

Model Name:G1.SNIPER A88X

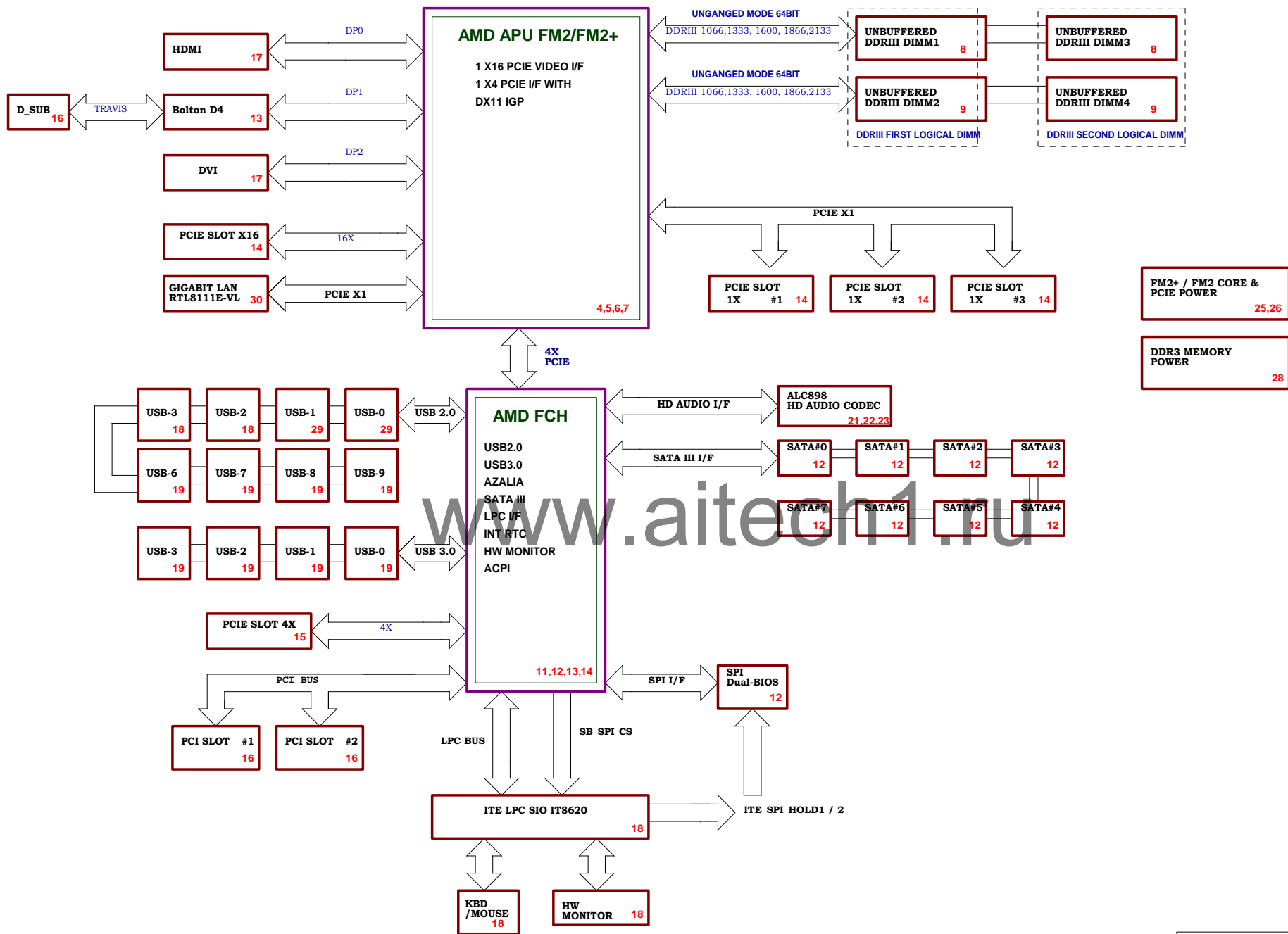
Component value change history

Version: 3.01
P-Code: U13061-0
Tip/Top : 9MG1SNP88-00

[illegible]

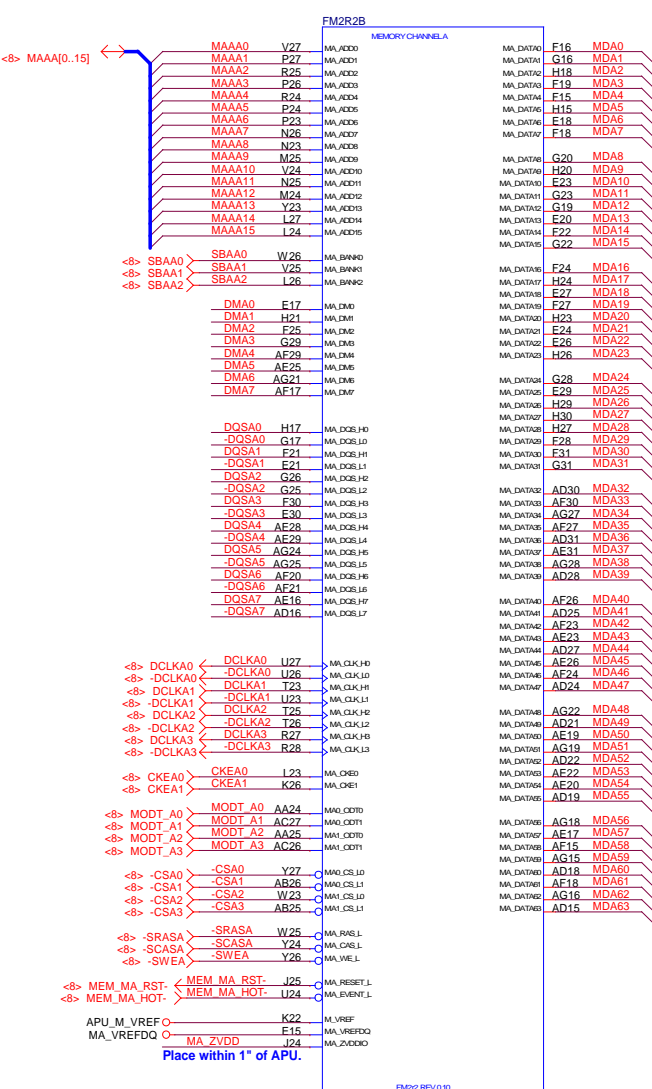
Circuit or PCB layout change for next version

[illegible]



GIGABYTE

Title			
BLOCK DIAGRAM			
Size	Document Number	Rev	
Custom	G1.SNIPER A88X	3.01	
Date:	Thursday, August 29, 2013	Sheet	3 of 30

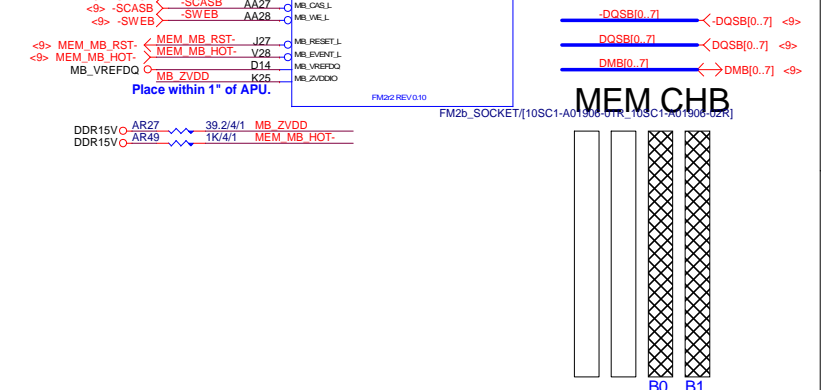
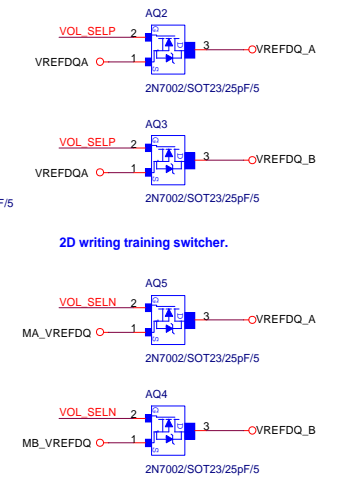
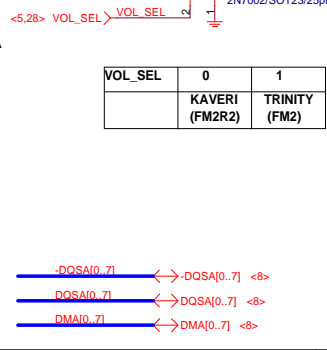
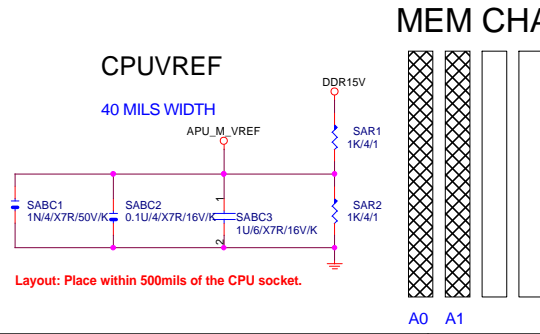
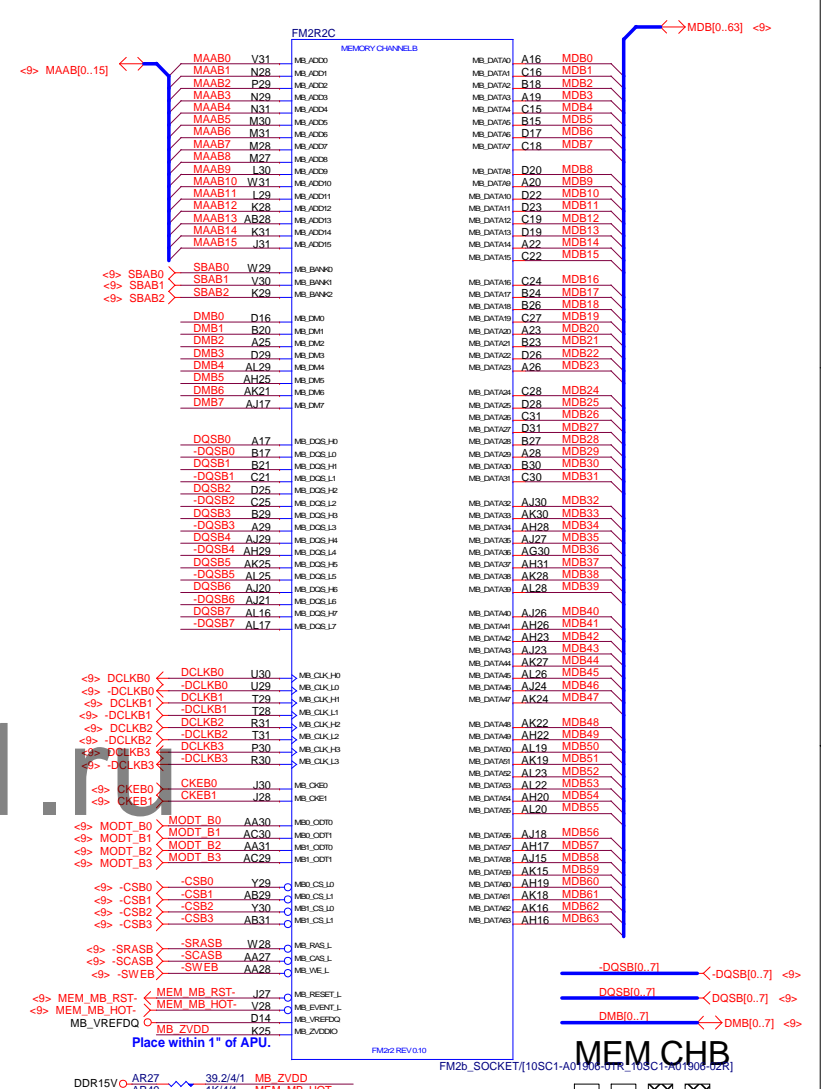


FM2 DDR Layout Guide Ver:1.0

	Impedance	4L-1080-20Z
Clocks	72 ohm	20/7.5/5/7.5/20
ADDR, CMD, Control	40 ohm	7 mil
DQS	90 ohm	20/5/6/5/20
DATA, DM	40 ohm	7 mil
Others	40-60 ohm	7 mil

FM2 DDR Layout Guide Ver:1.01

	Impedance	4L-1080-20Z
Clocks	72 ohm	20/8/5/8/20
ADDR, CMD, Control	40 ohm	8 mil
DQS	90 ohm	20/4.5/7.5/4.5/20
DATA, DM	40 ohm	7 mil
Others	40-60 ohm	4 mil

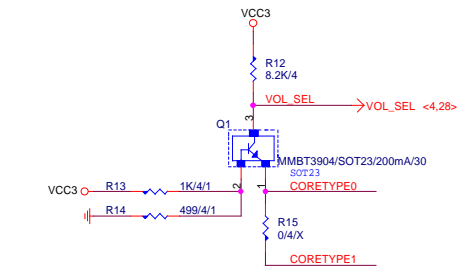
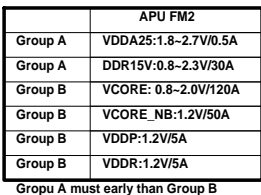
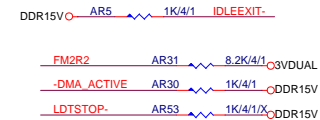
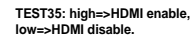
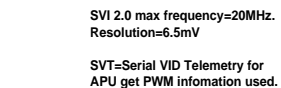


