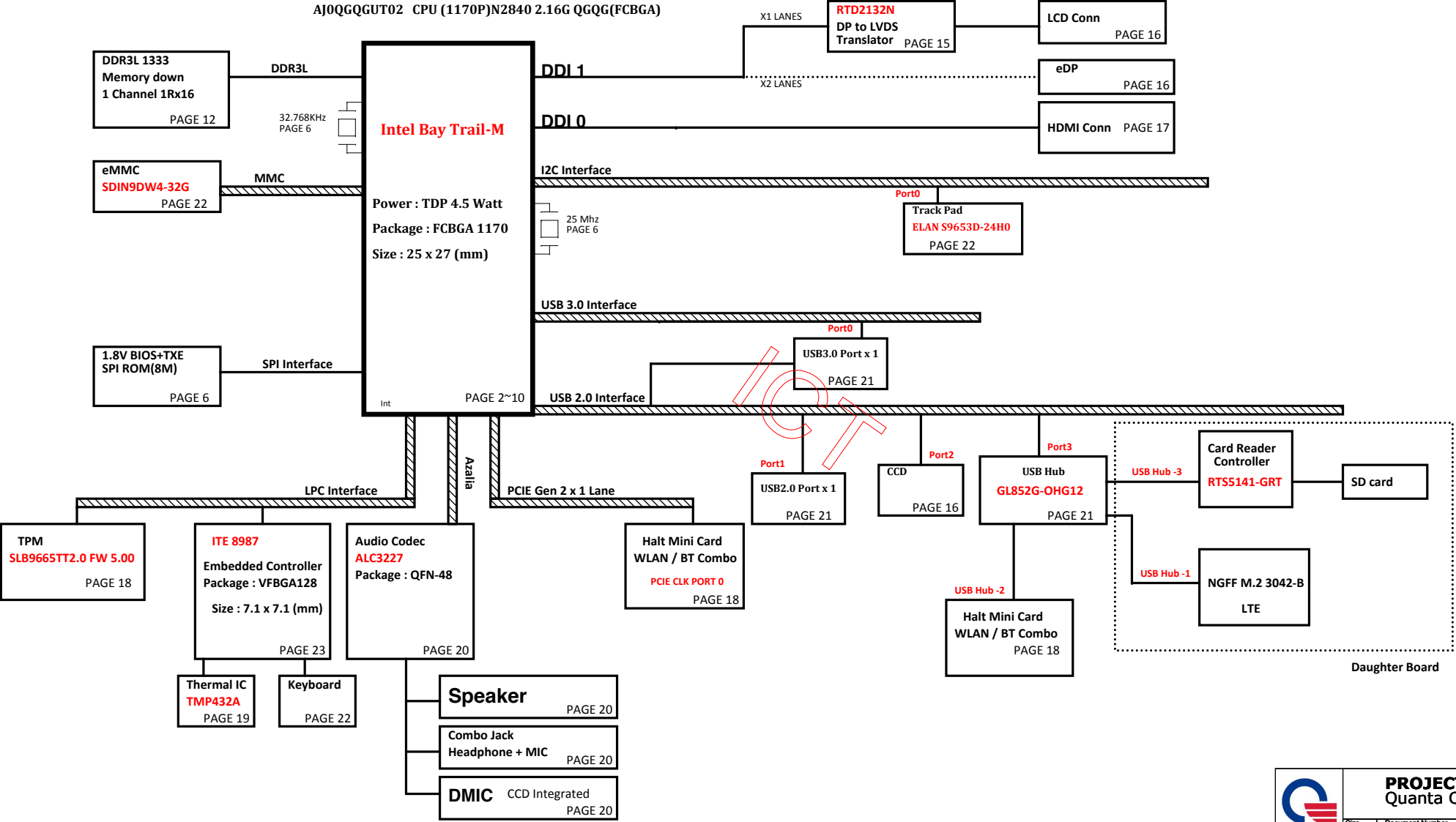


Y0A Intel Bay Trail-M Platform Block Diagram

AJ0QGQLUT02 CPU(1170P)N2940 1.83G QGQL(FCBGA)

AJ0QGQGUT02 CPU (1170P)N2840 2.16G QGQG(FCBGA)



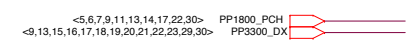
USB		VLV-M-D	
AY45	DRAM1_MA_00	DRAM1_DQ_00	BG38
BB42	DRAM1_MA_11	DRAM1_DQ_11	BC40
AW42	DRAM1_MA_22	DRAM1_DQ_22	BA42
BB43	DRAM1_MA_33	DRAM1_DQ_33	BD42
BB39	DRAM1_MA_44	DRAM1_DQ_44	BC38
BC35	DRAM1_MA_55	DRAM1_DQ_55	BC36
BB43	DRAM1_MA_66	DRAM1_DQ_66	BF42
BF50	DRAM1_MA_77	DRAM1_DQ_77	BC44
BC32	DRAM1_MA_88	DRAM1_DQ_88	BC32
BE52	DRAM1_MA_99	DRAM1_DQ_99	BC36
AY48	DRAM1_MA_1010	DRAM1_DQ_1010	BC36
BE37	DRAM1_MA_1111	DRAM1_DQ_1111	BC37
BD42	DRAM1_MA_1212	DRAM1_DQ_1212	BC33
BA42	DRAM1_MA_1313	DRAM1_DQ_1313	BJ33
BH43	DRAM1_MA_1414	DRAM1_DQ_1414	BC37
BH50	DRAM1_MA_1515	DRAM1_DQ_1515	BC38
		DRAM1_DQ_1616	BJ36
BD38	DRAM1_DM_00	DRAM1_DQ_1717	AT36
BH38	DRAM1_DM_11	DRAM1_DQ_1818	AV40
BC36	DRAM1_DM_22	DRAM1_DQ_1919	AT40
BH42	DRAM1_DM_33	DRAM1_DQ_2020	AK36
AT37	DRAM1_DM_44	DRAM1_DQ_2121	AV36
AM42	DRAM1_DM_55	DRAM1_DQ_2222	AV42
AK38	DRAM1_DM_66	DRAM1_DQ_2323	AV40
AK32	DRAM1_DM_77	DRAM1_DQ_2424	BJ41
AV45	DRAM1_RAS	DRAM1_DQ_2525	BG41
AV46	DRAM1_CAS	DRAM1_DQ_2626	BJ45
BB39	DRAM1_WE	DRAM1_DQ_2727	BJ46
		DRAM1_DQ_2828	BG40
AY47	DRAM1_BS_00	DRAM1_DQ_2929	BD40
AY44	DRAM1_BS_11	DRAM1_DQ_3030	BD48
BF52	DRAM1_BS_22	DRAM1_DQ_3131	BD47
		DRAM1_DQ_3232	AY52
AT44	DRAM1_CS_0	DRAM1_DQ_3333	AY51
		DRAM1_DQ_3434	AP52
AT45	DRAM1_CS_2	DRAM1_DQ_3535	AP51
		DRAM1_DQ_3636	AW51
		DRAM1_DQ_3737	AW53
		DRAM1_DQ_3838	AP51
BG47	DRAM1_CKE_00	DRAM1_DQ_3939	AP53
BE48	RESERVED_BE48	DRAM1_DQ_4040	AP47
BD46	DRAM1_CKE_22	DRAM1_DQ_4141	AP45
BF48	RESERVED_BF48	DRAM1_DQ_4242	AK40
		DRAM1_DQ_4343	AM41
AP41	DRAM1_ODT_0	DRAM1_DQ_4444	AP48
AT42	DRAM1_ODT_2	DRAM1_DQ_4545	AP50
		DRAM1_DQ_4646	AK42
AV50	DRAM1_CKP_0	DRAM1_DQ_4747	AK40
AV48	DRAM1_CKN_0	DRAM1_DQ_4848	AM45
		DRAM1_DQ_4949	AM47
		DRAM1_DQ_5050	BF48
		DRAM1_DQ_5151	BF50
		DRAM1_DQ_5252	AM48
AT50	DRAM1_CKP_2	DRAM1_DQ_5353	AM50
AT48	DRAM1_CKN_2	DRAM1_DQ_5454	AK44
		DRAM1_DQ_5555	AK45
		DRAM1_DQ_5656	AM52
		DRAM1_DQ_5757	AL51
AT41	DRAM1_DRAMRST	DRAM1_DQ_5858	AK53
		DRAM1_DQ_5959	AK51
		DRAM1_DQ_6060	AL53
		DRAM1_DQ_6161	AK51
		DRAM1_DQ_6262	BF52
		DRAM1_DQ_6363	BF51
		DRAM1_DQSP_00	BF40
		DRAM1_DQSN_00	BD40
		DRAM1_DQSP_11	BC35
		DRAM1_DQSN_11	BJ34
		DRAM1_DQSP_22	BA38
		DRAM1_DQSN_22	BJ38
		DRAM1_DQSP_33	BJ44
		DRAM1_DQSN_33	BG43
		DRAM1_DQSP_44	BU53
		DRAM1_DQSN_44	AV52
		DRAM1_DQSP_55	AP42
		DRAM1_DQSN_55	AP44
		DRAM1_DQSP_66	AK47
		DRAM1_DQSN_66	AK48
		DRAM1_DQSP_77	AK52
		DRAM1_DQSN_77	AK51


2 OF 13

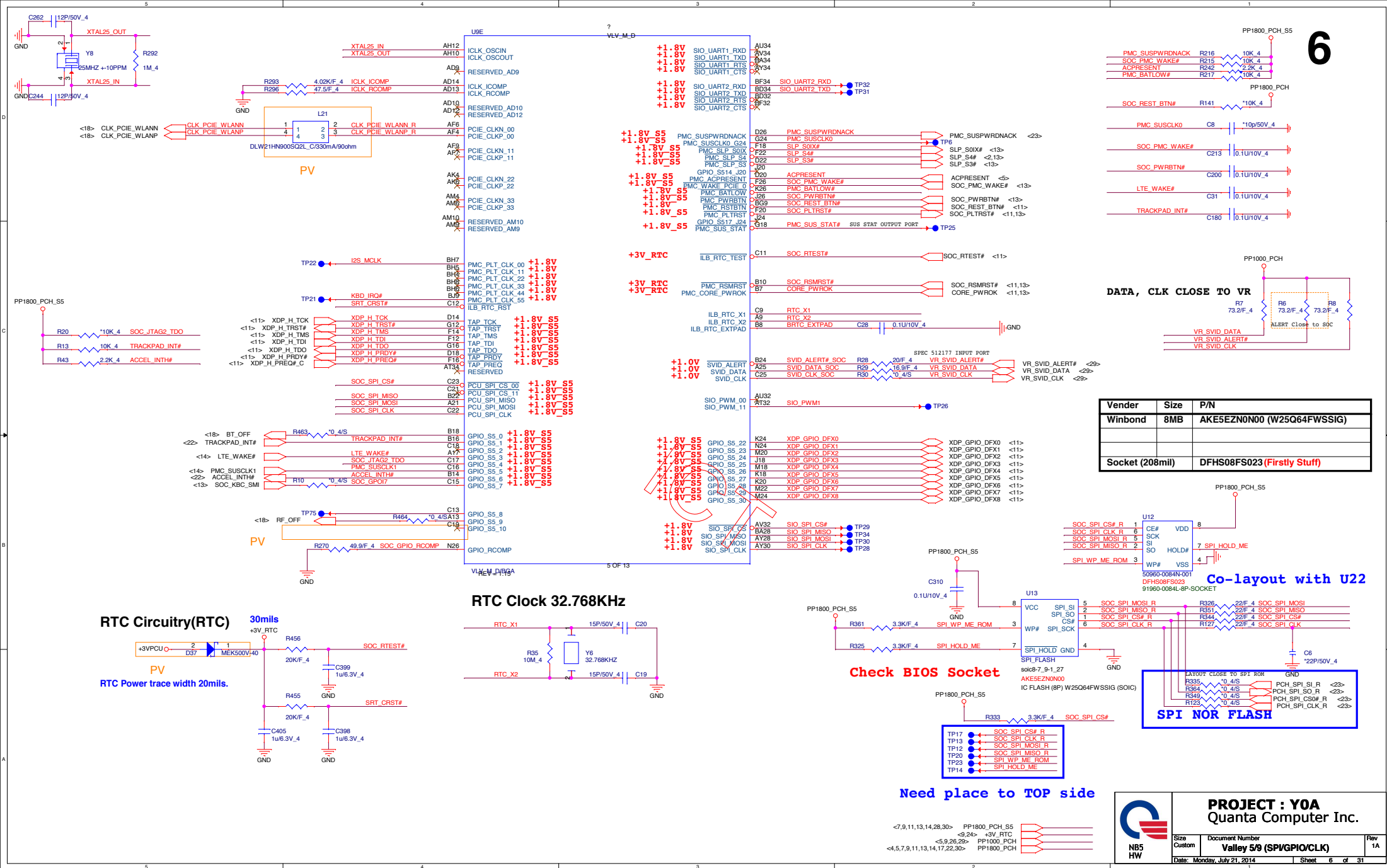
VLV-M-D/BGA
REV = 1.15

PROJECT : Y0A
Quanta Computer Inc.

