

Model Name: GA-H61M-S2PV-KR

Revision 2.2

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	IT8892E
17	PCI SLOT1&2
18	ITE 8728 LPC IO
19	COM,KB_USB,USB_ESATA,-PROCHOT
20	HWM,FAN CTRL,OV,
21	DUAL BIOS
22	FP,FUSB,SPK,SATALED
23	Realtek ALC887-VD2
24	REAR AUDIO JACK
25	REALTEK RTL8111F-VL
26	DISCRETE POWER
27	ATX

SHEET

TITLE

28	LINEAR CPU_VTT
29	VCORE ISL95836_1
30	VCORE ISL95836_2
31	VCORE ISL95836_3
32	LPT
33	DVI

**Gigabyte Technology**

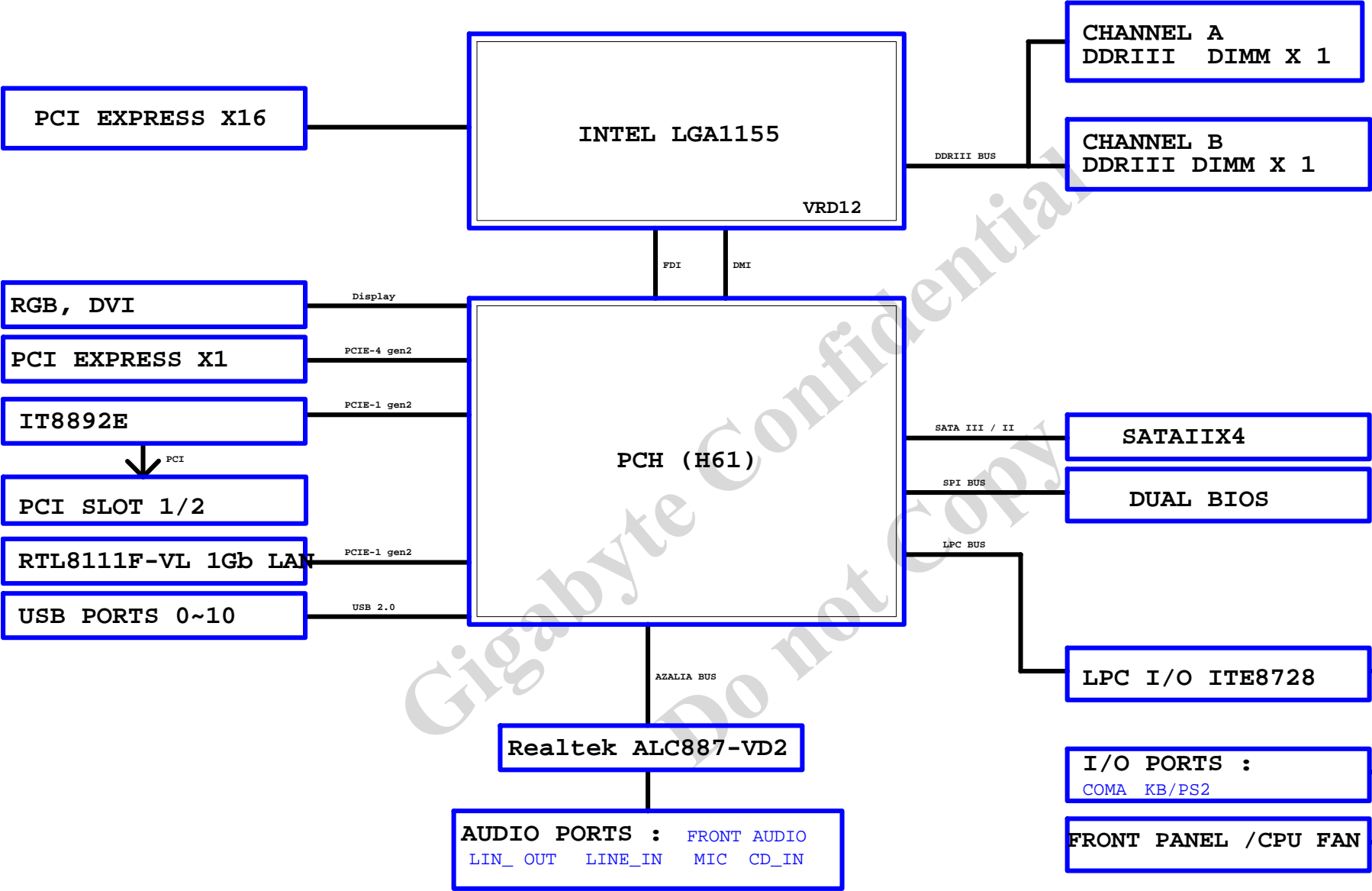
Cover Sheet			
Size Custom	Document Number	GA-H61M-S2PV-KR	Rev 2.2
Date:	Monday, March 11, 2013	Sheet	1 of 33

## Revision 2.2

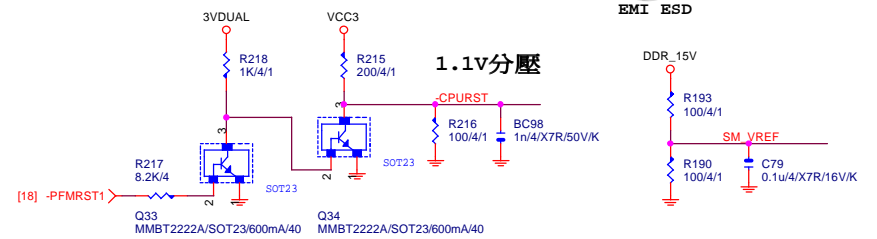
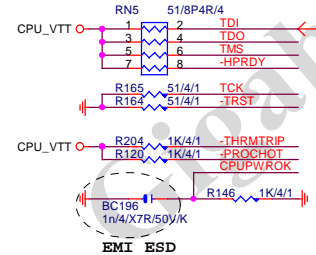
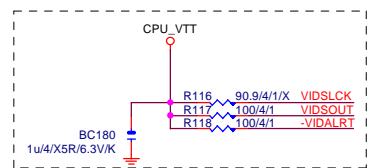
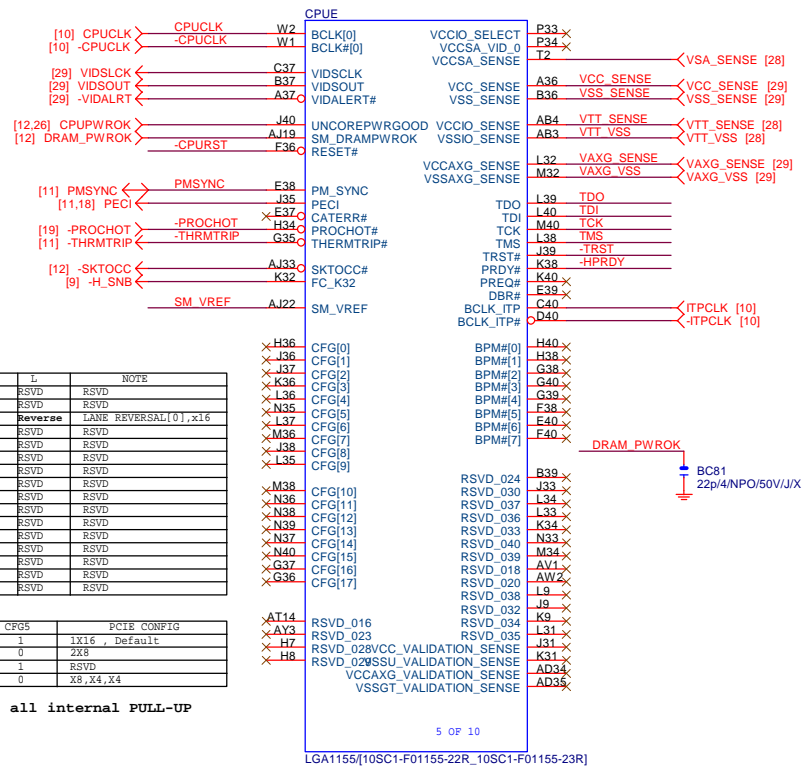
## 2013/03/11

[illegible][illegible]

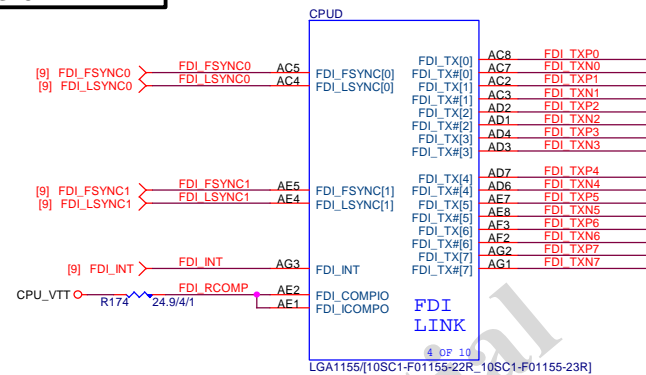
BLOCK DIAGRAM



## CPU E

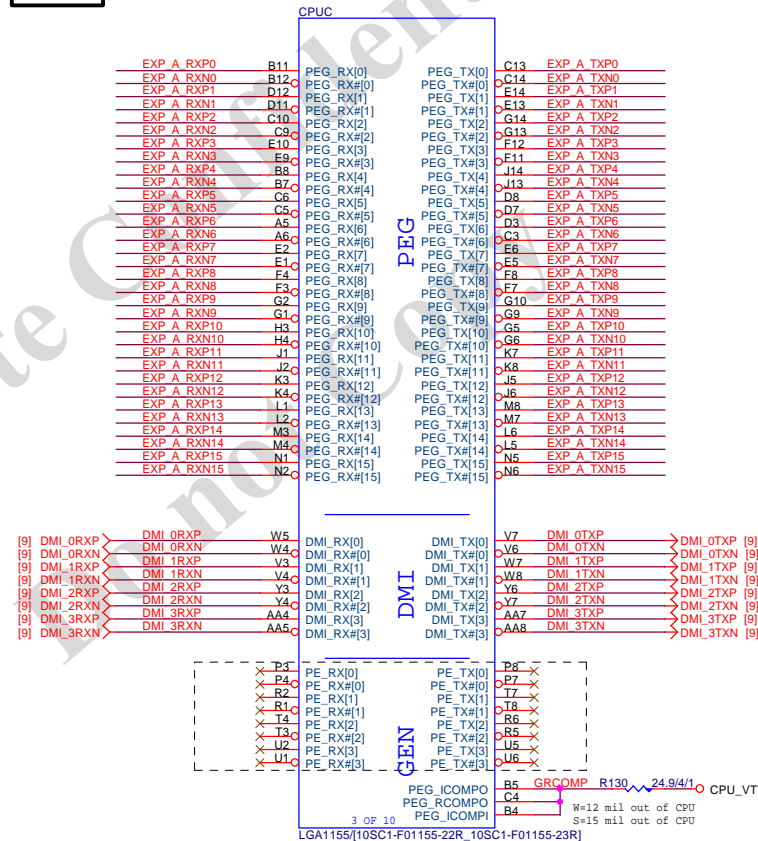


## CPU D FDI



FDI_TXP[0..7]	→	FDI_TXP[0..7]	[9]
FDI_TXN[0..7]	→	FDI_TXN[0..7]	[9]
EXP_A_TXP[0..15]	→	EXP_A_TXP[0..15]	[14]
EXP_A_TXN[0..15]	→	EXP_A_TXN[0..15]	[14]
EXP_A_RXP[0..15]	→	EXP_A_RXP[0..15]	[14]
EXP_A_RXN[0..15]	→	EXP_A_RXN[0..15]	[14]

## CPU C



STITCHING CAP.

N/A

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

<b>Gigabyte Technology</b>				
Title				
CPU LGA1155-A				
Size	Document Number	<b>GA-H61M-S2PV-KR</b>		Rev
Custom				<b>2.2</b>
Date:	Monday, March 11, 2013		Sheet	4 of 33

## CPU A

## CPUA

MAAA0	AV27	SA_MA[0]	SA_DQS[0]	AK3	DQSA0
MAAA1	AY24	SA_MA[1]	SA_DQS[0]	AK2	-DQSA0
MAAA2	AW24	SA_MA[2]			
MAAA3	AW23	SA_MA[3]			
MAAA4	AV23	SA_MA[4]	SA_DQ[0]	AJ3	MDA0
MAAA5	AT24	SA_MA[5]	SA_DQ[1]	AJ4	MDA1
MAAA6	AT23	SA_MA[6]	SA_DQ[2]	AL3	MDA2
MAAA7	AU22	SA_MA[7]	SA_DQ[3]	AL4	MDA3
MAAA8	AV22	SA_MA[8]	SA_DQ[4]	AJ2	MDA4
MAAA9	AT22	SA_MA[9]	SA_DQ[5]	AJ1	MDA5
MAAA10	AV28	SA_MA[10]	SA_DQ[6]	AL2	MDA6
MAAA11	AU21	SA_MA[11]	SA_DQ[7]	AL1	MDA7
MAAA12	AT21	SA_MA[12]			
MAAA13	AW32	SA_MA[13]	SA_DQS[1]	AP3	DQSA1
MAAA14	AU20	SA_MA[14]	SA_DQS[1]	AP2	-DQSA1
MAAA15	AT20	SA_MA[15]			
[7] -SWEA	AW29	SA_WE#	SA_DQ[8]	AN1	MDA8
[7] -SCASA	AV30	SA_CAS#	SA_DQ[9]	AN4	MDA9
[7] -SRASA	AU28	SA_RAS#	SA_DQ[10]	AR3	MDA10
			SA_DQ[11]	AR4	MDA12
[7] SBAA0	AY29	SA_BS[0]	SA_DQ[12]	AN2	MDA11
[7] SBAA1	AW28	SA_BS[1]	SA_DQ[13]	AN3	MDA13
[7] SBAA2	AV20	SA_BS[2]	SA_DQ[14]	AR2	MDA14
			SA_DQ[15]	AR1	MDA15
[7] -CSA0	AU29	SA_CS#	SA_DQS[2]	AW4	DQSA2
[7] -CSA1	AV32	SA_CS#	SA_DQS[2]	AW4	-DQSA2
	AW30	SA_CS#	SA_DQS[2]	AW4	DQSA2
	AW33	SA_CS#	SA_DQS[2]	AW4	-DQSA2
[7] CKEA0	AV19	SA_CKE[0]	SA_DQ[16]	AV2	MDA16
[7] CKEA1	AT19	SA_CKE[1]	SA_DQ[17]	AW3	MDA17
	AU18	SA_CKE[2]	SA_DQ[18]	AV5	MDA18
	AV18	SA_CKE[3]	SA_DQ[19]	AW5	MDA19
			SA_DQ[20]	AU2	MDA20
	AV31	SA_ODT[0]	SA_DQ[21]	AU3	MDA21
	MODT_A1	SA_ODT[1]	SA_DQ[22]	AU5	MDA22
	AU30	SA_ODT[2]	SA_DQ[23]	AU5	MDA23
	AW33	SA_ODT[3]			
[7] DCLKA0	AY25	SA_CLK[0]	SA_DQS[3]	AV8	DQSA3
[7] -DCLKA0	AW25	SA_CLK[0]	SA_DQS[3]	AW8	-DQSA3
[7] DCLKA1	AU24	SA_CLK[1]			
[7] -DCLKA1	AU25	SA_CLK[1]	SA_DQ[24]	AY7	MDA24
	AW27	SA_CLK[2]	SA_DQ[25]	AU7	MDA25
	AY27	SA_CLK[2]	SA_DQ[26]	AV9	MDA26
	AV26	SA_CLK[3]	SA_DQ[27]	AU9	MDA27
	AW26	SA_CLK[3]	SA_DQ[28]	AV7	MDA28
	AW26	SA_CLK[3]	SA_DQ[29]	AW7	MDA29
			SA_DQ[30]	AW9	MDA30
			SA_DQ[31]	AY9	MDA31
[7,8] -DDR3_RST	AW18	SM_DRAMRST#			
			SA_DQS[4]	AV37	DQSA4
			SA_DQS[4]	AV36	-DQSA4
			SA_DQ[32]	AU35	MDA32
			SA_DQ[33]	AW37	MDA33
			SA_DQ[34]	AU33	MDA34
			SA_DQ[35]	AU36	MDA35
			SA_DQ[36]	AW35	MDA36
			SA_DQ[37]	AY36	MDA37
			SA_DQ[38]	AU38	MDA38
			SA_DQ[39]	AU37	MDA39
			SA_DQS[5]	AP38	DQSA5
			SA_DQS[5]	AP39	-DQSA5
			SA_DQ[40]	AR40	MDA40
			SA_DQ[41]	AR37	MDA41
			SA_DQ[42]	AN38	MDA42
			SA_DQ[43]	AN37	MDA43
			SA_DQ[44]	AR39	MDA44
			SA_DQ[45]	AR38	MDA45
			SA_DQ[46]	AN39	MDA46
			SA_DQ[47]	AN40	MDA47
			SA_DQS[6]	AK38	DQSA6
			SA_DQS[6]	AK39	-DQSA6
			SA_DQ[48]	AL40	MDA48
			SA_DQ[49]	AL37	MDA49
			SA_DQ[50]	AJ38	MDA50
			SA_DQ[51]	AJ37	MDA51
			SA_DQ[52]	AL39	MDA52
			SA_DQ[53]	AL38	MDA53
			SA_DQ[54]	AJ39	MDA54
			SA_DQ[55]	AJ40	MDA55
			SA_DQS[7]	AF38	DQSA7
			SA_DQS[7]	AF39	-DQSA7
			SA_DQ[56]	AG40	MDA56
			SA_DQ[57]	AG37	MDA57
			SA_DQ[58]	AE38	MDA58
			SA_DQ[59]	AE37	MDA59
			SA_DQ[60]	AG39	MDA60
			SA_DQ[61]	AE39	MDA61
			SA_DQ[62]	AE40	MDA62
			SA_DQ[63]	AE40	MDA63

