

**REV: 1.31**

**TITLE**

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08	DDR III CHANNEL B
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26	CPU_VTT_PWM_ISL6322G
27	VCORE_PWM_ISL6334CR

**TITLE**

[illegible]

GA-H55M-D2H      Version: 1.31

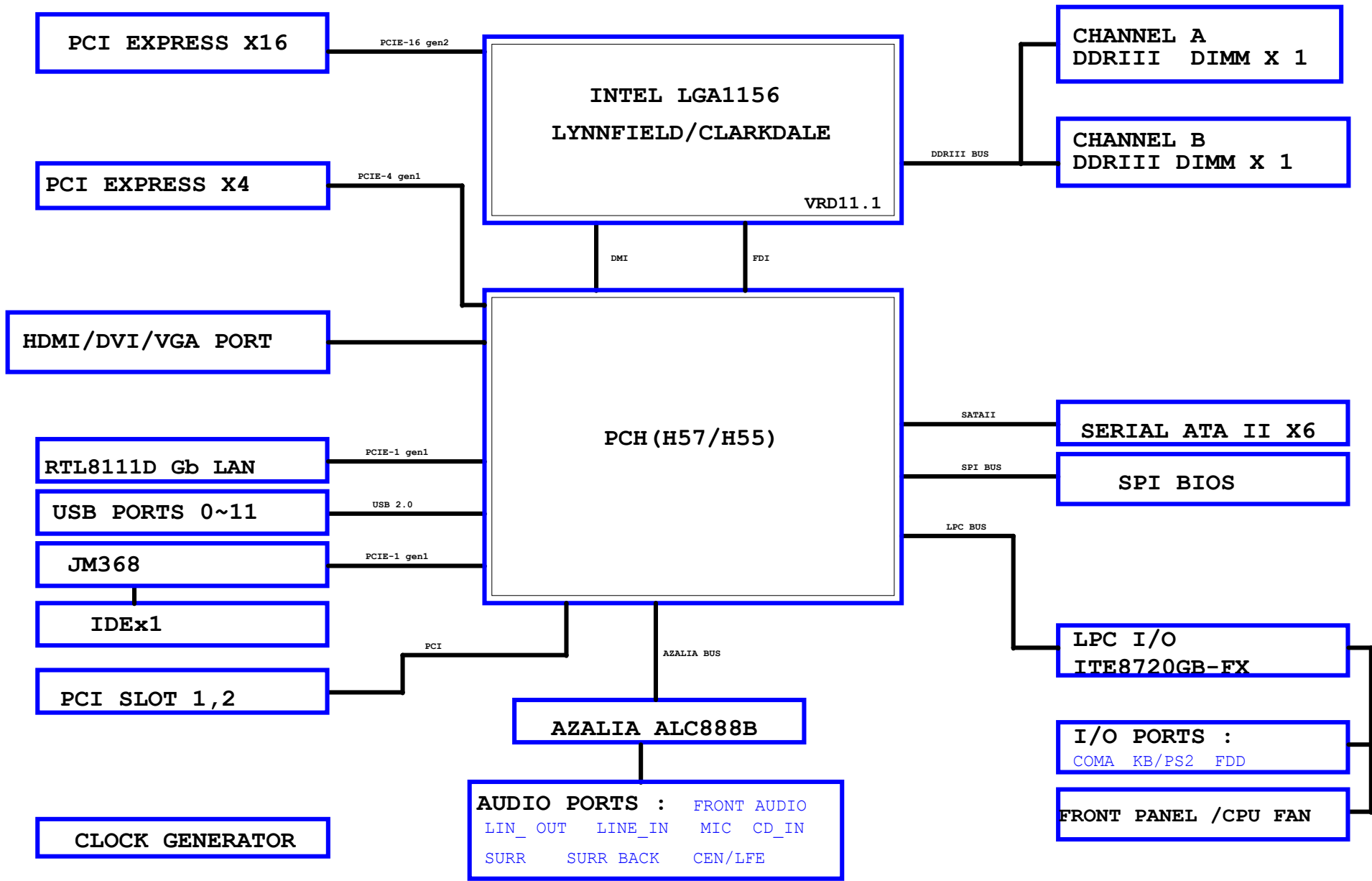
Circuit or PCB layout change  
for next version

## Component value change history

2010/04/29

[illegible][illegible]

BLOCK DIAGRAM





LGA1156A			
MAAA0	AW18	SA_MA[0]	AK3 DQSA0
MAAA1	AY15	SA_MA[1]	AK3 -DQSA0
MAAA2	AW15	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	AU11	SA_MA[11]	AK2 MDA7
MAAA12	AW11	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#	AN3 MDA8
[7] -SCASA	AU22	SA_CAS#	AN2 MDA9
[7] -SRASA	AT20	SA_RAS#	AR3 MDA10
[7] SBAA0	AV20	SA_BS[0]	AR2 MDA11
[7] SBAA1	AU19	SA_BS[1]	AM3 MDA12
[7] SBAA2	AU12	SA_BS[2]	AM2 MDA13
		SA_BS[3]	AP1 MDA14
		SA_BS[4]	AR4 MDA15
[7] -CSA0	AV21	SA_CS#	
[7] -CSA1	AW24	SA_CS#	AL4 DQSA2
	AW21	SA_CS#	AL3 -DQSA2
	AY23	SA_CS#	AL1 DMA2
[7] CKEA0	AU10	SA_CKE[0]	AT4 MDA16
[7] CKEA1	AW10	SA_CKE[1]	AU2 MDA17
	AV10	SA_CKE[2]	AW3 MDA18
	AY10	SA_CKE[3]	AW4 MDA19
		SA_CKE[4]	AT3 MDA20
MODT_A0	AV23	SA_ODT[0]	SA_ODT[0]
MODT_A1	AV24	SA_ODT[1]	SA_ODT[1]
	AW23	SA_ODT[2]	SA_ODT[2]
	AY24	SA_ODT[3]	SA_ODT[3]
[7] DCLKA0	AR22	SA_CK[0]	AY6 DQSA3
[7] -DCLKA0	AR21	SA_CK#	AW6 -DQSA3
[7] DCLKA1	AP18	SA_CK#	AW6 DMA3
[7] -DCLKA1	AN18	SA_CK[1]	
	AN21	SA_CK#	AW5 MDA24
	AP21	SA_CK#	AY5 MDA25
	AP19	SA_CK#	AU8 MDA26
	AN19	SA_CK#	AY8 MDA27
		SA_CK#	AU5 MDA28
		SA_CK#	AV6 MDA29
		SA_CK#	AV7 MDA30
		SA_CK#	AW7 MDA31
[7,8] -DDR3_RST	AV8	SM_DRAMRST#	
TP1	AK22	SA_CS#	AR28 DQSA4
TP1	AL23	SA_CS#	AT29 -DQSA4
TP1	AK23	SA_CS#	AN29 DMA4
		SA_CS#	AN27 MDA32
		SA_CS#	AT28 MDA33
		SA_CS#	AP28 MDA34
		SA_CS#	AP30 MDA35
		SA_CS#	AP27 MDA36
		SA_CS#	AR27 MDA37
		SA_CS#	AR29 MDA38
		SA_CS#	AN30 MDA39
		SA_CS#	AV32 DQSA5
		SA_CS#	AW32 -DQSA5
		SA_CS#	AW31 DMA5
		SA_CS#	AU30 MDA40
		SA_CS#	AU31 MDA41
		SA_CS#	AV33 MDA42
		SA_CS#	AU34 MDA43
		SA_CS#	AV30 MDA44
		SA_CS#	AW30 MDA45
		SA_CS#	AU33 MDA46
		SA_CS#	AW33 MDA47
		SA_CS#	AW36 DQSA6
		SA_CS#	AV35 -DQSA6
		SA_CS#	AU35 DMA6
		SA_CS#	AW35 MDA48
		SA_CS#	AY35 MDA49
		SA_CS#	AV37 MDA50
		SA_CS#	AU37 MDA51
		SA_CS#	AY34 MDA52
		SA_CS#	AW34 MDA53
		SA_CS#	AV36 MDA54
		SA_CS#	AW37 MDA55
		SA_CS#	AR30 DQSA7
		SA_CS#	AR38 -DQSA7
		SA_CS#	AT38 DMA7
		SA_CS#	AT39 MDA56
		SA_CS#	AT40 MDA57
		SA_CS#	AN38 MDA58
		SA_CS#	AN39 MDA59
		SA_CS#	AU38 MDA60
		SA_CS#	AP39 MDA61
		SA_CS#	AP40 MDA62
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DDR\_A

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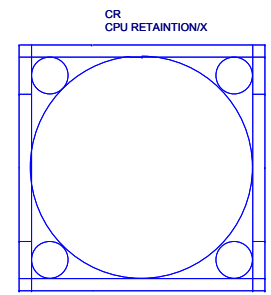
LGA1156(10SC1-F01156-04R)

LGA1156B			
MAAB0	AU20	SB_MA[0]	AF4 DQSB0
MAAB1	AU18	SB_MA[1]	AE5 -DQSB0
MAAB2	AV18	SB_MA[2]	AE4 DMB0
MAAB3	AU17	SB_MA[3]	
MAAB4	AY18	SB_MA[4]	AD7 MDB0
MAAB5	AV17	SB_MA[5]	AD6 MDB1
MAAB6	AW17	SB_MA[6]	AH8 MDB2
MAAB7	AU16	SB_MA[7]	AJ8 MDB3
MAAB8	AT17	SB_MA[8]	AC7 MDB4
MAAB9	AY16	SB_MA[9]	AC6 MDB5
MAAB10	AY25	SB_MA[10]	AF5 MDB6
MAAB11	AW16	SB_MA[11]	AE6 MDB7
MAAB12	AW15	SB_MA[12]	AH6 DQSB1
MAAB13	AW18	SB_MA[13]	AJ5 -DQSB1
MAAB14	AY12	SB_MA[14]	AH4 DMB1
MAAB15	AV11	SB_MA[15]	
[8] -SWEB	AW26	SB_WE#	AG5 MDB8
[8] -SCASB	AW27	SB_CAS#	AH7 MDB9
[8] -SRASB	AW26	SB_RAS#	AK6 MDB10
[8] SBAB0	AW25	SB_BS[0]	AL4 MDB11
[8] SBAB1	AW25	SB_BS[1]	AC6 MDB12
[8] SBAB2	AV12	SB_BS[2]	AC4 MDB13
		SB_BS[3]	AJ7 MDB14
		SB_BS[4]	AK7 MDB15
[8] -CSB0	AY27	SB_CS#	
[8] -CSB1	AW28	SB_CS#	AN6 DQSB2
	AW28	SB_CS#	AM6 -DQSB2
	AW29	SB_CS#	AM7 DMB2
[8] CKEB0	AW8	SB_CKE[0]	AL6 MDB16
[8] CKEB1	AW9	SB_CKE[1]	AN6 MDB17
	AW9	SB_CKE[2]	AP6 MDB18
	AW9	SB_CKE[3]	AR5 MDB19
MODT_B0	AU27	SB_ODT[0]	AL5 MDB20
MODT_B1	AU29	SB_ODT[1]	AM4 MDB21
	AV27	SB_ODT[2]	AN7 MDB22
	AV28	SB_ODT[3]	AP5 MDB23
	AV28	SB_ODT[4]	
[8] DCLKB0	AR17	SB_CK[0]	AR8 DQSB3
[8] -DCLKB0	AR16	SB_CK#	AP8 -DQSB3
[8] DCLKB1	AT15	SB_CK#	AT7 DMB3
[8] -DCLKB1	AR15	SB_CK[1]	
	AN17	SB_CK#	AT6 MDB24
	AN16	SB_CK#	AR7 MDB25
	AR19	SB_CK#	AP9 MDB26
	AR19	SB_CK#	AM8 MDB27
	AR19	SB_CK#	AN8 MDB28
	AR19	SB_CK#	AR6 MDB29
	AR19	SB_CK#	AL8 MDB30
	AR19	SB_CK#	AT9 MDB31
TP12	AM23	SB_CS#	AT25 DQSB4
TP13	AM24	SB_CS#	AR24 -DQSB4
TP15	AL24	SB_CS#	AN24 DMB4
TP17	AK24	SB_CS#	
		SB_CS#	AN23 MDB32
		SB_CS#	AP23 MDB33
		SB_CS#	AR25 MDB34
		SB_CS#	AR26 MDB35
		SB_CS#	AT23 MDB36
		SB_CS#	AP22 MDB37
		SB_CS#	AP25 MDB38
		SB_CS#	AT26 MDB39
		SB_CS#	AP32 DQSB5
		SB_CS#	AR32 -DQSB5
		SB_CS#	AN32 DMB5
		SB_CS#	AT32 MDB40
		SB_CS#	AP31 MDB41
		SB_CS#	AR33 MDB42
		SB_CS#	AM32 MDB43
		SB_CS#	AT31 MDB44
		SB_CS#	AR31 MDB45
		SB_CS#	AR34 MDB46
		SB_CS#	AT33 MDB47
		SB_CS#	AR36 DQSB6
		SB_CS#	AR37 -DQSB6
		SB_CS#	AM33 DMB6
		SB_CS#	AR35 MDB48
		SB_CS#	AT36 MDB49
		SB_CS#	AP36 MDB50
		SB_CS#	AP36 MDB51
		SB_CS#	AP34 MDB52
		SB_CS#	AT35 MDB53
		SB_CS#	AN34 MDB54
		SB_CS#	AP37 MDB55
		SB_CS#	AL37 DQSB7
		SB_CS#	AM36 -DQSB7
		SB_CS#	AK35 DMB7
		SB_CS#	AL35 MDB56
		SB_CS#	AM35 MDB57
		SB_CS#	AJ36 MDB58
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		SB_CS#	AM34 MDB61
		SB_CS#	AJ35 MDB62
		SB_CS#	AL36 MDB63

DDR\_B

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LGA1156(10SC1-F01156-04R)



