

Model Name: GA-H81M-S1

Revision 2.0

SHEET

TITLE

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02	BOM & PCB MODIFY HISTORY
03	BLOCK DIAGRAM
04	CPU_LGA1150-A
05	CPU_LGA1150-B
06	CPU_LGA1150-C
07	DDR III CHANNEL A
08	DDR III CHANNEL B
09	PCH_FDI,DMI,USB,PCIE,NVRAM
10	PCH_DP,CLK BUFFER
11	PCH_HOST,SATA,PCI
12	PCH_GPIO,CTRL,AUDIO
13	PCH_PWR,GND
14	PCI EXPRESS*16 SLOT
15	PCI EXPRESS X1 *2 SLOT
16	ITE 8620
17	COM,KB_MS_USB,USB30_20
18	HWM,FAN CTRL,OV,-PROCHOT
19	DUAL BIOS
20	FP,FUSB,SPK,SATALED
21	Realtek ALC887-VD2
22	REAR AUDIO JACK
23	REALTEK RTL8111F
24	DISCRETE POWER
25	ATX , CLOCK GEN
26	VCORE ISL95812_1
27	VCORE ISL95812_2

SHEET

TITLE

28	RT8120_DDR POWER
29	
30	
31	
32	

Gigabyte Technology

Cover Sheet

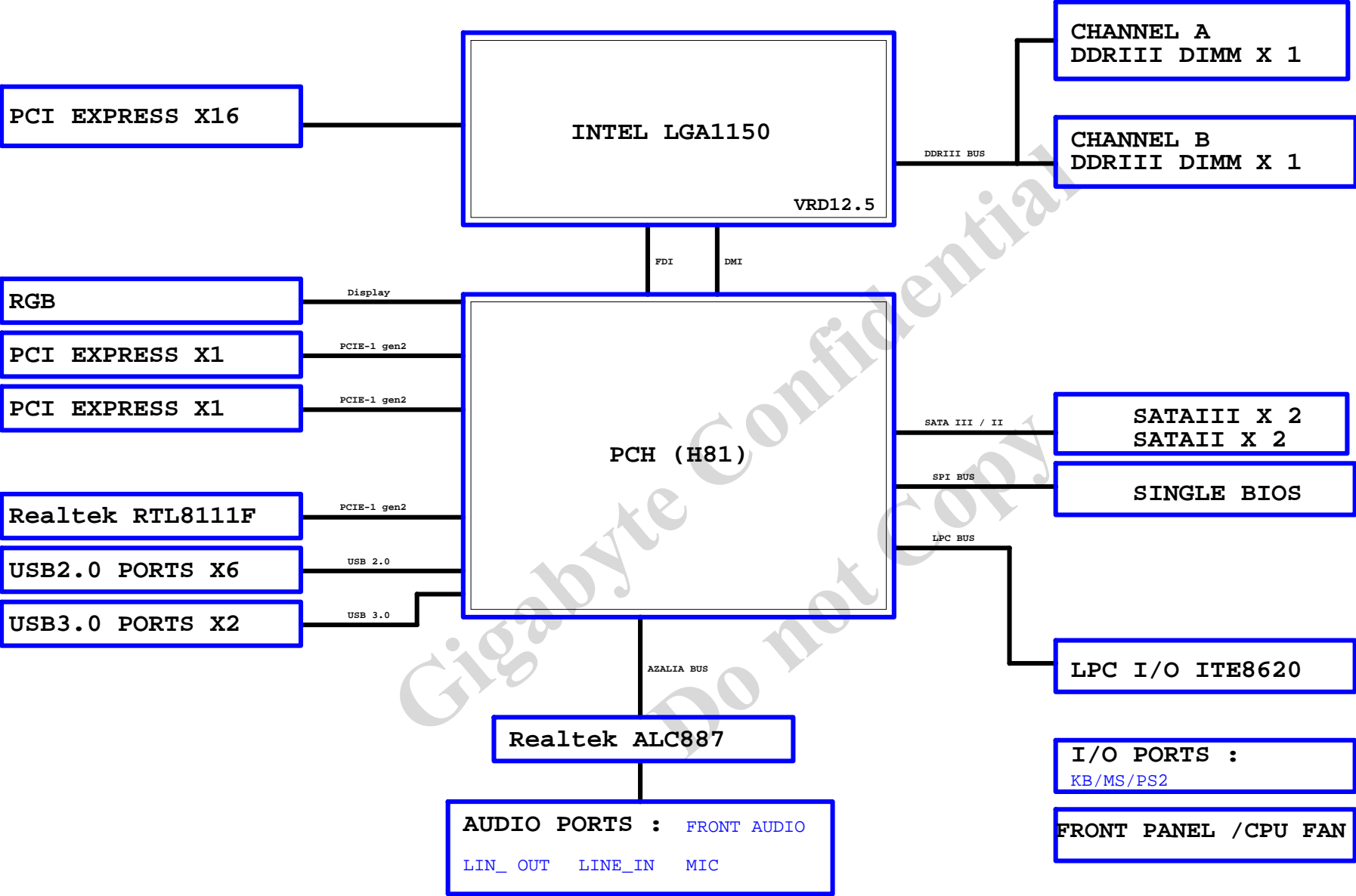
Size Custom	Document Number <b>GA-H81M-S1</b>	Rev <b>2.0</b>
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## Circuit or PCB layout change

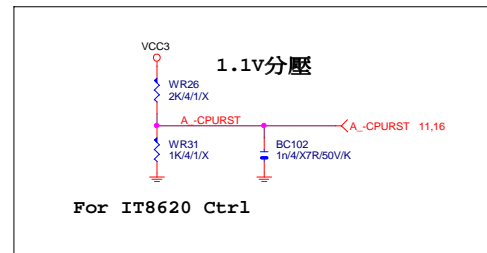
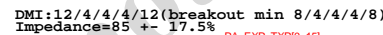
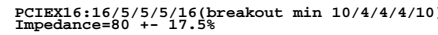
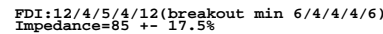
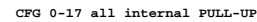
## 2013/05/02

[illegible]

BLOCK DIAGRAM



**LGA1150 (D)**



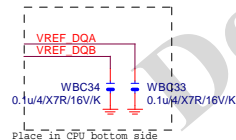
## LGA1150 (A)

LGA1150A		DDR0_MA0	DDR0_D00	AD38	MDA0
MAAA0	AU13	DDR0_MA1	DDR0_D01	AD39	MDA1
MAAA1	AV16	DDR0_MA2	DDR0_D02	AF38	MDA2
MAAA2	AU16	DDR0_MA3	DDR0_D03	AF39	MDA3
MAAA3	AW17	DDR0_MA4	DDR0_D04	AD37	MDA4
MAAA4	AU17	DDR0_MA5	DDR0_D05	AD40	MDA5
MAAA5	AW18	DDR0_MA6	DDR0_D06	AE37	MDA6
MAAA6	AV17	DDR0_MA7	DDR0_D07	AF40	MDA7
MAAA7	AT18	DDR0_MA8	DDR0_D08	AH40	MDA9
MAAA8	AU18	DDR0_MA9	DDR0_D09	AH39	MDA10
MAAA9	AT19	DDR0_MA10	DDR0_D10	AK38	MDA11
MAAA10	AW11	DDR0_MA11	DDR0_D11	AK39	MDA12
MAAA11	AV19	DDR0_MA12	DDR0_D12	AH37	MDA12
MAAA12	AU19	DDR0_MA13	DDR0_D13	AH38	MDA14
MAAA13	AT20	DDR0_MA14	DDR0_D14	AK37	MDA14
MAAA14	AW21	DDR0_MA15	DDR0_D15	AK40	MDA15
MAAA15	AU21	DDR0_MA16	DDR0_D16	AM40	MDA17
MODT_A0	AW10	DDR0_ODT0	DDR0_D17	AM39	MDA21
MODT_A1	AV8	DDR0_ODT1	DDR0_D18	AP38	MDA18
AW9		DDR0_ODT2	DDR0_D19	AP39	MDA19
AW8		DDR0_ODT3	DDR0_D20	AM37	MDA20
AW33		DDR0_ECC0	DDR0_D21	AM38	MDA16
AW33		DDR0_ECC1	DDR0_D22	AP37	MDA22
AU31		DDR0_ECC2	DDR0_D23	AP40	MDA23
AU31		DDR0_ECC3	DDR0_D24	AW37	MDA29
AU33		DDR0_ECC4	DDR0_D25	AU35	MDA26
AT33		DDR0_ECC5	DDR0_D26	AU35	MDA27
AT31		DDR0_ECC6	DDR0_D27	T37	MDA28
AW31		DDR0_ECC7	DDR0_D28	AU37	MDA24
			DDR0_D29	AT35	MDA30
			DDR0_D30	AW35	MDA31
			DDR0_D31	AY6	MDA33
7 SBAA0	SBAA0	DDR0_BA0	DDR0_D32	AU6	MDA37
7 SBAA1	SBAA1	DDR0_BA1	DDR0_D33	AW6	MDA36
7 SBAA2	SBAA2	DDR0_BA2	DDR0_D34	AW4	MDA34
			DDR0_D35	AU4	MDA35
7 CKEA0	CKEA0	DDR0_CKE0	DDR0_D36	AW6	MDA32
7 CKEA1	CKEA1	DDR0_CKE1	DDR0_D37	AW4	MDA38
			DDR0_CKE2	AW4	MDA39
			DDR0_CKE3	AR1	MDA41
7 -CSA0	-CSA0	DDR0_CS_N0	DDR0_D40	AR4	MDA45
7 -CSA1	-CSA1	DDR0_CS_N1	DDR0_D41	AN3	MDA42
			DDR0_CS_N2	AN4	MDA43
			DDR0_CS_N3	AR2	MDA44
			DDR0_CLK_P0	AR3	MDA40
7 DCLKA0	DCLKA0	DDR0_CLK_P0	DDR0_D46	AN2	MDA46
7 -DCLKA0	-DCLKA0	DDR0_CLK_N0	DDR0_D47	AN1	MDA47
7 DCLKA1	DCLKA1	DDR0_CLK_P1	DDR0_D48	AL1	MDA49
7 -DCLKA1	-DCLKA1	DDR0_CLK_N1	DDR0_D49	AL4	MDA53
			DDR0_CLK_P2	AJ4	MDA51
			DDR0_CLK_N2	AJ2	MDA52
			DDR0_CLK_P3	AL3	MDA48
			DDR0_CLK_N3	AJ2	MDA54
			DDR0_D54	AJ1	MDA55
			DDR0_D55	AG1	MDA57
			DDR0_D56	AG4	MDA61
			DDR0_D57	AE3	MDA58
			DDR0_D58	AE4	MDA59
			DDR0_D59	AG2	MDA60
			DDR0_D60	AG3	MDA56
7 -SRASA	-SRASA	DDR0_RAS*	DDR0_D61	AE2	MDA62
7 -SWEA	-SWEA	DDR0_WE*	DDR0_D62	AE1	MDA63
			DDR0_D63	AE39	DQSA0
			DDR0_D64	AJ39	DQSA1
			DDR0_D65	AN39	DQSA2
			DDR0_D66	AV36	DQSA3
			DDR0_D67	AV5	DQSA4
			DDR0_D68	AP3	DQSA5
			DDR0_D69	AK3	DQSA6
			DDR0_D70	AF3	DQSA7
			DDR0_D71	AV32	DQSA2
			DDR0_D72	AE38	DQSA0
			DDR0_D73	AJ38	DQSA1
			DDR0_D74	AN38	DQSA2
			DDR0_D75	AJ36	DQSA3
			DDR0_D76	AW5	DQSA4
			DDR0_D77	AP2	DQSA5
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			DDR0_D79	AF2	DQSA7
			DDR0_D80	AJ32	DQSA2

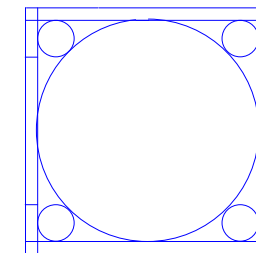
HASWELL[10SC1-F01150-11R\_10SC1-F01150-12R]

