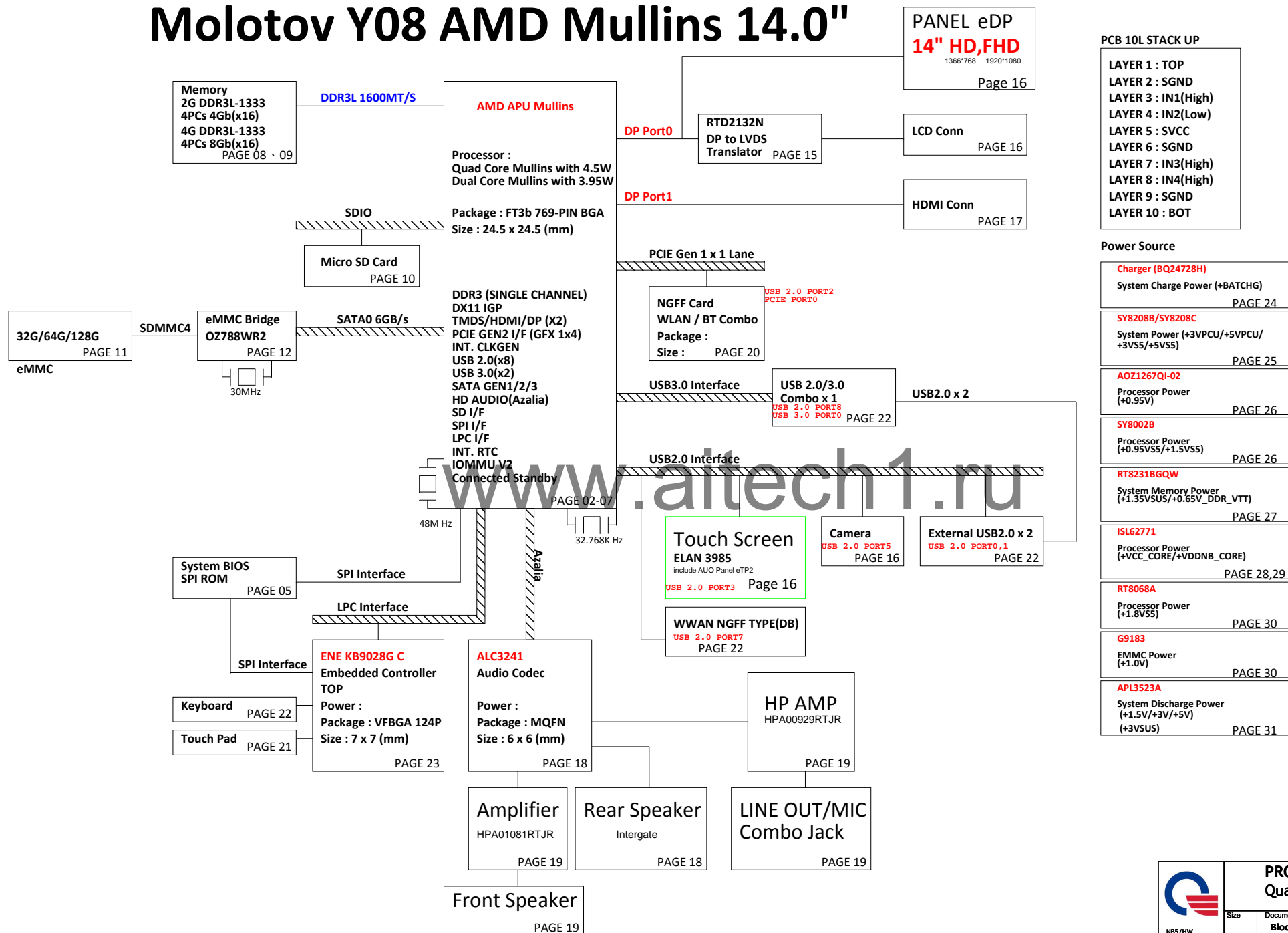
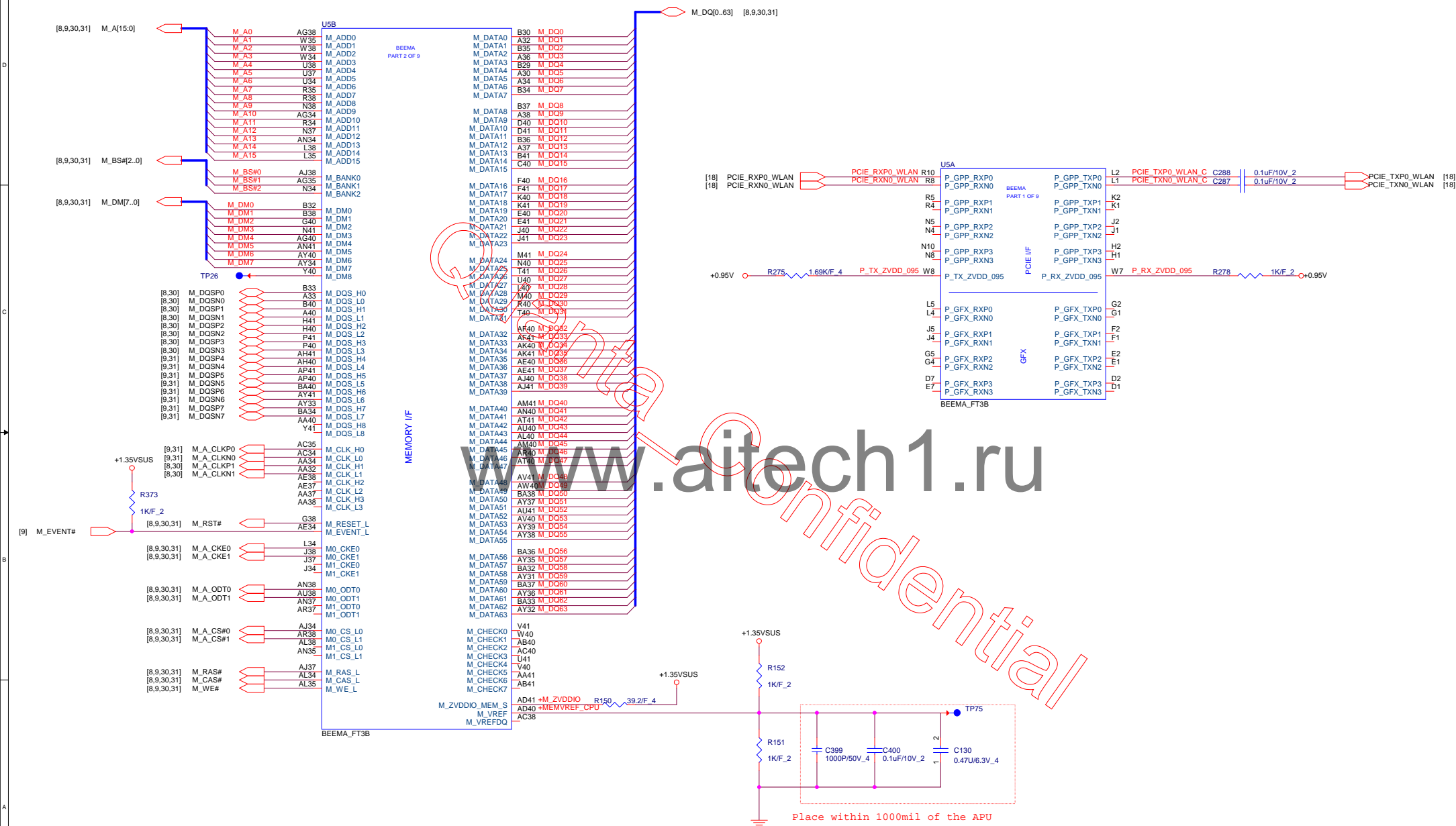




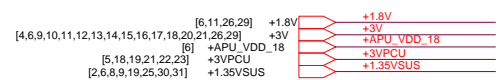
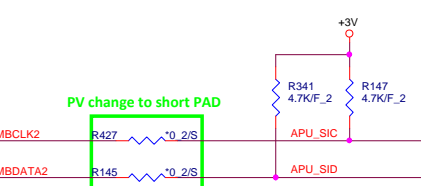
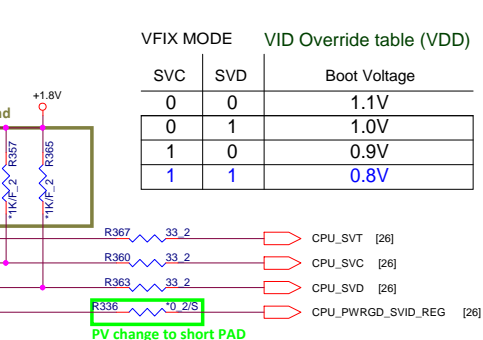
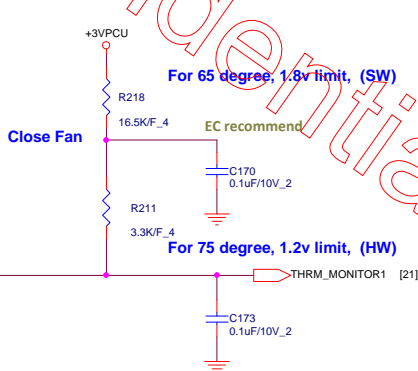
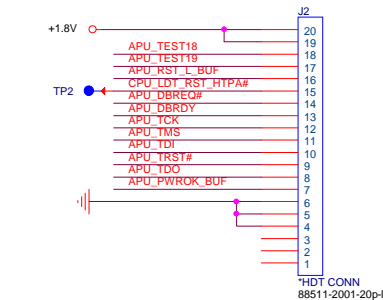
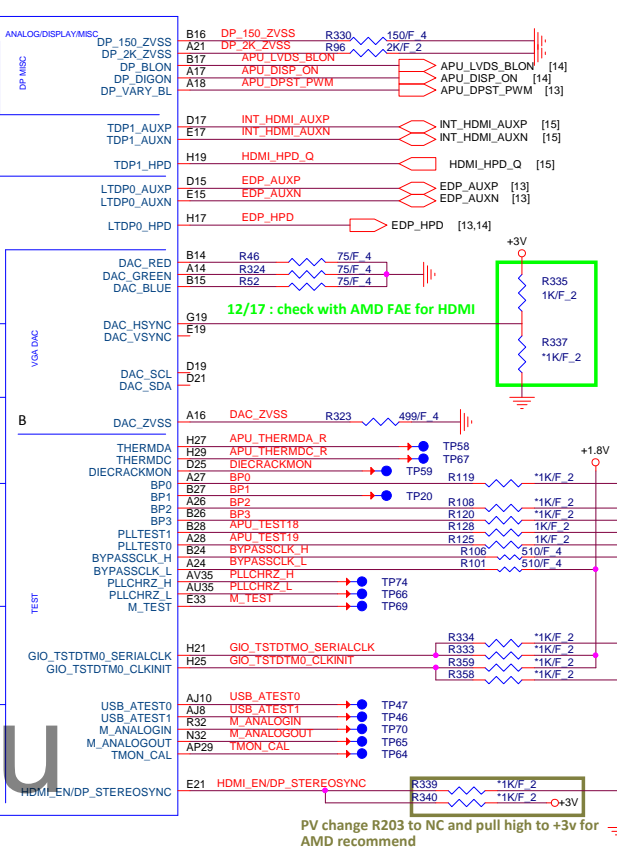
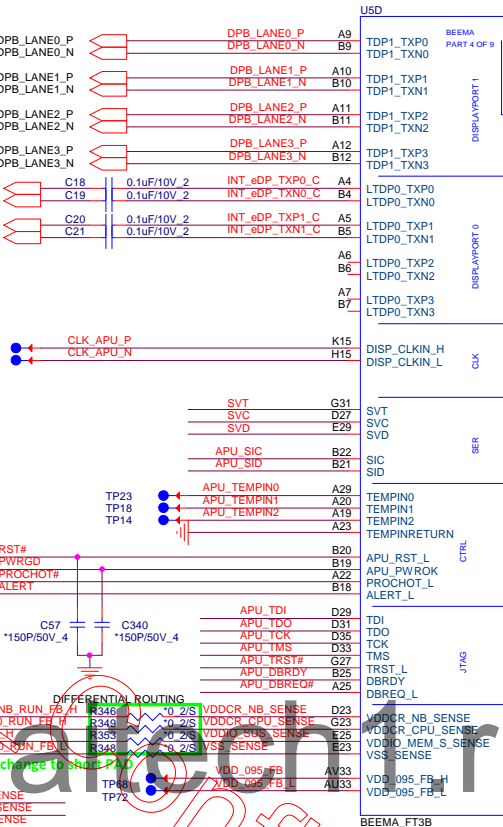
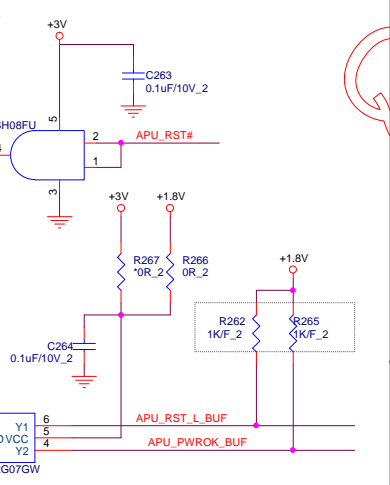
# Molotov Y08 AMD Mullins 14.0"

