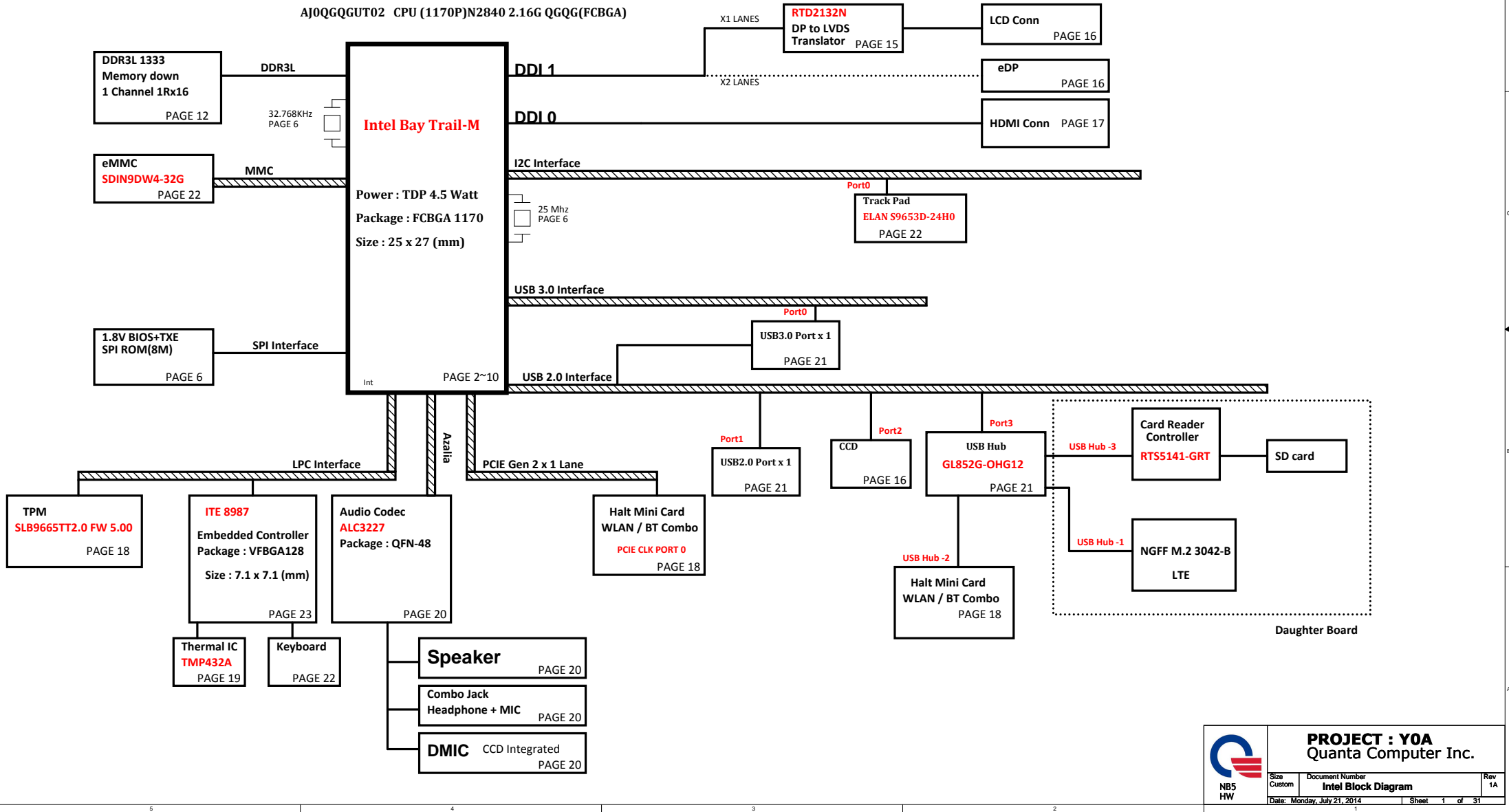
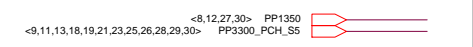
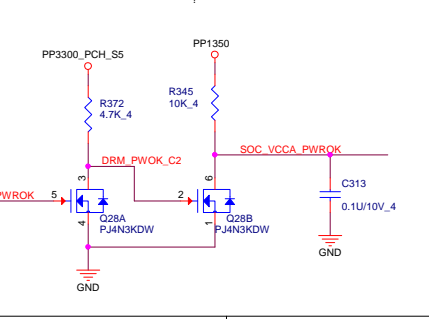
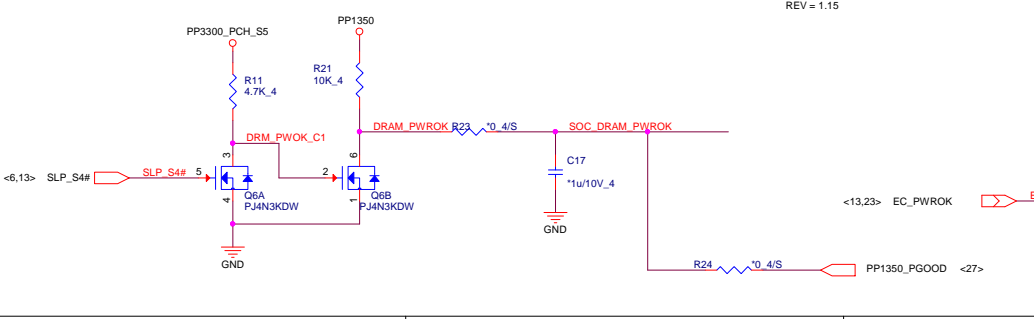
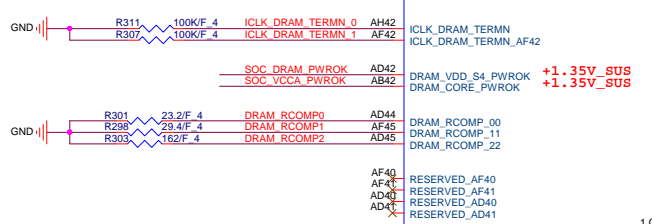
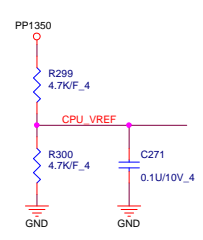
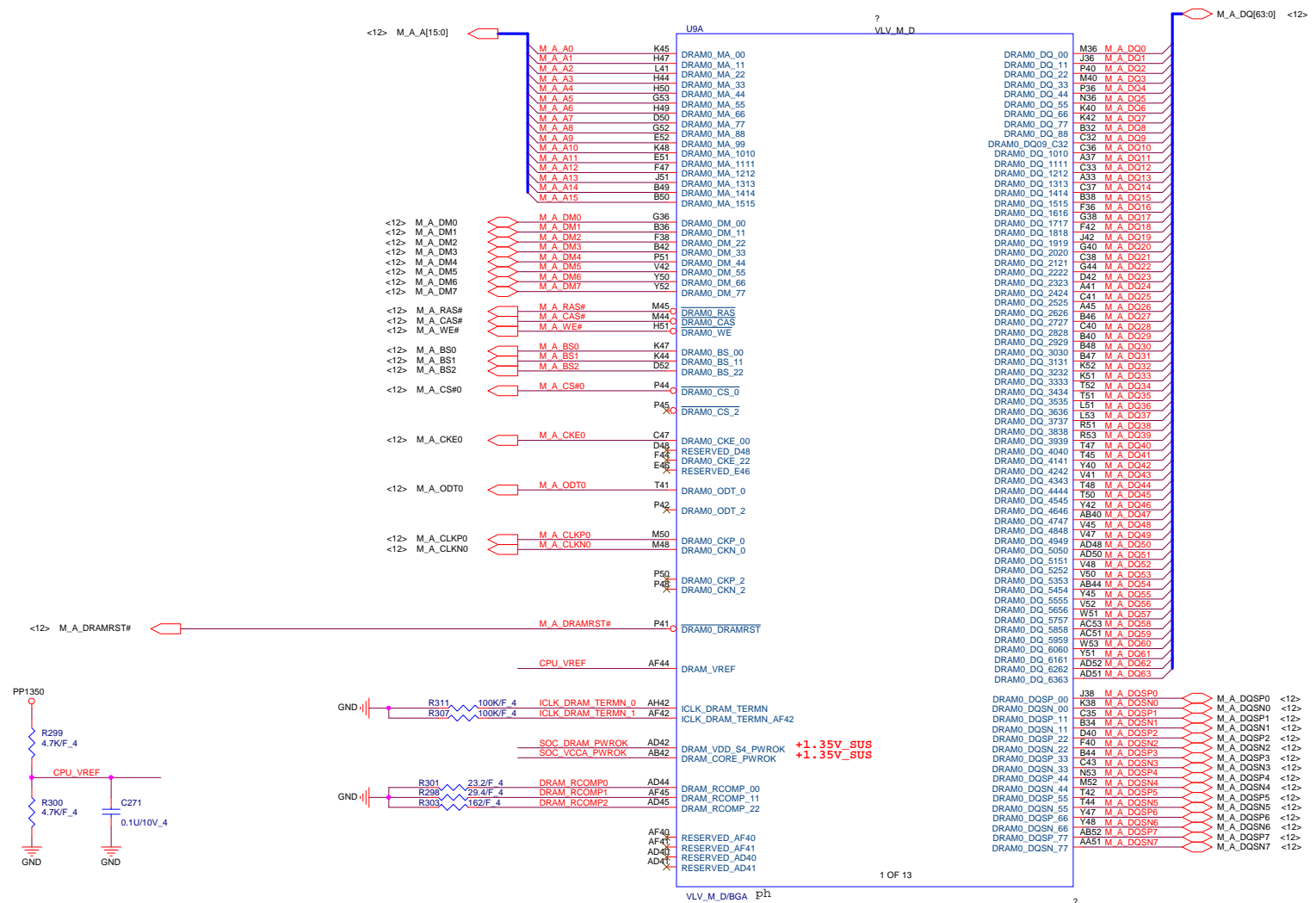


Y0A Intel Bay Trail-M Platform Block Diagram

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

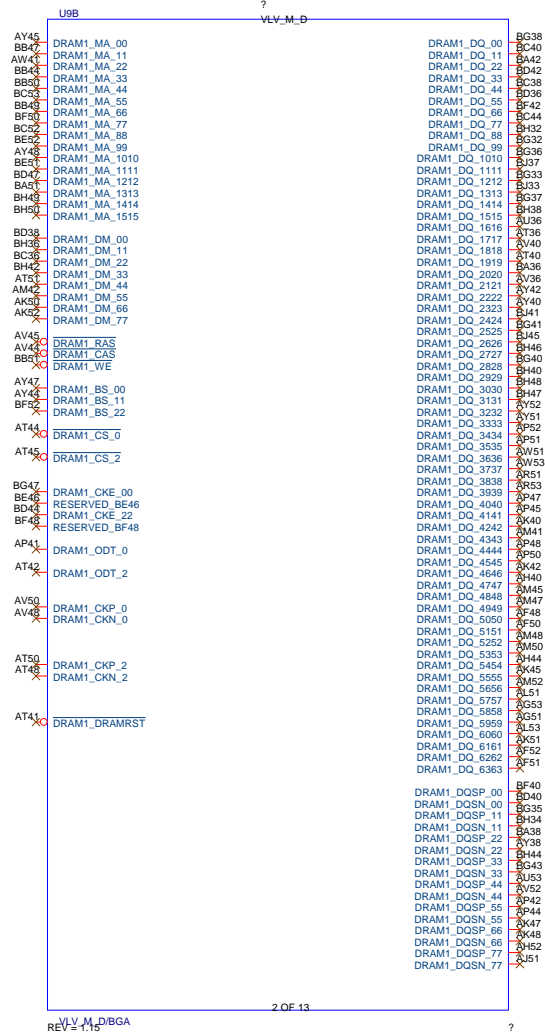
AJ0QGQGUT02 CPU (1170P)N2840 2.16G QGQG(FCBGA)




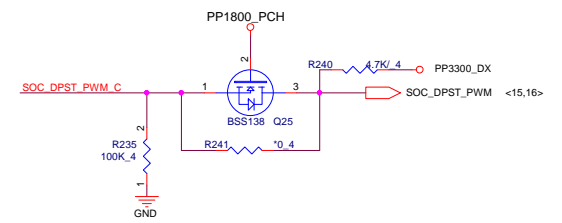
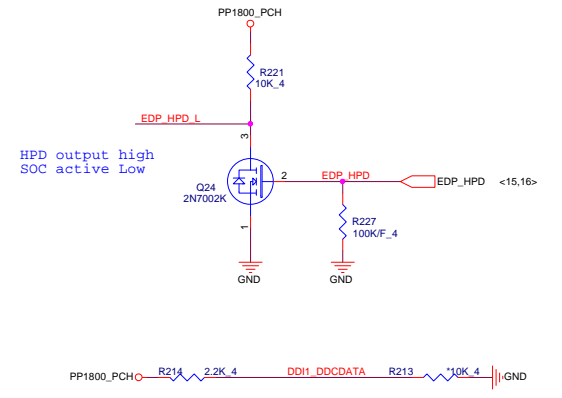
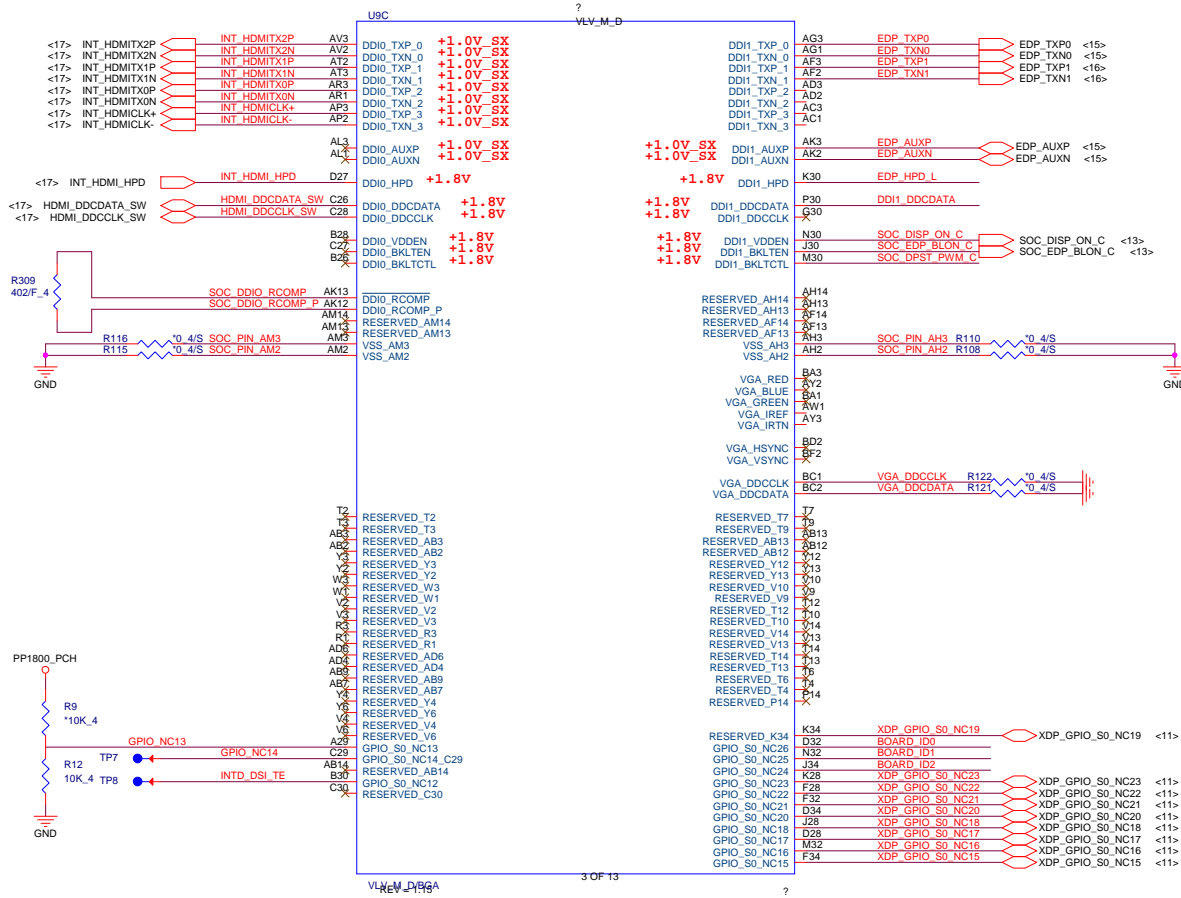


PROJECT : YO4
Quanta Computer Inc.

