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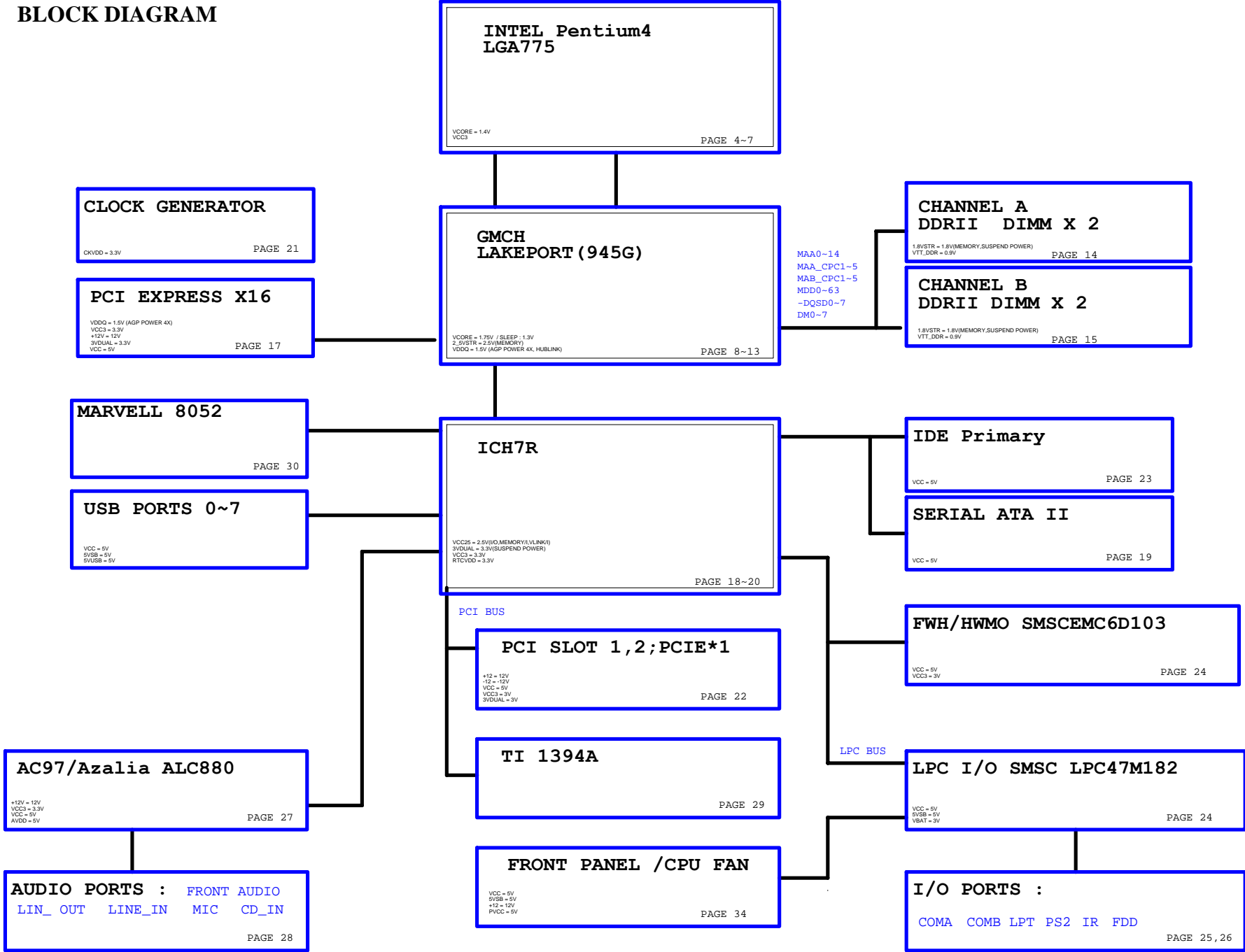
SHEET TITLE

28	REAR AUDIO JACK
29	TI TSB43AB23 1394
30	MARVELL 88E8052
31	VCORE PWM ISL6556
32	DISCRETE POWER
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Gigabyte Technology

Title			Cover Sheet
Size	Document Number	8I945AEF-RH	Rev
Custom			1.1
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BLOCK DIAGRAM



Model Name: 8I945AEF-RH-AE

Version: 1.1

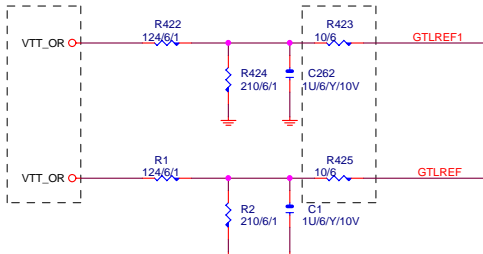
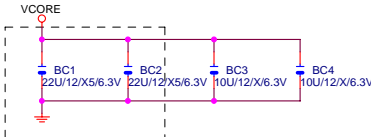
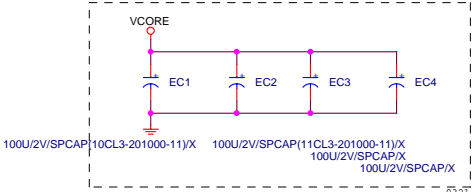
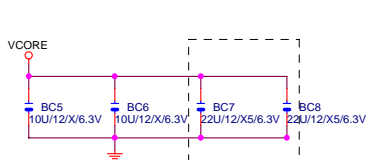
Component value change history

2005/08/24

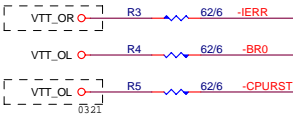
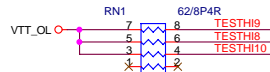
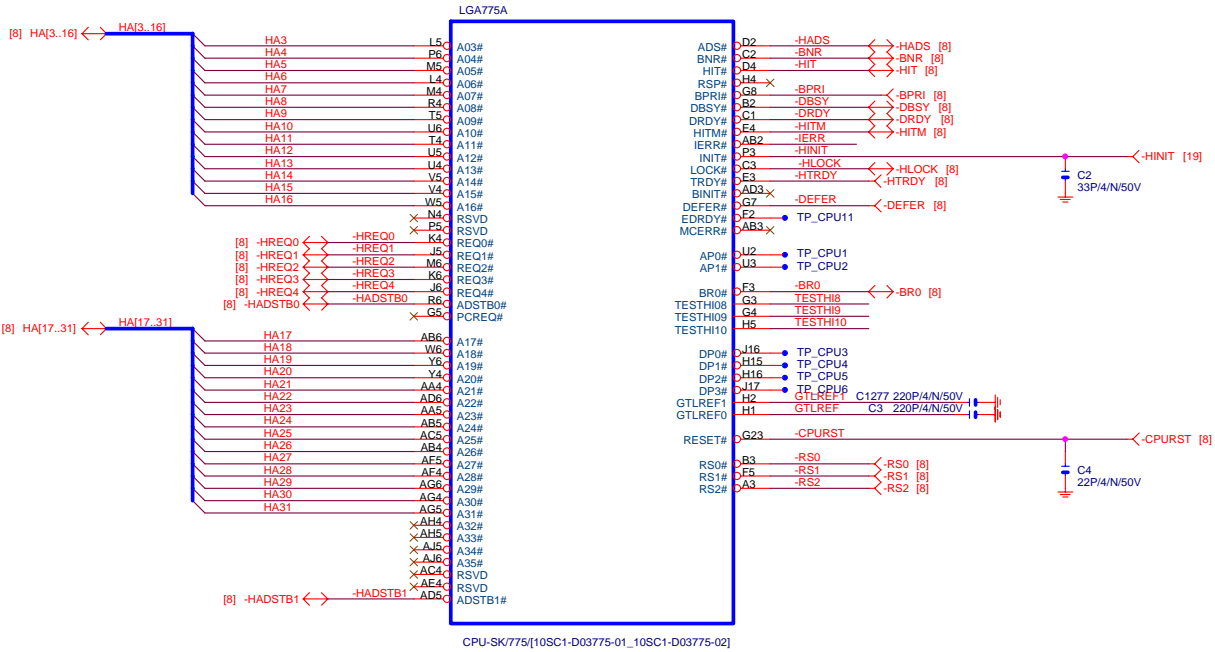
Data	Reason	Change Item
2005/02/01	PAGE 29:ACER modify USB_1394 for rear window	
	PAGE 24:add 5VDUAL LOCKER	
2005/03/21	PCB REV 0.2 MODIFY(ACER)	
	PAGE 31:LAYOUT CHANGED	1.VCORE PWM(NORTH:3 PHASE,EAST:1 PHASE)
		ADD MOSHSINK1,2
	PAGE 31:LAYOUT CHANGED	2.CPU_FAN,SYS_FAN USE OP+MOSFET
	PAGE 29:LAYOUT CHANGED	3.R USB/USB 1394 PORT 6/7 CO-LAYOUT on REAR SIDE
		4.Front 1394 connector only 1 keep
	PAGE 19:ACER ADD TPM FUNCTION	5.ADD TPM CONNECTOR
	PAGE 28:ACER MODIFY SPDIF CONNECTOR	6.SPDIF PH/1*4K2
	PAGE 26:ACER MODIFY CASEOPEN--->RTCVDD->3VDUAL	7.CACEOPEN- PULL-UP from RTCVDD-->3VDUAL
2005/03/29	9M8I945AEF-AE-02 E-BOM(ACER B2-C)	1.PAGE 4:ADD CPU RETAINTION/[12KRC-040005-21] & IO_SHIELD/[12AIO-AE0007-01]
	NB/SB CHIPSET MODIFY:945G/A2+ICH7/A1	2.NB/SB CHIPSET MODIFY:945G/A2/ACER/[10HB1-033000-23R]+ICH7/A1/ACER/[10HB1-032801-N3R]
	PAGE 11:LAYOUT BOM CHANGED(INTEL REQUEST)	3.SDVO CLDATA & SDVO_CLCLK add 220Q(R1630,R1631)
	PAGE 24:LAYOUT BOM CHANGED-->FAN DESIGN	4.CPU FAN and SYS_FAN design OP+MOSFET circuit
	PAGE 28:LAYOUT BOM CHANGED-->F_AUDIO	5.ADD F AUDIO ACER CABLE AUDIO PRECISION(CEC6,CEC7-->100UF)
	PAGE 34:LAYOUT BOM CHANGED-->VCC1_5	6.EC37,EC38,EC64-->1500U/D/6.3V/AC/[11CL1-AD1501-02 11CL1-AD1501-03 11CL1-AD1501-04]
	PAGE 11:LAYOUT BOM CHANGED(INTEL REQUEST)-->SATAII PLL POWER ADD (LC) DECOUPLING	7.L22-->10UH/0806/S/[10LI2-12100A-02 10LI2-12100A-03];BC194-->10U/8/X/6.3V
	PAGE 34:BOM CHANGED-->PWRLED	8.USE GPO26(PWRLED S1/S3 BLINKING)
2005/04/15	PCB REV 0.3 MODIFY(ACER)	1.EMI ISSUE FOR COM PORT (VIN)
2005/04/28	BOM:9M8I945AEF-AE-10A PVT	1.更改PCB VER:1.0 2.CBC30,CBC31,CBC34,CBC35,CBC38,CBC39:1U-->2.2U 3.REMOVE U11<BIOS SK> 4.REMOVE PCIE_12V
2005/05/04	BOM:9M8I945AEF-AE-10A ECN	1.BZ加替料
2005/05/24	BOM:9M8I945AEF-AE-11A DVT	1.SB change ICH7R
2005/06/13	BOM:9M8I945AEF-AE-11B-DVT	1.C1288 ADD 10K/4 2.1394加替料
2005/06/13	BOM:9M8I945AEF-AE-11B PVT	1.轉P-BOM

Circuit or PCB layout change
for next version

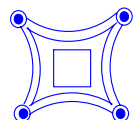
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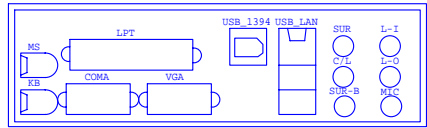
LGA775 FOOT PRINT FOR ACER:LGA775-ACER

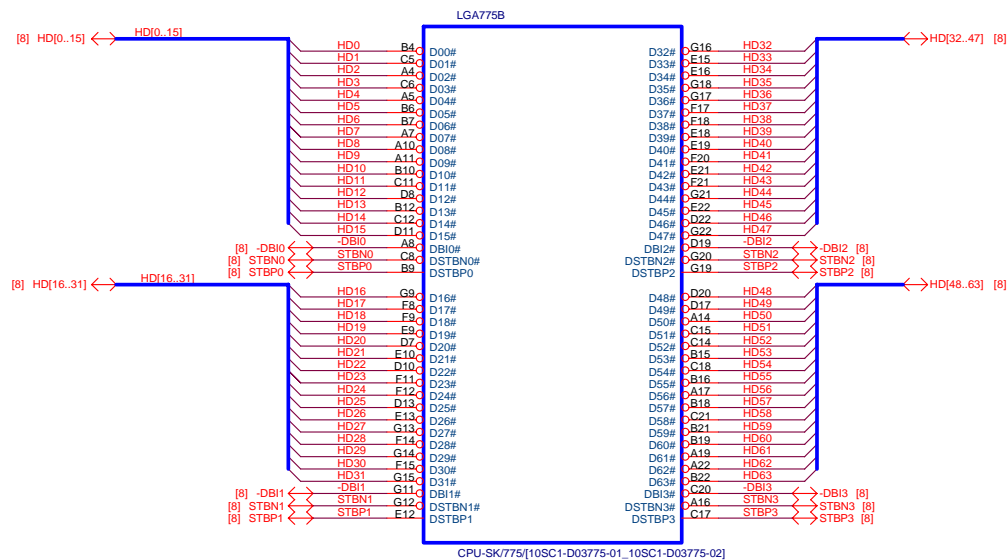


LGA775-CR
CPU_RETAINION[12KRC-040005-21]




IO_SHIELD
IO_SHIELD[12AIO-AE0007-01]



