

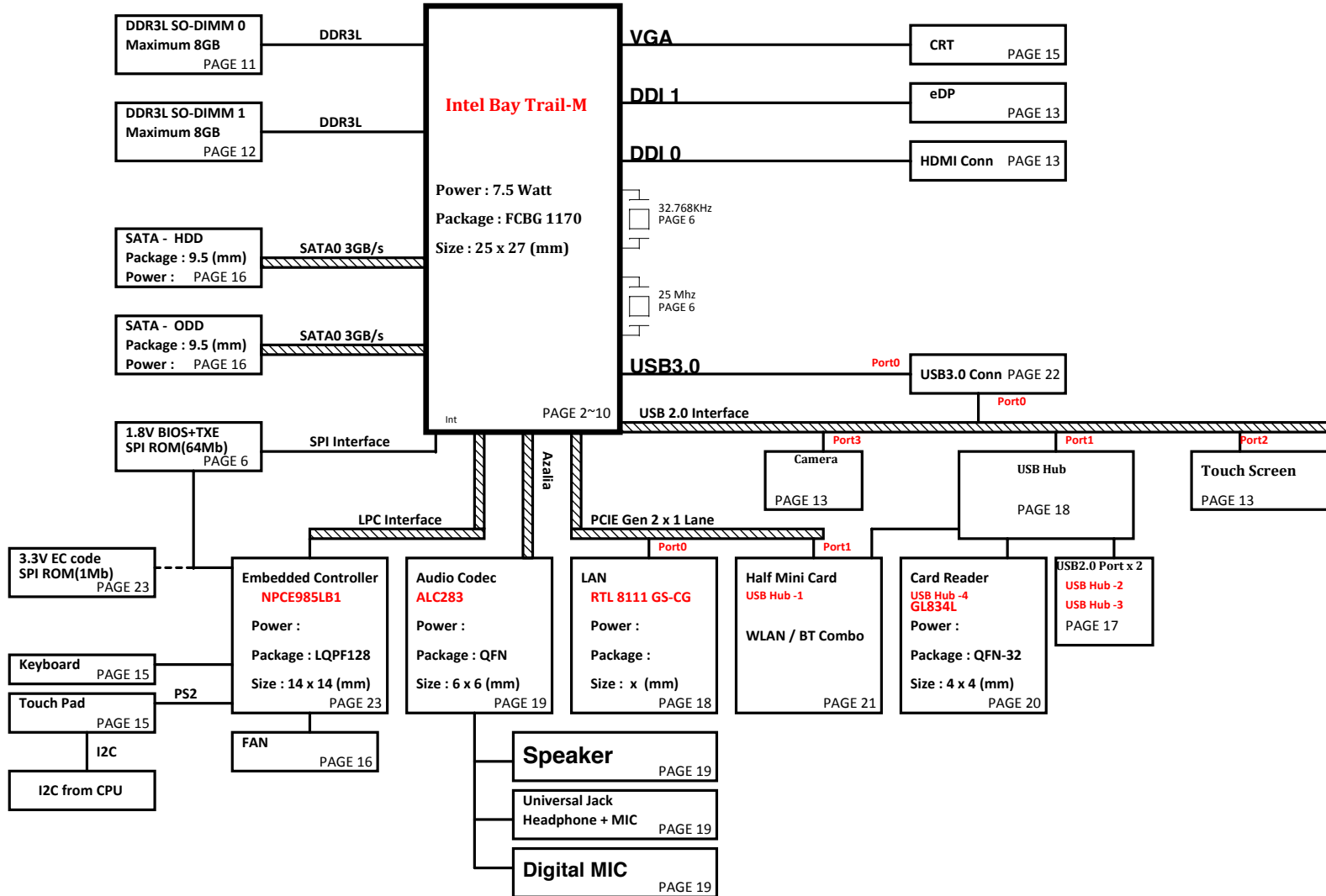


ZQM UMA (14")

Intel Bay Trail-M Platform Block Diagram

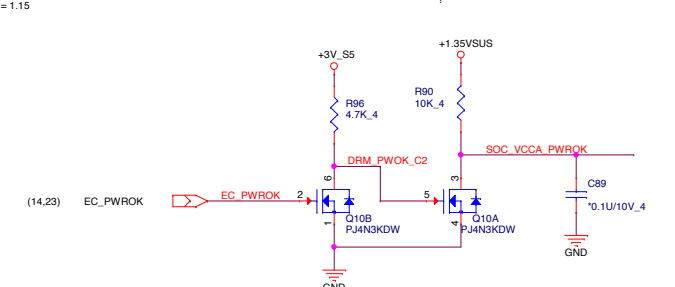
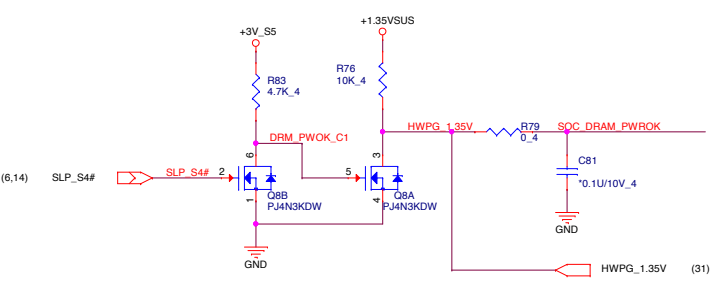
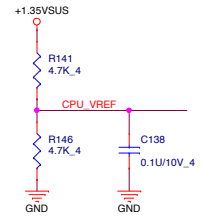
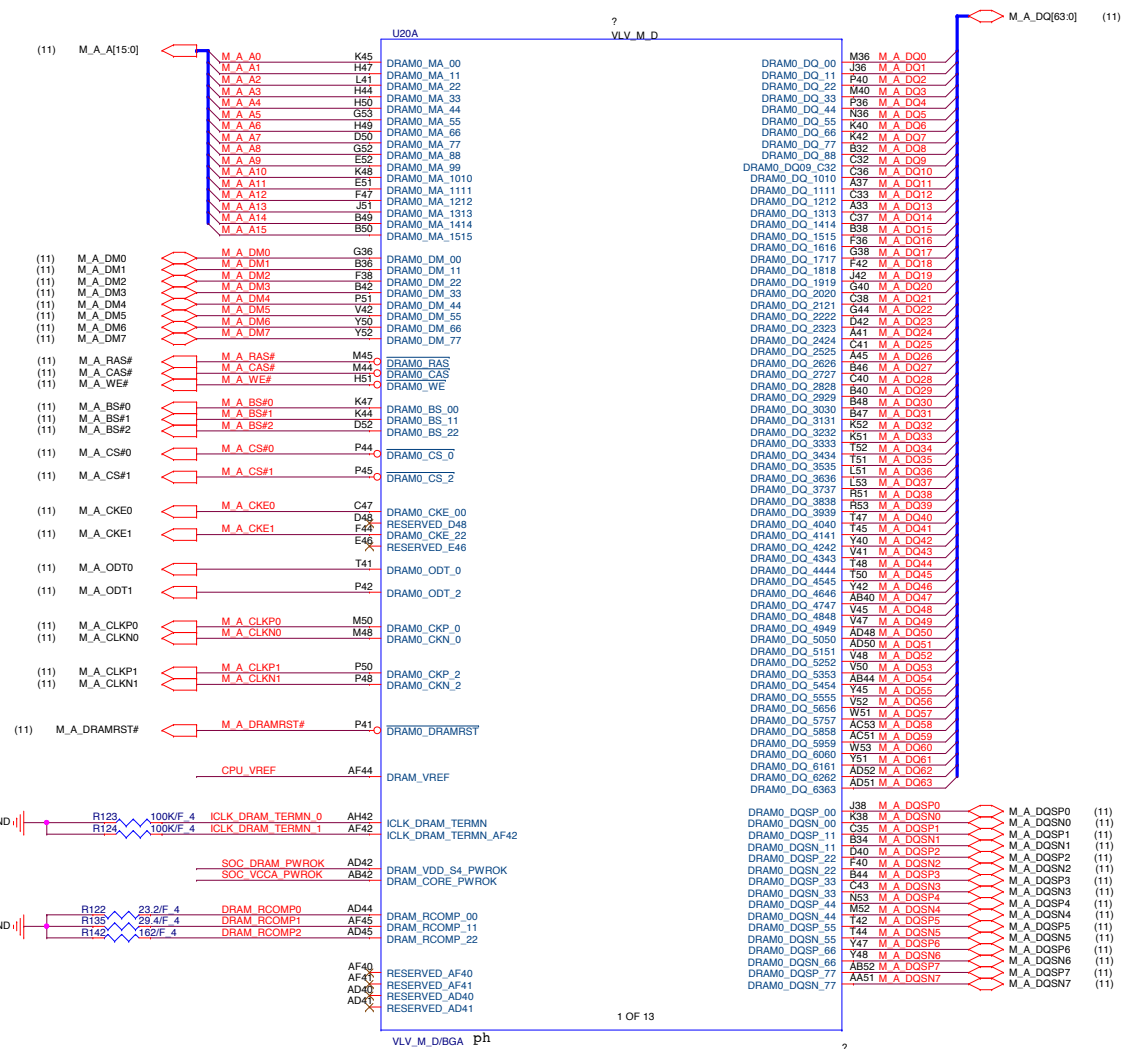
PCB 6L STACK UP

