GIGABYTE GA-8IE2004P-L Schematics

Revision 1.0

SHEET	TITLE
01	COVER SHEET
02	BOM & PCB MODIFY HISTORY
03	WILLIAMATE_478A
04	WILLIAMATE_478B
05	WILLIAMATE_478C
06	MCH-BROOKDALE-E_A
07	MCH-BROOKDALE-E_B
08	MCH-BROOKDALE-E_C
09	MD0~63
10	DDR1~2
11	DDR-TERM
12	AGP
13	ICH4_1
14	ICH4_2
15	FWH (SINGLE BIOS)
16	ICS950223 CLOCK GEN
17	PCI1_2
18	PCI3_4
19	PCI5
20	ITE LPC I/O
21	IDE
22	KB_PS2

SHEET	TITLE
23	COM_LPT_FDD
24	F-USB1 & F-USB2
25	FPANEL
26	CODEC
27	AUDIO_GAMEPORT
28	AUDIO_SPDIF
29	DDR POWER
30	POWER1
31	POWER2
32	LAN RTL8100C & B-USB CONNECTOR
33	GPIO LIST
34	PCI ROUNT LIST
35	
36	
37	
38	
PCB	4V藍C

Digitally signed by fdsf
DN: cn=fdsf, o=fsdfsd, ou=ffsdf, email=fdfsd@fsdff, c=US
Date: 2009.12.15 20:45:36 +07'00'

COMPONENT SIDE (0.5 oz. Copper)
VCC SIDE (1 oz. Copper)
GND SIDE (1 oz. Copper)
SOLDER SIDE (0.5 oz. Copper)

GIGABYTE

Title: COVER SHEET

Size: Custom | Document Number: GA-8IE2004P-L | Rev: 1.0

Date: 星期一, 七月 21, 2003 | Sheet 1 of 34

Model Name: 8IE2004P-L

Version: 1.0

BOM 修改 History

2003/07/21

BOM 版本	修改項目內容	修改原因
06/13	BOM MODIFY FROM 8IE800-00-11E	1.LAN RTL8100C
		2.AC97 ALC655
07/07	PVT BOM:8IE2004P-00-10A P-BOM	1.R211->R210 (4.7K)PULL-UP FOR REALTEK MTS
		2.改CU1:ALC655/D
07/21	MP ECN 刪除:群祥(USB,KB_MS孔徑太小),十美從未試產	

