

Model Name: GA-H57M-USB3

REV: 1.01

SHEET

TITLE

01	COVER SHEET
02	BOM & PCB MODIFY HISTORY
03	BLOCK DIAGRAM
04	CPU LGA1156-A
05	CPU LGA1156-B
06	CPU LGA1156-C
07	DDR III CHANNEL A
08	DDR III CHANNEL B
09	DDR III POWER CAP
10	PCH FDI,DMI,USB,PCIE,NVRAM
11	PCH DP,CLK BUFFER
12	PCH HOST,SATA,PCI
13	PCH GPIO,CTRL,AUDIO
14	PCH PWR,GND
15	PCI EXPRESS*16 SLOT
16	PCI EXPRESS*4 SLOT
17	PCI SLOT 1,2
18	ITE 8720 LPC IO
19	Dual BIOS,PHOT,D-OC
20	ALC888B/889A
21	REAR AUDIO JACK
22	CLOCK GEN RTM885N-914-GR
23	DISCRETE POWER
24	DDR 15V,PWR SEQ
25	CPU VAXG PWM ISL6314CRZ
26	CPU VTT PWM ISL6322G
27	VCORE PWM ISL6334CRZ

SHEET

TITLE

28	F PANEL , F USB , FDD
29	ATX POWER,TPM
30	REALTEK RTL8111D
31	JMB363
32	TI TSB43AB23 1394
33	HDMI,DVI,DP
34	HWM,KB/MS , FAN CTRL
35	USB3.0 UP720200
36	TABLE LIST

Gigabyte Technology

Title			
Cover Sheet			
Size	Document Number	GA-H57M-USB3	Rev
Custom			1.01
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## GA-H57M-USB3 Version: 1.01

## Component value change history

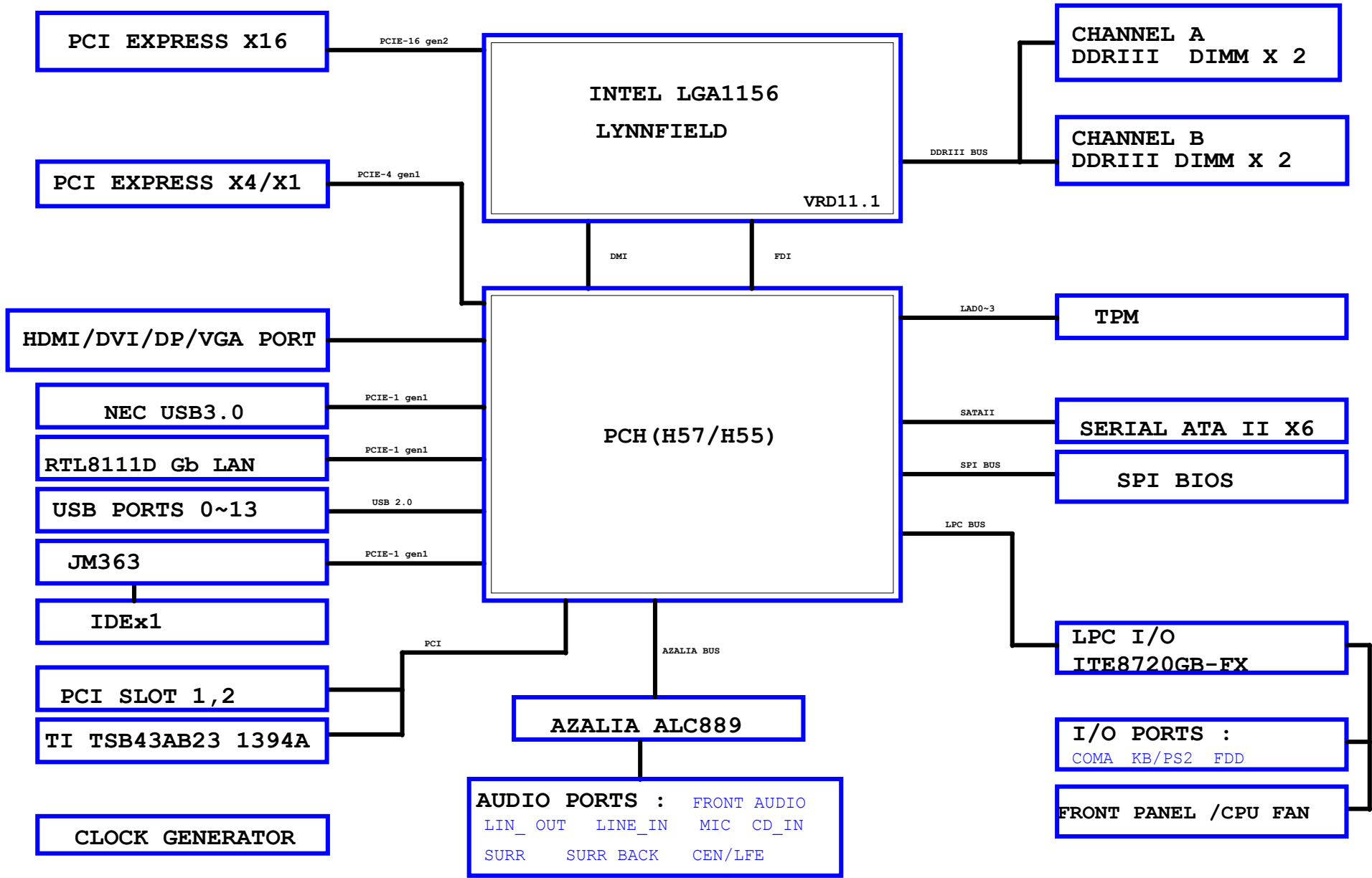
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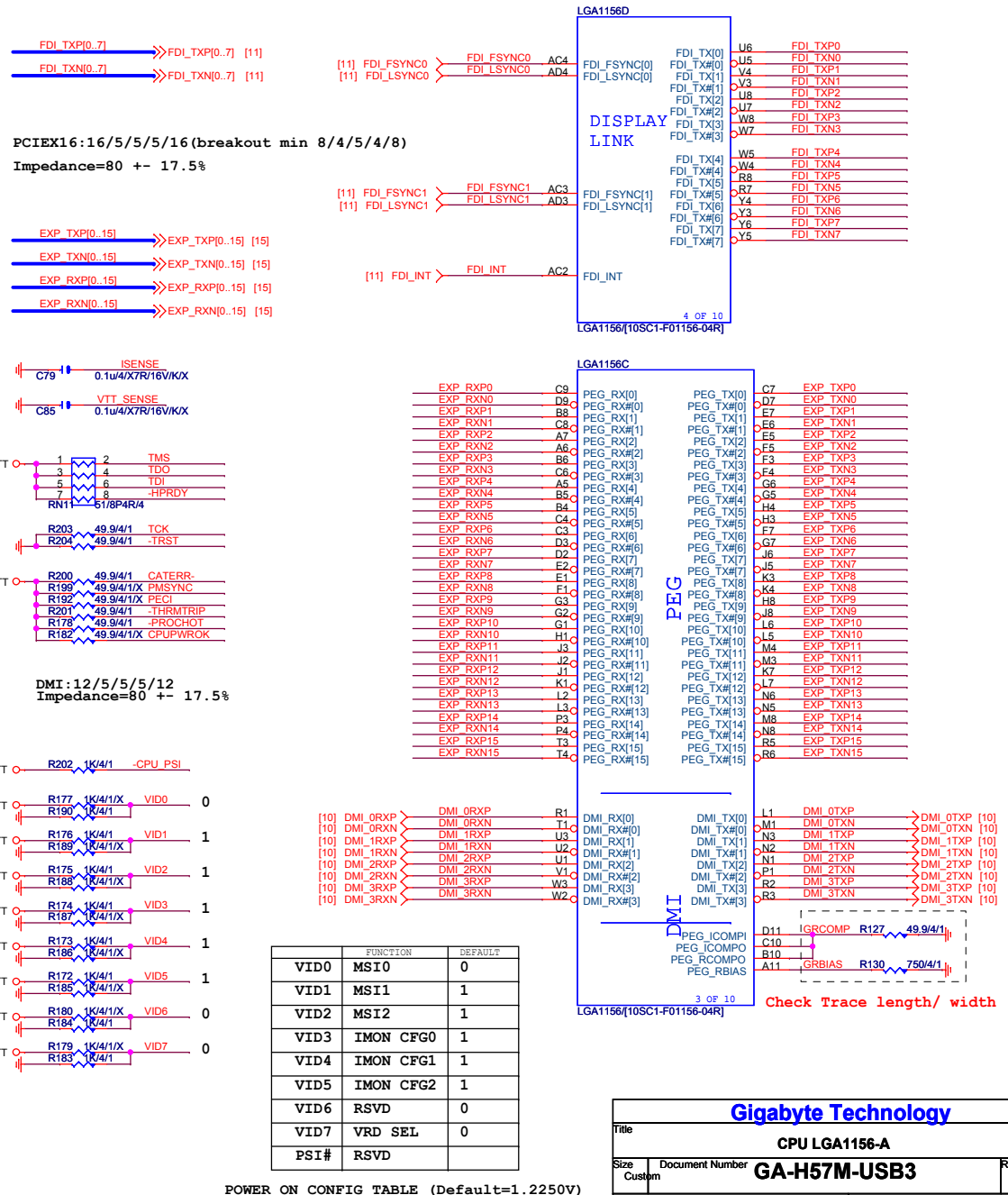
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Circuit or PCB layout change  
for next version

[illegible]

BLOCK DIAGRAM

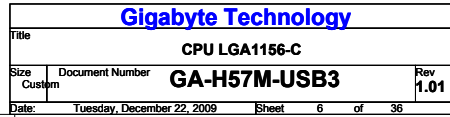




	FUNCTION	DEFAULT
VID0	MSI0	0
VID1	MSI1	1
VID2	MSI2	1
VID3	IMON CFG0	1
VID4	IMON CFG1	1
VID5	IMON CFG2	1
VID6	RSVD	0
VID7	VRD SEL	0
PSI#	RSVD	

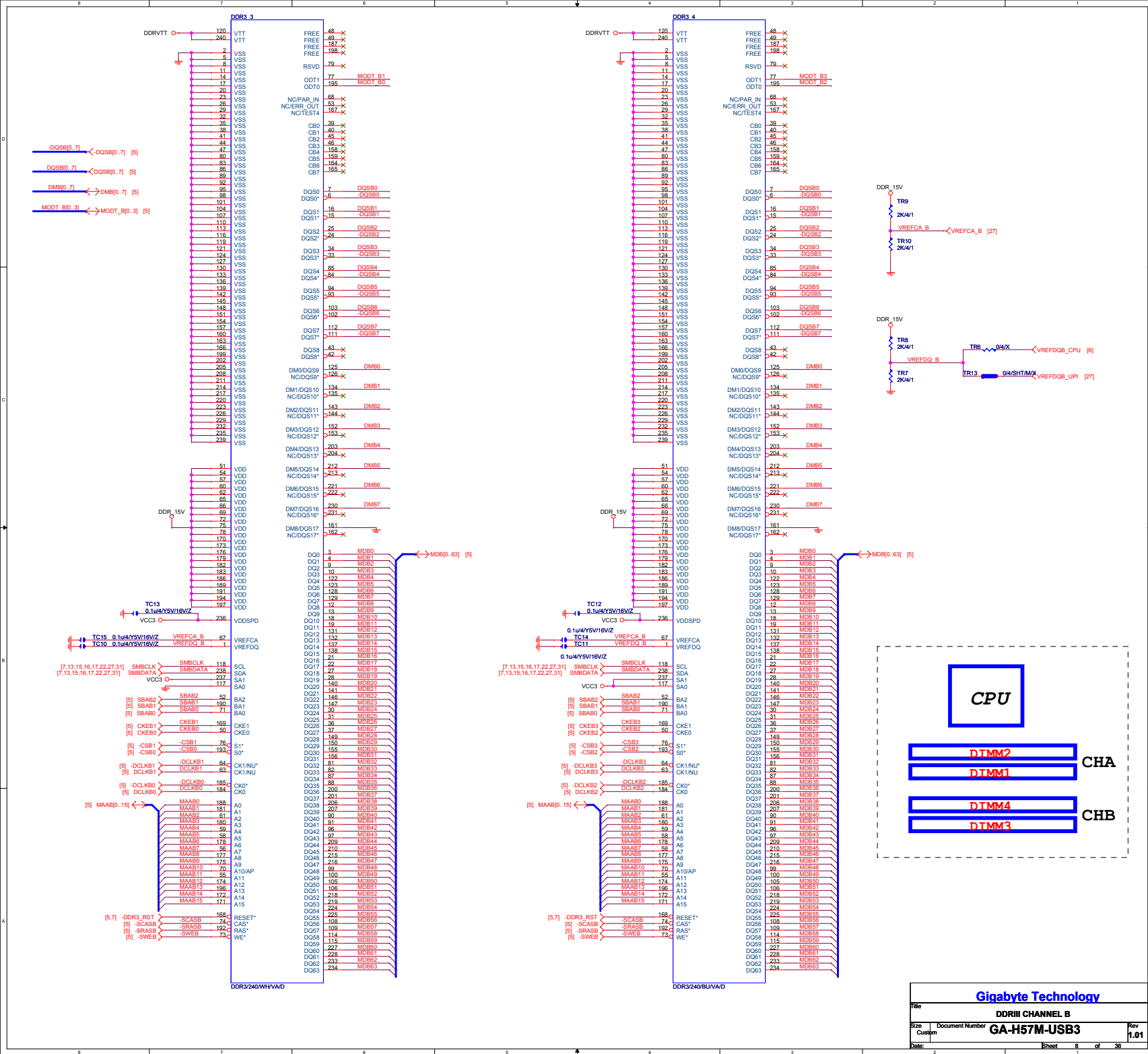
POWER ON CONFIG TABLE (Default=1.2250V)

