

SHEET

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SHEET

TITLE

30	ISL95866 VCCGT-IRON
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52	EMI-ESD (REV0.1)
53	POWER MAP
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55	TABLE LIST

Gigabyte Technology

Title		
Cover Sheet		
Size	Document Number	Rev
Custom	GA-Z270M-D3H	1.01
Date:	Wednesday, November 30, 2016	Sheet 1 of 57

Model Name: GA-Z270M-D3H

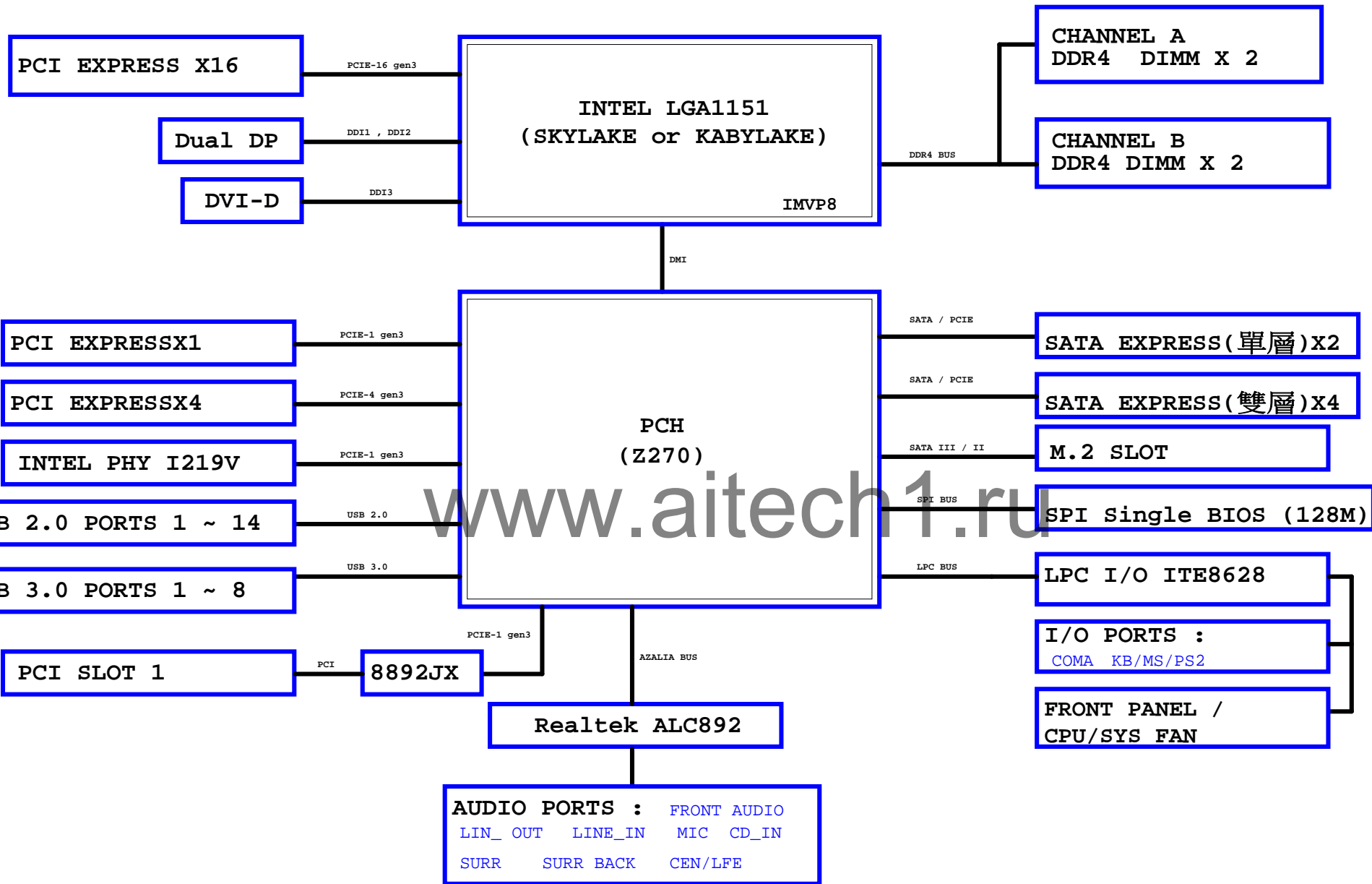
rev 1.01 Circuit or PCB layout change

Component value change history

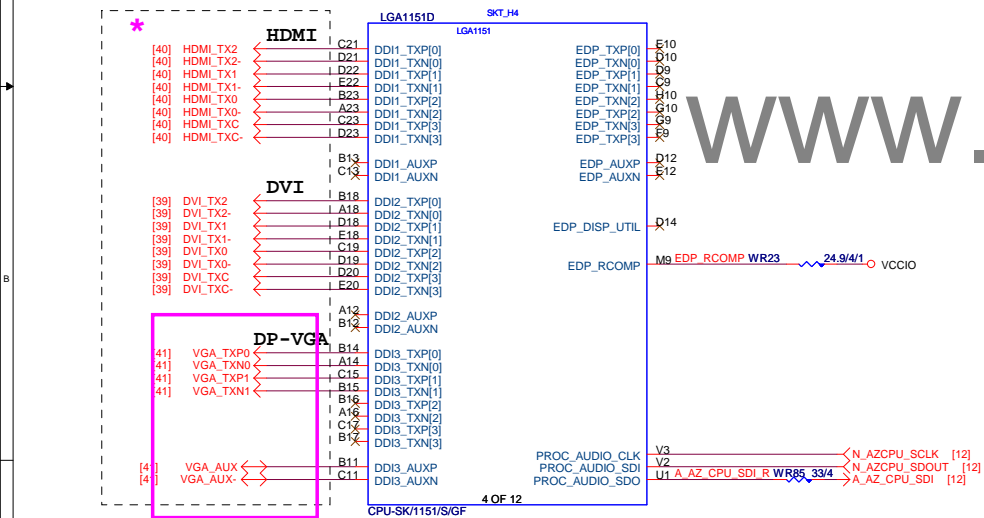
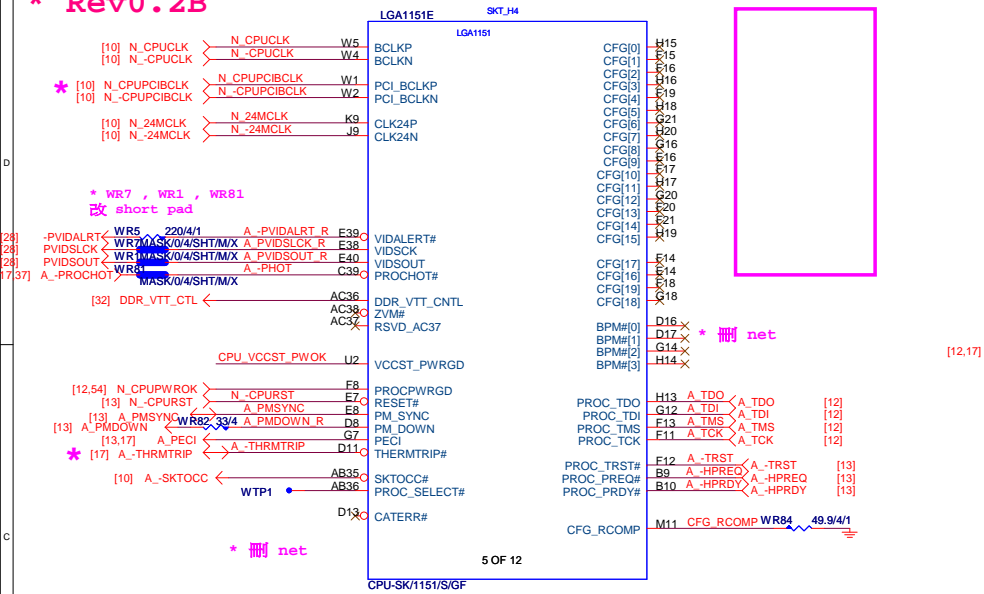
2016/11/08

[illegible][illegible]

BLOCK DIAGRAM



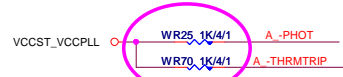
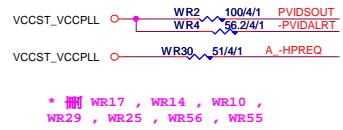
*** Rev0.2B**



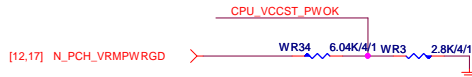
G-15u : (CPU-SK/1151/S/15)
10SC1-F01151-11R / 10SC1-F01151-12R
G-FL : (CPU-SK/1151/S/GF)
10SC1-F01151-21R / 10SC1-F01151-22R

```
4 layer HDMI/DP/eDP/====4/4/4//15
6 layer HDMI/DP/eDP/====4/5.5/4//15
```

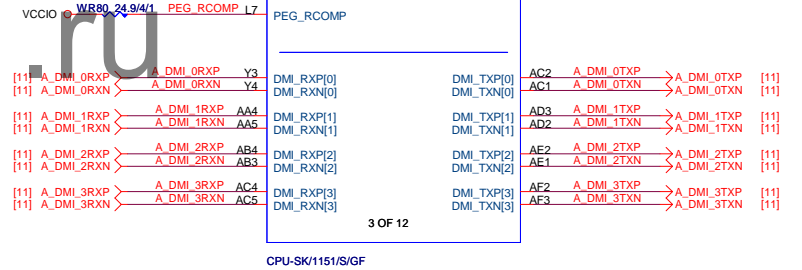
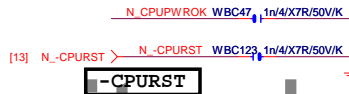
Impedance=85 +- 15%



