

Model Name: GA-H61M-S

Revision
1.0

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 8620 LPC IO
17	COMA,KB_MS,R_USB,-PROCHOT
18	HWM,FAN CTRL,OV
19	SINGLE 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

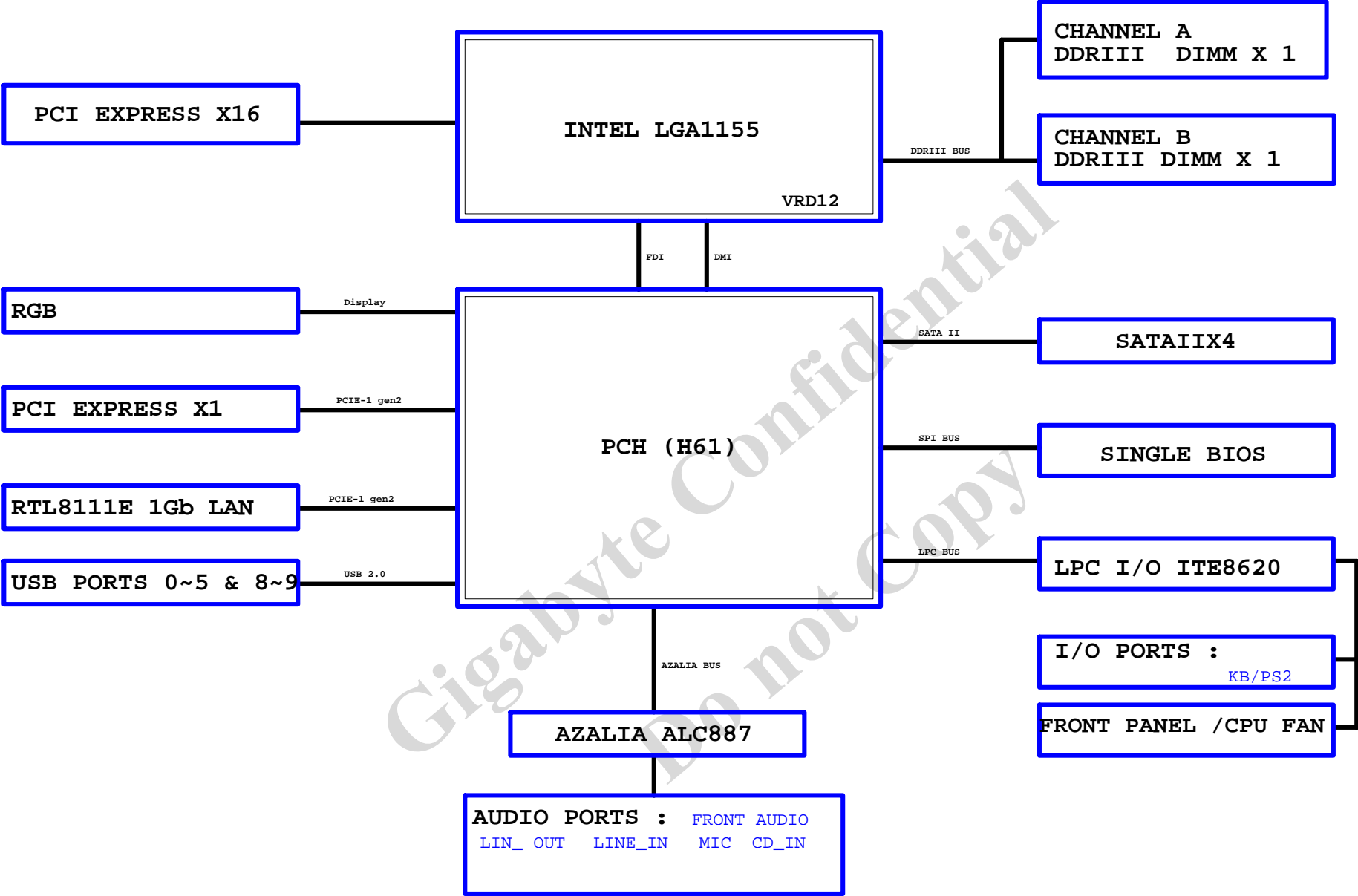
28	VCORE INTERSIL_95836_2
29	VCORE INTERSIL_95836_3
30	
31	
32	
33	

Gigabyte Technology

Cover Sheet

Size Custom	Document Number GA-H61M-S	Rev 1.0
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BLOCK DIAGRAM



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#	AN1	MDA8
7	-SCASA	AV30	SA_CAS#	AN4	MDA9
7	-SRASA	AU28	SA_RAS#	AR3	MDA10

7	SBA00	AY29	SA_BS[0]	AN2	MDA11
7	SBA01	AW28	SA_BS[1]	AN3	MDA12
7	SBA02	AV20	SA_BS[2]	AR2	MDA13
				AR1	MDA15

7	-CSA0	AY29	SA_CS#	AW4	DQSA2
7	-CSA1	AV32	SA_CS#	AW4	-DQSA2

7	CKEA0	AV19	SA_CKE[0]	AV2	MDA16
7	CKEA1	AT19	SA_CKE[1]	AW3	MDA17
				AV5	MDA18
				AW5	MDA19
				AU2	MDA20

	MODT_A0	AV31	SA_ODT[0]	AU3	MDA21
	MODT_A1	AU32	SA_ODT[1]	AU5	MDA22
				AY5	MDA23

7	DCLKA0	AY25	SA_CK[0]	AV8	DQSA3
7	-DCLKA0	AW25	SA_CK[0]	AW8	-DQSA3
7	DCLKA1	AU24	SA_CK[1]		
7	-DCLKA1	AW25	SA_CK[1]		

				AY7	MDA24
				AW7	MDA25
				AU9	MDA26
				AW9	MDA27
				AV7	MDA28
				AW7	MDA29
				AW9	MDA30
				AY9	MDA31

7,8	-DDR3_RST	AW18	SM_DRAMRST#	AV37	DQSA4
				AV36	-DQSA4

				AV35	MDA32
				AW37	MDA33
				AV39	MDA34
				AV36	MDA35
				AV35	MDA36
				AY36	MDA37
				AV37	MDA38
				AV37	MDA39

				AP38	DQSA5
				AP39	-DQSA5
				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

DDR_0

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

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	AN18	SB_MA[8]	SB_DQ[4]	AG8	MDB4
MAAB9	AY17	SB_MA[9]	SB_DQ[5]	AJ6	MDB5
MAAB10	AN23	SB_MA[10]	SB_DQ[6]	AJ7	MDB7
MAAB11	AU17	SB_MA[11]	SB_DQ[7]		
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	AV16	SB_MA[15]			

8	-SWEB	AR25	SB_WE#	AL7	MDB8
8	-SCASB	AK25	SB_CAS#	AM7	MDB9
8	-SRASB	AP24	SB_RAS#	AM10	MDB10

8	SBAB0	AP23	SB_BS[0]	AL6	MDB12
8	SBAB1	AM24	SB_BS[1]	AL9	MDB14
8	SBAB2	AW17	SB_BS[2]	AM9	MDB15

8	-CSB0	AN25	SB_CS#	AR8	DQSB2
8	-CSB1	AN26	SB_CS#	AP8	-DQSB2

8	CKEB0	AU16	SB_CKE[0]	AP7	MDB16
8	CKEB1	AY15	SB_CKE[1]	AR7	MDB17
				AP10	MDB18
				AR10	MDB19
				AP6	MDB20

	MODT_B0	AL26	SB_ODT[0]	AR6	MDB21
	MODT_B1	AP26	SB_ODT[1]	AP9	MDB22
				AR9	MDB23

				AN13	DQSB3
				AN12	-DQSB3

8	DCLKB0	AL21	SB_CK[0]	AM12	MDB24
8	-DCLKB0	AL22	SB_CK[0]	AM13	MDB25
8	DCLKB1	AK20	SB_CK[1]	AR13	MDB26
8	-DCLKB1	AK20	SB_CK[1]	AP13	MDB27

				AL12	MDB28
				AL13	MDB29
				AR12	MDB30
				AP12	MDB31

				AN29	DQSB4
				AN28	-DQSB4

8	VREF_DQB	AH1	FC_AH1	AR28	MDB32
7	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
				AP21	MDB41
				AP35	MDB42
				AP34	MDB43

				AR32	MDB44
				AR31	MDB45
				AR35	MDB46
				AR34	MDB47

				AL33	DQSB6
				AM33	-DQSB6

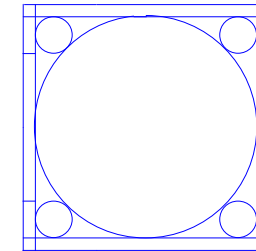
				AM32	MDB48
				AM31	MDB49
				AL35	MDB50
				AL32	MDB51