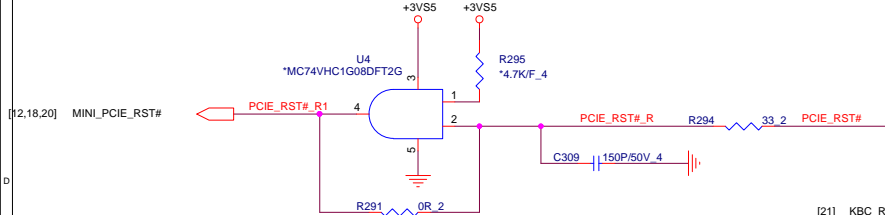




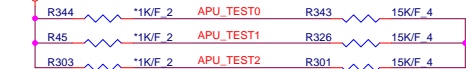
[6,8,9,19,25,30,31] +1.35VSUS  +1.35VSUS

[5,6,19,24] +0.95V  +0.95V





NC, no install by default

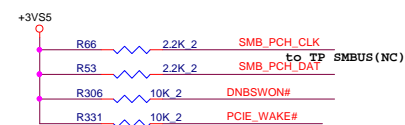
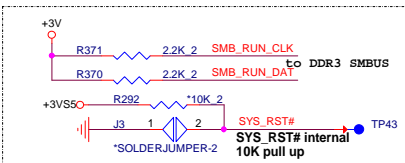


CLK\_REQ2# internal pull Hi 8.2K to +3V

CLK\_REQ3# internal pull Hi 8.2K to +3V

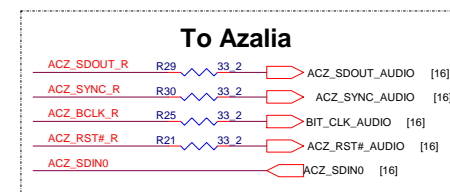
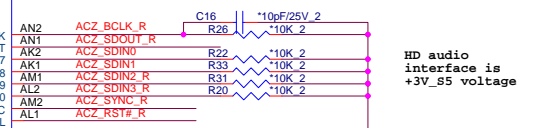
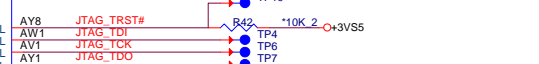
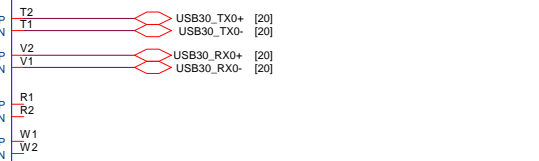
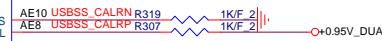
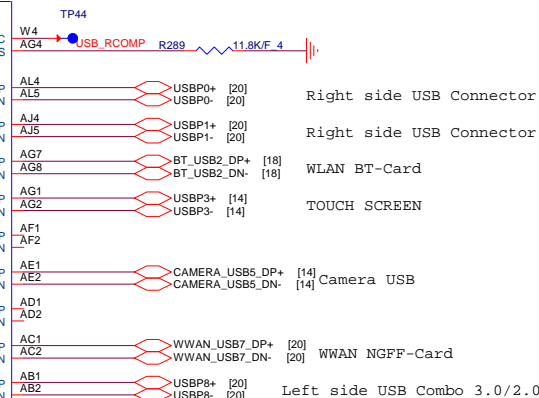
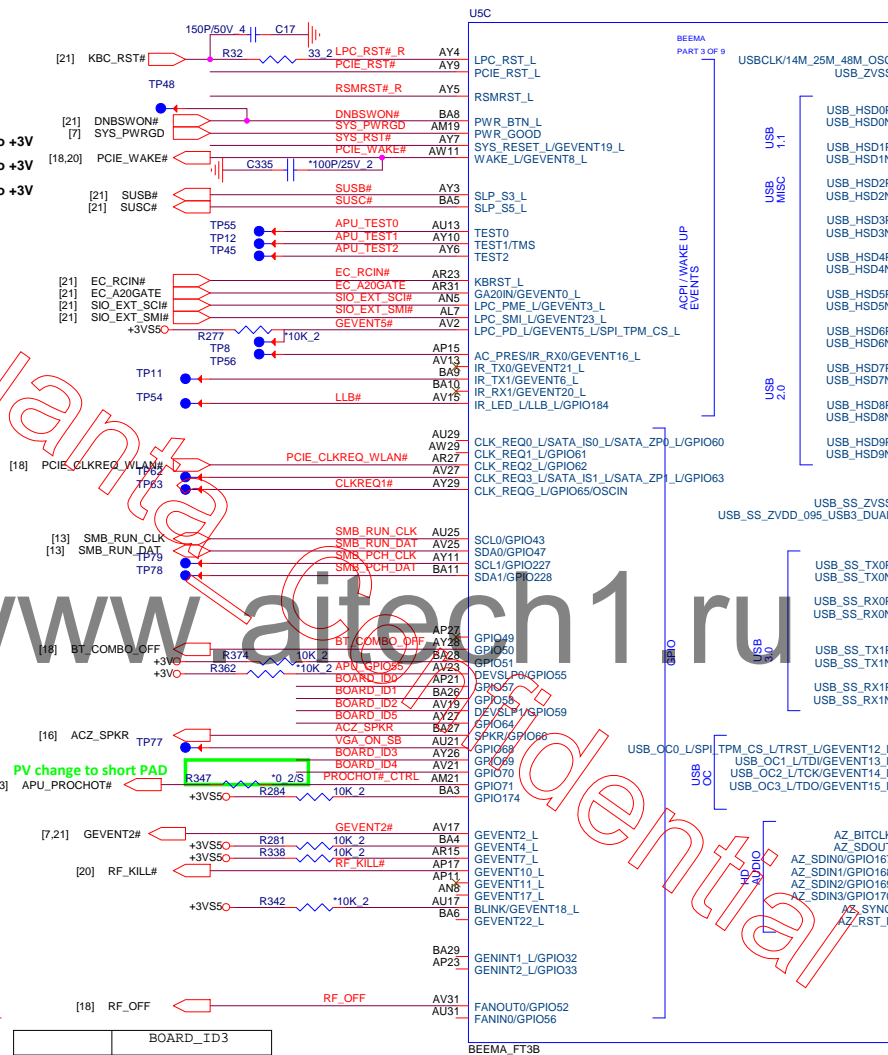
CLK\_REQ4# internal pull Hi 8.2K to +3V

TEST2	TEST1	TEST0	Description
0	0	0	FCH TAP accessible from APU when TAPEN is asserted. FCH JTAG pins are overloaded for multiple functions, in this configuration the FCH JTAG are used as non-JTAG pins
0	0	1	Reserved
0	1	X	Reserved
1	TMS	0	FCH JTAG multi-function pins are configured as JTAG pins, in this configuration the FCH TAP can be accessed from FCH JTAG pins
1	TMS	1	Use on ATE only Yuba JTAG enabled



	BOARD_ID0	BOARD_ID1	BOARD_ID2
Hynix (TG) H5TC4G63AFR-PBA HUMA, A	0	0	0
Micron (TF) MT41K256M16HA-125:E V80A/E	0	0	1
Elpida (TN) EDJ4216EFBG-GN-F F	0	1	0
Samsung (TH) K4B4G1646B-HYK0 B	0	1	1
Hynix (TG) H5TC8G63AMR-PBA	1	0	0
Micron (TF) MT41K512M16TNA-125:E	1	0	1
Elpida (TN) EDJ8416E6MB-GN-F	1	1	0
Samsung (TH) K4B8G1646Q-MYK0	1	1	1

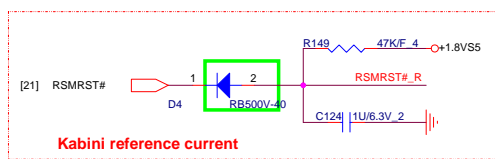
	BOARD_ID3
Beats	0
DTS	1
	BOARD_ID4
default	0
	1
	BOARD_ID5
default	0
	1

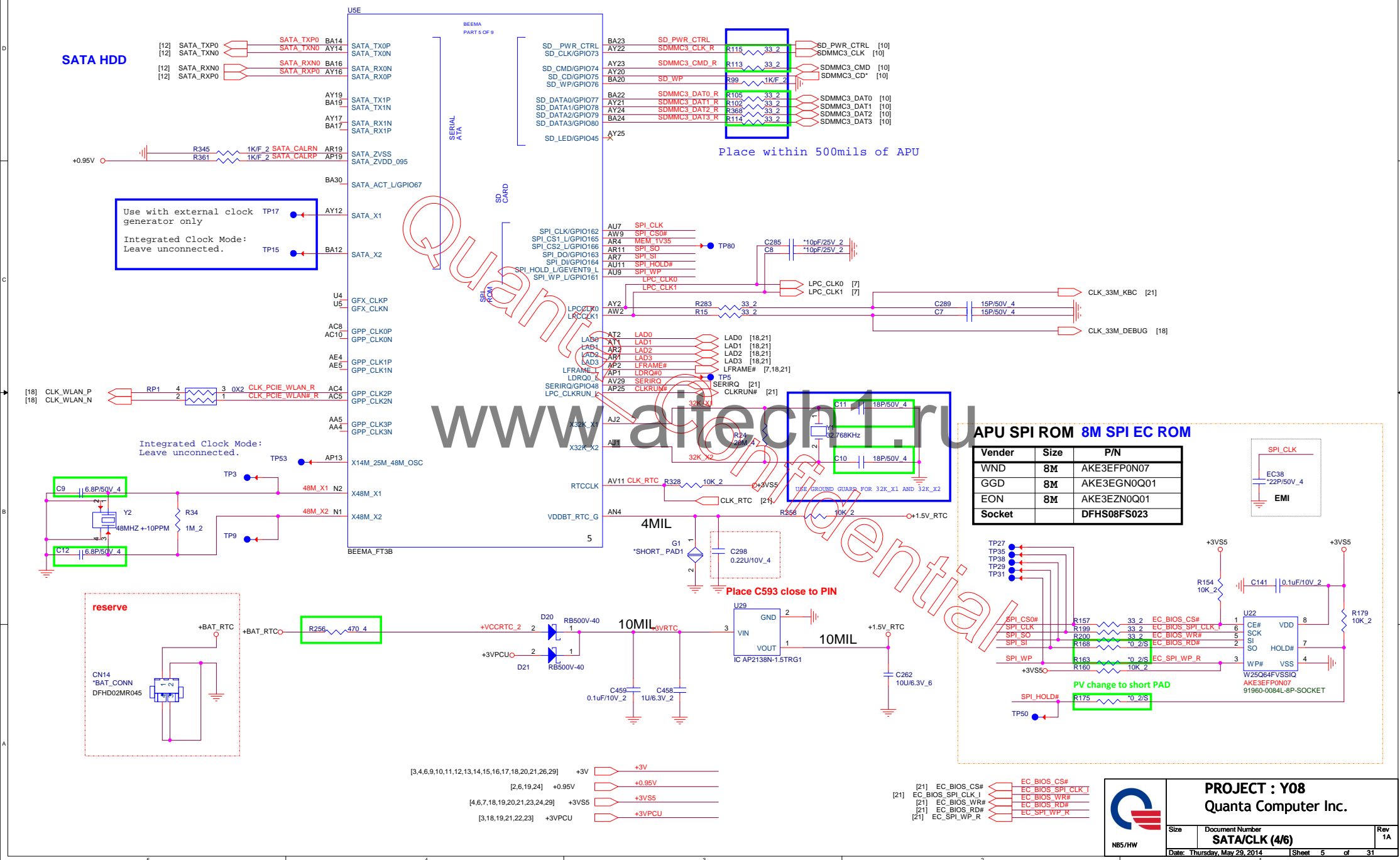


**PROJECT : Y08**  
**Quanta Computer Inc.**

Size: **Document Number**  
**GPIO/USB/AZ (3/6)**

Date: Thursday, May 29, 2014 Sheet 4 of 31







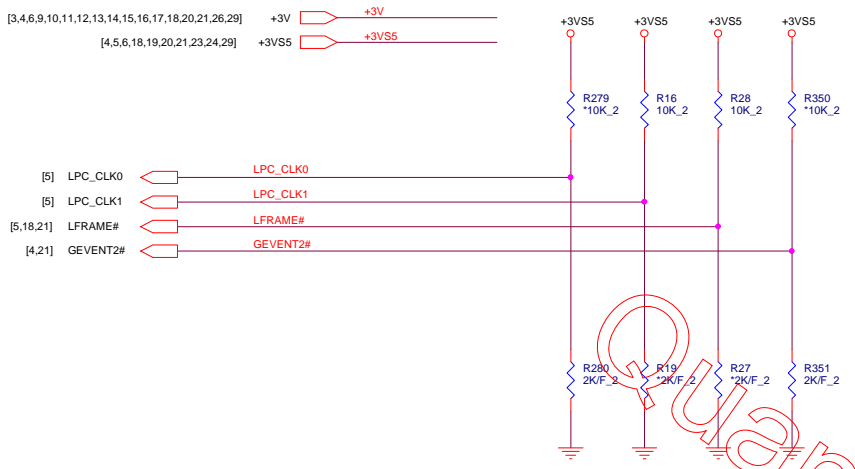


Size	Document Number <b>POWER/GND(5/6)</b>
------	--



# STRAPS PINS

OVERLAP COMMON PADS WHERE POSSIBLE FOR DUAL-OP RESISTORS.

