

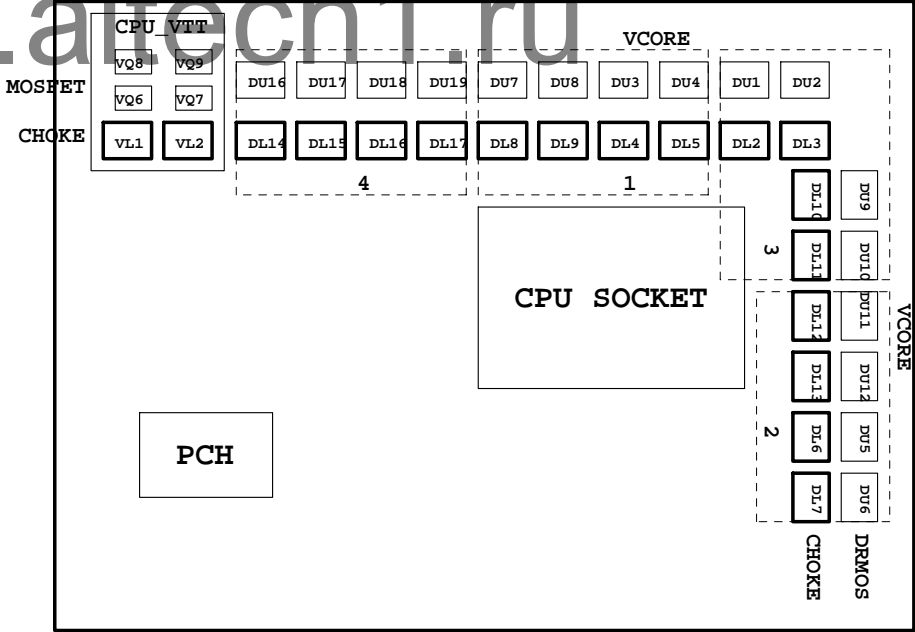
Model Name: GA-Z68X-UD4-B3 1.0

SHEET TITLE

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,NVRAM
10	PCH_DP,CLK BUFFER
11	PCH_HOST,SATA,PCI
12	PCH_GPIO,CTRL,AUDIO
13	PCH_PWR,GND
14	PCI EXPRESS*16 SLOT
15	PCI EXPRESS*8 SLOT
16	PCI EXPRESS*16/*8 SWITCH
17	PCI EXPRESS*1 SLOTS X3
18	PI7C9X113SL
19	PI7C9X113SL POWER
20	PCI SLOT 1&2
21	I/O ITE8728
22	COM, -PROHOT, ESATA CONNECT
23	Dual BIOS , TPM SLB9635TT
24	ALC892
25	REAR AUDIO JACK
26	VCORE PWM_ISL6366CRZ-1
27	VCORE PWM_ISL6366CRZ-2

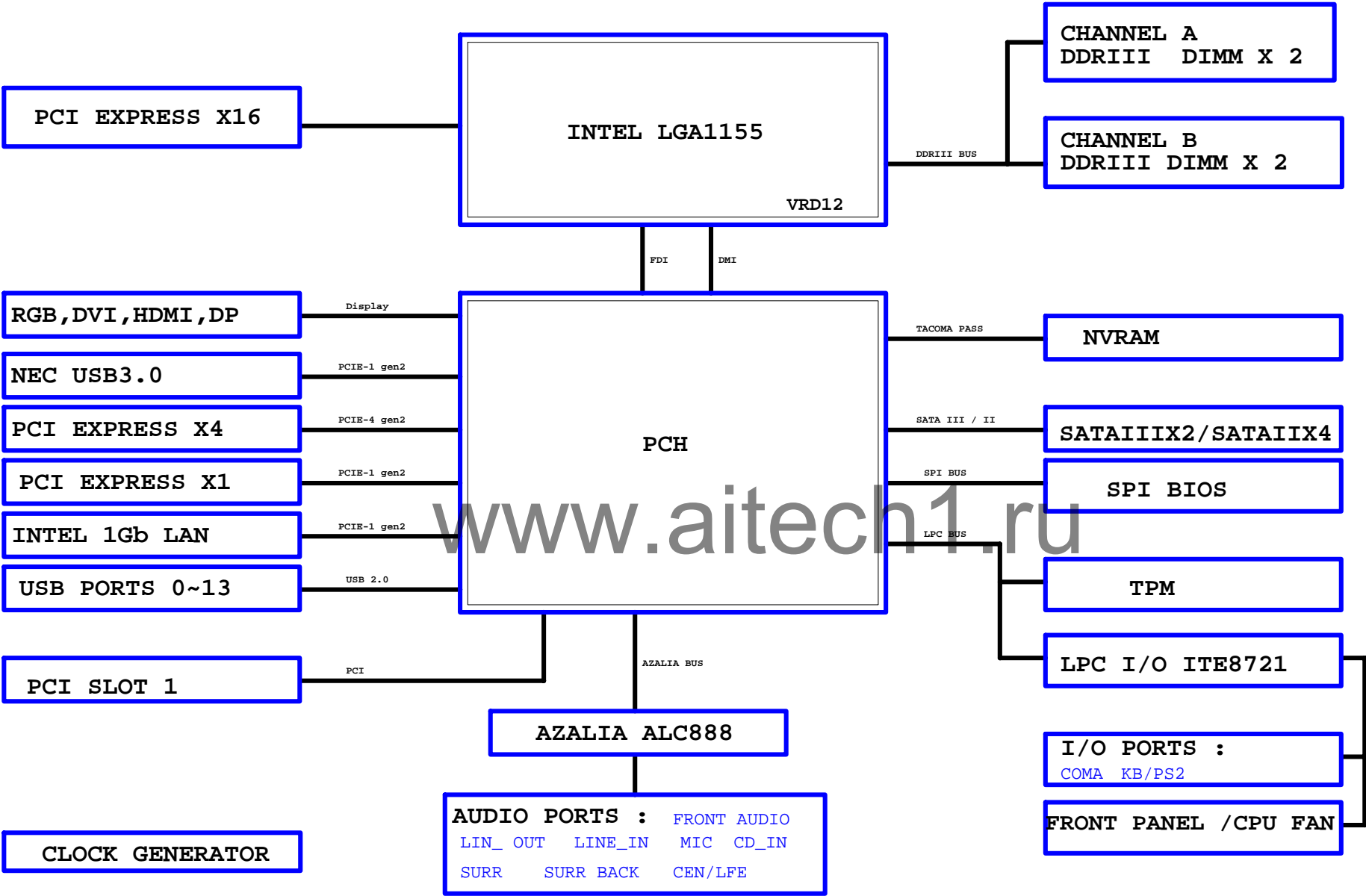
SHEET TITLE

28	VCORE PWM_ISL6366CRZ-3
29	DISCRETE POWER I
30	DDR_15V & VCC1_05_PCH PWM_ISL6545CBZ
31	CPU_VTT PWM_ISL6322G
32	VCCSA POWER
33	F_PANEL , F_USB , FDD
34	ATX POWER, CLOCK GEN
35	HWM,KB/MS , FAN CTRL
36	REALTEK RTL8111E
37	ESATA SE9128
38	FRONT NEC USB3.0
39	REAR NEC USB3.0
40	TABLE LIST



[illegible][illegible][illegible][illegible][illegible]

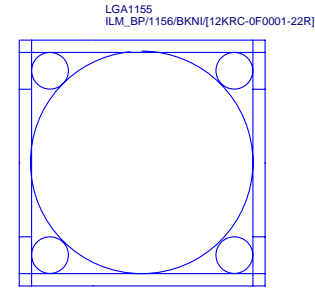
BLOCK DIAGRAM



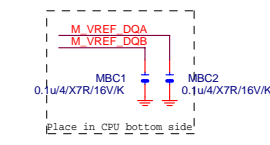
LGA1155A			
M_AAA0	AV27	SA_MA[0]	SA_DQ[0]
M_AAA1	AY24	SA_MA[1]	SA_DQ[1]
M_AAA2	AW24	SA_MA[2]	SA_DQ[2]
M_AAA3	AV23	SA_MA[3]	SA_DQ[3]
M_AAA4	AV23	SA_MA[4]	SA_DQ[4]
M_AAA5	AT24	SA_MA[5]	SA_DQ[5]
M_AAA6	AT23	SA_MA[6]	SA_DQ[6]
M_AAA7	AU22	SA_MA[7]	SA_DQ[7]
M_AAA8	AV22	SA_MA[8]	SA_DQ[8]
M_AAA9	AT22	SA_MA[9]	SA_DQ[9]
M_AAA10	AV28	SA_MA[10]	SA_DQ[10]
M_AAA11	AU21	SA_MA[11]	SA_DQ[11]
M_AAA12	AU21	SA_MA[12]	SA_DQ[12]
M_AAA13	AW32	SA_MA[13]	SA_DQ[13]
M_AAA14	AU20	SA_MA[14]	SA_DQ[14]
M_AAA15	AT20	SA_MA[15]	SA_DQ[15]
(7) M_SWEA	M_SWEA	AW29	SA_WE#
(7) M_SCASA	M_SCASA	AV30	SA_CAS#
(7) M_SRASA	M_SRASA	AU28	SA_RAS#
(7) M_SBA0	M_SBA0	AY29	SA_BS[0]
(7) M_SBA1	M_SBA1	AW28	SA_BS[1]
(7) M_SBA2	M_SBA2	AV20	SA_BS[2]
(7) M-CSA0	M-CSA0	AU29	SA_CS#0]
(7) M-CSA1	M-CSA1	AV32	SA_CS#1]
(7) M-CSA2	M-CSA2	AW30	SA_CS#2]
(7) M-CSA3	M-CSA3	AU33	SA_CS#3]
(7) M_CKEA0	M_CKEA0	AV19	SA_CKE[0]
(7) M_CKEA1	M_CKEA1	AT19	SA_CKE[1]
(7) M_CKEA2	M_CKEA2	AU18	SA_CKE[2]
(7) M_CKEA3	M_CKEA3	AV18	SA_CKE[3]
M_ODT_A0	AV31	SA_ODT[0]	
M_ODT_A1	AU32	SA_ODT[1]	
M_ODT_A2	AU30	SA_ODT[2]	
M_ODT_A3	AW33	SA_ODT[3]	
(7) M_DCLKA0	M_DCLKA0	AY25	SA_CK[0]
(7) M_DCLKA1	M_DCLKA1	AW25	SA_CK#0]
(7) M_DCLKA1	M_DCLKA1	AU24	SA_CK[1]
(7) M_DCLKA2	M_DCLKA2	AU25	SA_CK#1]
(7) M_DCLKA2	M_DCLKA2	AY27	SA_CK[2]
(7) M_DCLKA2	M_DCLKA2	AU26	SA_CK#2]
(7) M_DCLKA3	M_DCLKA3	AW26	SA_CK[3]
(7) M_DCLKA3	M_DCLKA3	AY28	SA_CK#3]
(7.8) M_DDR3_RST	MRT	AV18	SM_DRAMRST#
	MBC8	0.1u4/X7R/16V/K/X	
AV13	SA_DQS[8]		
AV12	SA_DQS#8]		
AU12	SA_ECC_CB[0]		
AU14	SA_ECC_CB[1]		
AW13	SA_ECC_CB[2]		
AY13	SA_ECC_CB[3]		
AU13	SA_ECC_CB[4]		
AY12	SA_ECC_CB[5]		
AW12	SA_ECC_CB[6]		
AV12	SA_ECC_CB[7]		
DDR_0			
1 OF 10			
LGA1155[10SC1-F01155-01R]			

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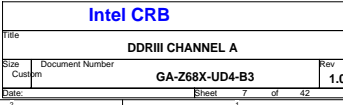
LGA1155B			
M_AAB0	AK24	SB_MA[0]	SB_DQS[0]
M_AAB1	AM20	SB_MA[1]	SB_DQS#0]
M_AAB2	AM19	SB_MA[2]	
M_AAB3	AK18	SB_MA[3]	
M_AAB4	AP19	SB_MA[4]	
M_AAB5	AP18	SB_MA[5]	
M_AAB6	AM18	SB_MA[6]	
M_AAB7	AL18	SB_MA[7]	
M_AAB8	AY17	SB_MA[8]	
M_AAB9	AN18	SB_MA[9]	
M_AAB10	AN23	SB_MA[10]	
M_AAB11	AU17	SB_MA[11]	
M_AAB12	AR26	SB_MA[12]	
M_AAB13	AM26	SB_MA[13]	
M_AAB14	AY16	SB_MA[14]	
M_AAB15	AV16	SB_MA[15]	
(8) M_SWEB	M_SWEB	AR25	SB_WE#
(8) M_SCASB	M_SCASB	AK25	SB_CAS#
(8) M_SRASB	M_SRASB	AP24	SB_RAS#
(8) M_SBA0	M_SBA0	AP23	SB_BS[0]
(8) M_SBA1	M_SBA1	AM21	SB_BS[1]
(8) M_SBA2	M_SBA2	AW17	SB_BS[2]
(8) M-CSB0	M-CSB0	AN25	SB_CS#0]
(8) M-CSB1	M-CSB1	AN26	SB_CS#1]
(8) M-CSB2	M-CSB2	AL25	SB_CS#2]
(8) M-CSB3	M-CSB3	AT26	SB_CS#3]
(8) M_CKEB0	M_CKEB0	AL18	SB_CKE[0]
(8) M_CKEB1	M_CKEB1	AY15	SB_CKE[1]
(8) M_CKEB2	M_CKEB2	AW15	SB_CKE[2]
(8) M_CKEB3	M_CKEB3	AV15	SB_CKE[3]
M_ODT_B0	AL26	SB_ODT[0]	
M_ODT_B1	AM26	SB_ODT[1]	
M_ODT_B2	AM26	SB_ODT[2]	
M_ODT_B3	AK26	SB_ODT[3]	
(8) M_DCLKB0	M_DCLKB0	AL21	SB_CK[0]
(8) M_DCLKB0	M_DCLKB0	AL22	SB_CK#0]
(8) M_DCLKB1	M_DCLKB1	AK20	SB_CK[1]
(8) M_DCLKB1	M_DCLKB1	AL20	SB_CK#1]
(8) M_DCLKB2	M_DCLKB2	AL23	SB_CK[2]
(8) M_DCLKB2	M_DCLKB2	AM22	SB_CK#2]
(8) M_DCLKB3	M_DCLKB3	AP21	SB_CK[3]
(8) M_DCLKB3	M_DCLKB3	AN21	SB_CK#3]
(8) M_VREF_DQB	M_VREF_DQB	AH1	FC_AH1
(7) M_VREF_DQB	M_VREF_DQB	AH4	FC_AH4
AN16	SB_DQS[8]		
AN15	SB_DQS#8]		
AL16	SB_ECC_CB[0]		
AM16	SB_ECC_CB[1]		
AP16	SB_ECC_CB[2]		
AR16	SB_ECC_CB[3]		
AL15	SB_ECC_CB[4]		
AM15	SB_ECC_CB[5]		
AR15	SB_ECC_CB[6]		
AP15	SB_ECC_CB[7]		
AN16	SB_DQS[5]		
AN15	SB_DQS#5]		
AP32	M_DB40		
AP31	M_DB41		
AP30	M_DB42		
AP29	M_DB43		
AP28	M_DB44		
AP27	M_DB45		
AP26	M_DB46		
AP25	M_DB47		
AL33	M_DQSB6		
AM33	M_DQSB6		
AM32	M_DB48		
AM31	M_DB49		
AL35	M_DB50		
AL32	M_DB51		
AM34	M_DB52		
AL31	M_DB53		
AM35	M_DB54		
AL34	M_DB55		
AG35	M_DQSB7		
AG34	M_DQSB7		
AH35	M_DB56		
AH34	M_DB57		
AE34	M_DB58		
AE35	M_DB59		
AJ35	M_DB60		
AJ34	M_DB61		
AF33	M_DB62		
AF35	M_DB63		
DDR_1			
2 OF 10			
LGA1155[10SC1-F01155-01R]			

