

Model Name: GA-H110M-DS2

rev:1.0

SHEET TITLE

SHEET TITLE

01	COVER SHEET
02	BOM & PCB MODIFY HISTORY
03	BLOCK DIAGRAM
04	CPU_LGA1151-A
05	CPU_LGA1151-B-DDR4
06	CPU_LGA1151-C
07	CPU_LGA1150-D
08	DDR4 CHANNEL A
09	DDR4 CHANNEL B
10	PCH_CLK BUFFER
11	PCH_DMI,USB,PCIE
12	PCH_MISC
13	PCH SATA,PCIE,SATA_EXPRESS
14	PCH_PWR,GND
15	Dual BIOS
16	ITE 8628 LPC IO
17	HWM
18	FAN CTRL--SIO
19	PCI EXPRESS*16 SLOT
20	PCI EXPRESS*1 SLOT
21	SATA
22	ISL95858_856 PWM
23	ISL95858_856 MOS_VCORE
24	ISL95858_856 MOS_VCCGT
25	VCCSA_VCCIO_VCCPLL
26	RT8237_DDR_VDDQ
27	RT8068_VPP

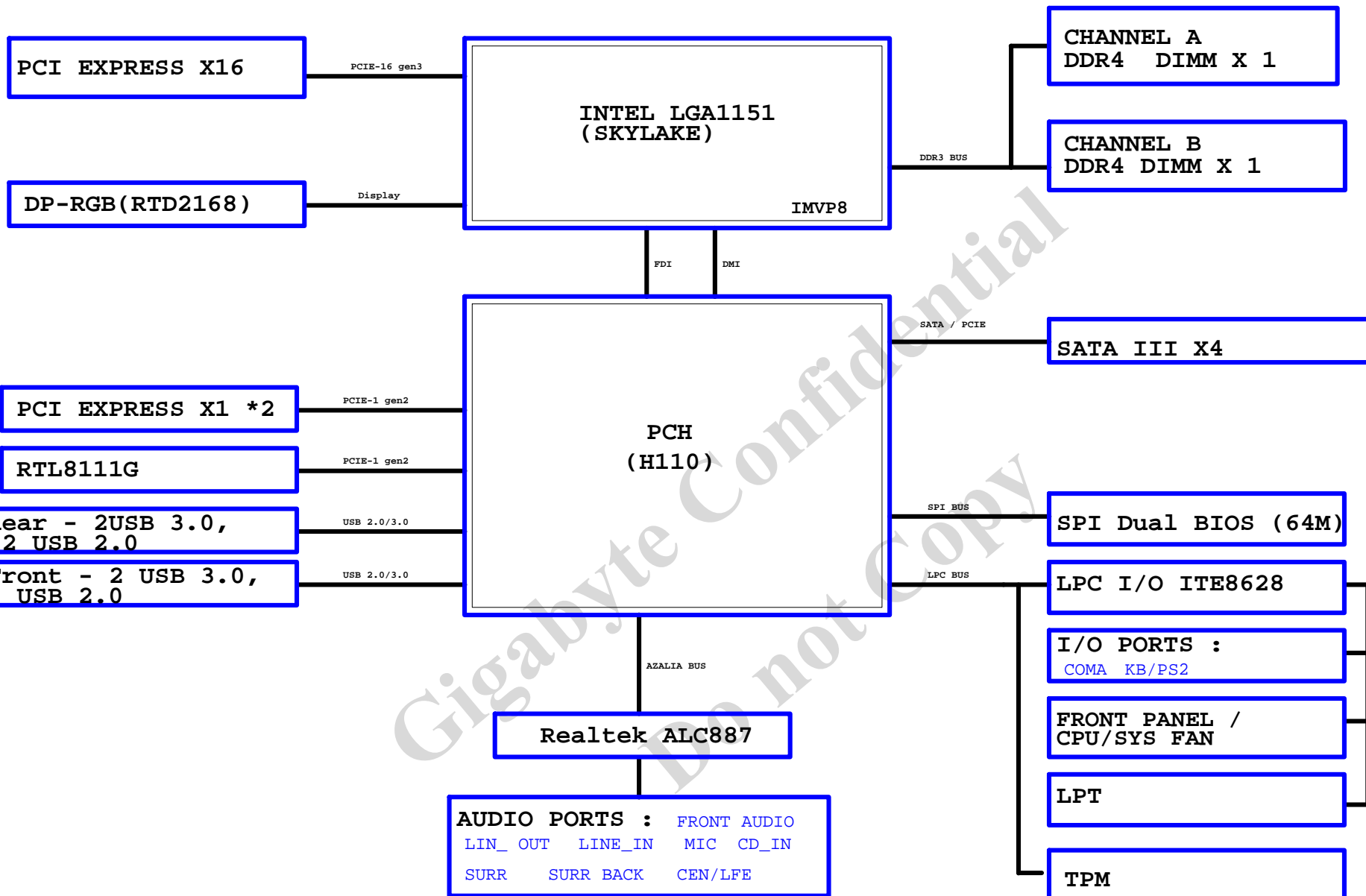
28	RT8237_PCH_VCC1_0_PCH
29	DISCRETE POWER
30	ATX POWER , A_-PROCHOT
31	KB_MS_USB
32	RTD2168 - DP to VGA - IC
33	RTD2168 - DP to VGA - Conn
34	R_USB30
35	REALTEK - RTL8111G
36	USB20_LAN CONNECTOR-RTL8111G
37	Realtek ALC887
38	REAR AUDIO JACK
39	F_USB30
40	F_USB20
41	COM , LPT , TPM
42	F_PANEL
43	EMI/ESD
44	POWER MAP
45	TABLE LIST
46	NTC MAP
47	
48	
49	
50	
51	

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Title		
Cover Sheet		
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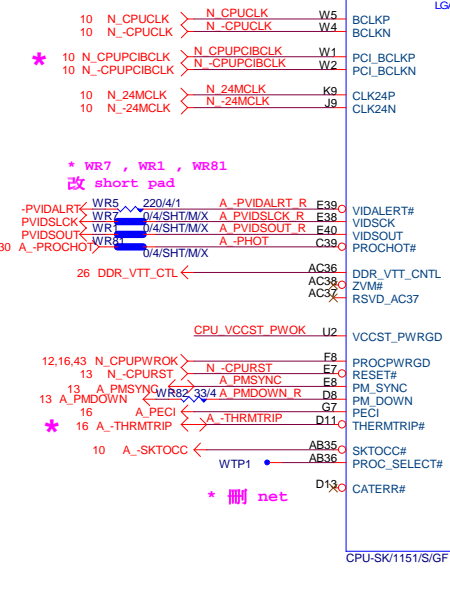
# BLOCK DIAGRAM



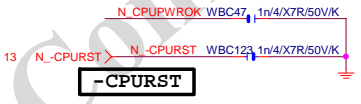
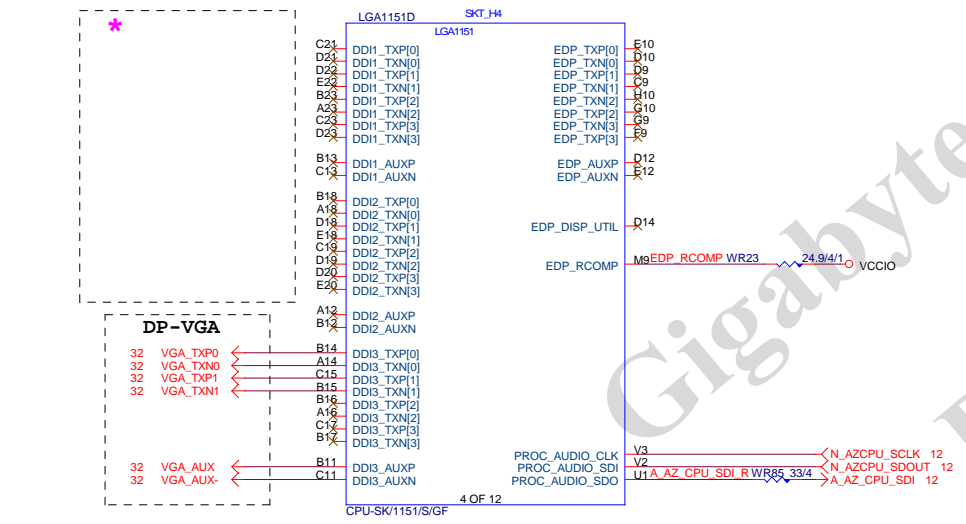
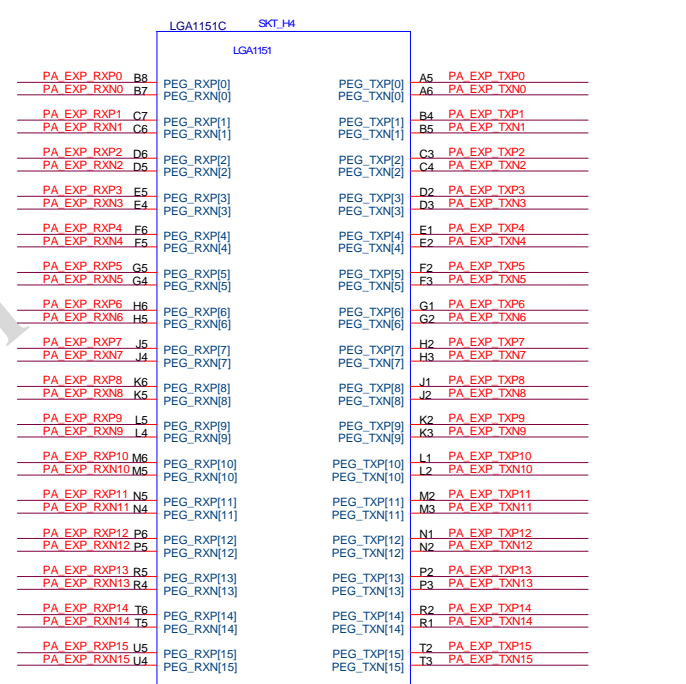
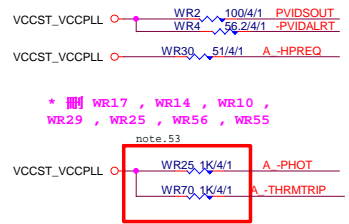
[www.vinafix.com](http://www.vinafix.com)

<i>Gigabyte Technology</i>			
Title			
BLOCK DIAGRAM			
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**\* Rev0.2B**



检查组别 / 不用可删除



CFG[2]:x16 Lane Numbering Reversal. 1= NORMAL;0=reversal  
CFG[4]: eDP enable:1:disable/0=enable  
CFG[6:5]:PCI Express\* Bifurcation; 1= 1 x16 PCI Express;10=2x8 PCI Express  
CFG[7]: PEG Training;1=(default) PEG Train immediately following RESET#;0=PEG Wait for BIOS

Bifurcation Config.	Signals	Lanes
	CFG[6]	CFG[5] CFG[2]
1x16	1	1 1
1x16 Reversed	1	1 0
2x8	1	0 1
2x8 Reversed	1	0 0
1x8+2x4	0	0 1
1x8+2x4 Reversed	0	0 0

G-15u : (CPU-SK/1151/S/15)  
10SC1-F01151-11R / 10SC1-F01151-12R  
G-FL : (CPU-SK/1151/S/GF)  
10SC1-F01151-21R / 10SC1-F01151-22R

4 layer HDMI/DP/eDP/====4/4//15  
6 layer HDMI/DP/eDP/====4/5.5/4//15  
Impedance=85 +- 15%

PA\_EXP\_TXP[0..15] >> PA\_EXP\_TXP[0..15] 19  
PA\_EXP\_TXN[0..15] >> PA\_EXP\_TXN[0..15] 19  
PA\_EXP\_RXP[0..15] >> PA\_EXP\_RXP[0..15] 19  
PA\_EXP\_RXN[0..15] >> PA\_EXP\_RXN[0..15] 19

4 layer PEG/DMI/====4/4//15  
6 layer PEG/DMI/====4/5.5/4//15

Impedance=85 +- 15%

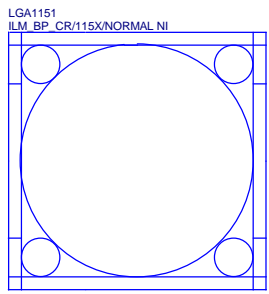
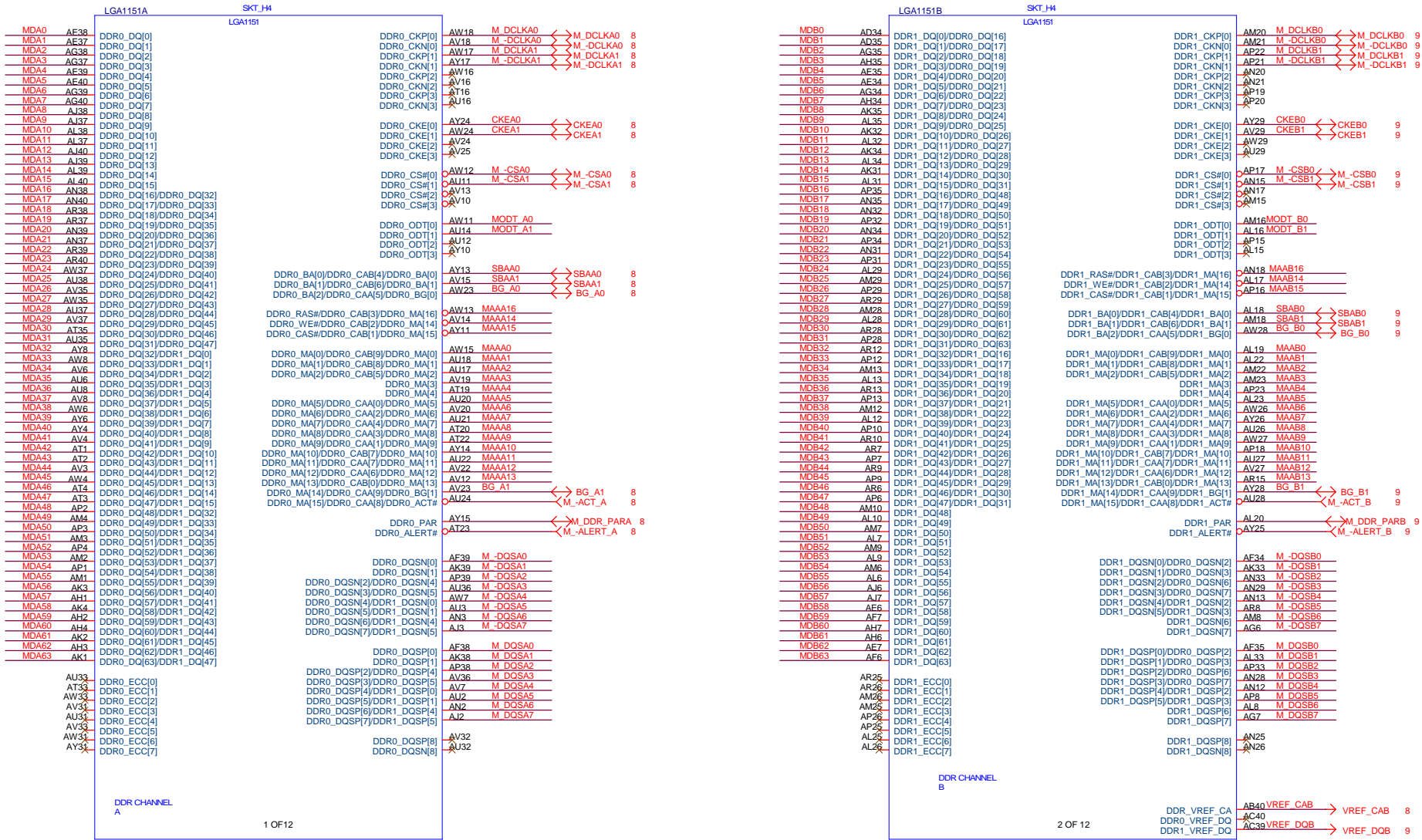
W=12 mil out of CPU  
S=15 mil out of CPU

**Gigabyte Technology**

**CPU LGA1151-A**

Title		Rev <b>1.0</b>	
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\* 改DDR4 net

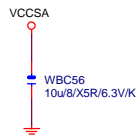


**Gigabyte Technology**

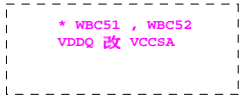
**CPU LGA1151-B**

**GA-H110M-DS2**

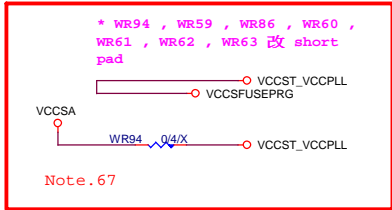
Title		Rev
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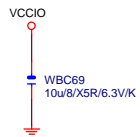
\* 删 WBC50 电容



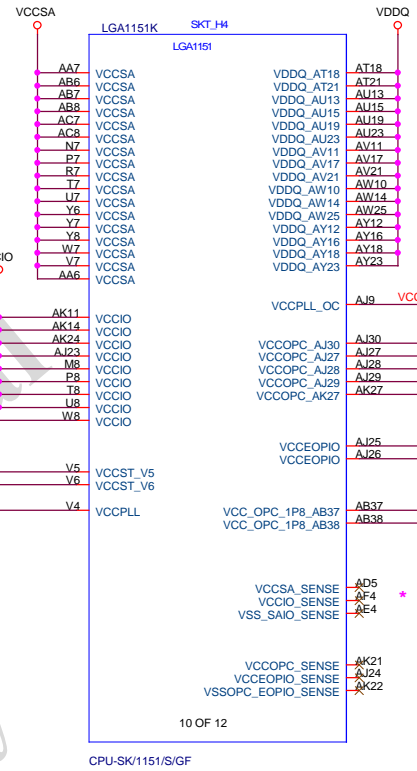
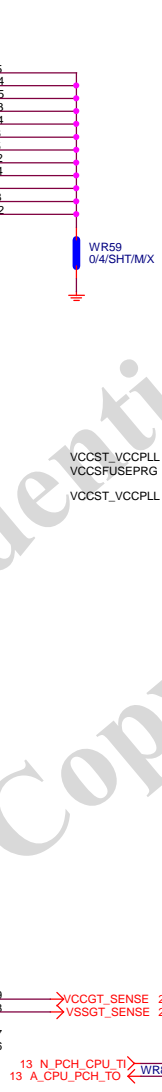
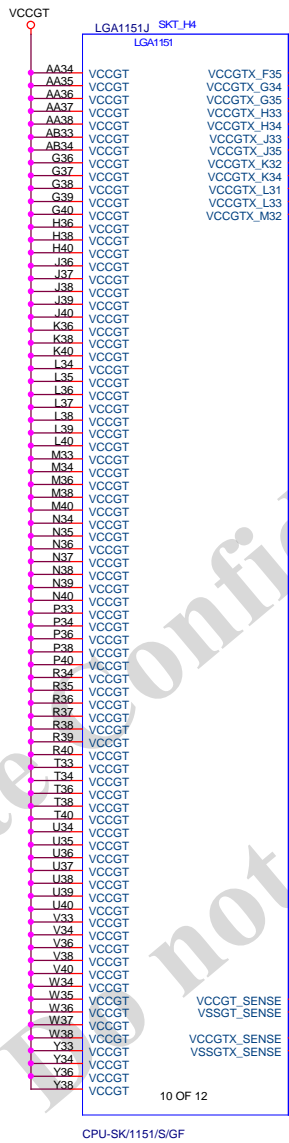
\* 删 WBC124, WBC125, WBC126, WBC127 电容



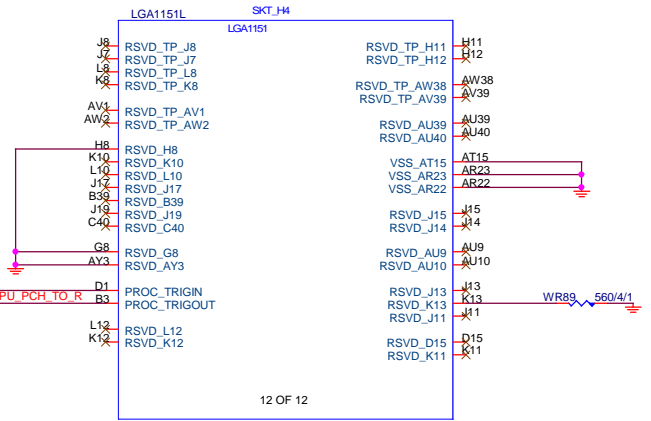
Note.67



\* 删 VCCGT 电容



CPU-SK/1151/S/GF



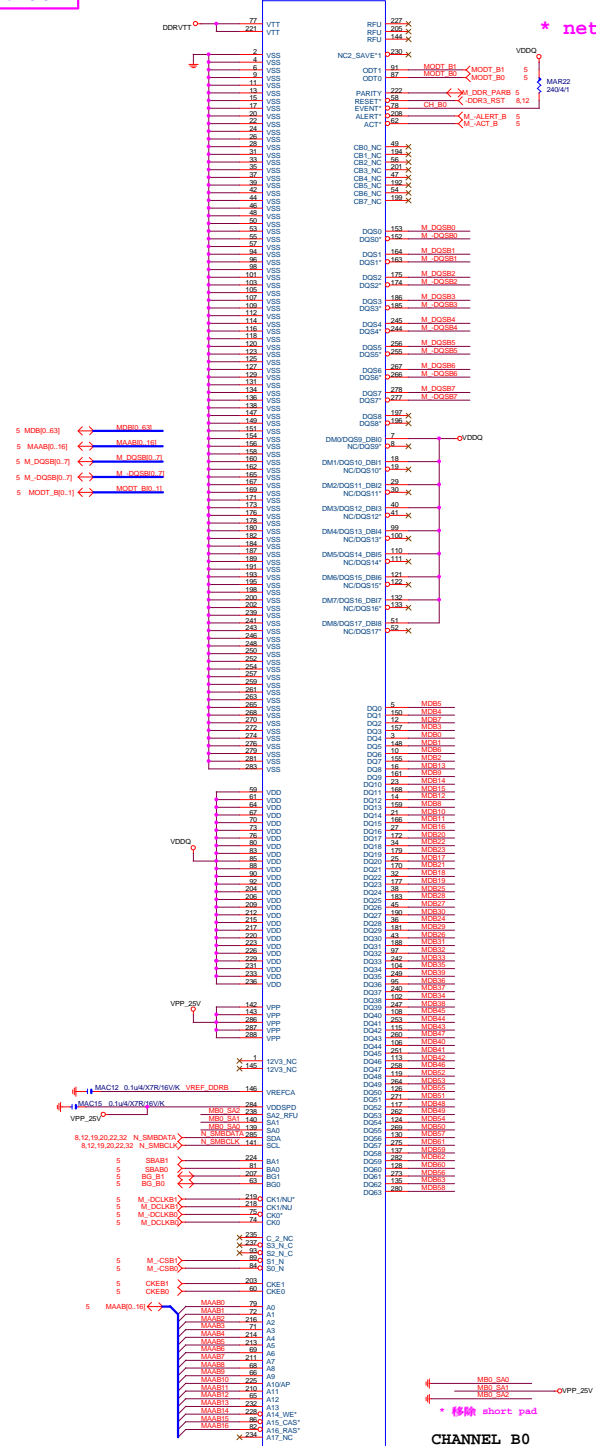
CPU-SK/1151/S/GF

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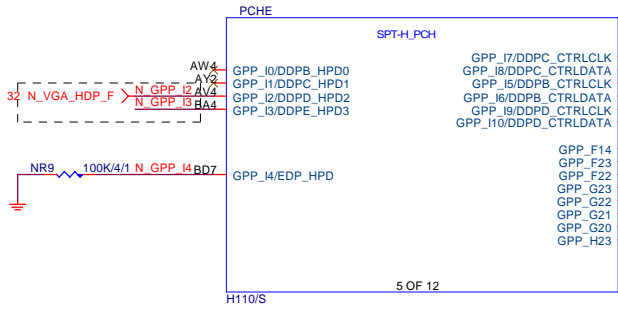