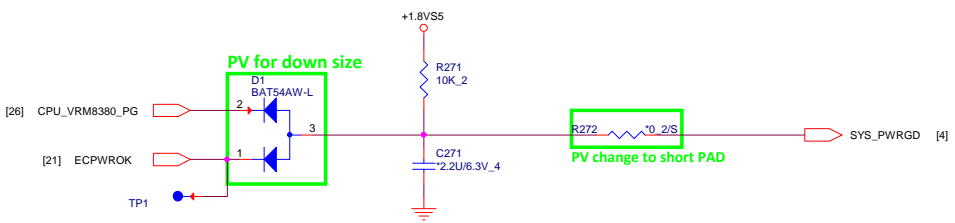


## REQUIRED STRAPS

					LPC_CLK0	LPC_CLK1	LFRAME#	GEVENT2#
PULL HIGH					BOOT FAIL TIMER ENABLED	CLKGEN ENABLED	SPI ROM	1.8V SPI ROM
PULL LOW					BOOT FAIL TIMER DISABLED	CLKGEN DISABLED	LPC ROM	3.3V SPI ROM

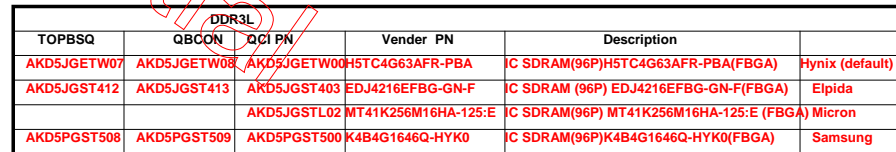
# DEBUG STRAPS

## SYS\_PWRGD

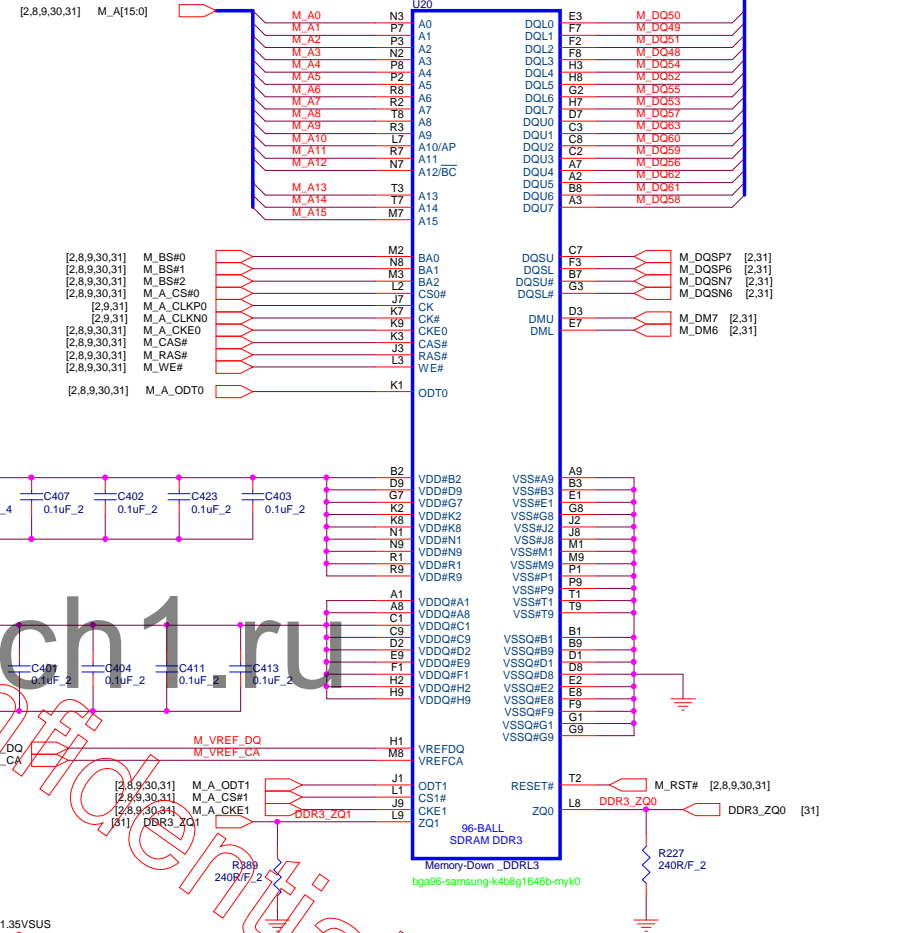
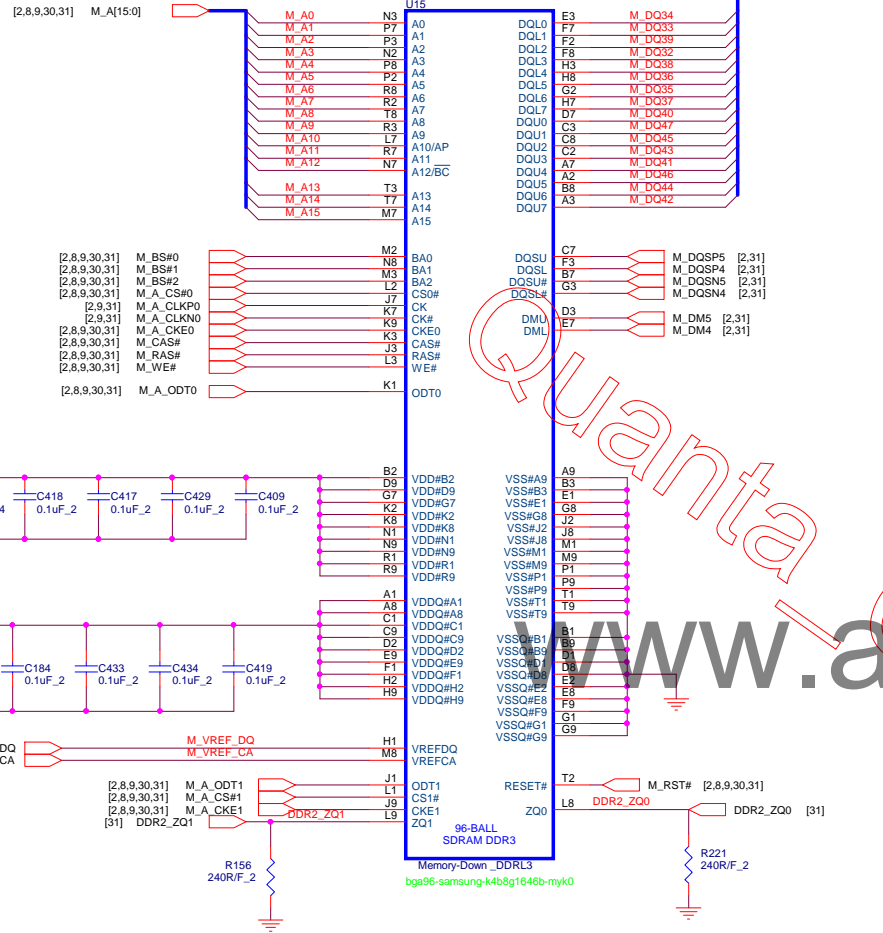
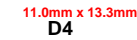


PROJECT : Y08  
Quanta Computer Inc.

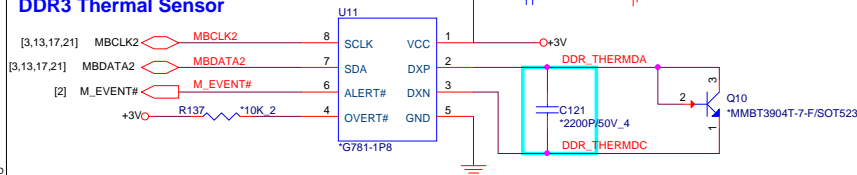
Size	Document Number	Rev
	STRAP (6/6)	1A
Date: Thursday, May 29, 2014	Sheet 7 of 31	







## Local Thermal Sensor



Main:AL000781039	G781-1P8(9Ah)
2nd:AL001412005	EMC1412-2-ACZL-TR(9Ah)
Main:AL001412003	EMC1412-1-ACZL-TR(98h)
2nd:AL000431014	TMP431ADGKR(98h)

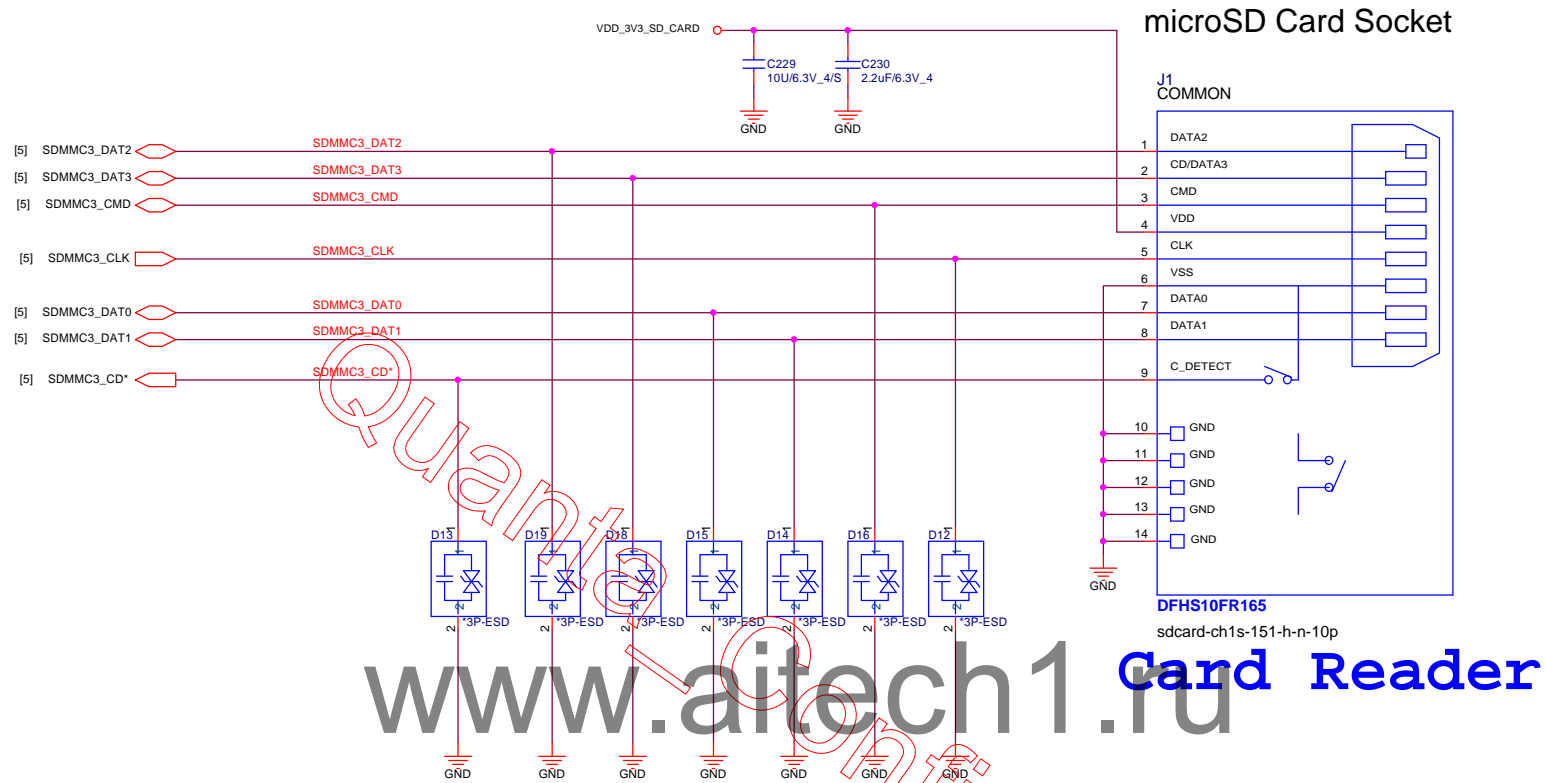
TOPBSQ	QBCON	Vender PN	Description	
AKD5JGETW07	AKD5JGETW08	H5TC4G63AFR-PBA	IC SDRAM(96P)H5TC4G63AFR-PBA(FBGA)	Hynix (default)
AKD5JGST412	AKD5JGST413	EDJ4216EFBG-GN-F	IC SDRAM (96P) EDJ4216EFBG-GN-F(FBGA)	Elpida
AKD5JGSTL06	AKD5JGSTL07	MT41K256M16HA-125:E	IC SDRAM(96P) MT41K256M16HA-125:E (FBGA)	Micron
AKD5PGST508	AKD5PGST509	K4B4G1646Q-HYK0	IC SDRAM(96P)K4B4G1646Q-HYK0(FBGA)	Samsung
AKD5FGSTW04	AKD5FGSTW05	H5TC8G63AMR-PBA	IC SDRAM(96P)H5TC8G63AMR-PBA(FBGA)	Hynix
AKD5FGST409	AKD5FGST410	EDJ8416E6MB-GN-F	IC SDRAM(96P)EDJ8416E6MB-GN-F(FBGA)	Elpida
AKD5FGSTL05	AKD5FGSTL06	MT41K512M16TNA-125:E	IC SDRAM(96P)MT41K512M16TNA-125:E	Micron
AKD5QGST503	AKD5QGST504	K4B8G1646Q-MYK0	IC SDRAM(96P)K4B8G1646Q-MYK0(FBGA)	Samsung