DDR\_0

1 OF 10

LGA1155[10SC1-F01155-22R\_10SC1-F01155-23R]

## CPU B

## CPUB

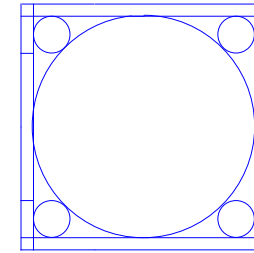
MAAB0	AK24	SB_MA[0]	SB_DQS[0]	AH7	DQSB0
MAAB1	AM20	SB_MA[1]	SB_DQS[0]	AH6	-DQSB0
MAAB2	AM19	SB_MA[2]			
MAAB3	AK18	SB_MA[3]			
MAAB4	AP19	SB_MA[4]	SB_DQ[0]	AG7	MDB0
MAAB5	AP18	SB_MA[5]	SB_DQ[1]	AG8	MDB1
MAAB6	AM18	SB_MA[6]	SB_DQ[2]	AJ9	MDB2
MAAB7	AL18	SB_MA[7]	SB_DQ[3]	AJ8	MDB3
MAAB8	AL18	SB_MA[8]	SB_DQ[4]	AG5	MDB4
MAAB9	AY17	SB_MA[9]	SB_DQ[5]	AG6	MDB5
MAAB10	AN23	SB_MA[10]	SB_DQ[6]	AJ6	MDB6
MAAB11	AU17	SB_MA[11]	SB_DQ[7]	AJ7	MDB7
MAAB12	AT18	SB_MA[12]			
MAAB13	AR26	SB_MA[13]	SB_DQS[1]	AM8	DQSB1
MAAB14	AY16	SB_MA[14]	SB_DQS[1]	AL8	-DQSB1
MAAB15	AY16	SB_MA[15]			
[8] -SWEB	AR25	SB_WE#	SB_DQ[8]	AL7	MDB8
[8] -SCASB	AK25	SB_CAS#	SB_DQ[9]	AM7	MDB9
[8] -SRASB	AP24	SB_RAS#	SB_DQ[10]	AM10	MDB10
			SB_DQ[11]	AL10	MDB11
			SB_DQ[12]	AL9	MDB12
[8] SBAB0	AP23	SB_BS[0]	SB_DQ[13]	AM6	MDB13
[8] SBAB1	AM24	SB_BS[1]	SB_DQ[14]	AL9	MDB14
[8] SBAB2	AW17	SB_BS[2]	SB_DQ[15]	AM9	MDB15
[8] -CSB0	AN25	SB_CS#	SB_DQS[2]	AR8	DQSB2
[8] -CSB1	AN26	SB_CS#	SB_DQS[2]	AP8	-DQSB2
	AL25	SB_CS#	SB_DQS[2]		
	AT26	SB_CS#			
[8] CKEB0	AU16	SB_CKE[0]	SB_DQ[16]	AP7	MDB16
[8] CKEB1	AY15	SB_CKE[1]	SB_DQ[17]	AR7	MDB17
	AW15	SB_CKE[2]	SB_DQ[18]	AP10	MDB18
	AV15	SB_CKE[3]	SB_DQ[19]	AR10	MDB19
			SB_DQ[20]	AP6	MDB20
	AL26	SB_ODT[0]	SB_DQ[21]	AR6	MDB21
	AP26	SB_ODT[1]	SB_DQ[22]	AP9	MDB22
	AM26	SB_ODT[2]	SB_DQ[23]	AR9	MDB23
	AK26	SB_ODT[3]			
			SB_DQS[3]	AN13	DQSB3
			SB_DQS[3]	AN12	-DQSB3
[8] DCLKB0	AL21	SB_CLK[0]	SB_DQ[24]	AM12	MDB24
[8] -DCLKB0	AL22	SB_CLK[0]	SB_DQ[25]	AM13	MDB25
[8] DCLKB1	AK20	SB_CLK[1]	SB_DQ[26]	AR13	MDB26
[8] -DCLKB1	AK20	SB_CLK[1]	SB_DQ[27]	AP13	MDB27
	AL23	SB_CLK[2]	SB_DQ[28]	AL12	MDB28
	AM22	SB_CLK[2]	SB_DQ[29]	AL13	MDB29
	AK21	SB_CLK[3]	SB_DQ[30]	AR12	MDB30
	AN21	SB_CLK[3]	SB_DQ[31]	AP12	MDB31
			SB_DQS[4]	AN29	DQSB4
			SB_DQS[4]	AN28	-DQSB4
VREF DOB	AH1	FC_AH1			
VREF DOA	AH4	FC_AH4			
			SB_DQ[32]	AR28	MDB32
			SB_DQ[33]	AR29	MDB33
			SB_DQ[34]	AL28	MDB34
			SB_DQ[35]	AL29	MDB35
			SB_DQ[36]	AP28	MDB36
			SB_DQ[37]	AP29	MDB37
			SB_DQ[38]	AM28	MDB38
			SB_DQ[39]	AM29	MDB39
			SB_DQS[5]	AP33	DQSB5
			SB_DQS[5]	AR33	-DQSB5
			SB_DQ[40]	AP32	MDB40
			SB_DQ[41]	AP31	MDB41
			SB_DQ[42]	AP35	MDB42
			SB_DQ[43]	AP34	MDB43
			SB_DQ[44]	AR32	MDB44
			SB_DQ[45]	AR31	MDB45
			SB_DQ[46]	AR35	MDB46
			SB_DQ[47]	AR34	MDB47
			SB_DQS[6]	AL33	DQSB6
			SB_DQS[6]	AM33	-DQSB6
			SB_DQ[48]	AM32	MDB48
			SB_DQ[49]	AM31	MDB49
			SB_DQ[50]	AL35	MDB50
			SB_DQ[51]	AL32	MDB51
			SB_DQ[52]	AM34	MDB52
			SB_DQ[53]	AL31	MDB53
			SB_DQ[54]	AM35	MDB54
			SB_DQ[55]	AL34	MDB55
			SB_DQS[7]	AG35	DQSB7
			SB_DQS[7]	AG34	-DQSB7
			SB_DQ[56]	AH35	MDB56
			SB_DQ[57]	AH34	MDB57
			SB_DQ[58]	AE34	MDB58
			SB_DQ[59]	AE35	MDB59
			SB_DQ[60]	AJ35	MDB60
			SB_DQ[61]	AJ34	MDB61
			SB_DQ[62]	AF33	MDB62
			SB_DQ[63]	AF35	MDB63

DDR\_1

2 OF 10

LGA1155[10SC1-F01155-22R\_10SC1-F01155-23R]

## CPU SOCKET

CR  
CPU RETENTION/X

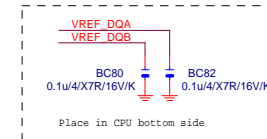
Need check the new CPU ME

CPU\_P



ILM\_BP/1156/CSP/ILM\_BP/1156/CSP/12KRC-0F0001-06R\_12KRC-0F0001-31R]

## DDR SIGNAL



[7] MODT\_A[0..1] &lt;-- MODT\_A[0..1]

[8] MODT\_B[0..1] &lt;-- MODT\_B[0..1]

[7] MDA[0..63] &lt;-- MDA[0..63]

[8] MDB[0..63] &lt;-- MDB[0..63]

[7] DQSA[0..7] &lt;-- DQSA[0..7]

[7] -DQSA[0..7] &lt;-- -DQSA[0..7]

[7] MAA[A0..15] &lt;-- MAA[A0..15]

[8] MAA[B0..15] &lt;-- MAA[B0..15]

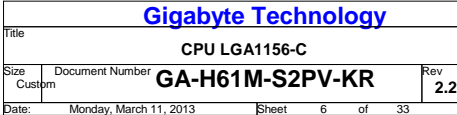
[8] DQSB[0..7] &lt;-- DQSB[0..7]

[8] -DQSB[0..7] &lt;-- -DQSB[0..7]

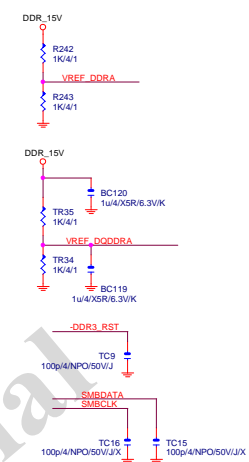
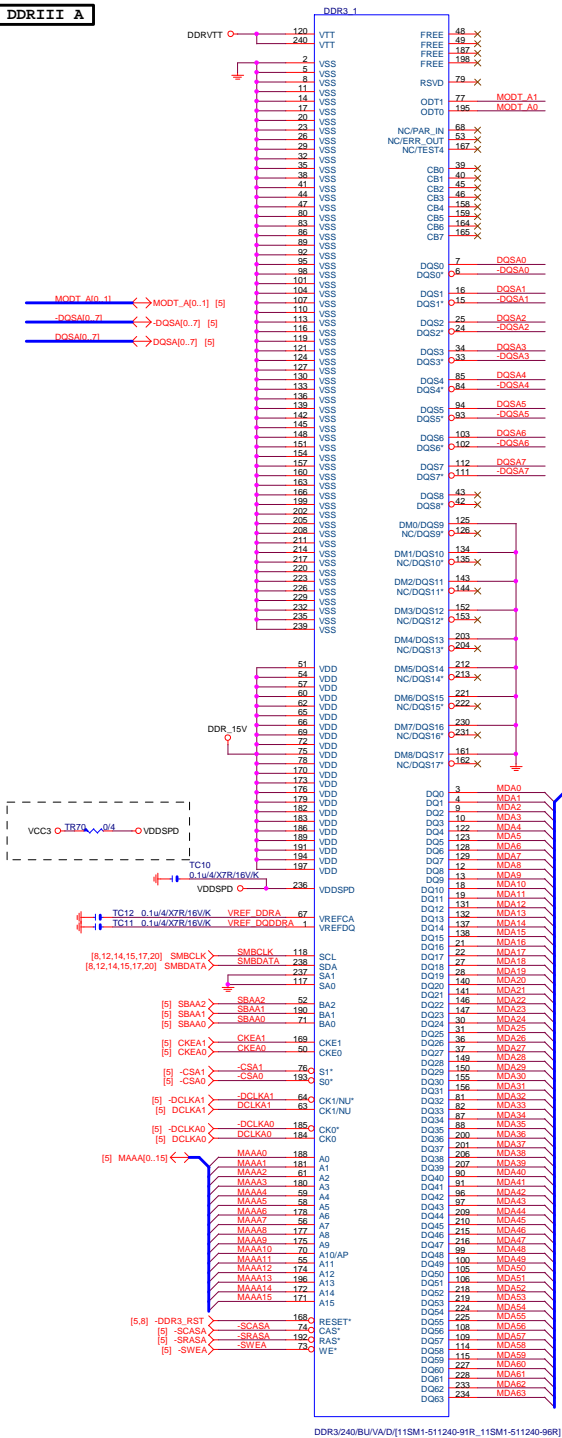
Gigabyte Technology

Title			CPU LGA1156-B		
Size			GA-H61M-S2PV-KR		
Date:			Monday, March 11, 2013		
Sheet			5 of 33		