- LAYER 1 : TOP
- LAYER 2 : SVCC
- LAYER 3 : IN1(High)
- LAYER 4 : IN2(Low)
- LAYER 5 : SGND
- LAYER 6 : BOT



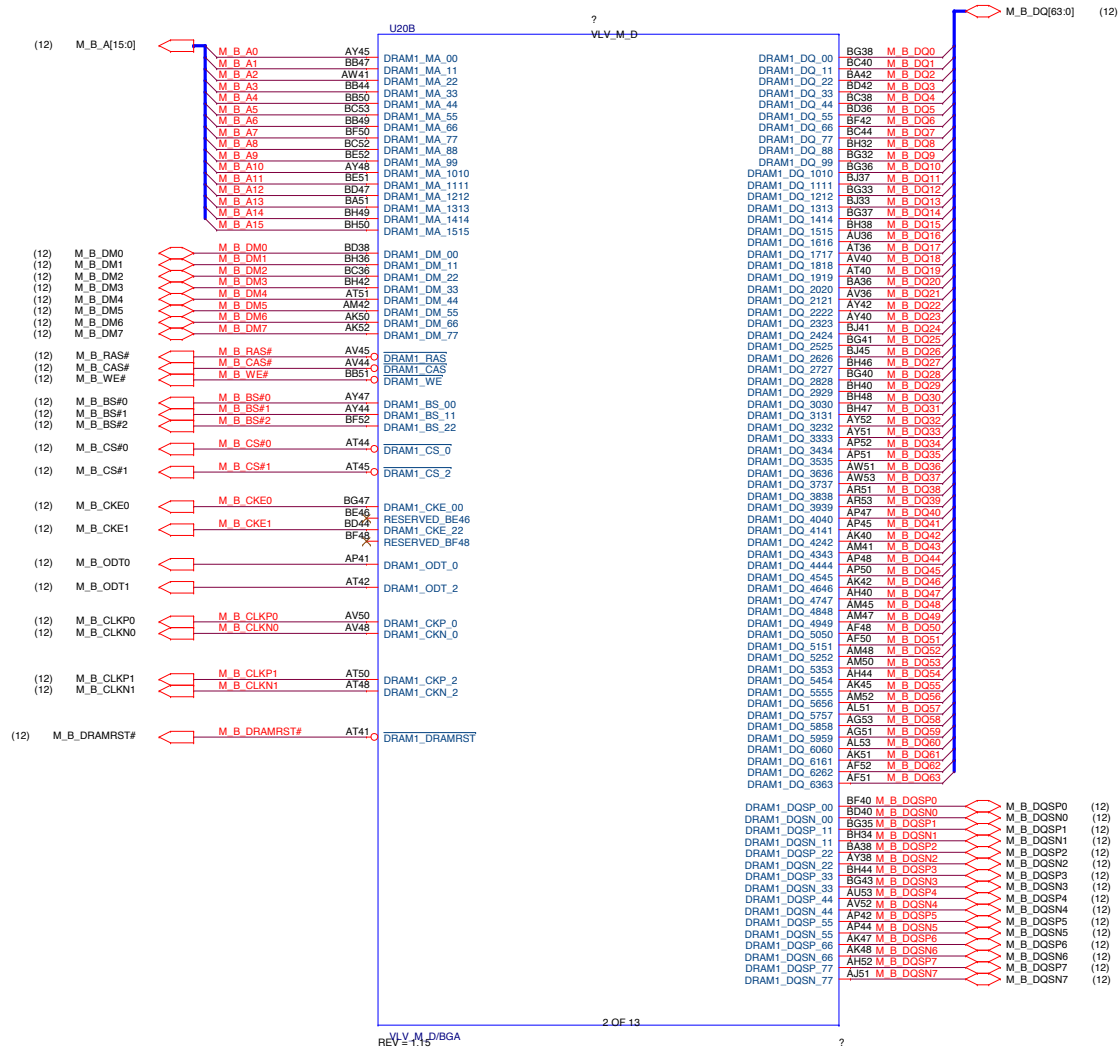
Quanta Computer Inc.
 PROJECT : ZQM

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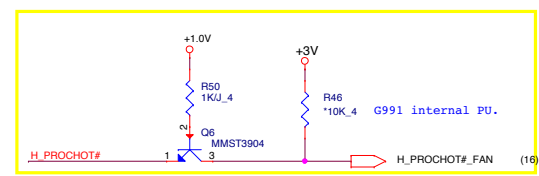
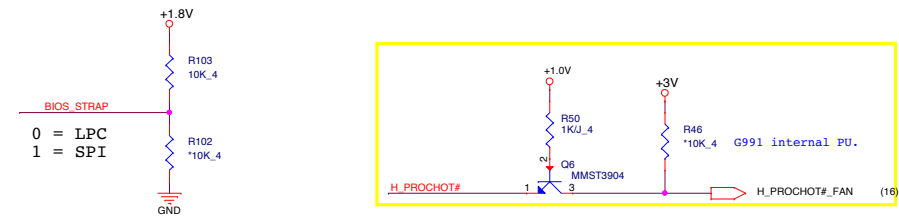
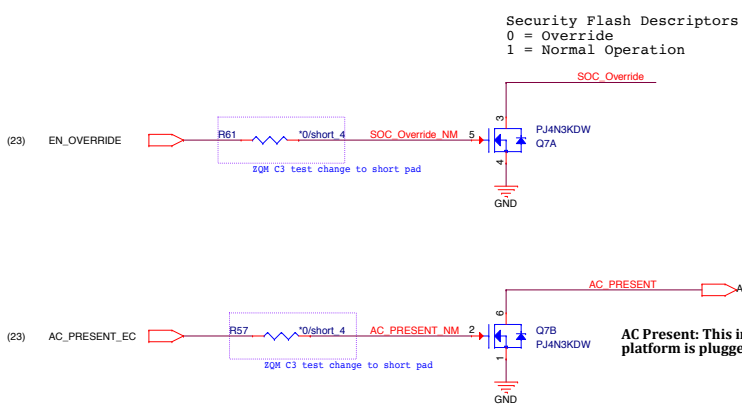
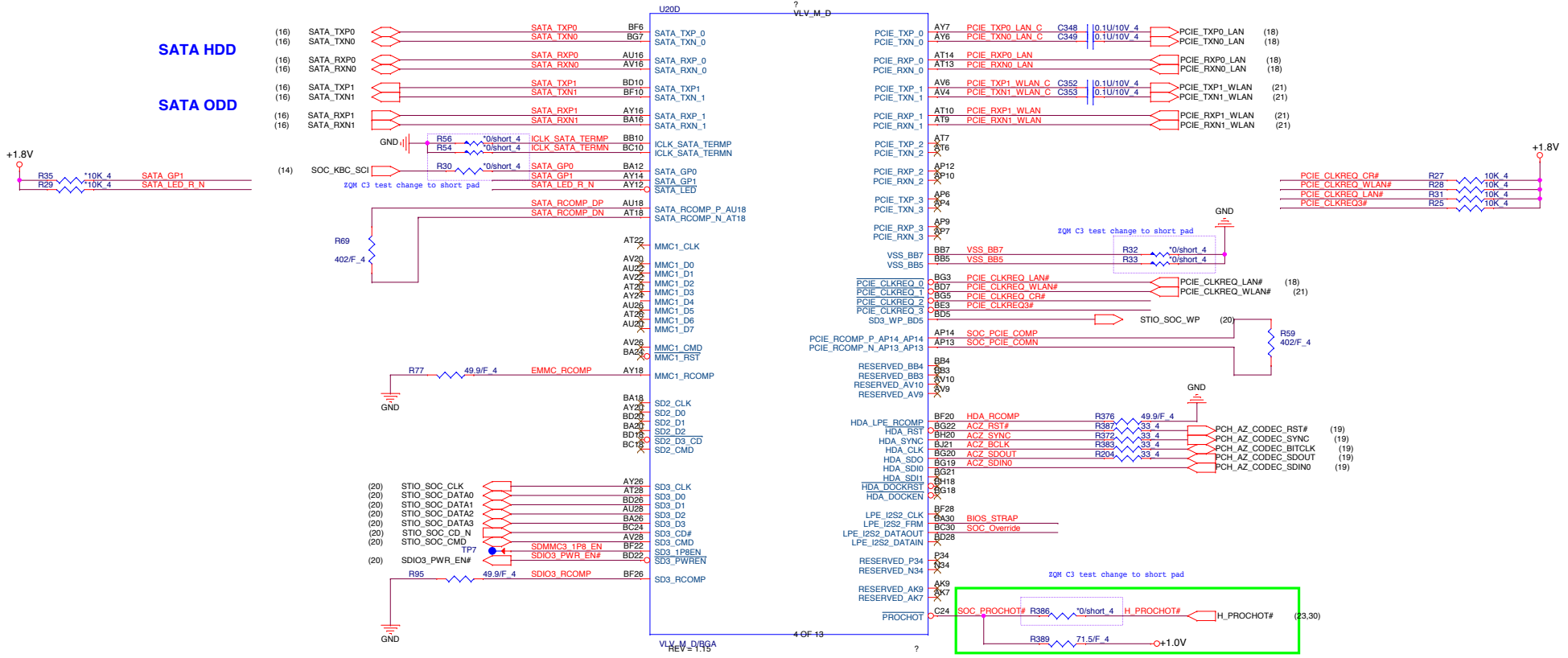
Quanta Computer Inc.
PROJECT : ZQM

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	Valley 1/9 (DDR4)	C3C
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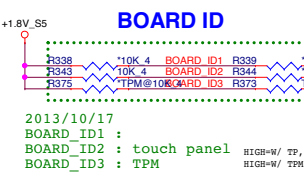
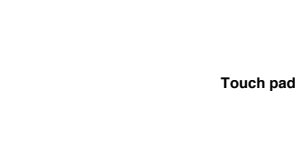
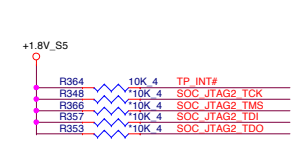
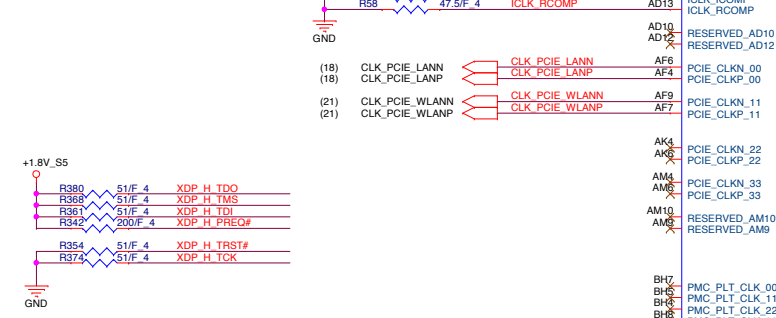
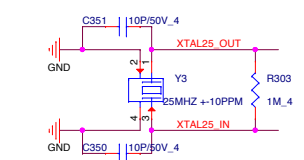
Quanta Computer Inc.
PROJECT : ZQM

Size	Document Number	Rev
	Valley 2/9 (DDR8)	C3C
Date:	Wednesday, April 02, 2014	Sheet 3 of 34

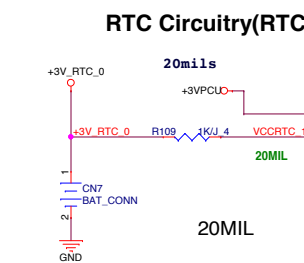


Quanta Computer Inc.
PROJECT : ZQM

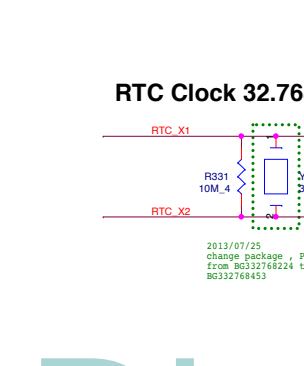
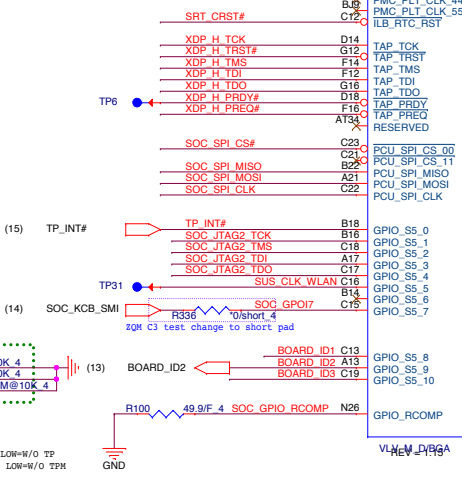
Size	Document Number	Rev
	Valley 4/9 (SD/PCIE/SATA)	C3C
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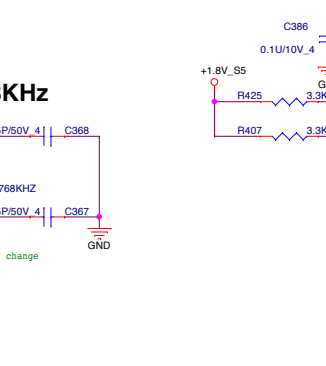
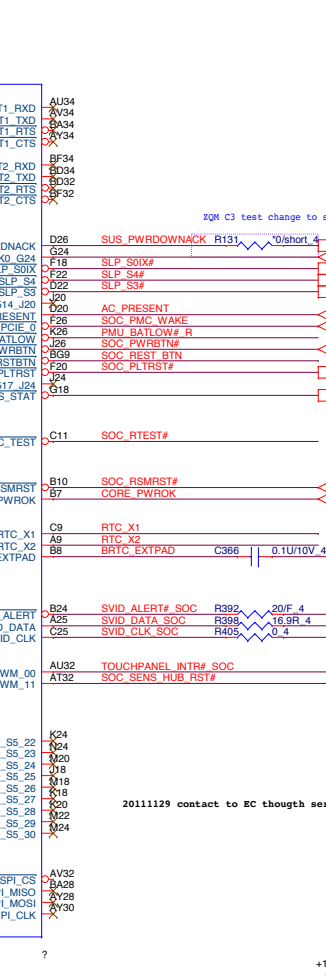
2013/10/17
 BOARD_ID1 : HIGH-W/ TP, LOW-W/O TP
 BOARD_ID2 : touch panel HIGH-W/ TPM, LOW-W/O TPM
 BOARD_ID3 : TPM



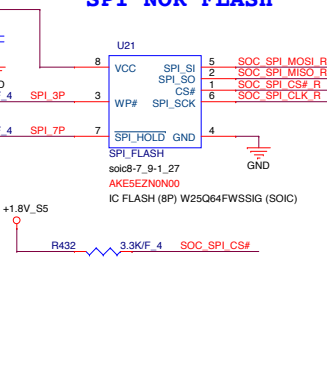
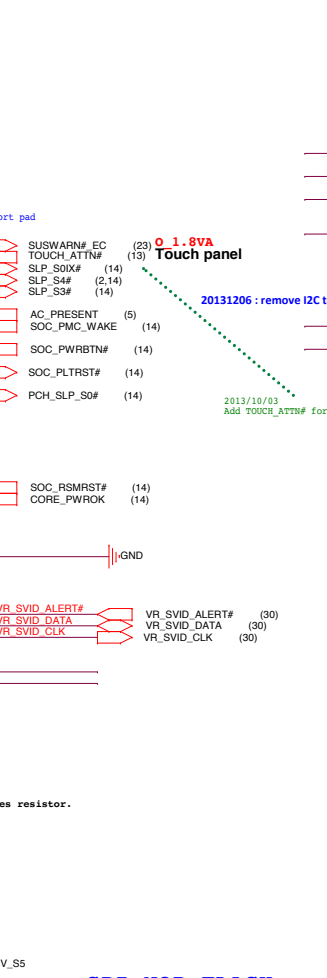
2013/07/25
 change package, P/N change
 from 86332768224 to
 86332768453



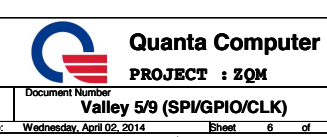
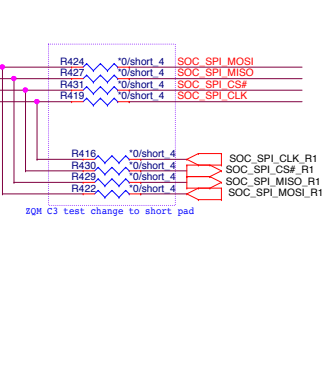
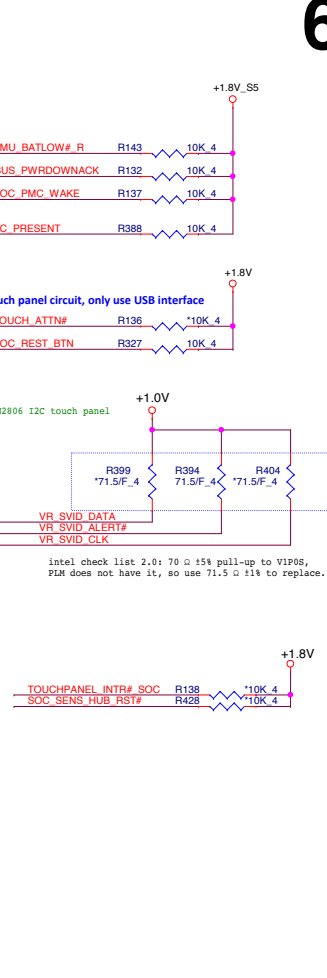
20111129 contact to EC through series resistor.



