Model Name: 8I945AEF-AE *Revision 1.1*

SHEET	TITLE
01	COVER SHEET
02	BLOCK DIAGRAM
03	BOM & PCB MODIFY HISTORY
04	P4_LGA775_A
05	P4_LGA775_B
06	P4_LGA775_C
07	P4_LGA775_D,E,F,G
08	GMCH-LAKEPORT_HOST
09	GMCH-LAKEPORT_DDRII
10	GMCH-LAKEPORT_PCI E, DMI
11	GMCH-LAKEPORT_INT VGA
12	GMCH-LAKEPORT_GND
13	GMCH-LAKEPORT_PWR
14	DDRII CHANNEL A 1,2
15	DDRII CHANNEL B 1,2
16	DDRII TERMINATION
17	PCI EXPRESS*16 SLOT
18	ICH7 PCI, USB, DMI, LAN
19	ICH7 IDE, GPIO, SATA, CTRL
20	ICH7 VCC, GND
21	GB/CK410M CLOCK.
22	PCI SLOT 1,2,PCIE*1
23	IDE/FLOPPY/USB
24	SMSC LPC IO
25	COM_LPT
26	BIOS,CI,HWM,KB/MS
27	ALC880

SHEET	TITLE
28	REAR AUDIO JACK
29	TI TSB43AB23 1394
30	MARVELL 88E8052
31	VCORE PWM_ISL6556
32	DISCRETE POWER
33	ATX, OTHERS POWER
34	FRONT PANEL

Gigabyte Technology

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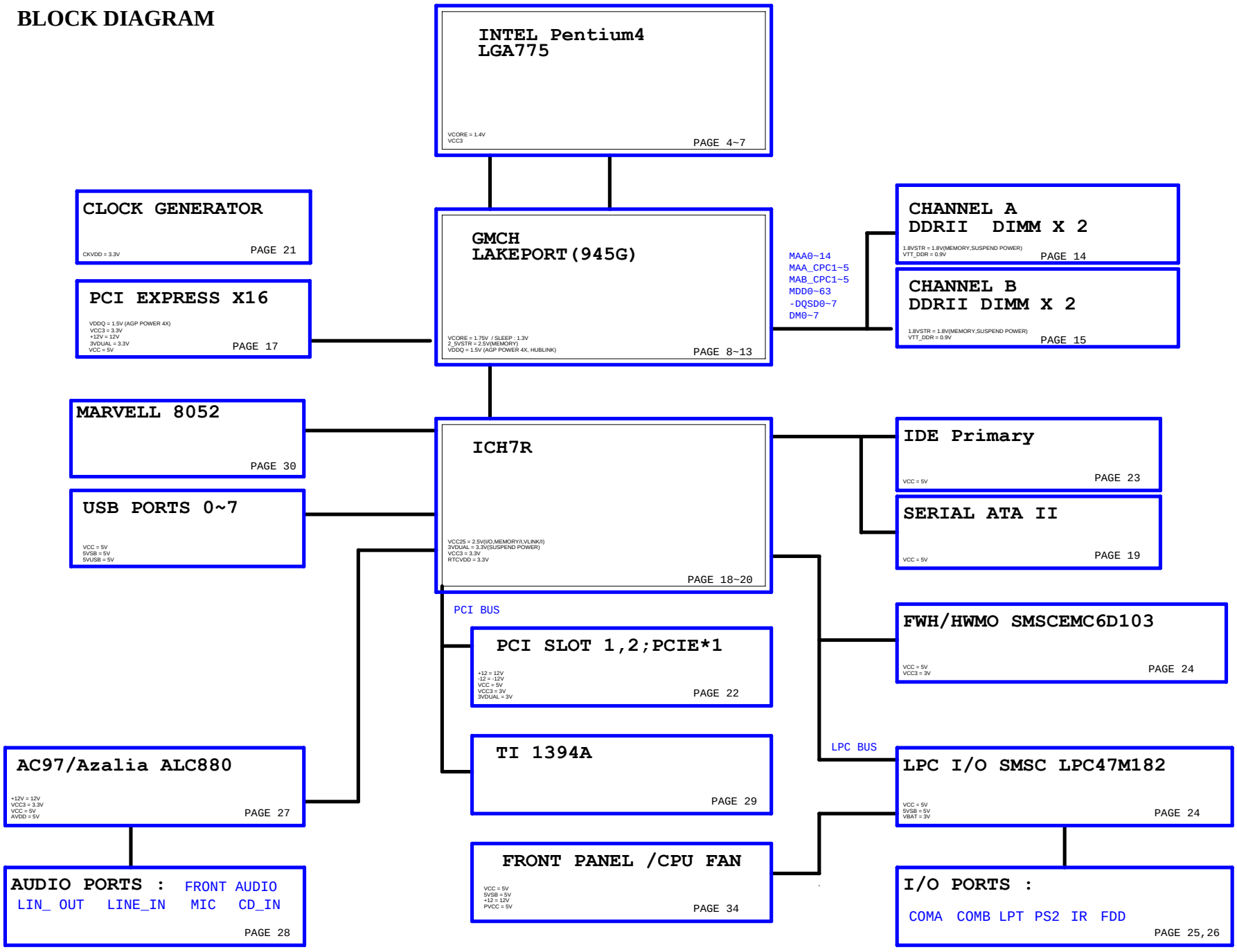
BLOCK DIAGRAM



Gigabyte Technology		
Title: BOM & PCB MODIFY HISTORY		
Size: Custom	Document Number: 8I945AEF-AE	Rev: 1.1
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Model Name: 8I945AEF-AE

Version: 1.1

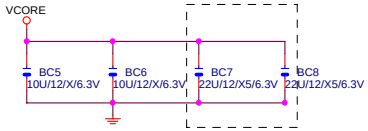
Component value change history

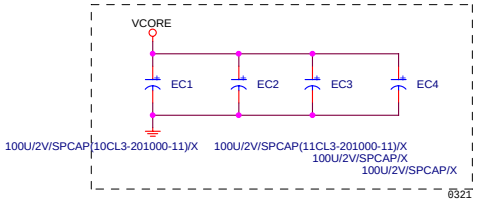
2005/06/30

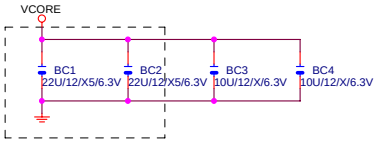
Data	Reason	Change Item
2005/02/01	PAGE 29:ACER modify USB_1394 for rear window	
	PAGE 24:add 5VDUAL LOCKER	
2005/03/21	PCB REV 0.2 MODIFY(ACER)	
	PAGE 31:LAYOUT CHANGED	1.VCORE PWM(NORTH:3 PHASE,EAST:1 PHASE)
		ADD MOSHSINK1,2
	PAGE 31:LAYOUT CHANGED	2.CPU_FAN,SYS_FAN USE OP+MOSFET
	PAGE 29:LAYOUT CHANGED	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 220Ω(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/Y/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

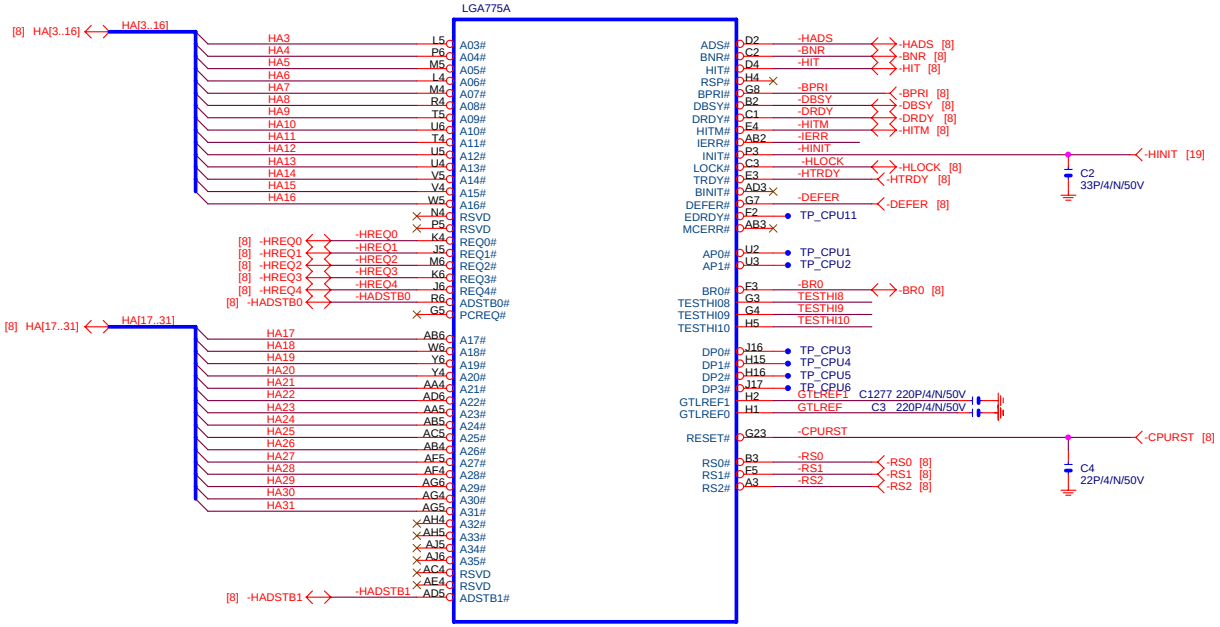
DATE	Change Item	Reason



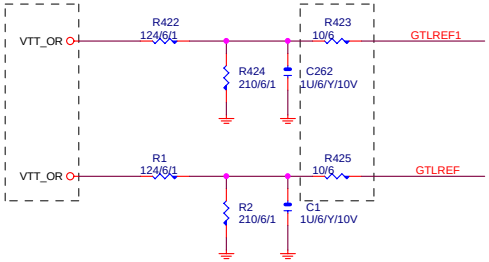


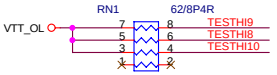


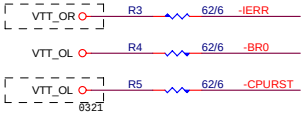
LGA775 FOOT PRINT FOR ACER:LGA775-ACER



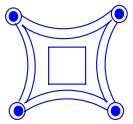
CPU-SK/775/[10SC1-D03775-01_10SC1-D03775-02]



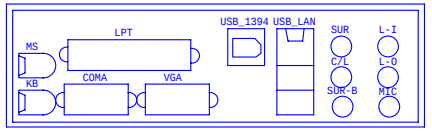




LGA775-CR
CPU_RETAINTION/[12KRC-040005-21]



IO_SHIELD
IO_SHIELD/[12AIO-AE0007-01]



Gigabyte Technology		
Title: P4_LGA775-A		
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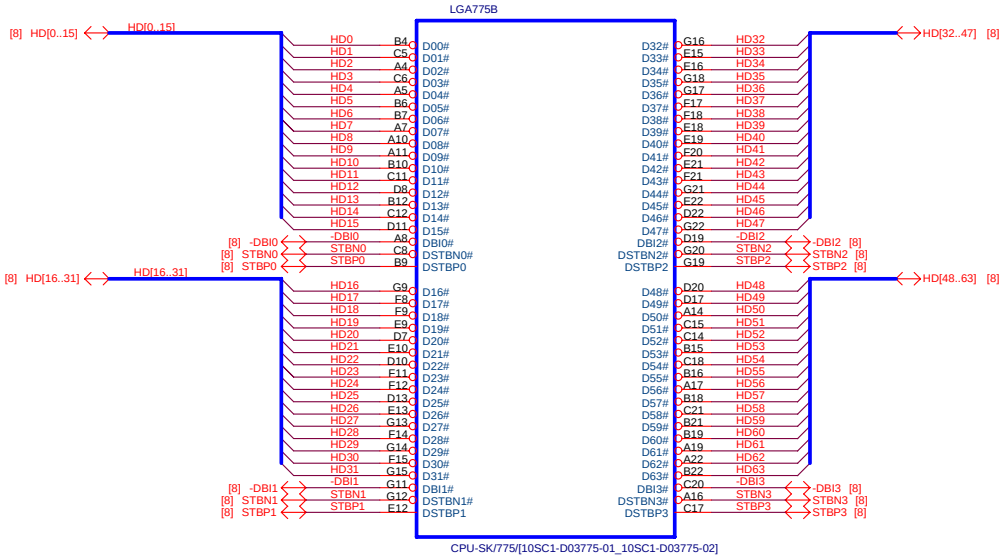
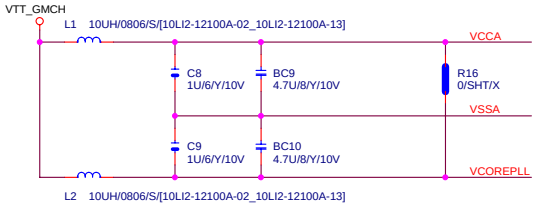


Gigabyte Technology			
Title: P4_LGA775-C			
Size: Custom	Document Number: 8I945AEF-AE		Rev: 1.1
Date: Thursday, July 07, 2005		Sheet 5 of 34	

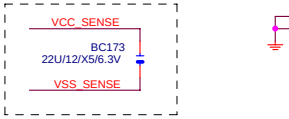
Note:

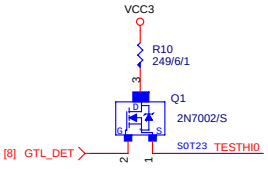
VCCA & VCOREPLL define doesn't same as old P4 design kit

