

**REV: 1.31**

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02	BOM & PCB MODIFY HISTORY
03	BLOCK DIAGRAM
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05	CPU LGA1156-B
06	CPU LGA1156-C
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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
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26	CPU_VTT_PWM_ISL6322G
27	VCORE_PWM_ISL6334CR

**TITLE**

[illegible]

GA-H55M-D2H Version: 1.31

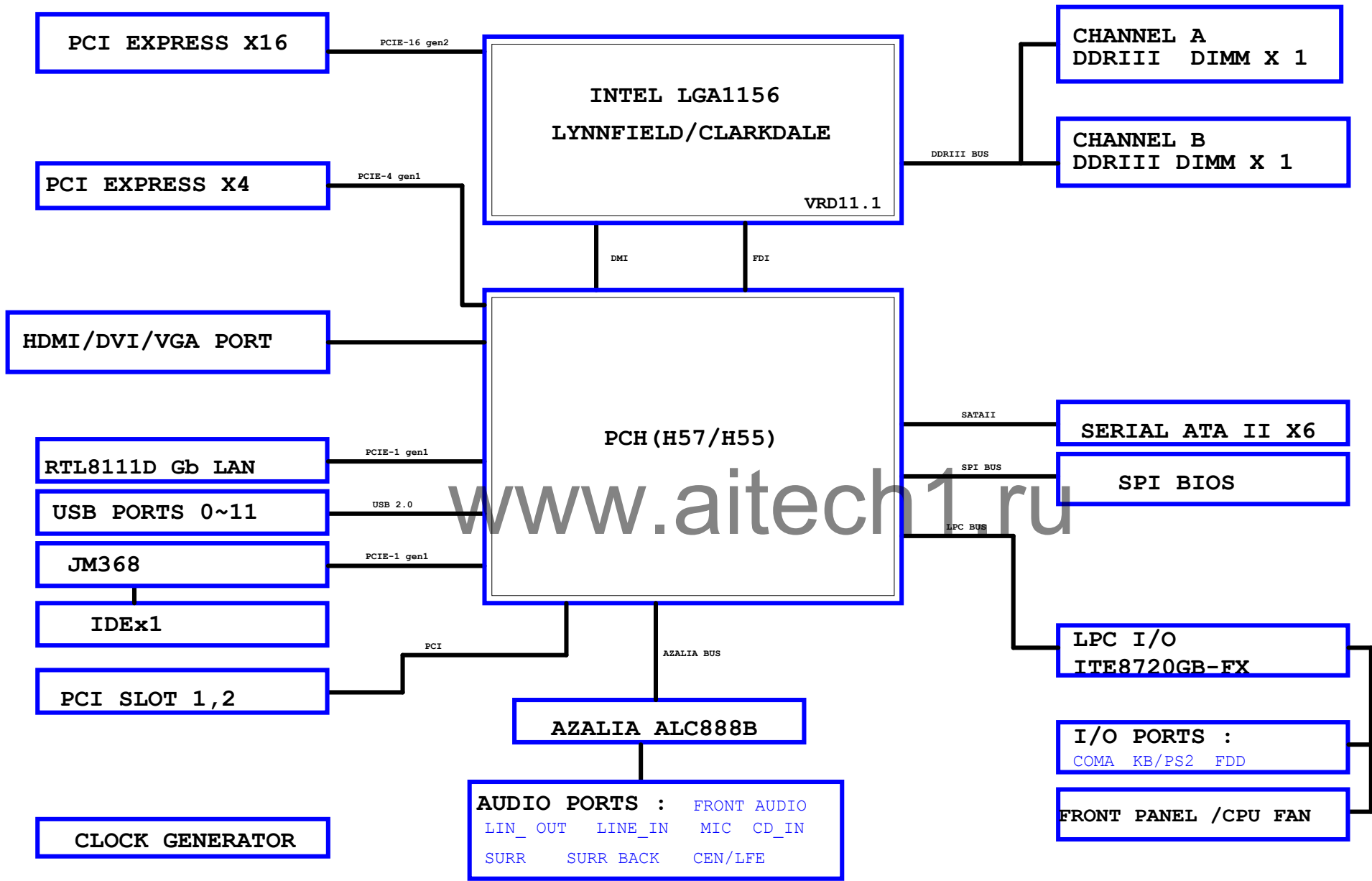
Circuit or PCB layout change  
for next version

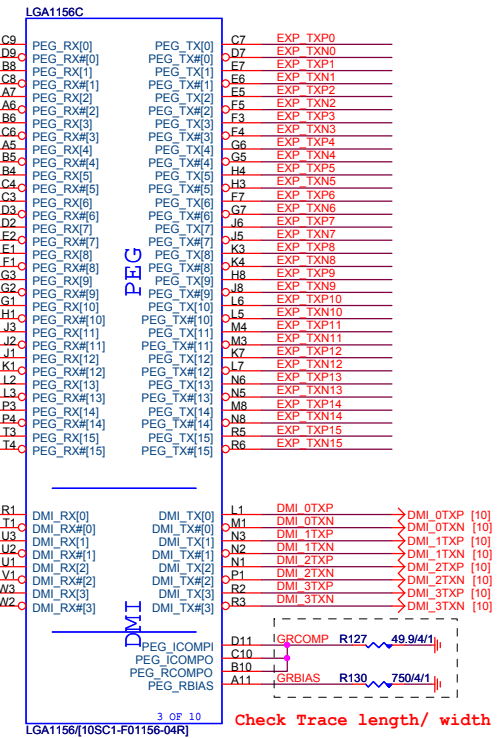
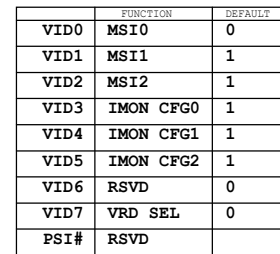
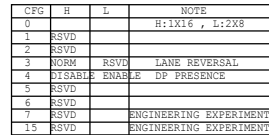
### Component value change history

2010/04/29

[illegible][illegible]

BLOCK DIAGRAM





POWER ON CONFIG TABLE (Default=1.2250V)

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 <- -SCASA AT22 SA_WE#			
[7] -SCASA <- -SRASA AT20 SA_CAS#			
[7] -SRASA <- -SBAA0 AV20 SA_BS[0]			
[7] SBAA1 <- -SBAA1 AU19 SA_BS[1]			
[7] SBAA2 <- -SBAA2 AU12 SA_BS[2]			
[7] -CSA0 <- -CSA0 AV21 SA_CS#			
[7] -CSA0 <- -CSA1 AW24 SA_CS#			
[7] CKEA0 <- -CKEA0 AU10 SA_CKE[0]			
[7] CKEA1 <- -CKEA1 AW10 SA_CKE[1]			
[7] CKEA1 <- -CKEA1 AW10 SA_CKE[2]			
[7] CKEA1 <- -CKEA1 AW10 SA_CKE[3]			
MODT_A0 AV23 SA_ODT[0]			
MODT_A1 AV24 SA_ODT[1]			
AW23 SA_ODT[2]			
AY24 SA_ODT[3]			
[7] DCLKA0 <- -DCLKA0 AR22 SA_CK[0]			
[7] -DCLKA0 <- -DCLKA0 AR21 SA_CK#			
[7] DCLKA1 <- -DCLKA1 AP18 SA_CK[1]			
[7] -DCLKA1 <- -DCLKA1 AN18 SA_CK#			
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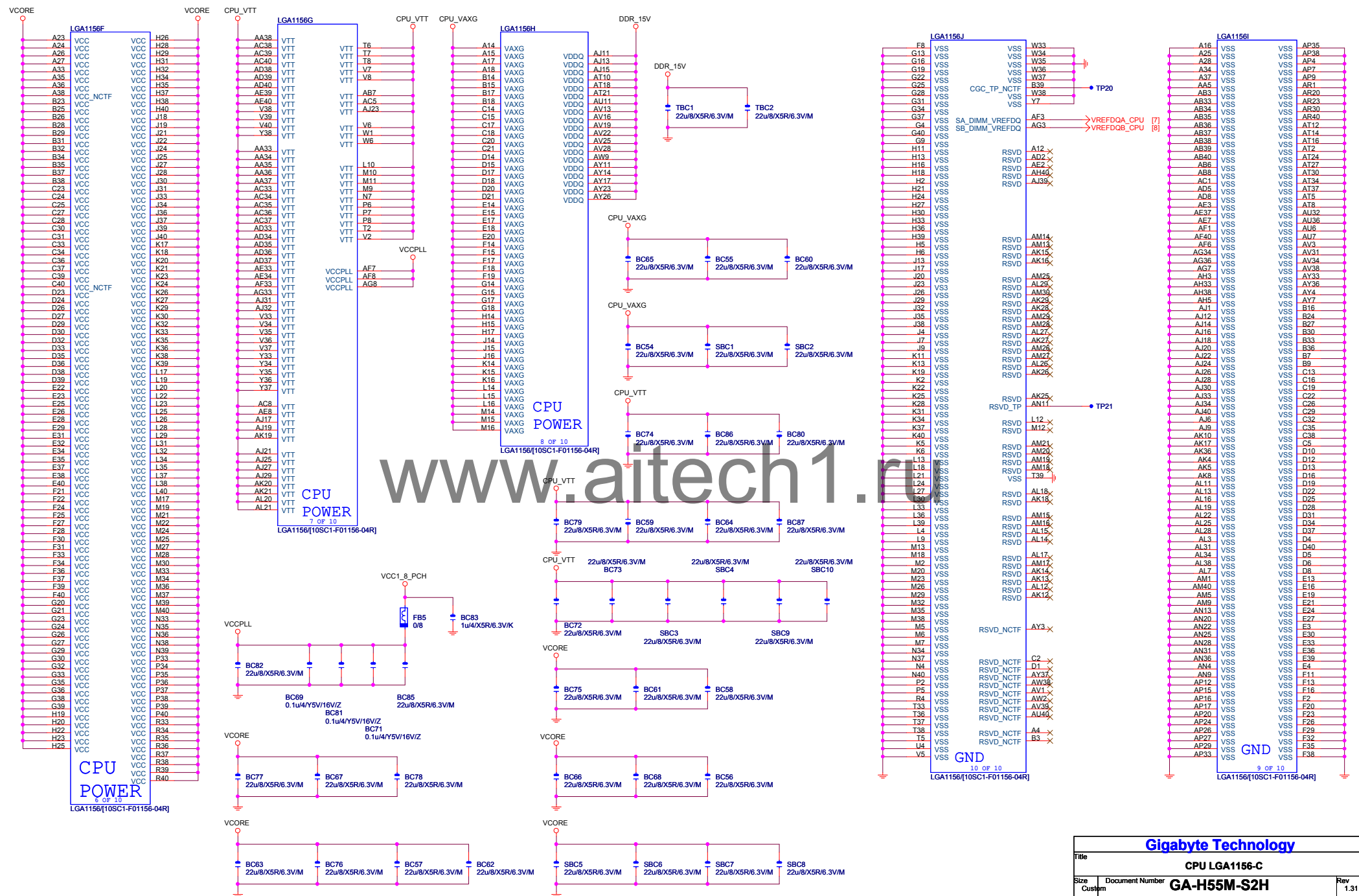
DDR\_A

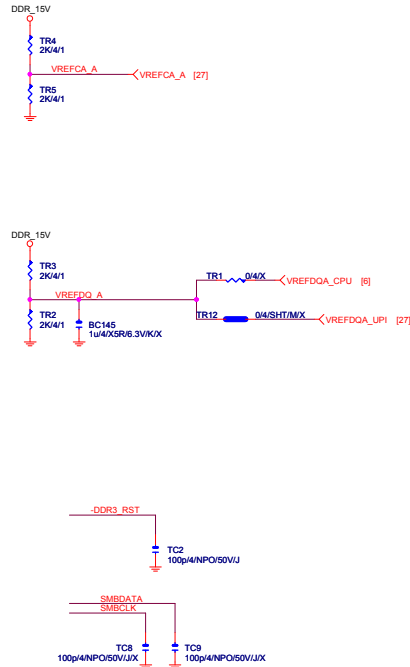
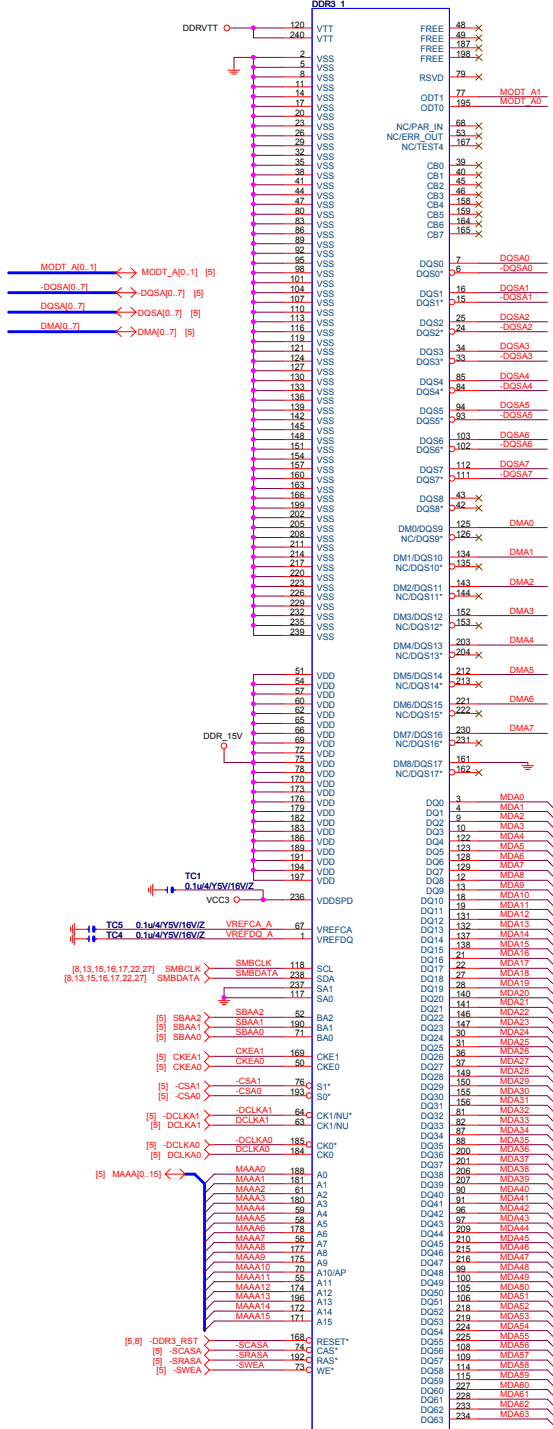
1 OF 10

