

**Model Name: GA-H61M-USB3-B3** *Revision 1.01*

SHEET

TITLE

SHEET

TITLE

01	COVER SHEET
02	BOM & PCB MODIFY HISTORY
03	BLOCK DIAGRAM
04	CPU_LGA1155-A
05	CPU_LGA1155-B
06	CPU_LGA1155-C
07	DDR III CHANNEL A
08	DDR III CHANNEL B
09	PCH_FDI,DMI,USB,PCIE,NVRAM
10	PCH_DP,CLK BUFFER
11	PCH_HOST,SATA,PCI
12	PCH_GPIO,CTRL,AUDIO
13	PCH_PWR,GND
14	PCI EXPRESS*16 SLOT
15	PCI EXPRESS*1 SLOT
16	PCI SLOT 1 & 2
17	ITE 8728 LPC IO
18	COMA,KB_MS,R_USB,-PROCHOT
19	HWM,FAN CTRL,OV,COMB
20	DUAL BIOS
21	FP,FUSB,SPK,SATALED
22	ALC889
23	REAR AUDIO JACK
24	ATHEROS AR8151/USB_LAN
25	VGA/DVI
26	DISCRETE POWER
27	ATX,-S_WARN,-S_ACK,5VDUAL1

28	ISL95870_CPU_VTT
29	VCORE ISL6364_1
30	VCORE ISL6364_2
31	VCORE ISL6364_3
32	TPM
33	LPT
34	etron USB 3.0
35	ITE 8892E

**Gigabyte Technology**

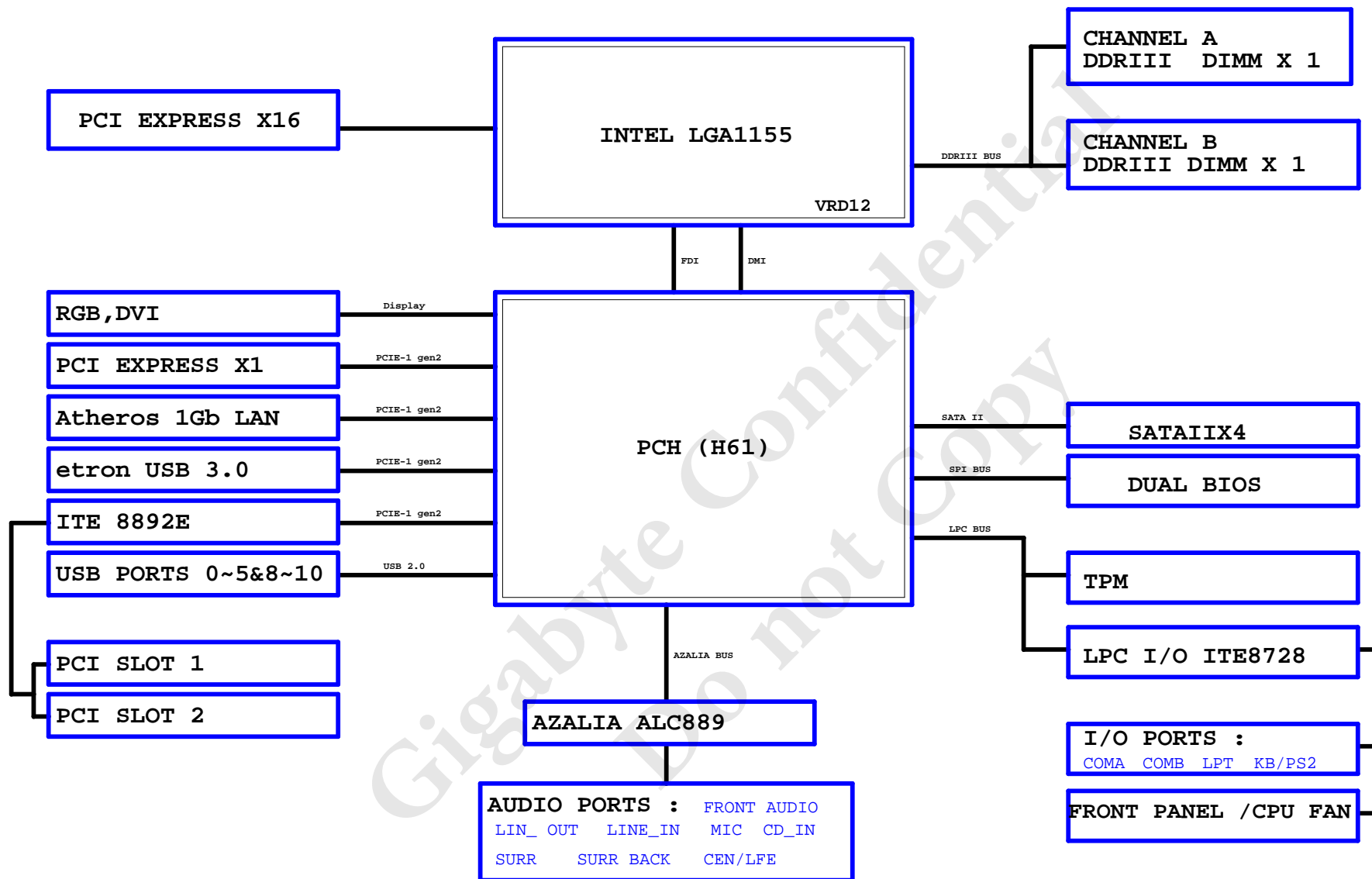
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Custom			1.01
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## Revision 1.01

## 2011/03/10

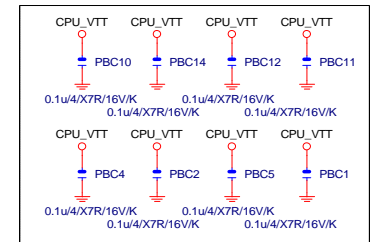
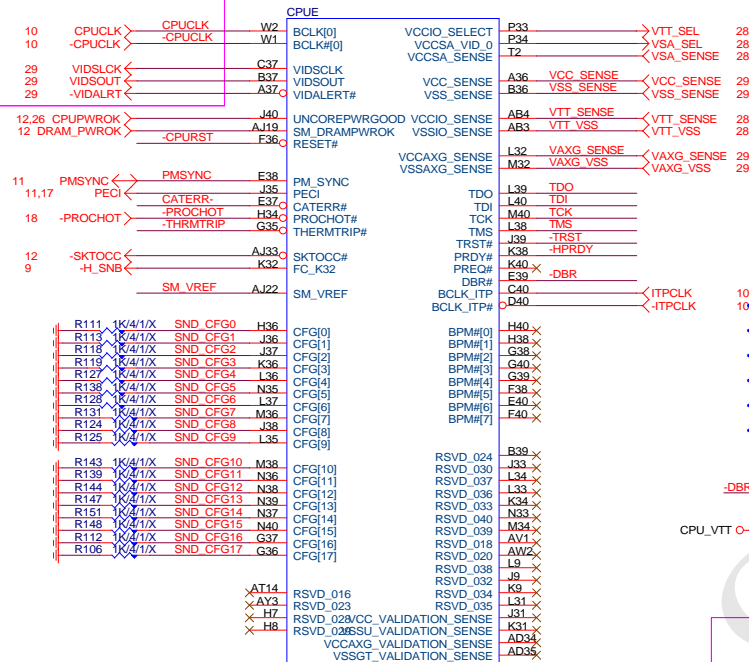
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# BLOCK DIAGRAM

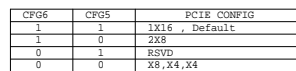
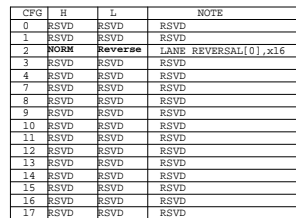