## LGA1150 (B)

LGA1150B		DDR1_MA0	DDR1_D00	AE34	MDB0
MAAB0	AL19	DDR1_MA1	DDR1_D01	AE35	MDB1
MAAB1	AK23	DDR1_MA2	DDR1_D02	AG35	MDB2
MAAB2	AM22	DDR1_MA3	DDR1_D03	AH35	MDB3
MAAB3	AM23	DDR1_MA4	DDR1_D04	AD34	MDB4
MAAB4	AP23	DDR1_MA5	DDR1_D05	AD35	MDB5
MAAB5	AL23	DDR1_MA6	DDR1_D06	AG34	MDB6
MAAB6	AY24	DDR1_MA7	DDR1_D07	AH34	MDB7
MAAB7	AV25	DDR1_MA8	DDR1_D08	AL34	MDB8
MAAB8	AU26	DDR1_MA9	DDR1_D09	AL35	MDB9
MAAB9	AW25	DDR1_MA10	DDR1_D10	AK31	MDB10
MAAB10	AP18	DDR1_MA11	DDR1_D11	AK31	MDB11
MAAB11	AY25	DDR1_MA12	DDR1_D12	AK34	MDB12
MAAB12	AV26	DDR1_MA13	DDR1_D13	AK35	MDB13
MAAB13	AR15	DDR1_MA14	DDR1_D14	AK32	MDB14
MAAB14	AV27	DDR1_MA15	DDR1_D15	AL32	MDB15
MAAB15	AY28	DDR1_MA16	DDR1_D16	AL34	MDB17
MODT_B0	AM17	DDR1_ODT0	DDR1_D17	AP34	MDB21
MODT_B1	AL16	DDR1_ODT1	DDR1_D18	AK31	MDB19
AM16		DDR1_ODT2	DDR1_D19	AP31	MDB23
AK15		DDR1_ODT3	DDR1_D20	AP35	MDB20
			DDR1_D21	AP35	MDB16
			DDR1_D22	AN32	MDB18
			DDR1_D23	AP32	MDB22
			DDR1_D24	AM29	MDB25
			DDR1_D25	AM28	MDB28
			DDR1_D26	AR29	MDB27
			DDR1_D27	AR28	MDB30
			DDR1_D28	AL28	MDB29
			DDR1_D29	AP29	MDB26
			DDR1_D30	AP28	MDB31
8 SBAB0	SBAB0	DDR1_BA0	DDR1_D31	AR12	MDB32
8 SBAB1	SBAB1	DDR1_BA1	DDR1_D32	AP12	MDB33
8 SBAB2	SBAB2	DDR1_BA2	DDR1_D33	AL13	MDB34
			DDR1_D34	AL12	MDB35
8 CKEB0	CKEB0	DDR1_CKE0	DDR1_D35	AR13	MDB36
8 CKEB1	CKEB1	DDR1_CKE1	DDR1_D36	AP13	MDB37
			DDR1_CKE2	AM13	MDB38
			DDR1_CKE3	AM12	MDB39
			DDR1_D40	AR9	MDB45
8 -CSB0	-CSB0	DDR1_CS_N0	DDR1_D41	AP9	MDB41
8 -CSB1	-CSB1	DDR1_CS_N1	DDR1_D42	AR6	MDB47
			DDR1_CS_N2	AP6	MDB43
			DDR1_CS_N3	AR10	MDB44
			DDR1_D44	AP10	MDB40
			DDR1_D45	AR7	MDB46
			DDR1_D46	AP7	MDB42
			DDR1_D47	AM9	MDB52
8 DCLKB0	DCLKB0	DDR1_CLK_P0	DDR1_D48	AL9	MDB53
8 -DCLKB0	-DCLKB0	DDR1_CLK_N0	DDR1_D49	AL6	MDB50
8 DCLKB1	DCLKB1	DDR1_CLK_P1	DDR1_D50	AL7	MDB55
8 -DCLKB1	-DCLKB1	DDR1_CLK_N1	DDR1_D51	AM10	MDB48
			DDR1_D52	AL10	MDB49
			DDR1_D53	AM6	MDB54
			DDR1_D54	AM2	MDB51
			DDR1_D55	AH6	MDB61
			DDR1_D56	AH7	MDB60
8 -SCASB	-SCASB	DDR1_CAS*	DDR1_D57	AE6	MDB59
			DDR1_D58	AE7	MDB63
8 -SRASB	-SRASB	DDR1_RAS*	DDR1_D59	AJ6	MDB56
8 -SWEB	-SWEB	DDR1_WE*	DDR1_D60	AJ7	MDB57
			DDR1_D61	AG6	MDB58
			DDR1_D62	AF7	MDB62
7 VREF_DOA	VREF DOA	DDR_VREF_DO0	DDR1_D63	AF35	DQSB0
7 VREF_DOB	VREF DOB	DDR_VREF_DO1	DDR1_D64	AL33	DQSB1
			DDR1_D65	AP33	DQSB2
			DDR1_D66	AN28	DQSB3
			DDR1_D67	AN12	DQSB4
			DDR1_D68	AP8	DQSB5
			DDR1_D69	AL8	DQSB6
			DDR1_D70	AG7	DQSB7
			DDR1_D71	AN25	DQSB0
			DDR1_D72	AE34	DQSB0
			DDR1_D73	AK33	DQSB1
			DDR1_D74	AN33	DQSB2
			DDR1_D75	AN29	DQSB3
			DDR1_D76	AN13	DQSB4
			DDR1_D77	AR8	DQSB5
			DDR1_D78	AM8	DQSB6
			DDR1_D79	AG6	DQSB7
			DDR1_D80	AN26	DQSB0



## LGA1150 (CR)

CR  
CPU RETENTION/X

LGA1150



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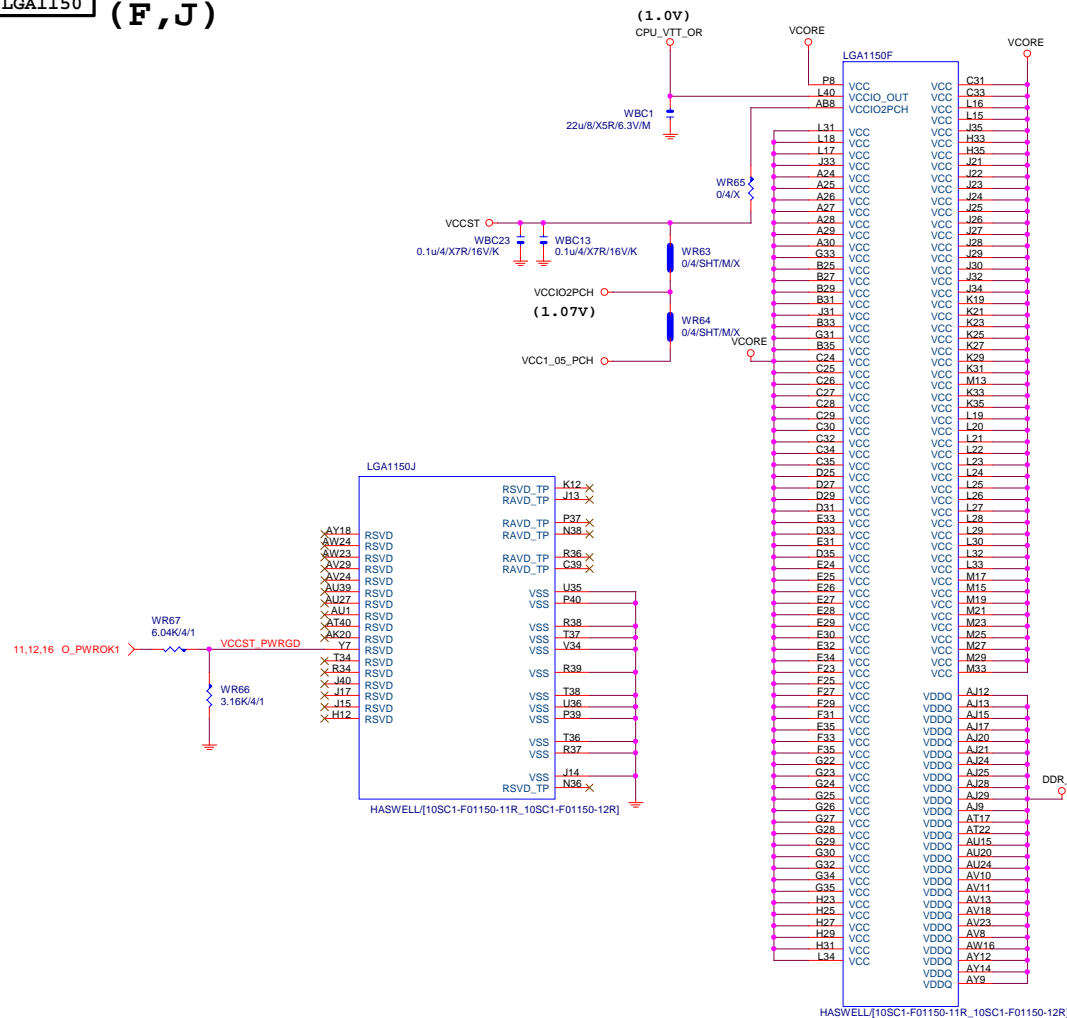
DDR BUS

7 MODT_A[0..1]	MODT_A0..1
8 MODT_B[0..1]	MODT_B0..1
7 MDA[0..63]	MDA0..63
8 MDB[0..63]	MDB0..63
7 DQSA[0..7]	DQSA0..7
7 -DQSA[0..7]	-DQSA0..7
7 MAA[0..15]	MAA0..15
8 MAB[0..15]	MAB0..15
8 DQSB[0..7]	DQSB0..7
8 -DQSB[0..7]	-DQSB0..7

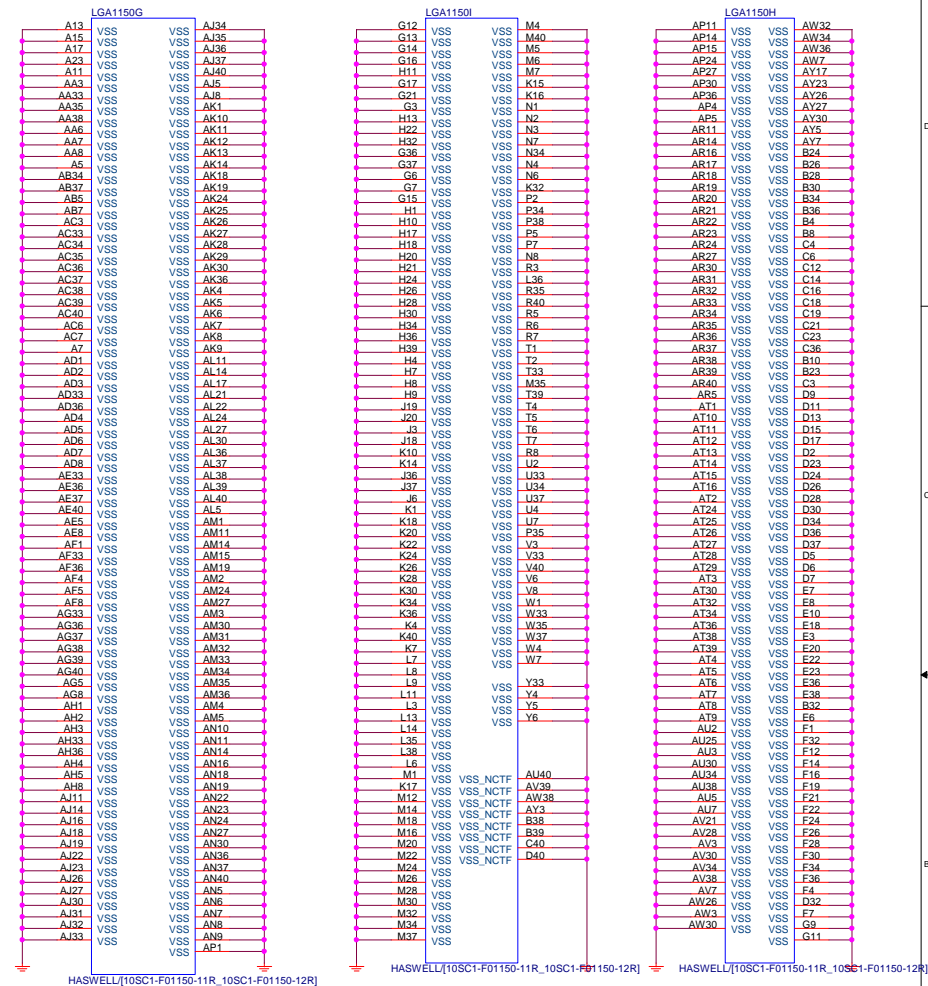
Gigabyte Technology

Title		CPU LGA1150-B	
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**LGA1150 (F,J)**

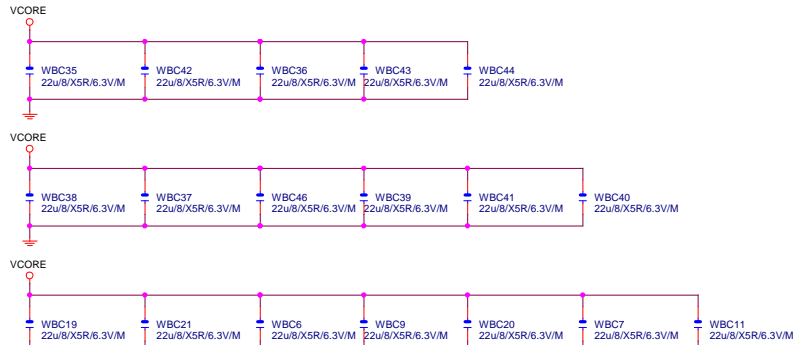


LGA1155 (G,H,I)