Size	Document Number	Rev
Custom	Valley 2/9 (DDR8)	1A
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 NB5 HW	PROJECT : Y0A Quanta Computer Inc.		
	Size Custom	Document Number Valley 3/9 (Display)	Rev 1A
	Date: Monday, July 21, 2014	Sheet	4 of 31




DATA, CLK CLOSE TO VR

Vender	Size	P/N
Winbond	8MB	AKE5EZ0N00 (W25Q64FWSSIG)
Socket (208mil)		DFHS08FS023 (Firstly Stuff)

Co-layout with U22

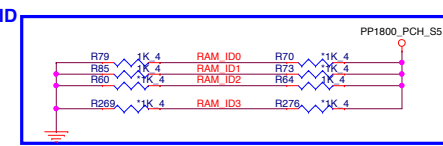
SPI NOR FLASH

Need place to TOP side

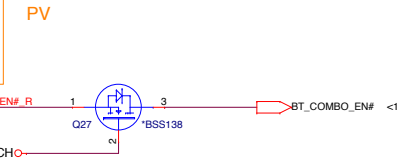
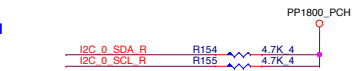
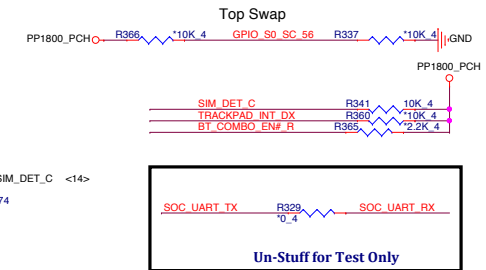
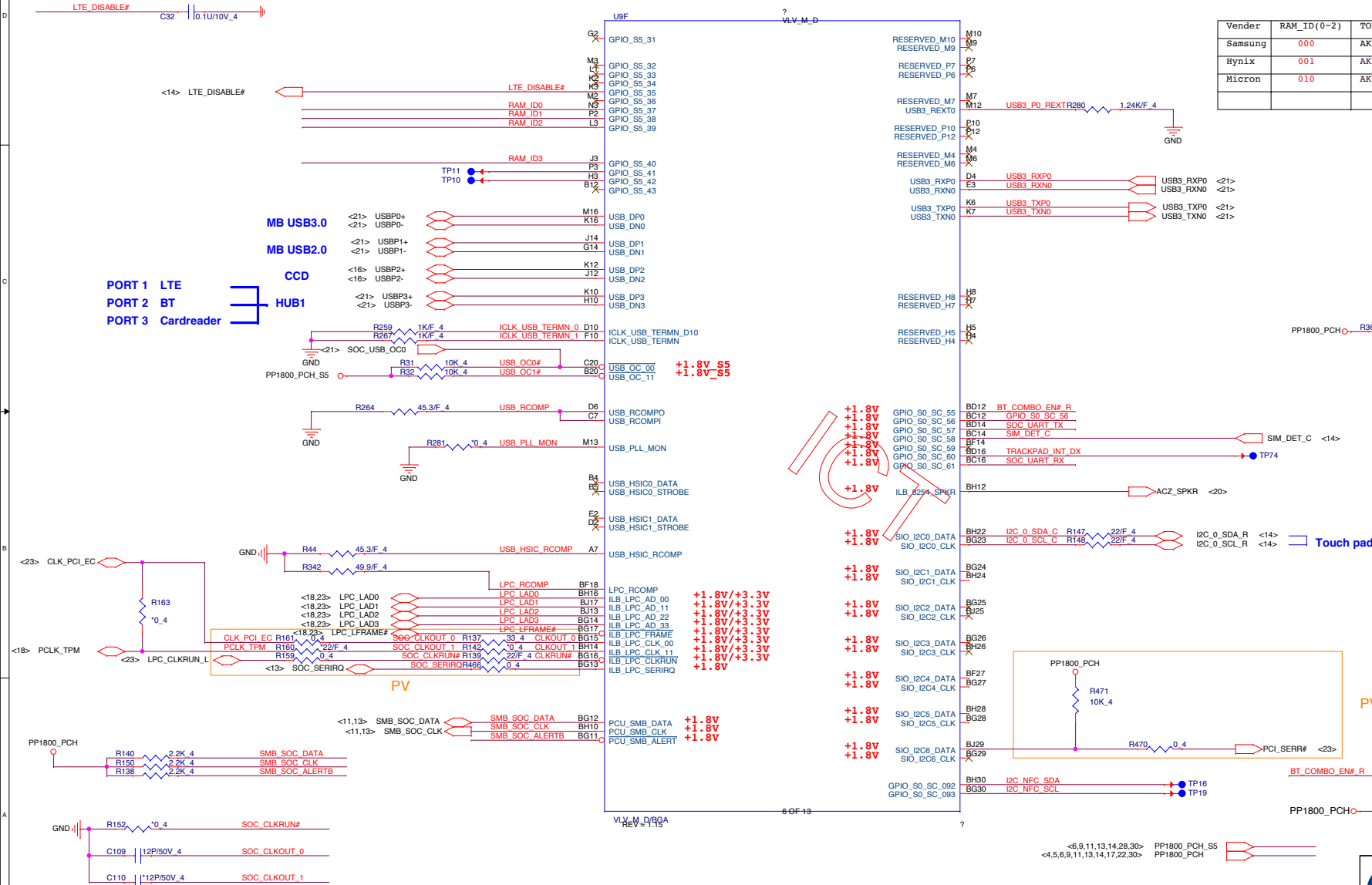


PROJECT : YOA
Quanta Computer Inc.

Size Custom	Document Number Valley 5/9 (SPI/GPIO/CLK)	Rev 1A
Date: Monday, July 21, 2014		Sheet 6 of 31



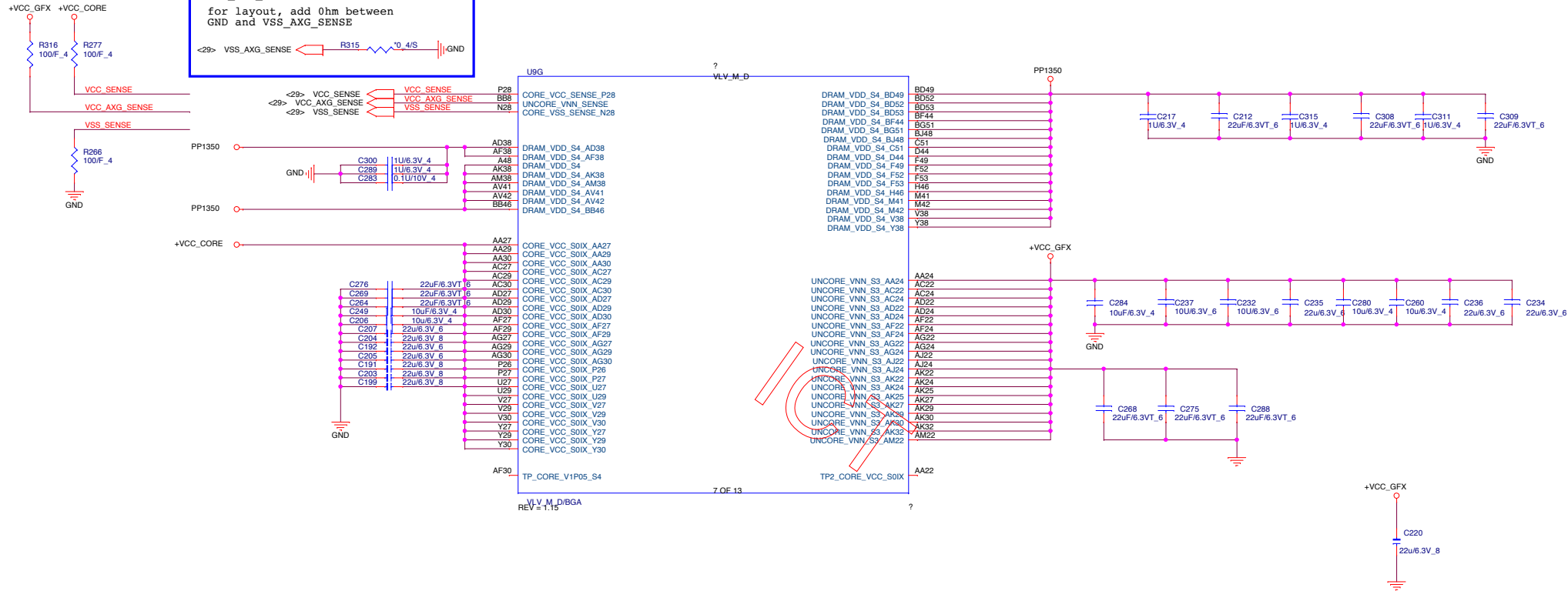
Vender	RAM_ID(0-2)	TOP B/S PN	Mfr. PN	Channel	Size
Samsung	000	AKD5PGST508	K4B4G1646Q-HYK0	1CH	2GB
Hynix	001	AKD5JGETW07	H5TC4G63AFR-PBA	1CH	2GB
Micron	010	AKD5JGSTL06	MT41K256M16HA-125:E	1CH	2GB



layout suggestion by intel,
VSS_AXG_SENSE didn't
connect to VSS_SENSE, will
connect the GND via near
VCC_AXG_SENSE

for layout, add 0hm between
GND and VSS_AXG_SENSE

<29> VSS_AXG_SENSE



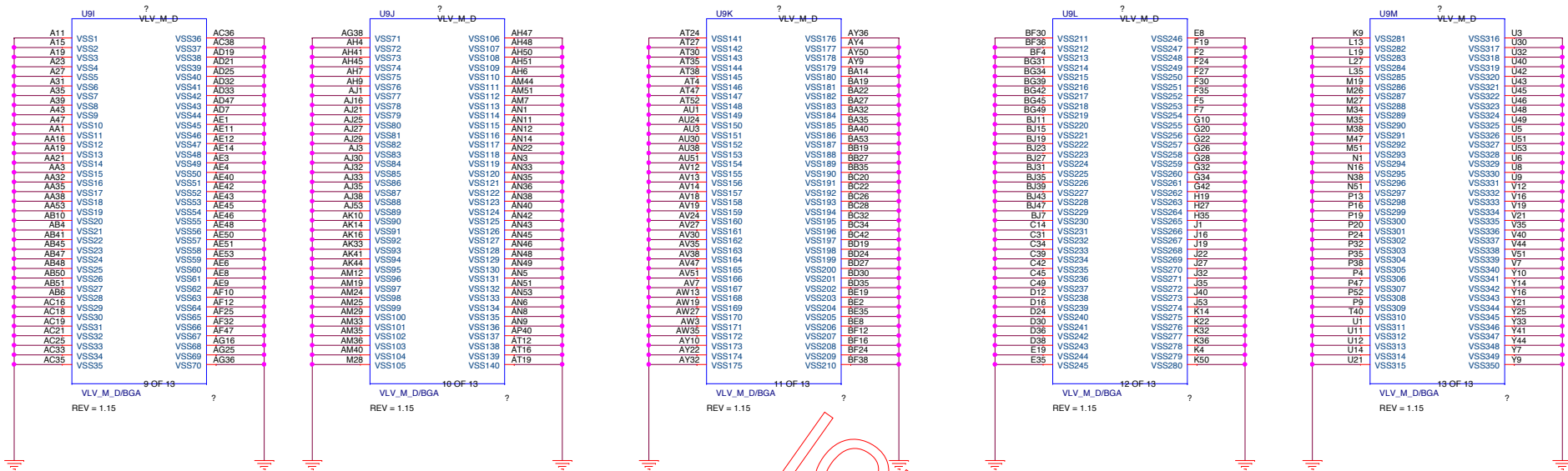
<29> +VCC_GFX
<29> +VCC_CORE
<2,12,27,30> PP1350



PROJECT : Y0A
Quanta Computer Inc.