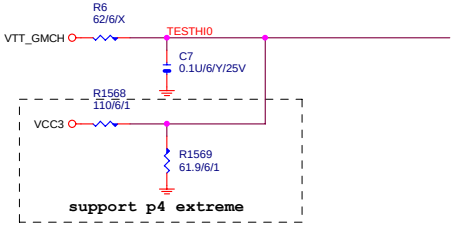


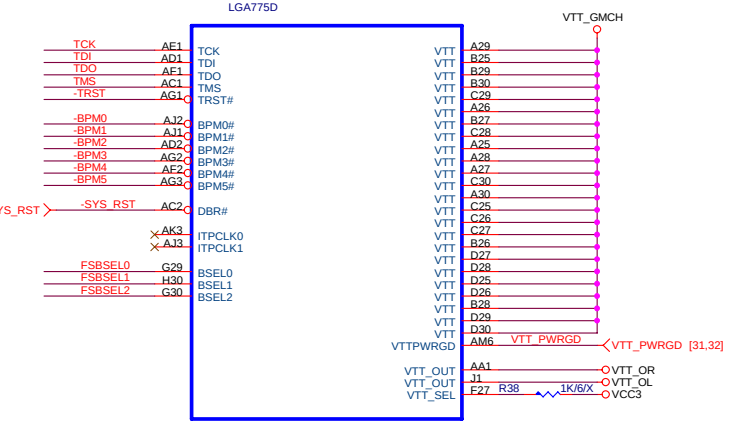
Trace width doesn't less than 12 Mil

As close as possible to CPU socket

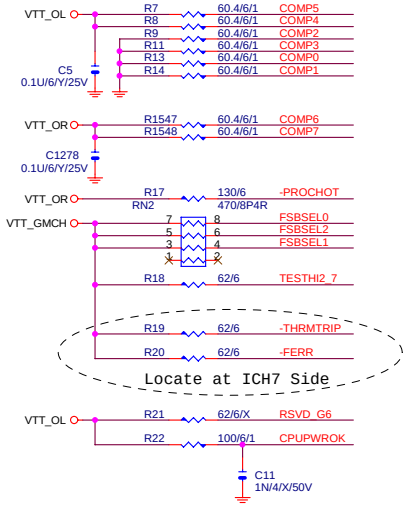


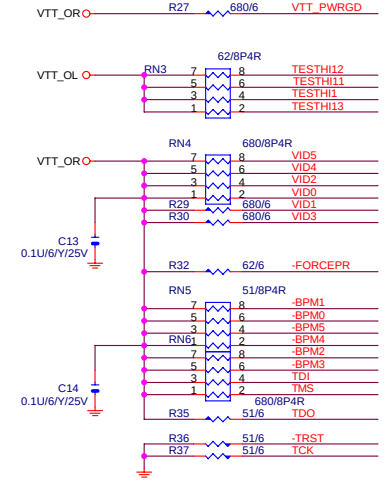




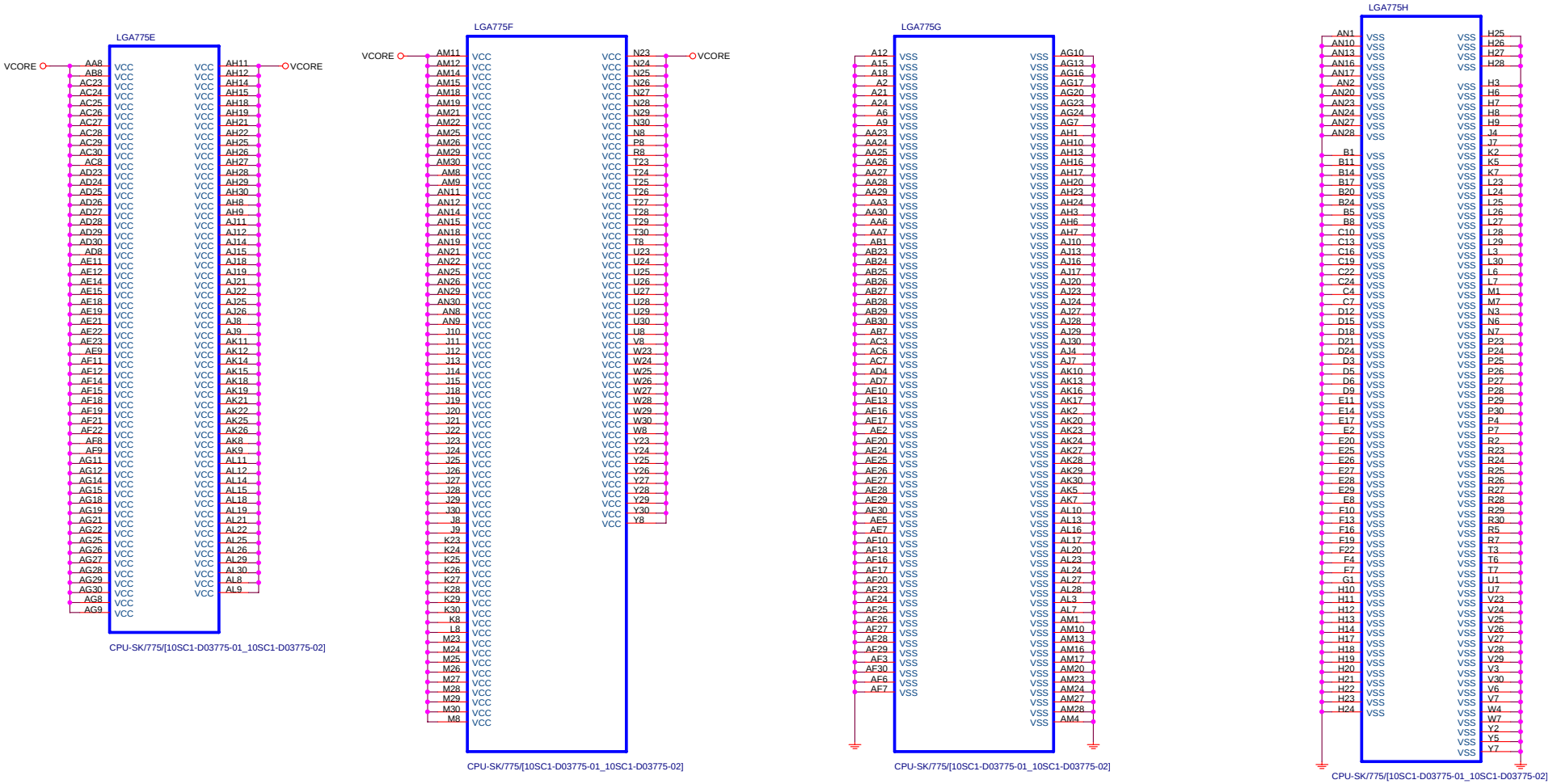


Place outside of CPU socket

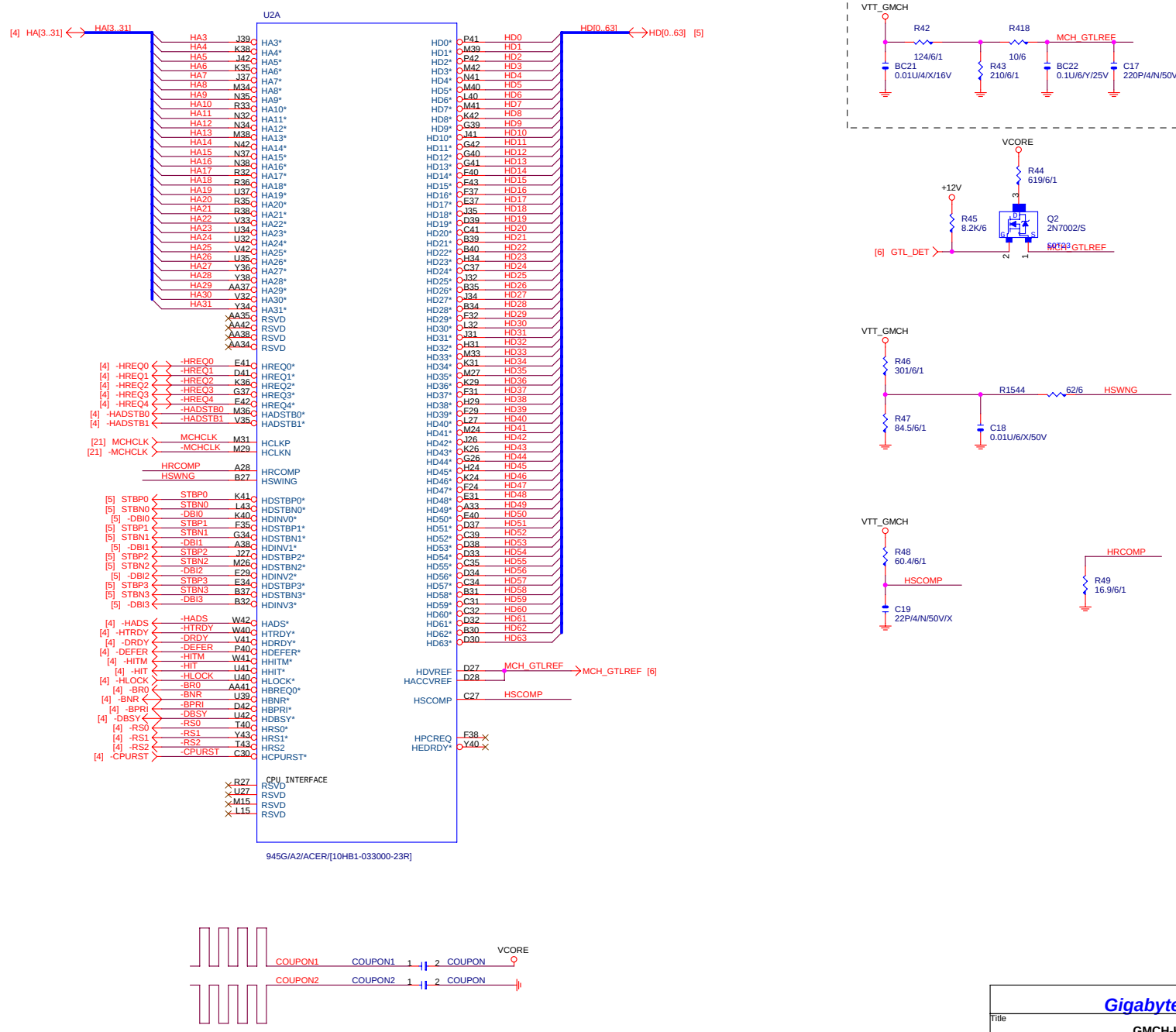




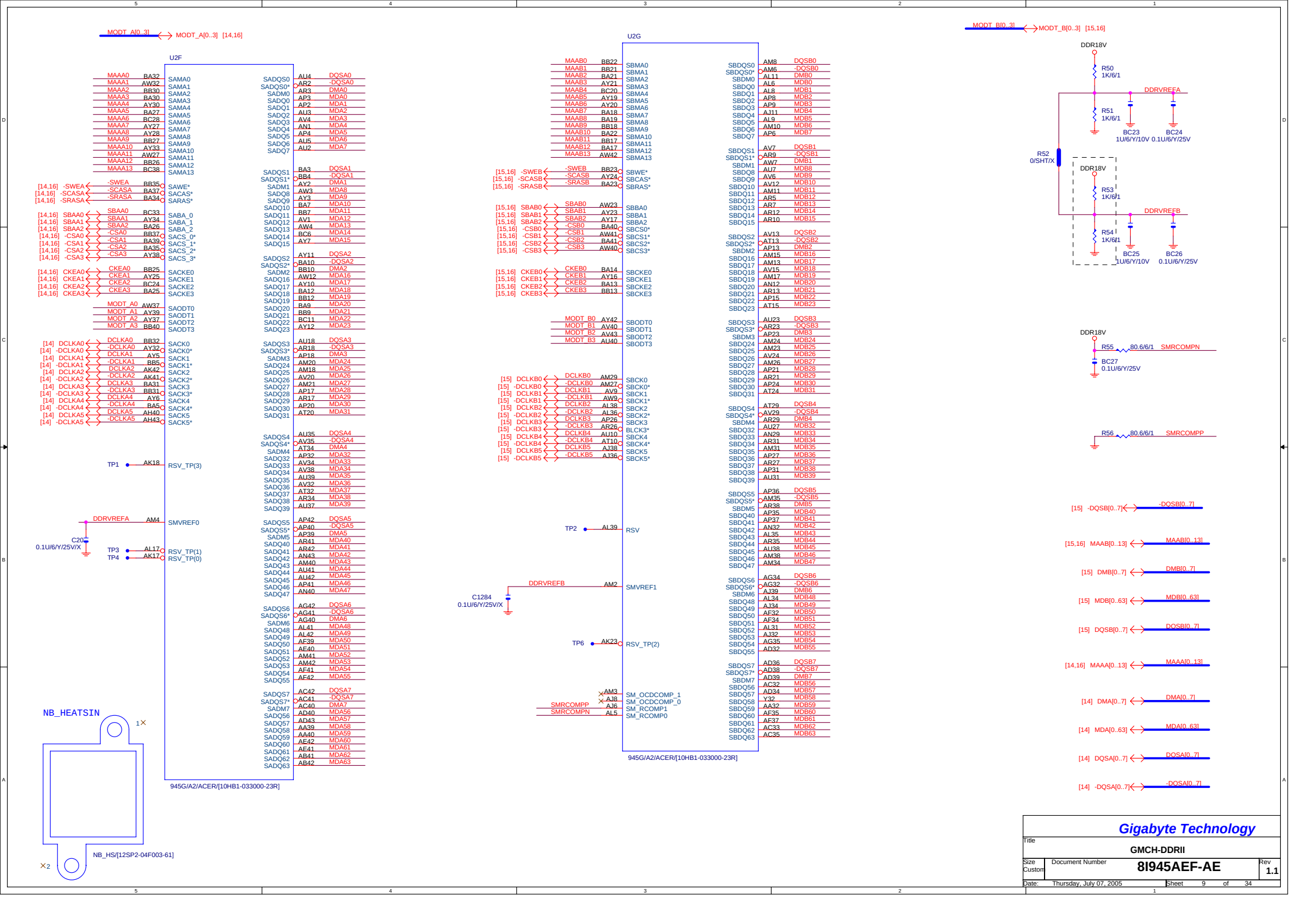
Gigabyte Technology			
Title: P4_LGA775-B			
Size: Custom	Document Number: 8I945AEF-AE		Rev: 1.1
Date: Thursday, July 07, 2005	Sheet 6 of 34		



Gigabyte Technology		
Title	P4_LGA775-D	
Size: Custom	Document Number: 8I945AEF-AE	Rev: 1.1
Date: Thursday, July 07, 2005	Sheet 7 of 34	



Gigabyte Technology		
Title: GMCH-HOST		
Size: Custom	Document Number: 8I945AEF-AE	Rev: 1.1
Date: Thursday, July 07, 2005	Sheet 8 of 34	


MODT_A[0..3]
MODT_A[0..3] [14,16]
U2F
MAAA0 BA32
MAAA1 AW32
MAAA2 BB30
MAAA3 BA30
MAAA4 AY30
MAAA5 BA27
MAAA6 BC28
MAAA7 AY27
MAAA8 AY28
MAAA9 BB27
MAAA10 AY33
MAAA11 AW27
MAAA12 BB26
MAAA13 BC38
SAMA0
SAMA1
SAMA2
SAMA3
SAMA4
SAMA5
SAMA6
SAMA7
SAMA8
SAMA9
SAMA10
SAMA11
SAMA12
SAMA13
[14,16] -SWEA
[14,16] -SCASA
[14,16] -SRASA
-SWEA BB35
-SCASA BA37
-SRASA BA34
SAWE*
SACAS*
SARAS*
[14,16] SBAA0
[14,16] SBAA1
[14,16] SBAA2
[14,16] -CSA0
[14,16] -CSA1
[14,16] -CSA2
[14,16] -CSA3
SBAA0 BC33
SBAA1 AY34
SBAA2 BA26
-CSA0 BB37
-CSA1 BA39
-CSA2 BA35
-CSA3 AY38
SABA_0
SABA_1
SABA_2
SACS_0*
SACS_1*
SACS_2*
SACS_3*
[14,16] CKEA0
[14,16] CKEA1
[14,16] CKEA2
[14,16] CKEA3
CKEA0 BB25
CKEA1 AY25
CKEA2 BC24
CKEA3 BA25
SACKE0
SACKE1
SACKE2
SACKE3
MODT_A0 AW37
MODT_A1 AY39
MODT_A2 AY37
MODT_A3 BB40
SAODT0
SAODT1
SAODT2
SAODT3
[14] DCLKA0
[14] -DCLKA0
[14] DCLKA1
[14] -DCLKA1
[14] DCLKA2
[14] -DCLKA2
[14] DCLKA3
[14] -DCLKA3
[14] DCLKA4
[14] -DCLKA4
[14] DCLKA5
[14] -DCLKA5
DCLKA0 BB32
-DCLKA0 AY32
DCLKA1 AY5
-DCLKA1 BB5
DCLKA2 AK42
-DCLKA2 AK41
DCLKA3 BA31
-DCLKA3 BB31
DCLKA4 AY6
-DCLKA4 BA5
DCLKA5 AH40
-DCLKA5 AH43
SACK0
SACK0*
SACK1
SACK1*
SACK2
SACK2*
SACK3
SACK3*
SACK4
SACK4*
SACK5
SACK5*
TP1 AK18
RSV_TP(3)
DDRVREFA AM4
SMVREF0
C20
0.1U/6/Y/25V/X
TP3 AL17
TP4 AK17
RSV_TP(1)
RSV_TP(0)
SADQS0 AU4 DQSA0
SADQS0* AR2 -DQSA0
SADM0 AR3 DMA0
SADQ0 AP3 MDA0
SADQ1 AP2 MDA1
SADQ2 AU3 MDA2
SADQ3 AV4 MDA3
SADQ4 AN1 MDA4
SADQ5 AP4 MDA5
SADQ6 AU5 MDA6
SADQ7 AU2 MDA7
SADQS1 BA3 DQSA1
SADQS1* BB4 -DQSA1
SADM1 AY2 DMA1
SADQ8 AW3 MDA8
SADQ9 AY3 MDA9
SADQ10 BA7 MDA10
SADQ11 BB7 MDA11
SADQ12 AV1 MDA12
SADQ13 AW4 MDA13
SADQ14 BC6 MDA14
SADQ15 AY7 MDA15
SADQS2 AY11 DQSA2
SADQS2* BA10 -DQSA2
SADM2 BB10 DMA2
SADQ16 AW12 MDA16
SADQ17 AY10 MDA17
SADQ18 BA12 MDA18
SADQ19 BB12 MDA19
SADQ20 BA9 MDA20
SADQ21 BB9 MDA21
SADQ22 BC11 MDA22
SADQ23 AY12 MDA23
SADQS3 AU18 DQSA3
SADQS3* AR18 -DQSA3
SADM3 AP18 DMA3
SADQ24 AM20 MDA24
SADQ25 AM18 MDA25
SADQ26 AV20 MDA26
SADQ27 AM21 MDA27
SADQ28 AP17 MDA28
SADQ29 AR17 MDA29
SADQ30 AP20 MDA30
SADQ31 AT20 MDA31
SADQS4 AU35 DQSA4
SADQS4* AV35 -DQSA4
SADM4 AT34 DMA4
SADQ32 AP32 MDA32
SADQ33 AV34 MDA33
SADQ34 AV38 MDA34
SADQ35 AU39 MDA35
SADQ36 AV32 MDA36
SADQ37 AT32 MDA37
SADQ38 AR34 MDA38
SADQ39 AU37 MDA39
SADQS5 AP42 DQSA5
SADQS5* AP40 -DQSA5
SADM5 AP39 DMA5
SADQ40 AR41 MDA40
SADQ41 AR42 MDA41
SADQ42 AN43 MDA42
SADQ43 AM40 MDA43
SADQ44 AU41 MDA44
SADQ45 AU42 MDA45
SADQ46 AP41 MDA46
SADQ47 AN40 MDA47
SADQS6 AG42 DQSA6
SADQS6* AG41 -DQSA6
SADM6 AG40 DMA6
SADQ48 AL41 MDA48
SADQ49 AL42 MDA49
SADQ50 AF39 MDA50
SADQ51 AE40 MDA51
SADQ52 AM41 MDA52
SADQ53 AM42 MDA53
SADQ54 AF41 MDA54
SADQ55 AF42 MDA55
SADQS7 AC42 DQSA7
SADQS7* AC41 -DQSA7
SADM7 AC40 DMA7
SADQ56 AD40 MDA56
SADQ57 AD43 MDA57
SADQ58 AA39 MDA58
SADQ59 AA40 MDA59
SADQ60 AE42 MDA60
SADQ61 AF41 MDA61
SADQ62 AB41 MDA62
SADQ63 AB42 MDA63
945G/A2/ACER/[10HB1-033000-23R]
NB_HEATSIN
1
2
NB_HS/[12SP2-04F003-61]
U2G
MAAB0 BB22
MAAB1 BB21
MAAB2 BA21
MAAB3 AY21
MAAB4 BC20
MAAB5 AY19
MAAB6 AY20
MAAB7 BA18
MAAB8 BA19
MAAB9 BB18
MAAB10 BA22
MAAB11 BB17
MAAB12 BA17
MAAB13 AW42
SBMA0
SBMA1
SBMA2
SBMA3
SBMA4
SBMA5
SBMA6
SBMA7
SBMA8
SBMA9
SBMA10
SBMA11
SBMA12
SBMA13
[15,16] -SWEB
[15,16] -SCASB
[15,16] -SRASB
-SWEB BB23
-SCASB AY24
-SRASB BA23
SBWE*
SBCAS*
SBRAS*
[15,16] SBAB0
[15,16] SBAB1
[15,16] SBAB2
[15,16] -CSB0
[15,16] -CSB1
[15,16] -CSB2
[15,16] -CSB3
SBAB0 AW23
SBAB1 AY23
SBAB2 AY17
-CSB0 BA40
-CSB1 AW41
-CSB2 BA41
-CSB3 AW40
SBBA0
SBBA1
SBBA2
SBCS0*
SBCS1*
SBCS2*
SBCS3*
[15,16] CKEB0
[15,16] CKEB1
[15,16] CKEB2
[15,16] CKEB3
CKEB0 BA14
CKEB1 AY16
CKEB2 BA13
CKEB3 BB13
SBCKE0
SBCKE1
SBCKE2
SBCKE3
MODT_B0 AY42
MODT_B1 AV40
MODT_B2 AV43
MODT_B3 AU40
SBODT0
SBODT1
SBODT2
SBODT3
[15] DCLKB0
[15] -DCLKB0
[15] DCLKB1
[15] -DCLKB1
[15] DCLKB2
[15] -DCLKB2
[15] DCLKB3
[15] -DCLKB3
[15] DCLKB4
[15] -DCLKB4
[15] DCLKB5
[15] -DCLKB5
DCLKB0 AM29
-DCLKB0 AM27
DCLKB1 AV9
-DCLKB1 AW9
DCLKB2 AL38
-DCLKB2 AL36
DCLKB3 AP26
-DCLKB3 AR26
DCLKB4 AU10
-DCLKB4 AT10
DCLKB5 AJ38
-DCLKB5 AJ36
SBCK0
SBCK0*
SBCK1
SBCK1*
SBCK2
SBCK2*
SBCK3
BLCK3*
SBCK4
SBCK4*
SBCK5
SBCK5*
TP2 AL39
RSV
DDRVREFB AM2
SMVREF1
C1284
0.1U/6/Y/25V/X
TP6 AK23
RSV_TP(2)
AM3
AJ8
SMRCOMPP AJ6
SMRCOMPN AL5
SM_OCDCOMP_1
SM_OCDCOMP_0
SM_RCOMP1
SM_RCOMP0
SBDQS0 AM8 DQSB0
SBDQS0* AM6 -DQSB0
SBDM0 AL11 DMB0
SBDQ0 AL6 MDB0
SBDQ1 AL8 MDB1
SBDQ2 AP8 MDB2
SBDQ3 AP9 MDB3
SBDQ4 AJ11 MDB4
SBDQ5 AL9 MDB5
SBDQ6 AM10 MDB6
SBDQ7 AP6 MDB7
SBDQS1 AV7 DQSB1
SBDQS1* AR9 -DQSB1
SBDM1 AW7 DMB1
SBDQ8 AU7 MDB8
SBDQ9 AV6 MDB9
SBDQ10 AV12 MDB10
SBDQ11 AM11 MDB11
SBDQ12 AR5 MDB12
SBDQ13 AR7 MDB13
SBDQ14 AR12 MDB14
SBDQ15 AR10 MDB15
SBDQS2 AV13 DQSB2
SBDQS2* AT13 -DQSB2
SBDM2 AP13 DMB2
SBDQ16 AM15 MDB16
SBDQ17 AM13 MDB17
SBDQ18 AV15 MDB18
SBDQ19 AM17 MDB19
SBDQ20 AN12 MDB20
SBDQ21 AR13 MDB21
SBDQ22 AP15 MDB22
SBDQ23 AT15 MDB23
SBDQS3 AU23 DQSB3
SBDQS3* AR23 -DQSB3
SBDM3 AP23 DMB3
SBDQ24 AM24 MDB24
SBDQ25 AM23 MDB25
SBDQ26 AV24 MDB26
SBDQ27 AM26 MDB27
SBDQ28 AP21 MDB28
SBDQ29 AR21 MDB29
SBDQ30 AP24 MDB30
SBDQ31 AT24 MDB31
SBDQS4 AT29 DQSB4
SBDQS4* AV29 -DQSB4
SBDM4 AR29 DMB4
SBDQ32 AU27 MDB32
SBDQ33 AN29 MDB33
SBDQ34 AR31 MDB34
SBDQ35 AM31 MDB35
SBDQ36 AP27 MDB36
SBDQ37 AR27 MDB37
SBDQ38 AP31 MDB38
SBDQ39 AU31 MDB39
SBDQS5 AP36 DQSB5
SBDQS5* AM35 -DQSB5
SBDM5 AR38 DMB5
SBDQ40 AP35 MDB40
SBDQ41 AP37 MDB41
SBDQ42 AN32 MDB42
SBDQ43 AL35 MDB43
SBDQ44 AR35 MDB44
SBDQ45 AU38 MDB45
SBDQ46 AM38 MDB46
SBDQ47 AM34 MDB47
SBDQS6 AG34 DQSB6
SBDQS6* AG32 -DQSB6
SBDM6 AJ39 DMB6
SBDQ48 AL34 MDB48
SBDQ49 AJ34 MDB49
SBDQ50 AF32 MDB50
SBDQ51 AF34 MDB51
SBDQ52 AL31 MDB52
SBDQ53 AJ32 MDB53
SBDQ54 AG35 MDB54
SBDQ55 AD32 MDB55
SBDQS7 AD36 DQSB7
SBDQS7* AD38 -DQSB7
SBDM7 AD39 DMB7
SBDQ56 AC32 MDB56
SBDQ57 AD34 MDB57
SBDQ58 Y32 MDB58
SBDQ59 AA32 MDB59
SBDQ60 AF35 MDB60
SBDQ61 AF37 MDB61
SBDQ62 AC33 MDB62
SBDQ63 AC35 MDB63
945G/A2/ACER/[10HB1-033000-23R]
MODT_B[0..3] [15,16]
DDR18V
R50 1K/6/1
DDRVREFA
R51 1K/6/1
BC23 1U/6/Y/10V
BC24 0.1U/6/Y/25V
R52 0/SHT/X
DDR18V
R53 1K/6/1
DDRVREFB
R54 1K/6/1
BC25 1U/6/Y/10V
BC26 0.1U/6/Y/25V
DDR18V
R55 80.6/6/1 SMRCOMPN
BC27 0.1U/6/Y/25V
R56 80.6/6/1 SMRCOMPP
[15] -DQSB[0..7]
[15,16] MAAB[0..13]
[15] DMB[0..7]
[15] MDB[0..63]
[15] DQSB[0..7]
[14,16] MAAA[0..13]
[14] DMA[0..7]
[14] MDA[0..63]
[14] DQSA[0..7]
[14] -DQSA[0..7]
Gigabyte Technology
Title
GMCH-DDRII
Size
Custom
Document Number
8I945AEF-AE
Rev
1.1
Date: Thursday, July 07, 2005
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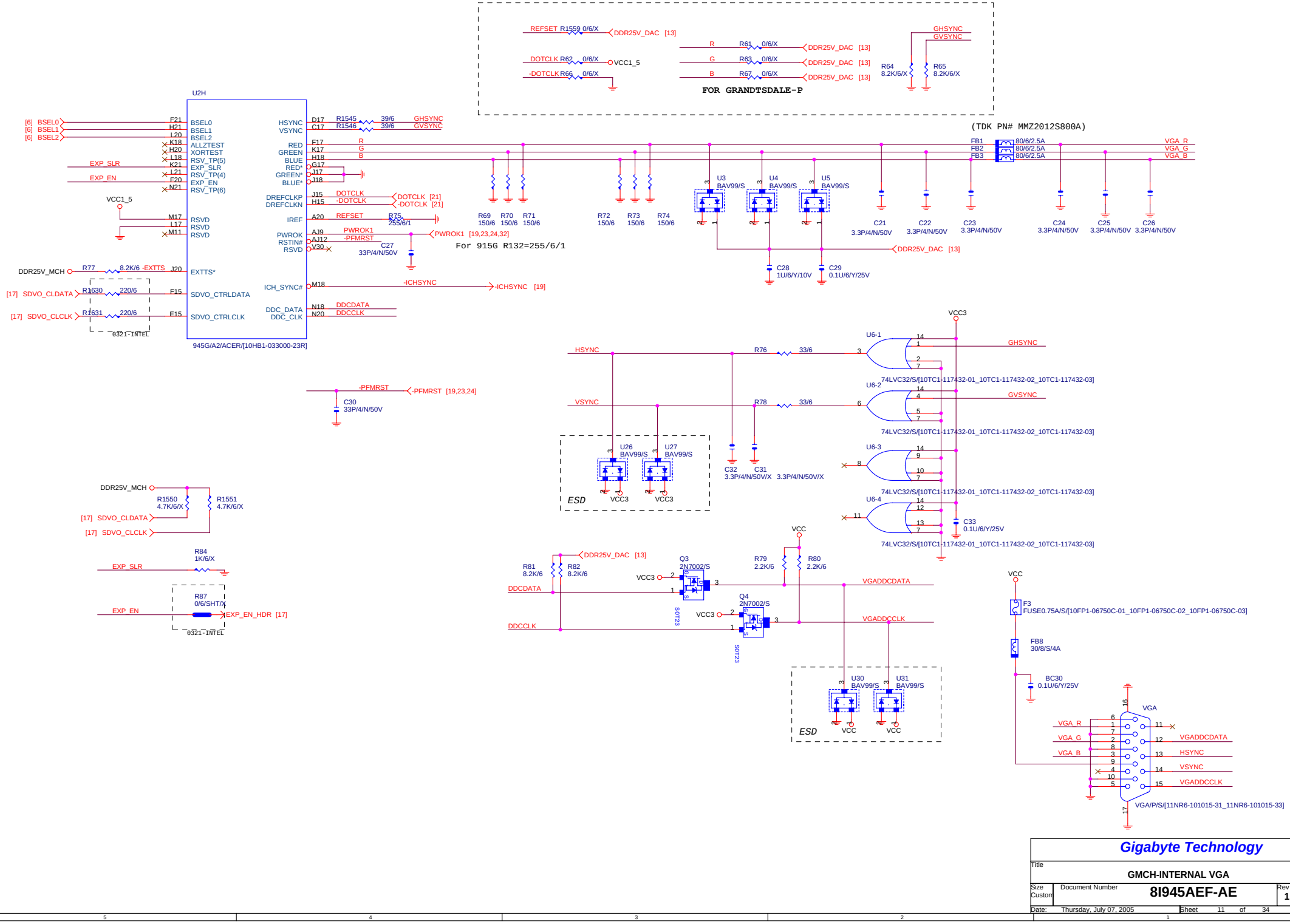
Gigabyte Technology		
Title: GMCH-PCI E & DMI		
Size: Custom	Document Number: 8I945AEF-AE	Rev: 1.1
Date: Thursday, July 07, 2005	Sheet 10 of 34	



