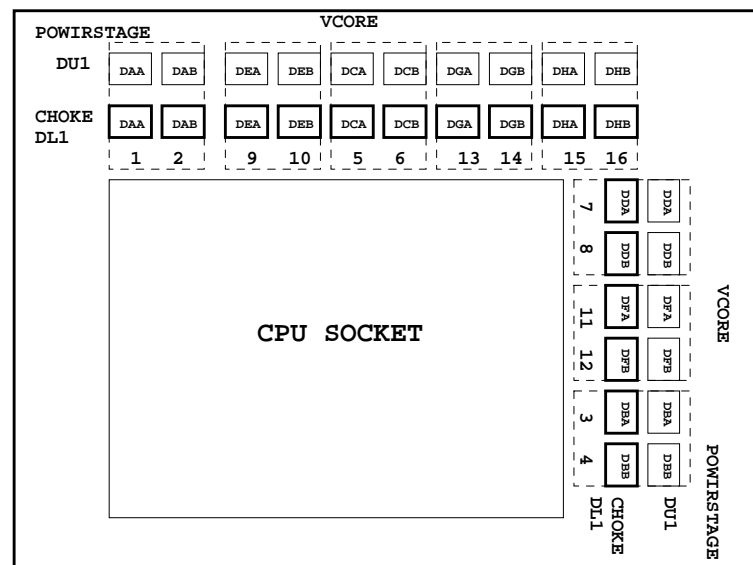


01	COVER SHEET
02	BOM & PCB MODIFY HISTORY
03	BLOCK DIAGRAM
04	CPU_LGA1155-A
05	CPU_LGA1155-B
06	CPU_LGA1155-C
07	DDR III CHANNEL A
08	DDR III CHANNEL B
09	PCH_FDI,DMI,USB,PCIE
10	PCH_DP,CLK BUFFER
11	PCH_HOST,SATA,PCI
12	PCH_GPIO,CTRL,AUDIO
13	PCH_PWR,GND
14	DVI / HDMI SWITCH
15	DP / HDMI
16	PCI EXPRESS*16 SLOT
17	PCI EXPRESS*8 SLOT
18	PCI EXPRESS*4 SLOT
19	PCI EXPRESS*16/*8/*4 SWITCH
20	PCI EXPRESS*1 SLOTS X3
21	ITE 8892
22	PCI SLOT 1
23	VT6308P 1394
24	Dual BIOS , TPM
25	ALC898
26	REAR AUDIO JACK
27	AMPLIFIER
28	IR3563B PWM
29	IR3553-VCORE
30	IR3553-VCORE
31	IR3570_DDR PWM
32	IR3598-DDR
33	DISCRETE POWER I
34	DISCRETE POWER II

35	I/O ITE8728
36	F_PANEL , F_USB , PHOT
37	USB3.0 , PS2 , COMA
38	ATX POWER, CLOCK GEN
39	RST, PWR, CLR_CMOS
40	INTEL I210
41	INTEL I217
42	Marvell 9230(F)
43	RENESAS USB3 HUB-1
44	RENESAS USB3 HUB-1
45	RENESAS USB3 HUB-2
46	RENESAS USB3 HUB-2
47	F_USB3
48	IT8790
49	FAN CTRL
50	TABLE LIST



Component value change history

[illegible]

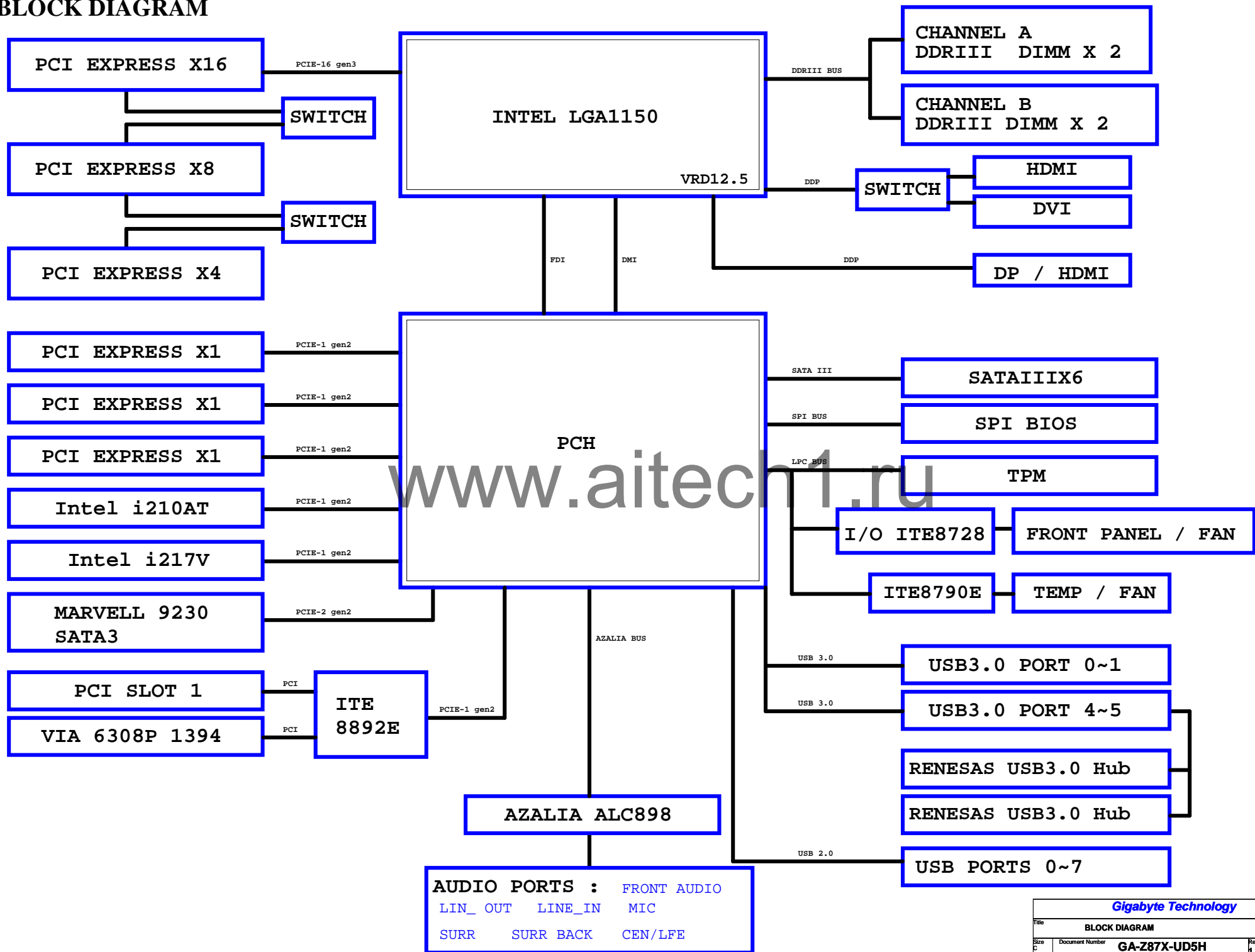
Component value change history

[illegible]

Circuit or PCB layout change

DATE	Change Item	Reason
2012/11/23	REV0.1 GA-287X-UD5H 0.1 gerber out	
2013/01/02	REV0.2 GA-287X-UD5H 0.2 gerber out	
2013/01/23	REV0.21 GA-287X-UD5H 0.21 gerber out	
2013/02/19	REV0.3 GA-287X-UD5H 0.3 gerber out NMI1/DVI layout,DOR to 287 OC Rev9.01	
2013/03/13	REV1.0 GA-287X-UD5H 1.0 gerber out DOR to 287 OC Rev9.03 , F_USB30.1 From PCB	
2013/03/29	REV1.01 GA-287X-UD5H 1.01 gerber out PCB to USB3 down 200m11,VIO->VID0,F_USB30_1c->F_USB30_2,Add WCC21,WCC22,WCC23,WCC24,WCC25,WCC26,WCC27	
2013/04/10	REV1.02 GA-287X-UD5H 1.02 gerber out 改文字體	

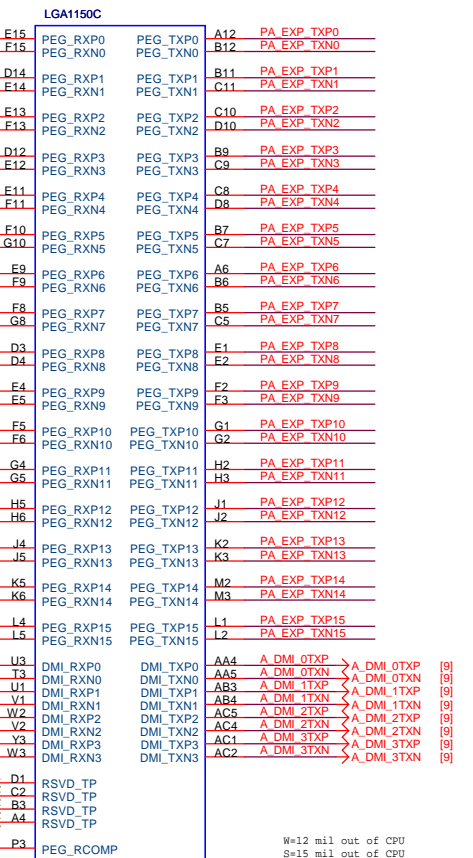
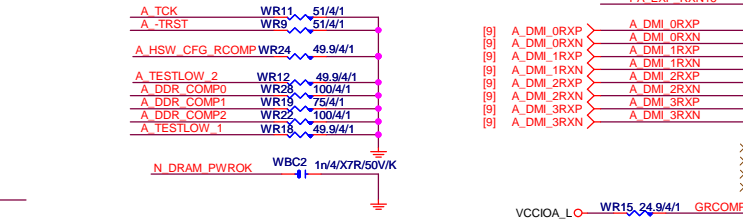
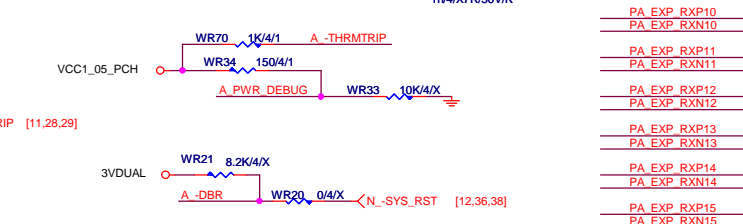
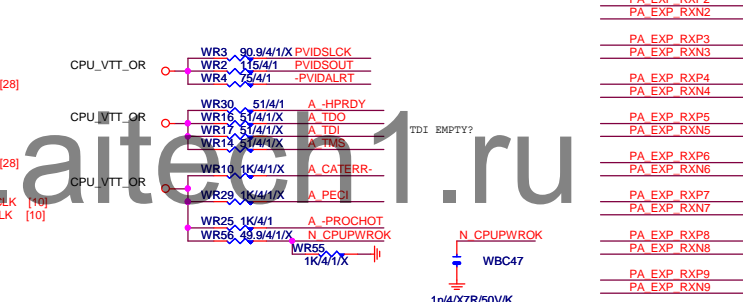
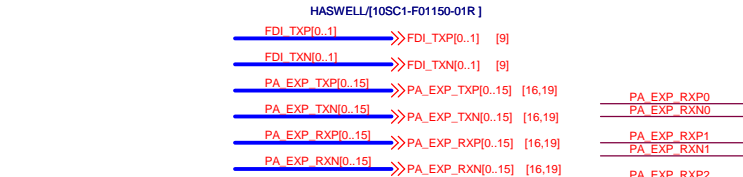
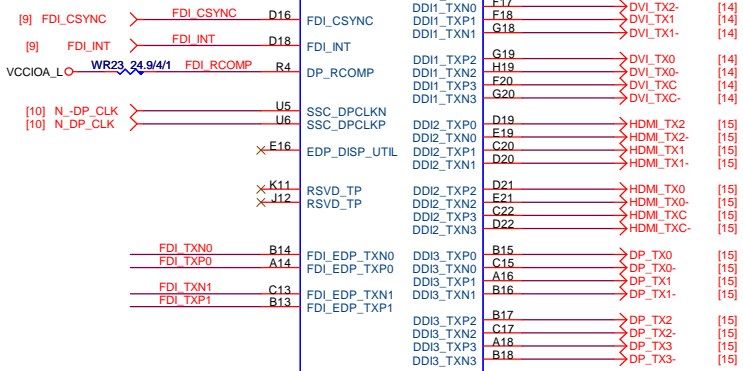
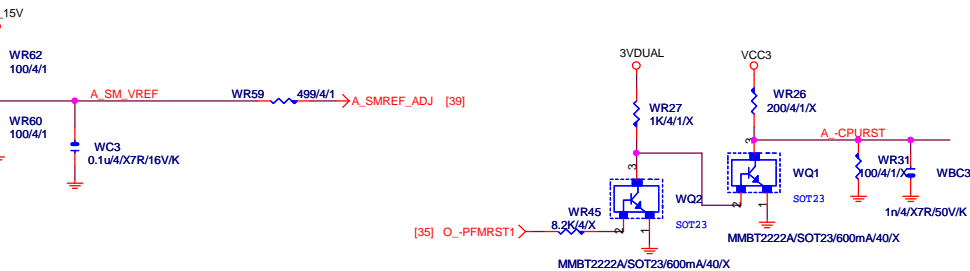
BLOCK DIAGRAM



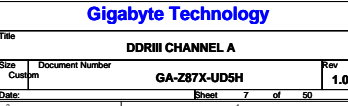
CFG	H	L	NOTE
0	RSVD	RSVD	RSVD
1	RSVD	RSVD	RSVD
2	RSVD	Reverse	LANE REVERSAL[0..x16]
3	RSVD	RSVD	RSVD
4	RSVD	RSVD	RSVD
7	RSVD	RSVD	RSVD
8	RSVD	RSVD	RSVD
9	RSVD	RSVD	RSVD
10	RSVD	RSVD	RSVD
11	RSVD	RSVD	RSVD
12	RSVD	RSVD	RSVD
13	RSVD	RSVD	RSVD
14	RSVD	RSVD	RSVD
15	RSVD	RSVD	RSVD
16	RSVD	RSVD	RSVD
17	RSVD	RSVD	RSVD

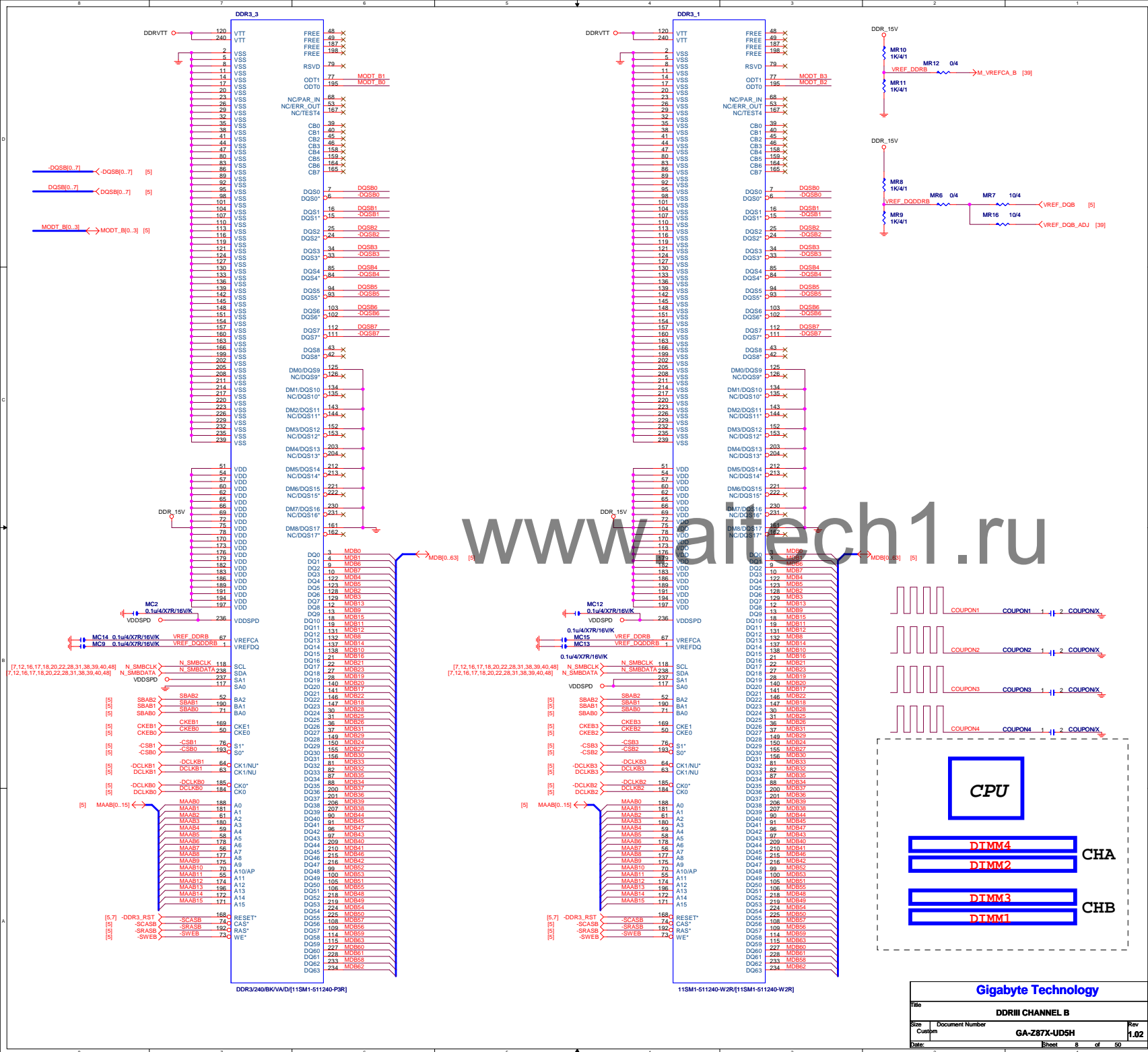
CFG6	CFG5	PCIE CONFIG
1	1	1x16, Default
1	0	2x8
0	1	RSVD
0	0	x8, x4, x4

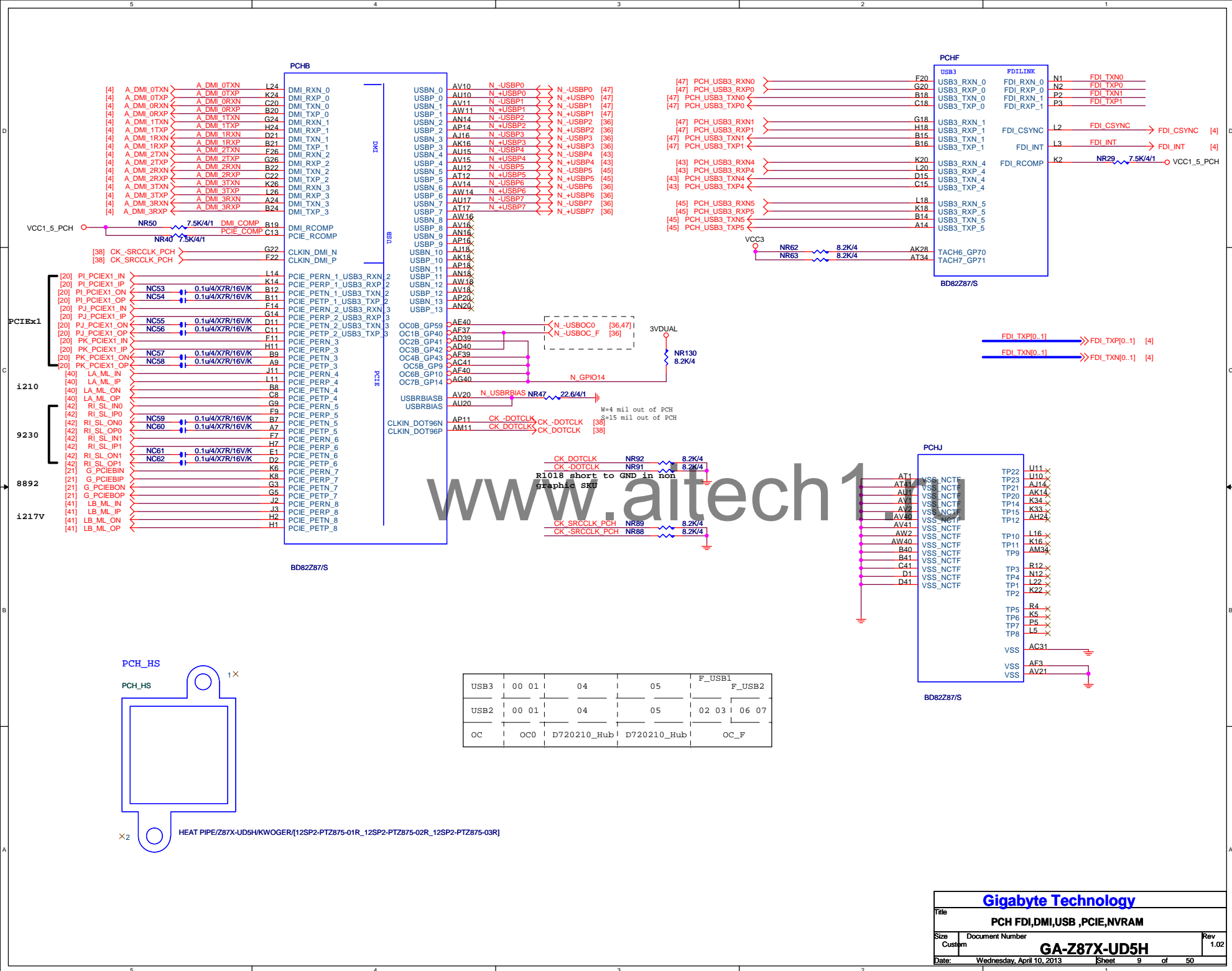
CFG 0-17 all internal PULL-UP

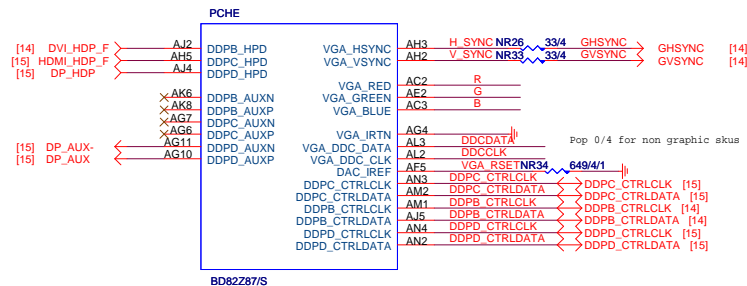


Gigabyte Technology			
CPU LGA1150-A			
File	Document Number	Rev	
	GA-Z87X-UD5H	1.02	
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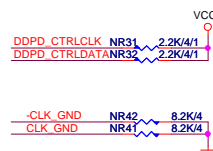




