

Model Name: GA-Z68X-UD3H-B3

Rev 1.3

SHEET

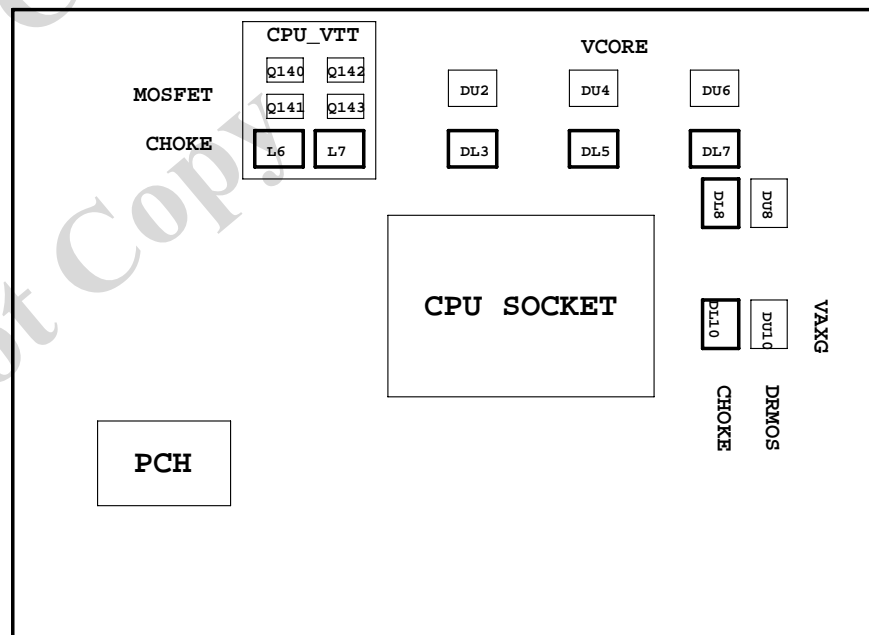
TITLE

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02	BOM & PCB MODIFY HISTORY
03	BLOCK DIAGRAM
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05	CPU_LGA1155-B
06	CPU_LGA1155-C
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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	HDMI,DVI,DP
15	PCI EXPRESS*16 SLOT
16	PCI EXPRESS*8 SLOT
17	PCI EXPRESS*16/*8 SWITCH
18	PCI EXPRESS*1 SLOTS X3
19	IT8892E
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21	PCI SLOT 1&2
22	I/O ITE8728
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SHEET

TITLE

31	DISCRETE POWER I
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33	CPU_VTT PWM_ISL6322G
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38	REALTEK RTL8111E_VL
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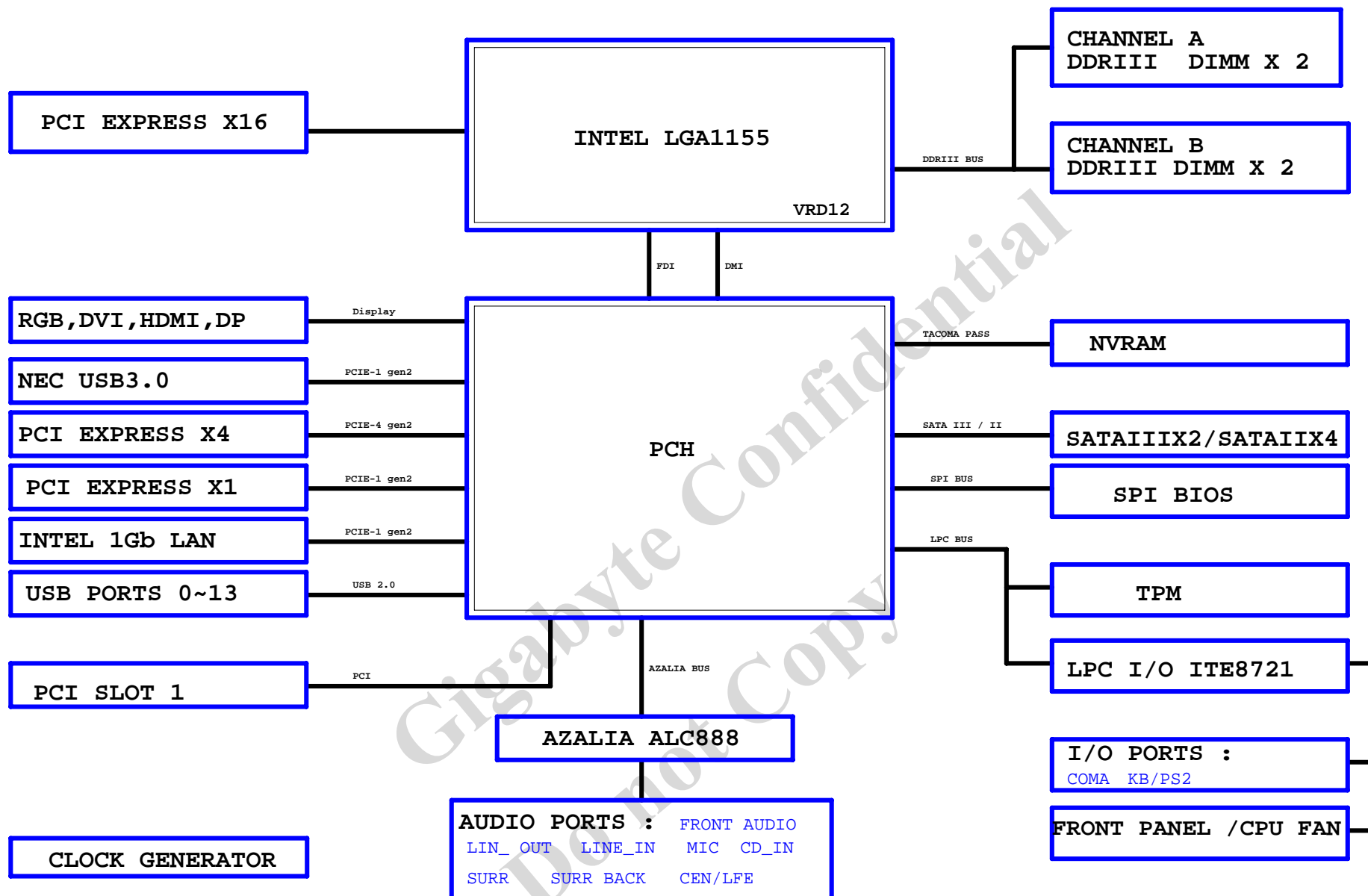
Gigabyte Technology

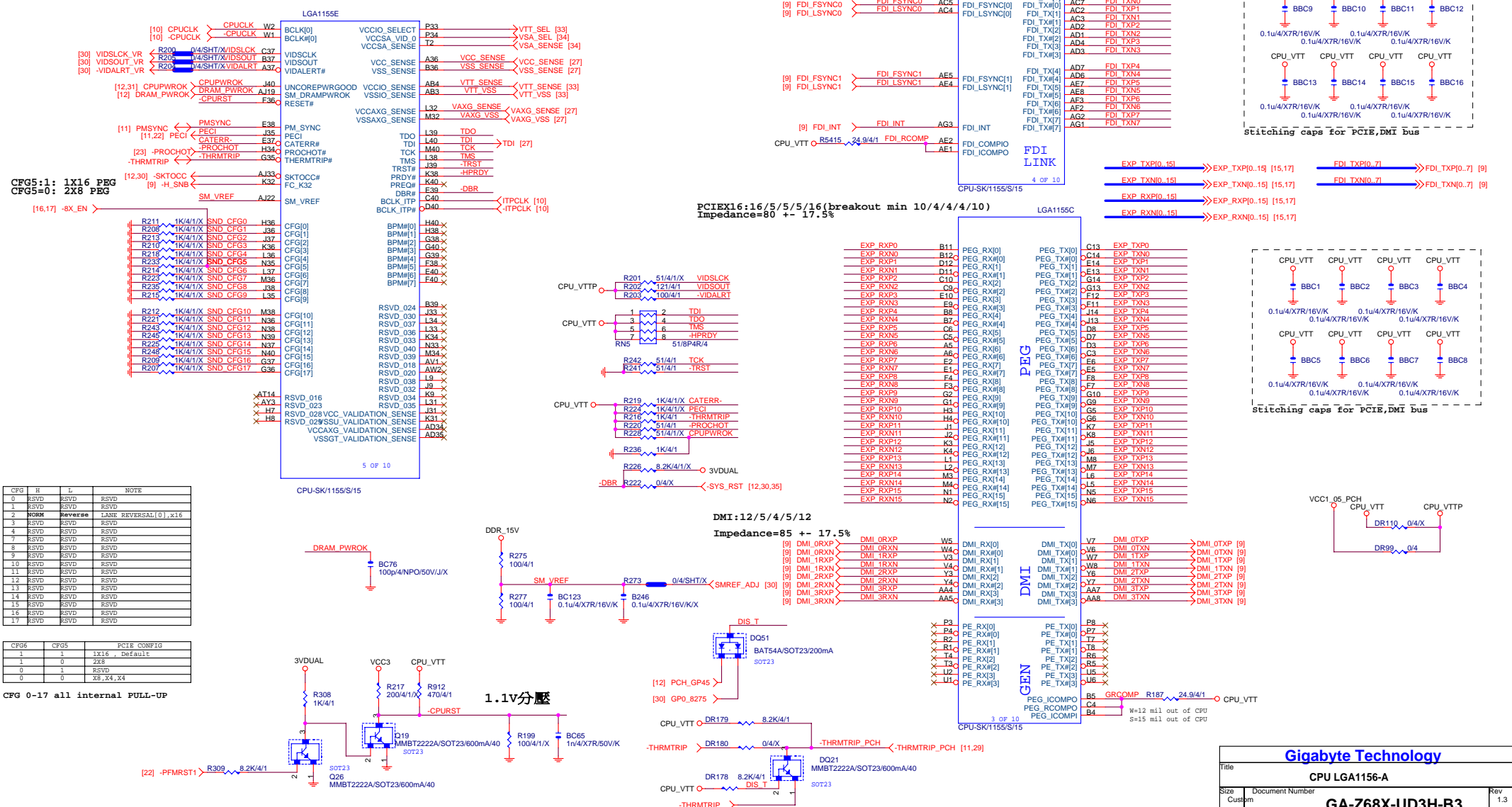
Title		Cover Sheet	
Size	Document Number	GA-Z68X-UD3H-B3	Rev 1.3
Custom			
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BLOCK DIAGRAM

www.xinxunwei.com 400-800-9990





LGA1155A

MAAA0	AV27	SA_MA[0]	SA_DQS[0]	AK3	DQSA0
MAAA1	AY24	SA_MA[1]	SA_DQS[0]	AK2	-DQSA0
MAAA2	AW24	SA_MA[2]			
MAAA3	AV23	SA_MA[3]			
MAAA4	AV23	SA_MA[3]	SA_DQ[0]	AJ3	MDA0
MAAA5	AT24	SA_MA[4]	SA_DQ[1]	AJ4	MDA1
MAAA6	AT23	SA_MA[5]	SA_DQ[2]	AL3	MDA2
MAAA7	AU22	SA_MA[6]	SA_DQ[3]	AL4	MDA3
MAAA8	AV22	SA_MA[7]	AJ2	MDA4	
MAAA9	AT22	SA_MA[8]	SA_DQ[5]	AJ1	MDA5
MAAA10	AV28	SA_MA[9]	SA_DQ[6]	AL2	MDA6
MAAA11	AU21	SA_MA[10]	SA_DQ[7]	AL1	MDA7
MAAA12	AT21	SA_MA[11]			
MAAA13	AW32	SA_MA[12]	SA_DQS[1]	AP3	DQSA1
MAAA14	AU20	SA_MA[13]	SA_DQS[1]	AP2	-DQSA1
MAAA15	AT20	SA_MA[14]			
		SA_MA[15]			
[7] -SWEA	-SCASA	AV29	SA_WE#	AN1	MDA8
[7] -SCASA	-SRASA	AV30	SA_CAS#	AN4	MDA9
[7] -SRASA		AU28	SA_RAS#	AR3	MDA10
			SA_DQ[8]	AR4	MDA11
			SA_DQ[9]	AN2	MDA12
[7] SBAA0	SBAA0	AY29	SA_BS[0]	AN3	MDA13
[7] SBAA1	SBAA1	AW28	SA_BS[1]	AR2	MDA14
[7] SBAA2	SBAA2	AV20	SA_BS[2]	AR1	MDA15
			SA_DQ[10]		
			SA_DQ[11]		
			SA_DQ[12]		
			SA_DQ[13]		
			SA_DQ[14]		
			SA_DQ[15]		
			SA_DQS[2]	AW4	DQSA2
[7] -CSA0	-CSA1	AV32	SA_CS#	AW4	-DQSA2
[7] -CSA1	-CSA2	AW30	SA_CS#		
[7] -CSA2	-CSA3	AU33	SA_CS#		
			SA_DQS[2]		
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DDR_0

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CPU-SK/1155/S/15

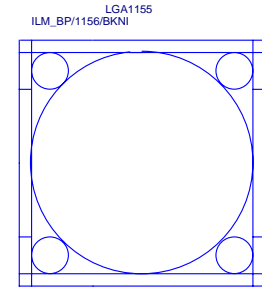
LGA1155B

MAAB0	AK24	SB_MA[0]	SB_DQS[0]	AH7	DQSB0
MAAB1	AM20	SB_MA[1]	SB_DQS[0]	AH6	-DQSB0
MAAB2	AM19	SB_MA[2]			
MAAB3	AK18	SB_MA[3]			
MAAB4	AP19	SB_MA[4]	SB_DQ[0]	AG7	MDB0
MAAB5	AP18	SB_MA[5]	SB_DQ[1]	AG8	MDB1
MAAB6	AM18	SB_MA[6]	SB_DQ[2]	AJ9	MDB2
MAAB7	AL18	SB_MA[7]	SB_DQ[3]	AJ8	MDB3
MAAB8	AY17	SB_MA[8]	SB_DQ[4]	AG5	MDB4
MAAB9	AN18	SB_MA[9]	SB_DQ[5]	AJ6	MDB5
MAAB10	AN23	SB_MA[10]	SB_DQ[6]	AJ6	MDB6
MAAB11	AU17	SB_MA[11]	SB_DQ[7]	AJ7	MDB7
MAAB12	AT18	SB_MA[12]			
MAAB13	AR26	SB_MA[13]	SB_DQS[1]	AM8	DQSB1
MAAB14	AY16	SB_MA[14]	SB_DQS[1]	AL8	-DQSB1
MAAB15	AV16	SB_MA[15]			
			SB_DQ[8]	AL7	MDB8
			SB_DQ[9]	AM7	MDB9
			SB_DQ[10]	AM10	MDB10
			SB_DQ[11]	AL10	MDB11
			SB_DQ[12]	AL6	MDB12
			SB_DQ[13]	AL9	MDB13
			SB_DQ[14]	AM9	MDB15
			SB_DQ[15]		
			SB_DQS[2]	AR8	DQSB2
			SB_DQS[2]	AP8	-DQSB2
			SB_DQS[3]		
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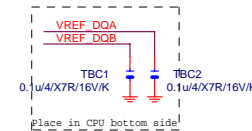
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CPU-SK/1155/S/15



