

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 (Rev 0.)
09	DDR4 CHANNEL B
10	PCH_CLK BUFFER (Rev 0.4)
11	PCH_DMI,USB,PCIE
12	PCH_MISC
13	PCH SATA,PCIE,SATA_EXPRESS
14	PCH_PWR,GND
15	PCH_GND
16	ITE 8686 LPC IO (Rev 0.1)
17	HWM
18	FAN CTRL--SIO (Rev 0.1)
19	PCI EXPRESS*16 SLOT (Rev 0.2)
20	PCI EXPRESS*4 SLOT
21	PCI EXPRESS*1 SLOT/SW
22	Single BIOS (Rev 0.1)
23	SATA EXPRESS (Rev 0.7)
24	ITE8892E/JX PCI BRIDGE (Rev 0.)
25	PCI SLOT 1
26	ITE8892E/JX LDO PWR
27	ISL95858 PWM-IRON (Rev 0.)

SHEET

TITLE

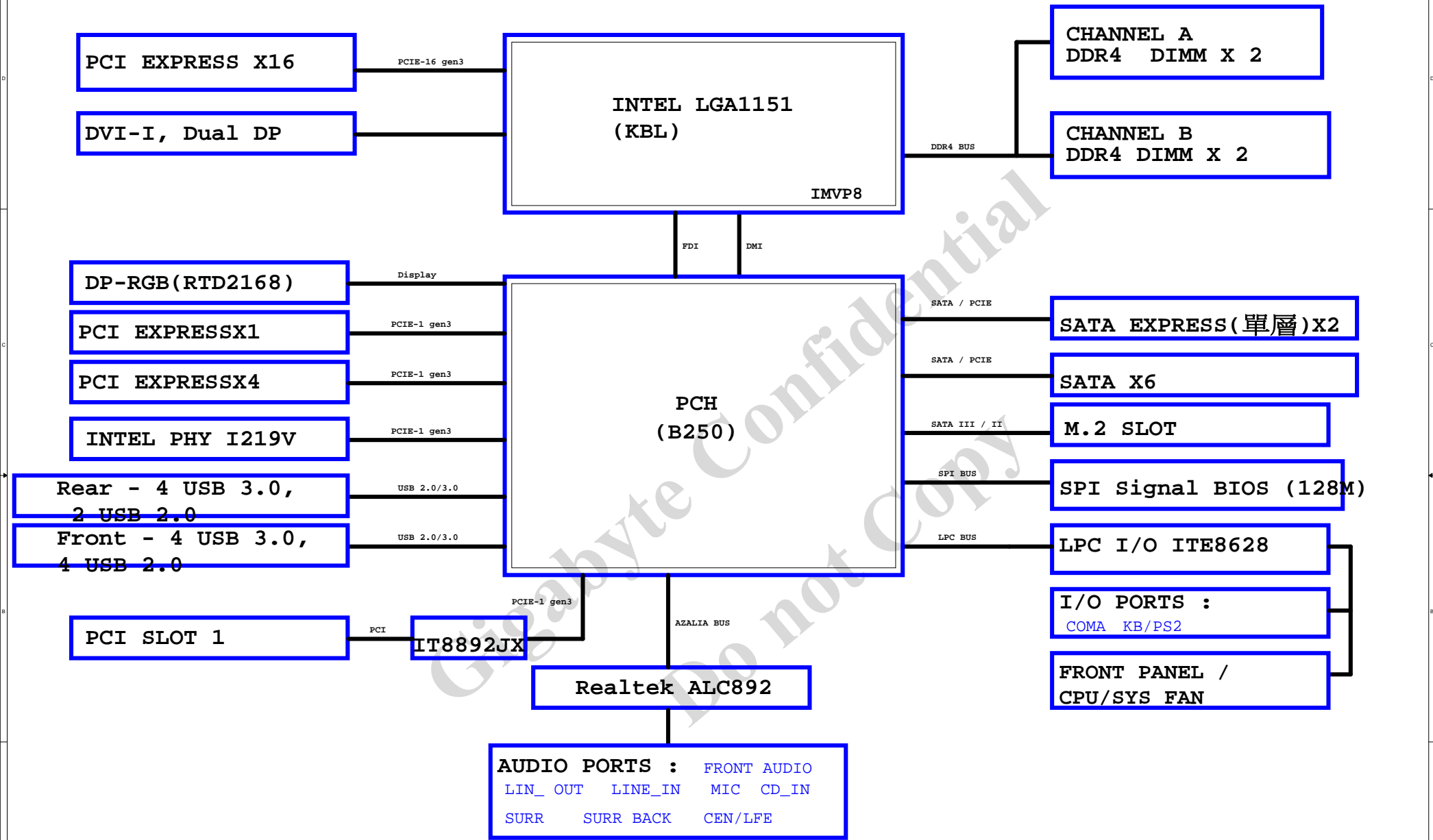
28	ISL95858 VCORE-IRON
29	ISL95858 VCCGT-IRON
30	VCCSA_VCCIO_VCCPLL (Rev 0.)
31	RT8237_DDR_BEAD (Rev 0.)
32	RT8068A_VPP (Rev 0.)
33	RT8237_PCH-BEAD (Rev 0.)
34	DISCRETE POWER (Rev 0.)
35	NCT3933
36	ATX POWER , A_-PROCHOT
37	KB_MS_USB (Rev 0.61)
38	DVI CONN (Rev 0.61)
39	RTD2168 - DP to VGA - IC (Rev )
40	RTD2168 - DP to VGA - Conn
41	DUAL DP PORT (Rev 0.61)
42	INTEL I219 (Rev 1.09)
43	USB30_LAN CONNECTOR-I219
44	Realtek ALC892 (Rev 0.4)
45	REAR AUDIO JACK
46	F_USB30 (Rev 0.61)
47	F_USB (Rev 0.61)
48	R_USB30 (Rev 0.61)
49	F_PANEL
50	M.2QX4 (Rev 0.)
51	M.2X4_S5 SWITCH (Rev 0.)
52	COM, TPM, THB (Rev 0.61)
53	EMI-ESD
54	Audio LED

rev1.02    Circuit or PCB layout change

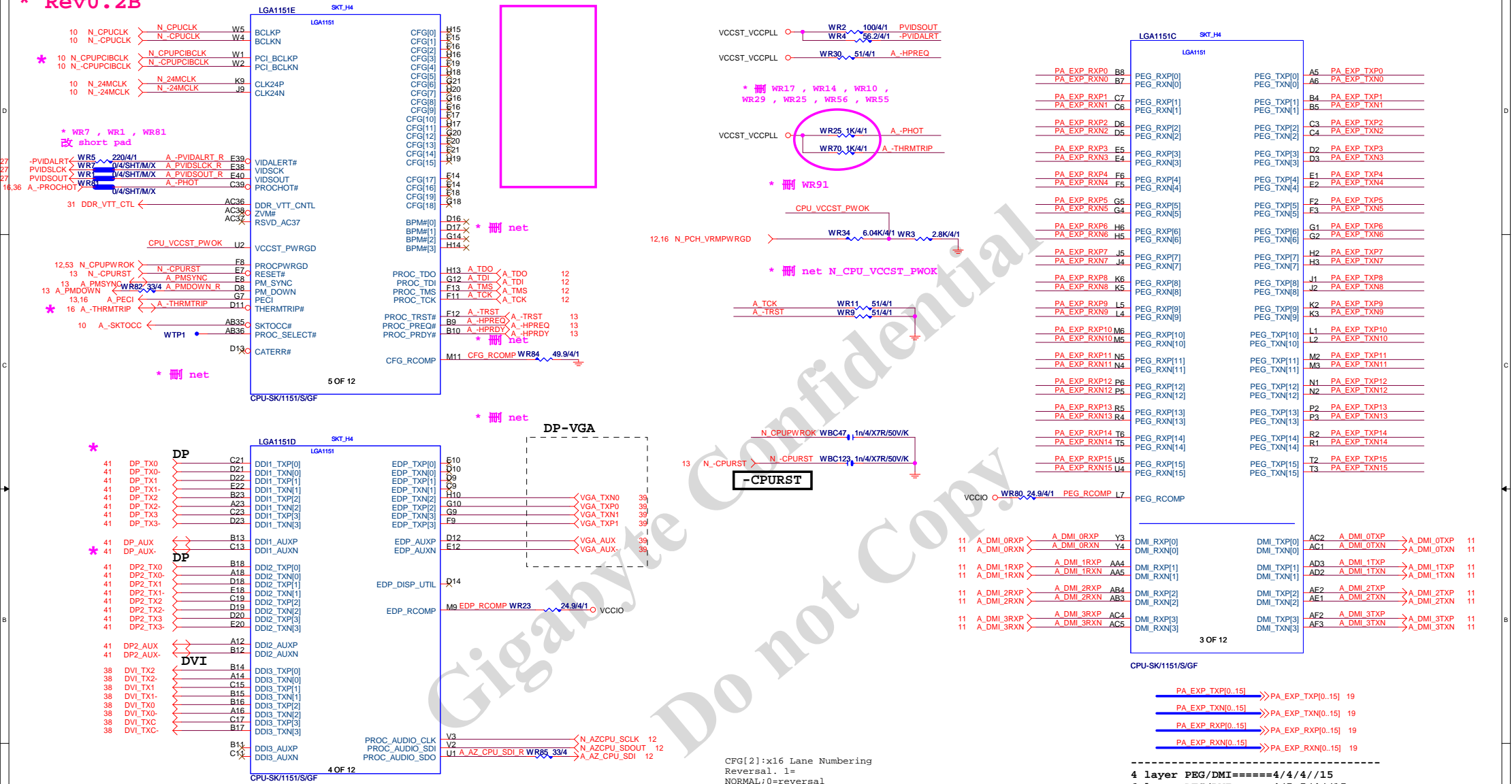
## 2015/08/19

[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%

```
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=
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	1	0

```

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=====4/4/4//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
```

<b><i>Gigabyte Technology</i></b>			
Title			
<b>CPU LGA1151-A</b>			
Size	Document Number		Rev
Custom	<b>GA-B250M-D3P-WG</b>		<b>1.02</b>
Date:	Monday, December 12, 2016	Sheet	4 of 55

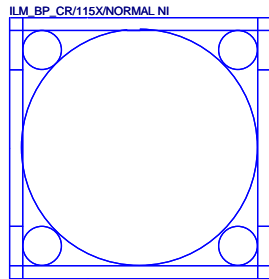
\* 改DDR4 net

LGA1151A		SKT_H4	
LGA1151		LGA1151	
MDA0 AE38	DDR0_DQ[0]	DDR0_CKP[0]	AW18 M_DCLKA0
MDA1 AE37	DDR0_DQ[1]	DDR0_CKN[0]	AW18 M_DCLKA0
MDA2 AG38	DDR0_DQ[2]	DDR0_CKP[1]	AW17 M_DCLKA1
MDA3 AG37	DDR0_DQ[3]	DDR0_CKN[1]	AW17 M_DCLKA1
MDA4 AE39	DDR0_DQ[4]	DDR0_CKP[2]	AW16 M_DCLKA2
MDA5 AE40	DDR0_DQ[5]	DDR0_CKN[2]	AW16 M_DCLKA2
MDA6 AG39	DDR0_DQ[6]	DDR0_CKP[3]	AW16 M_DCLKA3
MDA7 AG40	DDR0_DQ[7]	DDR0_CKN[3]	AW16 M_DCLKA3
MDA8 AJ38	DDR0_DQ[8]		
MDA9 AJ37	DDR0_DQ[9]	DDR0_CKE[0]	AY24 CKEA0
MDA10 AL38	DDR0_DQ[10]	DDR0_CKE[1]	AY24 CKEA1
MDA11 AL37	DDR0_DQ[11]	DDR0_CKE[2]	AY24 CKEA2
MDA12 AJ40	DDR0_DQ[12]	DDR0_CKE[3]	AY25 CKEA3
MDA13 AJ39	DDR0_DQ[13]		
MDA14 AL39	DDR0_DQ[14]	DDR0_CS#0	AW12 M_CSA0
MDA15 AL40	DDR0_DQ[15]	DDR0_CS#1	AW11 M_CSA1
MDA16 AN38	DDR0_DQ[16]/DDR0_DQ[32]	DDR0_CS#2	AW13 M_CSA2
MDA17 AN40	DDR0_DQ[17]/DDR0_DQ[33]	DDR0_CS#3	AW10 M_CSA3
MDA18 AR38	DDR0_DQ[18]/DDR0_DQ[34]		
MDA19 AR37	DDR0_DQ[19]/DDR0_DQ[35]	DDR0_ODT[0]	AW11 MODT_A0
MDA20 AN39	DDR0_DQ[20]/DDR0_DQ[36]	DDR0_ODT[1]	AL14 MODT_A1
MDA21 AN37	DDR0_DQ[21]/DDR0_DQ[37]	DDR0_ODT[2]	AY12 MODT_A2
MDA22 AR40	DDR0_DQ[22]/DDR0_DQ[38]	DDR0_ODT[3]	AY10 MODT_A3
MDA23 AR40	DDR0_DQ[23]/DDR0_DQ[39]		
MDA24 AW37	DDR0_DQ[24]/DDR0_DQ[40]	DDR0_BA[0]/DDR0_CAB[4]/DDR0_BA[0]	AY13 SBA0A0
MDA25 AW38	DDR0_DQ[25]/DDR0_DQ[41]	DDR0_BA[1]/DDR0_CAB[6]/DDR0_BA[1]	AY15 SBA1A1
MDA26 AV35	DDR0_DQ[26]/DDR0_DQ[42]	DDR0_BA[2]/DDR0_CAA[5]/DDR0_BG[0]	AW23 BG_A0
MDA27 AW35	DDR0_DQ[27]/DDR0_DQ[43]		
MDA28 AJ37	DDR0_DQ[28]/DDR0_DQ[44]	DDR0_RAS#/DDR0_CAB[3]/DDR0_MAJ[6]	AW13 MAA1A6
MDA29 AV37	DDR0_DQ[29]/DDR0_DQ[45]	DDR0_WE#/DDR0_CAB[2]/DDR0_MAJ[14]	AW14 MAA1A4
MDA30 AJ35	DDR0_DQ[30]/DDR0_DQ[46]	DDR0_CAS#/DDR0_CAB[1]/DDR0_MAJ[15]	AW11 MAA1A5
MDA31 AV35	DDR0_DQ[31]/DDR0_DQ[47]		
MDA32 AY8	DDR0_DQ[32]/DDR1_DQ[0]	DDR0_MAJ[0]/DDR0_CAB[9]/DDR0_MAJ[0]	AW15 MAA0A0
MDA33 AW8	DDR0_DQ[33]/DDR1_DQ[1]	DDR0_MAJ[1]/DDR0_CAB[8]/DDR0_MAJ[1]	AW18 MAA1A4
MDA34 AV6	DDR0_DQ[34]/DDR1_DQ[2]	DDR0_MAJ[2]/DDR0_CAB[5]/DDR0_MAJ[2]	AW17 MAA2A4
MDA35 AV6	DDR0_DQ[35]/DDR1_DQ[3]	DDR0_MAJ[3]	AW19 MAA3A3
MDA36 AV8	DDR0_DQ[36]/DDR1_DQ[4]	DDR0_MAJ[4]	AW19 MAA4A5
MDA37 AV8	DDR0_DQ[37]/DDR1_DQ[5]	DDR0_MAJ[5]/DDR0_CAA[0]/DDR0_MAJ[5]	AW20 MAA5A5
MDA38 AV6	DDR0_DQ[38]/DDR1_DQ[6]	DDR0_MAJ[6]/DDR0_CAA[2]/DDR0_MAJ[6]	AW20 MAA6A6
MDA39 AV6	DDR0_DQ[39]/DDR1_DQ[7]	DDR0_MAJ[7]/DDR0_CAA[4]/DDR0_MAJ[7]	AW21 MAA7A7
MDA40 AY4	DDR0_DQ[40]/DDR1_DQ[8]	DDR0_MAJ[8]/DDR0_CAA[3]/DDR0_MAJ[8]	AW22 MAA8A8
MDA41 AV4	DDR0_DQ[41]/DDR1_DQ[9]	DDR0_MAJ[9]/DDR0_CAA[1]/DDR0_MAJ[9]	AW22 MAA9A9
MDA42 AT1	DDR0_DQ[42]/DDR1_DQ[10]	DDR0_MAJ[10]/DDR0_CAB[7]/DDR0_MAJ[10]	AW14 MAA0A0