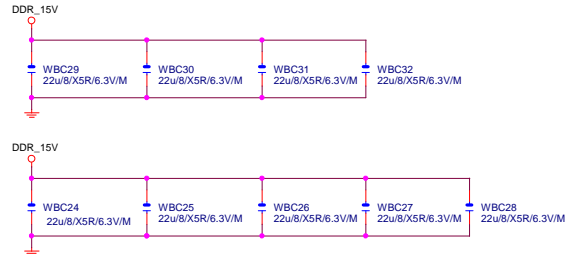
## VCore CAP

(x18)



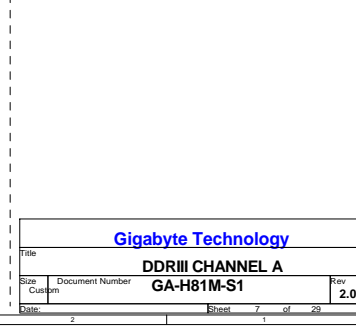
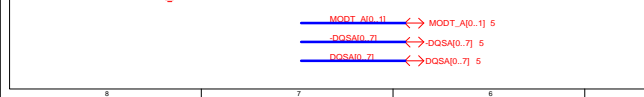
## DDR CAP

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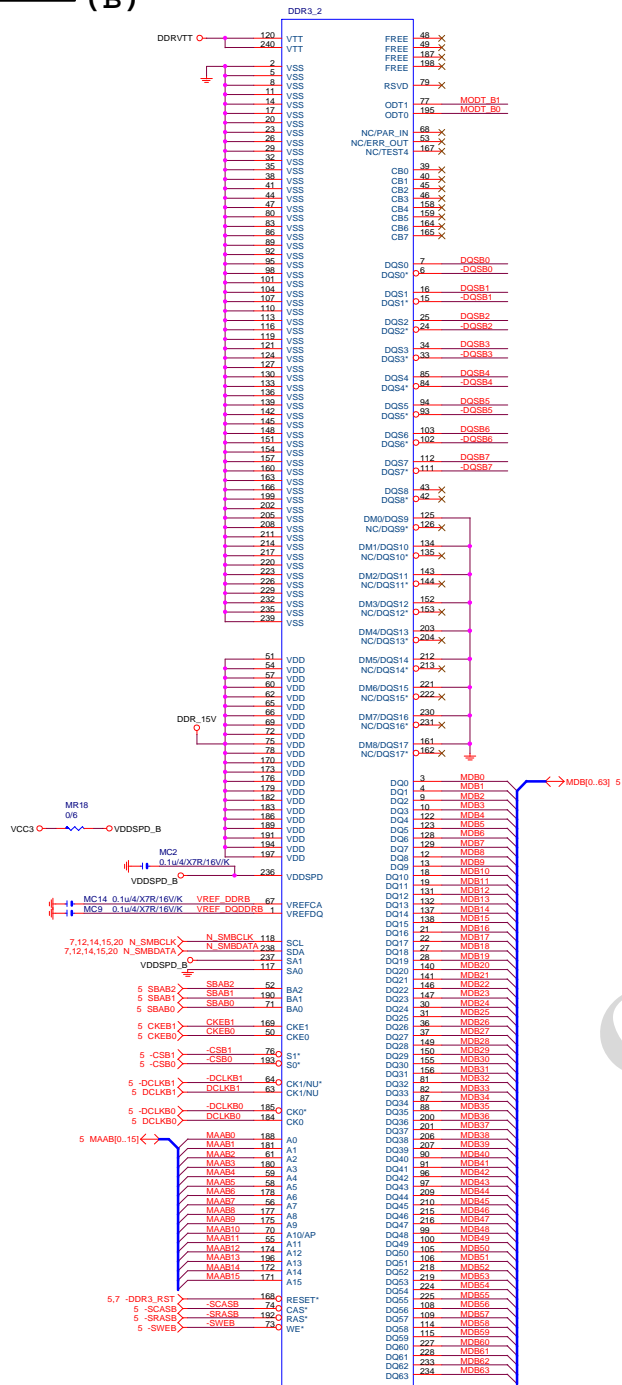
## Gigabyte Technology

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CPU LGA1150-C				
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(B)



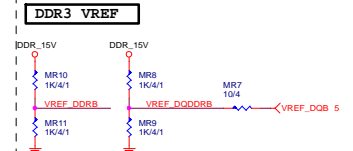
DDR3/240/BK/VA/D

**BLACK CONNECTOR**

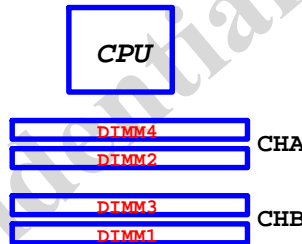
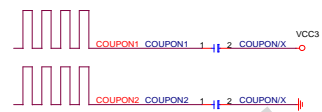
$\text{DQSB}[0..7] \leftarrow \text{DQSB}[0..7] \oplus 5$

DQSB[0..7] < DQSB[0..7] 5

MODT\_B[0..1]  $\longleftrightarrow$  MODT\_B[0..1] 5



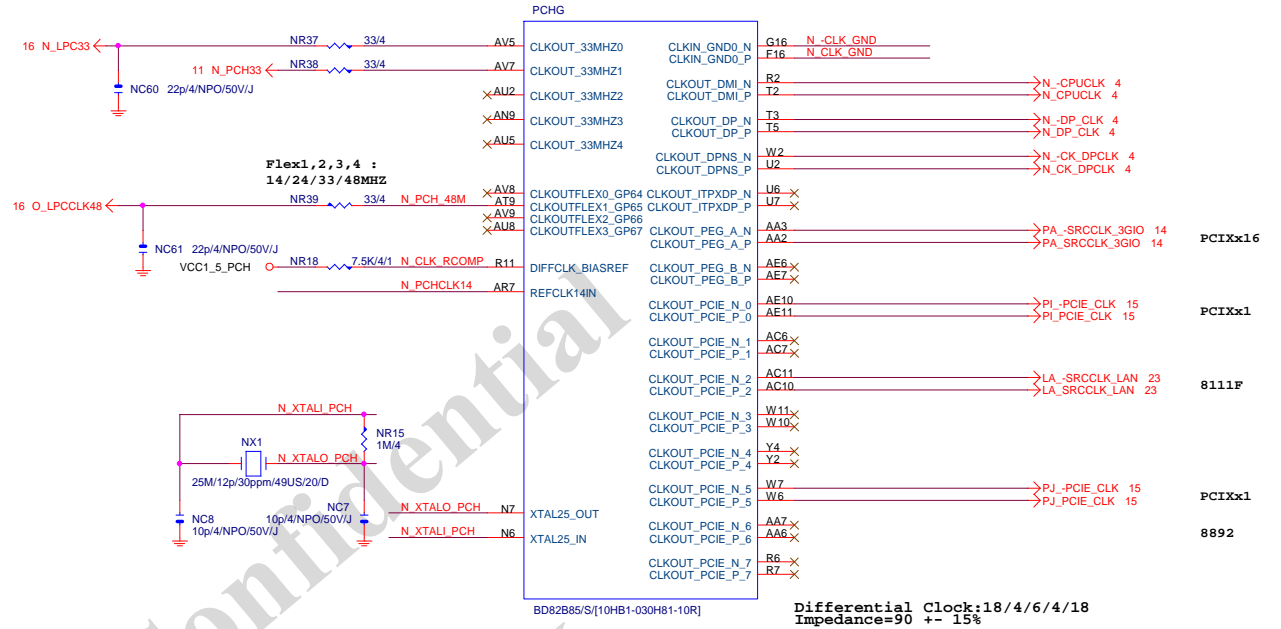
**COUPON**





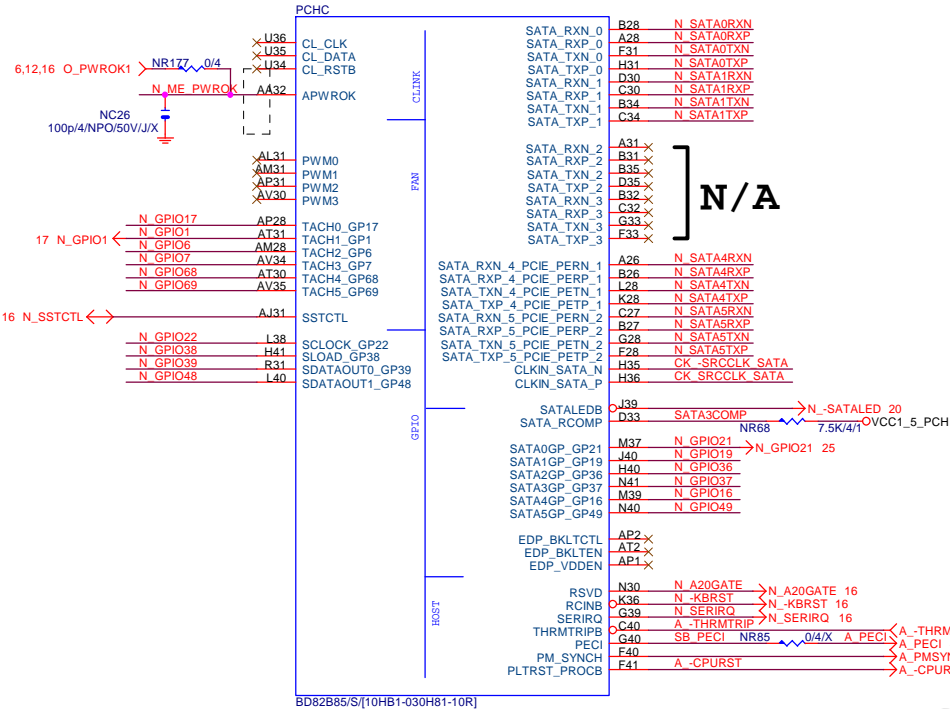


**PCH (G)**

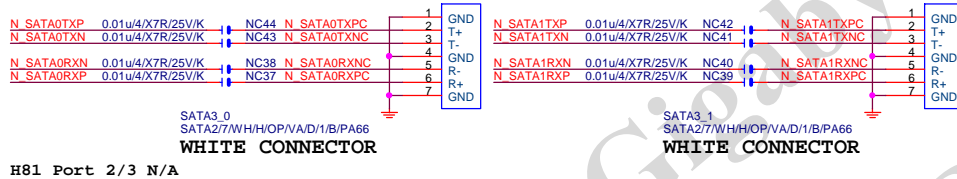


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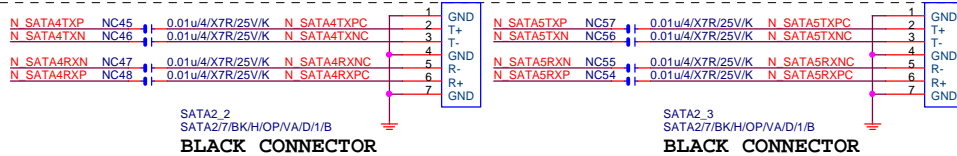
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Impedance=90 +- 17.5%  
SATA2 : 15/7.5/4.5/7.5/15 (breakout min 8/4/4/4/8)  
Impedance=90 +- 17.5%



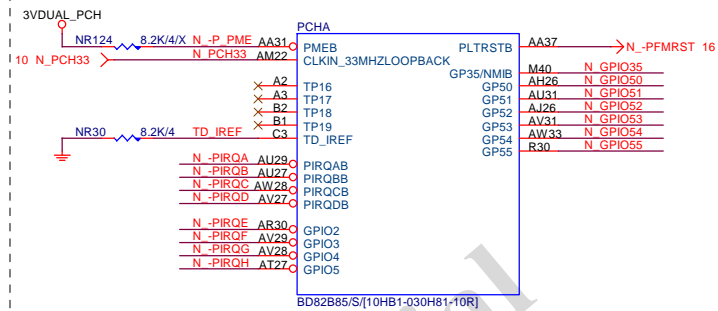
## SATA CONNECTOR



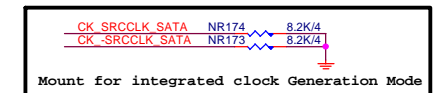
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** Z87/H87 Port 4&5 SATA3.0
** B85 Port 4&5 SATA2.0
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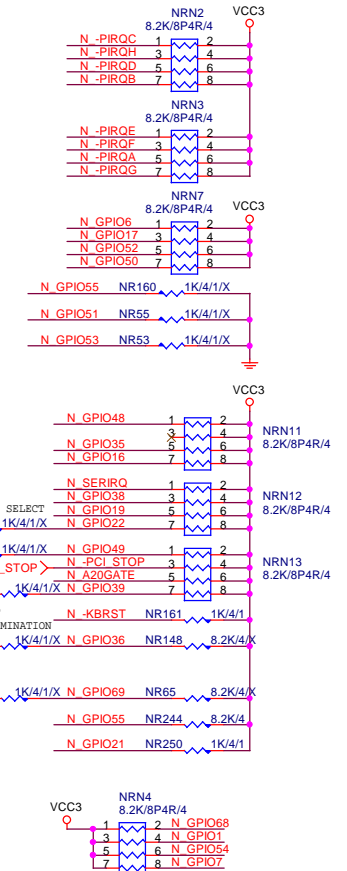
**PCH (A)**



