

Model Name: GA-Z87M-D3H

Revision 1.01

SHEET

TITLE

01	COVER SHEET
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 1,2
08	DDR III CHANNEL B 1,2
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*4 SLOT
16	PCI SLOT1,2
17	ITE 8728 LPC IO
18	COM,KB_MS_USB,USB30_20
19	HWM,FAN CTRL,OV,-PROCHOT
20	DUAL BIOS
21	FP,FUSB,SPK,SATALED
22	Realtek ALC892-GR
23	REAR AUDIO JACK
24	REALTEK RTL8111F
25	DISCRETE POWER
26	ATX , CLOCK GEN, TPM
27	VCORE ISL95820_1

SHEET

TITLE

28	VCORE ISL95820_2
29	RT8120_DDR POWER
30	LPT, M3 POWER
31	DVI, HDMI
32	IT8892E

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Cover Sheet			
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## Circuit or PCB layout change

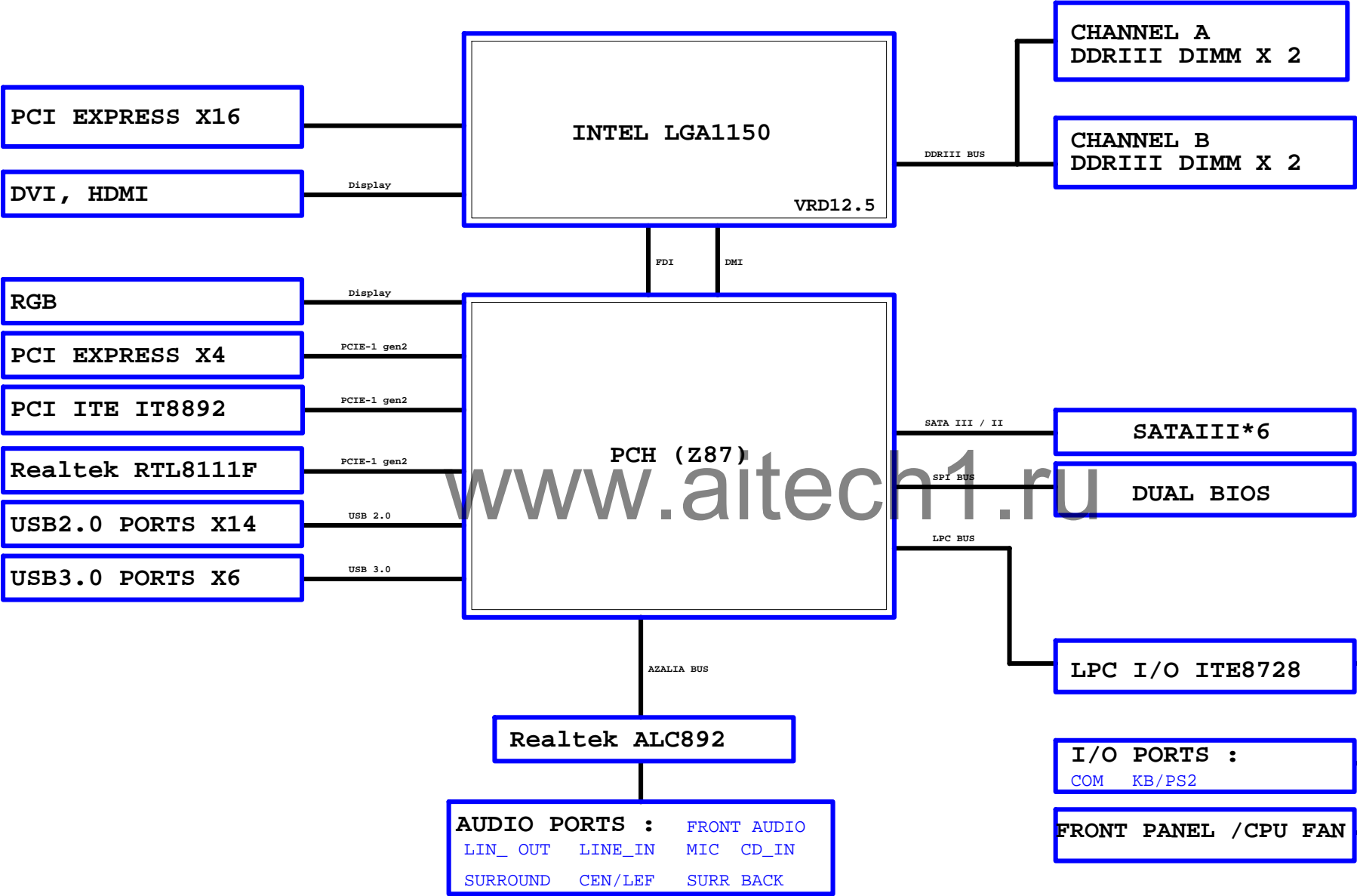
## 2013/03/26

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BOM & PCB MODIFY HISTORY			
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BLOCK DIAGRAM



[illegible][illegible][illegible]

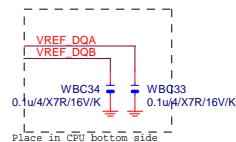
## LGA1150 (A)

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	AW17	DDR0_MA5	DDR0_D05	AD40	MDA5
MAAA5	AW18	DDR0_MA6	DDR0_D06	AE37	MDA6
MAAA6	AW17	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	MDA10
MAAA10	AW11	DDR0_MA11	DDR0_D11	AK39	MDA11
MAAA11	AV19	DDR0_MA12	DDR0_D12	AH37	MDA12
MAAA12	AU19	DDR0_MA13	DDR0_D13	AH38	MDA13
MAAA13	AY10	DDR0_MA14	DDR0_D14	AK37	MDA14
MAAA14	AT20	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	AY8	DDR0_ODT1	DDR0_D18	AP38	MDA18
MODT_A2	AW9	DDR0_ODT2	DDR0_D19	AP39	MDA19
MODT_A3	AU8	DDR0_ODT3	DDR0_D20	AM37	MDA20
			DDR0_D21	AM38	MDA16
			DDR0_D22	AP37	MDA22
			DDR0_D23	AP40	MDA23
			DDR0_D24	AV37	MDA25
			DDR0_D25	AW37	MDA29
			DDR0_D26	AU35	MDA26
			DDR0_D27	AV35	MDA27
			DDR0_D28	AT37	MDA28
			DDR0_D29	AU37	MDA24
			DDR0_D30	AT35	MDA30
			DDR0_D31	AW35	MDA31
			DDR0_D32	AY6	MDA33
			DDR0_D33	AU6	MDA37
			DDR0_D34	AV4	MDA34
			DDR0_D35	AW6	MDA35
			DDR0_D36	AW6	MDA36
			DDR0_D37	AW4	MDA38
			DDR0_D38	AY4	MDA39
			DDR0_D39	AR1	MDA41
			DDR0_D40	AR4	MDA45
			DDR0_D41	AN3	MDA42
			DDR0_D42	AN4	MDA43
			DDR0_D43	AR2	MDA44
			DDR0_D44	AR3	MDA40
			DDR0_D45	AN2	MDA46
			DDR0_D46	AN1	MDA47
			DDR0_D47	AL1	MDA49
			DDR0_D48	AL4	MDA53
			DDR0_D49	AL4	MDA50
			DDR0_D50	AJ4	MDA51
			DDR0_D51	AL2	MDA52
			DDR0_D52	AL3	MDA48
			DDR0_D53	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
			DDR0_D61	AE2	MDA62
			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	
			DDR0_D72	AE38	DQSA0
			DDR0_D73	AJ38	DQSA1
			DDR0_D74	AN38	DQSA2
			DDR0_D75	AJ36	DQSA3
			DDR0_D76	AW5	DQSA4
			DDR0_D77	AP2	DQSA5
			DDR0_D78	AK2	DQSA6
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HASWELL[10SC1-F01150-01R\_10SC1-F01150-03R]

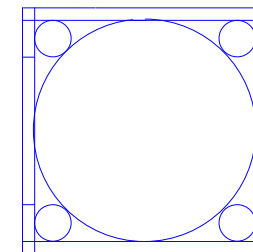
## LGA1150 (B)

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MAAB0	AL19	DDR1_MA1	AE35	MDB1
MAAB1	AK23	DDR1_MA2	AG35	MDB2
MAAB2	AM23	DDR1_MA3	AH35	MDB3
MAAB3	AM23	DDR1_MA4	AD34	MDB4
MAAB4	AP23	DDR1_MA5	AD35	MDB5
MAAB5	AL23	DDR1_MA6	AG34	MDB6
MAAB6	AY24	DDR1_MA7	AH34	MDB7
MAAB7	AY25	DDR1_MA8	AL34	MDB8
MAAB8	AU26	DDR1_MA9	AL35	MDB9
MAAB9	AW25	DDR1_MA10	AL31	MDB10
MAAB10	AY25	DDR1_MA11	AL31	MDB11
MAAB11	AY25	DDR1_MA12	AK34	MDB12
MAAB12	AY26	DDR1_MA13	AK35	MDB13
MAAB13	AR15	DDR1_MA14	AK32	MDB14
MAAB14	AV27	DDR1_MA15	AL32	MDB15
MAAB15	AY28			
MODT_B0	AM17	DDR1_ODT0	AP34	MDB21
MODT_B1	AL16	DDR1_ODT1	AP31	MDB19
MODT_B2	AM16	DDR1_ODT2	AP31	MDB23
MODT_B3	AK15	DDR1_ODT3	AP35	MDB20
			AP35	MDB16
			AP32	MDB18
			AP32	MDB22
			AP29	MDB25
			AM28	MDB28
			AR29	MDB27
			AR28	MDB30
			AL28	MDB24
			AL28	MDB29
			AP29	MDB26
			AP28	MDB31
			AP12	MDB32
			AL12	MDB35
			AR13	MDB36
			AP13	MDB37
			AM13	MDB38
			AM12	MDB39
			AR9	MDB45
			AP9	MDB41
			AR6	MDB47
			AP6	MDB43
			AR10	MDB44
			AP10	MDB40
			AR7	MDB46
			AP7	MDB42
			AM9	MDB52
			AL9	MDB53
			AL6	MDB50
			AL7	MDB55
			AM10	MDB48
			AL10	MDB49
			AM6	MDB54
			AM7	MDB51
			AH6	MDB61
			AH7	MDB60
			AE6	MDB59
			AE7	MDB63
			AJ6	MDB56
			AJ7	MDB57
			AE6	MDB58
			AF7	MDB62
			AF35	DQSB0
			AL33	DQSB1
			AP33	DQSB2
			AN28	DQSB3
			AN12	DQSB4
			AP8	DQSB5
			AL8	DQSB6
			AG7	DQSB7
			AN25	
			AE34	DQSB0
			AK33	DQSB1
			AN33	DQSB2
			AN29	DQSB3
			AN13	DQSB4
			AR8	DQSB5
			AM8	DQSB6
			AG6	DQSB7
			AN26	



HASWELL[10SC1-F01150-01R\_10SC1-F01150-03R]

## LGA1150 (CR)

CR  
CPU RETENTION/X

LGA1150\_P



ILM\_BP/1156/CSP/ILM\_BP/1156/CSP/[12KRC-0F0001-52R\_12KRC-0F0001-51R]

DDR BUS

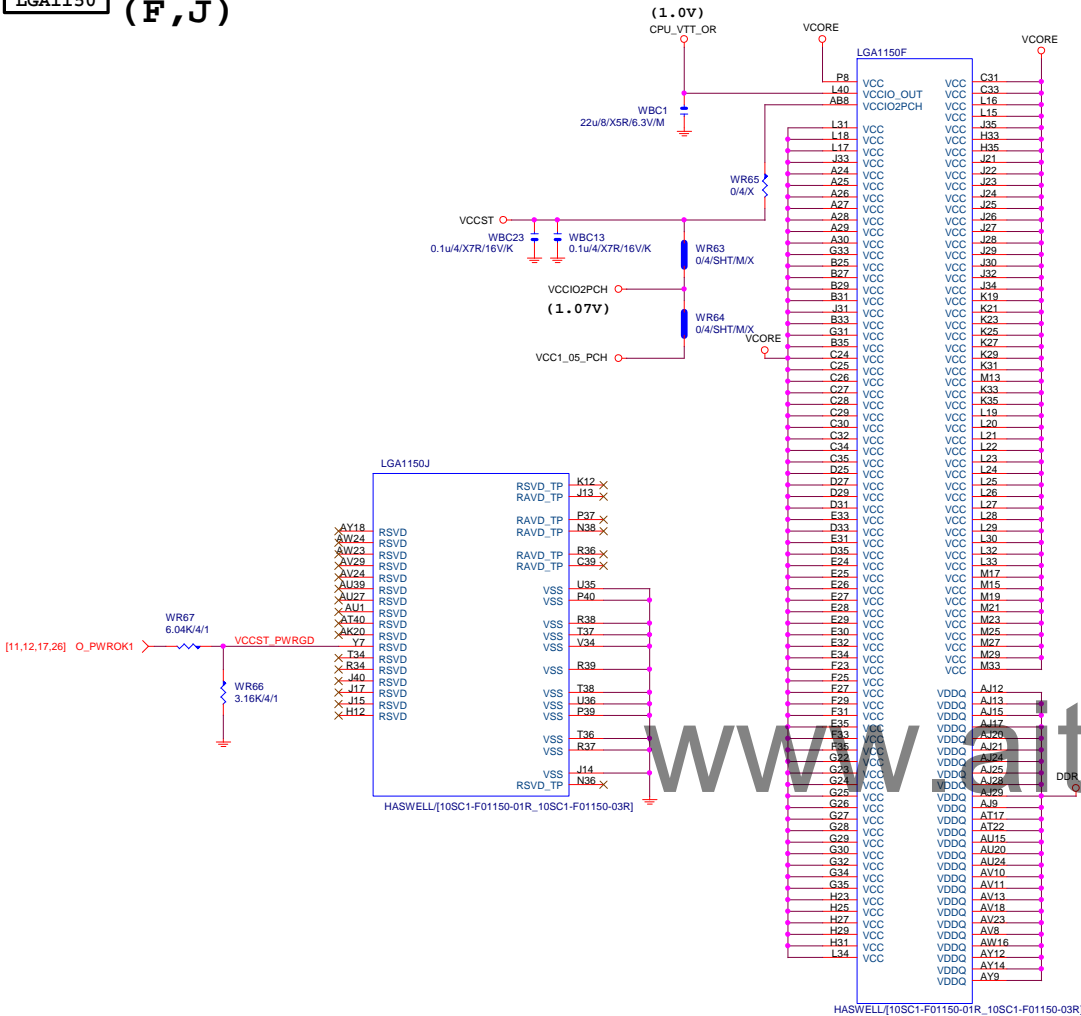
[7] MODT_A[0..3]	MODT_A0..3
[8] MODT_B[0..3]	MODT_B0..3
[7] MDA[0..63]	MDA0..63
[8] MDB[0..63]	MDB0..63
[7] DQSA[0..7]	DQSA0..7
[7] DQSA[0..7]	DQSA0..7
[7] MAA[0..15]	MAA0..15
[8] MAB[0..15]	MAB0..15
[8] DQSB[0..7]	DQSB0..7
[8] DQSB[0..7]	DQSB0..7