				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

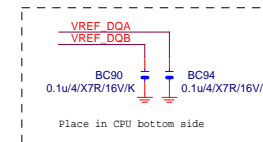
CR
CPU RETENTION/X

Need check the new CPU ME

CPU



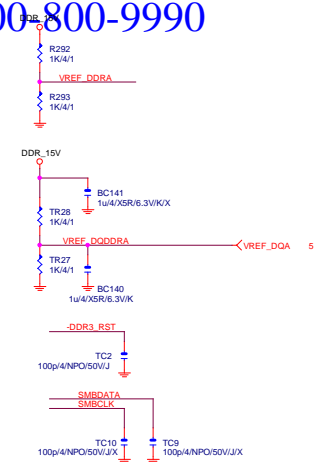
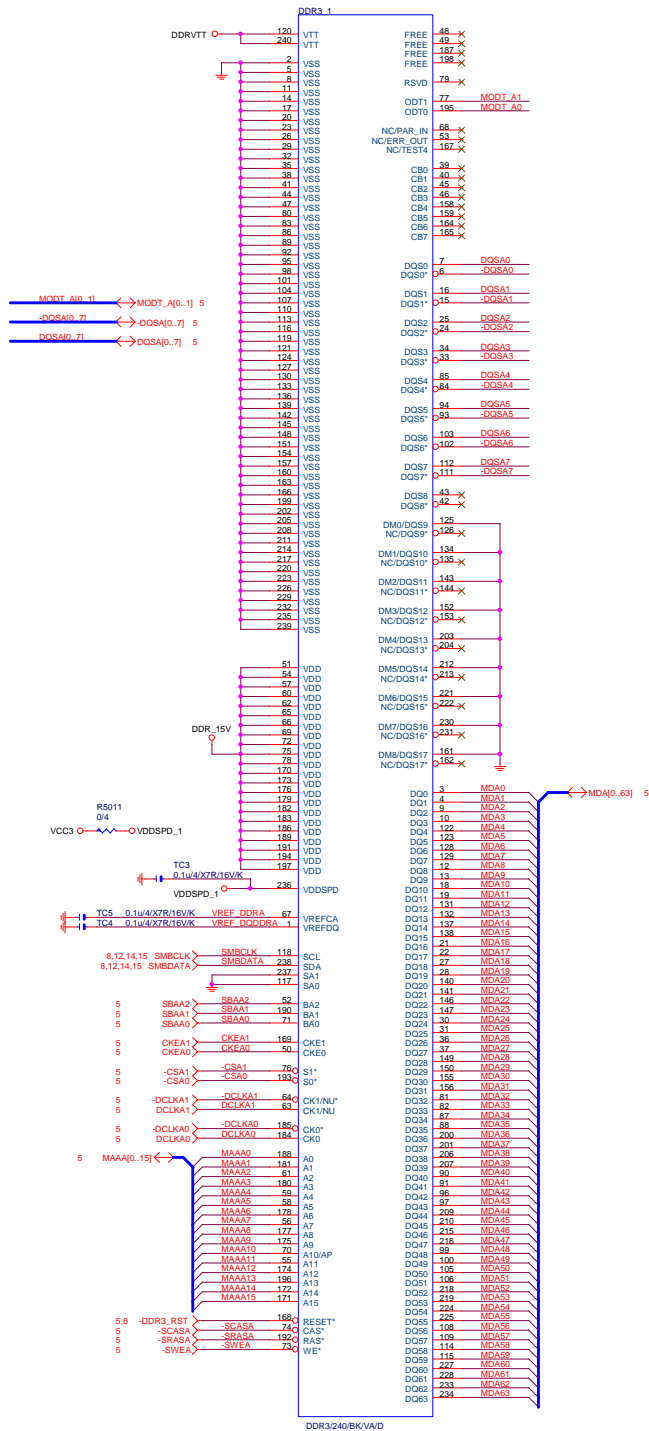
ILM_BP/1156/BKNI



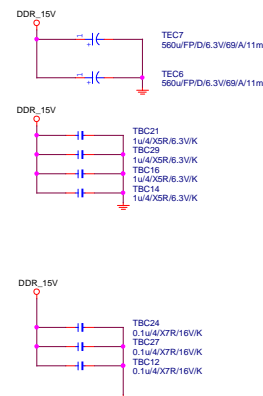
Gigabyte Technology

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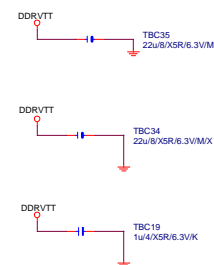




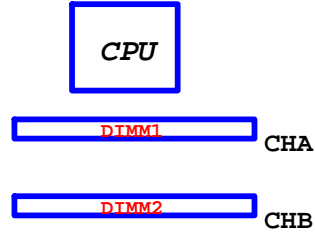
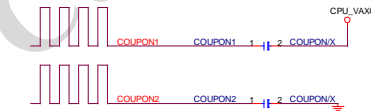
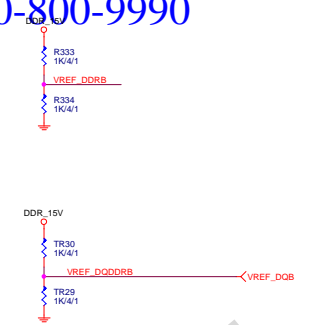
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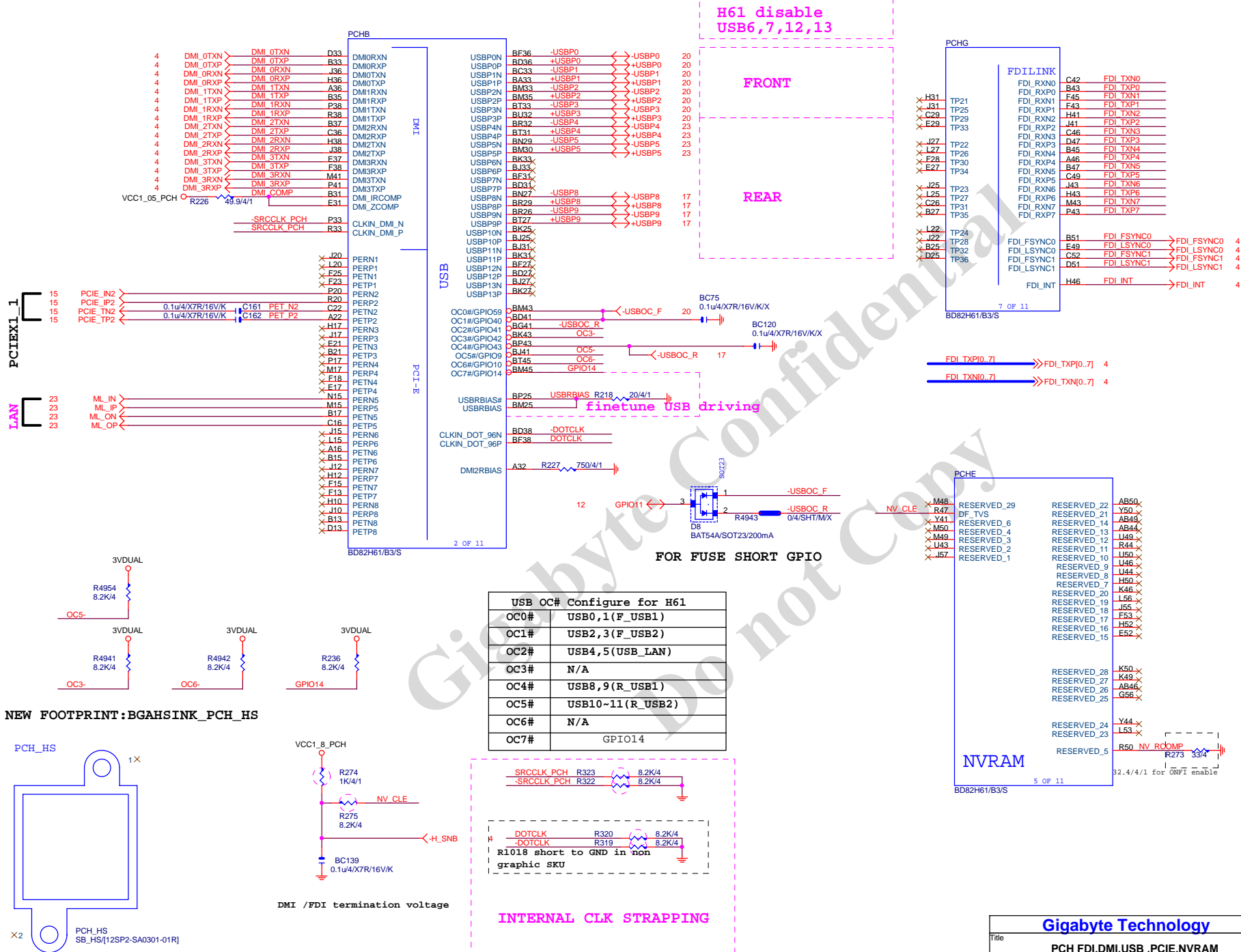


