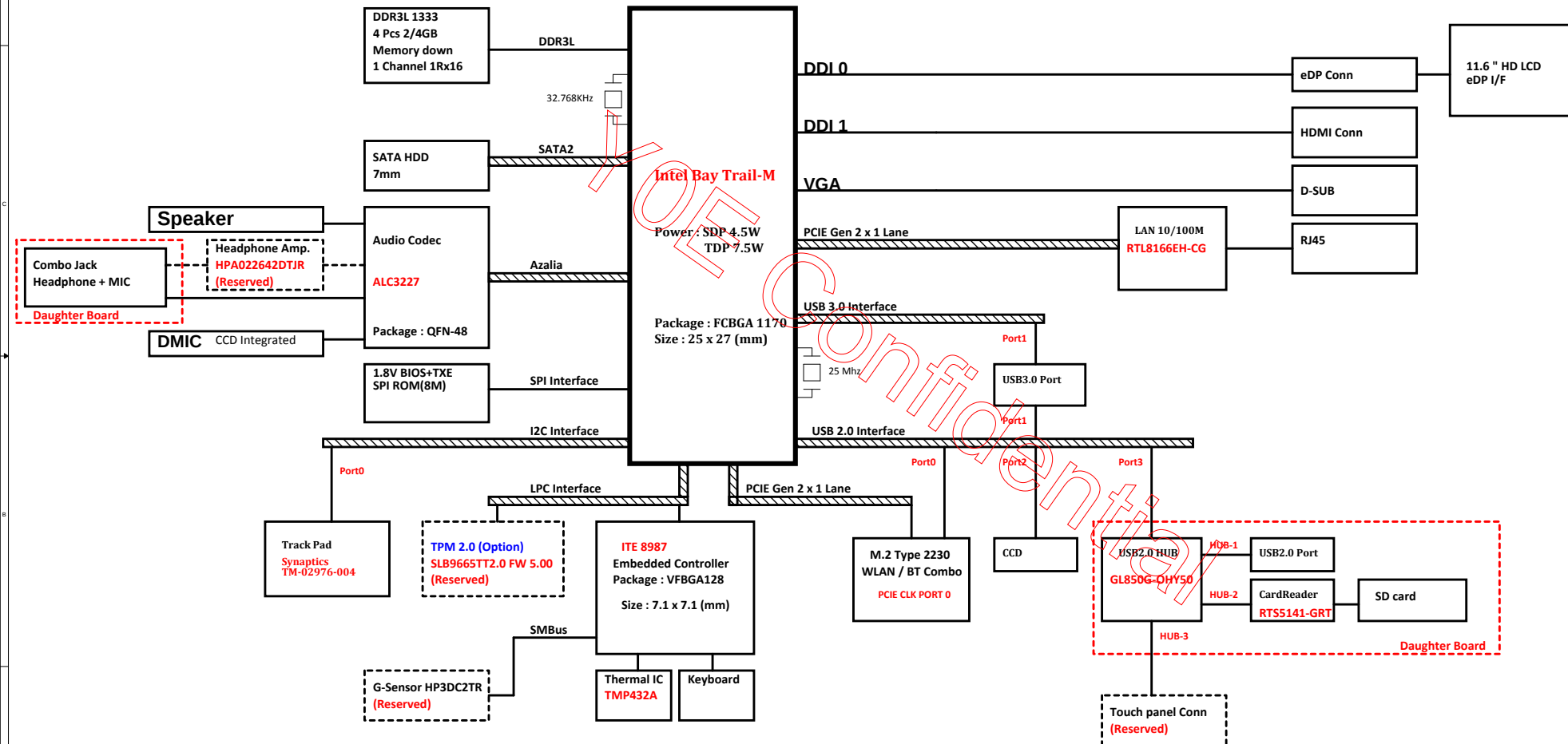
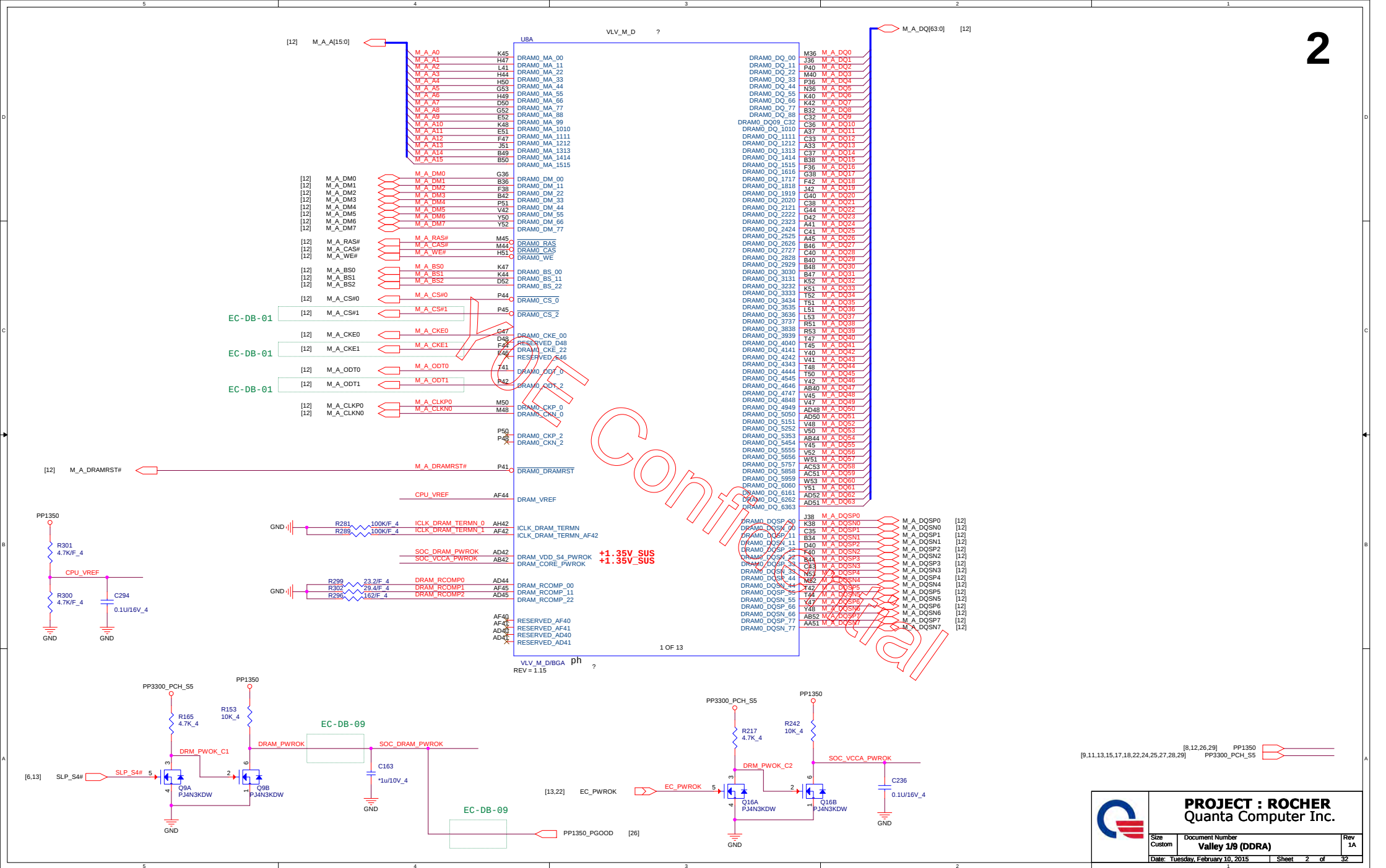


HP Rocher 1.0 RFQ

Intel Bay Trail-M Platform Block Diagram





UBB		VLV_M_D ?	
AY45	DRAM1_MA_00	DRAM1_DQ_00	BG38
BB47	DRAM1_MA_11	DRAM1_DQ_11	BC40
AW47	DRAM1_MA_22	DRAM1_DQ_22	BA42
BB43	DRAM1_MA_33	DRAM1_DQ_33	BD42
BB39	DRAM1_MA_44	DRAM1_DQ_44	BC38
BC35	DRAM1_MA_55	DRAM1_DQ_55	BD36
BB43	DRAM1_MA_66	DRAM1_DQ_66	BF42
BF50	DRAM1_MA_77	DRAM1_DQ_77	BC44
BC52	DRAM1_MA_88	DRAM1_DQ_88	BF32
BE52	DRAM1_MA_99	DRAM1_DQ_99	BC36
AY45	DRAM1_MA_1010	DRAM1_DQ_1010	BC37
BE37	DRAM1_MA_1111	DRAM1_DQ_1111	BC33
BD47	DRAM1_MA_1212	DRAM1_DQ_1212	BC33
BA47	DRAM1_MA_1313	DRAM1_DQ_1313	BG37
BH43	DRAM1_MA_1414	DRAM1_DQ_1414	BF38
BH50	DRAM1_MA_1515	DRAM1_DQ_1515	BJ36
		DRAM1_DQ_1616	AT36
BD38	DRAM1_DM_00	DRAM1_DQ_1717	AV40
BH38	DRAM1_DM_11	DRAM1_DQ_1818	AT40
BC36	DRAM1_DM_22	DRAM1_DQ_1919	BA36
BH42	DRAM1_DM_33	DRAM1_DQ_2020	AV36
AT37	DRAM1_DM_44	DRAM1_DQ_2121	AV42
AM42	DRAM1_DM_55	DRAM1_DQ_2222	AV40
AK39	DRAM1_DM_66	DRAM1_DQ_2323	BJ41
AK52	DRAM1_DM_77	DRAM1_DQ_2424	BG41
AV45		DRAM1_DQ_2525	BJ45
AV45	DRAM1_RAS	DRAM1_DQ_2626	BA46
BB50	DRAM1_CAS	DRAM1_DQ_2727	BG40
	DRAM1_WE	DRAM1_DQ_2828	BA40
AY47		DRAM1_DQ_2929	BA46
AY44	DRAM1_BS_00	DRAM1_DQ_3030	BA47
BF52	DRAM1_BS_11	DRAM1_DQ_3131	AY52
	DRAM1_BS_22	DRAM1_DQ_3232	AY51
AT44	DRAM1_CS_0	DRAM1_DQ_3333	AY52
		DRAM1_DQ_3434	AP51
AT45	DRAM1_CS_2	DRAM1_DQ_3535	AW51
		DRAM1_DQ_3636	AW53
		DRAM1_DQ_3737	AP51
BG47	DRAM1_CKE_00	DRAM1_DQ_3838	AP53
BE48	RESERVED_BE48	DRAM1_DQ_3939	AP47
BD46	DRAM1_CKE_22	DRAM1_DQ_4040	AP45
BE48	RESERVED_BE48	DRAM1_DQ_4141	AK40
		DRAM1_DQ_4242	AM41
AP41	DRAM1_ODT_0	DRAM1_DQ_4343	AP48
		DRAM1_DQ_4444	AP50
AT42	DRAM1_ODT_2	DRAM1_DQ_4545	AK42
		DRAM1_DQ_4646	AM40
AV50	DRAM1_CKP_0	DRAM1_DQ_4747	AM45
AV48	DRAM1_CKN_0	DRAM1_DQ_4848	AM47
		DRAM1_DQ_4949	AP48
		DRAM1_DQ_5050	AP50
		DRAM1_DQ_5151	AM48
		DRAM1_DQ_5252	AM50
AT50	DRAM1_CKP_2	DRAM1_DQ_5353	AK44
AT48	DRAM1_CKN_2	DRAM1_DQ_5454	AK45
		DRAM1_DQ_5555	AM52
		DRAM1_DQ_5656	AL51
		DRAM1_DQ_5757	AG53
AT41	DRAM1_DRAMRST	DRAM1_DQ_5858	AG51
		DRAM1_DQ_5959	AL53
		DRAM1_DQ_6060	AK51
		DRAM1_DQ_6161	AP52
		DRAM1_DQ_6262	AP51
		DRAM1_DQ_6363	
		DRAM1_DQSN_00	BF40
		DRAM1_DQSN_11	BD40
		DRAM1_DQSN_22	BC35
		DRAM1_DQSN_33	BA36
		DRAM1_DQSN_44	BY36
		DRAM1_DQSN_55	BA44
		DRAM1_DQSN_66	BG43
		DRAM1_DQSN_77	BU53
		DRAM1_DQSN_88	AV52
		DRAM1_DQSN_99	AP42
		DRAM1_DQSN_1010	AP44
		DRAM1_DQSN_1111	AK47
		DRAM1_DQSN_1212	AK48
		DRAM1_DQSN_1313	AK52
		DRAM1_DQSN_1414	AL51
		DRAM1_DQSN_1515	

VLV_M_D/BGA
REV = 1.15

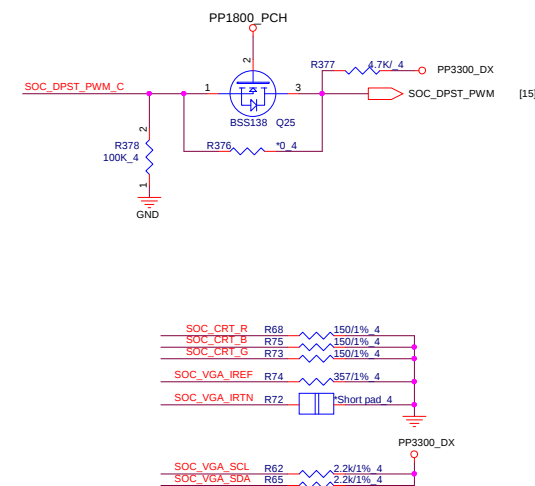
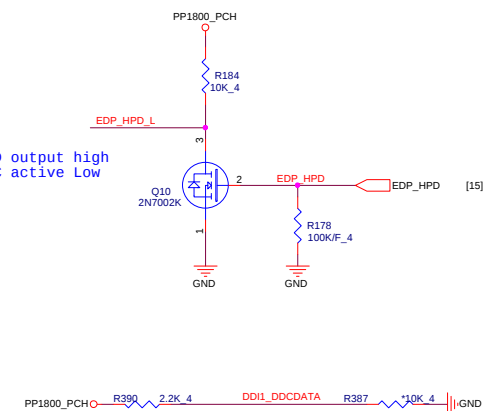
2 OF 13

?

