Model Name: 8I945GMBX

Revision 1.01

A94058-0

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02	BLOCK DIAGRAM
03	BOM & PCB MODIFY HISTORY
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SHEET	TITLE
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30	PROCESSOR HOT
31	AZALIA CODEC ALC880
32	AUDIO JACK 1
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35	TEKOA & EKRON R
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37	ITE 8712GB
38	COM_LPT
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42	GPIO DEFINE

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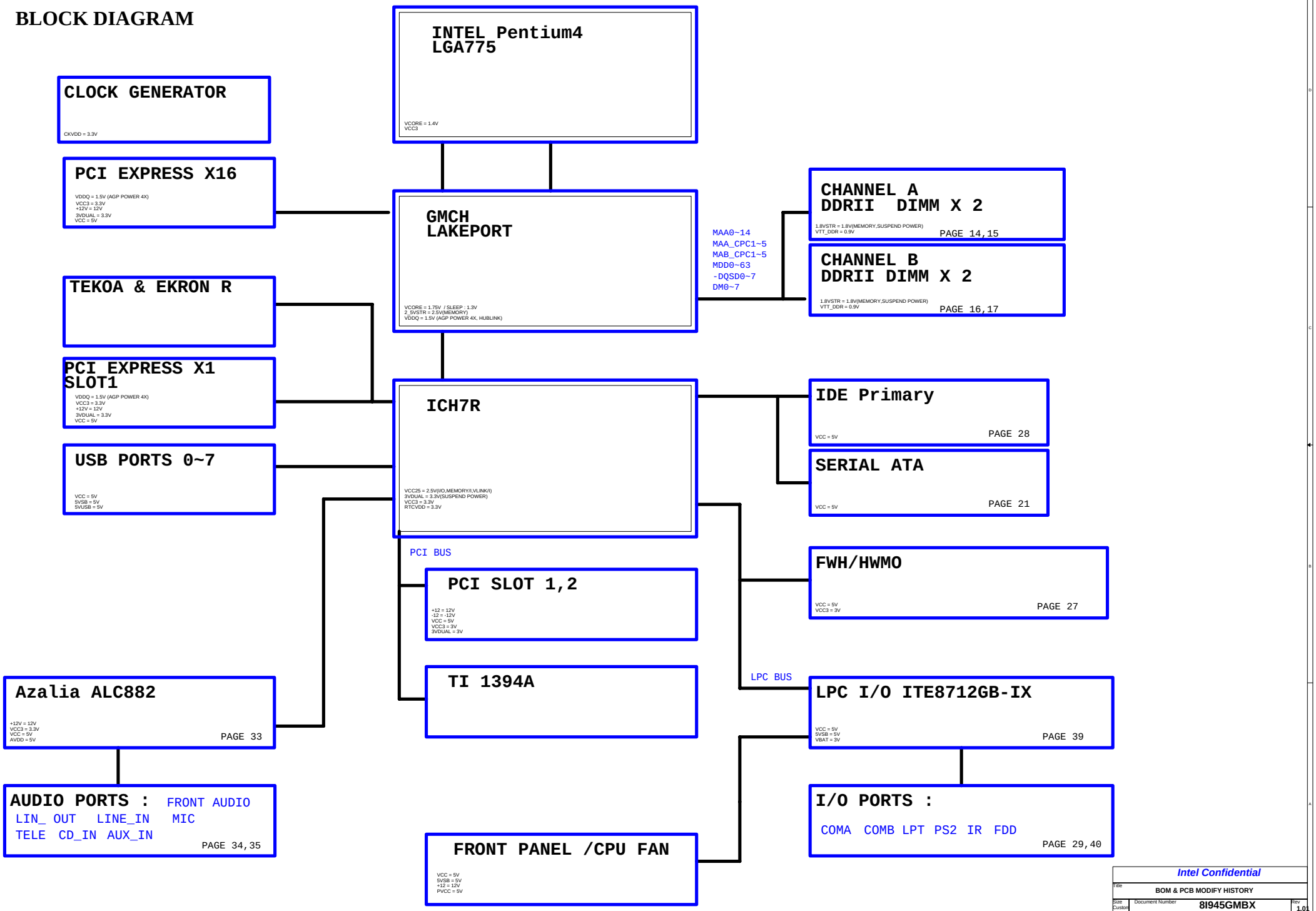
BLOCK DIAGRAM



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Title	BOM & PCB MODIFY HISTORY	
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Model Name: 8I945GMBX

Version: 1.01

Component value change history

Data	Change Item	Reason
0525	Audio Jack change	*** 更換 AUDIO1由 A3RJ/13P/B/[11NR6-403006-01 11NR6-403006-02]變爲 A3RJ/13P/B/[11NR6-403007-01_11NR6-403007-02] AUDIO2由 A3RJ/13P/OBG/[11NR6-403006-71]變爲 A3RJ/13P/OBG/[11NR6-403007-51]
	VRM solution change	DC6由 33P/4/N/50V變爲 180P/4/N/50V DEC10由 680U/D/4V/89變爲 560U/D/2.5V/8*8/[11CO4-885600-01_11CO4-885600-02 DEC12由 680U/D/4V/89變爲 560U/D/2.5V/8*8/[11CO4-885600-01_11CO4-885600-02 DEC21由 680U/D/4V/89變爲 560U/D/2.5V/8*8/[11CO4-885600-01_11CO4-885600-02 DEC6由 680U/D/4V/89變爲 560U/D/2.5V/8*8/[11CO4-885600-01_11CO4-885600-02] DEC9由 680U/D/4V/89變爲 560U/D/2.5V/8*8/[11CO4-885600-01_11CO4-885600-02] DR21由 2.87K/6/1變爲 2.2K/6/1 *** 增加 BC2值爲 10U/12/X/6.3V BC4值爲 10U/12/X/6.3V BC6值爲 10U/12/X/6.3V BC694值爲 0.1U/6/Y/25V BC7值爲 10U/12/X/6.3V BC711值爲 0.1U/6/Y/25V DEC19值爲 560U/D/2.5V/8*8/[11CO4-885600-01_11CO4-885600-02] *** 刪除 DEC20值爲 680U/D/4V/89 DEC4值爲 1500U/D/16V/AK DEC5值爲 680U/D/4V/89 DEC7值爲 680U/D/4V/89
	Specification change	5/[11NH2-000203-11] CU1由 ALC882/B1/S/[10HP5-366882-10]變爲 ALC882/B1/S/[10HP5-366882-10R] LU2由 SST25LF040A-33-4C-S2A/S變爲 SST25VF512/S/[10HL4-131512-10 U26由 82573V/A3/PbFREE變爲 82573V/A3[10HB2-400573-22R] U8由 NH82801GB ICH7/A1變爲 NH82801GH ICH7/A1/[10HB1-032801-Q1R] *** 增加 BC107值爲 0.1U/6/Y/25V BC108值爲 0.1U/6/Y/25V EF_LED1值爲 PH/1*2/BLACK EF_LED2值爲 PH/1*2/BLACK IBC24值爲 0.1U/6/Y/25V LBC12值爲 10U/8/Y/10V LBC45值爲 0.1U/6/Y/25V LBC54值爲 10U/8/Y/10V LEC1值爲 100U/D/10V/57 LR41值爲 2.2K/6 LR60值爲 0/6 LR71值爲 1/6 LR72值爲 1/6 LR95值爲 8.2K/6 LRN10值爲 10/8P4R LRN9值爲 10/8P4R Q277值爲 BAT54A/S Q278值爲 MMBT2222A/SOT23 Q279值爲 MMBT2222A/S R1645值爲 0/6 R1650值爲 330/6 R1651值爲 330/6 R1652值爲 1K/6 *** 刪除 INFO_LINK值爲 H2X3/-PIN6/[11NH2-000203-31_11NH2-000203-33] LBC44值爲 1U/6/Y/10V LR53值爲 0/12 LR54值爲 0/12 NVM_PROT值爲 PH/1*2/BLACK RF_ID值爲 H2X3/-PIN5/[11NH2-000203-11]
0615	Removed EF_LED1/EF_LED2	
	fixed can't boot issue	DC6 change to 33PF

Circuit or PCB layout change for next version

DATE	Change Item	Reason
	EMI solution	FB1由 80/6/2.5A變爲 0/6 FB2由 80/6/2.5A變爲 0/6 FB3由 80/6/2.5A變爲 0/6 *** 增加 C1287值爲 10P/4/N/50V C1288值爲 10P/4/N/50V C1289值爲 10P/4/N/50V FB10值爲 80/6/2.5A FB8值爲 80/6/2.5A FB9值爲 80/6/2.5A
	-Prochot solution	R401由 8.66K/6/1變爲 10K/6/1 R403由 2.61K/6/1變爲 620/6/1
	PCIEx1 slot LAN C&C solution	R213由 33/6變爲 0/6 R214由 33/6變爲 0/6

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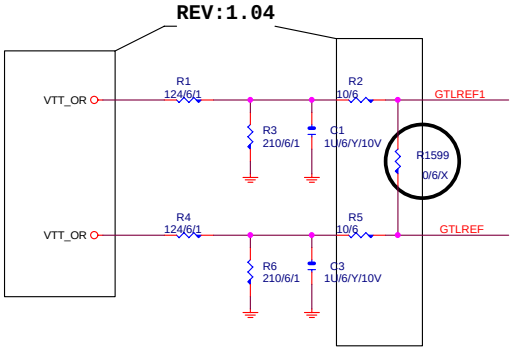
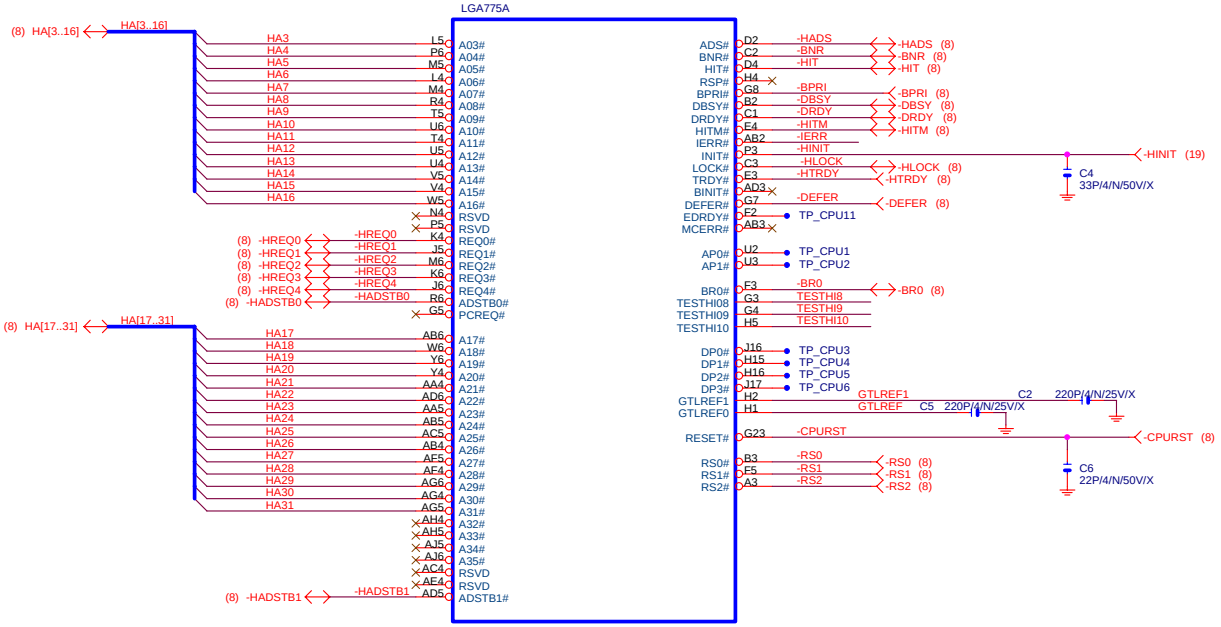
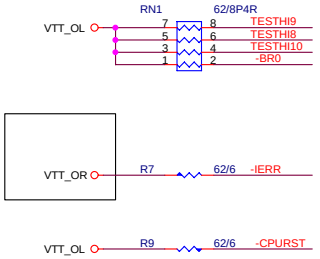
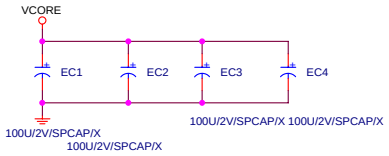
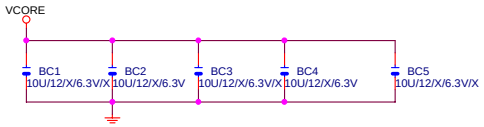


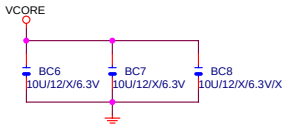


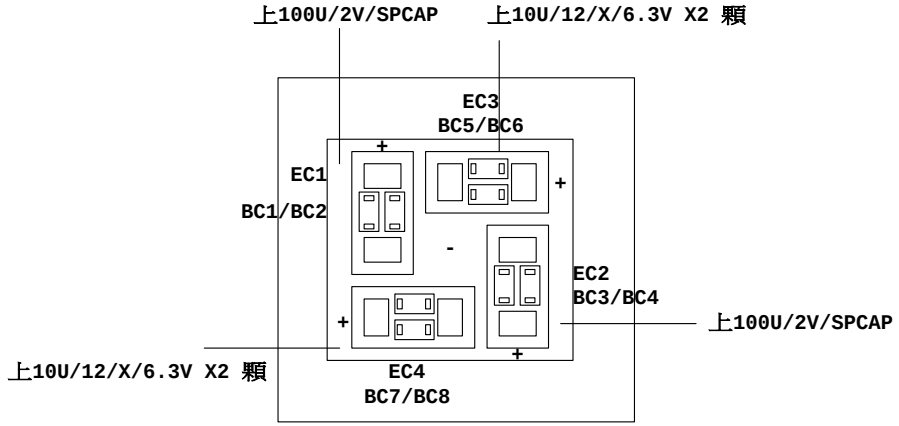


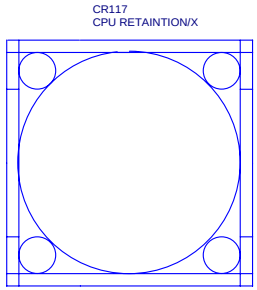
SP-CAP X 4PCS











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Title	P4_LGA775-A		
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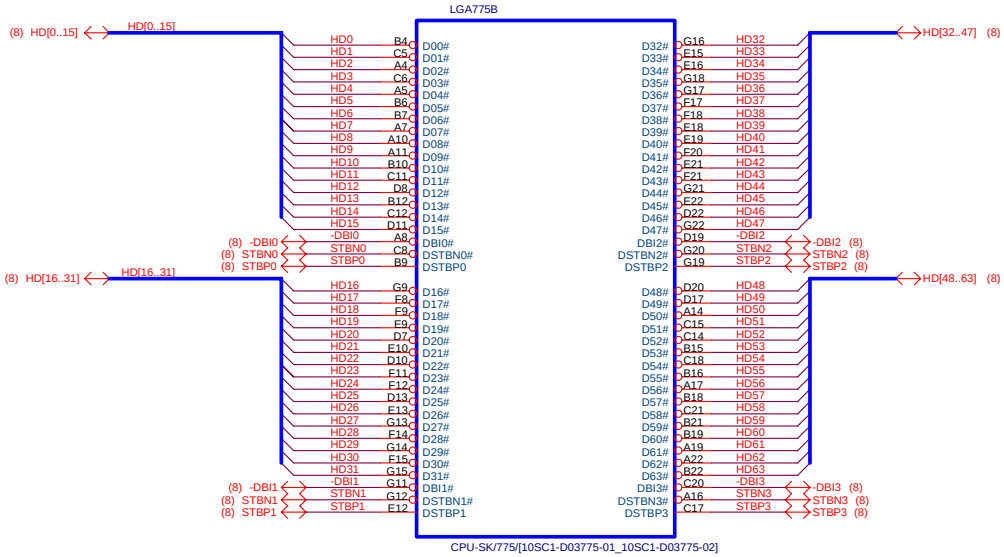

Title	P4_LGA775-C	
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2/8/2006/235

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

945 Design Guide rev1.5 spec.
VCCA=120~220mA
公板爲125mA

10LI2-12100A-03=INDUCTOR 10uH 300mA TAI-TECH
10LI2-12100A-02=INDUCTOR 10uH 155mA TAIYO
10LI2-12100A-01=INDUCTOR 10uH 120mA TDK
限用兩種

Place outside of CPU socket

Locate at ICH7 Side

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

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

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Title	P4_LGA775-B
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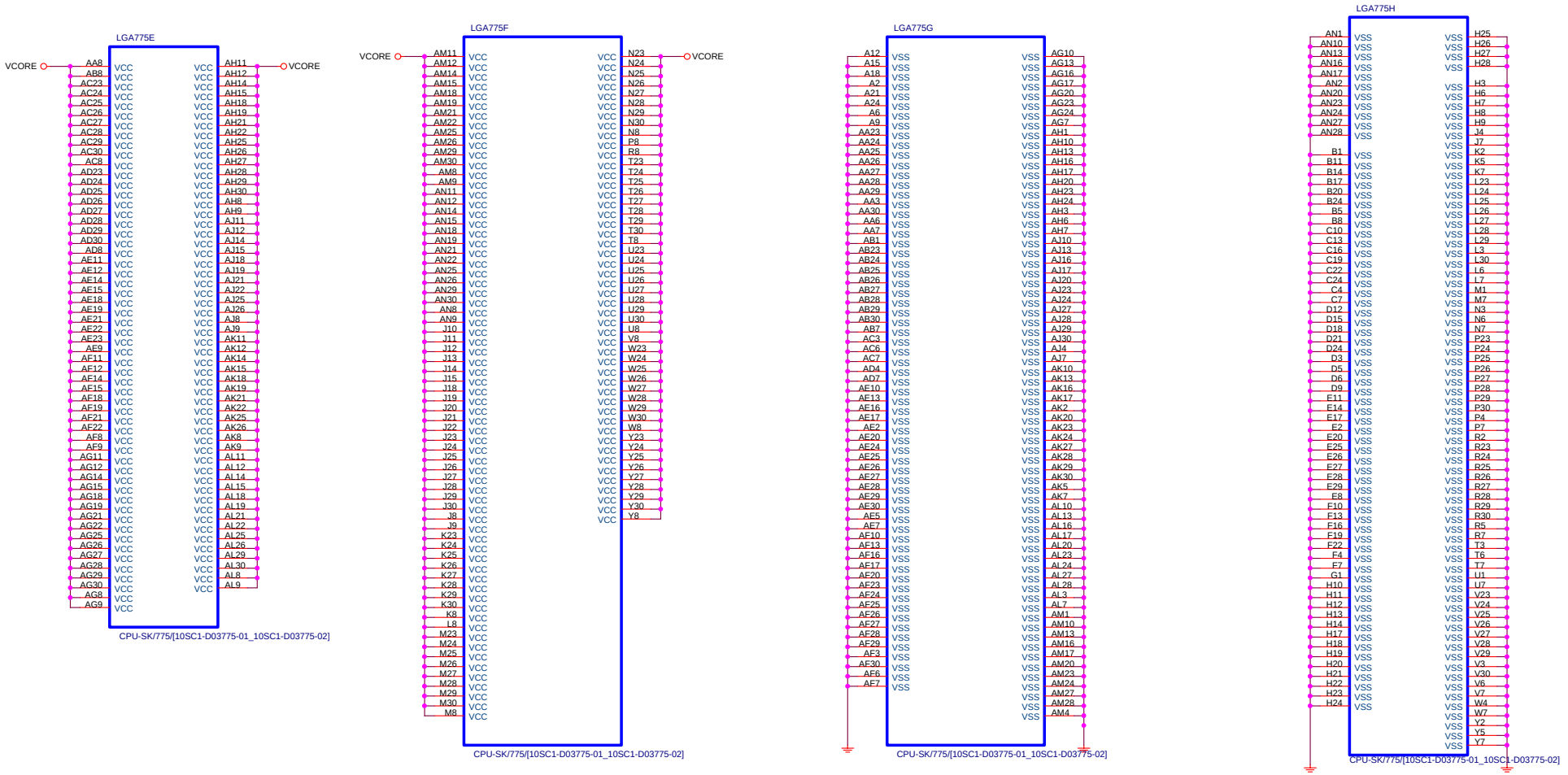

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Title	P4_LGA775-D	
Size: Custom	Document Number: 8I945GMBX	Rev: 1.01
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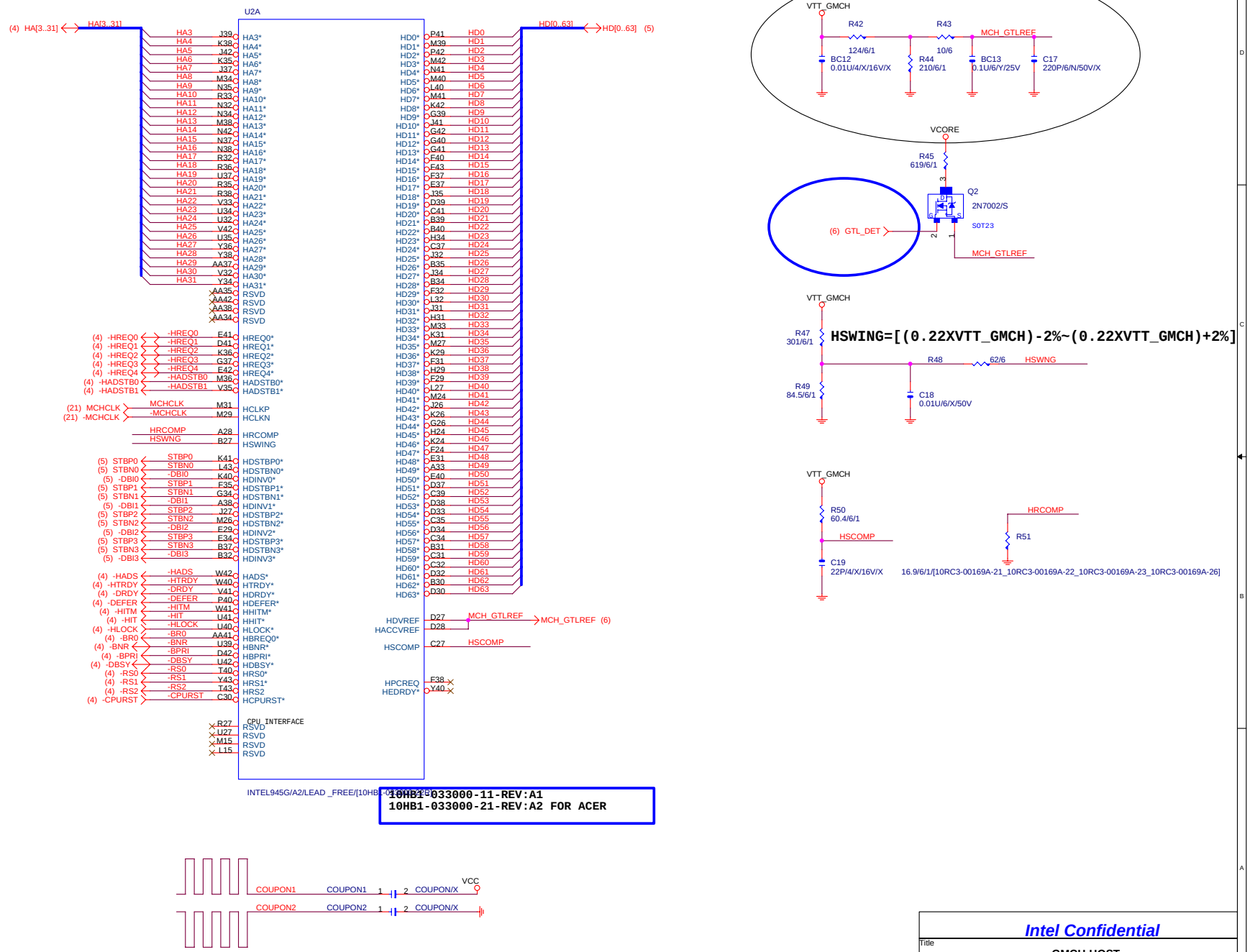

