

SHEET TITLE

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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*1x2 SLOT
16	ITE 8728 LPC IO
17	KB_MS,R_USB,-PROCHOT
18	HWM,FAN CTRL,OV
19	Dual BIOS
20	FP,FUSB,SPK,SATALED
21	ALC887
22	REAR AUDIO JACK
23	REALTEK 8111F/USB_LAN
24	DISCRETE POWER
25	ATX,-S_WARN,-S_ACK,5VDUAL
26	CPU_VTT
27	VCORE INTERSIL_95836_1

SHEET TITLE

28	VCORE INTERSIL_95836_2
29	VCORE INTERSIL_95836_3
30	LPT

Model Name: GA-H61M-DS2

Circuit or PCB layout change

Component value change history

2012/08/16

Data	Change Item	Reason
2012/10/03	9MH61MDS2-00-30A	

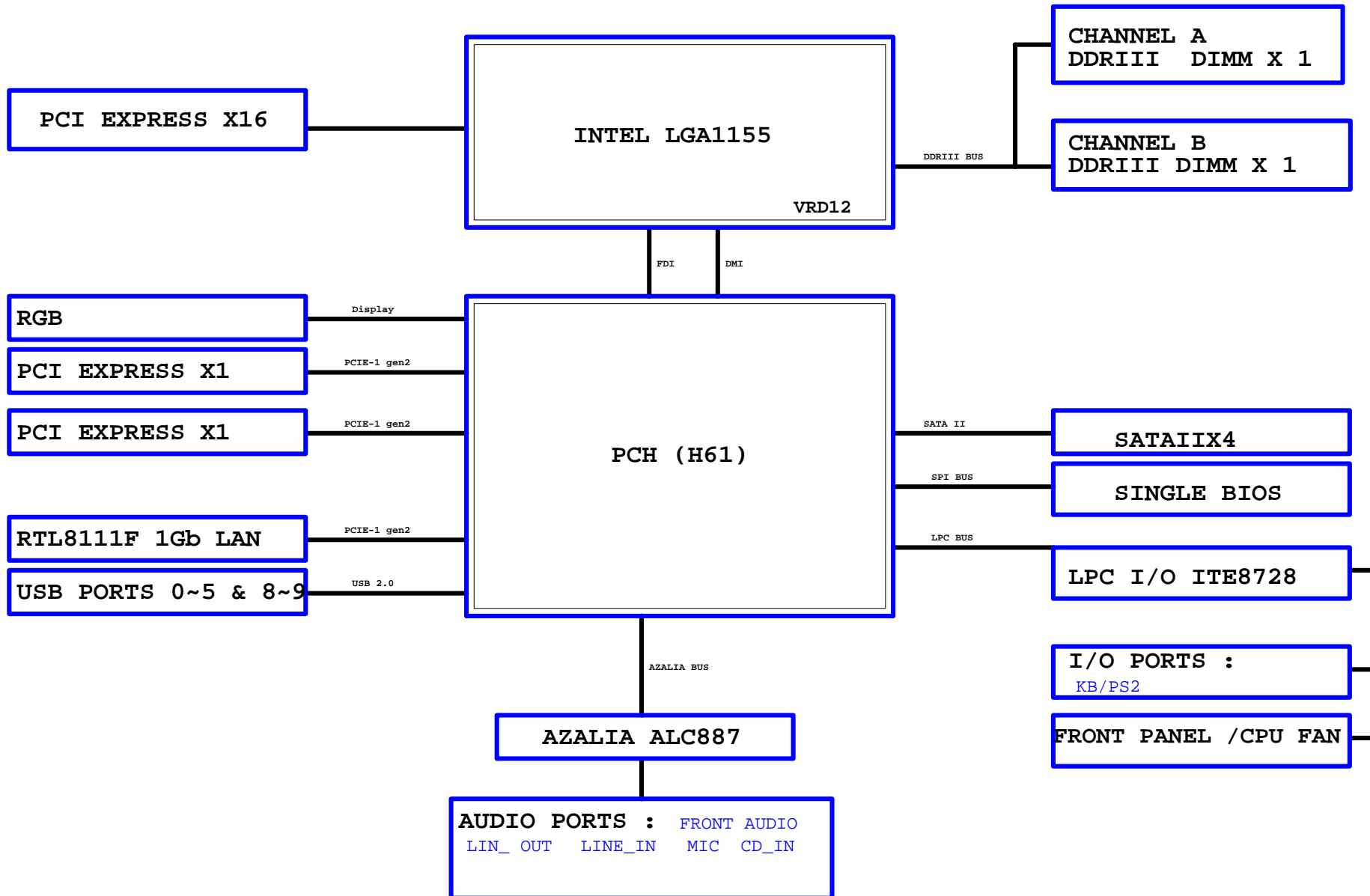
DATE	Change Item	Reason
2012/10/01	Change from H61M-HD2 Rev 1.0 1. Del DVI & HDMI port 2. Del HU1 & HU2 level shift 3. CPU_VTT OP +MOS 4. Change L3、L4、DL2、DL3、DL5、DL6 Choke 5. Del TL1 Choke 6. Add Rear LPT & COM port 7. Change Rear USB 6 port to Rear USB 4 port 8. Change KB_MS_USB to KB_MS	9MH61MHD2-00-10B
2012/10/03	1. Del F24 2. Add RN20 RN21 RN22 RN23 RN24 1K ohm 3.Change NET AGND1 to AGND 4. Swap NET、ESD18、ESD15、ESD14、ACN1、ACN2 5. Change ESD18 GND to AGND	

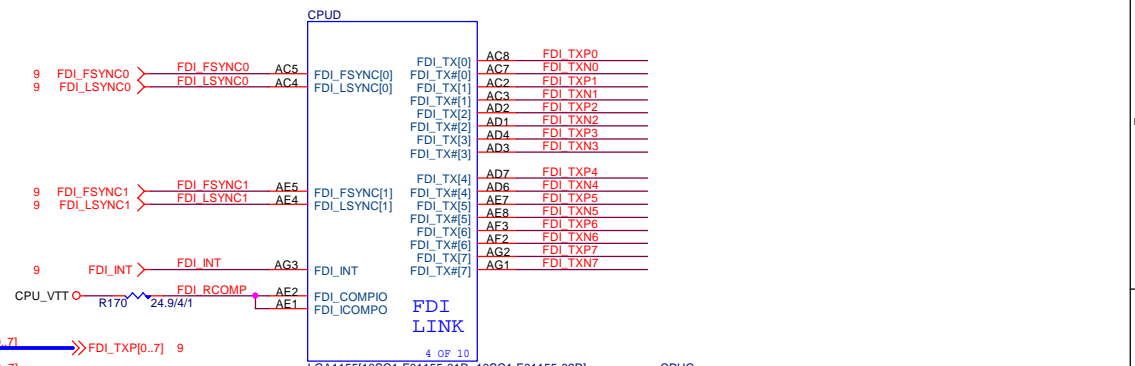
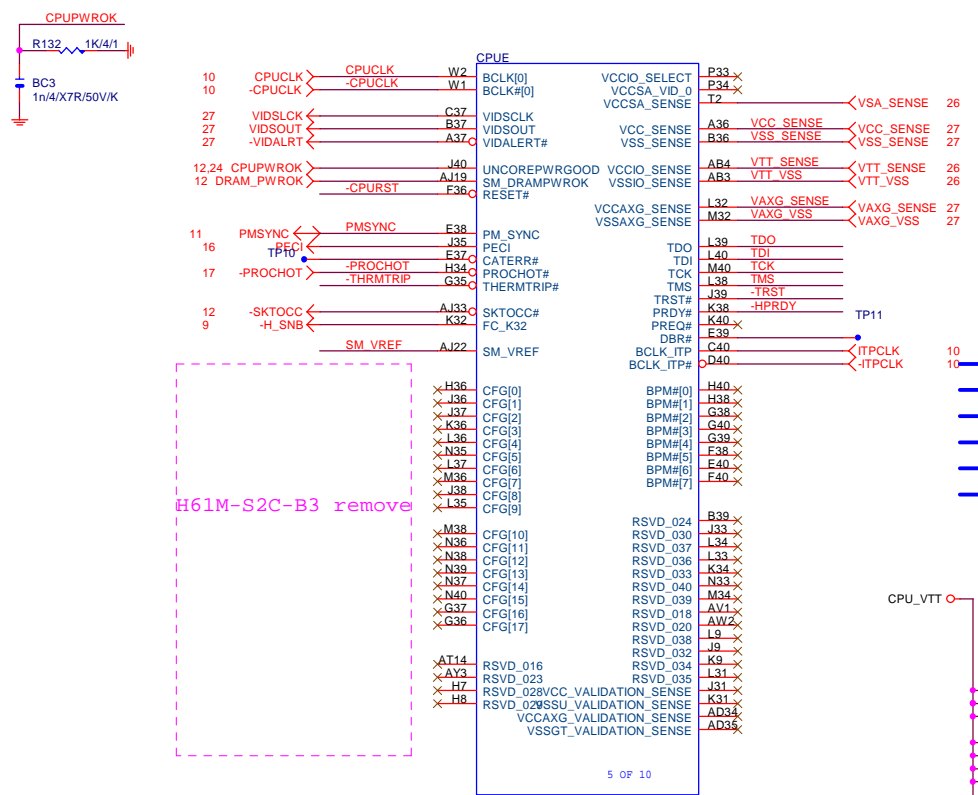
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Title: BOM & PCB MODIFY HISTORY

Document Number	GA-H61M-DS2	Rev	3.0
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BLOCK DIAGRAM

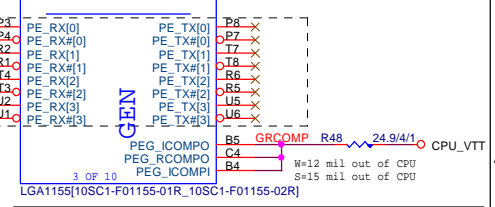
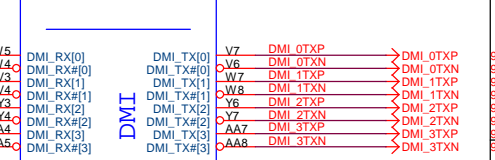
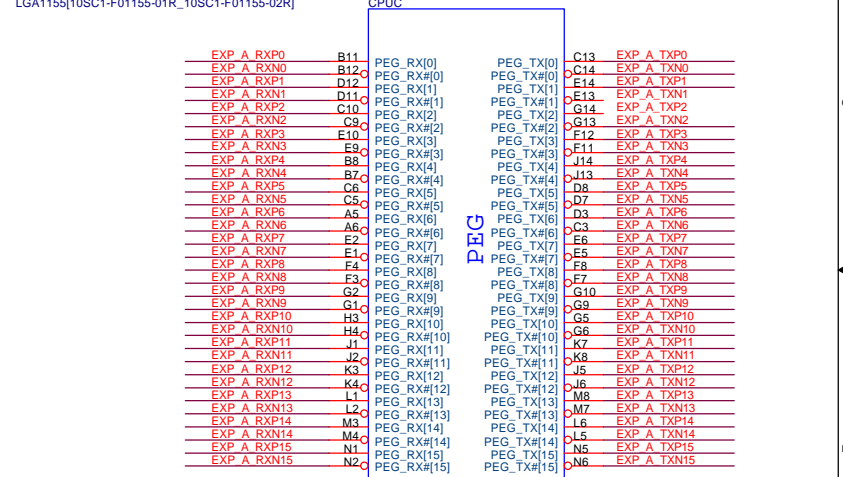
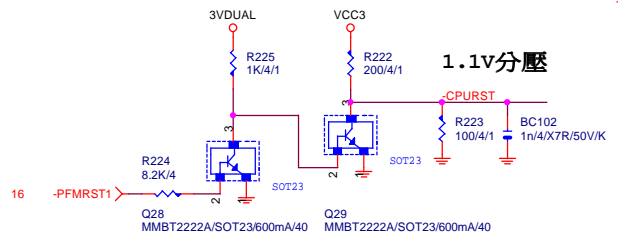
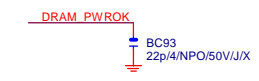
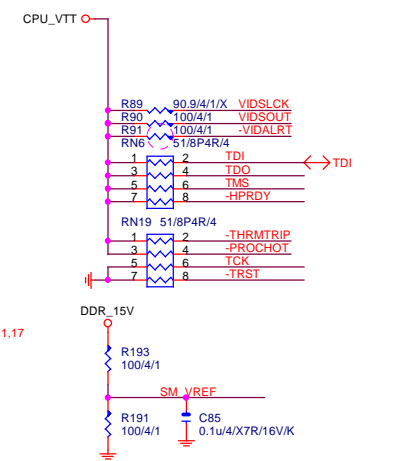




CFG	H	L	NOTE
0	RSVD	RSVD	RSVD
1	RSVD	RSVD	RSVD
2	NORM	Reverse	LANE REVERSAL[0], x16
3	RSVD	RSVD	RSVD
4	RSVD	RSVD	RSVD
7	RSVD	RSVD	RSVD
8	RSVD	RSVD	RSVD
9	RSVD	RSVD	RSVD
10	RSVD	RSVD	RSVD
11	RSVD	RSVD	RSVD
12	RSVD	RSVD	RSVD
13	RSVD	RSVD	RSVD
14	RSVD	RSVD	RSVD
15	RSVD	RSVD	RSVD
16	RSVD	RSVD	RSVD
17	RSVD	RSVD	RSVD

CFG6	CFG5	PCIE CONFIG
1	1	1x16, Default
1	0	Z8
0	0	RSVD
0	0	X8, X4, X4

CFG 0-17 all internal PULL-UP



Gigabyte Technology			
Title CPU LGA1155-A			
Size	Document Number	Rev	
Custom	GA-H61M-DS2	3.0	
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CPUA			
MAAA0	AV27	SA_MA[0]	SA_DQS[0]
MAAA1	AY24	SA_MA[1]	SA_DQS[0]
MAAA2	AW24	SA_MA[2]	
MAAA3	AW23	SA_MA[3]	
MAAA4	AV23	SA_MA[4]	
MAAA5	AT24	SA_MA[5]	
MAAA6	AT23	SA_MA[6]	
MAAA7	AU22	SA_MA[7]	
MAAA8	AV22	SA_MA[8]	
MAAA9	AT22	SA_MA[9]	
MAAA10	AV28	SA_MA[10]	
MAAA11	AU21	SA_MA[11]	
MAAA12	AT21	SA_MA[12]	
MAAA13	AW32	SA_MA[13]	
MAAA14	AU20	SA_MA[14]	
MAAA15	AT20	SA_MA[15]	
7	-SWEA	-SCASA	AV30
7	-SRASA	-SRASA	AV28
7	SBA00	SBA00	AY29
7	SBA01	SBA01	AW28
7	SBA02	SBA02	AV20
7	-CSA0	-CSA0	AU29
7	-CSA1	-CSA1	AV32
7	-CSA1	-CSA1	AV30
7	-CSA1	-CSA1	AV33
7	CKEA0	CKEA0	AV19
7	CKEA1	CKEA1	AT19
7	CKEA1	CKEA1	AU18
7	CKEA1	CKEA1	AV18
7	MODT_A0	MODT_A0	AV31
7	MODT_A1	MODT_A1	AU32
7	MODT_A1	MODT_A1	AU30
7	MODT_A1	MODT_A1	AV33
7	DCLKA0	DCLKA0	AY25
7	-DCLKA0	-DCLKA0	AW25
7	-DCLKA0	-DCLKA0	AU24
7	-DCLKA1	-DCLKA1	AU25
7	-DCLKA1	-DCLKA1	AV27
7	-DCLKA1	-DCLKA1	AY27
7	-DCLKA1	-DCLKA1	AV26
7	-DCLKA1	-DCLKA1	AV28
7.8	-DDR3_RST		AW18
C97 0.1u/4/X7R/16V/K/X			
R240 0/4/SHT/M/X			
AV13	SA_DQS[8]		
AV12	SA_DQS[8]		
AV12	SA_ECC_CB[0]		
AU14	SA_ECC_CB[1]		
AV13	SA_ECC_CB[2]		
AY13	SA_ECC_CB[3]		
AU13	SA_ECC_CB[4]		
AY11	SA_ECC_CB[5]		
AY12	SA_ECC_CB[6]		
AW12	SA_ECC_CB[7]		
AR40	MDA40		
AR37	MDA41		
AN38	MDA42		
AN37	MDA43		
AR39	MDA44		
AR38	MDA45		
AN39	MDA46		
AN40	MDA47		
AK38	DQSA6		
AK39	-DQSA6		
AL40	MDA48		
AL37	MDA49		
AJ38	MDA50		
AJ37	MDA51		
AL39	MDA52		
AL38	MDA53		
AJ39	MDA54		
AJ40	MDA55		
AF38	DQSA7		
AF39	-DQSA7		
AG40	MDA56		
AG37	MDA57		
AE38	MDA58		
AE37	MDA59		
AG39	MDA60		
AG38	MDA61		
AE39	MDA62		
AE40	MDA63		
AG40	MDA66		
AG37	MDA67		
AE38	MDA68		
AE37	MDA69		
AG39	MDA70		
AG38	MDA71		
AE39	MDA72		
AE40	MDA73		

DDR_0

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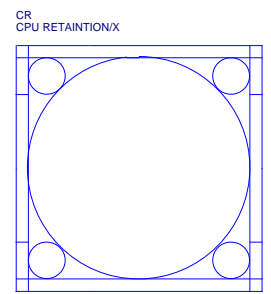
LGA1155[10SC1-F01155-01R_10SC1-F01155-02R]