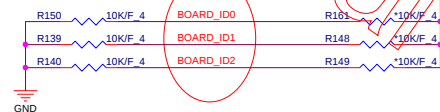


PROJECT : ROCHER
Quanta Computer Inc.

Size	Document Number	Rev
Custom	Valley 2/9 (DDR8)	1A
Date: Tuesday, February 10, 2015		Sheet 3 of 32



Need to discuss with BIOS



BOARD_ID0	BOARD_ID1	BOARD_ID2	
0	0	0	NO TPM
1	0	0	TPM
0	1	0	

[5,6,7,9,11,13,16,27,29]
[5,9,13,15,16,17,18,19,20,21,22,28,29]

PP1800_PCH
PP3300_DX

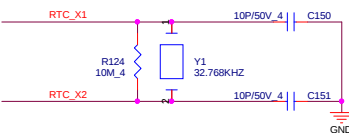


PROJECT : ROCHER
Quanta Computer Inc.

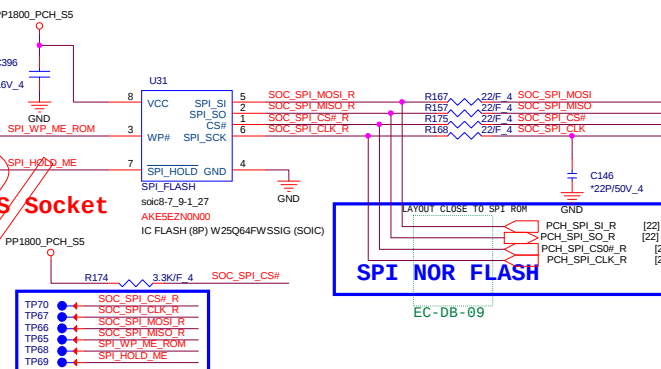
Size Custom	Document Number Valley 3/9 (Display)	Rev 1/
Date: Tuesday, February 10, 2015		Sheet 4 of 32



Size Custom	Document Number Valley 4/9 (SD/PCIE/SATA)	Rev 1A
Date: Tuesday, February 10, 2015	Sheet 5 of 32	



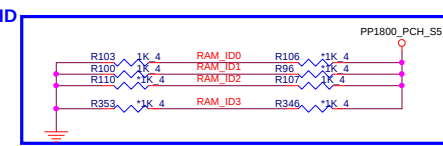
Check BIOS Socket



Need place to TOP side

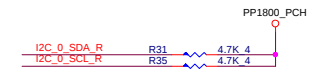
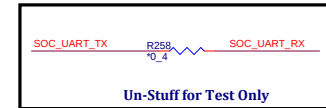
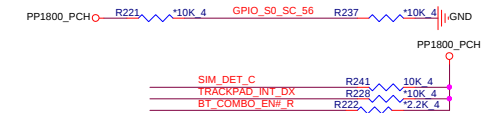
Vender	Size	P/N
Winbond	8MB	AKE5EZ0N000 (W25Q64FWSSIG)
Socket (208mil)		DFHS08FS023 (Firstly Stuff)

	PROJECT : ROCHER Quanta Computer Inc.		
	Size	Document Number	Rev
	Custom	Valley 5/9 (SPI/GPIO/CLK)	1A
Date: Tuesday, February 10, 2015		Sheet 6 of 32	



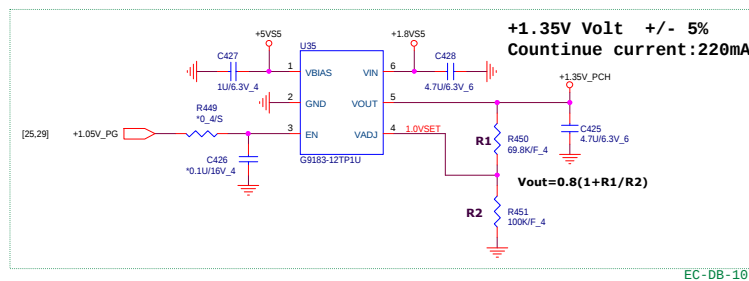
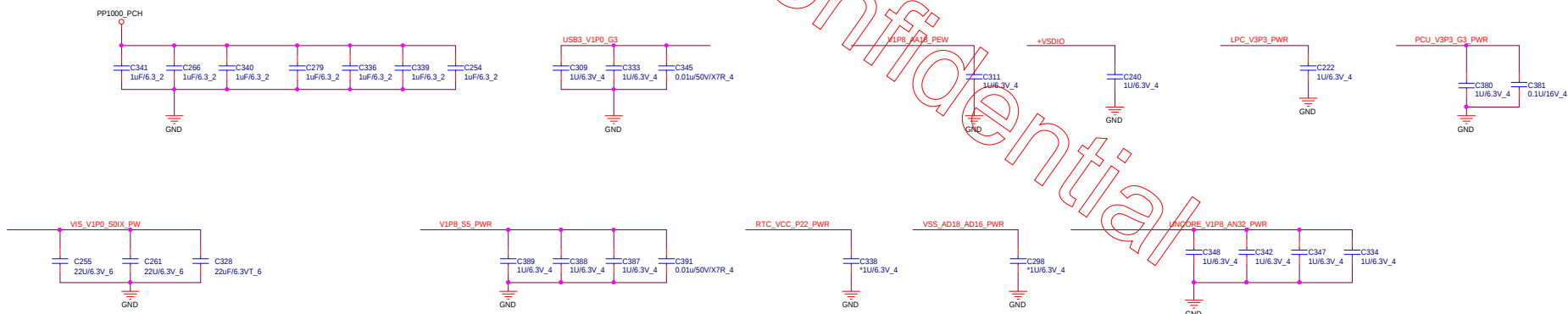
Vender	RAM_ID(0-2)	TOP B/S PN	Mfr. PN	Channel	Size
Samsung	000	AKD5PGST508	K4B4G1646Q-HYK0	1CH	2GB
Hynix	001	AKD5PGSTW14	H5TC4G63CFR-PBA	1CH	2GB
Micron	010	AKD5JGSTL06	MT41K256M16HA-125:E	1CH	2GB
Micron	011	AKD5PGSTL18	MT41K256M16LY-107:N	1CH	2GB

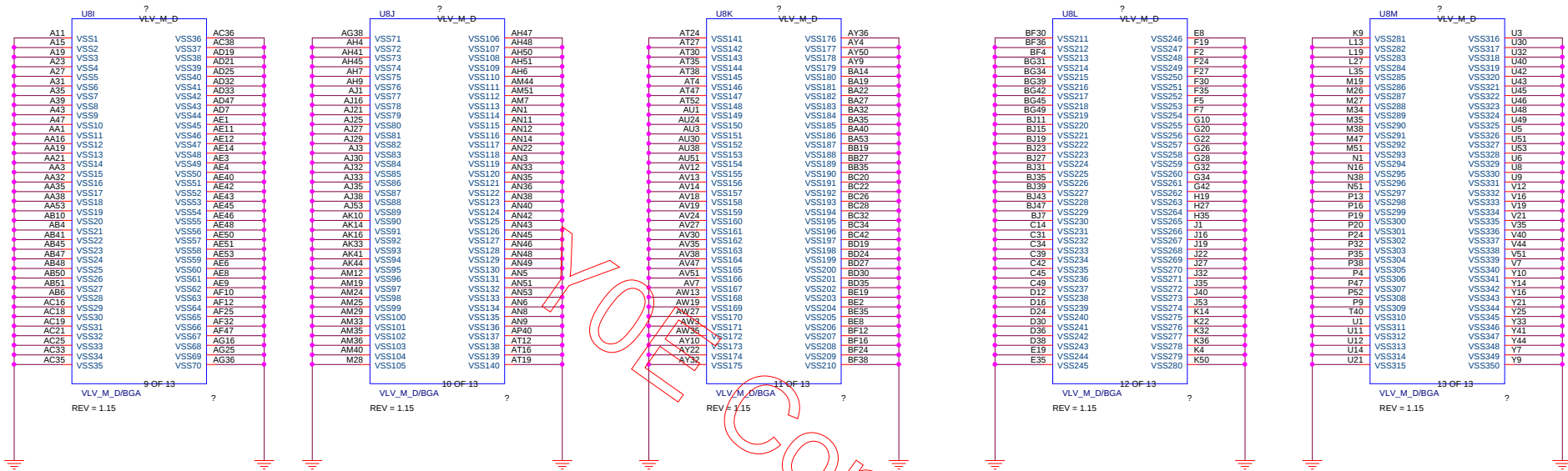
Top Swap

PROJECT : ROCHED
Quanta Computer Inc.

Size	Document Number	Rev
Custom	Valley 6/9 (USB/LPC/I2C)	1A
Date: Tuesday, February 10, 2015	Sheet 7 of 32	