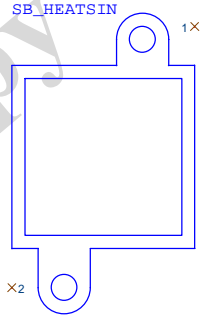
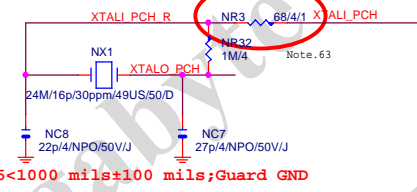
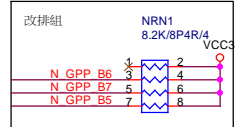
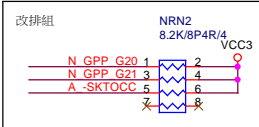
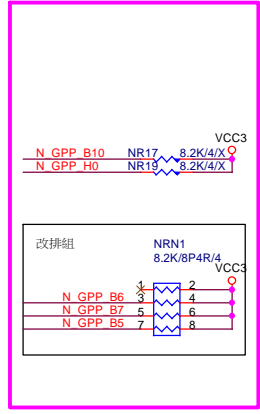
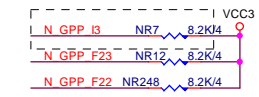
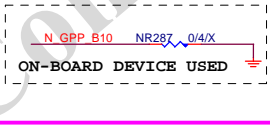
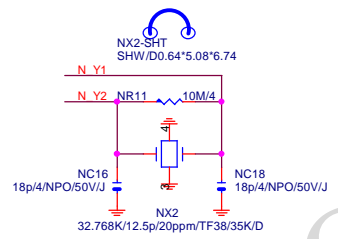




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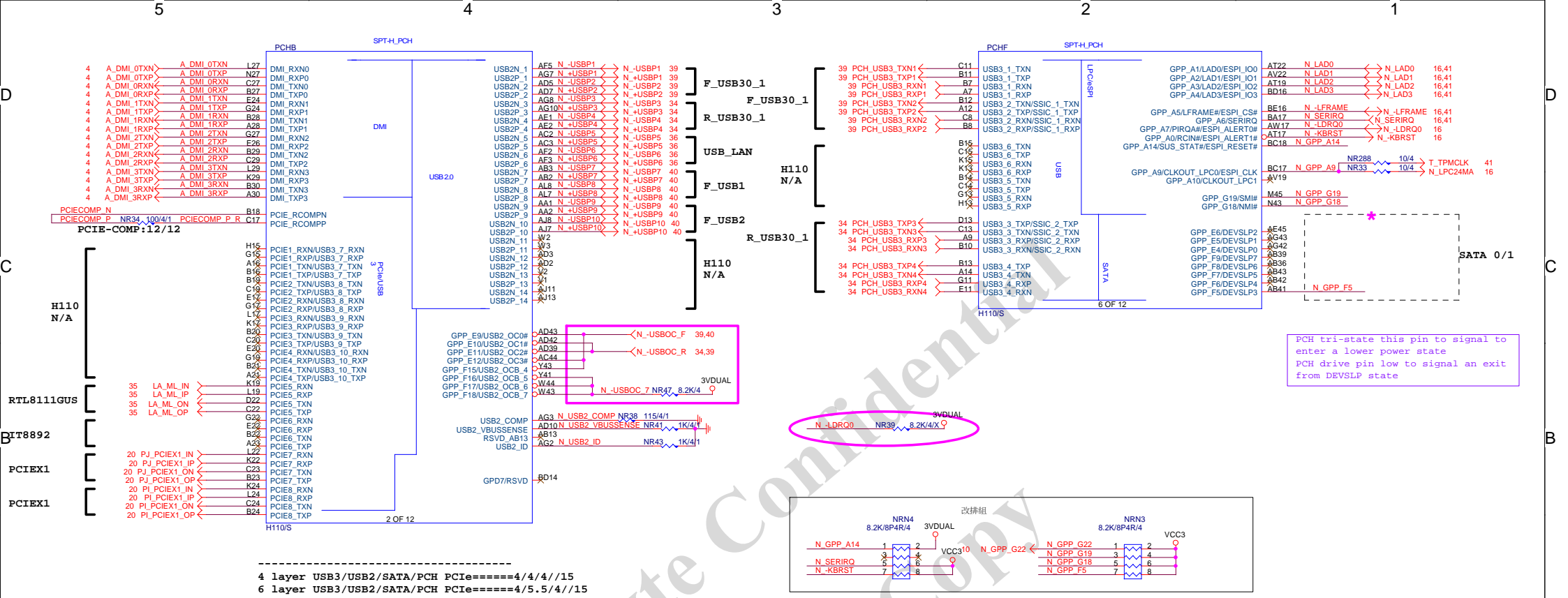
32.768KHZ



LOW COST ICH7 HEATSINK  
BLACK HS

PCH\_HS  
PCH\_HS[12SP2-030005-51R\_12SP2-030005-52R\_12SP2-030005-53R]  
BGHSINK-Z1704M-HD3 LOW COST

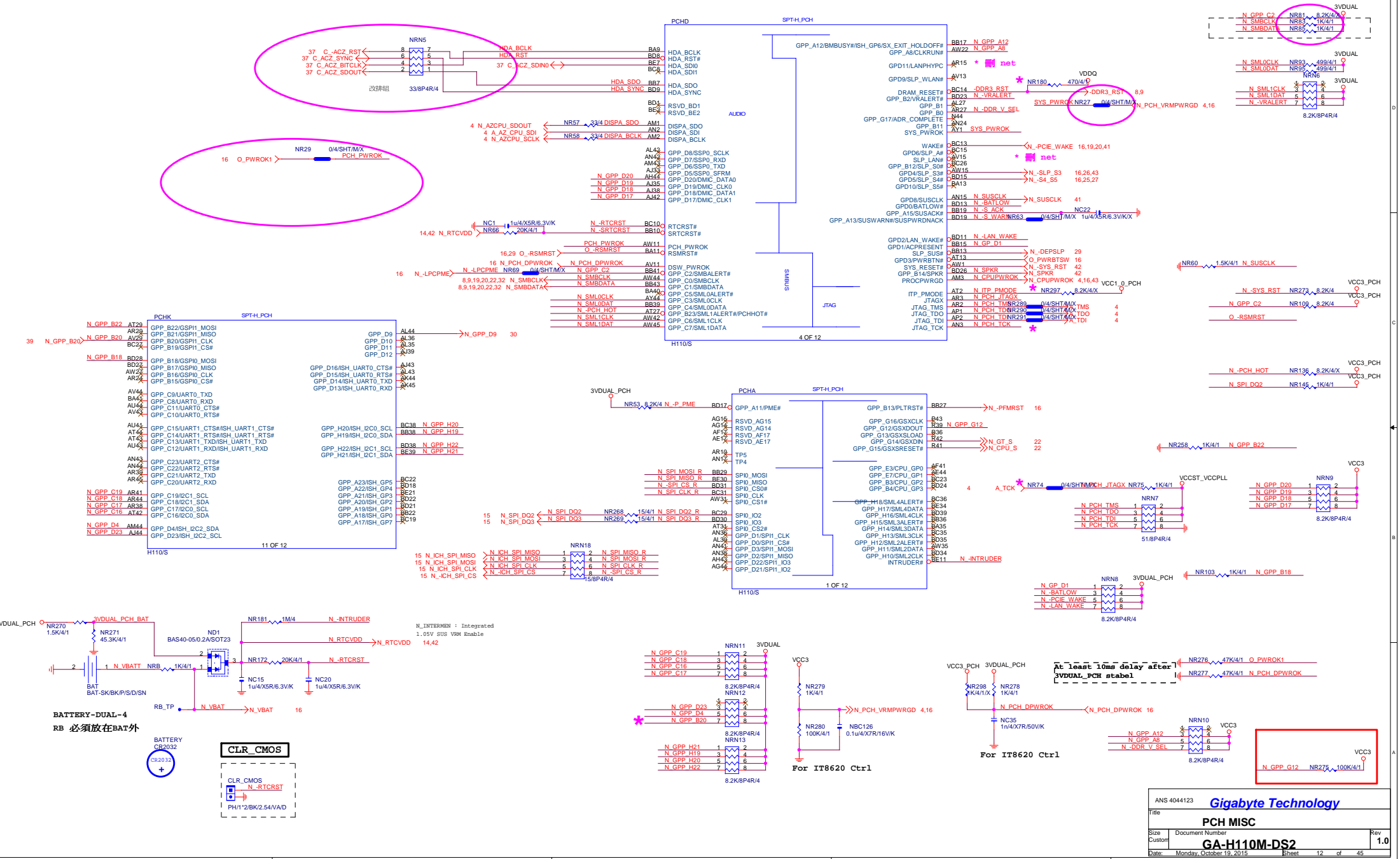
ANS 4044123		<b>Gigabyte Technology</b>	
Title			
<b>PCH CLOCK BUFFER</b>			
Size	Document Number	Rev	
Custom	<b>GA-H110M-DS2</b>	<b>1.0</b>	
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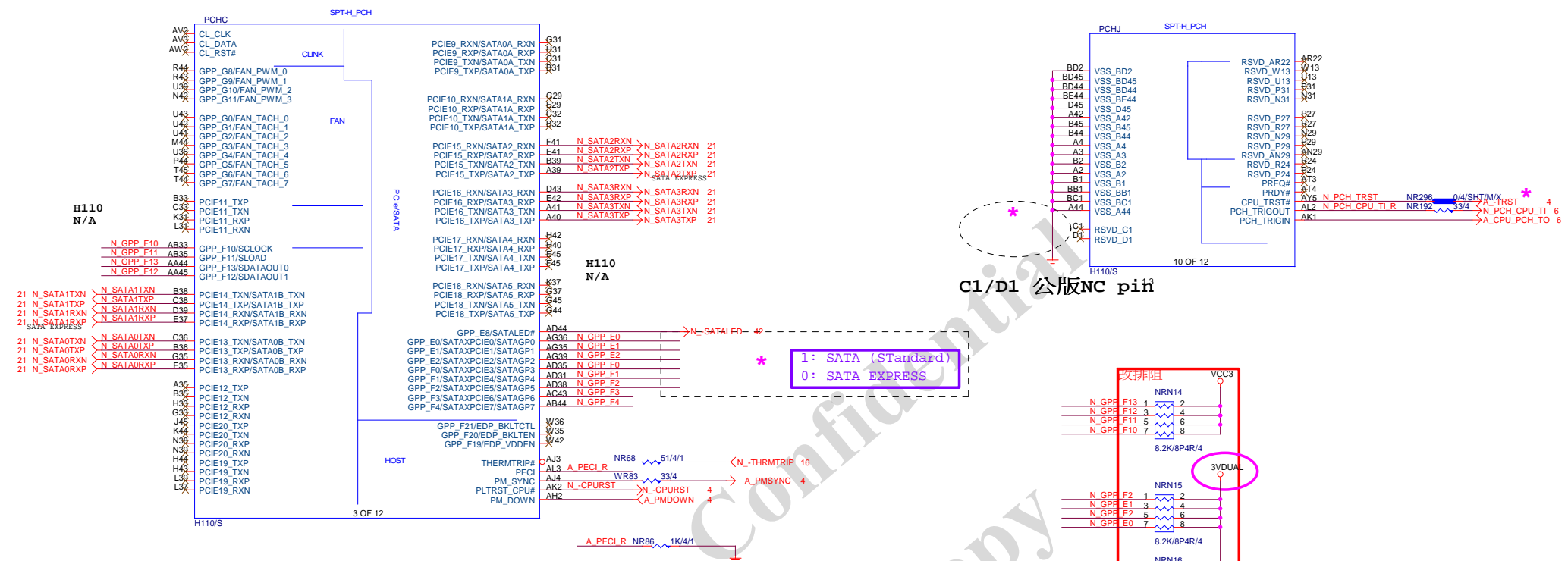


ANS 4044123		<b>Gigabyte Technology</b>	
<b>PCH DMI,USB,PCIE</b>			
Size	Document Number		Rev
Custom	<b>GA-H110M-DS2</b>		<b>1.0</b>
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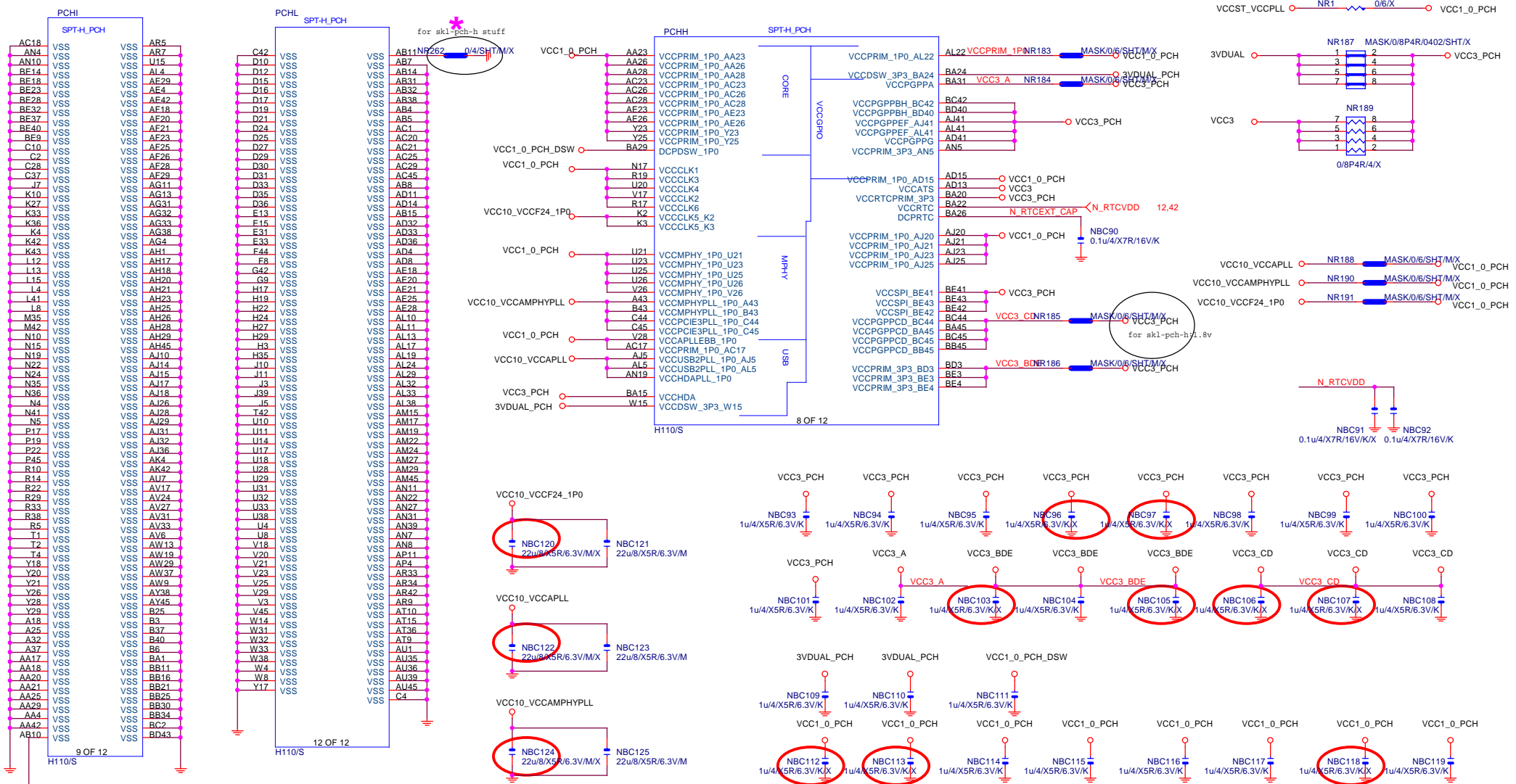
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ANS 4044123		<b>Gigabyte Technology</b>	
<b>PCH SATA,PCIE,SATA EXPRESS</b>			
Title	Document Number	Rev <b>1.0</b>	
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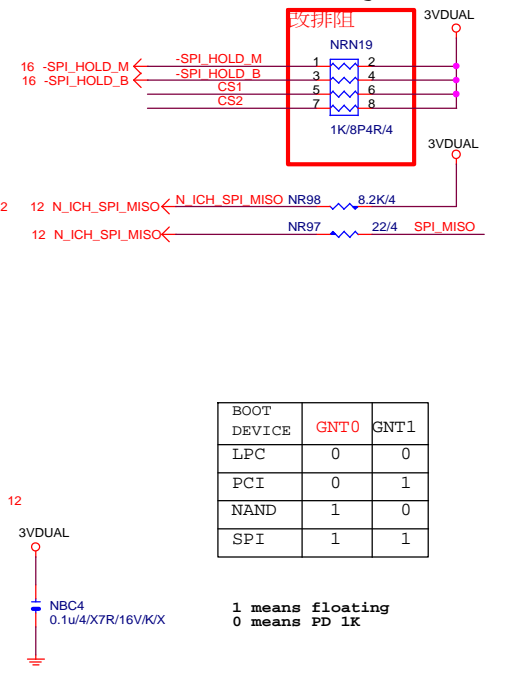
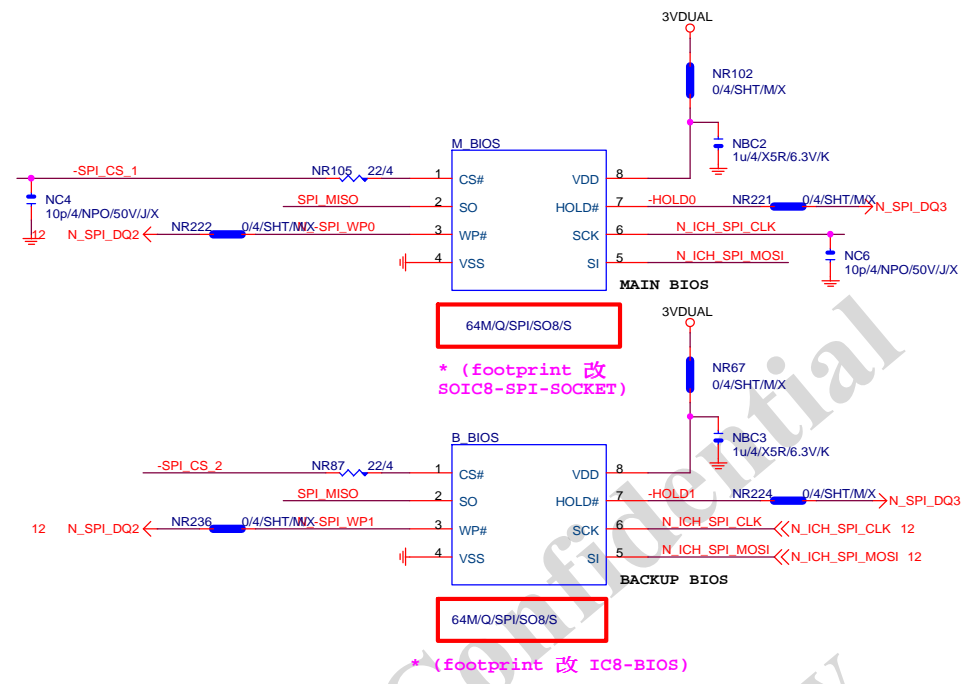
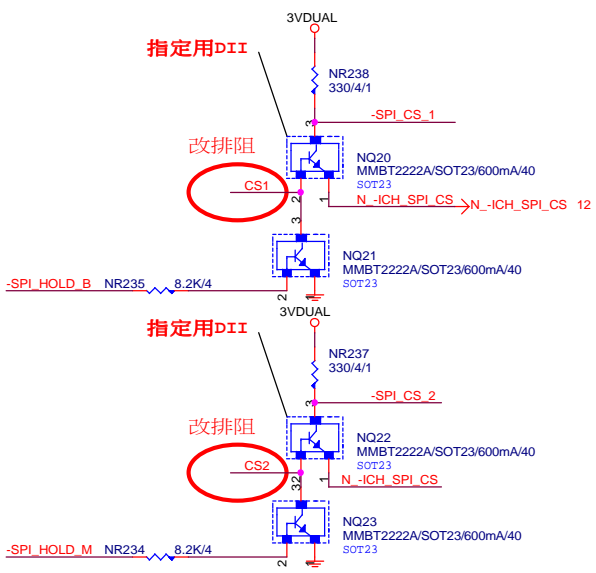


ANS 4044123 **Gigabyte Technology**

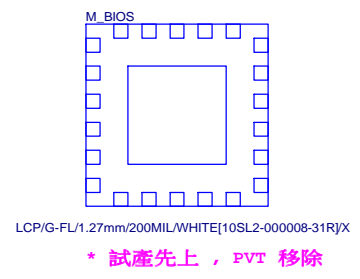
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Size: Document Number  
 Custom: **GA-H110M-DS2** Rev: **1.0**

