

Model Name: GA-8I945EF-RH *Revision 1.0*

SHEET TITLE

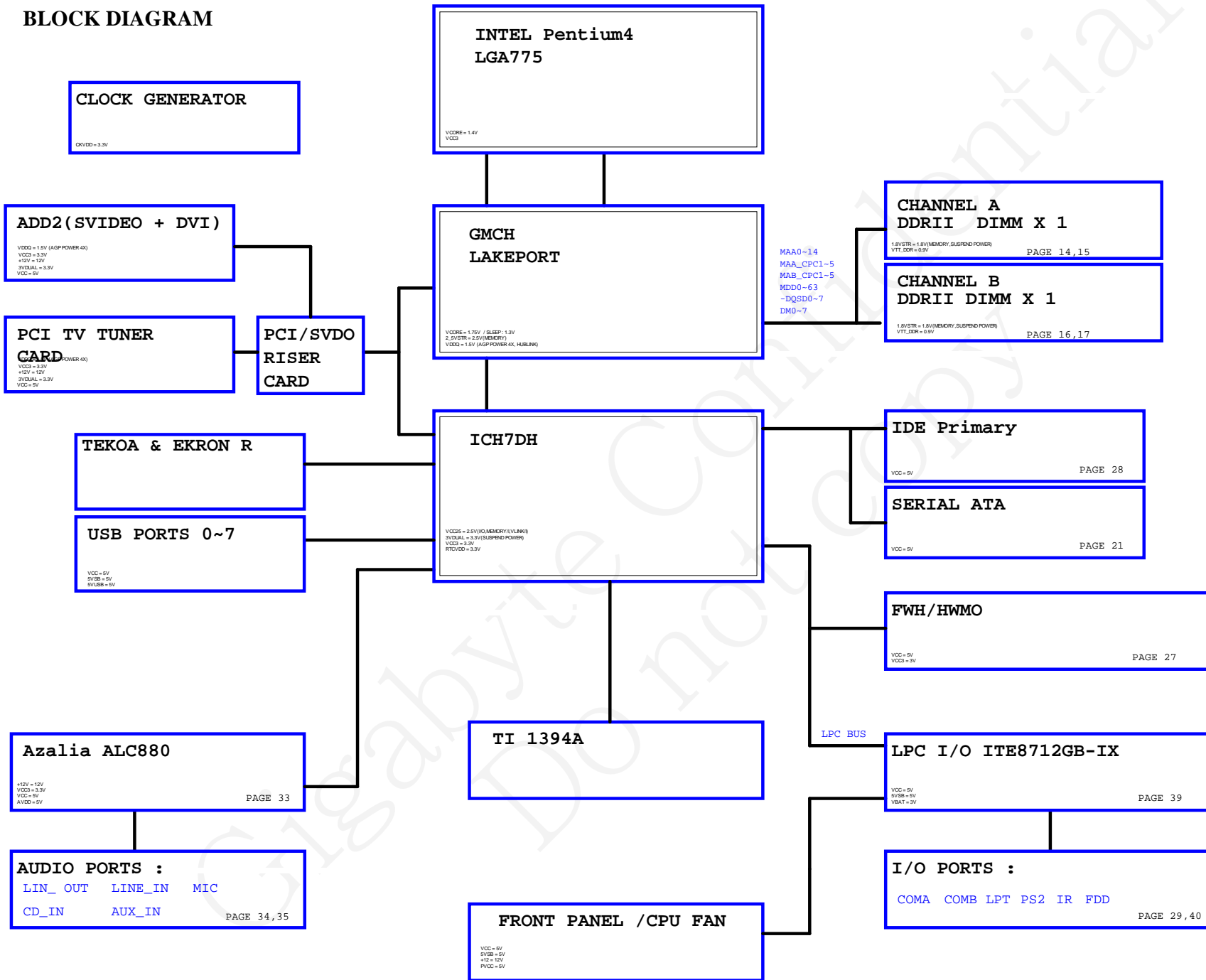
SHEET TITLE

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
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	CY28411 CKG
22	ATX,ATX_12V CONNECT,FWH BIOS
23	PCI EXPRESS*1 SLOT
24	PCI SLOT 1,2
25	H/W MONITOR,FAN
26	IDE
27	KB_PS2

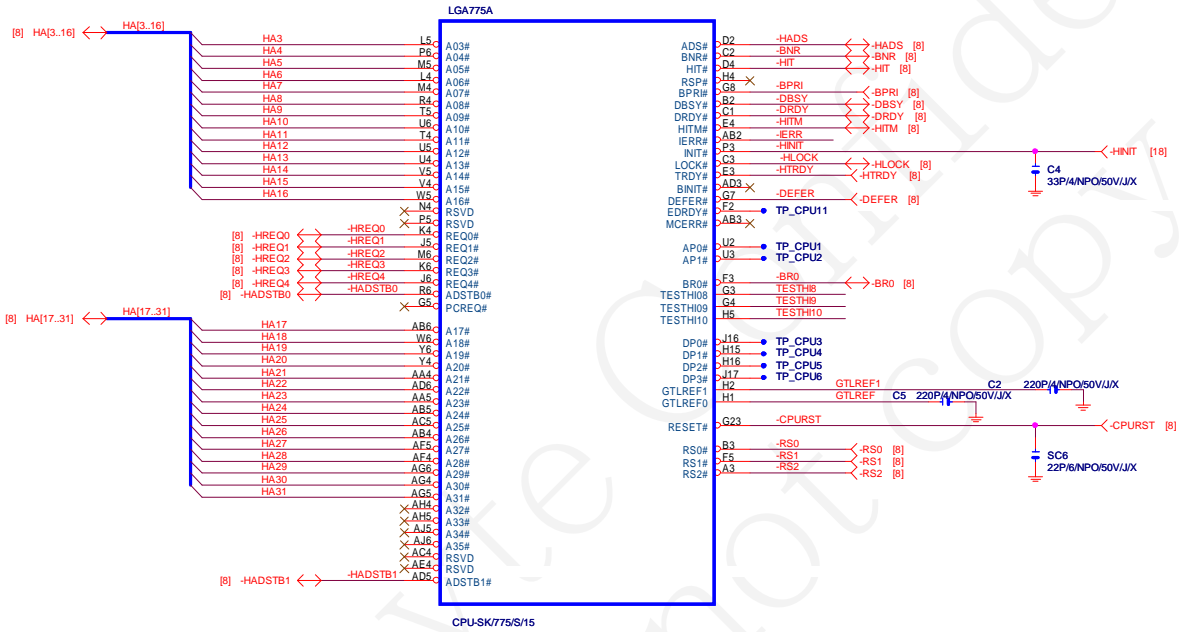
28	FRONT PANEL
29	FRONT USB,REAL USB CONNECT
30	PROCESSOR HOT
31	AZALIA CODEC ALC880
32	AUDIO JACK 1
33	AUDIO JACK 2
34	TI1394A
35	TEKOA & EKRON R
36	TEKOA & EKRON R
37	ITE 8712GB
38	COM_LPT
39	VCORE PWM
40	DISCRETE POWER
41	GPIO DEFINE
42	GPIO DEFINE

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Title Cover Sheet			
Size	Document Number	GA-8I945EF-RH	Rev
Custom			1.0
Date:	Wednesday, February 08, 2006	Sheet	1 of 38

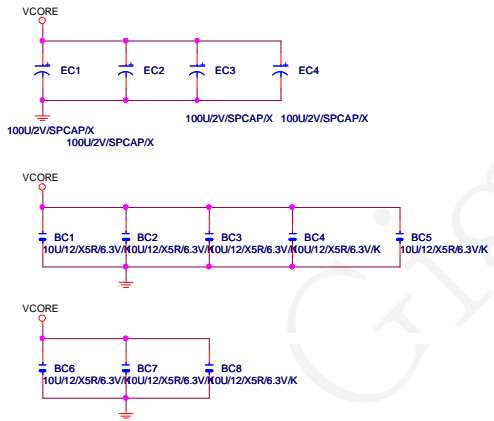
BLOCK DIAGRAM



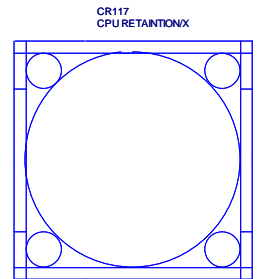
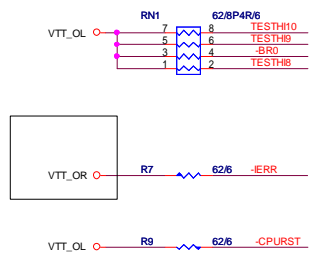
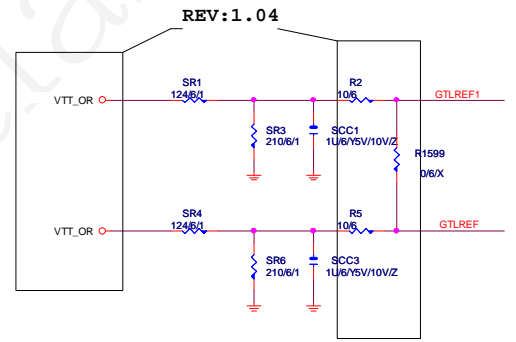
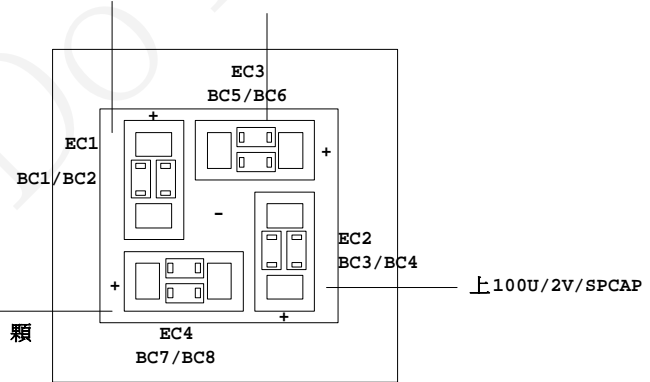
Intel Confidential			
BOM & PCB MODIFY HISTORY			
File	Document Number	Rev	1.0
Path	GA-81945EF-RH		
Date	Wednesday, February 09, 2006	Sheet	2 of 31



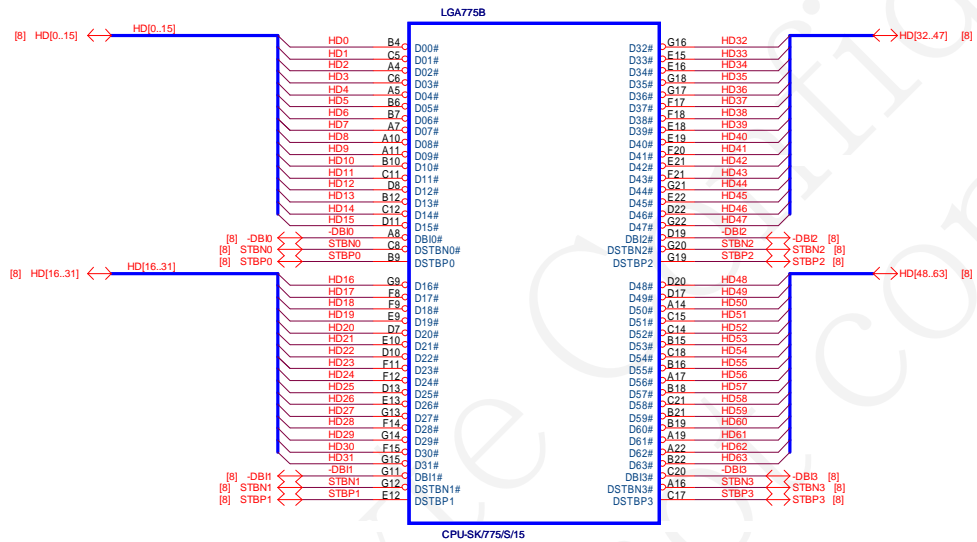
SP-CAP X 4PCS



上100U/2V/SPCAP 上10U/12/X/6.3V X2 顆

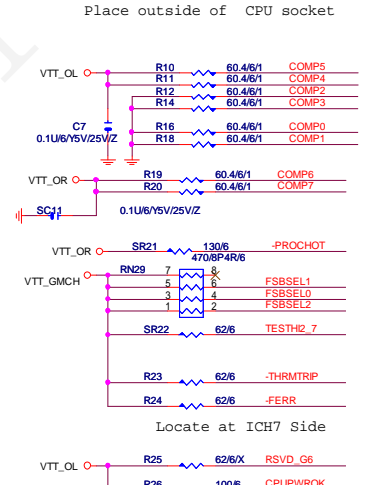
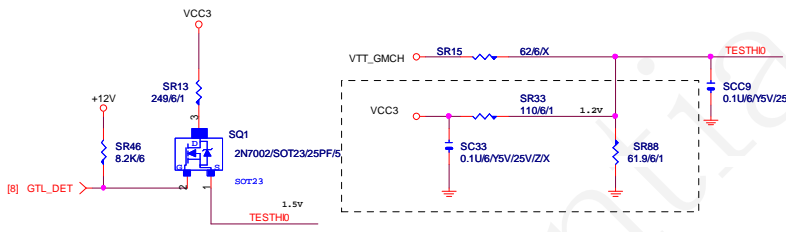
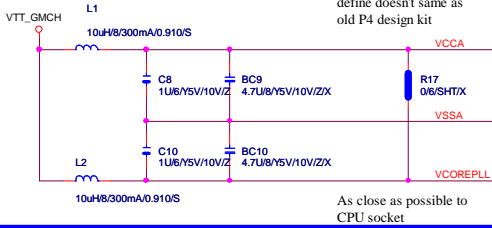


Intel Confidential		
Title P4_LGA775-A		
Size Custom	Document Number GA-8I945EF-RH	Rev 1.0
Date: Wednesday, February 08, 2006	Sheet 4	of 38



Intel Confidential		
P4_LGA775-C		
Size Custom	Document Number	Rev
	GA-8I945EF-RH	1.0
Date:	Wednesday, February 08, 2006	Sheet 5 of 38

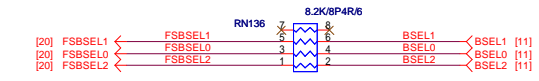
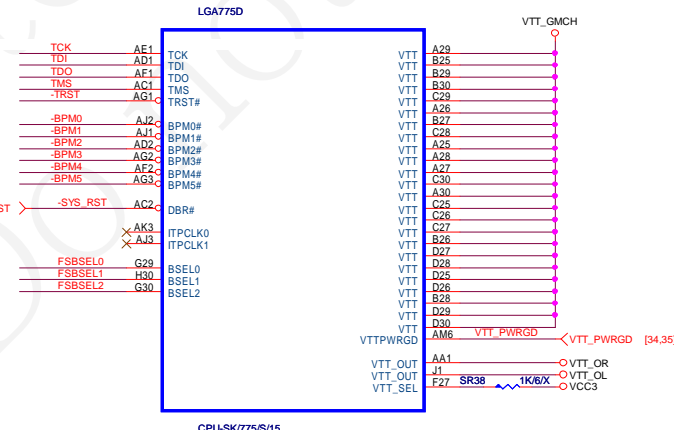
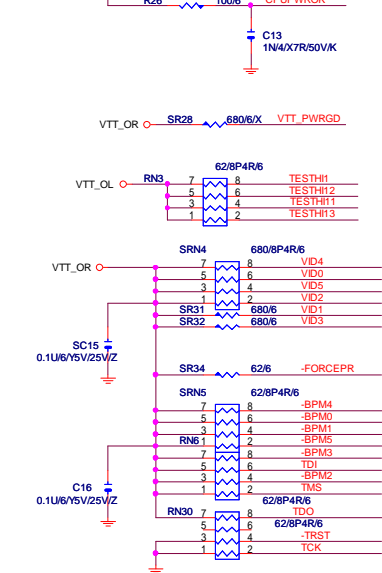
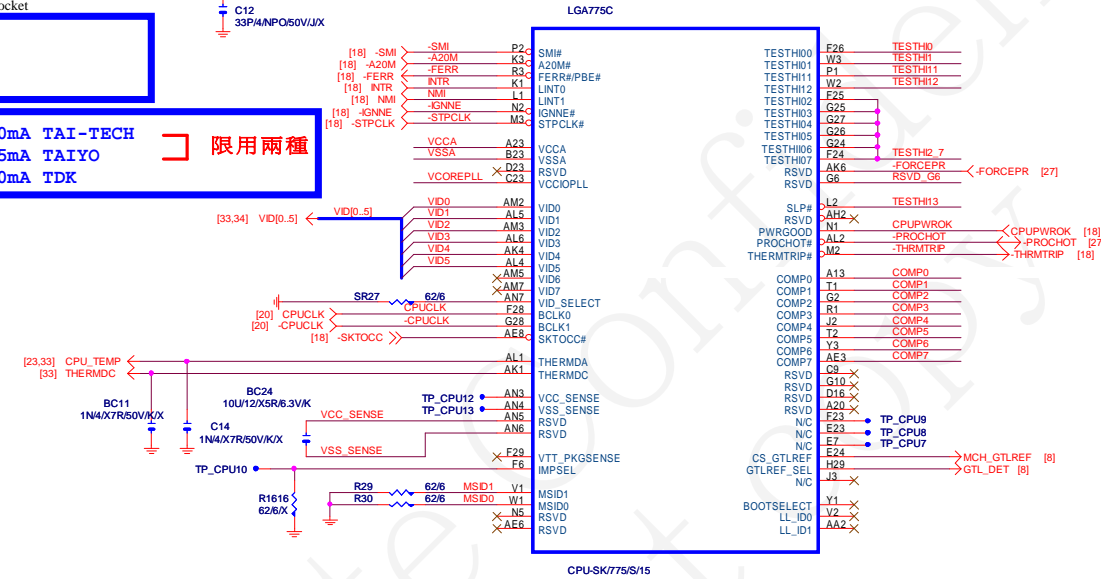
Note: VCCA & VCOREPLL define doesn't same as old P4 design kit