Need check the new CPU ME

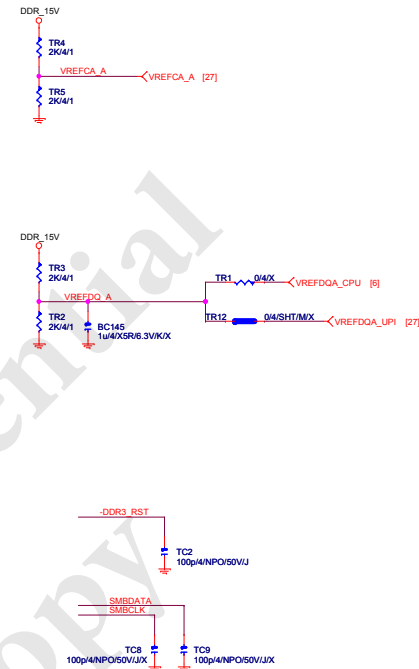
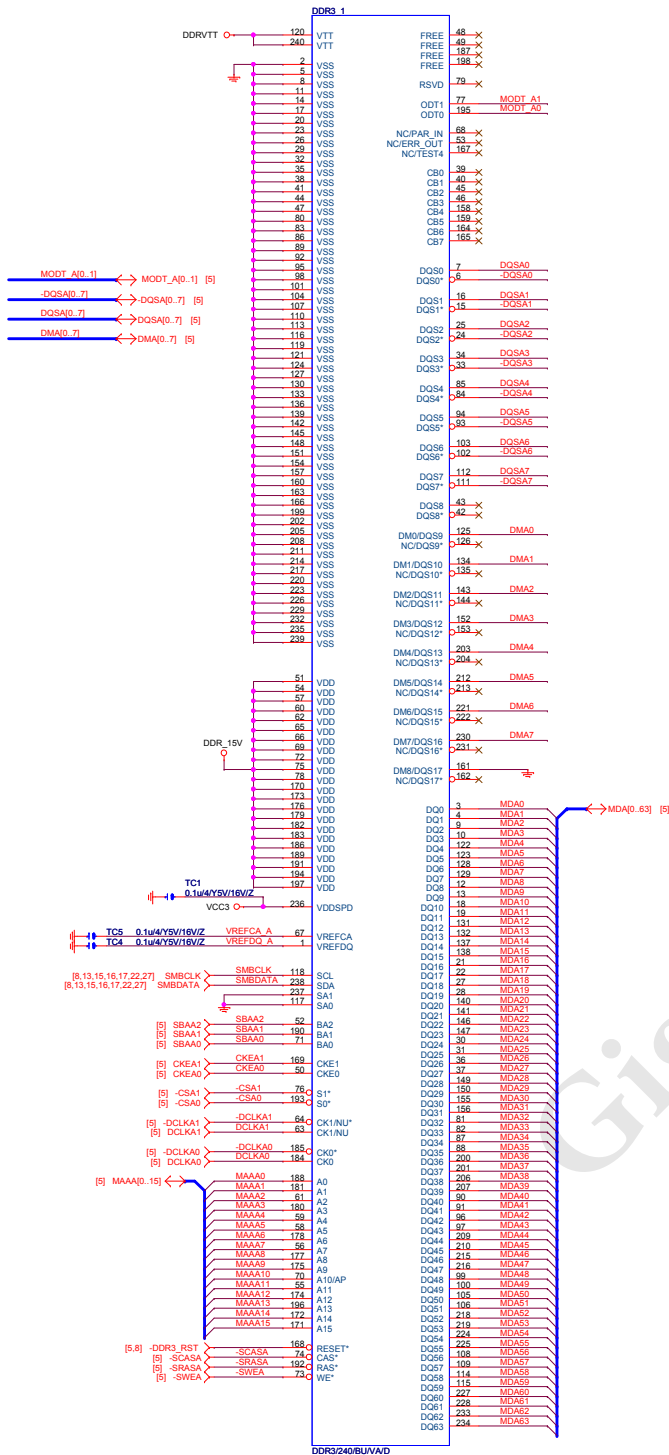
LGA1156\_P



PLATE+HLM(12KRC-0F0001-04R)

Gigabyte Technology			
Title			
CPU LGA1156-B			
Size			
Custom			
Document Number			
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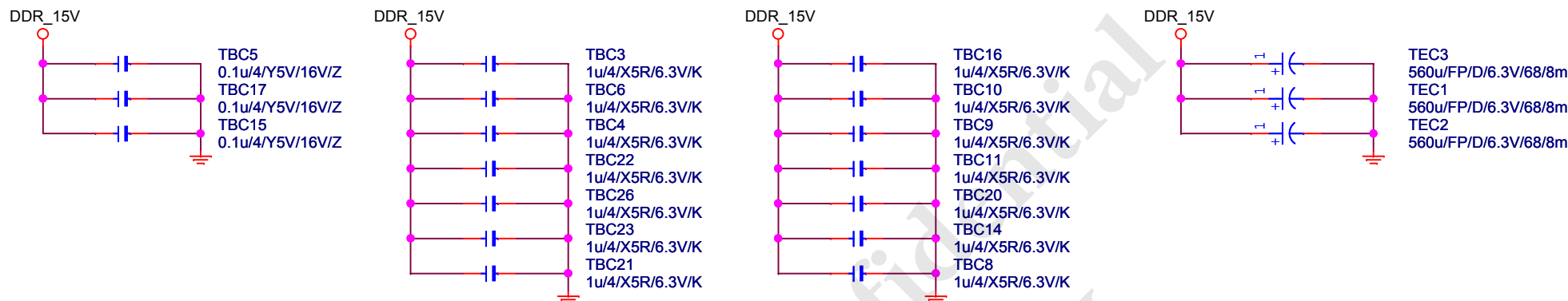




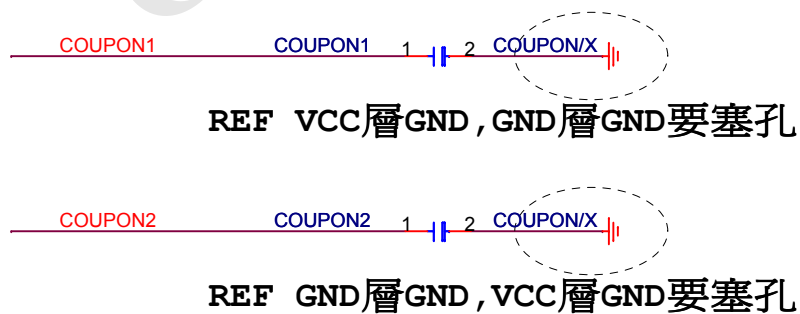
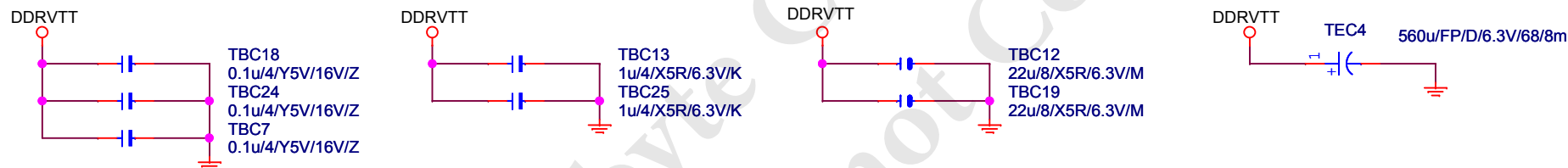


# DDR TERMINATION CHANNEL A/B

## DDR15V Decouple



## DDRVTT Decouple

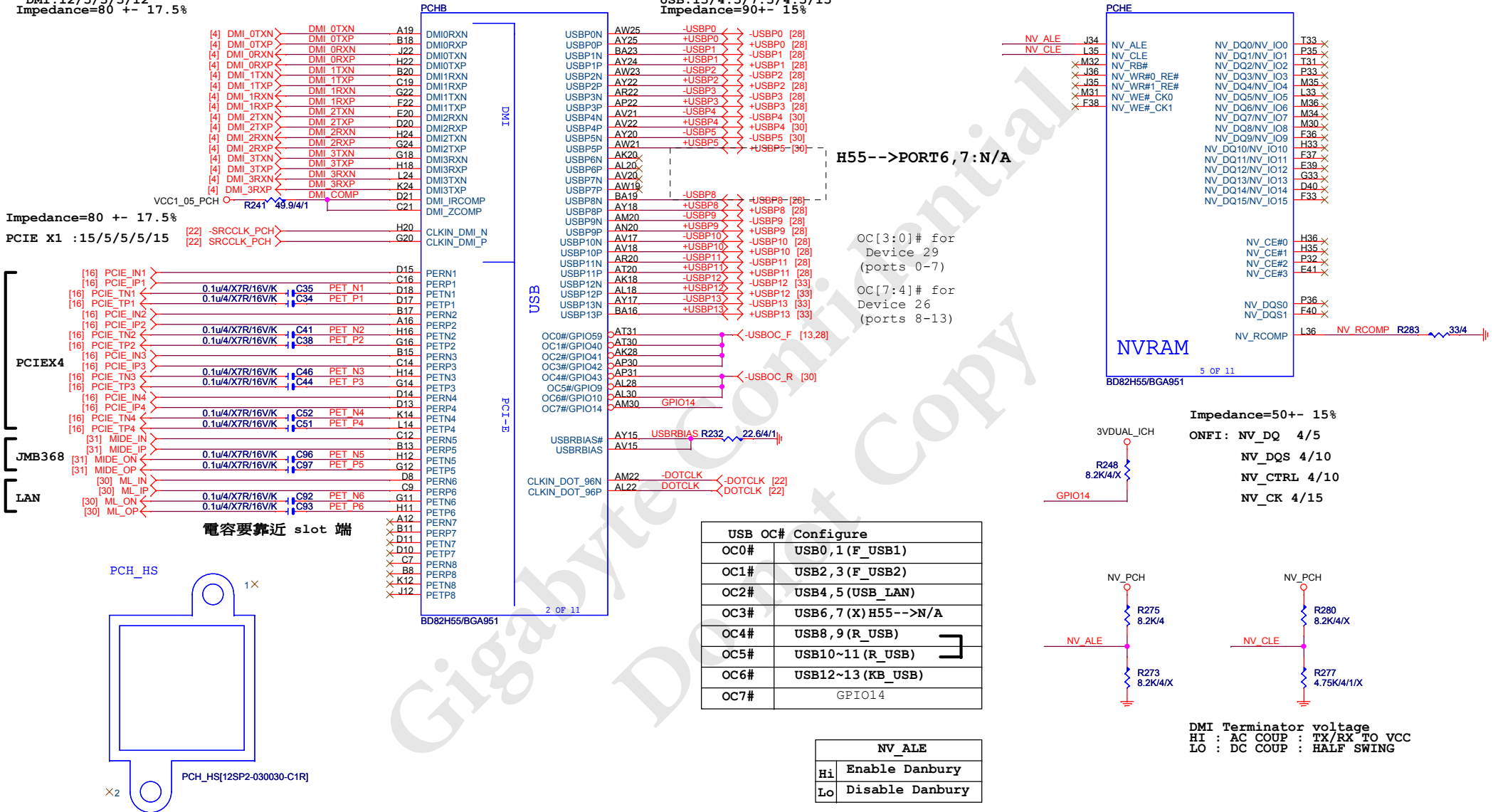


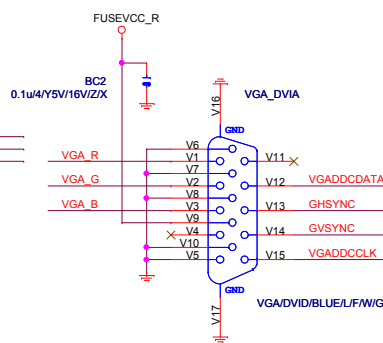
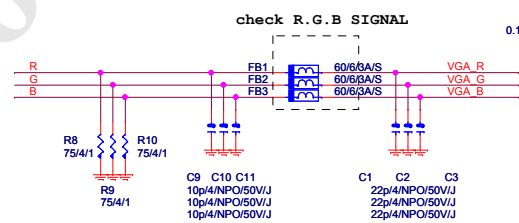
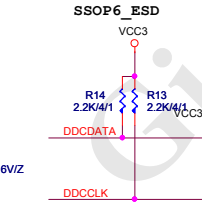
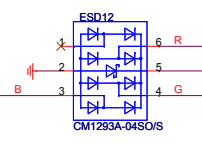
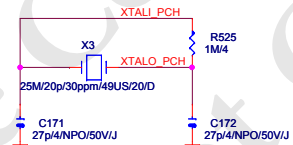
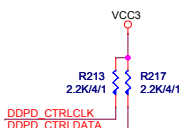
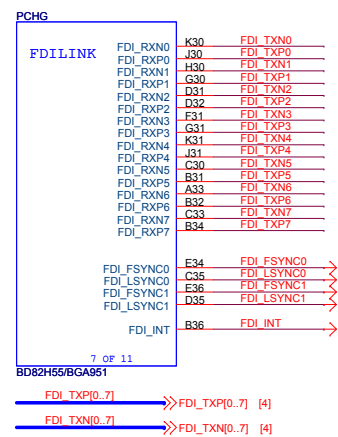
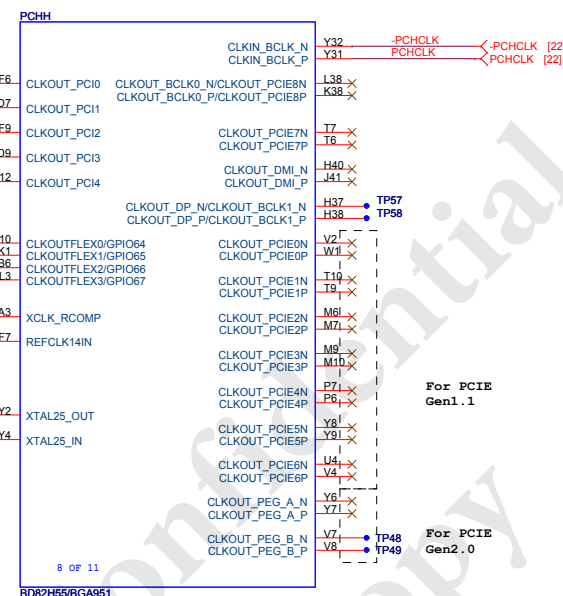
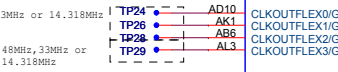
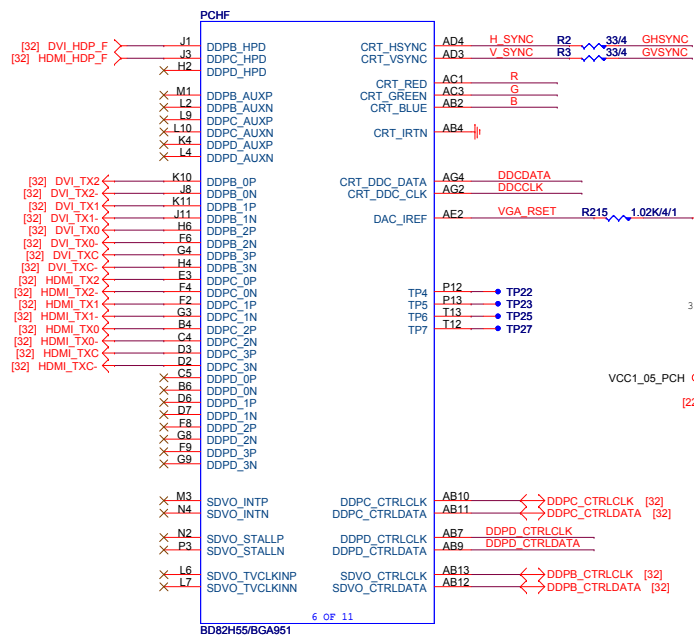
**Gigabyte Technology**