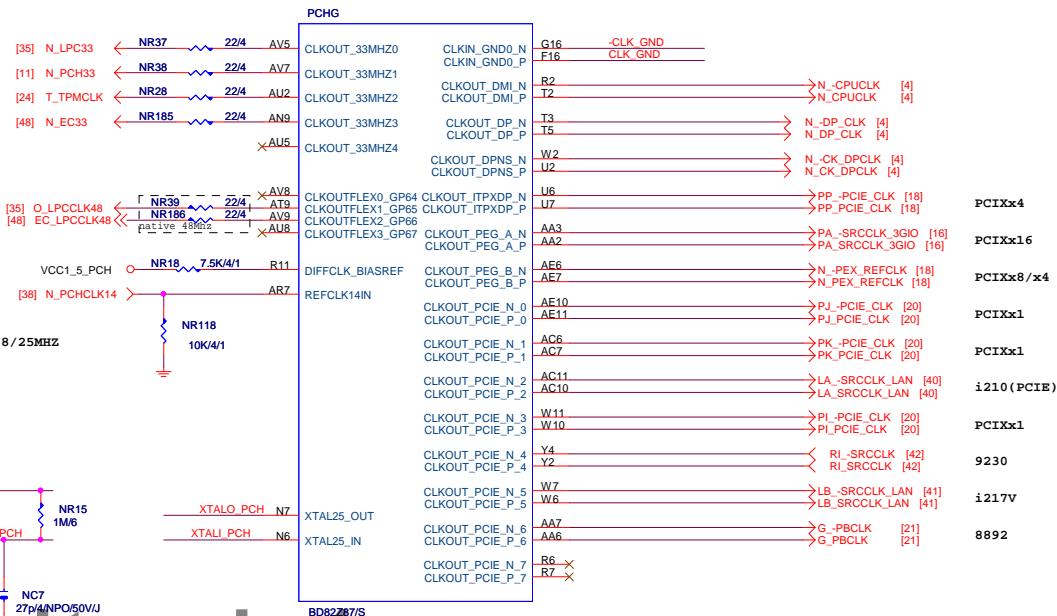
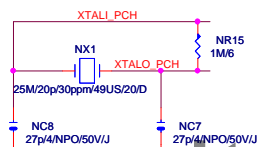




DDP B : DVI / HDMI
 DDP C : HDMI
 DDP D : DP

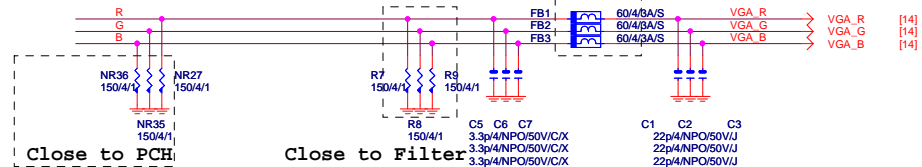
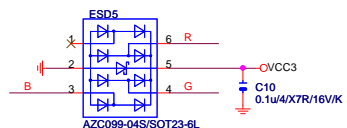
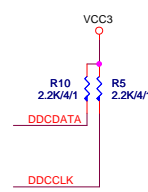
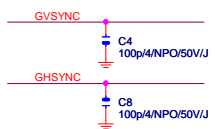
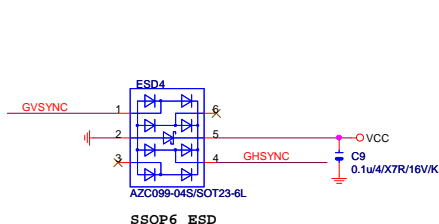


Flex1,3 :
 27/14/24/48/25MHZ

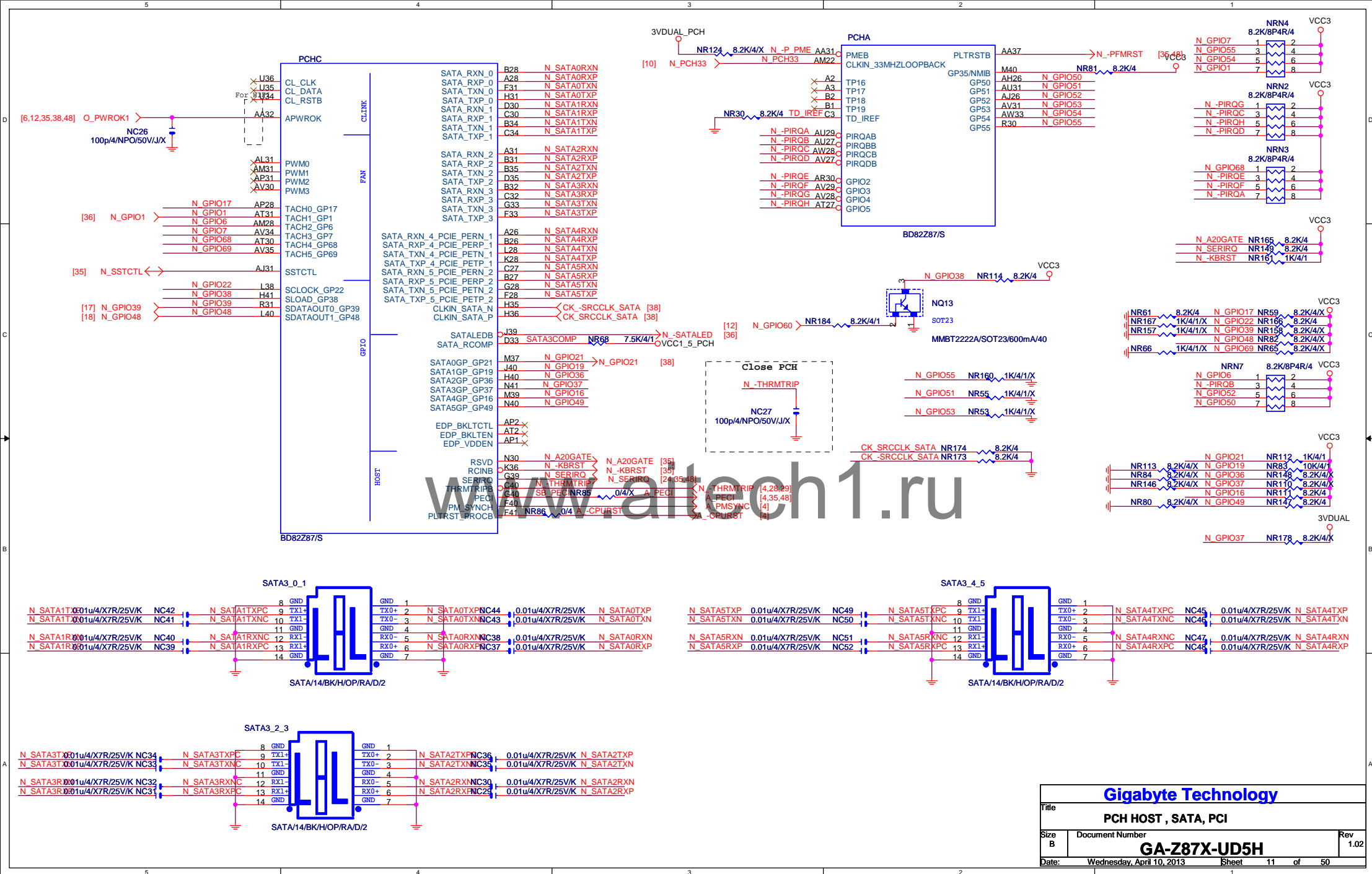


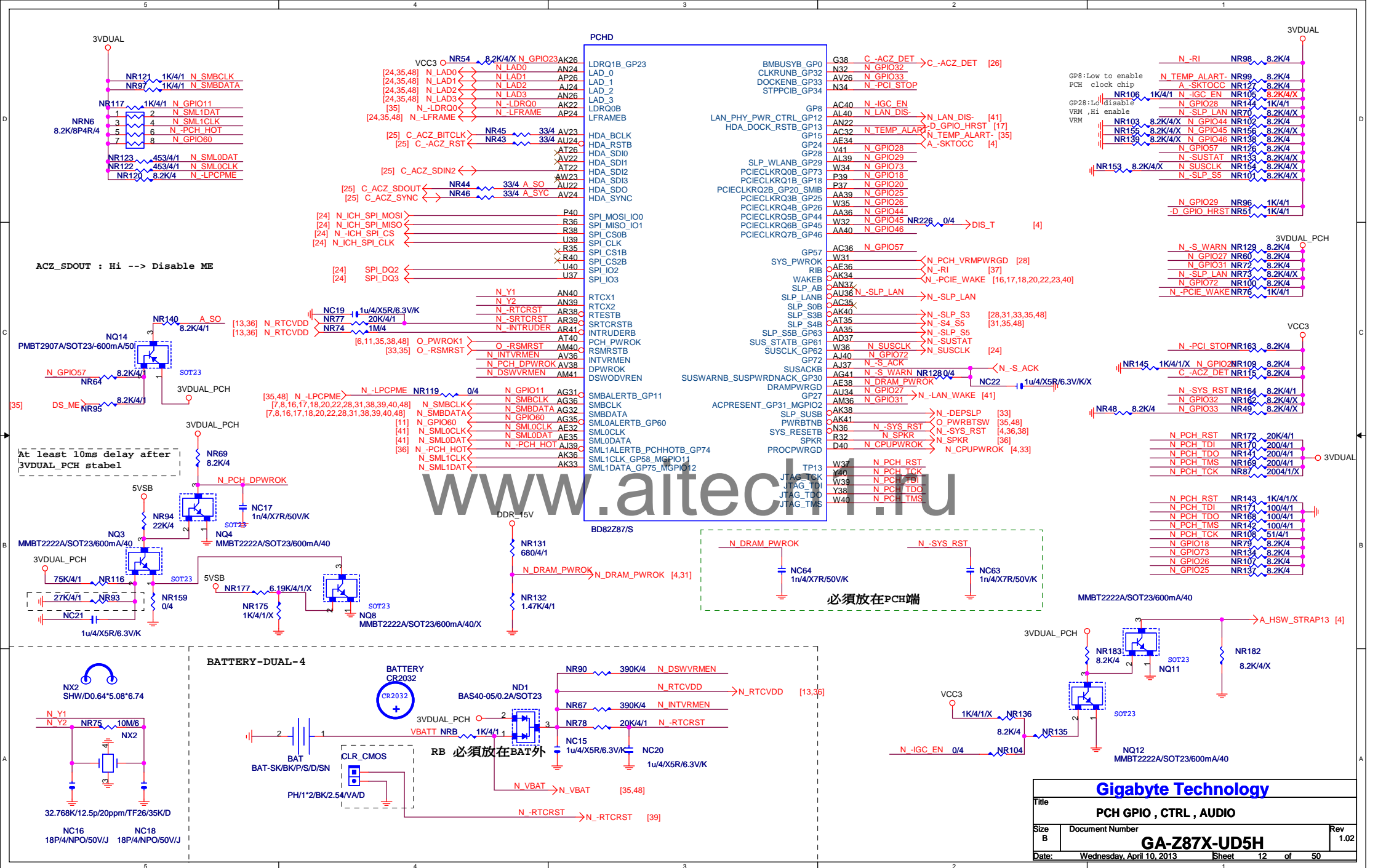
PCIXx4
 PCIXx16
 PCIXx8/x4
 PCIXx1
 PCIXx1
 i210 (PCIE)
 PCIXx1
 9230
 i217V
 8892

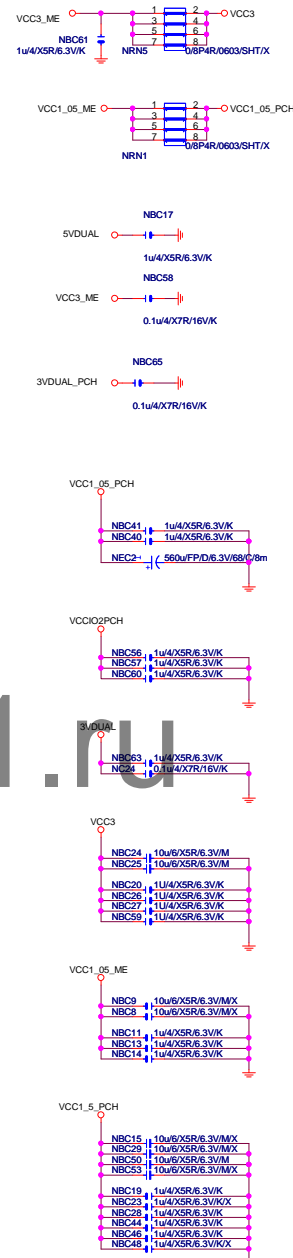
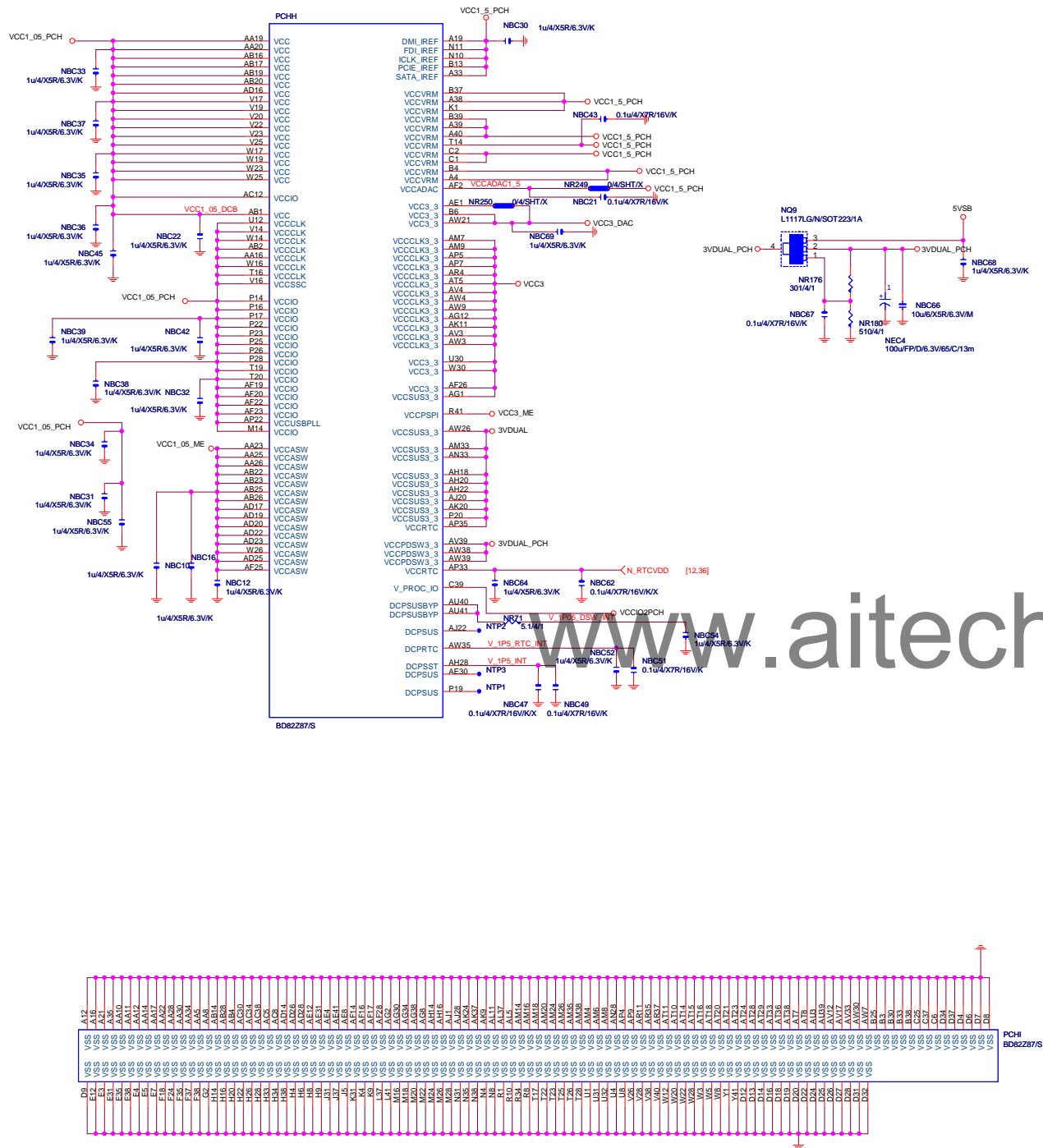
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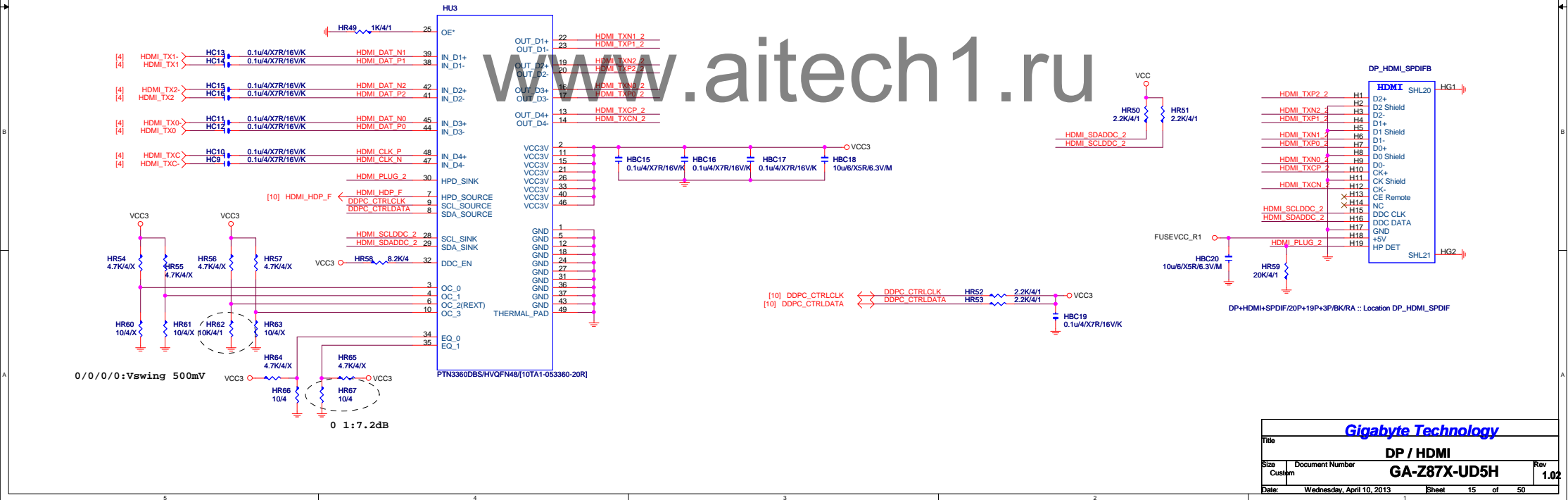
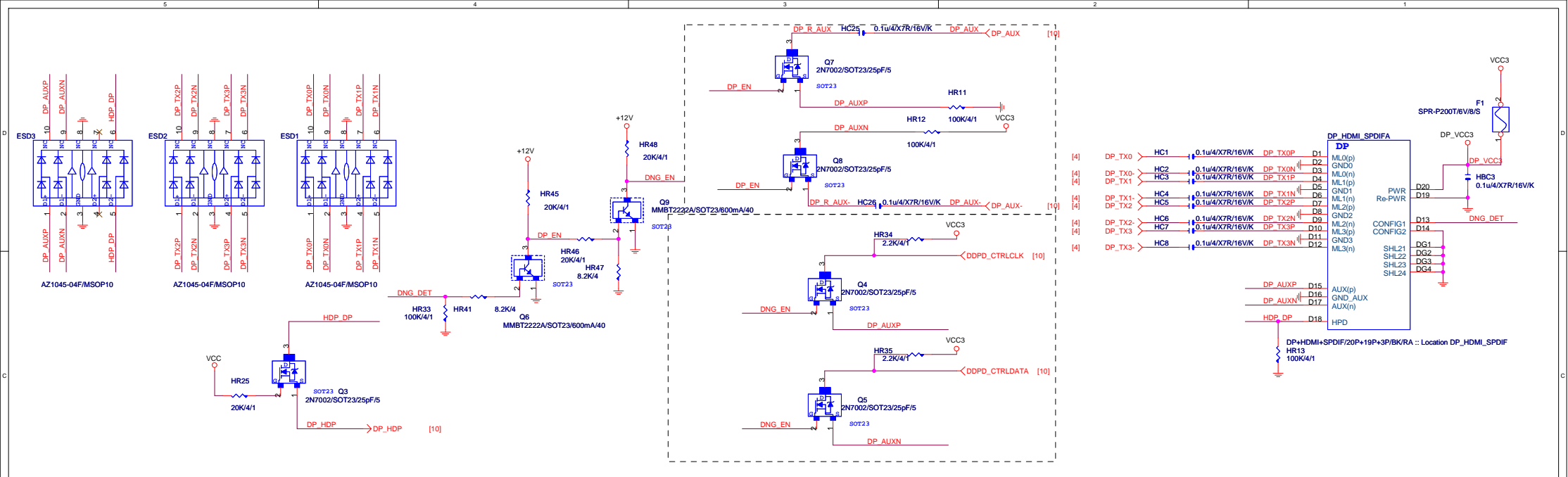