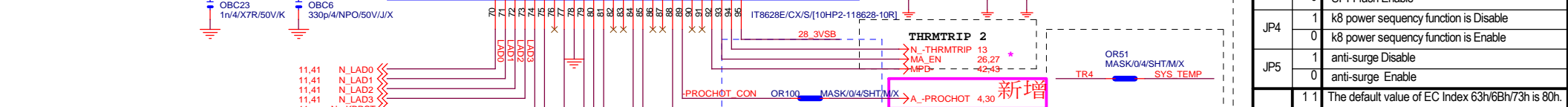
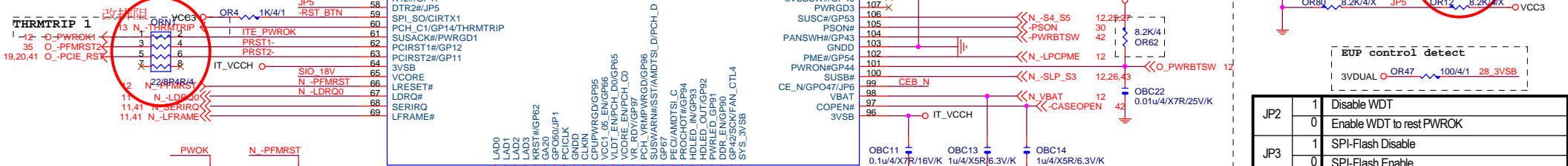
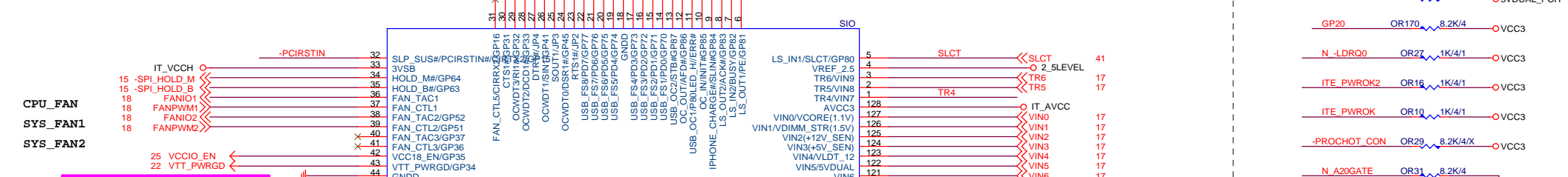
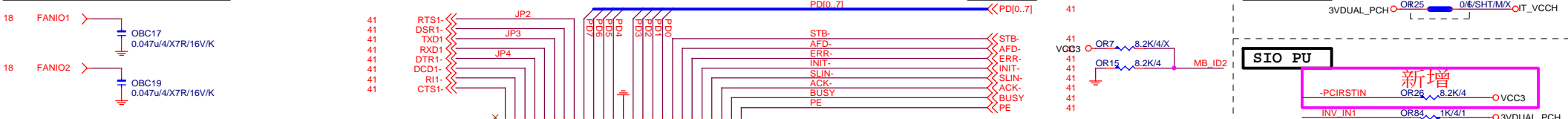
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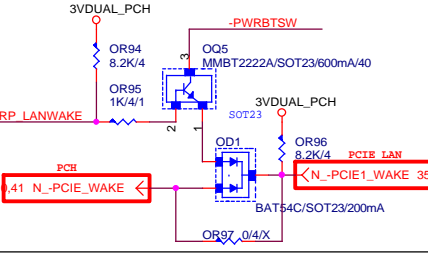
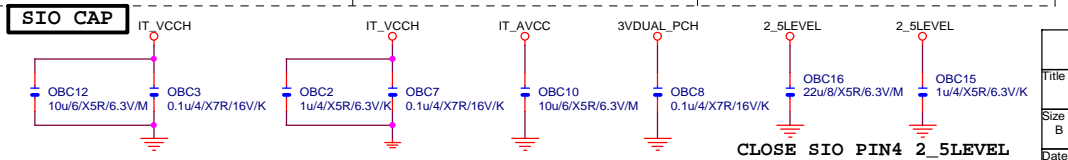
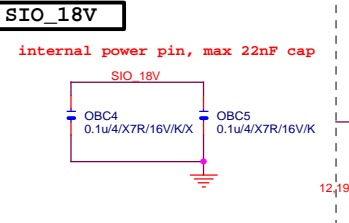
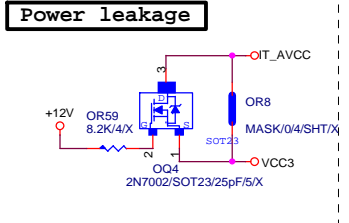
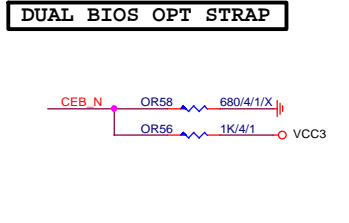


JP2	1	Disable WDT
JP2	0	Enable WDT to rest PWROK
JP3	0	SPI-Flash Disable
JP3	0	SPI-Flash Enable
JP4	1	k8 power sequency function is Disable
JP4	0	k8 power sequency function is Enable
JP5	1	anti-surge Disable
JP5	0	anti-surge Enable
JP3	1 1	The default value of EC Index 63h/6Bh/73h is 80h.
JP3	1 0	The default value of EC Index 63h/6Bh/73h is FFh
JP5	0 1	The default value of EC Index 63h/6Bh/73h is 00h.
JP5	0 0	The default value of EC Index 63h/6Bh/73h is 40h.

ERP WAKE on LAN (依LAN組態選擇)  
 (組態一) Realtek/ATHEROS LAN

FAN TABLE	
CPU_FAN	FAN_CTL1 FAN_TAC1
SYS_FAN1	FAN_CTL2 FAN_TAC2
SYS_FAN2	FAN_CTL3 FAN_TAC3
SYS_FAN3	FAN_CTL5 FAN_TAC5
OPT_FAN or SYS_FAN4	N/A
THRMTrip1	YES PIN60
THRMTrip2	YES PIN94

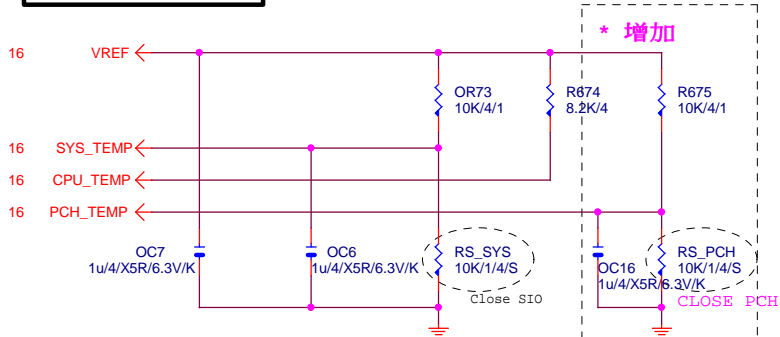
IT8620E GPIO問題匯整	
PIN 50	GP26-第一次接上POWER時會拉 Lo
PIN 90/91	DEFAULT為HDLED FUNCTION, GP93 BYPASS TO GP92, 高溫時 GP92 會被拉Lo(ITE BUG)
PIN 108	GP40--- POWER ON 時會拉 Lo
PIN 111/112	MOUSE 跟FAN6 FUNCTION 擇一使用, 不然會互相干擾
PIN 22	PIN22, 需高於3V, 若低於 3V, 會導致系統及LPT裝置 蜂鳴器會異常動作。



Title		
ITE 8628 LPC IO		
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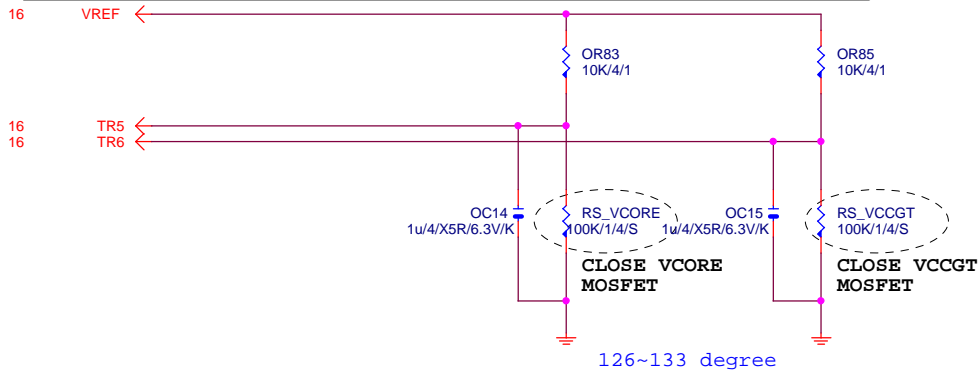


**TEMP H/W MONITOR REV 1.04**



**RS\_VCORE ~ RS\_VCCGT CLOSE CPU\_VCORE & VCCGT MOSFET**

-PROCHOT:有mos heartsink不用prochot function

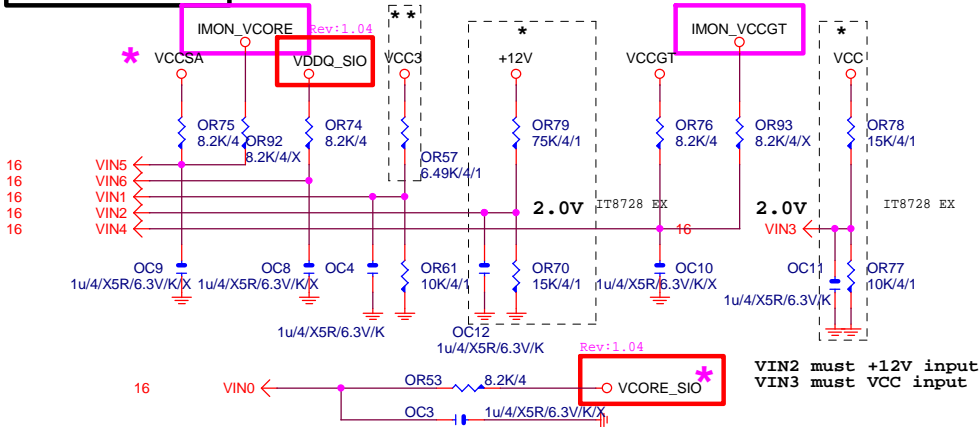


**VOLTAGE-- H/W MONITOR**

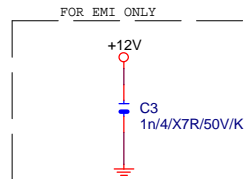
Connect to PWM

\* IT8728 BX  
\*\* IT8728 CX

Connect to PWM



The division voltage of VIN2 & VIN3 must be around 2.9V

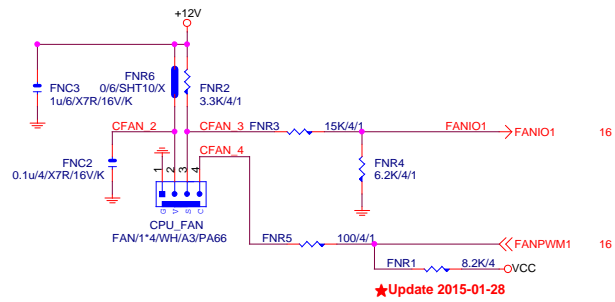


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Title		
HWM,KB/MS, FAN CTRL		
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### CPU SMART FAN

Rev: 0.53

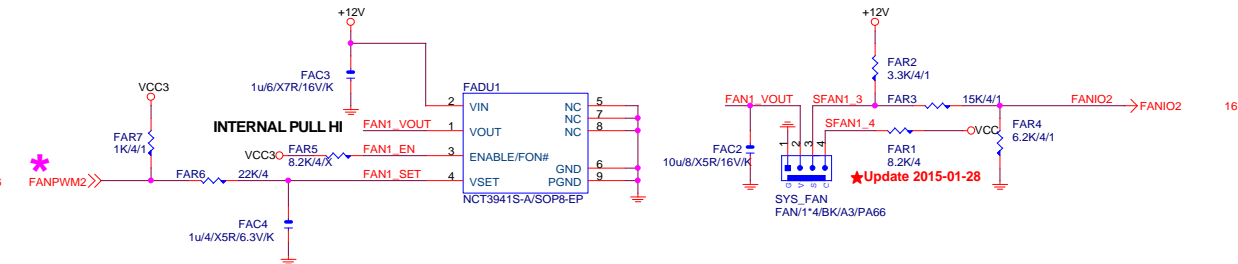


### SYSTEM FAN1

#### Linear SYS\_FAN

Enable Function (NCT3941S)  
Full Turn On Function (NCT3941S-A)

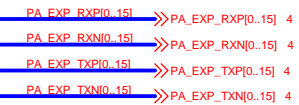
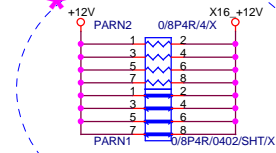
A.



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+12\_protect short-wire test



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	PAC18	0.22u4/X5R/6.3V/K	PA_EXP_TXP7_C
PA_EXP_TXN7	PAC19	0.22u4/X5R/6.3V/K	PA_EXP_TXN7_C
PA_EXP_TXP8	PAC21	0.22u4/X5R/6.3V/K	PA_EXP_TXP8_C
PA_EXP_TXN8	PAC20	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

PCIE16:16/5/5/5/16

PCI-E REV:1.1--> 2.5GHZ

PCE-E X1(單向) BANDWIDTH=2.5GHz\*(8b/10b)=2Gb/s=250MB/s

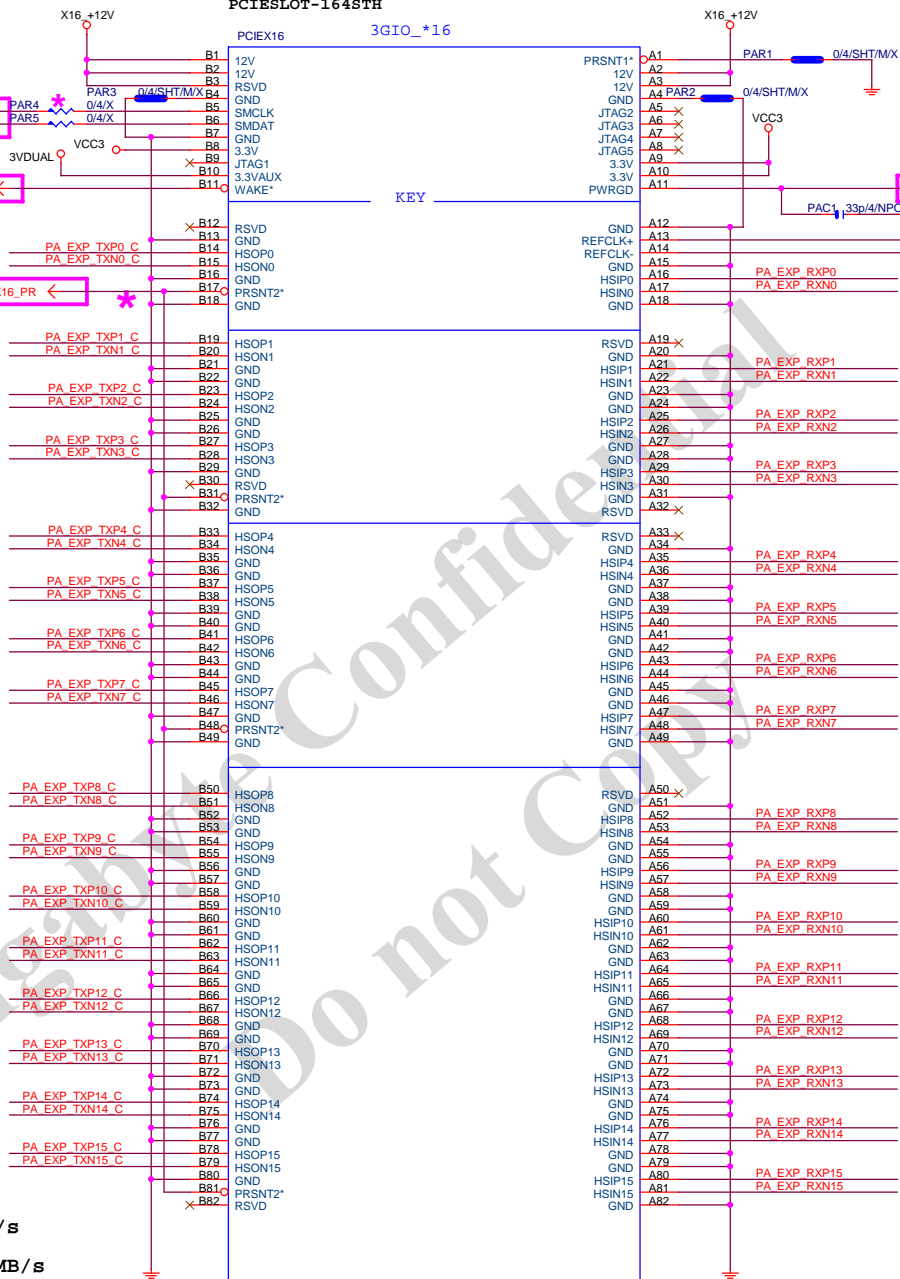
PCE-E X1(雙向) BANDWIDTH=2.5GHz\*(8b/10b)X2=4Gb/s=500MB/s

PCE-E X16(單向) BANDWIDTH=2.5GHz\*(8b/10b)X16=32Gb/s=4GB/s

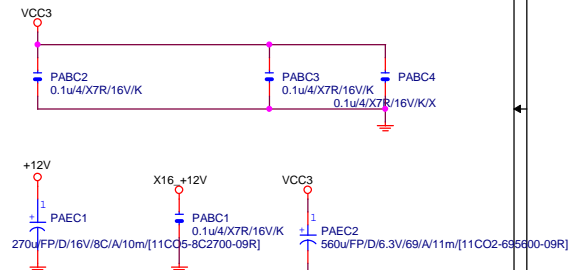
PCE-E X16(雙向) BANDWIDTH=2.5GHz\*(8b/10b)X16X2=64Gb/s=8GB/s

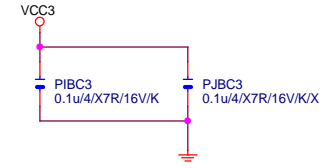
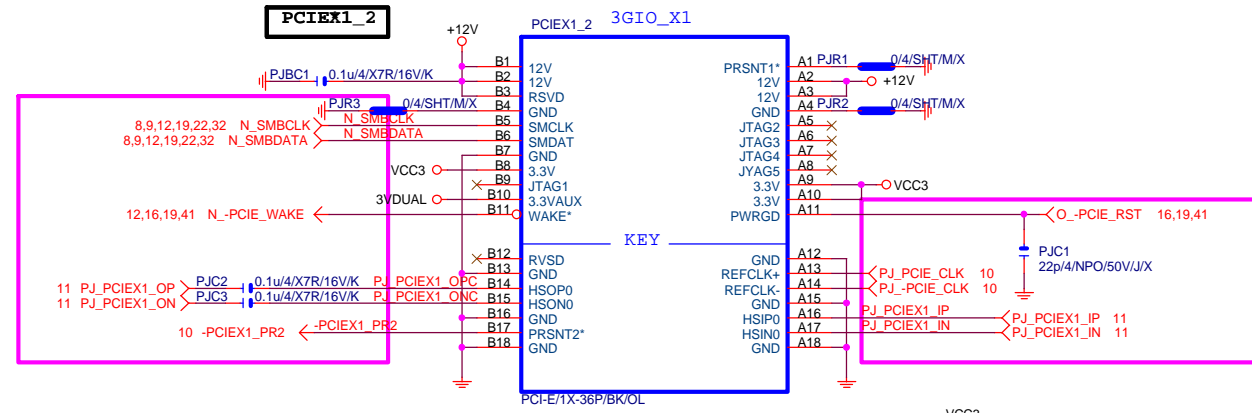
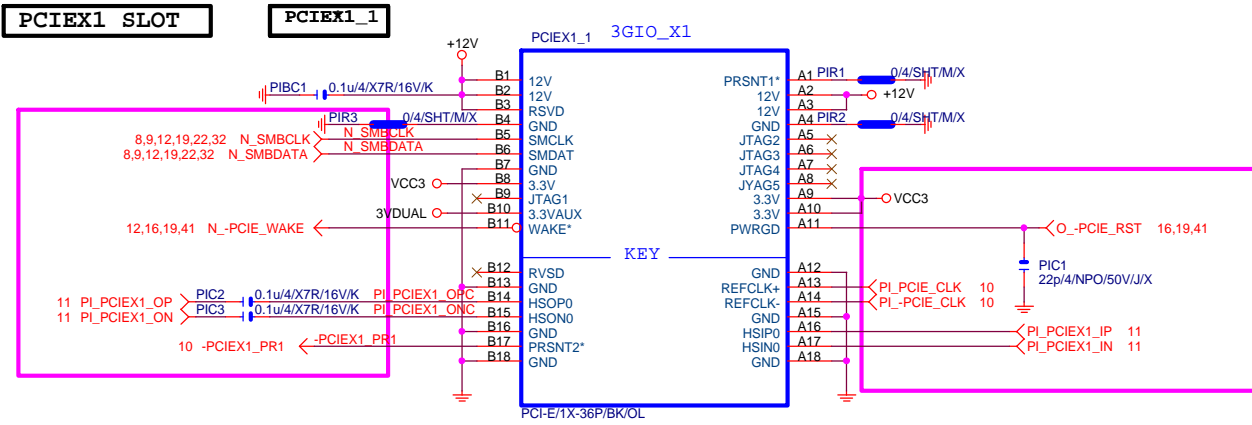
PCI-E REV:2.0--> 5GHZ

PCIESLOT-1645TH

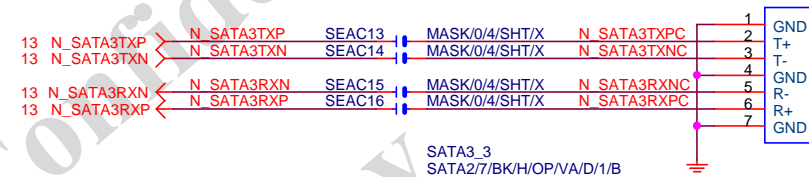
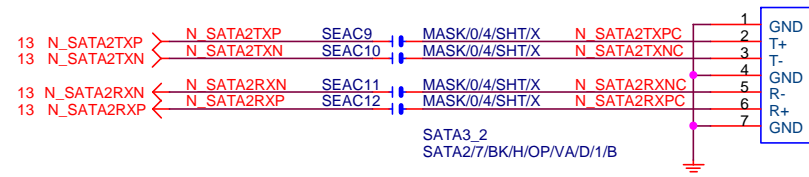
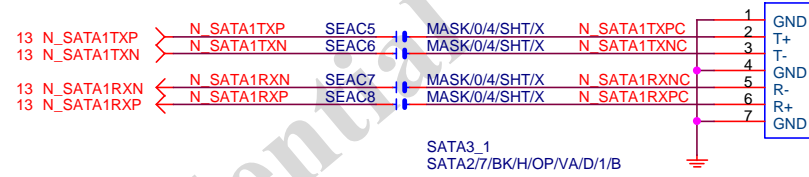
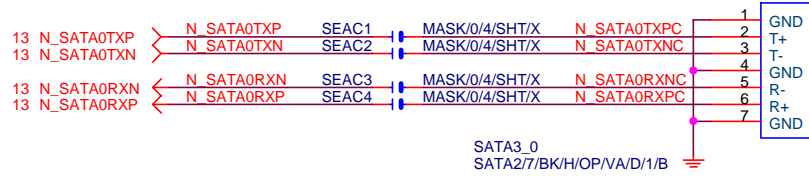