LGA1156(10SC1-F01156-04R)

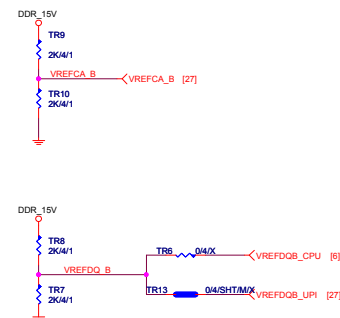
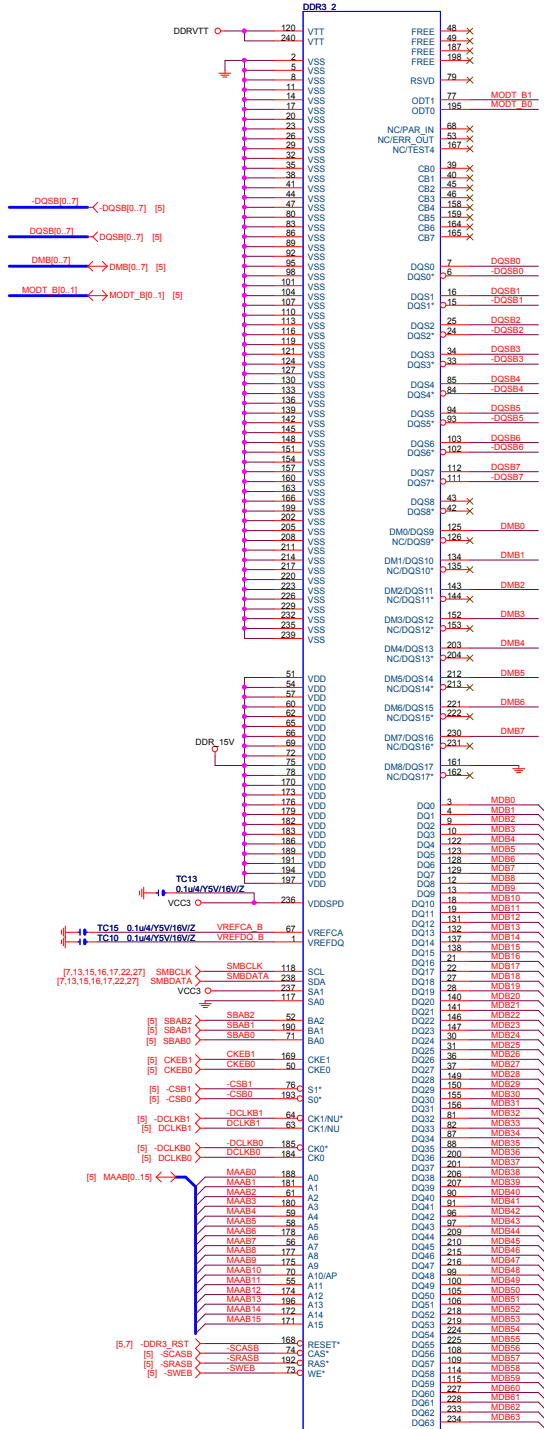
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[8] DQSB[0..7] <- -DQSB[0..7]
[8] -DQSB[0..7] <- -DQSB[0..7]
[7] MODT_A[0..1] <- -MODT_A[0..1]
[8] MODT_B[0..1] <- -MODT_B[0..1]
[7] MAAA[0..15] <- -MAAA[0..15]
[8] MAAB[0..15] <- -MAAB[0..15]
[7] DMA[0..7] <- -DMA[0..7]
[8] DMB[0..7] <- -DMB[0..7]
[7] MDA[0..63] <- -MDA[0..63]
[8] MDB[0..63] <- -MDB[0..63]

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	AY28	SB_MA[12]	AH6 DQSB1
MAAB13	AW15	SB_MA[13]	AJ5 -DQSB1
MAAB14	AY12	SB_MA[14]	AH4 DMB1
MAAB15	AV11	SB_MA[15]	
[8] -SWEB <- -SCASB AU26 SB_WE#			
[8] -SCASB <- -SRASB AW26 SB_CAS#			
[8] -SRASB <- -SBAB0 AU25 SB_BS[0]			
[8] SBAB1 <- -SBAB1 AU25 SB_BS[1]			
[8] SBAB2 <- -SBAB2 AV12 SB_BS[2]			
[8] -CSB0 <- -CSB0 AY27 SB_CS#			
[8] -CSB1 <- -CSB1 AW28 SB_CS#			
[8] CKEB0 <- -CKEB0 AW8 SB_CKE[0]			
[8] CKEB1 <- -CKEB1 AW9 SB_CKE[1]			
[8] CKEB1 <- -CKEB1 AW9 SB_CKE[2]			
[8] CKEB1 <- -CKEB1 AW9 SB_CKE[3]			
MODT_B0 AU29 SB_ODT[0]			
MODT_B1 AU29 SB_ODT[1]			
AW27 SB_ODT[2]			
AW28 SB_ODT[3]</			

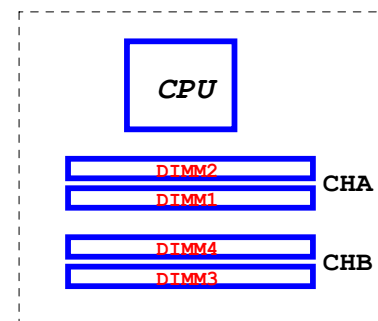




www.aitech1.ru

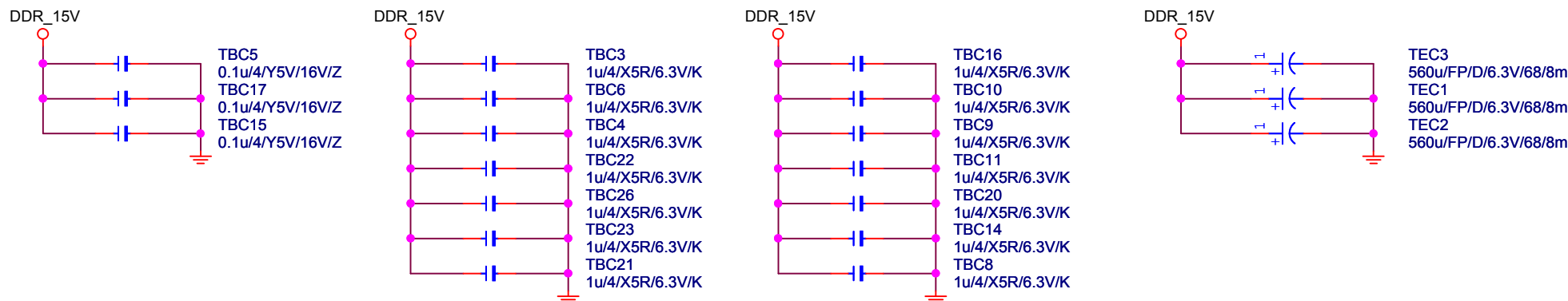


[www.aitech1.ru](http://www.aitech1.ru)

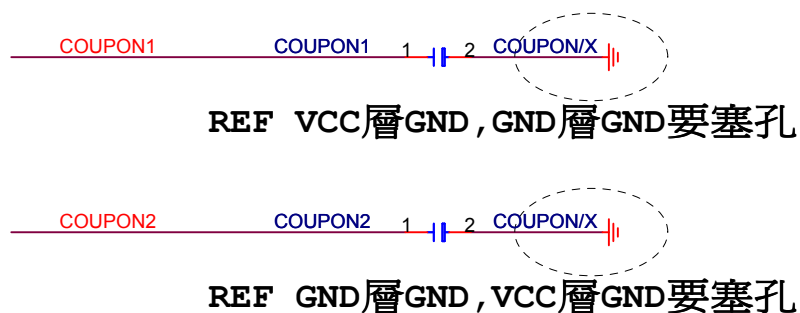
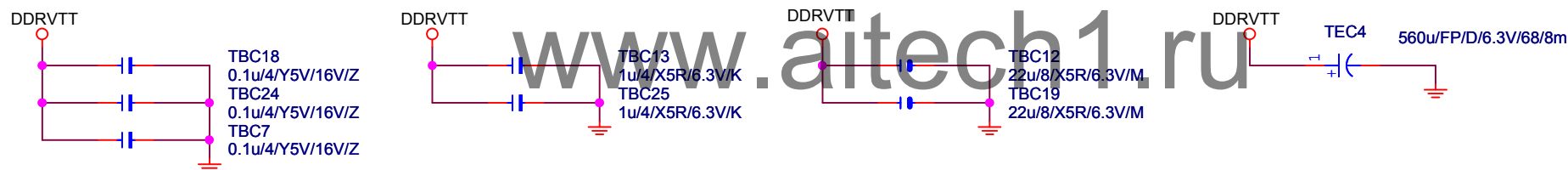


# DDR TERMINATION CHANNEL A/B

## DDR15V Decouple



## DDRVTT Decouple



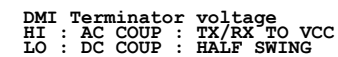
Gigabyte Technology

Title			DDRIII POWER CAP
Size A	Document Number	GA-H55M-S2H	
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PCHB

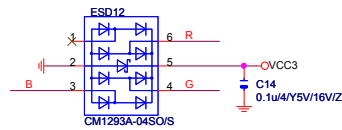
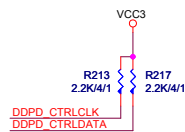
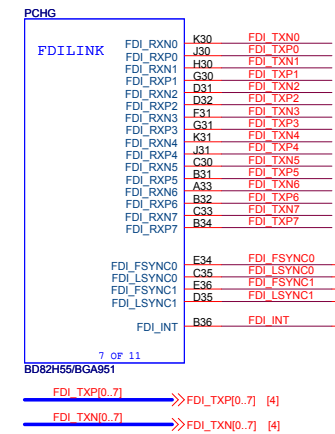
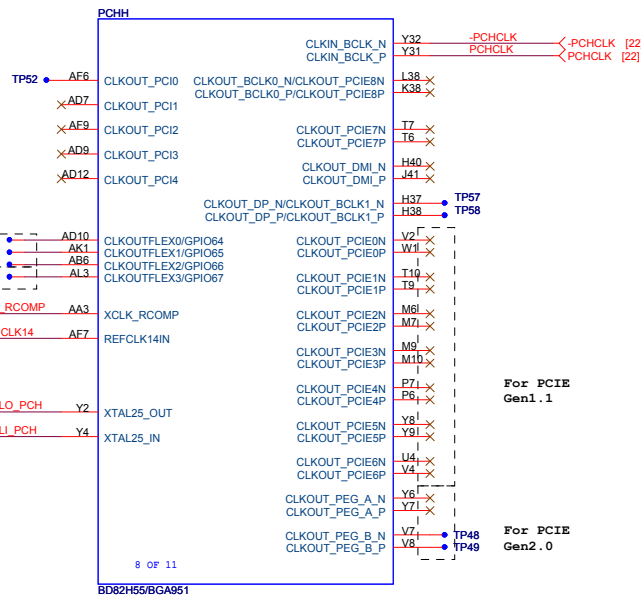
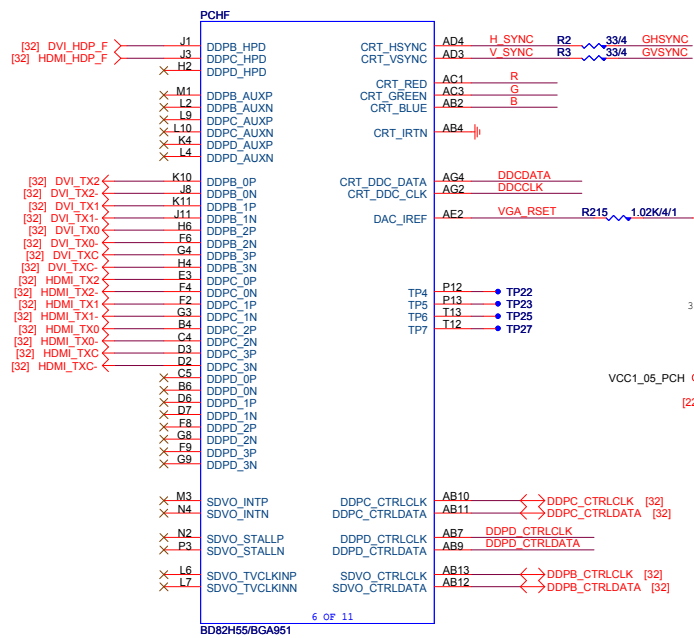
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Impedance=90+- 15%