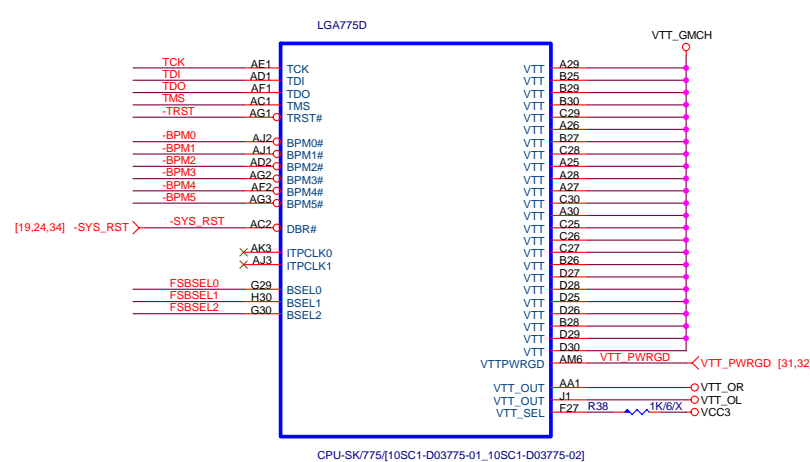
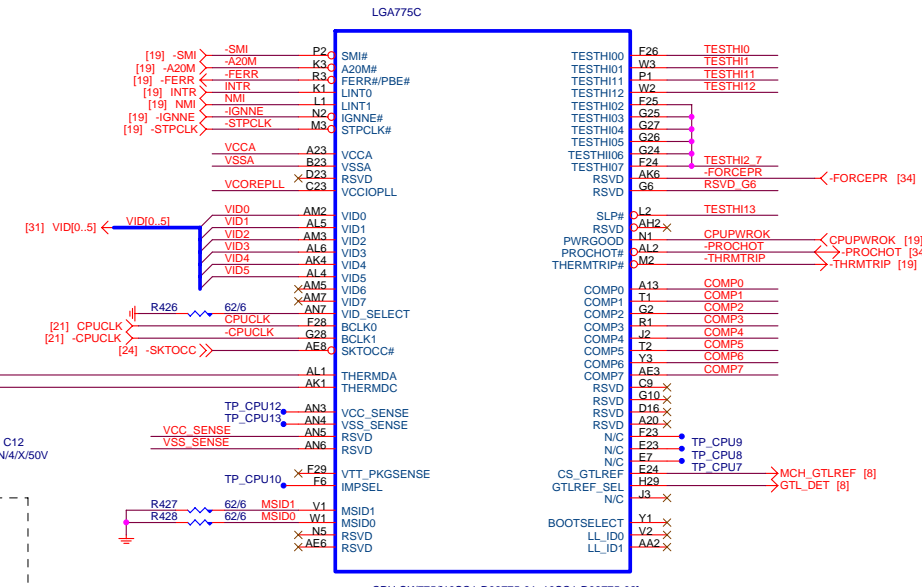
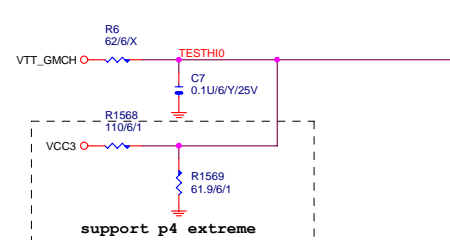


Note:
VCCA & VCOREPLL
define doesn't same as
old P4 design kit

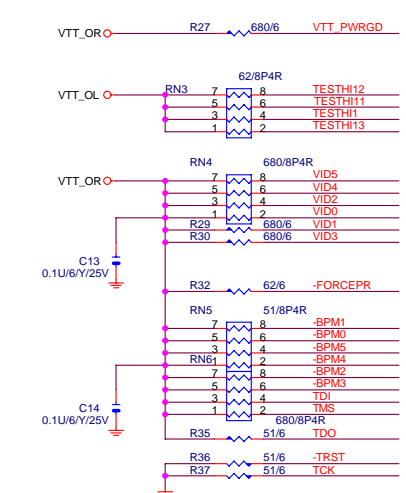
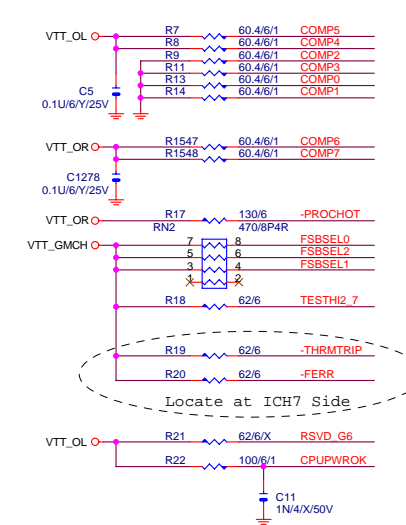
As close as possible to
CPU socket

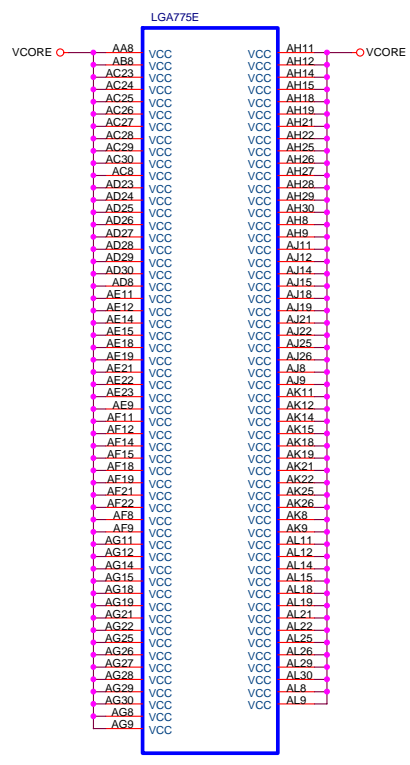


The diagram shows a red horizontal line representing the -STPCLK signal. A vertical red line descends from this signal line to a blue capacitor symbol labeled C10. Below the capacitor is a red ground symbol. The text "33P/4/N/50V" is placed next to the capacitor.

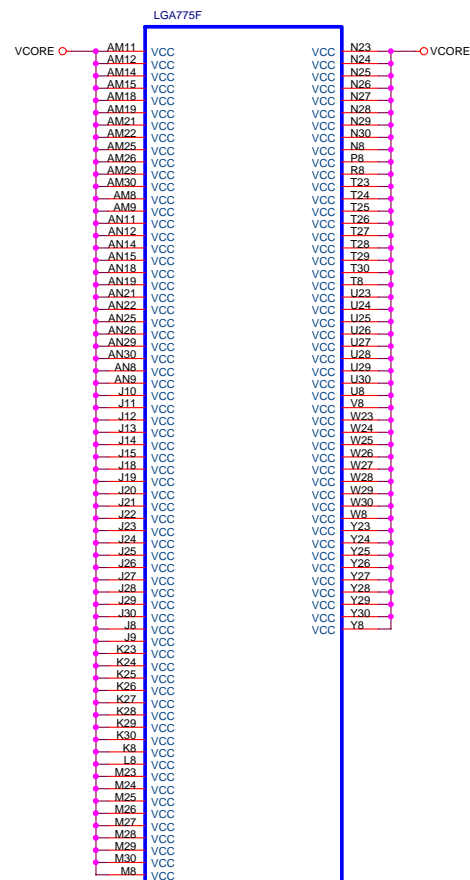


Place outside of CPU socket

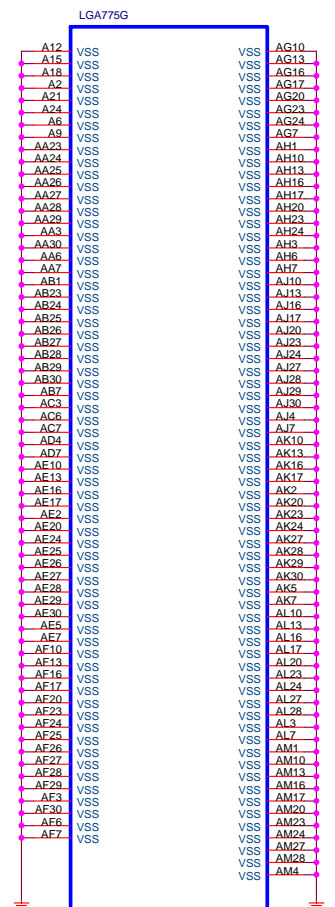




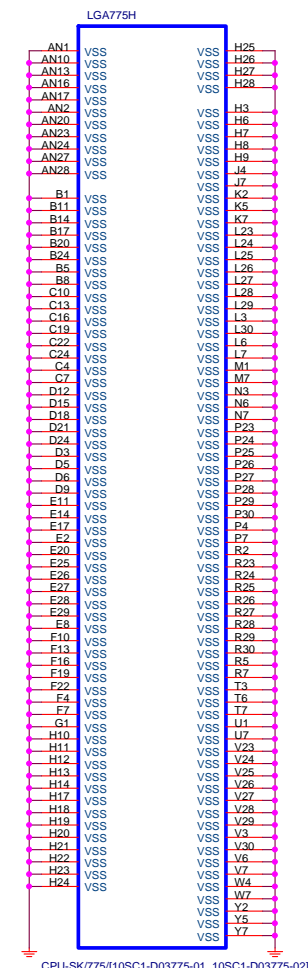
CPU-SK/775/[10SC1-D03775-01_10SC1-D03775-02]



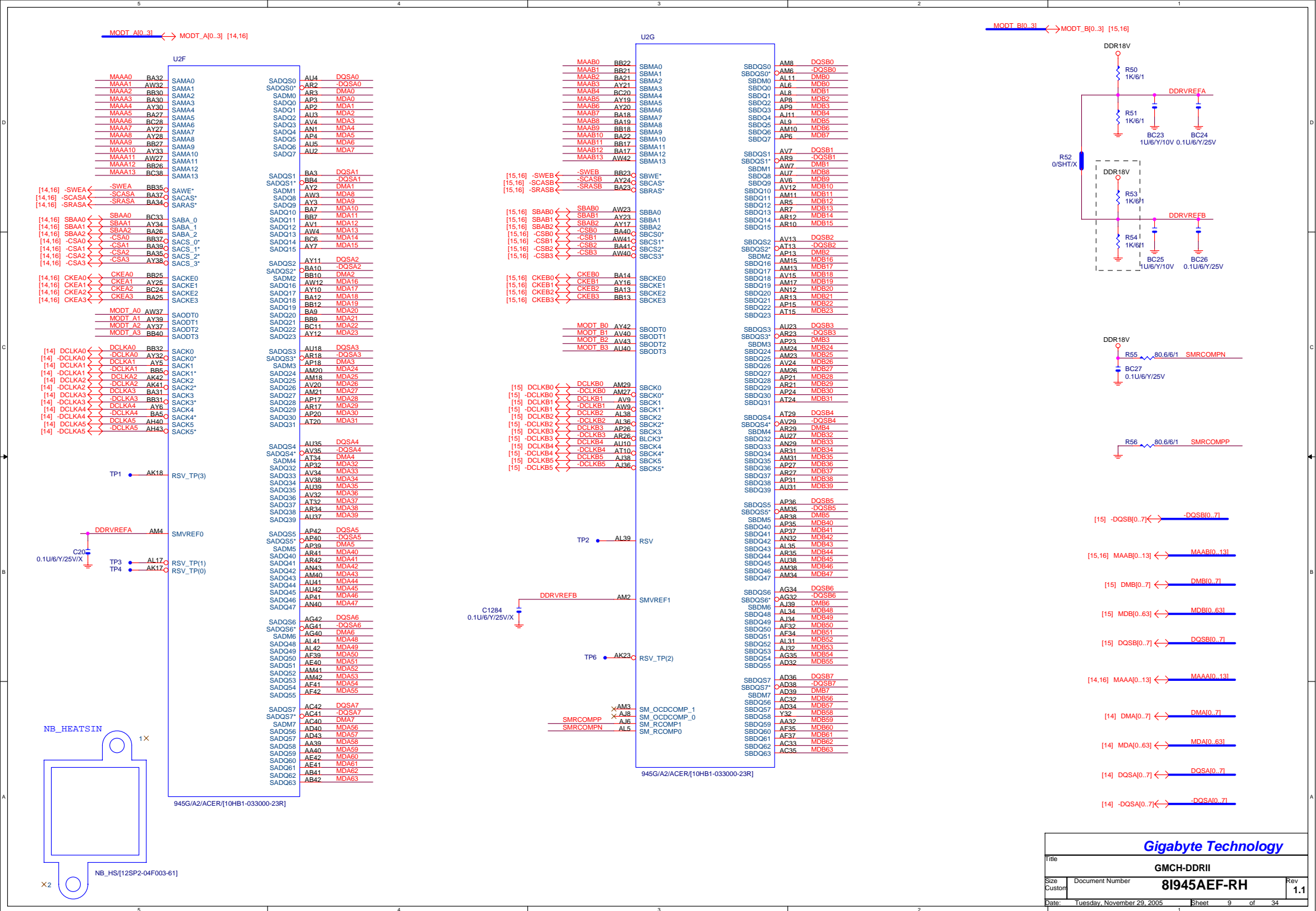
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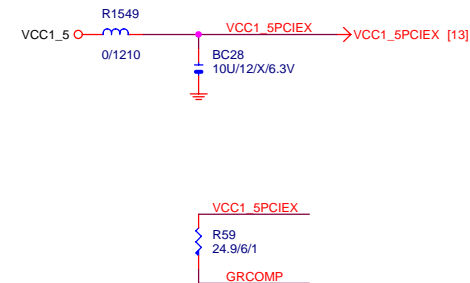