CPUB			
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MAAB1	AM20	SB_MA[1]	SB_DQS[0]
MAAB2	AM19	SB_MA[2]	
MAAB3	AK18	SB_MA[3]	
MAAB4	AP19	SB_MA[4]	
MAAB5	AP18	SB_MA[5]	
MAAB6	AM18	SB_MA[6]	
MAAB7	AL18	SB_MA[7]	
MAAB8	AN18	SB_MA[8]	
MAAB9	AY17	SB_MA[9]	
MAAB10	AN23	SB_MA[10]	
MAAB11	AU17	SB_MA[11]	
MAAB12	AT18	SB_MA[12]	
MAAB13	AR26	SB_MA[13]	
MAAB14	AY16	SB_MA[14]	
MAAB15	AV16	SB_MA[15]	
8	-SWEB	-SCASB	AR25
8	-SCASB	-SRASB	AP24
8	-SRASB	-SRASB	AP24
8	SBAB0	SBAB0	AP23
8	SBAB1	SBAB1	AM24
8	SBAB2	SBAB2	AW17
8	-CSB0	-CSB0	AN25
8	-CSB1	-CSB1	AN25
8	-CSB1	-CSB1	AR26
8	-CSB1	-CSB1	AT26
8	CKEB0	CKEB0	AU16
8	CKEB1	CKEB1	AV15
8	CKEB1	CKEB1	AW15
8	CKEB1	CKEB1	AV15
8	MODT_B0	MODT_B0	AL26
8	MODT_B1	MODT_B1	AP26
8	MODT_B1	MODT_B1	AM26
8	MODT_B1	MODT_B1	AK26
8	DCLKB0	DCLKB0	AL21
8	-DCLKB0	-DCLKB0	AL22
8	DCLKB1	DCLKB1	AK20
8	-DCLKB1	-DCLKB1	AK20
8	VREF_DQB		AH1
7	VREF_DOA		AH4
AV16	SB_DQS[8]		
AN15	SB_DQS[8]		
AN16	SB_ECC_CB[0]		
AR16	SB_ECC_CB[1]		
AL15	SB_ECC_CB[2]		
AR16	SB_ECC_CB[3]		
AL15	SB_ECC_CB[4]		
AM15	SB_ECC_CB[5]		
AR15	SB_ECC_CB[6]		
AP15	SB_ECC_CB[7]		
AP32	MDB40		
AP21	MDB41		
AP35	MDB42		
AP34	MDB43		
AR32	MDB44		
AR31	MDB45		
AR35	MDB46		
AR34	MDB47		
AL33	DQSB6		
AM33	-DQSB6		
AM32	MDB48		
AM31	MDB49		
AL35	MDB50		
AL32	MDB51		
AM34	MDB52		
AL31	MDB53		
AM35	MDB54		
AL34	MDB55		
AG35	DQSB7		
AG34	-DQSB7		
AH35	MDB56		
AH34	MDB57		
AE34	MDB58		
AE35	MDB59		
AJ35	MDB60		
AJ34	MDB61		
AF33	MDB62		
AF35	MDB63		

DDR_1

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LGA1155[10SC1-F01155-01R_10SC1-F01155-02R]

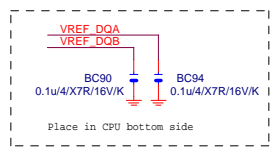


Need check the new CPU ME

CPU



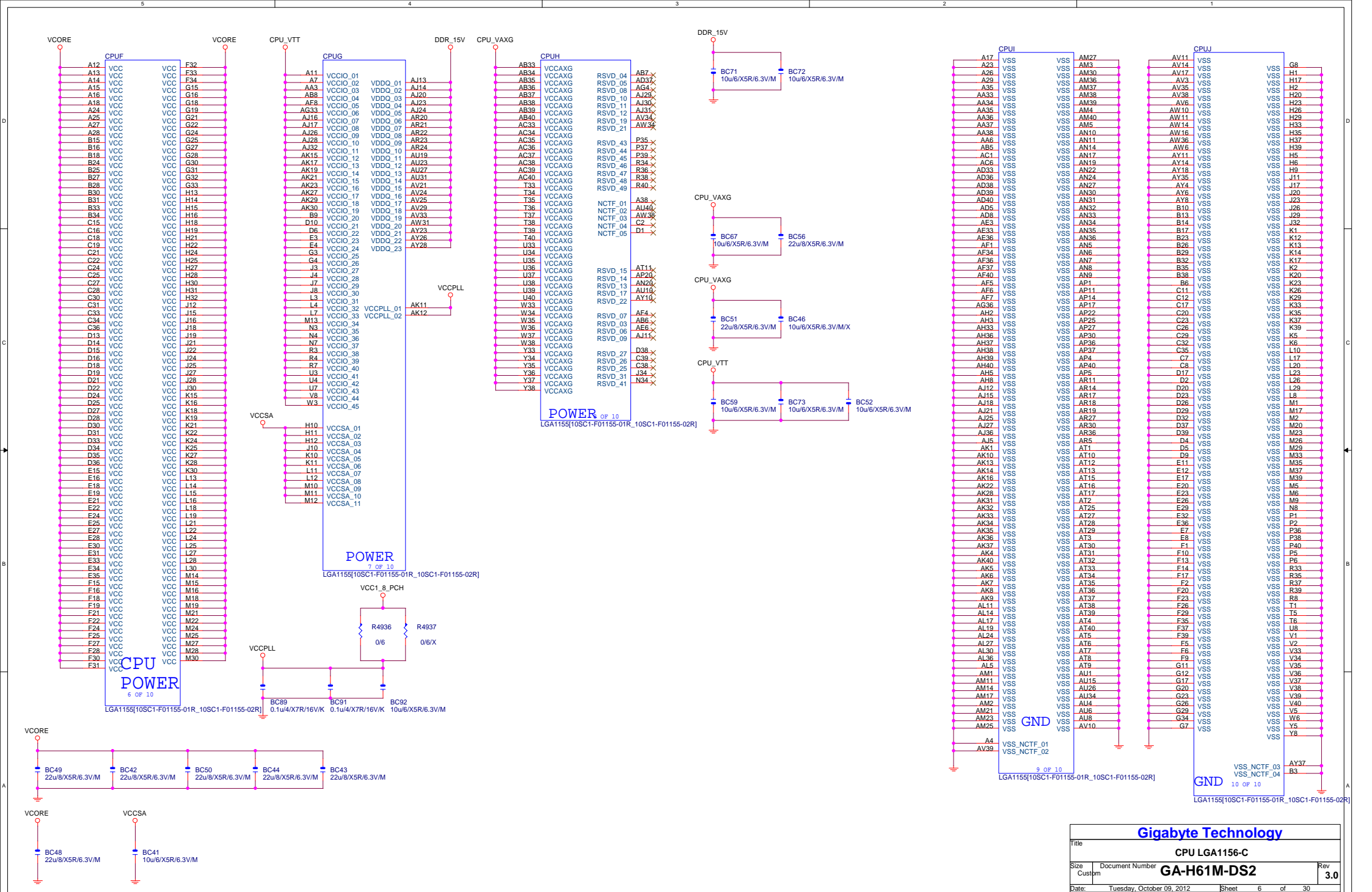
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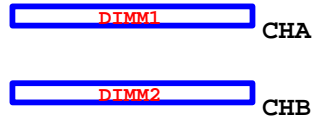
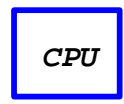
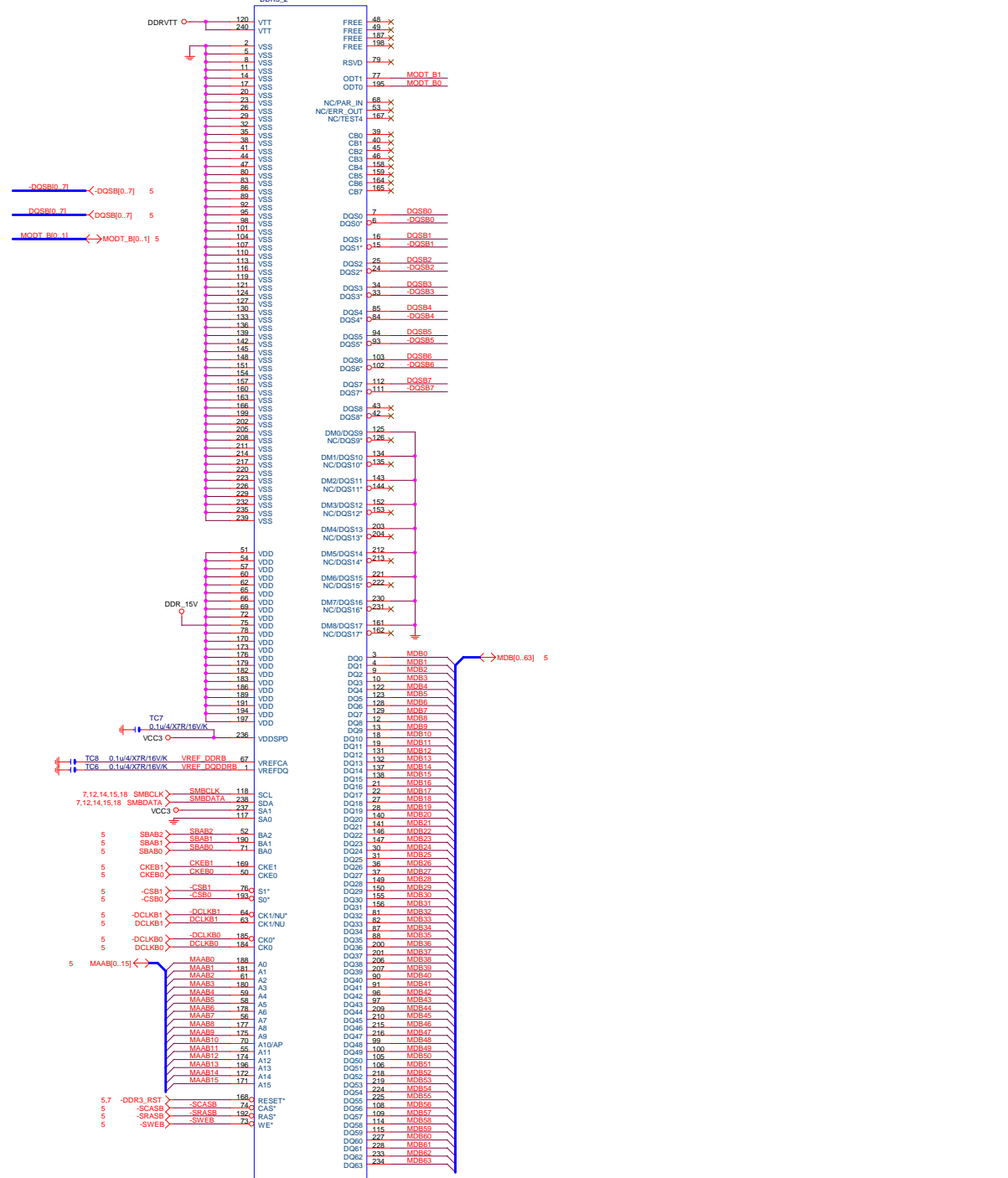
Place in CPU bottom side

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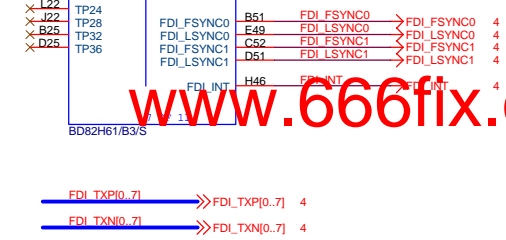
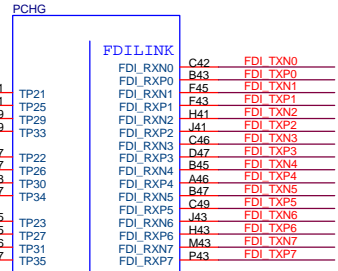
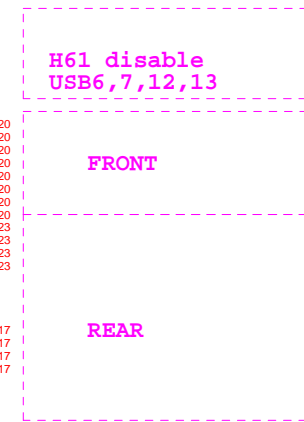
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Size	Document Number	GA-H61M-DS2	
Custom			Rev 3.0
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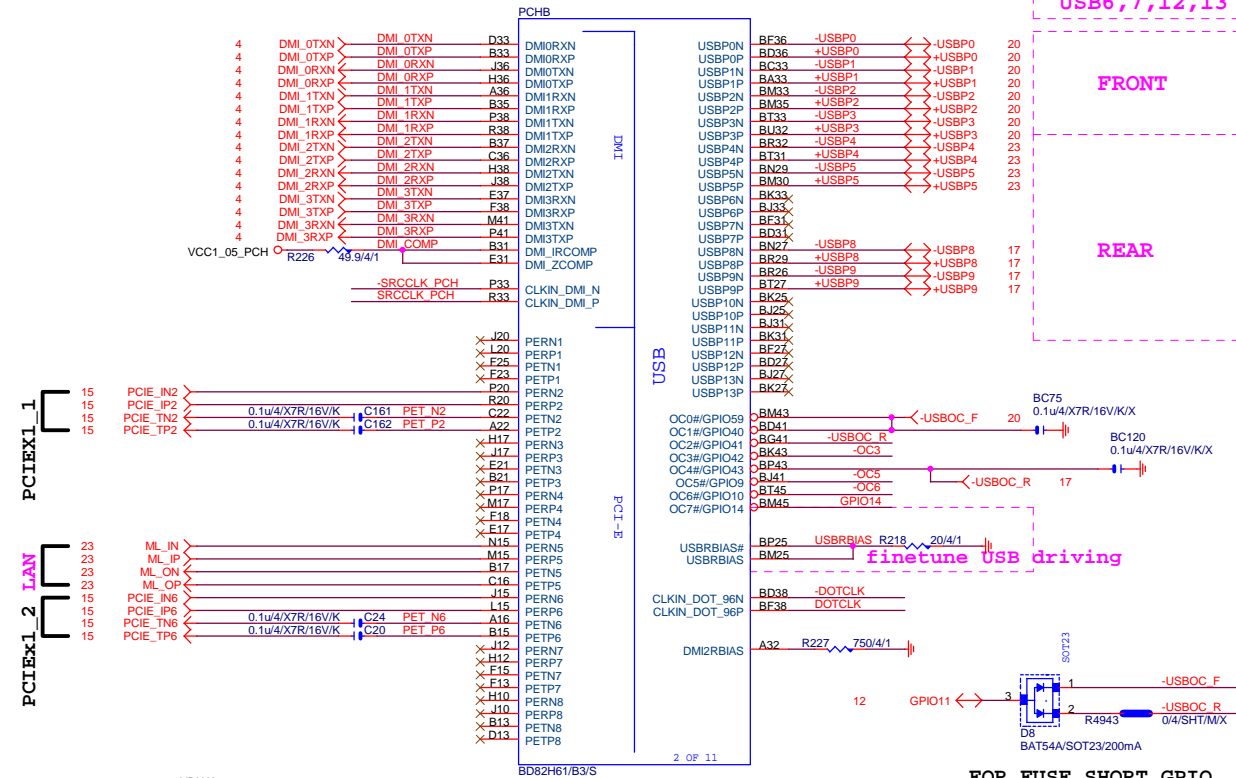
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Title CPU LGA1156-C			
Size Custom	Document Number GA-H61M-DS2	Rev 3.0	
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Gigabyte Technology		
Title	DDRIII CHANNEL B	
Size	Document Number	Rev
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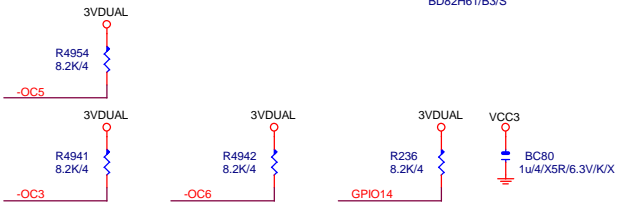


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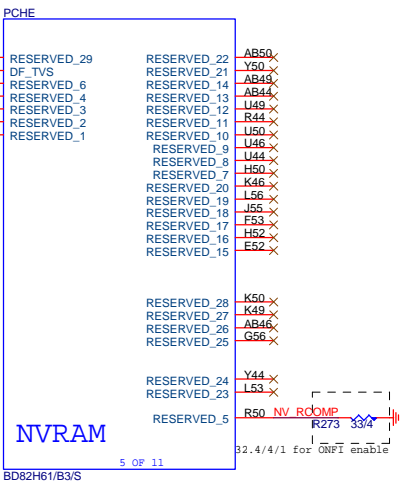
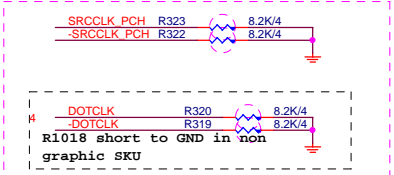
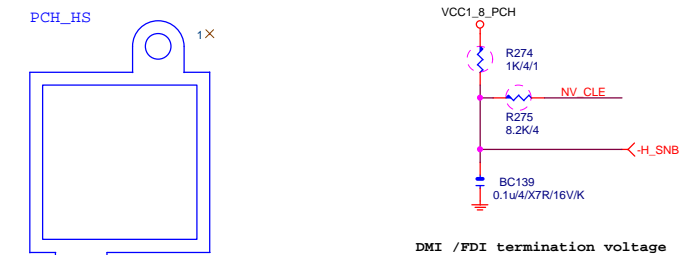


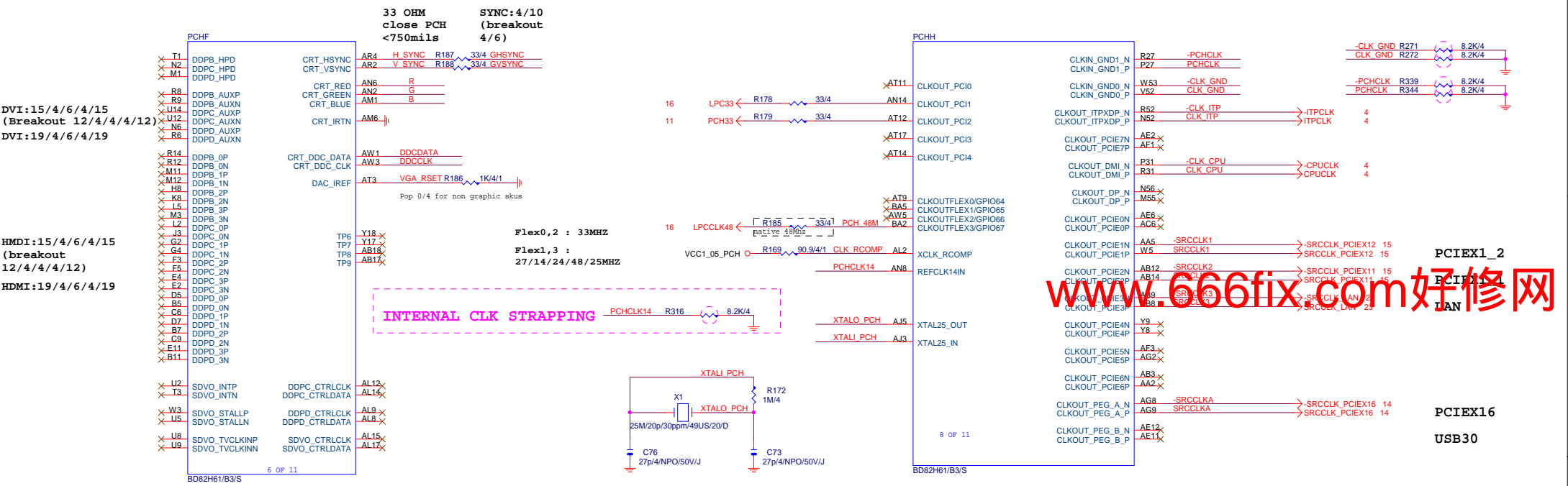
USB OC# Configure for H61

OC#	USB Config
OC0#	USB0,1 (F_USB1)
OC1#	USB2,3 (F_USB2)
OC2#	USB4,5 (USB_LAN)
OC3#	N/A
OC4#	USB8,9 (R_USB1)
OC5#	USB10~11 (R_USB2)
OC6#	N/A
OC7#	GPIO14