PCHE

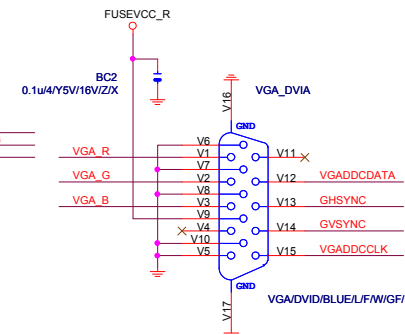
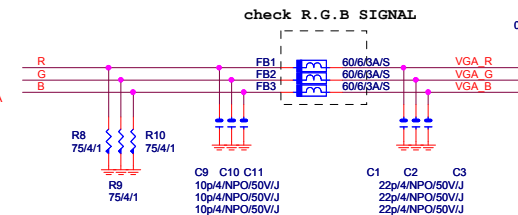
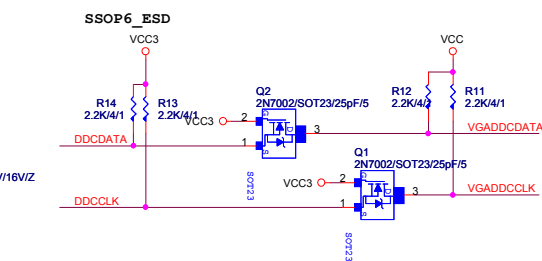
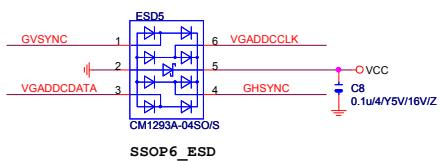
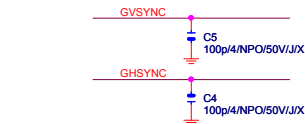


## Gigabyte Technology

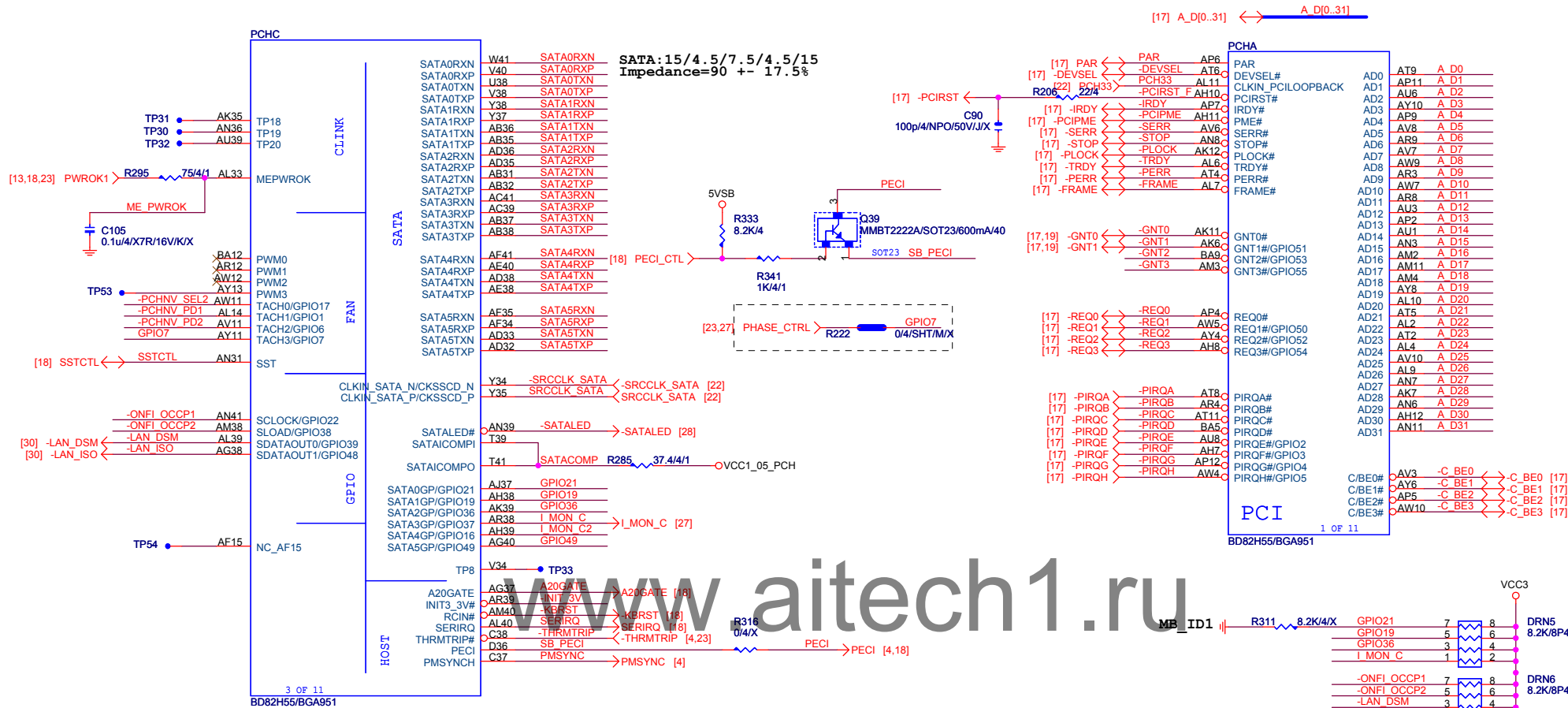
Title			
PCH FDI,DMI,USB ,PCIE,NVRAM			
Size B	Document Number		Rev
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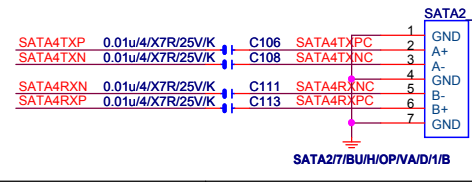
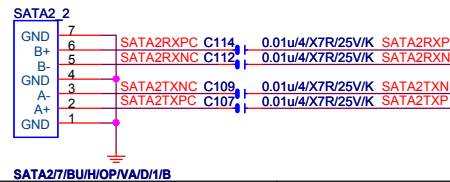
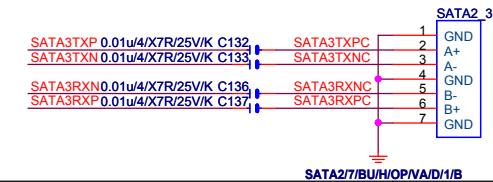
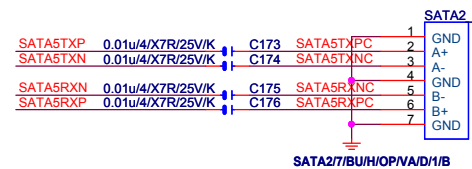
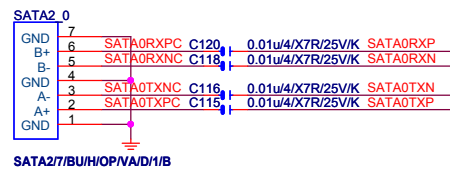
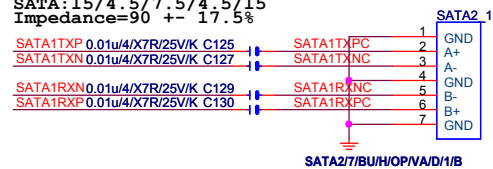
www.aitech1.ru



Gigabyte Technology			
Title			
PCH DISPLAY_CLK BUFFER			
Size	Document Number	Rev	
Custom	GA-H55M-S2H	1.31	
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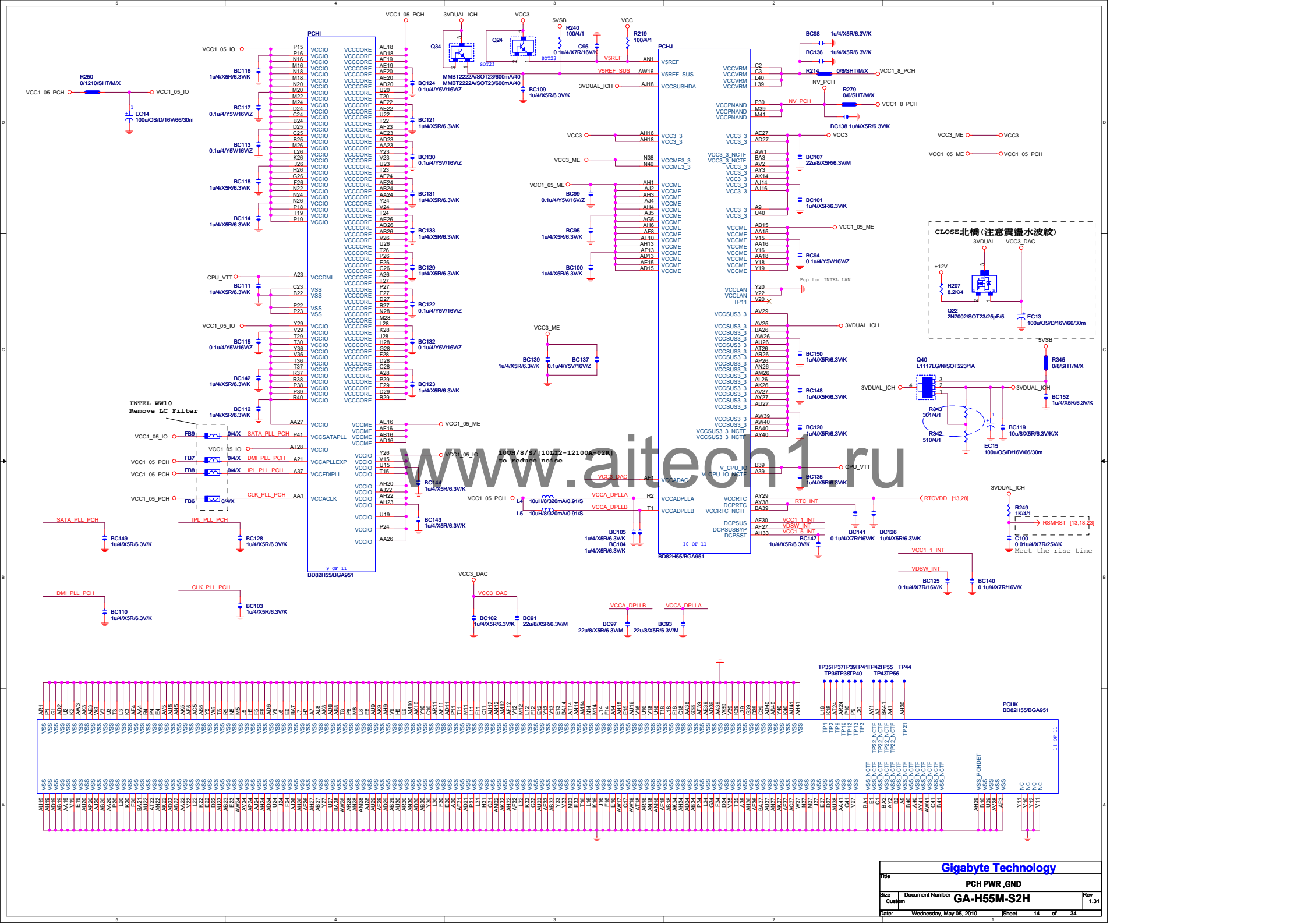
**SATA: 15/4.5/7.5/4.5/15**  
Impedance=90 +- 17.5%



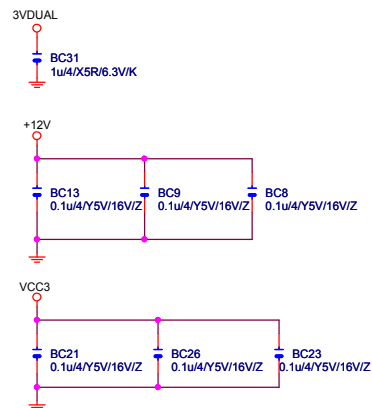
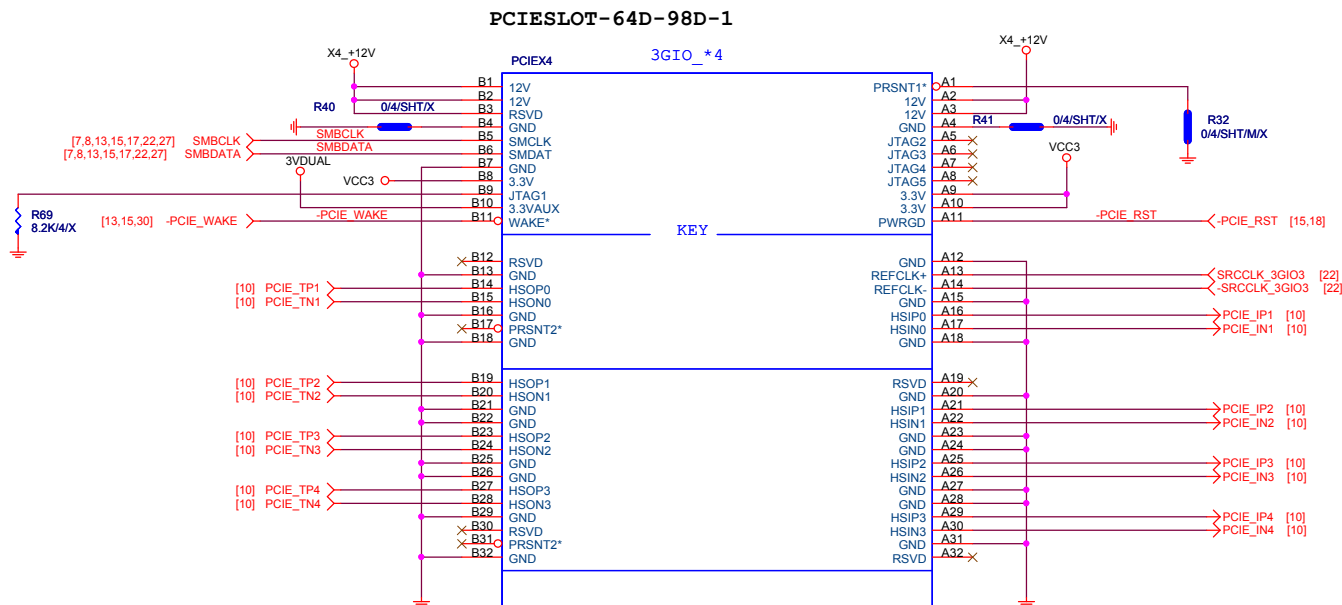
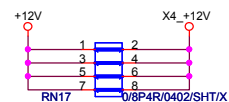
**Gigabyte Technology**