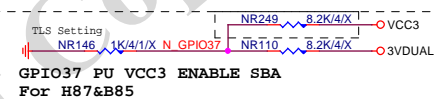
PCH	CLK	PD
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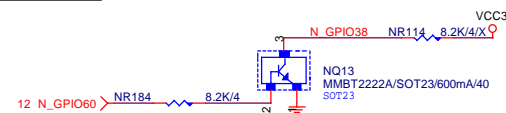
PCH	PU/PD
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## ME PWROK



GPI038 Ctrl



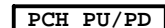
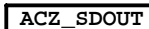
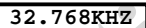
## Gigabyte Technology

PCH HOST , SATA, PCI

GA-H81M-S1

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PCH HOST , SATA, PCI			
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(D)



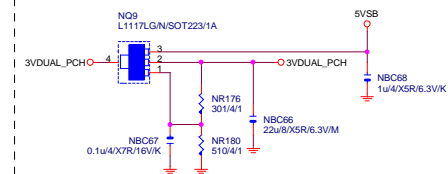
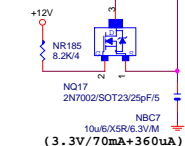
## PCH GPIO , CTRL , AUDIO

Title			
PCH GPIO , CTRL , AUDIO			
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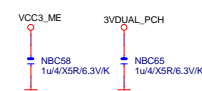
**PCH (I)**



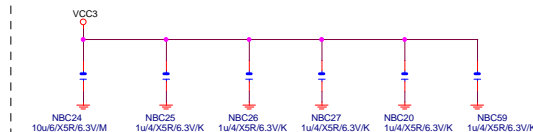
## 3VDUAL\_PCH



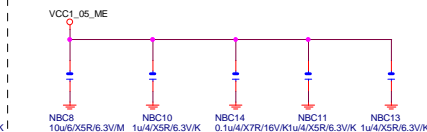
## Gigabyte Technology



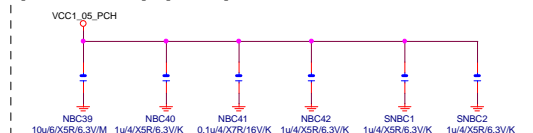
( 3.3V ) ( X6 )



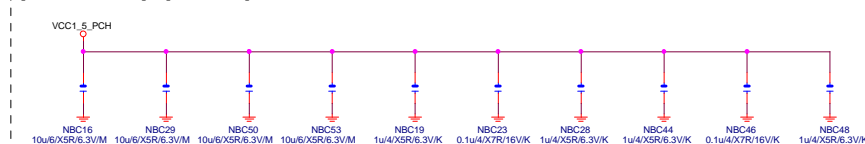
(1.05V) (x5)



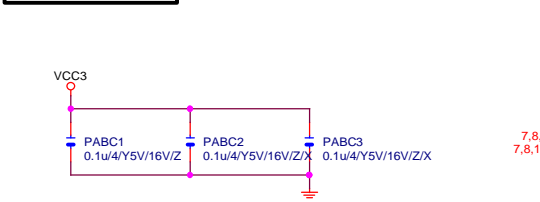
(1.05V) (X6)


$$(1.05V)(x2) \quad (3.3V)(x2)$$

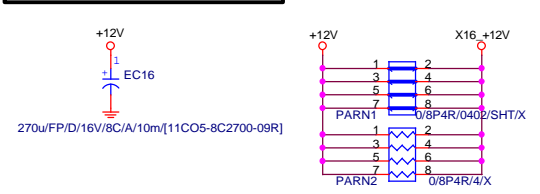

(1.05V) (x10)



# PCIEX16 CAP



# PCIEX16 PROTECT SHT



# PCIEX16 AC CAP

PA EXP TXP0	PAC5	0.22u4/X5R/6.3V/K	PA EXP TXP0 C
PA EXP TXN0	PAC4	0.22u4/X5R/6.3V/K	PA EXP TXN0 C
PA EXP TXP1	PAC6	0.22u4/X5R/6.3V/K	PA EXP TXP1 C
PA EXP TXN1	PAC7	0.22u4/X5R/6.3V/K	PA EXP TXN1 C
PA EXP TXP2	PAC8	0.22u4/X5R/6.3V/K	PA EXP TXP2 C
PA EXP TXN2	PAC9	0.22u4/X5R/6.3V/K	PA EXP TXN2 C
PA EXP TXP3	PAC10	0.22u4/X5R/6.3V/K	PA EXP TXP3 C
PA EXP TXN3	PAC11	0.22u4/X5R/6.3V/K	PA EXP TXN3 C
PA EXP TXP4	PAC12	0.22u4/X5R/6.3V/K	PA EXP TXP4 C
PA EXP TXN4	PAC13	0.22u4/X5R/6.3V/K	PA EXP TXN4 C
PA EXP TXP5	PAC14	0.22u4/X5R/6.3V/K	PA EXP TXP5 C
PA EXP TXN5	PAC15	0.22u4/X5R/6.3V/K	PA EXP TXN5 C
PA EXP TXP6	PAC16	0.22u4/X5R/6.3V/K	PA EXP TXP6 C
PA EXP TXN6	PAC17	0.22u4/X5R/6.3V/K	PA EXP TXN6 C
PA EXP TXP7	PAC19	0.22u4/X5R/6.3V/K	PA EXP TXP7 C
PA EXP TXN7	PAC18	0.22u4/X5R/6.3V/K	PA EXP TXN7 C
PA EXP TXP8	PAC20	0.22u4/X5R/6.3V/K	PA EXP TXP8 C
PA EXP TXN8	PAC21	0.22u4/X5R/6.3V/K	PA EXP TXN8 C
PA EXP TXP9	PAC22	0.22u4/X5R/6.3V/K	PA EXP TXP9 C
PA EXP TXN9	PAC23	0.22u4/X5R/6.3V/K	PA EXP TXN9 C
PA EXP TXP10	PAC24	0.22u4/X5R/6.3V/K	PA EXP TXP10 C
PA EXP TXN10	PAC25	0.22u4/X5R/6.3V/K	PA EXP TXN10 C
PA EXP TXP11	PAC26	0.22u4/X5R/6.3V/K	PA EXP TXP11 C
PA EXP TXN11	PAC27	0.22u4/X5R/6.3V/K	PA EXP TXN11 C
PA EXP TXP12	PAC28	0.22u4/X5R/6.3V/K	PA EXP TXP12 C
PA EXP TXN12	PAC29	0.22u4/X5R/6.3V/K	PA EXP TXN12 C
PA EXP TXP13	PAC30	0.22u4/X5R/6.3V/K	PA EXP TXP13 C
PA EXP TXN13	PAC31	0.22u4/X5R/6.3V/K	PA EXP TXN13 C
PA EXP TXP14	PAC32	0.22u4/X5R/6.3V/K	PA EXP TXP14 C
PA EXP TXN14	PAC33	0.22u4/X5R/6.3V/K	PA EXP TXN14 C
PA EXP TXP15	PAC34	0.22u4/X5R/6.3V/K	PA EXP TXP15 C
PA EXP TXN15	PAC35	0.22u4/X5R/6.3V/K	PA EXP TXN15 C

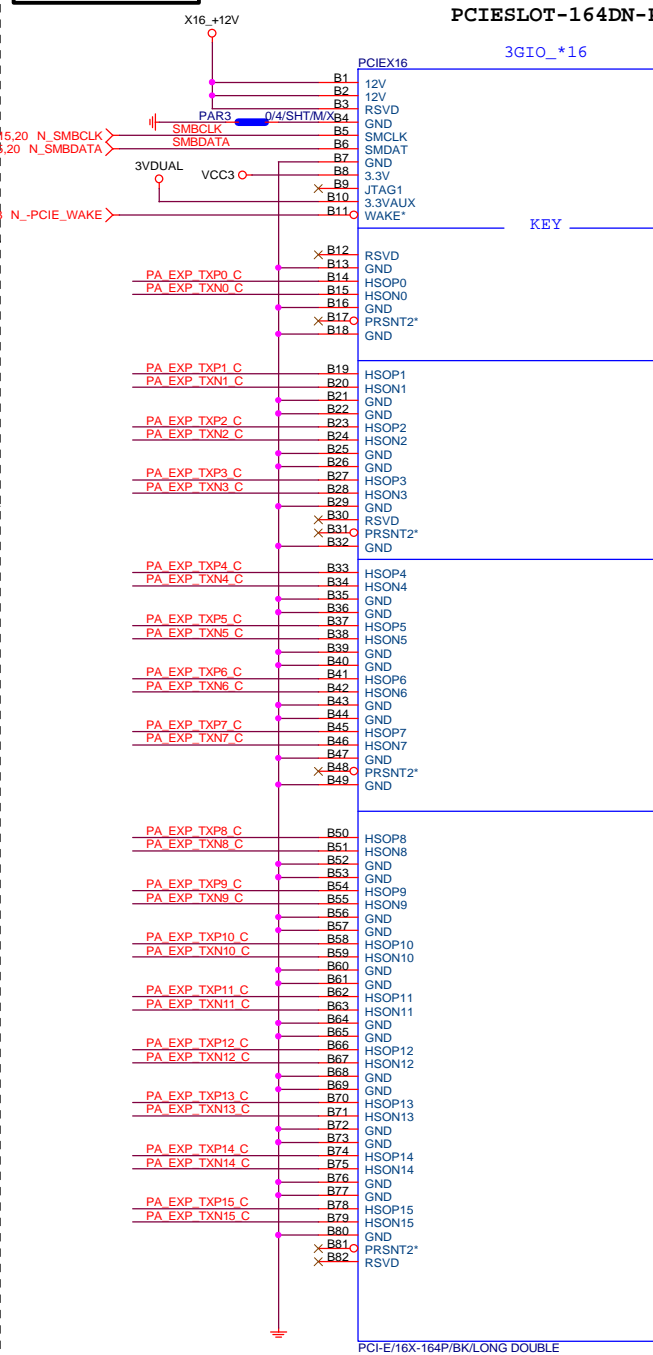
PA EXP RXIP0.15] >>> PA\_EXP\_RXIP[0.15] 4