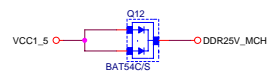
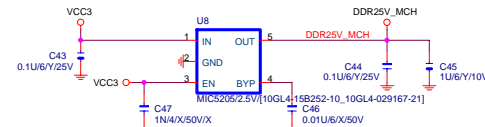
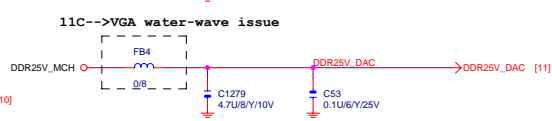
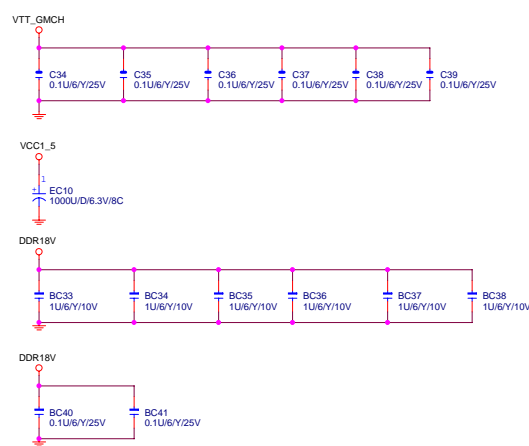
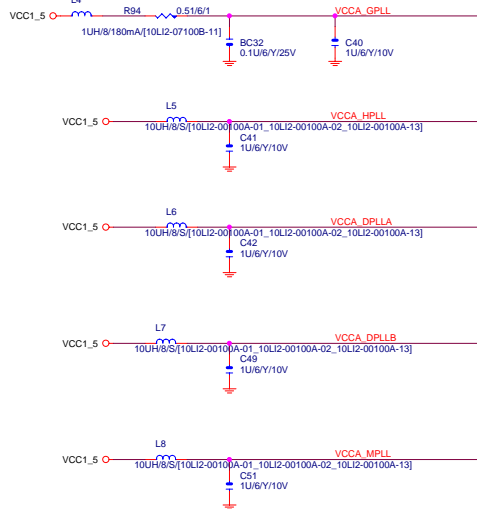
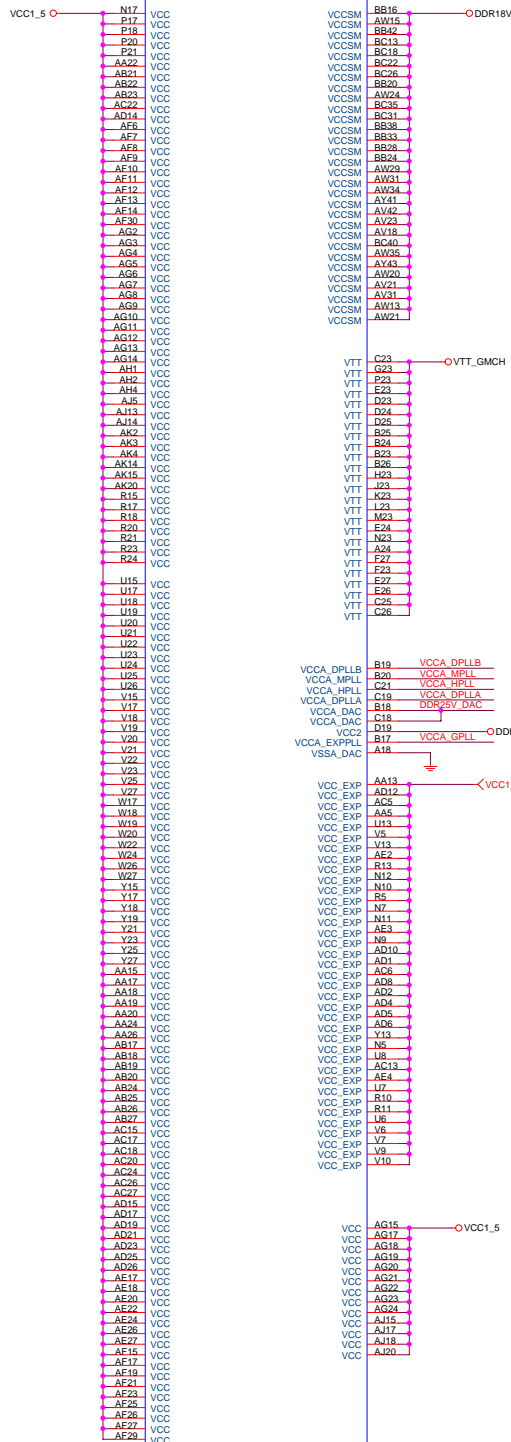
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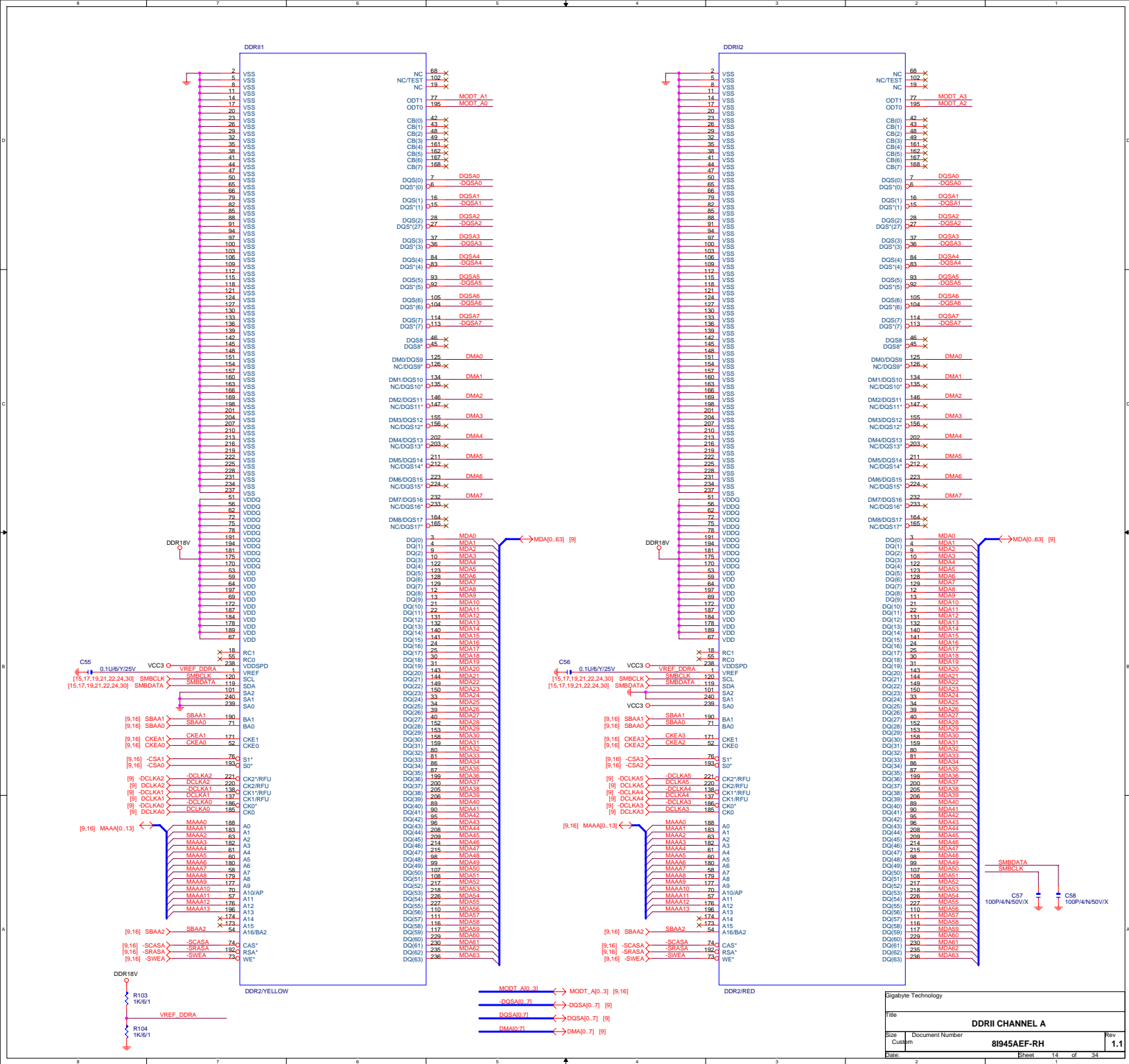


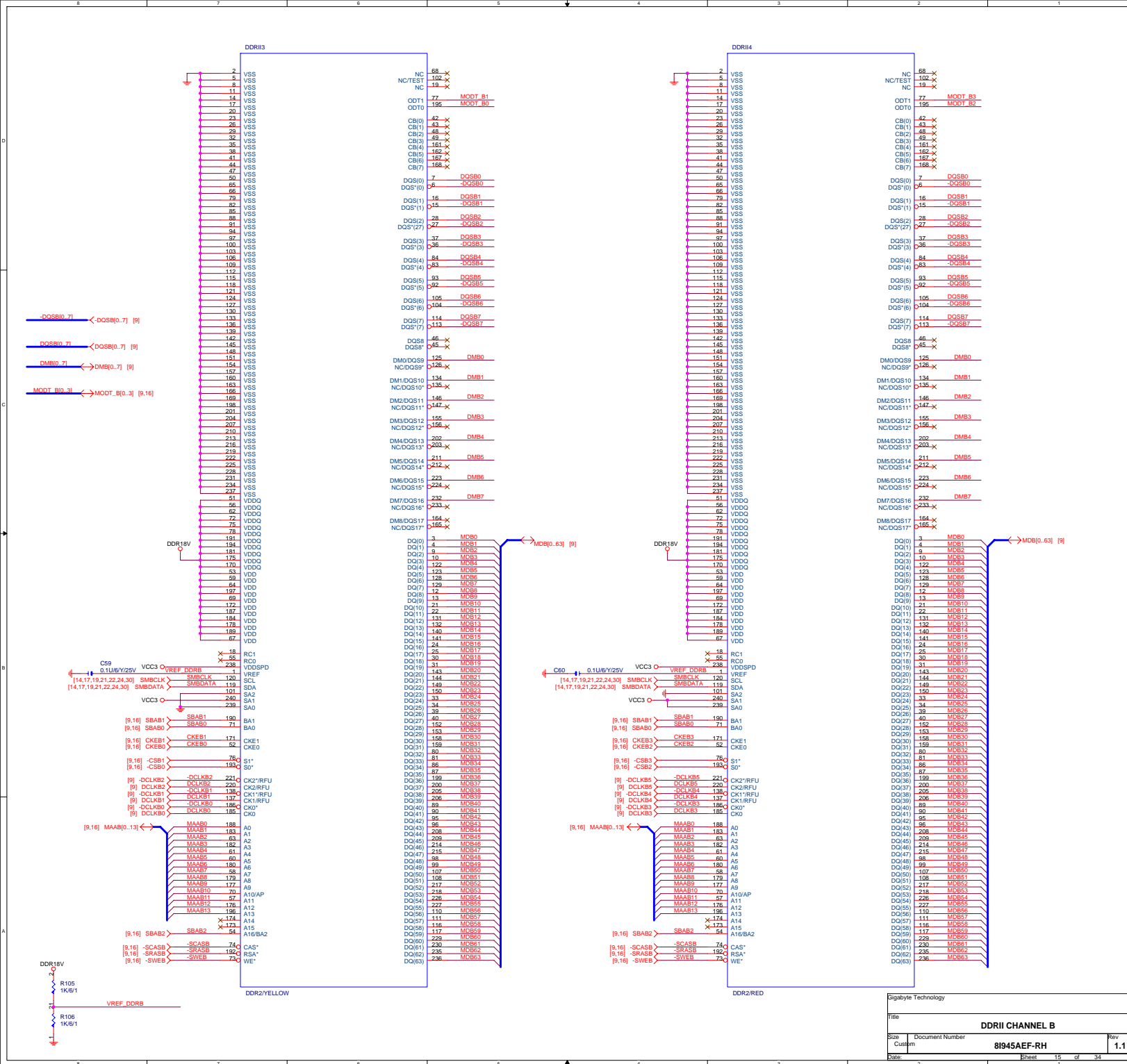
CPU-SK/775/[10SC1-D03775-01_10SC1-D03775-02]





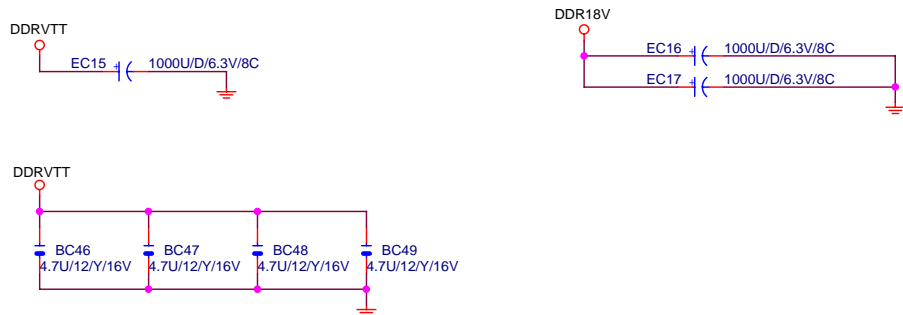






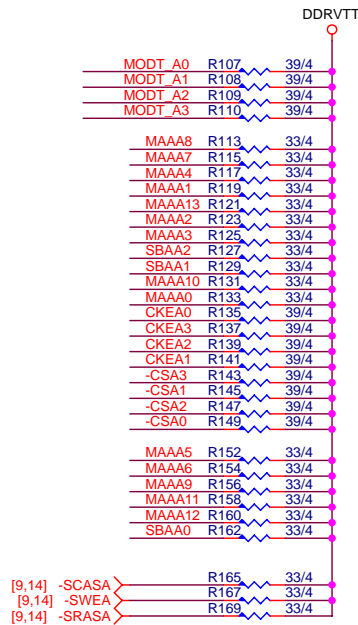
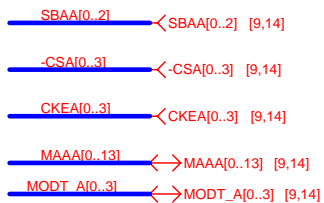
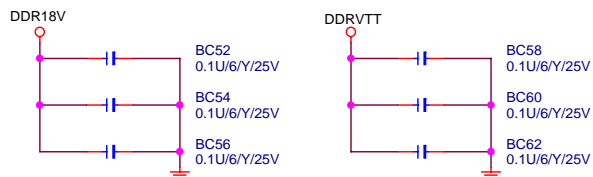
DDR TERMINATION CHANNEL A

DDRVTT Decouple



DDR18V Decouple

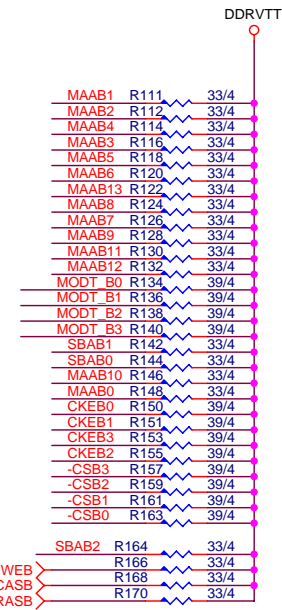
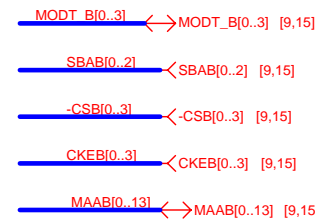
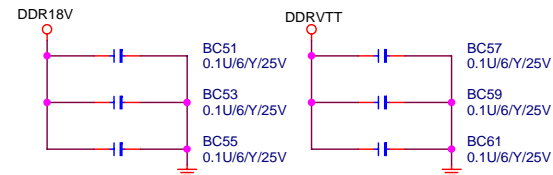
DDRVTT Decouple