Title			PCH HOST , SATA, PCI
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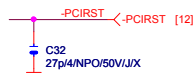
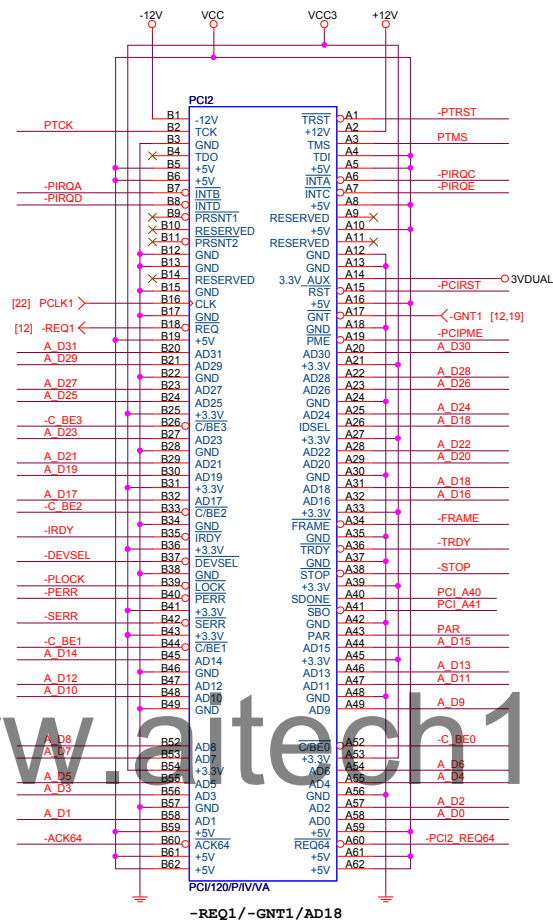
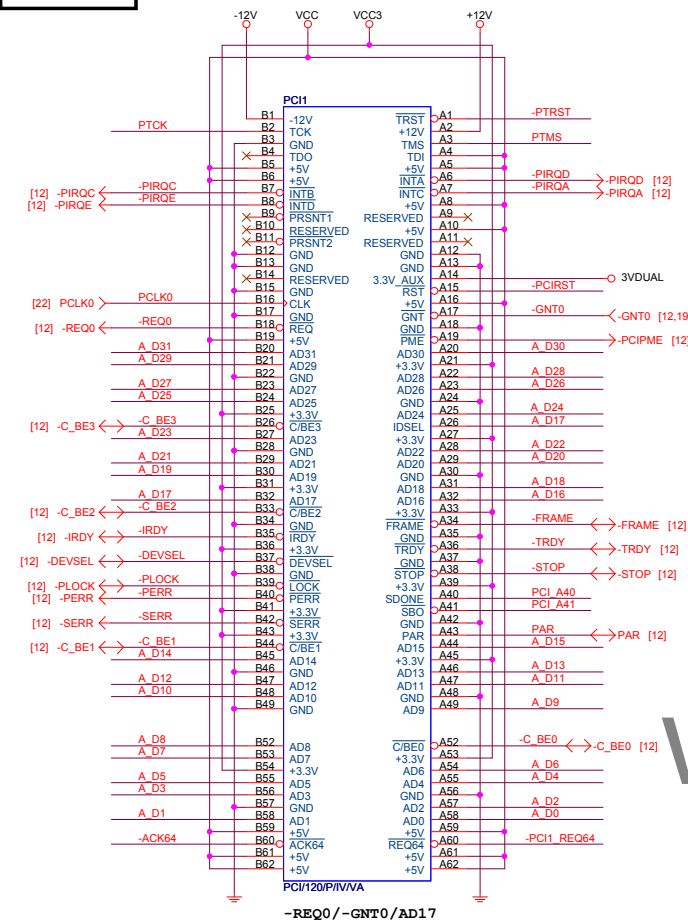


B81 PRSNT2\*

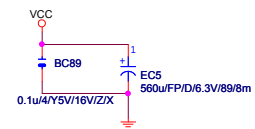
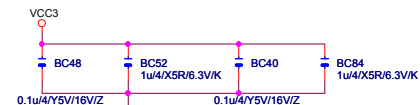
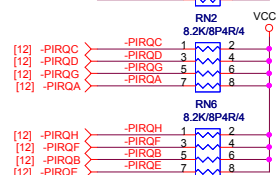
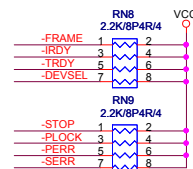
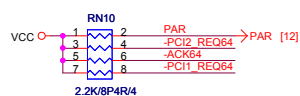
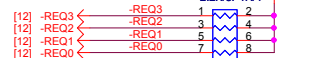
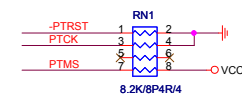
PCI-E/16X-65P/BU/RIGHT PUSH

Gigabyte Technology			
Title			
PCI EXPRESS X 4 PORT			
Size	Document Number	GA-H55M-S2H	
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PCI1,2 SLOT
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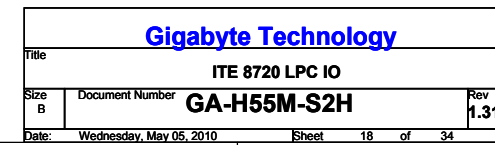
Place close to PCI1



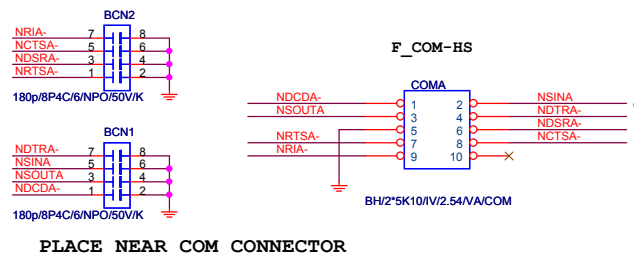
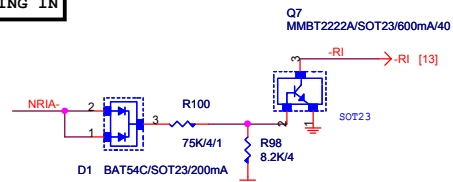
## Gigabyte Technology

**PCI SLOT 1, 2**

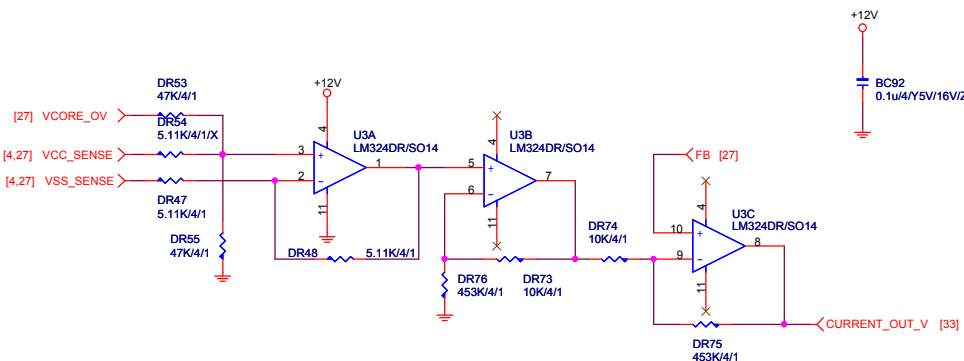
Size Custom	Document Number <b>GA-H55M-S2H</b>	Rev <b>1.31</b>
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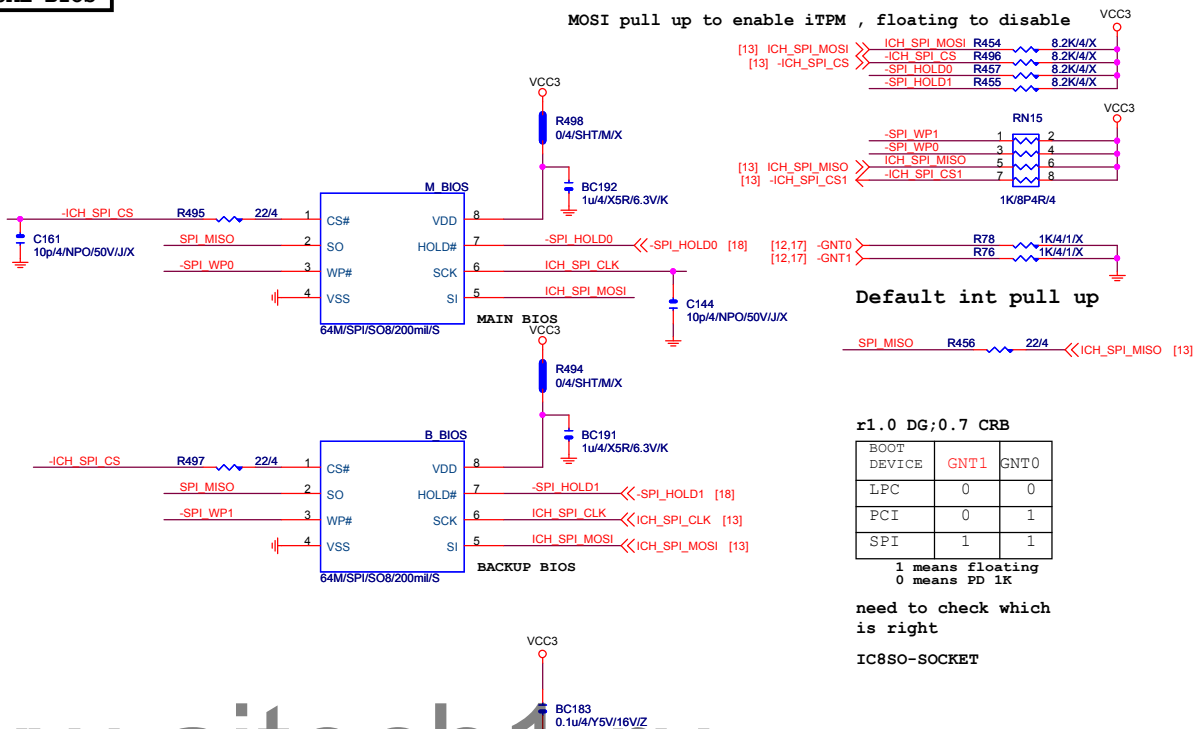
**RING IN**



## DYNAMIC CURRENT OC



**DUAL BIOS**



Default int pull up

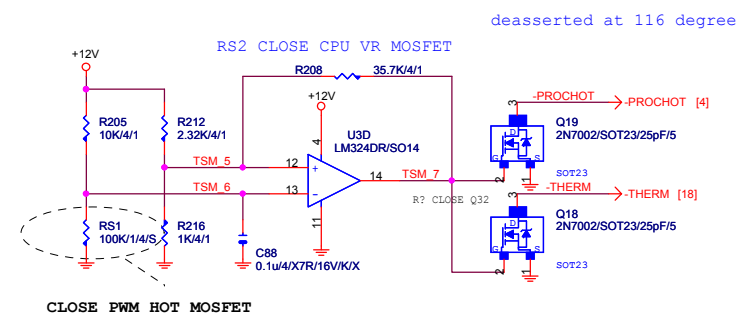
BOOT DEVICE	GNT1	GNT0
LPC	0	0
PCI	0	1
SPI	1	1

1	means floating
0	means PD 1K

need to check which  
is right

IC8SO-SOCKET

**-PROHOT**



## Gigabyte Technology

Title			
COM & PROHOT/Dynamic O.C.			
Size	Document Number		Rev
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	ALC888B	ALC888 -VA	ALC889A	ALC888 -VD	ALC892
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%