PA EXP RXN0.15] >>> PA\_EXP\_RXN[0.15] 4

PA EXP TXIP0.15] >>> PA\_EXP\_TXIP[0.15] 4

PA EXP TXN0.15] >>> PA\_EXP\_TXN[0.15] 4

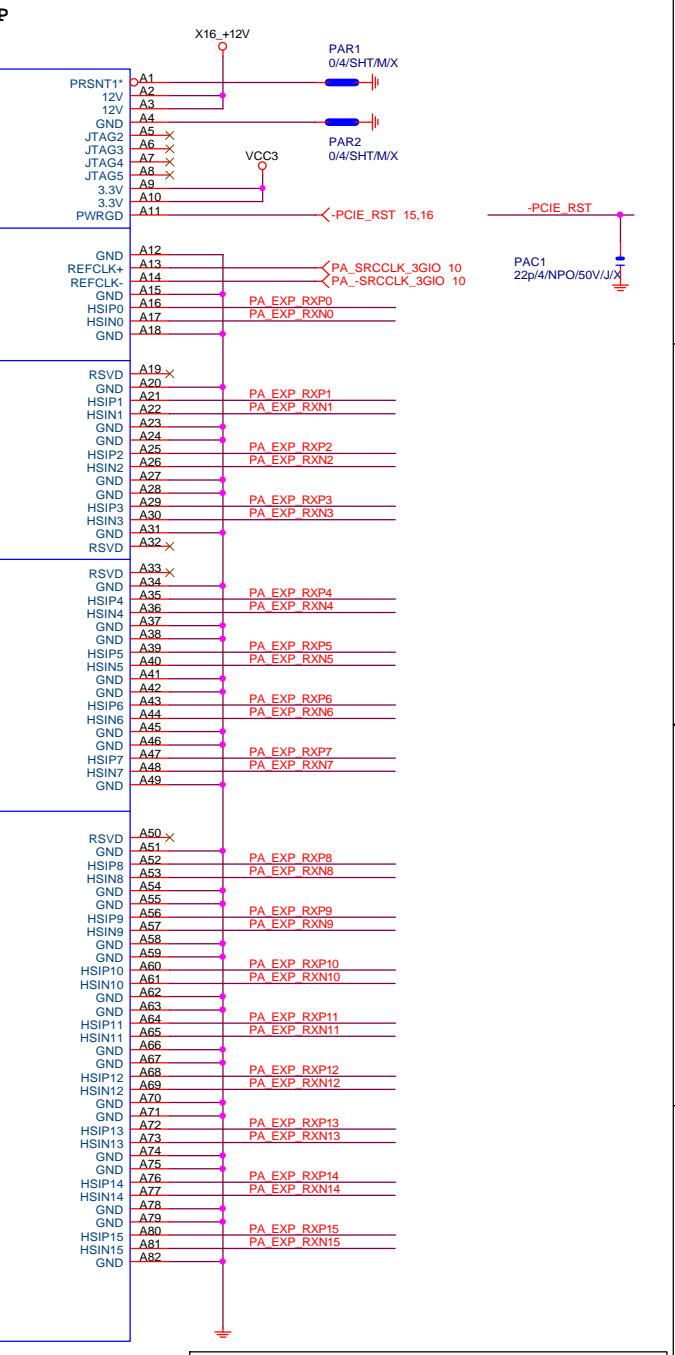
# PCIEX16 SLOT



PCI-E/16X-164P/BK/LONG DOUBLE

BLACK CONNECTOR

# PCIESLOT-164DN-P



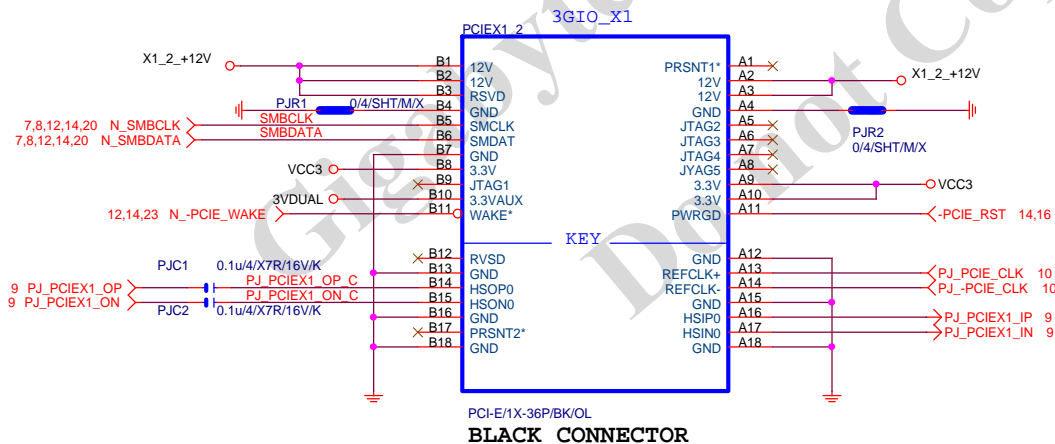
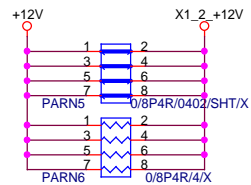
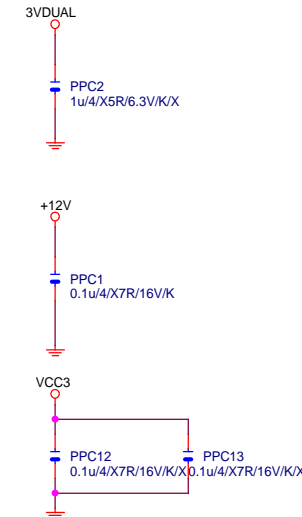
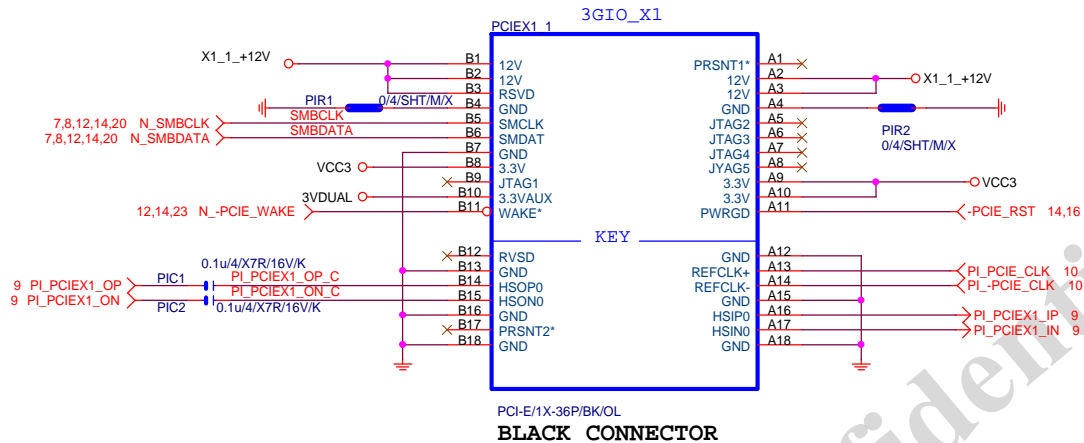
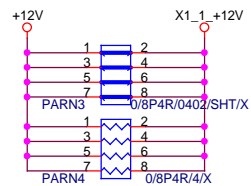
Gigabyte Technology

Title			PCI EXPRESS * 16	
Size			GA-H81M-S1	
Custom			Rev 2.0	
Date:			Wednesday, September 11, 2013	
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# PCIEX1 SLOT

# PCIEX1 PROTECT SHT



Gigabyte Technology

PCI EXPRESS X 1 PORT

Title	PCI EXPRESS X 1 PORT		
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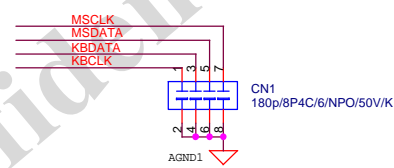
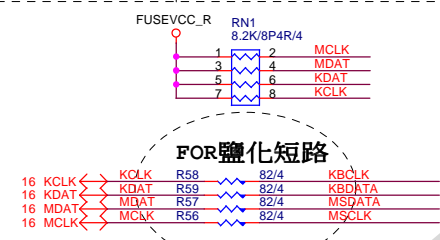
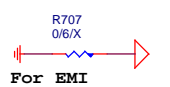
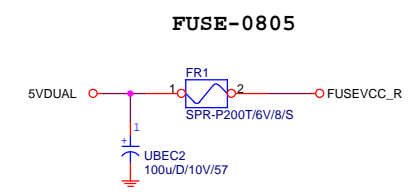
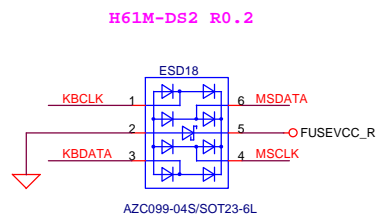
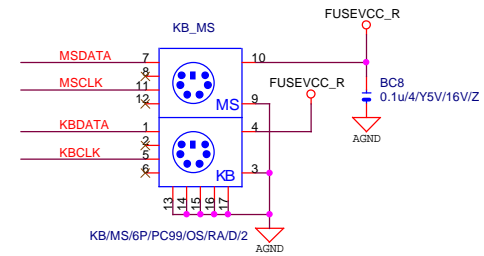
COM

KB/MS

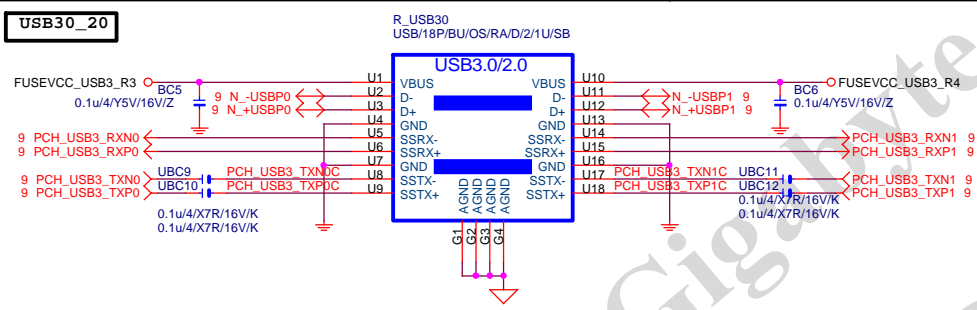
KB\_MS ESD

USB2.0 PWR

COM RI



USB30\_20

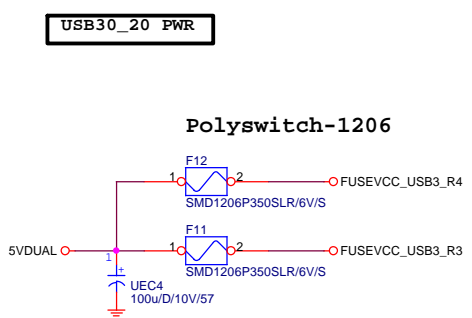


USB30\_20 ESD PROTECT

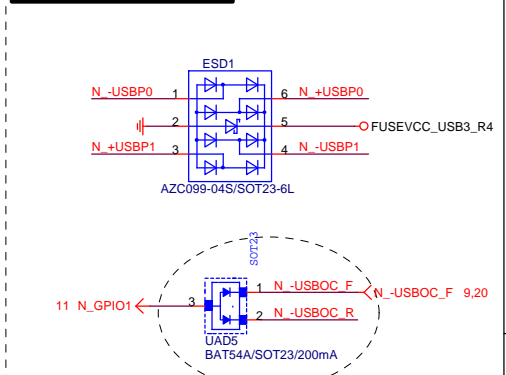
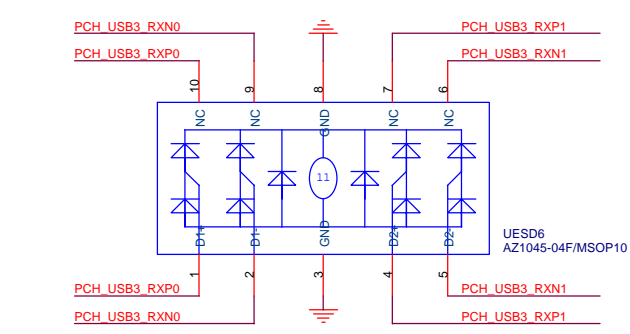
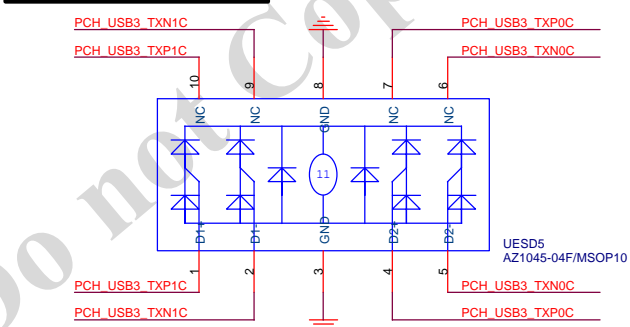
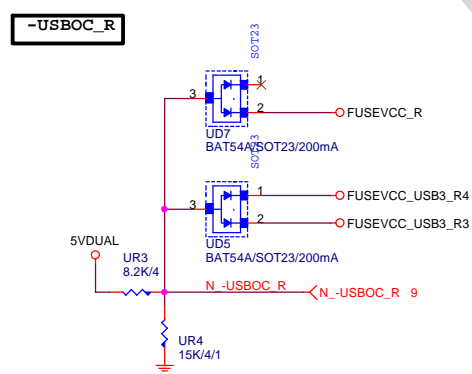
USB3.0 ESD

USB POWER PROTECT

USB30\_20 PWR



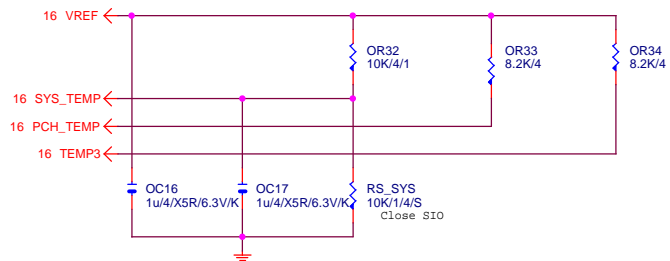
-USBOC\_R



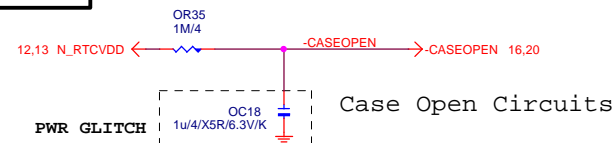
N\_GPIO1接USBOC,S3/S4/S5會拉LOW

USB3.0 1Port - 1Fuse (3.5A)