* 删除 WR91



```
* 删除 net N_CPU_VCCST_PWOK
```



```
CFG[2]:x16 Lane Numbering
Reversal. 1=
NORMAL;0=reversal
```

```
CFG[4]: eDP
enable:1:disable/0=enable
```

```
CFG[6:5]:PCI Express* Bifurcation; 11=
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

PA_EXP_TXP[0..15] >> PA_EXP_TXP[0..15] [20]
PA_EXP_TXN[0..15] >> PA_EXP_TXN[0..15] [20]
PA_EXP_RXP[0..15] >> PA_EXP_RXP[0..15] [20]
PA_EXP_RXN[0..15] >> PA_EXP_RXN[0..15] [20]

4 layer PEG/DMI=====4/4/4//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

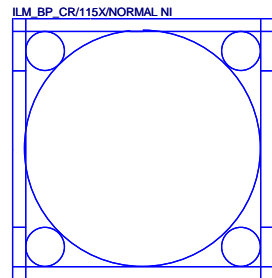
Gigabyte Technology

CPU LGA1151-A

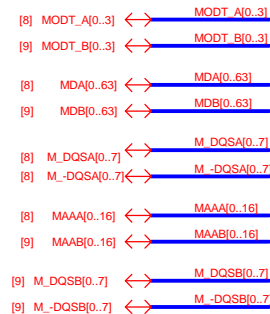
ent Number

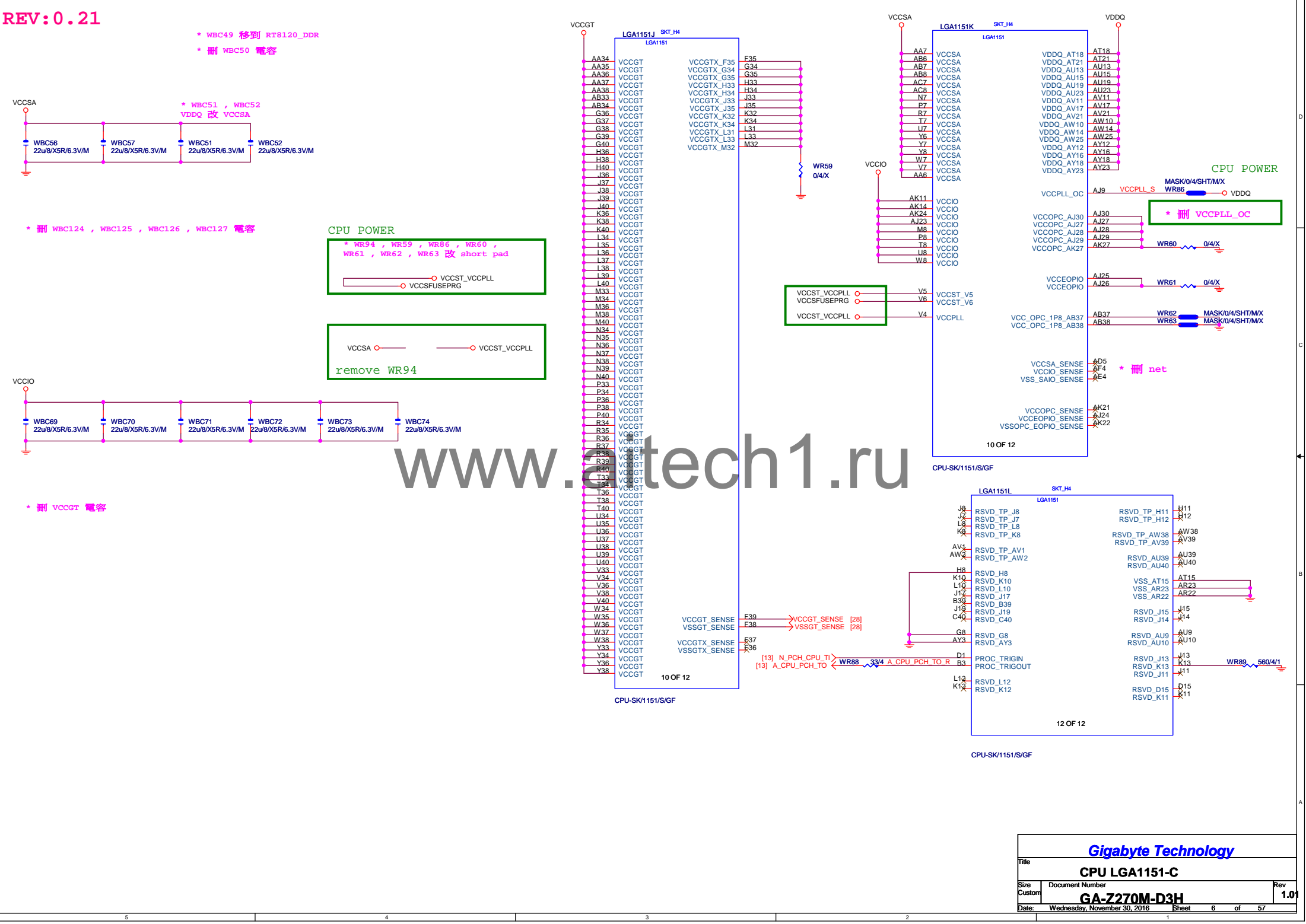
Title			
CPU LGA1151-A			
Size	Document Number	Rev	
Custom	GA-Z270M-D3H	1.01	
Date:	Wednesday, November 30, 2016	Sheet	4 of 57

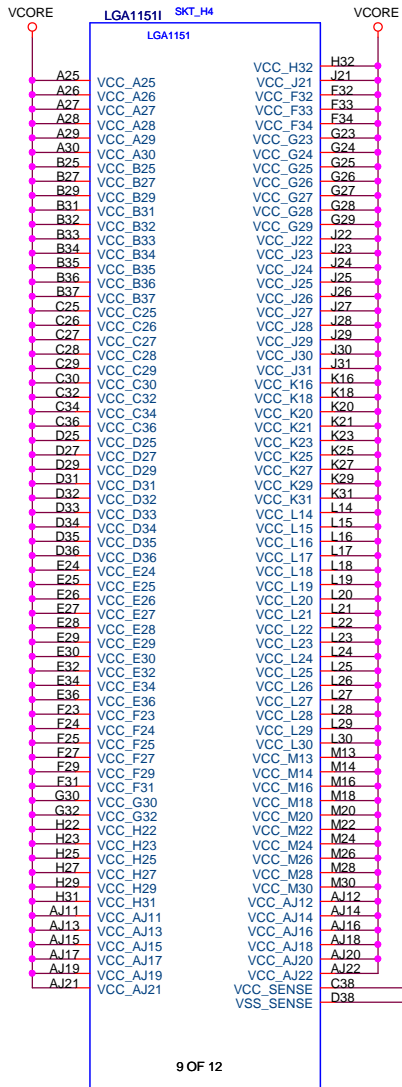
* 改DDR4 net



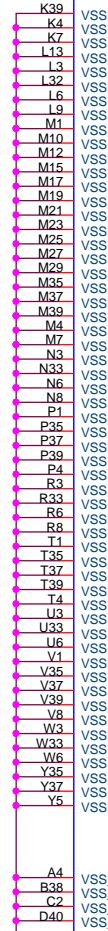
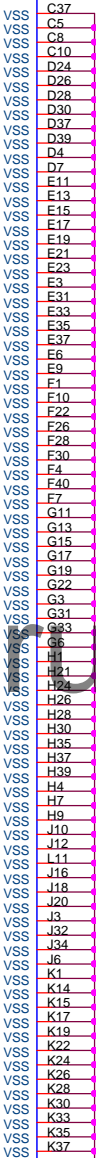
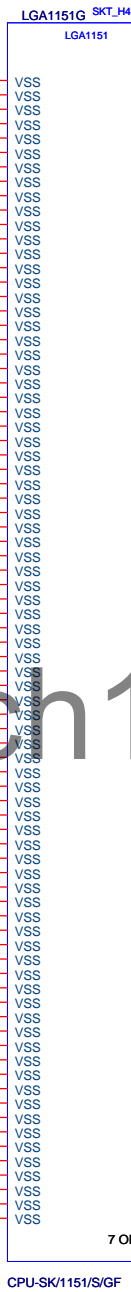
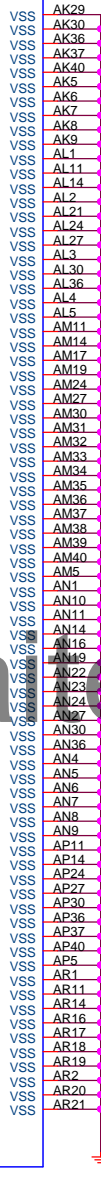
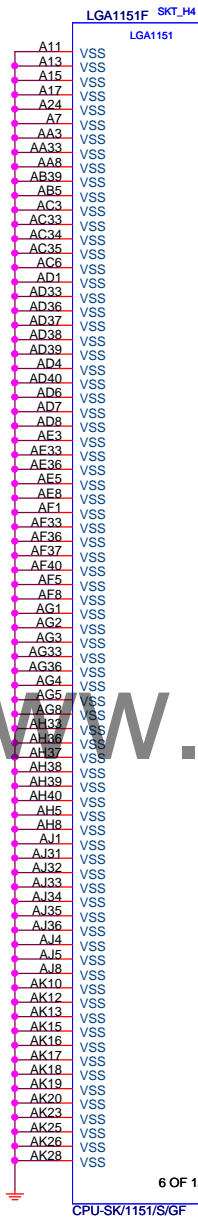
Need check the new CPU ME

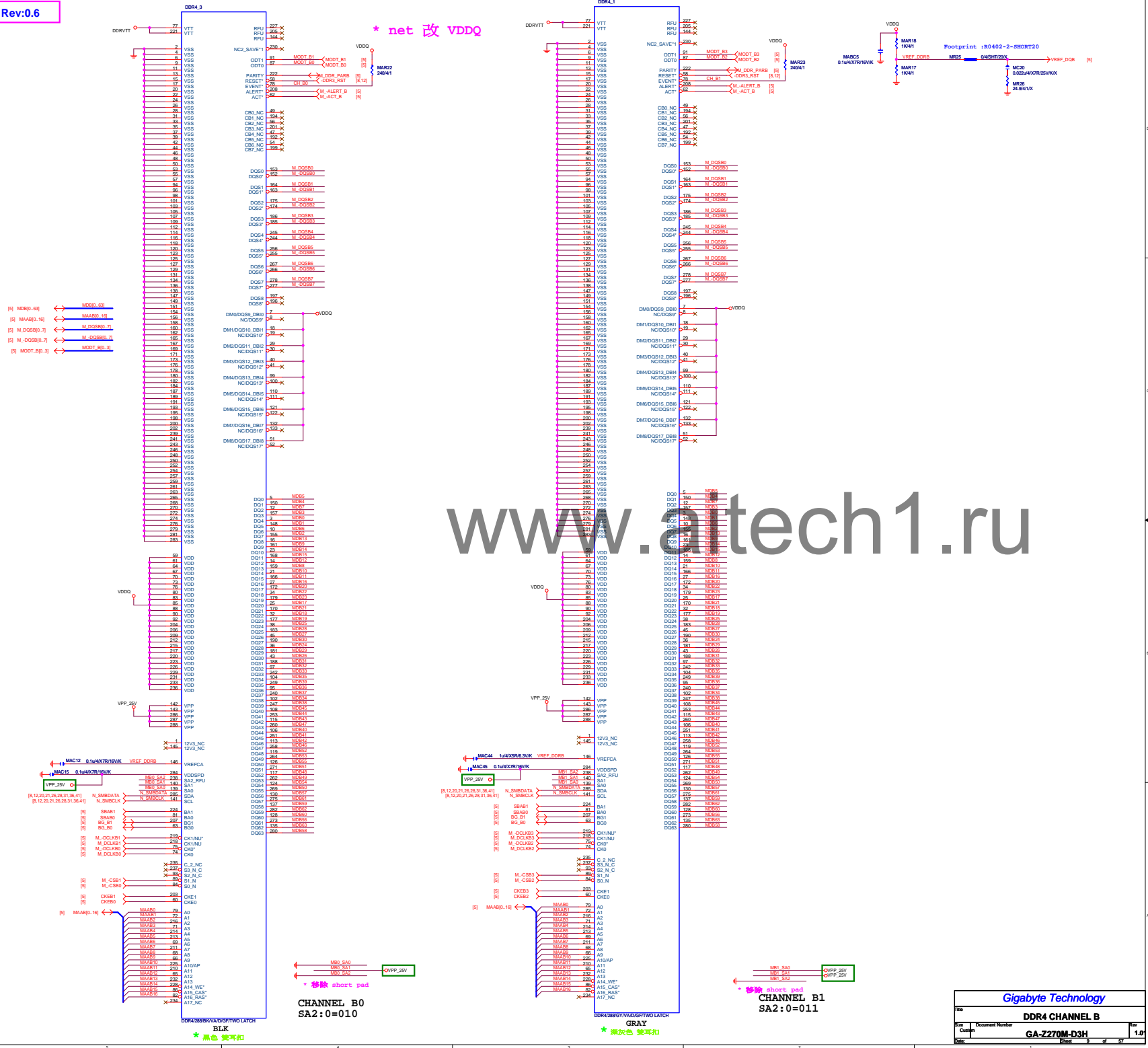






* 刪 Vcore 電容





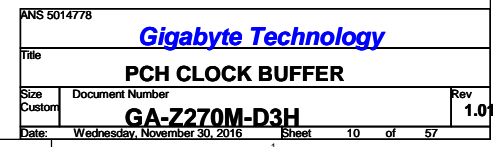
- [R] MCR0_03] <-> MCR0_03
- [R] MAAB0_16] <-> MAAB0_16
- [R] M_DQSB0_7] <-> M_DQSB0_7
- [R] M_DQSB0_7] <-> M_DQSB0_7
- [R] M_DQSB0_7] <-> M_DQSB0_7

- [R] SBAB1 <-> SBAB1
- [R] SBAB1 <-> SBAB1
- [R] SBAB1 <-> SBAB1
- [R] SBAB1 <-> SBAB1
- [R] SBAB1 <-> SBAB1

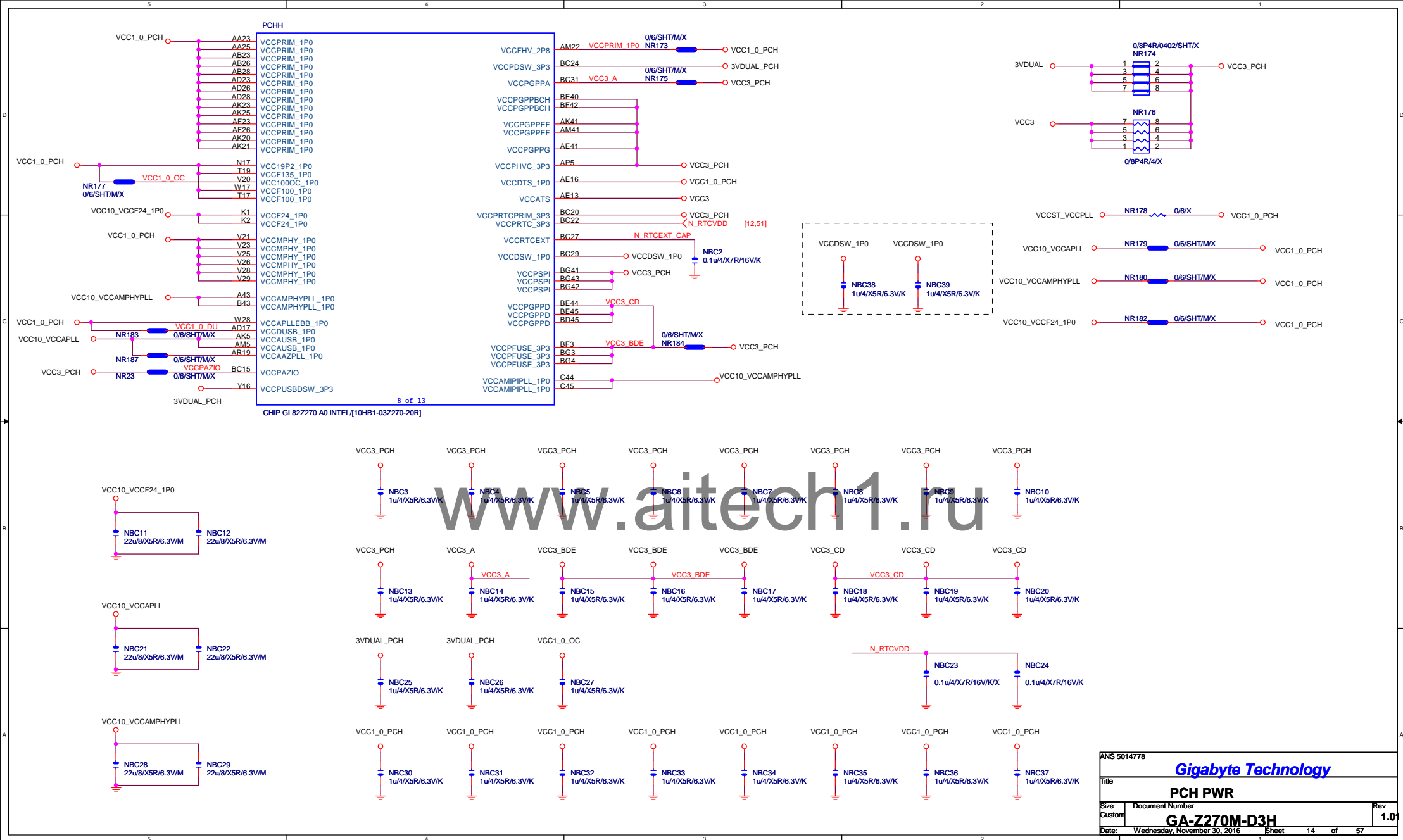
- [R] M_DQSB0_7] <-> M_DQSB0_7
- [R] M_DQSB0_7] <-> M_DQSB0_7
- [R] M_DQSB0_7] <-> M_DQSB0_7
- [R] M_DQSB0_7] <-> M_DQSB0_7
- [R] M_DQSB0_7] <-> M_DQSB0_7

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Gigabyte Technology		
DDR4 CHANNEL B		
Rev	1.0	
GA-Z270M-D3H		
Date	Rev	1.0







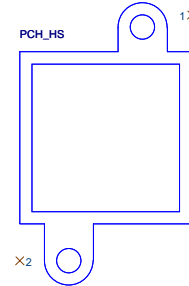
PCHI		
A25	VSS	A42
A30	VSS	D45
P22	VSS	BG44
AV38	VSS	BF44
AV45	VSS	BF45
AV8	VSS	BF2
AY11	VSS	W29
AY19	VSS	A35
AY37	VSS	A40
AY4	VSS	AA1
AY42	VSS	AA17
AY8	VSS	AA18
B25	VSS	AA20
B3	VSS	AA21
B30	VSS	AA26
B38	VSS	AA28
B4	VSS	AA29
B41	VSS	AB17
BA13	VSS	AC32
BA17	VSS	AE4
BA25	VSS	AE8
BA31	VSS	AF18
BA37	VSS	AF20
BA4	VSS	AF21
BA42	VSS	AF25
BB40	VSS	AF28
BC38	VSS	AF29
BC40	VSS	AF4
BC9	VSS	AF42
BD11	VSS	AG18
BD16	VSS	AG20
BD2	VSS	AG21
BD21	VSS	AG23
BD28	VSS	AG25
F2	VSS	AG26
E31	VSS	AG28
E6	VSS	AG29
F39	VSS	AH11
F43	VSS	AH13
G4	VSS	AH30
G40	VSS	AH32
G42	VSS	AH33
F6	VSS	AH38
G9	VSS	AJ1
H11	VSS	AJ17
H13	VSS	AJ18
H17	VSS	AJ20
H19	VSS	AJ21
H22	VSS	AJ23
H24	VSS	AJ25
H27	VSS	AJ26
H29	VSS	AJ28
H33	VSS	AJ29
H35	VSS	AJ45
H38	VSS	AK10
H4	VSS	AK14
H42	VSS	AK16
H9	VSS	AK17
M36	VSS	AK18
M38	VSS	AK26
M4	VSS	AK28
M8	VSS	AM14
M9	VSS	AN14
N13	VSS	AP19
N15	VSS	AR22
N19	VSS	AR27
N22	VSS	AR13
N24	VSS	AR31
N31	VSS	AR33
N42	VSS	AV10
N42	VSS	AV15
P10	VSS	AV24
P12	VSS	AV27
AV35	VSS	AV33

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CHIP GL82Z270 A0 INTEL[10HB1-03Z270-20R]

PCHL		
BD34	VSS[70]	AB18
BD39	VSS[71]	AB20
BE2	VSS[72]	AB21
BF43	VSS[73]	AB25
BF5	VSS[74]	AB29
BG18	VSS[75]	AB4
BG23	VSS[76]	AB42
BG28	VSS[77]	AC10
BG37	VSS[78]	AC11
BG40	VSS[79]	AC14
BG9	VSS[80]	AC16
C1	VSS[81]	AC38
A12	VSS[83]	AC4
C2	VSS[84]	AC5
C37	VSS[85]	AC7
A6	VSS[86]	AD1
C9	VSS[87]	AD18
D1	VSS[88]	AD20
D10	VSS[89]	AD21
D12	VSS[90]	AD25
D15	VSS[91]	AD29
D16	VSS[92]	AD45
B12	VSS[93]	AE11
D19	VSS[94]	AE14
D21	VSS[95]	AE32
D24	VSS[96]	AE33
D25	VSS[97]	AE38
D29	VSS[98]	AK29
D30	VSS[99]	AK30
D33	VSS[100]	AK32
D35	VSS[101]	AK39
D36	VSS[102]	AL4
D39	VSS[103]	AL42
D44	VSS[104]	AM10
D7	VSS[105]	AM11
P13	VSS[106]	AM13
P15	VSS[107]	AM17
P17	VSS[108]	AM19
P19	VSS[109]	AM24
P21	VSS[110]	AM27
P33	VSS[111]	AM29
P35	VSS[112]	AM32
P4	VSS[113]	AM33
P42	VSS[114]	AM4
P8	VSS[115]	AN45
R1	VSS[116]	AP10
R32	VSS[117]	AP11
T10	VSS[118]	AP13
T14	VSS[119]	AP15
T22	VSS[120]	AP22
T29	VSS[121]	AP27
T32	VSS[122]	AP31
T36	VSS[123]	AP33
T38	VSS[124]	AP34
Y38	VSS[125]	AP39
Y4	VSS[126]	T4
Y8	VSS[127]	W26
T42	VSS[128]	W16
T5	VSS[129]	W17
U4	VSS[130]	W18
U42	VSS[131]	W30
V10	VSS[132]	V32
V14	VSS[133]	V33
W3	VSS[134]	V38
AR22	VSS[135]	V4
AR13	VSS[136]	V8
AR31	VSS[137]	W18
AR33	VSS[138]	W20
AR4	VSS[139]	W21
AT10	VSS[140]	W23
AT13	VSS[141]	W25
AT35	VSS[142]	A44
AT37	VSS[143]	BE1
AT42	VSS[144]	BD1
AU11	VSS[145]	B1
AU17	VSS[146]	A2
BD30	VSS[147]	B2
W45	VSS[148]	A3
Y13	VSS[149]	A4
Y14	VSS[150]	B44
Y30	VSS[151]	B45
Y32	VSS[152]	
Y33	VSS[153]	
Y34	VSS[154]	
Y35	VSS[155]	
Y36	VSS[156]	