PCI-E/16x164P/GY/LONG DOUBLE/HK\*2



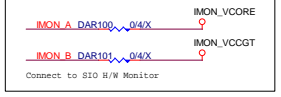
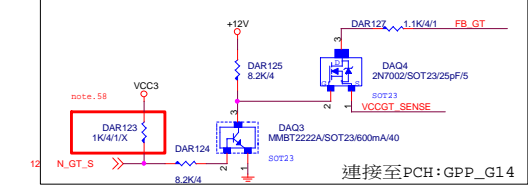
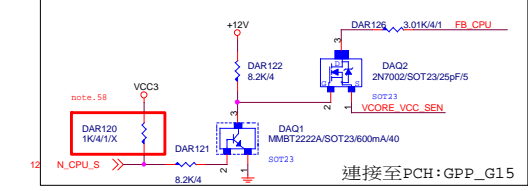
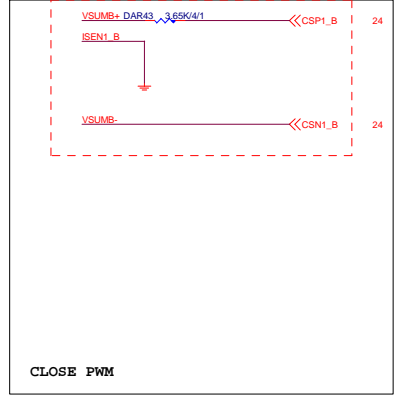
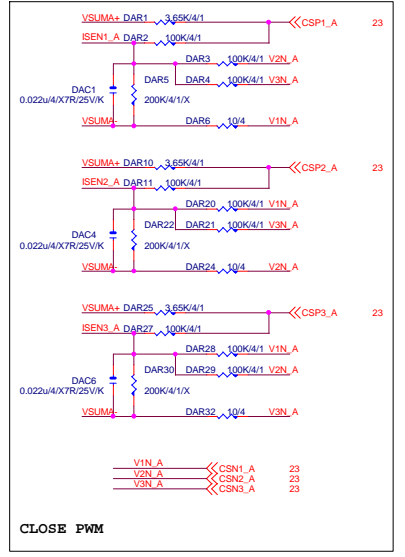
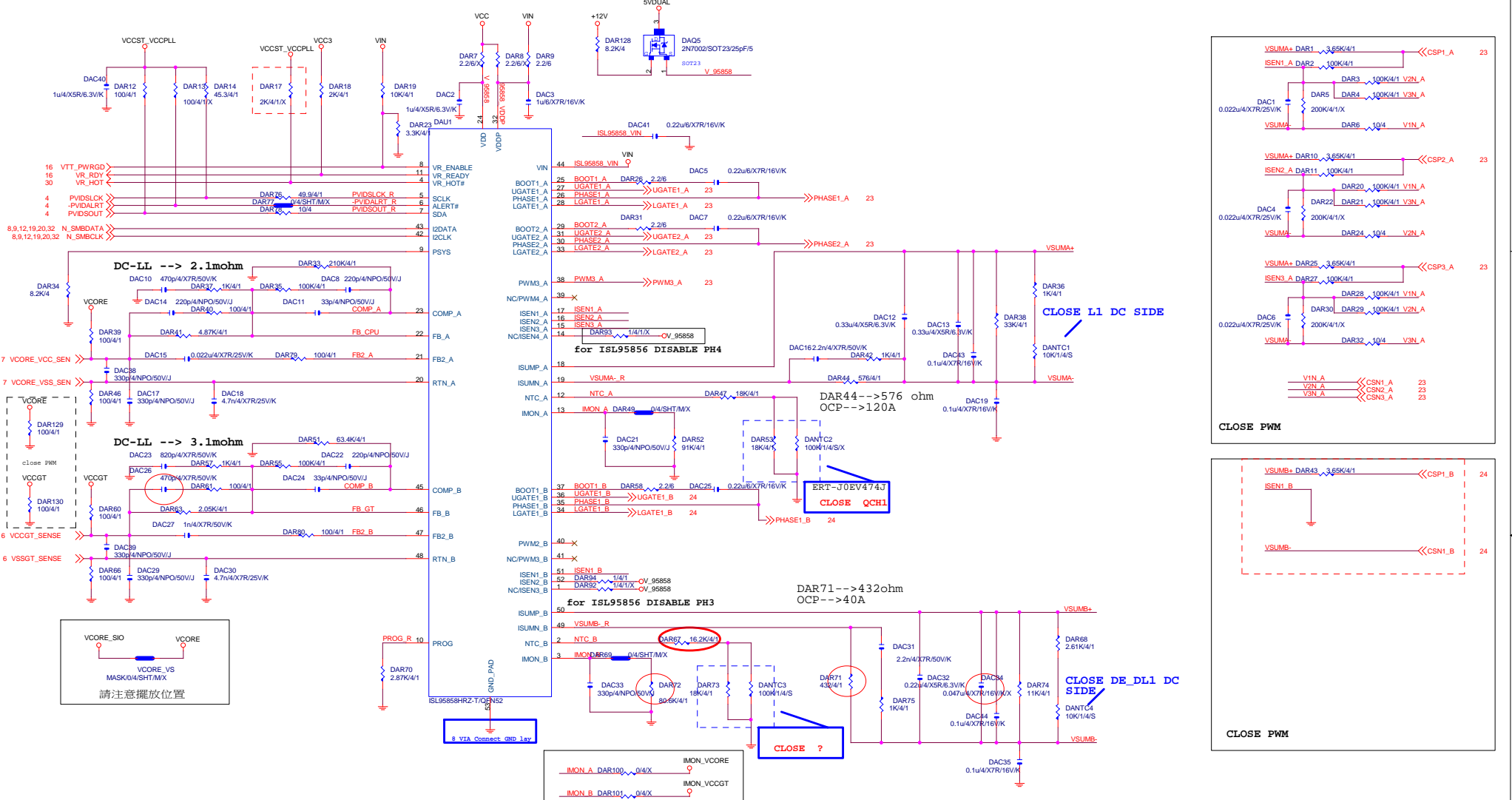


<b>Gigabyte Technology</b>			
<b>PCIEX1 1,2</b>			
Title	Document Number		Rev
	<b>GA-H110M-DS2</b>		<b>1.0</b>
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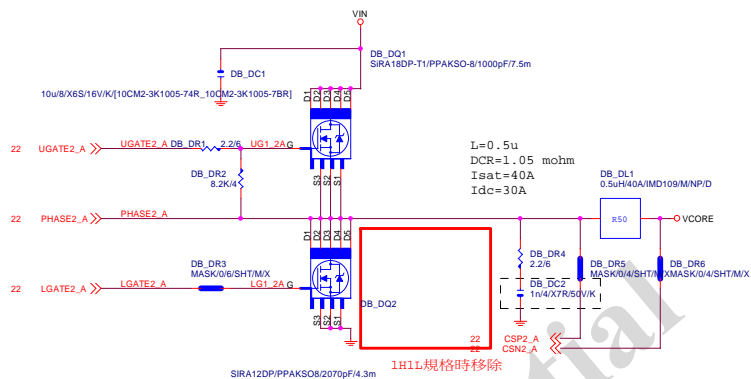
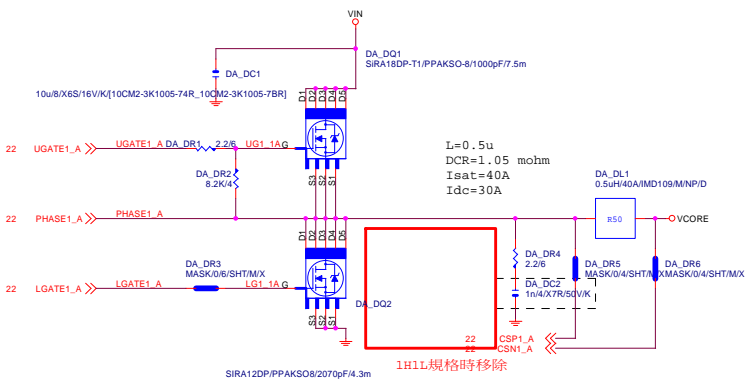


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Do not Copy

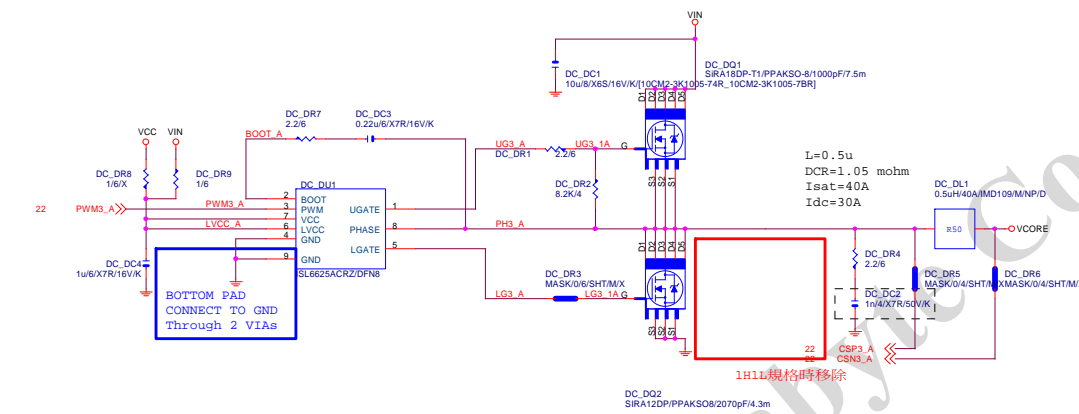
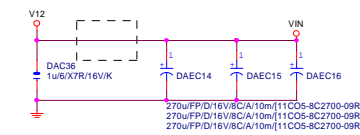
<b>Gigabyte Technology</b>		
Title <b>SATA EXPRESS</b>		
Size Custom	Document Number <b>GA-H110M-DS2</b>	Rev <b>1.0</b>
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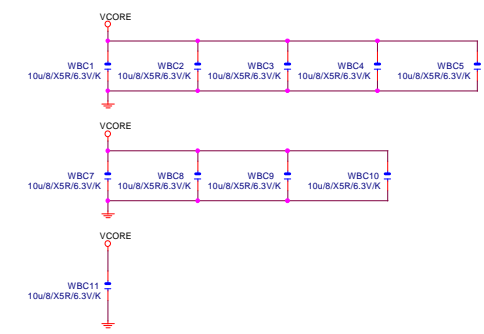
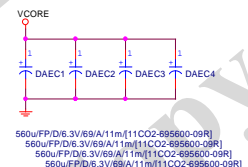
# VCORE



## VIN CAP 270u\*3PCS



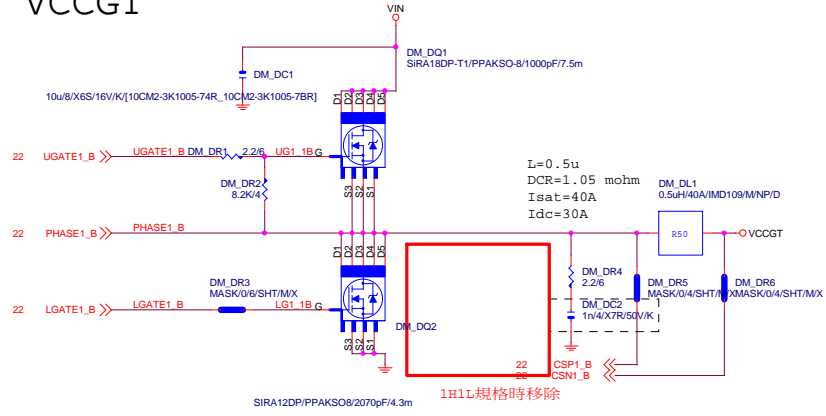
## VCORE CAP 560u\*4PCS 22u\*10PCS



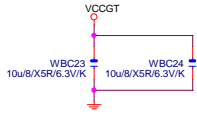
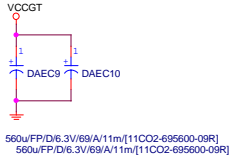
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Do not Copy

<b>GIGABYTE™</b>		
<b>ISL95858_MOS</b>		
Size	Document Number	Rev
Custm	<b>GA-H110M-DS2</b>	<b>1.0</b>
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VCCGT



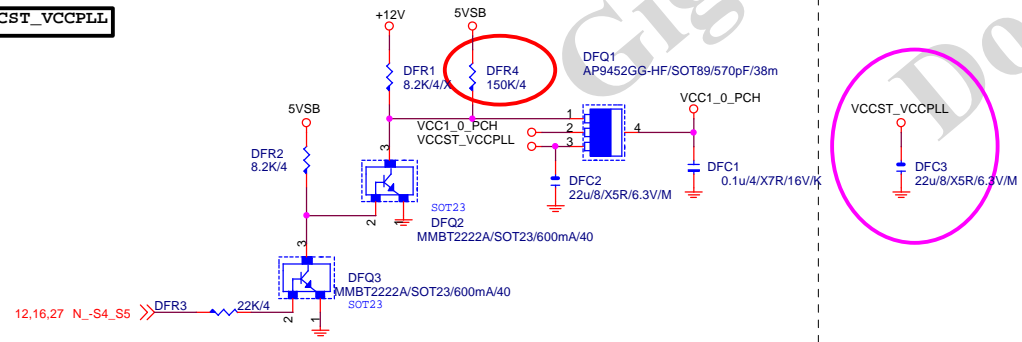
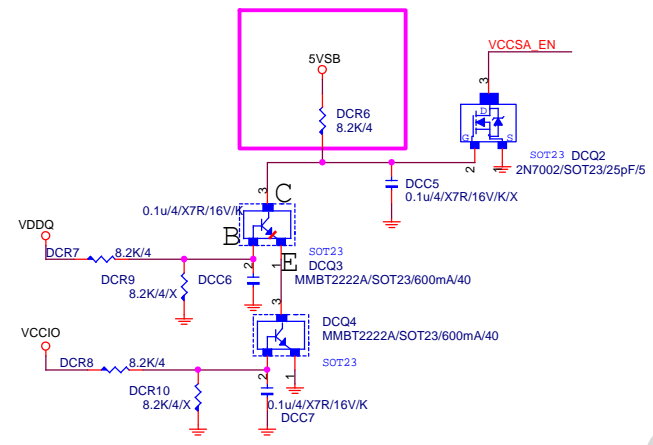
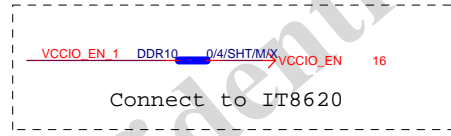
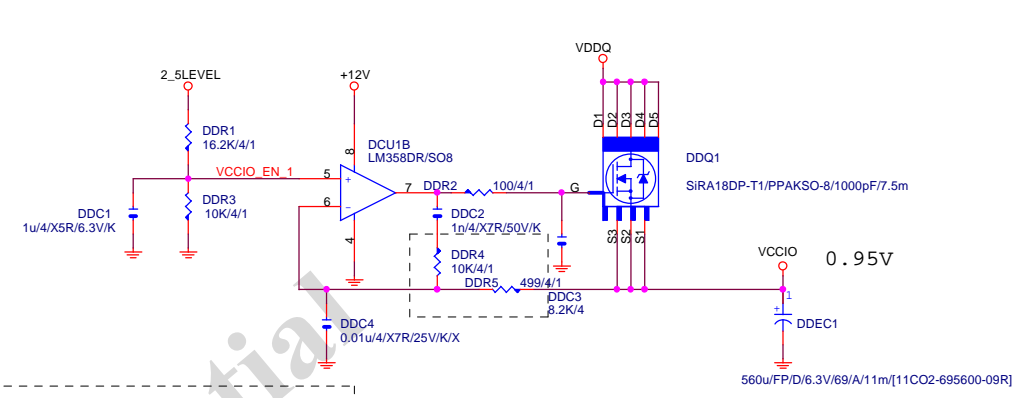
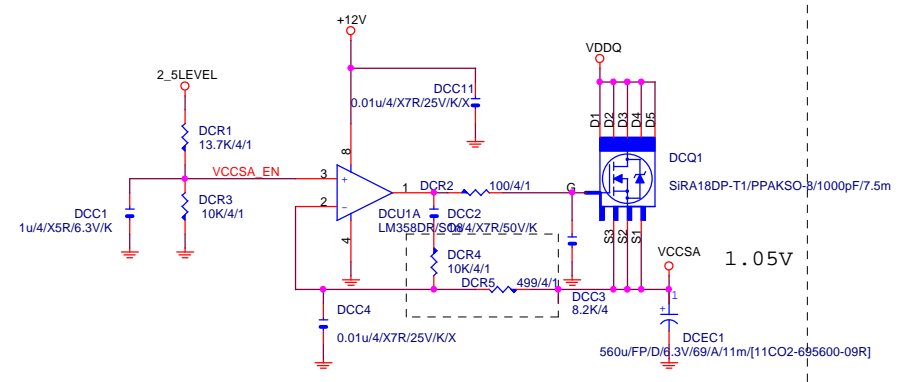
VCCGT CAP 560u\*2PCS  
22u\*2PCS



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Title			
<b>ISL95858_MOS</b>			
Size	Document Number	Rev	
Custom	<b>GA-H110M-DS2</b>	<b>1.0</b>	
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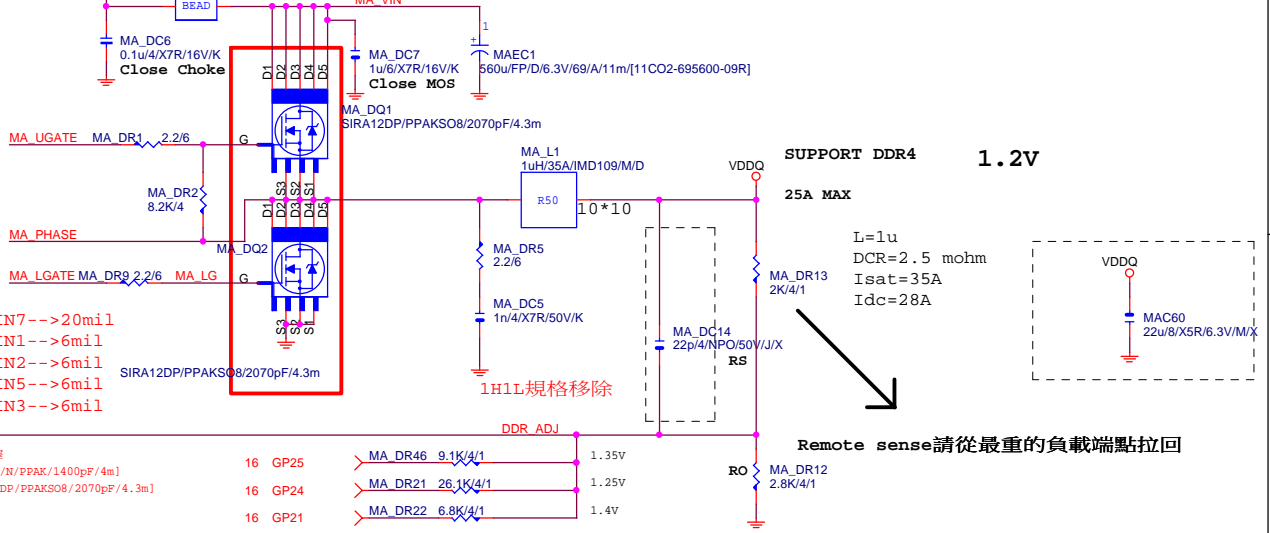
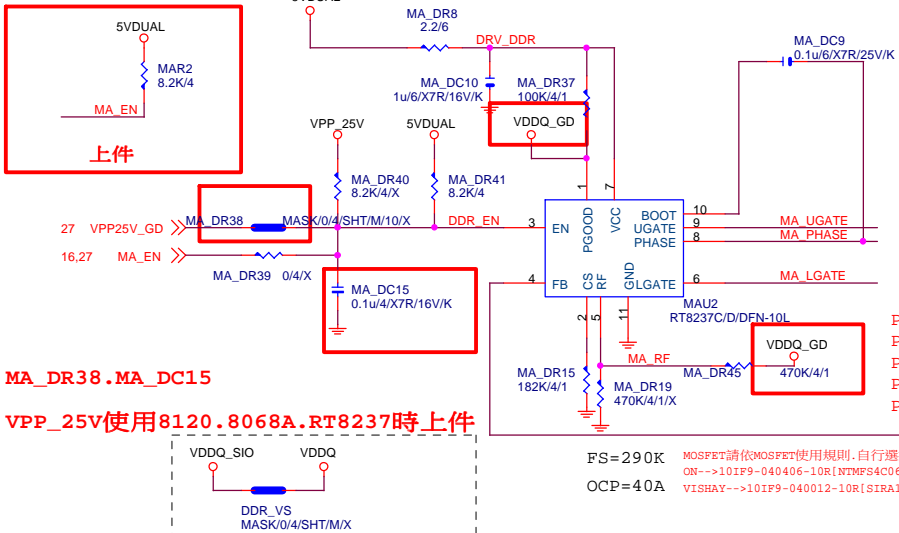


<b>GIGABYTE™</b>		
Title <b>VCCSA_VCCIO</b>		
Size Custom	Document Number <b>GA-H110M-DS2</b>	Rev <b>1.0</b>
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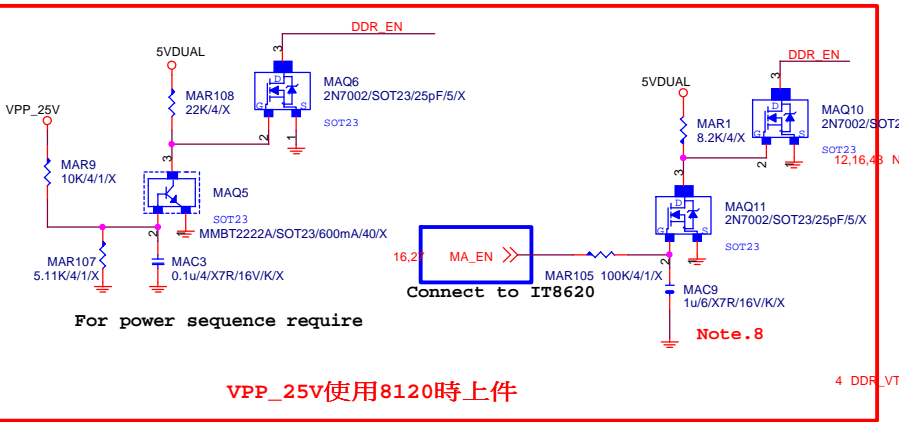
DDR4