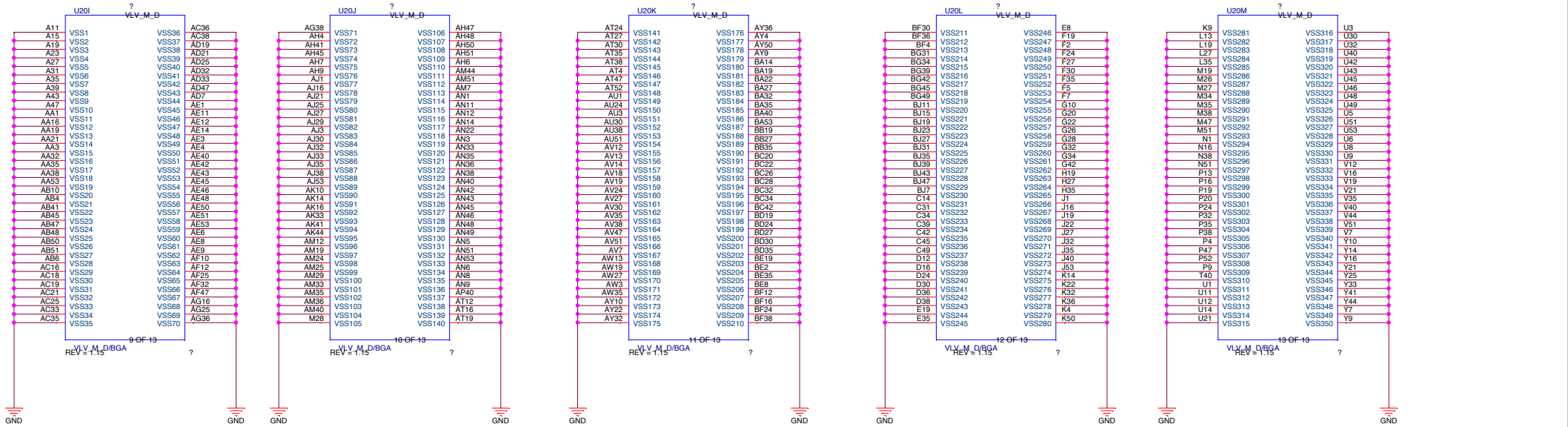
2013/10/03
 Add TOUCH_ATT# for N2806 I2C touch panel




20131206 : remove I2C touch panel circuit, only use USB interface

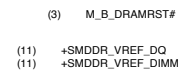
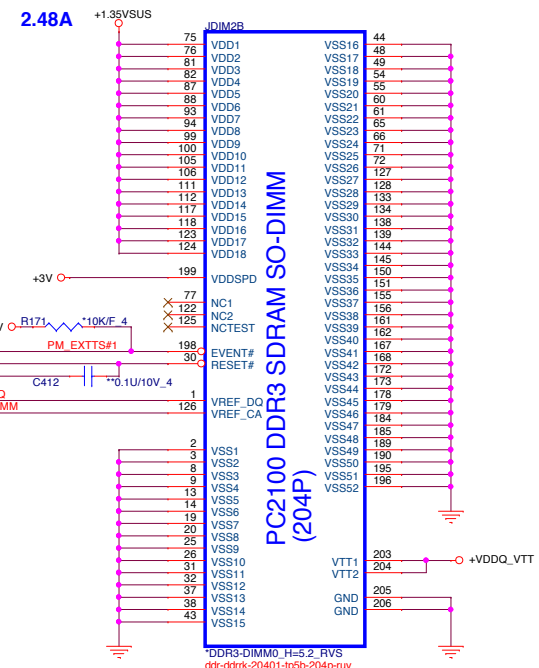
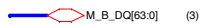
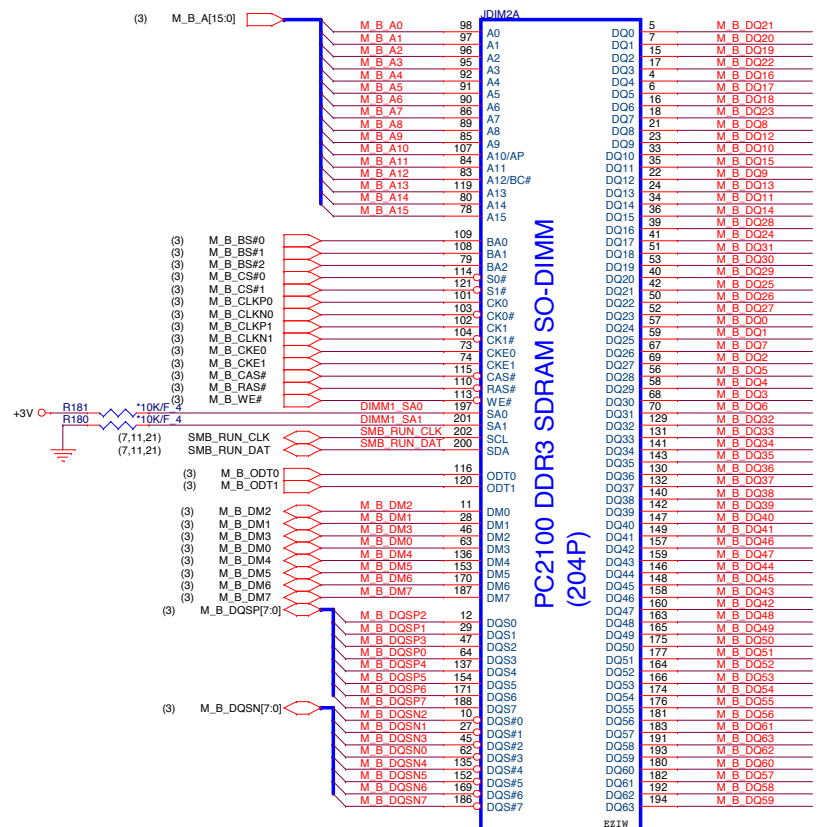


20111129 contact to EC through series resistor.

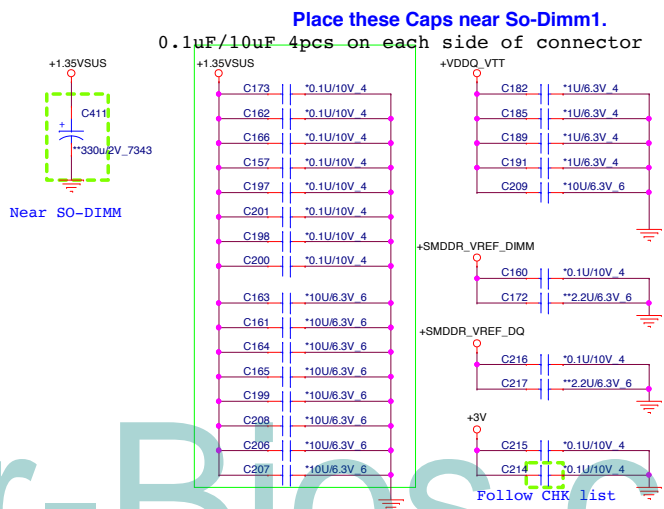
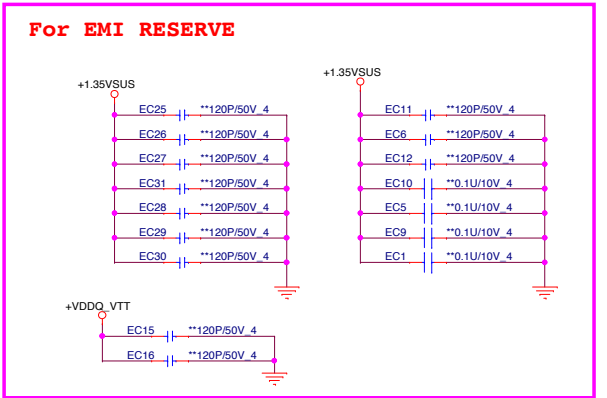


 **Quanta Computer Inc.**
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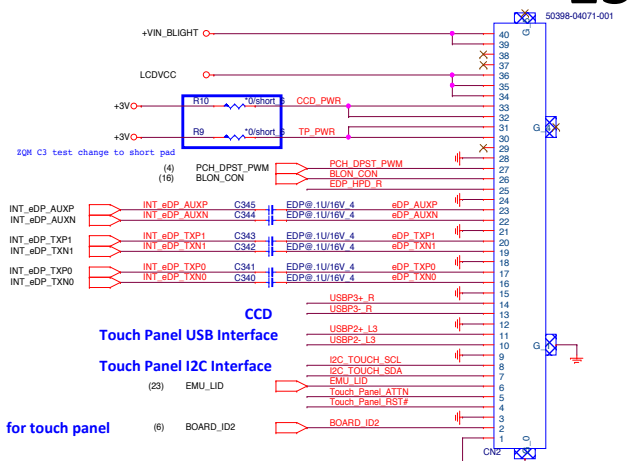
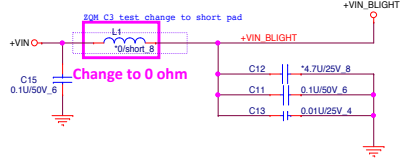
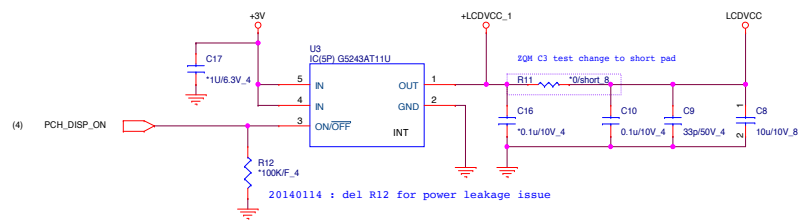
*DDR3-DIMM0_H=5.2_RVS
 *ddr-ddrk-20401-tp5b-204p-ruv
 *DGMK4000412
 IC SOCKET DDR3 RVS SO-DIMM(204P,H5.2)



Quanta Computer Inc.
PROJECT : ZQM

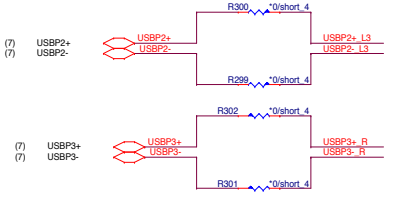
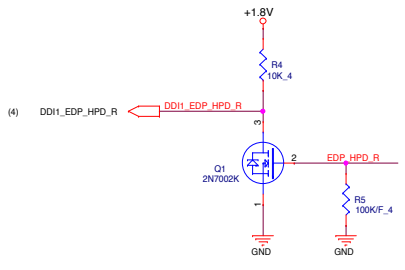
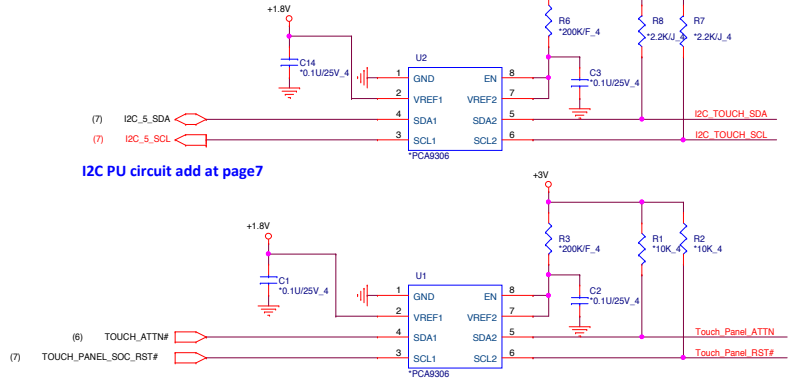
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Date	DDR3 DIMM1-STD(5.2H)	C3C
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EDP Conn.



Touch Panel level shift

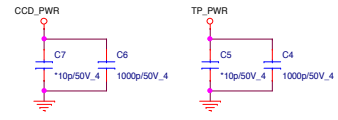
20131206:remove I2C touch panel circuit, only use USB interface



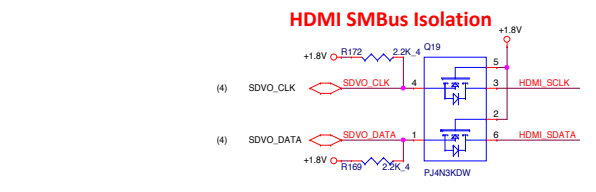
Touch Panel USB Interface

Touch Panel I2C Interface

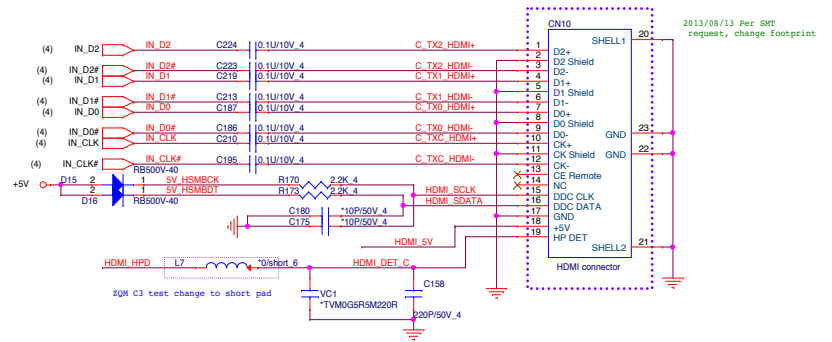
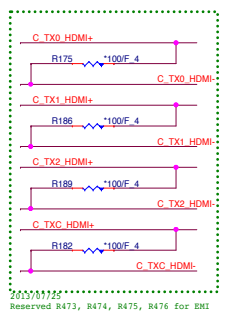
EMU_LID	Touch Pad Function
H	OK
L	No Function



HDMI Conn.