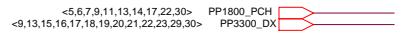
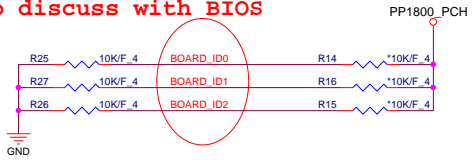
Size Custom	Document Number Valley 1/9 (DDR4)	Rev 1A
Date: Monday, July 21, 2014	Sheet 2 of 31	



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



Need to discuss with BIOS

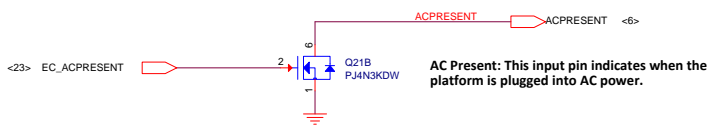
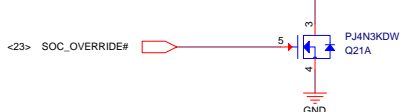
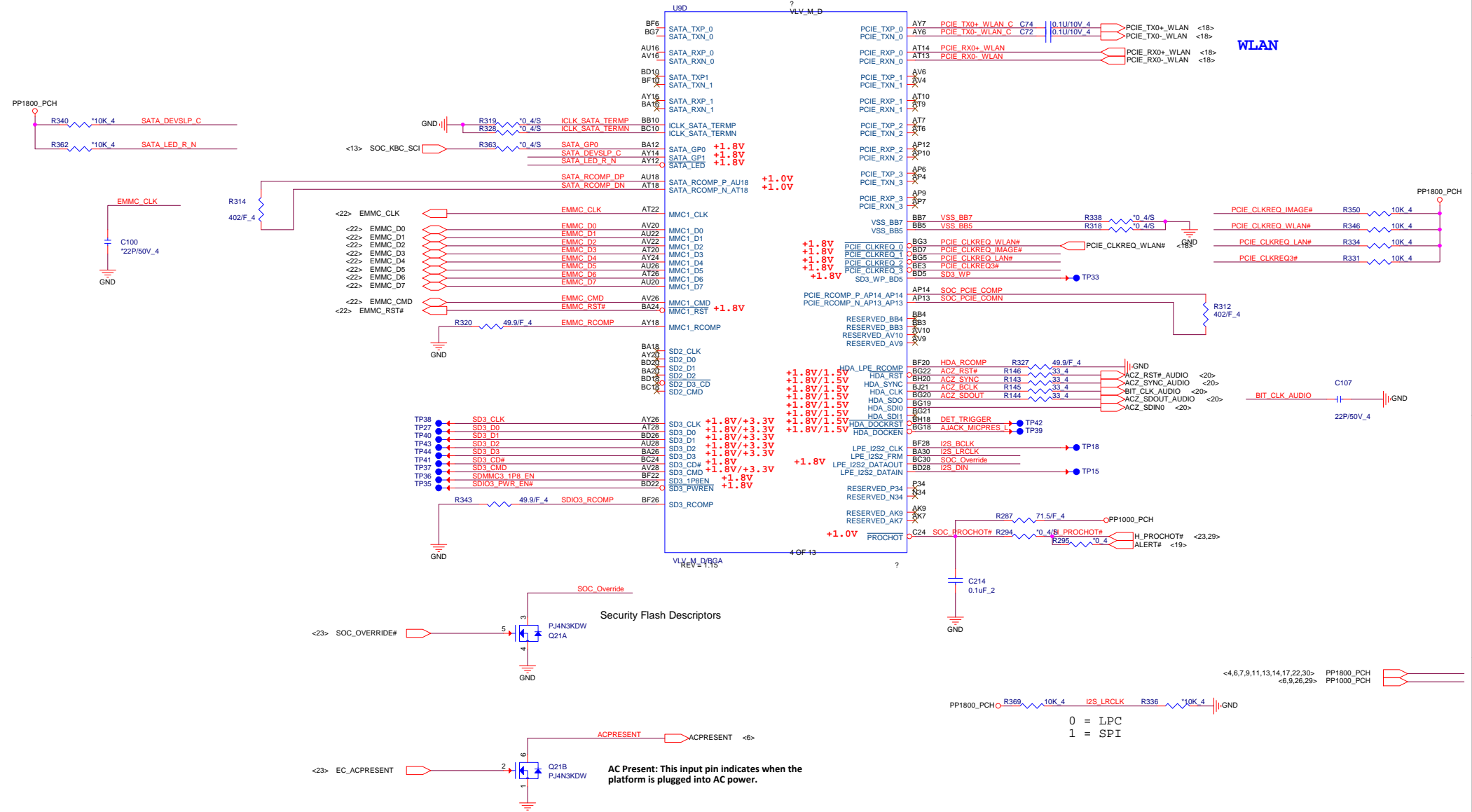


BOARD_ID0	0	0	0
BOARD_ID1	0	0	1
BOARD_ID2	0	1	0

PROJECT : Y0A
Quanta Computer Inc.

Size Custom
Document Number **Valley 3/9 (Display)**
Date: Monday, July 21, 2014

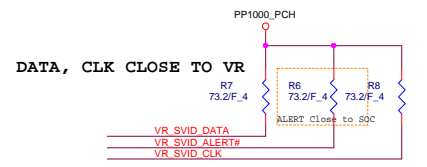
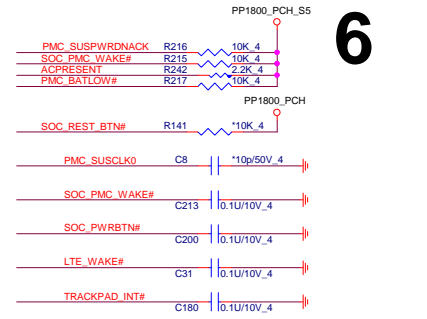
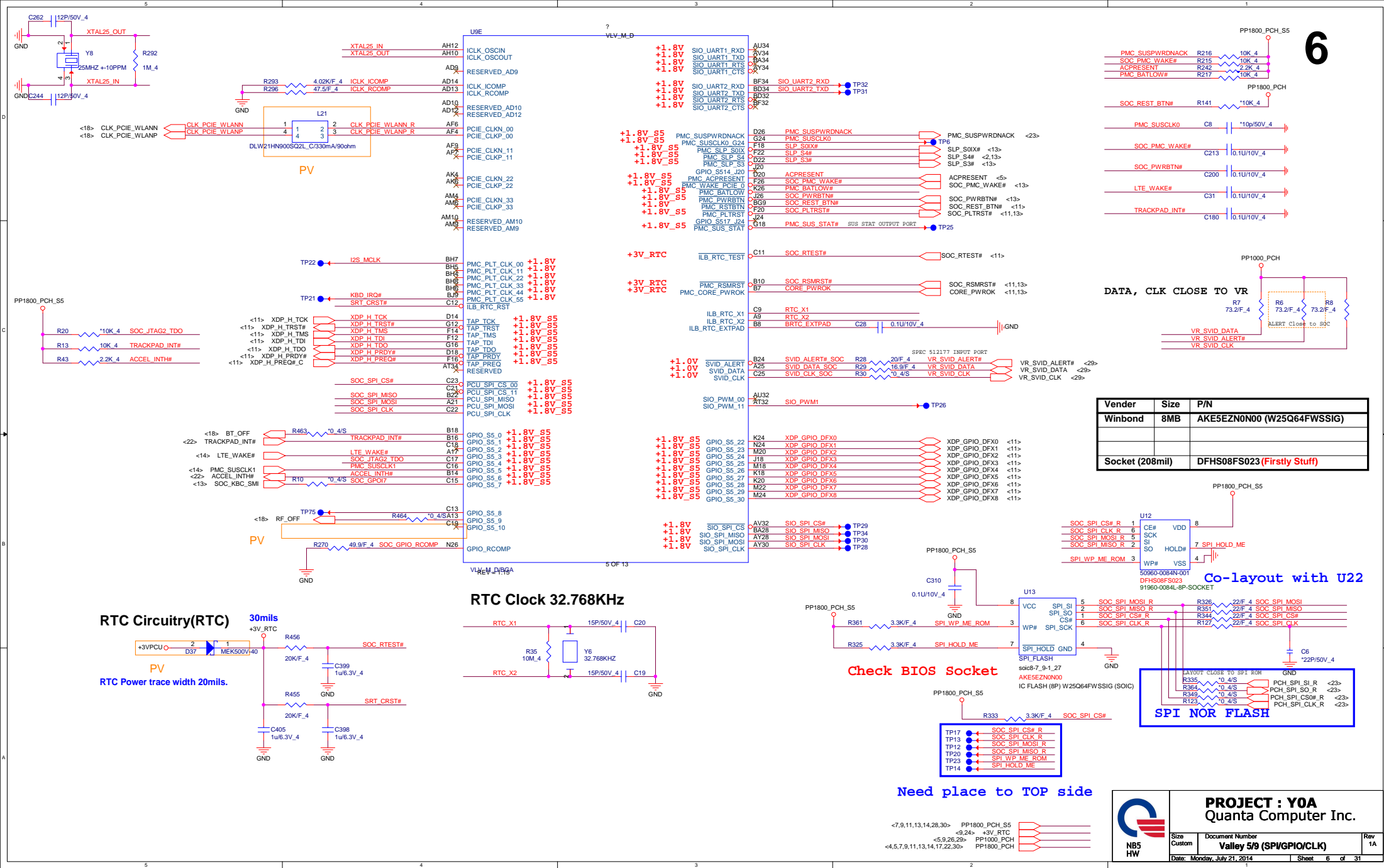
Rev 1A
Sheet 4 of 31



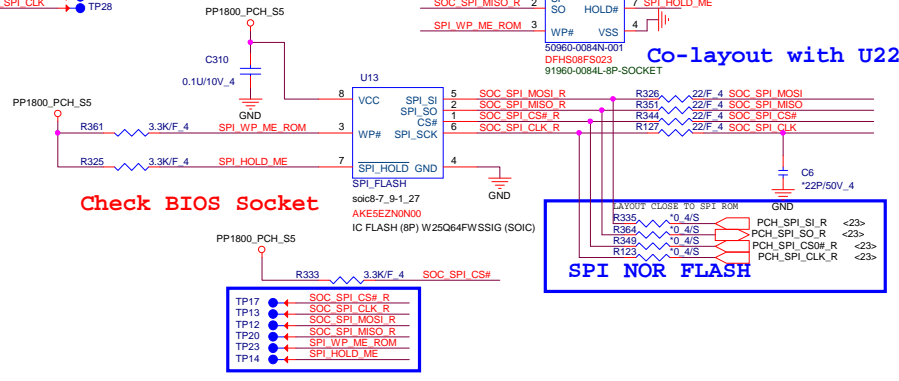
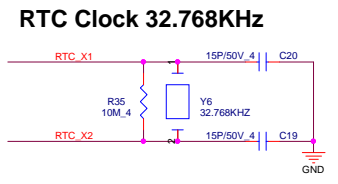
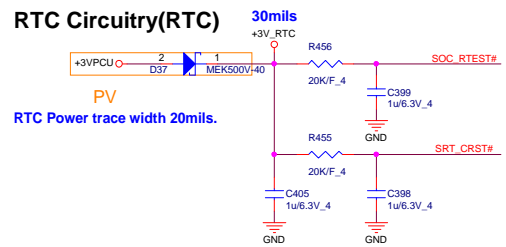
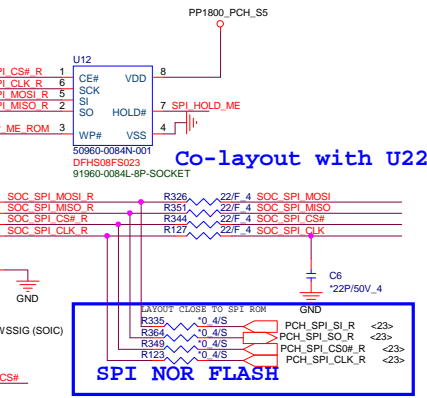
PP1800_PCH R369 10K 4 I2S_LRCLK R336 *10K 4 GND

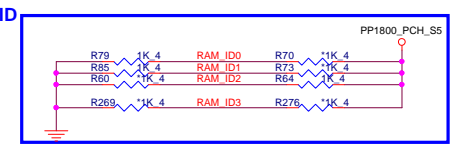
0 = LPC
1 = SPI

	PROJECT : YO4		Document Number Valley 4/9 (SD/PCIe/SATA)	Rev 1A
	Quantia Computer Inc.			
	Size Custom	Date: Monday, July 21, 2014		