DDRVTT Decouple



BLACK CONNECTOR





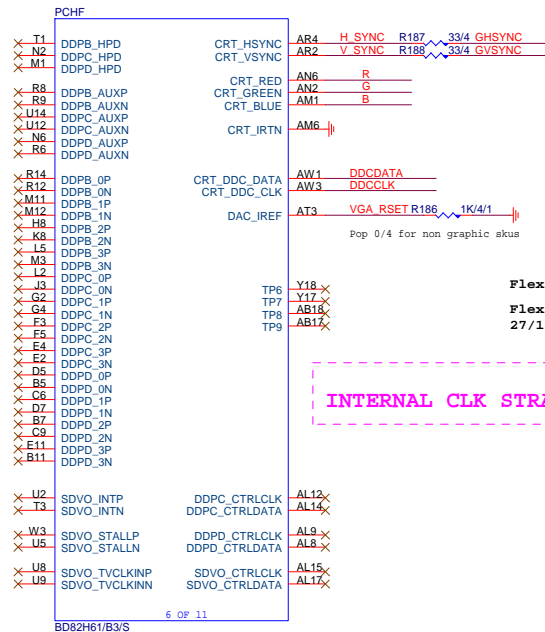
Gigabyte Technology

Title PCH FDI,DMI,USB,PCIE,NVRAM

Size Custom Document Number GA-H61M-S Rev 1.0

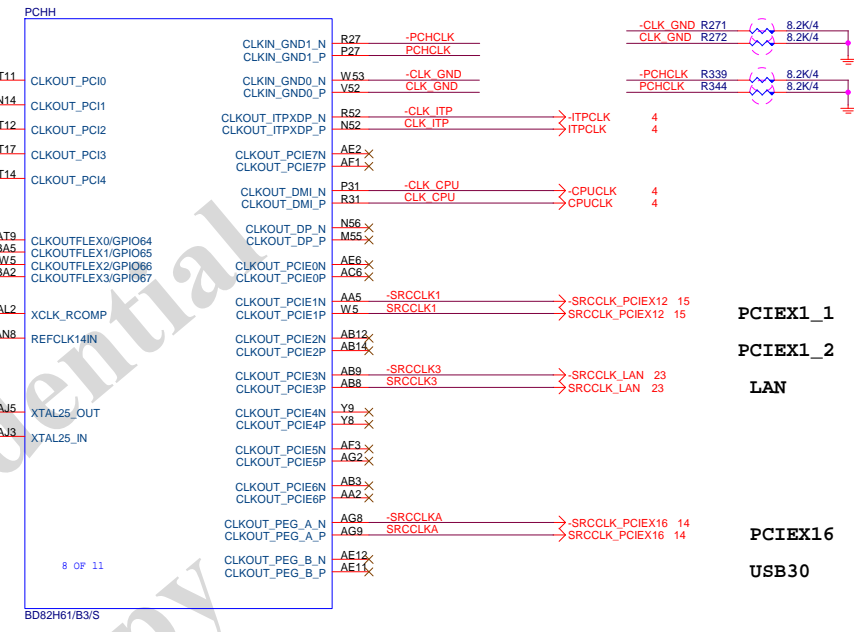
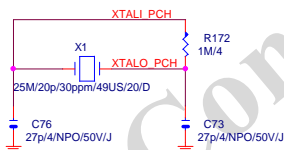
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DVI:15/4/6/4/15
(breakout
8/4/4/4/8)



Flex0,2 : 33MHZ
Flex1,3 :
27/14/24/48/25MHZ

INTERNAL CLK STRAPPING



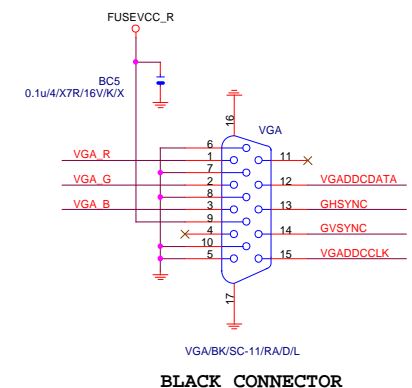
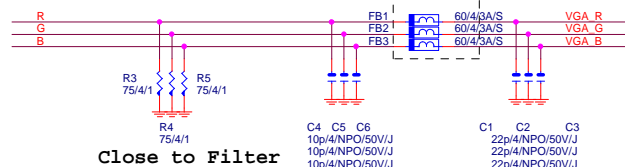
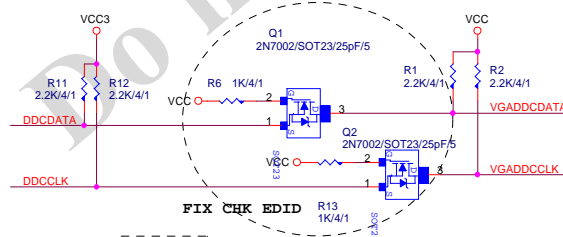
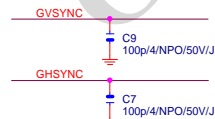
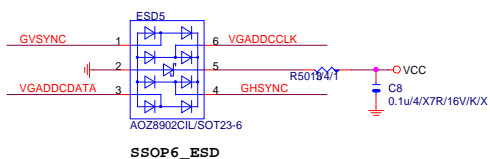
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PCIEX1_2