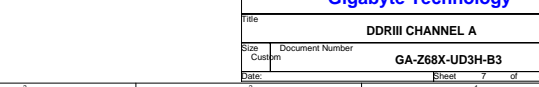
Need check the new CPU ME

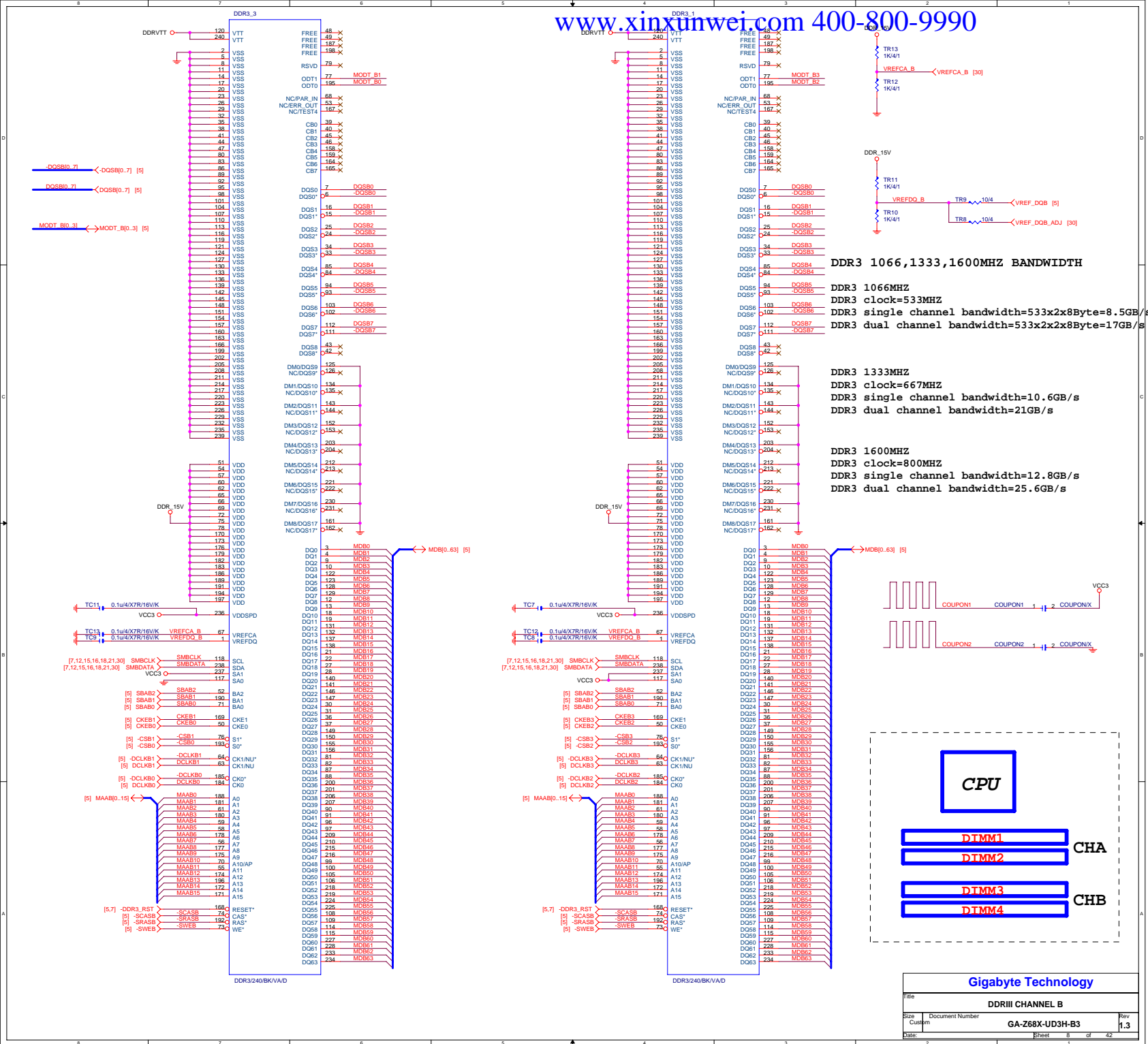


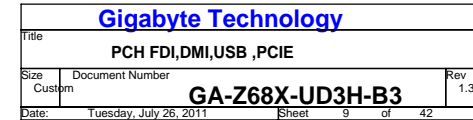
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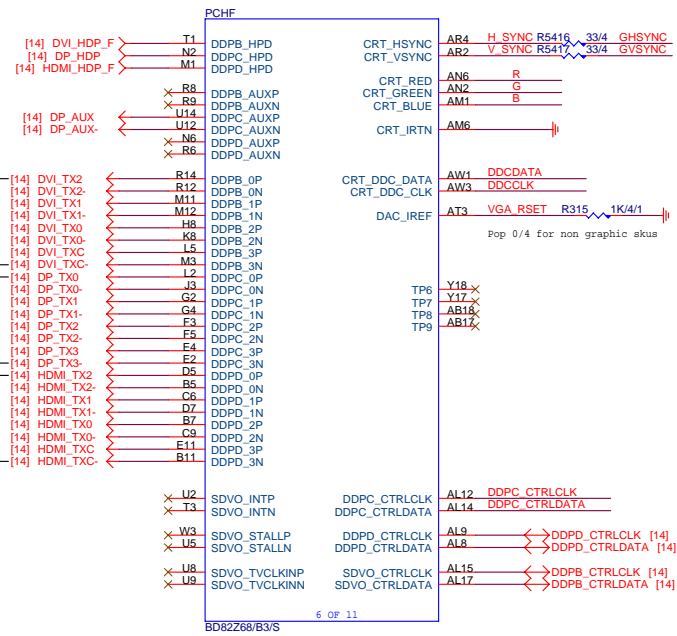
CPU LGA1156-B

Title		CPU LGA1156-B	
Size	Document Number	GA-Z68X-UD3H-B3	
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Flex0,2 : 33MHZ

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

VCC1_05_PCH

PCHCLK14

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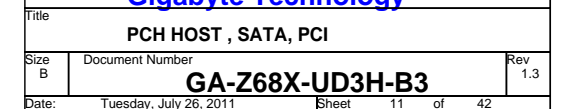
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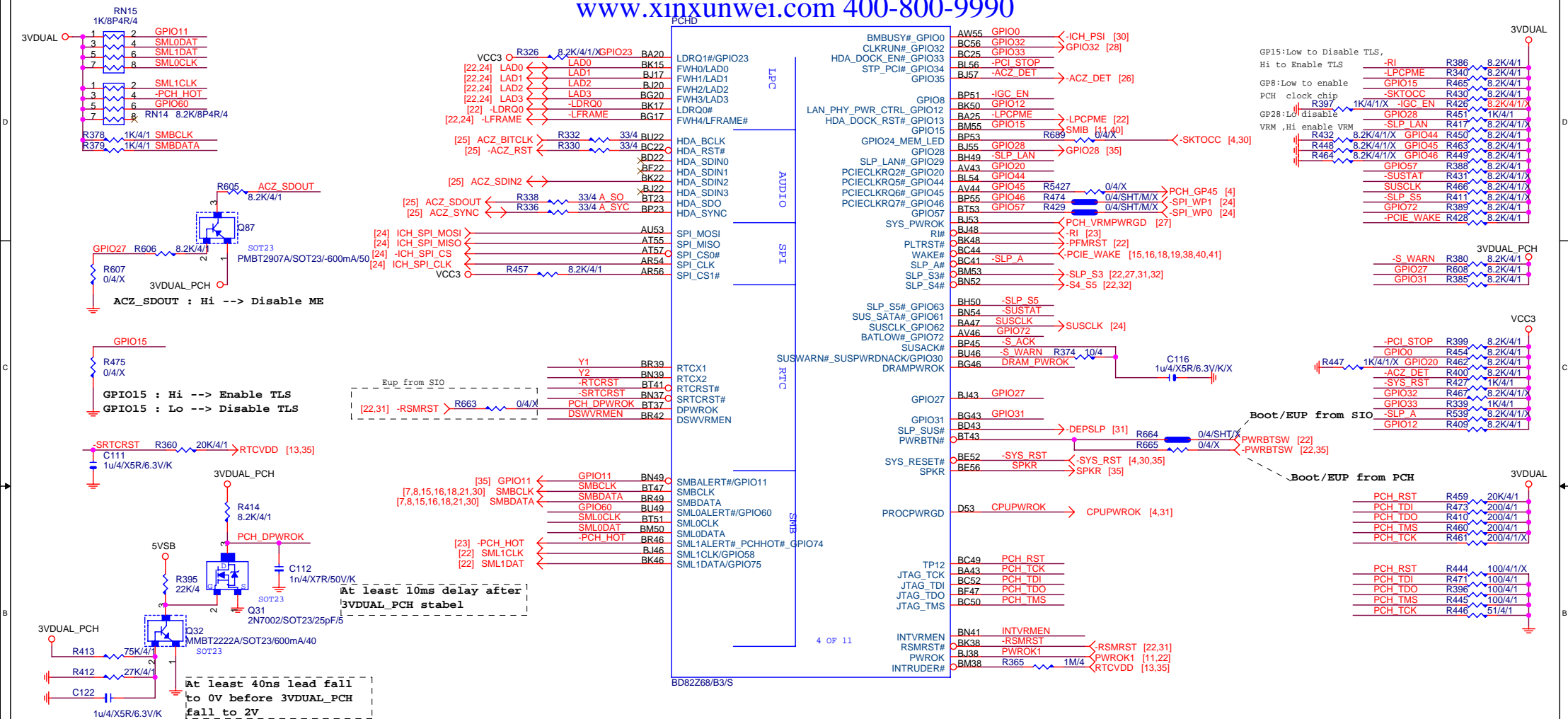
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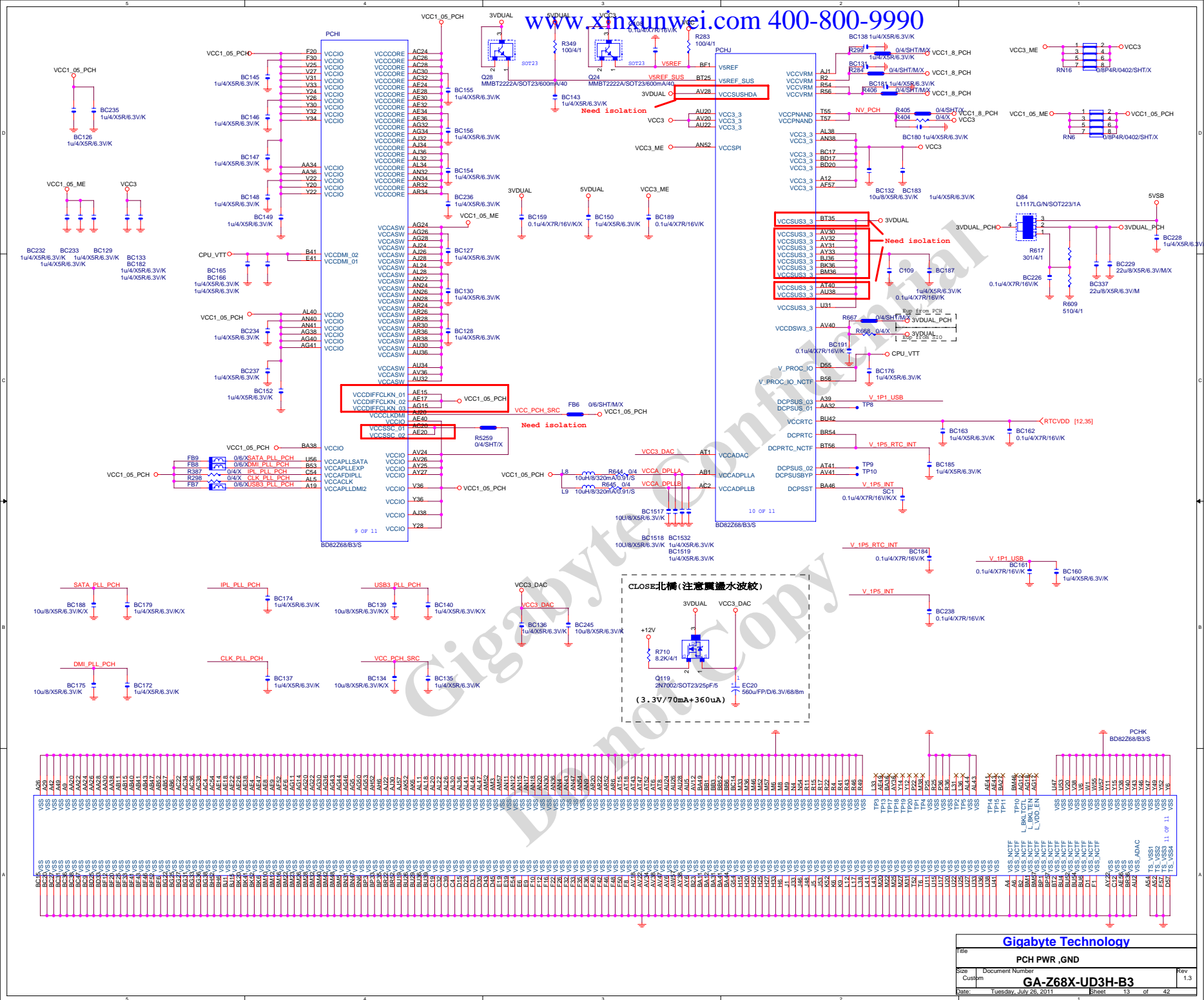
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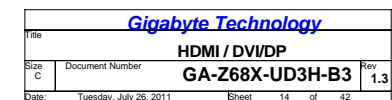
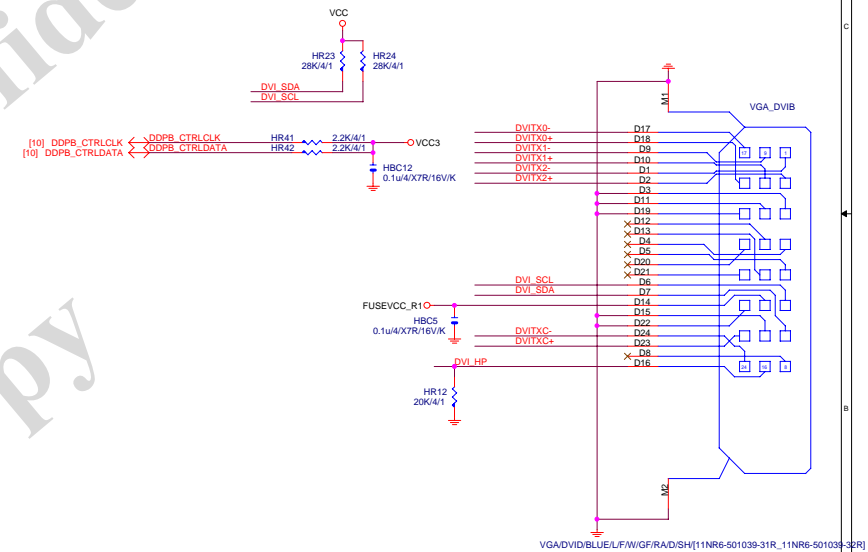
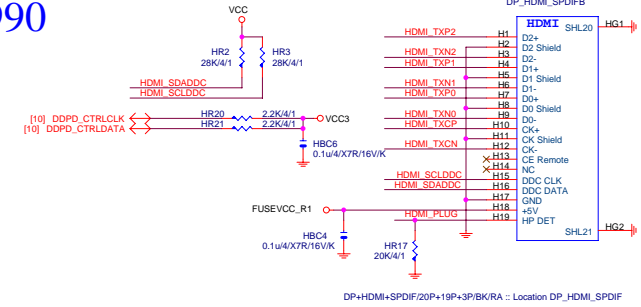




Gigabyte Technology

Title			
PCH GPIO , CTRL , AUDIO			
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+12 protect
short-wire test

PCIE16:16/5/5/5/16

EXP_RXP0..15] >> EXP_RXP[0..15] [4,17]
EXP_RXN0..15] >> EXP_RXN[0..15] [4,17]
EXP_TXP0..15] >> EXP_TXP[0..15] [4,17]
EXP_TXN0..15] >> EXP_TXN[0..15] [4,17]

EXP_TXP0	C43	0.22u/4/X5R/6.3V/K/EXP_TXP0C
EXP_TXN0	C36	0.22u/4/X5R/6.3V/K/EXP_TXN0C
EXP_TXP1	C47	0.22u/4/X5R/6.3V/K/EXP_TXP1C
EXP_TXN1	C49	0.22u/4/X5R/6.3V/K/EXP_TXN1C
EXP_TXP2	C52	0.22u/4/X5R/6.3V/K/EXP_TXP2C
EXP_TXN2	C54	0.22u/4/X5R/6.3V/K/EXP_TXN2C
EXP_TXP3	C57	0.22u/4/X5R/6.3V/K/EXP_TXP3C
EXP_TXN3	C59	0.22u/4/X5R/6.3V/K/EXP_TXN3C
EXP_TXP4	C62	0.22u/4/X5R/6.3V/K/EXP_TXP4C
EXP_TXN4	C64	0.22u/4/X5R/6.3V/K/EXP_TXN4C
EXP_TXP5	C65	0.22u/4/X5R/6.3V/K/EXP_TXP5C
EXP_TXN5	C67	0.22u/4/X5R/6.3V/K/EXP_TXN5C
EXP_TXP6	C69	0.22u/4/X5R/6.3V/K/EXP_TXP6C
EXP_TXN6	C71	0.22u/4/X5R/6.3V/K/EXP_TXN6C
EXP_TXP7	C76	0.22u/4/X5R/6.3V/K/EXP_TXP7C
EXP_TXN7	C75	0.22u/4/X5R/6.3V/K/EXP_TXN7C
EXP_A_SW_TXP8	C79	0.22u/4/X5R/6.3V/K/EXP_A_SW_TXP8C
EXP_A_SW_TXN8	C80	0.22u/4/X5R/6.3V/K/EXP_A_SW_TXN8C
EXP_A_SW_TXP9	C81	0.22u/4/X5R/6.3V/K/EXP_A_SW_TXP9C
EXP_A_SW_TXN9	C82	0.22u/4/X5R/6.3V/K/EXP_A_SW_TXN9C
EXP_A_SW_TXP10	C86	0.22u/4/X5R/6.3V/K/EXP_A_SW_TXP10C
EXP_A_SW_TXN10	C87	0.22u/4/X5R/6.3V/K/EXP_A_SW_TXN10C
EXP_A_SW_TXP11	C90	0.22u/4/X5R/6.3V/K/EXP_A_SW_TXP11C
EXP_A_SW_TXN11	C91	0.22u/4/X5R/6.3V/K/EXP_A_SW_TXN11C
EXP_A_SW_TXP12	C92	0.22u/4/X5R/6.3V/K/EXP_A_SW_TXP12C
EXP_A_SW_TXN12	C93	0.22u/4/X5R/6.3V/K/EXP_A_SW_TXN12C
EXP_A_SW_TXP13	C95	0.22u/4/X5R/6.3V/K/EXP_A_SW_TXP13C
EXP_A_SW_TXN13	C96	0.22u/4/X5R/6.3V/K/EXP_A_SW_TXN13C
EXP_A_SW_TXP14	C97	0.22u/4/X5R/6.3V/K/EXP_A_SW_TXP14C
EXP_A_SW_TXN14	C98	0.22u/4/X5R/6.3V/K/EXP_A_SW_TXN14C
EXP_A_SW_TXP15	C99	0.22u/4/X5R/6.3V/K/EXP_A_SW_TXP15C
EXP_A_SW_TXN15	C100	0.22u/4/X5R/6.3V/K/EXP_A_SW_TXN15C

EXP_A_SW_RXP8..15] >> EXP_A_SW_RXP[8..15] [17]
EXP_A_SW_RXN8..15] >> EXP_A_SW_RXN[8..15] [17]
EXP_A_SW_TXP8..15] >> EXP_A_SW_TXP[8..15] [17]
EXP_A_SW_TXN8..15] >> EXP_A_SW_TXN[8..15] [17]