Gigabyte Technology			
Title			
PCH DISPLAY ,CLK BUFFER			
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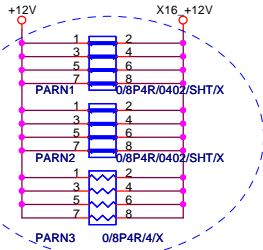








+12 protect
short-wire test



PCIE16:16/5/5/16

PA_EXP_RXP0[.15] >> PA_EXP_RXP0[.15] [4,19]
PA_EXP_RXN0[.15] >> PA_EXP_RXN0[.15] [4,19]
PA_EXP_TXP0[.15] >> PA_EXP_TXP0[.15] [4,19]
PA_EXP_TXN0[.15] >> PA_EXP_TXN0[.15] [4,19]

PA_EXP_TXP0	PAC5	0.22u/4/X5R6.3V/K	PA_EXP_TXP0 C
PA_EXP_TXN0	PAC4	0.22u/4/X5R6.3V/K	PA_EXP_TXN0 C
PA_EXP_TXP1	PAC6	0.22u/4/X5R6.3V/K	PA_EXP_TXP1 C
PA_EXP_TXN1	PAC7	0.22u/4/X5R6.3V/K	PA_EXP_TXN1 C
PA_EXP_TXP2	PAC8	0.22u/4/X5R6.3V/K	PA_EXP_TXP2 C
PA_EXP_TXN2	PAC9	0.22u/4/X5R6.3V/K	PA_EXP_TXN2 C
PA_EXP_TXP3	PAC10	0.22u/4/X5R6.3V/K	PA_EXP_TXP3 C
PA_EXP_TXN3	PAC11	0.22u/4/X5R6.3V/K	PA_EXP_TXN3 C
PA_EXP_TXP4	PAC12	0.22u/4/X5R6.3V/K	PA_EXP_TXP4 C
PA_EXP_TXN4	PAC13	0.22u/4/X5R6.3V/K	PA_EXP_TXN4 C
PA_EXP_TXP5	PAC14	0.22u/4/X5R6.3V/K	PA_EXP_TXP5 C
PA_EXP_TXN5	PAC15	0.22u/4/X5R6.3V/K	PA_EXP_TXN5 C
PA_EXP_TXP6	PAC16	0.22u/4/X5R6.3V/K	PA_EXP_TXP6 C
PA_EXP_TXN6	PAC17	0.22u/4/X5R6.3V/K	PA_EXP_TXN6 C
PA_EXP_TXP7	PAC18	0.22u/4/X5R6.3V/K	PA_EXP_TXP7 C
PA_EXP_TXN7	PAC19	0.22u/4/X5R6.3V/K	PA_EXP_TXN7 C
PA_EXP_SW_TXP8	PAC21	0.22u/4/X5R6.3V/K	PA_EXP_SW_TXP8 C
PA_EXP_SW_TXN8	PAC20	0.22u/4/X5R6.3V/K	PA_EXP_SW_TXN8 C
PA_EXP_SW_TXP9	PAC22	0.22u/4/X5R6.3V/K	PA_EXP_SW_TXP9 C
PA_EXP_SW_TXN9	PAC23	0.22u/4/X5R6.3V/K	PA_EXP_SW_TXN9 C
PA_EXP_SW_TXP10	PAC24	0.22u/4/X5R6.3V/K	PA_EXP_SW_TXP10 C
PA_EXP_SW_TXN10	PAC25	0.22u/4/X5R6.3V/K	PA_EXP_SW_TXN10 C
PA_EXP_SW_TXP11	PAC26	0.22u/4/X5R6.3V/K	PA_EXP_SW_TXP11 C
PA_EXP_SW_TXN11	PAC27	0.22u/4/X5R6.3V/K	PA_EXP_SW_TXN11 C
PA_EXP_SW_TXP12	PAC28	0.22u/4/X5R6.3V/K	PA_EXP_SW_TXP12 C
PA_EXP_SW_TXN12	PAC29	0.22u/4/X5R6.3V/K	PA_EXP_SW_TXN12 C
PA_EXP_SW_TXP13	PAC30	0.22u/4/X5R6.3V/K	PA_EXP_SW_TXP13 C
PA_EXP_SW_TXN13	PAC31	0.22u/4/X5R6.3V/K	PA_EXP_SW_TXN13 C
PA_EXP_SW_TXP14	PAC32	0.22u/4/X5R6.3V/K	PA_EXP_SW_TXP14 C
PA_EXP_SW_TXN14	PAC33	0.22u/4/X5R6.3V/K	PA_EXP_SW_TXN14 C
PA_EXP_SW_TXP15	PAC34	0.22u/4/X5R6.3V/K	PA_EXP_SW_TXP15 C
PA_EXP_SW_TXN15	PAC35	0.22u/4/X5R6.3V/K	PA_EXP_SW_TXN15 C

PA_EXP_SW_RXP8[.15] >> PA_EXP_SW_RXP8[.15] [19]
PA_EXP_SW_RXN8[.15] >> PA_EXP_SW_RXN8[.15] [19]
PA_EXP_SW_TXP8[.15] >> PA_EXP_SW_TXP8[.15] [19]
PA_EXP_SW_TXN8[.15] >> PA_EXP_SW_TXN8[.15] [19]

PCI-E REV:1.1--> 2.5GHZ

PCE-E X1(單向) BANDWIDTH=2.5GHz*(8b/10b)=2Gb/s=250MB/s

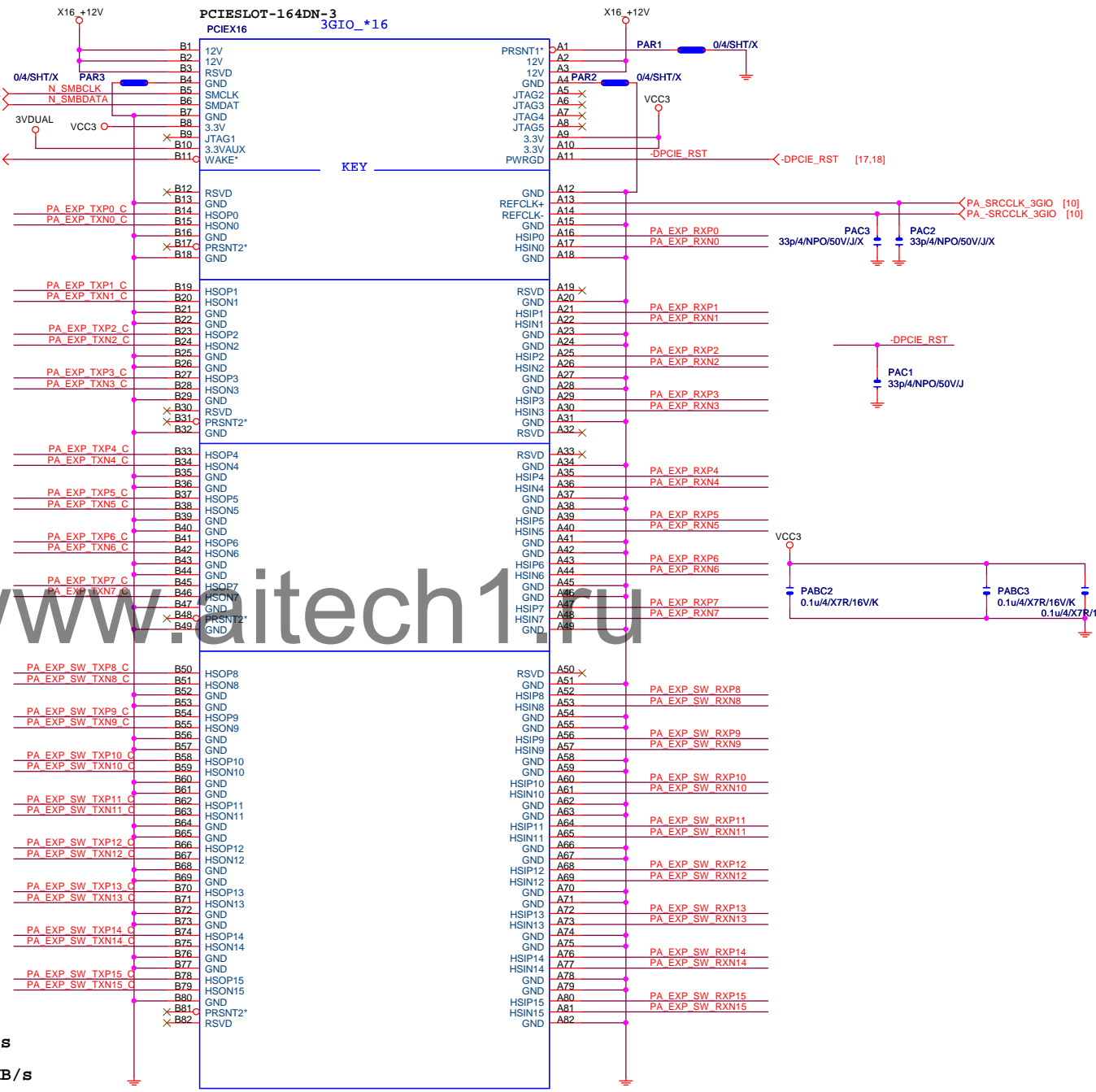
PCE-E X1(雙向) BANDWIDTH=2.5GHz*(8b/10b)X2=4Gb/s=500MB/s

PCE-E X16(單向) BANDWIDTH=2.5GHz*(8b/10b)X16=32Gb/s=4GB/s

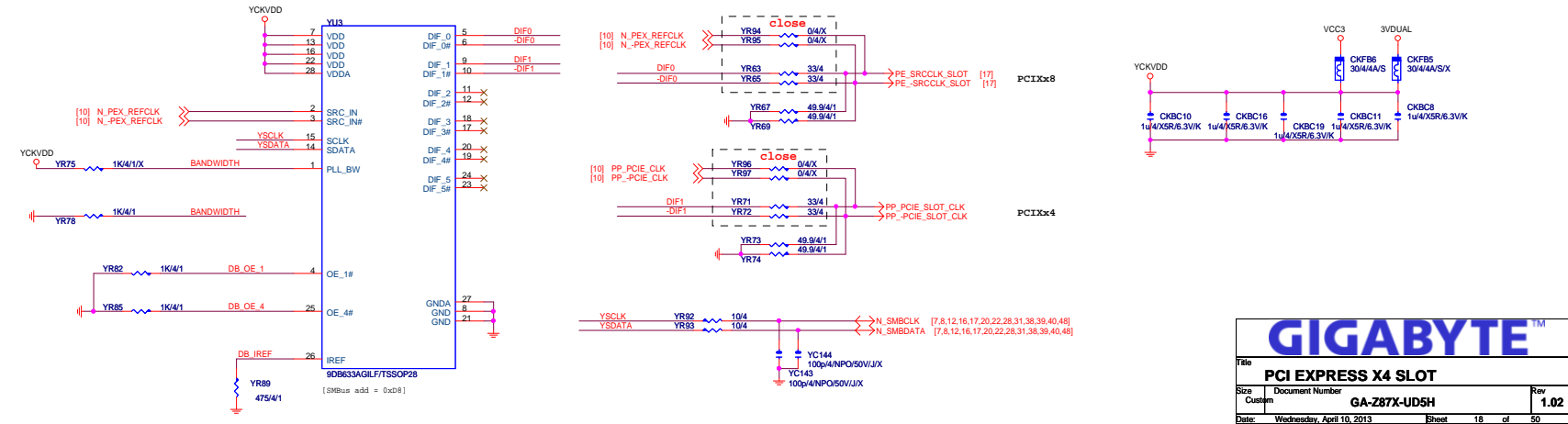
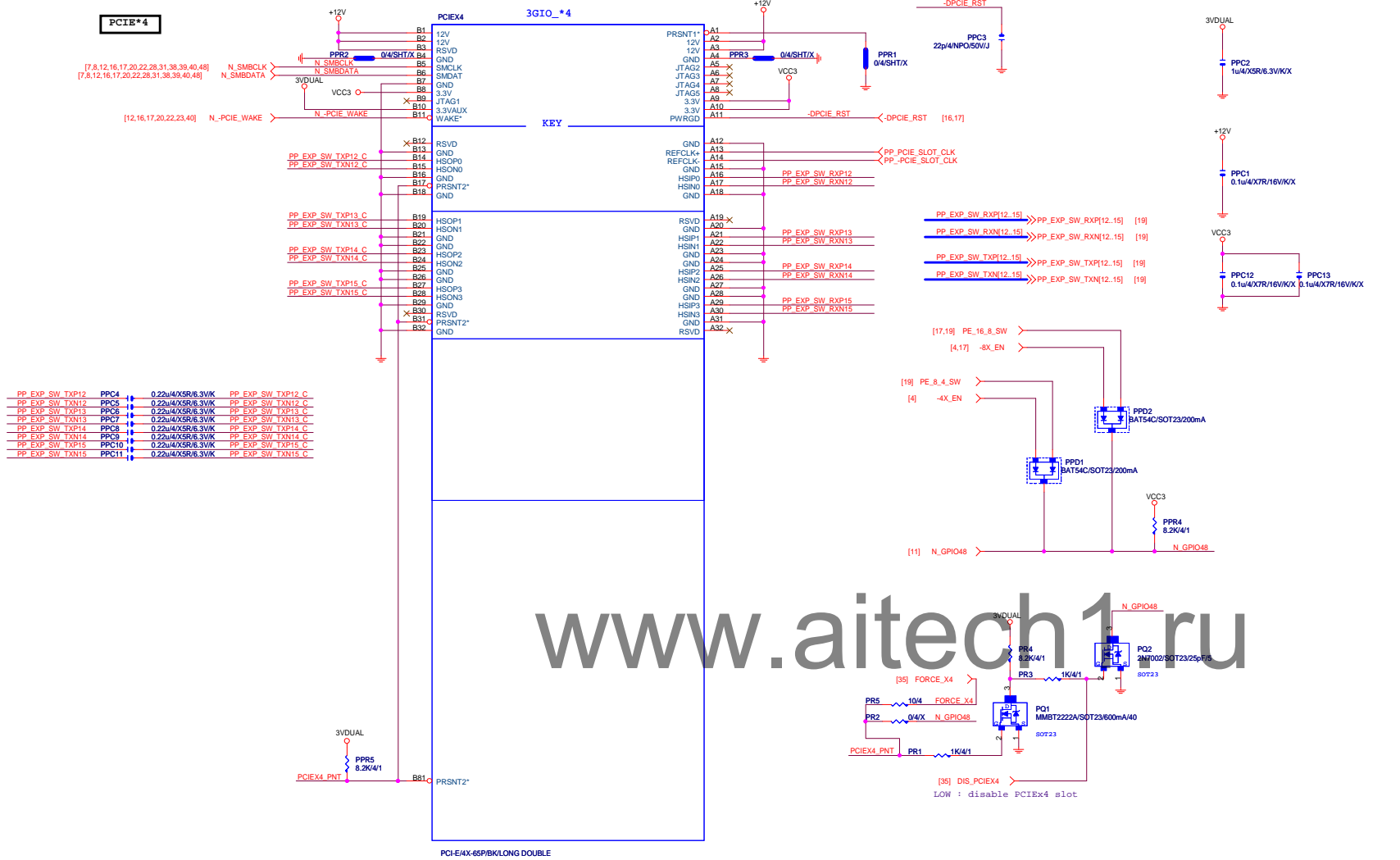
PCE-E X16(雙向) BANDWIDTH=2.5GHz*(8b/10b)X16X2=64Gb/s=8GB/s

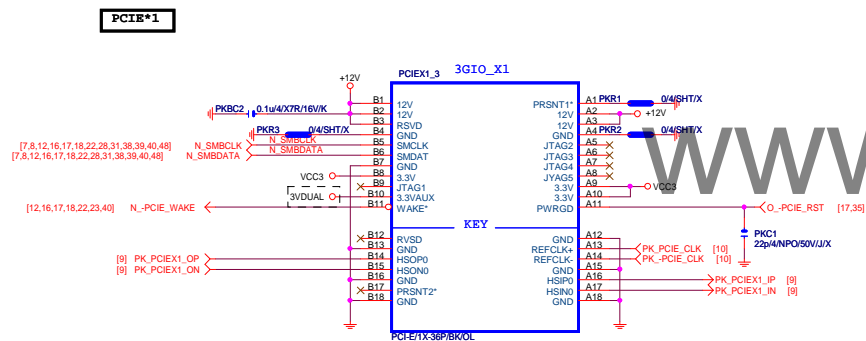
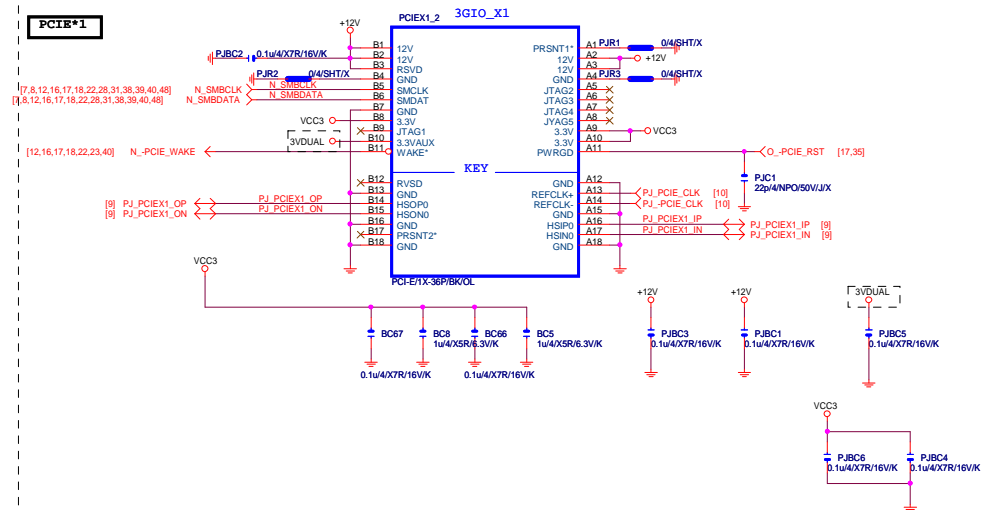
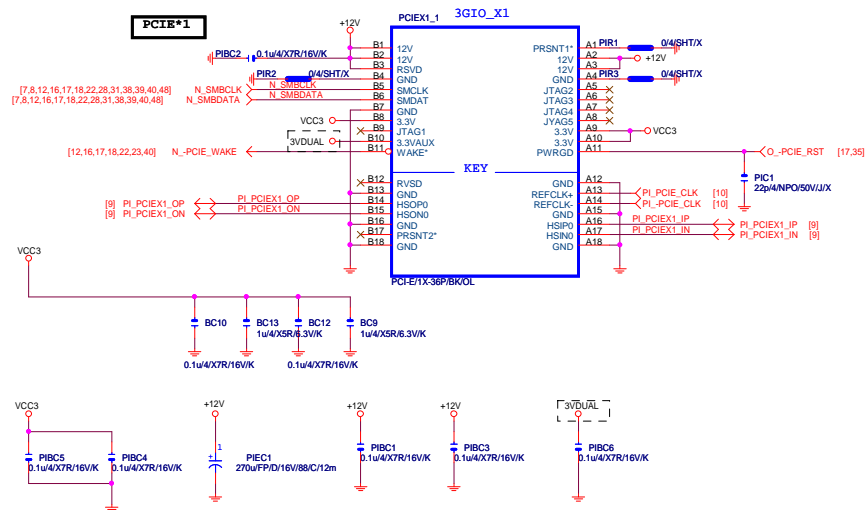
PCI-E REV:2.0--> 5GHZ