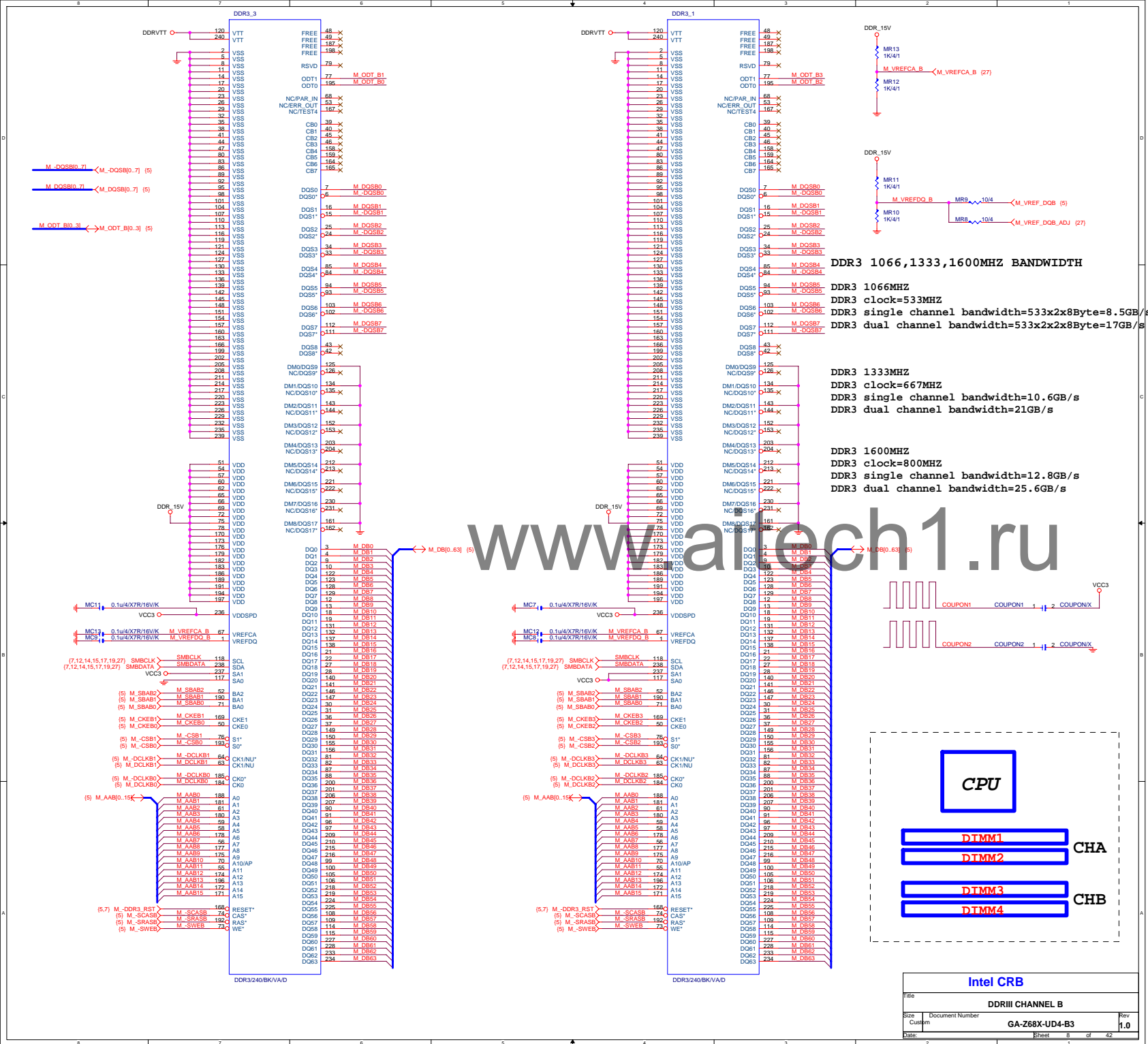


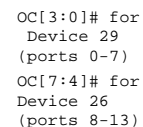
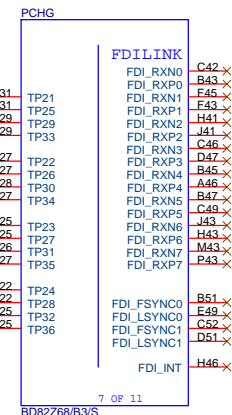
Need check the new CPU ME



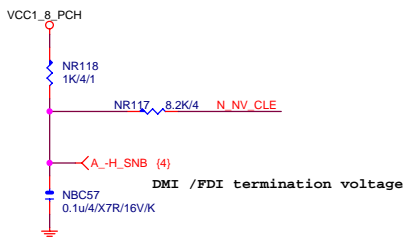
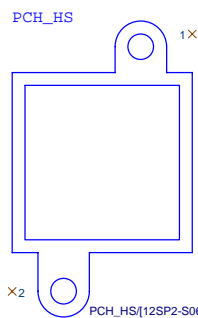
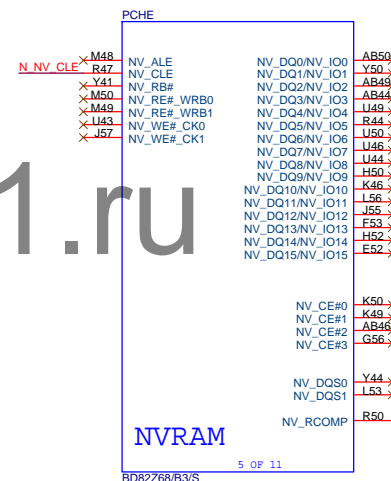
Intel CRB			
Title			
CPU LGA1156-B			
Size	Document Number		Rev
Custom	GA-Z68X-UD4-B3		1.0
Date:	Monday, March 14, 2011	Sheet	5 of 42



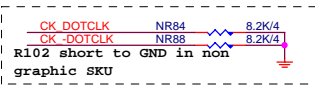




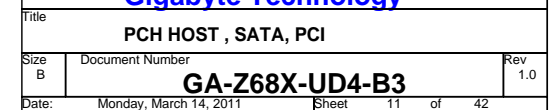
USB OC#	Configure
OC0#	USB0,1
OC1#	USB2,3
OC2#	USB4,5
OC3#	USB6,7
OC4#	USB8,9
OC5#	USB10,11
OC6#	USB12,13
OC7#	Not Use

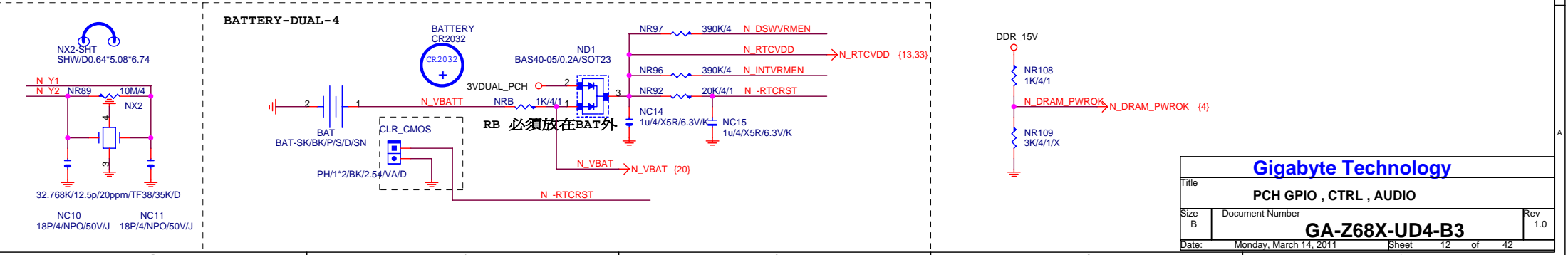
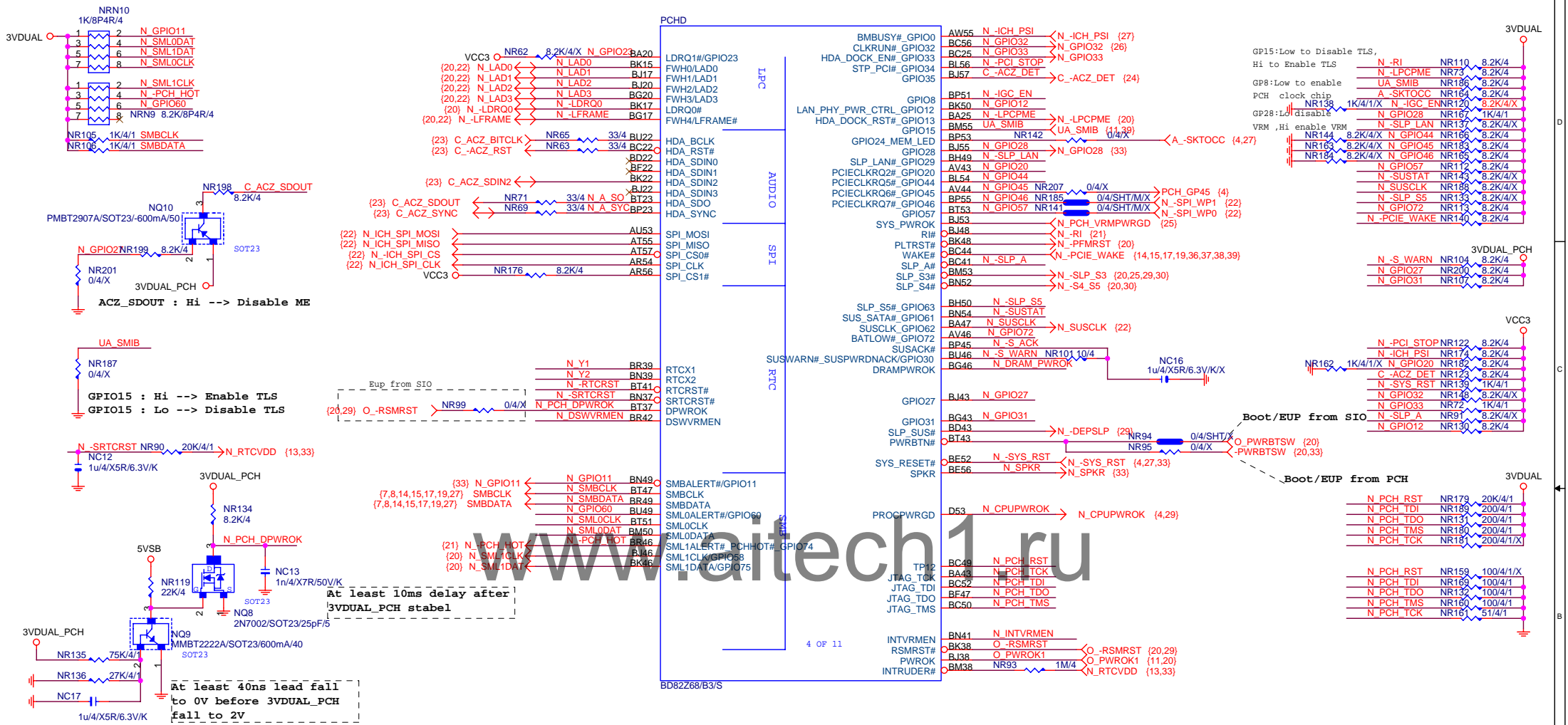


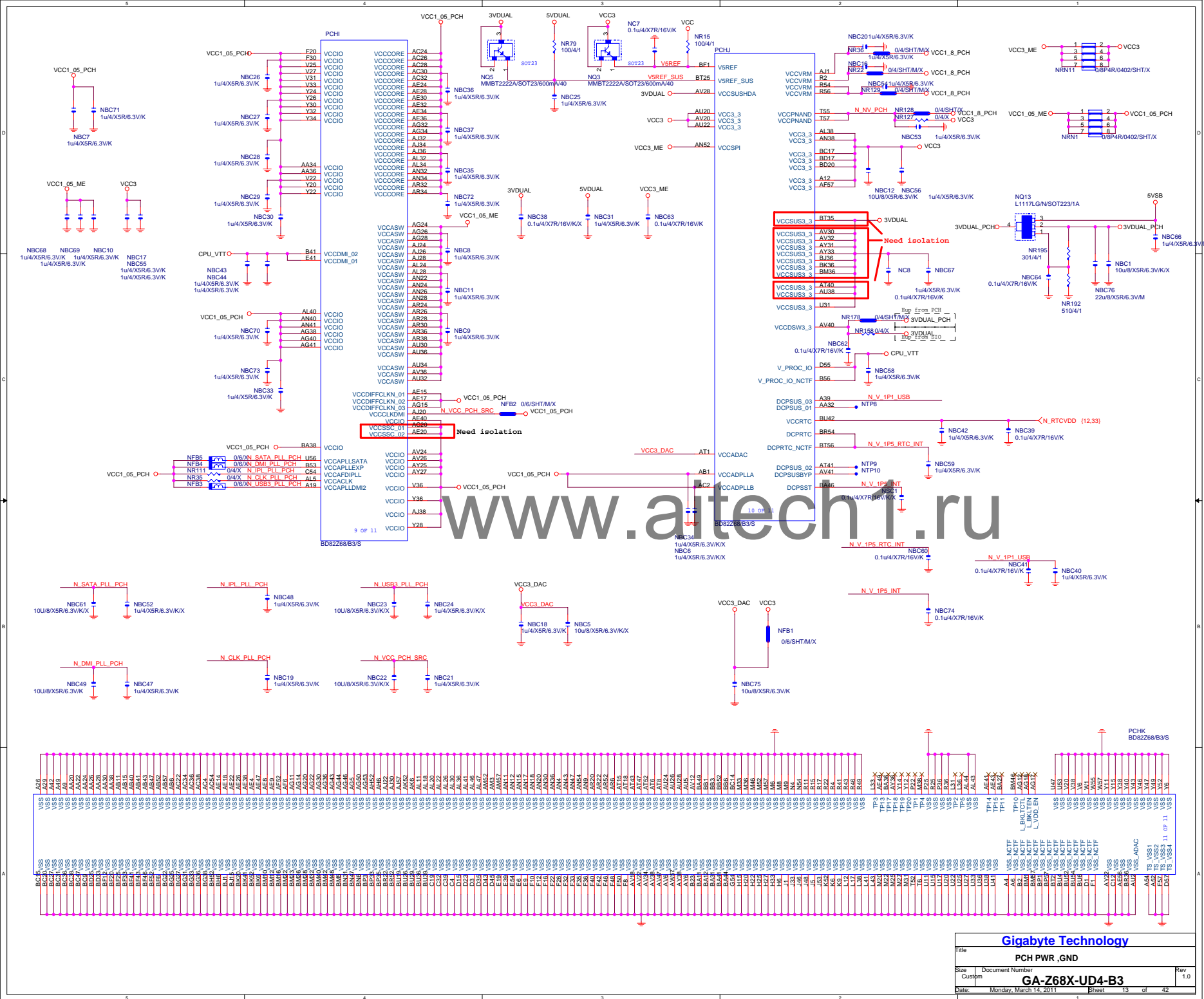
Mount for integrated clock Generation Mode