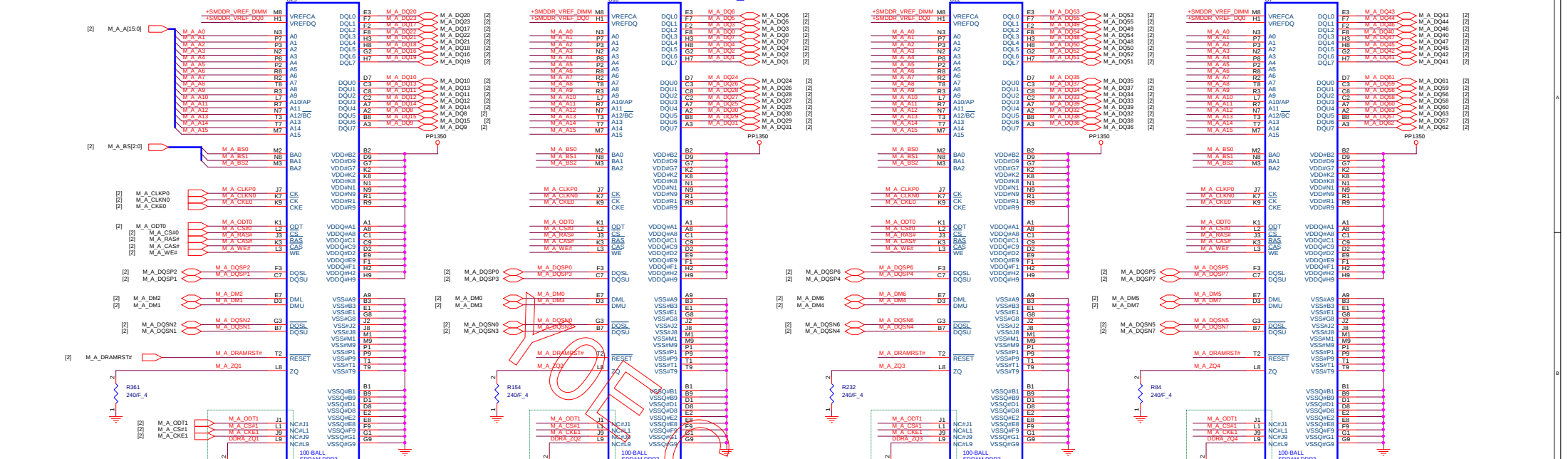




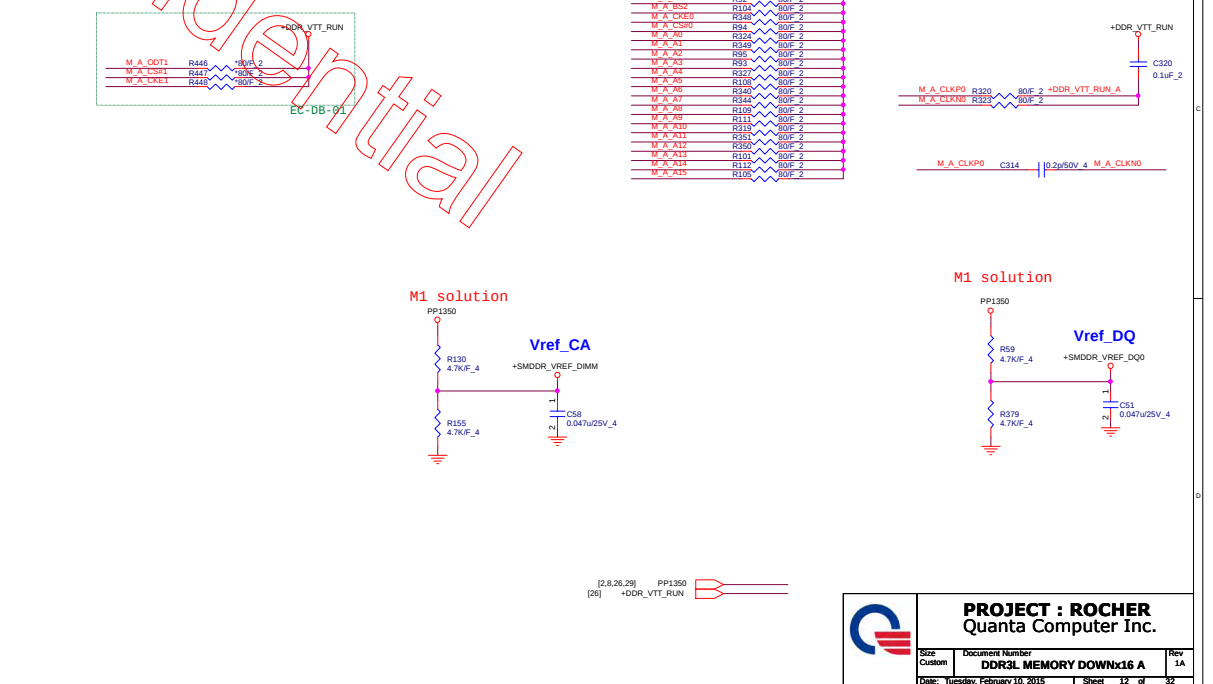
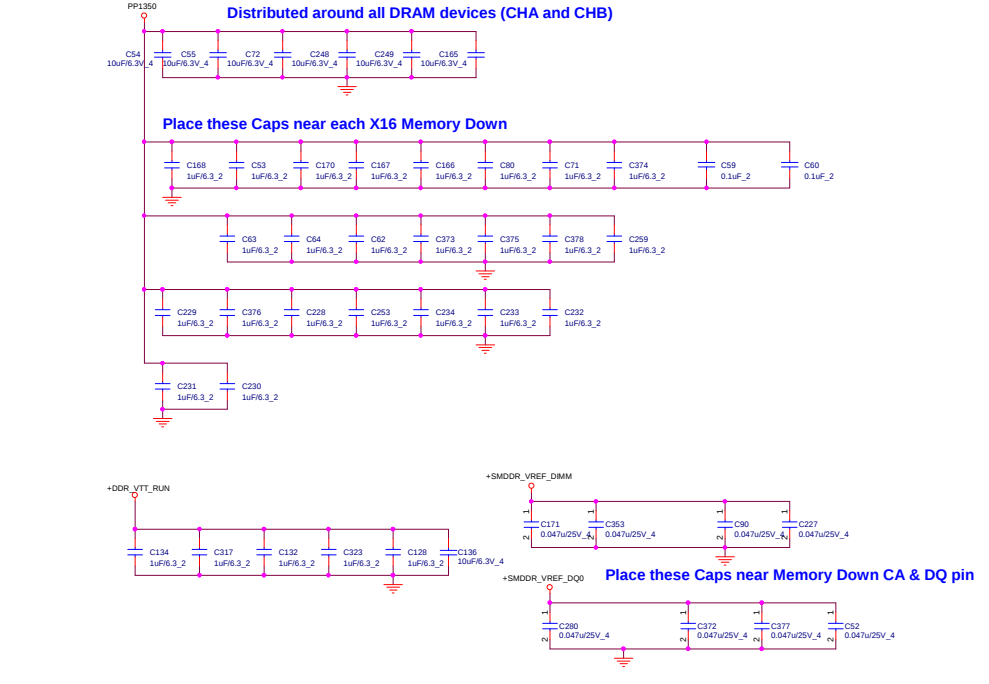


PROJECT : ROCHER
Quanta Computer Inc.

Size	Document Number	Rev
Custom	Valley 9/9 (GND)	1A
Date: Tuesday, February 10, 2015	Sheet 10 of 32	

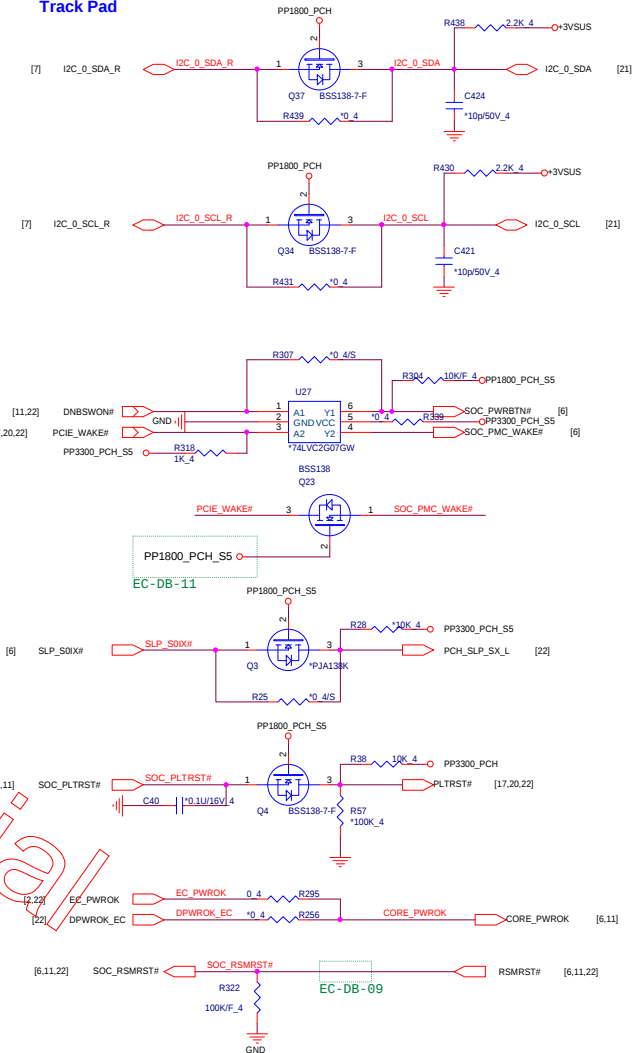


Vendor	P/N	
Hynix	AKD5JGST400	DDR3L 1333Mhz 4Gb
Elpida	AKD5JGST404	DDR3L 1600Mhz 4Gb

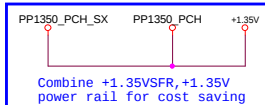
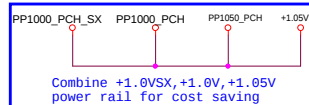
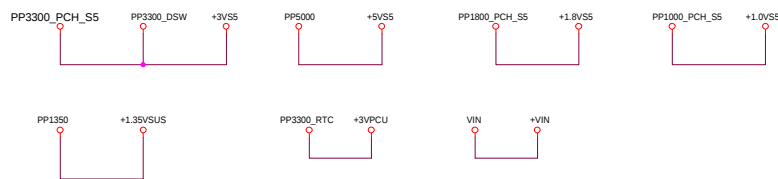
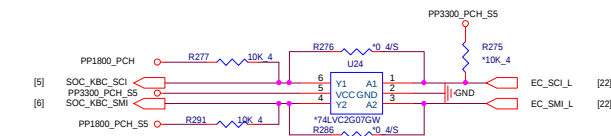
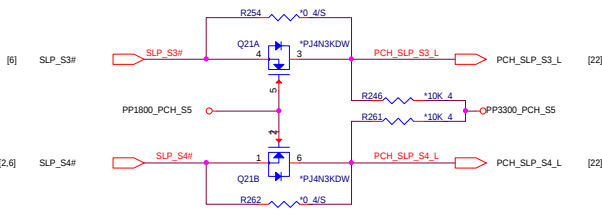
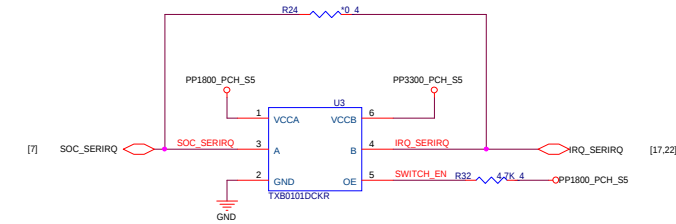
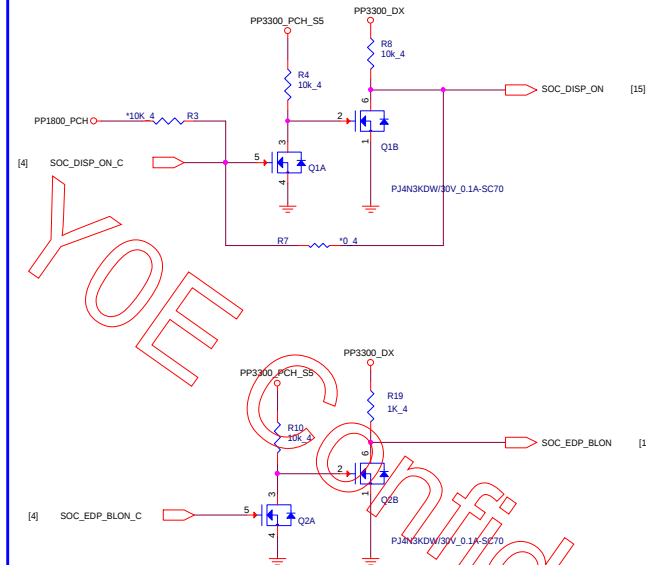


[6,7,9,11,17,27,29] PP1800_PCH_S5
 [2,9,11,15,17,18,22,24,25,27,28,29] PP3300_PCH_S5
 [4,5,6,7,9,11,16,27,29] PP1800_PCH
 [4,5,9,15,16,17,18,19,20,21,22,28,29] PP3300_PCH
 [4,5,9,15,16,17,18,19,20,21,22,28,29] PP3300_DX
 [2,26,29] +3VSUS
 [2,8,12,26,29] PP1350

Track Pad



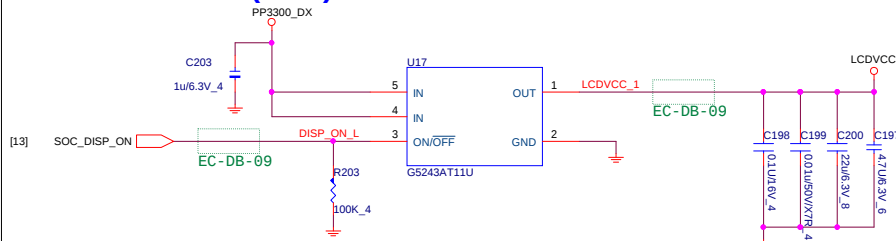
eDP control pin (For eDP)



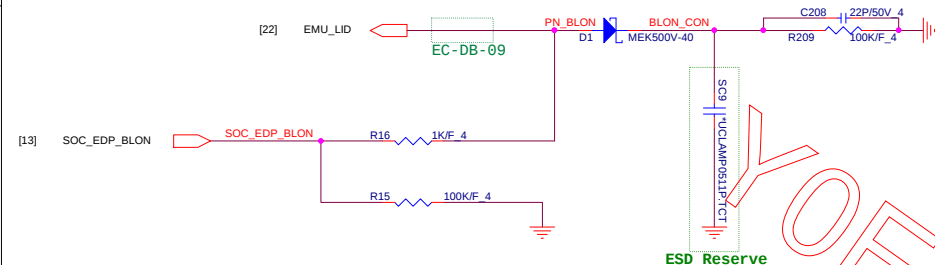
2014/11/11 remove eDP to LVDS converter

YOE Confidential

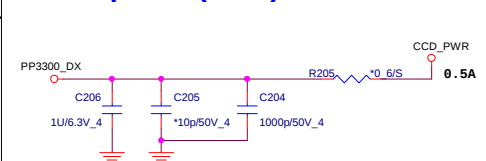
eDP /LVDS Power(VGA)



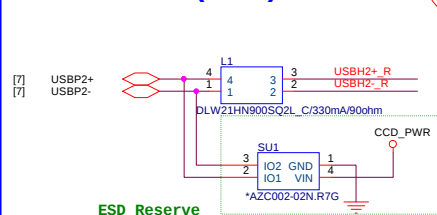
LID Switch



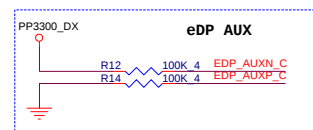
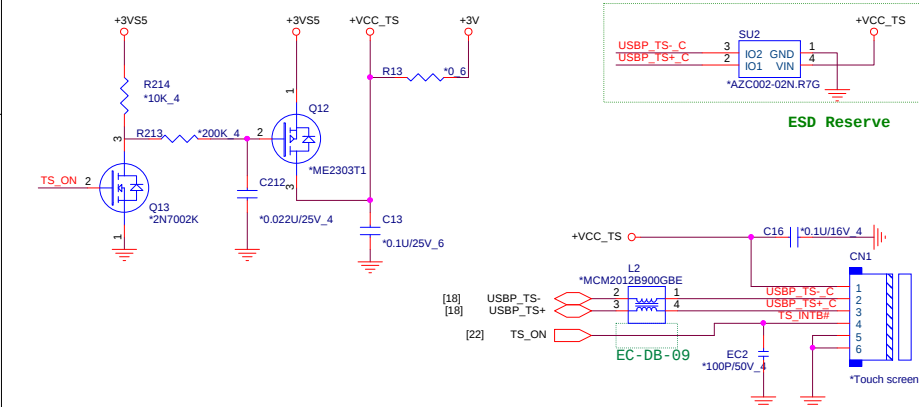
CCD power(CCD)