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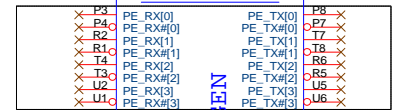
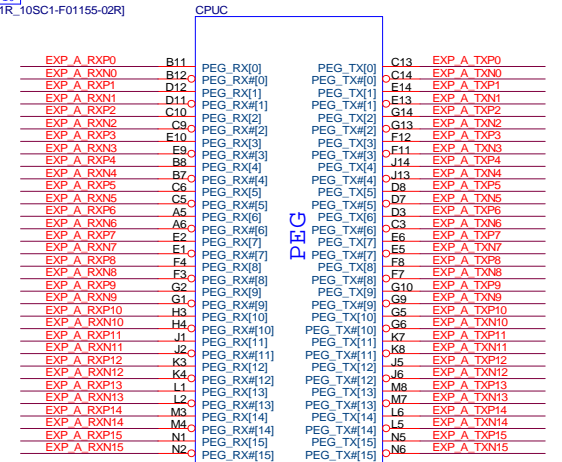
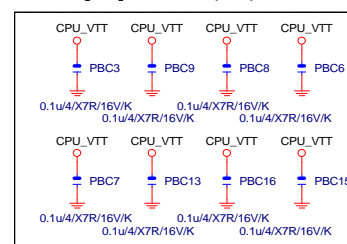
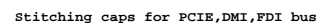
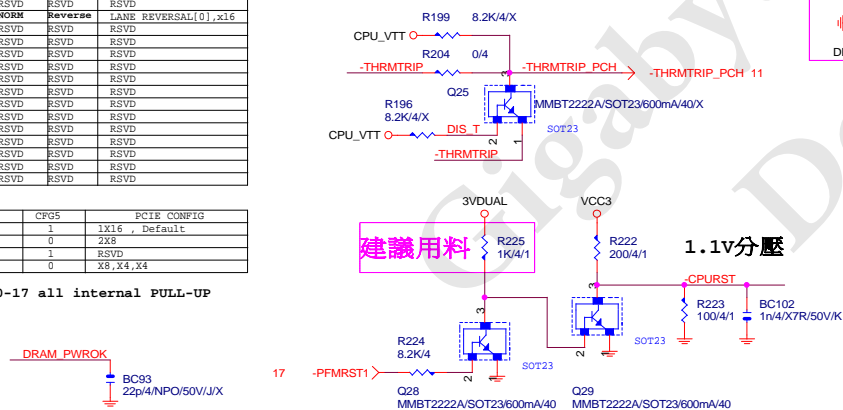
```
R88 R93 R92 0 change to
short
```



### Stitching caps for PCIE,DMI,FDI bus



CFG 0-17 all internal PULL-UP



3 OF 10 PEG\_ICOMPI B4 W= S=

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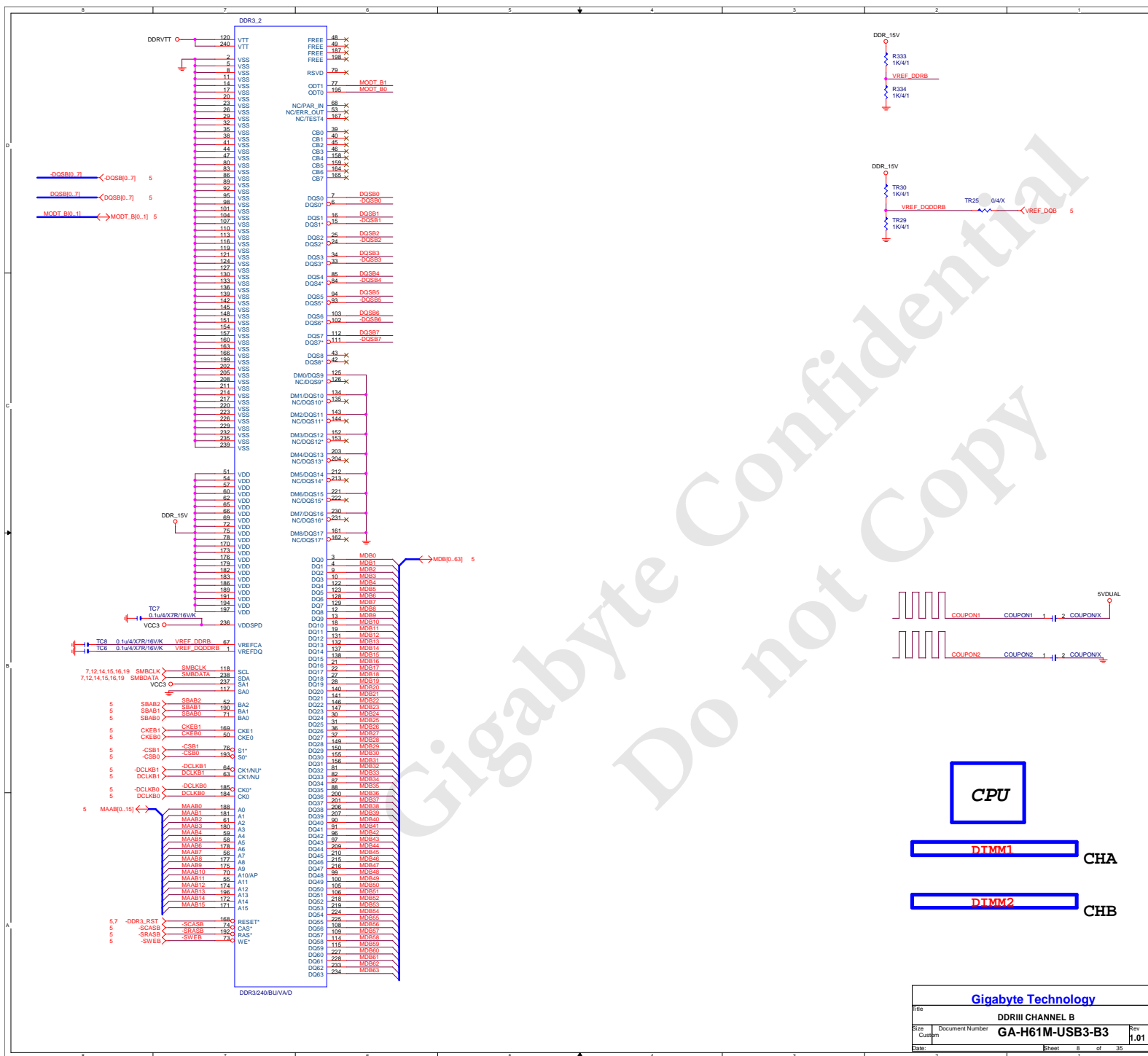
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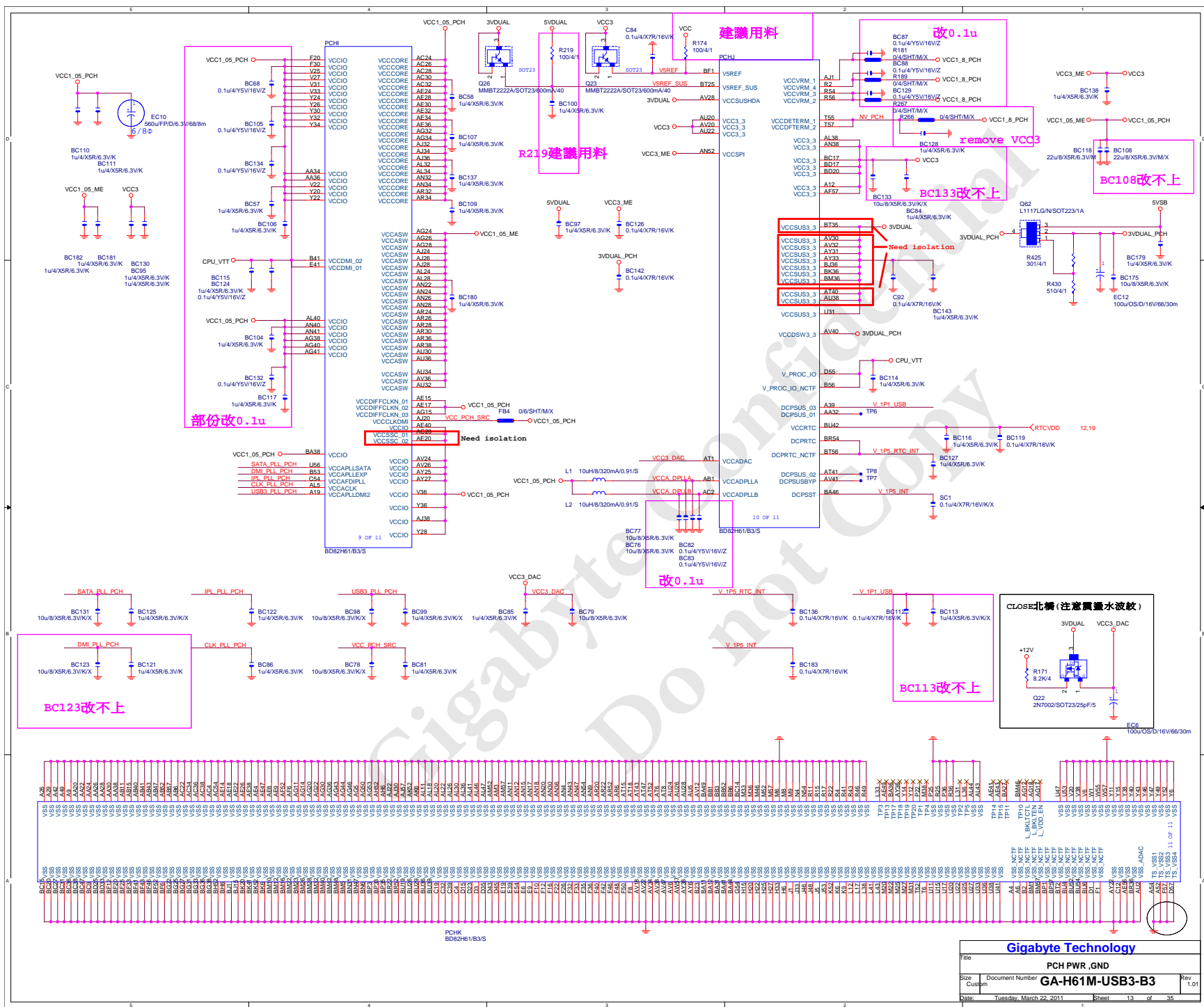