PCB version 變更(線路及Layout Change)Histoty

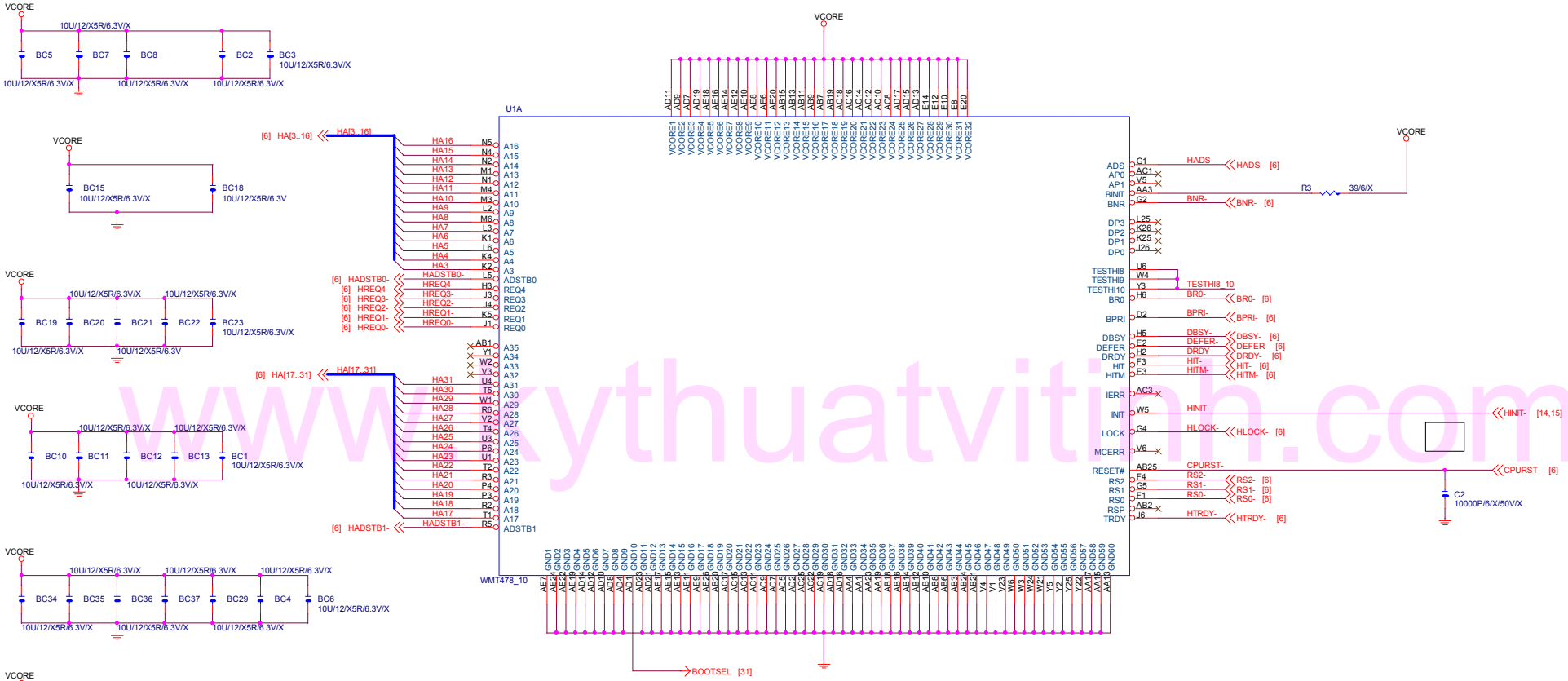
PCB 版本	修改項目內容	修改原因

GIGABYTE

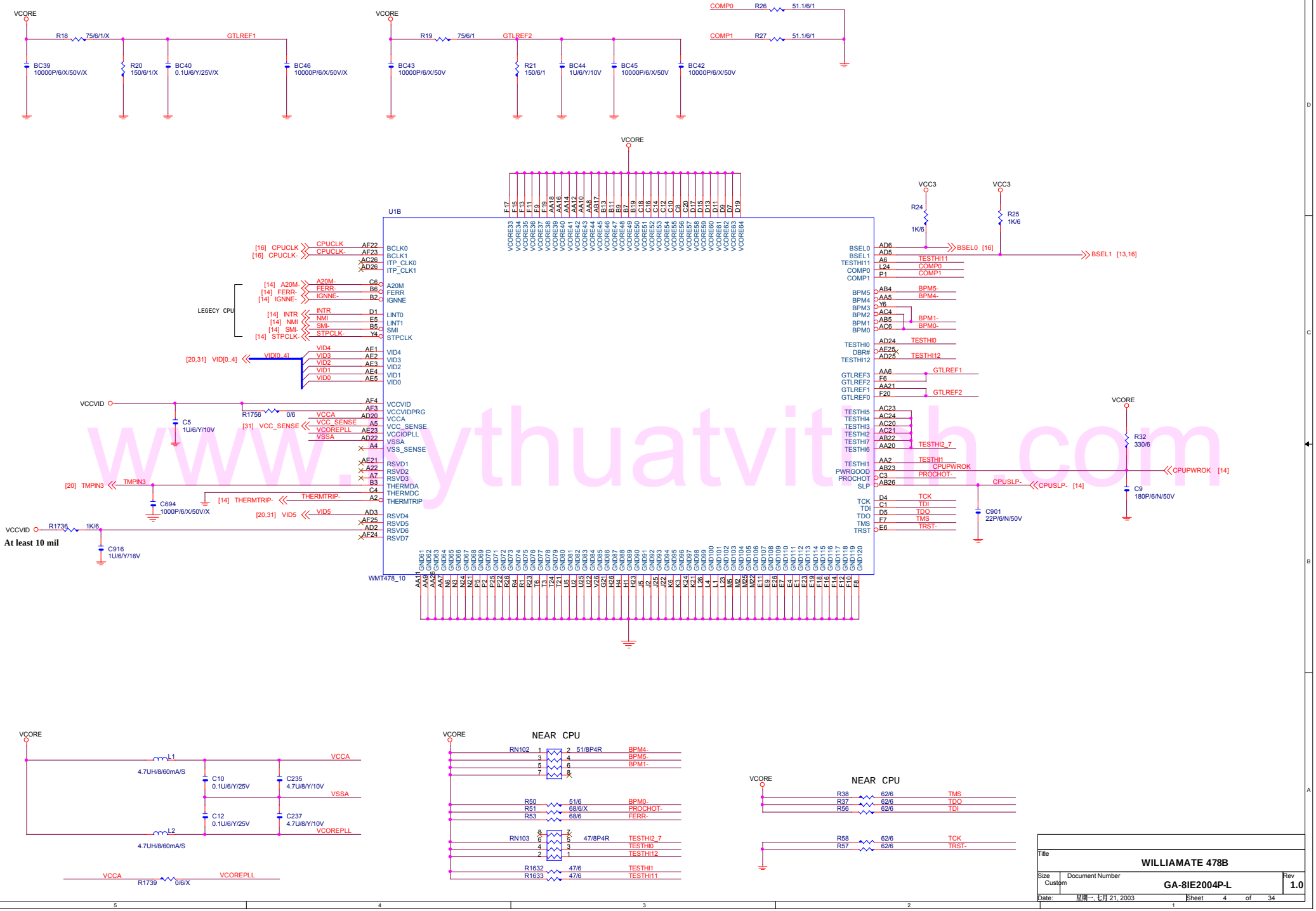
Title: BOM & PCB MODIFY HISTORY

Size: Custom | Document Number: GA-8IE2004P-L | Rev: 1.0

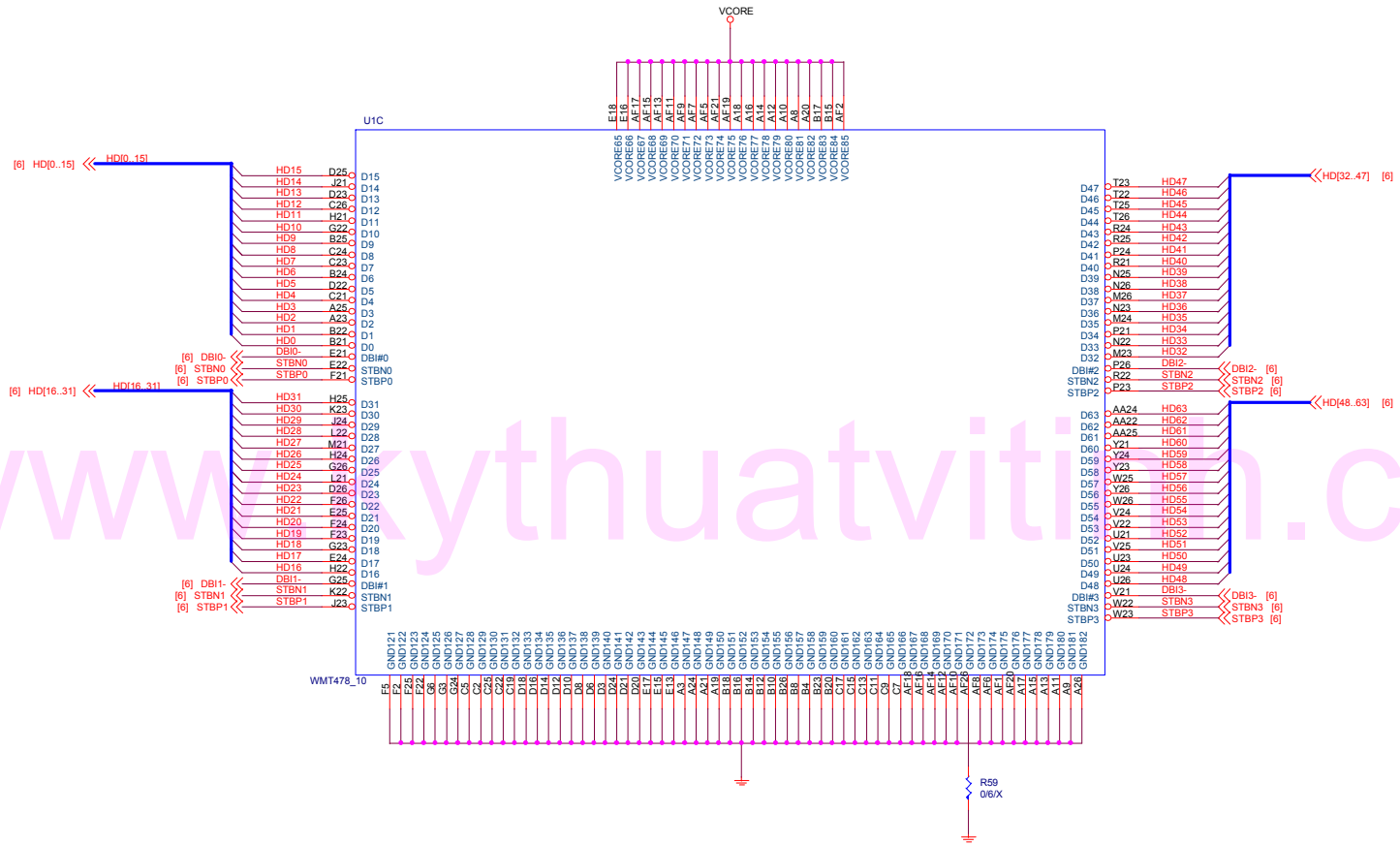
Date: 星期一, 七月 21, 2003 | Sheet 2 of 34

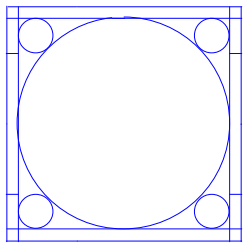


Title	WILLIAMATE 478A	
Size: Custom	Document Number: GA-8IE2004P-L	Rev: 1.0
Date: 星期一, 七月 21, 2003	Sheet 3 of 34	