PCI-E REV:1.1--> 2.5GHZ

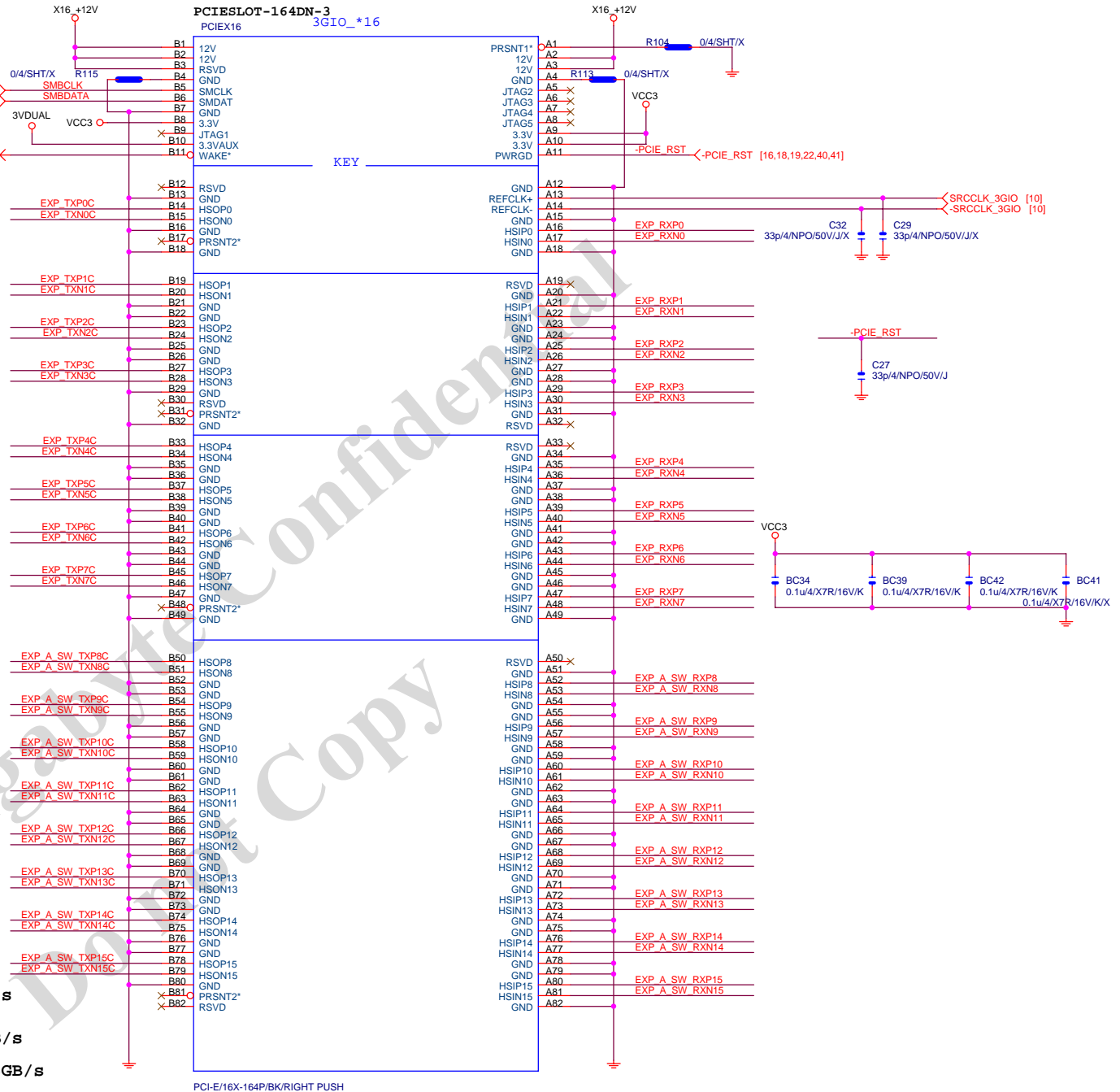
PCE-E X1(單向) BANDWIDTH=2.5GHz*(8b/10b)=2Gb/s=250MB/s

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

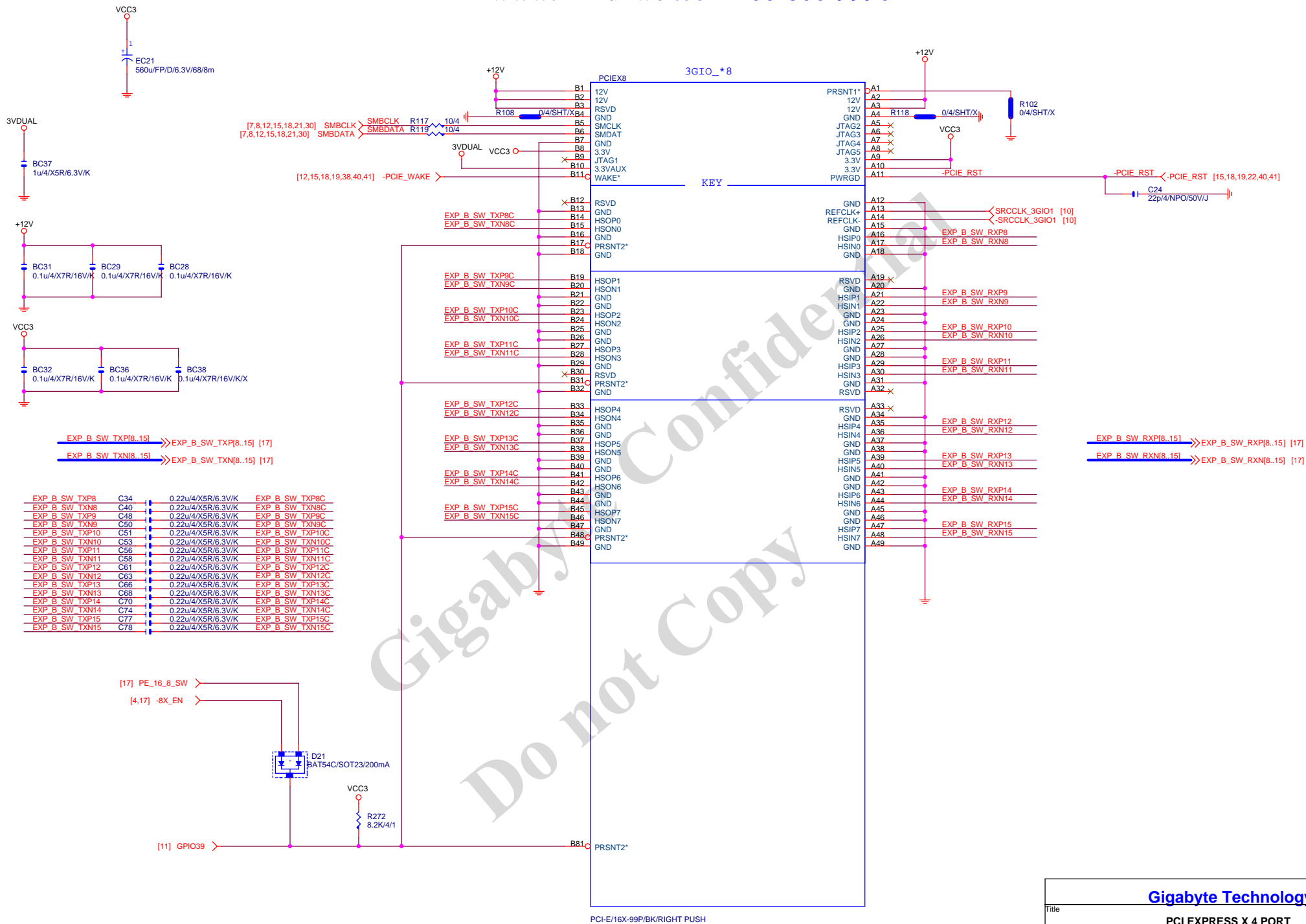
PCE-E X16(雙向) BANDWIDTH=2.5GHz*(8b/10b)X16X2=64Gb/s=8GB/s

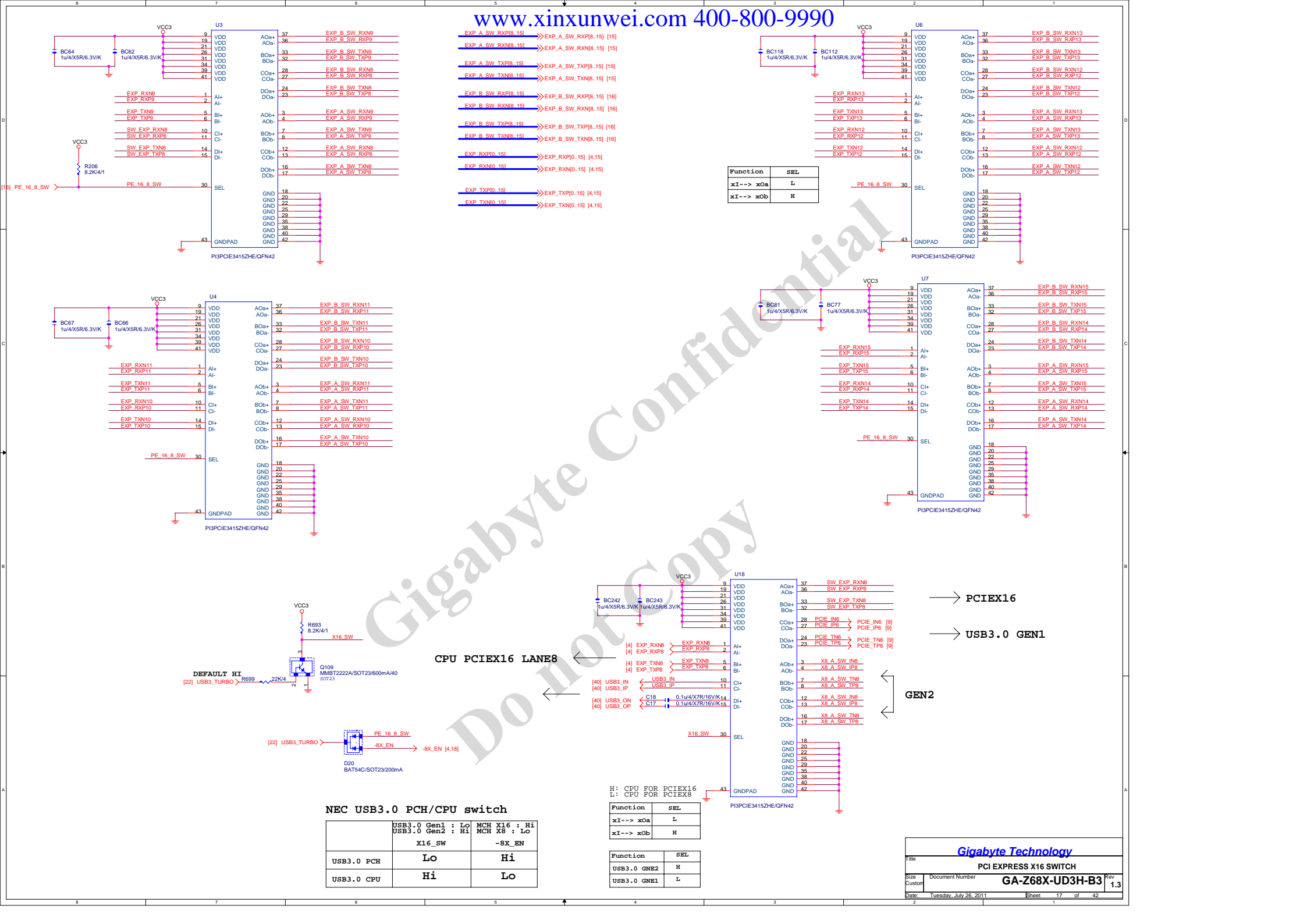
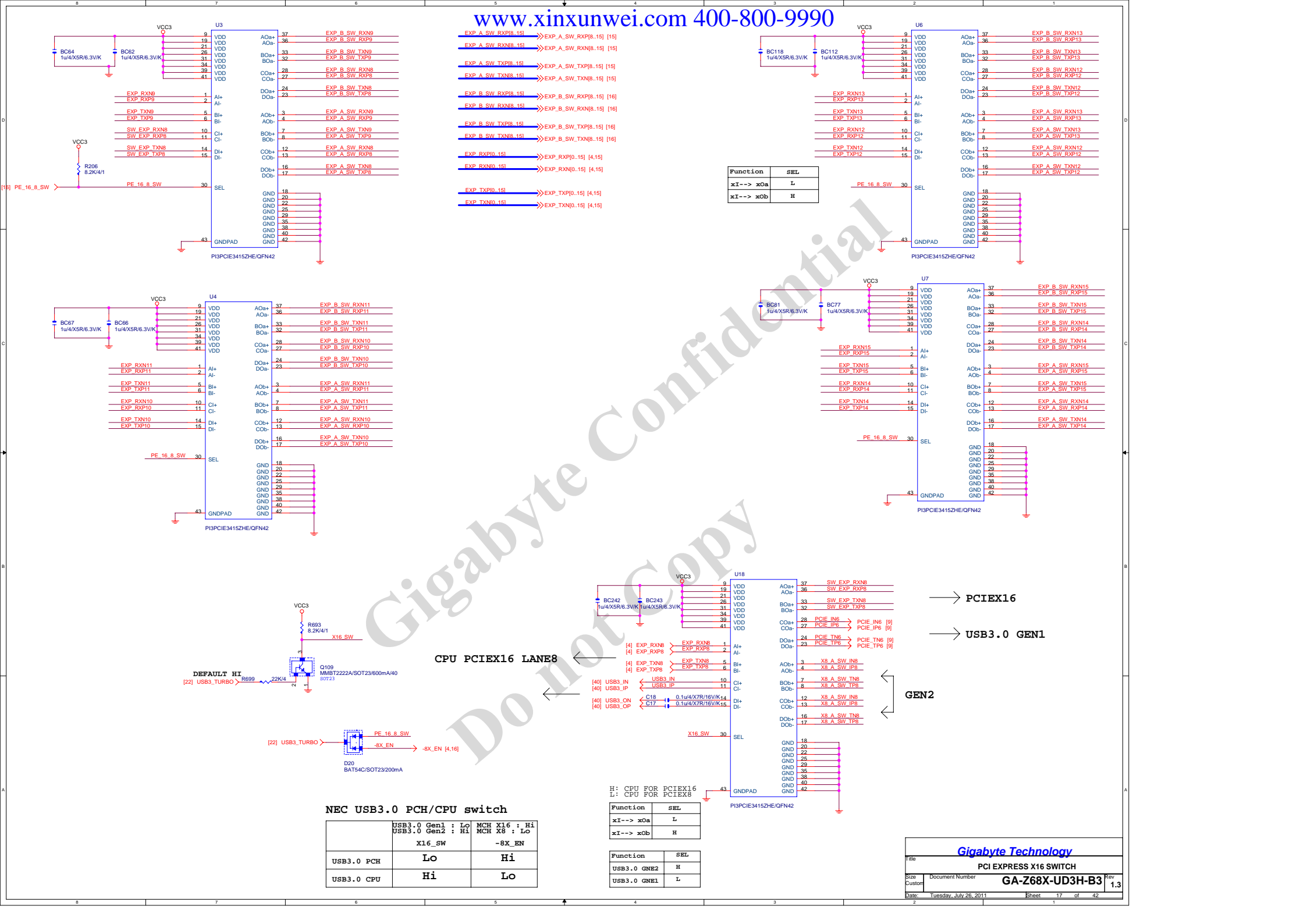
PCI-E REV:2.0--> 5GHZ