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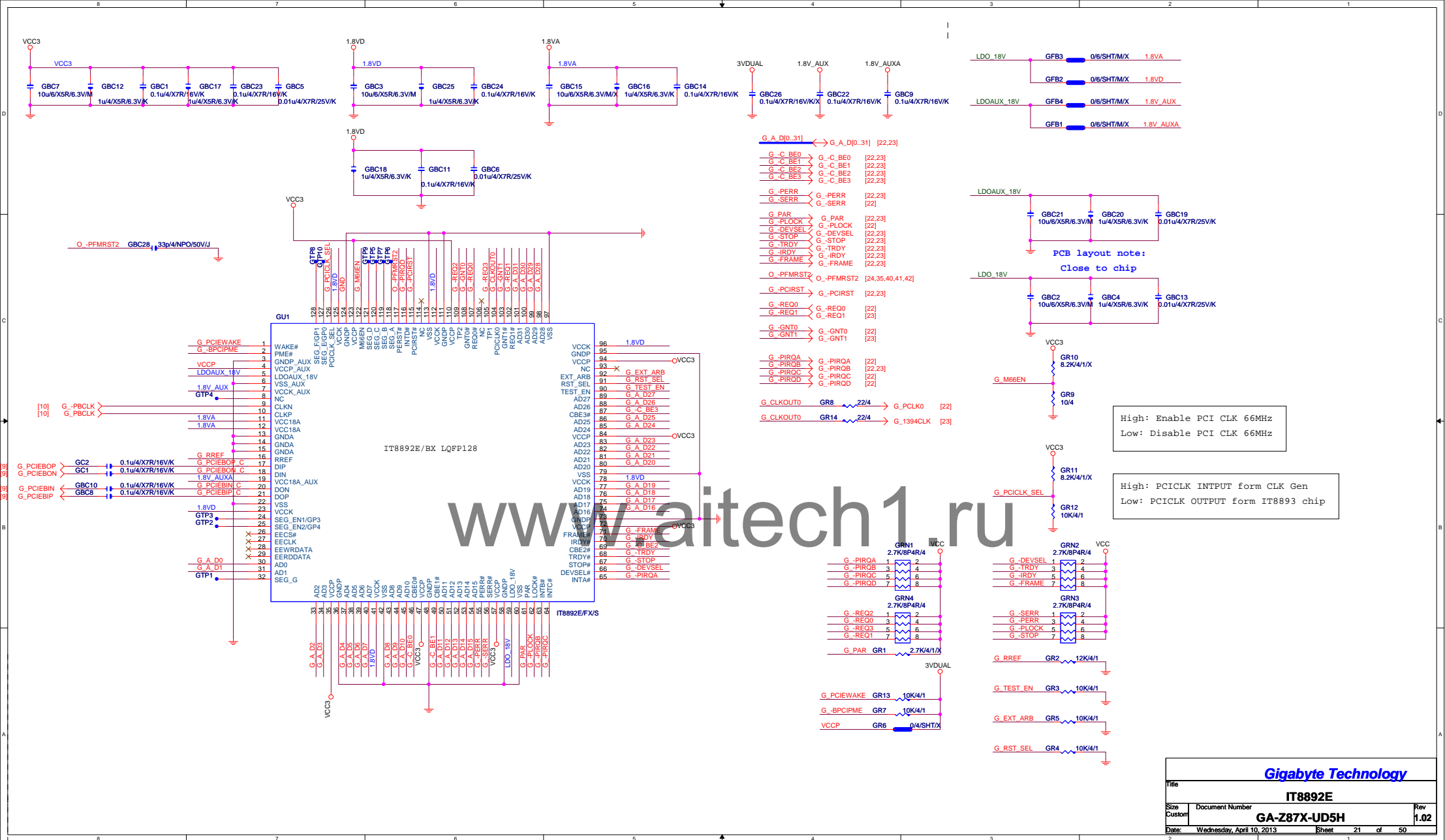


Gigabyte Technology		
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PCI EXPRESS * 16		
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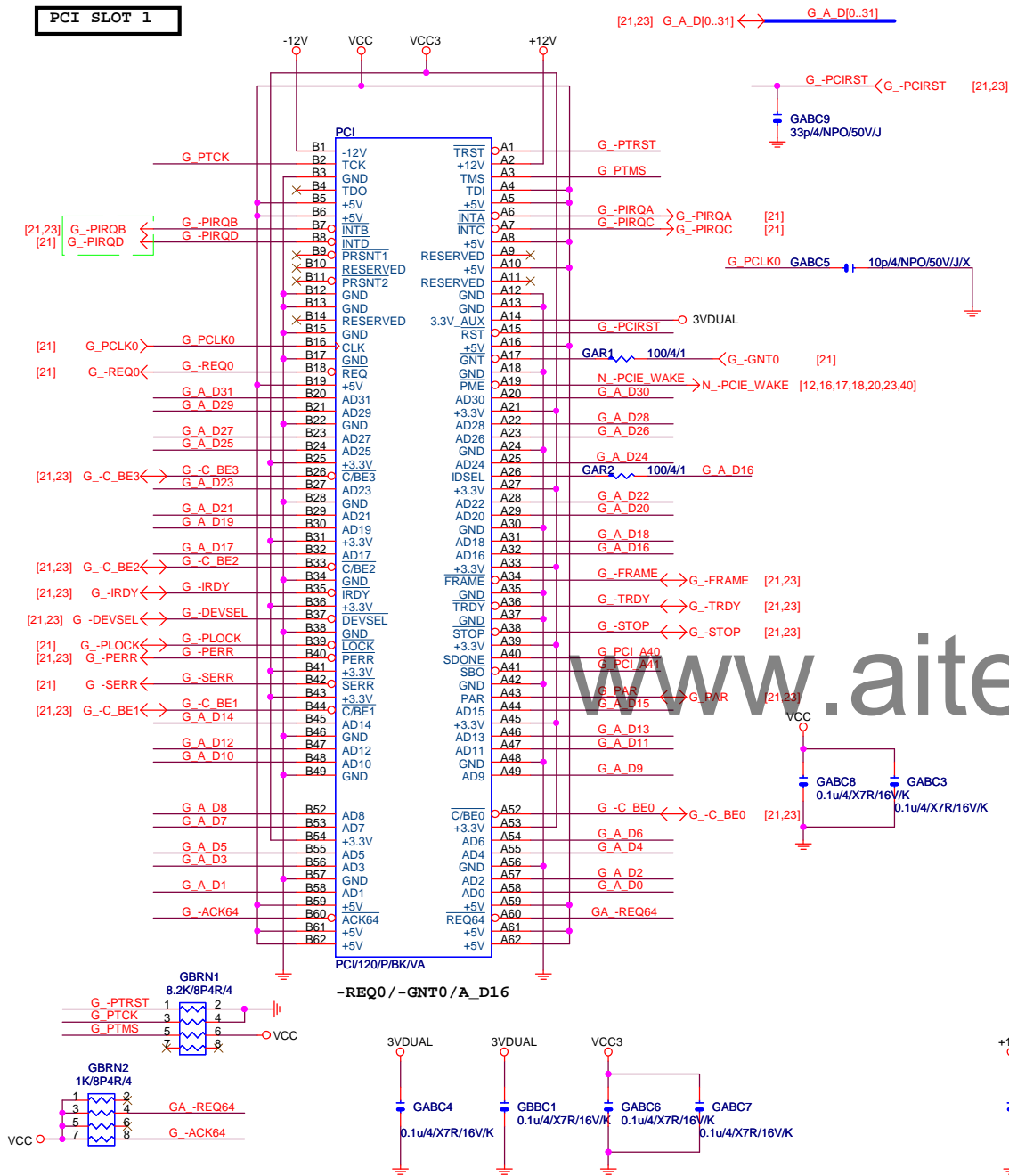




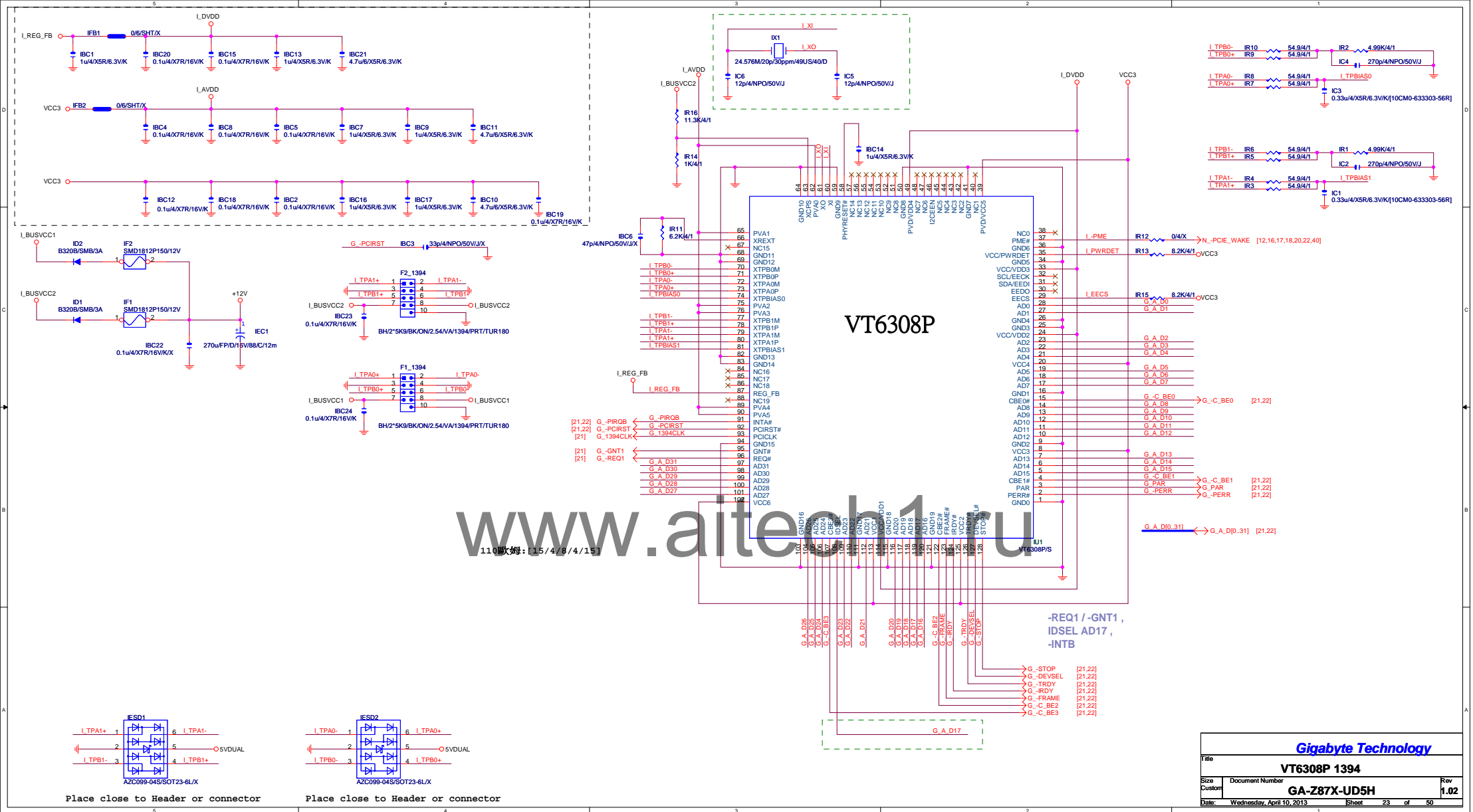
www.aitech1.ru

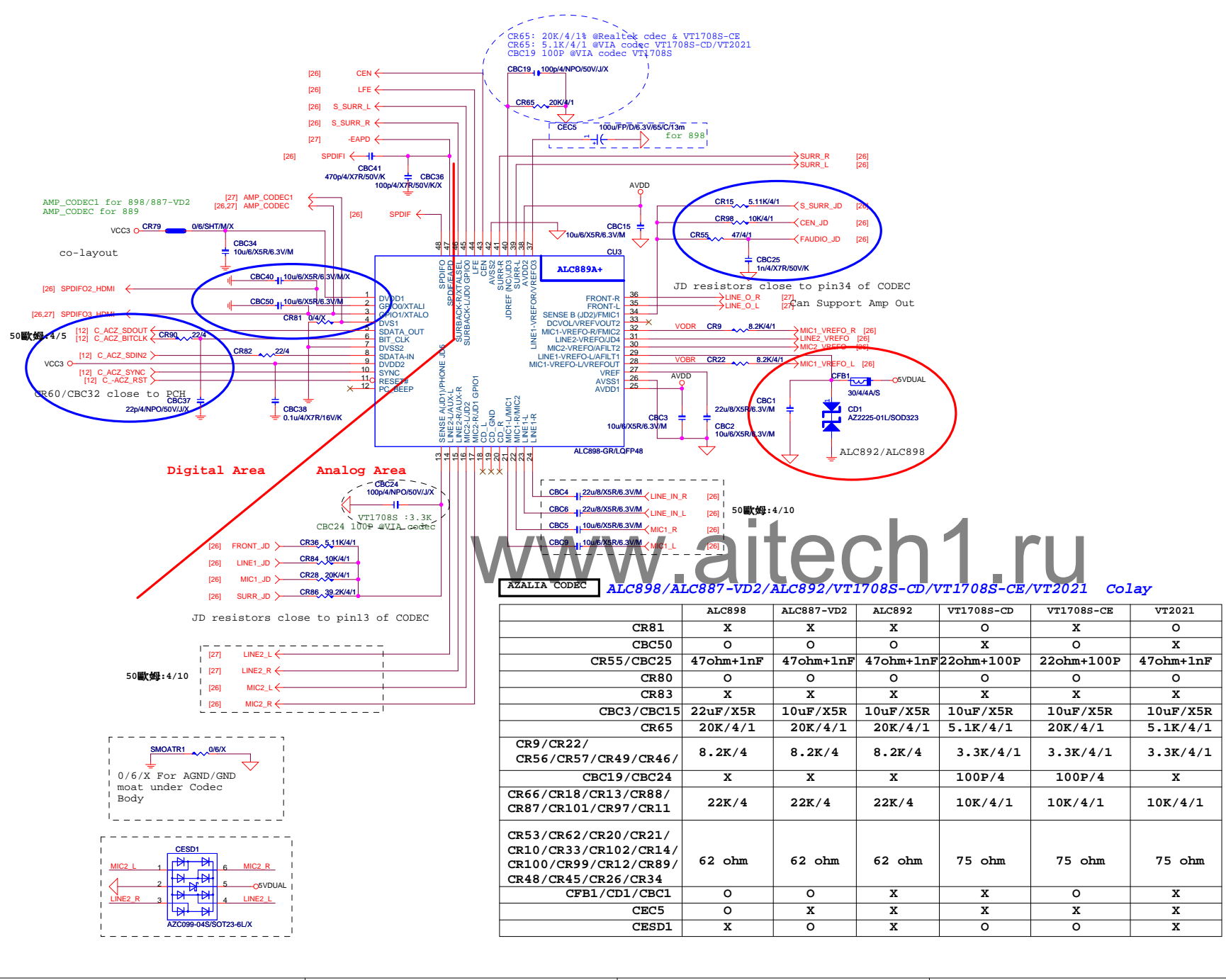


PCI SLOT 1



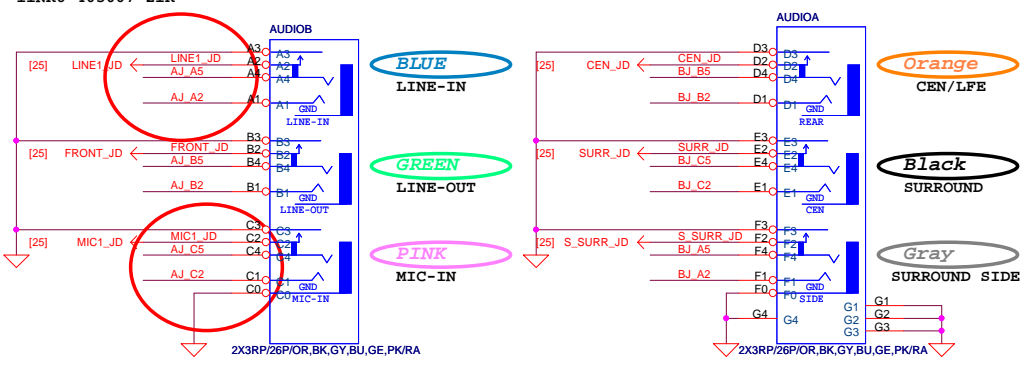
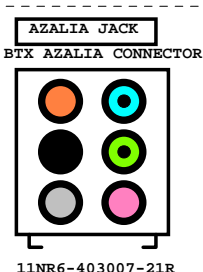
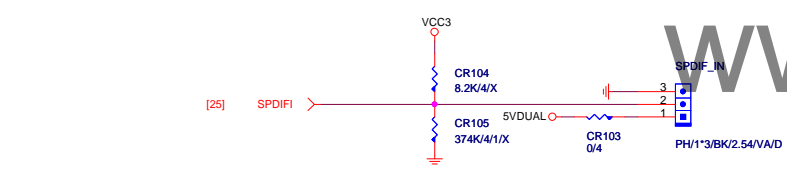
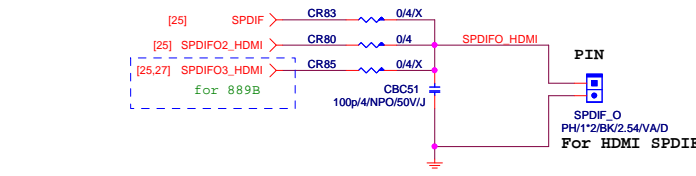
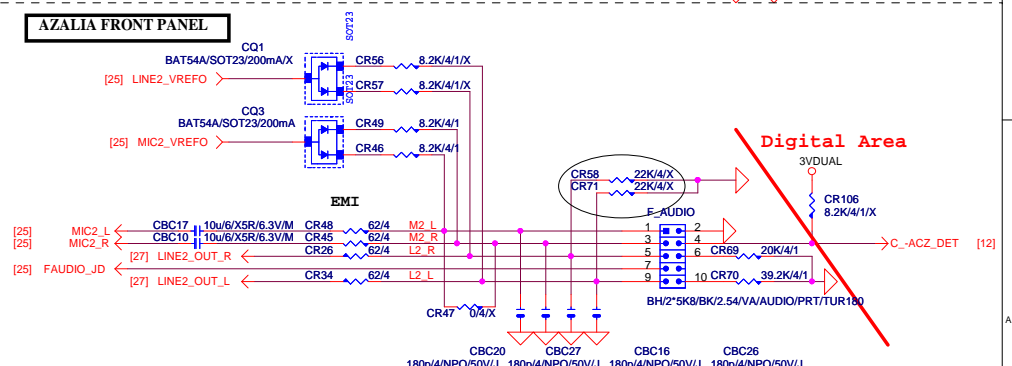
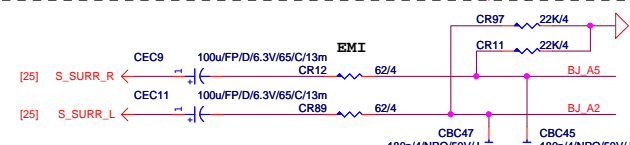
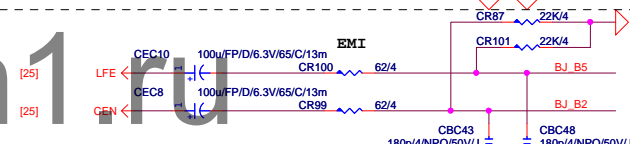
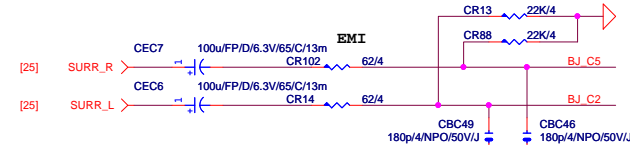
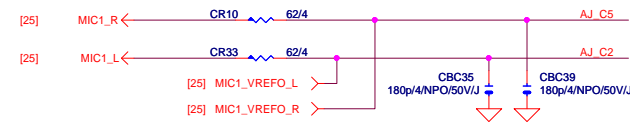
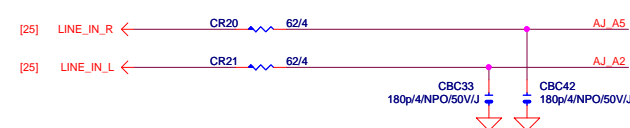
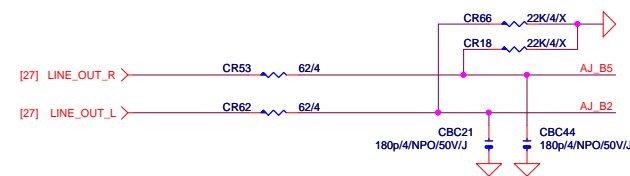
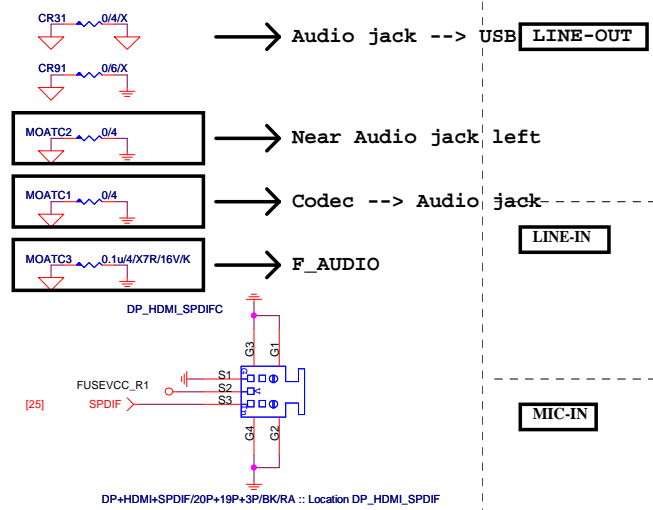
GIGABYTE™			
Title			
PCI SLOT 1&2			
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Custom	GA-Z87X-UD5H	1.02	
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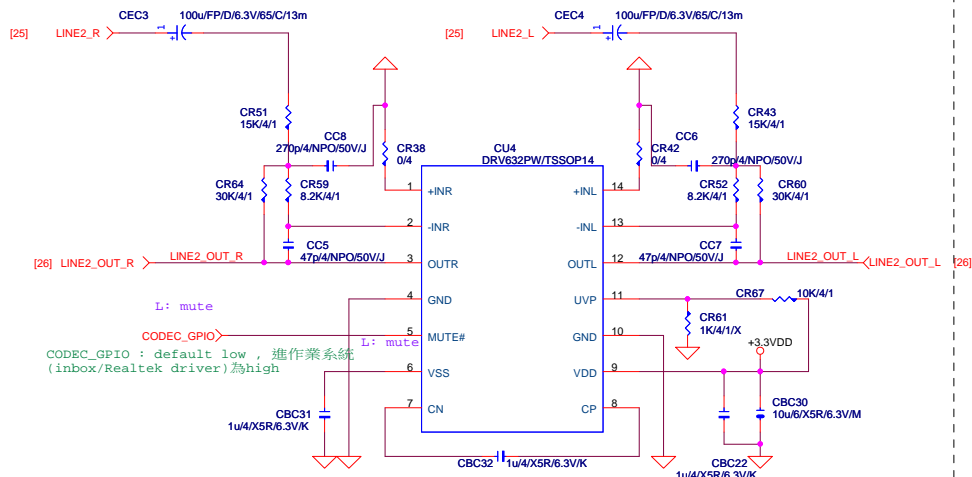
ALC898/ALC887-VD2/ALC892/VT1708S-CD/VT1708S-CE/VT2021 Colay