Gigabyte Technology			
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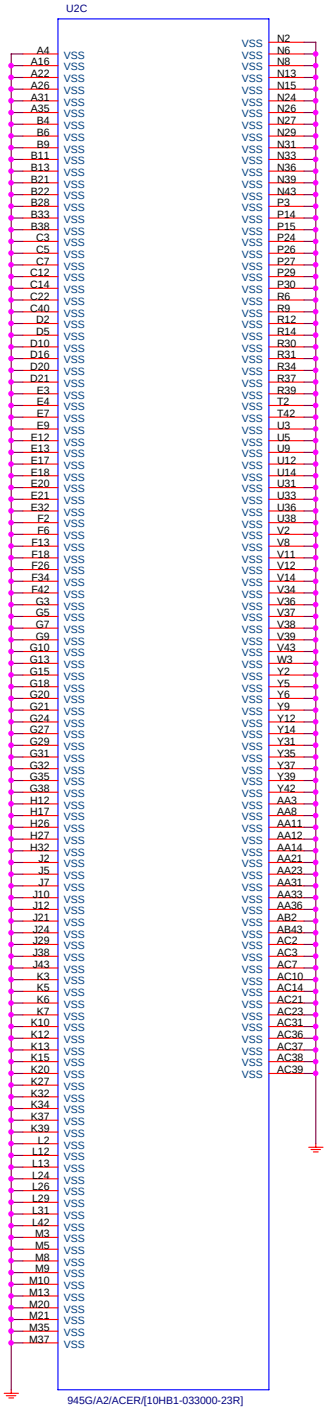
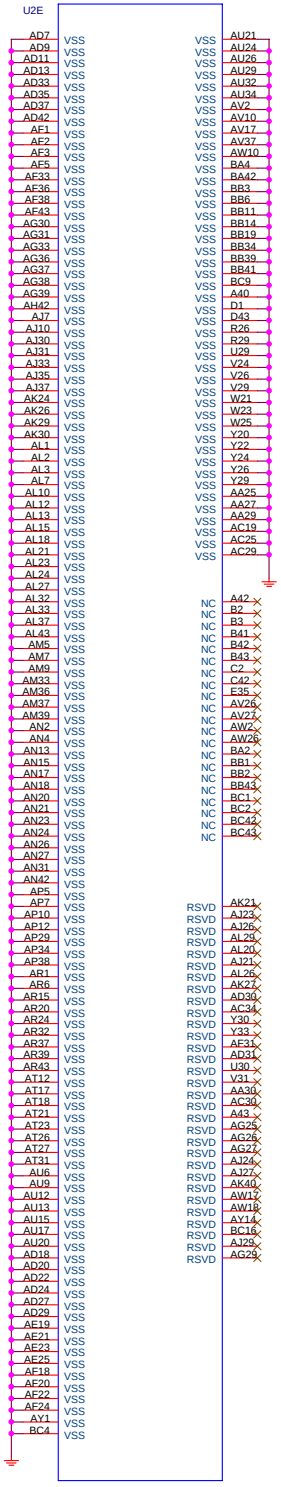
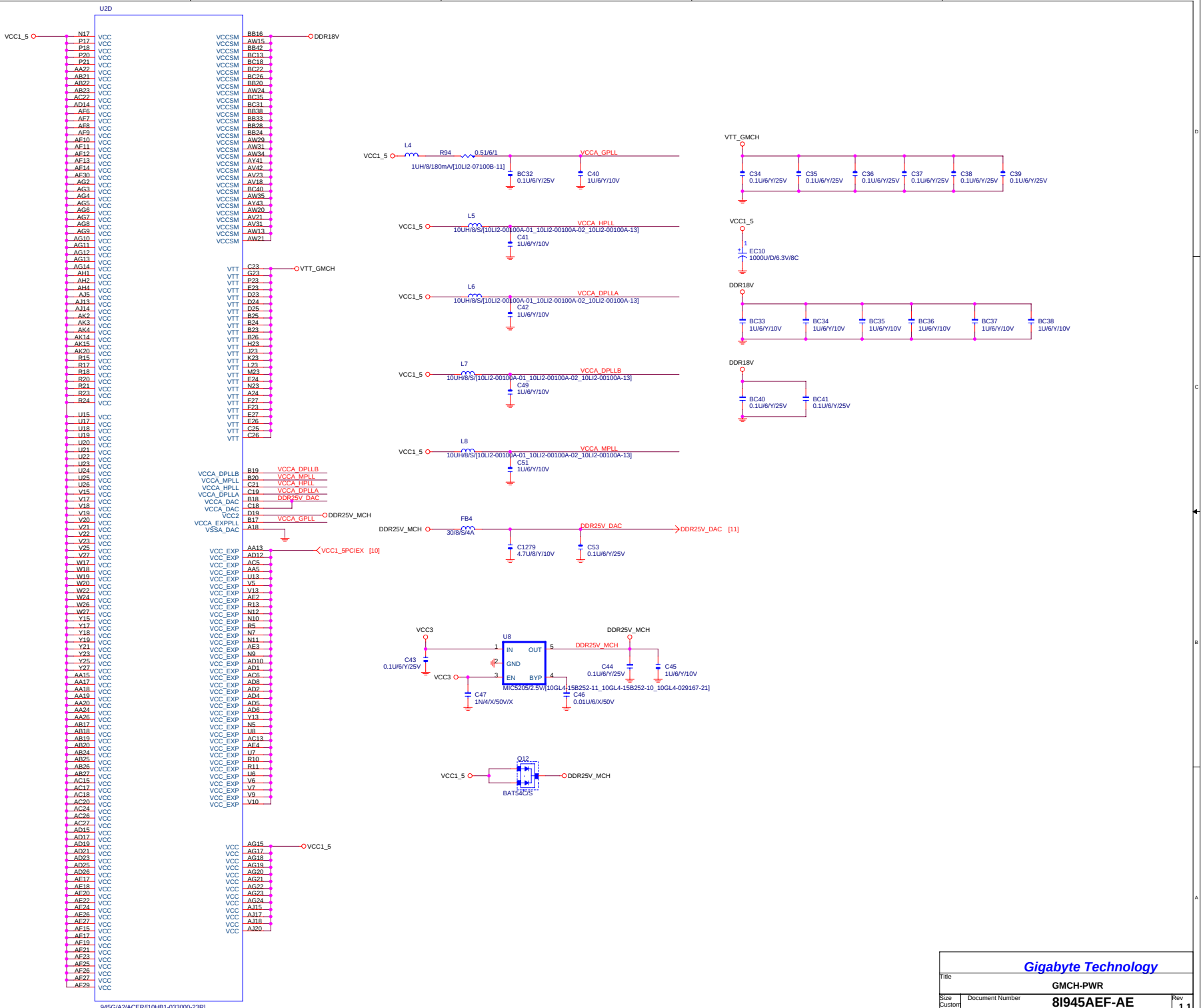
Size: Custom	Document Number: 8I945AEF-AE		Rev: 1.1
Date: Thursday, July 07, 2005	Sheet 11 of 34		

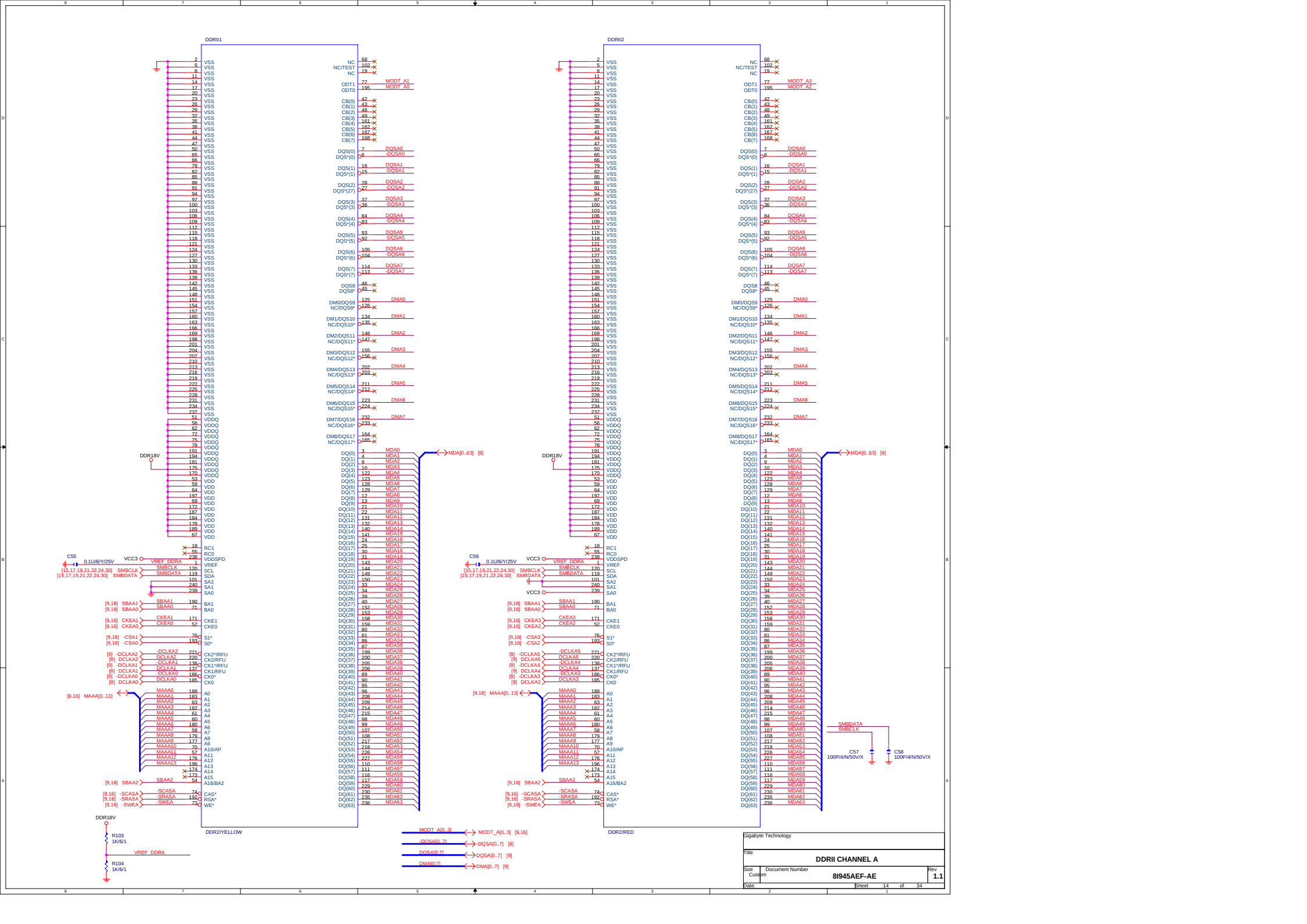




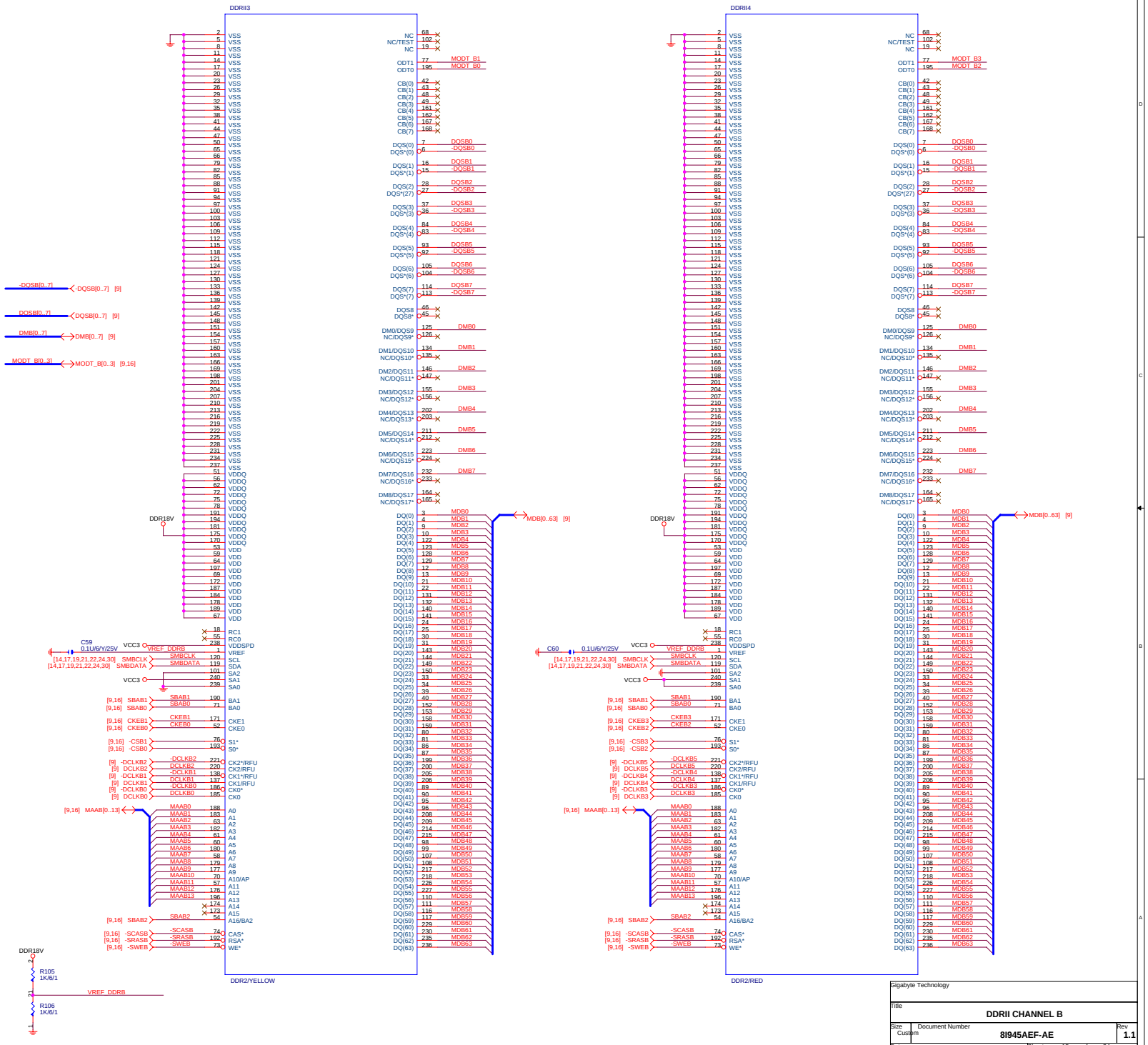
Gigabyte Technology		
Title	GMCH-GND	
Size: Custom	Document Number: 8I945AEF-AE	Rev: 1.1
Date: Thursday, July 07, 2005	Sheet 12 of 34	