DDR VIN CAP 560u\*1PCS

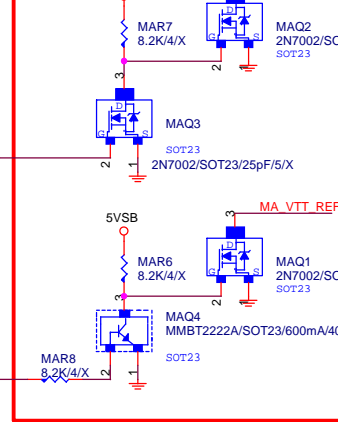
CHOKE與CAP料號可變



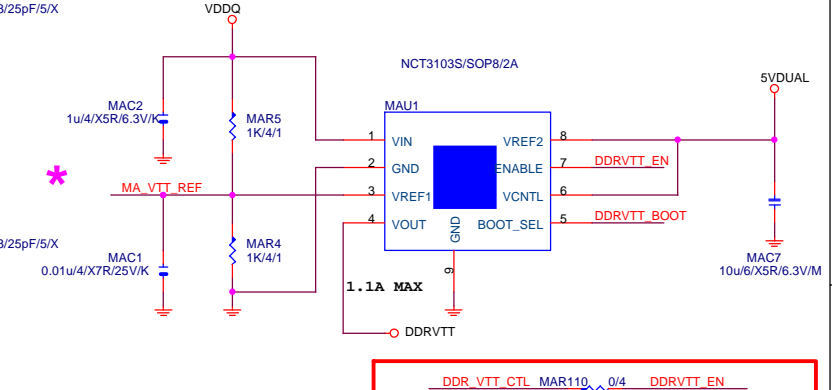
PWR SEQ



MAU1上RT9045時上件(不可MASK)

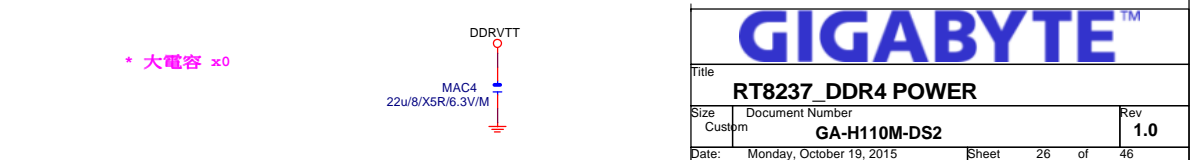


DDRVTT



DDR CAP 560u\*4PCS 22u\*2PCS

DDRVTT CAP



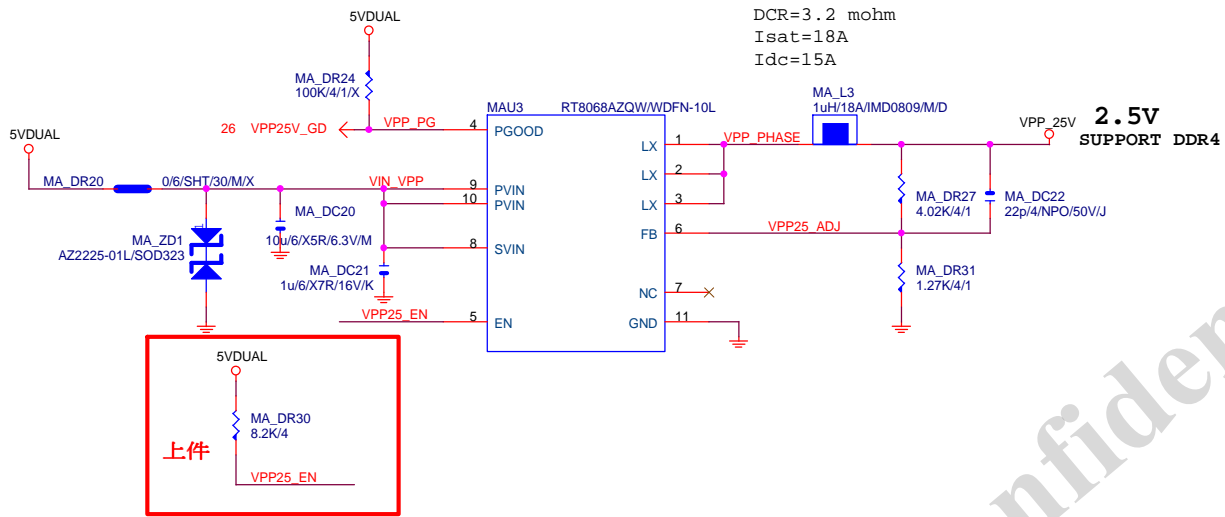
Title: RT8237\_DDR4 POWER

Size Custom	Document Number: GA-H110M-DS2	Rev: 1.0
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VPP\_25V

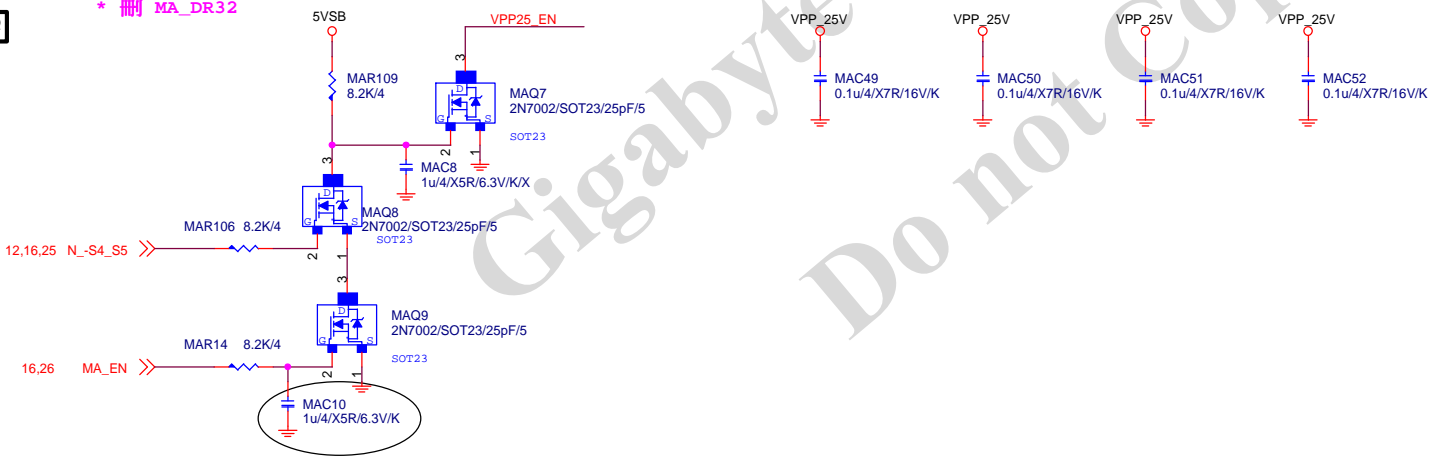
CHOKE與CAP料號可變

L=1u  
DCR=3.2 mohm  
Isat=18A  
Idc=15A



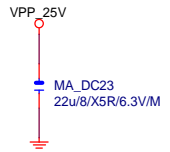
PWR\_SEQ

\* 刪 MA\_DR32



VPP CAP 22u\*1PCS

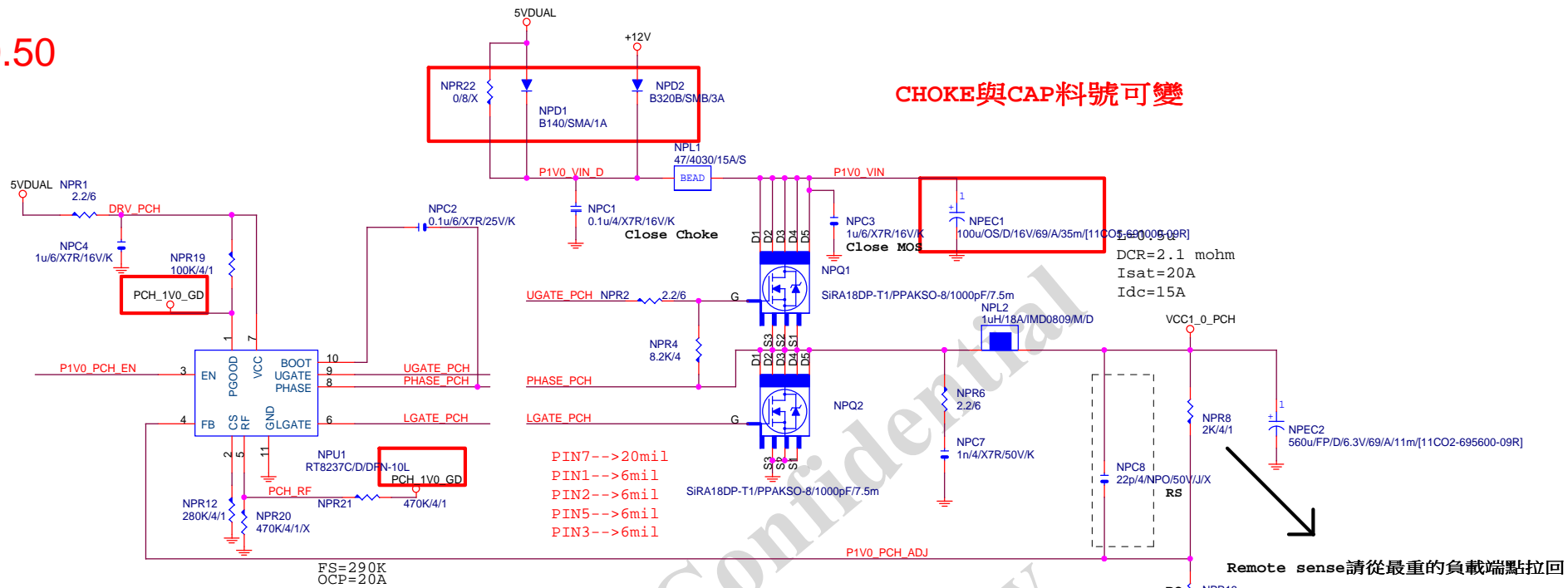
\* 大電容 x0



<b>GIGABYTE™</b>		
Title <b>RT9018_VPP25 POWER</b>		
Size Custom	Document Number <b>GA-H110M-DS2</b>	Rev <b>1.0</b>
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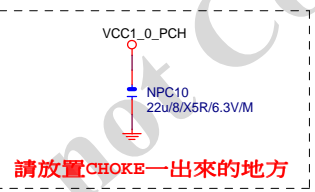
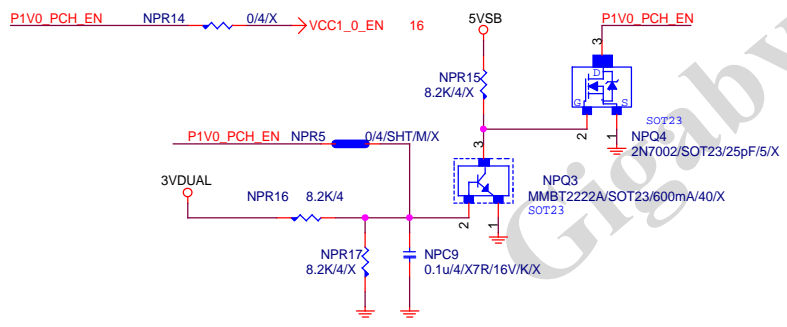
REV:0.50

CHOKE與CAP料號可變



- PIN7-->20mil
- PIN1-->6mil
- PIN2-->6mil
- PIN5-->6mil
- PIN3-->6mil

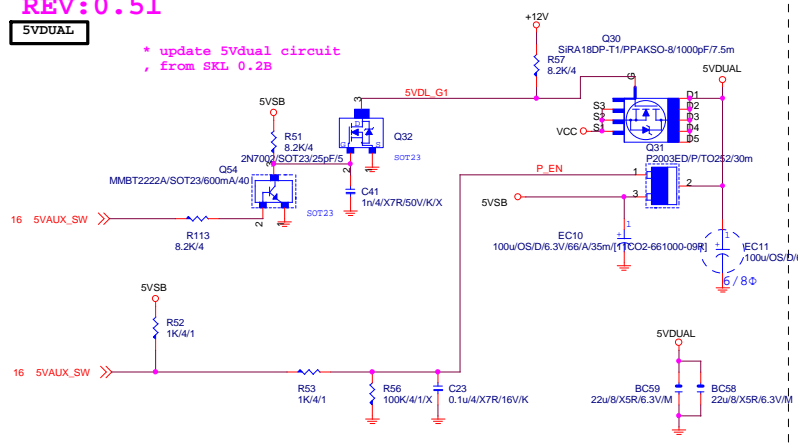
PWR\_SEQ



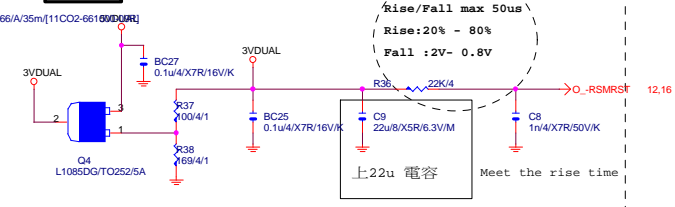
<b>GIGABYTE™</b>	
Title <b>RT8237_PCH POWER</b>	
Size Custom	Document Number <b>GA-H110M-DS2</b>
Date: Monday, October 19, 2015	Rev <b>1.0</b>
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5VDUAL

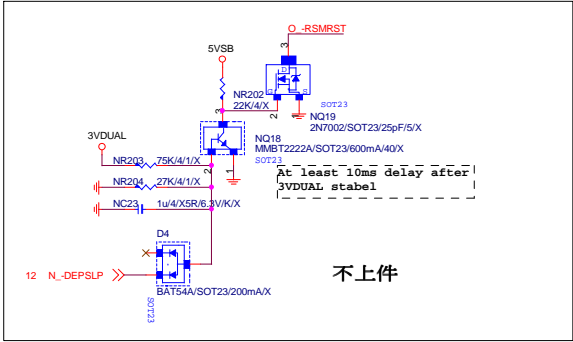
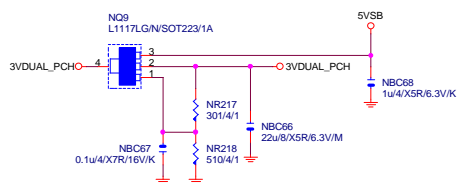
\* update 5Vdual circuit  
 , from SKL 0.2B



3VDUAL

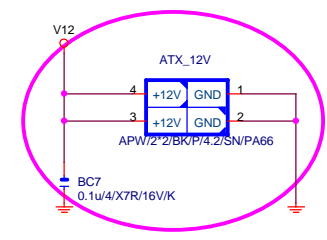
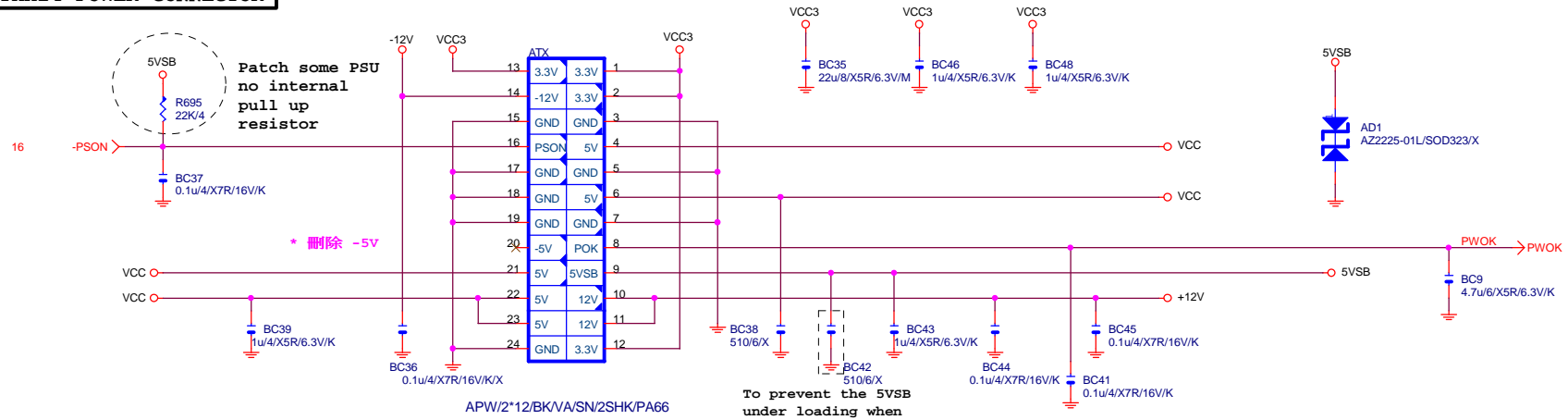


3VDUAL\_PCH



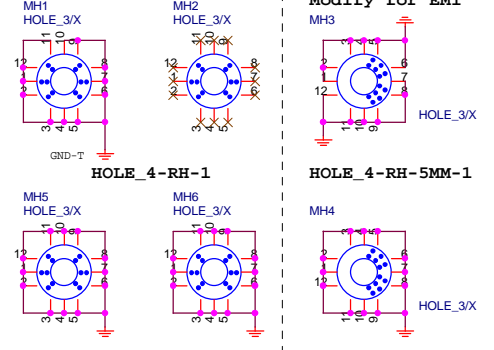
**ATXX24 POWER CONNECTOR**

**ATXX4 POWER CONNECTOR**

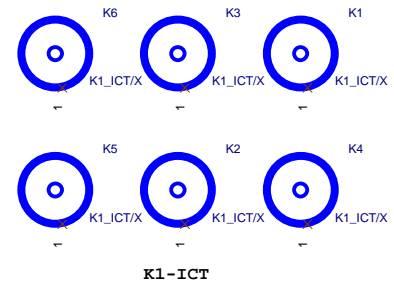


**螺絲孔**

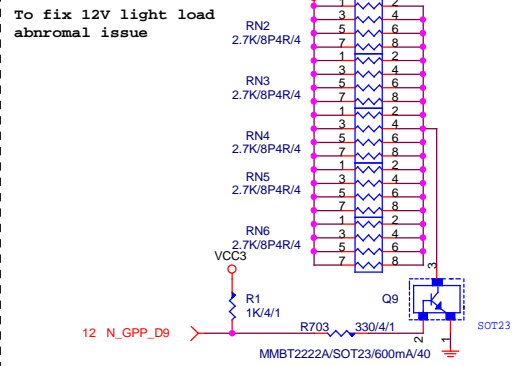
MH1:GND-T FOR EMI TEST驗證



**固定孔/光學點**

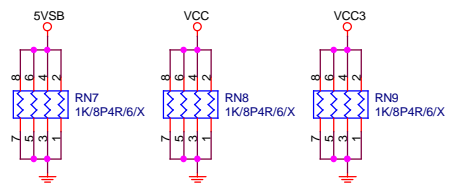


**+12V DUMMY LOAD**

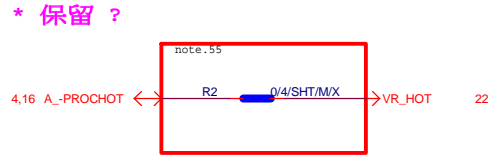


【技術通報R&D技術通報153】

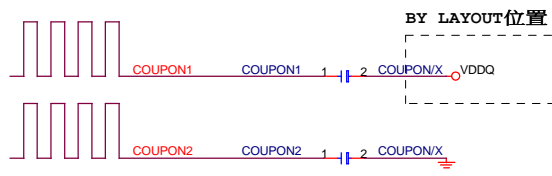
**DUMMY LOAD**



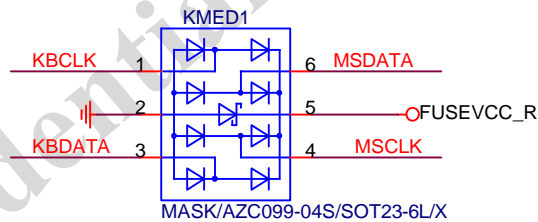
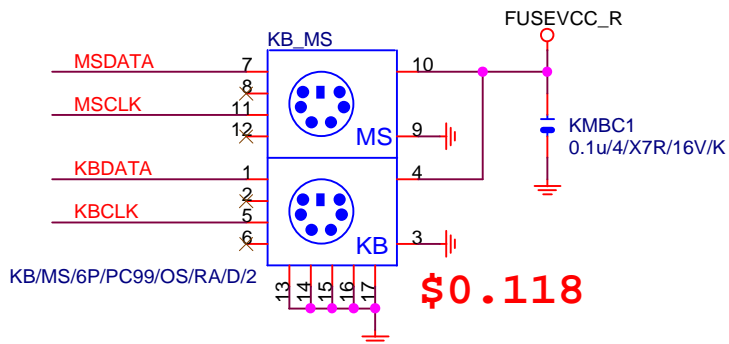
**-PROHOT**