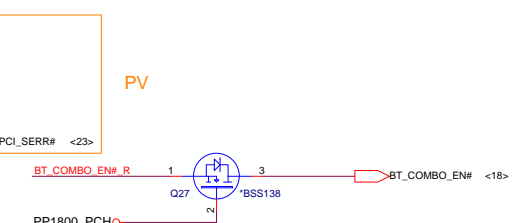
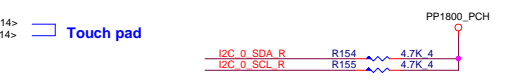
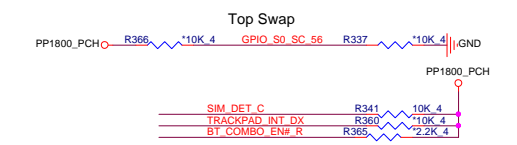
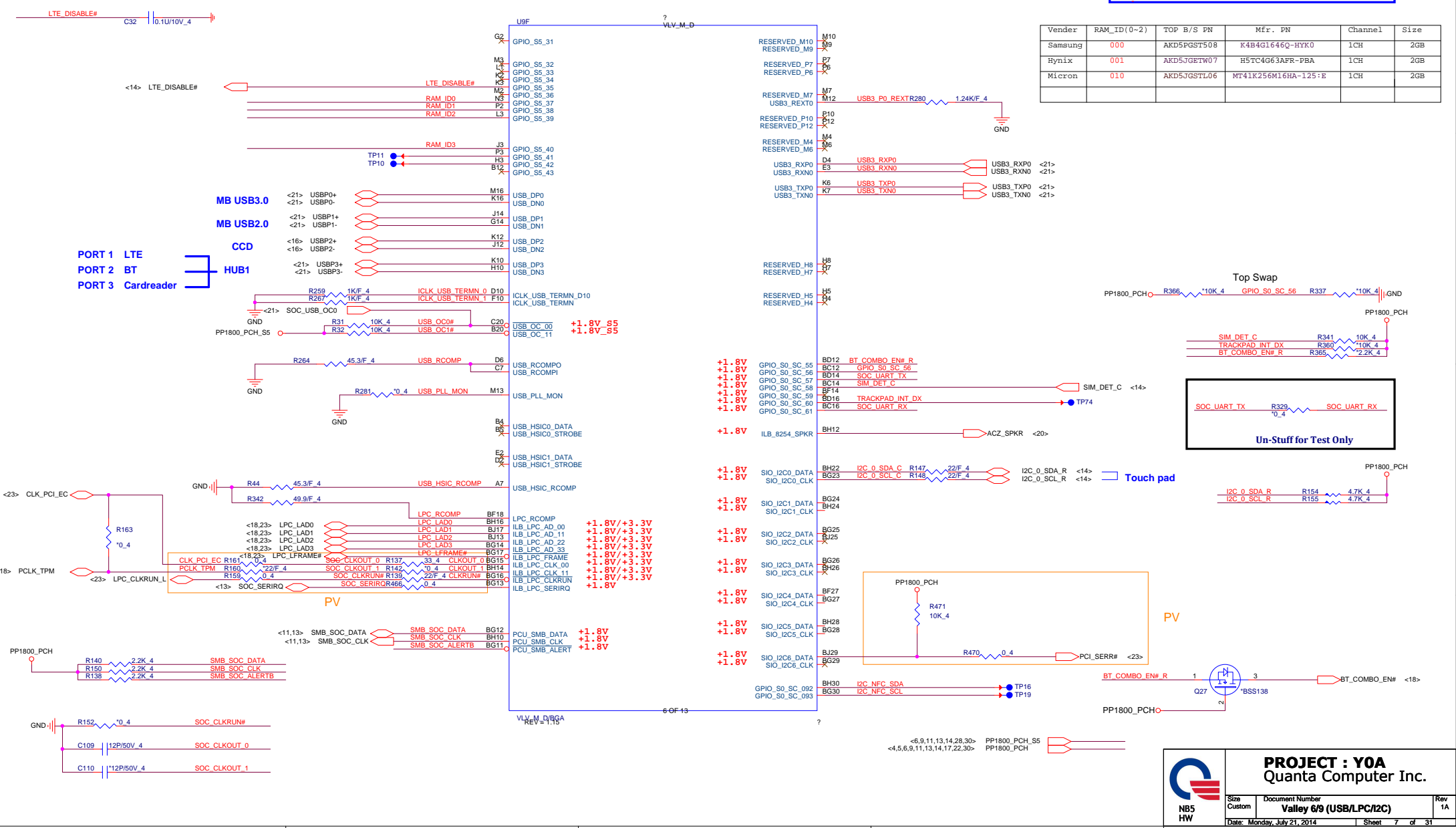


Vender	Size	P/N
Winbond	8MB	AKE5EZ2N0N00 (W25Q64FWSSIG)
Socket (208mil)		DFHS08FS023 (Firstly Stuff)





Vender	RAM_ID(0-2)	TOP B/S PN	Mfr. PN	Channel	Size
Samsung	000	AKD5PGST508	K4B4G1646Q-HYK0	1CH	2GB
Hynix	001	AKD5JGTW07	H5TC4G63AFR-PBA	1CH	2GB
Micron	010	AKD5JGSTL06	MT41K256M16HA-125:E	1CH	2GB

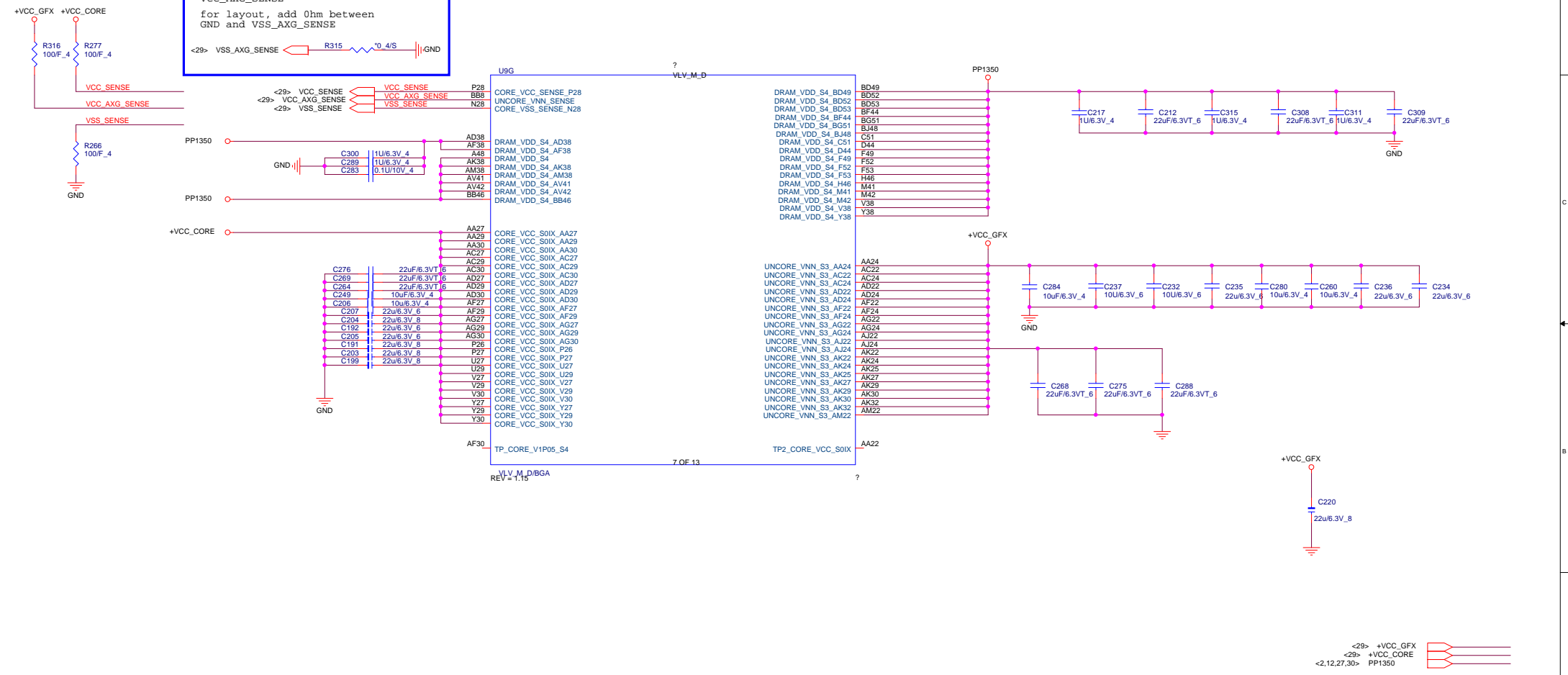
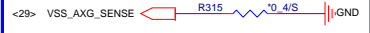


PROJECT : YO4
Quanta Computer Inc.

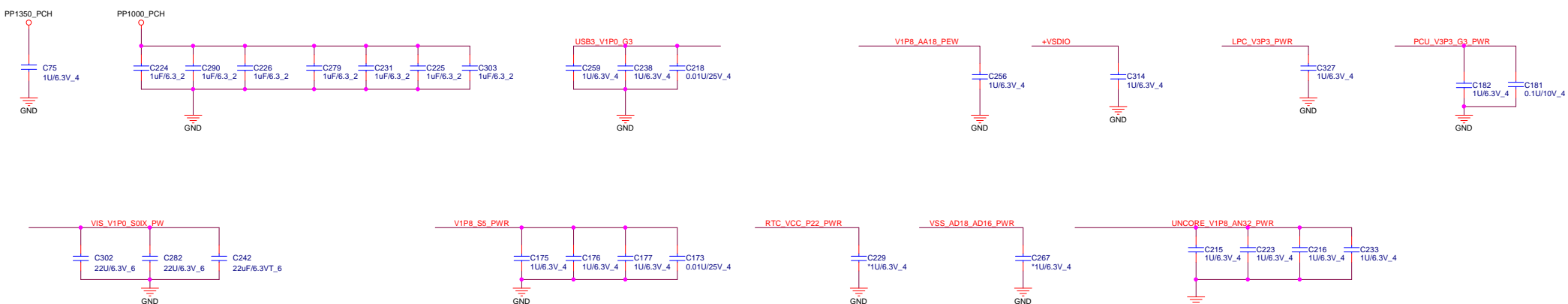
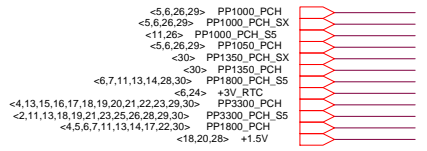
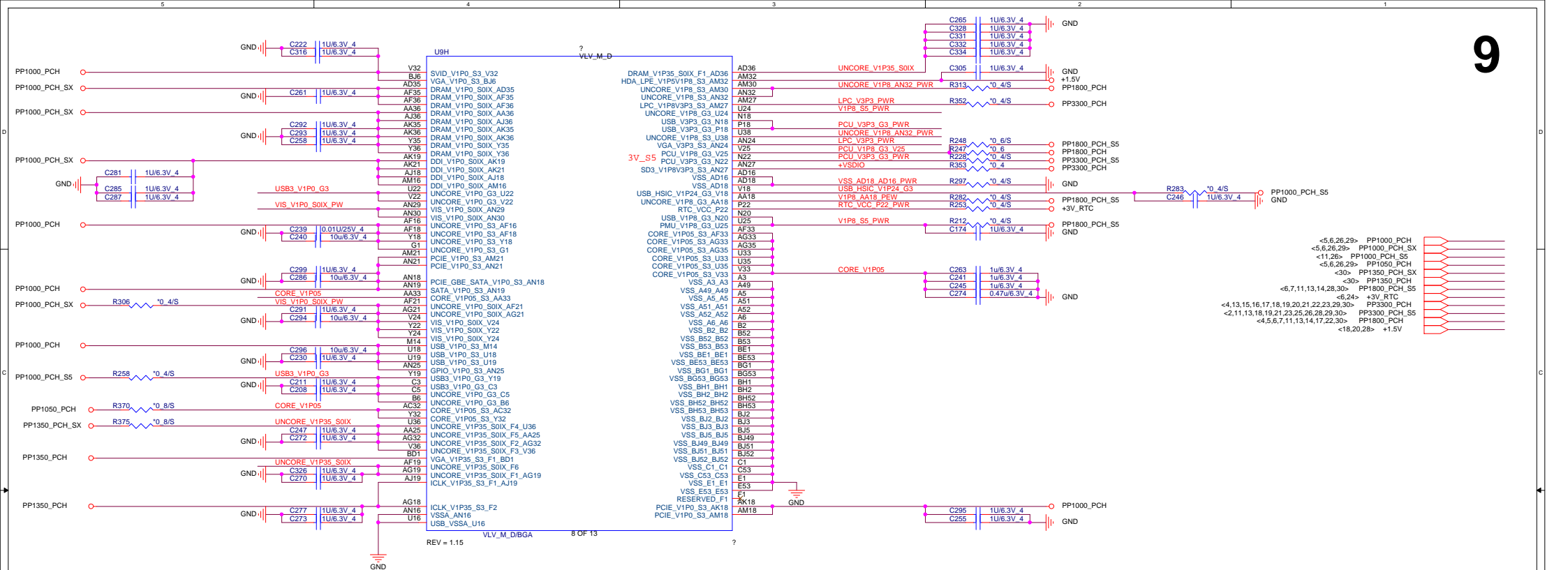
Size Custom	Document Number Valley 6/9 (USB/LPC/I2C)	Rev 1A
Date: Monday, July 21, 2014	Sheet 7 of 31	