LGA1156A			
MAAA0	AW18	SA_MA[0]	AK3 DQSA0
MAAA1	AY15	SA_MA[1]	AK3 -DQSA0
MAAA2	AV15	SA_MA[2]	AK2 DMA0
MAAA3	AU15	SA_MA[3]	
MAAA4	AW14	SA_MA[4]	AH1 MDA0
MAAA5	AY13	SA_MA[5]	AJ4 MDA1
MAAA6	AV14	SA_MA[6]	AL2 MDA2
MAAA7	AW13	SA_MA[7]	AL1 MDA3
MAAA8	AU14	SA_MA[8]	AG2 MDA4
MAAA9	AW12	SA_MA[9]	AH2 MDA5
MAAA10	AT19	SA_MA[10]	AK1 MDA6
MAAA11	AW11	SA_MA[11]	AK2 MDA7
MAAA12	AU13	SA_MA[12]	
MAAA13	AU24	SA_MA[13]	AP2 DQSA1
MAAA14	AT11	SA_MA[14]	AP3 -DQSA1
MAAA15	AR10	SA_MA[15]	AN1 DMA1
[7] -SWEA	AT22	SA_WE#	
[7] -SCASA	AU22	SA_CAS#	
[7] -SRASA	AT20	SA_RAS#	
[7] SBAA0	AV20	SA_BS[0]	
[7] SBAA1	AU19	SA_BS[1]	
[7] SBAA2	AU12	SA_BS[2]	
[7] -CSA0	AV21	SA_CS#	
[7] -CSA1	AW24	SA_CS#	
[7] -CSA2	AU21	SA_CS#	
[7] -CSA3	AU23	SA_CS#	
[7] CKEA0	AW10	SA_CKE[0]	
[7] CKEA1	AW10	SA_CKE[1]	
[7] CKEA2	AW10	SA_CKE[2]	
[7] CKEA3	AW10	SA_CKE[3]	
MODT_A0	AV23	SA_ODT[0]	
MODT_A1	AV24	SA_ODT[1]	
MODT_A2	AW23	SA_ODT[2]	
MODT_A3	AY24	SA_ODT[3]	
[7] DCLKA0	AR22	SA_CK[0]	
[7] -DCLKA0	AR21	SA_CK#	
[7] DCLKA1	AP18	SA_CK[1]	
[7] -DCLKA1	AN18	SA_CK#	
[7] DCLKA2	AN21	SA_CK[2]	
[7] -DCLKA2	AP21	SA_CK#	
[7] DCLKA3	AP19	SA_CK[3]	
[7] -DCLKA3	AN19	SA_CK#	
[7,8] -DDR3_RST	AV8	SM_DRAMRST#	
TP1	AK22	SA_CS#	
TP1	AL23	SA_CS#	
TP1	AK23	SA_CS#	
AL10		SA_DQS[8]	
AM10		SA_DQS#	
AP10		SA_ECC_CB[0]	
AN10		SA_ECC_CB[1]	
AR11		SA_ECC_CB[2]	
AP11		SA_ECC_CB[3]	
AK9		SA_ECC_CB[4]	
AL9		SA_ECC_CB[5]	
AK11		SA_ECC_CB[6]	
AM11		SA_ECC_CB[7]	
AK27		SA_DQS[4]	
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AK336			





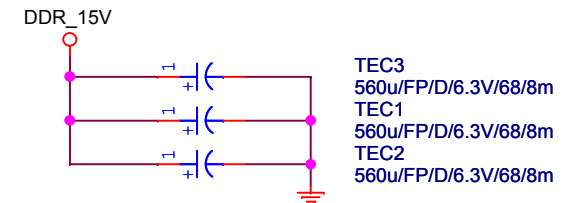
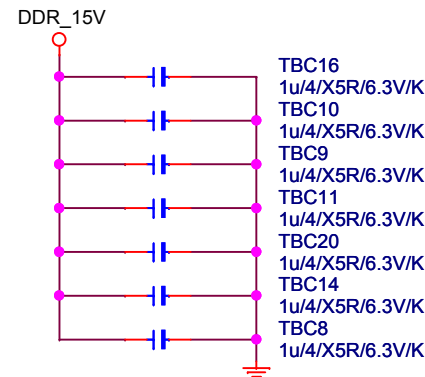
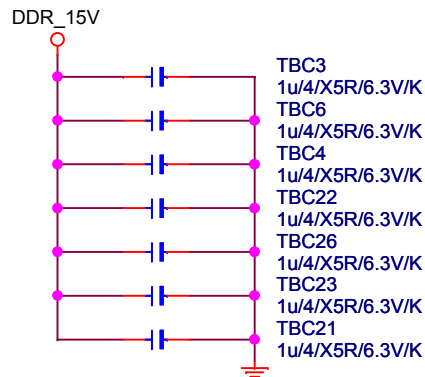
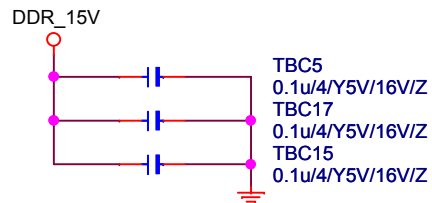




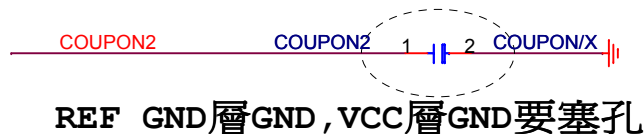
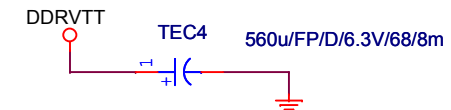
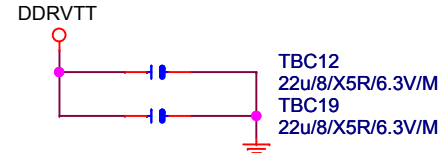
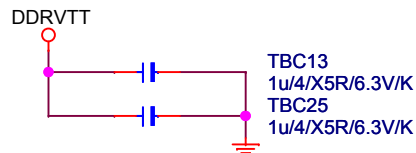
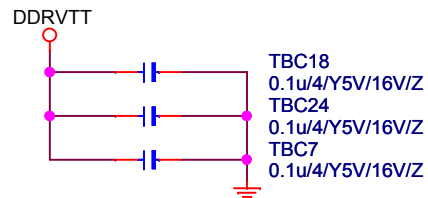


# DDR TERMINATION CHANNEL A/B

## DDR15V Decouple



## DDRVTT Decouple



**Gigabyte Technology**

Title		
DDRIII POWER CAP		
Size A	Document Number	Rev
	<b>GA-H57M-USB3</b>	<b>1.01</b>
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DMI:12/5/5/5/12  
Impedance=80 +- 17.5%

USB:15/4.5/7.5/4.5/15  
Impedance=90+- 15%

PCHE

VCC1\_05\_PCH

Impedance=80 +- 17.5%

PCIE X1 :15/5/5/5/15

電容要靠近 slot 端

JMB363

LAN

USB3.0

GEN1

PCIE X4

USB OC# Configure	
OC0#	USB0,1 (F_USB1)
OC1#	USB2,3 (F_USB2)
OC2#	USB4,5 (F_USB3)
OC3#	USB6,7 (F_USB4) H55-->N/A
OC4#	USB8,9 (USB30_LAN)
OC5#	USB10~11 (USB_1394_ESATA)
OC6#	USB12~13 (KB_USB)
OC7#	GPIO14

NV ALE	
Hi	Enable Danbury
Lo	Disable Danbury

Intel anti theft technolgy

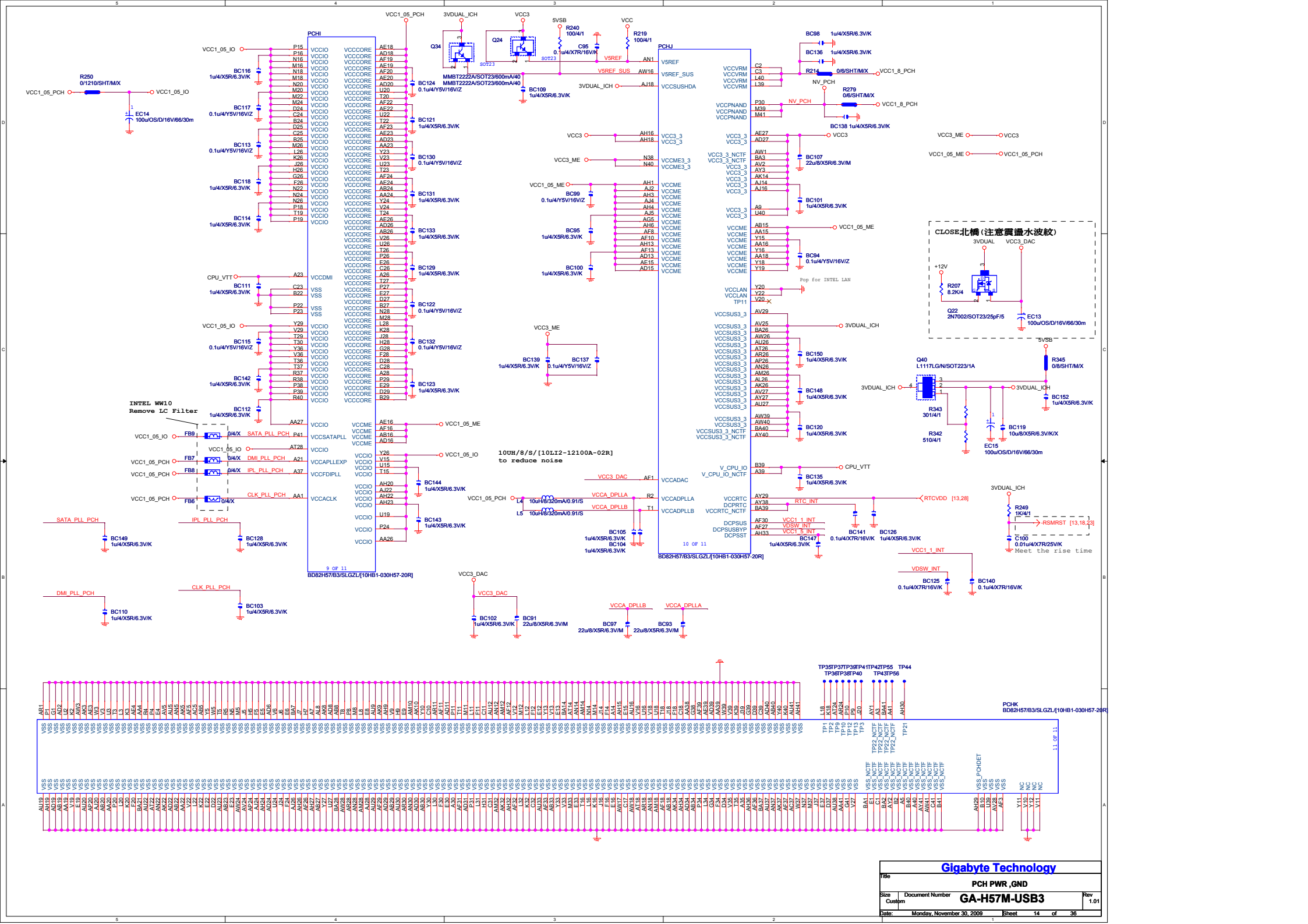
Gigabyte Technology

Title		
PCH FDI,DMI,USB ,PCIE,NVRAM		
Size B	Document Number	Rev 1.01
GA-H57M-USB3		
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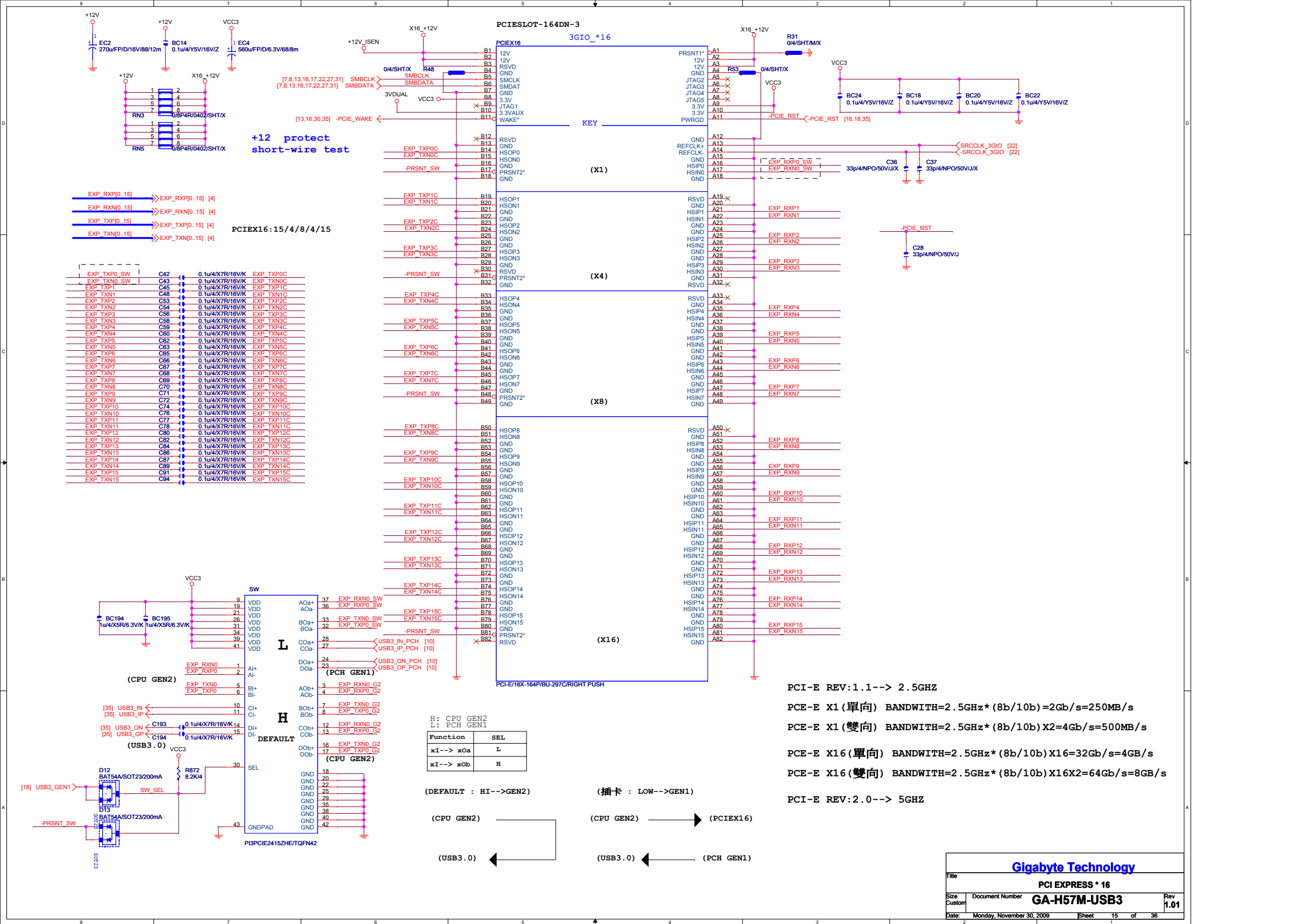