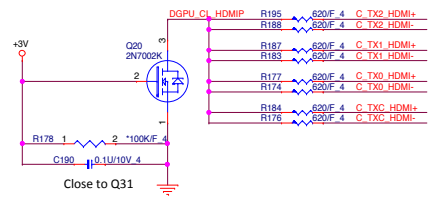


EMI (EMC)

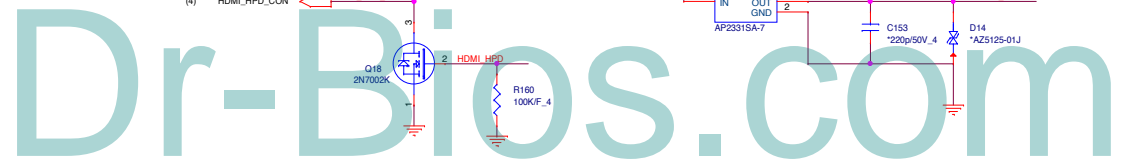
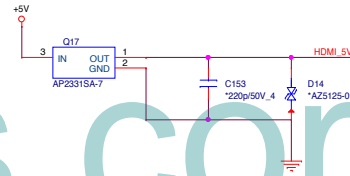
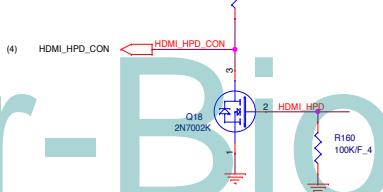


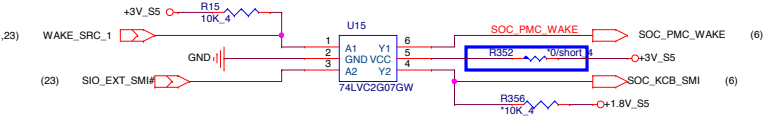
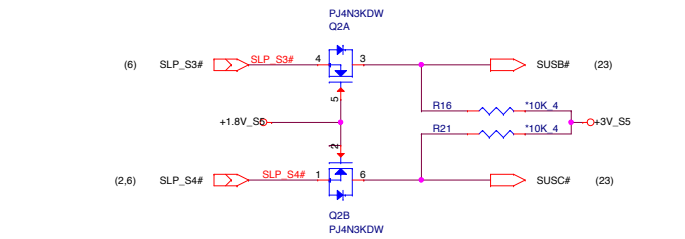
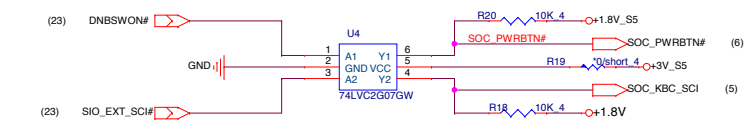
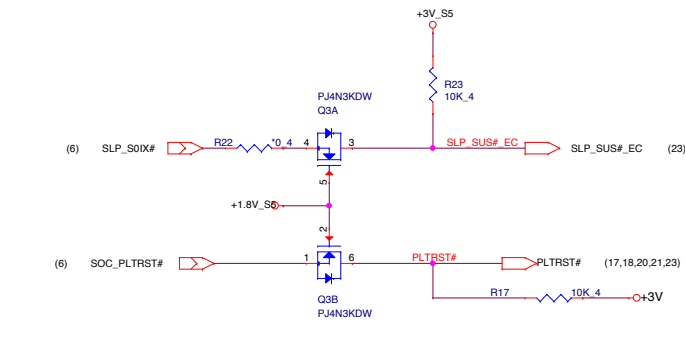
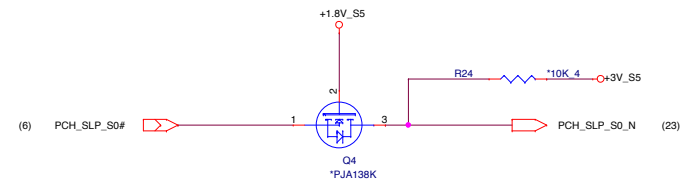
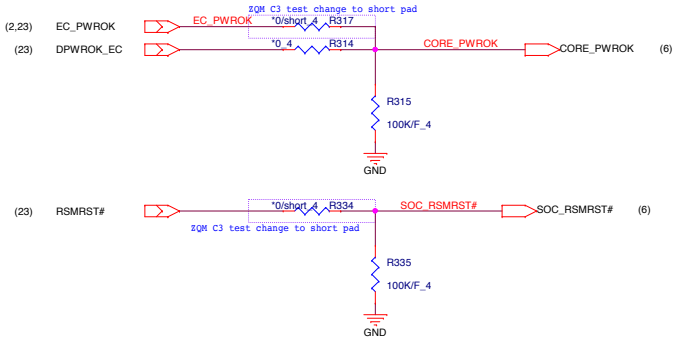
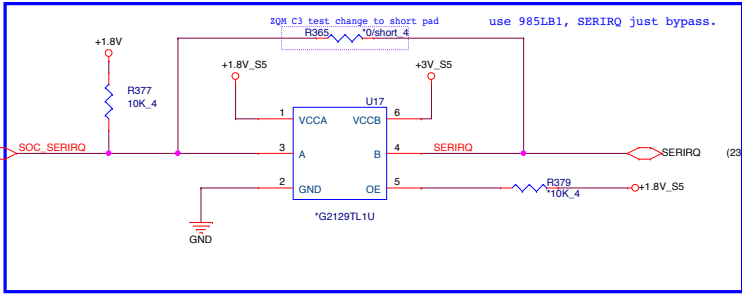
HDMI-Level shift (HDM)

Close to HDMI connector



HDMI-detect (HDM)

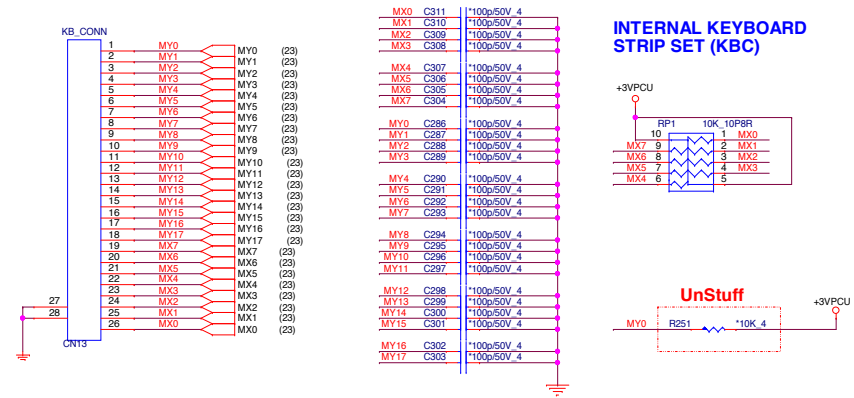




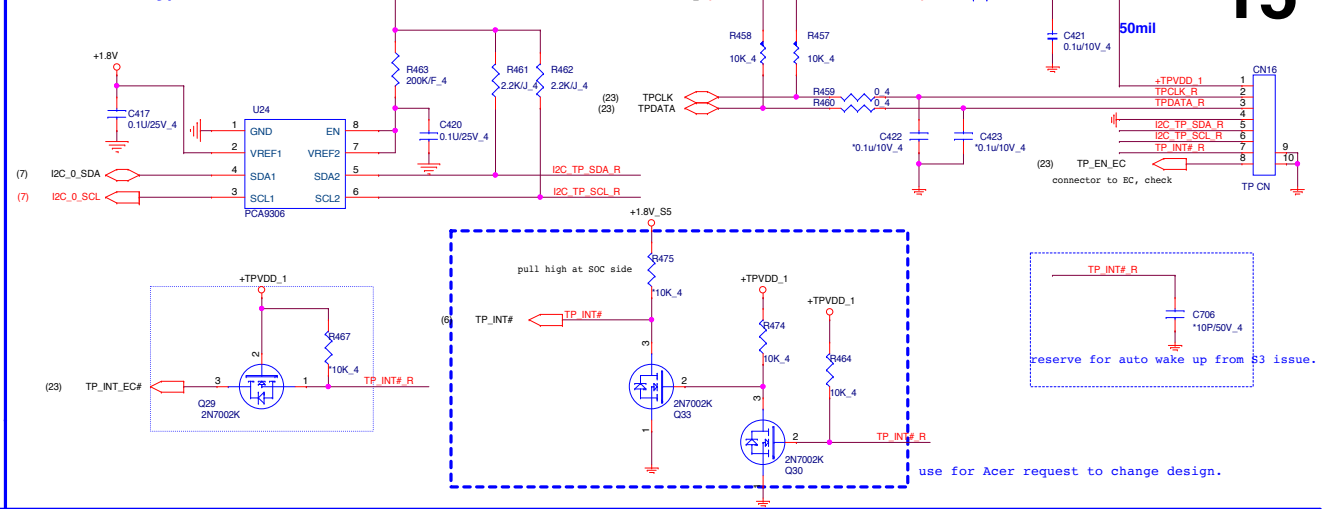
Quanta Computer Inc.
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KEYBOARD (KBC)

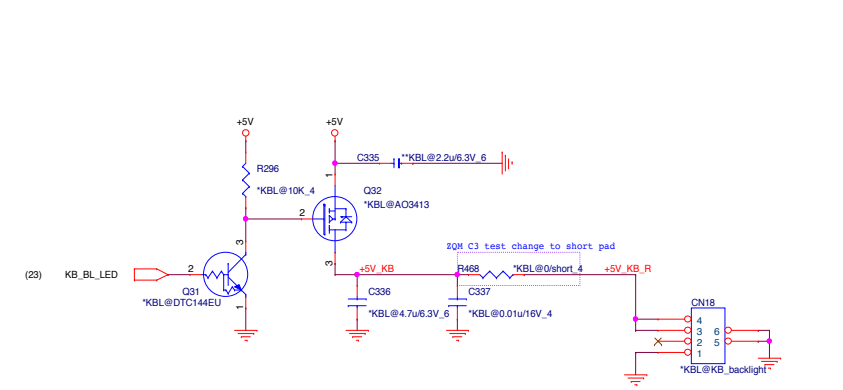


TOUCHPAD BOARD CONN (TPD I2C/PS2 co-lay)

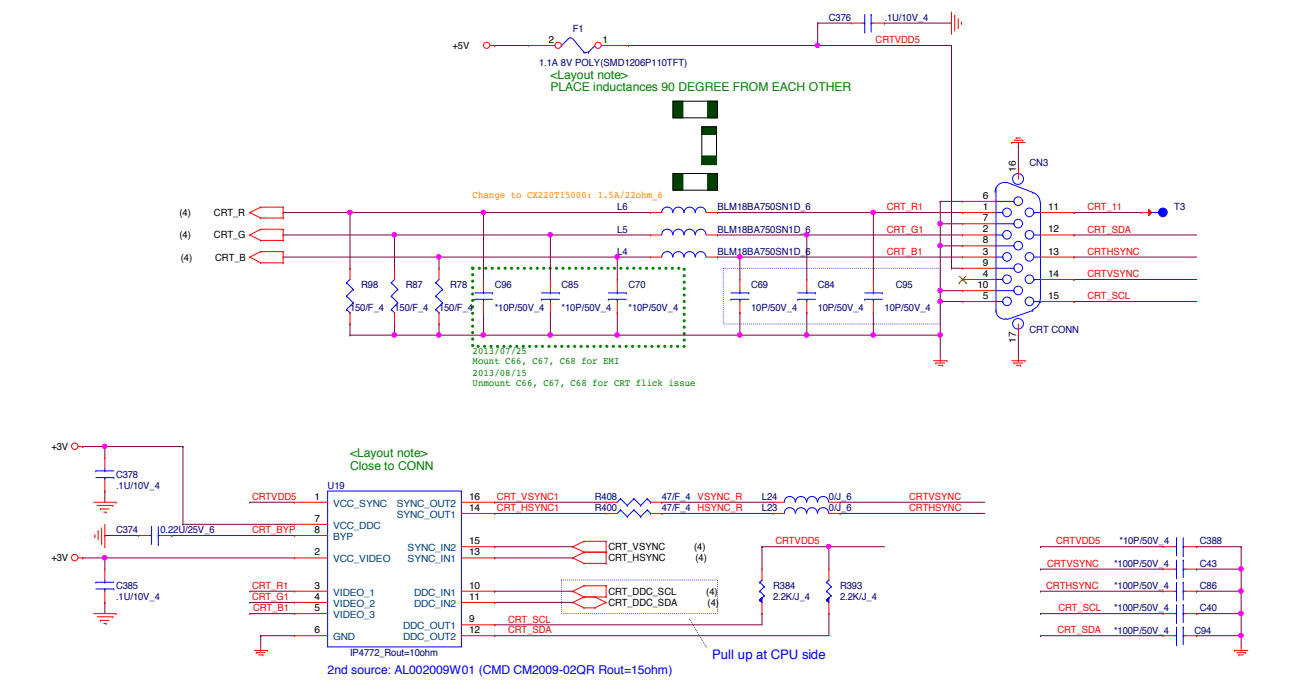


15

KB_BL LED (KBL)



CRT



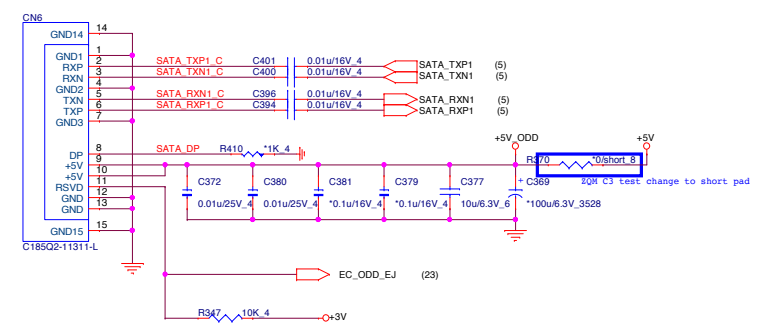
Quanta Computer Inc.
PROJECT : ZQM

Size: _____ Document Number: **KB/BI/TP/LED/Power Connector** Rev: C3C

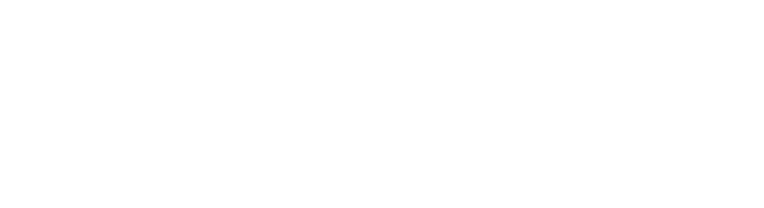
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Dr-Bios.com