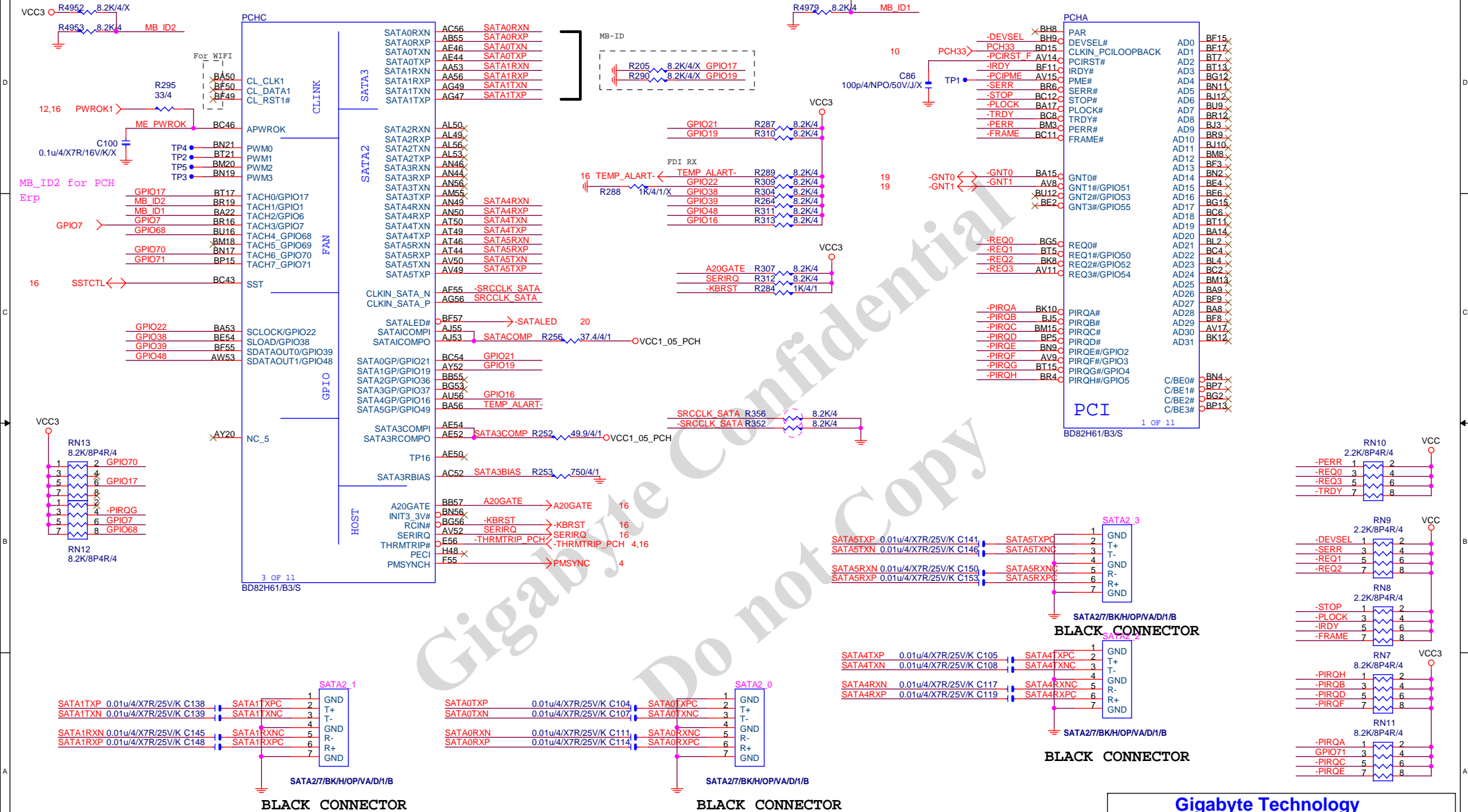
LAN

PCIEX16

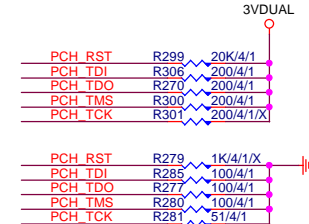
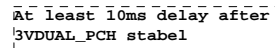
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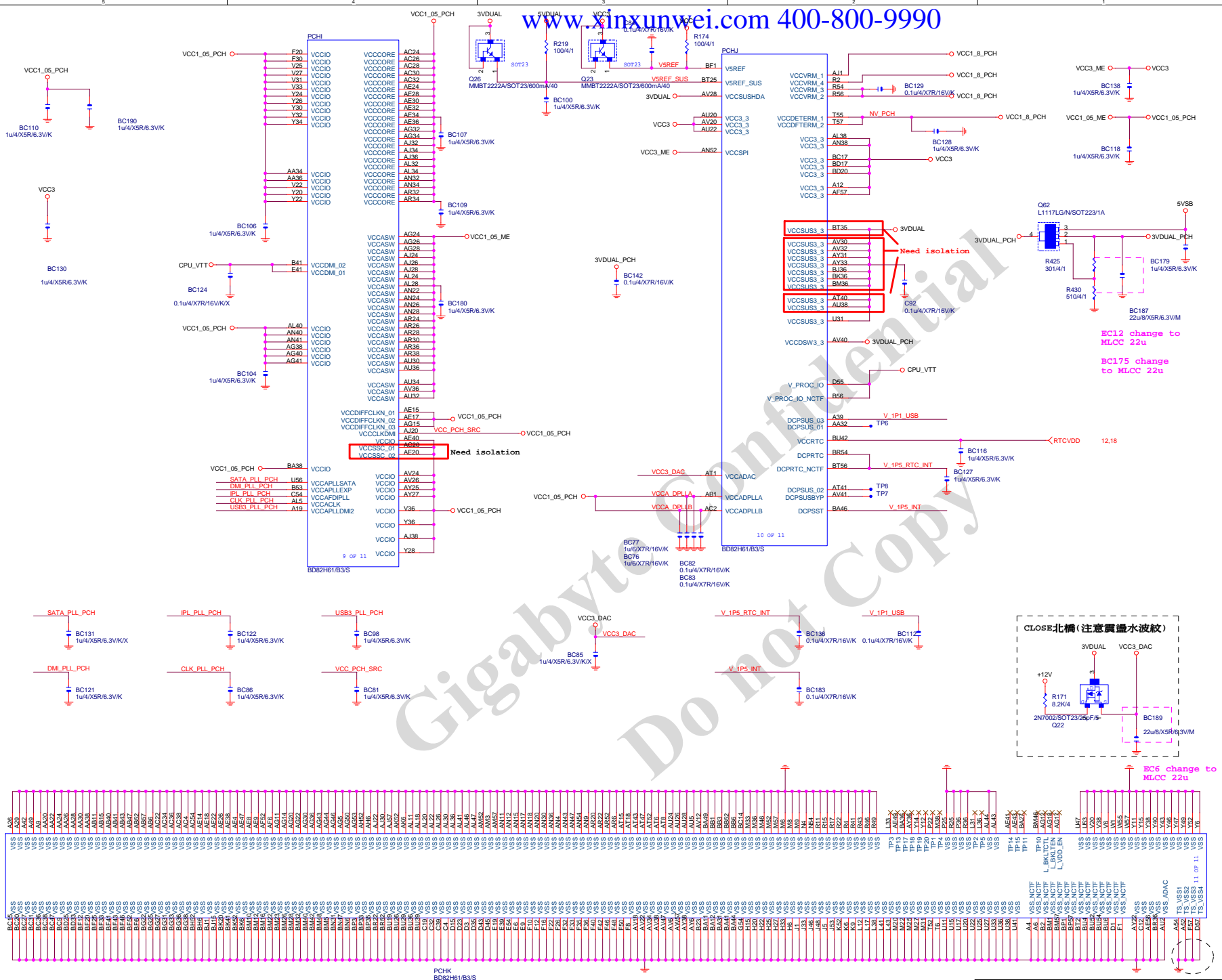


Gigabyte Technology			
Title			
PCH DISPLAY ,CLK BUFFER			
Size			
Document Number			
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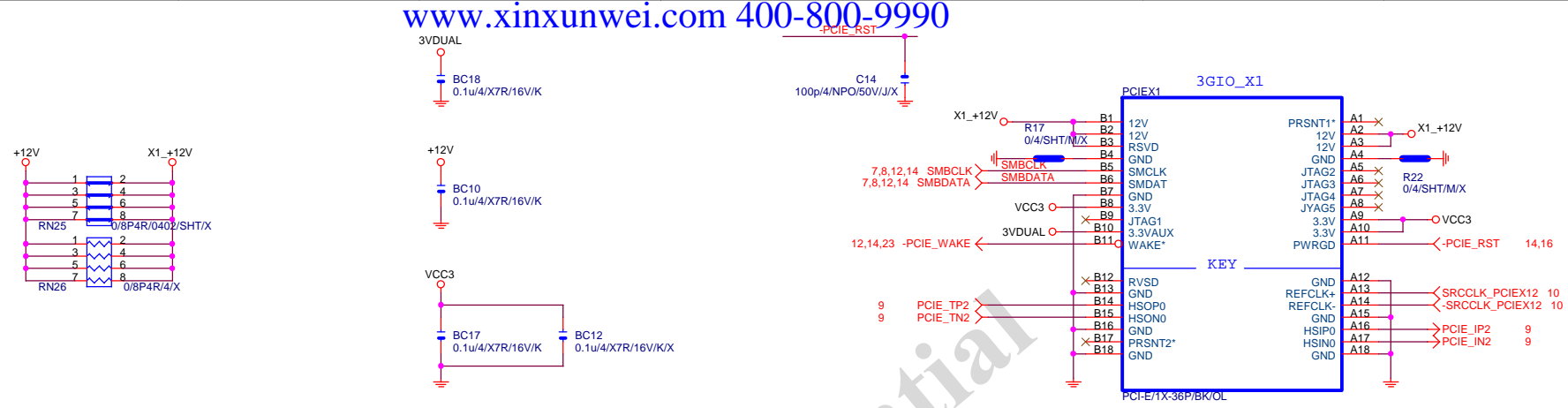


H1X7-SATA2-HS-MASK





PCIE*1



CLK GEN

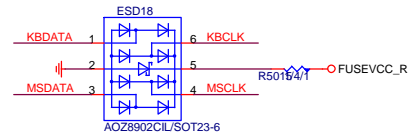
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Title			
PCIEX1,X2/CLK GEN			
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		2	1

COM

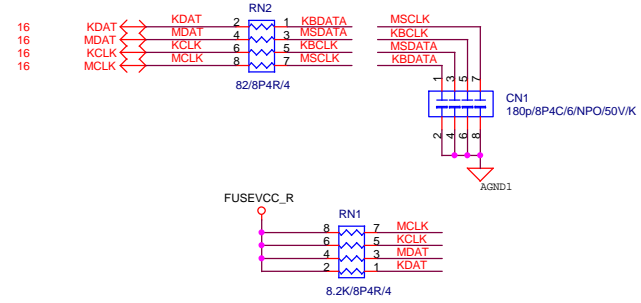
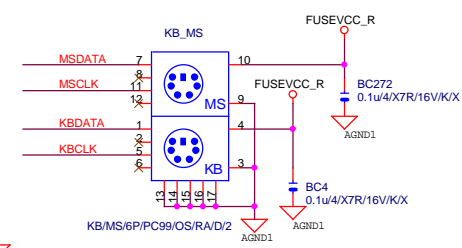
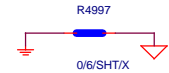
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KB/MS

H61M-DS2 R0.2

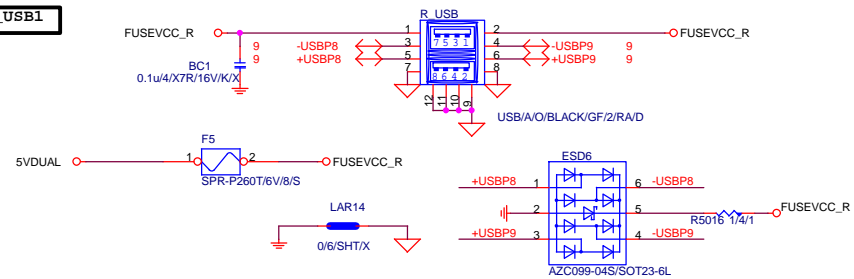


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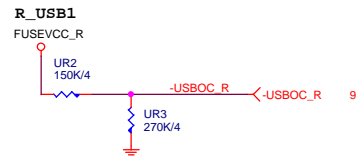