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Size A	Document Number	GA-H55M-S2H	
		Rev	1.31
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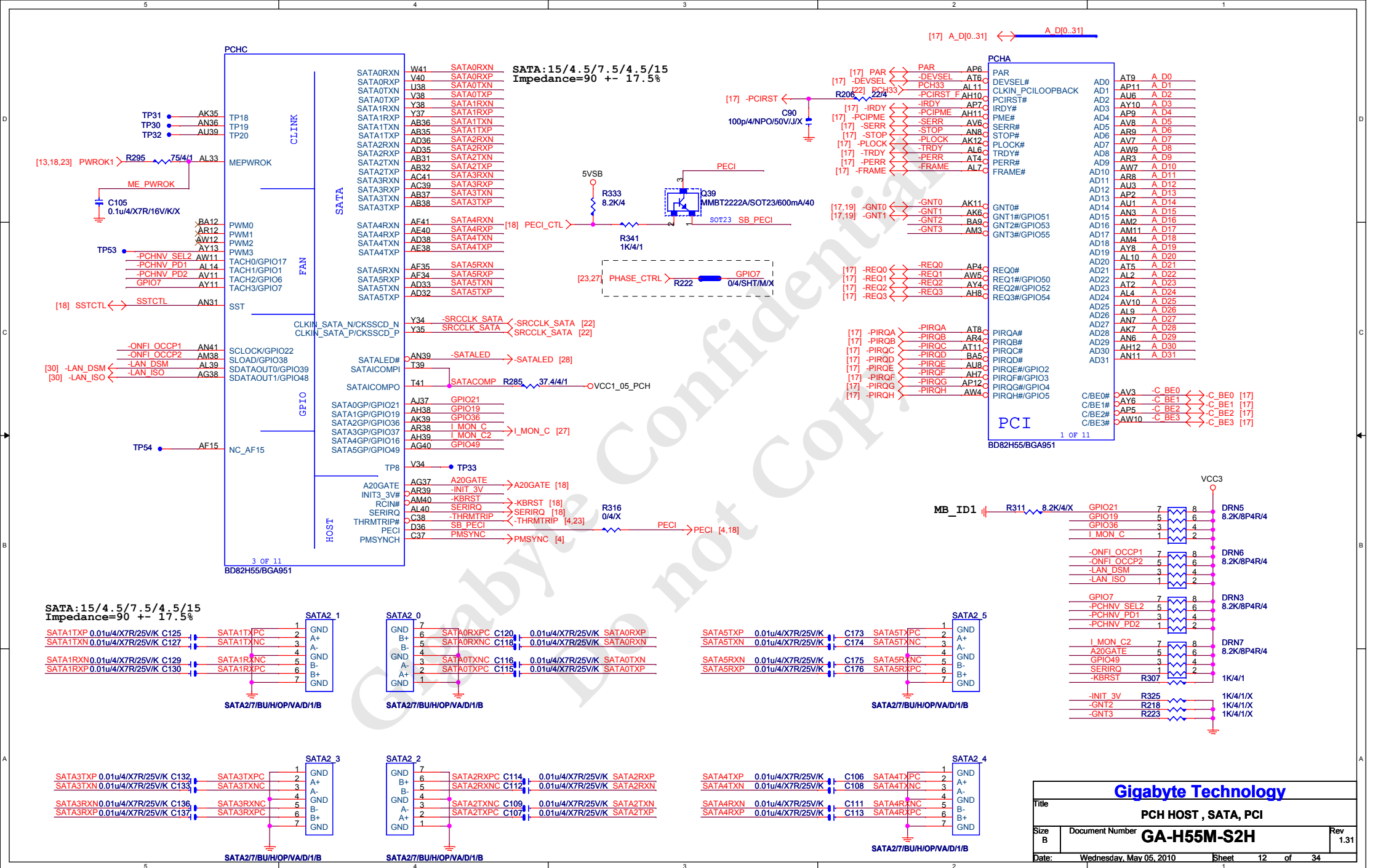
DMI:12/5/5/5/12  
Impedance=80 +- 17.5%

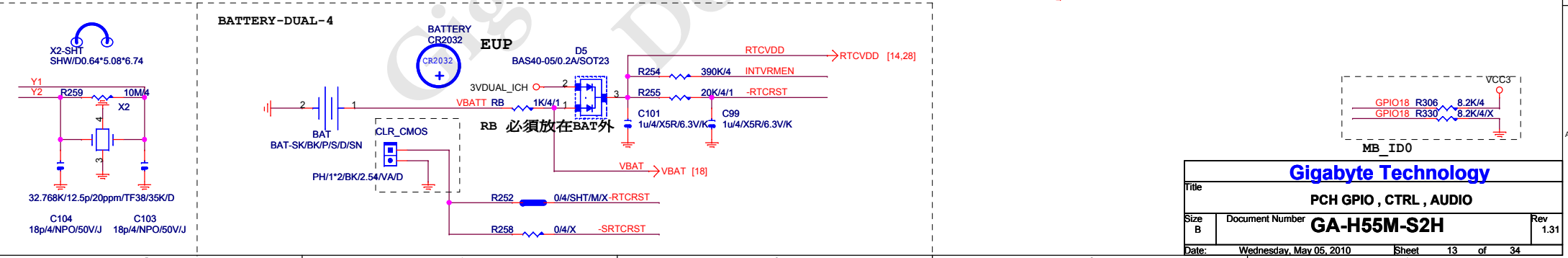
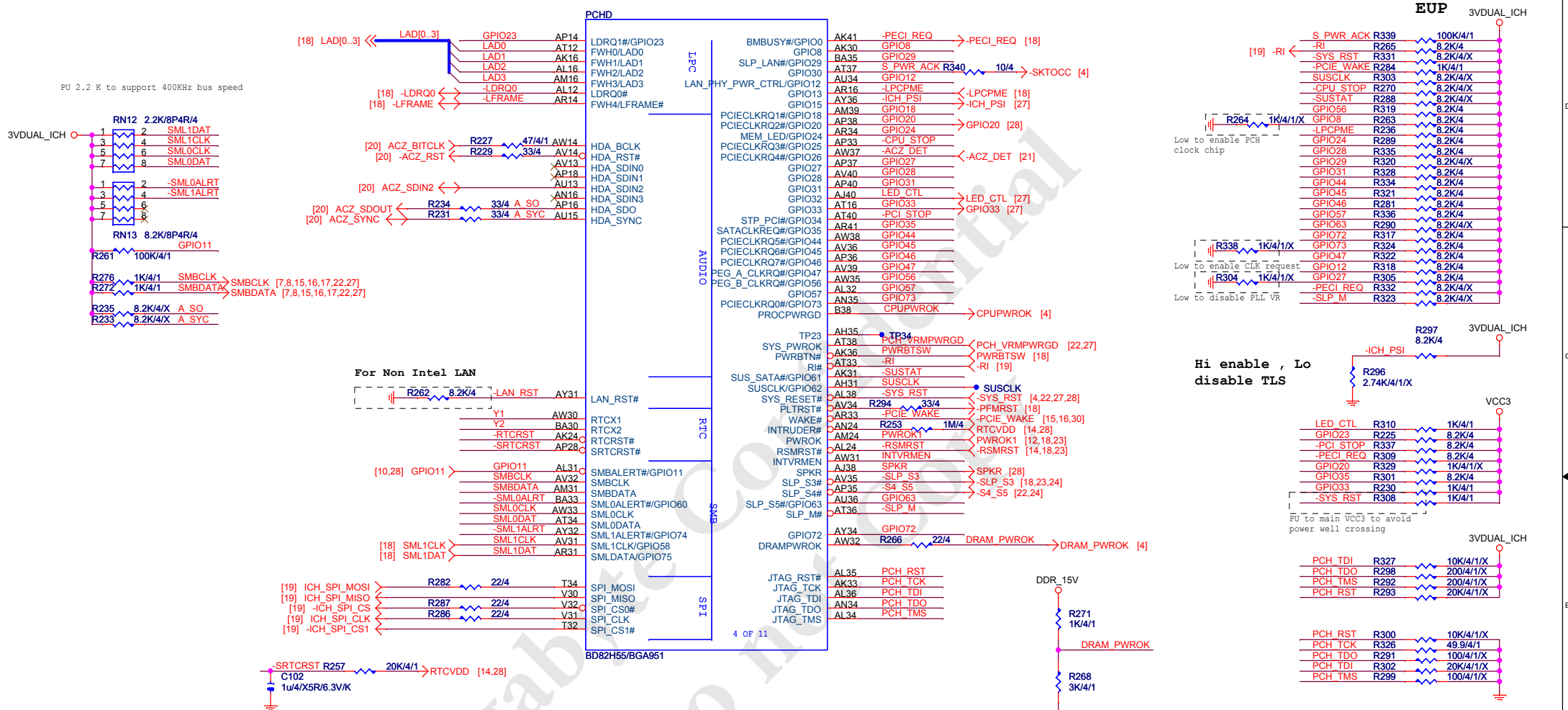
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Impedance=90+- 15%