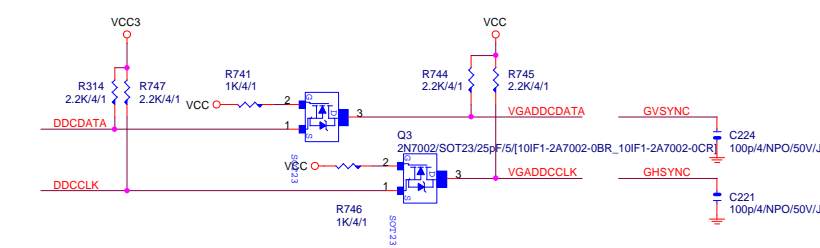


NEW FOOTPRINT: BGAHSINK_PCH_HS

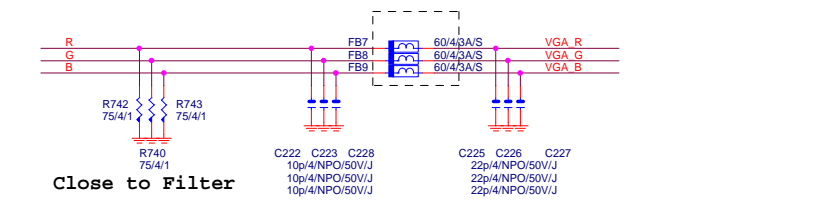




VGA DDC

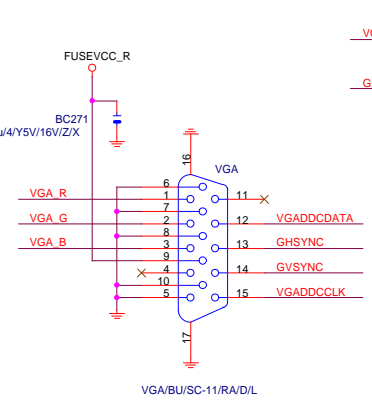


VGA DDC

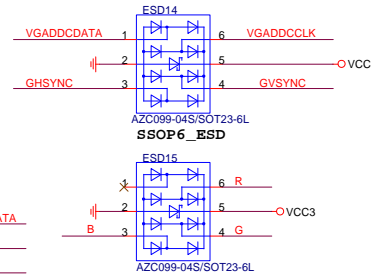


Close to Filter

VGA CONNECTOR

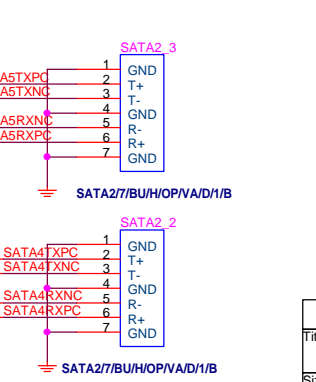
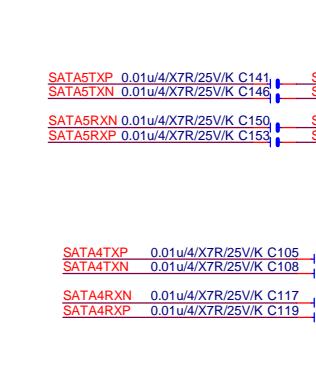
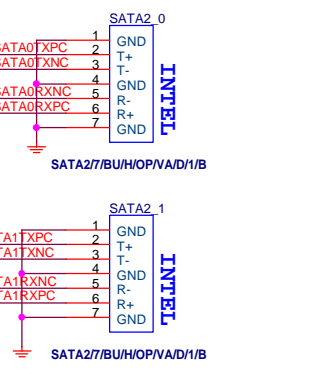
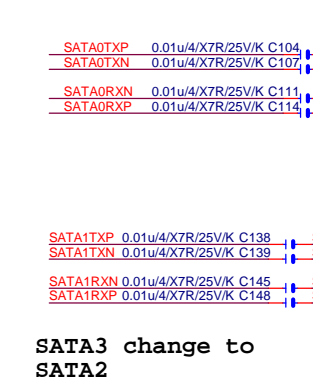
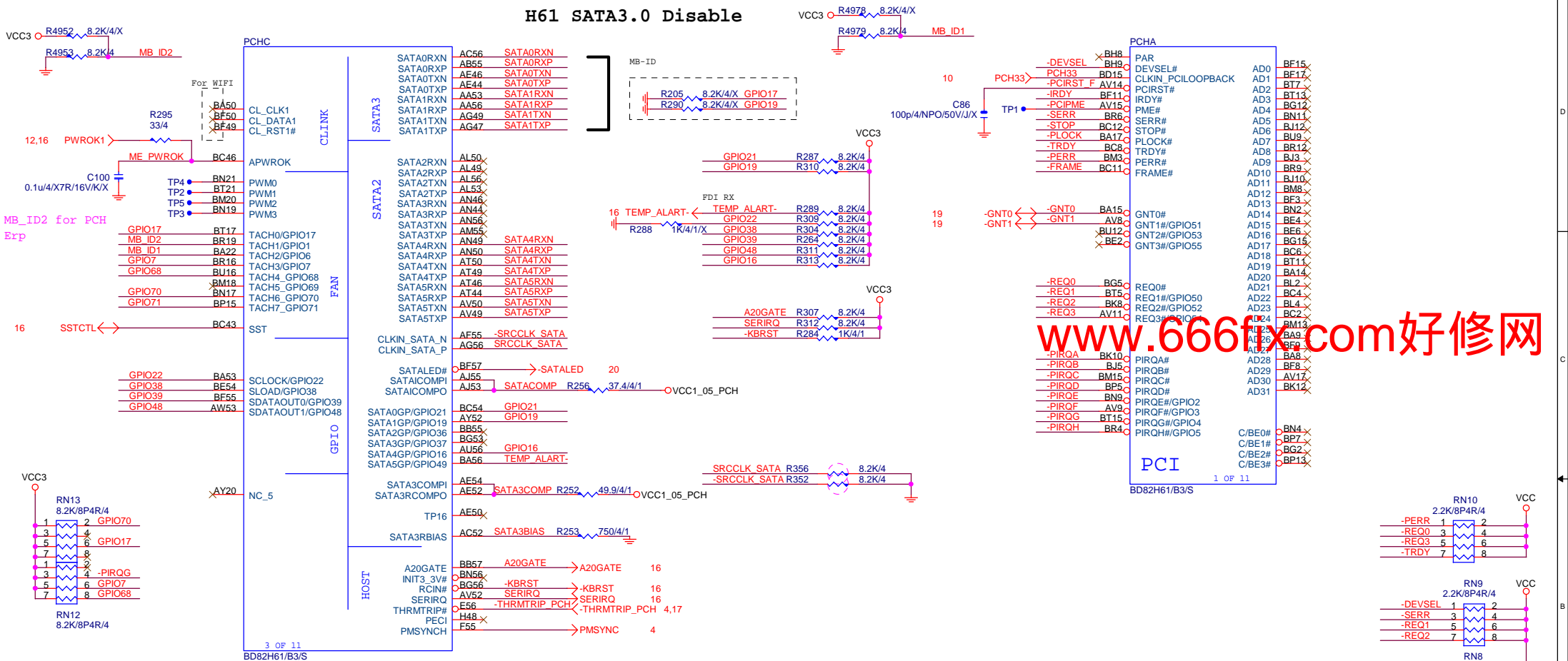


VGA ESD



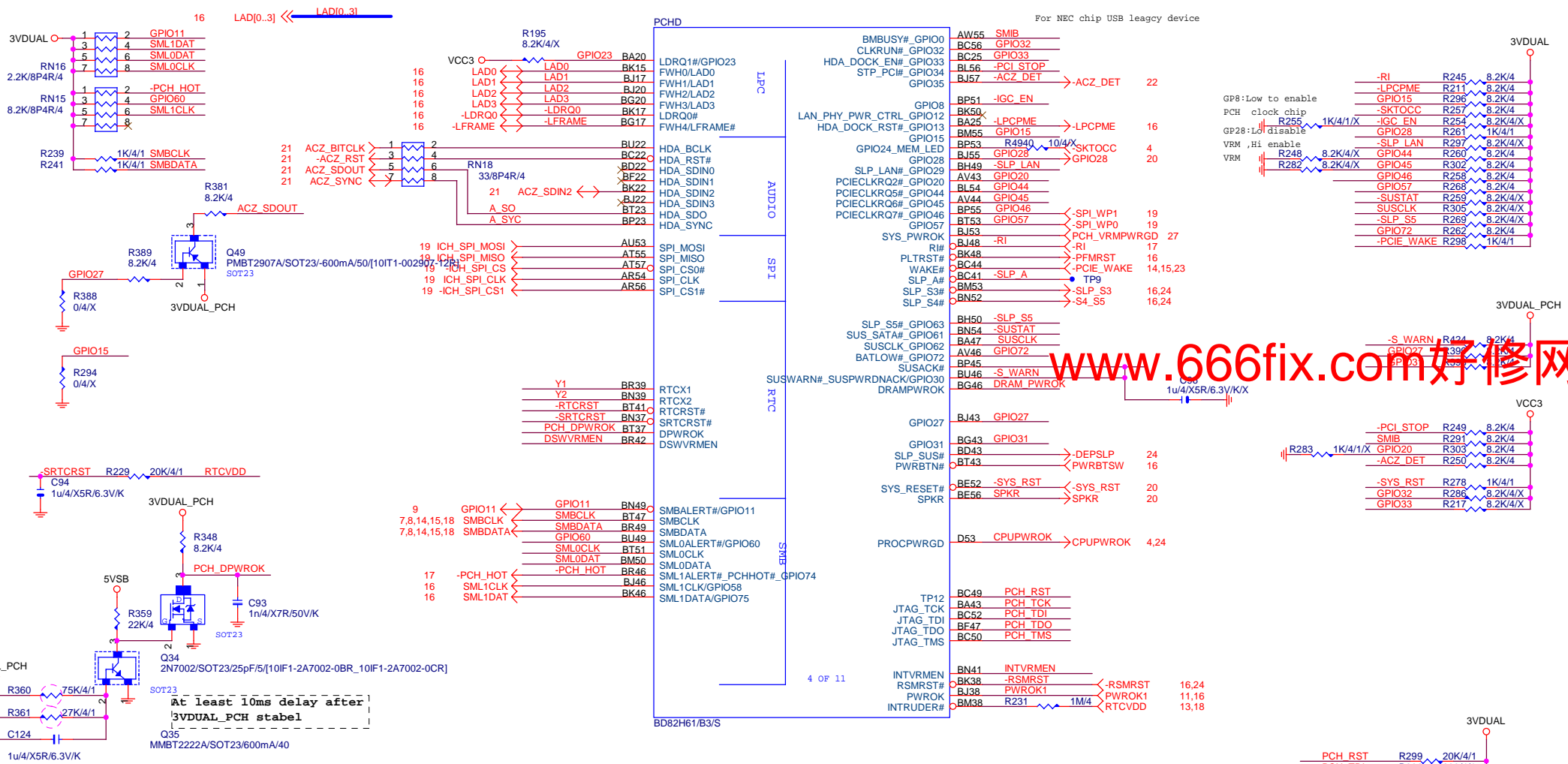
Gigabyte Technology		
Title PCH DISPLAY ,CLK BUFFER		
Size Custom	Document Number GA-H61M-DS2	Rev 3.0
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H61 SATA3.0 Disable

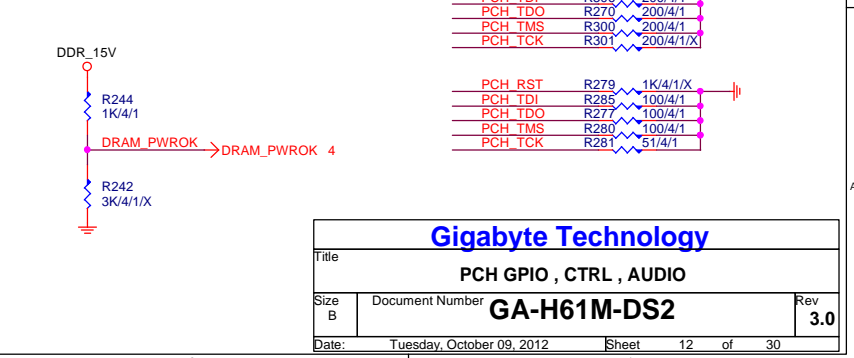
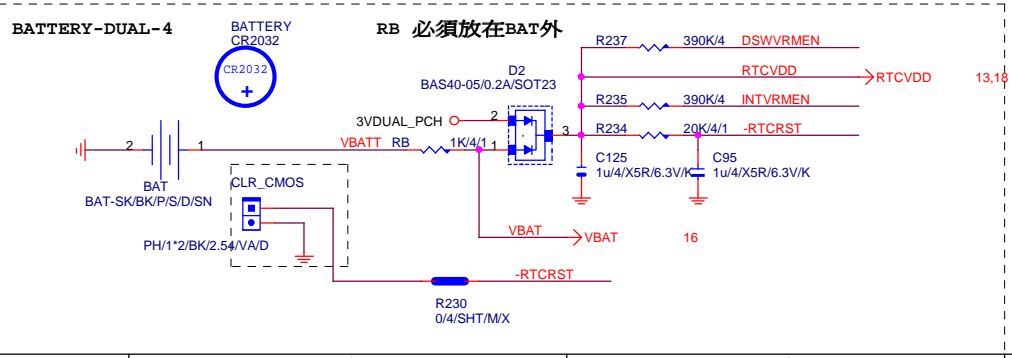
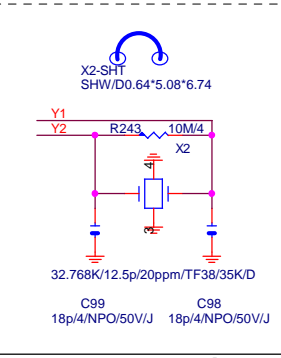


Gigabyte Technology		
Title PCH HOST , SATA, PCI		
Size B	Document Number GA-H61M-DS2	Rev 3.0
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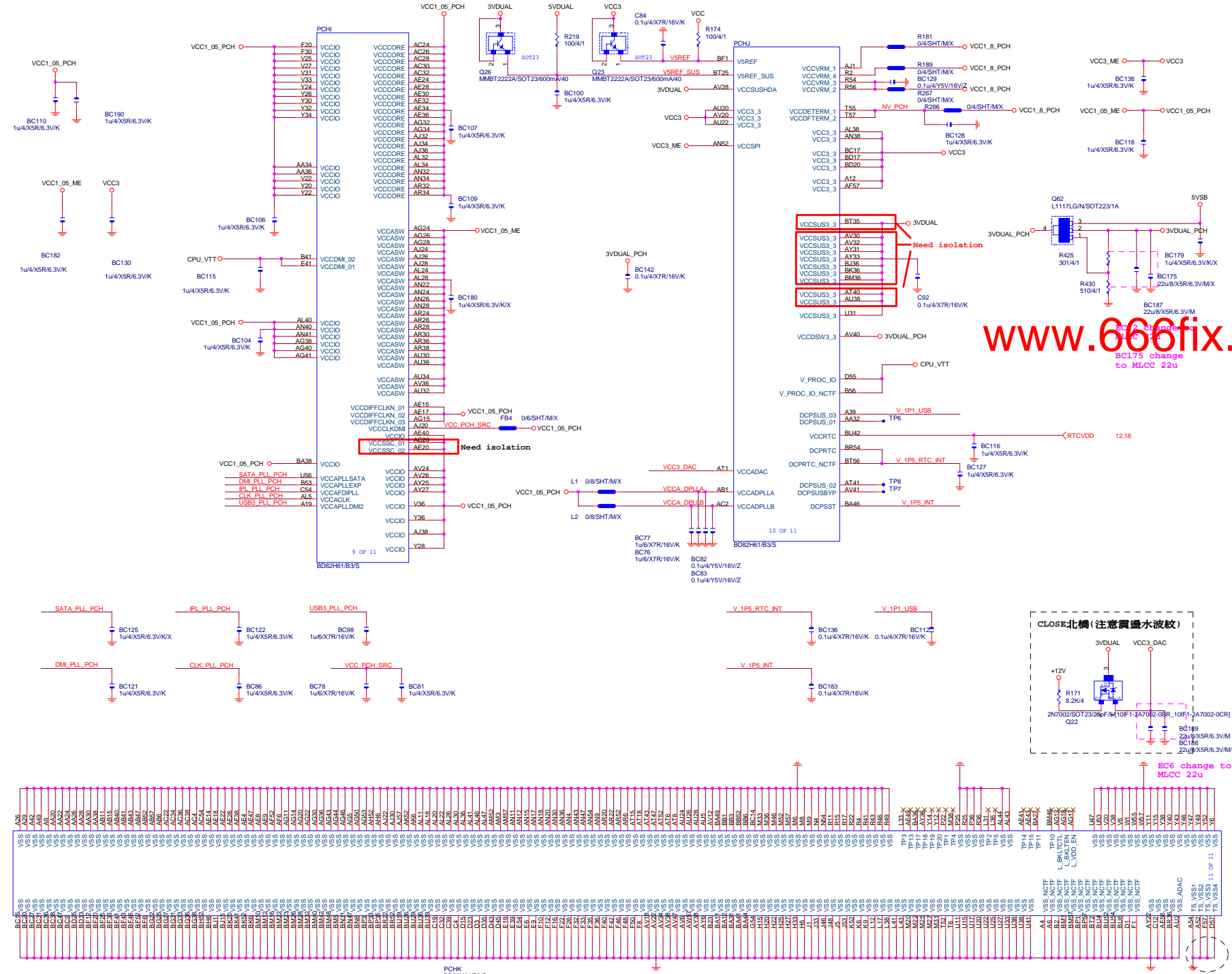
H1X7-SATA2-HS-MASK