	ALC898	ALC887-VD2	ALC892	VT1708S-CD	VT1708S-CE	VT2021
CR81	X	X	X	O	X	O
CBC50	O	O	O	X	O	X
CR55/CBC25	47ohm+1nF	47ohm+1nF	47ohm+1nF	22ohm+100P	22ohm+100P	47ohm+1nF
CR80	O	O	O	O	O	O
CR83	X	X	X	X	X	X
CBC3/CBC15	22uF/X5R	10uF/X5R	10uF/X5R	10uF/X5R	10uF/X5R	10uF/X5R
CR65	20K/4/1	20K/4/1	20K/4/1	5.1K/4/1	20K/4/1	5.1K/4/1
CR9/CR22/ CR56/CR57/CR49/CR46/	8.2K/4	8.2K/4	8.2K/4	3.3K/4/1	3.3K/4/1	3.3K/4/1
CBC19/CBC24	X	X	X	100P/4	100P/4	X
CR66/CR18/CR13/CR88/ CR87/CR101/CR97/CR11	22K/4	22K/4	22K/4	10K/4/1	10K/4/1	10K/4/1
CR53/CR62/CR20/CR21/ CR10/CR33/CR102/CR14/ CR100/CR99/CR12/CR89/ CR48/CR45/CR26/CR34	62 ohm	62 ohm	62 ohm	75 ohm	75 ohm	75 ohm
CFB1/CD1/CBC1	O	O	X	X	O	X
CEC5	O	X	X	X	X	X
CESD1	X	O	X	O	O	X

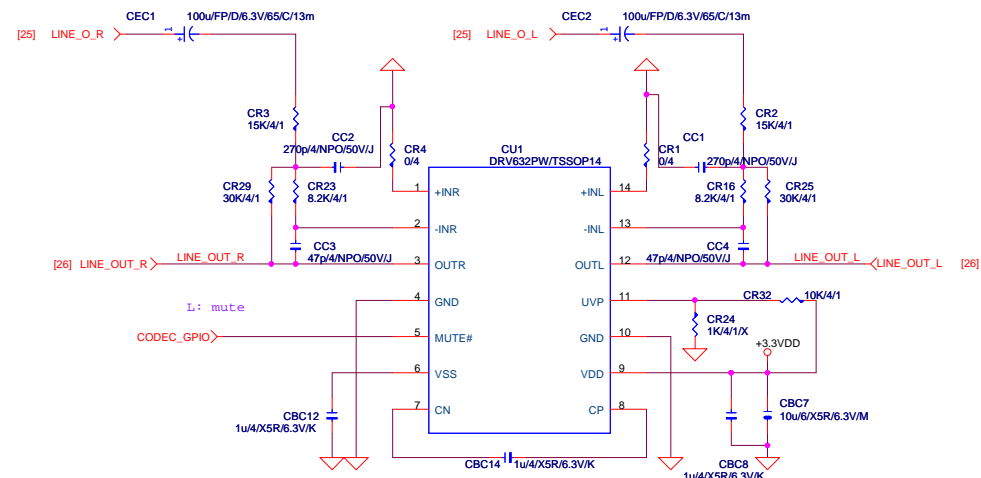


Gigabyte Technology			
Title			
AUDIO JACK			
GA-Z87X-UD5H			
Size	Document Number	Rev	1.02
Custom			
Date:	Wednesday, April 10, 2013	Sheet	26 of 50

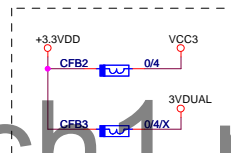
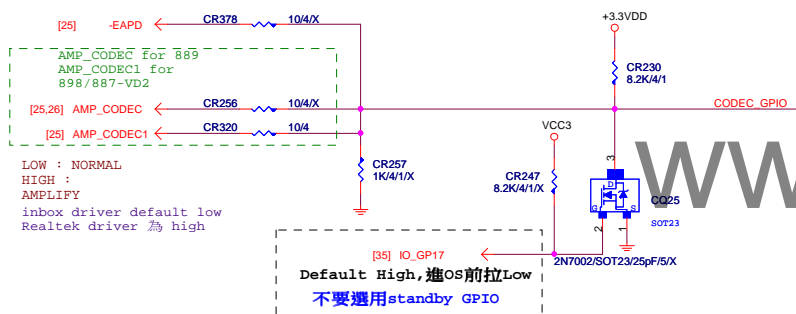
HEADPHONE



LINE-OUT

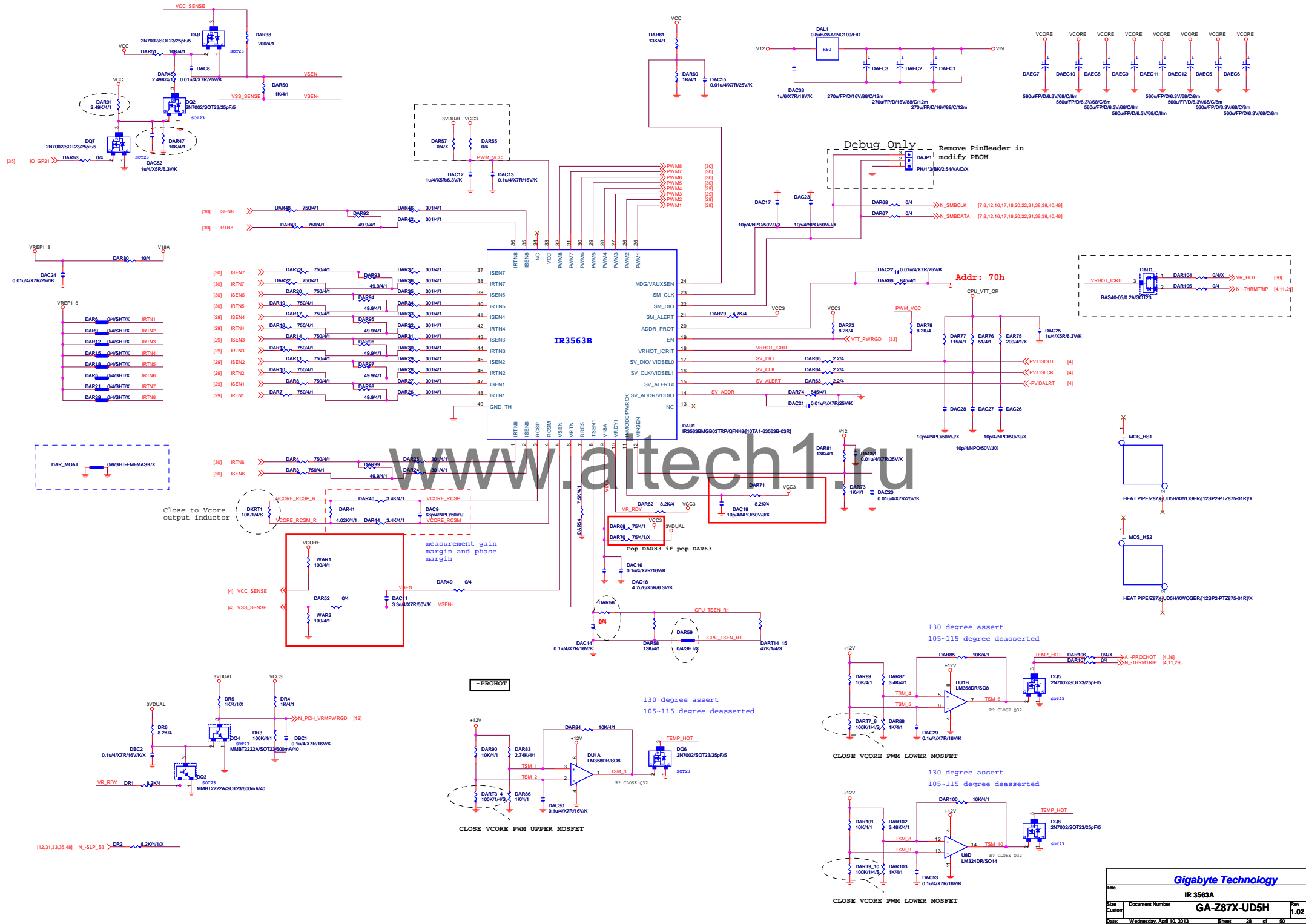


HEADPHONE

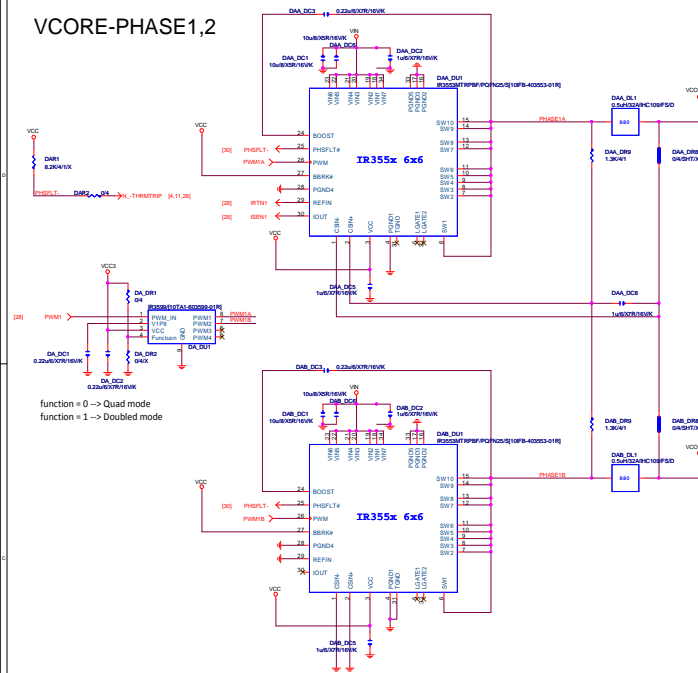


Gigabyte Technology

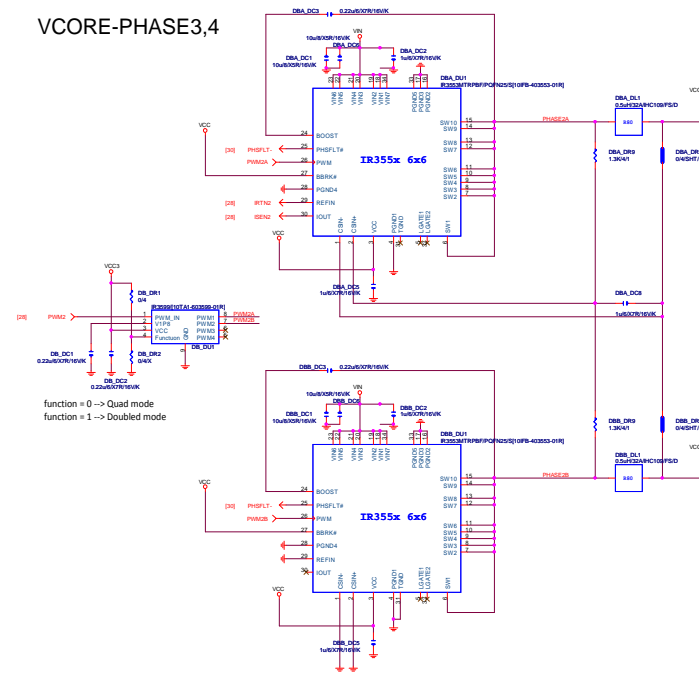
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8-CH DAC & Anti-Pop / Mute		
Size	Document Number	Rev
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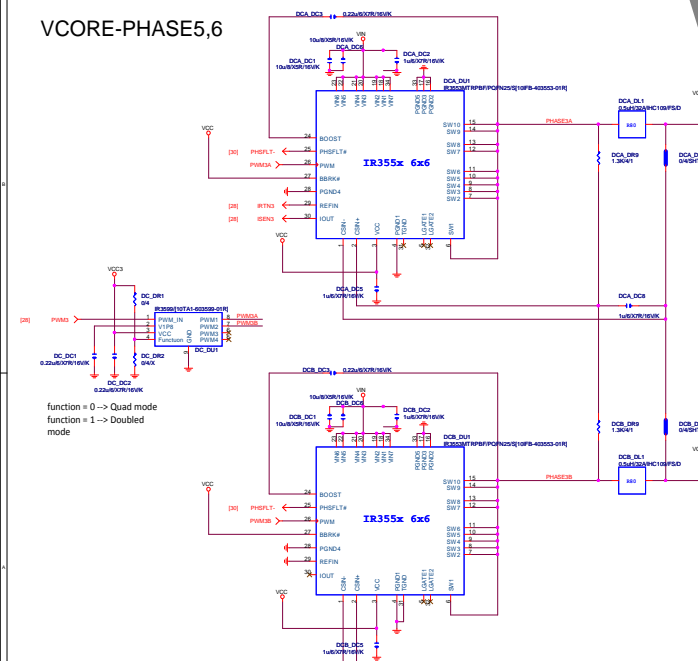
VCORE-PHASE1,2



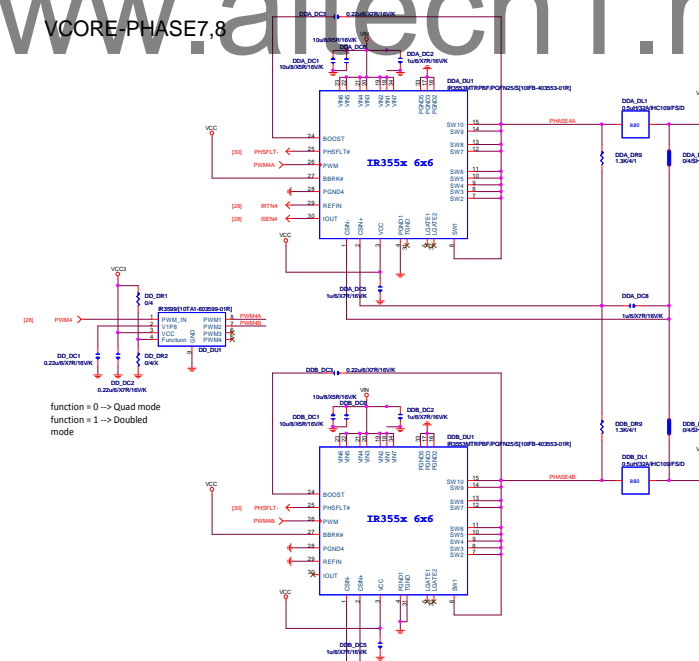
VCORE-PHASE3,4



VCORE-PHASE5,6

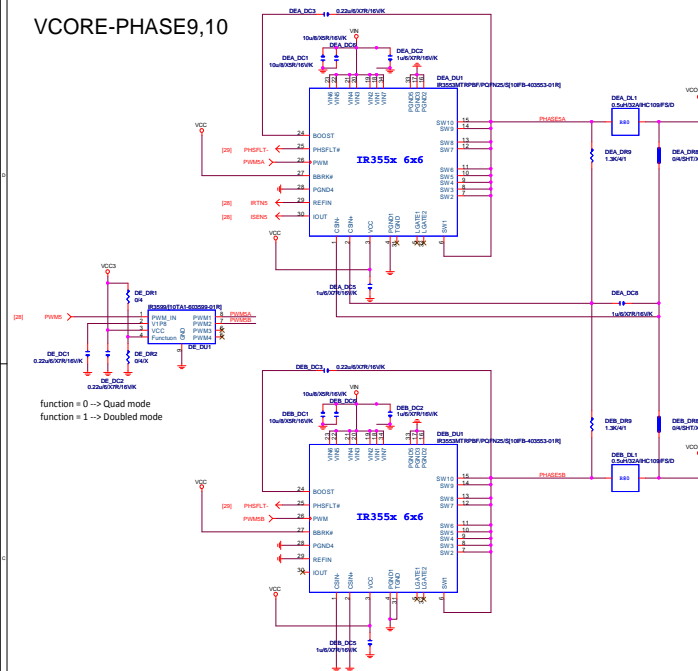


VCORE-PHASE7,8

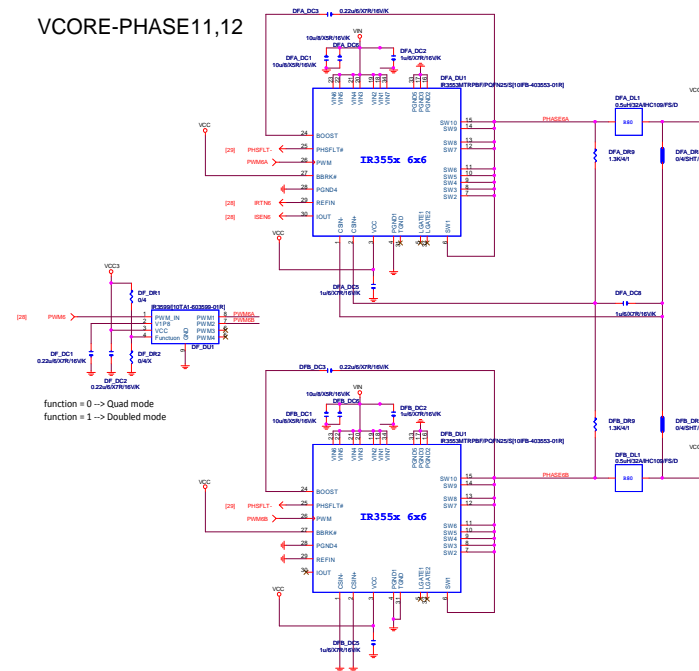


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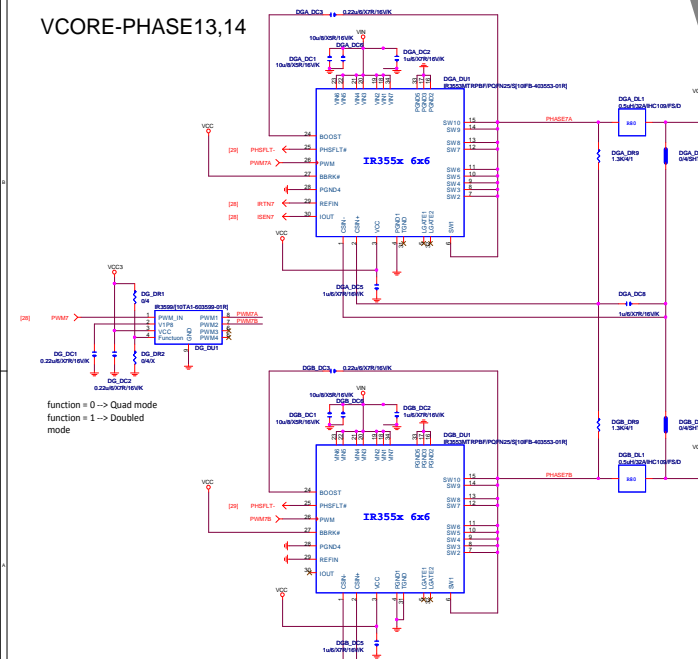
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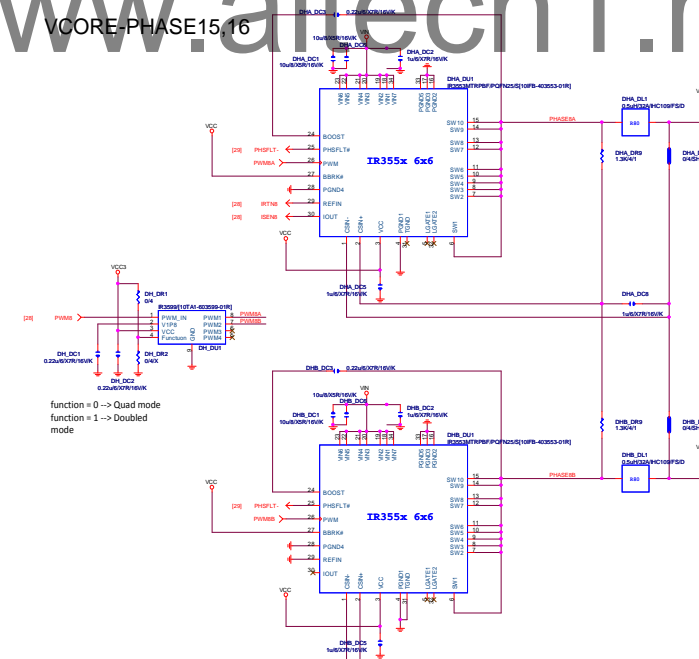
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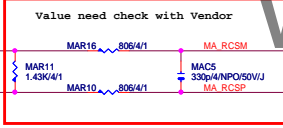
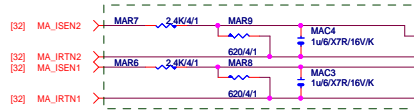
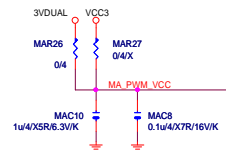
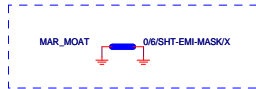
VCORE-PHASE13,14