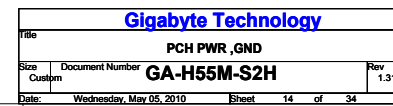




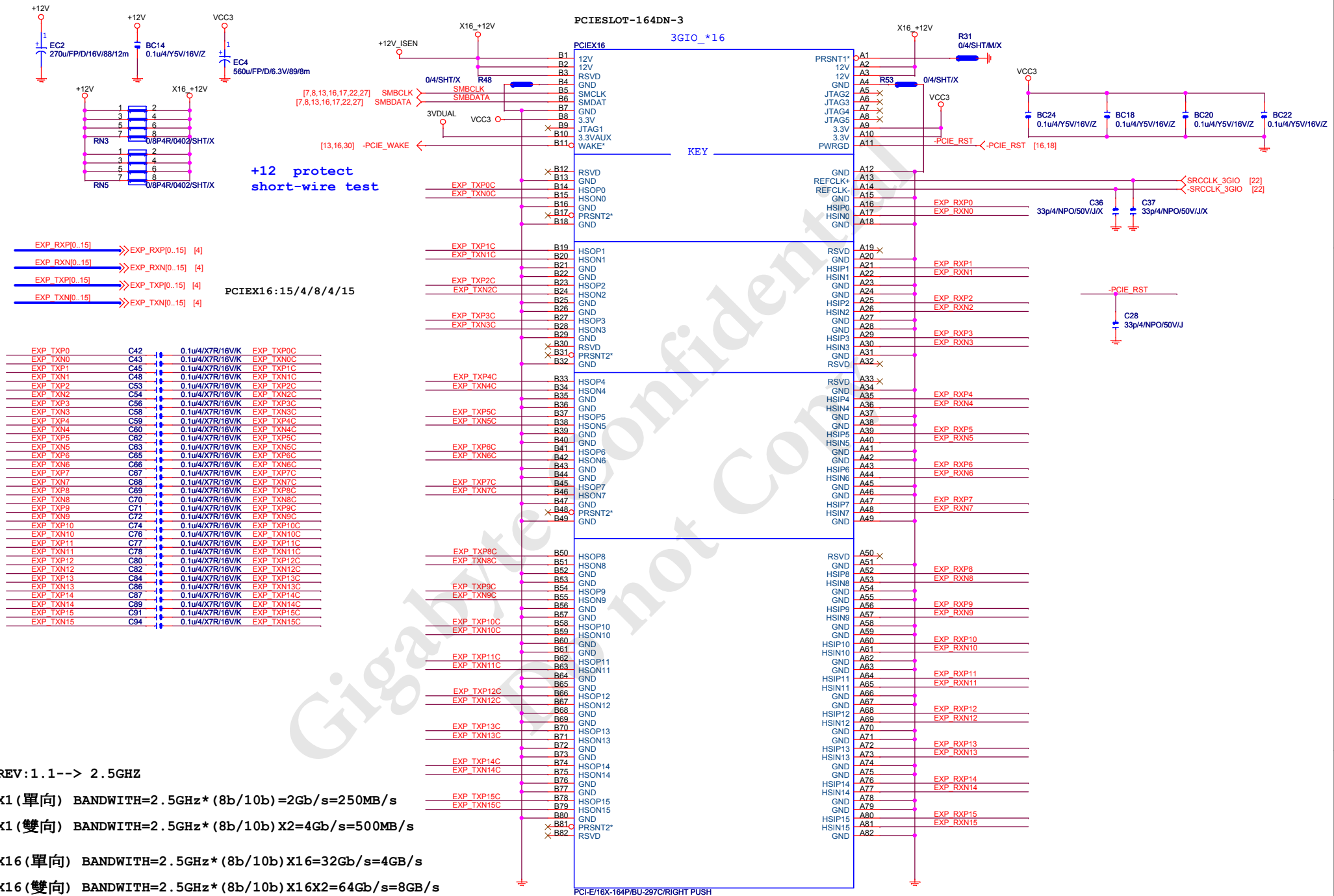
Gigabyte Technology			
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PCH DISPLAY_CLK BUFFER			
Size	Document Number	Rev	
Custom	GA-H55M-S2H	1.31	
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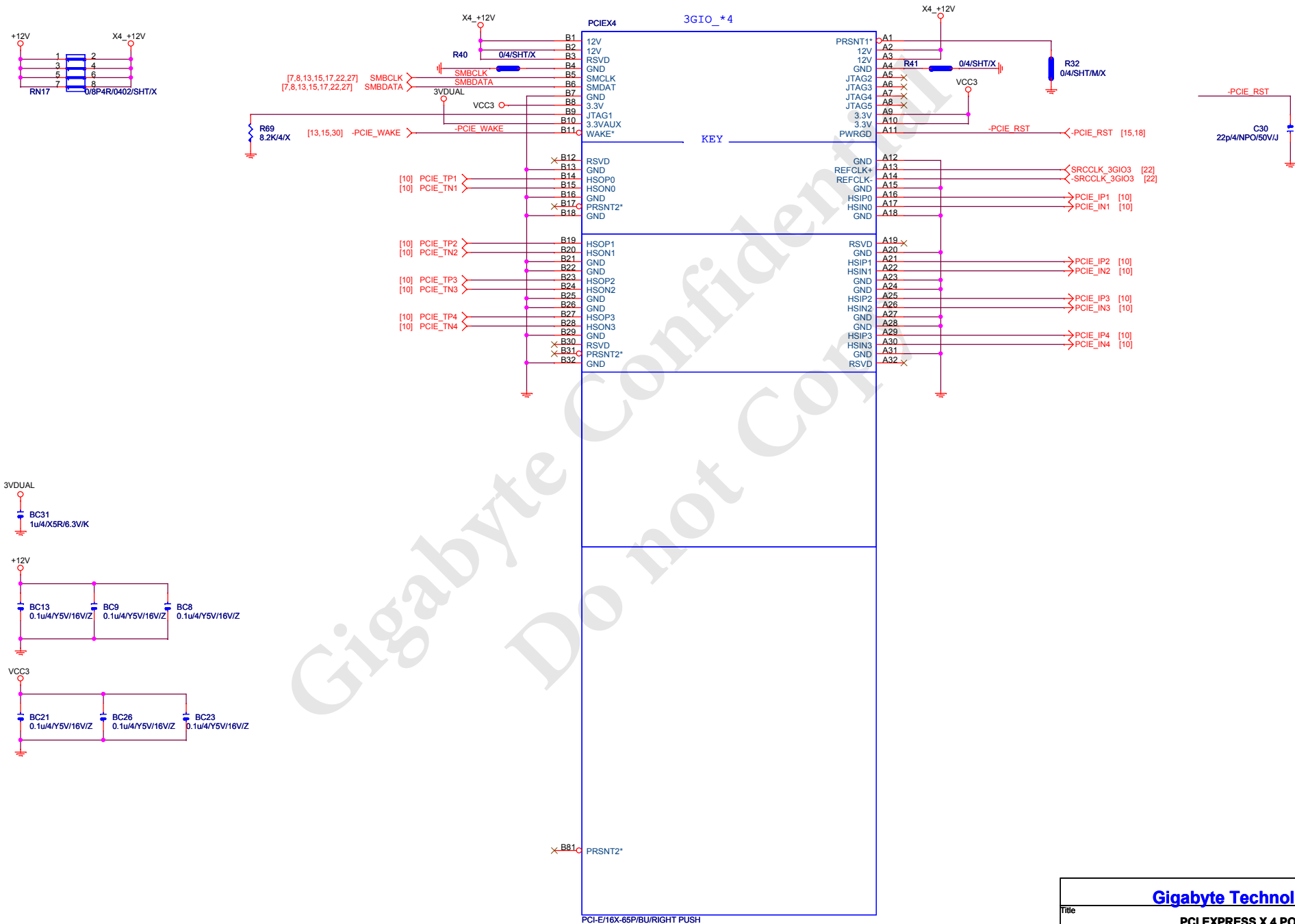




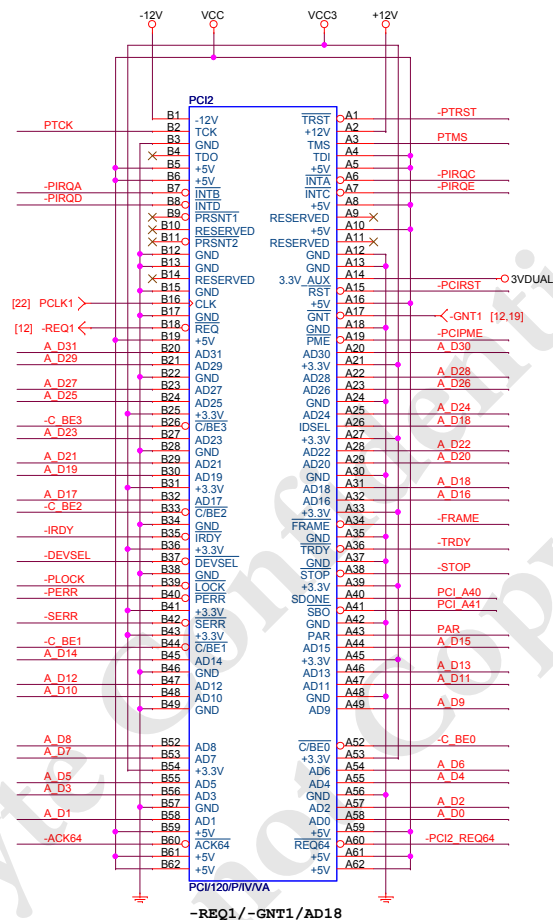
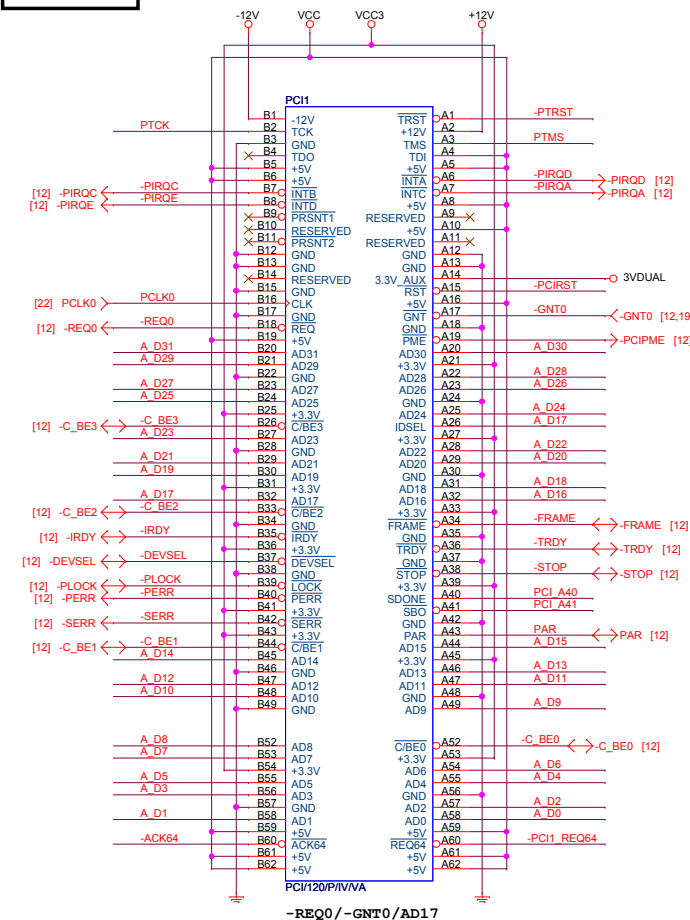




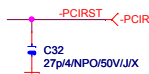
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# PCI1, 2 SLOT



[12] A\_D0..31



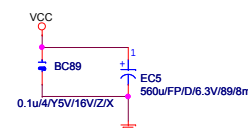
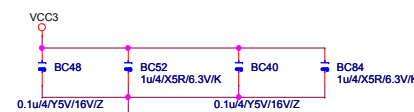
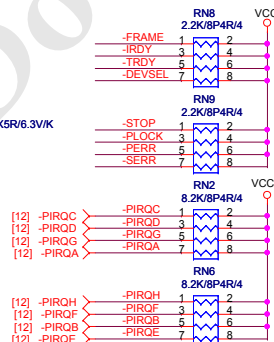
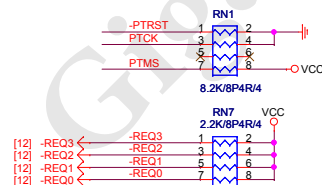
Place close to PCI1

[7,8,13,15,16,22,27] SMBCLK

[7,8,13,15,16,22,27] SMBDATA

PCI A40

PCI A41



Gigabyte Technology

PCI SLOT 1, 2

GA-H55M-S2H

Title		
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# IT8720F ( GB )

IT8720F-S-JX(GBYS)

For IT8721 to control PCH PECI

For IT8720 Power

For IT8721 Power

internal power pin for IT8721

Must pop in IT8721

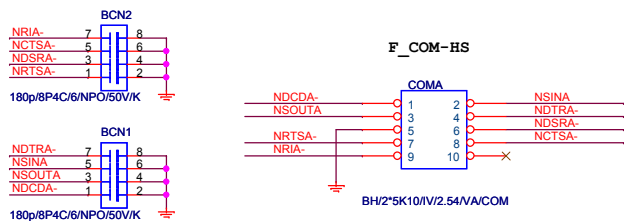
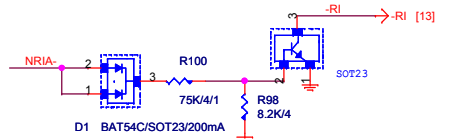
ITE8720 Power on Strapping

JP2	1	Disable VID/SVID output pins
	0	Enable VID00-7 output pins
JP3	1	SPI-Flash Disable
	0	SPI-Flash Enable
JP4	1	k8 power sequency function is Disable
	0	k8 power sequency function is Enable
JP5	1	Disable WDT reset PWROK
	0	Enable WDT reset PWROK
JP6	1	Parallel VID output
	0	Serial VID output
JP7	1	Enable Dual BIOS Function
	0	Disable Dual BIOS Function

Gigabyte Technology

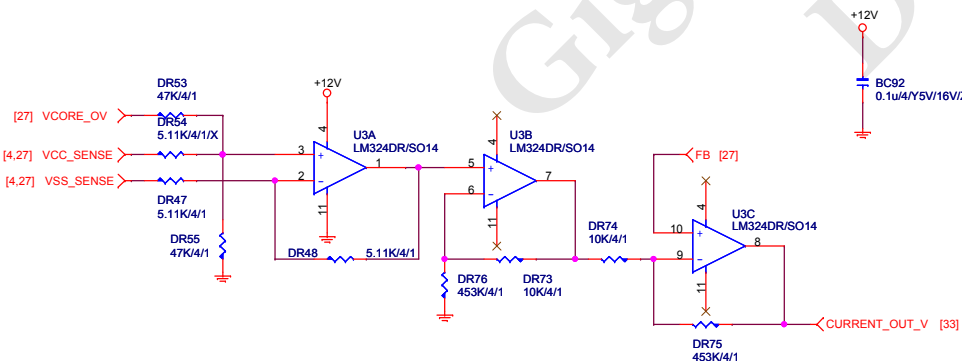
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Size B	Document Number	GA-H55M-S2H	Rev 1.31
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**RING IN**

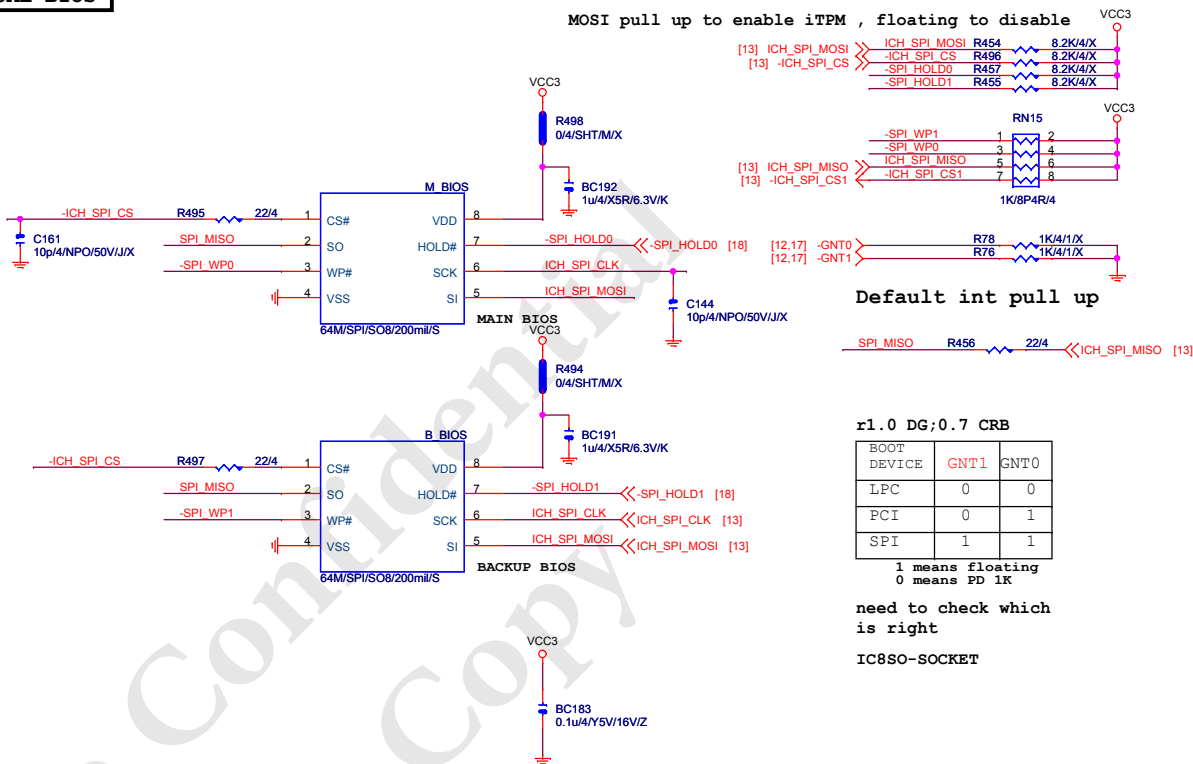


PLACE NEAR COM CONNECTOR

## DYNAMIC CURRENT OC



-PROHOT



Default int pull up

r1.0 DG;0.7 CRB

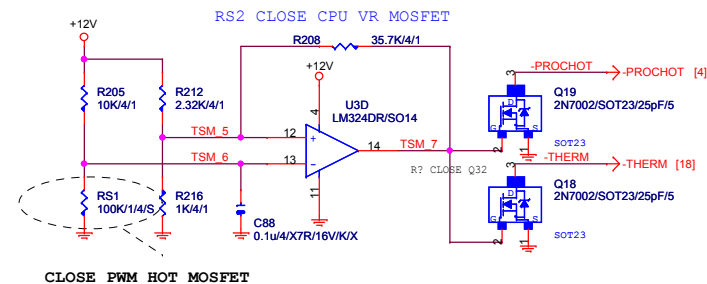
BOOT DEVICE	GNT1	GNT0
LPC	0	0
PCI	0	1
SPI	1	1