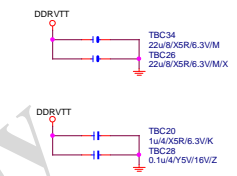
CPU I,J GND
-------------



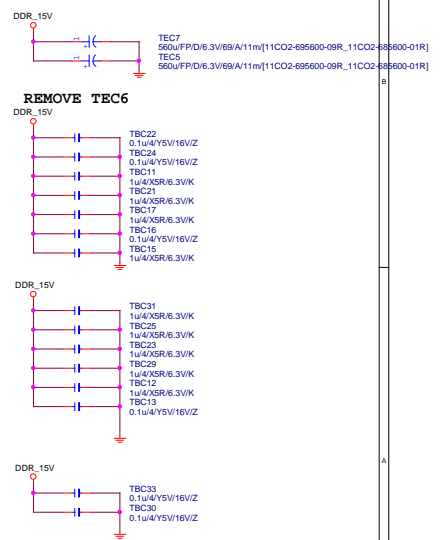
## DDRIII A



DDRVTT Decouple



**DDR15V Decouple**

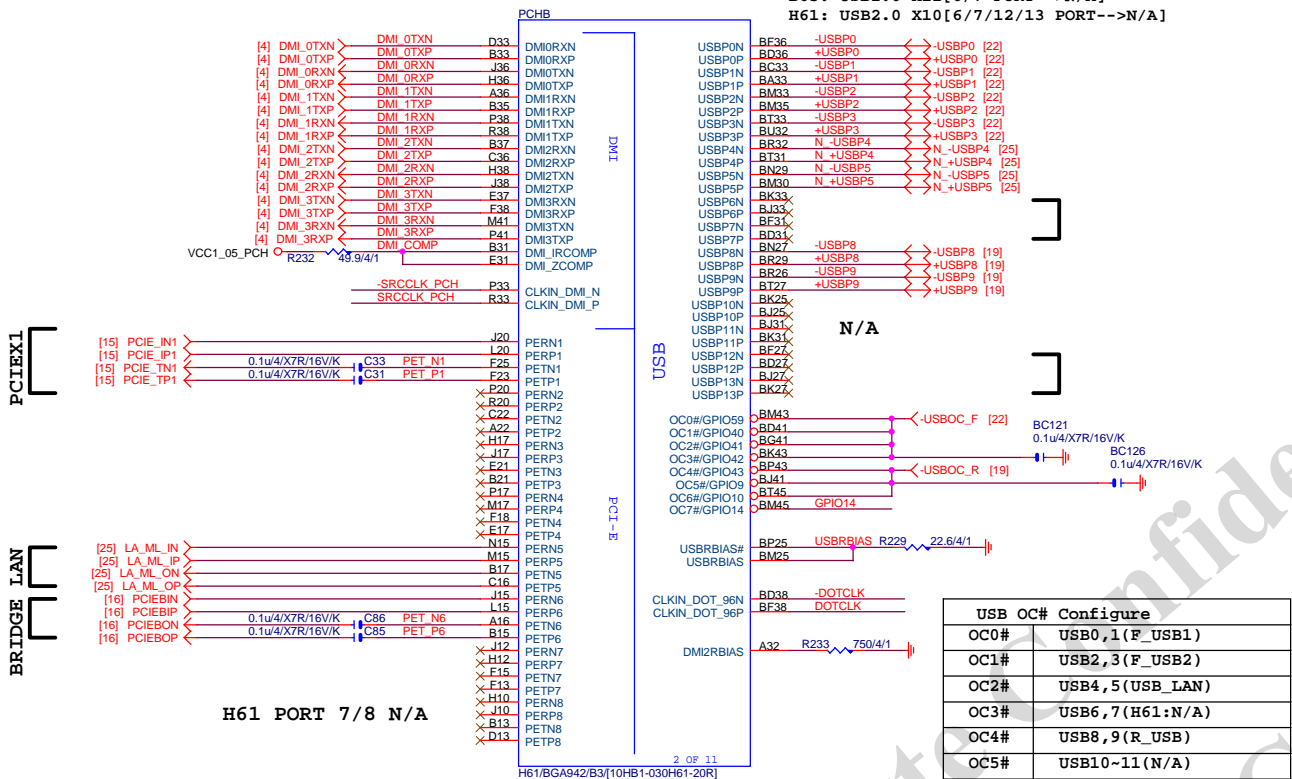




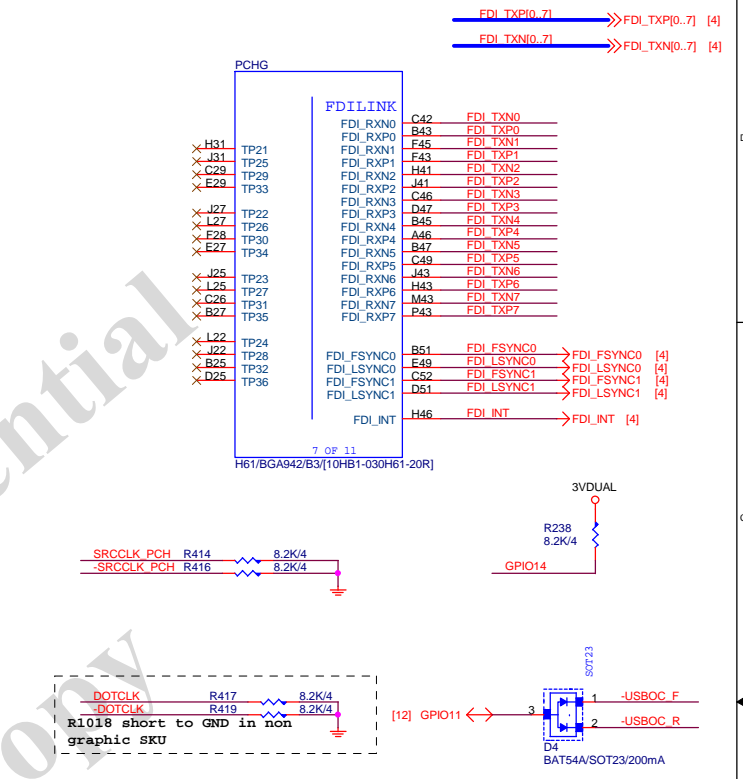




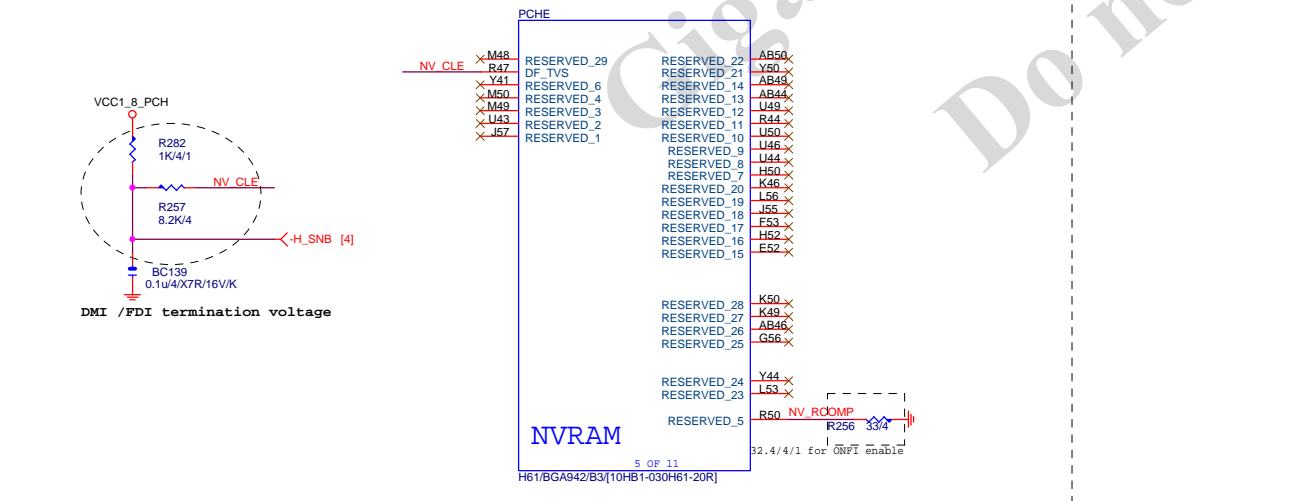
PCH B



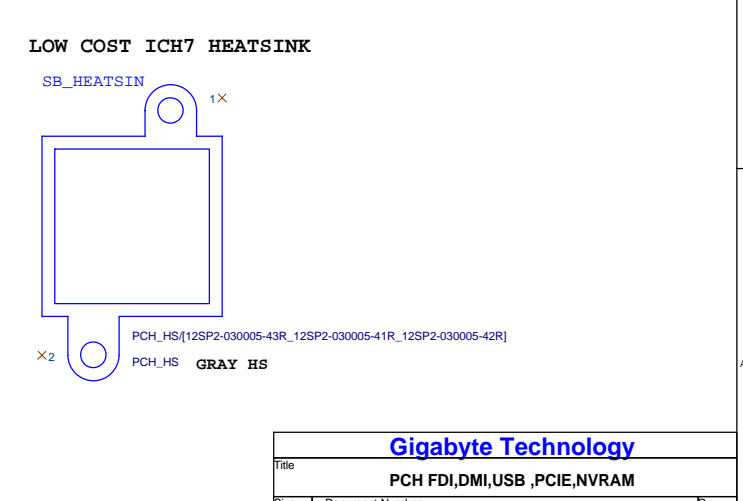
PCH G FDI



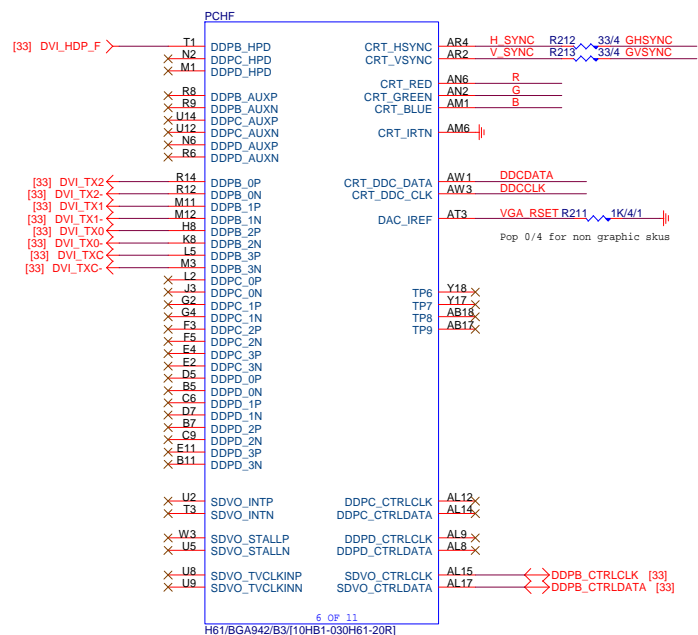
PCH E



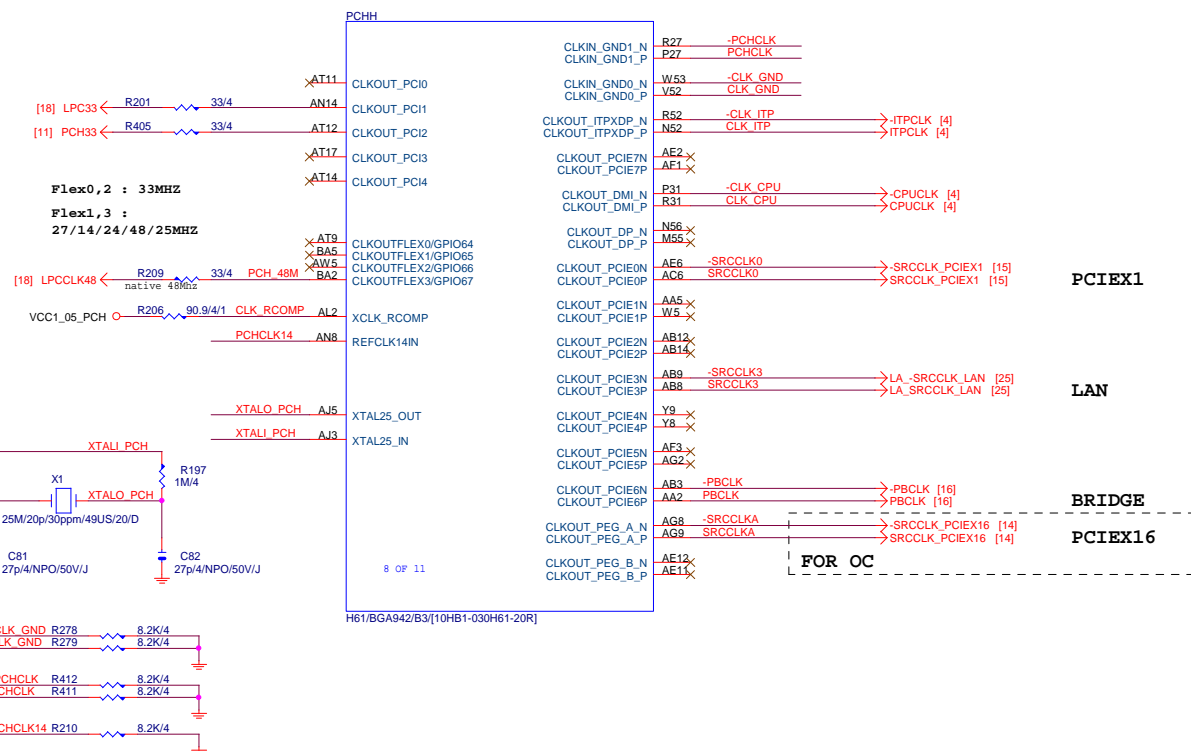
PCH HS



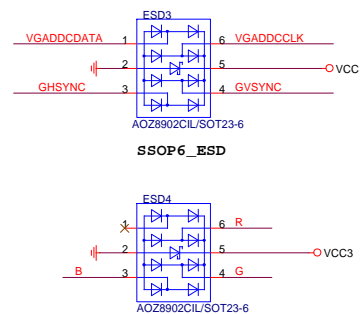
## PCH F DISPLAY



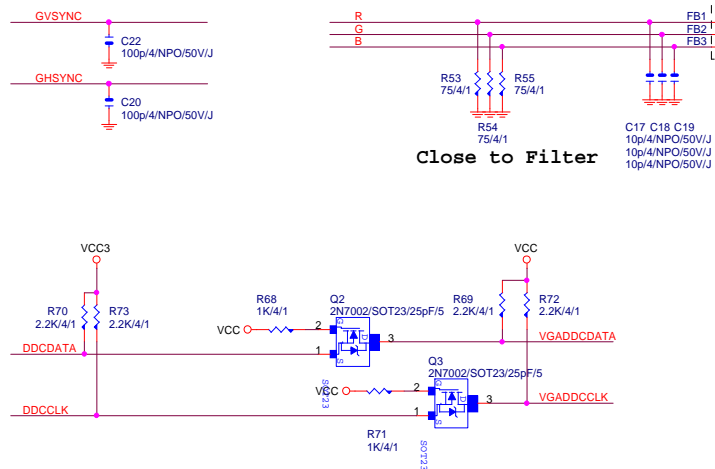
## PCH H CLK BUFFER



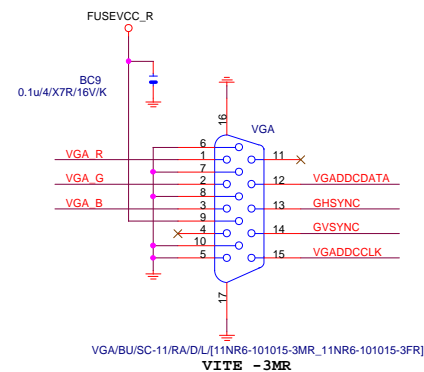
## VGA ESD



## VGA SIGNAL

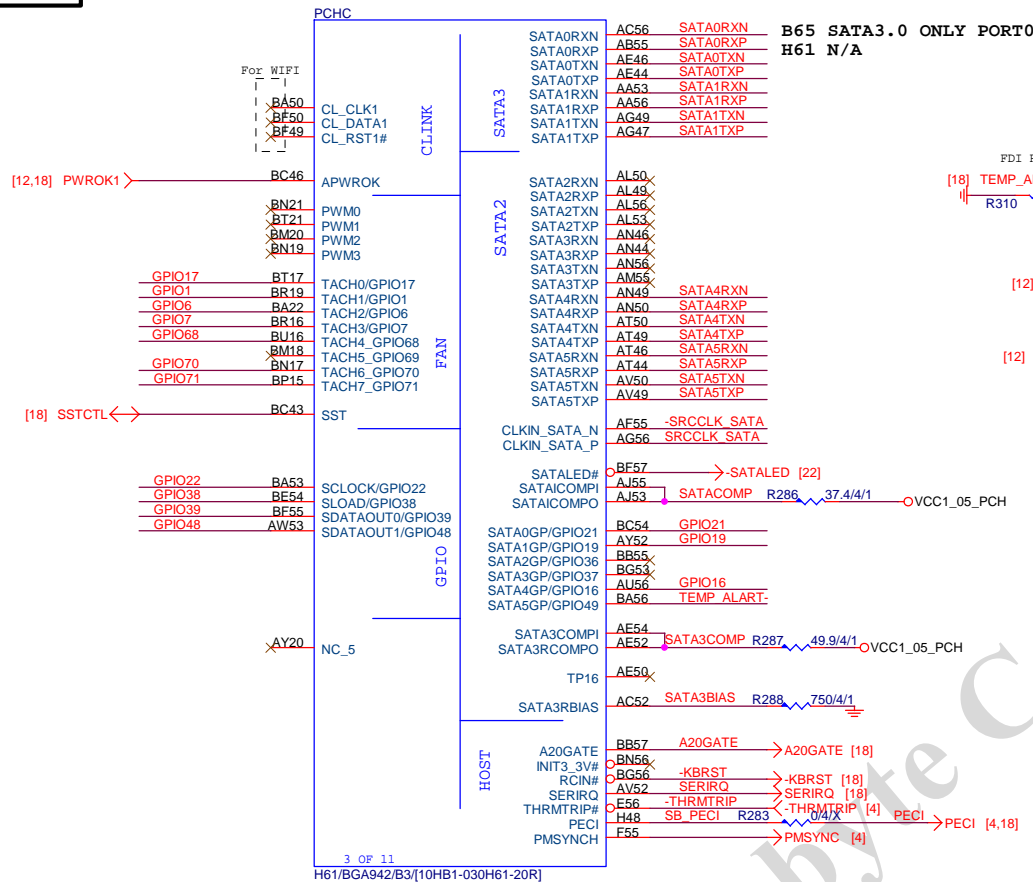


## D-SUB

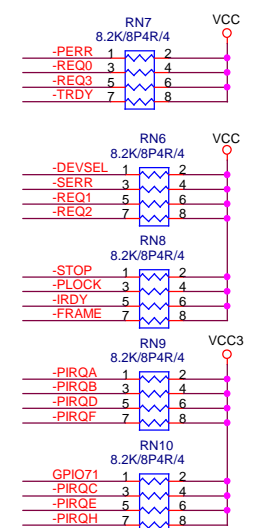


<b>Gigabyte Technology</b>				
Title				
<b>PCH DISPLAY ,CLK BUFFER</b>				
Size	Document Number	<b>GA-H61M-S2PV-KR</b>		Rev
Custom				2.2
Date:	Monday, March 11, 2013	Sheet	10 of 33	