Gigabyte Technology			
Title	GMCH-PWR		
Size: Custom	Document Number: 8I945AEF-AE		Rev: 1.1
Date: Thursday, July 07, 2005	Sheet 13 of 34		



Gigabyte Technology		
Title	DDRII CHANNEL A	
Size: Custom	Document Number: 8I945AEF-AE	Rev: 1.1
Date:	Sheet 14 of 34	



Gigabyte Technology

Title: **DDRII CHANNEL B**

Size	Document Number	Rev
Custom	8I945AEF-AE	1.1

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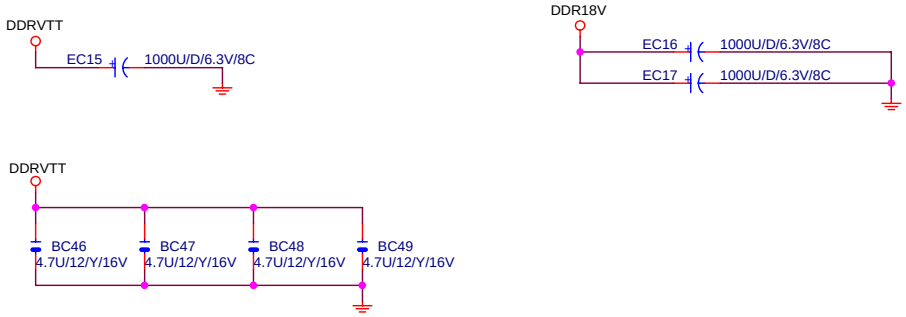
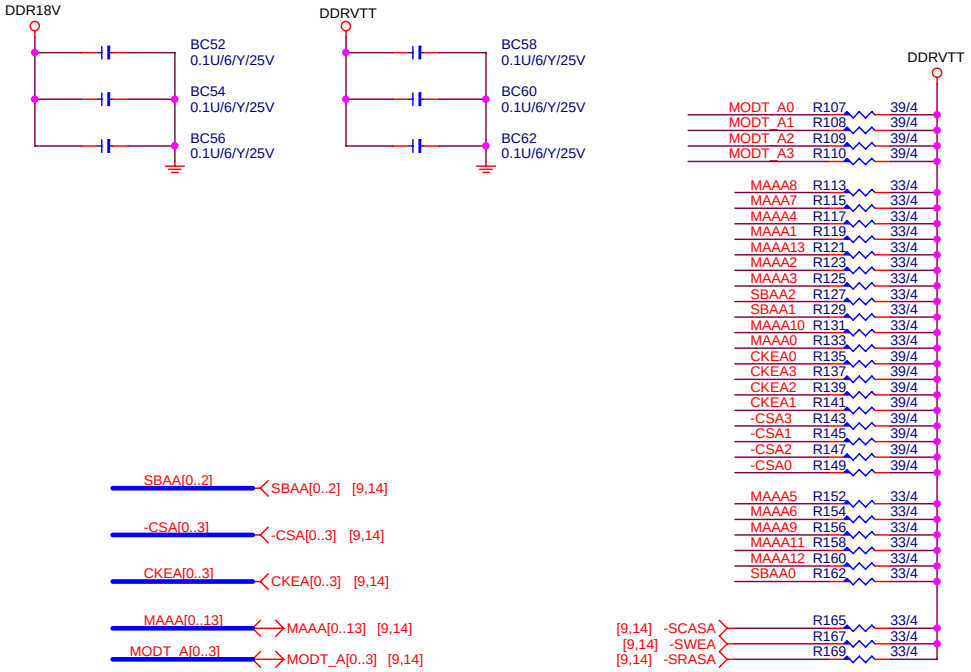
DDR TERMINATION CHANNEL A

DDRVTT Decouple



DDR18V Decouple

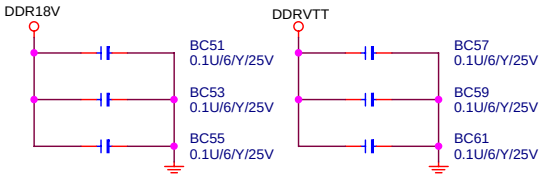
DDRVTT Decouple

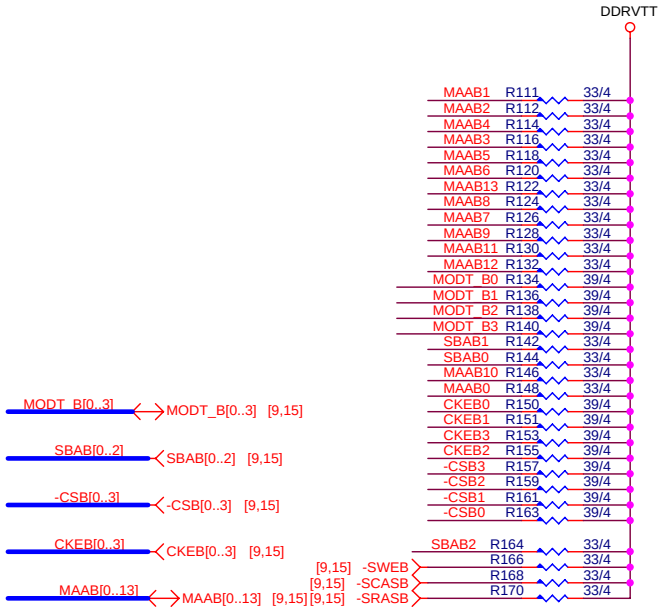


DDR TERMINATION CHANNEL B

DDR18V Decouple

DDRVTT Decouple





Gigabyte Technology

Title: DDRII TERMINATOR

Size	Document Number	Rev
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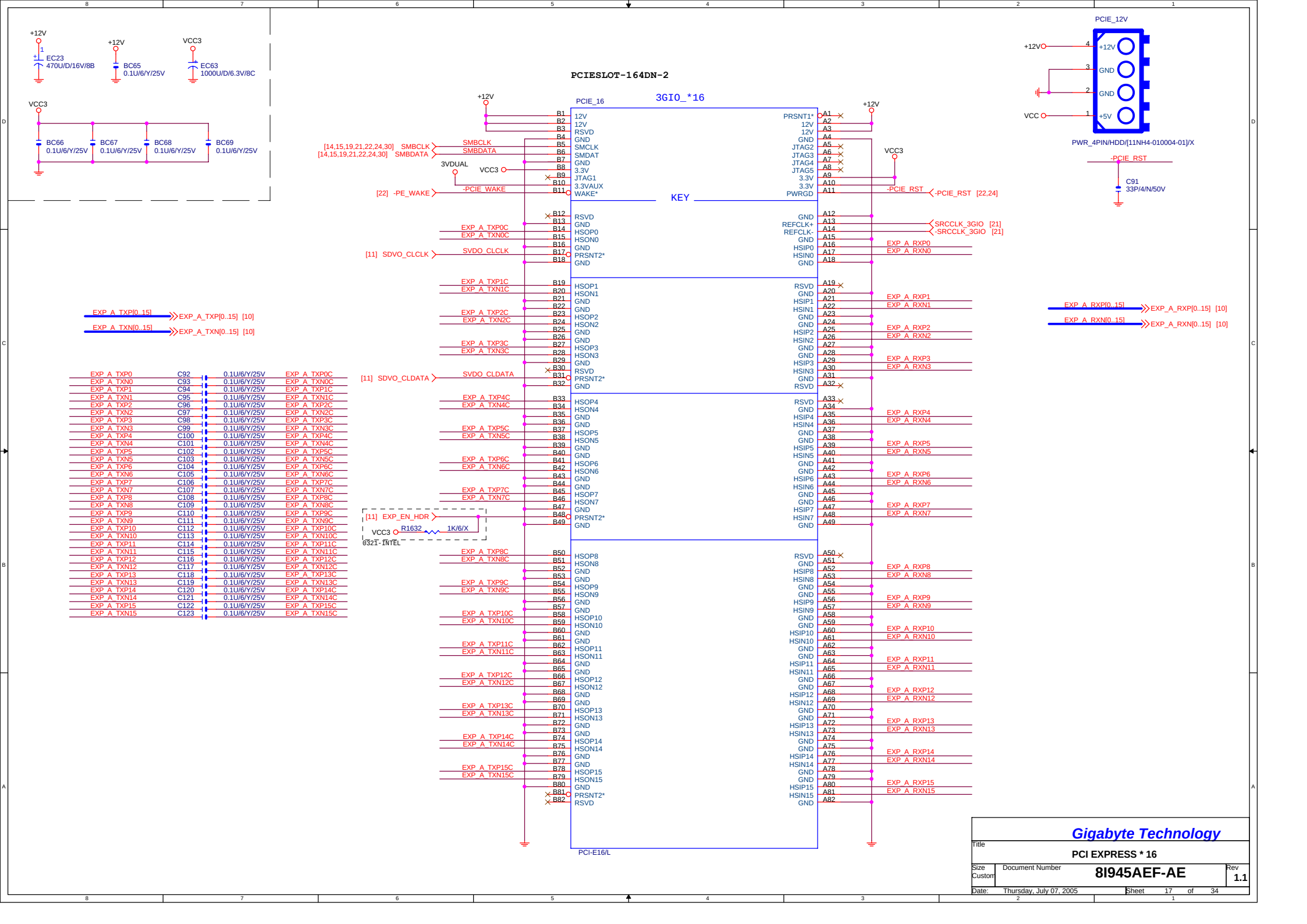
PCIESLOT-164DN-2
3GIO_*16
PCIE_16
KEY
PCI-E16/L
+12V
VCC3
3VDUAL
EC23 470U/D/16V/8B
BC65 0.1U/6/Y/25V
EC63 1000U/D/6.3V/8C
BC66 0.1U/6/Y/25V
BC67 0.1U/6/Y/25V
BC68 0.1U/6/Y/25V
BC69 0.1U/6/Y/25V
PCIE_12V
PWR_4PIN/HDD/[11NH4-010004-01]/X
C91 33P/4/N/50V
-PCIE_RST
SMBCLK
SMBDATA
-PCIE_WAKE
SVDO_CLCLK
SVDO_CLDATA
EXP_EN_HDR
R1632 1K/6/X
032I-INTEL
EXP_A_TXP[0..15] [10]
EXP_A_TXN[0..15] [10]
EXP_A_RXP[0..15] [10]
EXP_A_RXN[0..15] [10]
SRCCLK_3GIO [21]
-SRCCLK_3GIO [21]
-PCIE_RST [22,24]
Gigabyte Technology
PCI EXPRESS * 16
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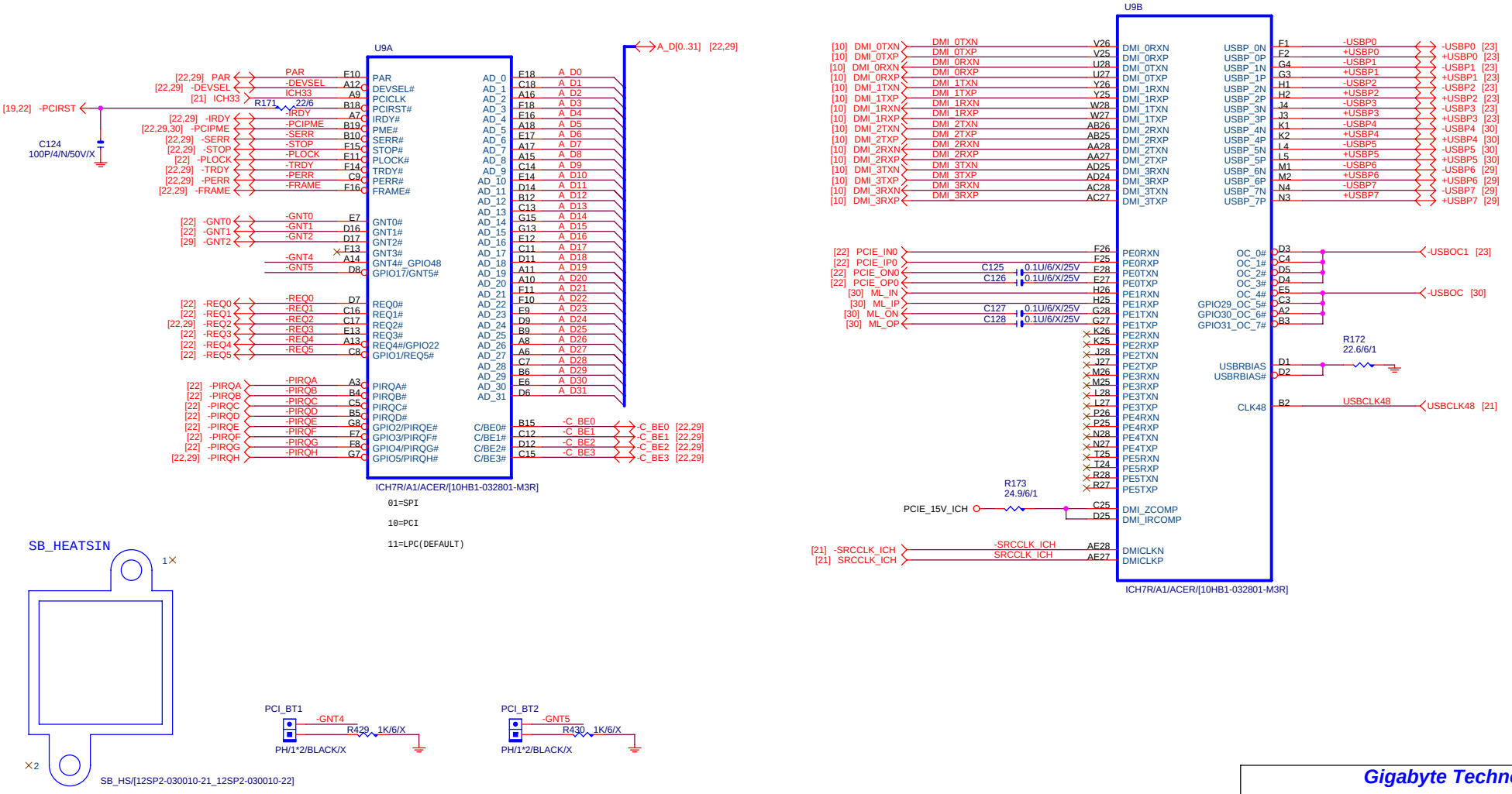

