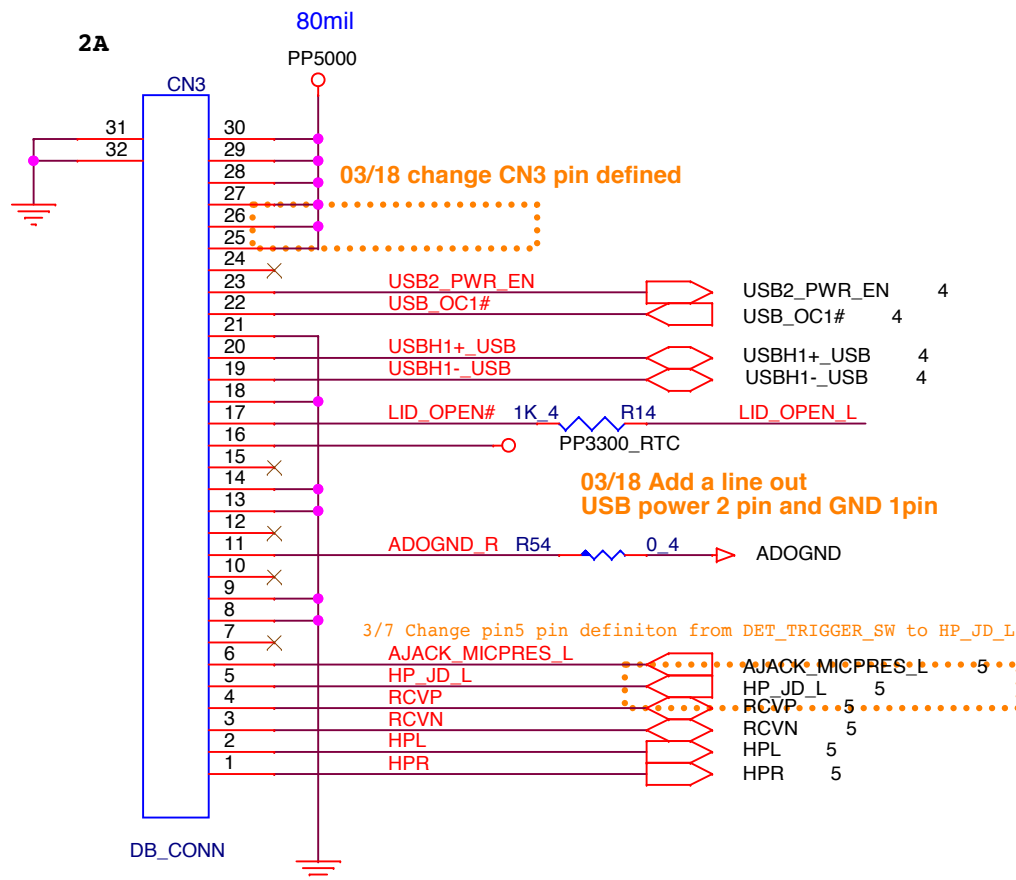
Block Diagram
(Audio Headset Switch + Phone Jack +
Hall Sensor + USB CONNECTOR)



USB2.0: 500mA x1
Charger (DCP): 2A x1
Hall Sensor 3.3V x1

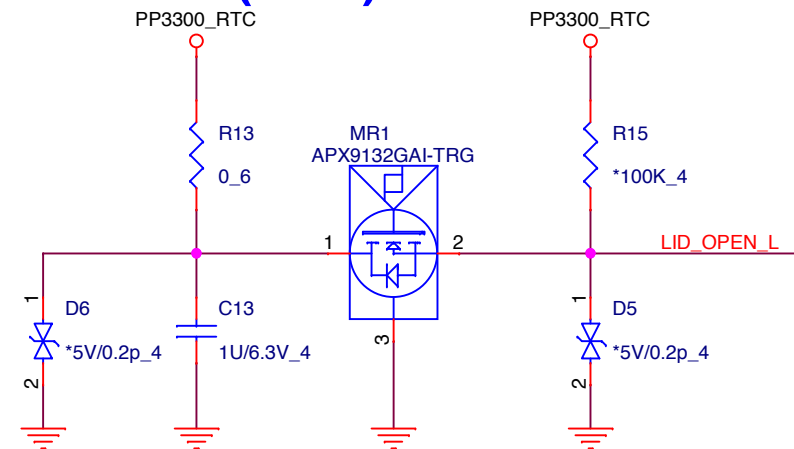
Schematic Marks	
Reference	Description
*	do not stuff
/F	1% esistance