DDR TERMINATION CHANNEL B

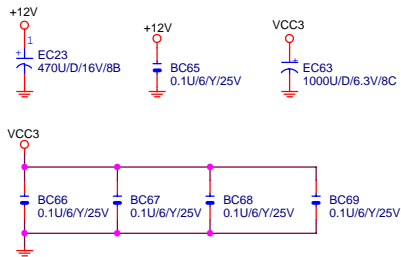
DDR18V Decouple

DDRVTT Decouple

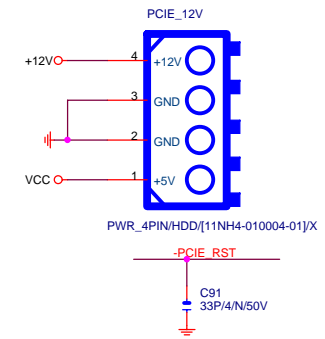
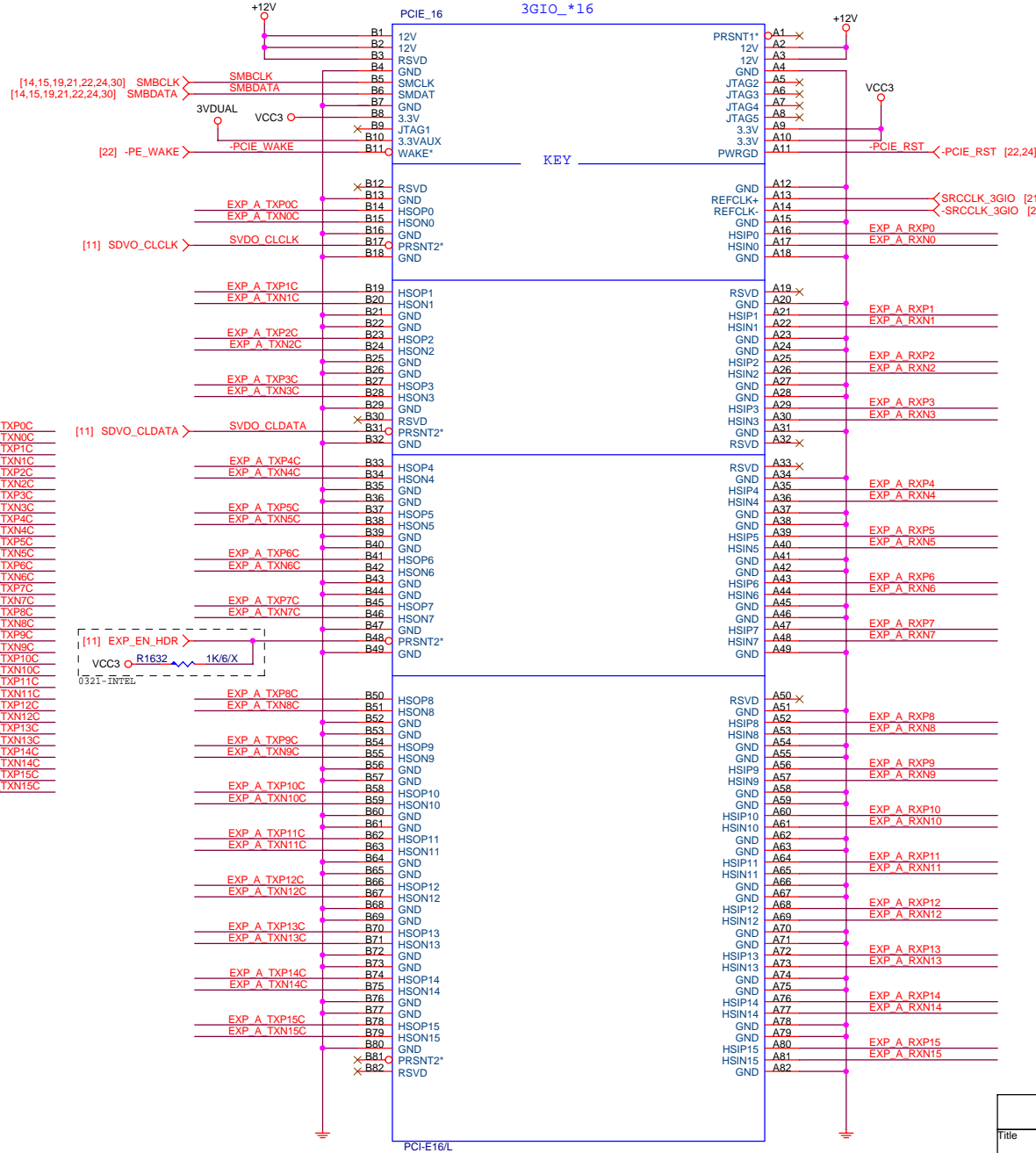


Gigabyte Technology

Title			
DDRII TERMINATOR			
Size	Document Number	Rev	
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PCIESLOT-164DN-2



EXP A TXP[0..15] >>> EXP_A_TXP[0..15] [10]
EXP A TXN[0..15] >>> EXP_A_TXN[0..15] [10]

EXP A TXP0	C92	0.1U/6/Y/25V	EXP A TXP0C
EXP A TXN0	C93	0.1U/6/Y/25V	EXP A TXN0C
EXP A TXP1	C94	0.1U/6/Y/25V	EXP A TXP1C
EXP A TXN1	C95	0.1U/6/Y/25V	EXP A TXN1C
EXP A TXP2	C96	0.1U/6/Y/25V	EXP A TXP2C
EXP A TXN2	C97	0.1U/6/Y/25V	EXP A TXN2C
EXP A TXP3	C98	0.1U/6/Y/25V	EXP A TXP3C
EXP A TXN3	C99	0.1U/6/Y/25V	EXP A TXN3C
EXP A TXP4	C100	0.1U/6/Y/25V	EXP A TXP4C
EXP A TXN4	C101	0.1U/6/Y/25V	EXP A TXN4C
EXP A TXP5	C102	0.1U/6/Y/25V	EXP A TXP5C
EXP A TXN5	C103	0.1U/6/Y/25V	EXP A TXN5C
EXP A TXP6	C104	0.1U/6/Y/25V	EXP A TXP6C
EXP A TXN6	C105	0.1U/6/Y/25V	EXP A TXN6C
EXP A TXP7	C106	0.1U/6/Y/25V	EXP A TXP7C
EXP A TXN7	C107	0.1U/6/Y/25V	EXP A TXN7C
EXP A TXP8	C108	0.1U/6/Y/25V	EXP A TXP8C
EXP A TXN8	C109	0.1U/6/Y/25V	EXP A TXN8C
EXP A TXP9	C110	0.1U/6/Y/25V	EXP A TXP9C
EXP A TXN9	C111	0.1U/6/Y/25V	EXP A TXN9C
EXP A TXP10	C112	0.1U/6/Y/25V	EXP A TXP10C
EXP A TXN10	C113	0.1U/6/Y/25V	EXP A TXN10C
EXP A TXP11	C114	0.1U/6/Y/25V	EXP A TXP11C
EXP A TXN11	C115	0.1U/6/Y/25V	EXP A TXN11C
EXP A TXP12	C116	0.1U/6/Y/25V	EXP A TXP12C
EXP A TXN12	C117	0.1U/6/Y/25V	EXP A TXN12C
EXP A TXP13	C118	0.1U/6/Y/25V	EXP A TXP13C
EXP A TXN13	C119	0.1U/6/Y/25V	EXP A TXN13C
EXP A TXP14	C120	0.1U/6/Y/25V	EXP A TXP14C
EXP A TXN14	C121	0.1U/6/Y/25V	EXP A TXN14C
EXP A TXP15	C122	0.1U/6/Y/25V	EXP A TXP15C
EXP A TXN15	C123	0.1U/6/Y/25V	EXP A TXN15C

[11] SDVO_CLCLK >>> SVDO_CLCLK

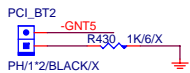
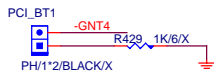
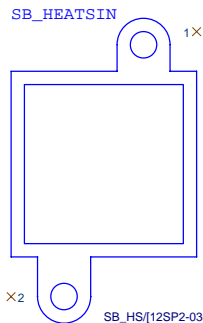
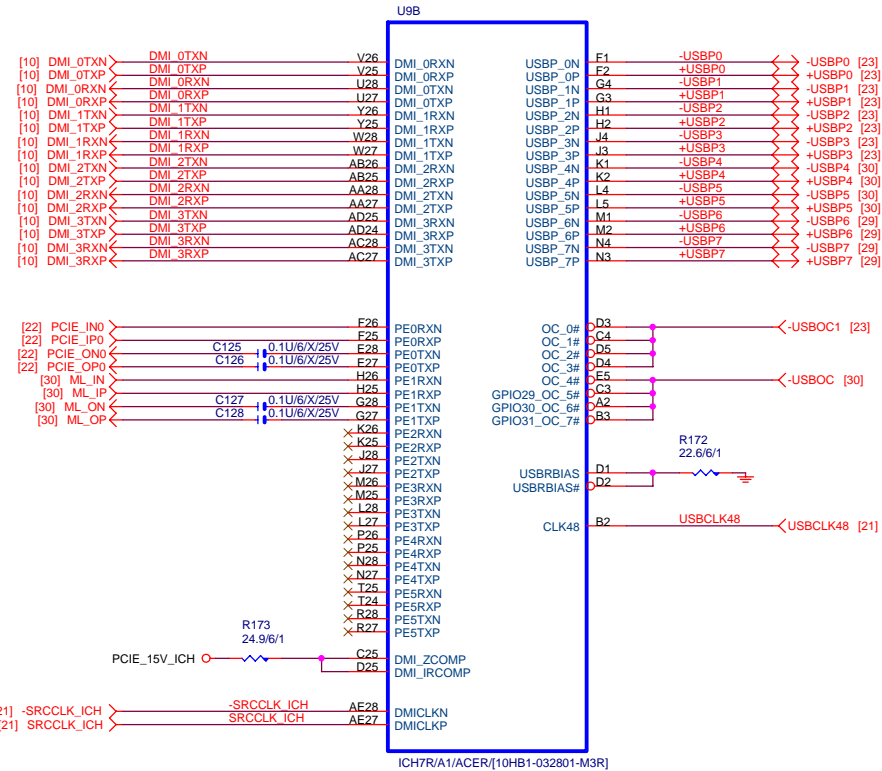
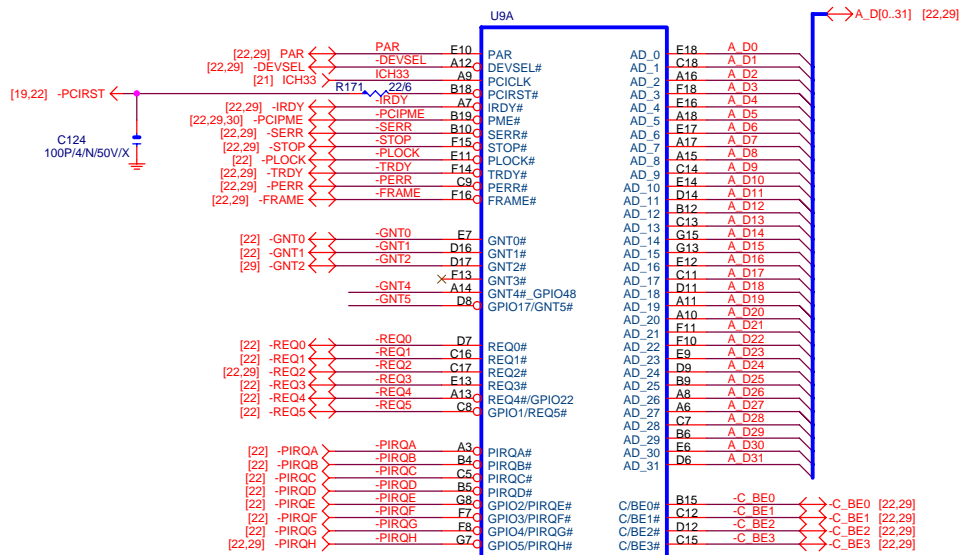
[11] SDVO_CLDATA >>> SVDO_CLDATA

[11] EXP_EN_HDR >>> VCC3 R1632 1K/6/X
0321-INTEL

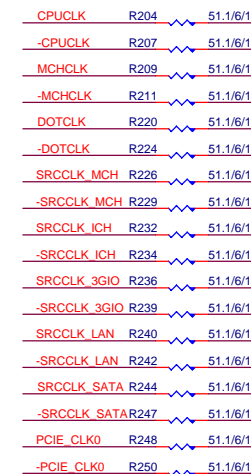
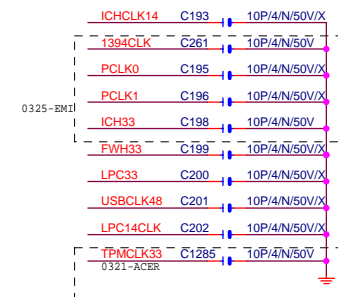
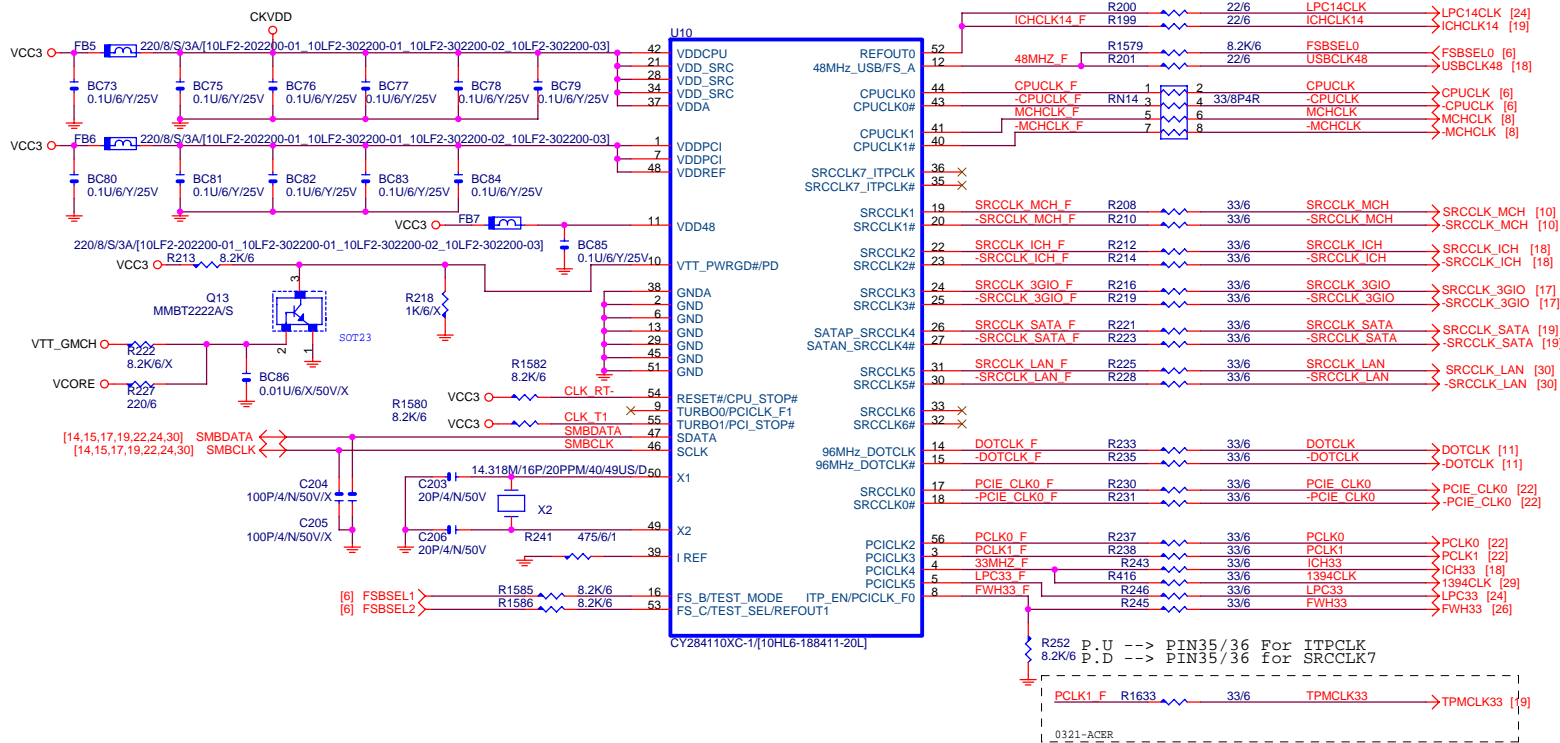
EXP A RXP[0..15] >>> EXP_A_RXP[0..15] [10]
EXP A RXN[0..15] >>> EXP_A_RXN[0..15] [10]