Gigabyte Technology			
Title	ICH6-PCI, DMI, LAN, USB		
Size B	Document Number 8I945AEF-AE		Rev 1.1
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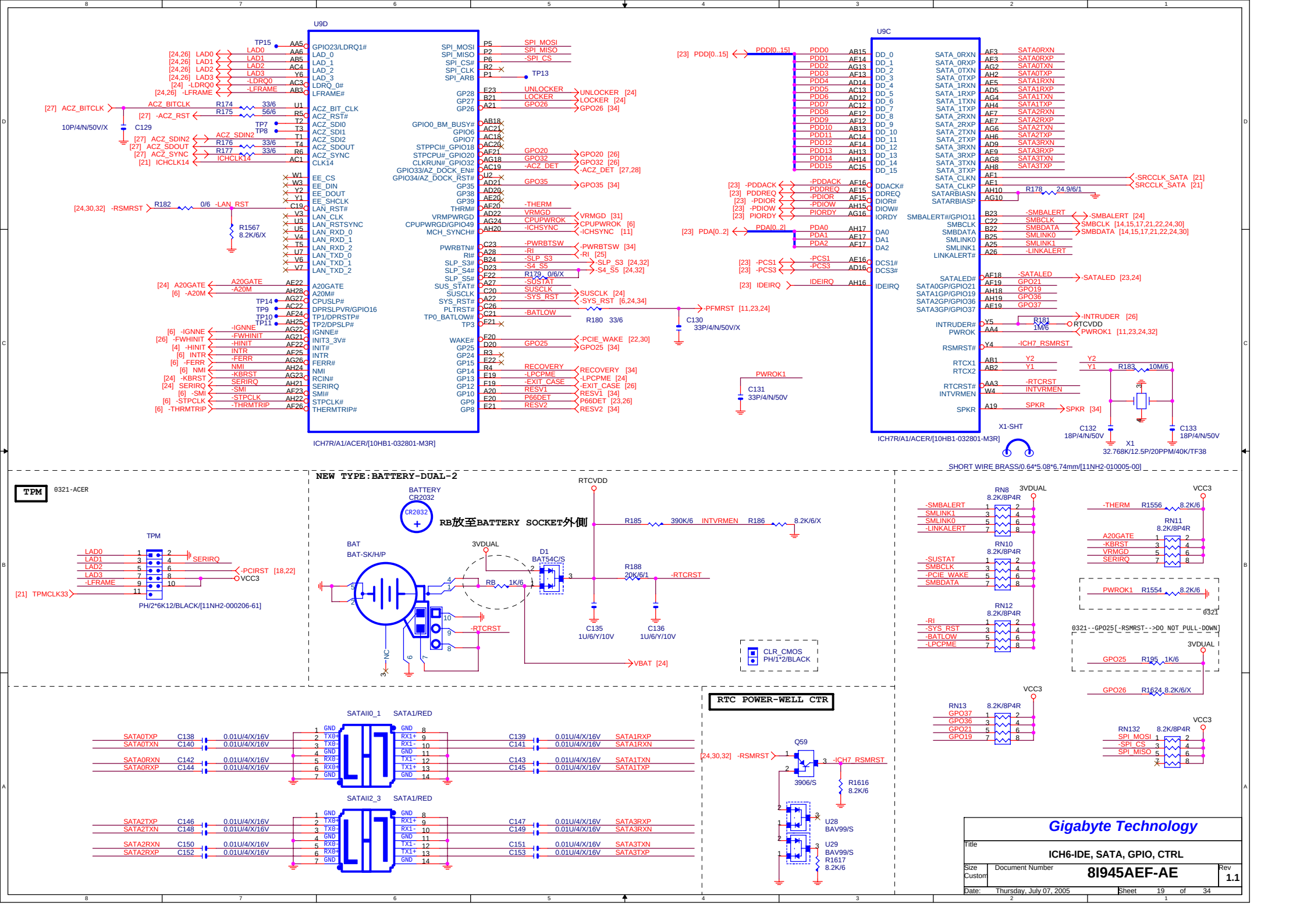
U9D
ICH7R/A1/ACER/[10HB1-032801-M3R]
U9C
ICH7R/A1/ACER/[10HB1-032801-M3R]
TPM
0321-ACER
NEW TYPE:BATTERY-DUAL-2
BATTERY
CR2032
RB放至BATTERY SOCKET外側
RTC POWER-WELL CTR
CLR_CMOS
PH/1*2/BLACK
SHORT WIRE BRASS/0.64*5.08*6.74mm/[11NH2-010005-00]
X1-SHT
X1
32.768K/12.5P/20PPM/40K/TF38
Gigabyte Technology
ICH6-IDE, SATA, GPIO, CTRL
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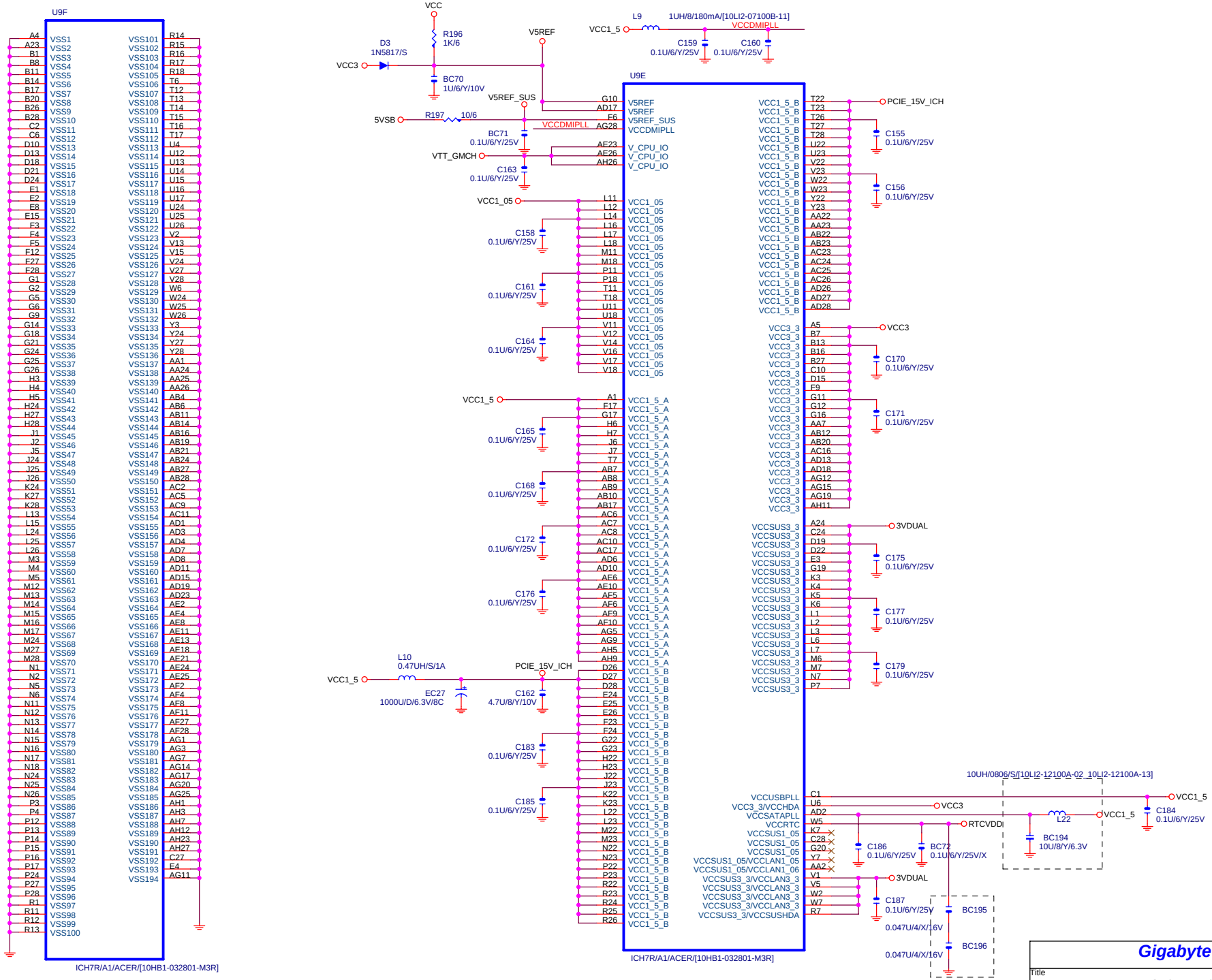

Gigabyte Technology

Title: **ICH6-PWR & GND**

Size	Document Number	Rev
B	**8I945AEF-AE**	1.1

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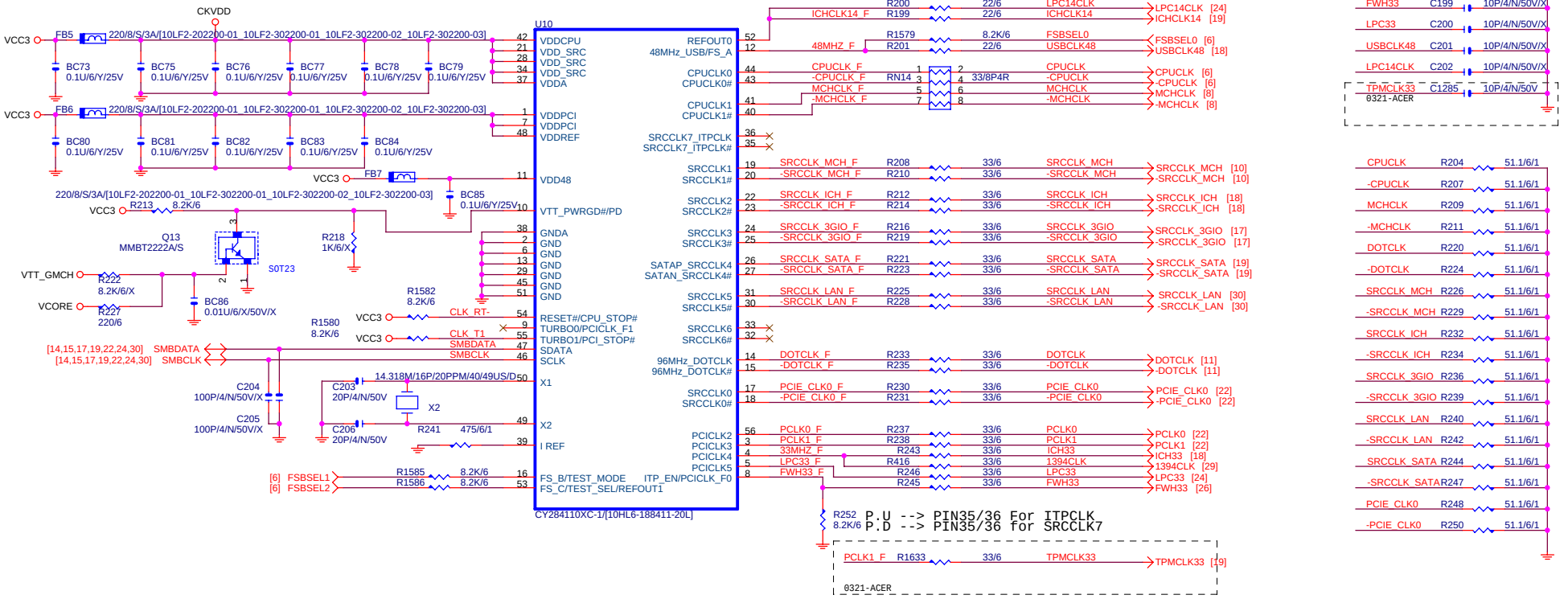
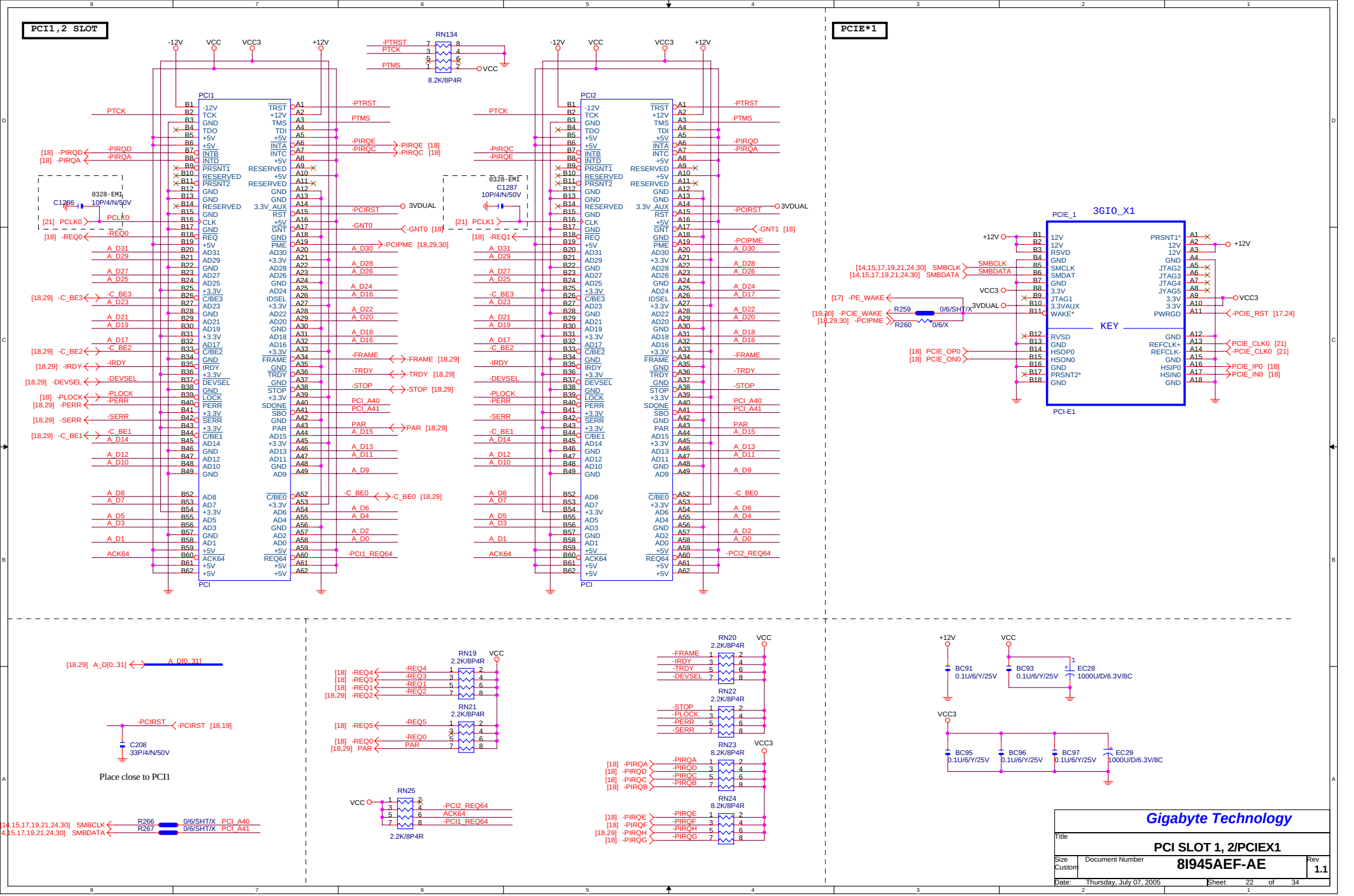


Gigabyte Technology		
Title	CK410M	
Size: Custom	Document Number: 8I945AEF-AE	Rev: 1.1
Date: Thursday, July 07, 2005	Sheet 21 of 34	