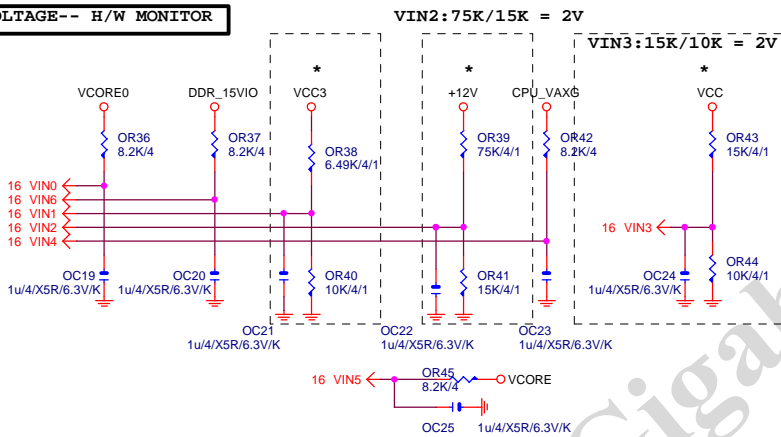
## TEMP H/W MONITOR



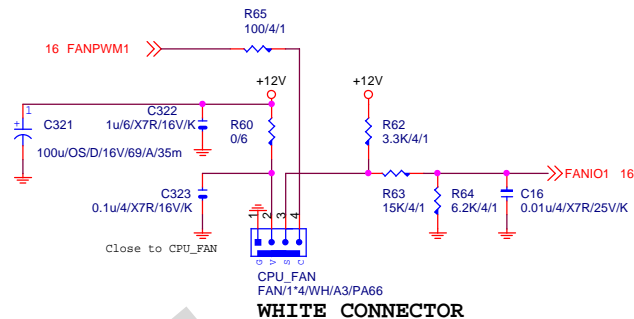
## CASE OPEN



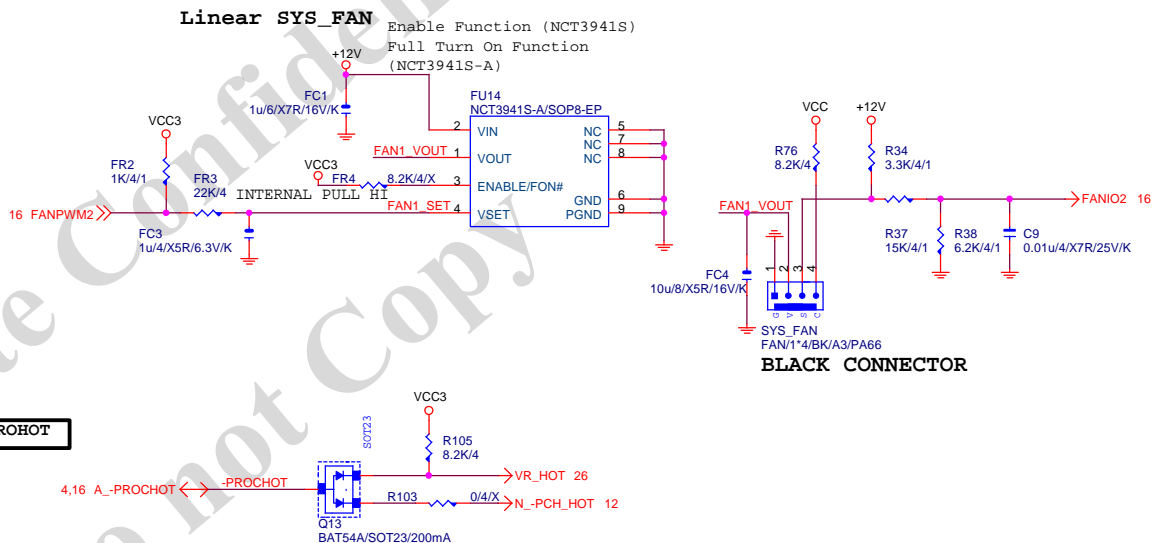
## VOLTAGE-- H/W MONITOR



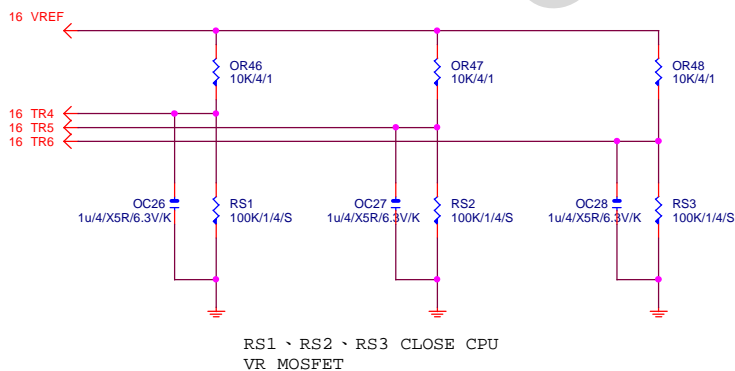
## CPU SMART FAN

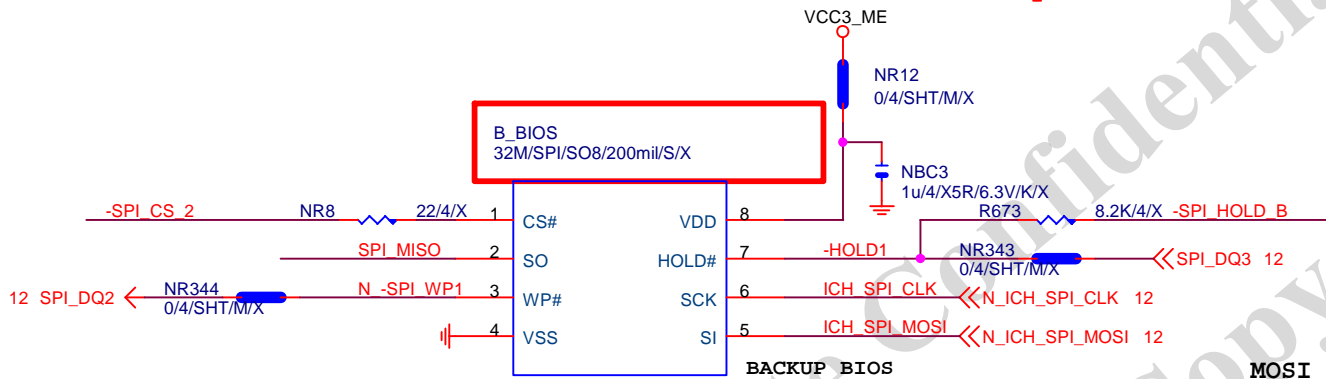
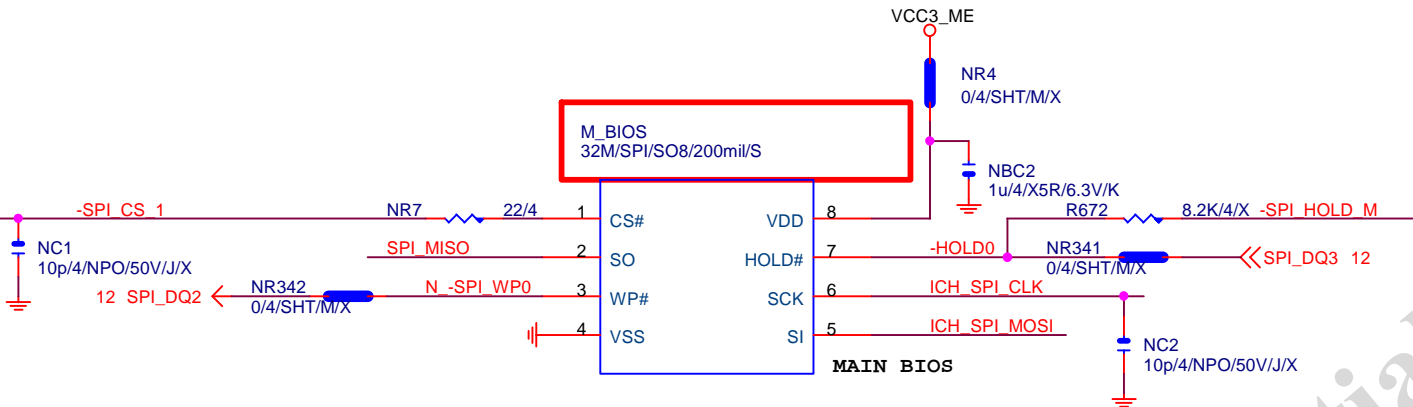


## SYS SMART FAN



## -PROHOT

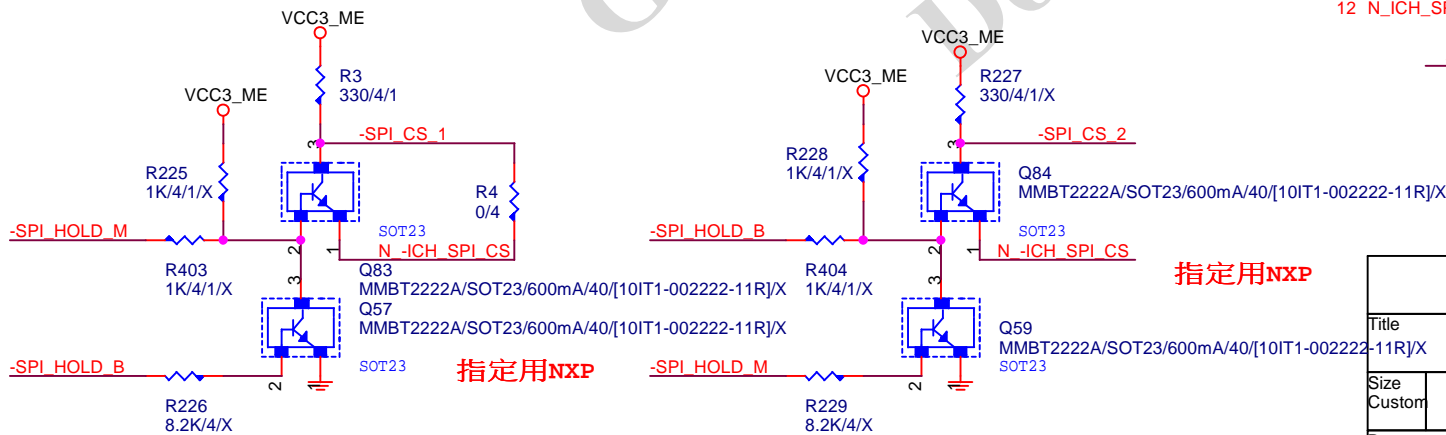
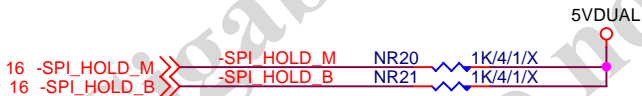
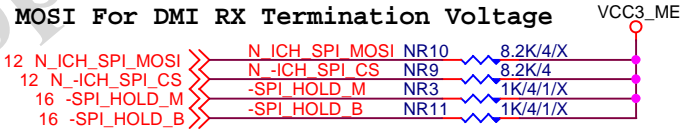




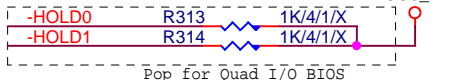
BOOT DEVICE	GNT0	GNT1
LPC	0	0
PCI	0	1
NAND	1	0
SPI	1	1

1 means floating  
0 means PD 1K

#### MOSI For DMI RX Termination Voltage



#### CHECK



Gigabyte Technology

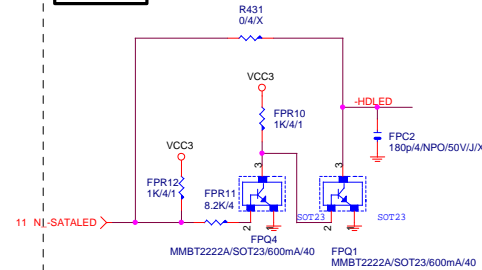
#### DUAL BIOS

GA-H81M-S1

Rev 2.0

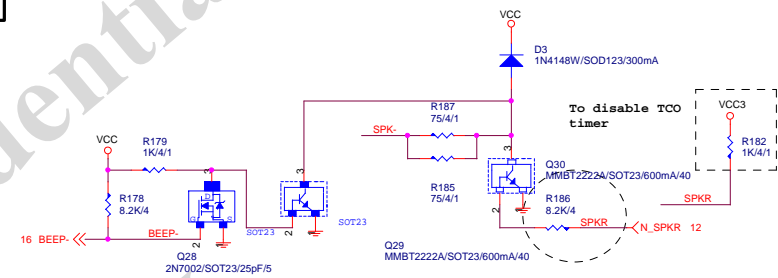
Title	Document Number	Sheet	19 of 29
Size Custom	Wednesday, September 11, 2013	Rev	2.0