R_USB1

-PROHOT



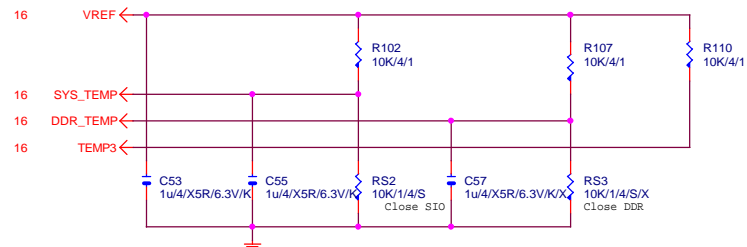
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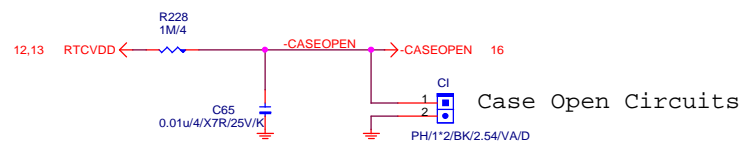
EMI request



TEMP H/W MONITOR

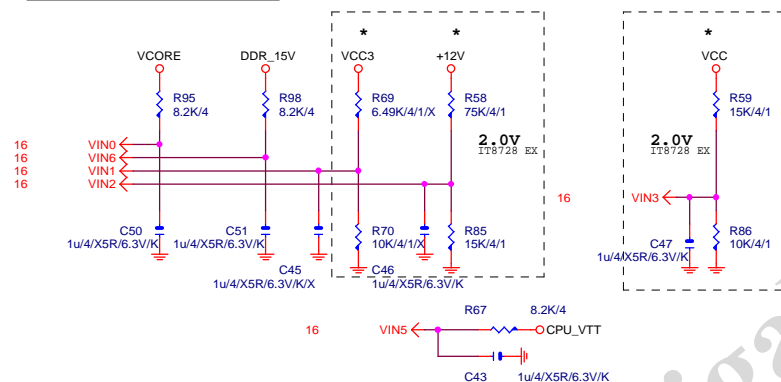


CASE OPEN

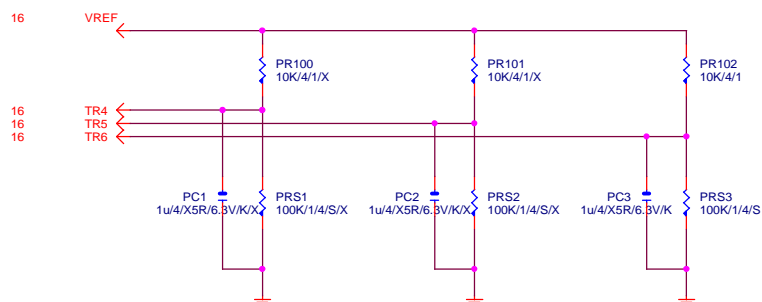


VOLTAGE-- H/W MONITOR

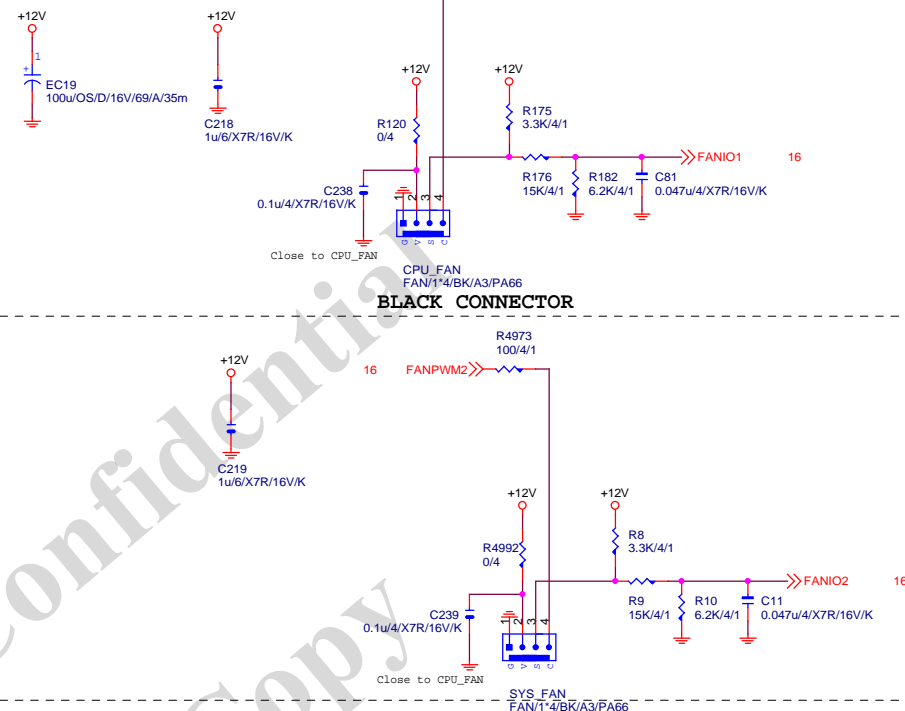
I (VAXG)



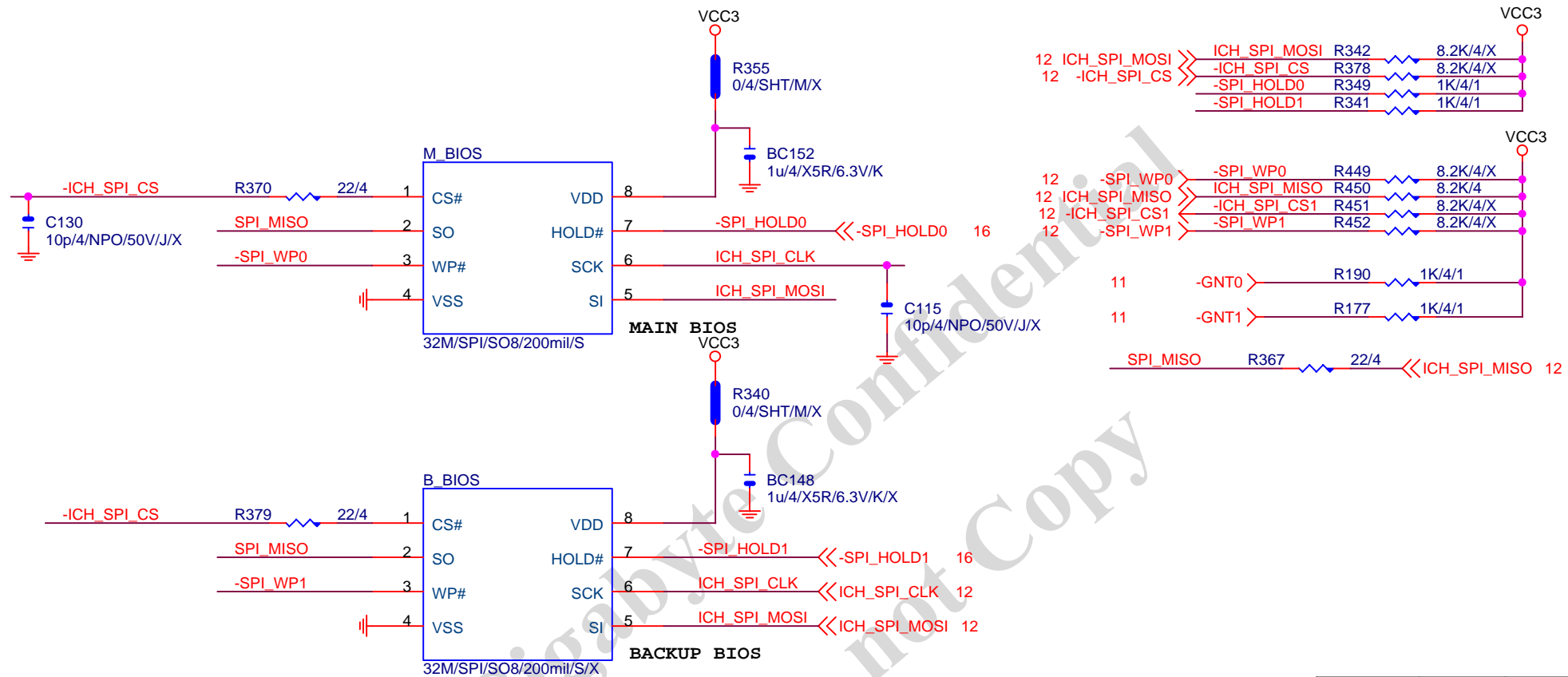
PRS1 CLOSE CPU VR MOSFET



SYS SMART FAN



BLACK CONNECTOR

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 BIOSSize
A

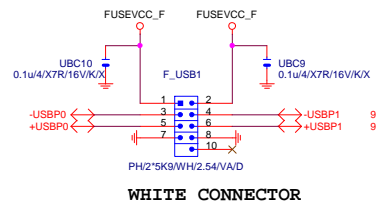
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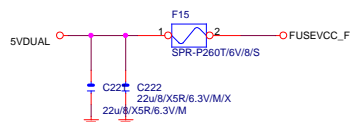
Date: Friday, June 14, 2013