PCI1,2 SLOT
PCIE*1
PCI1
PCI2
RN134
8.2K/8P4R
PCI
C1286
C1287
0328-EMI
10P/4/N/50V
PCIE_1
3GIO_X1
KEY
PCI-E1
RN19
RN20
RN21
RN22
RN23
RN24
RN25
2.2K/8P4R
8.2K/8P4R
C208
33P/4/N/50V
Place close to PCI1
R259
R260
R266
R267
0/6/SHT/X
BC91
BC93
EC28
BC95
BC96
BC97
EC29
0.1U/6/Y/25V
1000U/D/6.3V/8C
Gigabyte Technology
PCI SLOT 1, 2/PCIEX1
8I945AEF-AE
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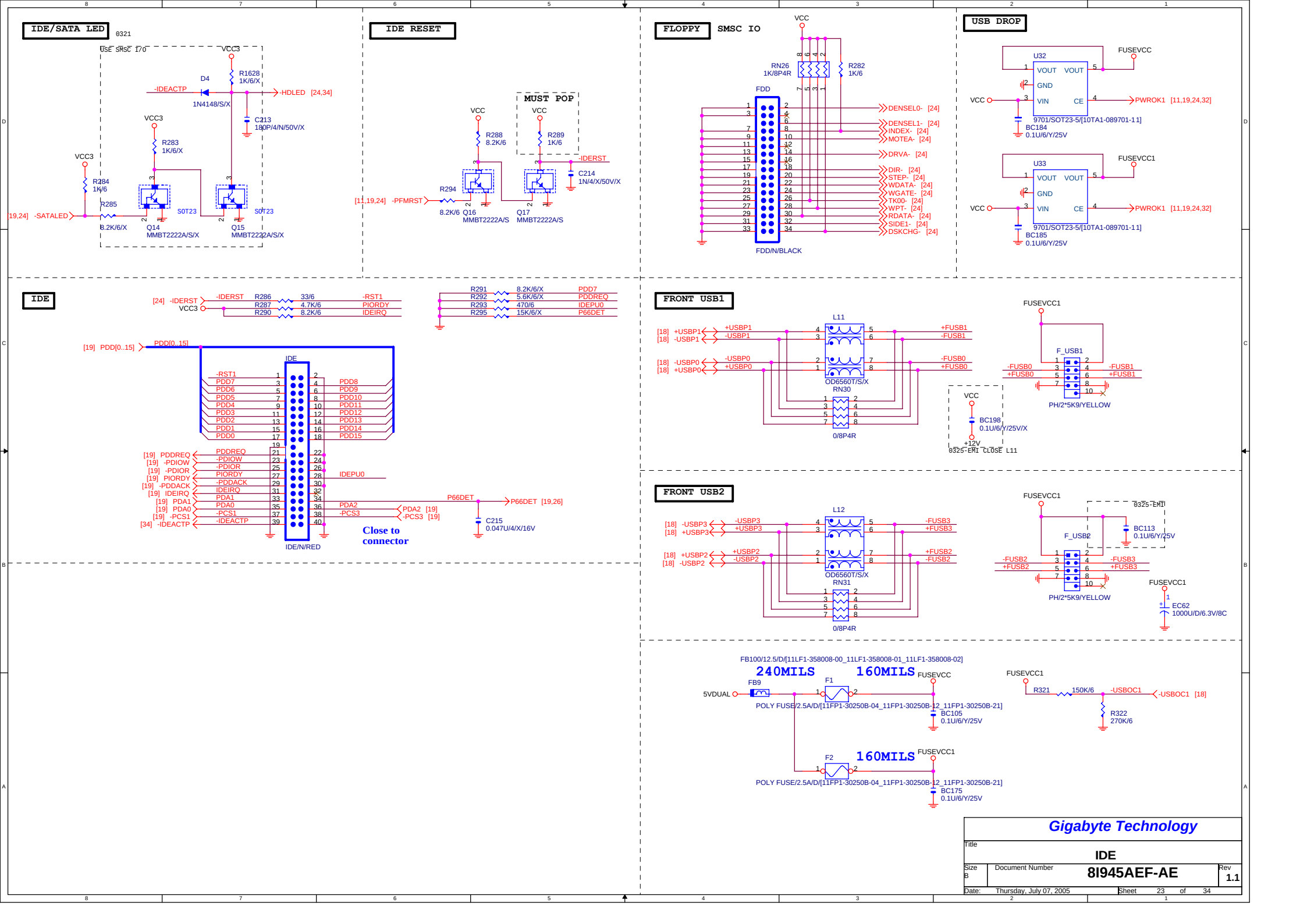
IDE/SATA LED
0321
USE SMSC I/O
VCC3
R1628 1K/6/X
D4
-IDEACTP
-HDLED [24,34]
1N4148/S/X
C213 180P/4/N/50V/X
R283 1K/6/X
R284 1K/6
R285 8.2K/6/X
[19,24] -SATALED
Q14 MMBT2222A/S/X
Q15 MMBT2222A/S/X
S0T23
IDE RESET
MUST POP
R288 8.2K/6
R289 1K/6
-IDERST
C214 1N/4/X/50V/X
R294 8.2K/6
[11,19,24] -PFMRST
Q16 MMBT2222A/S
Q17 MMBT2222A/S
FLOPPY
SMSC IO
RN26 1K/8P4R
R282 1K/6
FDD
DENSEL0- [24]
DENSEL1- [24]
INDEX- [24]
MOTEA- [24]
DRVA- [24]
DIR- [24]
STEP- [24]
WDATA- [24]
WGATE- [24]
TK00- [24]
WPT- [24]
RDATA- [24]
SIDE1- [24]
DSKCHG- [24]
FDD/N/BLACK
USB DROP
U32
VOUT
GND
VIN
CE
FUSEVCC
PWROK1 [11,19,24,32]
9701/SOT23-5/[10TA1-089701-11]
BC184 0.1U/6/Y/25V
U33
FUSEVCC1
BC185 0.1U/6/Y/25V
IDE
[24] -IDERST
R286 33/6 -RST1
R287 4.7K/6 PIORDY
R290 8.2K/6 IDEIRQ
R291 8.2K/6/X PDD7
R292 5.6K/6/X PDDREQ
R293 470/6 IDEPU0
R295 15K/6/X P66DET
[19] PDD[0..15]
IDE
-RST1 PDD7 PDD6 PDD5 PDD4 PDD3 PDD2 PDD1 PDD0
PDD8 PDD9 PDD10 PDD11 PDD12 PDD13 PDD14 PDD15
PDDREQ -PDIOW -PDIOR PIORDY -PDDACK IDEIRQ PDA1 PDA0 -PCS1 -IDEACTP
PDA2 -PCS3
IDEPU0
P66DET
P66DET [19,26]
C215 0.047U/4/X/16V
Close to connector
IDE/N/RED
FRONT USB1
L11
[18] +USBP1
[18] -USBP1
[18] -USBP0
[18] +USBP0
+FUSB1
-FUSB1
-FUSB0
+FUSB0
OD6560T/S/X
RN30
0/8P4R
F_USB1
PH/2*5K9/YELLOW
BC198 0.1U/6/Y/25V/X
+12V
0325-EMI CLOSE L11
FRONT USB2
L12
[18] -USBP3
[18] +USBP3
[18] +USBP2
[18] -USBP2
-FUSB3
+FUSB3
+FUSB2
-FUSB2
RN31
F_USB2
0325-EMI
BC113 0.1U/6/Y/25V
EC62 1000U/D/6.3V/8C
FB100/12.5/D/[11LF1-358008-00_11LF1-358008-01_11LF1-358008-02]
240MILS
160MILS
FB9
5VDUAL
F1
F2
POLY FUSE/2.5A/D/[11FP1-30250B-04_11FP1-30250B-12_11FP1-30250B-21]
BC105 0.1U/6/Y/25V
BC175 0.1U/6/Y/25V
R321 150K/6
-USBOC1
-USBOC1 [18]
R322 270K/6
Gigabyte Technology
Title
IDE
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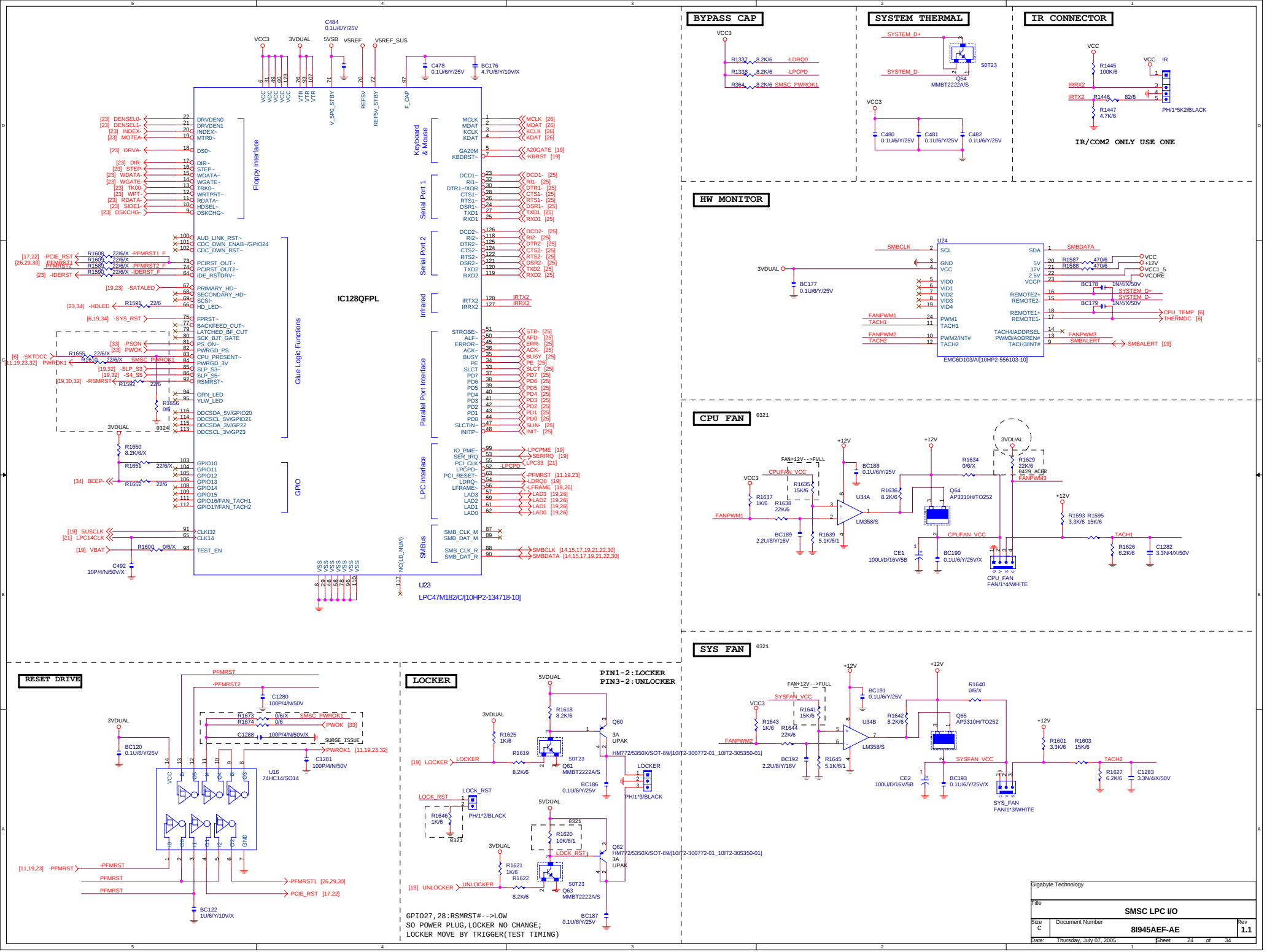
IC128QFPL
U23
LPC47M182/C/[10HP2-134718-10]
Floppy Interface
Keyboard & Mouse
Serial Port 1
Serial Port 2
Infrared
Parallel Port Interface
LPC Interface
SMBus
Glue Logic Functions
GPIO
BYPASS CAP
SYSTEM THERMAL
IR CONNECTOR
IR/COM2 ONLY USE ONE
HW MONITOR
EMC6D103/A/[10HP2-556103-10]
CPU FAN
SYS FAN
RESET DRIVE
LOCKER
PIN1-2:LOCKER
PIN3-2:UNLOCKER
GPIO27,28:RSMRST#-->LOW
SO POWER PLUG,LOCKER NO CHANGE;
LOCKER MOVE BY TRIGGER(TEST TIMING)
SMSC LPC I/O
Gigabyte Technology
Document Number
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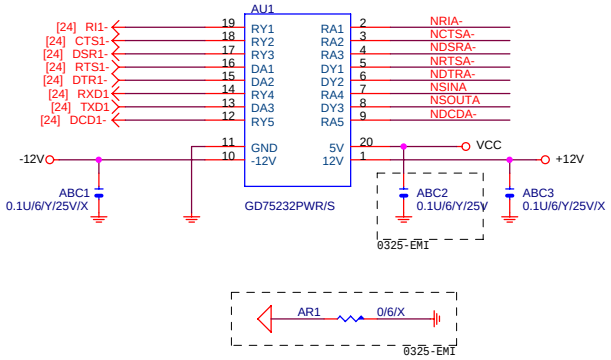
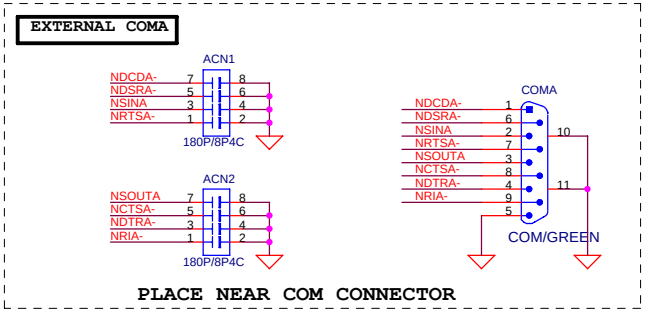
COMA

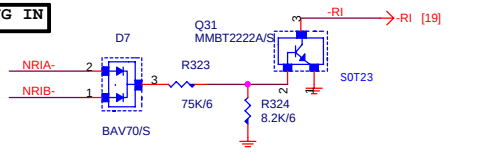


EXTERNAL COMA

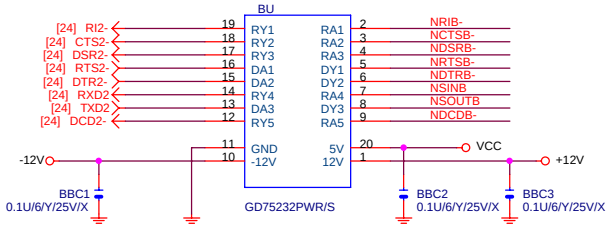


PLACE NEAR COM CONNECTOR

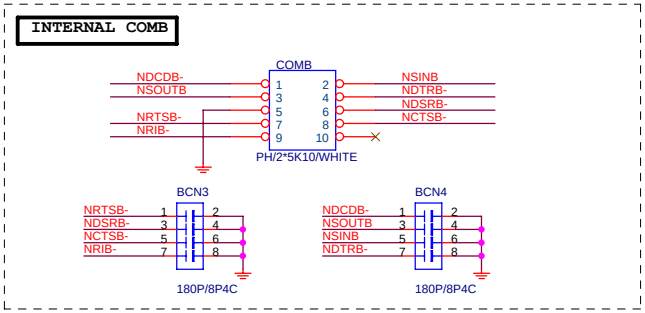
RING IN



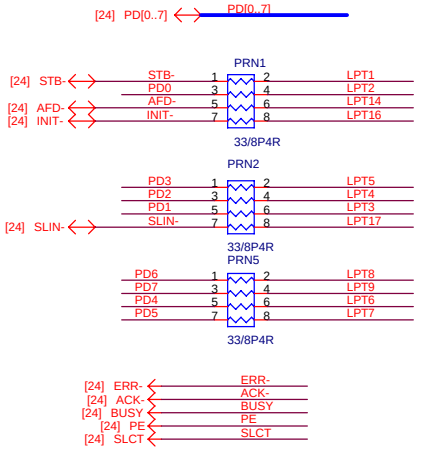
COMB

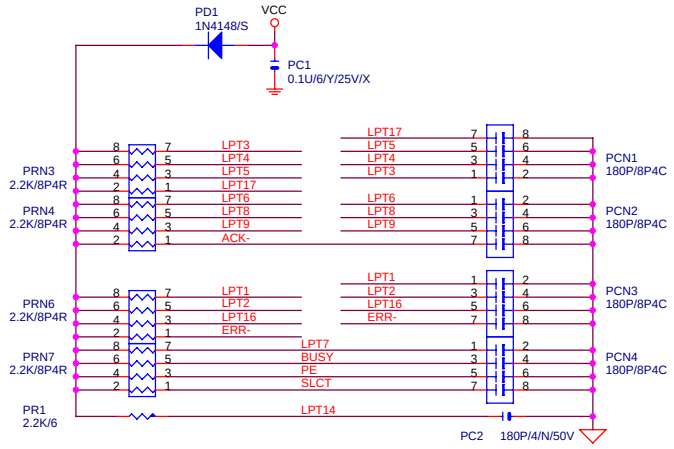


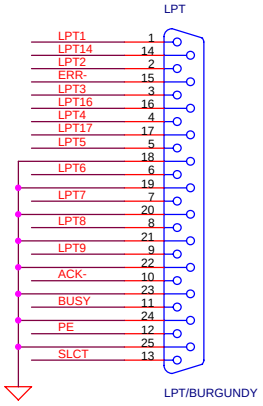
INTERNAL COMB



LPT PORT







Gigabyte Technology		
Title: COM & LPT PORT		
Size: B	Document Number: 8I945AEF-AE	Rev: 1.1
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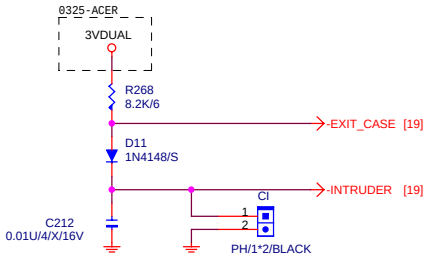
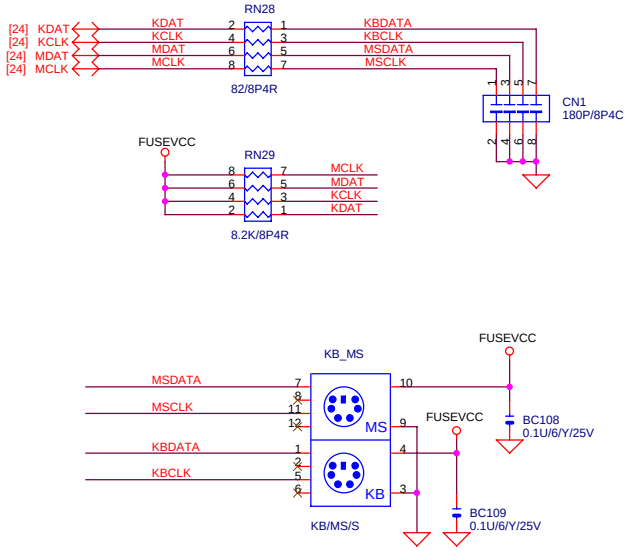
CASE OPEN

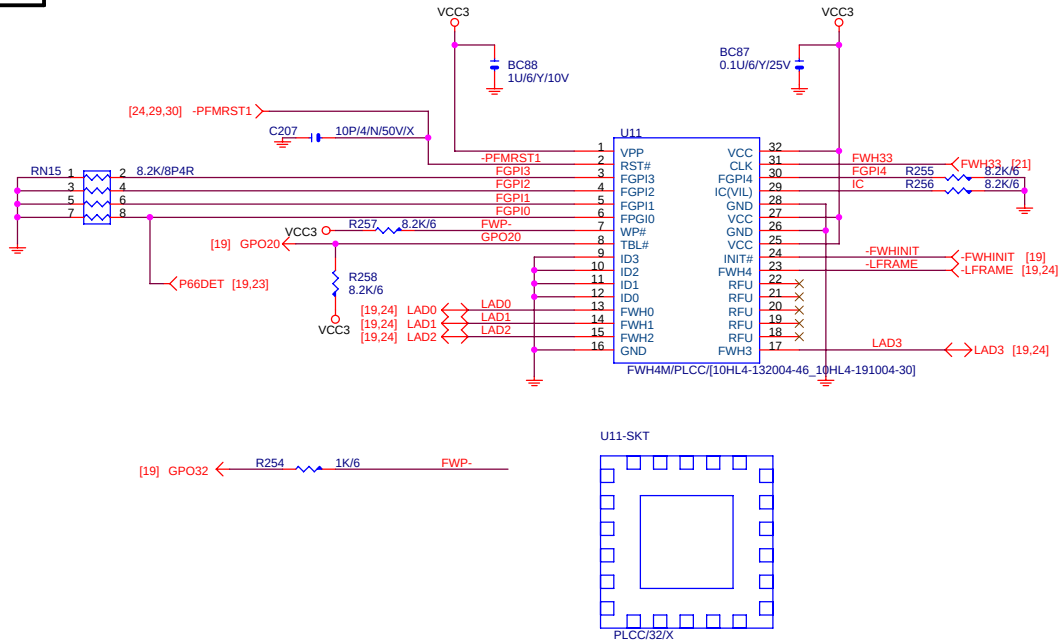
CASE OPEN=LOW;
CASE CLOSE=HI;



KB/MS



FWM BIOS



Gigabyte Technology		
Title: BIOS/HW-MONITOR/CI/KB/MS		
Size: B	Document Number: 8I945AEF-AE	Rev: 1.1
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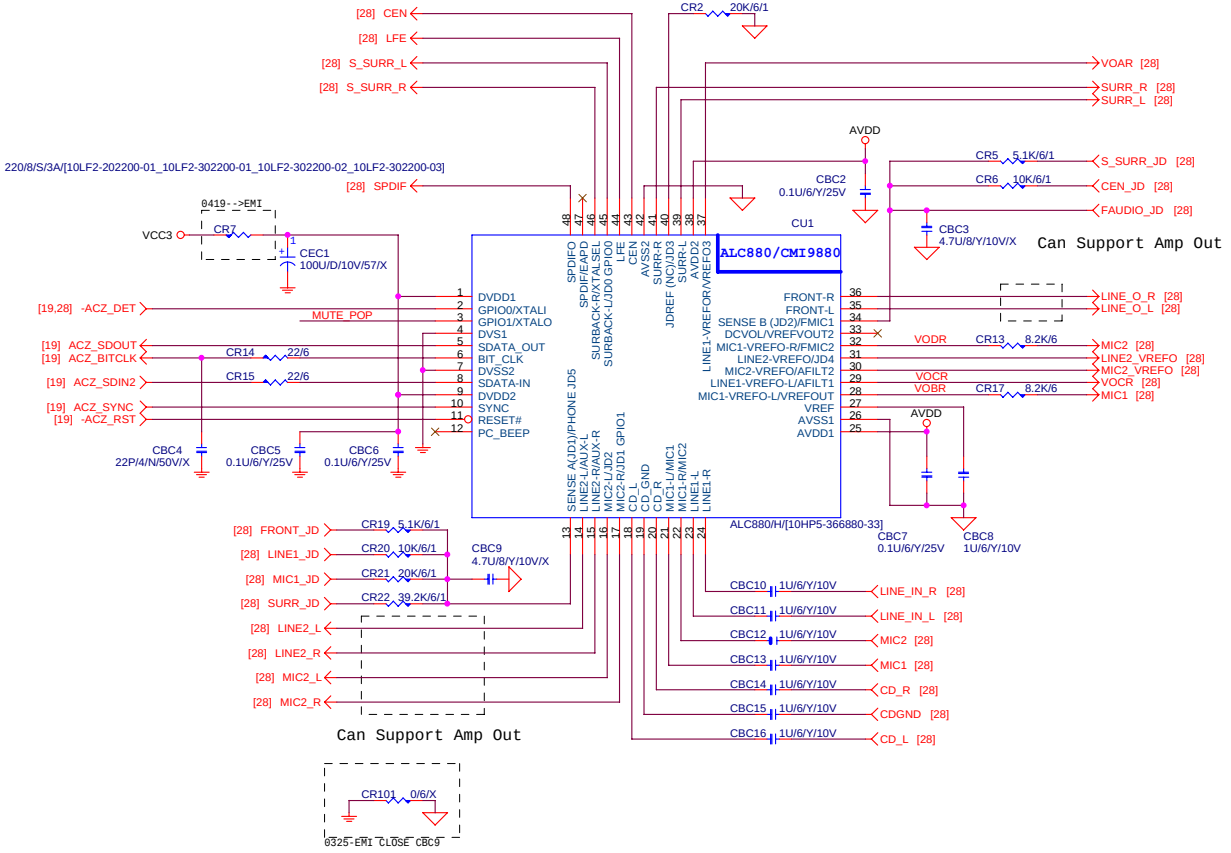
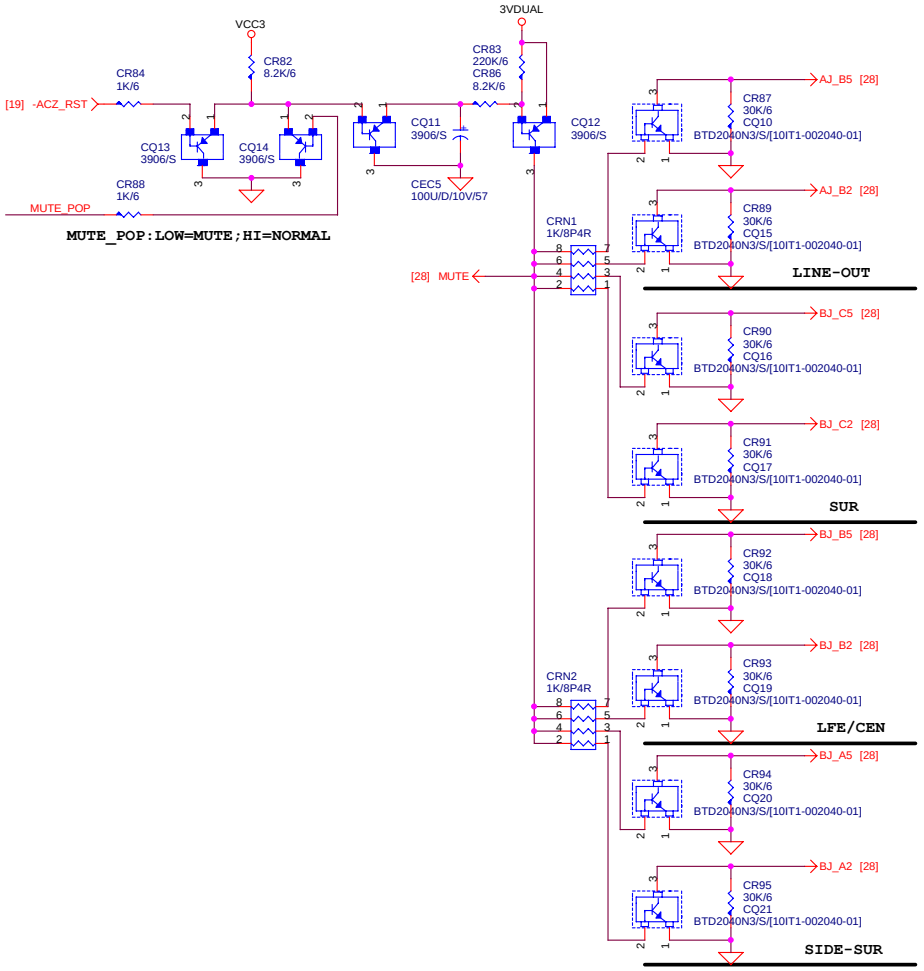
AZALIA CODEC