Size Custom	Document Number Valley 7/9 (Power 1)	Rev 1A
Date: Monday, July 21, 2014	Sheet 8 of 31	

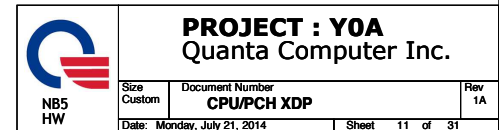
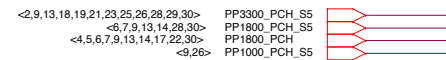


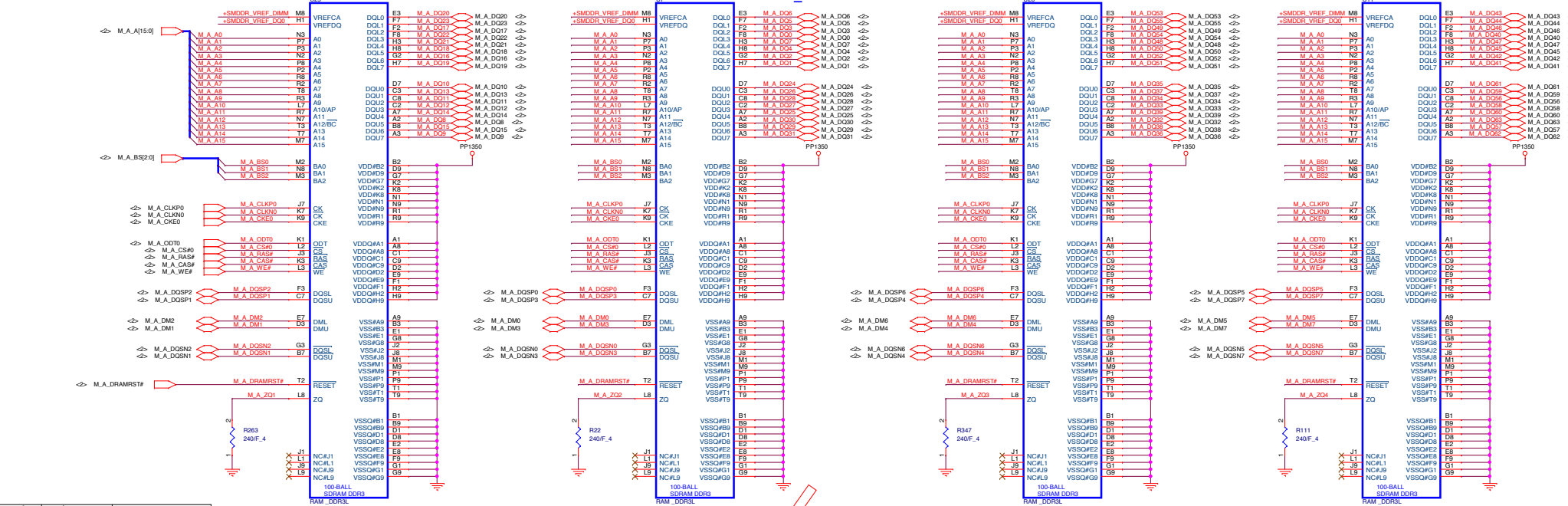


PROJECT : Y0A
Quanta Computer Inc.

Size	Document Number	Rev
Custom	Valley 9/9 (GND)	1A
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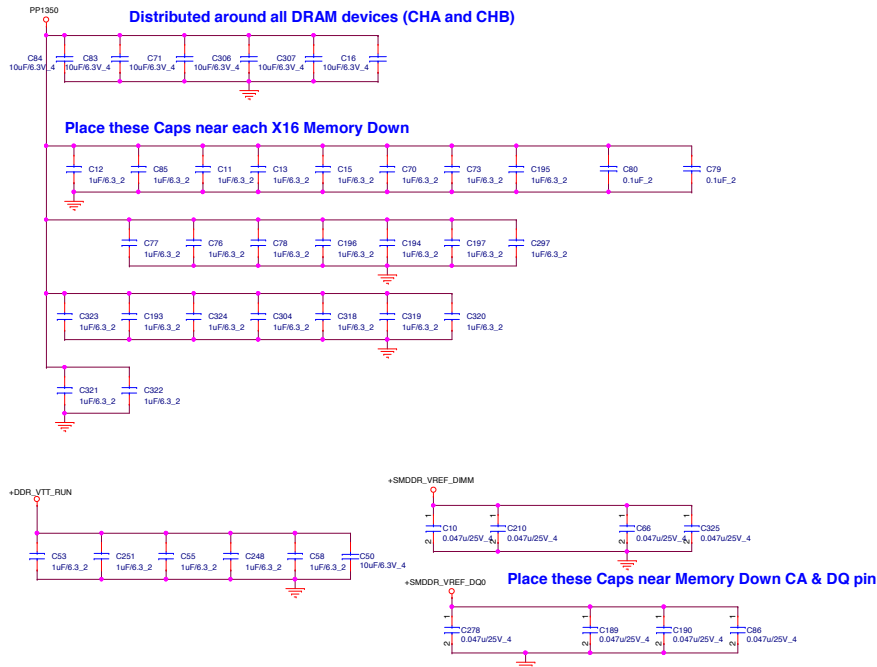
11



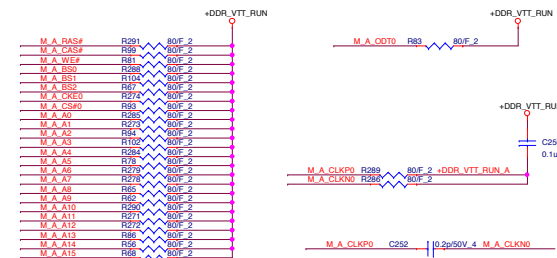


Distributed around all DRAM devices (CHA and CHB)

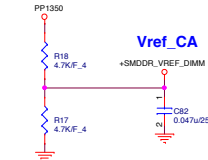
Place these Caps near each X16 Memory Down



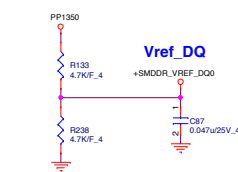
Place these Caps near Memory Down CA & DQ pin



M1 solution



M1 solution



<2.8.27.30> PP1350

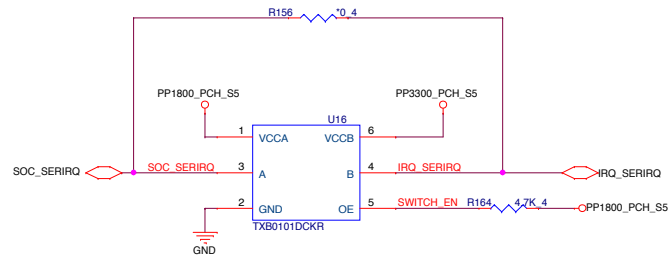
<27> +DDR_VTT_RUN



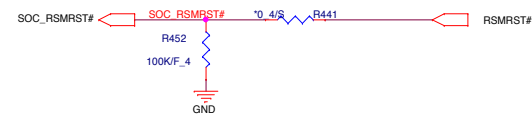
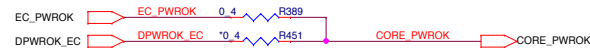
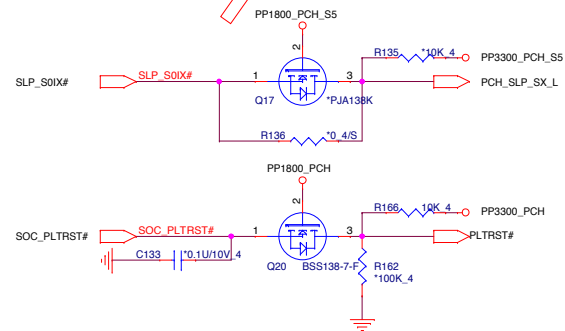
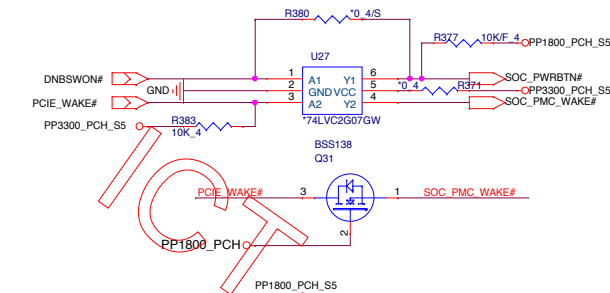
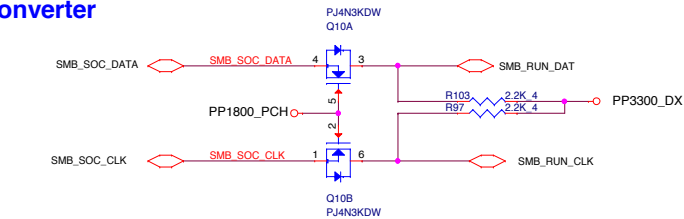
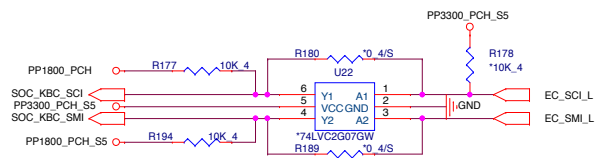
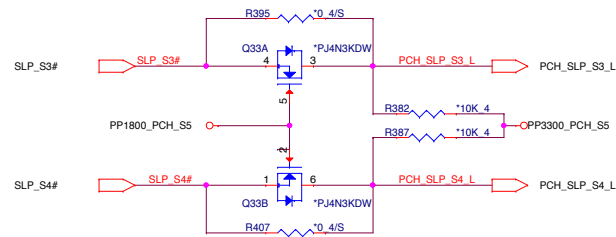
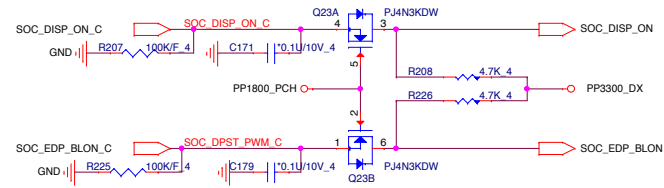
PROJECT : Y0A
Quanta Computer Inc.

Docuement Number: **DDR3L MEMORY DOWNx16 A**
Date: Monday, July 21, 2014
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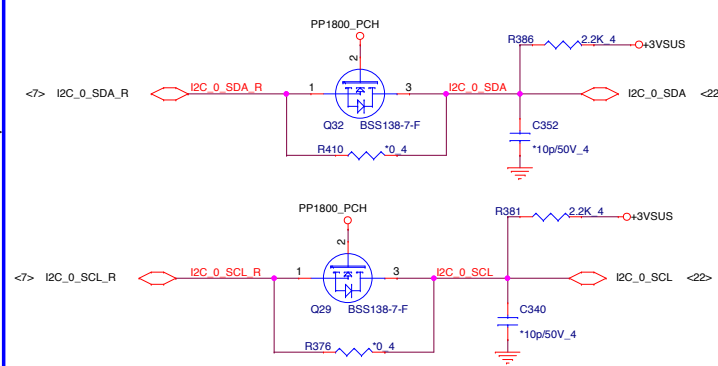
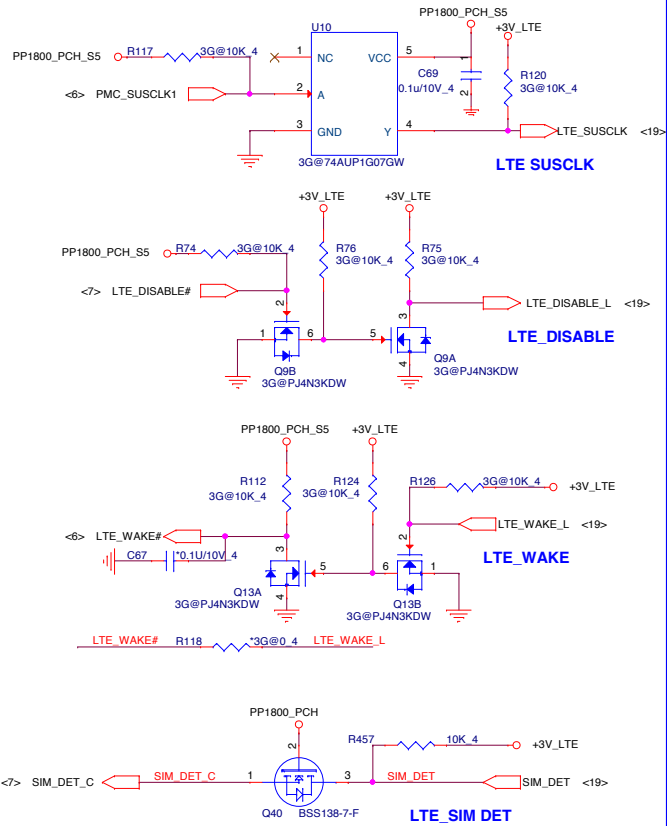
eDP control pin (For eDP)