**COUPON**

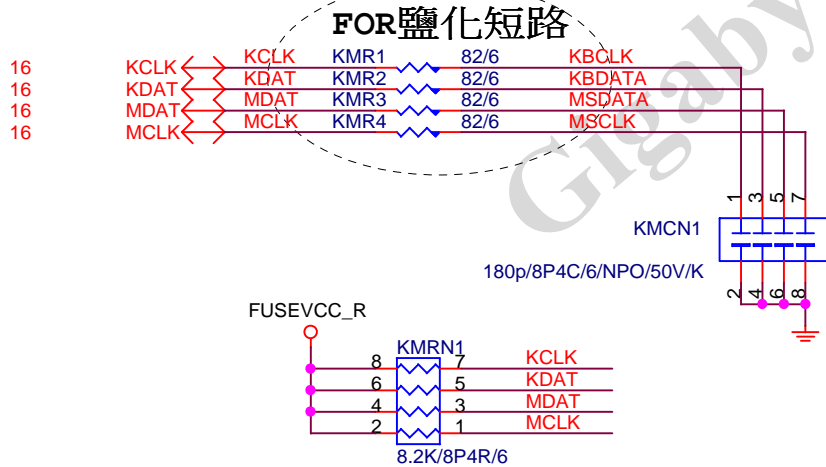


<b>Gigabyte Technology</b>		
Title		
<b>ATX POWER CONNECTOR</b>		
Size Custom	Document Number	Rev 1.0
<b>GA-H110M-DS2</b>		
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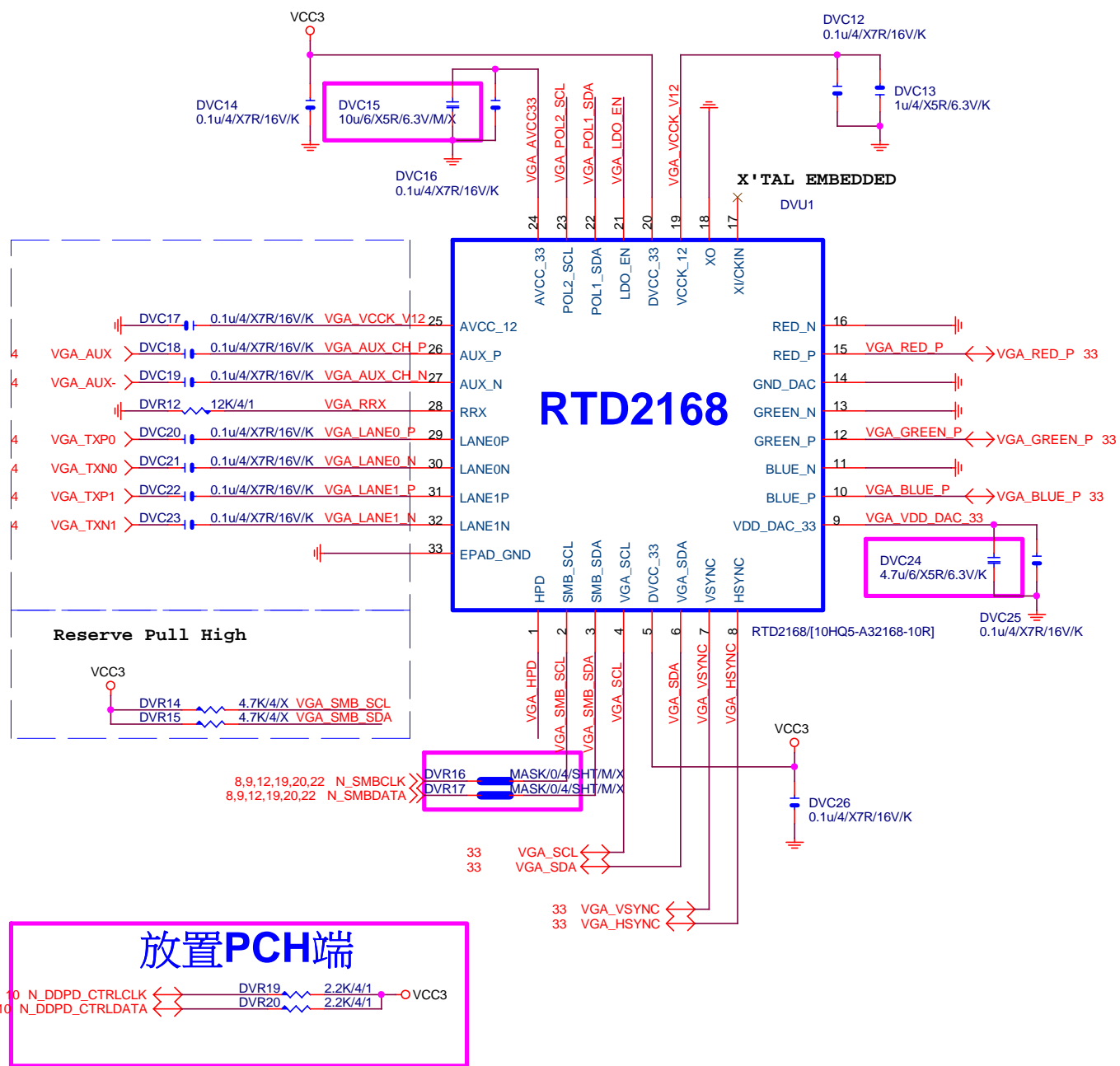
KB\_MS\_USB DAMPING/PU

KB\_MS\_USB PWR



Gigabyte Technology

Title		
<b>KB_MS_USB</b>		
Size A	Document Number <b>GA-H110M-DS2</b>	Rev <b>1.0</b>
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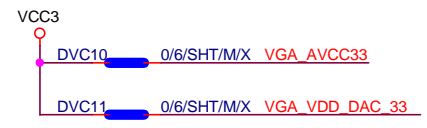
# RTD2168

X'TAL EMBEDDED  
DVU1

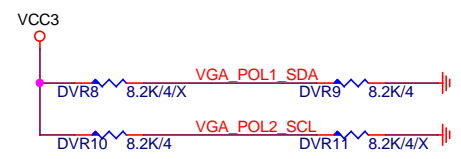
Reserve Pull High

放置PCH端

## POWER

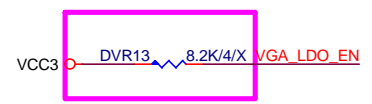


## Power on latch



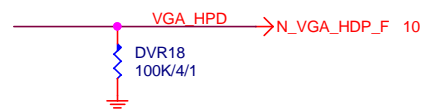
		POL1_SDA(PIN22)	
		0	1
POL2_SCL (PIN23)	0	X	EP MODE
	1	<b>ROM ONLY MODE</b>	EEPROM MODE

## Embedded LDO



		LDO_EN(PIN21)	
		0	1
VCCK_V12 from External 1.2V			
VCCK_V12 from Embedded LDO			

## DP HPD

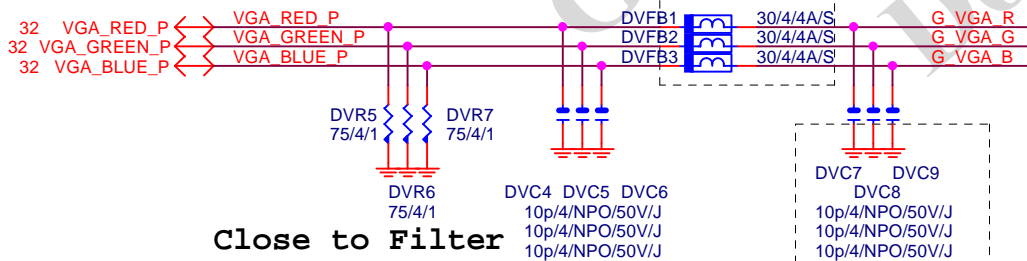
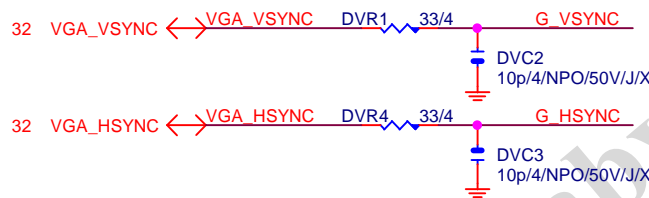
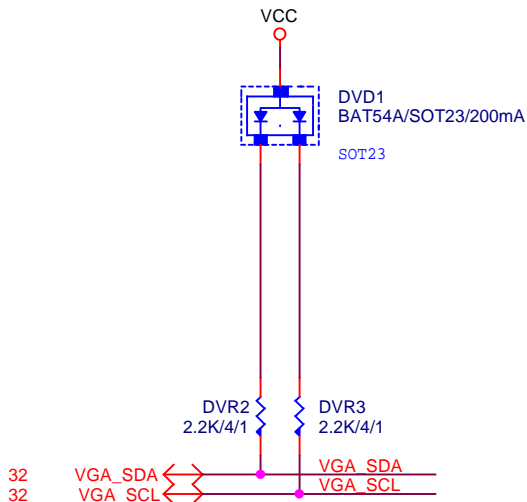


**Gigabyte Technology**  
**DP-VGA RTD2168**

Size Custom	Document Number	<b>GA-H110M-DS2</b>	Rev 1.0
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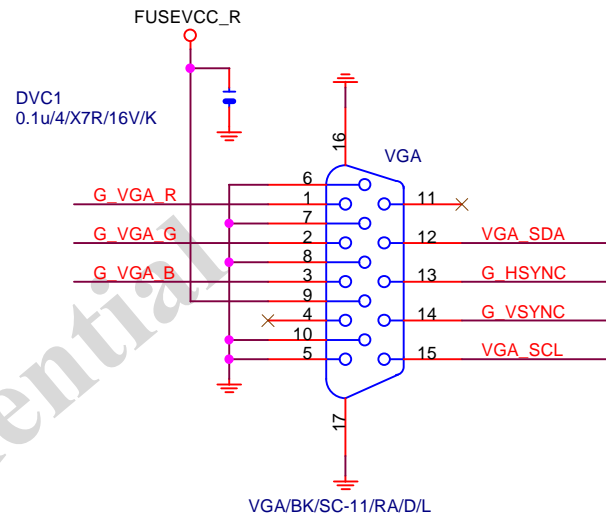
**VGA SIGNAL R1.03**



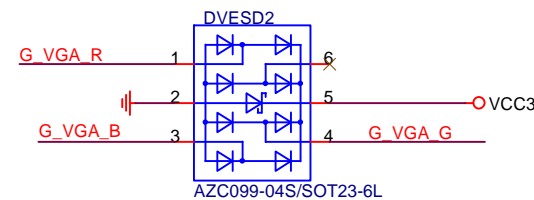
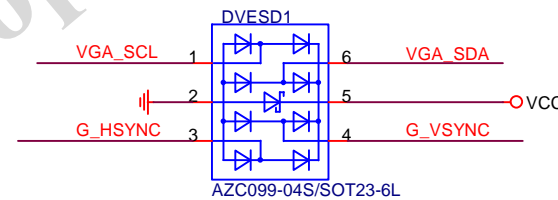
**Close to Filter**

**FOR EMI**

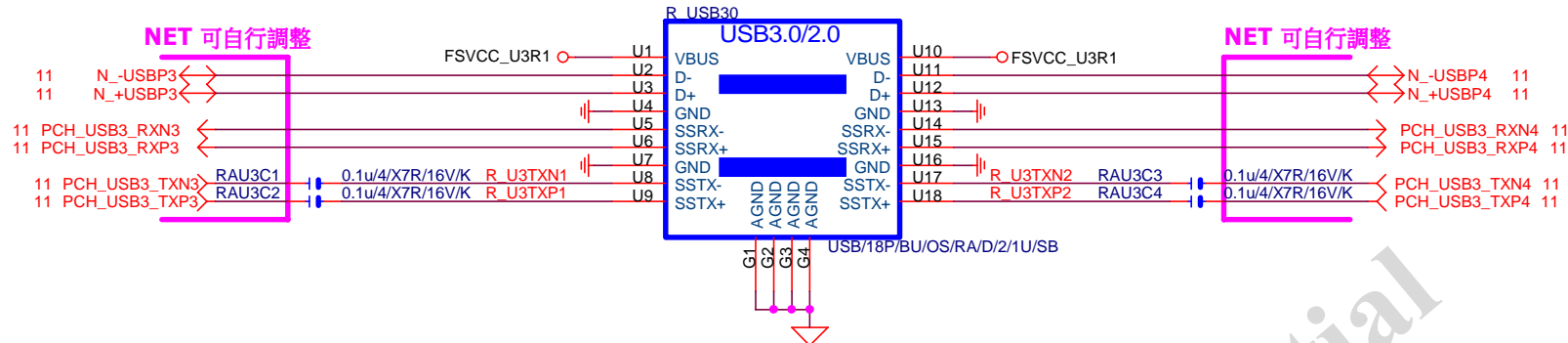
**VGA CONN.**



**VGA ESD**

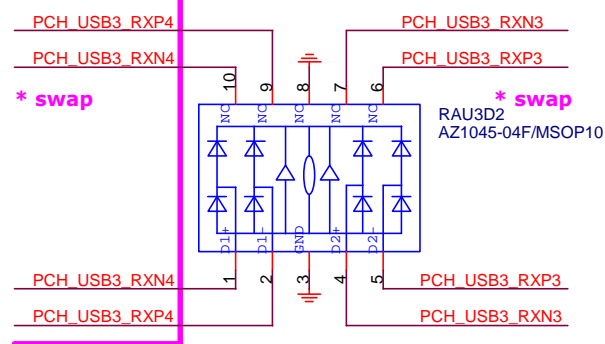


<b>Gigabyte Technology</b>		
<b>NXP-PTN3356</b>		
Title		
Size	Document Number	Rev
Custom	<b>GA-H110M-DS2</b>	1.0
Date:	Monday, October 19, 2015	Sheet 33 of 46

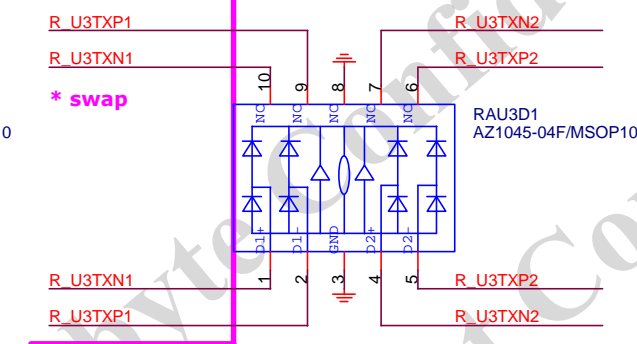


ESD

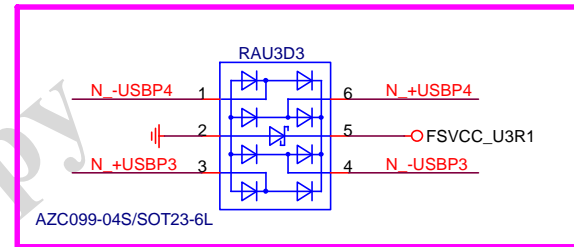
NET 可自行調整



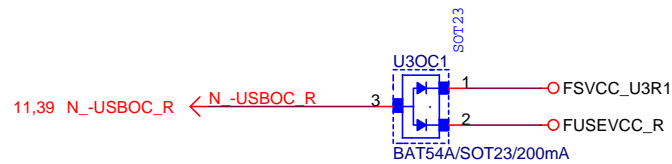
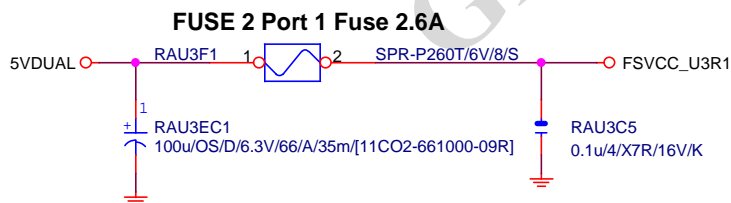
NET 可自行調整



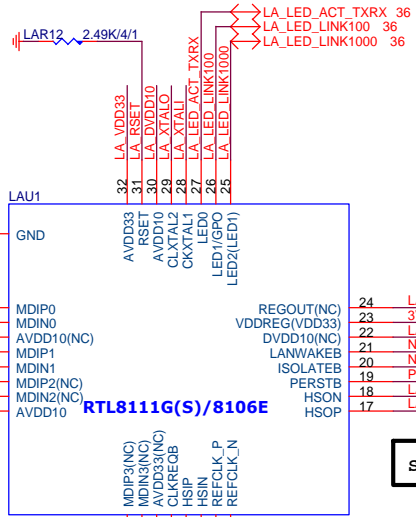
NET 可自行調整



FUSE



<b>Gigabyte Technology</b>		
<b>Title</b> R_USB30,USB_OC		
Size Custom	Document Number <b>GA-H110M-DS2</b>	Rev <b>1.0</b>
Date:	Monday, October 19, 2015	Sheet 34 of 46



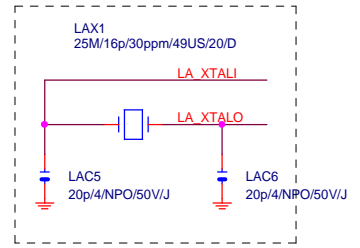
SRCLCK-->50歐姆:[18/4/10/4/18]



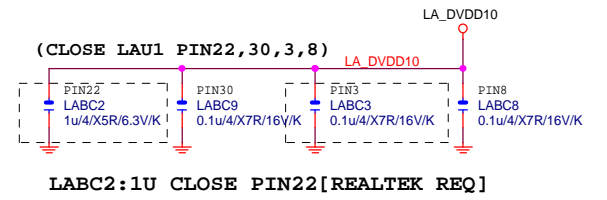
L1+CLK REQ# 節能:  
需對應LA\_SRCCLK LAN之CLKREQ#

LA\_ML-->80歐姆:[15/5/5/5/15]

離IC近越好



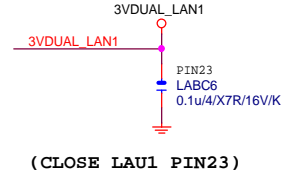
LAN POWER



LABC2:1U CLOSE PIN22[REALTEK REQ]

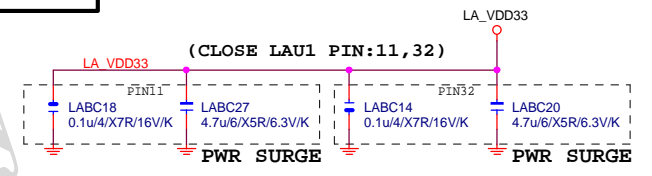
LAN POWER

note: lan power連接及電流



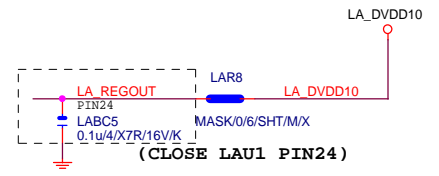
(CLOSE LAU1 PIN23)

LAN POWER



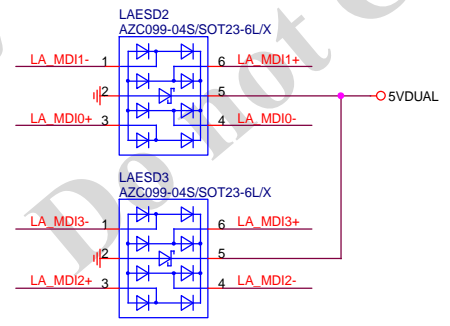
LABC18,27:CLOSE PIN11[REALTEK SURGE]  
LABC14,20:CLOSE PIN32[REALTEK SURGE]

LAN POWER



(CLOSE LAU1 PIN24)

MDI ESD預留 \*



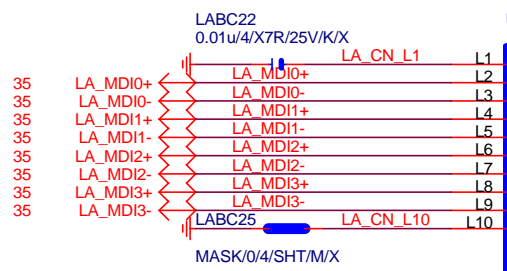
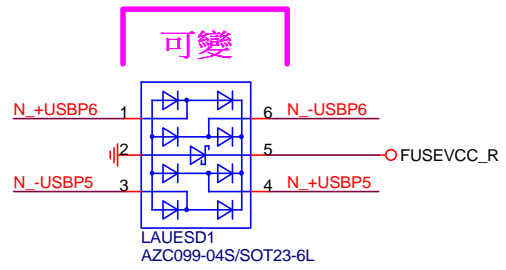
Gigabyte Technology

Title		
Realtek RTL8111GUS		
Size Custom	Document Number	Rev 1.0
Date: Monday, October 19, 2015	Sheet 35 of 46	

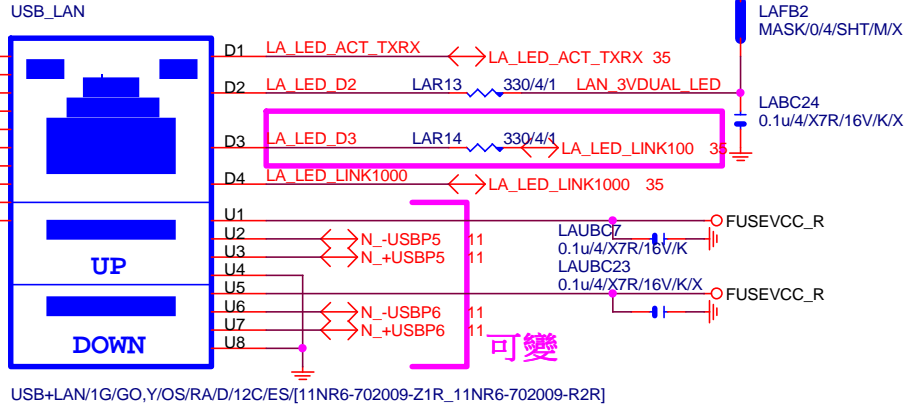
**USB\_LAN CONNECTOR R1.06**

**USB\_LAN CONNECTOR** note:可變更USB NAME

**RMA ESD PROTECT** note:可變更USB NAME

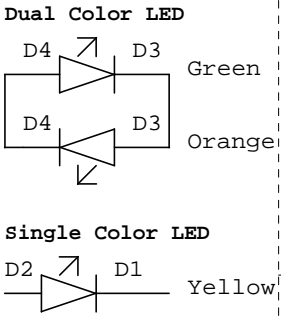
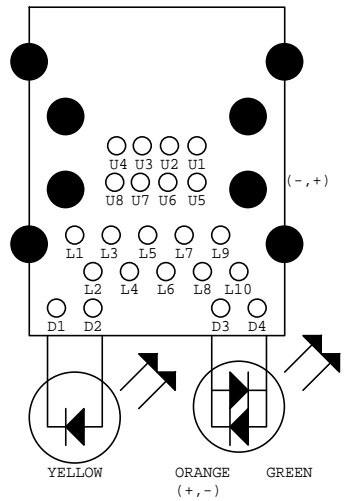