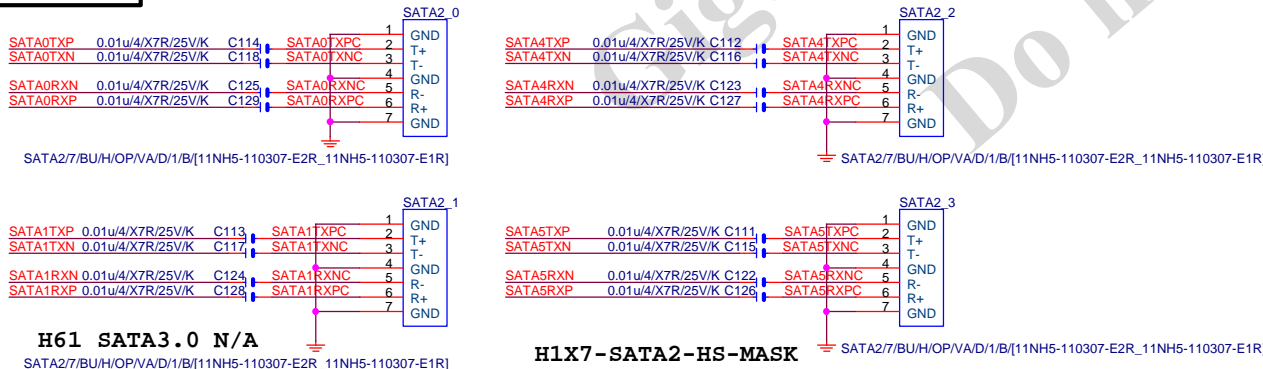
# PCH C



# PCH A

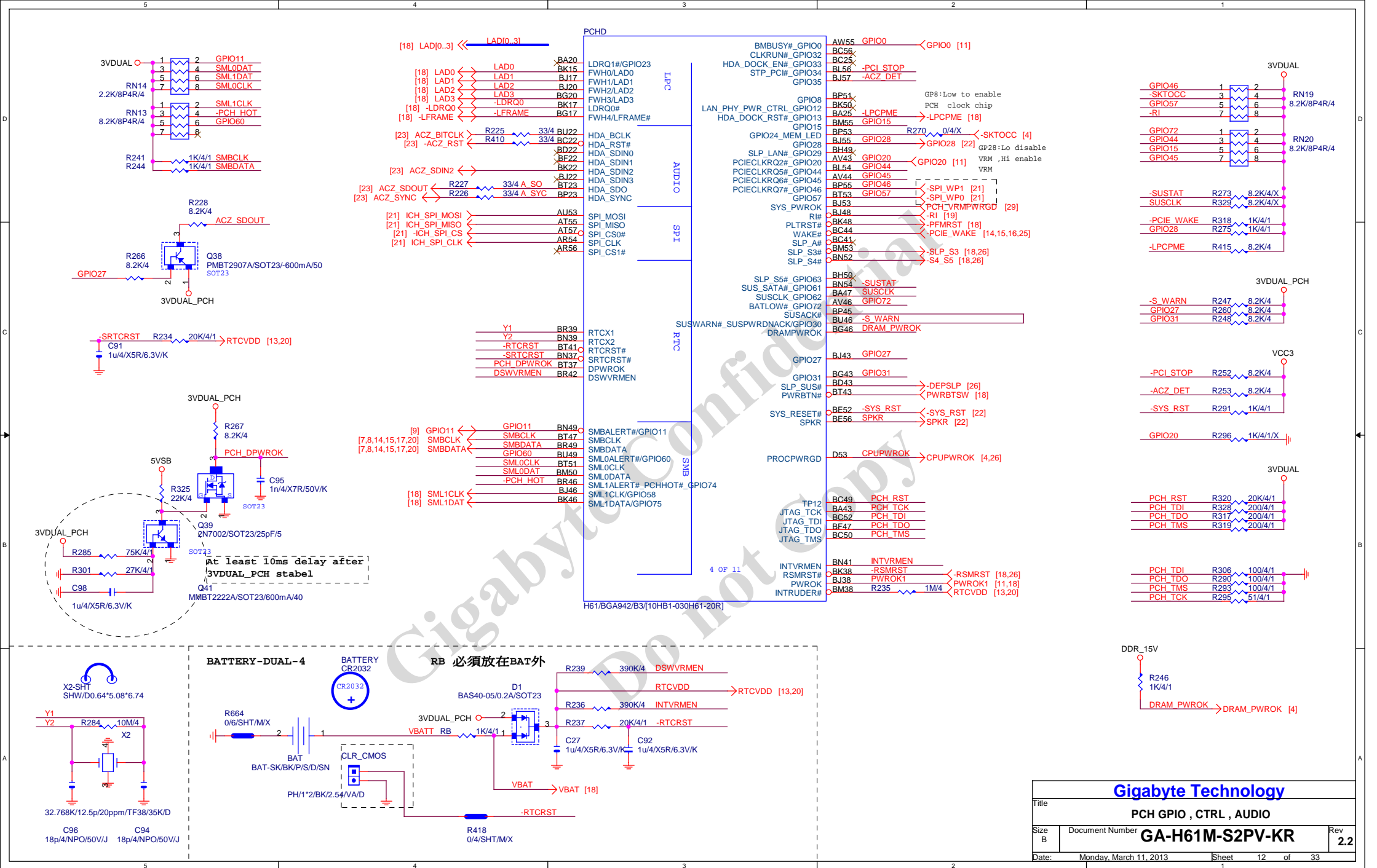


# SATA CONN.

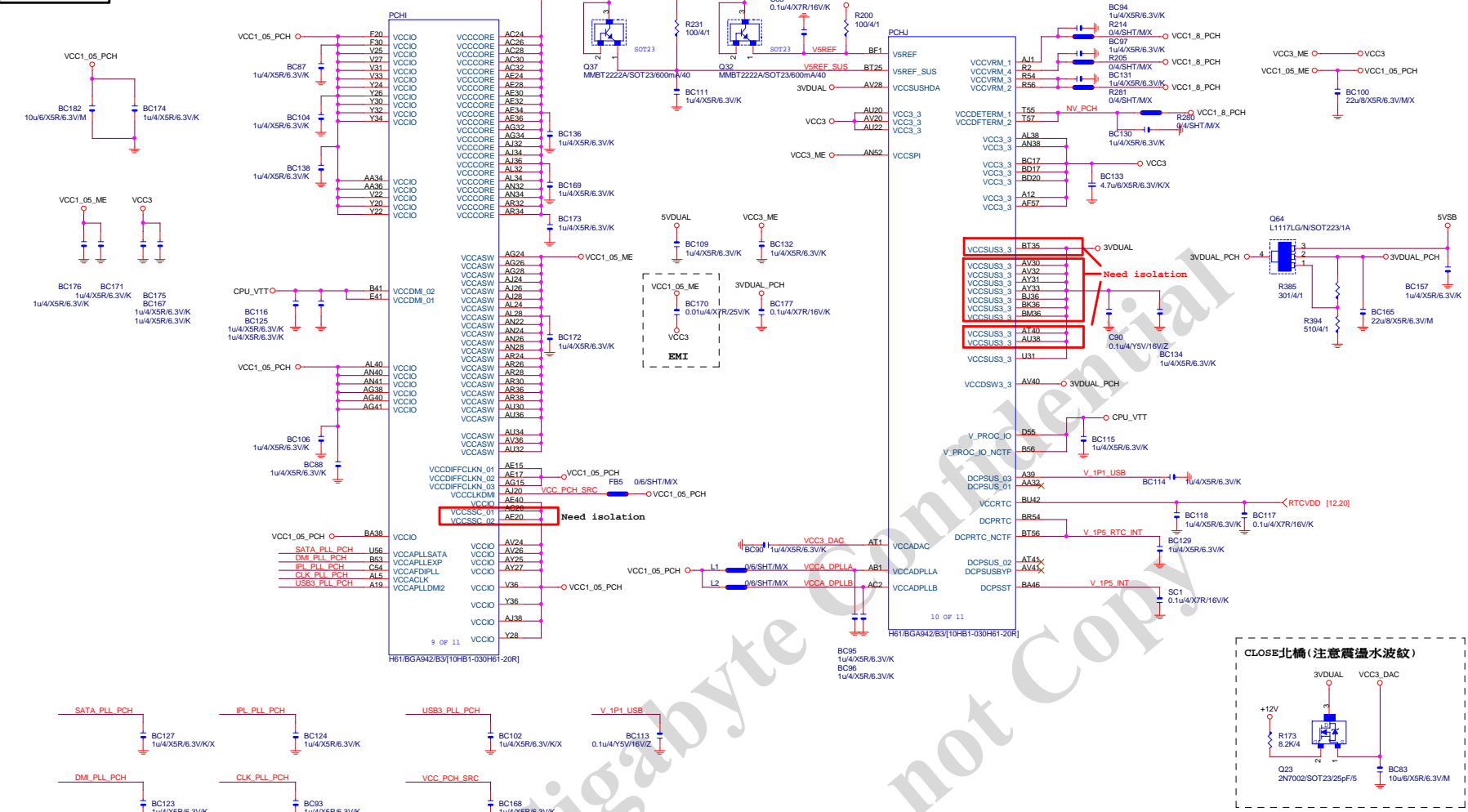


Gigabyte Technology

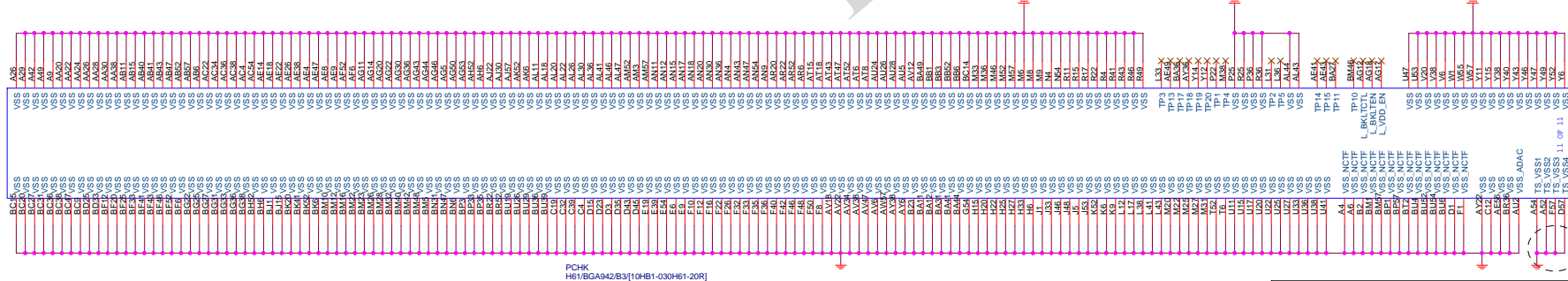
Title	PCH HOST , SATA, PCI		
Size B	Document Number	GA-H61M-S2PV-KR	
Date:	Monday, March 11, 2013	Sheet	11 of 33



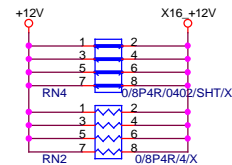
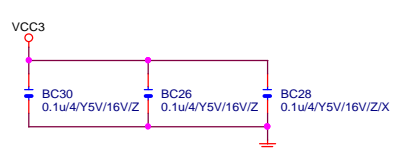
PCH I POWER	
1	100
2	100
3	100
4	100
5	100
6	100
7	100
8	100
9	100
10	100
11	100
12	100
13	100
14	100
15	100
16	100
17	100
18	100
19	100
20	100
21	100
22	100
23	100
24	100
25	100
26	100
27	100
28	100
29	100
30	100
31	100
32	100
33	100
34	100
35	100
36	100
37	100
38	100
39	100
40	100
41	100
42	100
43	100
44	100
45	100
46	100
47	100
48	100
49	100
50	100
51	100
52	100
53	100
54	100
55	100
56	100
57	100
58	100
59	100
60	100
61	100
62	100
63	100
64	100
65	100
66	100
67	100
68	100
69	100
70	100
71	100
72	100
73	100
74	100
75	100
76	100
77	100
78	100
79	100
80	100
81	100
82	100
83	100
84	100
85	100
86	100
87	100
88	100
89	100
90	100
91	100
92	100
93	100
94	100
95	100
96	100
97	100
98	100
99	100
100	100



PCH K GND







EXP A RXP0..15] >> EXP\_A\_RXP0..15] [4  
EXP A RXN0..15] >> EXP\_A\_RXN0..15] [4  
EXP A TXP0..15] >> EXP\_A\_TXP0..15] [4  
EXP A TXN0..15] >> EXP\_A\_TXN0..15] [4

EXP A TXP0	C32	0.22u/4/X5R/6.3V/K	EXP A TXP0C
EXP A TXN0	C30	0.22u/4/X5R/6.3V/K	EXP A TXN0C
EXP A TXP1	C35	0.22u/4/X5R/6.3V/K	EXP A TXP1C
EXP A TXN1	C37	0.22u/4/X5R/6.3V/K	EXP A TXN1C
EXP A TXP2	C39	0.22u/4/X5R/6.3V/K	EXP A TXP2C
EXP A TXN2	C41	0.22u/4/X5R/6.3V/K	EXP A TXN2C
EXP A TXP3	C43	0.22u/4/X5R/6.3V/K	EXP A TXP3C
EXP A TXN3	C45	0.22u/4/X5R/6.3V/K	EXP A TXN3C
EXP A TXP4	C46	0.22u/4/X5R/6.3V/K	EXP A TXP4C
EXP A TXN4	C49	0.22u/4/X5R/6.3V/K	EXP A TXN4C
EXP A TXP5	C50	0.22u/4/X5R/6.3V/K	EXP A TXP5C
EXP A TXN5	C51	0.22u/4/X5R/6.3V/K	EXP A TXN5C
EXP A TXP6	C52	0.22u/4/X5R/6.3V/K	EXP A TXP6C
EXP A TXN6	C54	0.22u/4/X5R/6.3V/K	EXP A TXN6C
EXP A TXP7	C57	0.22u/4/X5R/6.3V/K	EXP A TXP7C
EXP A TXN7	C58	0.22u/4/X5R/6.3V/K	EXP A TXN7C
EXP A TXP8	C60	0.22u/4/X5R/6.3V/K	EXP A TXP8C
EXP A TXN8	C61	0.22u/4/X5R/6.3V/K	EXP A TXN8C
EXP A TXP9	C62	0.22u/4/X5R/6.3V/K	EXP A TXP9C
EXP A TXN9	C63	0.22u/4/X5R/6.3V/K	EXP A TXN9C
EXP A TXP10	C64	0.22u/4/X5R/6.3V/K	EXP A TXP10C
EXP A TXN10	C65	0.22u/4/X5R/6.3V/K	EXP A TXN10C
EXP A TXP11	C66	0.22u/4/X5R/6.3V/K	EXP A TXP11C
EXP A TXN11	C67	0.22u/4/X5R/6.3V/K	EXP A TXN11C
EXP A TXP12	C68	0.22u/4/X5R/6.3V/K	EXP A TXP12C
EXP A TXN12	C70	0.22u/4/X5R/6.3V/K	EXP A TXN12C
EXP A TXP13	C72	0.22u/4/X5R/6.3V/K	EXP A TXP13C
EXP A TXN13	C73	0.22u/4/X5R/6.3V/K	EXP A TXN13C
EXP A TXP14	C74	0.22u/4/X5R/6.3V/K	EXP A TXP14C
EXP A TXN14	C75	0.22u/4/X5R/6.3V/K	EXP A TXN14C
EXP A TXP15	C77	0.22u/4/X5R/6.3V/K	EXP A TXP15C
EXP A TXN15	C78	0.22u/4/X5R/6.3V/K	EXP A TXN15C

[7,8,12,15,17,20] SMBCLK  
[7,8,12,15,17,20] SMBDATA

[12,15,16,25] -PCIE\_WAKE

EXP A TXP0C  
EXP A TXN0C

EXP A TXP1C  
EXP A TXN1C

EXP A TXP2C  
EXP A TXN2C

EXP A TXP3C  
EXP A TXN3C

EXP A TXP4C  
EXP A TXN4C

EXP A TXP5C  
EXP A TXN5C

EXP A TXP6C  
EXP A TXN6C

EXP A TXP7C  
EXP A TXN7C

EXP A TXP8C  
EXP A TXN8C

EXP A TXP9C  
EXP A TXN9C

EXP A TXP10C  
EXP A TXN10C

EXP A TXP11C  
EXP A TXN11C

EXP A TXP12C  
EXP A TXN12C

EXP A TXP13C  
EXP A TXN13C

EXP A TXP14C  
EXP A TXN14C

EXP A TXP15C  
EXP A TXN15C

## PCIESLOT-164DN-P

PCIEX16 3GIO\_\*16

PCI-E/16X-164P/297C/LONG DOUBLE

LONG DOUBLE PUSH LATCH

X16 +12V

X16 +12V

X16 +12V

X16 +12V

X16 +12V

X16 +12V

X16 +12V

X16 +12V

X16 +12V

X16 +12V

X16 +12V

X16 +12V

X16 +12V

X16 +12V

X16 +12V

X16 +12V

X16 +12V

X16 +12V

X16 +12V

X16 +12V

X16 +12V

X16 +12V

X16 +12V

X16 +12V

X16 +12V

X16 +12V

X16 +12V

X16 +12V

X16 +12V

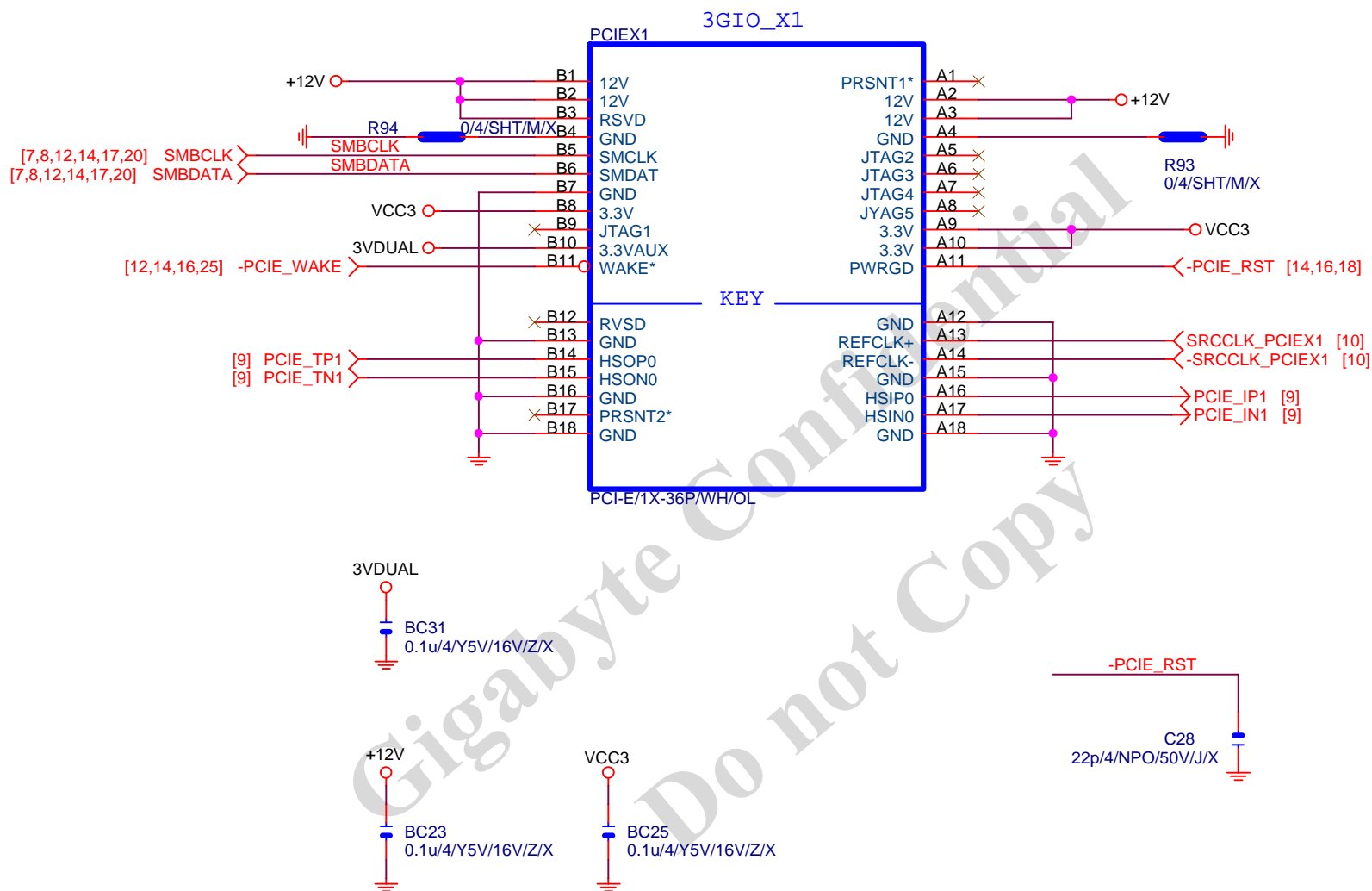
X16 +12V

X16 +12V

X16 +12V

Gigabyte Technology

Title			
PCI EXPRESS * 16			
Size	Document Number	Rev	
Custom	GA-H61M-S2PV-KR	2.2	
Date:	Monday, March 11, 2013	Sheet	14 of 33