MDA43 AT2	DDR0_DQ[43]/DDR1_DQ[11]	DDR0_MAJ[11]/DDR0_CAA[7]/DDR0_MAJ[11]	AW22 MAA1A1
MDA44 AV3	DDR0_DQ[44]/DDR1_DQ[12]	DDR0_MAJ[12]/DDR0_CAA[6]/DDR0_MAJ[12]	AW22 MAA1A2
MDA45 AW4	DDR0_DQ[45]/DDR1_DQ[13]	DDR0_MAJ[13]/DDR0_CAB[0]/DDR0_MAJ[13]	AW12 MAA1A3
MDA46 AT3	DDR0_DQ[46]/DDR1_DQ[14]	DDR0_MAJ[14]/DDR0_CAA[9]/DDR0_BG[1]	AW23 BG_A1
MDA47 AT3	DDR0_DQ[47]/DDR1_DQ[15]	DDR0_MAJ[15]/DDR0_CAA[8]/DDR0_ACT#	AW24 MACT_A
MDA48 AP2	DDR0_DQ[48]/DDR1_DQ[16]		
MDA49 AM4	DDR0_DQ[49]/DDR1_DQ[17]	DDR0_PAR	AY15 M_DDR_PARA
MDA50 AP3	DDR0_DQ[50]/DDR1_DQ[18]	DDR0_ALERT#	AT23 M_ALERT_A
MDA51 AM3	DDR0_DQ[51]/DDR1_DQ[19]		
MDA52 AP4	DDR0_DQ[52]/DDR1_DQ[20]	DDR0_DQSN[0]	AF39 M_DQSA0
MDA53 AM2	DDR0_DQ[53]/DDR1_DQ[21]	DDR0_DQSN[1]	AK39 M_DQSA1
MDA54 AP1	DDR0_DQ[54]/DDR1_DQ[22]	DDR0_DQSN[2]/DDR0_DQSN[4]	AP39 M_DQSA2
MDA55 AM1	DDR0_DQ[55]/DDR1_DQ[23]	DDR0_DQSN[3]/DDR0_DQSN[5]	AW36 M_DQSA3
MDA56 AK3	DDR0_DQ[56]/DDR1_DQ[24]	DDR0_DQSN[4]/DDR1_DQSN[0]	AW7 M_DQSA4
MDA57 AK4	DDR0_DQ[57]/DDR1_DQ[25]	DDR0_DQSN[5]/DDR1_DQSN[1]	AW7 M_DQSA5
MDA58 AH2	DDR0_DQ[58]/DDR1_DQ[26]	DDR0_DQSN[6]/DDR1_DQSN[2]	AW7 M_DQSA6
MDA59 AH2	DDR0_DQ[59]/DDR1_DQ[27]	DDR0_DQSN[7]/DDR1_DQSN[3]	AW7 M_DQSA7
MDA60 AH4	DDR0_DQ[60]/DDR1_DQ[28]		
MDA61 AK2	DDR0_DQ[61]/DDR1_DQ[29]	DDR0_DQSP[0]	AF38 M_DQSA0
MDA62 AH3	DDR0_DQ[62]/DDR1_DQ[30]	DDR0_DQSP[1]	AK38 M_DQSA1
MDA63 AK1	DDR0_DQ[63]/DDR1_DQ[31]	DDR0_DQSP[2]	AP38 M_DQSA2
		DDR0_DQSP[3]	AW36 M_DQSA3
		DDR0_DQSP[4]	AW7 M_DQSA4
		DDR0_DQSP[5]	AW7 M_DQSA5
		DDR0_DQSP[6]	AW7 M_DQSA6
		DDR0_DQSP[7]	AW7 M_DQSA7
		DDR0_DQSP[8]	AF32 M_DQSA0
		DDR0_DQSN[8]	AW32 M_DQSA7

DDR CHANNEL A

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CPU-SK1151/S/GF



Need check the new CPU ME

LGA1151B		SKT_H4	
LGA1151		LGA1151	
MDB0 AD34	DDR1_DQ[0]/DDR0_DQ[16]	DDR1_CKP[0]	AM20 M_DCLKB0
MDB1 AD35	DDR1_DQ[1]/DDR0_DQ[17]	DDR1_CKN[0]	AM21 M_DCLKB0
MDB2 AG35	DDR1_DQ[2]/DDR0_DQ[18]	DDR1_CKP[1]	AP22 M_DCLKB1
MDB3 AH35	DDR1_DQ[3]/DDR0_DQ[19]	DDR1_CKN[1]	AP21 M_DCLKB1
MDB4 AE35	DDR1_DQ[4]/DDR0_DQ[20]	DDR1_CKP[2]	AN20 M_DCLKB2
MDB5 AE34	DDR1_DQ[5]/DDR0_DQ[21]	DDR1_CKN[2]	AN21 M_DCLKB2
MDB6 AH34	DDR1_DQ[6]/DDR0_DQ[22]	DDR1_CKP[3]	AP23 M_DCLKB3
MDB7 AH34	DDR1_DQ[7]/DDR0_DQ[23]	DDR1_CKN[3]	AP20 M_DCLKB3
MDB8 AK35	DDR1_DQ[8]/DDR0_DQ[24]		
MDB9 AL35	DDR1_DQ[9]/DDR0_DQ[25]	DDR1_CKE[0]	AY29 CKEB0
MDB10 AK32	DDR1_DQ[10]/DDR0_DQ[26]	DDR1_CKE[1]	AY29 CKEB1
MDB11 AL32	DDR1_DQ[11]/DDR0_DQ[27]	DDR1_CKE[2]	AY29 CKEB2
MDB12 AK34	DDR1_DQ[12]/DDR0_DQ[28]	DDR1_CKE[3]	AY29 CKEB3
MDB13 AL34	DDR1_DQ[13]/DDR0_DQ[29]		
MDB14 AK31	DDR1_DQ[14]/DDR0_DQ[30]	DDR1_CS#0	AP17 M_CSB0
MDB15 AL31	DDR1_DQ[15]/DDR0_DQ[31]	DDR1_CS#1	AN15 M_CSB1
MDB16 AP35	DDR1_DQ[16]/DDR0_DQ[32]	DDR1_CS#2	AN17 M_CSB2
MDB17 AN35	DDR1_DQ[17]/DDR0_DQ[33]	DDR1_CS#3	AM15 M_CSB3
MDB18 AN32	DDR1_DQ[18]/DDR0_DQ[34]		
MDB19 AP32	DDR1_DQ[19]/DDR0_DQ[35]	DDR1_ODT[0]	AM16 MODT_B0
MDB20 AN34	DDR1_DQ[20]/DDR0_DQ[36]	DDR1_ODT[1]	AL16 MODT_B1
MDB21 AP34	DDR1_DQ[21]/DDR0_DQ[37]	DDR1_ODT[2]	AP15 MODT_B2
MDB22 AN31	DDR1_DQ[22]/DDR0_DQ[38]	DDR1_ODT[3]	AL15 MODT_B3
MDB23 AN31	DDR1_DQ[23]/DDR0_DQ[39]		
MDB24 AL29	DDR1_DQ[24]/DDR0_DQ[40]	DDR1_RAS#/DDR1_CAB[3]/DDR1_MAJ[16]	AN18 MAAB16
MDB25 AM29	DDR1_DQ[25]/DDR0_DQ[41]	DDR1_WE#/DDR1_CAB[2]/DDR1_MAJ[14]	AL17 MAAB14
MDB26 AP29	DDR1_DQ[26]/DDR0_DQ[42]	DDR1_CAS#/DDR1_CAB[1]/DDR1_MAJ[15]	AP16 MAAB15
MDB27 AR29	DDR1_DQ[27]/DDR0_DQ[43]		
MDB28 AM28	DDR1_DQ[28]/DDR0_DQ[44]	DDR1_BA[0]/DDR1_CAB[4]/DDR1_BA[0]	AL18 SBA0
MDB29 AR28	DDR1_DQ[29]/DDR0_DQ[45]	DDR1_BA[1]/DDR1_CAB[6]/DDR1_BA[1]	AM18 SBA1
MDB30 AR28	DDR1_DQ[30]/DDR0_DQ[46]	DDR1_BA[2]/DDR1_CAA[5]/DDR1_BG[0]	AW19 BG_B0
MDB31 AP28	DDR1_DQ[31]/DDR0_DQ[47]		
MDB32 AR12	DDR1_DQ[32]/DDR1_DQ[0]	DDR1_MAJ[0]/DDR1_CAB[9]/DDR1_MAJ[0]	AL12 MAAB0
MDB33 AP12	DDR1_DQ[33]/DDR1_DQ[1]	DDR1_MAJ[1]/DDR1_CAB[8]/DDR1_MAJ[1]	AL22 MAAB1
MDB34 AM13	DDR1_DQ[34]/DDR1_DQ[2]	DDR1_MAJ[2]/DDR1_CAB[5]/DDR1_MAJ[2]	AL22 MAAB2
MDB35 AL13	DDR1_DQ[35]/DDR1_DQ[3]	DDR1_MAJ[3]	AL23 MAAB3
MDB36 AR13	DDR1_DQ[36]/DDR1_DQ[4]	DDR1_MAJ[4]	AL23 MAAB4
MDB37 AP13	DDR1_DQ[37]/DDR1_DQ[5]	DDR1_MAJ[5]/DDR1_CAA[0]/DDR1_MAJ[5]	AW26 MAAB5
MDB38 AM12	DDR1_DQ[38]/DDR1_DQ[6]	DDR1_MAJ[6]/DDR1_CAA[2]/DDR1_MAJ[6]	AW26 MAAB6
MDB39 AP10	DDR1_DQ[39]/DDR1_DQ[7]	DDR1_MAJ[7]/DDR1_CAA[4]/DDR1_MAJ[7]	AW26 MAAB7
MDB40 AR10	DDR1_DQ[40]/DDR1_DQ[8]	DDR1_MAJ[8]/DDR1_CAA[3]/DDR1_MAJ[8]	AW27 MAAB8
MDB41 AR10	DDR1_DQ[41]/DDR1_DQ[9]	DDR1_MAJ[9]/DDR1_CAA[1]/DDR1_MAJ[9]	AW27 MAAB9
MDB42 AR7	DDR1_DQ[42]/DDR1_DQ[10]	DDR1_MAJ[10]/DDR1_CAB[7]/DDR1_MAJ[10]	AL27 MAAB10