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

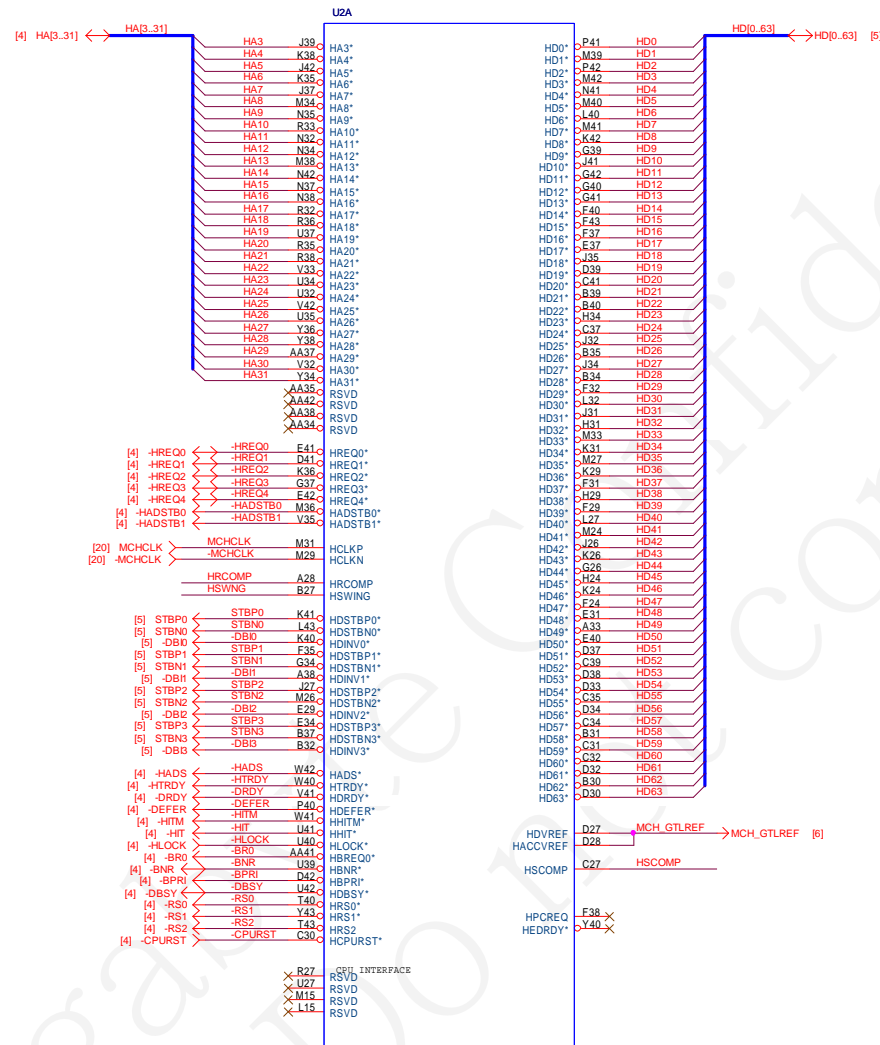
10LI2-12100A-03=INDUCTOR 10uH 300mA TAI-TECH
10LI2-12100A-02=INDUCTOR 10uH 155mA TAIYO
10LI2-12100A-01=INDUCTOR 10uH 120mA TDK

限用兩種

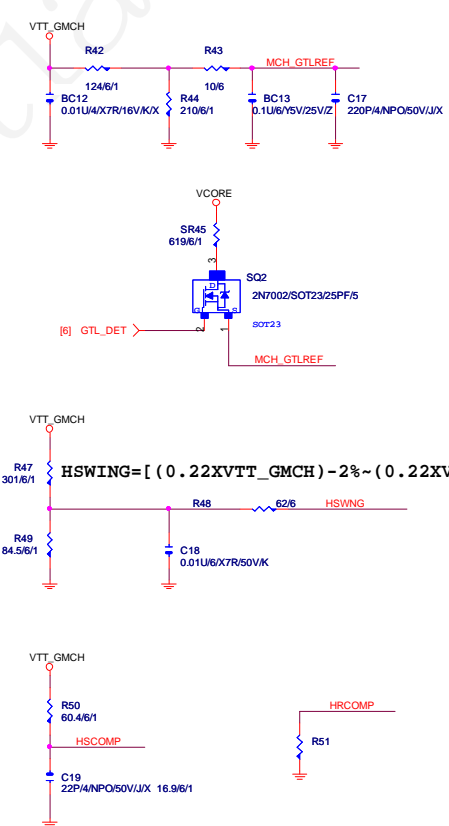


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Title		
P4_LGA775-B		
Size	Document Number	Rev
Custom	GA-81945EF-RH	1.0
Date:	Wednesday, February 08, 2006	Sheet 6 of 38



LAKEPORT 945G/A2(10HB1-033000-21) 10HB1-033000-11-REV:A.1
 10HB1-033000-21-REV:A.2 FOR ACER



Intel Confidential		
GMCH-HOST		
Title	Document Number	Rev
Size Custom	GA-8I945EF-RH	1.0
Date:	Wednesday, February 08, 2006	Sheet 8 of 38

MODT_A[0..1] ↔ MODT_A[0..1] [14,15]

MODT_B[0..1] ↔ MODT_B[0..1] [14,15]

UZF

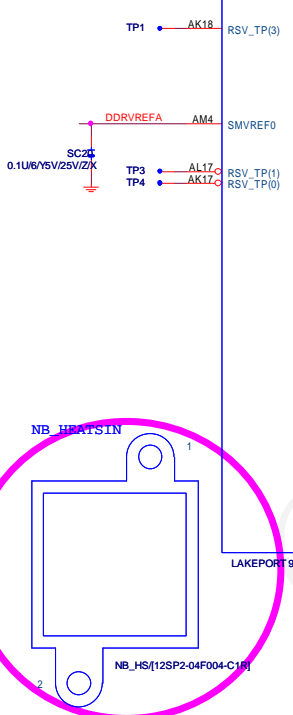
MAAA0	BA32	SAMA0
MAAA1	AW32	SAMA1
MAAA2	BB30	SAMA2
MAAA3	BA30	SAMA3
MAAA4	AY30	SAMA4
MAAA5	BA27	SAMA5
MAAA6	BC28	SAMA6
MAAA7	AY27	SAMA7
MAAA8	AY28	SAMA8
MAAA9	BB27	SAMA9
MAAA10	AY33	SAMA10
MAAA11	AW27	SAMA11
MAAA12	BB26	SAMA12
MAAA13	BC38	SAMA13
[14,15] -SWEA	-SCASA	BA32
[14,15] -SCASA	-SRASA	BA34
[14,15] -SRASA		
[14,15] SBAA0	SBAA1	RC33
[14,15] SBAA1	SBAA2	AY34
[14,15] SBAA2	SBAA3	BA26
[14,15] SBAA3	CSA0	BB37
[14,15] -CSA0	-CSA1	BA39
[14,15] -CSA1		
	BA35	SACS_1*
	AY38	SACS_2*
		SACS_3*
[14,15] CKEA0	CKEA1	BB25
[14,15] CKEA1		
	AY25	SACKE0
	BC24	SACKE1
	BA25	SACKE2
		SACKE3
MODT_A0	AW37	SADOT0
MODT_A1	AY39	SADOT1
	AY37	SADOT2
	BB40	SADOT3
[14] DCLKA0	DCLKA0	BB32
[14] -DCLKA0	-DCLKA0	AY32
[14] DCLKA1	-DCLKA1	AY5
[14] -DCLKA1	DCLKA2	AK42
[14] DCLKA2	-DCLKA2	AK41
[14] -DCLKA2		
	BA31	SACK3
	BB31	SACK2*
	AY6	SACK3*
	BA5	SACK4
	BA5	SACK4*
	AH40	SACK5
	AH43	SACK5*

AU4	DQSA0	SADQ0
AR2	-DQSA0	SADQ0*
AP3	DMA0	SADQ1
AP2	MDA0	SADQ2
AU3	MDA2	SADQ3
MDA3		SADQ4
AN1	MDA4	SADQ5
AP4	MDA5	SADQ6
AU5	MDA6	SADQ7
AU2	MDA7	SADQ8
BA3	DQSA1	SADQ9
BB4	-DQSA1	SADQ10
AY2	DMA1	SADQ11
AW3	MDA8	SADQ12
AY3	MDA9	SADQ13
BA7	MDA10	SADQ14
MDA11		SADQ15
AY11	MDA12	SADQ16
AW4	MDA13	SADQ17
MDA14		SADQ18
AY7	MDA15	SADQ19
AY11	DQSA2	SADQ20
BA10	-DQSA2	SADQ21
BB10	MDA16	SADQ22
AW12	MDA17	SADQ23
AY10	MDA18	SADQ24
BB12	MDA19	SADQ25
BA9	MDA20	SADQ26
BB9	MDA21	SADQ27
BC11	MDA22	SADQ28
AY12	MDA23	SADQ29
AU18	DQSA3	SADQ30
AR18	-DQSA3	SADQ31
AP18	DMA3	SADQ32
AM20	MDA24	SADQ33
AM18	MDA25	SADQ34
AV20	MDA26	SADQ35
AM21	MDA27	SADQ36
AP17	MDA28	SADQ37
AR17	MDA29	SADQ38
AP20	MDA30	SADQ39
AT20	MDA31	SADQ40
AU35	DQSA4	SADQ41
AV35	-DQSA4	SADQ42
AT34	DMA4	SADQ43
AP32	MDA32	SADQ44
AV34	MDA33	SADQ45
AV38	MDA34	SADQ46
AU39	MDA35	SADQ47
AV32	MDA36	SADQ48
AT32	MDA37	SADQ49
AR34	MDA38	SADQ50
AU37	MDA39	SADQ51
AP42	DQSA5	SADQ52
AP40	-DQSA5	SADQ53
AP39	DMA5	SADQ54
AR41	MDA40	SADQ55
AR42	MDA41	SADQ56
AN43	MDA42	SADQ57
AM40	MDA43	SADQ58
AU41	MDA44	SADQ59
AU42	MDA45	SADQ60
AP41	MDA46	SADQ61
AN40	MDA47	SADQ62
AG42	DQSA6	SADQ63
AG41	-DQSA6	SADQ64
AG40	DMA6	SADQ65
AL41	MDA48	SADQ66
AL42	MDA49	SADQ67
AF39	MDA50	SADQ68
AE40	MDA51	SADQ69
AM41	MDA52	SADQ70
AM42	MDA53	SADQ71
AF41	MDA54	SADQ72
AF42	MDA55	SADQ73
AC42	DQSA7	SADQ74
AC41	-DQSA7	SADQ75
AC40	DMA7	SADQ76
AD40	MDA56	SADQ77
AD43	MDA57	SADQ78
AA39	MDA58	SADQ79
AA40	MDA59	SADQ80
AE42	MDA60	SADQ81
AE41	MDA61	SADQ82
AB41	MDA62	SADQ83
AB42	MDA63	SADQ84

UZG

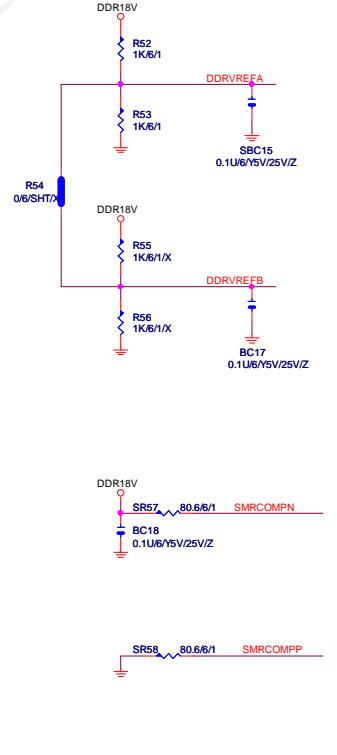
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MAAB2	BA21	SBMA2
MAAB3	AY21	SBMA3
MAAB4	BC20	SBMA4
MAAB5	AY19	SBMA5
MAAB6	AY20	SBMA6
MAAB7	BA18	SBMA7
MAAB8	BA19	SBMA8
MAAB9	BB18	SBMA9
MAAB10	BA22	SBMA10
MAAB11	BB17	SBMA11
MAAB12	BA17	SBMA12
MAAB13	AW42	SBMA13
[14,15] -SWEB	-SWEB	BB23
[14,15] -SCASB	-SCASB	AY24
[14,15] -SRASB	-SRASB	BA23
[14,15] SBAB0	SBAB0	AW23
[14,15] SBAB1	SBAB1	AY23
[14,15] SBAB2	-CSB0	BA40
[14,15] -CSB0	-CSB1	AW41
[14,15] -CSB1		
	BA41	SBCS2*
	AW40	SBCS3*
[14,15] CKEB0	CKEB0	BA14
[14,15] CKEB1	CKEB1	AY18
	BA13	SBCKE2
	BA13	SBCKE3
MODT_B0	AY42	SBDOT0
MODT_B1	AY40	SBDOT1
	AW40	SBDOT2
		SBDOT3
[14] DCLKB0	DCLKB0	AM29
[14] -DCLKB0	-DCLKB0	AM27
[14] DCLKB1	-DCLKB1	AW9
[14] -DCLKB1	DCLKB2	AL38
[14] DCLKB2	-DCLKB2	AL36
[14] -DCLKB2		
	AP28	SBCK0
	AL38	SBCK0*
	AL38	SBCK1*
	AL38	SBCK2*
	AL38	SBCK3*
	AL38	SBCK4*
	AL38	SBCK5*
	AL38	SBCK5*

AM8	DQSB0	SBDQ0
AM6	-DQSB0	SBDQ0*
AL11	DMB0	SBDQ1
AL6	MDB0	SBDQ2
AL8	MDB1	SBDQ3
AP9	MDB2	SBDQ4
AP9	MDB3	SBDQ5
AL11	MDB4	SBDQ6
AL9	MDB5	SBDQ7
AM10	MDB6	SBDQ8
AF6	MDB7	SBDQ9
AV7	DQSB1	SBDQ10
AR9	-DQSB1	SBDQ11
AW7	DMB1	SBDQ12
AU7	MDB8	SBDQ13
AV6	MDB9	SBDQ14
AV12	MDB10	SBDQ15
AM11	MDB11	SBDQ16
AR5	MDB12	SBDQ17
AR7	MDB13	SBDQ18
AR12	MDB14	SBDQ19
AR10	MDB15	SBDQ20
AV13	DQSB2	SBDQ21
AT13	-DQSB2	SBDQ22
AP13	DMB2	SBDQ23
AM15	MDB16	SBDQ24
AM13	MDB17	SBDQ25
AV15	MDB18	SBDQ26
AM17	MDB19	SBDQ27
AN12	MDB20	SBDQ28
AR13	MDB21	SBDQ29
AP15	MDB22	SBDQ30
AT15	MDB23	SBDQ31
AU23	DQSB3	SBDQ32
AR23	-DQSB3	SBDQ33
AP23	DMB3	SBDQ34
AM24	MDB24	SBDQ35
AM23	MDB25	SBDQ36
AV24	MDB26	SBDQ37
AM26	MDB27	SBDQ38
AP21	MDB28	SBDQ39
AR21	MDB29	SBDQ40
AP24	MDB30	SBDQ41
AT24	MDB31	SBDQ42
AT29	DQSB4	SBDQ43
AV29	-DQSB4	SBDQ44
AR29	DMB4	SBDQ45
AU27	MDB32	SBDQ46
AN29	MDB33	SBDQ47
AR31	MDB34	SBDQ48
AM31	MDB35	SBDQ49
AP27	MDB36	SBDQ50
AR27	MDB37	SBDQ51
AP31	MDB38	SBDQ52
AU31	MDB39	SBDQ53
AP36	DQSB5	SBDQ54
AM35	-DQSB5	SBDQ55
AR38	DMB5	SBDQ56
AP35	MDB40	SBDQ57
AP37	MDB41	SBDQ58
AN32	MDB42	SBDQ59
AL35	MDB43	SBDQ60
AR35	MDB44	SBDQ61
AU38	MDB45	SBDQ62
AM38	MDB46	SBDQ63
AM34	MDB47	SBDQ64
AG34	DQSB6	SBDQ65
AG32	-DQSB6	SBDQ66
AJ39	DMB6	SBDQ67
AL34	MDB48	SBDQ68
AJ34	MDB49	SBDQ69
AF32	MDB50	SBDQ70
AF34	MDB51	SBDQ71
AL31	MDB52	SBDQ72
AJ32	MDB53	SBDQ73
AG35	MDB54	SBDQ74
AD32	MDB55	SBDQ75
AD36	DQSB7	SBDQ76
AD38	-DQSB7	SBDQ77
AD39	DMB7	SBDQ78
AC32	MDB56	SBDQ79
AD34	MDB57	SBDQ80
Y32	MDB58	SBDQ81
AR32	MDB59	SBDQ82
AF35	MDB60	SBDQ83
AF37	MDB61	SBDQ84
AC33	MDB62	SBDQ85
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LAKEPORT 945G/A2 [10HB1-033000-22R]

LAKEPORT 945G/A2 [10HB1-033000-22R]

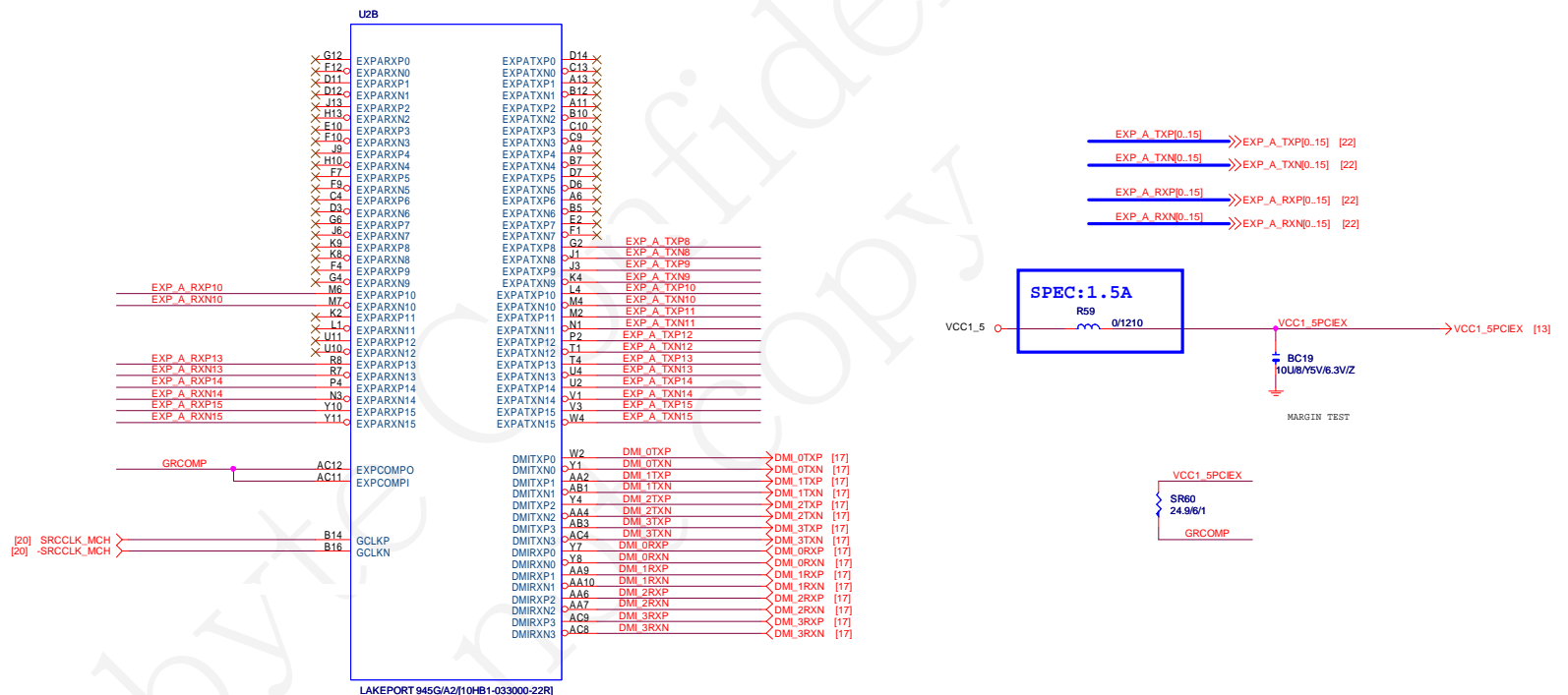


- [14] -DQSB[0..7] ↔ -DQSB[0..7]
- [14,15] MAAB[0..13] ↔ MAAB[0..13]
- [14] DMB[0..7] ↔ DMB[0..7]
- [14] MDB[0..63] ↔ MDB[0..63]
- [14] DQSB[0..7] ↔ DQSB[0..7]
- [14,15] MAAA[0..13] ↔ MAAA[0..13]
- [14] DMA[0..7] ↔ DMA[0..7]
- [14] MDA[0..63] ↔ MDA[0..63]
- [14] DQSA[0..7] ↔ DQSA[0..7]
- [14] -DQSA[0..7] ↔ -DQSA[0..7]