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Title	GMCH-HOST	
Size: Custom	Document Number: 8I945GMBX	Rev: 1.01
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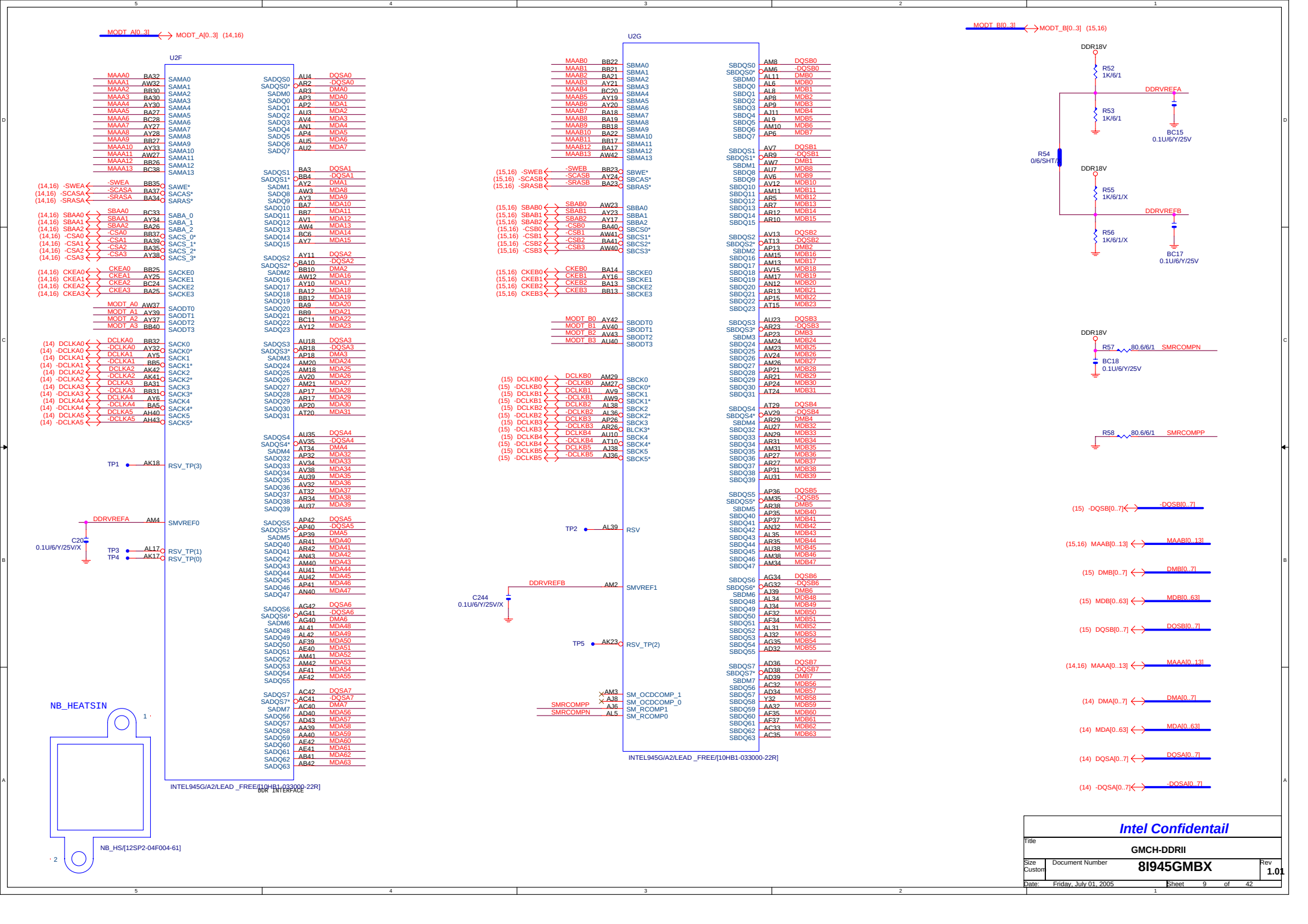
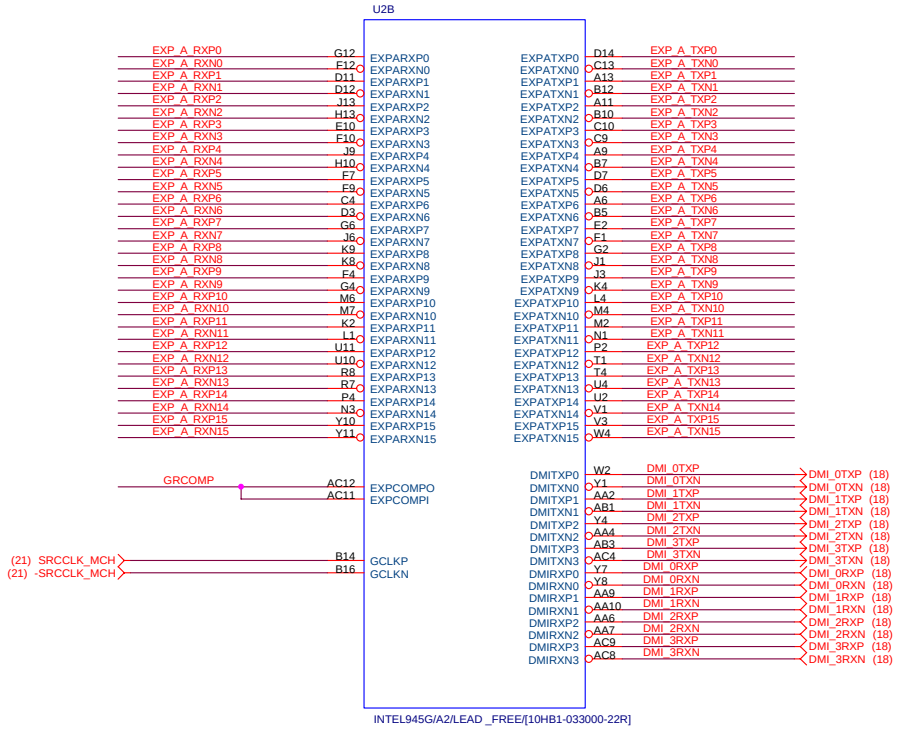
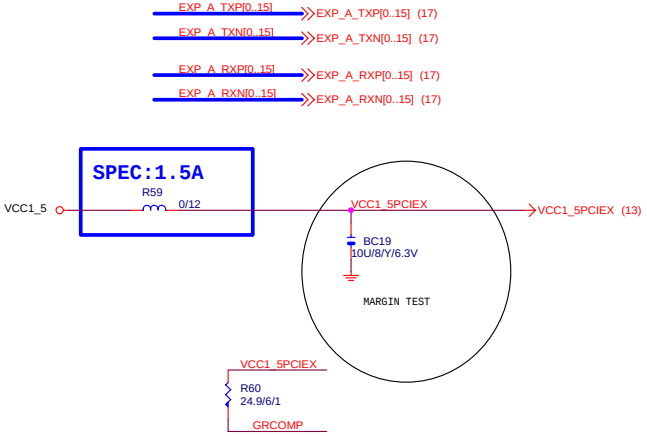
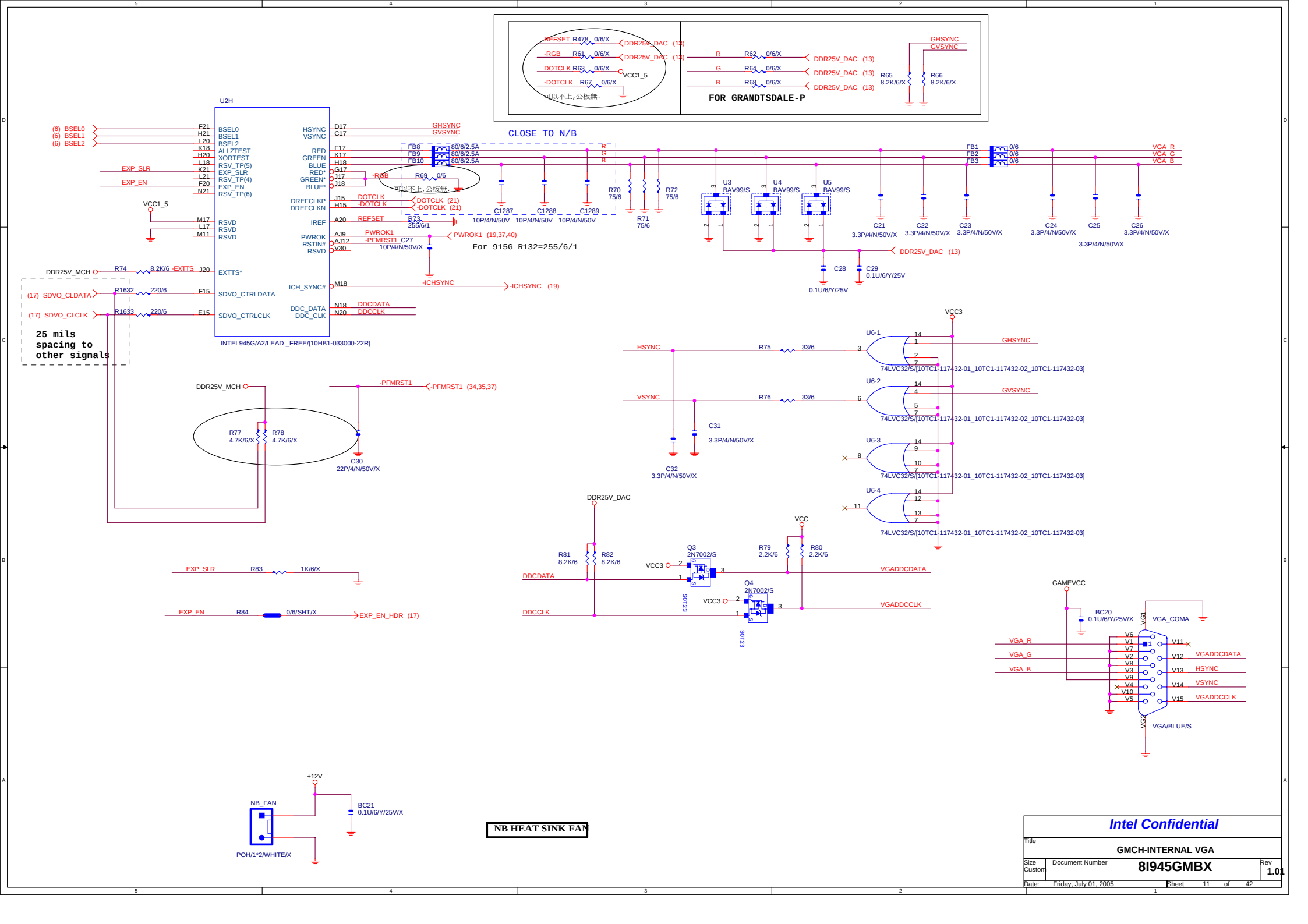

MODT_A[0..3]
MODT_A[0..3] (14,16)
U2F
MAAA0 BA32
MAAA1 AW32
MAAA2 BB30
MAAA3 BA30
MAAA4 AY30
MAAA5 BA27
MAAA6 BC28
MAAA7 AY27
MAAA8 AY28
MAAA9 BB27
MAAA10 AY33
MAAA11 AW27
MAAA12 BB26
MAAA13 BC38
SAMA0
SAMA1
SAMA2
SAMA3
SAMA4
SAMA5
SAMA6
SAMA7
SAMA8
SAMA9
SAMA10
SAMA11
SAMA12
SAMA13
(14,16) -SWEA BB35
(14,16) -SCASA BA37
(14,16) -SRASA BA34
-SWEA
-SCASA
-SRASA
SAWE*
SACAS*
SARAS*
(14,16) SBAA0 BC33
(14,16) SBAA1 AY34
(14,16) SBAA2 BA26
(14,16) -CSA0 BB37
(14,16) -CSA1 BA39
(14,16) -CSA2 BA35
(14,16) -CSA3 AY38
SBAA0
SBAA1
SBAA2
-CSA0
-CSA1
-CSA2
-CSA3
SABA_0
SABA_1
SABA_2
SACS_0*
SACS_1*
SACS_2*
SACS_3*
(14,16) CKEA0 BB25
(14,16) CKEA1 AY25
(14,16) CKEA2 BC24
(14,16) CKEA3 BA25
CKEA0
CKEA1
CKEA2
CKEA3
SACKE0
SACKE1
SACKE2
SACKE3
MODT_A0 AW37
MODT_A1 AY39
MODT_A2 AY37
MODT_A3 BB40
SAODT0
SAODT1
SAODT2
SAODT3
(14) DCLKA0 BB32
(14) -DCLKA0 AY32
(14) DCLKA1 AY5
(14) -DCLKA1 BB5
(14) DCLKA2 AK42
(14) -DCLKA2 AK41
(14) DCLKA3 BA31
(14) -DCLKA3 BB31
(14) DCLKA4 AY6
(14) -DCLKA4 BA5
(14) DCLKA5 AH40
(14) -DCLKA5 AH43
DCLKA0
-DCLKA0
DCLKA1
-DCLKA1
DCLKA2
-DCLKA2
DCLKA3
-DCLKA3
DCLKA4
-DCLKA4
DCLKA5
-DCLKA5
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
SADQS0* AR2
SADM0 AR3
SADQ0 AP3
SADQ1 AP2
SADQ2 AU3
SADQ3 AV4
SADQ4 AN1
SADQ5 AP4
SADQ6 AU5
SADQ7 AU2
DQSA0
-DQSA0
DMA0
MDA0
MDA1
MDA2
MDA3
MDA4
MDA5
MDA6
MDA7
SADQS1 BA3
SADQS1* BB4
SADM1 AY2
SADQ8 AW3
SADQ9 AY3
SADQ10 BA7
SADQ11 BB7
SADQ12 AV1
SADQ13 AW4
SADQ14 BC6
SADQ15 AY7
DQSA1
-DQSA1
DMA1
MDA8
MDA9
MDA10
MDA11
MDA12
MDA13
MDA14
MDA15
SADQS2 AY11
SADQS2* BA10
SADM2 BB10
SADQ16 AW12
SADQ17 AY10
SADQ18 BA12
SADQ19 BB12
SADQ20 BA9
SADQ21 BB9
SADQ22 BC11
SADQ23 AY12
DQSA2
-DQSA2
DMA2
MDA16
MDA17
MDA18
MDA19
MDA20
MDA21
MDA22
MDA23
SADQS3 AU18
SADQS3* AR18
SADM3 AP18
SADQ24 AM20
SADQ25 AM18
SADQ26 AV20
SADQ27 AM21
SADQ28 AP17
SADQ29 AR17
SADQ30 AP20
SADQ31 AT20
DQSA3
-DQSA3
DMA3
MDA24
MDA25
MDA26
MDA27
MDA28
MDA29
MDA30
MDA31
SADQS4 AU35
SADQS4* AV35
SADM4 AT34
SADQ32 AP32
SADQ33 AV34
SADQ34 AV38
SADQ35 AU39
SADQ36 AV32
SADQ37 AT32
SADQ38 AR34
SADQ39 AU37
DQSA4
-DQSA4
DMA4
MDA32
MDA33
MDA34
MDA35
MDA36
MDA37
MDA38
MDA39
SADQS5 AP42
SADQS5* AP40
SADM5 AP39
SADQ40 AR41
SADQ41 AR42
SADQ42 AN43
SADQ43 AM40
SADQ44 AU41
SADQ45 AU42
SADQ46 AP41
SADQ47 AN40
DQSA5
-DQSA5
DMA5
MDA40
MDA41
MDA42
MDA43
MDA44
MDA45
MDA46
MDA47
SADQS6 AG42
SADQS6* AG41
SADM6 AG40
SADQ48 AL41
SADQ49 AL42
SADQ50 AF39
SADQ51 AE40
SADQ52 AM41
SADQ53 AM42
SADQ54 AF41
SADQ55 AF42
DQSA6
-DQSA6
DMA6
MDA48
MDA49
MDA50
MDA51
MDA52
MDA53
MDA54
MDA55
SADQS7 AC42
SADQS7* AC41
SADM7 AC40
SADQ56 AD40
SADQ57 AD43
SADQ58 AA39
SADQ59 AA40
SADQ60 AE42
SADQ61 AE41
SADQ62 AB41
SADQ63 AB42
DQSA7
-DQSA7
DMA7
MDA56
MDA57
MDA58
MDA59
MDA60
MDA61
MDA62
MDA63
INTEL945G/A2/LEAD _FREE/[10HB1-033000-22R]
DDR INTERFACE
NB_HEATSIN
1
2
NB_HS/[12SP2-04F004-61]
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 BB23
(15,16) -SCASB AY24
(15,16) -SRASB BA23
-SWEB
-SCASB
-SRASB
SBWE*
SBCAS*
SBRAS*
(15,16) SBAB0 AW23
(15,16) SBAB1 AY23
(15,16) SBAB2 AY17
(15,16) -CSB0 BA40
(15,16) -CSB1 AW41
(15,16) -CSB2 BA41
(15,16) -CSB3 AW40
SBAB0
SBAB1
SBAB2
-CSB0
-CSB1
-CSB2
-CSB3
SBBA0
SBBA1
SBBA2
SBCS0*
SBCS1*
SBCS2*
SBCS3*
(15,16) CKEB0 BA14
(15,16) CKEB1 AY16
(15,16) CKEB2 BA13
(15,16) CKEB3 BB13
CKEB0
CKEB1
CKEB2
CKEB3
SBCKE0
SBCKE1
SBCKE2
SBCKE3
MODT_B0 AY42
MODT_B1 AV40
MODT_B2 AV43
MODT_B3 AU40
SBODT0
SBODT1
SBODT2
SBODT3
(15) DCLKB0 AM29
(15) -DCLKB0 AM27
(15) DCLKB1 AV9
(15) -DCLKB1 AW9
(15) DCLKB2 AL38
(15) -DCLKB2 AL36
(15) DCLKB3 AP26
(15) -DCLKB3 AR26
(15) DCLKB4 AU10
(15) -DCLKB4 AT10
(15) DCLKB5 AJ38
(15) -DCLKB5 AJ36
DCLKB0
-DCLKB0
DCLKB1
-DCLKB1
DCLKB2
-DCLKB2
DCLKB3
-DCLKB3
DCLKB4
-DCLKB4
DCLKB5
-DCLKB5
SBCK0
SBCK0*
SBCK1
SBCK1*
SBCK2
SBCK2*
SBCK3
BLCK3*
SBCK4
SBCK4*
SBCK5
SBCK5*
TP2 AL39
RSV
DDRVREFB AM2
SMVREF1
C244
0.1U/6/Y/25V/X
TP5 AK23
RSV_TP(2)
AM3
AJ8
SMRCOMPP AJ6
SMRCOMPN AL5
SM_OCDCOMP_1
SM_OCDCOMP_0
SM_RCOMP1
SM_RCOMP0
SBDQS0 AM8
SBDQS0* AM6
SBDM0 AL11
SBDQ0 AL6
SBDQ1 AL8
SBDQ2 AP8
SBDQ3 AP9
SBDQ4 AJ11
SBDQ5 AL9
SBDQ6 AM10
SBDQ7 AP6
DQSB0
-DQSB0
DMB0
MDB0
MDB1
MDB2
MDB3
MDB4
MDB5
MDB6
MDB7
SBDQS1 AV7
SBDQS1* AR9
SBDM1 AW7
SBDQ8 AU7
SBDQ9 AV6
SBDQ10 AV12
SBDQ11 AM11
SBDQ12 AR5
SBDQ13 AR7
SBDQ14 AR12
SBDQ15 AR10
DQSB1
-DQSB1
DMB1
MDB8
MDB9
MDB10
MDB11
MDB12
MDB13
MDB14
MDB15
SBDQS2 AV13
SBDQS2* AT13
SBDM2 AP13
SBDQ16 AM15
SBDQ17 AM13
SBDQ18 AV15
SBDQ19 AM17
SBDQ20 AN12
SBDQ21 AR13
SBDQ22 AP15
SBDQ23 AT15
DQSB2
-DQSB2
DMB2
MDB16
MDB17
MDB18
MDB19
MDB20
MDB21
MDB22
MDB23
SBDQS3 AU23
SBDQS3* AR23
SBDM3 AP23
SBDQ24 AM24
SBDQ25 AM23
SBDQ26 AV24
SBDQ27 AM26
SBDQ28 AP21
SBDQ29 AR21
SBDQ30 AP24
SBDQ31 AT24
DQSB3
-DQSB3
DMB3
MDB24
MDB25
MDB26
MDB27
MDB28
MDB29
MDB30
MDB31
SBDQS4 AT29
SBDQS4* AV29
SBDM4 AR29
SBDQ32 AU27
SBDQ33 AN29
SBDQ34 AR31
SBDQ35 AM31
SBDQ36 AP27
SBDQ37 AR27
SBDQ38 AP31
SBDQ39 AU31
DQSB4
-DQSB4
DMB4
MDB32
MDB33
MDB34
MDB35
MDB36
MDB37
MDB38
MDB39
SBDQS5 AP36
SBDQS5* AM35
SBDM5 AR38
SBDQ40 AP35
SBDQ41 AP37
SBDQ42 AN32
SBDQ43 AL35
SBDQ44 AR35
SBDQ45 AU38
SBDQ46 AM38
SBDQ47 AM34
DQSB5
-DQSB5
DMB5
MDB40
MDB41
MDB42
MDB43
MDB44
MDB45
MDB46
MDB47
SBDQS6 AG34
SBDQS6* AG32
SBDM6 AJ39
SBDQ48 AL34
SBDQ49 AJ34
SBDQ50 AF32
SBDQ51 AF34
SBDQ52 AL31
SBDQ53 AJ32
SBDQ54 AG35
SBDQ55 AD32
DQSB6
-DQSB6
DMB6
MDB48
MDB49
MDB50
MDB51
MDB52
MDB53
MDB54
MDB55
SBDQS7 AD36
SBDQS7* AD38
SBDM7 AD39
SBDQ56 AC32
SBDQ57 AD34
SBDQ58 Y32
SBDQ59 AA32
SBDQ60 AF35
SBDQ61 AF37
SBDQ62 AC33
SBDQ63 AC35
DQSB7
-DQSB7
DMB7
MDB56
MDB57
MDB58
MDB59
MDB60
MDB61
MDB62
MDB63
INTEL945G/A2/LEAD _FREE/[10HB1-033000-22R]
MODT_B[0..3]
MODT_B[0..3] (15,16)
DDR18V
R52
1K/6/1
DDRVREFA
R53
1K/6/1
BC15
0.1U/6/Y/25V
R54
0/6/SHT/
DDR18V
R55
1K/6/1/X
DDRVREFB
R56
1K/6/1/X
BC17
0.1U/6/Y/25V
DDR18V
R57 80.6/6/1 SMRCOMPN
BC18
0.1U/6/Y/25V
R58 80.6/6/1 SMRCOMPP
(15) -DQSB[0..7]
-DQSB[0..7]
(15,16) MAAB[0..13]
MAAB[0..13]
(15) DMB[0..7]
DMB[0..7]
(15) MDB[0..63]
MDB[0..63]
(15) DQSB[0..7]
DQSB[0..7]
(14,16) MAAA[0..13]
MAAA[0..13]
(14) DMA[0..7]
DMA[0..7]
(14) MDA[0..63]
MDA[0..63]
(14) DQSA[0..7]
DQSA[0..7]
(14) -DQSA[0..7]
-DQSA[0..7]
Intel Confidentail
Title
GMCH-DDRII
Size
Custom
Document Number
8I945GMBX
Rev
1.01
Date: Friday, July 01, 2005
Sheet 9 of 42

