

Model Name:GA-P31-ES3G *Revision 1.0***SHEET****TITLE**

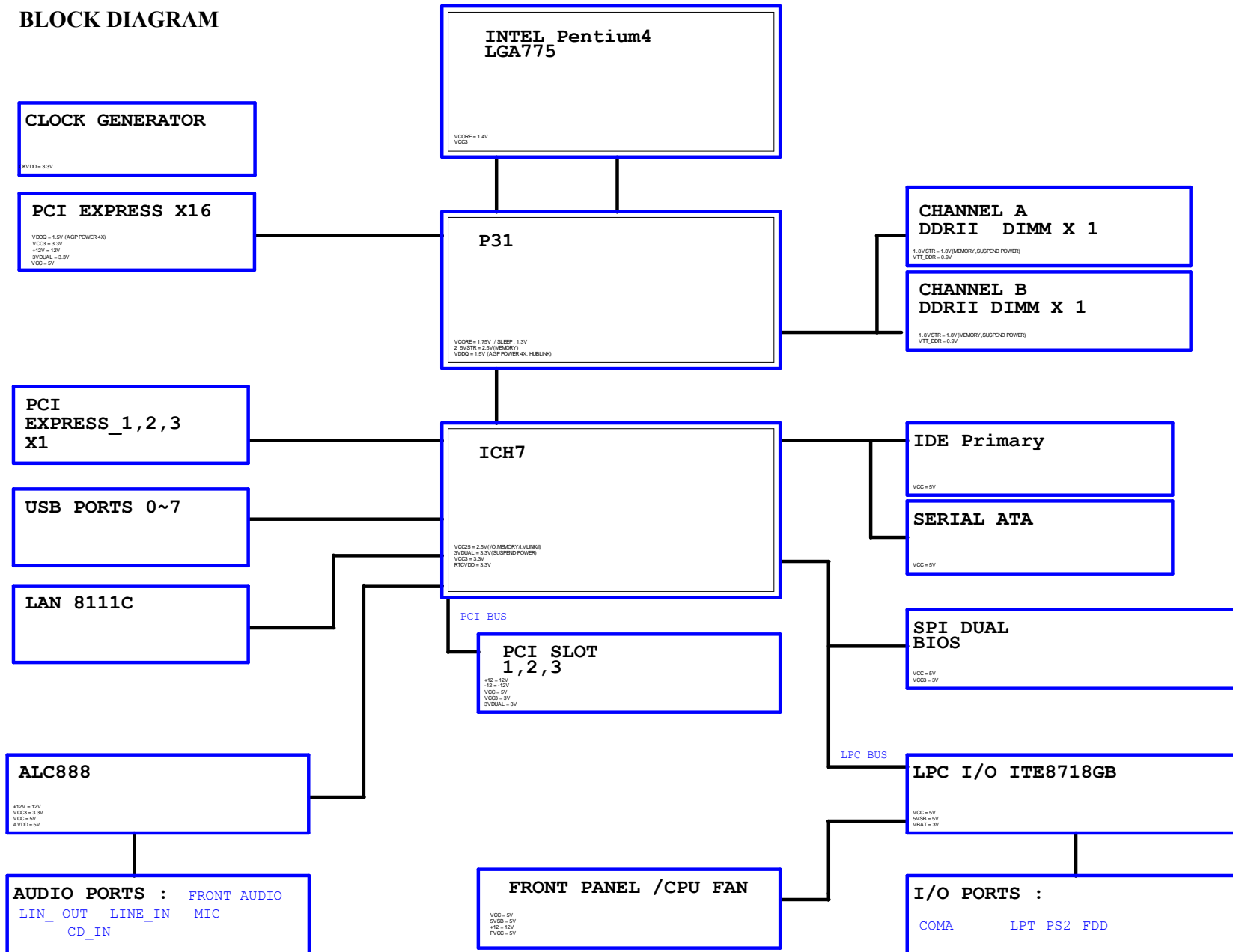
01	COVER SHEET
02	BLOCK DIAGRAM
03	BOM & PCB MODIFY HISTORY
04	P4 LGA775 A
05	P4 LGA775 B,D
06	P4 LGA775 C
07	P4 LGA775 E,F,G,H
08	P31 HOST
09	P31 DDRII
10	P31 PCI E, DMI
11	P31 VGA
12	P31 GND
13	P31 PWR
14	PCI EXPRESS*16 SLOT
15	DDRII CHANNEL A
16	DDRII CHANNEL B
17	DDRII TERMINATION
18	ICH7 PCI, USB, DMI, LAN
19	ICH7 IDE, GPIO, SATA, CTRL
20	ICH7 VCC, GND
21	CK505 CLOCK.
22	PCI SLOT 1,2,PCIE*1
23	IDE/FLOPPY
24	ITE 8718 GB/GX
25	COM LPT
26	CI,HWM,KB/MS,DUAL BIOS
27	ALC888

SHEET**TITLE**

28	REAR AUDIO JACK
29	DISCRETE POWER
30	VCORE PWM ISL6312
31	ATX, OTHERS POWER
32	FRONT PANEL
33	REALTEK RTL8111C
34	PCI SLOT3,PCIE*2,3

Gigabyte Technology			
Title Cover Sheet			
Size Custom	Document Number GA-P31-ES3G	Rev 1.0	
Date: Wednesday, July 23, 2008	Sheet 1 of 34		

BLOCK DIAGRAM

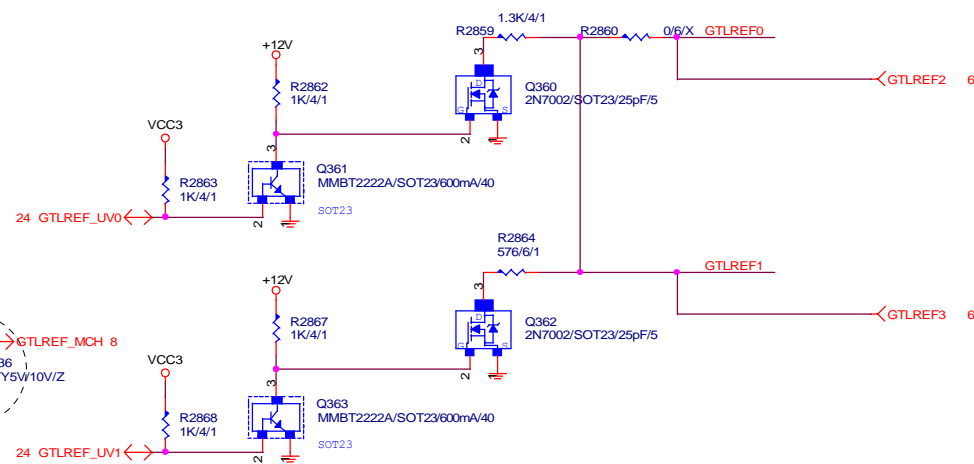
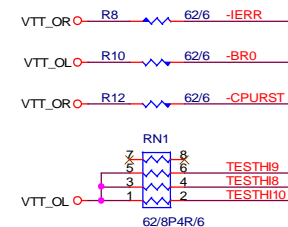
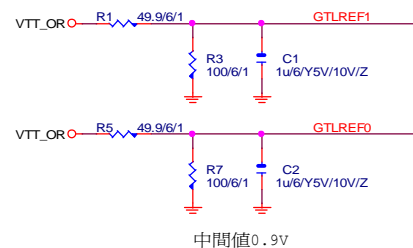


Gigabyte Technology			
BOM & PCB MODIFY HISTORY			
Doc GA-P31-ES3G	Document Number	Rev 1.0	
Date Wednesday, July 23, 2008	Sheet 2	of 14	

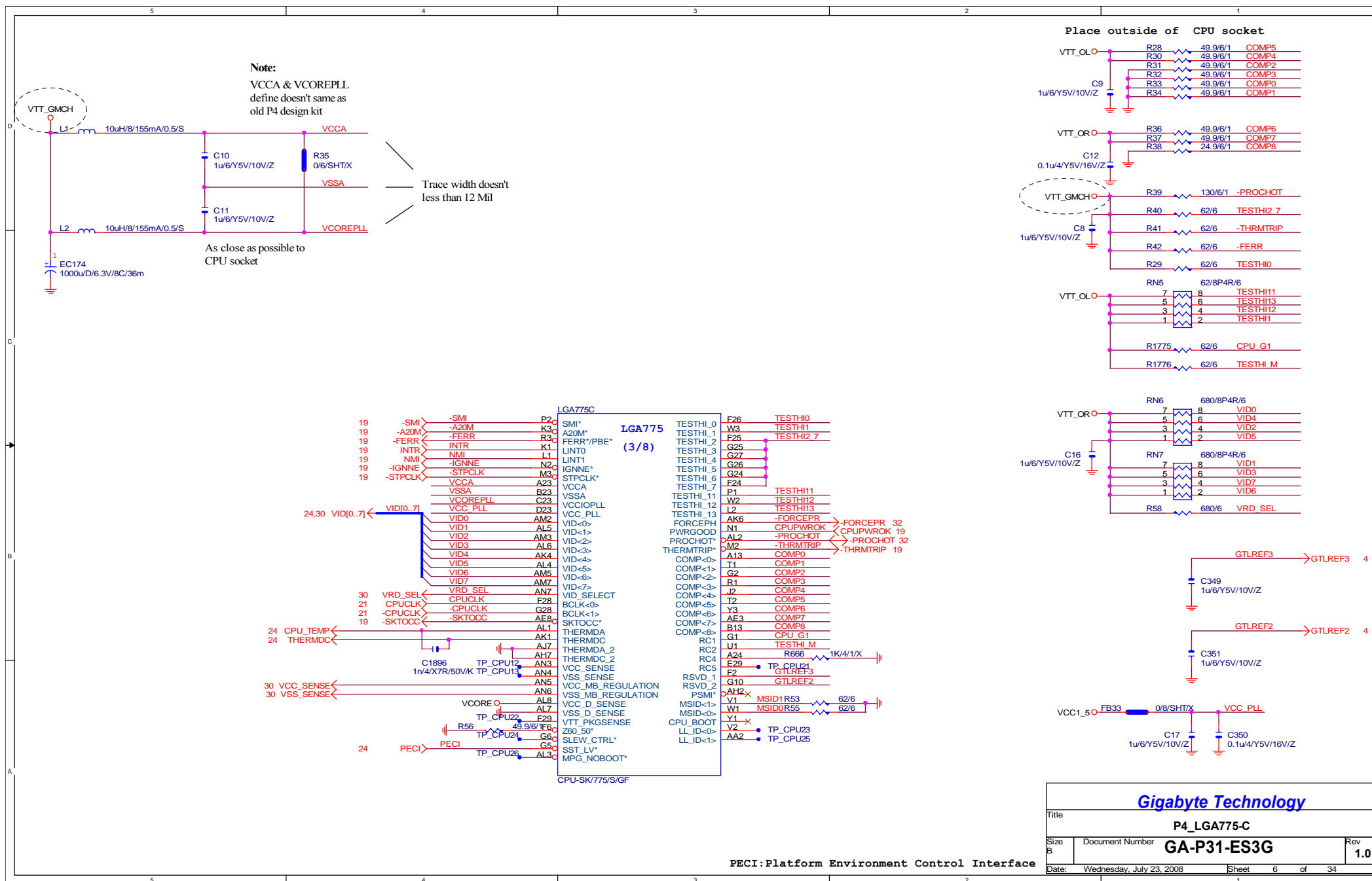
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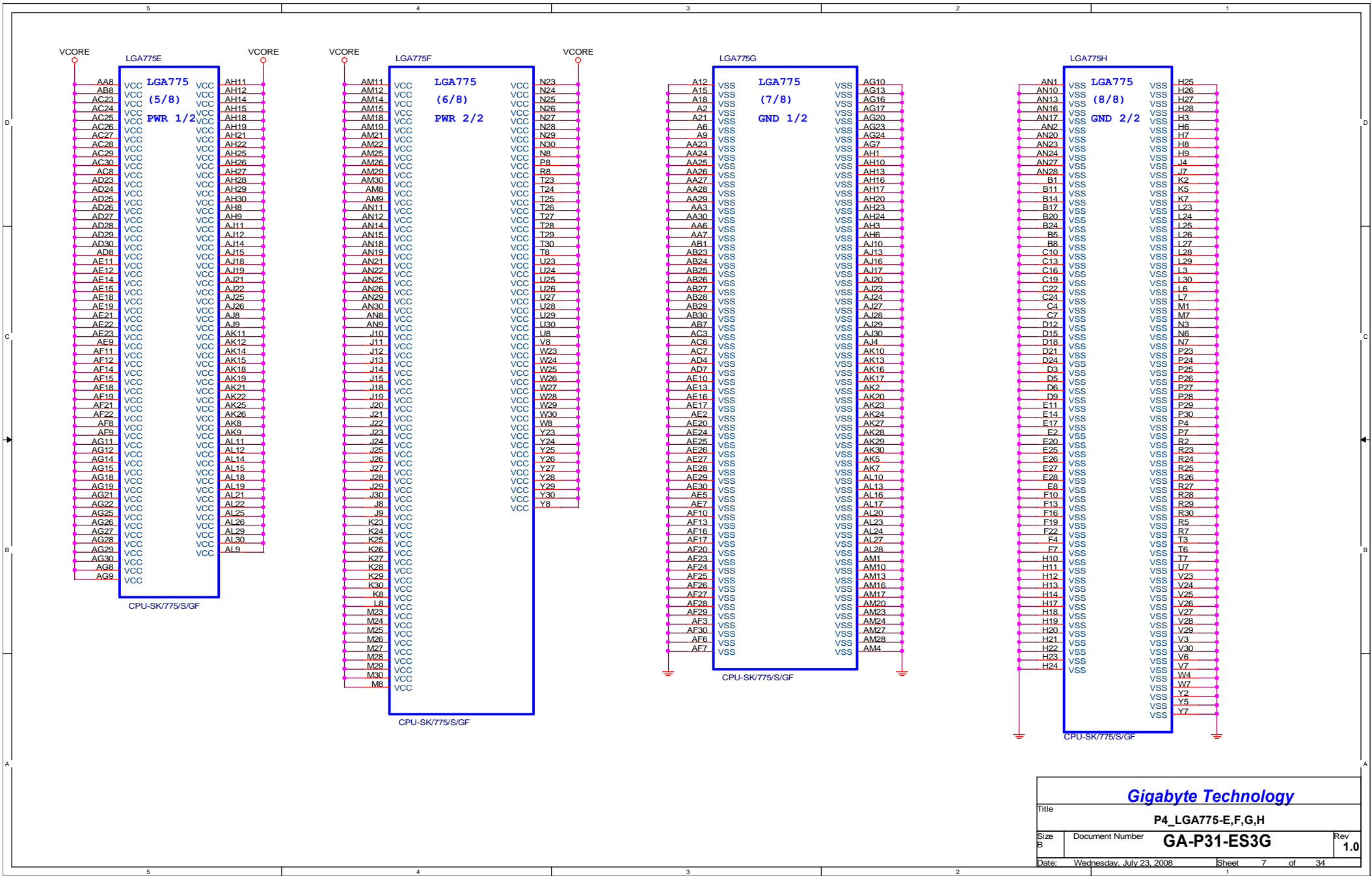
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Title				
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Size B	Document Number			Rev
	GA-P31-ES3G			1
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L2C