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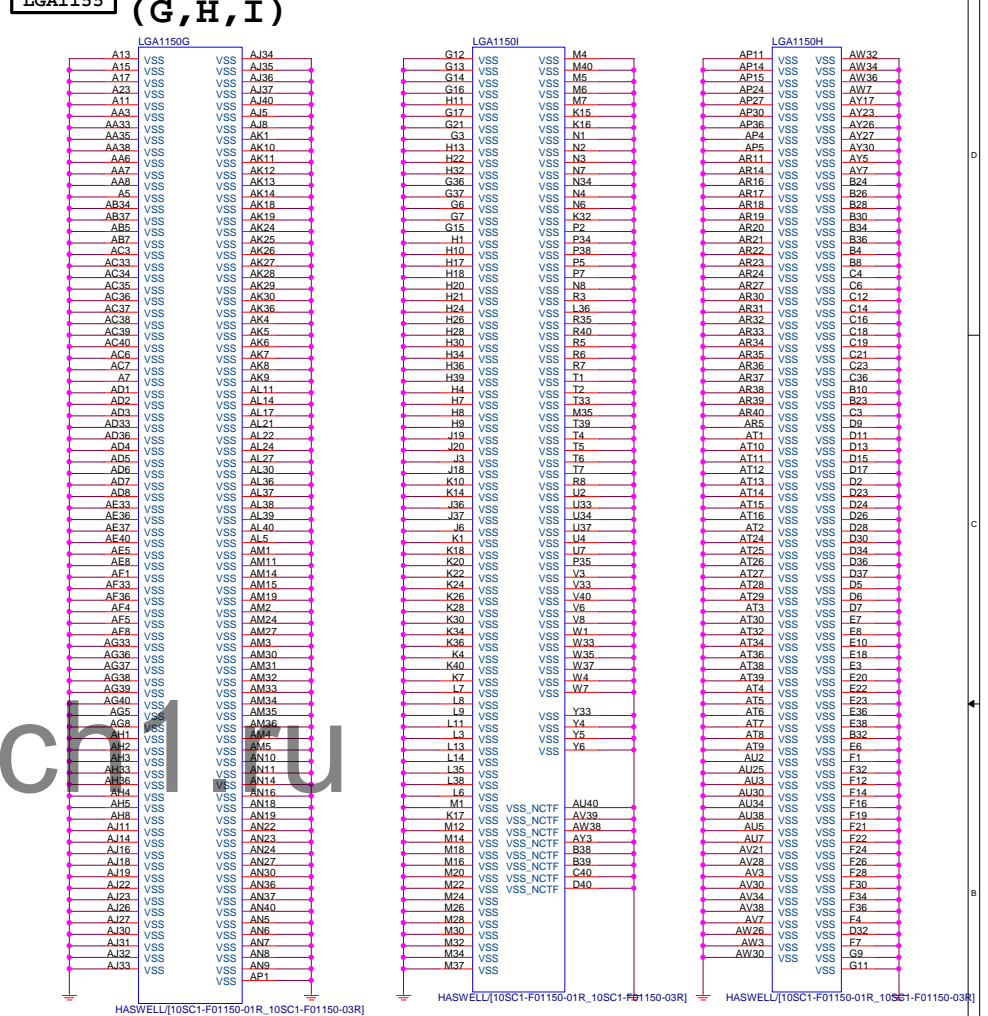
CPU LGA1150-B

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# LGA1150 (F,J)

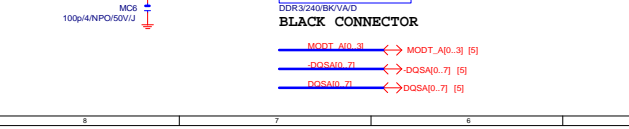
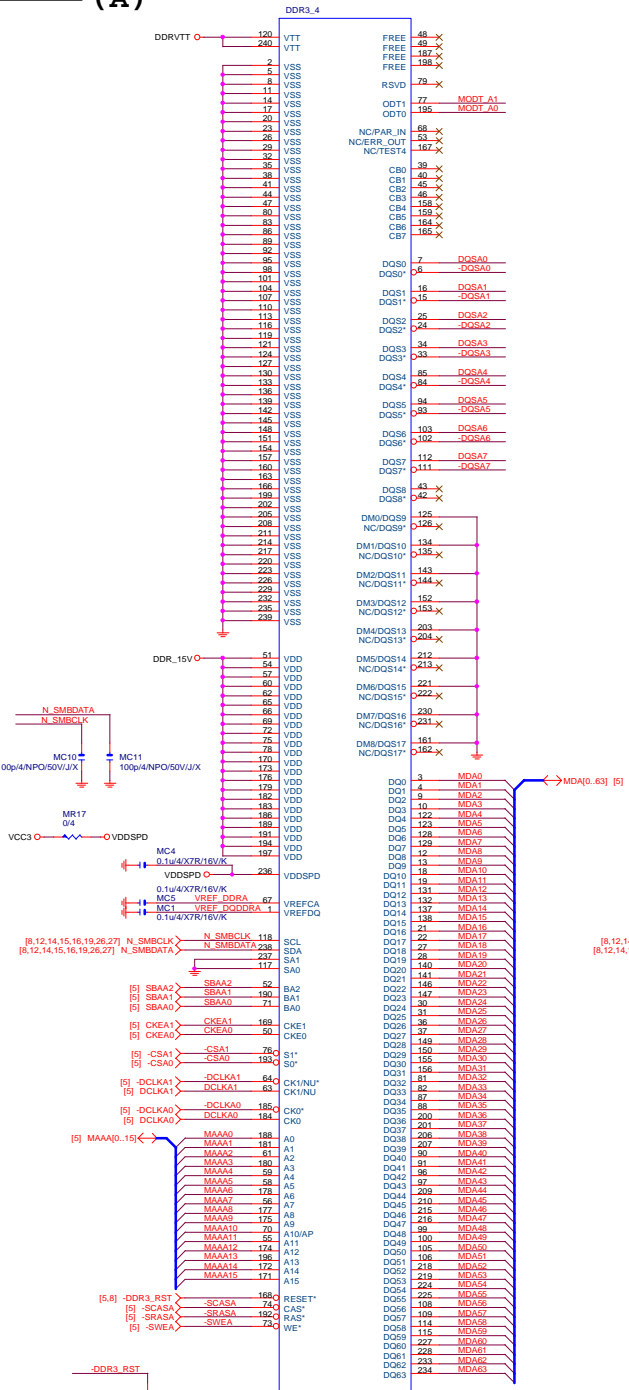


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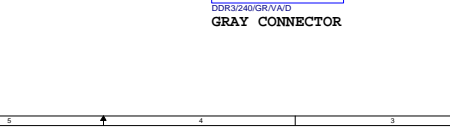
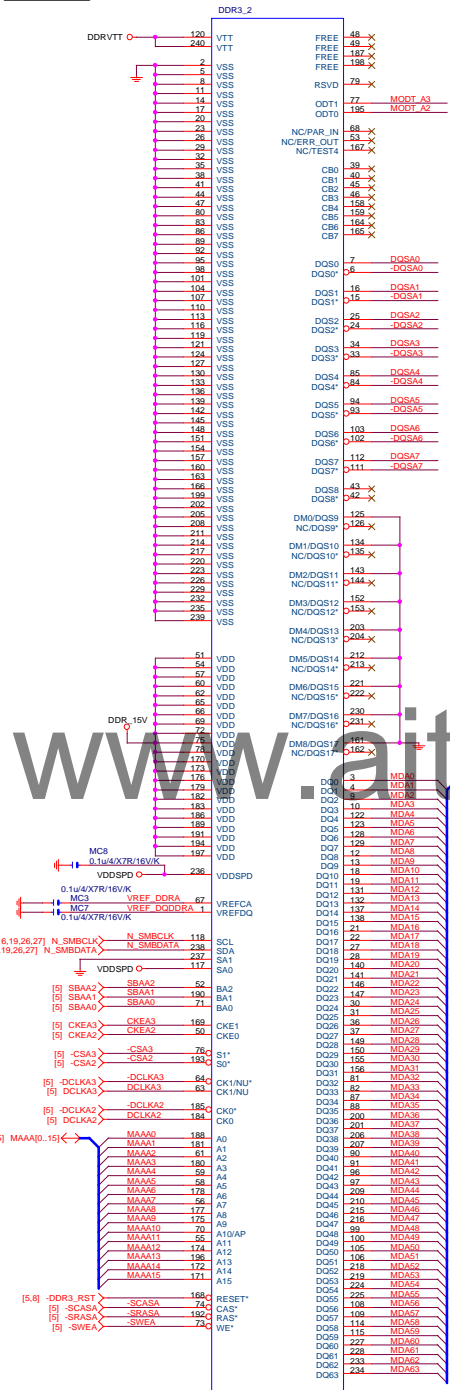


DDR3

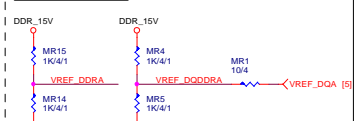
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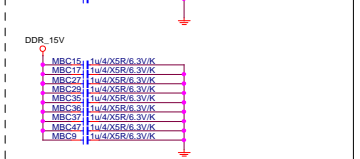
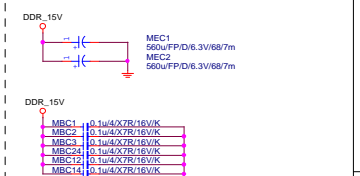
DDR3



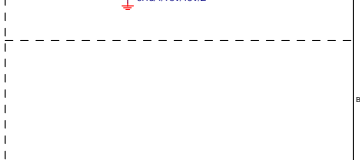
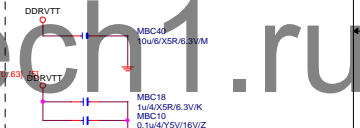
DDR3 VREF



DDR15V Decouple



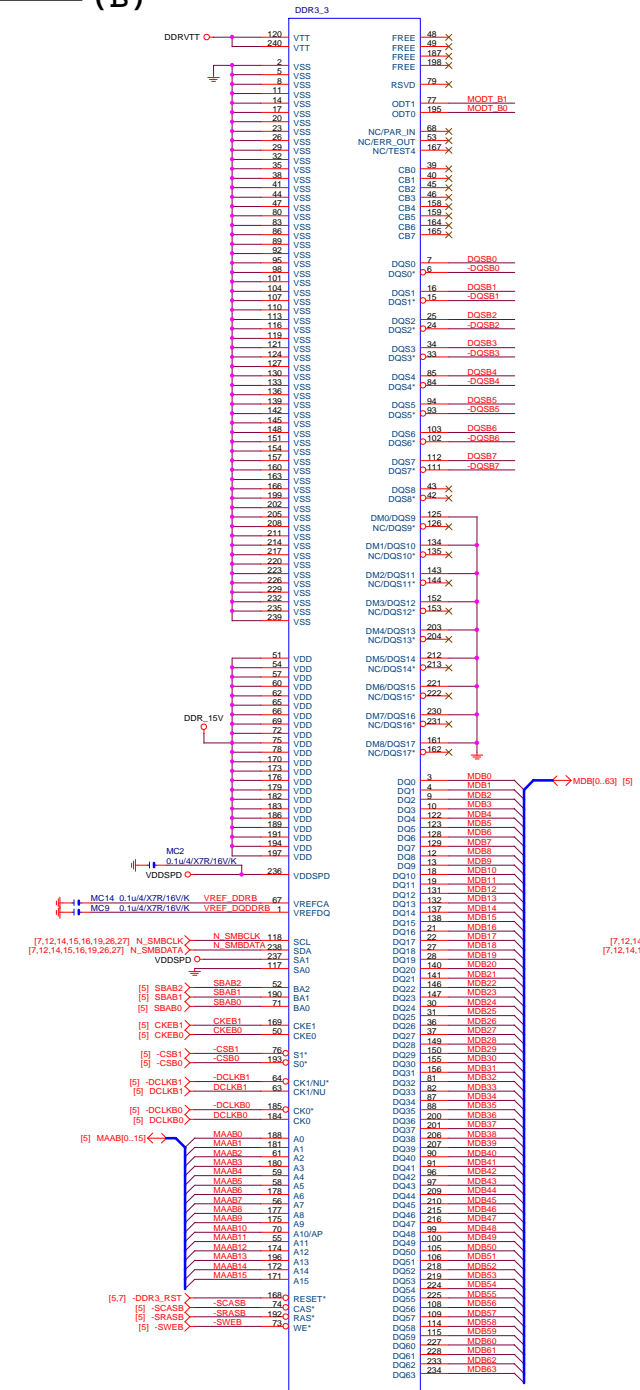
DDRVTT Decouple





DDR3

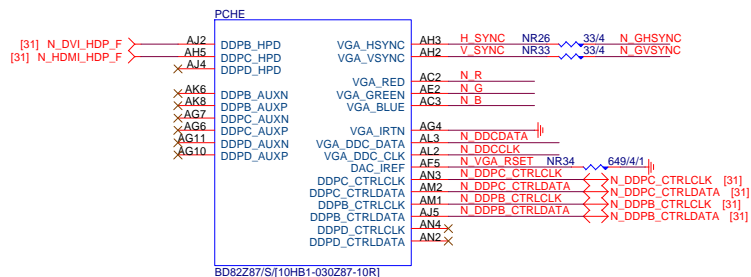
(B)