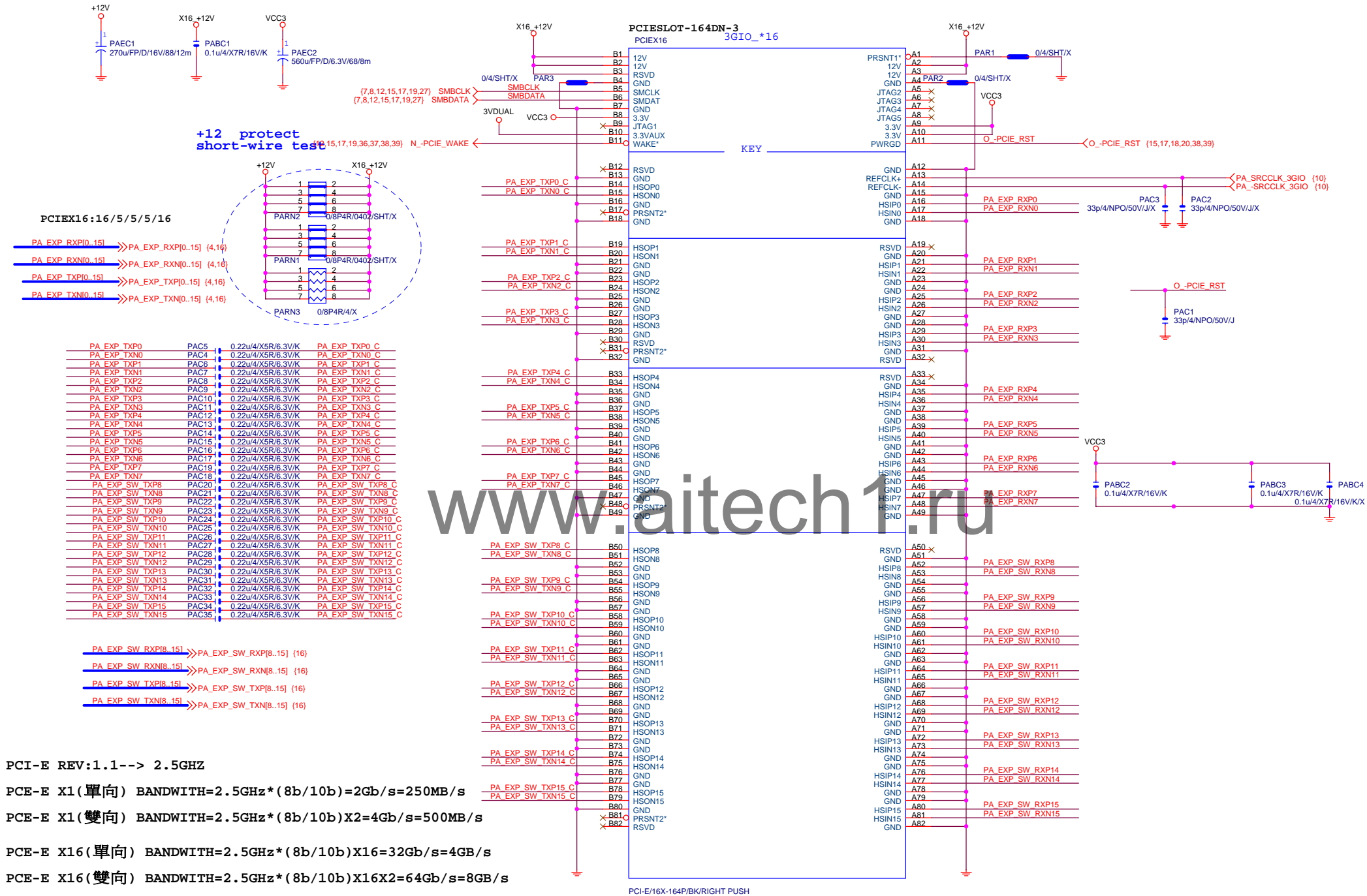


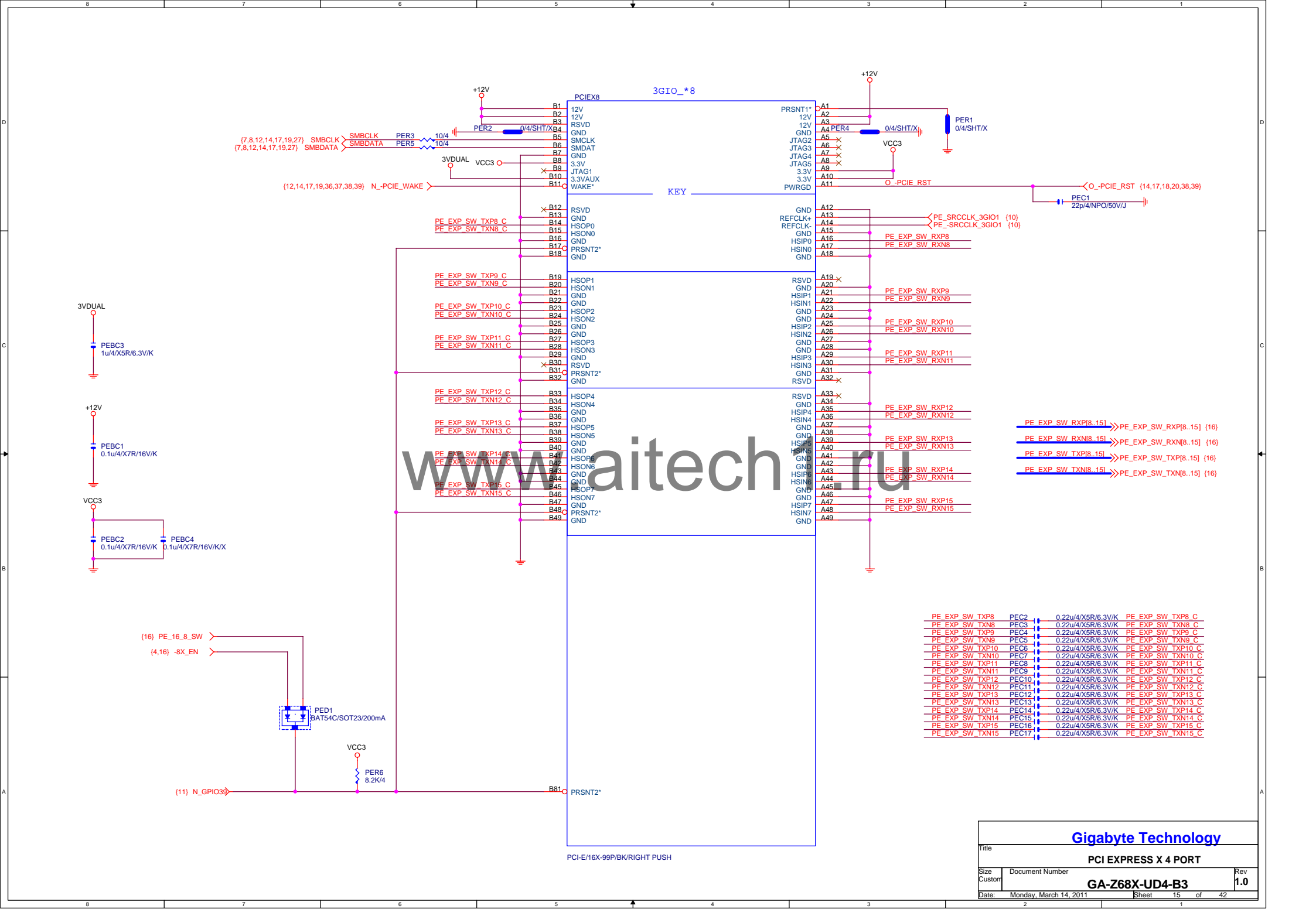
PCHC

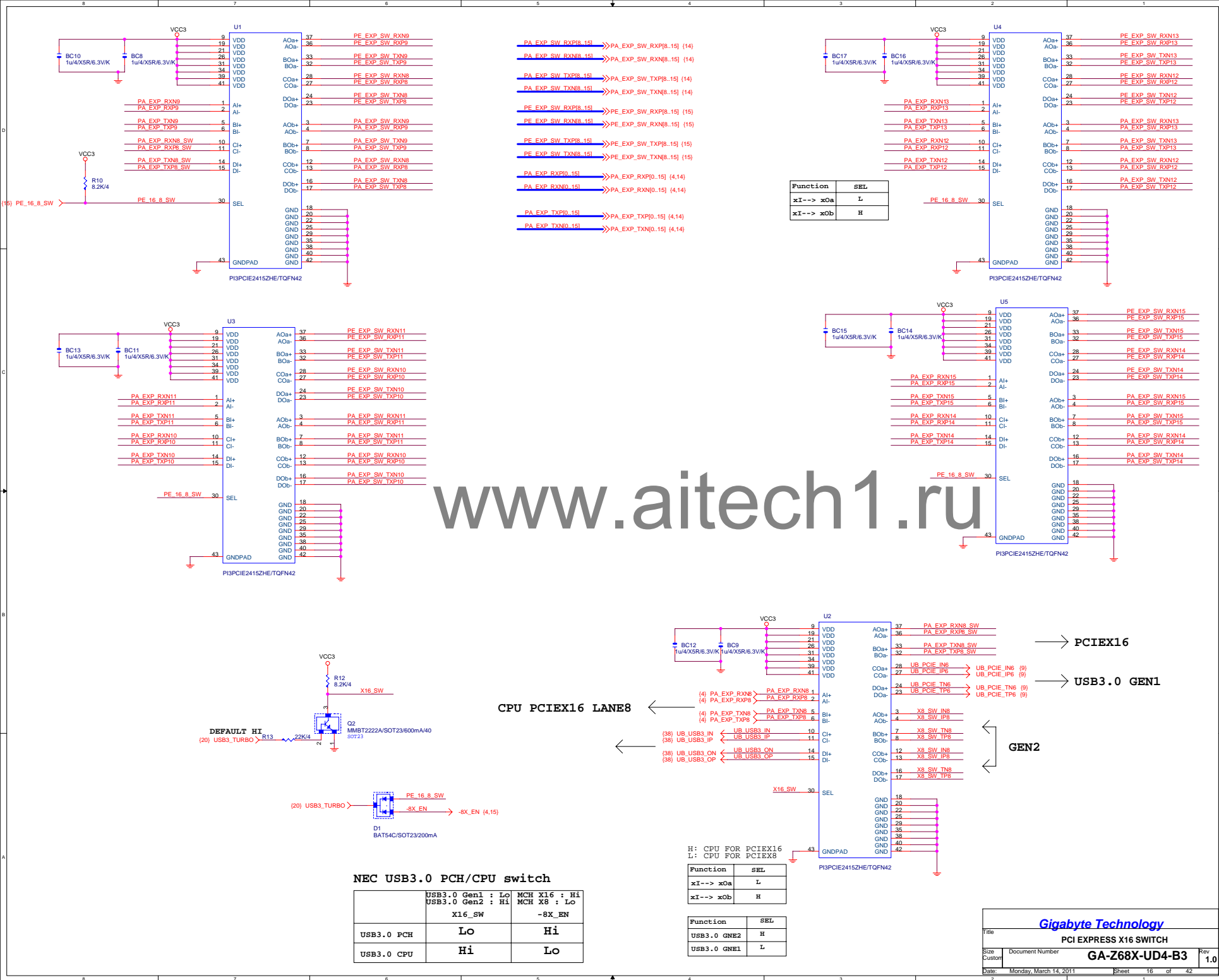


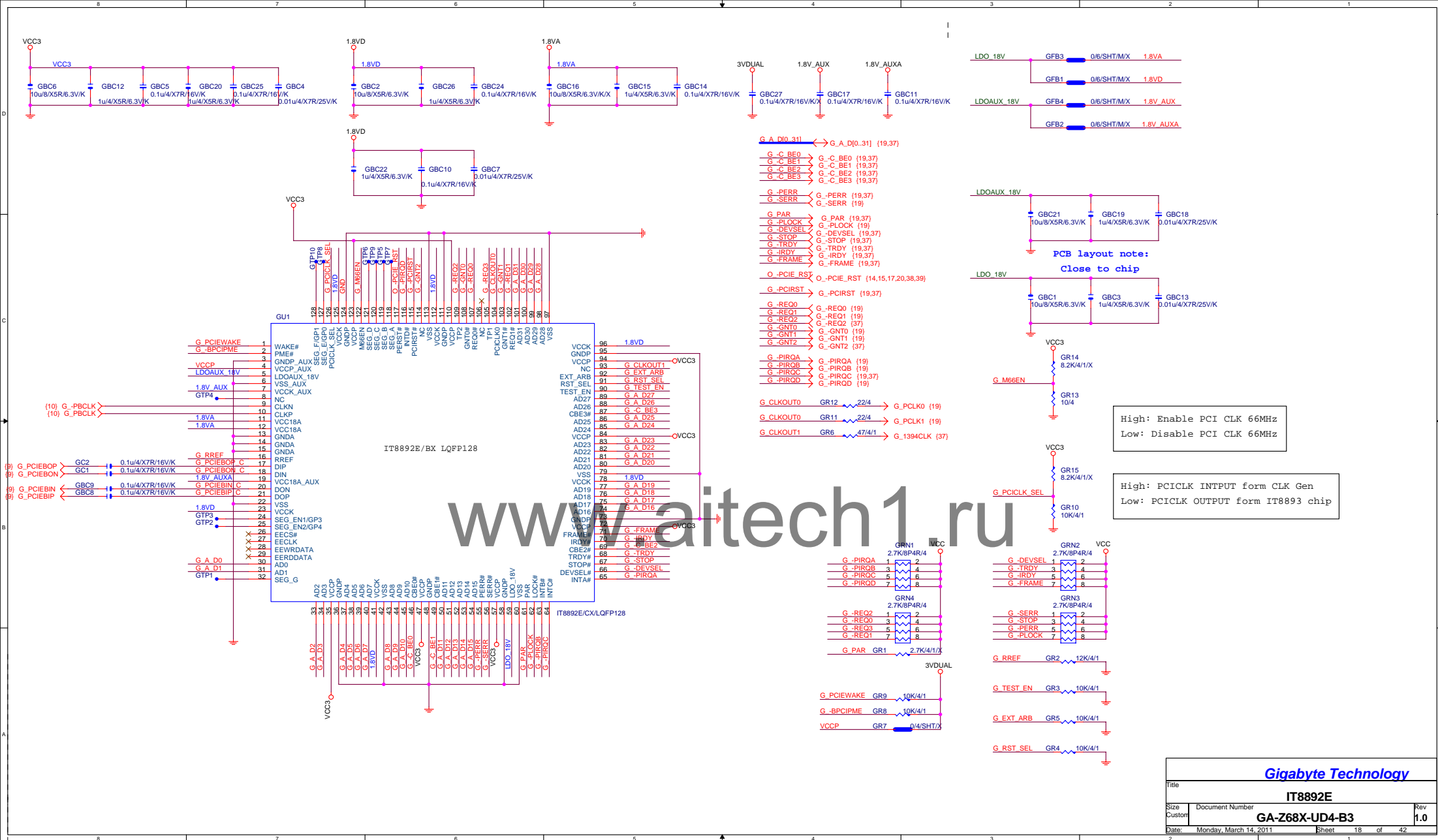






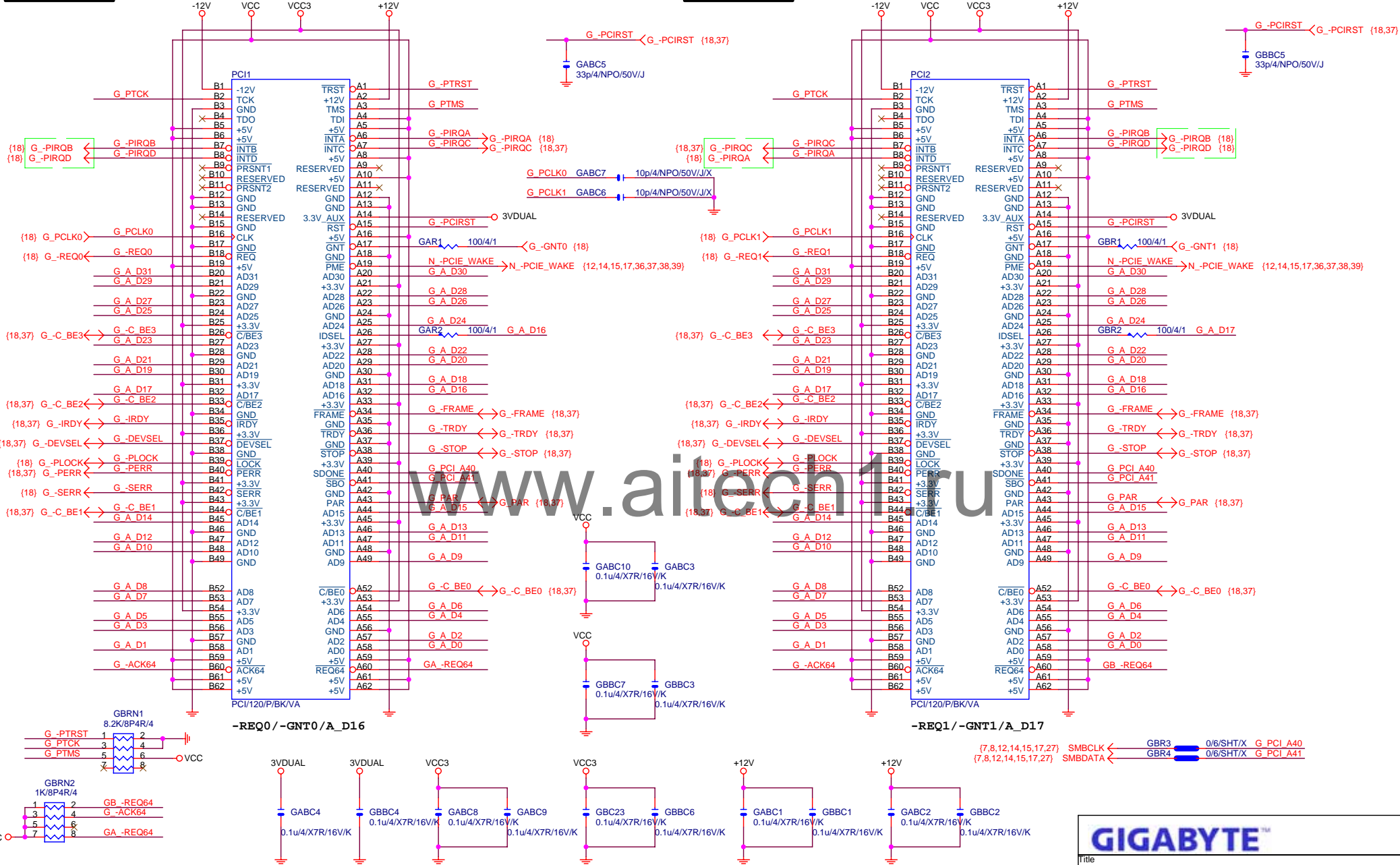




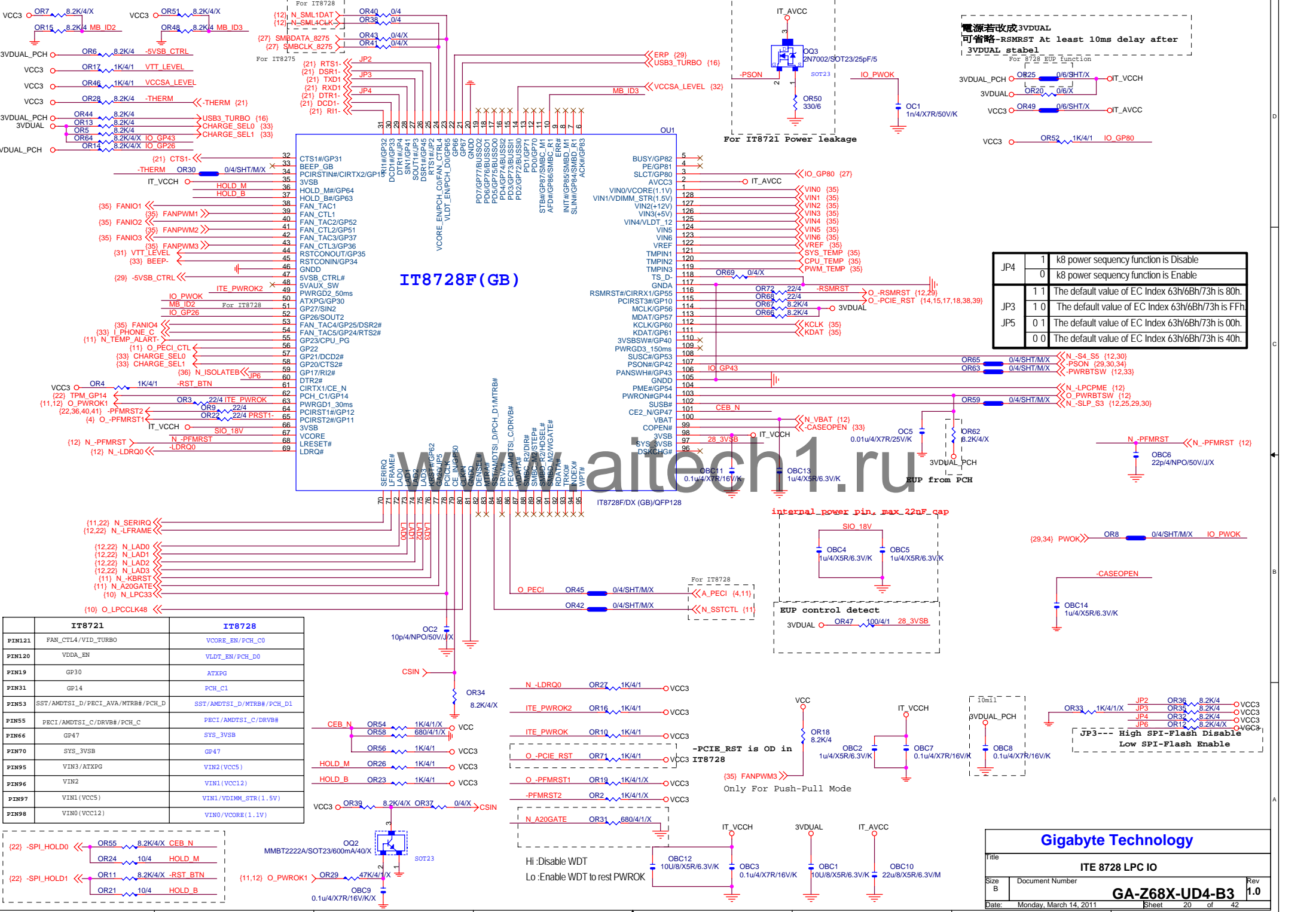


PCI SLOT 1

PCI SLOT 2



GIGABYTE™		
PCI SLOT 1&2		
Title	Document Number	Rev
Size	Custom	1.0
GA-Z68X-UD4-B3		
Date:	Monday, March 14, 2011	Sheet 19 of 42



電源若改成3VDUAL
可省略-RSMRST At least 10ms delay after
3VDUAL stabel

For 8728 EUP function

3VDUAL_PCH OR25 0/6/SHT/X IO_T_VCCH
3VDUAL OR20 0/6/X
VCC3 OR49 0/6/SHT/X IO_T_AVCC

VCC3 OR52 1K/4/1 IO_GP80

JP4	1	k8 power sequency function is Disable
	0	k8 power sequency function is Enable
JP3	1 1	The default value of EC Index 63h/6Bh/73h is 80h.
	1 0	The default value of EC Index 63h/6Bh/73h is FFh.
JP5	0 1	The default value of EC Index 63h/6Bh/73h is 00h.
	0 0	The default value of EC Index 63h/6Bh/73h is 40h.