GIGABYTE

Title: **CPU DDRIII**

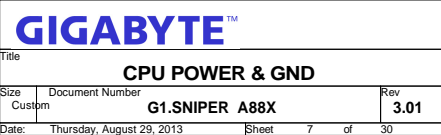
Size: Custom Document Number: **G1.SNIPER A88X** Rev: **3.01**

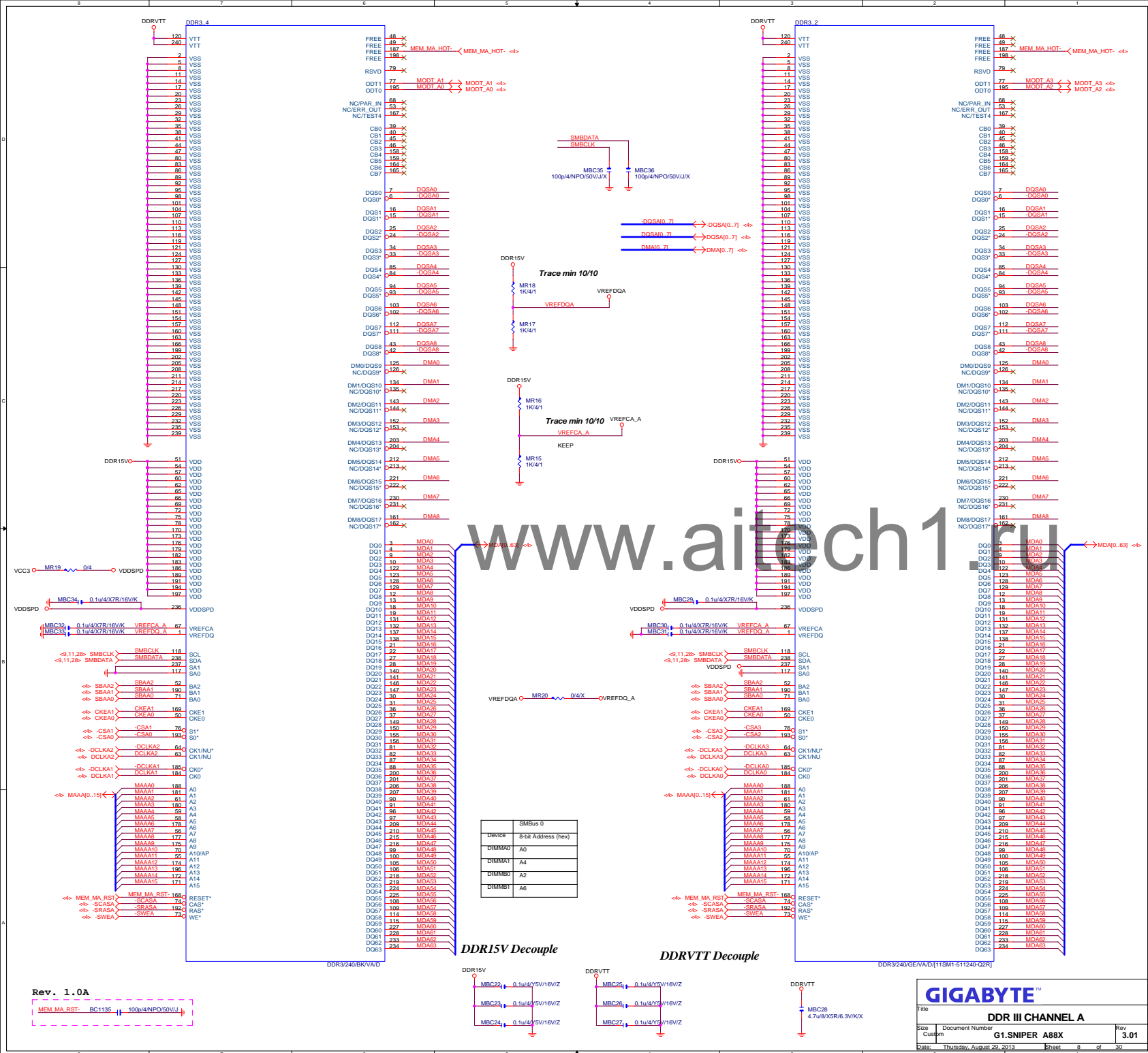
Date: Thursday, August 29, 2013 Sheet: 4 of 34

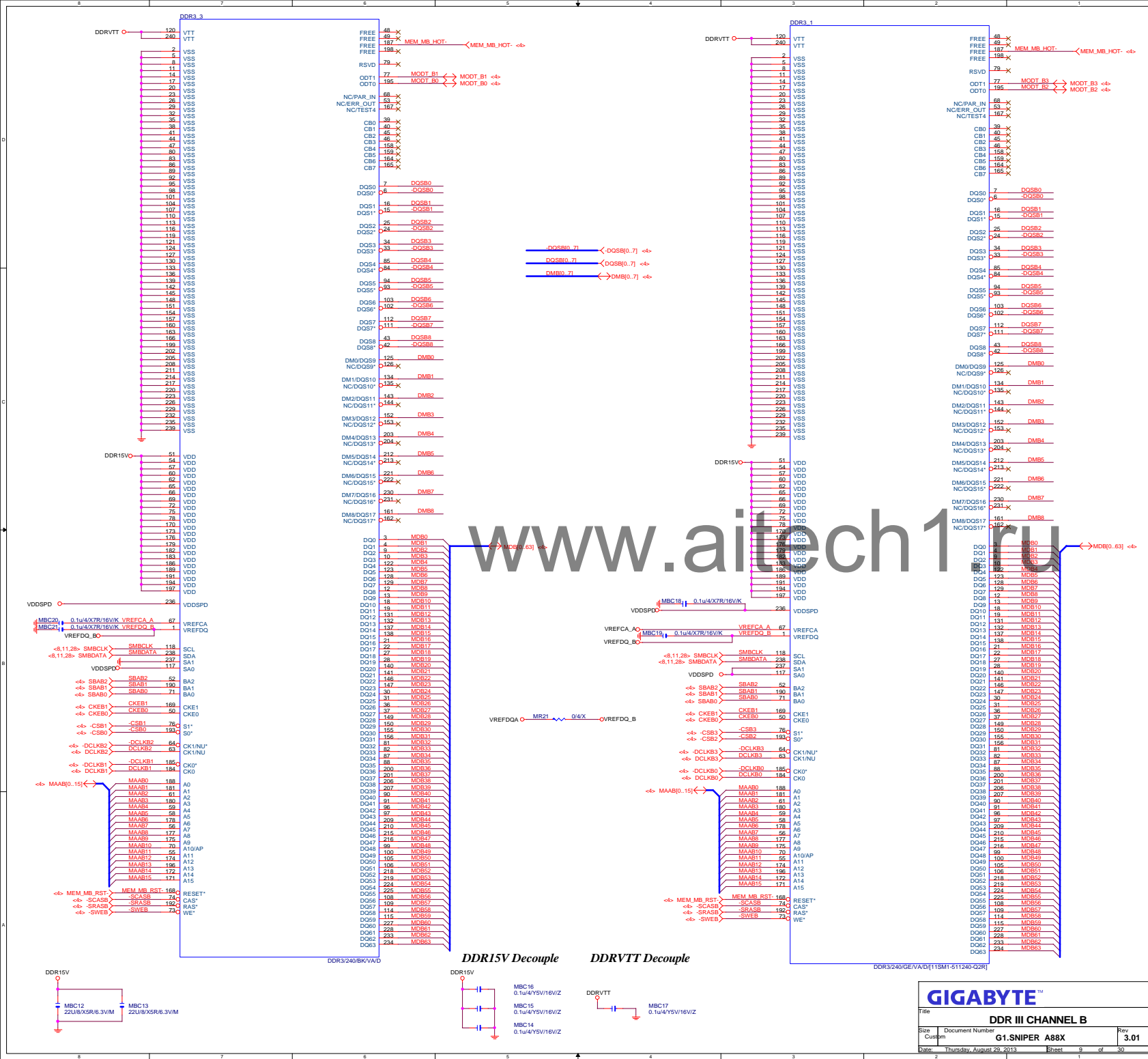


APU	CORETYPE0	CORETYPE1
TRINITY	1	1
KAVERI	0	1
TBD	1	0
TBD	0	0

VOL_SEL	0	1
	KAVERI (FM2R2)	TRINITY (FM2)



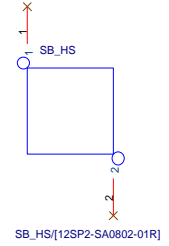




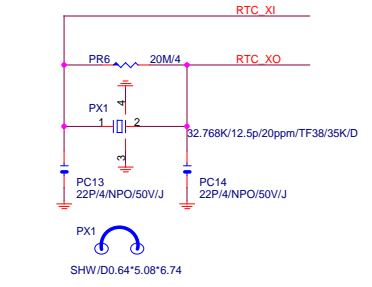


PLACE THESE PCIE AC COUPLING CAPS CLOSE TO SB850

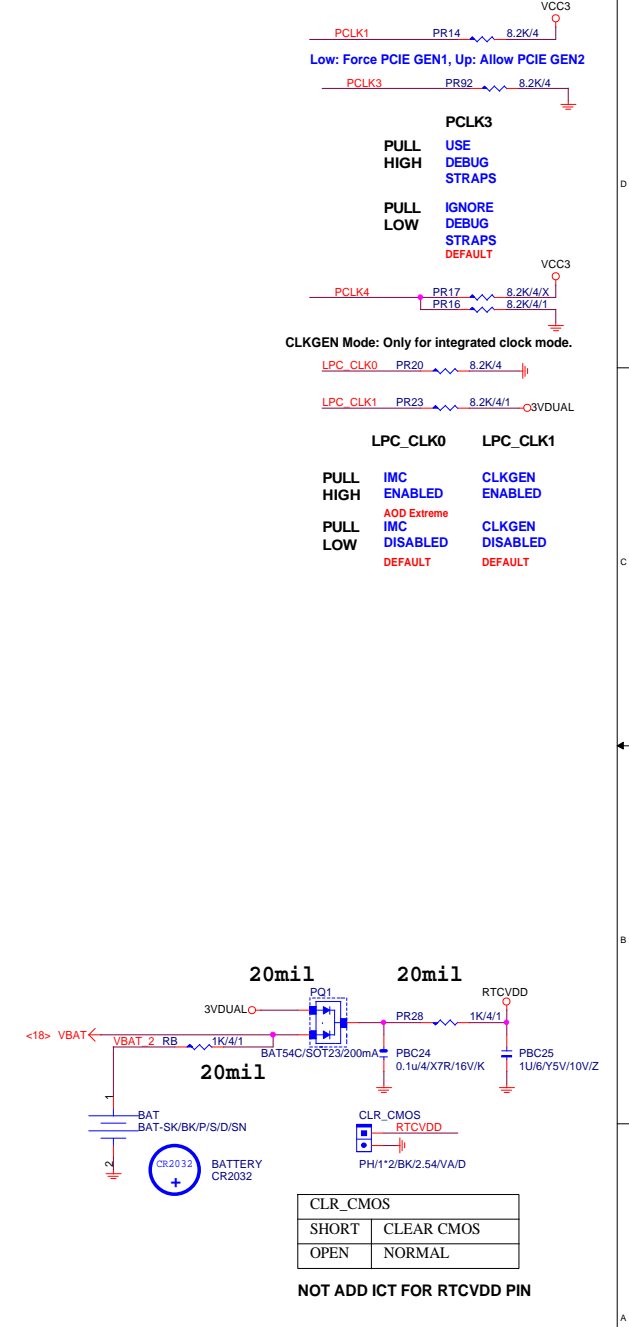
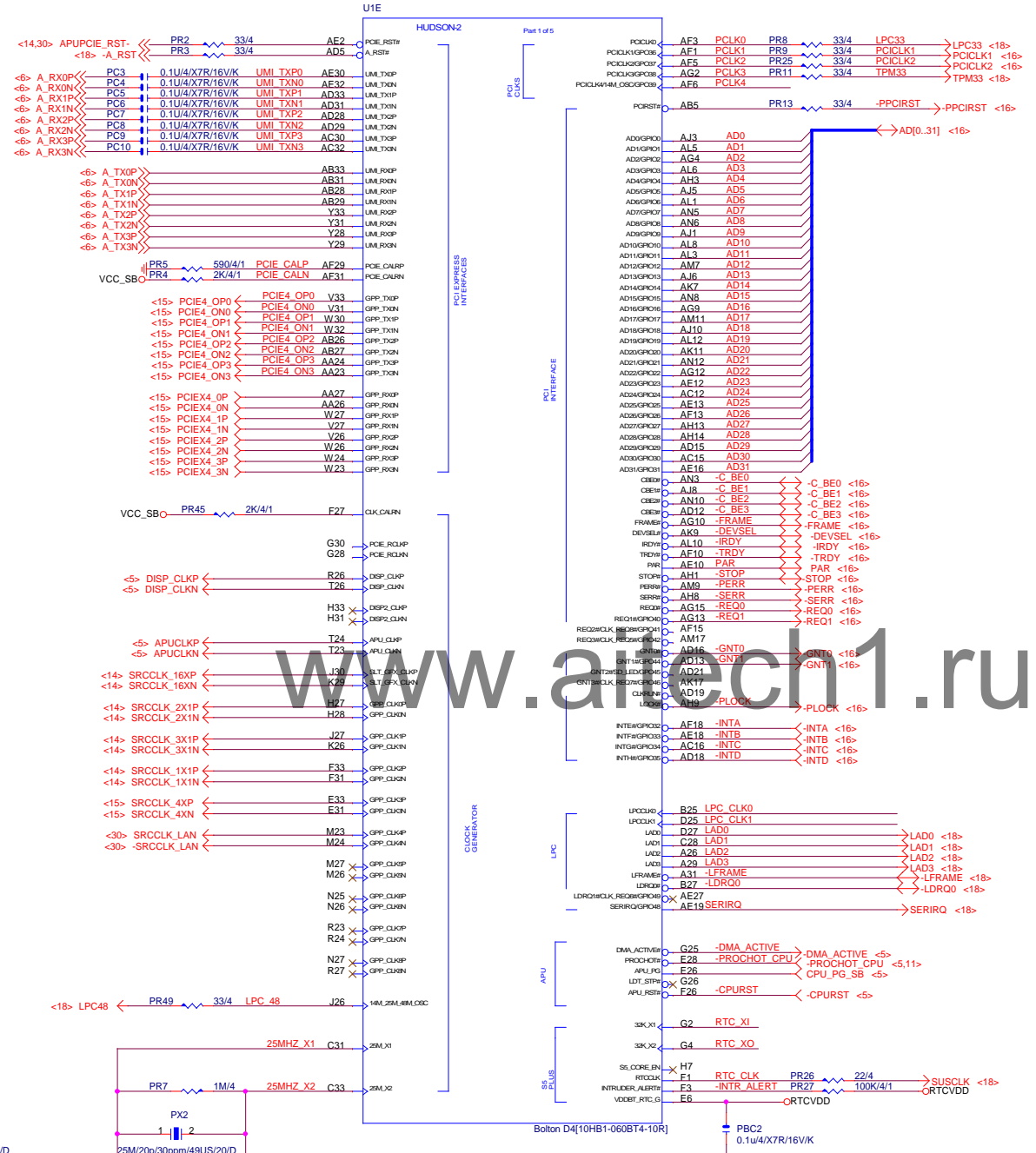
S.B HEATSINK