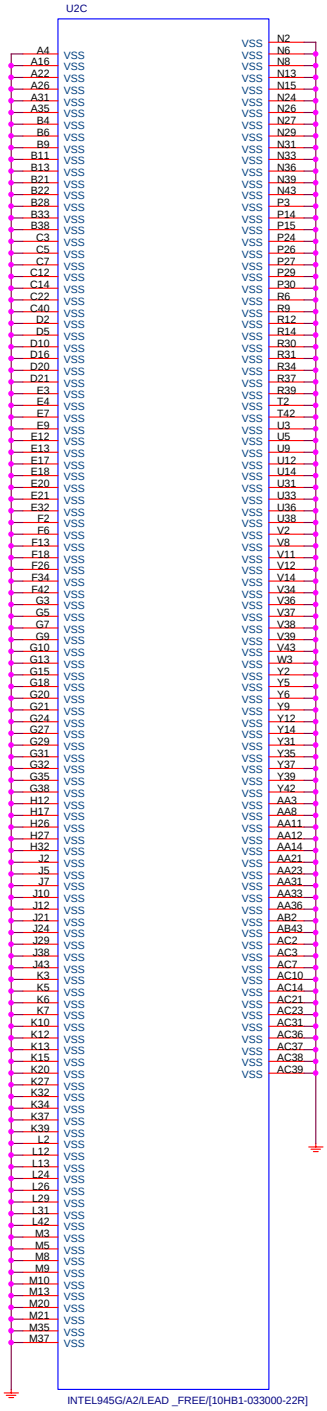


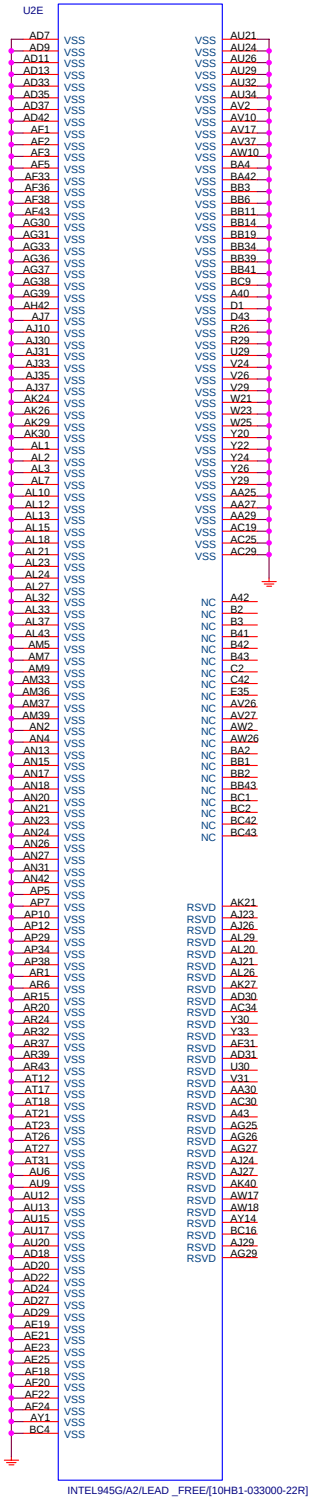


Intel Confidentail

Title	GMCH-PCI E & DMI		
Size: Custom	Document Number: 8I945GMBX		Rev: 1.01
Date: Friday, July 01, 2005	Sheet 10 of 42		

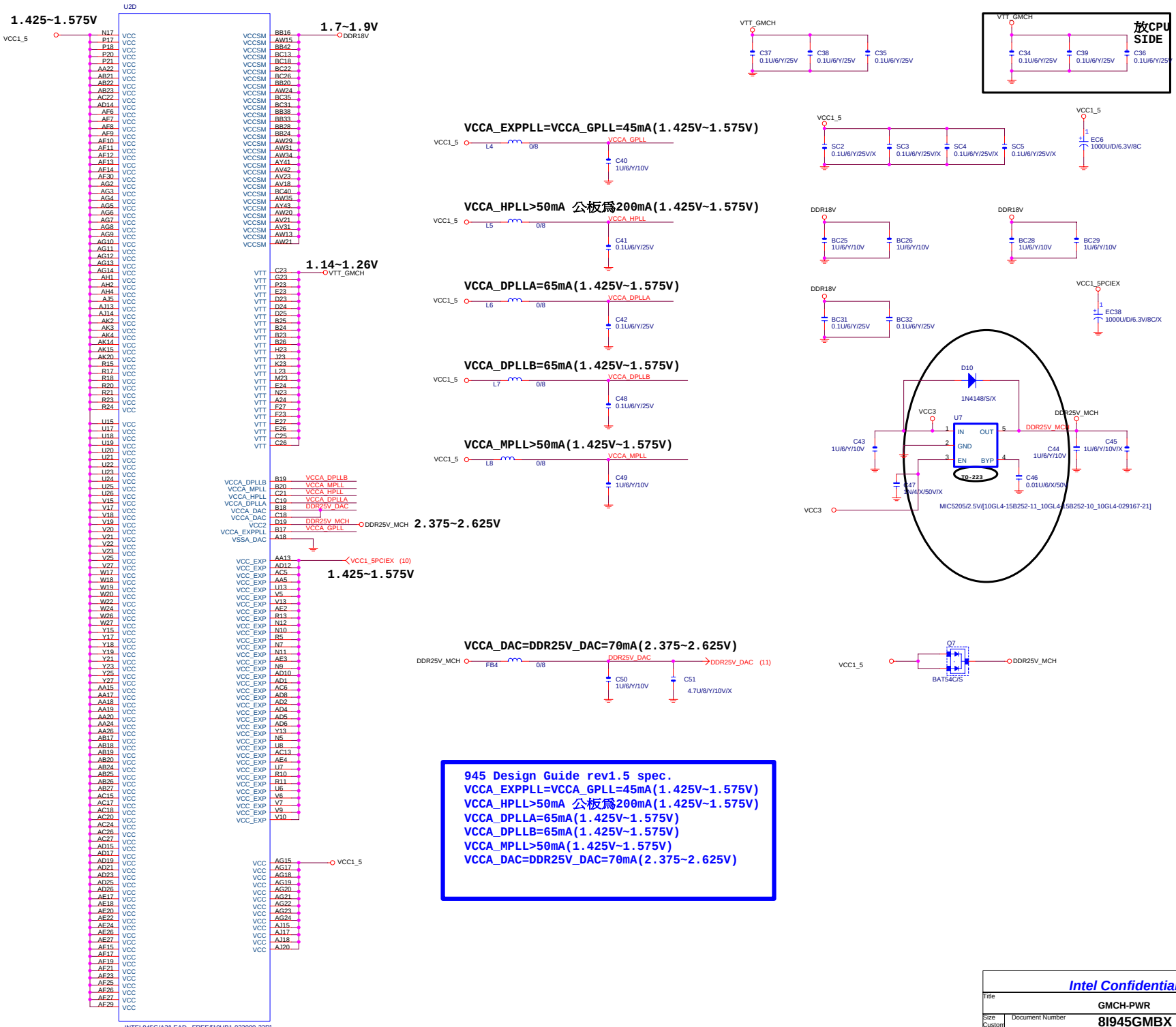

FOR GRANDTSDALE-P
CLOSE TO N/B
U2H
INTEL945G/A2/LEAD _FREE/[10HB1-033000-22R]
25 mils spacing to other signals
For 915G R132=255/6/1
可以不上,公板無.
NB_FAN
POH/1*2/WHITE/X
NB HEAT SINK FAN
VGA/BLUE/S
74LVC32/S/[10TC1-117432-01_10TC1-117432-02_10TC1-117432-03]
Intel Confidential
GMCH-INTERNAL VGA
8I945GMBX
1.01
Friday, July 01, 2005





Intel Confidentail

Title	GMCH-GND		
Size: Custom	Document Number: 8I945GMBX		Rev: 1.01
Date: Friday, July 01, 2005	Sheet 12 of 42		


U2D
1.425~1.575V
VCC1_5
1.7~1.9V
DDR18V
1.14~1.26V
VTT_GMCH
2.375~2.625V
DDR25V_MCH
VCC1_5PCIEX (10)
1.425~1.575V
VCC1_5
INTEL945G/A2/LEAD _FREE/[10HB1-033000-22R]
VTT_GMCH
C37 0.1U/6/Y/25V
C38 0.1U/6/Y/25V
C35 0.1U/6/Y/25V
放CPU SIDE
C34 0.1U/6/Y/25V
C39 0.1U/6/Y/25V
C36 0.1U/6/Y/25V
VCCA_EXPPLL=VCCA_GPLL=45mA(1.425V~1.575V)
L4 0/8
VCCA_GPLL
C40 1U/6/Y/10V
SC2 0.1U/6/Y25V/X
SC3 0.1U/6/Y25V/X
SC4 0.1U/6/Y25V/X
SC5 0.1U/6/Y25V/X
EC6 1000U/D/6.3V/8C
VCCA_HPLL>50mA 公板爲200mA(1.425V~1.575V)
L5 0/8
VCCA_HPLL
C41 0.1U/6/Y/25V
BC25 1U/6/Y/10V
BC26 1U/6/Y/10V
BC28 1U/6/Y/10V
BC29 1U/6/Y/10V
VCCA_DPLLA=65mA(1.425V~1.575V)
L6 0/8
VCCA_DPLLA
C42 0.1U/6/Y/25V
BC31 0.1U/6/Y25V
BC32 0.1U/6/Y25V
EC38 1000U/D/6.3V/8C/X
VCCA_DPLLB=65mA(1.425V~1.575V)
L7 0/8
VCCA_DPLLB
C48 0.1U/6/Y/25V
D10
1N4148/S/X
U7
IN
OUT
GND
EN
BYP
TO-223
C43 1U/6/Y/10V
C44 1U/6/Y/10V
C45 1U/6/Y/10V/X
C47 4.7U/4X/50V/X
C46 0.01U/6/X/50V
MIC5205/2.5V/[10GL4-15B252-11_10GL4-15B252-10_10GL4-029167-21]
VCCA_MPLL>50mA(1.425V~1.575V)
L8 0/8
VCCA_MPLL
C49 1U/6/Y/10V
VCCA_DAC=DDR25V_DAC=70mA(2.375~2.625V)
FB4 0/8
DDR25V_DAC
DDR25V_DAC (11)
C50 1U/6/Y/10V
C51 4.7U/8/Y/10V/X
Q7
BAT54C/S
945 Design Guide rev1.5 spec.
VCCA_EXPPLL=VCCA_GPLL=45mA(1.425V~1.575V)
VCCA_HPLL>50mA 公板爲200mA(1.425V~1.575V)
VCCA_DPLLA=65mA(1.425V~1.575V)
VCCA_DPLLB=65mA(1.425V~1.575V)
VCCA_MPLL>50mA(1.425V~1.575V)
VCCA_DAC=DDR25V_DAC=70mA(2.375~2.625V)
Intel Confidential
Title
GMCH-PWR
Size
Custom
Document Number
8I945GMBX
Rev
1.01
Date:
Friday, July 01, 2005
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13
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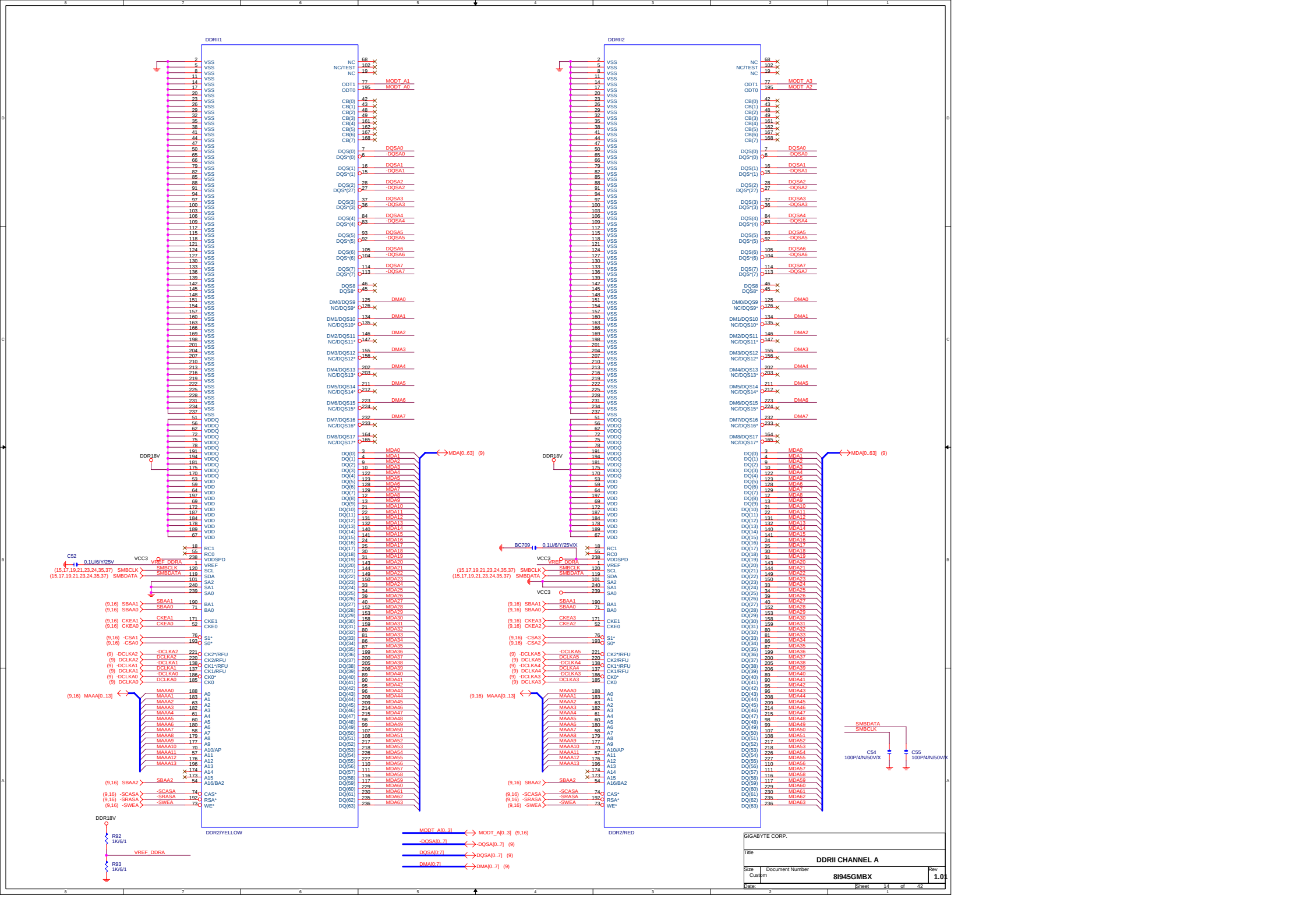
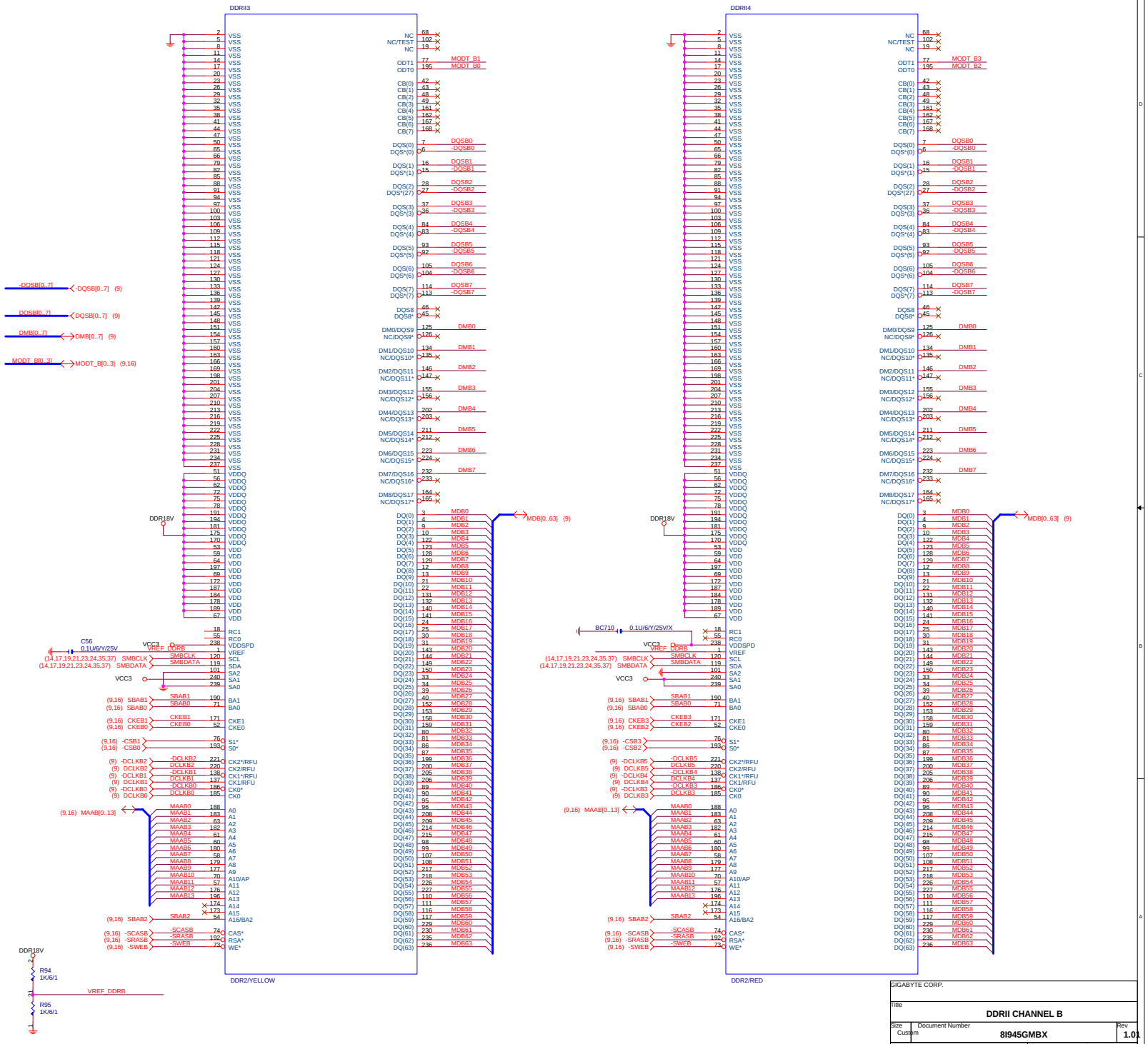
42



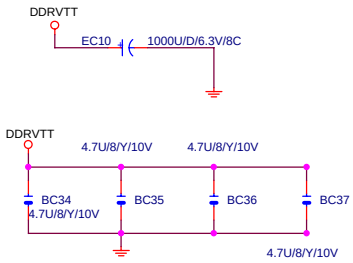
GIGABYTE CORP.		
Title: DDRII CHANNEL A		
Size: Custom	Document Number: 8I945GMBX	Rev: 1.01
Date:	Sheet 14 of 42	

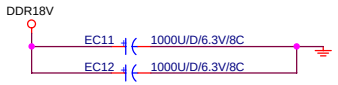


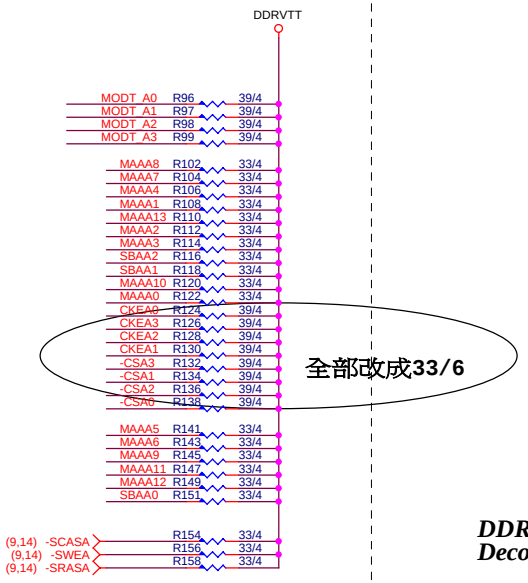
GIGABYTE CORP.	
Title	DDRII CHANNEL B
Size: Custom	Document Number: 8I945GMBX
Rev: 1.01	
Date:	Sheet 15 of 42