Y37	VSS[157]	
Y38	VSS[158]	
Y39	VSS[159]	
Y40	VSS[160]	
Y41	VSS[161]	
Y42	VSS[162]	
Y43	VSS[163]	
Y44	VSS[164]	
Y45	VSS[165]	
Y46	VSS[166]	
Y47	VSS[167]	
Y48	VSS[168]	
Y49	VSS[169]	
Y50	VSS[170]	
Y51	VSS[171]	
Y52	VSS[172]	
Y53	VSS[173]	
Y54	VSS[174]	
Y55	VSS[175]	
Y56	VSS[176]	
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Y58	VSS[178]	
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Y63	VSS[183]	
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Y65	VSS[185]	
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Y68	VSS[188]	
Y69	VSS[189]	
Y70	VSS[190]	
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Y74	VSS[194]	
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Y80	VSS[200]	
Y81	VSS[201]	
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Y85	VSS[205]	
Y86	VSS[206]	
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Y88	VSS[208]	
Y89	VSS[209]	
Y90	VSS[210]	
Y91	VSS[211]	
Y92	VSS[212]	
Y93	VSS[213]	
Y94	VSS[214]	
Y95	VSS[215]	
Y96	VSS[216]	
Y97	VSS[217]	
Y98	VSS[218]	
Y99	VSS[219]	
Y100	VSS[220]	

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CHIP GL82Z270 A0 INTEL[10HB1-03Z270-20R]

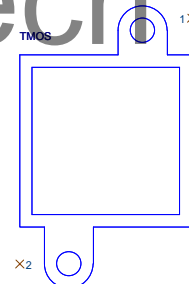
HEATSINK



Footprint : BGAHSINK-Z170M-D3H

Z270M-D3H SERIES PCH_HS[12SP2-S04407-01R_12SP2-S04407-02R_12SP2-S04407-03R]

Z270M-D3H Final Heat sink



Footprint :
MOSHSINK-Z1704-HD3

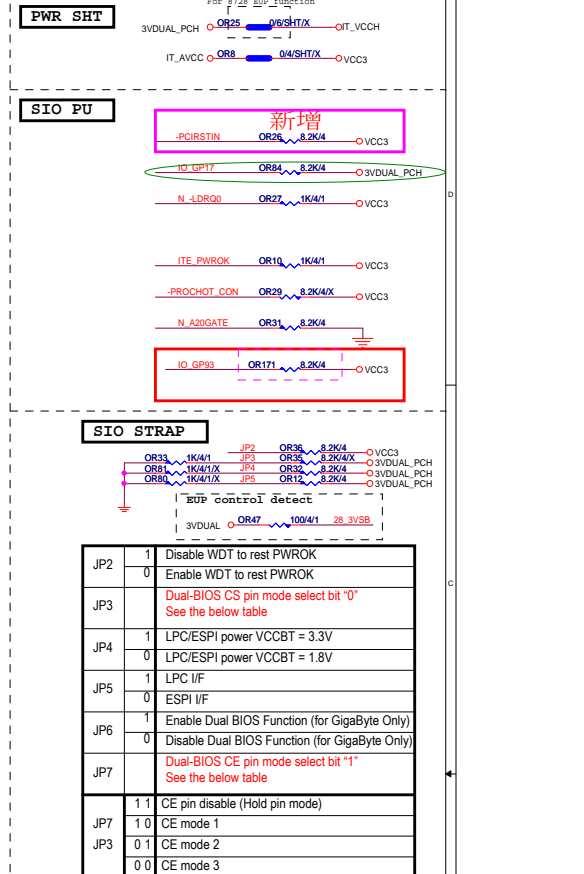
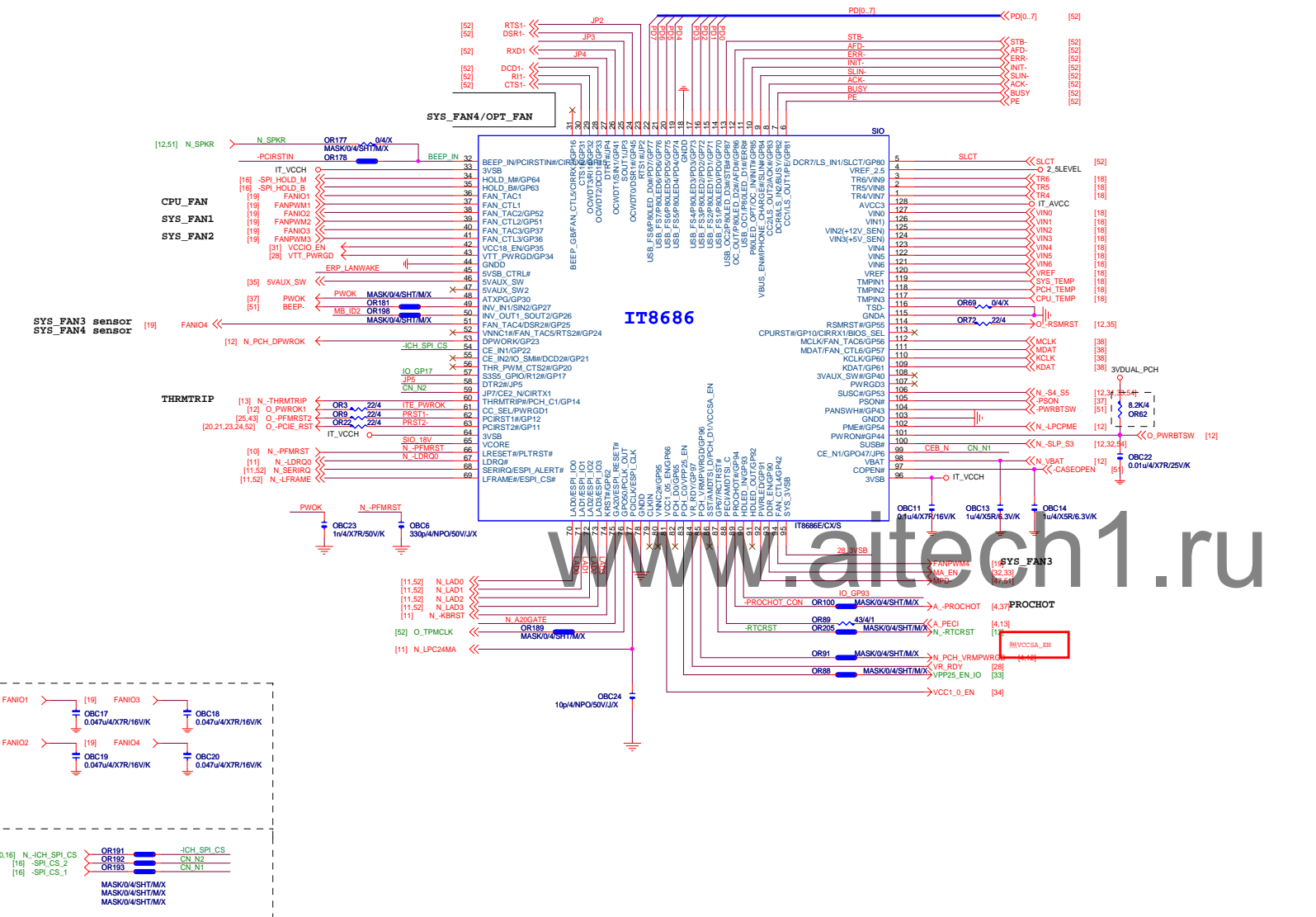
HEAT SINK[12SP2-S09425-B1R_12SP2-S09425-B2R_12SP2-S09425-B3R]

Z270M-D3H Final Heat sink

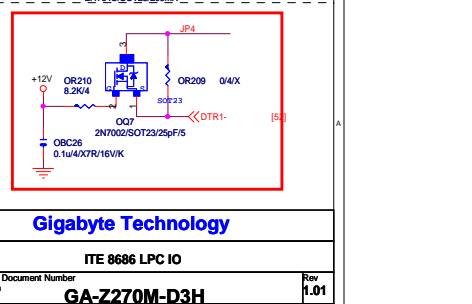
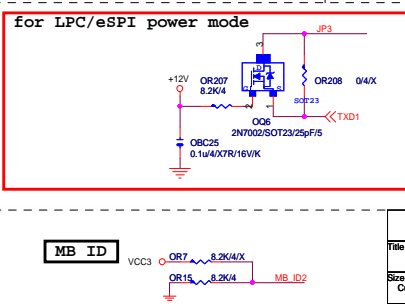
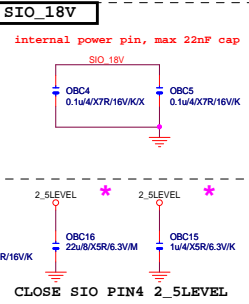
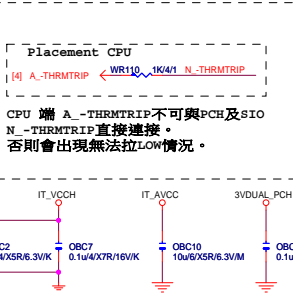
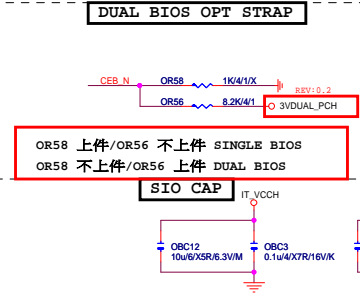
ANS 5014778 Gigabyte Technology			
Title			
PCH GND			
Size	Document Number	Rev	
Custom	GA-Z270M-D3H	1.01	
Date:	Wednesday, November 30, 2016	Sheet	15 of 57



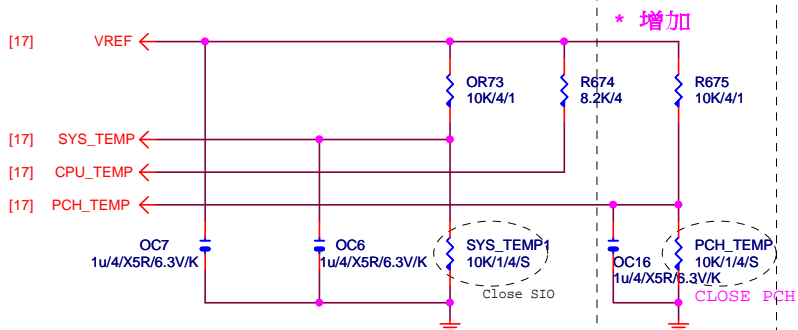
* 試產先上，PVT 移除



FAN TABLE	
CPU_FAN	FAN_CTL1 FAN_TAC1
SYS_FAN1	FAN_CTL2 FAN_TAC2
SYS_FAN2	FAN_CTL3 FAN_TAC3
SYS_FAN3	FAN_CTL4 FAN_TAC4
OPT_FAN or SYS_FAN4	FAN_CTL5 FAN_TAC5
THRMTrip	PIN56
PROCHOT	PIN89

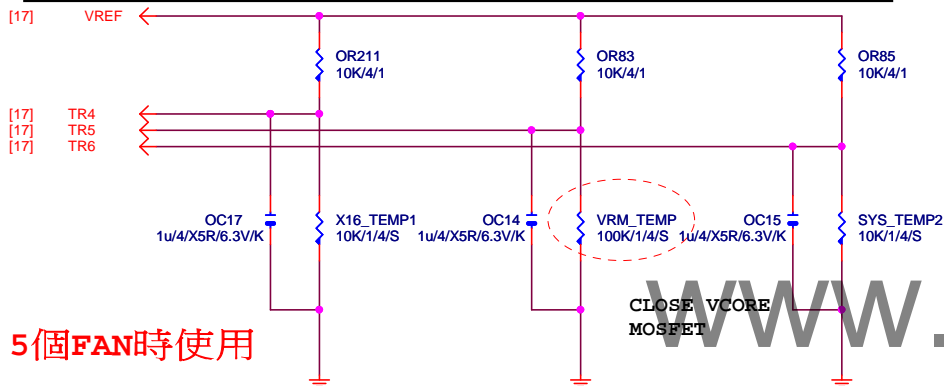


TEMP H/W MONITOR



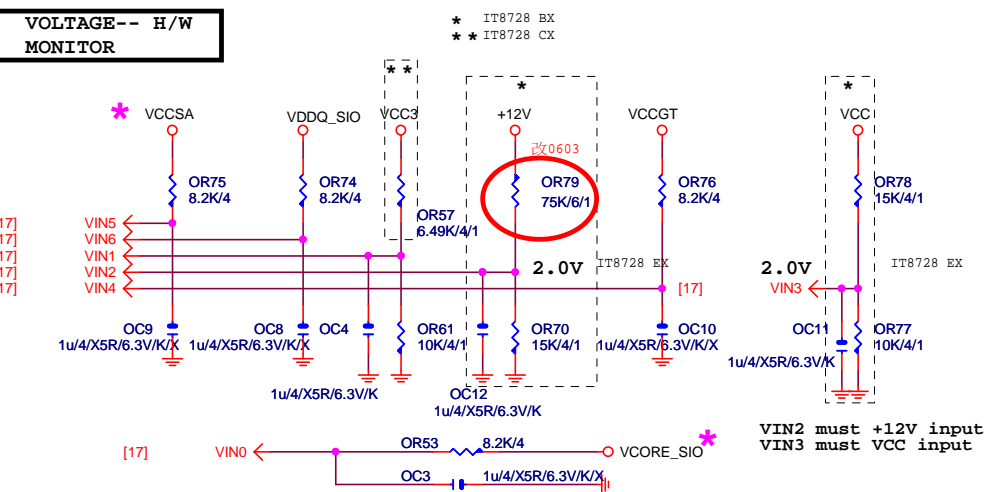
RS VCORE、RS VCCGT、CLOSE CPU VCORE & VCCGT MOSFET

-PROCHOT:有mos heatsink不用prochot function

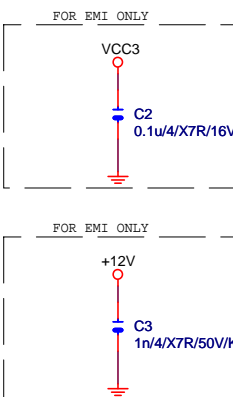


5個FAN時使用

VOLTAGE-- H/W MONITOR



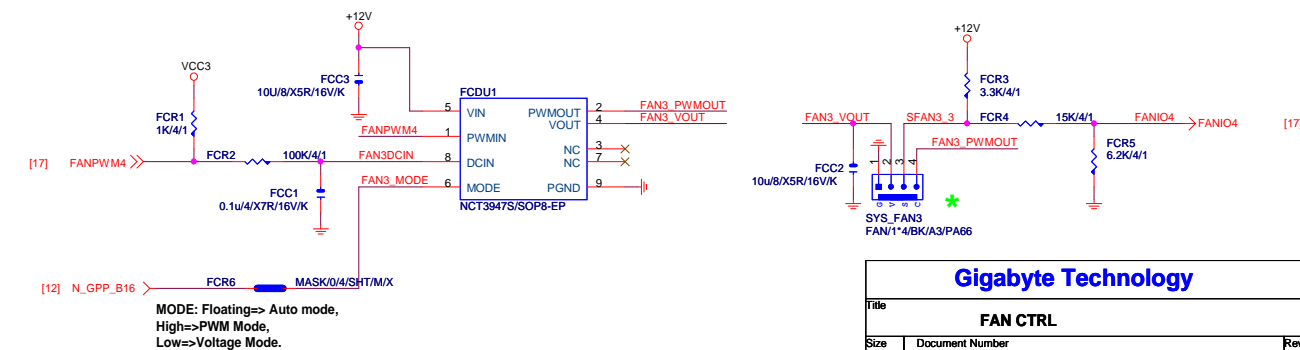
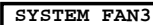
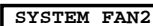
The division voltage of VIN2 & VIN3 must be around 2.9V

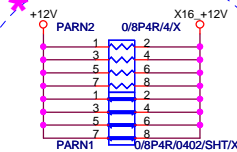


★Update 2015-04.24

Gigabyte Technology

Title		
HWM,KB/MS, FAN CTRL		
Size	Document Number	Rev
Custom	GA-Z270M-D3H	1.01
Date: Wednesday, November 30, 2016		
Sheet 18 of 57		



+12V - protect
short-wire test[8,9,12,21,26,28,31,36,41] N_SMBCLK
[8,9,12,21,26,28,31,36,41] N_SMBDATA

[12,21,25,26,52] N_-PCIE_WAKE

[10] -PCIE16_PR

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]

PA_EXP_TXP0	PAC5	0.22u4/X5R6.3V/K	PA_EXP_TXP0_C
PA_EXP_TXN0	PAC4	0.22u4/X5R6.3V/K	PA_EXP_TXN0_C
PA_EXP_TXP1	PAC6	0.22u4/X5R6.3V/K	PA_EXP_TXP1_C
PA_EXP_TXN1	PAC7	0.22u4/X5R6.3V/K	PA_EXP_TXN1_C
PA_EXP_TXP2	PAC8	0.22u4/X5R6.3V/K	PA_EXP_TXP2_C
PA_EXP_TXN2	PAC9	0.22u4/X5R6.3V/K	PA_EXP_TXN2_C
PA_EXP_TXP3	PAC10	0.22u4/X5R6.3V/K	PA_EXP_TXP3_C
PA_EXP_TXN3	PAC11	0.22u4/X5R6.3V/K	PA_EXP_TXN3_C
PA_EXP_TXP4	PAC12	0.22u4/X5R6.3V/K	PA_EXP_TXP4_C
PA_EXP_TXN4	PAC13	0.22u4/X5R6.3V/K	PA_EXP_TXN4_C
PA_EXP_TXP5	PAC14	0.22u4/X5R6.3V/K	PA_EXP_TXP5_C
PA_EXP_TXN5	PAC15	0.22u4/X5R6.3V/K	PA_EXP_TXN5_C
PA_EXP_TXP6	PAC16	0.22u4/X5R6.3V/K	PA_EXP_TXP6_C
PA_EXP_TXN6	PAC17	0.22u4/X5R6.3V/K	PA_EXP_TXN6_C
PA_EXP_TXP7	PAC18	0.22u4/X5R6.3V/K	PA_EXP_TXP7_C
PA_EXP_TXN7	PAC19	0.22u4/X5R6.3V/K	PA_EXP_TXN7_C
PA_EXP_TXP8	PAC21	0.22u4/X5R6.3V/K	PA_EXP_TXP8_C
PA_EXP_TXN8	PAC20	0.22u4/X5R6.3V/K	PA_EXP_TXN8_C
PA_EXP_TXP9	PAC22	0.22u4/X5R6.3V/K	PA_EXP_TXP9_C
PA_EXP_TXN9	PAC23	0.22u4/X5R6.3V/K	PA_EXP_TXN9_C
PA_EXP_TXP10	PAC24	0.22u4/X5R6.3V/K	PA_EXP_TXP10_C
PA_EXP_TXN10	PAC25	0.22u4/X5R6.3V/K	PA_EXP_TXN10_C
PA_EXP_TXP11	PAC26	0.22u4/X5R6.3V/K	PA_EXP_TXP11_C
PA_EXP_TXN11	PAC27	0.22u4/X5R6.3V/K	PA_EXP_TXN11_C
PA_EXP_TXP12	PAC28	0.22u4/X5R6.3V/K	PA_EXP_TXP12_C
PA_EXP_TXN12	PAC29	0.22u4/X5R6.3V/K	PA_EXP_TXN12_C
PA_EXP_TXP13	PAC30	0.22u4/X5R6.3V/K	PA_EXP_TXP13_C
PA_EXP_TXN13	PAC31	0.22u4/X5R6.3V/K	PA_EXP_TXN13_C