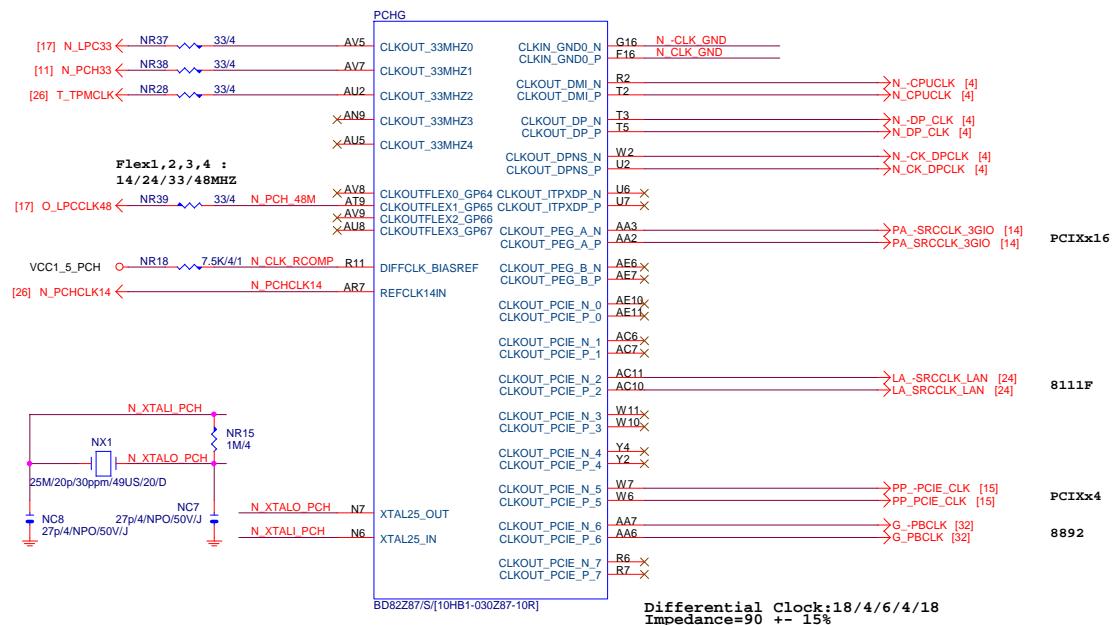




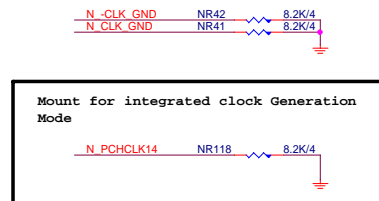
**PCH (E)**



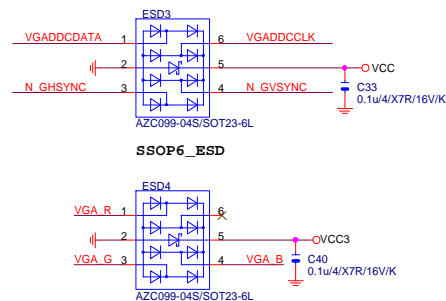
**PCH (G)**



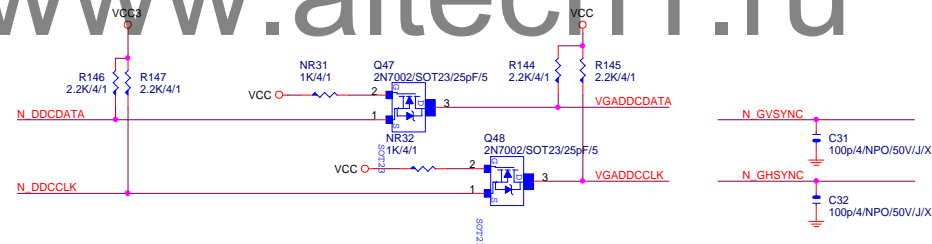
PCH CLK PD
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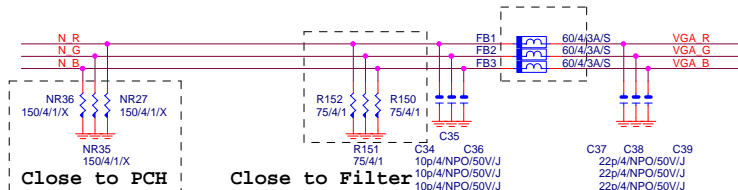
## VGA ESD



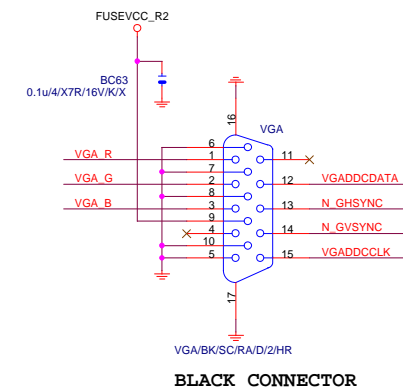
## VGA DDC



## VGA DDC



## VGA CONNECTOR



## Gigabyte Technology

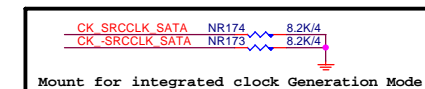
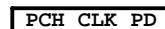
PCH DISPLAY ,CLK BUFFER

GA-Z87M-D3H

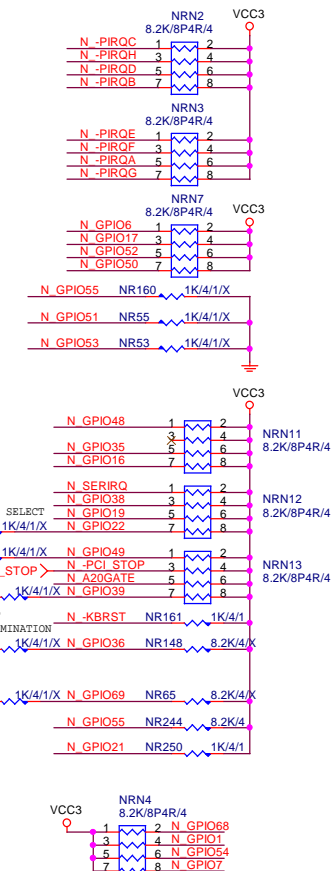
Size Custom	Document Number <b>GA-Z87M-D3H</b>	Rev 1.01
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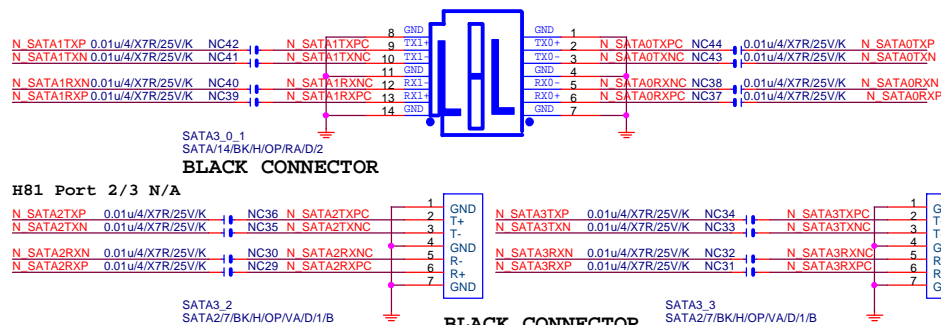
SATA3 : 20/7.5/4.5/7.5/20 (breakout min 8/4/4/4/8)  
Impedance=90 +- 17.5%  
SATA2 : 15/7.5/4.5/7.5/15 (breakout min 8/4/4/4/8)  
Impedance=90 +- 17.5%



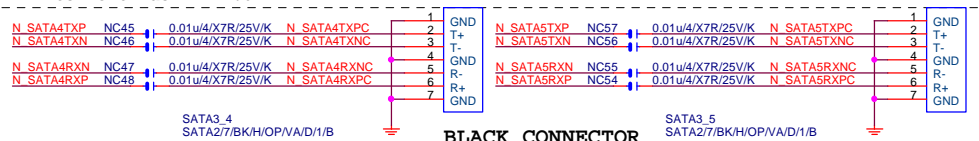
PCH	PU/PD
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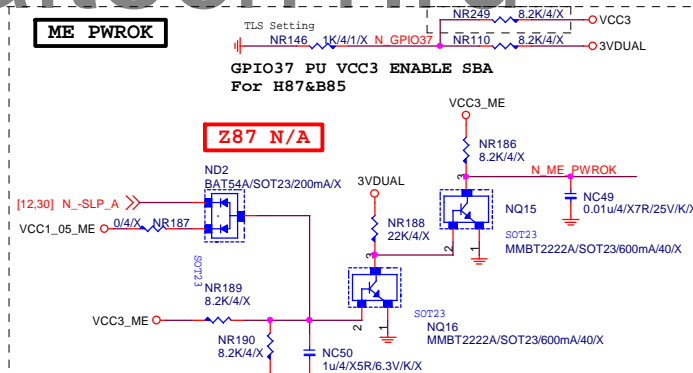
## SATA CONNECTOR



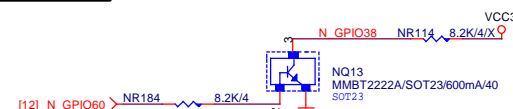
```
** Z87/H87 Port 4&5 SATA3.0
** B85 Port 4&5 SATA2.0
```



## ME PWROK



GPIO38 Ctrl



## Gigabyte Technology

Title			
PCH HOST , SATA, PCI			
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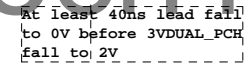
(D)



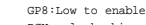
## ACZ\_SDOUT



## PCH\_DPWROK



PCH	PU/PD
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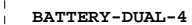


HSW\_STRAP13

32.768KHZ



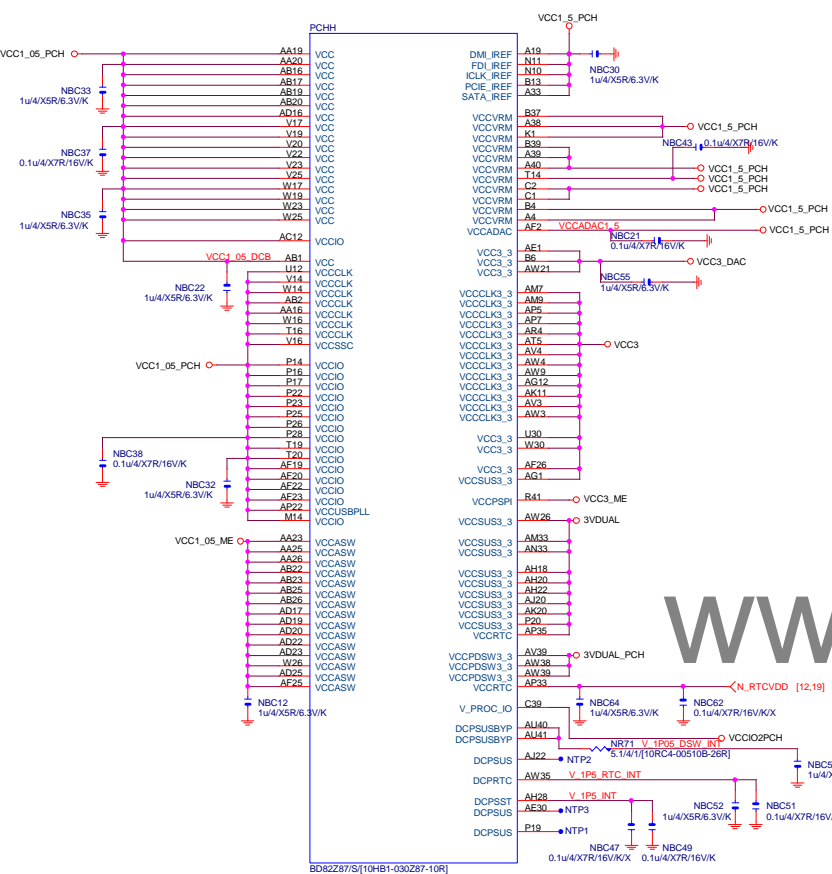
CLR\_CMOS



## Gigabyte Technology

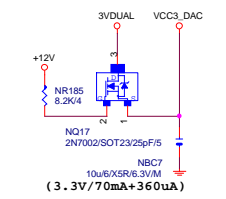
Title				PCH GPIO , CTRL , AUDIO			
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Custom							
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PCH (H)

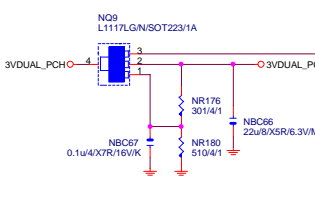


VCC3\_DAC

CLOSE北橋(注意震盪水波紋)

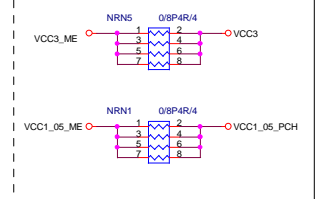


3VDUAL\_PCH



SHT\_PWR

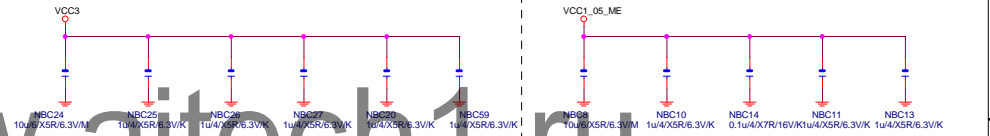
H87 N/A



CAP

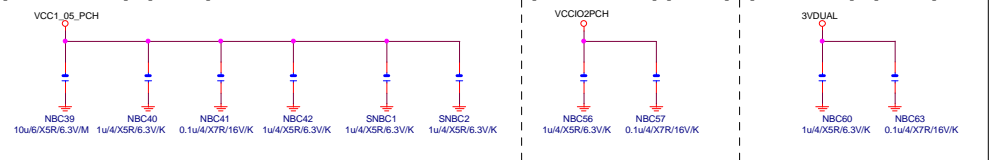
(3.3V) (X6)

(1.05V) (X5)

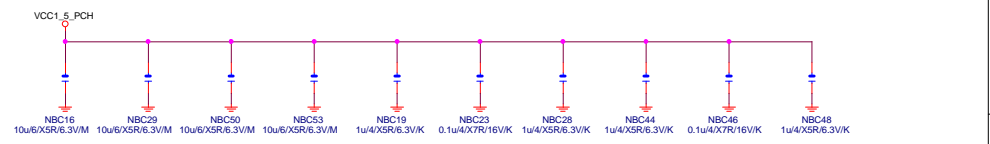


(1.05V) (X6)

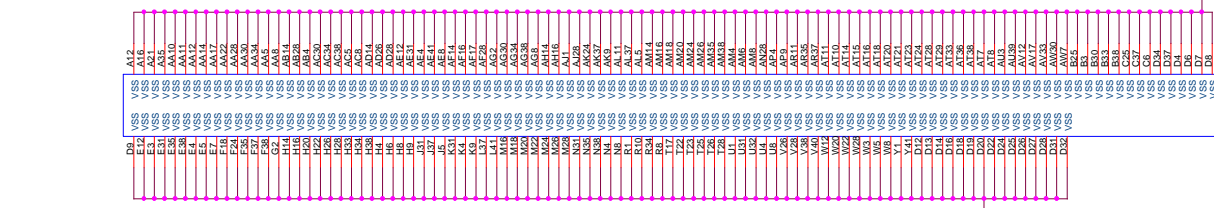
(1.05V) (X2) (3.3V) (X2)



(1.05V) (X10)

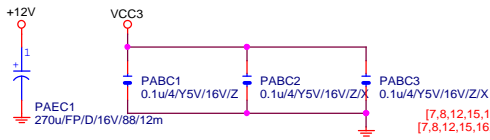


PCH (I)