DDR TERMINATION CHANNEL A

DDRVTT Decouple

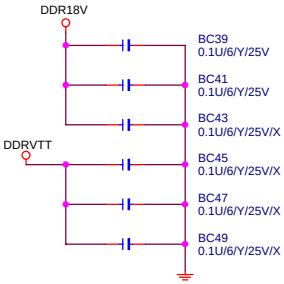


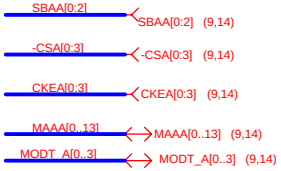




全部改成33/6

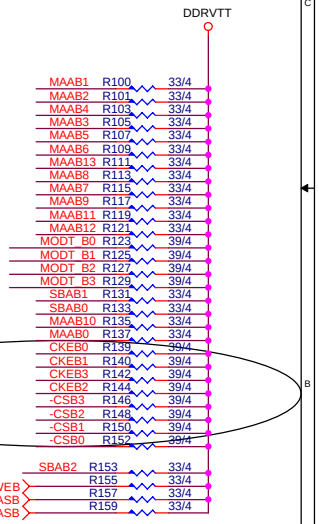
DDR18V Decouple





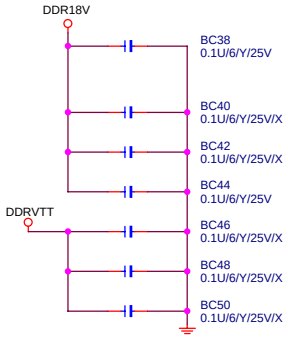
DDRVTT Decouple

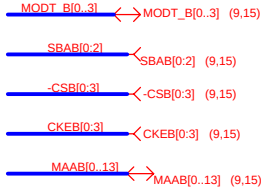
CHANNEL B



全部改成33/6

DDR18V Decouple





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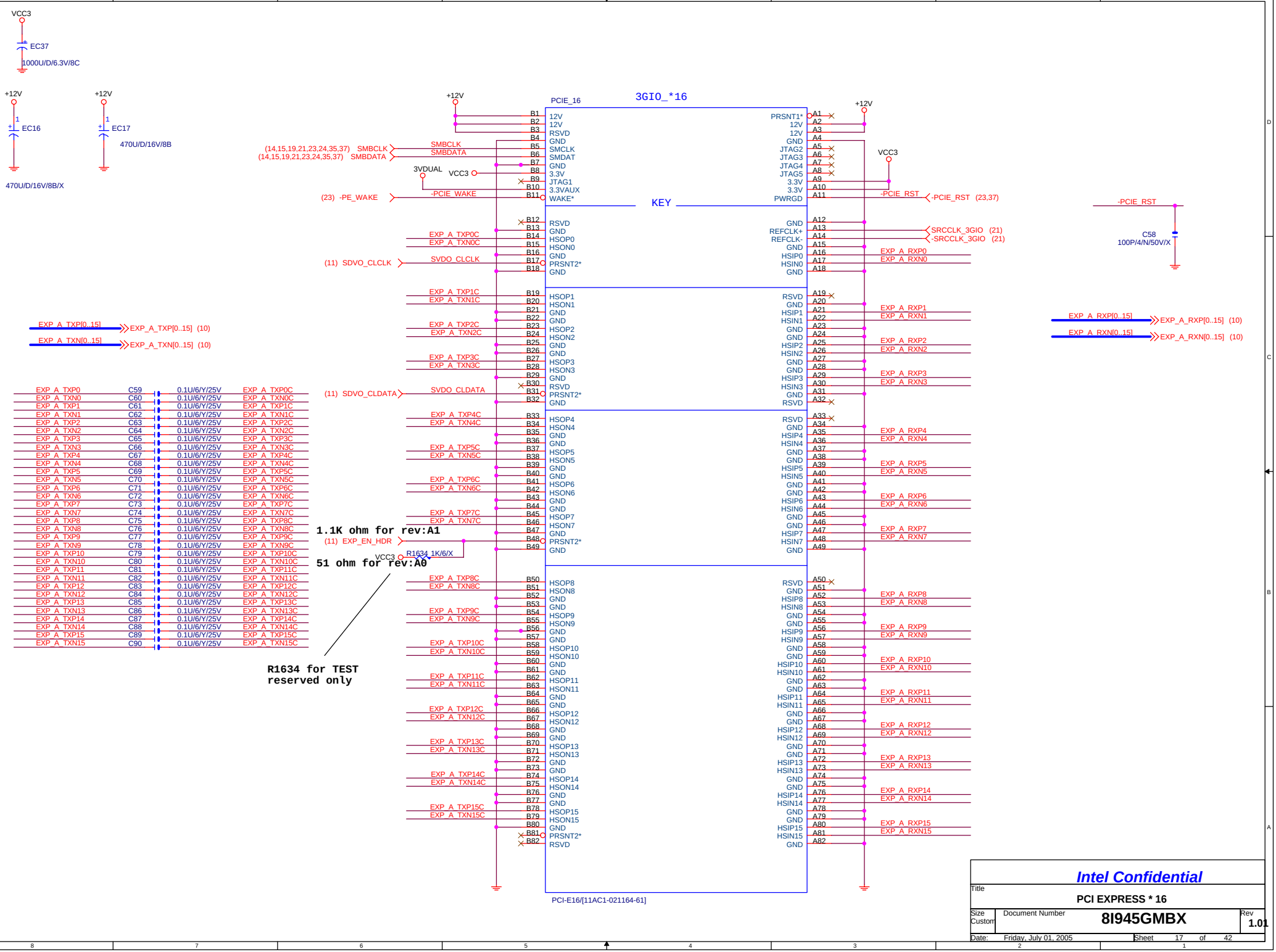
Title	DDRII TERMINATOR	
Size B	Document Number 8I945GMBX	Rev 1.01
Date: Friday, July 01, 2005	Sheet 16 of 42	



EXP_A_TXP0	C59	0.1U/6/Y/25V	EXP_A_TXP0C
EXP_A_TXN0	C60	0.1U/6/Y/25V	EXP_A_TXN0C
EXP_A_TXP1	C61	0.1U/6/Y/25V	EXP_A_TXP1C
EXP_A_TXN1	C62	0.1U/6/Y/25V	EXP_A_TXN1C
EXP_A_TXP2	C63	0.1U/6/Y/25V	EXP_A_TXP2C
EXP_A_TXN2	C64	0.1U/6/Y/25V	EXP_A_TXN2C
EXP_A_TXP3	C65	0.1U/6/Y/25V	EXP_A_TXP3C
EXP_A_TXN3	C66	0.1U/6/Y/25V	EXP_A_TXN3C
EXP_A_TXP4	C67	0.1U/6/Y/25V	EXP_A_TXP4C
EXP_A_TXN4	C68	0.1U/6/Y/25V	EXP_A_TXN4C
EXP_A_TXP5	C69	0.1U/6/Y/25V	EXP_A_TXP5C
EXP_A_TXN5	C70	0.1U/6/Y/25V	EXP_A_TXN5C
EXP_A_TXP6	C71	0.1U/6/Y/25V	EXP_A_TXP6C
EXP_A_TXN6	C72	0.1U/6/Y/25V	EXP_A_TXN6C
EXP_A_TXP7	C73	0.1U/6/Y/25V	EXP_A_TXP7C
EXP_A_TXN7	C74	0.1U/6/Y/25V	EXP_A_TXN7C
EXP_A_TXP8	C75	0.1U/6/Y/25V	EXP_A_TXP8C
EXP_A_TXN8	C76	0.1U/6/Y/25V	EXP_A_TXN8C
EXP_A_TXP9	C77	0.1U/6/Y/25V	EXP_A_TXP9C
EXP_A_TXN9	C78	0.1U/6/Y/25V	EXP_A_TXN9C
EXP_A_TXP10	C79	0.1U/6/Y/25V	EXP_A_TXP10C
EXP_A_TXN10	C80	0.1U/6/Y/25V	EXP_A_TXN10C
EXP_A_TXP11	C81	0.1U/6/Y/25V	EXP_A_TXP11C
EXP_A_TXN11	C82	0.1U/6/Y/25V	EXP_A_TXN11C
EXP_A_TXP12	C83	0.1U/6/Y/25V	EXP_A_TXP12C
EXP_A_TXN12	C84	0.1U/6/Y/25V	EXP_A_TXN12C
EXP_A_TXP13	C85	0.1U/6/Y/25V	EXP_A_TXP13C
EXP_A_TXN13	C86	0.1U/6/Y/25V	EXP_A_TXN13C
EXP_A_TXP14	C87	0.1U/6/Y/25V	EXP_A_TXP14C
EXP_A_TXN14	C88	0.1U/6/Y/25V	EXP_A_TXN14C
EXP_A_TXP15	C89	0.1U/6/Y/25V	EXP_A_TXP15C
EXP_A_TXN15	C90	0.1U/6/Y/25V	EXP_A_TXN15C

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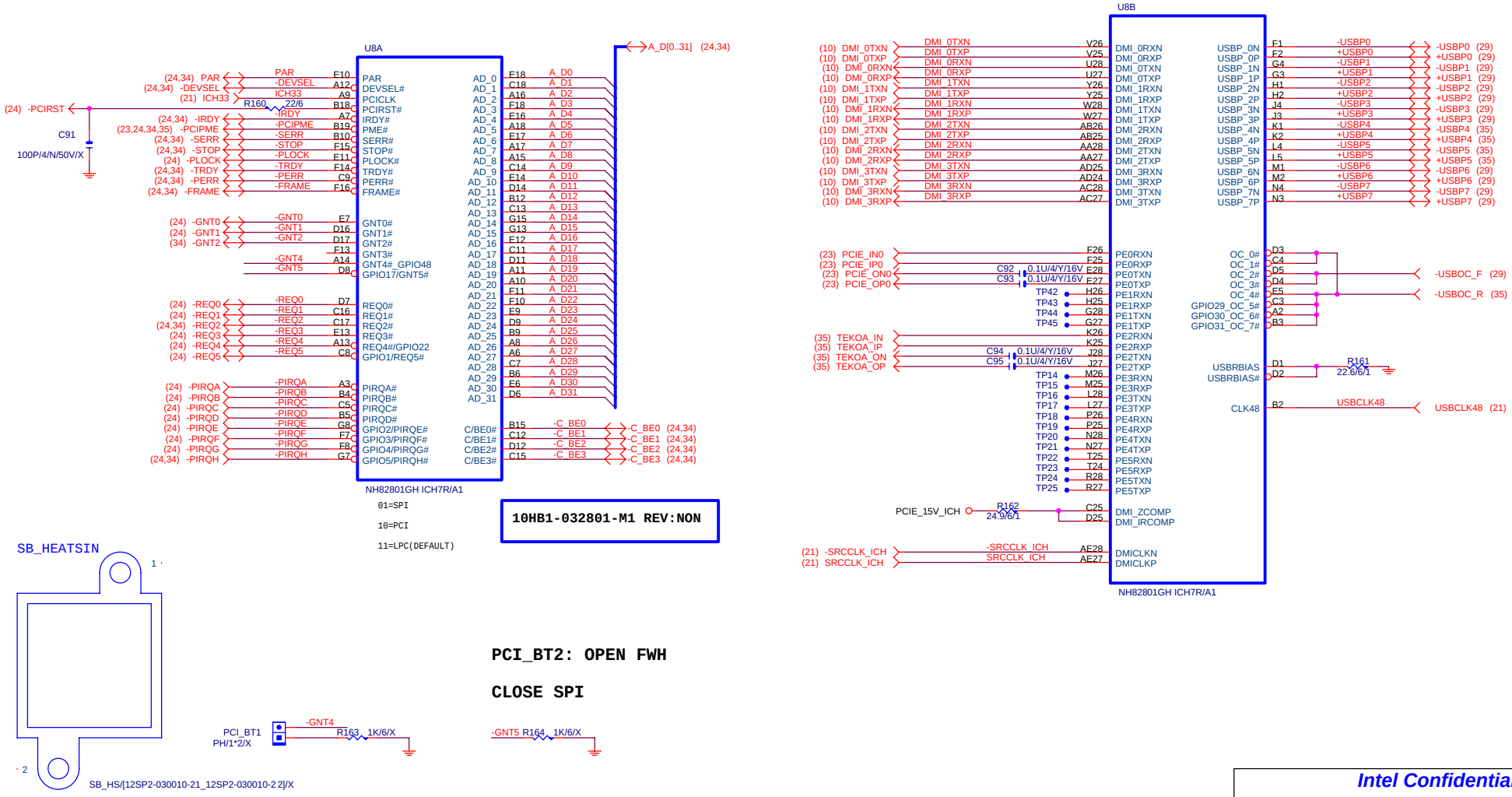
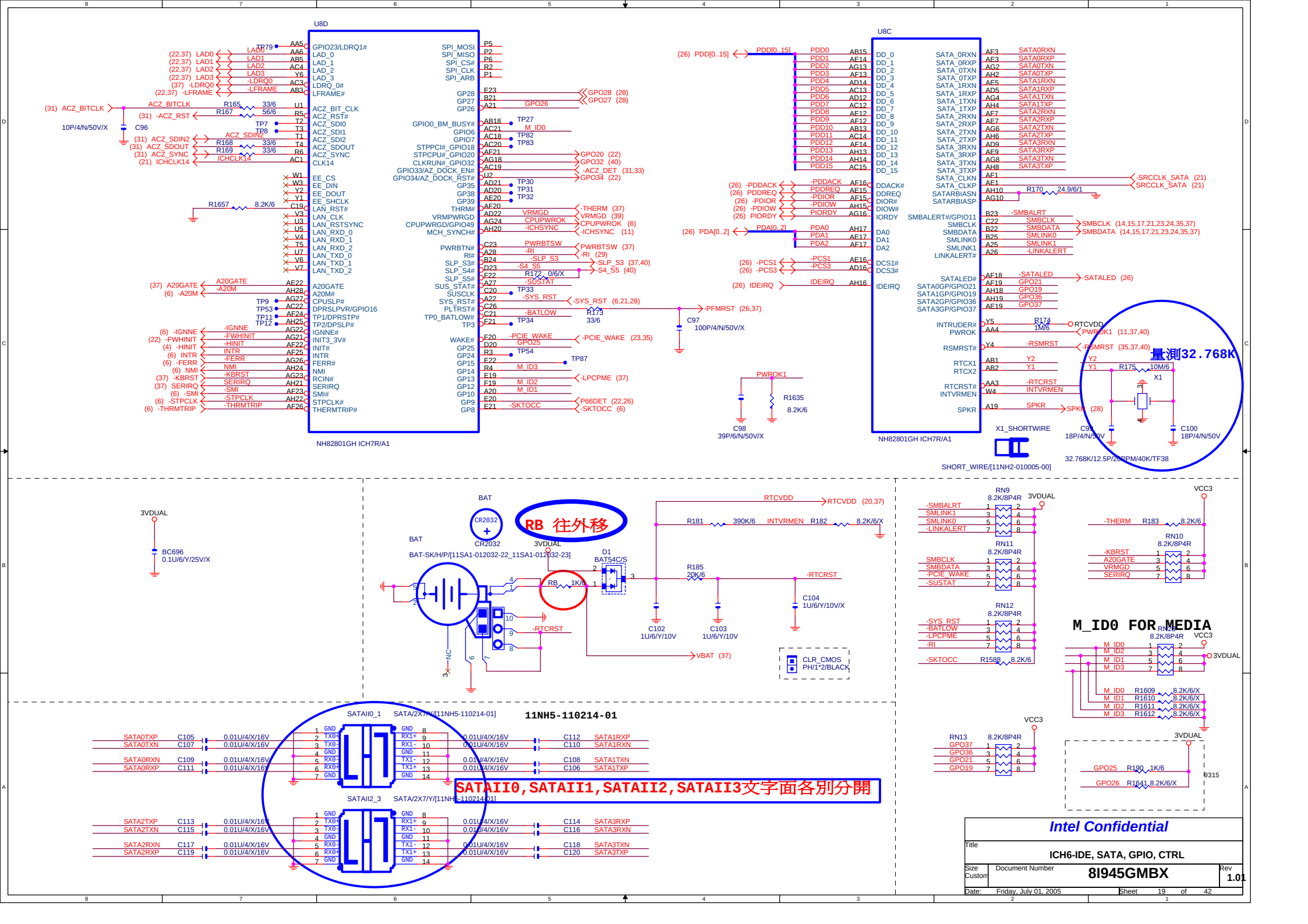
Title	PCI EXPRESS * 16		
Size: Custom	Document Number: 8I945GMBX		Rev: 1.01
Date: Friday, July 01, 2005	Sheet 17 of 42		



Intel Confidential

Title	ICH6-PCI, DMI, LAN, USB	
Size B	Document Number 8I945GMBX	Rev 1.01
Date: Friday, July 01, 2005	Sheet 18 of 42	


U8D
NH82801GH ICH7R/A1
U8C
NH82801GH ICH7R/A1
量測32.768K
32.768K/12.5P/20PPM/40K/TF38
SHORT_WIRE/[11NH2-010005-00]
RB 往外移
BAT-SK/H/P/[11SA1-012032-22_11SA1-012032-23]
M_ID0 FOR MEDIA
11NH5-110214-01
SATAII0_1
SATAII2_3
SATAII0,SATAII1,SATAII2,SATAII3文字面各別分開
Intel Confidential
ICH6-IDE, SATA, GPIO, CTRL
8I945GMBX
1.01
Friday, July 01, 2005
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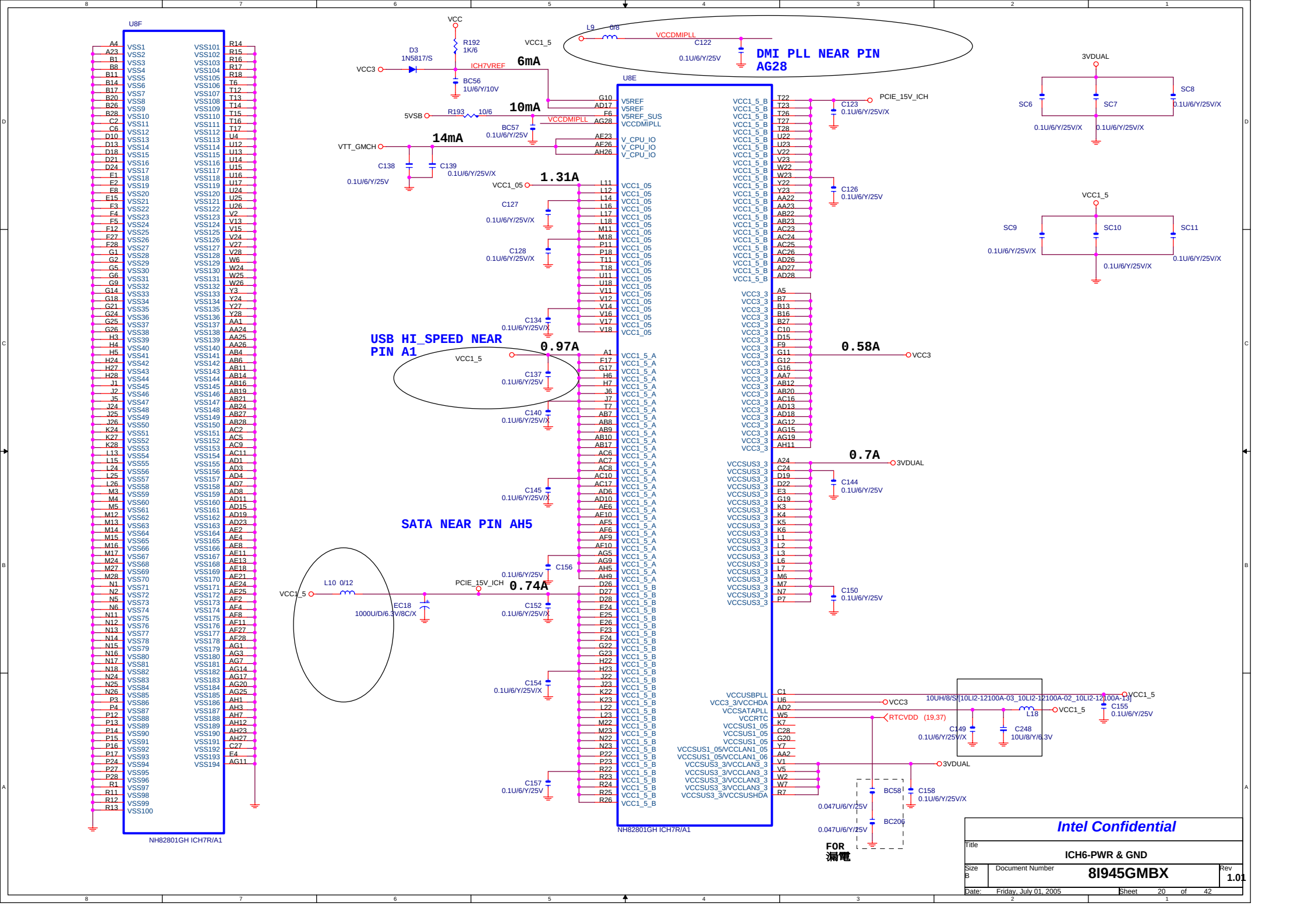
U8F
NH82801GH ICH7R/A1
VCC
R192 1K/6
D3 1N5817/S
VCC3
ICH7VREF
BC56 1U/6/Y/10V
6mA
VCC1_5
L9 0/8
VCCDMIPLL
C122 0.1U/6/Y/25V
DMI PLL NEAR PIN AG28
U8E
5VSB
R193 10/6
10mA
VCCDMIPLL
BC57 0.1U/6/Y/25V
14mA
VTT_GMCH
C138 0.1U/6/Y/25V
C139 0.1U/6/Y/25V/X
1.31A
VCC1_05
C127 0.1U/6/Y/25V/X
C128 0.1U/6/Y/25V/X
C134 0.1U/6/Y/25V/X
USB HI_SPEED NEAR PIN A1
0.97A
C137 0.1U/6/Y/25V
C140 0.1U/6/Y/25V/X
C145 0.1U/6/Y/25V/X
SATA NEAR PIN AH5
L10 0/12
PCIE_15V_ICH
0.74A
EC18 1000U/D/6.3V/8C/X
C156 0.1U/6/Y/25V
C152 0.1U/6/Y/25V/X
C154 0.1U/6/Y/25V/X
C157 0.1U/6/Y/25V
NH82801GH ICH7R/A1
PCIE_15V_ICH
C123 0.1U/6/Y/25V/X
C126 0.1U/6/Y/25V
0.58A
VCC3
0.7A
3VDUAL
C144 0.1U/6/Y/25V
C150 0.1U/6/Y/25V
10UH/8/S/(10LI2-12100A-03_10LI2-12100A-02_10LI2-12100A-13)
L18
C155 0.1U/6/Y/25V
C149 0.1U/6/Y/25V/X
C248 10U/8/Y/6.3V
RTCVDD (19,37)
BC58 0.047U/6/Y/25V
BC206 0.047U/6/Y/25V
C158 0.1U/6/Y/25V/X
FOR 漏電
3VDUAL
SC6
SC7
SC8
0.1U/6/Y/25V/X
VCC1_5
SC9
SC10
SC11
Intel Confidential
Title
ICH6-PWR & GND
Size B
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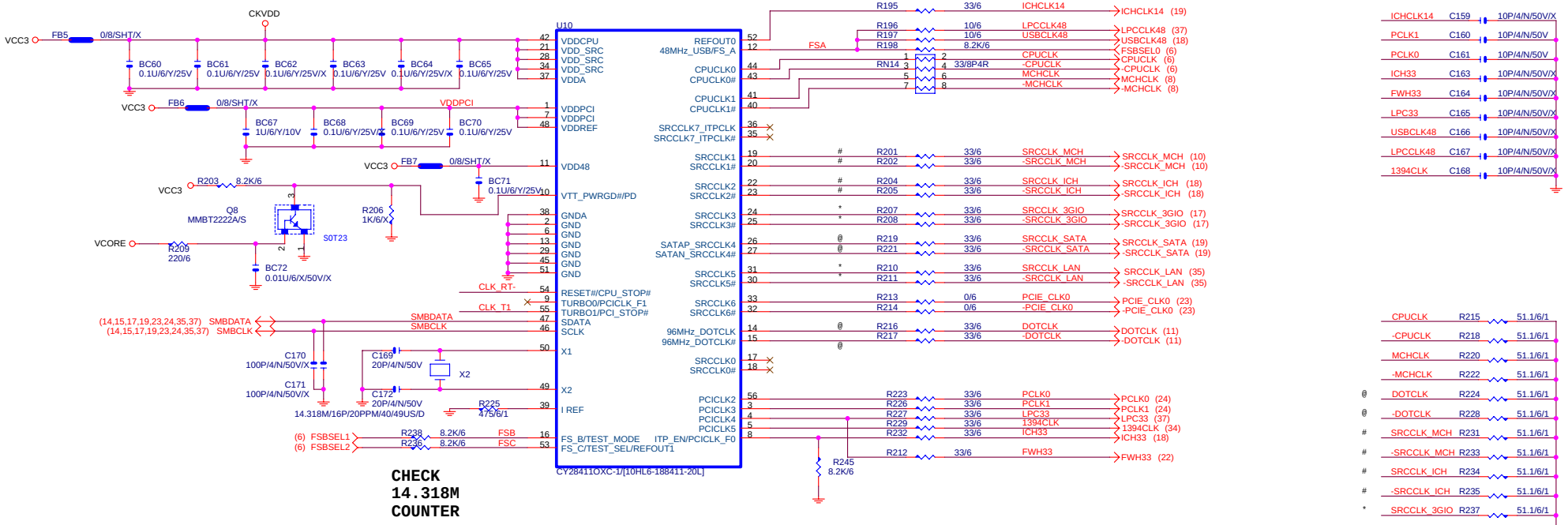