PA_EXP_TXP14	PAC32	0.22u4/X5R6.3V/K	PA_EXP_TXP14_C
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PA_EXP_TXP15	PAC34	0.22u4/X5R6.3V/K	PA_EXP_TXP15_C
PA_EXP_TXN15	PAC35	0.22u4/X5R6.3V/K	PA_EXP_TXN15_C

PA_EXP_TXP0_C
PA_EXP_TXN0_C
PA_EXP_TXP1_C
PA_EXP_TXN1_C
PA_EXP_TXP2_C
PA_EXP_TXN2_C
PA_EXP_TXP3_C
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PA_EXP_TXN15_C

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PA_EXP_TXN15_C

PA_EXP_TXP15_C
PA_EXP_TXN15_C

PCIE16 3GIO_*16

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PCIE16 3GIO_*16

PCIE16 3GIO_*16



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

黑色SLOT

PCIEX16:16/5/5/5/16

PCI-E REV:1.1--> 2.5GHZ

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

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

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

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

PCI-E REV:2.0--> 5GHZ

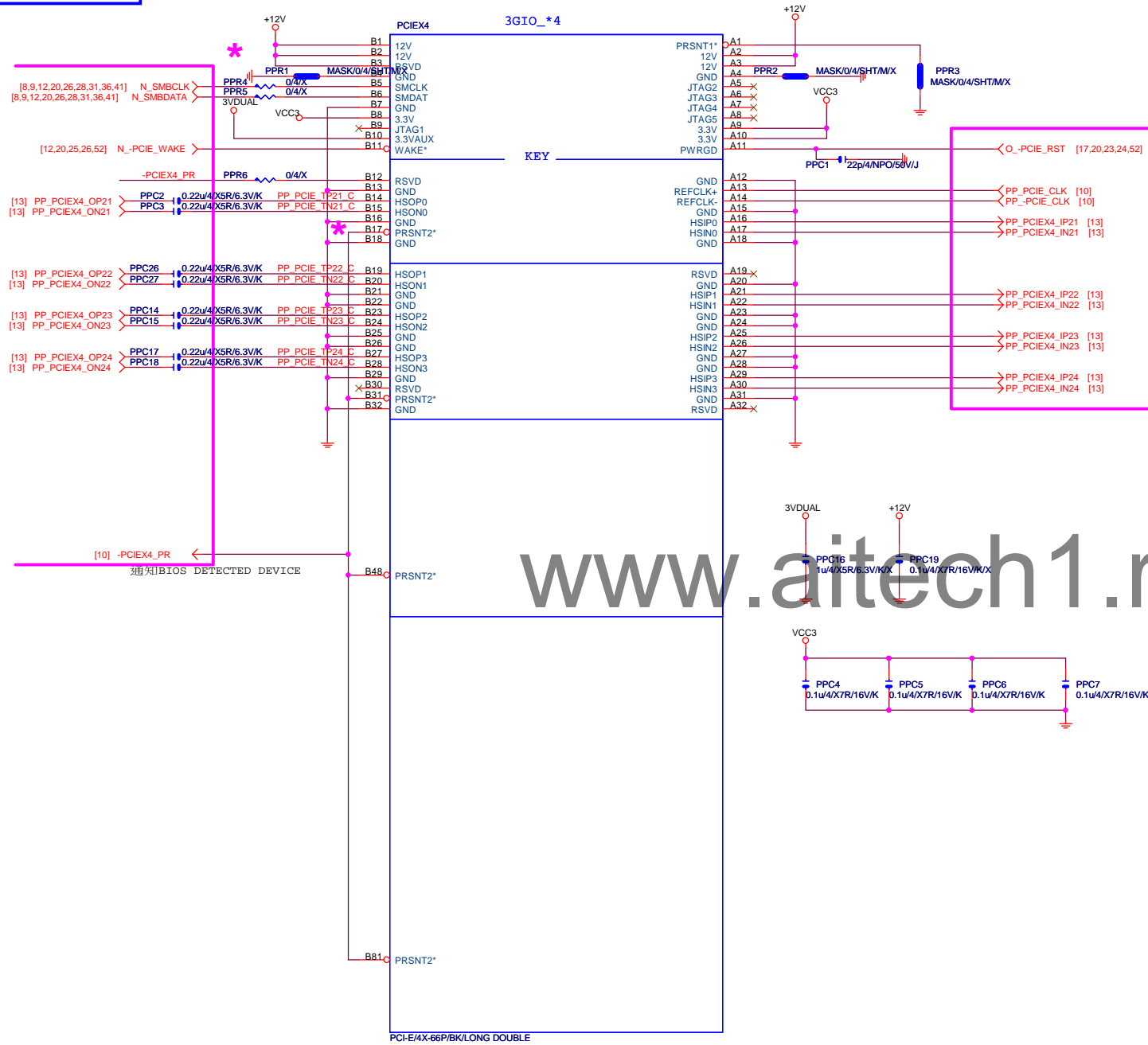
PCE-E X1(單向) BANDWITH=5GHz*(8b/10b)=4Gb/s=500MB/s

PCI-E REV:3.0--> 8GHZ

PCE-E X1(單向) BANDWITH=8GHz*(128b/130b)=8Gb/s=1GB/s

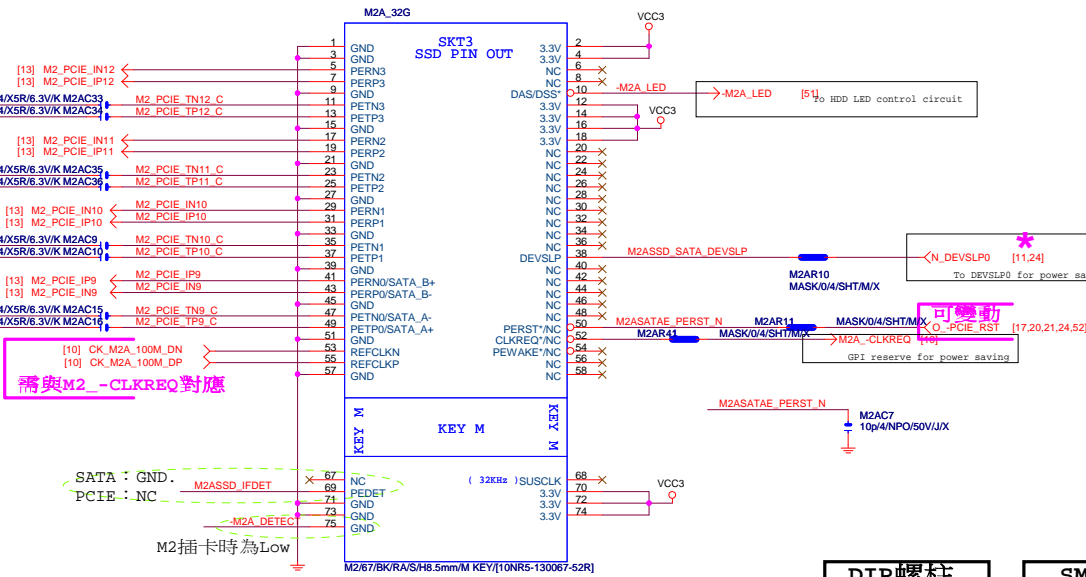
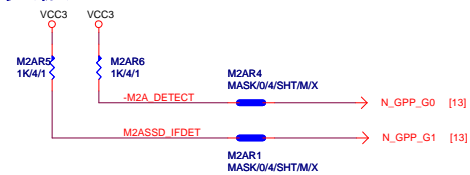
Gigabyte Technology

Title			PCI EXPRESS * 16
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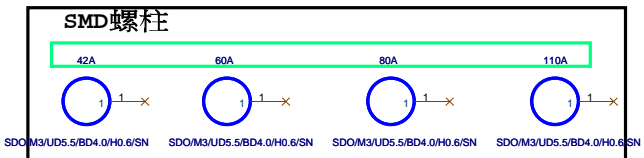
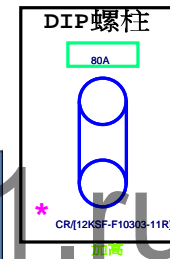
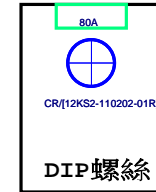
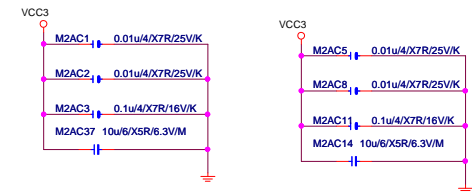
黑色

支援SATA and M.2 function



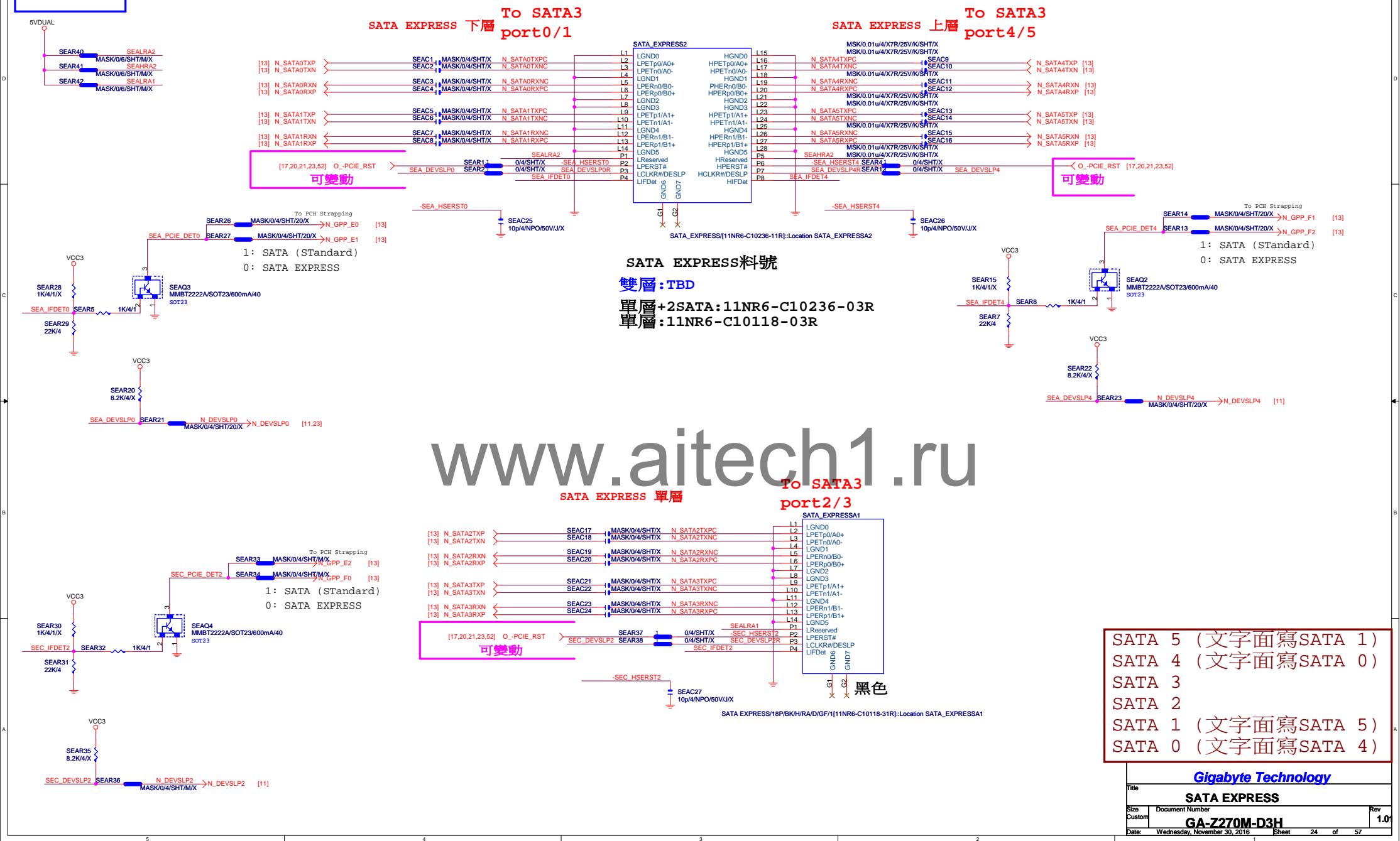
需與M2_-CLKREQ對應

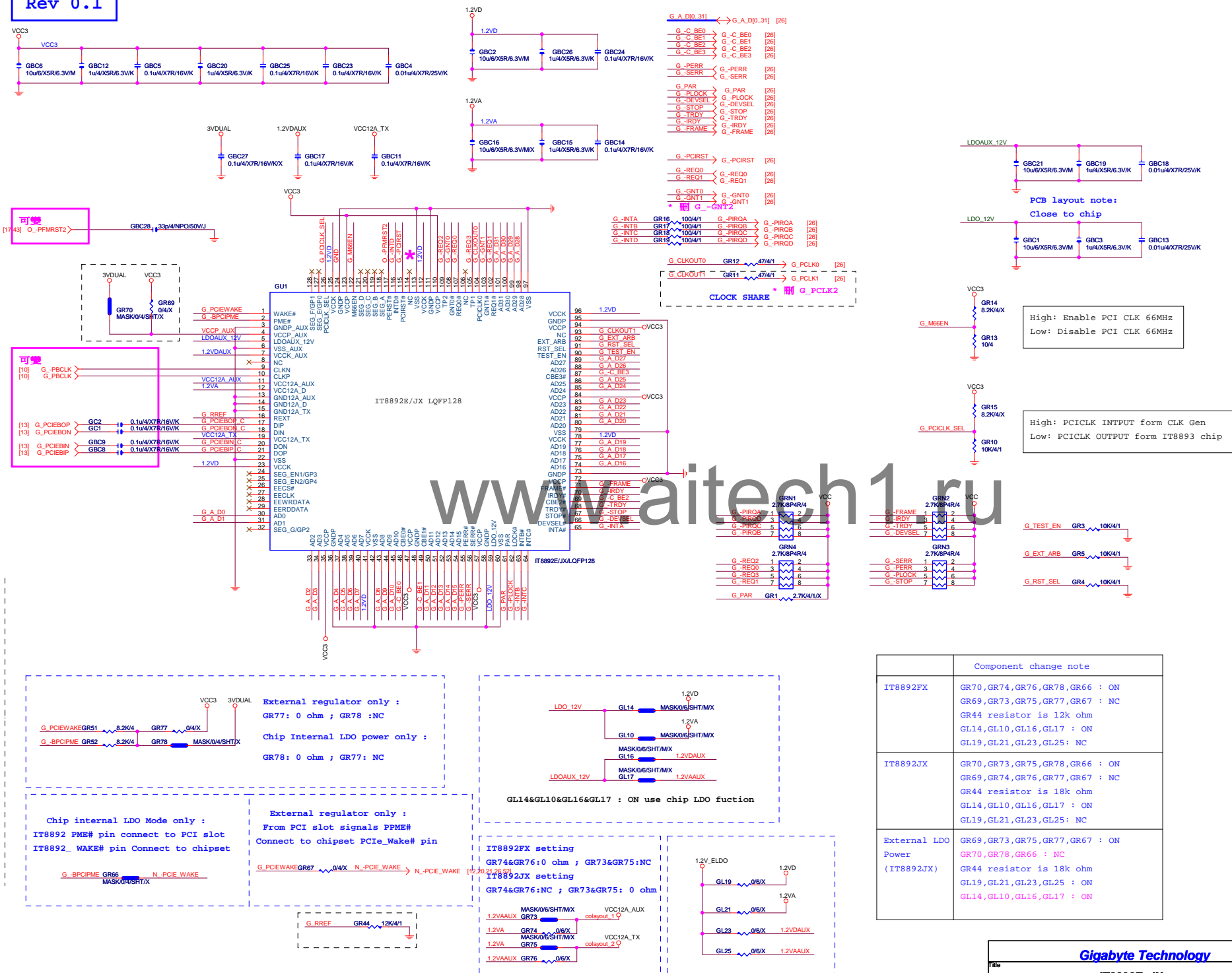
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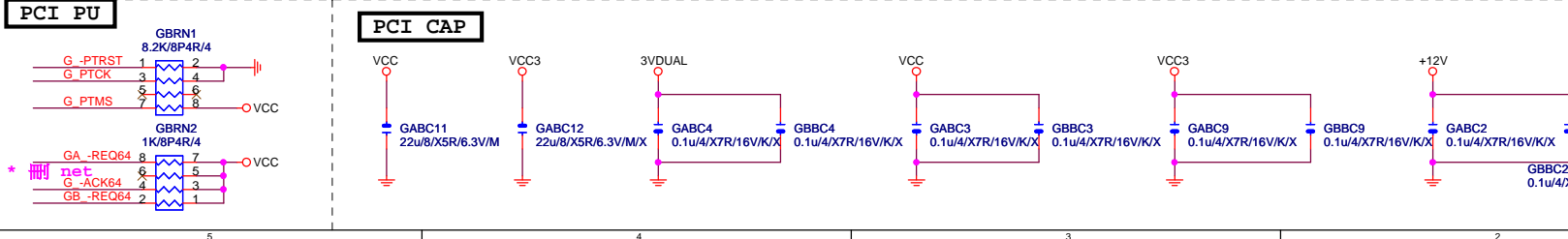
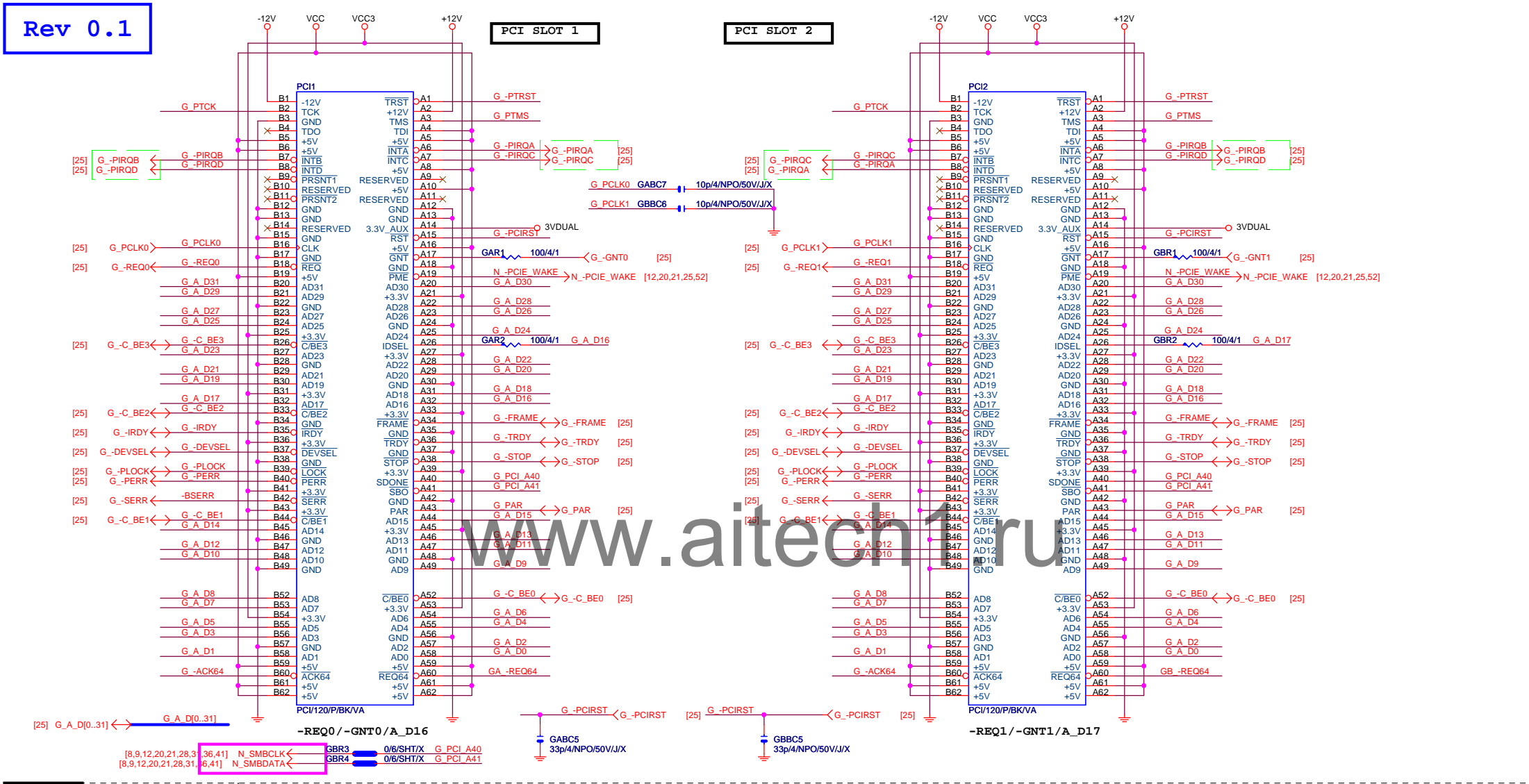
* Footprint : HOLE_C236D165-A

M. 2 有插卡 /沒插卡 GPP_G0	M. 2插何種卡？ GPP_G1	SATA Express 插何種硬碟？ GPP_E0/E2/F1	I015 (S0)	I016 (S1)	I017	I018	I019 (S0)	I020 (S1)
有插卡 (Low)	SATA Mode (Low)	SATA (Hi)	SATA (M. 2)	PCIe x1	PCIe x1	PCIe x1	PCIe x1	SATA
		SATA Express (Low)	SATA (M. 2)	PCIe x1	PCIe x1	PCIe x1	SATA Express	
	PCIe Mode (Hi)	SATA (Hi)	PCIe x4 (For M.2)				SATA	SATA
		SATA Express (Low)	PCIe x4 (For M.2)				SATA Express	
沒插卡 (Hi)	Don't Care (Hi)	SATA (Hi)	PCIe x4				SATA	SATA
		SATA Express (Low)	PCIe x4				SATA Express	





Rev 0.1



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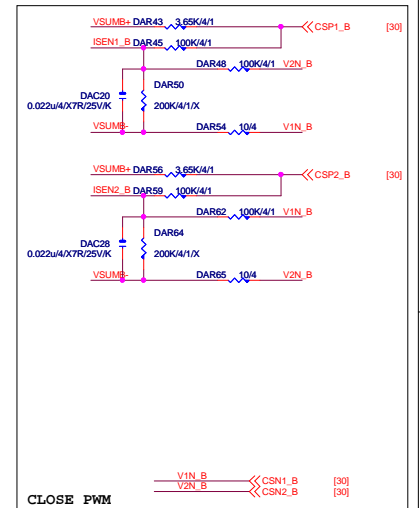
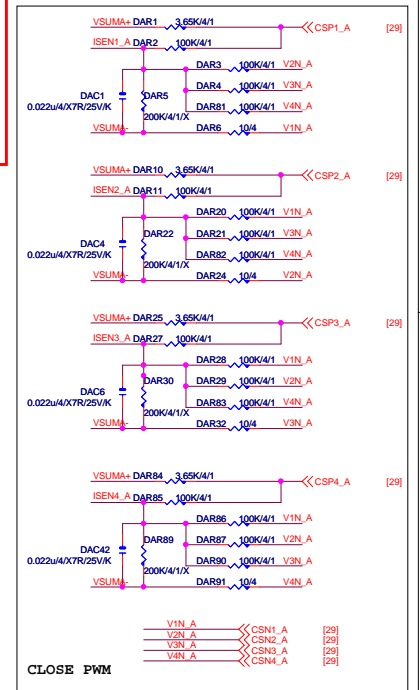
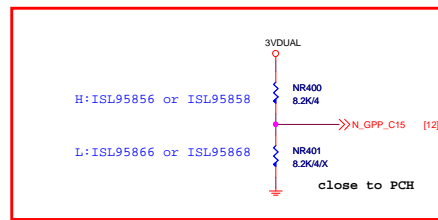
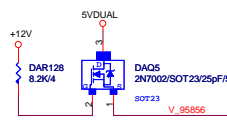
Rev 0.1



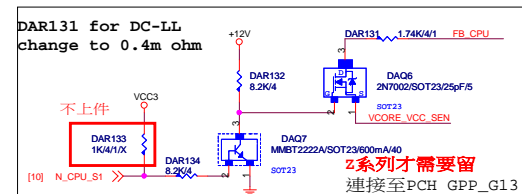
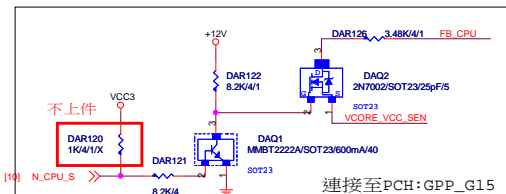
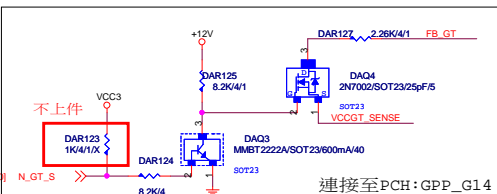
Gigabyte Technology			
Title			
LDO POWER			
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	3	2	1

GA-Z270M-D3H

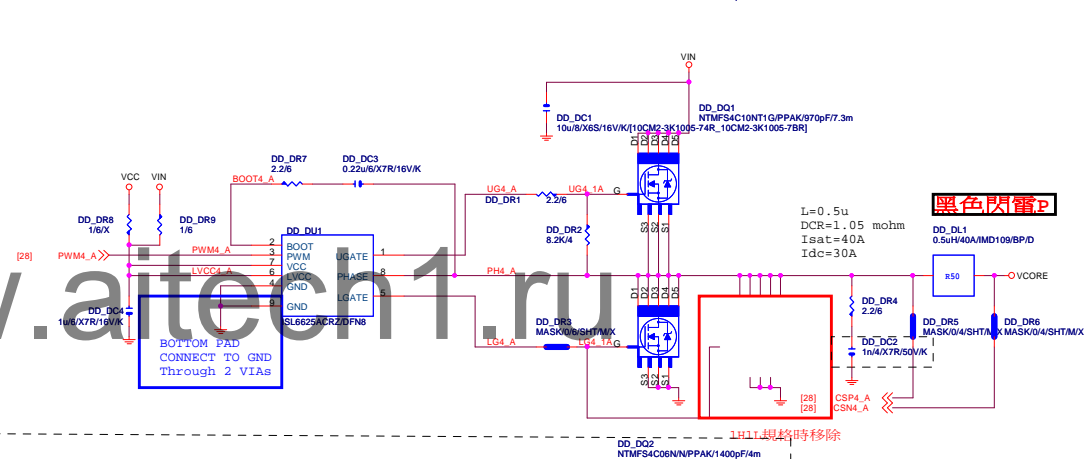
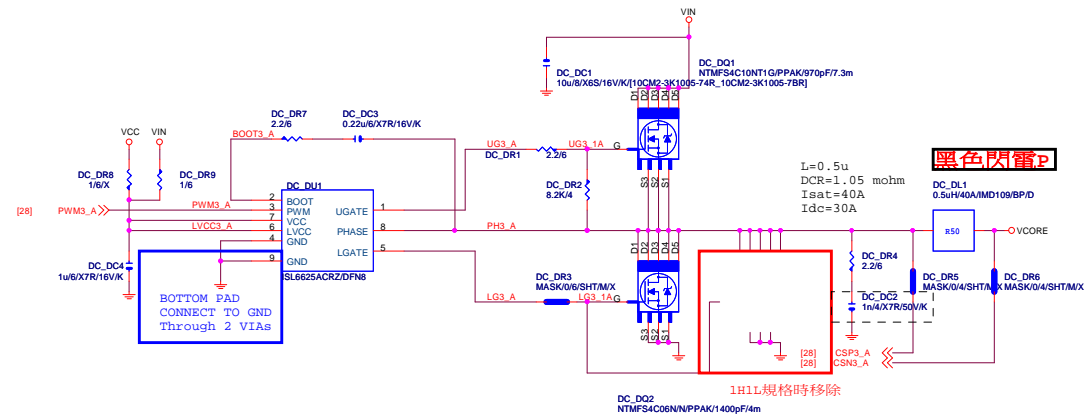
Rev
1.01



VSCORE	ISL95856	ISL95866	VCCGT	ISL95856	ISL95866
DAR137	X	V	DAR140	X	V
DAR138	V	X	DAR141	V	X
DAR139	X	V	DAR142	X	V
DAC15	V	X	DAC27	V	X
DAR79	V	X	DAR80	V	X
DAR33	V	X	DAR51	V	X

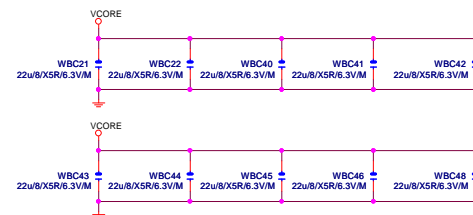
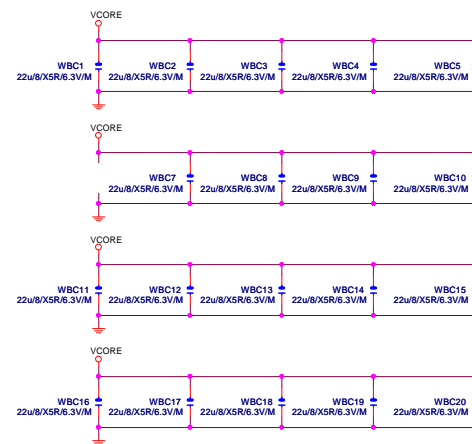
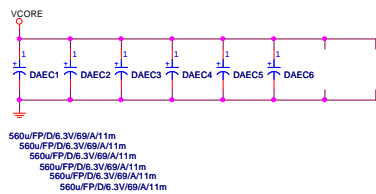


VCORE



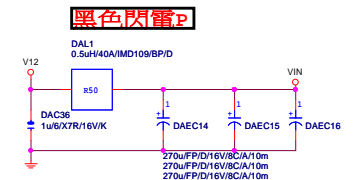
VCORE CAP

560u*8PCS
22u*29PCS

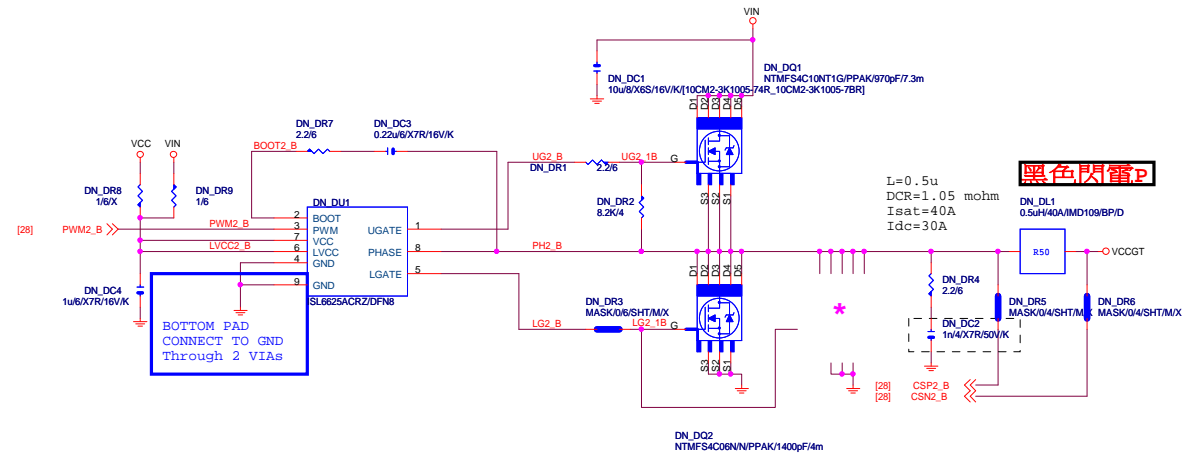
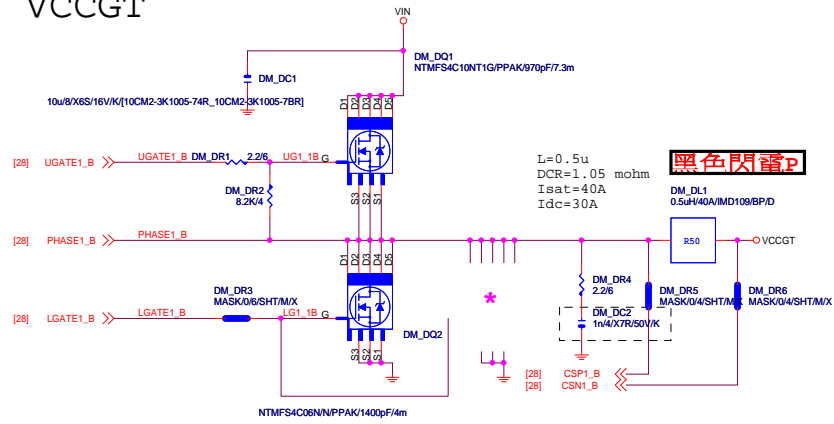


VIN CAP

270u*3PCS



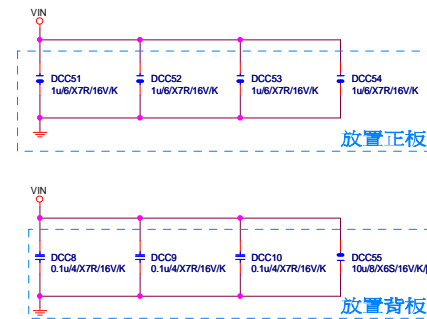
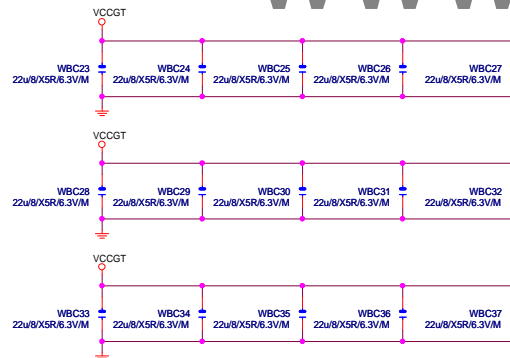
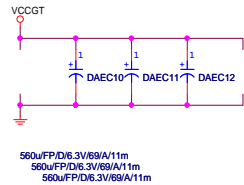
VCCGT



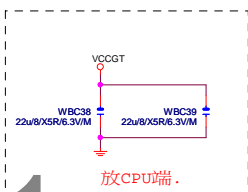
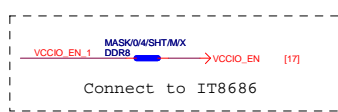
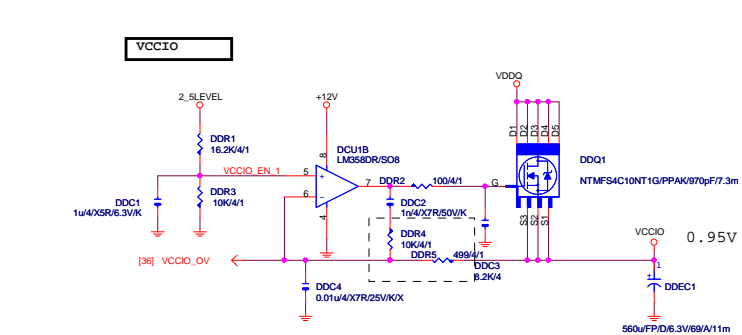
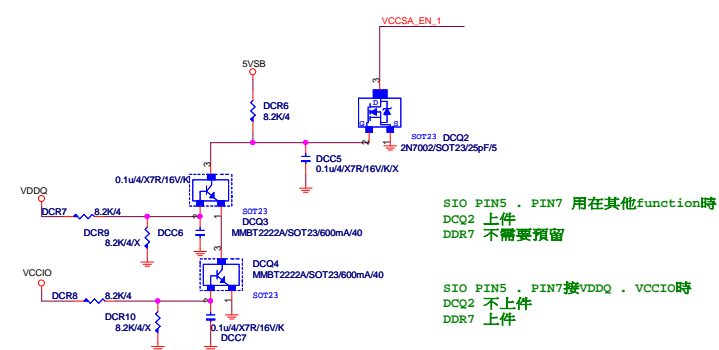
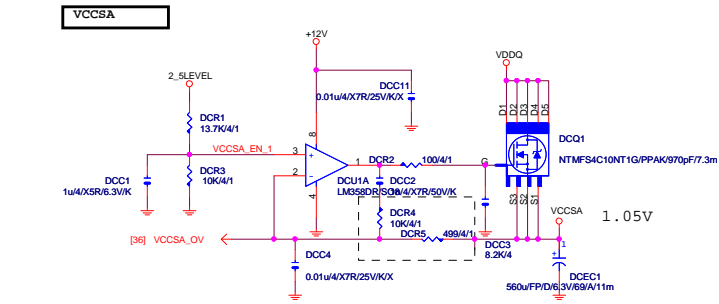
www.aitech1.ru

VCCGT CAP

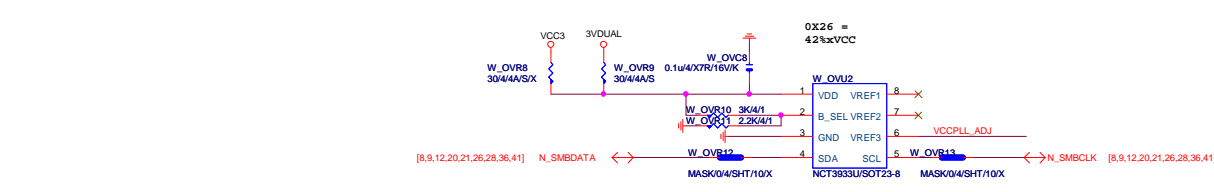
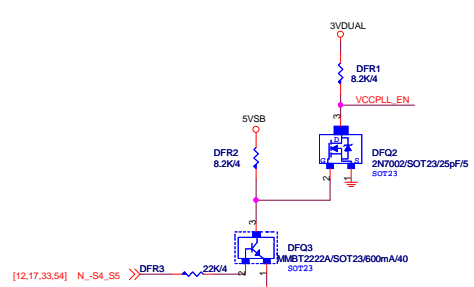
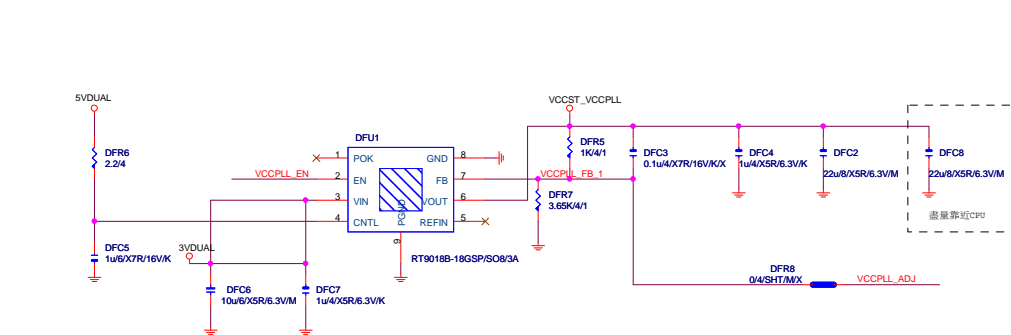
* 客戶指定，不拿掉

560u*5PCS
22u*15PCS

GIGABYTE™			
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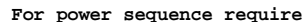
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REV: 0.1 (IRON CHOKE)



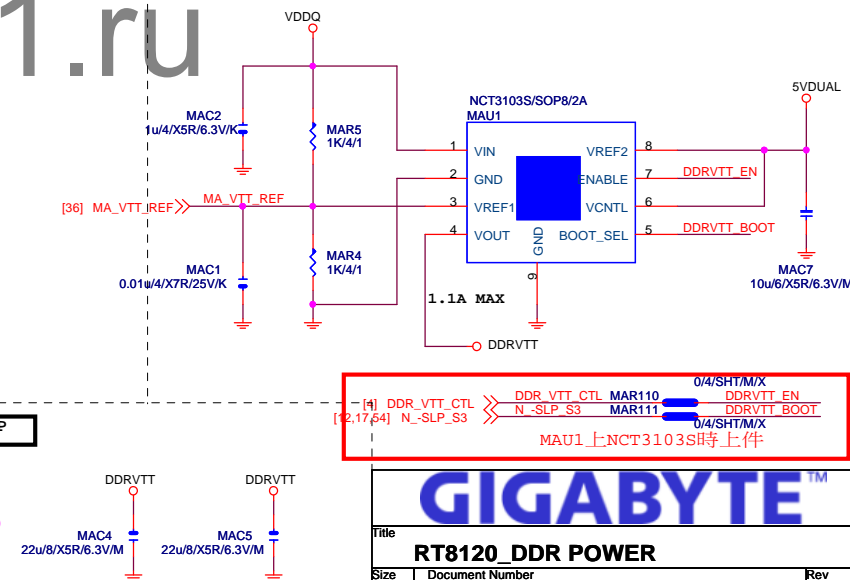
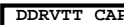
MOSFET請依MOSFET使用規則,自行選擇
ON-->10IF9-040406-10R[NTMFS4C06N/N/PPAK/1400pF/4m]
VISHAY-->10IF9-040012-10R[SIRA12DP/PPAKS08/2070pF/4.3m]



560u*4PCS

* 大電容 x4

22u*2PCS



[4] DDR_VTT_CTL DDR_VTT_CTL MAR110 DRDVTT_EN
 [2,17,54] N-SLP_S3 N-SLP_S3 MAR111 DRDVTT_BOOT

0/4/SHT/M/X
 0/4/SHT/M/X