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

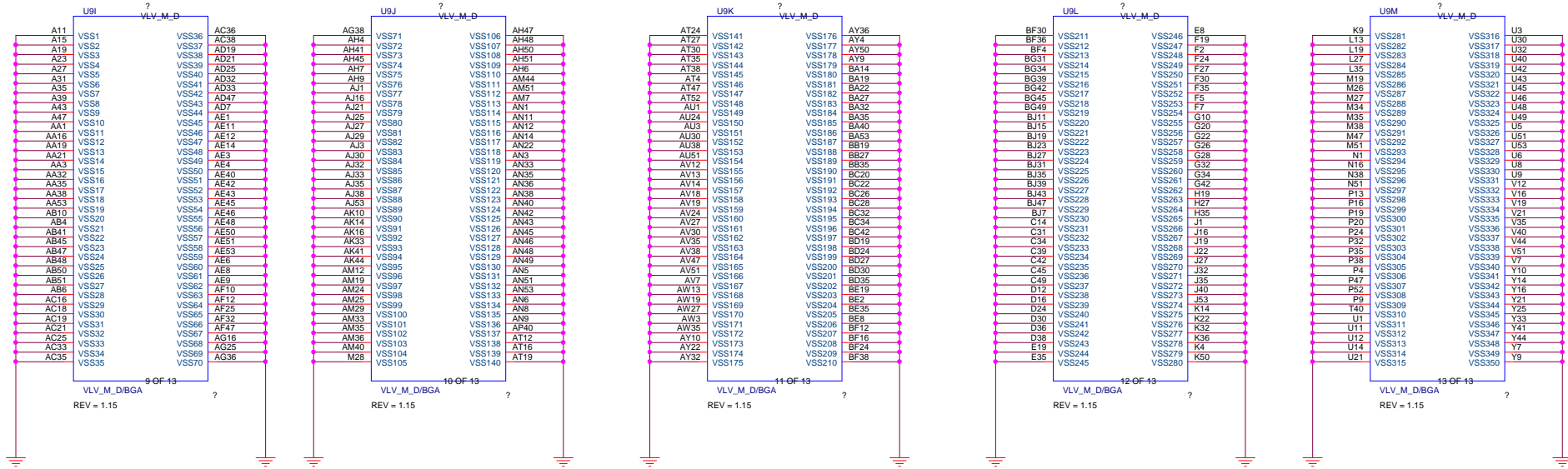
for layout, add 0hm between
 GND and VSS_AXG_SENSE




	PROJECT : Y0A		Rev 1A
	Quanta Computer Inc.		
	Size Custom	Document Number Valley 7/9 (Power 1)	
Date: Monday, July 21, 2014	Sheet 8 of 31		



	PROJECT : Y0A		Size Custom Document Number Valley 8/9 (Power 2) Date: Monday, July 21, 2014	Rev 1A Sheet 9 of 31
	Quanta Computer Inc.			
	Date: Monday, July 21, 2014			



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	Quanta Computer Inc.		
	Size Custom	Document Number Valley 9/9 (GND)	
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BYTE1_16-23

BYTE1_8-15

BYTE0_0-7

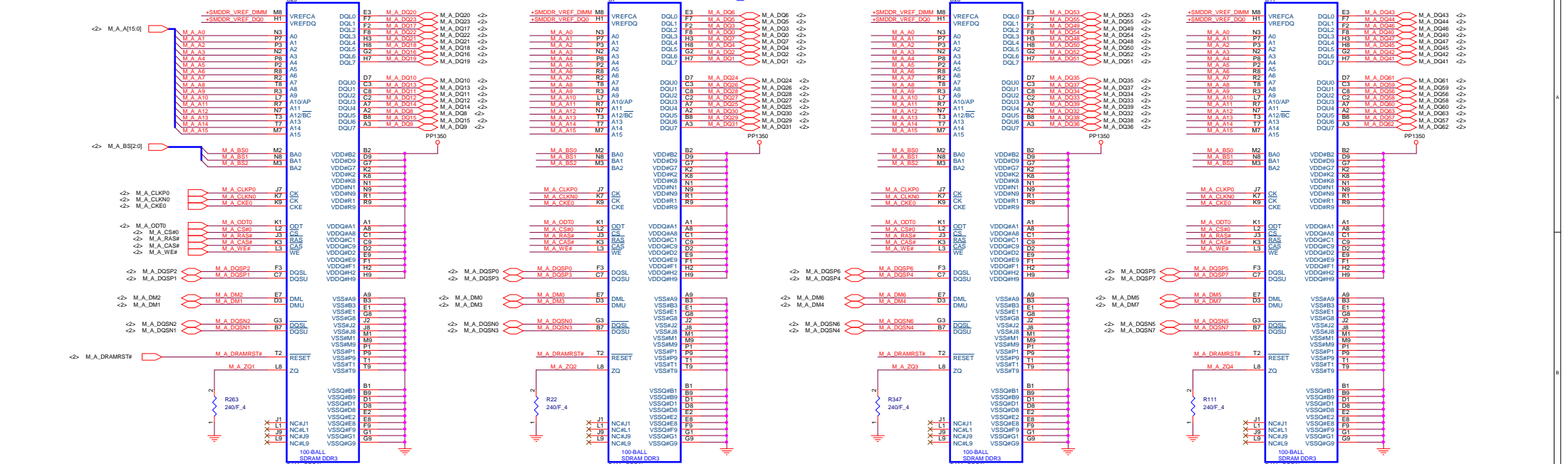
BYTE3_24-31

BYTE4_32-39

BYTE6_48-55

BYTE5_40-47

BYTE7_56-63

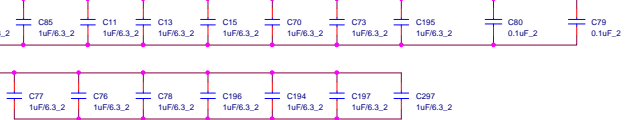


Vendor	P/N
Hynix	
	AKD5JGST400
Elpida	
	AKD5JGST404

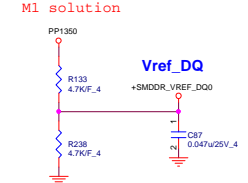
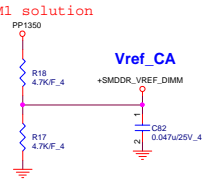
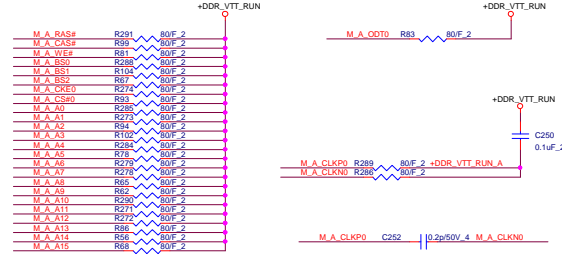
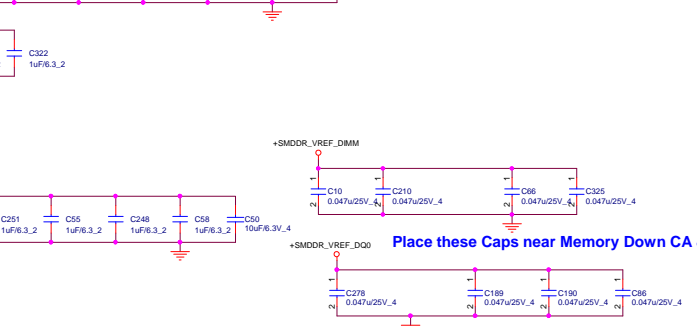
Hynix AKD5JGETW00-H5TC4G63AFR-PBA

Distributed among all DRAM devices (CHA and CHB)

Place these Caps near each X16 Memory Down



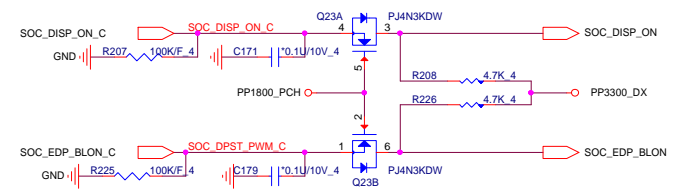
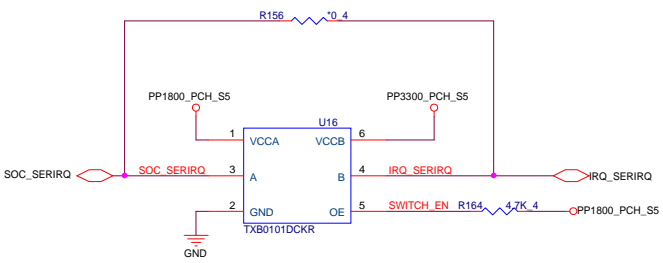
Place these Caps near Memory Down CA & DQ pin



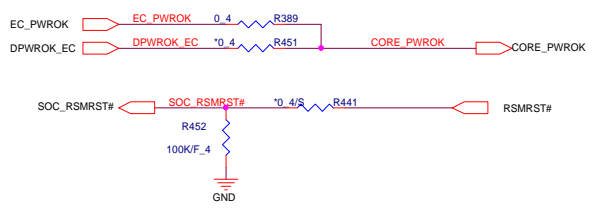
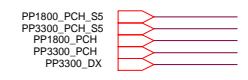
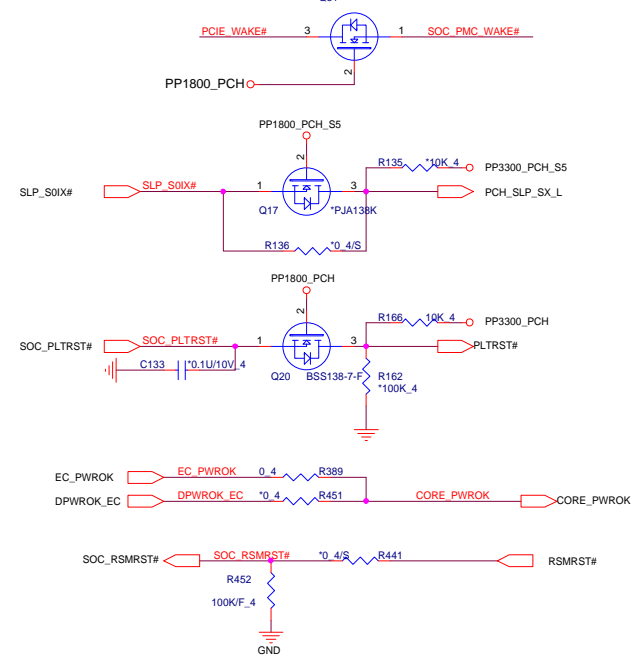
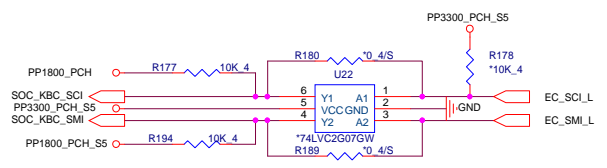
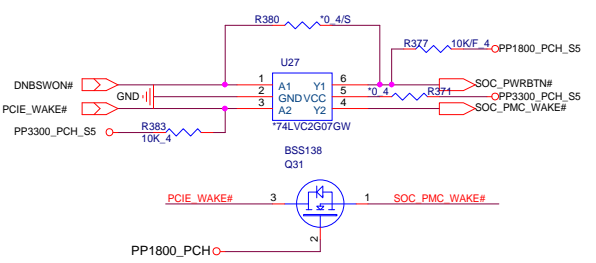
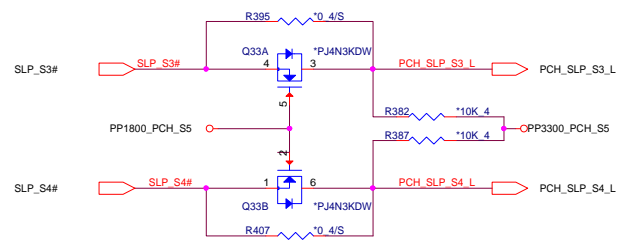
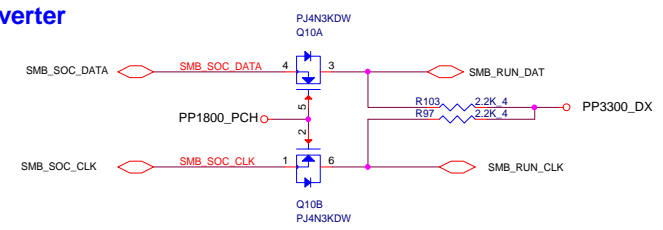
PROJECT : YOA
Quanta Computer Inc.

Size Custom Document Number: **DDR3L MEMORY DOWNx16 A** Rev 1A
 Date: Monday, July 21, 2014 Sheet 12 of 31

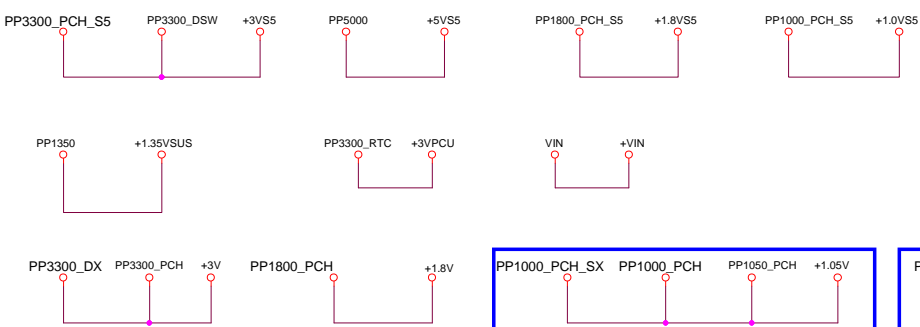
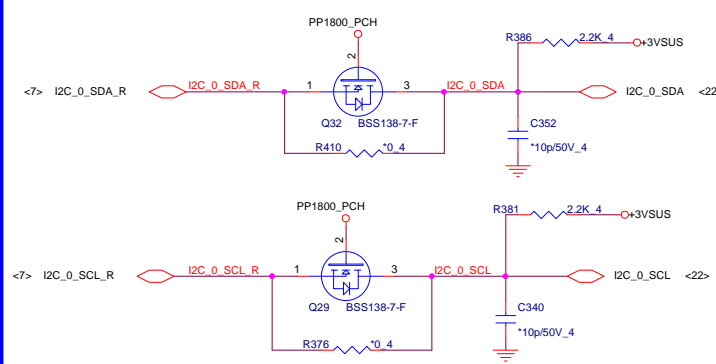
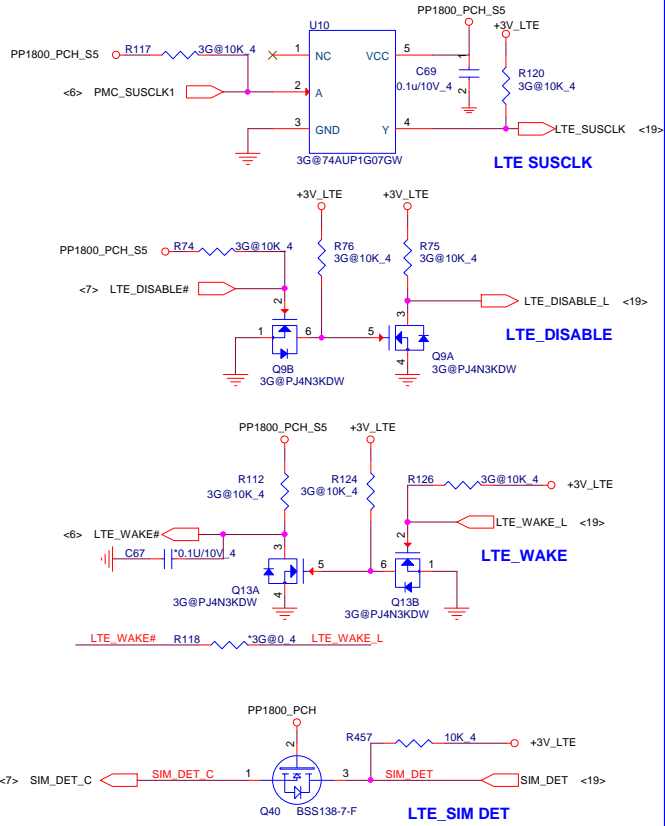
eDP control pin (For eDP)