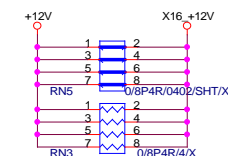
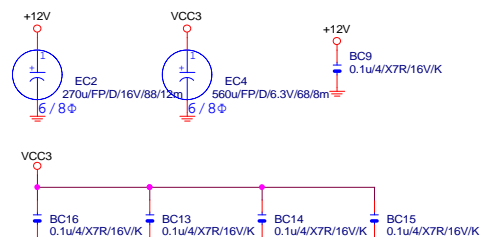






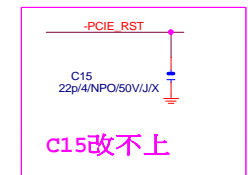
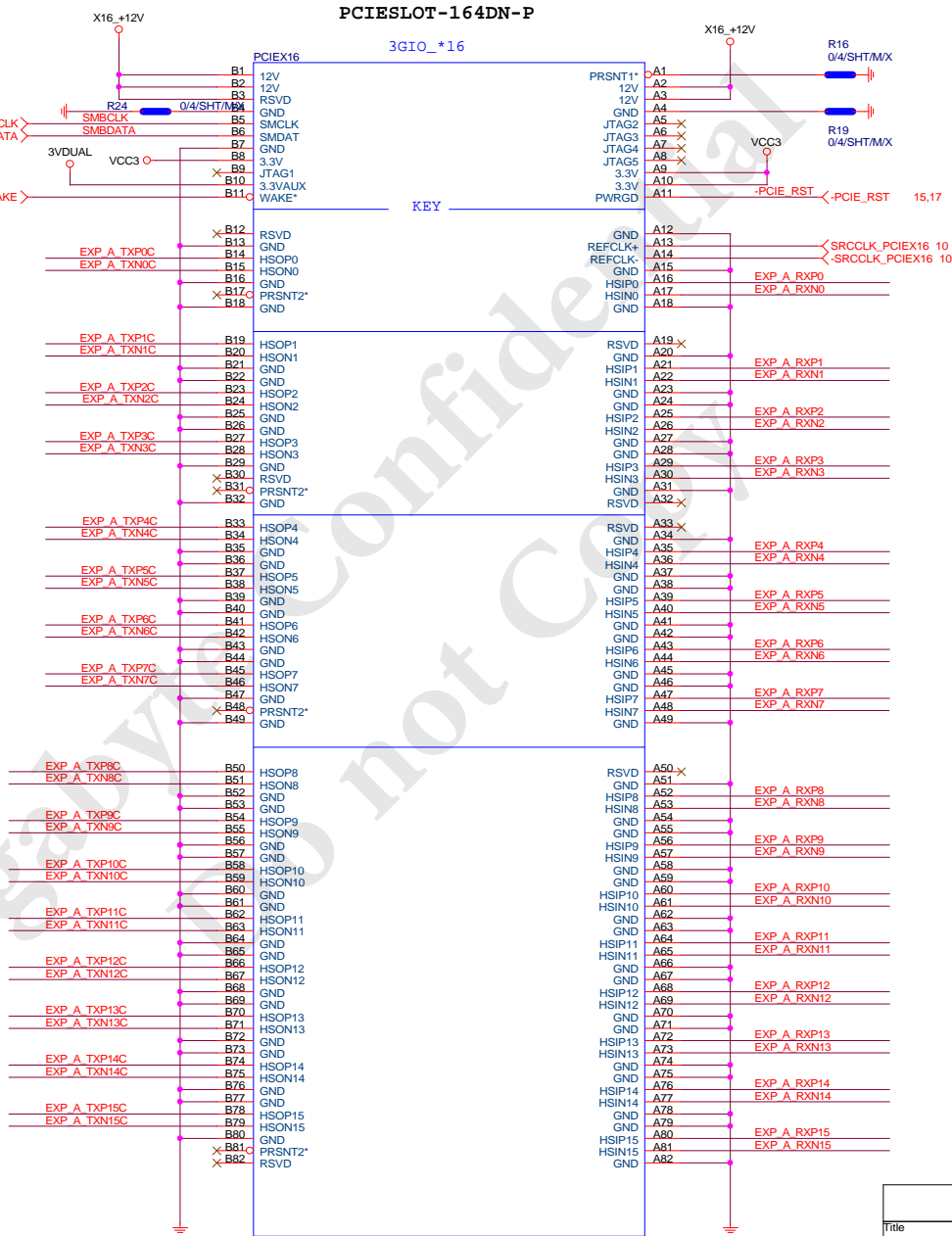


# EC6D\_8D10MM-RH



EXP\_A\_RXP[0..15] >> EXP\_A\_RXP[0..15] 4  
EXP\_A\_RXN[0..15] >> EXP\_A\_RXN[0..15] 4  
EXP\_A\_TXP[0..15] >> EXP\_A\_TXP[0..15] 4  
EXP\_A\_TXN[0..15] >> EXP\_A\_TXN[0..15] 4

EXP_A_TXP0	C22	0.22u4/X5R/6.3V/K	EXP_A_TXP0C
EXP_A_TXN0	C26	0.22u4/X5R/6.3V/K	EXP_A_TXN0C
EXP_A_TXP1	C29	0.22u4/X5R/6.3V/K	EXP_A_TXP1C
EXP_A_TXN1	C31	0.22u4/X5R/6.3V/K	EXP_A_TXN1C
EXP_A_TXP2	C33	0.22u4/X5R/6.3V/K	EXP_A_TXP2C
EXP_A_TXN2	C35	0.22u4/X5R/6.3V/K	EXP_A_TXN2C
EXP_A_TXP3	C37	0.22u4/X5R/6.3V/K	EXP_A_TXP3C
EXP_A_TXN3	C40	0.22u4/X5R/6.3V/K	EXP_A_TXN3C
EXP_A_TXP4	C48	0.22u4/X5R/6.3V/K	EXP_A_TXP4C
EXP_A_TXN4	C49	0.22u4/X5R/6.3V/K	EXP_A_TXN4C
EXP_A_TXP5	C52	0.22u4/X5R/6.3V/K	EXP_A_TXP5C
EXP_A_TXN5	C54	0.22u4/X5R/6.3V/K	EXP_A_TXN5C
EXP_A_TXP6	C56	0.22u4/X5R/6.3V/K	EXP_A_TXP6C
EXP_A_TXN6	C58	0.22u4/X5R/6.3V/K	EXP_A_TXN6C
EXP_A_TXP7	C60	0.22u4/X5R/6.3V/K	EXP_A_TXP7C
EXP_A_TXN7	C61	0.22u4/X5R/6.3V/K	EXP_A_TXN7C
EXP_A_TXP8	C63	0.22u4/X5R/6.3V/K	EXP_A_TXP8C
EXP_A_TXN8	C64	0.22u4/X5R/6.3V/K	EXP_A_TXN8C
EXP_A_TXP9	C66	0.22u4/X5R/6.3V/K	EXP_A_TXP9C
EXP_A_TXN9	C67	0.22u4/X5R/6.3V/K	EXP_A_TXN9C
EXP_A_TXP10	C69	0.22u4/X5R/6.3V/K	EXP_A_TXP10C
EXP_A_TXN10	C70	0.22u4/X5R/6.3V/K	EXP_A_TXN10C
EXP_A_TXP11	C71	0.22u4/X5R/6.3V/K	EXP_A_TXP11C
EXP_A_TXN11	C72	0.22u4/X5R/6.3V/K	EXP_A_TXN11C
EXP_A_TXP12	C74	0.22u4/X5R/6.3V/K	EXP_A_TXP12C
EXP_A_TXN12	C75	0.22u4/X5R/6.3V/K	EXP_A_TXN12C
EXP_A_TXP13	C77	0.22u4/X5R/6.3V/K	EXP_A_TXP13C
EXP_A_TXN13	C78	0.22u4/X5R/6.3V/K	EXP_A_TXN13C
EXP_A_TXP14	C79	0.22u4/X5R/6.3V/K	EXP_A_TXP14C
EXP_A_TXN14	C80	0.22u4/X5R/6.3V/K	EXP_A_TXN14C
EXP_A_TXP15	C82	0.22u4/X5R/6.3V/K	EXP_A_TXP15C
EXP_A_TXN15	C83	0.22u4/X5R/6.3V/K	EXP_A_TXN15C