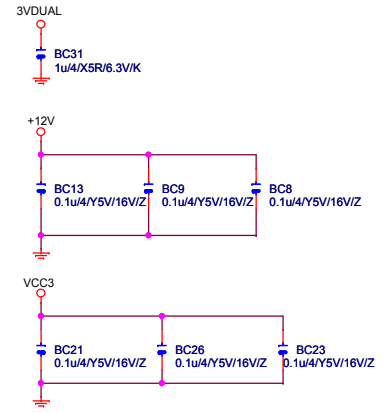
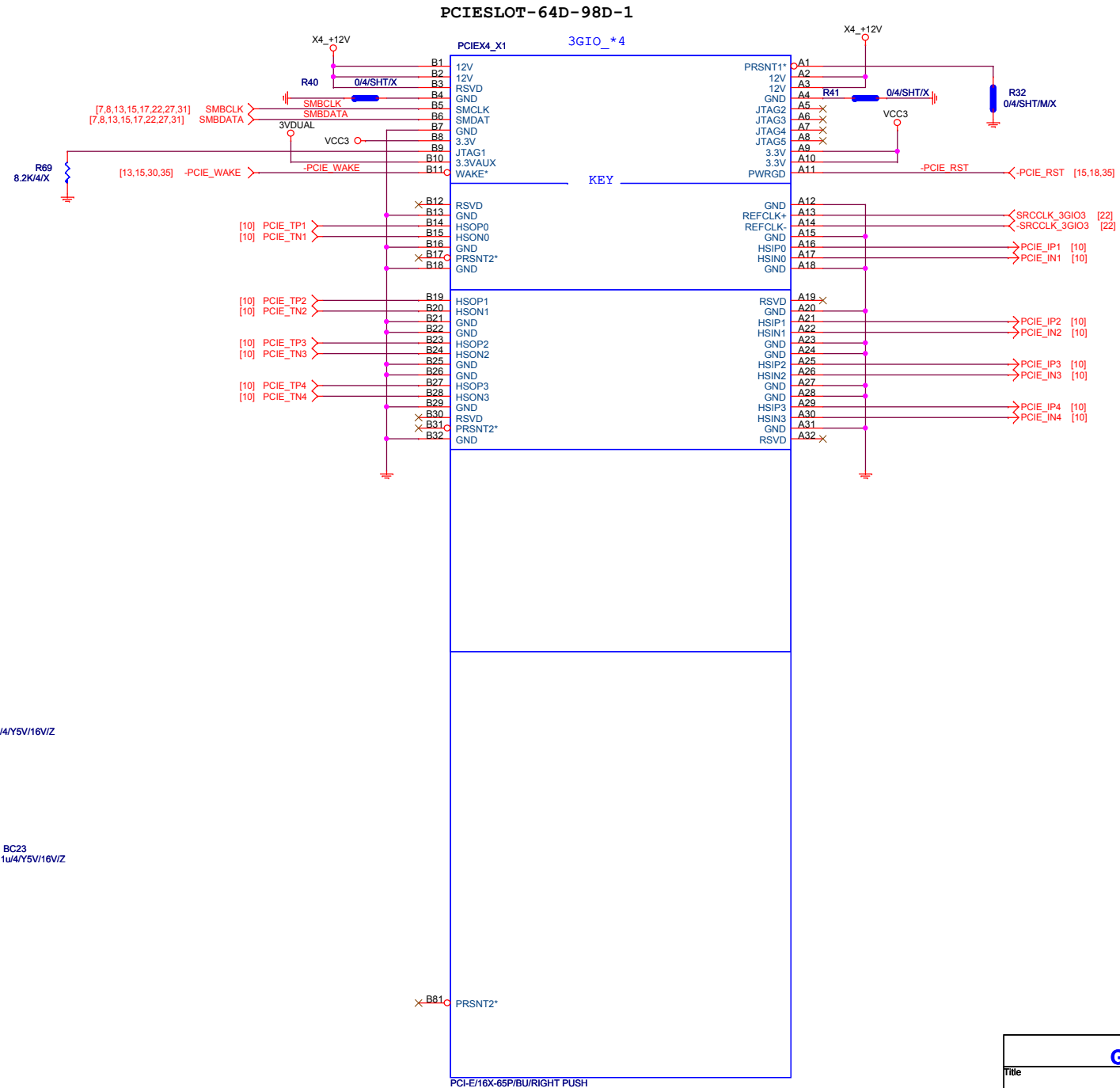
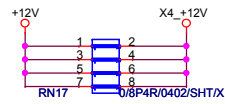




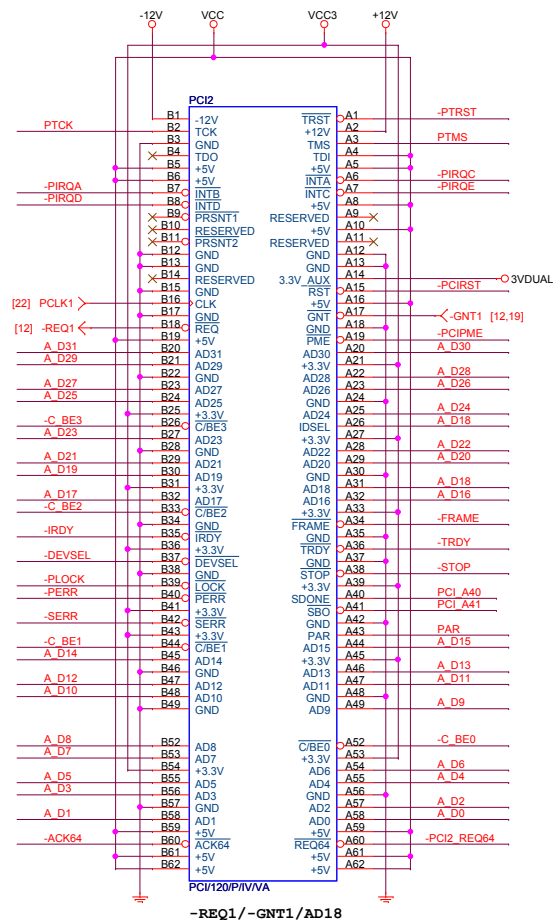
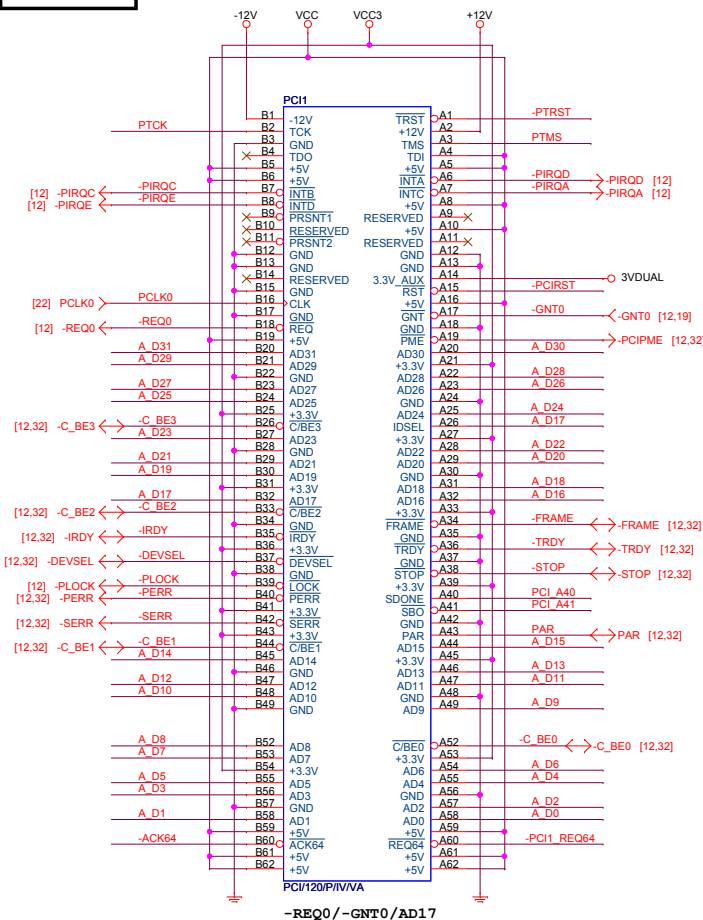




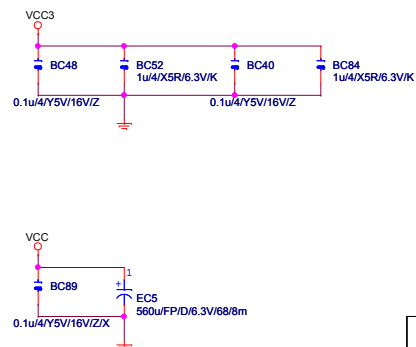
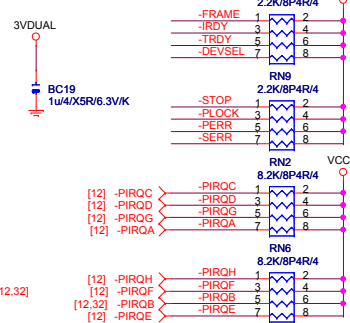
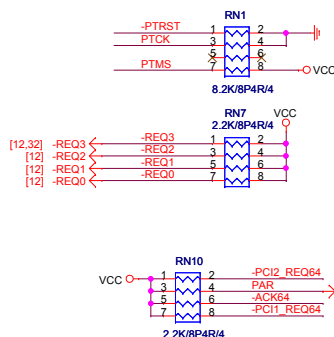




## PCI1,2 SLOT

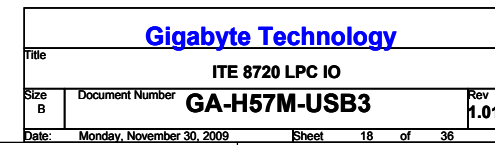


Place close to PCI1

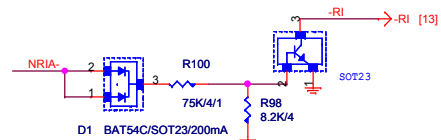


## Gigabyte Technology

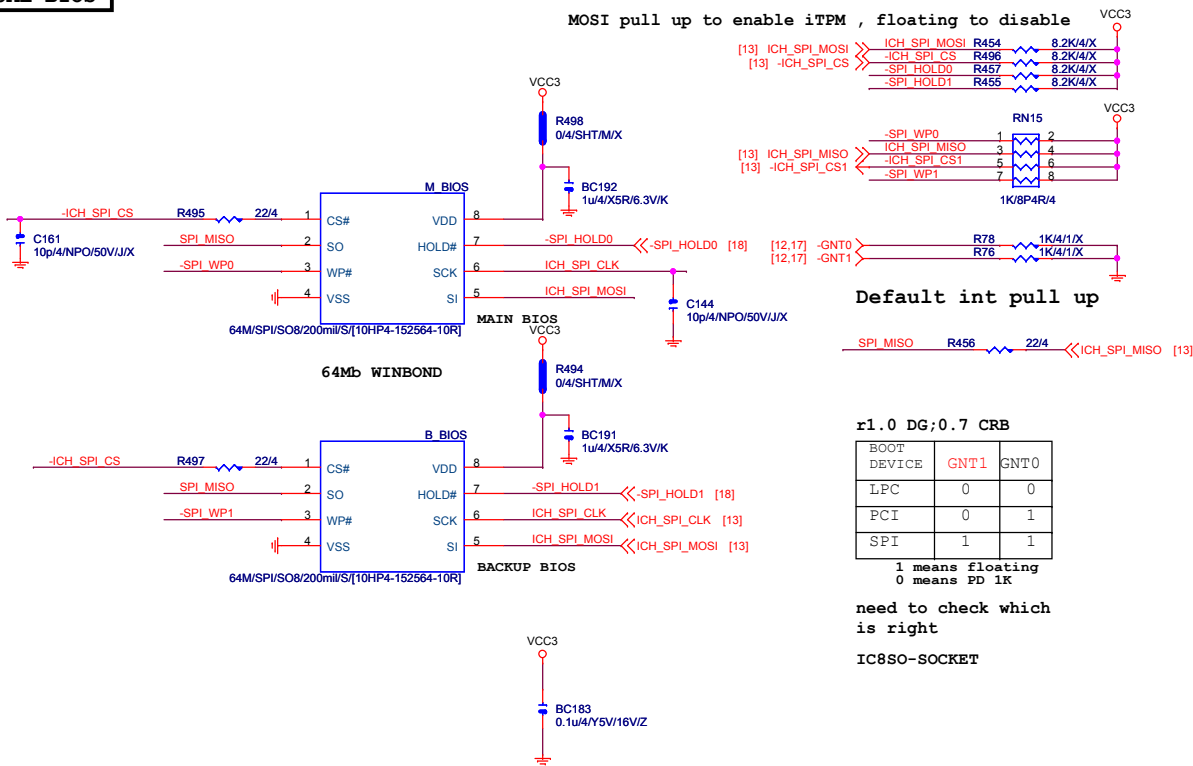
Title			
PCI SLOT 1, 2			
Size Custom	Document Number	GA-H57M-USB3	Rev 1.01
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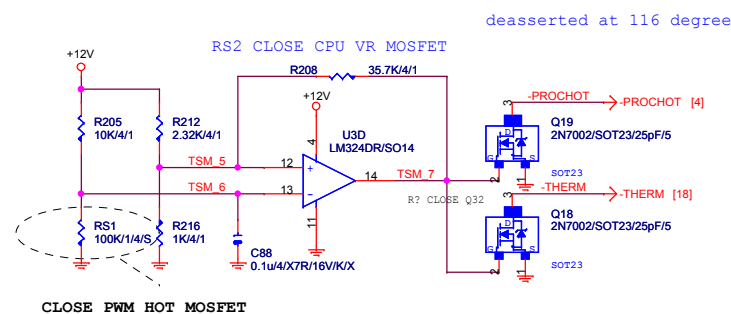
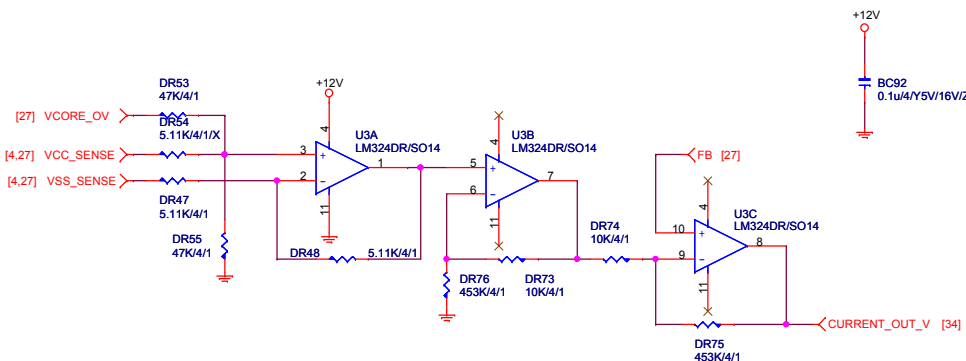
**RING IN**



PLACE NEAR COM CONNECTOR



IC8SO-SOCKET



Title			
COM & PROHOT/Dynamic O.C.			
Size	Document Number		Rev
Custom	GA-H57M-USB3		1.01
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CR2: 20K/4/0.1% @ALC889A  
CR2: 20K/4/1% @ALC889A+/ALC888Vx