LVDS converter

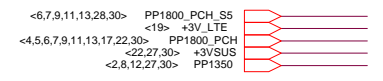


	PROJECT : Y0A		Rev 1A
	Quanta Computer Inc.		
	Size Custom	Document Number Level Shifter (SOC_EC)	
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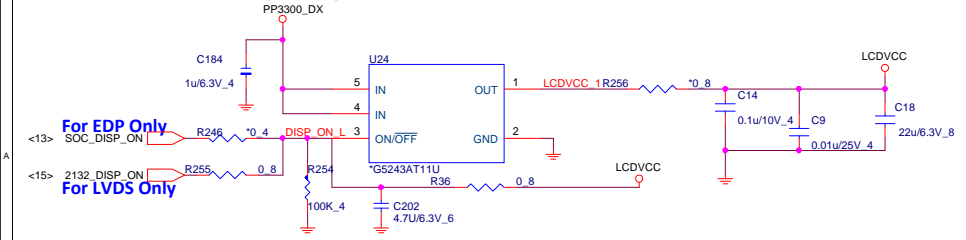
Combine +1.0VSX,+1.0V,+1.05V power rail for cost saving

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

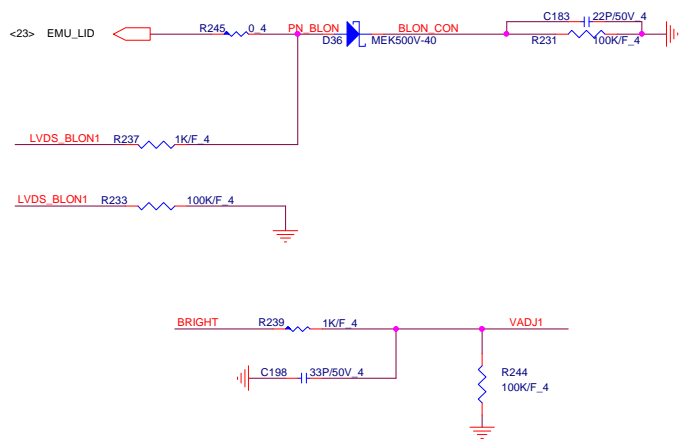


	PROJECT : Y0A		Rev 1A
	Quanta Computer Inc.		
	Size Custom	Document Number Level Shifter (SOC_DEV)	
Date: Monday, July 21, 2014		Sheet 14 of 31	

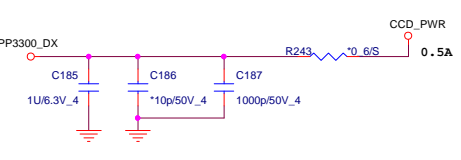
eDP /LVDS Power(VGA)



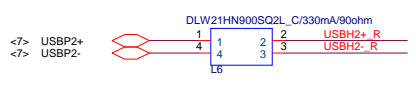
LID Switch



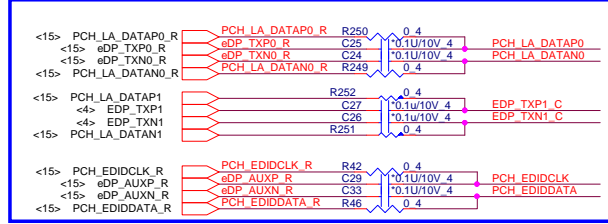
CCD power(CCD)



CCD USB(CCD)

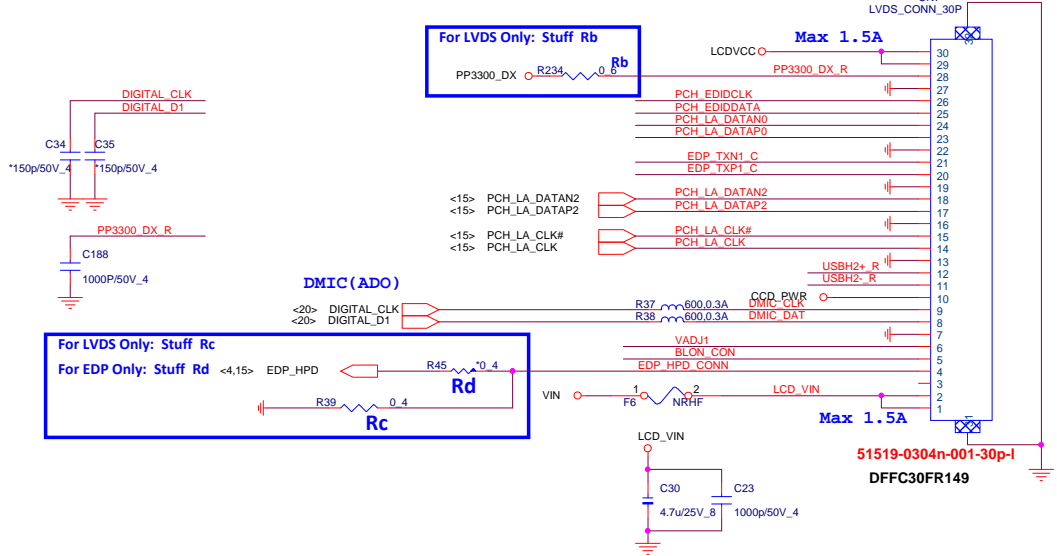


For LVDS Only stuff R, For EDP only stuff C

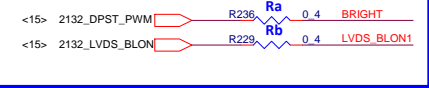


eDP/LVDS

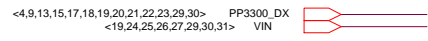
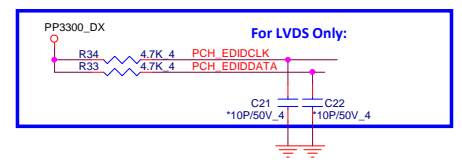
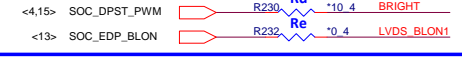
Need New LCD Cable



For LVDS Only: stuff Ra,Rb



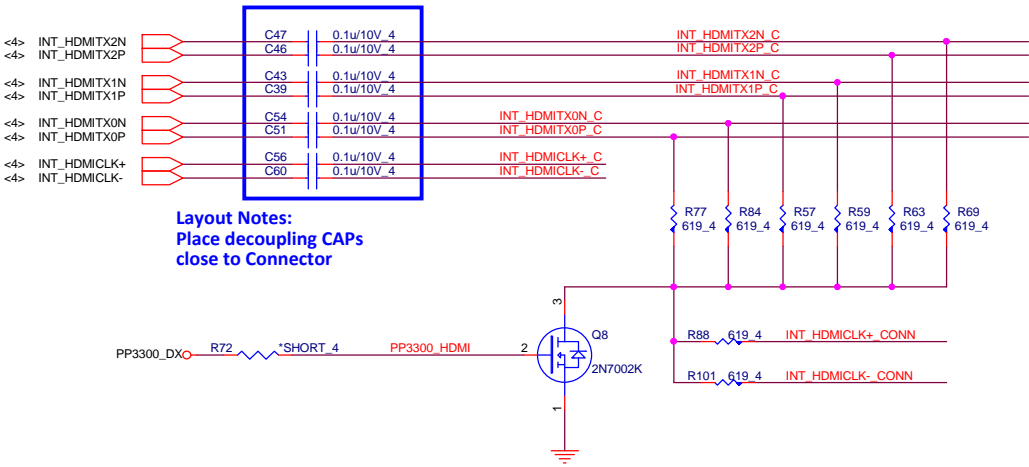
For EDP Only: stuff Rd,Re



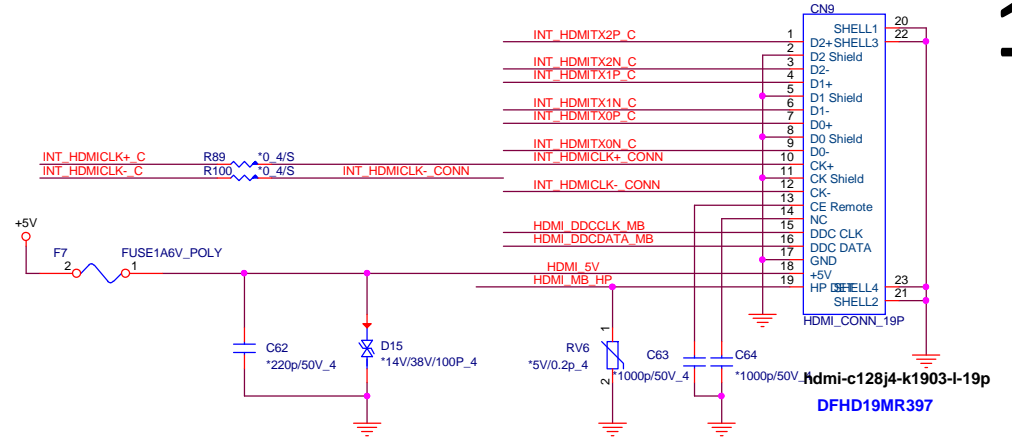
PROJECT : Y0A
Quanta Computer Inc.

Size Custom	Document Number LVDS/eDP/CCD/DMIC	Rev 1A
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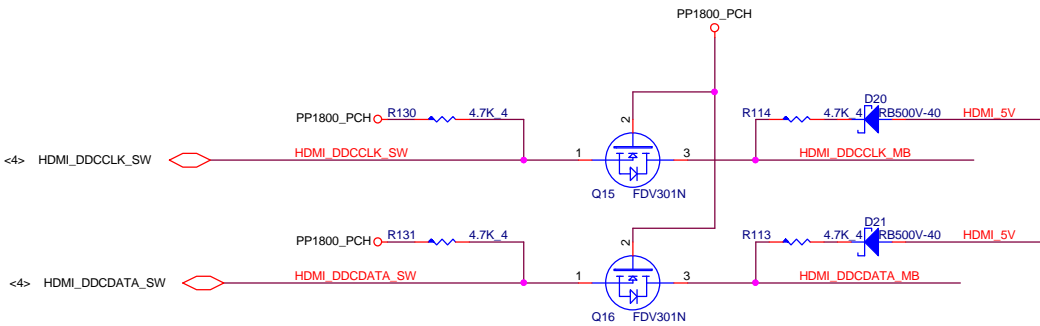
HDMI Cost Reduced level shift (HDM)



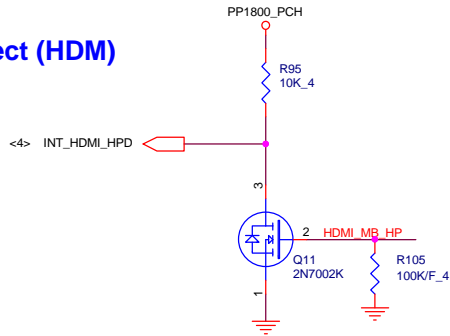
HDMI connector (HDM)



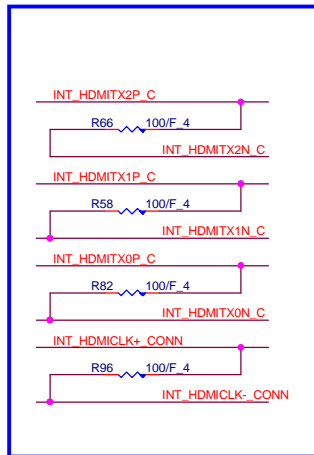
HDMI DDC (HDM)



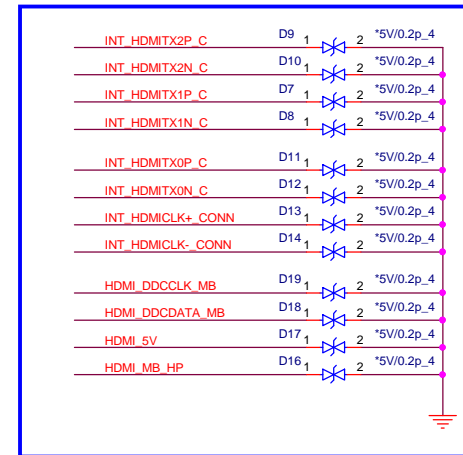
HDMI-detect (HDM)



EMI



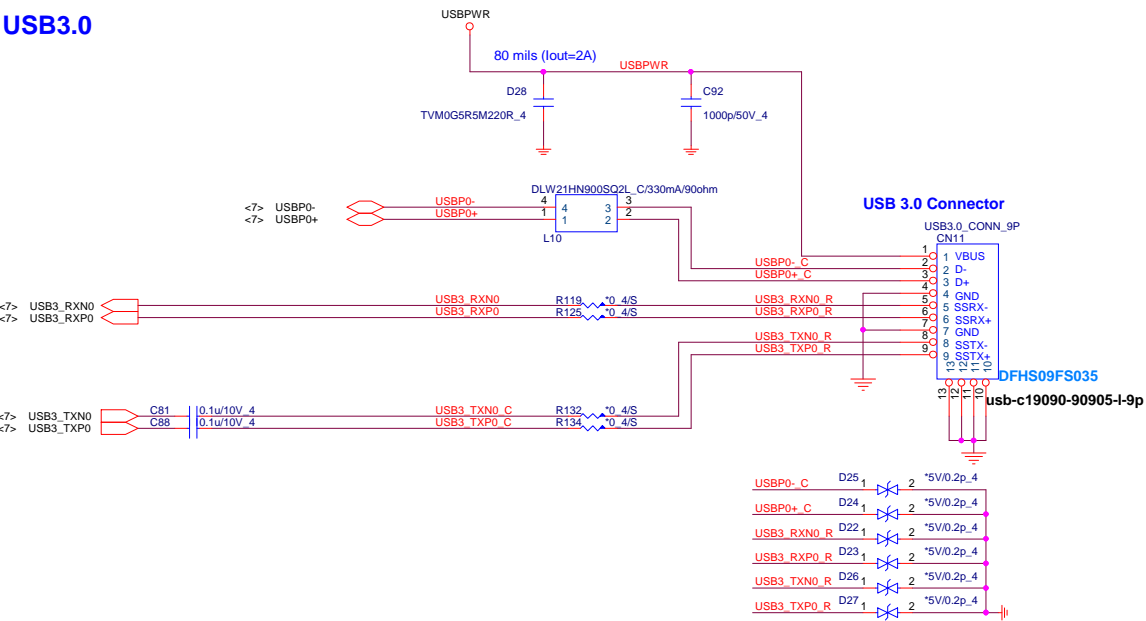
ESD 靠近 HDMI CONNECTOR (CN16)