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Title PCI EXPRESS * 16		
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# PCIESLOT-64D-98D-P

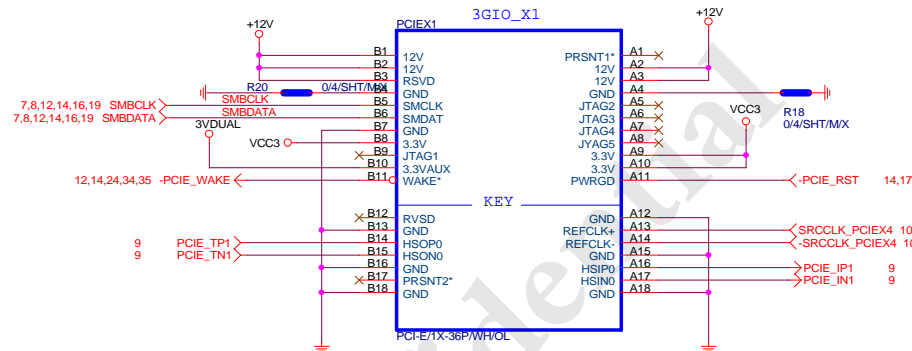
reference  
change to  
PCIEX1

REMOVE RN

BC8 BC12改不上

remove EC3

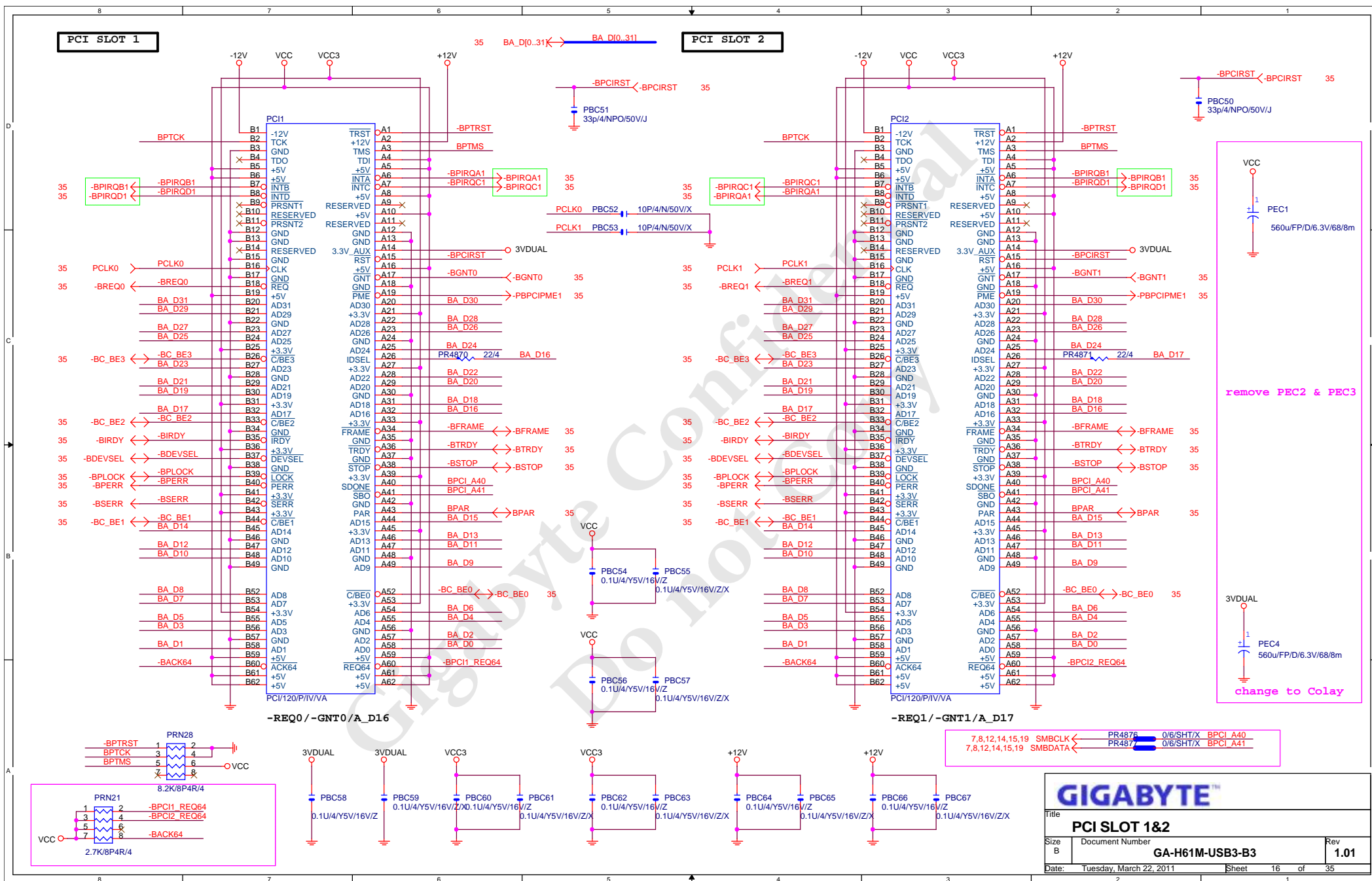
PCIEX4 change to PCIEX1



Gigabyte Technology

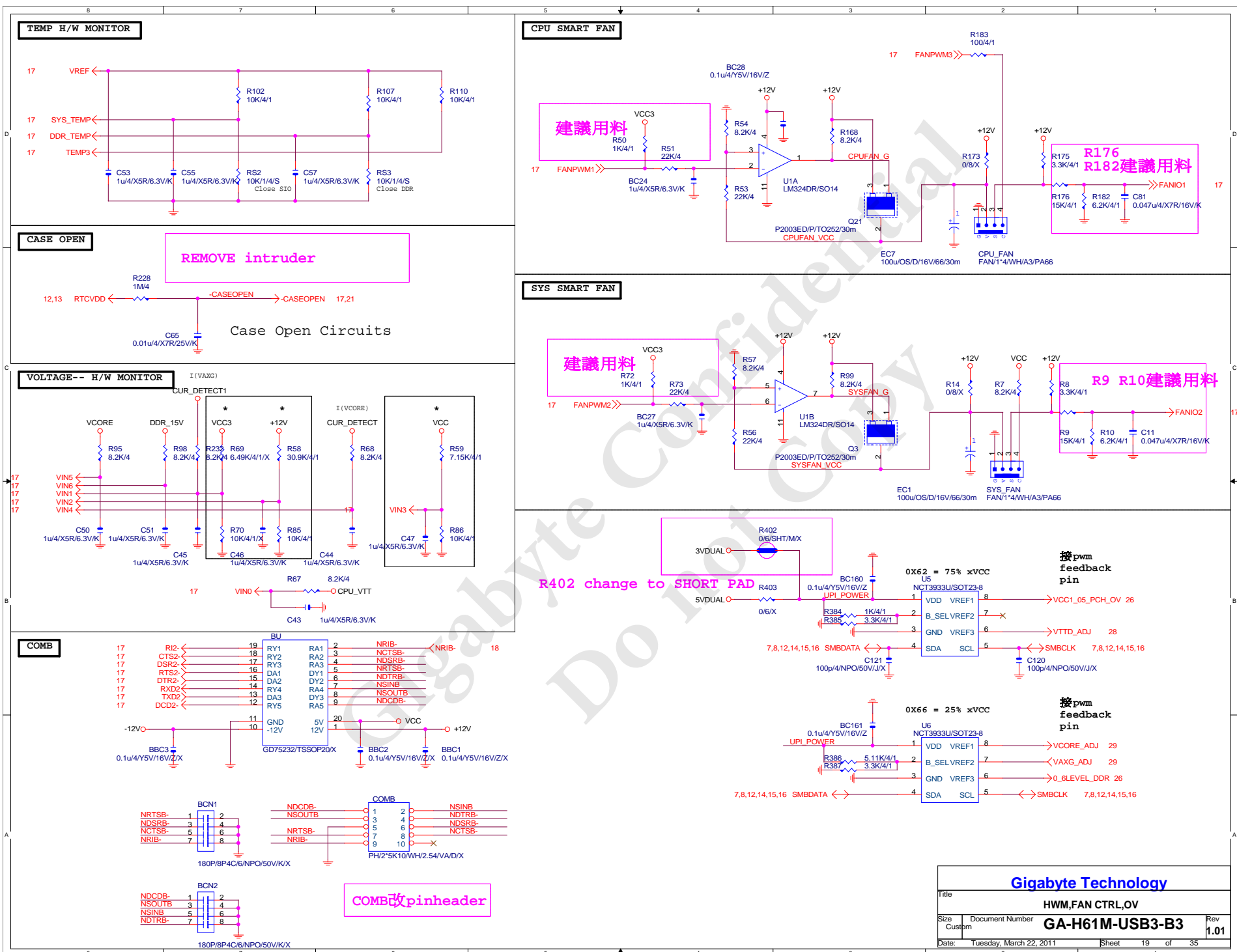
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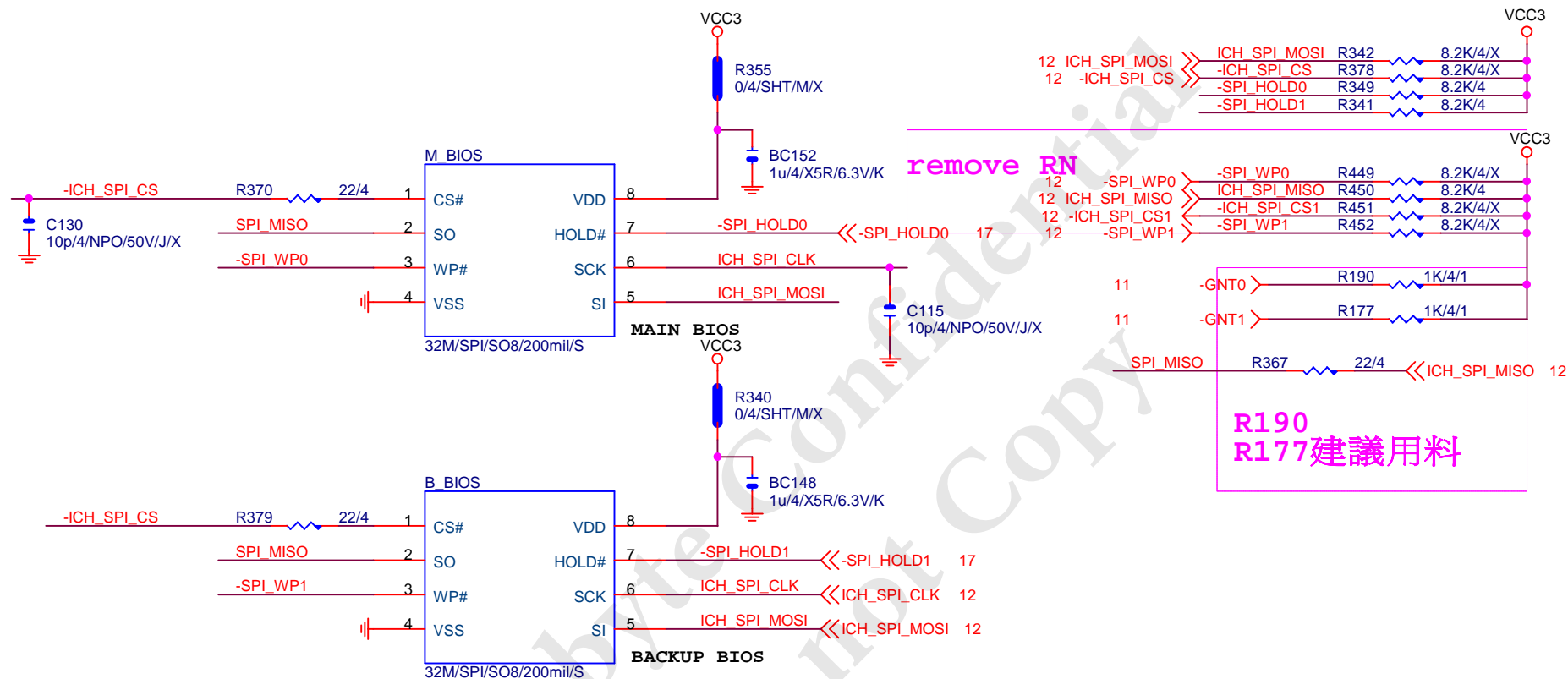