CR14/CBC4 close to SouthBridge

Digital Area

Analog Area

JD resistors close to pin13 of CODEC

[21] LINE2\_L  
[21] LINE2\_R  
[21] MIC2\_L  
[21] MIC2\_R

Can Support Amp Out

20K/4/0.1% @ALC889A

20K/4/1% @ALC889A+/ALC888Vx

[21] GEN

[21] LFE

[21] S\_SURR\_L

[21] S\_SURR\_R

[21] SPDIFI

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

[21] SPDIF

CR34 20K/4/1

ALC889A+

CU1

FRONT-R

FRONT-L

SENSE B (JD2)/FMIC1

DCVOL/VREFVOUT2

MIC1-VREF0-R/FMIC2

LINE2-VREF0/JD4

MIC2-VREF0/AFILT2

LINE1-VREF0/LAFILT1

MIC1-VREF0/LVREFOUT

VREF

AVSS1

AVDD1

ALC888B-GR/LQFP48

CBC4 4.7u/8/X5R/6.3V/K

CBC5 4.7u/8/X5R/6.3V/K

CBC6 4.7u/8/X5R/6.3V/K

CBC10 4.7u/8/X5R/6.3V/K

CBC11 0.1u/4/X7R/16V/K

CBC12 0.1u/4/X7R/16V/K

CBC18 0.1u/4/X7R/16V/K

CBC19 5.11K/4/1

CBC21 10K/4/1

CBC13 20K/4/1

CBC16 39.2K/4/1

CBC17 10K/4/1

CBC18 0.1u/4/X7R/16V/K

CBC19 5.11K/4/1

CBC21 10K/4/1

CBC13 20K/4/1

CBC16 39.2K/4/1

CBC17 10K/4/1

CBC18 0.1u/4/X7R/16V/K

CBC19 5.11K/4/1

CBC21 10K/4/1

CBC13 20K/4/1

CBC16 39.2K/4/1

CBC17 10K/4/1

CBC18 0.1u/4/X7R/16V/K

CBC19 5.11K/4/1

CBC21 10K/4/1

CBC13 20K/4/1

CBC16 39.2K/4/1

CBC17 10K/4/1

CBC18 0.1u/4/X7R/16V/K

CBC19 5.11K/4/1

CBC21 10K/4/1

CBC13 20K/4/1

CBC16 39.2K/4/1

CBC17 10K/4/1

CBC18 0.1u/4/X7R/16V/K

CBC19 5.11K/4/1

CBC21 10K/4/1

CBC13 20K/4/1

CBC16 39.2K/4/1

CBC17 10K/4/1

CBC18 0.1u/4/X7R/16V/K

CBC19 5.11K/4/1

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CBC13 20K/4/1

CBC16 39.2K/4/1

CBC17 10K/4/1

CBC18 0.1u/4/X7R/16V/K

CBC19 5.11K/4/1

CBC21 10K/4/1

CBC13 20K/4/1

CBC16 39.2K/4/1

CBC17 10K/4/1

CBC18 0.1u/4/X7R/16V/K

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CBC17 10K/4/1

CBC18 0.1u/4/X7R/16V/K

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CBC16 39.2K/4/1

CBC17 10K/4/1

CBC18 0.1u/4/X7R/16V/K

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CBC13 20K/4/1

CBC16 39.2K/4/1

CBC17 10K/4/1

CBC18 0.1u/4/X7R/16V/K

CBC19 5.11K/4/1

CBC21 10K/4/1

CBC13 20K/4/1

CBC16 39.2K/4/1

CBC17 10K/4/1

CBC18 0.1u/4/X7R/16V/K

CBC19 5.11K/4/1

CBC21 10K/4/1

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CBC16 39.2K/4/1

CBC17 10K/4/1

CBC18 0.1u/4/X7R/16V/K

CBC19 5.11K/4/1

CBC21 10K/4/1

CBC13 20K/4/1

CBC16 39.2K/4/1

CBC17 10K/4/1

CBC18 0.1u/4/X7R/16V/K

CBC19 5.11K/4/1

CBC21 10K/4/1

CBC13 20K/4/1

CBC16 39.2K/4/1

CBC17 10K/4/1

CBC18 0.1u/4/X7R/16V/K

CBC19 5.11K/4/1

CBC21 10K/4/1

CBC13 20K/4/1

CBC16 39.2K/4/1

CBC17 10K/4/1

CBC18 0.1u/4/X7R/16V/K

CBC19 5.11K/4/1

CBC21 10K/4/1

CBC13 20K/4/1

CBC16 39.2K/4/1

CBC17 10K/4/1

CBC18 0.1u/4/X7R/16V/K

CBC19 5.11K/4/1

CBC21 10K/4/1

CBC13 20K/4/1

CBC16 39.2K/4/1

CBC17 10K/4/1

CBC18 0.1u/4/X7R/16V/K

CBC19 5.11K/4/1

CBC21 10K/4/1

CBC13 20K/4/1

CBC16 39.2K/4/1

CBC17 10K/4/1

CBC18 0.1u/4/X7R/16V/K

CBC19 5.11K/4/1

CBC21 10K/4/1

CBC13 20K/4/1

CBC16 39.2K/4/1

CBC17 10K/4/1

CBC18 0.1u/4/X7R/16V/K

CBC19 5.11K/4/1

CBC21 10K/4/1

CBC13 20K/4/1

CBC16 39.2K/4/1

CBC17 10K/4/1

CBC18 0.1u/4/X7R/16V/K

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CBC21 10K/4/1

CBC13 20K/4/1

CBC16 39.2K/4/1

CBC17 10K/4/1

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CBC17 10K/4/1

CBC18 0.1u/4/X7R/16V/K

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CBC17 10K/4/1

CBC18 0.1u/4/X7R/16V/K

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CBC21 10K/4/1

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CBC16 39.2K/4/1

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CBC18 0.1u/4/X7R/16V/K

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CBC21 10K/4/1

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CBC17 10K/4/1

CBC18 0.1u/4/X7R/16V/K

CBC19 5.11K/4/1

CBC21 10K/4/1

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CBC16 39.2K/4/1

CBC17 10K/4/1

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CBC17 10K/4/1

CBC18 0.1u/4/X7R/16V/K

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CBC21 10K/4/1

CBC13 20K/4/1

CBC16 39.2K/4/1

CBC17 10K/4/1

CBC18 0.1u/4/X7R/16V/K

CBC19 5.11K/4/1

CBC21 10K/4/1

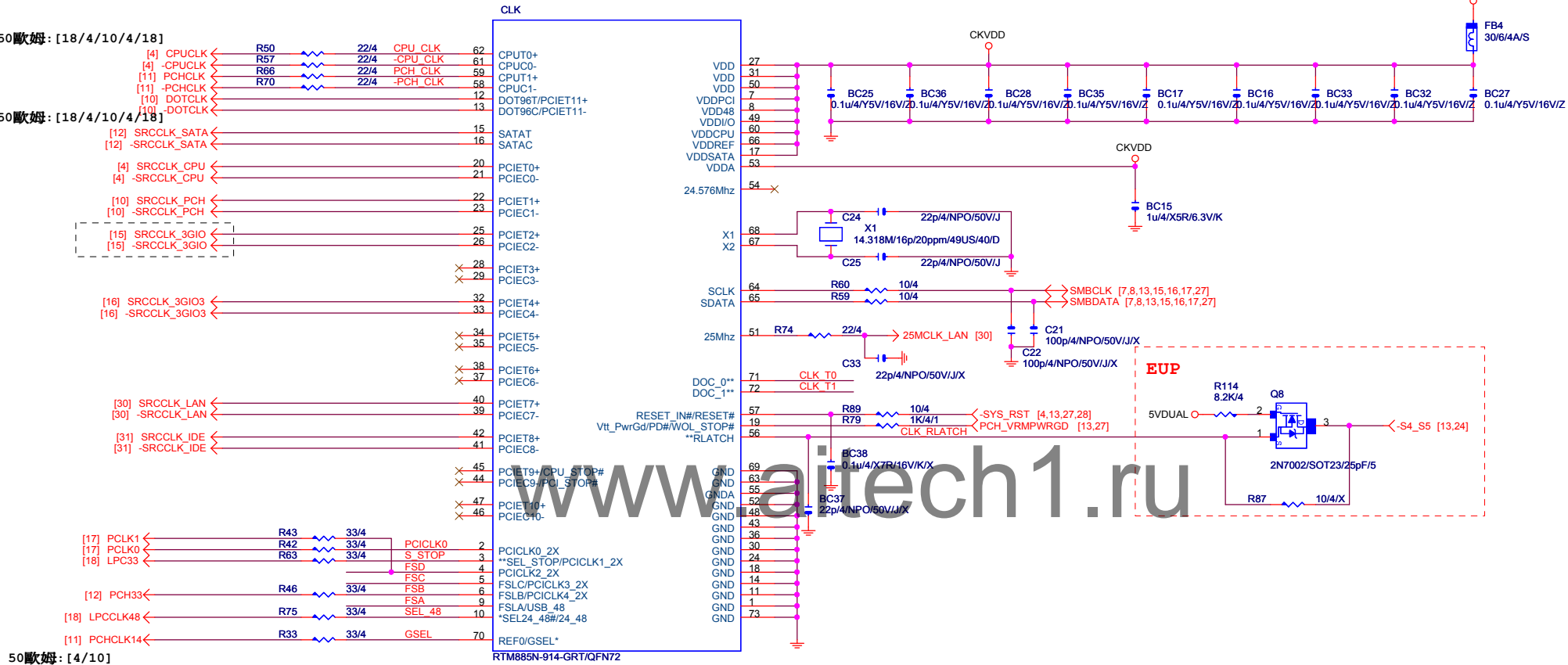
CBC13 20K/4/1

CBC16 39.2K/4/1

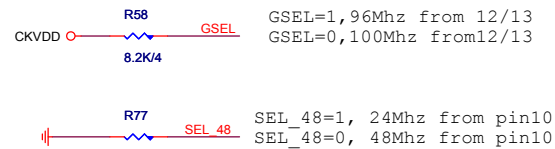
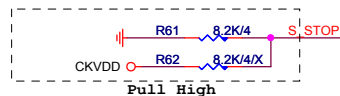
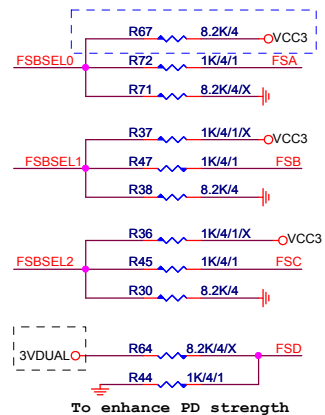


50歐姆:[18/4/10/4/18]

50歐姆:[18/4/10/4/18]



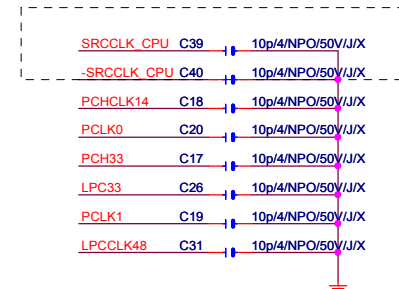
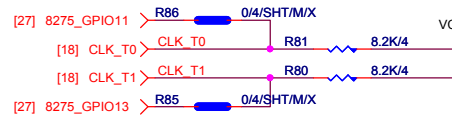
50歐姆:[4/10]