BW
(3/9)

15.17 SWEA SCAS_A#
15.17 SCAS_A#
15.17 SRAS_A#

15.17 SBA0 SBA0_A#
15.17 SBA1 SBA1_A#
15.17 SBA2 SBA2_A#

15.17 CS0 CS0_A#
15.17 CS1 CS1_A#
15.17 CS2 CS2_A#
15.17 CS3 CS3_A#

15.17 CKE0 SCKE_A#
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MODT_A0 MODT_A0_1
MODT_A1 MODT_A1_1

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L2D

BW
(4/9)

16.17 SWEA SCAS_B#
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16.17 SRAS_B#

16.17 SBA0 SBA0_B#
16.17 SBA1 SBA1_B#
16.17 SBA2 SBA2_B#

16.17 CS0 CS0_B#
16.17 CS1 CS1_B#
16.17 CS2 CS2_B#
16.17 CS3 CS3_B#

16.17 CKE0 SCKE_B#
16.17 CKE1 SCKE_B#
16.17 CKE2 SCKE_B#
16.17 CKE3 SCKE_B#

MODT_B0 MODT_B0_1
MODT_B1 MODT_B1_1

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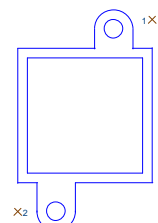
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16 DMB0_7K DMB0_7K_1
16 DMB0_63K DMB0_63K_1
15.17 MAAB0_14 MAAB0_14_1
15 DMA0_7K DMA0_7K_1
15 DMA0_63K DMA0_63K_1
15 DQSA0_7K DQSA0_7K_1
15 -DQSA0_7K -DQSA0_7K_1

DDR18V
R74 1K/4/1
MCH_VREF
R75 1K/4/1
BC26 1uB/Y5V/10VZ

DDR18V
R1593 1K/4/1
SMRCOMPV0H
C321 0.01u4/X7R/25V/K
R77 3K/4/1
SMRCOMPV0L
R1594 1K/4/1
C322 0.01u4/X7R/25V/K

DDR18V
R79 20B/1 SMRCOMP3
BC27 0.1u4/Y5V/16VZ
R80 20B/1 SMRCOMP2

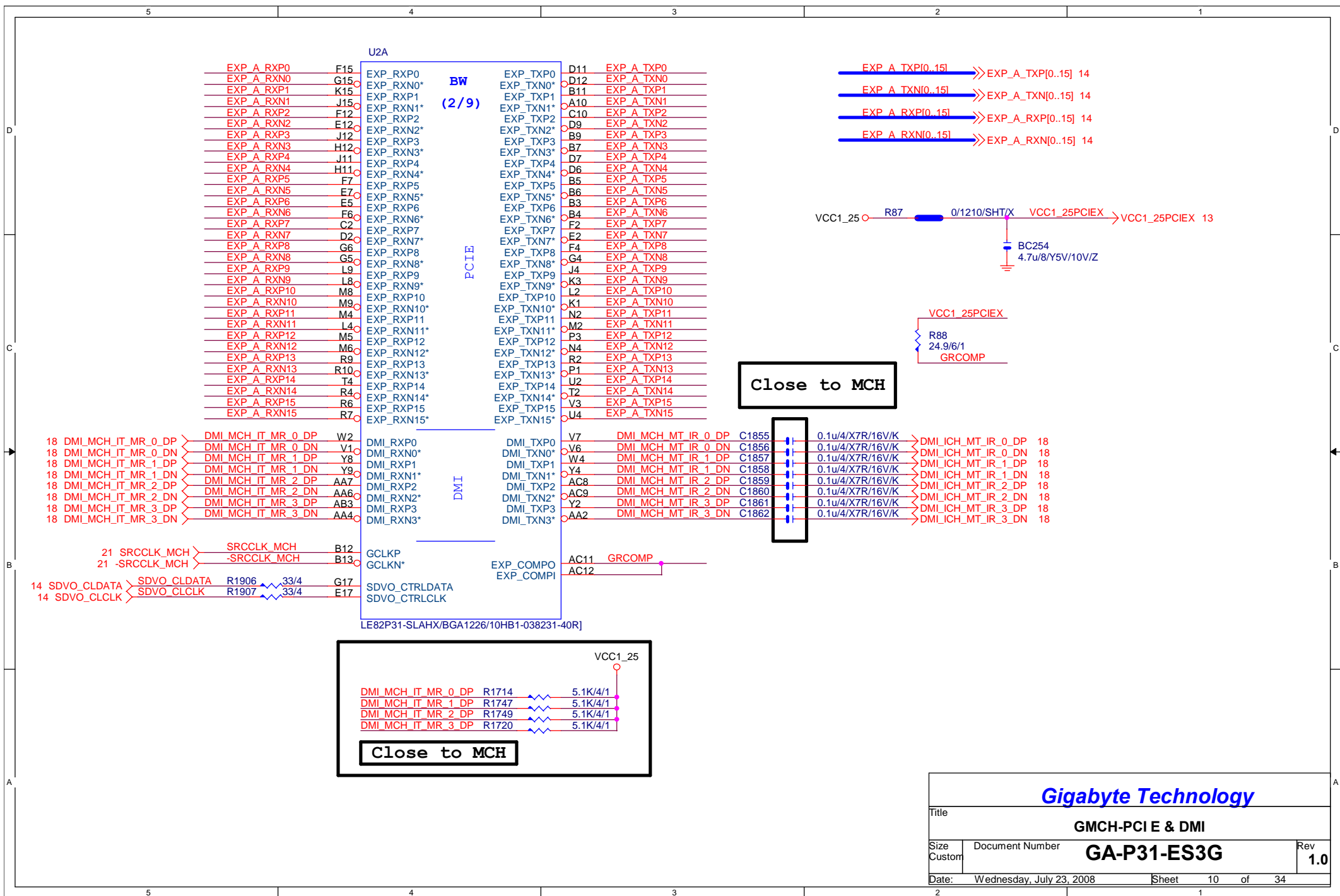
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R81 20B/1 SMRCOMP1
BC28 0.1u4/Y5V/16VZ
R82 20B/1 SMRCOMP0