IO Board Connector

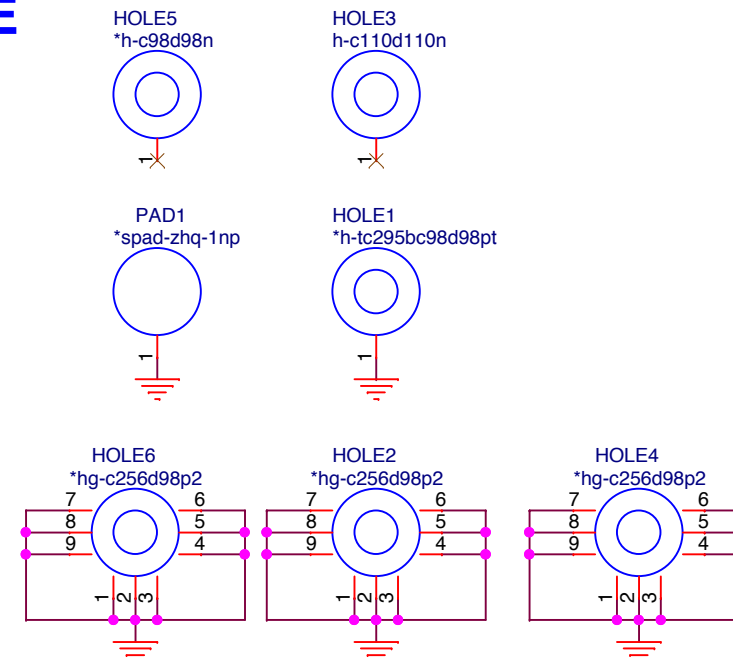


02/12 Add 0.1u on PP5000 & PP3300_RTC for EMI.

Lid Switch (HSR)