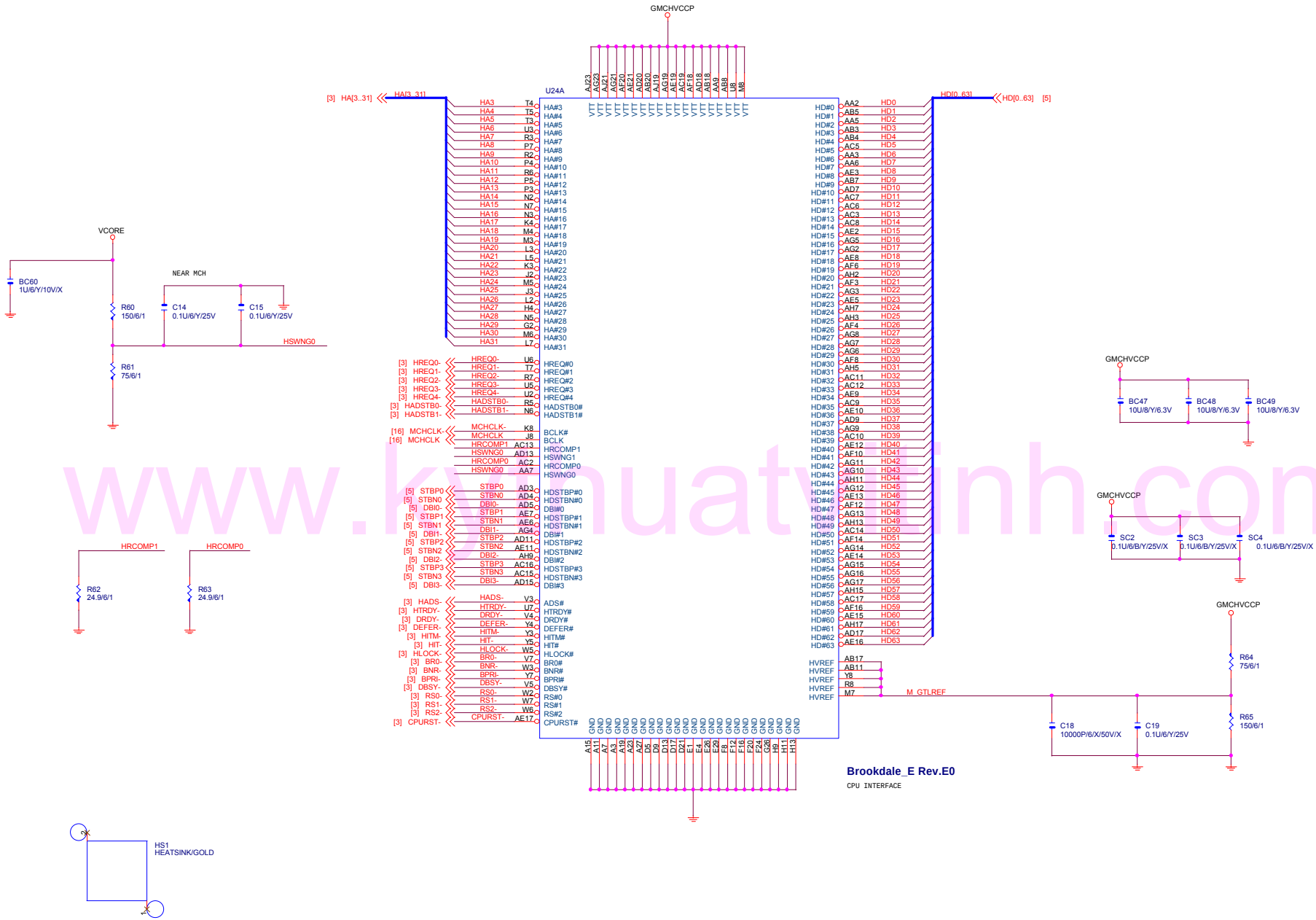


Title	WILLIAMATE 478B	
Size: Custom	Document Number: GA-8IE2004P-L	Rev: 1.0
Date: 星期一, 七月 21, 2003	Sheet 4 of 34	