# DUAL BIOS

R349 R341 改上件 for ITE 8728 DX



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

1 means floating  
0 means PD 1K

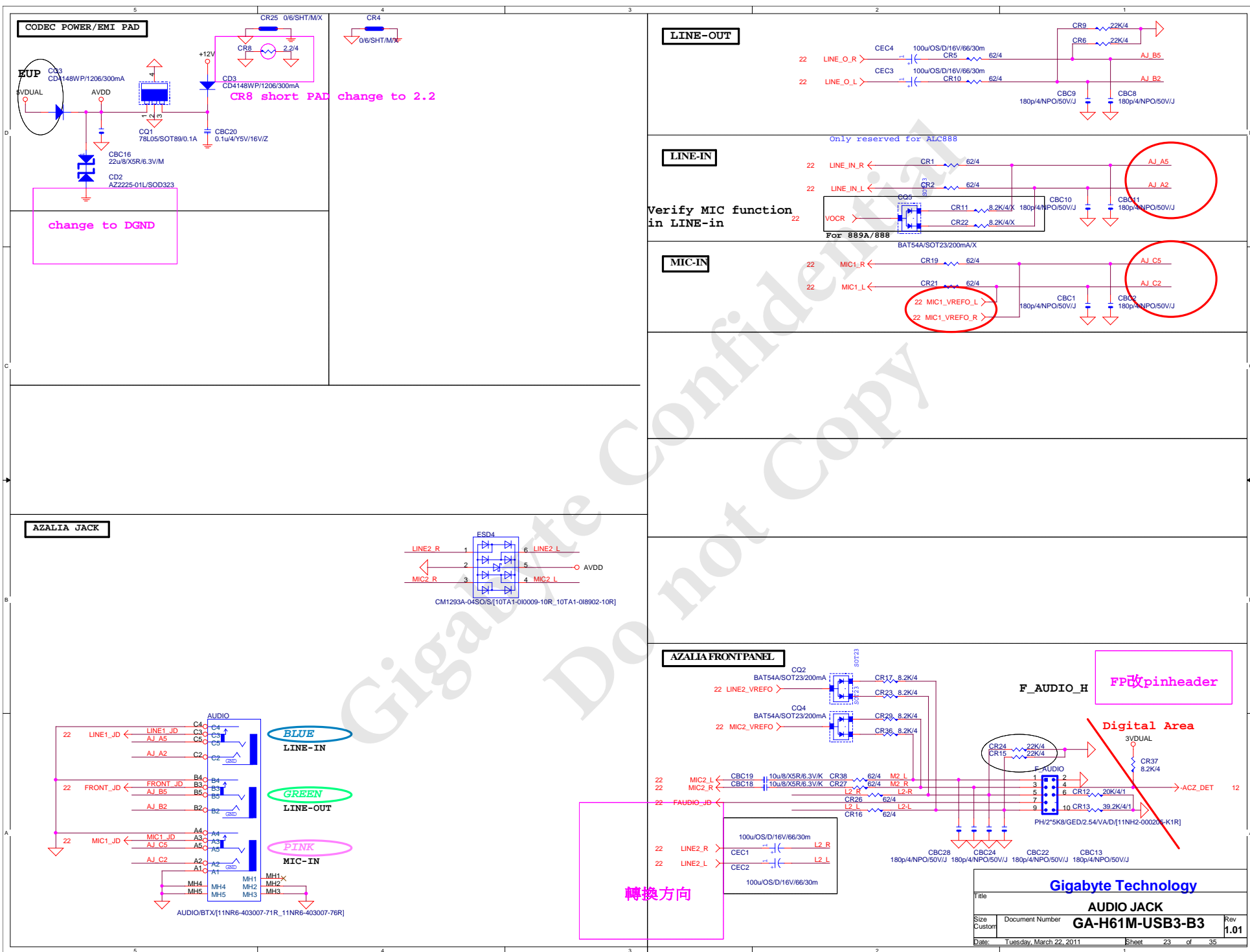
**Gigabyte Technology**

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Size A	Document Number	Rev
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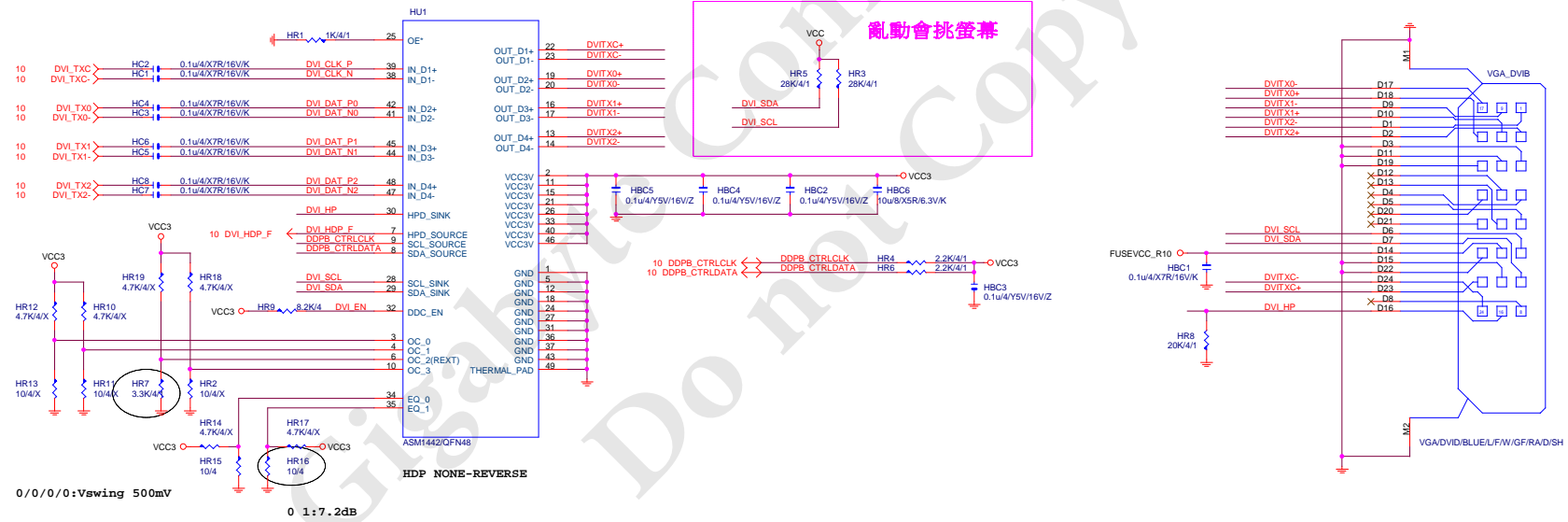












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HDMI / DVI			
GA-H61M-USB3-B3			
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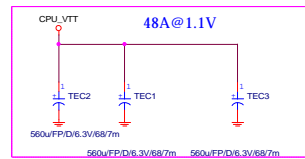