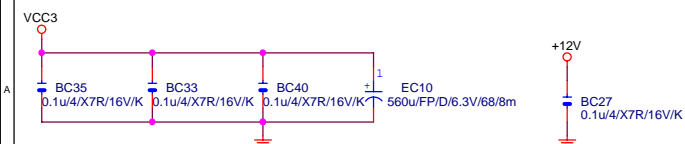
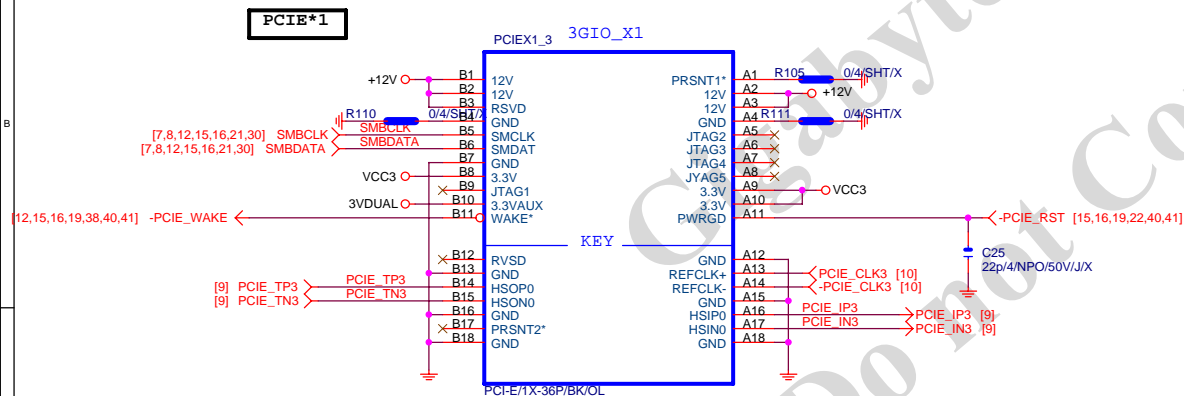
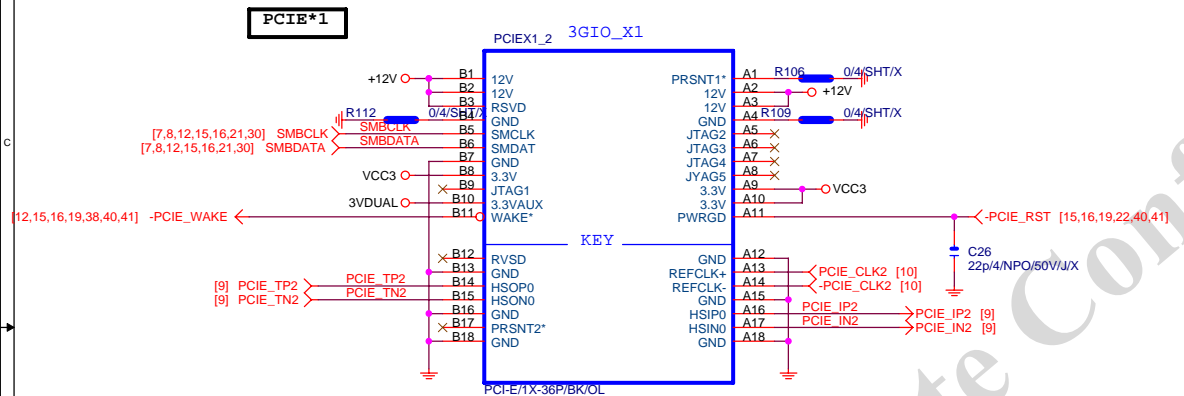
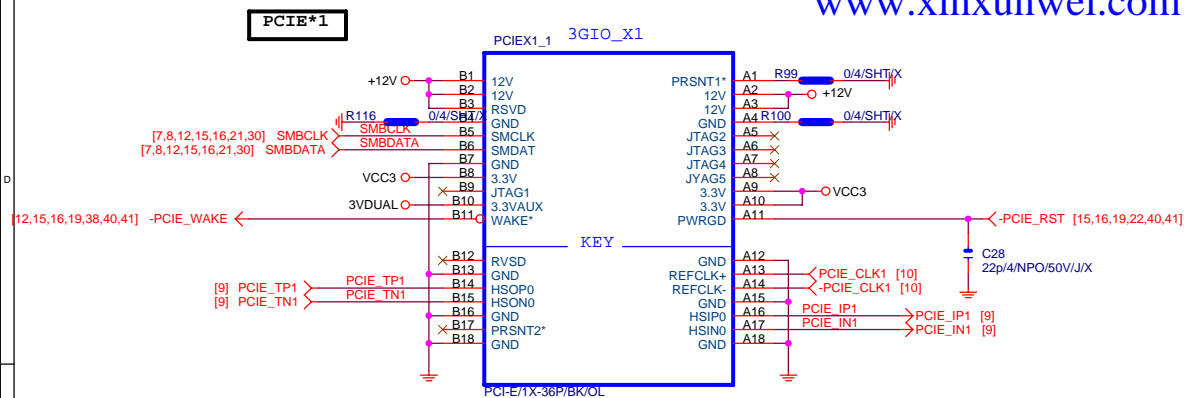


Gigabyte Technology

Title			
PCI EXPRESS * 16			
Size	Document Number	Rev	
Custom	GA-Z68X-UD3H-B3	1.3	
Date:	Tuesday, July 26, 2011	Sheet	15 of 42



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

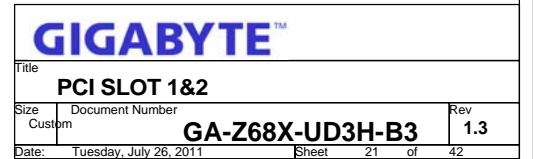


Gigabyte Technology

Title		
PCIE X1 1,2		
Size	Document Number	Rev
Custom	GA-Z68X-UD3H-B3	1.3
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High: PCICLK INPUT form CLK Gen
Low: PCICLK OUTPUT form IT8893 chip



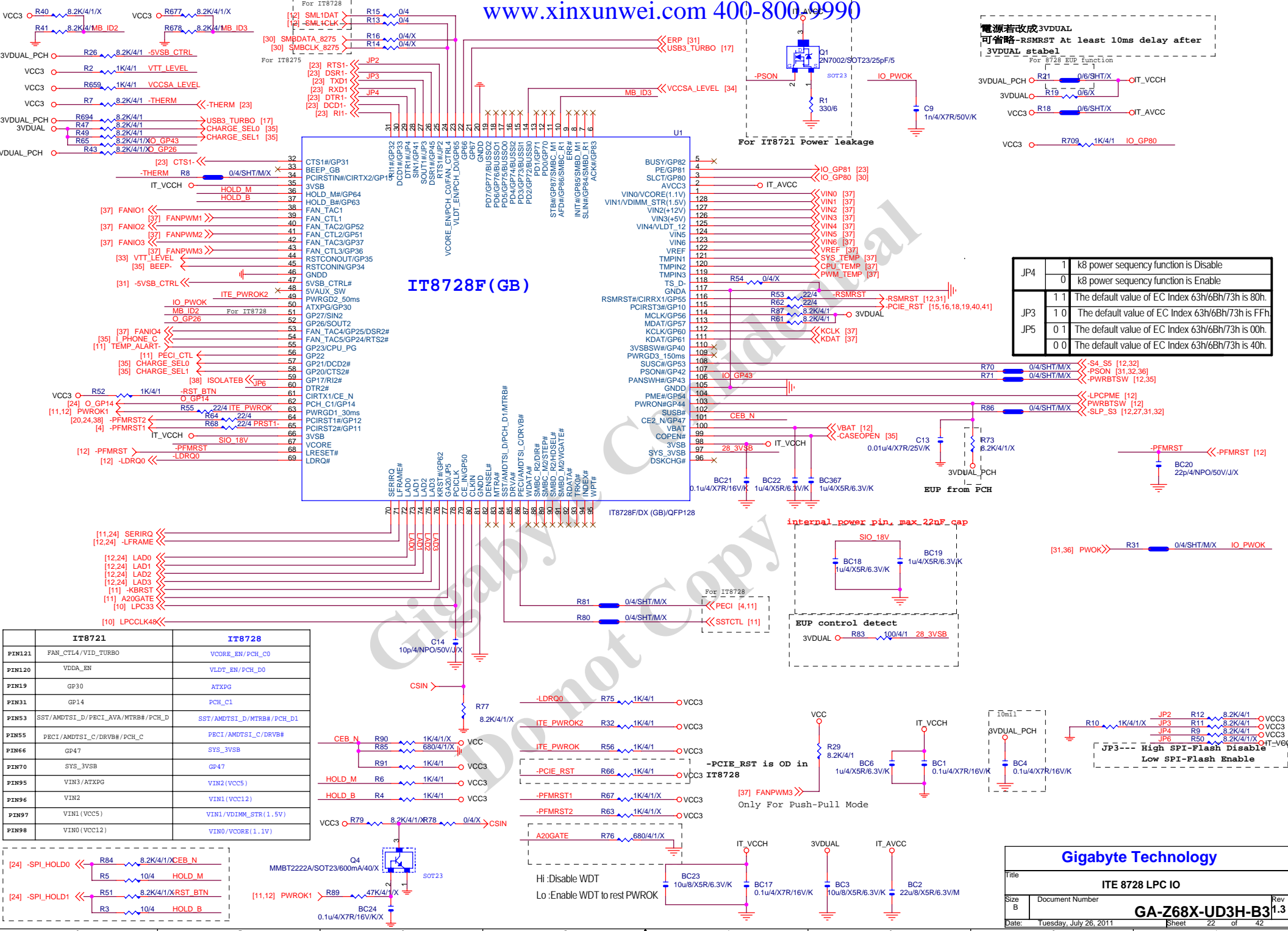


電源若改成3VDUAL
可省略-RSMRST At least 10ms delay after
3VDUAL stabel

For 8728 EUP function
3VDUAL_PCH R21 0/6/SHT/X IO_VCCH
3VDUAL R19 0/6/X
VCC3 R18 0/6/SHT/X IO_AVCC
VCC3 R709 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.

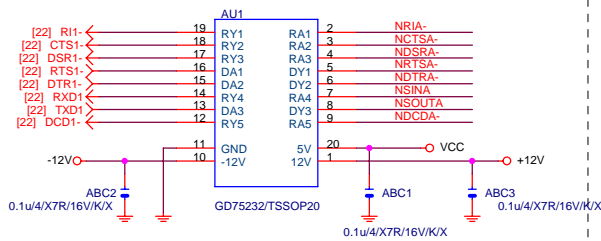
IT8728F(GB)



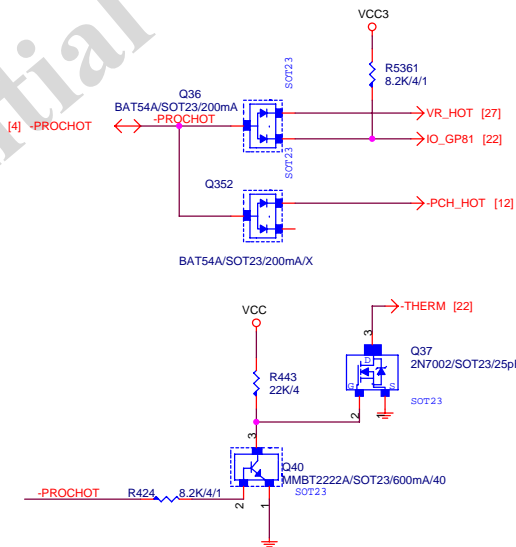
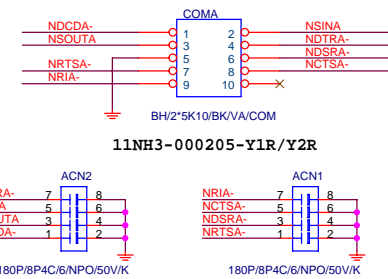
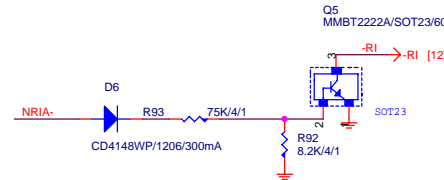
Gigabyte Technology

Title			ITE 8728 LPC IO		
Size			Document Number		
Date:			Tuesday, July 26, 2011		
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Rev			GA-Z68X-UD3H-B3 1.3		

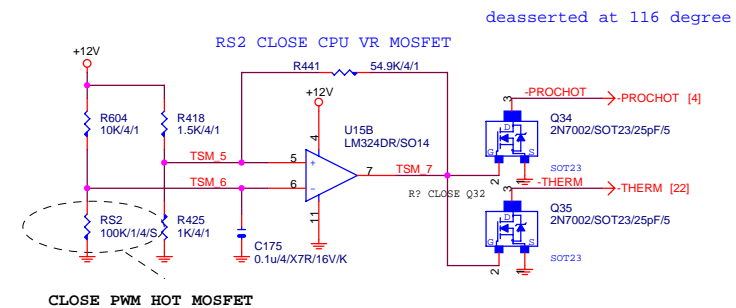
COMA



COM R1

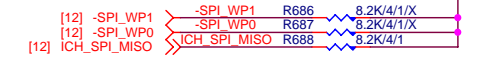


-PROHOT



Gigabyte Technology

Title			COM & PROHOT
Size	Document Number		GA-Z68X-UD3H-B3
Custom			Rev 1.3
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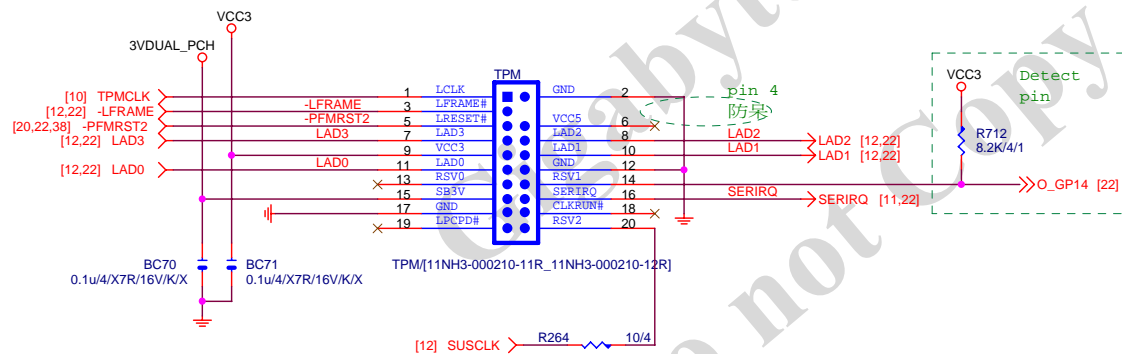
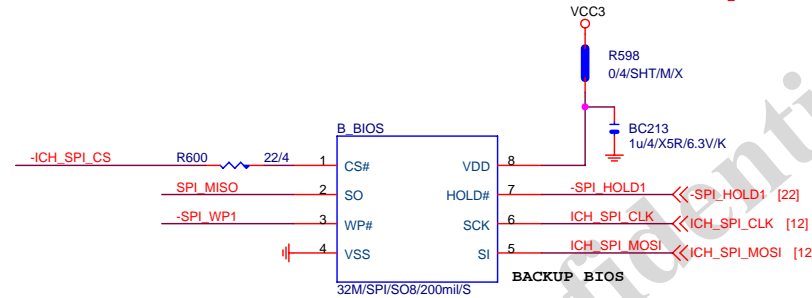
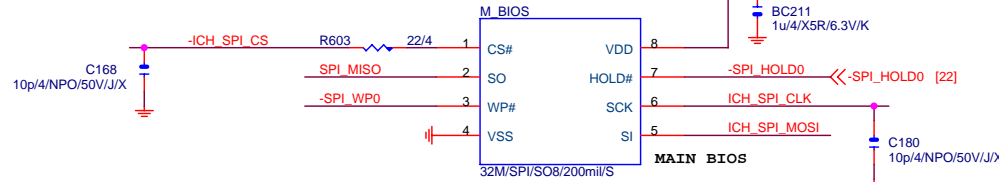
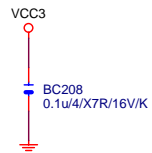


Default int pull up



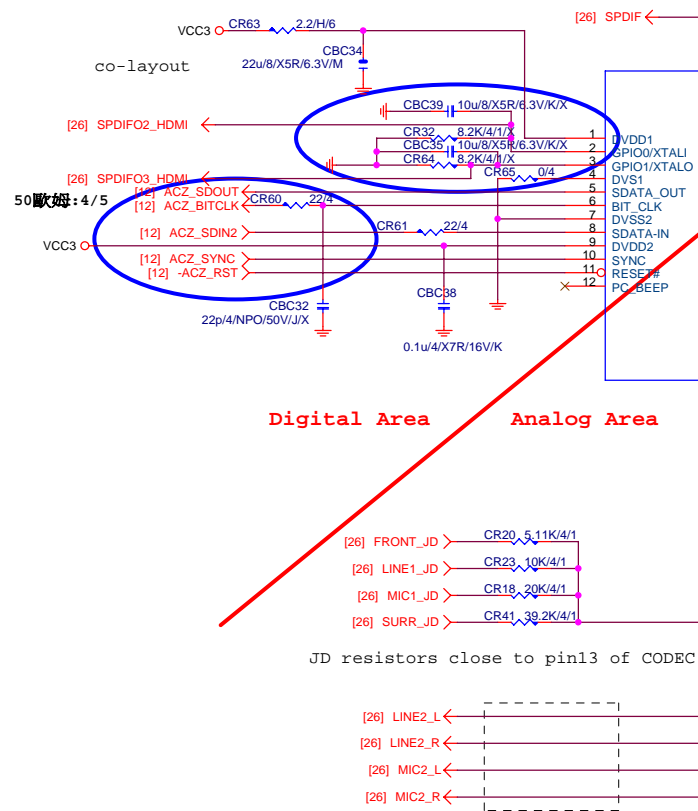
BOOT DEVICE	GNT0	GNT1
LPC	0	0
PCI	0	1
NAND	1	0
SPI	1	1

1 means floating
 0 means PD 1K



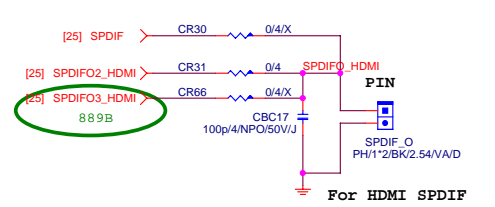
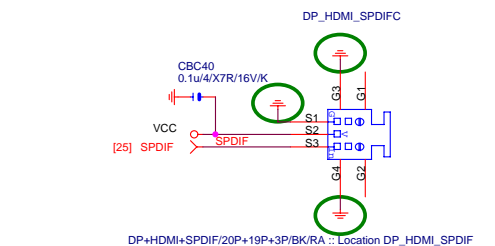
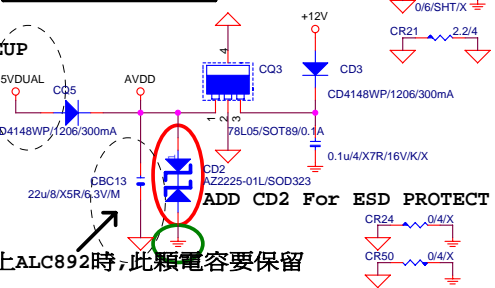
Gigabyte Technology

Title			BIOS , TPM
Size	Document Number	GA-Z68X-UD3H-B3	
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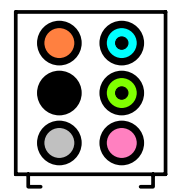