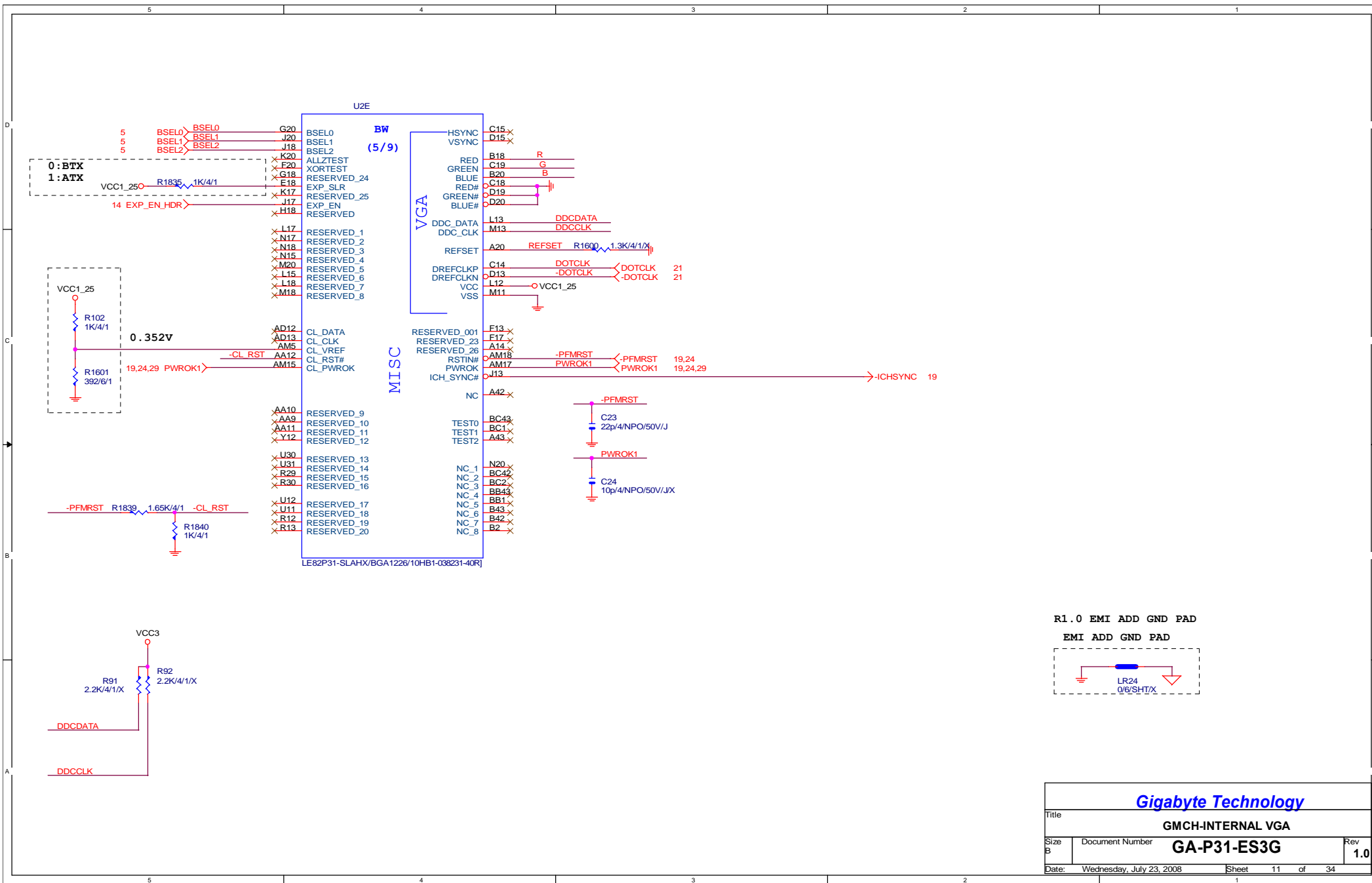


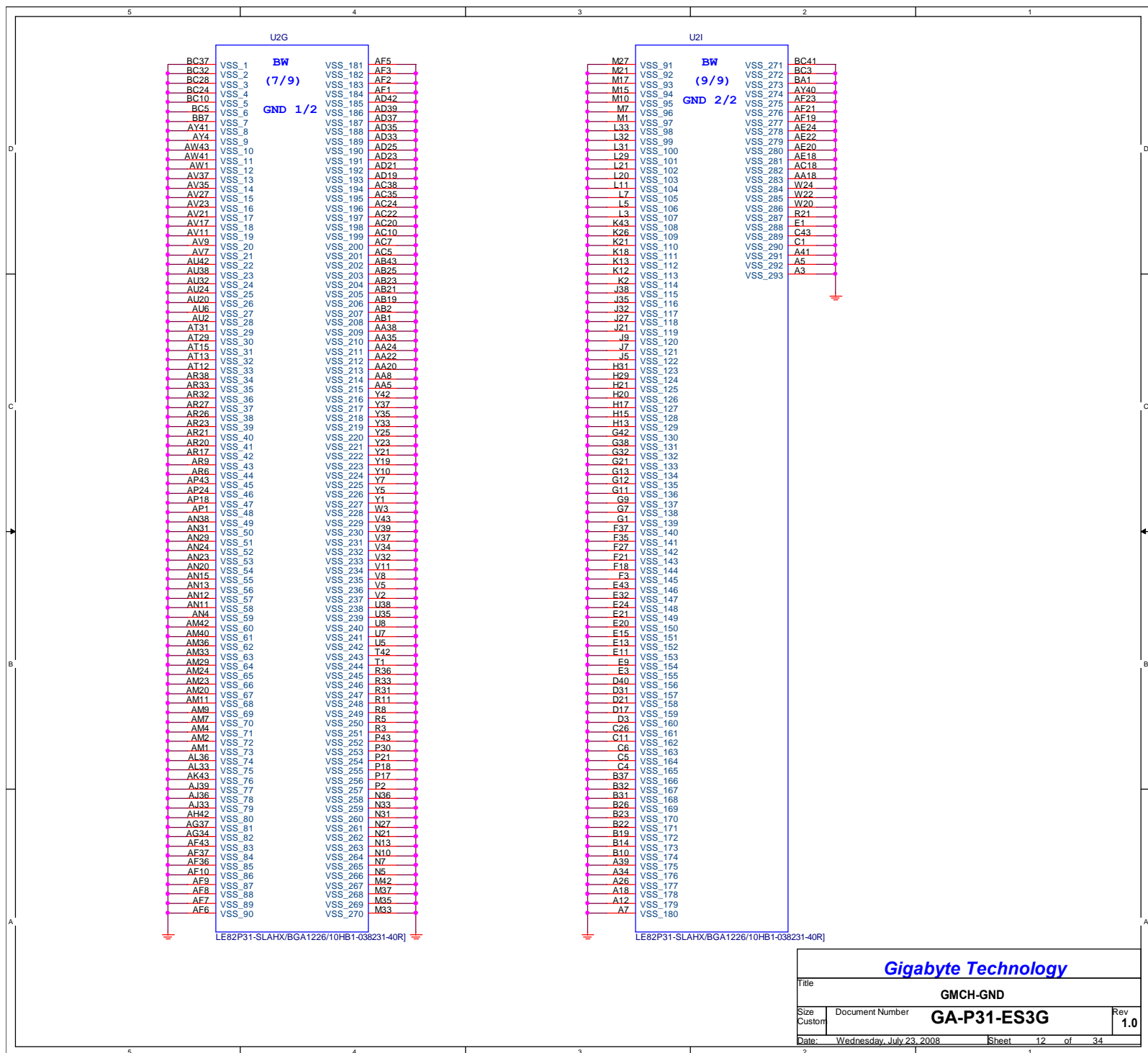
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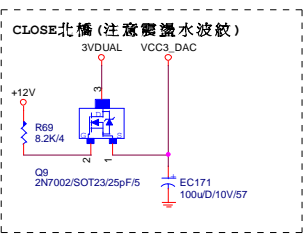
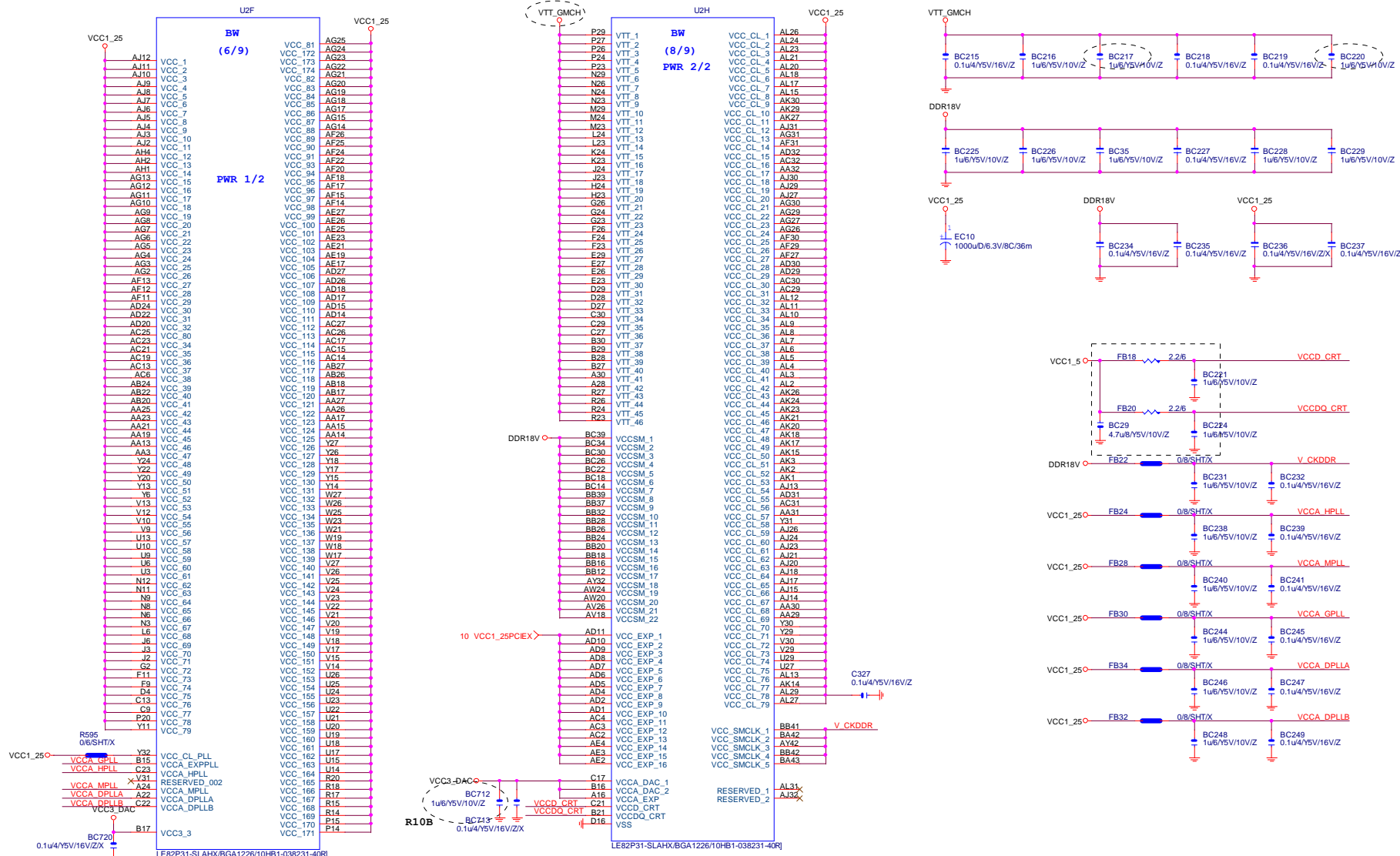
Gigabyte Technology

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Date	Wednesday, July 23, 2008	Sheet	9 of 34