MAU1上NCT3103S時上件

GIGABYTE™

RT8120_DDR POWER

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1.01

REV:0.1 (IRON CHOKE)

CHOKES與CAP料號可變



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RT8068A_VPP25 POWER			
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RT8120_PCH POWER			
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REV: 0.51

[17] 5VAUX SW



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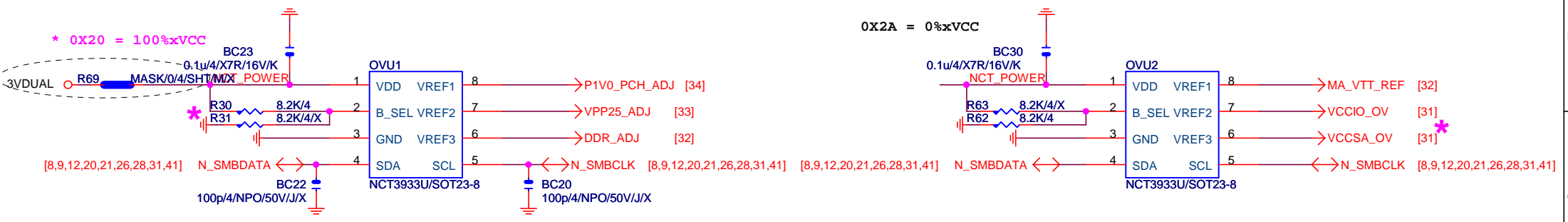


-RSMRST (不上件)



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DISCRETE POWER			
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OVER VOLTAGE



NCT3933	0X20	0X2A
VREF1	VCC1_0_PCH	DDRVTT
VREF2	VPP_25V	VCCIO
VREF3	VDDQ	VCCSA

Gigabyte Technology

TitleCPU CORE VR-2

Size Custom

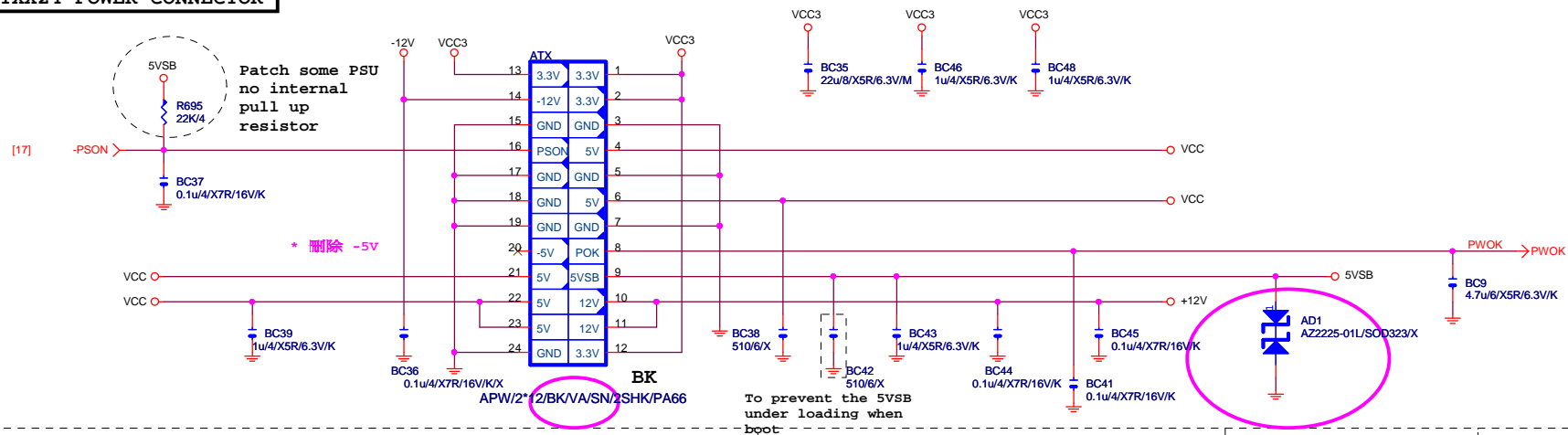
Document Number

Rev1.01

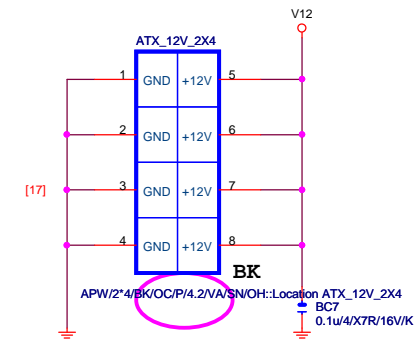
Date: Wednesday, November 30, 2016

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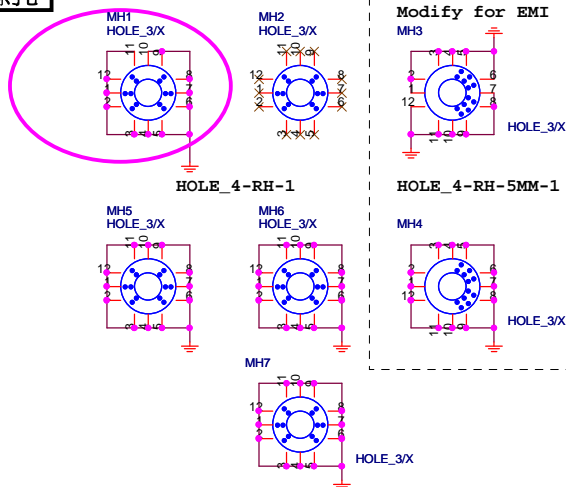
ATXX24 POWER CONNECTOR



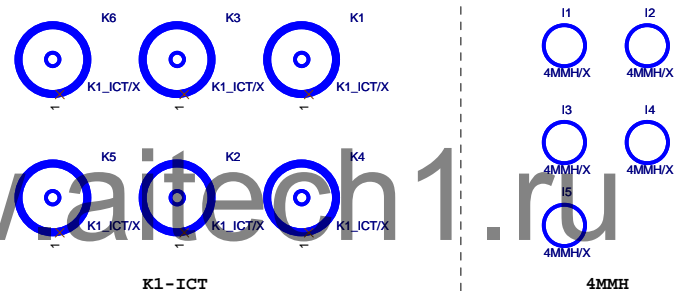
ATXX4 POWER CONNECTOR



螺絲孔

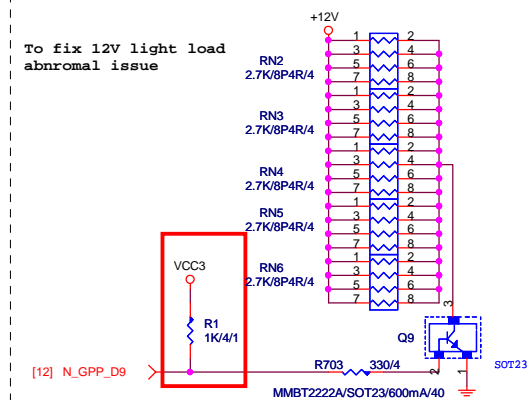


固定孔/光學點



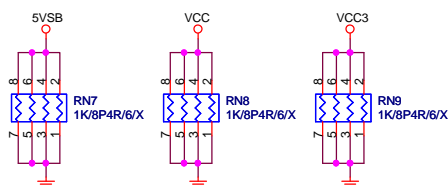
To prevent the 5VSB
under loading when
boot

+12V DUMMY LOAD

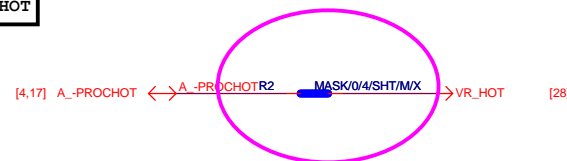


【技術通報R&D技術通報153】

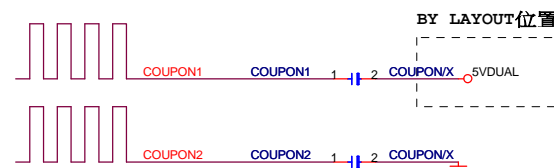
DUMMY LOAD



-PROHOT



COUPON



BY LAYOUT位置

Gigabyte Technology

Title			
ATX POWER CONNECTOR			
Size Custom	Document Number	GA-Z270M-D3H	Rev 1.01
Date:	Wednesday, November 30, 2016	Sheet	37 of 57

KB_MS_USB3

USB 電容前後NET 可自行調整

[11] N_-USBP9

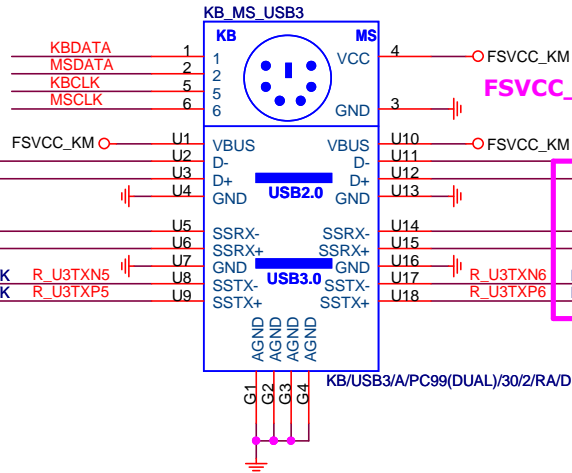
[11] N_+USBP9

[11] PCH_USB3_RXN9

[11] PCH_USB3_RXP9

[11] PCH_USB3_TXN9

[11] PCH_USB3_TXP9



FSVCC_KM 請確認是否要用 USB_DAC(Page.12) power.

USB 電容前後NET 可自行調整

[11] N_-USBP10

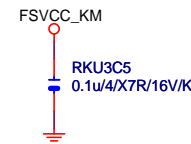
[11] N_+USBP10

[11] PCH_USB3_RXN10

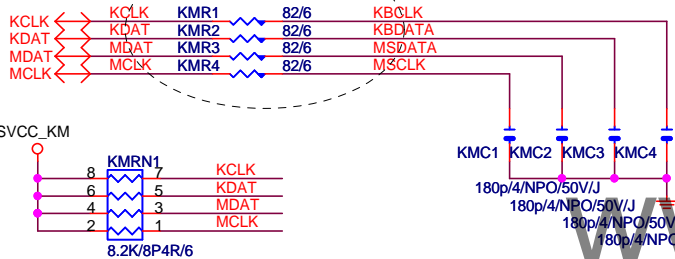
[11] PCH_USB3_RXP10

[11] PCH_USB3_TXN10

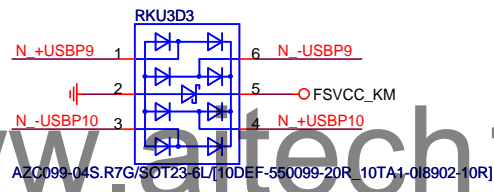
[11] PCH_USB3_TXP10



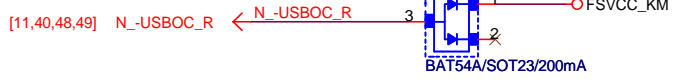
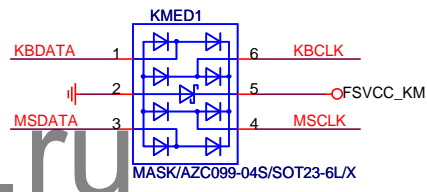
FOR 鹽化短路



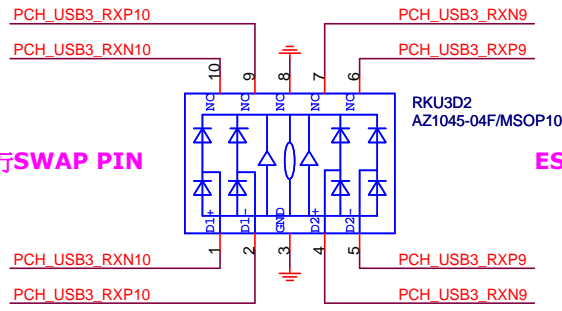
ESD 可自行SWAP PIN



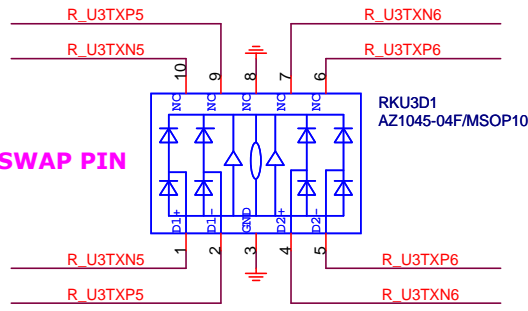
ESD 可自行SWAP PIN



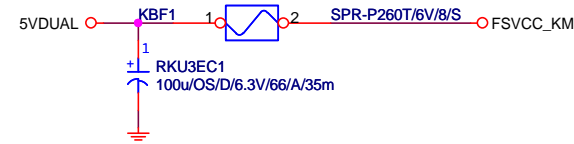
ESD 可自行SWAP PIN



ESD 可自行SWAP PIN



FUSE 2 Port 1 Fuse 2.6A



Gigabyte Technology

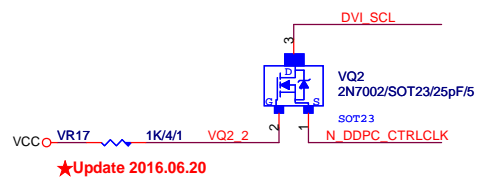
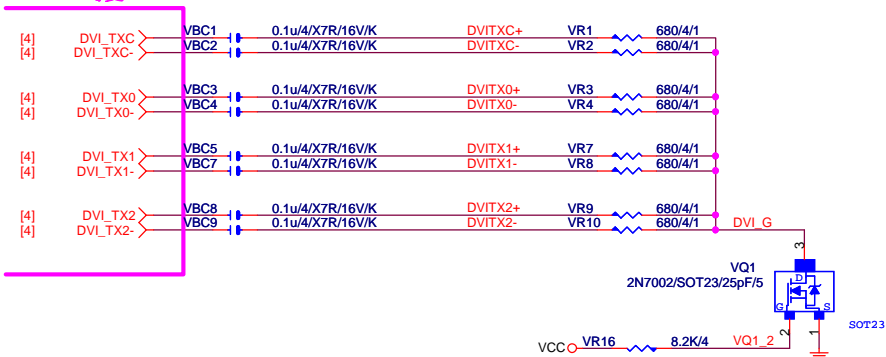
Title		
KB_MS_USB		
Size	Document Number	Rev
Custom	GA-Z270M-D3H	1.01
Date:	Wednesday, November 30, 2016	Sheet 38 of 57

DVI

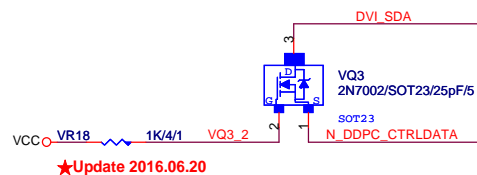
Rev: 0.81

DVI:20/4/6/4/20
Impedance=85 +- 17.5%

NET 可變

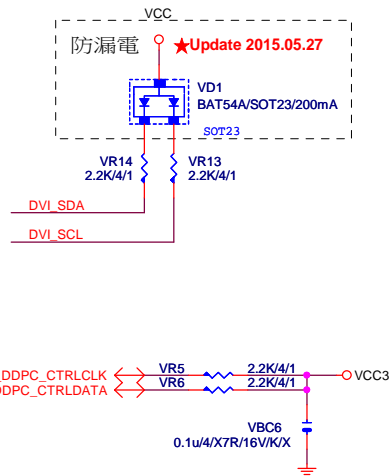


★Update 2016.06.20



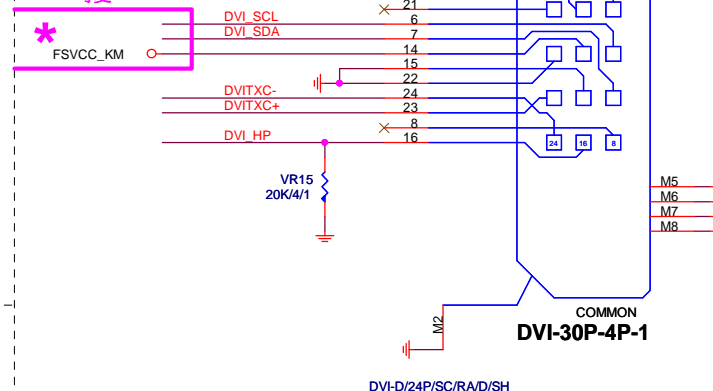
★Update 2016.06.20

DVI PU

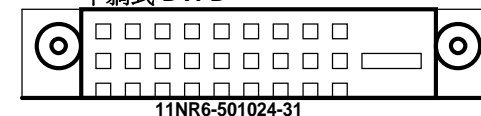


DVI CONN

NET 可變

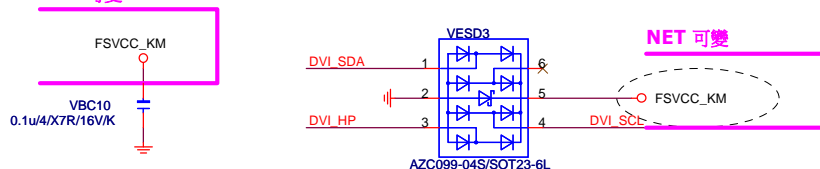


平躺式 DVI-D

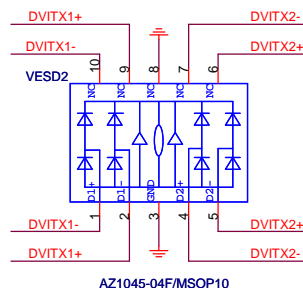


ESD

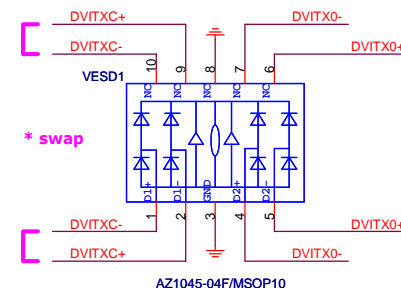
NET 可變



Close to connector



Close to connector



Close to connector

Gigabyte Technology

	Title
--	-------

DVI

Size	Document Number
Custom	

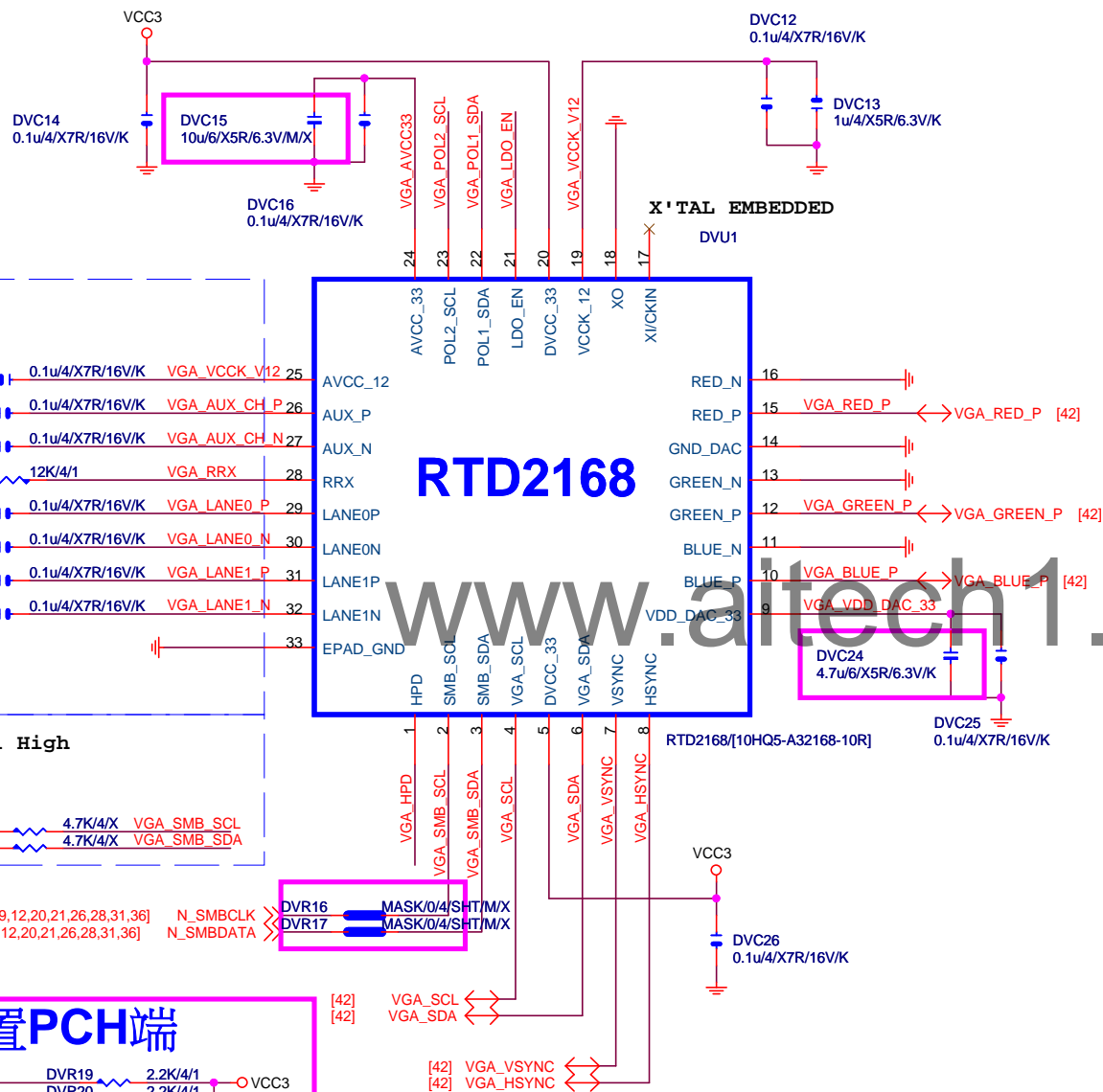
GA-Z270M-D3H

Rev	1.01
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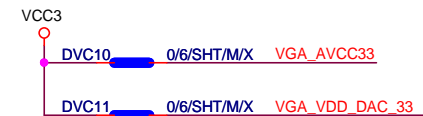
Date: Wednesday, November 30, 2016

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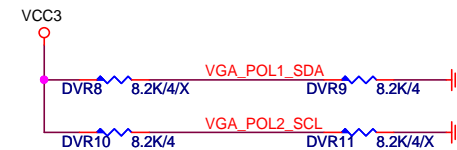
1



POWER

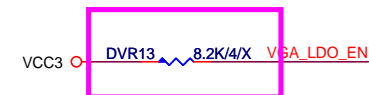


Power on latch



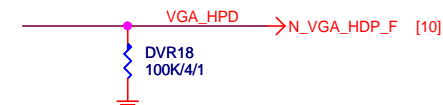
		POL1_SDA(PIN22)	
		0	1
POL2_SCL (PIN23)	0	X	EP MODE
	1	ROM ONLY MODE	EEPROM MODE

Embedded LDO



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

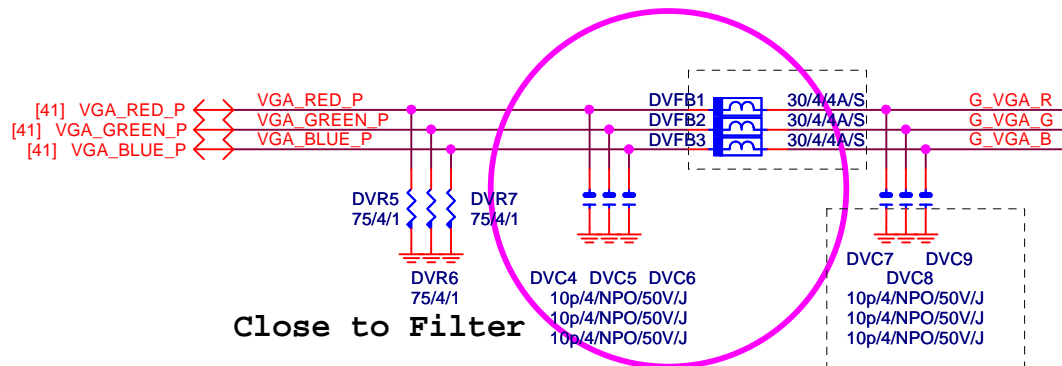
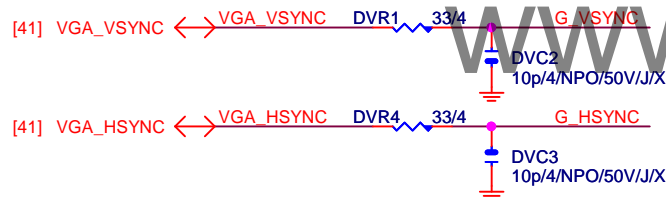
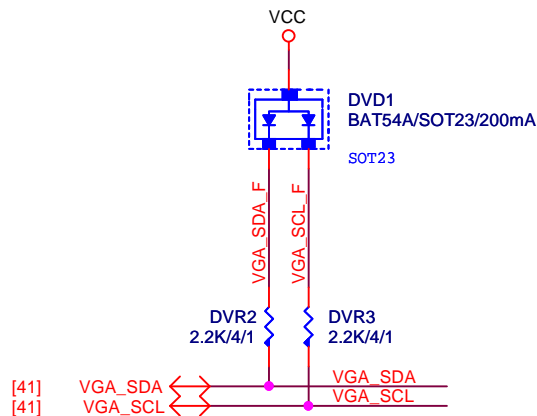
DP HPD



Gigabyte Technology
DP-VGA RTD2168

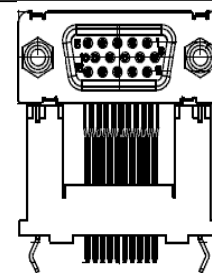
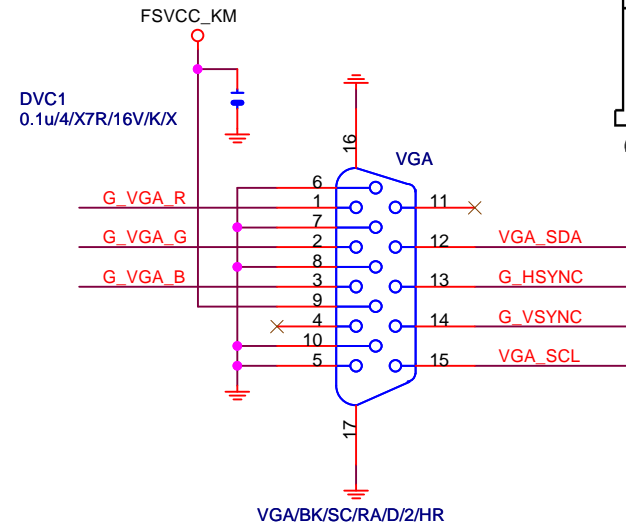
Size Custom	Document Number GA-Z270M-D3H	Rev 1.01
Date: Wednesday, November 30, 2016	Sheet 41 of 57	

VGA SIGNAL R1.03

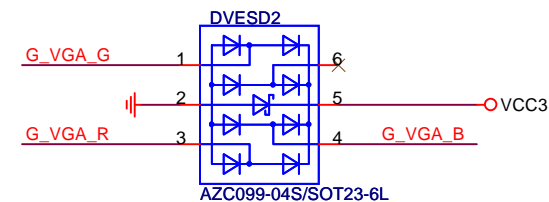
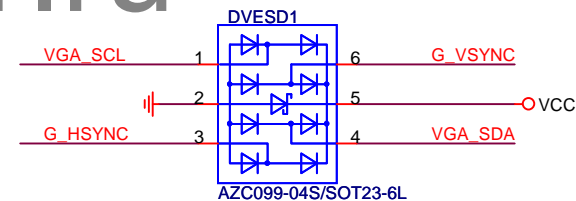


FOR EMI

VGA CONN. 架高型VGA (BLACK)



VGA ESD



Gigabyte Technology			
Title DP-VGA RTD2168			
Size Custom	Document Number GA-Z270M-D3H		Rev 1.01
Date:	Wednesday, November 30, 2016	Sheet 42	of 57