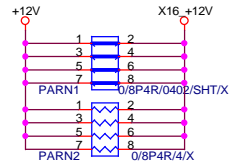




## PCIEX16 CAP



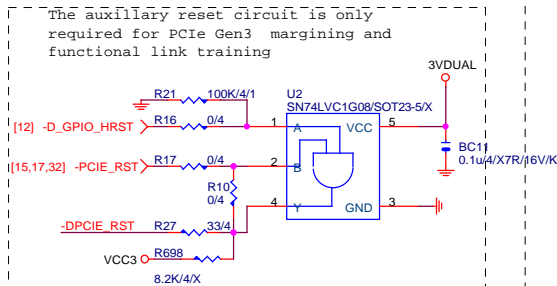
## PCIEX16 PROTECT SHT



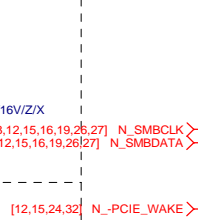
## PCIEX16 AC CAP

PA EXP TXP0	PAC5	0.22u/4/X5R/6.3V/K	PA EXP TXP0 C
PA EXP TXN0	PAC4	0.22u/4/X5R/6.3V/K	PA EXP TXN0 C
PA EXP TXP1	PAC6	0.22u/4/X5R/6.3V/K	PA EXP TXP1 C
PA EXP TXN1	PAC7	0.22u/4/X5R/6.3V/K	PA EXP TXN1 C
PA EXP TXP2	PAC8	0.22u/4/X5R/6.3V/K	PA EXP TXP2 C
PA EXP TXN2	PAC9	0.22u/4/X5R/6.3V/K	PA EXP TXN2 C
PA EXP TXP3	PAC10	0.22u/4/X5R/6.3V/K	PA EXP TXP3 C
PA EXP TXN3	PAC11	0.22u/4/X5R/6.3V/K	PA EXP TXN3 C
PA EXP TXP4	PAC12	0.22u/4/X5R/6.3V/K	PA EXP TXP4 C
PA EXP TXN4	PAC13	0.22u/4/X5R/6.3V/K	PA EXP TXN4 C
PA EXP TXP5	PAC14	0.22u/4/X5R/6.3V/K	PA EXP TXP5 C
PA EXP TXN5	PAC15	0.22u/4/X5R/6.3V/K	PA EXP TXN5 C
PA EXP TXP6	PAC16	0.22u/4/X5R/6.3V/K	PA EXP TXP6 C
PA EXP TXN6	PAC17	0.22u/4/X5R/6.3V/K	PA EXP TXN6 C
PA EXP TXP7	PAC18	0.22u/4/X5R/6.3V/K	PA EXP TXP7 C
PA EXP TXN7	PAC19	0.22u/4/X5R/6.3V/K	PA EXP TXN7 C
PA EXP TXP8	PAC20	0.22u/4/X5R/6.3V/K	PA EXP TXP8 C
PA EXP TXN8	PAC21	0.22u/4/X5R/6.3V/K	PA EXP TXN8 C
PA EXP TXP9	PAC22	0.22u/4/X5R/6.3V/K	PA EXP TXP9 C
PA EXP TXN9	PAC23	0.22u/4/X5R/6.3V/K	PA EXP TXN9 C
PA EXP TXP10	PAC24	0.22u/4/X5R/6.3V/K	PA EXP TXP10 C
PA EXP TXN10	PAC25	0.22u/4/X5R/6.3V/K	PA EXP TXN10 C
PA EXP TXP11	PAC26	0.22u/4/X5R/6.3V/K	PA EXP TXP11 C
PA EXP TXN11	PAC27	0.22u/4/X5R/6.3V/K	PA EXP TXN11 C
PA EXP TXP12	PAC28	0.22u/4/X5R/6.3V/K	PA EXP TXP12 C
PA EXP TXN12	PAC29	0.22u/4/X5R/6.3V/K	PA EXP TXN12 C
PA EXP TXP13	PAC30	0.22u/4/X5R/6.3V/K	PA EXP TXP13 C
PA EXP TXN13	PAC31	0.22u/4/X5R/6.3V/K	PA EXP TXN13 C
PA EXP TXP14	PAC32	0.22u/4/X5R/6.3V/K	PA EXP TXP14 C
PA EXP TXN14	PAC33	0.22u/4/X5R/6.3V/K	PA EXP TXN14 C
PA EXP TXP15	PAC34	0.22u/4/X5R/6.3V/K	PA EXP TXP15 C
PA EXP TXN15	PAC35	0.22u/4/X5R/6.3V/K	PA EXP TXN15 C

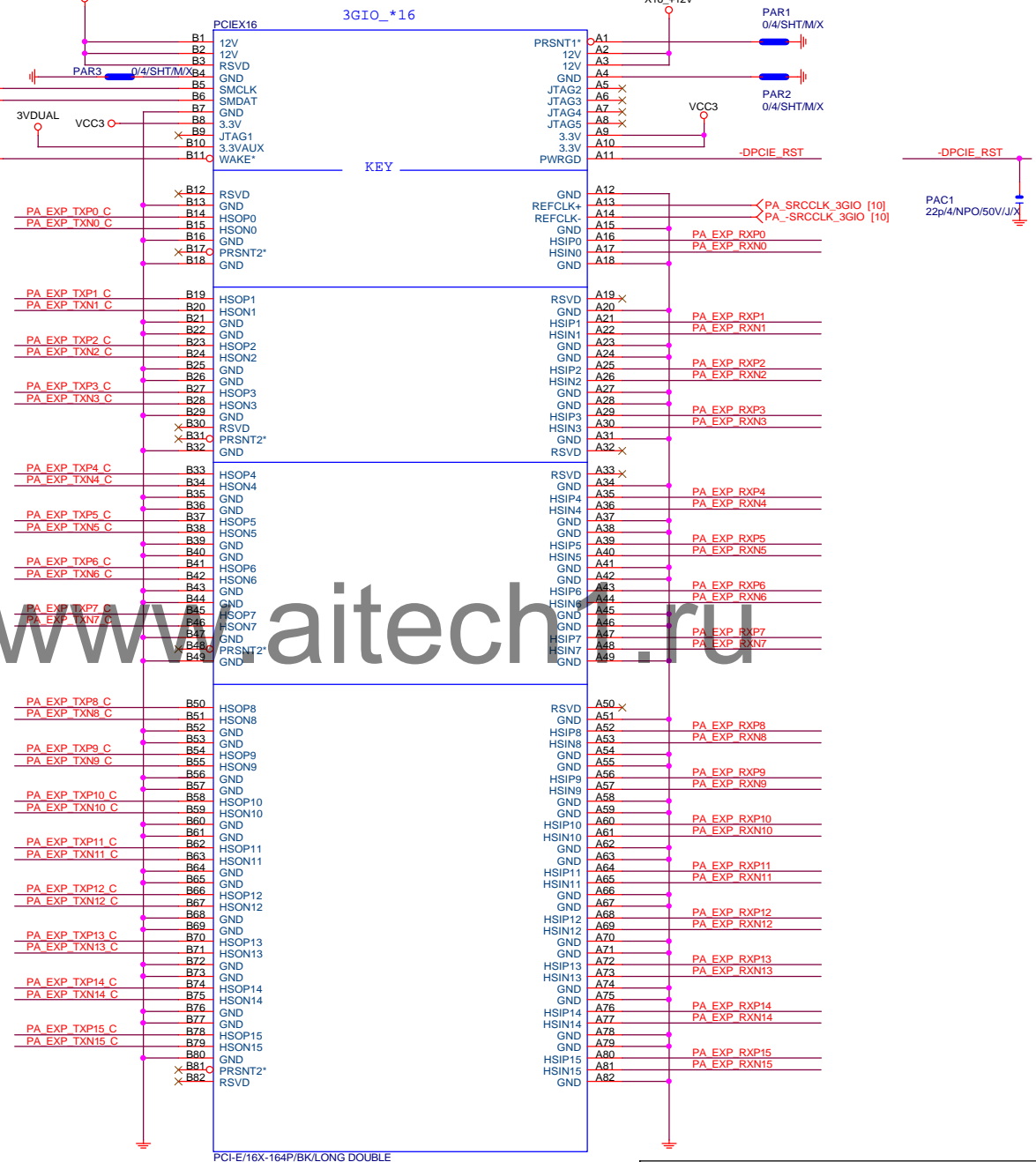
PA\_EXP\_RXP0[0.15] >>> PA\_EXP\_RXP0[0.15] [4]  
 PA\_EXP\_RXN0[0.15] >>> PA\_EXP\_RXN0[0.15] [4]  
 PA\_EXP\_TXP0[0.15] >>> PA\_EXP\_TXP0[0.15] [4]  
 PA\_EXP\_TXN0[0.15] >>> PA\_EXP\_TXN0[0.15] [4]



## PCIEX16 SLOT



## PCIESLOT-164DN-P

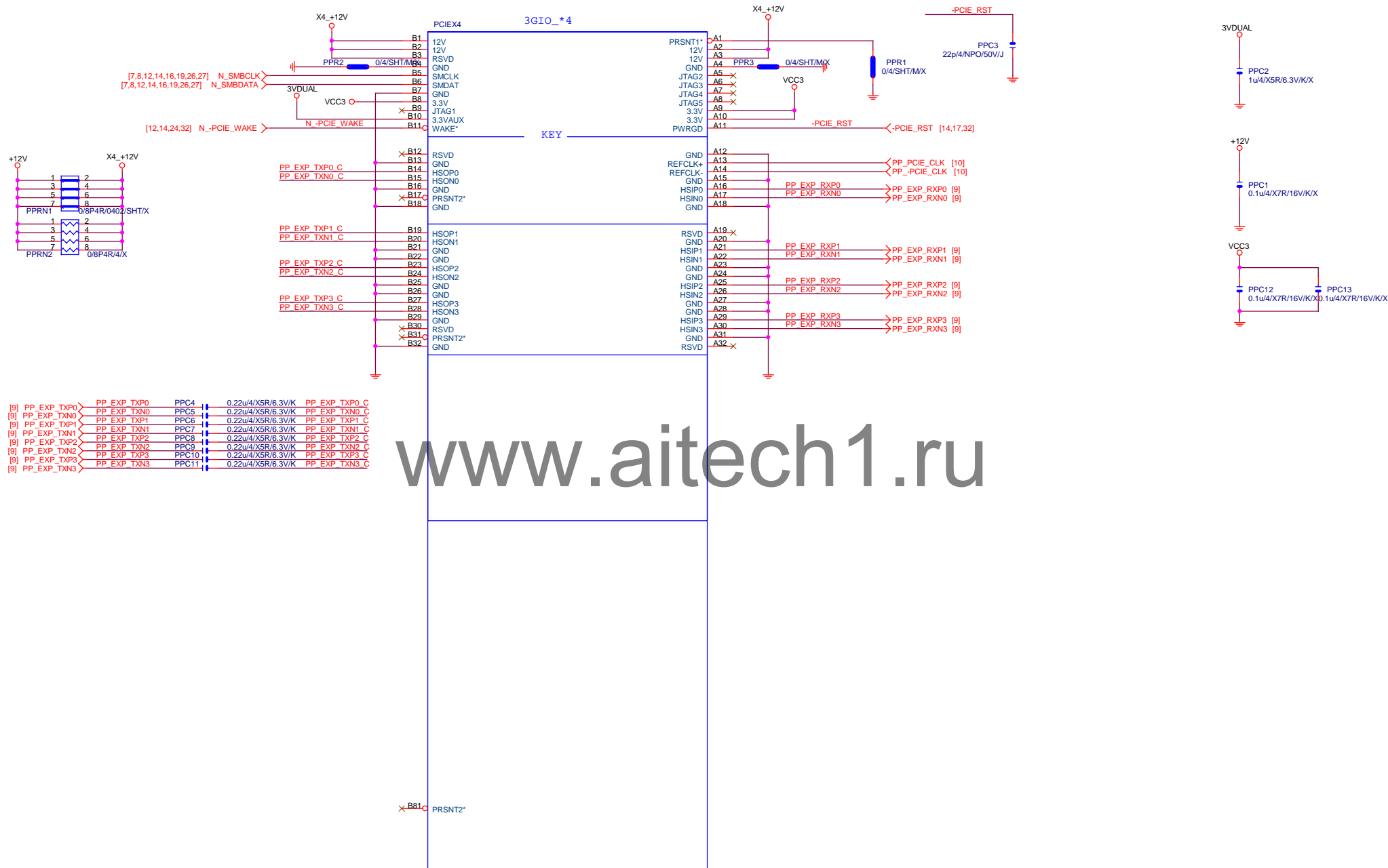


BLACK CONNECTOR

Gigabyte Technology

Title		
PCI EXPRESS * 16		
Size	Document Number	Rev
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# PCIEX4 SLOT



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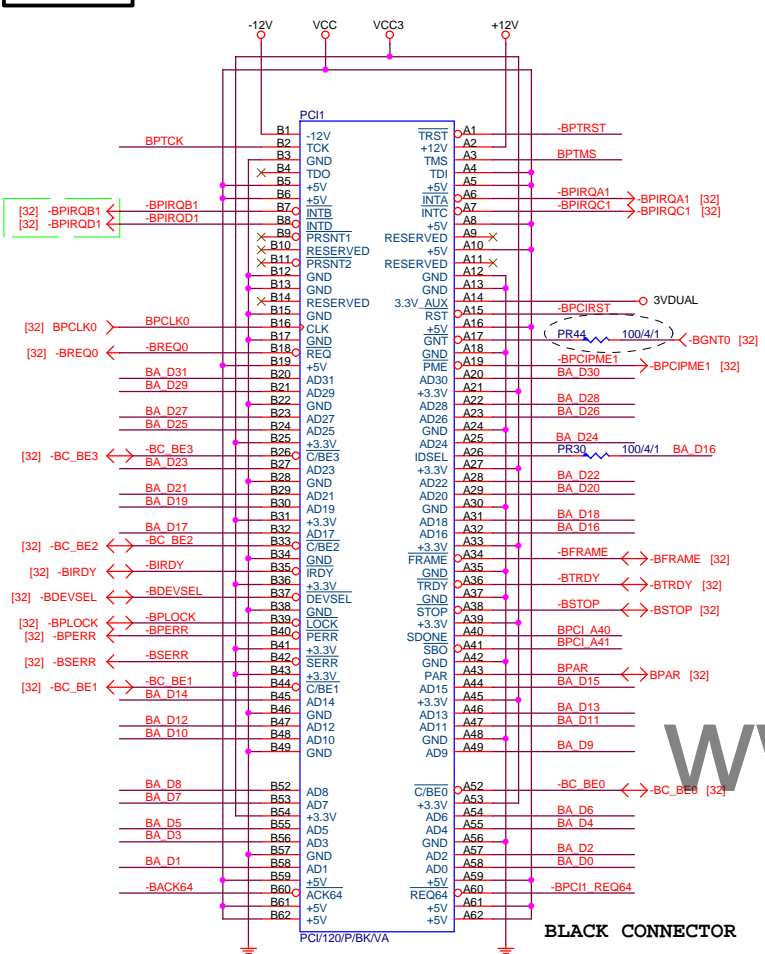
PCI-E/4X-65P/BK/LONG DOUBLE