HOLE

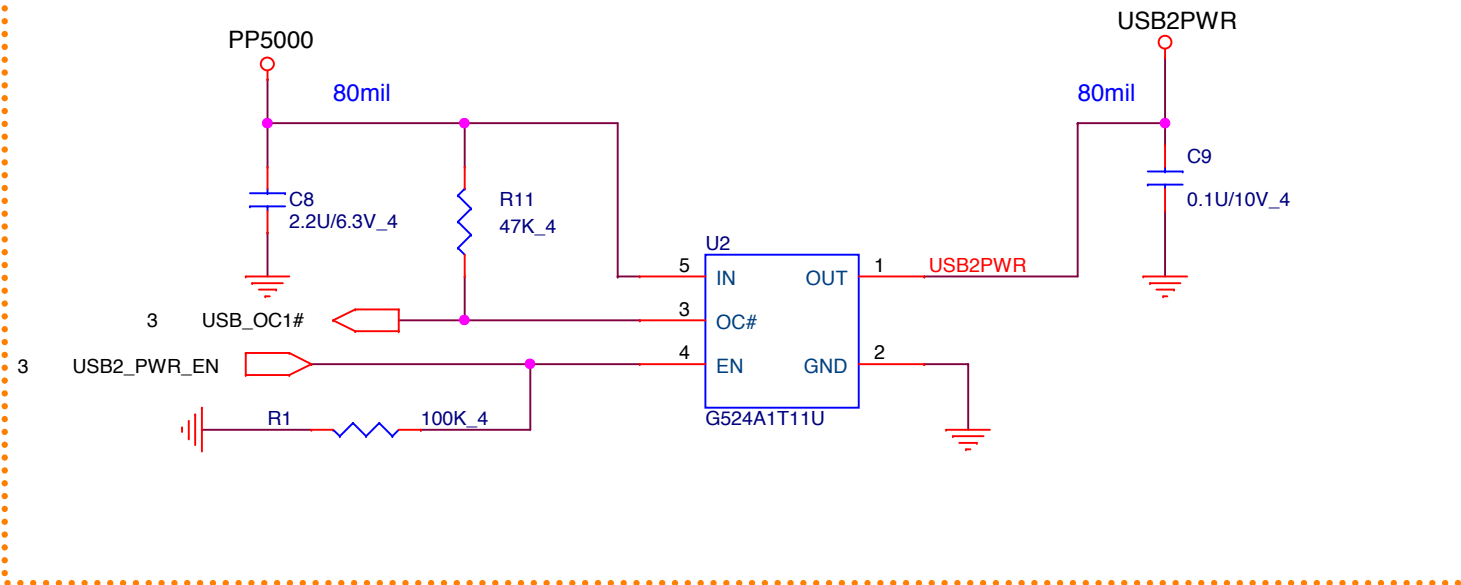


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PROJECT : ZHQ

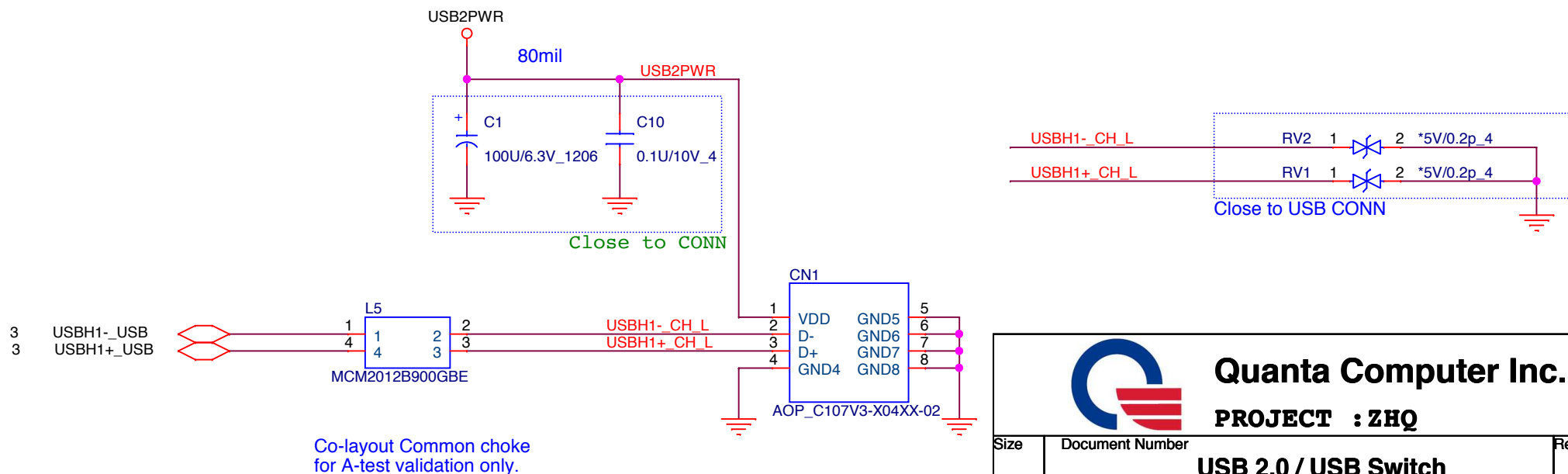
Size	Document Number	Rev
	FFC CONN /HSR / HOLE	1A
Date:	Monday, June 23, 2014	Sheet 3 of 5

USB Switch



1/28 Change USB charger to USB switch
 02/11 Change USB power switch (U1) from G547F1P81U to G524C1T11U.
 Change C3 value from 1U to 2.2U.