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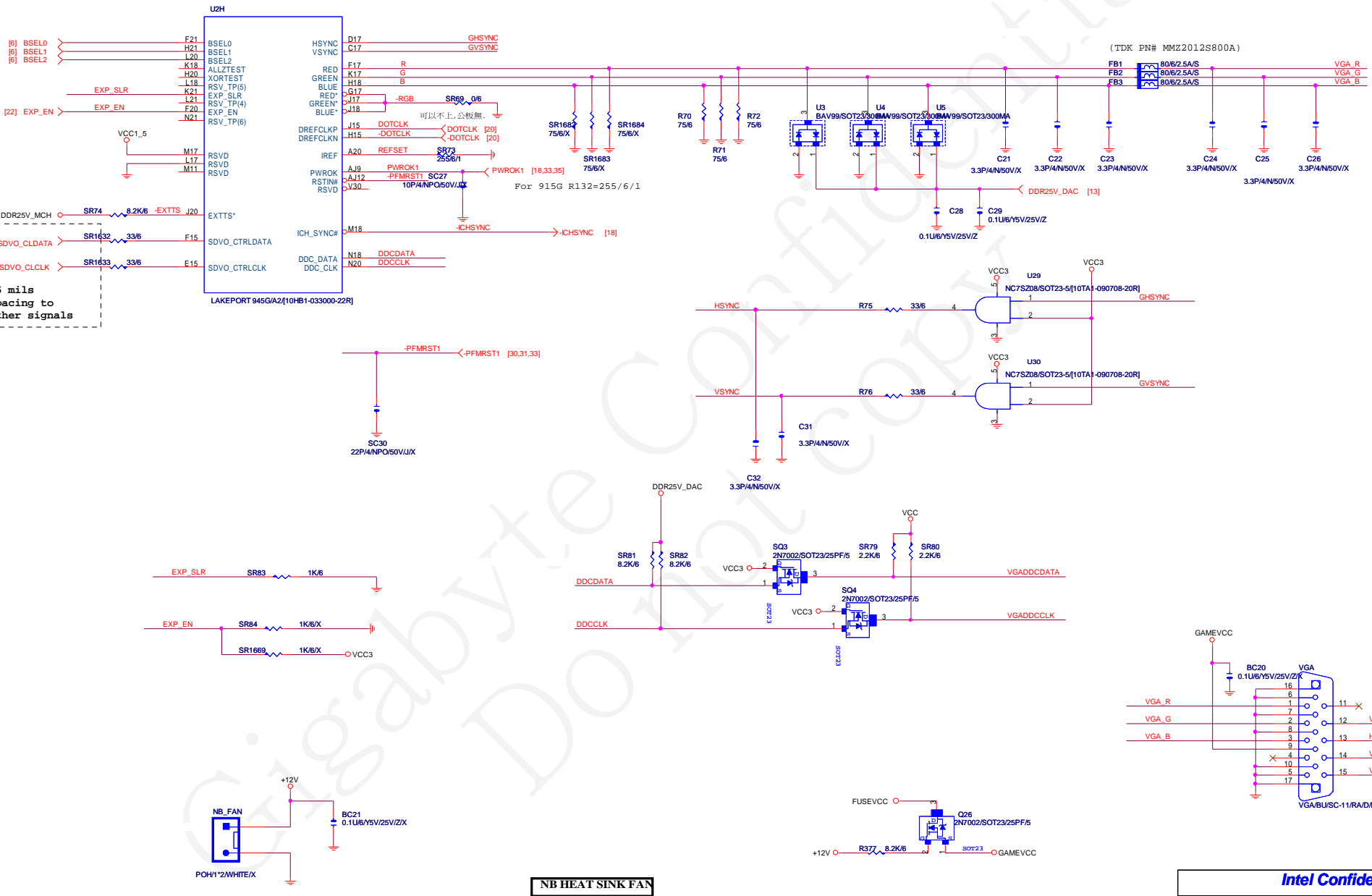
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GA-8I945EF-RH		
Size Custom	Document Number	Rev 1.0
Date: Wednesday, February 08, 2006	Sheet 9	of 38

Confidential



LAKEPORT 945G/A2(10H)B1-033000-22R

Intel Confidential			
GMCH-PCI E & DMI			
Title	GMCH-PCI E & DMI		
Size	Document Number	GA-8I945EF-RH	Rev
Custom			1.0
Date:	Wednesday, February 08, 2006	Sheet	10 of 38



NB HEAT SINK FAN

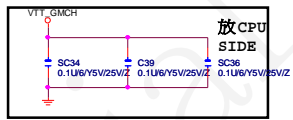
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GMCH-INTERNAL VGA			
Title	Document Number	Rev	
	GA-81945EF-RH	1.0	
Date:	Wednesday, February 08, 2006	Sheet	11 of 38

1.425-1.575V

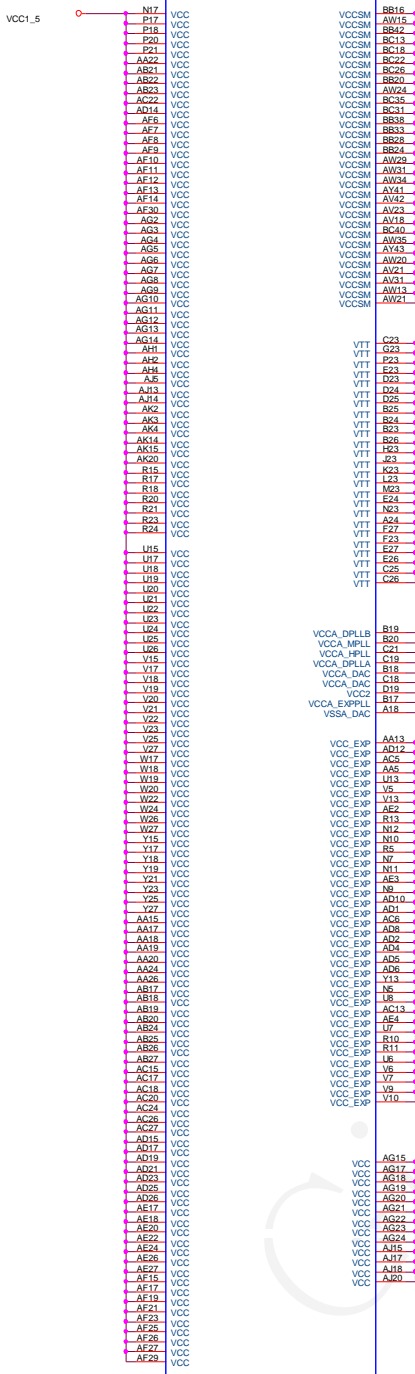
U2B

1.7-1.9V

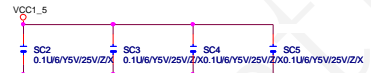
VTT_GMCH



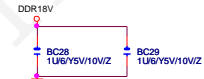
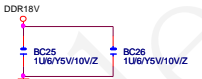
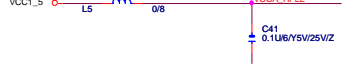
放CPU SIDE



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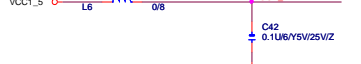


VCCA_HPLL>50mA 公板為200mA(1.425V-1.575V)

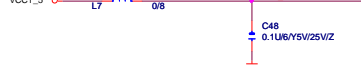


1.14-1.26V

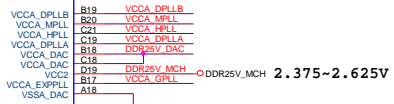
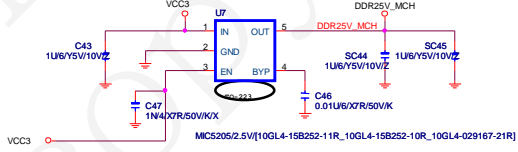
VCCA_DPLLA=65mA(1.425V-1.575V)



VCCA_DPLLB=65mA(1.425V-1.575V)

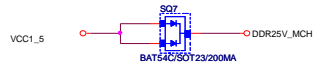
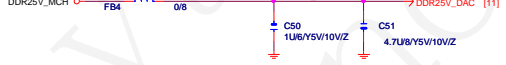


VCCA_MPLL>50mA(1.425V-1.575V)



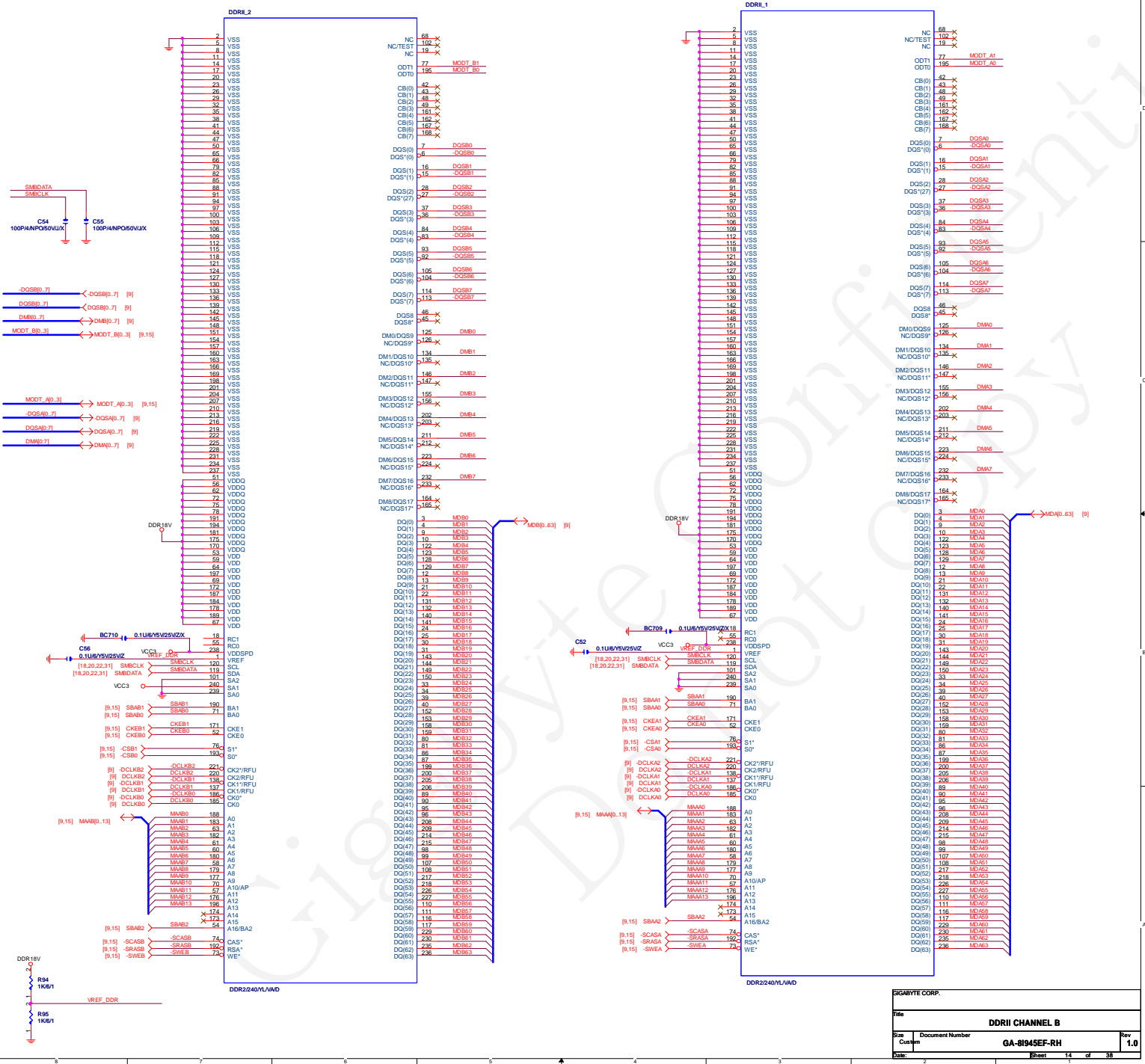
VCC1_5

VCCA_DAC=DDR25V_DAC=70mA(2.375-2.625V)



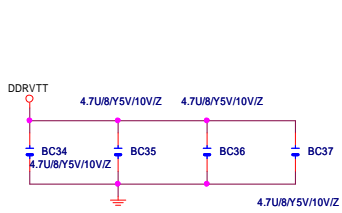
945 Design Guide rev1.5 spec.
 VCCA_EXPPLL=VCCA_GPLL=45mA(1.425V-1.575V)
 VCCA_HPLL>50mA 公板為200mA(1.425V-1.575V)
 VCCA_DPLLA=65mA(1.425V-1.575V)
 VCCA_DPLLB=65mA(1.425V-1.575V)
 VCCA_MPLL>50mA(1.425V-1.575V)
 VCCA_DAC=DDR25V_DAC=70mA(2.375-2.625V)

Intel Confidential			
File: GMCH-PWR			
Size: Custom	Document Number: GA-81945EF-RH	Rev: 1.0	
Date: Wednesday, February 06, 2006	Sheet: 13	of 38	

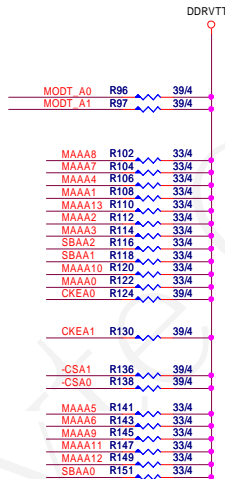
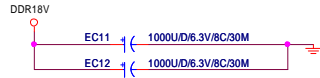


SGS/THYSE CORP.		
File: DDR2 CHANNEL B		
Sup. Cusom.	Document Number: GA-81945EF-RH	Rev: 1.0
Date:	Sheet: 14	of: 38

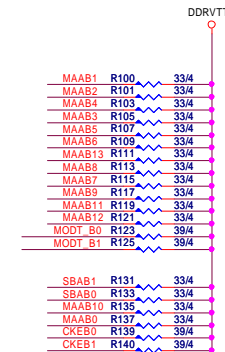
DDRVTT Decouple



DDR TERMINATION CHANNEL A



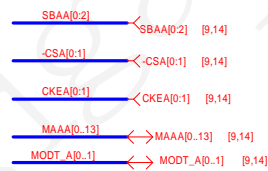
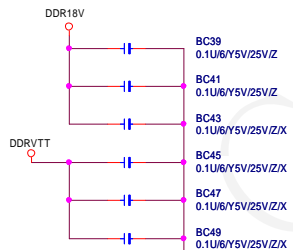
全部改成 33/6



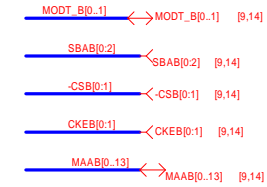
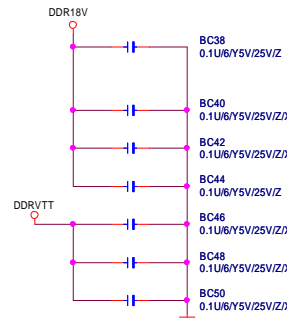
全部改成 33/6