VCORE-PHASE15,16



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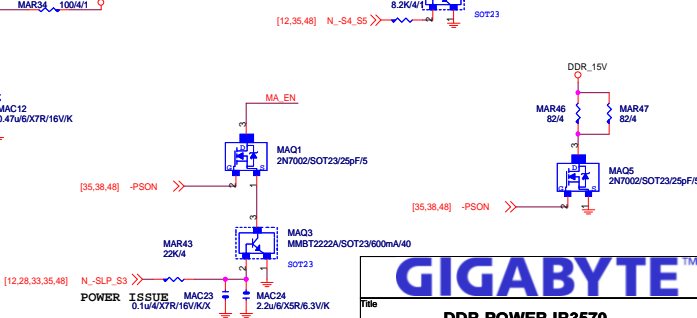
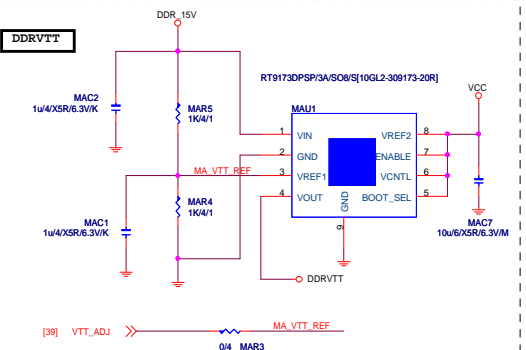
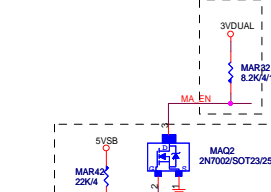
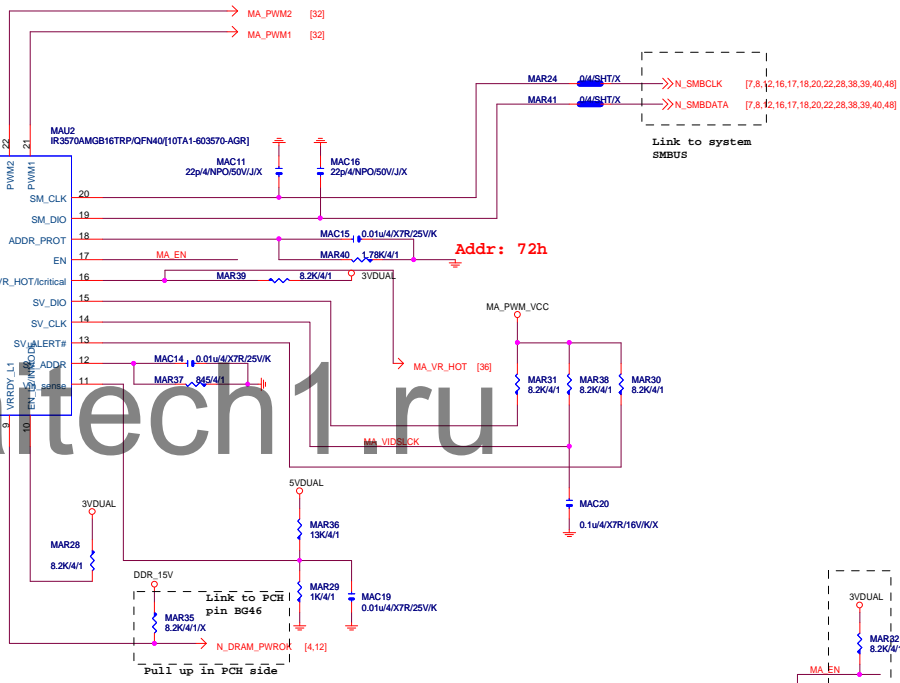
Close to DDR output inductor

should be routed as differential pair, 7mil width, 8mil spacing

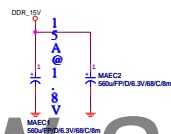
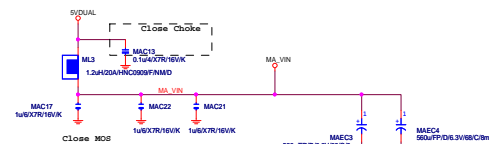
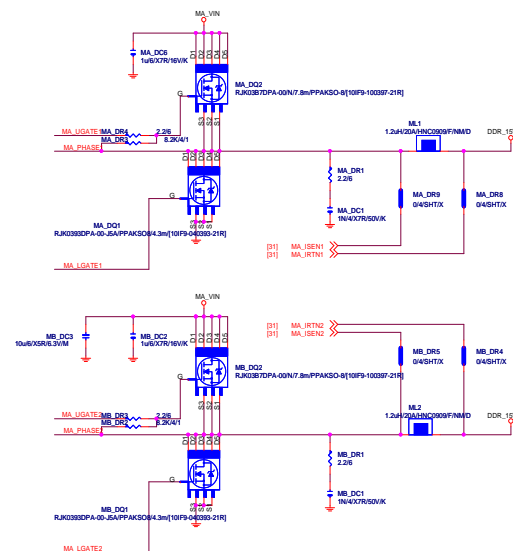
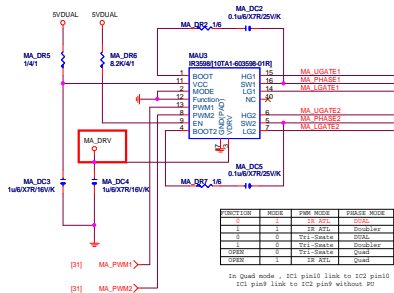


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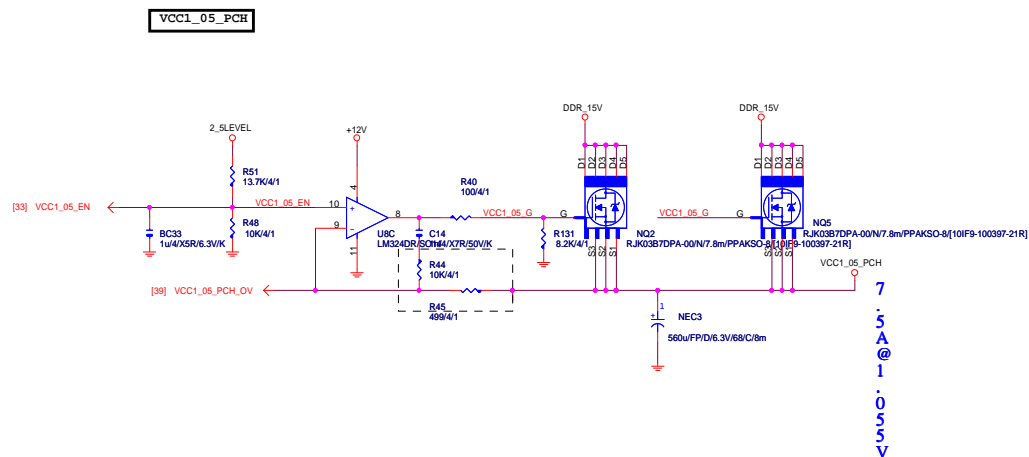
IR3570



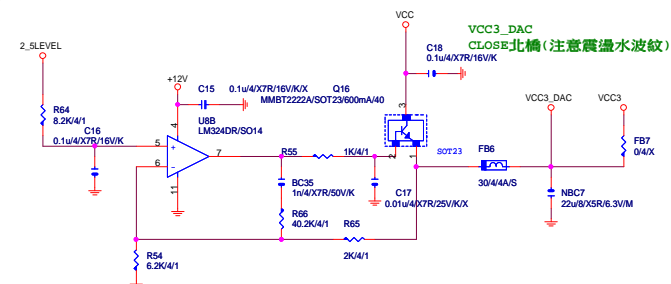
DDR 15V



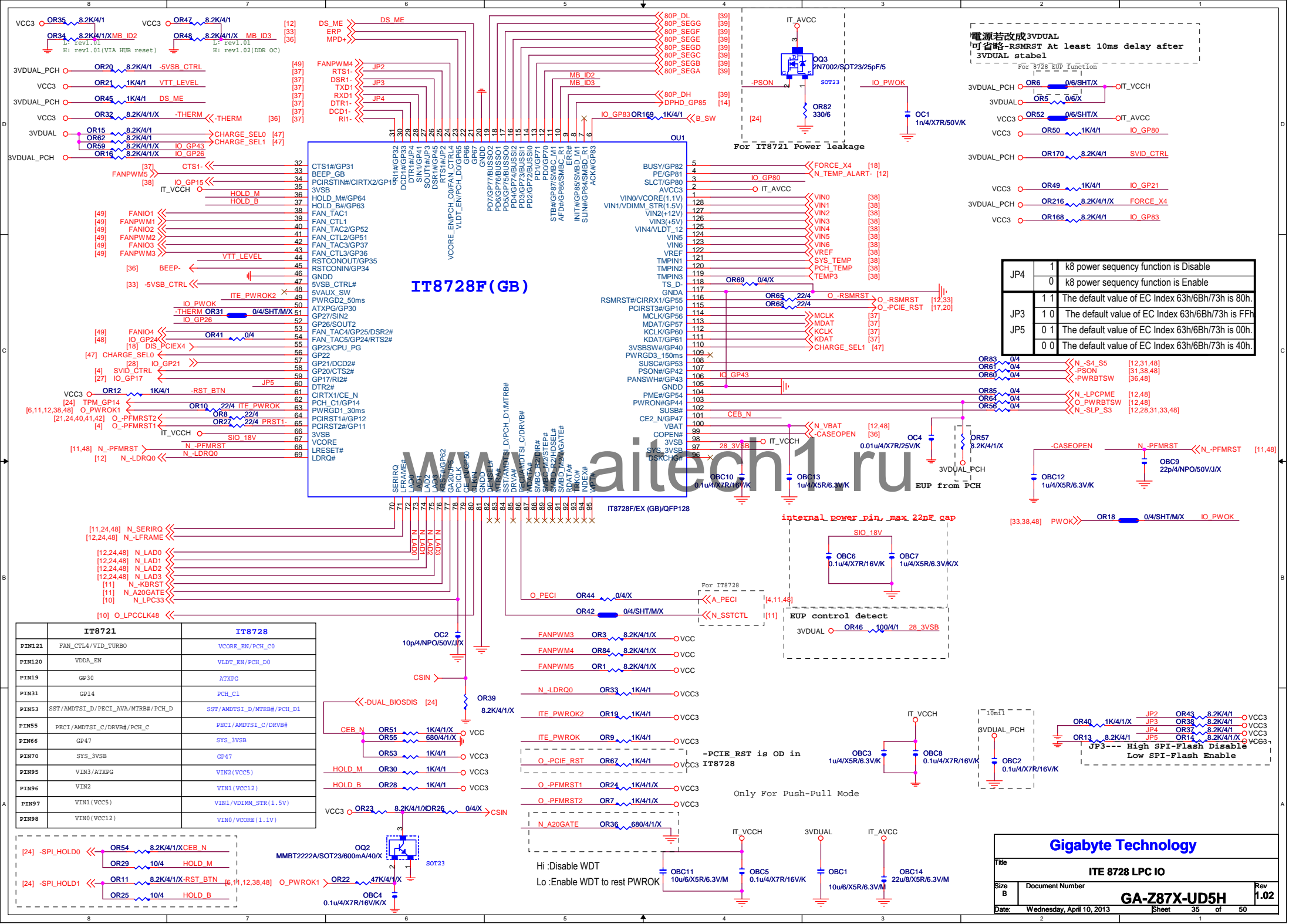
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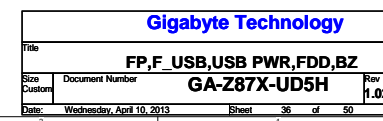


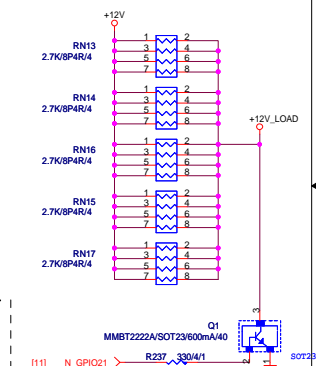
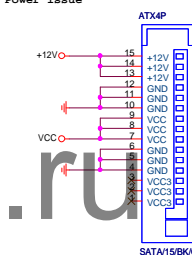
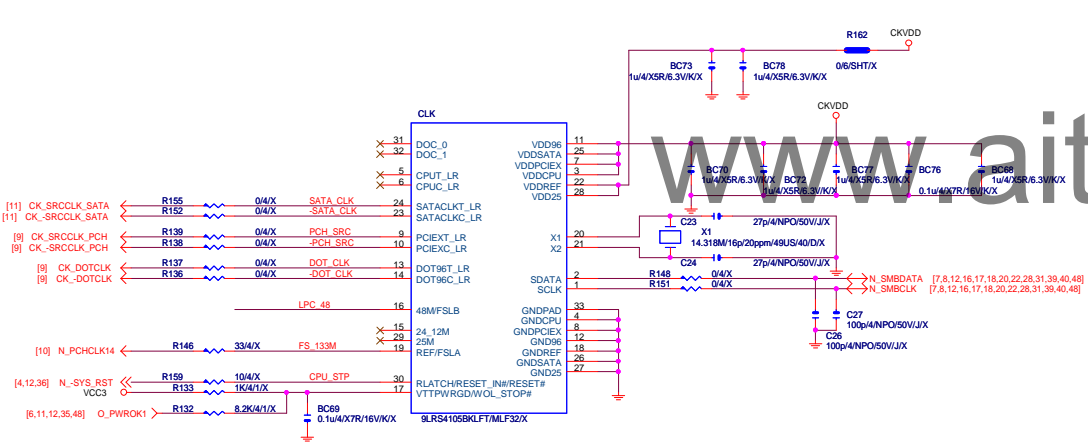
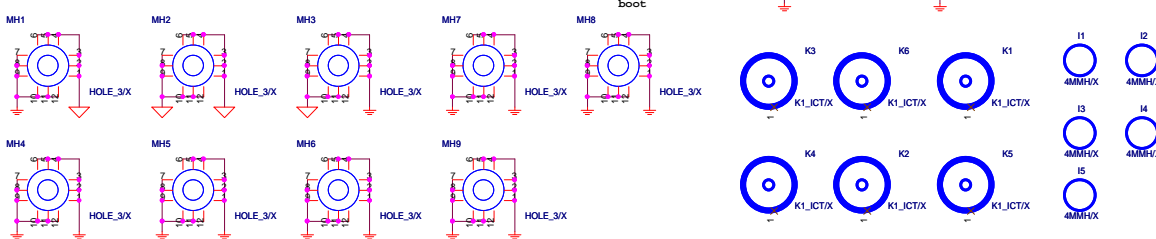
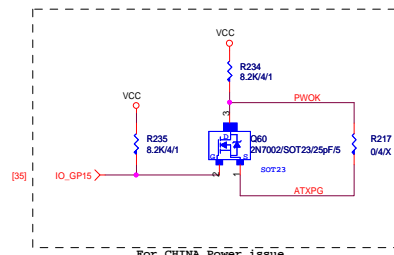
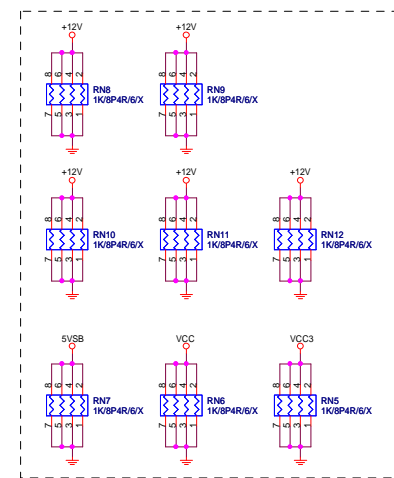
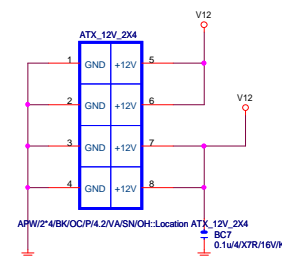
VCC3_DAC
(3.3V/70mA+360uA)



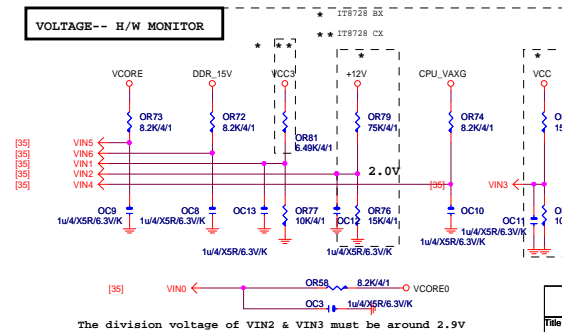
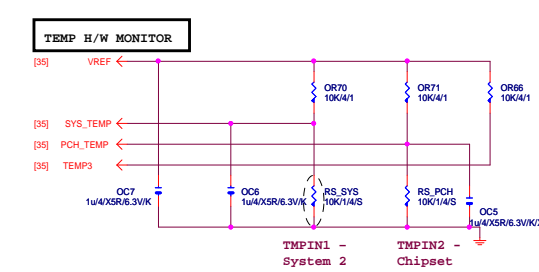
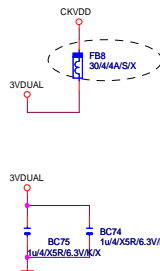
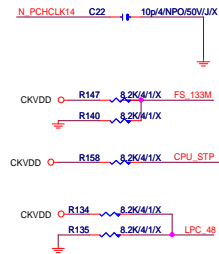
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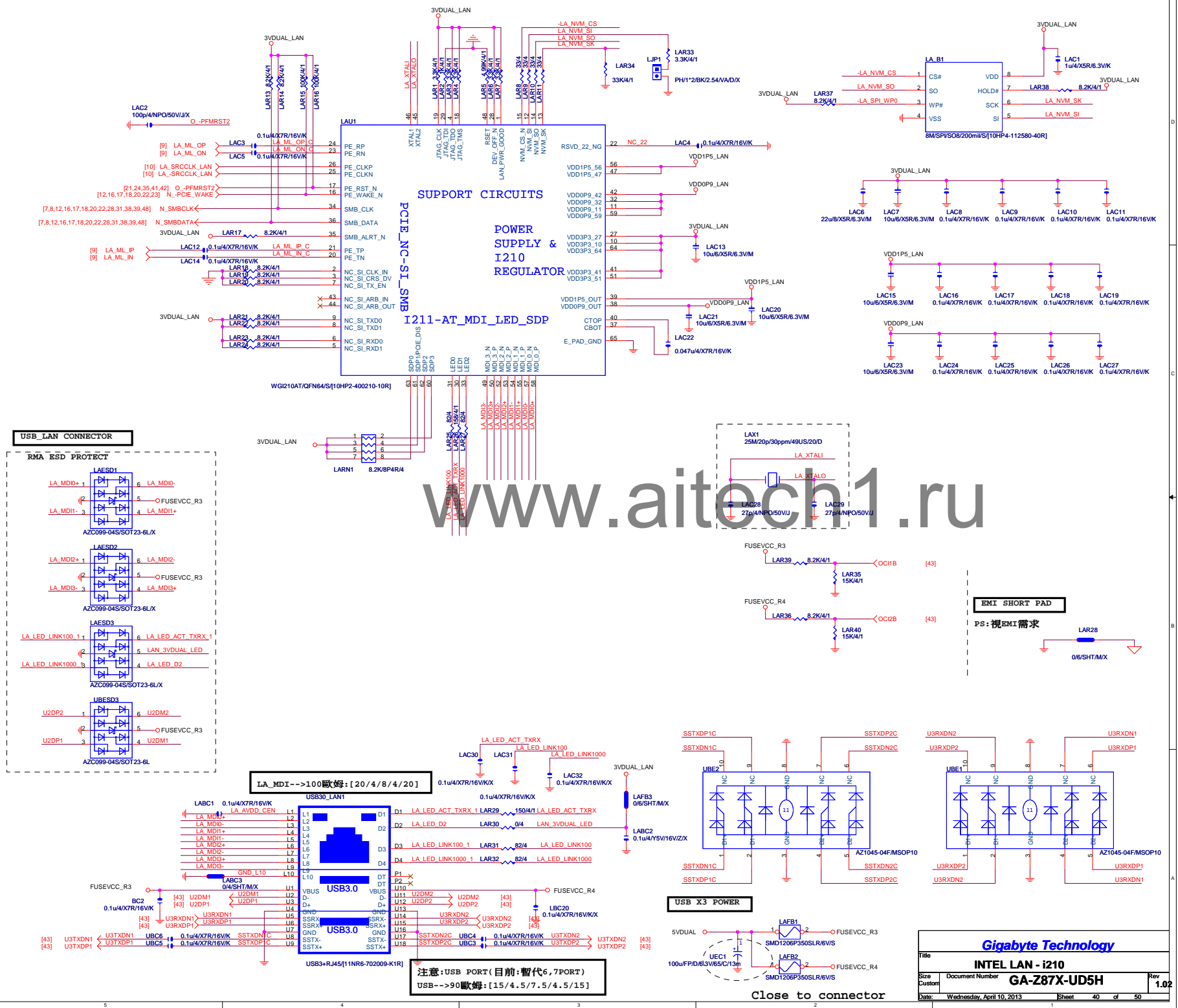