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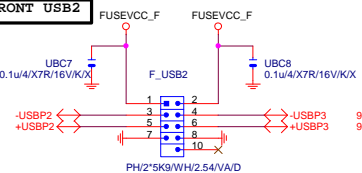
FRONT USB1



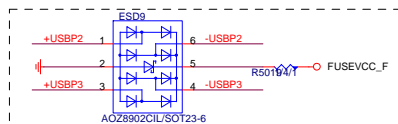
CLOSE F_USB1



FRONT USB2

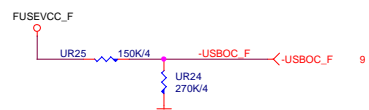


FRONT USB3



Close to connector

WHITE CONNECTOR

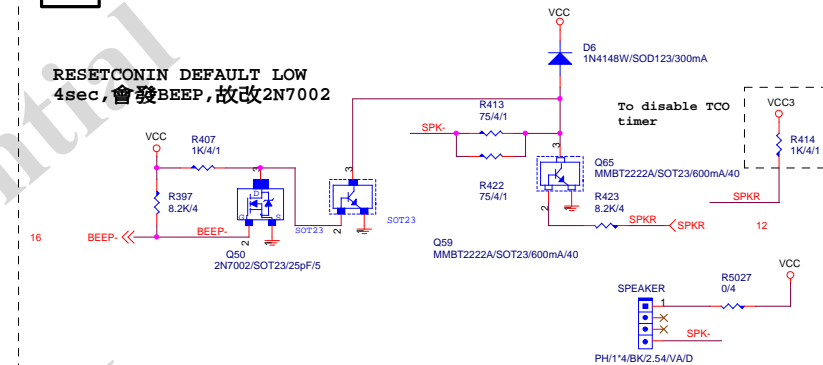


SATA LED

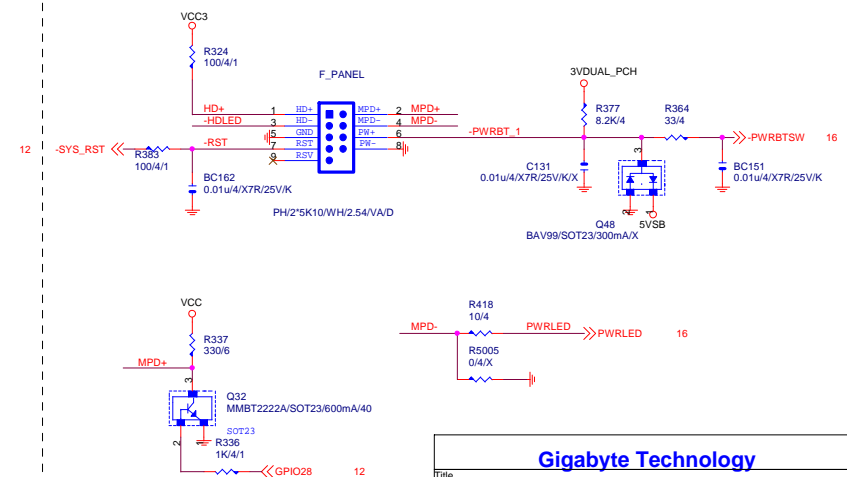
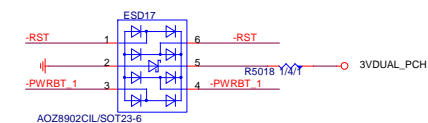


SPKR

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



INTEL FRONT PANEL



Gigabyte Technology

Title	FP,F_USB,USB PWR,SPKR,SATA LED		
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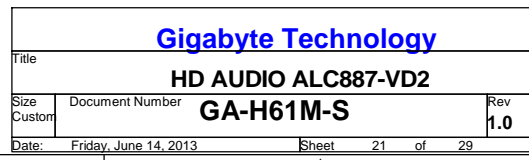
FOR VT1708S

CBC42
100pF/4/NPO/50V/J/X

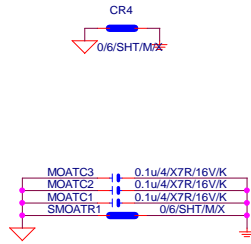
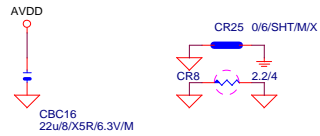
CR28 20K/4/1