DDR18V Decouple



DDR18V Decouple

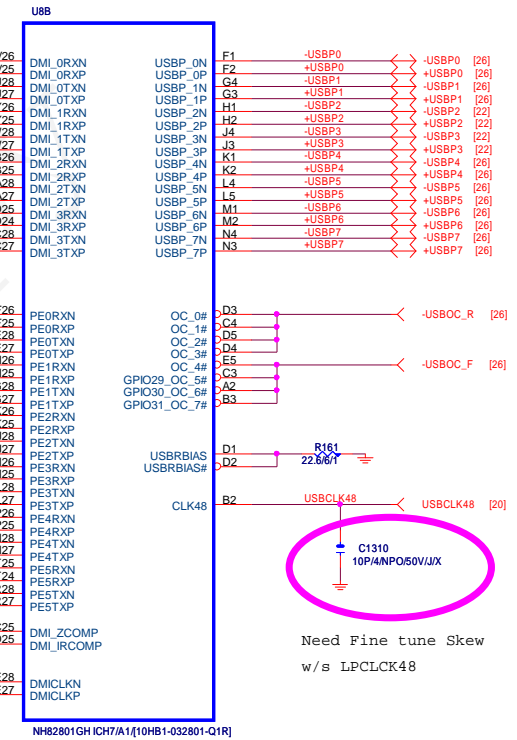
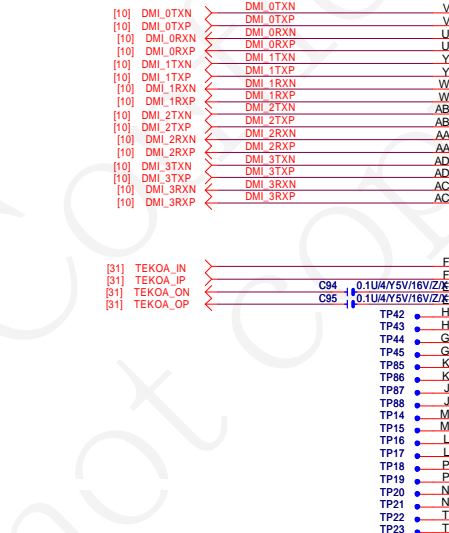
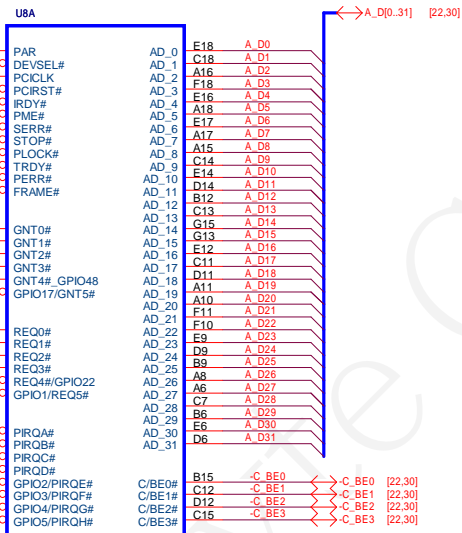
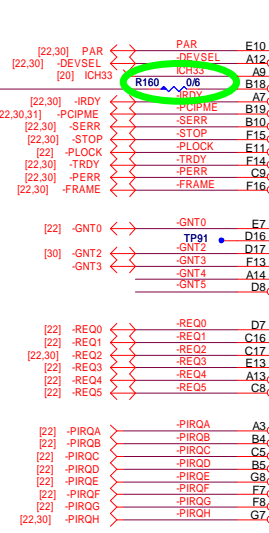
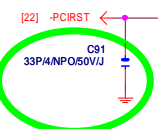
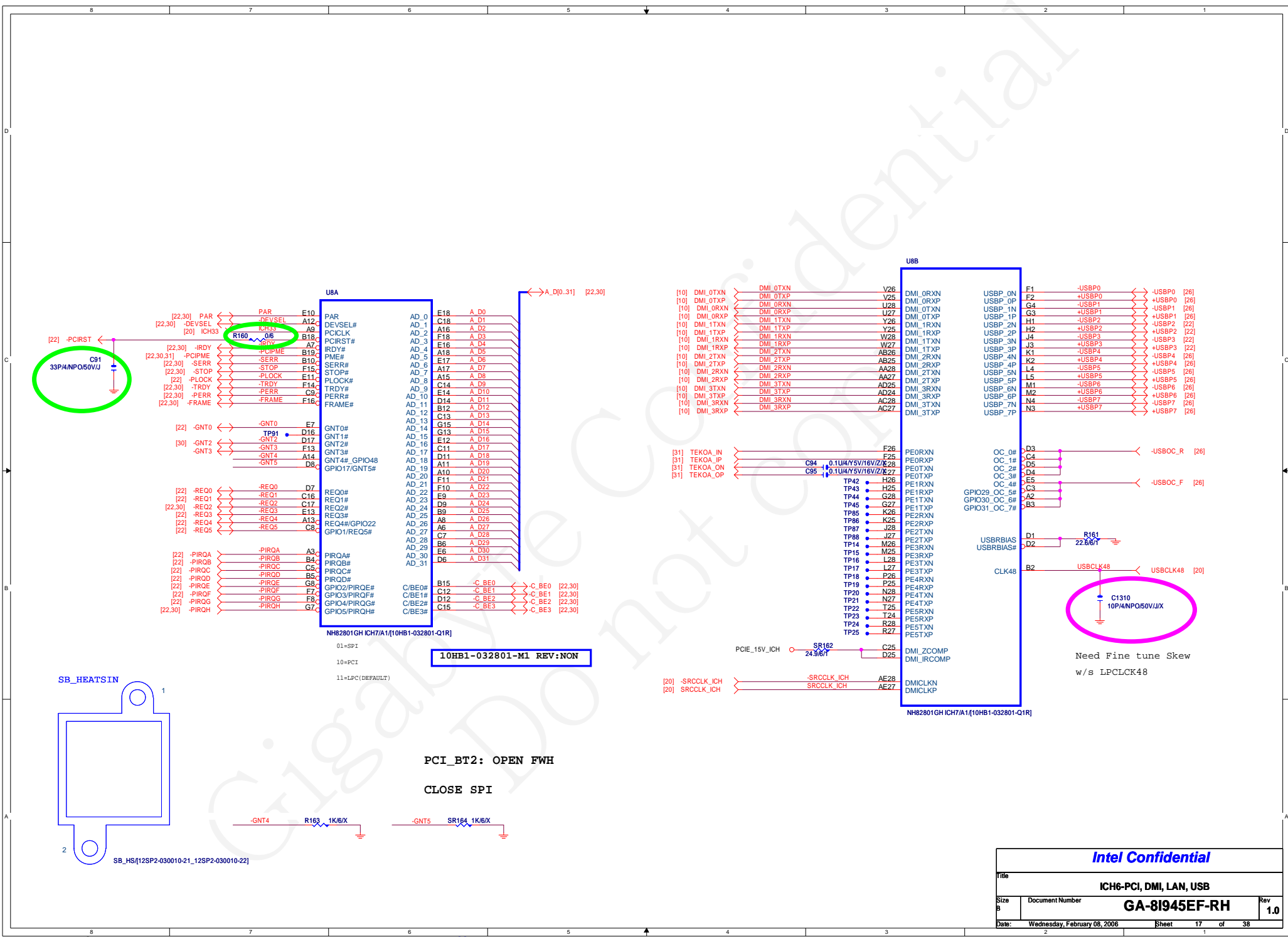


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Title			DDRII TERMINATOR
Size	Document Number	GA-8I945EF-RH	
B			Rev 1.0
Date:	Wednesday, February 08, 2006	Sheet	15 of 38

Gigabyte Confidential
Do not copy

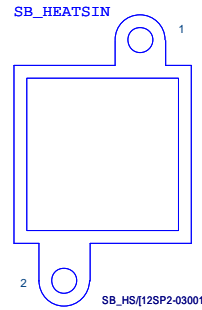
Intel Confidential			
Title			
PCI EXPRESS * 16			
Size	Document Number	GA-8I945EF-RH	Rev
Custom			1.0
Date:	Wednesday, February 08, 2006	Sheet	16 of 38
	2	1	



Need Fine tune Skew
w/s LPCLCK48

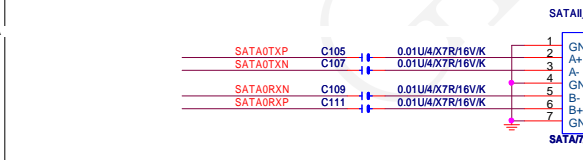
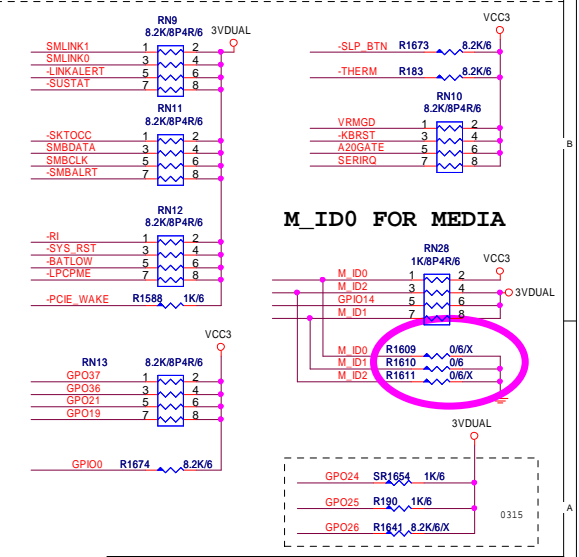
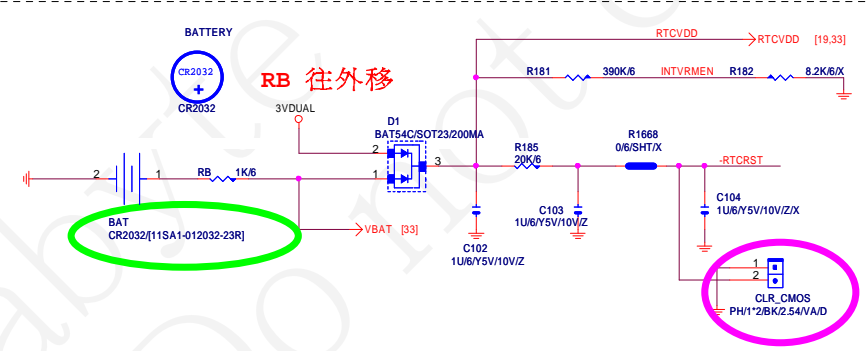
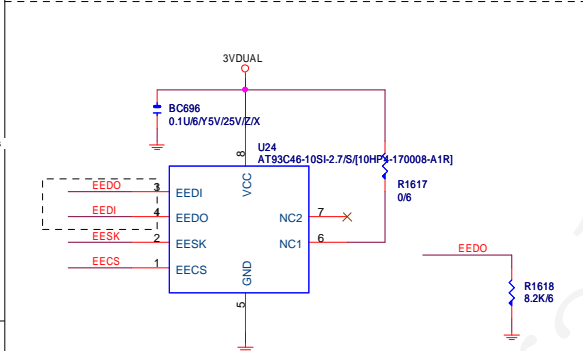
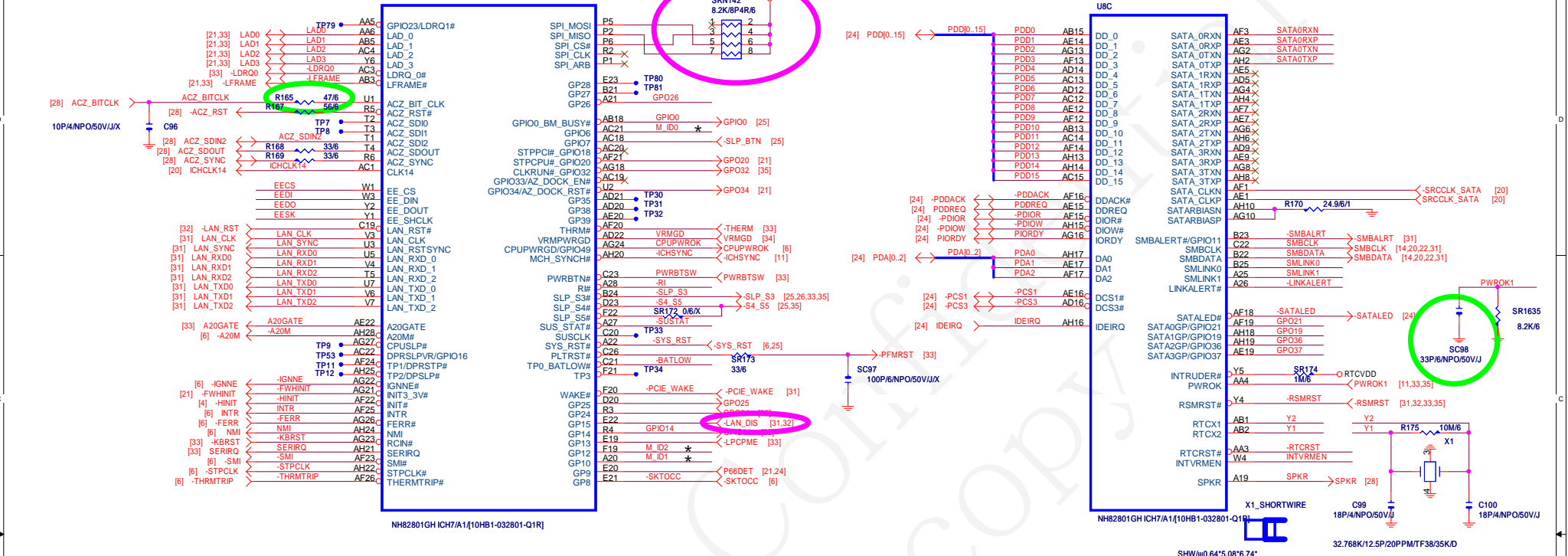
10HB1-032801-M1 REV:NON

PCI_BT2: OPEN FWH
CLOSE SPI



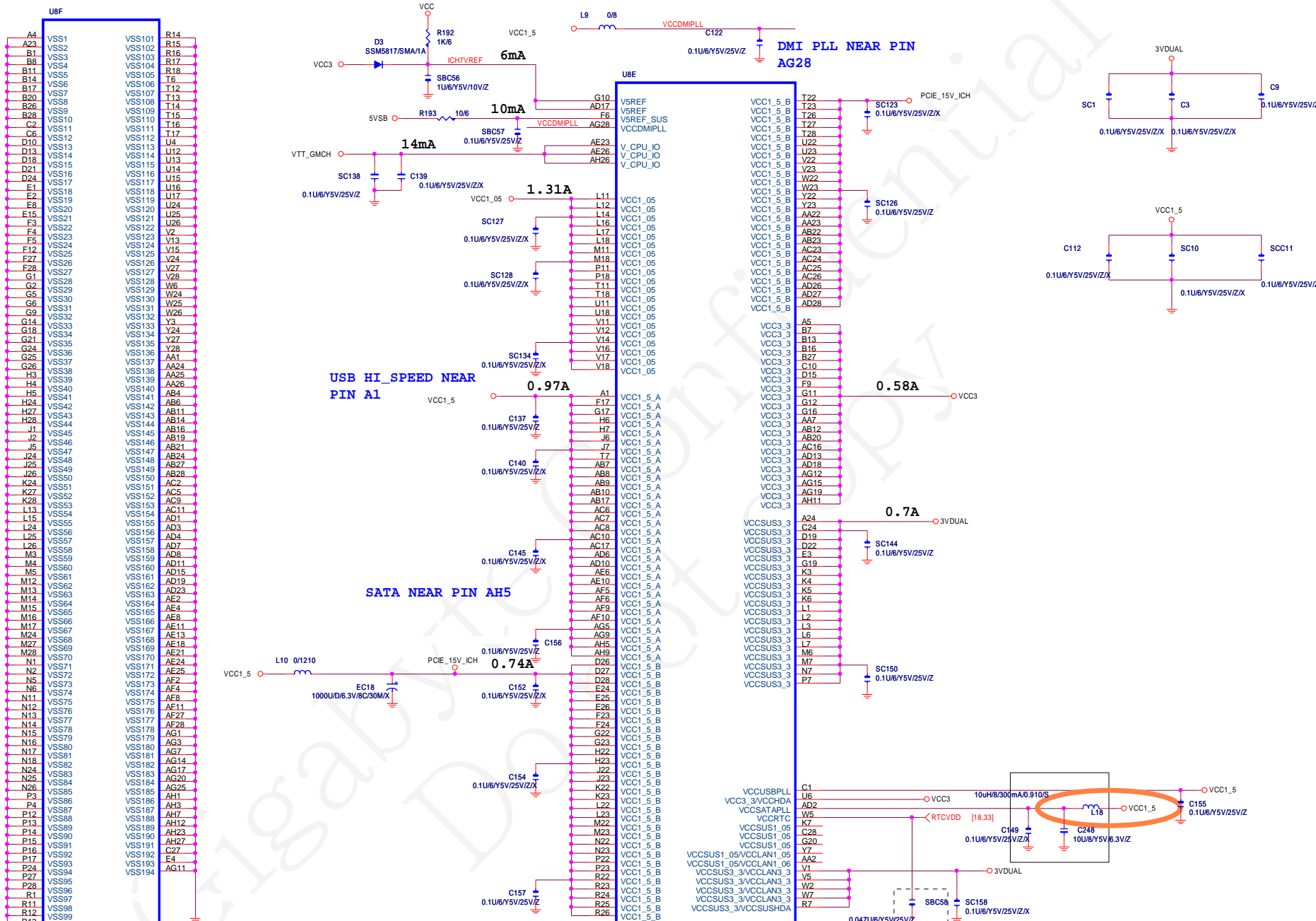
Intel Confidential			
Title ICH6-PCI, DMI, LAN, USB			
Size B	Document Number	GA-8I945EF-RH	Rev 1.0
Date: Wednesday, February 08, 2006	Sheet	17	of 38

SATA1I0, SATA1I1 文字面各別分開



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Title		ICH6-IDE, SATA, GPIO, CTRL	
Size	Document Number	GA-8I945EF-RH	
Custom		Rev 1.0	
Date:	Wednesday, February 08, 2006	Sheet	18 of 38

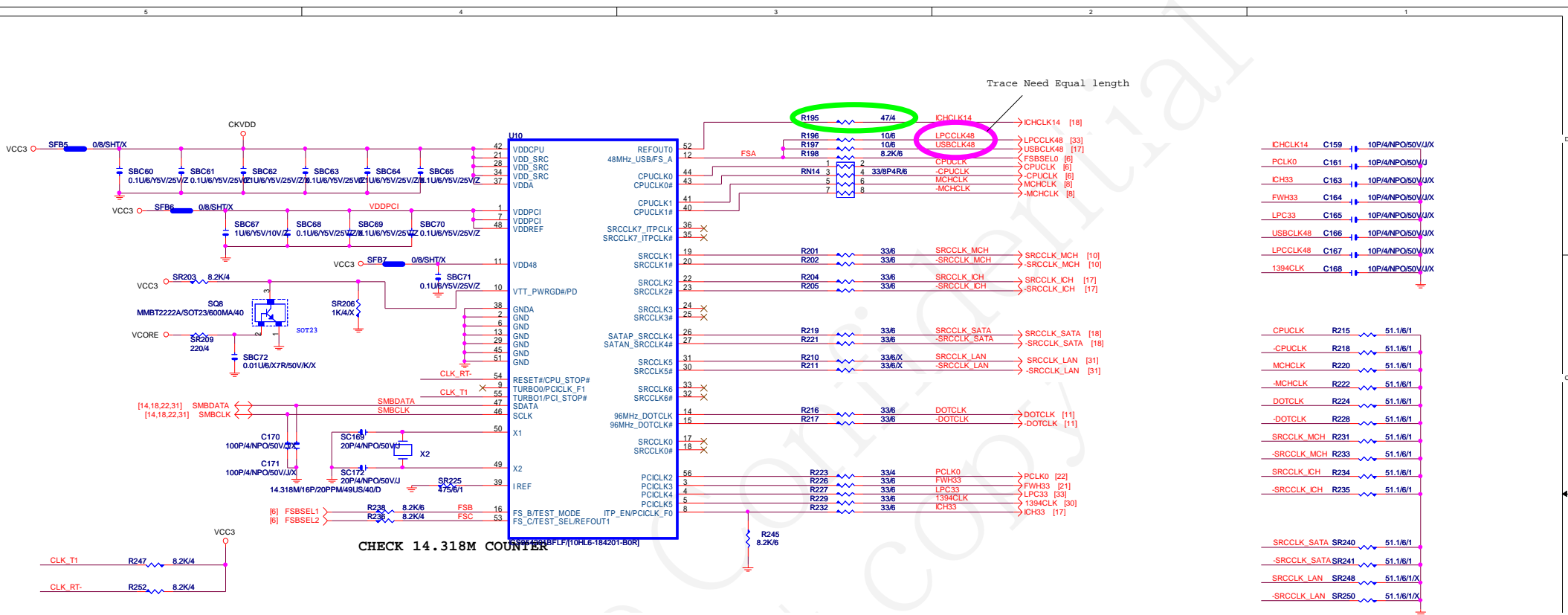


NH82801GH ICH7/A1, [10HB1-032801-Q1R]

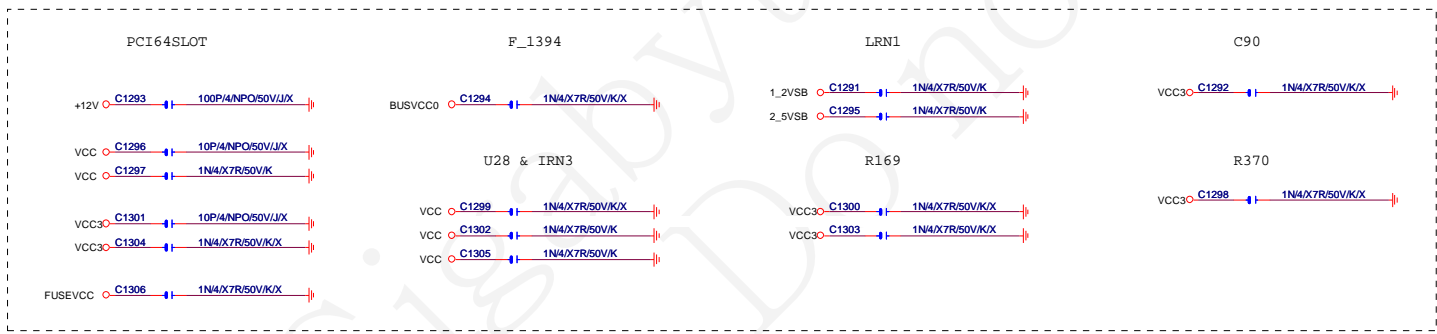
NH82801GH ICH7/A1, [10HB1-032801-Q1R]