MDB43 AP7	DDR1_DQ[43]/DDR1_DQ[11]	DDR1_MAJ[11]/DDR1_CAA[7]/DDR1_MAJ[11]	AL27 MAAB11
MDB44 AR9	DDR1_DQ[44]/DDR1_DQ[12]	DDR1_MAJ[12]/DDR1_CAA[6]/DDR1_MAJ[12]	AL27 MAAB12
MDB45 AP9	DDR1_DQ[45]/DDR1_DQ[13]	DDR1_MAJ[13]/DDR1_CAB[0]/DDR1_MAJ[13]	AL15 MAAB13
MDB46 AR6	DDR1_DQ[46]/DDR1_DQ[14]	DDR1_MAJ[14]/DDR1_CAA[9]/DDR1_BG[1]	AY28 BG_B1
MDB47 AP6	DDR1_DQ[47]/DDR1_DQ[15]	DDR1_MAJ[15]/DDR1_CAA[8]/DDR1_ACT#	AW28 MACT_B
MDB48 AM10			
MDB49 AL10	DDR1_DQ[49]	DDR1_PAR	AL20 M_DDR_PARB
MDB50 AM7	DDR1_DQ[50]	DDR1_ALERT#	AY25 M_ALERT_B
MDB51 AL7	DDR1_DQ[51]		
MDB52 AM9	DDR1_DQ[52]	DDR1_DQSN[0]	AF34 M_DQSB0
MDB53 AL9	DDR1_DQ[53]	DDR1_DQSN[1]	AK33 M_DQSB1
MDB54 AM6	DDR1_DQ[54]	DDR1_DQSN[2]/DDR0_DQSN[6]	AN33 M_DQSB2
MDB55 AL6	DDR1_DQ[55]	DDR1_DQSN[3]/DDR0_DQSN[7]	AN39 M_DQSB3
MDB56 AL6	DDR1_DQ[56]	DDR1_DQSN[4]/DDR1_DQSN[2]	AN12 M_DQSB4
MDB57 AL7	DDR1_DQ[57]	DDR1_DQSN[5]/DDR1_DQSN[3]	AR8 M_DQSB5
MDB58 AE6	DDR1_DQ[58]	DDR1_DQSN[6]/DDR1_DQSN[4]	AM8 M_DQSB6
MDB59 AE7	DDR1_DQ[59]	DDR1_DQSN[7]	AG6 M_DQSB7
MDB60 AH7			
MDB61 AH6	DDR1_DQ[61]	DDR1_DQSP[0]	AF35 M_DQSB0
MDB62 AE7	DDR1_DQ[62]	DDR1_DQSP[1]	AK35 M_DQSB1
MDB63 AF6	DDR1_DQ[63]	DDR1_DQSP[2]	AP33 M_DQSB2
		DDR1_DQSP[3]	AN39 M_DQSB3
		DDR1_DQSP[4]	AN12 M_DQSB4
		DDR1_DQSP[5]	AP8 M_DQSB5
		DDR1_DQSP[6]	AL8 M_DQSB6
		DDR1_DQSP[7]	AG7 M_DQSB7
		DDR1_DQSP[8]	AN25 M_DQSB8
		DDR1_DQSN[8]	AN26 M_DQSB9

DDR CHANNEL B

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- 8 MODT\_A[0..3] ↔ MODT\_B[0..3]
- 9 MODT\_B[0..3] ↔ MODT\_A[0..3]
- 8 MDA[0..63] ↔ MDB[0..63]
- 9 MDB[0..63] ↔ MDA[0..63]
- 8 M\_DQSA[0..7] ↔ M\_DQSB[0..7]
- 8 M\_DQSB[0..7] ↔ M\_DQSA[0..7]
- 8 MAA[0..16] ↔ MAA[0..16]
- 9 MAA[0..16] ↔ MAA[0..16]
- 9 M\_DQSB[0..7] ↔ M\_DQSB[0..7]
- 9 M\_DQSB[0..7] ↔ M\_DQSB[0..7]

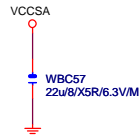
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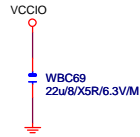
AC39 VREF\_DQB → VREF\_DQB 9

\* 刪 WBC50 電容

\* WBC51 , WBC52  
VDDQ 改 VCCSA

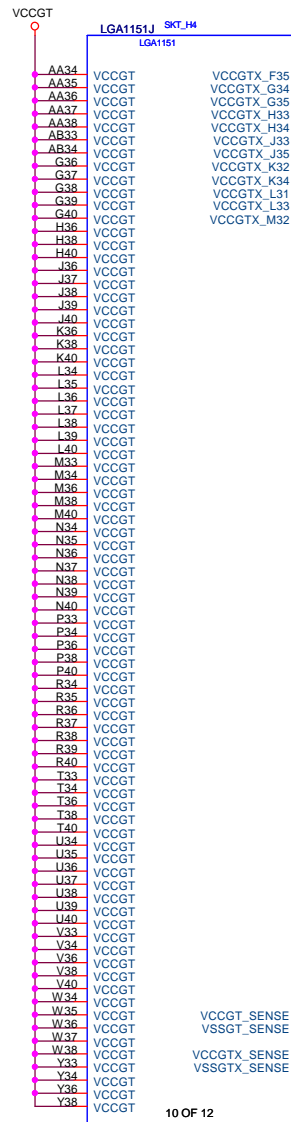
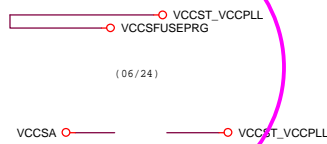


\* 刪 WBC124 , WBC125 , WBC126 , WBC127 電容

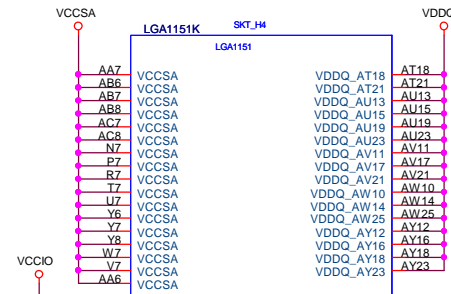


\* 刪 VCCGT 電容

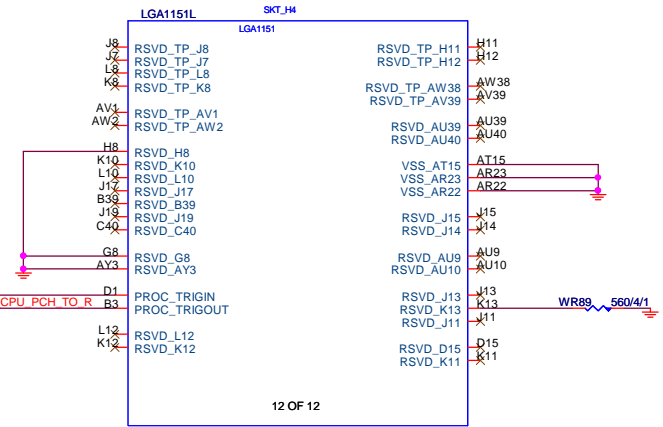
\* WR94 , WR59 , WR86 , WR60 ,  
WR61 , WR62 , WR63 改 short  
pad



CPU-SK/1151/S/GF



CPU-SK/1151/S/GF



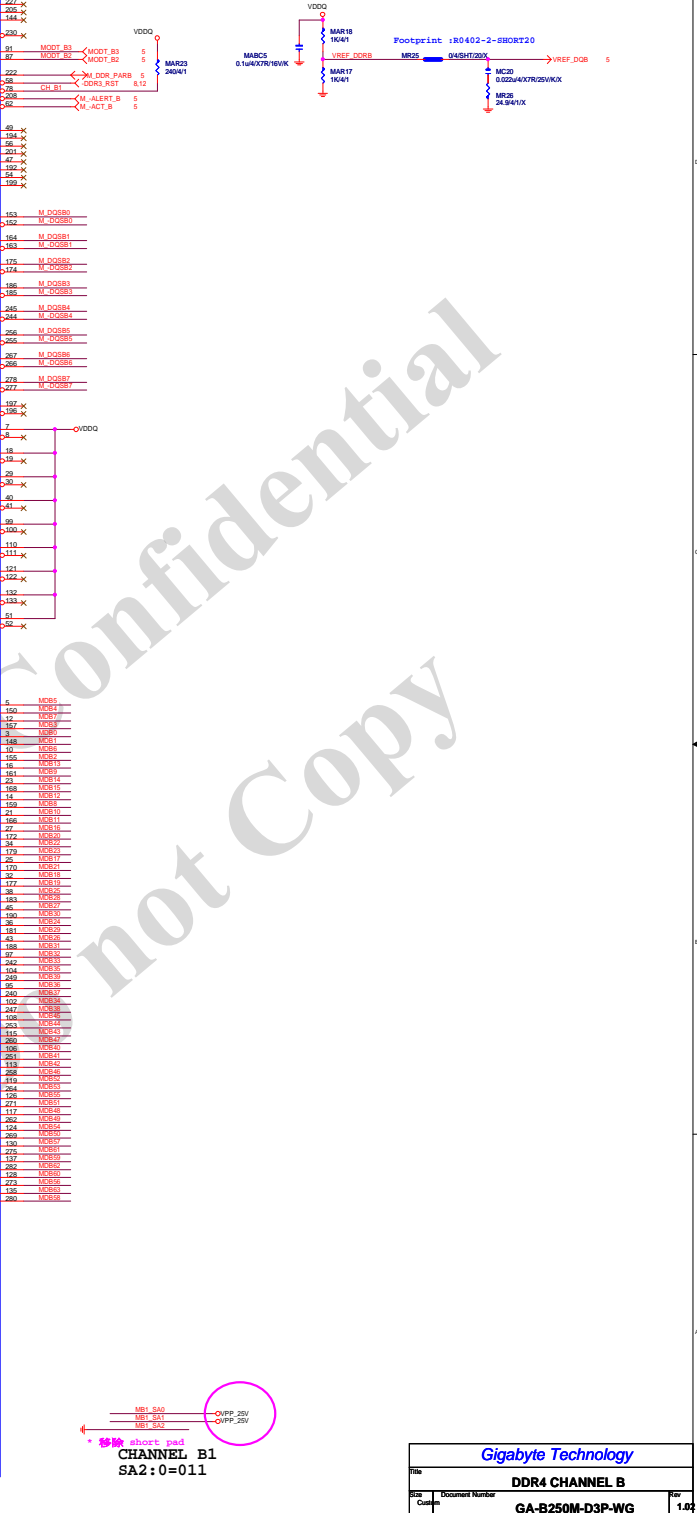
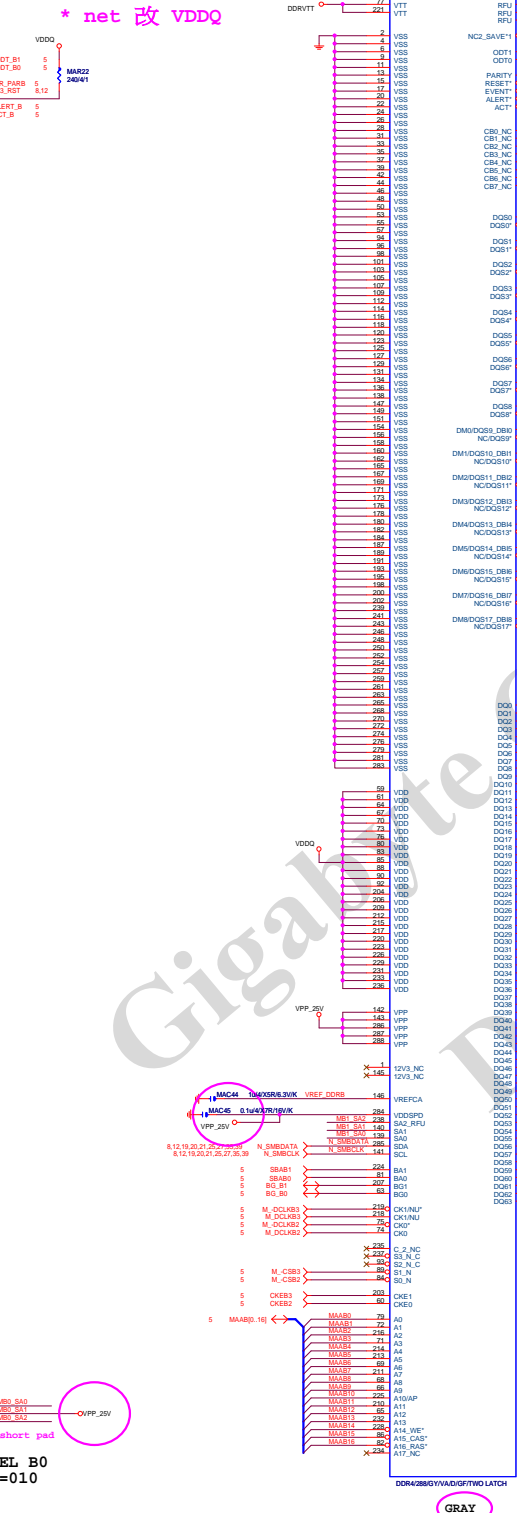
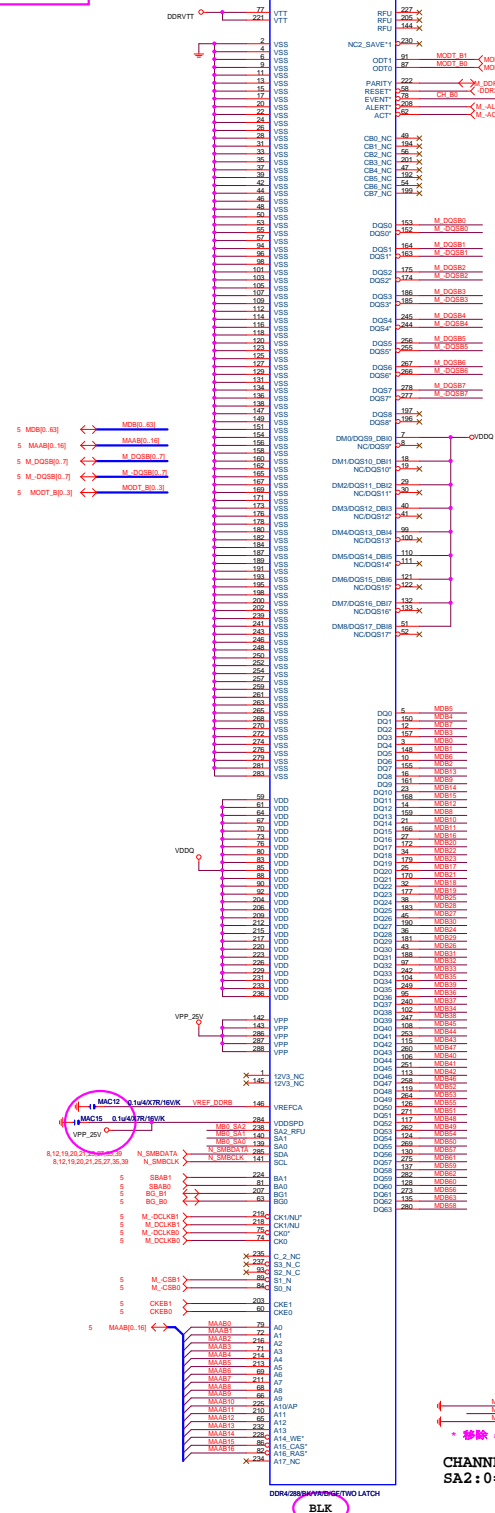
CPU-SK/1151/S/GF

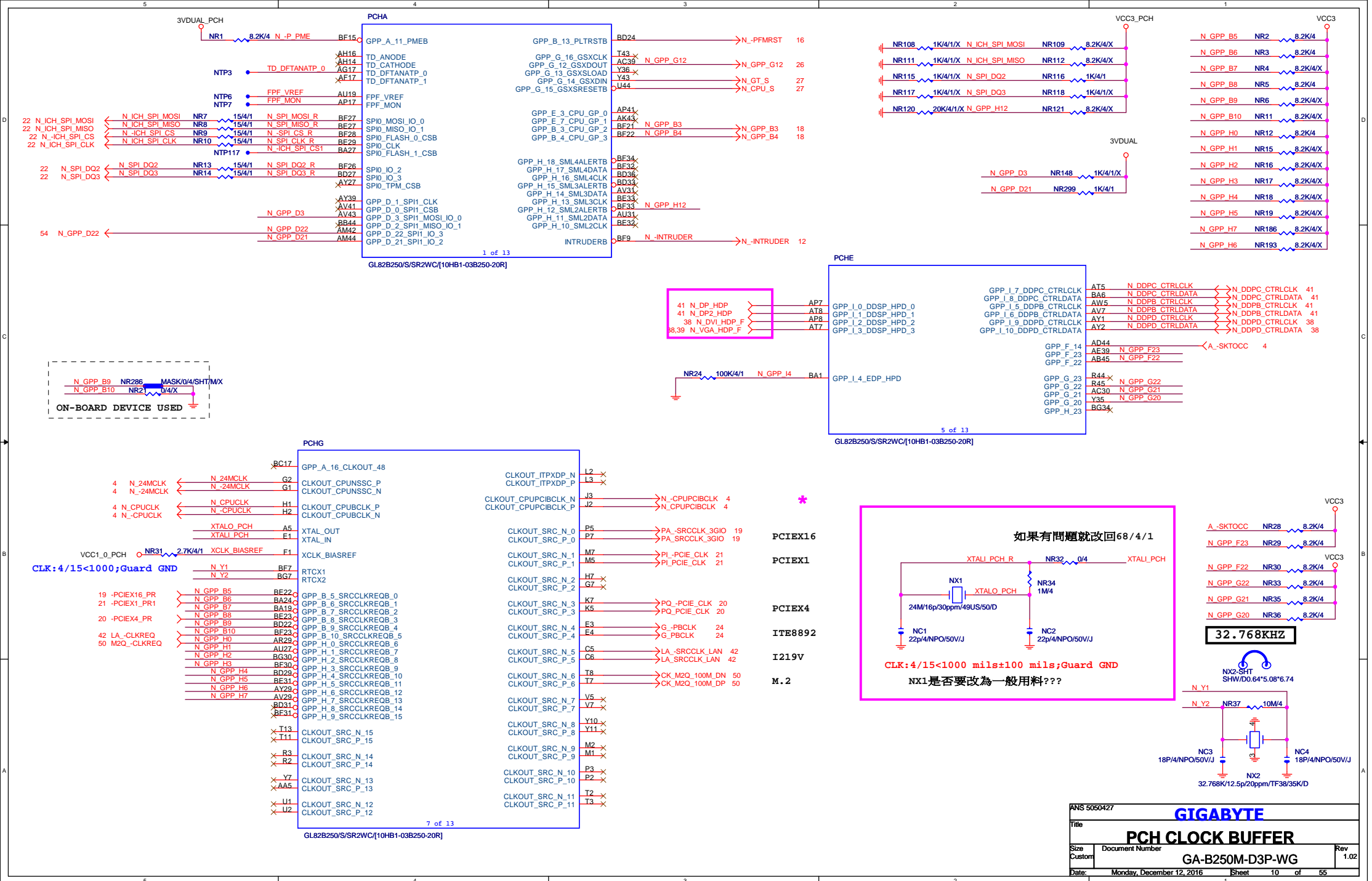




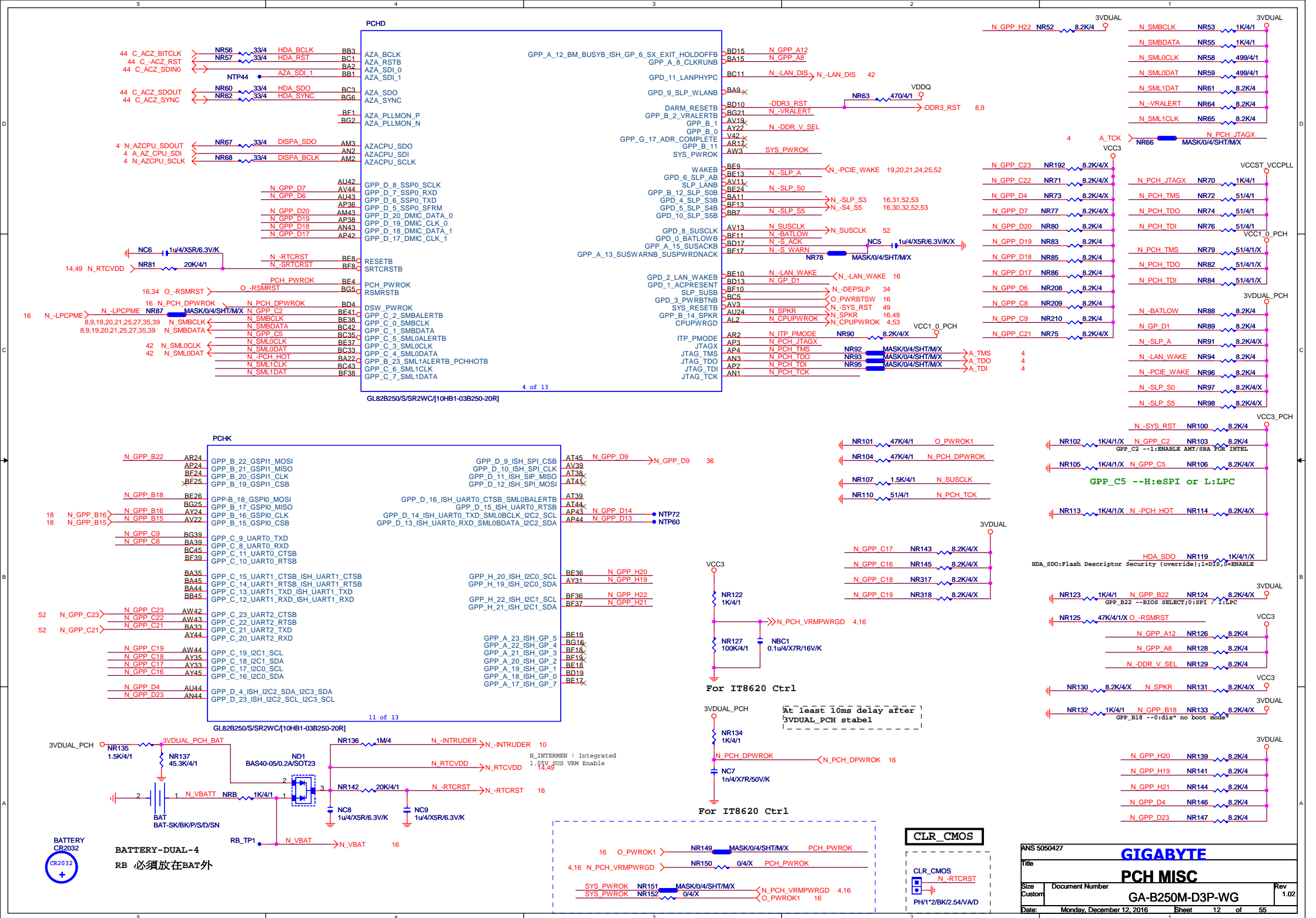


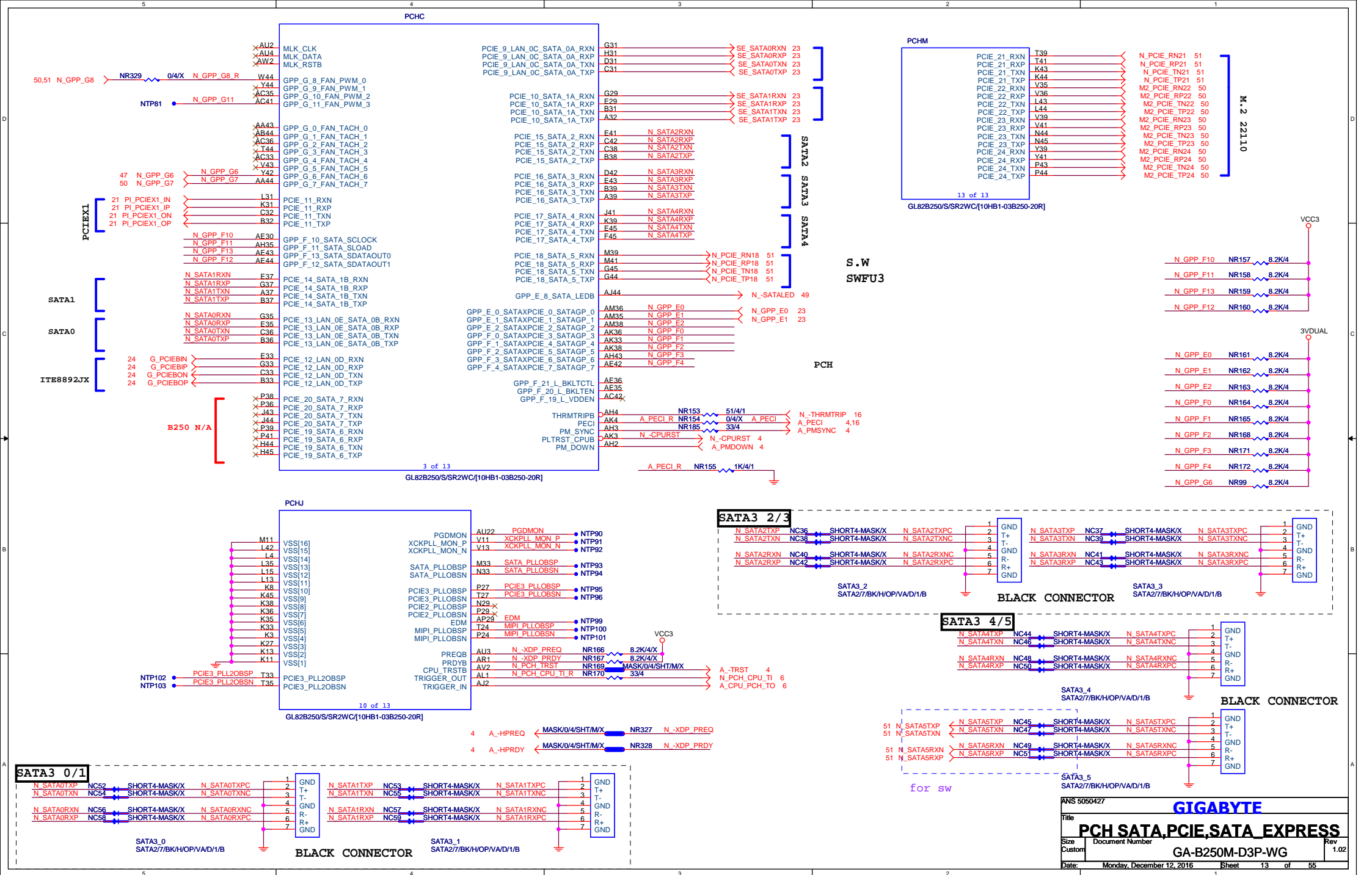




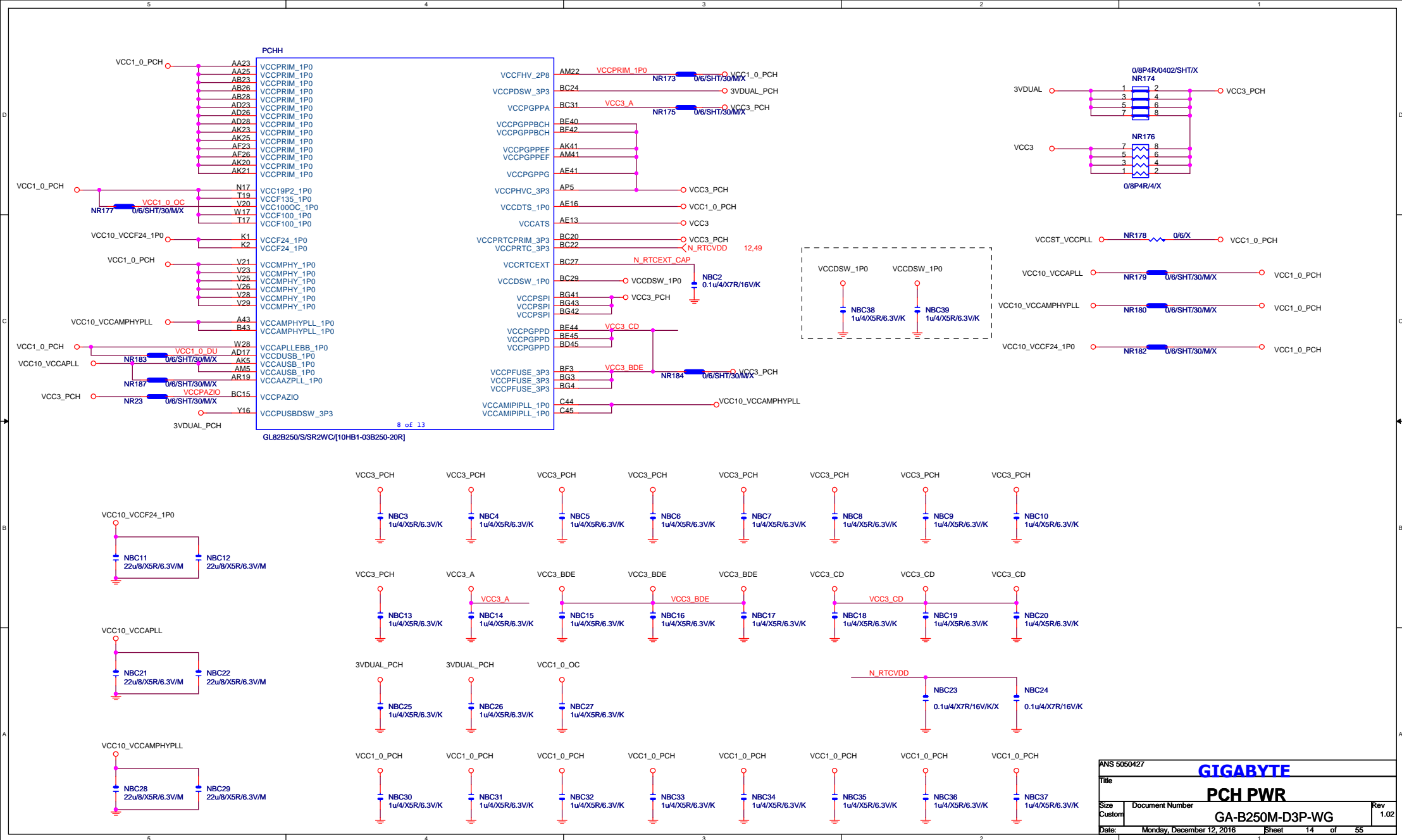












PCHI		
A25	VSS	VSS
A30	VSS	VSS
P22	VSS	VSS
AV38	VSS	VSS
AV45	VSS	VSS
AV8	VSS	VSS
AY11	VSS	VSS
AY19	VSS	VSS
AY37	VSS	VSS
AY4	VSS	VSS
AY42	VSS	VSS
AY8	VSS	VSS
B25	VSS	VSS
B3	VSS	VSS
B30	VSS	VSS
B35	VSS	VSS
B4	VSS	VSS
B41	VSS	VSS
BA13	VSS	VSS
BA17	VSS	VSS
BA37	VSS	VSS
BA29	VSS	VSS
BA31	VSS	VSS
BA37	VSS	VSS
BA4	VSS	VSS
BA42	VSS	VSS
BB40	VSS	VSS
BC38	VSS	VSS
BC40	VSS	VSS
BC9	VSS	VSS
BD11	VSS	VSS
BD16	VSS	VSS
BD2	VSS	VSS
BD21	VSS	VSS
BD25	VSS	VSS
F2	VSS	VSS
F31	VSS	VSS
E6	VSS	VSS
E8	VSS	VSS
F39	VSS	VSS
F43	VSS	VSS
G4	VSS	VSS
G40	VSS	VSS
G42	VSS	VSS
F6	VSS	VSS
G9	VSS	VSS
H11	VSS	VSS
H19	VSS	VSS
H22	VSS	VSS
H24	VSS	VSS
H27	VSS	VSS
H29	VSS	VSS
H33	VSS	VSS
H35	VSS	VSS
H38	VSS	VSS
H4	VSS	VSS
H42	VSS	VSS
H9	VSS	VSS
J4	VSS	VSS
M36	VSS	VSS
M38	VSS	VSS
M4	VSS	VSS
M8	VSS	VSS
M9	VSS	VSS
N13	VSS	VSS
N15	VSS	VSS
N19	VSS	VSS
N22	VSS	VSS
N24	VSS	VSS
N31	VSS	VSS
N42	VSS	VSS
P10	VSS	VSS
P12	VSS	VSS
AV35	VSS	VSS

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GL82B250/S/SR2WC[10HB1-03B250-20R]

PCHL		
BD34	VSS[70]	AB18
BD39	VSS[71]	AB20
BD7	VSS[72]	AB21
BE2	VSS[73]	AB25
BF43	VSS[74]	AB29
BF2	VSS[75]	AB4
BG18	VSS[76]	AB42
A35	VSS[77]	AC10
AG23	VSS[78]	AC14
AG28	VSS[79]	AC16
AG32	VSS[80]	AC38
AG37	VSS[81]	AC4
AG40	VSS[83]	AC5
AG9	VSS[84]	AC7
AA21	VSS[85]	AC8
AA17	VSS[86]	AD1
AA18	VSS[87]	AD18
AA20	VSS[88]	AD20
AA21	VSS[89]	AD21
AA26	VSS[90]	AD25
AA28	VSS[91]	AD29
AA29	VSS[92]	AD45
AB17	VSS[93]	AE11
AC32	VSS[94]	AE14
AE4	VSS[95]	AE32
AE8	VSS[96]	AE33
AF18	VSS[97]	AK29
AF20	VSS[98]	AK30
AF21	VSS[99]	AK32
AF25	VSS[100]	AK35
AF28	VSS[101]	AK39
AF29	VSS[102]	AL4
AF4	VSS[103]	AL42
AF42	VSS[104]	AM10
AG18	VSS[105]	AM11
AG20	VSS[106]	AM13
AG21	VSS[107]	AM17
AG23	VSS[108]	AM19
AG25	VSS[109]	AM24
AG26	VSS[110]	AM27
AG28	VSS[111]	AM29
AG29	VSS[112]	AM32
AG29	VSS[113]	AM33
AG29	VSS[114]	AM4
AH11	VSS[115]	AN45
AH13	VSS[116]	AP10
AH30	VSS[117]	AP11
AH32	VSS[118]	AP15