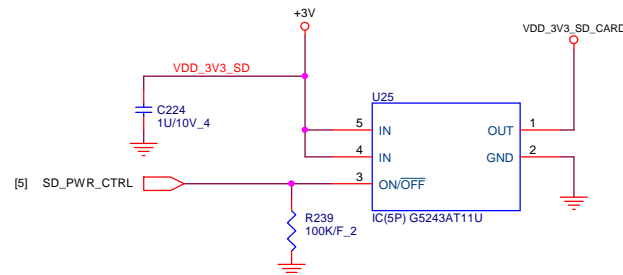
**PROJECT : Y08**  
**Quanta Computer Inc.**

Size	Document Number <b>DDR3 (A) On Board_A,2Rank</b>	Rev
Date: Thursday, May 29, 2014	Sheet	9 of 31

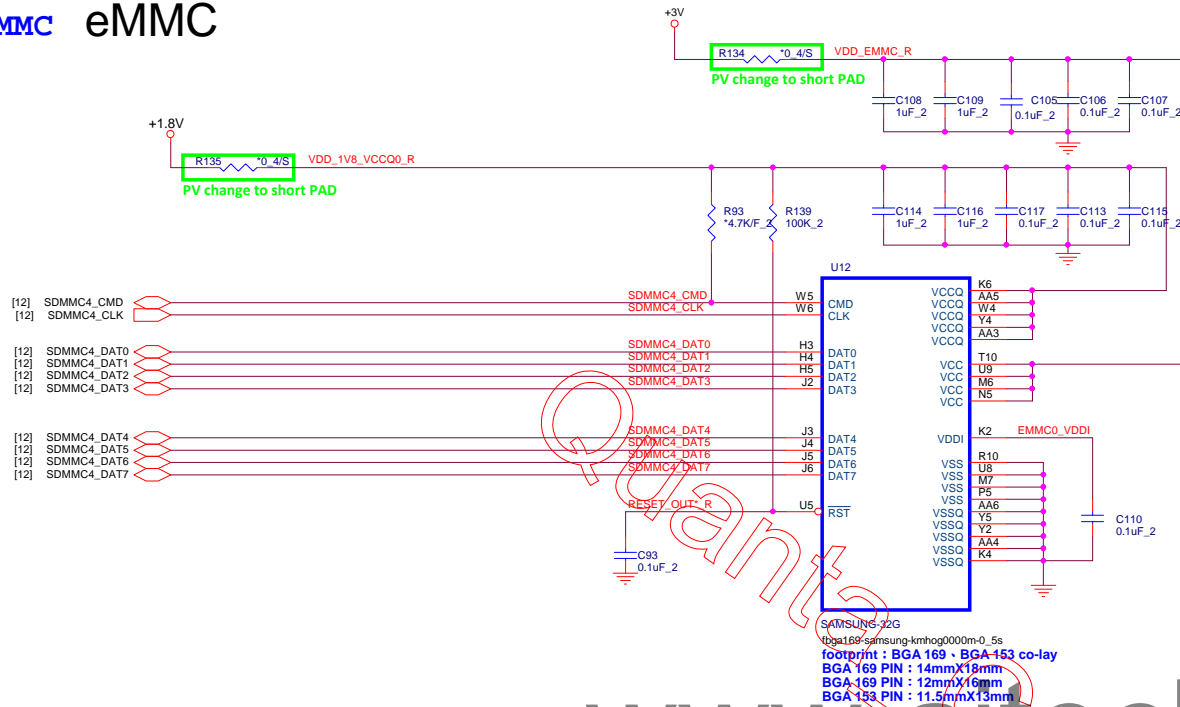
Place close to J3



Note: Place those diodes close to the SD socket



## EMMC eMMC



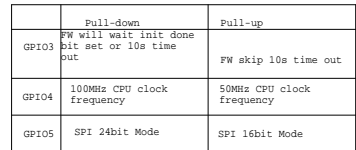
www.aitech1.ru

JNAND (eMMC) V4.51			Description
TOPBSQ	QBCON	SIZE	
AKE3SZPTW09	AKE3SZPTW10	IC FLASH(169P) H26M64003DQR TOP BSQ	
AKE34GPTW01	AKE34GPTW02	IC FLASH(169P) H26M78003BFR TOP BSQ	
TBD	TBD	TBD	
AKE3SZ-T100	AKE3SZ-T101	IC FLASH(153P) SDIN8DE4-32G(BGA)TOPBSQ	
AKE3TZ-T100	AKE3TZ-T101	IC FLASH(153P) SDIN8DE4-64G(BGA)TOPBSQ	
TBD	TBD	TBD	
AKE5SZ0T503	AKE5SZ0T500	IC FLASH(153P)KLMBG4GEAC-B001 TOPBSQ	
AKE3TZPT507	AKE3TZPT508	IC FLASH(153)KLMCG8GEAC-B001(FBGA)TOPBSQ	
AKE2UG-T500	AKE2UG-T501	IC FLASH(169P)KLMDGAGE2A-A001 TOP BSQ	

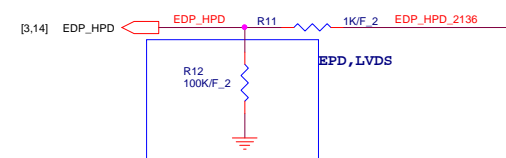
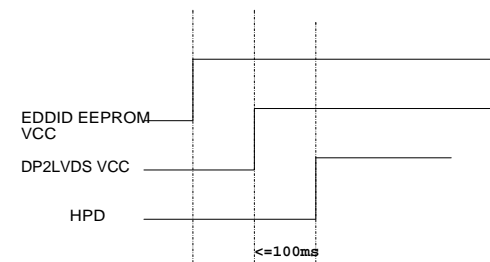


PROJECT : Y08  
Quanta Computer Inc.

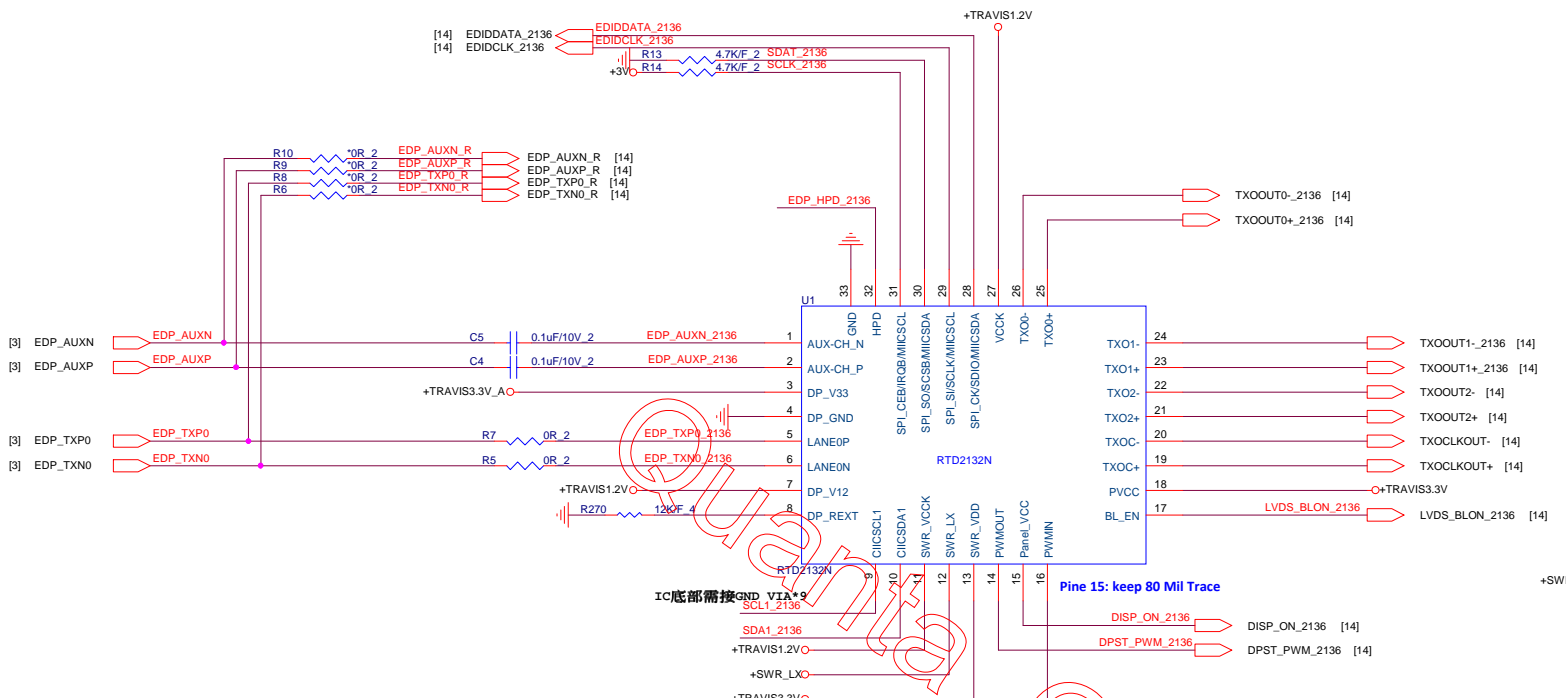
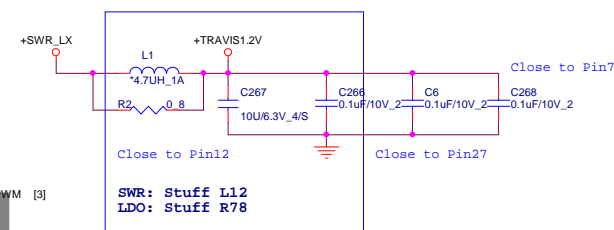
Size	Document Number	Rev
Custom	eMMC	1A
Date: Thursday, May 29, 2014   Sheet 11 of 31		



GPIO0 and GPIO2 can be used as GPIO. And default is input mode, so please clamp this pin to GND or P3V3 to avoid input floating condition if customer doesn't use this pin.



L69: need use CV-4709MN00 for Vendor suggestion  
2nd CV-4708MN03



Pine 13: keep 200 Mill Trace

R268 100K F 2

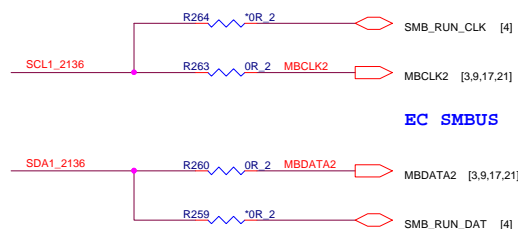
[14] DPST\_PWM

R148

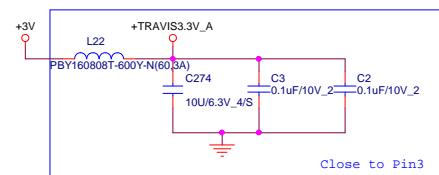
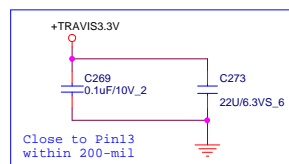
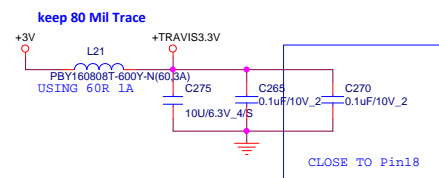
OR\_2

OR\_2/S

APU\_DPST\_PWM



EC SMBUS

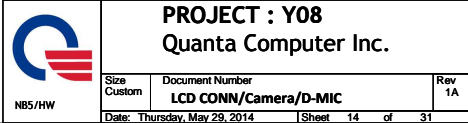


[3,4,6,9,10,11,12,14,15,16,17,18,20,21,26,29] +3V  
[16,29] +1.5V



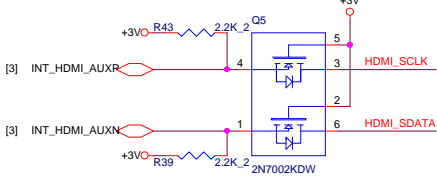
**PROJECT : Y08**  
Quanta Computer Inc.