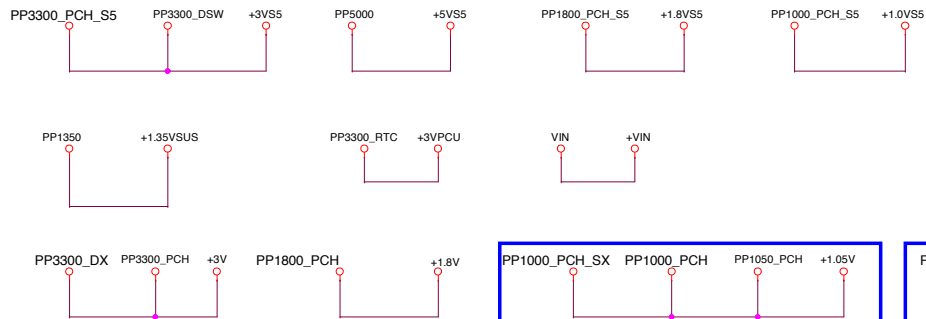
LVDS converter



PP1800_PCH_S5
PP3300_PCH_S5
PP1800_PCH
PP3300_PCH
PP3300_DX

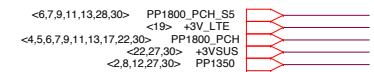


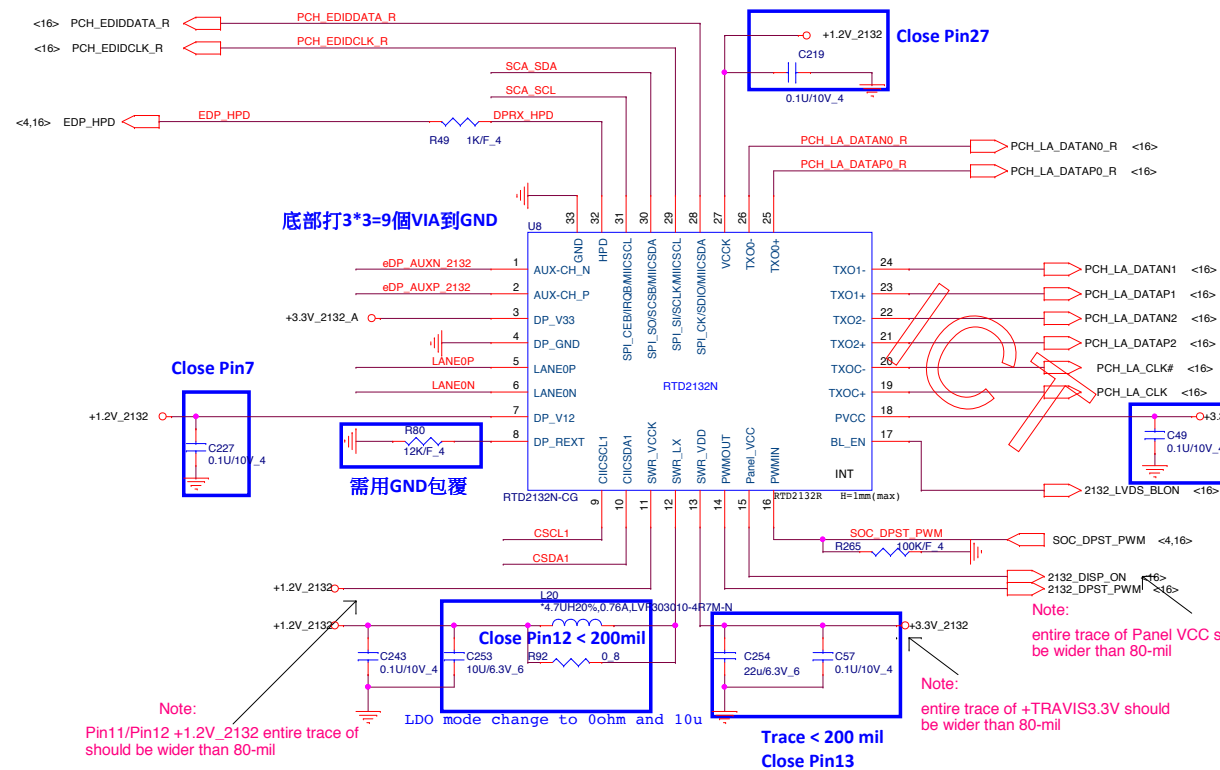
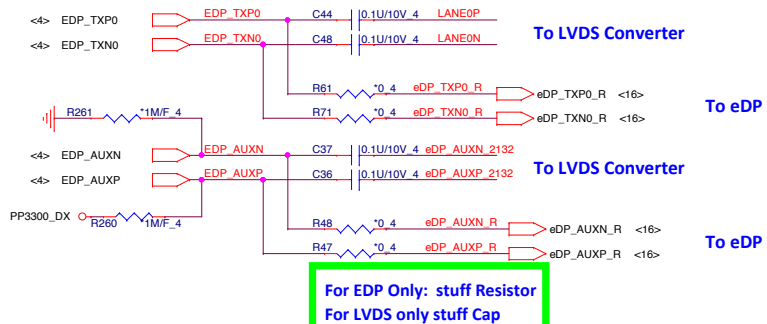
ICT



Combine +1.0VSX,+1.0V,+1.05V
power rail for cost saving

Combine +1.35VSFR,+1.35V
power rail for cost saving

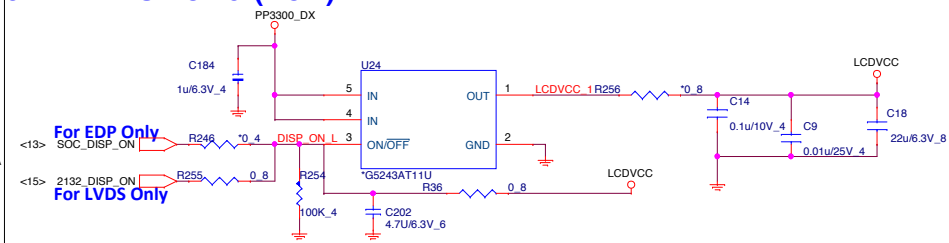




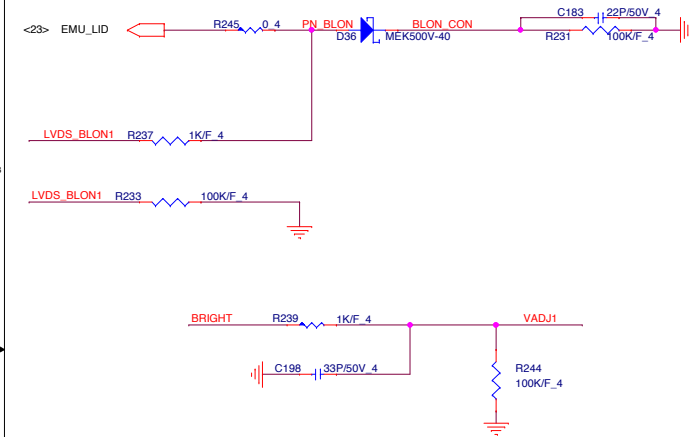
1.P/N差異需在5 mil以內
2.Pair與Pair之間差異要在500 mil以內

<4,9,13,16,17,18,19,20,21,22,23,29,30> PP3300_DX

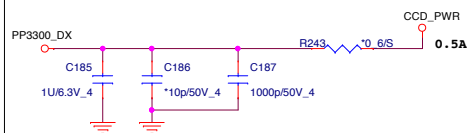
eDP /LVDS Power(VGA)



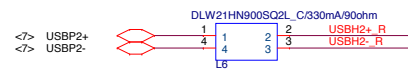
LID Switch



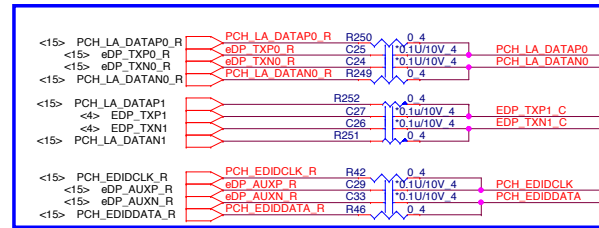
CCD power(CCD)



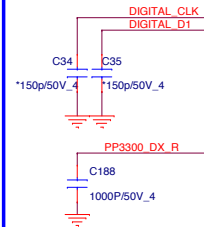
CCD USB(CCD)



For LVDS Only stuff R, For EDP only stuff C



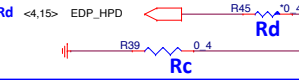
For LVDS Only: Stuff Rb



DMIC (ADO)

For LVDS Only: Stuff R

For EDP Only: Stuff Rd



For LVDS Only: stuff Ra,Rb



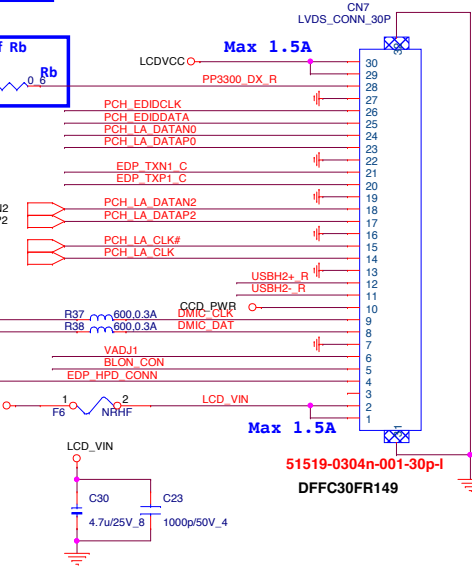
For EDP Only: stuff Rd,Re



<4,9,13,15,17,18,19,20,21,22,23,29,30> PP3300_DX
<19,24,25,26,27,29,30,31> VIN

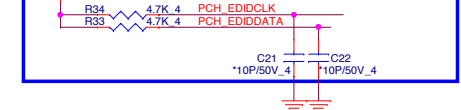
eDP/LVDS

Need New LCD Cable



51519-0304n-001-30p-I
DFFC30FR149

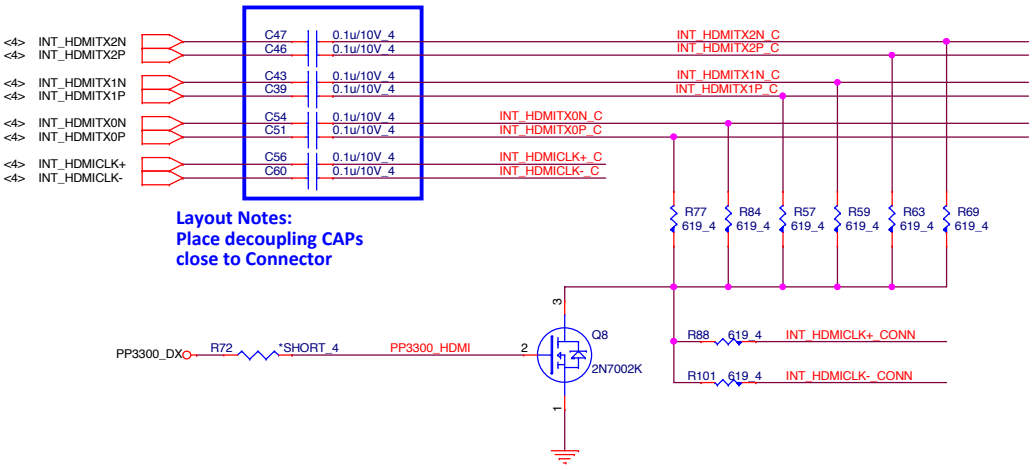
For LVDS Only:



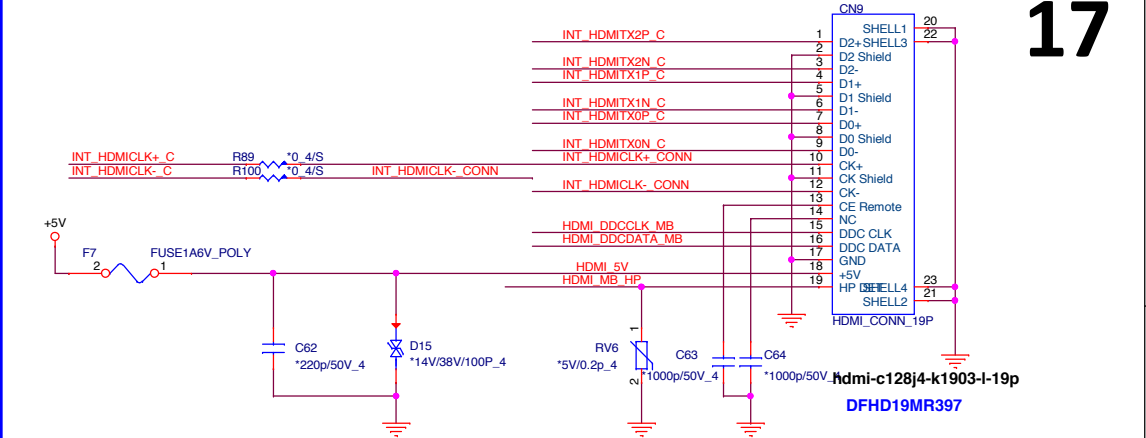
PROJECT : Y0A
Quanta Computer Inc.