Can Support Amp Out

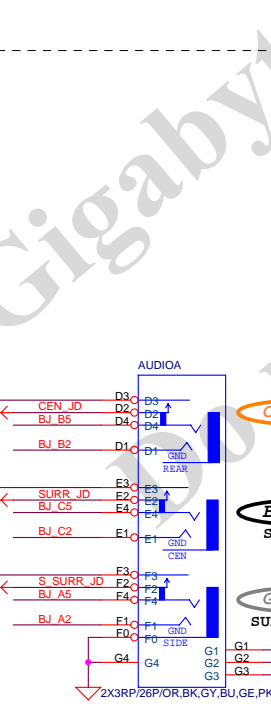
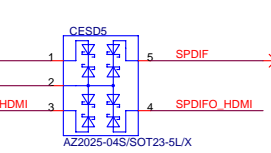
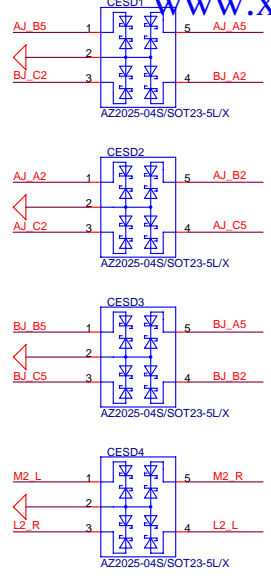
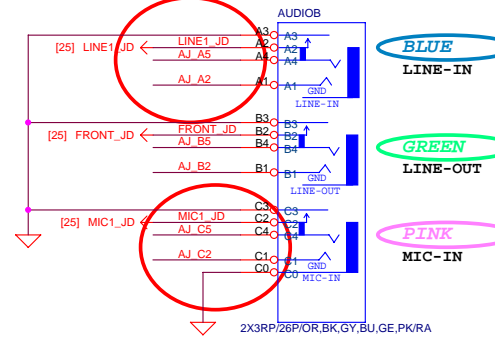
CODEC POWER/EMI PAD



AZALIA JACK



11NR6-403007-21R



LINE-OUT

LINE-IN

Verify MIC function in LINE-in

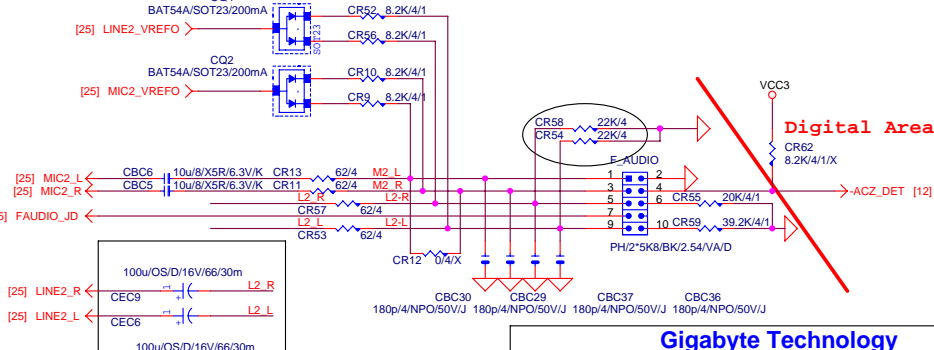
MIC-IN

SURROUND

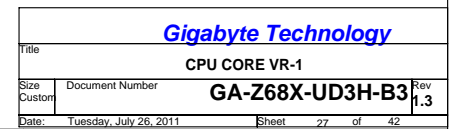
CEN/LFE

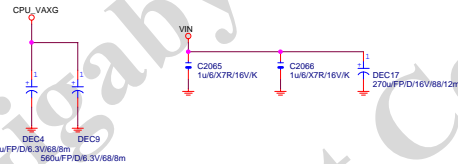
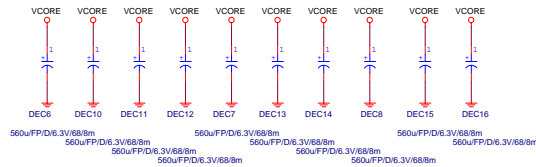
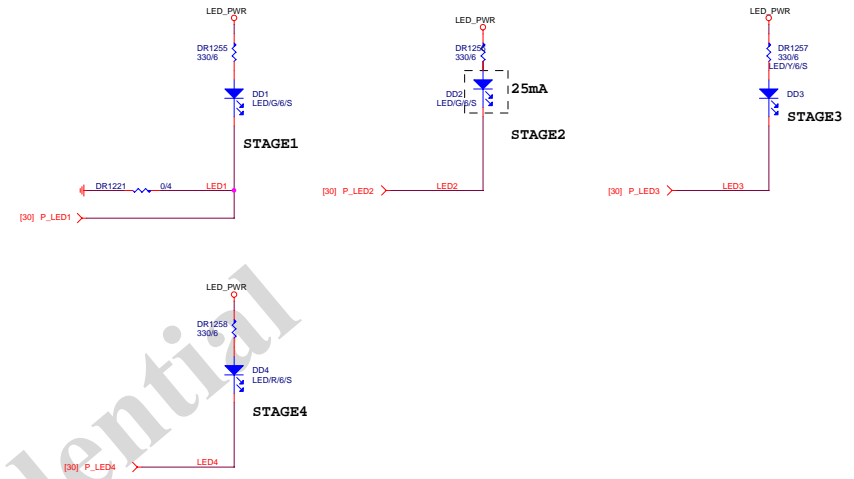
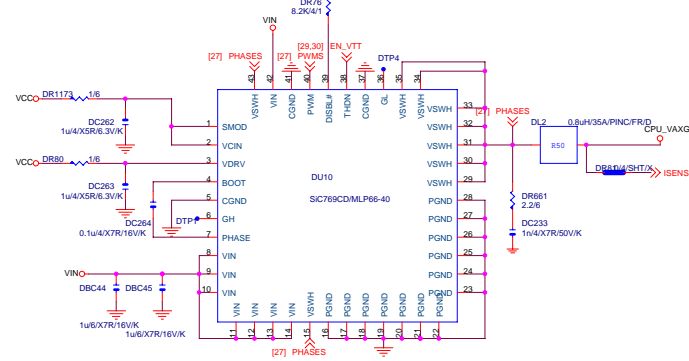
SURR BACK

AZALIA FRONT PANEL

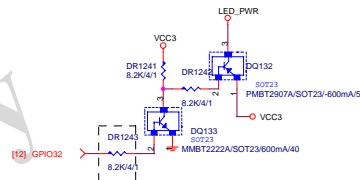


Gigabyte Technology		
Title		
AUDIO JACK		
Size		
Custom		
Document Number		
GA-Z68X-UD3H-B3		
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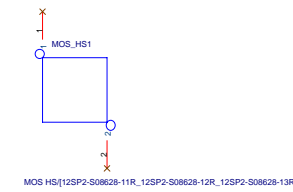




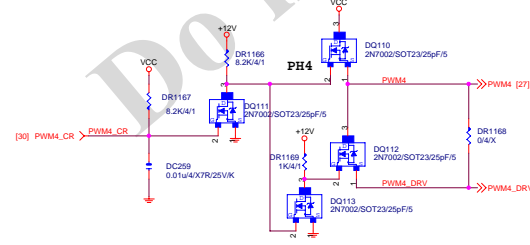
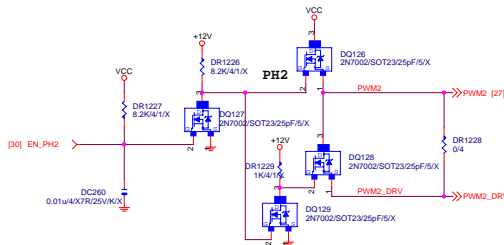
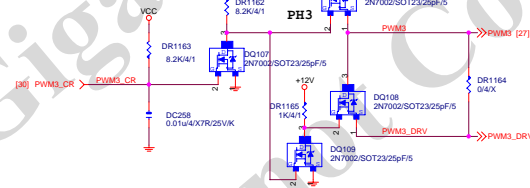
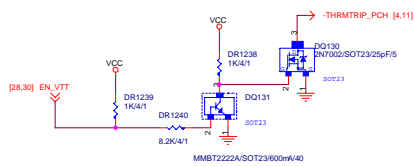
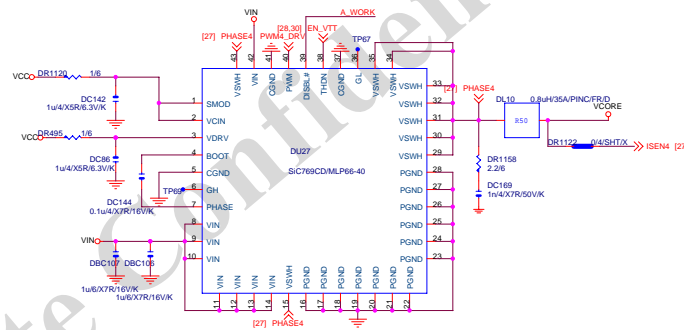
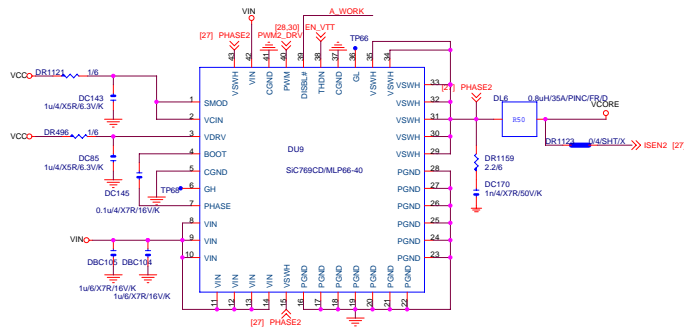
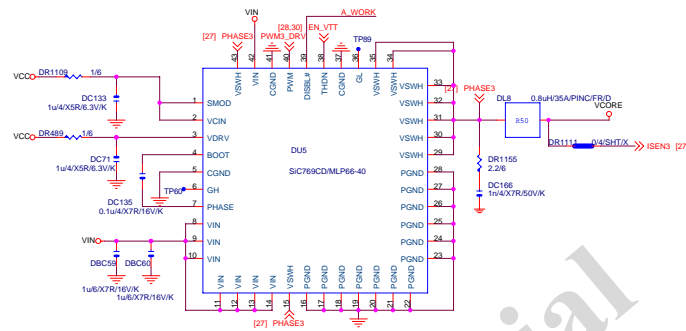
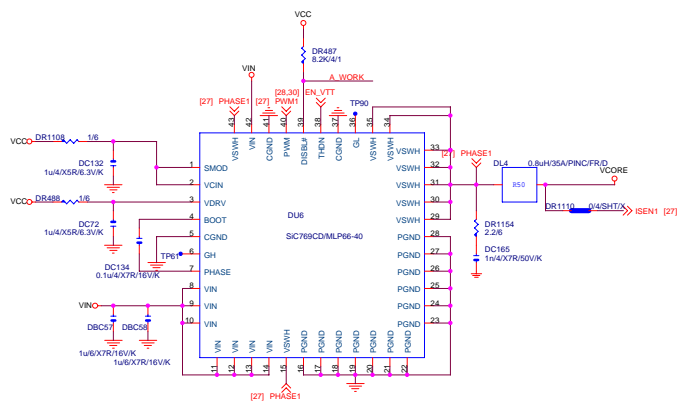
LED POWER

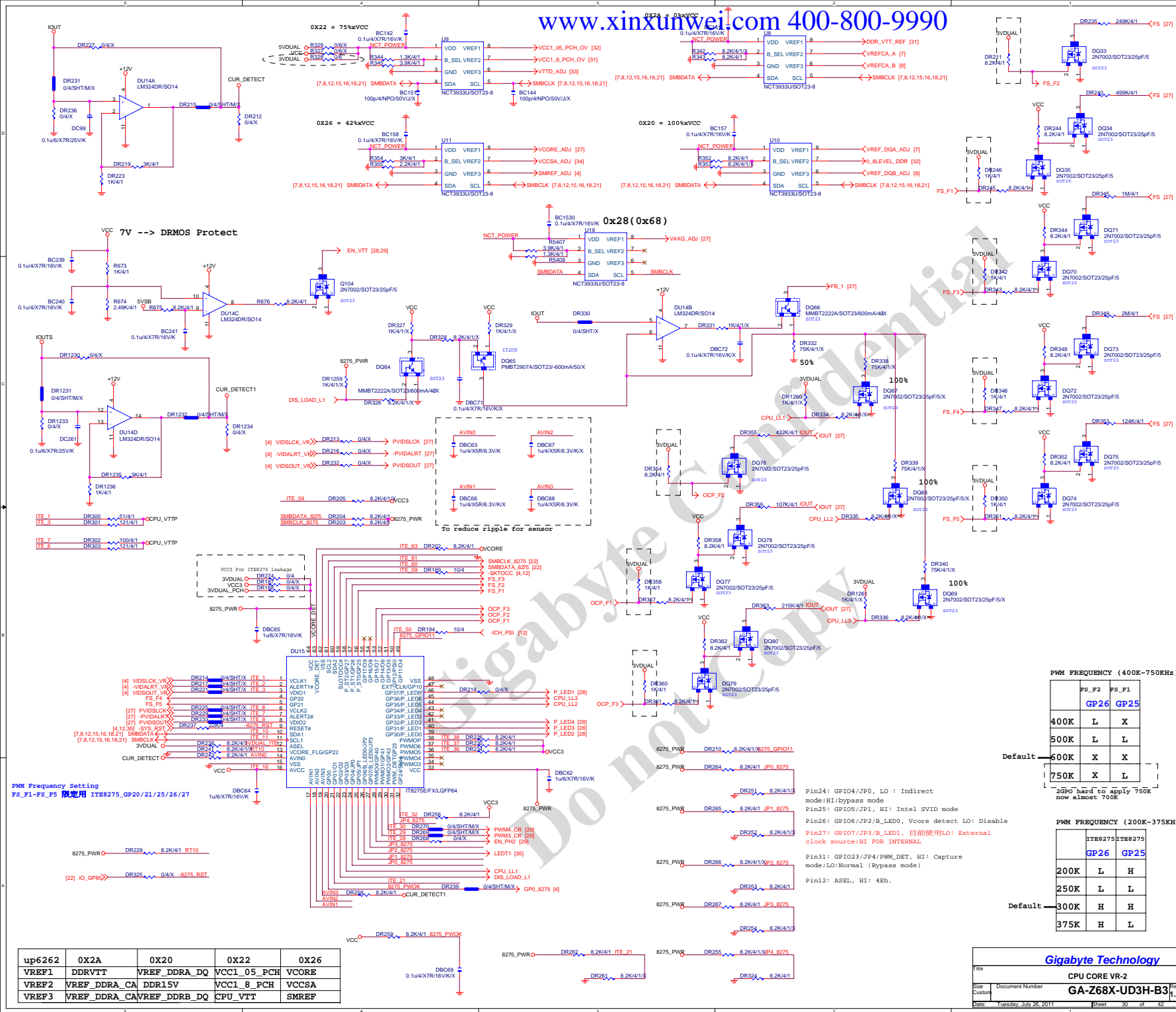


MOS HEATSINK



Gigabyte Technology			
CPU CORE VR-2			
GA-Z68X-UD3H-B3			
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PWM FREQUENCY (400K~750KHz)