SB_HS[12SP2-SA0802-01R]



SHW/D0.64*5.08*6.74



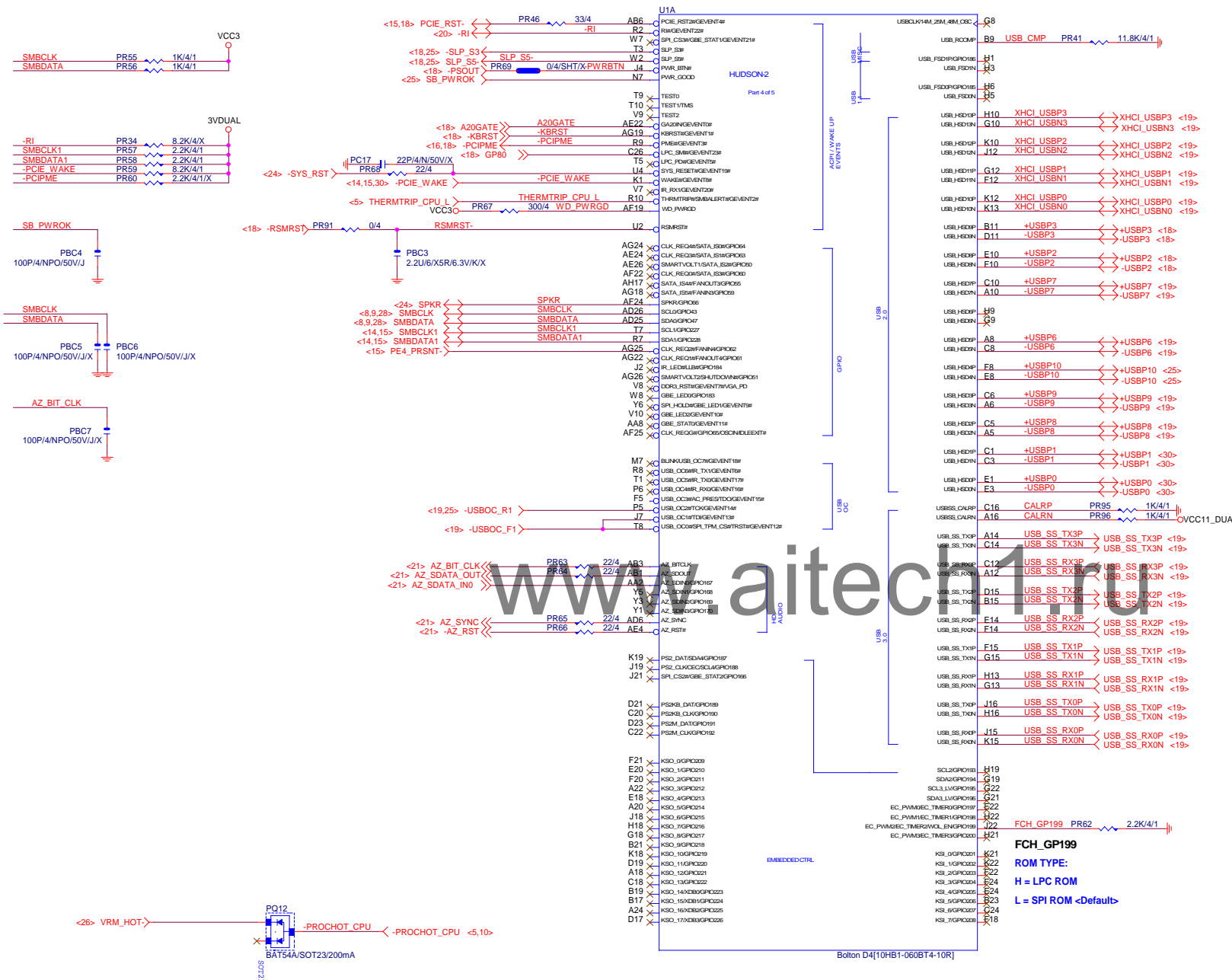
GIGABYTE™

BOLTON D4 PCIE/PCI/CPU/LPC

Size	Document Number	Rev
Custm	G1.SNIPER A88X	3.01

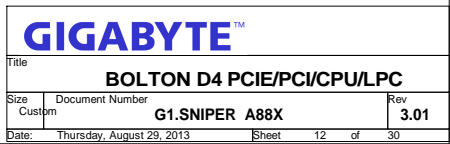
Date:	Thursday, August 29, 2013	Sheet	10	of	30
-------	---------------------------	-------	----	----	----

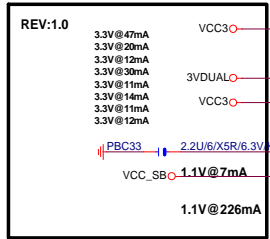
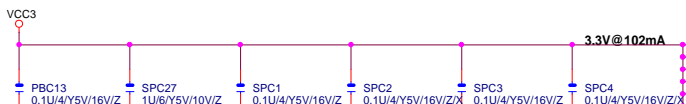
www.aiotech1.ru




USB11	FRONT PANEL
USB10	FRONT PANEL
USB9	FRONT PANEL
USB8	FRONT PANEL
USB7	FRONT PANEL
USB6	FRONT PANEL
USB5	FRONT PANEL
USB4	FRONT PANEL
USB3	REAR PANEL
USB2	REAR PANEL
USB1	REAR PANEL
USB0	REAR PANEL

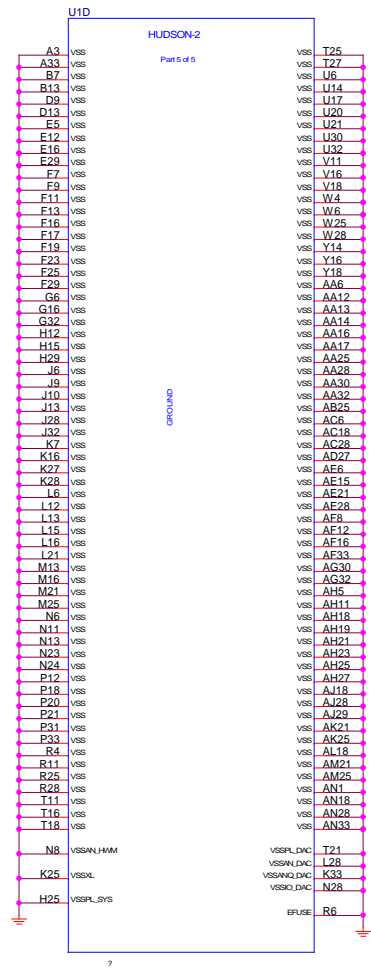
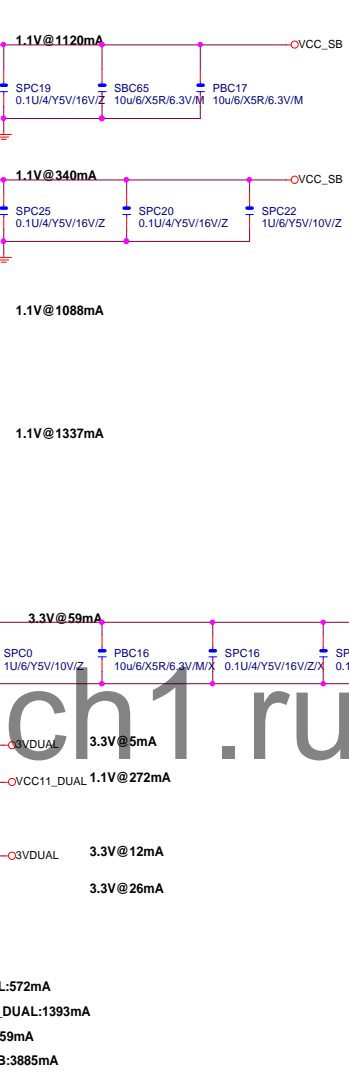
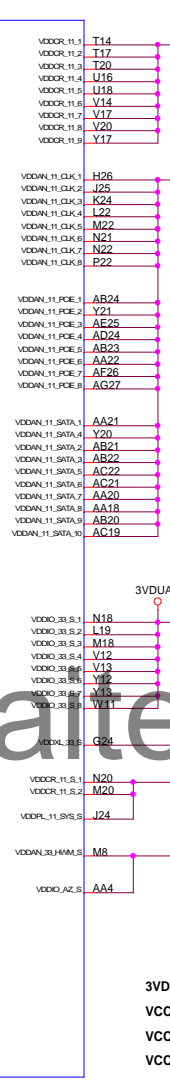
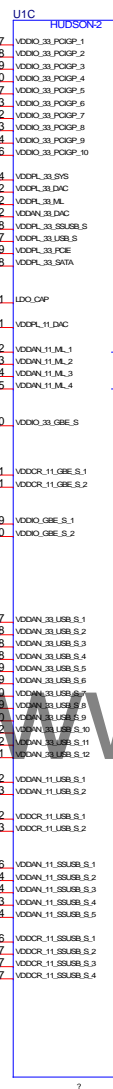
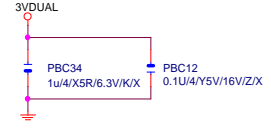
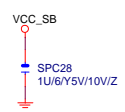
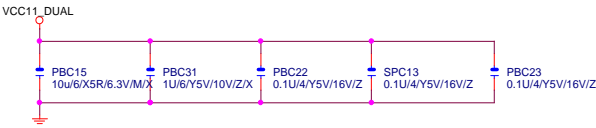
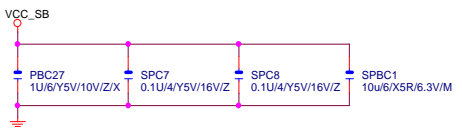
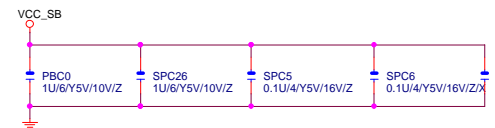
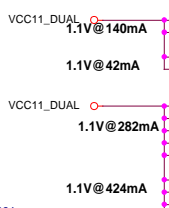
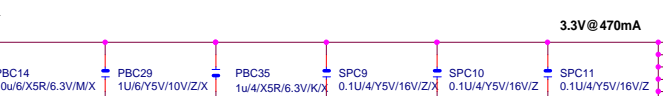
either HWM inputs or PWR_GD signals can be used for power-up sequencer