PCI-E16/L

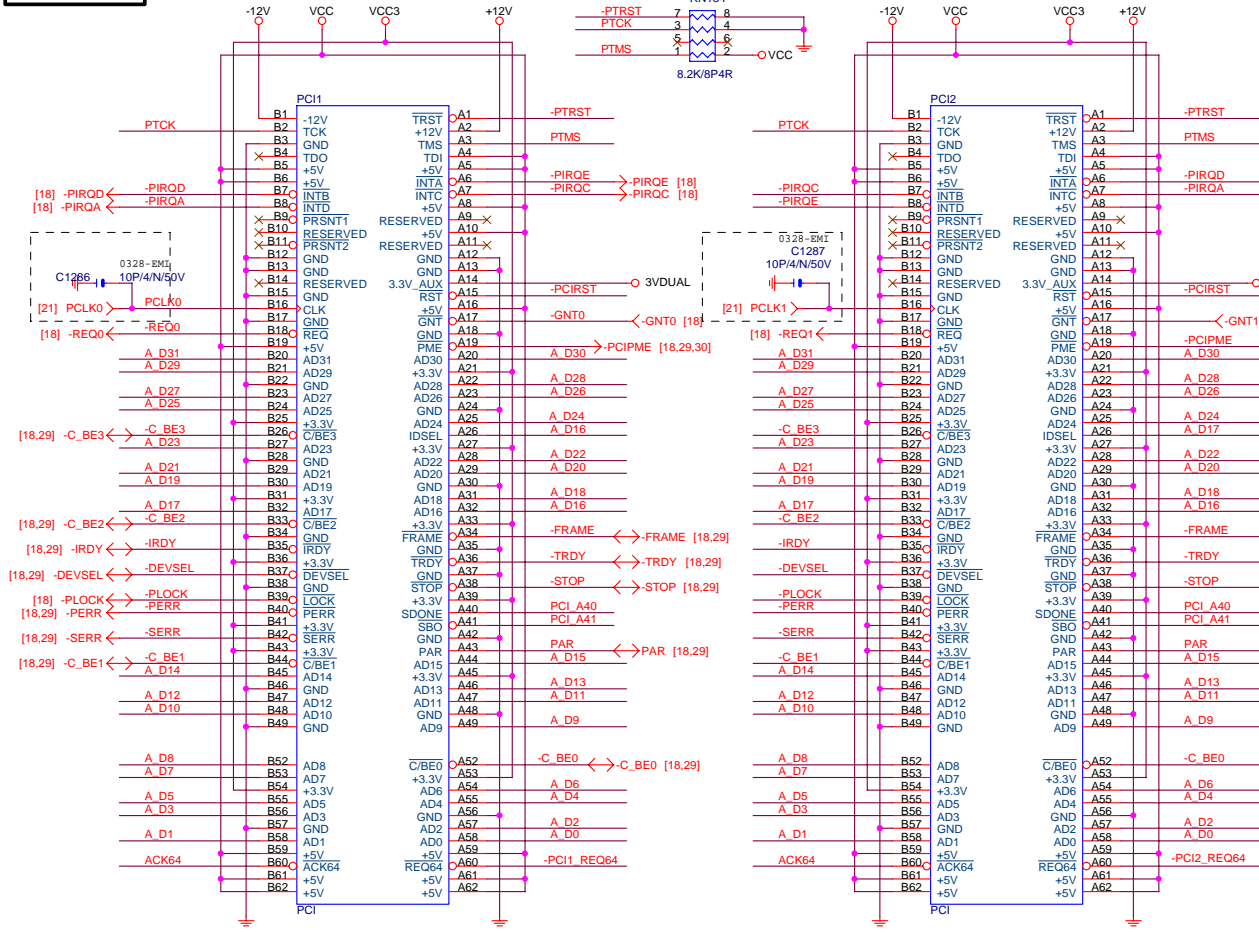
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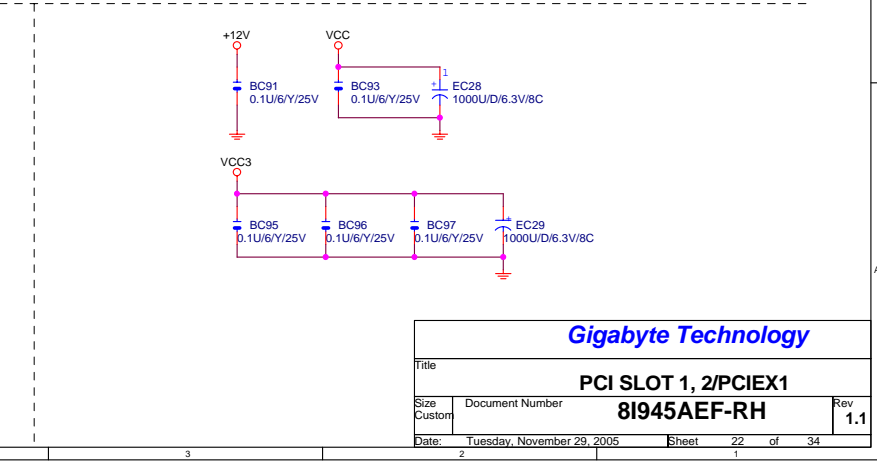
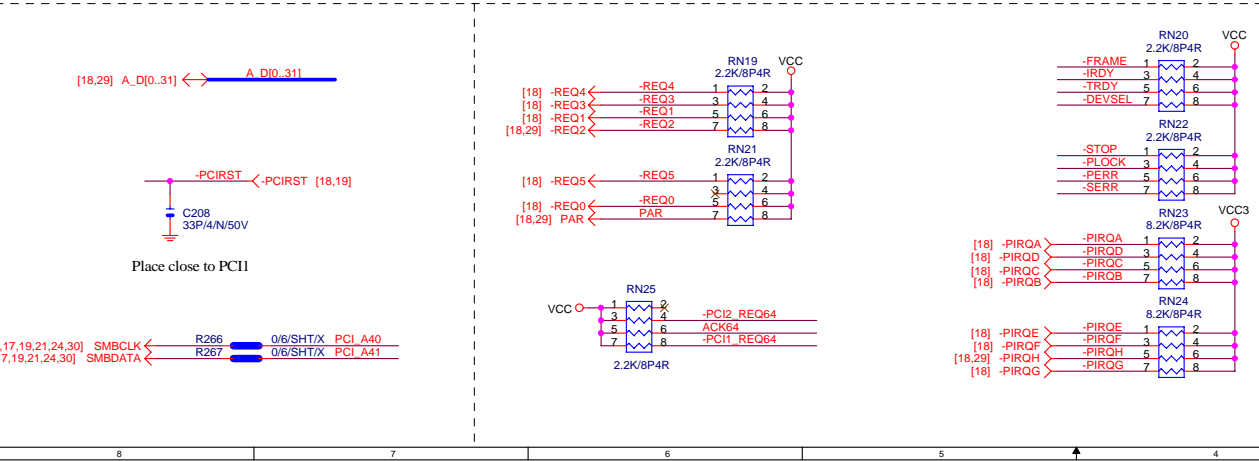
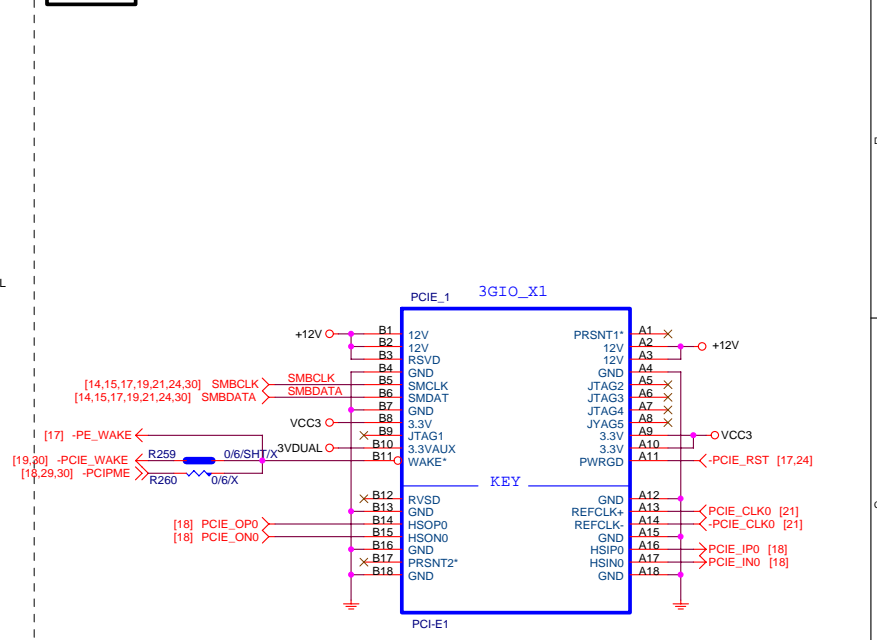




PCI1, 2 SLOT

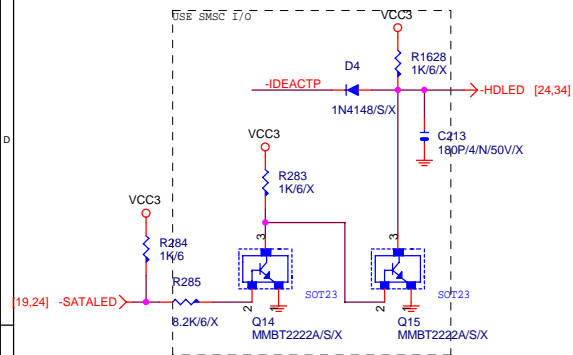


PCIe*1

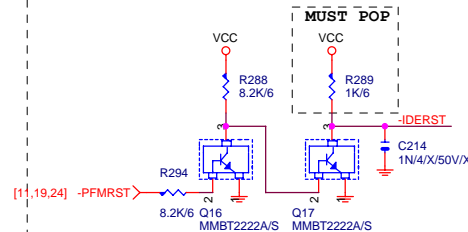


IDE/SATA LED

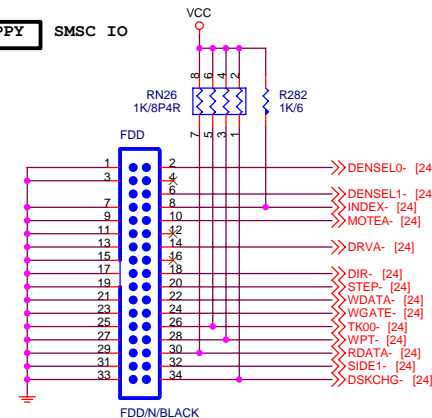
0321



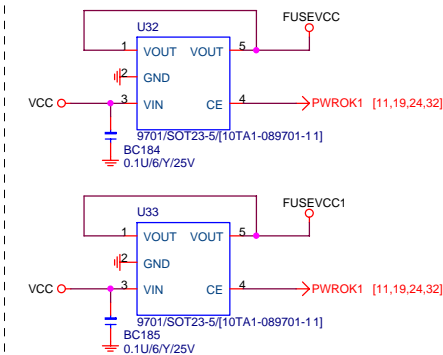
IDE RESET



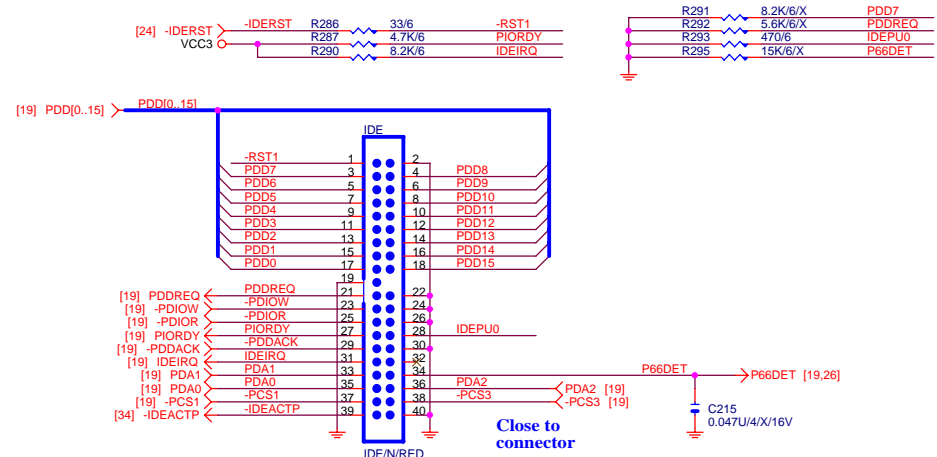
FLOPPY SMC IO



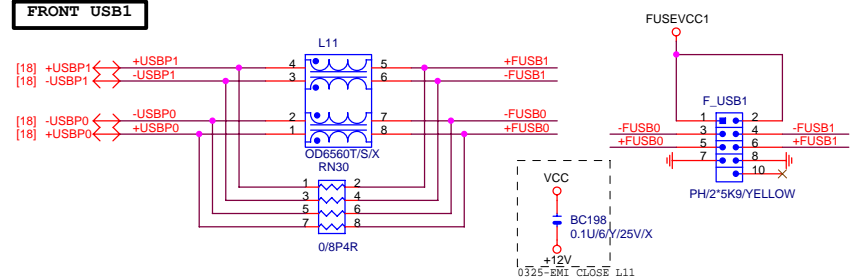
USB DROP



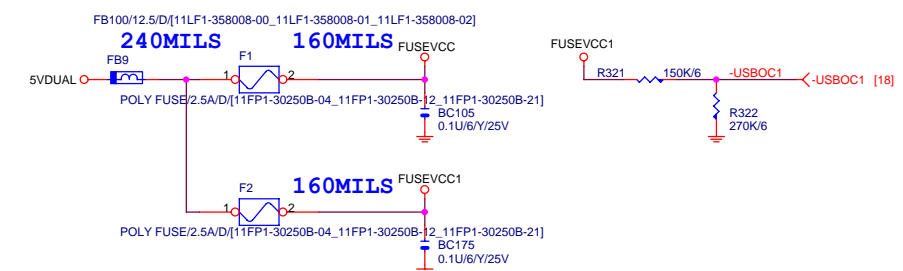
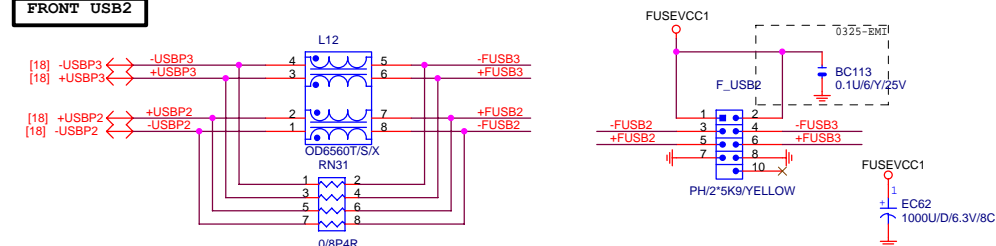
IDE



FRONT USB1



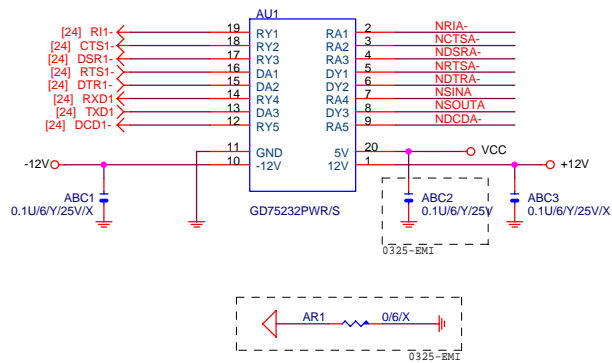
FRONT USB2



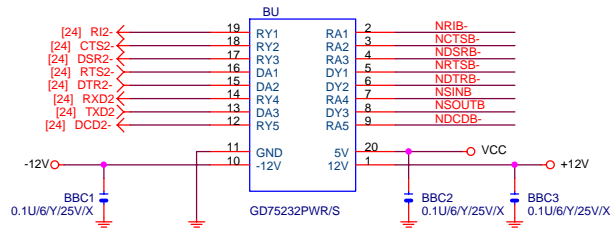
Gigabyte Technology

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COMA



COMB



EXTERNAL COMA

The diagram illustrates the connection of the external COMA connector to the ACN1 and ACN2 connectors. The ACN1 connector is connected to NDCDA-, NDSRA-, NSINA-, NRTSA-, and NRTSA- pins. The ACN2 connector is connected to NSOUTA-, NCTSA-, NDTRA-, and NR1A- pins. The COMA connector is connected to COM/GREEN pins.