ANTI-POP NOISE



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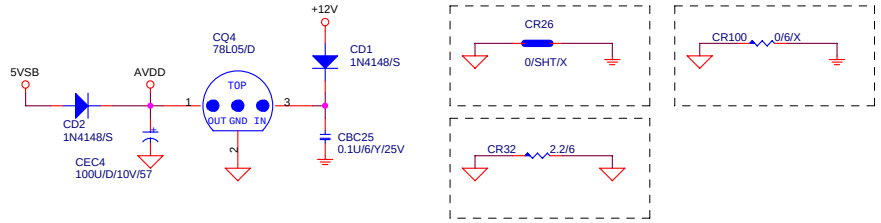
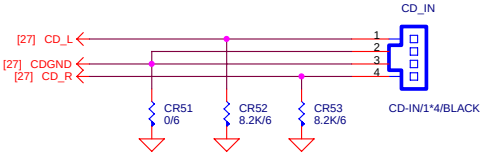
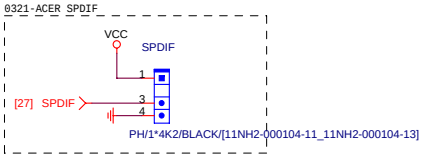
CODEC POWER/EMI PAD



CD IN

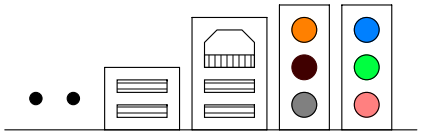


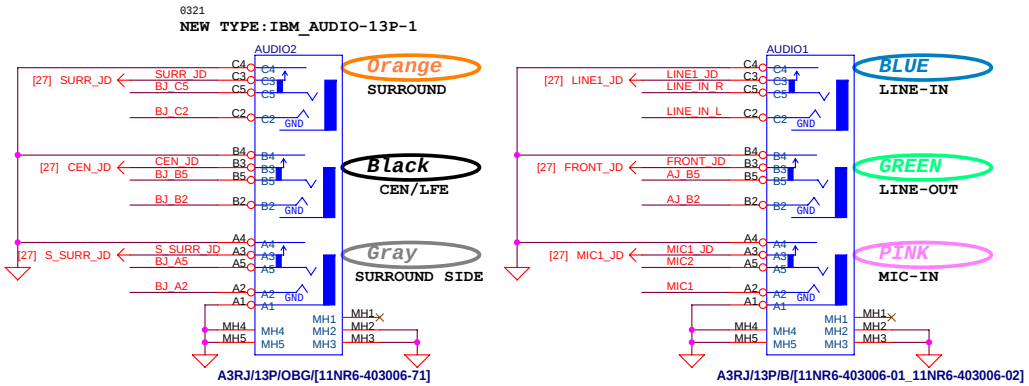
SPDIF



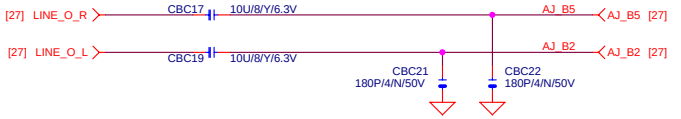
AZALIA JACK

ACER REQUEST CHANGE LOCTION

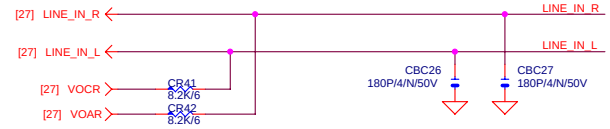




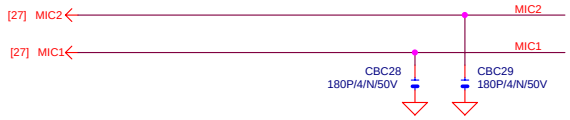
LINE-OUT



LINE-IN

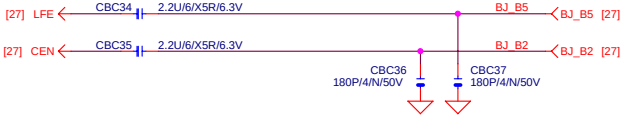


MIC-IN

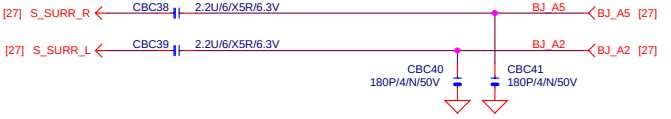


SURROUND

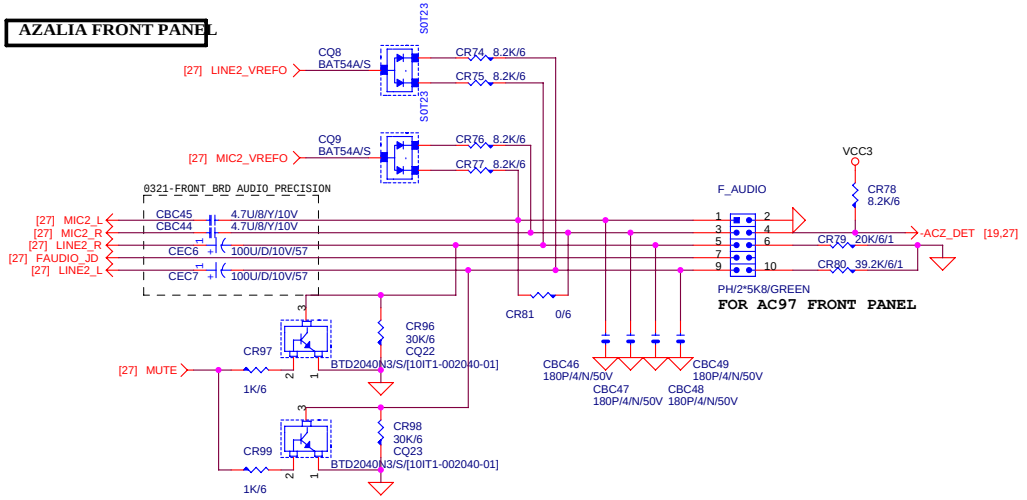
CEN/LFE



SURR BACK



AZALIA FRONT PANEL



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Title	AUDIO JACK	
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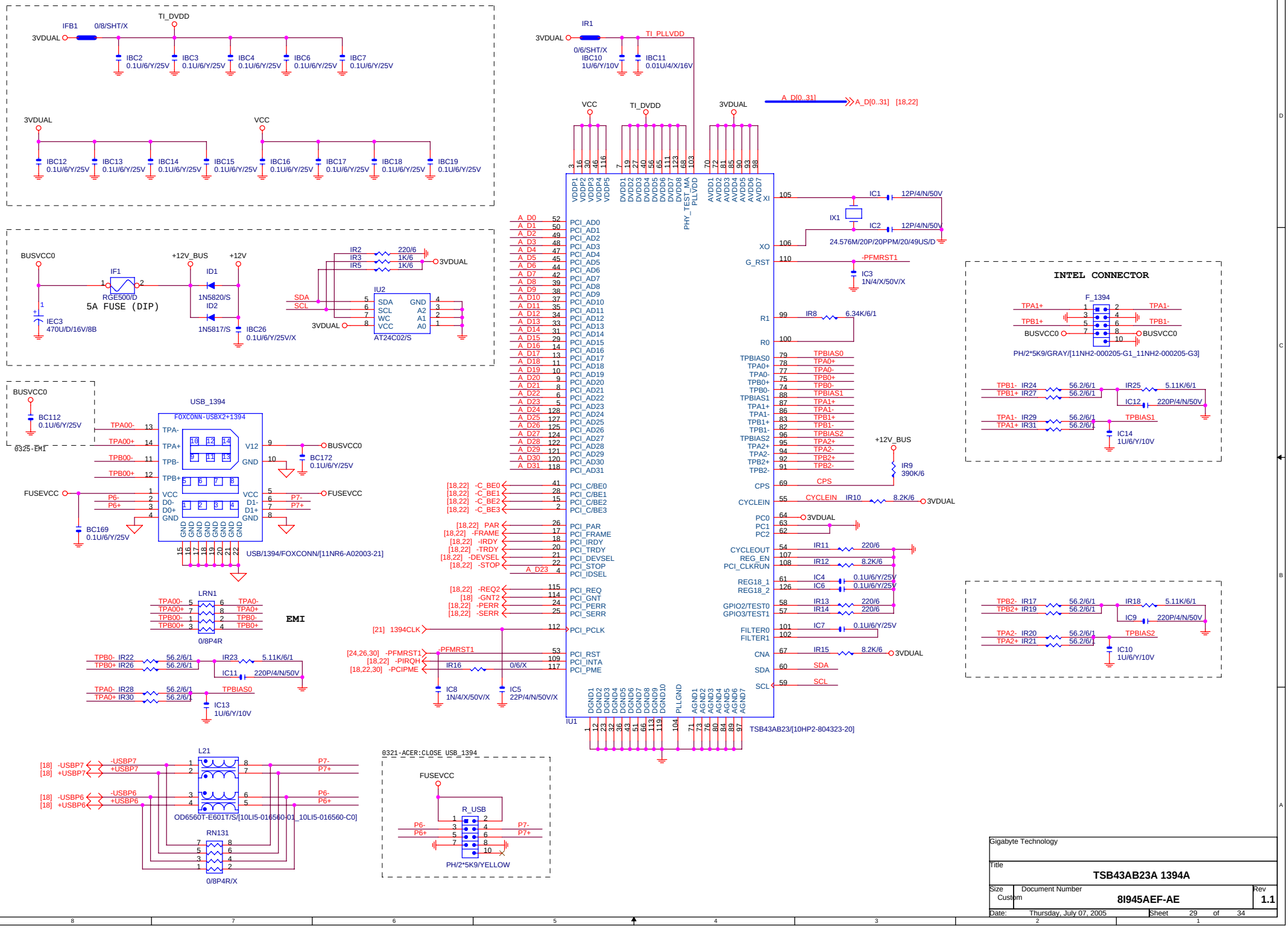

Gigabyte Technology			
Title	TSB43AB23A 1394A		
Size: Custom	Document Number: 8I945AEF-AE		Rev: 1.1
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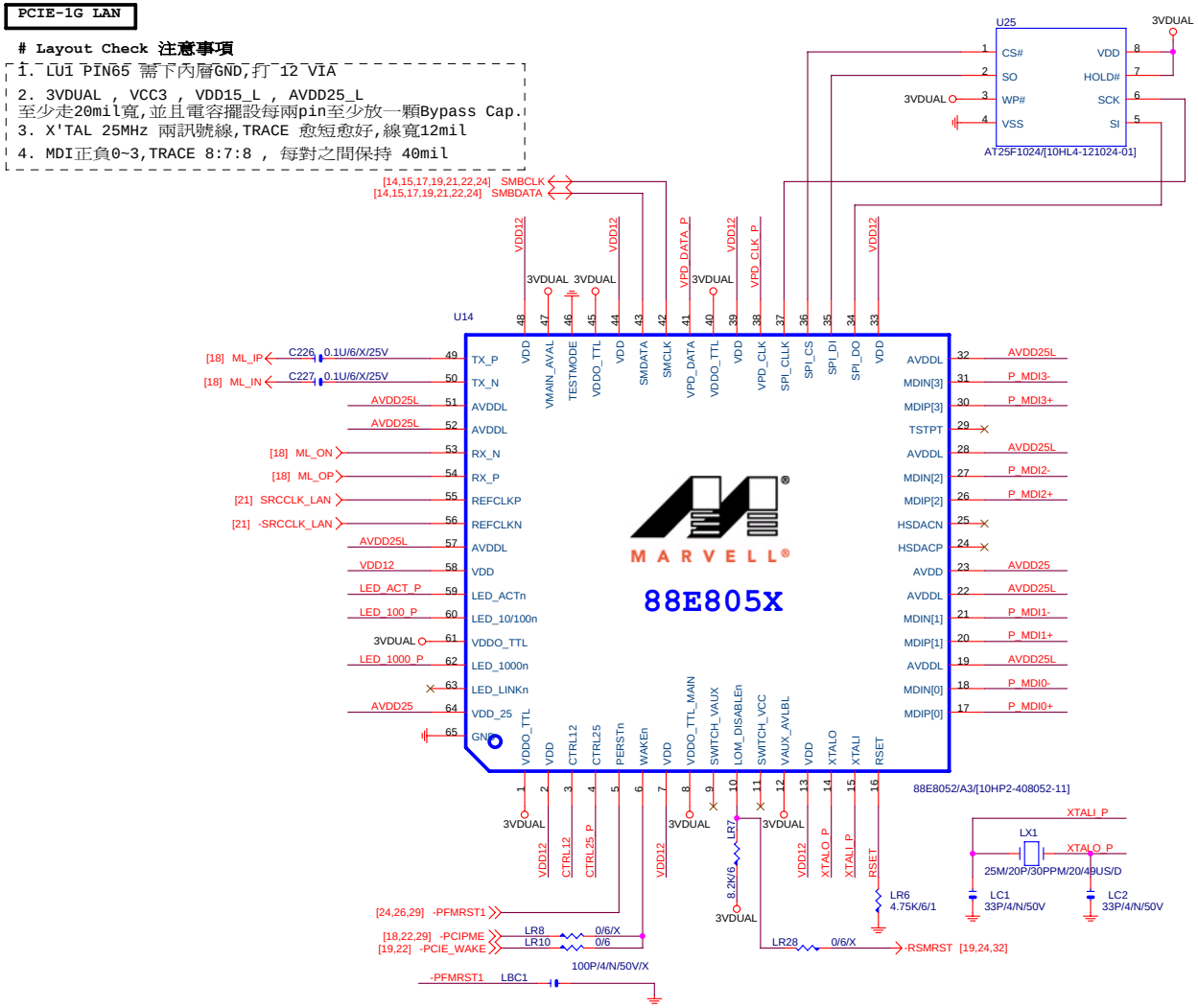
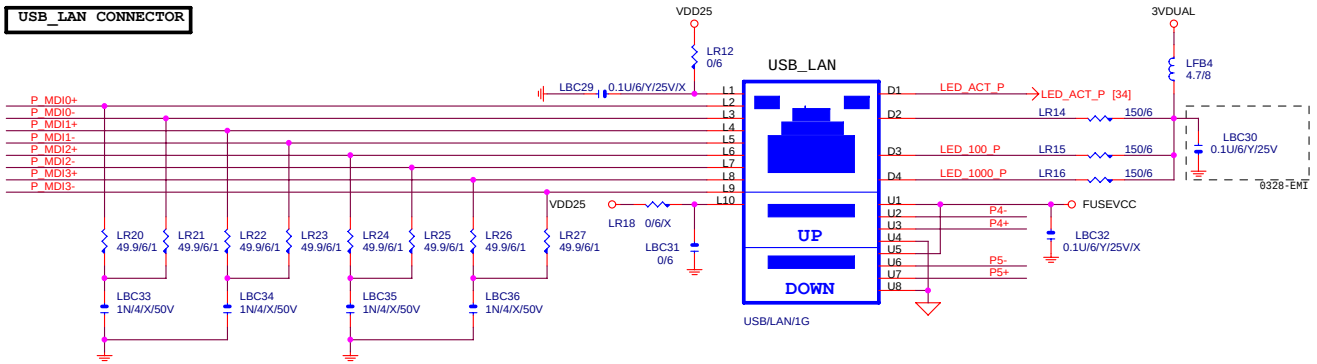
PCIE-1G LAN

 # Layout Check 注意事項

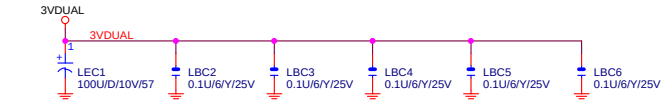
1. LU1 PIN65 需下內層GND,打 12 VIA
2. 3VDUAL , VCC3 , VDD15_L , AVDD25_L
   至少走20mil寬,並且電容擺設每兩pin至少放一顆Bypass Cap.
3. X'TAL 25MHz 兩訊號線,TRACE 愈短愈好,線寬12mil
4. MDI正負0~3,TRACE 8:7:8 , 每對之間保持 40mil