BLACK CONNECTOR

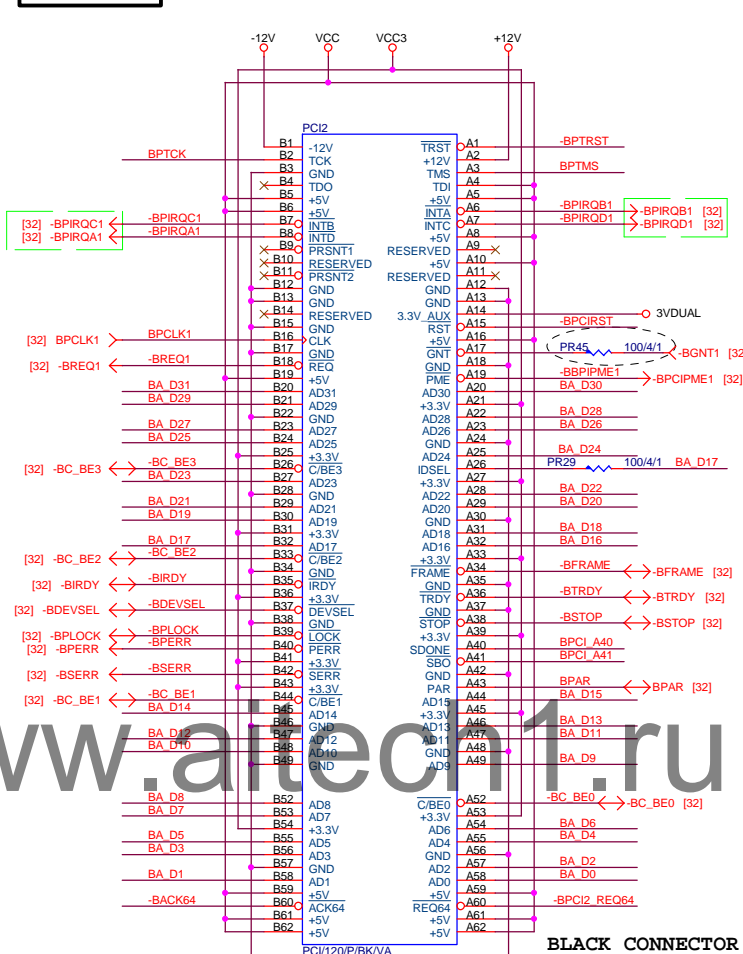
Gigabyte Technology			
Title			
PCI EXPRESS X 1 PORT			
Size	Document Number	Rev	
Custom	GA-Z87M-D3H	1.01	
Date:	Tuesday, March 26, 2013	Sheet	15 of 32



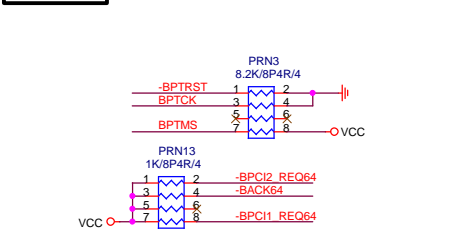
# PCI SLOT 1



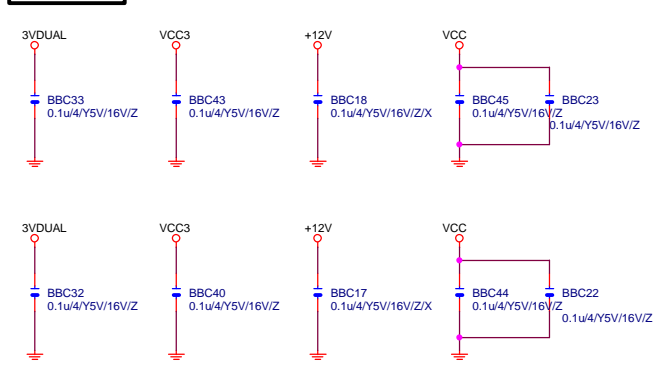
# PCI SLOT 2



# PCI PU

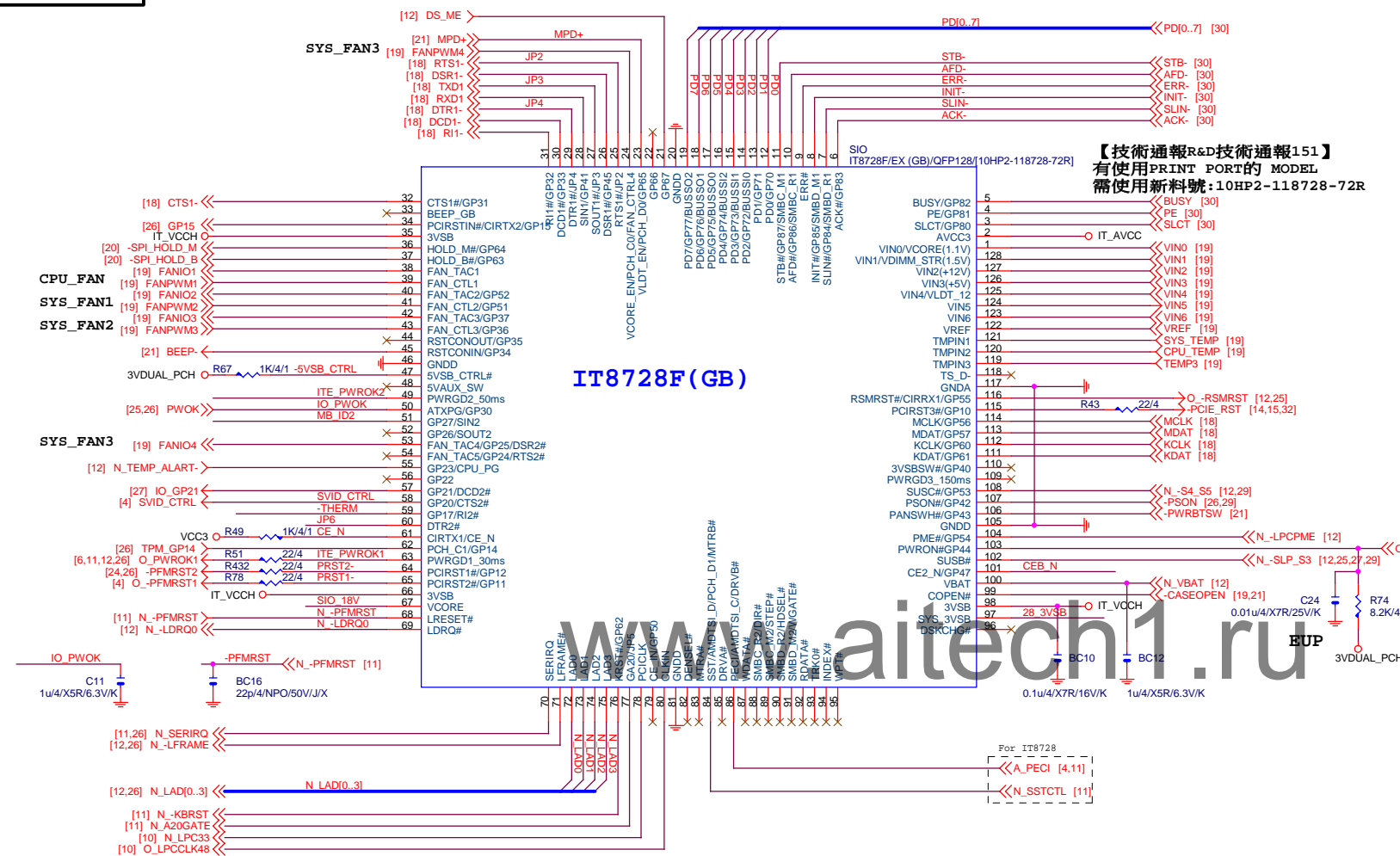


# PCI CAP

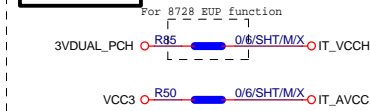


Gigabyte Technology			
Title			
PCI SLOT 1&2			
Size			
Custom			
Document Number			
GA-Z87M-D3H			
Date:			
Tuesday, March 26, 2013			
Sheet			
16 of 32			
Rev			
1.01			

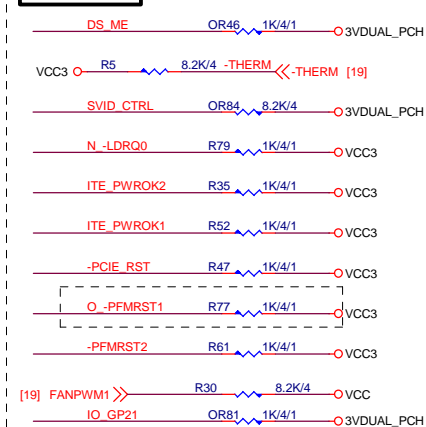
## SIO IT8728F



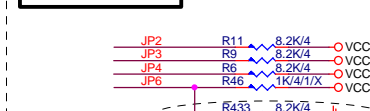
## PWR SHT



## SIO PU



SIO STRAP



IT8728-EX  
PULL DOWN

— ENABLE

GVP COR

3VDUAL 100/4/1 R83 28\_3VSB

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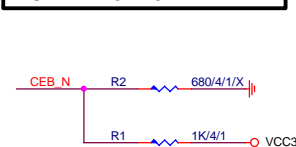
TP3--- High SPI-Flash Disable

Low SPI-Flash Enable

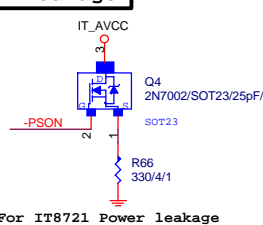
## IT8728F NOTE

	IT8728
PIN121	VCORE_EN/PCH_C0
PIN120	VLDI_TN/PCH_D0
PIN19	ATXPG
PIN31	PCH_C1
PIN53	SST/AMDTSI_D/MTRB#/PCH_D1
PIN55	PECI/AMDTSI_C/DRV#
PIN66	SYS_3VSB
PIN70	GP47
PIN95	VIN2(VCC5)
PIN96	VIN1(VCC12)
PIN97	VIN1/VDIMM_STR(1.5V)
PIN98	VINO/VCORE(1.1V)/NC

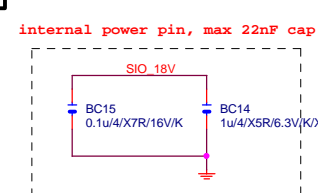
## DUAL BIOS OPT STRAP



## Power leakage



## SIO 18V

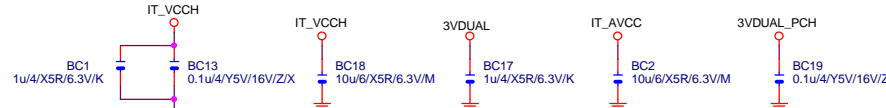


FOR LOW TEMP POWER ON INTO TEST MODE ISSUE

MB	ID
----	----



SIO CAP
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## Gigabyte Technology

Title			
ITE 8728 LPC IO			
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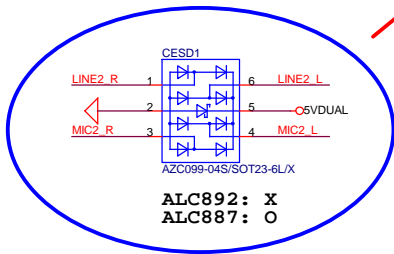


[23] CEN ←

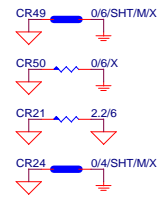
[23] LFE ←

[23] S\_SURR\_L ←

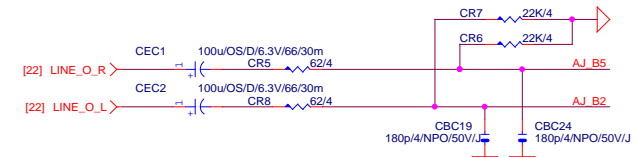
[23] S\_SURR\_R ←







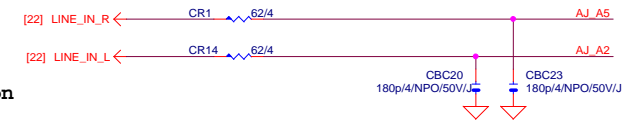
## LINE-OUT



Only reserved for ALC888

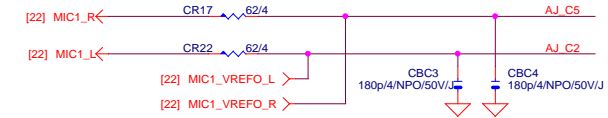
## LINE-IN

Verify MIC function  
in LINE-in

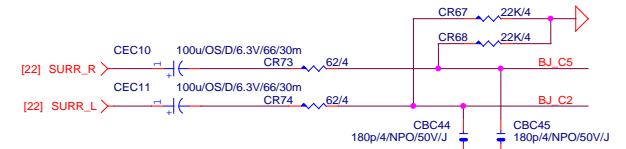


For 889A/888

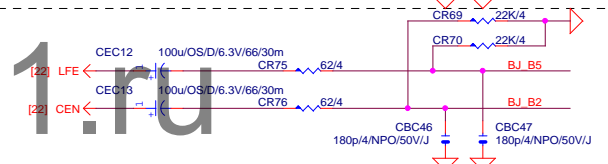
## MIC-IN



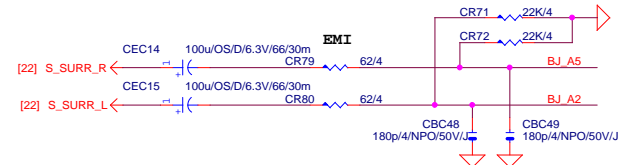
## SURROUND



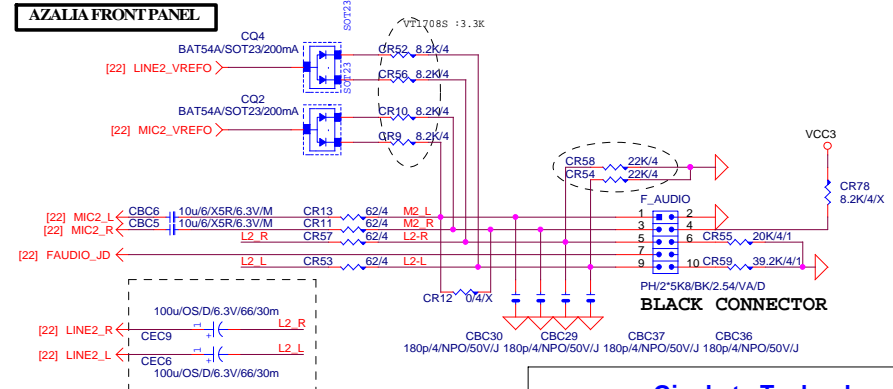
## CEN/LFE



## SURRBACK



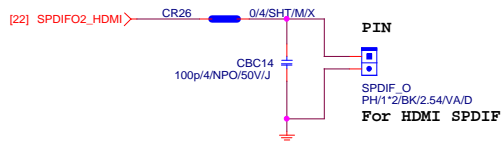
## AZALIA FRONT PANEL



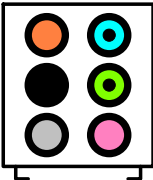
Gigabyte Technology

Title		
AUDIO JACK		
Size	Document Number	Rev
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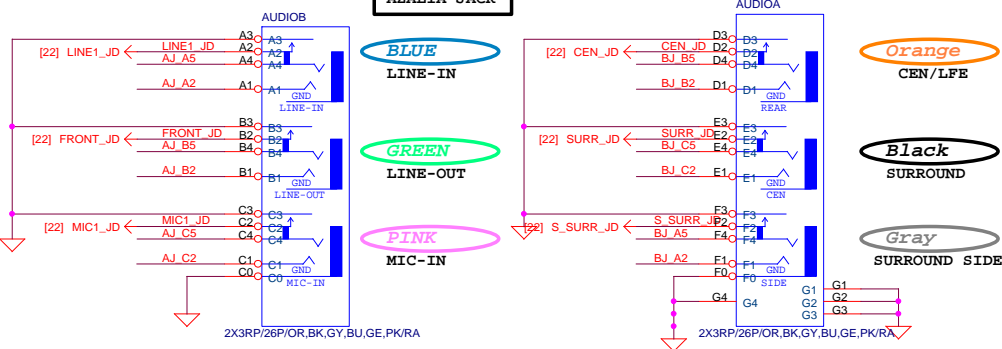
## SPDIF\_OUT