1	means floating
0	means PD 1K

need to check which  
is right

IC8SO-SOCKET

deasserted at 116 degree



CLOSE PWM HOT MOSFET

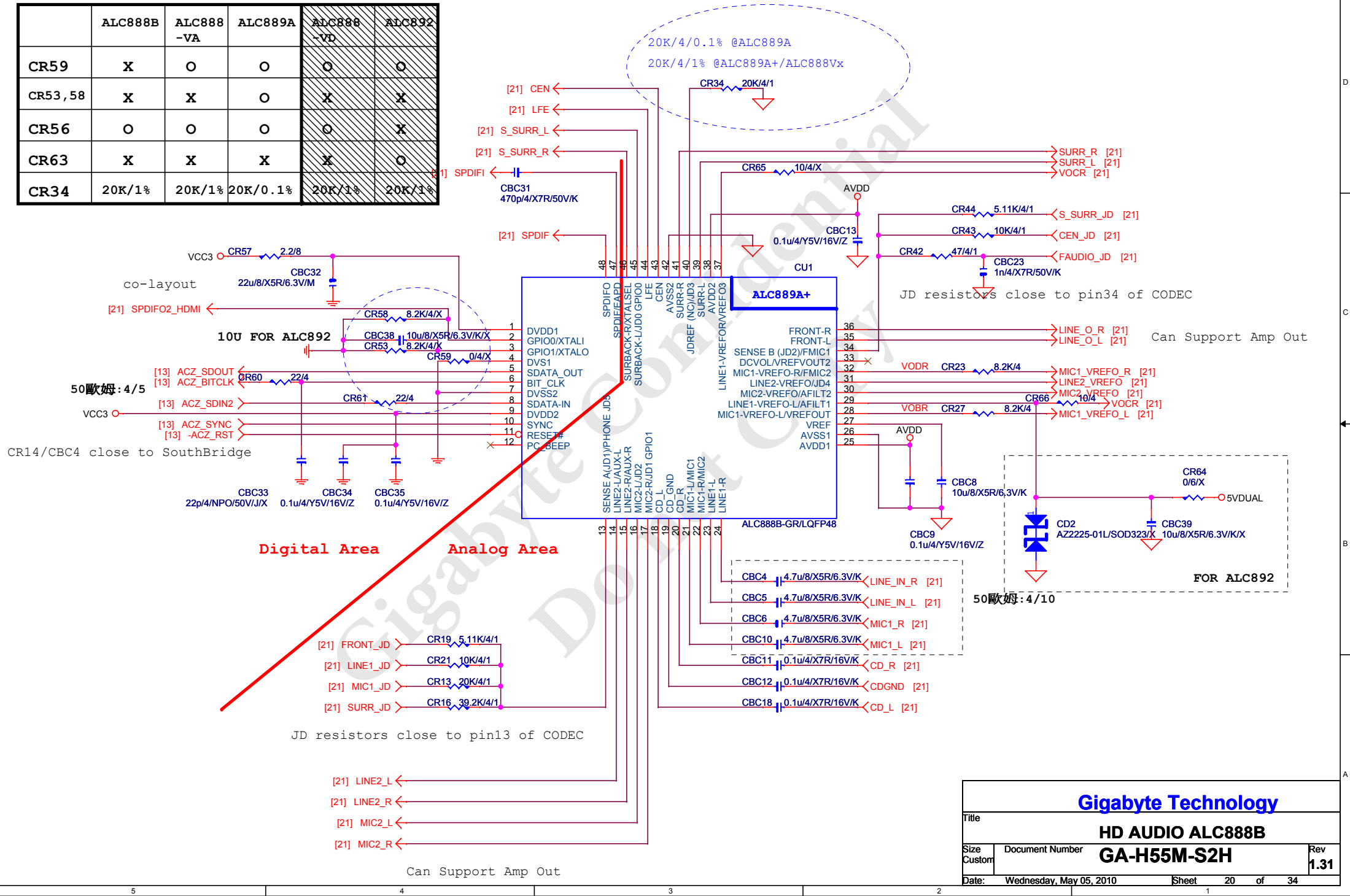
## Gigabyte Technology

Title	COM & PROHOT/Dynamic O.C.
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Size	Document Number	Rev
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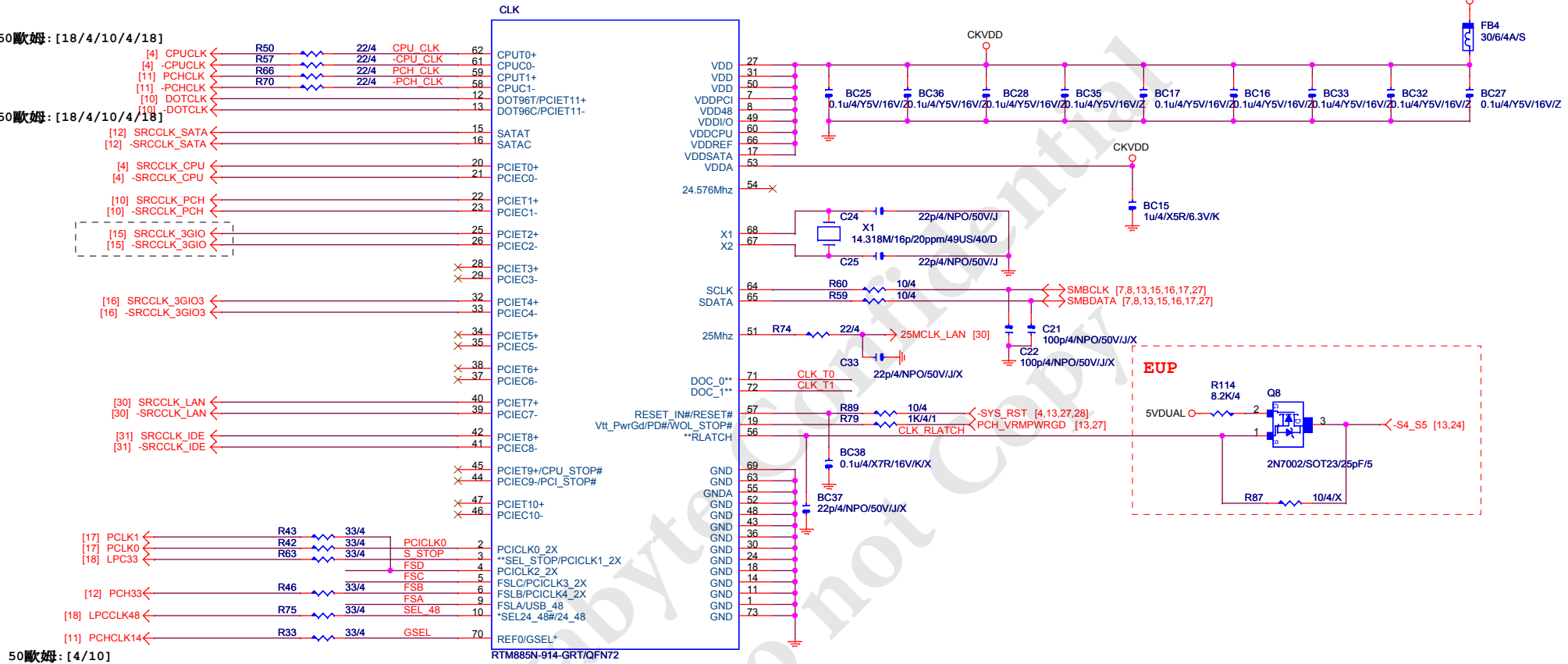
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CR59	X	O	O	O	O
CR53,58	X	X	O	X	X
CR56	O	O	O	O	X
CR63	X	X	X	X	O
CR34	20K/1%	20K/1%	20K/0.1%	20K/1%	20K/1%





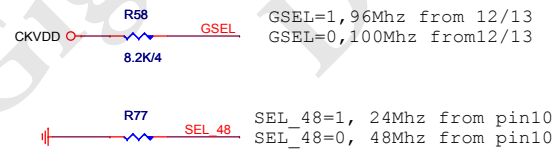
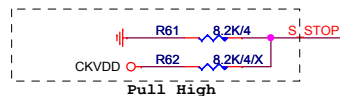
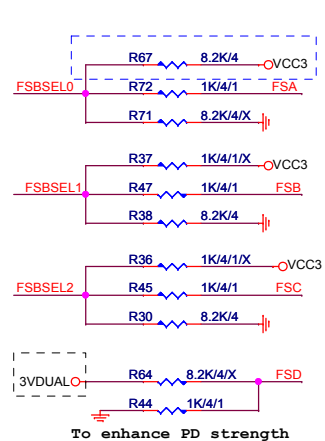
50歐姆:[18/4/10/4/18]

50歐姆:[18/4/10/4/18]



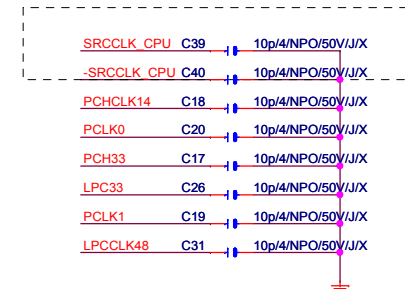
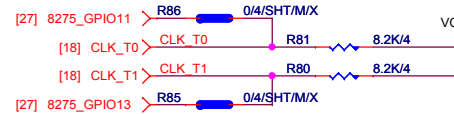
50歐姆:[4/10]

RTM885N-914-GRT/QFN72



GSEL=1, 96Mhz from 12/13  
 GSEL=0, 100Mhz from 12/13

FSC	FSB	FSA	CPU
0	0	0	266MHz
0	0	1	133MHz
0	1	0	200MHz
0	1	1	166MHz
1	0	0	333MHz
1	1	0	400MHz

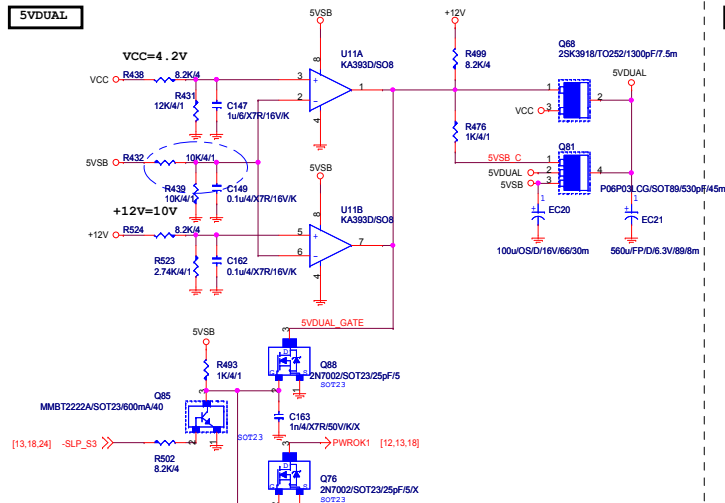


**SEL\_STOP: latched input to select pin functionality**  
 1 = Selects pin 44/45 to be PCI\_STOP#/CPU\_STOP#  
 0 = Selects pin 44/45 to be PCIE outputs ;  
 3.3V PCICLK output