AH33	VSS[119]	AP22
AH38	VSS[120]	AP27
AJ1	VSS[121]	AP31
AJ17	VSS[122]	AP33
AJ18	VSS[123]	AP34
AJ20	VSS[124]	AP39
AJ21	VSS[125]	T4
AJ23	VSS[126]	W26
AJ26	VSS[127]	V16
AJ26	VSS[128]	V17
AJ28	VSS[129]	V18
AJ29	VSS[130]	V30
AJ45	VSS[131]	V32
AK10	VSS[132]	V33
AK14	VSS[133]	V38
AK16	VSS[134]	V4
AK17	VSS[135]	V8
AK18	VSS[136]	W18
AK26	VSS[137]	W20
AK28	VSS[138]	W21
AM14	VSS[139]	W23
AN14	VSS[140]	W25
AP19	VSS[141]	A44
AR22	VSS[142]	BE1
AR27	VSS[143]	BD1
AU29	VSS[144]	B1
AU33	VSS[145]	A2
AV1	VSS[146]	A3
AV10	VSS[147]	A4
AV15	VSS[148]	B44
AV24	VSS[149]	B45
AV27	VSS[150]	
AV33	VSS[151]	
AT37	VSS[152]	
AT42	VSS[153]	
AU11	VSS[154]	
AU17	VSS[155]	
BD30	VSS[156]	
W45	VSS[157]	
Y13	VSS[158]	
Y14	VSS[159]	
Y30	VSS[160]	
Y32	VSS[161]	
Y33	VSS[162]	
BG14	VSS[163]	

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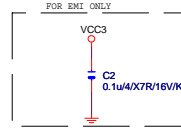
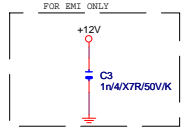
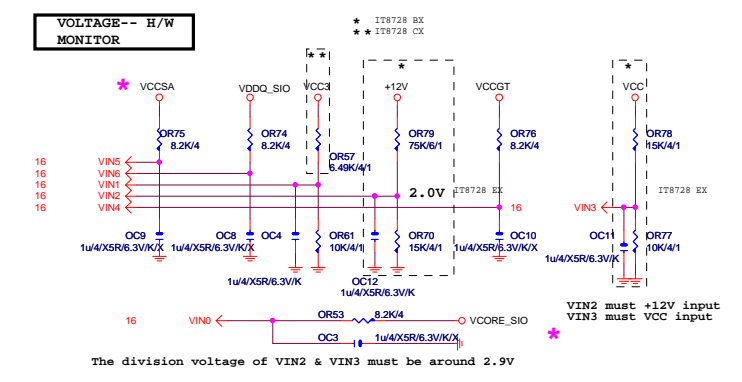
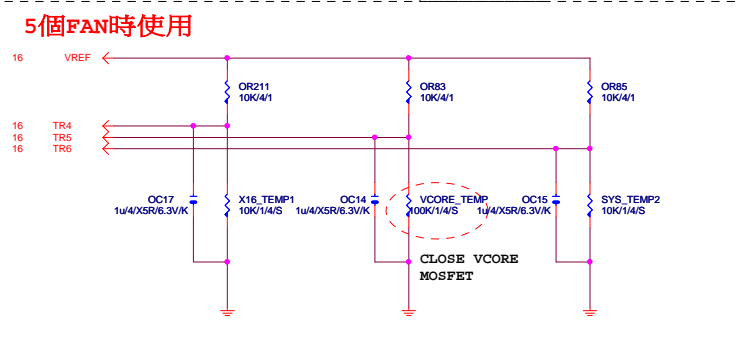
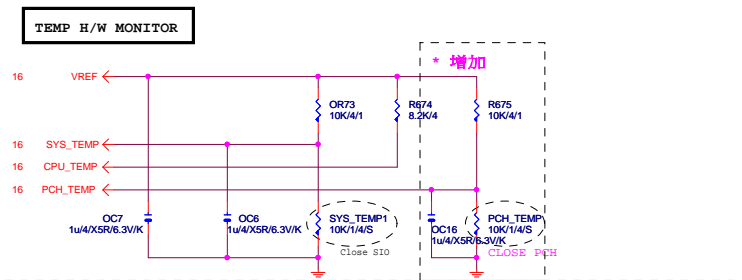
GL82B250/S/SR2WC[10HB1-03B250-20R]



ANS 5050427			<b>GIGABYTE</b>	
Title			<b>PCH GND</b>	
Size	Document Number		GA-B250M-D3P-WG	Rev 1.02
Custom				
Date:	Monday, December 12, 2016	Sheet	15	of 55

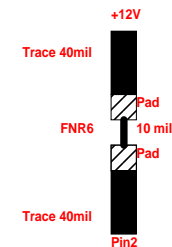


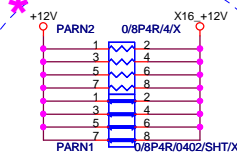
CLOSE SIO PIN4 2 5LEVEL



★Update 2015-04.24

Gigabyte Technology			
Title			
HWM,KB/MS, FAN CTRL			
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Date:	Monday, December 12, 2016	Sheet	17 of 55

[illegible][illegible][illegible]

**+12 - protect  
short-wire test**

PA\_EXP\_RXP[0..15] >> PA\_EXP\_RXP[0..15] 4  
PA\_EXP\_RXN[0..15] >> PA\_EXP\_RXN[0..15] 4  
PA\_EXP\_TXP[0..15] >> PA\_EXP\_TXP[0..15] 4  
PA\_EXP\_TXN[0..15] >> PA\_EXP\_TXN[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
PA_EXP_TXN14	PAC33	0.22u4/X5R6.3V/K	PA_EXP_TXN14_C
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

PCIEX16:16/5/5/5/16

PCI-E REV:1.1--&gt; 2.5GHZ

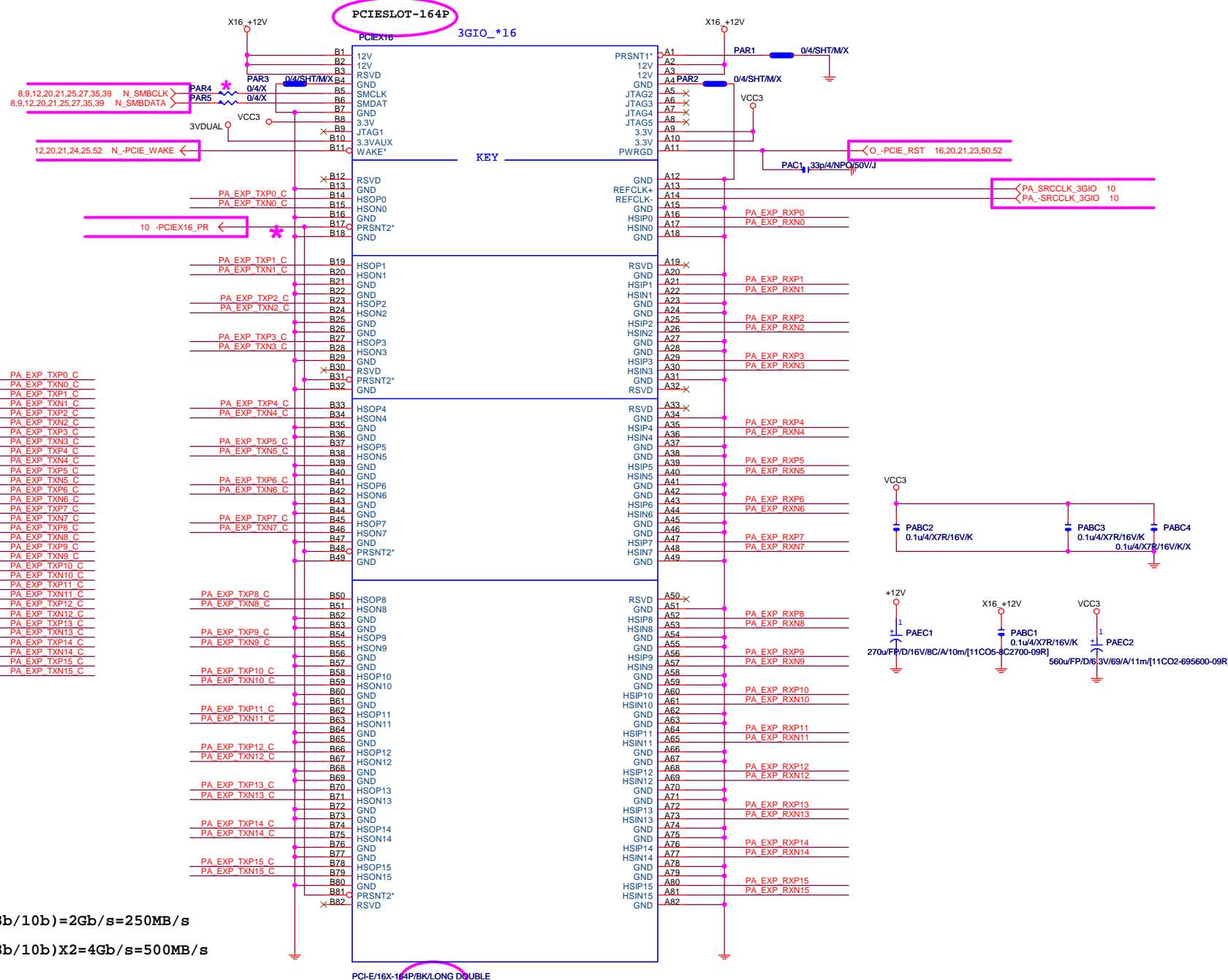
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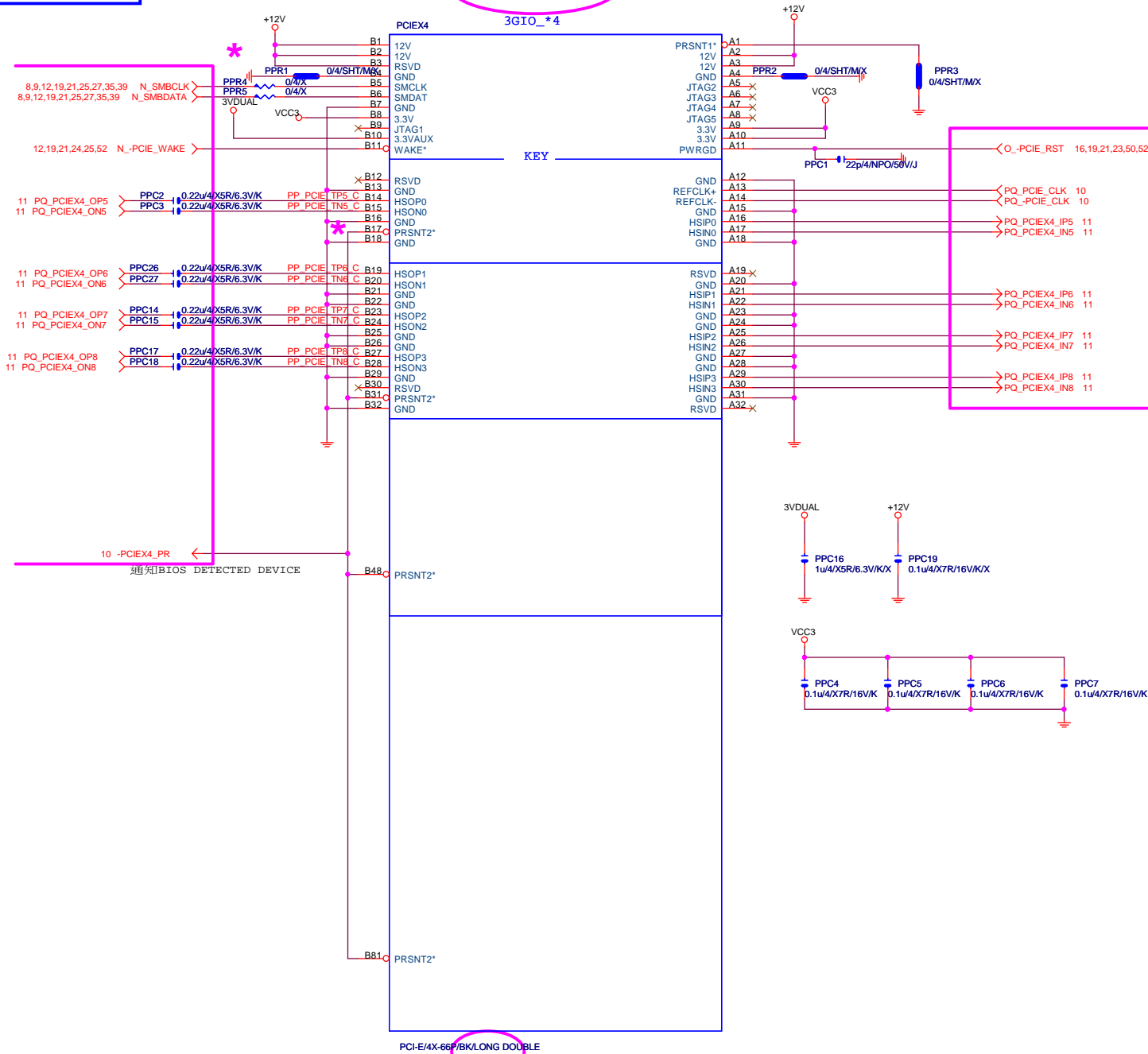
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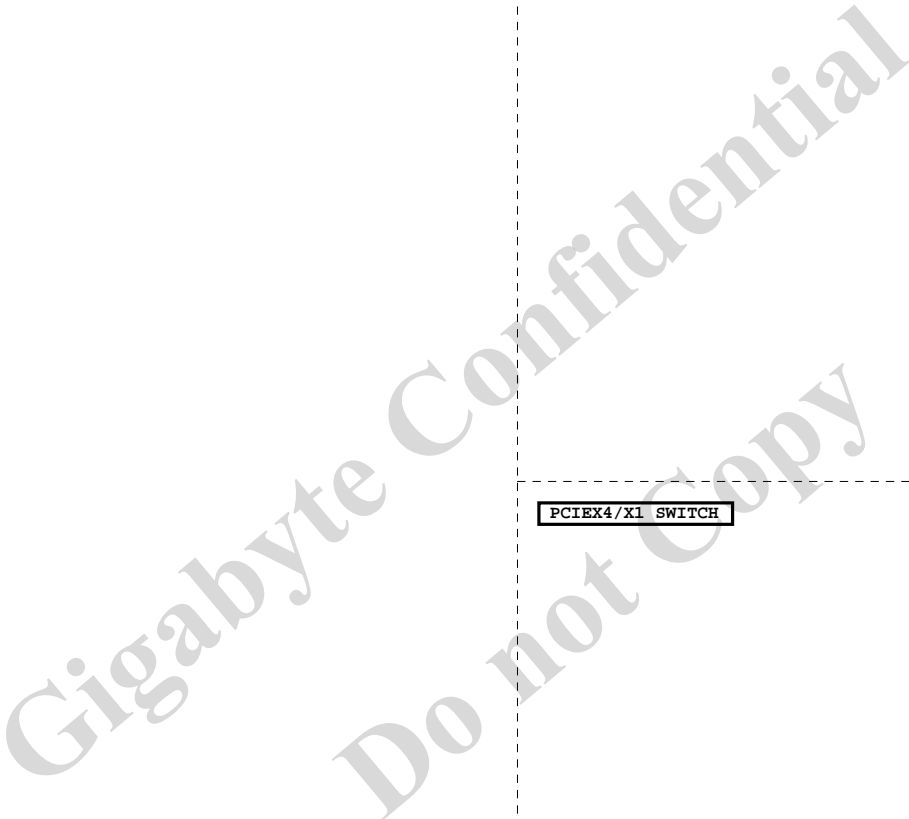
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PCE-E X16(雙向) BANDWITH=2.5GHz\*(8b/10b)X16X2=64Gb/s=8GB/s

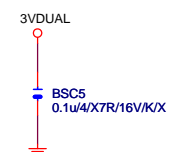
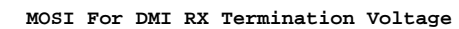
PCI-E REV:2.0--&gt; 5GHZ







## PCIEX4/X1 SWITCH



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

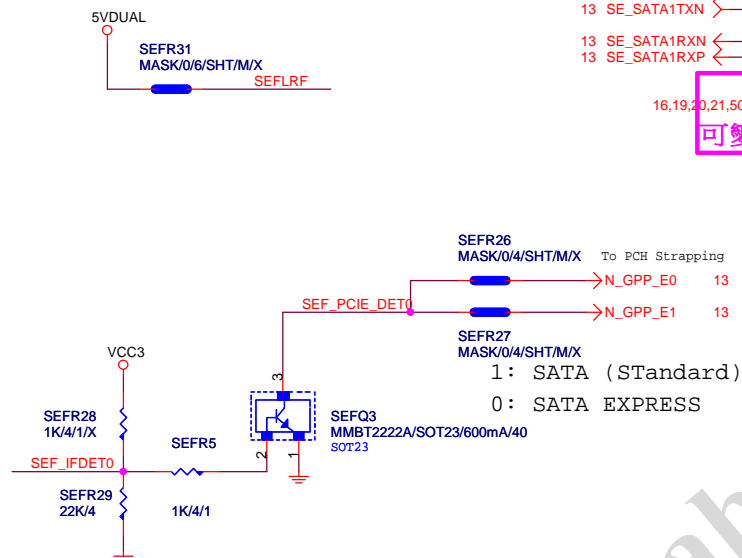
```
1 means floating
0 means PD 1K
```

\* 試產先上，PVT 移除

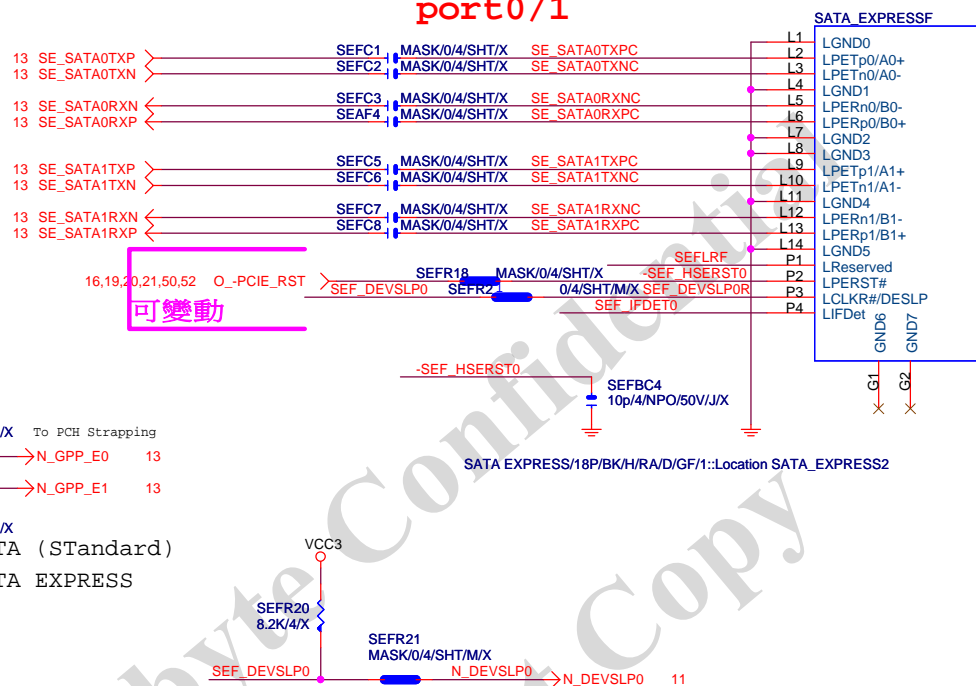
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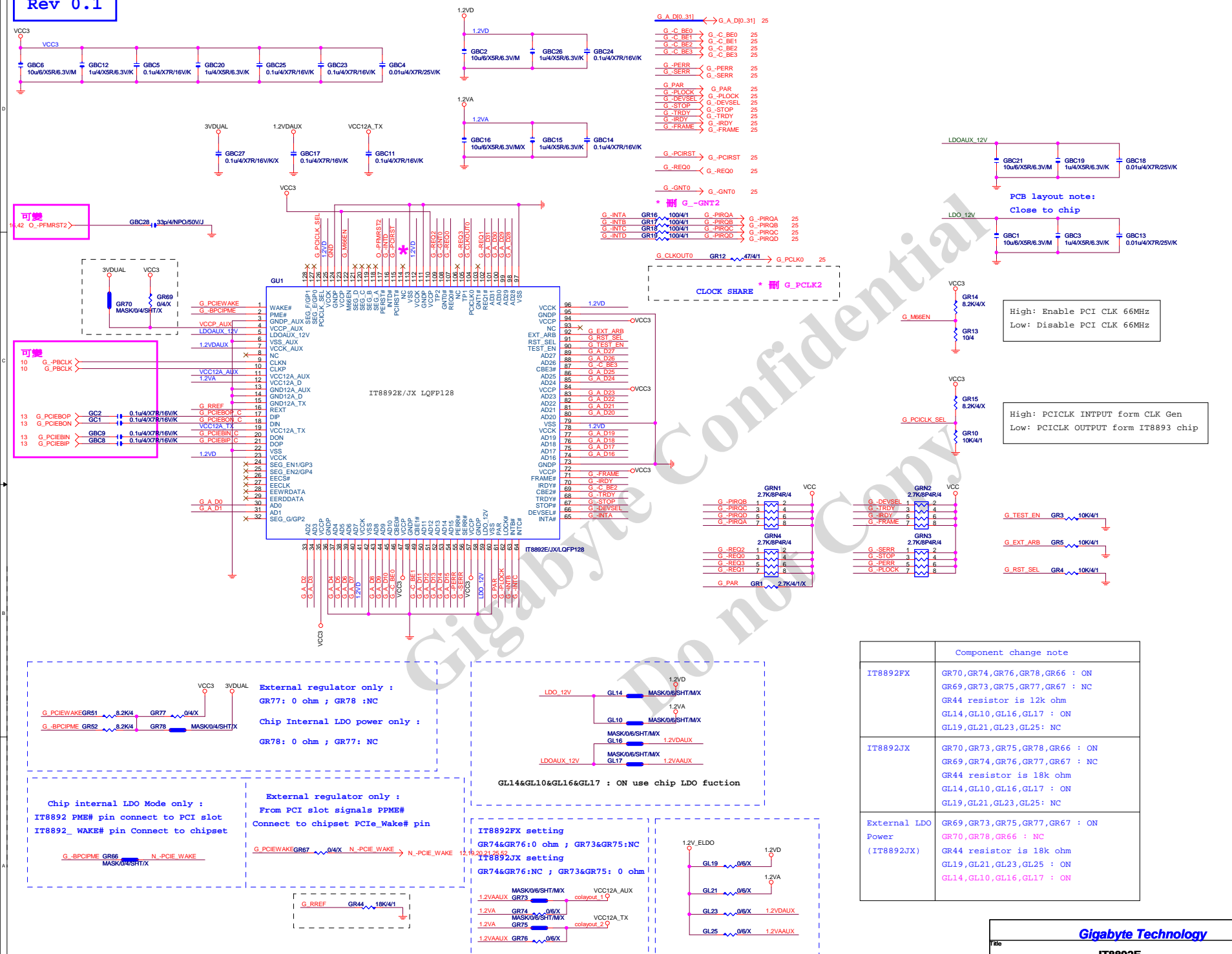


SATA EXPRESS新增power for USB3.1小卡  
每個CONNECT都要留一顆0603 0  
OHM,走線40MILS 即可



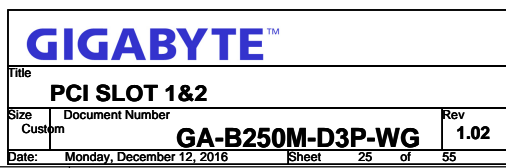
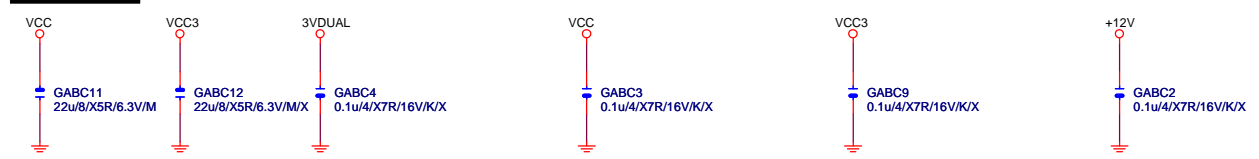
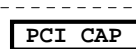
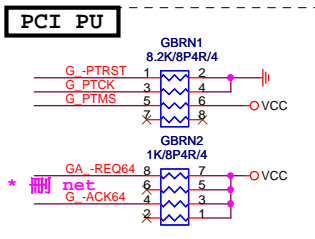
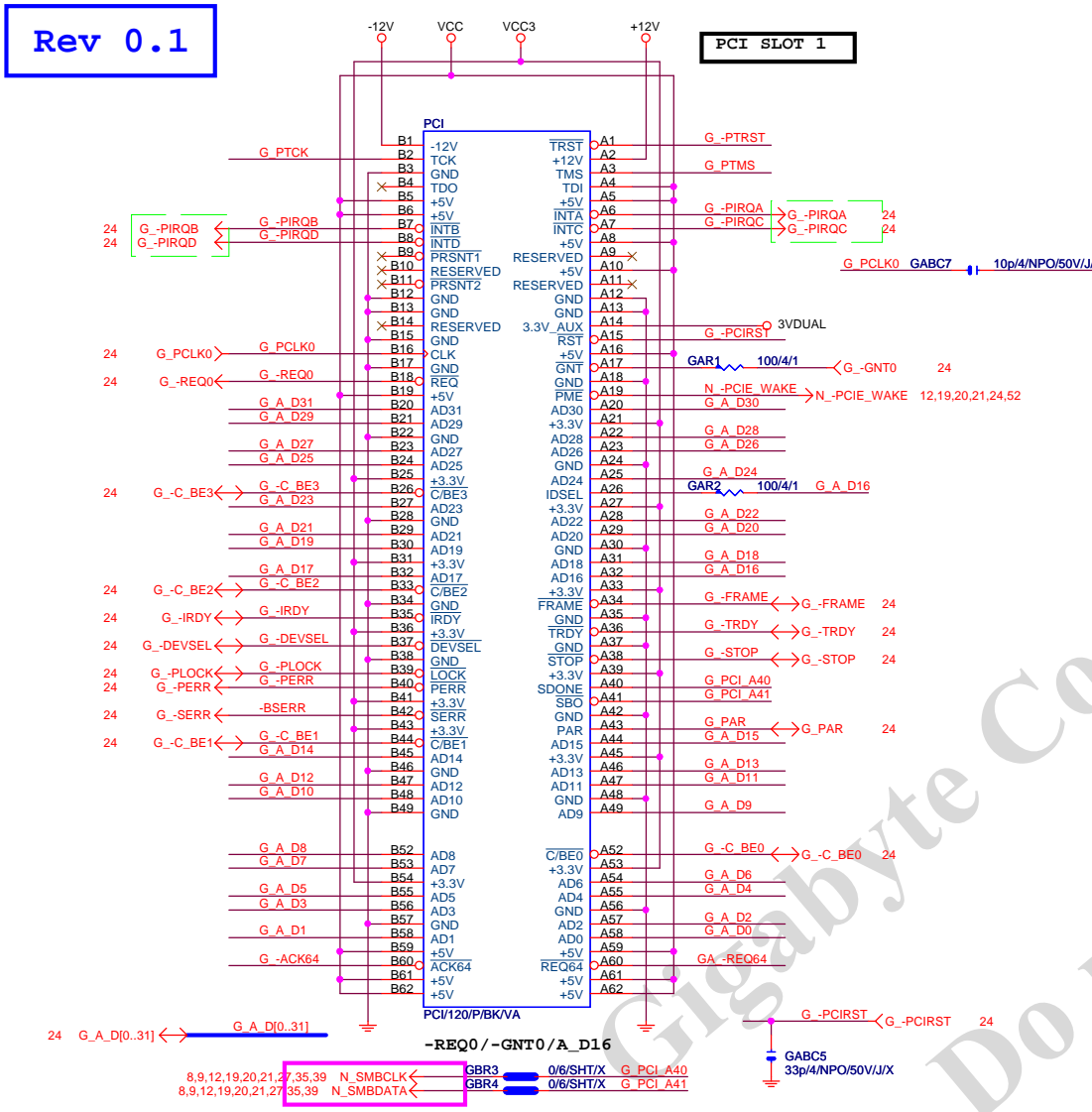
To SATA3  
port0/1



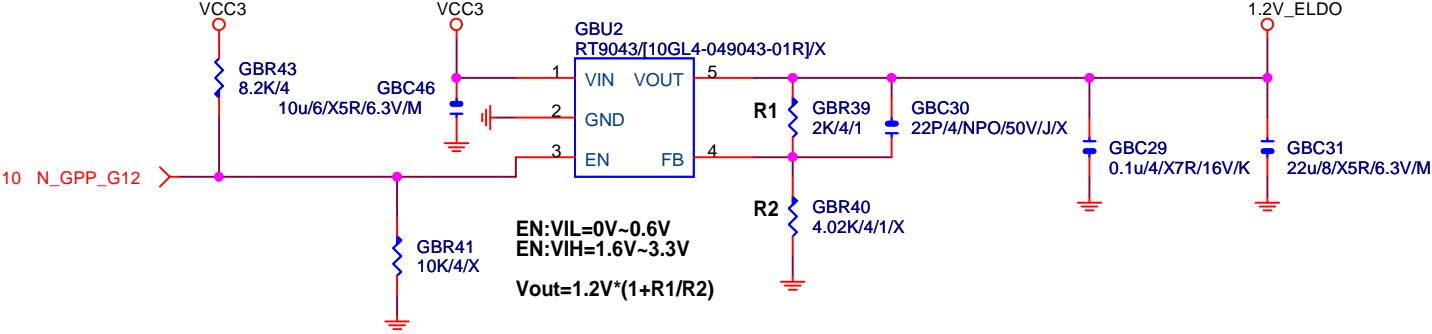


	Component change note
IT8892FX	GR70, GR74, GR76, GR78, GR66 : ON GR69, GR73, GR75, GR77, GR67 : NC GR44 resistor is 12k ohm GL14, GL10, GL16, GL17 : ON GL19, GL21, GL23, GL25: NC
IT8892JX	GR70, GR73, GR75, GR78, GR66 : ON GR69, GR74, GR76, GR77, GR67 : NC GR44 resistor is 18k ohm GL14, GL10, GL16, GL17 : ON GL19, GL21, GL23, GL25: NC
External LDO Power (IT8892JX)	GR69, GR73, GR75, GR77, GR67 : ON GR70, GR78, GR66 : NC GR44 resistor is 18k ohm GL19, GL21, GL23, GL25 : ON GL14, GL10, GL16, GL17 : ON

Rev 0.1



Rev 0.1



Gigabyte Technology

Title

ASM1085 POWER

Size  
Custom

Document Number

GA-B250M-D3P-WG

Rev

1.02

Date:

Monday, December 12, 2016

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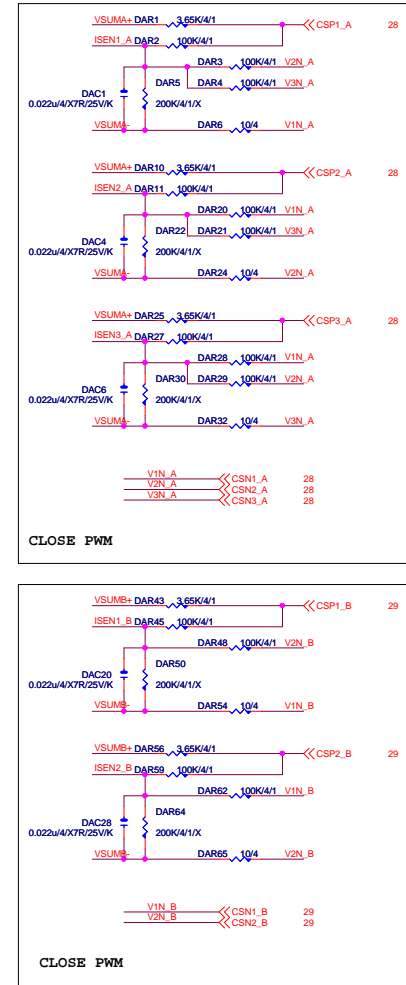
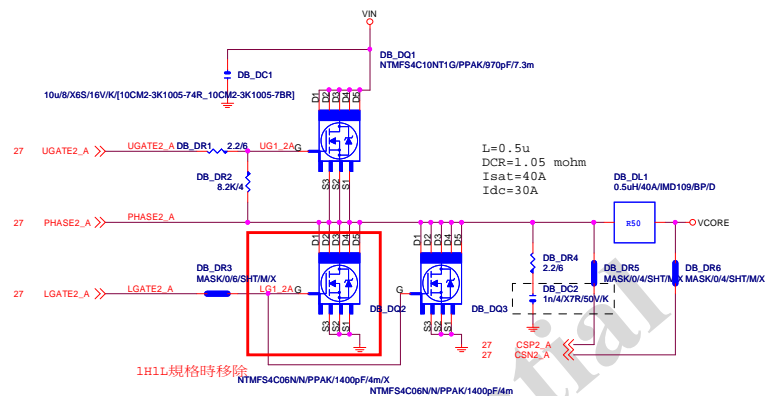
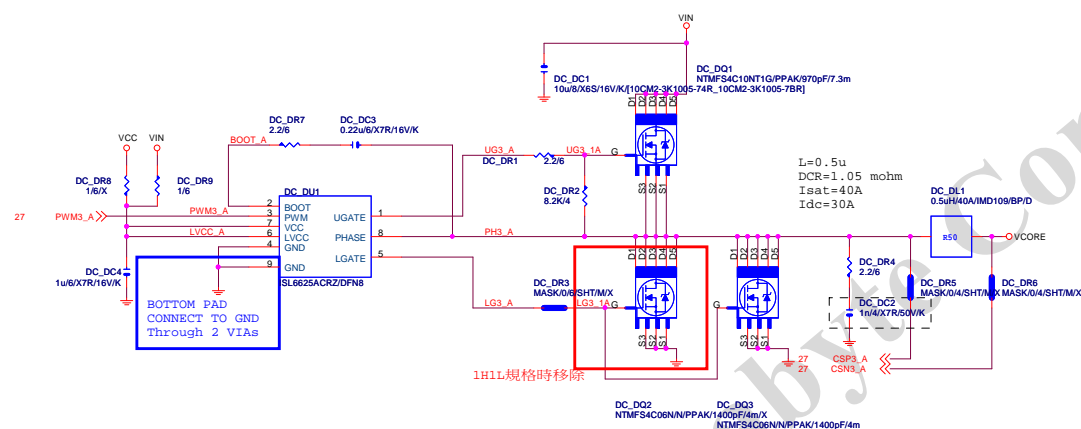
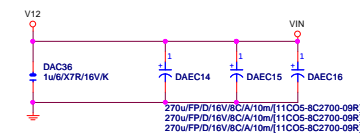


Figure 10 shows two schematic diagrams for the VCC0\_VCC\_SENSE and VCC1\_VCC\_SENSE nodes. The left diagram (VCC0\_VCC\_SENSE) includes components DAR123 (1K/4/1X), DAR124 (8.2K/4/1), and DAQ3 (MMBT2222A/SOT23/600mA/40). The right diagram (VCC1\_VCC\_SENSE) includes components DAR120 (1K/4/1X), DAR121 (8.2K/4/1), and DAQ1 (MMBT2222A/SOT23/600mA/40). Both diagrams show a +12V supply, a VCC3 supply, and a connection to PCH:GPP\_G14 and PCH:GPP\_G15 respectively.