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Title ICH6-PWR & GND			
Size B	Document Number GA-8I945EF-RH	Rev 1.0	
Date: Wednesday, February 08, 2006	Sheet 19	of 38	

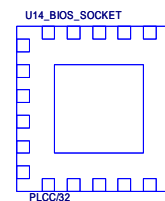
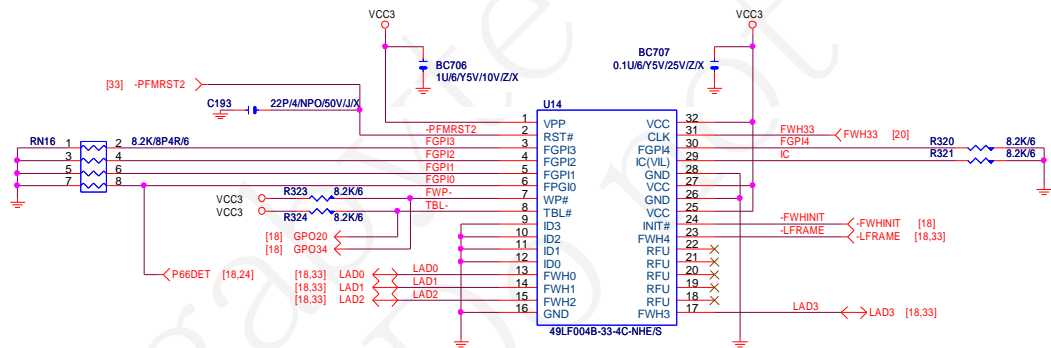
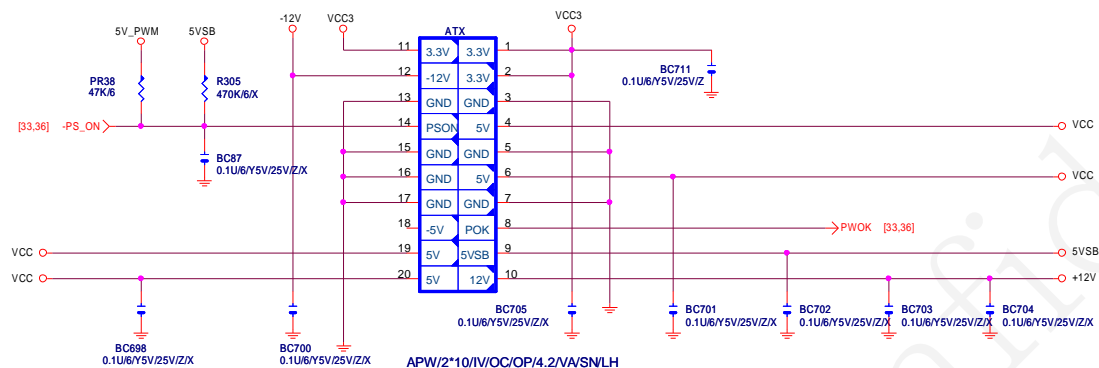


EMI solution



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ICS954148AF			
File	Document Number		
Site Custom	GA-8I945EF-RH		Rev 1.0
Date:	Wednesday, February 08, 2006	Sheet	20 of 38

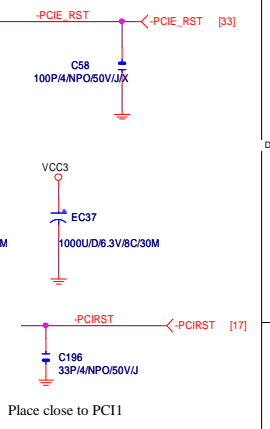
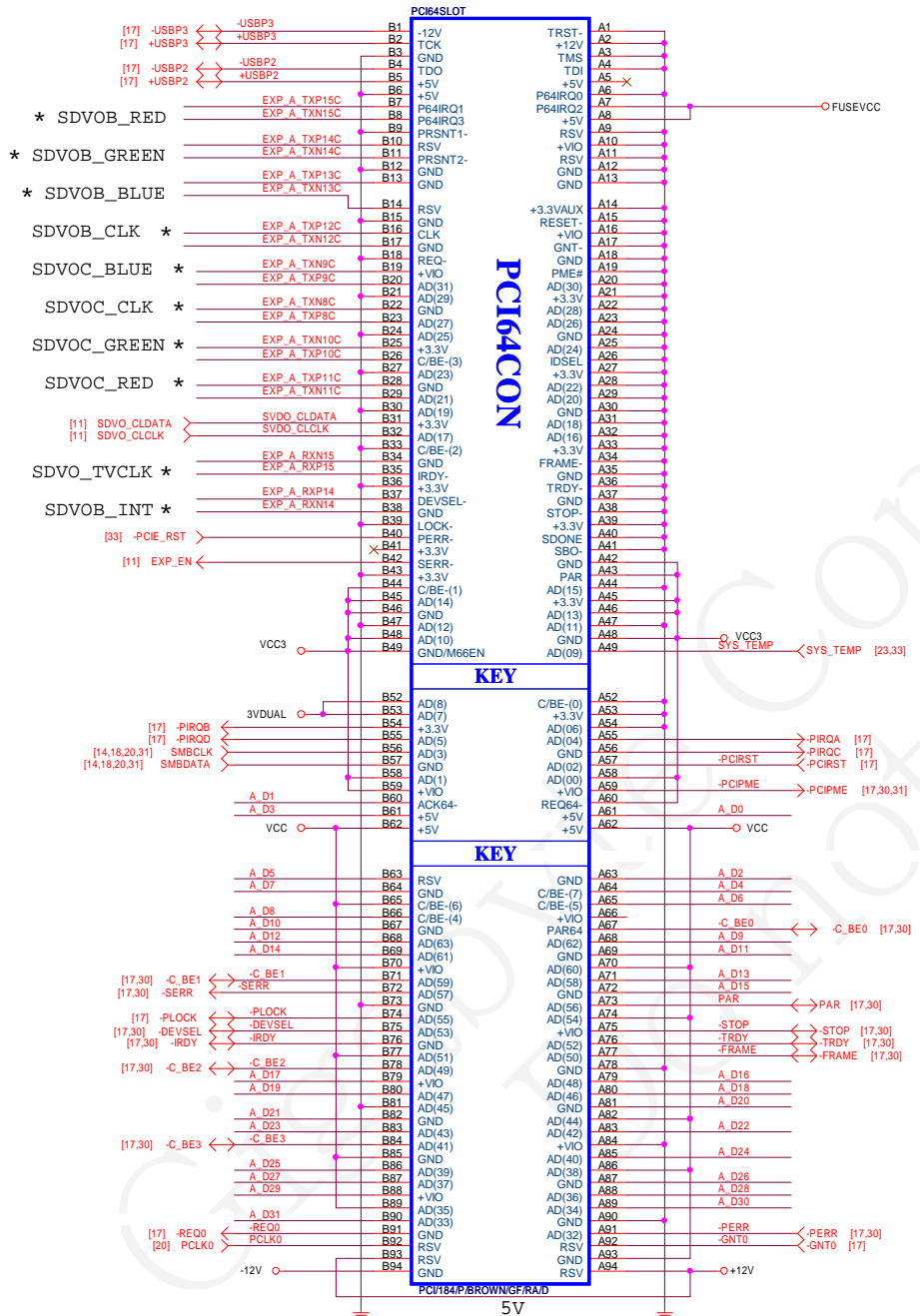
ATX POWER CONNECTOR



GIGABYTE

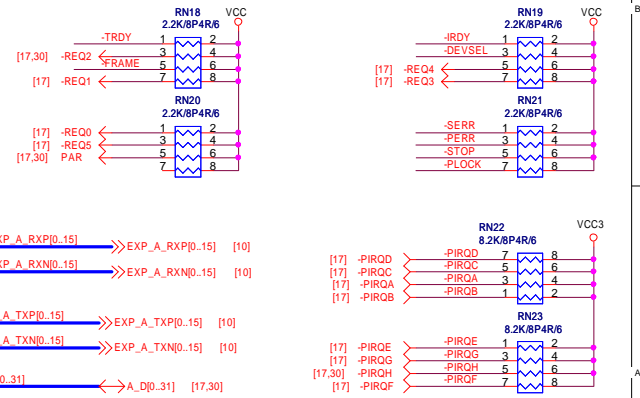
Title ATX POWER CONNECTOR,DUAL BIOS		
Size B	Document Number GA-81945EF-RH	Rev 1.0
Date: Wednesday, February 08, 2006	Sheet 21	of 38

IDSEL --> AD20
IRQ --> A/B/C/D
REQ/GBR --> 0



For USB MEC IR Receiver
 For USB Card Reader

EXP_A_TXP8	C75	0.1uF/5V/25V/Z	EXP_A_TXP8C
EXP_A_TXN8	C76	0.1uF/5V/25V/Z	EXP_A_TXN8C
EXP_A_TXP9	C77	0.1uF/5V/25V/Z	EXP_A_TXP9C
EXP_A_TXN9	C78	0.1uF/5V/25V/Z	EXP_A_TXN9C
EXP_A_TXP10	C79	0.1uF/5V/25V/Z	EXP_A_TXP10C
EXP_A_TXN10	C80	0.1uF/5V/25V/Z	EXP_A_TXN10C
EXP_A_TXP11	C81	0.1uF/5V/25V/Z	EXP_A_TXP11C
EXP_A_TXN11	C82	0.1uF/5V/25V/Z	EXP_A_TXN11C
EXP_A_TXP12	C83	0.1uF/5V/25V/Z	EXP_A_TXP12C
EXP_A_TXN12	C84	0.1uF/5V/25V/Z	EXP_A_TXN12C
EXP_A_TXP13	C85	0.1uF/5V/25V/Z	EXP_A_TXP13C
EXP_A_TXN13	C86	0.1uF/5V/25V/Z	EXP_A_TXN13C
EXP_A_TXP14	C87	0.1uF/5V/25V/Z	EXP_A_TXP14C
EXP_A_TXN14	C88	0.1uF/5V/25V/Z	EXP_A_TXN14C
EXP_A_TXP15	C89	0.1uF/5V/25V/Z	EXP_A_TXP15C
EXP_A_TXN15	C90	0.1uF/5V/25V/Z	EXP_A_TXN15C



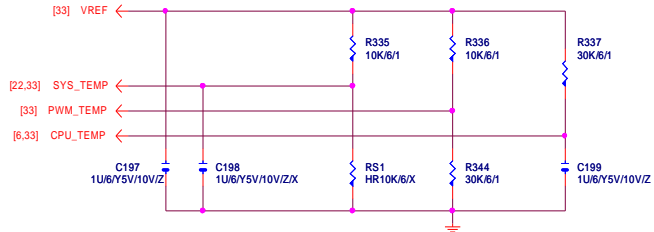
Intel Confidential

Title: **PCI E SLOT 1, 2, 3**

Size B Document Number: **GA-8I945EF-RH** Rev **1.0**

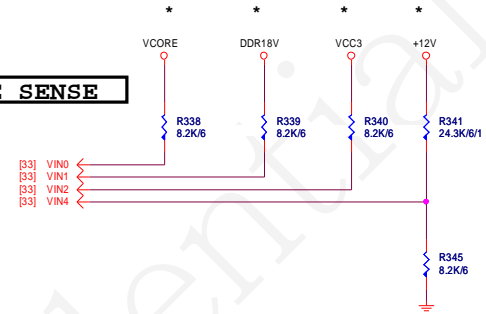
Date: Wednesday, February 08, 2006 Sheet 22 of 38

TEMP. SENSE



RS3 CLOSE TO MCH.CO-LAYOUT WITH RS1

VOLTAGE SENSE



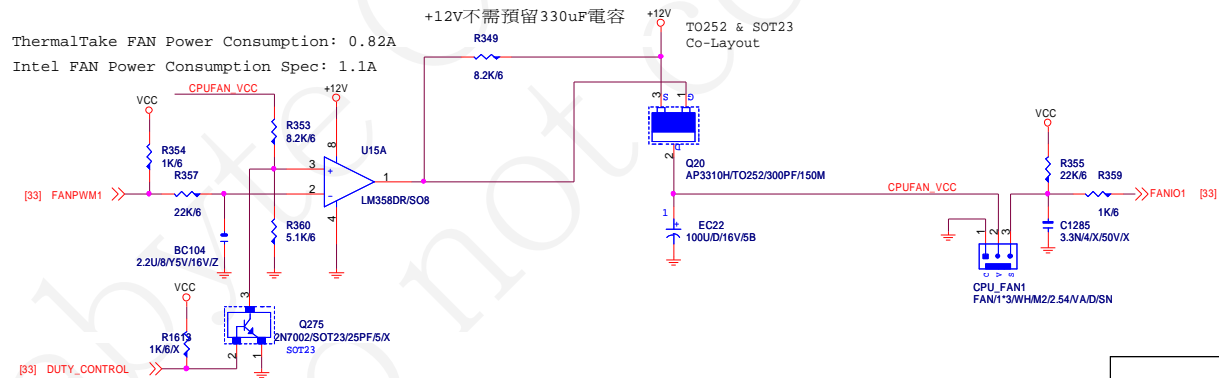
CPU/SYS FAN

If use PBSS5240 lpcs : (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 lpcs : (with airflow)

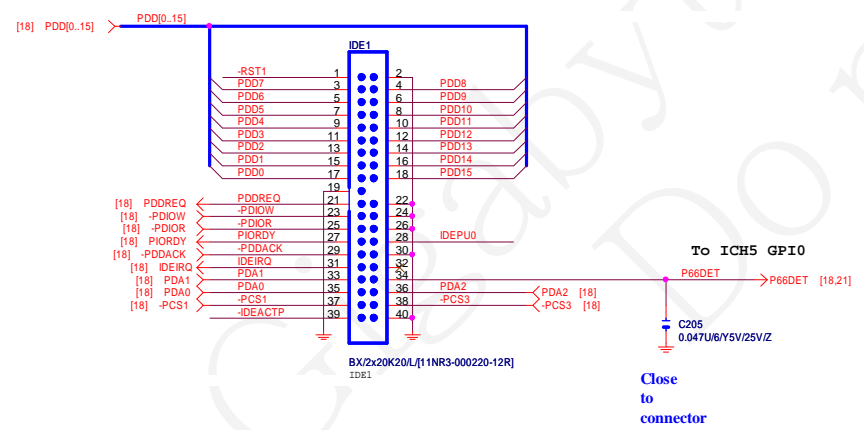
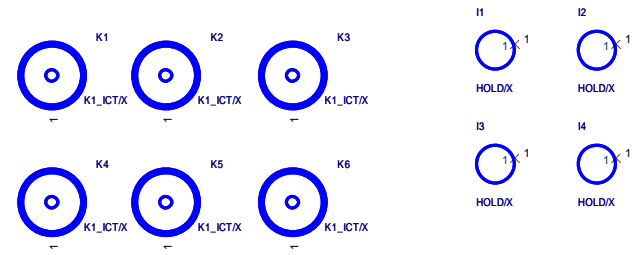
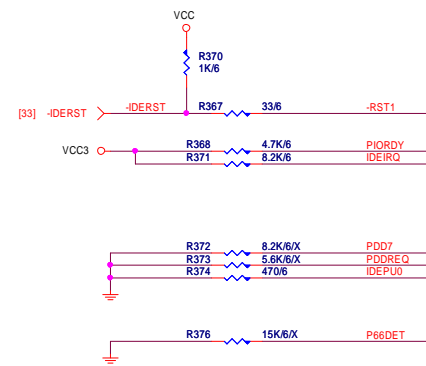
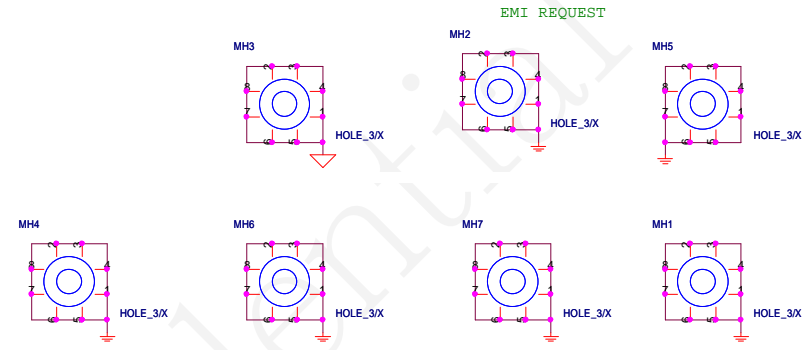
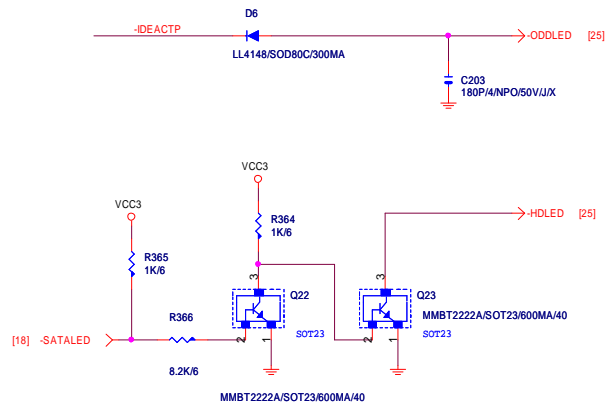
CPUFAN_VCC=12V: Temp=33 deg
 CPUFAN_VCC=11V: Temp=62 deg
 CPUFAN_VCC=10V: Temp=86 deg
 CPUFAN_VCC= 9V: Temp=117 deg
 CPUFAN_VCC= 8V: Temp>122 deg



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

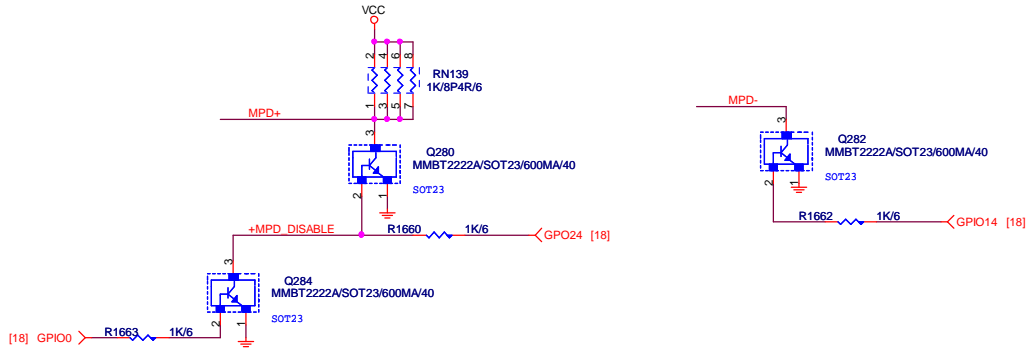
GIGABYTE

Title			HWM/FAN/CI/BIOS	
Size	Document Number		GA-8I945EF-RH	
Custom			Rev	1.0
Date:	Wednesday, February 08, 2006	Sheet	23	of 38