	IT8721	IT8728
PIN121	FAN_CTL4/VID_TURBO	VCORE_EN/PCH_C0
PIN120	VDDA_EN	VLDOT_EN/PCH_D0
PIN19	GP30	ATXPG
PIN31	GP14	PCH_C1
PIN53	SST/AMDTSI_D/PCI_AVA/MTRB#/PCH_D	SST/AMDTSI_D/MTRB#/PCH_D1
PIN55	PCI/AMDTSI_C/DRVB#/PCH_C	PCI/AMDTSI_C/DRVB#
PIN66	GP47	SYS_3VSB
PIN70	SYS_3VSB	GP47
PIN95	VIN3/ATXPG	VIN2(VCC5)
PIN96	VIN2	VIN1(VCC12)
PIN97	VIN1(VCC5)	VIN1/VDIMM_STR(1.5V)
PIN98	VIN0(VCC12)	VIN0/VCORE(1.1V)

Gigabyte Technology

Title

ITE 8728 LPC IO

Size B

Document Number

GA-Z68X-UD4-B3

Date: Monday, March 14, 2011

Sheet 20 of 42

Rev 1.0

IT8728F(GB)

internal power pin. max 22nF cap

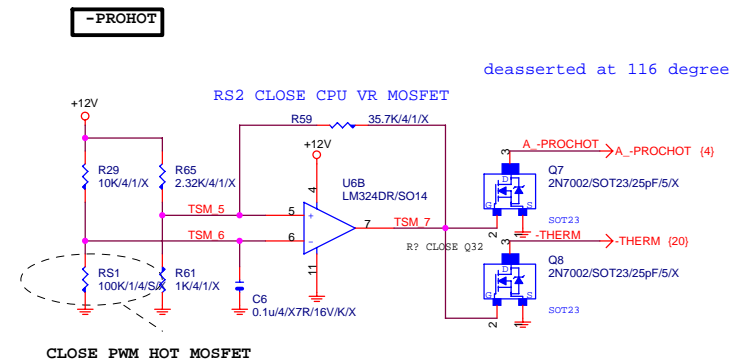
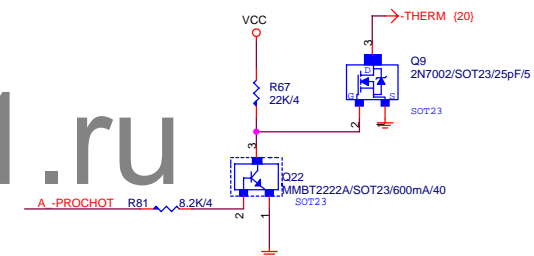
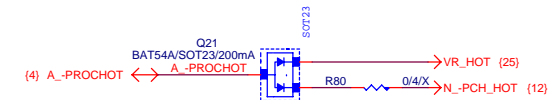
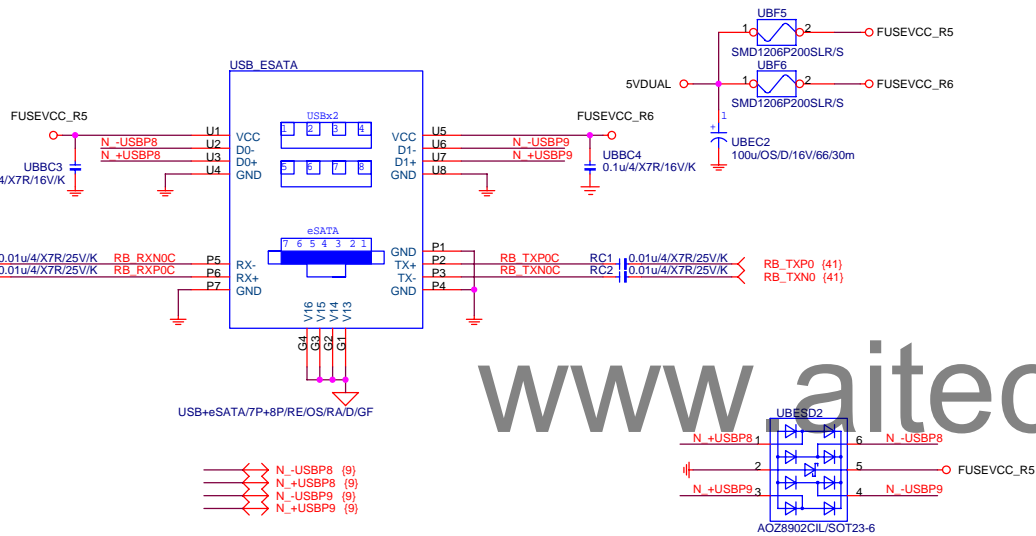
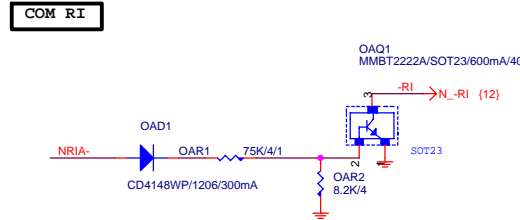
EUP control detect

-PCIE_RST is OD in

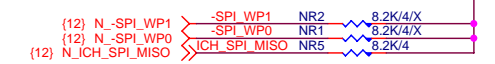
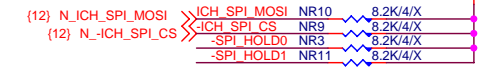
Only For Push-Pull Mode