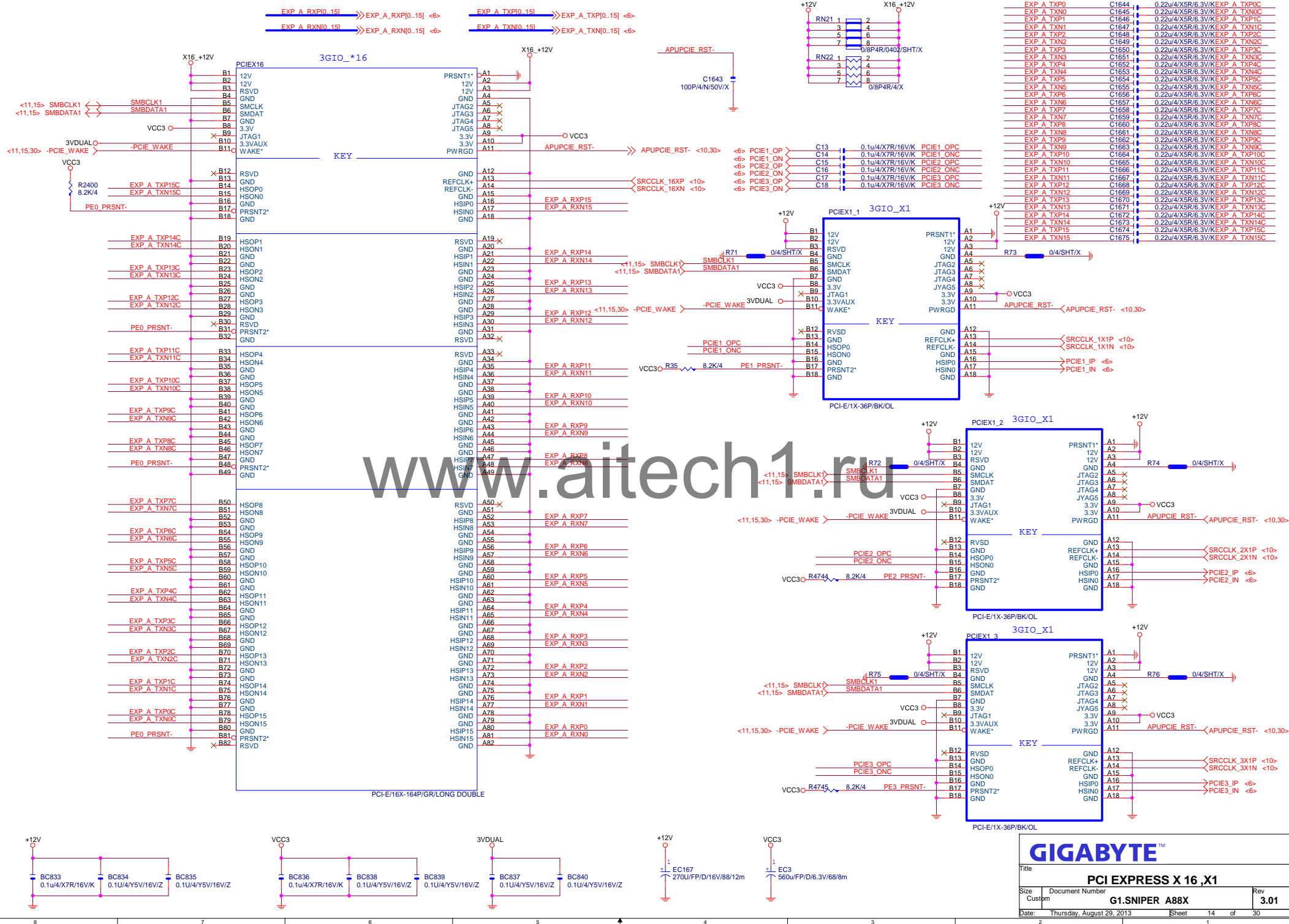


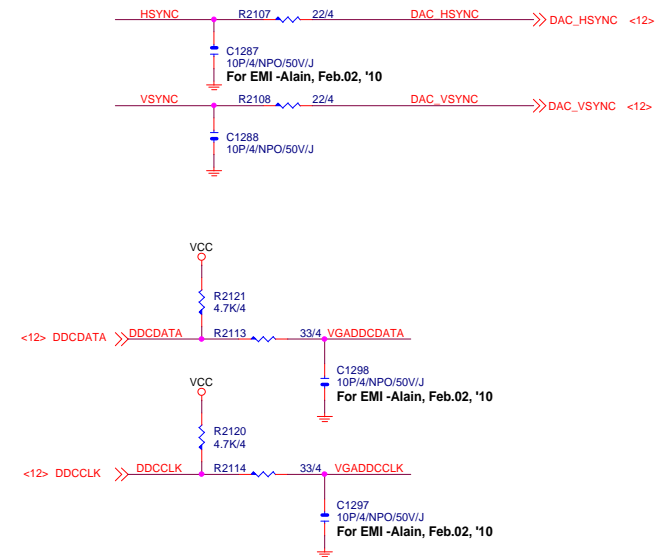
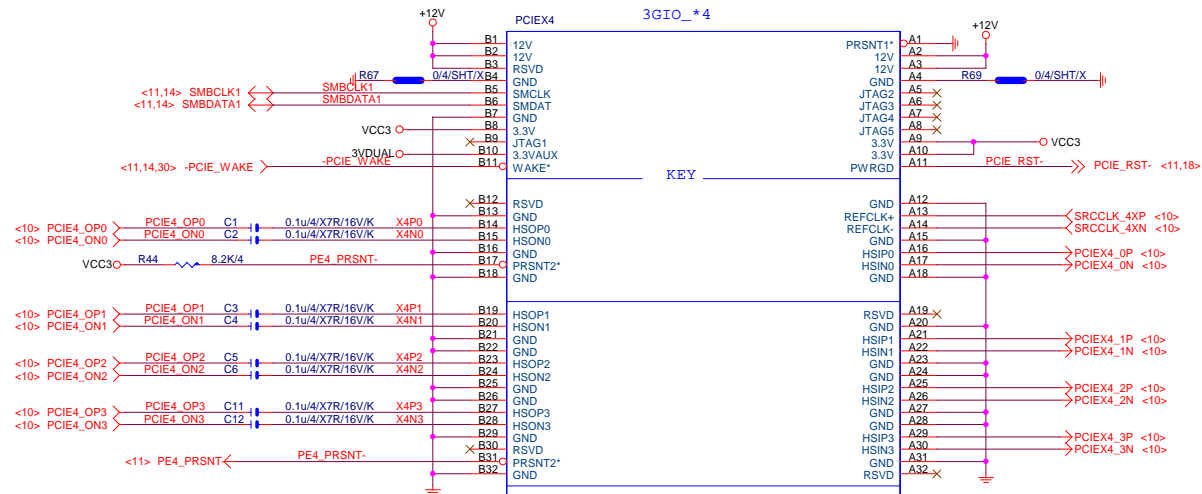


 **PLACE ALL THE DECOUPLING CAPS ON THIS SHEET CLOSE TO SB AS POSSIBLE.**

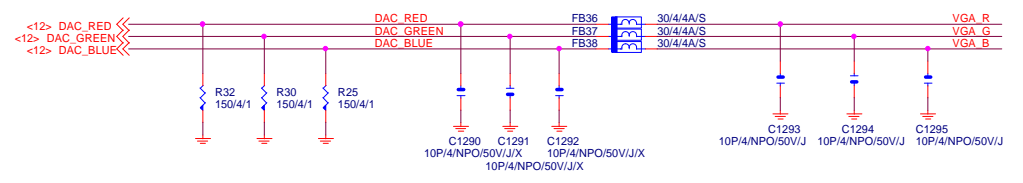
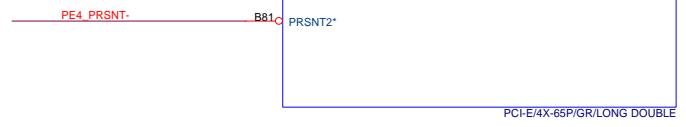
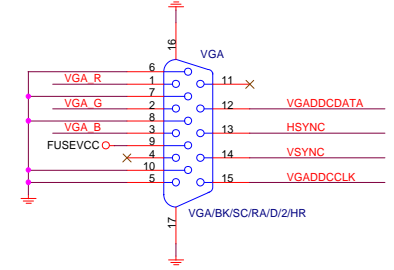
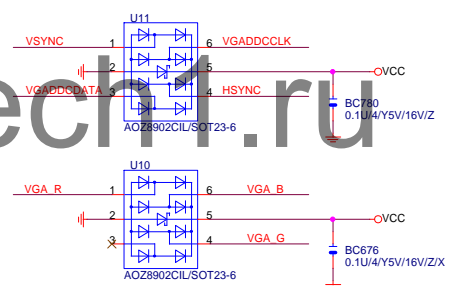
Hudson 3/4 does not support an RGMII/MII interface.

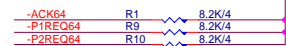
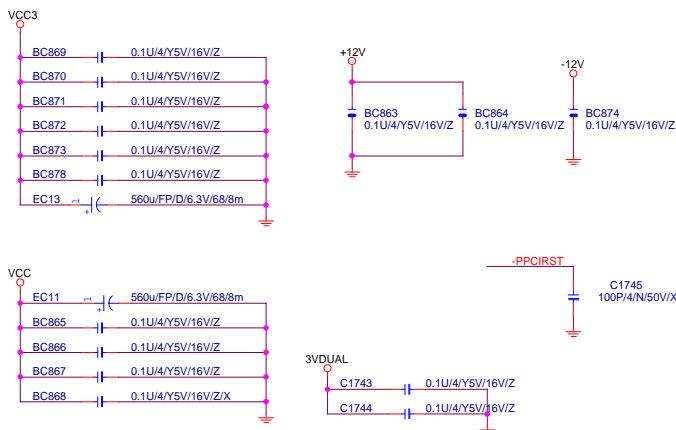


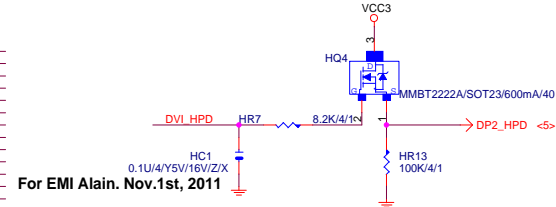
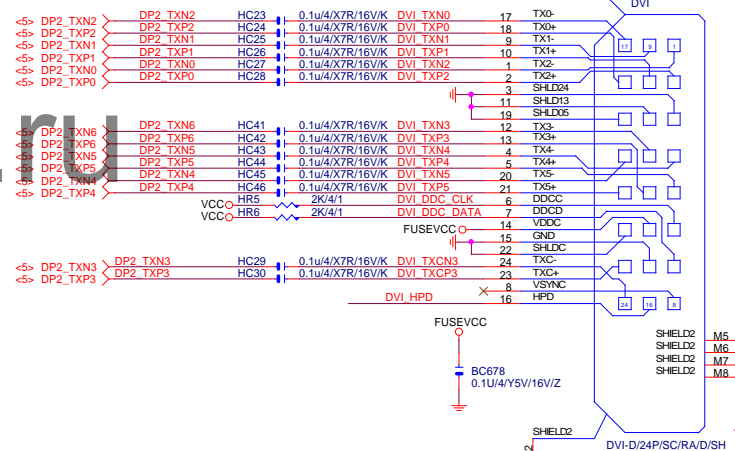
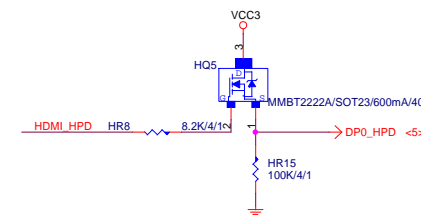