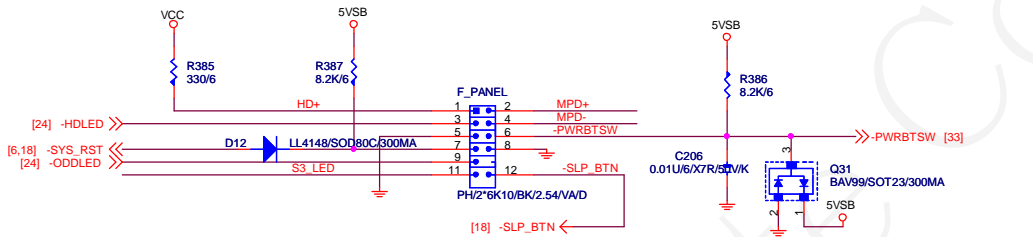


PRIMARY IDE CONNECTOR

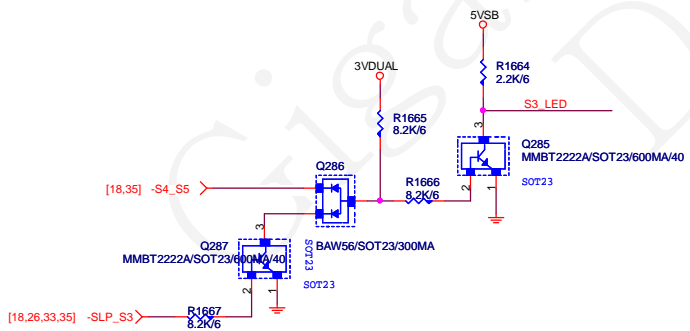
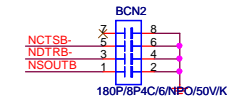
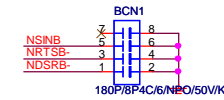
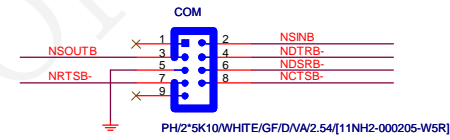
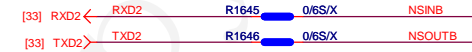
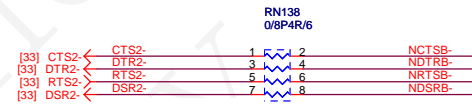
Intel Confidential		
IDE		
Size B	Document Number	Rev 1.0
GA-81945EF-RH		
Date: Wednesday, February 08, 2006	Sheet 24	of 38



INTEL FRONT PANEL



MPD+ MPD- PW+ PW- X -SLP
 HD+ HD- GND RST ODD- -S3_LED



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FRONT PANEL			
Title	Document Number		Rev
Size	GA-81945EF-RH		1.0
Custom			
Date:	Wednesday, February 08, 2006	Sheet	25 of 38

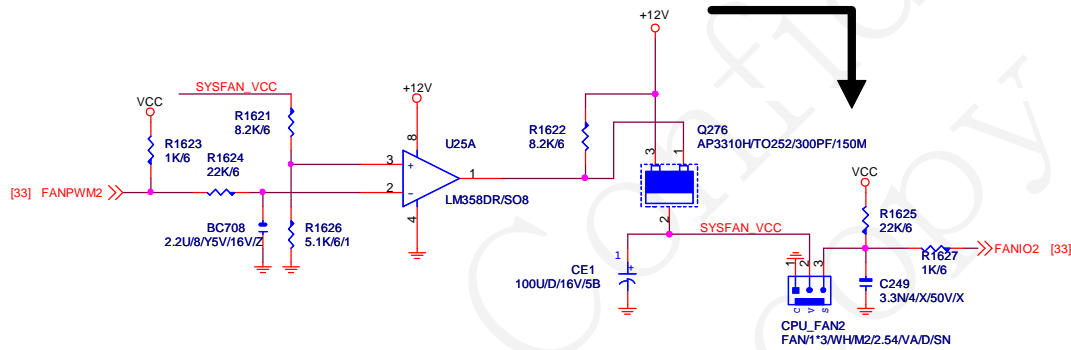
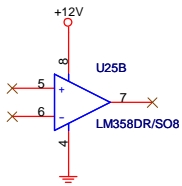
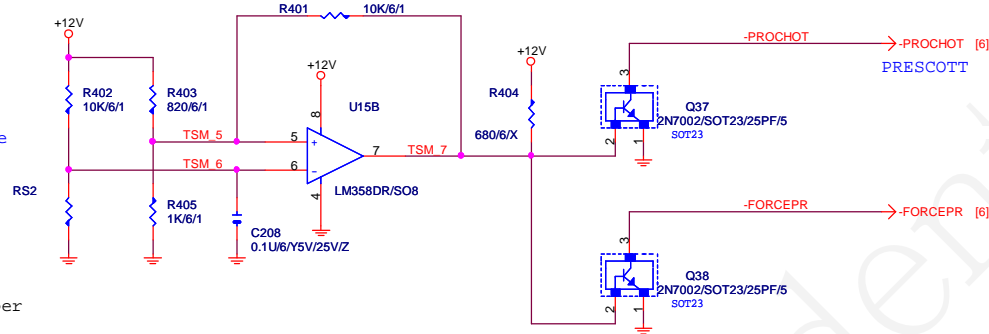
asserted at 131 degree
deasserted at 116 degree

100K/1/6/S

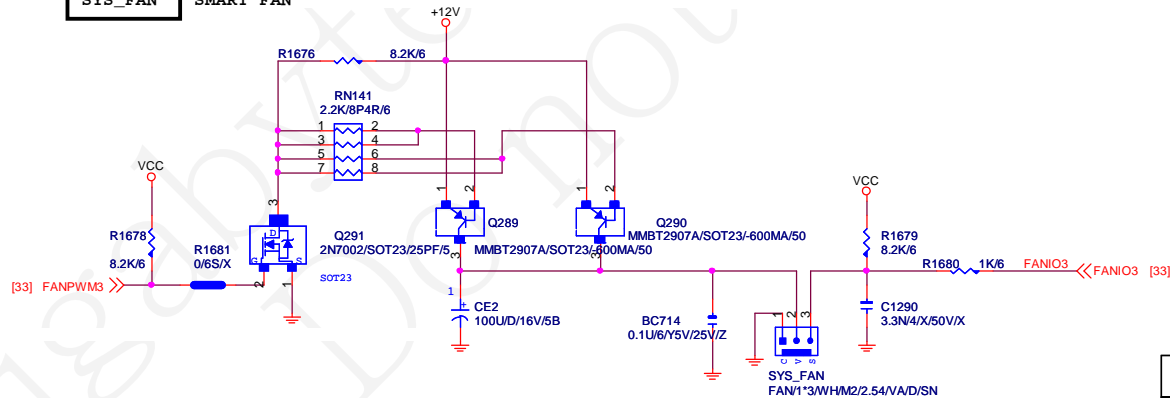
RS2
請加替料

Plase at PH4 copper

RS2 CLOSE CPU VR MOSFET

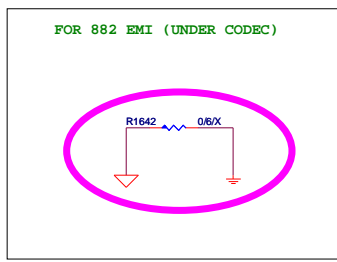
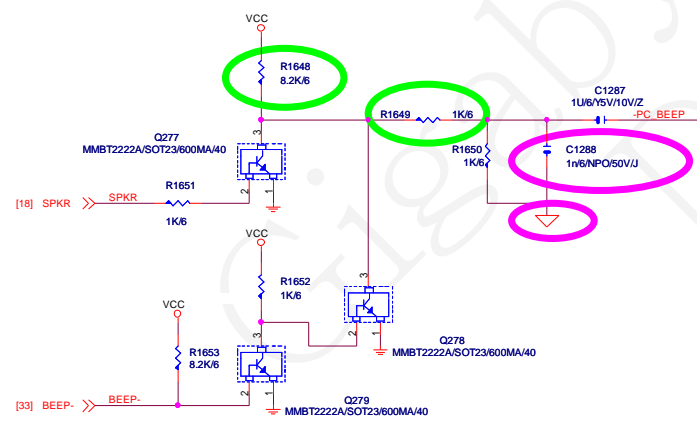
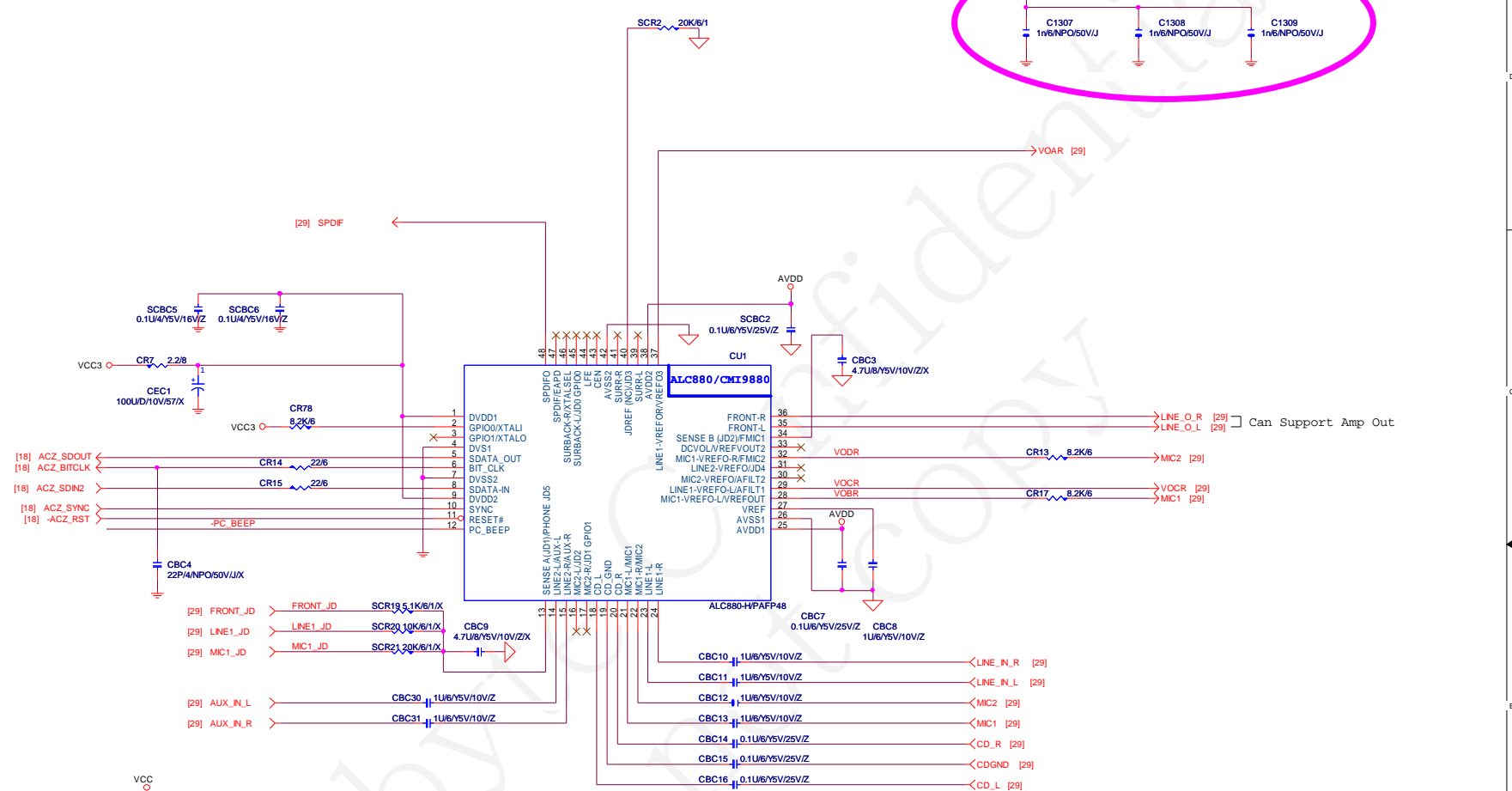
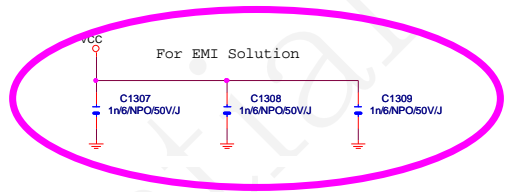


SYS_FAN SMART FAN

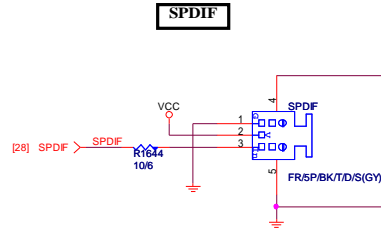
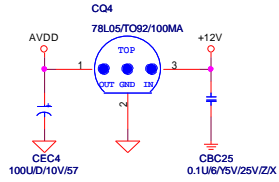
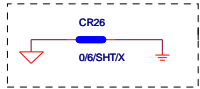


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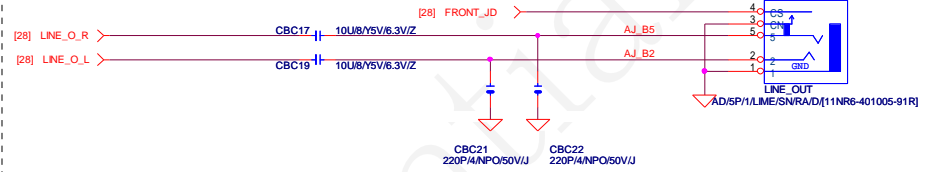
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Size	Document Number	GA-8I945EF-RH	
B		Rev	1.0
Date:	Wednesday, February 08, 2006	Sheet	27 of 38



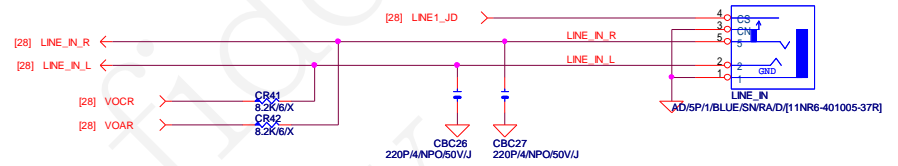
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Size Custom	Document Number	GA-8I945EF-RH	
Date:	Wednesday, February 08, 2006	Sheet	28 of 38
			Rev 1.0



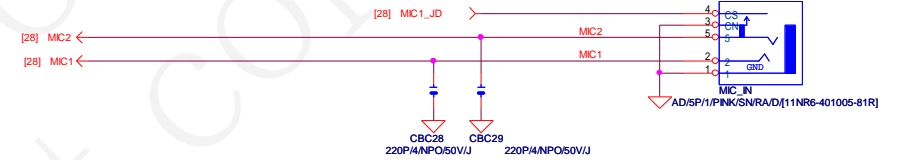
**LINE OUT
FRONT OUT**



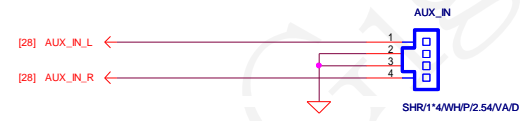
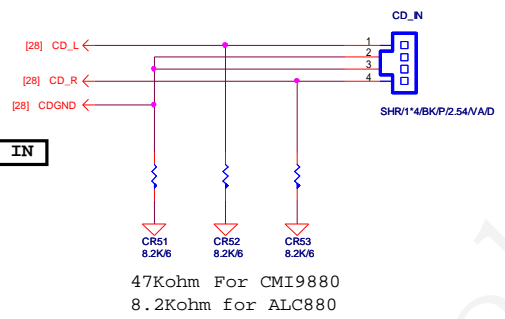
LINE-IN



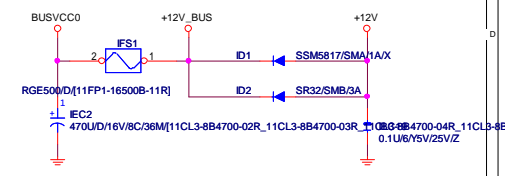
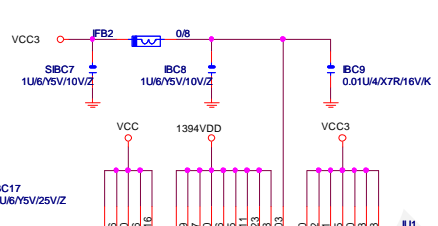
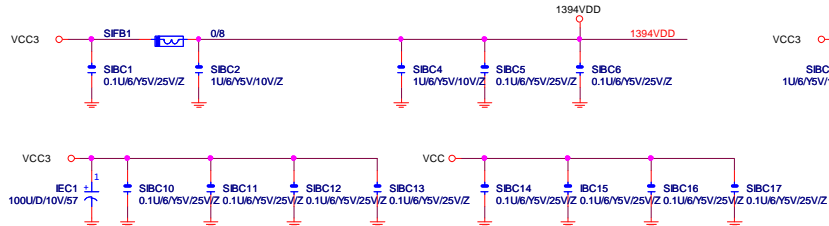
MIC



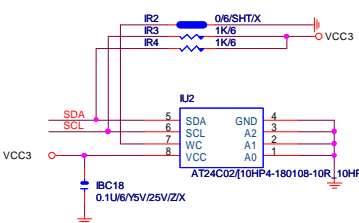
CD IN



Intel Confidential			
Title			
AUDIO JACK			
Size	Document Number	Rev	
Custom	GA-8I945EF-RH	1.0	
Date:	Wednesday, February 08, 2006	Sheet	29 of 38