CY284110XC-1無RESET,不可上Q53,否則CPU_STOP#產生,造成CPURST- DELAY 200ms(spec>1ms)

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Title	ICS954148AF	
Size: Custom	Document Number: 8I945GMBX	Rev: 1.01
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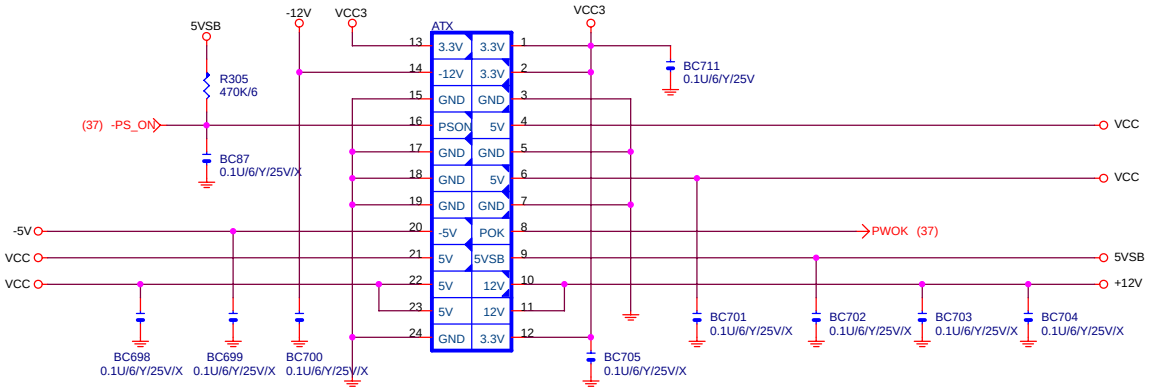
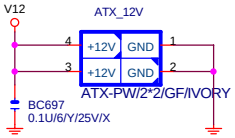
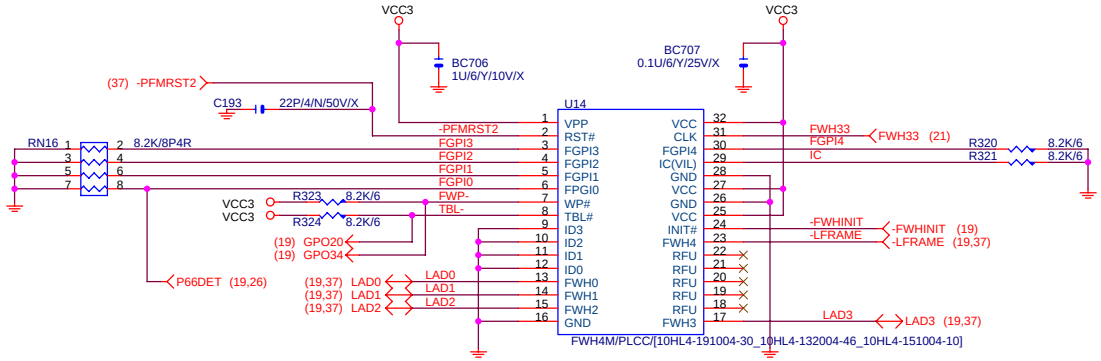
ATX POWER CONNECTOR

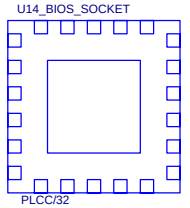


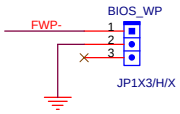
ATX 24PIN(G/F)/[11NH4-020024-31_11NH4-020024-32]





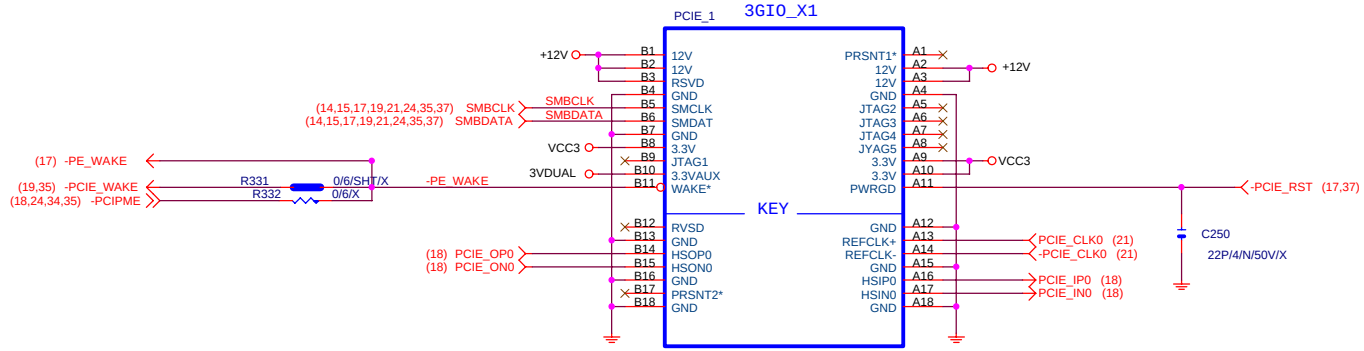
FWH4M/PLCC/[10HL4-191004-30_10HL4-132004-46_10HL4-151004-10]





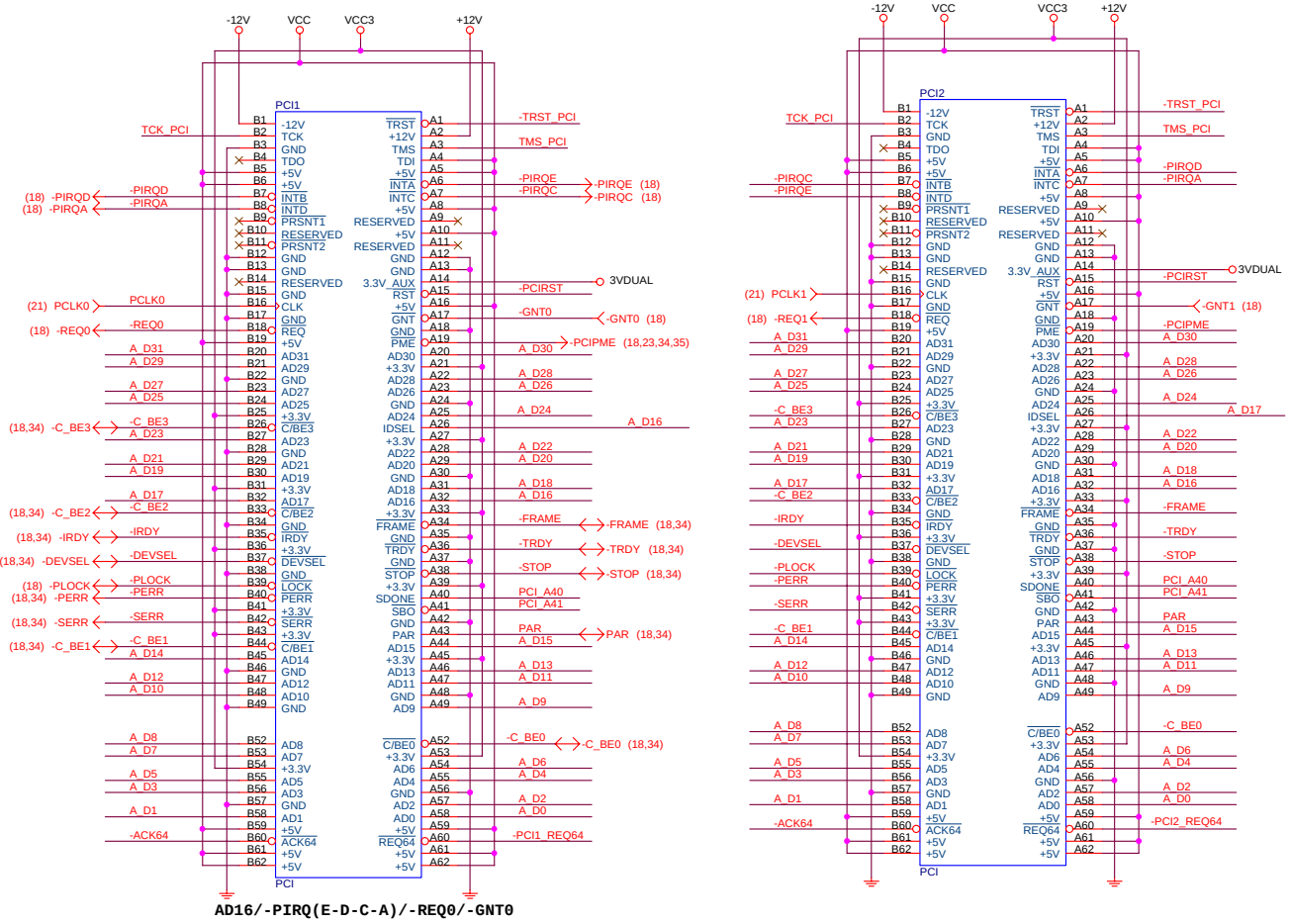
GIGABYTE

Title	ATX POWER CONNECTOR,DUAL BIOS	
Size B	Document Number 8I945GMBX	Rev 1.01
Date: Friday, July 01, 2005	Sheet 22 of 42	



Intel Confidential

Title	PCI E SLOT 1, 2, 3	
Size: B	Document Number: 8I945GMBX	Rev: 1.01
Date: Friday, July 01, 2005	Sheet 23 of 42	



Intel Confidential

Title	PCI SLOT 1, 2	
Size: Custom	Document Number: 8I945GMBX	Rev: 1.01
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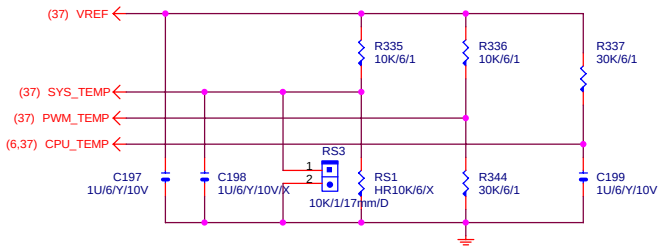
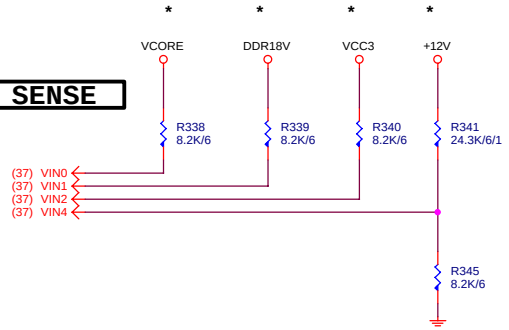
TEMP. SENSE



RS3 CLOSE TO MCH,CO-LAYOUT WITH RS1

VOLTAGE SENSE



CPU/SYS FAN

If use PBSS5240 1pcs : (non airflow)

CPUFAN_VCC=12V: Temp=40 deg
CPUFAN_VCC=11V: Temp=82 deg
CPUFAN_VCC=10V: Temp=70 deg
CPUFAN_VCC= 9V: Temp=110 deg
CPUFAN_VCC= 8V: Temp>200 deg

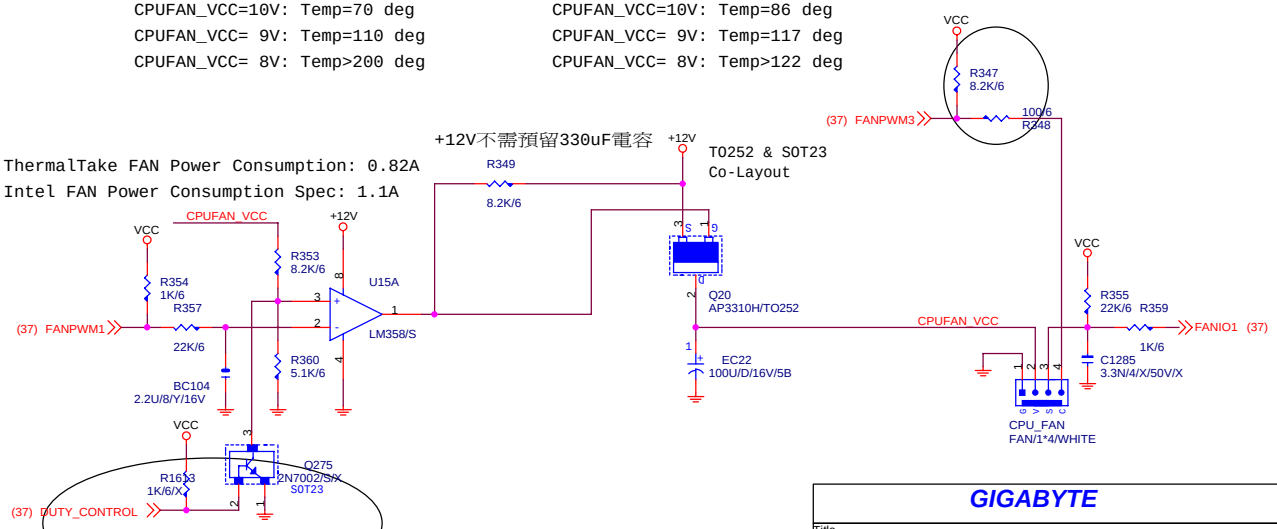
If use PBSS5240 1pcs : (with airflow)

CPUFAN_VCC=12V: Temp=33 deg
CPUFAN_VCC=11V: Temp=62 deg
CPUFAN_VCC=10V: Temp=86 deg
CPUFAN_VCC= 9V: Temp=117 deg
CPUFAN_VCC= 8V: Temp>122 deg

ThermalTake FAN Power Consumption: 0.82A
Intel FAN Power Consumption Spec: 1.1A

+12V不需預留330uF電容

TO252 & SOT23
Co-Layout



default is high
gpiox pin 可以3.3v or 5v
if 3pin fan 則開機後將program is low

GIGABYTE		
Title: HWM/FAN/CI/BIOS		
Size: Custom	Document Number: 8I945GMBX	Rev: 1.01
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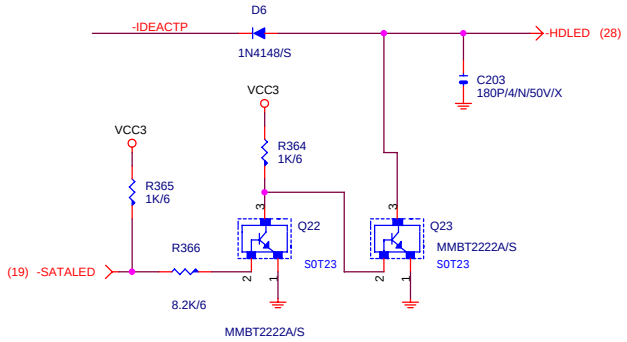
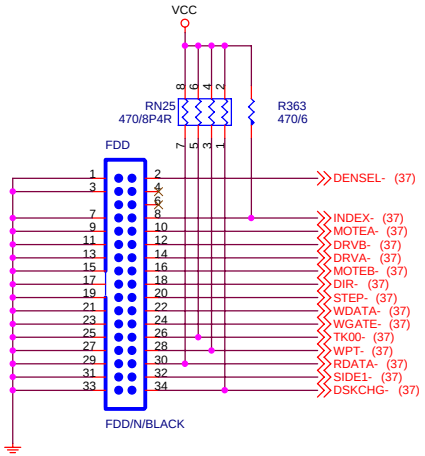
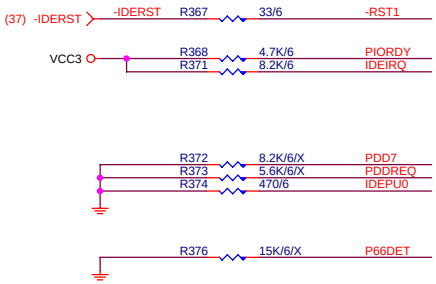
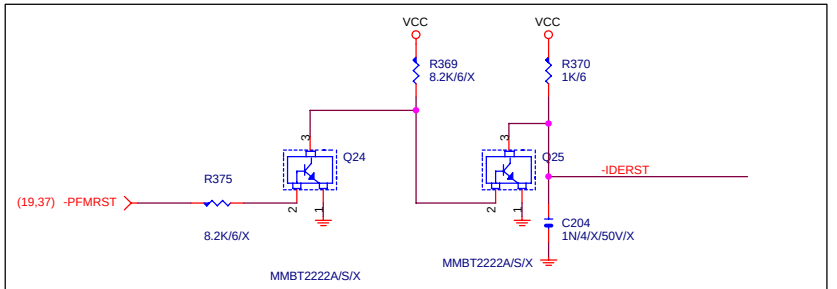
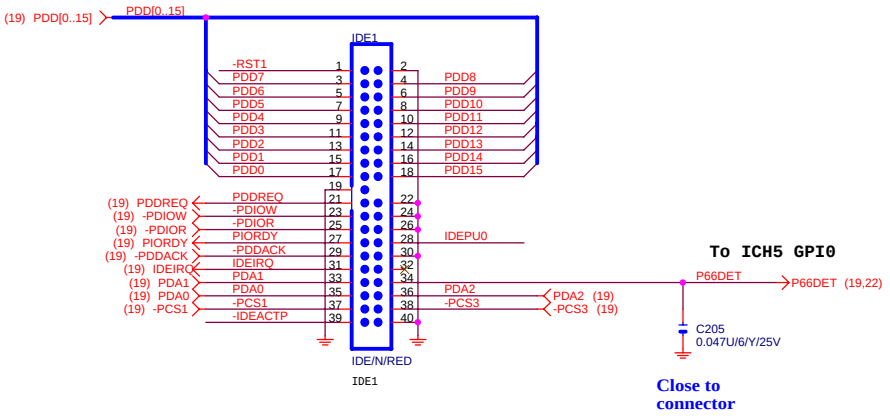