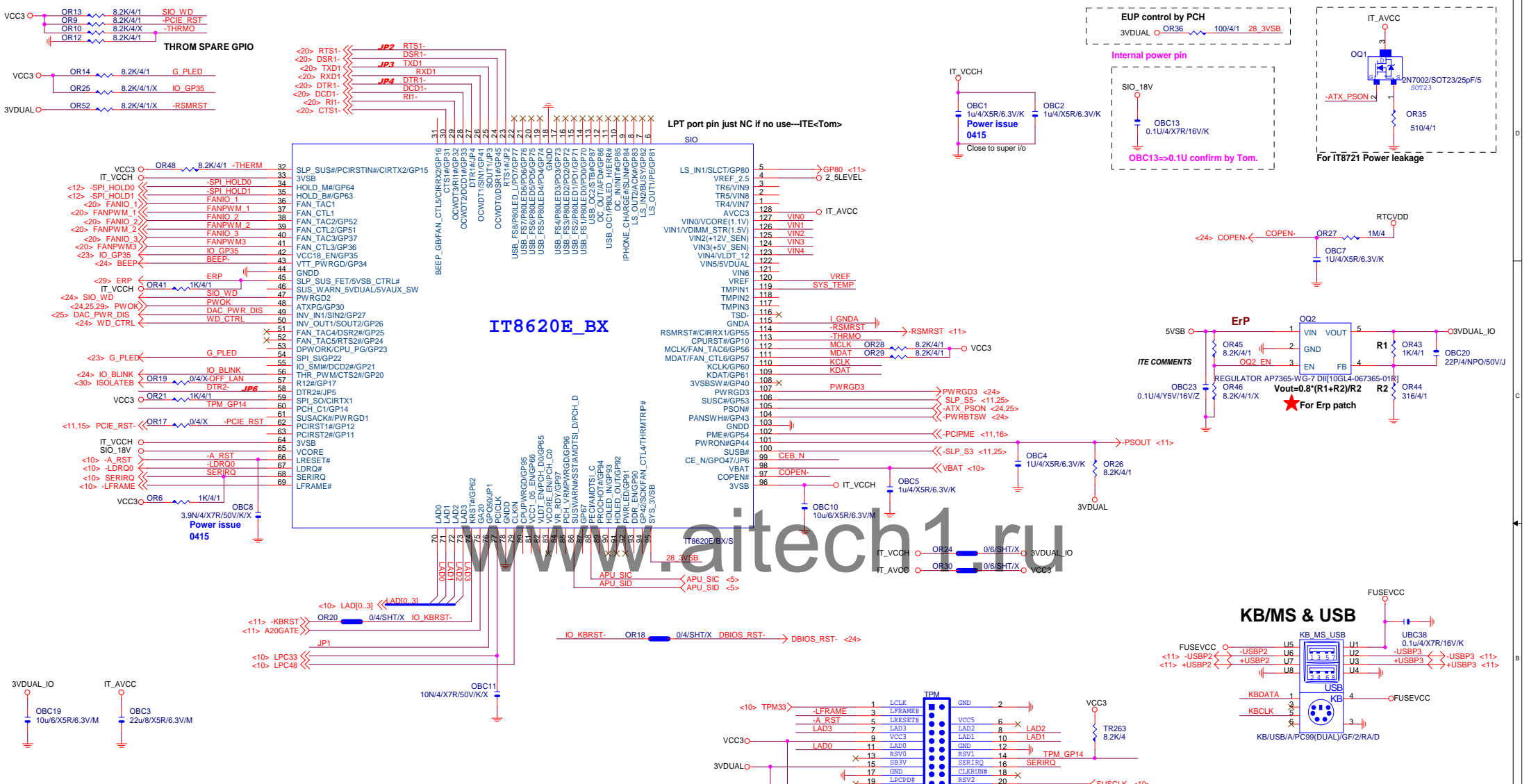


www.aitech1.ru

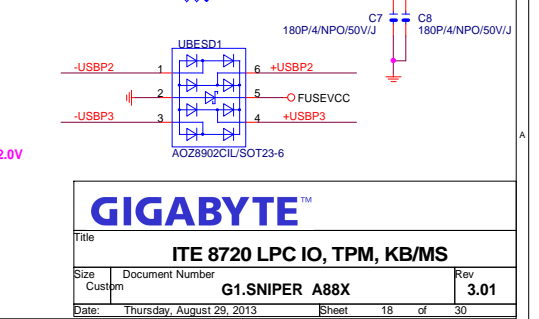
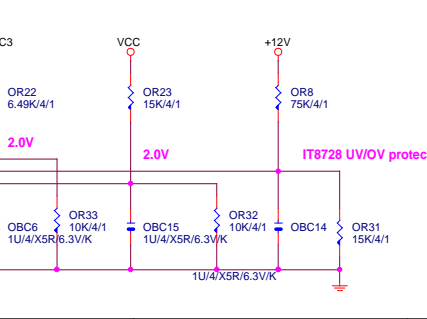
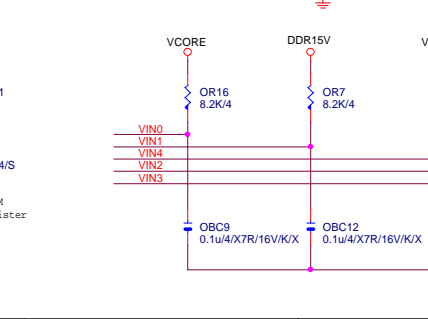
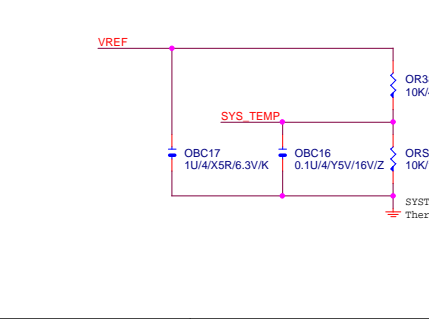
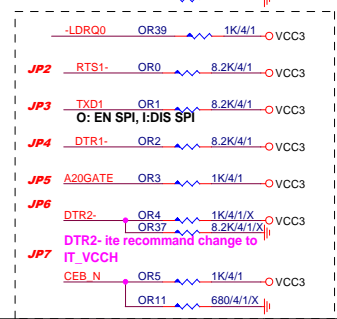








Hardware Monitor circuits

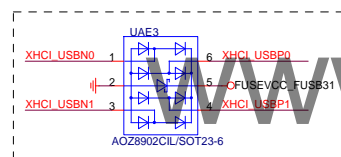
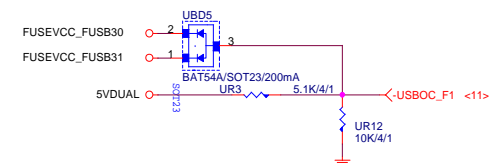
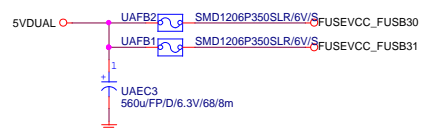
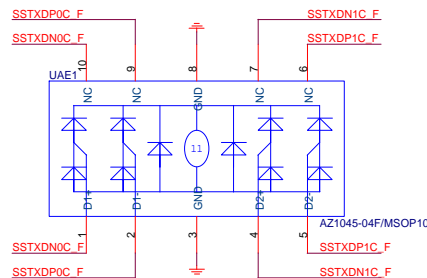
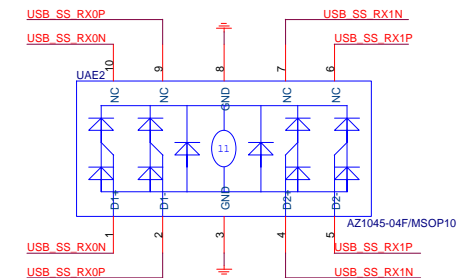
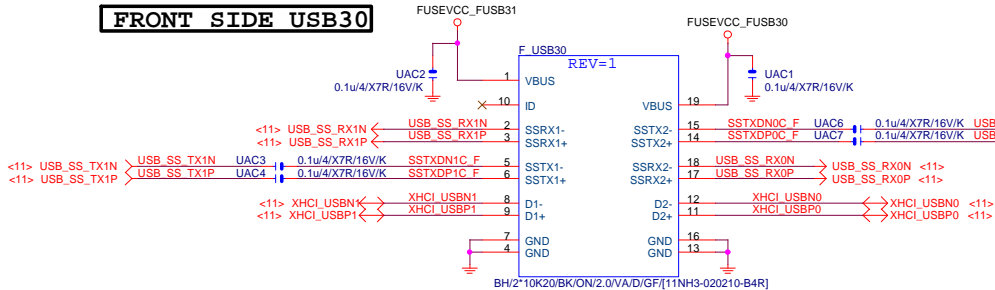


GIGABYTE™

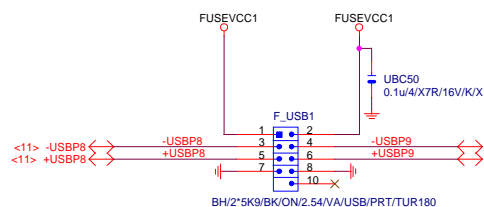
ITE 8720 LPC IO, TPM, KB/MS

Title	Document Number	Rev
	G1.SNIPER A88X	3.01
Size	Custom	
Date:	Thursday, August 29, 2013	Sheet 18 of 30

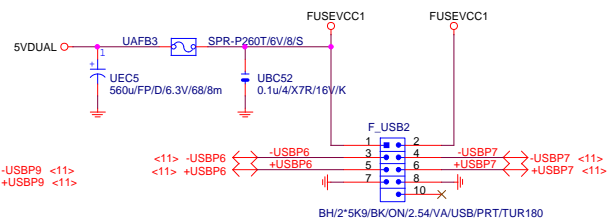
FRONT SIDE USB30



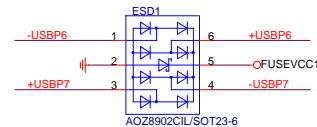
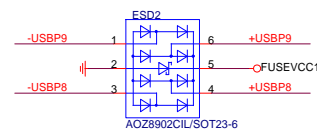
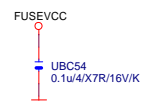
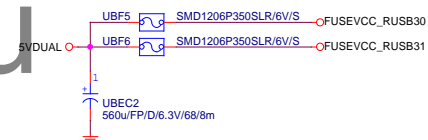
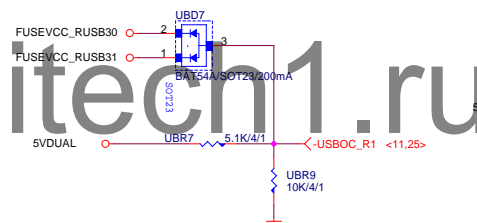
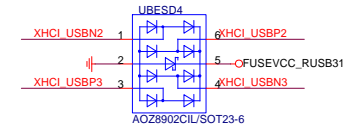
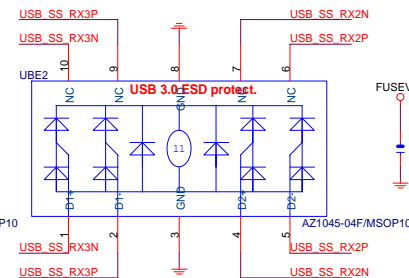
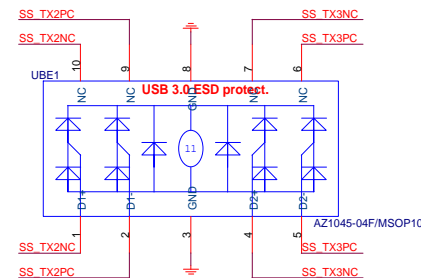
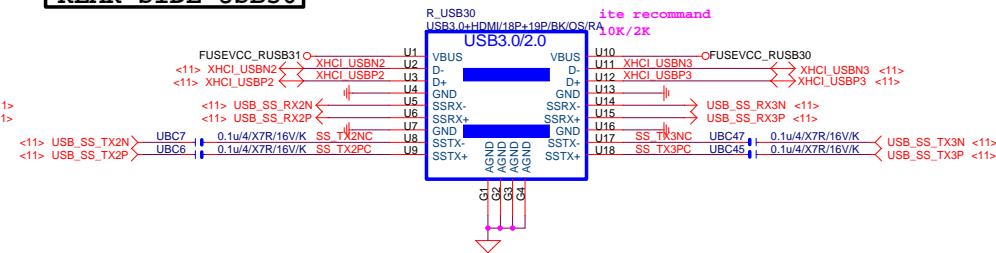
FRONT SIDE USB1



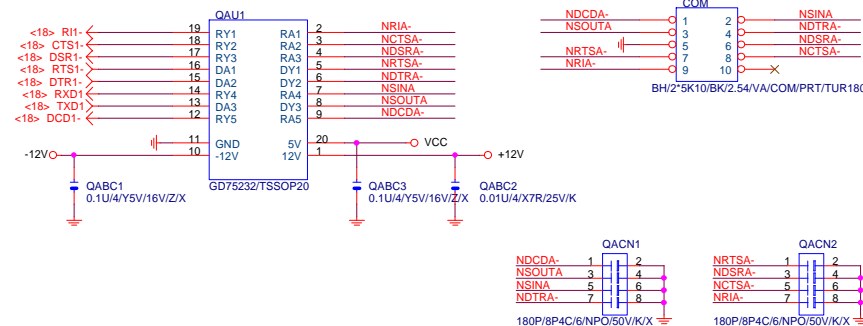
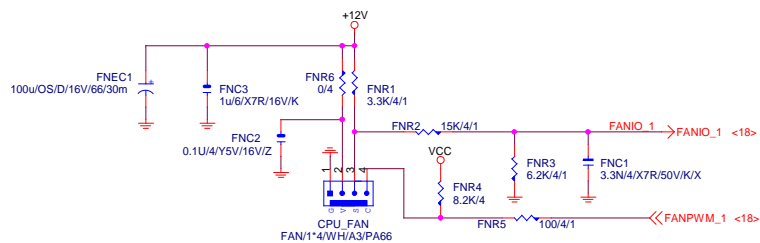
FRONT SIDE USB2