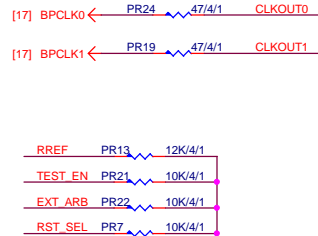
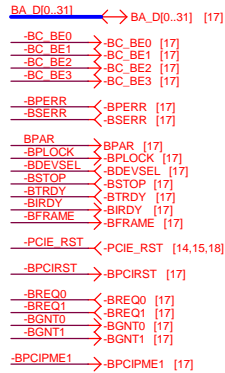


Gigabyte Technology			
Title			
PCI EXPRESS X 1 PORT			
Size A	Document Number		Rev
	GA-H61M-S2PV-KR		2.2
Date:	Monday, March 11, 2013	Sheet	15 of 33



PCIe TO PCI

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



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



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

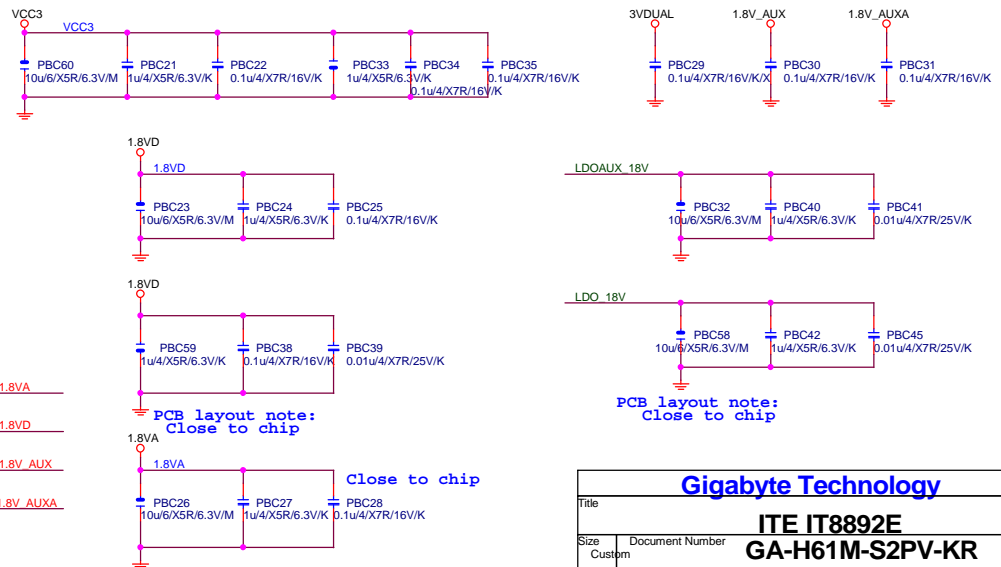
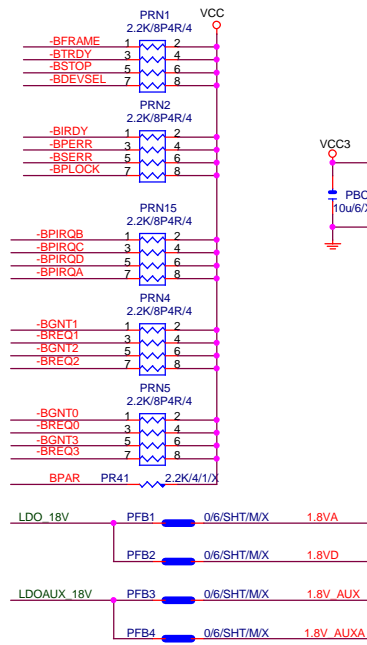


IT8892

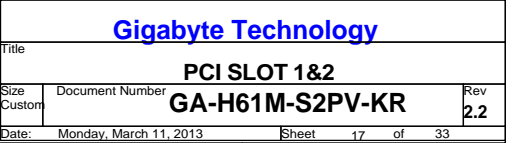
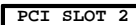
PCI slot

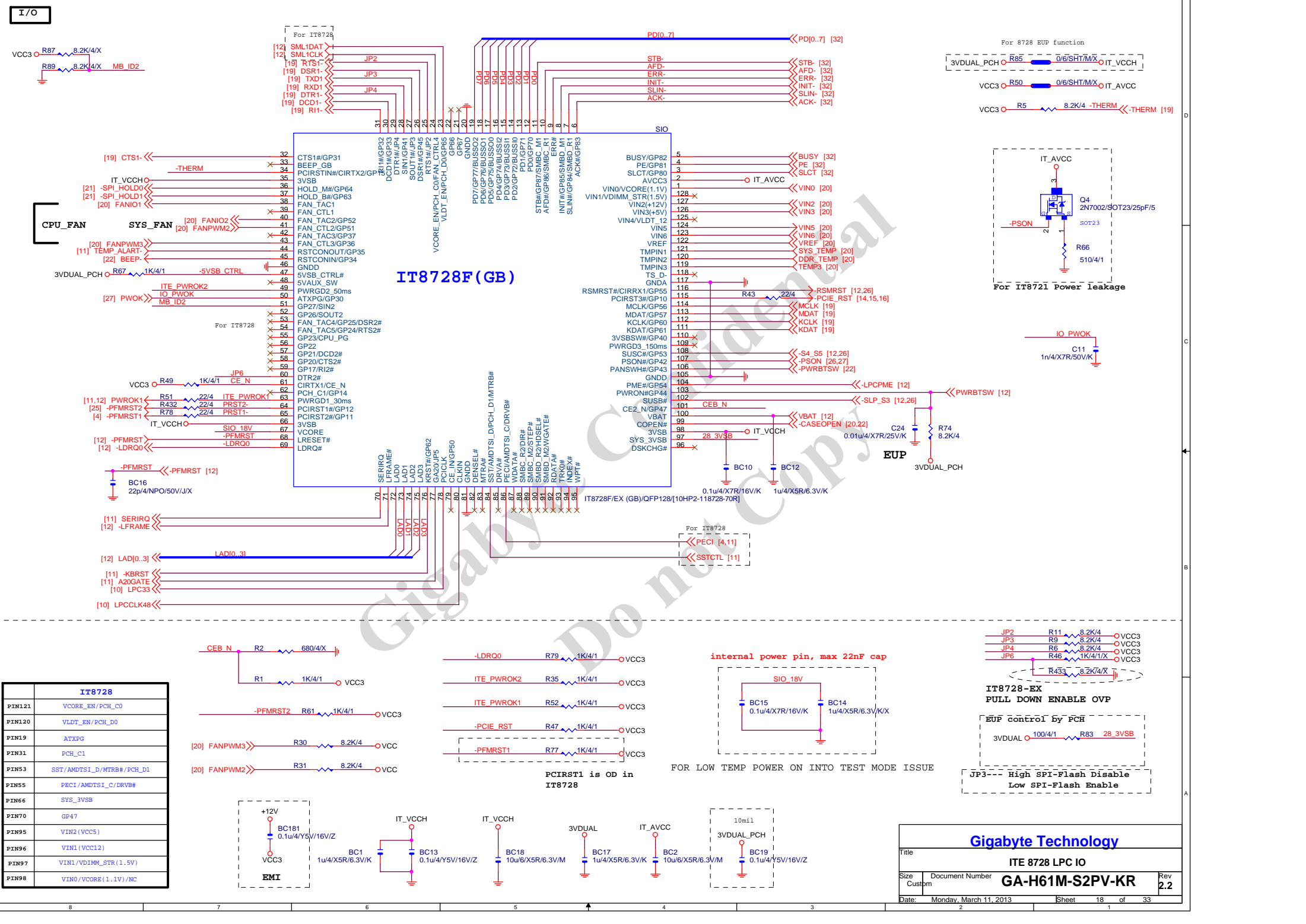
PCI slot

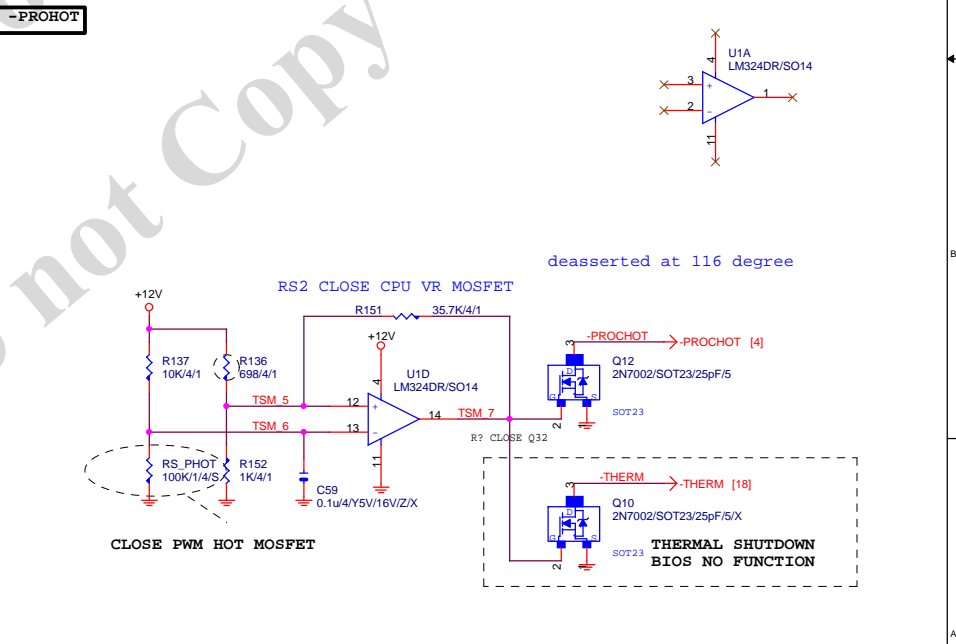
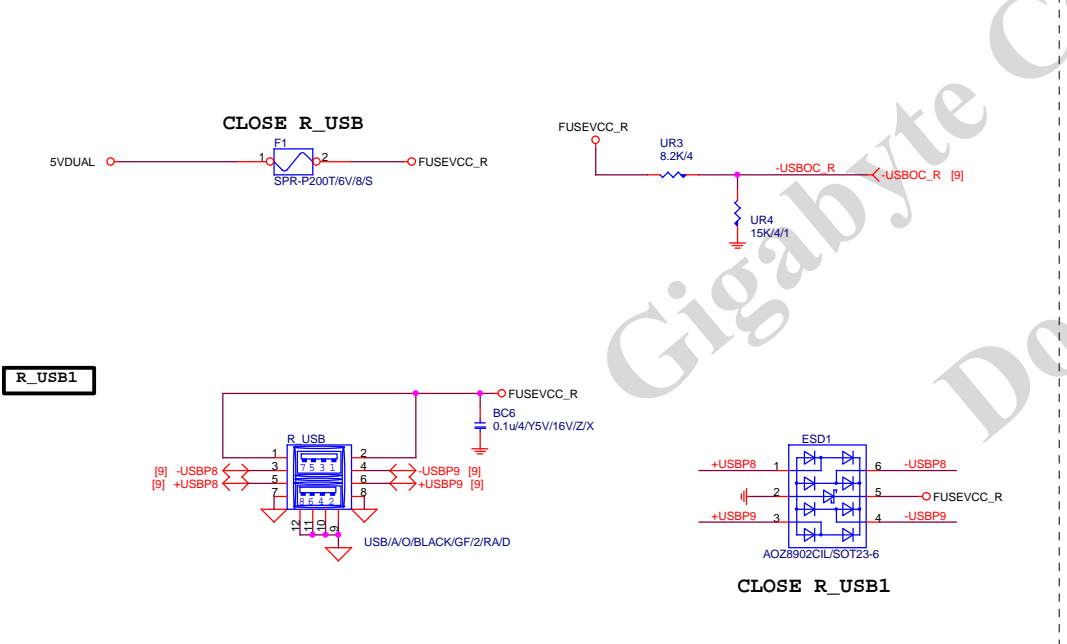
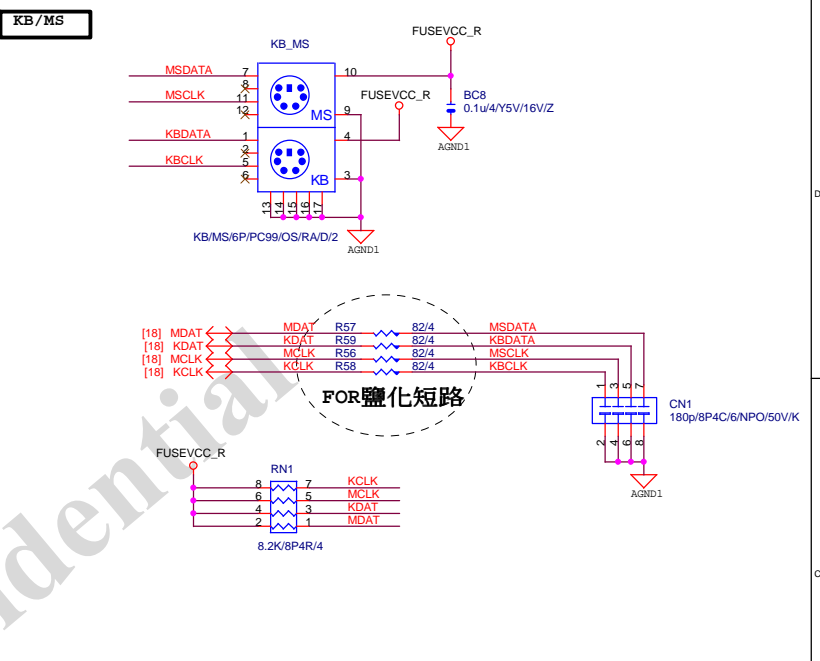
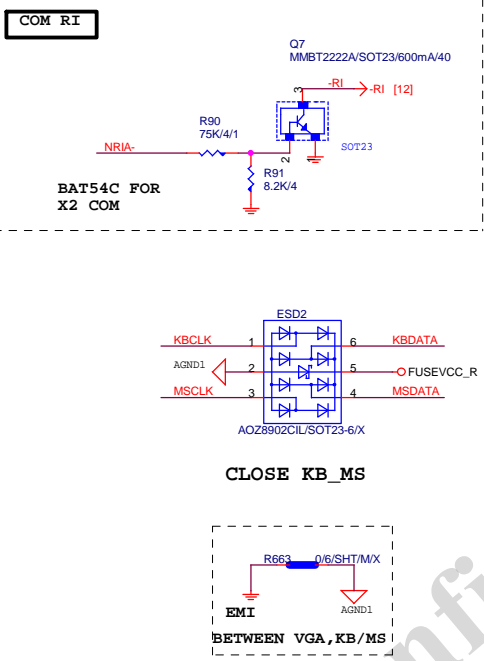
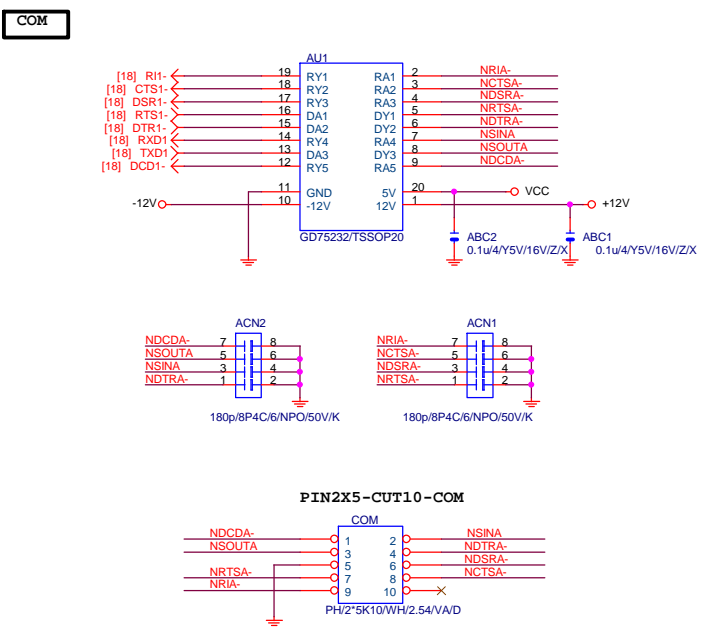
chipset side