Default 不上,由IT8712 OUTPUT,REV0.2 驗證



To ICH5 GPI0

Close to connector

PRIMARY IDE CONNECTOR

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Title: **IDE**		
Size: B	Document Number: **8I945GMBX**	Rev: **1.01**
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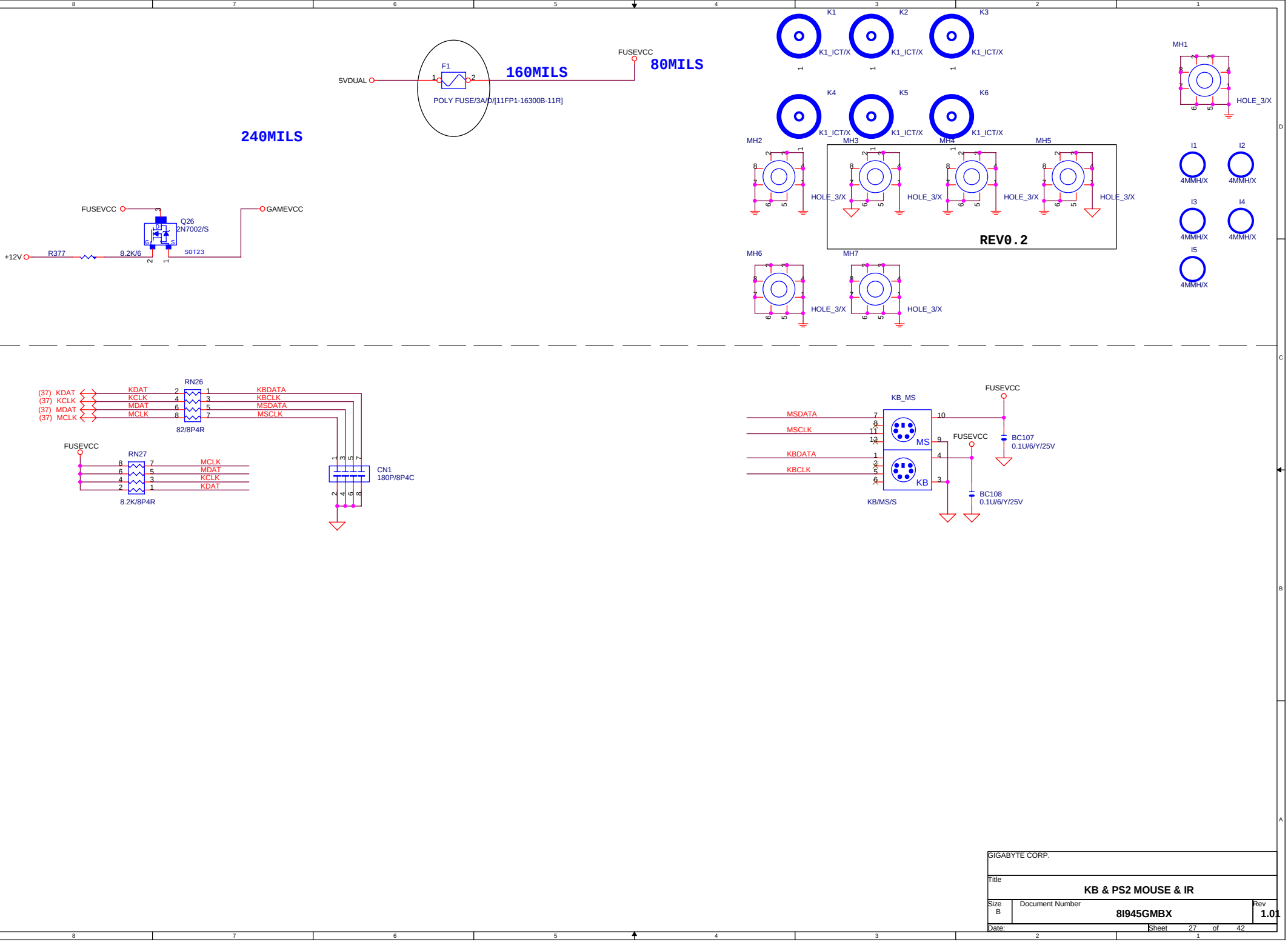
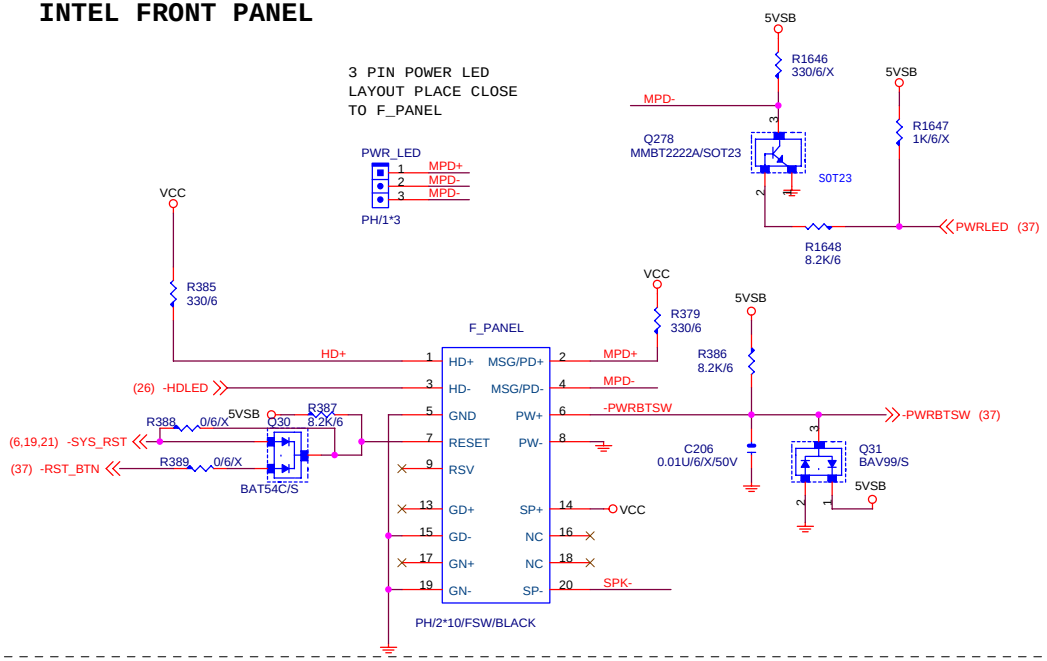
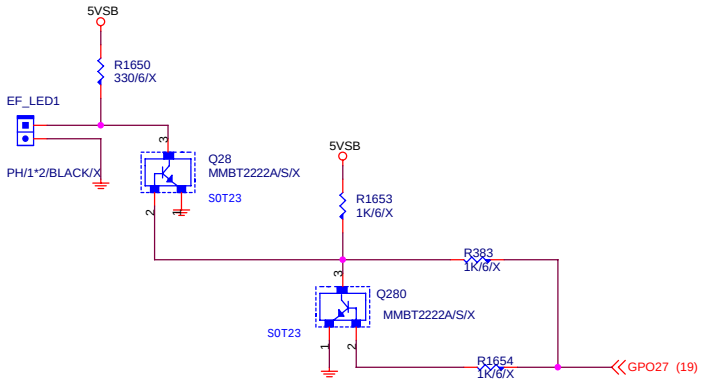
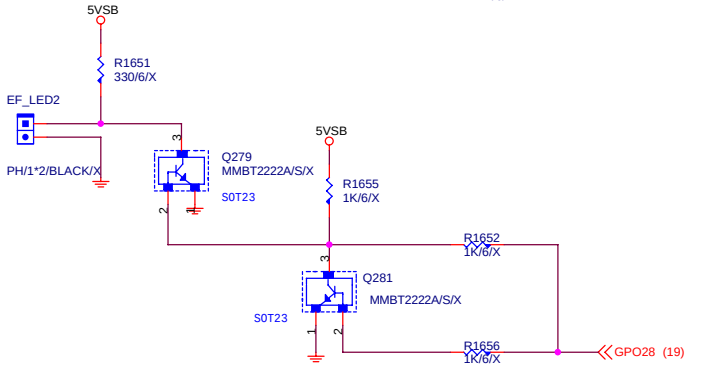


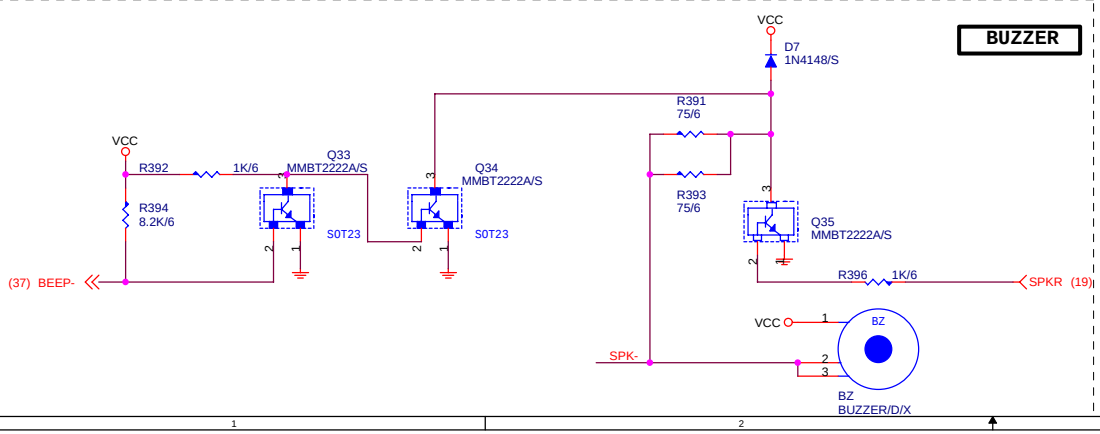
GIGABYTE CORP.		
Title: KB & PS2 MOUSE & IR		
Size: B	Document Number: 8I945GMBX	Rev: 1.01
Date:	Sheet 27 of 42	

INTEL FRONT PANEL









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Title	FRONT PANEL	
Size: Custom	Document Number: 8I945GMBX	Rev: 1.01
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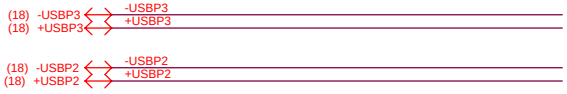
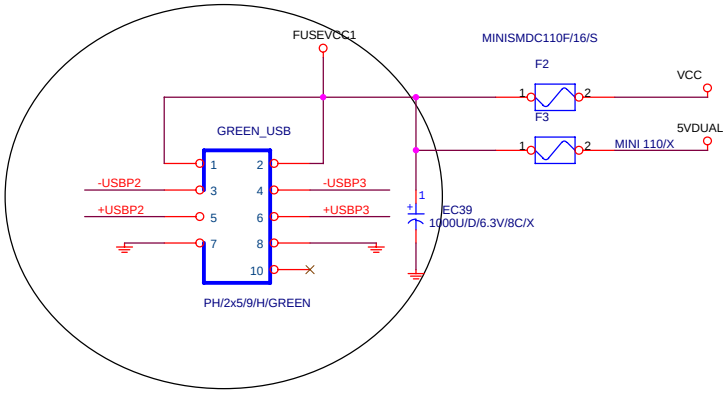
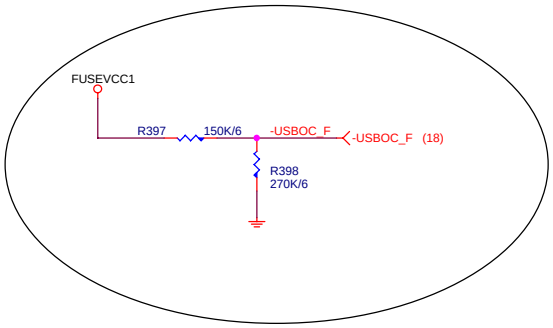
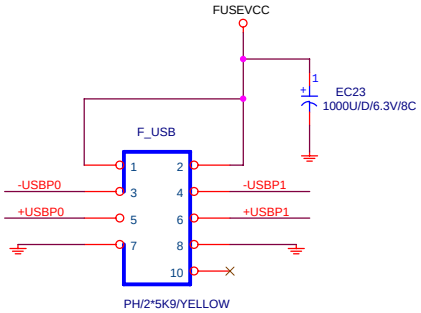
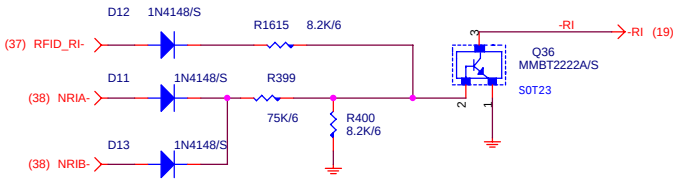
FRONT USB

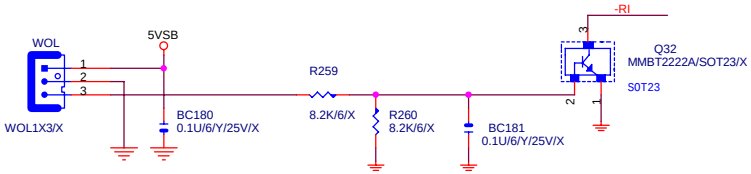


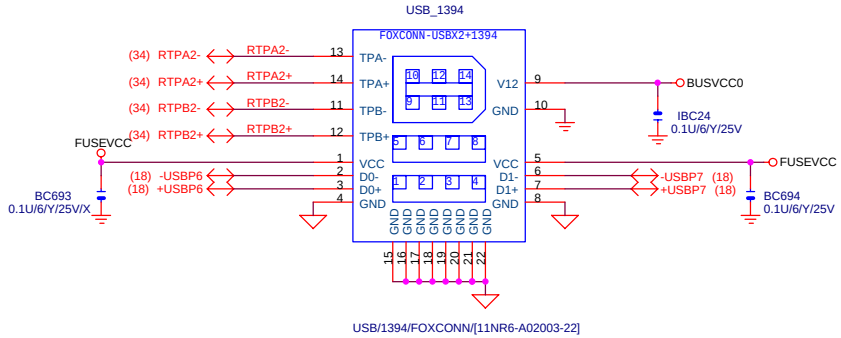


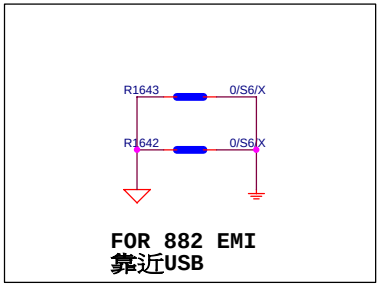












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Title	FRONT USB CONNECTOR	
Size: B	Document Number: 8I945GMBX	Rev: 1.01
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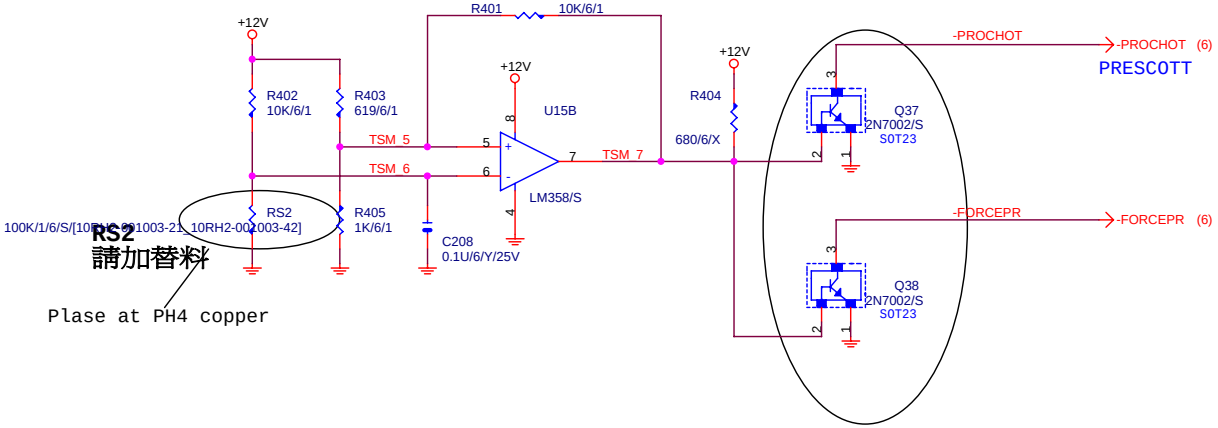
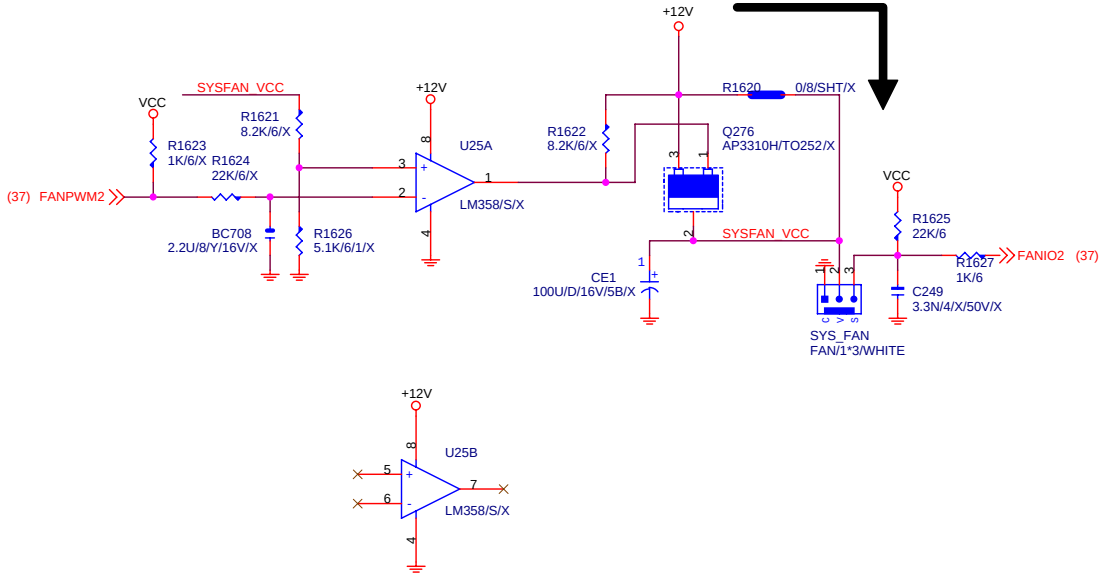
asserted at 131 degree
deasserted at 116 degree

RS2 CLOSE CPU VR MOSFET



SYS_FAN SMART FAN



Intel Confidential		
Title: FAN CONTROL		
Size: B	Document Number: 8I945GMBX	Rev: 1.01
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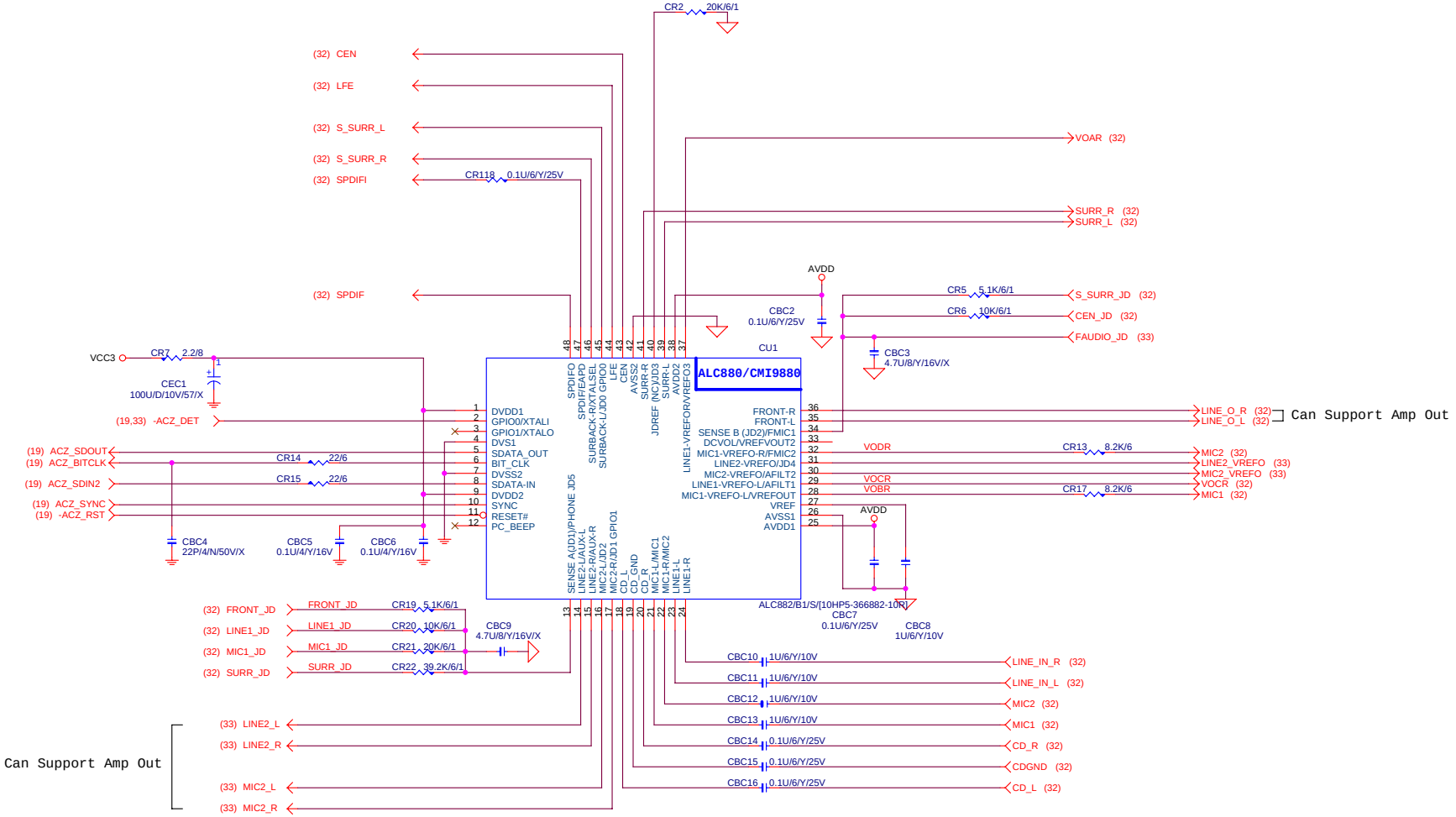