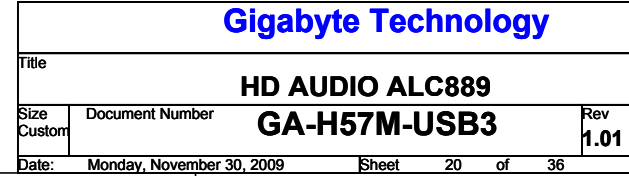
CR34 20K/4/1

CR65 10K/4/X

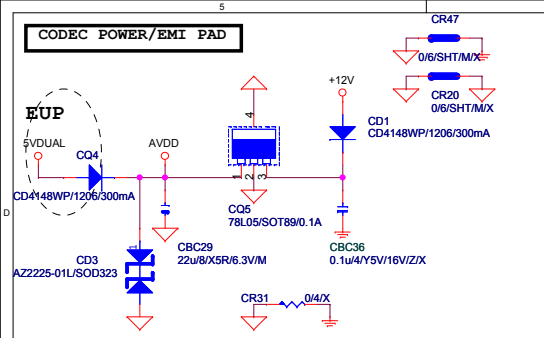
AVDD

[21] CEN ←  
[21] LFE ←  
[21] S\_SURR\_L ←  
[21] S\_SURR\_R ←  
[1] SPDIF ←

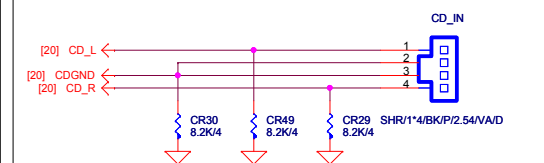
CBC31  
470p/4/X7R/50V/K



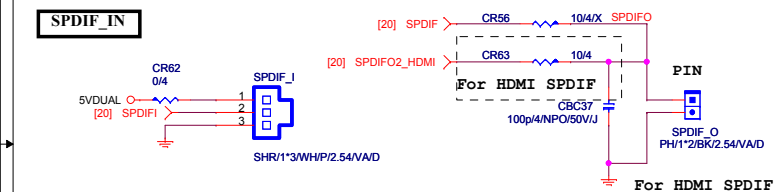
## CODEC POWER/EMI PAD



CD IN

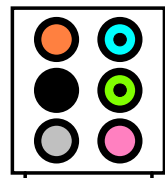


## SPDIF\_IN

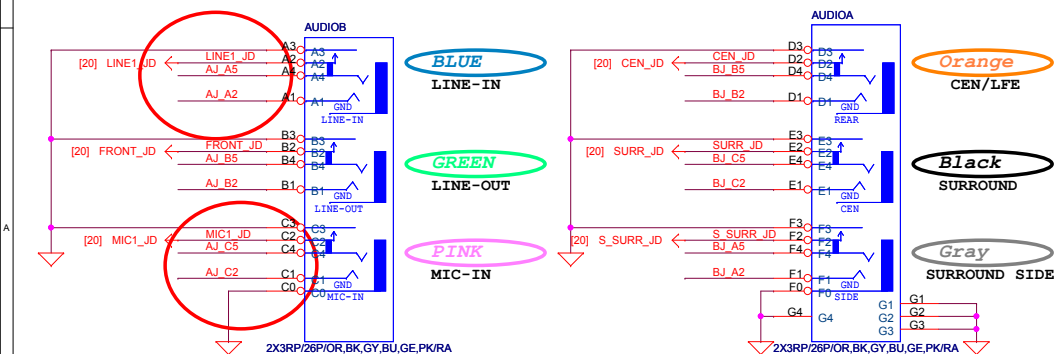


**AZALIA JACK**

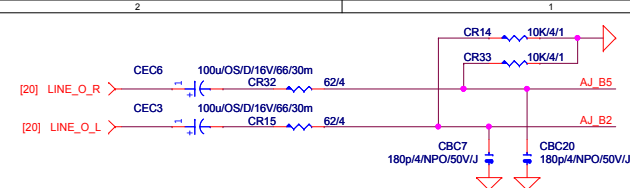
BTX AZALIA CONNECTOR



11NR6-403007-21R

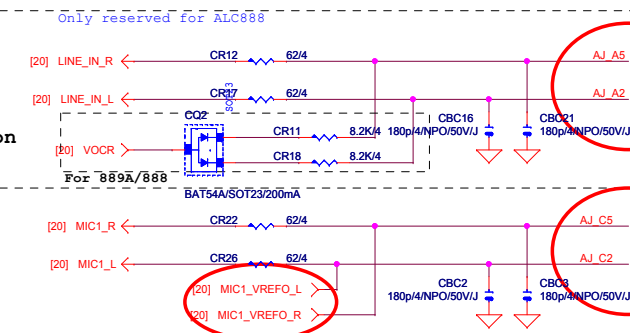


**LINE-OUT**

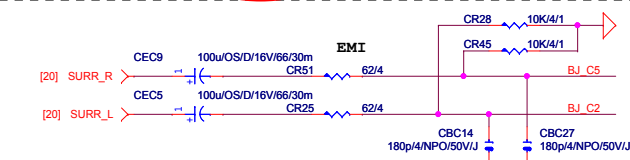


## LINE-IN

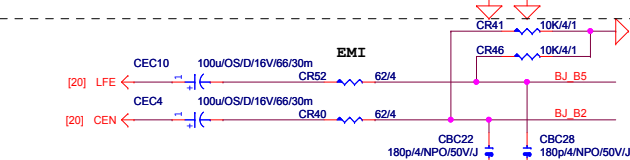
Verify MIC function  
in LINE-in

**MIC-IN**

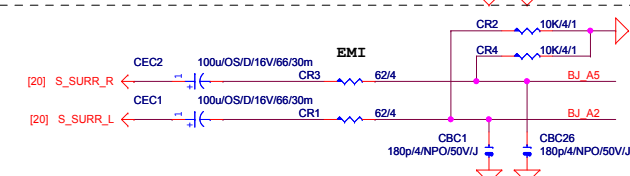
**SURROUND**



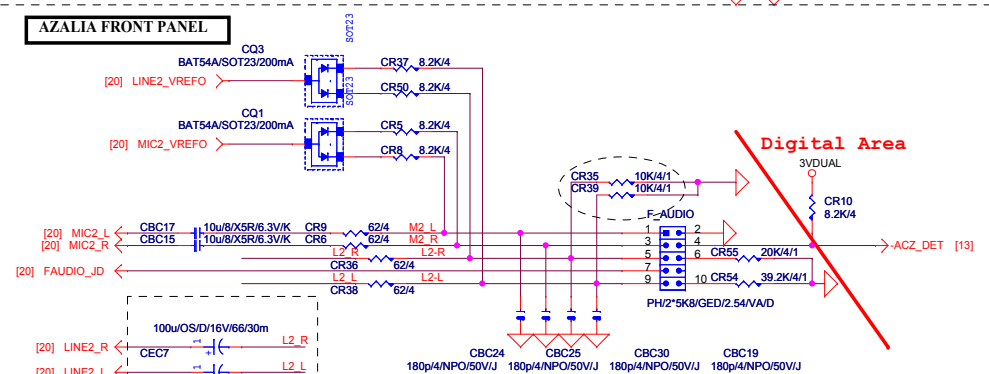
**CEN/LFE**



**SURR BACK**



## AZALIA FRONT PANEL



## Gigabyte Technology

## AUDIO JACK

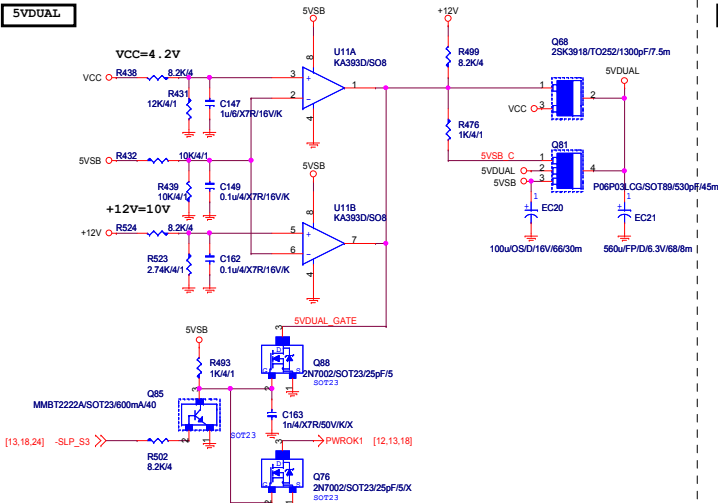
GA-H57M-USB3

1.01

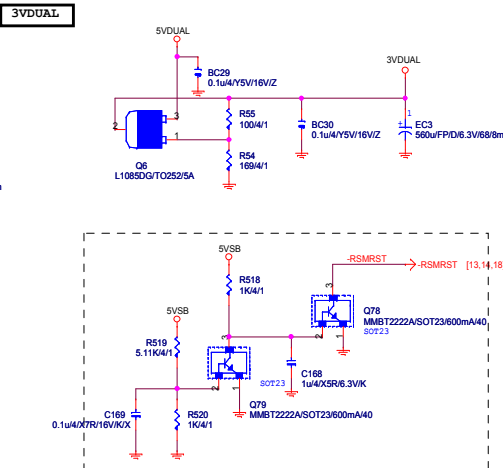




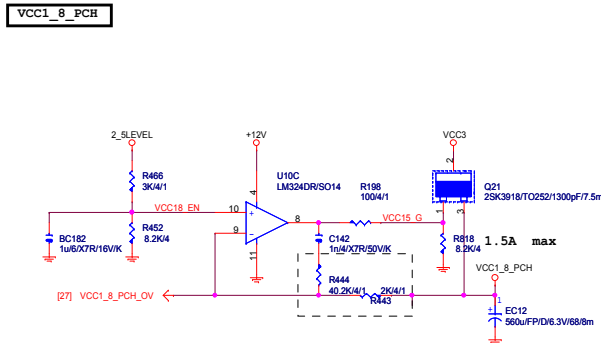
## 5VDUAL



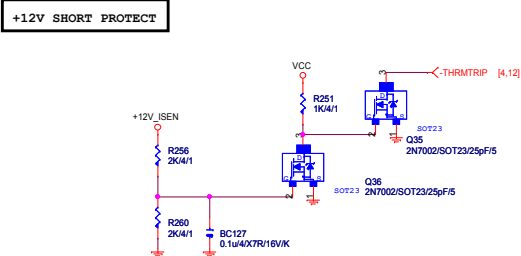
## 3VDUAL



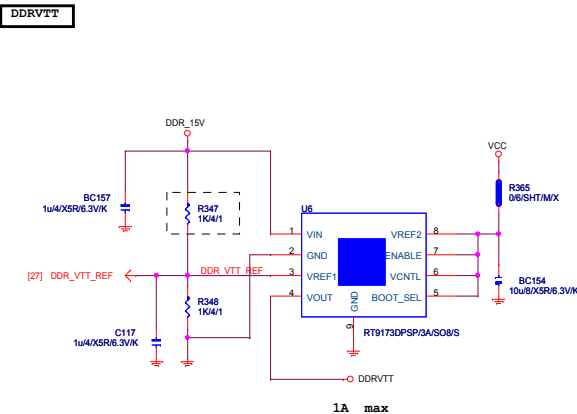
## VCC1\_8\_PCH



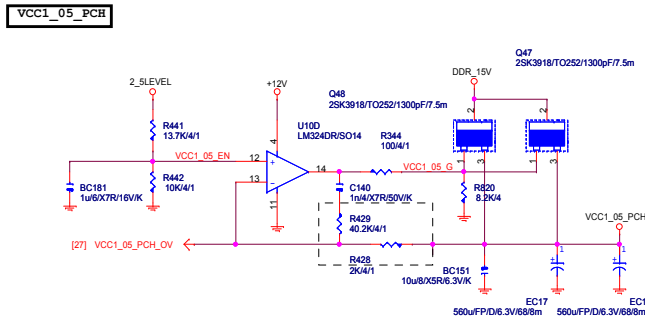
## +12V SHORT PROTECT



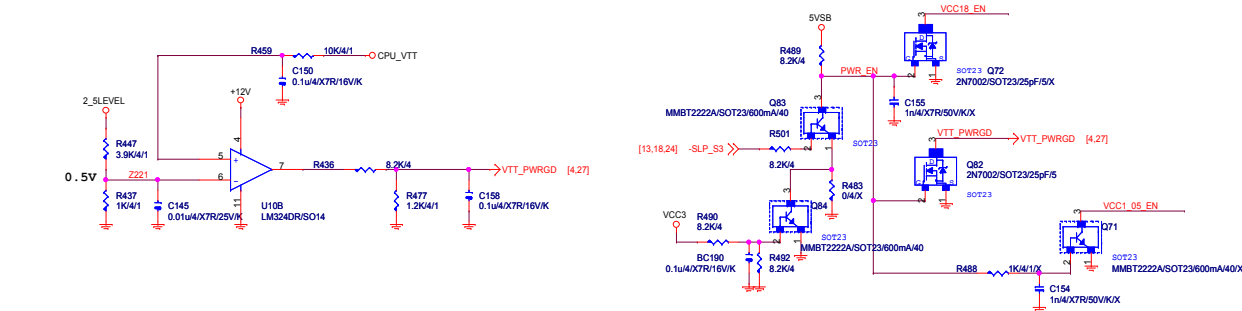
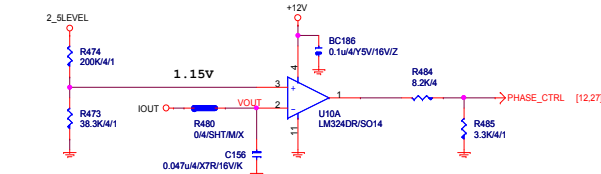
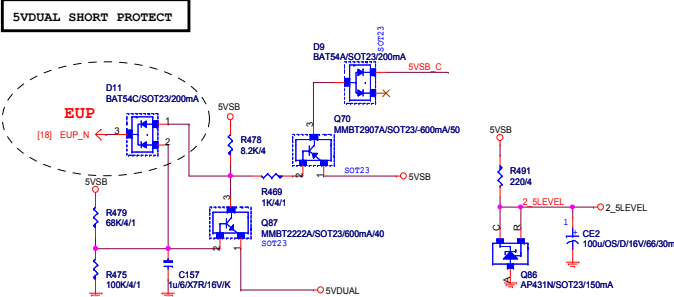
## DDRVTT