Size Custom	Document Number <b>LVDS converter RTD2136</b>	Rev <b>1A</b>
Date: Thursday, May 29, 2014		Sheet 13 of 31



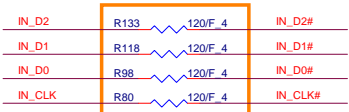


HDMI SMBus Isolation



Close to HDMI connector

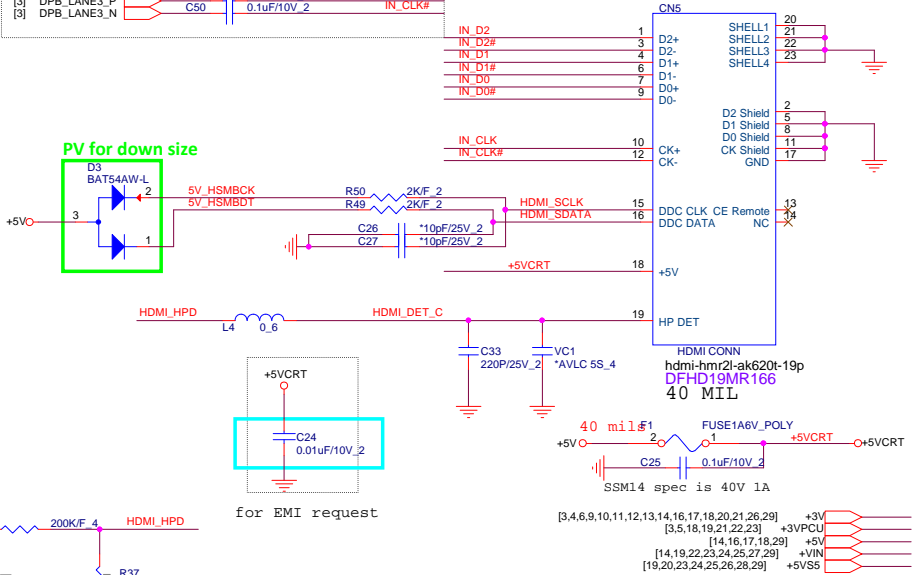
PV EMI Solution



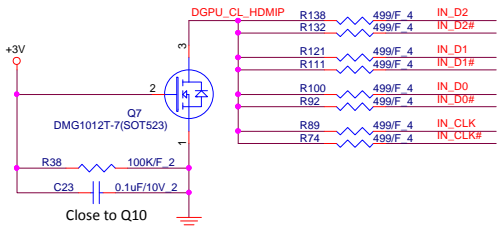
Close CN16

[3]	DPB_LANE0_P	C94	0.1uF/10V_2	IN_D2
[3]	DPB_LANE0_N	C87	0.1uF/10V_2	IN_D2#
[3]	DPB_LANE1_P	C78	0.1uF/10V_2	IN_D1
[3]	DPB_LANE1_N	C75	0.1uF/10V_2	IN_D1#
[3]	DPB_LANE2_P	C67	0.1uF/10V_2	IN_D0
[3]	DPB_LANE2_N	C63	0.1uF/10V_2	IN_D0#
[3]	DPB_LANE3_P	C53	0.1uF/10V_2	IN_CLK
[3]	DPB_LANE3_N	C50	0.1uF/10V_2	IN_CLK#

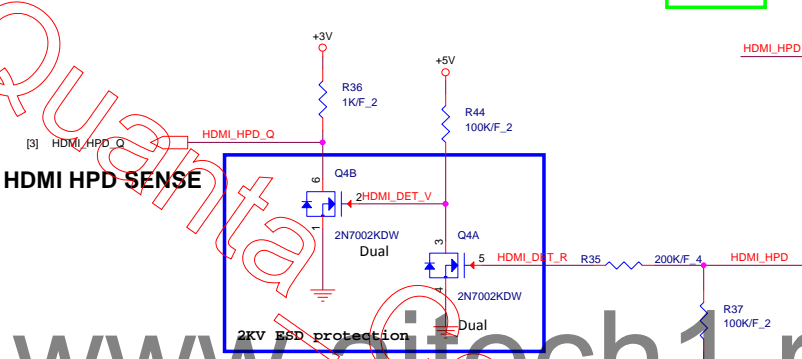
PV for down size



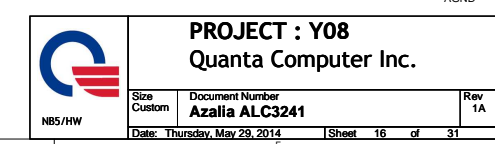
Check list recommend 604 ohm



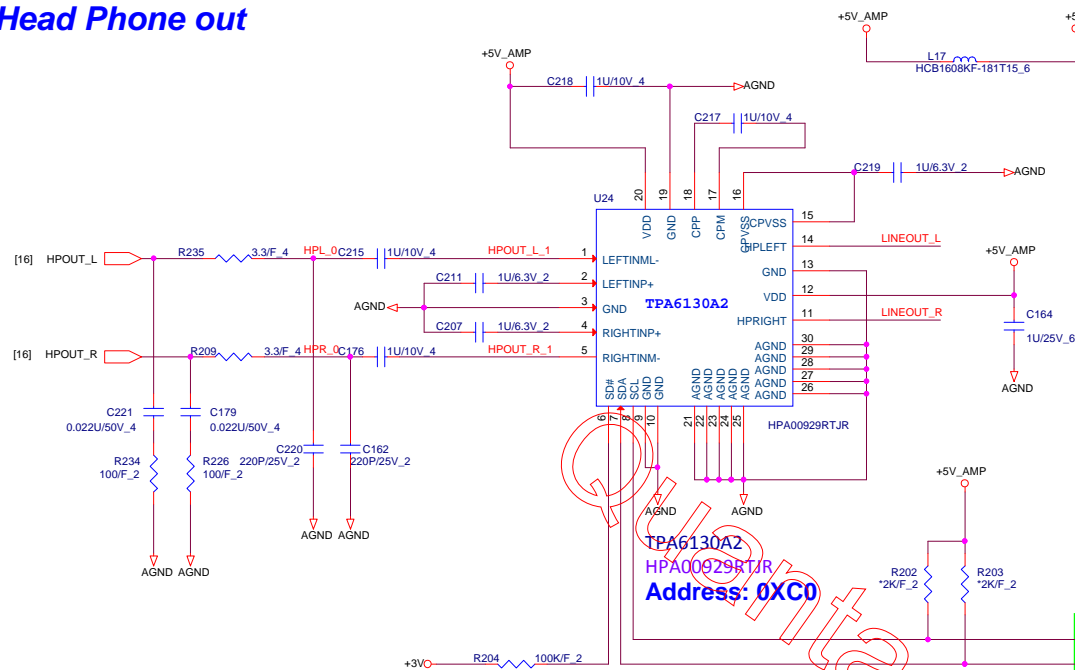
HDMI HPD SENSE



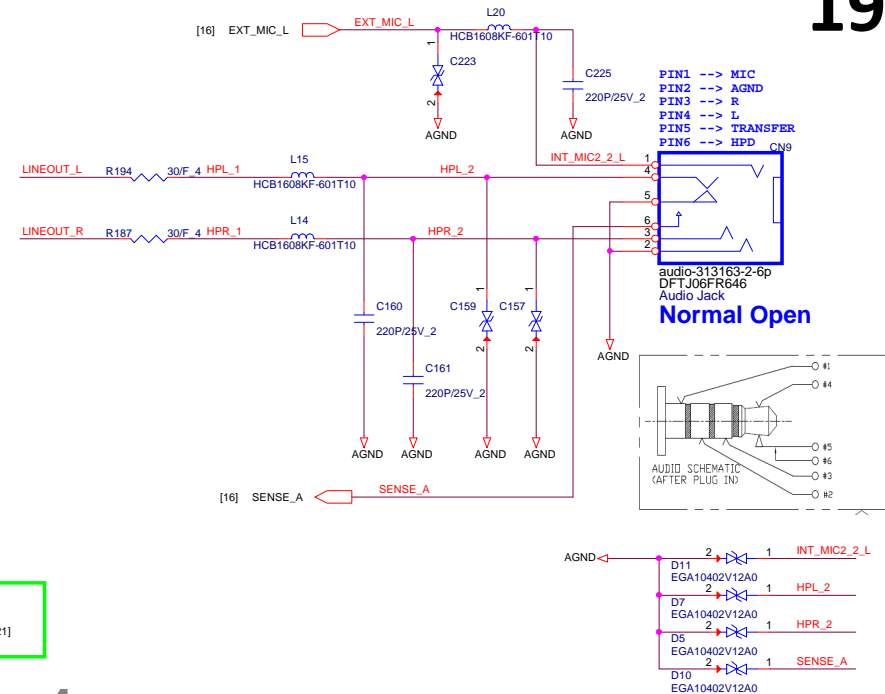
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# Head Phone out



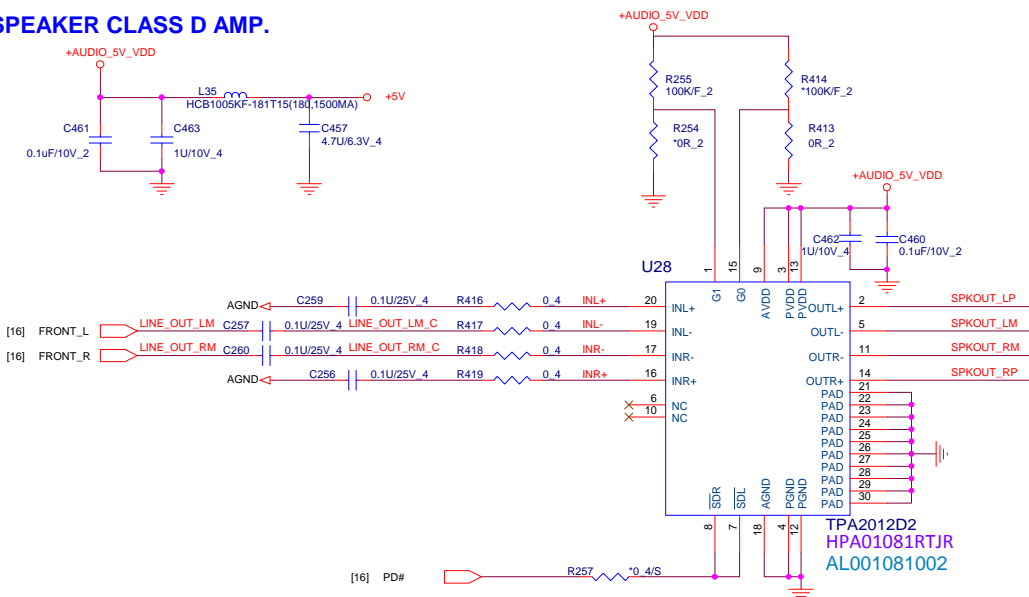
# Headphone and Mic Jack



19

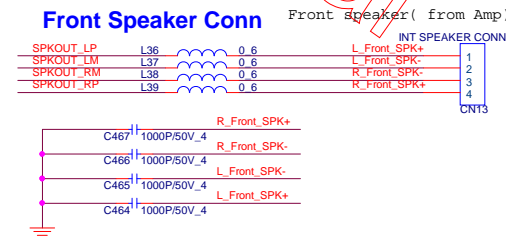
www.aitech1.ru

# SPEAKER CLASS D AMP.



GAIN1	GAIN0	Amplifier Gain Setting (typ)	
		V/V	dB
0	0	2	6
0	1	4	12
1	0	8	18
1	1	16	24