REAR SIDE USB30



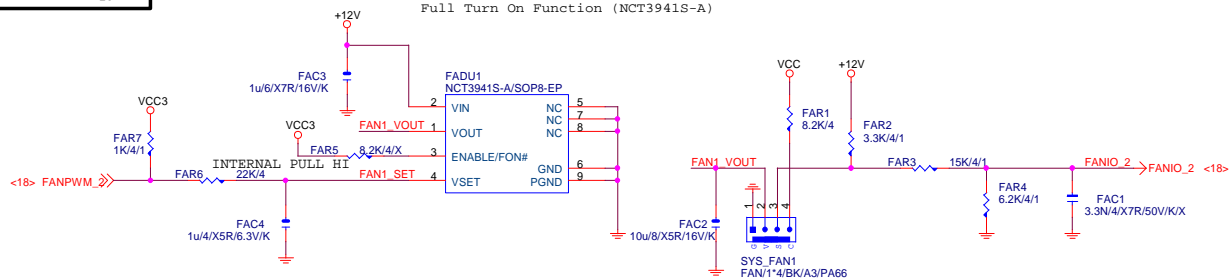
CPU SMART FAN



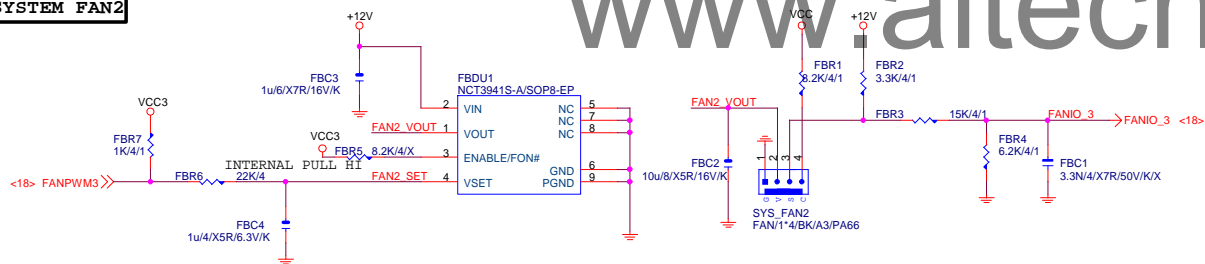
SYSTEM FAN1

Linear SYS_FAN

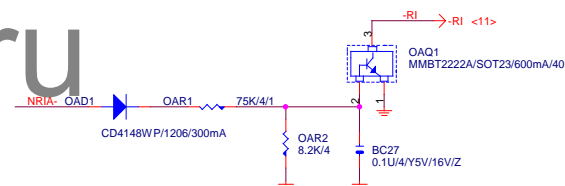
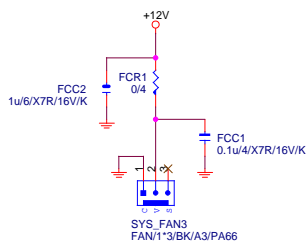
Enable Function (NCT3941S)
Full Turn On Function (NCT3941S-A)



SYSTEM FAN2



SYSTEM FAN3



www.aitech1.ru

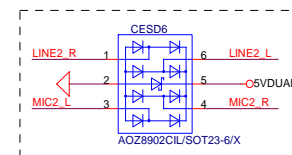
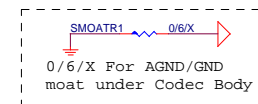
GIGABYTE

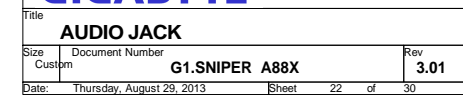
Title **FAN,HWMO, COM**

Size Custom Document Number **G1.SNIPER A88X**

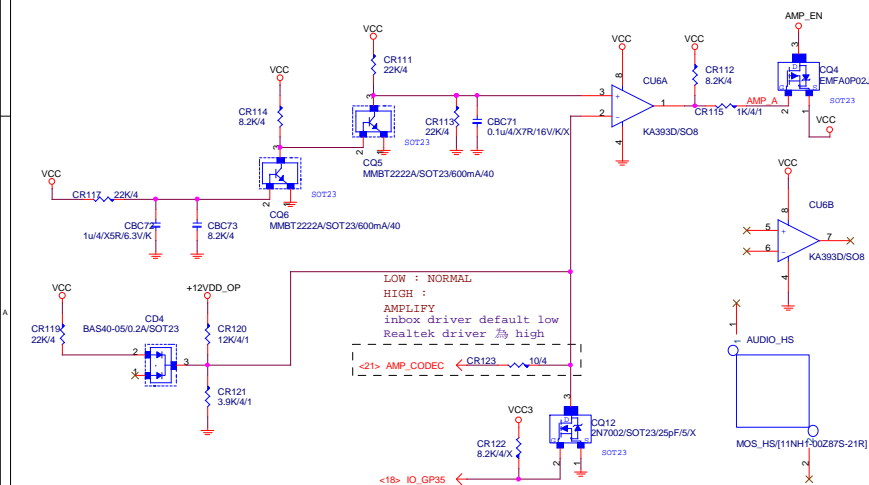
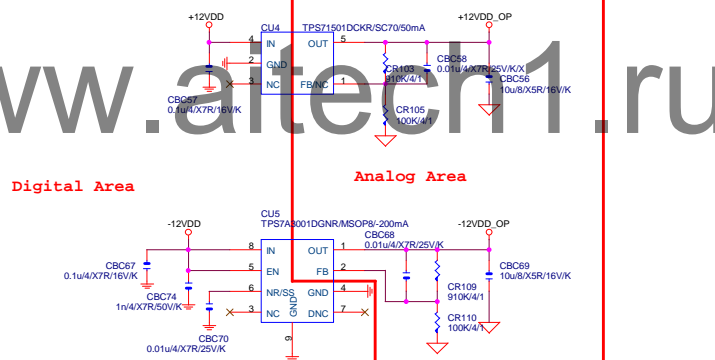
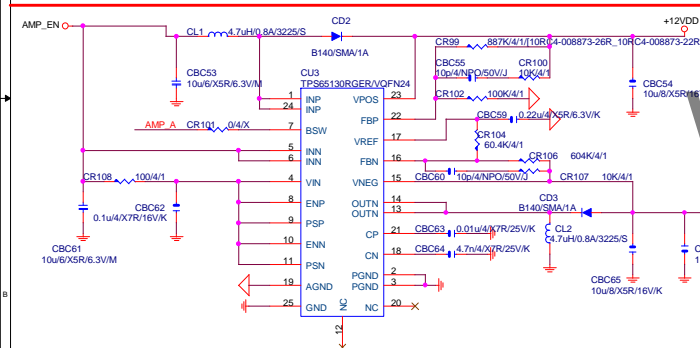
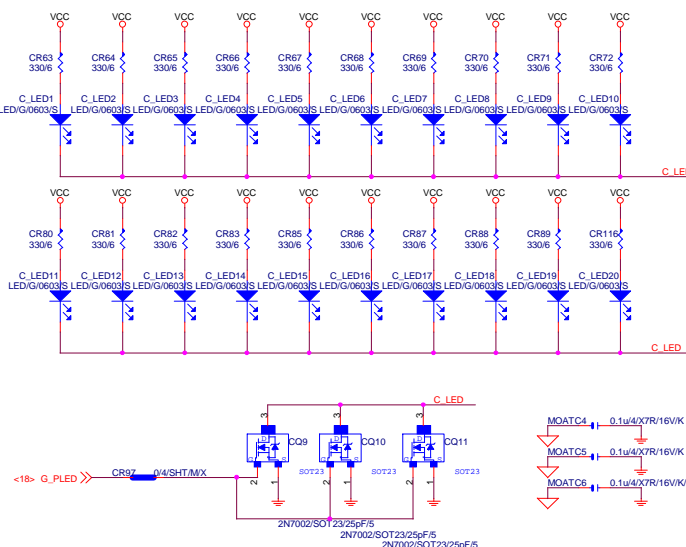
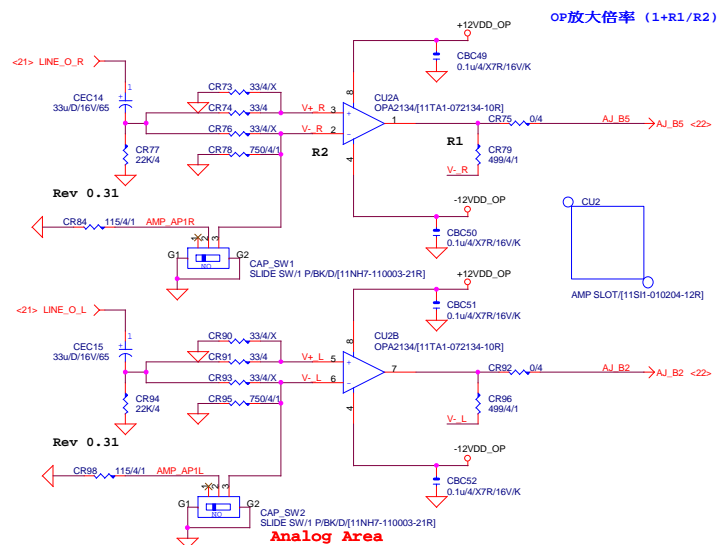
Date: Thursday, August 29, 2013 Sheet 20 of 30

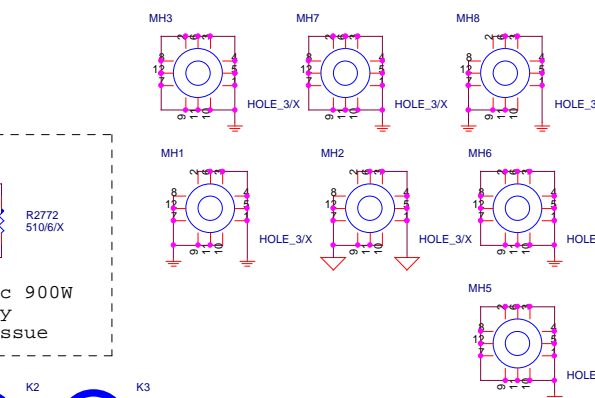
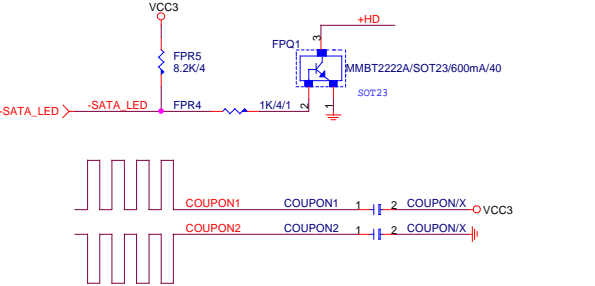
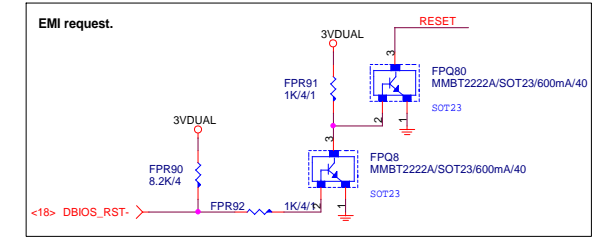
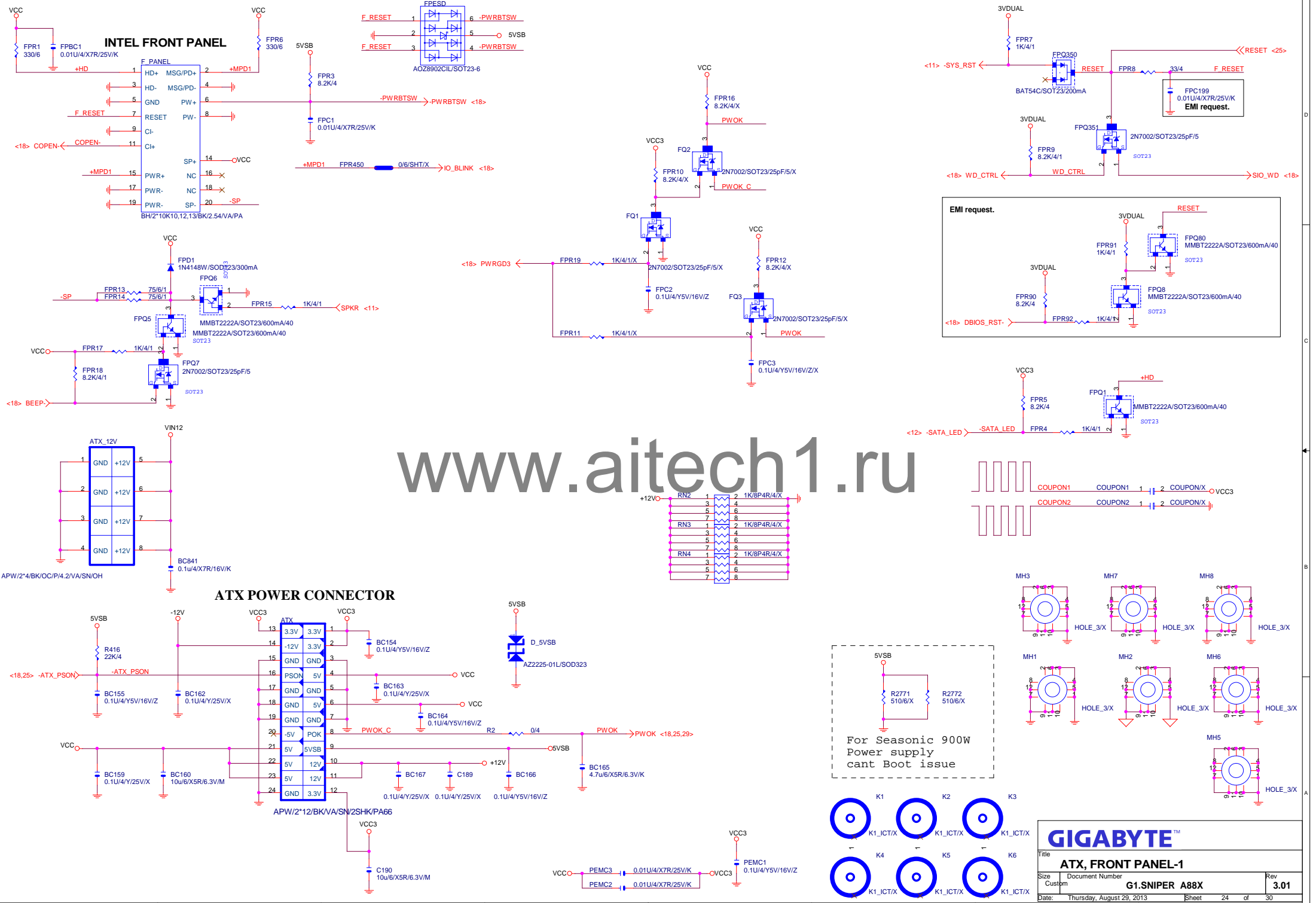
Rev **3.01**