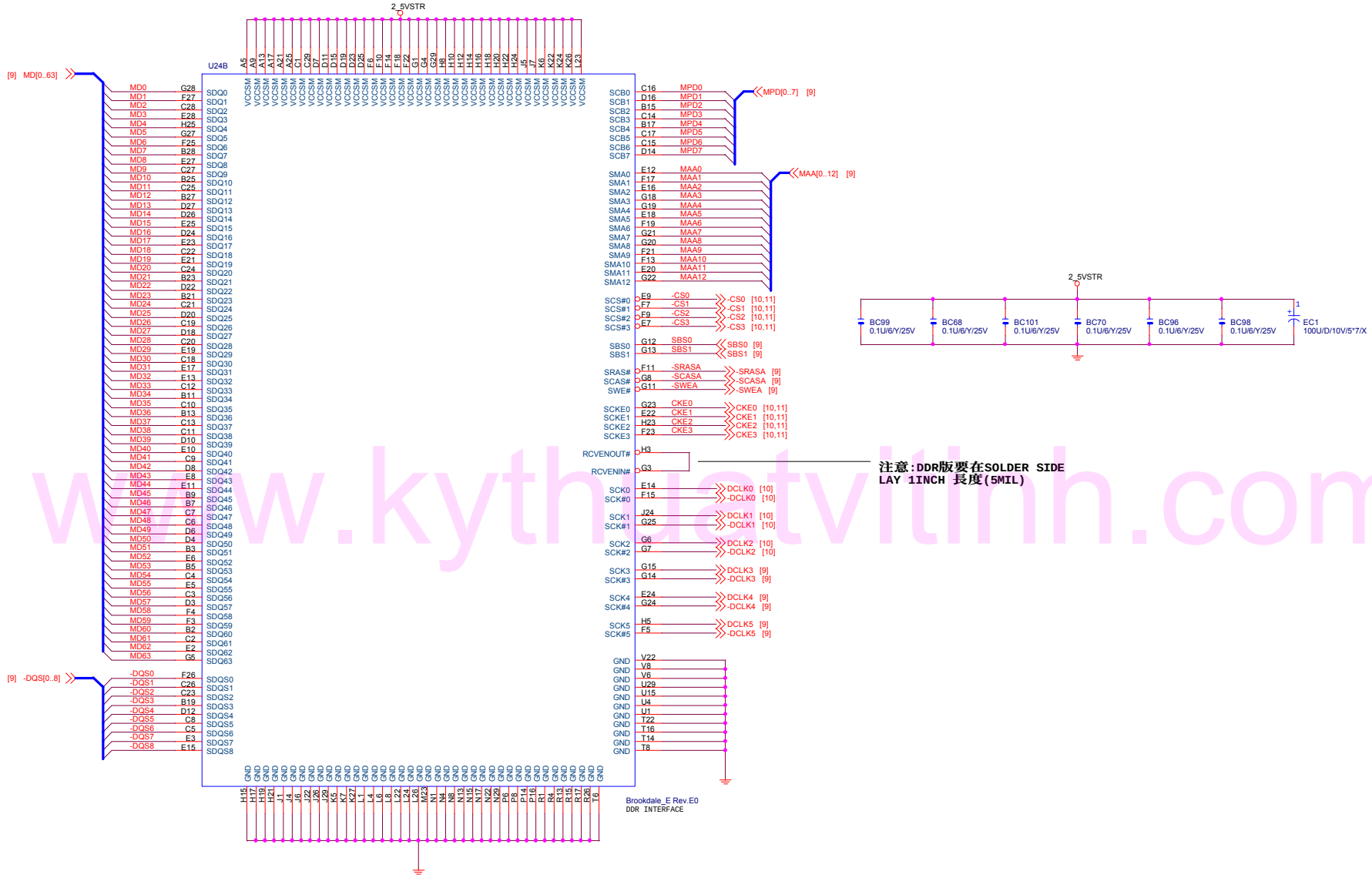




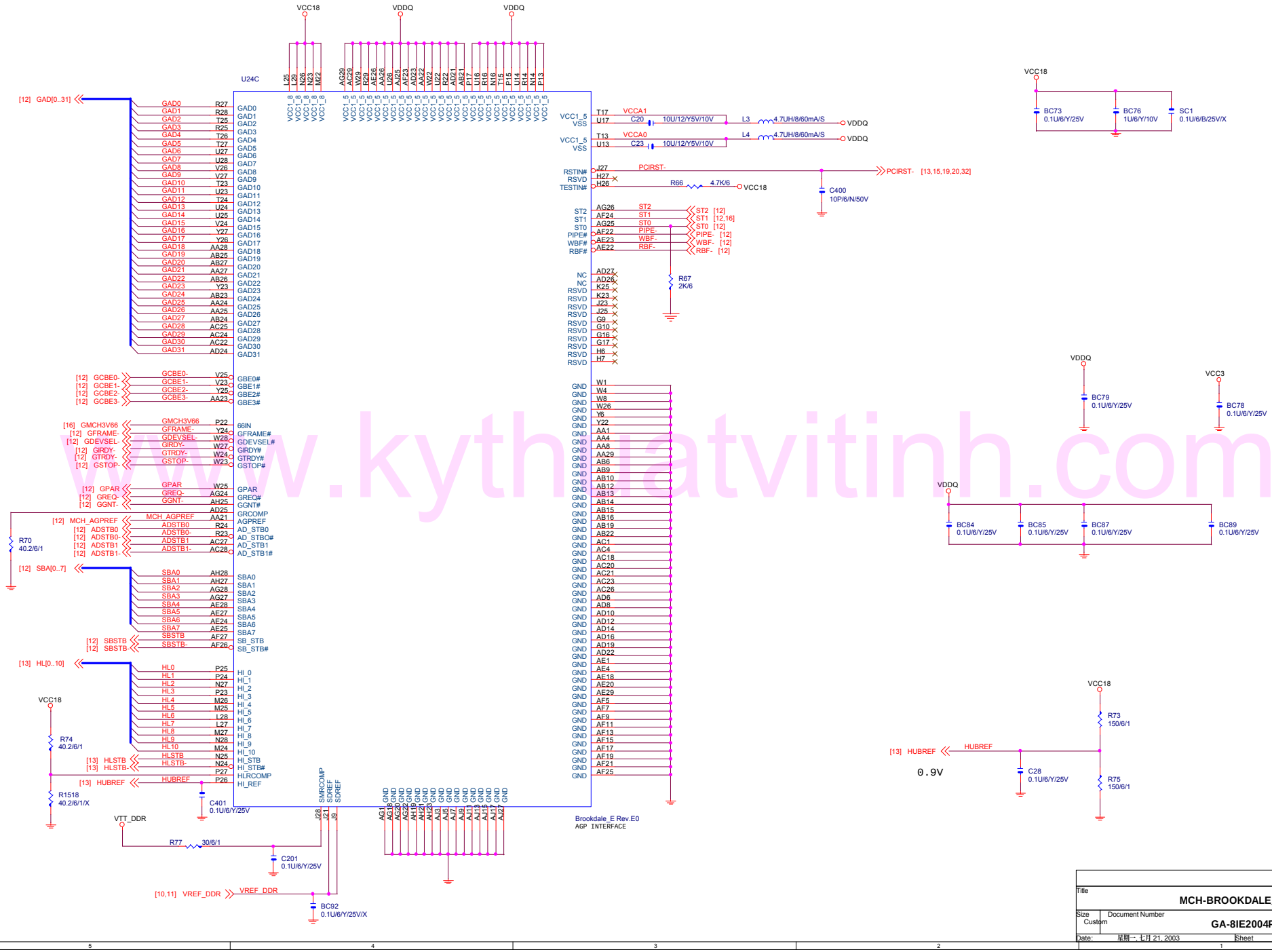
Title	WILLIAMATE 478C	
Size: Custom	Document Number: GA-8IE2004P-L	Rev: 1.0
Date: 星期一, 七月 21, 2003	Sheet 5 of 34	