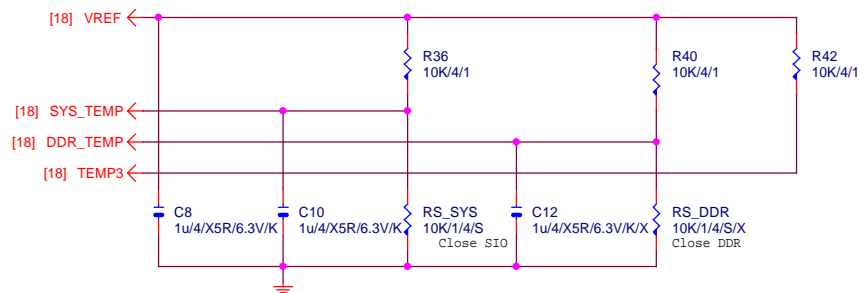
Gigabyte Technology			
Title			
ITE IT8892E			
GA-H61M-S2PV-KR			
Size	Document Number	Rev	
Custom		2.2	
Date:	Monday, March 11, 2013	Sheet	16 of 33



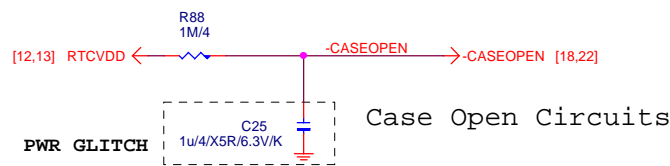




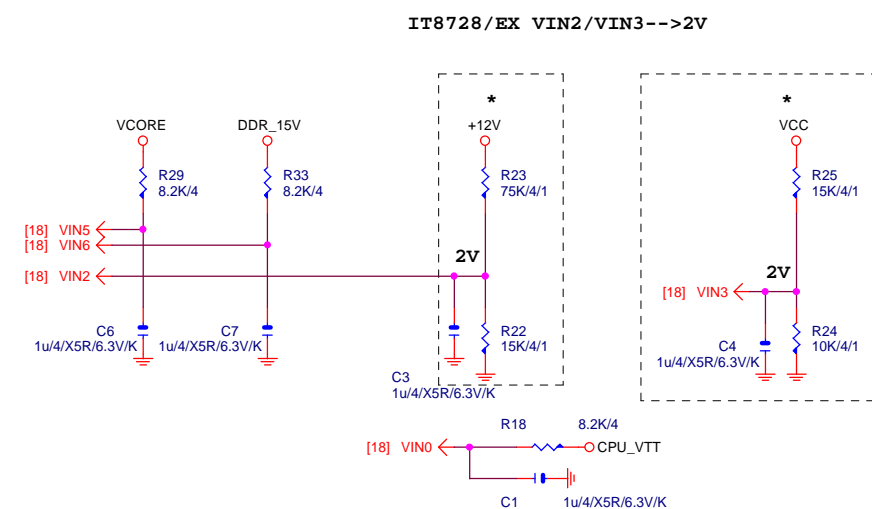
TEMP H/W MONITOR



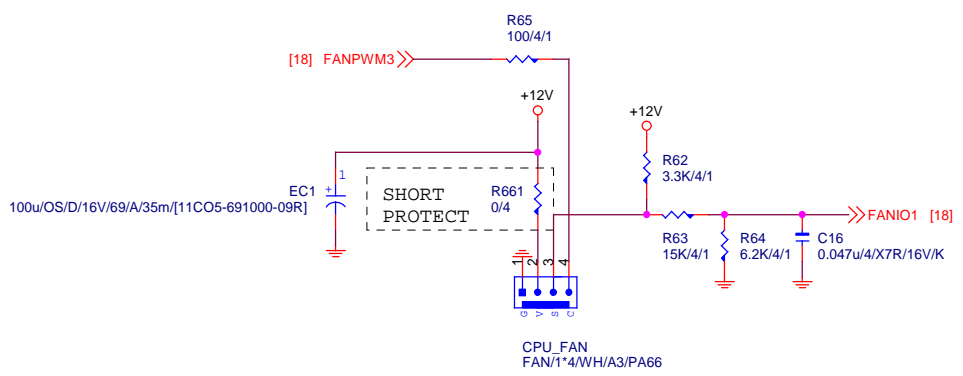
CASE OPEN



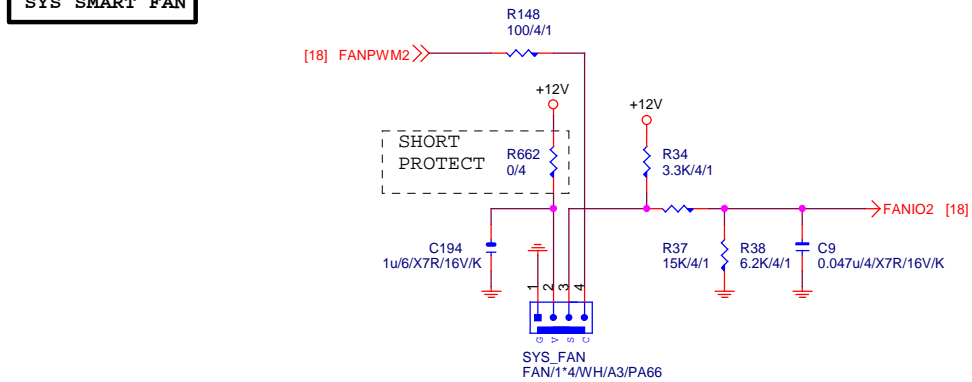
VOLTAGE-- H/W MONITOR



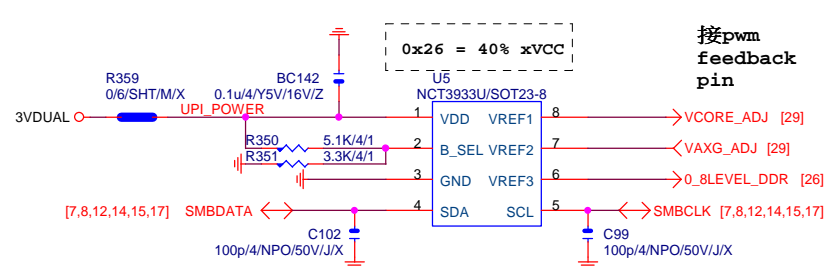
CPU SMART FAN



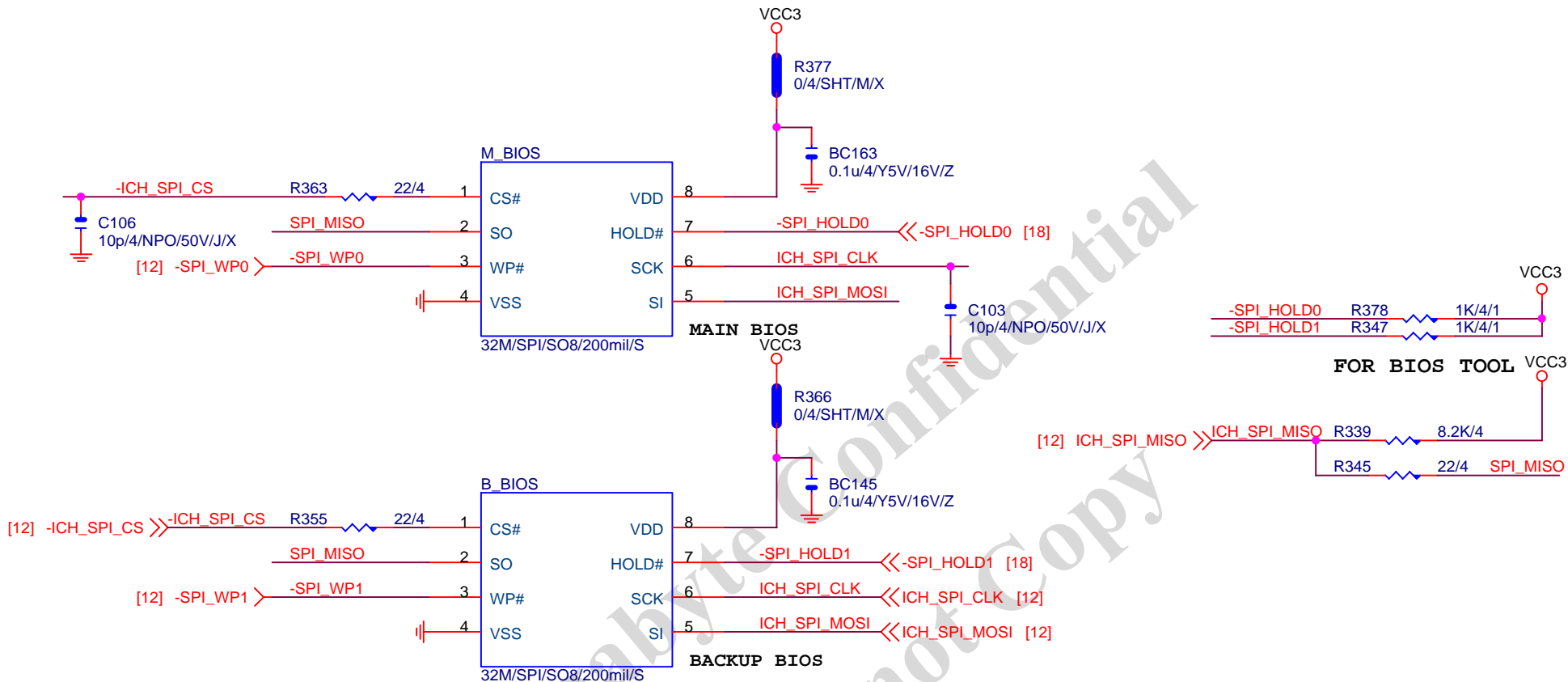
SYS SMART FAN



O.V.



# DUAL BIOS



B65使用64M BIOS  
使用H67暫用32M  
H61使用32M BIOS

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

1 means floating  
0 means PD 1K

**Gigabyte Technology**

Title

**DUAL BIOS**

Size  
A

Document Number

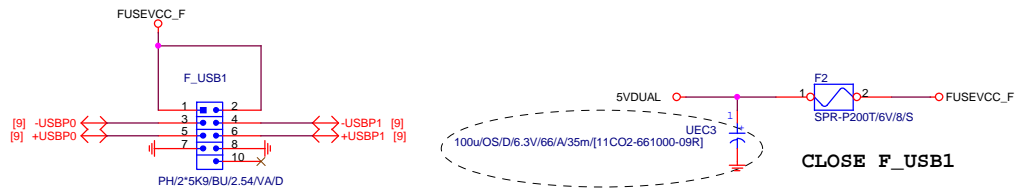
**GA-H61M-S2PV-KR**

Rev  
**2.2**

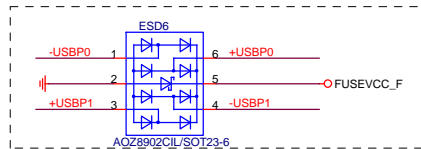
Date: Monday, March 11, 2013

Sheet 21 of 33

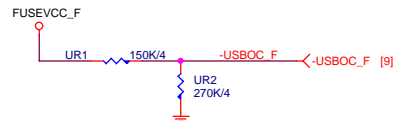
# FRONT USB1



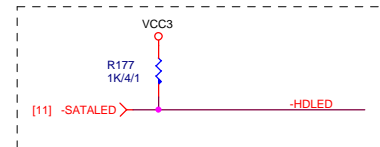
CLOSE F\_USB1



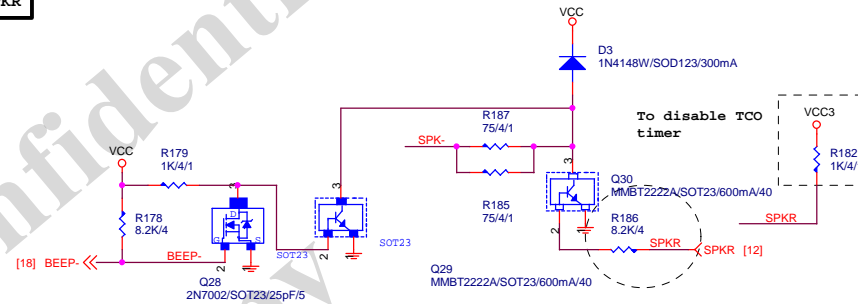
Close to connector



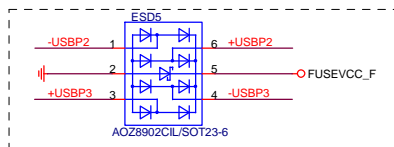
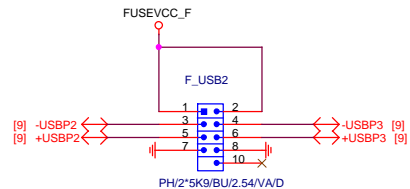
# SATA LED