IDSEL --> AD23
IRQ --> H
REQ/GBR --> 2



R1219 0/6 FOR ATMEL AT24C02N-10SI-2.7V ATC ATC24LC02W

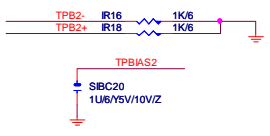
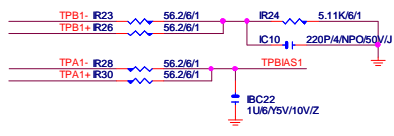
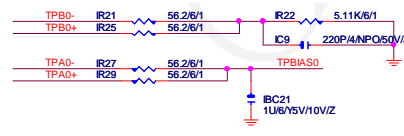
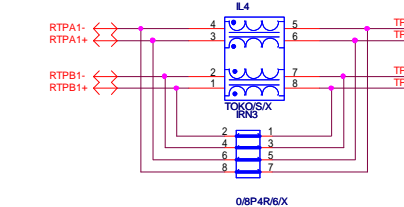
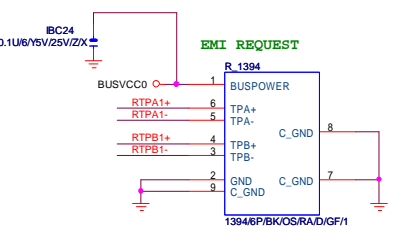
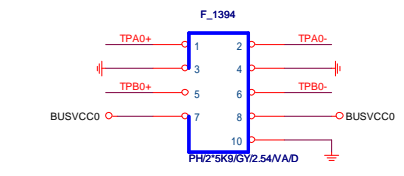
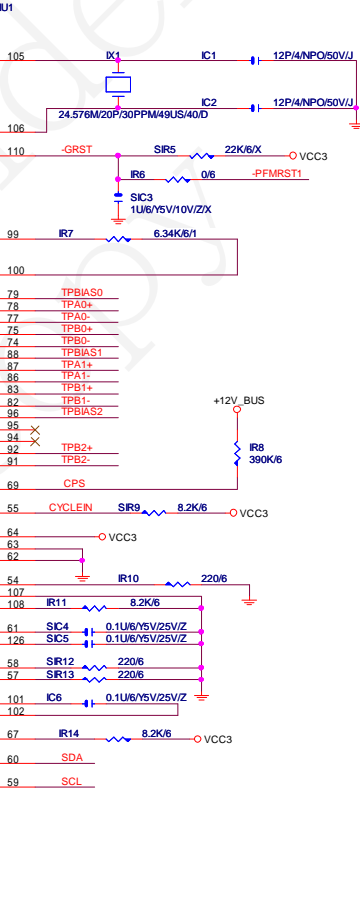
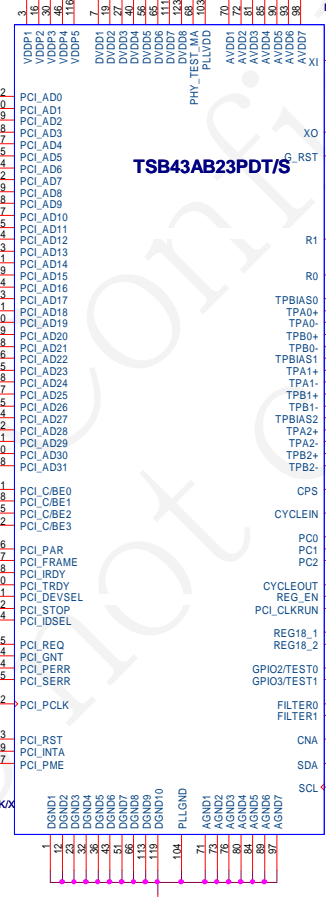
TSB43AB23PDT/S

A D0	52	PCI_AD0
A D1	50	PCI_AD1
A D2	49	PCI_AD2
A D3	48	PCI_AD3
A D4	47	PCI_AD4
A D5	45	PCI_AD5
A D6	44	PCI_AD6
A D7	42	PCI_AD7
A D8	39	PCI_AD8
A D9	38	PCI_AD9
A D10	37	PCI_AD10
A D11	35	PCI_AD11
A D12	34	PCI_AD12
A D13	33	PCI_AD13
A D14	31	PCI_AD14
A D15	29	PCI_AD15
A D16	14	PCI_AD16
A D17	13	PCI_AD17
A D18	11	PCI_AD18
A D19	10	PCI_AD19
A D20	9	PCI_AD20
A D21	8	PCI_AD21
A D22	6	PCI_AD22
A D23	5	PCI_AD23
A D24	128	PCI_AD24
A D25	127	PCI_AD25
A D26	125	PCI_AD26
A D27	124	PCI_AD27
A D28	122	PCI_AD28
A D29	121	PCI_AD29
A D30	120	PCI_AD30
A D31	118	PCI_AD31

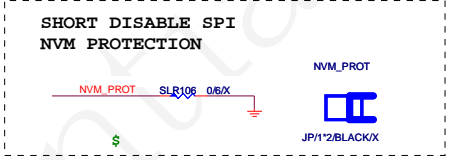
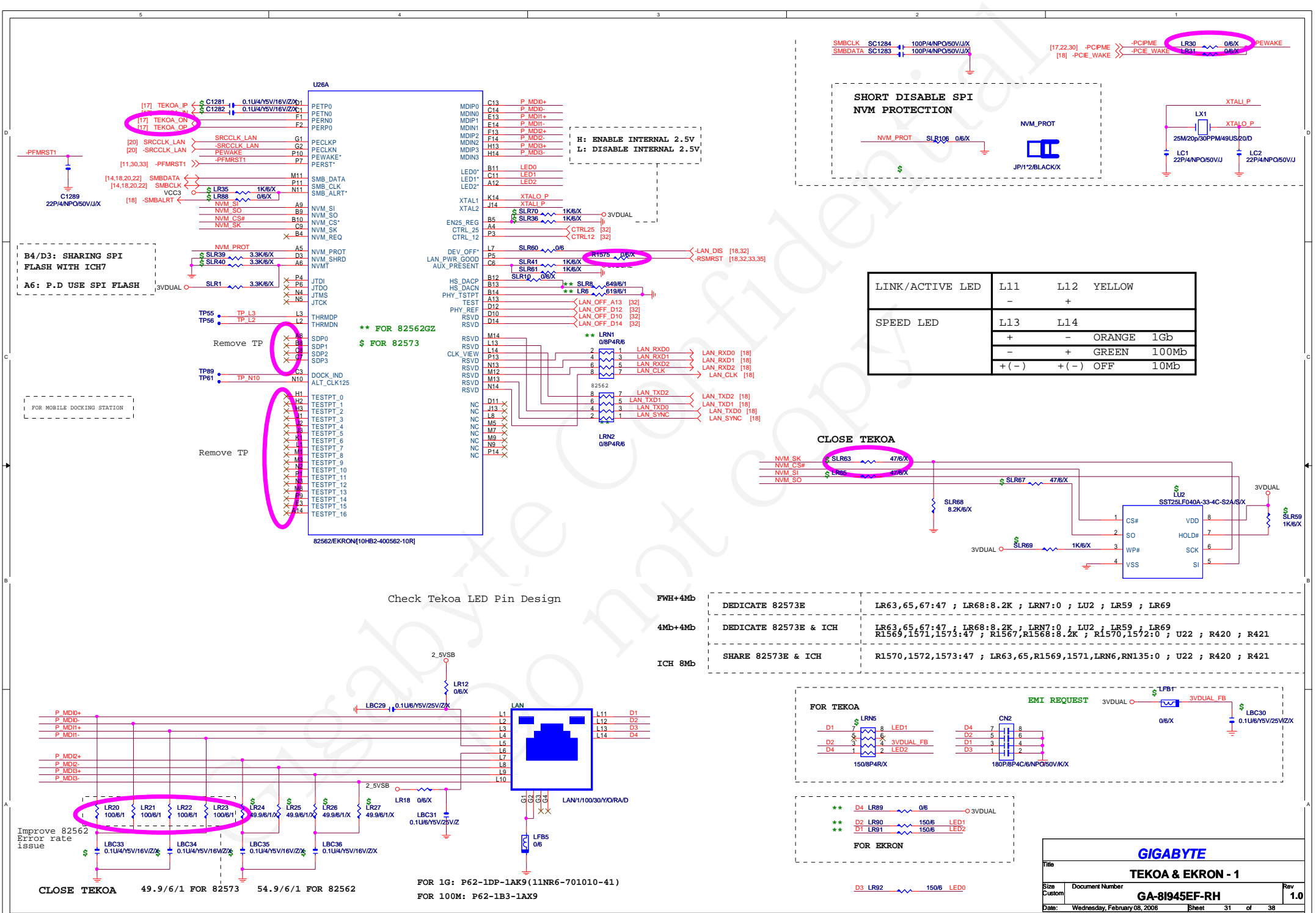
[17,22]	-C_BE0	41	PCI_C/BE0
[17,22]	-C_BE1	15	PCI_C/BE1
[17,22]	-C_BE2	2	PCI_C/BE2
[17,22]	-C_BE3	2	PCI_C/BE3

[17,22]	-PAR	26	PCI_PAR
[17,22]	-FRAME	17	PCI_FRAME
[17,22]	-RDY	18	PCI_RDY
[17,22]	-TRDY	20	PCI_TRDY
[17,22]	-DEVSEL	21	PCI_DEVSEL
[17,22]	-STOP	22	PCI_STOP
[17,22]	-REQ0	115	PCI_REQ
[17,22]	-GNT2	114	PCI_GNT
[17]	-PERR	24	PCI_PERR
[17,22]	-SERR	25	PCI_SERR

[11,31,33]	-PFMRST1	53	PCI_RST
[17,22]	-PROH	109	PCI_INTA
[17,22,31]	-PCPME	117	PCI_PME

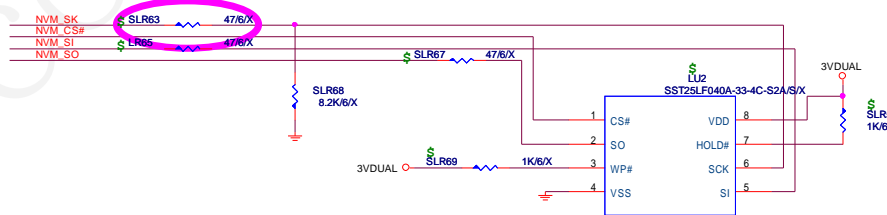


GIGABYTE		
Ti1394A		
Title	Document Number	Rev
Size	GA-81945EF-RH	1.0
Custom		
Date:	Wednesday, February 08, 2006	Sheet 30 of 38



LINK/ACTIVE LED	L11	L12	YELLOW
	-	+	
SPEED LED	+	-	ORANGE 1Gb
	-	+	GREEN 100Mb
	+ (-)	+ (-)	OFF 10Mb

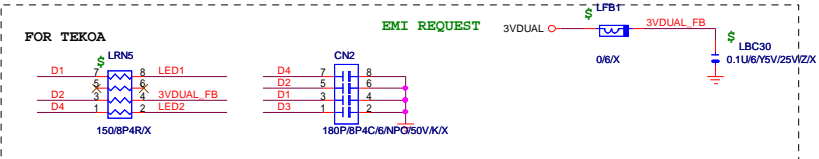
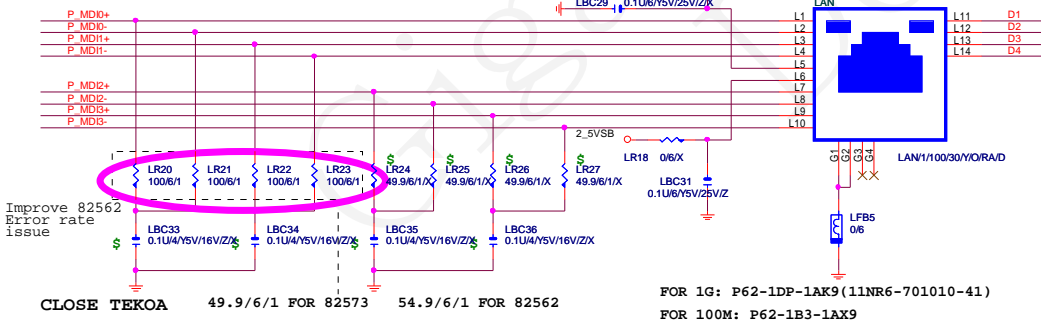
CLOSE TEKO



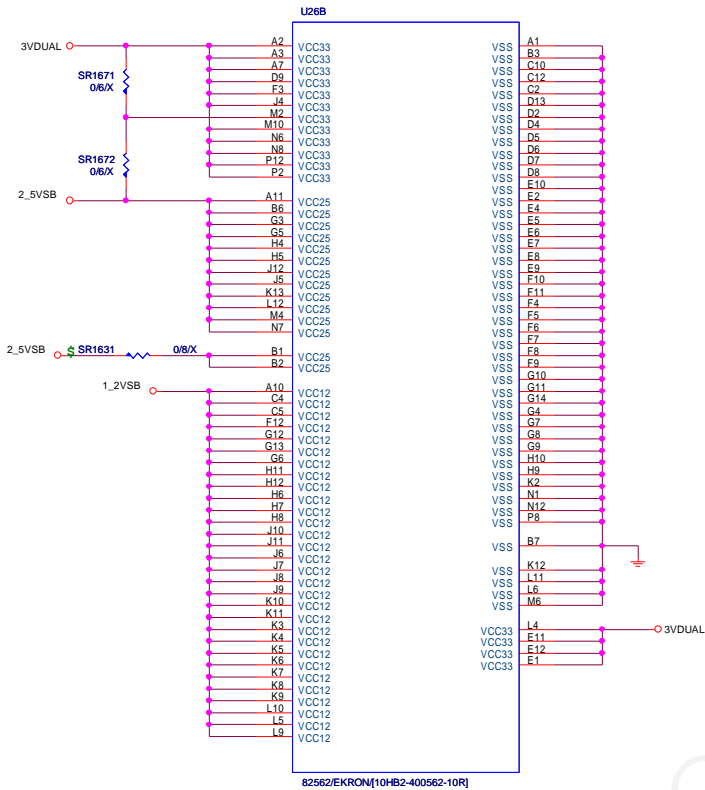
Check Tekoa LED Pin Design

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 ; U22 ; R420 ; R421
ICH 8Mb	SHARE 82573E & ICH R1570,1572,1573:47 ; LR63,65,R1569,1571,LRN6,RN135:0 ; U22 ; R420 ; R421

Improve 82562 Error rate issue

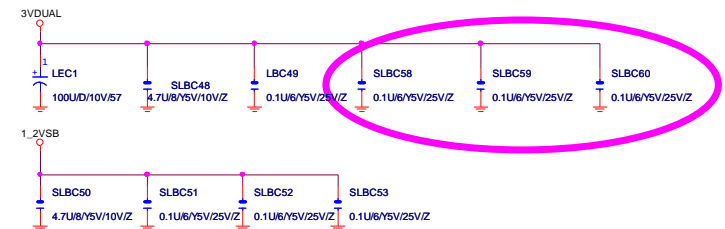
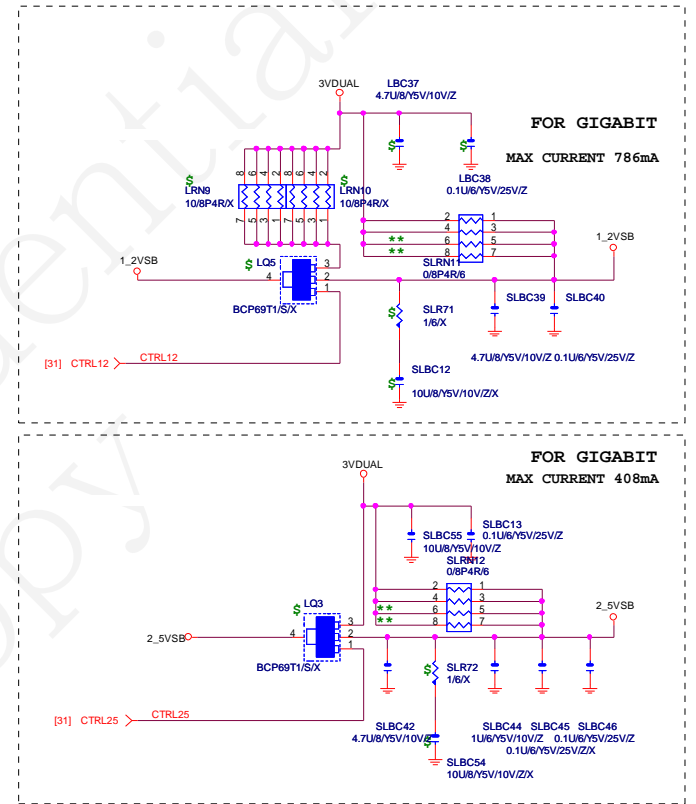
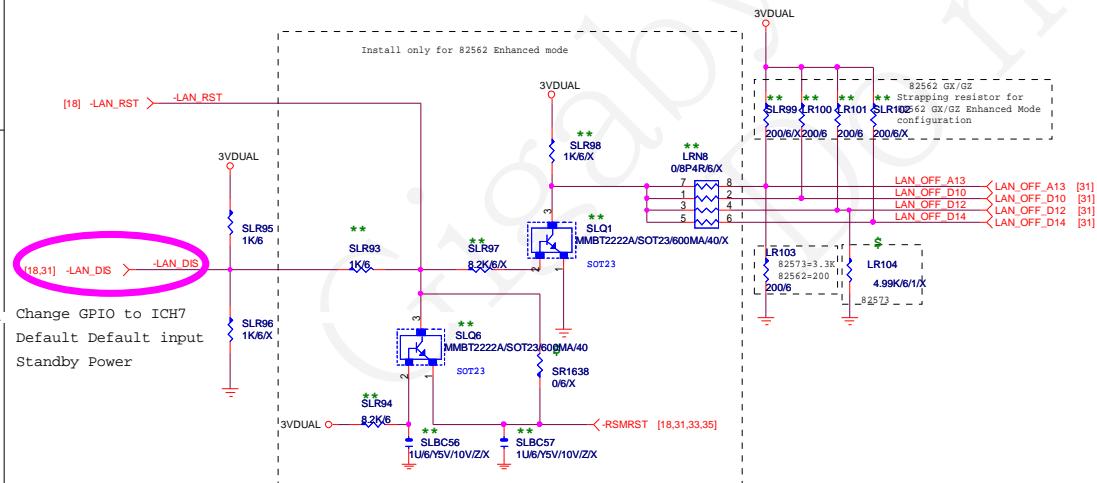


GIGABYTE		
Title: TEKO & EKRON - 1		
Size: Custom	Document Number: GA-81945EF-RH	Rev: 1.0
Date: Wednesday, February 08, 2006	Sheet: 31	of 38

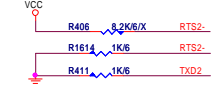


Connect to a Super I/O pin that default to input on power up and retains its value during reset.