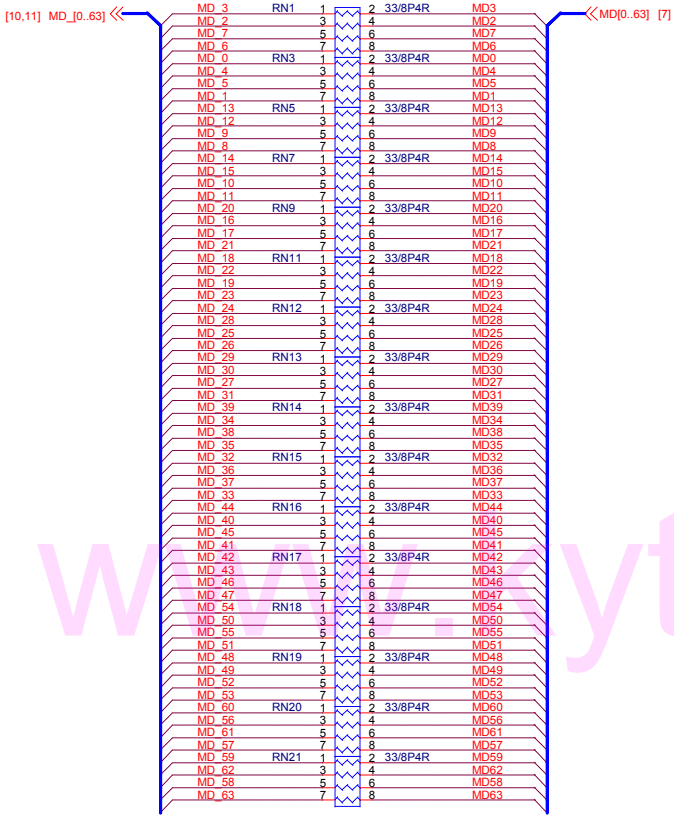


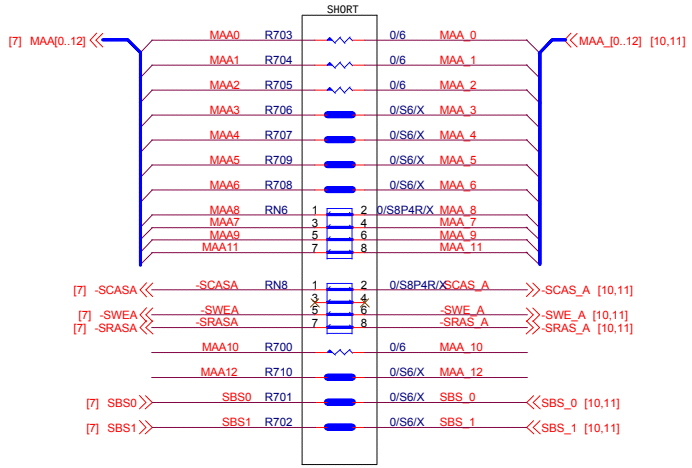
Title	MCH-BROOKDALE_E_A	
Size: Custom	Document Number: GA-8IE2004P-L	Rev: 1.0
Date: 星期一, 七月 21, 2003	Sheet 6 of 34	

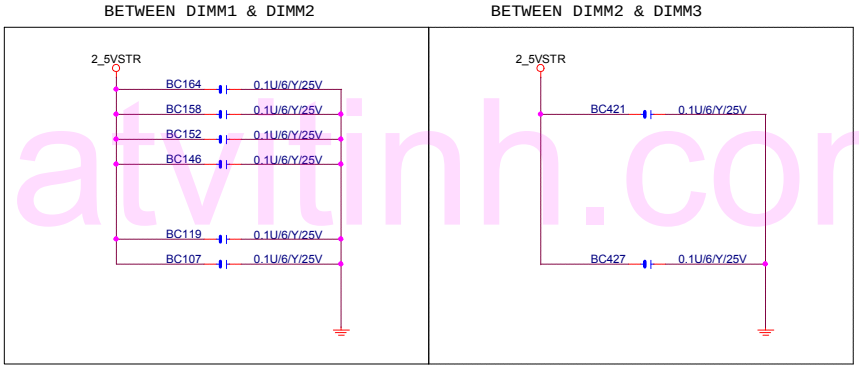


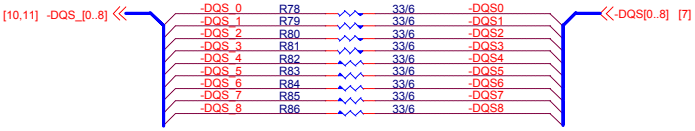
Title	MCH-BROOKDALE_E_B	
Size: Custom	Document Number: GA-8IE2004P-L	Rev: 1.0
Date: 星期一, 七月 21, 2003	Sheet 7 of 34	