CR26: 20K/4/0.1% @ALC889A

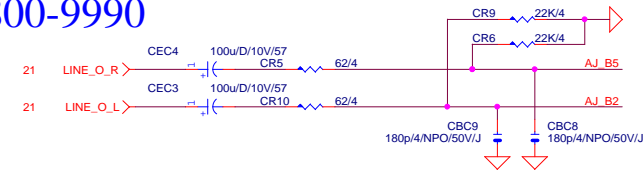
CR26: 20K/4/1% @others



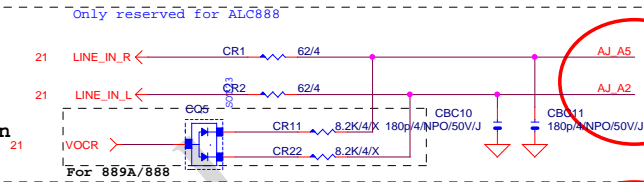
CODEC POWER/EMI PAD



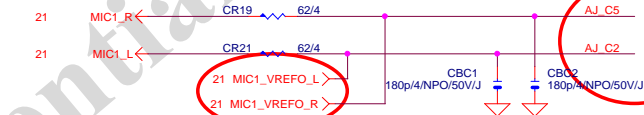
LINE-OUT



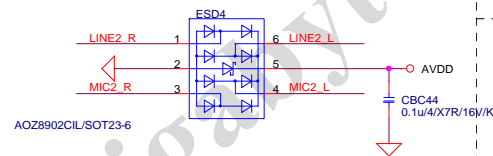
LINE-IN

Verify MIC function
in LINE-in

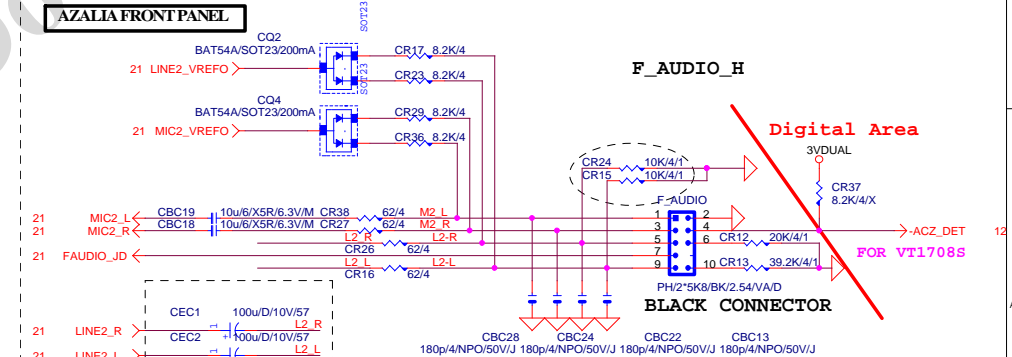
MIC-IN



AZALIA JACK



AZALIA FRONT PANEL



F_AUDIO_H

Digital Area

3VDUAL

CR37 8.2K/4/X

ACZ_DET

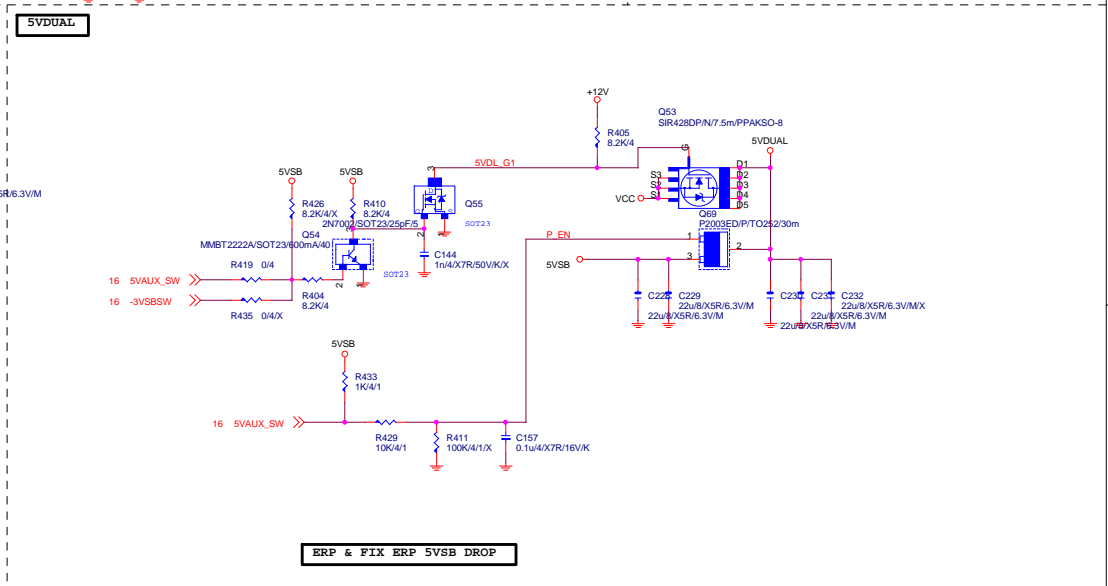
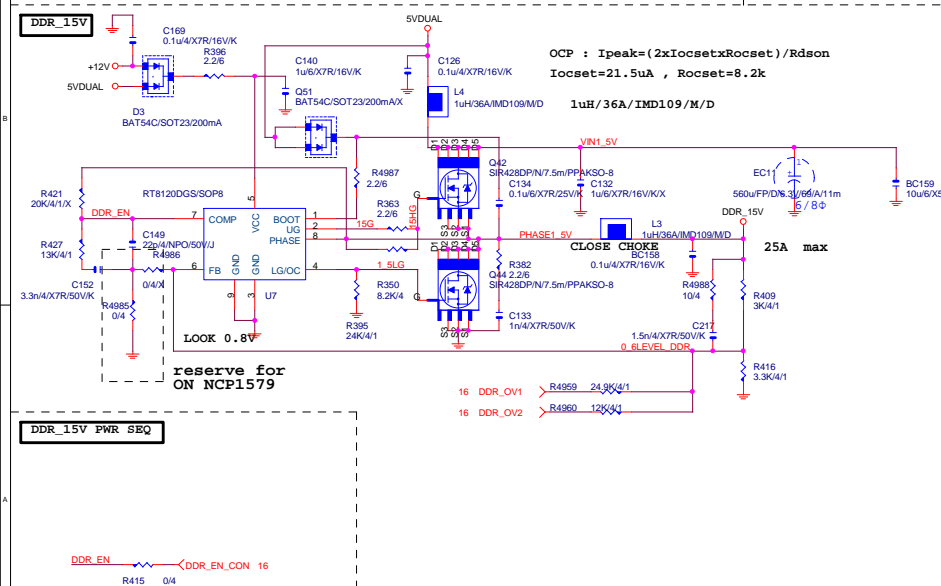
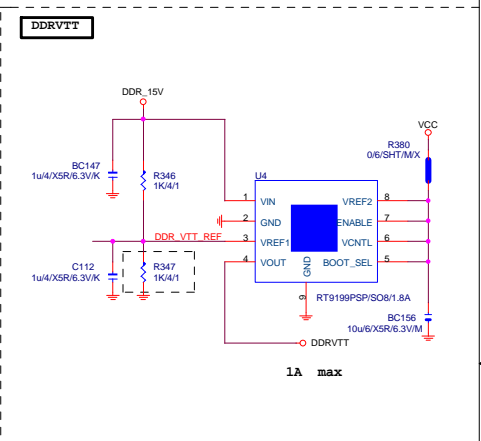
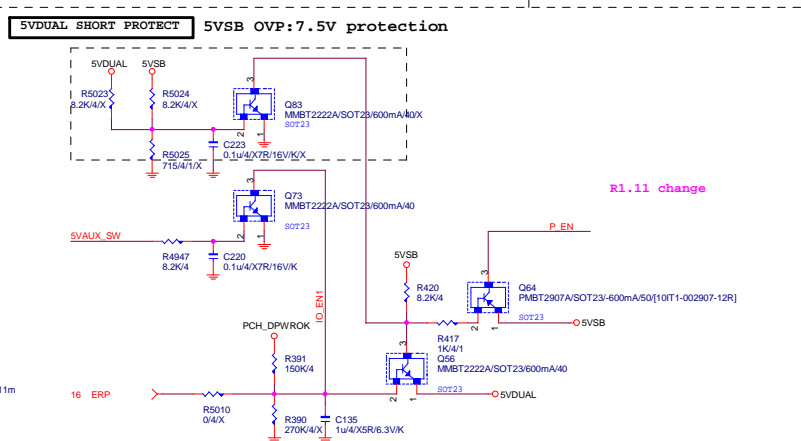
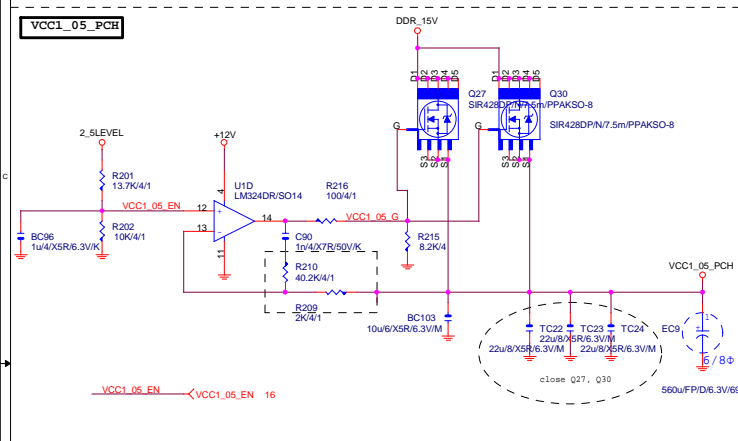
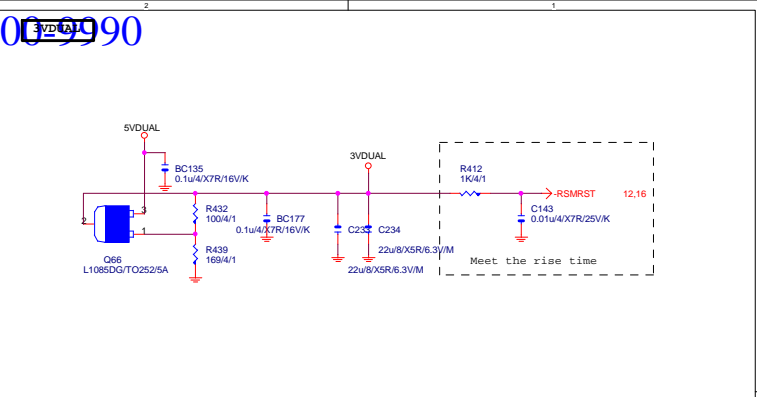
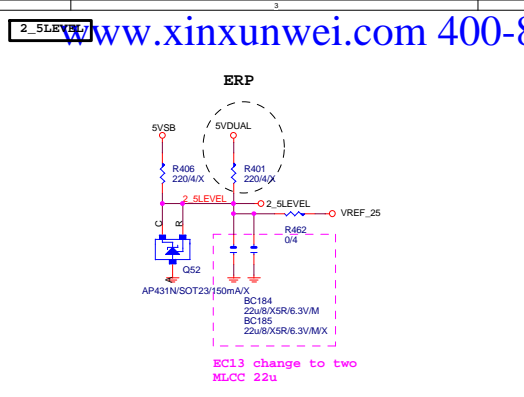
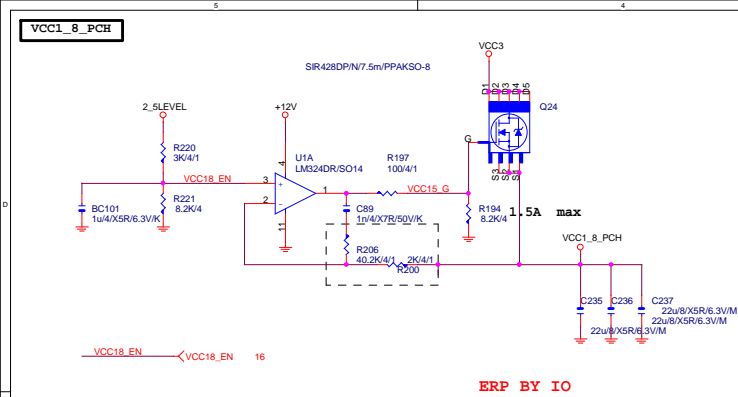
FOR VT1708S