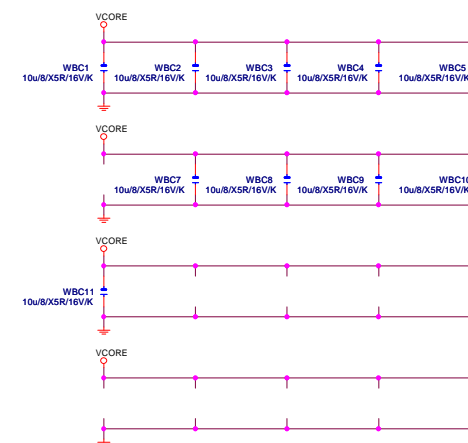
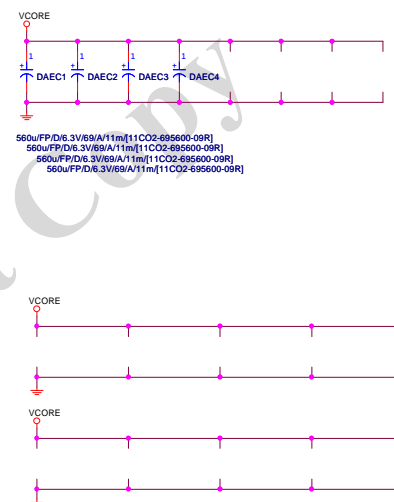
VCORE



VIN CAP 270u\*3PCS

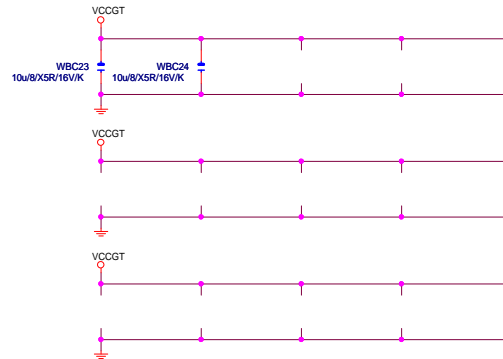
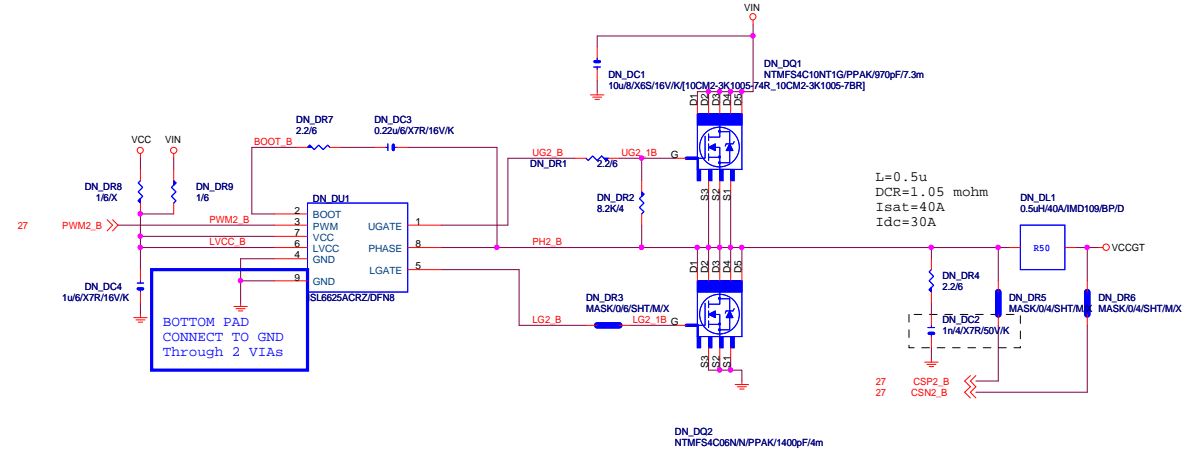


VCORE CAP 560u\*4PCS  
10u\*10PCS



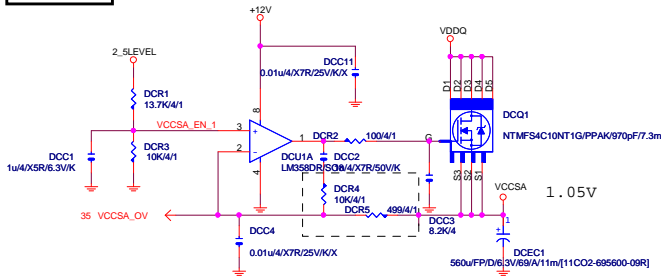
**GIGABYTE™**

Title			
ISL95868_MOS			
Size	Document Number	Rev	
Custom	GA-B250M-D3P-WG	1.02	
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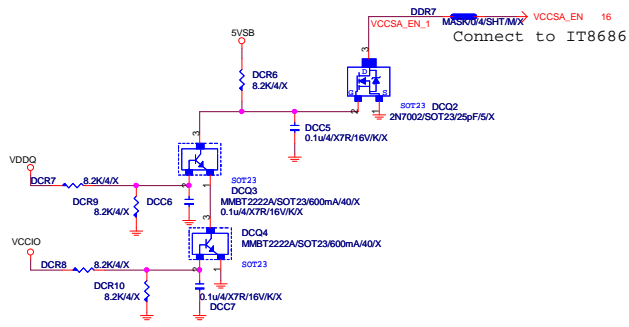




# VCCSA

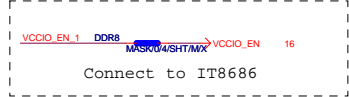
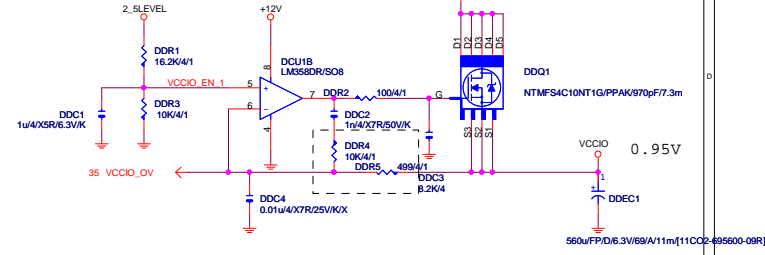


Connect to IT8793

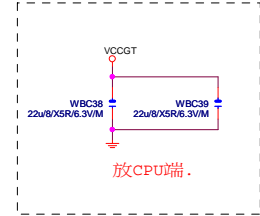


Connect to IT8686

# VCCIO

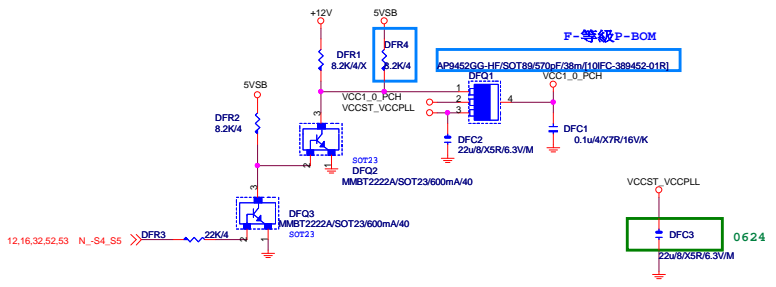


Connect to IT8686

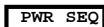


放CPU端.

# VCCST\_VCCPLL



## DDR4

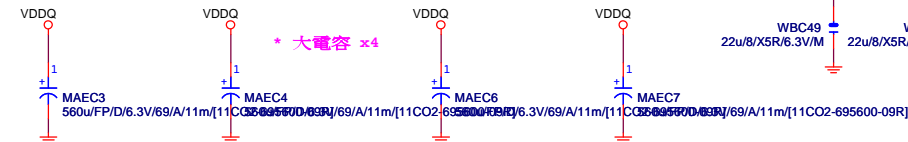


CLOSE TO DDR POWER PLANE

For power sequence require

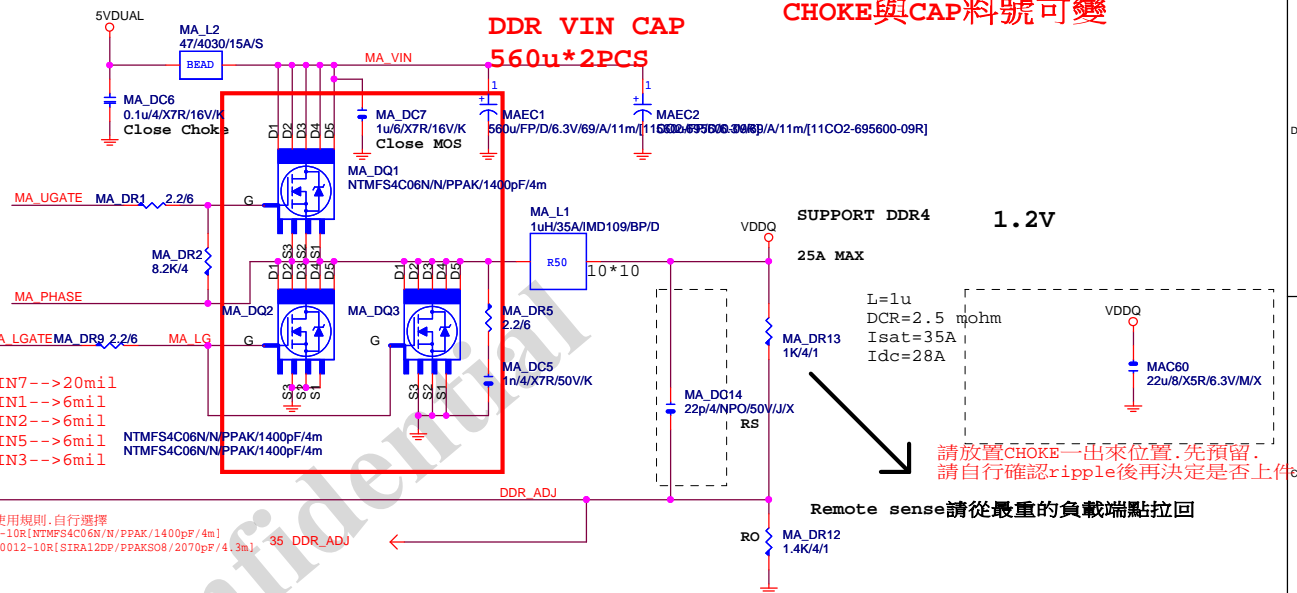
VPP\_25V使用8120時上件

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



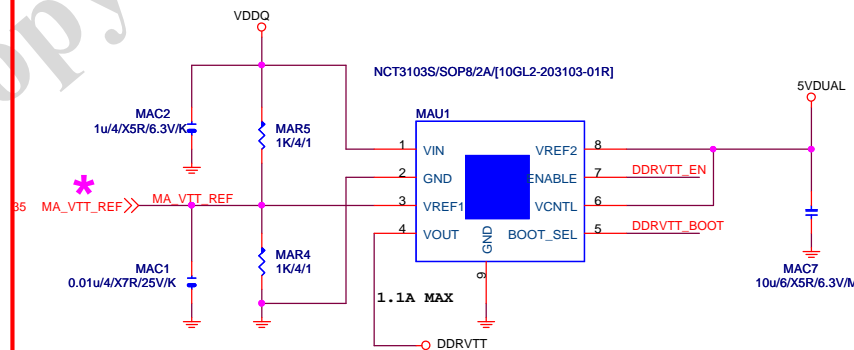
DDRVTT CAP

\* 大電容 x0



請放置CHOKE一出來位置.先預留.  
請自行確認ripple後再決定是否上件

Remote sense請從最重的負載端點拉回



4 DDR\_VTT\_CTL MAR110 MASK/0/4/SHT/M/10/X DDRVTT\_EN  
12 6.52 53 N\_SLP\_S3 MAR111 MASK/0/4/SHT/M/10/X DDRVTT\_BOOT

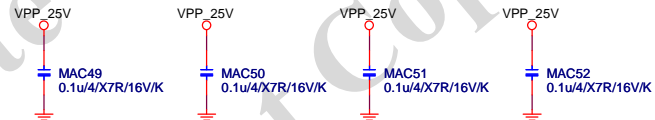
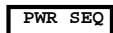


## RT8237\_DDR4 POWER

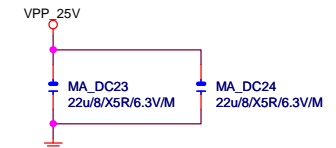
Size Custom	Document Number <b>GA-B250M-D3P-WG</b>	Rev <b>1.02</b>
Date: Monday, December 12, 2016	Sheet 31 of 55	

VPP\_25V

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



\* 大電容 x0

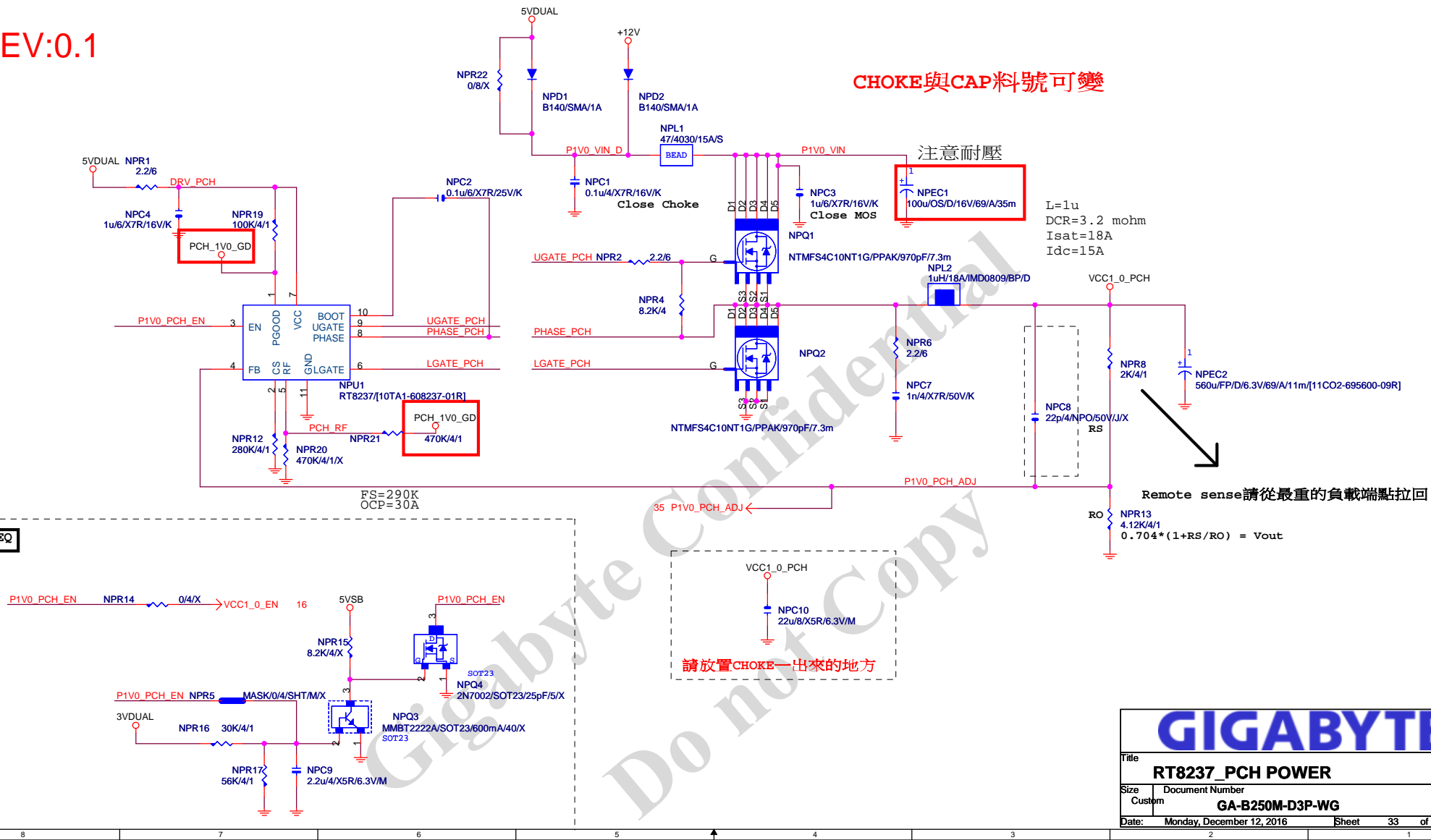


**GIGABYTE™**

Title			
RT8068A_VPP25 POWER			
Size	Document Number	Rev	
Custom	GA-B250M-D3P-WG	1.02	
Date:	Monday, December 12, 2016	Sheet	32 of 55

REV:0.1

CHOKES與CAP料號可變



GIGABYTE™			
Title			
RT8237_PCH POWER			
Size	Document Number		Rev
Custom	GA-B250M-D3P-WG		1.02
Date:	Monday, December 12, 2016	Sheet	33 of 55

[illegible]

5VDUAL

3VDUAL

BC27  
0.1u/4/X7R/16V/K

R37  
100/4/1

R38  
169/4/1

Q4  
L1085DG/TO252/5A

3VDUAL

BC25  
0.1u/4/X7R/16V/K

R38  
22K/4

C9  
22u/8/X5R/6.3V/M

C8  
1n/4/X7R/50V/K

O\_RSMRST 12,16

上22u 电容

Meet the rise time

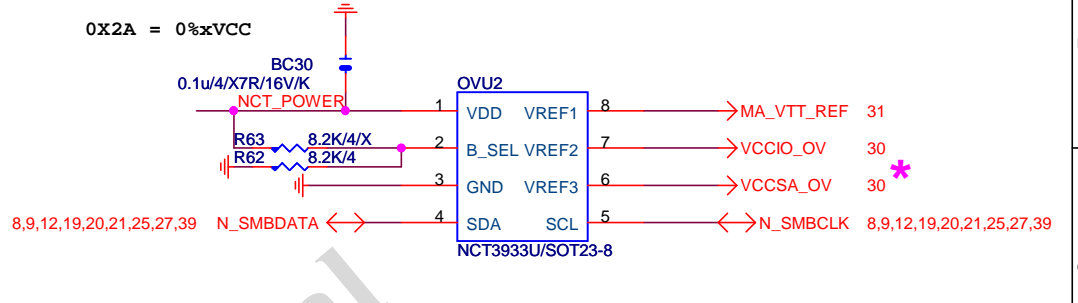
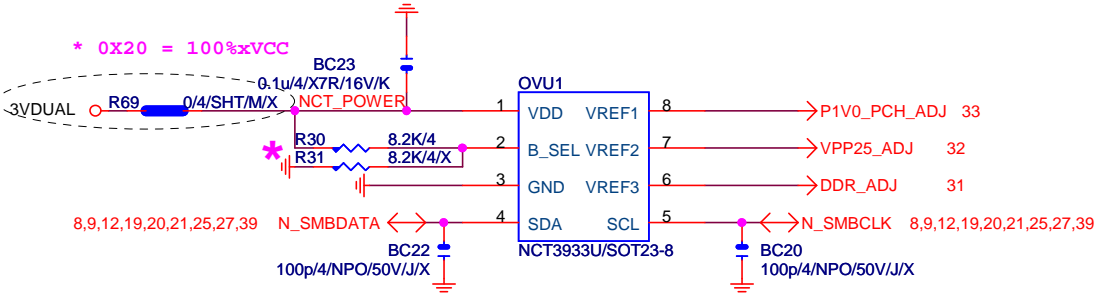
Rise/Fall Max 500ns  
Rise: 20% - 80%  
Fall: 2V - 0.8V

[illegible]

## Gigabyte Technology

Title				
<b>DISCRETE POWER</b>				
Size	Document Number	<b>GA-B250M-D3P-WG</b>		Rev
Custom				<b>1.02</b>