	FS_F2	FS_F1
	GP26	GP25
400K	L	X
500K	L	L
600K	X	X
750K	X	L

2GPO hard to apply 750K
now almost 700K

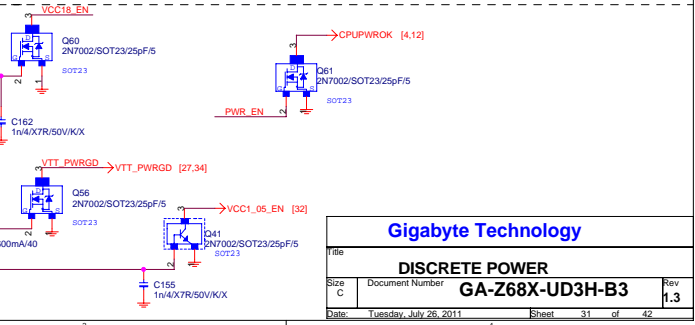
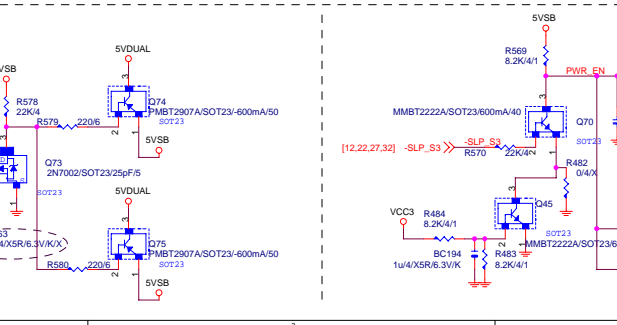
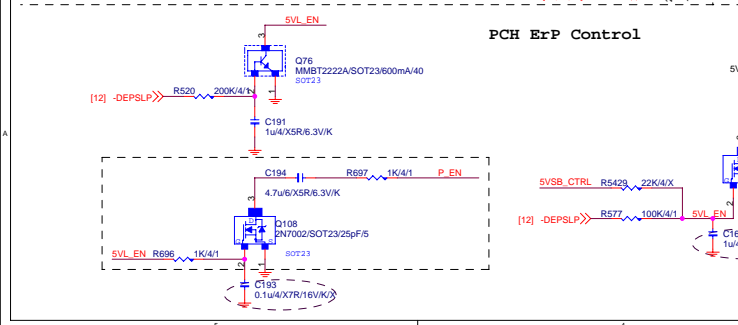
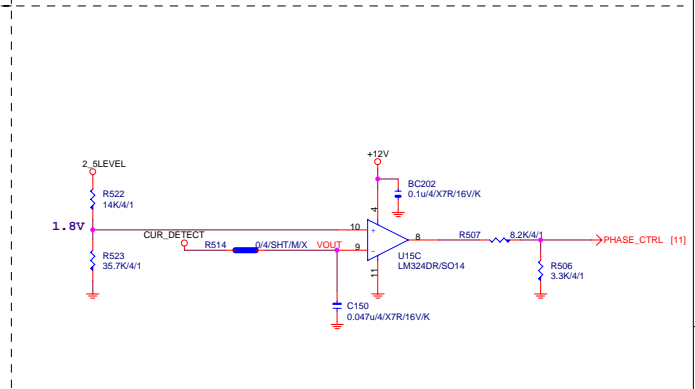
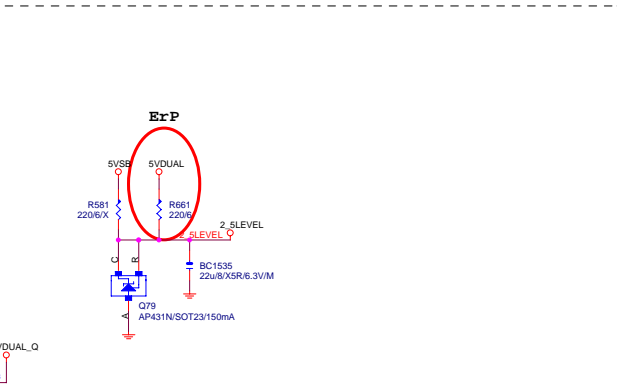
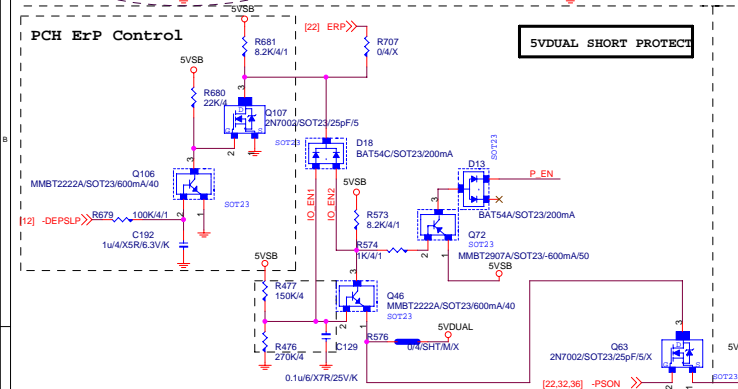
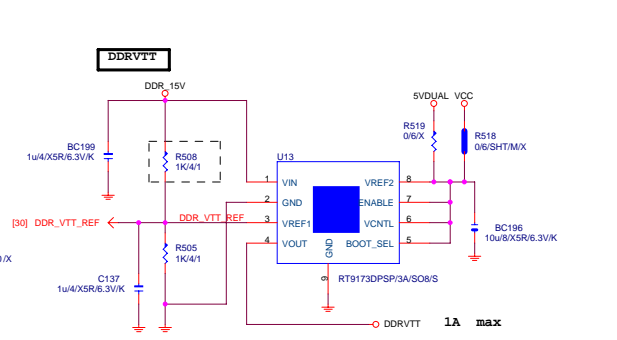
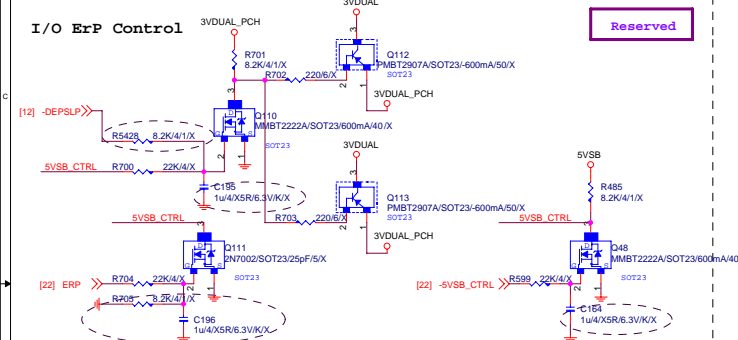
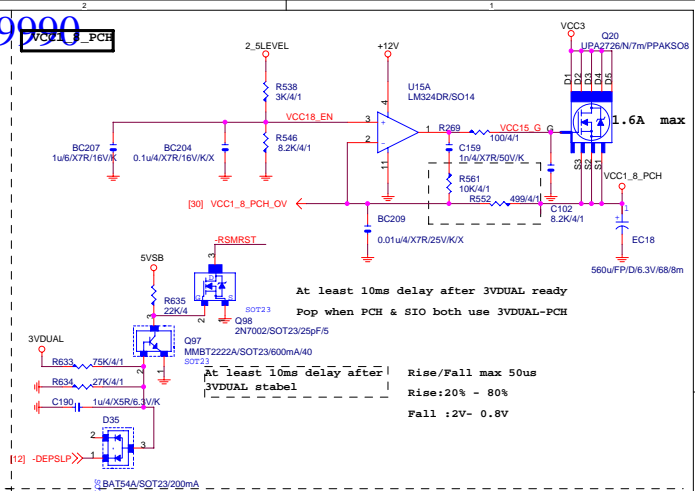
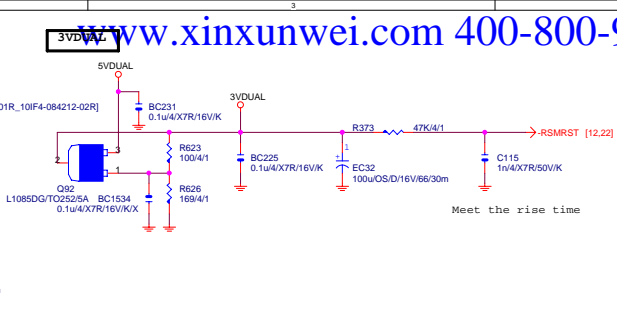
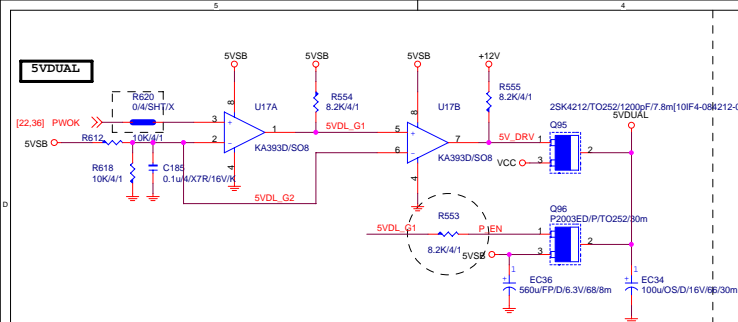
PWM FREQUENCY (200K~375KH)

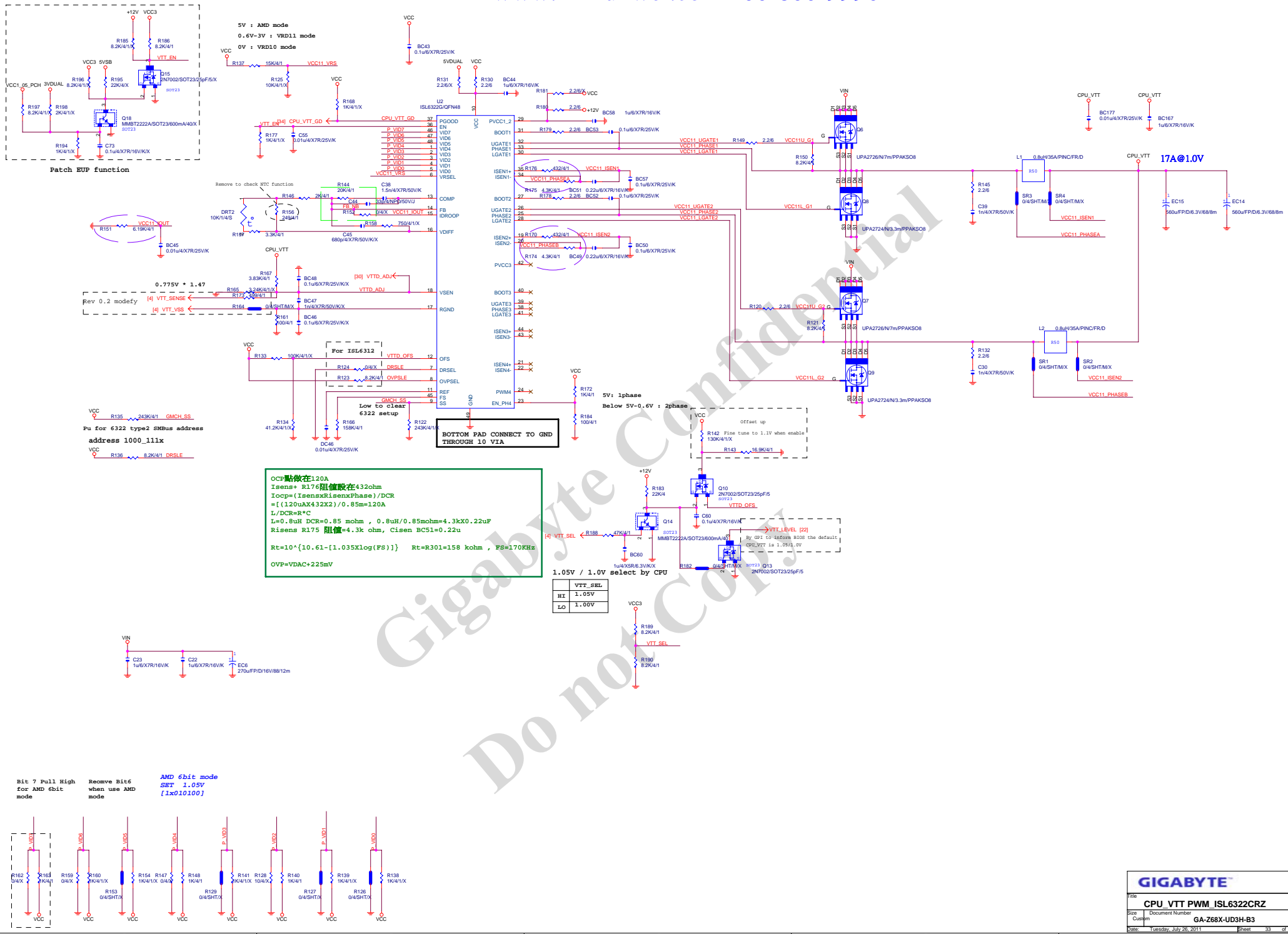
	ITE8275	ITE8275
	GP26	GP25
200K	L	H
250K	L	L
300K	H	H
375K	H	L

--	--	--

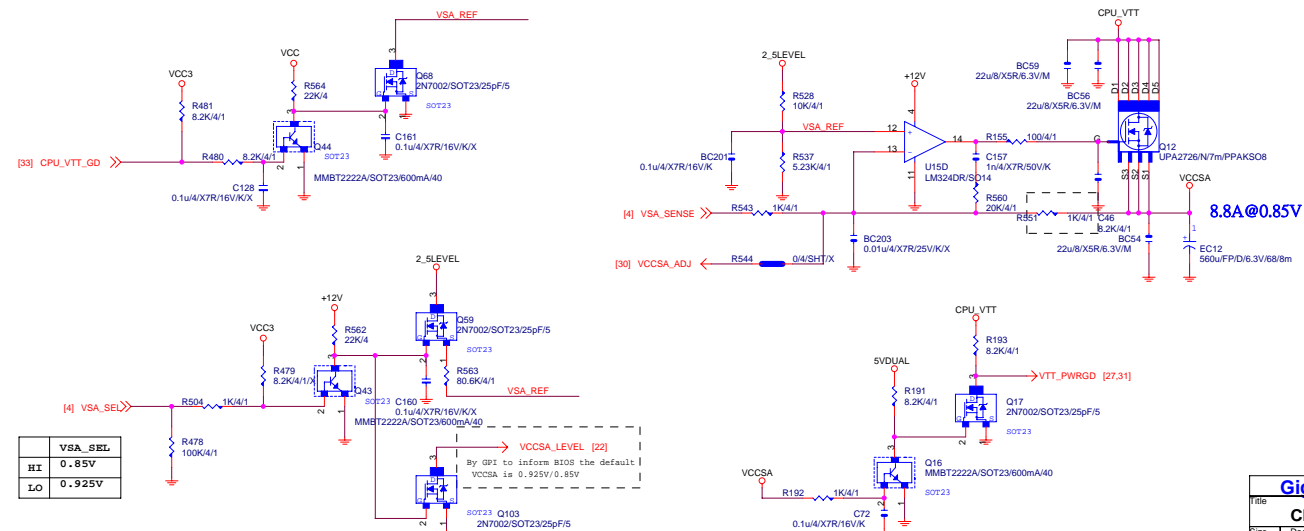
Cirabyte Technology

CPU CORE VR-2
GA-Z68X-UD3H-B3





VCC_SA



Gigabyte Technology

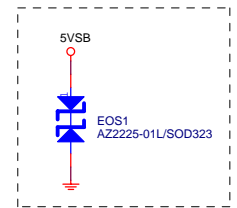
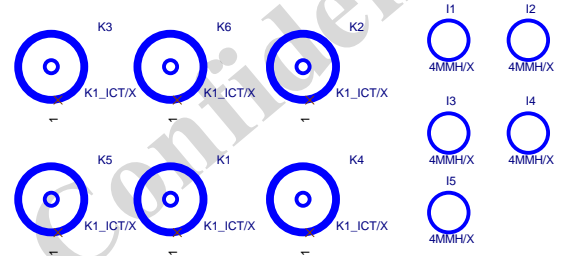
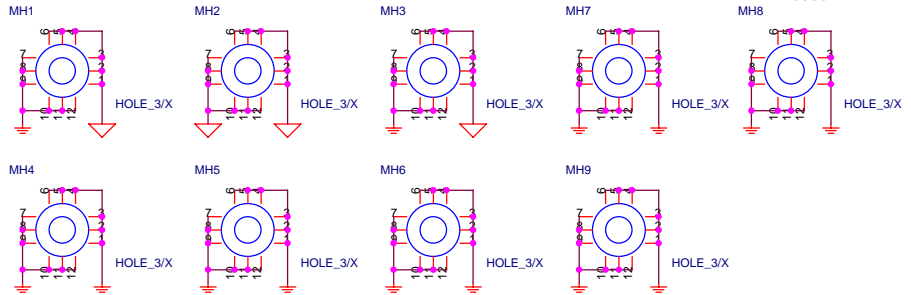
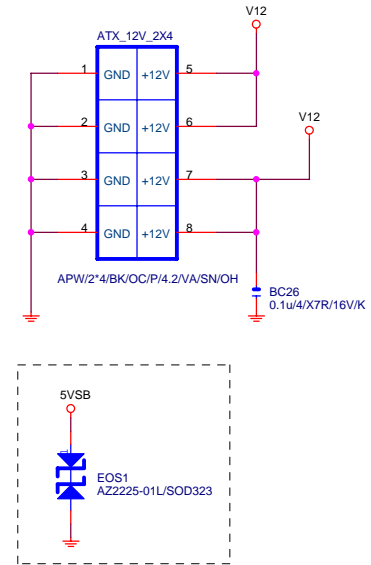
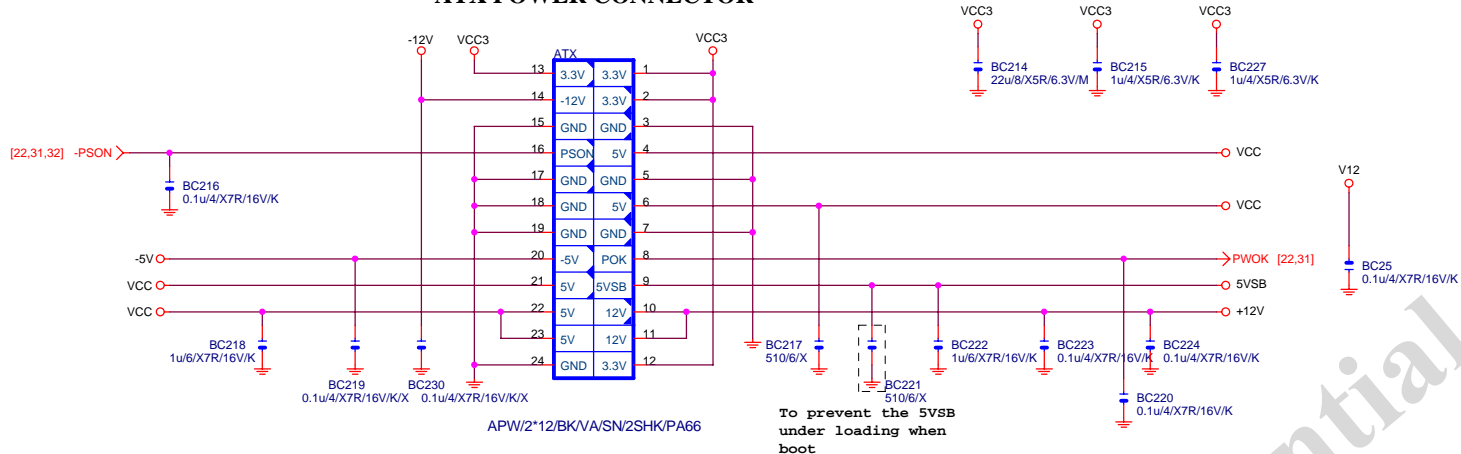
CPU VTT PWM_ISL6312