FSLB	FSLA	CPU
0	0	100M <Default>
0	1	133M
1	0	200M
1	1	166M

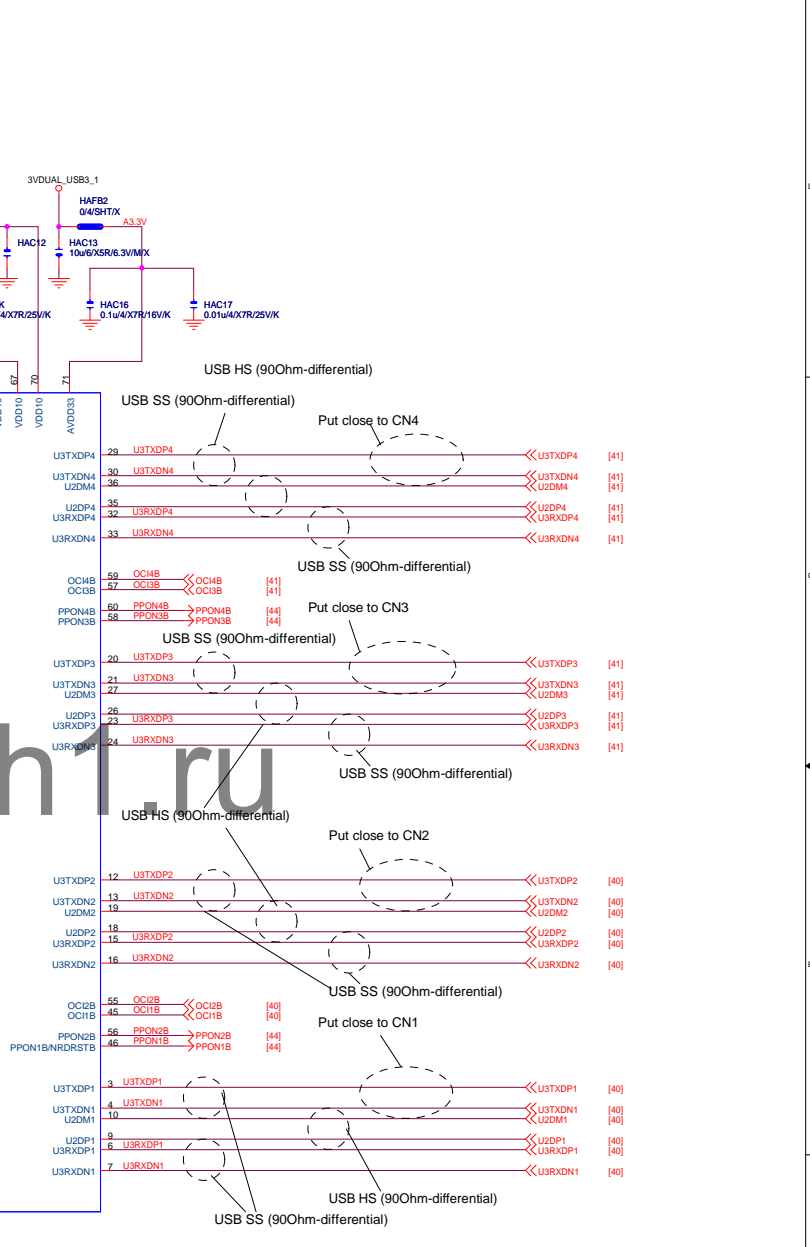
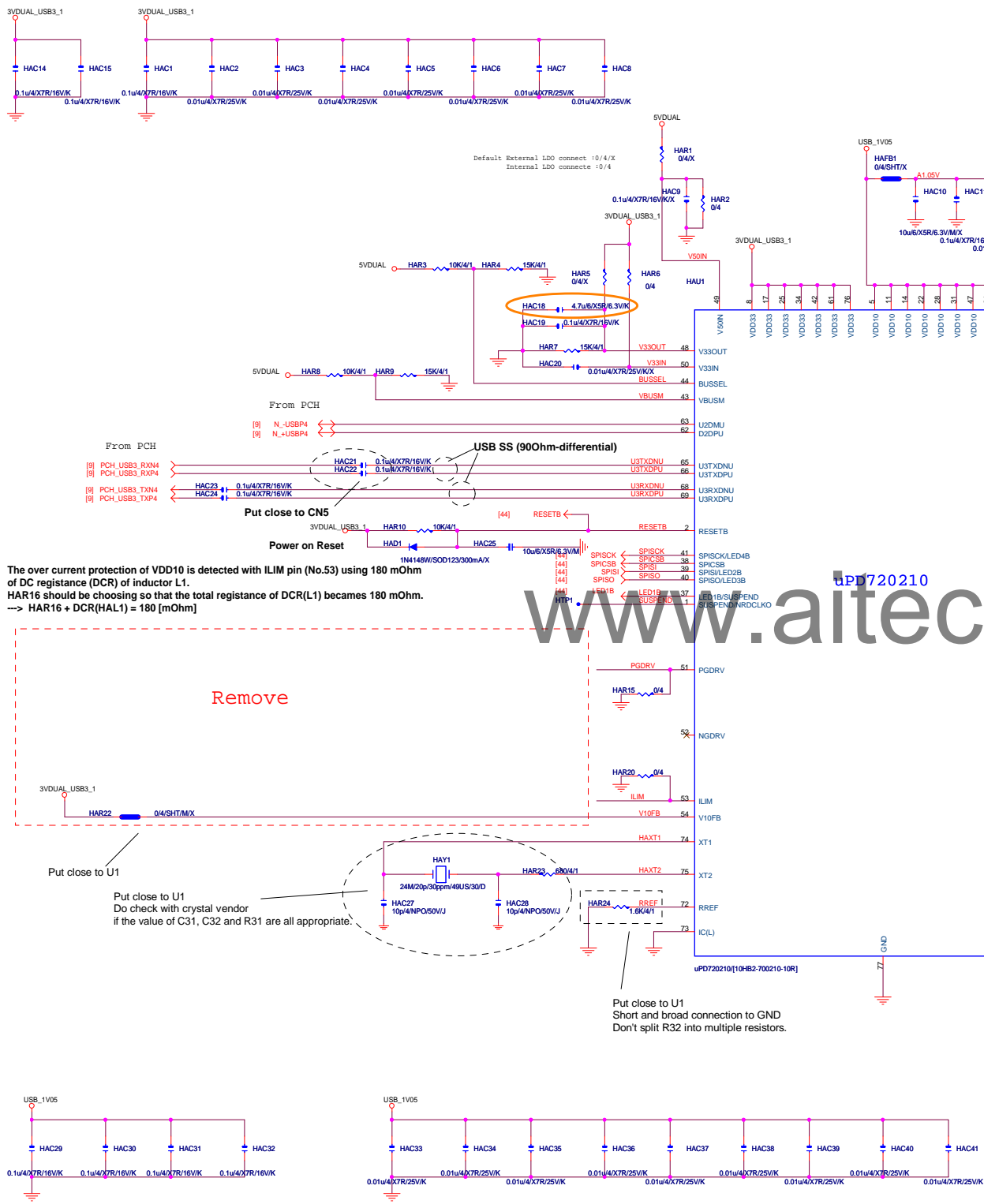


To fix 12V light load abnormal issue

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PPON3B / PPON4B : H / H (4 port)
 PPON3B / PPON4B : L / L (2 port)

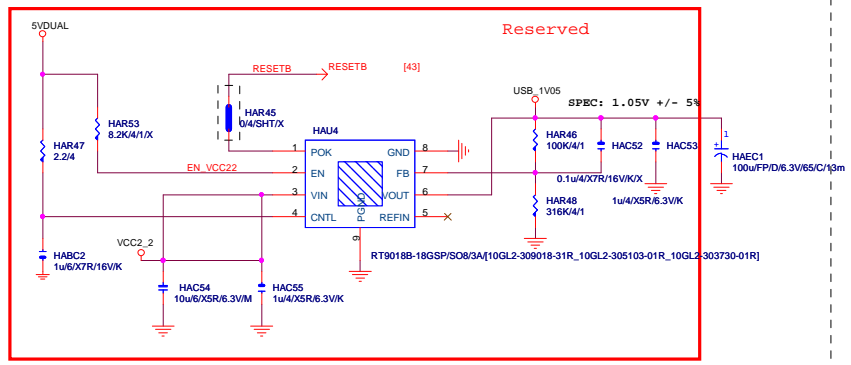
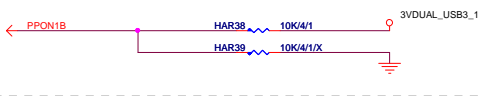
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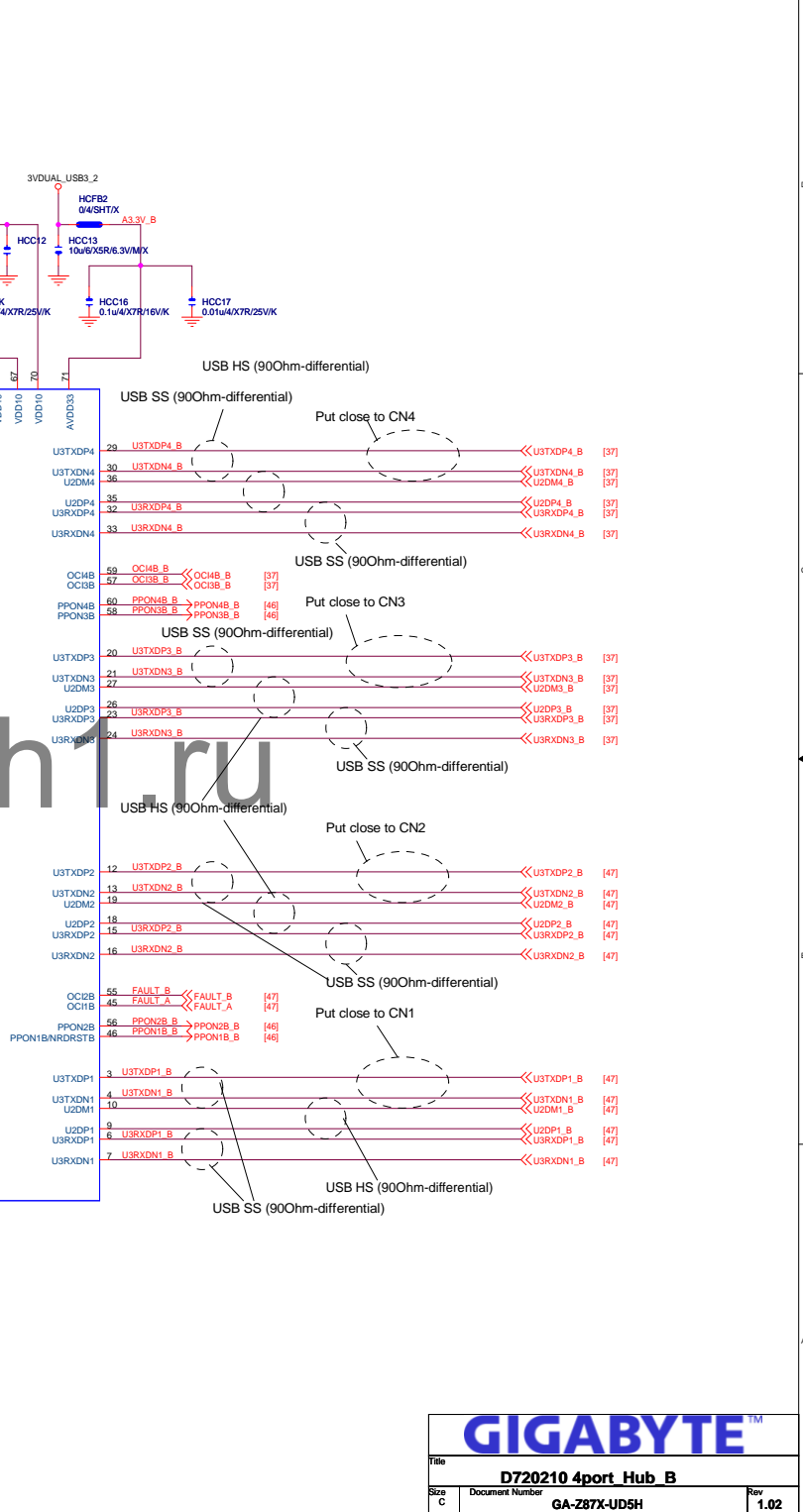
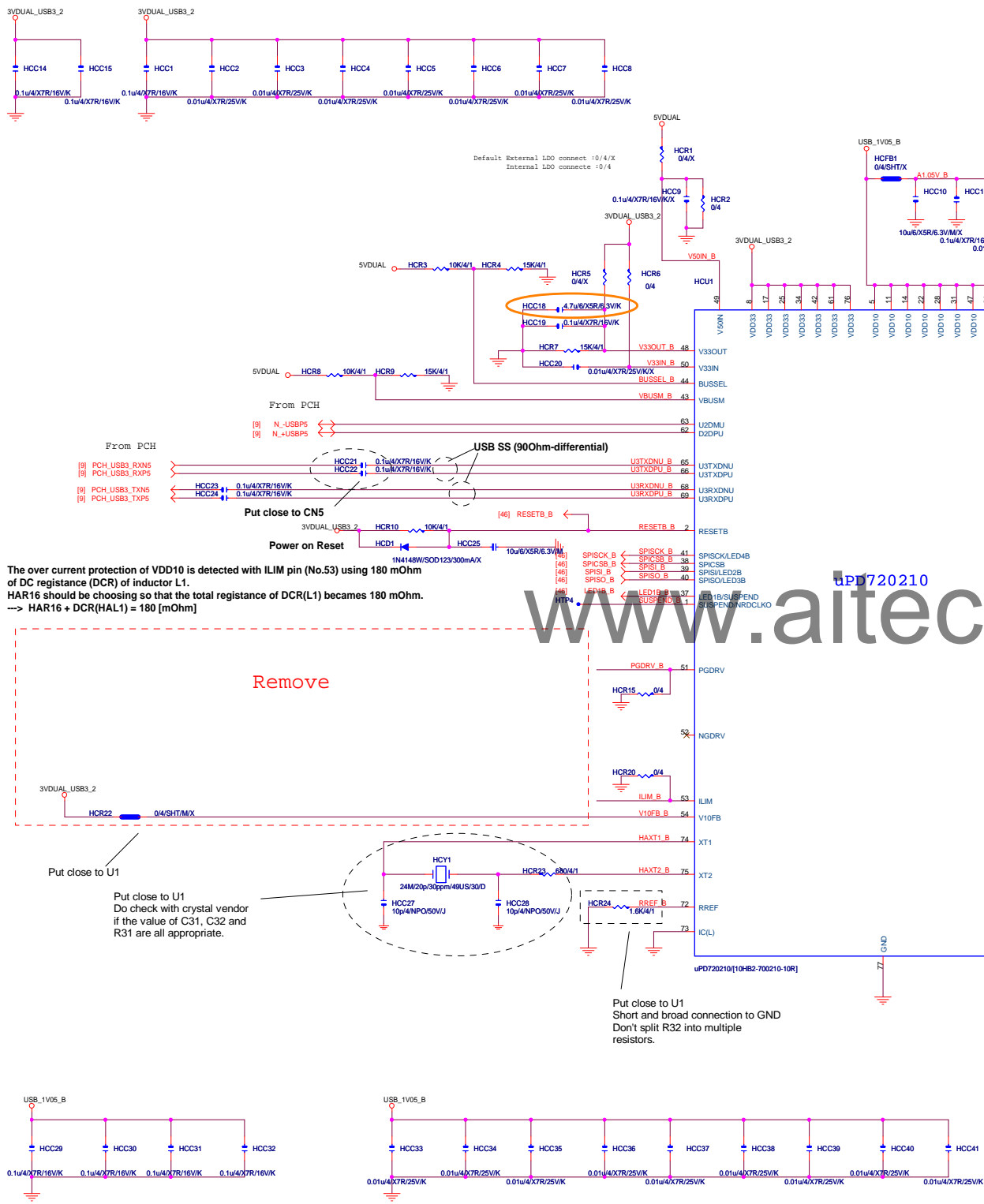
BOM

[R3] PPON3B ← PPON3B

HAR34 10KΩ/1
 HAR58 1KΩ/1/X

3V3V





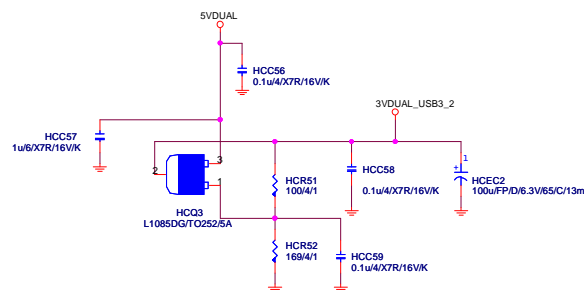
[illegible]

Diagram 1: SPISCK_B signal line connected to 3VDUAL_USB3_2 (3V3) through resistors HCR55 (10K/4/1/X) and HCR30 (1K/4/1).

Diagram 2: SPISO_B signal line connected to 3VDUAL_USB3_2 (3V3) through resistors HCR56 (10K/4/1/X) and HCR31 (1K/4/1).

Diagram 3: LED1B_B signal line connected to 3VDUAL_USB3_2 (3V3) through resistors HCR32 (10K/4/1) and HCR49 (10K/4/1/X).

The diagram illustrates the USB3.0 PHY interface for the PYNQ-Z1 board. It shows two differential signal pairs: PPN04B_B and PPN03B_B. Each pair is connected to a USB3.0 PHY block (HCR33/HCR57 for PPN04B_B and HCR34/HCR58 for PPN03B_B) which is then connected to the 3V0DUAL_USB3_2 pins. The PHY blocks are also connected to ground.

[45] PPON2B_B

HCR35 10K/4/1/X

HCR40 10K/4/1

3VDUAL_USB3_2

PPON2B_B

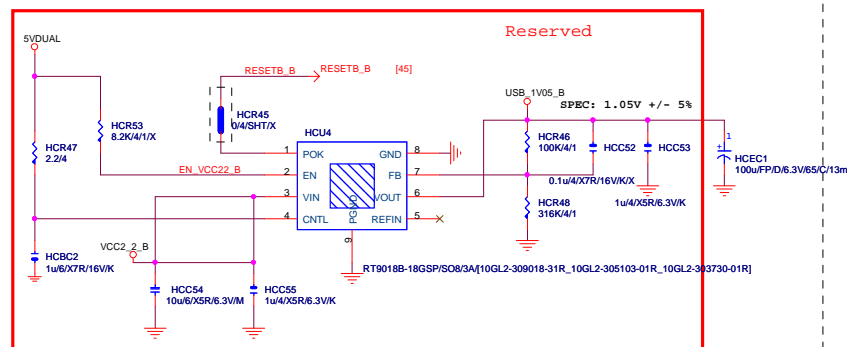
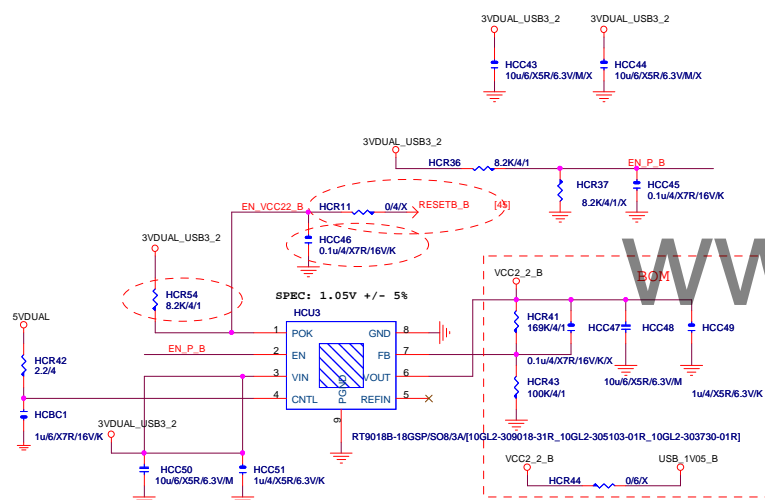
[45] PPN1B_B

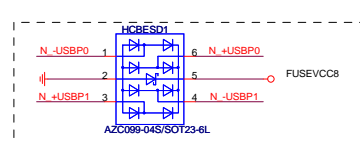
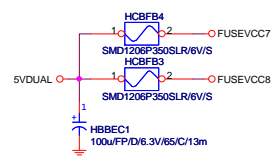
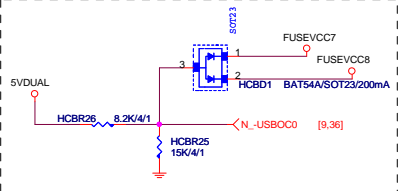
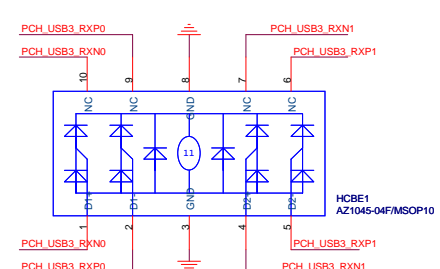
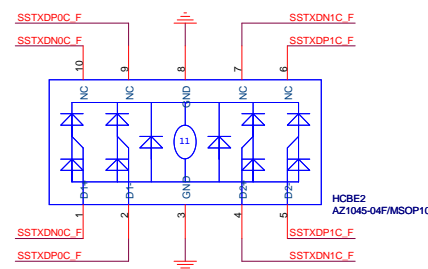
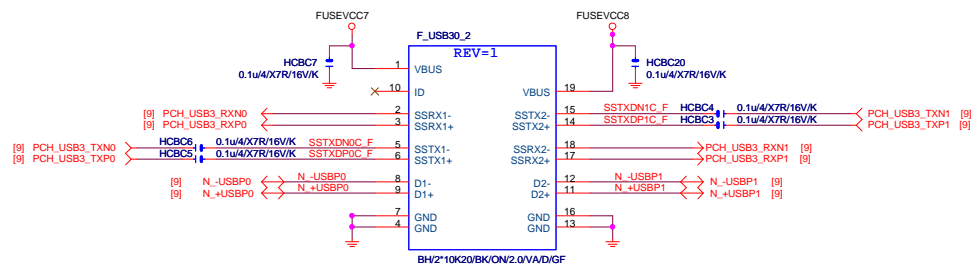
PPON1B_B