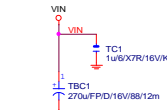
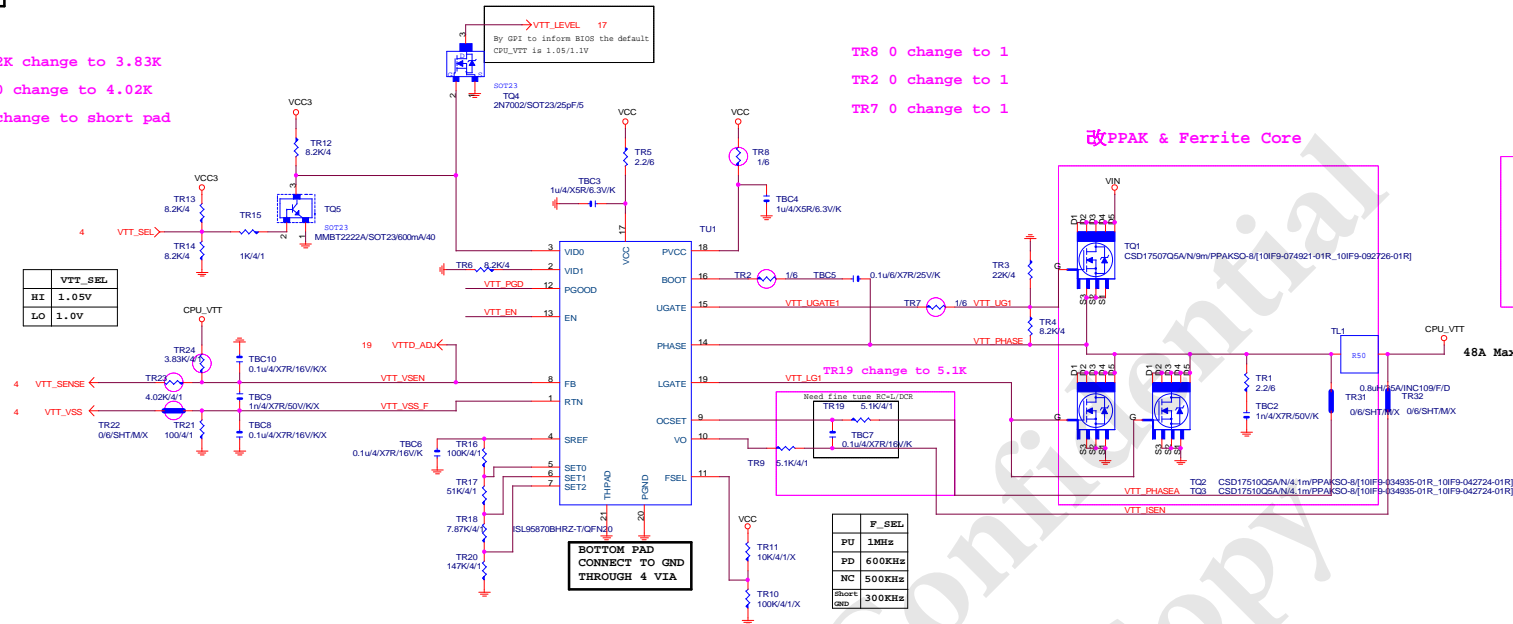




## CPU\_VTT

TR23 2K change to 3.83K  
TR23 0 change to 4.02K  
TR22 change to short pad

	VTT_SEL
HI	1.05V
LO	1.0V



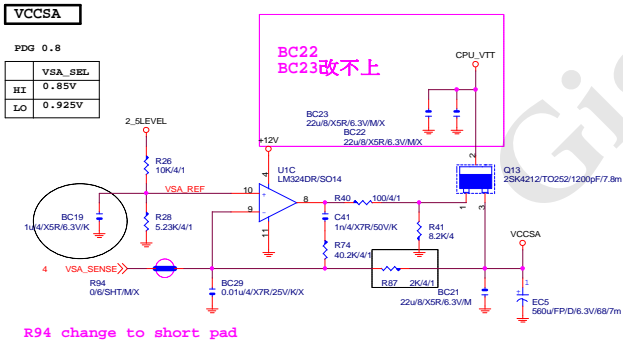
48A Max

	F_SEL
PU	1MHz
PD	600KHz
NC	500KHz
Short GND	300KHz

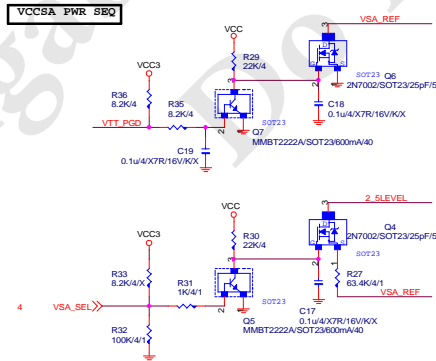
VCCSA

PDG 0.8

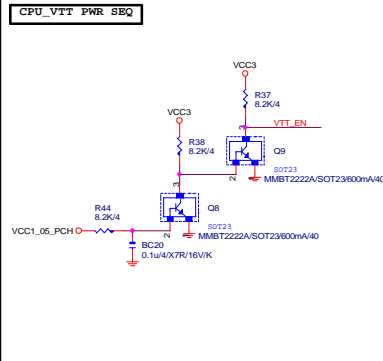
	VSA_SEL
HI	0.85V
LO	0.925V



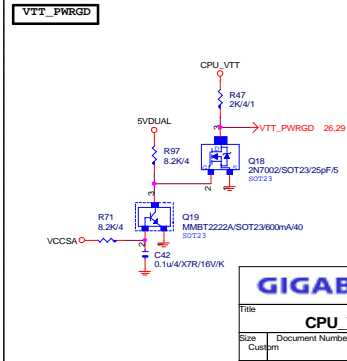
VCCSA PWR SEQ



CPU_VTT	PWR	SEQ
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## VTT\_PWRGD