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

SEL\_48=1, 24Mhz from pin10  
SEL\_48=0, 48Mhz from pin10

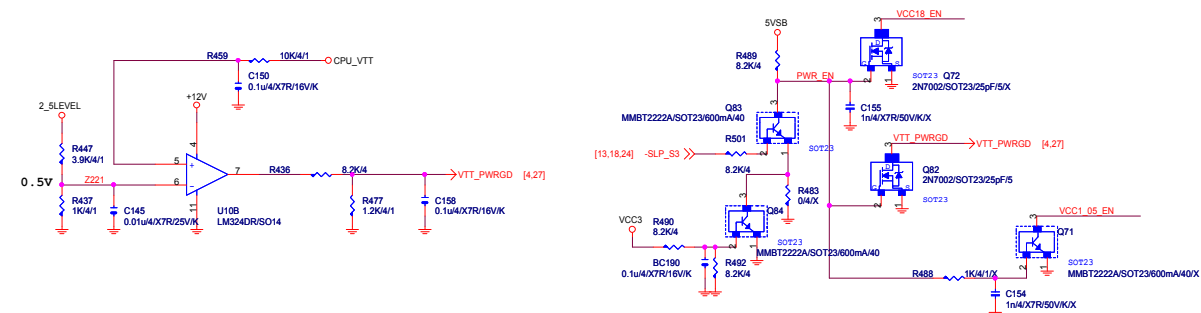
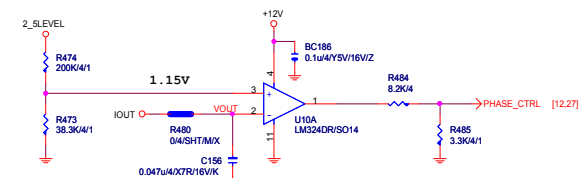
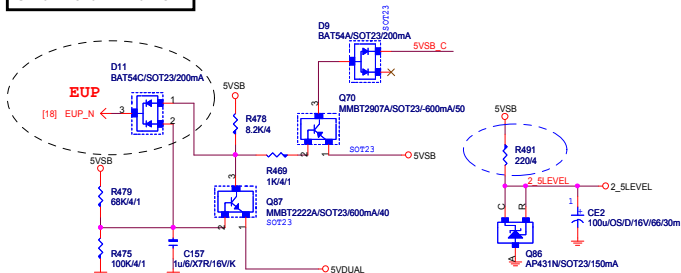
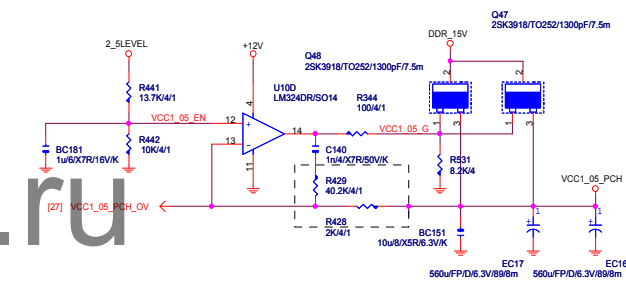
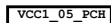
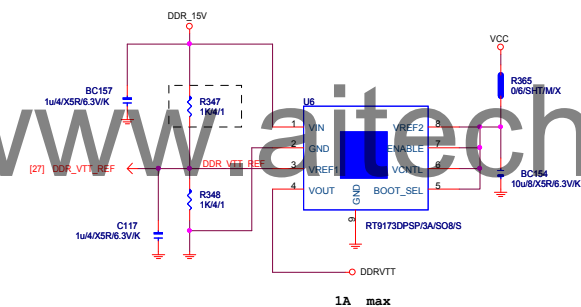
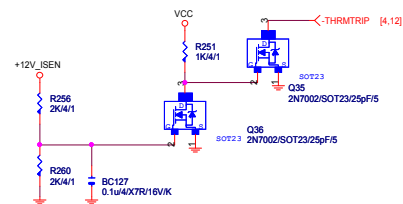
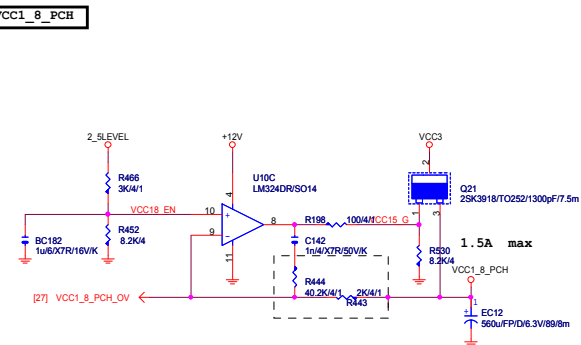
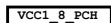
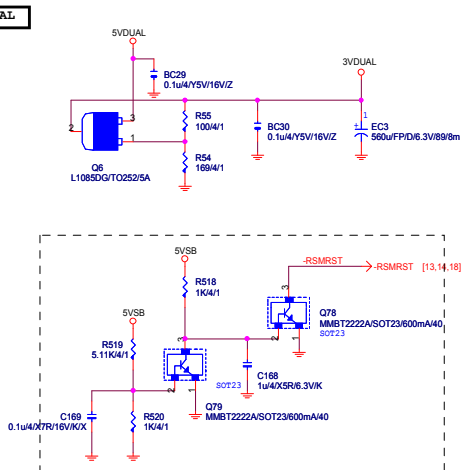
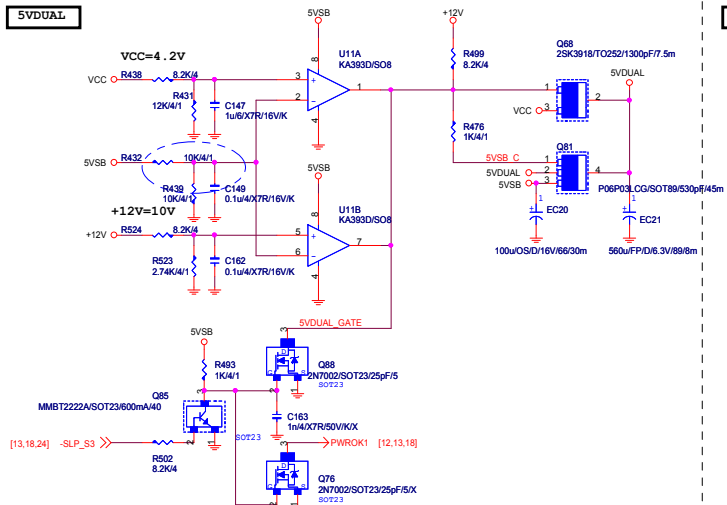
FSC	FSB	FSA	CPU
0	0	0	266MHz
0	0	1	133MHz
0	1	0	200MHz
0	1	1	166MHz
1	0	0	333MHz
1	1	0	400MHz



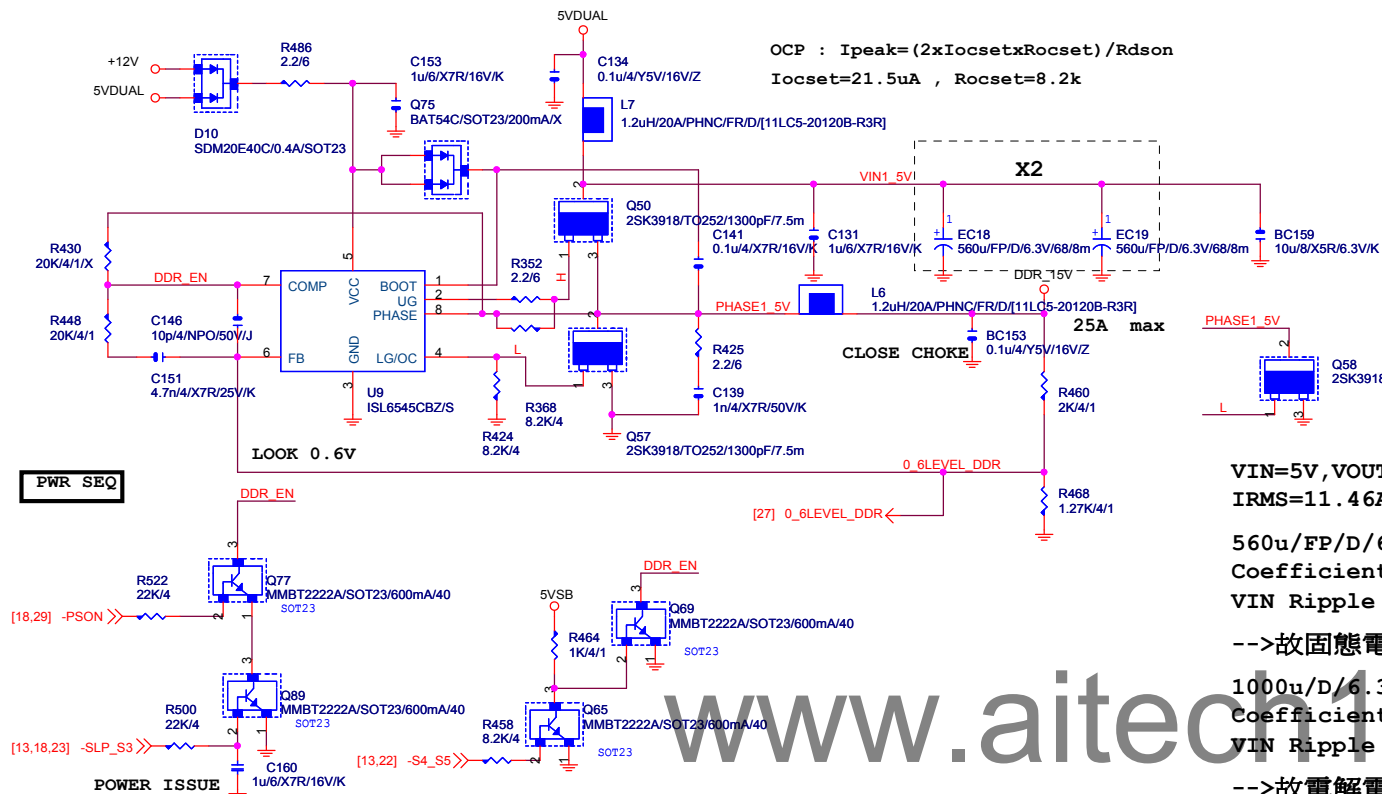
SEL\_STOP: latched input to select pin functionality  
1 = Selects pin 44/45 to be PCI\_STOP#/CPU\_STOP#  
0 = Selects pin 44/45 to be PCIE outputs ;  
3.3V PCICLK output

Gigabyte Technology

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CK505 CLK GEN			1.31
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# DDR1\_5V



$$OCP : I_{peak} = (2 \times I_{ocset} \times R_{ocset}) / R_{dson}$$

$$I_{ocset} = 21.5 \mu A, R_{ocset} = 8.2 k$$

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 $2 \times 9.52 = 19.04 > 11.46A$