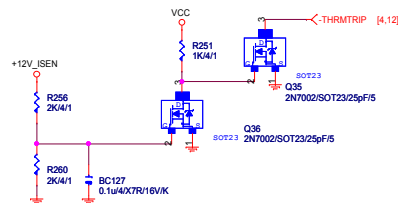
Gigabyte Technology



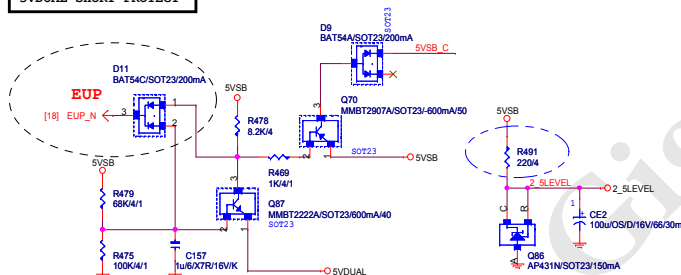
## 5VDUAL



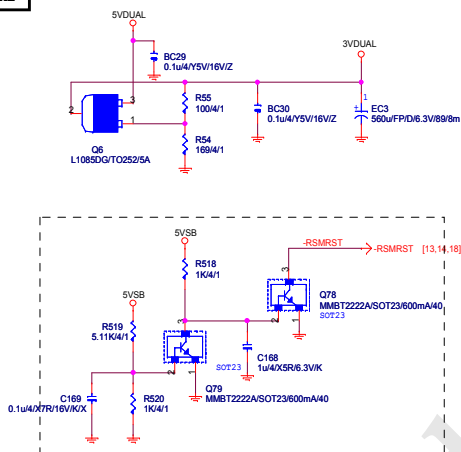
## +12V SHORT PROTECT



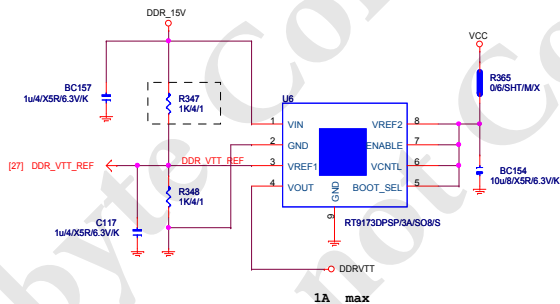
## 5VDUAL SHORT PROTECT



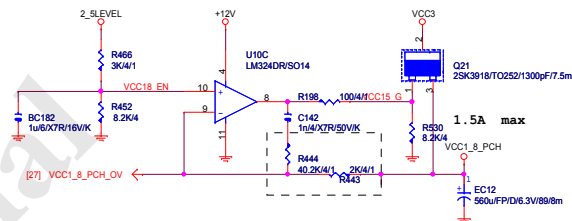
## 3VDUAL



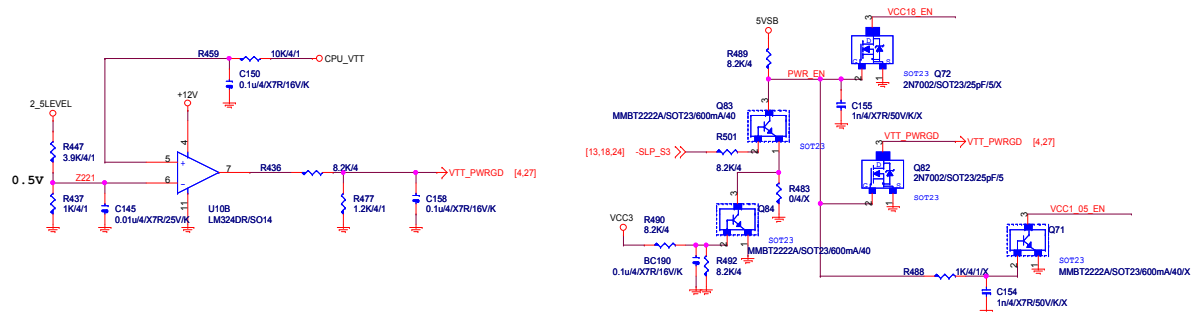
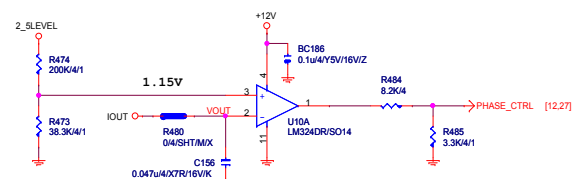
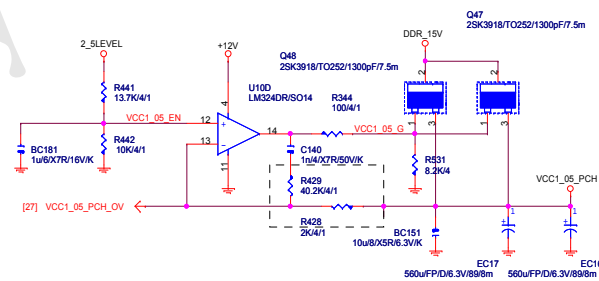
## DDRVTT



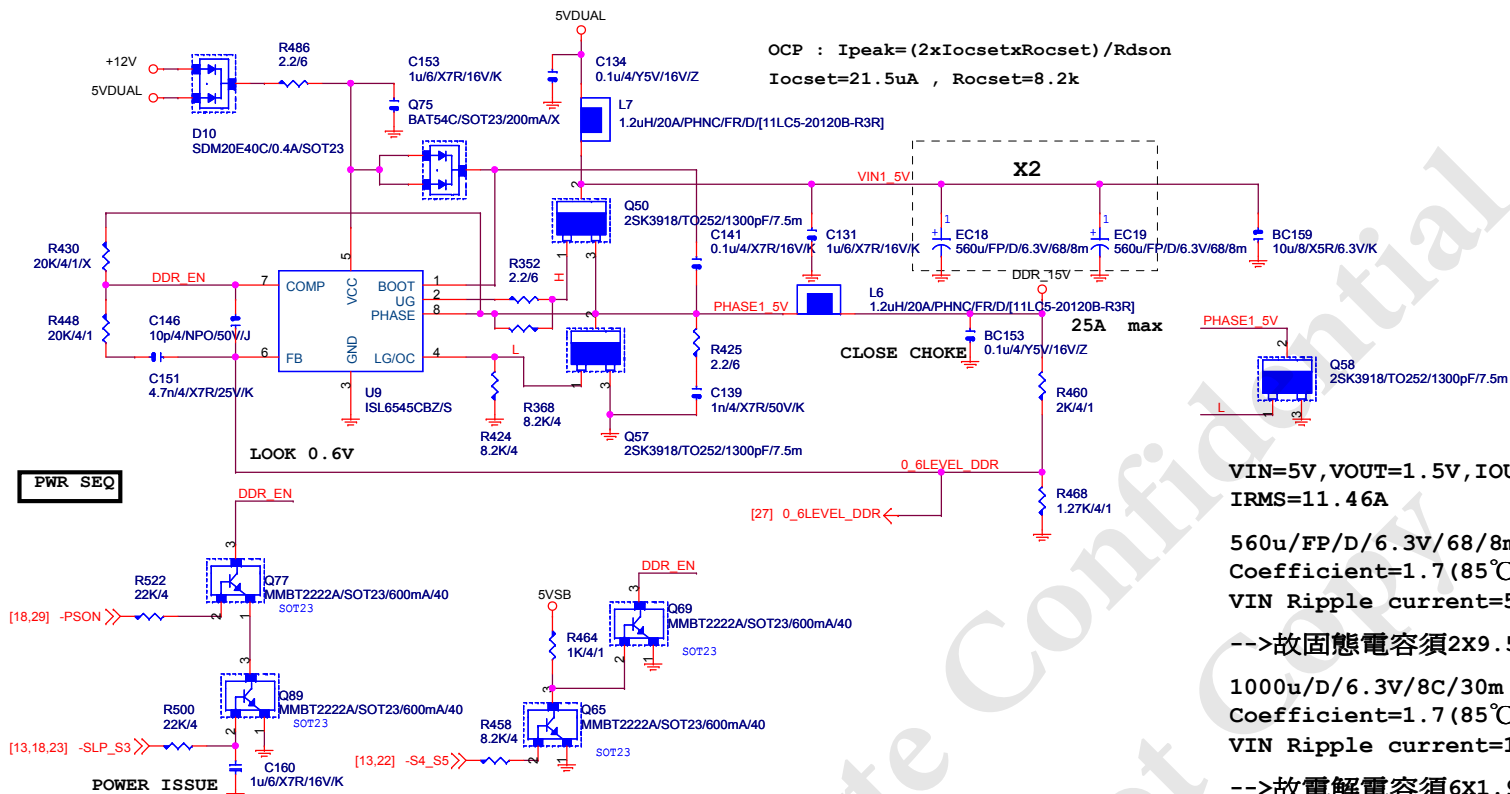
## VCC1\_8\_PCH



## VCC1\_05\_PCH



DDR1\_5V



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

VIN=5V, VOUT=1.5V, IOUT=25A, PHASE=1  
IRMS=11.46A

560u/FP/D/6.3V/68/8m RIPPLE CURRENT=5.6A  
Coefficient=1.7(85°C), 1(105°C)  
VIN Ripple current=5.6X1.7=9.52A(85°C)

-->故固態電容須 $2 \times 9.52 = 19.04 > 11.46 \text{A}$

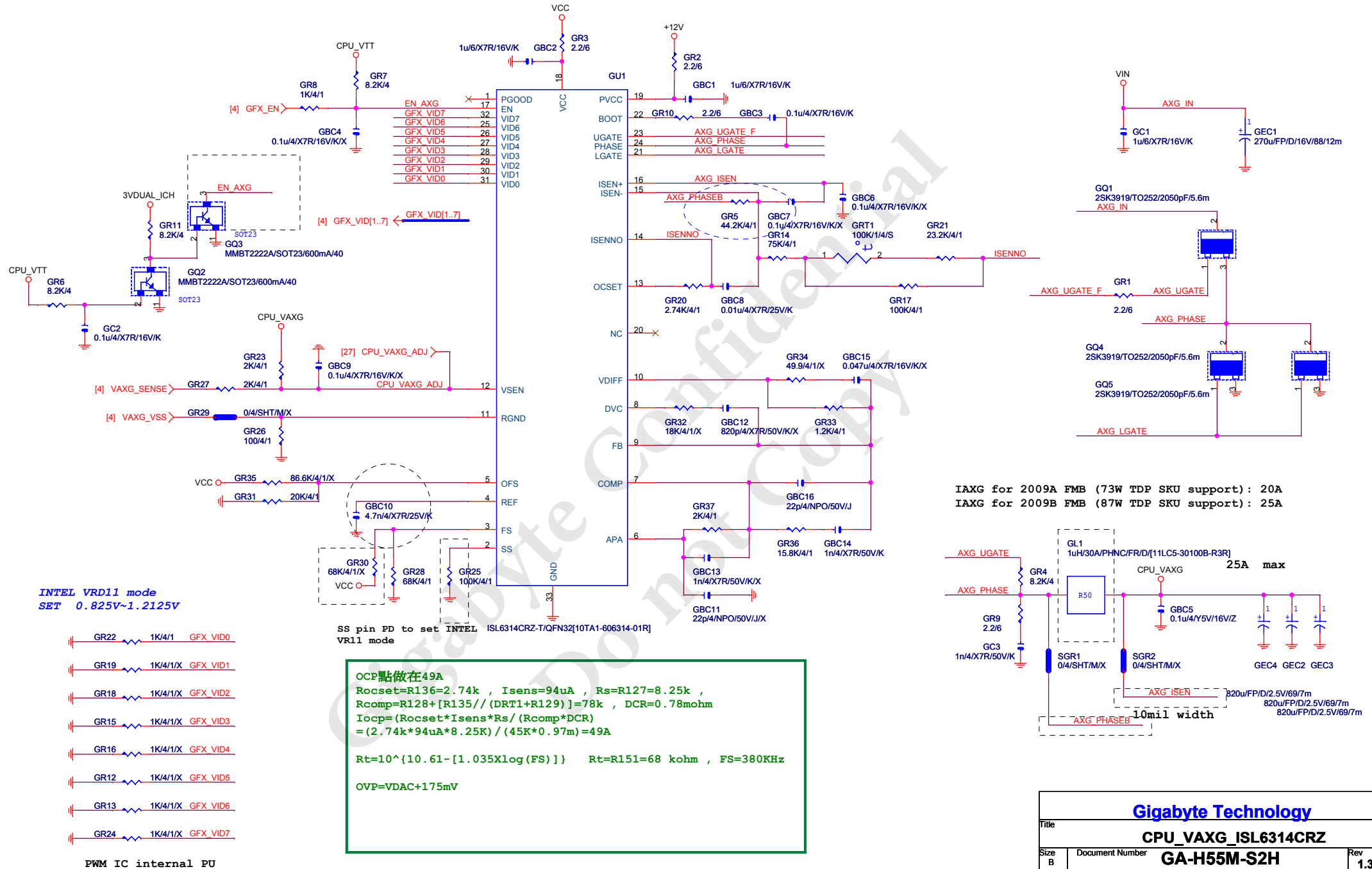
1000u/D/6.3V/8C/30m RIPPLE CURRENT=1.14A  
Coefficient=1.7(85°C), 1(105°C)  
VIN Ripple current=1.14X1.7=1.938A(85°C)

-->故電解電容須 $6 \times 1.938 = 11.628 > 11.46A$

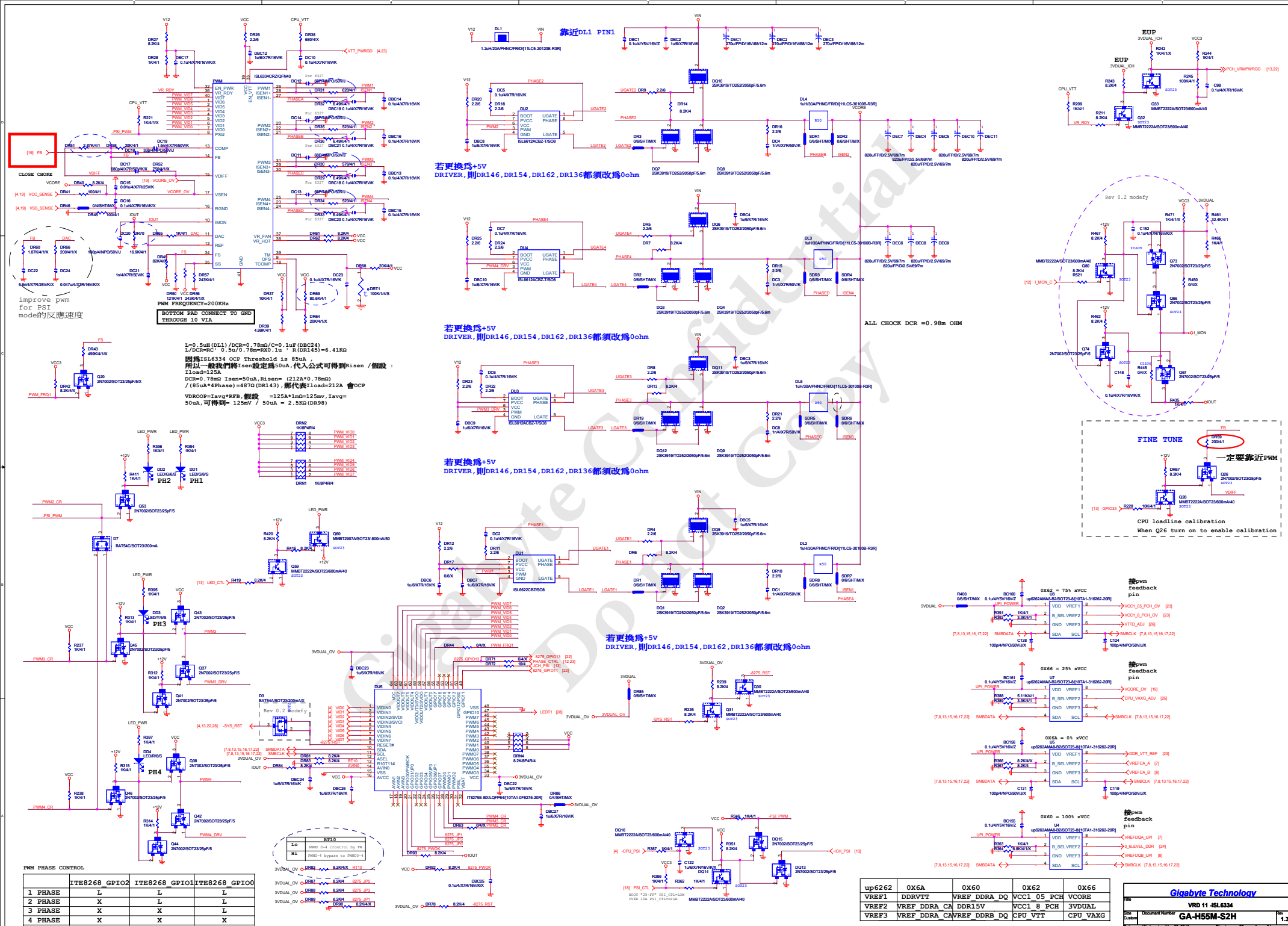
VIN=3V, VOUT=1.05V, IOUT=7.5A, PHASE=1  
IRMS=3.5A