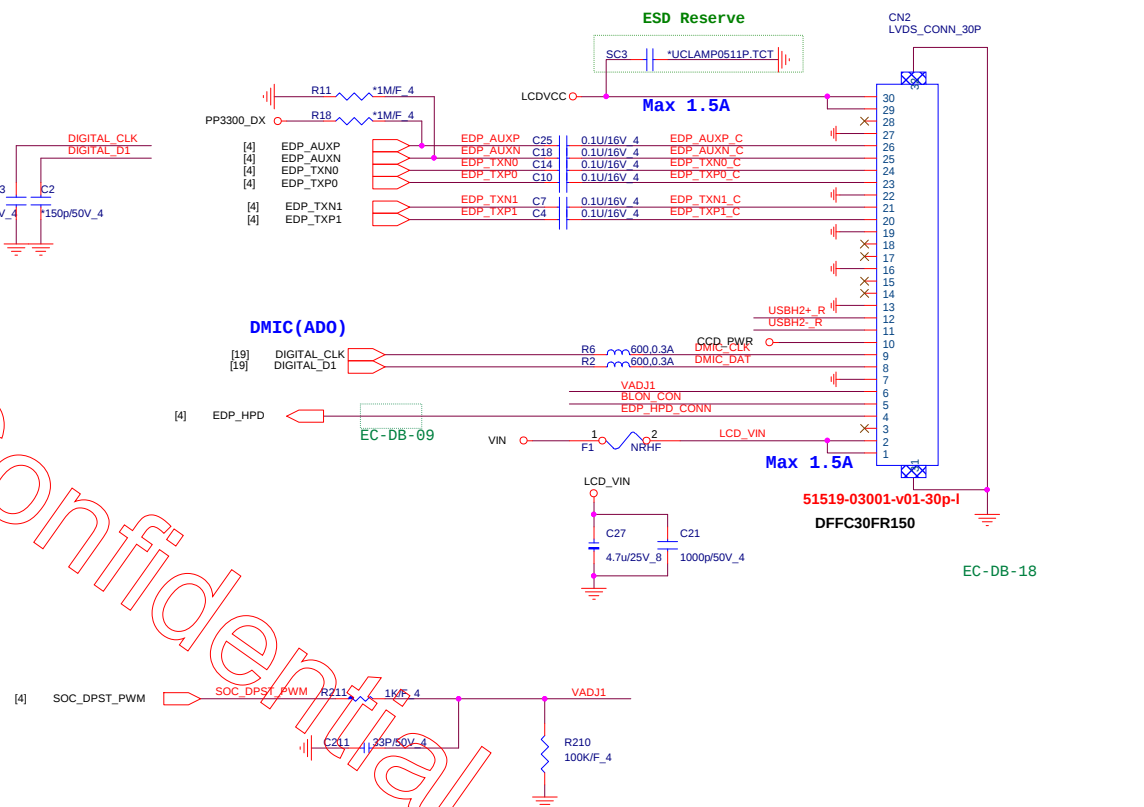
CCD USB(CCD)



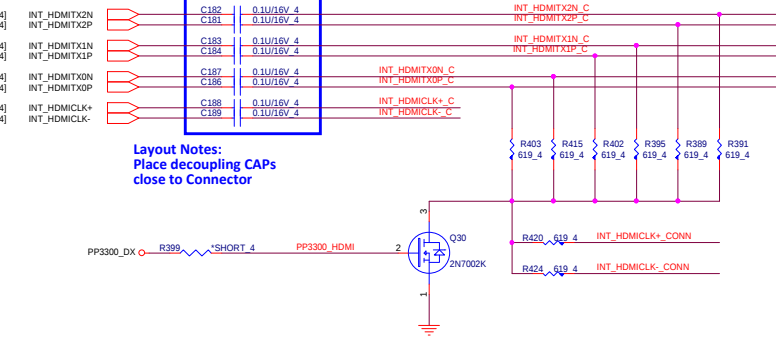
Touch screen



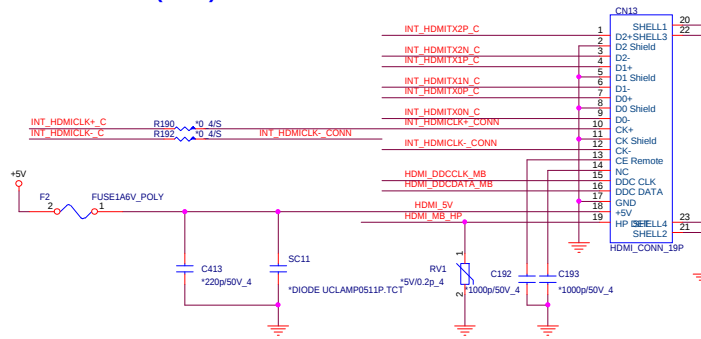
eDP/LVDS
Need New LCD Cable



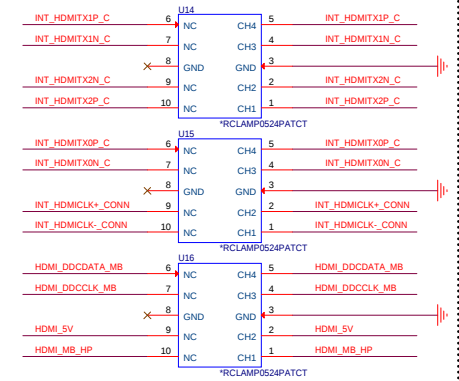
HDMI Cost Reduced level shift (HDM)



HDMI connector (HDM)



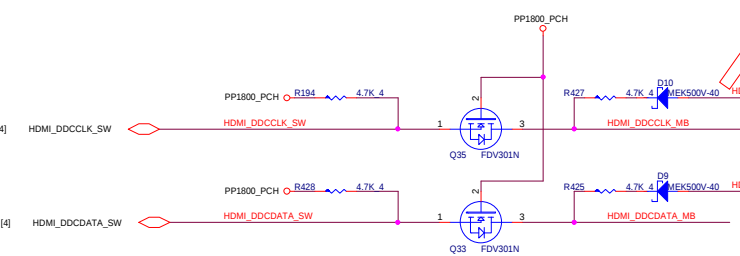
ESD 靠近HDMI CONNECTOR(CN9)



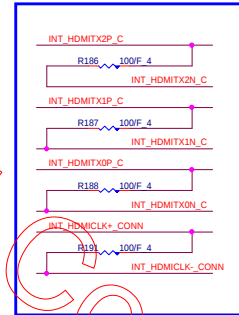
For ESD

Layout note:Place close to HDMI Conn

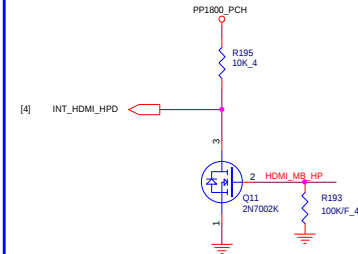
HDMI DDC (HDM)



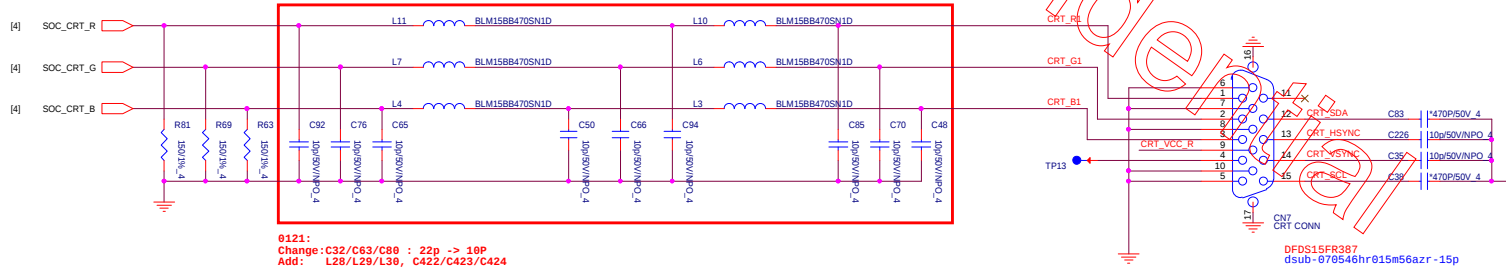
EMI



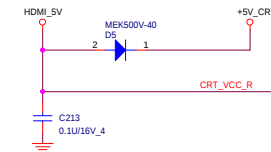
HDMI-detect (HDM)



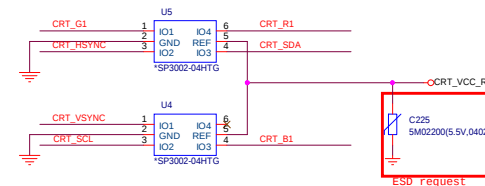
Layout Note:
Setting R,G,B trace
impedance to 50 ohm.



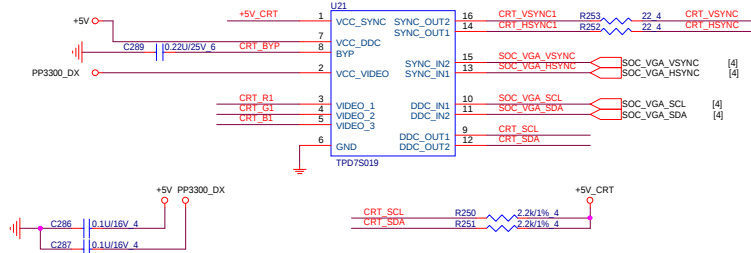
0121:
Change:C32/C63/C80 : 22p -> 10P
Add: L28/L29/L30, C422/C423/C424



ESD PROTECTION



ESD request

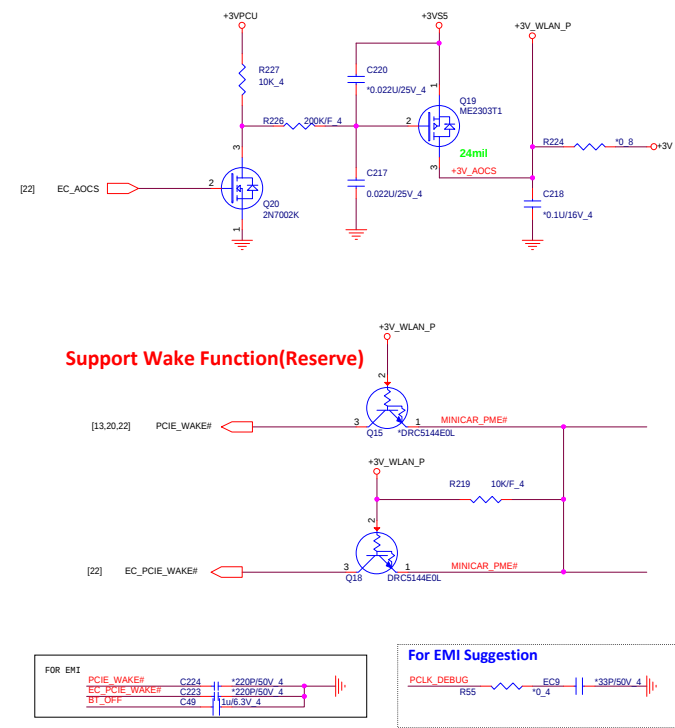
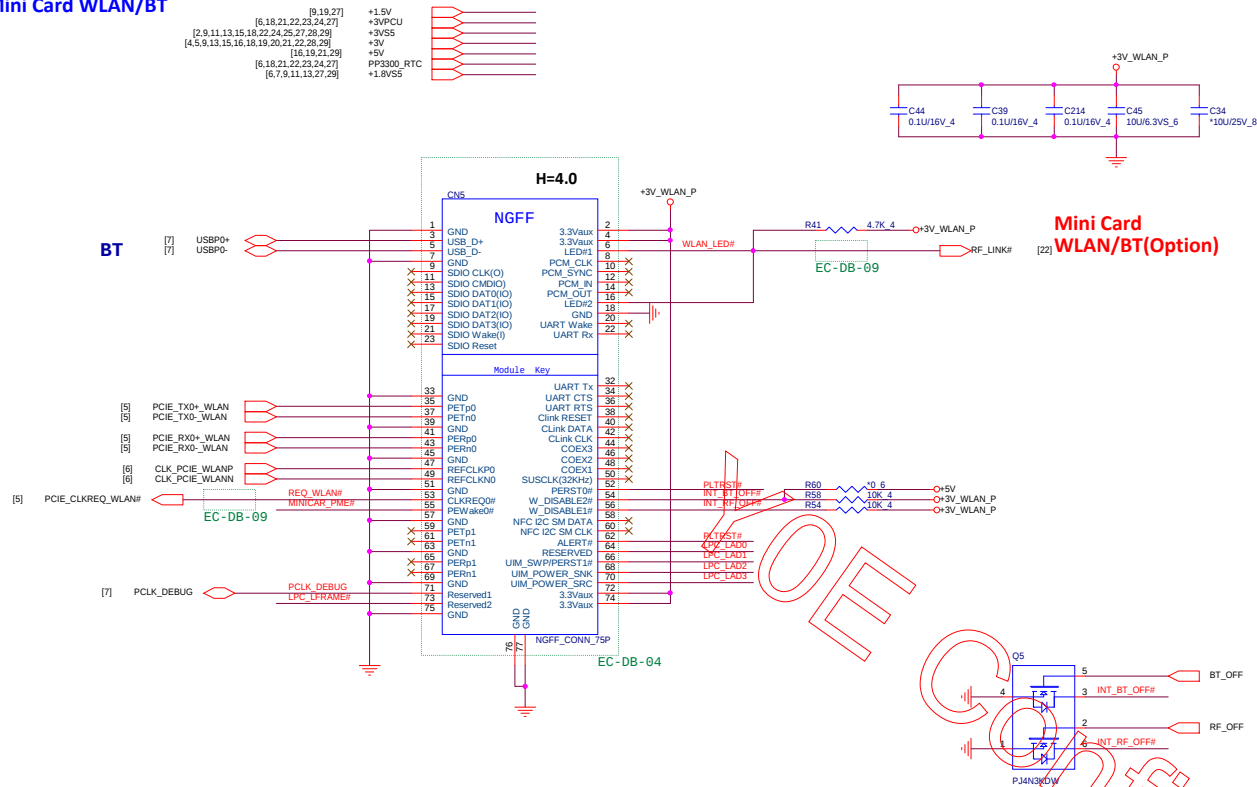