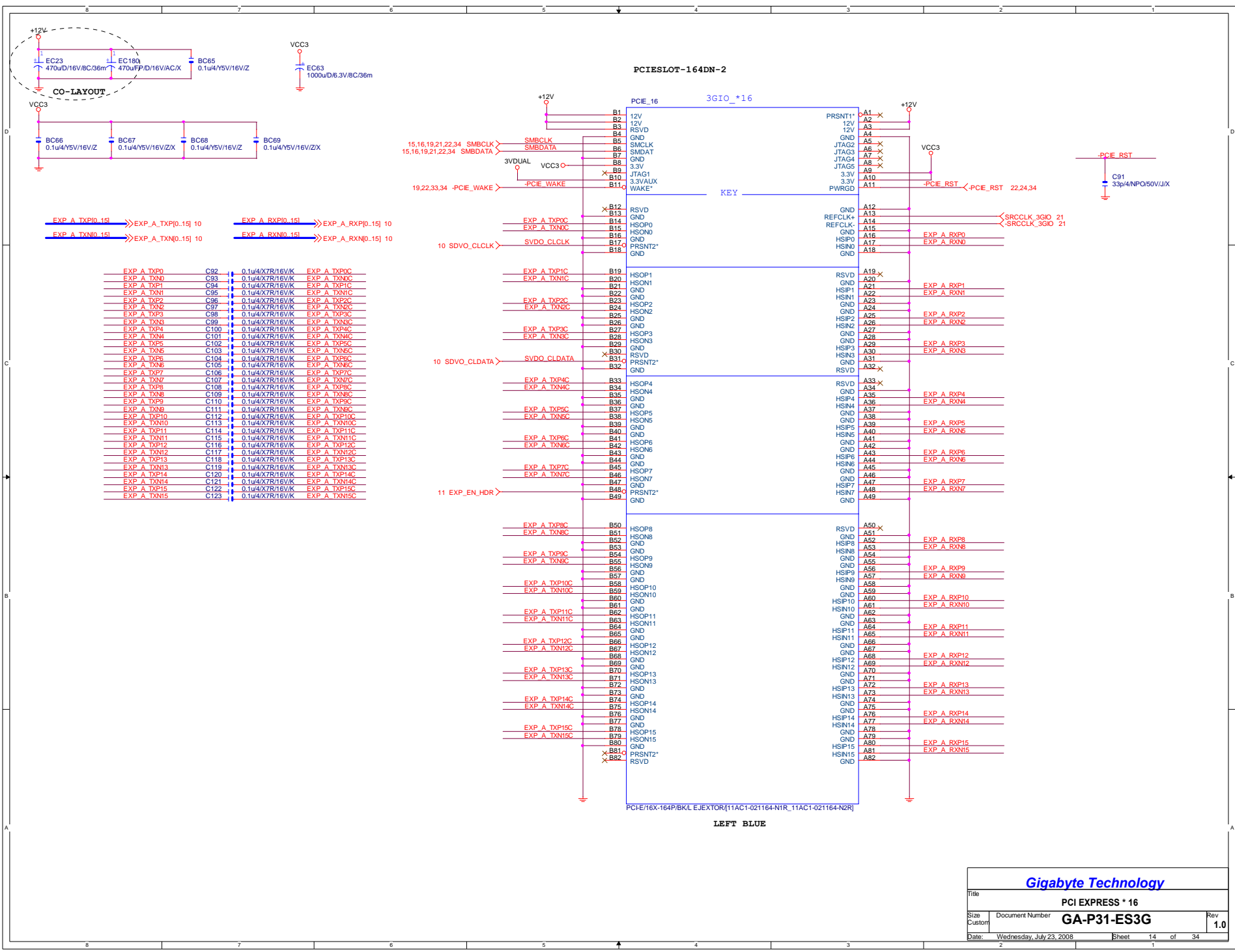


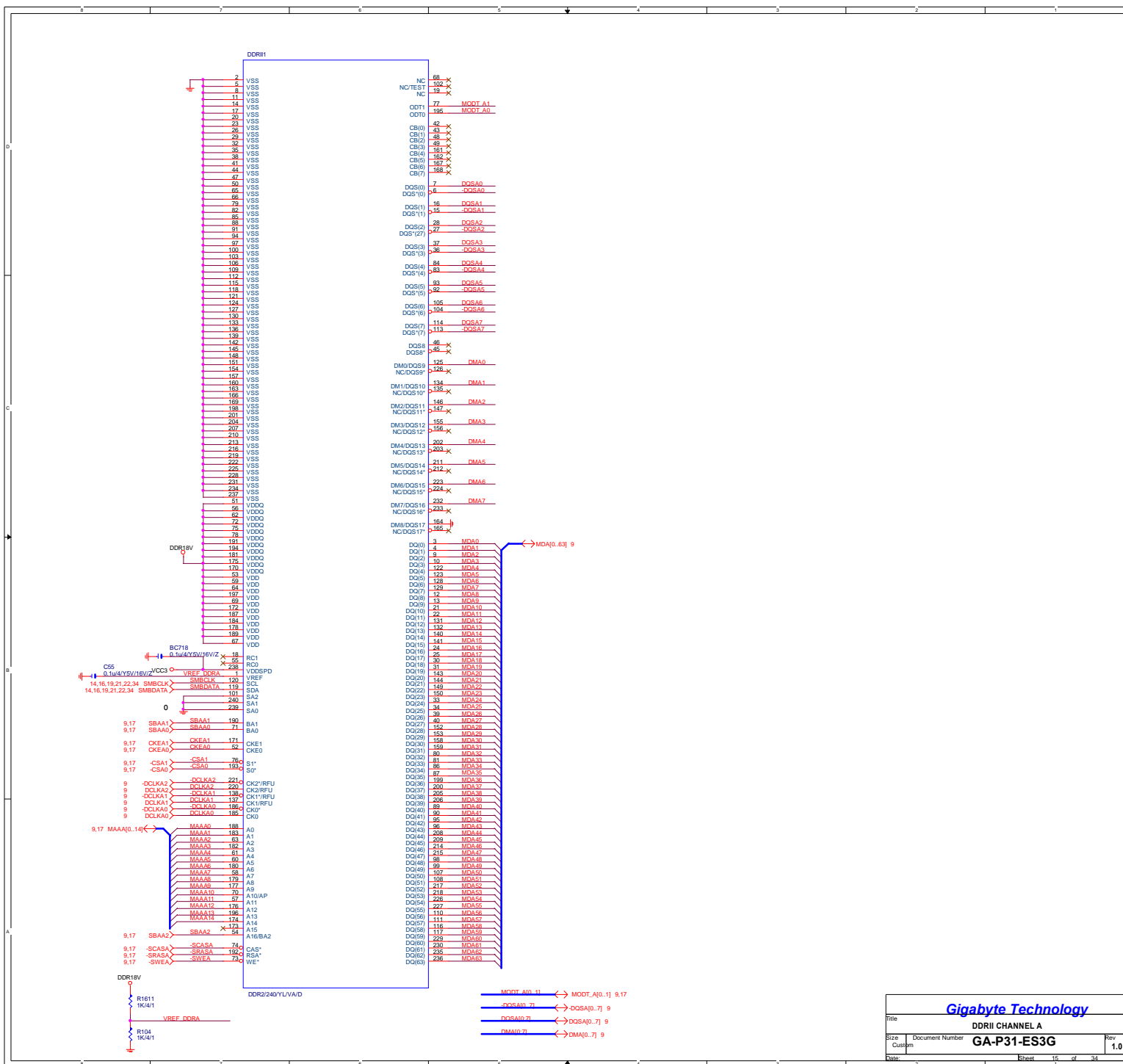






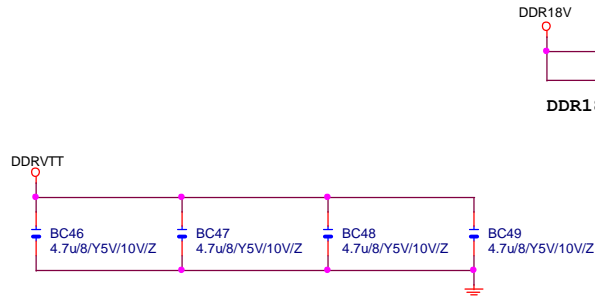
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Size	Document Number	GA-P31-ES3G	
Custom		Rev 1.0	
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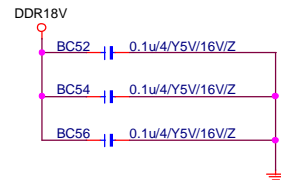


DDR TERMINATION CHANNEL A

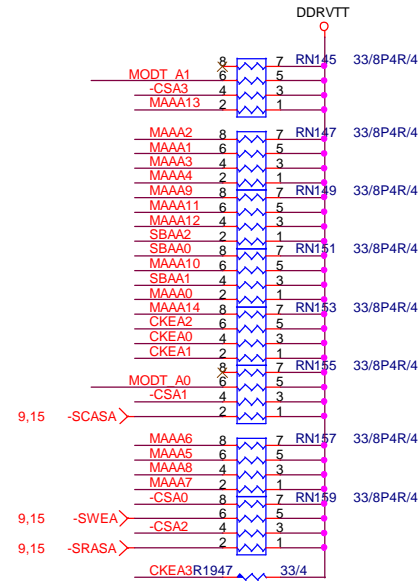
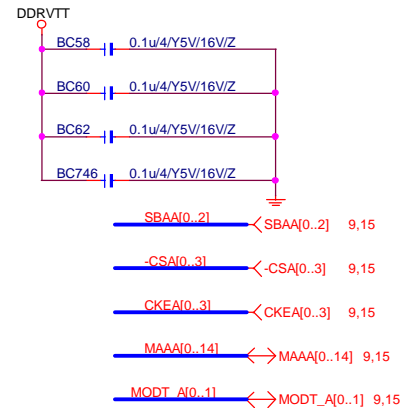
DDRVTT Decouple



DDR18V Decouple

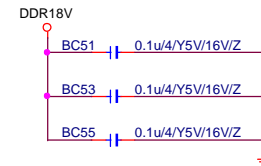


DDRVTT Decouple

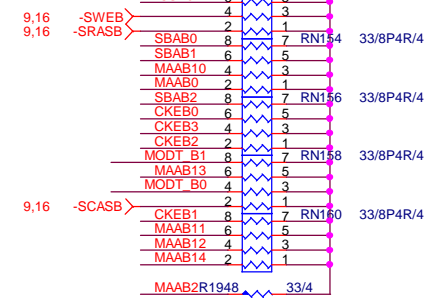
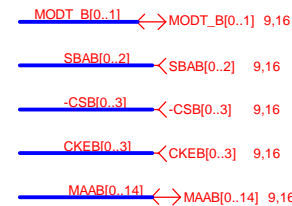
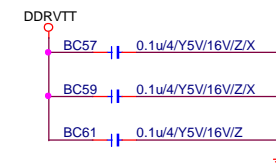