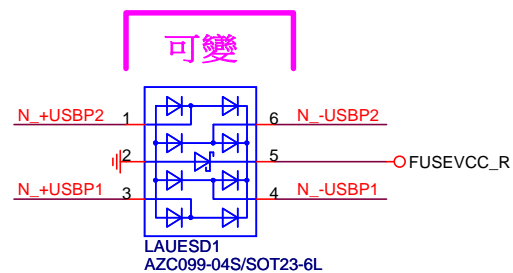
[illegible]

For當ErP enable後，挑PSU會無法LAN Wake-up

Gigabyte Technology
INTEL I219
GA-Z270M-D3H
Date: Wednesday, November 30, 2016 Sheet 43 of 57

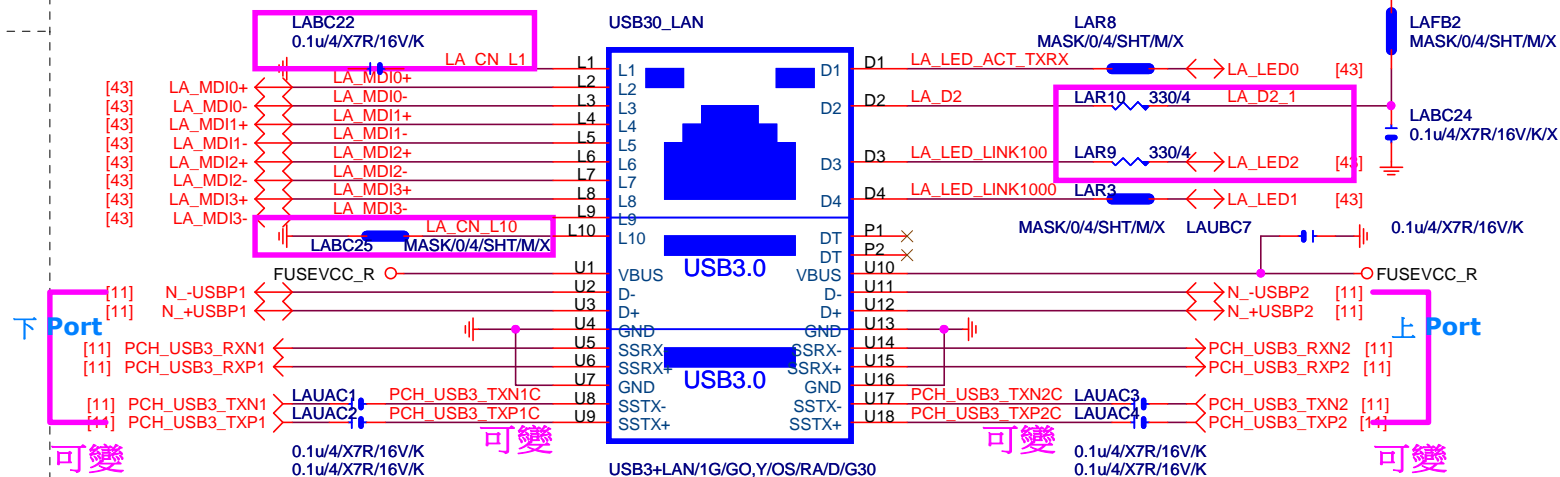
R1.11

note:可變更USB NAME



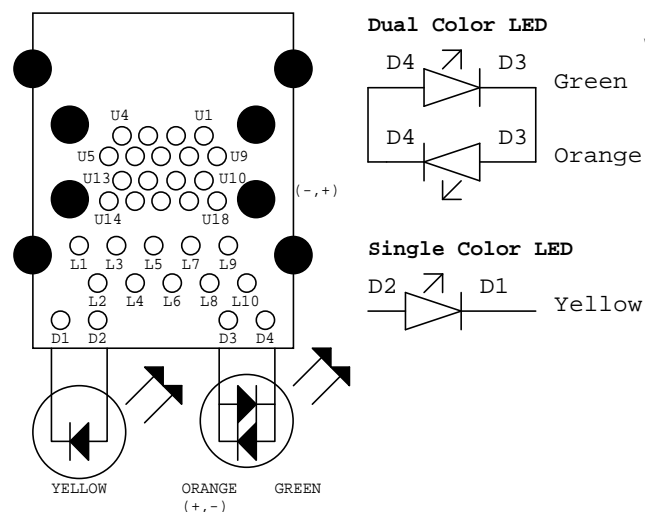
note:可變更USB NAME

[I219]



LA MDI-->100歐姆:[20/4/8/4/20]

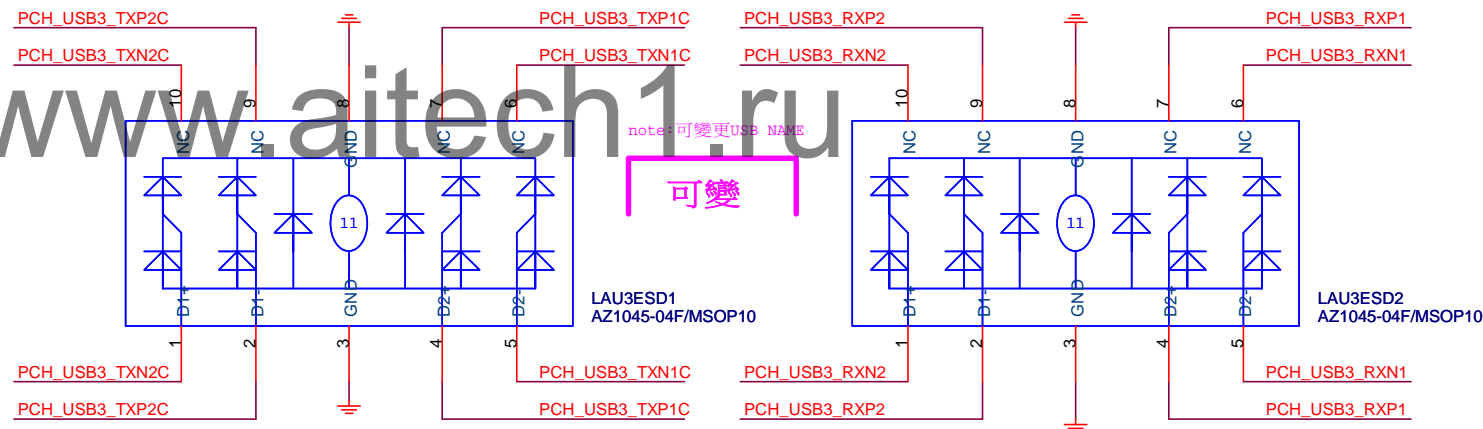
USB30_LAN LAYOUT示意圖



FOOT PRINT:LAN COVER

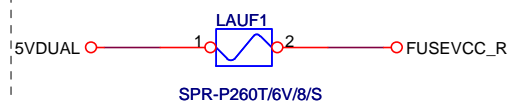
可變 [視SPEC需求]

*Del USB LAN HS



note:可變更FUSE

可變



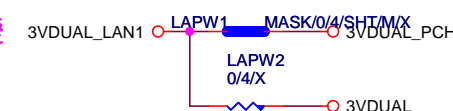
Close to connector
FUSE-0805

PS:視EMI需求



note: lan power連接及電流

可變

*
*

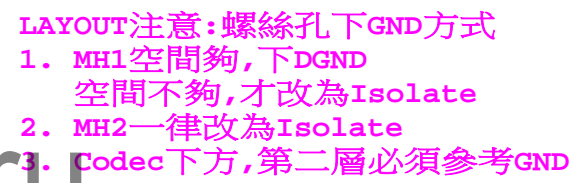
Gigabyte Technology

LAN CONNECTOR-I219

Size	Document Number
Custom	GA-Z270M-D3H


Rev	1.01
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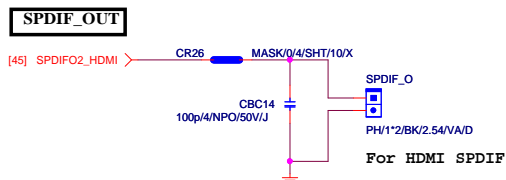
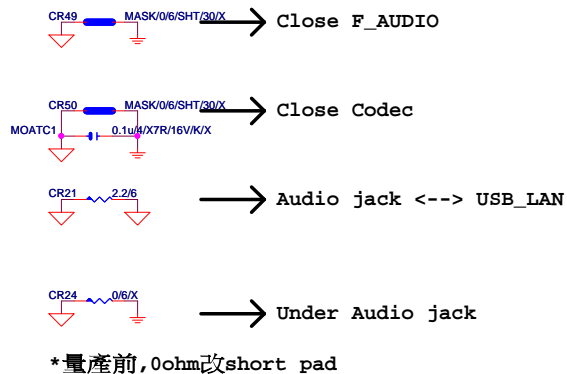


<input type="radio"/> MH1	<input type="radio"/> MH2	
DGND	Isolate	

*料號後補

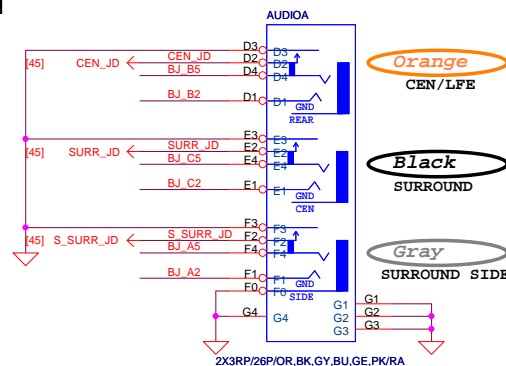
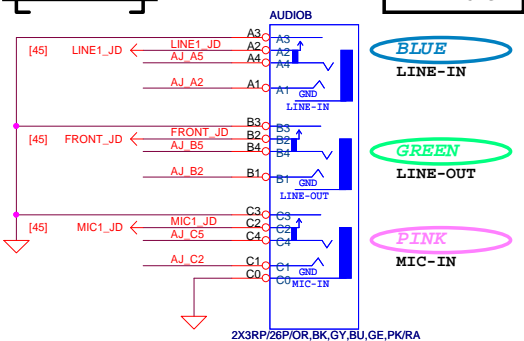
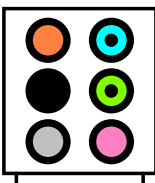
				
HD AUDIO ALC892				
Title				
Size Custom	Document Number GA-Z270M-D3H			Rev 1.01
Date: Wednesday, November 30, 2016		Sheet 45	of 57	

Rev 0.1

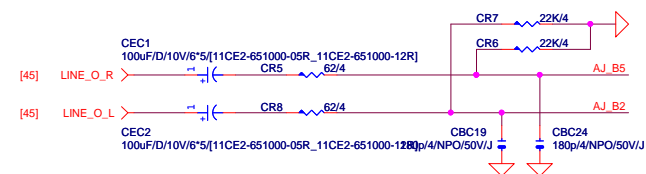


SPDIF_IN

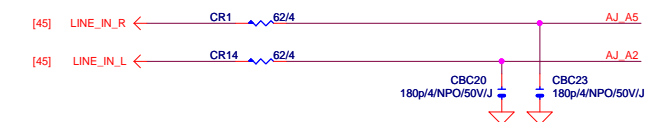
AZALIA JACK



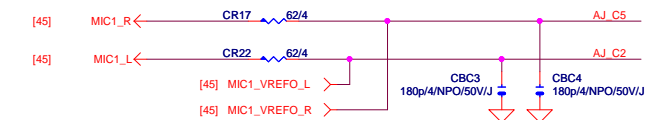
LINE-OUT



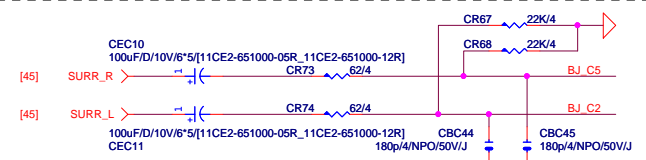
LINE-IN



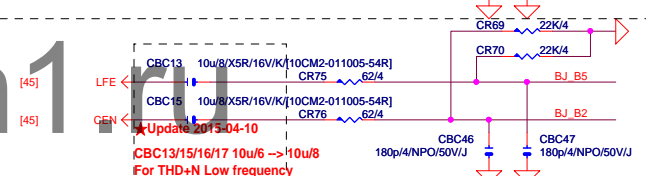
MIC-IN



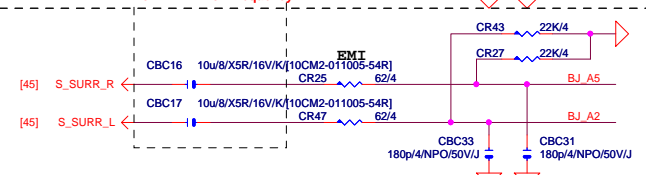
SURROUND



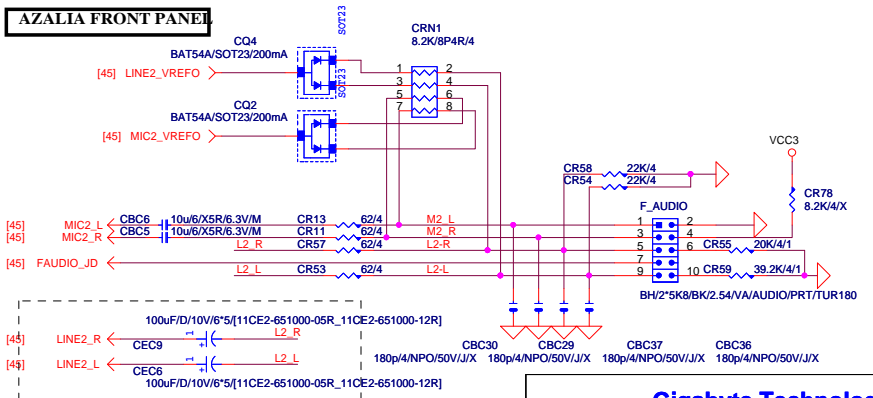
CEN/LFE



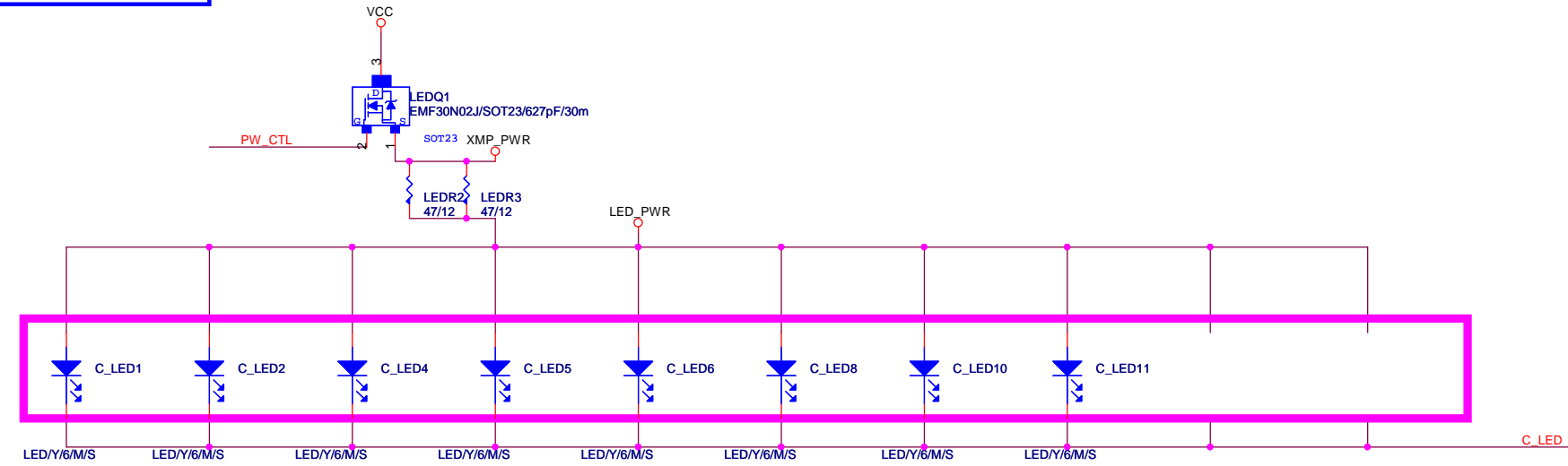
SURR BACK



AZALIA FRONT PANEL



Gigabyte Technology			
Title			
AUDIO JACK			
Size	Document Number	GA-Z270M-D3H	
Custom			Rev 1.01
Date:	Wednesday, November 30, 2016	Sheet	46 of 57

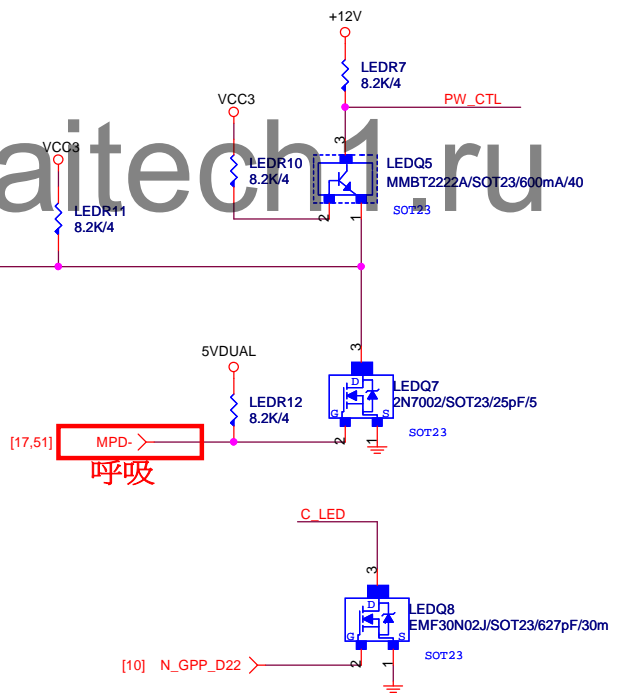


Ambient LED Control

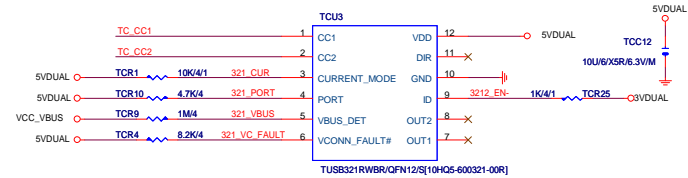
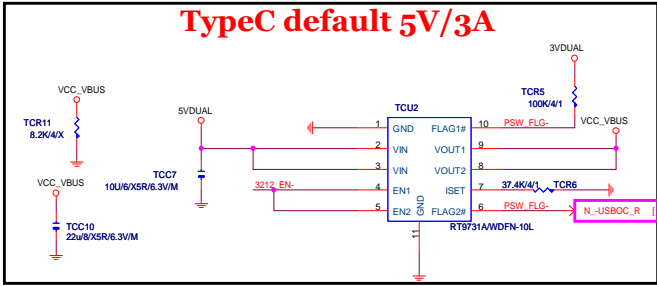
	N_GPP_D22	IO_GP91
Still Mode	H	L
OFF Mode	L	L
Pluse Mode	H	BREATH

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[10] N_GPP_D22 >
ON/OFF



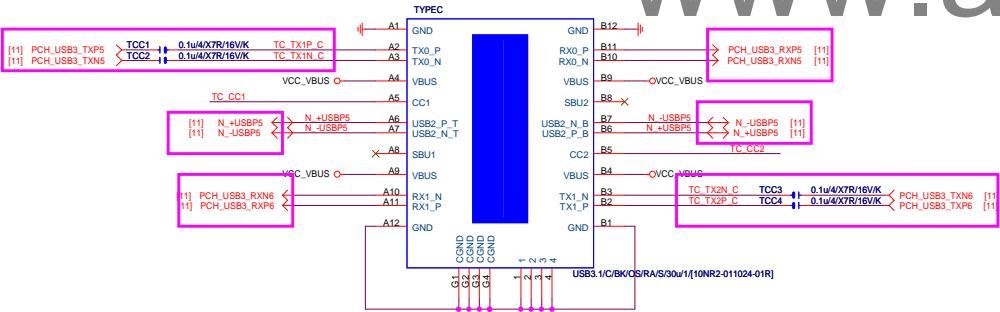
[17,51] MPD- >
呼吸



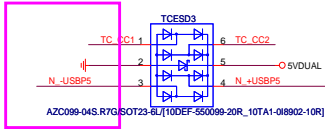
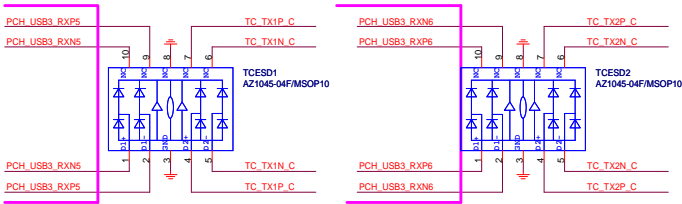
CURRENT MODE
L - Default current / Pull down to GND or NC
M - Medium (1.5A) current / Pull up to VDD 500K
H - High (3.0A) current / Pull up to VDD 10K

PORT
H - HOST
L - Device
NC - Dual Role

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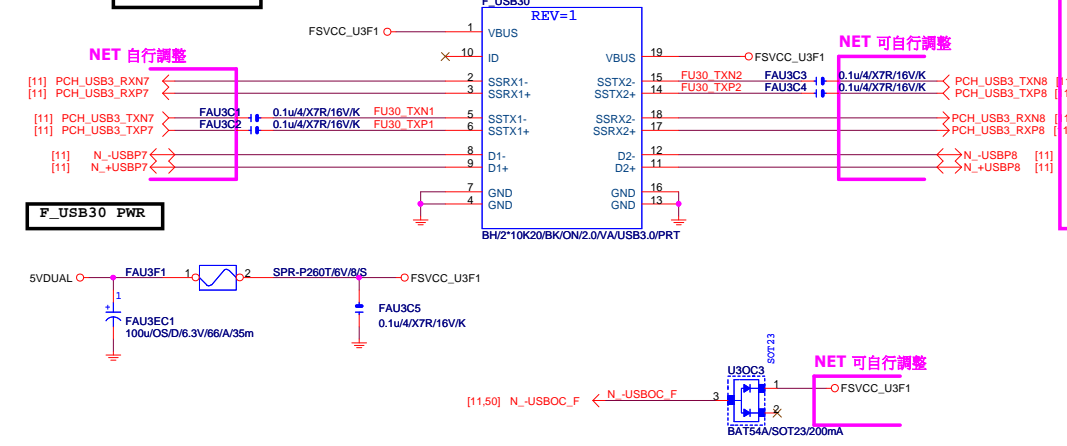


USB2.0 can be used the same source

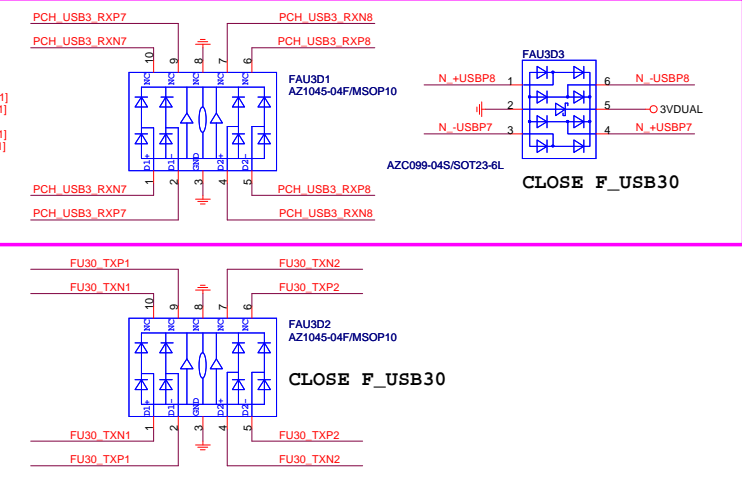


Color markers can be changed by model

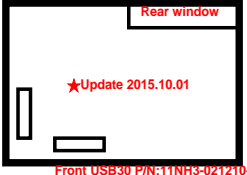
Front USB3.0



NET 可自行調整



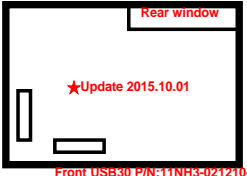
Front USB30 P/N:11NH3-021210-B1R/B2R



Front USB30 P/N:11NH3-021210-51R/52R

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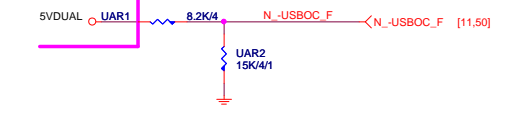
Front USB30 P/N:11NH3-021210-B1R/B2R



Front USB30 P/N:11NH3-021210-51R/52R

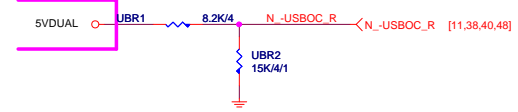
-USBOC_F

POWER 可自行調整

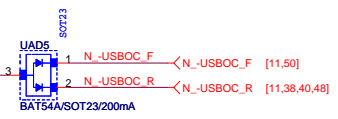


-USBOC_R

POWER 可自行調整



* 接 PCH N_GPP_G6(SMI) & PCH PU 3Vdual

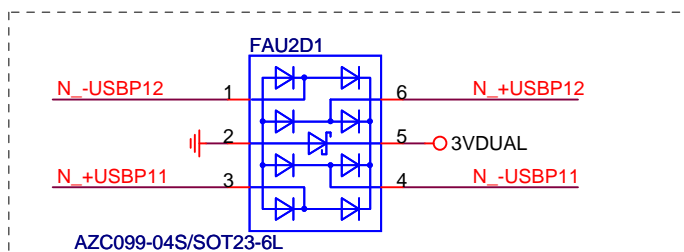
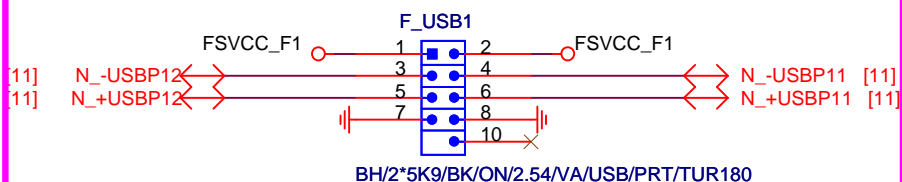


Rev: 0.81

FRONT USB1

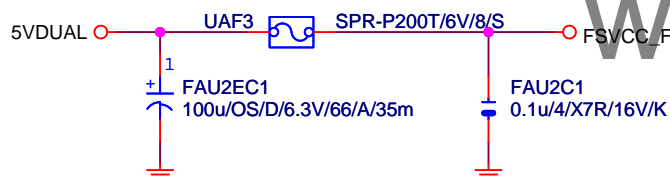
NET 可變

FUSB2X5-HS



Close to connector

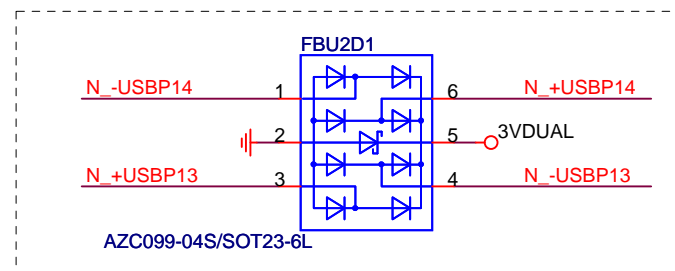
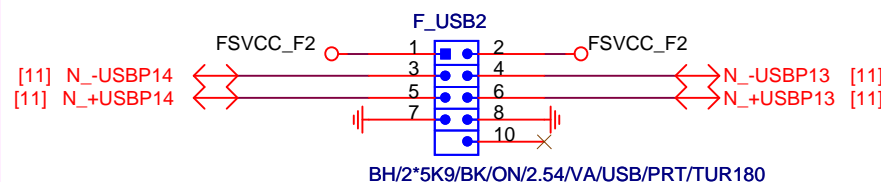
FUSE 2 Port 1 Fuse 2A



FRONT USB2

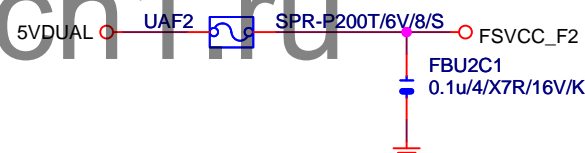
NET 可變

FUSB2X5-HS

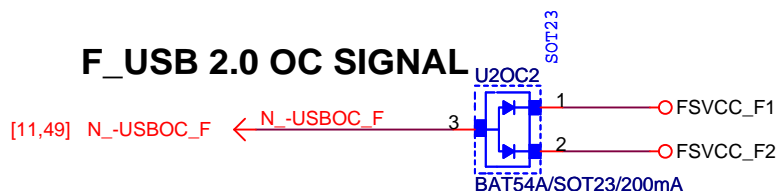


Close to connector

FUSE 2 Port 1 Fuse 2A



F_USB 2.0 OC SIGNAL



Gigabyte Technology

Title

USB2.0

Size
A

Document Number

GA-Z270M-D3H

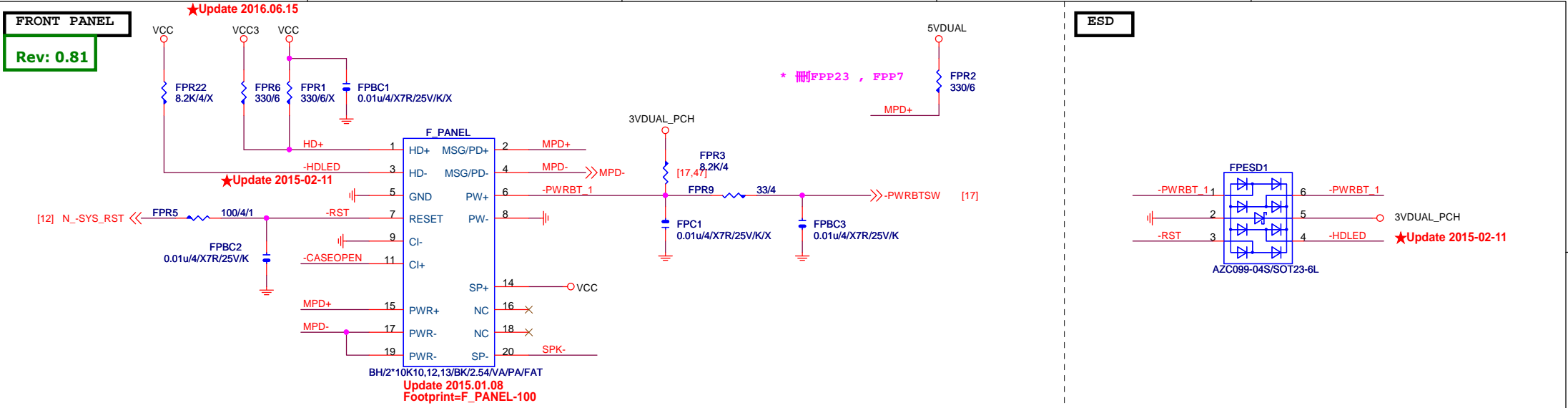
Rev
1.01

Date: Wednesday, November 30, 2016

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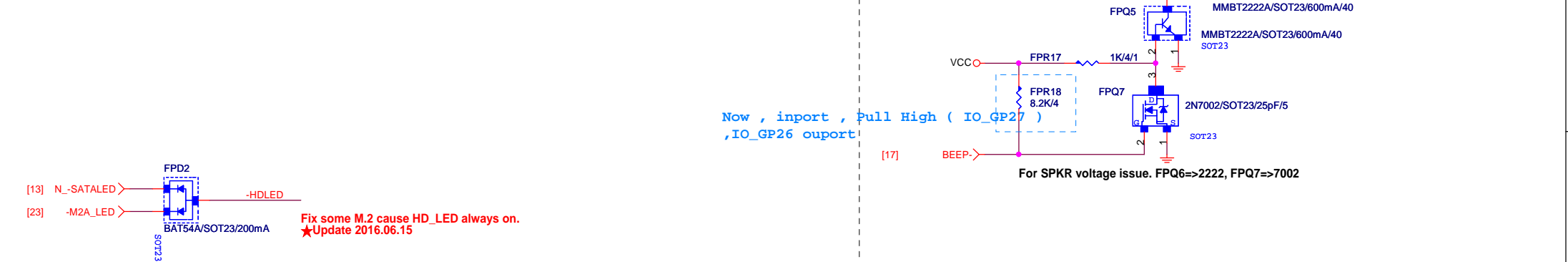
FRONT PANEL

Rev: 0.81

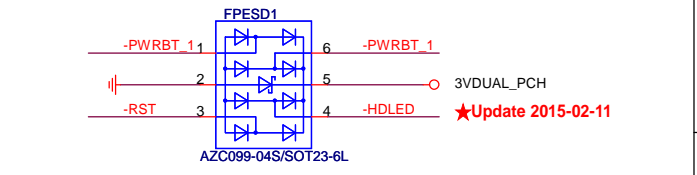


CASE OPEN

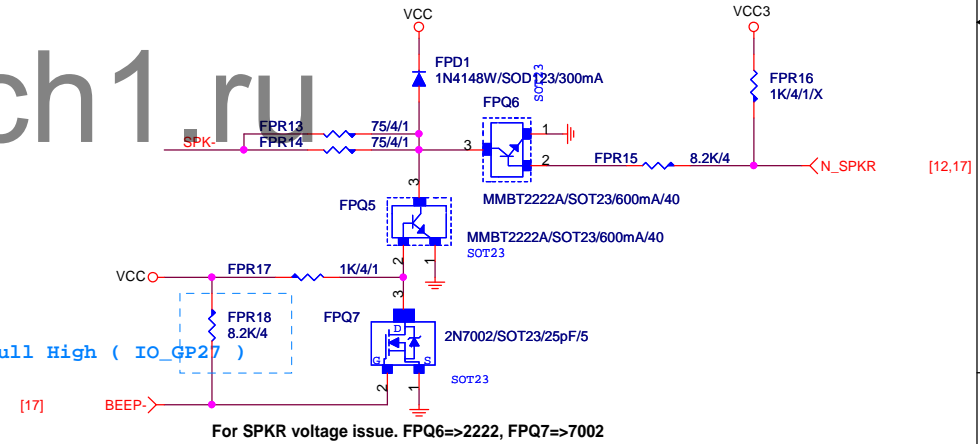
SATA/M.2 LED



ESD



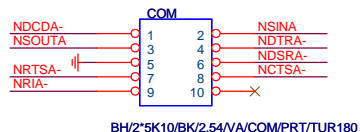
SPKR W/O BC



Now , inport , Pull High (IO_GP27) ,IO_GP26 ouport

Gigabyte Technology			
Title			
FRONT PANEL			
Size			
Custom			
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Rev			1.01