Hi :Disable WDT

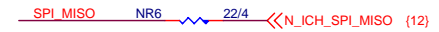
Lo :Enable WDT to rest PWROK



MOSI For DMI RX Termination Voltage



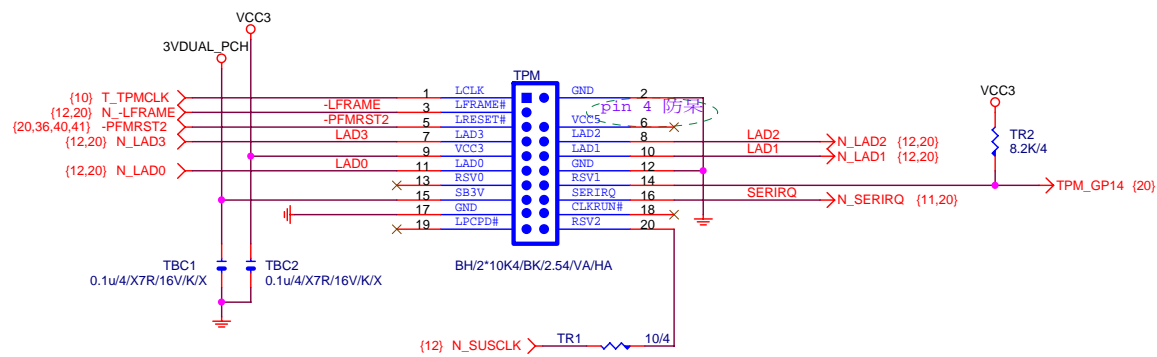
Default int pull up



BOOT DEVICE	GNT0	GNT1
LPC	0	0
PCI	0	1
NAND	1	0
SPI	1	1

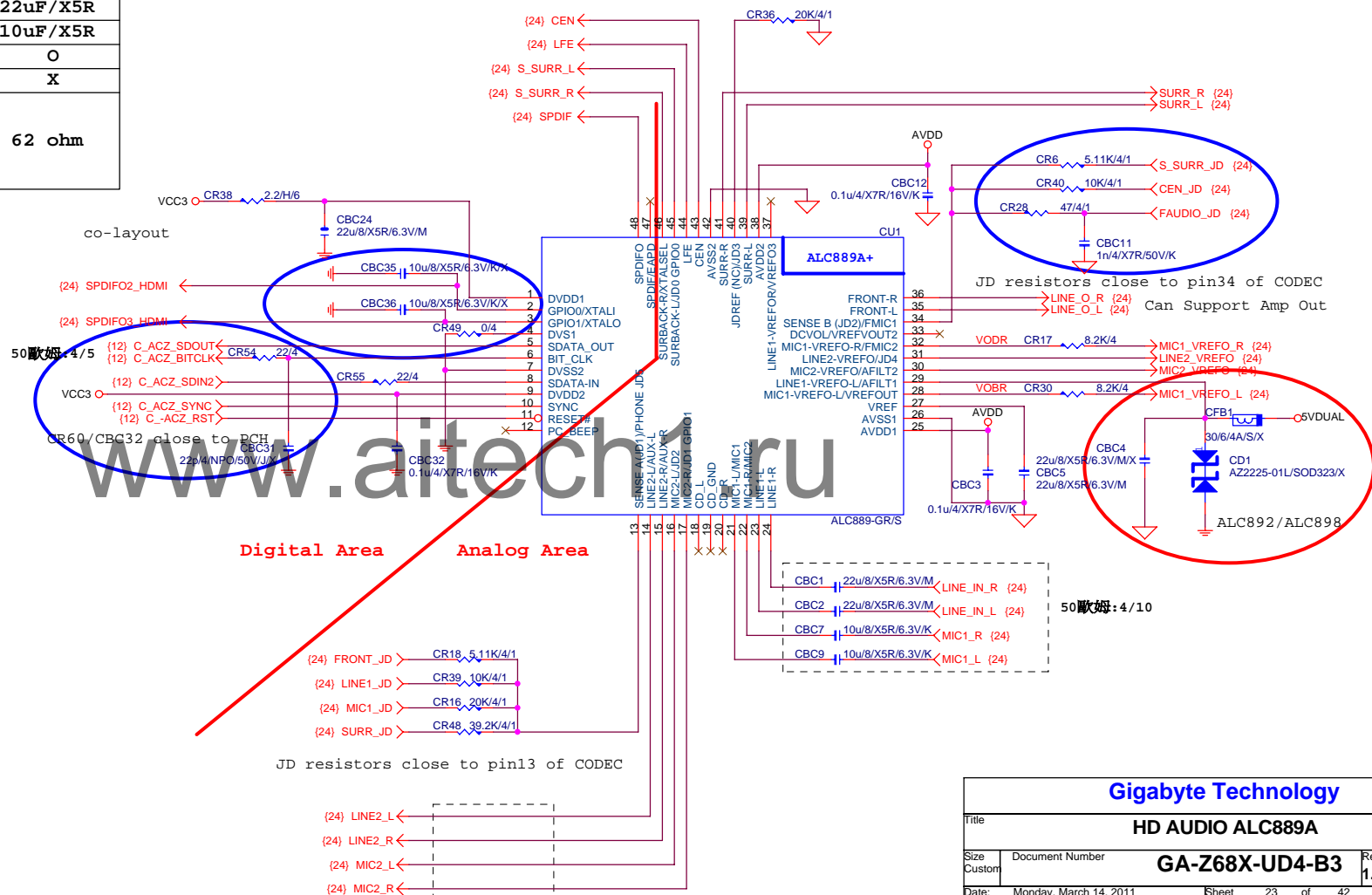
1 means floating
0 means PD 1K

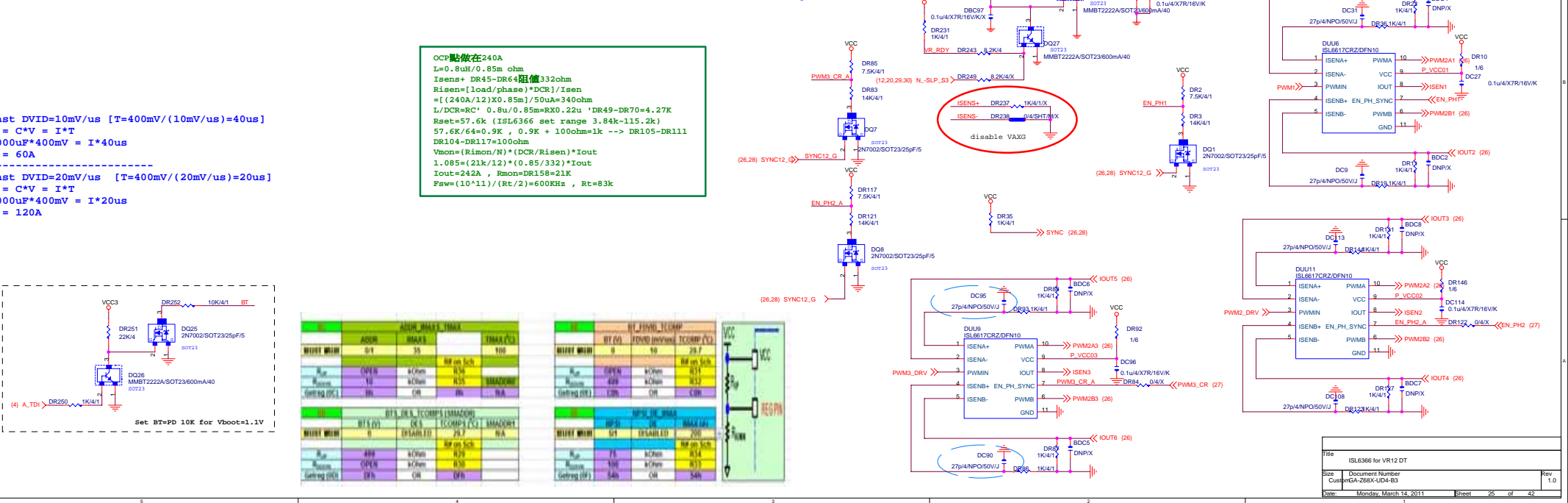
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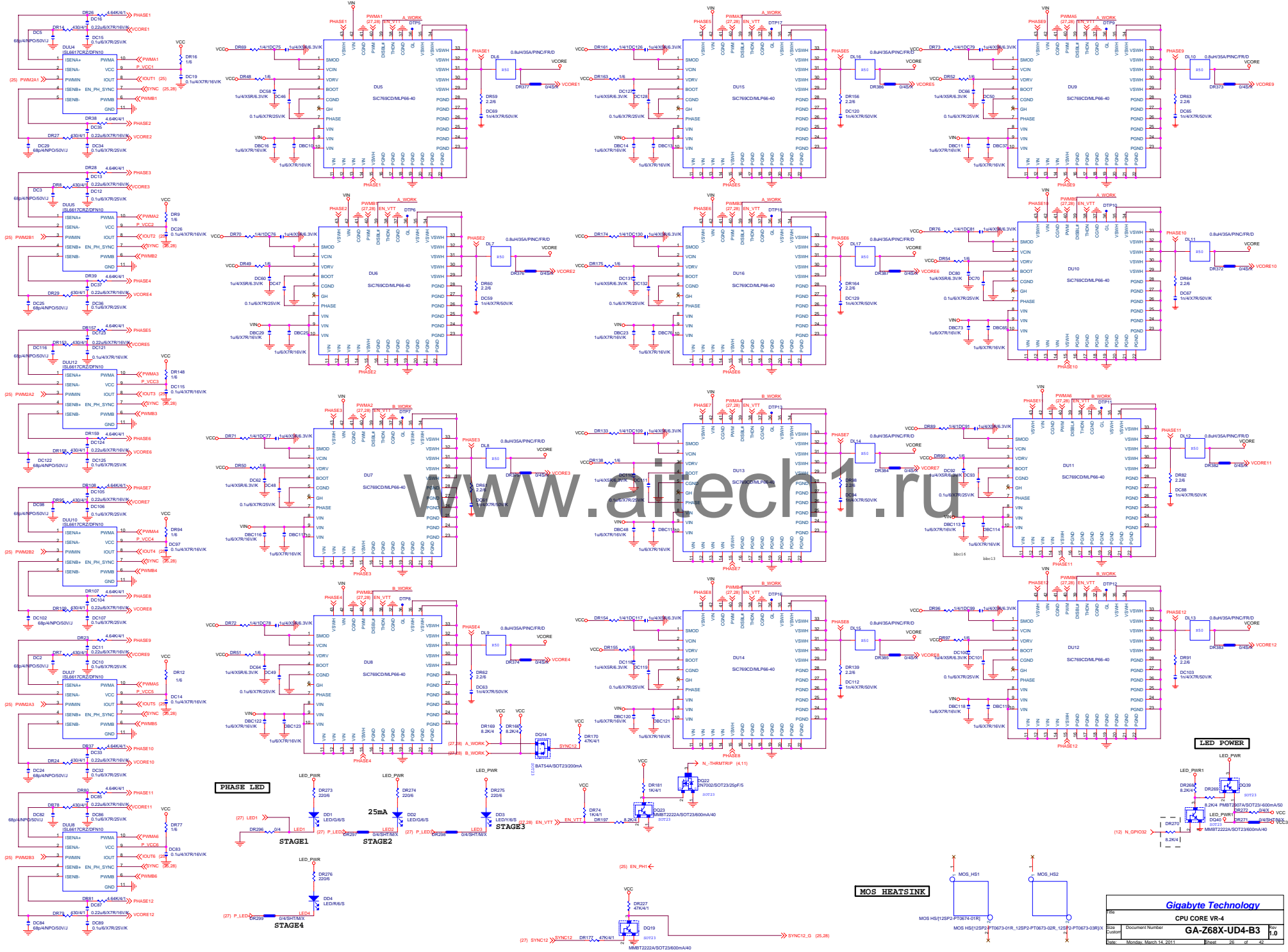


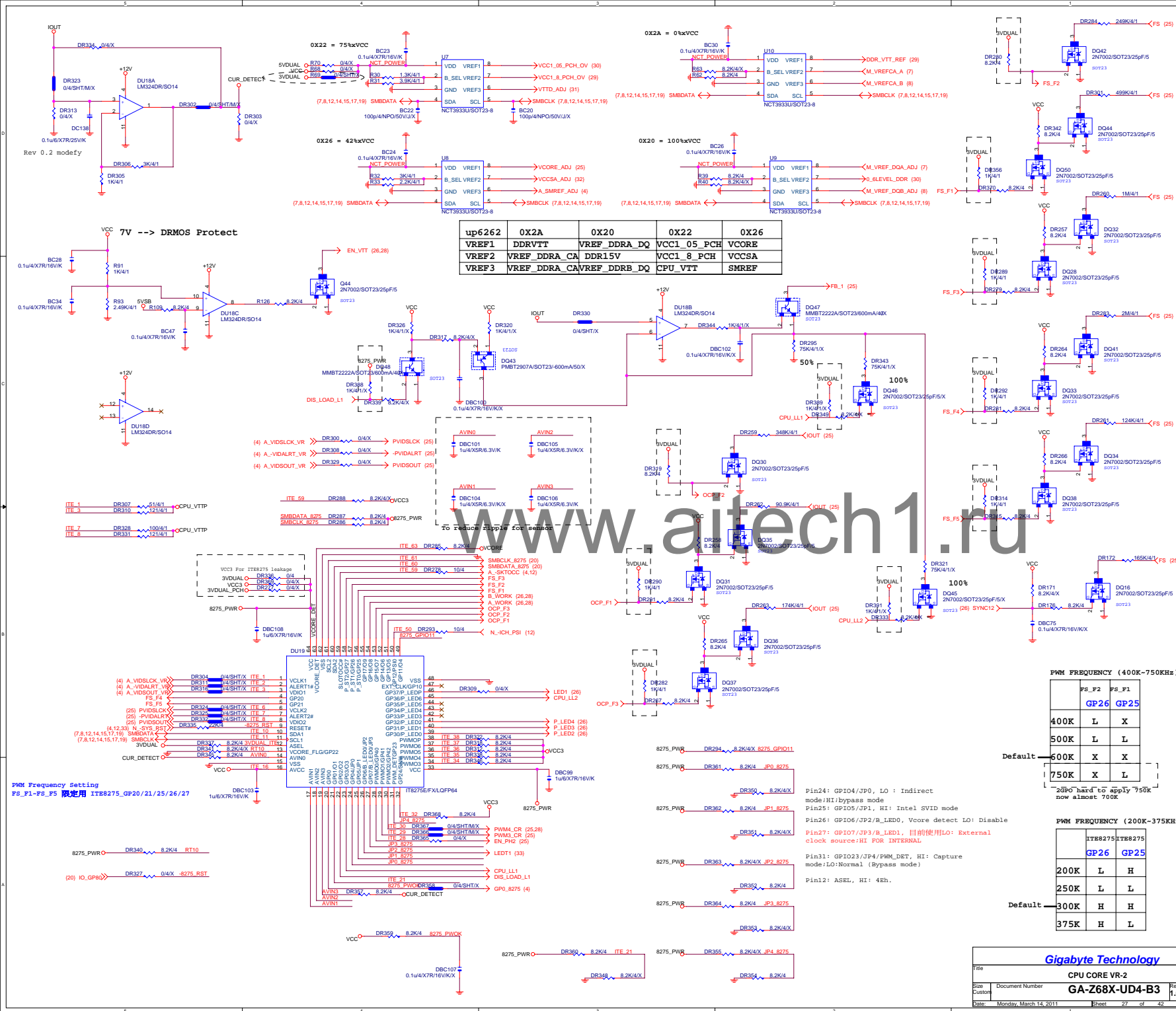
Gigabyte Technology			
Title		BIOS	
Size	Document Number	GA-Z68X-UD4-B3	
Custom		Rev 1.0	
Date:	Monday, March 14, 2011	Sheet	22 of 42

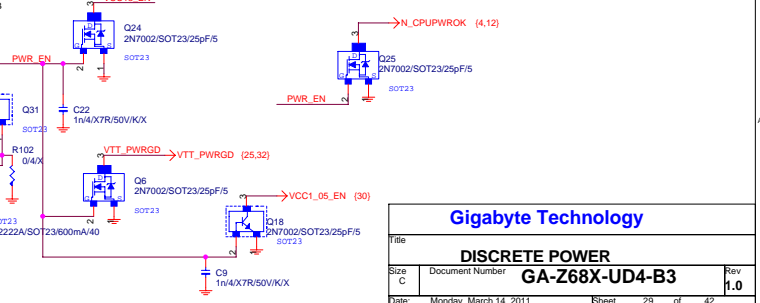
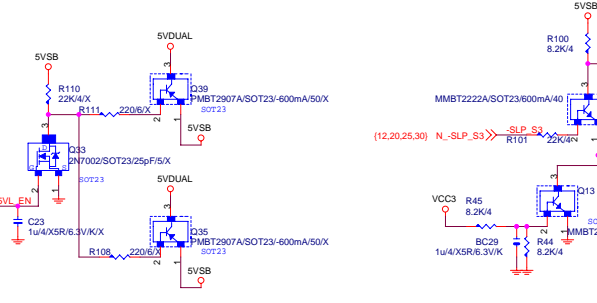
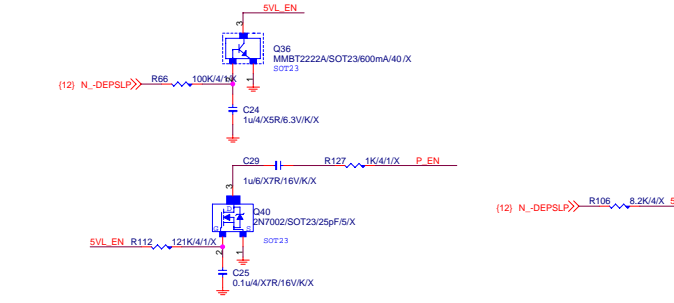
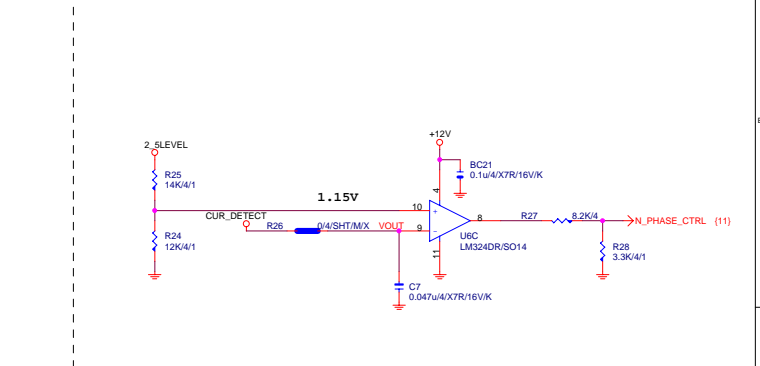
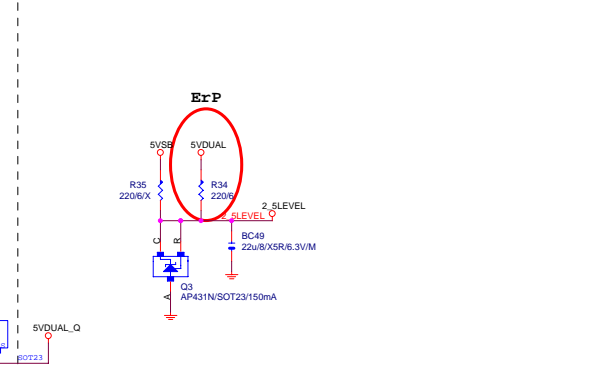
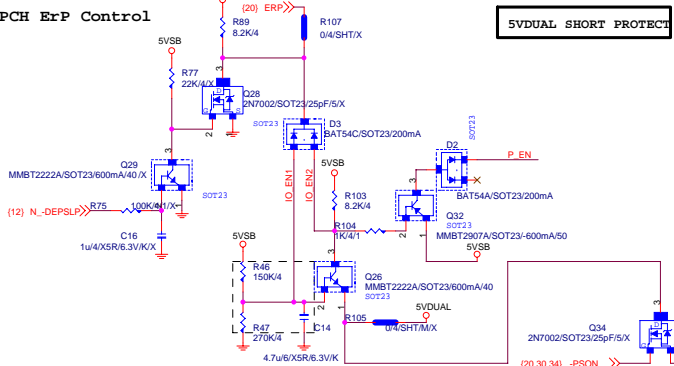
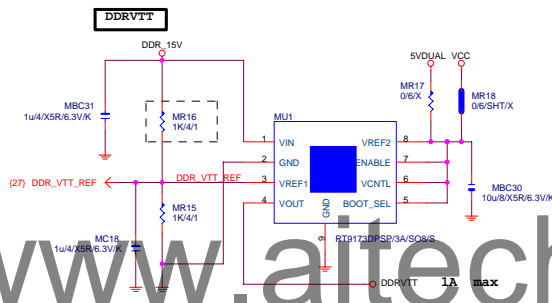
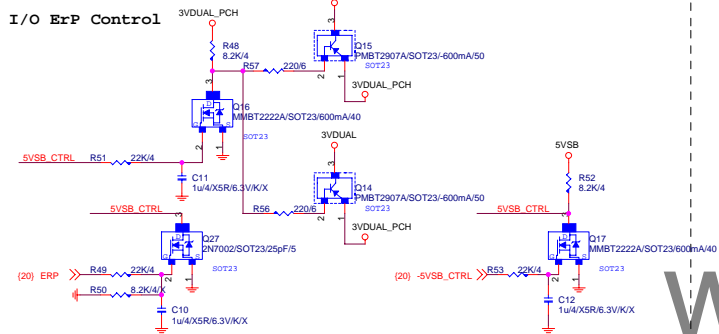
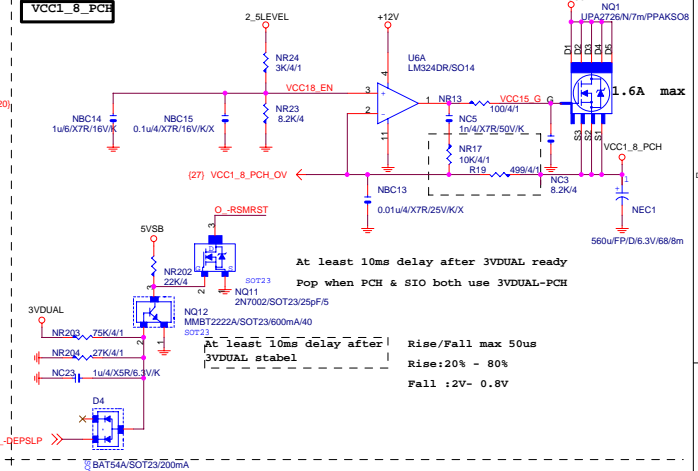
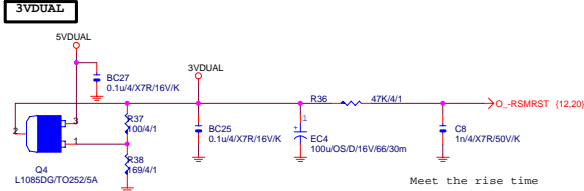
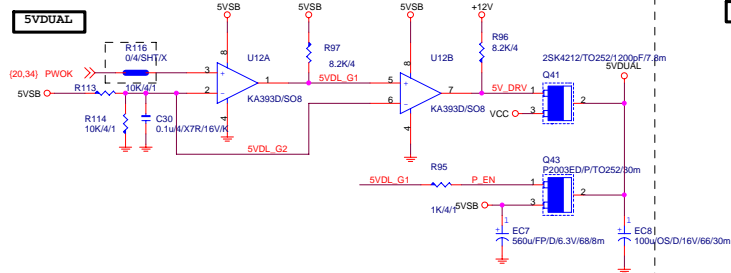
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CR49	O	O	X
CBC36	X	X	10uF/X5R
CBC35	X	10uF/X5R	X
CR52	O	X	O
CR53	X	O	X
CBC1/CBC2	22uF/X5R	22uF/X5R	22uF/X5R
CBC7/CBC9/CBC20/CBC15	10uF/X5R	10uF/X5R	10uF/X5R
CFB1/CD1/CBC4	X	X	O
CD2/CD3/CQ3/CQ4	O	O	X
CR7/CR9/CR5/CR13/ CR29/CR32/CR46/CR19/ CR50/CR41/CR21/CR47/ CR2/CR11/CR14/CR24	62 ohm	62 ohm	62 ohm