# SATA LED

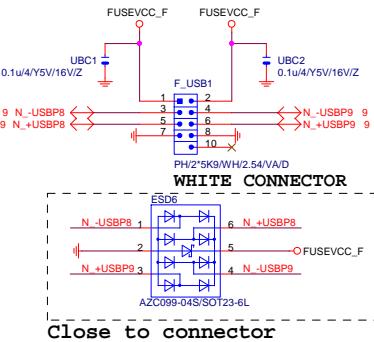


# -USBOC\_F

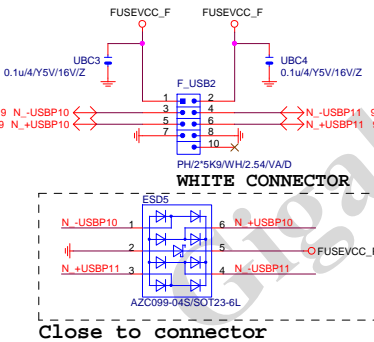
# SPKR



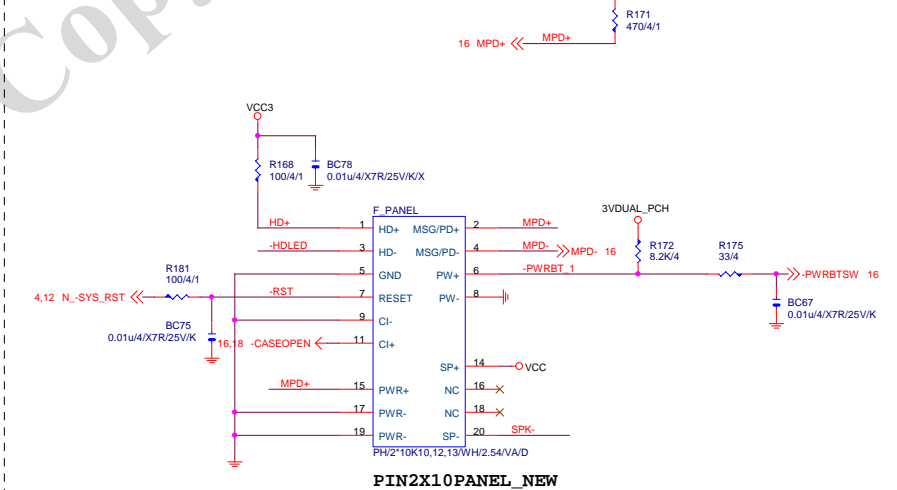
# FRONT USB1



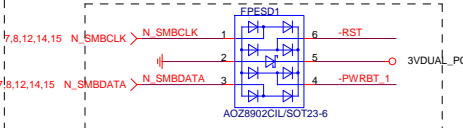
# FRONT USB2



# INTEL FRONT PANEL



# PIN2X10PANEL\_NEW

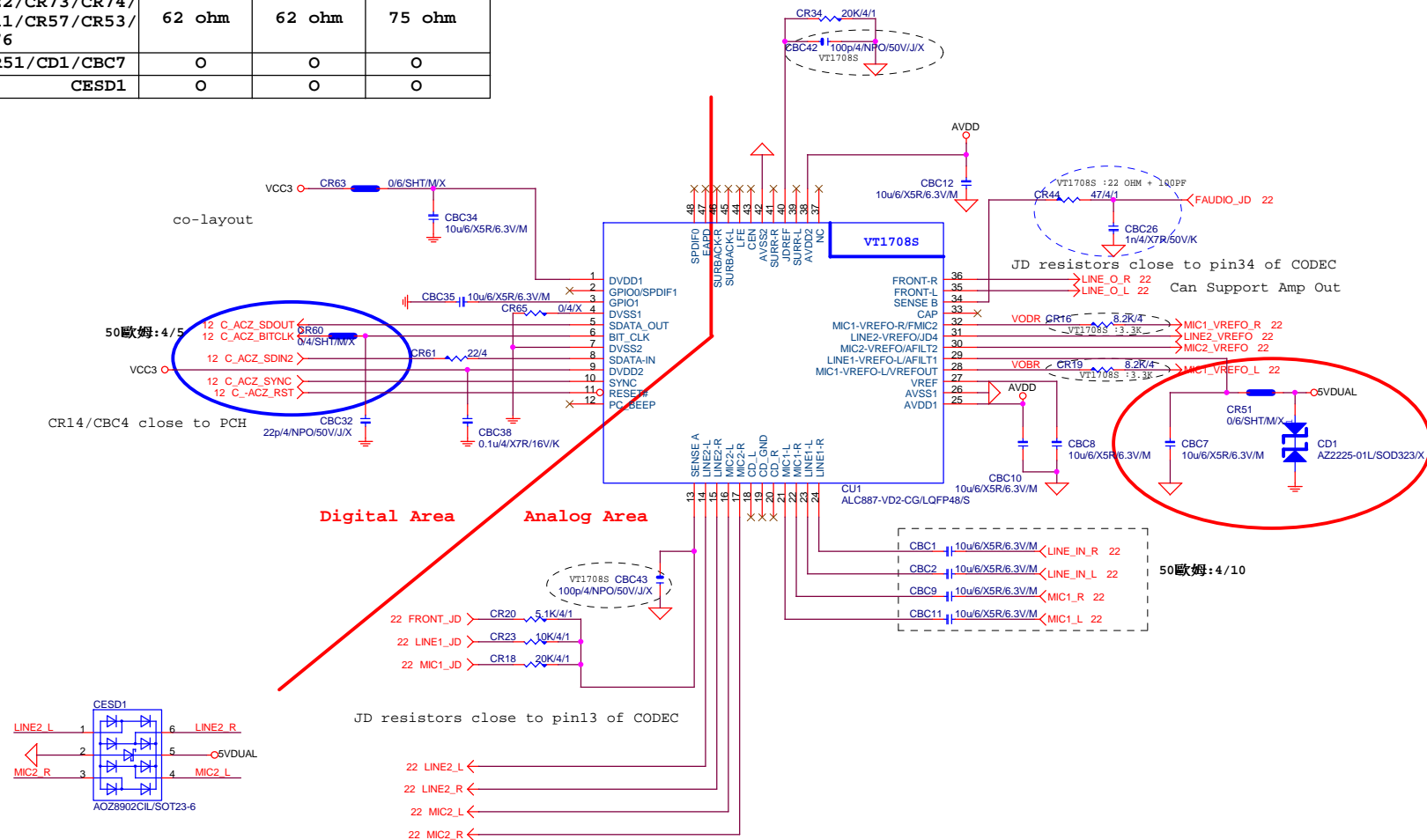


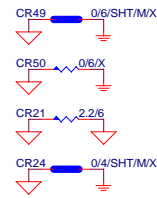
# Gigabyte Technology

FP,F_USB,USB PWR,SPKR,SATA LED			
Size	Document Number	GA-H81M-S1	
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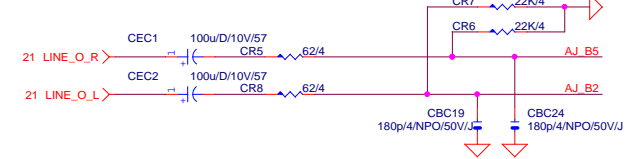
AZALIA CODEC **ALC892/ALC887-VD2/VT1708-CE Colay**

	ALC892	ALC887-VD2	VT1708S-CE
CR44/CBC26	47ohm+1nF	47ohm+1nF	22ohm+100P
CBC42/CBC43	X	X	100P/4
CR6/CR7/CR58/CR54/ CR67/CR68/CR69/CR70	22K/4	22K/4	10K/4/1
CR5/CR8/CR1/CR14/ CR17/CR22/CR73/CR74/ CR13/CR11/CR57/CR53/ CR75/CR76	62 ohm	62 ohm	75 ohm
CR51/CD1/CBC7	O	O	O
CESD1	O	O	O





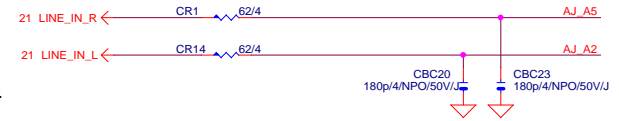
## LINE-OUT



## LINE-IN

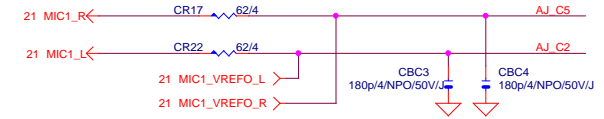
Verify MIC function  
in LINE-in

Only reserved for ALC888

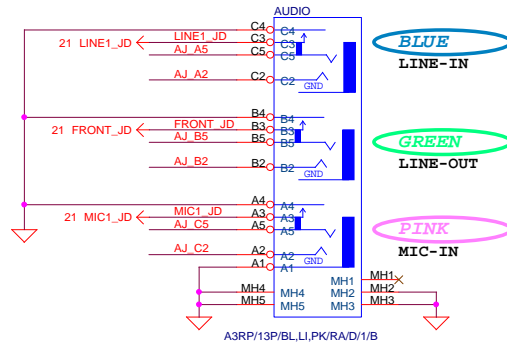


For 889A/888

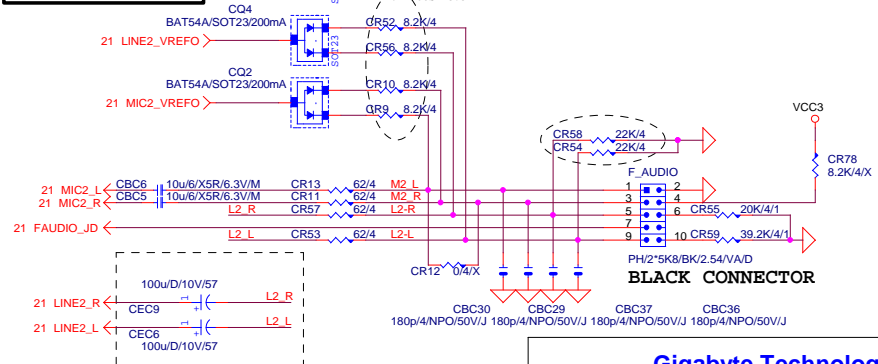
## MIC-IN



## SPDIF\_OUT



## AZALIA FRONT PANEL

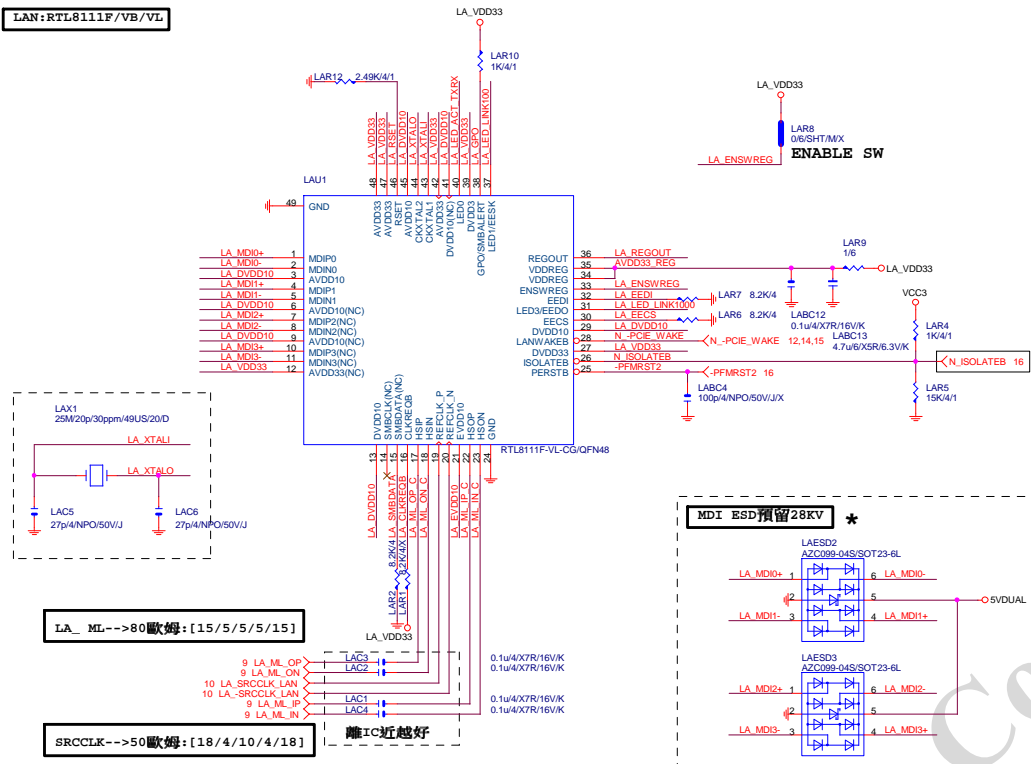


## Gigabyte Technology

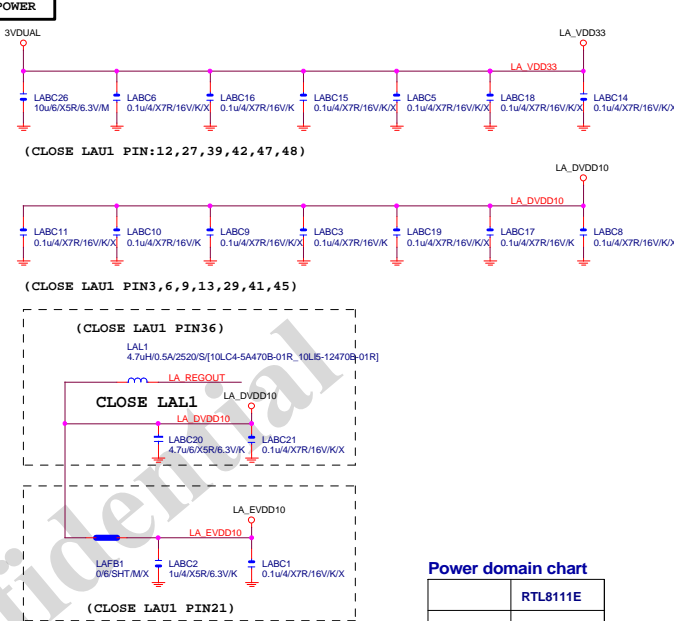
Title			
AUDIO JACK			
Size			
Custom			
Date: Wednesday, September 11, 2013			
Sheet 22 of 29			
Rev 2.0			