Date:	Monday, December 12, 2016	Sheet	34	of 55

OVER VOLTAGE



0X22 = 75%xVCC

\* 删除 OVU3

NCT3933	0X2A	0X20	0X22
VREF1	DDRVTT	VREF_DDRA_DQ	PCH Core
VREF2	VREF_DDRA_CA	N/A	VCC1_5_PCH
VREF3	VREF_DDRA_CA	VREF_DDRB_DQ	SMREF

**Gigabyte Technology**

TitleCPU CORE VR-2

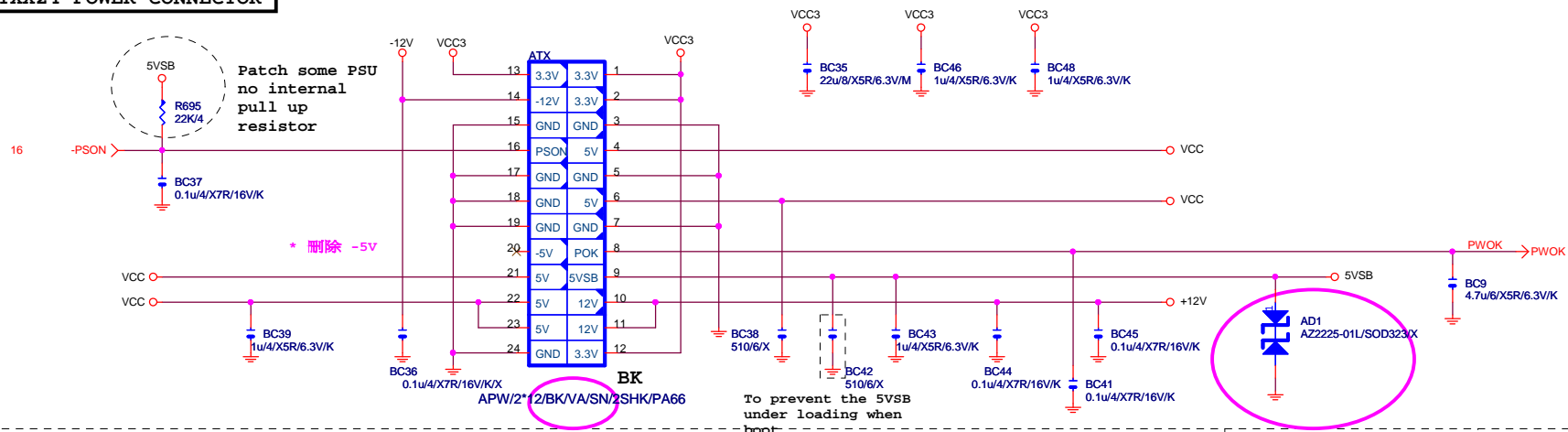
Size Custom

Document Number

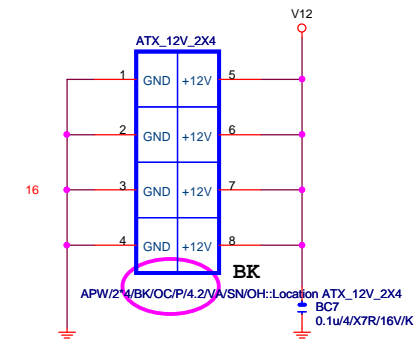
**GA-B250M-D3P-WG**Rev1.02

Date: Monday, December 12, 2016Sheet 35 of 55

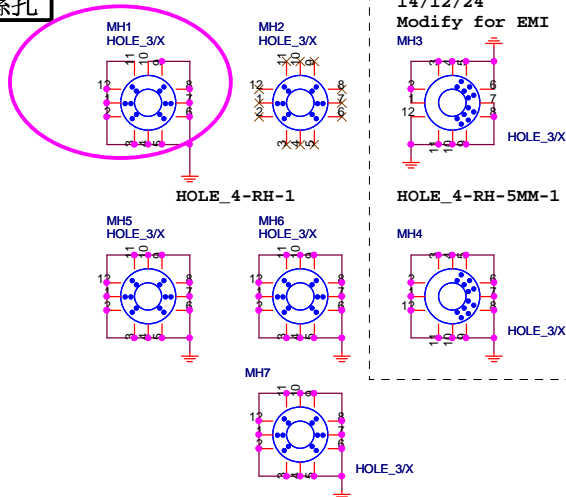
## ATXX24 POWER CONNECTOR



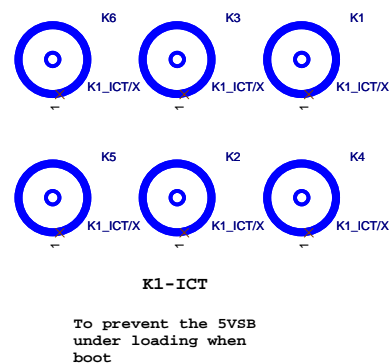
## ATXX4 POWER CONNECTOR



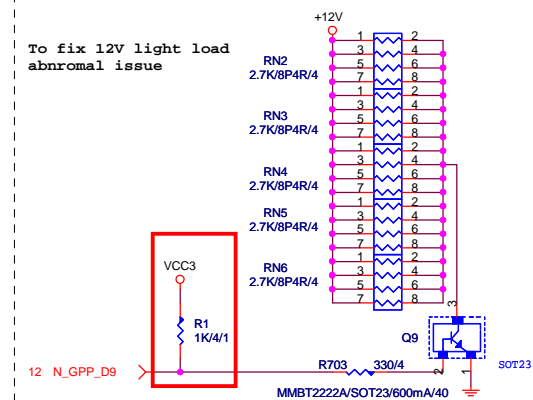
**螺絲孔**



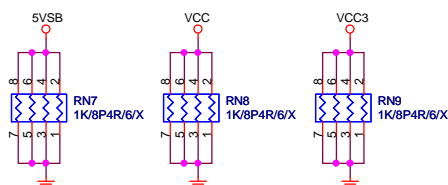
**固定孔/光學點**



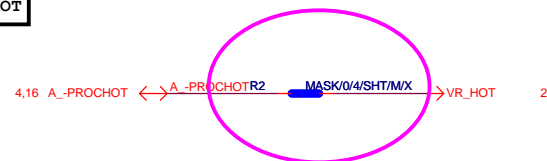
## +12V DUMMY LOAD



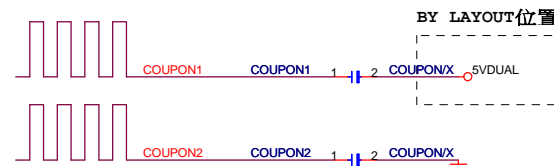
## DUMMY LOAD



**-PROHOT**



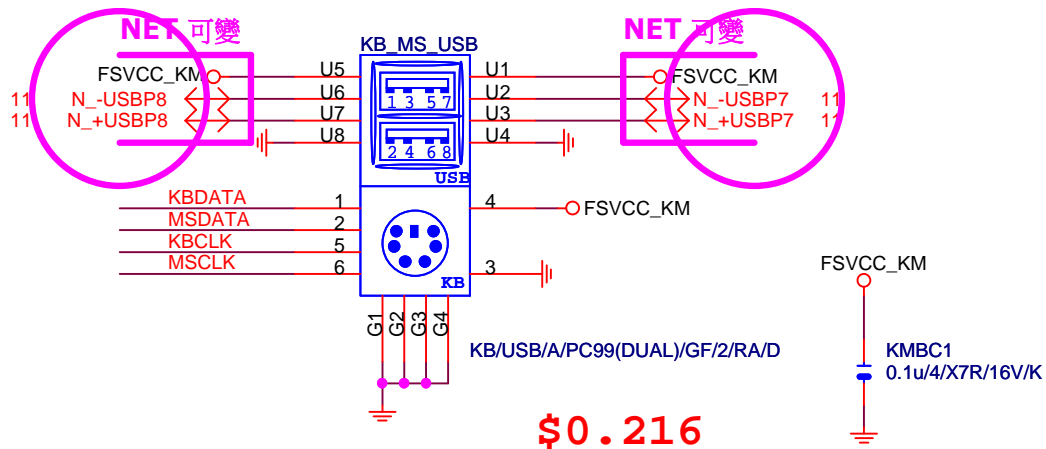
## COUPON



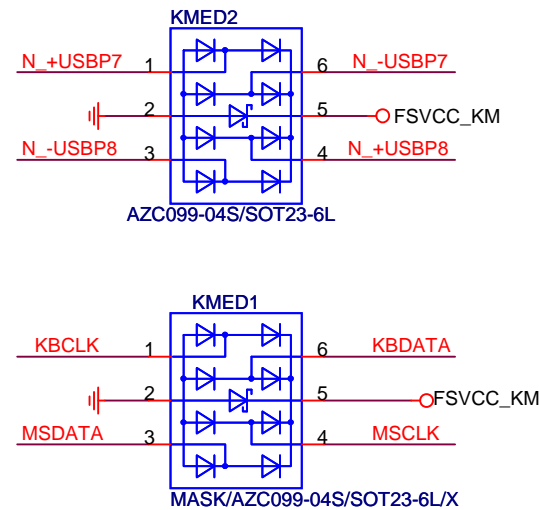


## KB\_MS\_USB

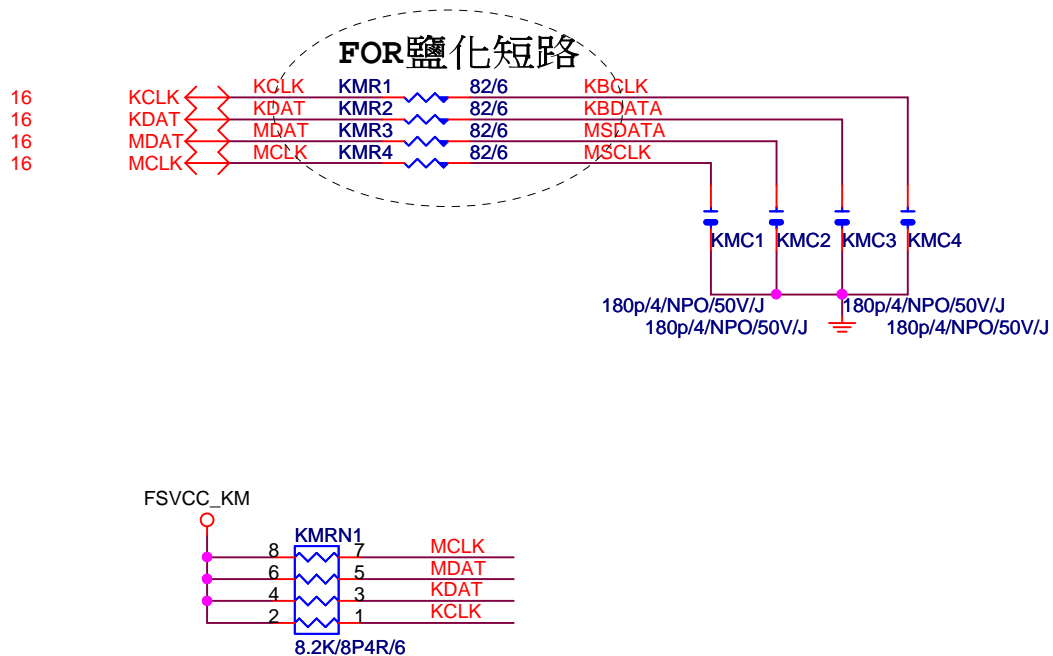
Rev: 0.7



## ESD

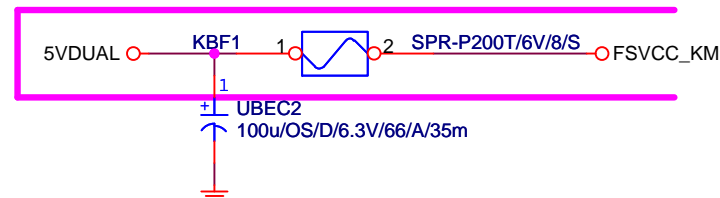


## KB\_MS\_USB DAMPING/PU

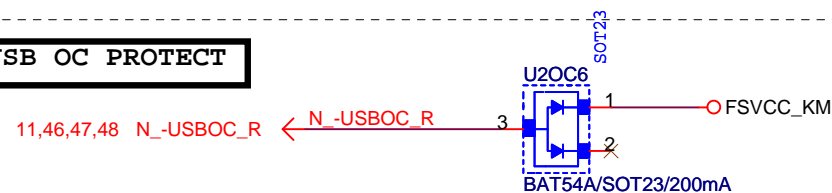


## KB\_MS\_USB PWR

## NET 可變, 與其他USB SHARE



## USB OC PROTECT



Gigabyte Technology

Title

KB\_MS\_USB

Size

Document Number

GA-B250M-D3P-WG

Rev  
1.02

Date:

Monday, December 12, 2016

Sheet

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of

55

NET 可變

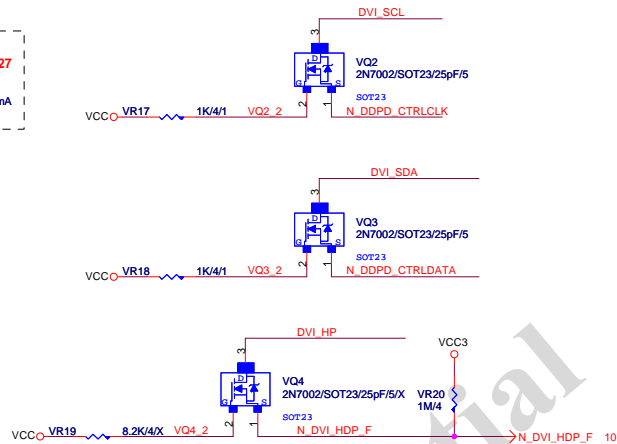
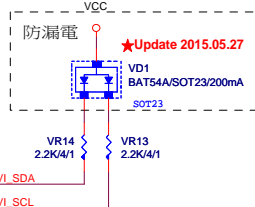


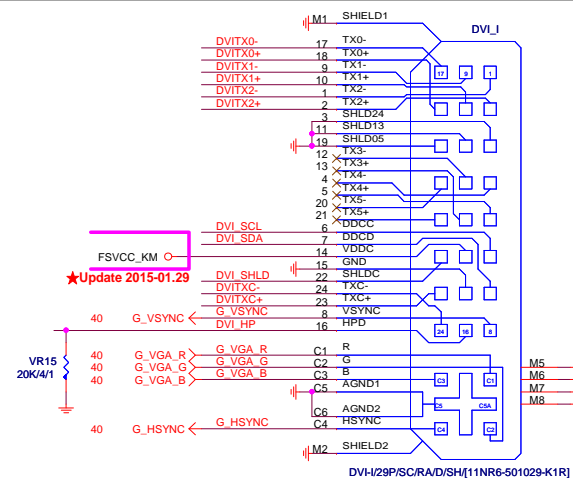
Figure 1 shows two pin connection diagrams for VESD2 and VESD1. The left diagram for VESD2 shows pins 1-10 connected to DVITX1+, DVITX1-, DVITX2-, DVITX2+, DVITX1-, DVITX2-, DVITX2+, and DVITX2-. The right diagram for VESD1 shows pins 1-10 connected to DVITXC-, DVITXC+, DVITX0-, DVITX0+, DVITXC-, DVITXC+, DVITX0+, and DVITX0-.

FSVCC\_KM

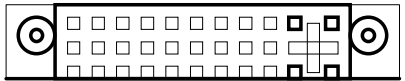
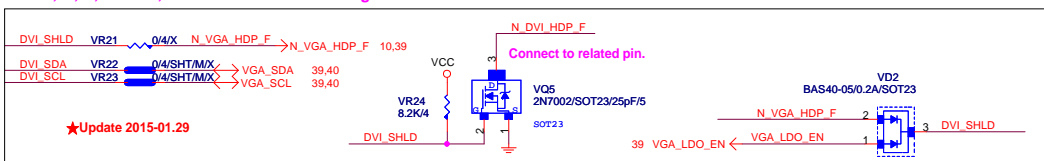
VBC10  
0.1u/4/X7R/16V/K

Pin connection diagram for the AZC099-04S.R7G/SOT23-6L. The diagram shows a 6-pin package with pins 1 through 6. Pin 1 is DVI\_SCL, Pin 2 is DVI\_HP, Pin 3 is DVI\_HP, Pin 4 is G\_VS/NC, Pin 5 is FSVCC\_KM, and Pin 6 is DVI\_SDA. A dashed oval encloses pins 5 and 6, with a label "NET 可變" (NET variable) pointing to it. The package is labeled "VESD3".

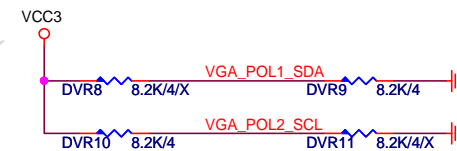
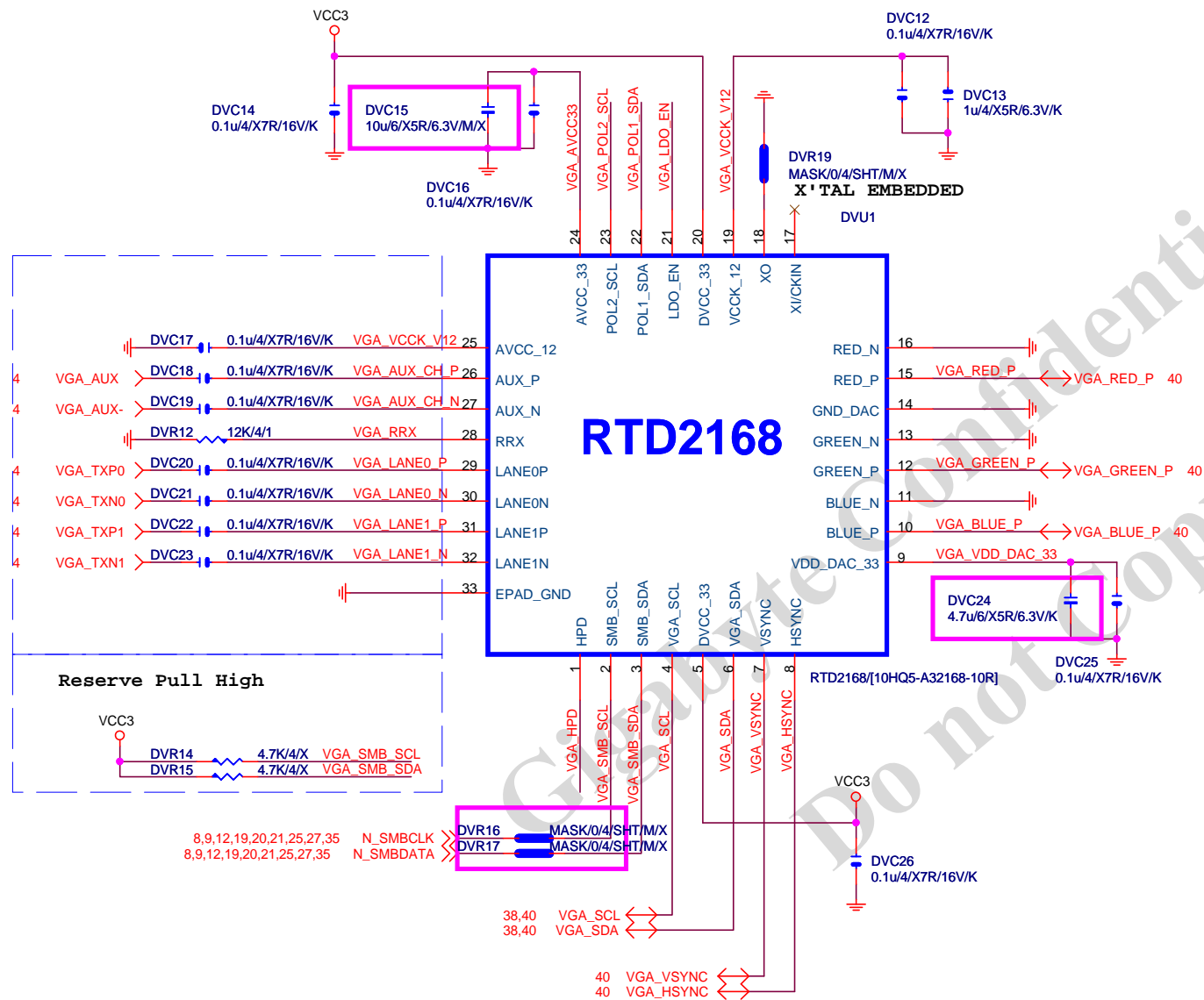
AZC099-04S.R7G/SOT23-6L|10DEF-55009-20R\_10TA1-0I8902-10R|



R, G, B, HSYNC, VSHYC connect to VGA signal from DP to VGA IC.