-->故固態電容須 $1 \times 9.52 = 9.52 > 3.5A$

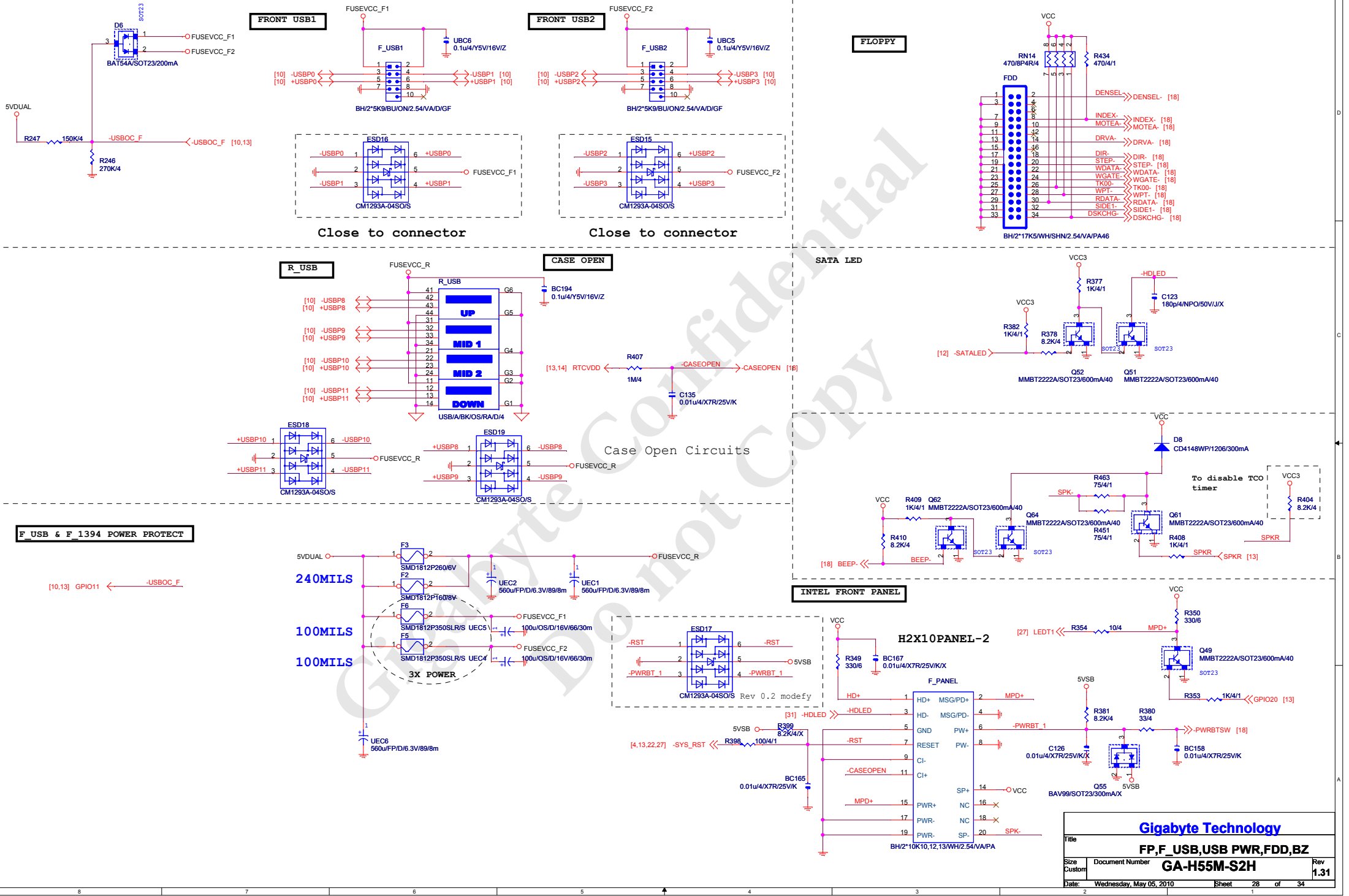
-->故電解電容須 $2 \times 1.938 = 3.876 > 3.5A$



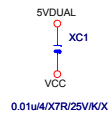
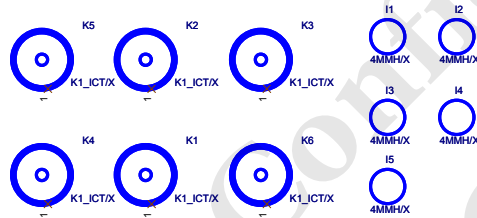
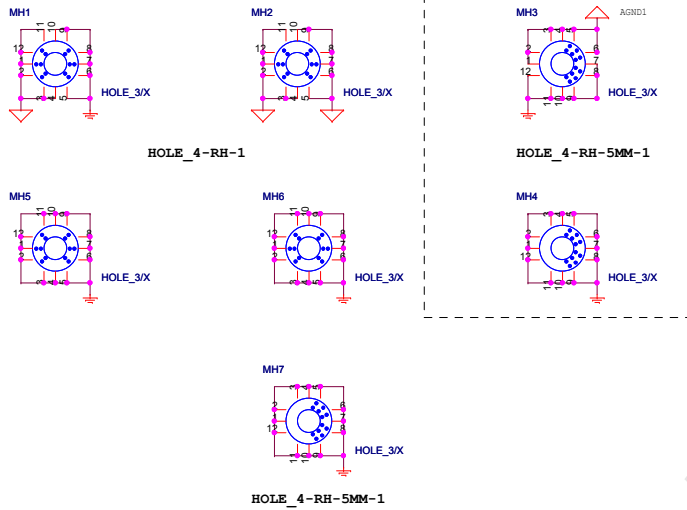
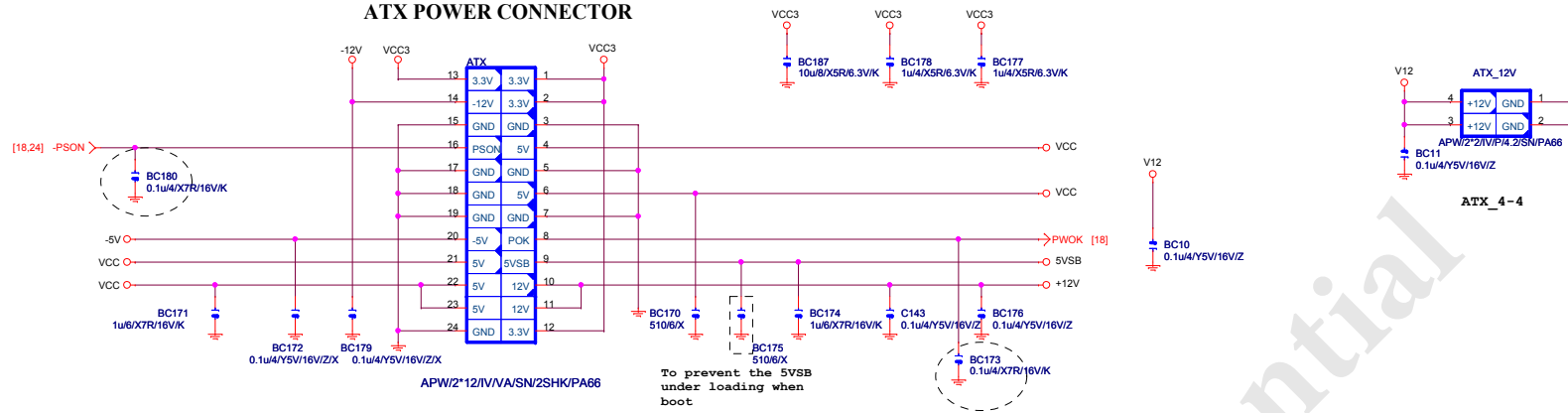




up6262	0X6A	0X60	0X62	0X66
VREF1	DDRVT	VREF DDRA DQ	VCC1_05_PCH	VCORE
VREF2	VREF_DDRA_CA	DDR15V	VCC1_8_PCH	3VDUAL
VREF3	VREF_DDRA_CAV	VREF_DDRB DQ	CPU_VTT	CPU_VAX

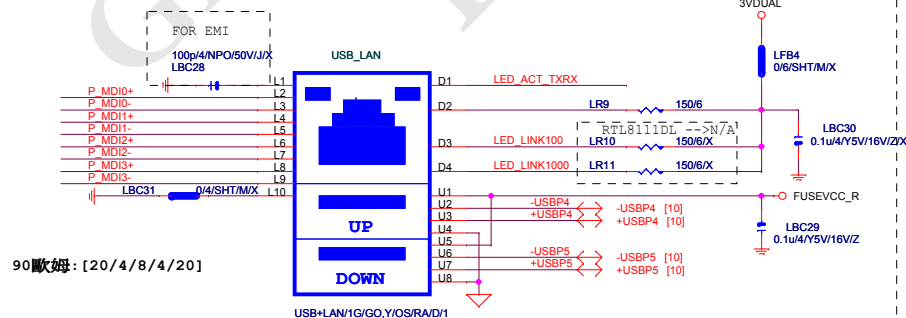
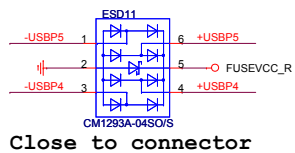
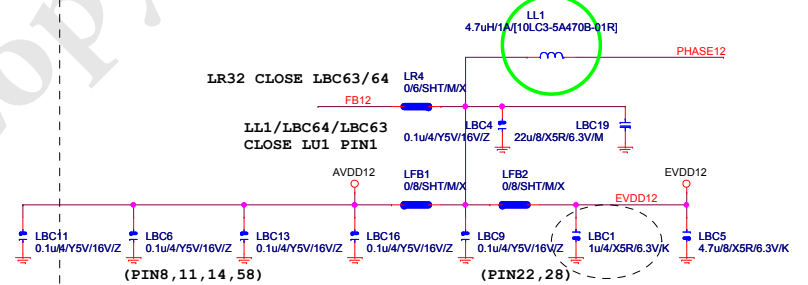
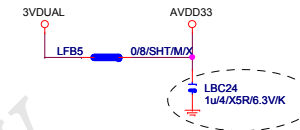
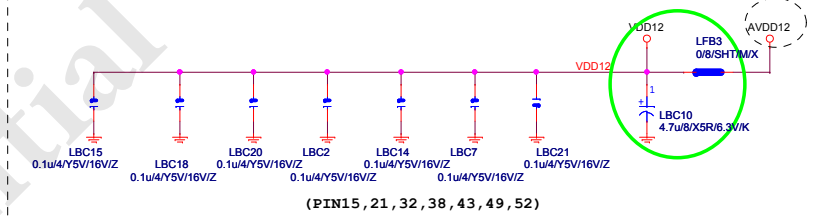
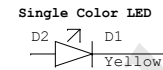
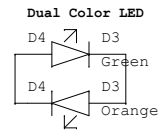
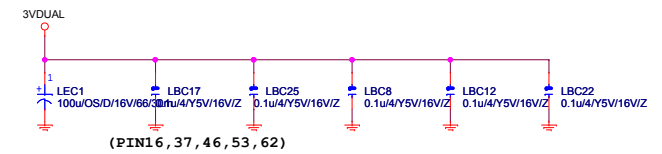
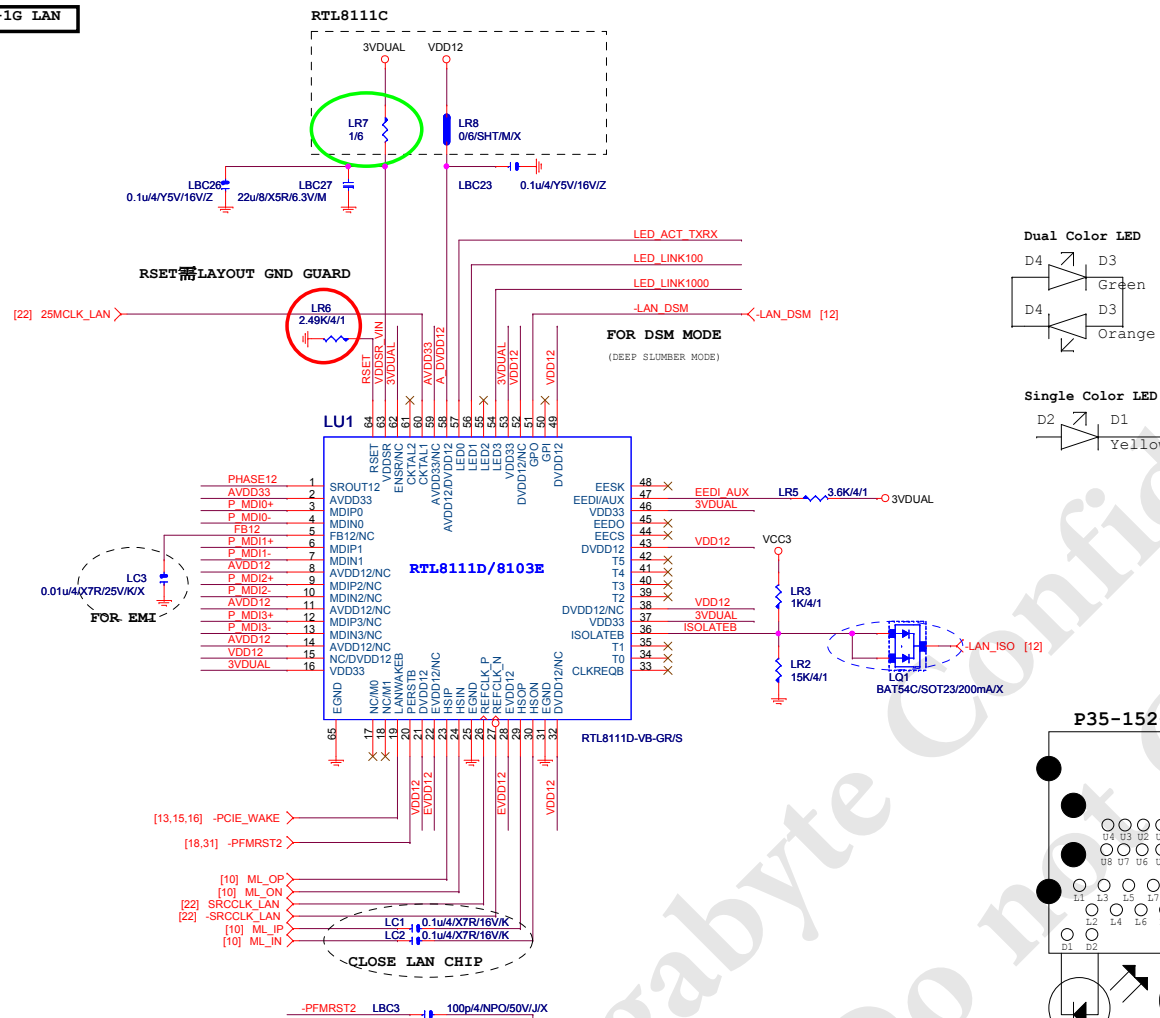