DDR TERMINATION CHANNEL B

DDR18V Decouple



DDRVTT Decouple

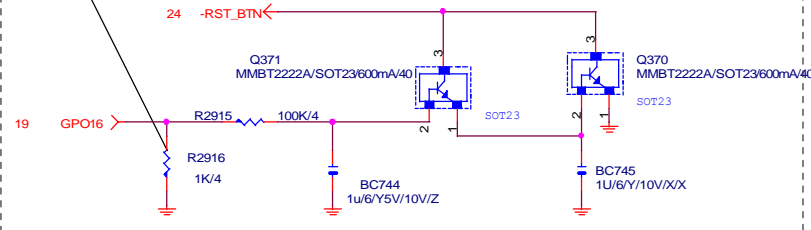


Gigabyte Technology

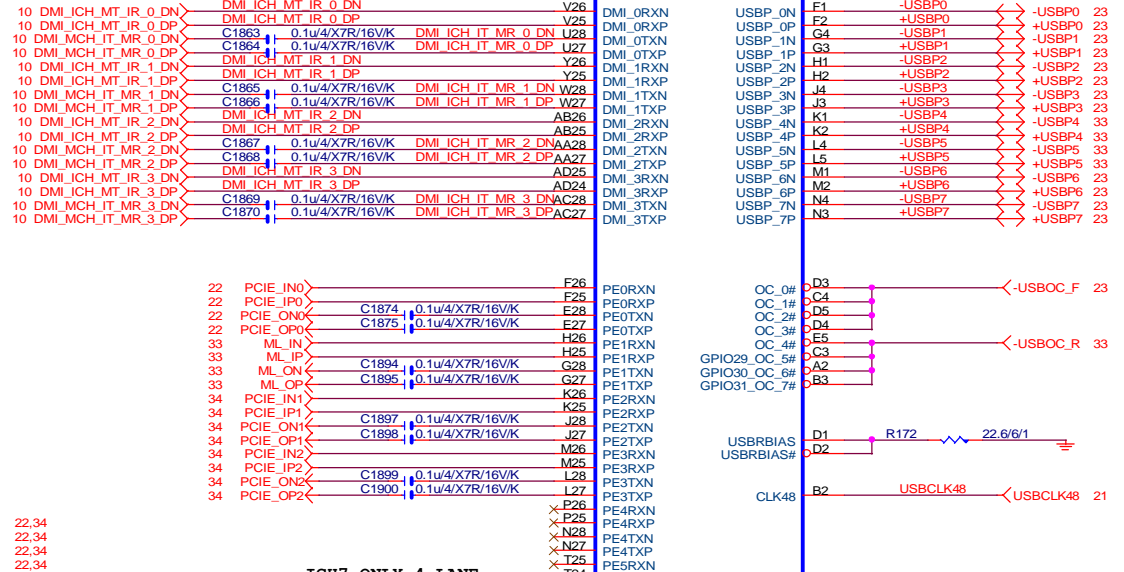
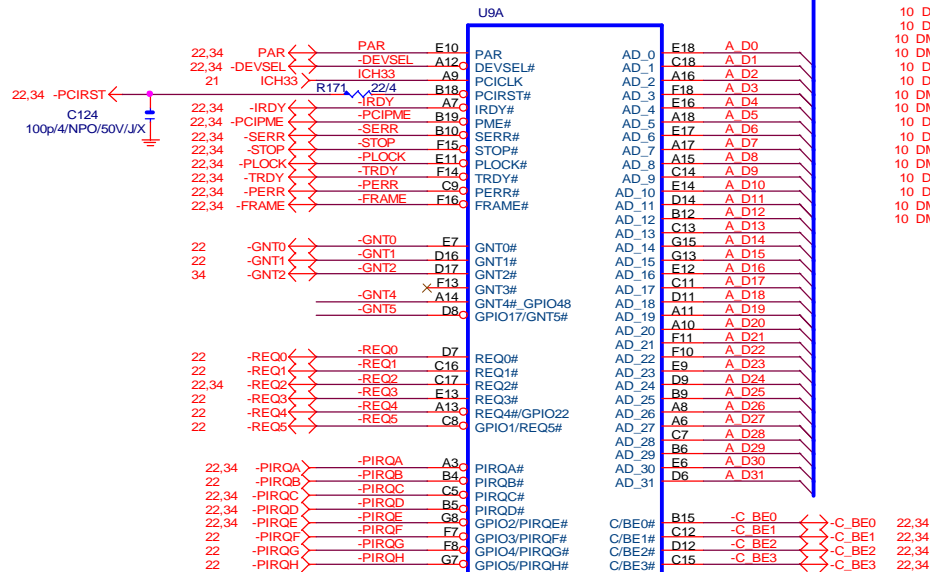
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Size	Document Number	GA-P31-ES3G	
Custom		Rev	1.0
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FOR ICH7R POWER ON 瞬間會HIGH 到1.8V 之後0V,必須PULL DOWN 1K/6

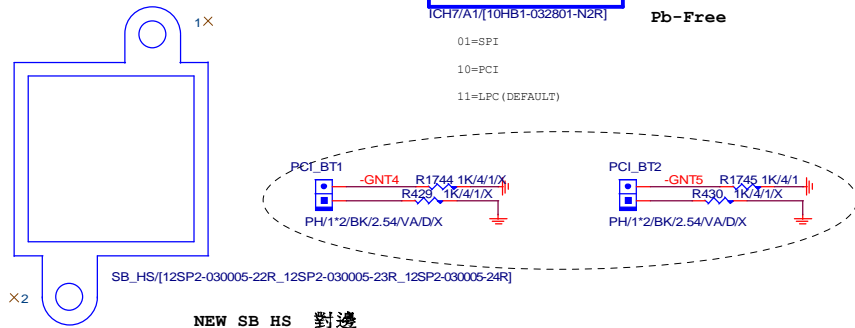
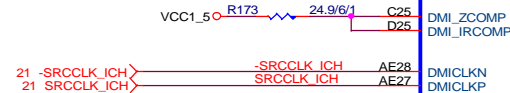
H/W
RESET



Close to ICH
as short as possible



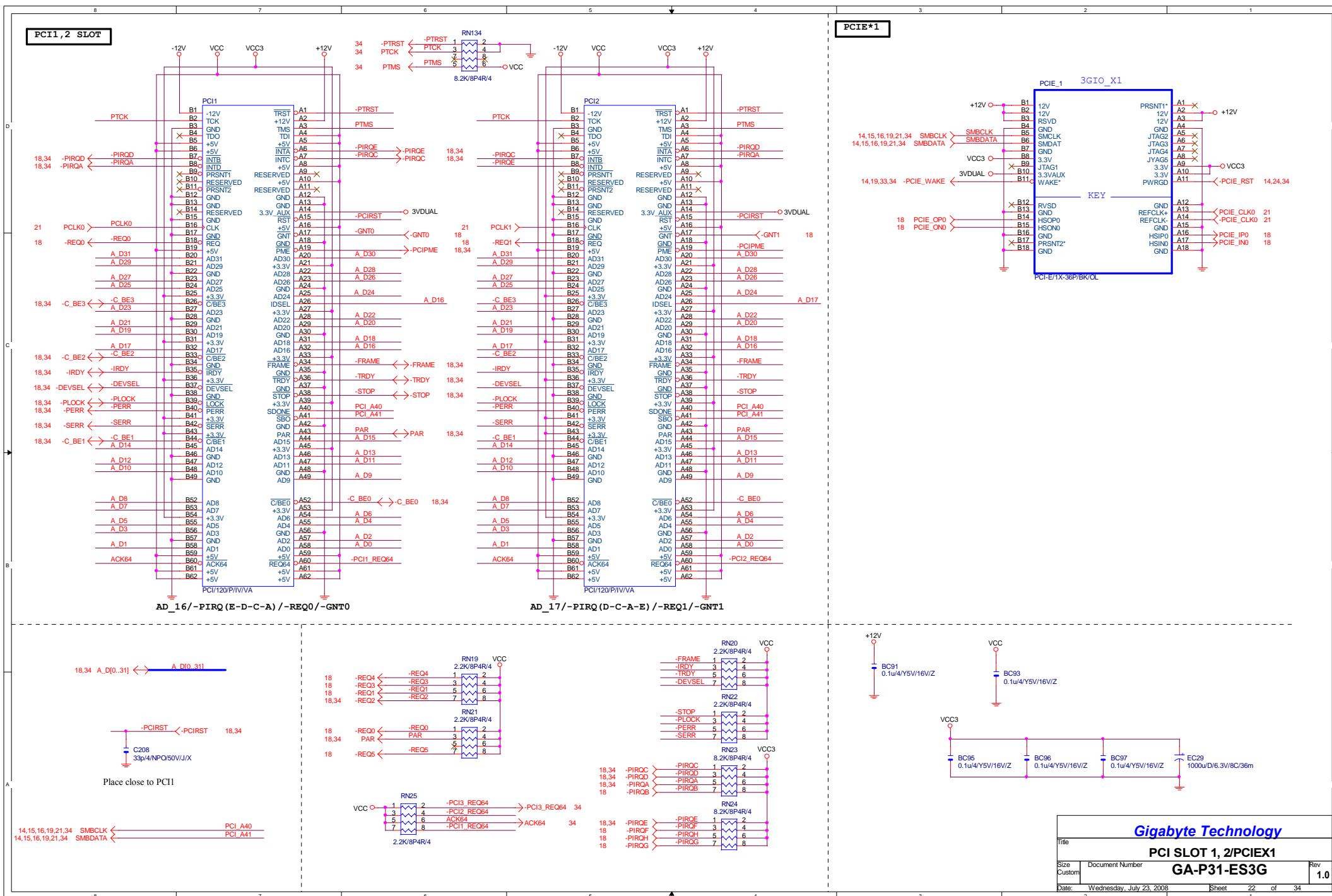
ICH7 ONLY 4 LANE



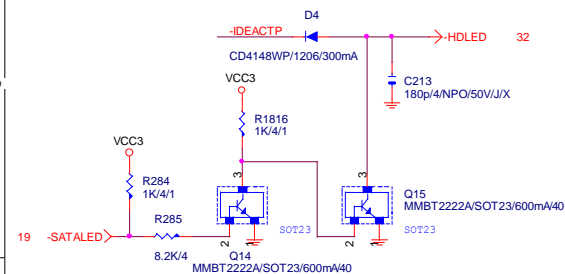
Gigabyte Technology

Title			
ICH7-PCI, DMI, LAN, USB			
Size	Document Number	Rev	
B	GA-P31-ES3G	1.0	
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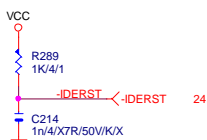




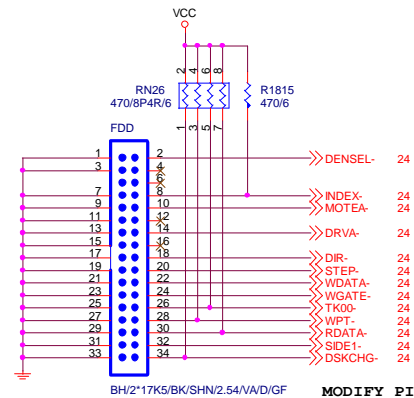
IDE/SATA LED



IDE RESET

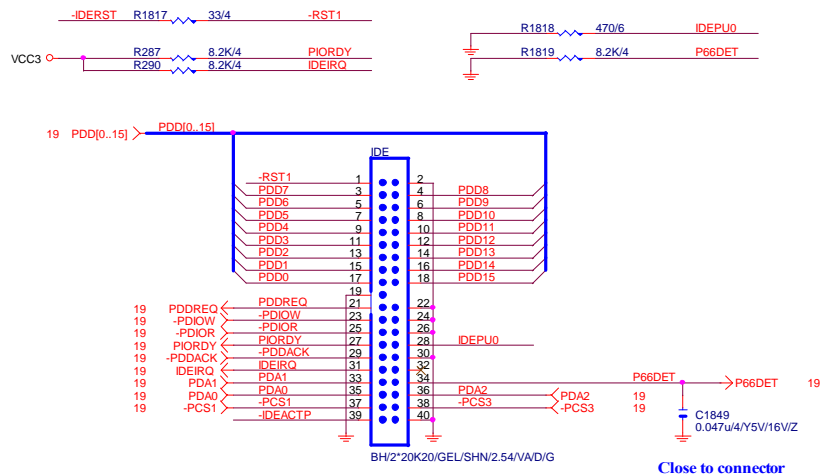


FLOPPY



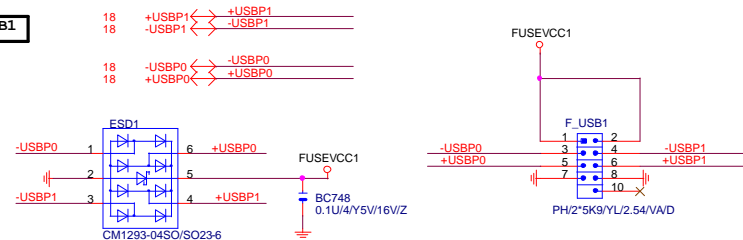
MODIFY PIN HEADER

IDE

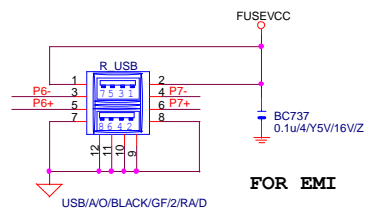
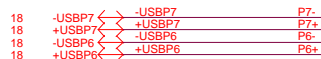
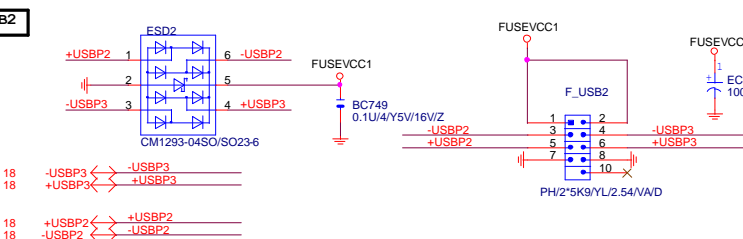