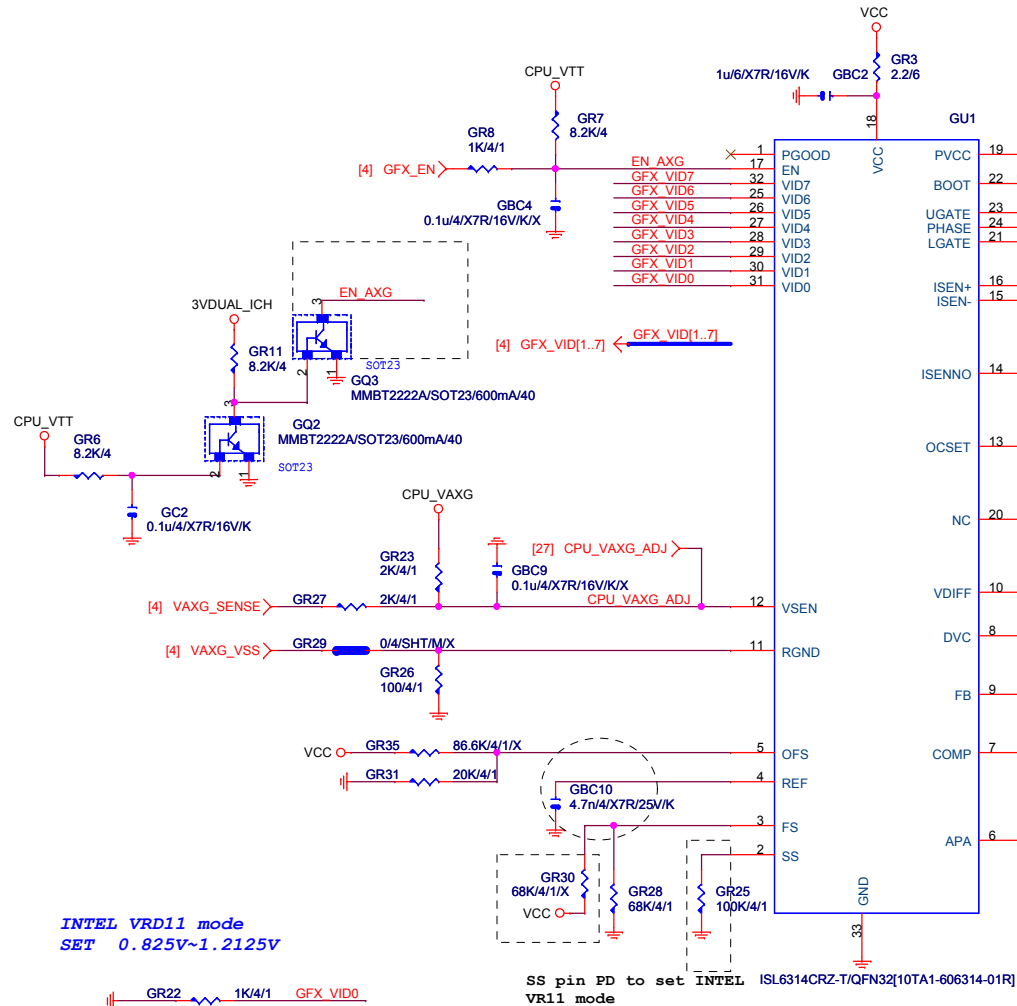
## VCC1\_05\_PCH



## 5VDUAL SHORT PROTECT

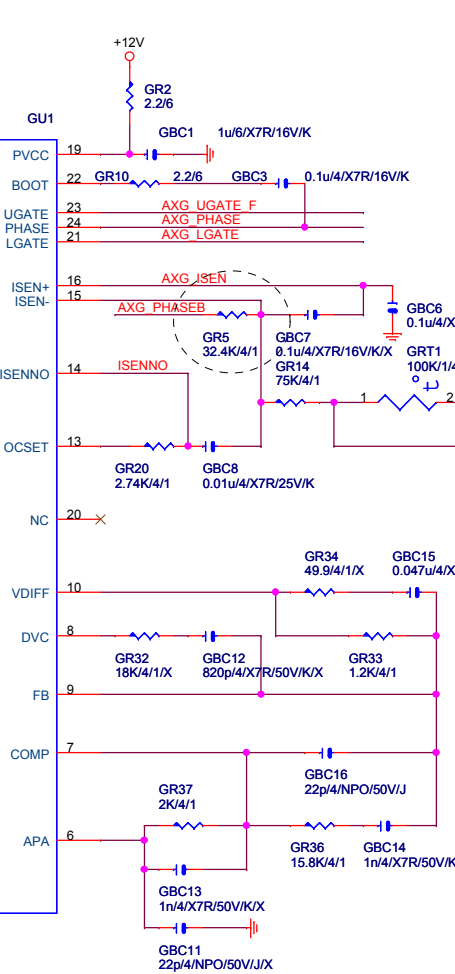




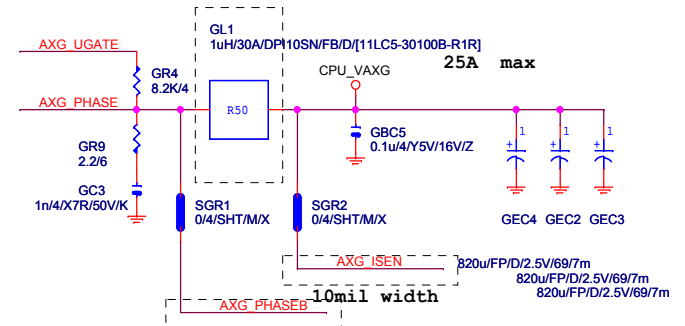


SS pin PD to set INTEL ISL6314CRZ-T/QFN32[10TA1-606314-01R]  
 VR11 mode

OCP點做在49A  
 $R_{ocset}=R_{136}=2.74k$  ,  $I_{sens}=94\mu A$  ,  $R_s=R_{127}=8.25k$  ,  
 $R_{comp}=R_{128}+[R_{135}/((DRT1+R_{129}))]=78k$  ,  $DCR=0.78mohm$   
 $I_{ocp}=(R_{ocset}*I_{sens}*R_s)/(R_{comp}*DCR)$   
 $= (2.74k*94\mu A*8.25K)/(45K*0.97m)=49A$   
 $R_t=10^{[10.61-[1.035X\log(FS)]]}$   $R_t=R_{151}=68 kohm$  ,  $FS=380KHz$   
 $OVP=VDAC+175mV$

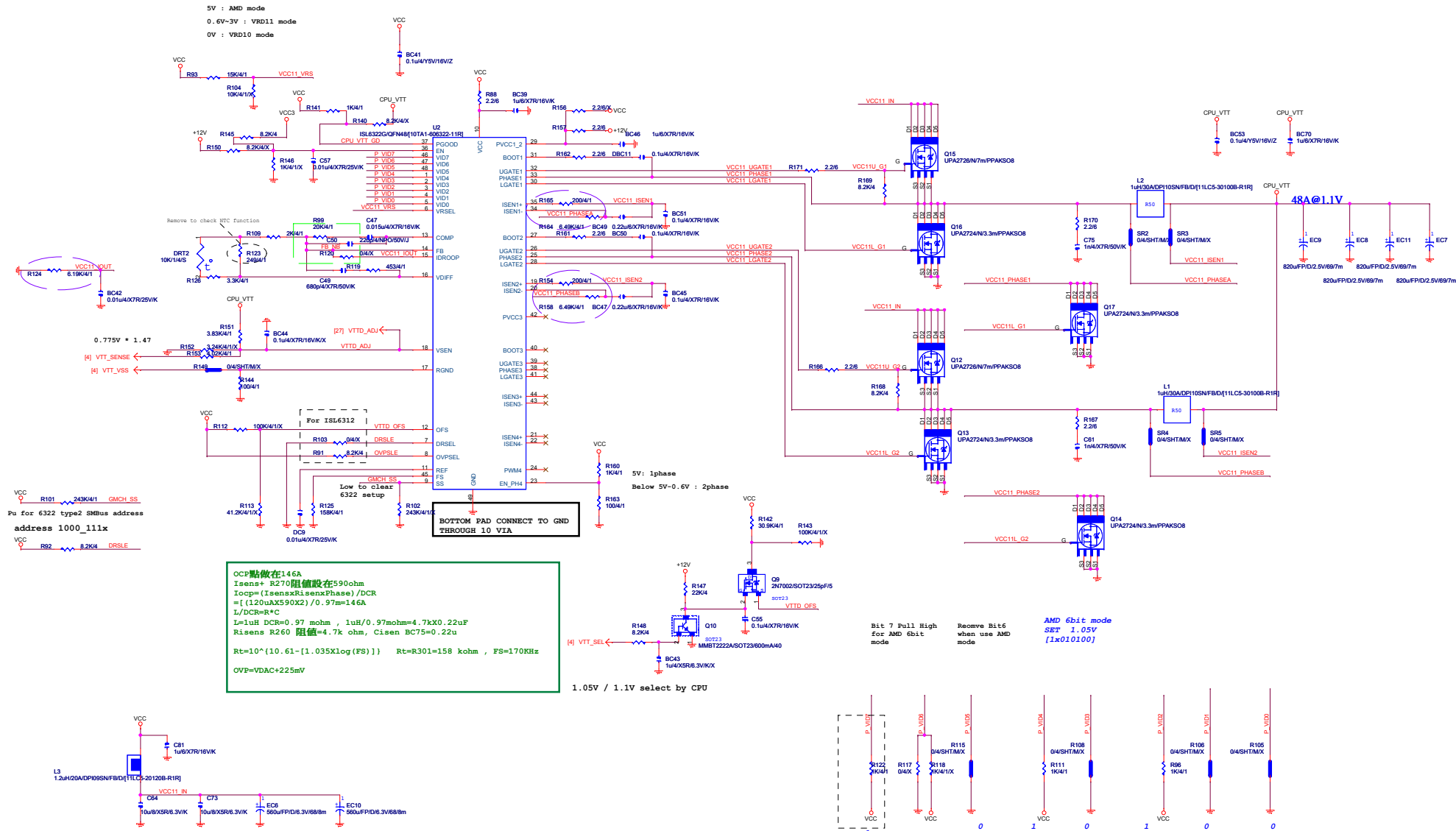


IAXG for 2009A FMB (73W TDP SKU support): 20A  
 IAXG for 2009B FMB (87W TDP SKU support): 25A



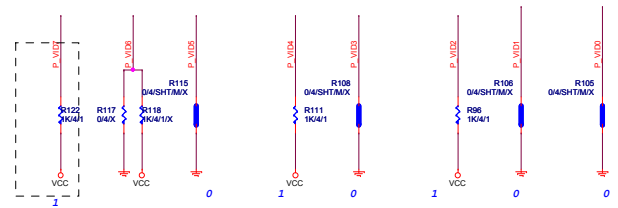
Gigabyte Technology			
Title			
CPU_VAXG_ISL6314CRZ			
Size	Document Number	Rev	
B	GA-H57M-USB3	1.0	
Date:	Tuesday, December 22, 2009	Sheet	25 of 36

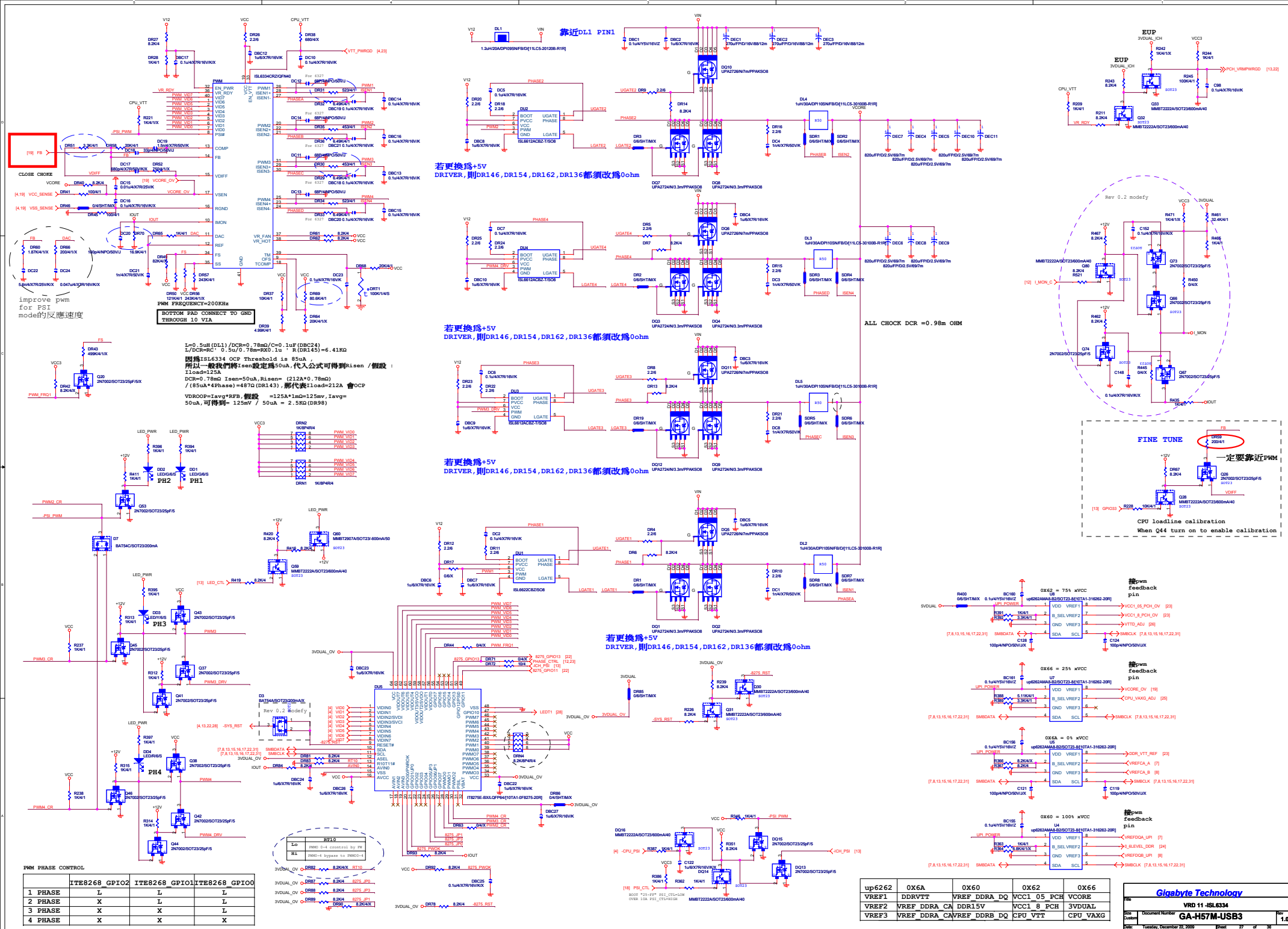
5V : AMD mode  
0.6V~3V : VRD11 mode  
0V : VRD10 mode



OCP點放在146A  
Isensx R270阻值設在590ohm  
 $I_{ocp} = (I_{sensx} \times R_{isensxPhase}) / DCR$   
 $= [(120uA \times 590\Omega) / 0.97] = 146A$   
 $L / DCR = R \times C$   
 $L = uH$  DCR=0.97 mohm ,  $1uH / 0.97mohm = 4.7k \times 0.22uF$   
Risens R260 阻值=4.7k ohm, Cisen BC75=0.22u  
 $Rt = 10^4 \times [10.61 - [1.035 \times \log(FS)]]$  Rt=R301=158 kohm , FS=170KHz  
OVP=VDAC+225mV

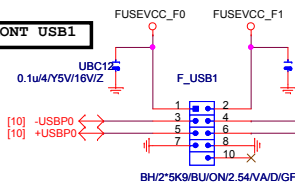
VIN=5V,VOUT=1.1V,IOUT=48A,PHASE=2  
IRMS=11.91A  
560u/FP/D/6.3V/68/8m RIPPLE CURRENT=5.6A  
Coefficient=1.7(85℃),1(105℃)  
VIN Ripple current=5.6X1.7=9.52A(85℃)  
-->故固態電容須2X9.52=19.04>11.91A  
1000u/D/6.3V/8C/30m RIPPLE CURRENT=1.14A  
Coefficient=1.7(85℃),1(105℃)  
VIN Ripple current=1.14X1.7=1.938A(85℃)  
-->故電解電容須7X1.938=13.566>11.91A