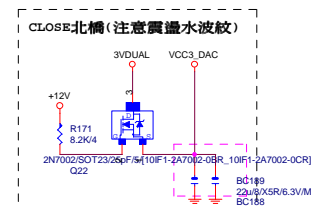
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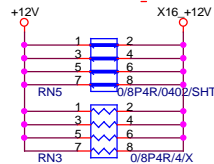
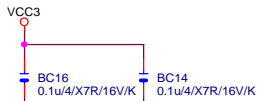
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Title: PCH GPIO, CTRL, AUDIO		
Size B	Document Number: GA-H61M-DS2	Rev: 3.0
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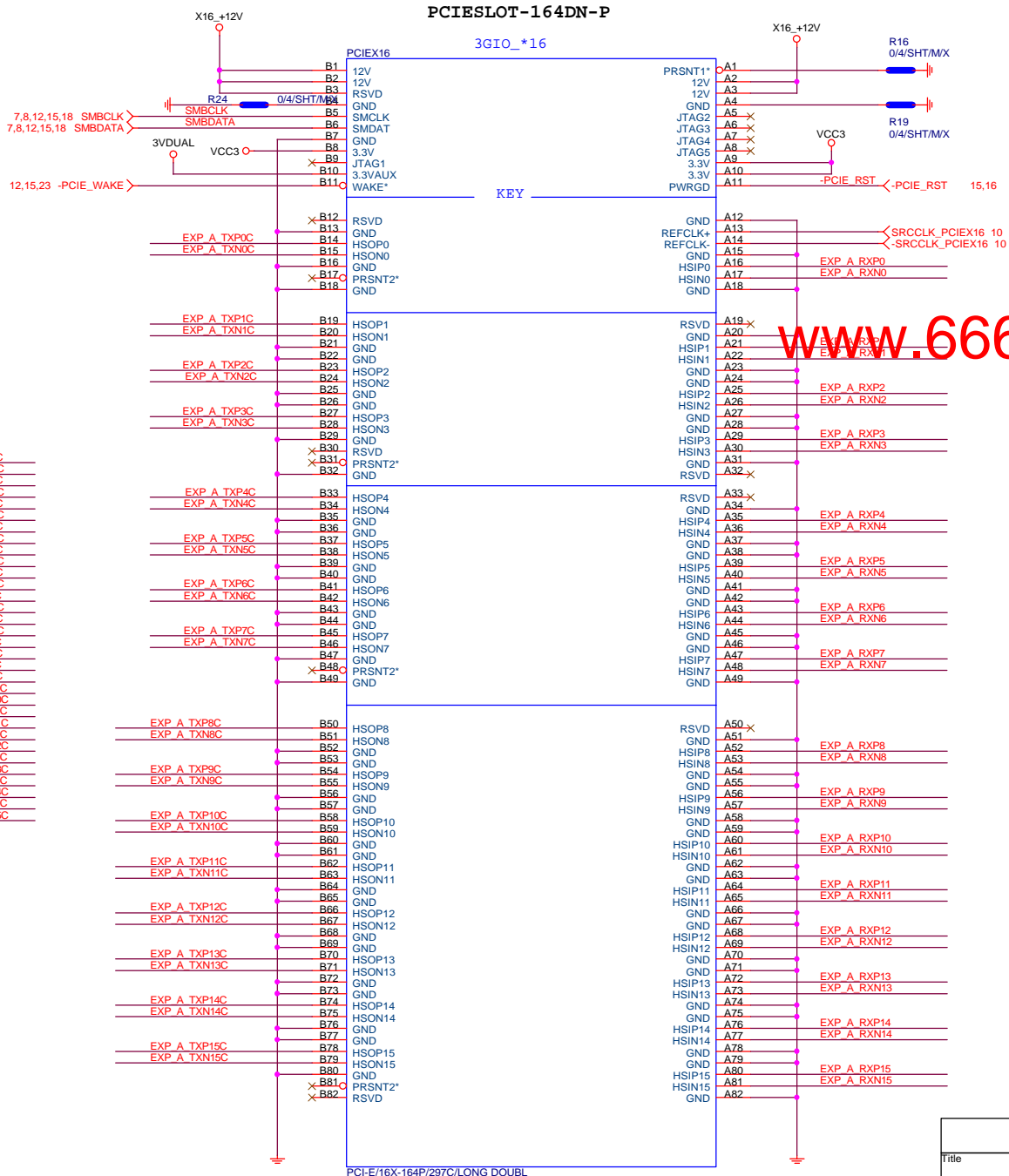
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Gigabyte Technology		
Title PCH PWR_GND		
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EXP_A_TXP0	C22	0.22u/4/X5R/6.3V/K	EXP_A_TXP0C
EXP_A_TXN0	C26	0.22u/4/X5R/6.3V/K	EXP_A_TXN0C
EXP_A_TXP1	C29	0.22u/4/X5R/6.3V/K	EXP_A_TXP1C
EXP_A_TXN1	C31	0.22u/4/X5R/6.3V/K	EXP_A_TXN1C
EXP_A_TXP2	C33	0.22u/4/X5R/6.3V/K	EXP_A_TXP2C
EXP_A_TXN2	C35	0.22u/4/X5R/6.3V/K	EXP_A_TXN2C
EXP_A_TXP3	C37	0.22u/4/X5R/6.3V/K	EXP_A_TXP3C
EXP_A_TXN3	C40	0.22u/4/X5R/6.3V/K	EXP_A_TXN3C
EXP_A_TXP4	C48	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	C52	0.22u/4/X5R/6.3V/K	EXP_A_TXP5C
EXP_A_TXN5	C54	0.22u/4/X5R/6.3V/K	EXP_A_TXN5C
EXP_A_TXP6	C56	0.22u/4/X5R/6.3V/K	EXP_A_TXP6C
EXP_A_TXN6	C58	0.22u/4/X5R/6.3V/K	EXP_A_TXN6C
EXP_A_TXP7	C60	0.22u/4/X5R/6.3V/K	EXP_A_TXP7C
EXP_A_TXN7	C61	0.22u/4/X5R/6.3V/K	EXP_A_TXN7C
EXP_A_TXP8	C63	0.22u/4/X5R/6.3V/K	EXP_A_TXP8C
EXP_A_TXN8	C64	0.22u/4/X5R/6.3V/K	EXP_A_TXN8C
EXP_A_TXP9	C66	0.22u/4/X5R/6.3V/K	EXP_A_TXP9C
EXP_A_TXN9	C67	0.22u/4/X5R/6.3V/K	EXP_A_TXN9C
EXP_A_TXP10	C69	0.22u/4/X5R/6.3V/K	EXP_A_TXP10C
EXP_A_TXN10	C70	0.22u/4/X5R/6.3V/K	EXP_A_TXN10C
EXP_A_TXP11	C71	0.22u/4/X5R/6.3V/K	EXP_A_TXP11C
EXP_A_TXN11	C72	0.22u/4/X5R/6.3V/K	EXP_A_TXN11C
EXP_A_TXP12	C74	0.22u/4/X5R/6.3V/K	EXP_A_TXP12C
EXP_A_TXN12	C75	0.22u/4/X5R/6.3V/K	EXP_A_TXN12C
EXP_A_TXP13	C77	0.22u/4/X5R/6.3V/K	EXP_A_TXP13C
EXP_A_TXN13	C78	0.22u/4/X5R/6.3V/K	EXP_A_TXN13C
EXP_A_TXP14	C79	0.22u/4/X5R/6.3V/K	EXP_A_TXP14C
EXP_A_TXN14	C80	0.22u/4/X5R/6.3V/K	EXP_A_TXN14C
EXP_A_TXP15	C82	0.22u/4/X5R/6.3V/K	EXP_A_TXP15C
EXP_A_TXN15	C83	0.22u/4/X5R/6.3V/K	EXP_A_TXN15C



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

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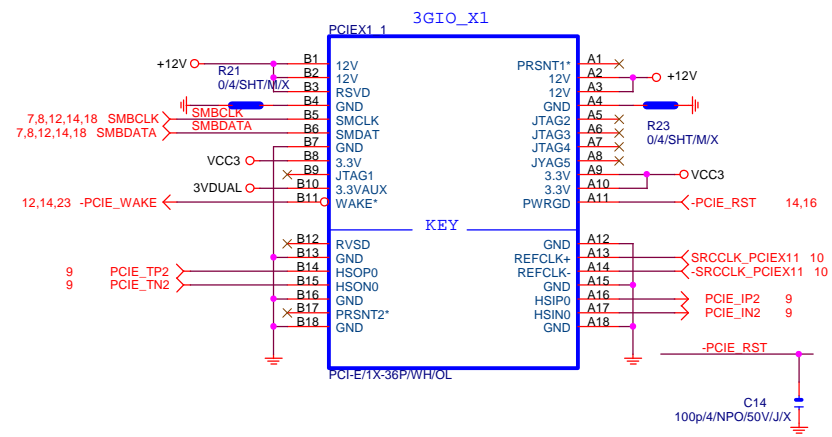
Gigabyte Technology

Title: **PCI EXPRESS * 16**

Size Custom | Document Number: **GA-H61M-DS2** | Rev: **3.0**

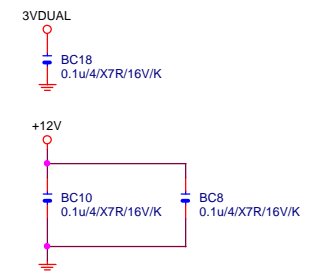
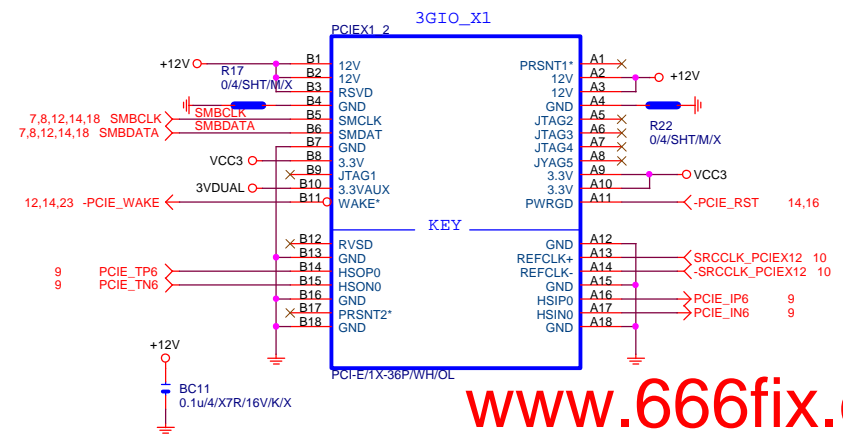
Date: Tuesday, October 09, 2012 | Sheet: 14 of 30

PCIE*1



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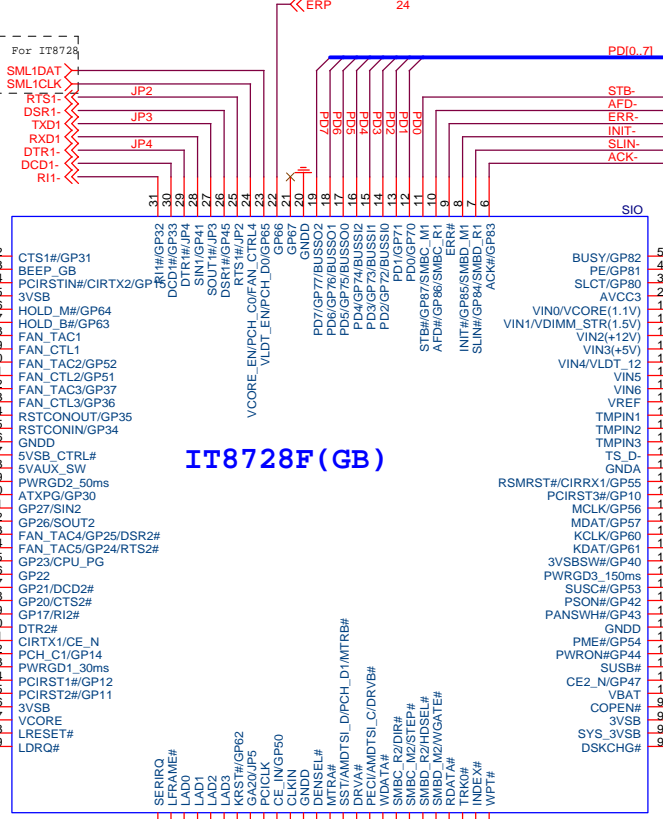
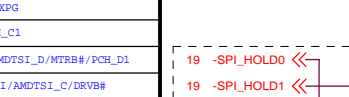
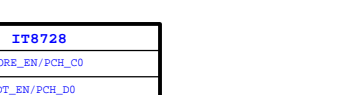
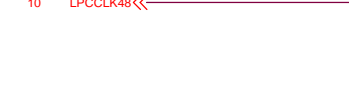
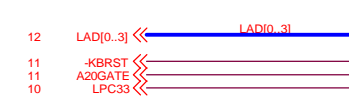
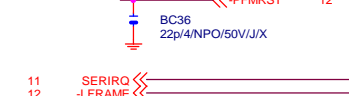
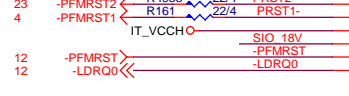
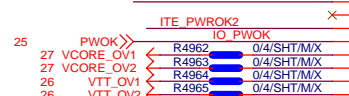
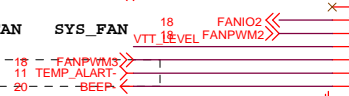
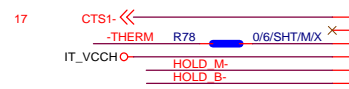
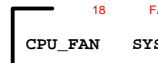
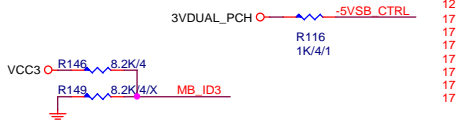
CLK GEN



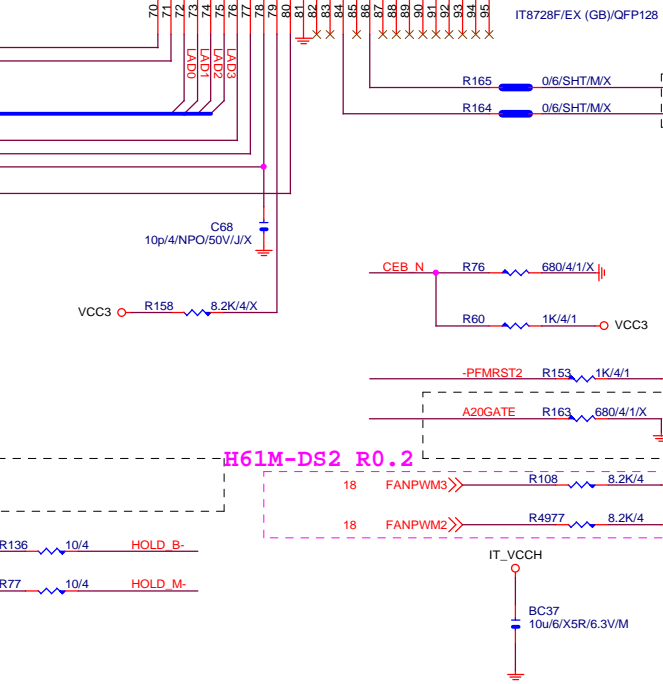
Gigabyte Technology			
PCIEX1,X2/CLK GEN			
Size Custom	Document Number	GA-H61M-DS2	
Date:	Tuesday, October 09, 2012	Sheet	15 of 30
	2		1

GP22 Default GP22 DIODS

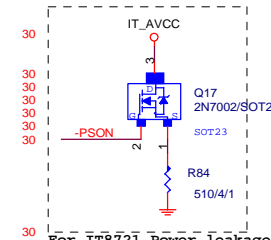
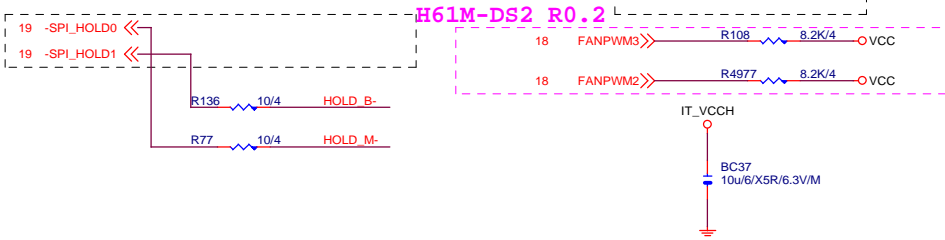
GP23 Default CPU_PG DOD8



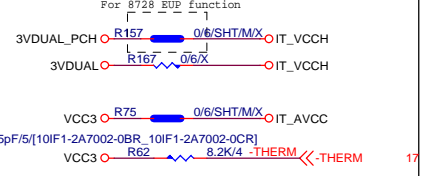
IT8728F (GB)



H61M-DS2 R0.2



For IT8721 Power leakage

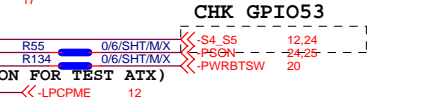


EUP control by PCH

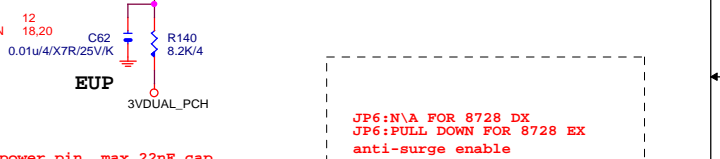


IO_PWOK

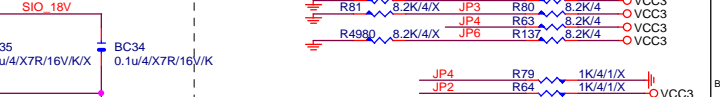
GP40 Default 3VBSW# D08



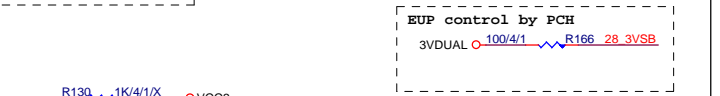
GP40 Default 3VBSW# D08



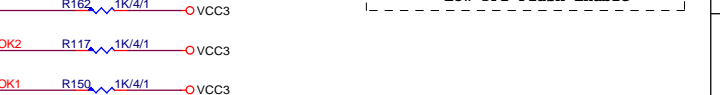
EUP control by PCH



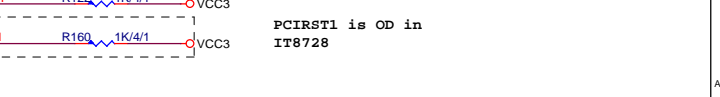
SIO 18V



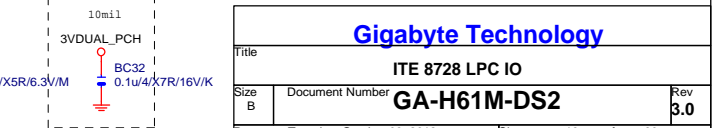
SHT/MIX connections



Control signals connections



IT_VCC and IT_AVCC connections

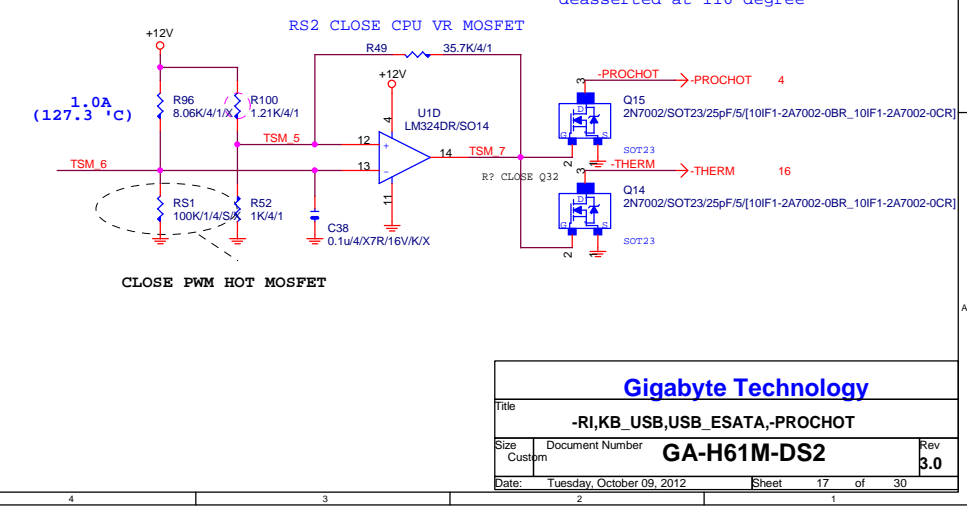
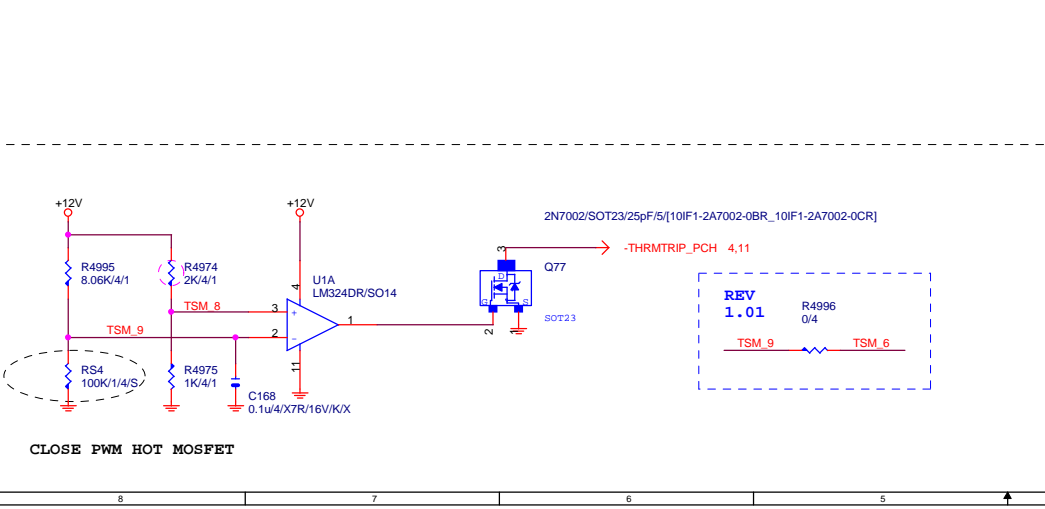
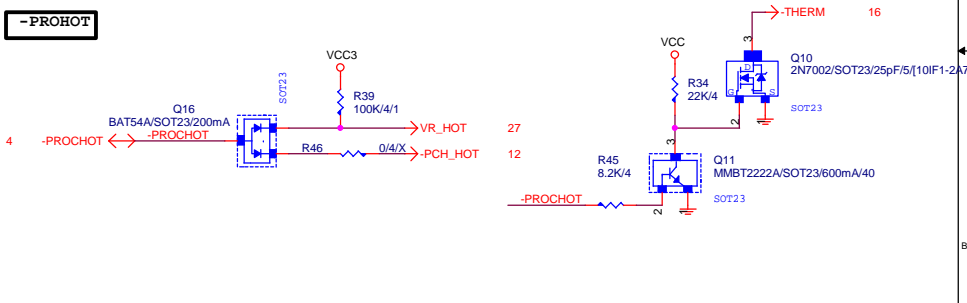
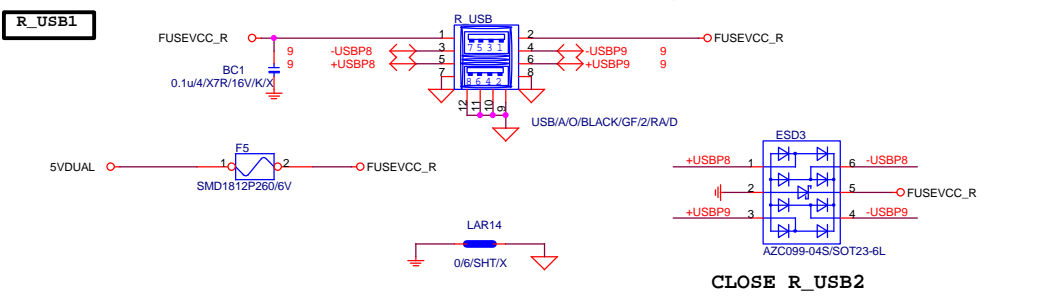
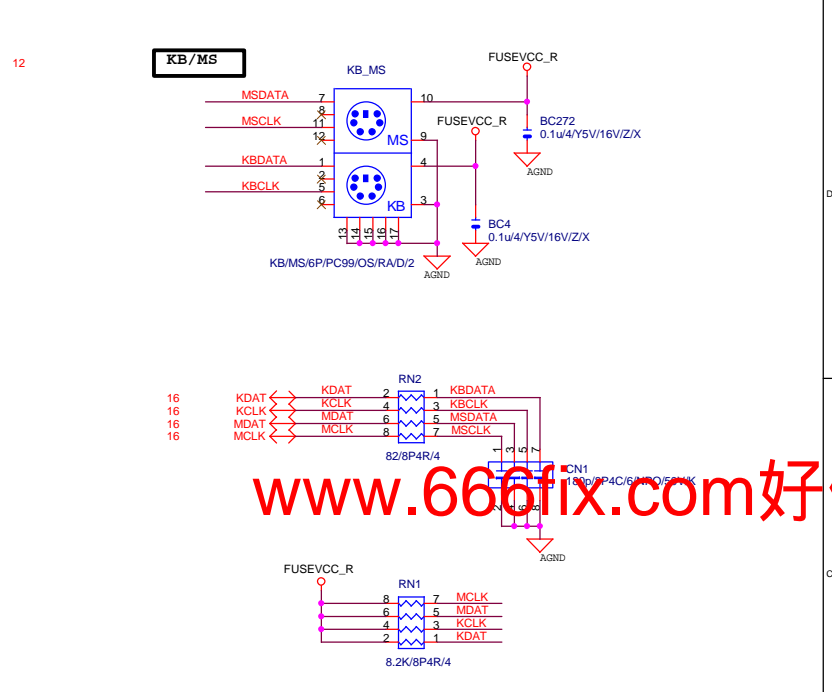
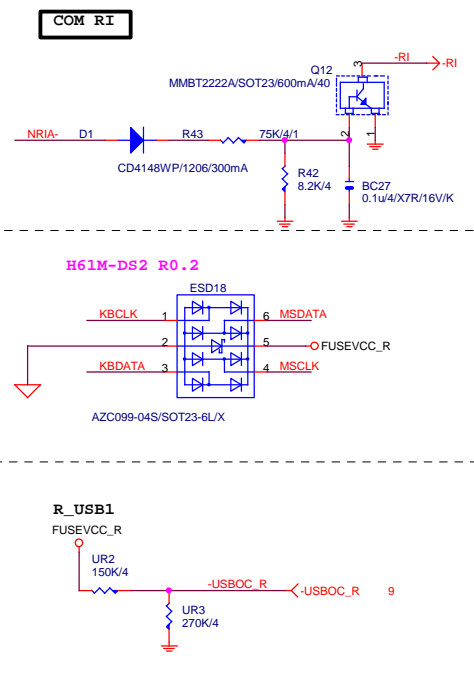
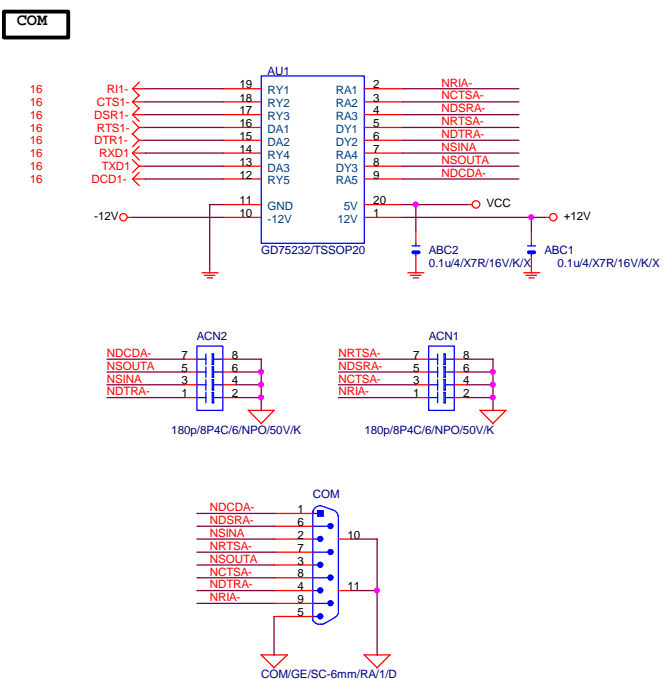


EUP control by PCH

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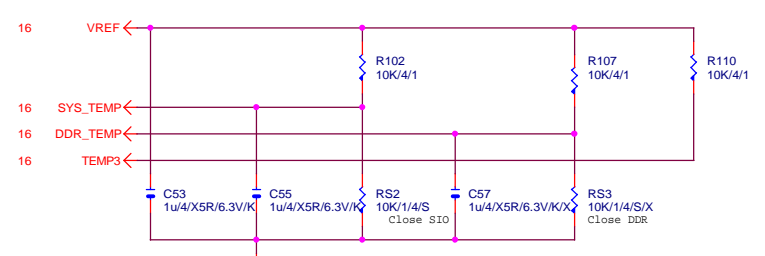
IT8728	
PIN121	VCORE_EN/PCH_C0
PIN120	VLDT_EN/PCH_D0
PIN19	ATXPG
PIN31	PCH_C1
PIN53	SST/AMDTSI_D/MTRB#/PCH_D1
PIN55	PEC1/AMDTSI_C/DRV#
PIN66	SYS_3VSB
PIN70	GP47
PIN95	VIN2 (VCC5)
PIN96	VIN1 (VCC12)
PIN97	VIN1/VDIMM_STR (1.5V)
PIN98	VIN0/VCORE (1.1V)/NC

Gigabyte Technology		
Title: ITE 8728 LPC IO		
Size B	Document Number: GA-H61M-DS2	Rev 3.0
Date: Tuesday, October 09, 2012	Sheet 16	of 30

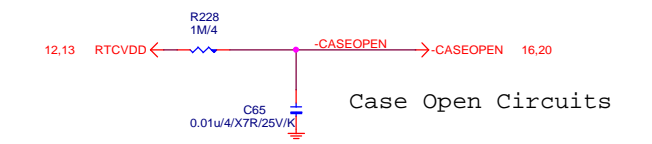


Gigabyte Technology		
Title -RI,KB_USB,USB_ESATA,-PROHOT		
Size Custom	Document Number GA-H61M-DS2	Rev 3.0
Date: Tuesday, October 09, 2012	Sheet 17	of 30

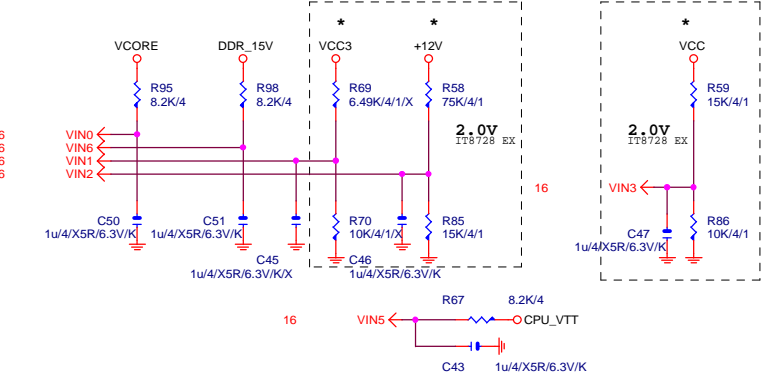
TEMP H/W MONITOR



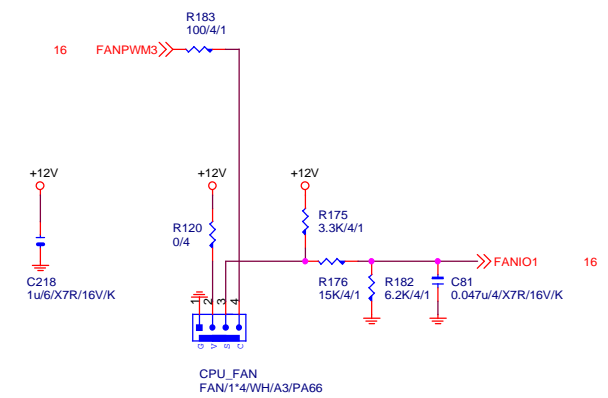
CASE OPEN



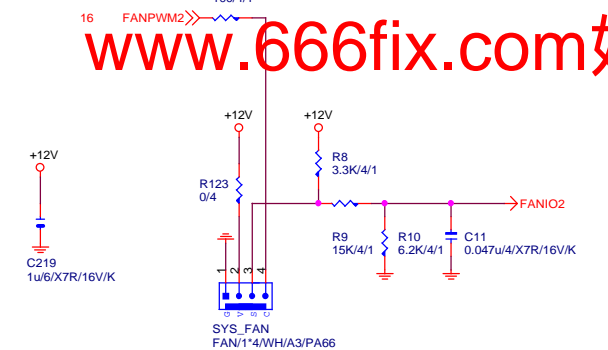
VOLTAGE-- H/W MONITOR



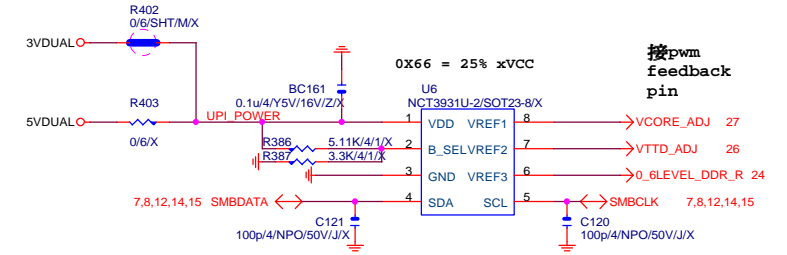
CPU SMART FAN



SYS SMART FAN

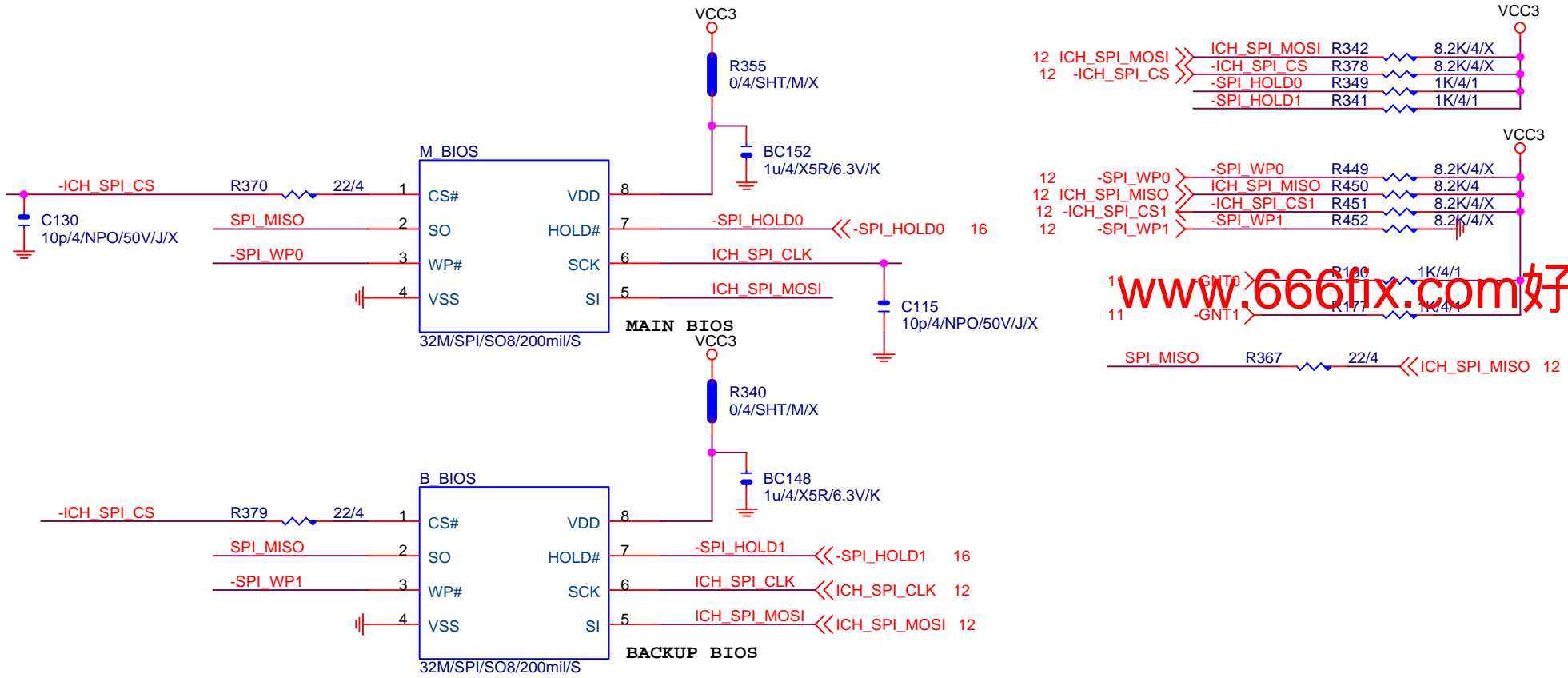


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Gigabyte Technology		
Title: HWM,FAN CTRL,OV		
Size: Custom	Document Number: GA-H61M-DS2	Rev: 3.0
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DUAL BIOS



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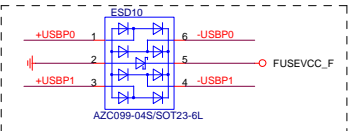
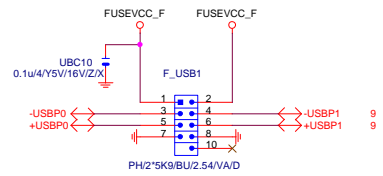
BOOT DEVICE	GNT1	GNT0
LPC	0	0
PCI	0	1
SPI	1	1

1 means floating
0 means PD 1K

Gigabyte Technology

Title		
SINGLE BIOS		
Size A	Document Number	Rev
	GA-H61M-DS2	3.0
Date:	Tuesday, October 09, 2012	Sheet 19 of 30

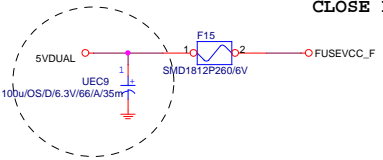
FRONT USB1



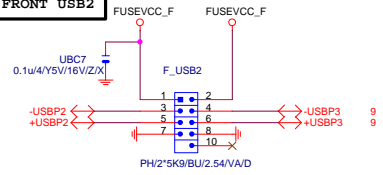
Close to connector

change to BLUE COLOR

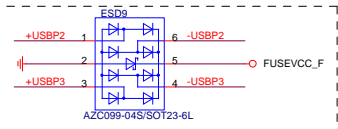
CLOSE F_USB1



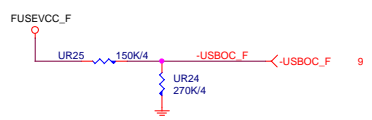
FRONT USB2



FRONT USB3



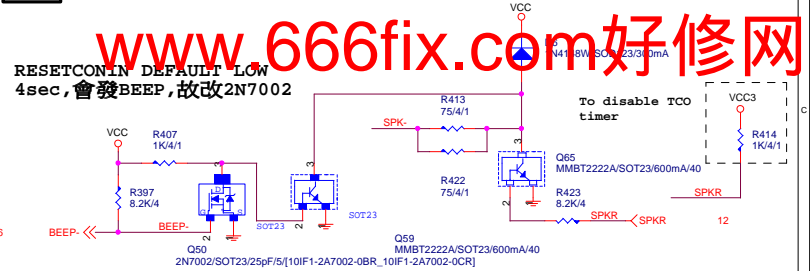
Close to connector



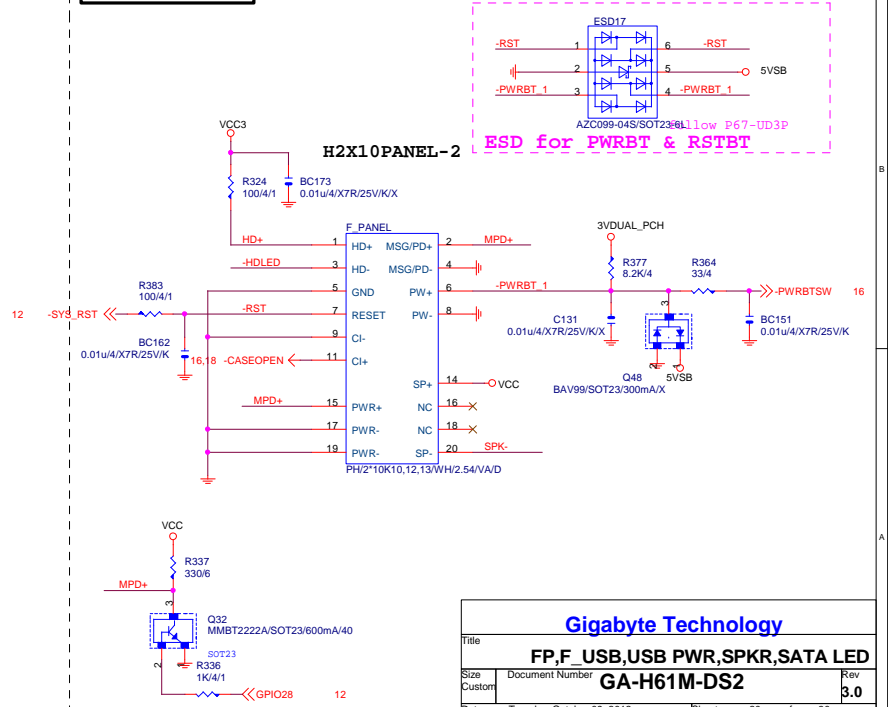
SATA LED



SPKR

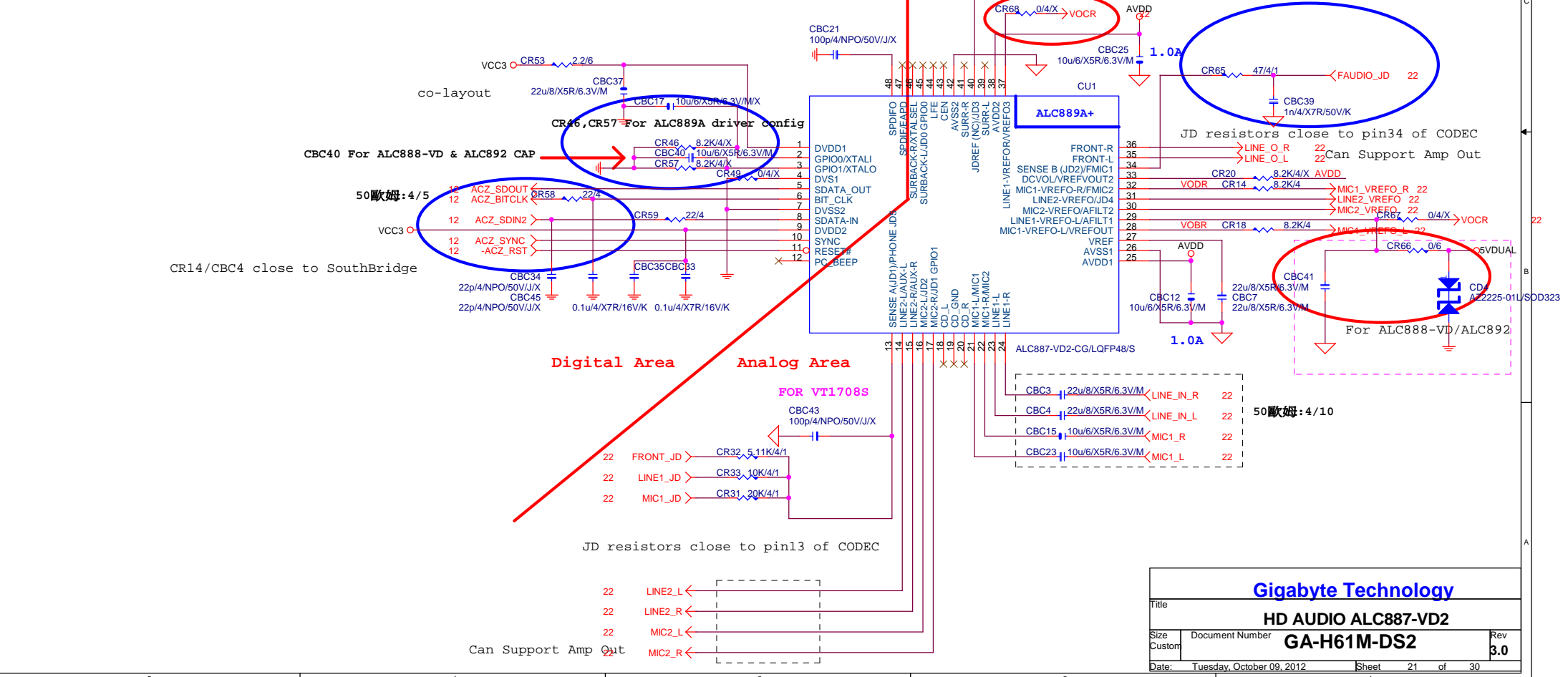


INTEL FRONT PANEL



Gigabyte Technology		
Title	FP,F_USB,USB PWR,SPKR,SATA LED	
Size	Document Number	Rev
Custom	GA-H61M-DS2	3.0
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	ALC883	ALC888-VA	ALC888B	ALC888-VD	ALC892R	ALC889	ALC889A
CR46	X	X	X	X	X	X	O
CR57	X	X	X	X	X	X	O
CR49	O	O	X	X	X	O	O
CBC40	X	X	X	10uF/X5R	10uF/X5R	X	X
CR20	O	X	X	X	X	X	X
CR26	20K/1%	20K/1%	20K/1%	20K/1%	20K/1%	20K/1%	20K/0.1%
CR47	X	X	O	X	O	O	X
CR48	O	O	X	O	X	X	O
CBC2/CBC4/CBC5/CBC6/CBC10/CBC11	4.7uF/X5R	4.7uF/X5R	4.7uF/X5R	4.7uF/X5R	4.7uF/X5R	10uF/X5R	4.7uF/X5R
CR1/CR3/CR10/CR12/CR15/CR19/CR56/CR27/CR55/CR37/CR28/CR34/CR6/CR9/CR51/CR61	75 ohm	75 ohm	75 ohm	75 ohm	75 ohm	66 ohm or lower	75 ohm
CR66/CR68/CD3/CBC41	X	X	X	O	X	X	X
CR67/CD1/CD2/CQ3/CQ5	O	O	O	X	O	O	O



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Gigabyte Technology

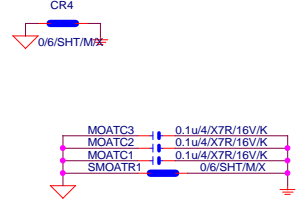
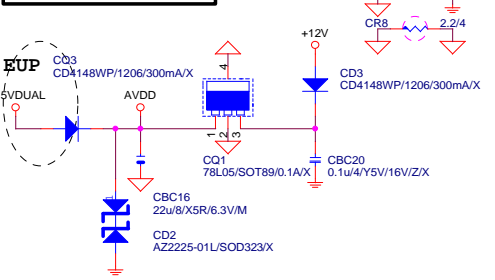
Title: HD AUDIO ALC887-VD2

Size: Document Number GA-H61M-DS2

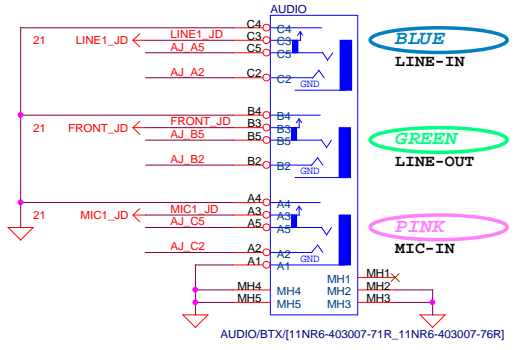
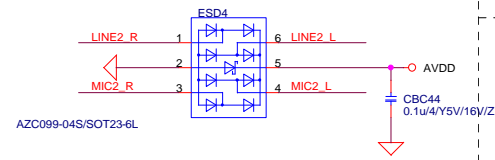
Rev: 3.0

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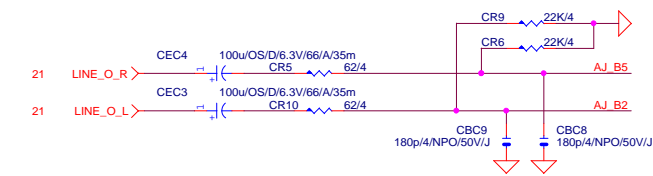
CODEC POWER/EMI PAD



AZALIA JACK

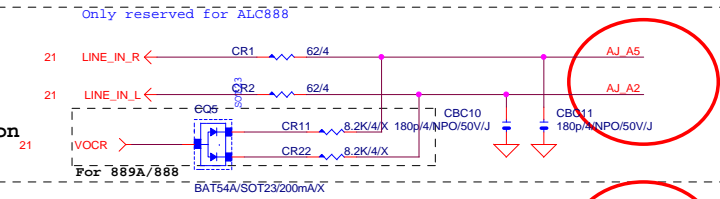


LINE-OUT

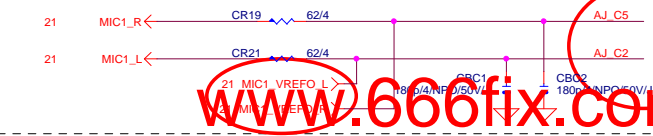


LINE-IN

Verify MIC function in LINE-in

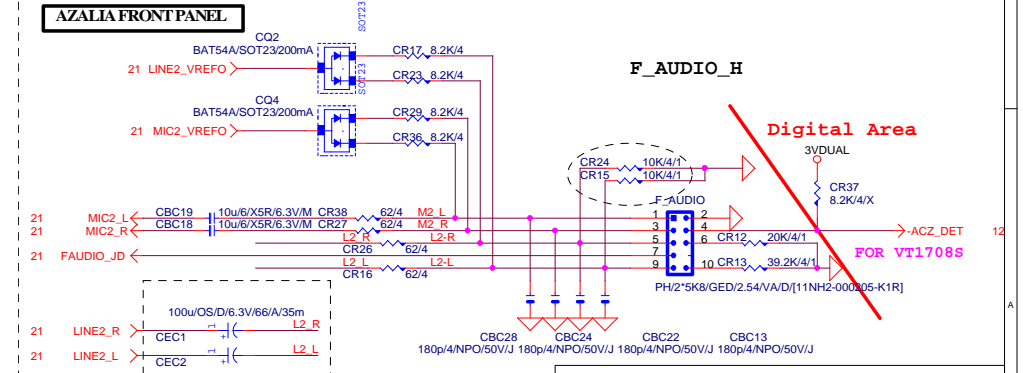


MIC-IN



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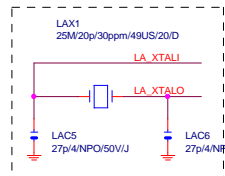
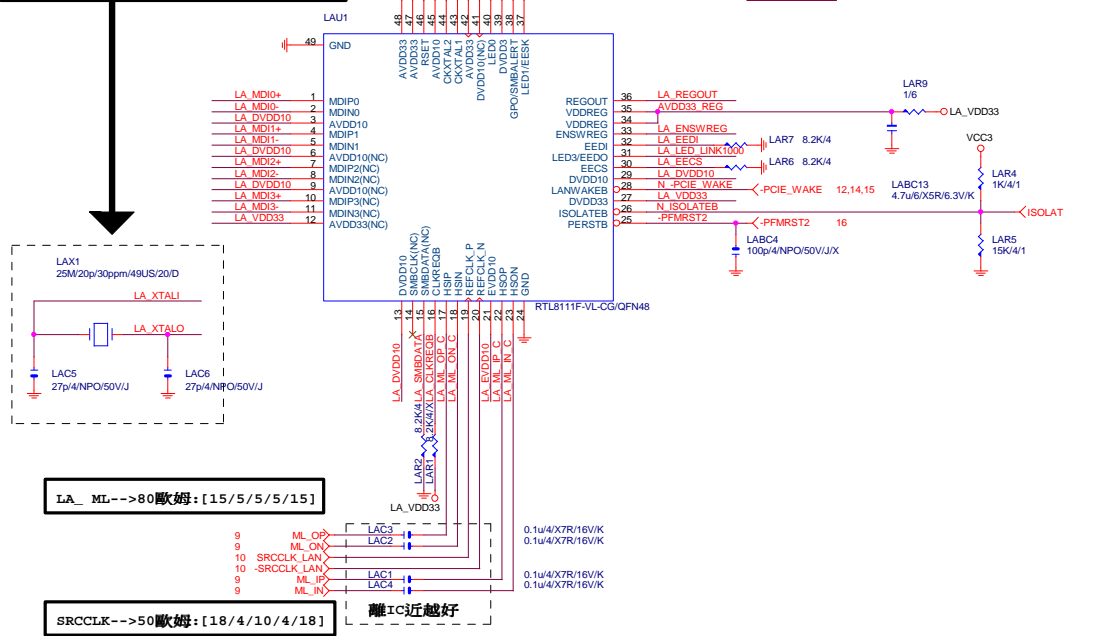
AZALIA FRONT PANEL



Gigabyte Technology			
Title AUDIO JACK			
Size Custom	Document Number	GA-H61M-DS2	
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			Rev 3.0

LAN:RTL8111E/VB/VL

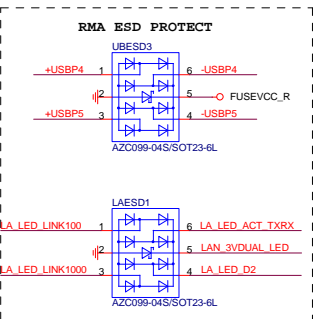
SCH BOM OPT:(二擇一使用)
 -->(LAR11):M/B有CLK GEN 25M
 -->(LAX1,LAC5,LAC6):M/B無CLK GEN 25M



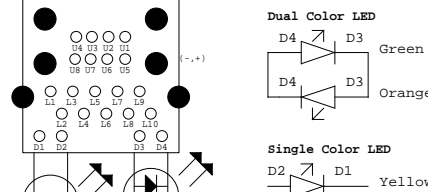
LA_ML-->80歐姆:[15/5/5/15]

SRCLK-->50歐姆:[18/4/10/4/18]

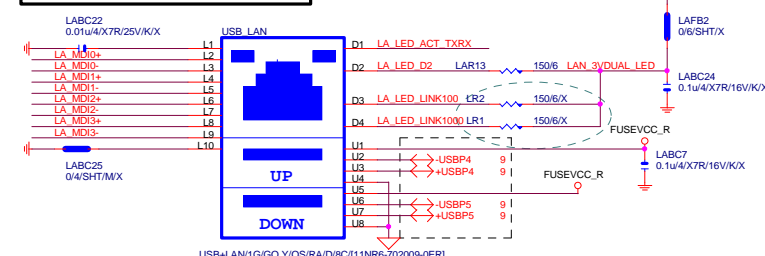
USB_LAN CONNECTOR



注意:LAN LED PROTECT:(CO-LAYOUT)
 1.ESD(6PIN):AOZ8902CIL/SOT23-6(DEFAULT)
 2.SURGE(5PIN):AZ2025-04S/SOT23-5L



LA_MDI-->100歐姆:[20/4/8/4/20]

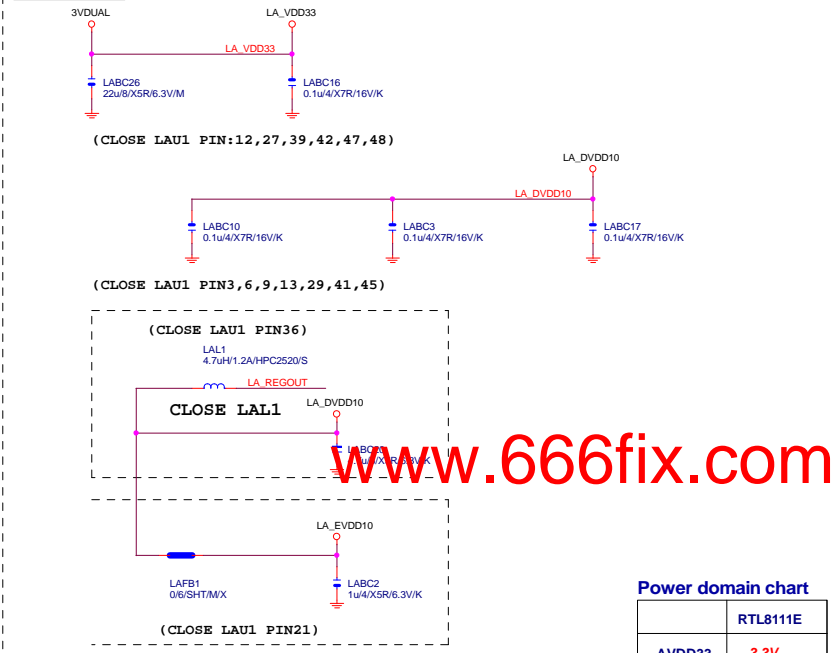


注意:USB PORT(目前:暫代6,7PORT)
 USB-->90歐姆:[15/4.5/7.5/4.5/15]

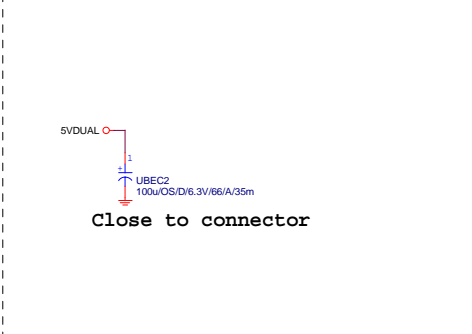
料號	規格	廠商
11NR6-702009-0ER	1G LAN (12core)	UDE
11NR6-702009-91R	1G LAN (8 core)	FOXCONN
11NR6-702009-92R	1G LAN (8 core)	UDE
11NR6-702009-11R	1G LAN (12core/RED)	UDE
11NR6-702009-12R	1G LAN (8 core/RED)	FOXCONN

USB_LAN BOM區分:
 1.(紅色/12CORE/三倍):USB+LAN/1G/GO,Y/OS/RA/D/1/RED
 2.(黑色/12CORE):USB+LAN/1G/GO,Y/OS/RA/D/1
 3.(黑色/8CORE):USB+LAN/1G/GO,Y/OS/RA/D/8C

LAN POWER

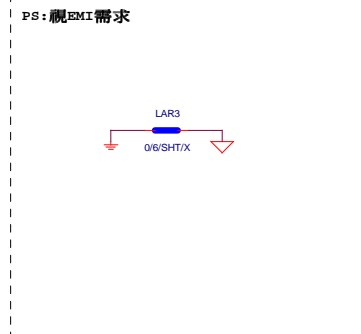


USB X3 POWER



USB OC/FUSE PROTECT

EMI SHORT PAD

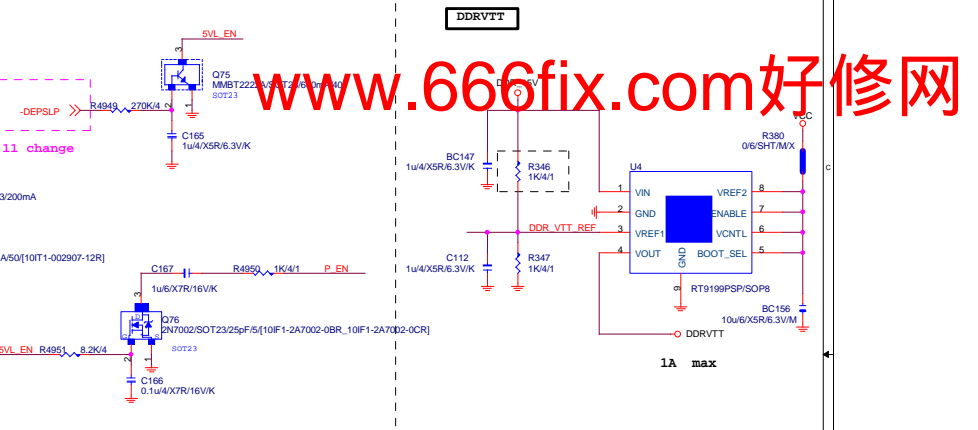
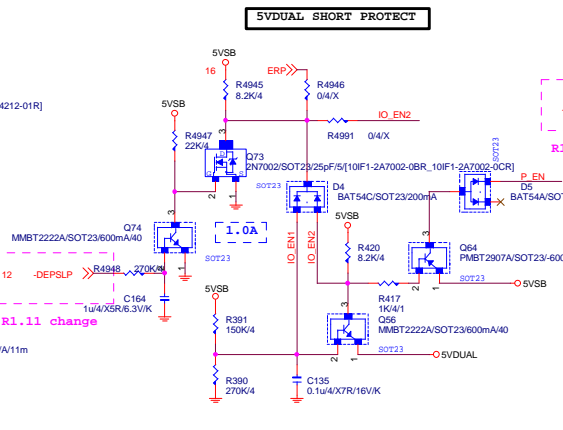
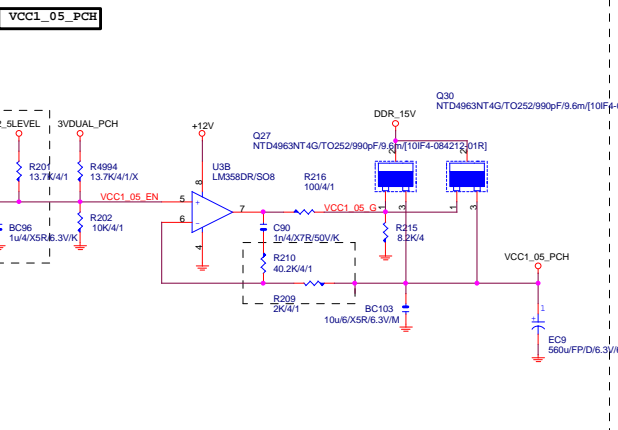
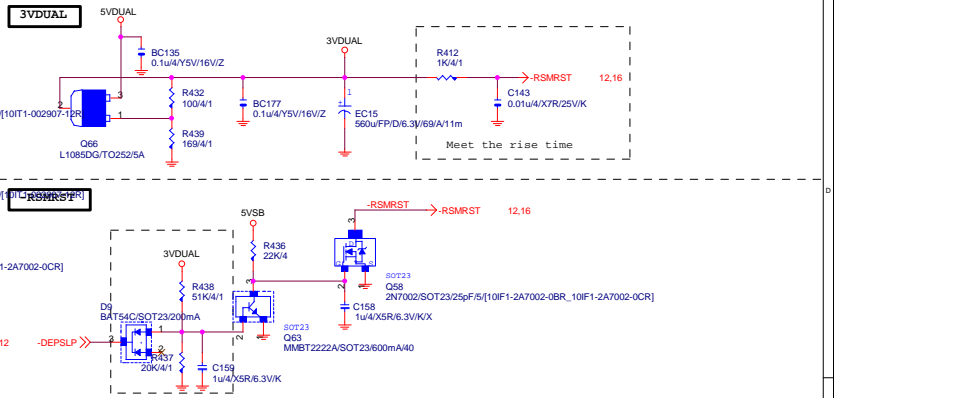
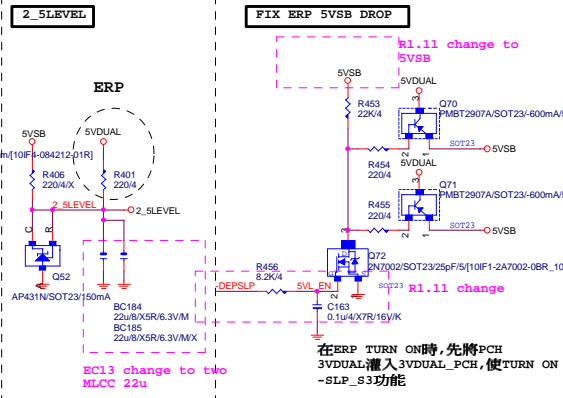
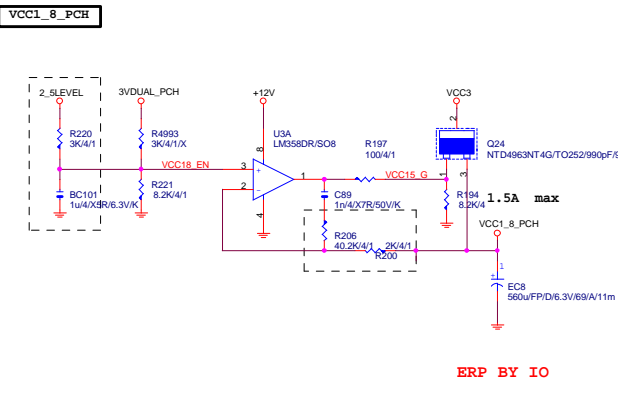


Power domain chart

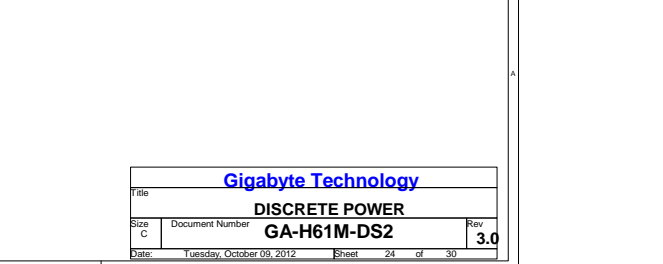
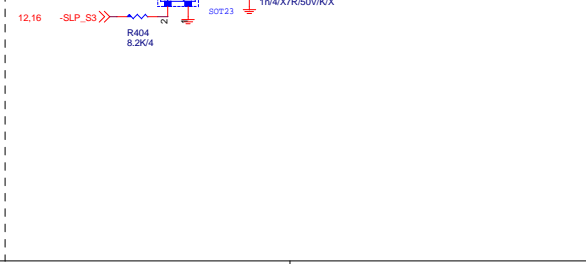
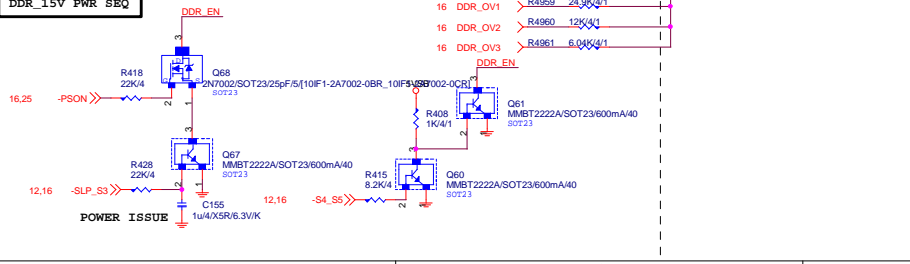
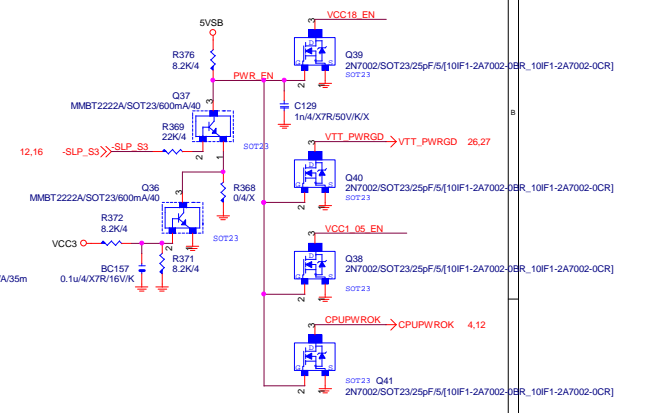
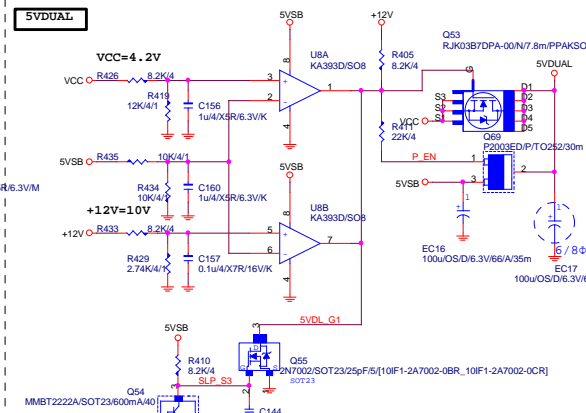
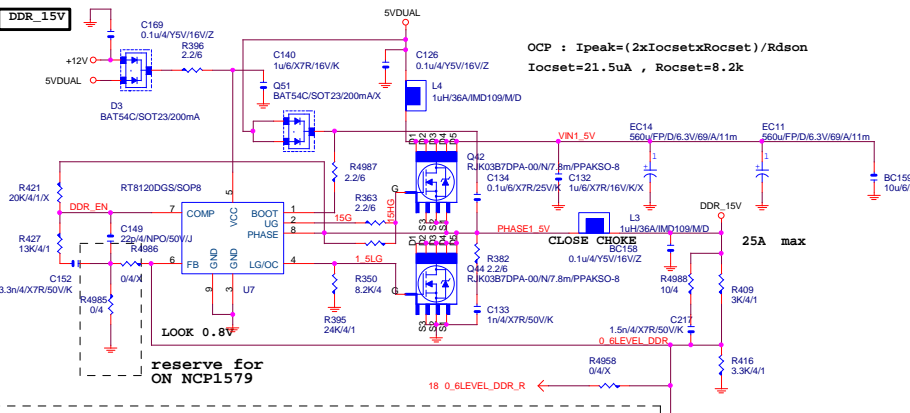
	RTL8111E
AVDD33	3.3V
DVDD33	3.3V
VDDREG	3.3V
DVDD10	1.05V

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Gigabyte Technology		
LAN RTL8111F		
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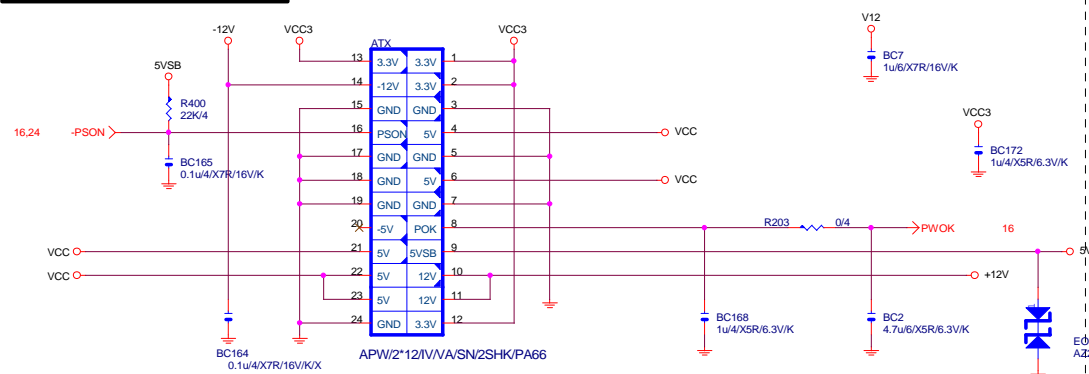


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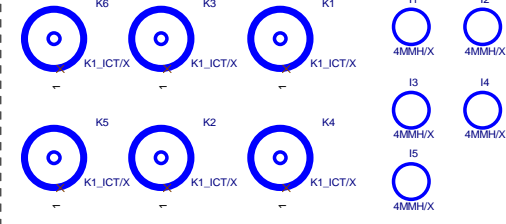
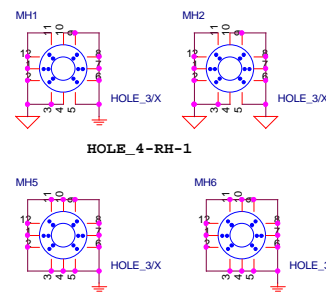
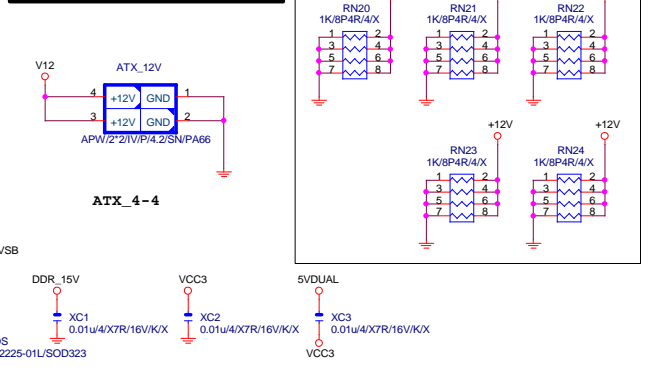


Gigabyte Technology			
File	DISCRETE POWER		
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ATXX24 POWER CONNECTOR



ATXX4 POWER CONNECTOR

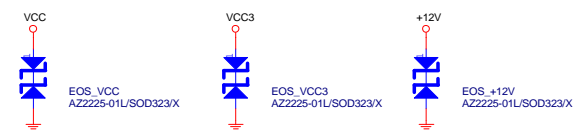


To prevent the 5VSB under loading when boot

5VDUAL1 (USB PORT/DDR III POWER)
5VDUAL (3VDUAL/OTHER)

-S_WARN-->5VDUAL1-->-S_ACK (PCH)-->-DEPSLP/-RSMRST-->5VDUAL-->3VDUAL

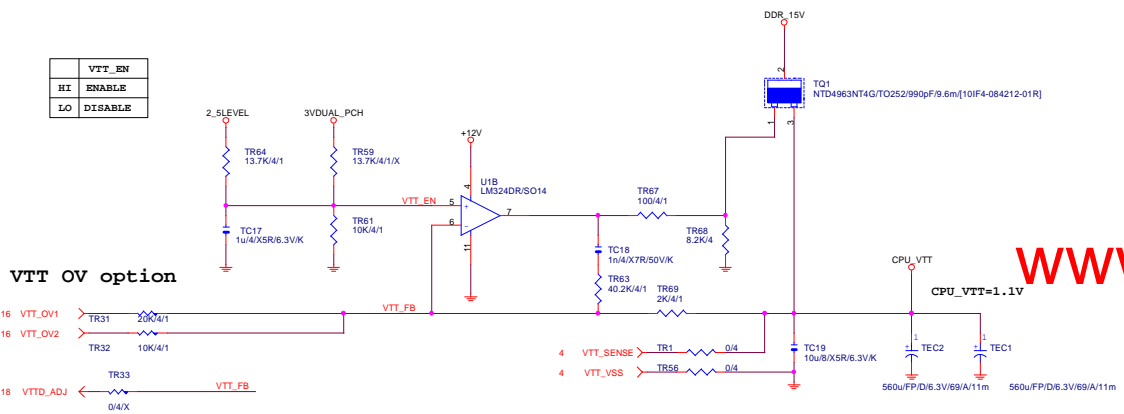
HOLE_4-RH-5MM-1



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CPU_VTT

	VTT_EN
HI	ENABLE
LO	DISABLE

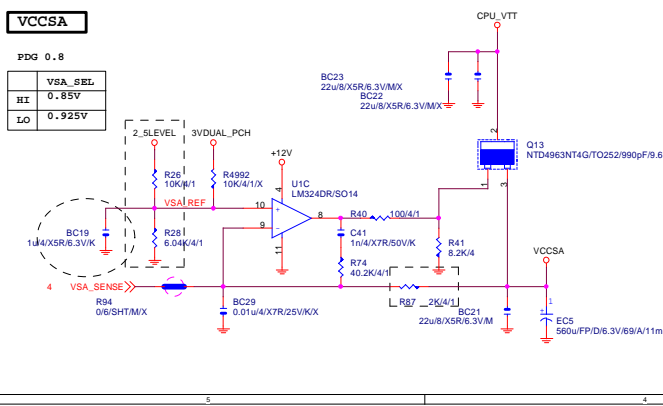


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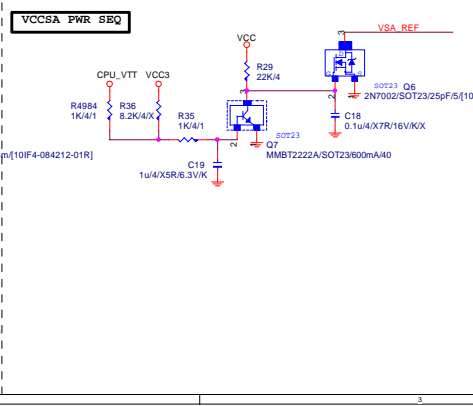
VCCSA

PDG 0.8

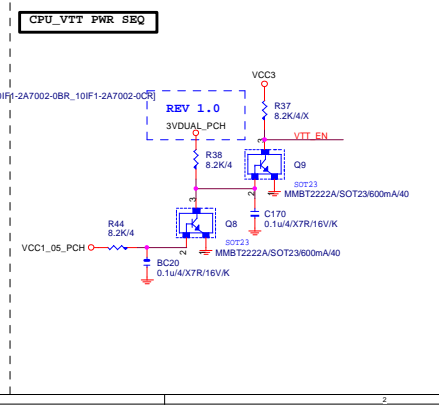
	VSA_SEL
HI	0.85V
LO	0.925V



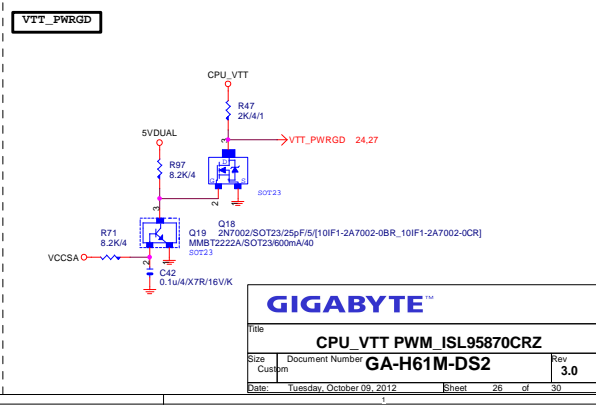
VCCSA PWR SEQ



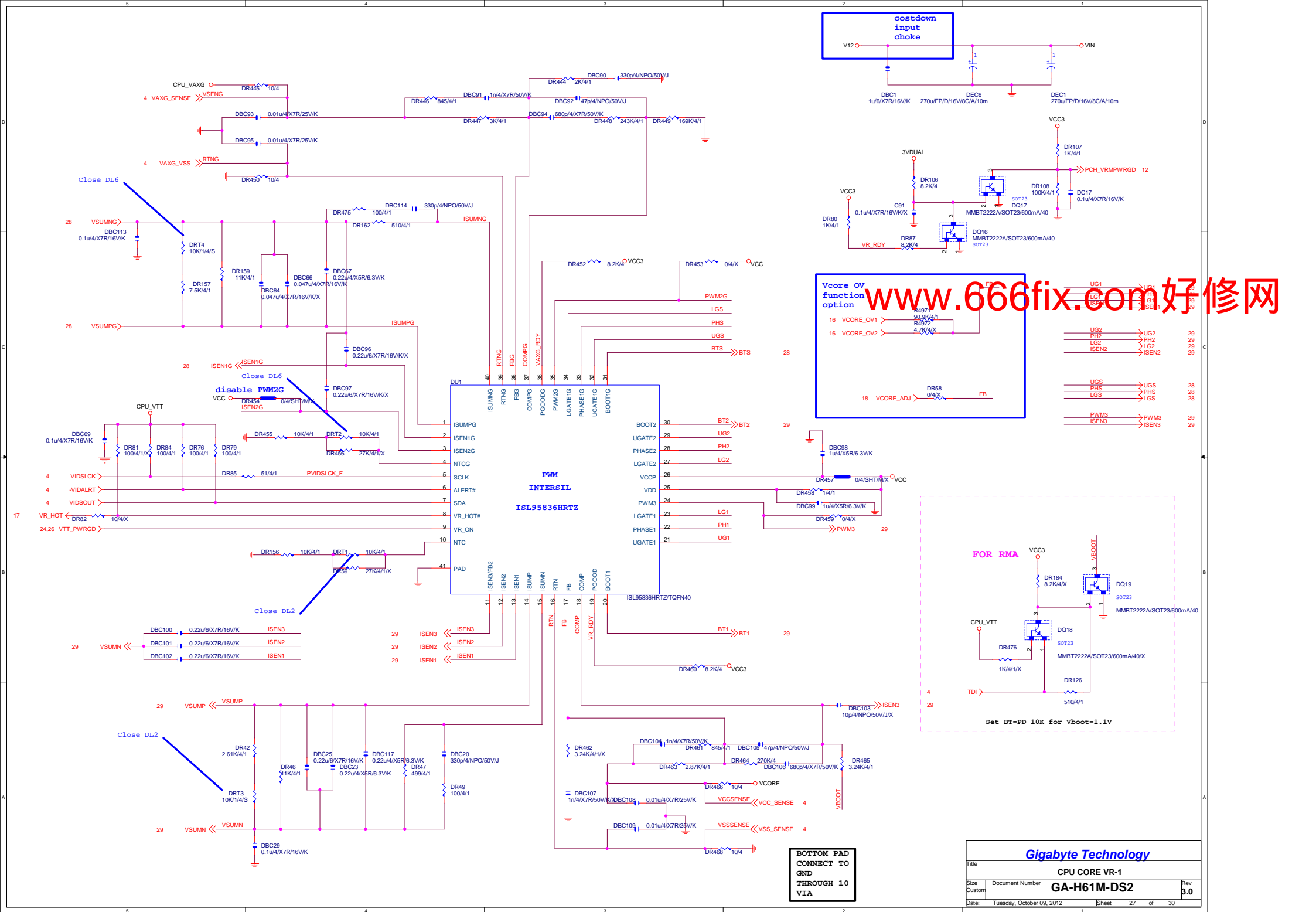
CPU_VTT PWR SEQ



VTT_PWRGD



GIGABYTE			
Title CPU_VTT PWM_ISL95870CRZ			
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Vcore OV function option

16 VCORE_OV1 → UG1
 16 VCORE_OV2 → UG2
 18 VCORE_ADJ → FB

DR497 30.9K/4/1
 DR498 4.7K/4/1
 DR58 0/4/X

FOR RMA

VCC3
 DR184 8.2K/4/X
 DQ19
 MMBT2222A/SOT23/600mA/40
 CPU_VTT
 DR476 1K/4/1/X
 DQ18
 MMBT2222A/SOT23/600mA/40/X
 DR126 510/4/1
 TDI

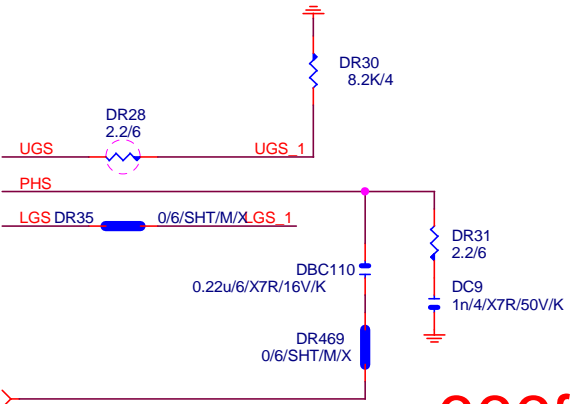
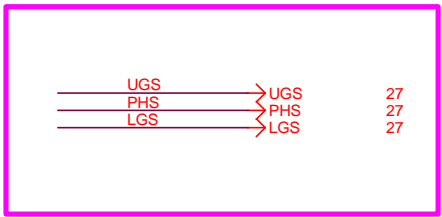
Set BT=PD 10K for Vboot=1.1V

**BOTTOM PAD
 CONNECT TO
 GND
 THROUGH 10
 VIA**

Gigabyte Technology		
Title	CPU CORE VR-1	
Size	Document Number	GA-H61M-DS2
Custom		Rev 3.0
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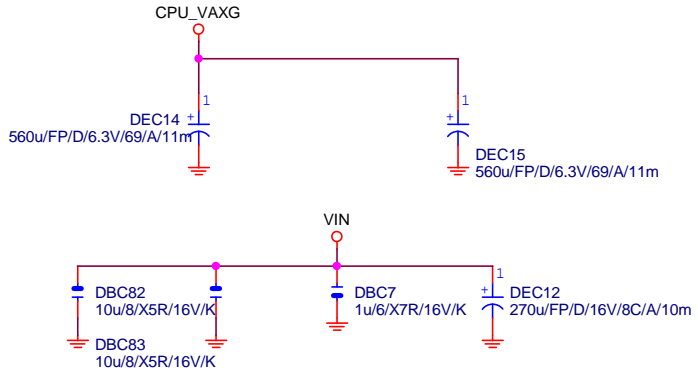
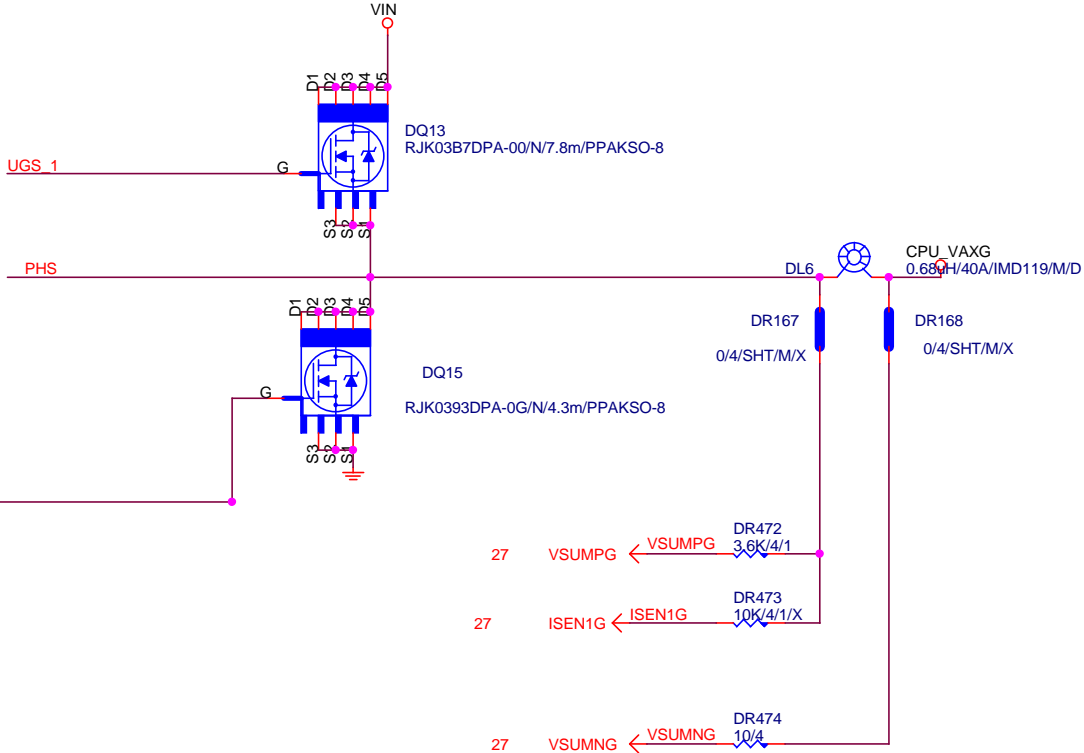
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VAXG

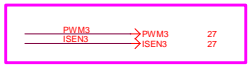
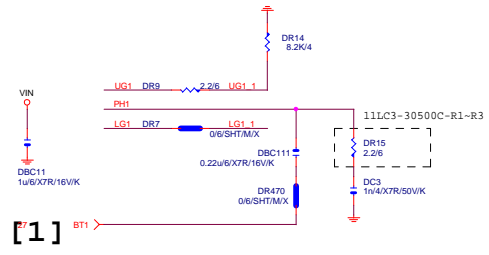


27 BTS

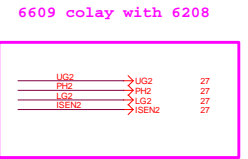
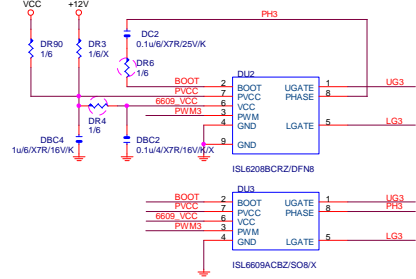
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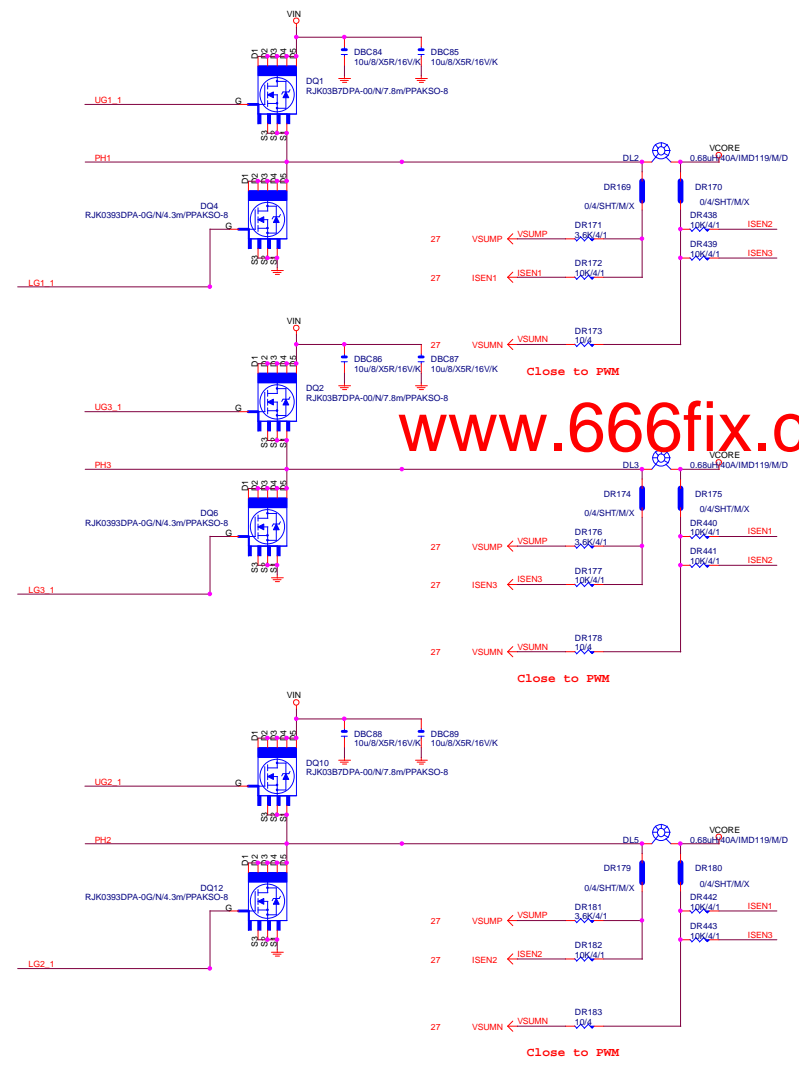
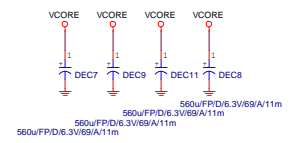
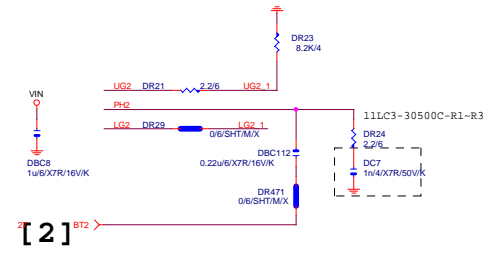
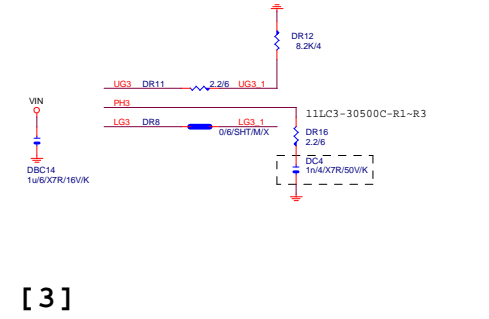
Gigabyte Technology		
Title CPU CORE VR-2		
Size Custom	Document Number GA-H61M-DS2	Rev 3.0
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Pop 1S16625CB for PBT
[1S16625CBZ/908]

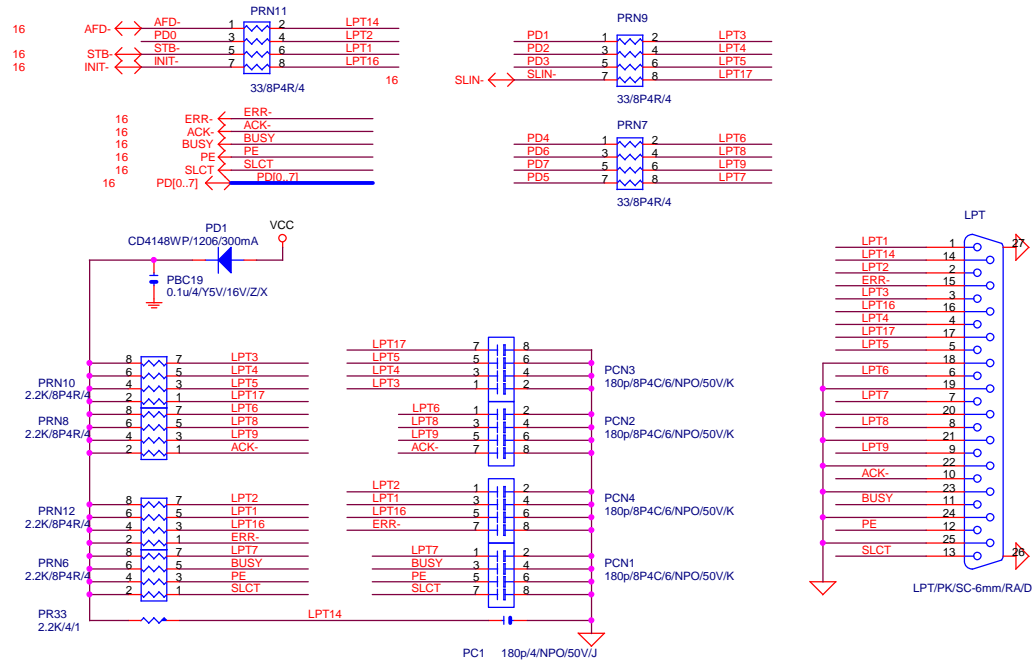


6609 colay with 6208



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LPT PORT



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Gigabyte Technology			
Title: LPT			
Size: Custom	Document Number: GA-H61M-DS2		Rev: 3.0
Date: Tuesday, October 09, 2012	Sheet: 30	of 30	