[4,5,9,13,15,17,18,19,20,21,22,28,29]
[4,5,6,7,9,11,13,27,29]
[17,19,2

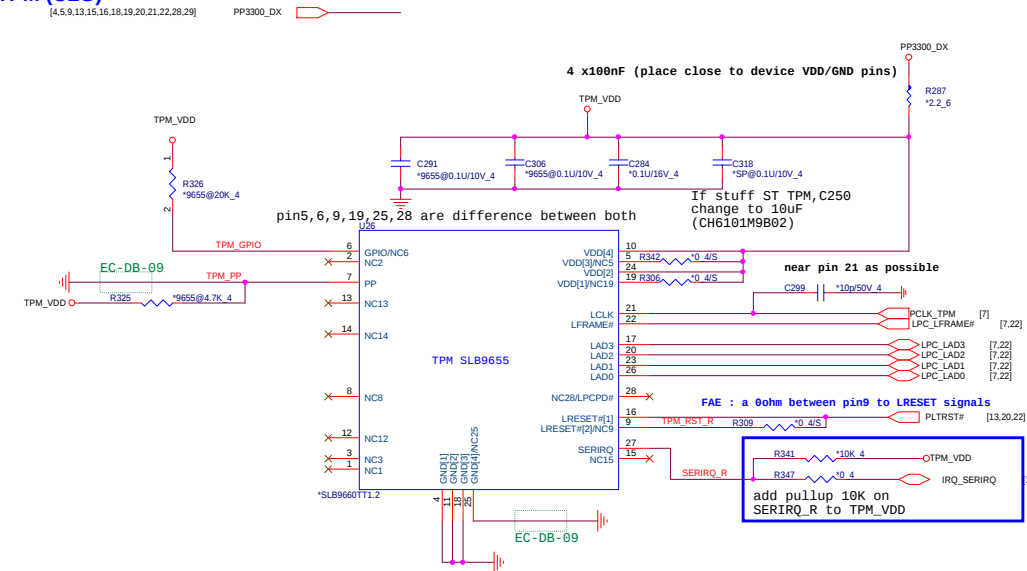
PP3300_DX
PP1800_PCH
+5V



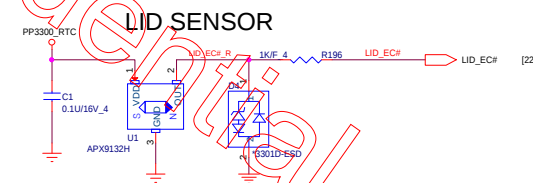
Mini Card WLAN/BT



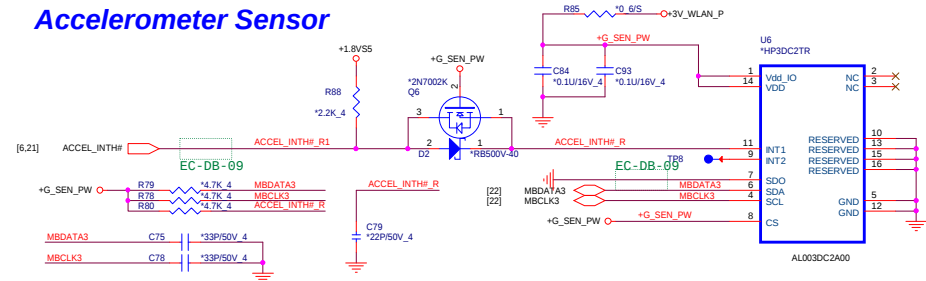
TPM (CLG)



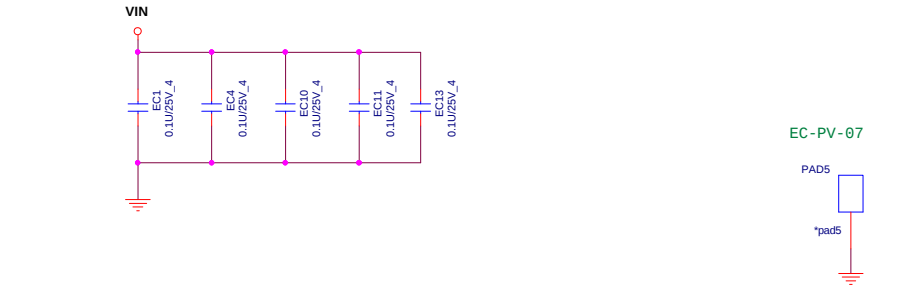
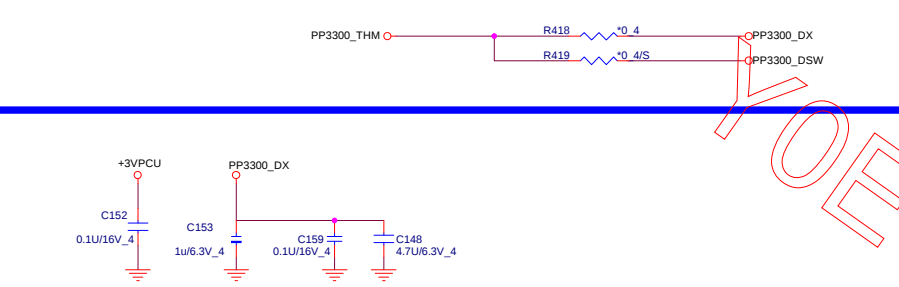
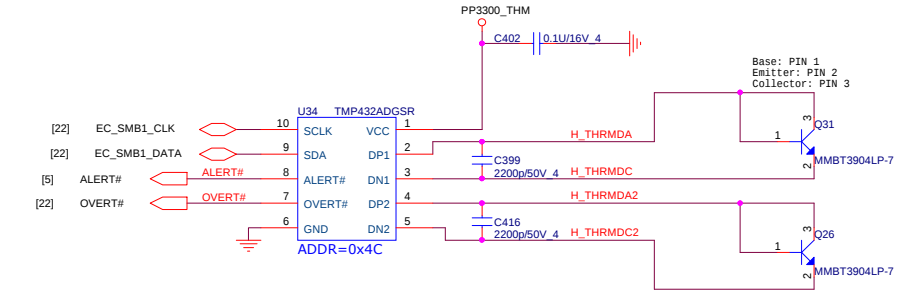
LID



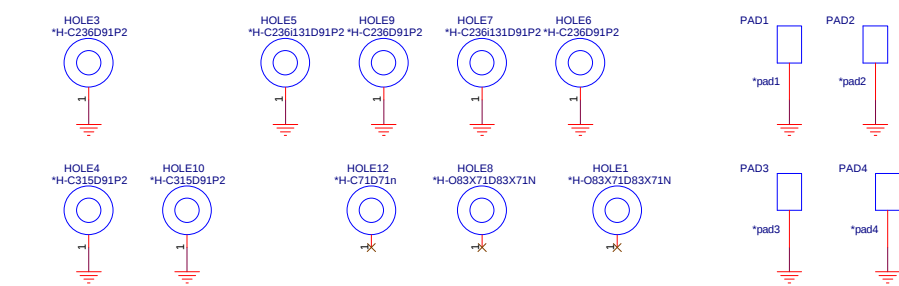
Accelerometer Sensor



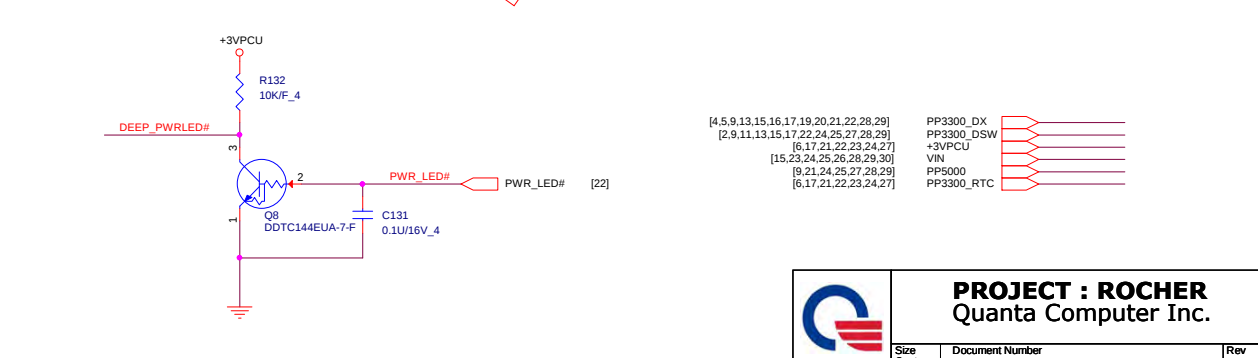
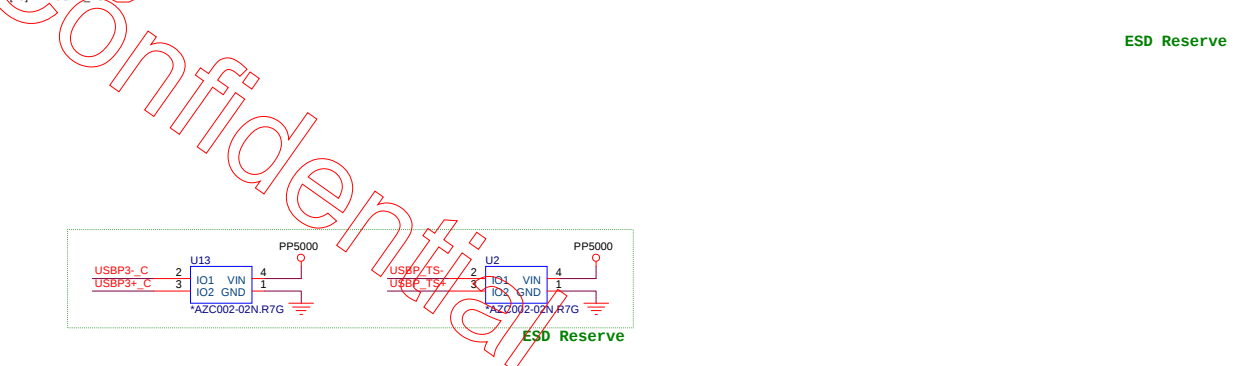
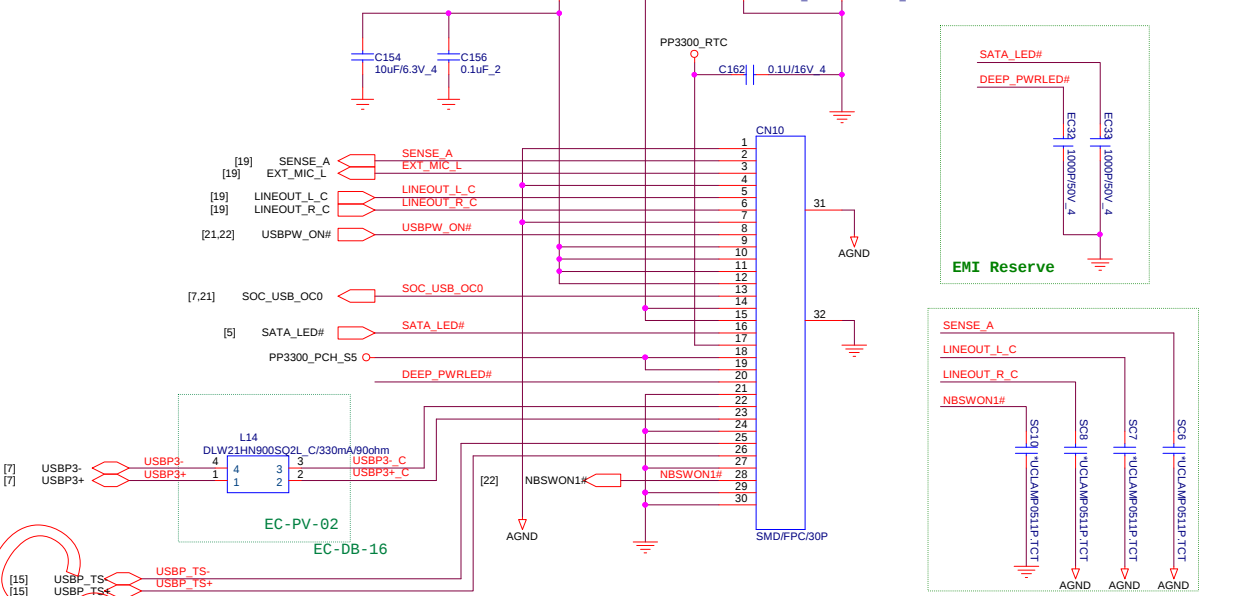
Thermal Sensor(THM)