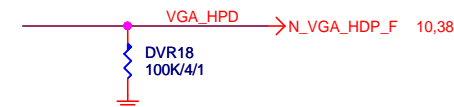
平躺式 DVI-I  
11NR6-501029-K1R



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

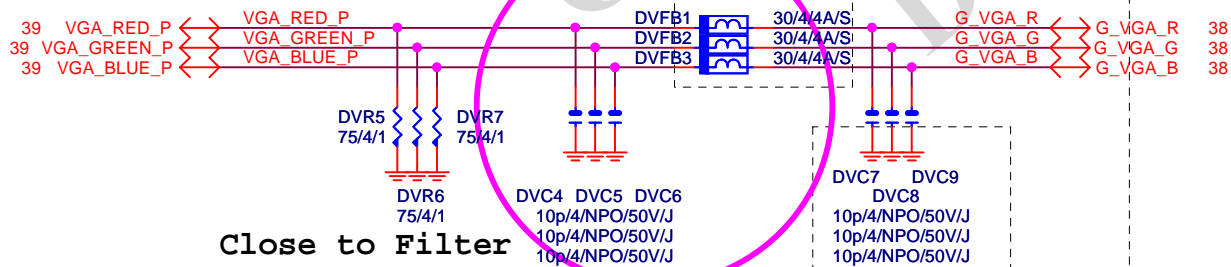
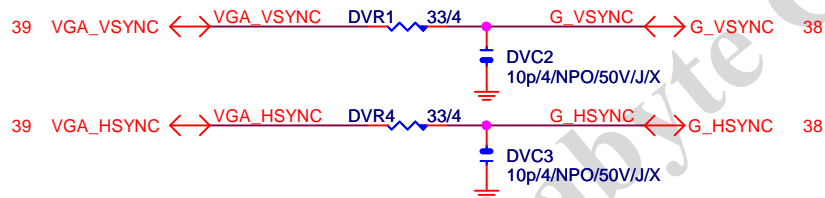
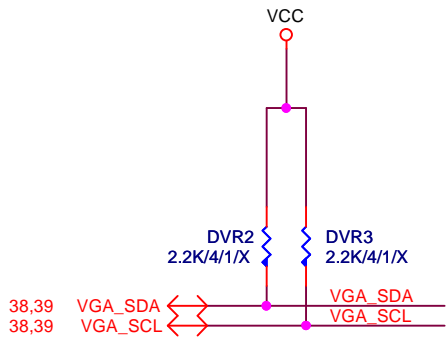


LDO_EN(PIN21)	
0	1
VCC33 from External 1.2V	VCC33 from Embedded LDO



Gigabyte Technology  
DP-VGA RTD2168

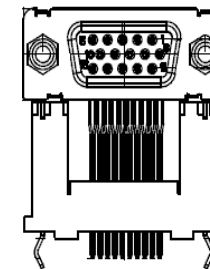
VGA SIGNAL R1.03



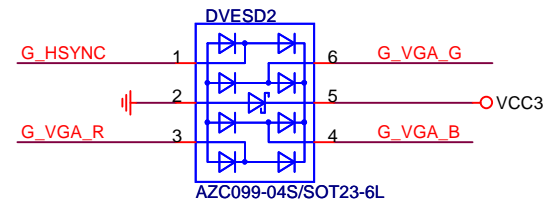
Close to Filter

FOR EMI

VGA CONN. 架高型VGA (BLACK)



VGA ESD

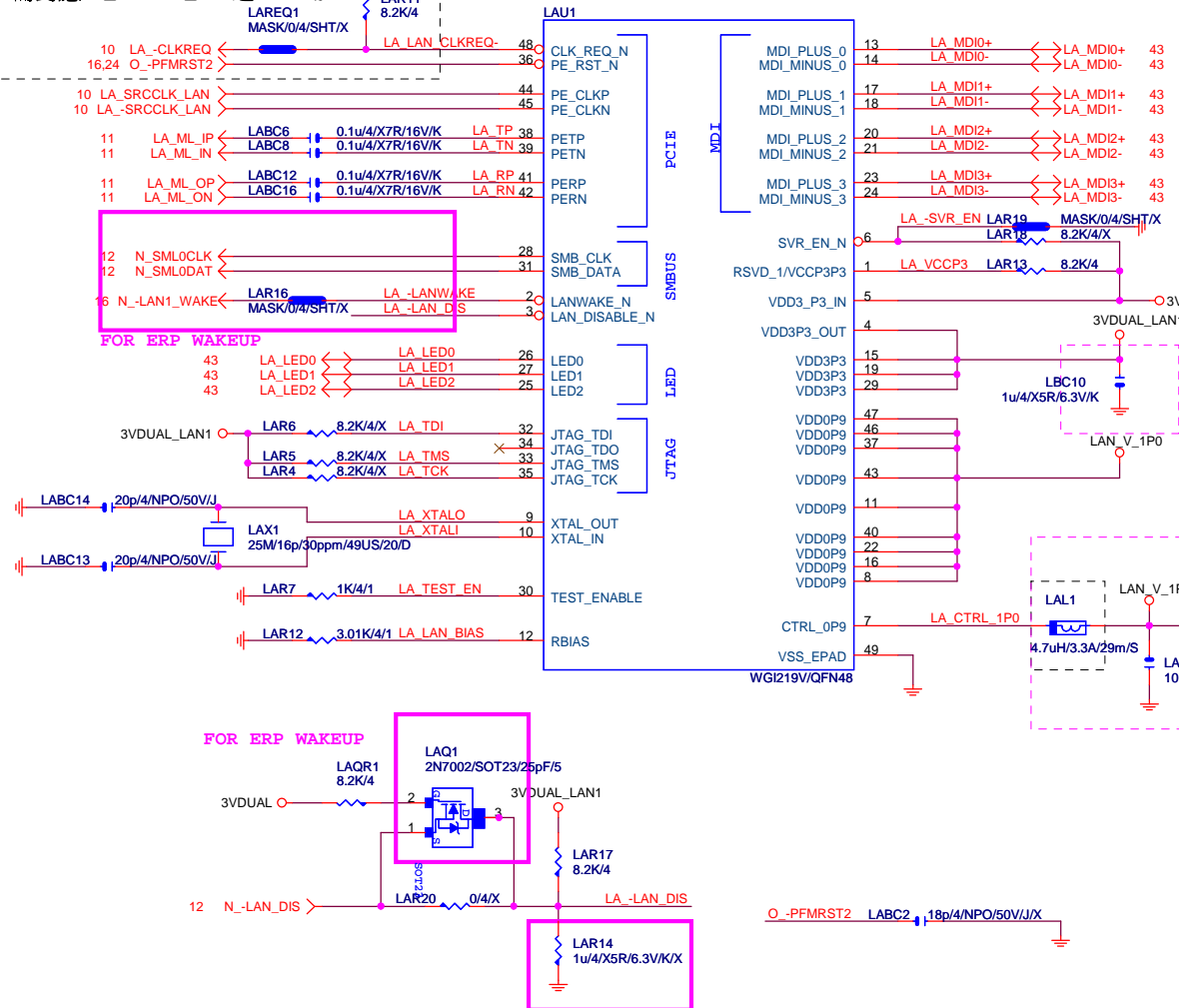


Gigabyte Technology			
Title DP-VGA RTD2168			
Size Custom	Document Number	GA-B250M-D3P-WG	
Date:	Monday, December 12, 2016	Sheet	40 of 55
2		1	Rev 1.02

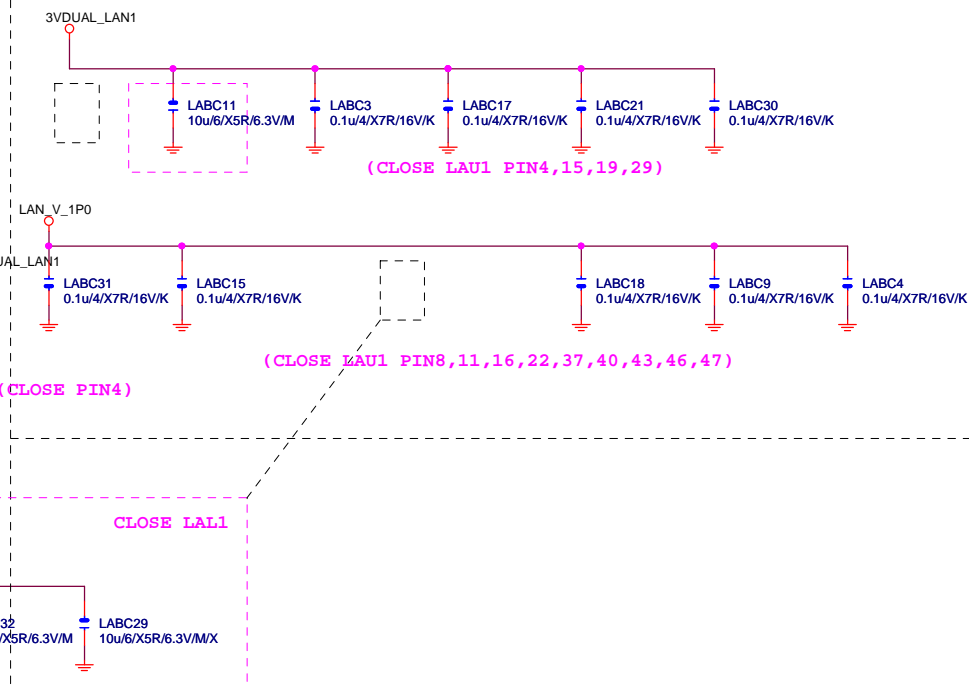


## R1.1

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



## LAN POWER



## Gigabyte Technology

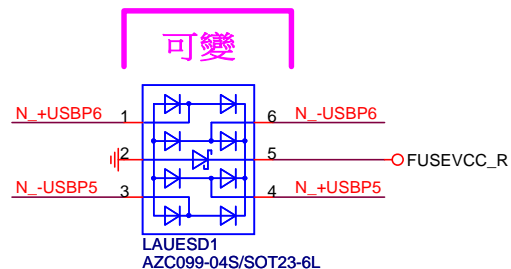
**INTEL I219**

Size Custom	Document Number <b>GA-B250M-D3P-WG</b>	Rev <b>1.02</b>
Date:	Monday, December 12, 2016	Sheet 42 of 55

Date: Monday, December 12, 2016 Sheet 42 of 55

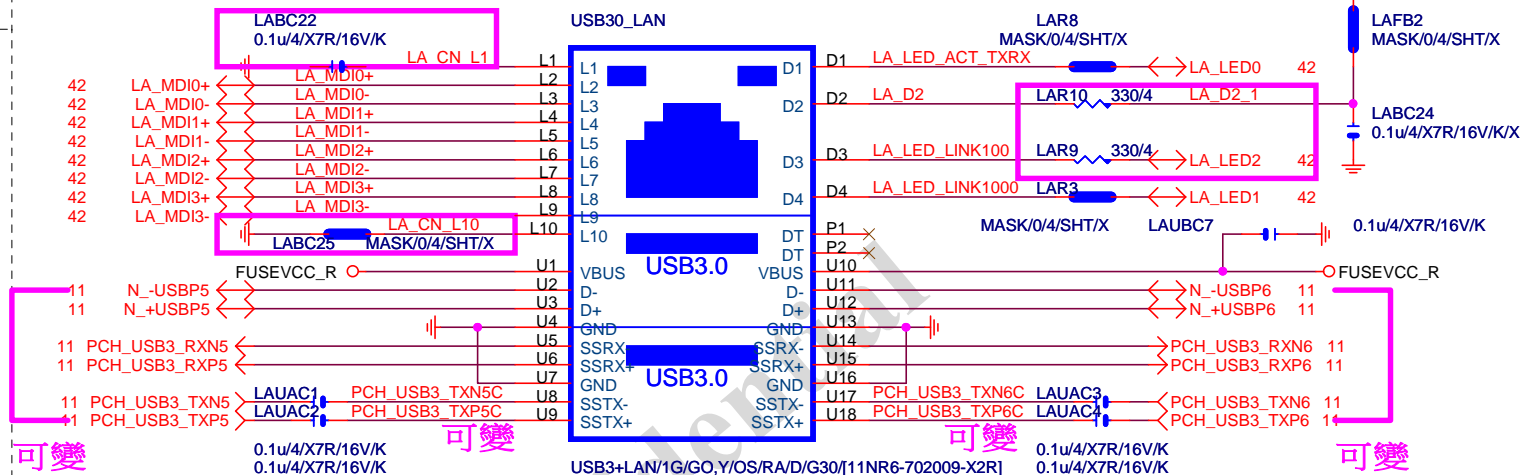
## R1.1

note:可變更USB NAME



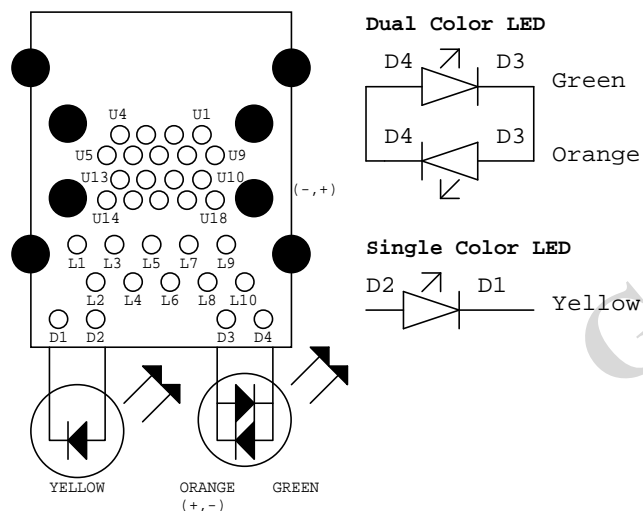
note:可變更USB NAME

## USB30\_LAN



LA MDI-->100歐姆:[20/4/8/4/20]

## Dual Color LED

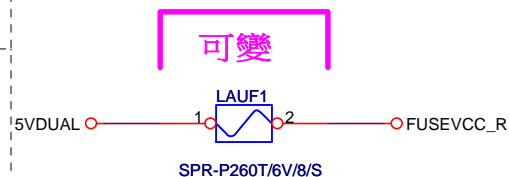


FOOT PRINT:LAN COVER

可變  
[視SPEC需求]

[-D3H不加蓋]

note:可變更FUSE

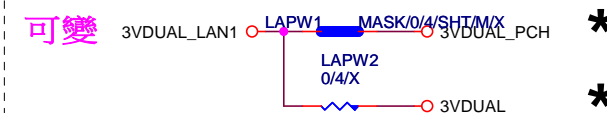


Close to connector  
FUSE-0805

PS:視EMI需求



note: lan power連接及電流



**Gigabyte Technology**  
**LAN CONNECTOR-I219**

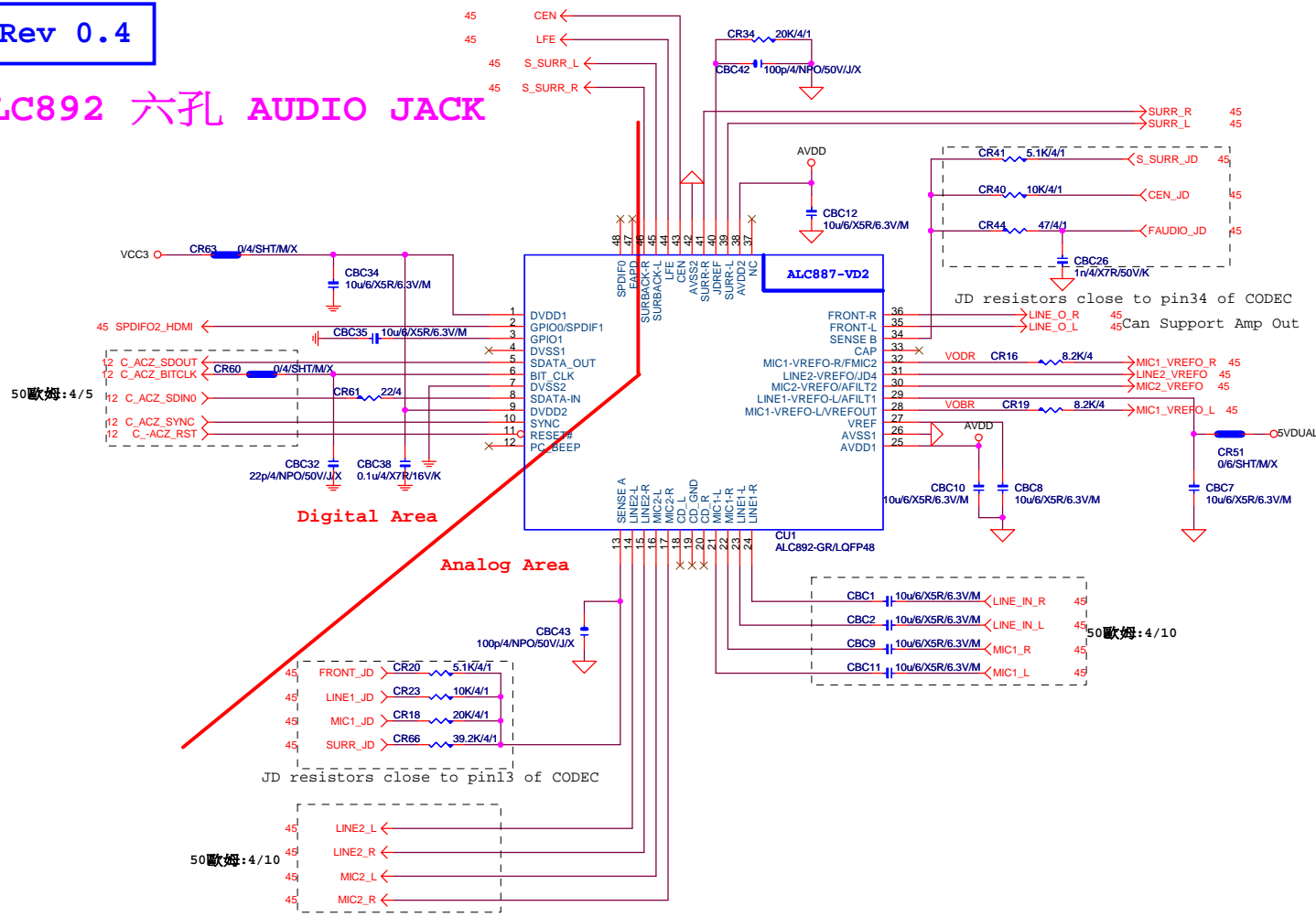
**GA-B250M-D3P-WG**

Rev	1.02
-----	------

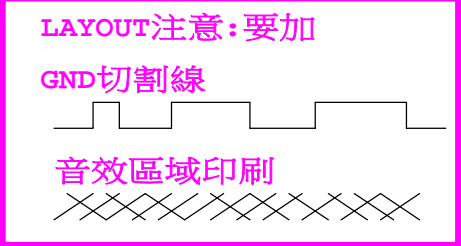
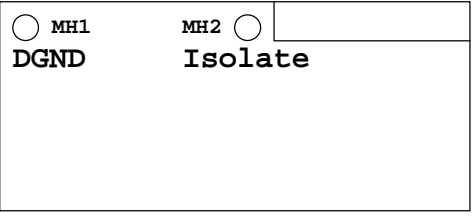


Rev 0.4

# ALC892 六孔 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



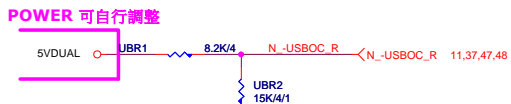
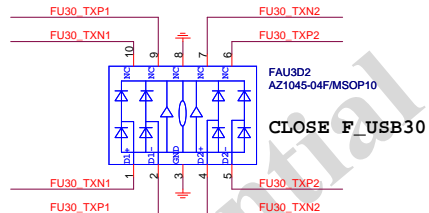
VALUE可變,LED顏色請自行修改  
(預設:低亮度黃色LED:LED/Y/6/S)

\*料號後補

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)

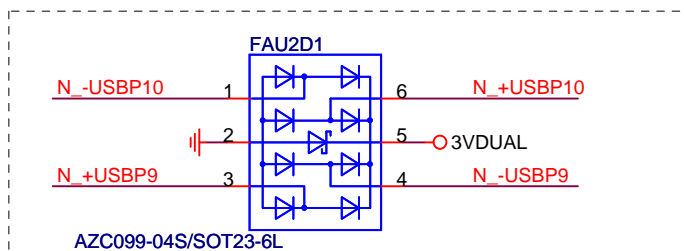
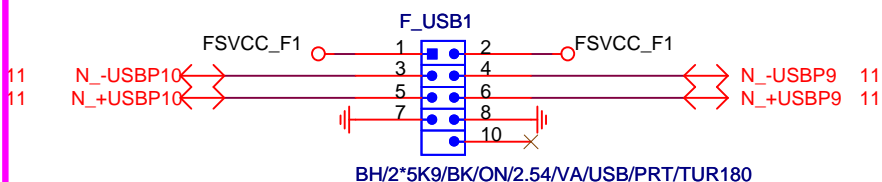
Gigabyte Technology			
HD AUDIO ALC892			
Size	Document Number	GA-B250M-D3P-WG	
Custom			Rev 1.02
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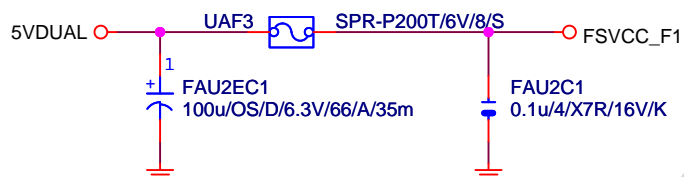
NET 可變

## FUSB2X5-HS



Close to connector

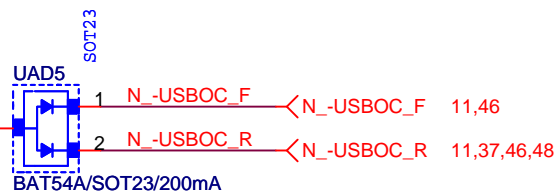
FUSE 2 Port 1 Fuse 2A



## F\_USB 2.0 OC SIGNAL

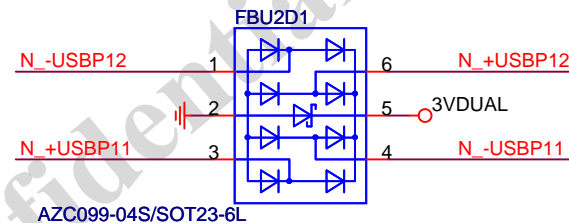
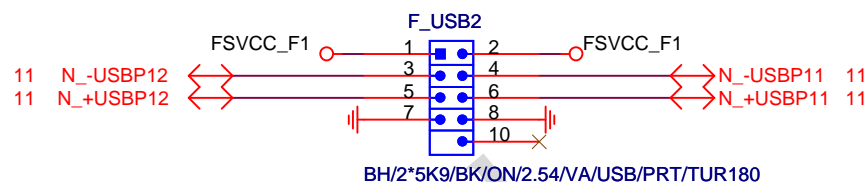
\* 接 PCH  
N\_GPP\_G6(SMI) &  