ACN1

7 NDCDA-
5 NDSRA-
3 NSINA-
1 NRTSA-
2 NRTSA-

180P/8P4C

ACN2

7 NSOUTA-
5 NCTSA-
3 NDTRA-
1 NR1A-
2 NRTSA-

180P/8P4C

COMA

1 NDCDA-
6 NDSRA-
2 NSINA-
7 NRTSA-
3 NSOUTA-
8 NCTSA-
4 NDTRA-
9 NR1A-
5 NRTSA-

10 COM/GREEN
11 COM/GREEN

PLACE NEAR COM CONNECTOR

INTERNAL COMB

COMB

1 2 3 4 5 6 7 8 9 10

NDCDB- NSOUTB

NRTSB- NRIB-

NSINB NDRTB- NDSRB- NCTSB-

PH/2'5K10/WHITE

BCN3

1 2 3 4 5 6 7 8

NRTSB- NDSRB- NCTSB- NRIB-

180P/8P4C

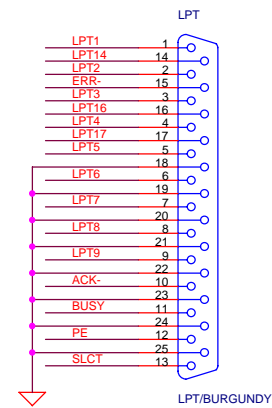
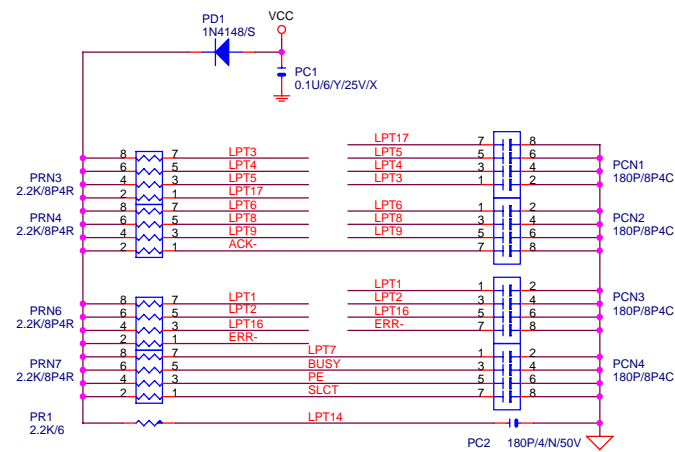
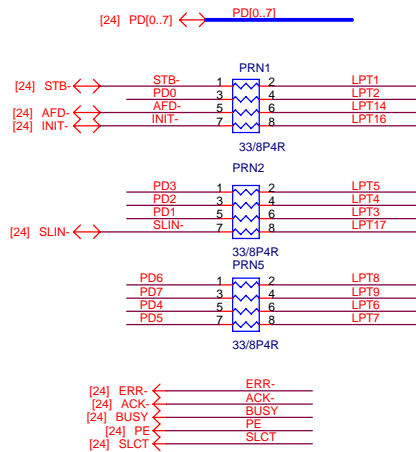
BCN4

1 2 3 4 5 6 7 8

NDCDB- NSOUTB NSINB NDRTB-

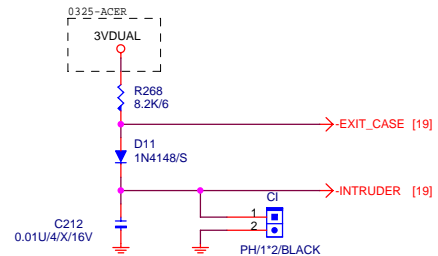
180P/8P4C

LPT PORT

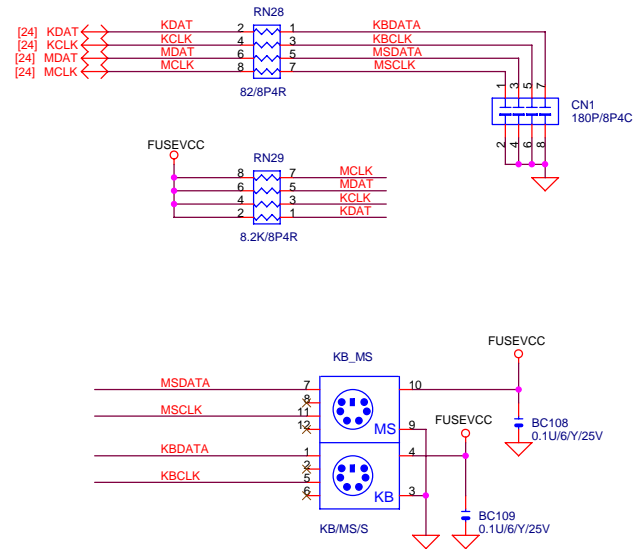


CASE OPEN

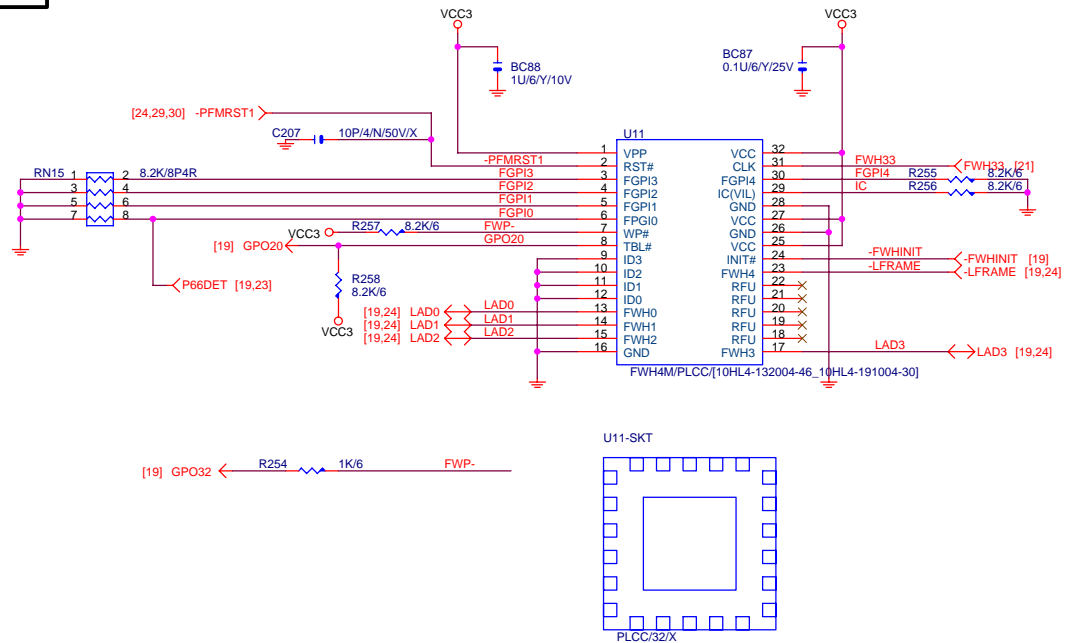
CASE OPEN=LOW;
CASE CLOSE=HI;



KB/MS



FWM BIOS

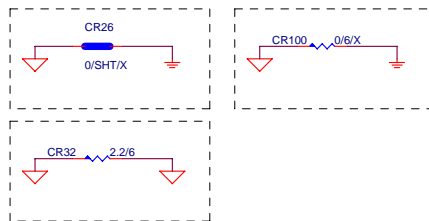
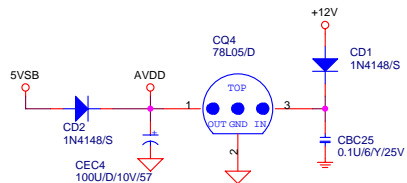


Can Support Amp Out

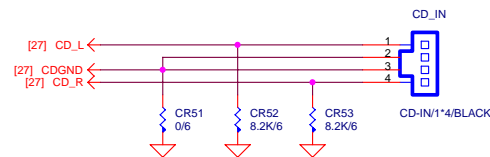
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Title			
AC97 ALC658			
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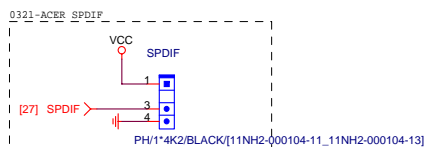
CODEC POWER/EMI PAD



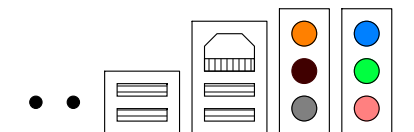
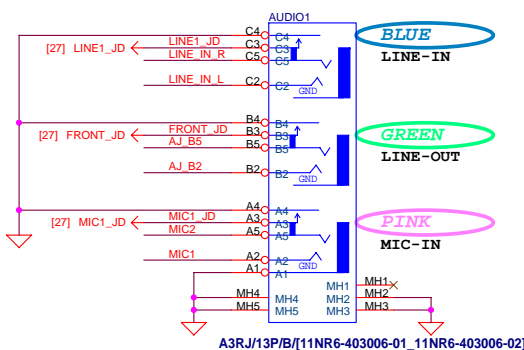
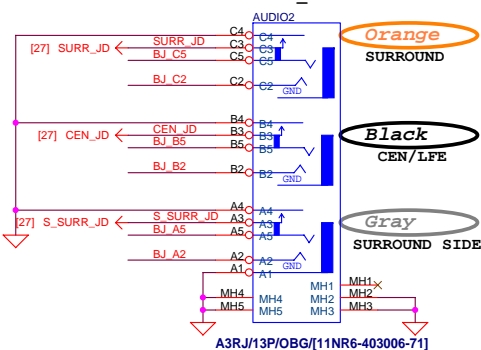
CD IN