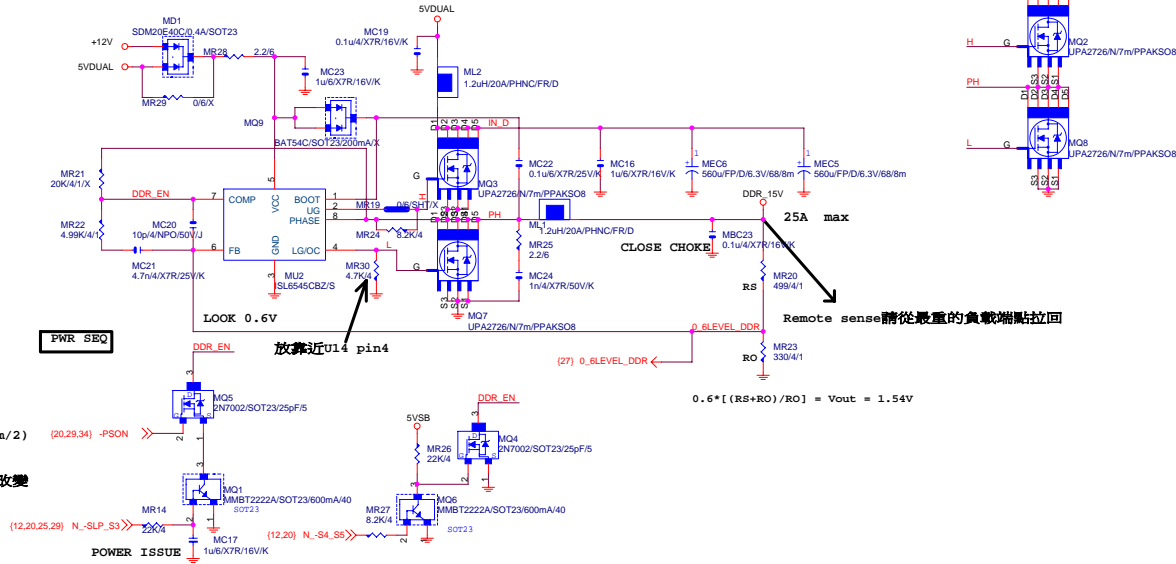








DDR18V

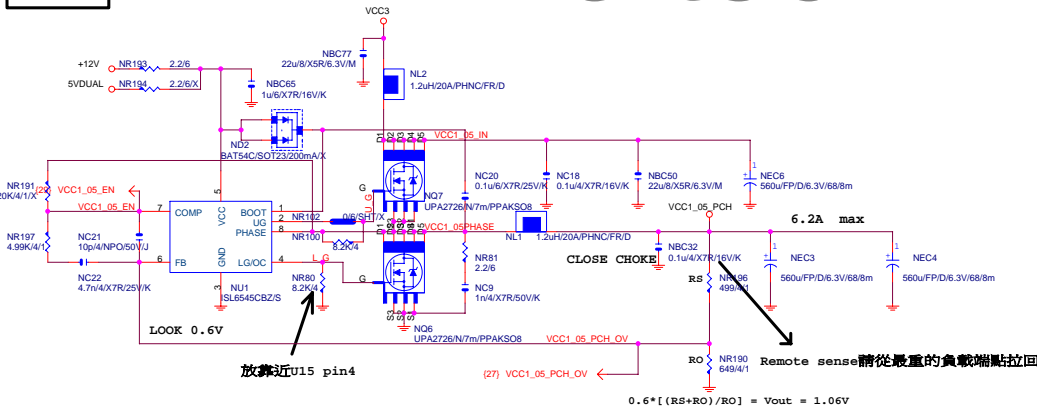


VCC1_05_PCH

OCP : $I_{peak} = (2 \times I_{ocset} \times R_{ocset}) / R_{dson}$
 $I_{ocset} = 21.5\mu A$, $R_{ocset} = 8.2k$

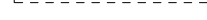
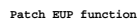
OCP : $I_{peak} = (2 \times I_{ocset} \times R_{ocset}) / R_{dson}$
 $= (2 \times 21.5\mu A \times 8.2k) / 7m$
 $= 50.37A$

注意 : R_{ocset} 的阻值要依據 Lo side R_{dson} 改變
 一般 I_{peak} 設定在 50~60A 即可



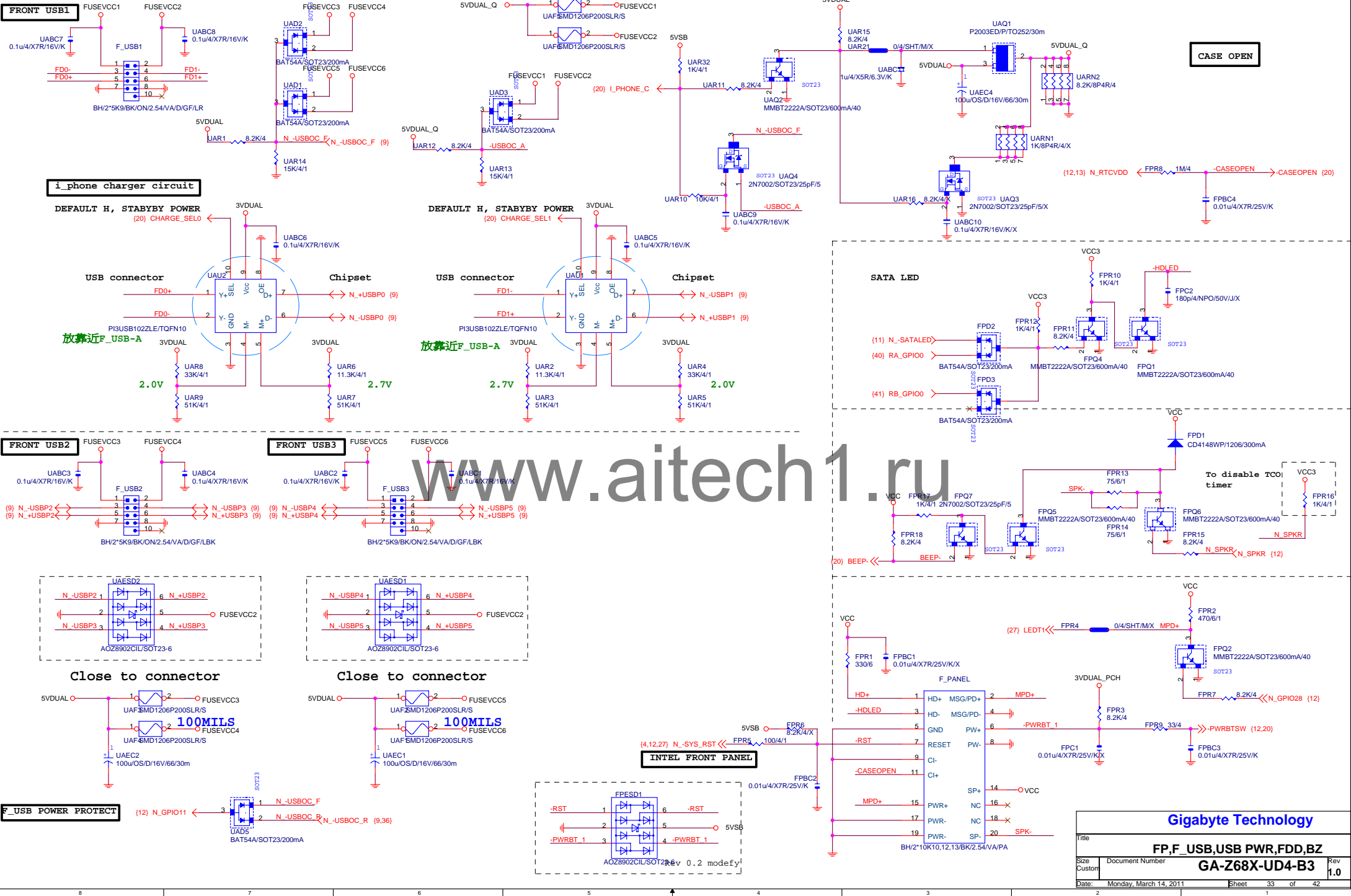
Gigabyte Technology

File	DDR_15V	Rev	1.0
Size	Document Number	GA-Z68X-UD4-B3	
C			
Date:	Monday, March 14, 2011	Sheet	30 of 42

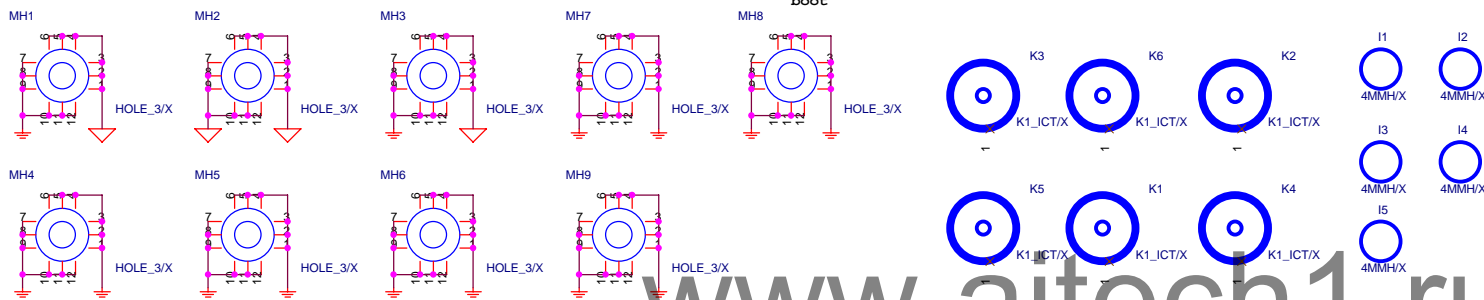
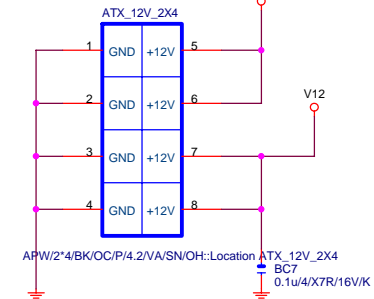
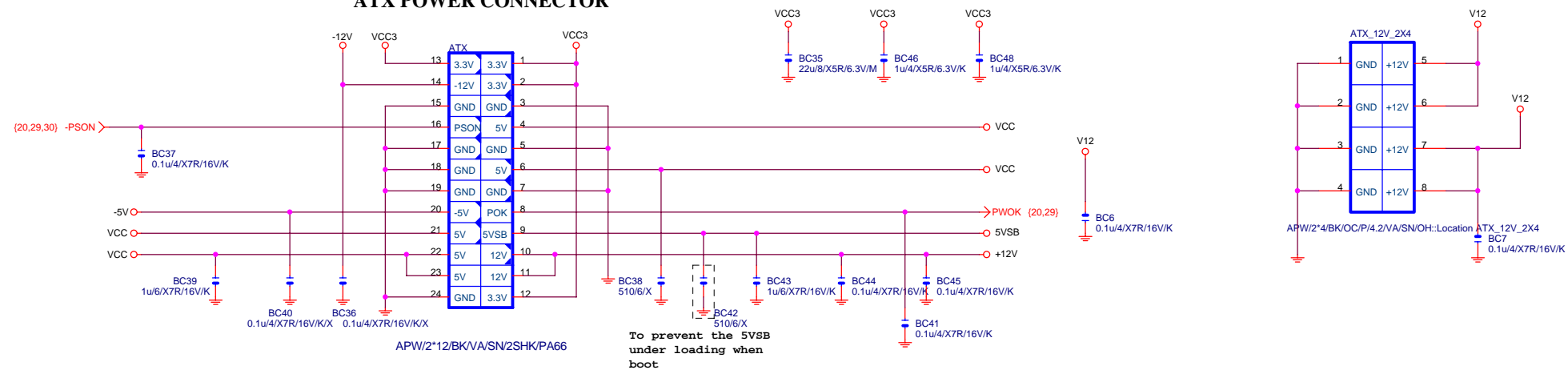