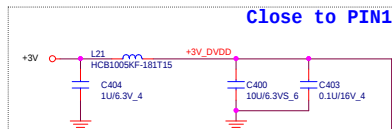
HOLE(OTH)



FUNCTION DB
USB2.0/Audio Jack/SD Card
To Daughter board

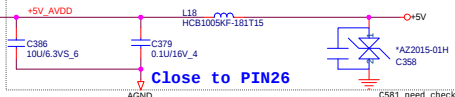


Close to PIN1

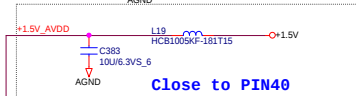


>40mils trace

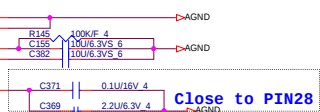
Close to PIN26



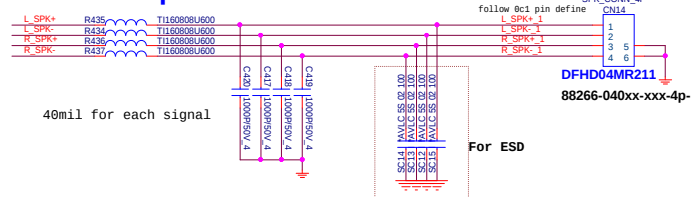
Close to PIN40



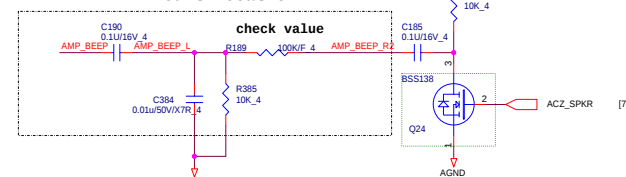
Close to PIN28



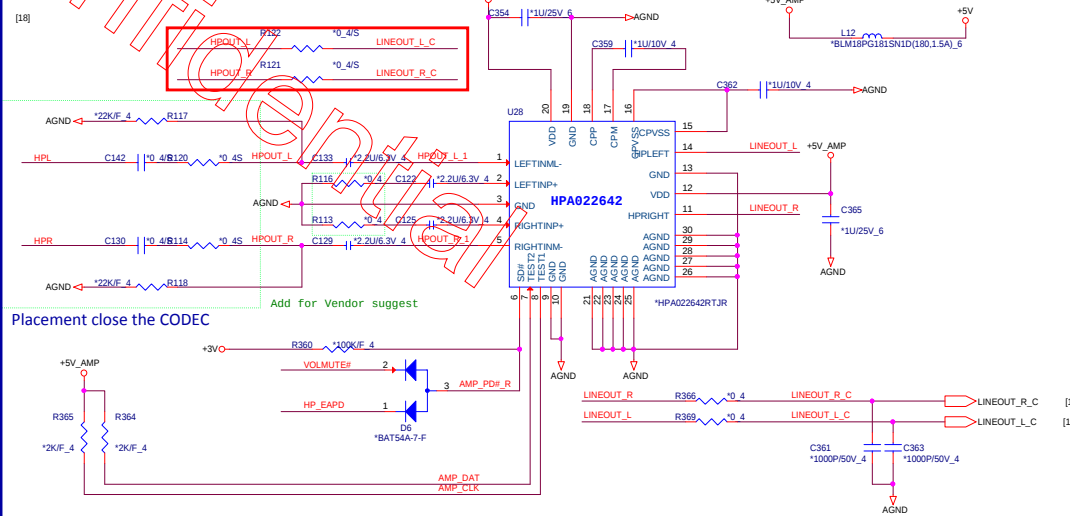
Internal Speaker



Check layout mount location



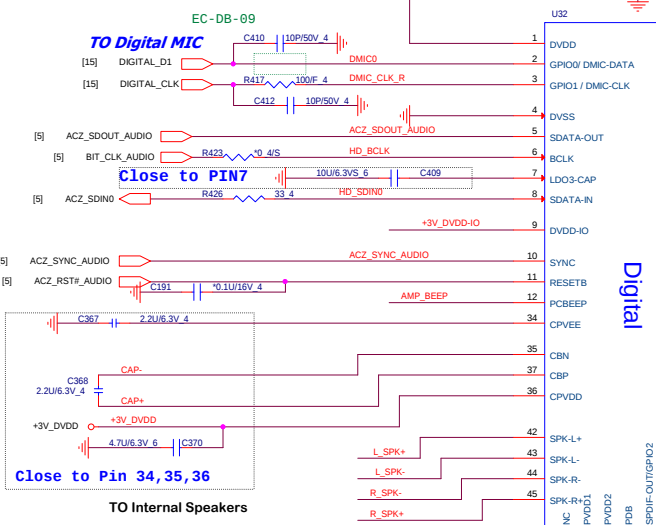
Headphone Amplify



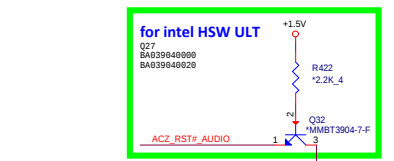
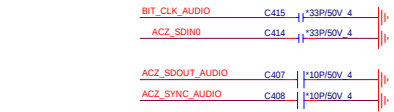
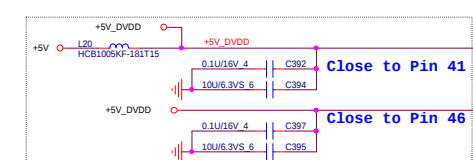
Placement close the CODEC

Analog

Digital



Close to Pin 34,35,36



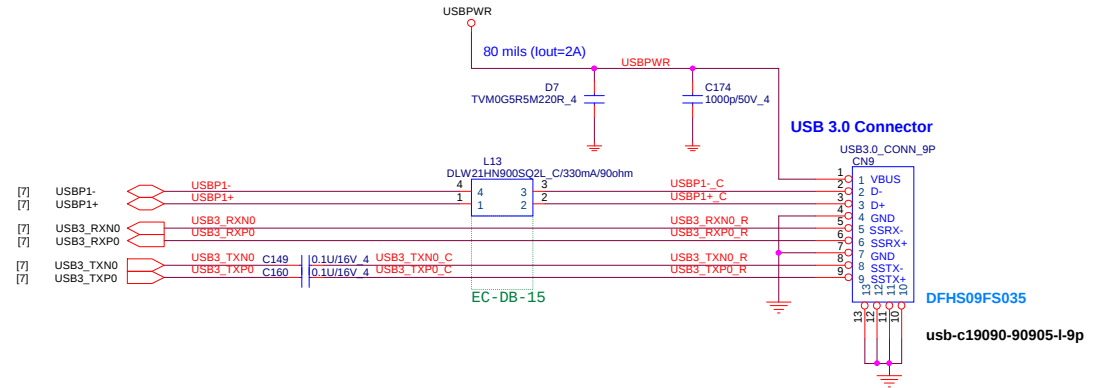
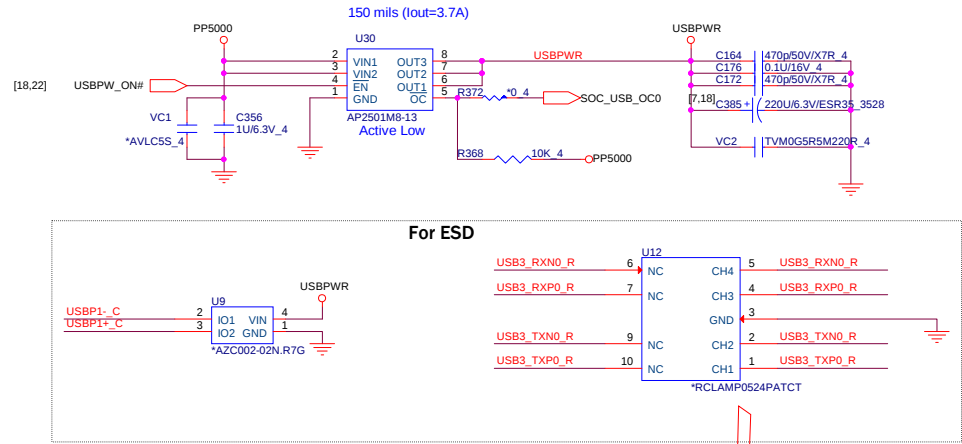
for intel HSW ULT



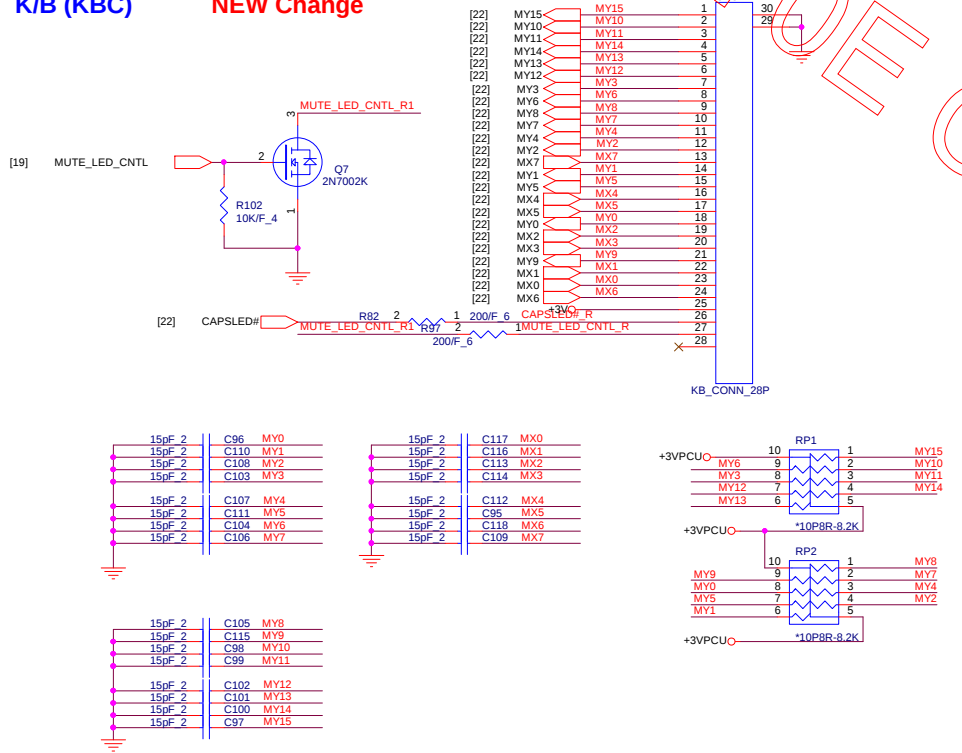
Close to CODEC

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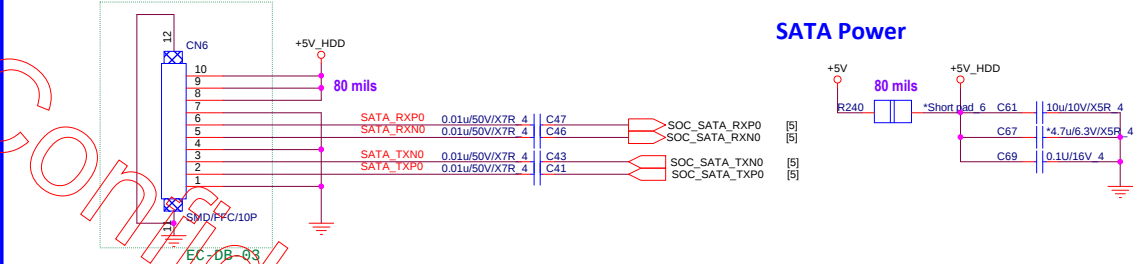