Size Custom	Document Number LVDS/eDP/CCD/DMIC	Rev 1A
Date: Monday, July 21, 2014		Sheet 16 of 31

HDMI Cost Reduced level shift (HDM)

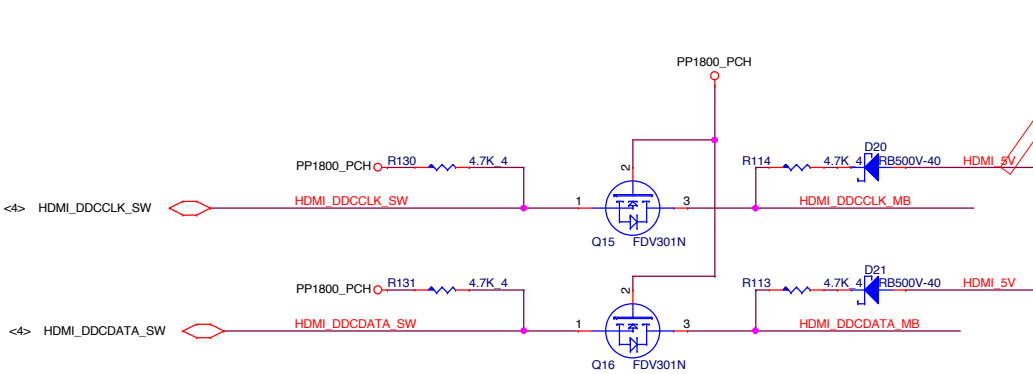


HDMI connector (HDM)

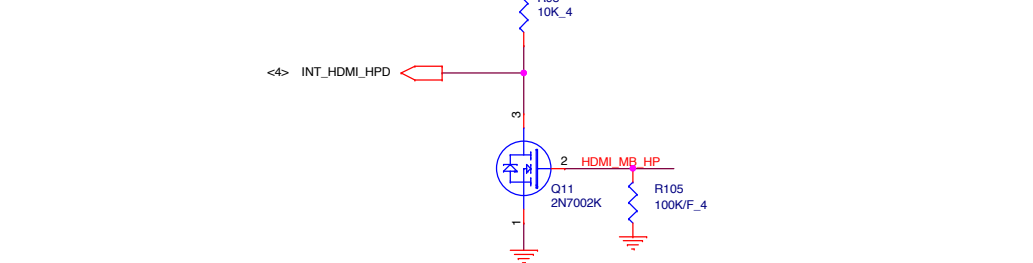


17

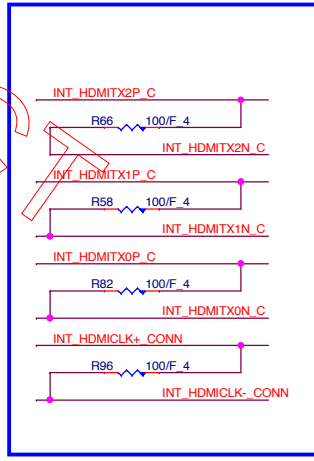
HDMI DDC (HDM)



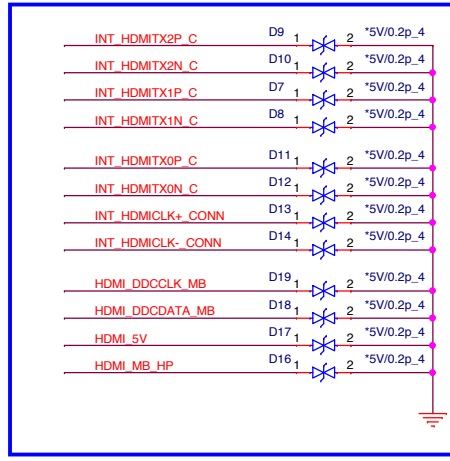
HDMI-detect (HDM)




EMI



ESD 靠近HDMI CONNECTOR(CN16)



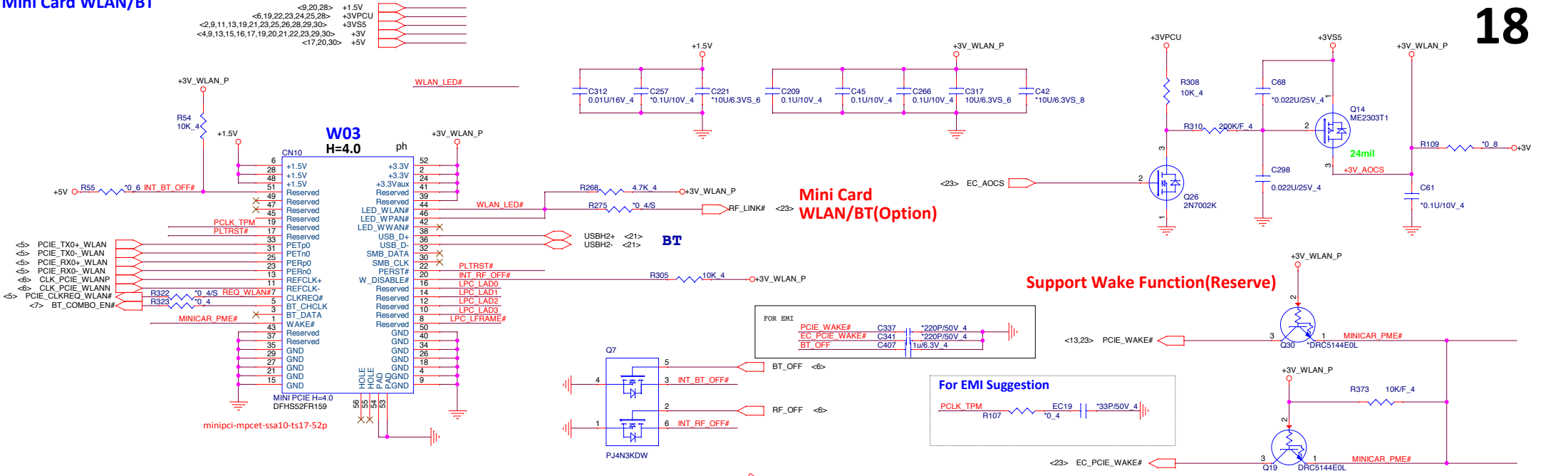
<4,9,13,15,16,18,19,20,21,22,23,29,30> PP3300_DX
<4,5,6,7,9,11,13,14,22,30> PP1800_PCH
<18,20,30> +5V



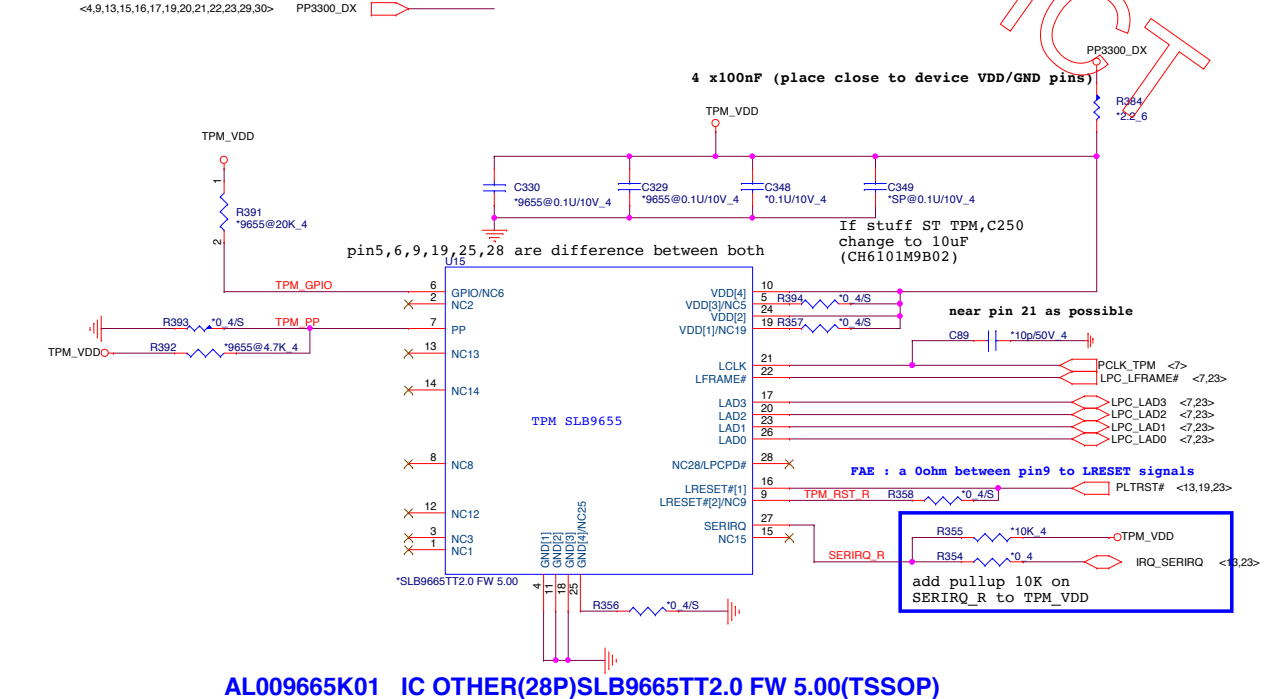
PROJECT : Y0A
Quanta Computer Inc.

Size Custom	Document Number HDMI	Rev 1A
Date: Monday, July 21, 2014		Sheet 17 of 31

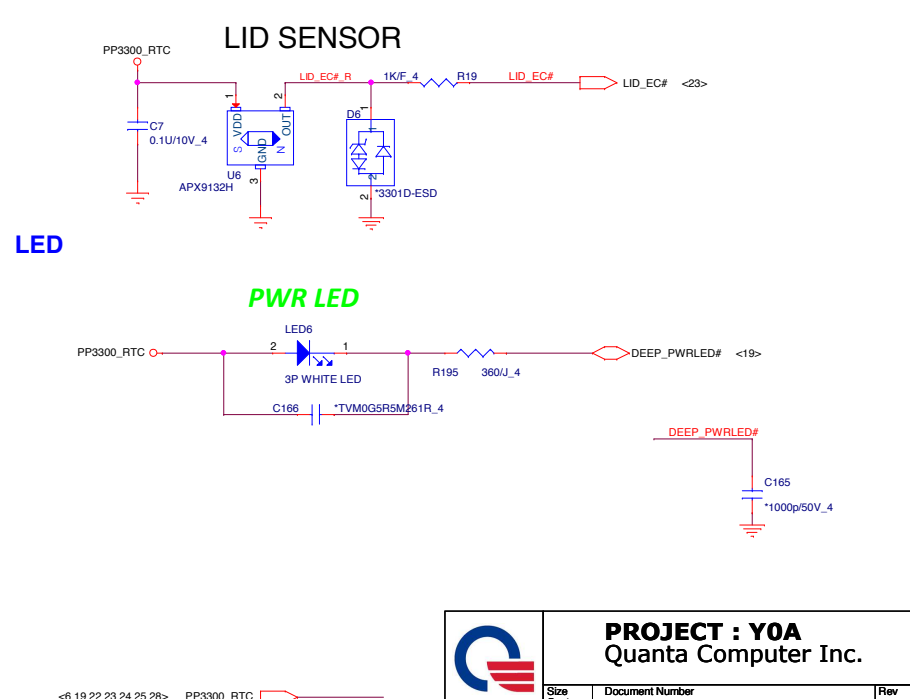
Mini Card WLAN/BT



TPM (CLG)