# ATX POWER CONNECTOR





## PCIE-1G LAN

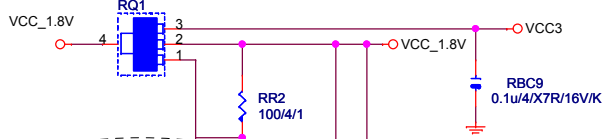


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90歐姆:[15/4.5/7.5/4.5/15]

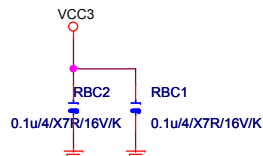
# 3.3V to 1.8V Voltage Regulator

L1117LGN/SOT223/1A

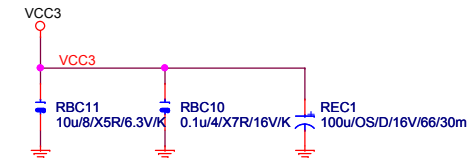


68/4/1 FOR JMB368  
VCC1.8V=2.1V

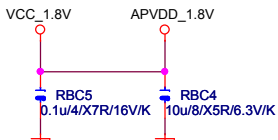
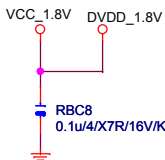
44.2/4/1 FOR  
JMB368  
VCC1.8V=1.8V



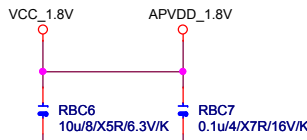
close to IC



Close to pin22 and pin39



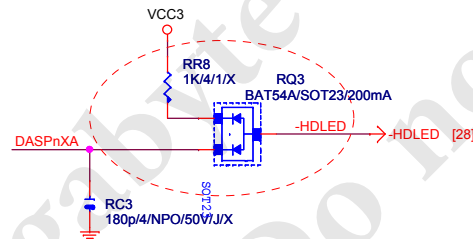
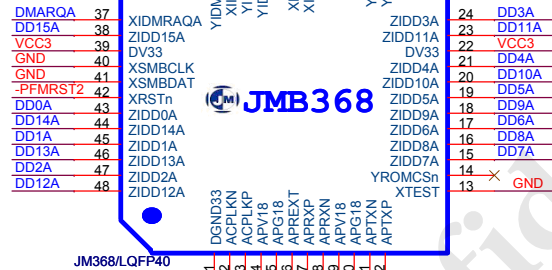
CLOSE TO pin22



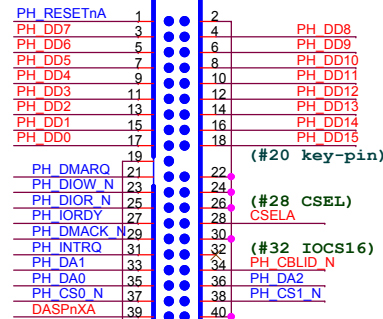
close to pin17

[18,30] -PFMRST2

RC4  
100p/4/NPO/50V/J/X



## IDE Connector



BH/2\*20K20/WH/SHN/2.54/VA/PA66

PH DD7 DD7A  
PH DD8 DD8A  
PH DD6 DD6A  
PH DD9 DD9A

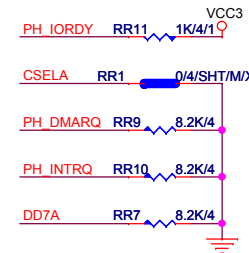
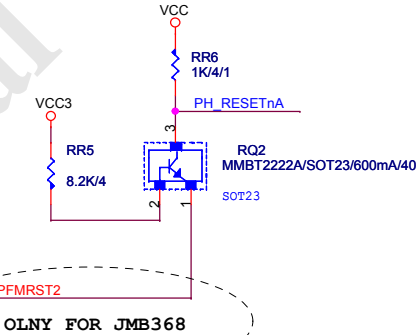
PH DD5 DD5A  
PH DD4 DD4A  
PH DD10 DD10A  
PH DD11 DD11A

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

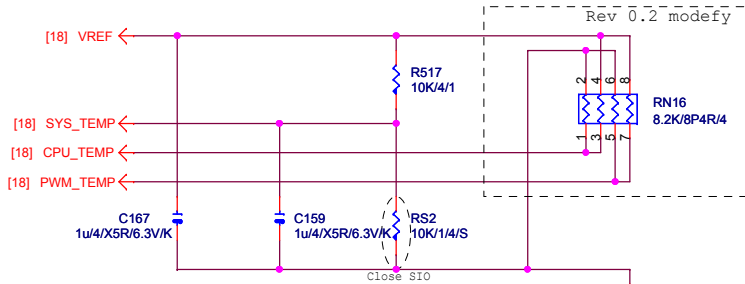
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PH DMARQ DMARQA  
PH INTRQ INTRQA  
PH CBLID\_N PDIAGnA



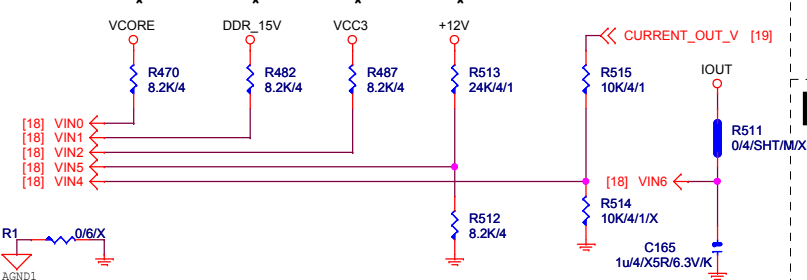
Gigabyte Technology		
Title		
JMR368		
Size Custom	Document Number	Rev
	GA-H55M-S2H	1.31
Date:	Wednesday, May 05, 2010	Sheet 31 of 34



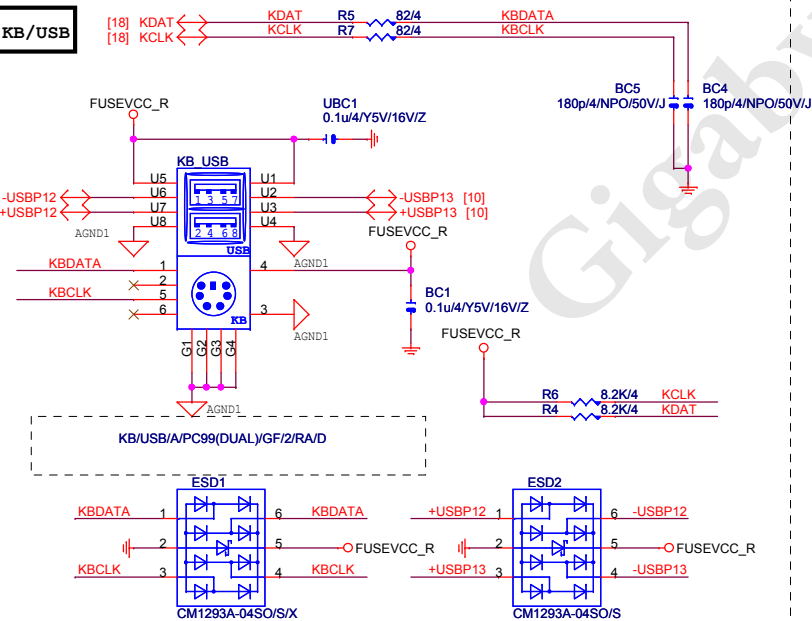
# TEMP H/W MONITOR



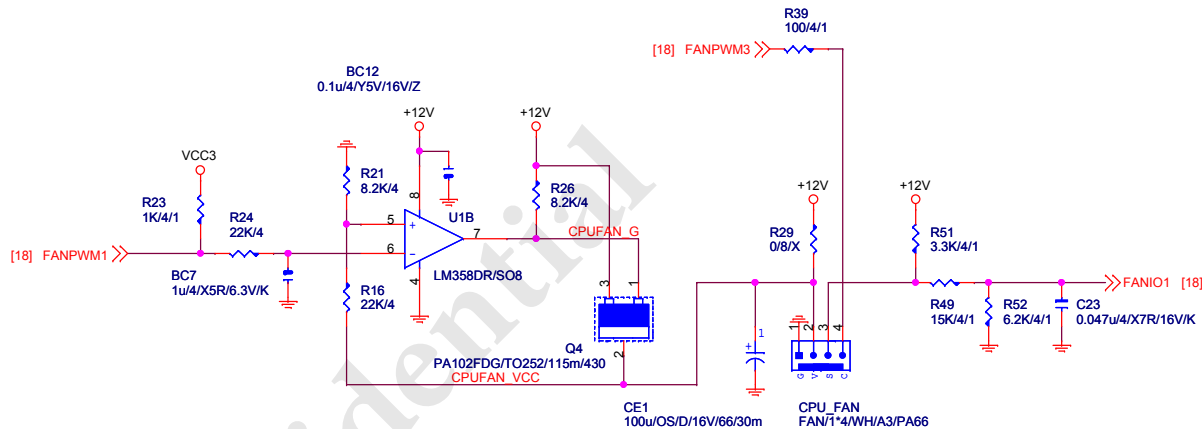
# VOLTAGE-- H/W MONITOR



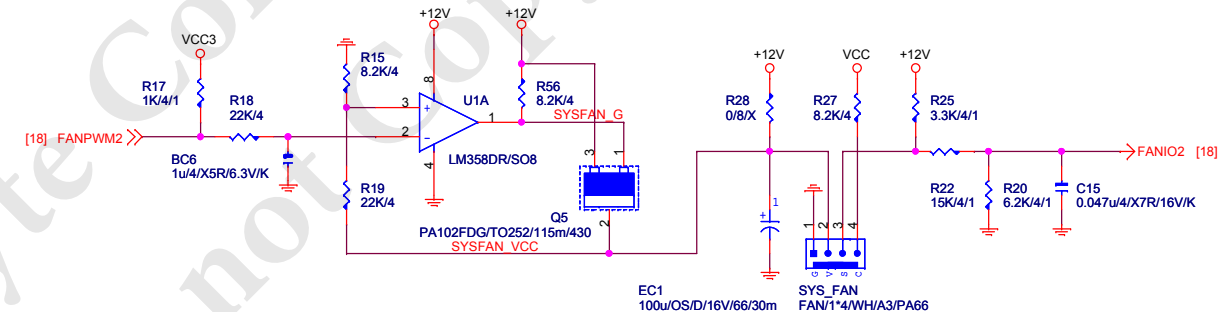
# KB/USB



# CPU SMART FAN



# SYS SMART FAN Linear SYS\_FAN



Gigabyte Technology

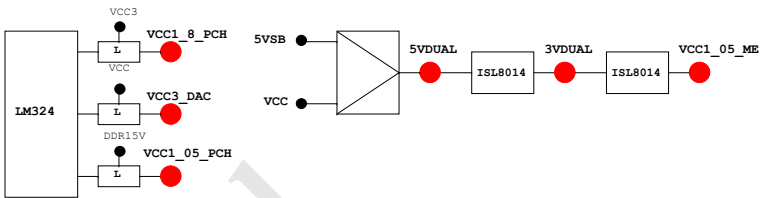
Title		HWM,KB/MS, FAN CTRL	
Size	Document Number	GA-H55M-S2H	
Custom		Rev 1.31	
Date:	Wednesday, May 05, 2010	Sheet	33 of 34

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

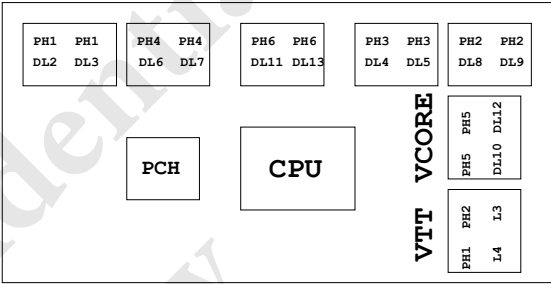
Super I/O ITE8720 GPIO Table

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

PIN NAME	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/SMB_C_R	3x PIN	FST_2X8
INIT#/GP85/SMBD_M	SEC_2x8	GTLREF_AD2
ACK#/GP83	DDR_LED1_C	
VIDO1/GP21/DCD2#	DDR_LED2_C	
STB#/GP87/SMB_C_M	DDR_LED3_C	
PWRON#GP44	VCORE_OV1	
PANSWH#/GP43	PWRBT5W	
KDAT/GP61	-PWRBT5W	
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