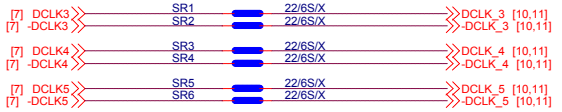


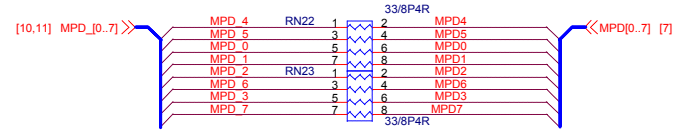


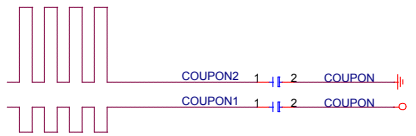










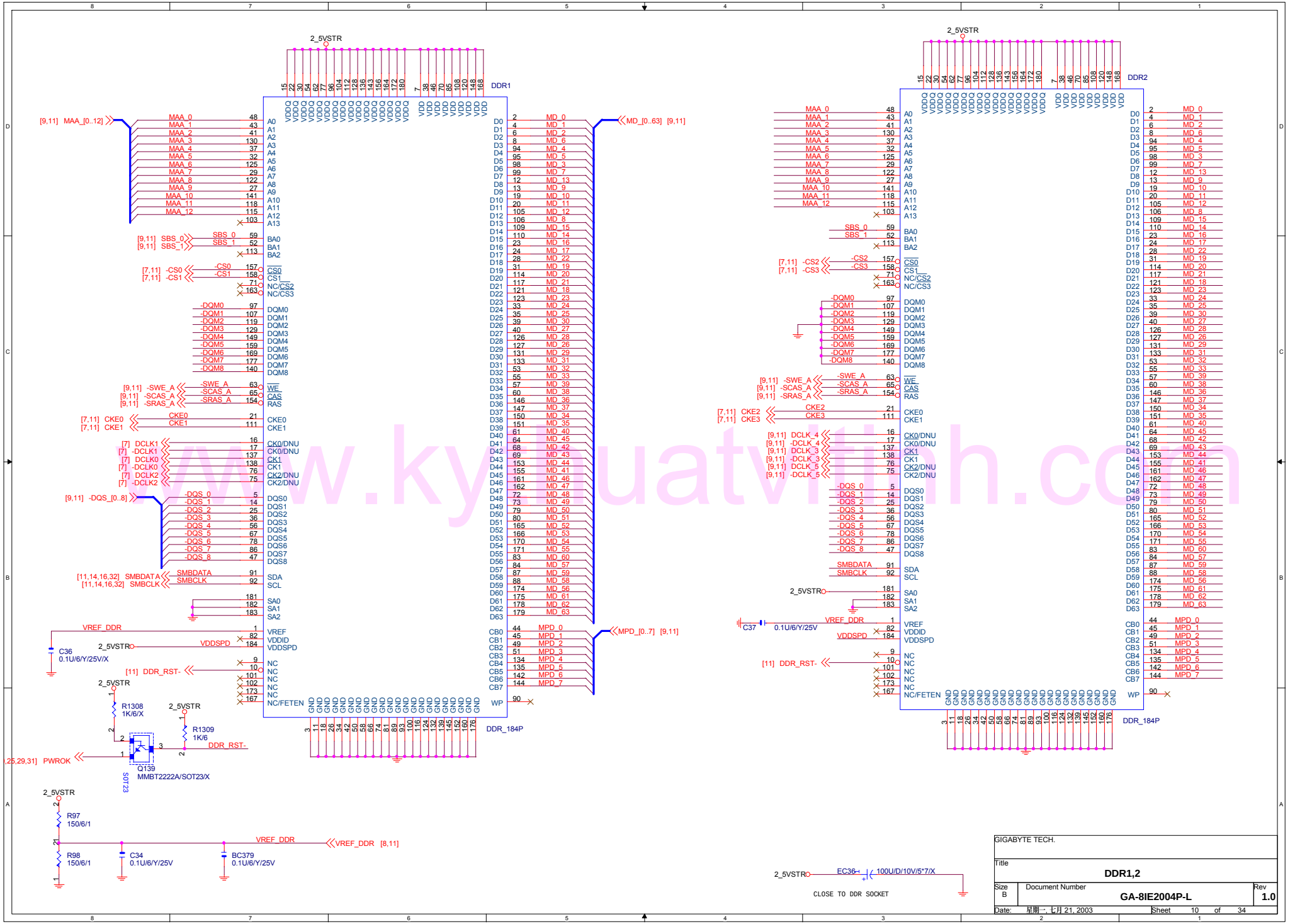