**[RTL8111G]**

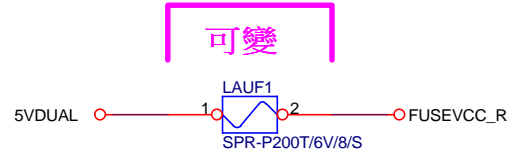


**LA\_MDI-->100歐姆:[20/4/8/4/20]**

**USB\_LAN LAYOUT示意圖**

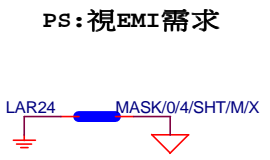


**USB POWER** note:可變更FUSE

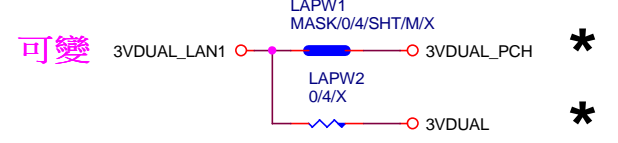


**Close to connector  
USB\_LAN 2-Port 2.0A  
FUSE-0805**

**EMI SHORT PAD**

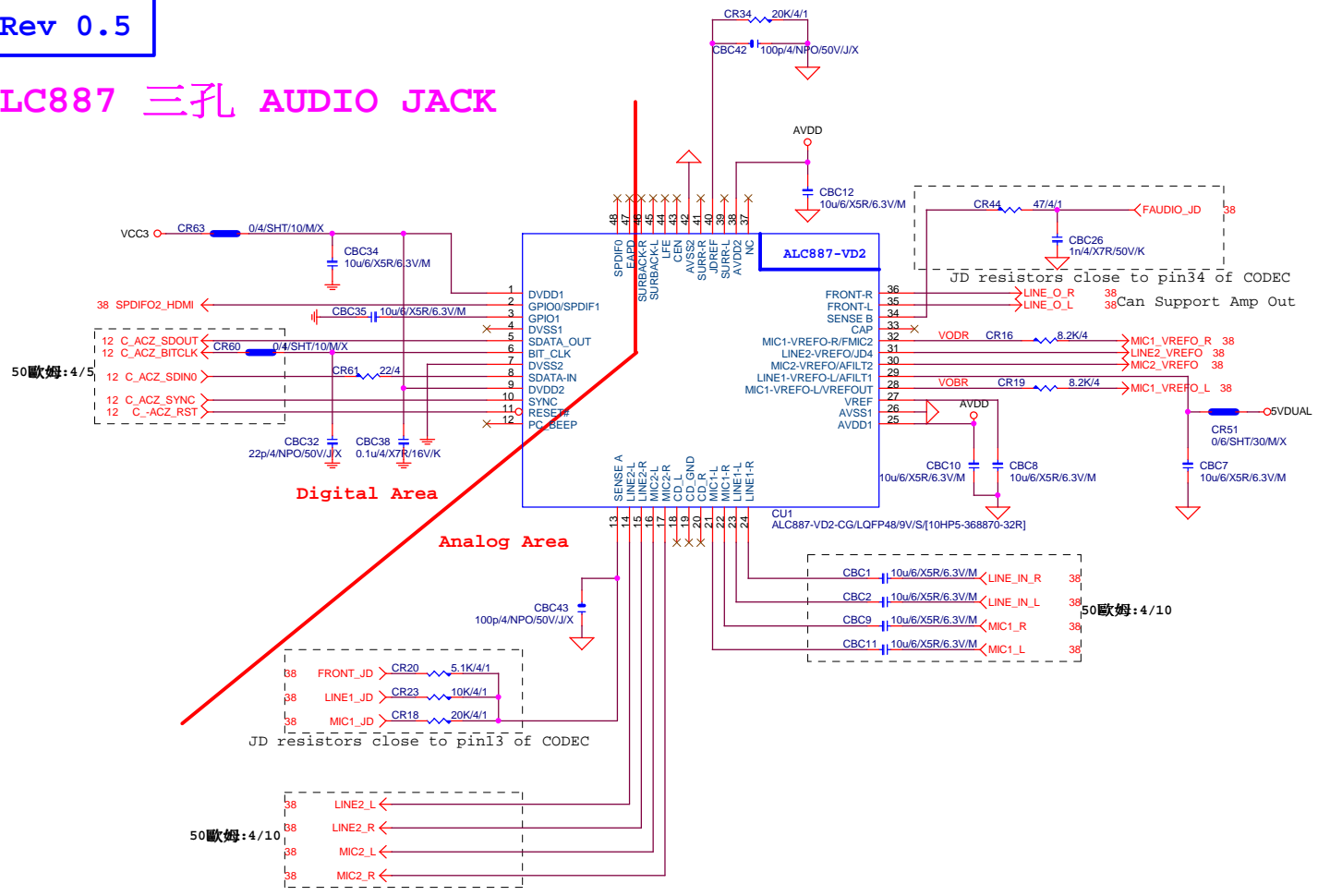


**LAN POWER** note: lan power連接及電流

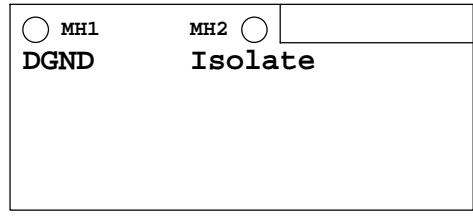


<b>Gigabyte Technology</b>		
<b>LAN CONNECTOR-RTL8111G</b>		
Size	Document Number	Rev
Custom	<b>GA-H110M-DS2</b>	1.0
Date:	Monday, October 19, 2015	Sheet 36 of 46

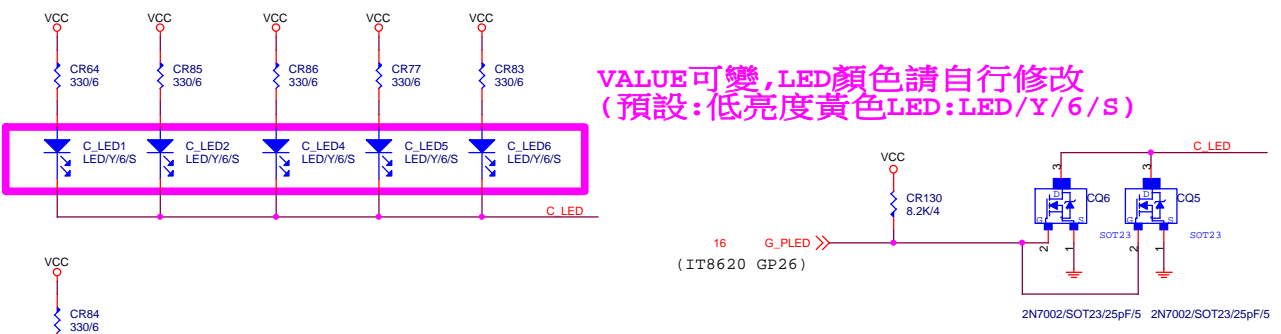
ALC887 三孔 AUDIO JACK



LAYOUT注意: 螺絲孔下GND方式  
 1. MH1空間夠, 下DGND  
 空間不夠, 改為Isolate  
 2. MH2一律改為Isolate



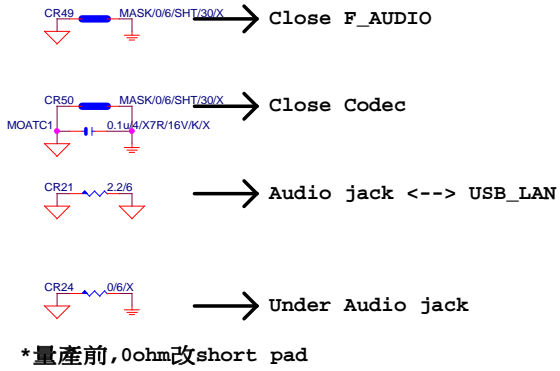
VALUE可變, LED顏色請自行修改  
 (預設: 低亮度黃色LED: LED/Y/6/S)



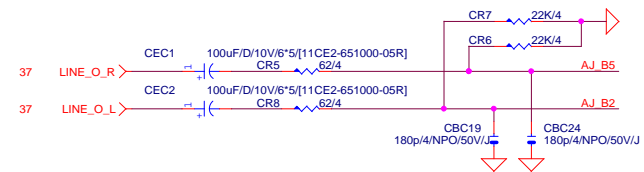
LAYOUT注意: 要加  
 GND切割線  
 音效區域印刷

BOM OPTION : 1. Chemicon 音效電容  
 2. 金屬外罩 Reserve (上件與否, 依照各Model spec)  
 3. LED Reserve (上件與否和LED顏色, 依照各Model spec)

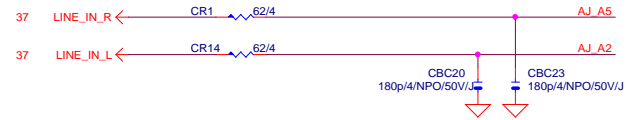
Rev 0.5



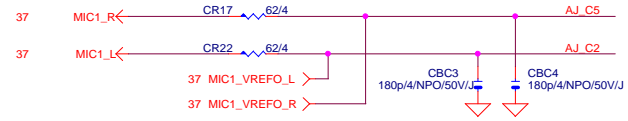
LINE-OUT



LINE-IN



MIC-IN

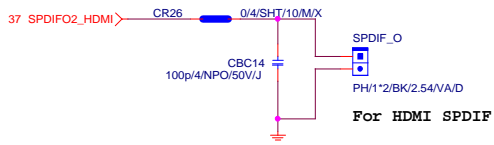


SURROUND

CEN/LFE

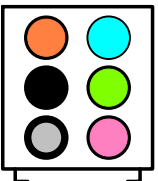
SURRBACK

SPDIF\_OUT

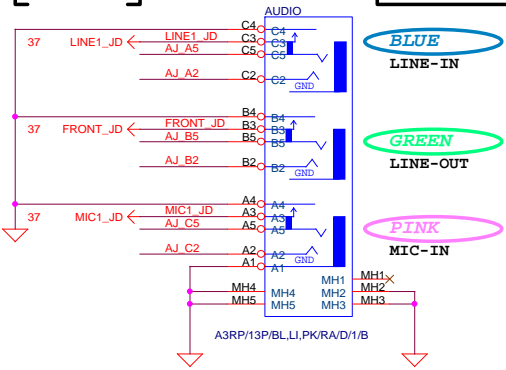


SPDIF\_IN

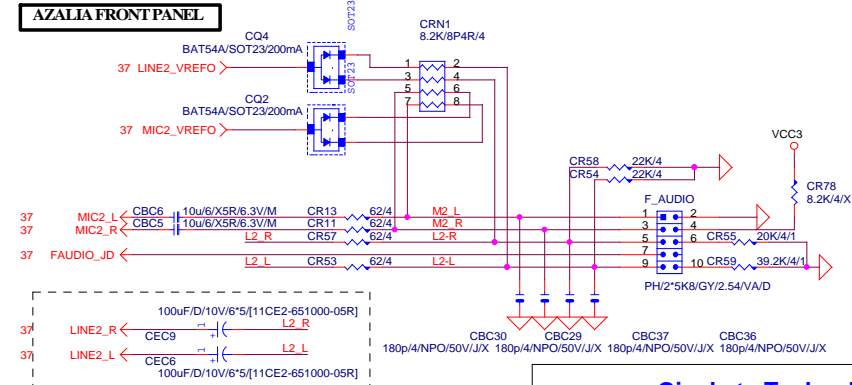
AZALIA JACK



AZALIA JACK

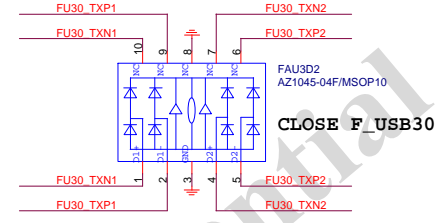
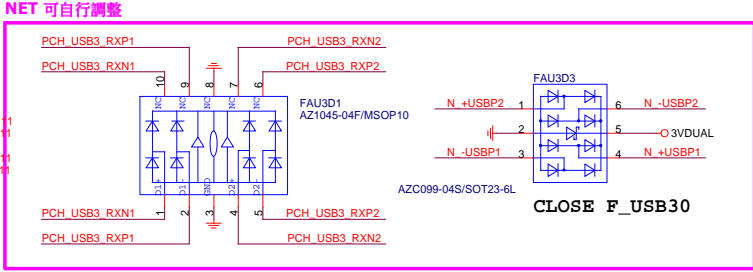
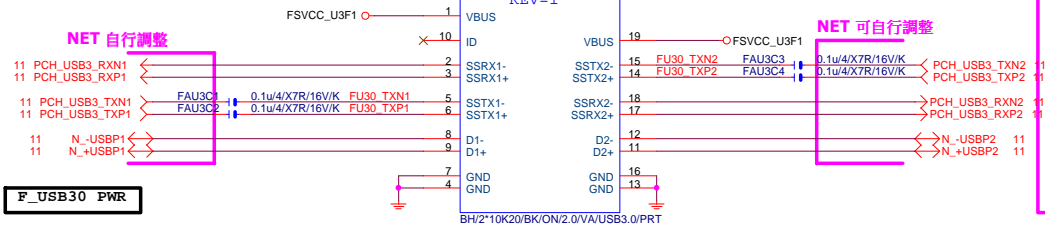


AZALIA FRONT PANEL



<b>Gigabyte Technology</b>		
<b>AUDIO JACK</b>		
<b>GA-H110M-DS2</b>		
Title	Document Number	Rev
Size	GA-H110M-DS2	1.0
Custom		
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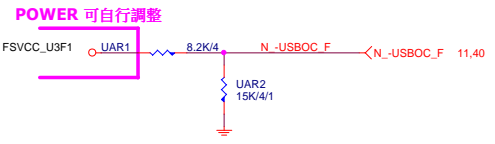
Front USB3.0



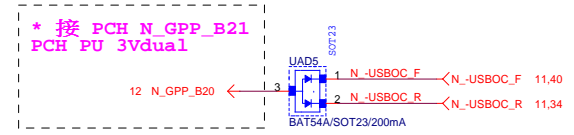
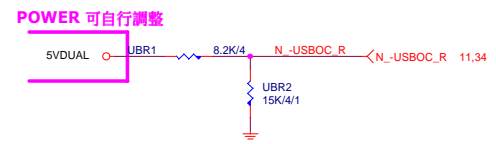
刪除U3OC3

Gigabyte Confidential  
Do not Copy

-USBOC\_F



-USBOC\_R

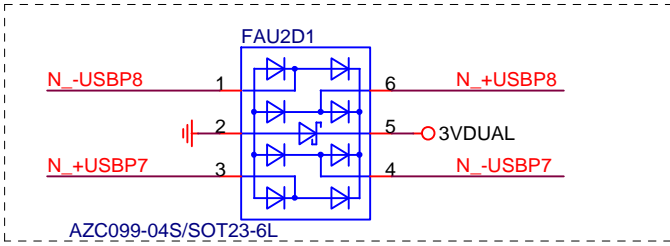
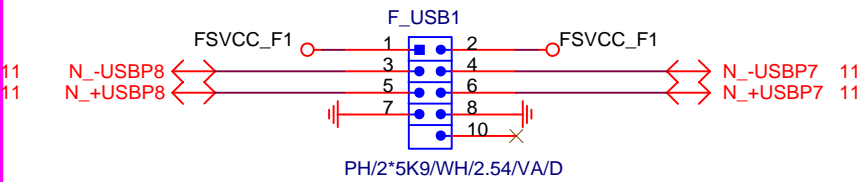


<b>Gigabyte Technology</b>			
Title <b>R_USB30,F_USB30, USB_OC</b>			
Size	Document Number	<b>GA-H110M-DS2</b>	
Custom		Rev	<b>1.0</b>
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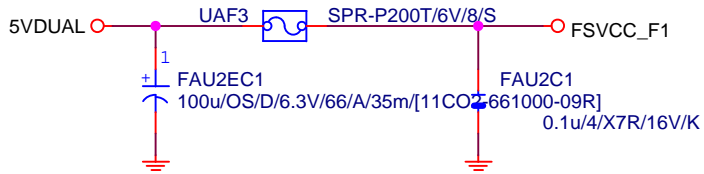
FRONT USB1

NET 可變

FUSB2X5-HS



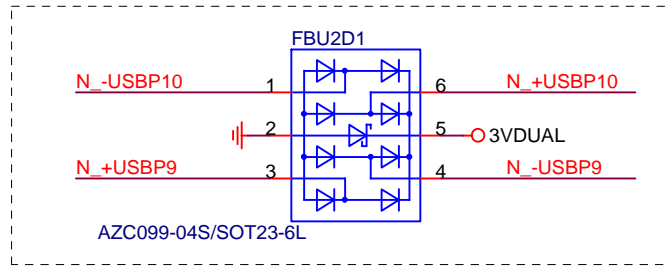
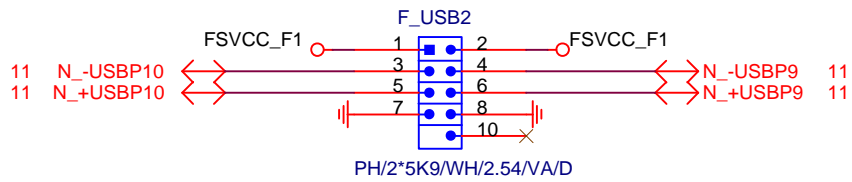
Close to connector  
 FUSE 2 Port 1 Fuse 2A



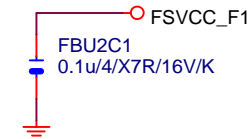
FRONT USB2

NET 可變

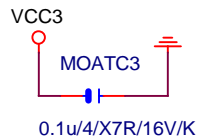
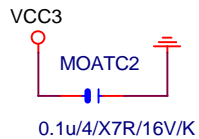
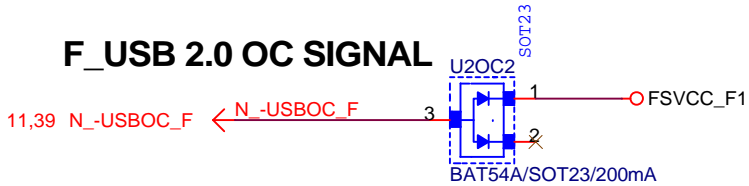
FUSB2X5-HS



Close to connector  
 FUSE 2 Port 1 Fuse 2A



F\_USB 2.0 OC SIGNAL

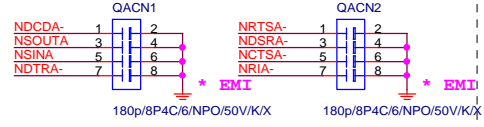
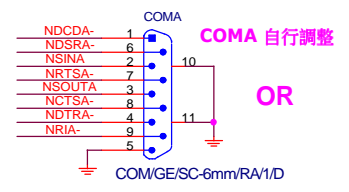
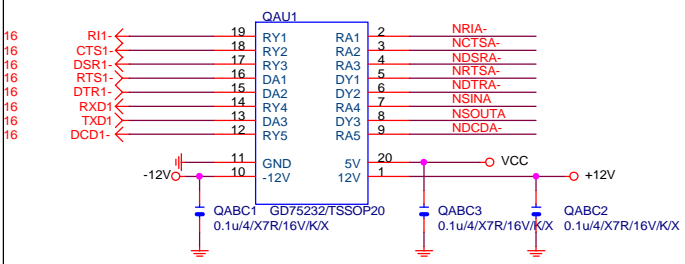


Gigabyte Technology

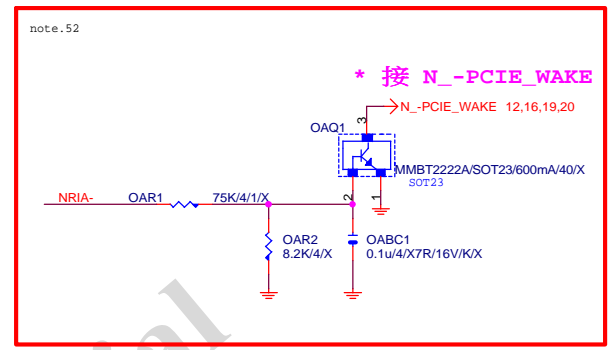
Title		
USB2.0		
Size A	Document Number	Rev 1.0
	GA-H110M-DS2	
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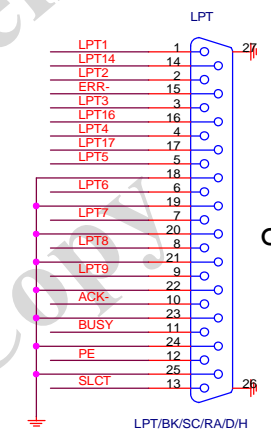
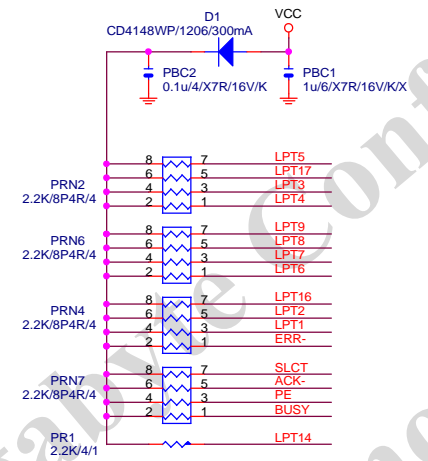
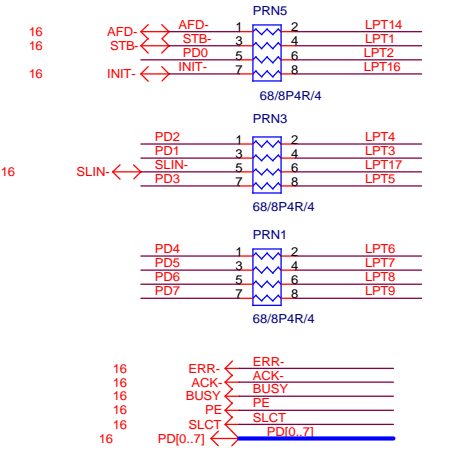
**COM PORT** Rev: 0.7