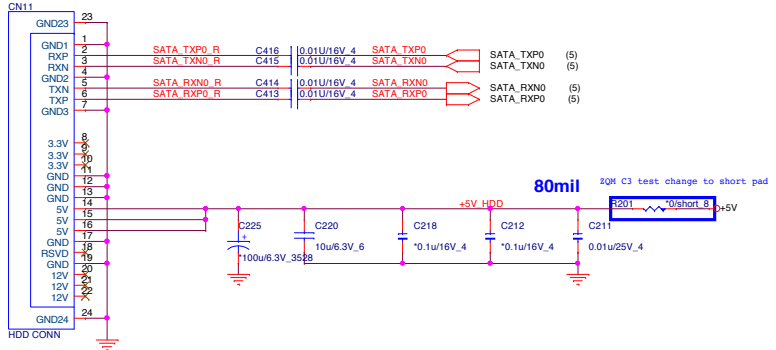
SATA ODD Connector



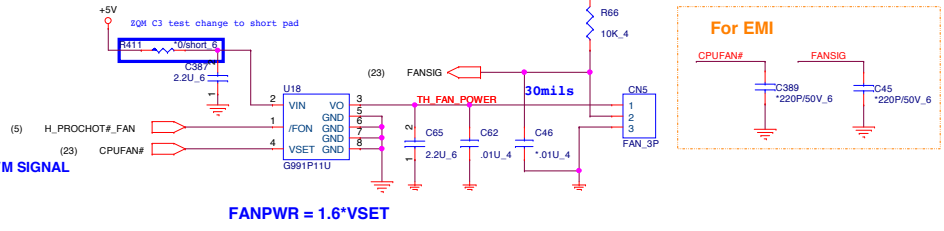
ODD Power (SATA)



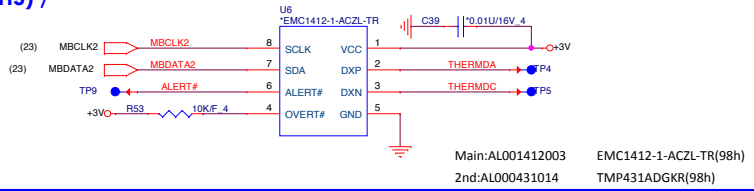
2.5" SATA HDD (HDD)



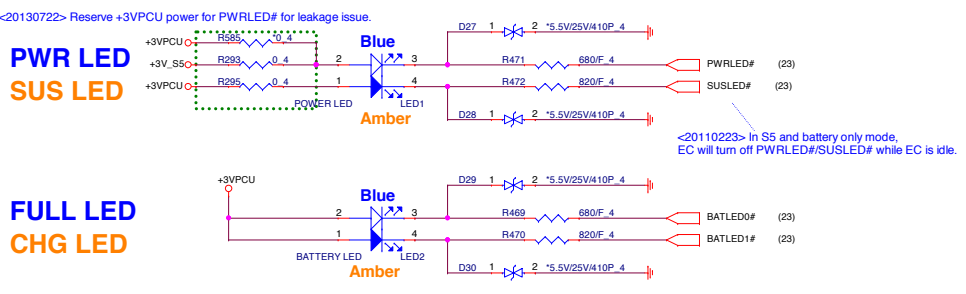
CPU FAN CTRL(THM)



CPU Thermal sensor(THS) / MB Local TEMP



LED/SW (UIF)

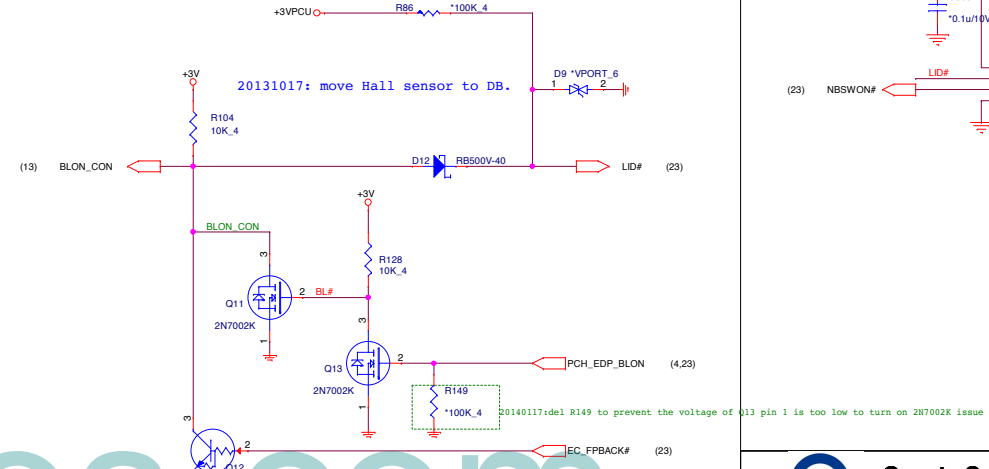


WLAN LED

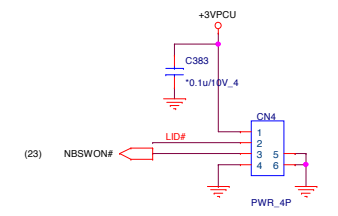
delete the circuit

HALL IC (HSR)

- 1st source : EOD
- 2nd source : AL008251000 -- YBT
- 3rd source : AL009132001
- 4th source : AL009249000

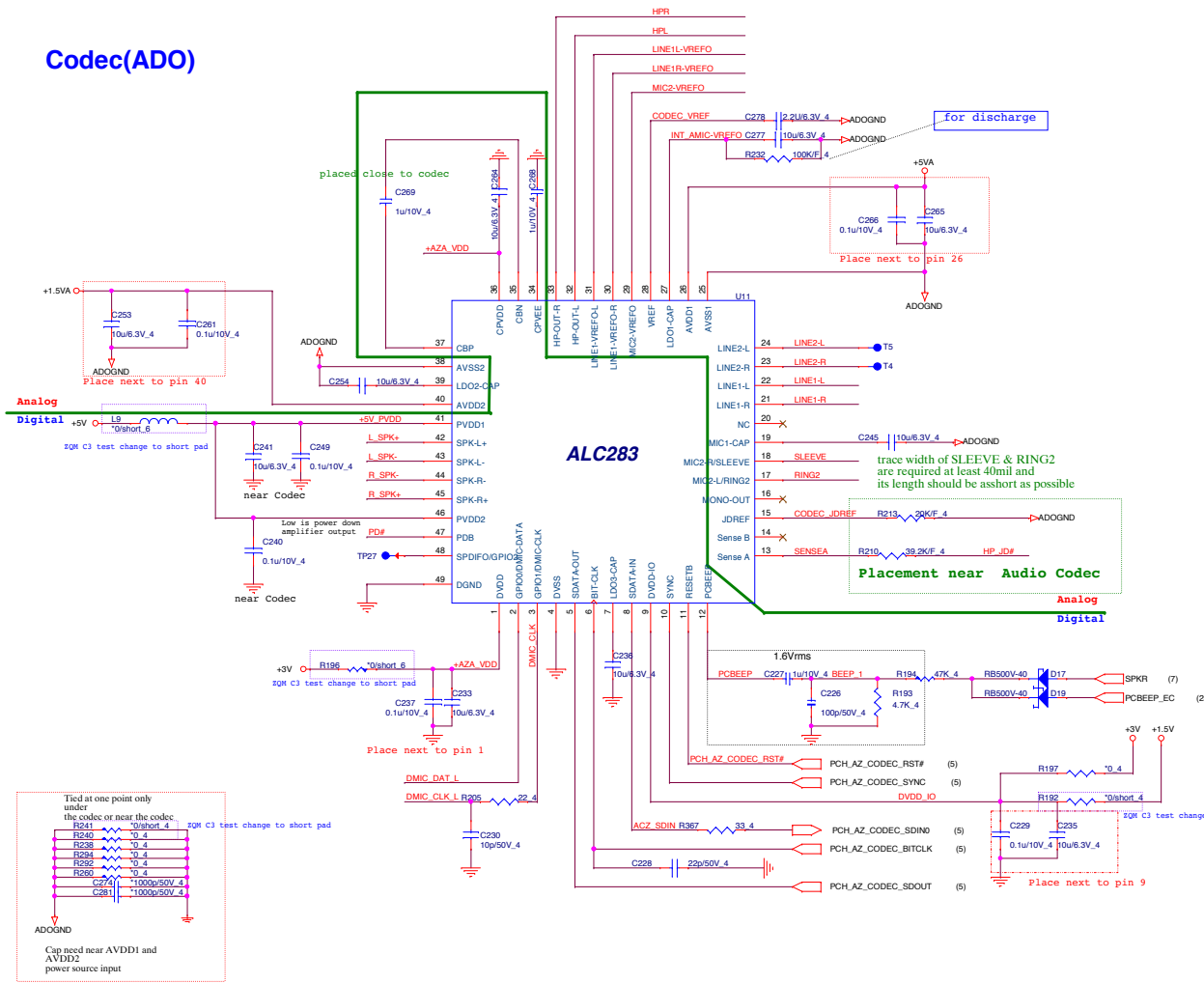


PWR button DB CON

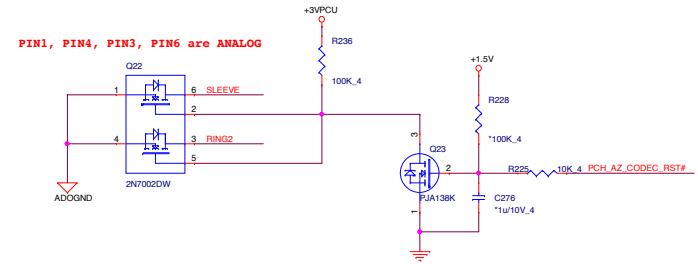


Dr-Bios.com

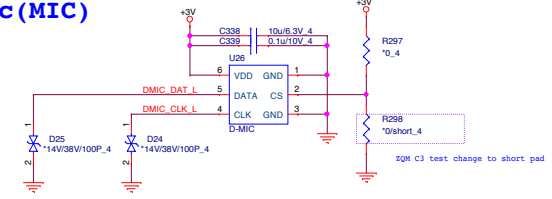
Codec(ADO)



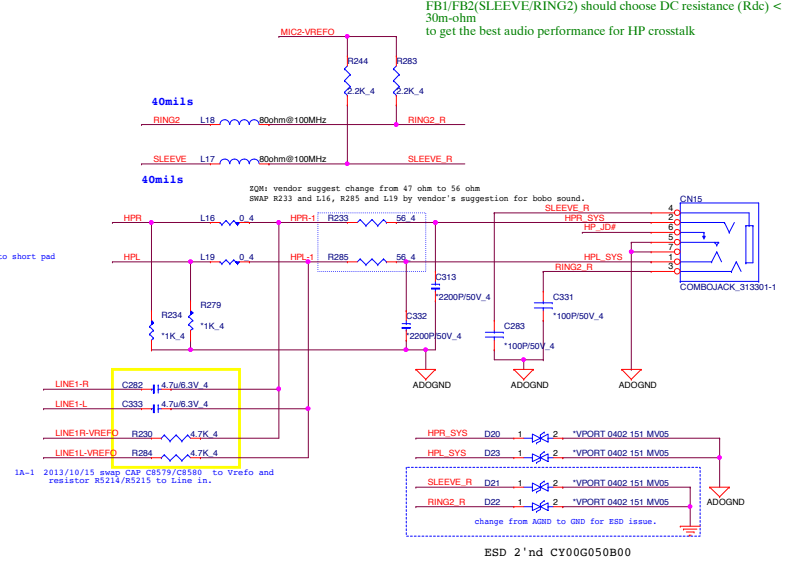
Grounding circuit(ADO)



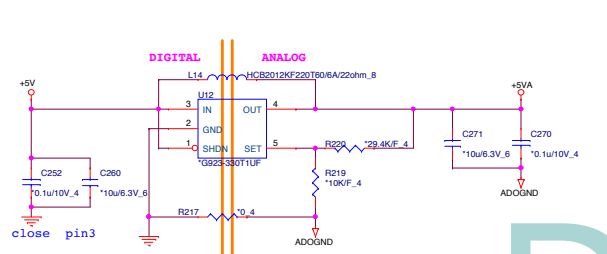
D-Mic (MIC)



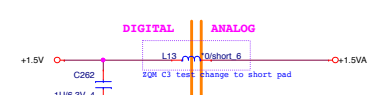
HEADPHONE/MIC/LINE combo



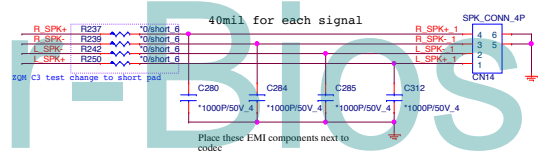
Codec PWR 5V(ADO)



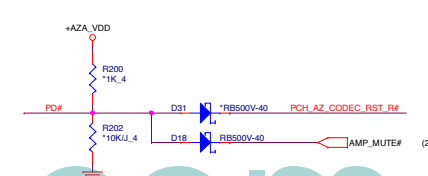
Codec PWR 1.5V(ADO)



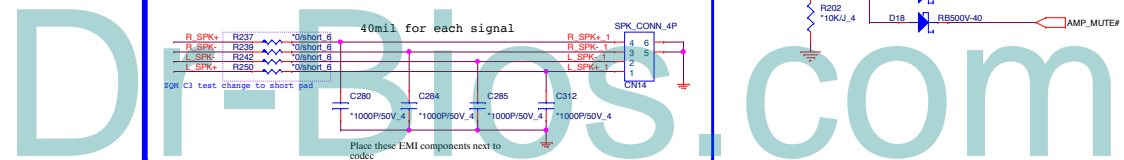
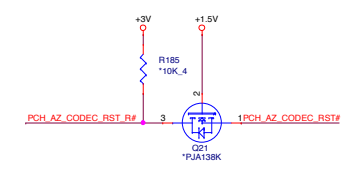
Internal Speaker

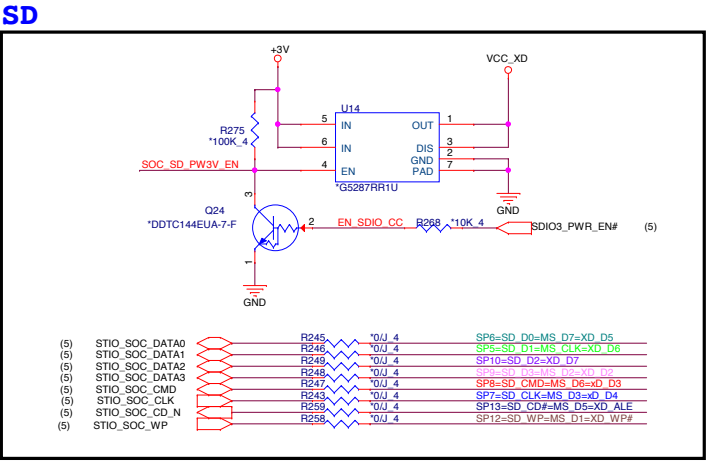


Mute(ADO)