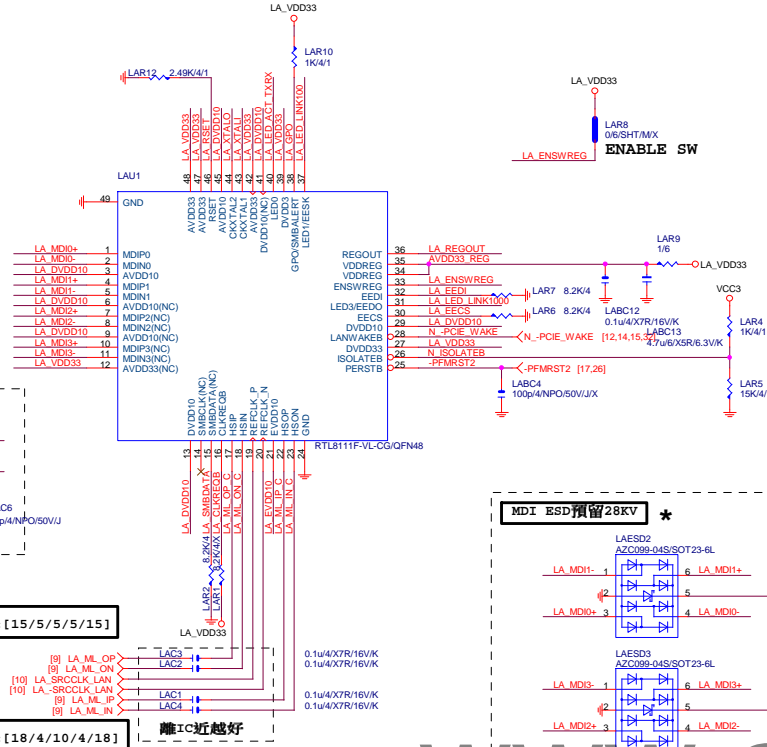
## AZALIA JACK



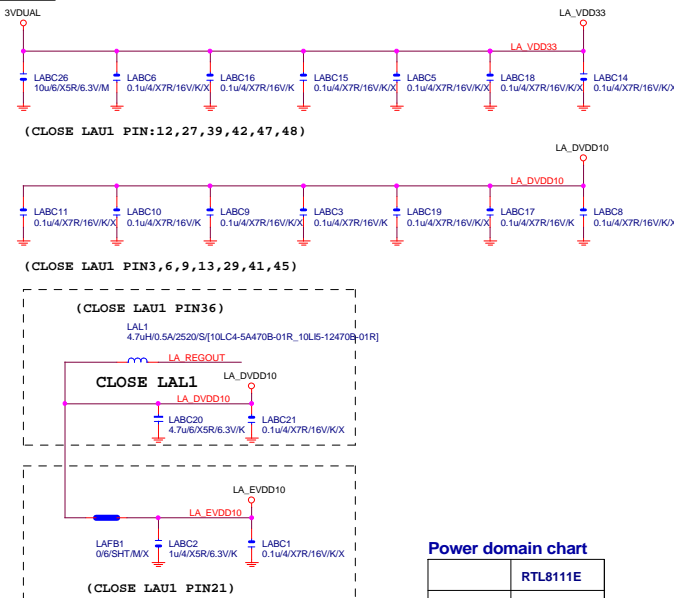
## AZALIA JACK



LAN:RTL8111F/VB/VL



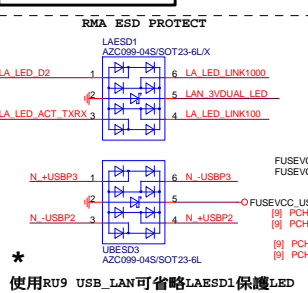
LAN POWER



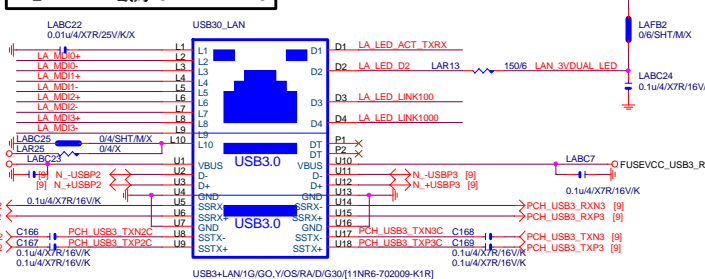
Power domain chart

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

USB LAN CONNECTOR



LA\_MDI-->100歐姆:[20/4/8/4/20]

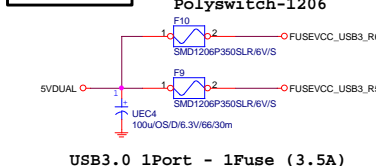


注意:USB PORT(目前:暫代6,7PORT)  
USB-->90歐姆:[15/4.5/7.5/4.5/15]

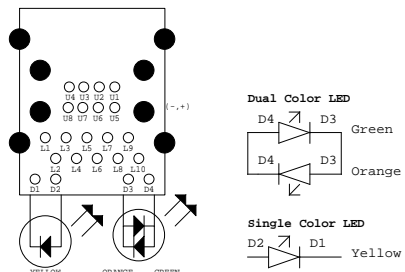
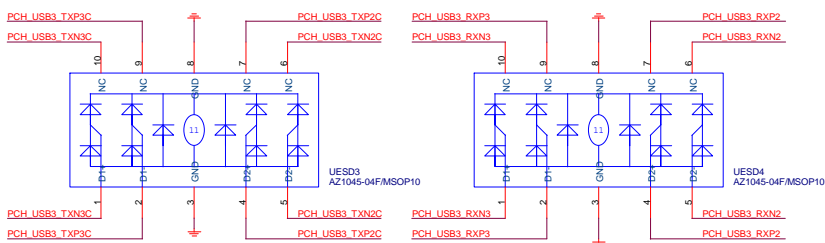
BOM NOTICE \*

料號	規格	廠商
11NR6-702009-96R	1G LAN (12core)	LAN (12core)
LAESD1	9KV ESD BOM:	LAN (12core)
LAESD2, LAESD3	28KV ESD BOM:	LAN (12core)

USB X3 POWER



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



Gigabyte Technology

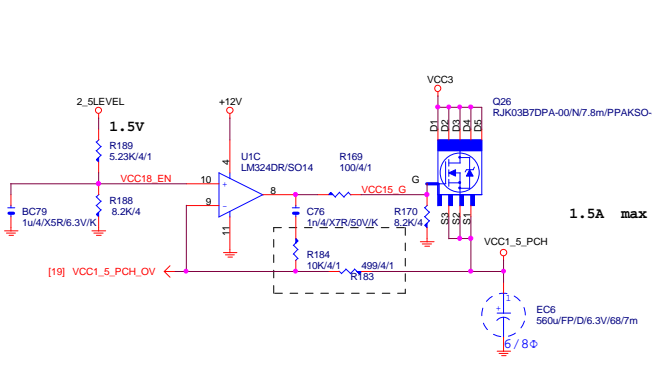
Realtek RTL8111G

GA-Z87M-D3H

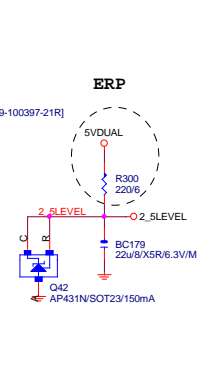
Rev 1.01

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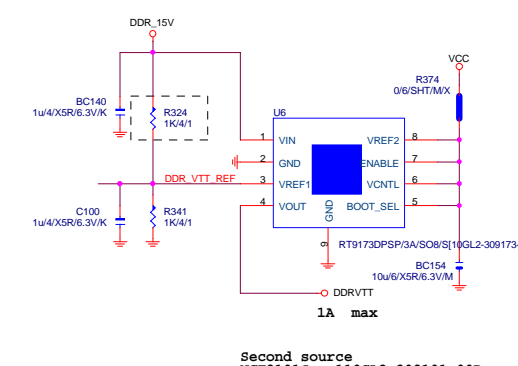
VCC1\_8\_PCH