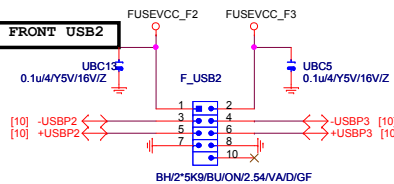
up6262	0X6A	0X60	0X62	0X66
VREF1	DDRVT	VREF DDRA DQ	VCC1 05 PCH	VCORE
VREF2	VREF DDRA CA	DDR15V	VCC1 8 PCH	3VDUAL
VREF3	VREF DDRA CAVREF	DDRB DO	CPU VTT	CPU VAX

# FRONT USB1



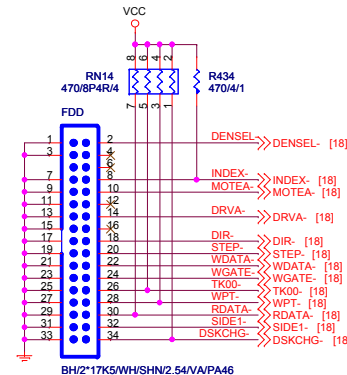
Close to connector

# FRONT USB2

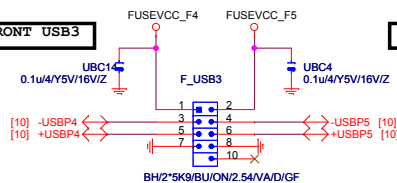


Close to connector

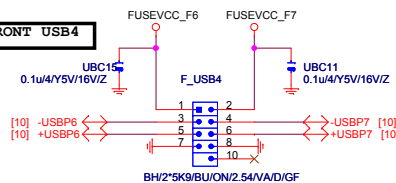
# FLOPPY



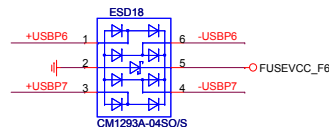
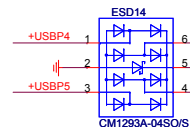
# FRONT USB3



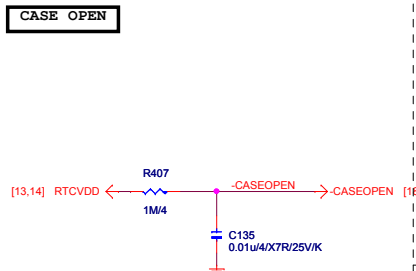
# FRONT USB4



USB4 POP FOR H57/ N/A FOR H55

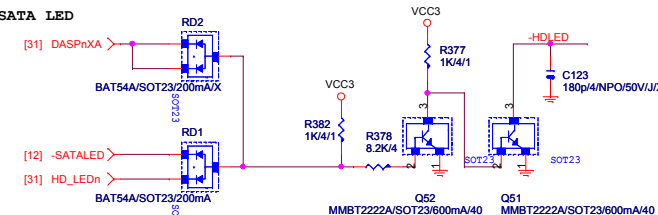


# CASE OPEN



Case Open Circuits

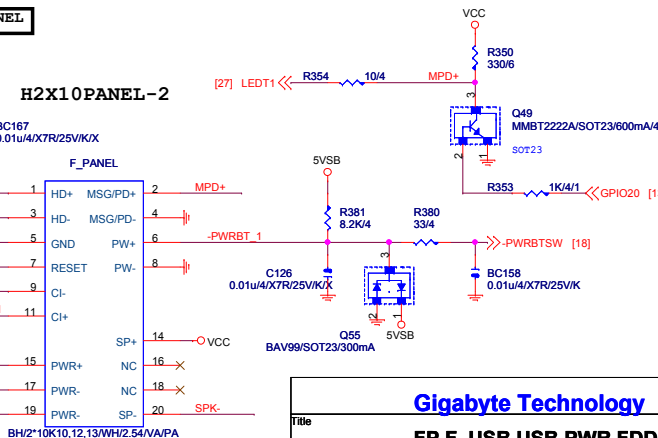
# SATA LED



CD4148WP/1206/300mA

To disable TCO timer

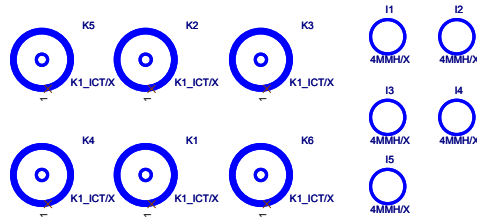
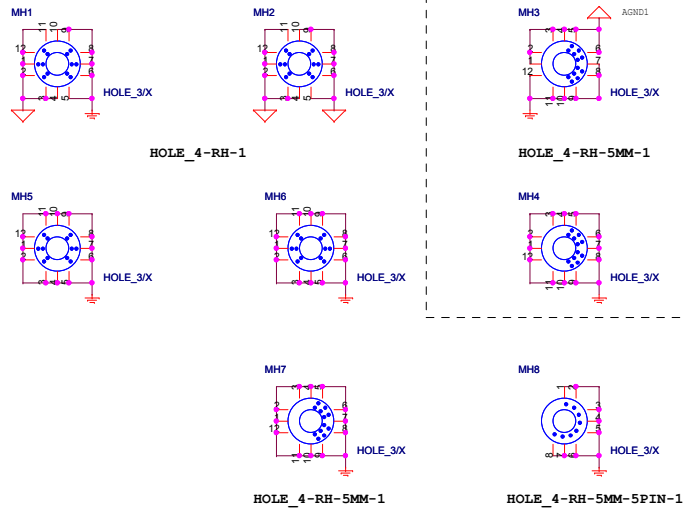
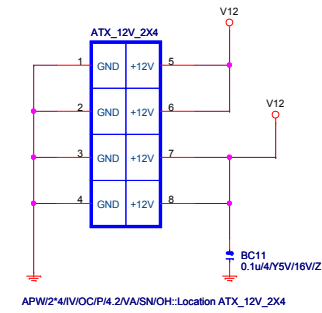
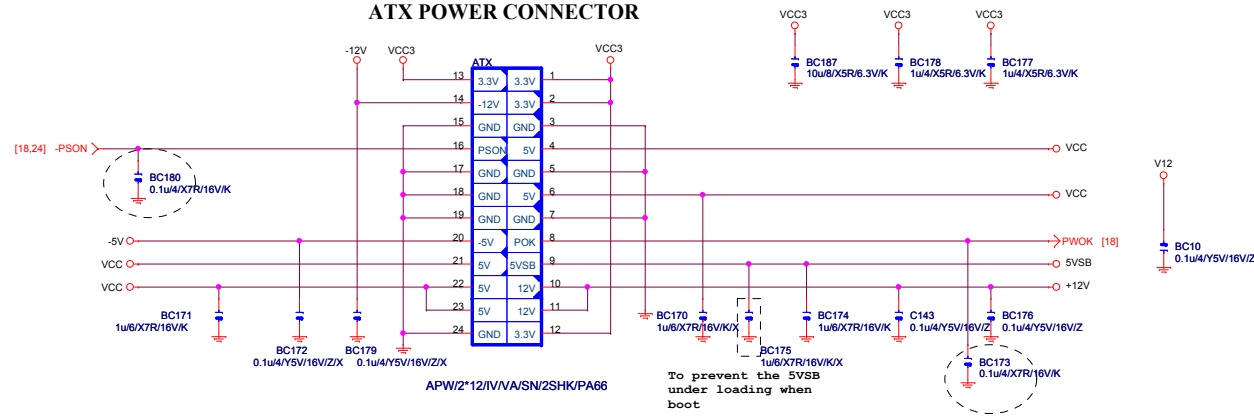
# INTEL FRONT PANEL



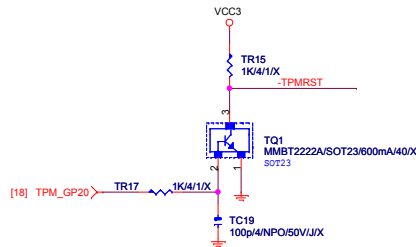
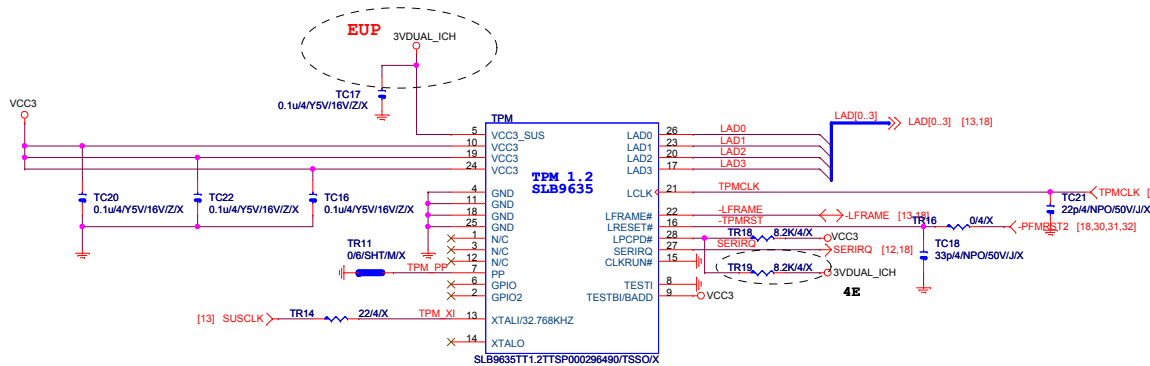
Gigabyte Technology

Title			FP,F_USB,USB PWR,FDD,BZ		
Size			Document Number		
Custom			GA-H57M-USB3		
Date:			Monday, November 30, 2009		
Sheet			28 of 36		
Rev			1.01		

# ATX POWER CONNECTOR

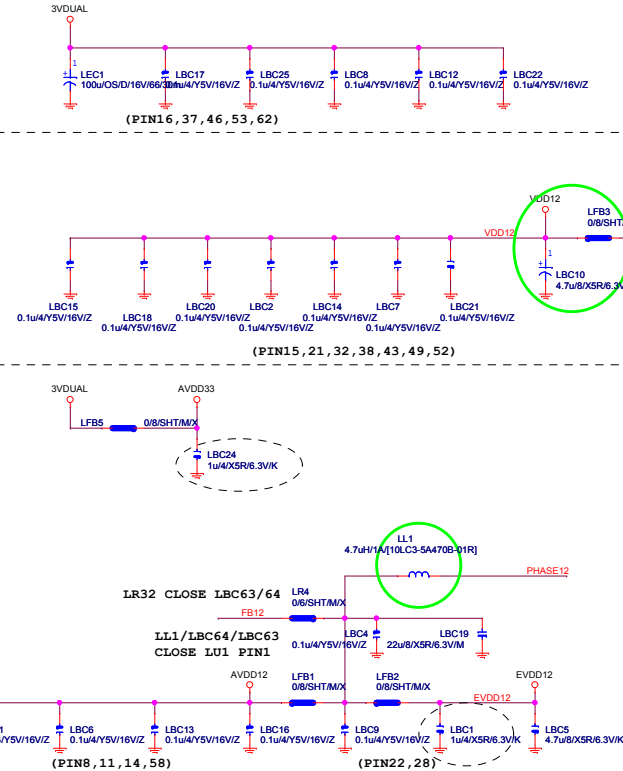
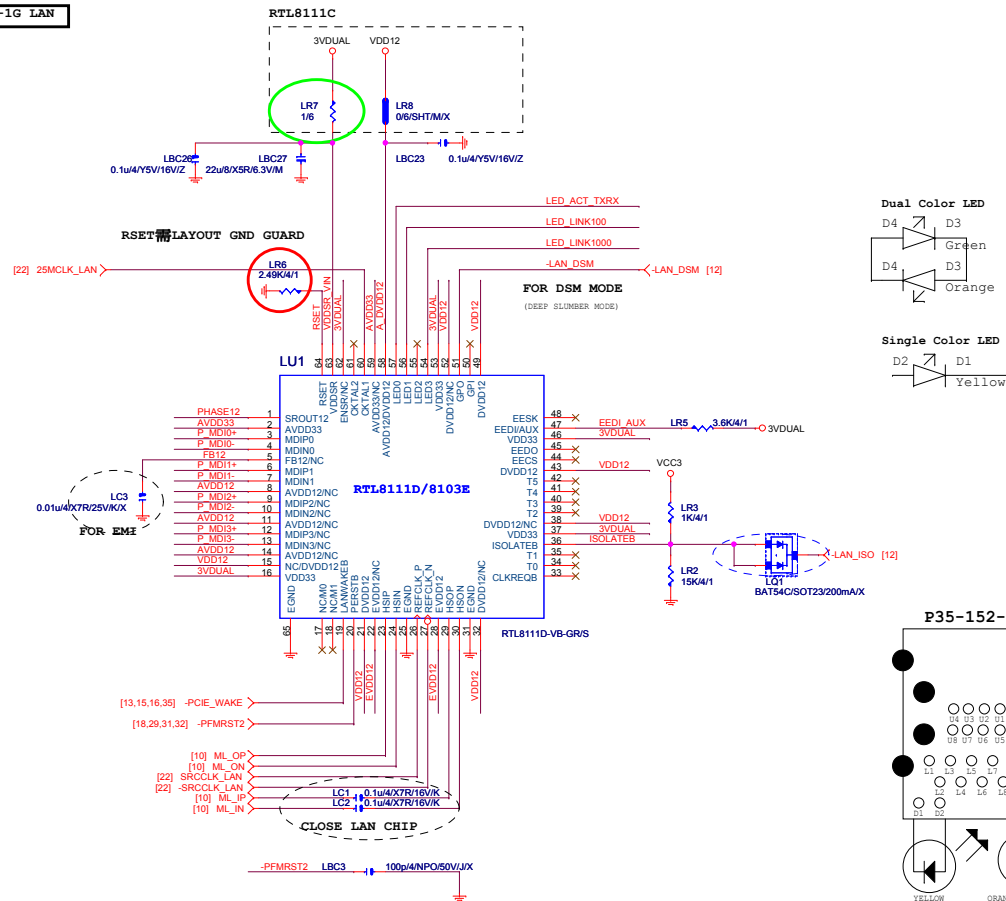