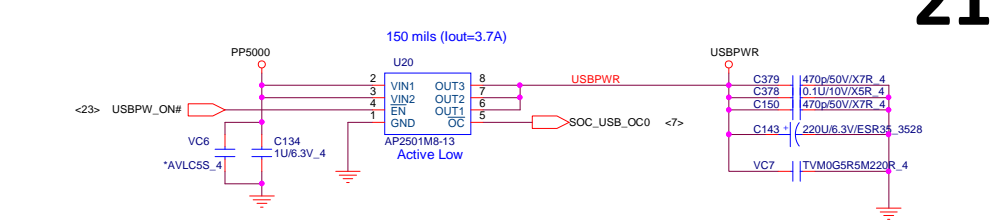
<4,9,13,15,16,18,19,20,21,22,23,29,30> PP3300_DX
 <4,5,6,7,9,11,13,14,22,30> PP1800_PCH
 <18,20,30> +5V

	PROJECT : Y0A Quanta Computer Inc.	
	Size Custom Document Number HDMI	Date: Monday, July 21, 2014
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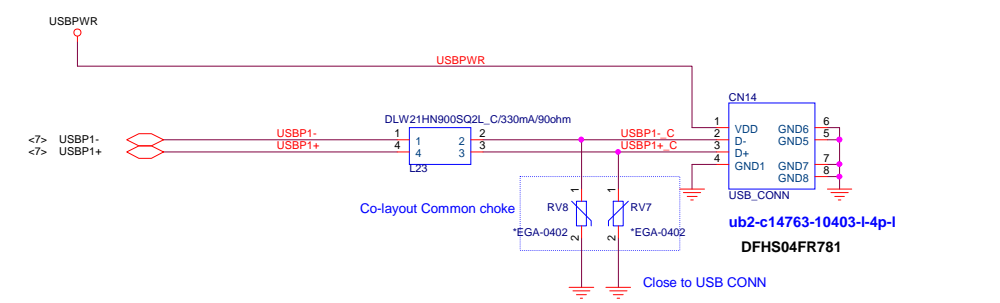
USB3.0



USB POWER SWITCH

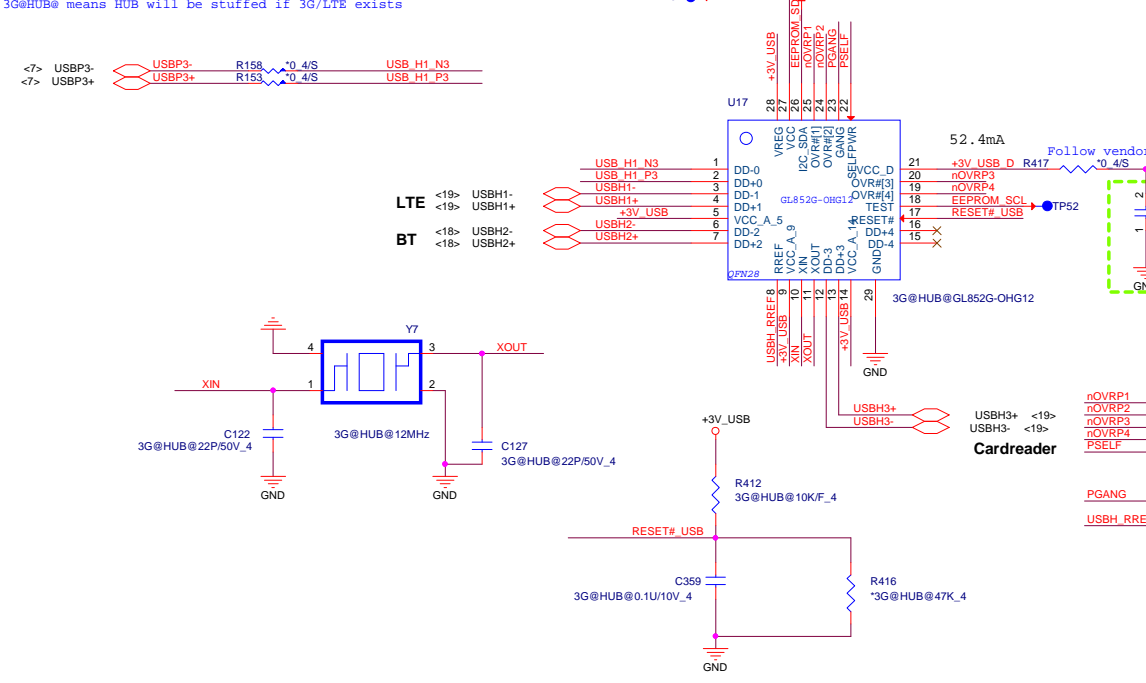


USB 2.0

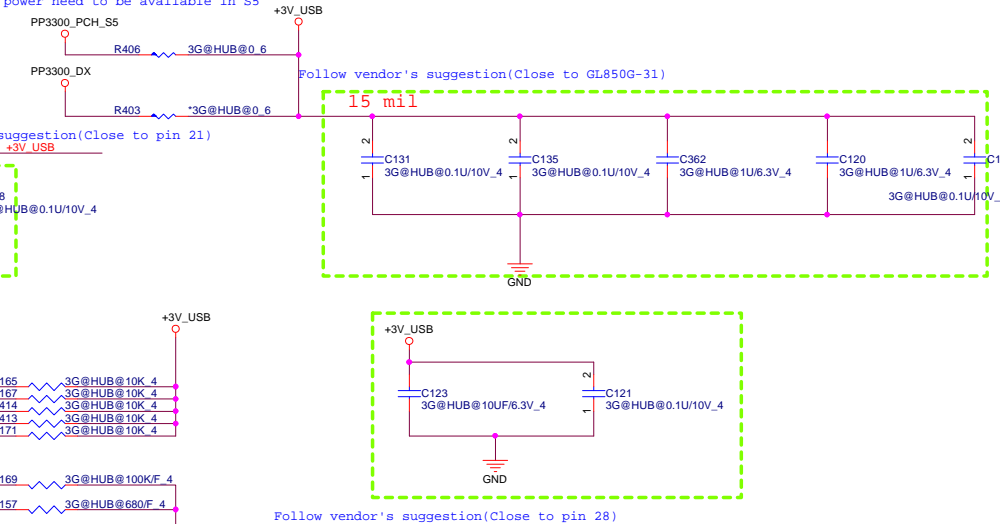


USB 2.0 HUB

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

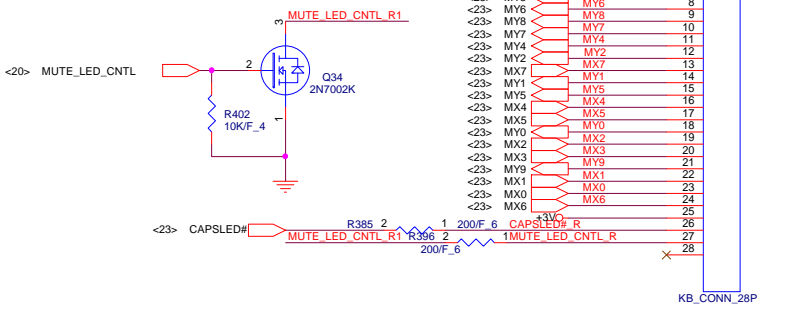


If USB2 external IO has wake up feature, HUB power need to be available in S5

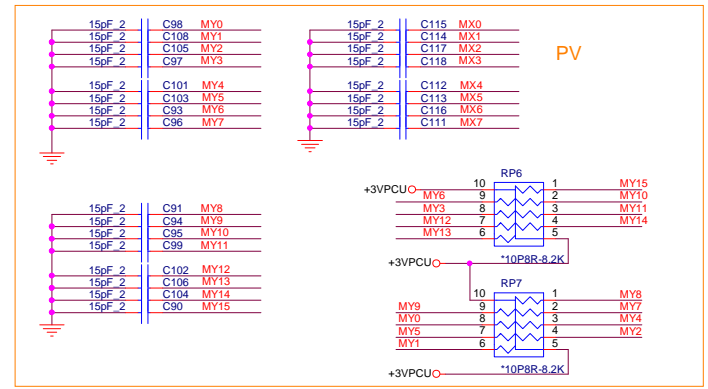


	PROJECT : Y0A		Rev 1A
	Quanta Computer Inc.		
	Size Custom Document Number USB3/USB2/USB2 HUB	Date: Monday, July 21, 2014	

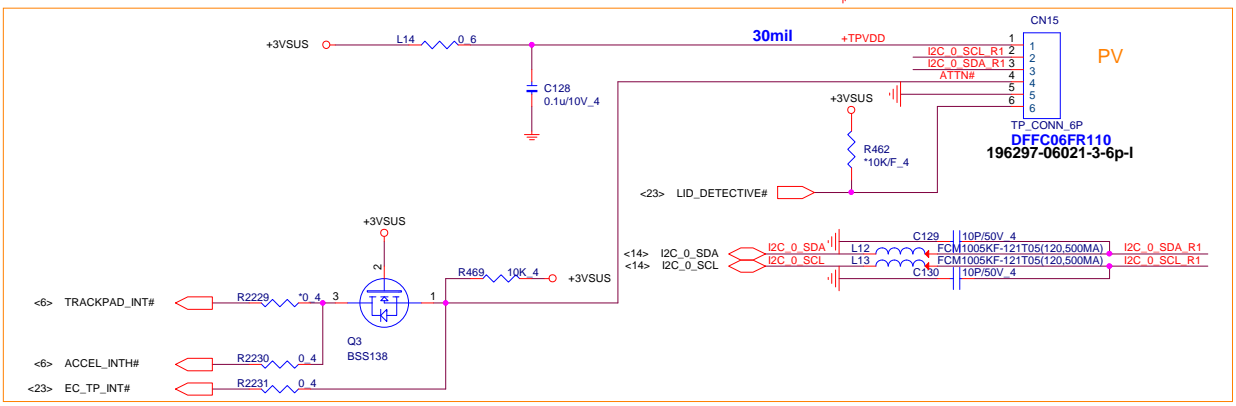
K/B (KBC) NEW Change



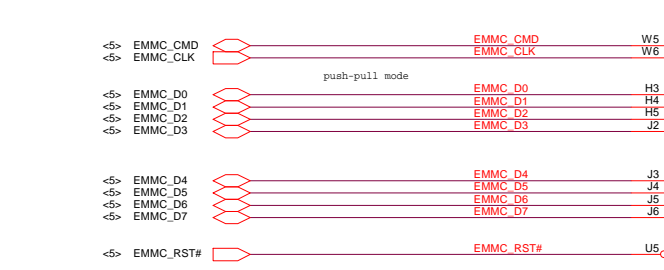
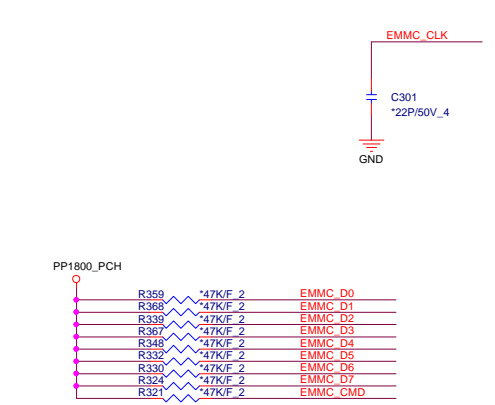
- <23> MY15 MY15 1
- <23> MY10 MY10 2
- <23> MY11 MY11 3
- <23> MY14 MY14 4
- <23> MY13 MY12 5
- <23> MY12 MY12 6
- <23> MY3 MY3 7
- <23> MY6 MY6 8
- <23> MY9 MY9 9
- <23> MY7 MY7 10
- <23> MY4 MY4 11
- <23> MY2 MY2 12
- <23> MY8 MY8 13
- <23> MX7 MY1 14
- <23> MY1 MY1 15
- <23> MY5 MY5 16
- <23> MX4 MX4 17
- <23> MX5 MX5 18
- <23> MX0 MX2 19
- <23> MX2 MX2 20
- <23> MX3 MX3 21
- <23> MY9 MY9 22
- <23> MX1 MX1 23
- <23> MX0 MX0 24
- <23> MX6 MX6 25
- <23> MX8 MX8 26
- <23> CAPSLED# CAPSLED# 27
- KB_CONN_28P KB_CONN_28P 28



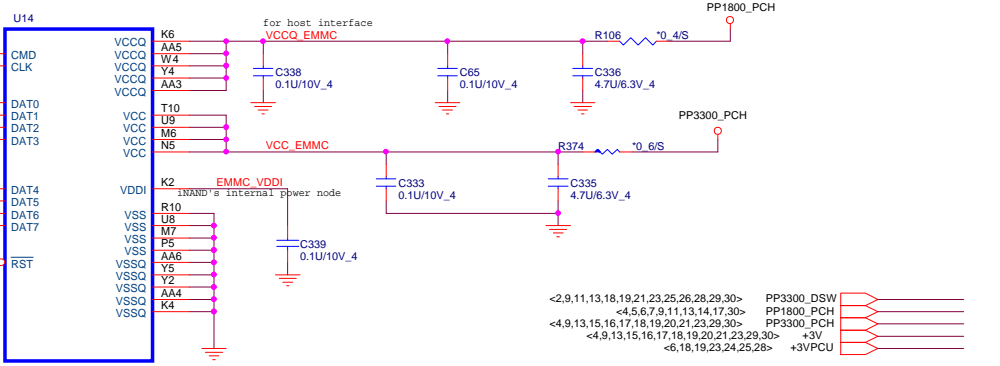
Track PAD BOARD CONN (TPD)



EMMC (CBS)



Vender	Size	P/N
SDC	32G	AKE3SFUT001 (SDIN9D4-32G)
HYU	32G	AKE3SZ-TW02 (H26M64103EMR)
SAM	32G	AKE5SZ0T507 (KLMBG4GEAC-B031)