PH2*5K8/BK/2.54/VA/D

BLACK CONNECTOR

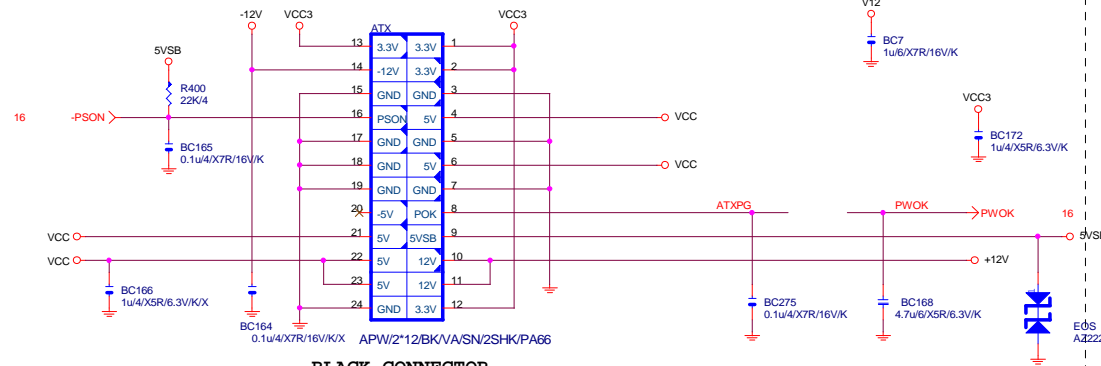
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Title			
AUDIO JACK			
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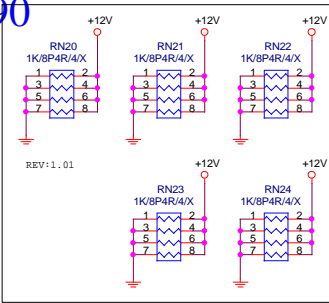
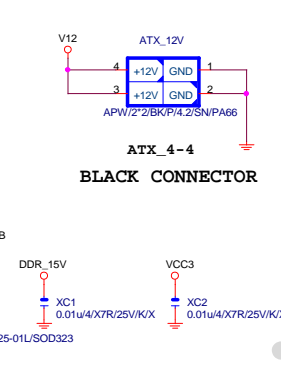


ATXX24 POWER CONNECTOR

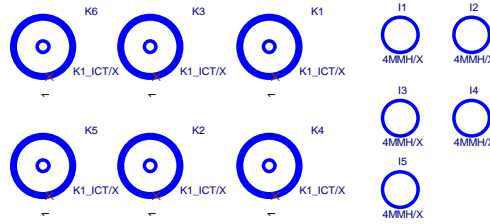
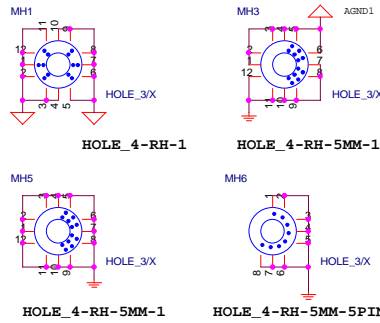
www.xinxunwei.com 400-800-0990



ATXX4 POWER CONNECTOR



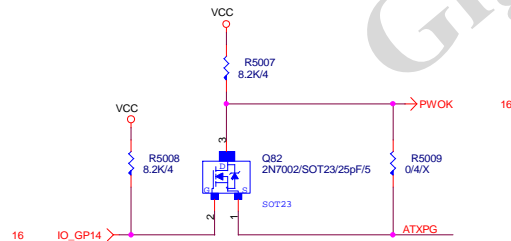
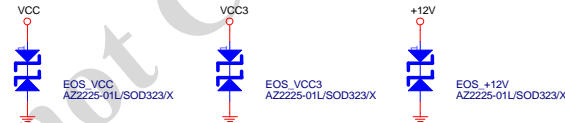
BLACK-CONNECTOR



To prevent the 5VSB under loading when boot

5VDUAL1(USB PORT/DDRIII POWER)
5VDUAL(3VDUAL/OTHER)

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



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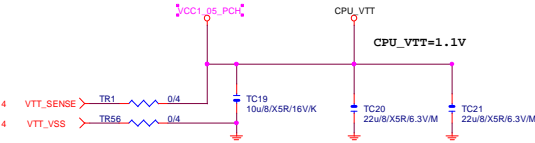
ATX CONNECTOR

GA-H61M-S

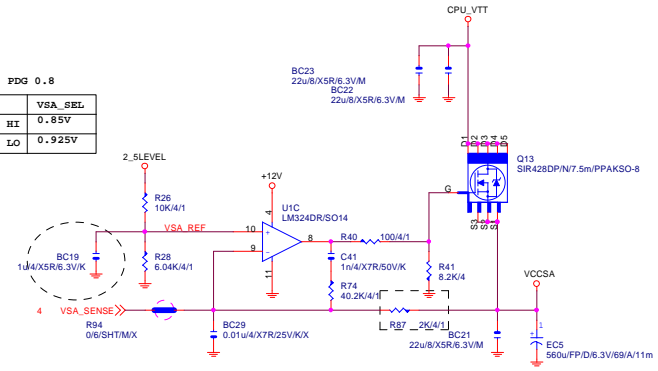
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CPU_VTT



VCCSA

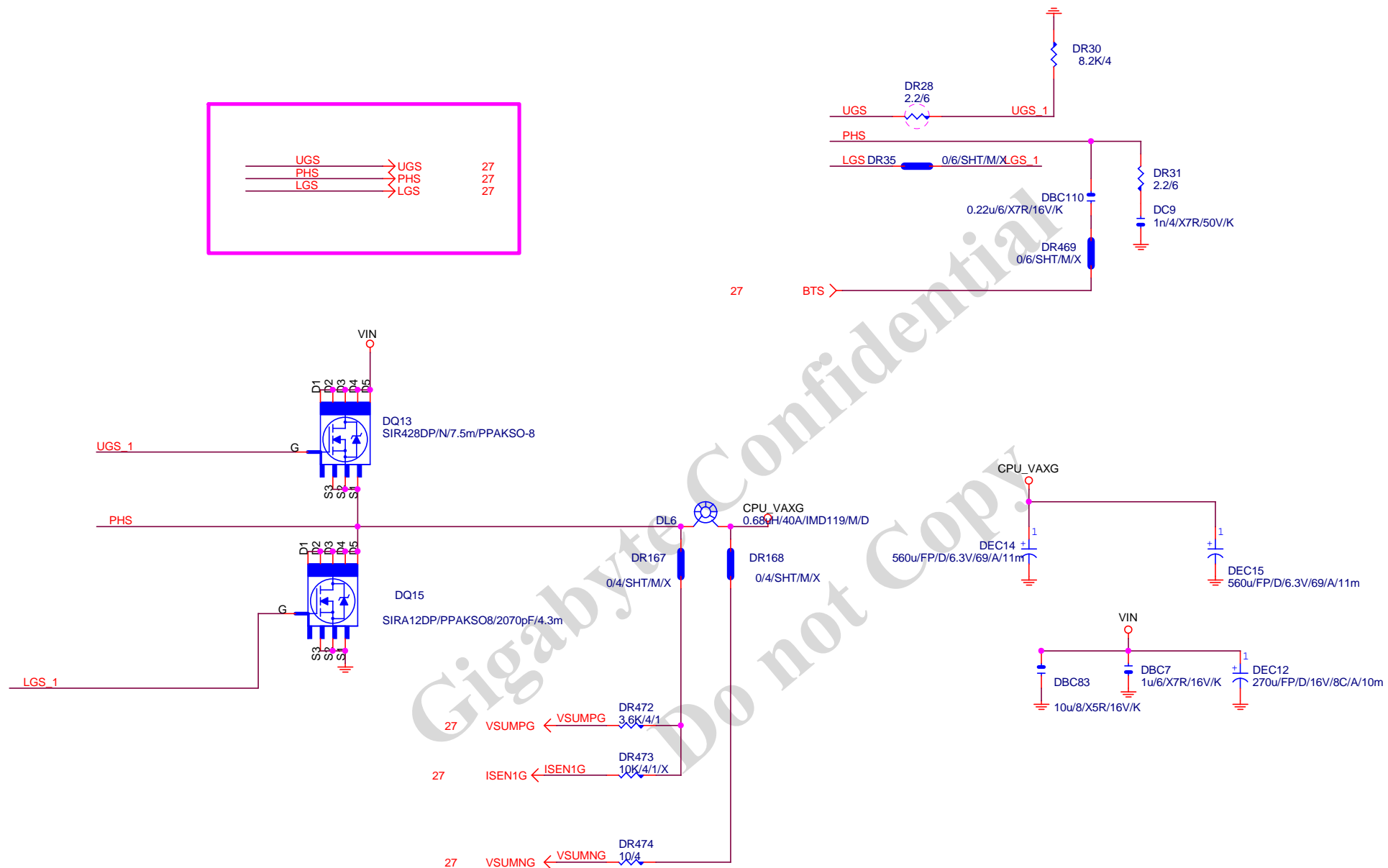
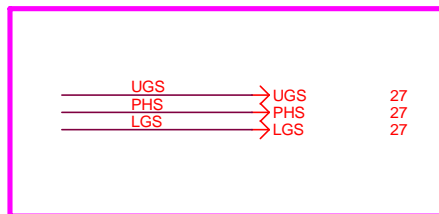


VCCSA_PWR_SEQ

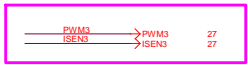
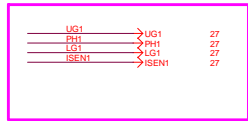
CPU_VTT_PWR_SEQ

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Pop 18L6625CB for PB1
(18L6625CBZ/908)