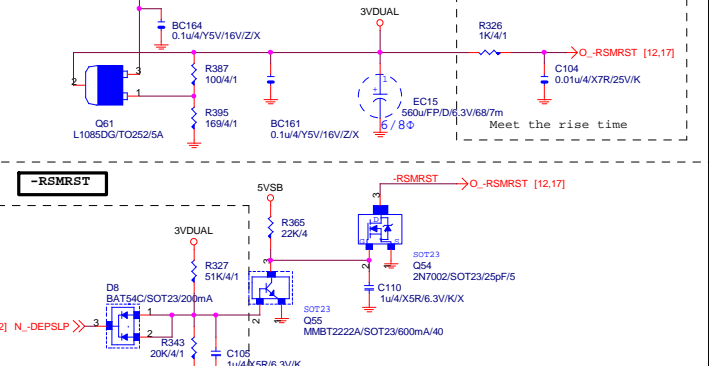
2\_5LEVEL



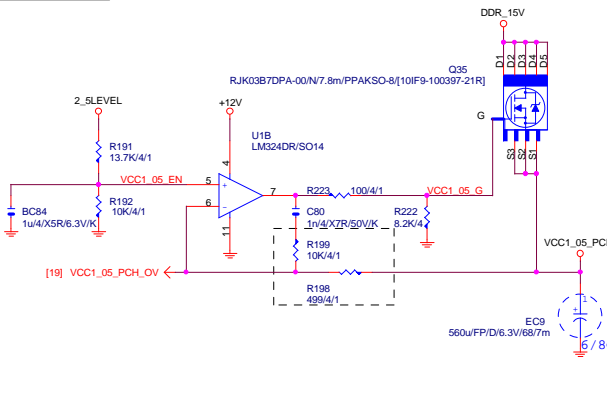
DDRVTT



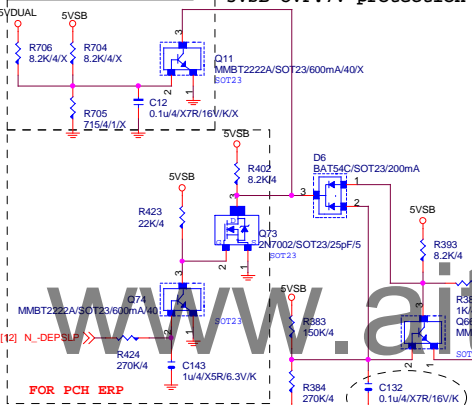
3VDUAL



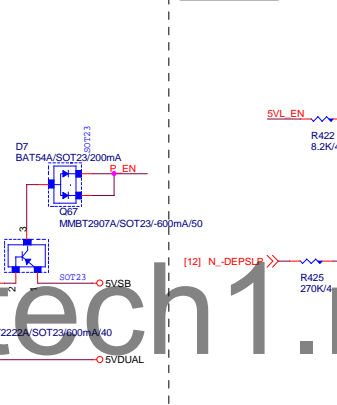
VCC1\_05\_PCH



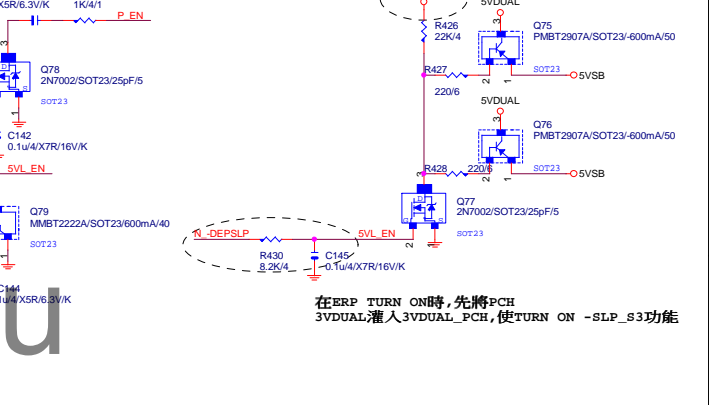
5VDUAL SHORT PROTECT



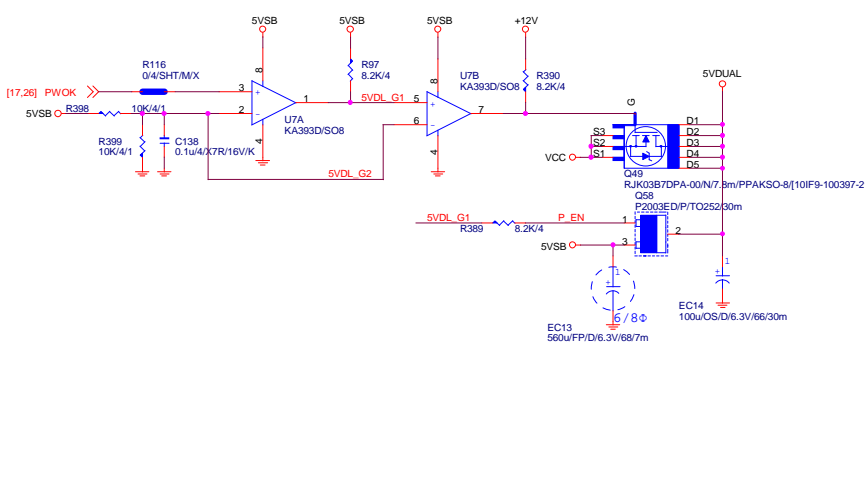
5VSB OVP:7V protection



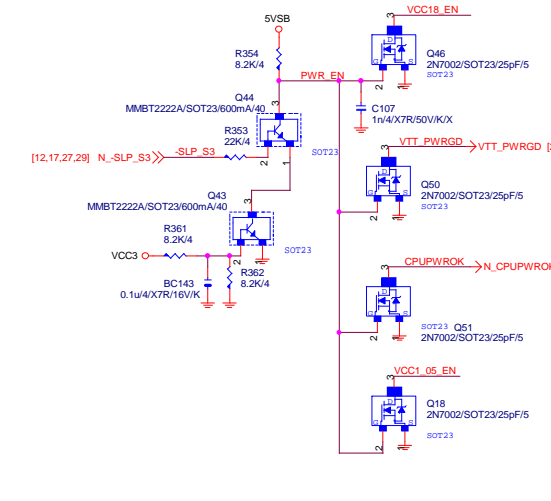
PCH ERP



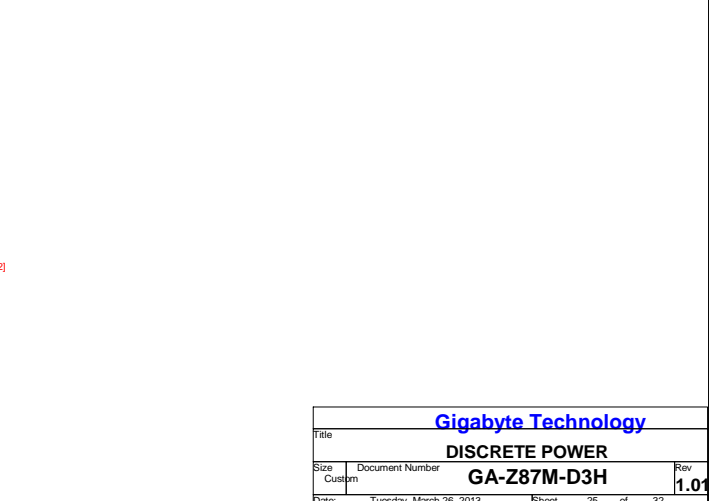
5VDUAL



PWR SEQ

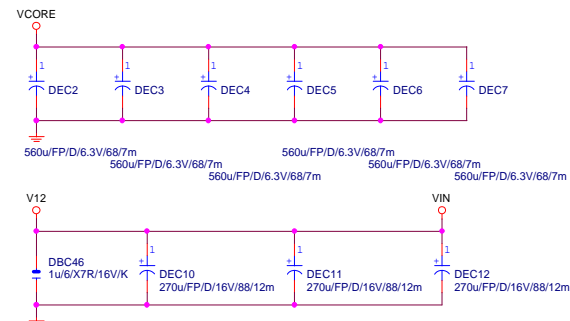
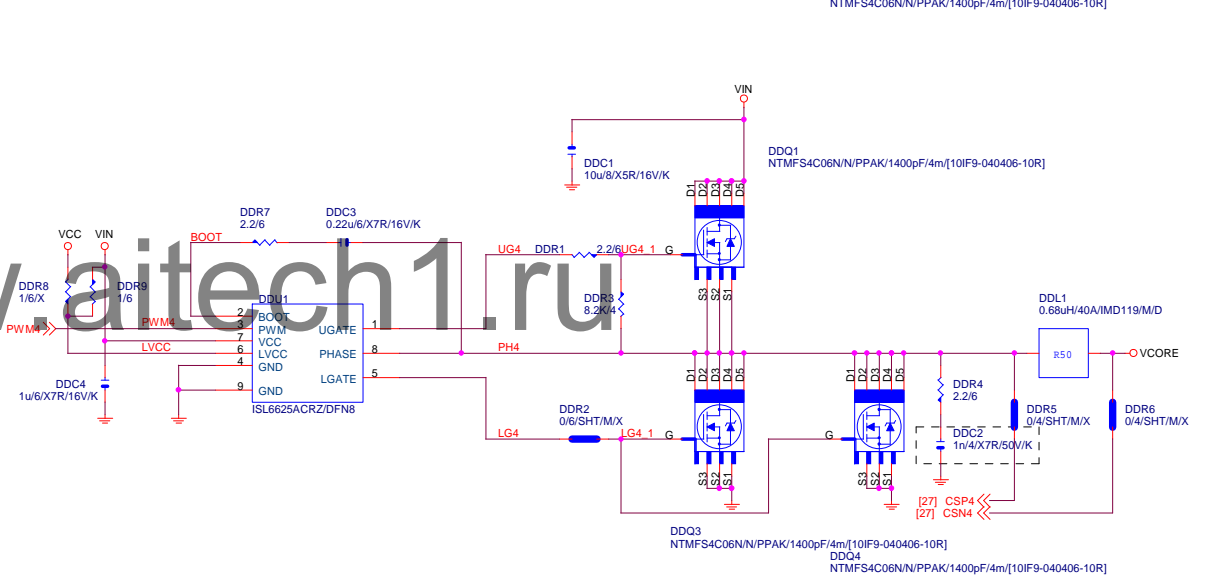
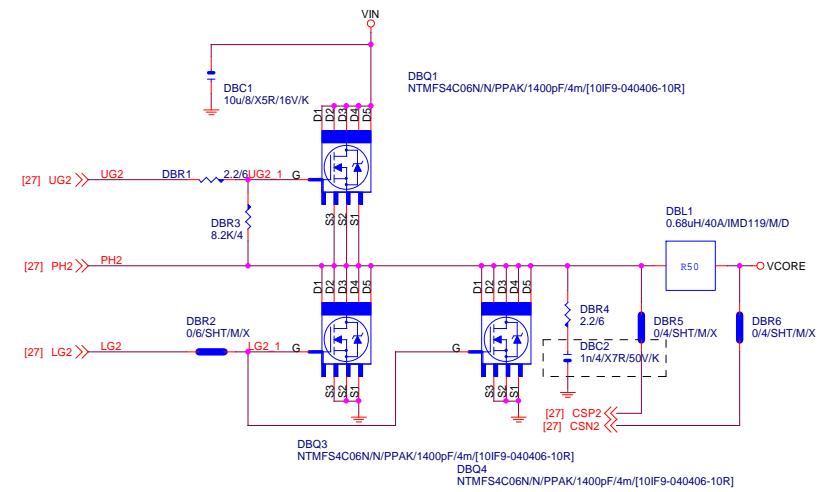


3VDUAL



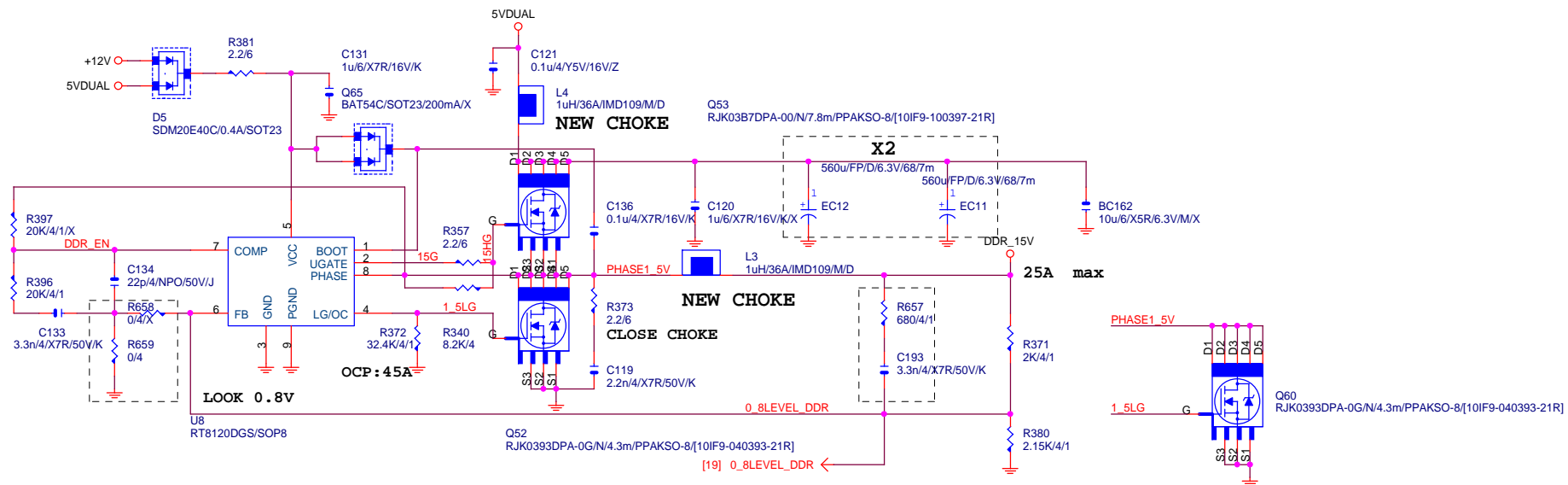




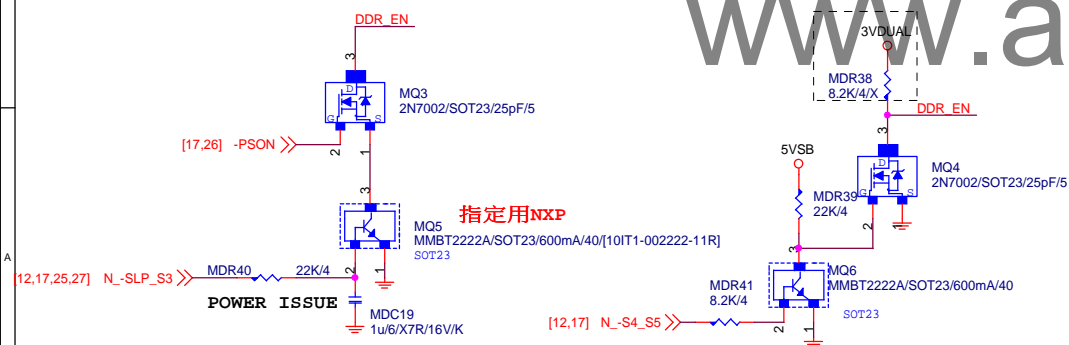


<b><i>Gigabyte Technology</i></b>			
Title <b>CPU CORE VR-2</b>			
Size Custom	Document Number <b>GA-Z87M-D3H</b>	Rev <b>1.01</b>	
Date:	Tuesday, March 26, 2013	Sheet	28 of 32

DDR15V




PWR SEQ



VIN=5V,VOUT=1.5V,IOUT=25A,PHASE=1  
IRMS=11.45A  
560uF/P/D/6.3V/68/8m RIPPLE CURRENT=4.7A  
Coefficient=1.7(85°C),1(105°C)

VIN Ripple current=4.7X1.7=7.99A(85°C)  
-->故固態電容須2X7.99=15.98>11.45A

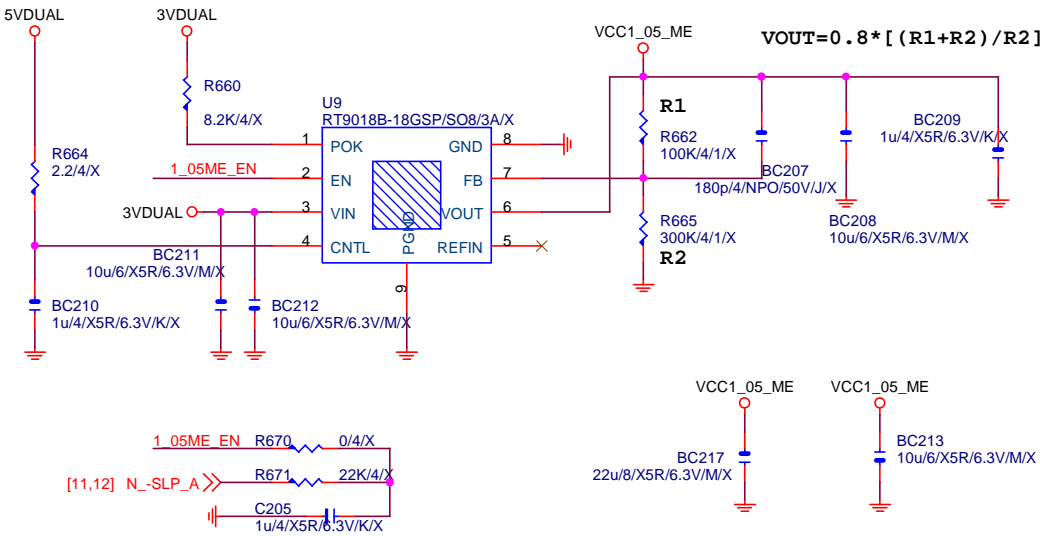
$$\begin{aligned} \text{Rocset} &= (\text{Iocp} * \text{Lgate}, \text{rdson}) / \text{Iocset} \\ \text{Rocset} &= (45\text{A} * 6.7\text{mOhm}) / 10\text{uA} = 30\text{K} \\ \text{Iocset} &= 10\text{uA} \end{aligned}$$

<div style="text-align: center;">  </div>			
Title			
DDR POWER			
Size	Document Number	GA-Z87M-D3H	Rev
Custom			1.01
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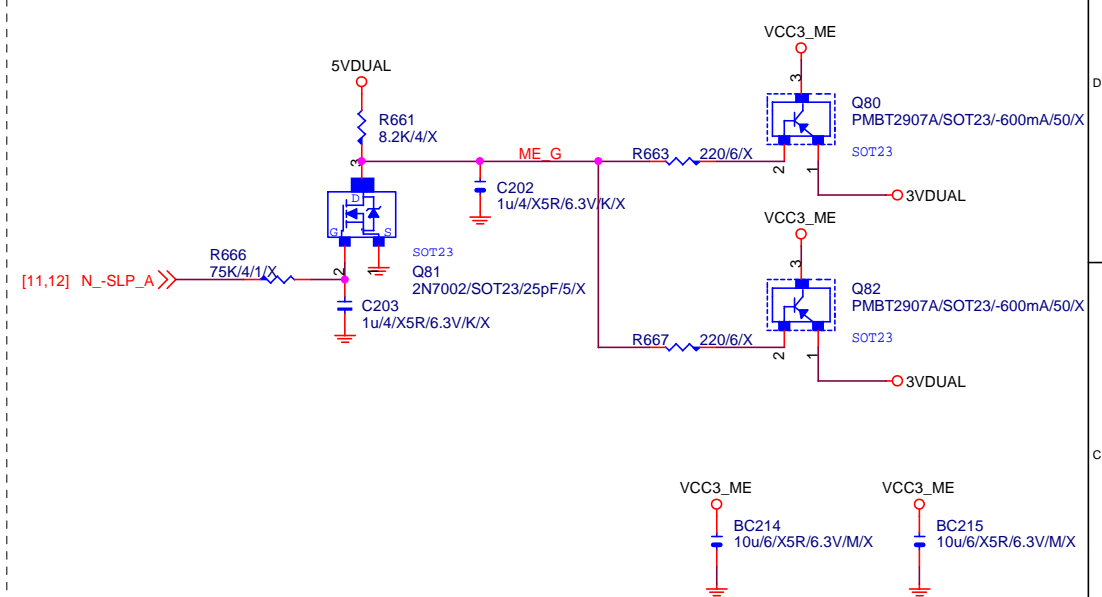
# VCC1\_05\_ME