## TPM



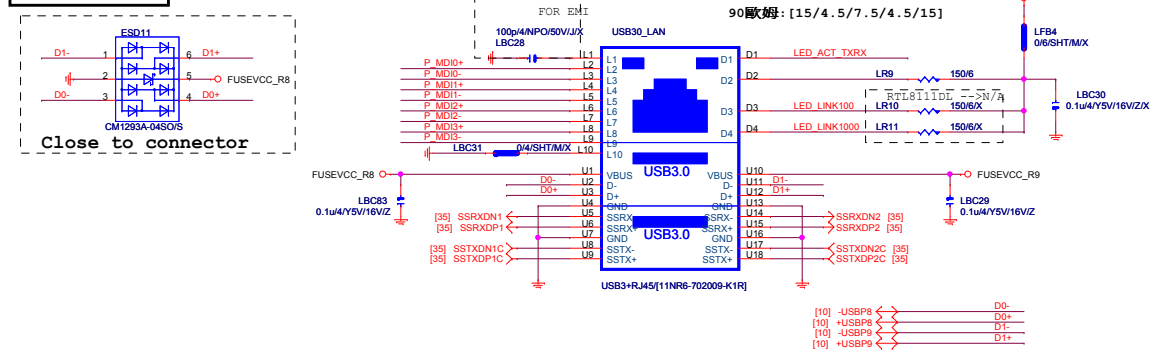


## PCIE-1G LAN

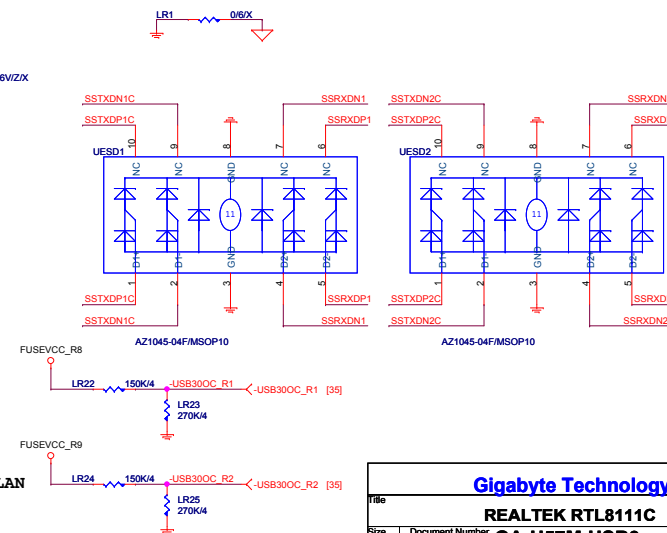


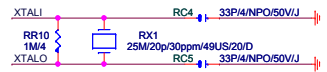
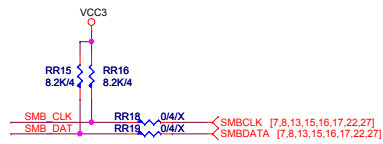
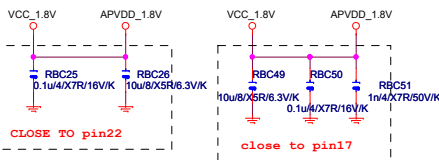
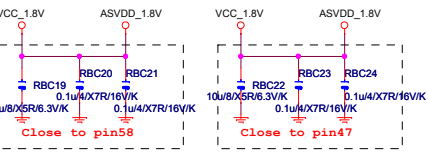
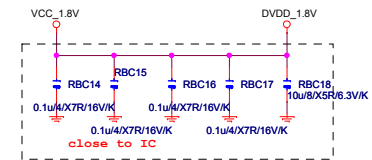
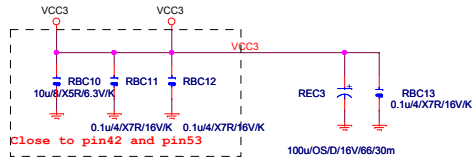
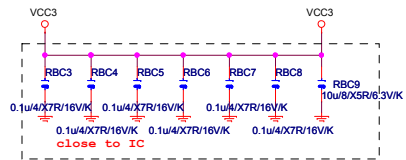
## USB\_LAN CONNECTOR

90 歐姆: [20/4/8/4/20]

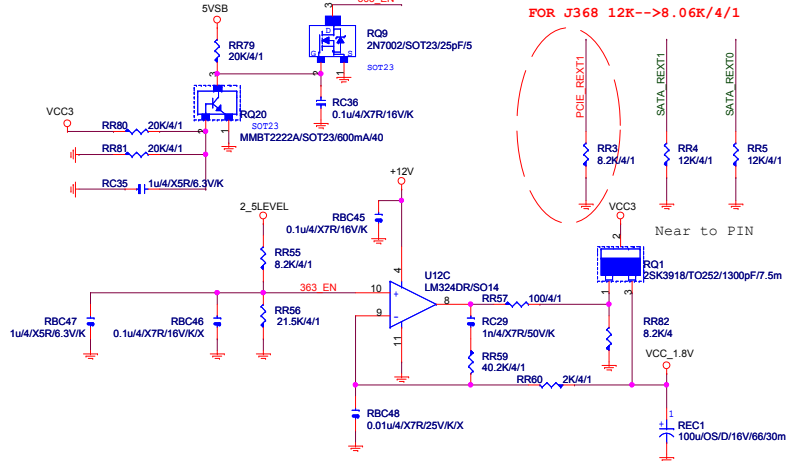


09/21 modify USB2.0 (BY INTEL)

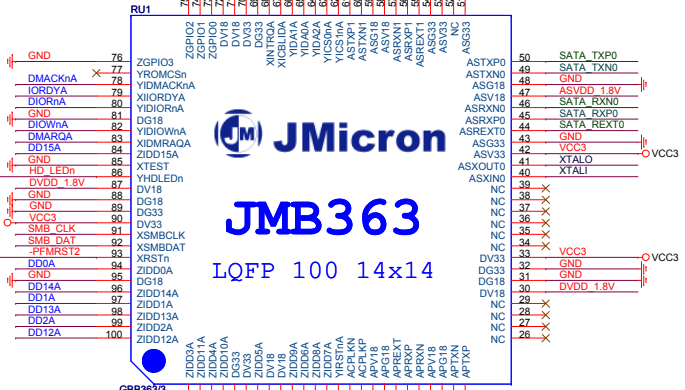




Patch VCC3 Before VCC 1.8V 4ms



FOR J368 12K-->0.06K/4/1



PH_DD7	DD7A
PH_DD8	DD8A
PH_DD9	DD9A
PH_DD6	DD6A
PH_DD5	DD5A
PH_DD4	DD4A
PH_DD10	DD10A
PH_DD11	DD11A

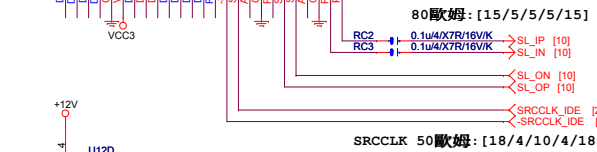
PH_DD5	DD5A
PH_DD4	DD4A
PH_DD10	DD10A
PH_DD11	DD11A

PH_DD3	DD3A
PH_DD12	DD12A
PH_DD2	DD2A
PH_DD13	DD13A

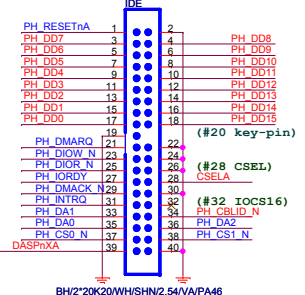
PH_DD1	DD1A
PH_DD0	DD0A
PH_DD14	DD14A
PH_DD15	DD15A

PH_DIOw_N	DIOwNA
PH_DIOr_N	DIOrNA
PH_DMACK_N	DMACKNA
PH_DA1	DA1A
PH_DA0	DA0A
PH_CS0_N	CS0NA
PH_DA2	DA2A
PH_CS1_N	CS1NA

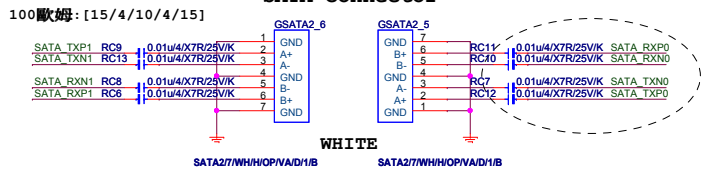
PH_IORDY	IORDYA
PH_DMARQ	DMARQA
PH_INTRQ	INTRQA
PH_CBLID_N	PDIAGNA



IDE Connector

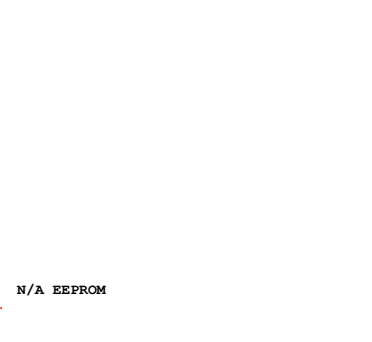
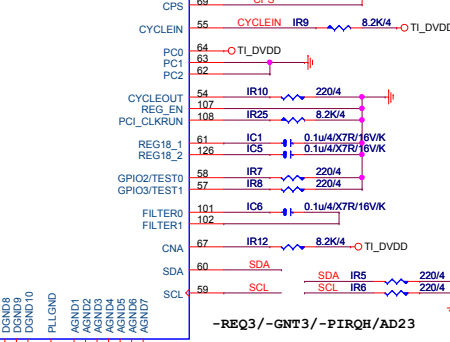
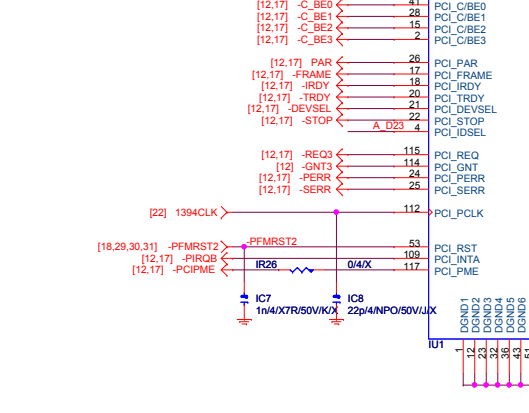
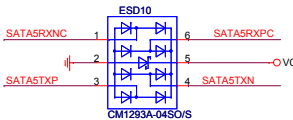
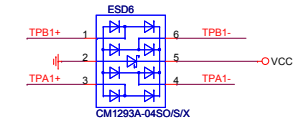
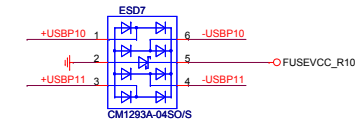
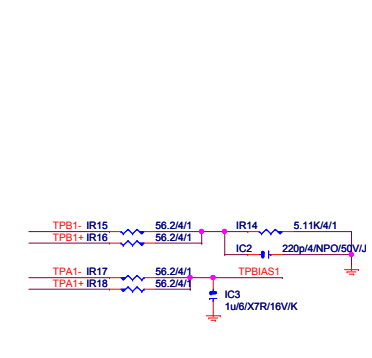
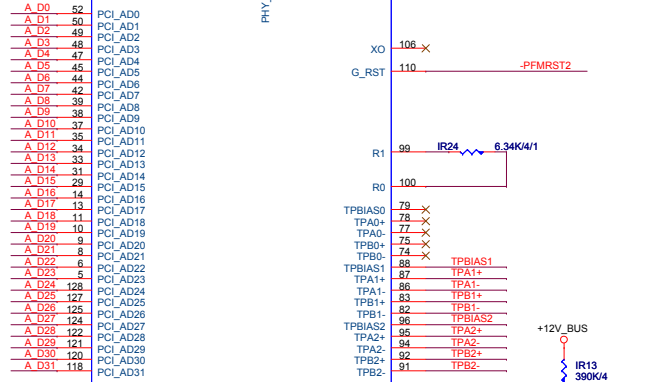
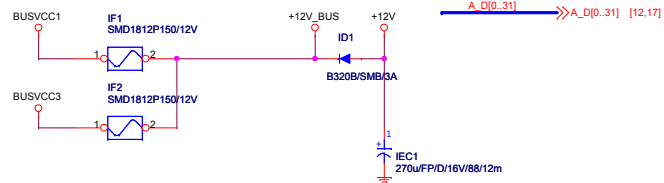
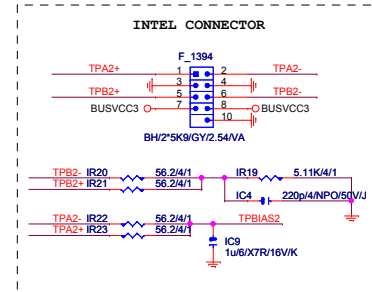
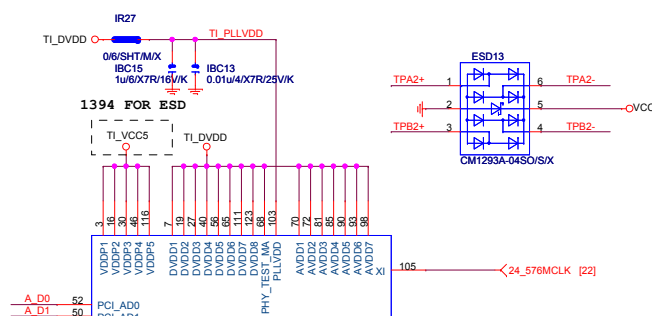
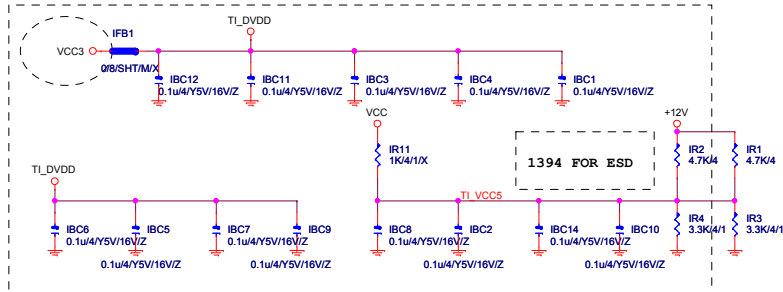


SATA Connector



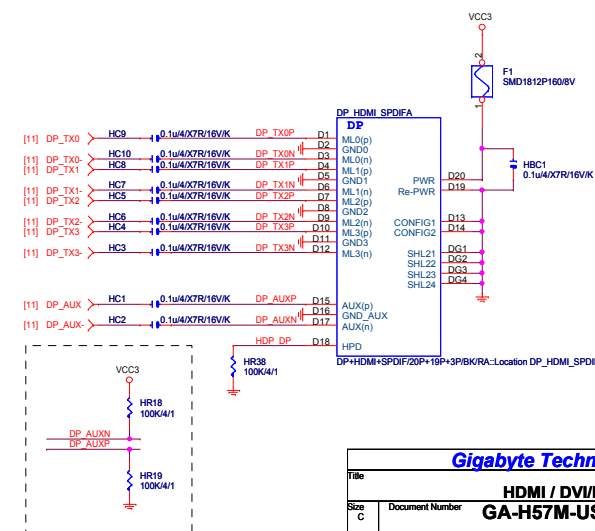
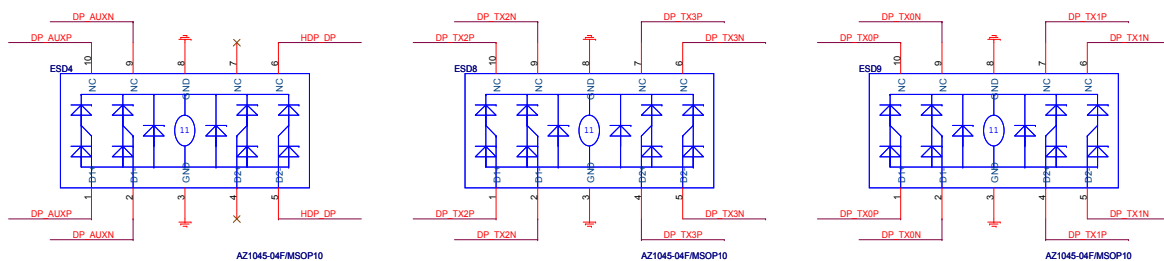
Gigabyte Technology