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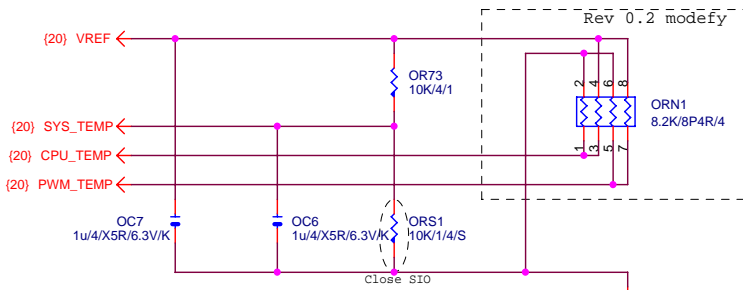


ATX POWER CONNECTOR

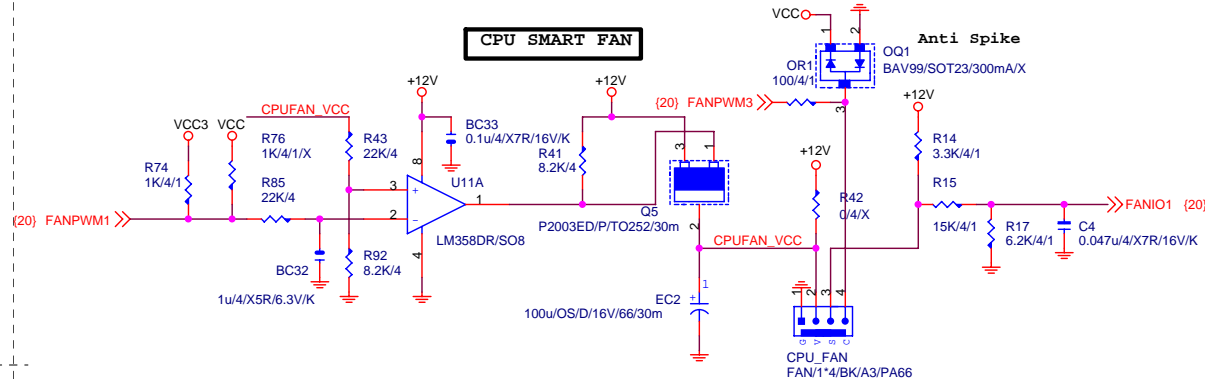


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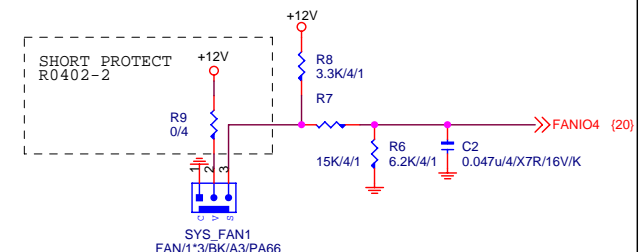
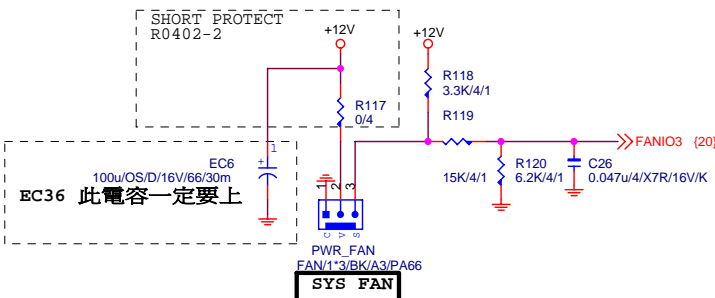
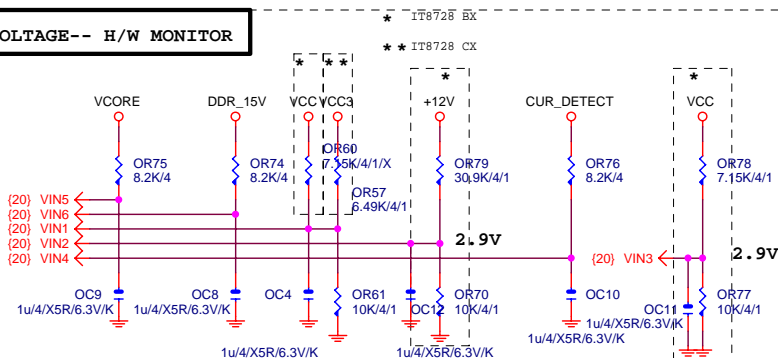
TEMP H/W MONITOR



CPU SMART FAN

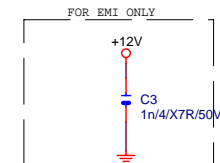
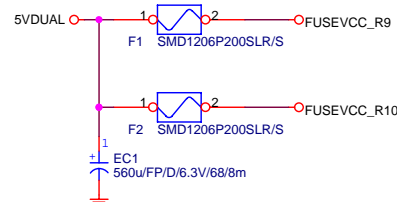
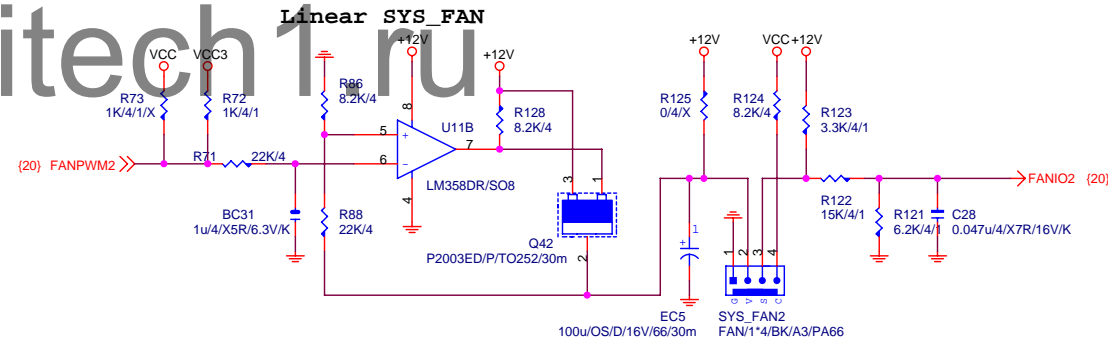
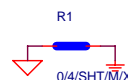
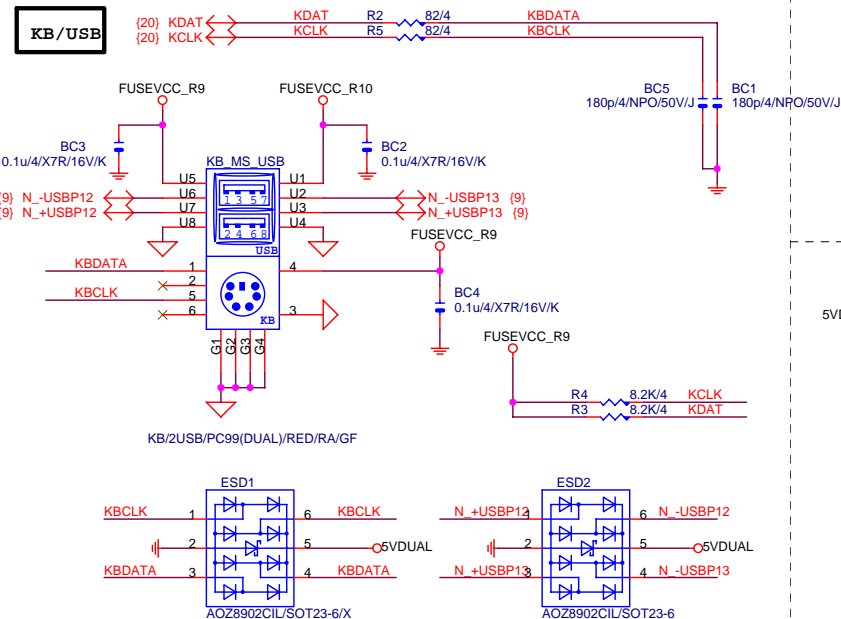


VOLTAGE-- H/W MONITOR



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KB/USB



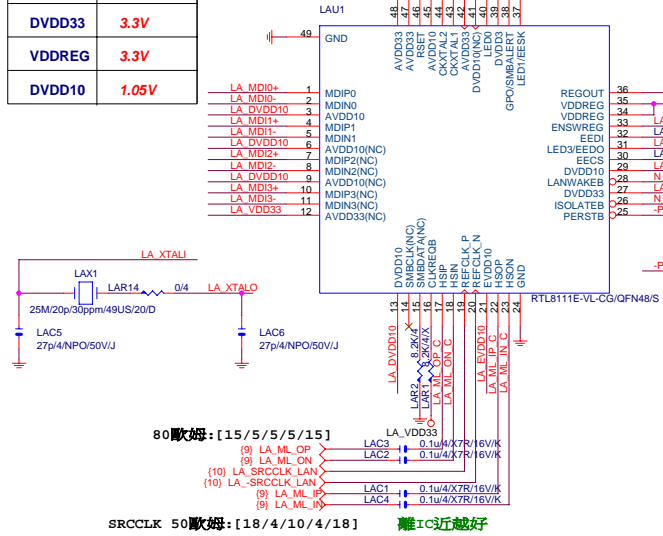
Gigabyte Technology

Title		
HWM,KB/MS, FAN CTRL		
Size	Document Number	Rev
Custom	GA-Z68X-UD4-B3	1.0
Date:	Monday, March 14, 2011	Sheet 35 of 42

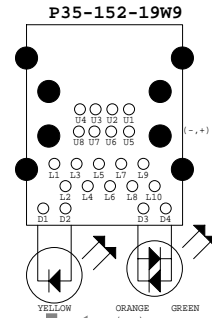
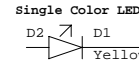
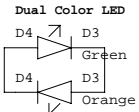
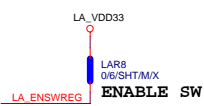
PCIE-1G LAN