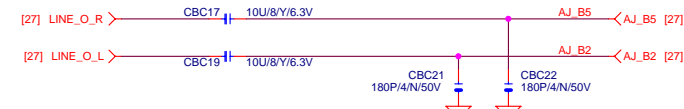
SPDIF



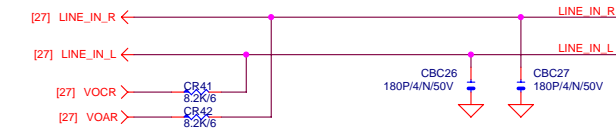
AZALIA JACK ACER REQUEST CHANGE LOCTION

0321
NEW TYPE: IBM_AUDIO-13P-1

LINE-OUT



LINE-IN



MIC-IN



SURROUND



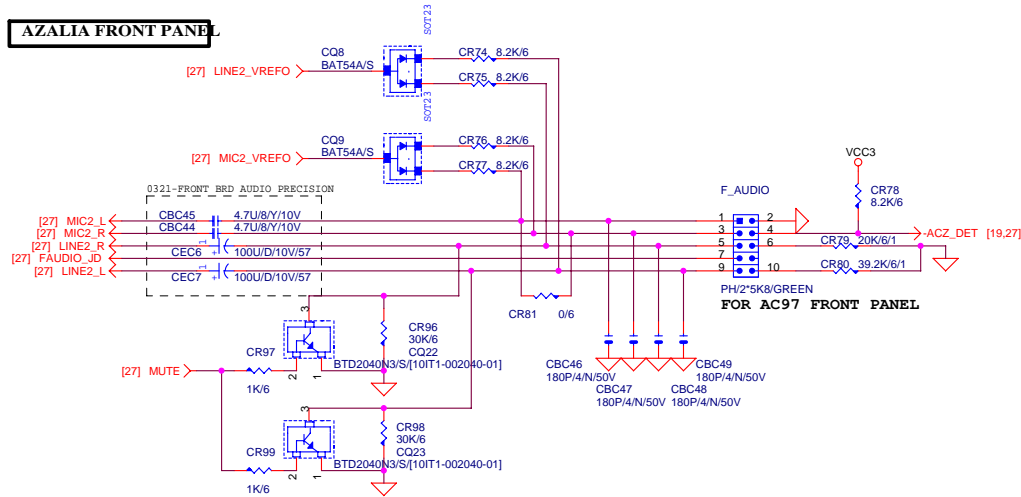
CEN/LFE



SURR BACK

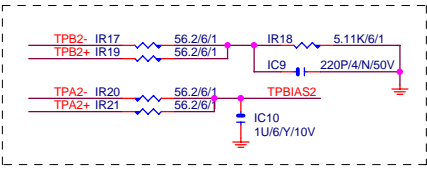
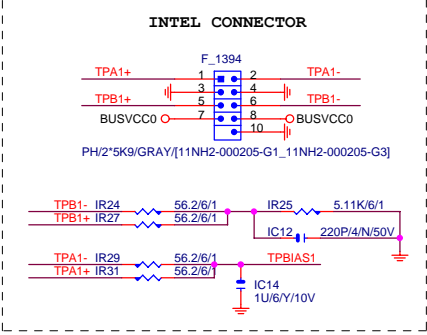
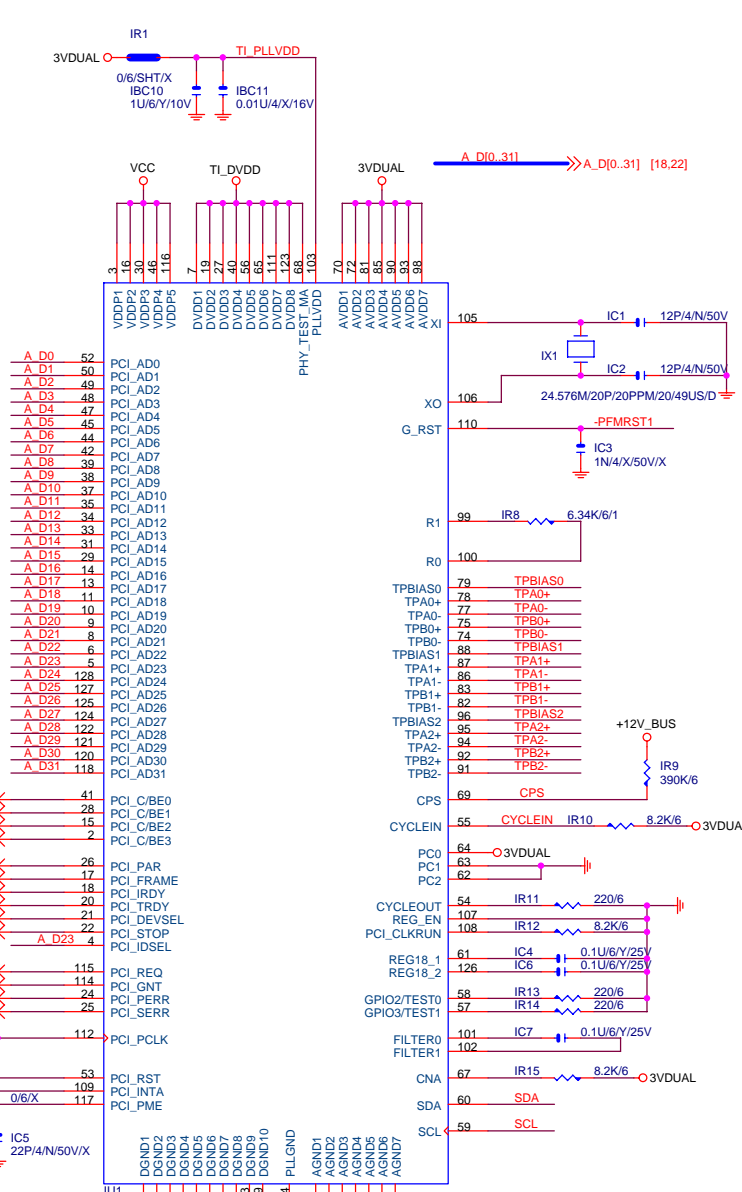
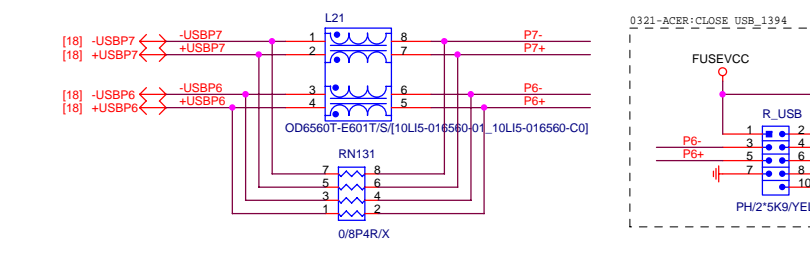
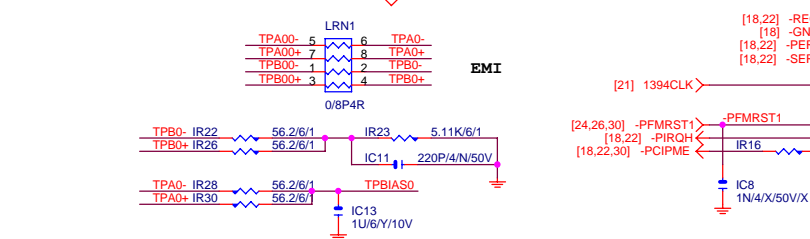
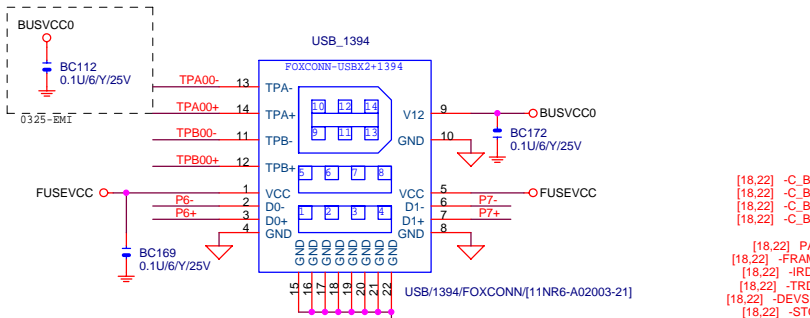
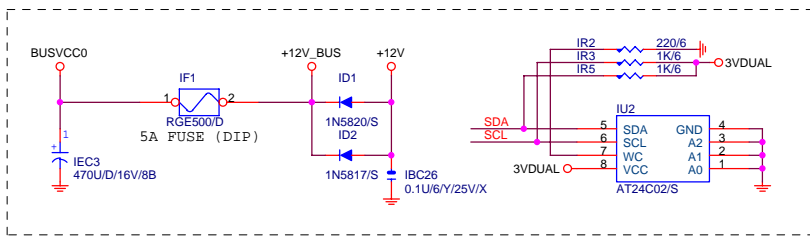
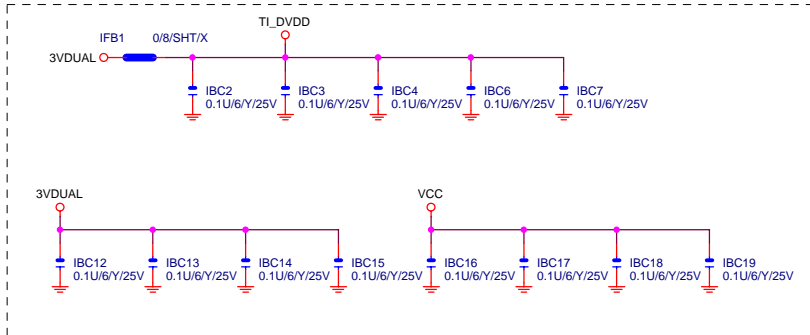


AZALIA FRONT PANEL



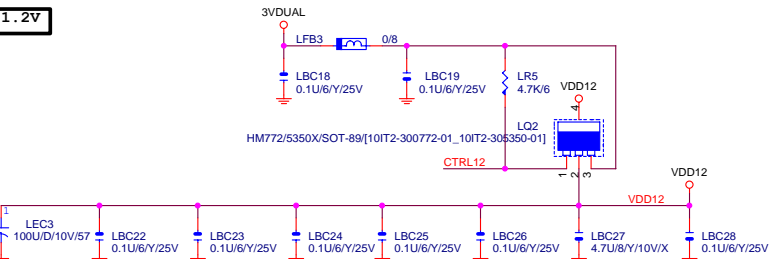
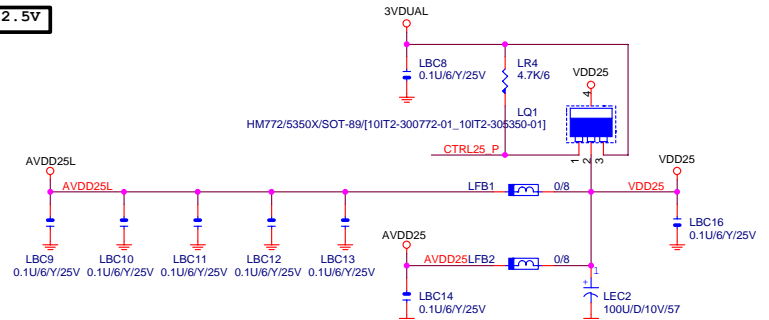
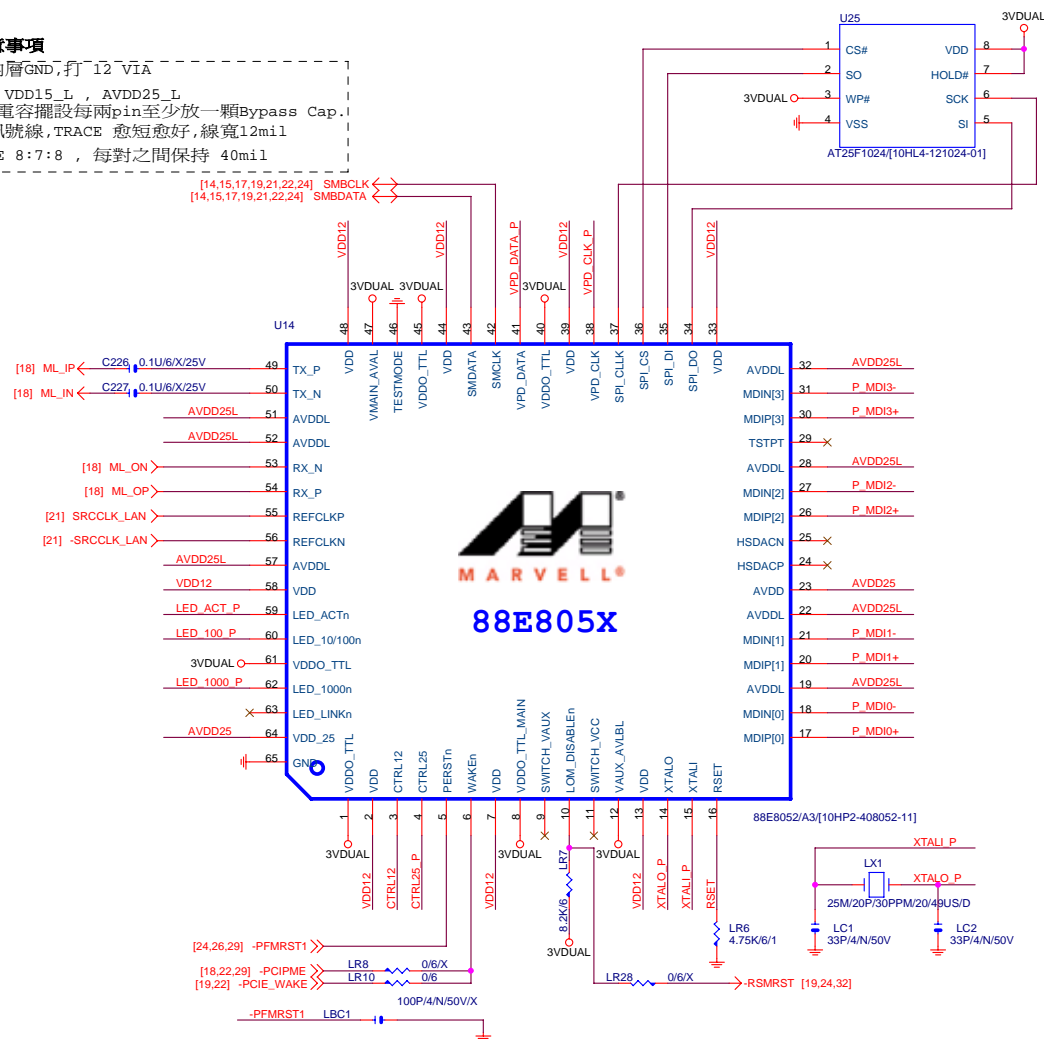
Gigabyte Technology

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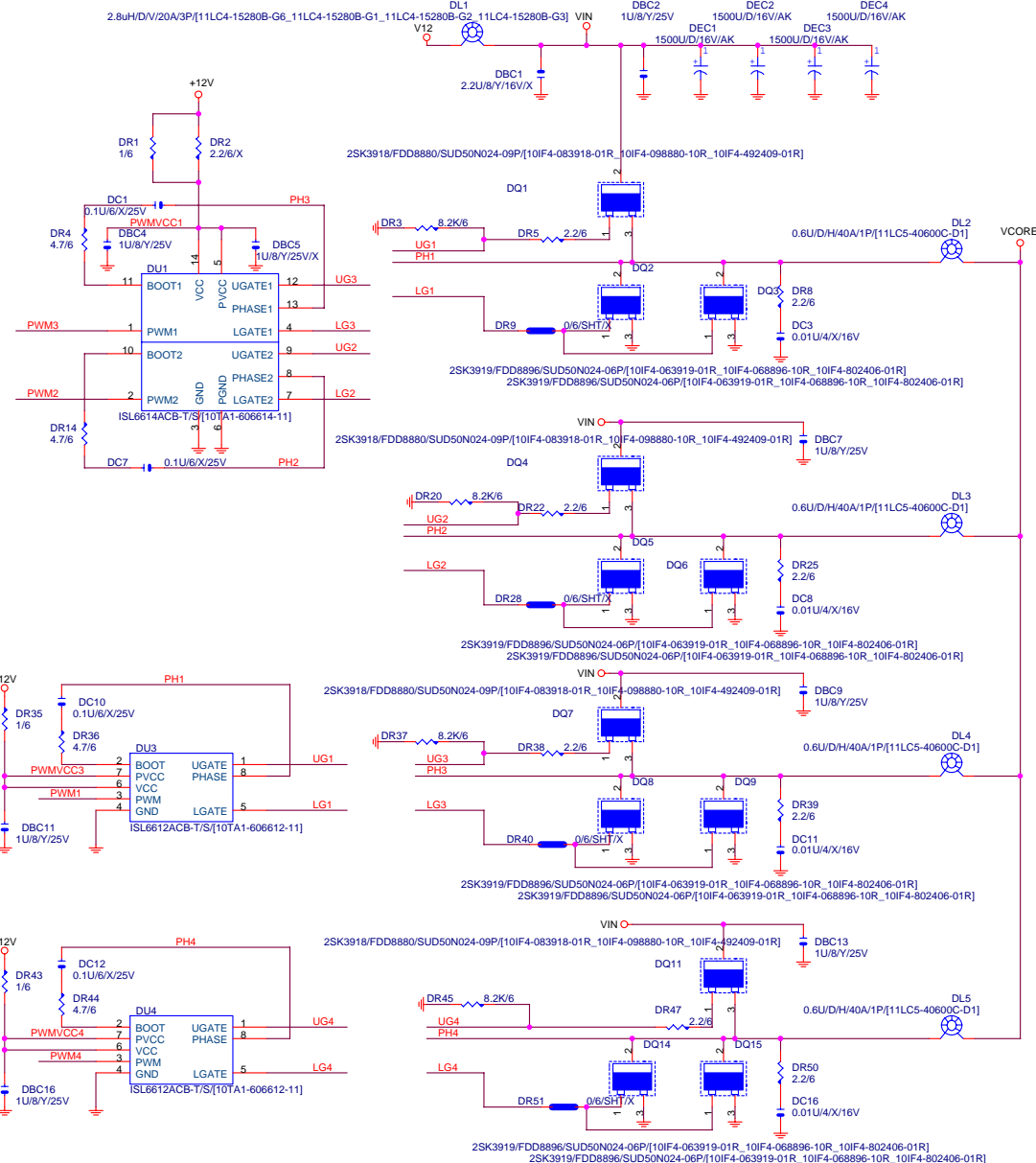
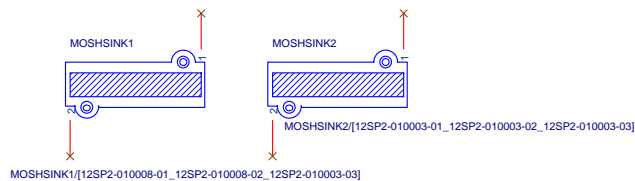
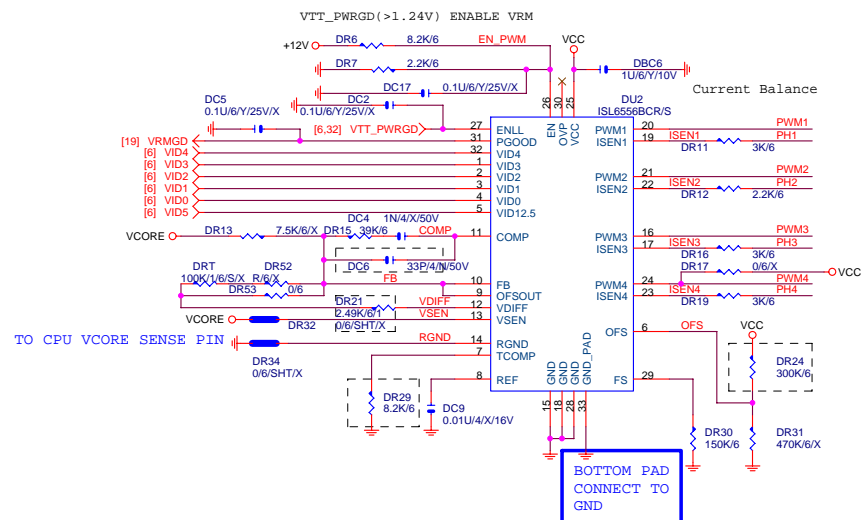
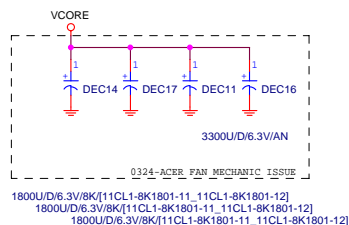