Close to connector

FRONT USB1



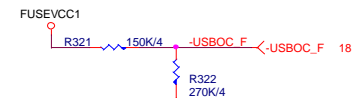
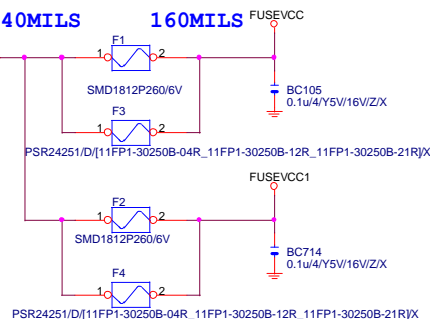
FRONT USB2



FOR EMI

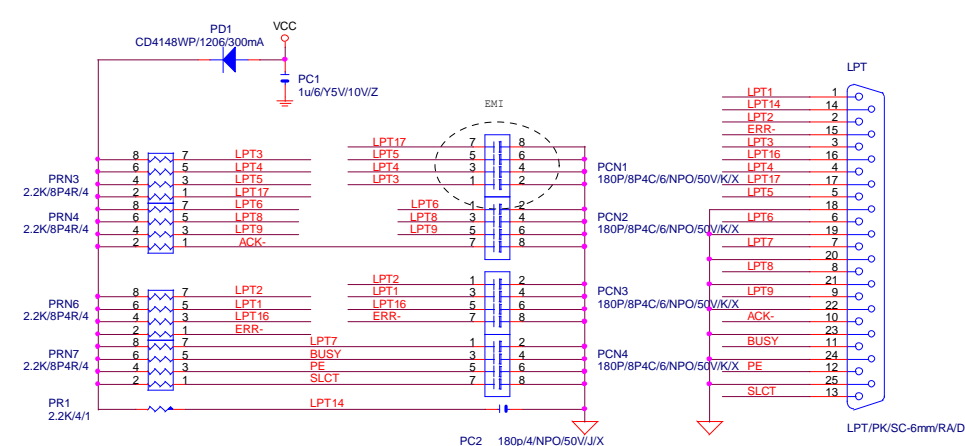
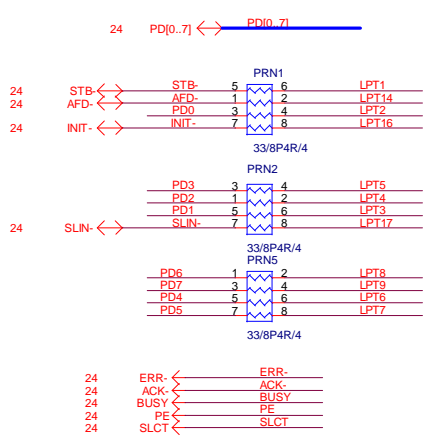
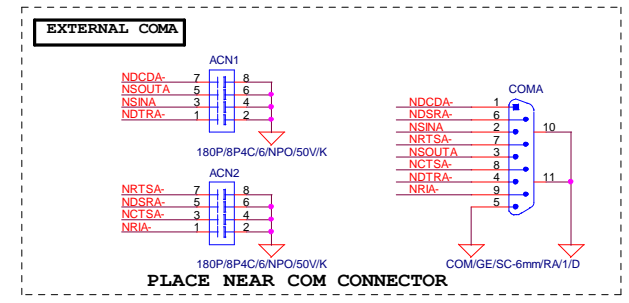
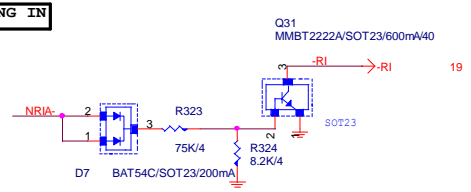
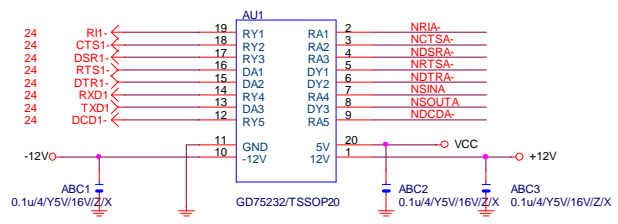
240MILS

160MILS



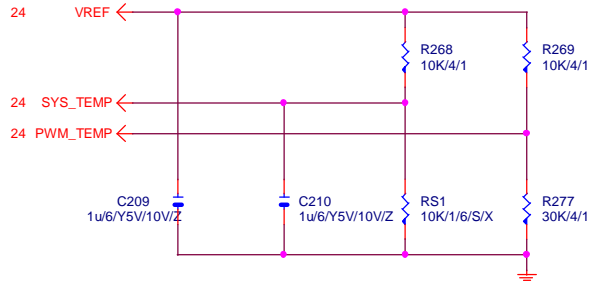
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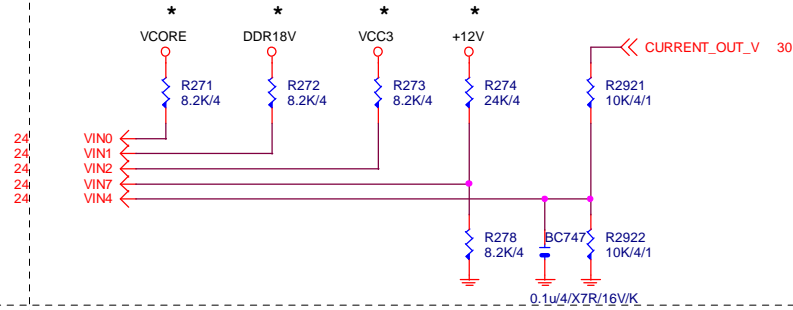


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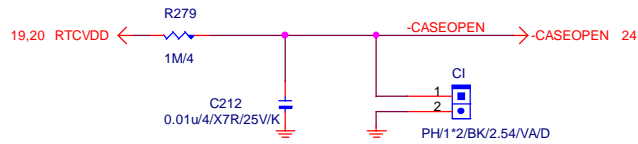
TEMP H/W MONITOR