HCR38 10K/4/1

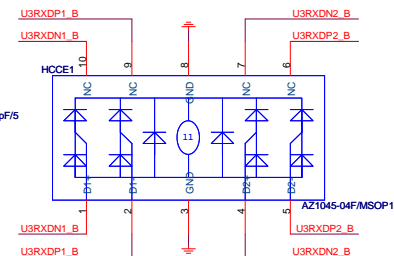
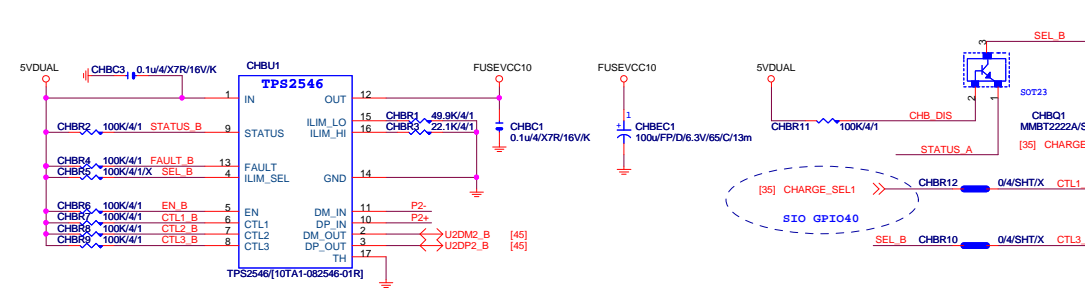
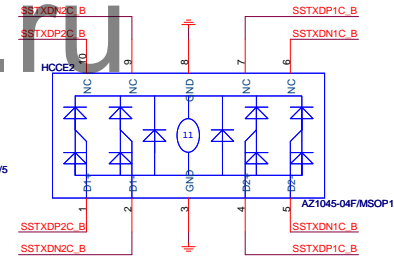
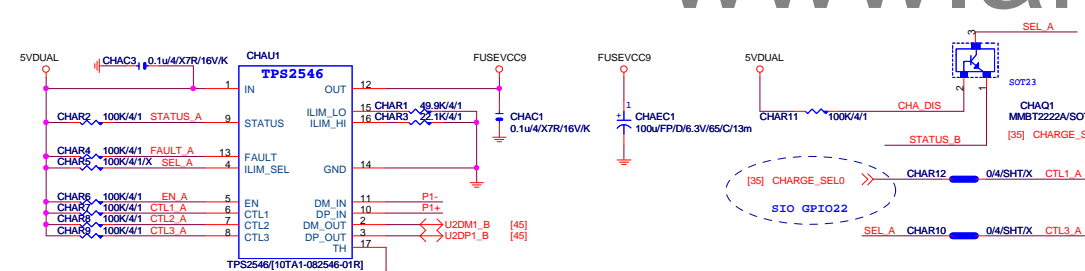
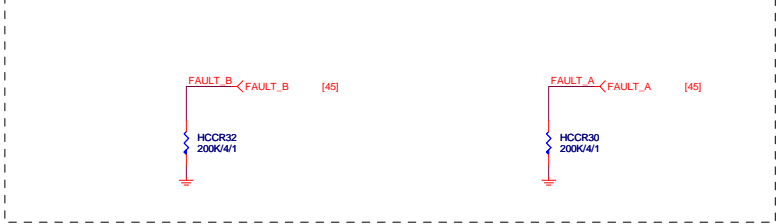
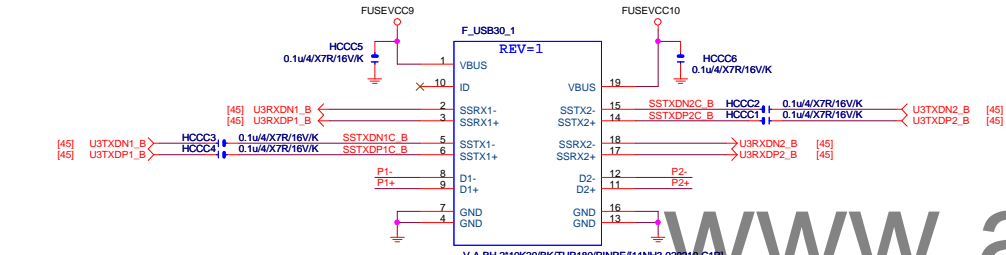
HCR39 10K/4/1/X

3VDUAL_USB

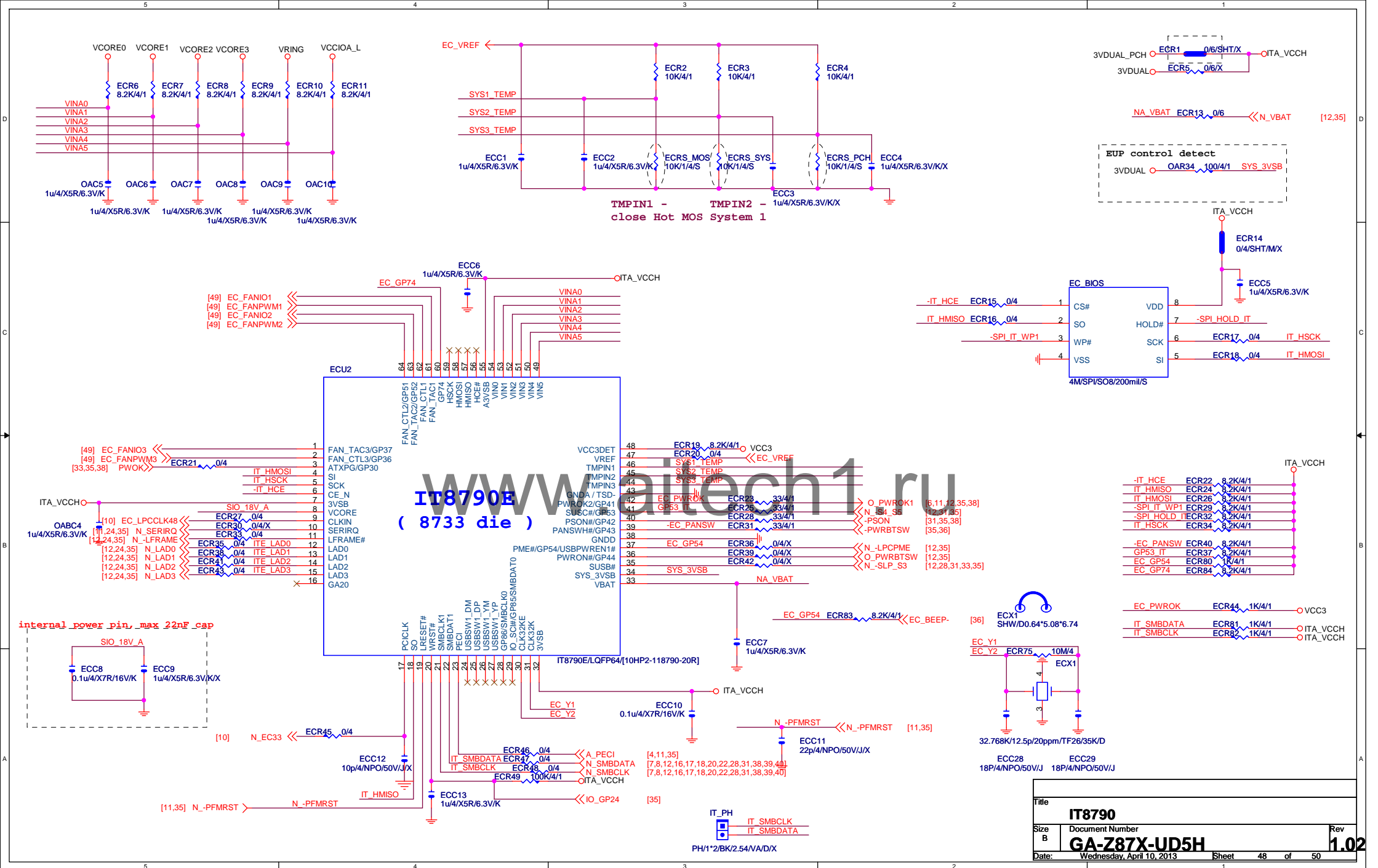




i_phone charger circuit

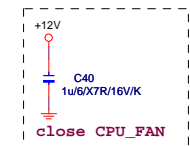


	S0	S3/S4/S5
CHARGE_SEL0	1	0
CHARGE_SEL1	1	0



CPU SMART FAN

SYS FAN2



CPUOPT FAN

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SYS FAN1

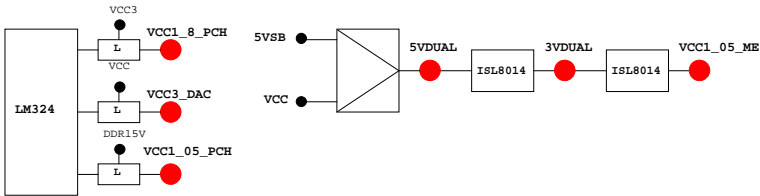
Gigabyte Technology			
Title			
HWM,KB/MS, FAN CTRL			
Size	Document Number	Rev	
Custom	GA-Z87X-UD5H	1.02	
Date:	Wednesday, April 10, 2013	Sheet	49 of 50

PCH GPIO LIST TABLE					
PIN NAME	PWR	Default	USAG	NOTE	
GP0	MAIN	H-Z	GPI	-PECI_REQ	N/A
GP1/TACH1	MAIN		GPI	ICH_FAN_TACH1	N/A
GP2/PIRQE#	MAIN		GPI	-PIRQE	P/U 8.2K VCC3
GP3/PIRQF#	MAIN		GPI	-PIRQF	P/U 8.2K VCC3
GP4/PIRQG#	MAIN		GPI	-PIRQG	P/U 8.2K VCC3
GP5/PIRQH#	MAIN		GPI	-PIRQH	P/U 8.2K VCC3
GP6/TACH2	MAIN		GPI	ICH_FAN_TACH2	N/A
GP7/TACH3	MAIN		GPI	ICH_FAN_TACH3	N/A
GP8	STBY	H	GPO	GPIO8	P/U 8.2K 3VDUAL
GP9/OC5#	STBY		NATIVE	OC5#	N/A
GP10/OC6#	STBY		NATIVE	OC6#	N/A
GP11/SMBALERT#	STBY		NATIVE	-SMBALERT	P/U 8.2K 3VDUAL
GP12	STBY	L	GPI	LAN_PHY_PWR_CTRL	P/U 8.2K 3VDUAL
GP13	STBY	L	GPI	GPIO13	P/U 8.2K 3VDUAL
GP14/OC7#	STBY		NATIVE	OC7#	N/A
GP15	STBY	L	GPO	GPIO15	N/A
GP16	MAIN		GPI	-SKTOCC	P/U 8.2K VCC3
GP17/TACH0	MAIN		GPI	ICH_FAN_TACH0	N/A
GP18	MAIN		NATIVE	MB_ID0	P/D 8.2K GND
GP19	MAIN		GPI	-LAN1_ISO	P/U 8.2K VCC3
GP20	MAIN		NATIVE	LED_CTL	P/U 1K VCC3
GP21	MAIN		GPI	VCC18_PCH_OV2	P/U 8.2K VCC3
GP22	MAIN	H-Z	GPI	VCORE_OV3	P/U 8.2K VCC3
GP23	MAIN		NATIVE	-LDRQ1	P/U 8.2K VCC3
GP24	STBY	L	GPO	TLS	P/U 8.2K 3VDUAL
GP25	STBY		NATIVE	-CPU_STOP	P/U 8.2K 3VDUAL
GP26	STBY		NATIVE	-AC2_DET	P/U 8.2K 3VDUAL
GP27	STBY	H	GPO	GPIO27	P/U 8.2K 3VDUAL
GP28	STBY	H	GPO	GPIO28	P/U 8.2K 3VDUAL
GP29	STBY	L	GPI	GPIO29	N/A
GP30	STBY	H-Z	GPI	S_PWR_ACK	P/U 100K 3VDUAL
GP31	STBY	H-Z	GPI	N/A(Reverse)	P/U 8.2K VCC3
GP32	MAIN	H	GPO	MB_ID1	P/D 8.2K GND
GP33	MAIN	H	GPO	LOAD-LINE	P/U 1K VCC3
GP34	MAIN	H-Z	GPI	-PCI_STOP	P/U 8.2K VCC3
GP35	MAIN	L	GPO	GPIO35	P/U 8.2K VCC3
GP36	MAIN		GPI	-LAN1_DSM	P/U 8.2K VCC3
GP37	MAIN		GPI	N/A	P/U 8.2K VCC3
GP38	MAIN	H-Z	GPI	VCORE_OV2	P/U 8.2K VCC3
GP39	MAIN	H-Z	GPI	-LAN_DSM	P/U 8.2K VCC3
GP40	STBY		NATIVE	OC1#	N/A
GP41	STBY		NATIVE	OC2#	N/A
GP42	STBY		NATIVE	OC3#	N/A
GP43	STBY		NATIVE	OC4#	N/A
GP44	STBY	L	NATIVE	N/A	P/U 8.2K 3VDUAL
GP45	STBY		NATIVE	-LPCPME	P/U 8.2K 3VDUAL
GP46	STBY	L	NATIVE	PWR_LED	P/U 8.2K 3VDUAL
GP47	STBY		NATIVE	PSI_LED	P/U 8.2K 3VDUAL
GP48	MAIN	H-Z	IN	EN_PWM	P/U 8.2K VCC3
GP49	MAIN	H-Z	IN	VCC18_OV1	P/U 8.2K VCC3
GP50	MAIN		NATIVE	-REQ1	P/U 2.2K VCC
GP51	MAIN	H	NATIVE	-GNT1	N/A
GP52	MAIN		NATIVE	-REQ2	P/U 2.2K VCC
GP53	MAIN	H	NATIVE	-GNT2	N/A
GP54	MAIN		NATIVE	-REQ3	P/U 2.2K VCC
GP55	MAIN	H	NATIVE	-GNT3	N/A
GP56	STBY		NATIVE	N/A(Reverse)	P/U 8.2K 3VDUAL
GP57	STBY	H-Z	IN	VCORE_OV1	P/U 8.2K 3VDUAL
GP58	STBY	H-Z	NATIVE	F_USB_OC	P/U 8.2K 3VDUAL
GP59	STBY		NATIVE	USB_OC0#	N/A
GP60	STBY	H-Z	NATIVE	N/A(Reverse)	P/U 8.2K 3VDUAL
GP61	STBY	L	NATIVE	-SUSTAT	N/A
GP62	STBY	L	NATIVE	SUSCLK	N/A
GP63	STBY	L	NATIVE	GPIO63	N/A
GP64	MAIN	L	NATIVE	CLKOUTFLEX0	N/A
GP65	MAIN	L	NATIVE	CLKOUTFLEX1	N/A
GP66	MAIN	L	NATIVE	CLKOUTFLEX2	N/A
GP67	MAIN	L	NATIVE	CLKOUTFLEX3	N/A
GP72	STBY	H-Z	NATIVE	VCORE_OV4	P/U 8.2K 3VDUAL
GP73	STBY		NATIVE	1_05V_OV1	P/U 8.2K 3VDUAL
GP74	STBY	H-Z	NATIVE	1_05V_OV2	P/U 8.2K 3VDUAL
GP75	STBY	H-Z	NATIVE	N/A(Reverse)	P/U 8.2K 3VDUAL

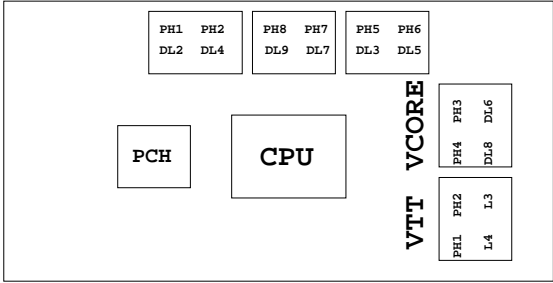
Super I/O ITE8720 GPIO Table

PIN NAME	USAG	NOTE
SVC/PECI_RQT/GP14	-PECI_REQ	
PWROK1/GP13	PWROK1/ITE_PWROK	
KRST#/GP62	-KBRST	
SO/GP50	-ICH_SPI_CS	
IRTX/GP47/CE2_N/JP7	CEB_N	
GP46/IRRX	-LAN2_DSM	
PSION#/GP42	-PSON	
PWROK2#/GP41	PECI_CTL	
PCIRST3#/GP10/VDIMM_STR_EN	-PCIE_RST	
RSMRST#CIRRX1/GP55	-RSMRST	
PME#/GP54	-LPCPME	
PD5/GP75/BUSS00	N/A	

PIN NAME	USAG	NOTE
FAN_TAC2/GP52	FANIO2	
FAN_TAC3/GP37	FANIO3	
VIDO3/FAN_TAC4/GP25/DSR2#	FANIO4	
FAN_CTL2/GP51	FANPWM2	
FAN_CTL3/GP36	FANPWM3	
VID4/GP34	BEEP-	
VID3/GP33	TURBO1	
VID2/GP32	TURBO0	
VCORE_GOOD/VID6/GP63	CPUT_LED1_C	
VID5/GP35	CPUT_LED2_C	
VID1/GP31	CPUT_LED3_C	
VID0/GP30	-LAN1_DSM	NBT_LED1_C
SLCT/GP80	CPU_LED1_C	
PE/GP81	CPU_LED2_C	
BUSY/GP82	CPU_LED3_C	
PD3/GP73/BUSS11	SB_LED1_C	
PD4/GP74/BUSS12	SB_LED2_C	
VCORE_EN/VID7/GP64	IT_GP64	SB_LED3_C
PD0/GP70	NB_LED1_C	
PD1/GP71	NB_LED2_C	
PD2/GP72/BUSS10	NB_LED3_C	
GP22/SEN	LOW_PWR_1	
VID05/GP27/SEN2	LOW_PWR_2	
PCIRST2#/GP11	-PFMRST1	
PCIRST1#/GP12	-PFMRST2	
3VSB5W#/GP40	CSI_F0	BSEL166_1
SUSCH#/GP53	CSI_F1	BSEL166_2
GP23/SI	BSEL166_3/CsisBSL	
VID00/GP20/CTS2#	CPUT_LED1_C	BSEL166_4
GP65/VDDA_EN/GB_01	MB_ID2	
PD6/GP76/BUSS01	MB_ID3	
PD7/GP77/BUSS02	MB_ID4	
AFD#/GP86/SMBC_R	W_PIN	FST_2X8
INIT#/GP85/SMBD_M	SEC_2x8	GTLREF_AD2
ACK#/GP83	DDR_LED1_C	
VID01/GP21/DCD2#	DDR_LED2_C	
STB#/GP87/SMBC_M	DDR_LED3_C	
PWRON#GP44	VCORE_OV1	
PANSWH#/GP43	PWRBT5W	
KDAT/GP61	-PWRBT5W	
KCLK/GP60	KDAT	
MDAT/GP57	KCLK	
MACL/GP56	MDAT	
GP66/VLDT_EN/GB_02	NBT_LED1_C	MCLK
SVD/PCIRSTIN#/CIRTX/GP15	PWM2_CR	
KDAT/GP61	PWM2_CR	
GP67/CPU_PG/GB_03	EN_LOADLINE	IT_GP67/-EN_PWM2
SLIN#/GP84/SMBD_R	-EN_PWM2	
PSI_L/FAN_CLT15/CIRRX2/GP16	-THERM	
VIDO4/GP26/SOUT2	DDR18V_PH2_EN	
VIDO2/FAN_TAC5/GP24/DSR2#	DDR18V_LED	
VIDO6/GP17/RI2#	1_1V_PH_EN	
VIDO7/JP6/DTR2#	JP6	
PD5/GP75/BUSS00	SB_LED3_C	



PWM各相位的擺法如下：



BIOS超電壓對應表：

線路圖名稱	BIOS選項
Vcore	CPU Vcore
CPU_VTT	CPU Termination
CPU_VAXG	CPU Graphic Core
VCC1_8_PCH	CPU PLL
VCC1_05_PCH	PCH core
3VDUAL	3VDUAL
DDR15V	DRAM voltage
DDRVTT	DRAM Terminatio
VREF_CA_AVREF_CA_B	DRAM Address Ref
VREF_DQ_AVREF_DQ_B	DRAM Data Ref

散熱模組料號：

8IBP：
1.12SP2-01A001-Y1R/Y2R
2.12SP2-01A001-Z1R/Z2R
(HIBRID模組)包材階

	3 pin FAN control	4 pin FAN control	FAN speed	Controller
CPU FAN	FANPWM1	FANPWM3	FANIO1	IT8720
	ICH_FAN_PWM2	ICH_FAN_PWM0	ICH_FAN_TACH0	PCH
SYS FAN	FANPWM2	N/A	FANIO2	IT8720
	ICH_FAN_PWM1	N/A	ICH_FAN_TACH1	PCH
PWR FAN	N/A	N/A	FANIO3	IT8720
			ICH_FAN_TACH2	PCH

Gigabyte Technology			
TABLE LIST			
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