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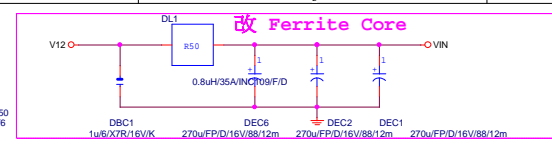
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CPU_VTT PWM_ISL95870CRZ			
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DR85 150 change to 51  
 DR69 6.8K change to 11K  
 DR82 0 change to 10  
 DR62 2.1K change to 1.1K  
 DR65 1.6K change to 1.1K  
 DR57 100 change to 8.2K  
 DR102 100 change to 8.2K  
 DR54 short change to 750  
 DR103 short change to 1K  
 DR91 6.8K change to 10K  
 DR100 3.3K change to 1K  
 DR69 11K change to 20K  
 DR54 750 change to 1.2K

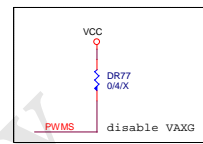
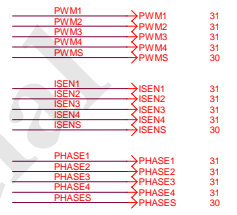
DR84 56.2 change to 51  
 DR92 2.1K change to 1K

DR52 16.2K change to 24.9K

remove VAXG RDY



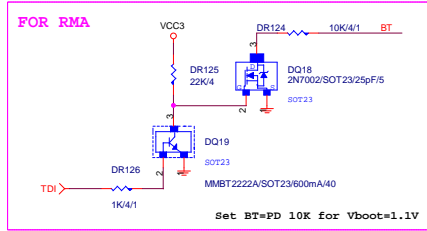
DR46 DR48 DR45 DR47 change to 10  
 DR86 change to 750



FOR CUT5 IC

BOTTOM PAD CONNECT TO GND THROUGH 10 VIA

Close VCORE output choke  
 Close VIXG output choke



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CPU CORE VR-1

GA-H61M-USB3-B3

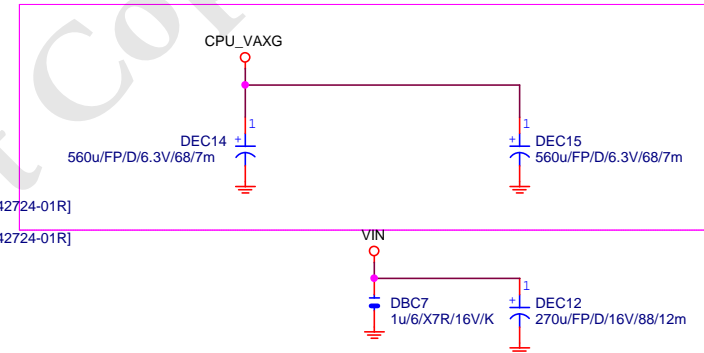
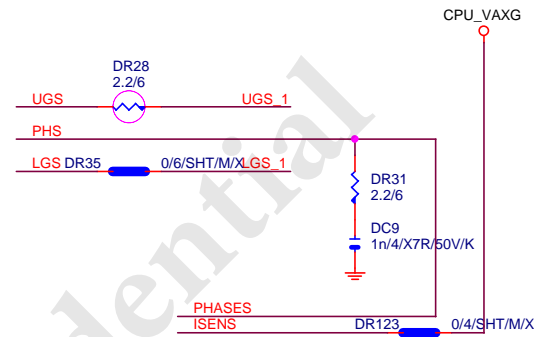
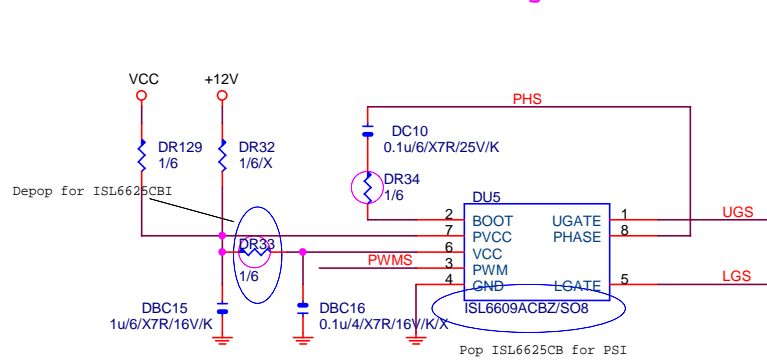
Rev 1.01

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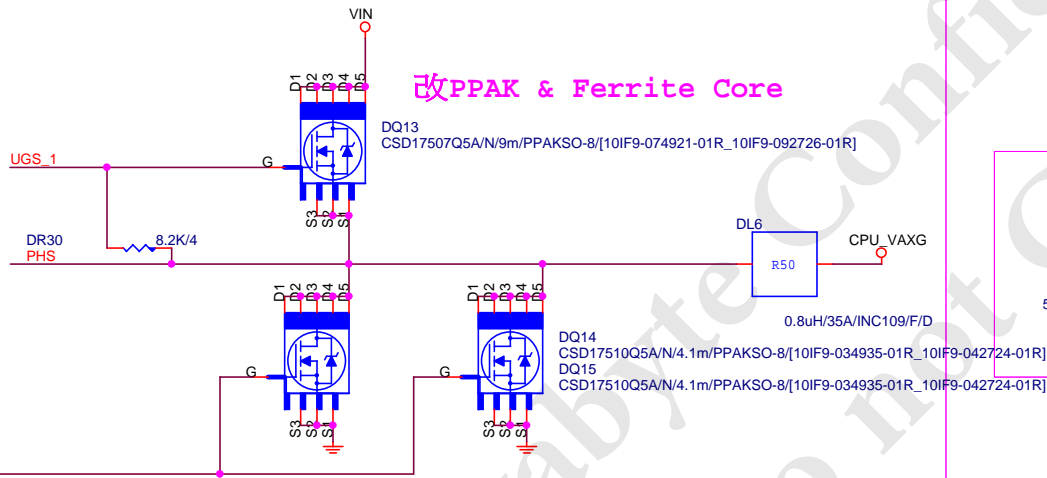