Level shift



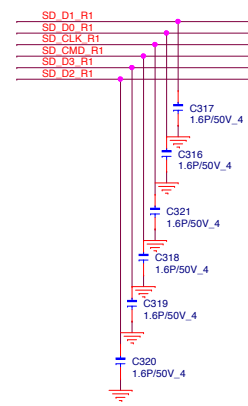
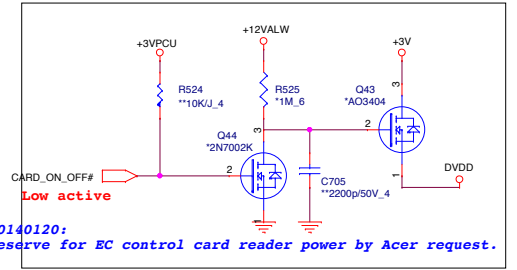
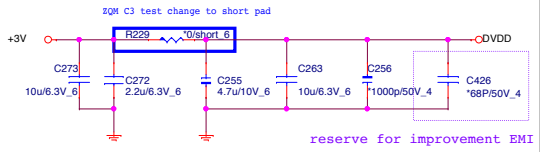
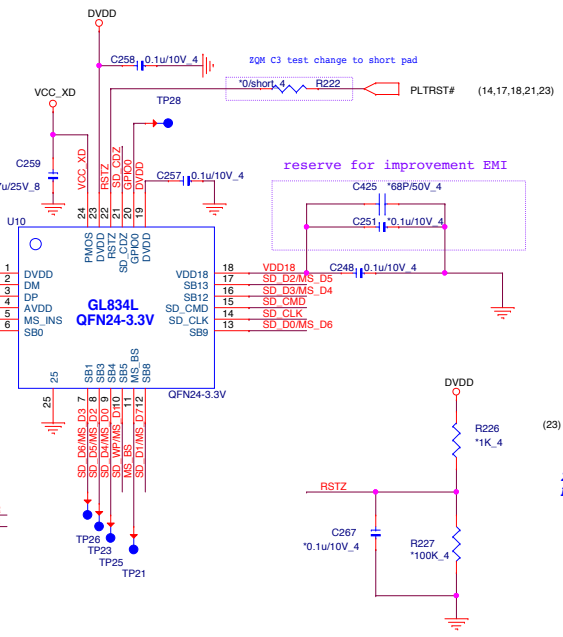
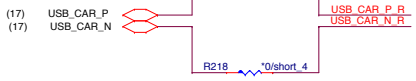
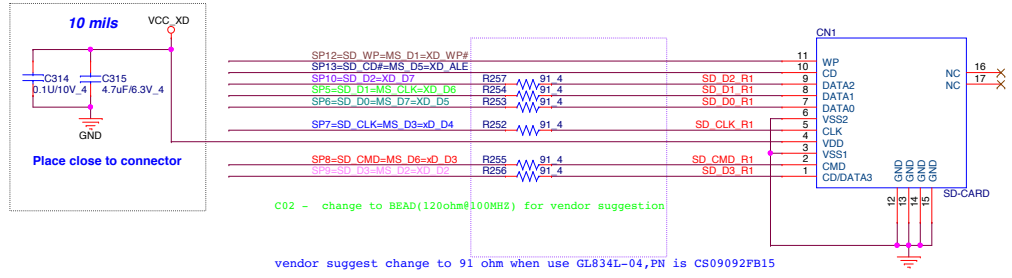


CARD READER CONNECTOR (CRD)

Share Pin

SP1	SD D7	MS_INS#	xD_RD#
SP2	SD D6	xD_RE#	
SP3	SD D5	xD_CE#	
SP4	SD D4	xD_WE#	
SP5	SD D1	MS_CLK	xD_D6
SP6	SD D0	MS_D7	xD_D5
SP7	SD CLK	MS_D3	xD_D4
SP8	SD CMD	MS_D6	xD_D3
SP9	SD D3	MS_D2	xD_D2
SP10	SD D2	xD_D7	
SP11	MS_BS	xD_CLE	
SP12	SD_WP	MS_D1	xD_WP#
SP13	SD_CD#	MS_D5	xD_ALE
SP14	MS_D4	xD_D0	
SP15	MS_D0	xD_D1	
SP16	MS_D1	xD_CD#	

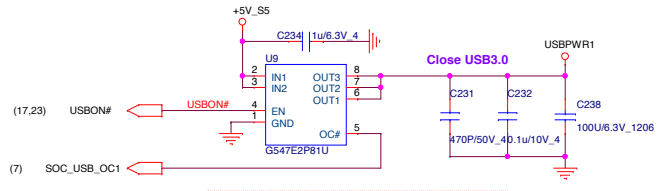
SD/MMC CARD READER (CRD)



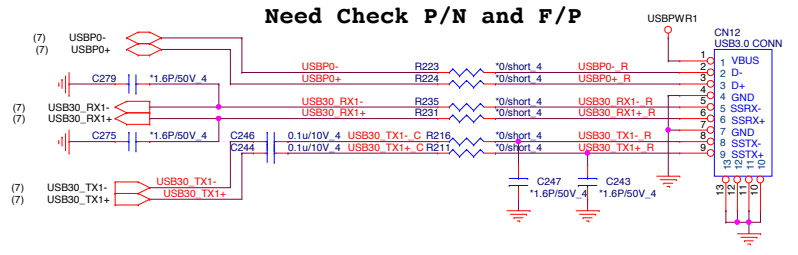
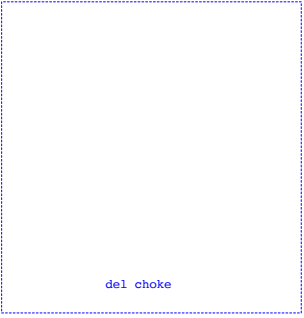
Quanta Computer Inc.
PROJECT : ZQM

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	Cardreader GL834L	C3C
Date:	Wednesday, April 02, 2014	Sheet 20 of 34

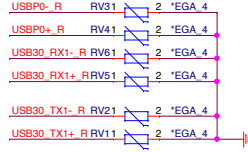
USB 3.0 Connector



G547E2P81U: Enable: Low Active /2.5A

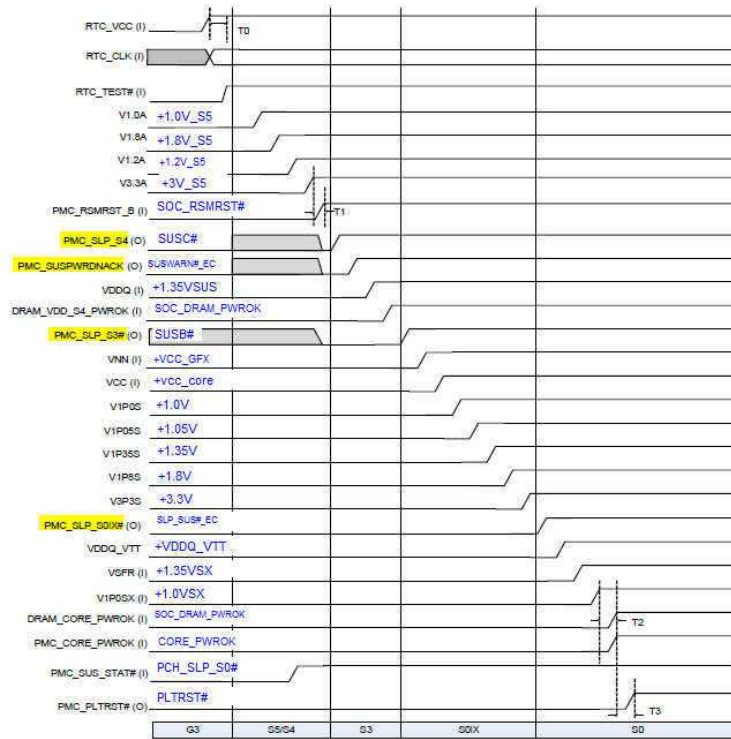



Need Check P/N and F/P



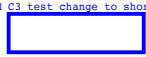
Quanta Computer Inc.
PROJECT : ZQM

Size	Document Number	Rev
	Touch Panel	C3C
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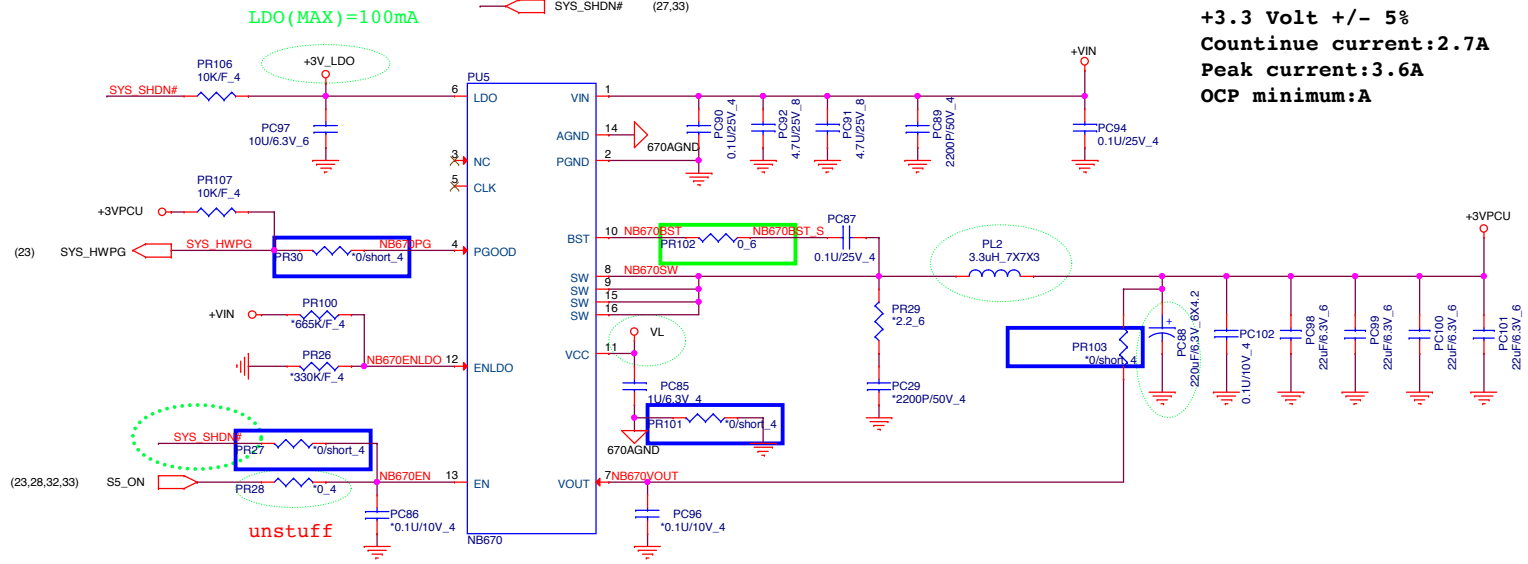

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Power sequence
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ZOM C3 test change to short pad

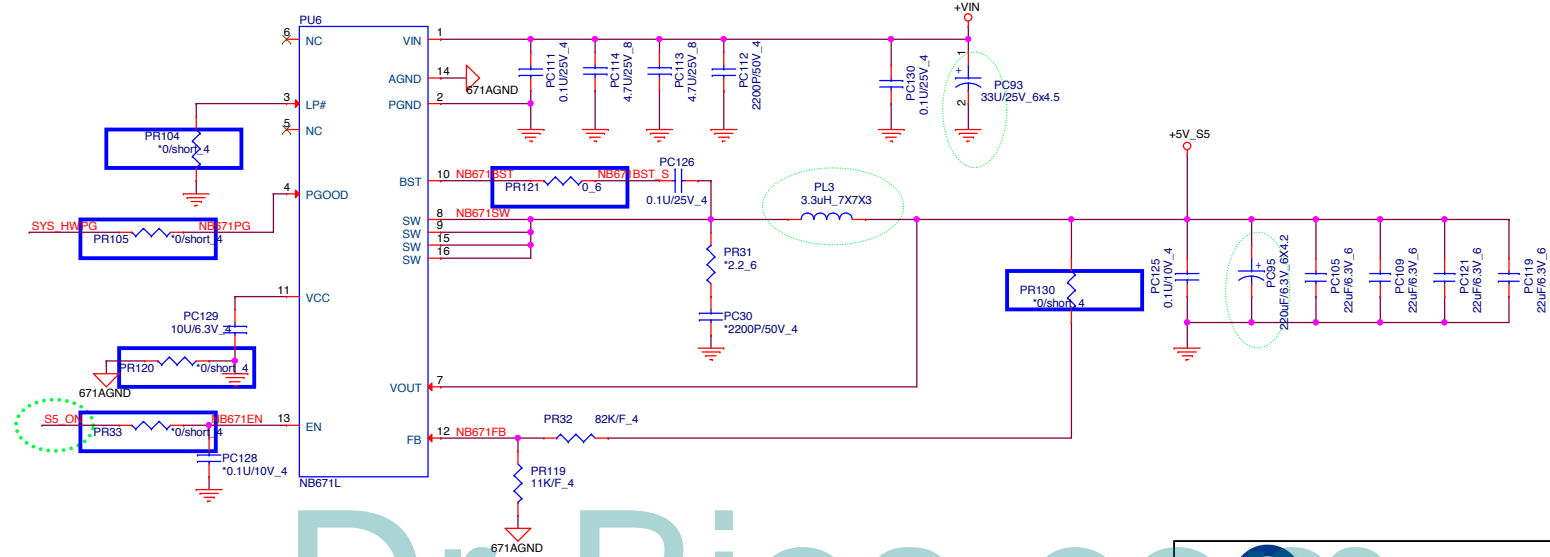


+3VPCU (6,8,15,16,19,20,23,25,27,28,32)
 +5V_S5 (17,22,28,29,30,31,32)
 SYS_SHDN# (27,33)