# Front Speaker Conn



**PROJECT : Y08**  
**Quanta Computer Inc.**

Size Custom Document Number AMP HPA00929 & HPA01081 Rev 1A

Date: Thursday, May 29, 2014 Sheet 17 of 31



## ***Thermal Nut***



Bo

## 1



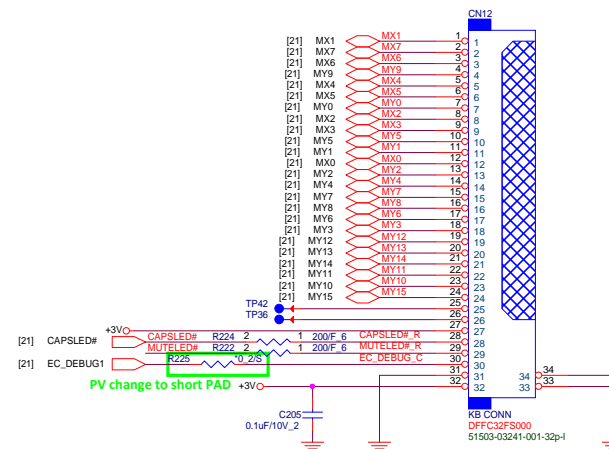
1

1

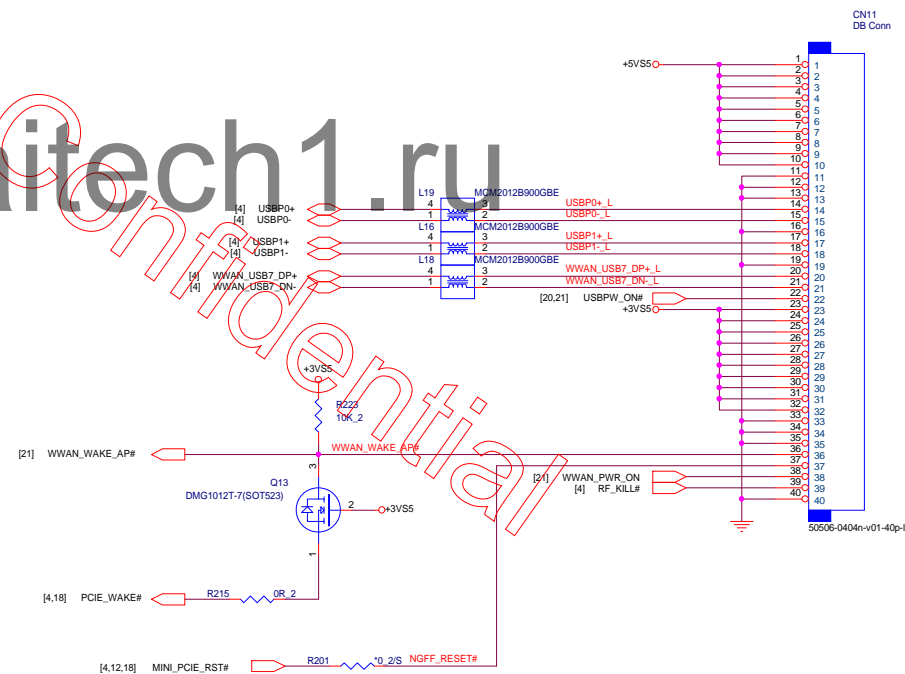
## 1



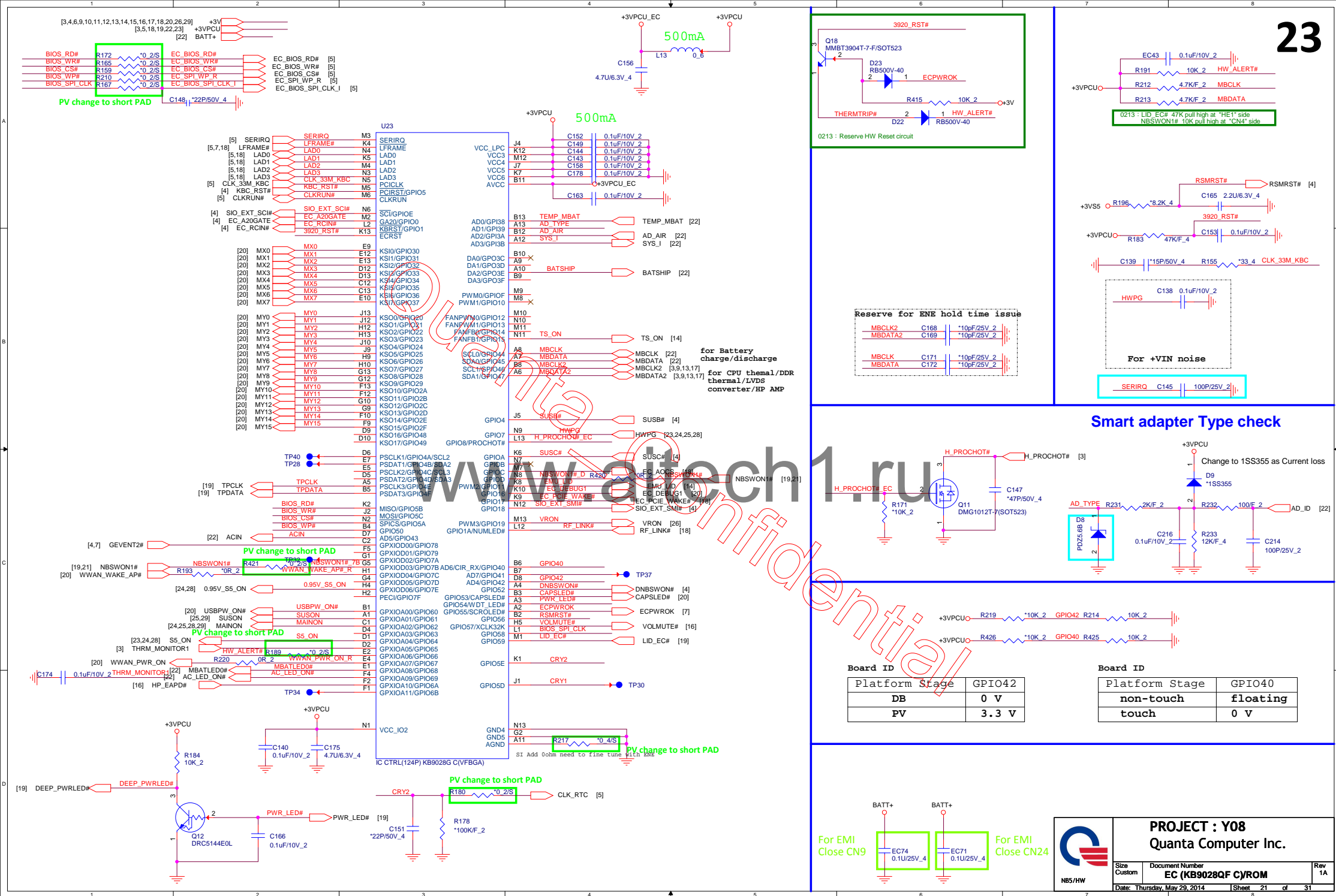
**Follow Y03**

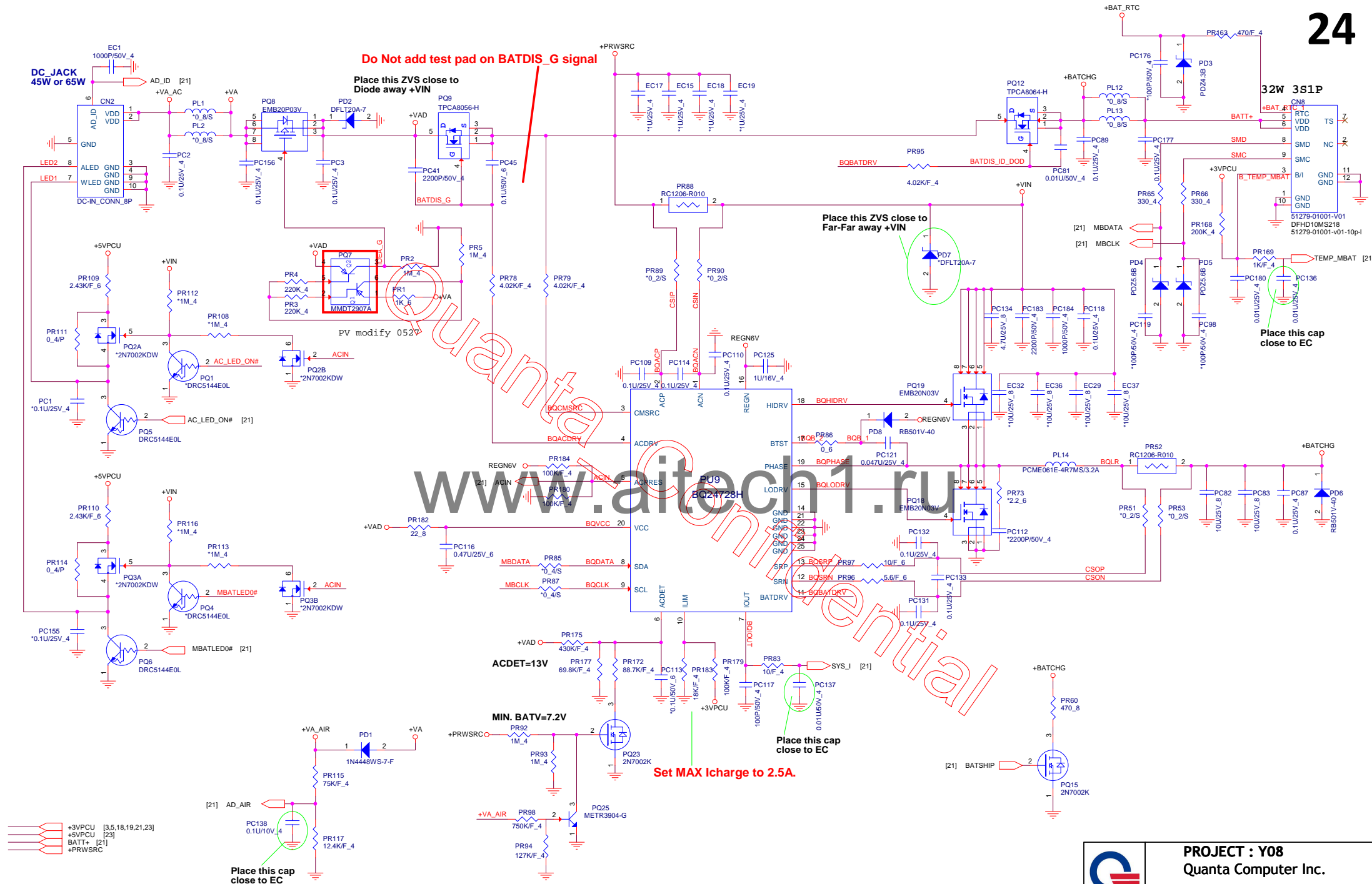


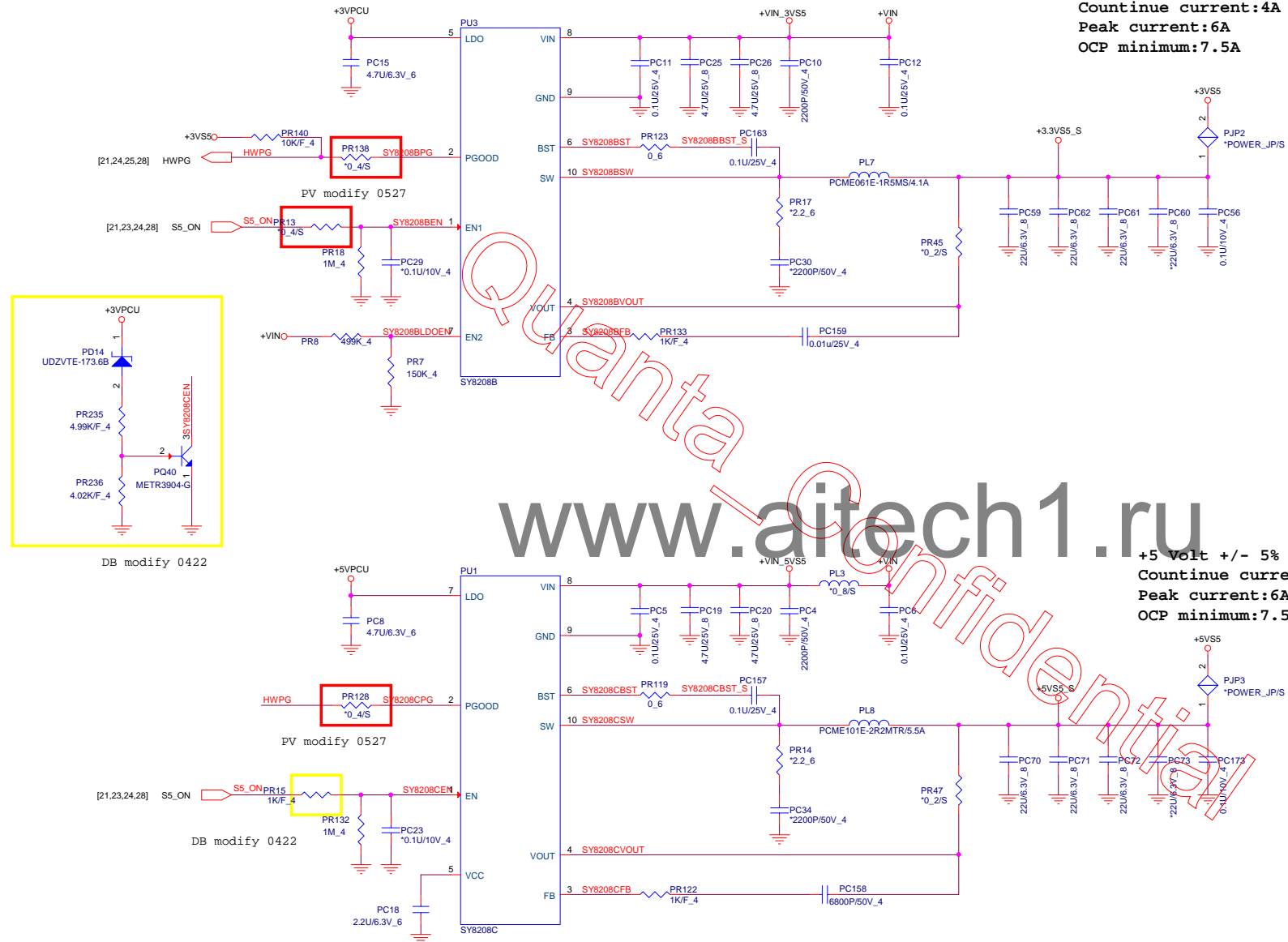
**USB 3.0**









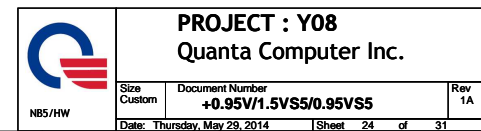