JMB363		
GA-H57M-USB3		
Rev	1.01	
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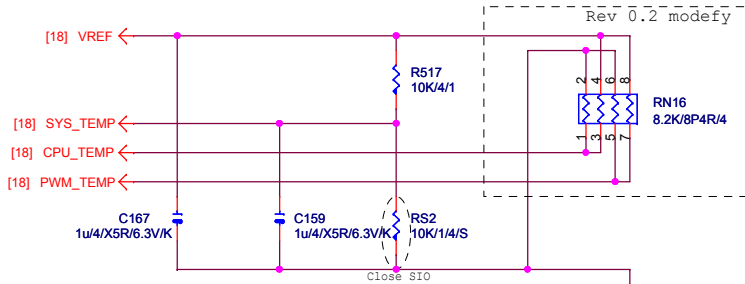


CLOSE ESATA\_1394\_USB

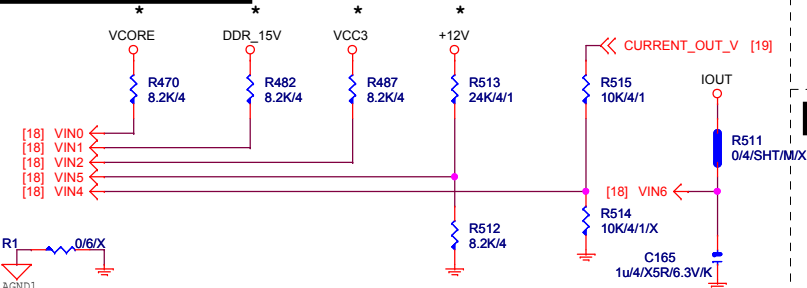
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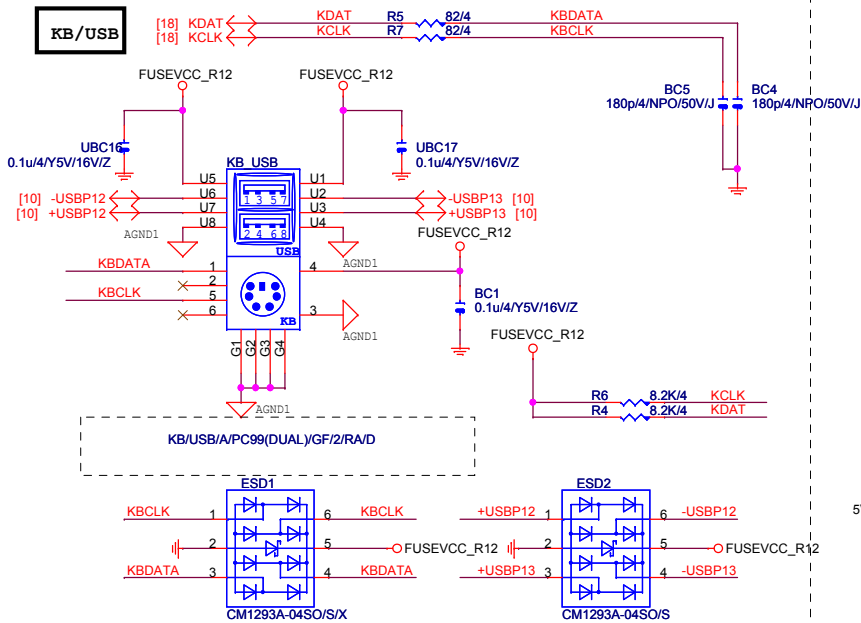
# TEMP H/W MONITOR



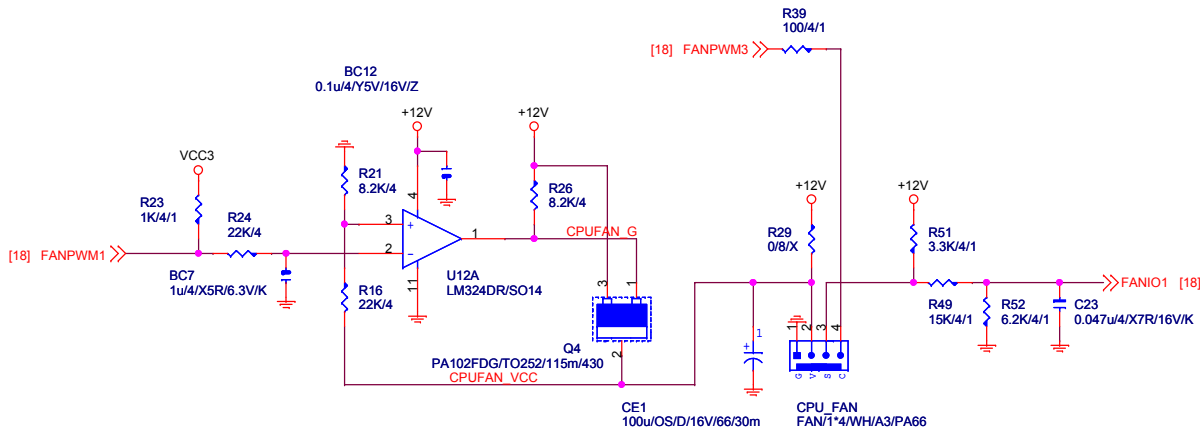
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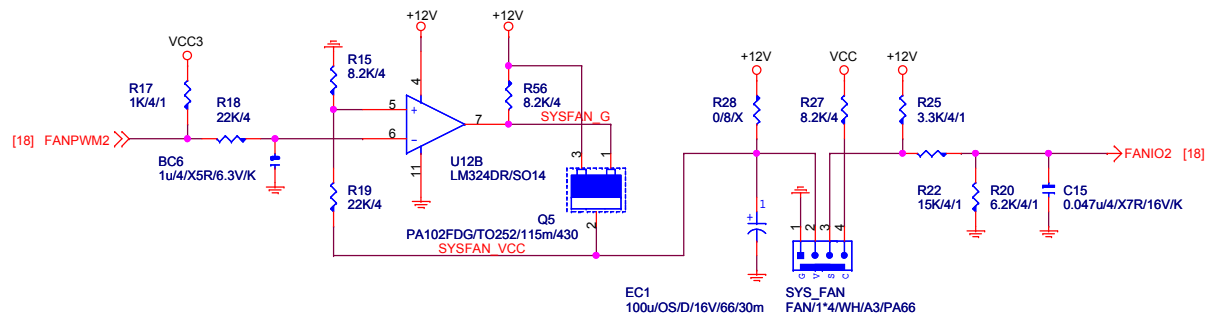
# KB/USB



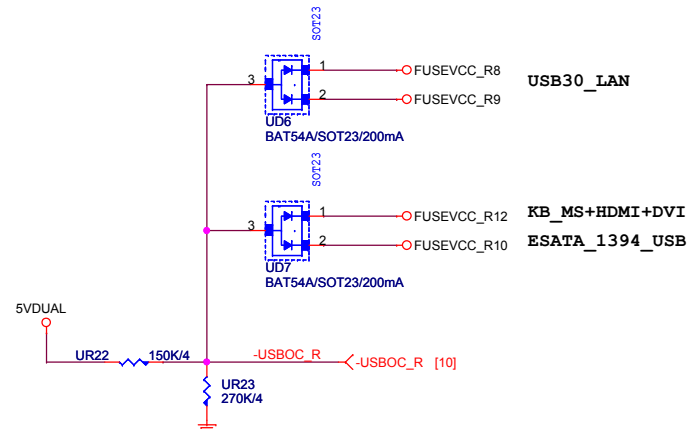
# CPU SMART FAN



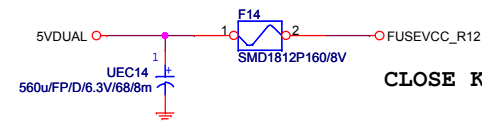
# SYS SMART FAN Linear SYS\_FAN



# USB30\_LAN



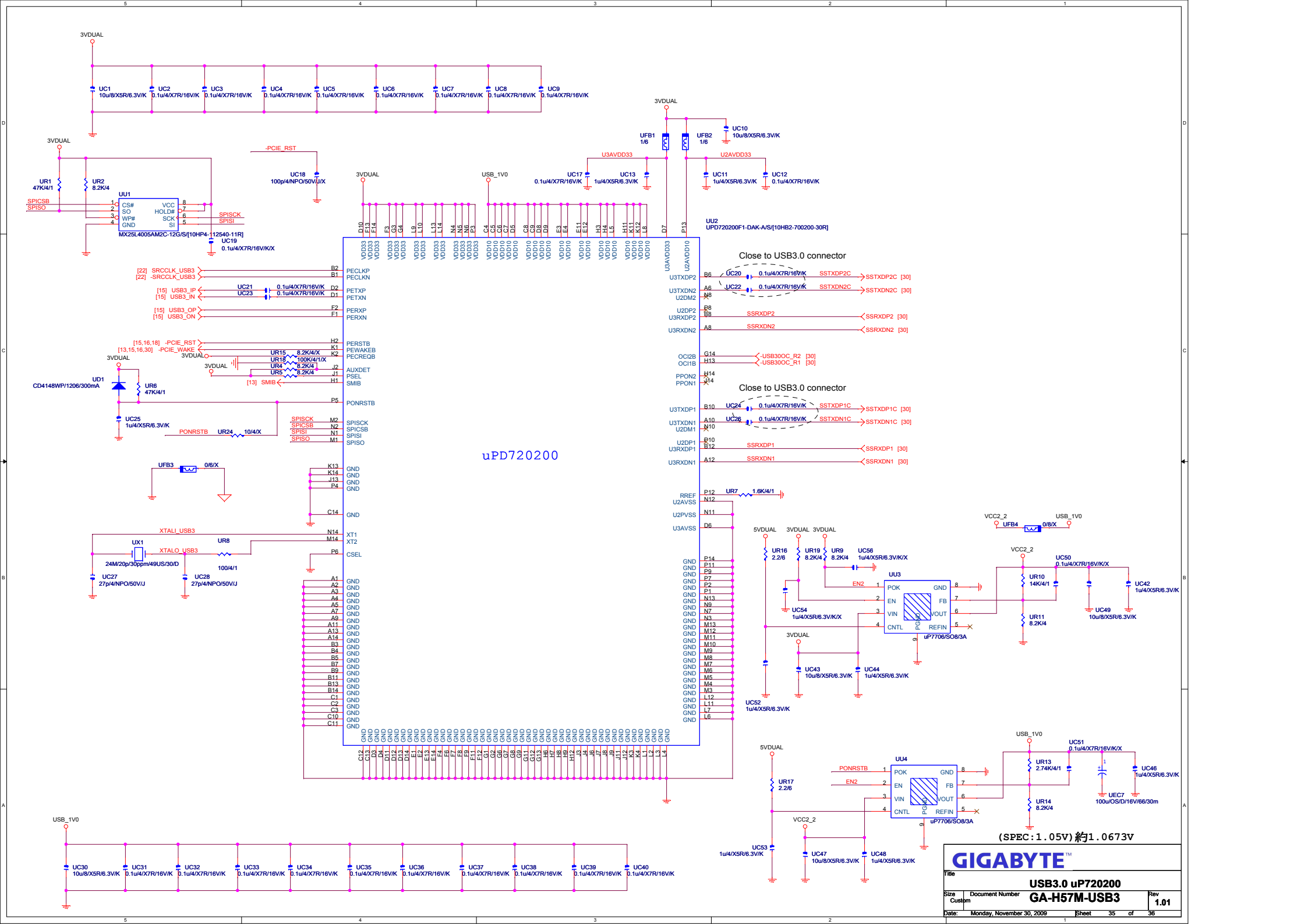
# CLOSE KB\_USB



Gigabyte Technology

HWM,KB/MS, FAN CTRL

Title	GA-H57M-USB3	Rev	1.01
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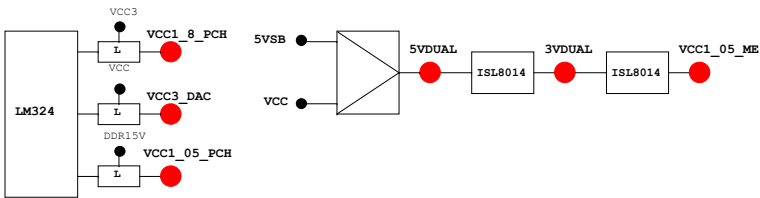


PCH GPIO LIST TABLE					
PIN NAME	PWR	Default	USAGE	NOTE	
GP0	MAIN	H-Z	GPI	-PECI_REQ	N/A
GP1/TACH1	MAIN		GPI	ICH_FAN_TACH1	N/A
GP2/PIRQE#	MAIN		GPI	-PIRQE	P/U 8.2K VCC3
GP3/PIRQF#	MAIN		GPI	-PIRQF	P/U 8.2K VCC3
GP4/PIRQG#	MAIN		GPI	-PIRQG	P/U 8.2K VCC3
GP5/PIRQH#	MAIN		GPI	-PIRQH	P/U 8.2K VCC3
GP6/TACH2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

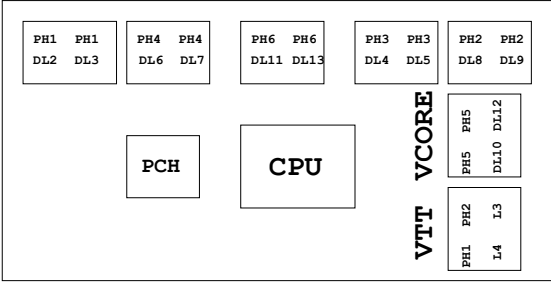
Super I/O ITE8720 GPIO Table

PIN NAME	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#CIRRXL1/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/BUSSI1	SB_LED1_C	
PD4/GP74/BUSSI2	SB_LED2_C	
VCORE_EN/VID7/GP64	IT_GP64	SB_LED3_C
PD0/GP70	NB_LED1_C	
PD1/GP71	NB_LED2_C	
PD2/GP72/BUSSIO	NB_LED3_C	
GP22/SCK	LOW_PWR_1	
VIDO5/GP27/SIN2	LOW_PWR_2	
PCIRST2#/GP11	-PFMRST1	
PCIRST1#/GP12	-PFMRST2	
3VSB5W#/GP40	CSI_F0	BSEL166_1
SUSCH#/GP53	CSI_F1	BSEL166_2
GP23/SI	BSEL166_3/CSISBSL	
VIDO0/GP20/CTS2#	CPUT_LED1_C	BSEL166_4
GP65/VDDA_EN/GB_01	MB_ID2	
PD6/GP76/BUSSO1	MB_ID3	
PD7/GP77/BUSSO2	MB_ID4	
AFD#/GP86/SMBC_R	3V PIN	FST_2X8
INIT#/GP85/SMBD_M	SEC_2x8	GTLREF_AD2
ACK#/GP83	DDR_LED1_C	
VIDO1/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/VIDT_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/CIRRX2/GP16	-THERM	
VIDO4/GP26/SOUT2	DDR18V_PH2_EN	
VIDO2/FAN_TAC5/GP24/DSR2#	DDR18V_LED	
VIDO6/GP17/RI2#	1_1V_PH_EN	
VIDO7/JP6/DTR2#	JP6	
PD5/GP75/BUSS00	SB_LED3_C	



PWM各相位的擺法如下：



BIOS超電壓對應表：

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