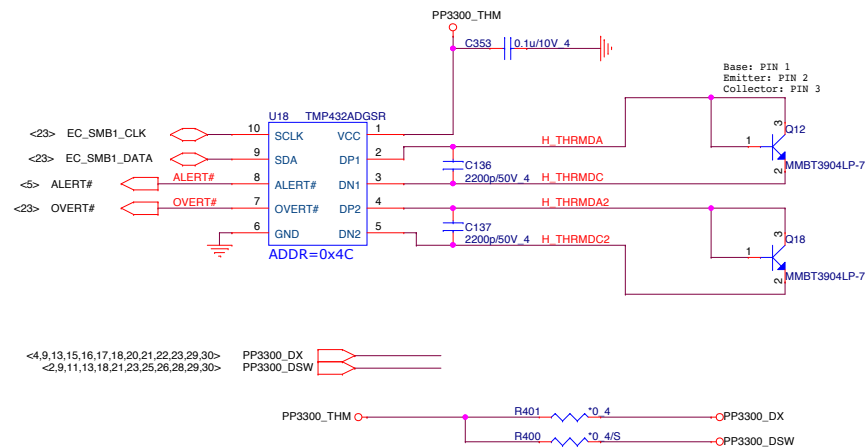


LID

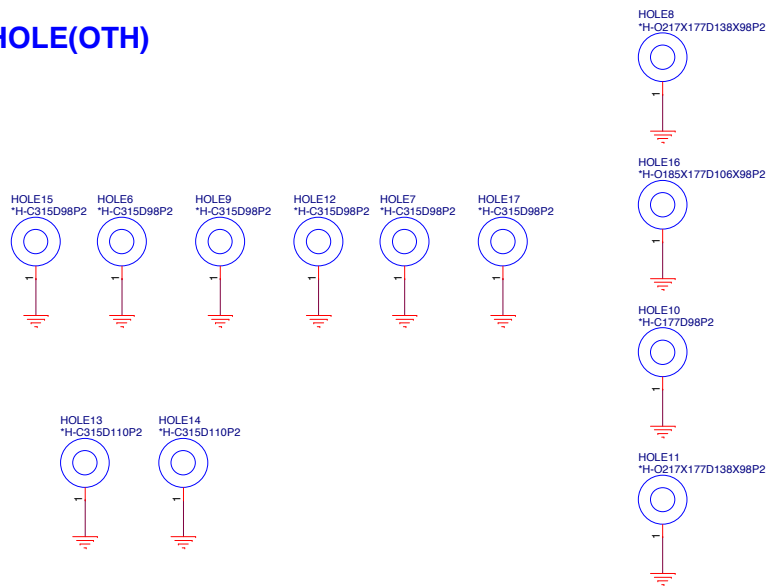
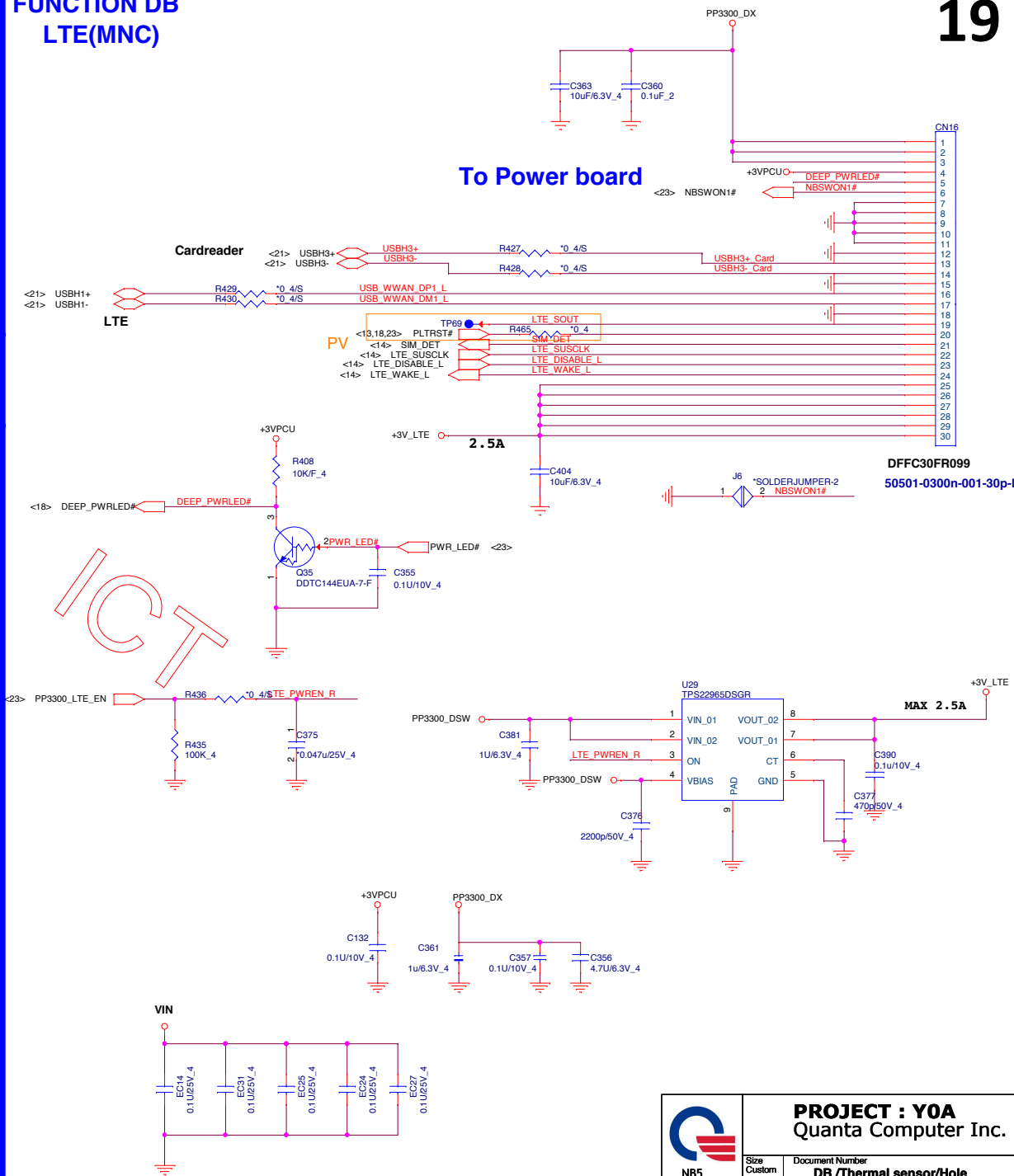


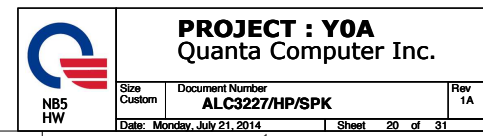
AL009665K01 IC OTHER(28P)SLB9665TT2.0 FW 5.00(TSSOP)

Thermal Sensor(THM)

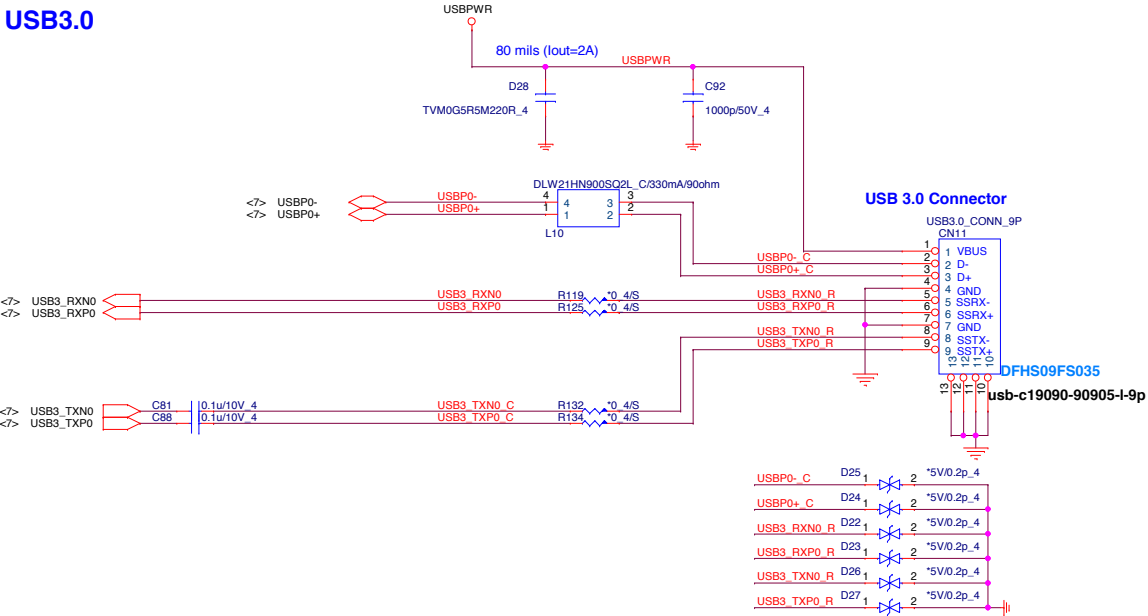


HOLE(OTH)

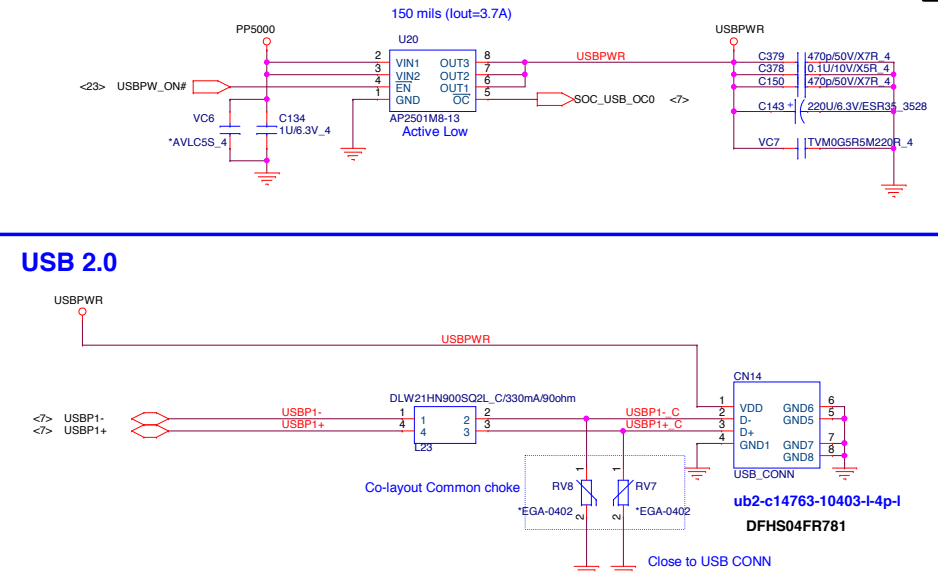
FUNCTION DB
LTE(MNC)



USB3.0

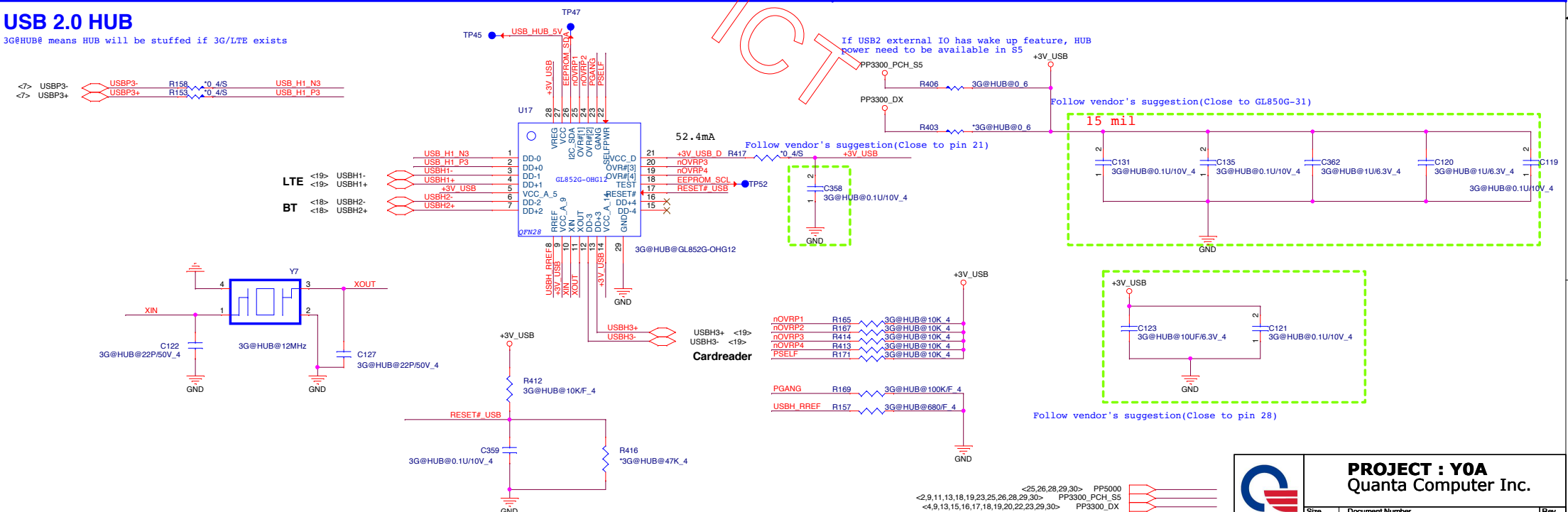


USB POWER SWITCH



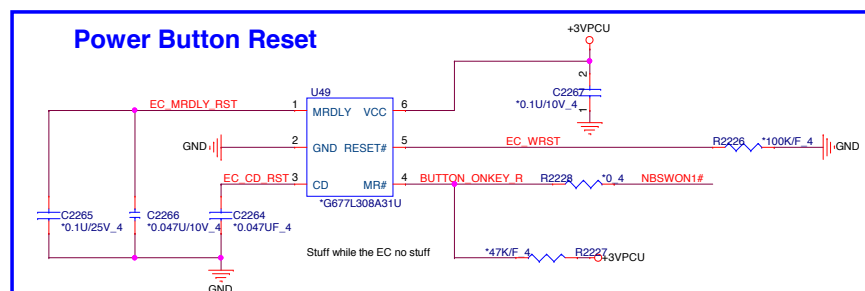
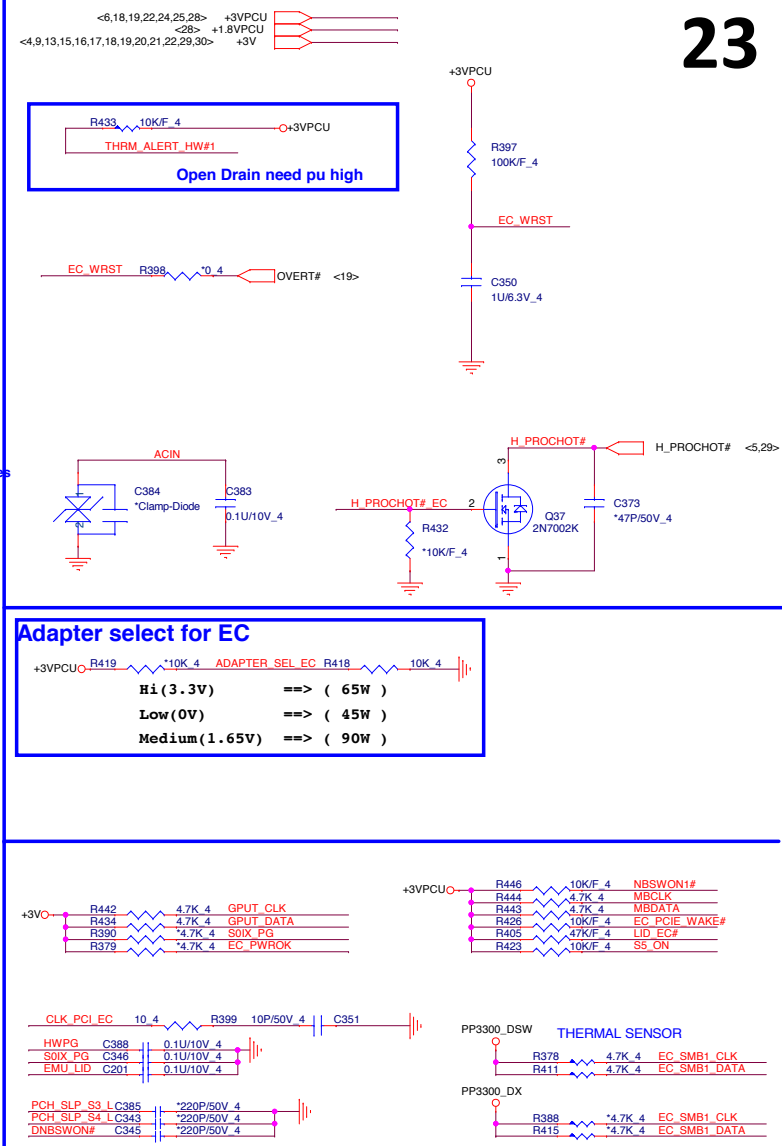
USB 2.0 HUB