+3.3 Volt +/- 5%
Countinue current:2.7A
Peak current:3.6A
OCP minimum:A



+5 Volt +/- 5%
Countinue current:5.5A
Peak current:7.3A
OCP minimum: A



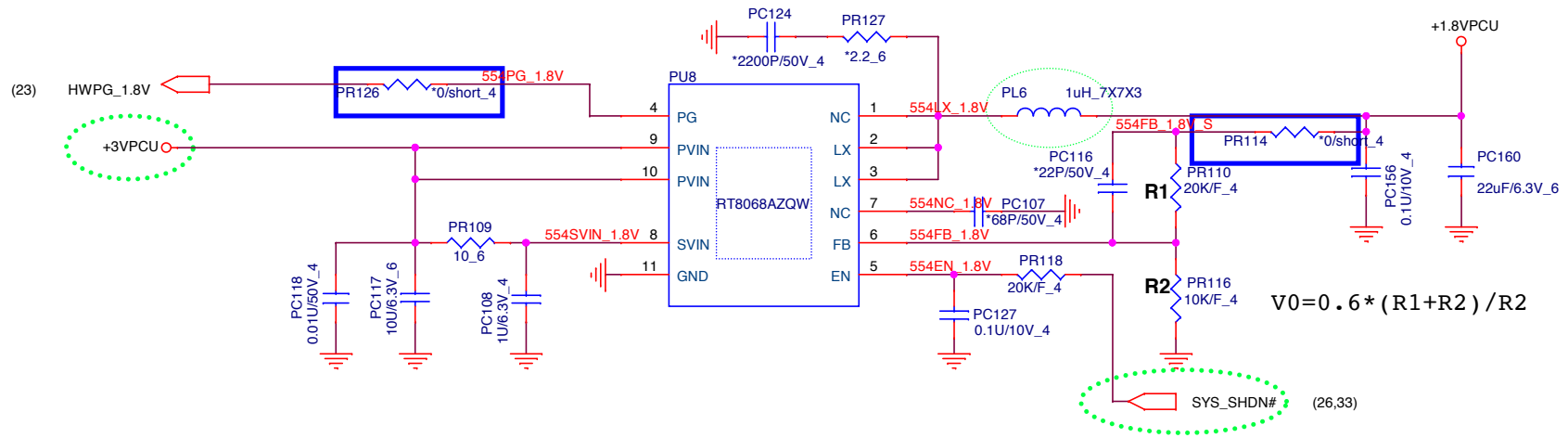
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PROJECT :
+3VPCU/+5VS5 (NB670/NB671L)
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ZQM C3 test change to short pad



+1.8V Volt +/- 5%
Countinue current:0.08A
Peak current:0.11A
OCP minimum:A



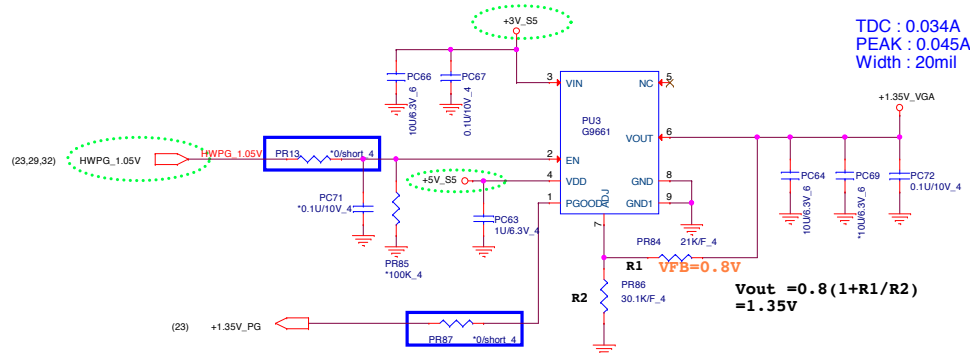
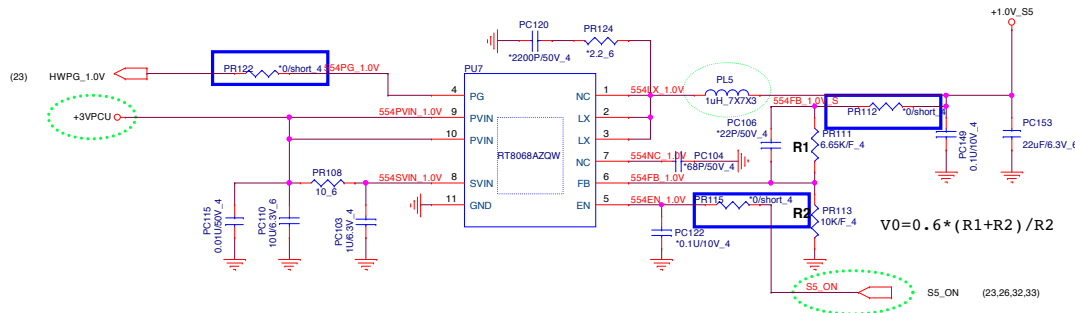
$$V0 = 0.6 * (R1 + R2) / R2$$




PROJECT : W03Z
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Size Custom	Document Number +1.8VPCU	Rev C3C
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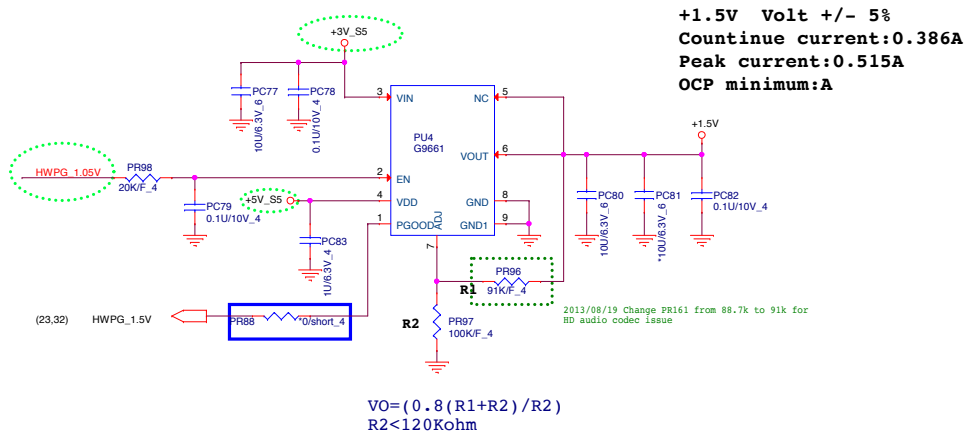
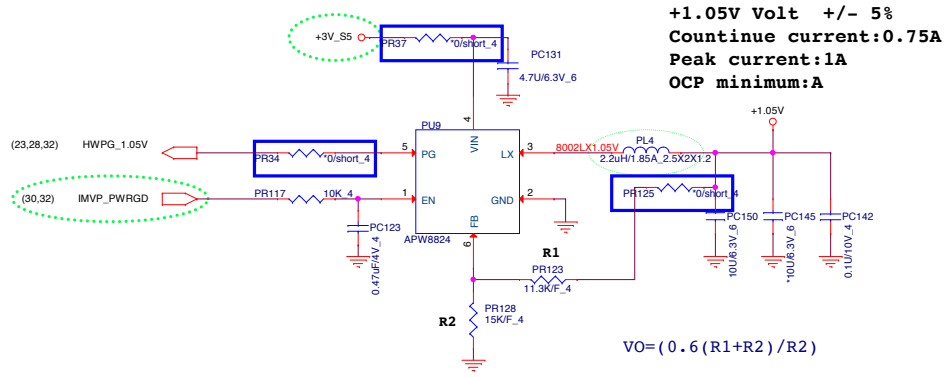
+1.0V Volt +/- 5%
Countinue current:2.3A
Peak current:3.1A
OCP minimum:A




2013/09/09 LDO for 1.35V

 Quanta Computer Inc. PROJECT :			Rev
Size	Document Number	+1.0V/+1.35V_VGA	
Date	Wednesday, April 02, 2014	Sheet	28 of 34

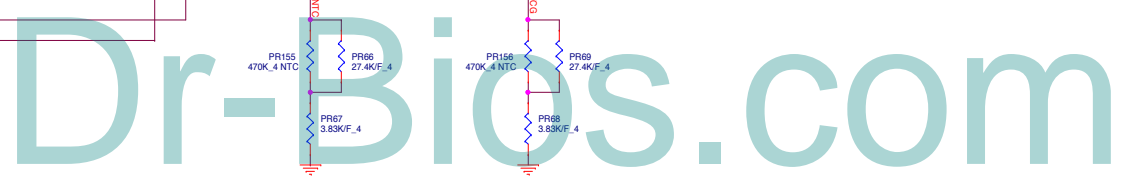
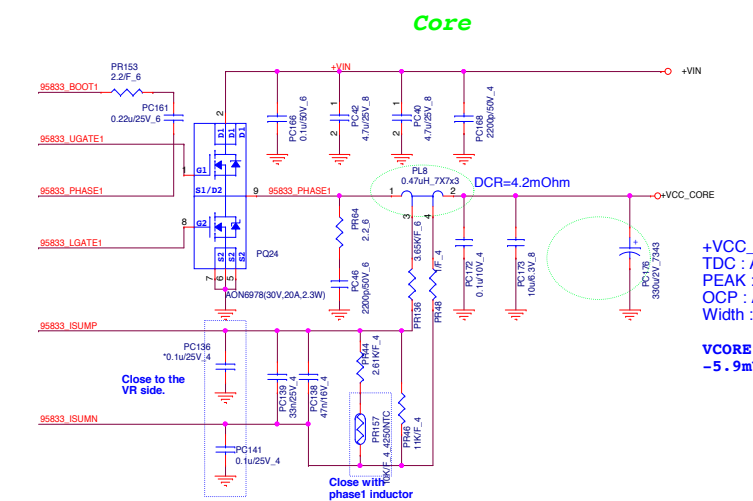
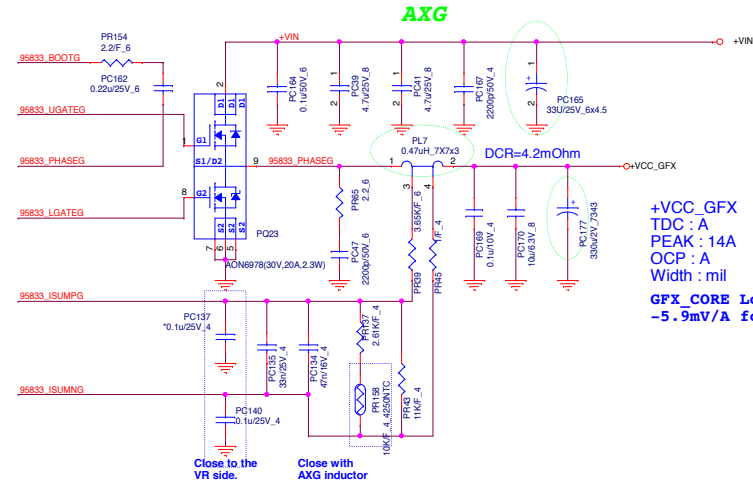
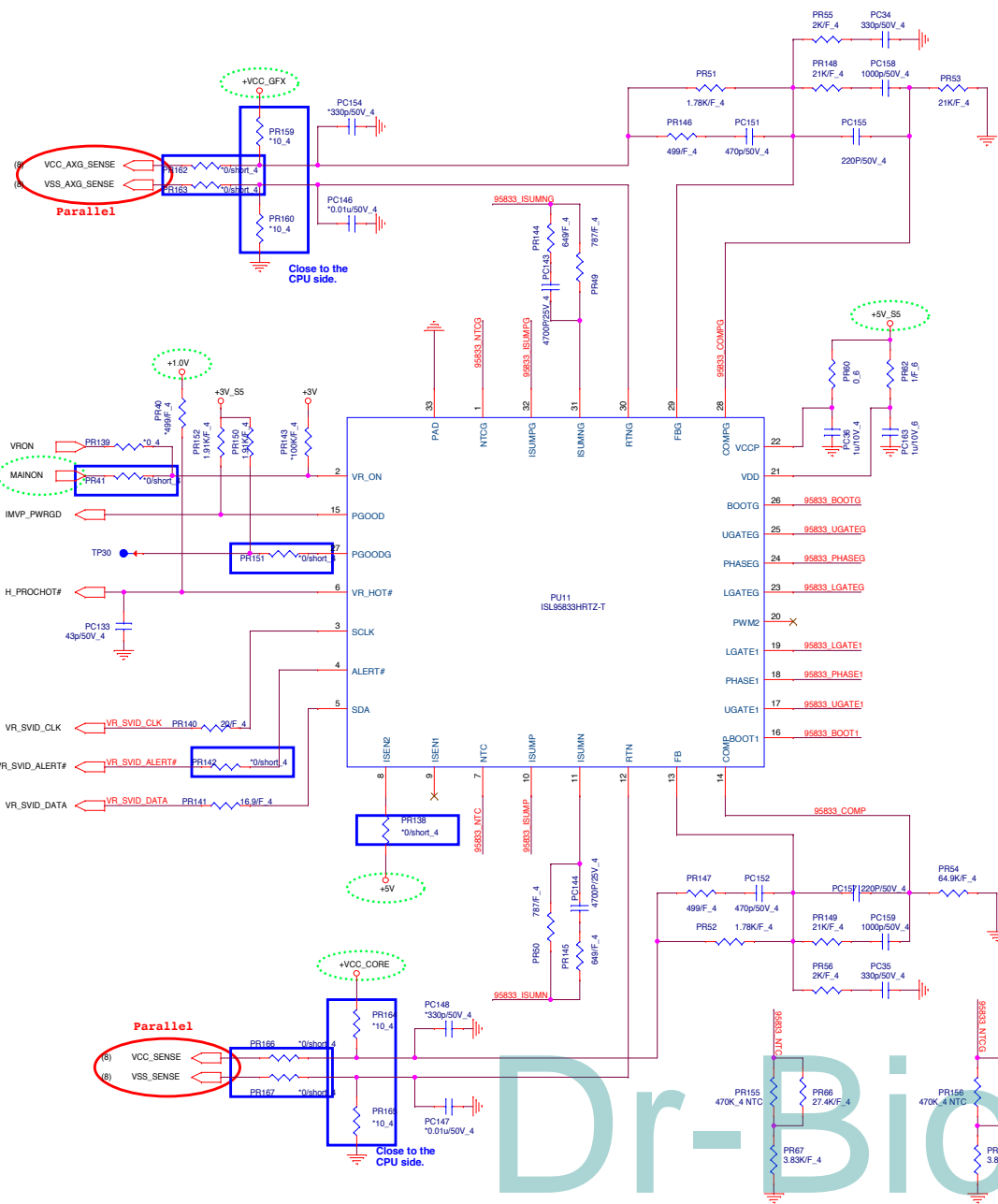
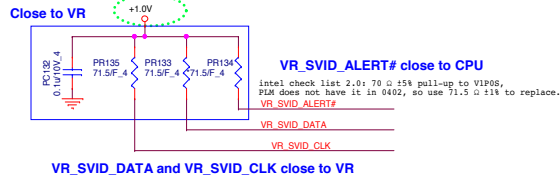
ZQM C3 test change to short pad