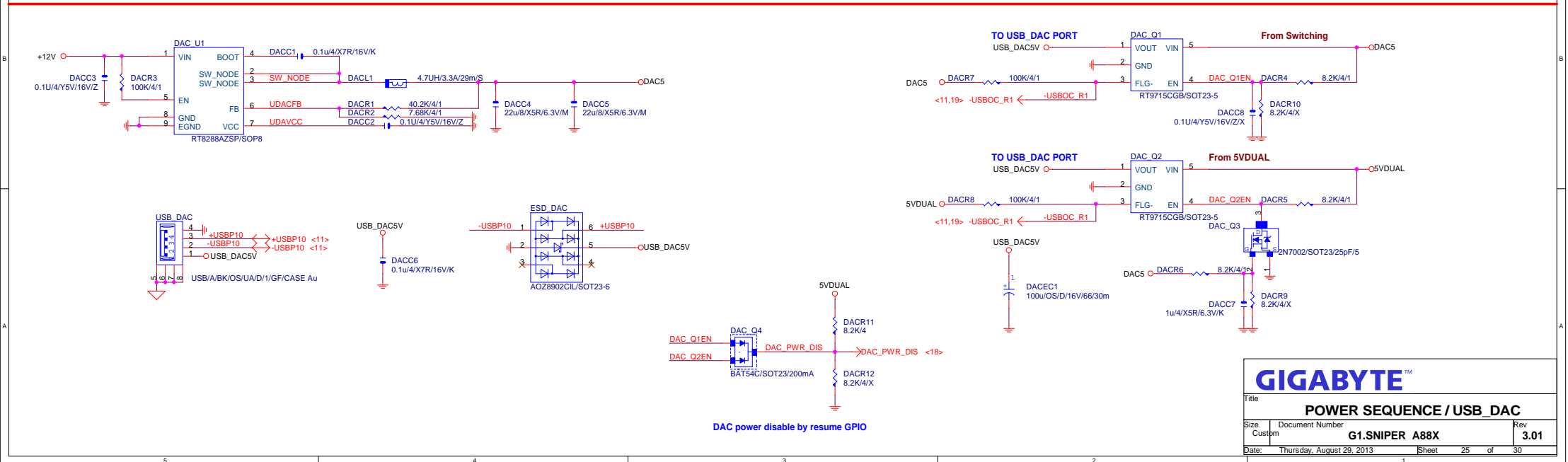
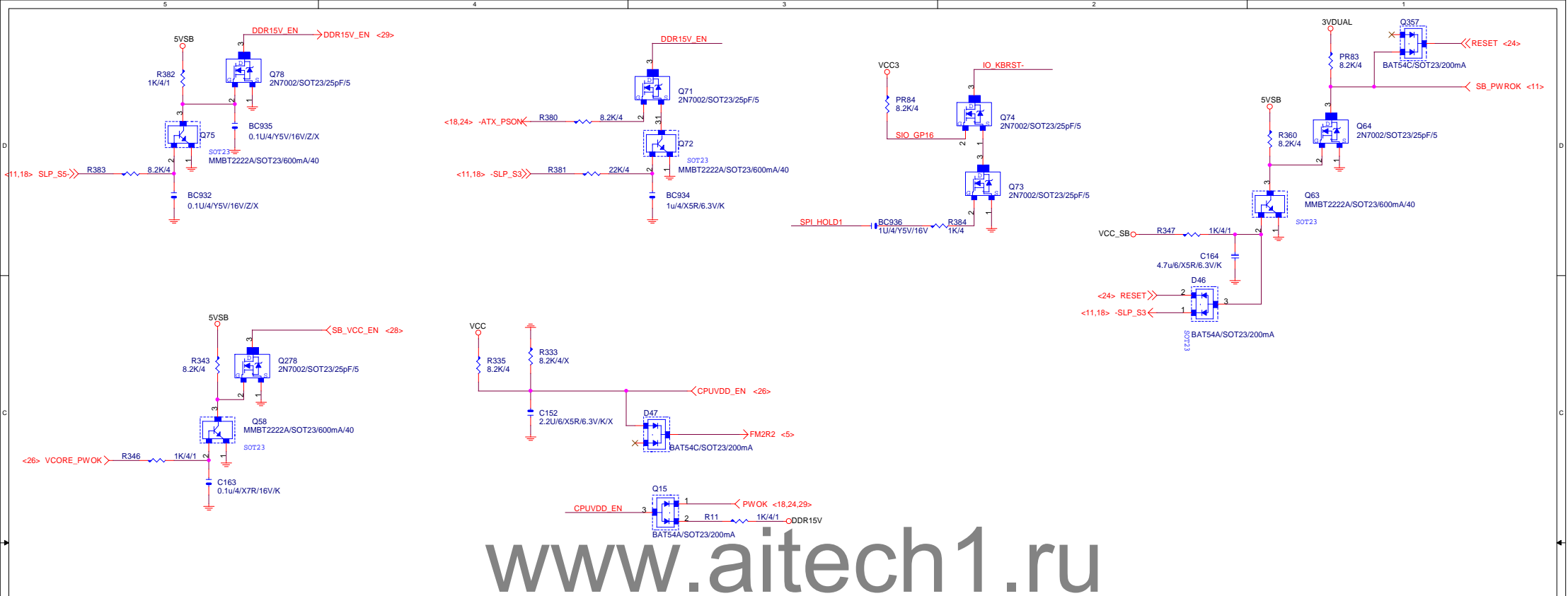


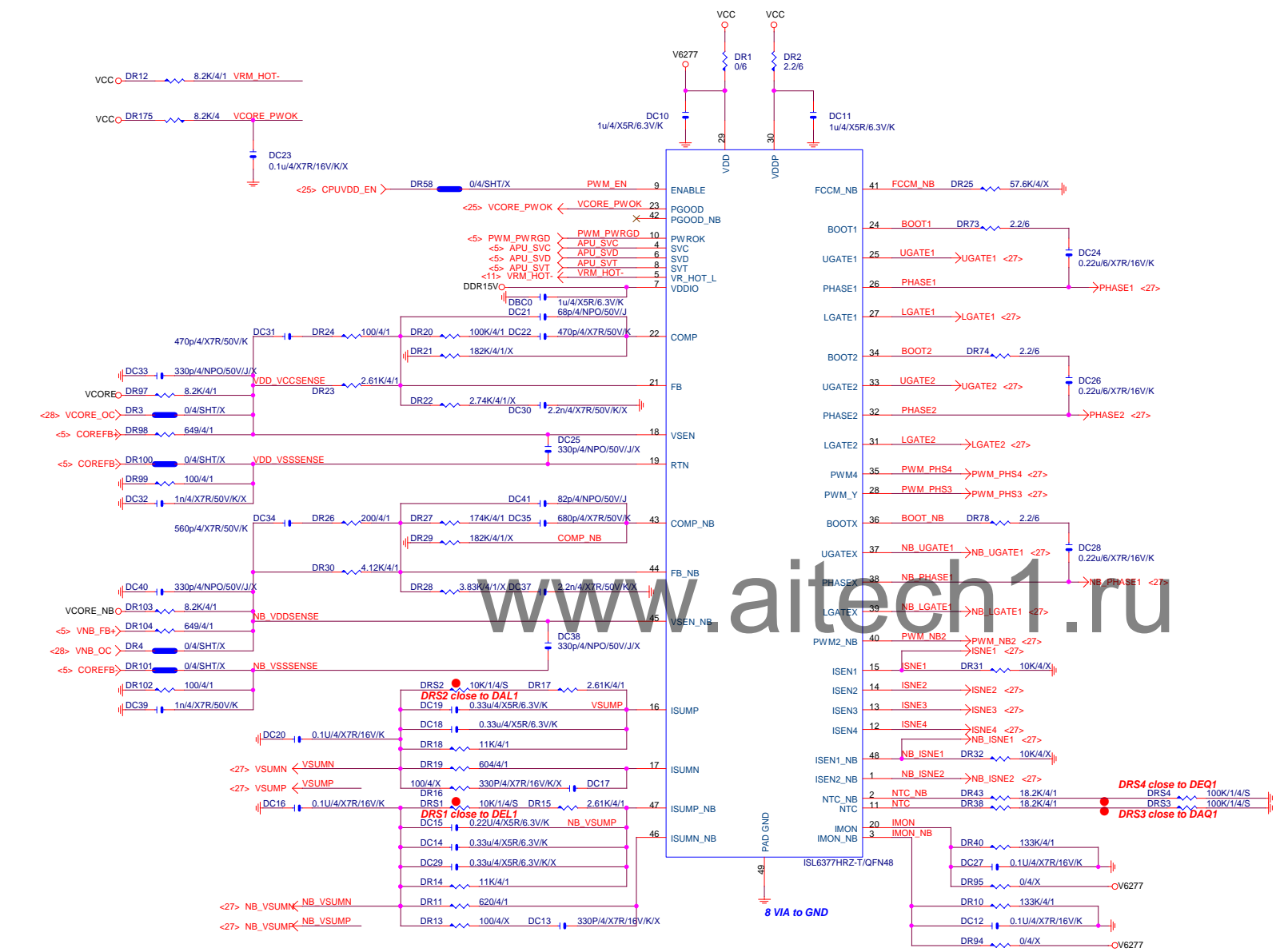
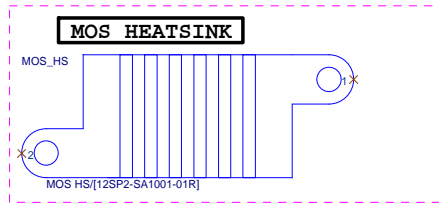
AMPLIFIED

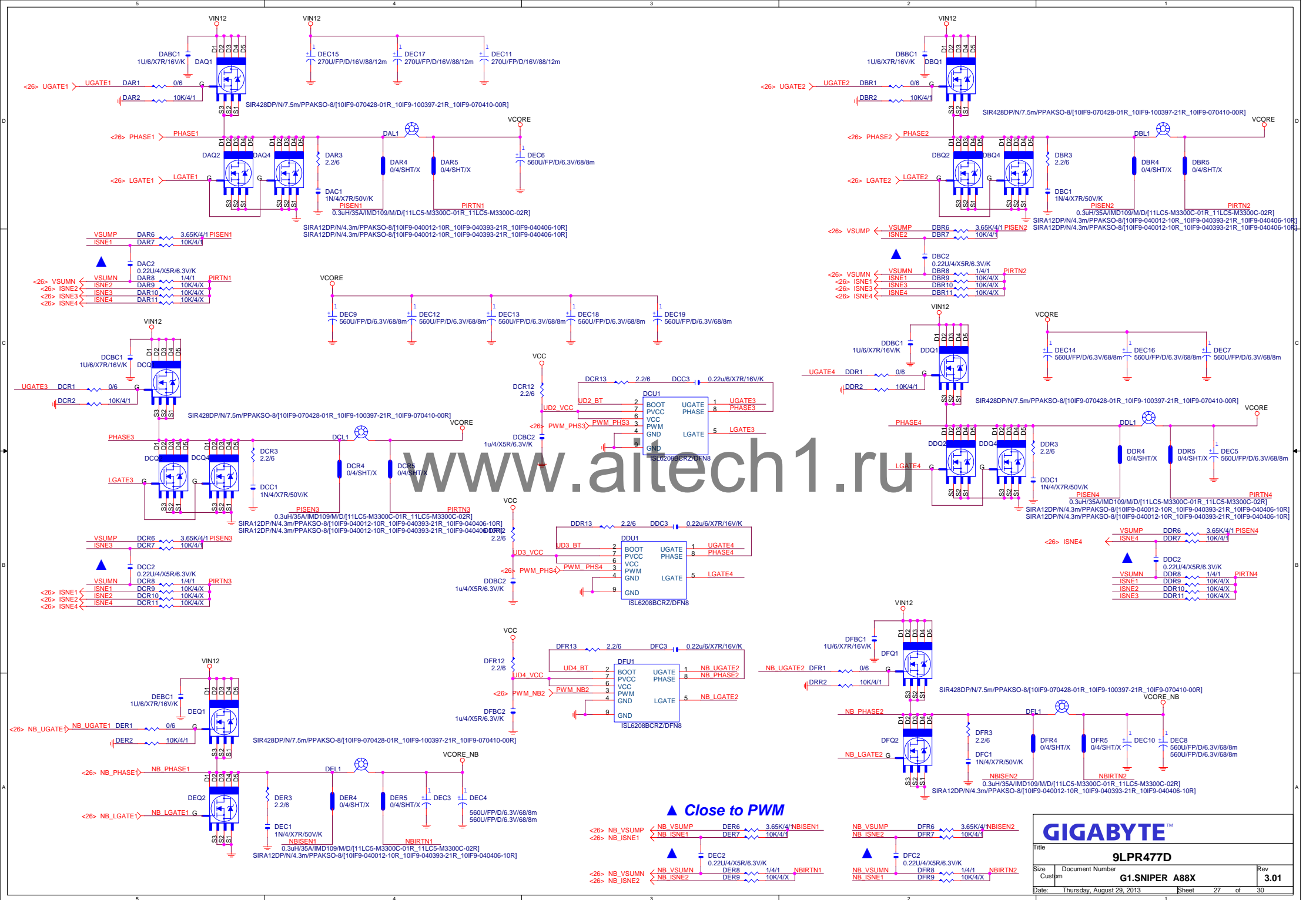




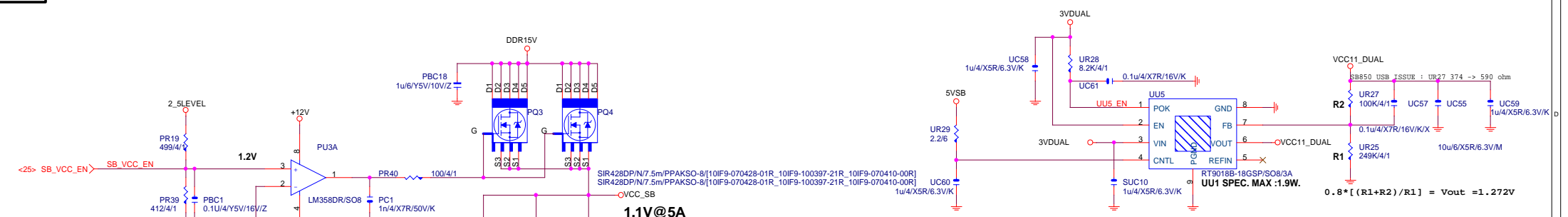
GIGABYTE™			
Title ATX, FRONT PANEL-1			
Size	Document Number	Rev	
Custom	G1.SNIPER A88X	3.01	
Date:	Thursday, August 29, 2013	Sheet	24 of 30