# LAN:RTL8111F/VB/VL



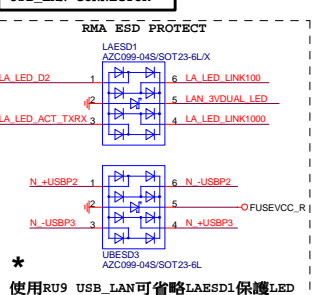
# LAN POWER



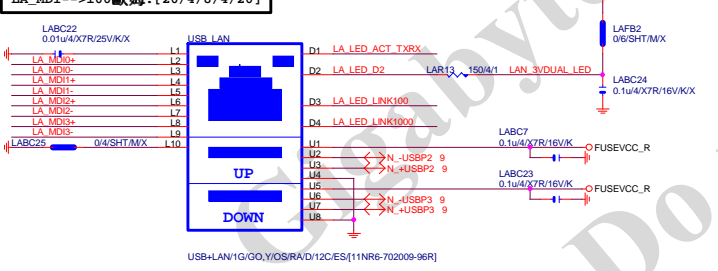
# Power domain chart

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

# USB LAN CONNECTOR



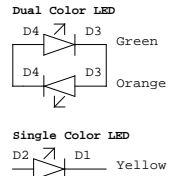
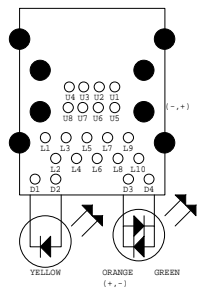
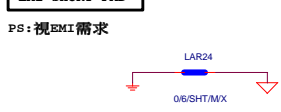
# LA\_MDIO-->100歐姆:[20/4/8/4/20]



# USB X3 POWER



# EMI SHORT PAD



注意:USB PORT(目前:暫代6,7PORT)  
USB-->90歐姆:[15/4.5/7.5/4.5/15]

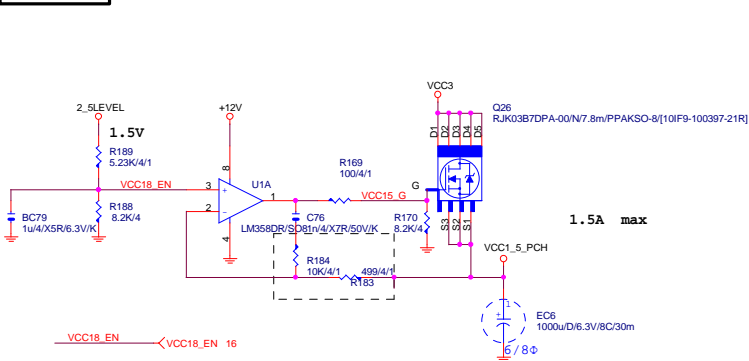
# BOM NOTICE

料號	規格	廠商
11NR6-702009-96R	1G LAN (12core)	UDE(RU9 ESD+)
[LED獨立走線,可省略外加AZC099料件LAESD1]		
1. 9KV ESD BOM:		
USB LAN (RU9):11NR6-702009-96R		
2. 28KV ESD BOM:		
USB LAN (RU9):11NR6-702009-96R		
LAESD2,LAESD3:上件AZC398-04S		

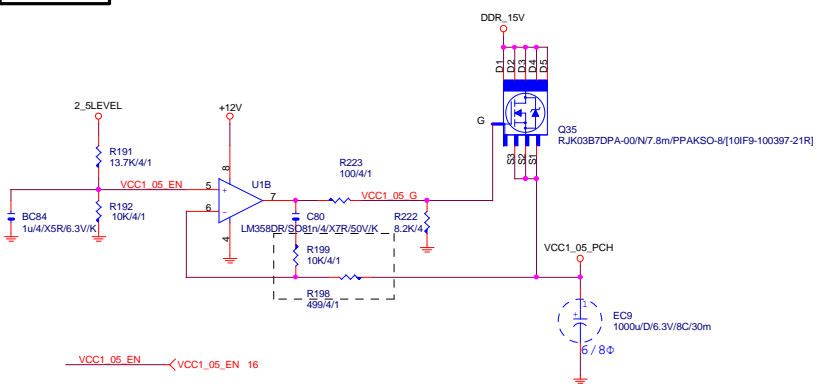
# Gigabyte Technology

Realtek RTL8111G		
Size	Document Number	Rev
Custom	GA-H81M-S1	2.0
Date:	Wednesday, September 11, 2013	Sheet 23 of 29

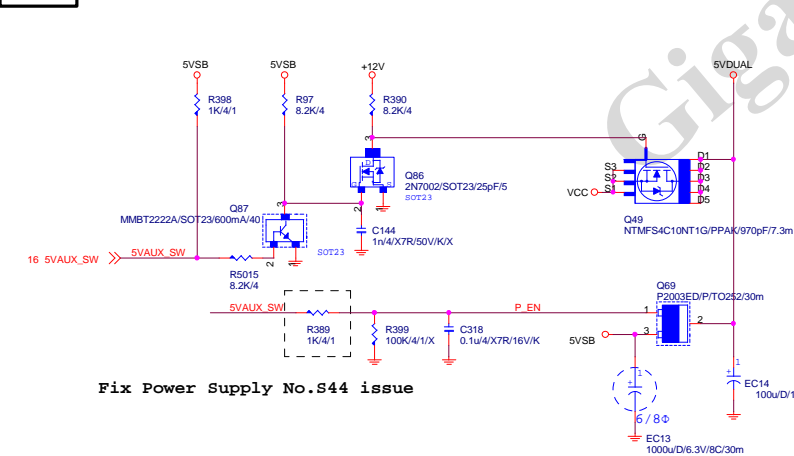
## VCC1\_8\_PCH



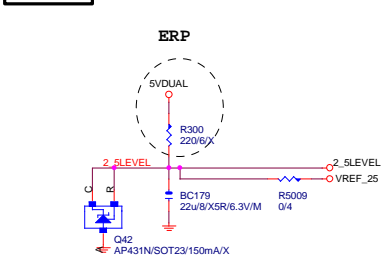
## VCC1\_05\_PCH



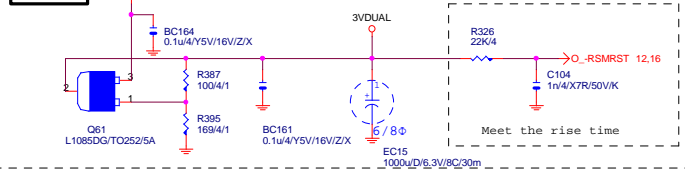
## 5VDUAL



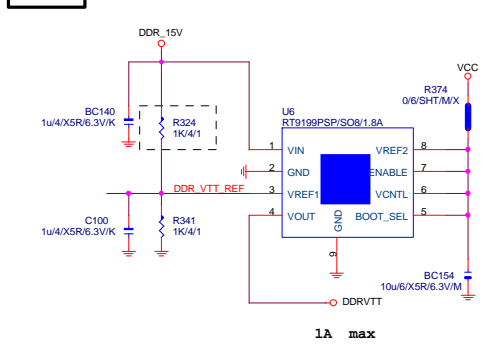
## 2\_5LEVEL



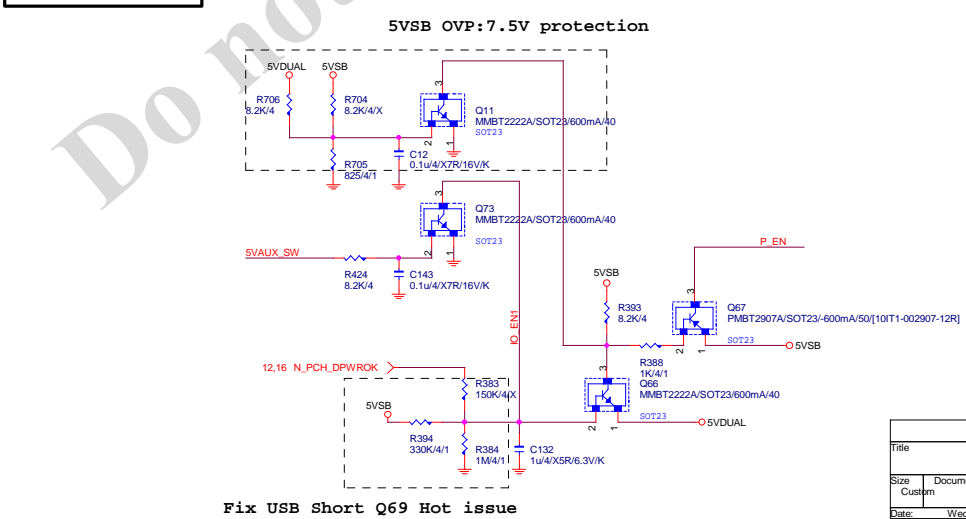
## 3VDUAL



DDRVTT



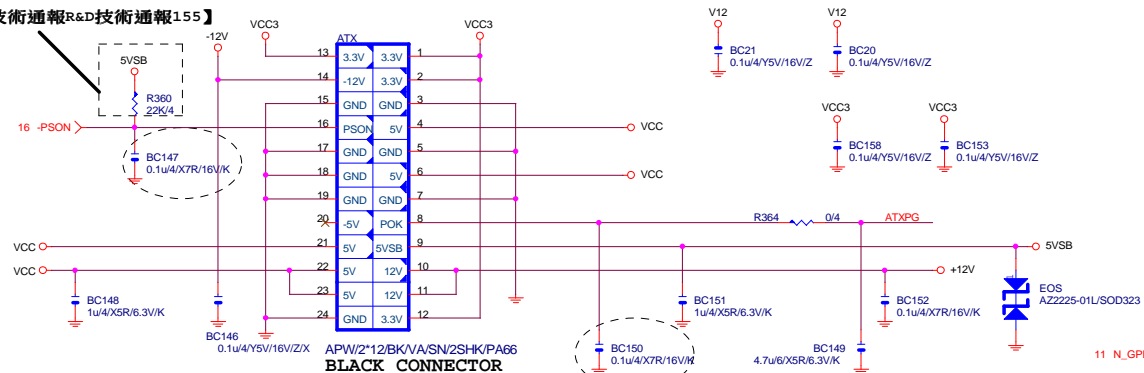
5VDUAL SHORT PROTECT



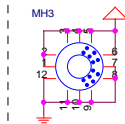
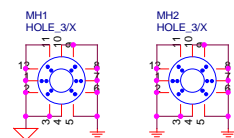
<h1 style="text-align: center;">Gigabyte Technology</h1>			
<h2 style="text-align: center;">DISCRETE POWER</h2>			
Title	GA-H81M-S1		
Size Custom	Document Number	Rev 2.0	
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# ATXX24 POWER CONNECTOR

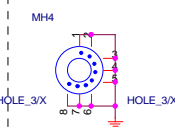
【技術通報R&D技術通報155】



APW/2\*12BK/VA/SN/2SHK/PA66  
BLACK CONNECTOR



HOLE\_4-RH-5MM-1



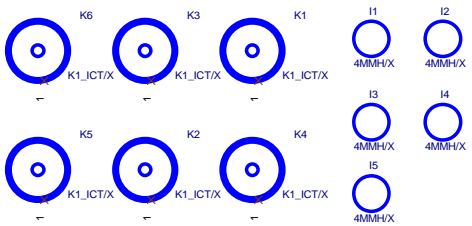
HOLE\_4-RH-5MM-5PIN-1



HOLE\_3/X



HOLE\_3/X

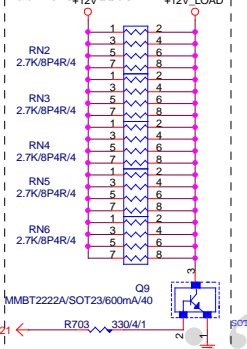


To prevent the 5VSB under loading when boot

TPM

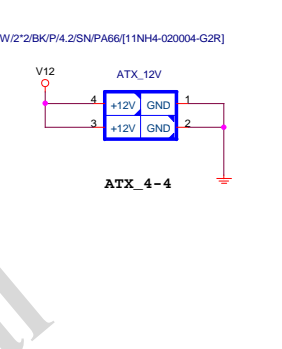
# 【技術通報R&D技術通報158】

To fix 12V light load abnormal issue



# ATXX4 POWER CONNECTOR

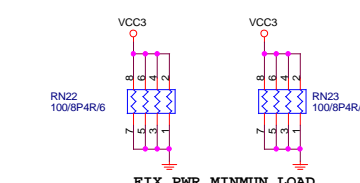
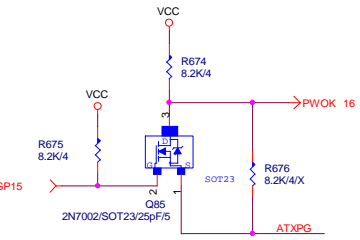
To fix 12V light load abnormal issue



ATX\_4-4

# PWOK PATCH

【技術通報R&D技術通報154】



FIX PWR MINMUN LOAD

Gigabyte Technology

ATX CONNECTOR

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UG1	26
PH1	26
LG1	26



PWM3 → PWM3 26



UG2	→	UG2	26
PH2	→	PH2	26
LG2	→	LG2	26