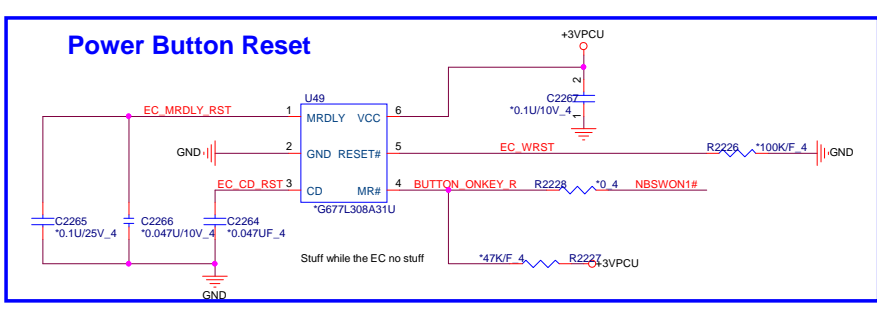
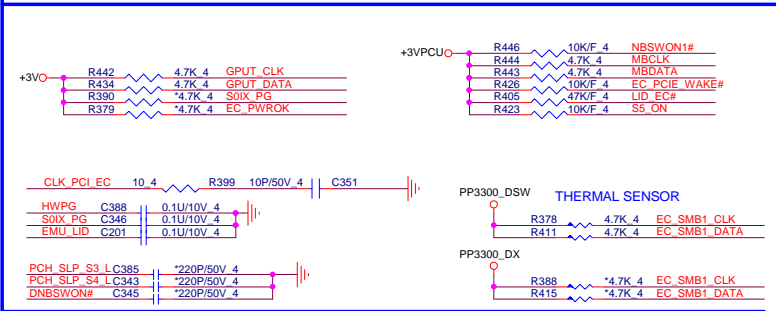
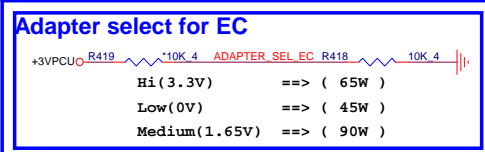
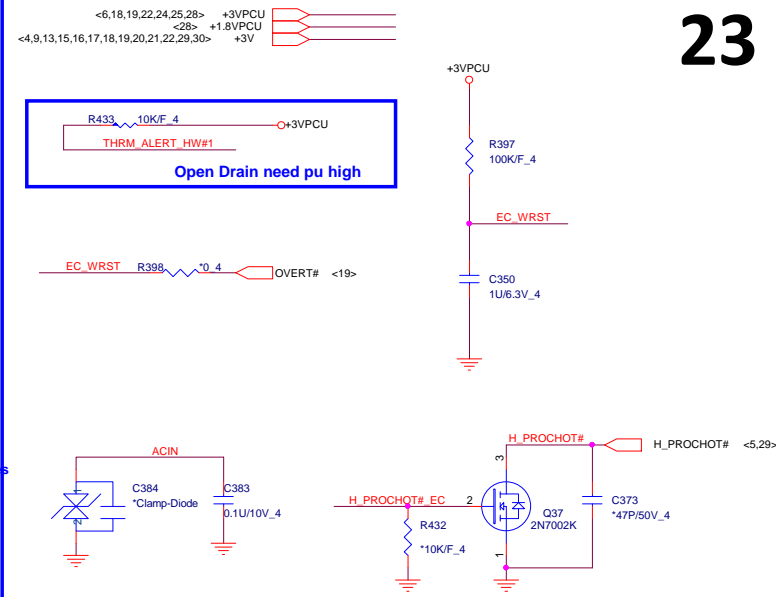
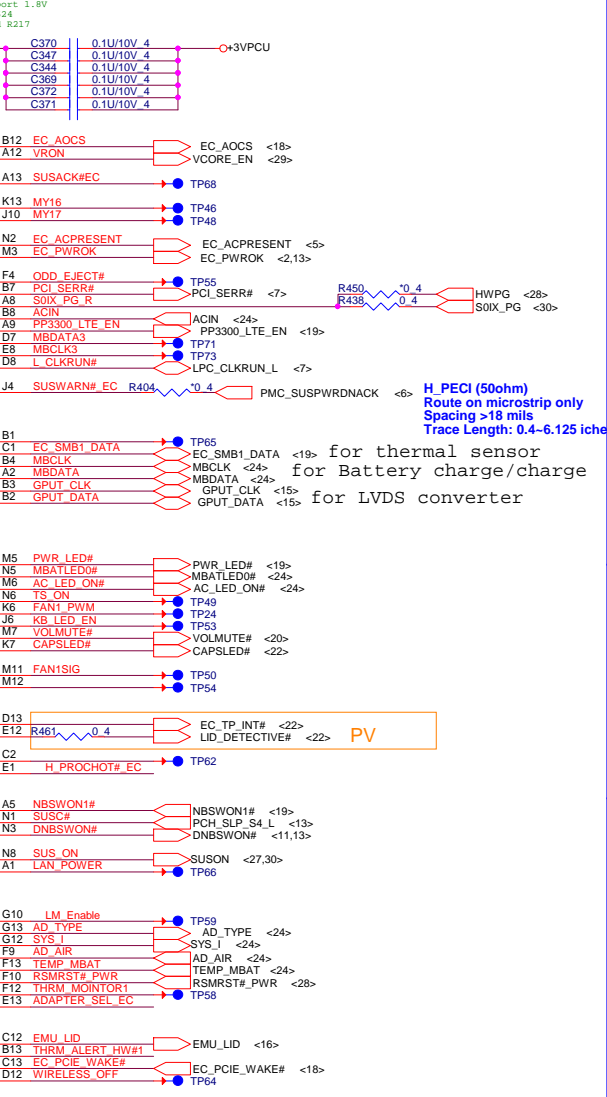
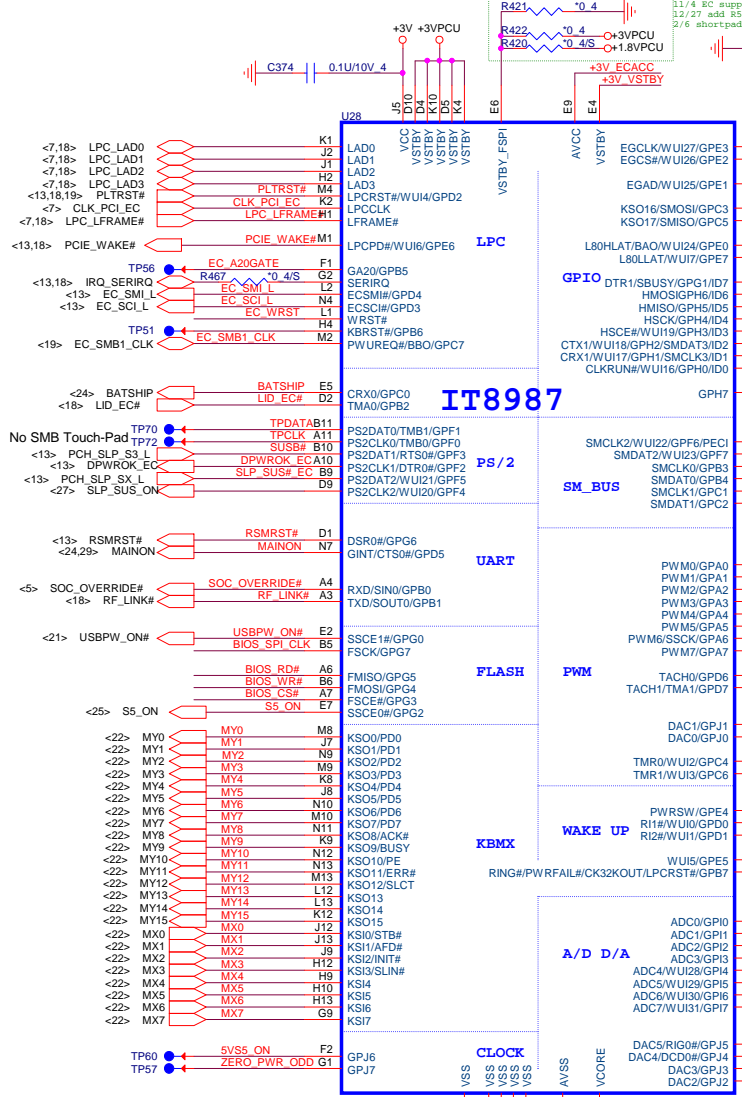


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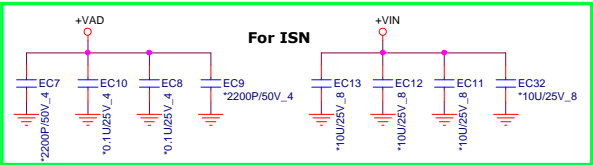
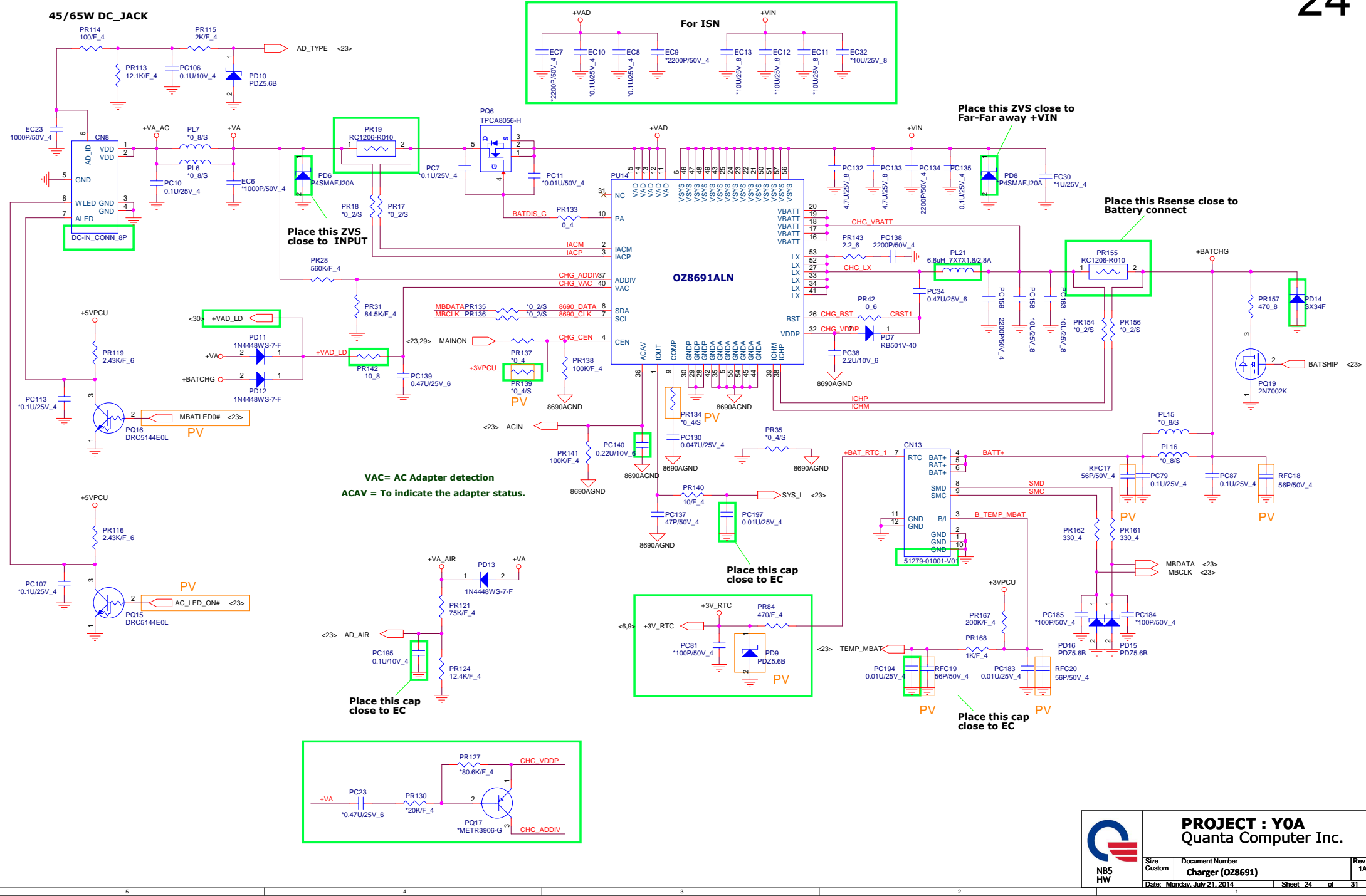
FBGA EC P/N:AL008987T00 IC CTRL(128P)IT8987VG/BX(VFBGA)



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45/65W DC_JACK



Place this ZVS close to INPUT

Place this ZVS close to Far-Far away +VIN

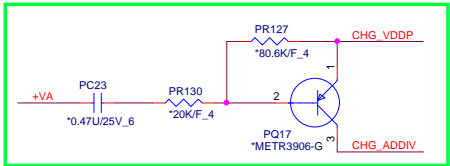
Place this Rsense close to Battery connect

VAC= AC Adapter detection
ACAV = To indicate the adapter status.