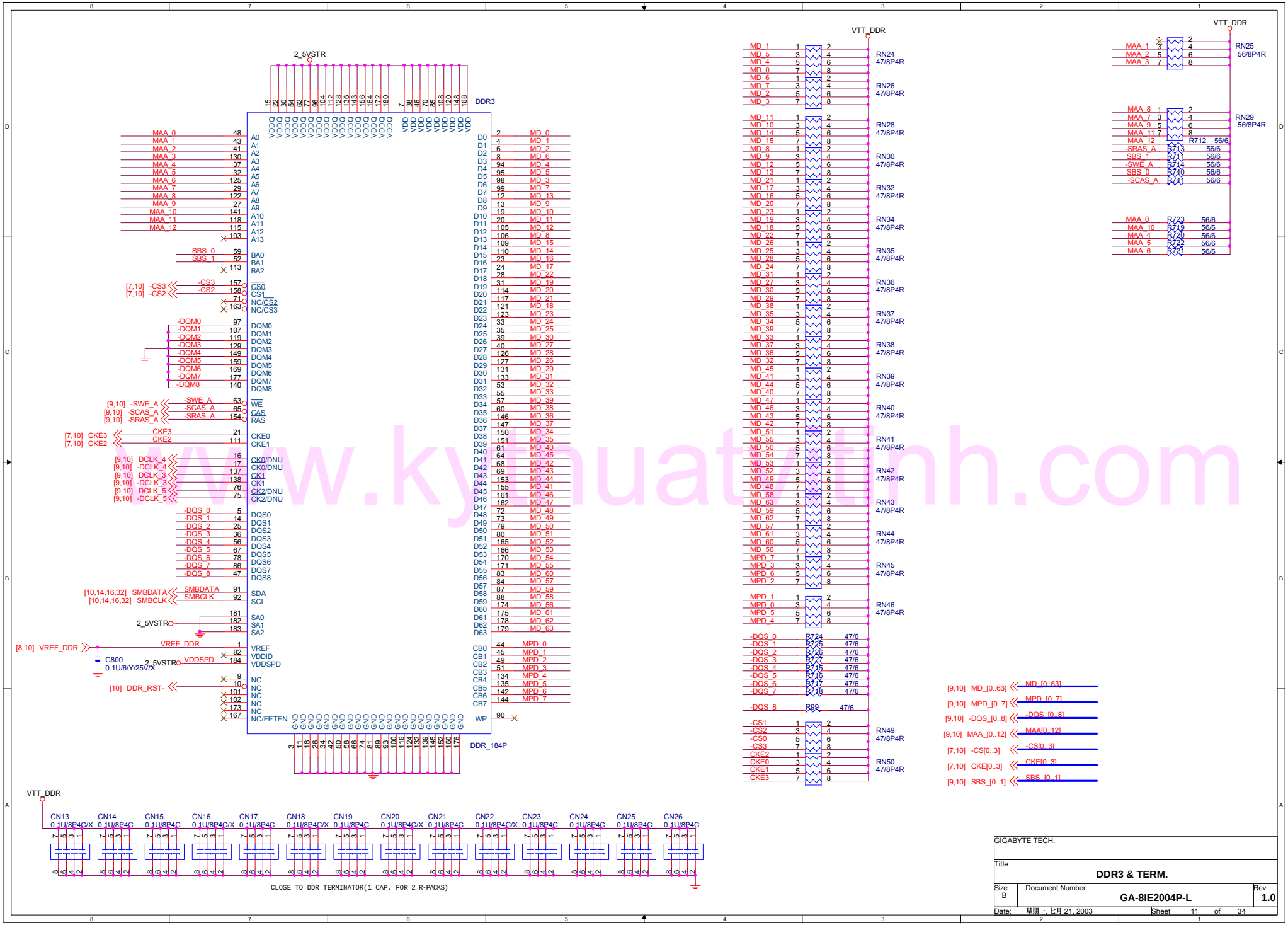
GIGABYTE CORP.

Title: **MD0_63 SERIAL TERM.**

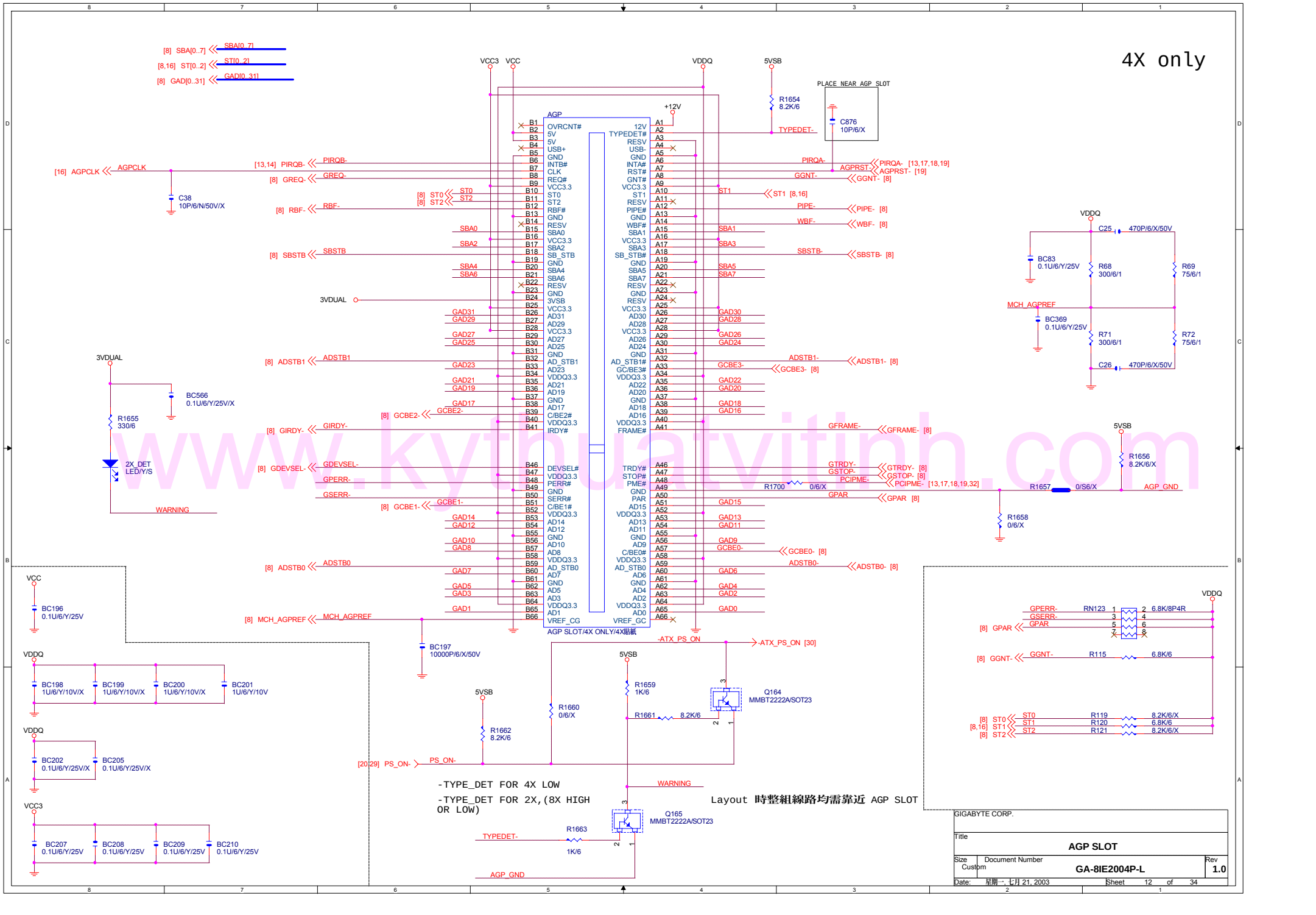
Size	Document Number	Rev
B	GA-8IE2004P-L	1.0