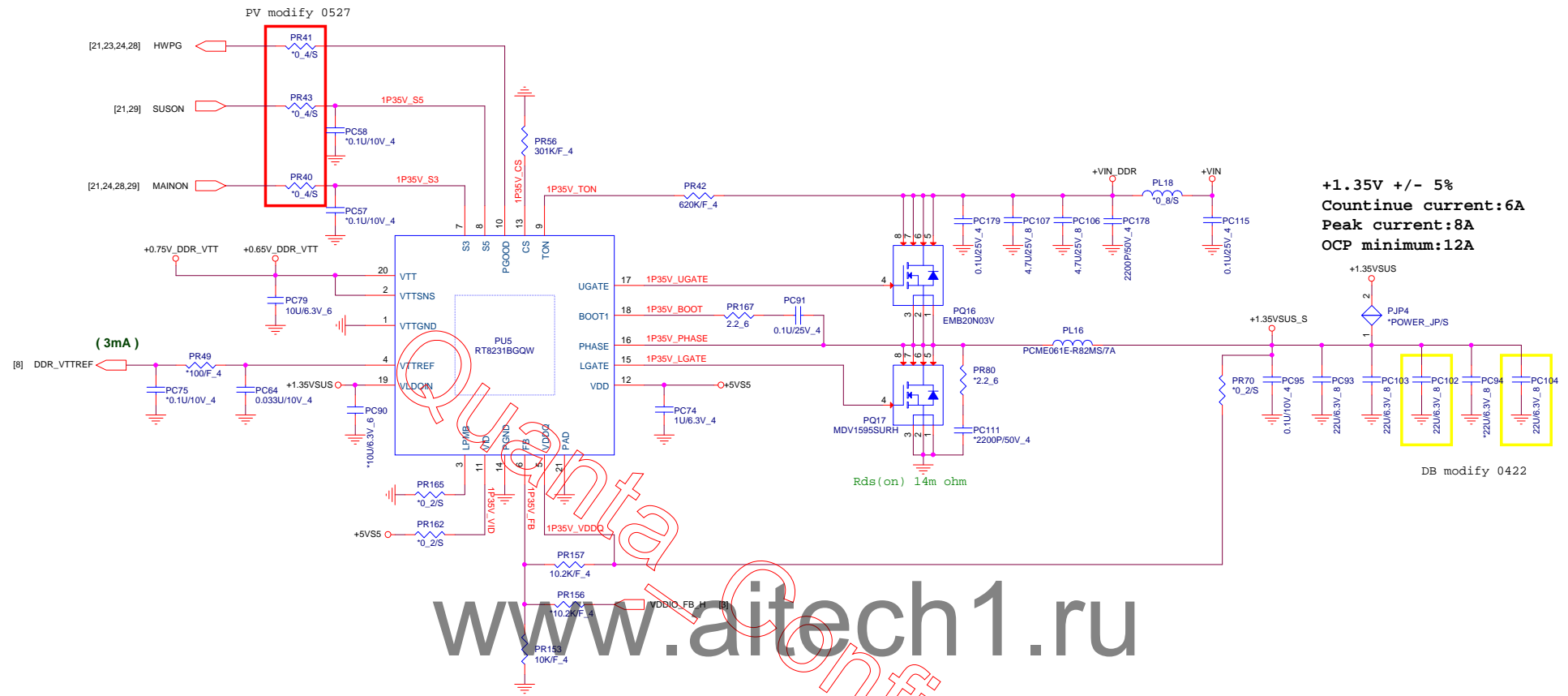
+3VS5 [4,5,6,7,18,19,20,21,24,29]  
 +5VS5 [19,20,24,25,26,28,29]



**PROJECT : Y08**  
**Quanta Computer Inc.**

Size Custom	Document Number <b>3/5VPCU(SY8208B/SY8208C)</b>	Rev 1A
Date: Thursday, May 29, 2014	Sheet 23 of 31	





+1.35VSUS [2,6,8,9,19,30,31]



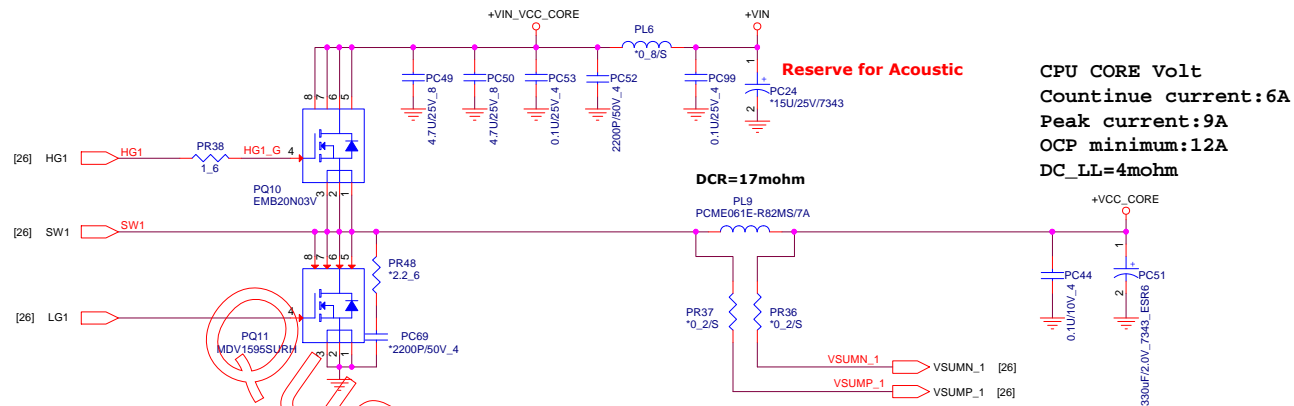
**PROJECT : Y08**  
**Quanta Computer Inc.**

Size Custom	Document Number <b>DDR3L (RT8231B)</b>	Rev 1A
Date: Thursday, May 29, 2014		