Place this cap close to EC

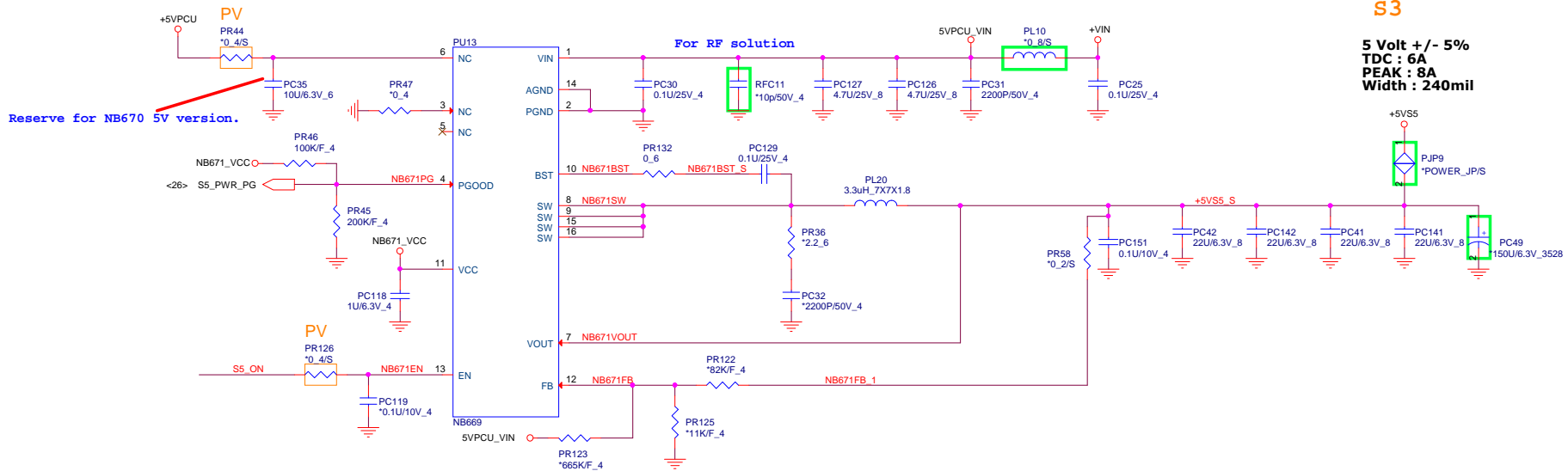
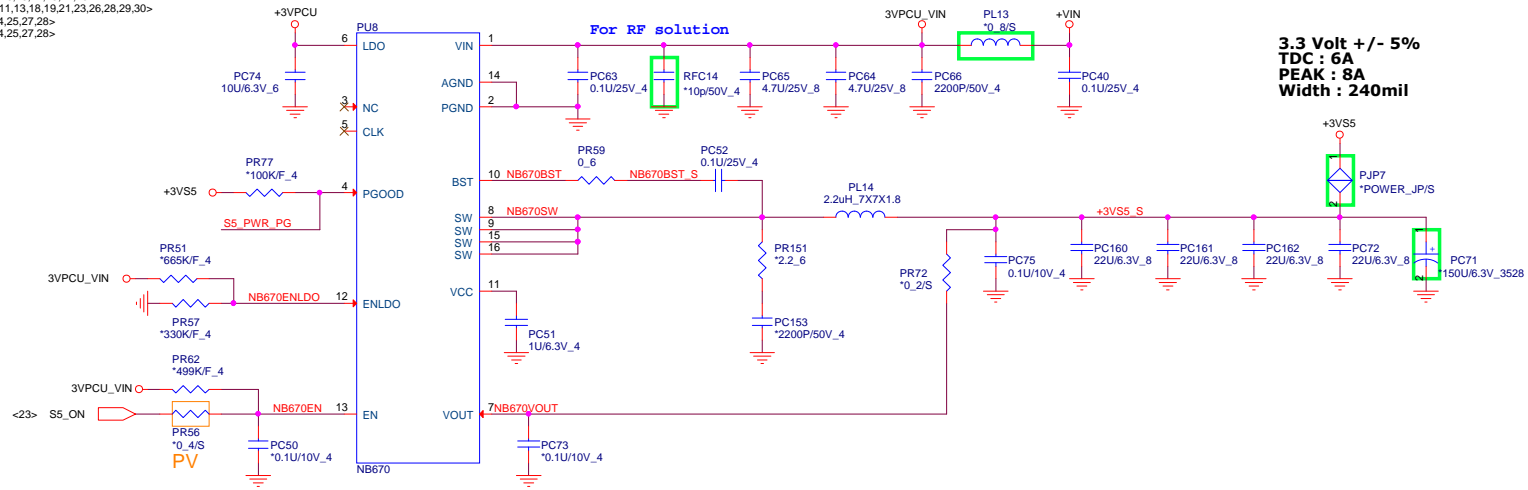
Place this cap close to EC

Place this cap close to EC



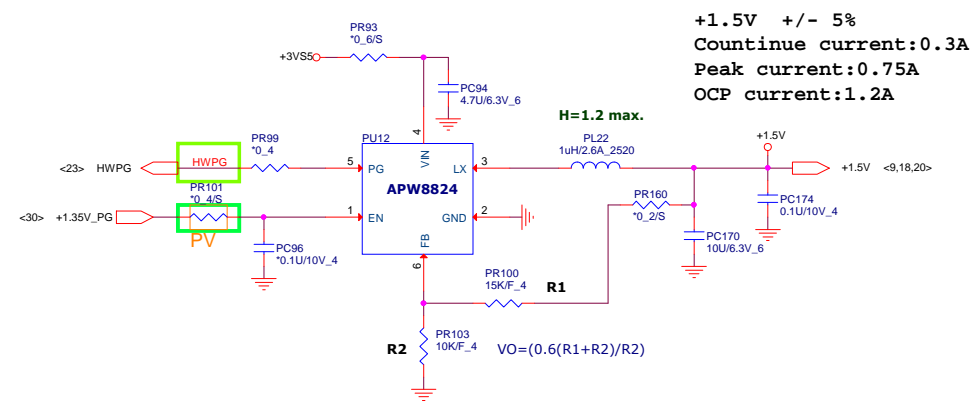
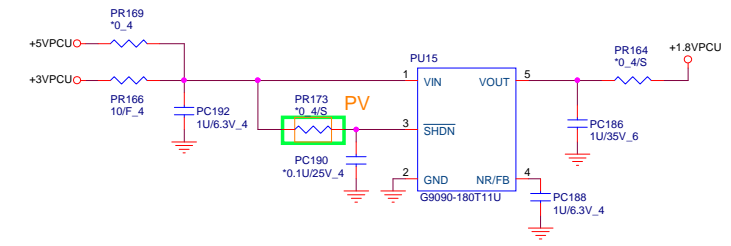
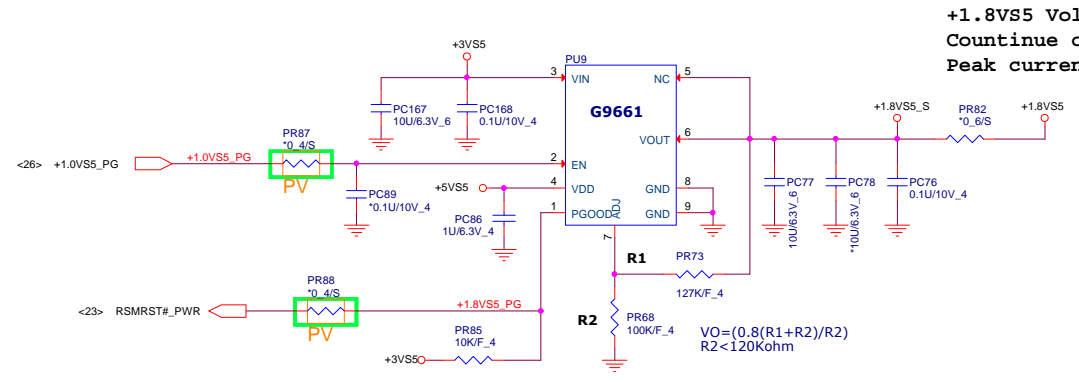
	PROJECT : YO4	
	Quanta Computer Inc.	
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- +VIN <16,19,24,26,27,29,30,31>
- +3VPCU <6,18,19,22,23,24,28>
- +3VS5 <2,9,11,13,18,19,21,23,26,28,29,30>
- +5VPCU <24,25,27,28>
- +5VS5 <24,25,27,28>



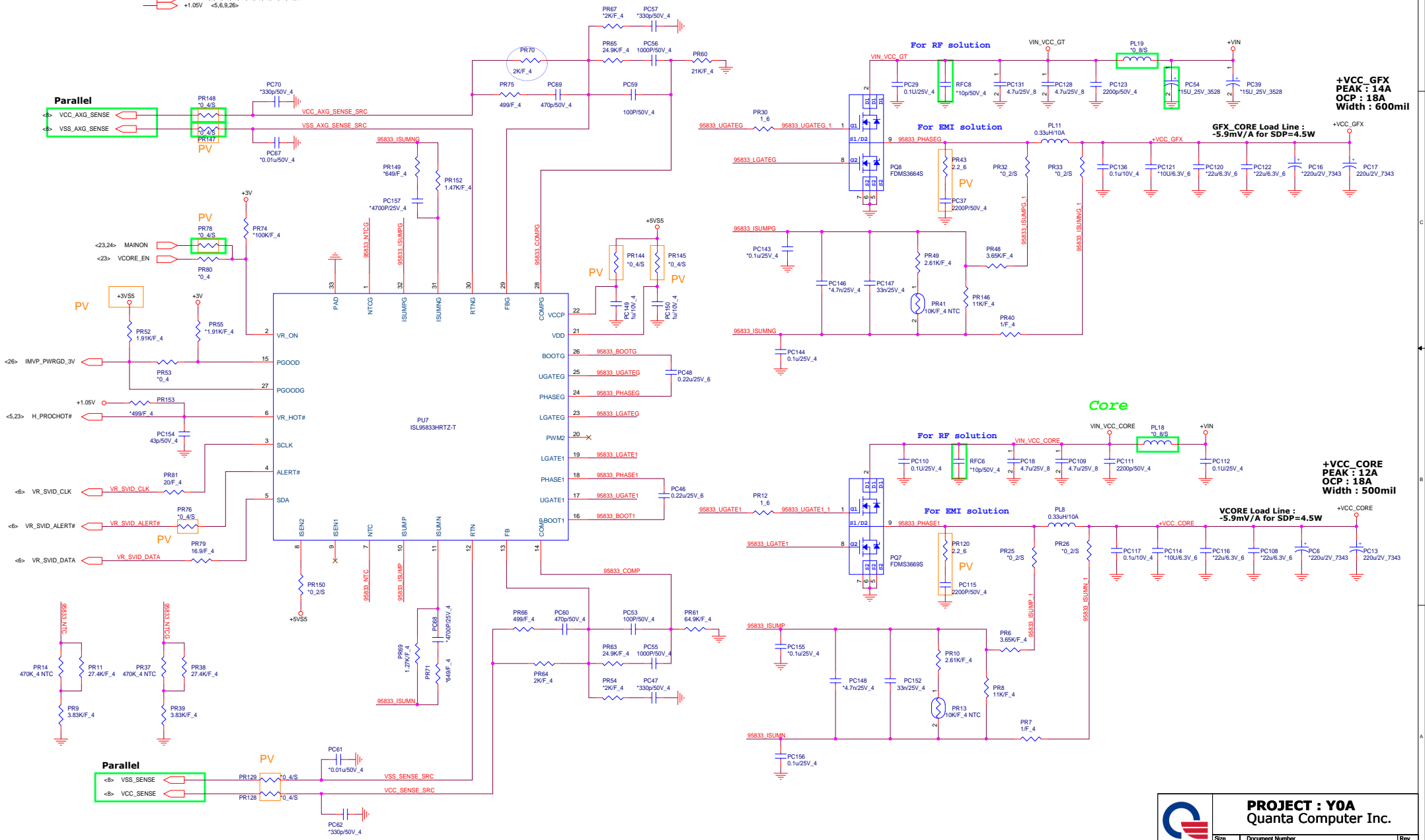
	PROJECT : Y0A		Rev 1A
	Quanta Computer Inc.		
	Size Custom	Document Number 3V/5V (NB670/NB669)	
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- +1.8VS5 <6,7,9,11,13,14,30>
- +5VS5 <21,25,26,29,30>
- +3VS5 <2,9,11,13,18,19,21,23,25,26,29,30>
- +3VPCU <6,18,19,22,23,24,25>
- +5VPCU <24,25,27>
- +1.8VPCU <23>



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	Quanta Computer Inc.		
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1.0VS5	1.8VS5/1.24VS5		
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- +VIN <16,19,24,25,26,27,30,31>
- +3VSS <2,9,11,13,18,19,21,23,25,26,28,30>
- +5VSS <21,25,26,28,30>
- +1.0VSS <9,11,26>
- +VCC_GFX <8>
- +VCC_CORE <8>
- +3V <4,9,13,15,16,17,18,19,20,21,22,23,30>
- +1.05V <5,6,9,26>

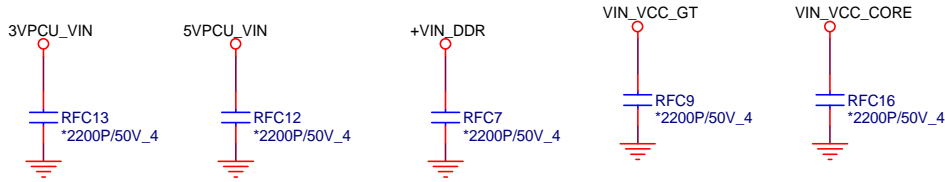


**+VCC_GFX
PEAK : 14A
OCP : 18A
Width : 600mil**

**GFX_CORE Load Line :
-5.9mV/A for SDP=4.5W**

**+VCC_CORE
PEAK : 12A
OCP : 18A
Width : 500mil**

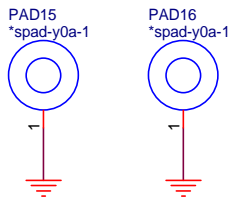
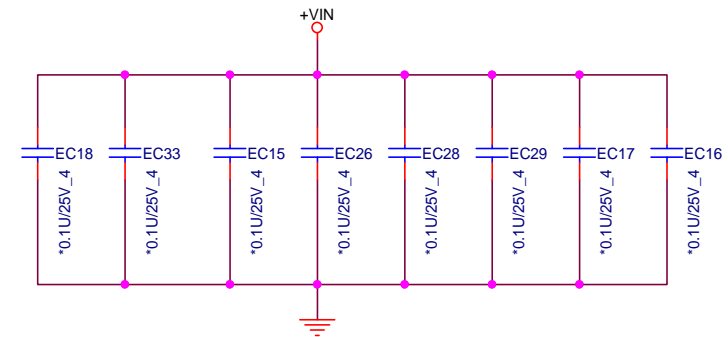
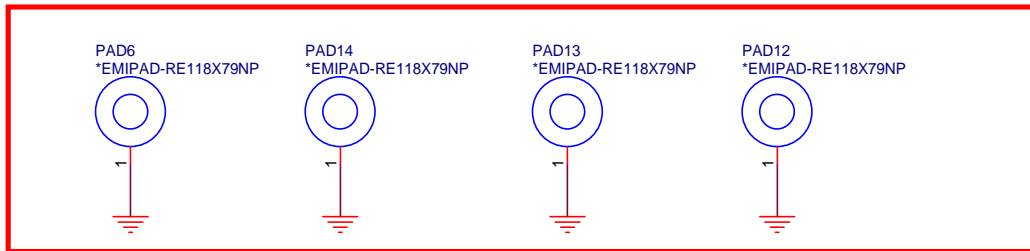
**VCCORE Load Line :
-5.9mV/A for SDP=4.5W**



TOP



BOTTOM



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