Layout Check 注意事項

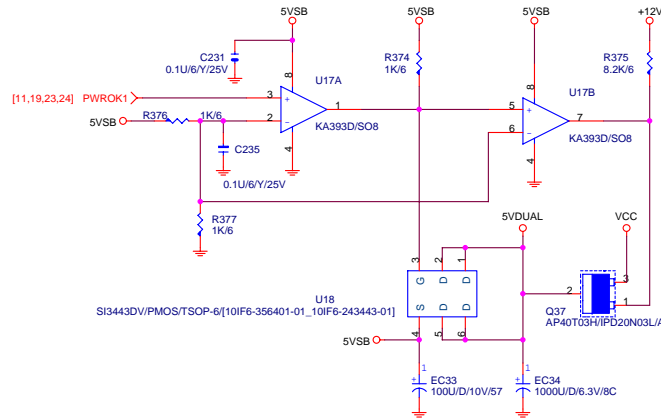
1. LUI PIN65 需下內層GND,打 I2 VIA
2. 3VDUAL, VCC3, VDD15_L, AVDD25_L
至少走20mil寬,並且電容擺設每兩pin至少放一顆Bypass Cap.
3. X'TAL1 25MHz 兩訊號線,TRACE 愈短愈好,線寬12mil
4. MDI正負0~3,TRACE 8:7:8, 每對之間保持 40mil

[illegible]

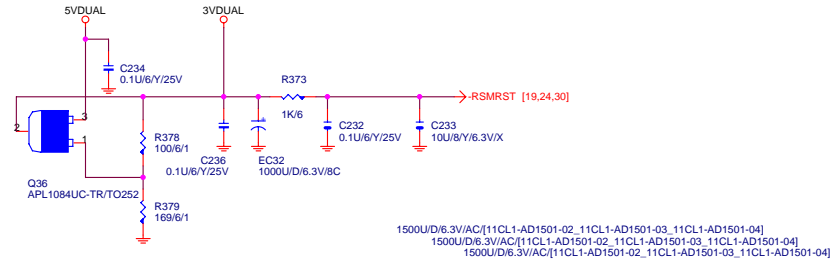
Gigabyte Technology			
Title			
MARVELL 88E8052			
Size	Document Number		Rev
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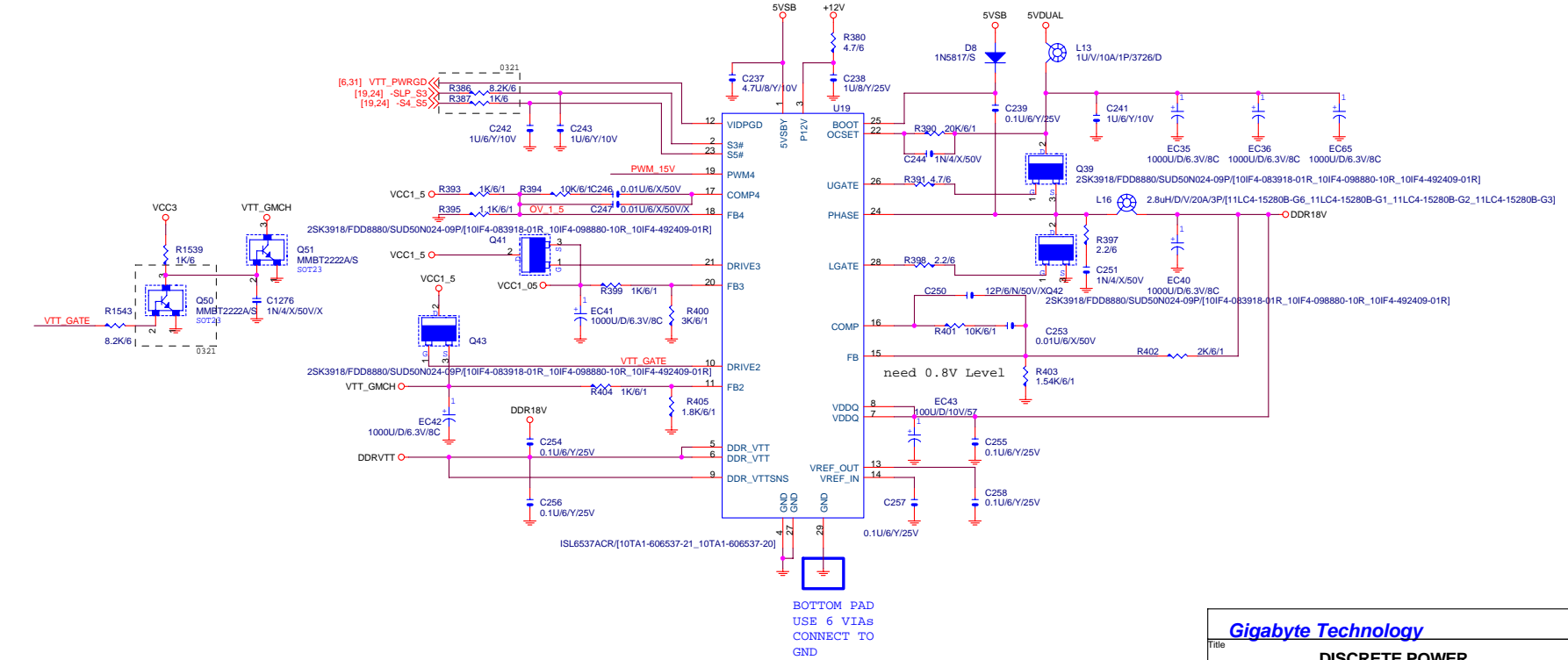
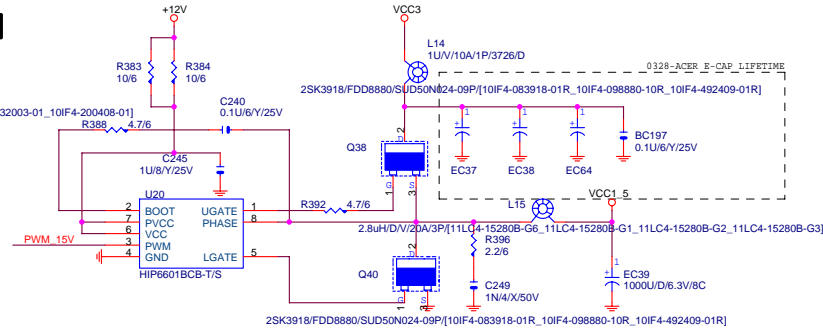
5VDUAL



3VDUAL



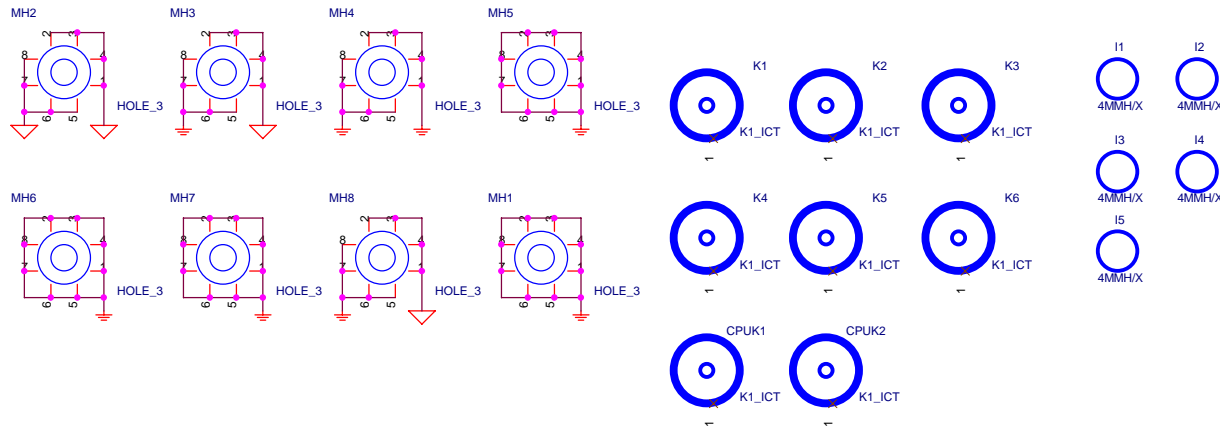
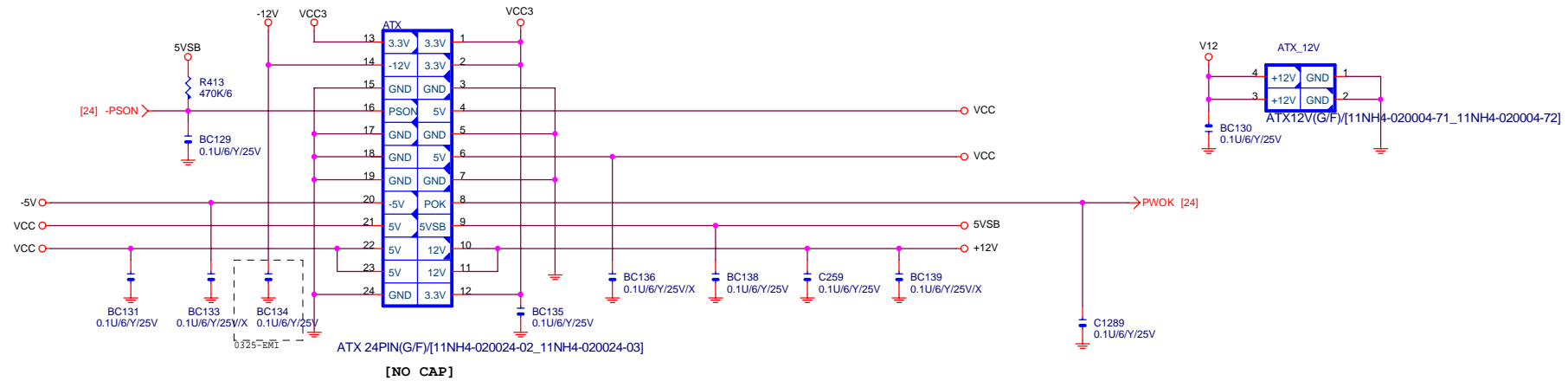
VCC1_5



Gigabyte Technology

Title			DISCRETE POWER
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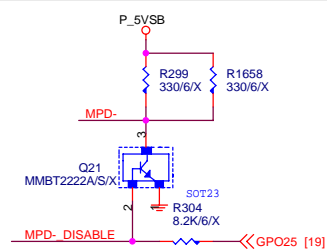
ATX POWER CONNECTOR



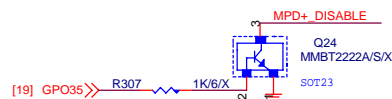
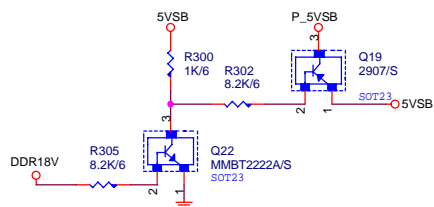
Gigabyte Technology

Title			
ATX POWER CONNECTOR			
Size	Document Number	Rev	
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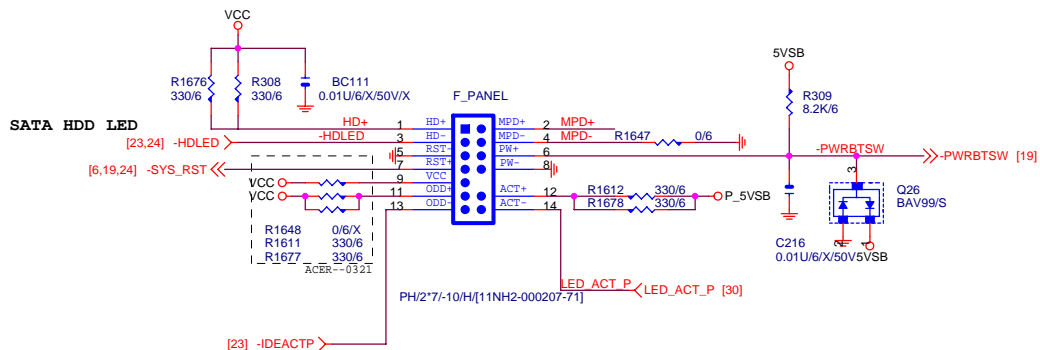
0321



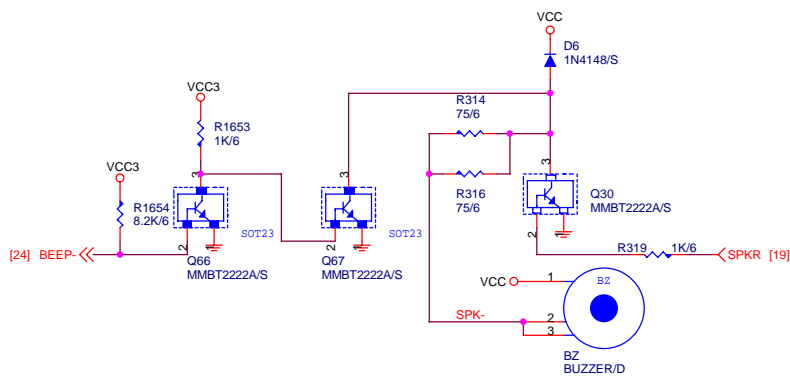
PREVENT S0 W/O CPU, GREEN IS ON.



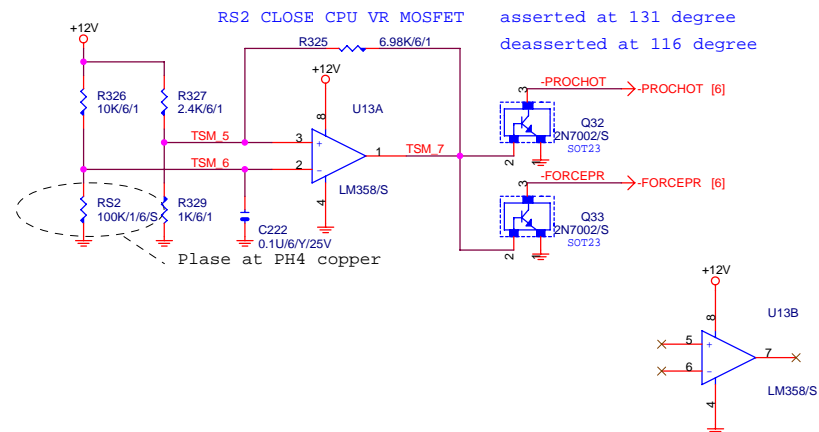
SATA HDD LED



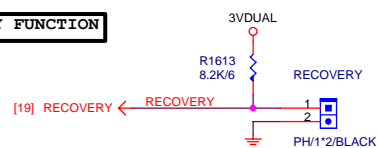
[24]



+12

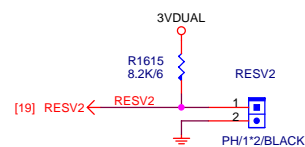
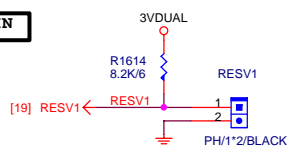


[19]



RECOVERY	
OPEN	NORMAL
SHORT	RECOVERY

[19]



Gigabyte Technology

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FRONT PANEL			
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