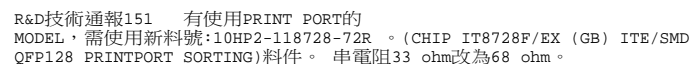
Rev: 0.81



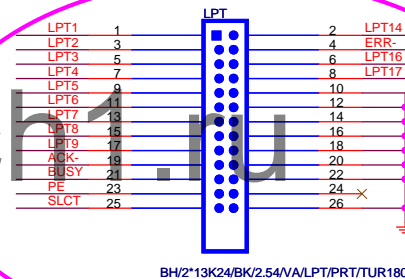
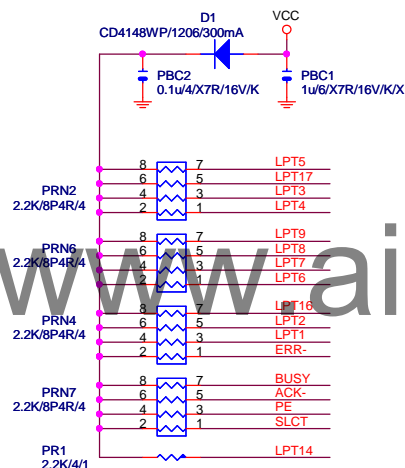
NDCDA-	QAC1	180P/4/NPO/50V/J
NSOUTA	QAC2	180P/4/NPO/50V/J
NSINA	QAC3	180P/4/NPO/50V/J
NDTRA-	QAC4	180P/4/NPO/50V/J
NRTSA-	QAC5	180P/4/NPO/50V/J
NDRSA-	QAC6	180P/4/NPO/50V/J
NCTSA-	QAC7	180P/4/NPO/50V/J
NR1A-	QAC8	180P/4/NPO/50V/J

★Update 2016-05-25

N/A



1



F_LPT-HS

TPM CONNECT



Title	FP,F_USB,USB PWR,BZ
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Custom		

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1.01	

CLOSE SIO

EMIC1
100p/4/NPO/50V/J/X

[12,17,32] N_SLP_S3 ←

EMIC2
100p/4/NPO/50V/J/X

[12,17,31,33] N_S4_S5 ←

*Del EMIC3

CLOSE PCH

EMIC4
100p/4/NPO/50V/J/X

[4,12] N_CPUPWROK ←

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VCC3

EMIC5
1n/4/X7R/50V/K

GIGABYTE™

Title

EMI/ESDSize
A

Document Number

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1.01

Date: Wednesday, November 30, 2016

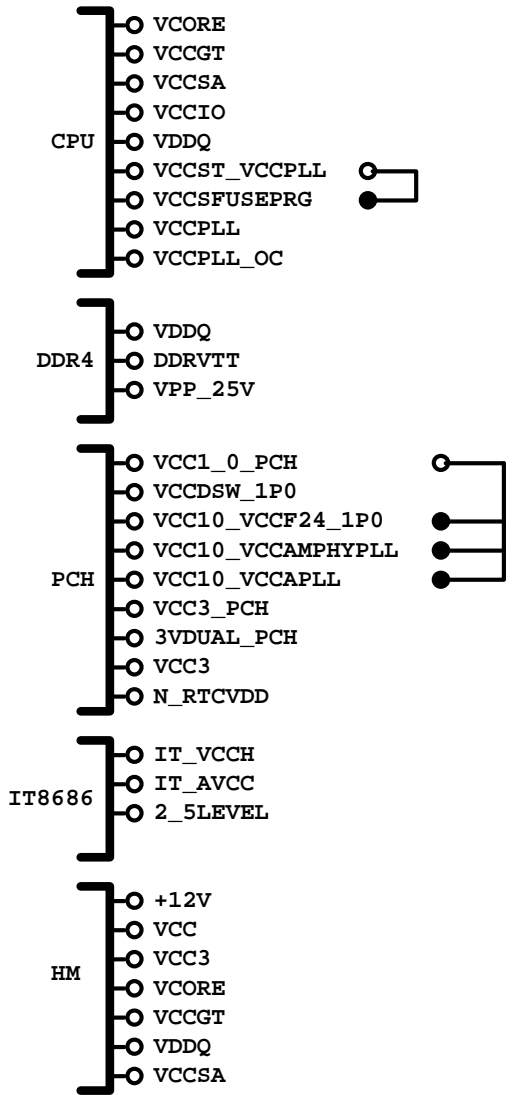
Sheet

54

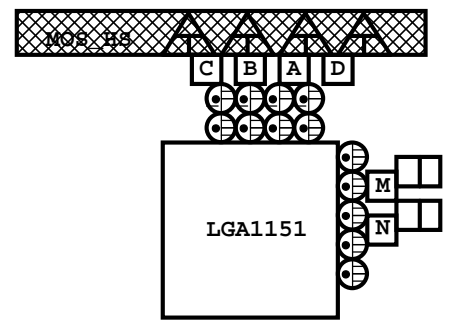
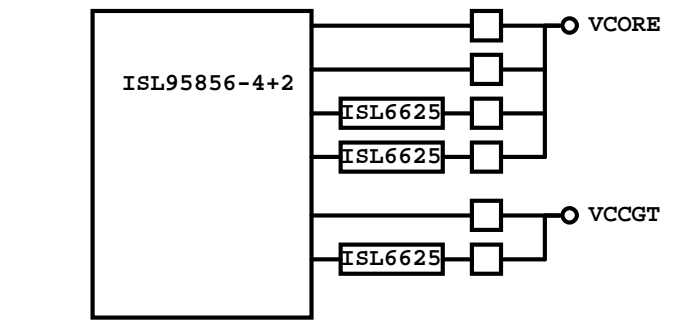
of

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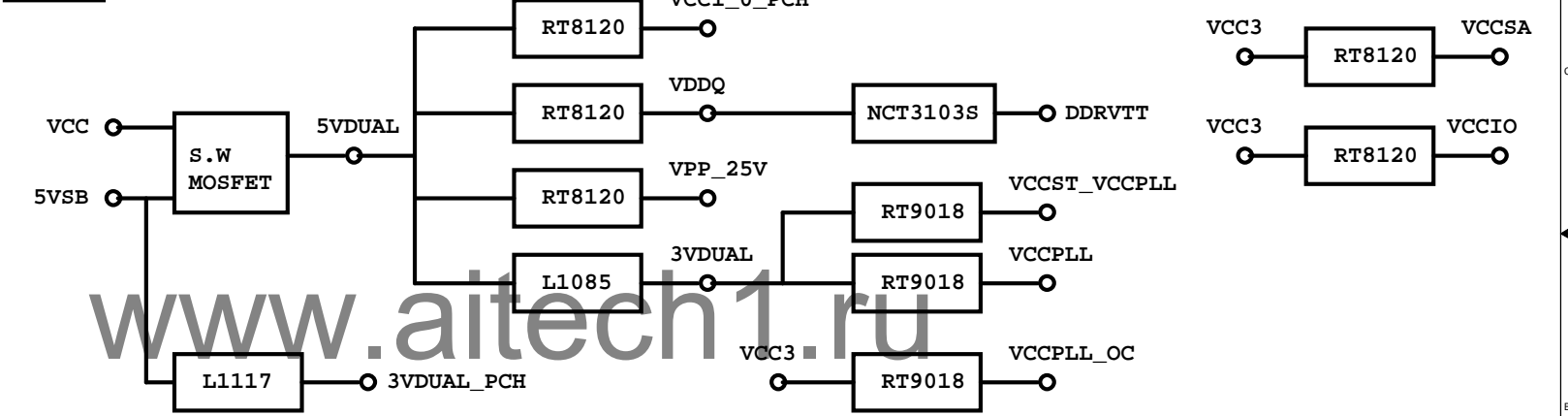
POWER BLOCK MAP



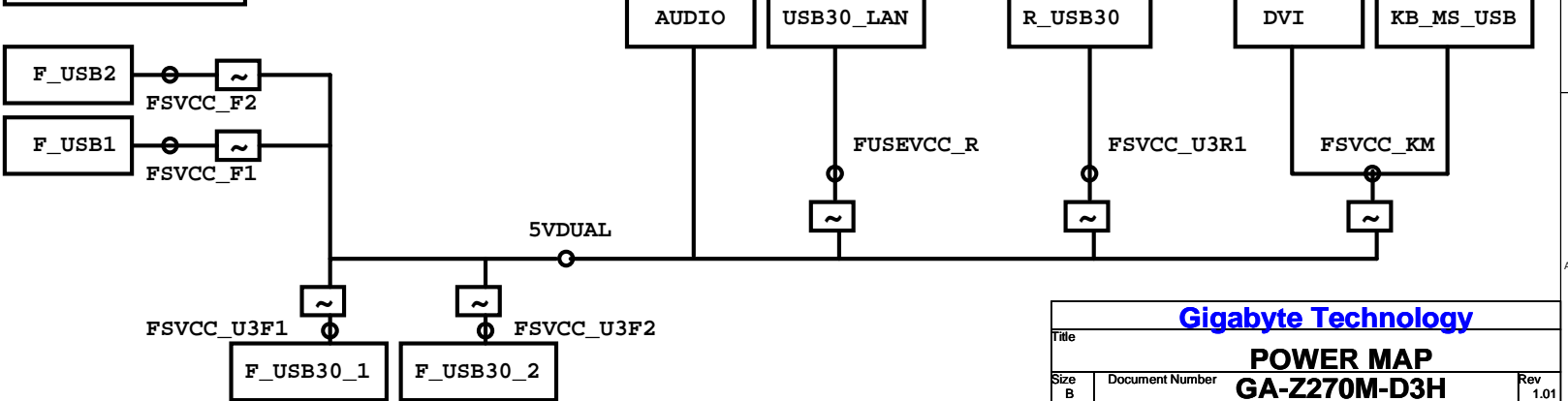
VCORE/VCCGT



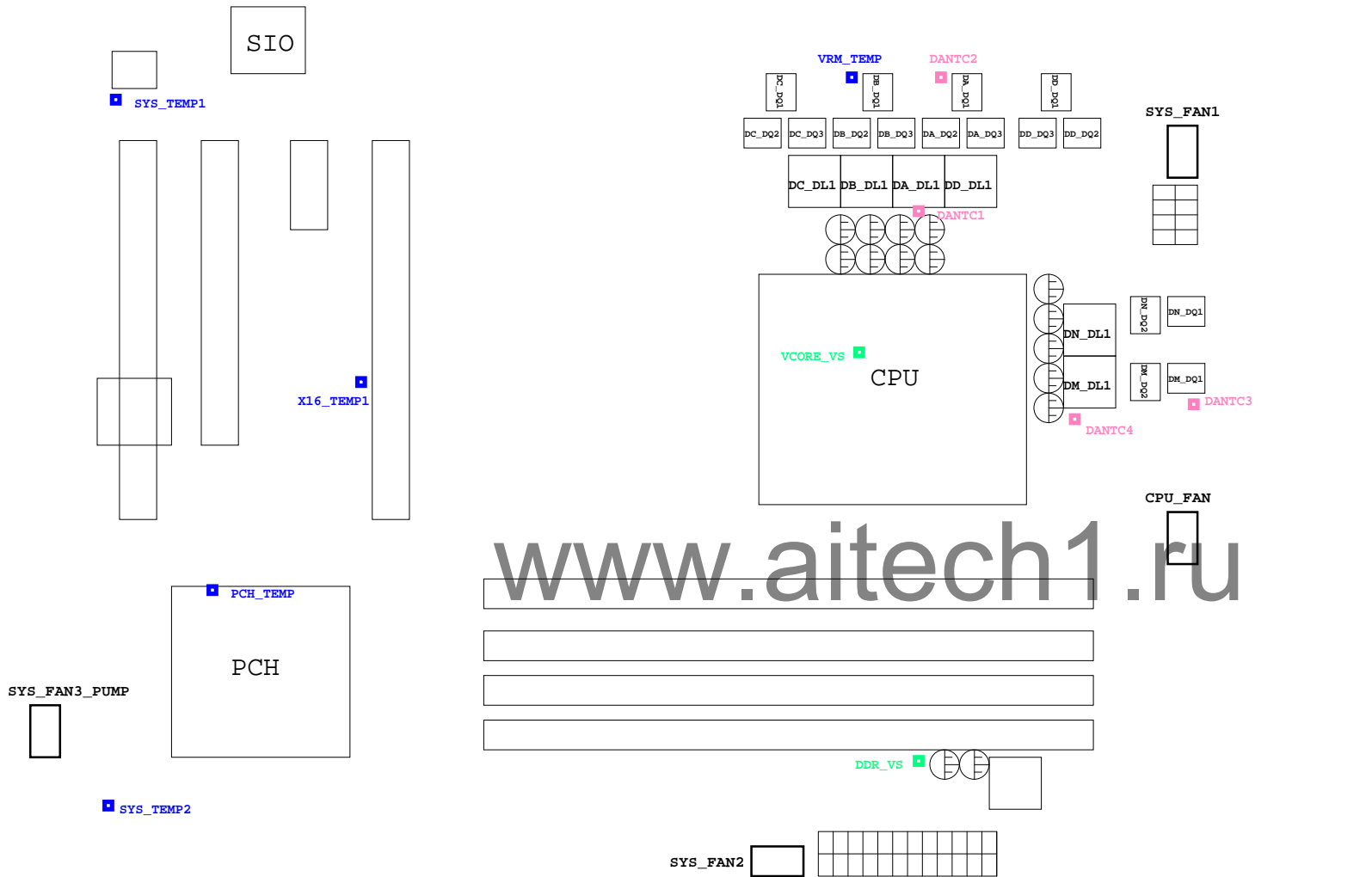
POWER



FUSE POWER F/R



Gigabyte Technology			
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POWER MAP			
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熱敏電阻	擺放靠近位置	走線方式
DANTC1	DA_DL1	N/A
DANTC2	DA_DQ1	Differential
DANTC3	DM_DQ2	N/A
DANTC4	DM_DL1	Differential
VCORE_TEMP	DB_DQ1	N/A
X16_TEMP1	PCIEX16	N/A
PCH_TEMP	PCH	N/A
SYS_TEMP1	CU1	N/A
SYS_TEMP2	N/A	N/A

■ SIO RS
■ SIO VIN
■ PWM RS
■ FAN

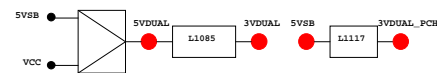
PCH GPIO LIST TABLE

PIN NAME	PWR	Default	USAGE	NOTE
GFP_A0	MAIN	H-Z	RCIN#	P/U 8.2K VCC3
GFP_A1	MAIN	H-Z	LAD0	N/A
GFP_A2	MAIN	H-Z	LAD1	N/A
GFP_A3	MAIN	H-Z	LAD2	N/A
GFP_A4	MAIN	H-Z	LAD3	N/A
GFP_A5	MAIN	H-Z	LFRAME	N/A
GFP_A6	MAIN	H-Z	SERIRQ	P/U 8.2K VCC3
GFP_A7	MAIN	H-Z	PIRQA#	P/U 8.2K VCC3
GFP_A8	MAIN	H-Z	CLKRUN	N_GFP_A8
GFP_A9	MAIN	H-Z	CLKOUT	T_TPMCLK/N_LPC24M
GFP_A11	MAIN	H-Z	PME#	N_-P_PME P/U 8.2K 3VDUAL_PCH
GFP_A12	MAIN	H-Z	GP1	N_GFP_A12 P/U 8.2K VCC3
GFP_A13	MAIN	H-Z	WARR#	N_-S_WARR#
GFP_A14	MAIN	H-Z	STAT#	N_GFP_A14 P/U 8.2K 3VDUAL
GFP_A15	MAIN	H-Z	ACK#	N_-S_ACK
GFP_B0	MAIN	H-Z	ZPO	N_-DDR_V_SERL P/U 8.2K VCC3
GFP_B2	MAIN	H-Z	GP1	N_-VREALERT P/U 8.2K 3VDUAL
GFP_B3	MAIN	H-Z	GP1	N_GFP_B3
GFP_B4	MAIN	H-Z	GP1	N_GFP_B4
GFP_B5	MAIN	H-Z	GP1	-PCIRX16_PR P/U 8.2K VCC3
GFP_B6	MAIN	H-Z	GP1	-PCIRX1_PK1 P/U 8.2K VCC3
GFP_B8	MAIN	H-Z	GP1	-PCIRX4_PR P/U 8.2K VCC3
GFP_B9	MAIN	H-Z	GP1	N_GFP_B9
GFP_B10	MAIN	H-Z	GP1	LA_-CLKREQ P/U 8.2K 3VDUAL LAN1
GFP_B12	MAIN	H-Z	SLP_S0	N_-SLP_S0
GFP_B13	MAIN	H-Z	ELTRST	N_-PPWRST
GFP_B14	MAIN	H-Z	GP1	N_SPEK
GFP_B15	MAIN	H-Z	GP1	N_GFP_B15
GFP_B16	MAIN	H-Z	GP1	N_GFP_B16
GFP_B22	MAIN	H-Z	GP1	N_GFP_B22
GFP_B23	MAIN	H-Z	GP0	N_-PCH_HOT
GFP_C0	MAIN	H-Z	SHMCLK	N_SHMCLK P/U 1K 3VDUAL
GFP_C1	MAIN	H-Z	SHMDATA	N_SHMDATA P/U 1K 3VDUAL
GFP_C2	MAIN	H-Z	GP0	N_-LPCPME
GFP_C3	MAIN	H-Z	SHMCLK	N_SHMCLK P/U 499 3VDUAL
GFP_C4	MAIN	H-Z	SHMCLK	N_SHMCLK P/U 499 3VDUAL
GFP_C5	MAIN	H-Z	GP0	N_GFP_C5
GFP_C6	MAIN	H-Z	GP1	N_SHMCLK P/U 8.2K 3VDUAL
GFP_C7	MAIN	H-Z	GP1	N_SHMCLK P/U 8.2K 3VDUAL
GFP_C22	MAIN	H-Z	GP1	N_GFP_C22
GFP_C23	MAIN	H-Z	GP1	N_GFP_C23
GFP_D4	MAIN	H-Z	GP1	N_GFP_D4 P/U 8.2K 3VDUAL
GFP_D7	MAIN	H-Z	GP1	N_GFP_D7
GFP_D8	MAIN	H-Z	GP1	N_GFP_D8
GFP_D9	MAIN	H-Z	GP1	N_GFP_D9 P/U 1K VCC3
GFP_D10	MAIN	H-Z	GP1	N_GFP_D10
GFP_D13	MAIN	H-Z	GP1	N_GFP_D13
GFP_D23	MAIN	H-Z	GP1	N_GFP_D23 P/U 8.2K 3VDUAL
GFP_E0	MAIN	H-Z	GP1	N_GFP_E0 P/U 8.2K 3VDUAL
GFP_E1	MAIN	H-Z	GP1	N_GFP_E1 P/U 8.2K 3VDUAL
GFP_E2	MAIN	H-Z	GP1	N_GFP_E2 P/U 8.2K 3VDUAL
GFP_E3	MAIN	H-Z	GP1	N/A
GFP_E4	MAIN	H-Z	GP1	N_DEVSLP0
GFP_E6	MAIN	H-Z	GP1	N_DEVSLP2
GFP_E8	MAIN	H-Z	GP1	N_-SATALED
GFP_E9	MAIN	H-Z	GP1	N_-USBOC_F
GFP_E10	MAIN	H-Z	GP1	N_-USBOC_R
GFP_E11	MAIN	H-Z	GP1	N_-USBOC_R
GFP_E12	MAIN	H-Z	GP1	N_-USBOC_F
GFP_F0	MAIN	H-Z	GP1	N_GFP_F0 P/U 8.2K 3VDUAL
GFP_F1	MAIN	H-Z	GP1	N_GFP_F1 P/U 8.2K 3VDUAL
GFP_F2	MAIN	H-Z	GP1	N_GFP_F2 P/U 8.2K 3VDUAL
GFP_F3	MAIN	H-Z	GP1	N_GFP_F3 P/U 8.2K 3VDUAL
GFP_F4	MAIN	H-Z	GP1	N_GFP_F4 P/U 8.2K 3VDUAL
GFP_F5	MAIN	H-Z	GP1	N_GFP_F5 P/U 8.2K VCC3
GFP_F6	MAIN	H-Z	GP1	N_DEVSLP4
GFP_F10	MAIN	H-Z	GP1	N_GFP_F10 P/U 8.2K VCC3
GFP_F11	MAIN	H-Z	GP1	N_GFP_F11 P/U 8.2K VCC3
GFP_F12	MAIN	H-Z	GP1	N_GFP_F12 P/U 8.2K VCC3