GA-Z68X-UD3H-B3

Rev 1.3

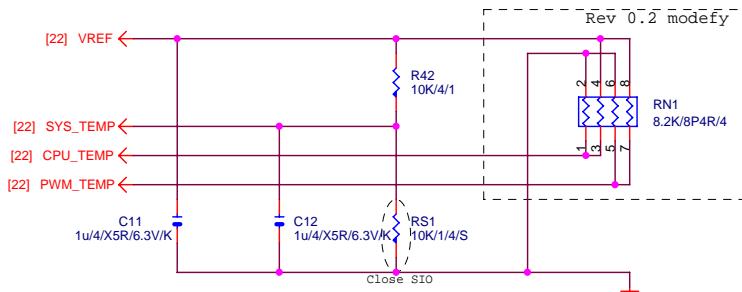
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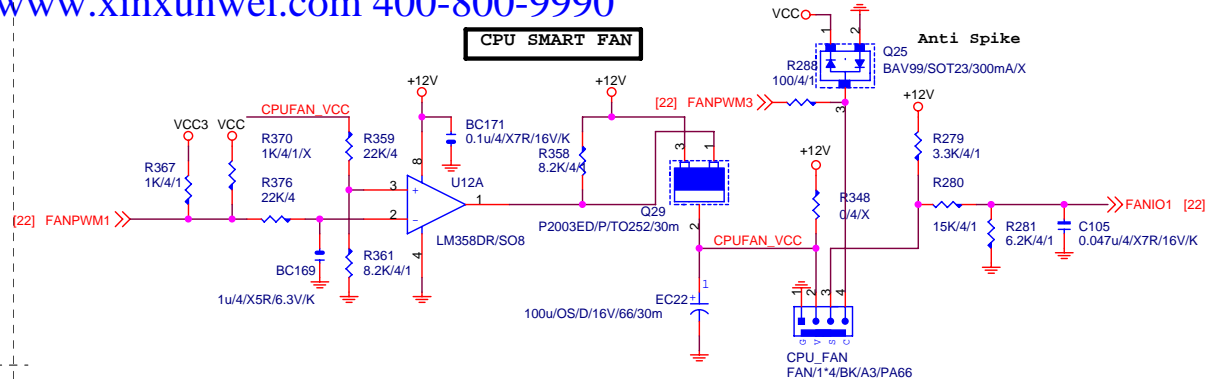


Gigabyte Technology
Do not Copy

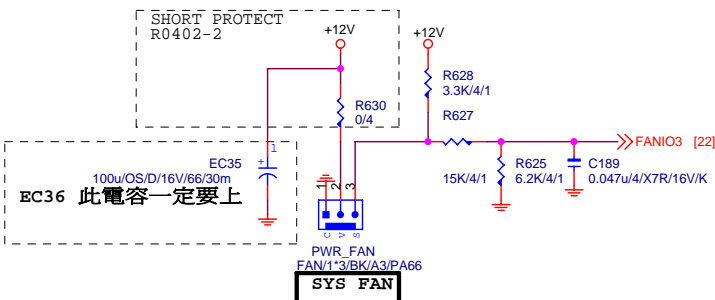
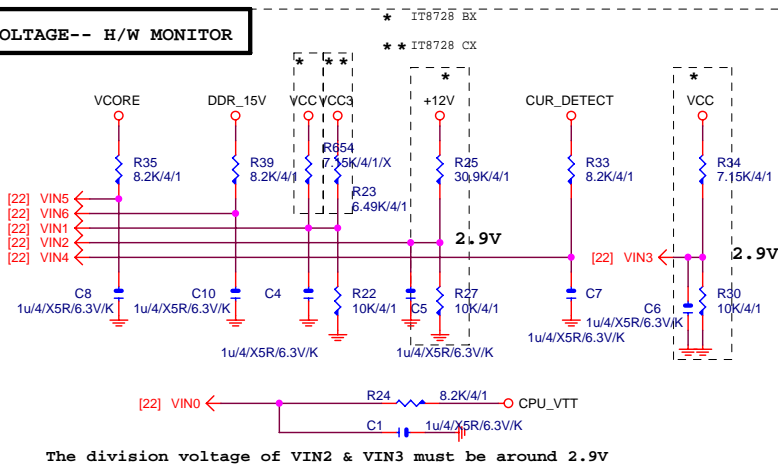
TEMP H/W MONITOR



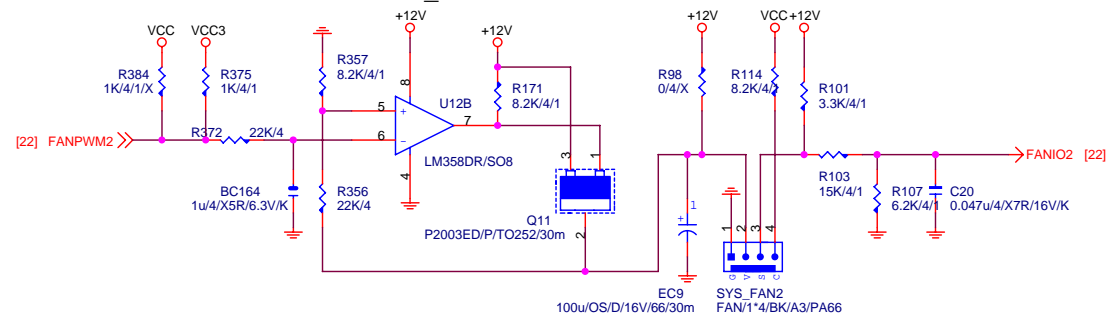
CPU SMART FAN



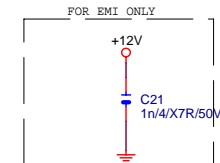
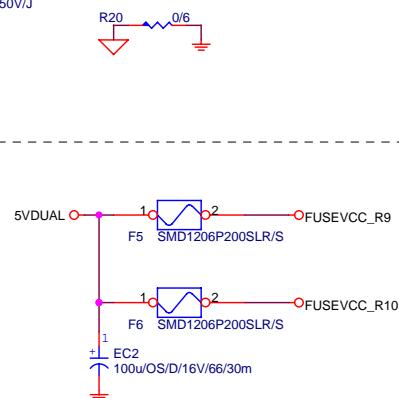
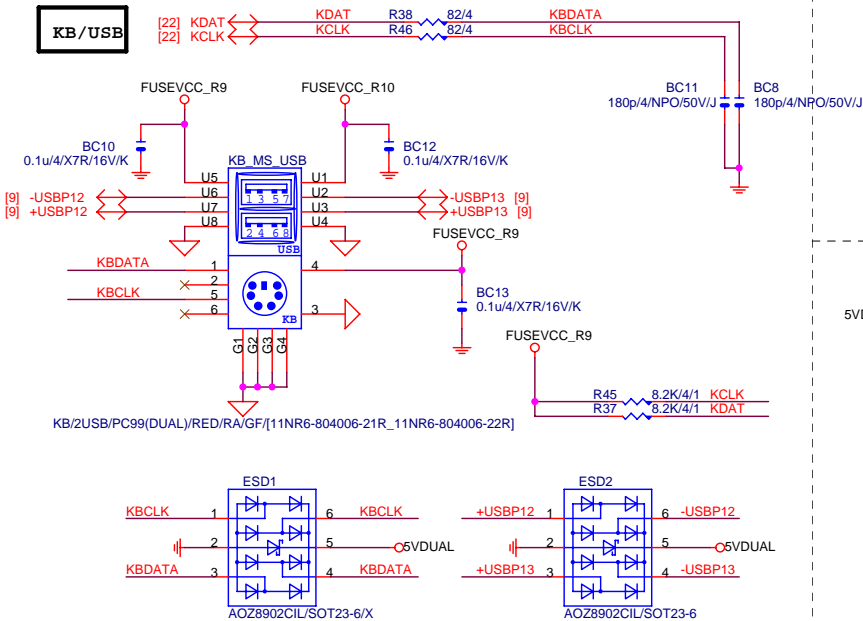
VOLTAGE-- H/W MONITOR



Linear SYS_FAN



KB/USB



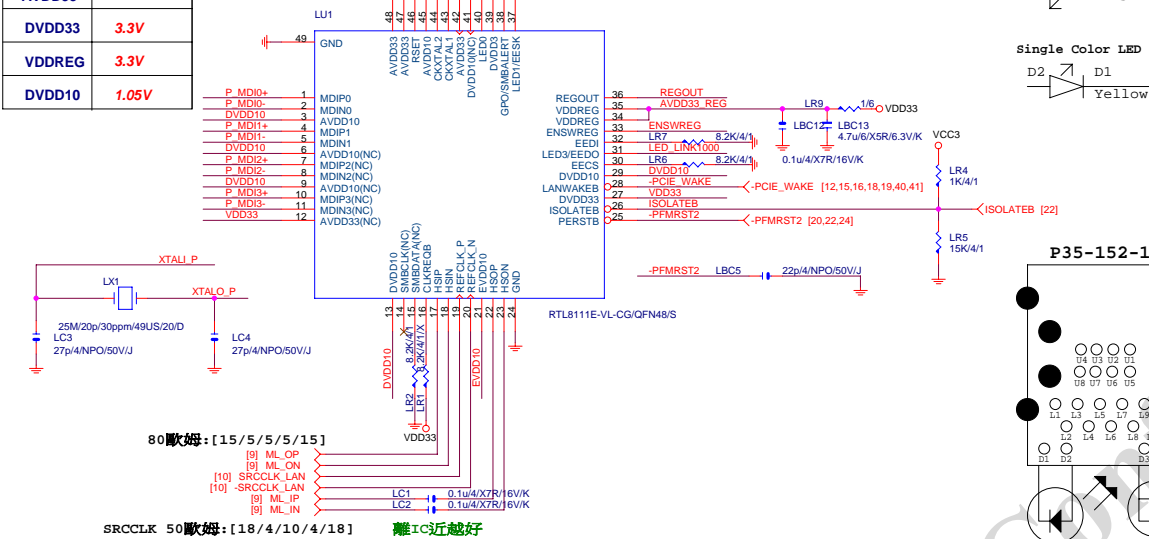
Gigabyte Technology

Title			
HWM,KB/MS, FAN CTRL			
Size	Document Number	Rev	
Custom	GA-Z68X-UD3H-B3	1.3	
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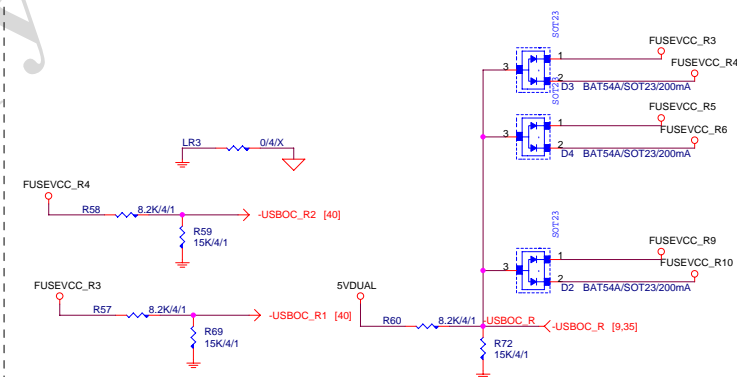
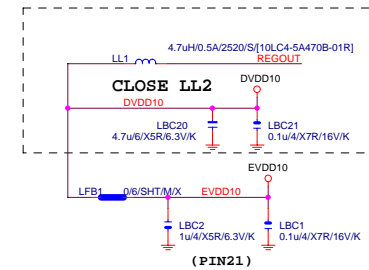
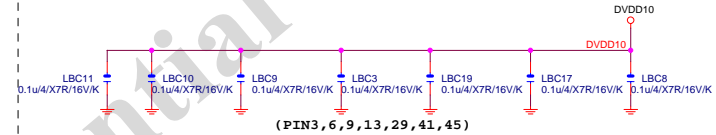
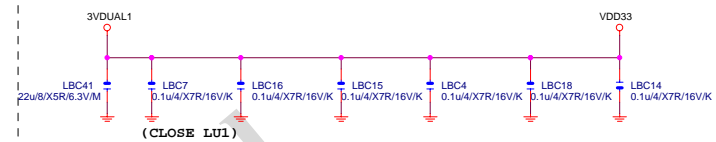
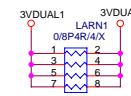
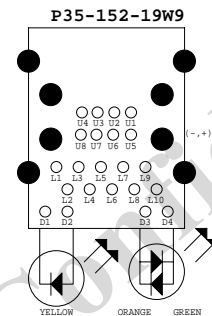
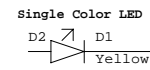
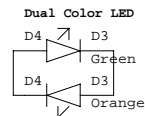
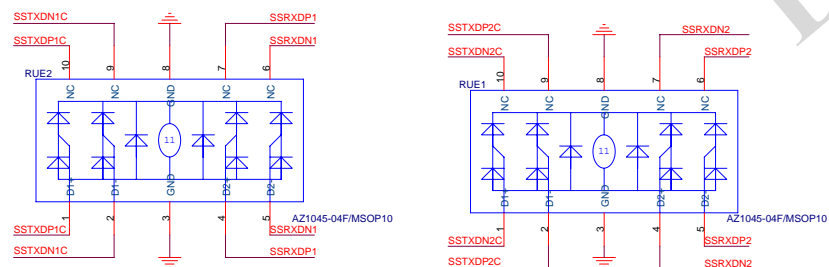
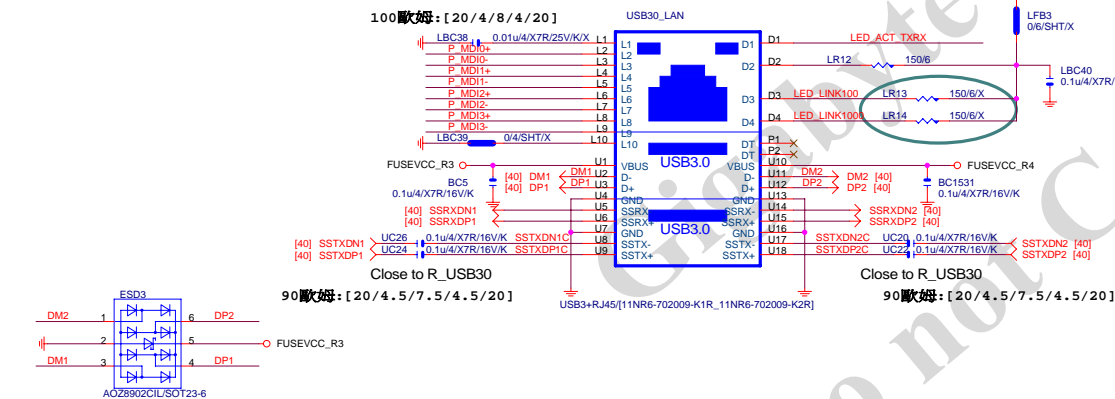
PCIE-1G LAN

Power domain chart

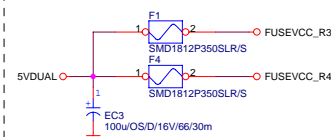
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VDDREG	3.3V
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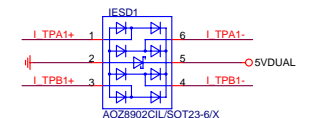
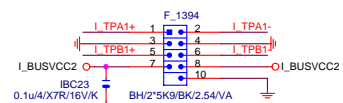
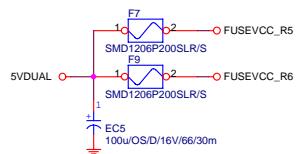
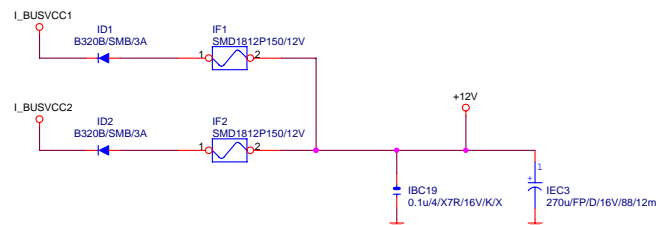
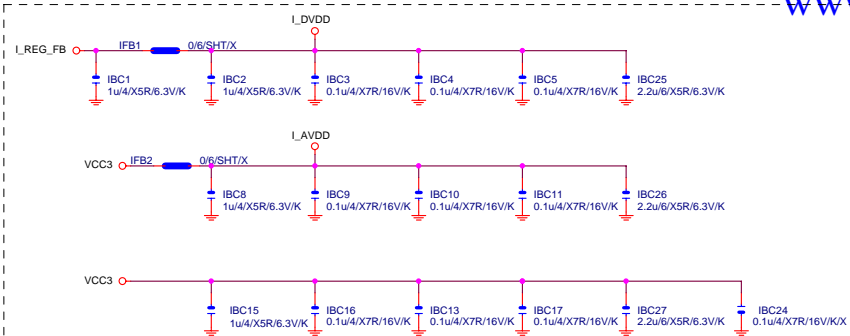