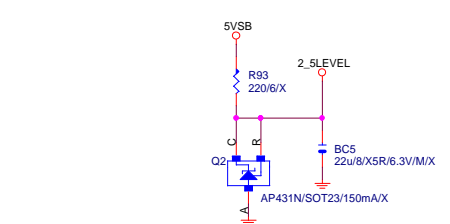




VCC_SB

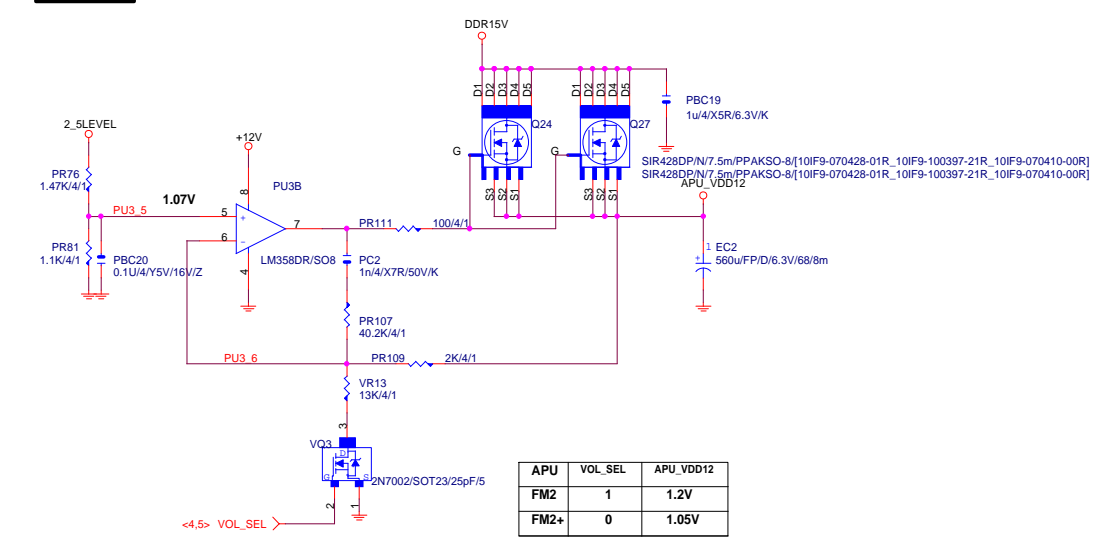


【技術通報R&D技術通報156】
RT9018 (RICHTEK) 與NCT3730 (NUVOTON),
EM5103GE (EMC) 做共用, 針對PIN7 (FB) 分壓阻值部份
(R1/R2) 須做修改為100K以上電阻值

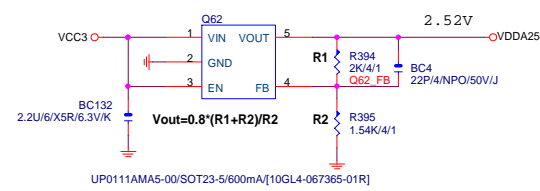
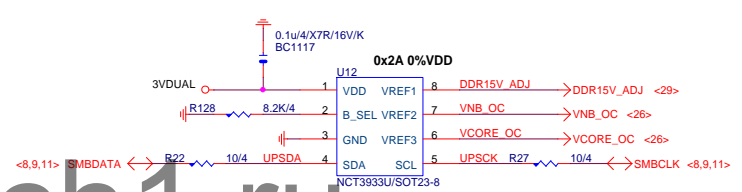


www.aitech1.ru

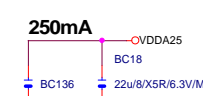
APU_VDD



APU	VOL_SEL	APU_VDD12
FM2	1	1.2V
FM2+	0	1.05V



APU	VOL_SEL	VDDA25
FM2	1	2.5V
FM2+	0	1.8V



GIGABYTE™

Title

SB PWR,VDDA25,VCC11DUAL

Size

Custom

Document Number

G1.SNIPER A88X

Date

Thursday, August 29, 2013

Rev

3.01

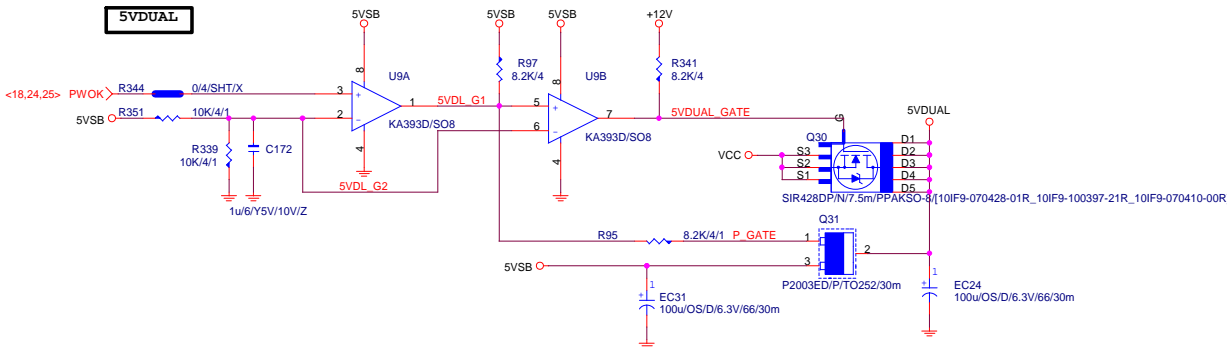
Sheet

28

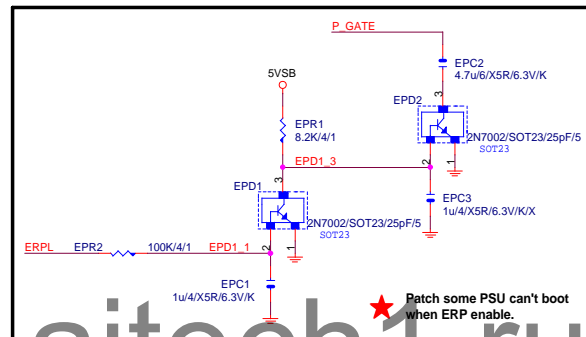
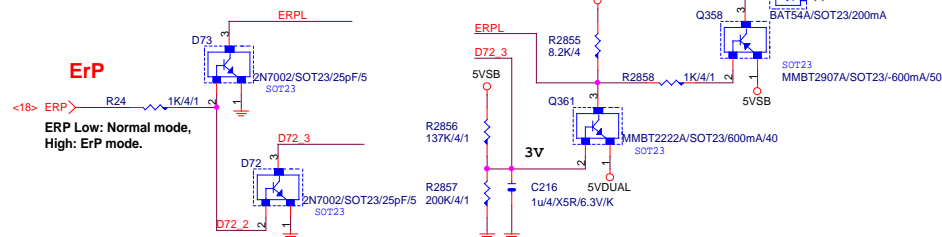
of

30

5VDUAL

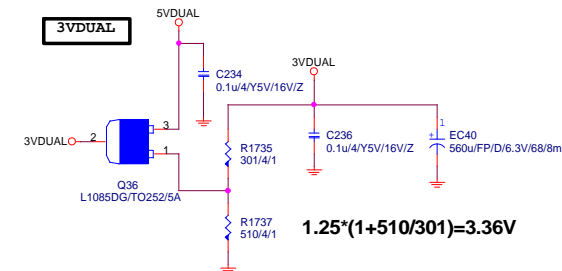


ErP



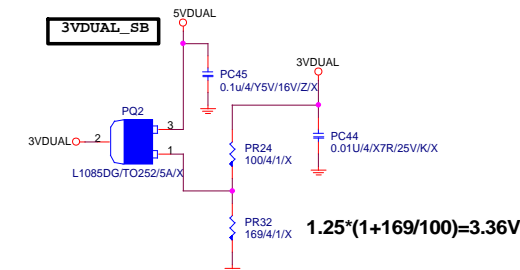
www.aitech1.ru

3VDUAL



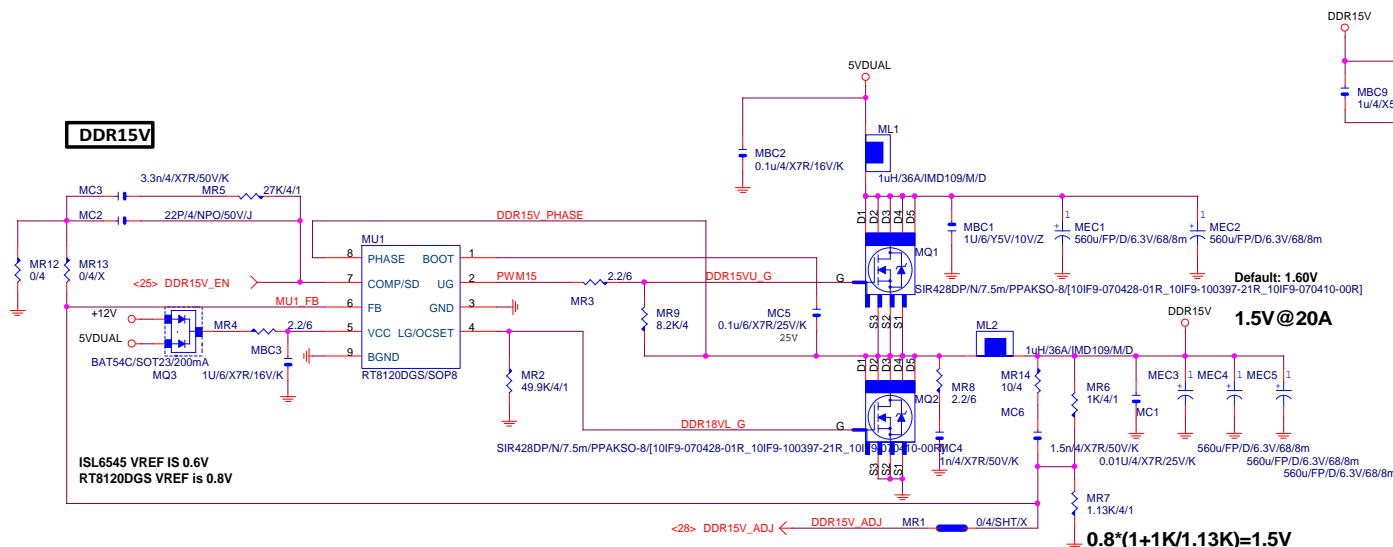
$$1.25 \cdot (1 + 510/301) = 3.36V$$

3VDUAL_SB



$$1.25 \cdot (1 + 169/100) = 3.36V$$

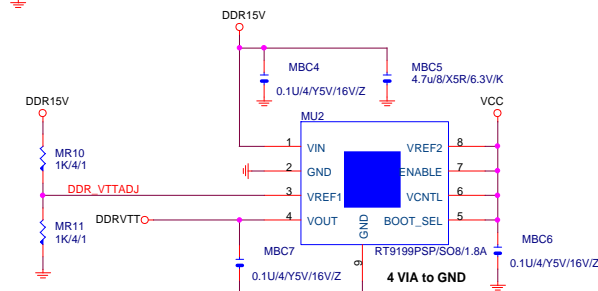
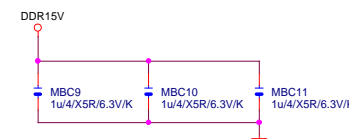
DDR15V



Default: 1.60V

1.5V @ 20A

$$0.8 \cdot (1 + 1K/1.13K) = 1.5V$$



GIGABYTE

Title			DDR PWR, 5VDUAL, ERP
Size	Document Number	Rev	3.01
Custom	G1.SNIPER A88X		
Date:	Thursday, August 29, 2013	Sheet	29 of 30