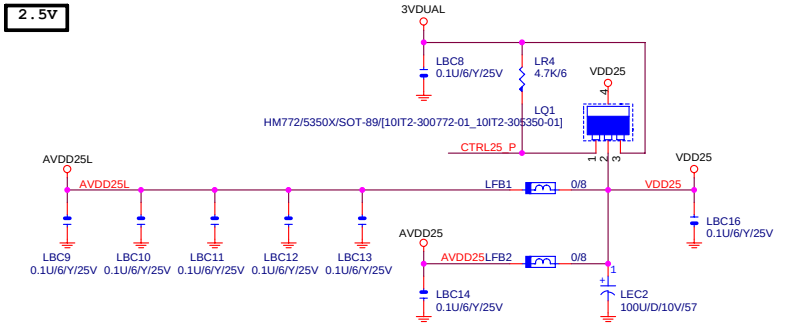
USB_LAN CONNECTOR



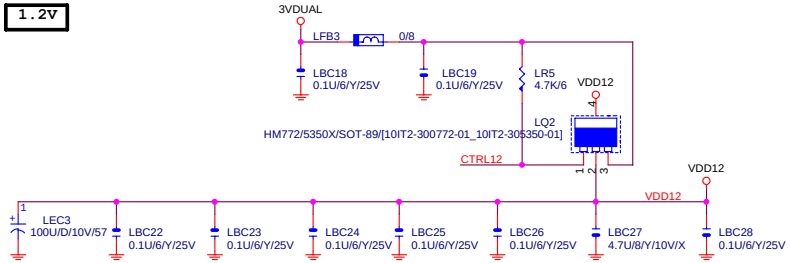
3VDUAL



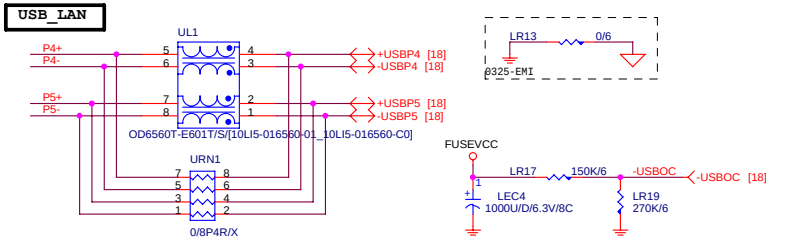
2.5V



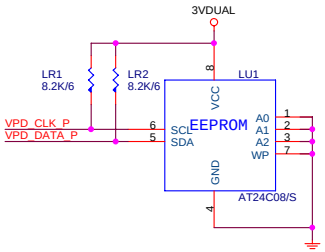
1.2V



USB_LAN



EEPROM



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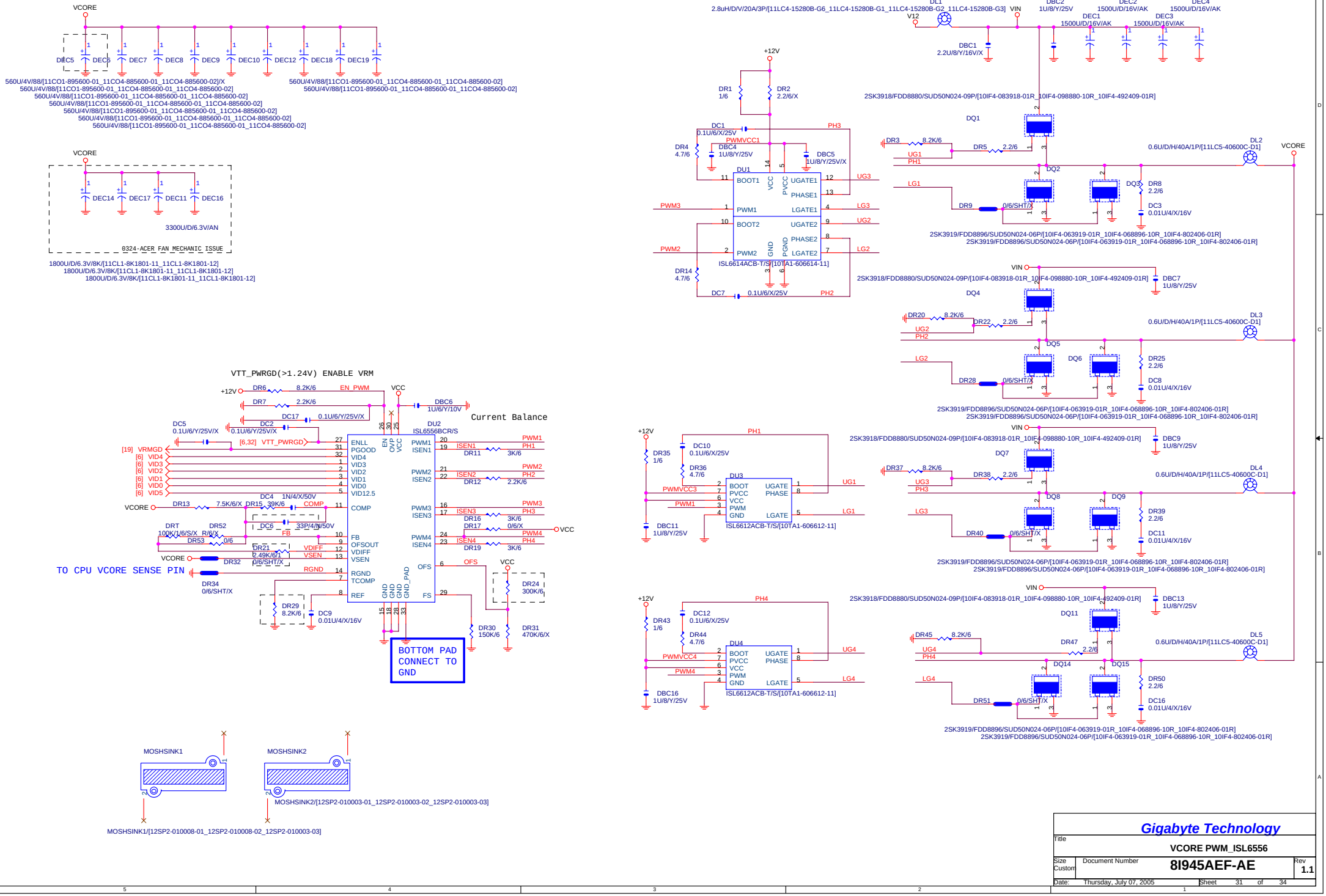

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Title
VCORE PWM_ISL6556

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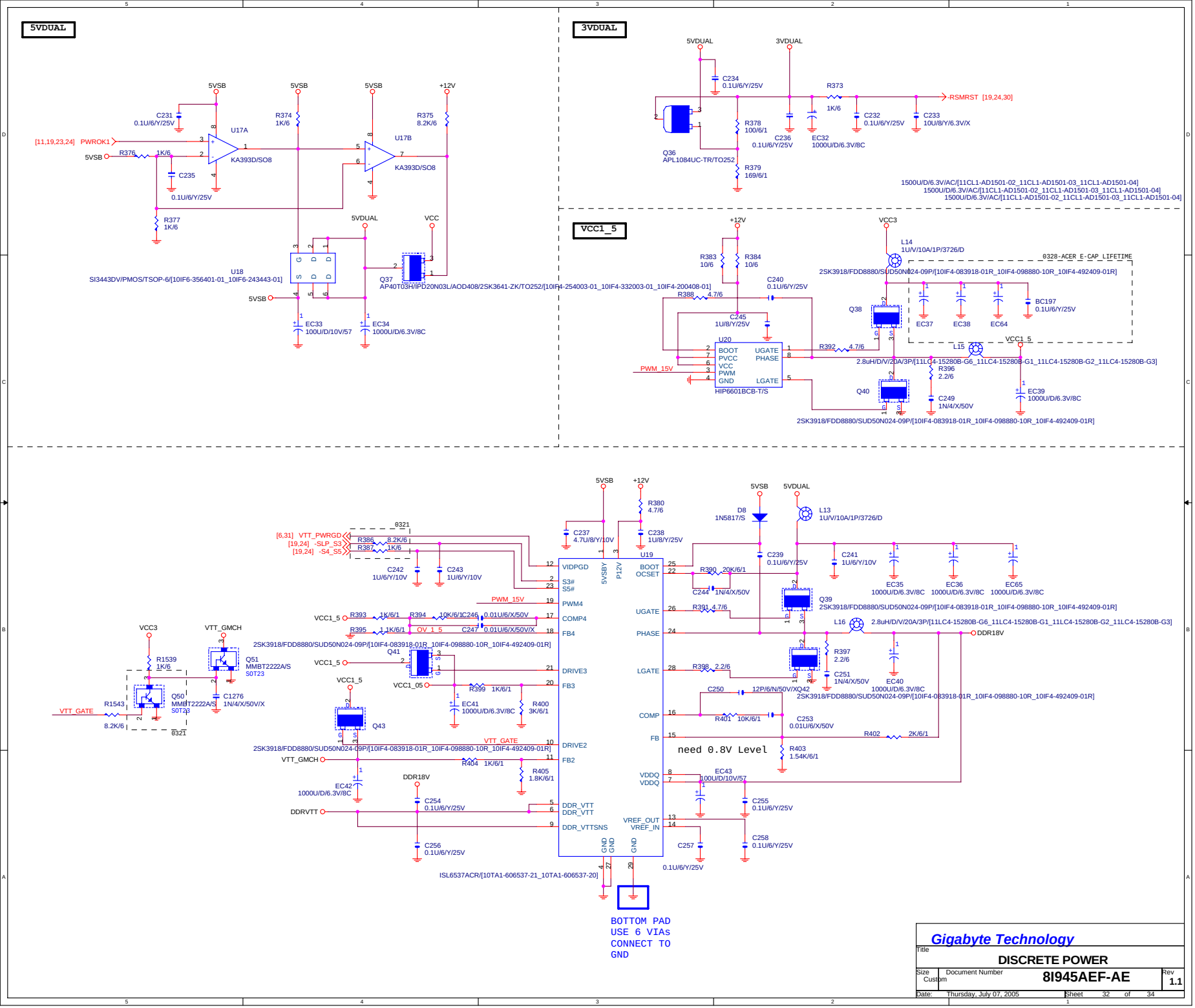
5VDUAL
3VDUAL
VCC1_5
U17A
U17B
KA393D/SO8
U18
SI3443DV/PMOS/TSOP-6/[10IF6-356401-01_10IF6-243443-01]
Q37
AP40T03H/IPD20N03L/AOD408/2SK3641-ZK/TO252/[10IF4-254003-01_10IF4-332003-01_10IF4-200408-01]
Q36
APL1084UC-TR/TO252
U20
HIP6601BCB-T/S
2SK3918/FDD8880/SUD50N024-09P/[10IF4-083918-01R_10IF4-098880-10R_10IF4-492409-01R]
2.8uH/D/V/20A/3P/[11LC4-15280B-G6_11LC4-15280B-G1_11LC4-15280B-G2_11LC4-15280B-G3]
U19
ISL6537ACR/[10TA1-606537-21_10TA1-606537-20]
need 0.8V Level
BOTTOM PAD
USE 6 VIAs
CONNECT TO
GND
Gigabyte Technology
DISCRETE POWER
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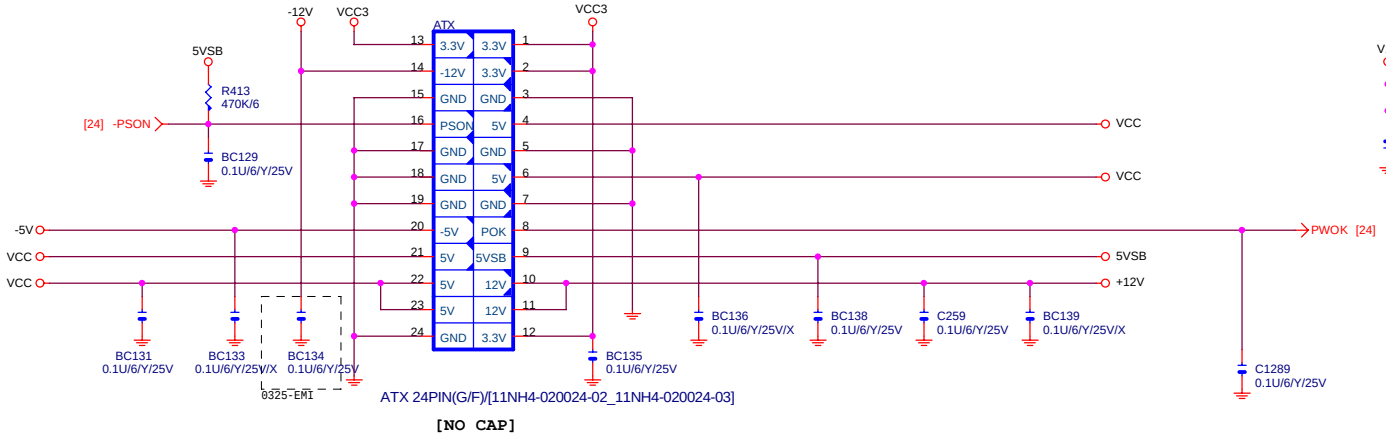
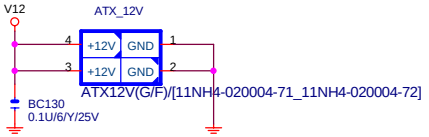
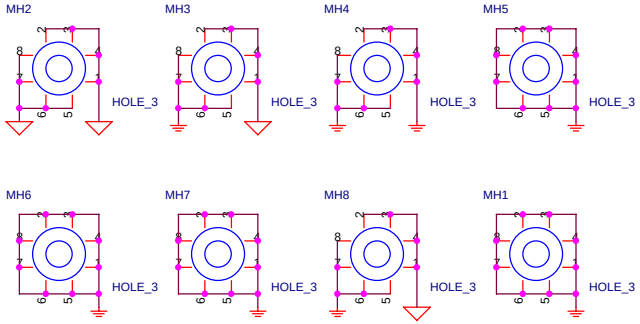
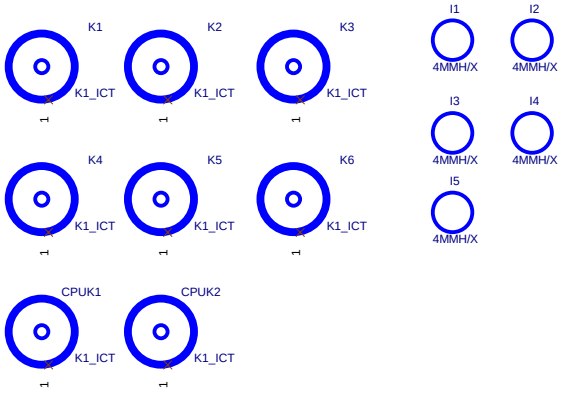
ATX POWER CONNECTOR









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Title: ATX POWER CONNECTOR		
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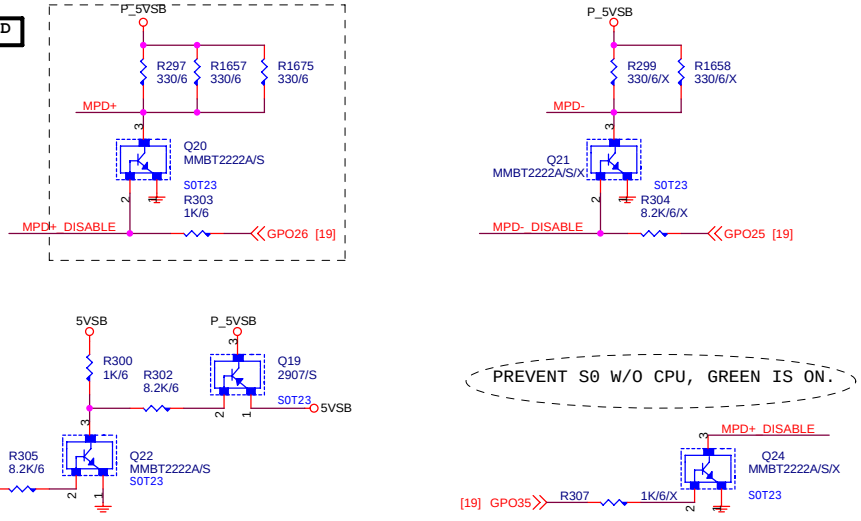
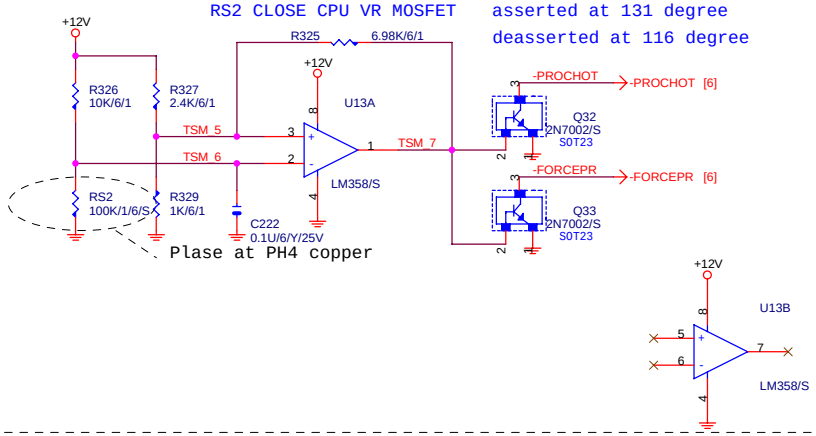
DUAL COLOR LED

0321



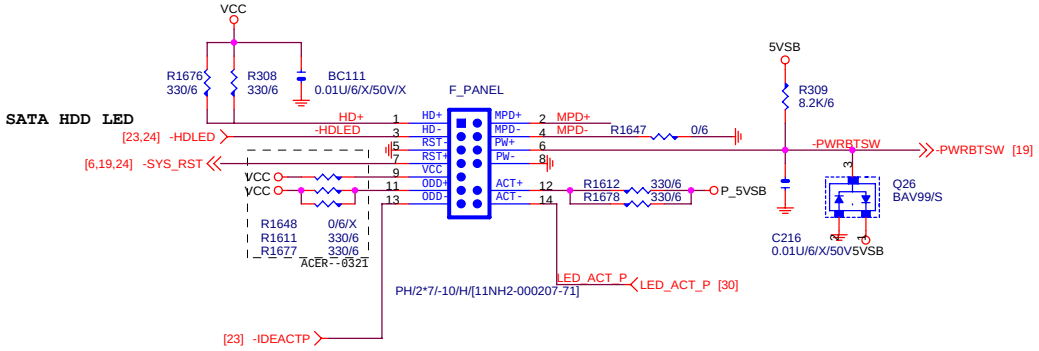
PROCESSOR HOT

RS2 CLOSE CPU VR MOSFET asserted at 131 degree
deasserted at 116 degree

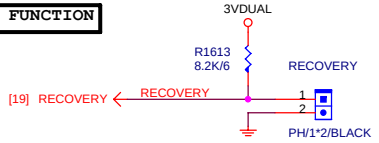


INTEL FRONT PANEL

modify PIN2*7 cut 10pin for ACER



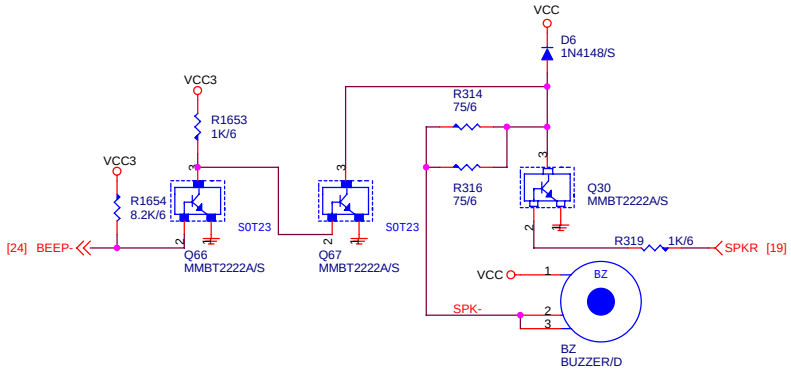
RECOVERY FUNCTION



RECOVERY	
OPEN	NORMAL
SHORT	RECOVERY

RESERVE PIN

BUZZER



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Size: Custom	Document Number: 8I945AEF-AE		Rev: 1.1
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