# SPKR

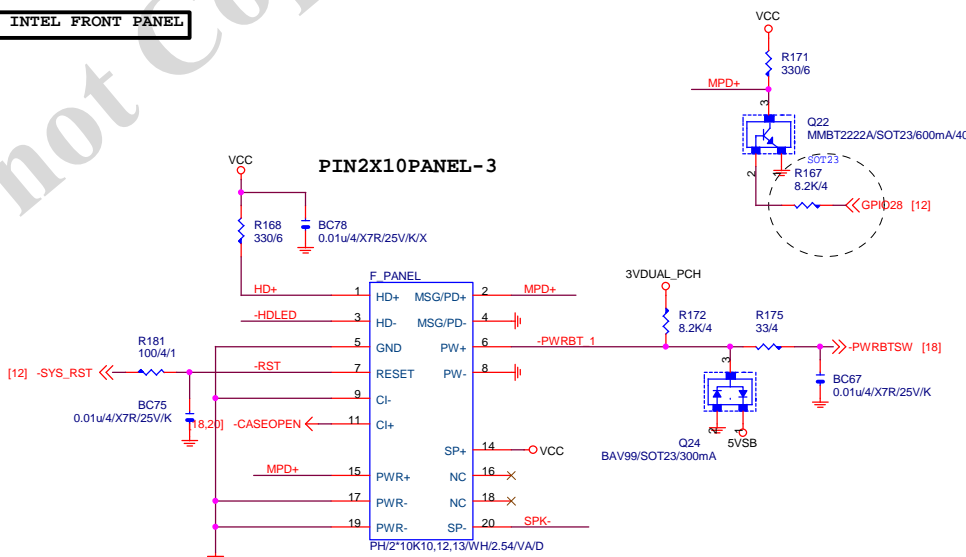


# FRONT USB2



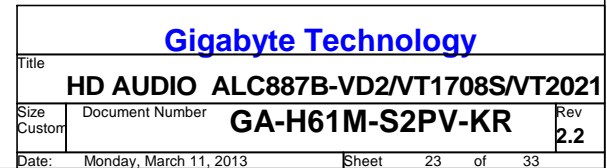
Close to connector

# INTEL FRONT PANEL

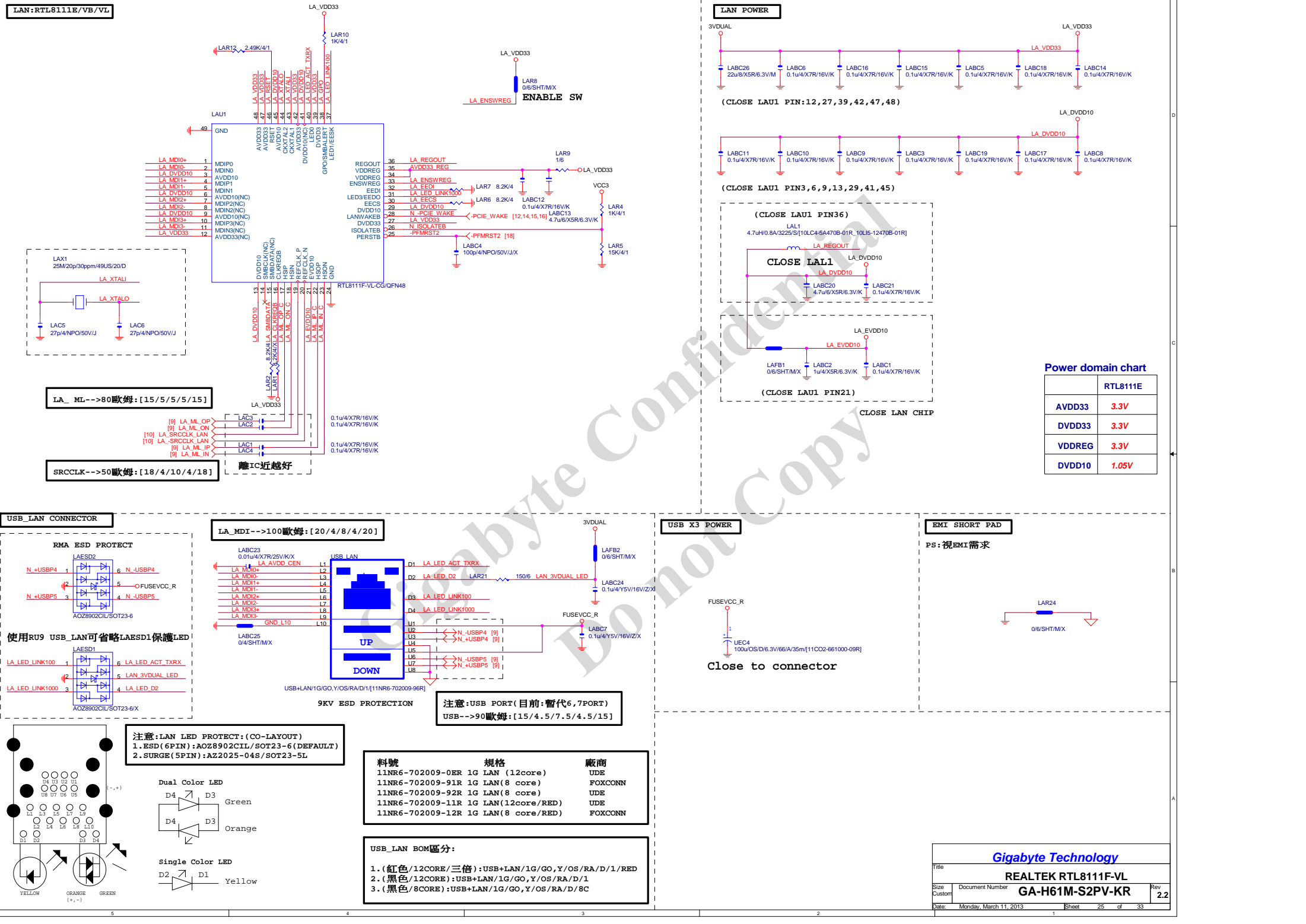


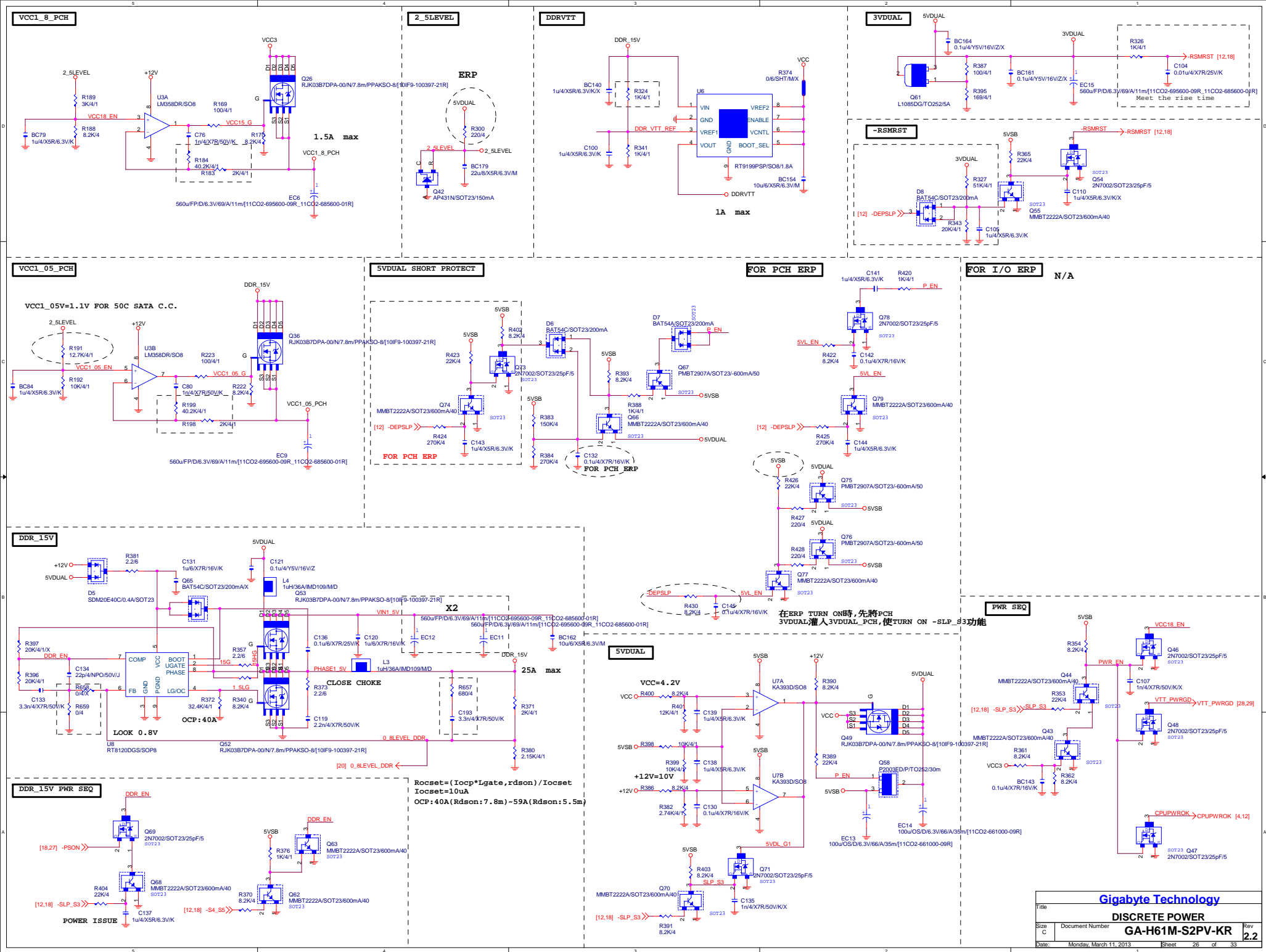
Gigabyte Technology			
Title			
FP,F_USB,USB PWR,SPKR,SATA LED			
Size	Document Number	GA-H61M-S2PV-KR	
Custom			Rev 2.2
Date:	Monday, March 11, 2013	Sheet	22 of 33



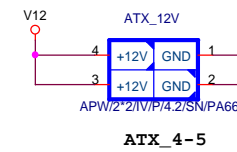




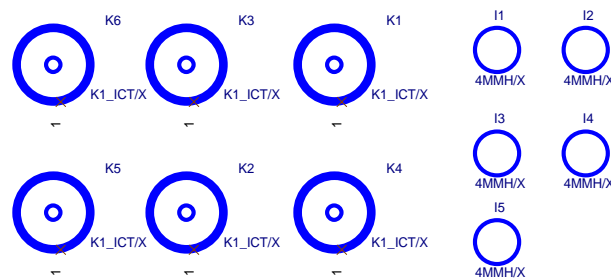




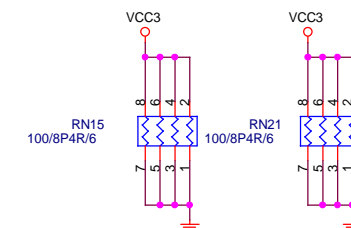
## ATXX4 POWER CONNECTOR



FIX PWR MINMUN LOAD

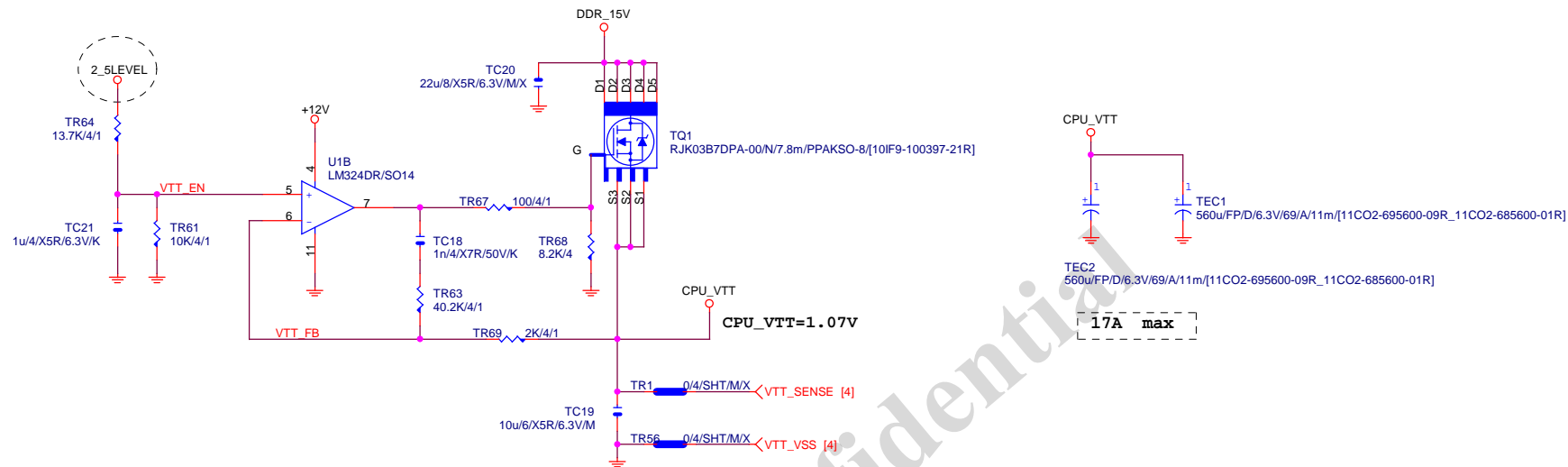


## Gigabyte Technology

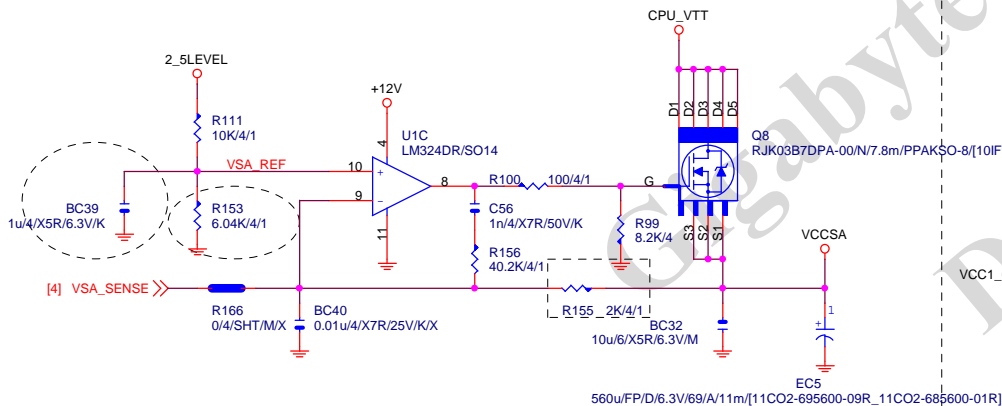


<h1 style="text-align: center; color: blue;">Gigabyte Technology</h1>			
<h2 style="text-align: center;">ATX CONNECTOR</h2>			
Size Custom	Document Number	Rev	
	<b>GA-H61M-S2PV-KR</b>	<b>2.2</b>	
Date:	Monday, March 11, 2013	Sheet	27 of 33

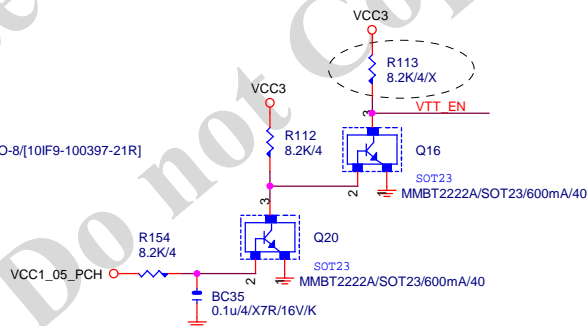
# CPU\_VTT



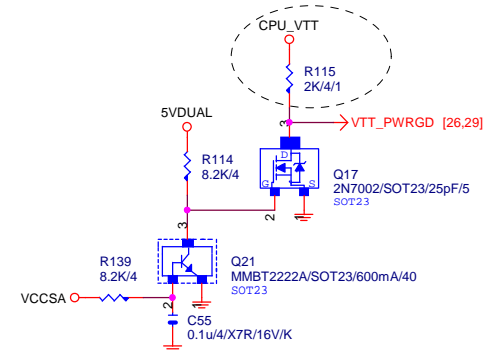
# VCCSA



# CPU\_VTT PWR SEQ



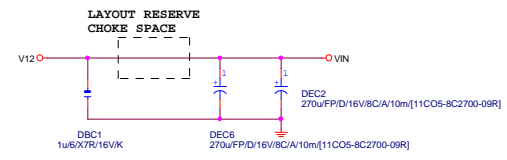
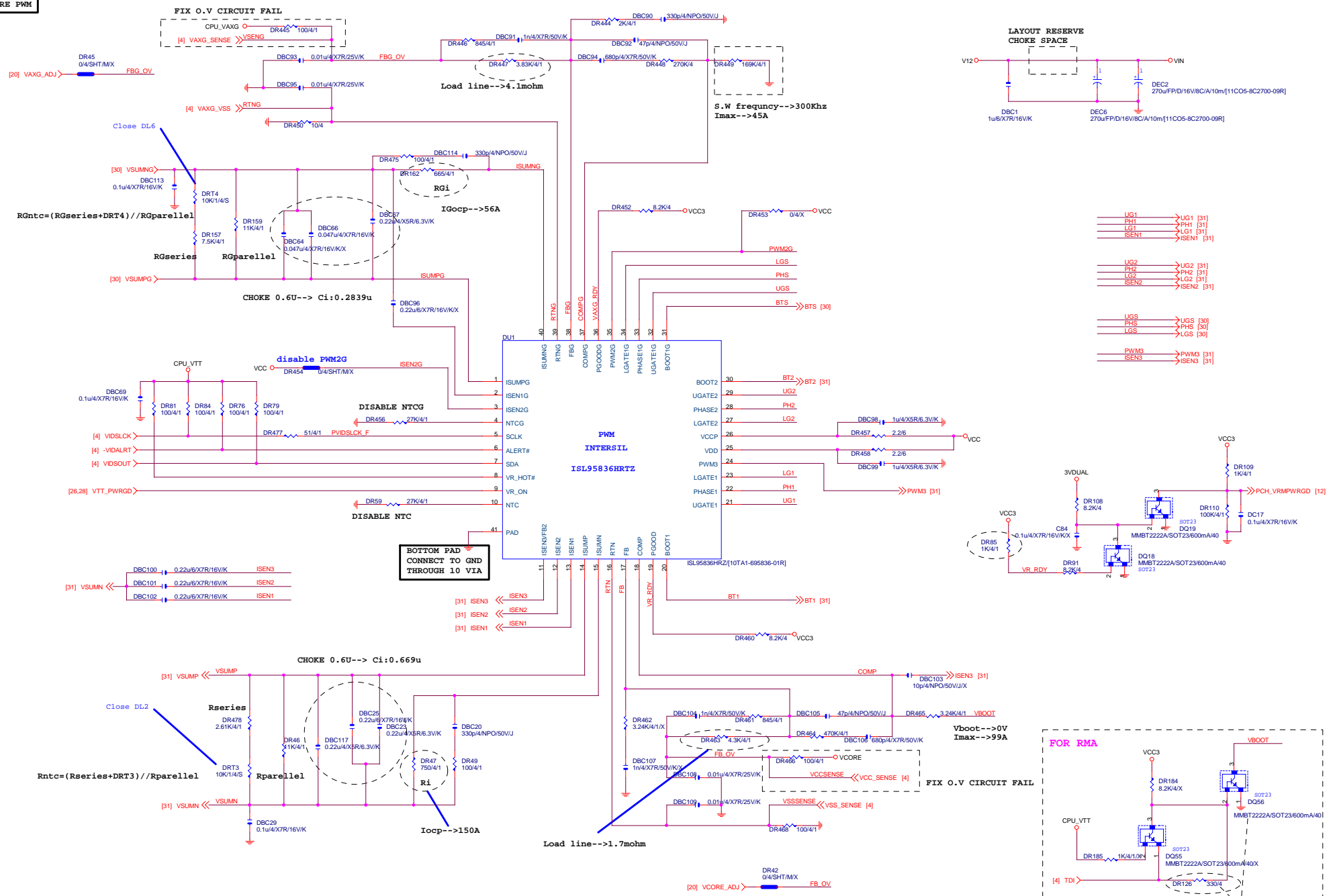
# VTT\_PWRGD



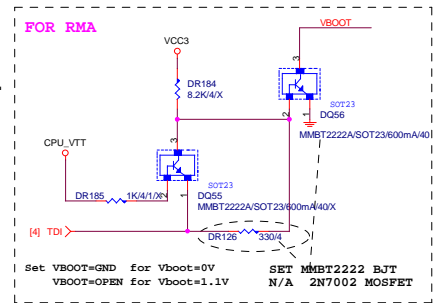
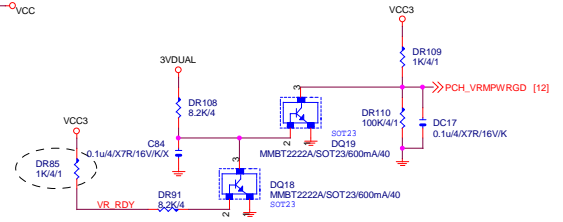
**GIGABYTE**