3G@HUB@ means HUB will be stuffed if 3G/LTE exists



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Date: Monday, July 21, 2014		Sheet 22 of 31

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CPU

PROJECT : Y0A
Quanta Computer Inc.

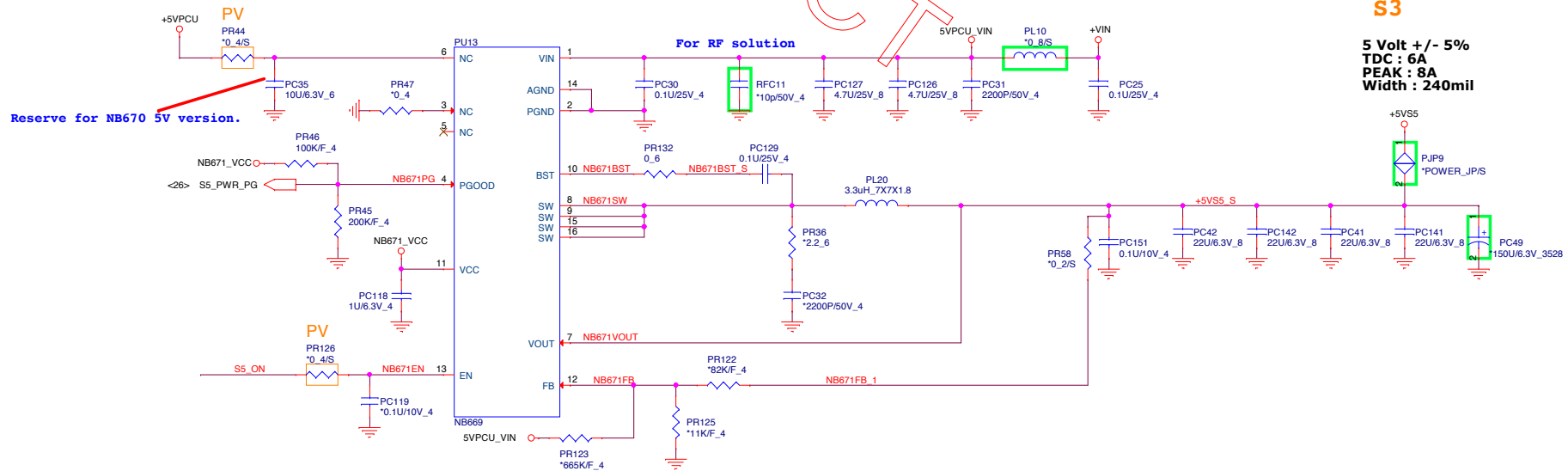
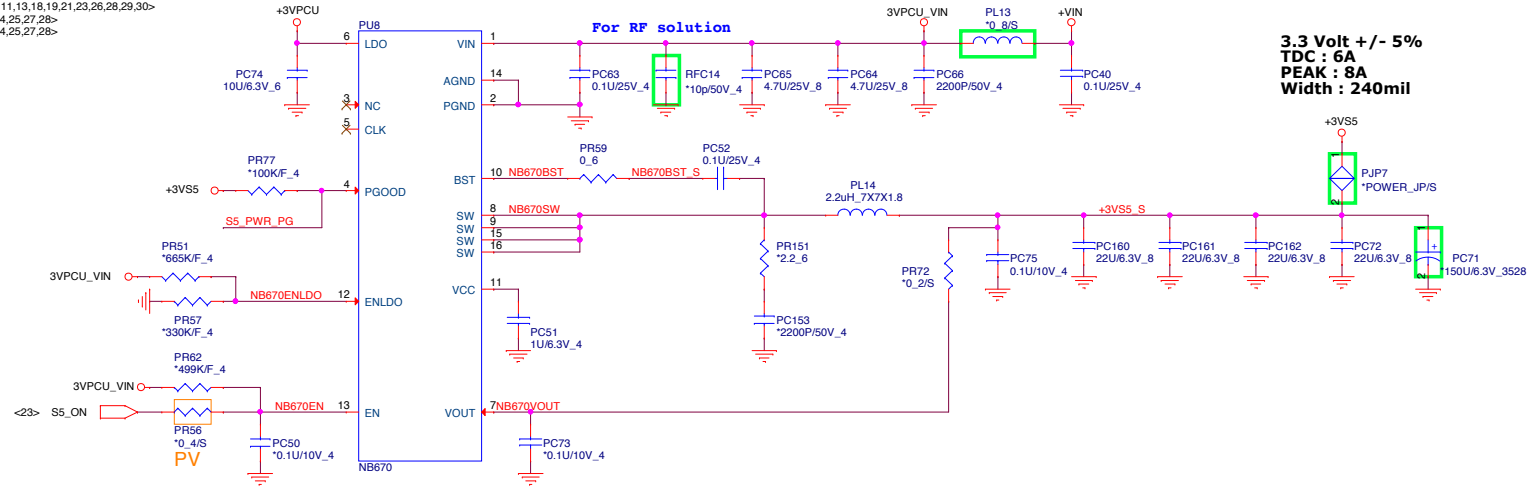


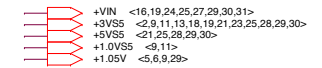
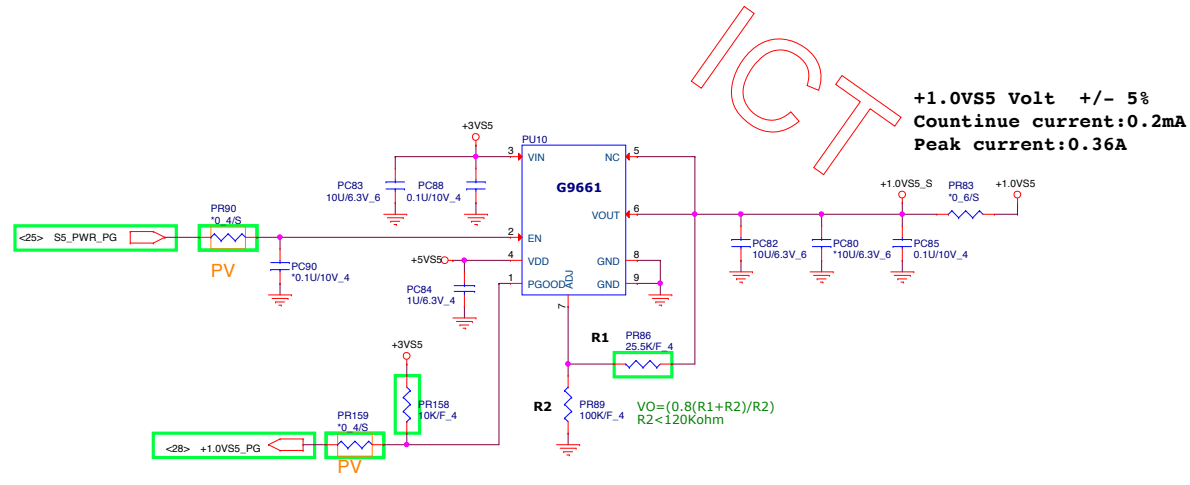
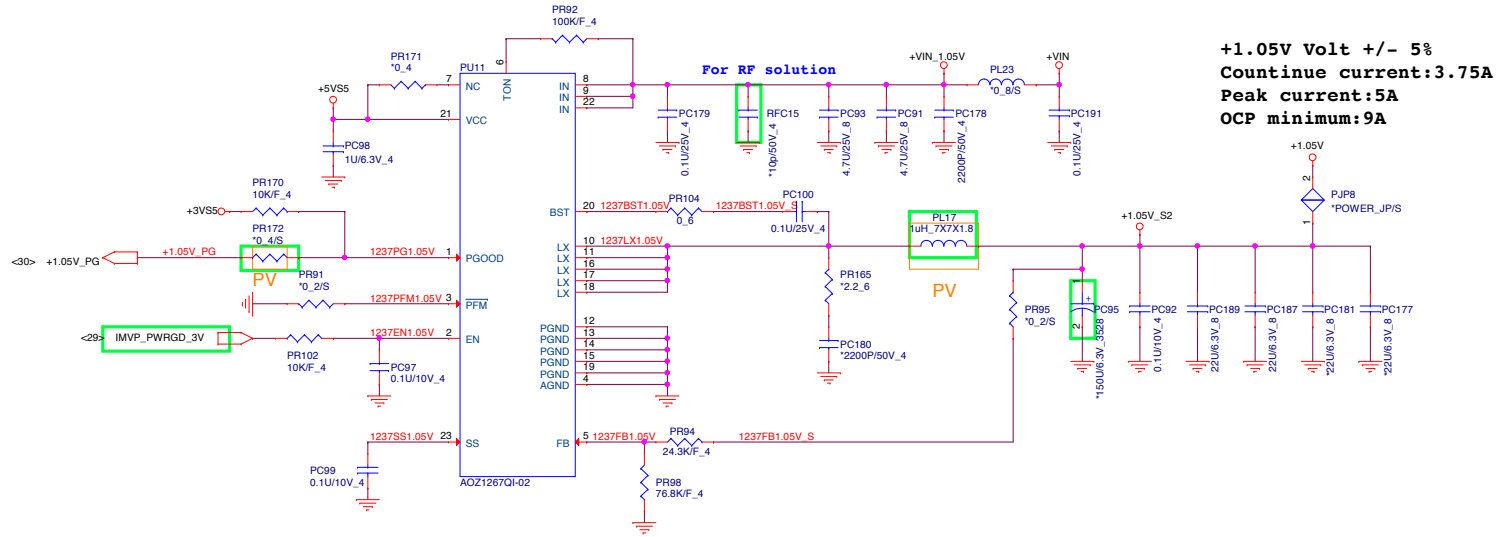
NB5
HW

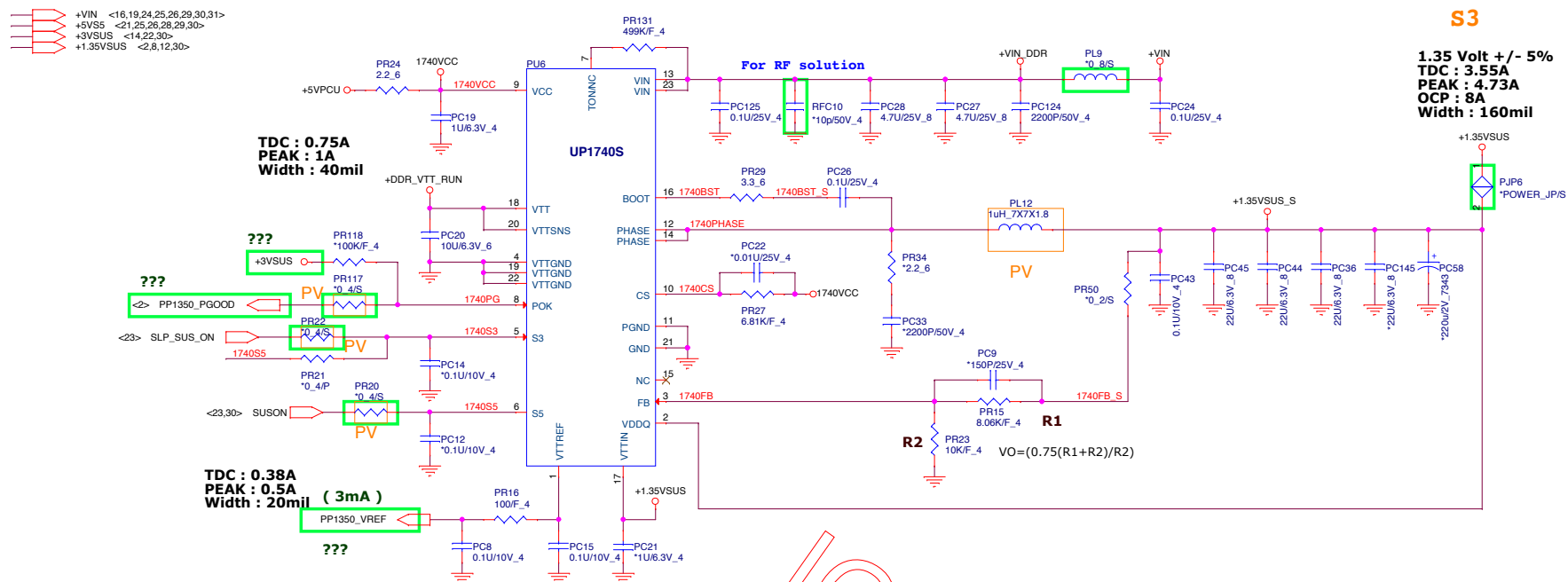
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45/65W DC_JACK