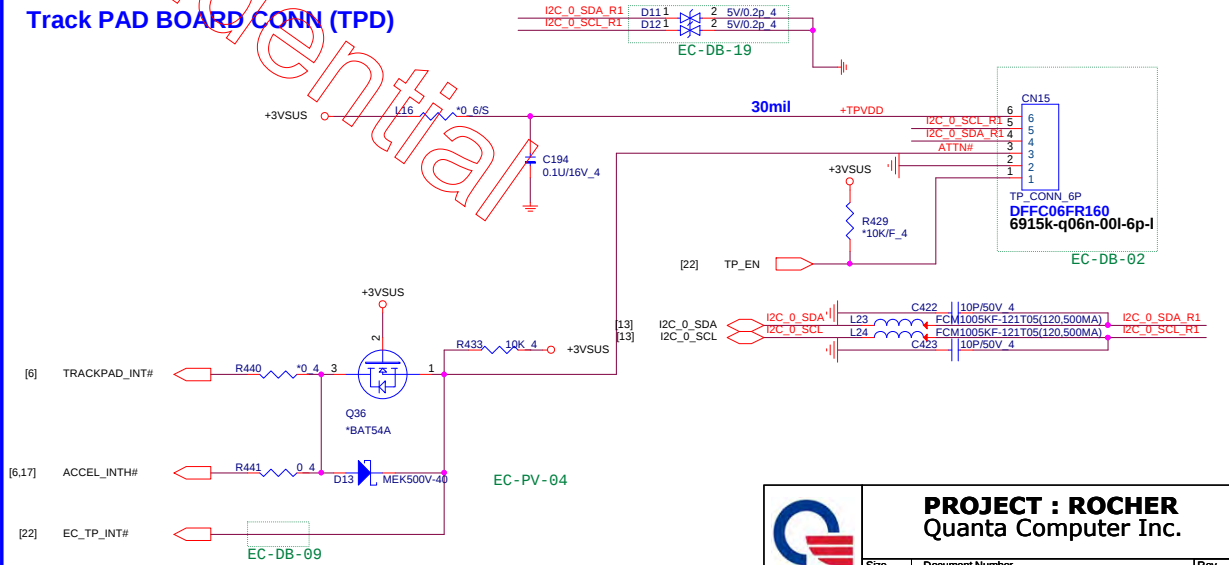
K/B (KBC) NEW Change



SATA HDD Connector

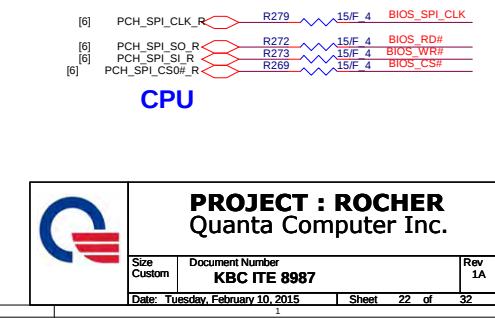
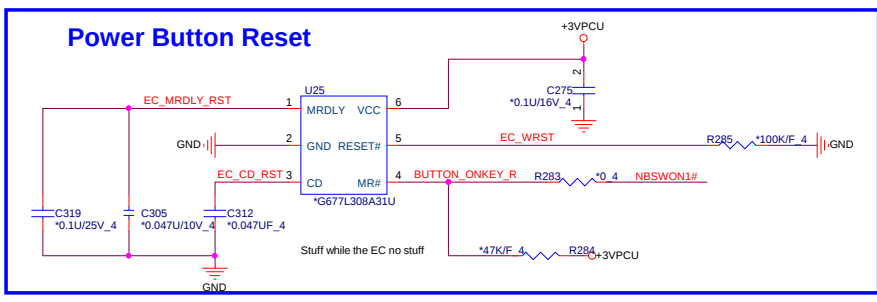
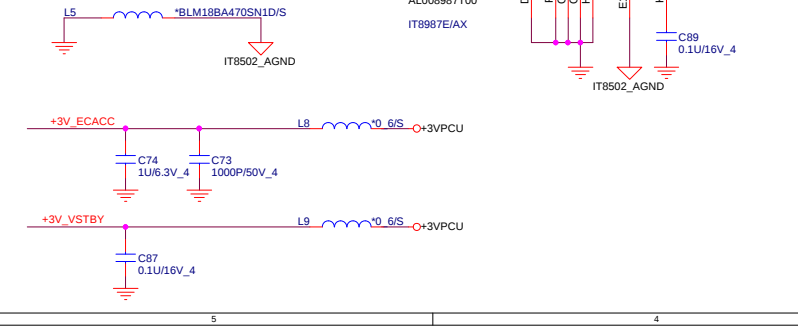
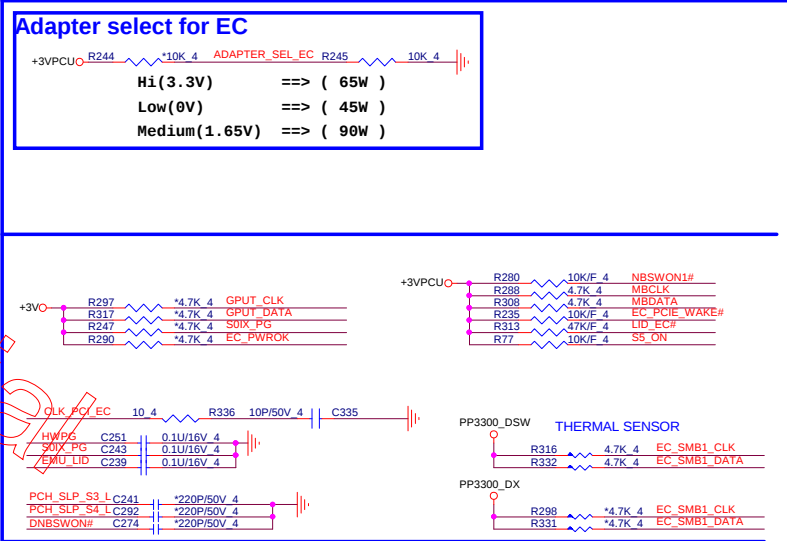
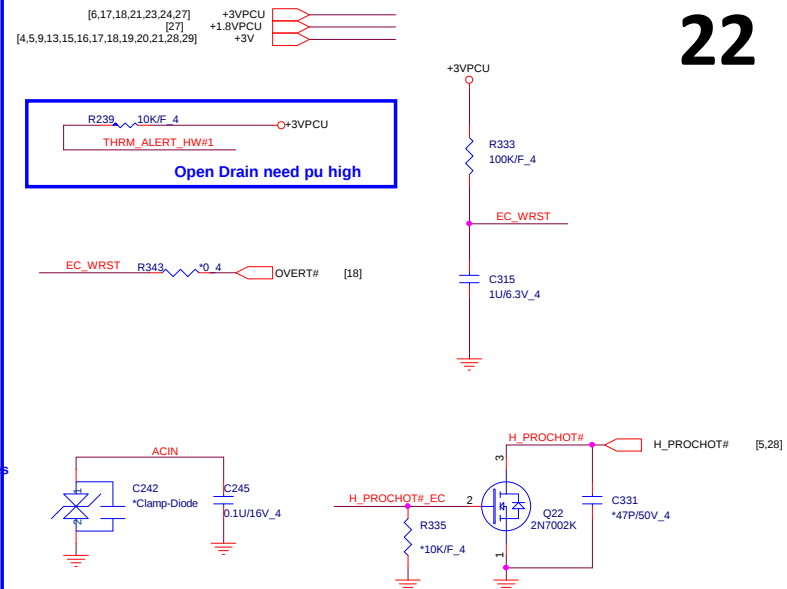
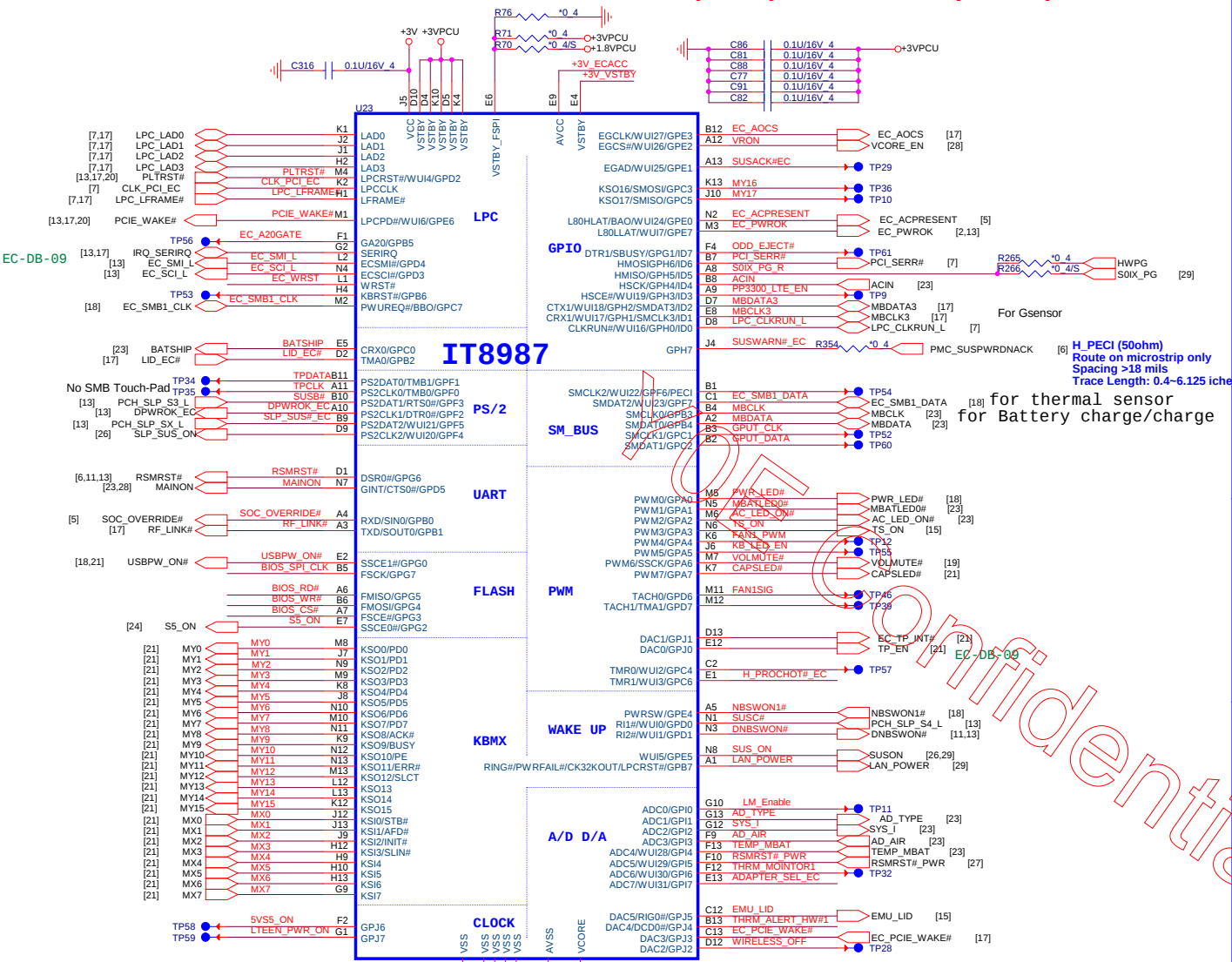


Track PAD BOARD CONN (TPD)



FBGA EC P/N:AL008987T00 IC CTRL(128P)IT8987VG/BX(VFBGA)

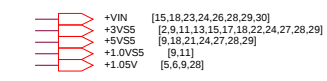
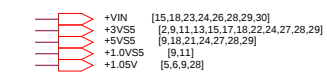
22