# VAXG

DR33 0 change to 1  
DR34 0 change to 1  
DR28 0 change to 2.2

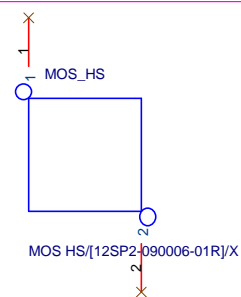


## 改PPAK & Ferrite Core



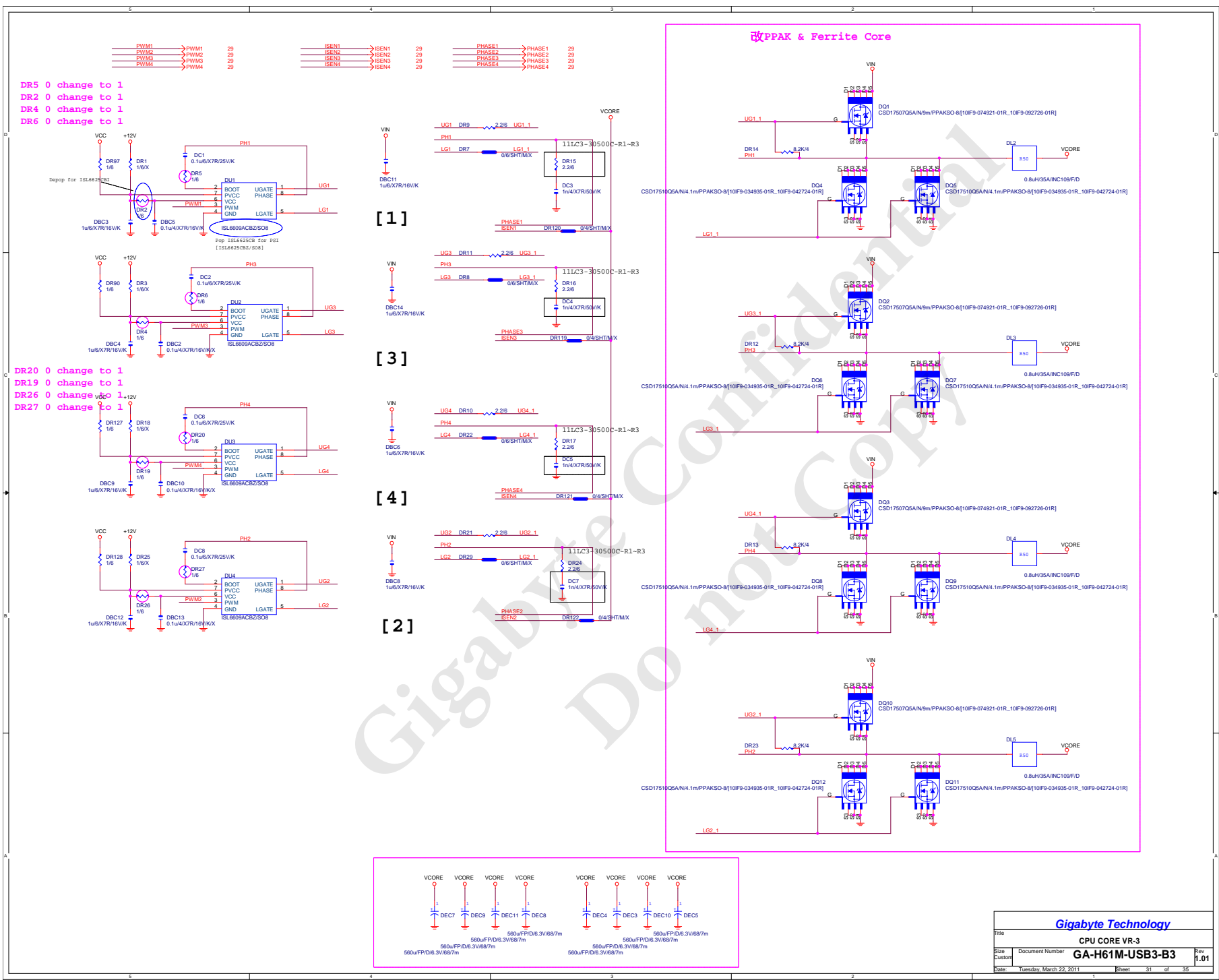
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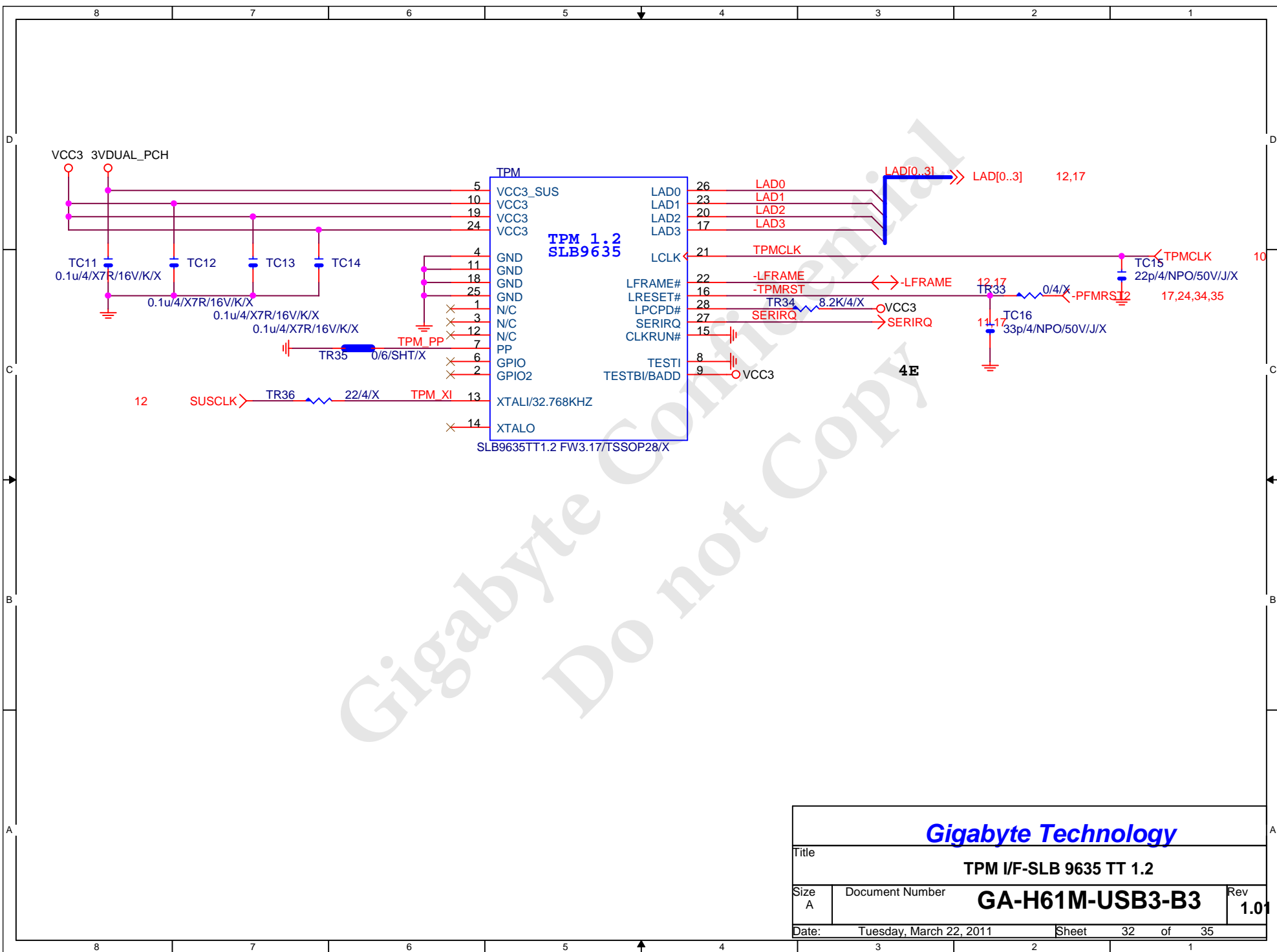
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Title			CPU CORE VR-2
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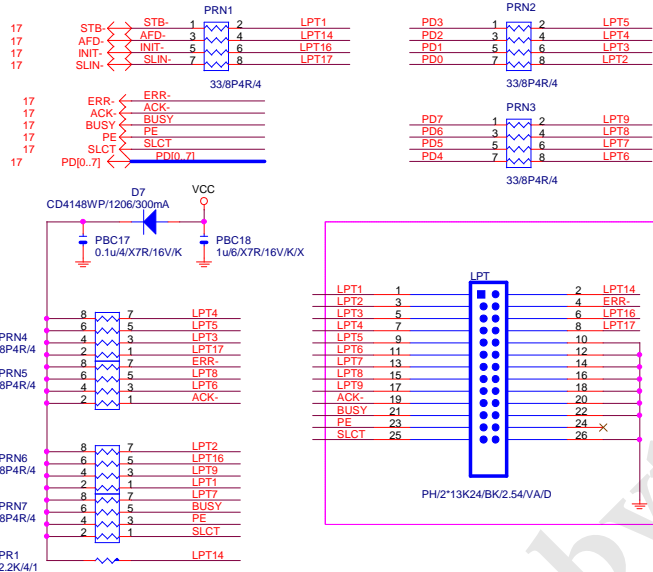




**Gigabyte Technology**

Title			
TPM I/F-SLB 9635 TT 1.2			
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LPT PORT



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