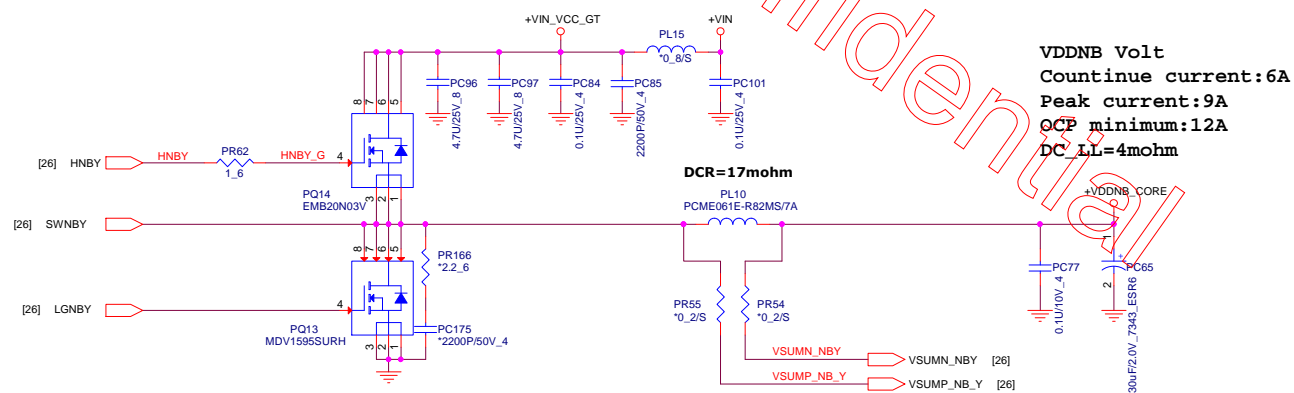
Sheet 25 of 31

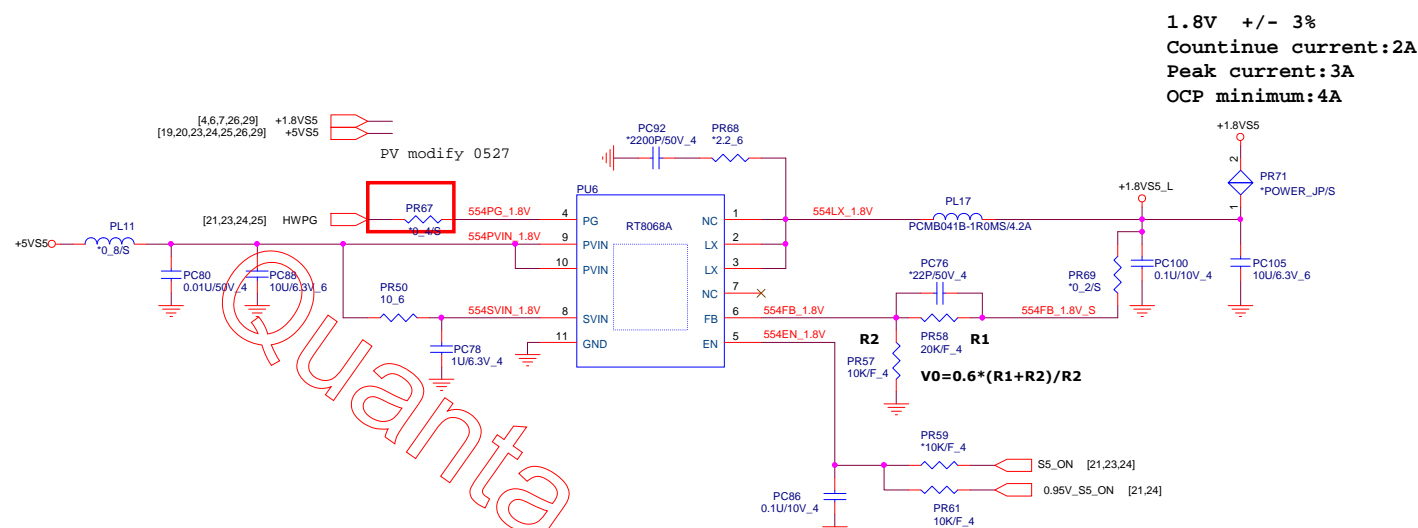




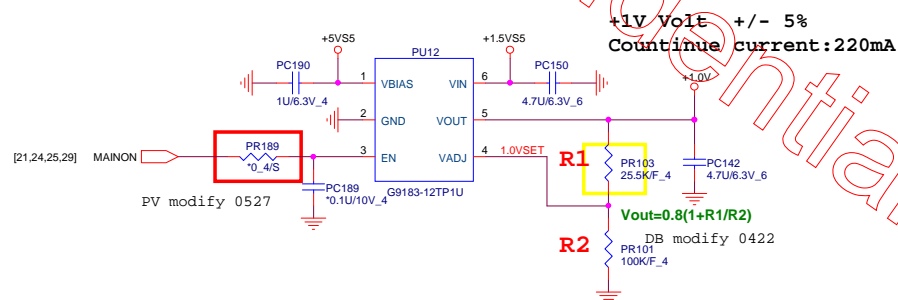


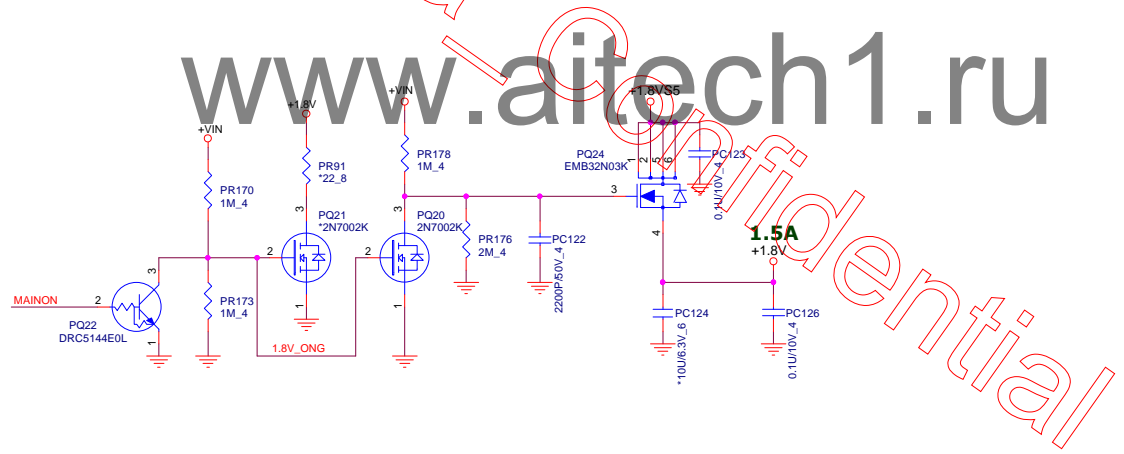
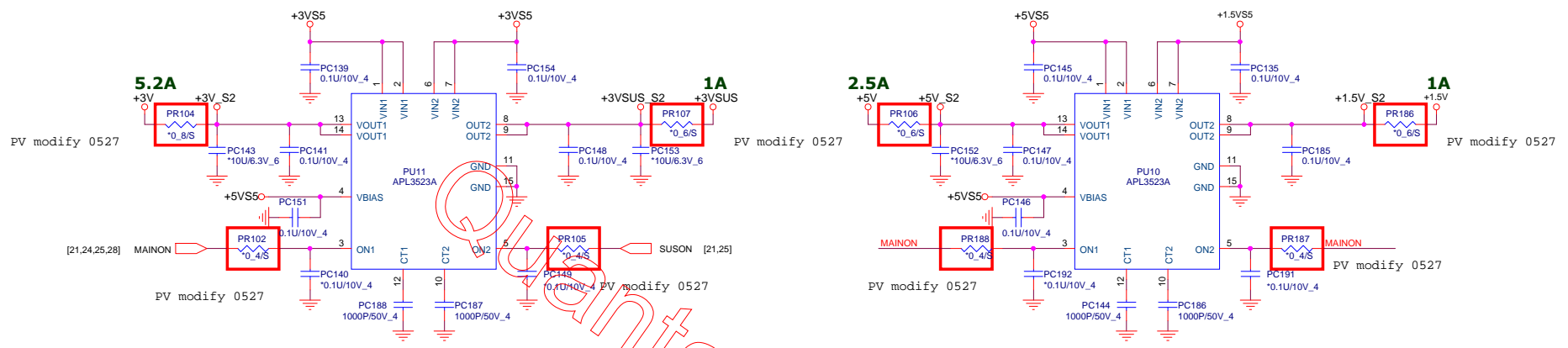
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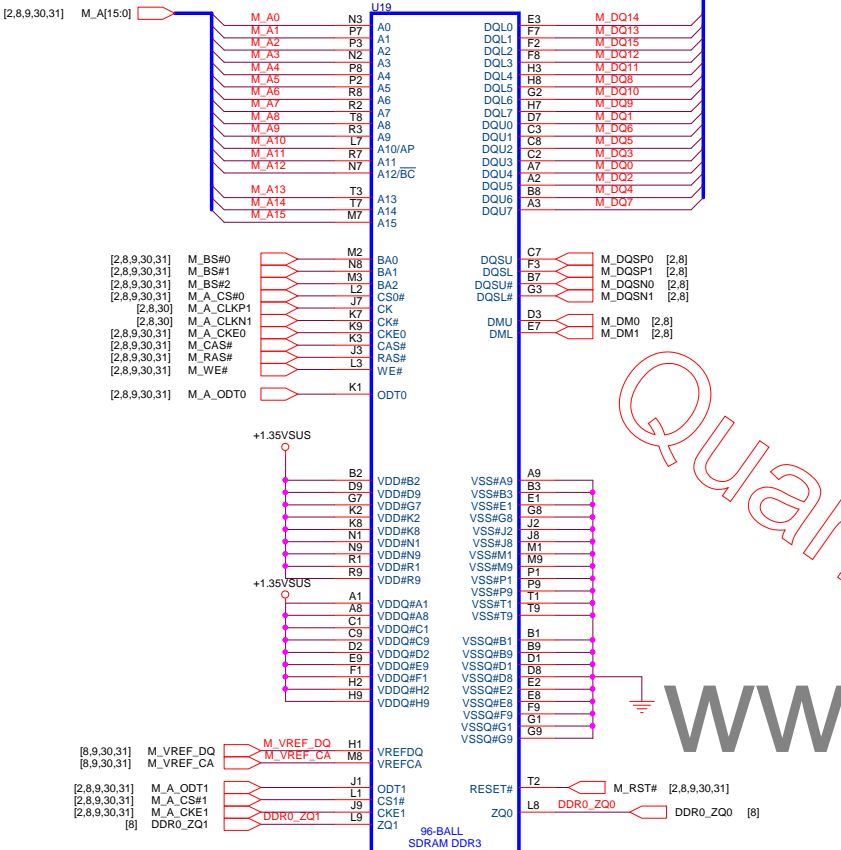




- +5V [14,15,16,17,18]
- +VIN [14,19,22,23,24,25,27]
- +1.5V [16]
- +1.8V [3,6,11,26]
- +3VS5 [4,5,6,7,18,19,20,21,23,24]
- +5VS5 [19,20,23,24,25,26,28]
- +VH28
- +VAD
- +3VSUS [19]
- +12VALW

9.0mm x 13.5mm & 10.0mm x 14.0mm

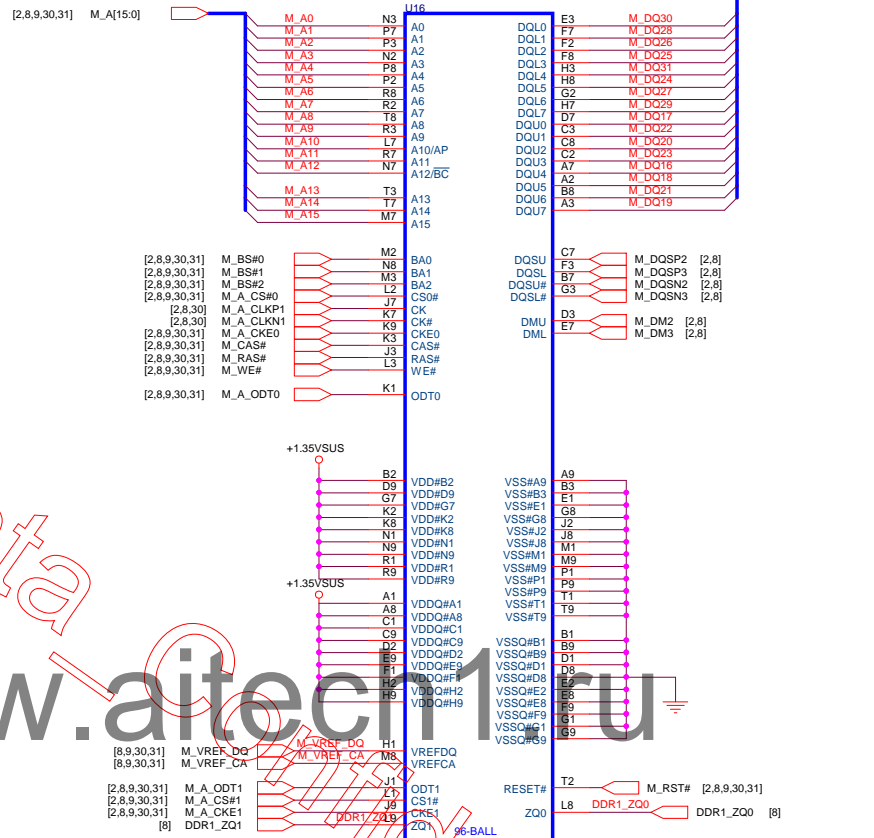
D0



\*Memory-Down\_DDRL3  
bga96-micron-mt41k512m16

9.0mm x 13.5mm & 10.0mm x 14.0mm

D1



\*Memory-Down\_DDRL3  
bga96-micron-mt41k512m16

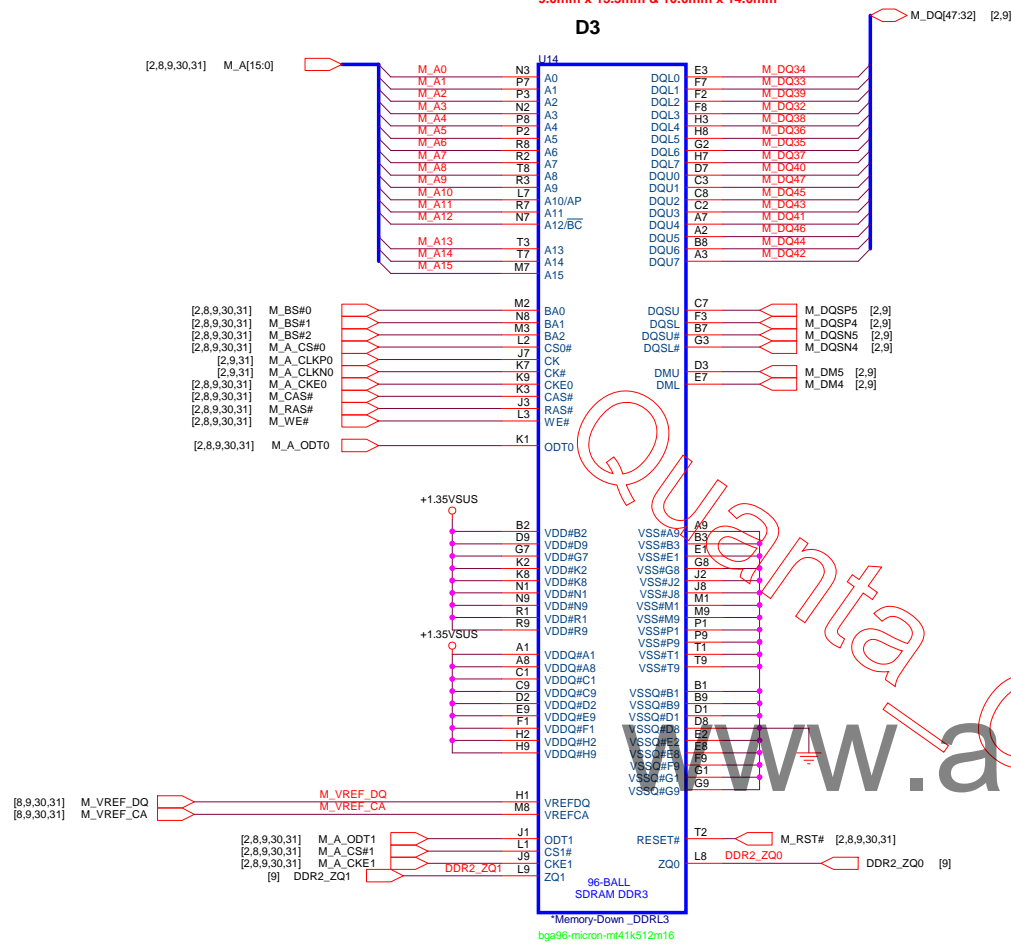


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Quanta Computer Inc.

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Custom	MEMORY colay(A)	1A
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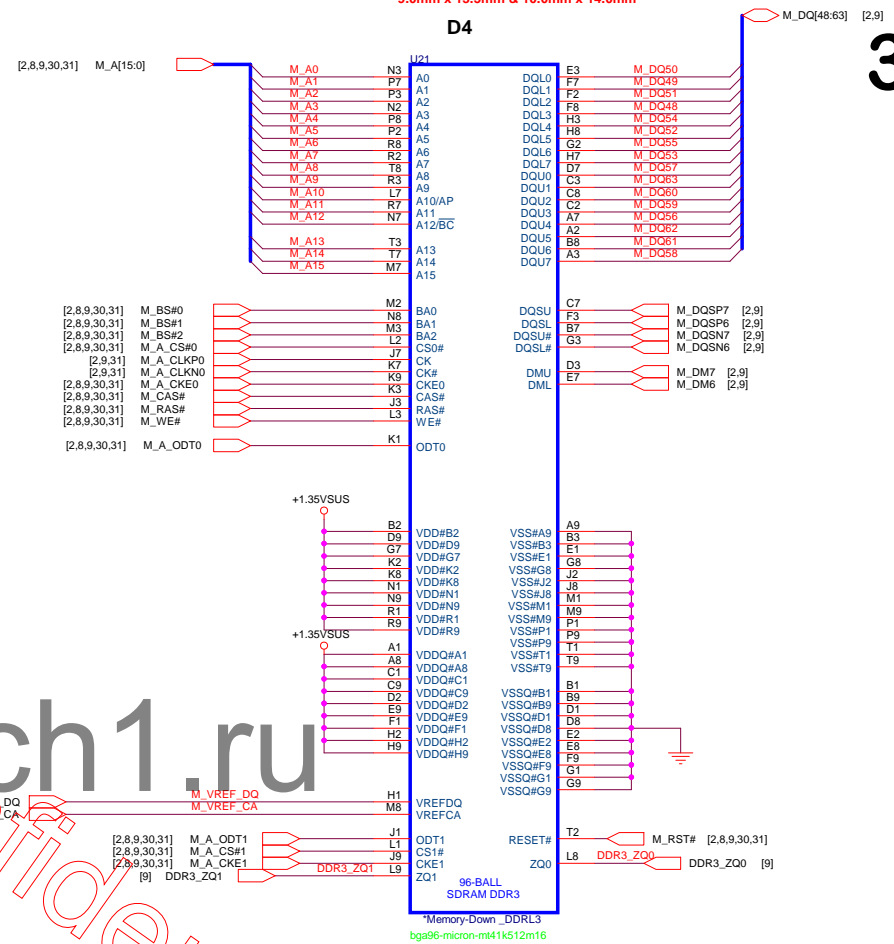
9.0mm x 13.5mm &amp; 10.0mm x 14.0mm

D3



9.0mm x 13.5mm &amp; 10.0mm x 14.0mm

D4



33



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Date: Thursday, May 29, 2014 Sheet 31 of 31