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

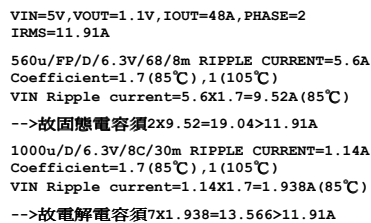
-->故固態電容須 $1 \times 9.52 = 9.52 > 3.5A$

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

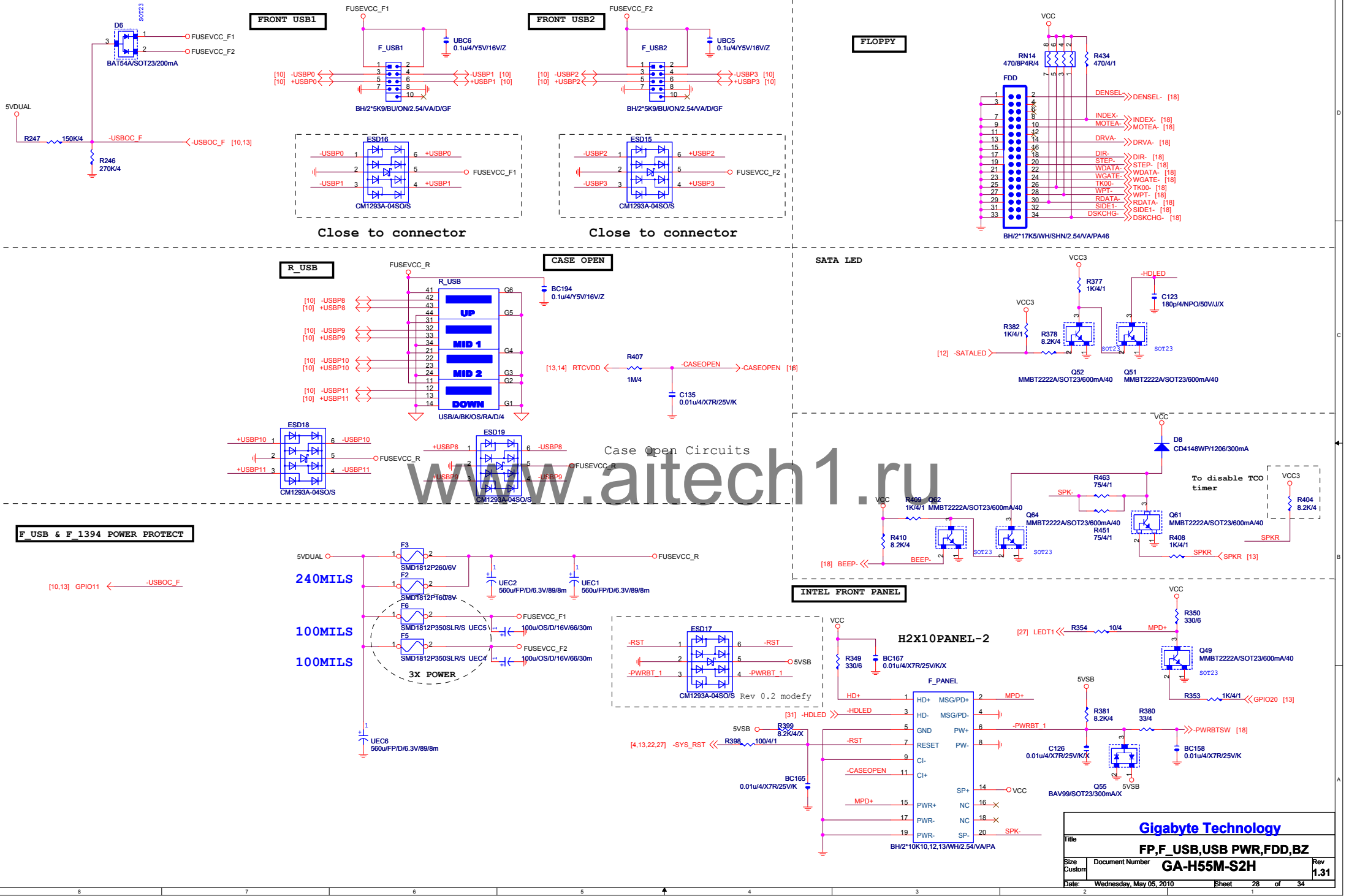
Gigabyte Technology

Title			DDR_15V
Size	Document Number	GA-H55M-S2H	
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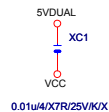
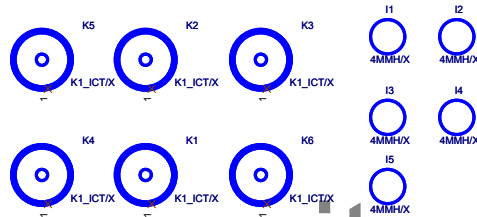
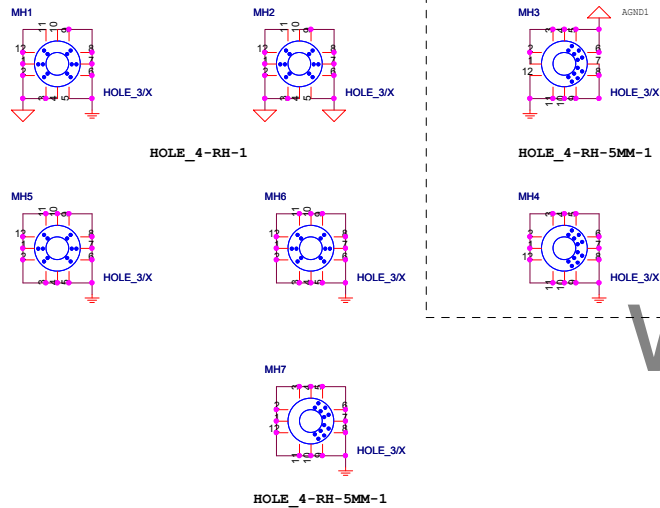
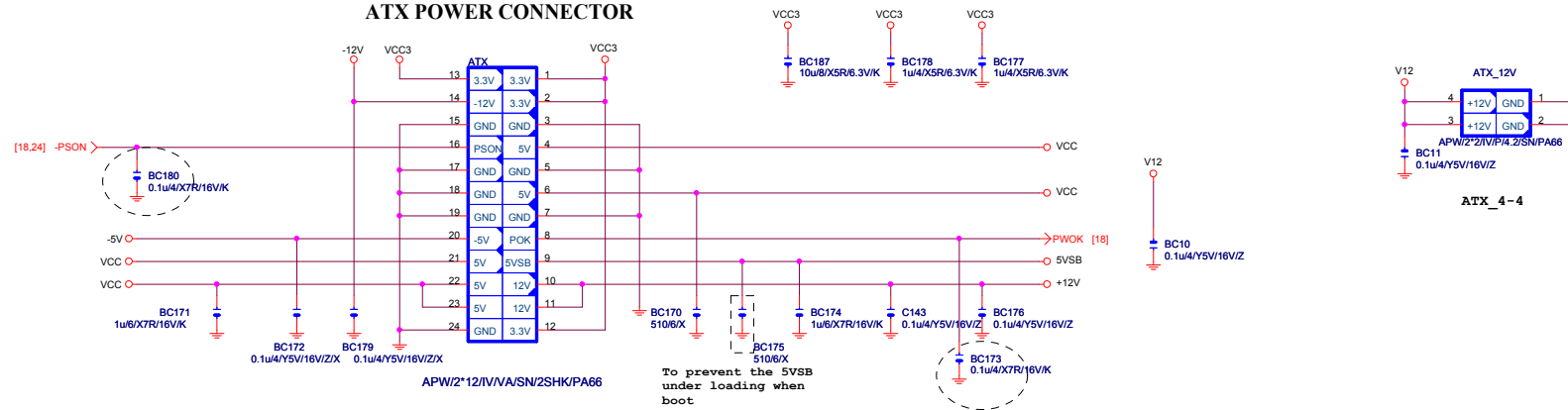




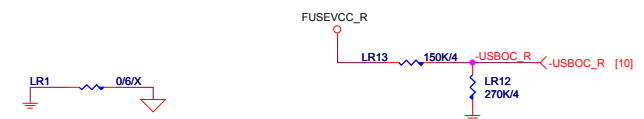
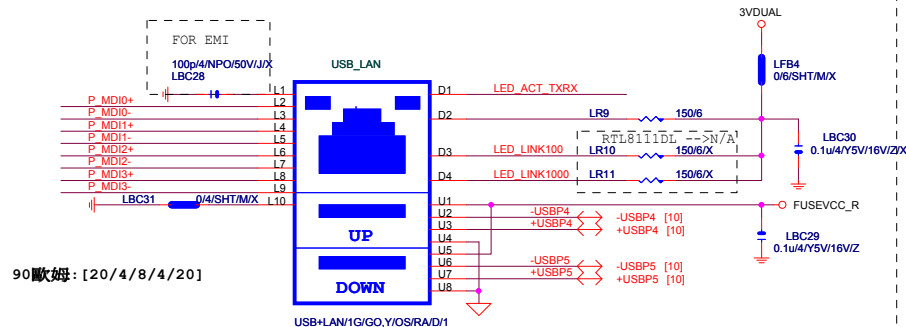
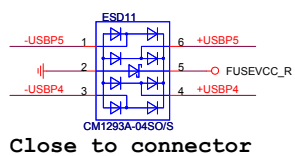
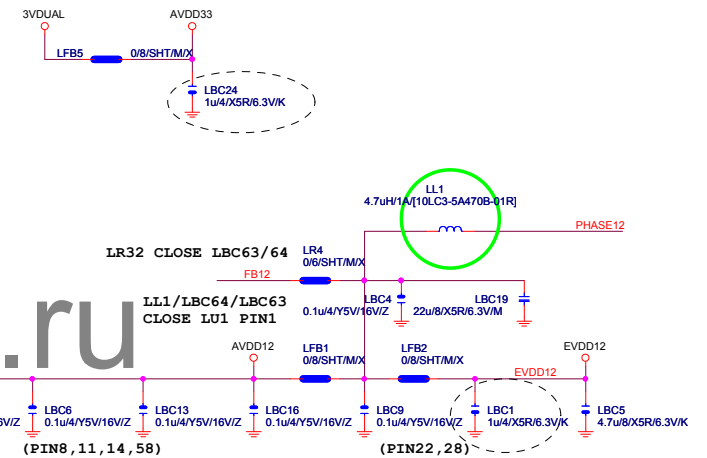
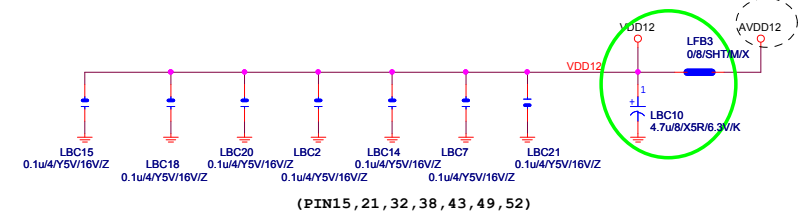
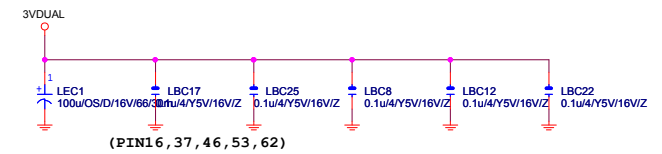
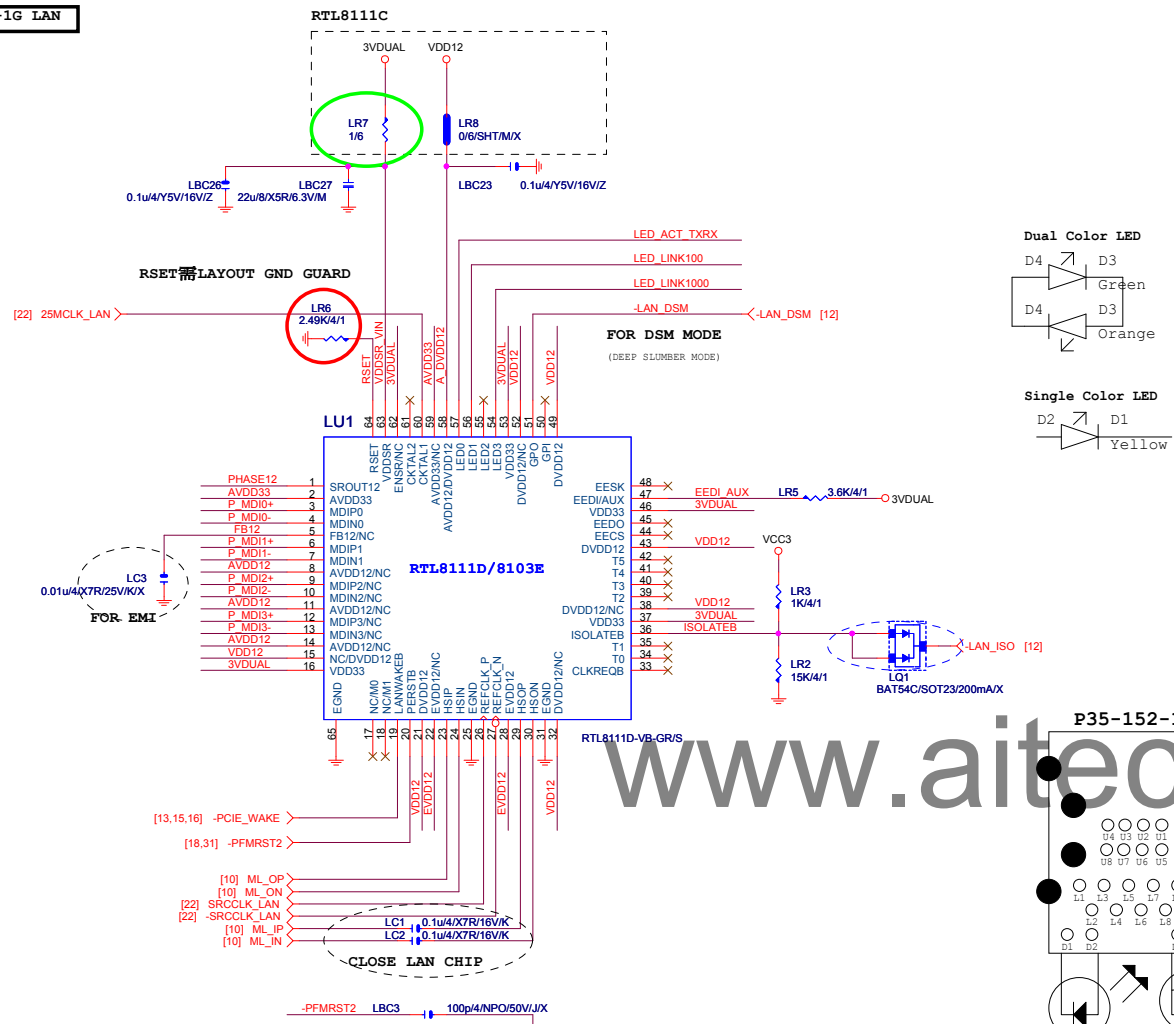