VOLTAGE-- H/W MONITOR

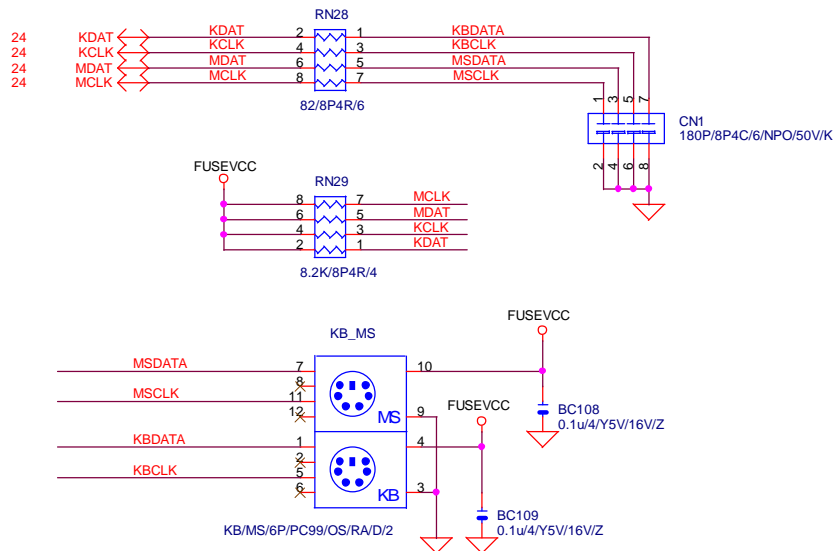


CASE OPEN

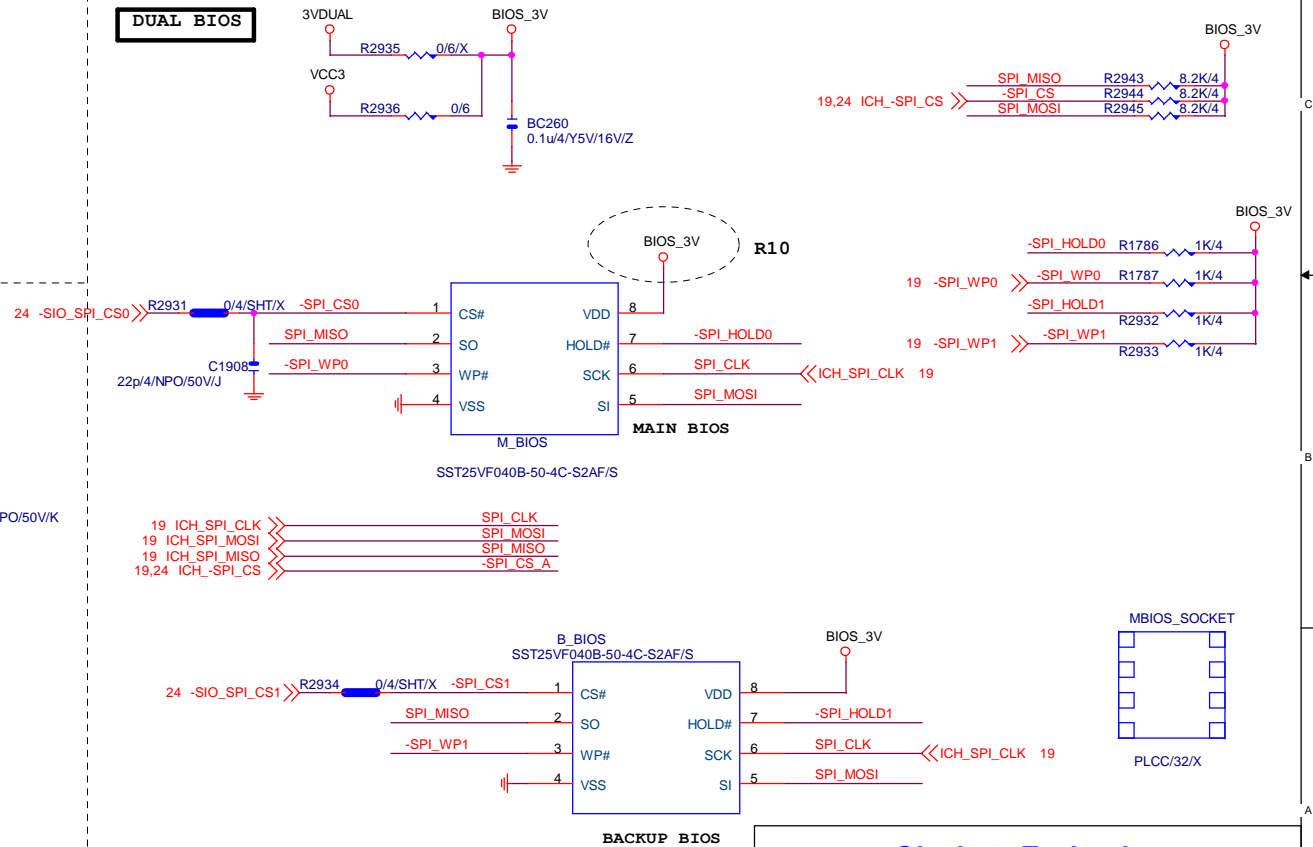


Case Open Circuits

KB/MS



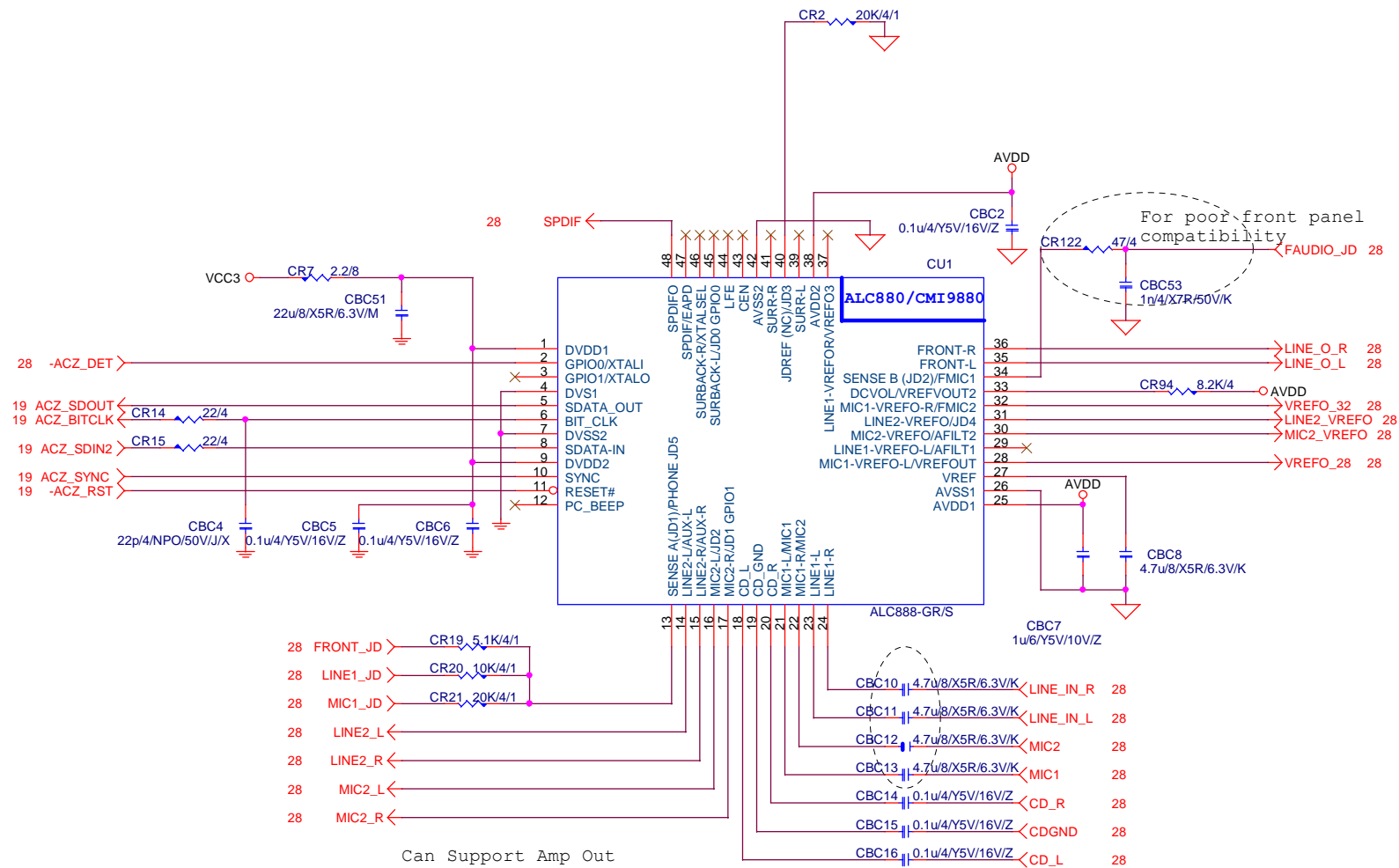
DUAL BIOS



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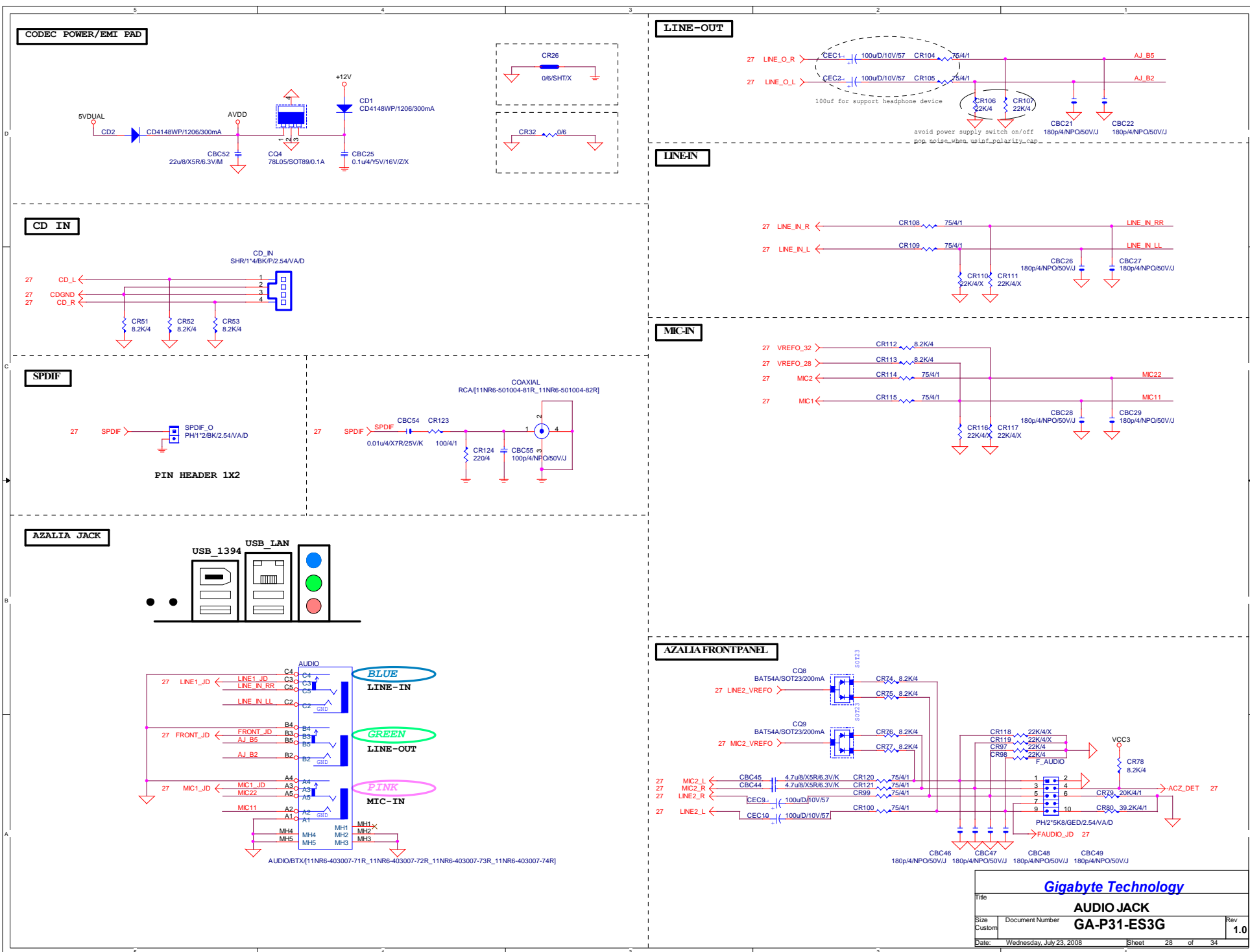
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AZALIA CODEC

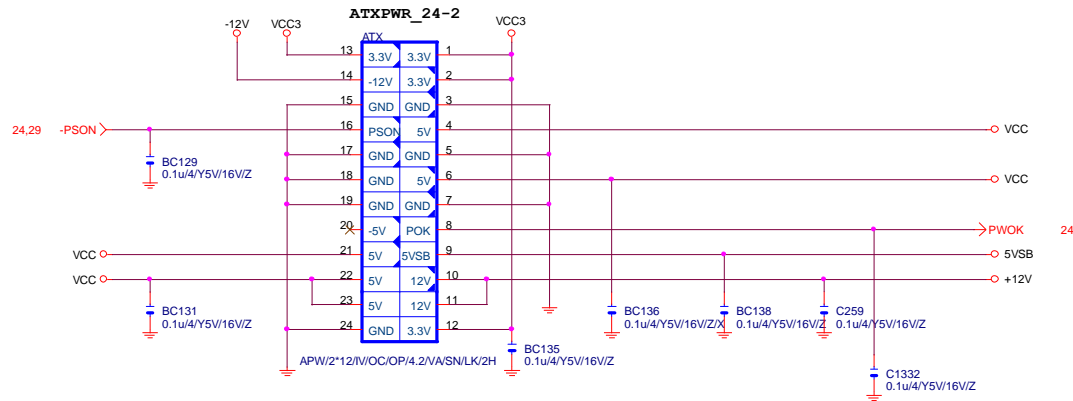


Can Support Amp Out

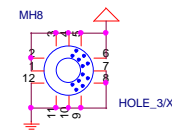
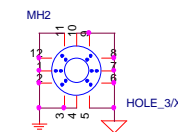
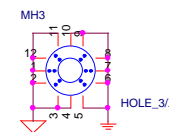
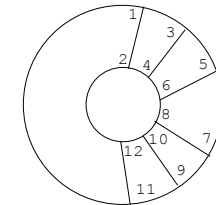
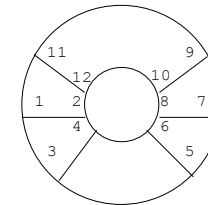
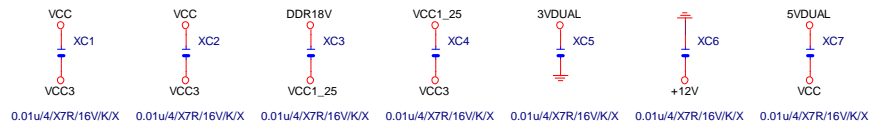
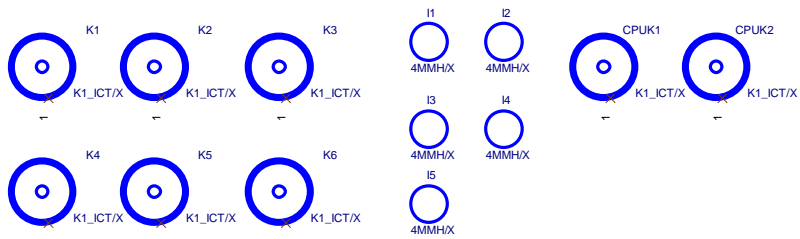
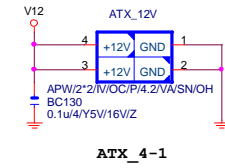
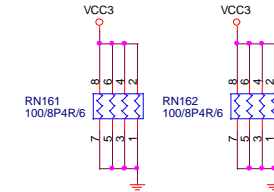
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ATX POWER CONNECTOR