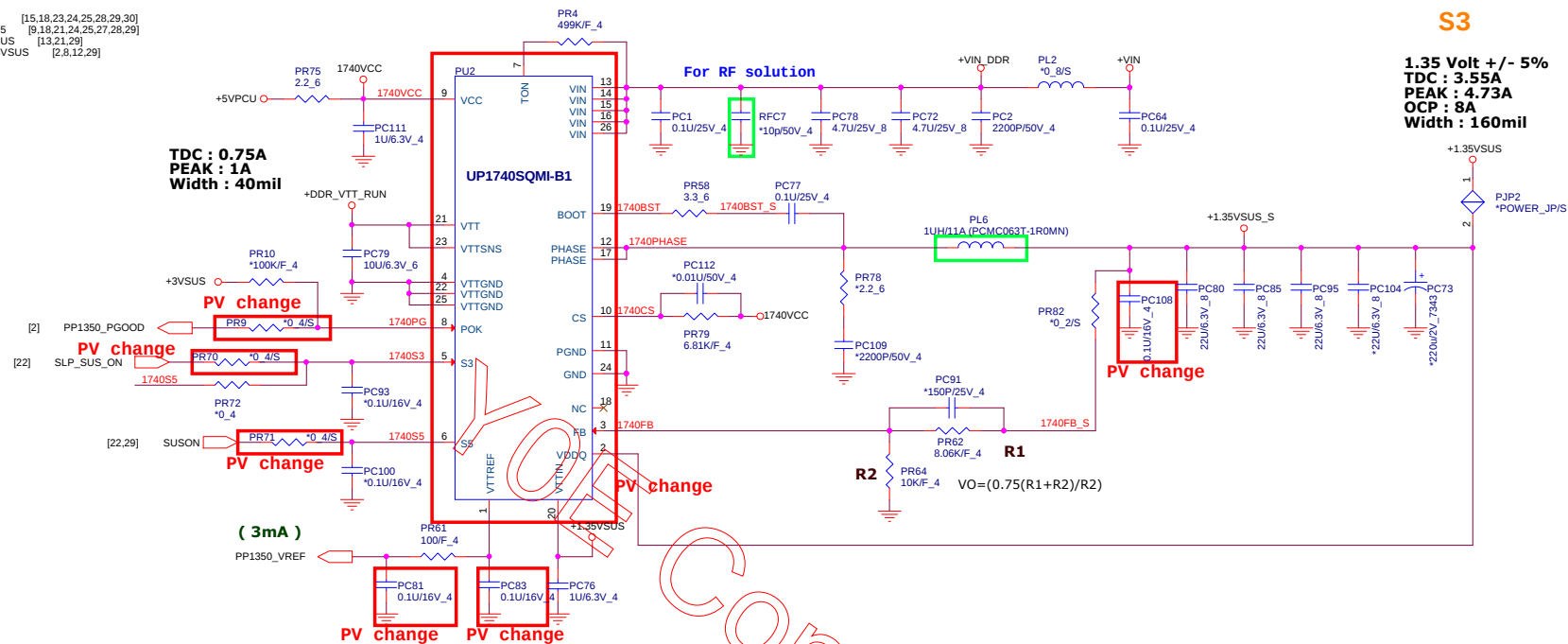


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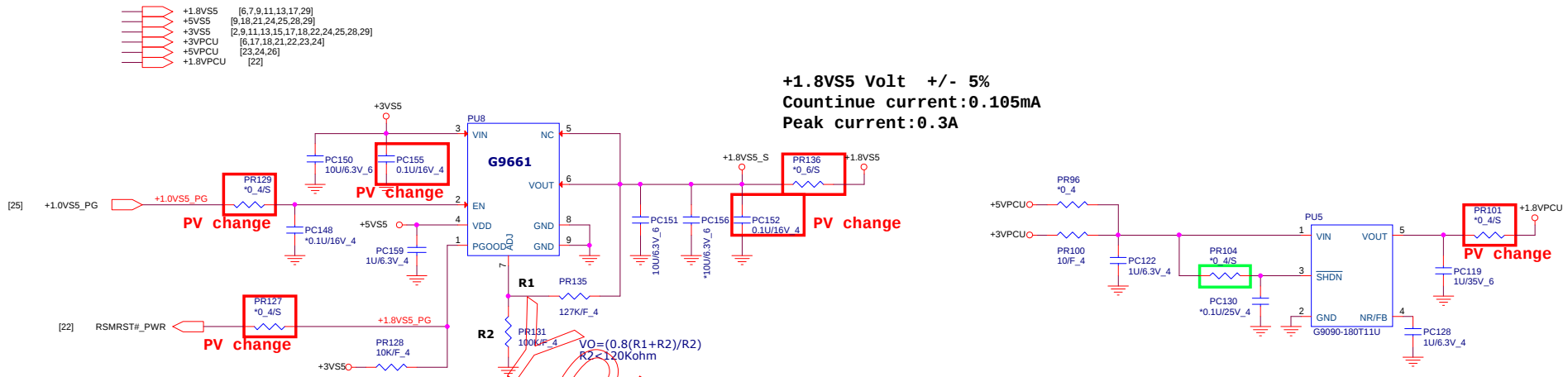
45/65W DC_JACK





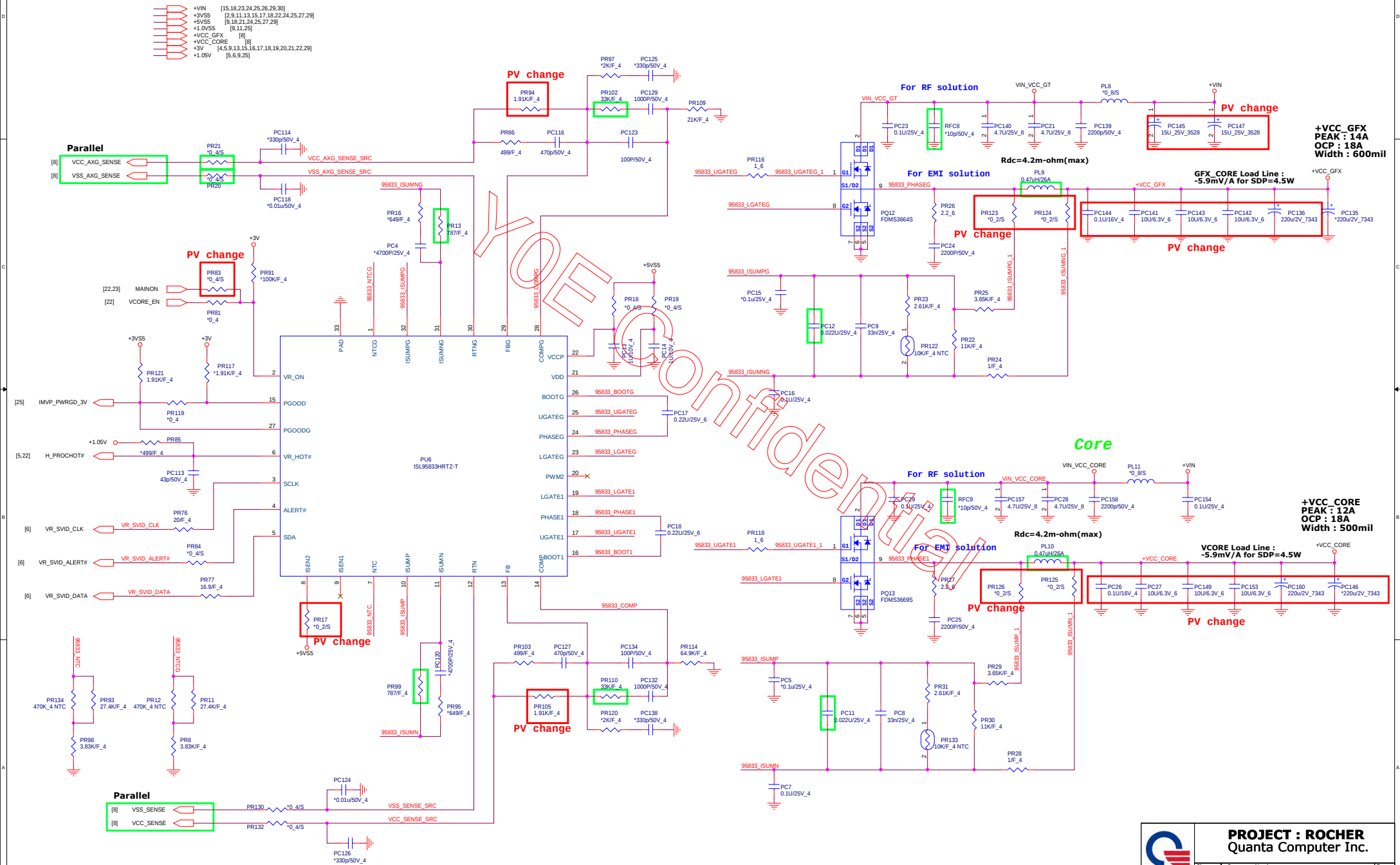


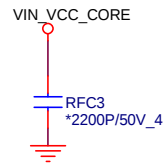
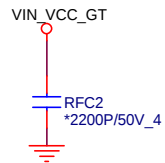
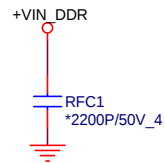
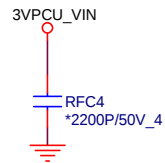
	S3	S5	+1.35VSUS	REF	VTT
S0	1	1	ON	ON	ON
S3 (main on off)	0	1	ON	ON	OFF
S4/S5	0	0	OFF	OFF	OFF



Delete PU7

+1.5V +/- 5%
 Countinue current:0.3A
 Peak current:0.75A
 OCP current:1.2A

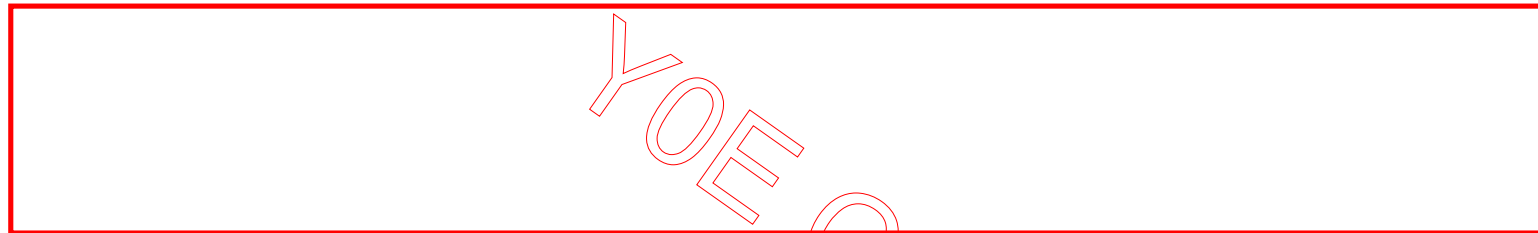




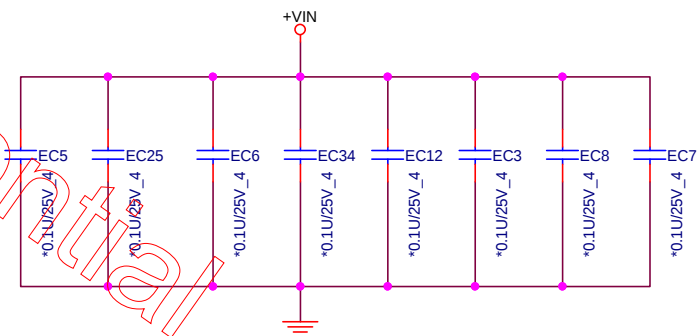
VIN_VCC_CORE VIN_VCC_CORE [28]

VIN_VCC_GT VIN_VCC_GT [28]

TOP



BOTTOM



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Y0E Schematic EC Tracking Record A to C version(DB/PV Planar)

EC #	Page	Description	Part Affected
EC-DB-01	2,12	Reserve M_A_ODT1/M_A_CS#1/M_A_CKE1 signals and R442~R448 for DDP memory.	R442~R448
EC-DB-02	21	Change footprint and material of CN15 for SMT issue.	CN15
EC-DB-03	21	Change footprint and material of CN6 for ME change.	CN6
EC-DB-04	17	Change footprint and material of CN5 for ME change.	CN5
EC-DB-05	23~29	Change PR137,PR144,PR37,PR143,PR157,PR158,PR2,PR5,PR69,PR112,PR9,PR70,PR71,PR101,PR127,PR129,PR136,PR83, and PR68 from 0 ohm to short pad for power update.	PR137,PR144,PR37,PR143,PR157,PR158,PR2,PR5,PR69,PR112,PR9,PR70,PR71,PR101,PR127,PR129,PR136,PR83, and PR68
EC-DB-06	26	Change pin defined and footprint of PU2 for power update.	PU2
EC-DB-07	23~29	Change footprint of PR17,PR123,PR124,PR125, and PR126 for power update.	PR17,PR123,PR124,PR125, and PR126
EC-DB-08	28	Un-staff PC146 and staff PC160 for power update.	PC146 and PC160
EC-DB-09	2,5,6,7,11,13,15~22	Remove R143,R146,R223,R64,R151,R156,R158,R166,R129,R171,R375,R39,R394,R182,R185,R180,R412,R410,R312,R21,R90,R66,R315,R421,R373,R204,R432,R334,R243,R45,R33,R202,R197,R17,R20,R42,R56,R198,R1,R330, and R23 for test point coverage.	R143,R146,R223,R64,R151,R156,R158,R166,R129,R171,R375,R39,R394,R182,R185,R180,R412,R410,R312,R21,R90,R66,R315,R421,R373,R204,R432,R334,R243,R45,R33,R202,R197,R17,R20,R42,R56,R198,R1, and R23
EC-DB-10	9	Add +1.35V LDO (U35) and reserve L25 and C429 for CRT ripple issue.	U35,C427,R449,C426,C428,C425,R450,R451,C68,L25, and C429
EC-DB-11	13	Change connection of Q23.2 from PP1800_PCH to PP1800_PCH_S5 for WOL issue.	Q23
EC-DB-12	23	Pin9 and Pin10 of CN3 connect to GND for ESD suggestion.	CN3
EC-DB-13	27	Remove PU7, PR111, PR113, PC137, PR87, PC117, PR108, PR115, PL7, PR92, and PC6 for layout space.	PU7, PR111, PR113, PC137, PR87, PC117, PR108, PR115, PL7, PR92, and PC6
EC-DB-14	28	Staff PC145, PC147, PC135, PC27, PC149, and PC153 for power issue.	PC145, PC147, PC135, PC27, PC149, and PC153
EC-DB-15	6,21	Remove R293, R294, R119, R123, R133, and R142 for test point coverage.	R293, R294, R119, R123, R133, and R142
EC-DB-16	18	Un-staff R176 and R177, and staff L14 for EMI suggestion.	R176, R177, and L14
EC-DB-17	19	Change R357 and R359 from 0 ohm to short pad for cost saving.	R357 and R359
EC-DB-18	15	Change footprint and material of CN2 for ME change.	CN2
EC-DB-19	21	Staff D11 and D12 for ESD suggestion.	D11 and D12
EC-DB-20	20	Change footprint and material of CN4 for ME change.	CN4
EC-DB-21	28	Staff PC141,PC142,PC143,PC27,PC149, and PC153 for fixing overshoot issue.	PC141,PC142,PC143,PC27,PC149, and PC153
EC-DB-22	28	Change PR94 and PR105 from 1.78k ohm to 1.91k ohm for Vcore load line fine-tune.	PR94 and PR105

Y0E Schematic EC Tracking Record C to MP version(PV/MV Planar)

[illegible]

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