Intel Confidential

Title	AC97 ALC658	
Size: Custom	Document Number: 8I945GMBX	Rev: 1.01
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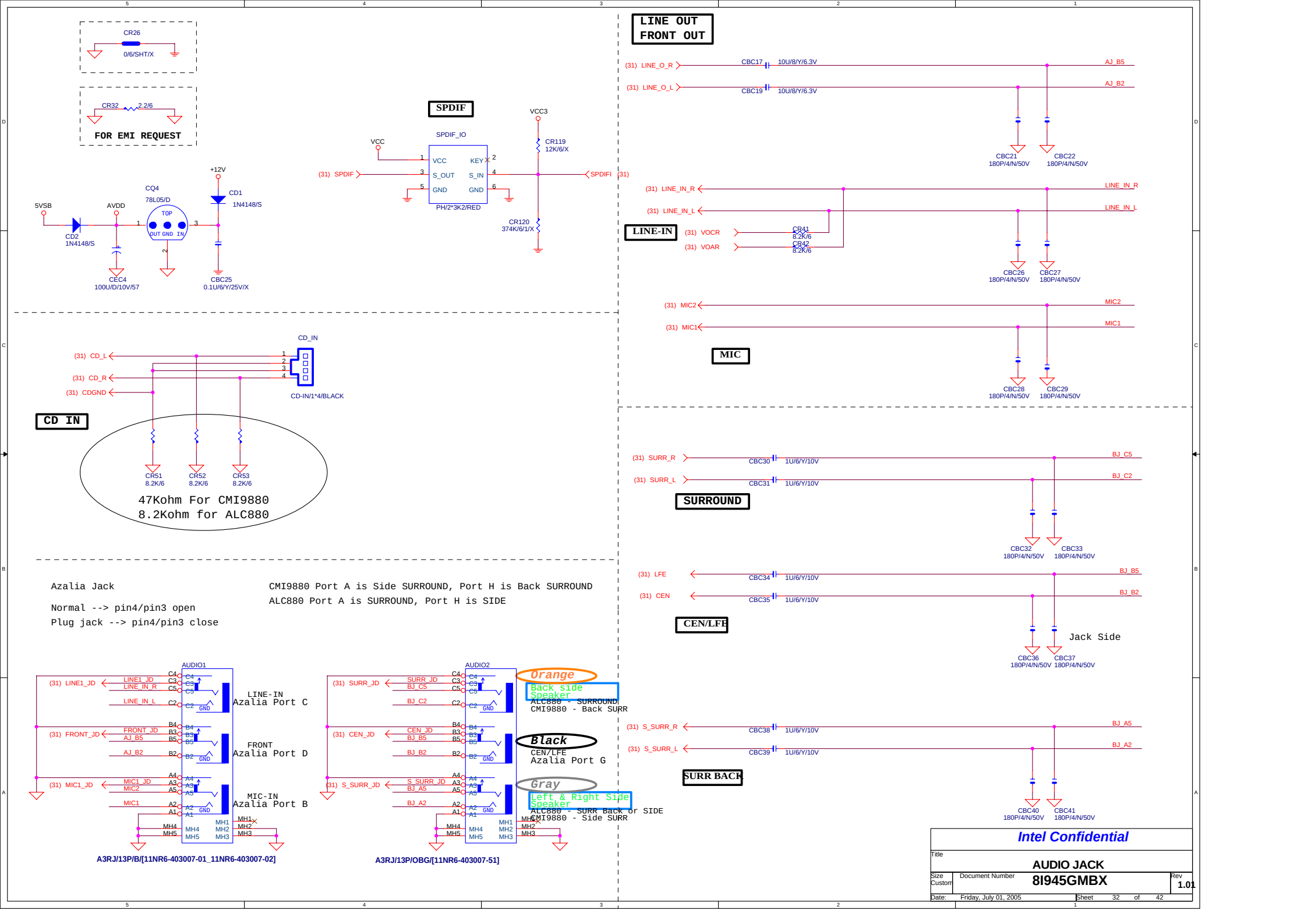
CR26
0/6/SHT/X
CR32
2.2/6
FOR EMI REQUEST
+12V
CQ4
78L05/D
5VSB
AVDD
CD2
1N4148/S
CD1
1N4148/S
CEC4
100U/D/10V/57
CBC25
0.1U/6/Y/25V/X
SPDIF
SPDIF_IO
VCC
VCC3
(31) SPDIF
S_OUT
S_IN
KEY
GND
PH/2*3K2/RED
CR119
12K/6/X
CR120
374K/6/1/X
SPDIFI (31)
LINE OUT
FRONT OUT
(31) LINE_O_R
(31) LINE_O_L
CBC17
CBC19
10U/8/Y/6.3V
AJ_B5
AJ_B2
CBC21
CBC22
180P/4/N/50V
LINE-IN
(31) LINE_IN_R
(31) LINE_IN_L
(31) VOCR
(31) VOAR
CR41
CR42
8.2K/6
LINE_IN_R
LINE_IN_L
CBC26
CBC27
MIC
(31) MIC2
(31) MIC1
MIC2
MIC1
CBC28
CBC29
CD_IN
(31) CD_L
(31) CD_R
(31) CDGND
CD-IN/1*4/BLACK
CR51
CR52
CR53
8.2K/6
47Kohm For CMI9880
8.2Kohm for ALC880
SURROUND
(31) SURR_R
(31) SURR_L
CBC30
CBC31
1U/6/Y/10V
BJ_C5
BJ_C2
CBC32
CBC33
180P/4/N/50V
CEN/LFE
(31) LFE
(31) CEN
CBC34
CBC35
BJ_B5
BJ_B2
Jack Side
CBC36
CBC37
SURR BACK
(31) S_SURR_R
(31) S_SURR_L
CBC38
CBC39
BJ_A5
BJ_A2
CBC40
CBC41
Azalia Jack
Normal --> pin4/pin3 open
Plug jack --> pin4/pin3 close
CMI9880 Port A is Side SURROUND, Port H is Back SURROUND
ALC880 Port A is SURROUND, Port H is SIDE
AUDIO1
(31) LINE1_JD
(31) FRONT_JD
(31) MIC1_JD
LINE1_JD
LINE_IN_R
LINE_IN_L
FRONT_JD
AJ_B5
AJ_B2
MIC1_JD
MIC2
MIC1
GND
LINE-IN
Azalia Port C
FRONT
Azalia Port D
MIC-IN
Azalia Port B
MH1
MH2
MH3
MH4
MH5
A3RJ/13P/B/[11NR6-403007-01_11NR6-403007-02]
AUDIO2
(31) SURR_JD
(31) CEN_JD
(31) S_SURR_JD
SURR_JD
BJ_C5
BJ_C2
CEN_JD
BJ_B5
BJ_B2
S_SURR_JD
BJ_A5
BJ_A2
Orange
Back side
Speaker
ALC880 - SURROUND
CMI9880 - Back SURR
Black
CEN/LFE
Azalia Port G
Gray
Left & Right Side
Speaker
ALC880 - SURR Back or SIDE
CMI9880 - Side SURR
A3RJ/13P/OBG/[11NR6-403007-51]
Intel Confidential
Title
AUDIO JACK
Size
Custom
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1.01
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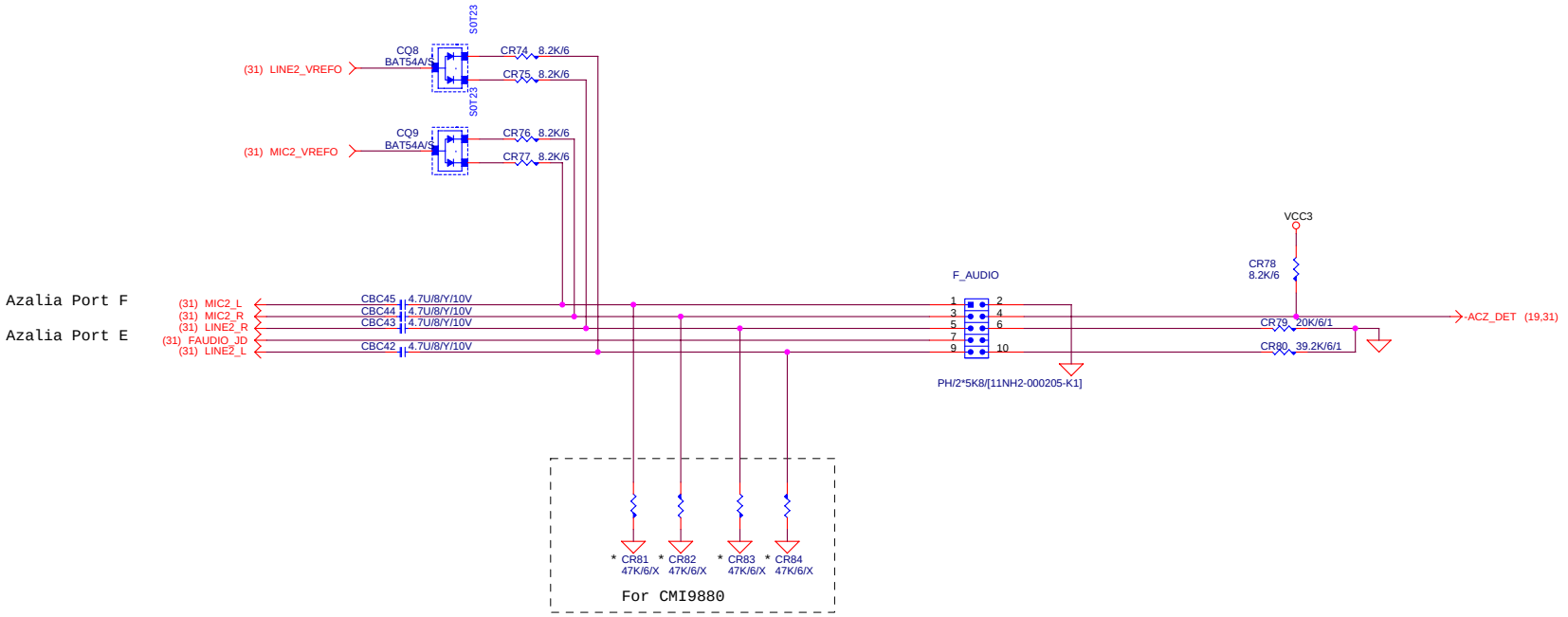

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Title	FRONT AUDIO CONNECTOR	
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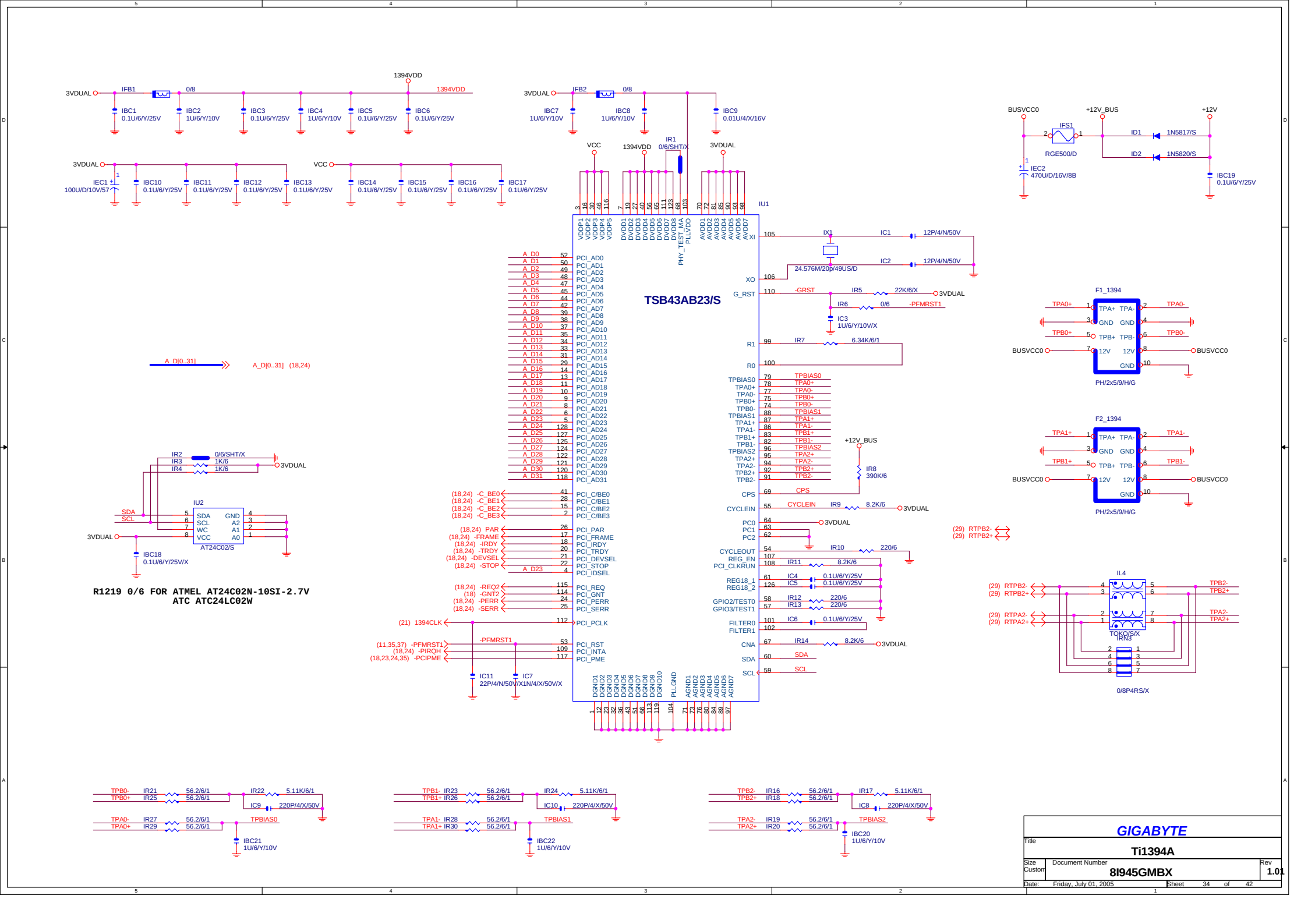

GIGABYTE

Title	Ti1394A	
Size: Custom	Document Number: 8I945GMBX	Rev: 1.01
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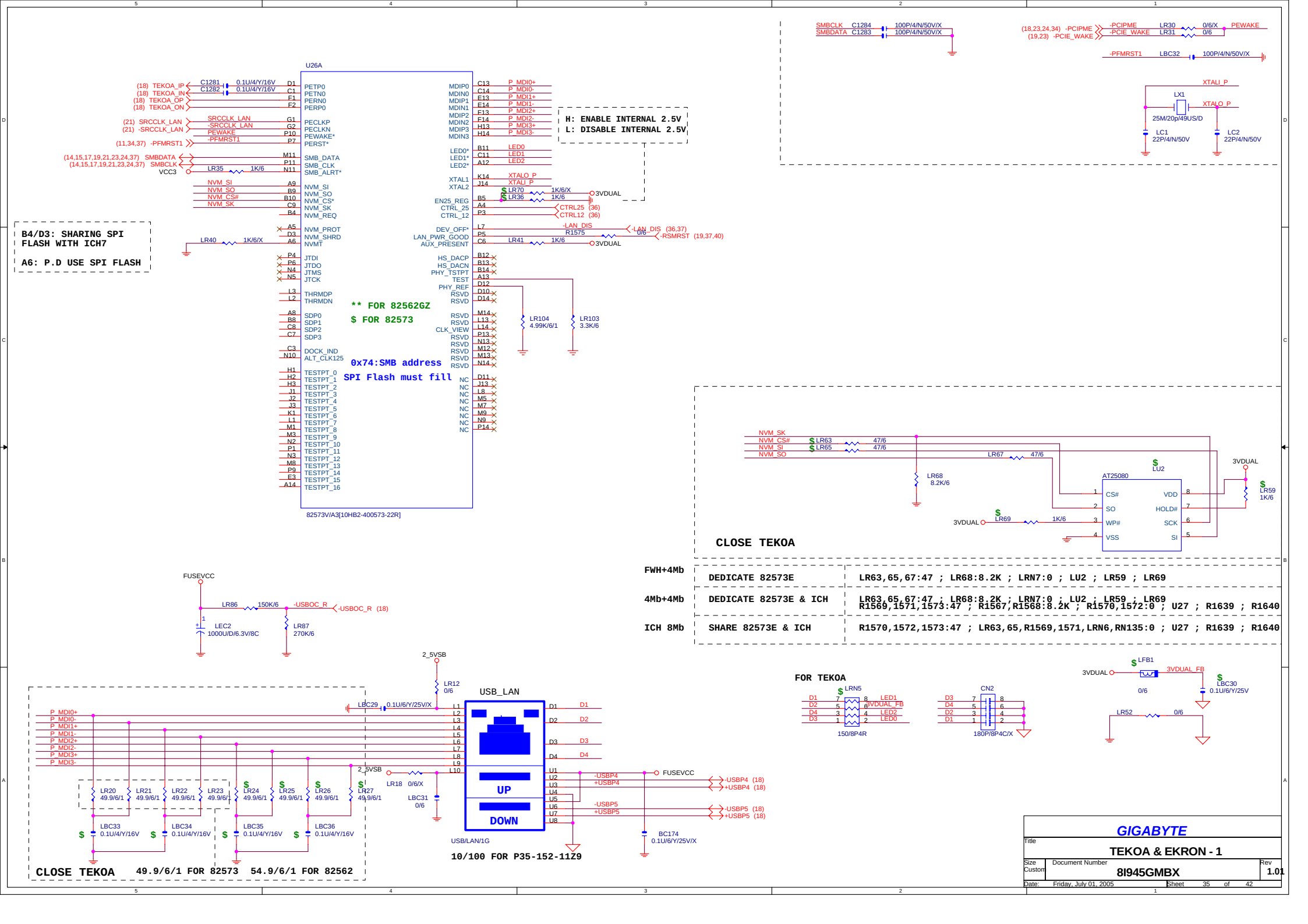
U26A
B4/D3: SHARING SPI FLASH WITH ICH7
A6: P.D USE SPI FLASH
** FOR 82562GZ
$ FOR 82573
0x74:SMB address
SPI Flash must fill
H: ENABLE INTERNAL 2.5V
L: DISABLE INTERNAL 2.5V
82573V/A3[10HB2-400573-22R]
CLOSE TEKOA
FWH+4Mb
DEDICATE 82573E
LR63,65,67:47 ; LR68:8.2K ; LRN7:0 ; LU2 ; LR59 ; LR69
4Mb+4Mb
DEDICATE 82573E & ICH
LR63,65,67:47 ; LR68:8.2K ; LRN7:0 ; LU2 ; LR59 ; LR69
R1569,1571,1573:47 ; R1567,R1568:8.2K ; R1570,1572:0 ; U27 ; R1639 ; R1640
ICH 8Mb
SHARE 82573E & ICH
R1570,1572,1573:47 ; LR63,65,R1569,1571,LRN6,RN135:0 ; U27 ; R1639 ; R1640
FOR TEKOA
USB_LAN
UP
DOWN
USB/LAN/1G
10/100 FOR P35-152-11Z9
CLOSE TEKOA 49.9/6/1 FOR 82573 54.9/6/1 FOR 82562
GIGABYTE
TEKOA & EKRON - 1
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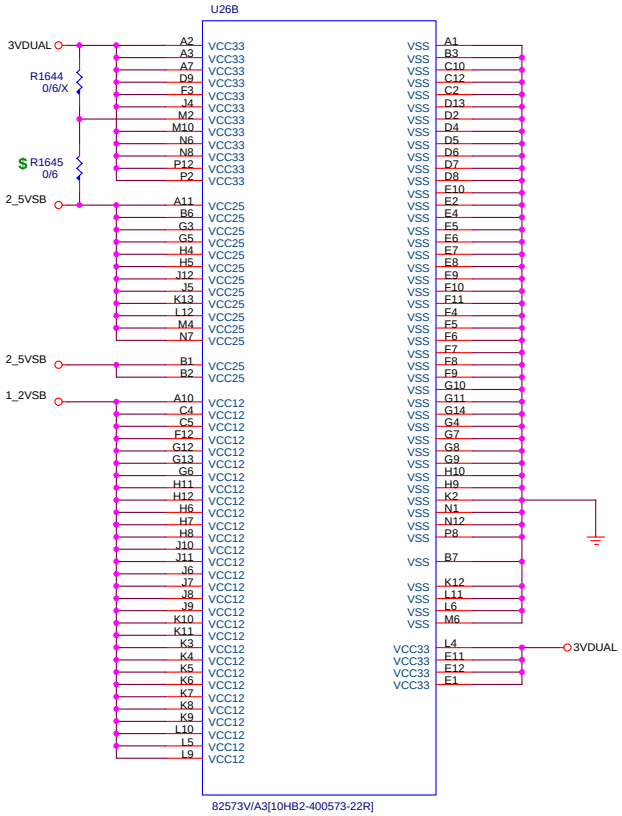

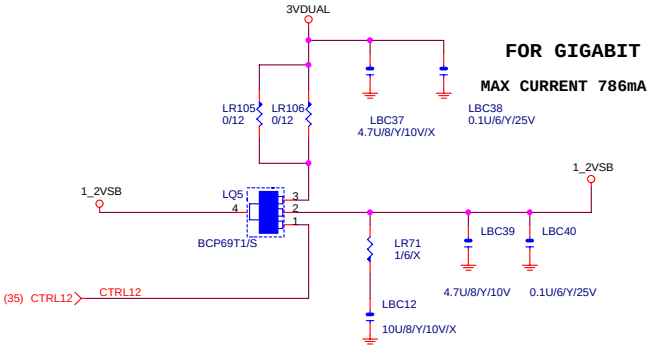

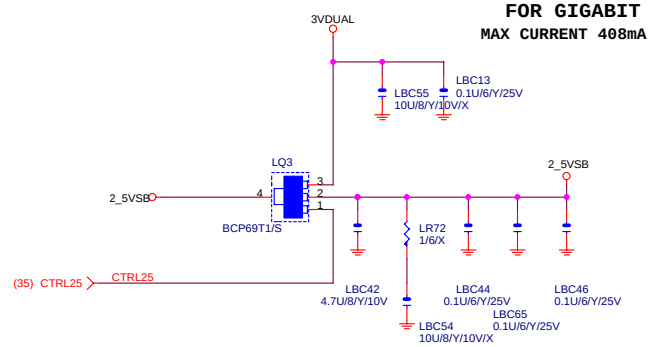

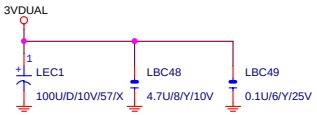

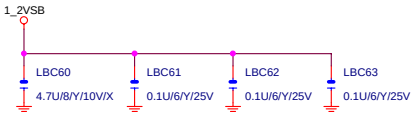

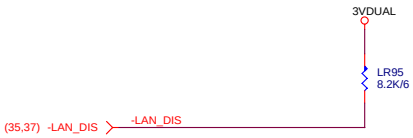

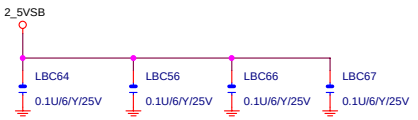

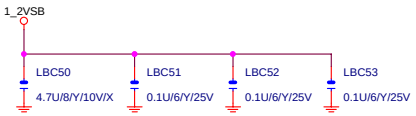

GIGABYTE

Title	TEKOA & EKRON - 2	
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RTS2- ==LOW CPU FAN 50%
==HIGH 100%

Default 50%

U16

IT8712 GB-IX/S/[10HP2-118712-53]

Case Open Circuits

1.2V or 3.3V tolerance select.
1.2V OUTPUT 接 VTT_GMCH
3.3V OUTPUT 接3.3V
LPCPD#=VIDVCC

SOUT2		
	1	VID pins threshold voltage select: Vih / Vil : 2.0 / 0.8V
	0	VID pins threshold voltage select: Vih / Vil : 0.8 / 0.4V

有問題

有問題

GIGABYTE TECHNOLOGIES , INC.