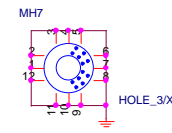
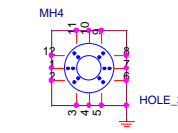
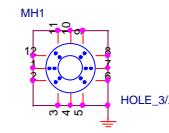


FIX PWR AcBel (ATX-400C-A2ADB)



HOLE_4-RH

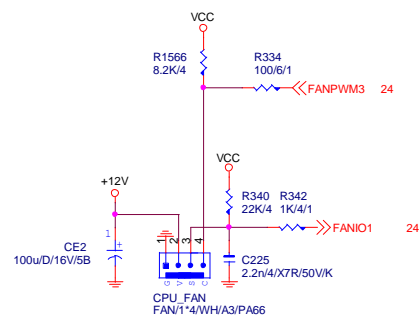
HOLE_4-RH-5MM



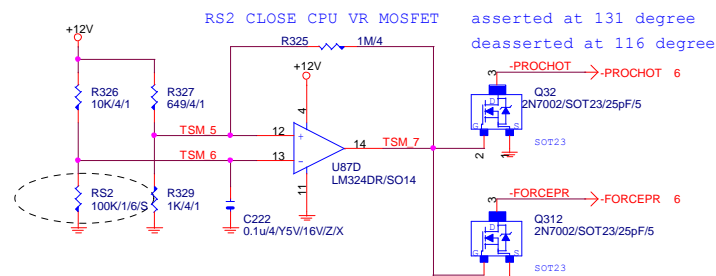
Gigabyte Technology

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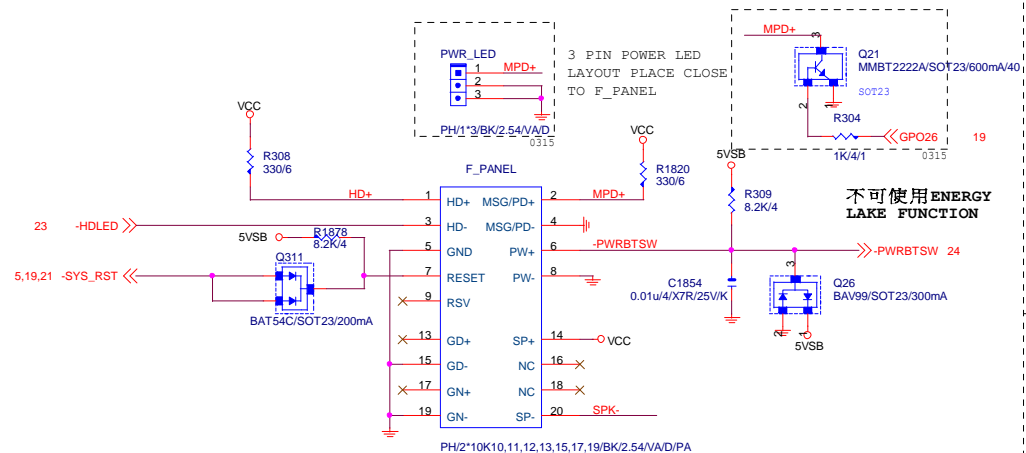
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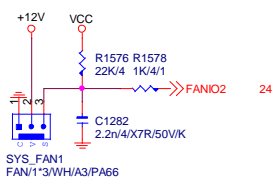
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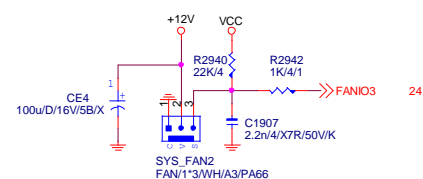
INTEL FRONT PANEL



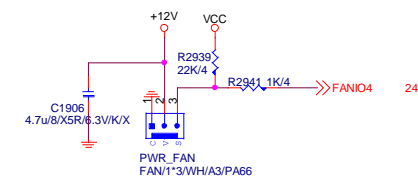
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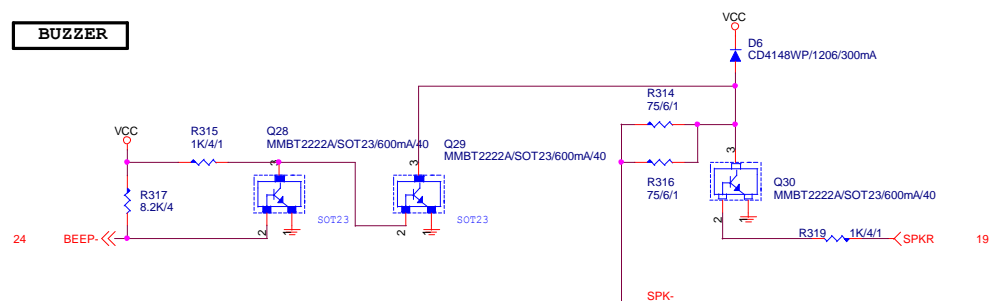
SYS_FAN2



PWR_FAN



BUZZER

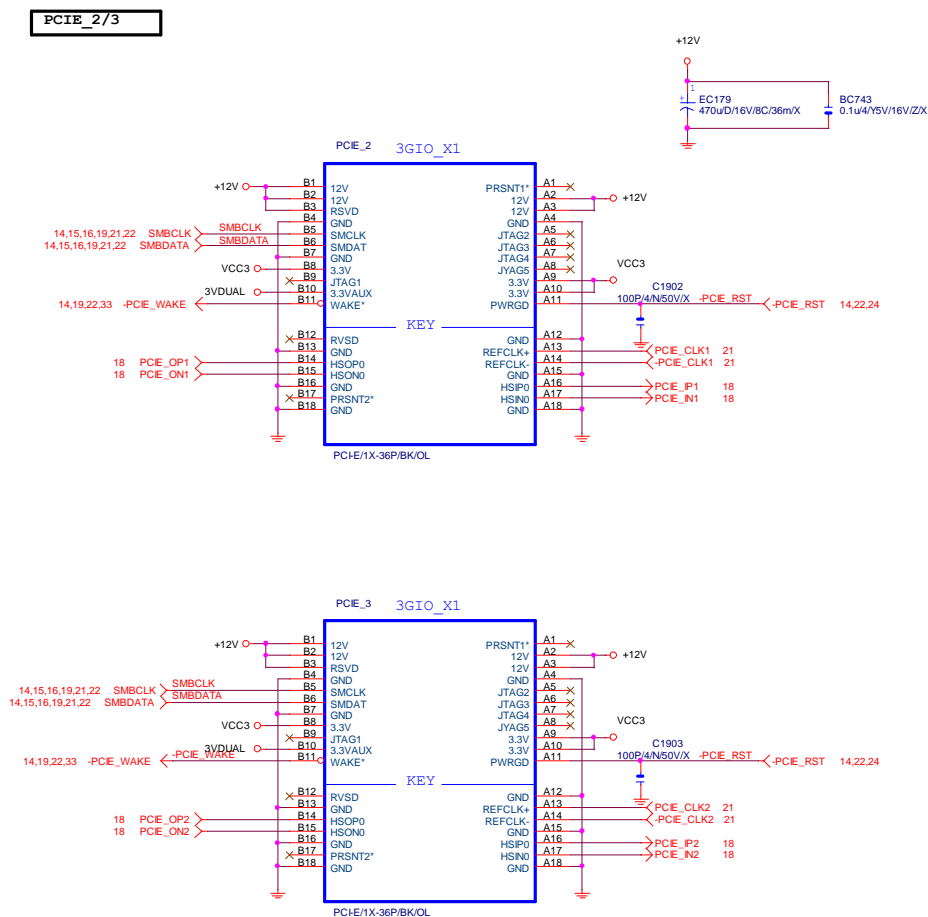
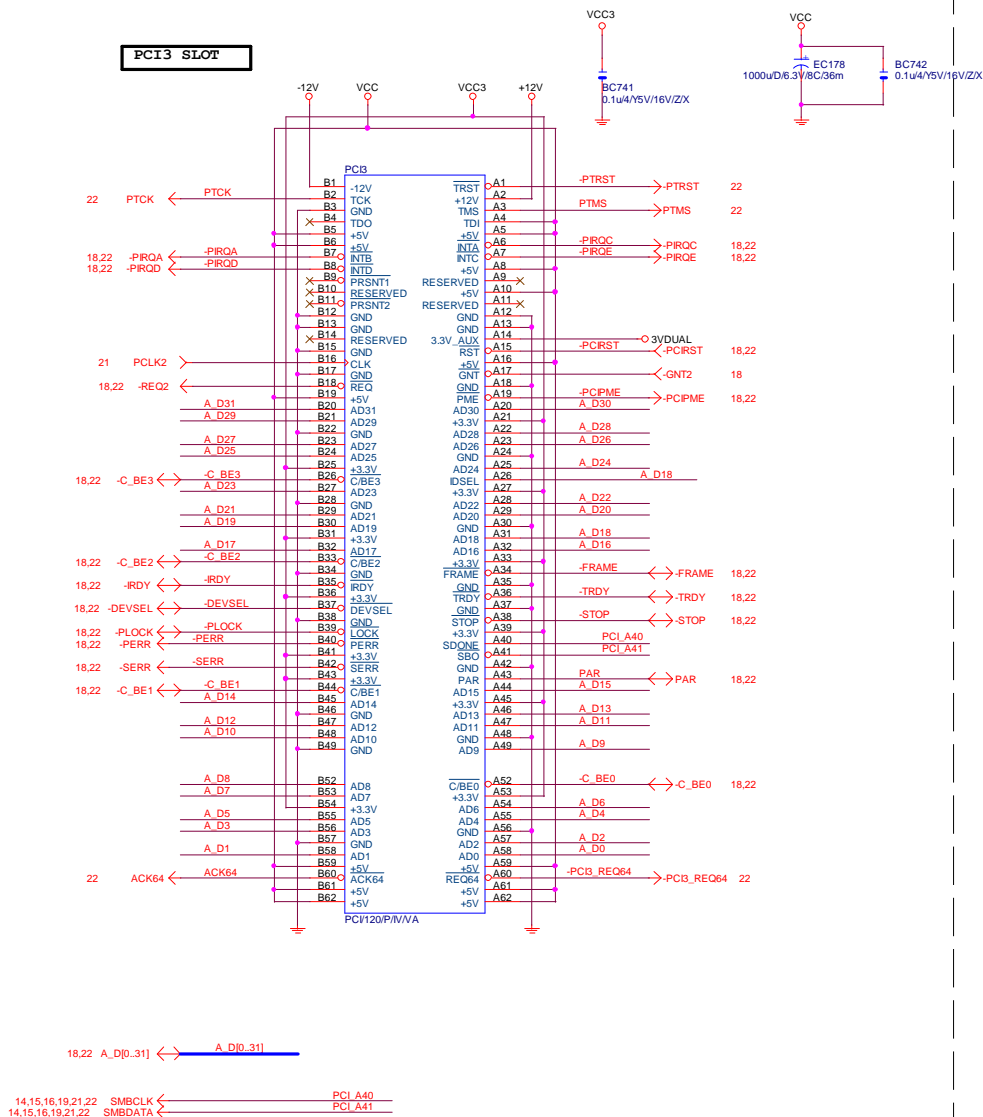


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PCI3 SLOT

PCIE_2/3



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