【技術通報R&D技術通報156】  
(RICHTER), (NUVOTON), (EMC)做共用  
PIN7分壓阻值須做修改為100K以上電阻值



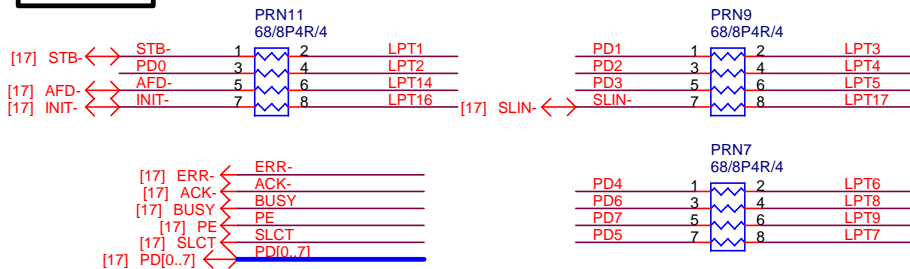
Second source  
EM5103 - 10GL2-305103-01R  
NCT3730S - 10GL2-303730-01R

# VCC3\_ME

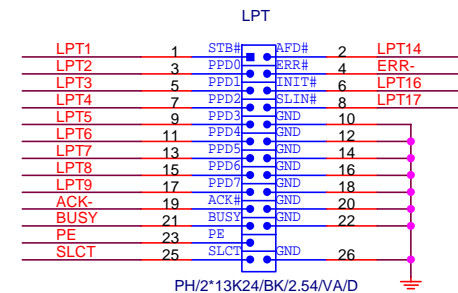
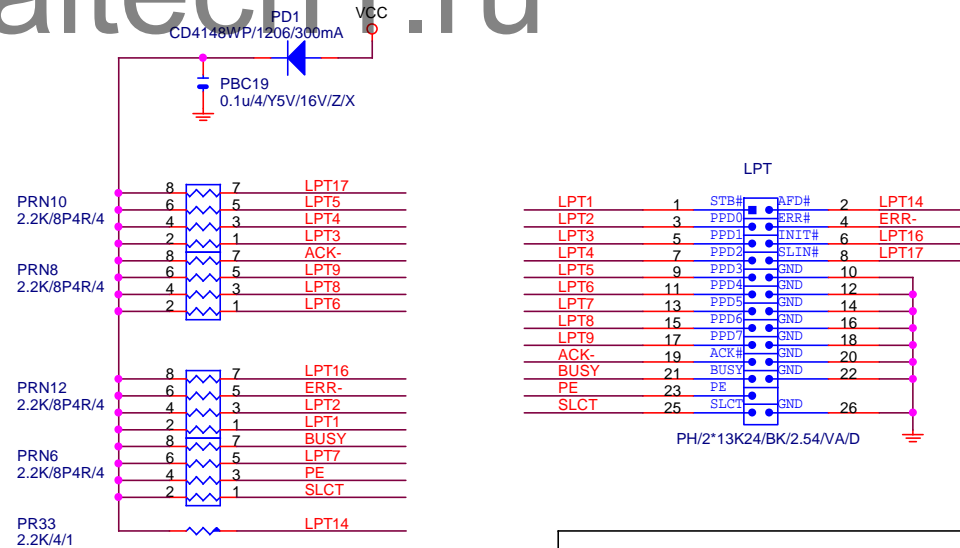


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# LPT PORT



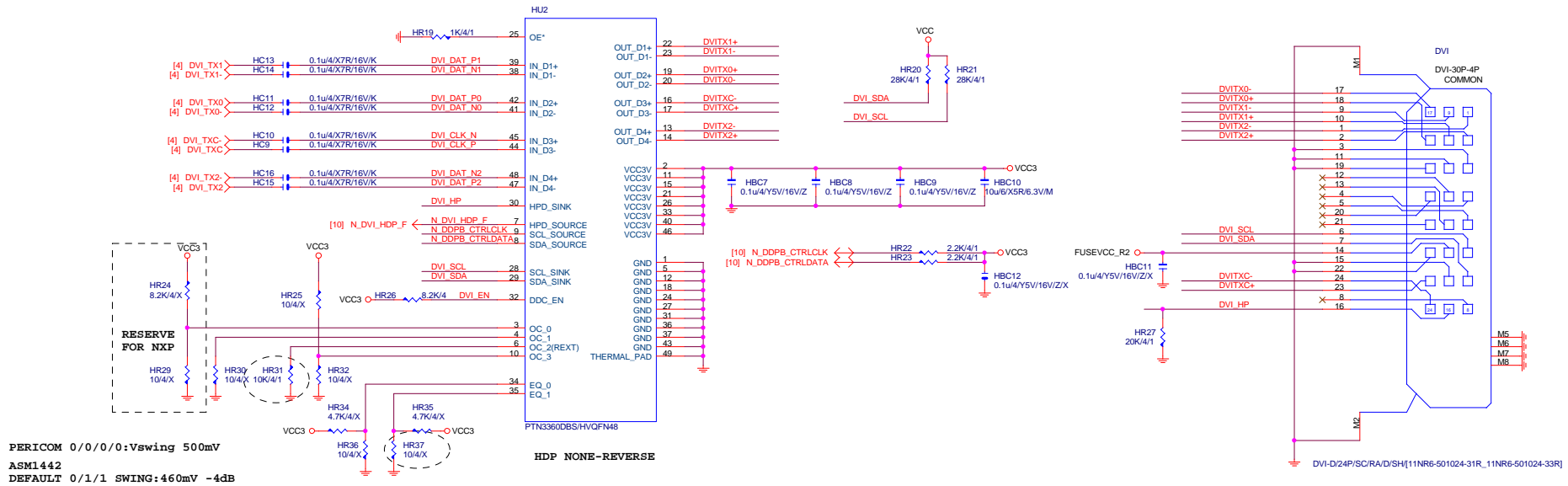
【技術通報R&D技術通報151】  
33ohm Change to 68ohm



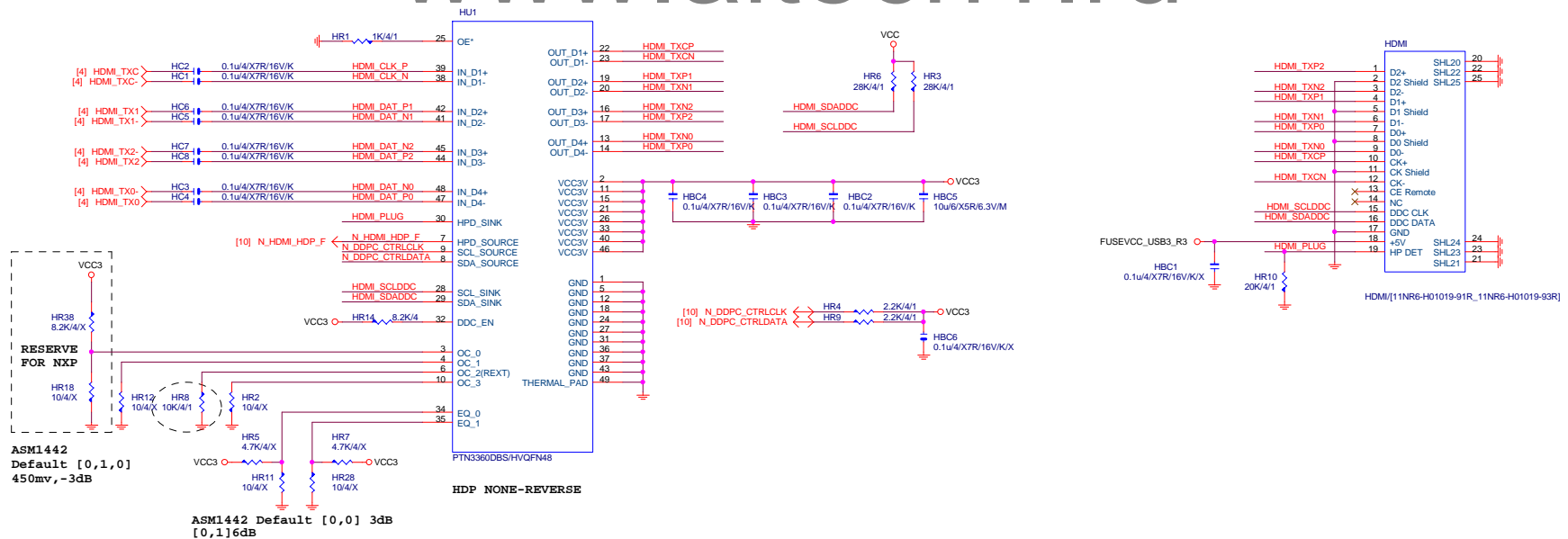
Gigabyte Technology

Title			
LPT			
Size	Document Number	Rev	
Custom	GA-Z87M-D3H	1.01	
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# DVI LEVEL SHIFT



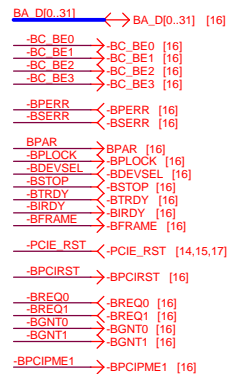
# HDMI LEVEL SHIFT



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## PCIE TO PCI

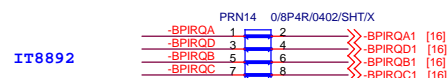
PCI:5/4/5 Impedance=50 +- 15%



```
High: Enable PCI CLK 66MHz
Low: Disable PCI CLK 66MHz
```



High: PCICLK INPUT form CLK Gen  
Low: PCICLK OUTPUT form IT8893 chip



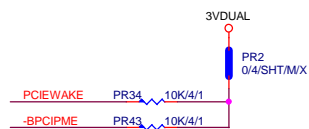
PCI slot



PCI slot

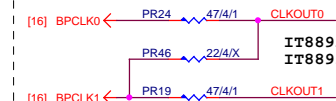
**-BPCIPME1 PR27 0/4/SHT/M/X >>N -PCIE WAKE [12.14.15.24]**

chipset side

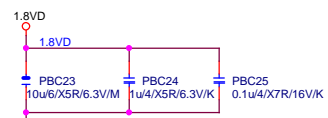
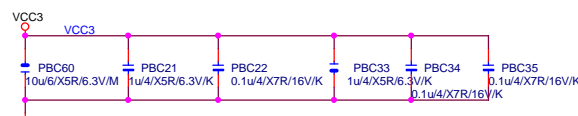
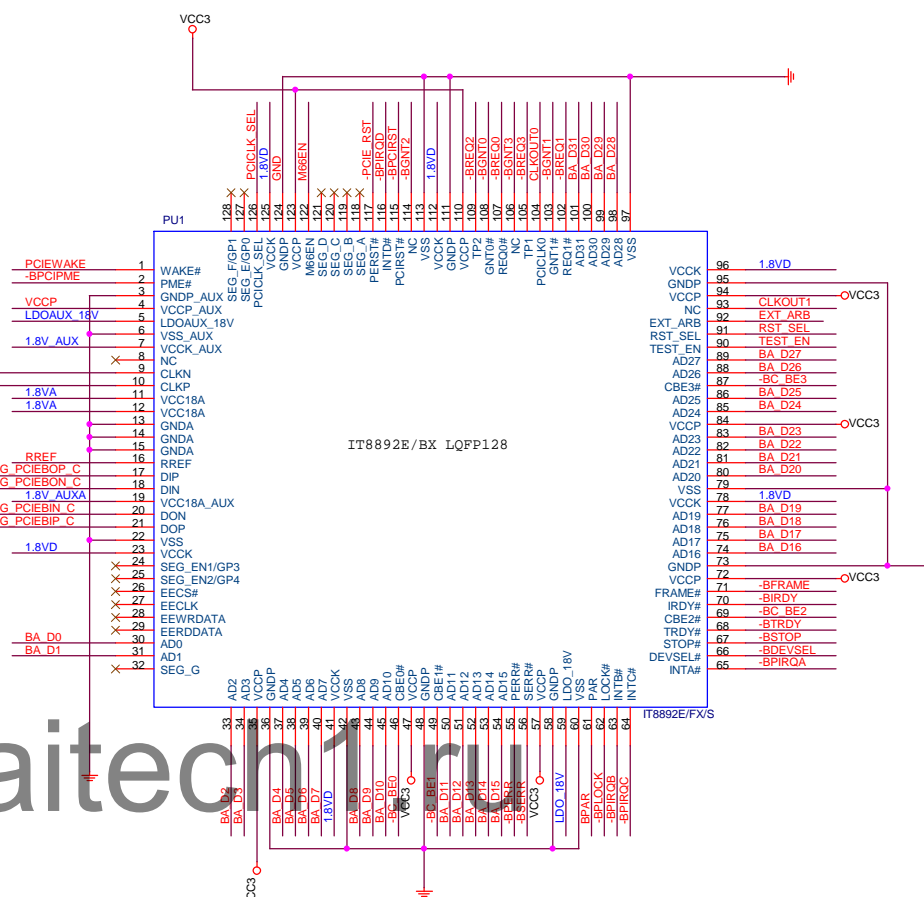
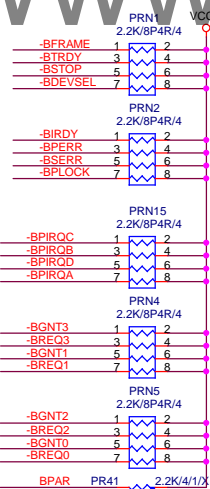
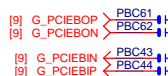
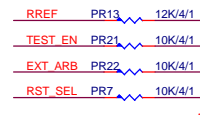


## Co-Lay IT8893 (IT8893 CLKOUT1 N/A)

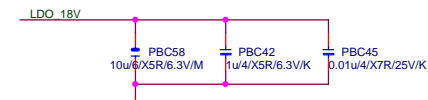
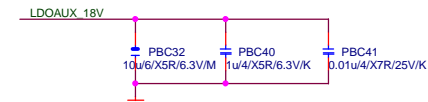
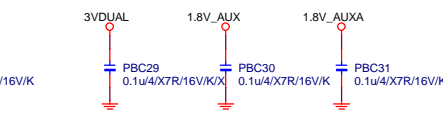
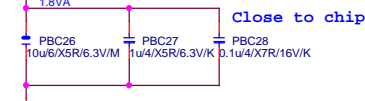
```
IT8892: PR24 -> 47ohm
IT8893: PR24 -> 22ohm
```



IT8892: PR19 -> O  
IT8893: PR19 -> X




PCB layout note:  
Close to chip



PCB layout note:  
Close to chip

## Gigabyte Technology

Title			
<div style="text-align: center;">    <b>ITE IT8892E</b> </div>			
Size	Document Number		Rev
Custom	<b>GA-Z87M-D3H</b>		<b>1.0</b>
Date	Tuesday, March 26, 2013	Sheet	32 of 32