**COM RI**

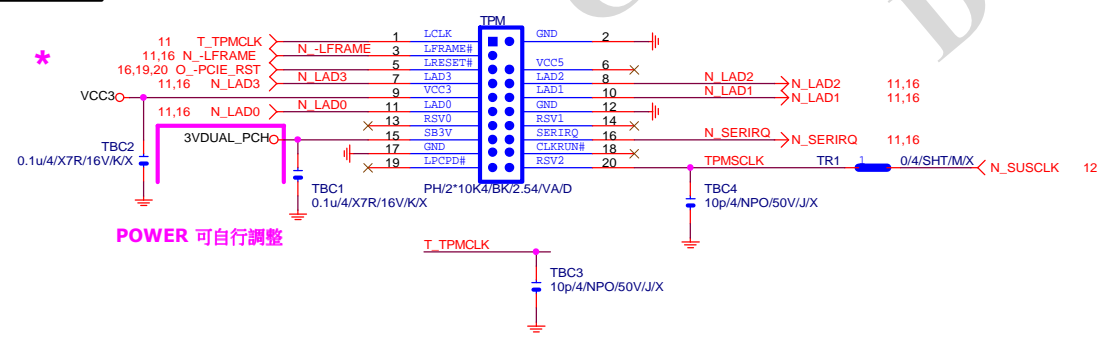


**LPT PORT**



Color: Black

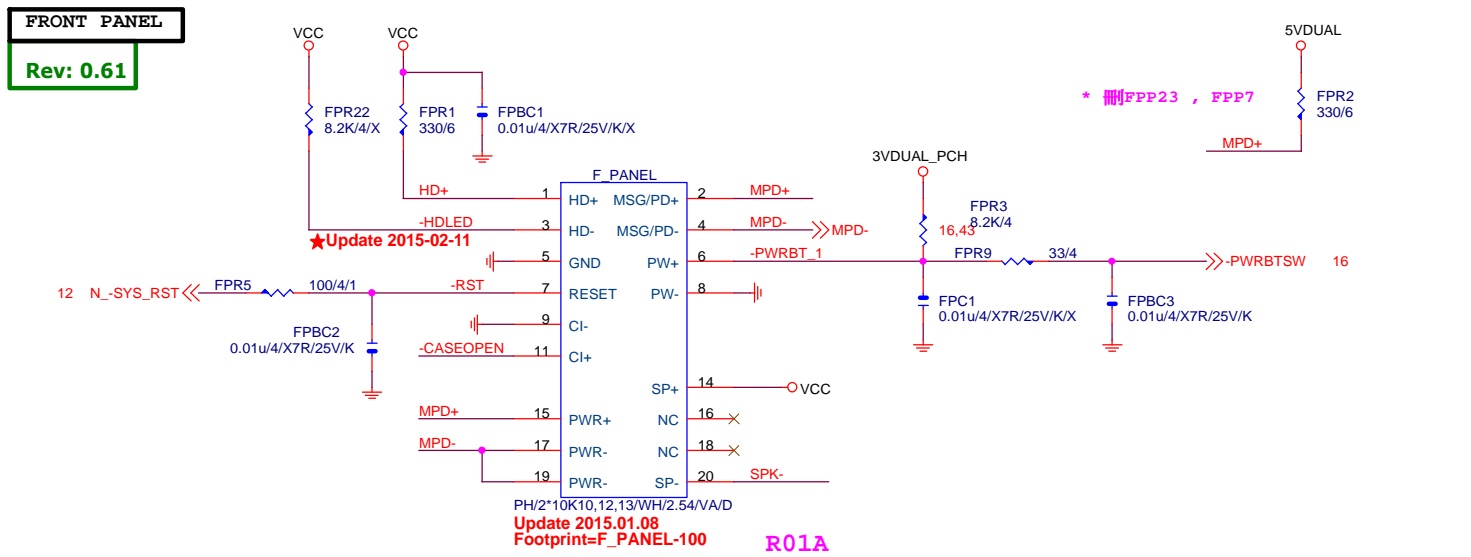
**TPM CONNECT**



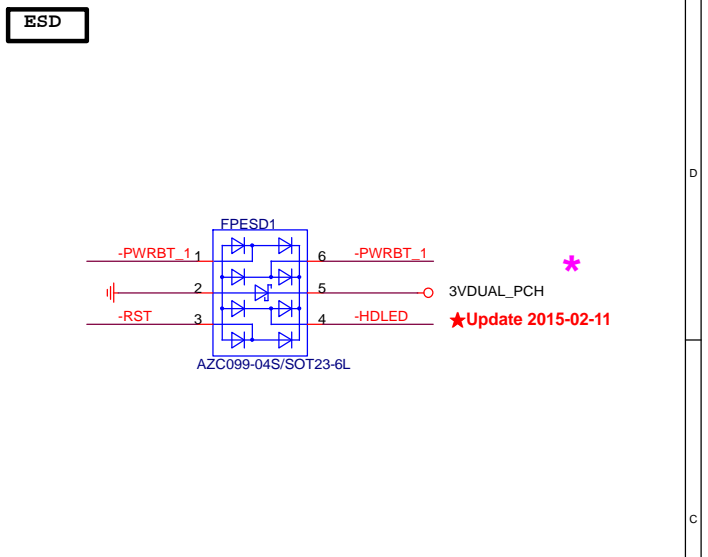
**Thunderbolt (N/A)**

<b>Gigabyte Technology</b>		
Title <b>FP,F_USB,USB PWR,BZ</b>		
Size	Document Number	<b>GA-H110M-DS2</b>
Custom		<b>Rev 1.0</b>
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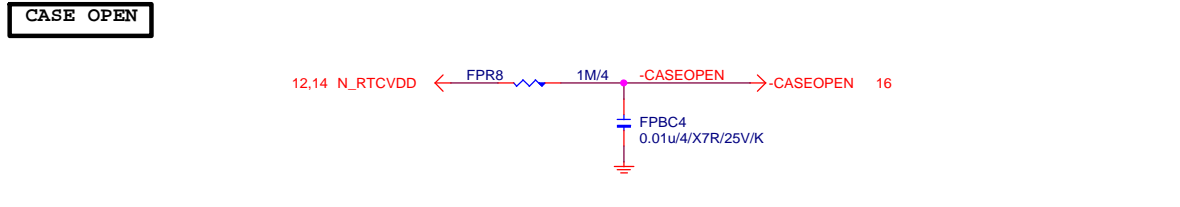
**FRONT PANEL**  
Rev: 0.61



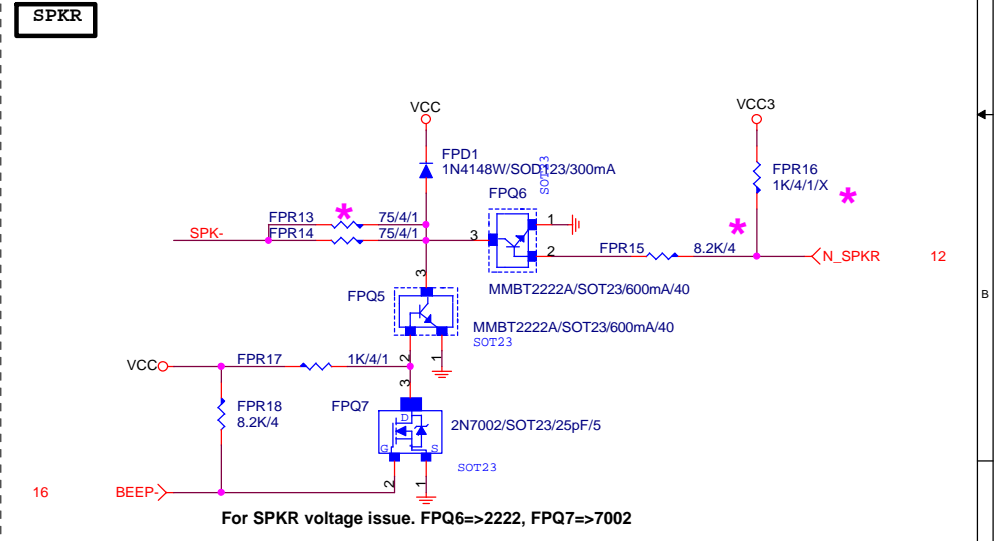
**ESD**



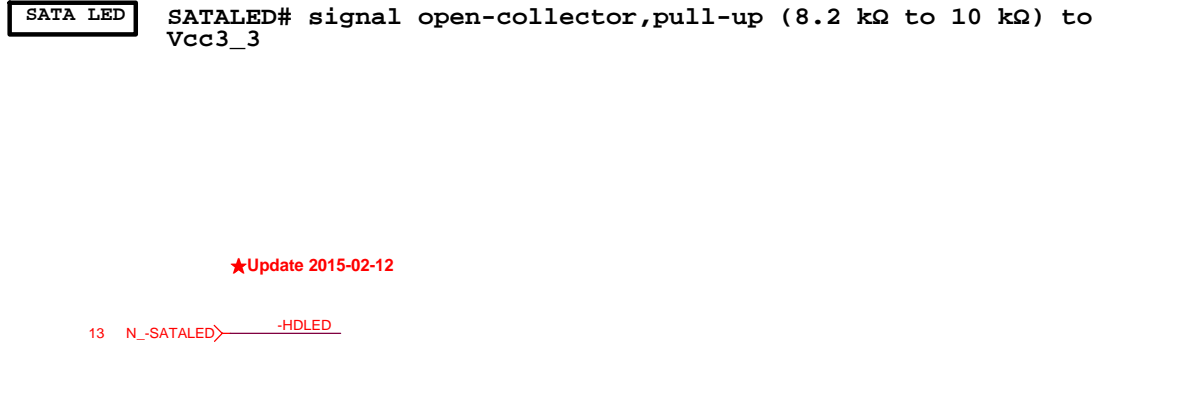
**CASE OPEN**



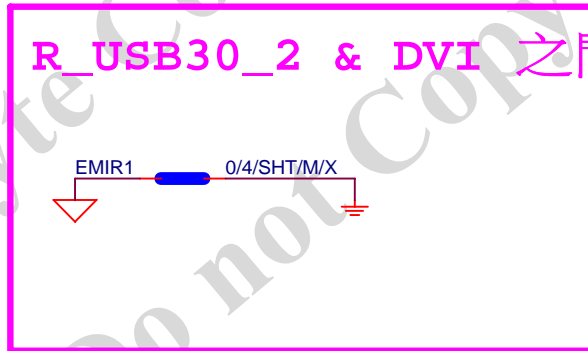
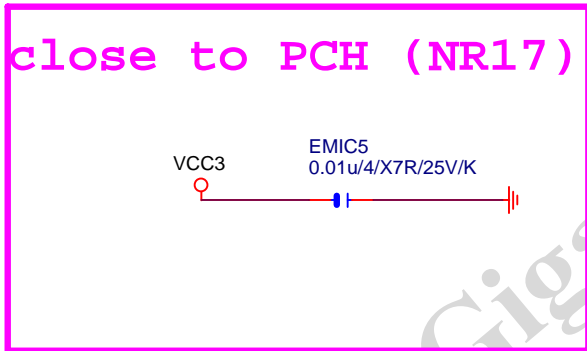
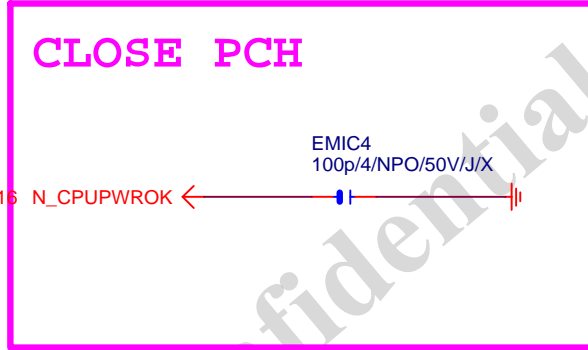
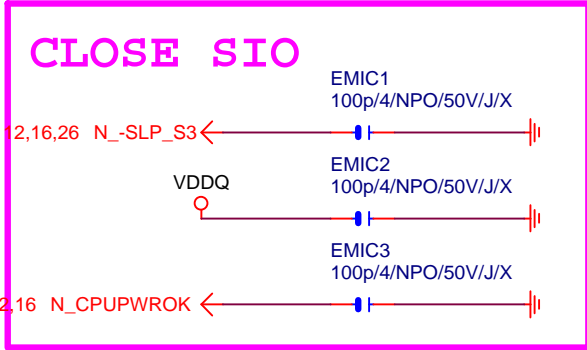
**SPKR**



**SATA LED**

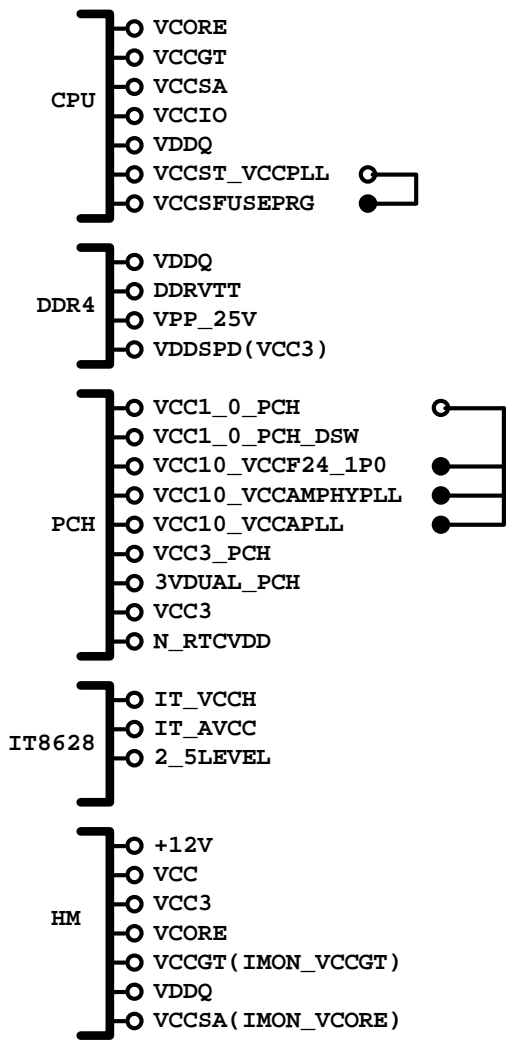


<b>Gigabyte Technology</b>		
<b>FRONT PANEL</b>		
Size Custom	Document Number	<b>GA-H110M-DS2</b>
Date:	Monday, October 19, 2015	Sheet 42 of 46
		Rev <b>1.0</b>

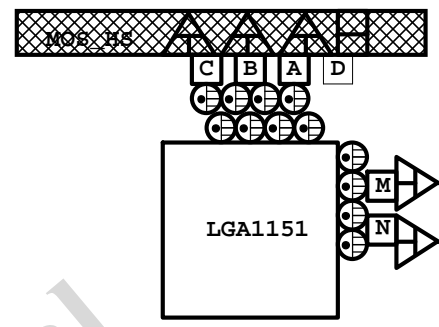
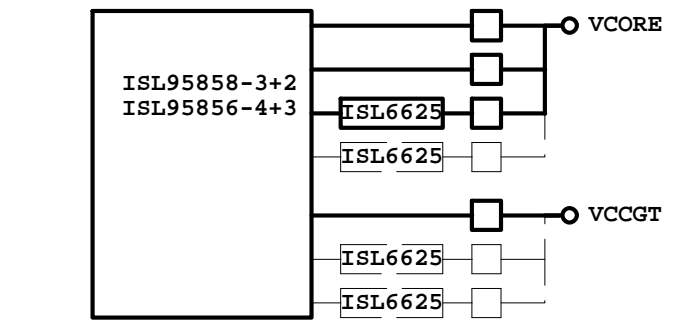


<b>GIGABYTE™</b>		
Title <b>EMI/ESD</b>		
Size A	Document Number <b>GA-H110M-DS2</b>	Rev <b>1.0</b>
Date: Monday, October 19, 2015	Sheet 43 of 46	

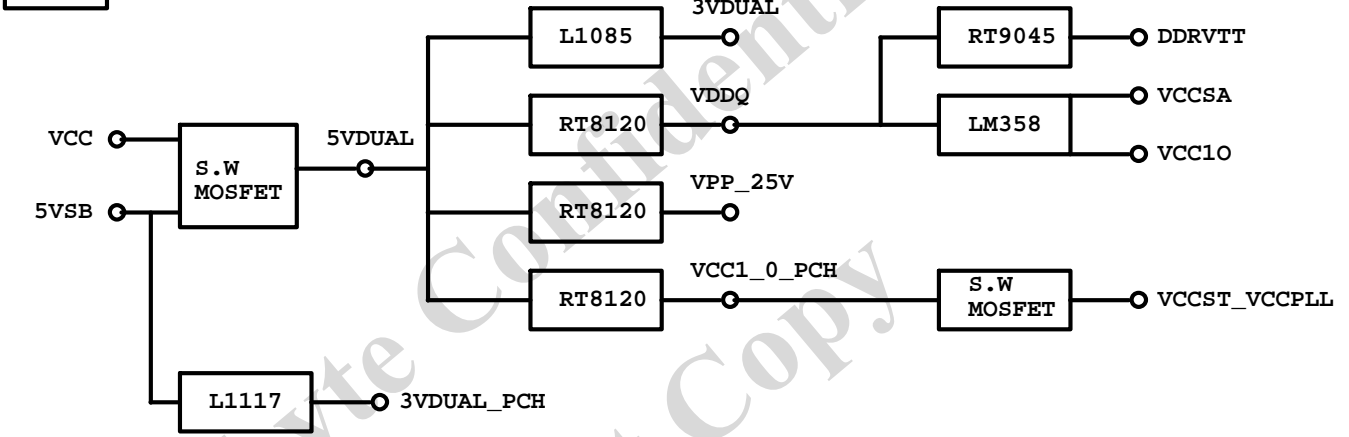
**POWER BLOCK MAP**



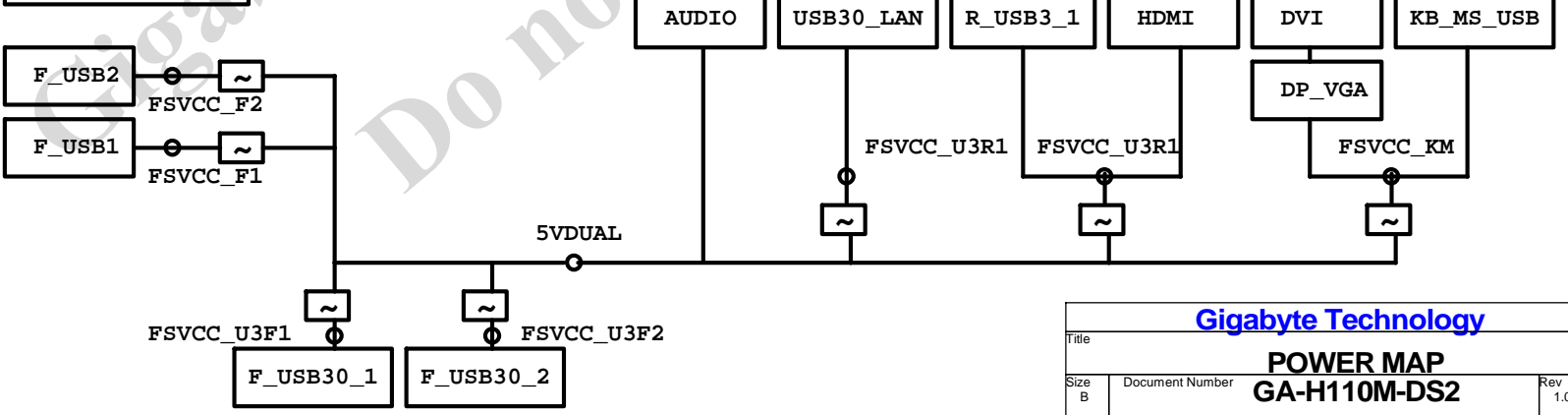
**VCORE/VCCGT**



**POWER**



**FUSE POWER F/R**



<b>Gigabyte Technology</b>		
<b>POWER MAP</b>		
<b>GA-H110M-DS2</b>		
Size B	Document Number	Rev 1.0
Date:	Monday, October 19, 2015	Sheet 44 of 46

**固態電容料號.請自行修改**

日系黑色固態	Capture Value
11C02-C85600-01R	560u/FP/D/6.3V/68/C/8m
11C05-C82700-01R	270u/FP/D/16V/88/C/12m
11C05-C61000-01R	100u/OS/D/16V/66/C/30m
11C02-C51000-01R	100u/FP/D/6.3V/65/C/13m

日系一般固態	Capture Value
11C02-685600-01R	560u/FP/D/6.3V/68/8m
11C05-882700-01R	270u/FP/D/16V/88/12m
11C05-661000-03R	100u/OS/D/16V/66/30m
11C02-651000-02R	100u/OS/D/6.3V/66/30m

台系固態	Capture Value
11C02-661000-09R	100u/OS/D/6.3V/66/A/35m
11C05-691000-09R	100u/OS/D/16V/69/A/35m
11C05-8C2700-09R	270u/FP/D/16V/8C/A/10m
11C02-695600-09R	560u/FP/D/6.3V/69/A/11m

**IRON CHOKE**

	料號	Capture Value	SIZE	Footprint
DIP	11LC5-M4500C-01R	0.5uH/40A/IMD109/M/D	10*10	CHOKE05U-40A-1PQ-3
DIP	11LC5-M2500C-01R	0.5uH/20A/IMD0809/M/D	8*8	CHOKE1U-R50M-IF

**Ferrite**

	料號	Capture Value	SIZE	Footprint
DIP	11LC5-F3500C-11R	0.5uH/32A/INCG109/FSI/D	10*10	CHOKE05U-40A-1PQ-3
DIP	11LC5-F2500C-11R	0.5uH/25A/INC0809/F/D	8*8	CHOKE1U-R50M-IF
SMD	未建(SIUC1007-R30M-JJLW)		10*7	CHOKE11X8MM-SMD

**BEAD**

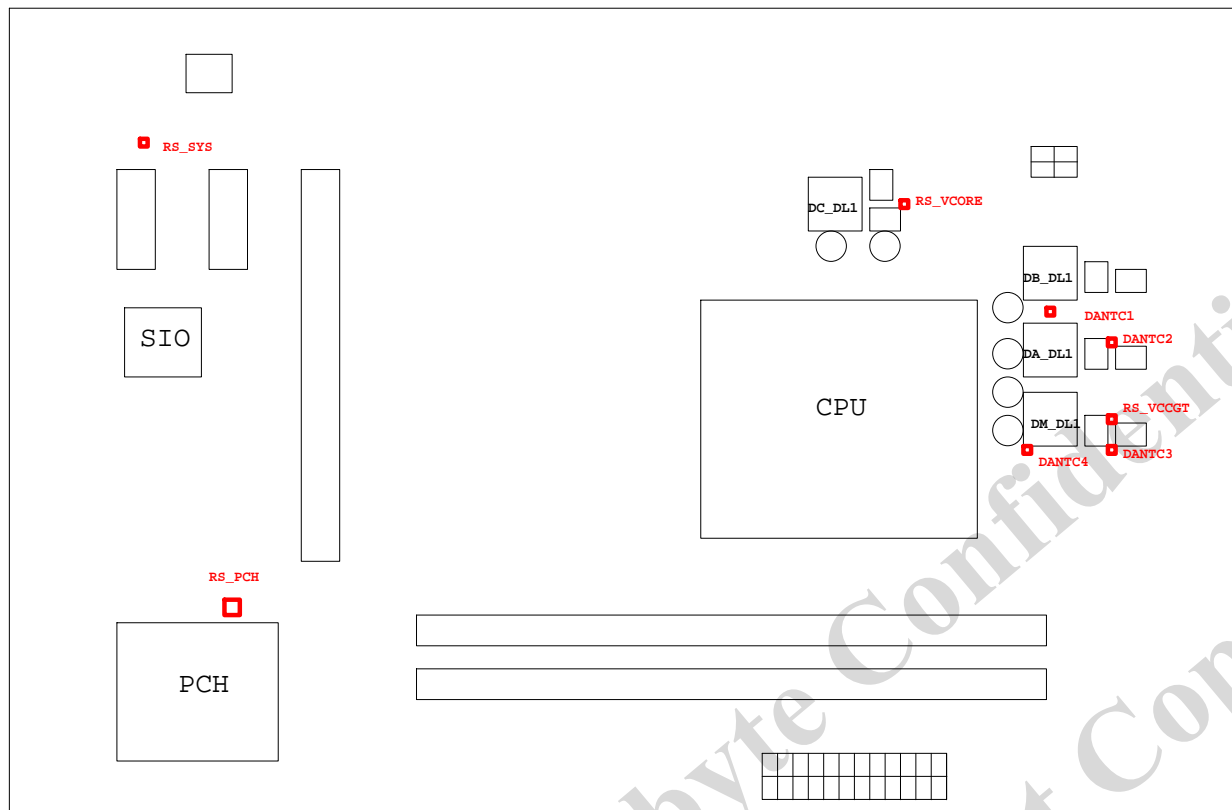
	料號	Capture Value	SIZE	Footprint
DIP	10LFB-15470A-01R	47/4030/15A/S	4*3	BEADC8B-BPH_SMD

**PWM料號**

		料號	Capture Value	Footprint
PWM	ISL95856	10TA1-695856-01R		IC52QFN-6x6-G
PWM	ISL95858	10TA1-695858-01R		IC52QFN-6x6-G
PWM	IR35201	10TA1-635201-00R		IC56QFN-9VRS4339
PWM	IR3570	10TA1-603570-00R		IC40MLFP-ISL95835

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熱敏電阻	擺放靠近位置	走線方式
DANTC4	DM_DL1	Differential
DANTC1	DA_DL1	Differential
DANTC3	DM_DQ1	Differential
DANTC2	DA_DQ1	Differential
RS_VCORE	DA_DQ1	N/A
RS_VCCGT	DM_DQ1	N/A
RS_PCH	PCH	N/A
RS_SYS	CU1	N/A