GFP_F13	MAIN	H-Z	GP1	N_GFP_F13 P/U 8.2K VCC3
GFP_F14	MAIN	H-Z	GP1	A_-SKTOCC P/U 8.2K VCC3
GFP_F15	MAIN	H-Z	GP1	N_-USBOC_F
GFP_F16	MAIN	H-Z	GP1	N_-USBOC_F
GFP_F17	MAIN	H-Z	GP1	N_-USBOC_7 P/U 8.2K 3VDUAL
GFP_F18	MAIN	H-Z	GP1	N_-USBOC_7 P/U 8.2K 3VDUAL
GFP_F22	MAIN	H-Z	GP1	N_GFP_F22 P/U 8.2K VCC3
GFP_F23	MAIN	H-Z	GP1	N_GFP_F23 P/U 8.2K VCC3
GFP_G11	MAIN	H-Z	FANPWM2	N/A
GFP_G12	MAIN	H-Z	GP1	N_GFP_G12
GFP_G13	MAIN	H-Z	GP1	N_CPU_S1
GFP_G14	MAIN	H-Z	GP1	N_GT_S
GFP_G15	MAIN	H-Z	GP1	N_CPU_S
GFP_G18	MAIN	H-Z	GP1	N_GFP_G18 P/U 8.2K VCC3
GFP_G19	MAIN	H-Z	GP1	N_GFP_G19 P/U 8.2K VCC3
GFP_G20	MAIN	H-Z	GP1	N_GFP_G20 P/U 8.2K VCC3
GFP_G21	MAIN	H-Z	GP1	N_GFP_G21 P/U 8.2K VCC3
GFP_G22	MAIN	H-Z	GP1	N_GFP_G22 P/U 8.2K VCC3
GFP_H0	MAIN	H-Z	GP1	N2A_-CLKREQ P/U 8.2K VCC3
GFP_H12	MAIN	H-Z	GP0	N_GFP_H12
GFP_H19	MAIN	H-Z	GP1	N_GFP_H19 P/U 8.2K 3VDUAL
GFP_H20	MAIN	H-Z	GP1	N_GFP_H20 P/U 8.2K 3VDUAL
GFP_H21	MAIN	H-Z	GP1	N_GFP_H21 P/U 8.2K 3VDUAL
GFP_H22	MAIN	H-Z	GP1	N_GFP_H22 P/U 8.2K 3VDUAL
GFP_I0	MAIN	H-Z	GP1	N_DP_HDP
GFP_I1	MAIN	H-Z	GP1	N_DP2_HDP
GFP_I2	MAIN	H-Z	GP1	N_DVI_HDP_F

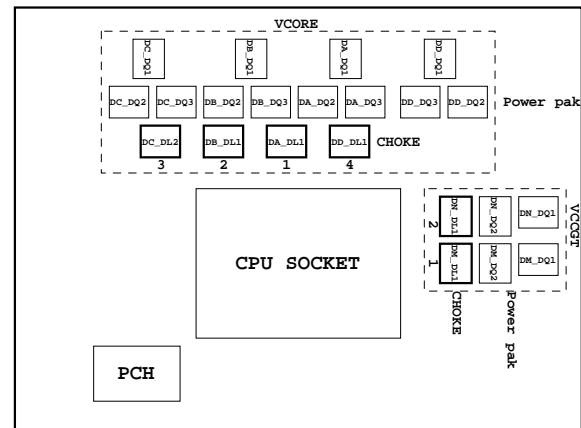
PIN NAME	PWR	Default	USAGE	NOTE
GFP_I3	MAIN	H-Z	GP1	N_GFP_I3 P/U 8.2K VCC3
GFP_I4	MAIN	H-Z	GP1	N_GFP_I4 P/D 100K GND
GFP_I5	MAIN	H-Z	GP1	N_DDBP_CTRLCLK P/U 2.2K VCC3
GFP_I6	MAIN	H-Z	GP0	N_DDBP_CTRLCLK P/U 2.2K VCC3
GFP_I7	MAIN	H-Z	GP1	N_DDBP_CTRLCLK P/U 2.2K VCC3
GFP_I8	MAIN	H-Z	GP0	N_DDBP_CTRLCLK P/U 2.2K VCC3
GFP_I9	MAIN	H-Z	GP1	N_DDBP_CTRLCLK P/U 2.2K VCC3
GFP_I10	MAIN	H-Z	GP0	N_DDBP_CTRLCLK P/U 2.2K VCC3
GPD0	STBY	BATLOW	N_-BATLOW P/U 8.2K 3VDUAL_PCH	
GPD1	STBY	ACPRESENT	N_GP_D1 P/U 8.2K 3VDUAL_PCH	
GPD2	STBY	LAN_WAKE	N_-LAN_WAKE P/U 8.2K 3VDUAL_PCH	
GPD3	STBY	PWRBTN	O_PWRBTN P/U 8.2K 3VDUAL_PCH	
GPD4	STBY	SLP_S3	N_-SLP_S3 N/A	
GPD5	STBY	SLP_S4	N_-S4_S5 N/A	
GPD6	STBY	SLP_A	N_-SLP_A N/A	
GPD8	STBY	SUSCLK	N_SUSCLK P/D 1.5K GND	
GPD10	STBY	SLP_S5	N_-SLP_S5 N/A	
GPD11	STBY	LAMPHYC	N_-LAN_DIS N/A	

Super I/O ITR8686 GPIO Table

PIN NAME	USAGE	NOTE
PCIRST3#/GP10/VDIMM_STR_EN	N/A	
PCIRST2#/GP11	O_-PCIR_RST	
PCIRST1#/GP12	O_-PPWRST2	
SVC/PECI_RQT/GP14	N_-THERMTRIP	
SLP_SUS#/PCIRSTIN#/CIRT2/GP15	-PCIRSTIN	
PS1_L/FAN_CLT5/CIRKX2/GP16	PIN	
R12#/GP17	IO_GP17	
THR_PWM_CTS2#/GP20	PIN	
IO_SMI#DCD2#/GP21	PIN	
SP1_S1/GP22	BEEP-	
DPWRK/CPU_PG/GP23	N_PCH_DPWRK	
FAN_TAC5/RTS2#/GP24	FANIO5	
FAN_TAC4/DSR2#/GP25	PIN	
INV_OUT1/OUT2/GP26	G_PLED	
INV_IN1/SIN2/GP27	INV_IN1	
ATXPG/GP30	PWOK	
CTS1/GP31	CTS1-	
OCMDT3/R11#/GP32	R11-	
OCMDT2/DCD1#/GP33	DCD1-	
VTT_PWRGD/GP34	VTT_PWRGD	
VCC18_EN/GP35	VCCIO_EN	
FAN_CTL3/GP36	FANPWM3	
FAN_TAC3/GP37	FANIO3	
3VSB5W/GP40	PIN	
OCMDT1/SIN1/GP41	RXD1	
GP42/SCK/FAN_CTL4	FANPWM4	
PAN5W#/GP43	PWRBT3W	
PWRON#/GP44	O_PWRBTN	
OCMDT0/DSR1#/GP45	DSR1-	
CE2_N/GP47/JP6	CEB_N	
GP50/JP1	O_TPMCLK	
FAN_CTL2/GP51	FANPWM2	
FAN_TAC2/GP52	FANIO2	
SUSCH/GP53	N_-S4_S5	
PME#/GP54	N_-LPCPME	
RSRST#/CIRKX1/GP55	O_-RSRST	
MCLK/FAN_TAC6/GP56	MCLK	
MDAT/FAN_CTL6/GP57	MDAT	
KCLK/GP60	KCLK	
KDAT/GP61	KDAT	
KRST#/GP62	N_-KRST	
HOLD_B#/GP63	PIN	
HOLD_B#/GP64	-SPI_HOLD_N	
VLDI_EN/PCH_DO/GP65	MB_ID2	
VCC1_05_EN/GP66	VCC1_0_EN	
GP67	N_-RTCRST	
USB_F81/PD0/GP70	PIN	
USB_F82/PD1/GP71	PIN	
USB_F83/PD2/GP72	PIN	
USB_F83/PD3/GP73	PIN	
USB_F85/PD4/GP74	PIN	
USB_F86/PD5/GP75	PIN	
USB_F87/PD7/GP76	PIN	
USB_F88/PD8/GP77	PIN	
LS_IN1/SLCT/GP80	VDDQ	
LS_OUT1/PE/GP81	PIN	
LS_IN2/BUSY/GP82	VCCIO	
LS_OUT2/ACK#/GP83	PIN	
IPHONE_CHARGE#/SLIN#/GP84	PIN	
OC_IN/INIT#/GP85	PIN	
OC_OUT/AFD#/GP86	PIN	
USB_OC2/STB#/GP87	PIN	
DDR_EN/GP90	MA_EN	
PWRLED/GP91	MPO-	
HOLD_OUT/GP92	PIN	
HDLED_IN/GP93	GP93	
PROCHOT#/GP94	A_-PROCHOT	
CPUPWRGD/GP95	PIN	
PCH_VRMPWRGD/GP96	N_PCH_VRMPWRGD	
VR_RDY/GP97	VR_RDY	



PWM各相位的擺法如下:



BIOS超電壓對應表:

線路圖名稱	BIOS選項
Vcore	CPU Vcore
VCCGT	CPU Graphic Voltage
VCCSA	CPU System Agent Voltage
VCCIO	CPU I/O Voltage
VCCIO_PCH	PCH core
VDDQ	DRAM voltage
VPP_25V	DRAM VPP voltage
DDRVT	DRAM Terminatio
VREF_DQ_AVREF_DQ_B	DRAM Data Ref

散熱模組料號:

Z270M-D3P-WG :
PCH : 12SP2-S04907-01R/02R/03R
MOS : 12SP2-S09325-31R/32R/33R

	3 pin Fan control	4 pin Fan control	FAN speed	Controller
CPU FAN	FANPWM1	VCC	FANIO1	IT8686
	FANC_VOUT	N/A	N/A	NCT3947
SYS FAN1	FANPWM2	VCC	FANIO2	IT8686
	FAN1_VOUT	N/A	N/A	NCT3947
SYS FAN2	FANPWM3	VCC	FANIO3	IT8686
	FAN2_VOUT	N/A	N/A	NCT3947
SYS_FAN3_PUMP	FANPWM4	VCC	FANIO4	IT8686
	FAN3_VOUT	N/A	N/A	NCT3947

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TABLE LIST

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