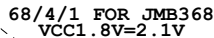
# ATX POWER CONNECTOR



## PCIE-1G LAN

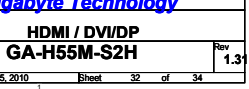
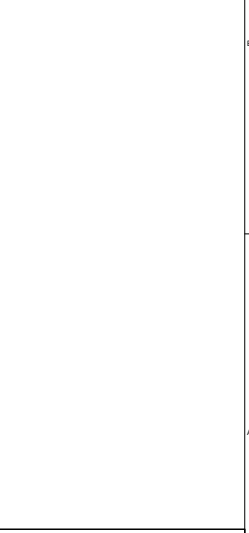
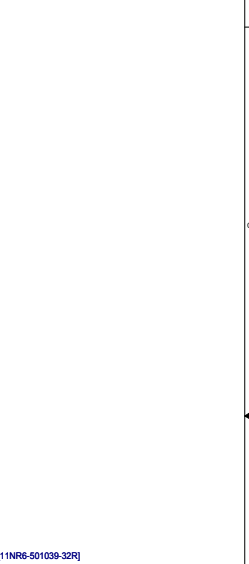
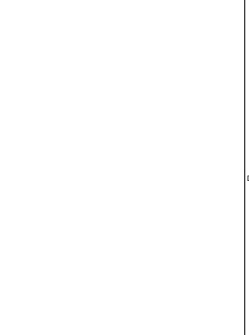
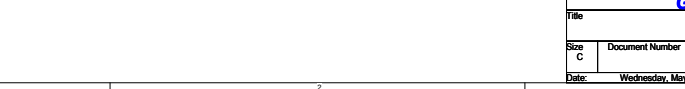
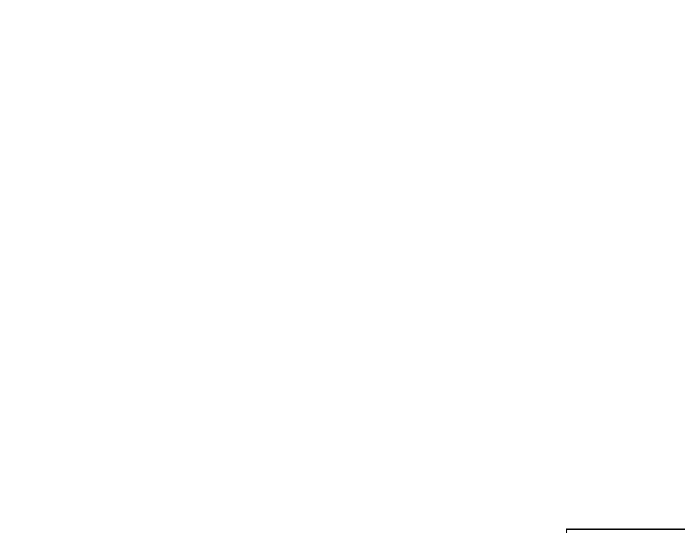
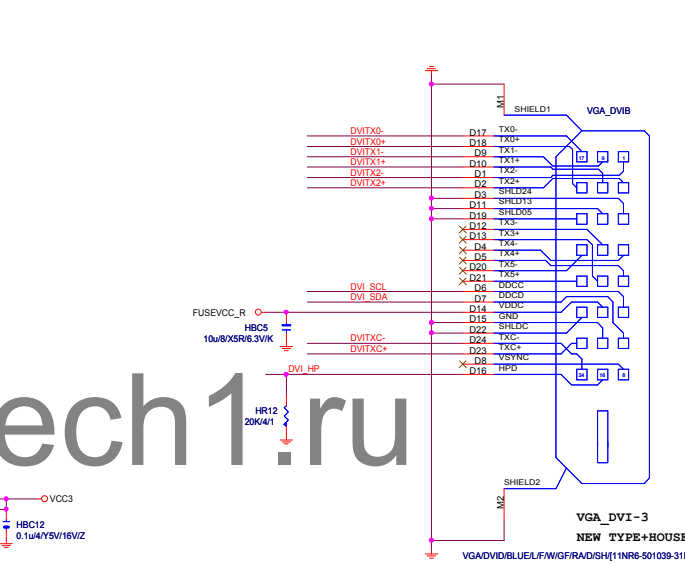
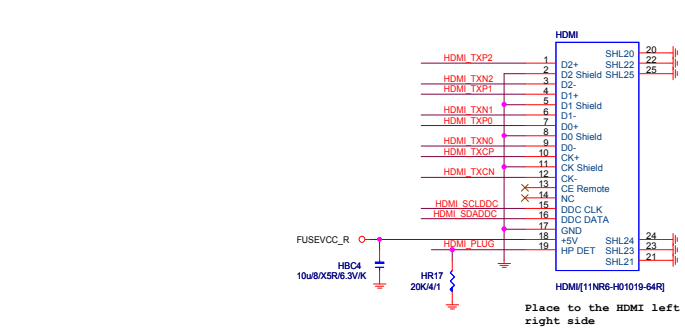
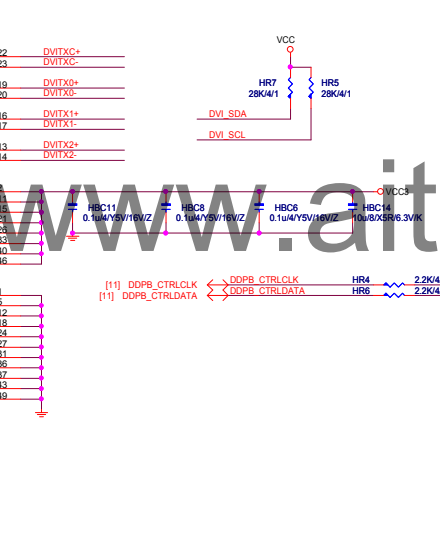
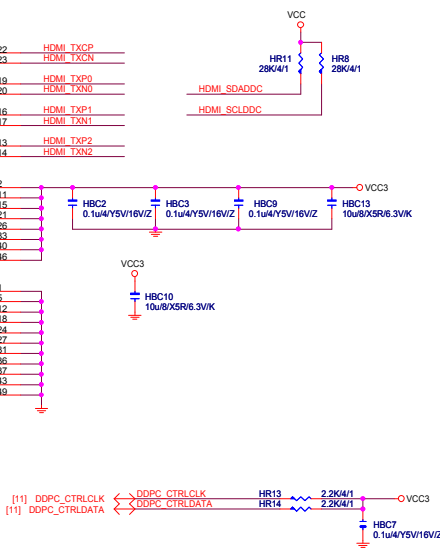
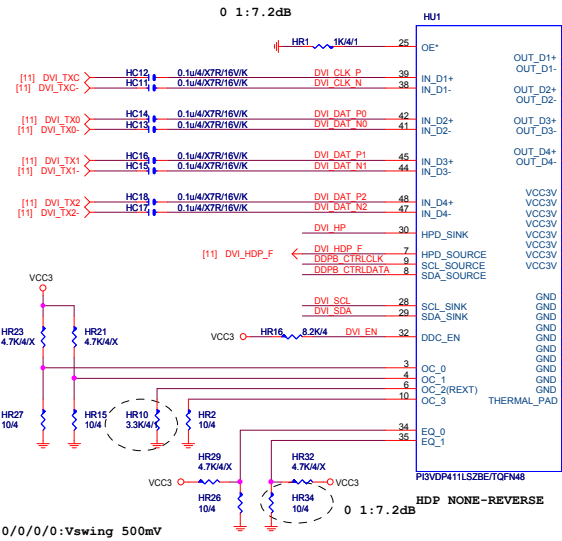
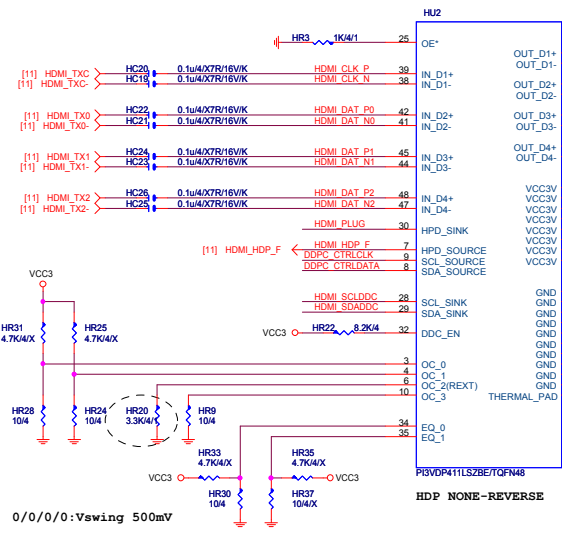


L1117LG/N/SOT223/1A

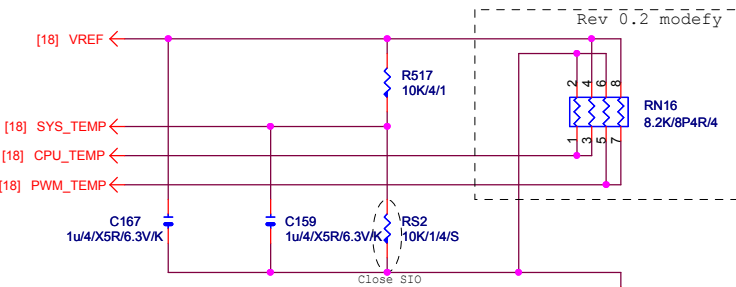


PH_IORDY	IORDYA
PH_DMARQ	DMARQA
PH_INTRQ	INTRQA
PH_CBLID_N	PDIAGnA

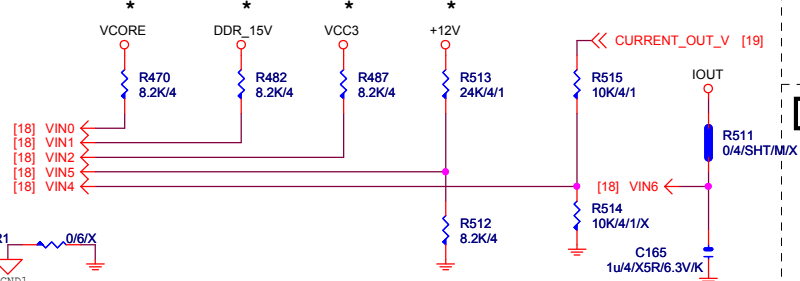




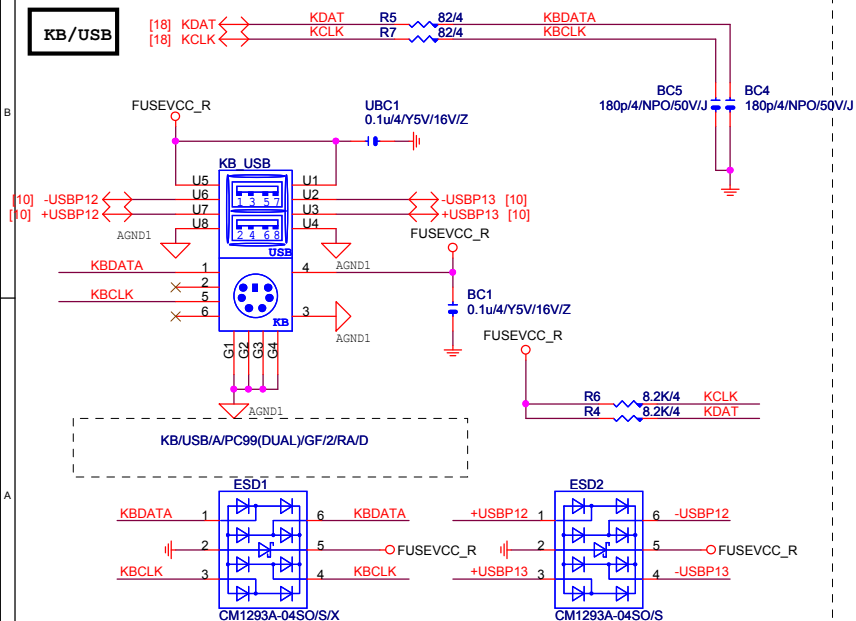
## TEMP H/W MONITOR



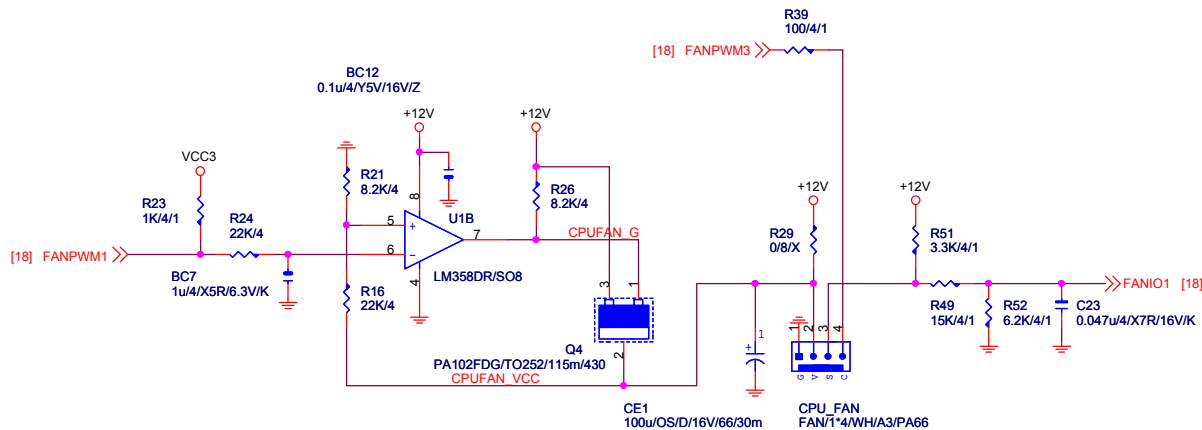
VOLTAGE-- H/W MONITOR



KB/USB



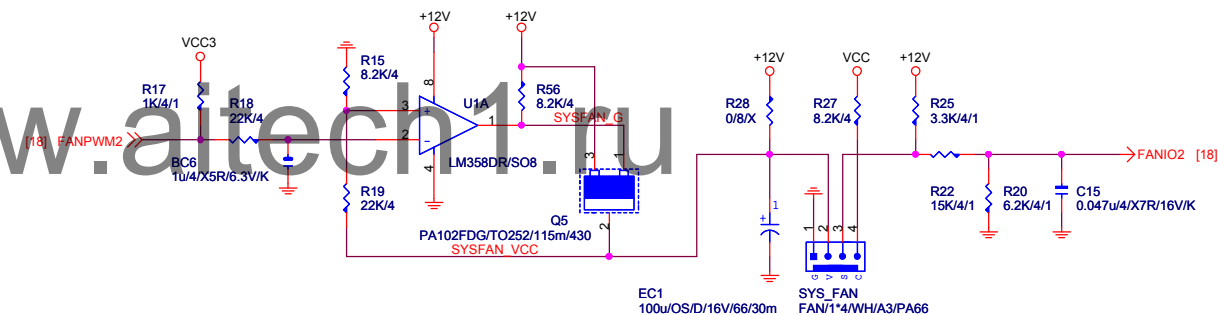
## CPU SMART FAN



```

SYS SMART FAN      Linear SYS_FAN

```

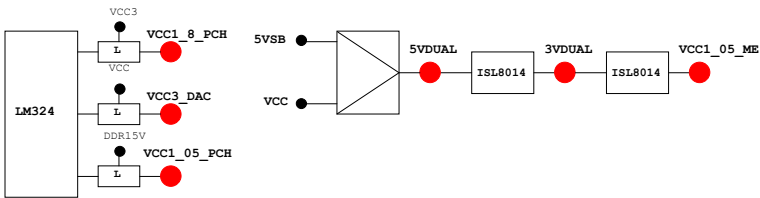


PCH GPIO LIST TABLE					
PIN NAME	PWR	AFTER PLTST	Default	USAGE	NOTE
GP0	MAIN	H-Z	GPI	-PECI_REQ	N/A
GP1/TACH1	MAIN		GPI	ICH_FAN_TACH1	N/A
GP2/PIRQE#	MAIN		GPI	-PIRQE	P/U 8.2K VCC3
GP3/PIRQF#	MAIN		GPI	-PIRQF	P/U 8.2K VCC3
GP4/PIRQG#	MAIN		GPI	-PIRQG	P/U 8.2K VCC3
GP5/PIRQH#	MAIN		GPI	-PIRQH	P/U 8.2K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

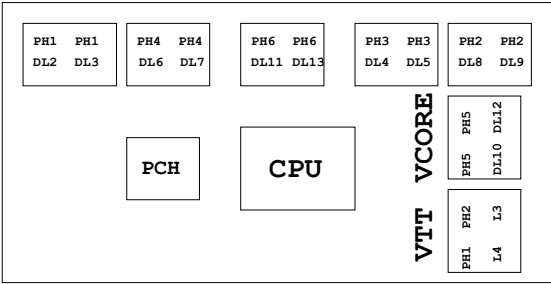
Super I/O ITE8720 GPIO Table

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/BUSSI0	NB_LED3_C	
GP22/SEN	LOW_PWR_1	
VIDO5/GP27/SEN2	LOW_PWR_2	
PCIRST2#/GP11	-PFMRST1	
PCIRST1#/GP12	-PFMRST2	
3VSB5W#/GP40	CSI_F0	BSEL166_1
SUSCH#/GP53	CSI_F1	BSEL166_2
GP23/SI	BSEL166_3/CSISBSL	
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	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/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