USB30_LAN CONNECTOR

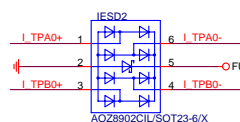


Close to connector

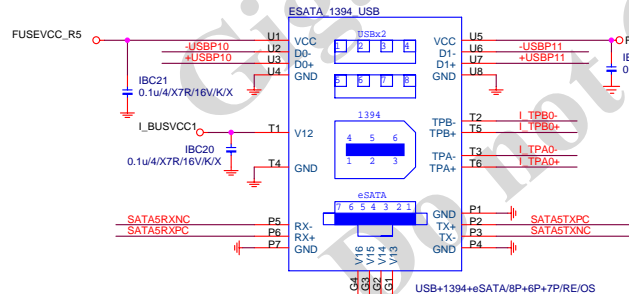




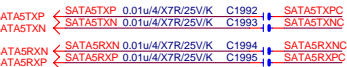
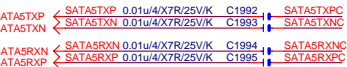
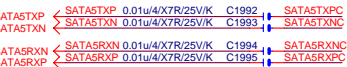
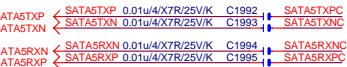
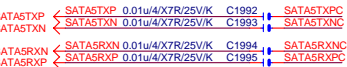
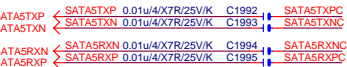
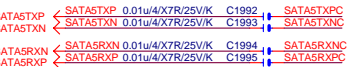
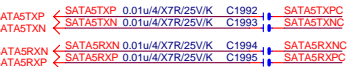
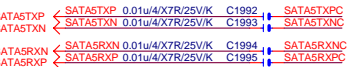
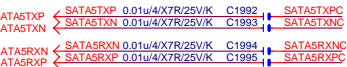
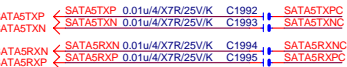
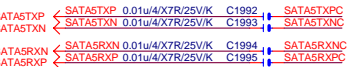
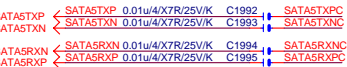
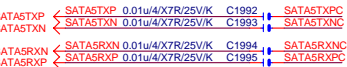
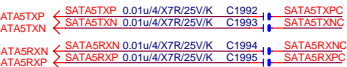
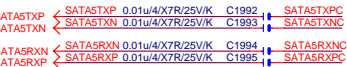
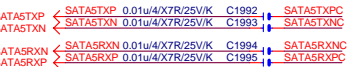
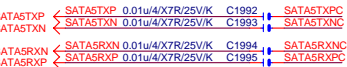
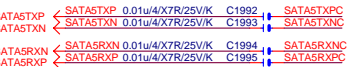
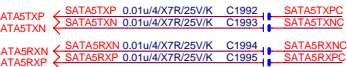
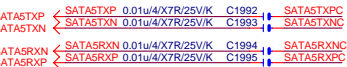
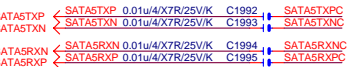
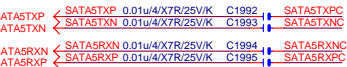
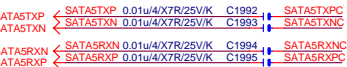
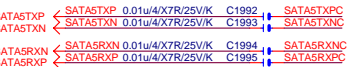
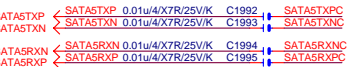
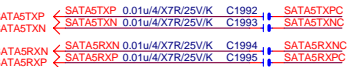
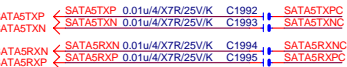
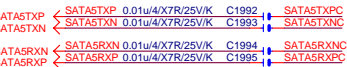
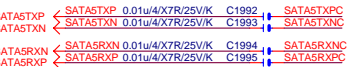
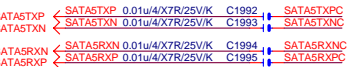
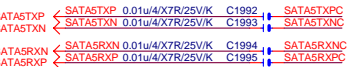
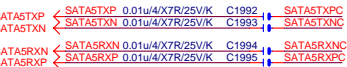
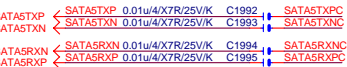
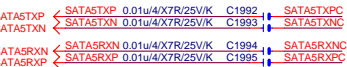
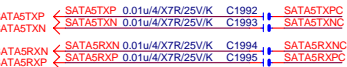
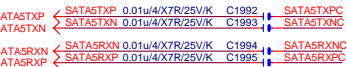
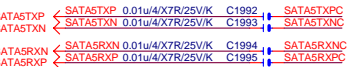
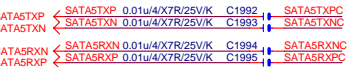
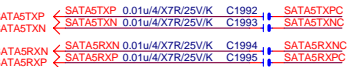
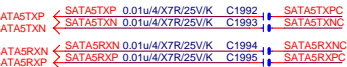
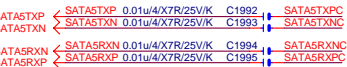
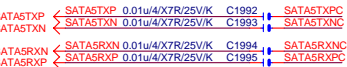
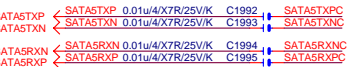
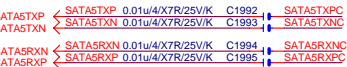
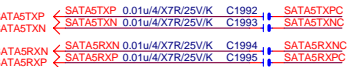
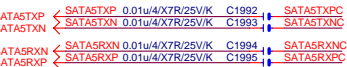
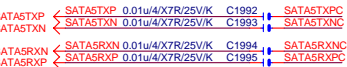
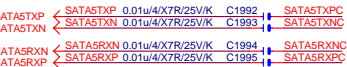
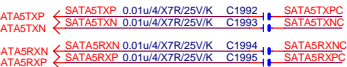
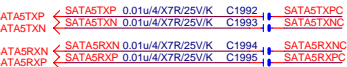
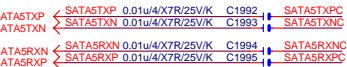
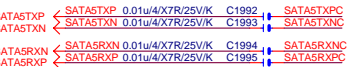
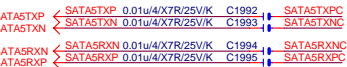
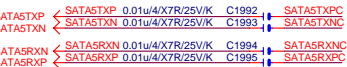
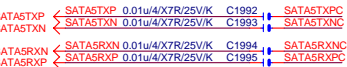
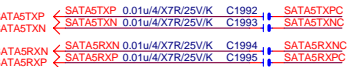
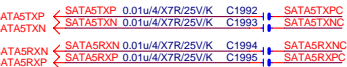
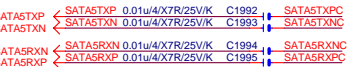
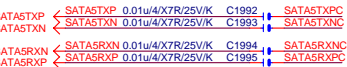
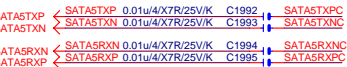
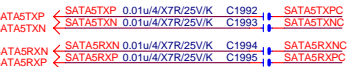
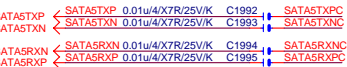
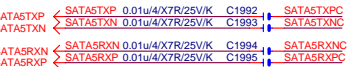
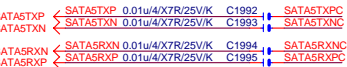
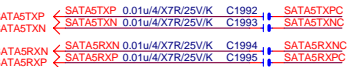
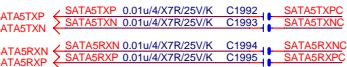
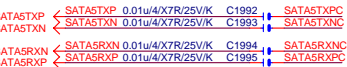
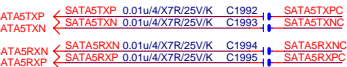
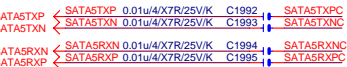
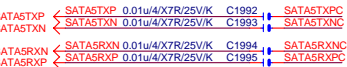
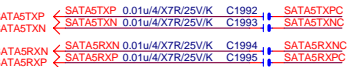
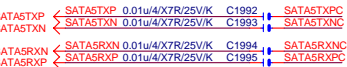
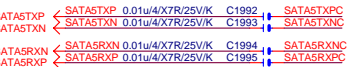
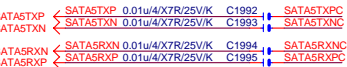
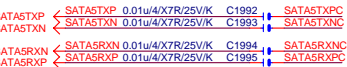
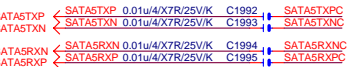
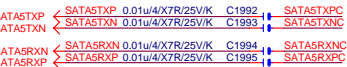
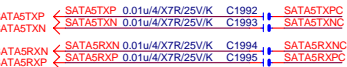
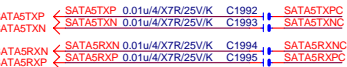
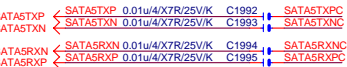
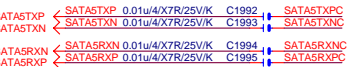
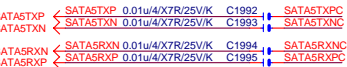
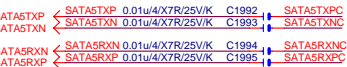
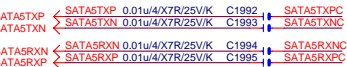
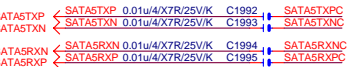
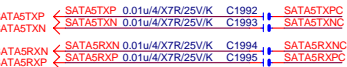
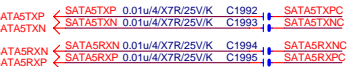
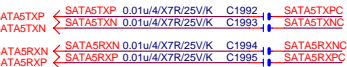
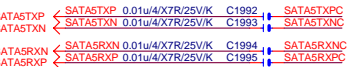
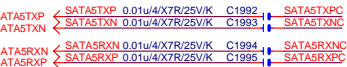
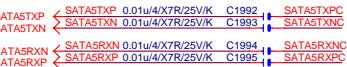
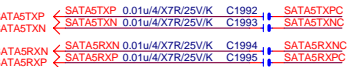
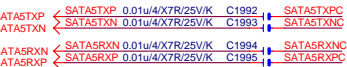
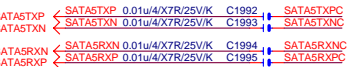
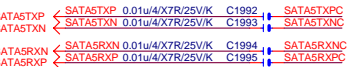
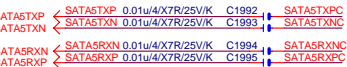
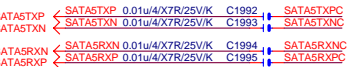
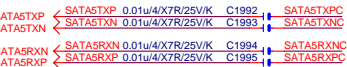
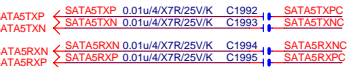
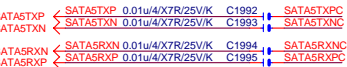
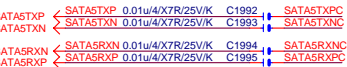
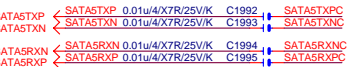
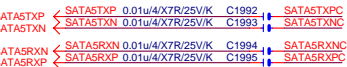
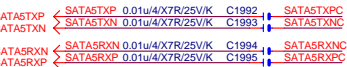
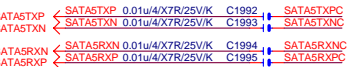
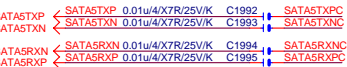
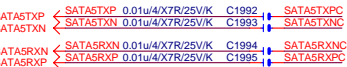
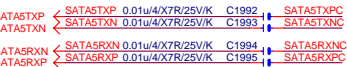
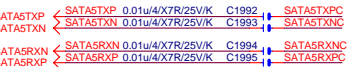
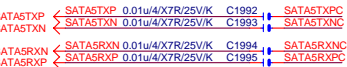
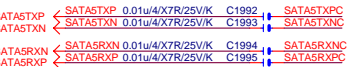
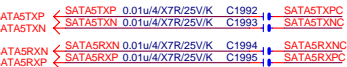
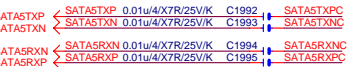
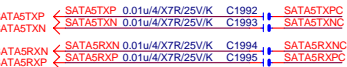
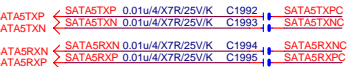
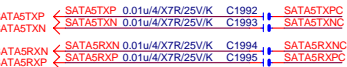
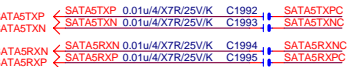
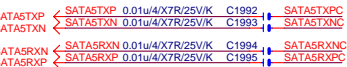
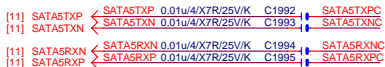
Place close to Header or connector

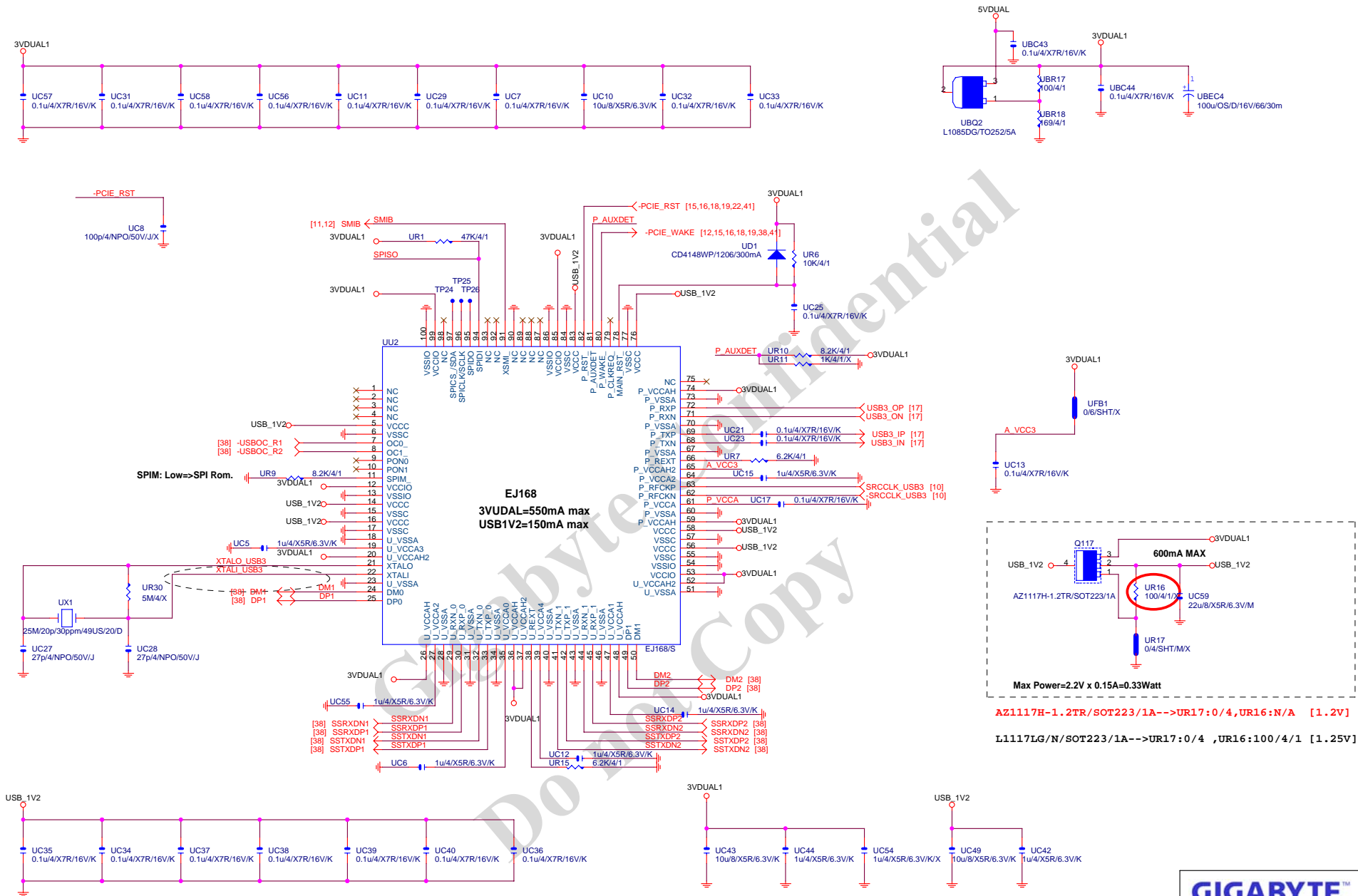


Place close to Header or connector

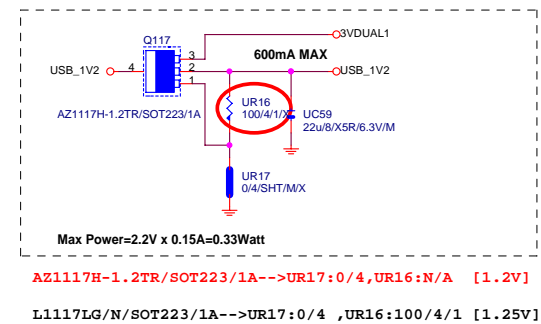


Place close to Header or connector





USB3.0 --> 5GHz
 BANDWITH=5GHz * (8b/10b)=4Gb/s=500MB/s



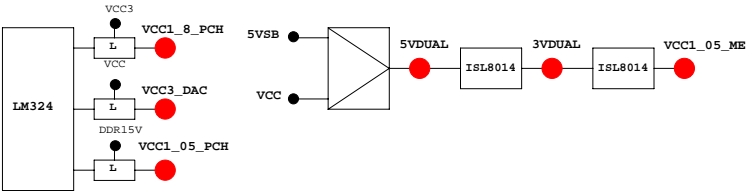
PCH GPIO LIST TABLE

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

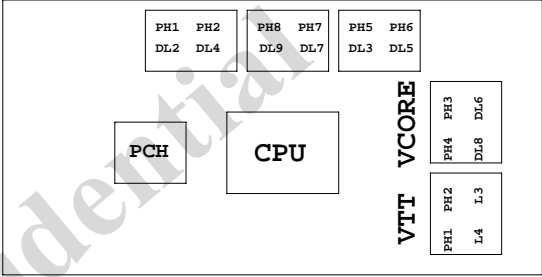
Super I/O ITE8720 GPIO Table

PIN NAME	USAGE	NOTE
SVC/PECI_RQT/GP14	-PECI_REQ	
PWROK1/GP13	PWROK1/ITE_PWROK	
KRST#/GP62	-KBRST	
SO/GP50	-ICH_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#CIRRXL/GP55	-RSMRST	
PME#/GP54	-LPCPME	
PD5/GP75/BUSSO0	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	
VIDO5/GP27/SIN2	LOW_PWR_2	
PCIRST2#/GP11	-PFMRST1	
PCIRST1#/GP12	-PFMRST2	
3VSBSW#/GP40	CSI_F0	BSEL166_1
SUSC#/GP53	CSI_F1	BSEL166_2
GP23/SI	BSEL166_3/CSISBSL	
VIDO0/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	2X 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	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/SMBD_R	-EN_PWM2	
PSI_L/FAN_CLT5/CIRRXL/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_A/VREF_CA_B	DRAM Address Ref
VREF_DQ_A/VREF_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