PCH PU 3Vdual

13 N\_GPP\_G6



NET 可變

## FUSB2X5-HS



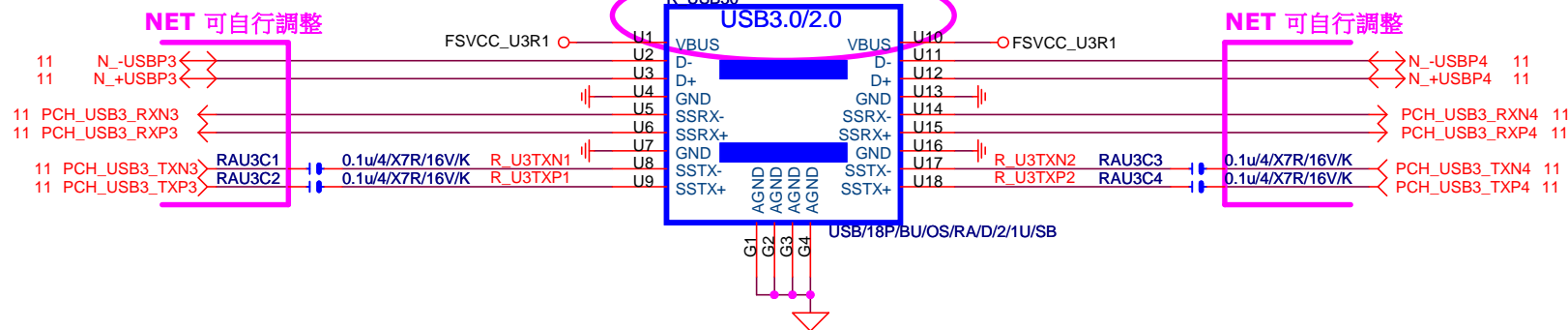
Close to connector

FUSE 2 Port 1 Fuse 2A

Gigabyte Technology			
Title			
USB2.0			
Size A	Document Number		Rev
	GA-B250M-D3P-WG		1.02
Date:	Monday, December 12, 2016		Sheet
			47 of 55

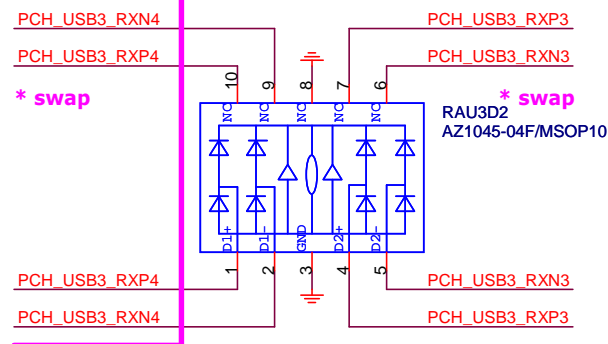
Rev: 0.7

ESD 可自行SWAP PIN ,CONN端 NET 名稱 不可

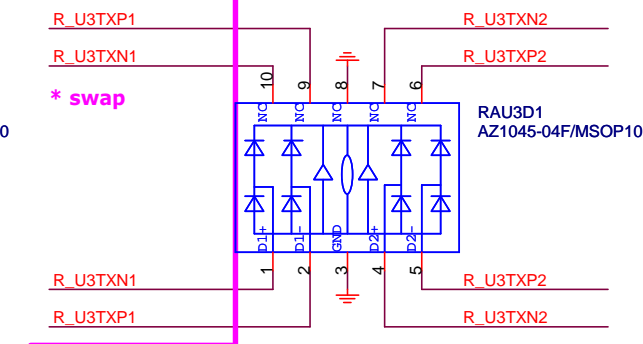


ESD

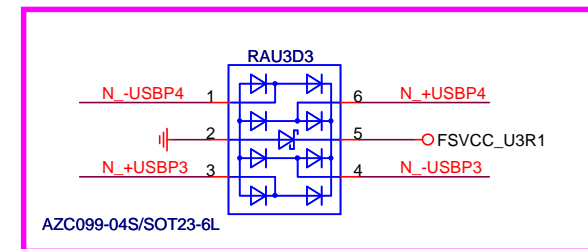
**NET 可自行調整**



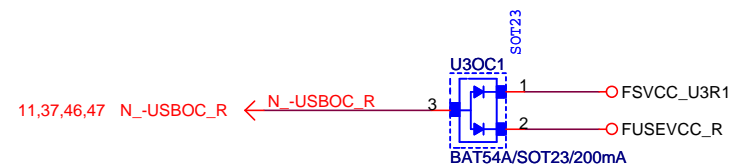
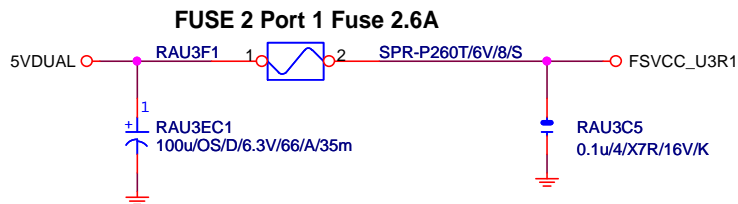
**NET 可自行調整**



**NET 可自行調整**



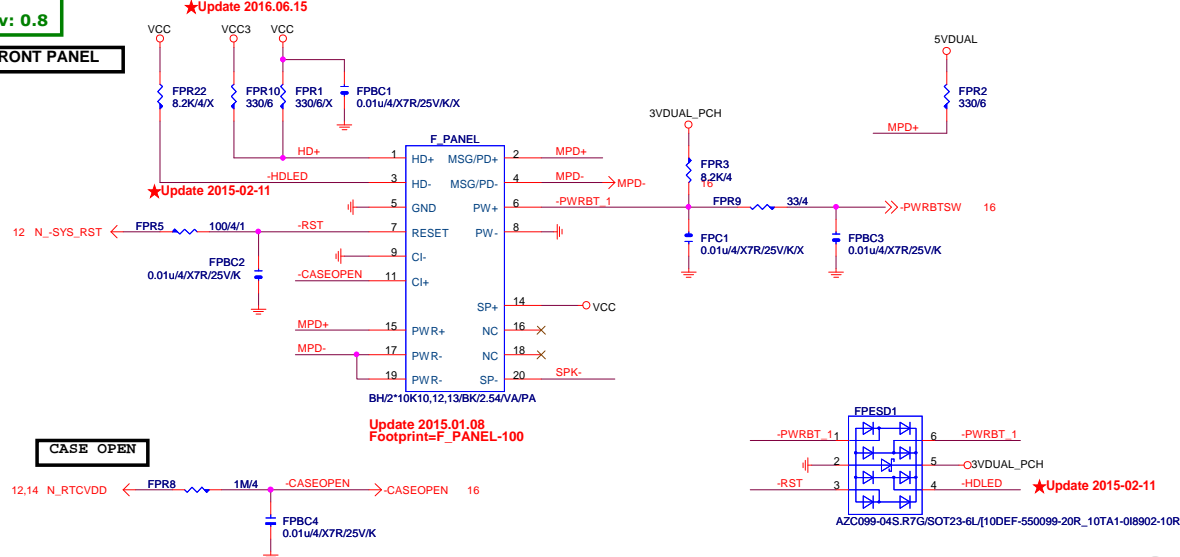
FUSE



Gigabyte Technology

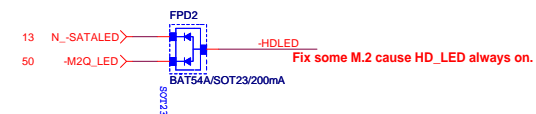
Title				
R_USB30,USB_OC				
Size	Document Number			Rev
Custom	GA-B250M-D3P-WG			1.02
Date:	Monday, December 12, 2016	Sheet	48 of 55	

## FRONT PANEL

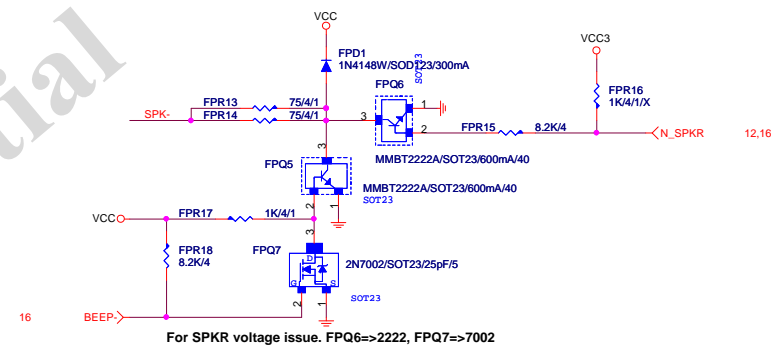


## FRONT PANEL SHORT

**SATA/M.2 LED**

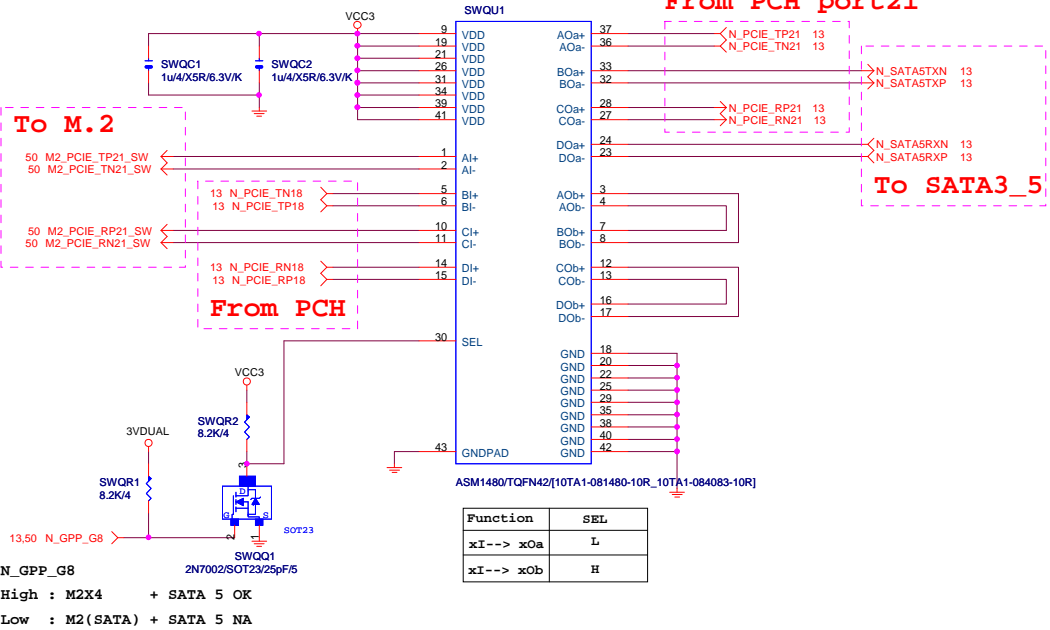


## SPKR





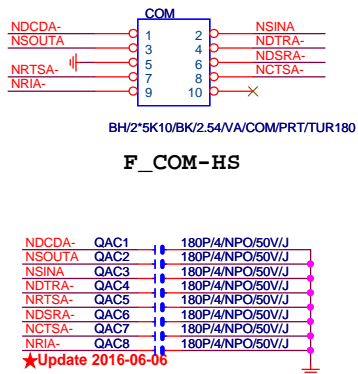
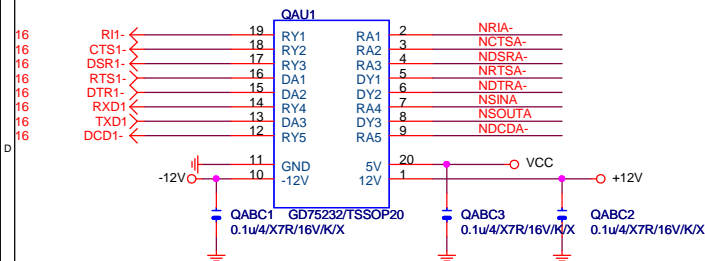
舊的switch,價格低





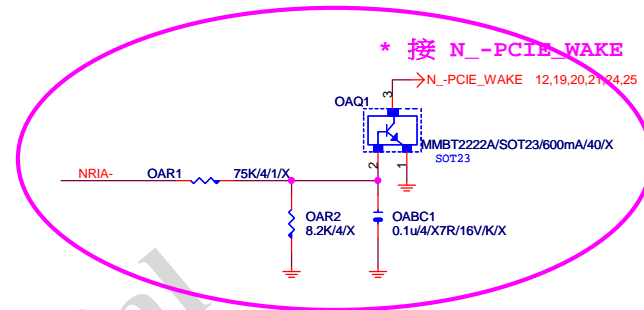
COM PORT

Rev: 0.7



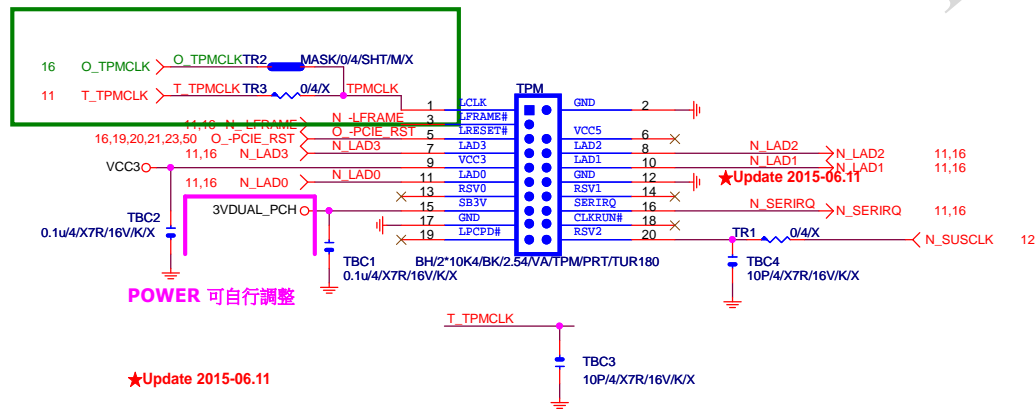
COM RI

N/A

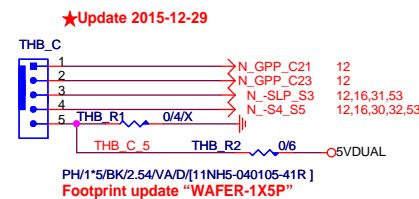


LPT PORT

TPM CONNECT



Thunderbolt



Gigabyte Technology

Title		
FP,F_USB,USB PWR,BZ		
Size		
Custom		
Document Number		
GA-B250M-D3P-WG		
Rev		
1.02		
Date: Monday, December 12, 2016		
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## CLOSE SIO

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

12, 6,31,52 N\_SLP\_S3 ←

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

12,16,30,32,52 N\_S4\_S5 ←

## CLOSE PCH

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

4,12 N\_CPUPWROK ←

EMIC5

VCC3

1n/4/X7R/50V/K

**GIGABYTE™**

Title

**EMI/ESD**Size  
A

Document Number

**GA-B250M-D3P-WG**

Rev

**1.02**

Date: Monday, December 12, 2016

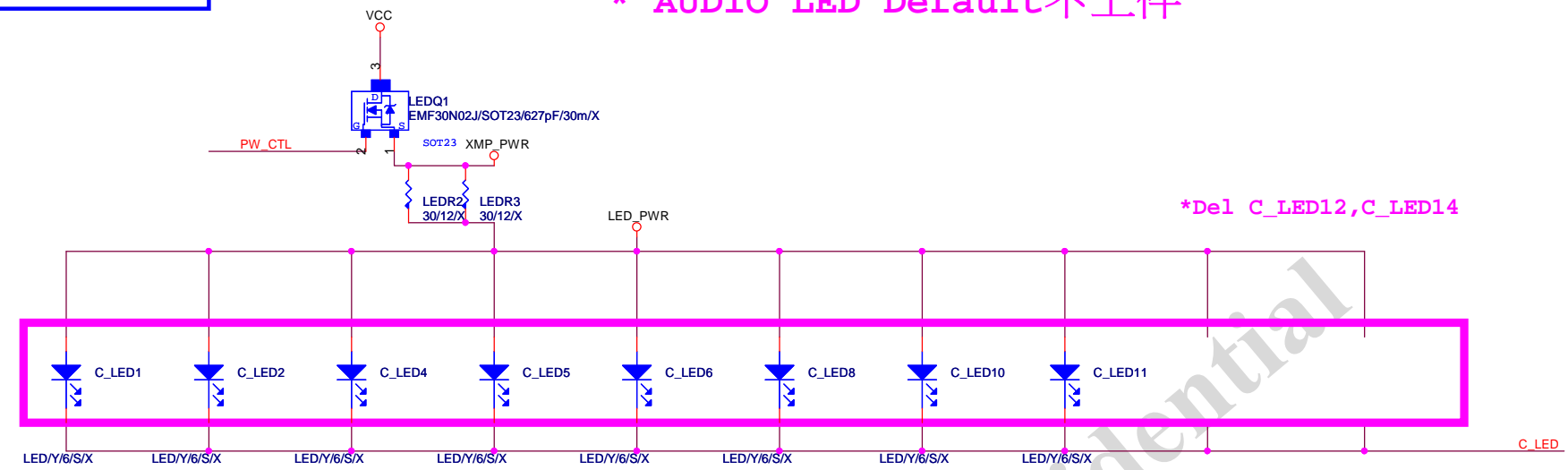
Sheet

53

of

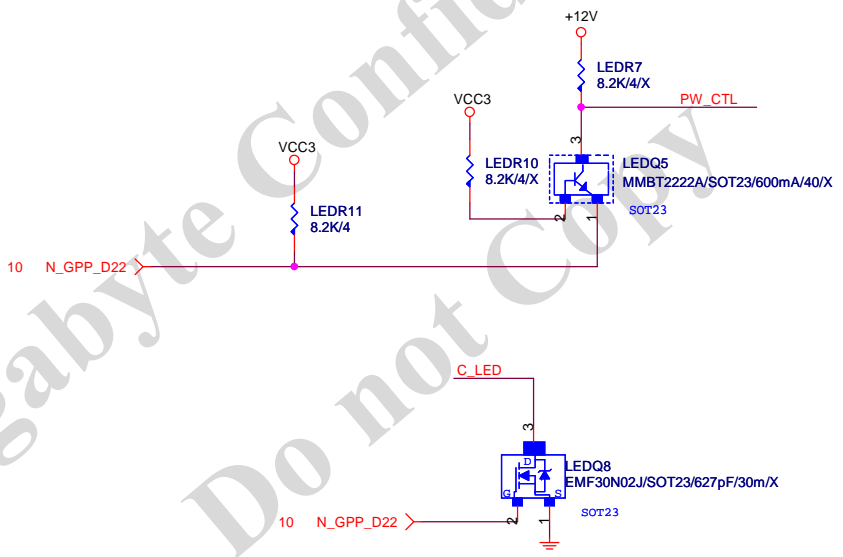
55

\* AUDIO LED Default不上件

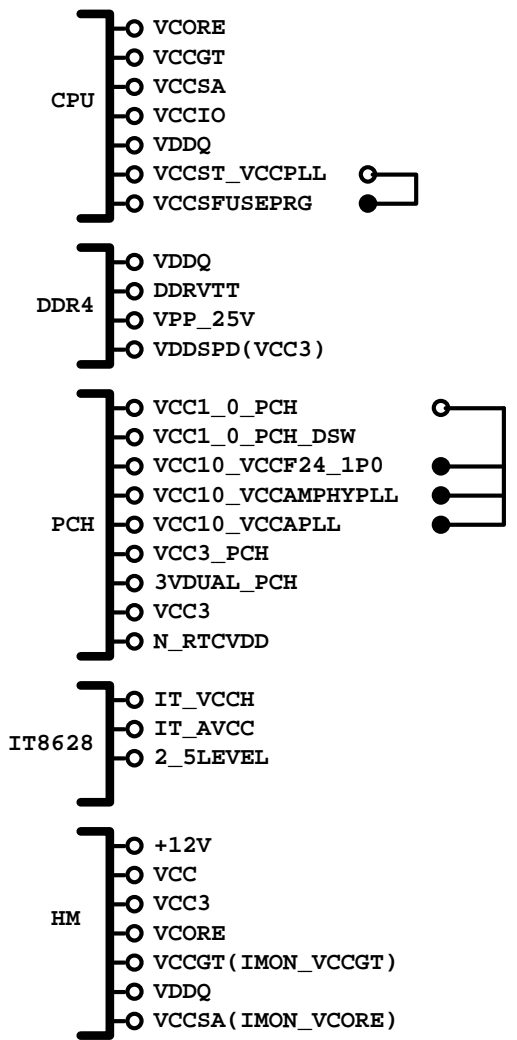


Ambient LED Control

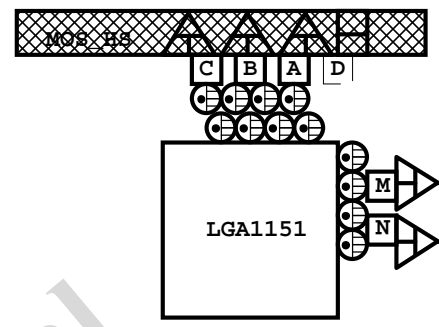
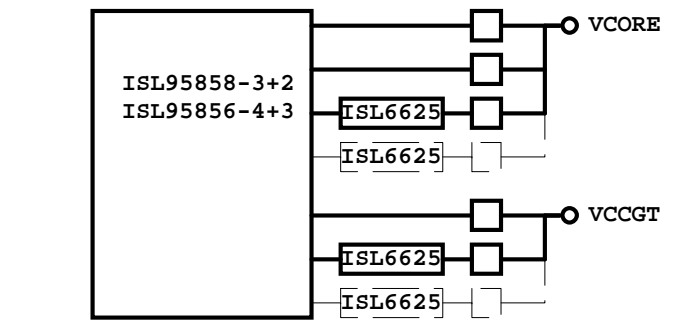
	N_GPP_D22
Full Mode	H
OFF Mode	L



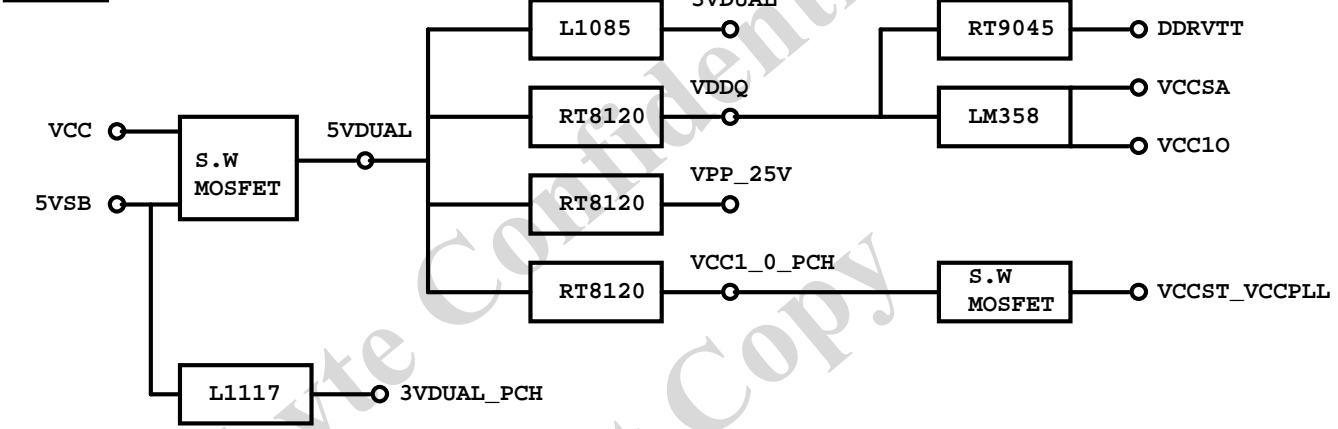
POWER BLOCK MAP



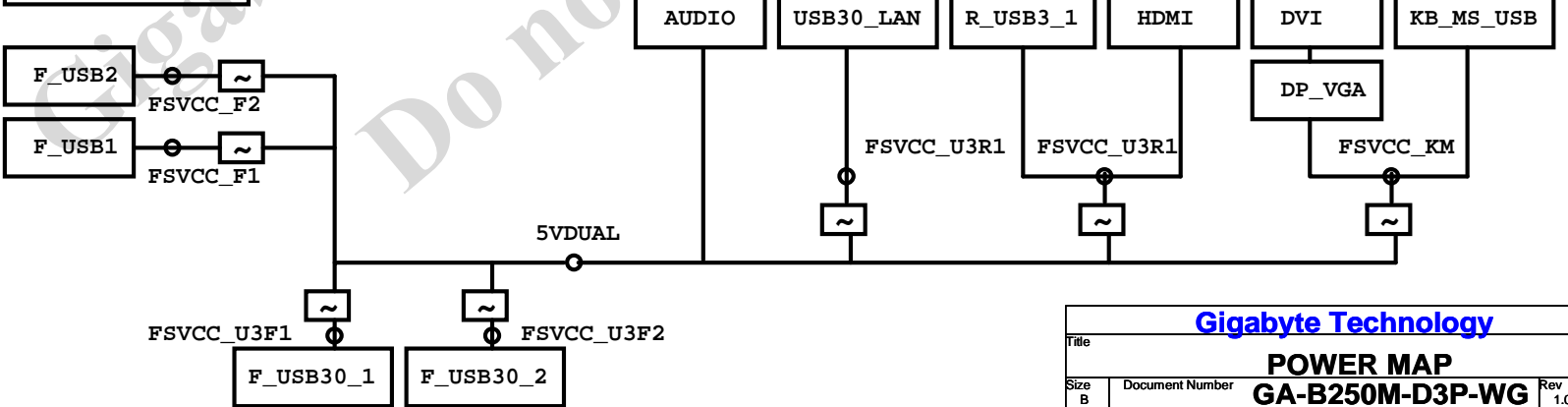
VCORE/VCCGT



POWER



FUSE POWER F/R



Gigabyte Technology			
Title			
POWER MAP			
Size B	Document Number	GA-B250M-D3P-WG	Rev 1.02
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