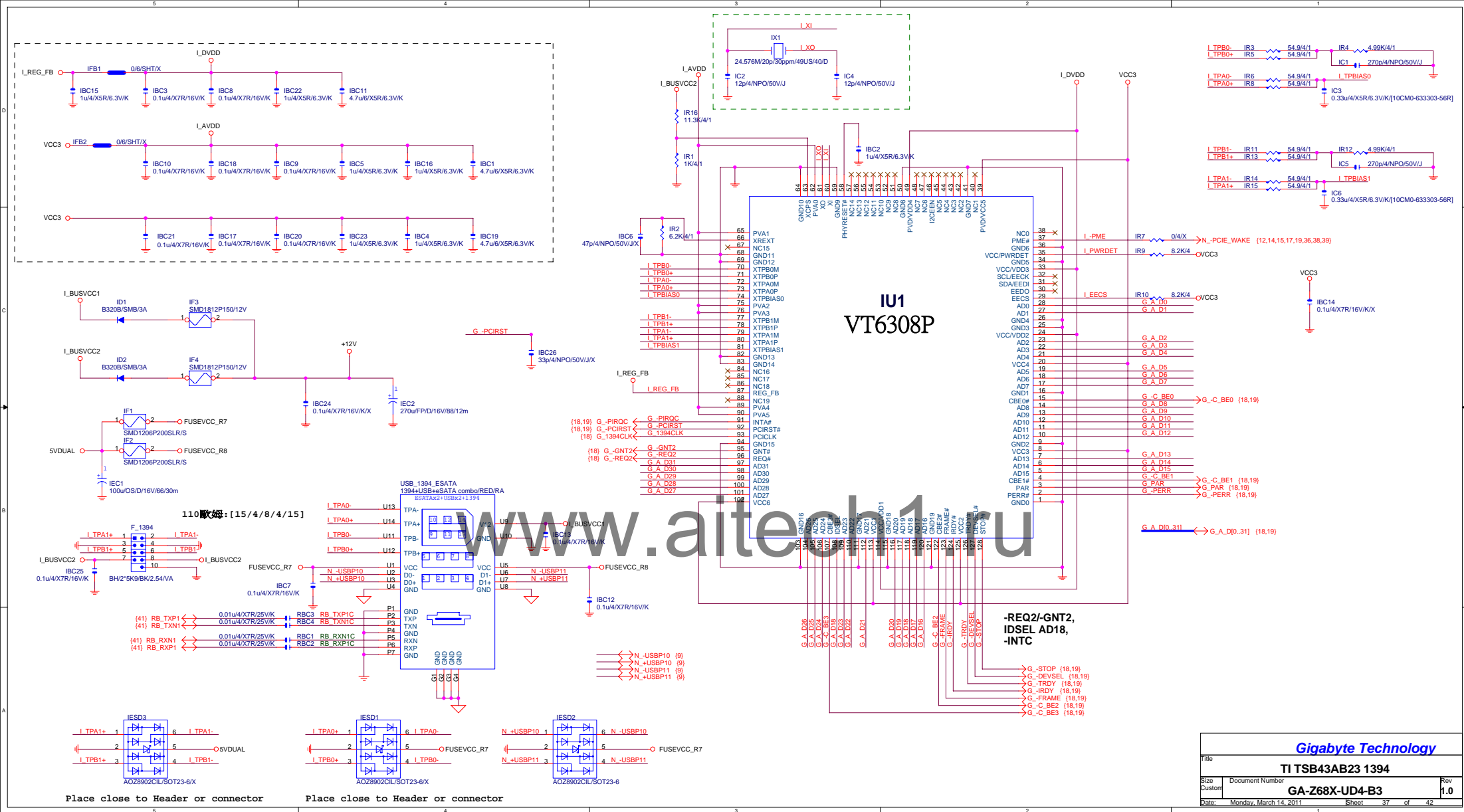
Power domain chart

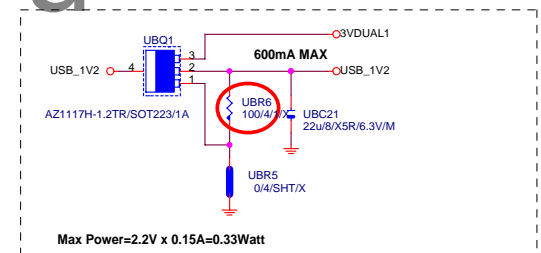
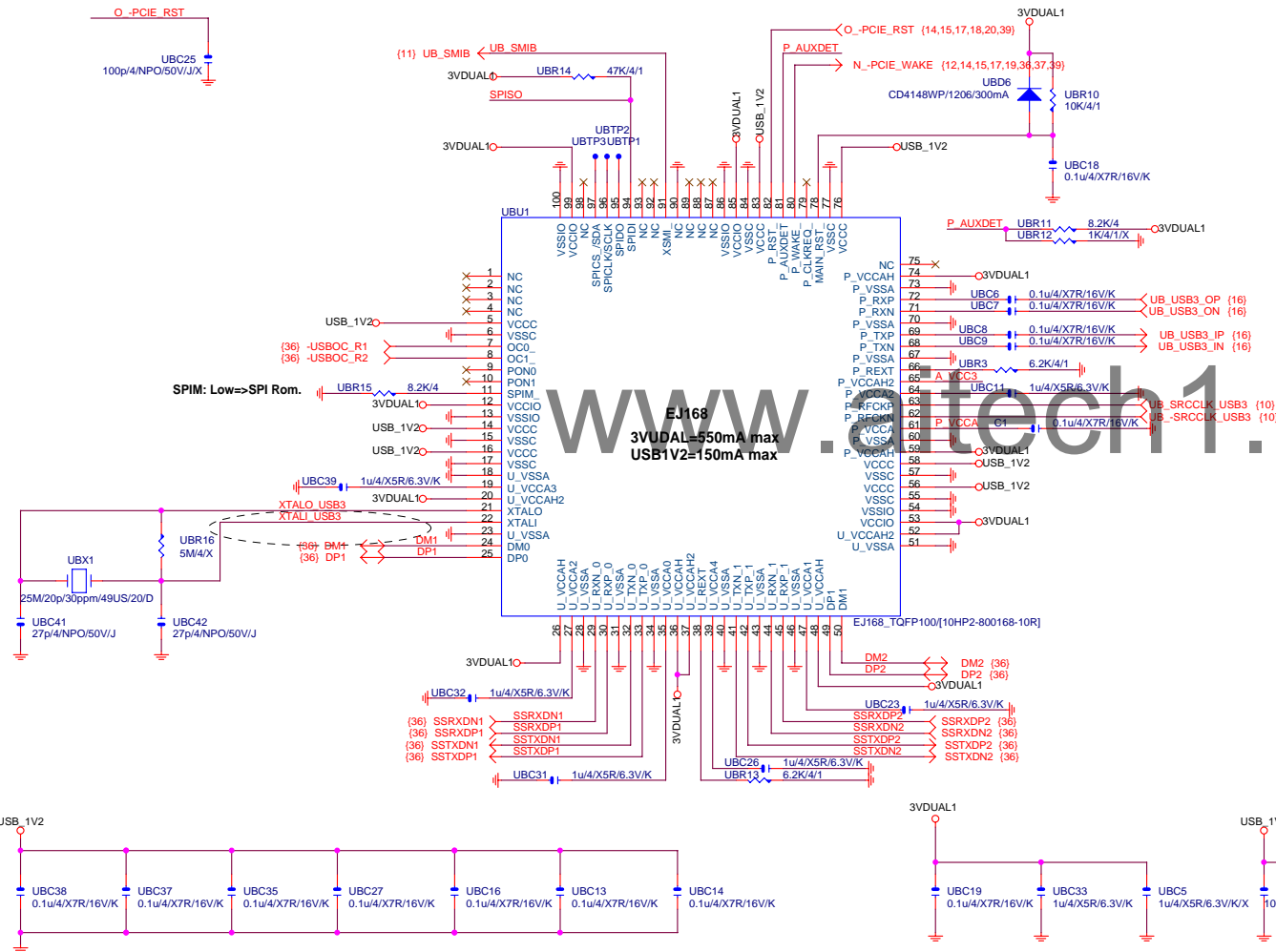
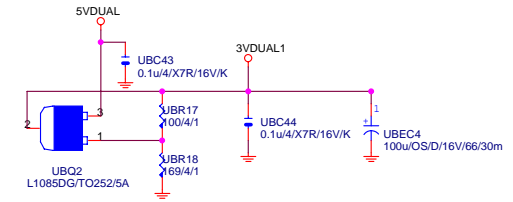
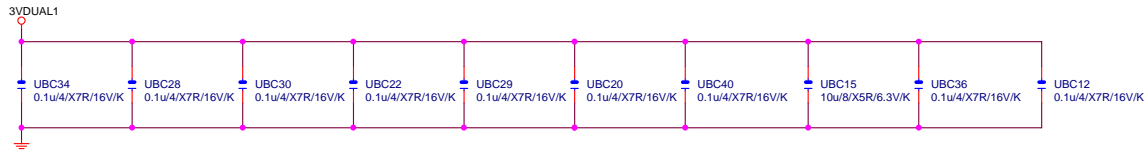
	RTL8111E
AVDD33	3.3V
DVDD33	3.3V
VDDREG	3.3V
DVDD10	1.05V



FOR DSM MODE
(DEEP SLEEP MODE)







Max Power=2.2V x 0.15A=0.33Watt

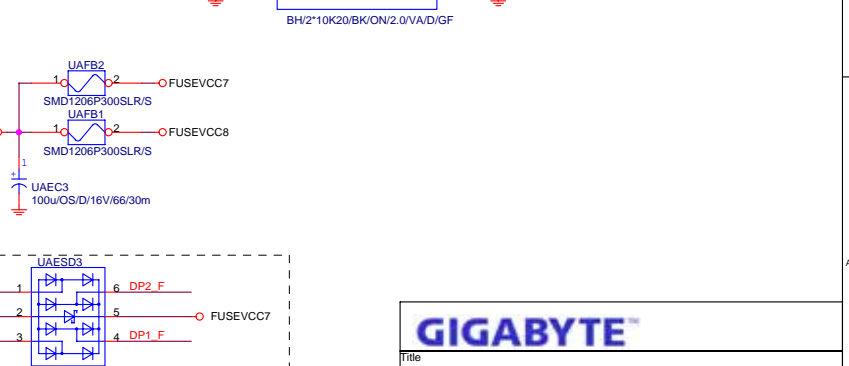
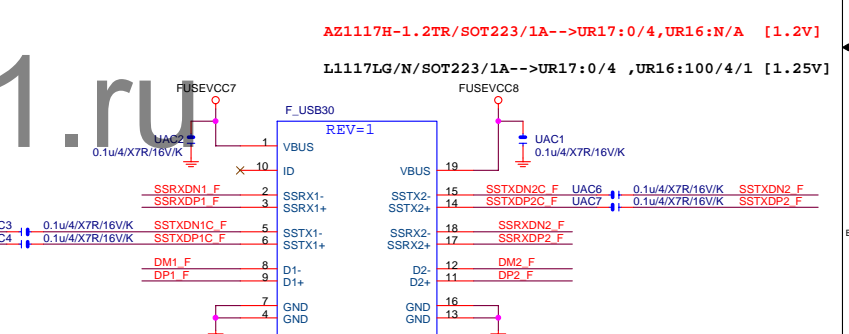
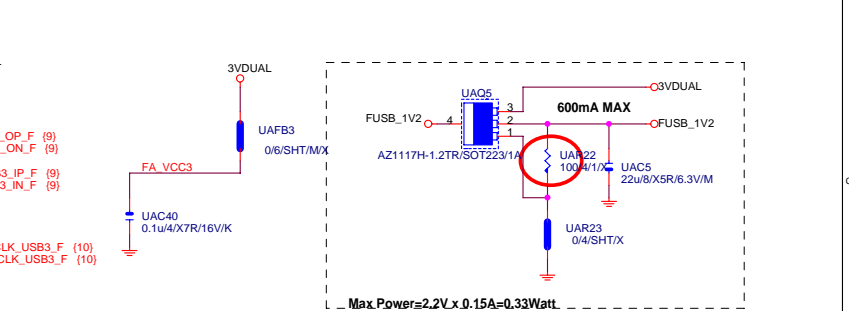
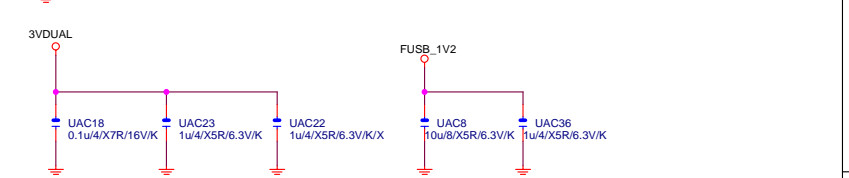
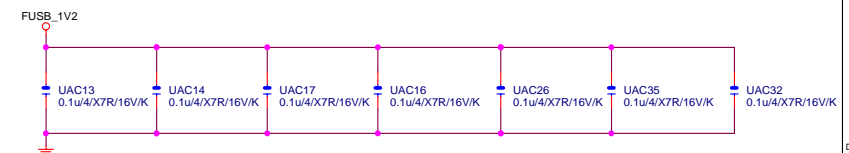
AZ1117H-1.2TR/SOT223/1A-->UR17:0/4,UR16:N/A [1.2V]


L1117LG/N/SOT223/1A-->UR17:0/4,UR16:100/4/1 [1.25V]

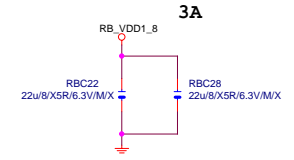
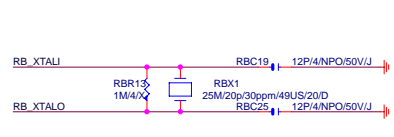
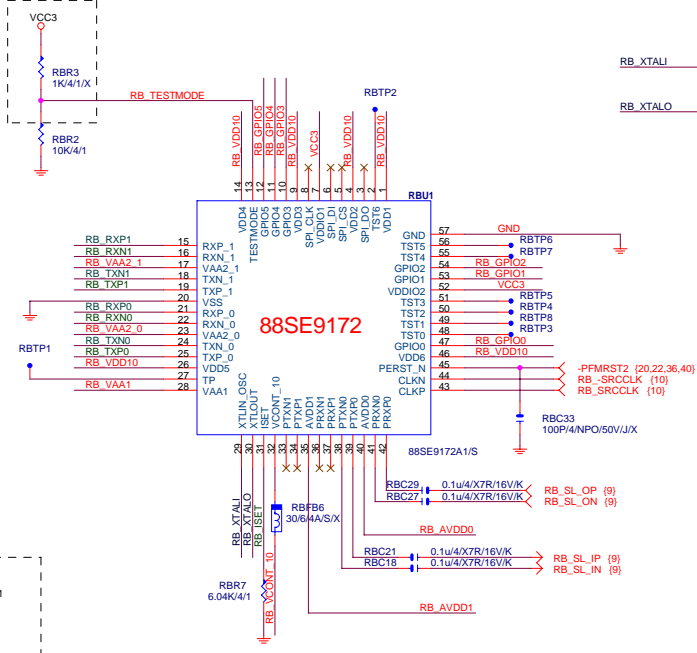
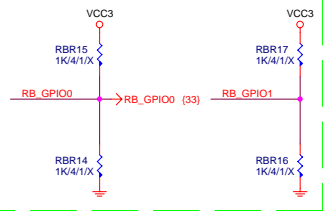
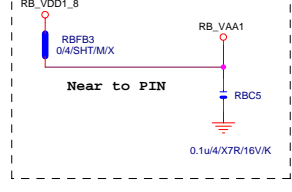
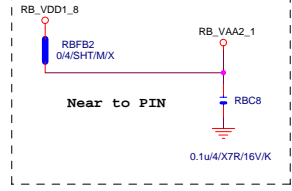
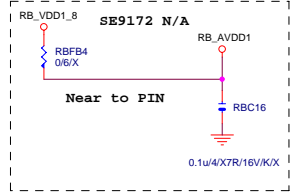
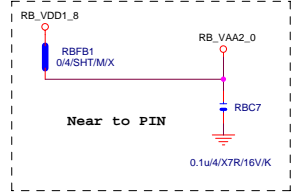
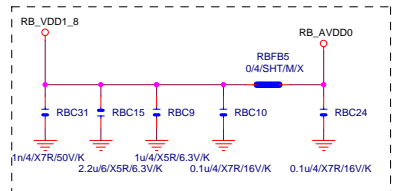
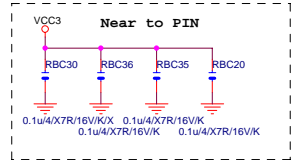
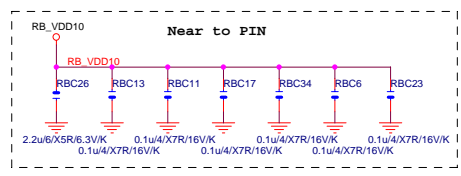
USB3.0 --> 5GHz

BANDWITH=5GHz * (8b/10b)=4Gb/s=500MB/s

GIGABYTE			
Title			
uP720200			
Size	Document Number	Rev	
Custom	GA-Z68X-UD4-B3	1.0	
Date:	Monday, March 14, 2011	Sheet	38 of 42

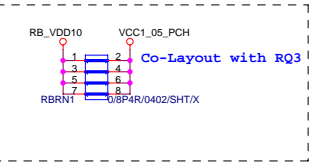
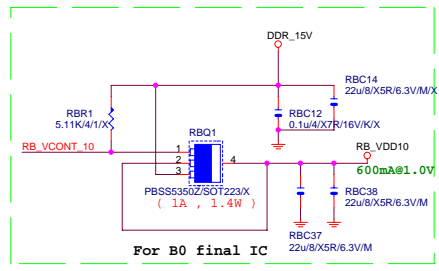
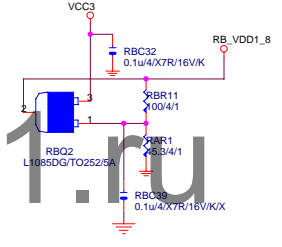
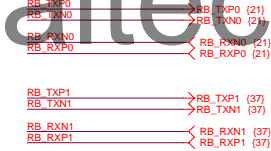


			
Title			
EJ168			
Size	Document Number		Rev
Custom	GA-Z68X-UD4-B3		1.0
Date:	Monday, March 14, 2011	Sheet	39 of 42



3.3V to 1.8V Voltage Regulator

90 歐姆: [15/4.5/7.5/4.5/15]

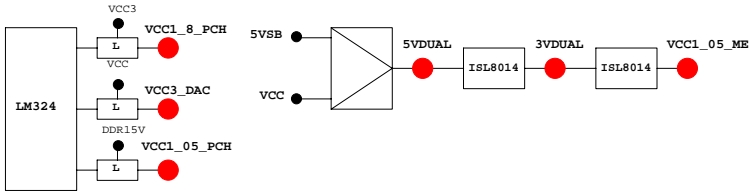


PCH GPIO LIST TABLE					
PIN NAME	PWR	Default	USAGE	NOTE	
GP0	MAIN	H-Z	GPI	-PECI_REQ	N/A
GP1/TACH1	MAIN		GPI	ICH_FAN_TACH1	N/A
GP2/PIRQ#	MAIN		GPI	-PIRQE	P/U 8.2K VCC3
GP3/PIRQ#	MAIN		GPI	-PIRQF	P/U 8.2K VCC3
GP4/PIRQG#	MAIN		GPI	-PIRQG	P/U 8.2K VCC3
GP5/PIRQH#	MAIN		GPI	-PIRQH	P/U 8.2K VCC3
GP6/TACH2	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	-ACZ_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

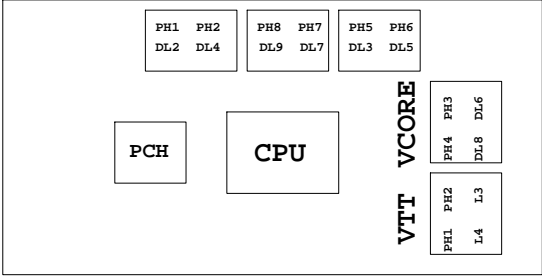
Super I/O ITE8720 GPIO Table

PIN NAME	USAGE	NOTE
SVC/PECI_RQT/GP14	-PECI_REQ	
PWROK1/GP13	PWROK1/ITE_PWROK	
KRST#/GP62	-KBRST	
SO/GP50	-ICH_SFI_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#CIRRXL/GP55	-RSMRST	
PME#/GP54	-LPCPME	
PD5/GP75/BUSS00	N/A	

PIN NAME	USAGE	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/SCK	LOW_PWR_1	
VID05/GP27/SIN2	LOW_PWR_2	
PCIRST2#/GP11	-PWRST1	
PCIRST1#/GP12	-PFMRST2	
3VBSBW#/GP40	CSI_F0	BSEL166_1
SUSC#/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	
AED#/GP86/SMB_C_R	2M_PIN	FST_2X8
INIT#/GP85/SMB_D_M	SEC_2x8	GTLREF_AD2
ACK#/GP83	DDR_LED1_C	
VID01/GP21/DCD2#	DDR_LED2_C	
STB#/GP87/SMB_C_M	DDR_LED3_C	
PWRON#GP44	VCORE_OV1	
PANSWH#/GP43	PWRBTSW	
KDAT/GP61	-PWRBTSW	
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/SMB_D_R	-EN_PWM2	
PSI_L/FAN_CLT5/CIRRXL2/GP16	-THERM	
VID04/GP26/SOUT2	DDR18V_PH2_EN	
VID02/FAN_TAC5/GP24/DSR2#	DDR18V_LED	
VID06/GP17/RI2#	1_1V_PH_EN	
VID07/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：

散熱模組料號：

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_A/VREF_CA_B	DRAM Address Ref
VREF_DQ_A/VREF_DQ_B	DRAM Data Ref

	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

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File		TABLE LIST	
Size	Document Number	GA-Z68X-UD4-B3	Rev
C			1.0
Date	Monday, March 14, 2011	Sheet	42 of 42