USB 2.0



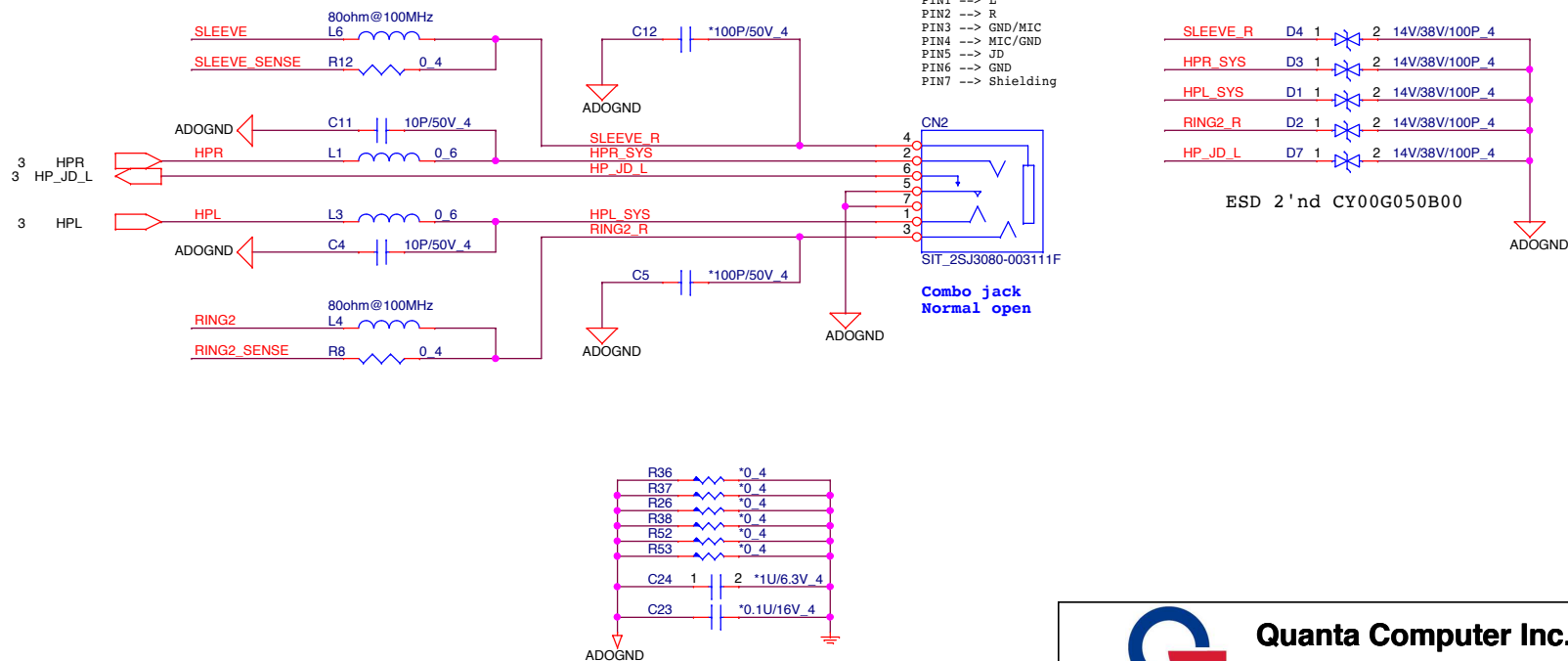
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PROJECT : ZHQ

USB 2.0 / USB Switch

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Combo Jack (ADO)



```
P/N: DFTJ06FR527
Normal Open
PIN1 ---> L
PIN2 ---> R
PIN3 ---> GND/MIC
PIN4 ---> MIC/GND
PIN5 ---> JD
PIN6 ---> GND
PIN7 ---> Shielding
```

ESD 2'nd CY00G050B00