Title: ITE 8712 LPC IO

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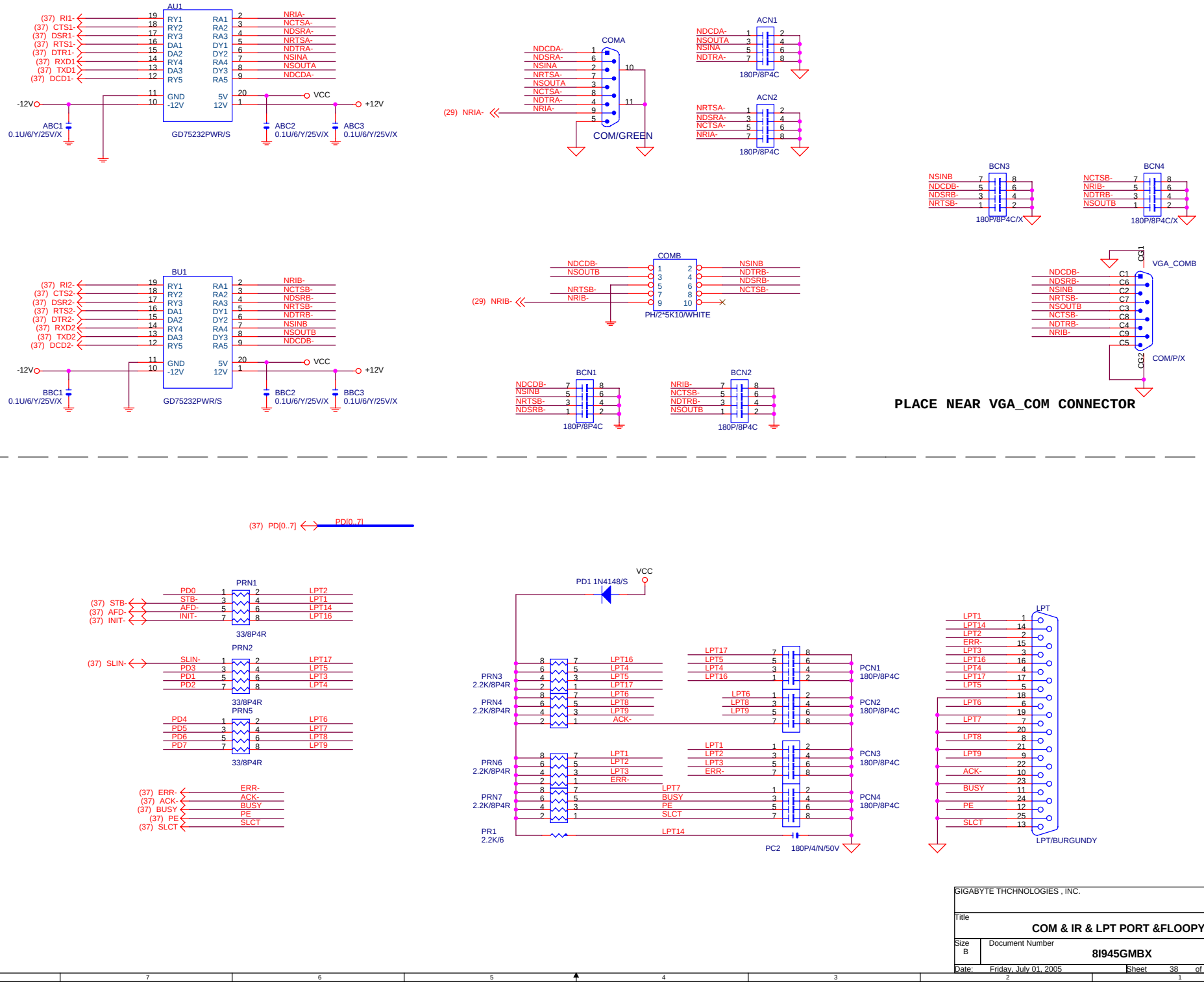

GIGABYTE THCHNOLOGIES , INC.		
Title: COM & IR & LPT PORT &FLOOPY		
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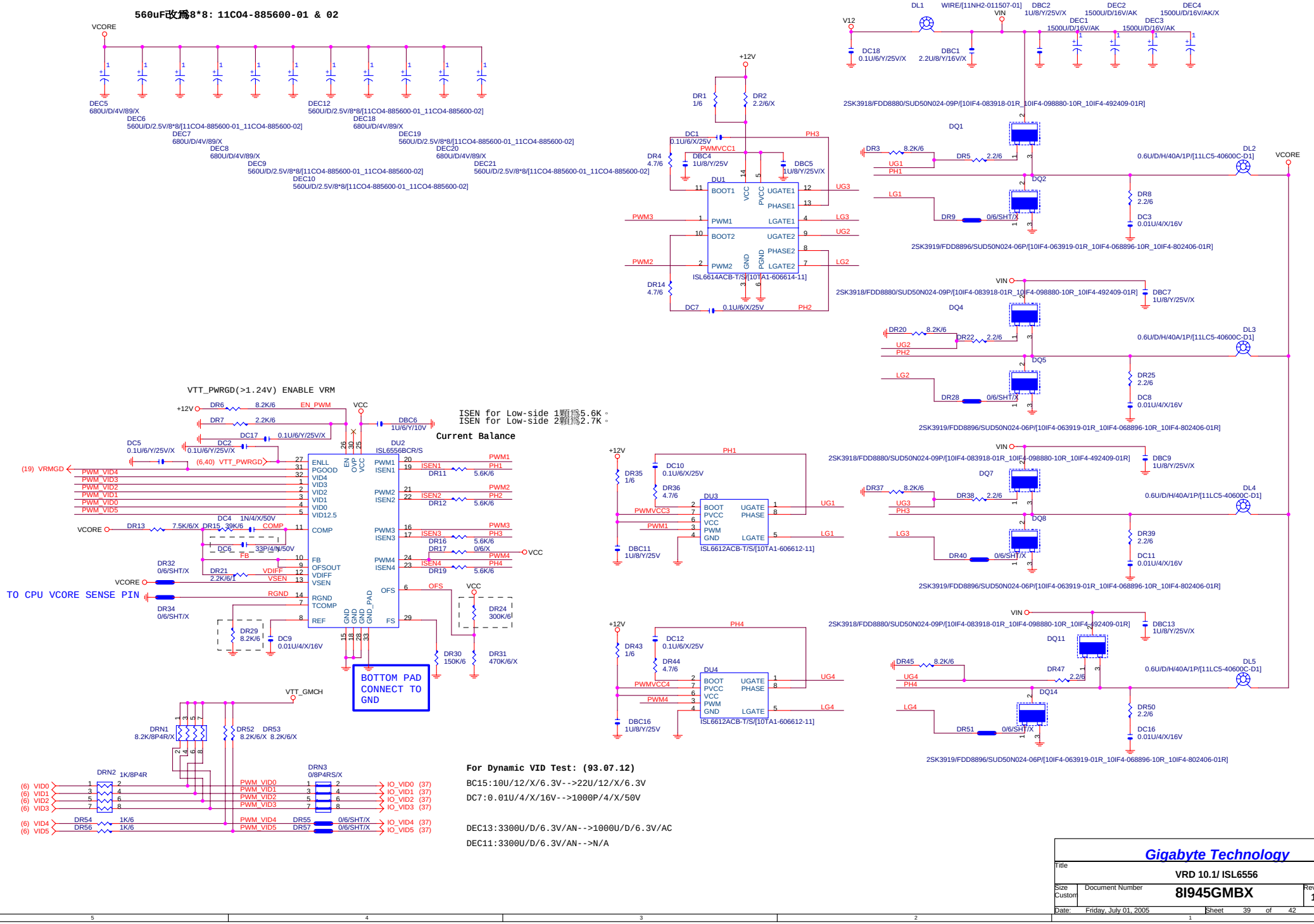
560uF改爲8*8: 11CO4-885600-01 & 02
VCORE
DEC5 680U/D/4V/89/X
DEC6 560U/D/2.5V/8*8/[11CO4-885600-01_11CO4-885600-02]
DEC7 680U/D/4V/89/X
DEC8 680U/D/4V/89/X
DEC9 560U/D/2.5V/8*8/[11CO4-885600-01_11CO4-885600-02]
DEC10 560U/D/2.5V/8*8/[11CO4-885600-01_11CO4-885600-02]
DEC12 560U/D/2.5V/8*8/[11CO4-885600-01_11CO4-885600-02]
DEC18 680U/D/4V/89/X
DEC19 560U/D/2.5V/8*8/[11CO4-885600-01_11CO4-885600-02]
DEC20 680U/D/4V/89/X
DEC21 560U/D/2.5V/8*8/[11CO4-885600-01_11CO4-885600-02]
+12V
DR1 1/6
DR2 2.2/6/X
DC1 0.1U/6/X/25V
PH3
DR4 4.7/6
DBC4 1U/8/Y/25V
DBC5 1U/8/Y/25V/X
DU1
BOOT1
UGATE1
UG3
PHASE1
PWM3
PWM1
LGATE1
LG3
BOOT2
UGATE2
UG2
PHASE2
PWM2
PGND
LGATE2
LG2
ISL6614ACB-T/S/[10TA1-606614-11]
DR14 4.7/6
DC7 0.1U/6/X/25V
PH2
V12
DL1 WIRE/[11NH2-011507-01]
VIN
DBC2 1U/8/Y/25V/X
DEC2 1500U/D/16V/AK
DEC1 1500U/D/16V/AK
DEC2 1500U/D/16V/AK
DEC3 1500U/D/16V/AK
DEC4 1500U/D/16V/AK/X
DC18 0.1U/6/Y/25V/X
DBC1 2.2U/8/Y/16V/X
2SK3918/FDD8880/SUD50N024-09P/[10IF4-083918-01R_10IF4-098880-10R_10IF4-492409-01R]
DQ1
DR3 8.2K/6
DR5 2.2/6
UG1
PH1
LG1
DR9 0/6/SHT/X
DQ2
DR8 2.2/6
DC3 0.01U/4/X/16V
DL2 0.6U/D/H/40A/1P/[11LC5-40600C-D1]
VCORE
2SK3919/FDD8896/SUD50N024-06P/[10IF4-063919-01R_10IF4-068896-10R_10IF4-802406-01R]
DBC7 1U/8/Y/25V/X
DQ4
DR20 8.2K/6
DR22 2.2/6
UG2
PH2
LG2
DR28 0/6/SHT/X
DQ5
DR25 2.2/6
DC8 0.01U/4/X/16V
DL3 0.6U/D/H/40A/1P/[11LC5-40600C-D1]
DBC9 1U/8/Y/25V/X
DQ7
DR37 8.2K/6
DR38 2.2/6
UG3
PH3
LG3
DR40 0/6/SHT/X
DQ8
DR39 2.2/6
DC11 0.01U/4/X/16V
DL4 0.6U/D/H/40A/1P/[11LC5-40600C-D1]
DBC13 1U/8/Y/25V/X
DQ11
DR45 8.2K/6
DR47 2.2/6
UG4
PH4
LG4
DR51 0/6/SHT/X
DQ14
DR50 2.2/6
DC16 0.01U/4/X/16V
DL5 0.6U/D/H/40A/1P/[11LC5-40600C-D1]
VTT_PWRGD(>1.24V) ENABLE VRM
+12V
DR6 8.2K/6
EN_PWM
VCC
DR7 2.2K/6
DBC6 1U/6/Y/10V
DC17 0.1U/6/Y/25V/X
DC5 0.1U/6/Y/25V/X
DC2 0.1U/6/Y/25V/X
DU2 ISL6556BCR/S
(19) VRMGD
(6,40) VTT_PWRGD
ENLL
PGOOD
VID4
VID3
VID2
VID1
VID0
VID12.5
PWM_VID4
PWM_VID3
PWM_VID2
PWM_VID1
PWM_VID0
PWM_VID5
EN
OVP
VCC
PWM1
ISEN1
DR11 5.6K/6
PWM2
ISEN2
DR12 5.6K/6
PWM3
ISEN3
DR16 5.6K/6
PWM4
ISEN4
DR19 5.6K/6
ISEN for Low-side 1顆爲5.6K。
ISEN for Low-side 2顆爲2.7K。
Current Balance
DR13 7.5K/6/X
DR15 39K/6
COMP
DC4 1N/4/X/50V
DC6 33P/4/N/50V
FB
DR32 0/6/SHT/X
DR21 2.2K/6/1
VDIFF
VSEN
VCORE
TO CPU VCORE SENSE PIN
RGND
TCOMP
DR34 0/6/SHT/X
REF
DR29 8.2K/6
DC9 0.01U/4/X/16V
OFS
FS
GND
GND_PAD
DR24 300K/6
DR30 150K/6
DR31 470K/6/X
BOTTOM PAD CONNECT TO GND
VTT_GMCH
DRN1 8.2K/8P4R/X
DR52 8.2K/6/X
DR53 8.2K/6/X
DRN2 1K/8P4R
DRN3 0/8P4RS/X
(6) VID0
(6) VID1
(6) VID2
(6) VID3
(6) VID4
(6) VID5
DR54 1K/6
DR56 1K/6
DR55 0/6/SHT/X
DR57 0/6/SHT/X
IO_VID0 (37)
IO_VID1 (37)
IO_VID2 (37)
IO_VID3 (37)
IO_VID4 (37)
IO_VID5 (37)
DU3
DR35 1/6
DR36 4.7/6
PWMVCC3
DBC11 1U/8/Y/25V
ISL6612ACB-T/S/[10TA1-606612-11]
DU4
DR43 1/6
DR44 4.7/6
PWMVCC4
DBC16 1U/8/Y/25V
For Dynamic VID Test: (93.07.12)
BC15:10U/12/X/6.3V-->22U/12/X/6.3V
DC7:0.01U/4/X/16V-->1000P/4/X/50V
DEC13:3300U/D/6.3V/AN-->1000U/D/6.3V/AC
DEC11:3300U/D/6.3V/AN-->N/A
Gigabyte Technology
Title
VRD 10.1/ ISL6556
Size Custom
Document Number
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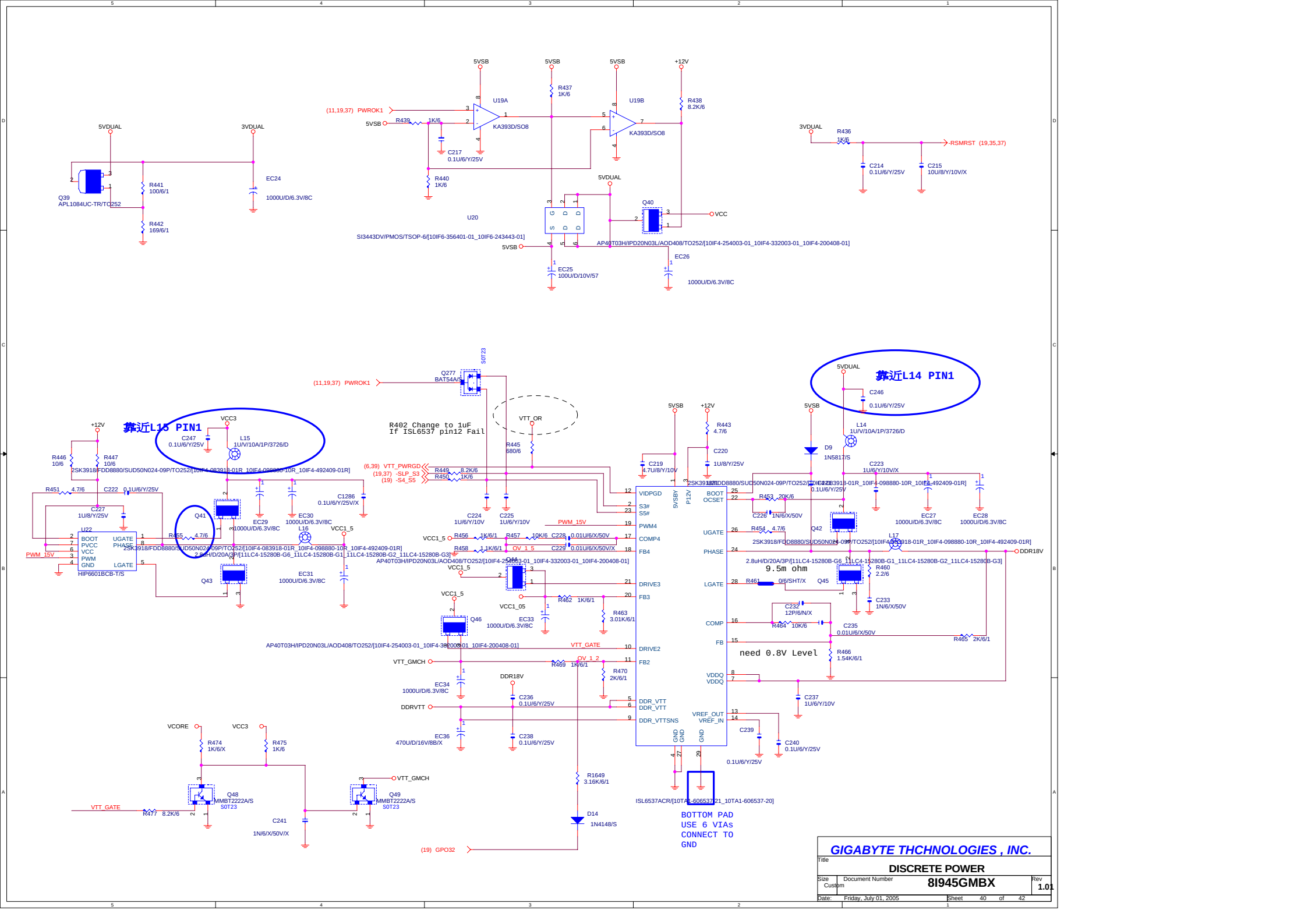

GIGABYTE THCHNOLOGIES , INC.

Title	DISCRETE POWER	
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INTEL ICH7 GPIO Implementation

紅字表示CPI/O 同PIN

GPI PIN

Pin Name	Pin Type	Power Well			GPIO Application
GPIO[0]	I/O	VCC3	GPI/BM_BUSY#	(NA)	(NA)
GPIO[1]	I/O	VCC	-REQ[5]	(P.U VCC)	-REQ[5]
GPIO[5:2]	I/OD	VCC	-PIRQ[H:E]	(P.U VCC)	-PIRQ[H:E]
GPIO[6]	I/O	VCC3	GPI	(NA)	M_ID0 FOR MEDIA
GPIO[7]	I/O	VCC3	GPI	(NA)	DUALBIOS_INPUT
GPIO[8]	I/O	3VDUAL	GPI	(P.U 3VDUAL)	-SKTOCC
GPIO[9]	I/O	3VDUAL	GPI	(NA)	P66DET
GPIO[10]	I/O	3VDUAL	GPI	(NA)	M_ID1 FOR MB_ID
GPIO[11]	I/O	3VDUAL	-SMBALERT	(P.U 3VDUAL)	-SMBALRT
GPIO[12]	I/O	3VDUAL	GPI	(NA)	M_ID2 FOR MB_ID
GPIO[13]	I/O	3VDUAL	GPI	(P.U 3VDUAL)	-LPCPME
GPIO[14]	I/O	3VDUAL	GPI	(NA)	M_ID3 FOR MB_ID
GPIO[15]	I/O	3VDUAL	GPI	(NA)	-ACZ_DET
GPIO[16]	I/O	VCC3	GPO	P.D 20K(INT.)	HW RESET
GPIO[17]	I/O	VCC3	GPO/-GNT[5]	(NA)	GPO/-GNT[5]
GPIO[18]	I/O	VCC3	GPO/toggle	(NA)	(NA)
GPIO[19]	I/O	VCC3	SATA1GP	(P.U VCC3)	SATA1GP
GPIO[20]	I/O	VCC3	GPO	(P.U VCC3)	TBL-
GPIO[21]	I/O	VCC3	SATA0GP	(P.U VCC3)	SATA0GP
GPIO[22]	I/O	VCC3	-REQ[4]	(P.U VCC)	-REQ[4]
GPIO[23]	I/O	VCC3	LDRQ1#	(NA)	(NA)
GPIO[24]	I/O	3VDUAL	GPO/reset not cleared	(NA)	(NA)
GPIO[25]	I/O	3VDUAL	GPO	(NA)	PWD_LED
GPIO[26]	I/O	3VDUAL	EL_RSVD	(P.D)	-SPI_WP
GPIO[27]	I/O	3VDUAL	EL_STATE0	(NA)	(NA)
GPIO[28]	I/O	3VDUAL	EL_STATE1	(NA)	(NA)
GPIO[29]	I/O	3VDUAL	OC5#	(P.U VCC 分壓)	OC5#
GPIO[30]	I/O	3VDUAL	OC6#	(P.U VCC 分壓)	OC6#
GPIO[31]	I/O	3VDUAL	OC7#	(P.U VCC 分壓)	OC7#
GPIO[32]	I/O	VCC3	GPO	(NA)	DUAL_BIOS
GPIO[33]	I/O	VCC3	GPO	(NA)	DUAL_BIOS
GPIO[34]	I/O	VCC3	GPO	(P.U VCC3)	FWP-
GPIO[35]	I/O	VCC3	SATACLKREQ#	(NA)	(NA)
GPIO[36]	I	VCC3	SATA2GP	(P.U VCC3)	SATA2GP
GPIO[37]	I	VCC3	SATA3GP	(P.U VCC3)	SATA3GP

GPO PIN

Pin Name	Pin Number	Power Well	Pin Type		GPIO Application
GPIO[38]	I/O	VCC3	GPI	(NA)	(NA)
GPIO[39]	I/O	VCC3	GPI	(NA)	(NA)
GPIO[40:47]		NOT IMPLEMENTED		NOT IMPLEMENTED	
GPIO[48]	I/O	VCC3	-GNT[4]	(NA)	-GNT[4]
GPIO[49]	I/O	VTT_GMCH	CPUPWRGD	(P.U VTT_OL)	CPUPWROK
PCI1	PCLK0	-PCIRST	-REQ0/-GNT0	-PIRQE	A_D16
PCI2	PCLK1	-PCIRST	-REQ1/-GNT1	-PIRQD	A_D17
PCI3	PCLK2	-PCIRST	-REQ2/-GNT2	-PIRQC	A_D18
1394b	1394CLK	-PFMRST2	-REQ3/-GNT3	-PIRQH	A_D23
IT8212	RAIDCLK	-PFMRST2	-REQ4/-GNT4	-PIRQG	A_D22

GIGABYTE

Title: GPIO TABLE

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ICH6 GPIO Table:

NAME	PWR LANE	USAGE	NAME	PWR LANE	USAGE
GPI0	V5REF	M/B ID (-REQ6)	GPI41	VCC3	M/B ID
GPI1	V5REF	-REQ5	GPO48	VCC3	-GNT4
GPI2	V5REF	-PIRQE	GPO49	V-CPUIO	CPUPWOK
GPI3	V5REF	-PIRQF			
GPI4	V5REF	-PIRQG			
GPI5	V5REF	-PIRQH			
GPI6	VCC3	-SLP_BTN			
GPI7	VCC3	DUAL BIOS			
GPI8	3VDAUL	-LANWAKE			
GPI9	3VDAUL	-USBOC4			
GPI10	3VDAUL	-USBOC5			
GPI11	3VDAUL	-SMBALT			
GPI12	VCC3	ATX_DET			
GPI13	3VDAUL	-LPCPME			
GPI14	3VDAUL	-USBOC6			
GPI15	3VDAUL	-USBOC7			
GPO16	VCC3	CPU OV1 (-GNT6)			
GPO17	VCC3	-GNT5			
GPO18	VCC3	CPU OV2			
GPO19	VCC3	DUAL BIOS			
GPO20	VCC3	BIOS T-BLOCK			
GPO21	VCC3	DUAL BIOS			
GPO23	VCC3	DDR OV0			
GPIO24	3VDAUL	GREEN LED			
GPIO25	3VDAUL	DDR OV1			
GPI26	VCC3	SATA_GP0			
GPIO27	3VDAUL	+PWRLED			
GPIO28	3VDAUL	-PWRLED			
GPI29	VCC3	SATA GP1			
GPI30	VCC3	SATA GP2			
GPI31	VCC3	SATA GP3			
GPIO32	VCC3	BIOS WP			
GPIO33	VCC3	AZALIA DET			
GPIO34	VCC3	PWRLED			
GPI40	V5REF	-REQ4			

PWROK/RESET Table:

ITE8712BHX PIN	NET NAME	TARGET
PIN62/-PCIRST1	-PCIE_RST	1. PCI-E * 1 Slot1 2. PCI-E * 1 Slot2 3. PCI-E * 1 Slot3 4. PCI-E * 16 Slot
PIN64/-PCIRST2	-PFMRST2	1. Onboard PCI Lan 2. Onboard 1394 Chip 3. OnBoard FWH
PIN65/-PCIRST3	-PFMRST1	1. Onboard PCI-E Lan 2. Onboard SATA Chip 3. GMCH
PIN115/-PCIRST4	-PFMRST_ -IDERST	Reserved For IDE
PIN63/PWROK1	PWROK1	1. GMCH 2. ICH6 3. 5VDUAL SWITCH 4. DPS CONTROL
PIN109/PWROK2	-THERM	1. ICH6

GIGABYTE THCHNOLOGIES , INC.

Title: GPIO/RESET TABLE

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