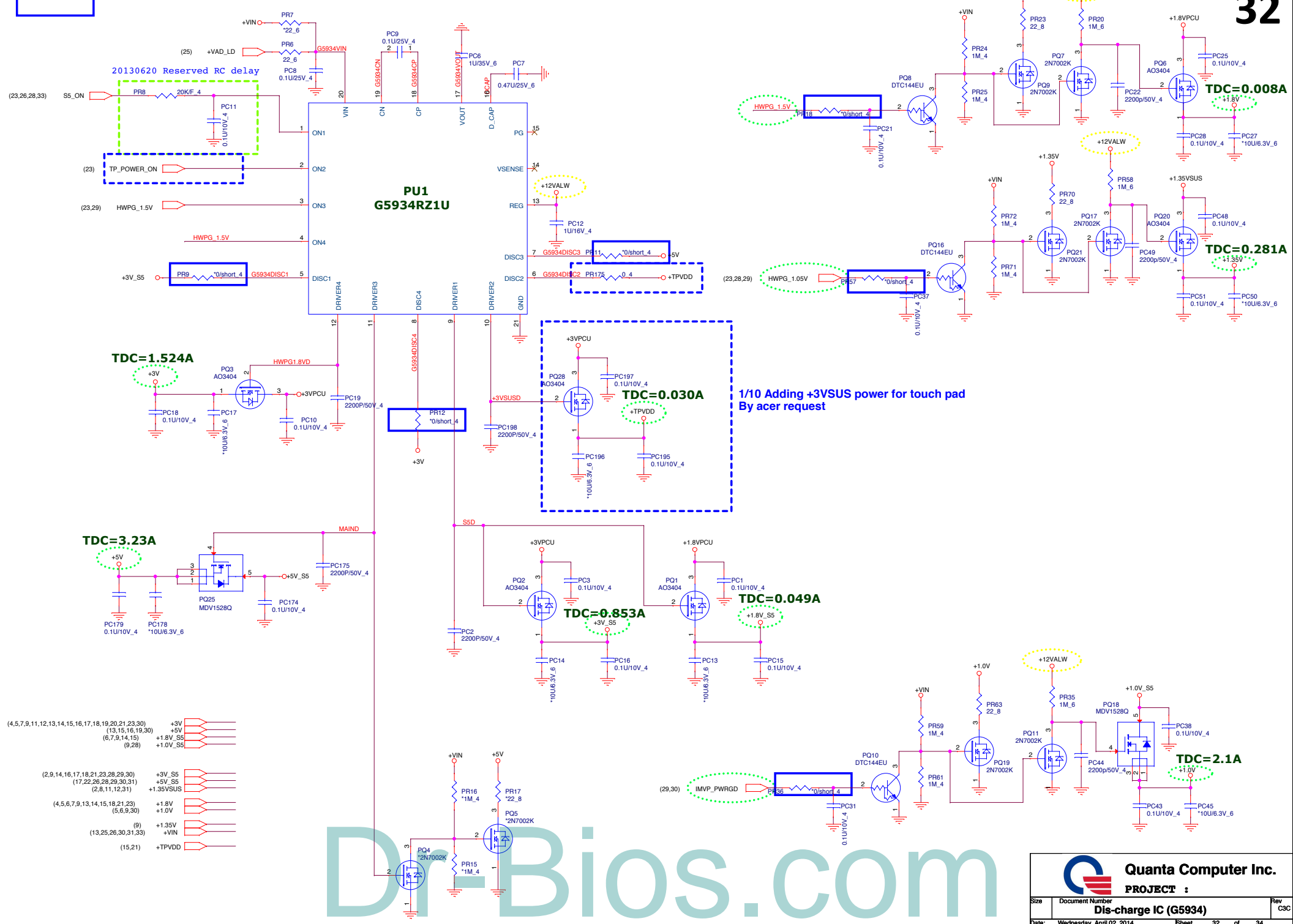
 Quanta Computer Inc. PROJECT : ZQM		
Size	Document Number	Rev
	+1.05V/1.5V	C3C
Date:	Wednesday, April 02, 2014	Sheet 29 of 34

20130617 Change +1.05V to +1.0V

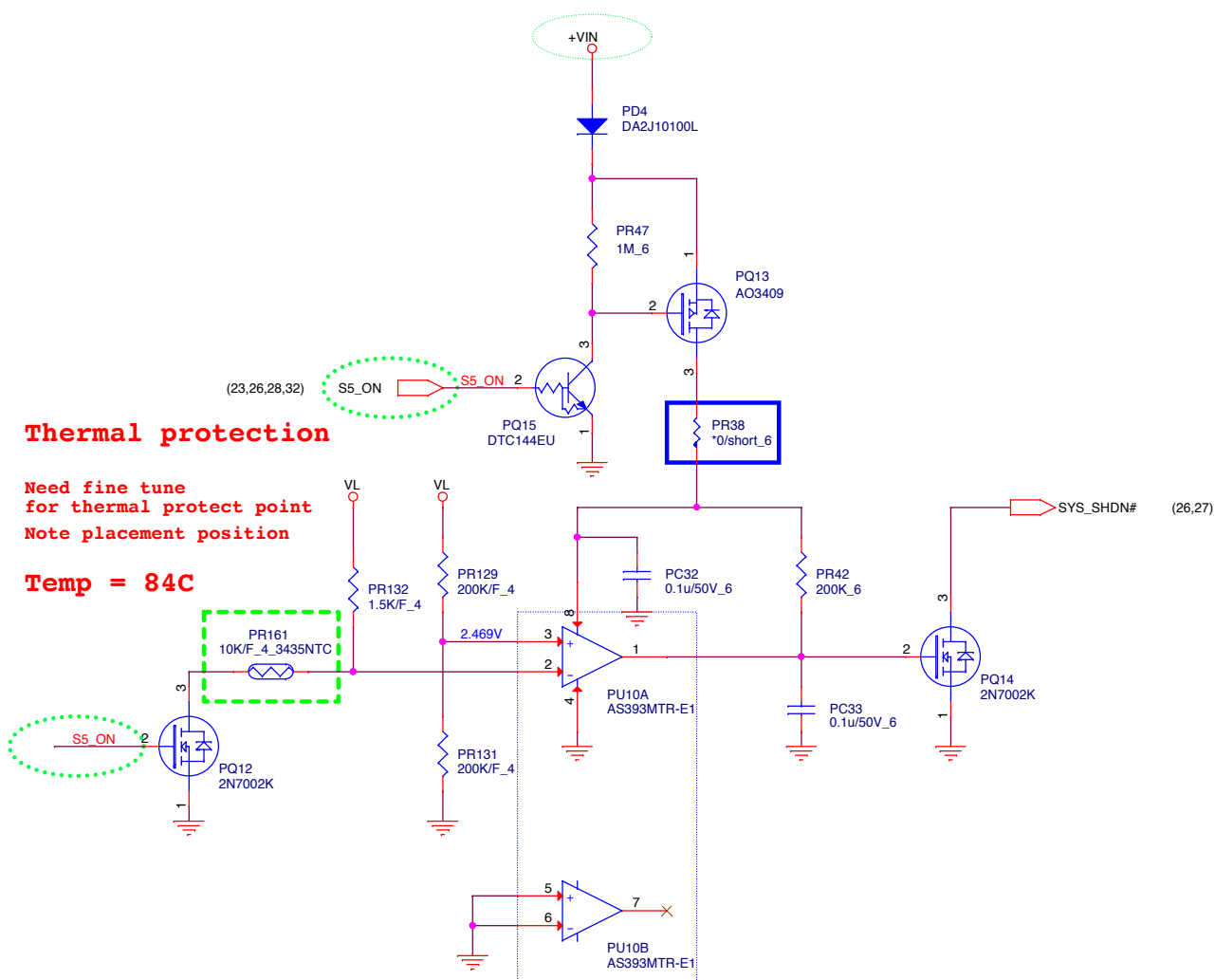
20M C3 test change to short pad



ZQM C3 test change to short pad



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Thermal protection

Need fine tune
for thermal protect point
Note placement position

Temp = 84C


For EC control thermal protection (output 3.3V)

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PROJECT :		
Size	Document Number	Rev
	Thermal	C3C
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Model	Date	CHANGE LIST
ZQM REV:A		1. FIRST RELEASED
ZQM REV:B	12/12	Change SPK connector,power FFC connector,LED footprint Change audio jack PN change audio RST circuit back to previous version and reserve D31,R185 and Q21
	12/16	Delete PC171 for power space not enough issue.
	12/18	SWAP CN14, Del Hole17 change Hole27 footprint change Hole5,Hole7,Hole25,Hole29 footprint stuff R175,R182,R186,R189 of HDMI for EMI stuff C228 for AudioI for EMI
ZQM REV:C	01/10	reserve 3V_S5 for touch pad power for Acer request to design design power add 3VSUS circuit for touch pad to use
	01/14	change R139 from 10K to 200K and del R12 for 3V power leakage issue change R115 from 47K to 10K for S5_ON signal, for PUI power enable level issue.
	01/16	change D11 PN to BCBAT54CZ13, footprint to sot323 213-2 1-1 3-2n7002w for small package and cost down change R461,R462 from 4.7K to 2.2K for intel document suggestion for 400KHz pull high signal. add Nuvoton TPM NPCT650 to colay with SLB9655
	01/17	change CN9 footprint to mipci-800055fb052gx00pl-52p-smt for SMT request change PUI1 footprint to qfn32-4x4-4-33p-is195812hrz-smt for SMT request change USB hub RESET pin from R/C to PLTRST#, because +3V_S5 power will keep even power off system in AC mode change R145 from 10K to 200K and del R149 to prevent the voltage of Q13 pin 1 is too low to turn on 2N7002K issue for PCH_EDP_BLON
	01/20	reserve power control circuit by EC card reade for Acer's request reserve power control signal of EC GPIO 52 for card reade for Acer's request modify U5 power to main level
	01/21	del power jumper change PU7 and PU8 PN to AL008068000 change R282 to 619 ohm for USB eye diagram.
	01/23	change card reader RESET from PLTRST# to R/C for S3 resume issue by jack's suggestion
	02/05	change R469 and R471 from 33 ohm to 220 ohm for ME request change U10 to Rev 4 and change R252-R257 from bead to 91 ohm for vendor's suggestion. update function code.
	02/07	reserve R175,R182,R186,R189 of HDMI for SDA HDMI fail.
	02/13	change PUI.2 from SUSON to TP_POWER_ON change PQ28.1 from +3VSUS to +TPVDD change all +3VSUS to +TPVDD.(TP and TPM) use EC GPIO50 to control TP power for Acer's request reserve +3VPCU for LED1.2 for leakage issue
	02/18	change 0 ohm to short pad SWAP R233 and L16, R285 and L19 by vendor's suggestion.
	02/19	change L16 and L19 footprint to 0402 size
	02/24	reserve GPIO34 as PCH_EDP_BLON for EC checking backlight on timing
	02/25	add hole 30 and del hole 21 for ME request
	02/27	change LED PN from BEB00028ZA0 to BEB00011ZA5 for Vf issue. change R469 and R471 from 220 ohm to 330 ohm for test result change R470 and R472 from 220 ohm to 680 ohm for test result
	03/03	remove R261 for this resister maybe make some UHS-I card compatibility fail in GL834L-04, so must remove this resister. remove U5 and R80 for Nuvoton FAE Mark said that TPM doesn't SERIRQ.
ZQM REV:Ramp	03/04	change C316-C321 to 1.6pF by vendor's suggestion.(don't large than 2.7P)
	03/04	reserve C706 for PTP touch pad sometimes will auto resume from S3.
	03/06	change R469 and R471 from 330 ohm to 680 ohm for test result change R470 and R472 from 680 ohm to 820 ohm for test result
	03/12	change Q16 to PJA138K
	03/18	reserve 3V_S5 power for TP to use.
	03/20	change SLEEVE R and RING2 R from ADOGND to GND for ESD issue. del all USB signal choke and change to short pad.
	03/21	change PR102 and PR121 from short pad to 0 ohm for power drop issue.
	03/24	Delete 1.35VSUS short jumper JP11

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 Quanta Computer Inc. PROJECT : ZQM		DOC NO.	PROJECT MODEL : ZQM	APPROVED BY:	DATE:
Change list <small>File Document Number Rev Date</small>			PART NUMBER:	DRAWING BY:	REVISION: