

Model Name: GA-H61M-DS2

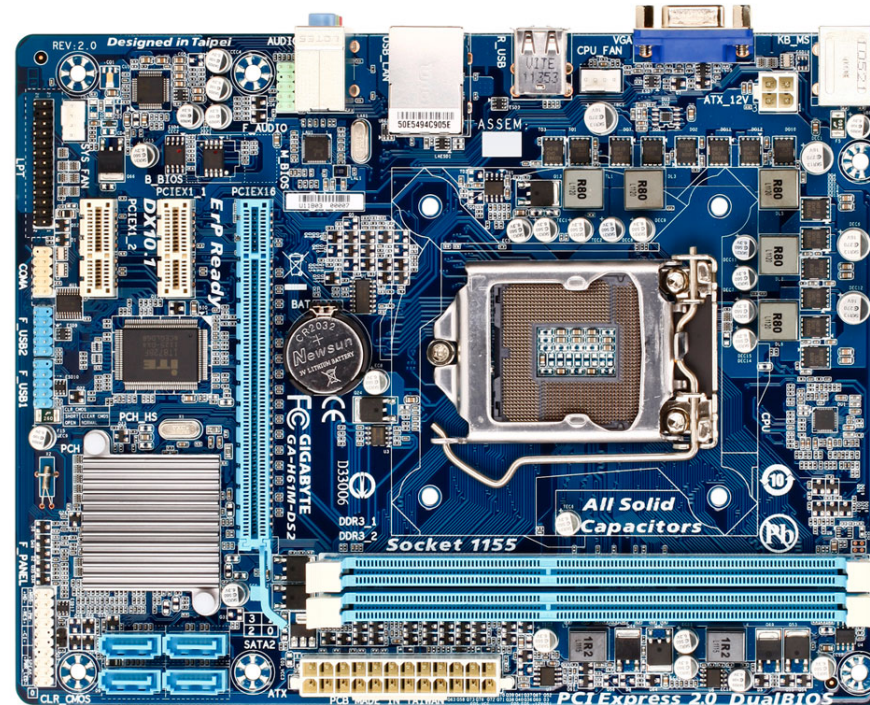
Revision 2.01

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*1x2 SLOT
16	ITE 8728 LPC IO
17	COMA,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 8111E/USB_LAN
24	DISCRETE POWER
25	ATX,-S_WARN,-S_ACK,5VDUAL
26	Richtek_RT8120_CPU_VTT
27	VCORE INTERSIL_95836_1

28	VCORE INTERSIL_95836_2
29	VCORE INTERSIL_95836_3
30	LPT



Gigabyte Technology		
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Custom	GA-H61M-DS2	2.01
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Model Name: GA-H61M-DS2

Revision 2.01

Component value change history

2011/11/30

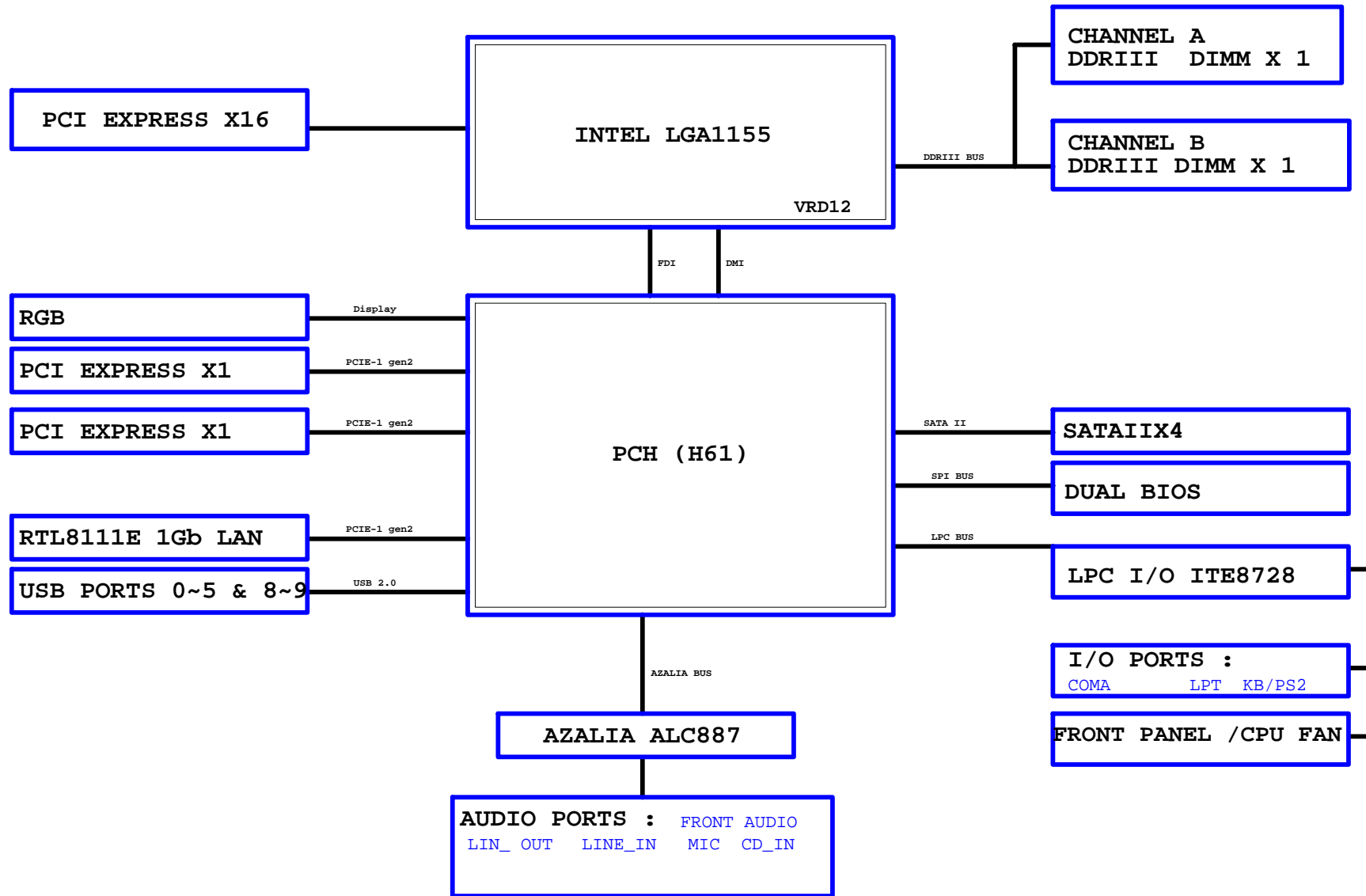
Data	Change Item	Reason
2011.08.22	9MH61MDS2-00-12A	H61M-DS2 R1.2 BOM first release
	remove BC35 & BC34 change to 0.lu fix SIO 8728 factory issue	
	some CAP change to Japan's os-con & adjust loadline	
	add second source ON-MOSFET for VRM	
2011.09.08	9MH61MDS2-00-12B	
	costdown BOM	
2011.10.31	9MH61MDS2-00-12C	
	MOSFET change to 9+6 solution	
2011.11.16	9MH61MDS2-00-12D	
	PWM change to ISL95836	
	DDR & CPU_VTT PWM change to RT8120DGSP	
2011.11.16	9MH61MDS2-00-20A	
	costdown sequence , VTT_SEL & VSA_SEL circuit	
	9MH61MDS2-00-20B	
	LAN change to RTL8111F-VL	
	remove R37 to fix CPU_VTT no Voltage ready	
	9MH61MDS2-00-20C	
	TR68 & R416 changet to 3.3K fix Voltage level	
	add BC165 fix STR issue	
	9MH61MDS2-00-20D	
	fix frequency down issue & change to PBOM	
	9MH61MDS2-00-20E	
	TR68 change to 3K adjust CPU_VTT Voltage level	
	9MH61MDS2-00-20F	

Circuit or PCB layout change

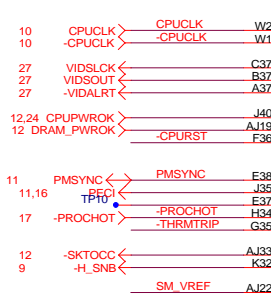
DATE	Change Item	Reason
2011.08.16	H61M-DS2 R1.2 gerber out	
	add LAR14 shortpin short R_USB AGND & DGND	
2011.09.07	H61M-DS2 R1.21 gerber out	
	PWM change to ISL95836	
	DDR & CPU_VTT PWM change to RT8120DGSP	
2011.11.01	H61M-DS2 R2.0 gerber out	
	VBOOT circuit change	
	ISOLAT change from SIO GP40 to SIO GP17	
2011.11.24	H61M-DS2 R2.01 gerber out	

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BOM & PCB MODIFY HISTORY			
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Custom			
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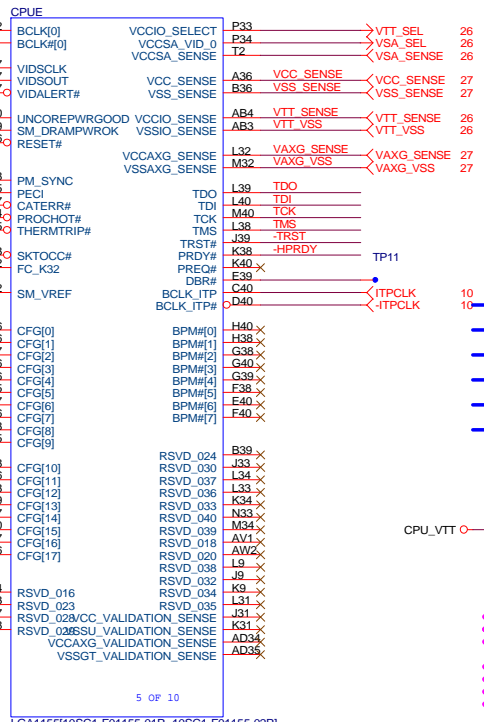
BLOCK DIAGRAM



CPUPWROK



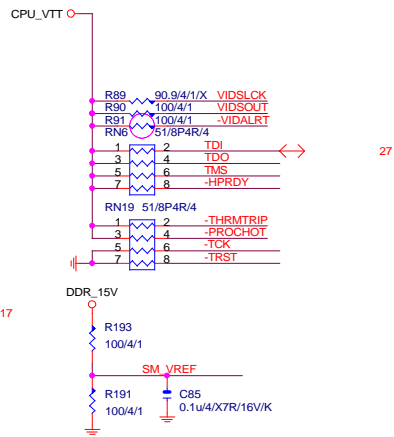
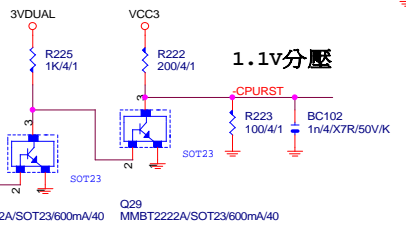
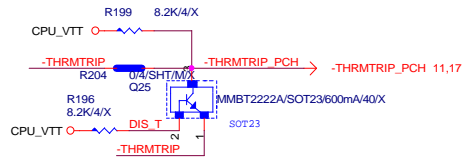
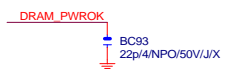
H61M-S2C-B3 remove



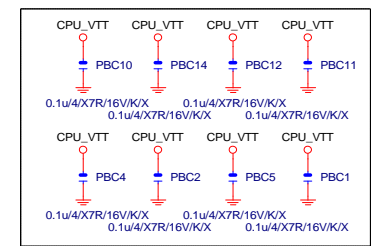
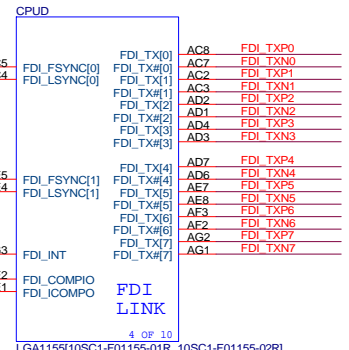
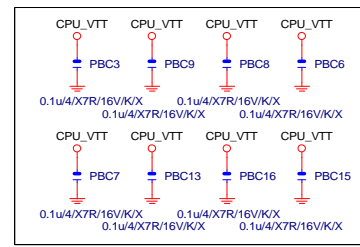
CFG#	H	L	NOTE
0	RSVD	RSVD	RSVD
1	RSVD	RSVD	RSVD
2	NORM	Reverse	LANE REVERSAL[0]..x16
3	RSVD	RSVD	RSVD
4	RSVD	RSVD	RSVD
7	RSVD	RSVD	RSVD
8	RSVD	RSVD	RSVD
9	RSVD	RSVD	RSVD
10	RSVD	RSVD	RSVD
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13	RSVD	RSVD	RSVD
14	RSVD	RSVD	RSVD
15	RSVD	RSVD	RSVD
16	RSVD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

CFG6	CFG5	PCIE CONFIG
1	1	1x16, Default
1	0	2x8
0	1	RSVD
0	0	X8, X4, X4

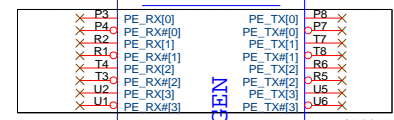
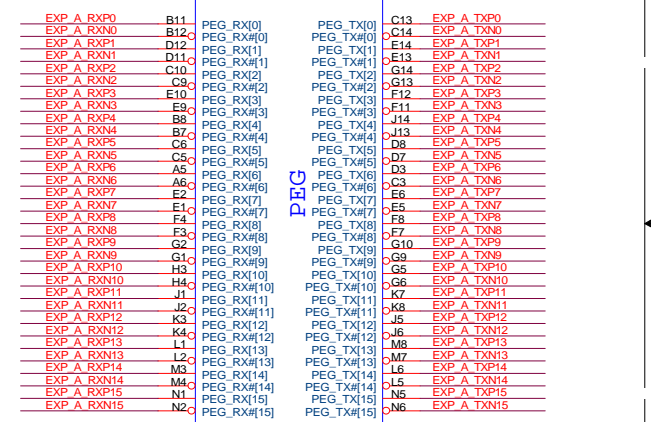
CFG 0-17 all internal PULL-UP



Stitching caps for PCIe,DMI,FDI bus



Stitching caps for PCIe,DMI,FDI bus



Gigabyte Technology

Title: **GPU LGA1155-A**

Size: **GA-H61M-DS2**

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CPUA

MAAA0	AV27	SA_MA[0]	AK3	DQSA0
MAAA1	AV24	SA_MA[1]	AK2	-DQSA0
MAAA2	AW24	SA_MA[2]		
MAAA3	AW23	SA_MA[3]		
MAAA4	AV23	SA_MA[4]	AJ3	MDA0
MAAA5	AT24	SA_MA[5]	AJ4	MDA1
MAAA6	AT23	SA_MA[6]	AI3	MDA2
MAAA7	AU22	SA_MA[7]	AI4	MDA3
MAAA8	AV22	SA_MA[8]	AJ2	MDA4
MAAA9	AT22	SA_MA[9]	AI1	MDA5
MAAA10	AU28	SA_MA[10]	AI2	MDA6
MAAA11	AU21	SA_MA[11]	AI1	MDA7
MAAA12	AT21	SA_MA[12]		
MAAA13	AW32	SA_MA[13]	AP3	DQSA1
MAAA14	AU20	SA_MA[14]	AP2	-DQSA1
MAAA15	AT20	SA_MA[15]		
-SWEA	AW29	SA_WE#	AN1	MDA8
-SCASA	AV30	SA_CAS#	AN4	MDA9
-SRASA	AU28	SA_RAS#	AR3	MDA10
SBA40	SBA40	SA_BS[0]	AR4	MDA12
SBA41	SBA41	SA_BS[1]	AN2	MDA11
SBA42	SBA42	SA_BS[2]	AN3	MDA13
-CSA0	AU29	SA_CS#	AR2	MDA14
-CSA1	AV32	SA_CS#	AR1	MDA15
CKEA0	CKEA0	SA_CKE[0]	AW4	DQSA2
CKEA1	CKEA1	SA_CKE[1]	AV4	-DQSA2
MODT_A0	AV31	SA_ODT[0]	AV2	MDA16
MODT_A1	AU32	SA_ODT[1]	AW3	MDA17
AU30	AU30	SA_ODT[2]	AV5	MDA18
AU33	AU33	SA_ODT[3]	AW5	MDA19
DCLKA0	DCLKA0	SA_CK[0]	AJ2	MDA20
-DCLKA0	-DCLKA0	SA_CK[0]	AU3	MDA21
DCLKA1	DCLKA1	SA_CK[1]	AU5	MDA22
-DCLKA1	-DCLKA1	SA_CK[1]	AV5	MDA23
DCLKA2	DCLKA2	SA_CK[2]	AW8	DQSA3
-DCLKA2	-DCLKA2	SA_CK[2]	AW8	-DQSA3
DCLKA3	DCLKA3	SA_CK[3]	AW7	MDA24
-DCLKA3	-DCLKA3	SA_CK[3]	AU7	MDA25
DCLKA4	DCLKA4	SA_CK[4]	AW9	MDA26
-DCLKA4	-DCLKA4	SA_CK[4]	AU9	MDA27
DCLKA5	DCLKA5	SA_CK[5]	AW7	MDA28
-DCLKA5	-DCLKA5	SA_CK[5]	AU7	MDA29
DCLKA6	DCLKA6	SA_CK[6]	AW9	MDA30
-DCLKA6	-DCLKA6	SA_CK[6]	AU9	MDA31
DCLKA7	DCLKA7	SA_CK[7]	AV37	DQSA4
-DCLKA7	-DCLKA7	SA_CK[7]	AV36	-DQSA4
AU13	AU13	SA_DQS[8]	AJ35	MDA32
AV12	AV12	SA_DQS[8]	AW37	MDA33
AU12	AU12	SA_DQS[9]	AJ39	MDA34
AU14	AU14	SA_DQS[9]	AJ36	MDA35
AV13	AV13	SA_DQS[9]	AW35	MDA36
AU13	AU13	SA_ECC_CB[0]	AJ36	MDA37
AV11	AV11	SA_ECC_CB[1]	AJ38	MDA38
AV12	AV12	SA_ECC_CB[2]	AJ37	MDA39
AV13	AV13	SA_ECC_CB[3]	AJ37	MDA39
AV13	AV13	SA_ECC_CB[4]	AP38	DQSA5
AV11	AV11	SA_ECC_CB[5]	AP39	-DQSA5
AV12	AV12	SA_ECC_CB[6]	AR40	MDA40
AV12	AV12	SA_ECC_CB[7]	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
			AE39	MDA58
			AE37	MDA59
			AG39	MDA60
			AG38	MDA61
			AE39	MDA62
			AE40	MDA63

DDR_0

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

CPUB

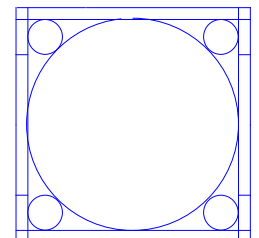
MAAB0	AK24	SB_MA[0]	AH7	DQSB0
MAAB1	AM20	SB_MA[1]	AH6	-DQSB0
MAAB2	AM19	SB_MA[2]		
MAAB3	AK18	SB_MA[3]		
MAAB4	AP19	SB_MA[4]	AG7	MDB0
MAAB5	AP18	SB_MA[5]	AG8	MDB1
MAAB6	AM18	SB_MA[6]	AJ9	MDB2
MAAB7	AI18	SB_MA[7]	AJ8	MDB3
MAAB8	AN18	SB_MA[8]	AG5	MDB4
MAAB9	AV17	SB_MA[9]	AG6	MDB5
MAAB10	AI16	SB_MA[10]	AJ6	MDB6
MAAB11	AU17	SB_MA[11]	AJ7	MDB7
MAAB12	AT18	SB_MA[12]		
MAAB13	AR28	SB_MA[13]	AM8	DQSB1
MAAB14	AI16	SB_MA[14]	AL8	-DQSB1
MAAB15	AV16	SB_MA[15]		
-SWEB	-SWEB	SB_WE#	AL7	MDB8
-SCASB	-SCASB	SB_CAS#	AM7	MDB9
-SRASB	-SRASB	SB_RAS#	AM10	MDB10
SBAB0	AP23	SB_BS[0]	AL10	MDB11
SBAB1	SBAB1	SB_BS[1]	AL6	MDB12
SBAB2	SBAB2	SB_BS[2]	AM6	MDB13
-CSB0	-CSB0	SB_CS#	AL9	MDB14
-CSB1	-CSB1	SB_CS#	AM9	MDB15
CKEB0	CKEB0	SB_CKE[0]	AR8	DQSB2
CKEB1	CKEB1	SB_CKE[1]	AP8	-DQSB2
MODT_B0	AL26	SB_ODT[0]	AP7	MDB16
MODT_B1	AP26	SB_ODT[1]	AR7	MDB17
	AV15	SB_ODT[2]	AP10	MDB18
	AK26	SB_ODT[3]	AR10	MDB19
			AP6	MDB20
			AR6	MDB21
			AP9	MDB22
			AR9	MDB23
			AM13	DQSB3
			AM12	-DQSB3
DCLKB0	DCLKB0	SB_CK[0]	AM12	MDB24
-DCLKB0	-DCLKB0	SB_CK[0]	AM13	MDB25
DCLKB1	DCLKB1	SB_CK[1]	AR13	MDB26
-DCLKB1	-DCLKB1	SB_CK[1]	AP13	MDB27
			AL12	MDB28
			AR13	MDB29
			AR12	MDB30
			AP12	MDB31
			AN29	DQSB4
			AN28	-DQSB4
VREF_DOB	AH1	FC_AH1	AR28	MDB32
VREF_DOA	AH4	FC_AH4	AR29	MDB33
			AL28	MDB34
			AL29	MDB35
			AP28	MDB36
			AP29	MDB37
			AM28	MDB38
			AM29	MDB39
			AP33	DQSB5
			AR33	-DQSB5
			AP32	MDB40
			AP31	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]

CR CPU RETENTION X

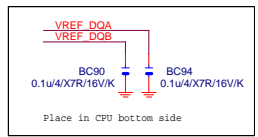


Need check the new CPU ME

CPU



ILM_BP1156/CSP[12KRC-0F0001-04R]

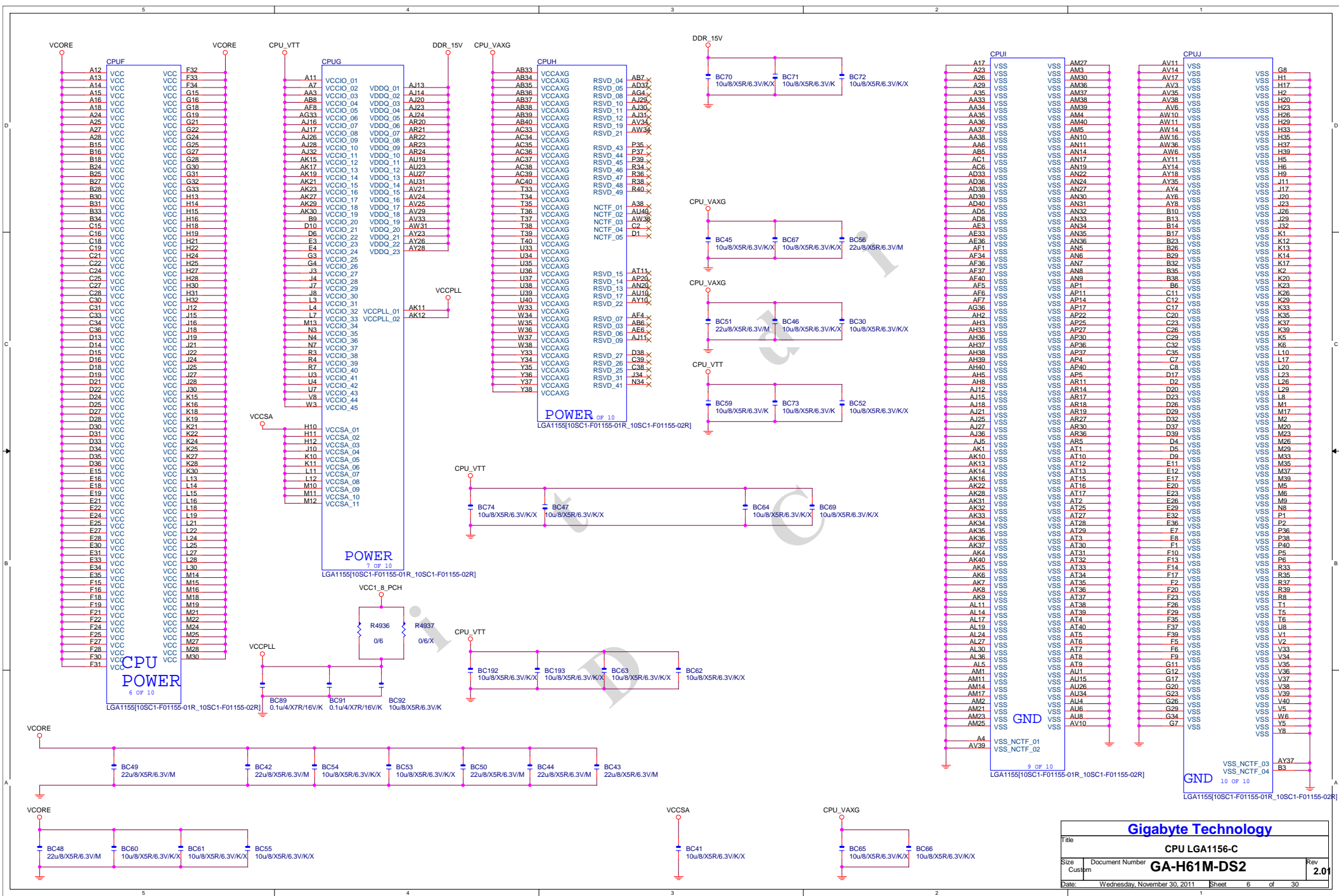


Place in CPU bottom side

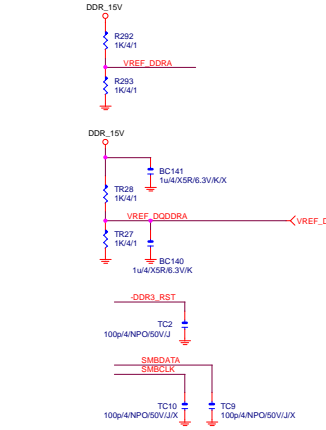
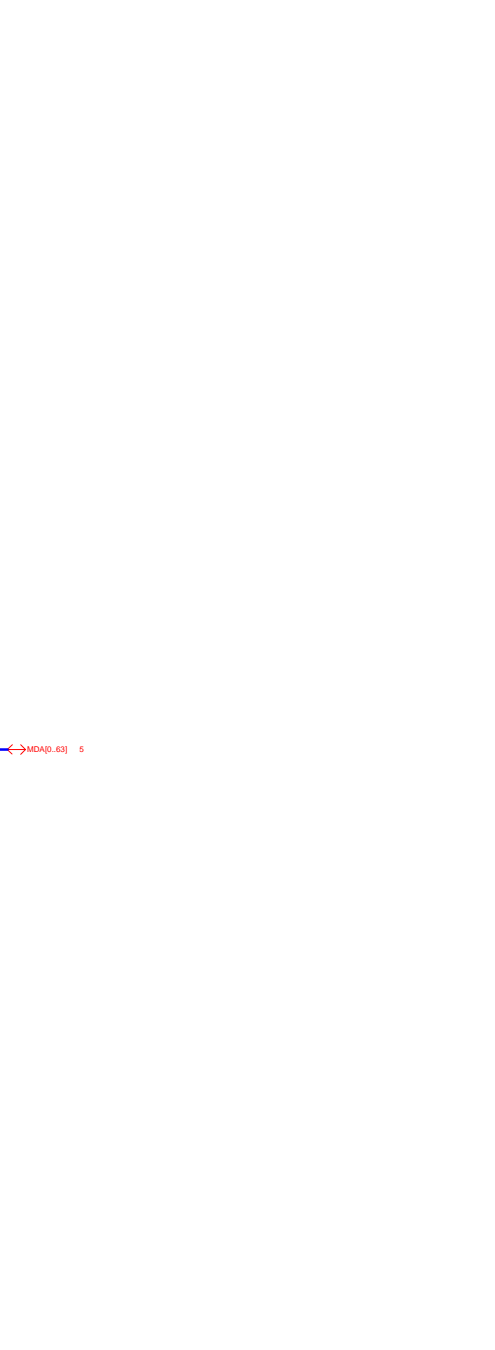
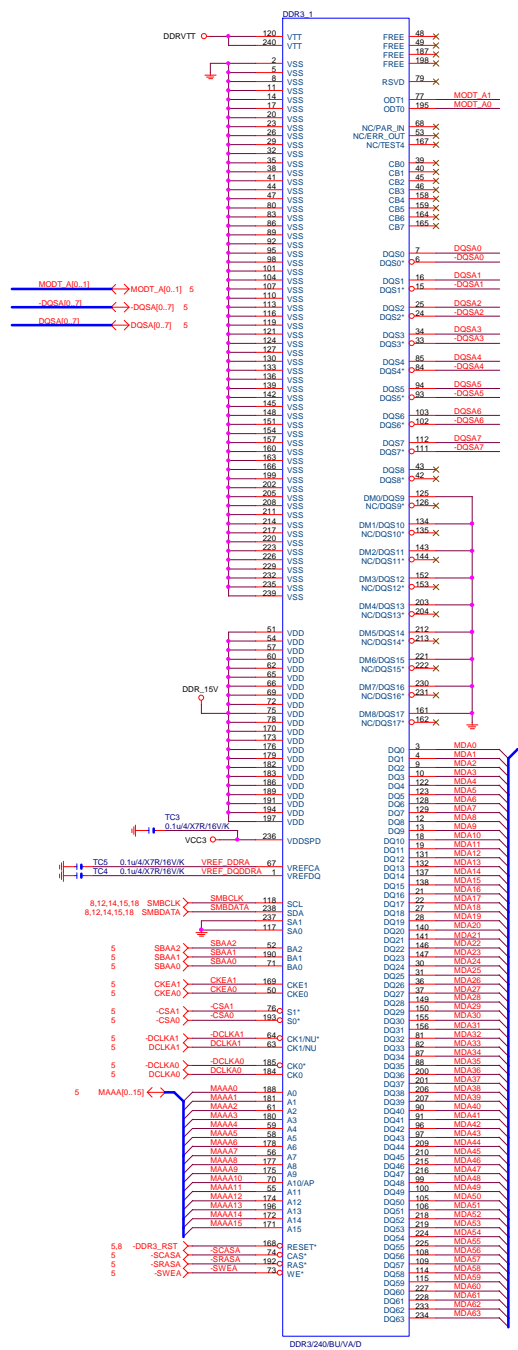
Gigabyte Technology

CPU LGA1156-B

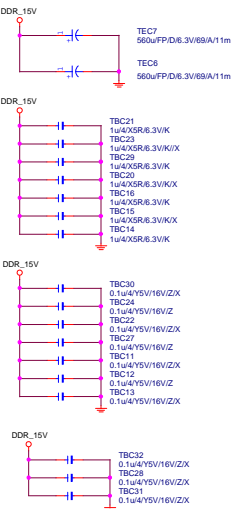
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Size	Document Number	GA-H61M-DS2
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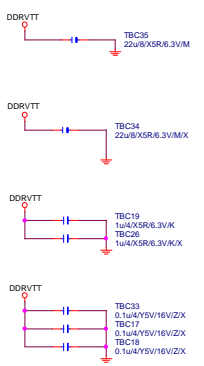
Gigabyte Technology			
CPU LGA1156-C			
Size	Document Number	Rev	
Custom	GA-H61M-DS2	2.01	
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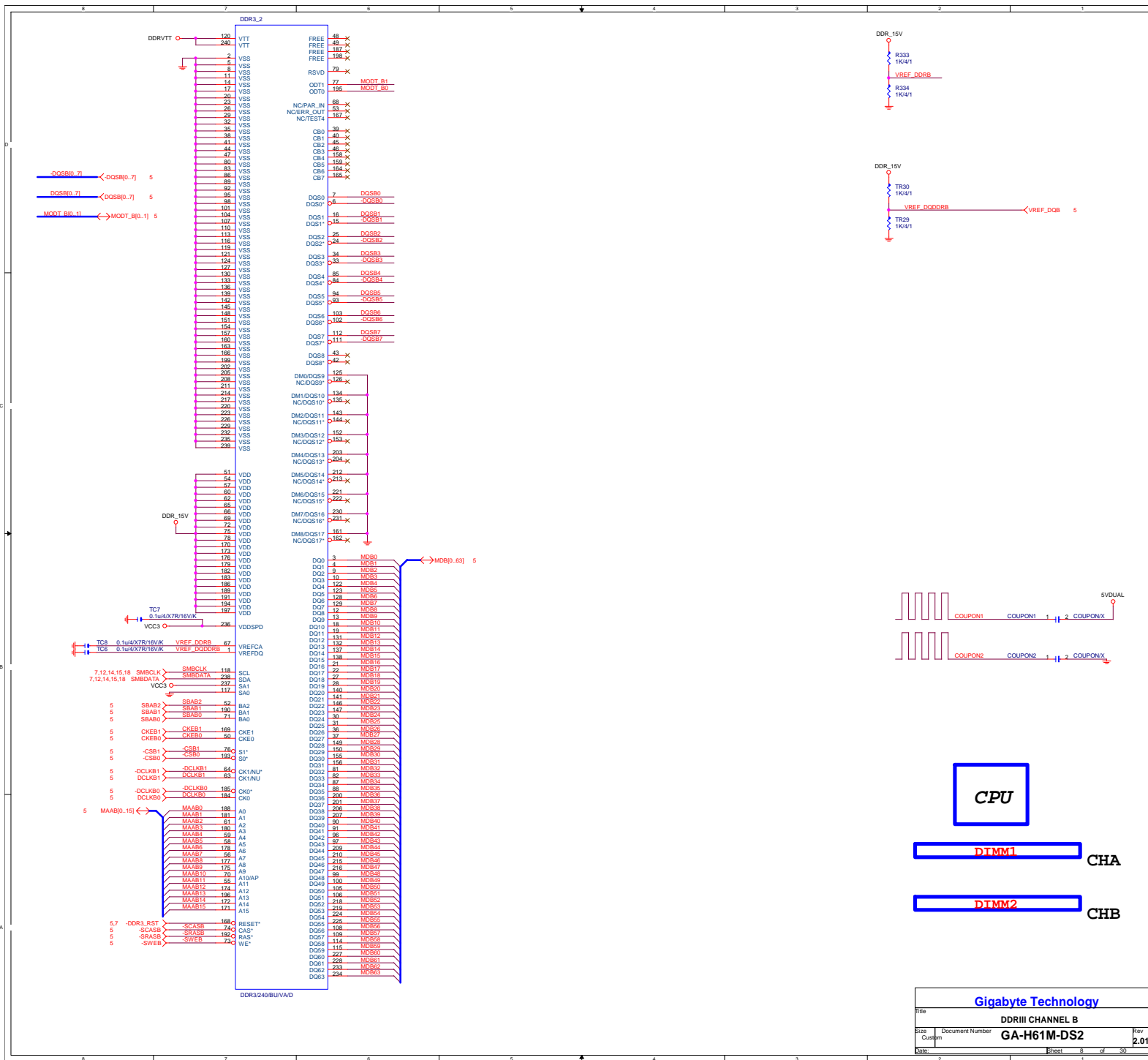


DDR15V Decouple



DDRVRTT Decouple



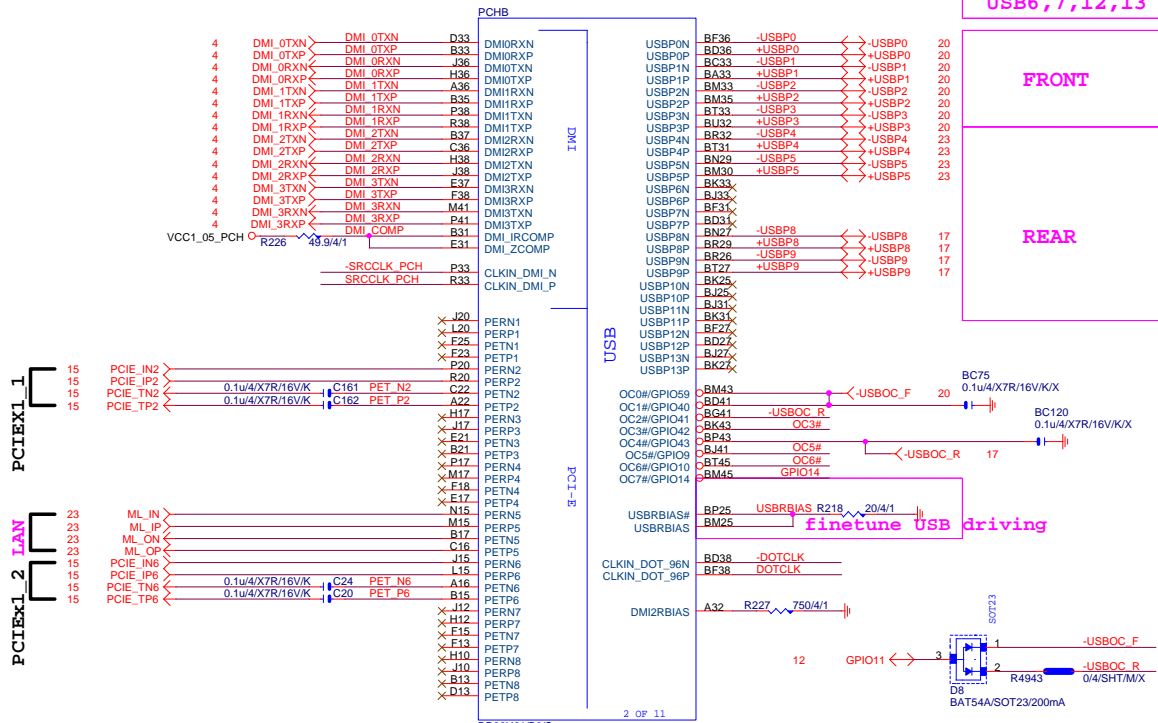
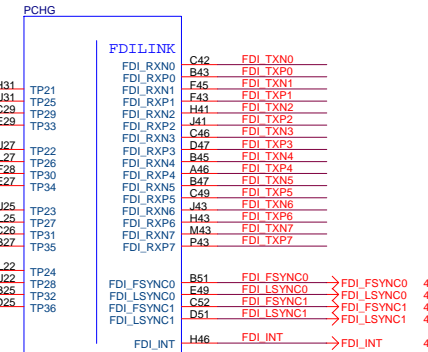


Gigabyte Technology		
Title DDRIII CHANNEL B		
Size	Document Number	Rev
Custpm	GA-H61M-DS2	2.01
Date	Sheet 8 of 30	

H61 disable
USB6,7,12,13

FRONT

REAR



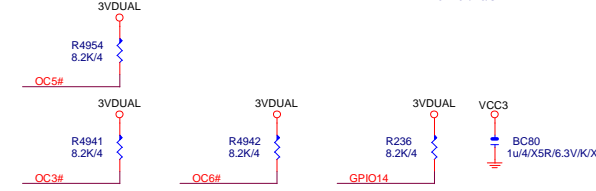
PCIEX1_1

PCIEX1_2 LAN

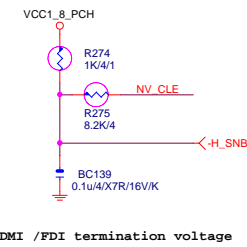
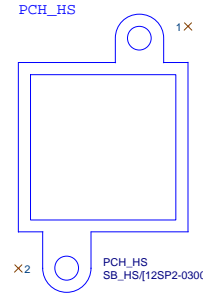
finetune USB driving

FOR FUSE SHORT GPIO

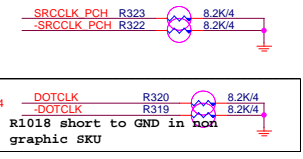
USB OC#	Configure for H61
OC0#	USB0,1(F_USB1)
OC1#	USB2,3(F_USB2)
OC2#	USB4,5(USB_LAN)
OC3#	N/A
OC4#	USB8,9(R_USB1)
OC5#	USB10-11(R_USB2)
OC6#	N/A
OC7#	GPIO14



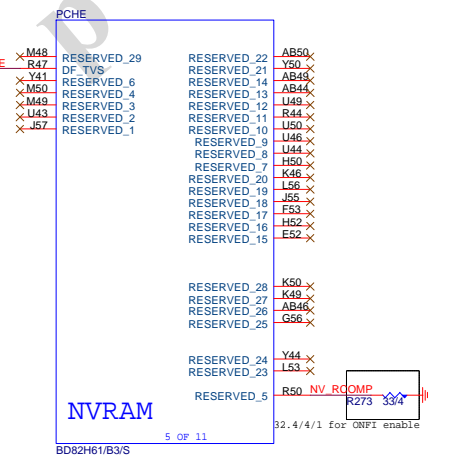
NEW FOOTPRINT: BGAHSINK_PCH_HS



DMI / FDI termination voltage



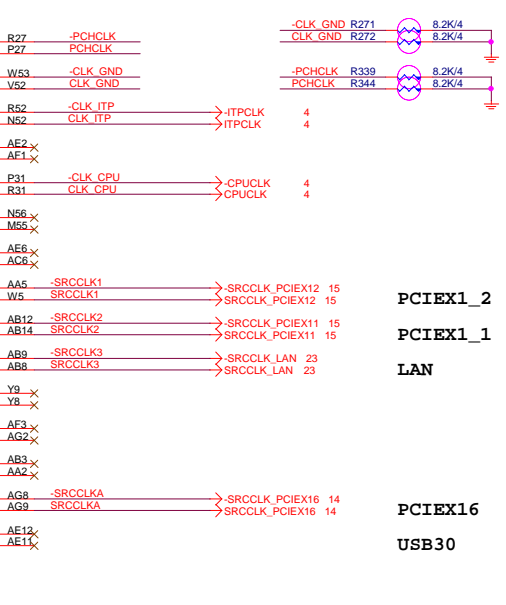
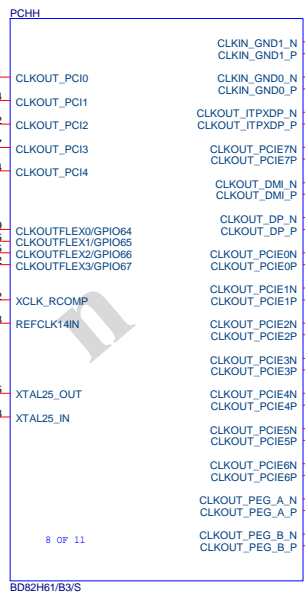
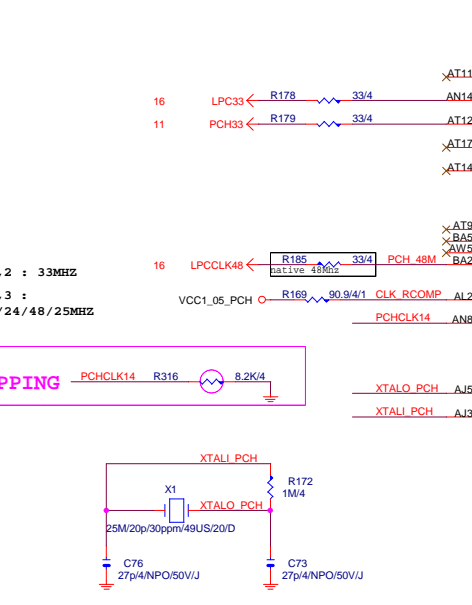
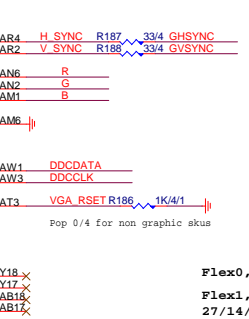
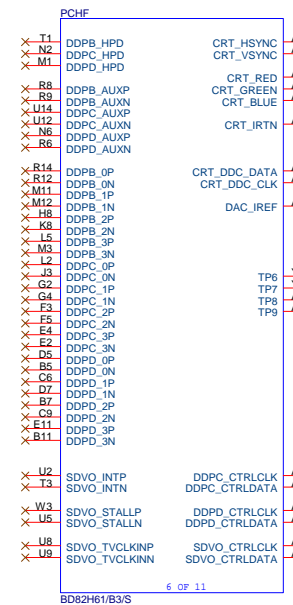
INTERNAL CLK STRAPPING



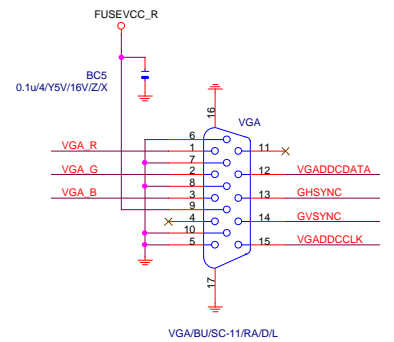
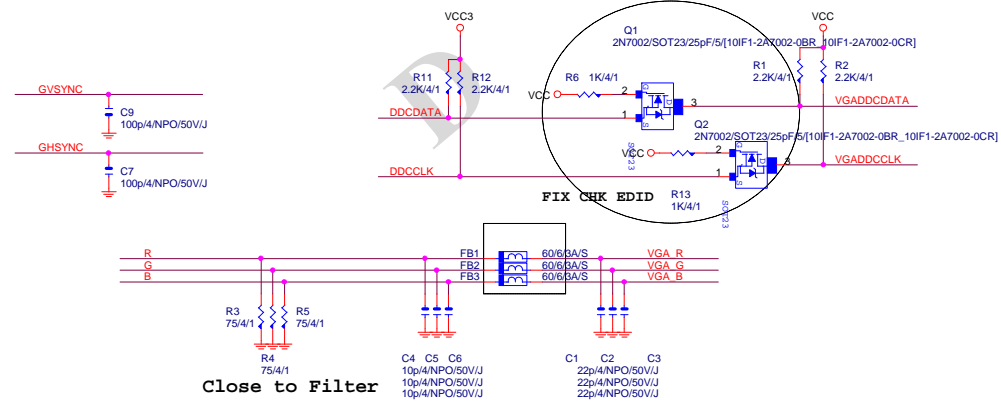
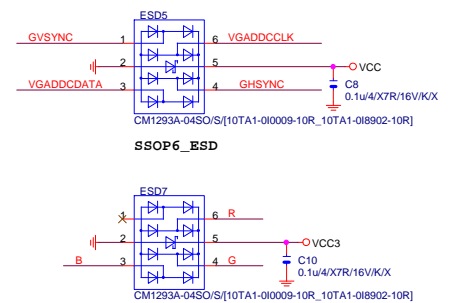
NVRAM

Gigabyte Technology

Title			PCH FDI,DMI,USB ,PCIE,NVRAM		
Size	Document Number	Rev			
Custom	GA-H61M-DS2	2.01			
Date:	Wednesday, November 30, 2011	Sheet	9	of	30

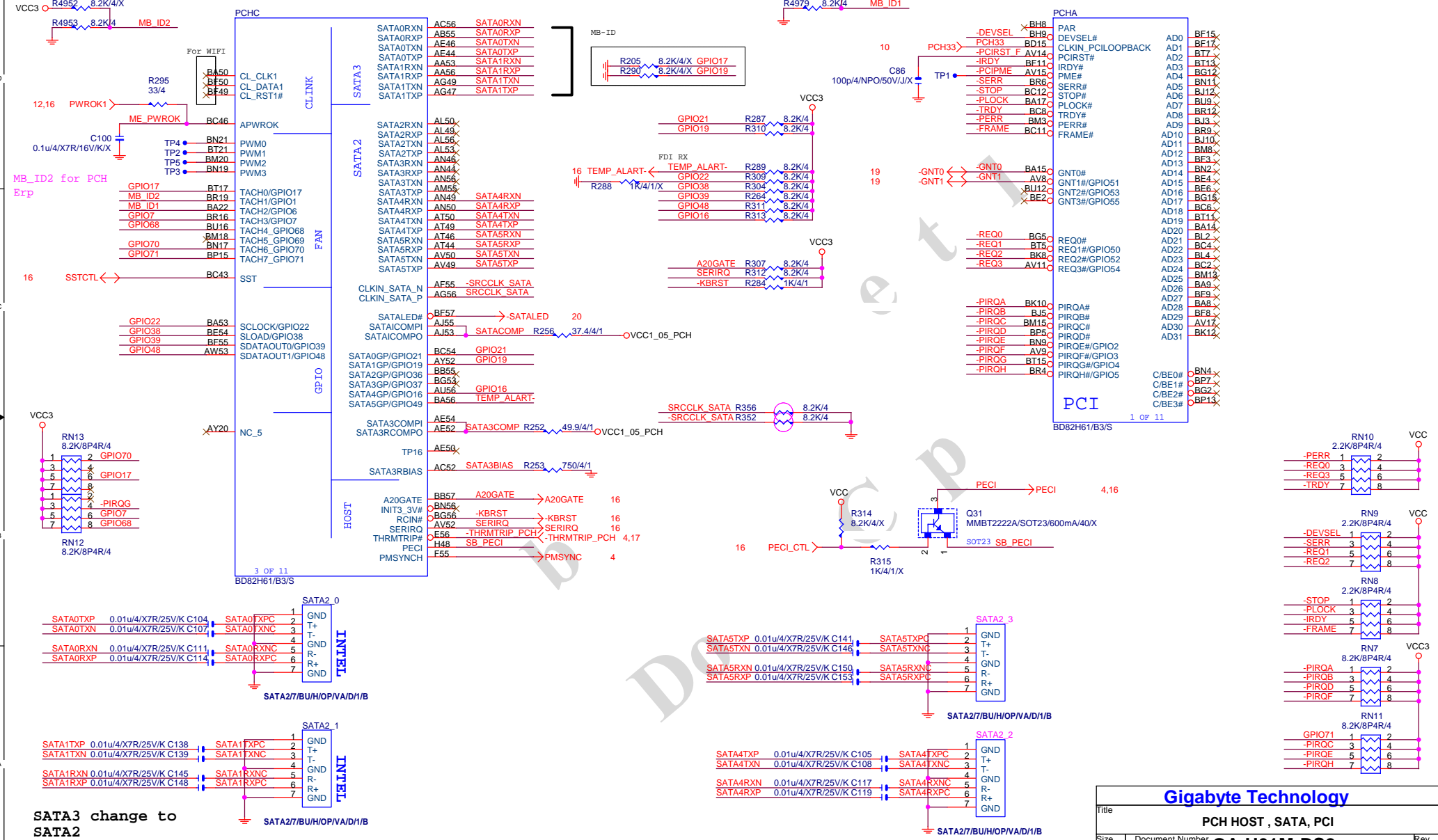


PCIEX1_2
PCIEX1_1
LAN
PCIEX16
USB30



Gigabyte Technology			
PCH DISPLAY, CLK BUFFER			
Title	Document Number	Rev	
Size	Custom	GA-H61M-DS2	
Date:	Wednesday, November 30, 2011	Sheet	10 of 30

H61 SATA3.0 Disable

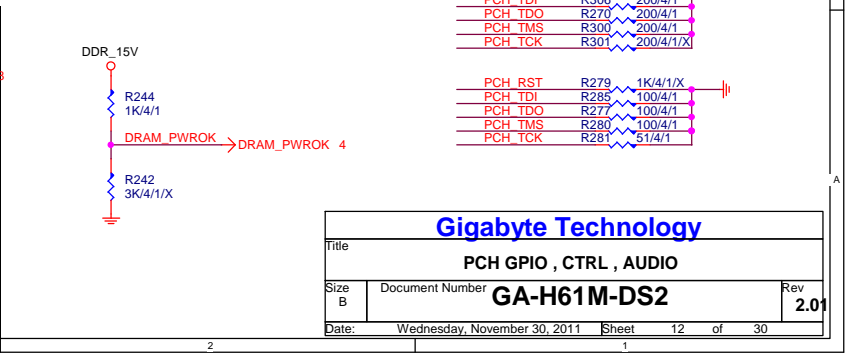
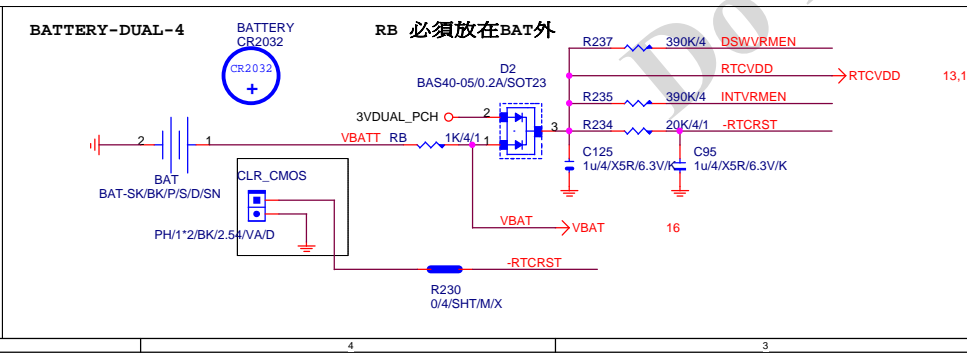
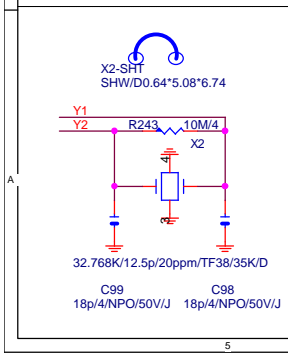
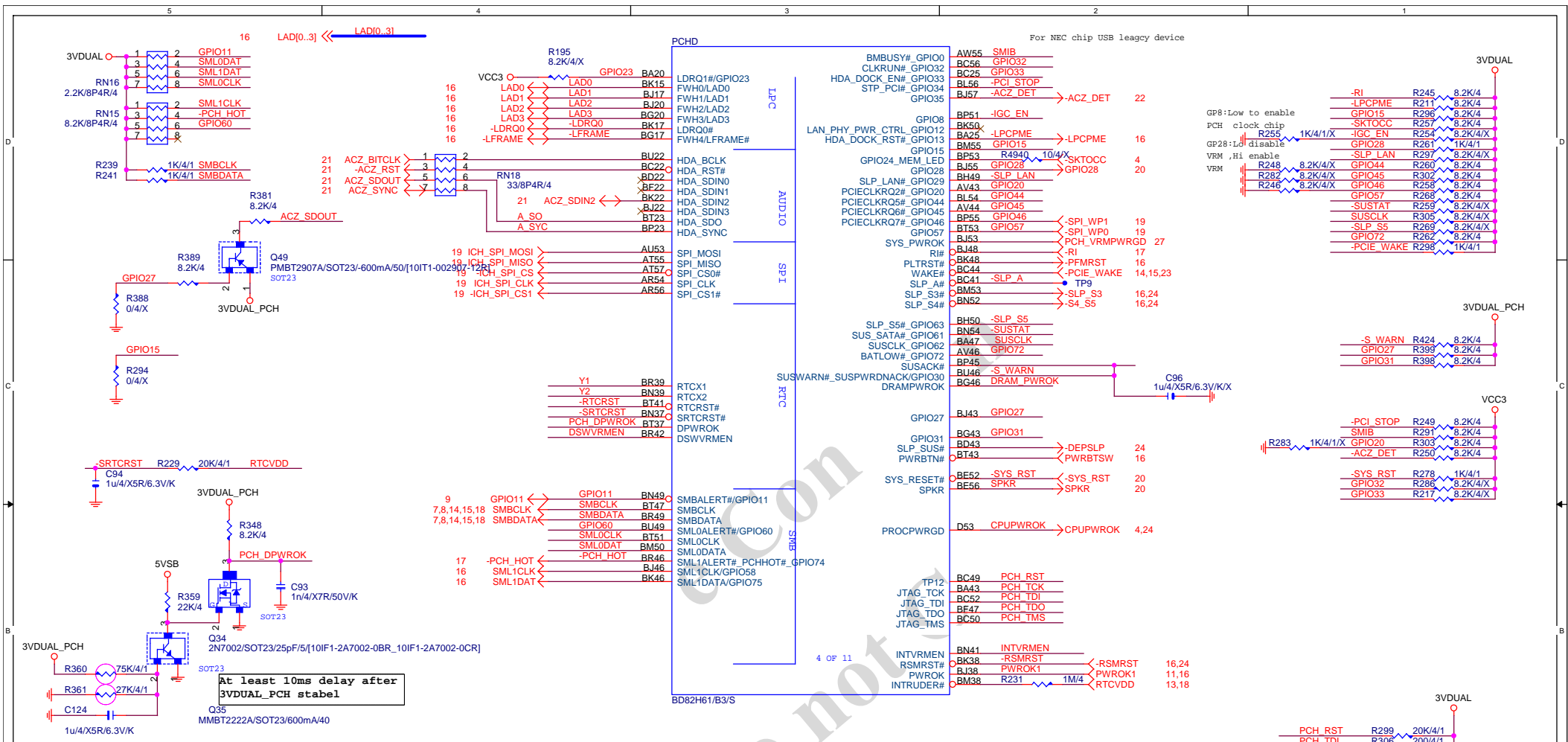


SATA3 change to SATA2

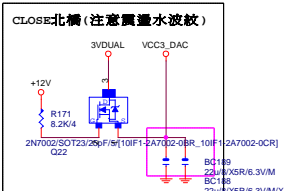
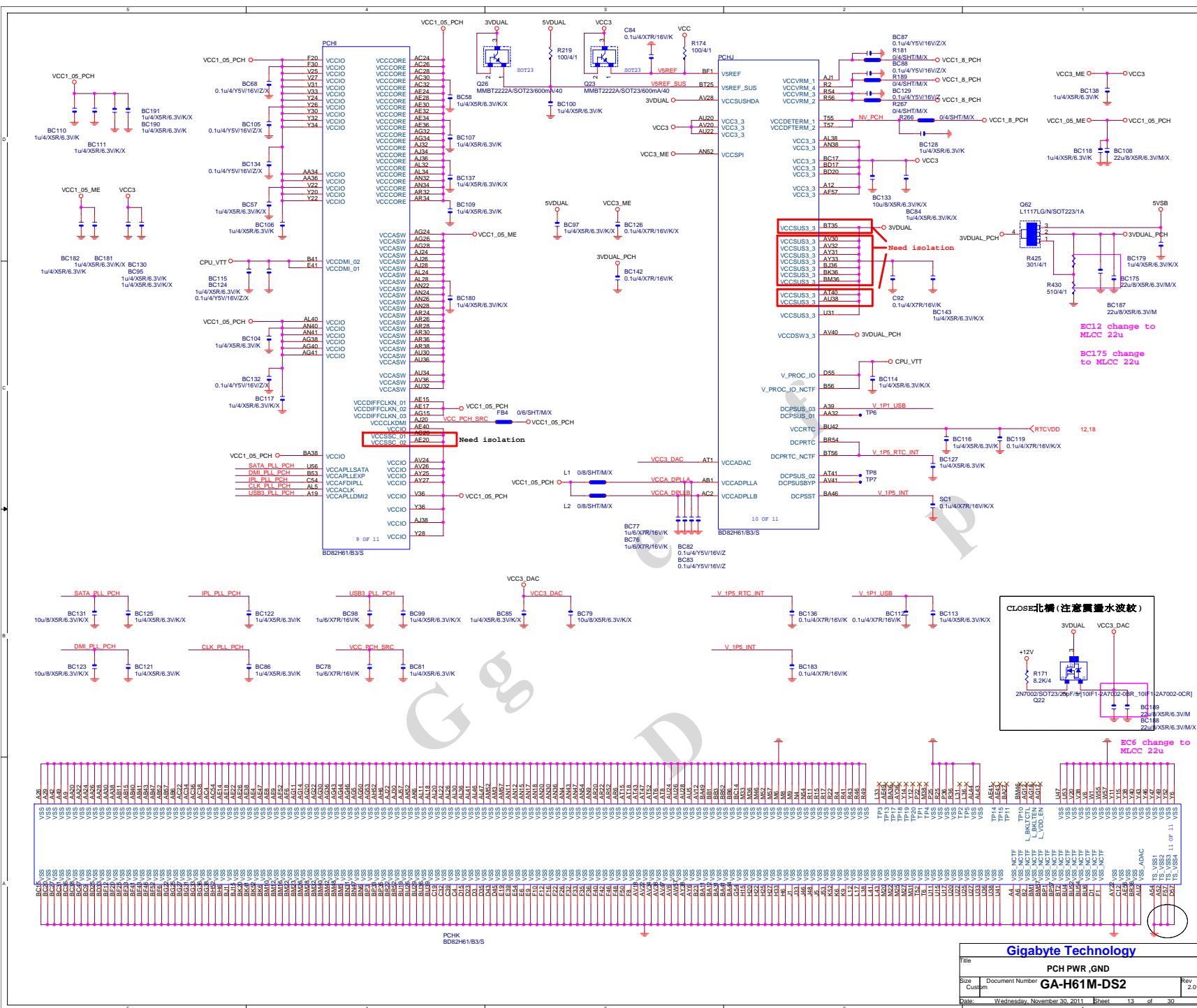
H1X7-SATA2-HS-MASK

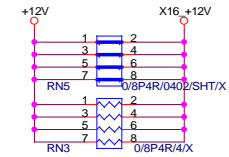
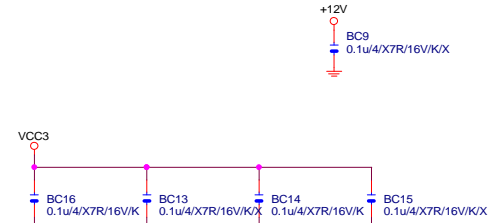
Gigabyte Technology

Title: PCH HOST, SATA, PCI		
Size B	Document Number: GA-H61M-DS2	Rev: 2.01
Date:	Wednesday, November 30, 2011	Sheet 11 of 30

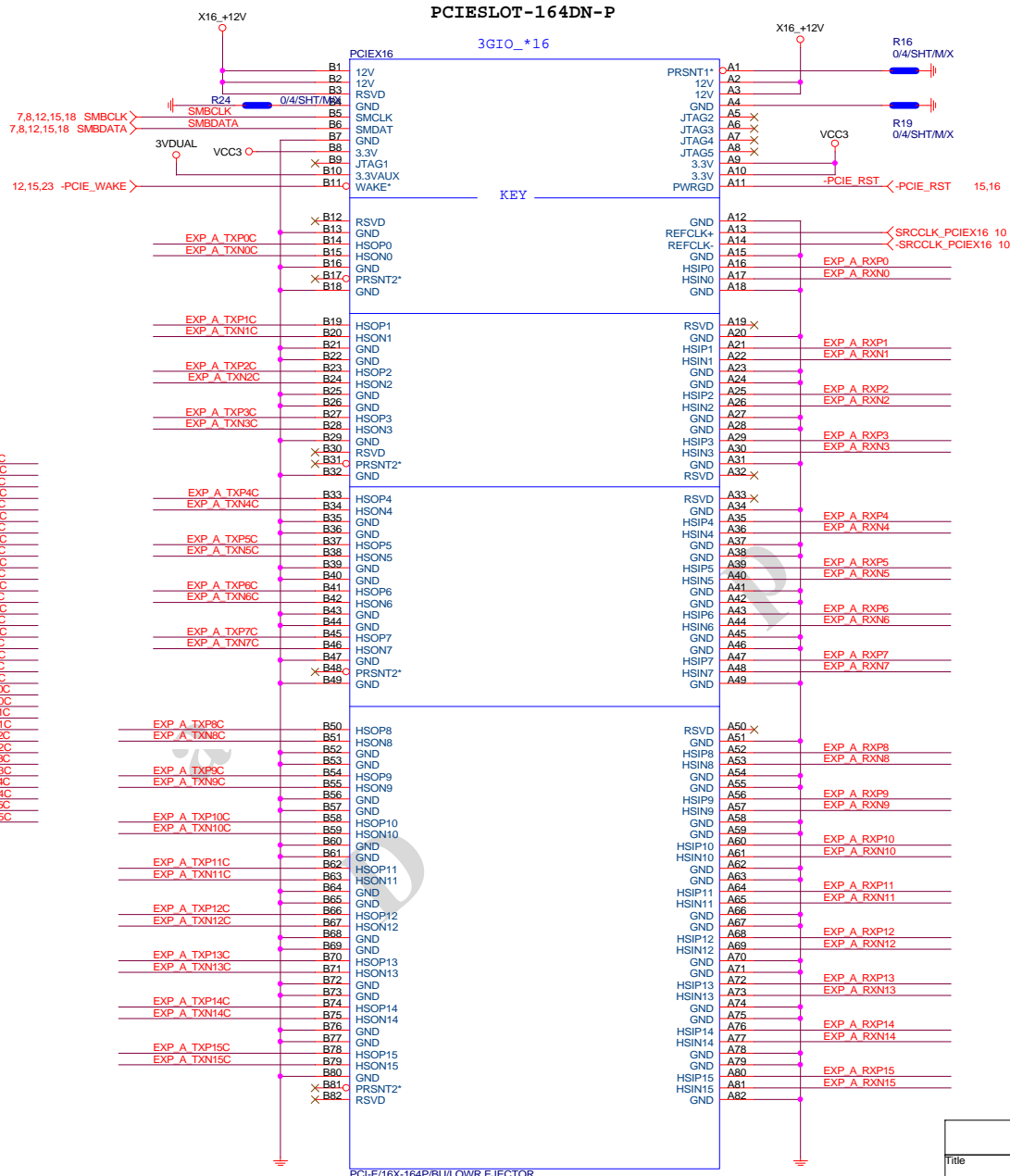


Gigabyte Technology			
PCH GPIO , CTRL , AUDIO			
Size B	Document Number	GA-H61M-DS2	Rev 2.01
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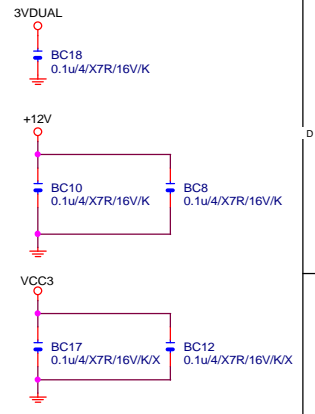
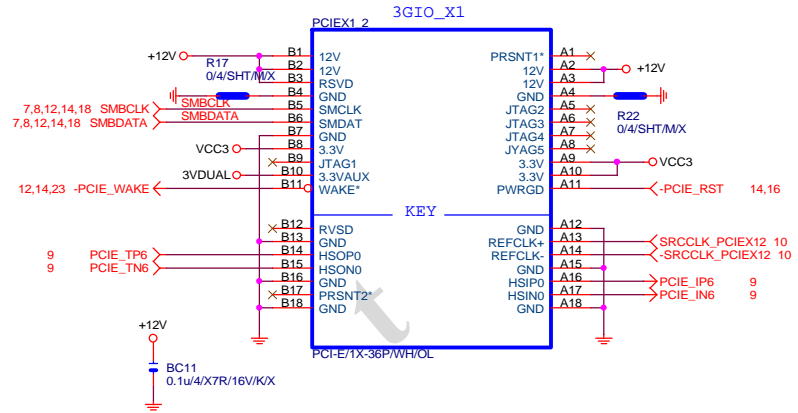
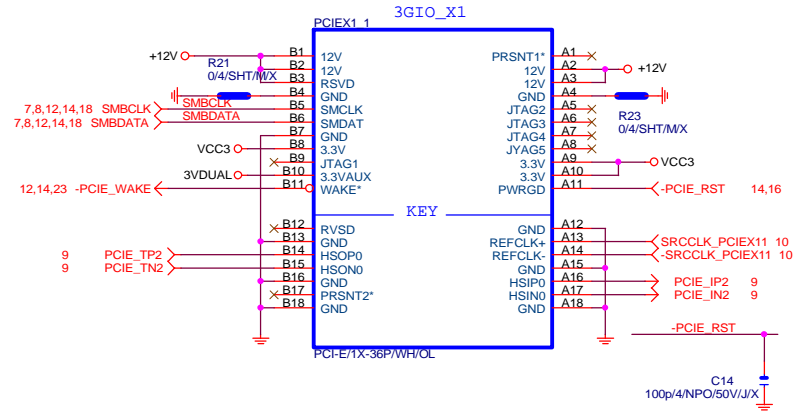
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EXP_A_TXN0	C26	0.22u/4X5R/6.3V/K	EXP_A_TXN0C
EXP_A_TXP1	C29	0.22u/4X5R/6.3V/K	EXP_A_TXP1C
EXP_A_TXN1	C31	0.22u/4X5R/6.3V/K	EXP_A_TXN1C
EXP_A_TXP2	C33	0.22u/4X5R/6.3V/K	EXP_A_TXP2C
EXP_A_TXN2	C35	0.22u/4X5R/6.3V/K	EXP_A_TXN2C
EXP_A_TXP3	C37	0.22u/4X5R/6.3V/K	EXP_A_TXP3C
EXP_A_TXN3	C40	0.22u/4X5R/6.3V/K	EXP_A_TXN3C
EXP_A_TXP4	C48	0.22u/4X5R/6.3V/K	EXP_A_TXP4C
EXP_A_TXN4	C49	0.22u/4X5R/6.3V/K	EXP_A_TXN4C
EXP_A_TXP5	C52	0.22u/4X5R/6.3V/K	EXP_A_TXP5C
EXP_A_TXN5	C54	0.22u/4X5R/6.3V/K	EXP_A_TXN5C
EXP_A_TXP6	C56	0.22u/4X5R/6.3V/K	EXP_A_TXP6C
EXP_A_TXN6	C58	0.22u/4X5R/6.3V/K	EXP_A_TXN6C
EXP_A_TXP7	C60	0.22u/4X5R/6.3V/K	EXP_A_TXP7C
EXP_A_TXN7	C61	0.22u/4X5R/6.3V/K	EXP_A_TXN7C
EXP_A_TXP8	C63	0.22u/4X5R/6.3V/K	EXP_A_TXP8C
EXP_A_TXN8	C64	0.22u/4X5R/6.3V/K	EXP_A_TXN8C
EXP_A_TXP9	C66	0.22u/4X5R/6.3V/K	EXP_A_TXP9C
EXP_A_TXN9	C67	0.22u/4X5R/6.3V/K	EXP_A_TXN9C
EXP_A_TXP10	C69	0.22u/4X5R/6.3V/K	EXP_A_TXP10C
EXP_A_TXN10	C70	0.22u/4X5R/6.3V/K	EXP_A_TXN10C
EXP_A_TXP11	C71	0.22u/4X5R/6.3V/K	EXP_A_TXP11C
EXP_A_TXN11	C72	0.22u/4X5R/6.3V/K	EXP_A_TXN11C
EXP_A_TXP12	C74	0.22u/4X5R/6.3V/K	EXP_A_TXP12C
EXP_A_TXN12	C75	0.22u/4X5R/6.3V/K	EXP_A_TXN12C
EXP_A_TXP13	C77	0.22u/4X5R/6.3V/K	EXP_A_TXP13C
EXP_A_TXN13	C78	0.22u/4X5R/6.3V/K	EXP_A_TXN13C
EXP_A_TXP14	C79	0.22u/4X5R/6.3V/K	EXP_A_TXP14C
EXP_A_TXN14	C80	0.22u/4X5R/6.3V/K	EXP_A_TXN14C
EXP_A_TXP15	C82	0.22u/4X5R/6.3V/K	EXP_A_TXP15C
EXP_A_TXN15	C83	0.22u/4X5R/6.3V/K	EXP_A_TXN15C



Gigabyte Technology

Title		PCI EXPRESS * 16	
Size	Document Number	GA-H61M-DS2	
Custom		Rev	2.01
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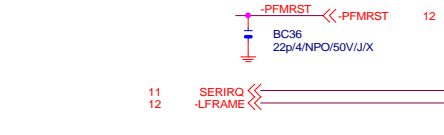
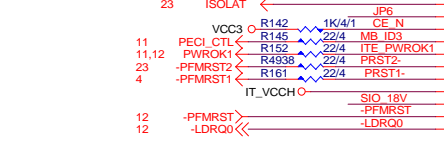
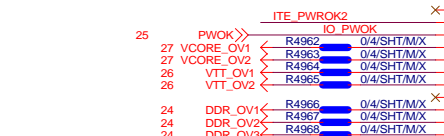
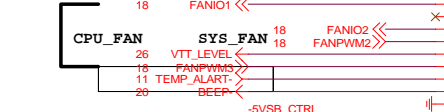
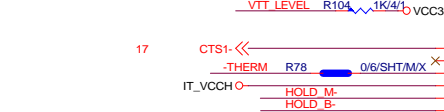
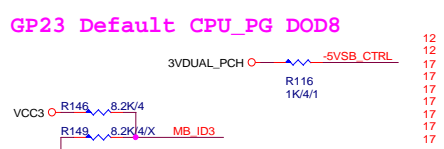
PCIE*1



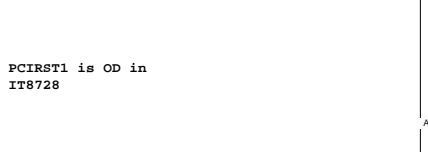
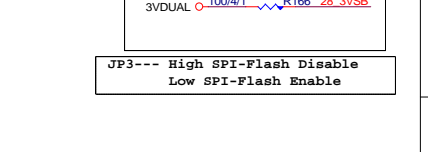
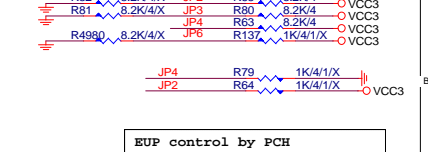
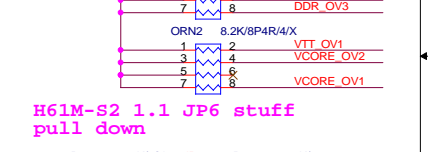
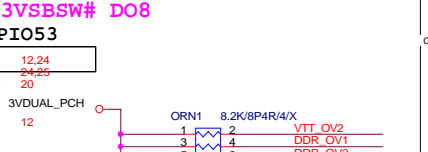
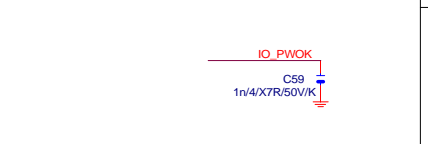
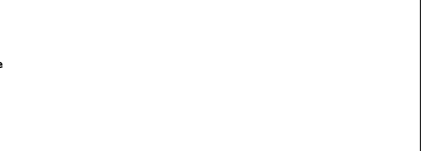
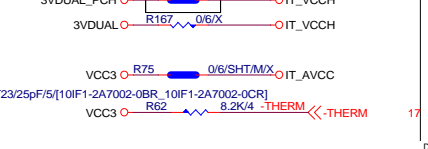
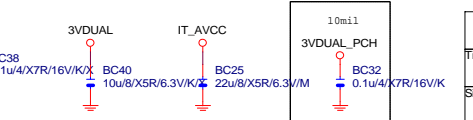
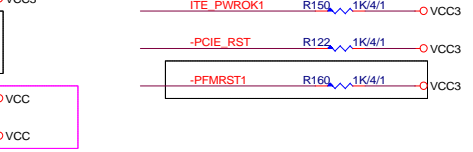
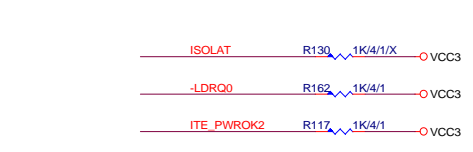
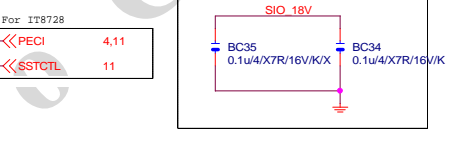
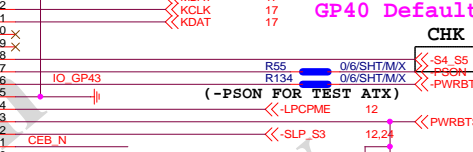
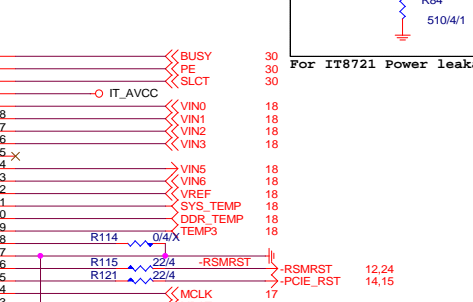
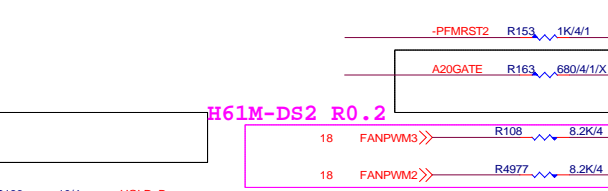
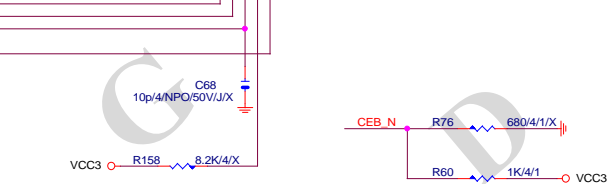
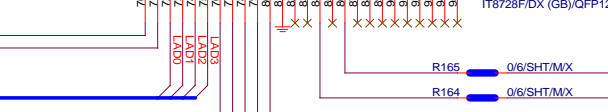
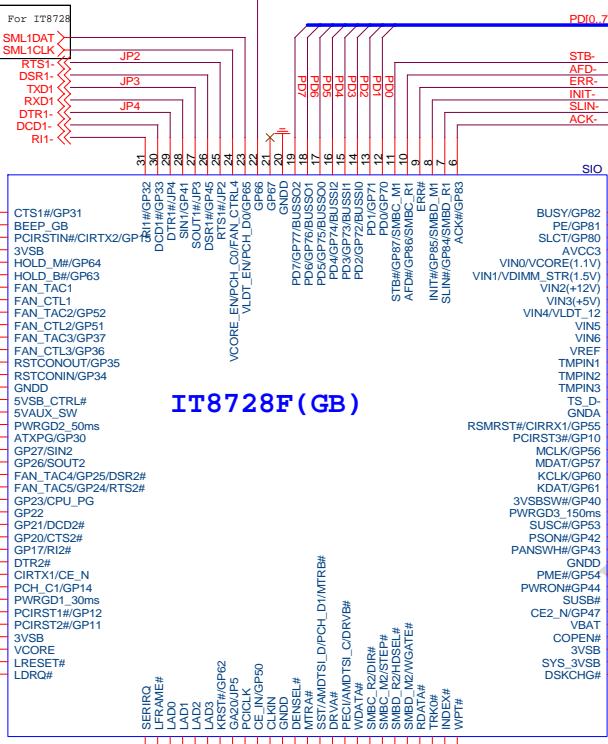
CLK GEN

Gigabyte Technology			
PCIEX1,X2/CLK GEN			
Size Custom	Document Number	GA-H61M-DS2	Rev 2.01
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GP22 Default GP22 DIOD8
GP23 Default CPU_PG DOD8



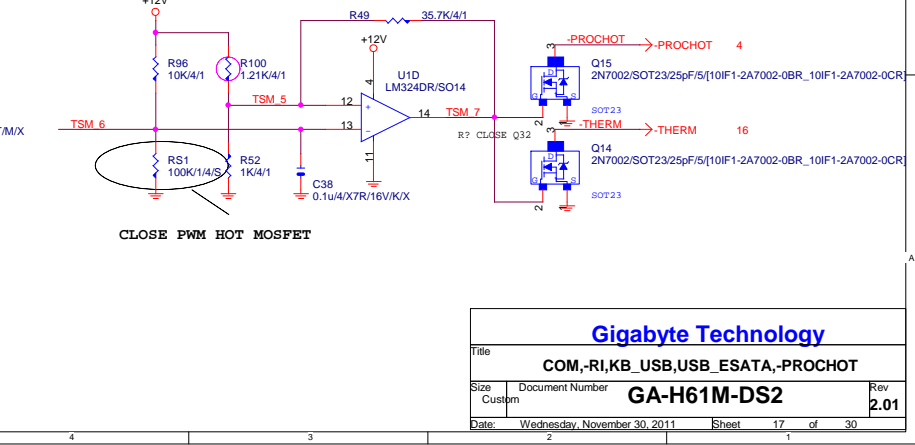
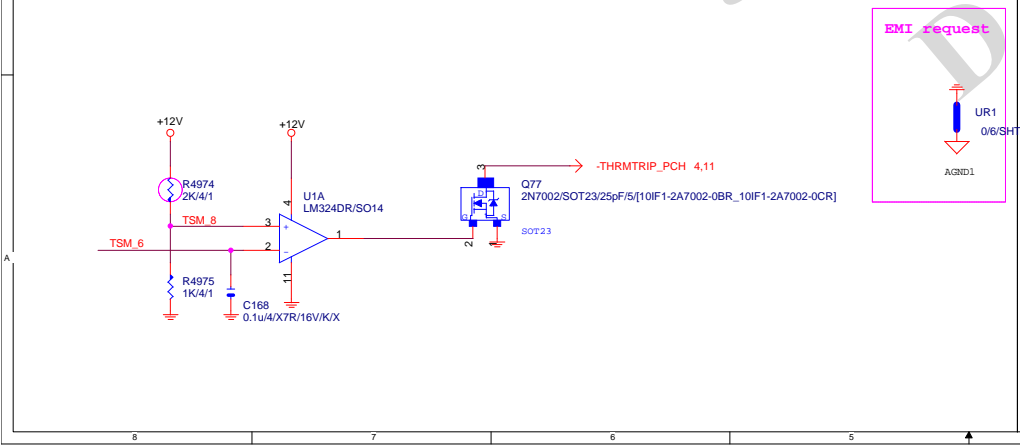
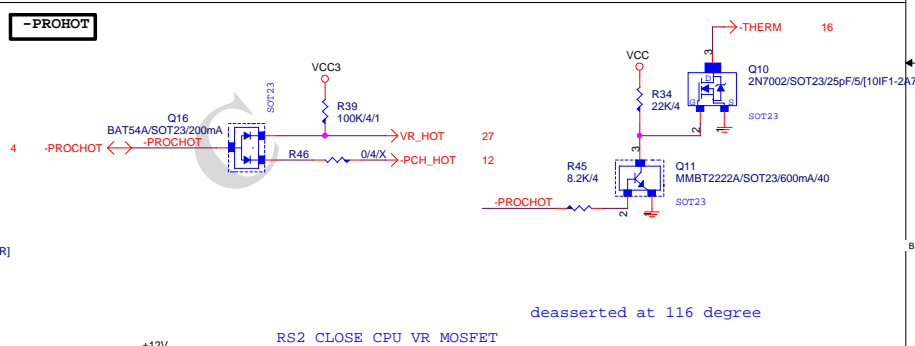
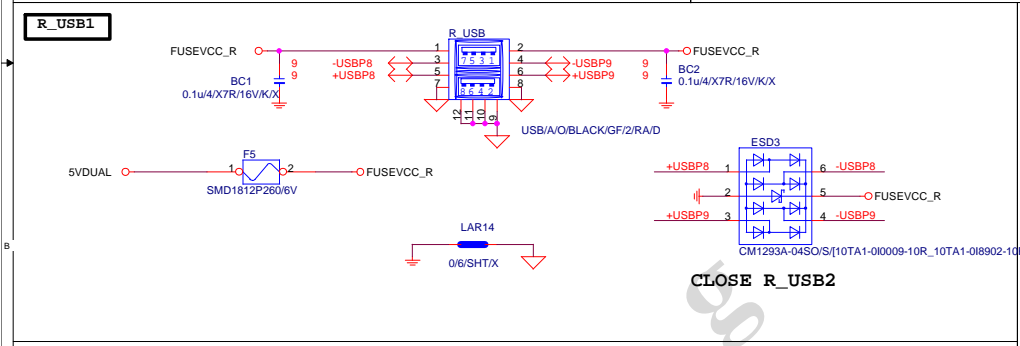
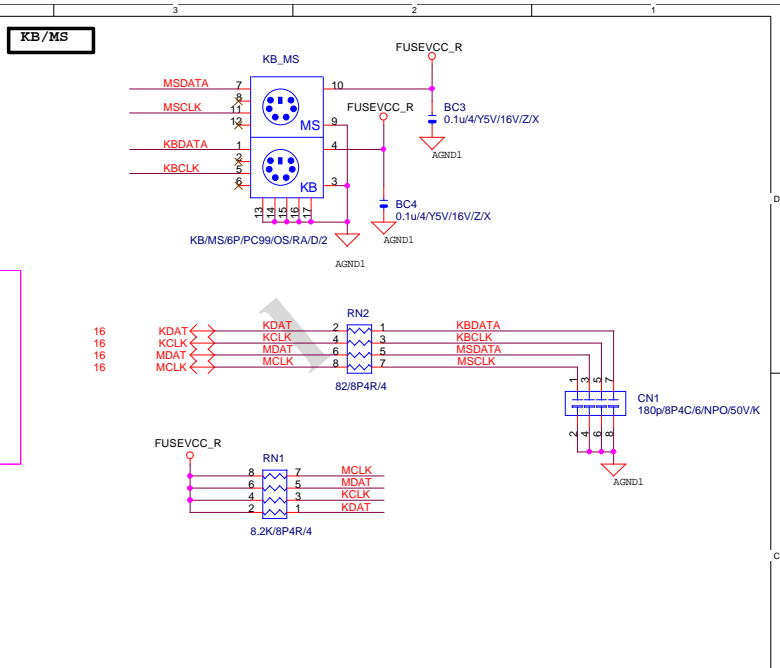
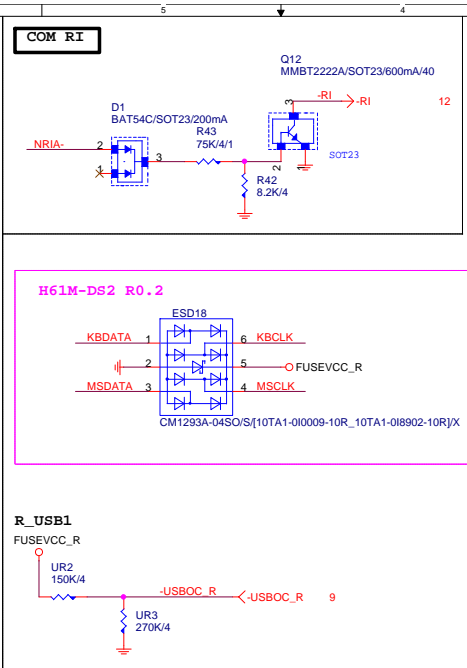
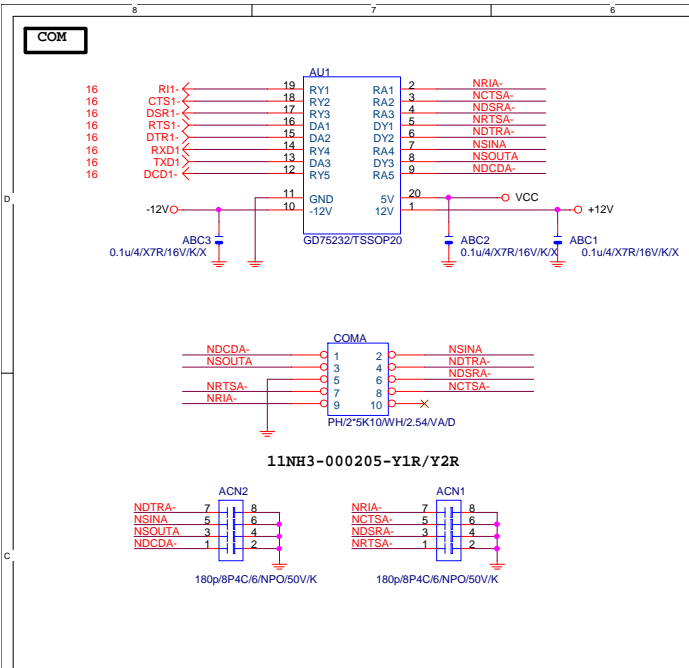
IT8728	
PIN121	VCORE_EN/PCH_C0
PIN120	VLDT_EN/PCH_D0
PIN19	ATXPG
PIN31	PCH_C1
PIN53	SST/AMDTSI_D/MIRB#/PCH_DI
PIN55	PECI/AMDTSI_C/DRV#
PIN66	SYS_3VSB
PIN70	GP47
PIN95	VIN2(VCC5)
PIN96	VIN1(VCC12)
PIN97	VIN1/VDIMM_STR(1.5V)
PIN98	VIN0/VCORE(1.1V)/VNC



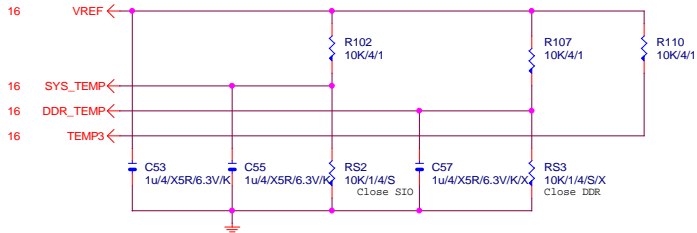
Gigabyte Technology		
Title	ITE 8728 LPC IO	
Size B	Document Number	GA-H61M-DS2
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	Rev	2.01

internal power pin, max 22nF cap

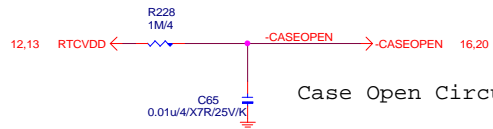
PCIRST1 is od in
IT8728



TEMP H/W MONITOR



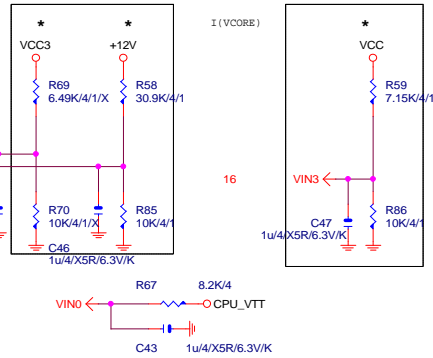
CASE OPEN



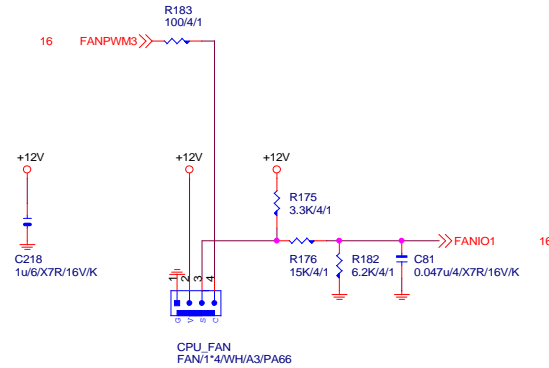
Case Open Circuits

VOLTAGE-- H/W MONITOR

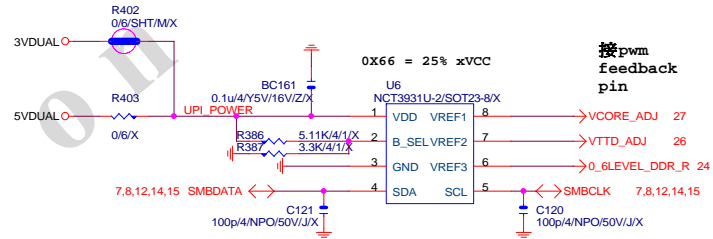
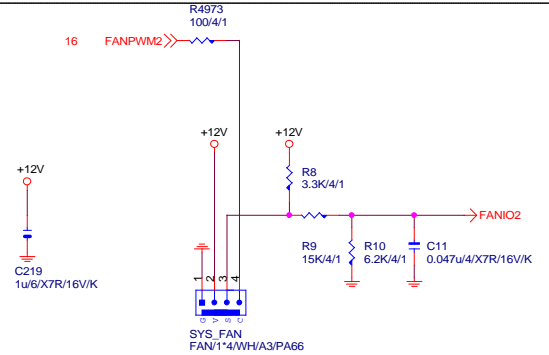
I (VAXG)



CPU SMART FAN



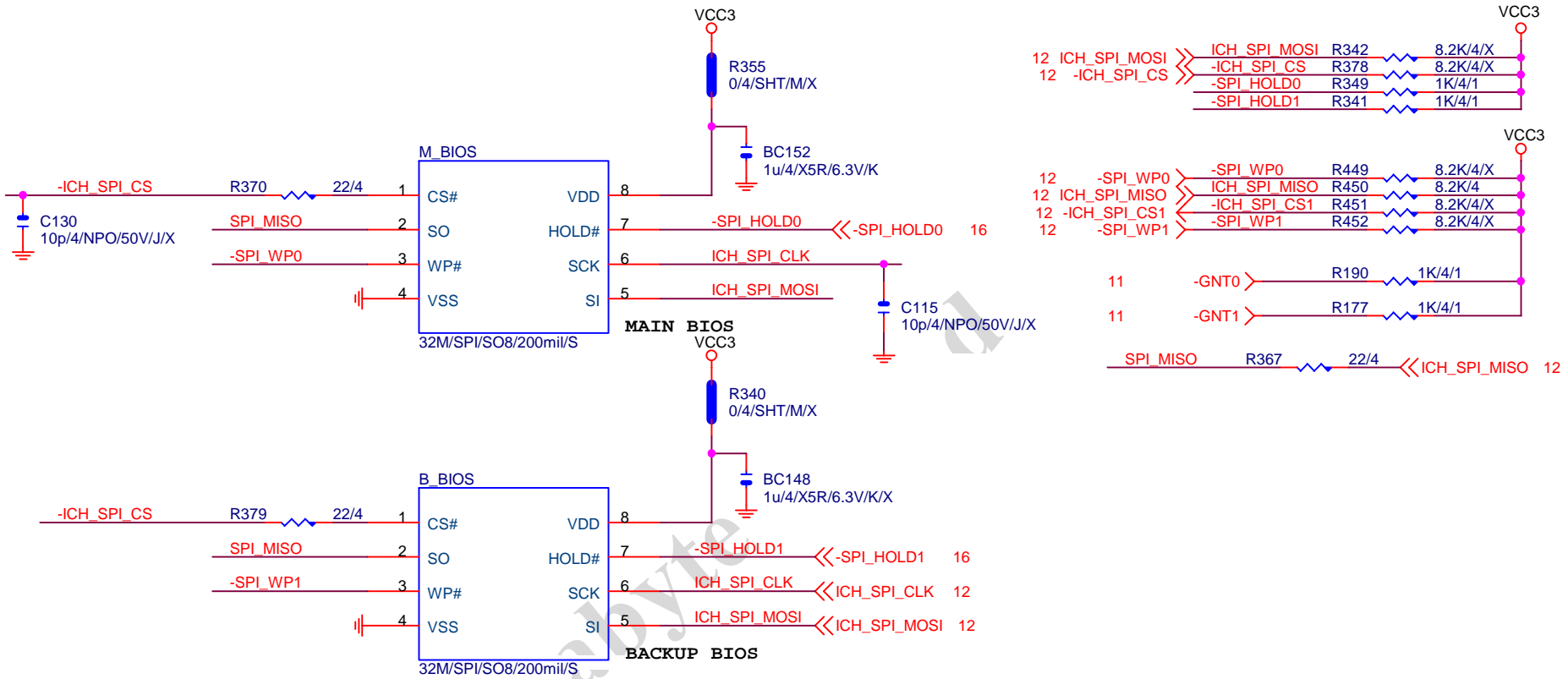
SYS SMART FAN



Gigabyte Technology

Title			HWM,FAN CTRL_OV
Size			GA-H61M-DS2
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DUAL BIOS



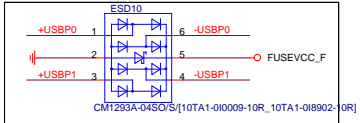
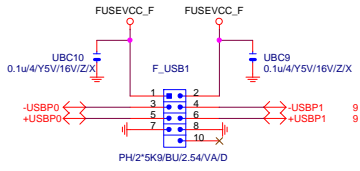
BOOT DEVICE	GNT1	GNT0
LPC	0	0
PCI	0	1
SPI	1	1

1 means floating
0 means PD 1K

Gigabyte Technology

Title		
DUAL BIOS		
Size A	Document Number	Rev
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FRONT USB1



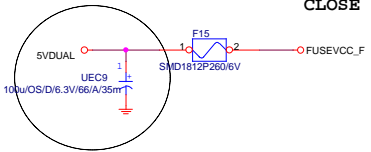
Close to connector

change to BLUE COLOR

SATA LED

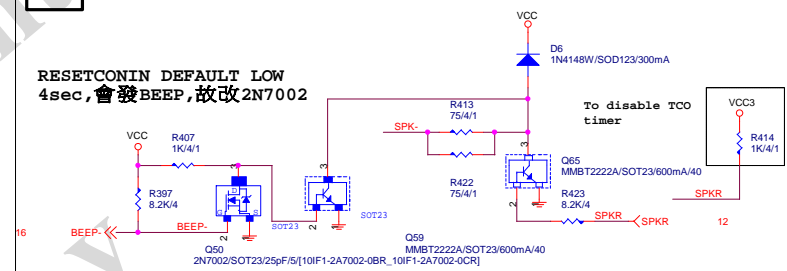


CLOSE F_USB1

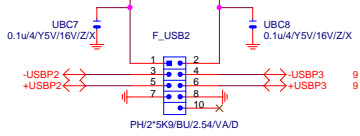


SPKR

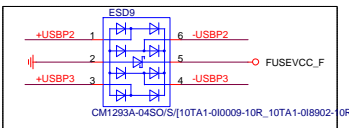
RESETCONIN DEFAULT LOW
4sec, 會發BEEP, 故改2N7002



FRONT USB2

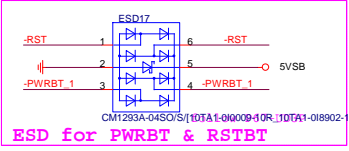


FRONT USB3

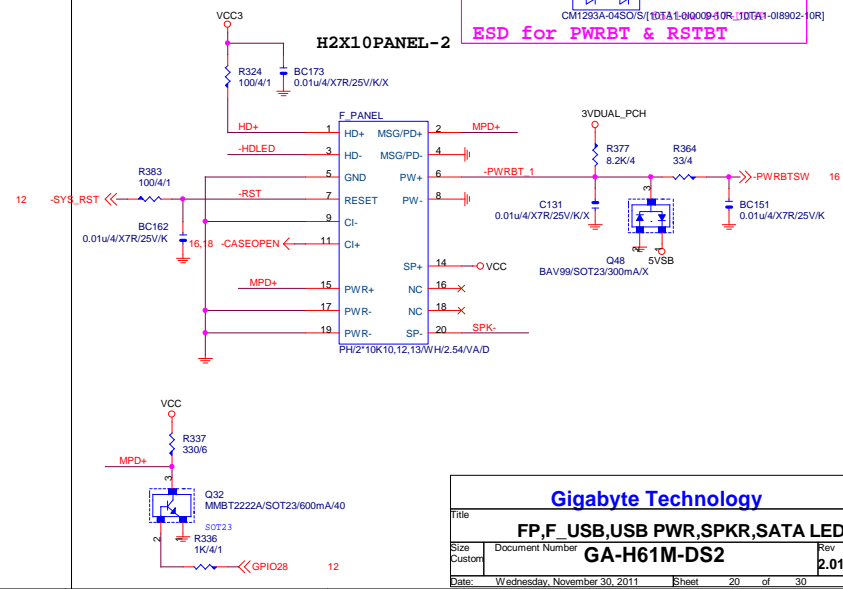


Close to connector

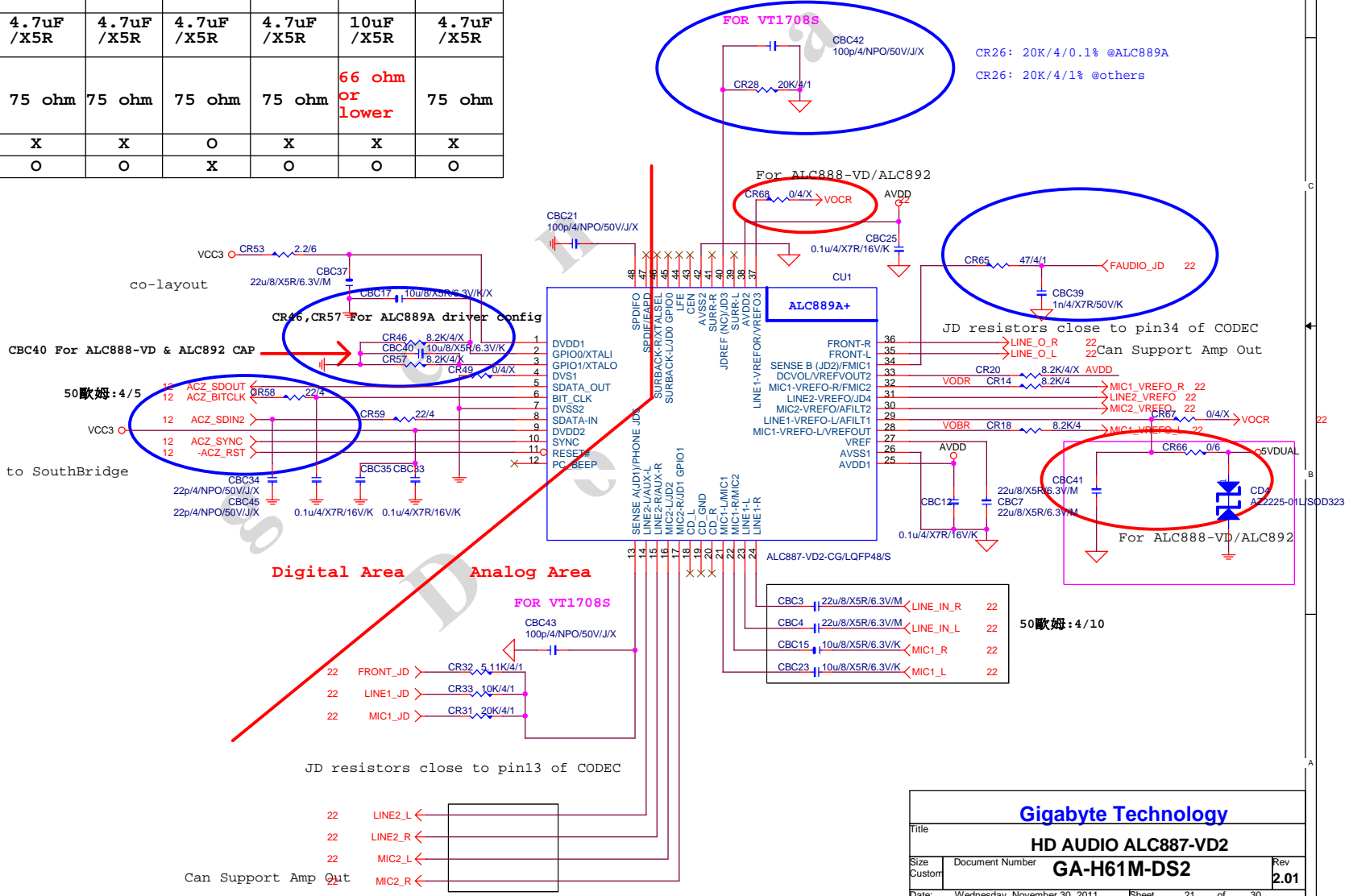
INTEL FRONT PANEL



H2X10PANEL-2



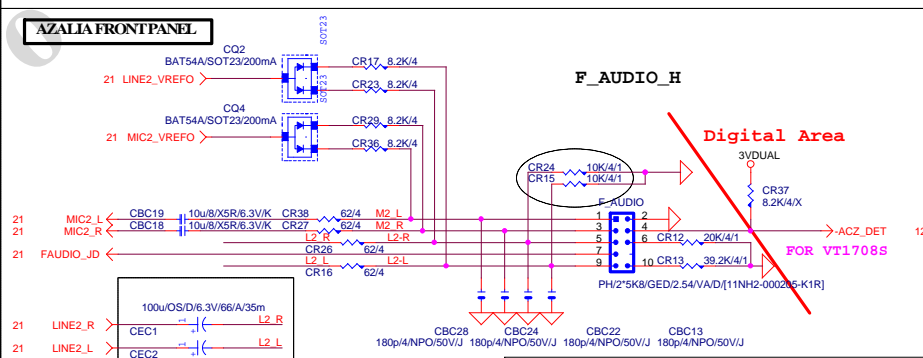
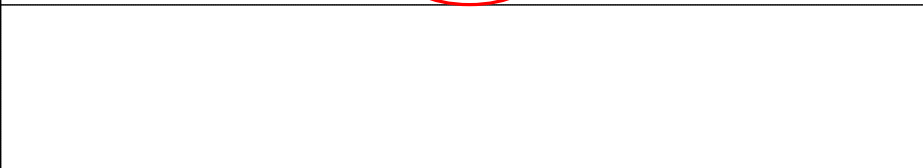
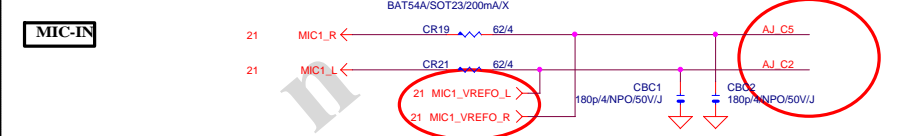
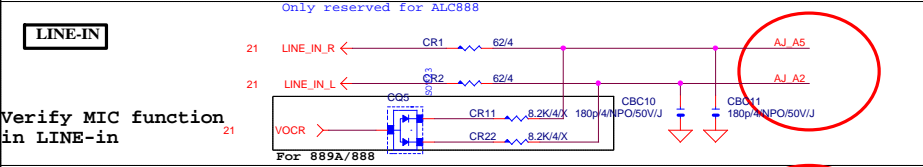
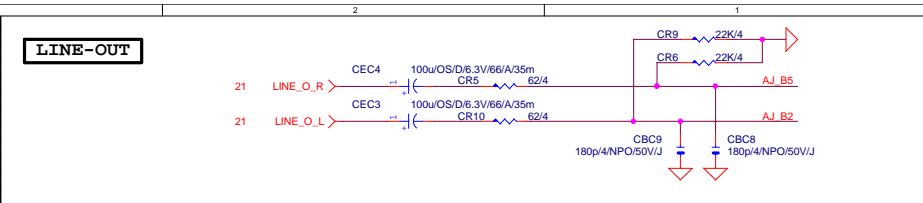
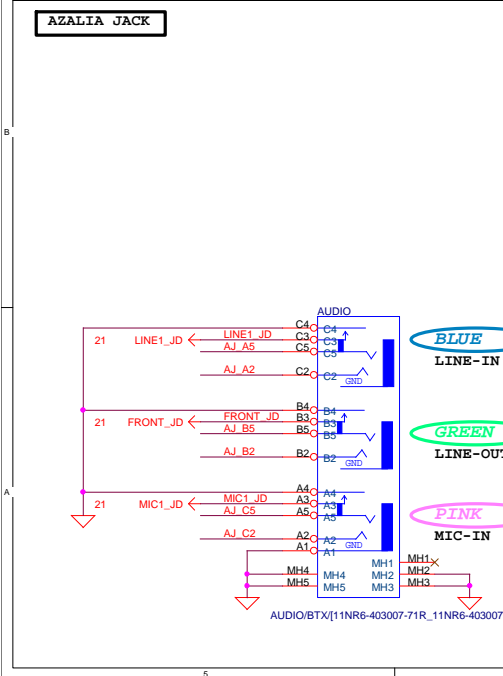
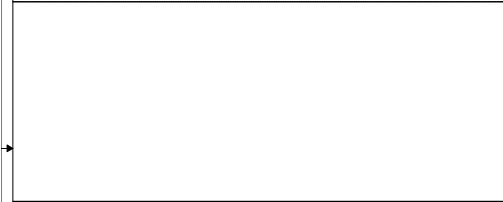
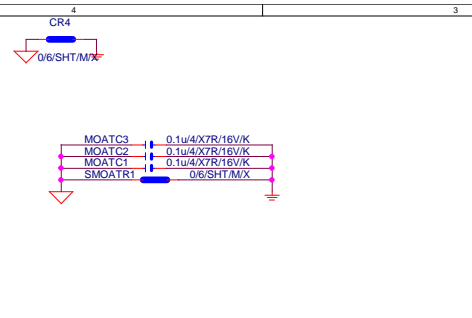
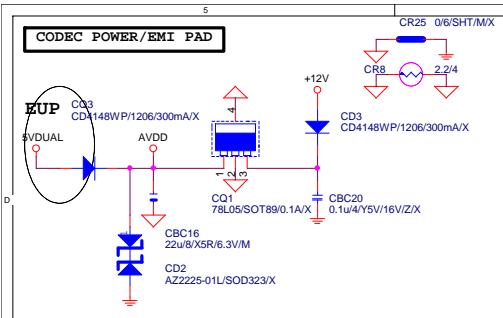
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CR46	X	X	X	X	X	X	O
CR57	X	X	X	X	X	X	O
CR49	O	O	X	X	X	O	O
CBC40	X	X	X	10uF/X5R	10uF/X5R	X	X
CR20	O	X	X	X	X	X	X
CR26	20K/1%	20K/1%	20K/1%	20K/1%	20K/1%	20K/1%	20K/0.1%
CR47	X	X	O	X	O	O	X
CR48	O	O	X	O	X	X	O
CBC2/CBC4/CBC5/CBC6/CBC10/CBC11	4.7uF/X5R	4.7uF/X5R	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



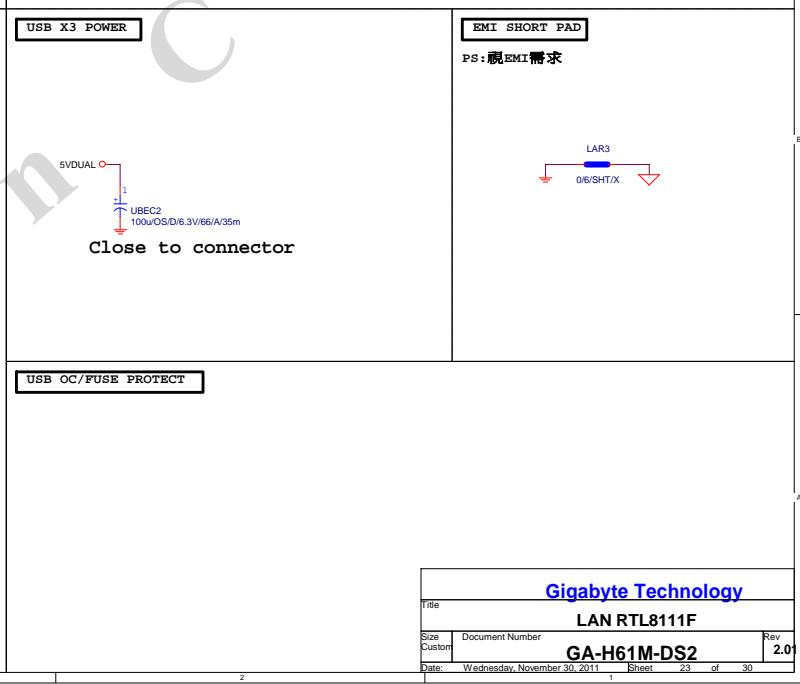
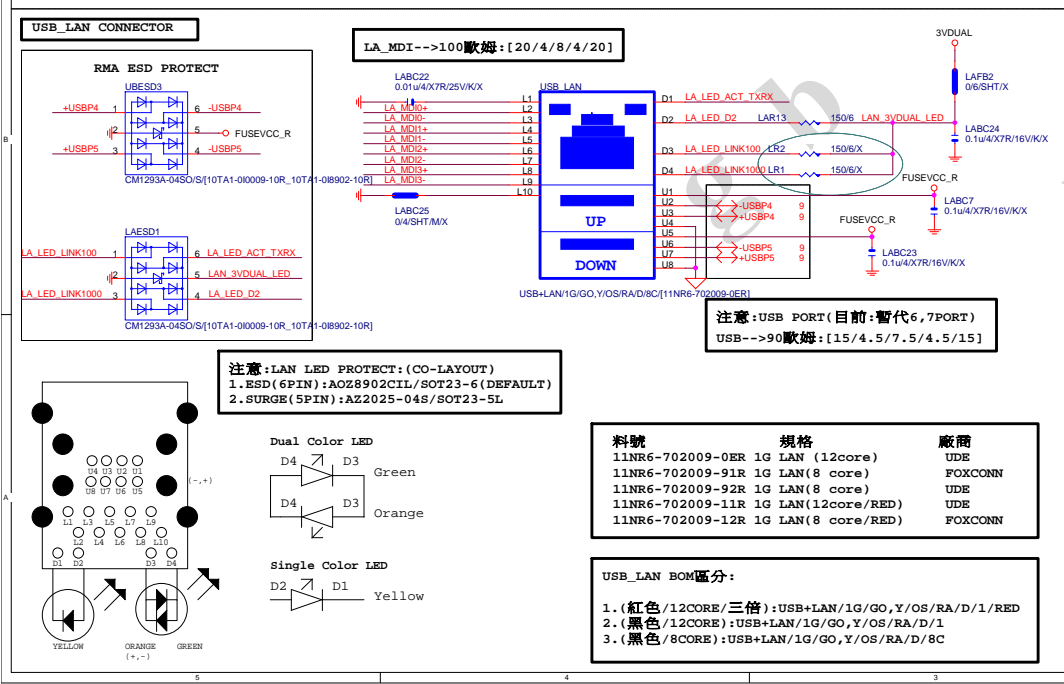
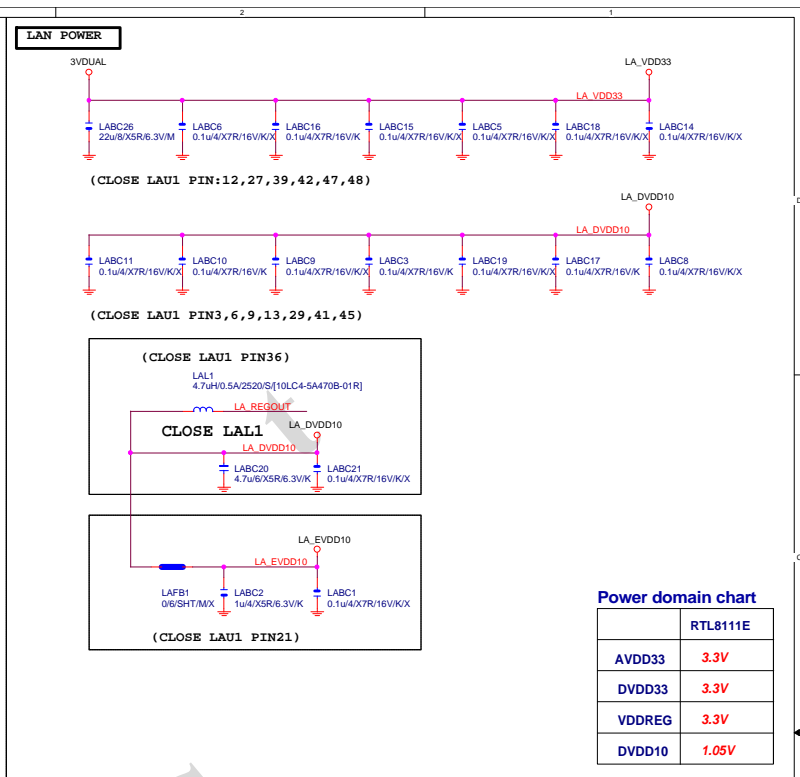
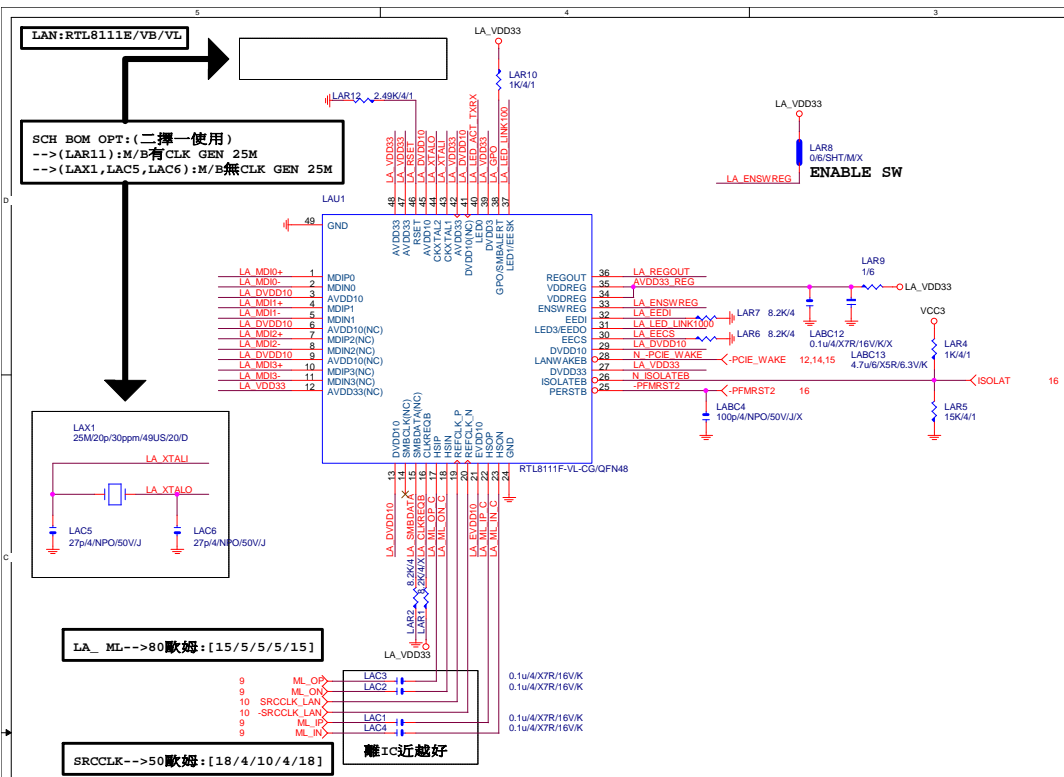
Gigabyte Technology

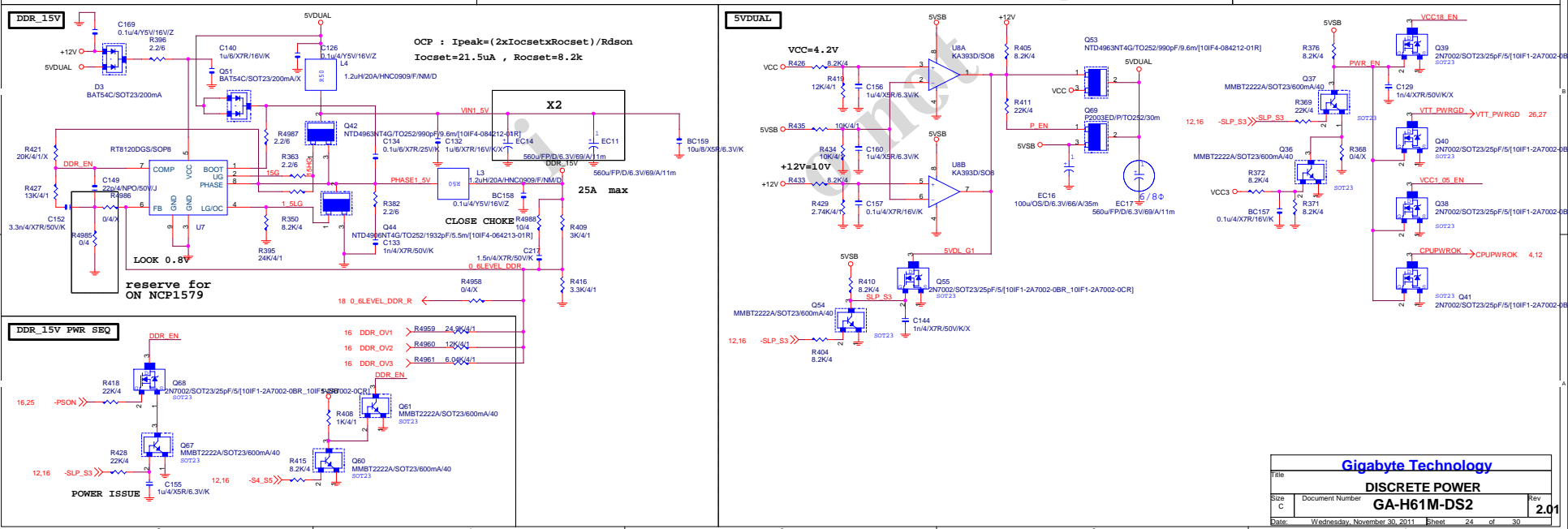
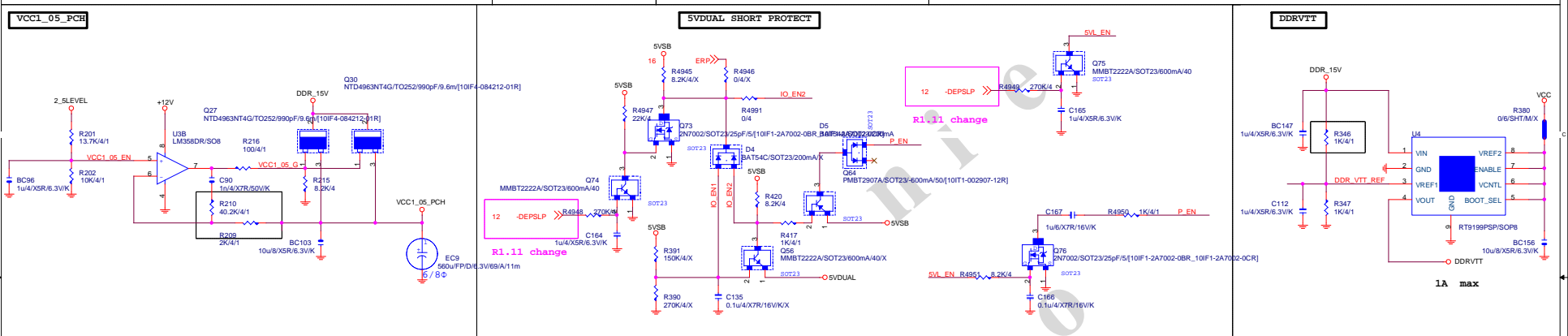
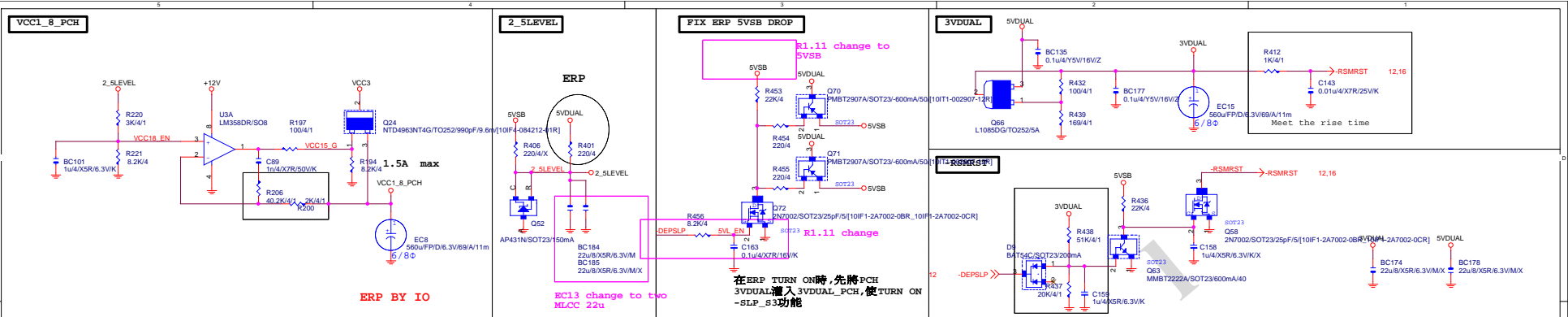
HD AUDIO ALC887-VD2

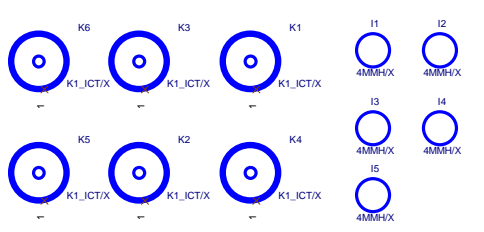
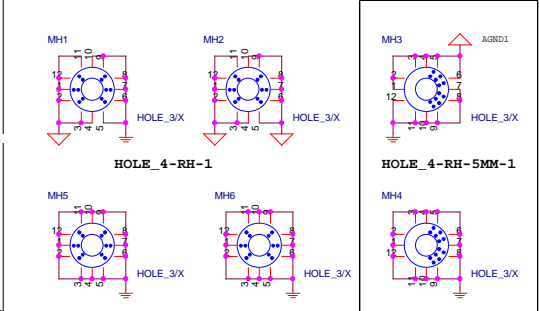
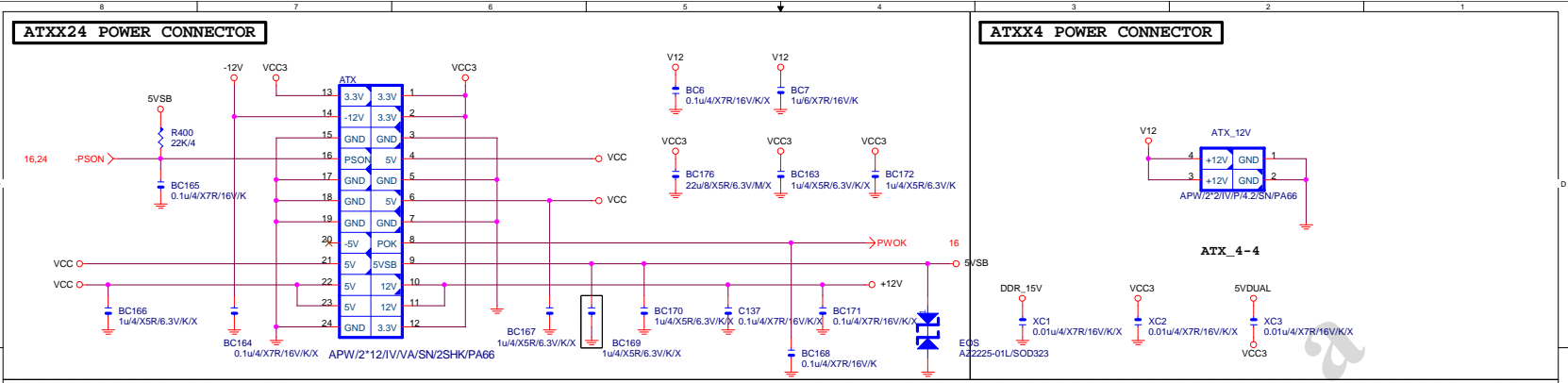
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AUDIO JACK		
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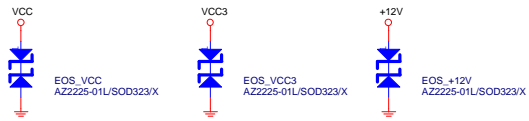






5VDUAL1(USB PORT/DDRIII POWER)
 5VDUAL (3VDUAL/OTHER)
 -S_WARN-->5VDUAL1-->-S_ACK (PCH) -->-DEPSLP / -RSMRST-->5VDUAL-->3VDUAL

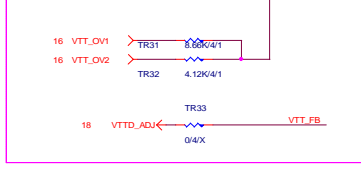
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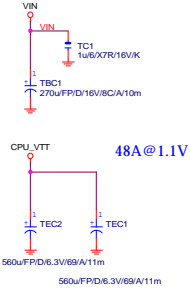
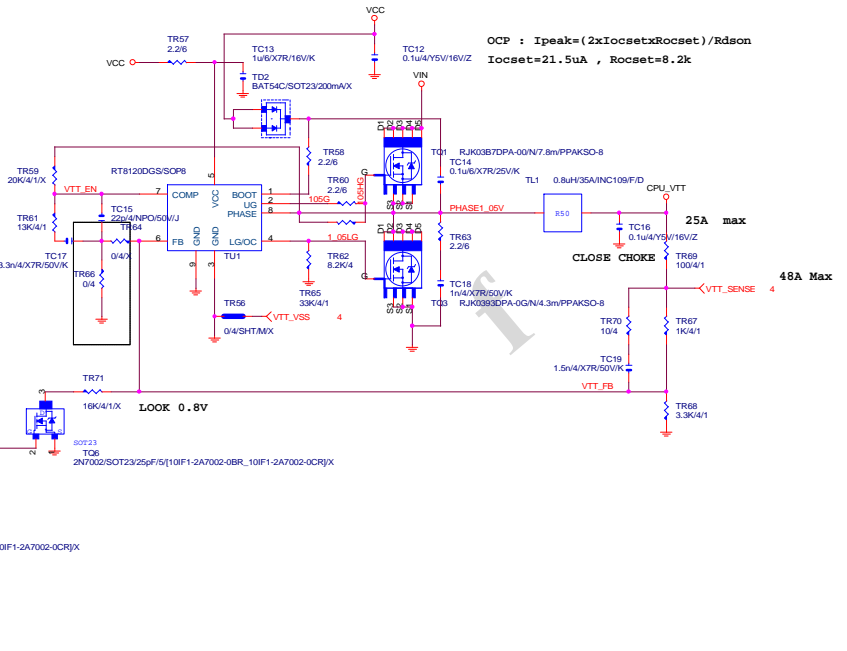
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CPU_VTT

VTT OV option



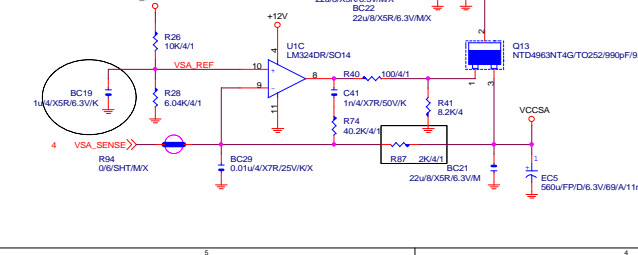
	VTT_EN
HI	ENABLE
LO	DISABLE



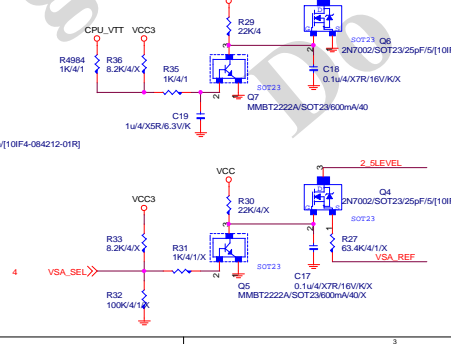
VCCSA

PDG 0.8

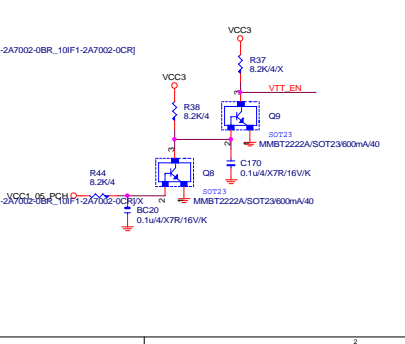
	VSA_SEL
HI	0.85V
LO	0.925V



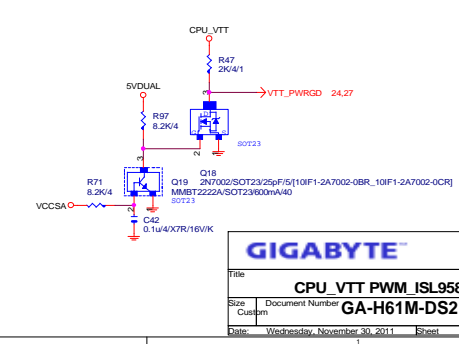
VCCSA_PWR_SEQ



CPU_VTT_PWR_SEQ

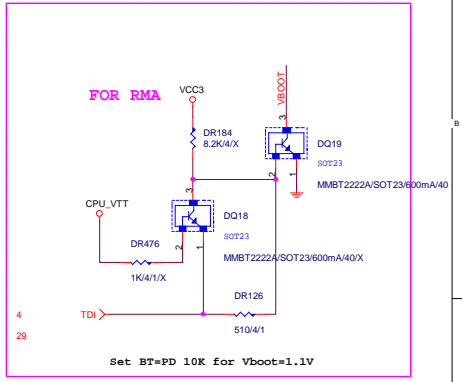
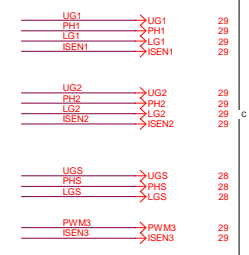
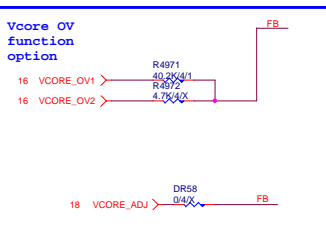
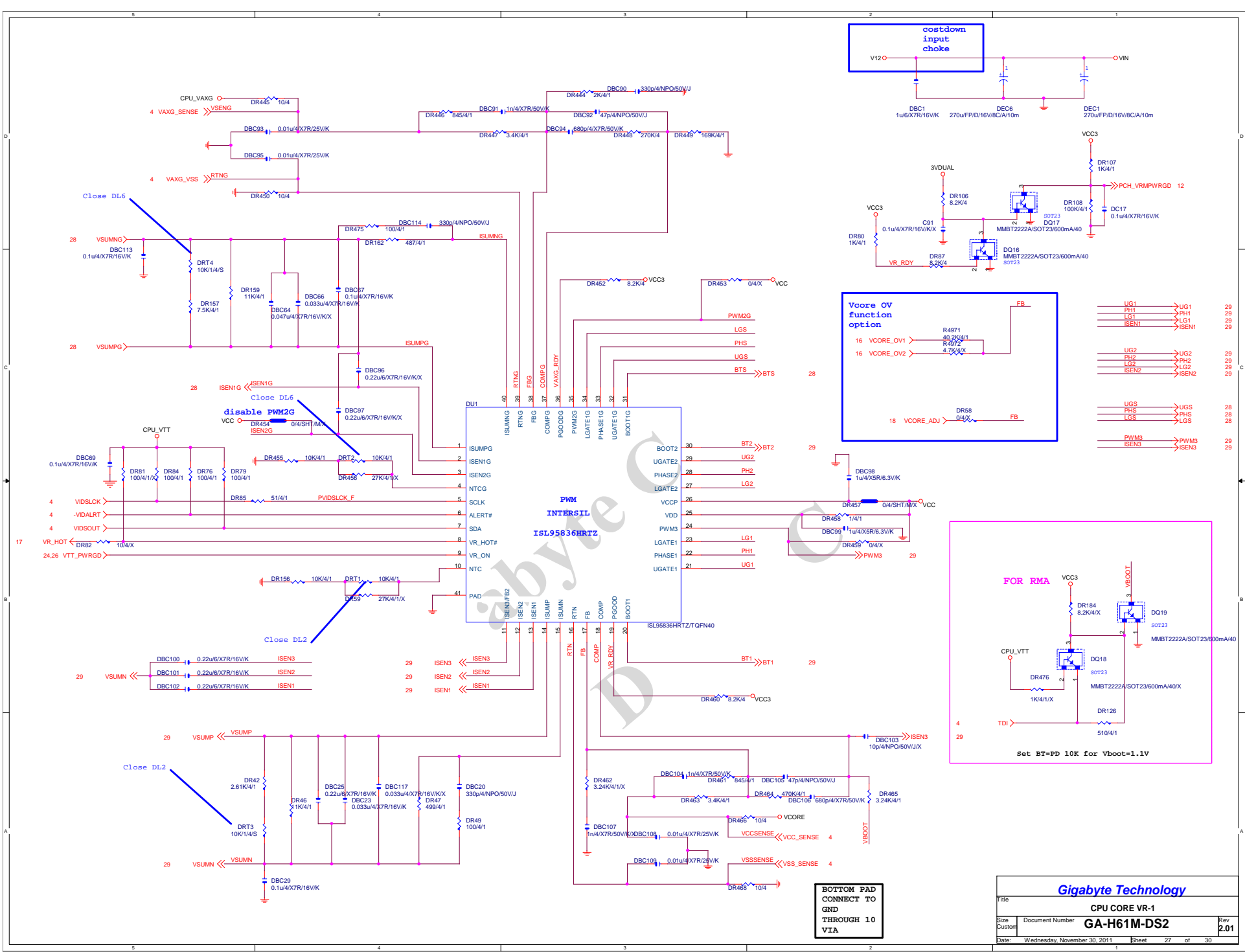


VTT_PWRGD



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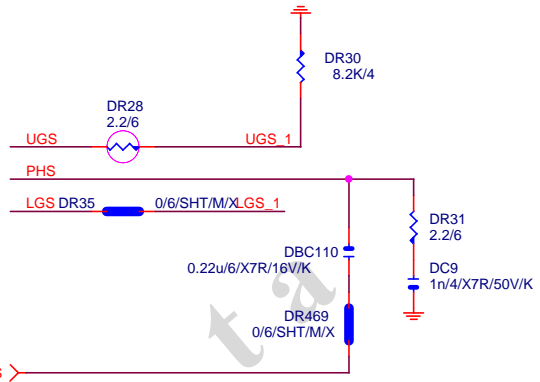
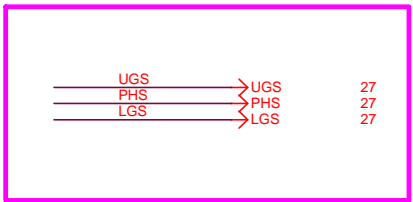
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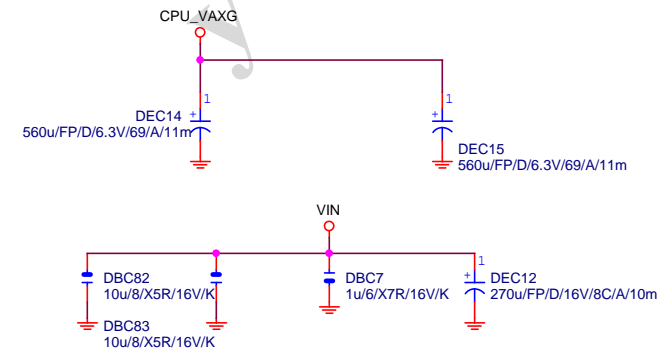
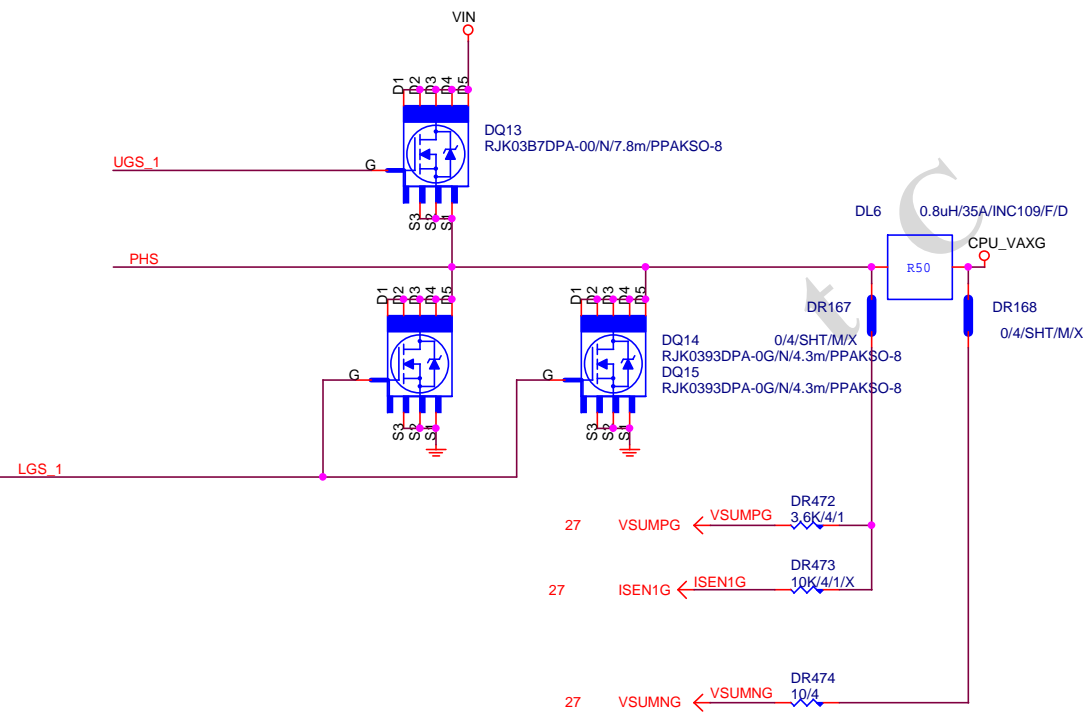
**BOTTOM PAD
CONNECT TO
GND
THROUGH 1.0
VIA**

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VAXG

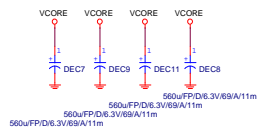
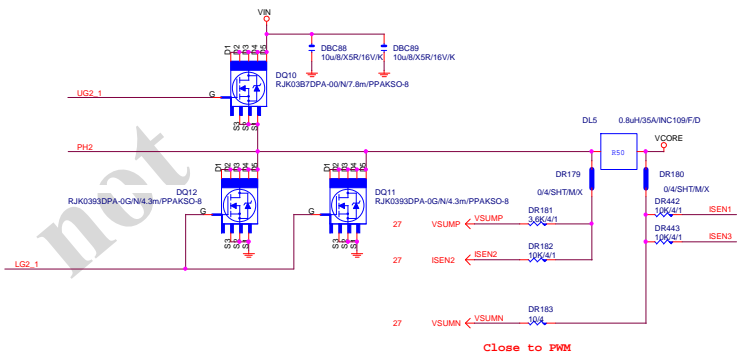
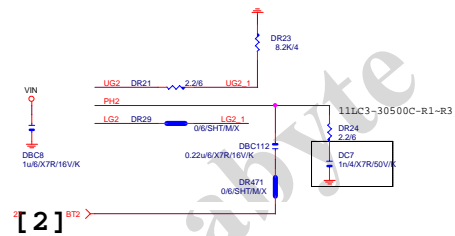
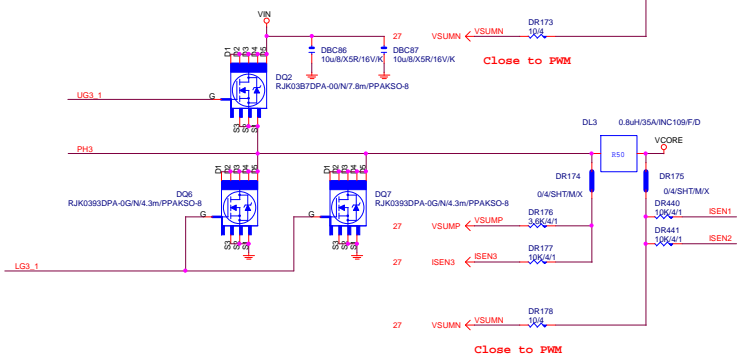
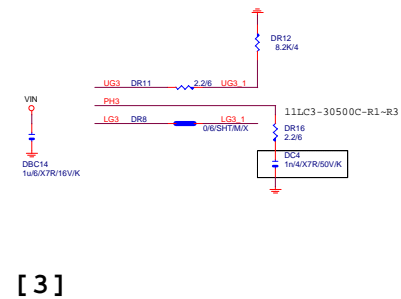
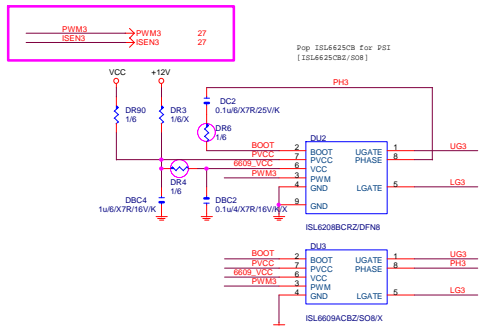
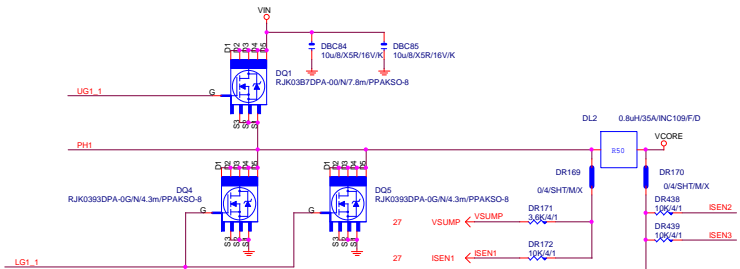
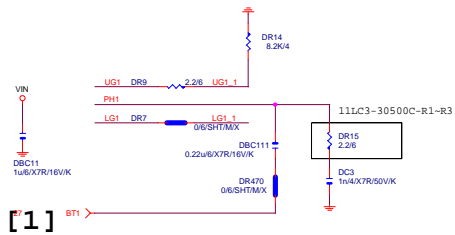


27 BTS

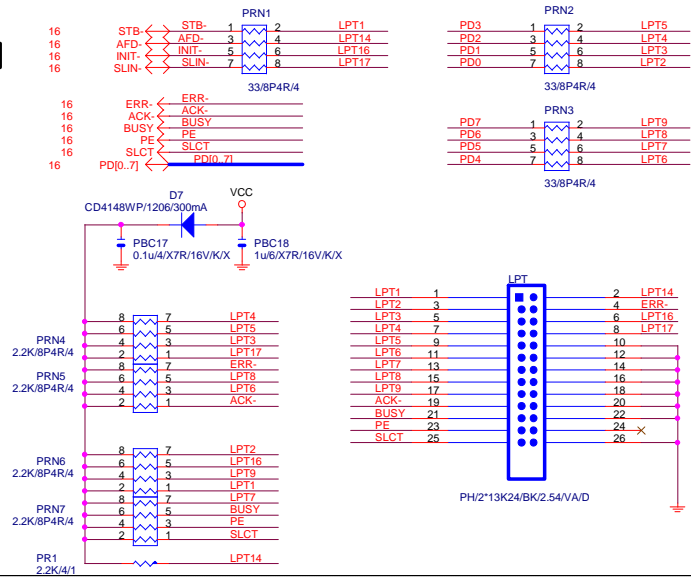


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LPT PORT



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