Title		
CPU_VTT PWM_RT8120		
Size B	Document Number	Rev
	GA-H61M-S2PV-KR	2.2
Date:	Monday, March 11, 2013	Sheet 28 of 33

## VCORE PWM

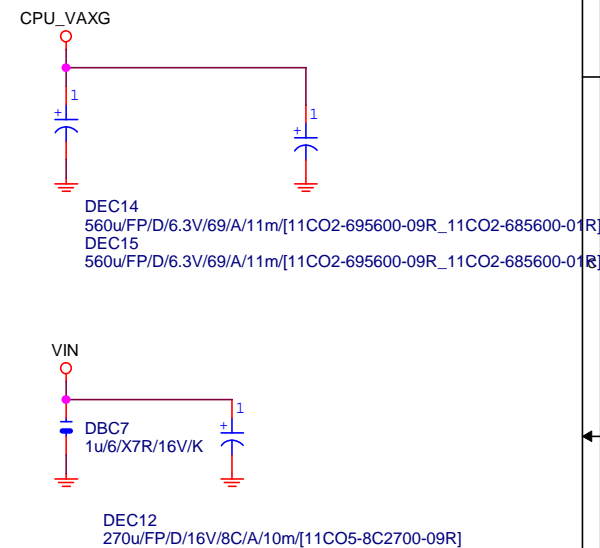
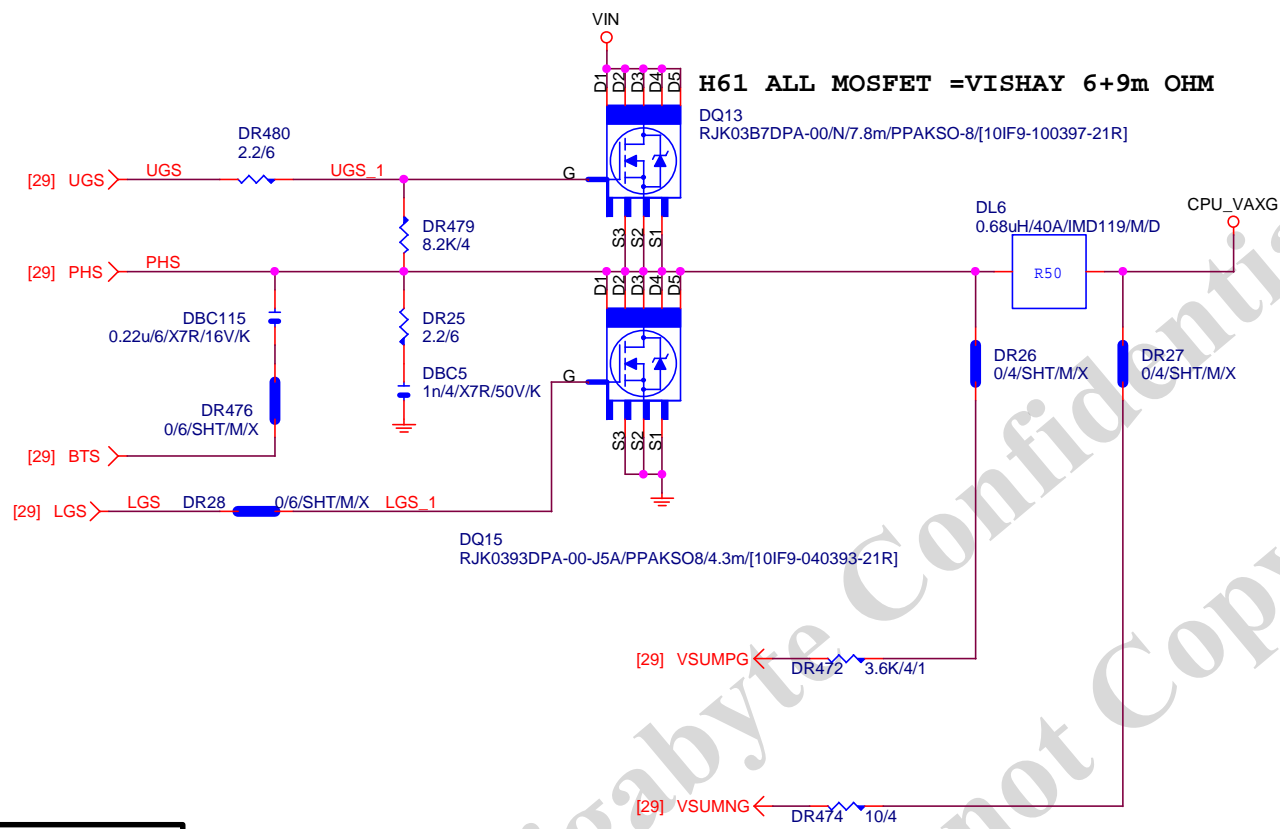


- 
- Diagram illustrating the mapping of input genes to output genes:
- UG1 → UG1 [31]
  - PH1 → PH1 [31]
  - LG1 → LG1 [31]
  - ISEN1 → ISEN1 [31]
  - UG2 → UG2 [31]
  - PH2 → PH2 [31]
  - LG2 → LG2 [31]
  - ISEN2 → ISEN2 [31]
  - UGS → UGS [30]
  - PHS → PHS [30]
  - LGS → LGS [30]
  - PWM3 → PWM3 [31]
  - ISEN3 → ISEN3 [31]





VAXG

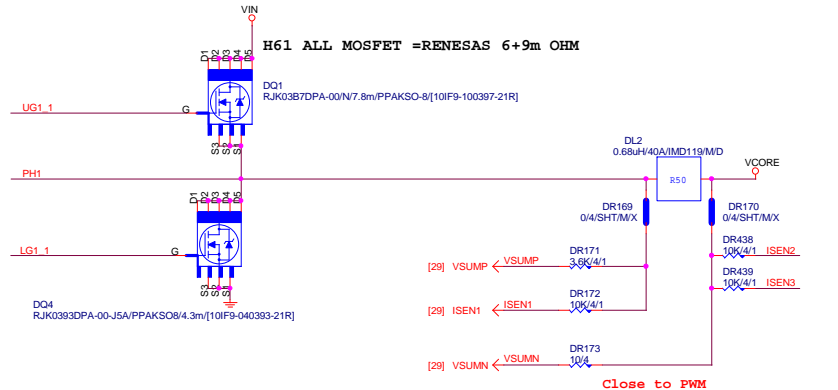
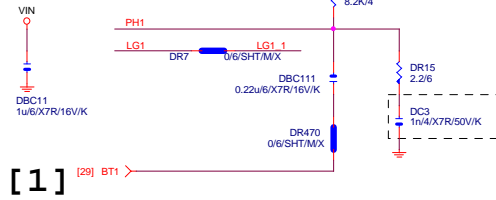


MOS HEATSINK

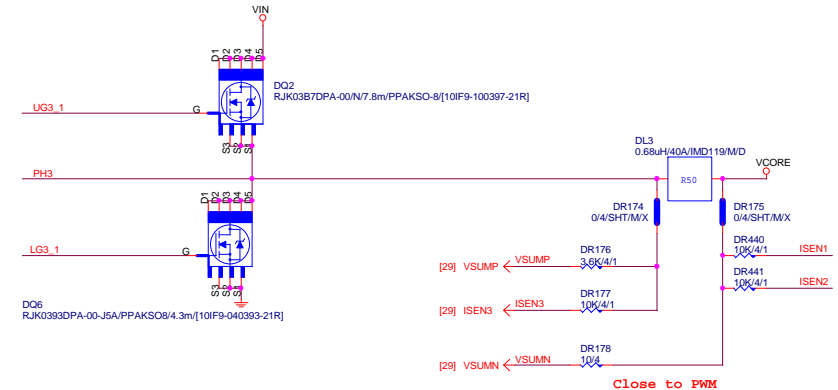
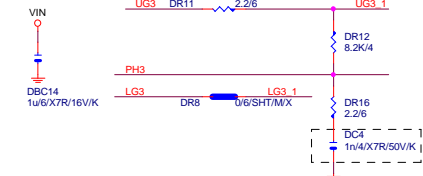
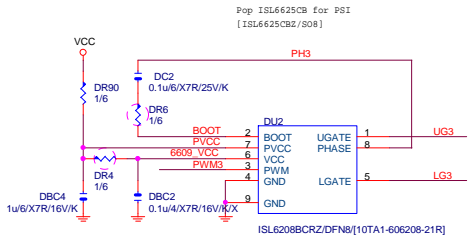
N/A

Gigabyte Technology			
Title			
CPU CORE VR-2			
Size	Document Number		Rev
Custom	GA-H61M-S2PV-KR		2.2
Date:	Monday, March 11, 2013		Sheet 30 of 33

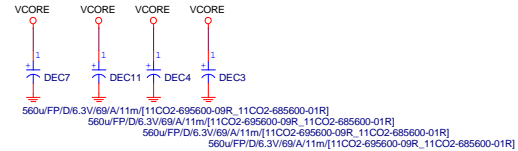
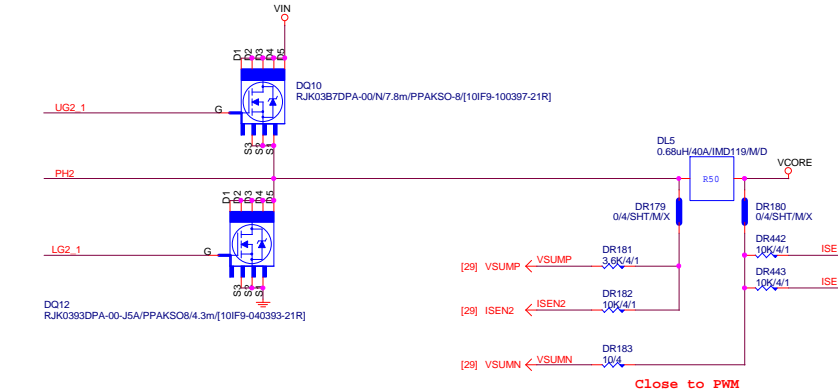
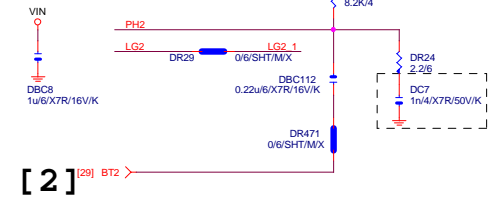
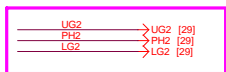
# PHASE 1



# PHASE 3



# PHASE 2

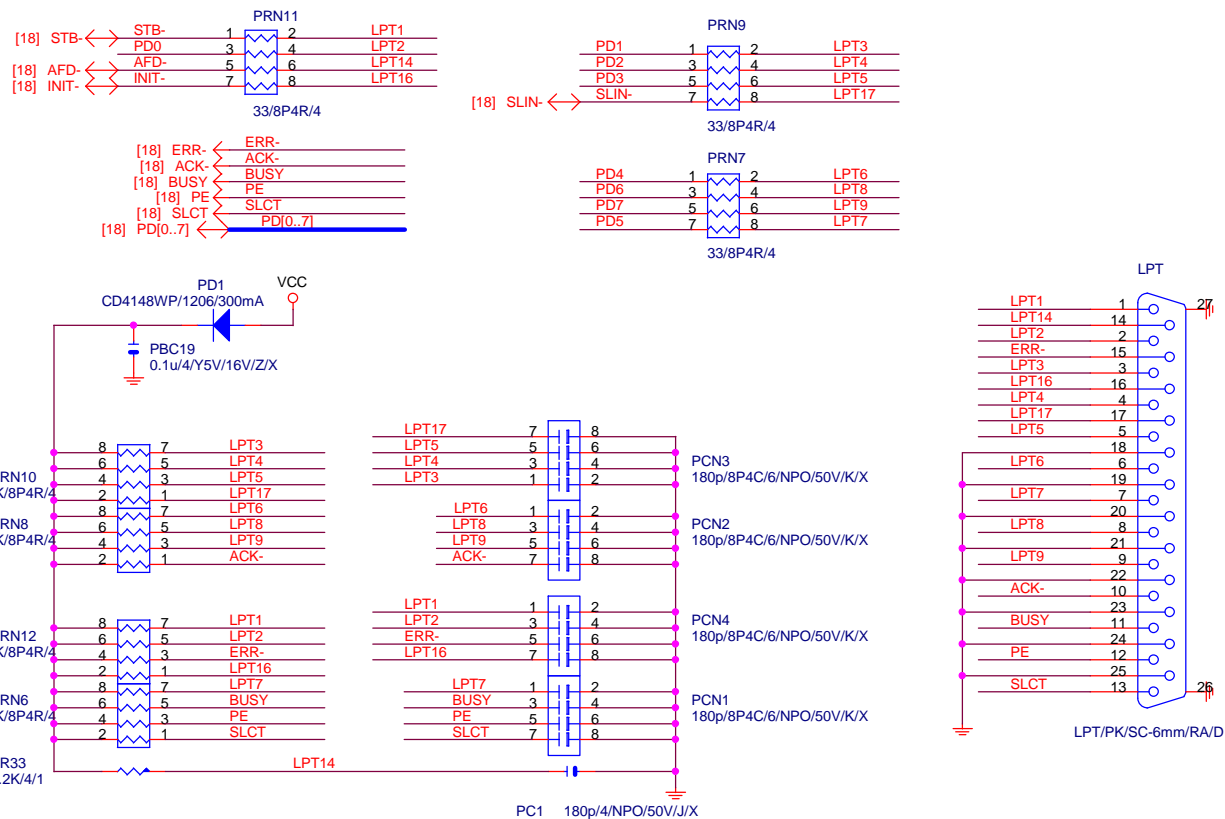


Gigabyte Technology			
CPU CORE VR-3			
GA-H61M-S2PV-KR			
Size	Document Number	Date	Rev
Custom		Monday, March 11, 2013	2.2

N/A

## LPT PORT

COMB N/A



## Gigabyte Technology

**LPT**

**GA-H61M-S2PV-KR**

Rev	
<b>2.2</b>	

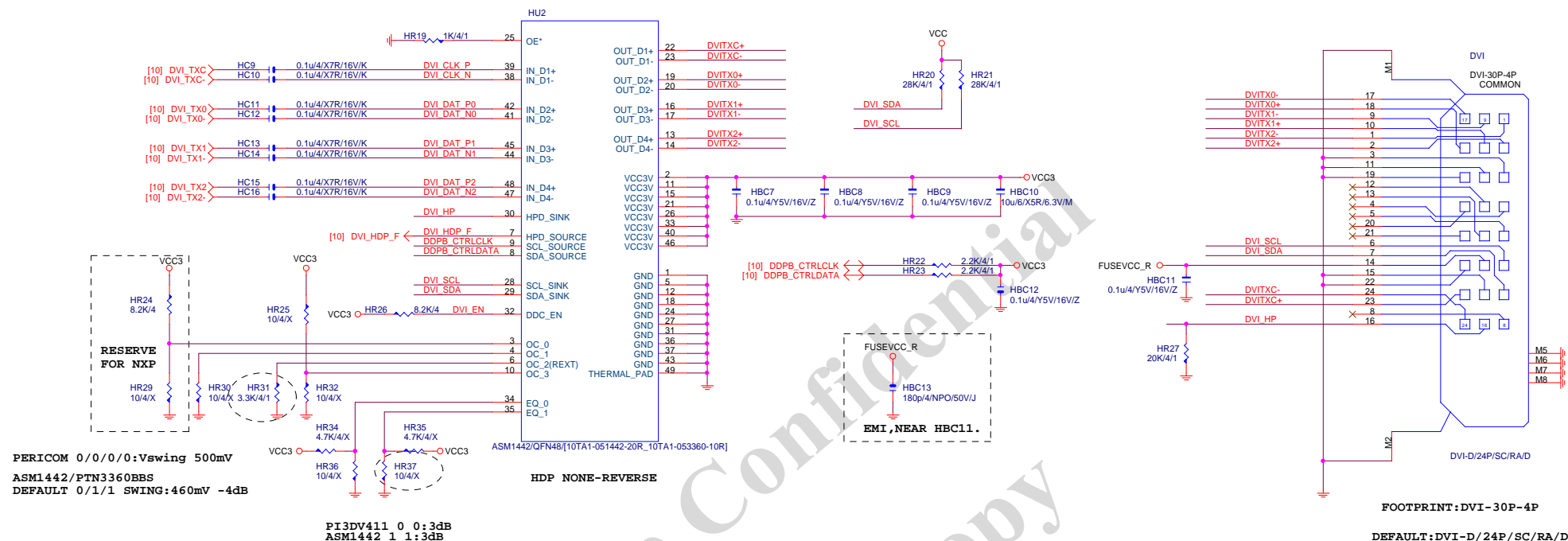
Title
-------

Size	Document Number
------	-----------------

Date: Monday, March 11, 2013

Sheet 32 of 33

# DVI LEVEL SHIFT



Gigabyte Technology

Title		
DVI		
Size	Document Number	Rev
Custom	GA-H61M-S2PV-KR	2.2
Date:	Monday, March 11, 2013	Sheet 33 of 33