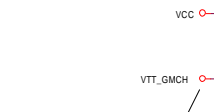
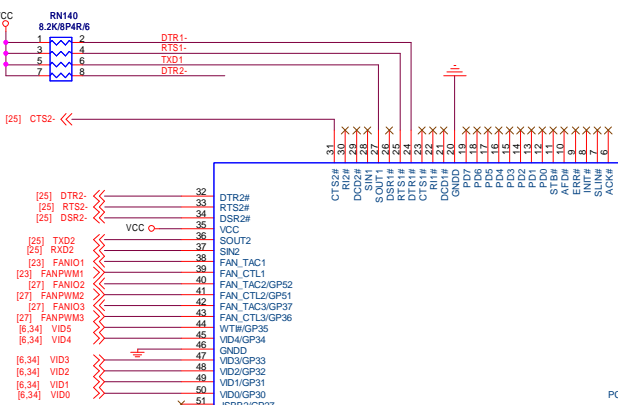
Install only for 82562 Enhanced mode



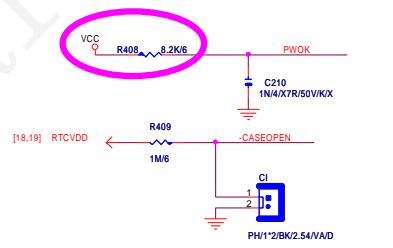
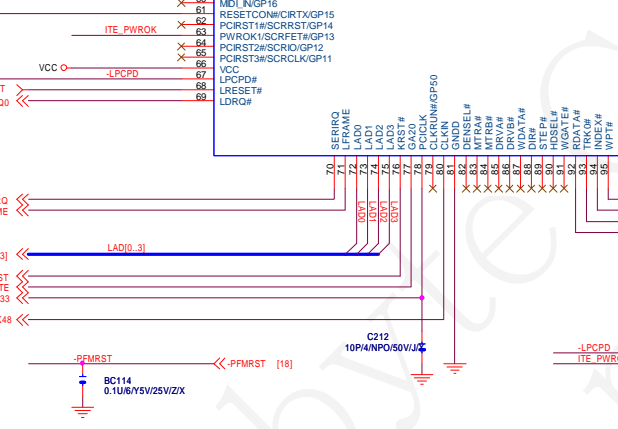
GIGABYTE		
TEKOA & EKRON - 2		
Title	Document Number	Rev
Size Custom	GA-81945EF-RH	1.0
Date:	Wednesday, February 08, 2006	Sheet 32 of 38



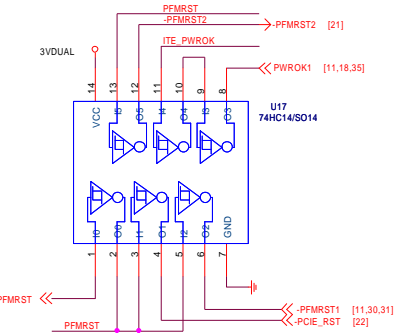
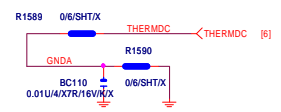
	0	1
DTR1- FAN Duty	KBC DIS	KBC EN
RTS1- KBC	KBC EXT	KBC INT
SOUT1 CHIPSEL		DEFAULT
FAN Duty	50%	100%
DTR2- PCIRST-	PushPull	ENHANCE
SOUT2 VID TH	0.4/0.8V	0.8/2V



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



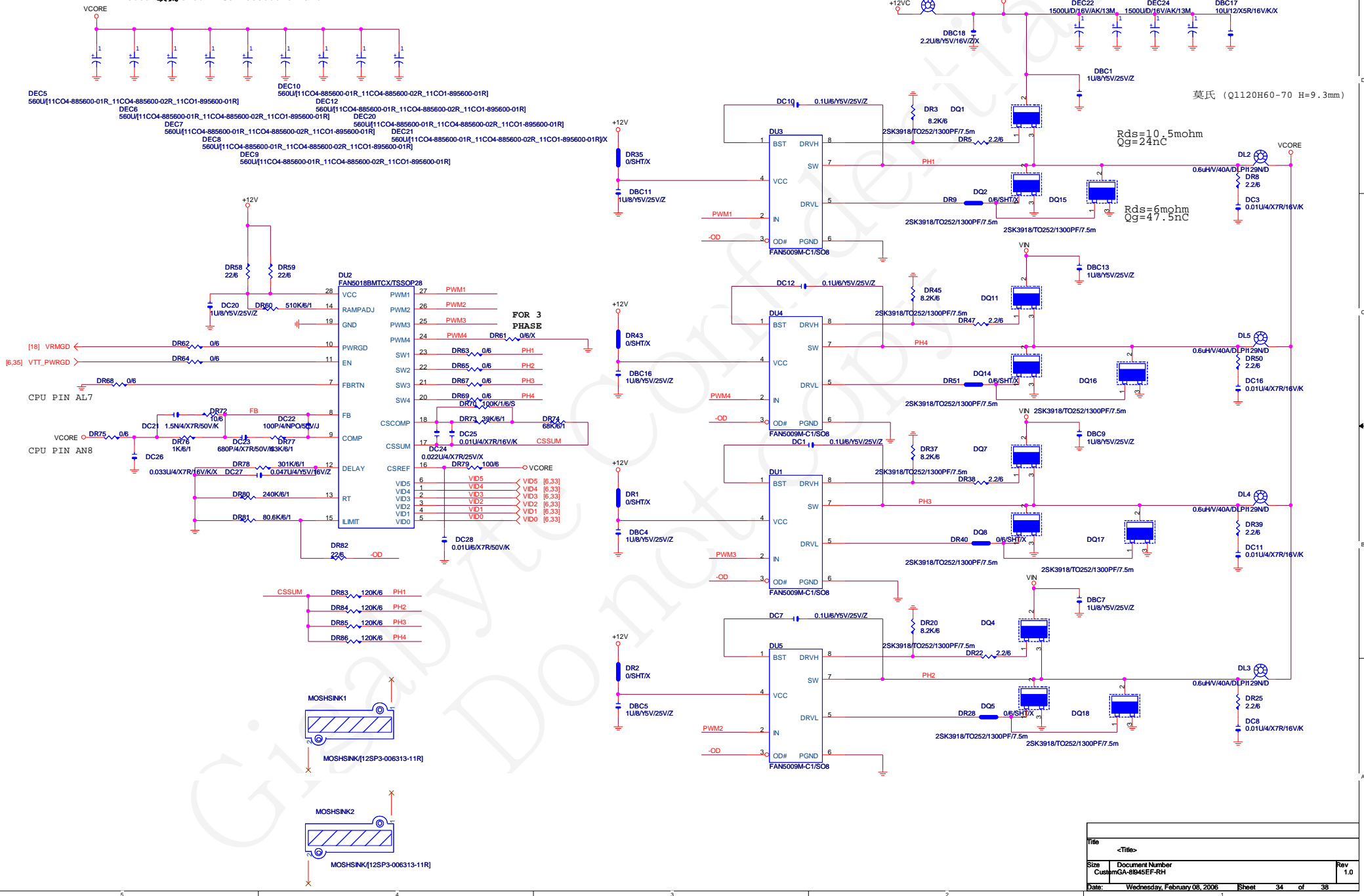
Case Open Circuits



ICH7 -PFMRST	ICH7 -PCIRST	74HC14 -PFMRST1	74HC14 -PFMRST2	74HC14 -PCI_RST
LPC IO	PCI 64 SLOT	GMCH TI 1394	FWH MINI PCI	PCI 64 SLOT

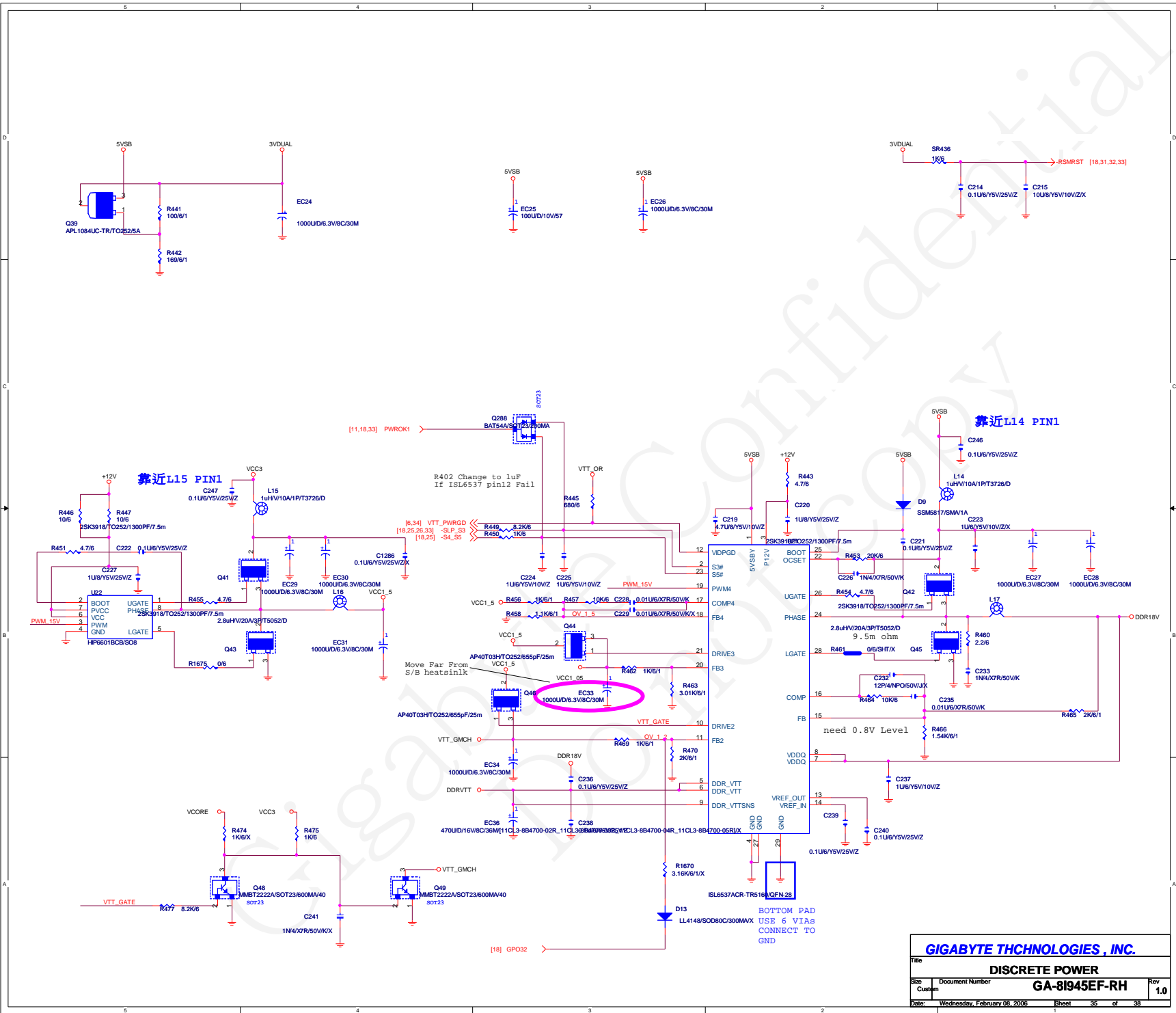
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Title			
ITE 8712 LPC IO			
Size	Document Number	Rev	
Custom	GA-81945E-F-RH	1.0	
Date:	Wednesday, February 08, 2006	Sheet	33 of 38

560uF改為8*8: 11CO4-885600-01 & 02



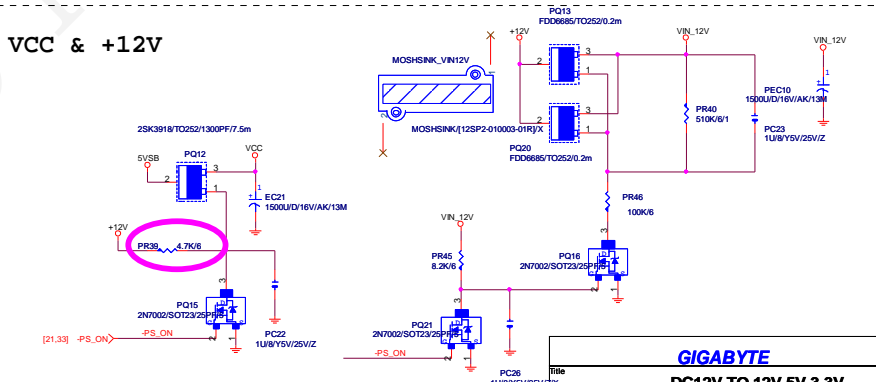
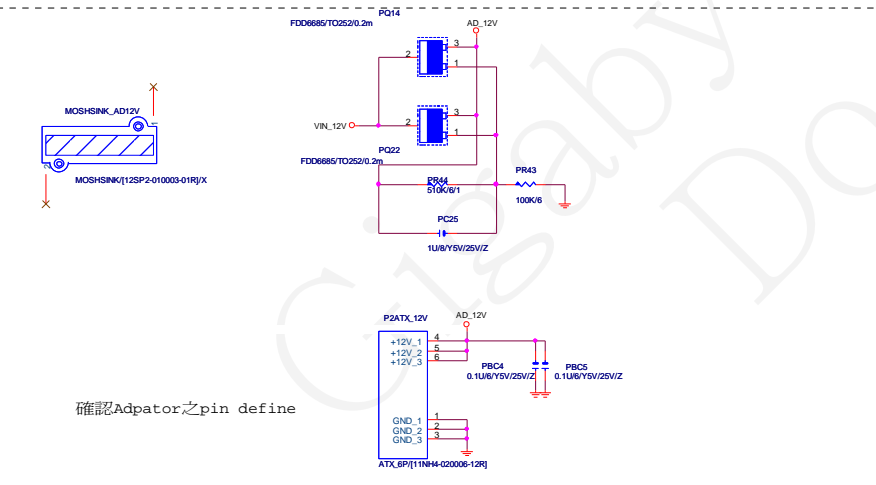
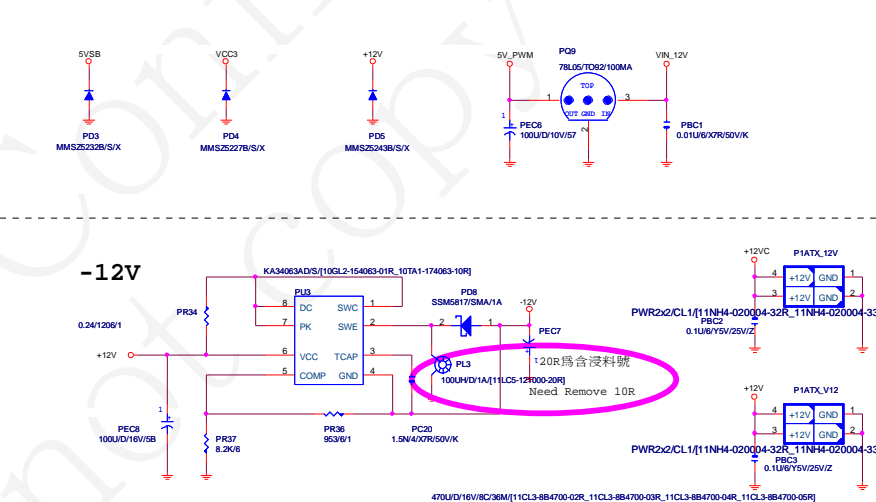
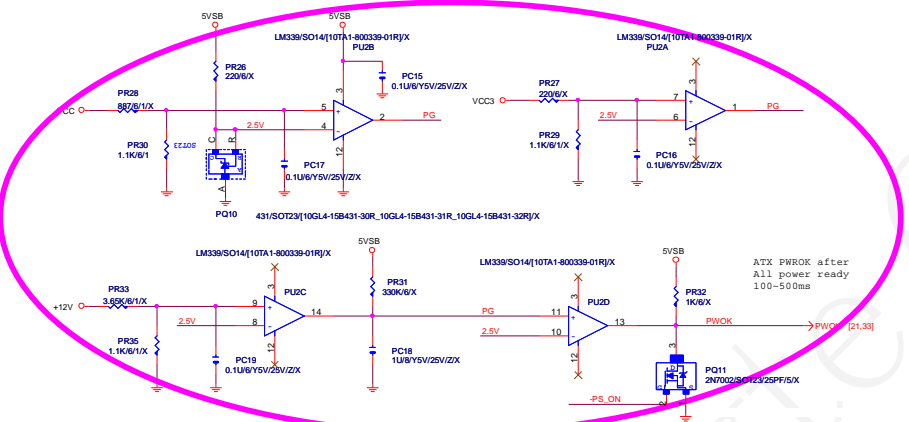
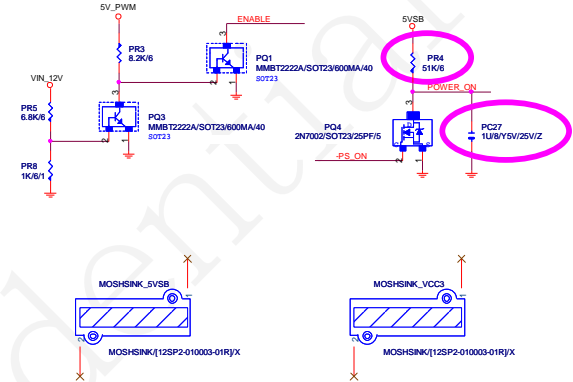
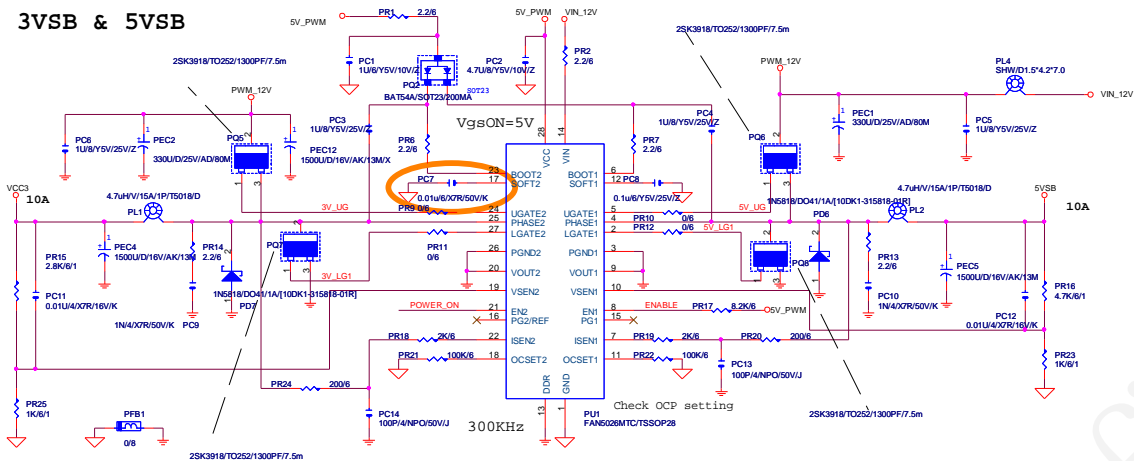
莫氏 (Q1120H60-70 H=9.3mm)

Title		<Title>
Size	Document Number	Rev
Customer	GA-BB45EF-RH	1.0
Date:	Wednesday, February 08, 2006	Sheet 34 of 38



GIGABYTE THCHNOLOGIES , INC.	
Title	DISCRETE POWER
Size	Document Number
Custom	GA-81945EF-RH
Date	Rev
Wednesday, February 06, 2006	1.0
Sheet	35 of 38

3VSB & 5VSB



確認Adaptor之pin define

GIGABYTE		
DC12V TO 12V,5V,3.3V		
Size Custom	Document Number	Rev
	GA-81945EF-RH	1.0
Date:	Wednesday, February 08, 2006	Sheet 38 of 38

INTEL ICH7 GPIO Implementation

紅字表示CPI/O 同PIN

GPIO PIN

Pin Name	Pin Type	Power Well			GPIO Application
GPIO[0]	I/O	VCC3	GPIO/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)	P6DET
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
PC11	PCLK0	-PCIRST	-REQ0/-GNT0	-PIROE	A_D16
PC12	PCLK1	-PCIRST	-REQ1/-GNT1	-PIROD	A_D17
PC13	PCLK2	-PCIRST	-REQ2/-GNT2	-PIROC	A_D18
1394b	1394CLK	-PFMRST2	-REQ3/-GNT3	-PIROH	A_D23
IT8212	RAIDCLK	-PFMRST2	-REQ4/-GNT4	-PIROG	A_D22

GIGABYTE			
GPIO TABLE			
File	Document Number	Rev	
Size	GA-8I945EF-RH	1.0	
Customer			
Date	Wednesday, February 08, 2006	Sheet	37 of 38

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 THCNOLOGIES , INC.

Title			GPIO/RESET TABLE		
Size	Document Number	GA-8I945EF-RH			Rev
Custom					1.0
Date:	Wednesday, February 08, 2006	Sheet	38	of	38