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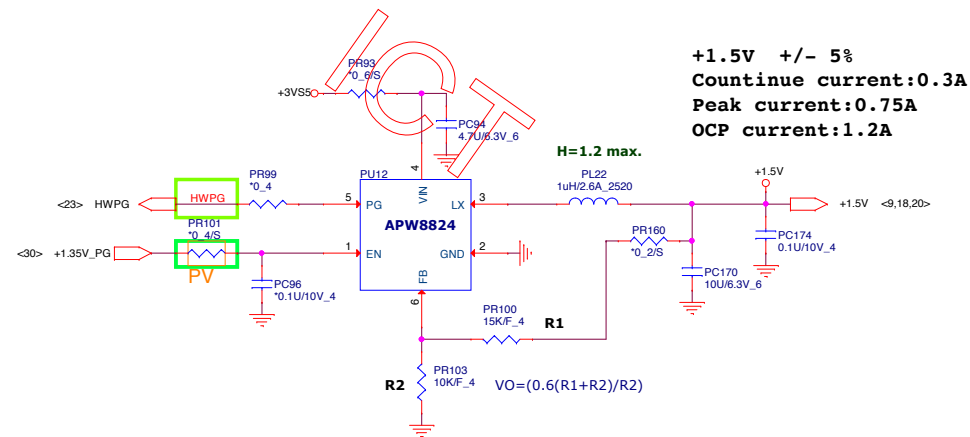
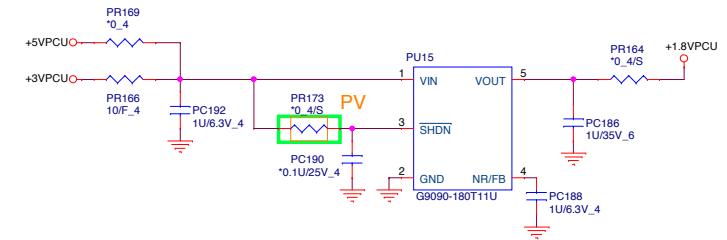
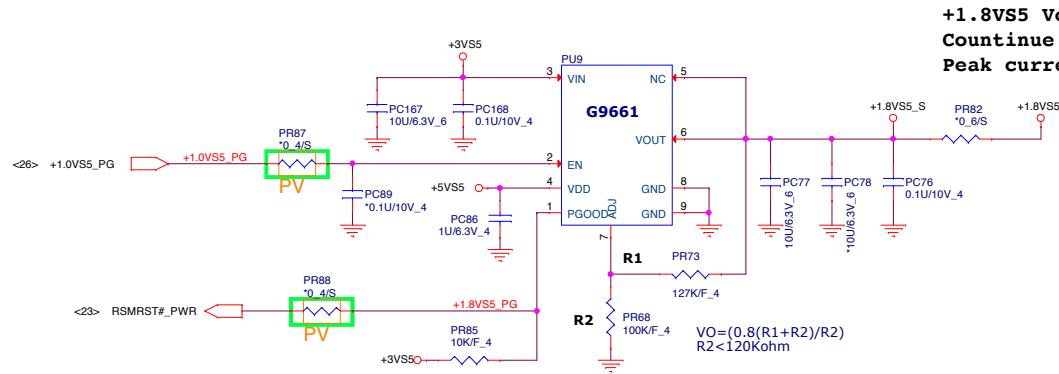
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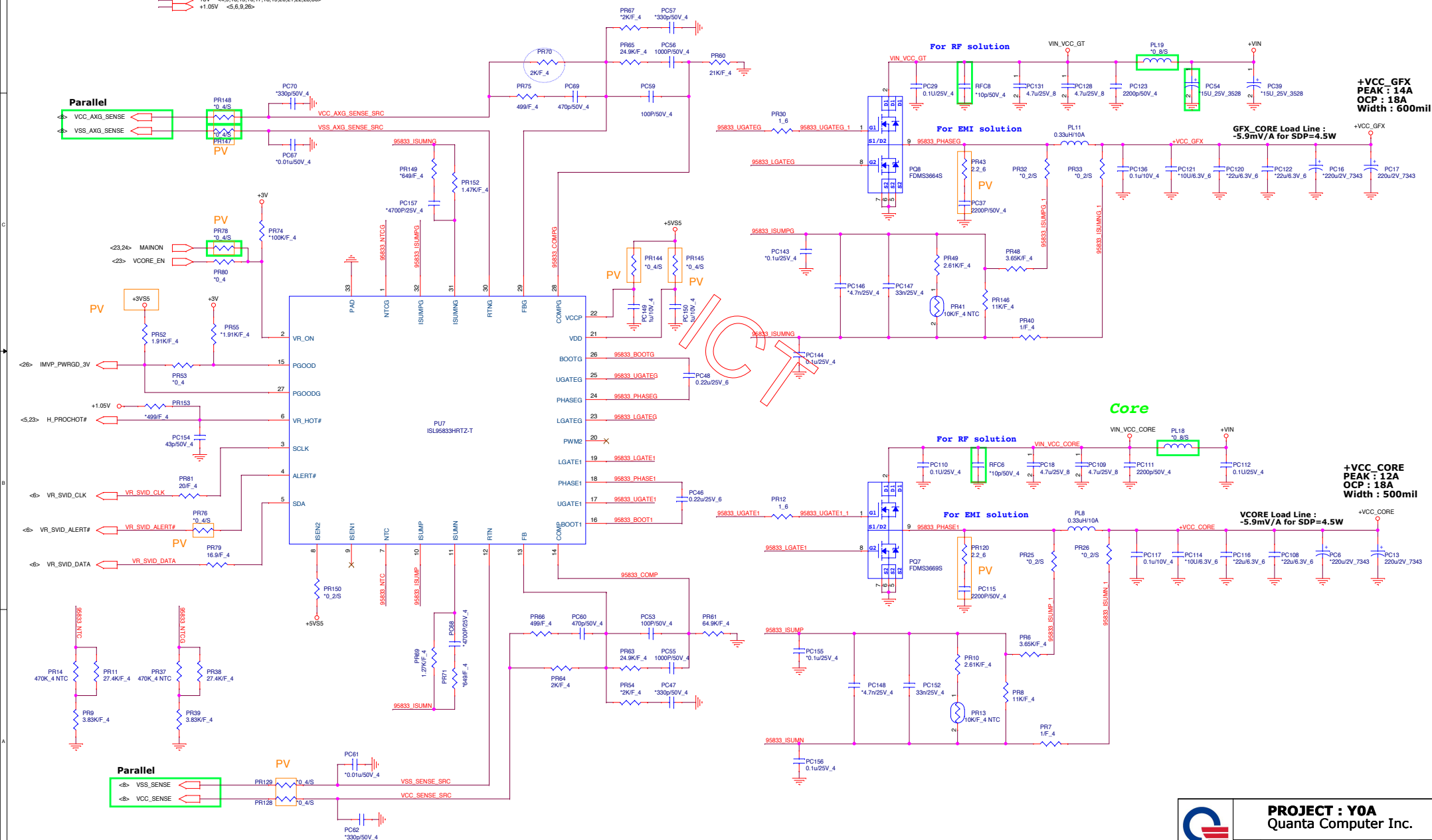


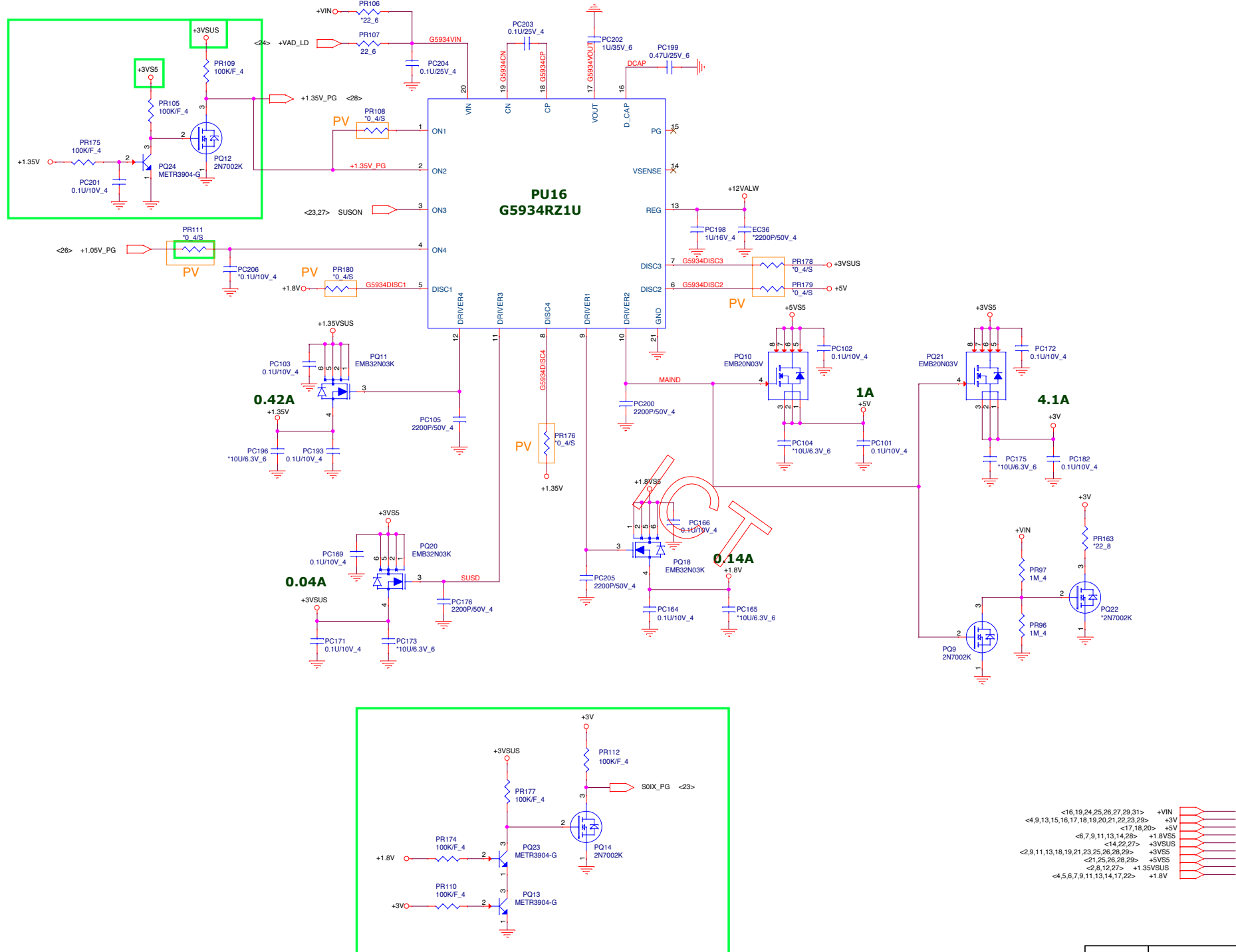
PROJECT : Y0A
Quanta Computer Inc.

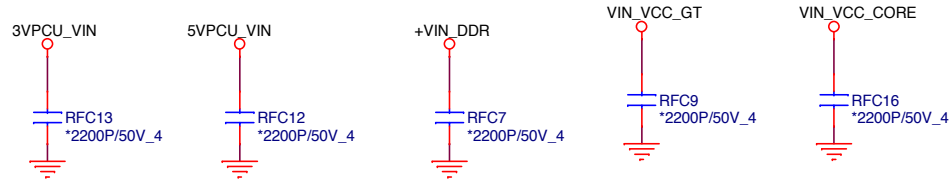
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TOP



BOTTOM