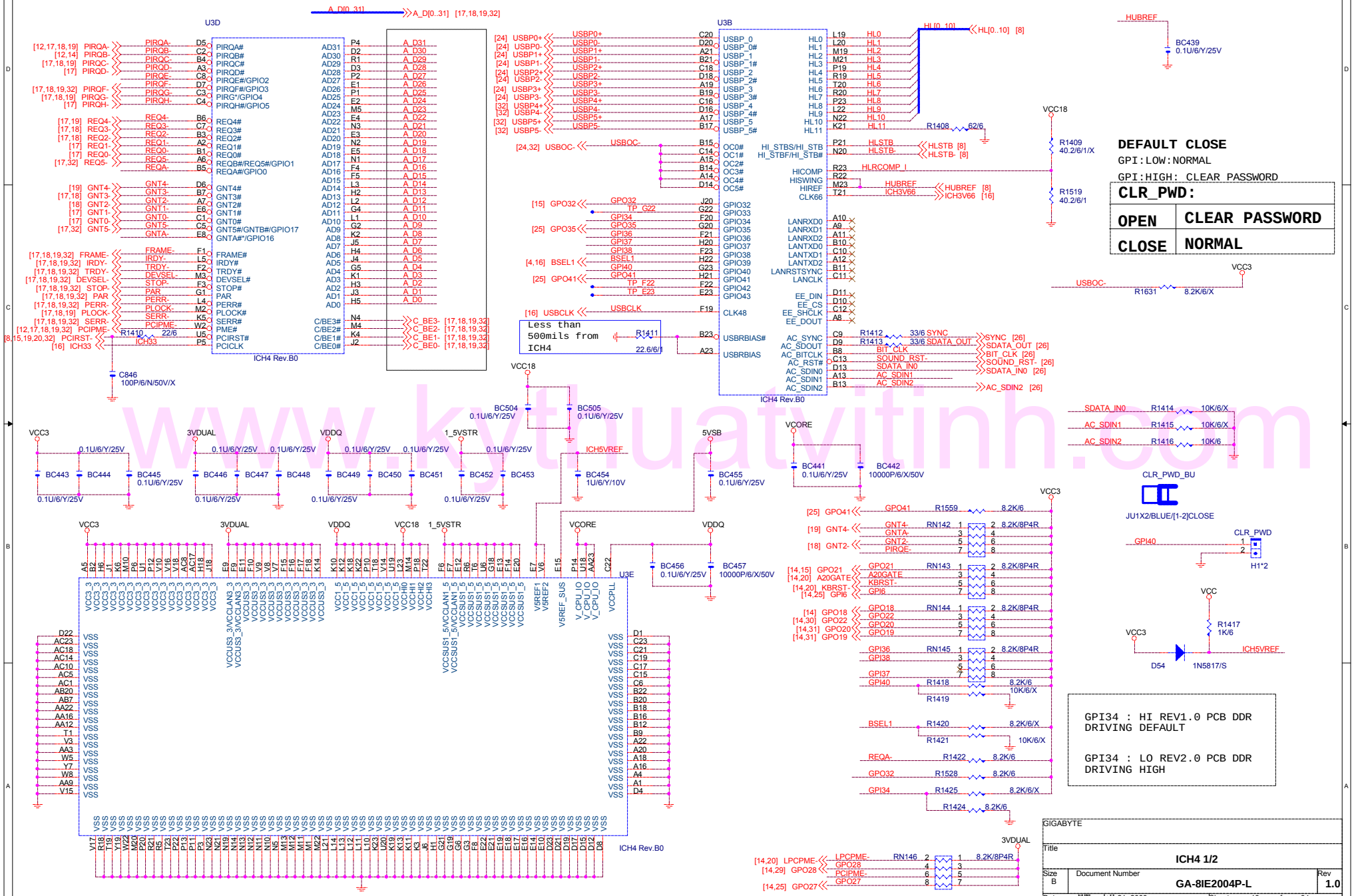
Date: 星期一, 七月 21, 2003 Sheet 9 of 34

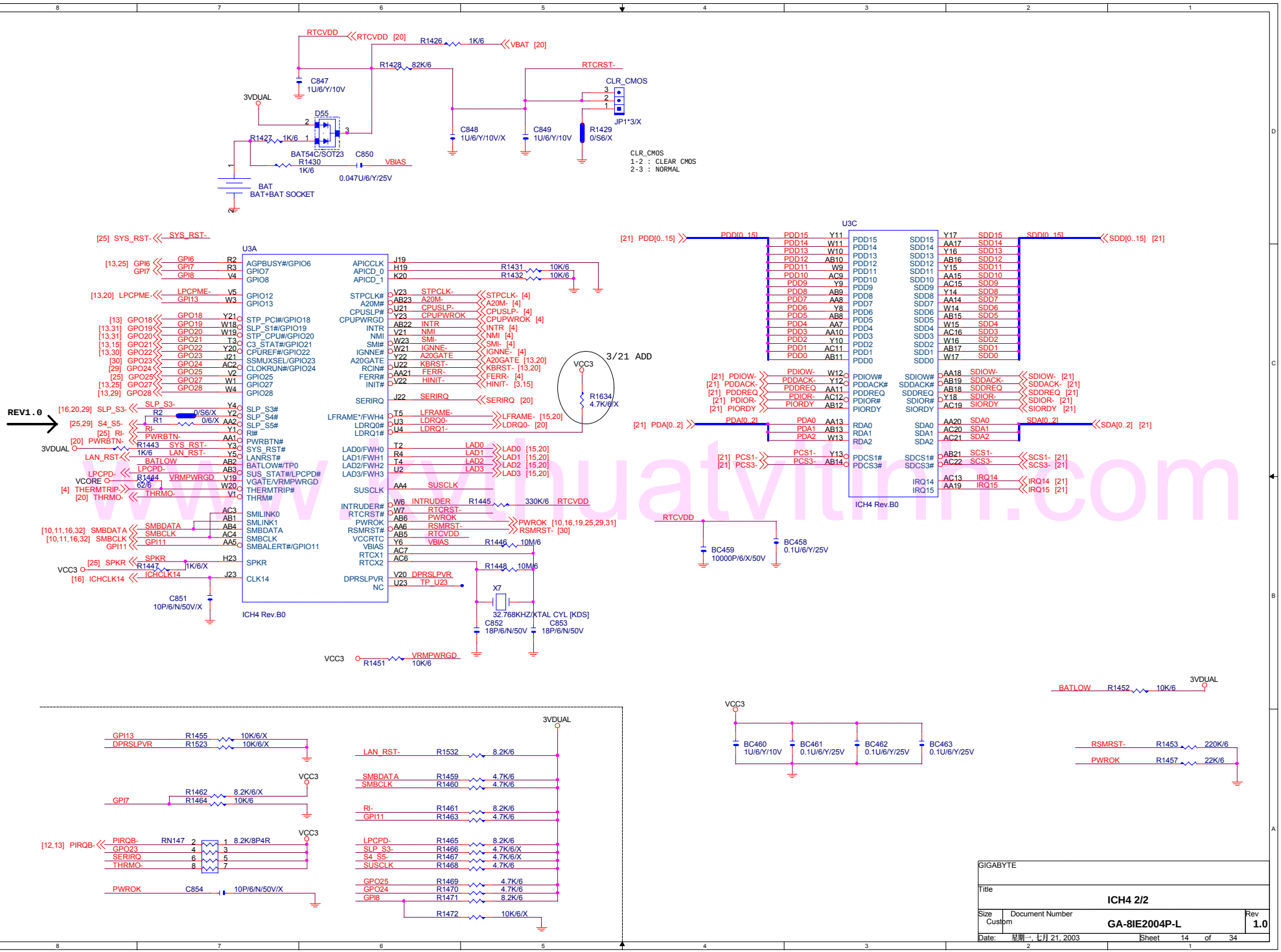

DDR1
DDR2
DDR_184P
2_5VSTR
MAA_[0..12]
MD_[0..63]
MPD_[0..7]
DDR_RST-
PWROK
VREF_DDR
VDDSPD
R1308 1K/6/X
R1309 1K/6
Q139 MMBT2222A/SOT23/X
R97 150/6/1
R98 150/6/1
C34 0.1U/6/Y/25V
BC379 0.1U/6/Y/25V
C36 0.1U/6/Y/25V/X
C37 0.1U/6/Y/25V
EC36 100U/D/10V/5*7/X
CLOSE TO DDR SOCKET
GIGABYTE TECH.
DDR1,2
GA-8IE2004P-L
1.0
星期一, 七月 21, 2003

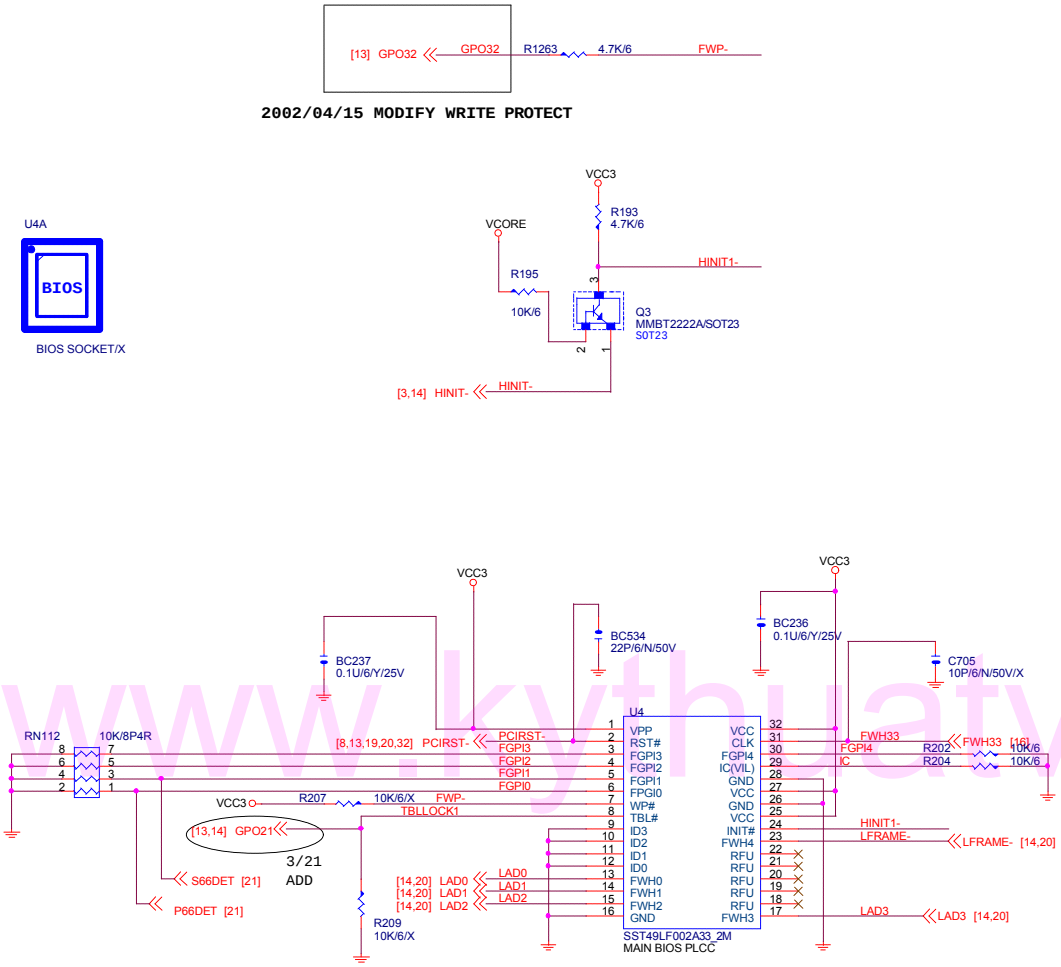


GIGABYTE TECH.		
Title	DDR3 & TERM.	
Size B	Document Number GA-8IE2004P-L	Rev 1.0
Date: 星期一, 七月 21, 2003	Sheet 11 of 34	

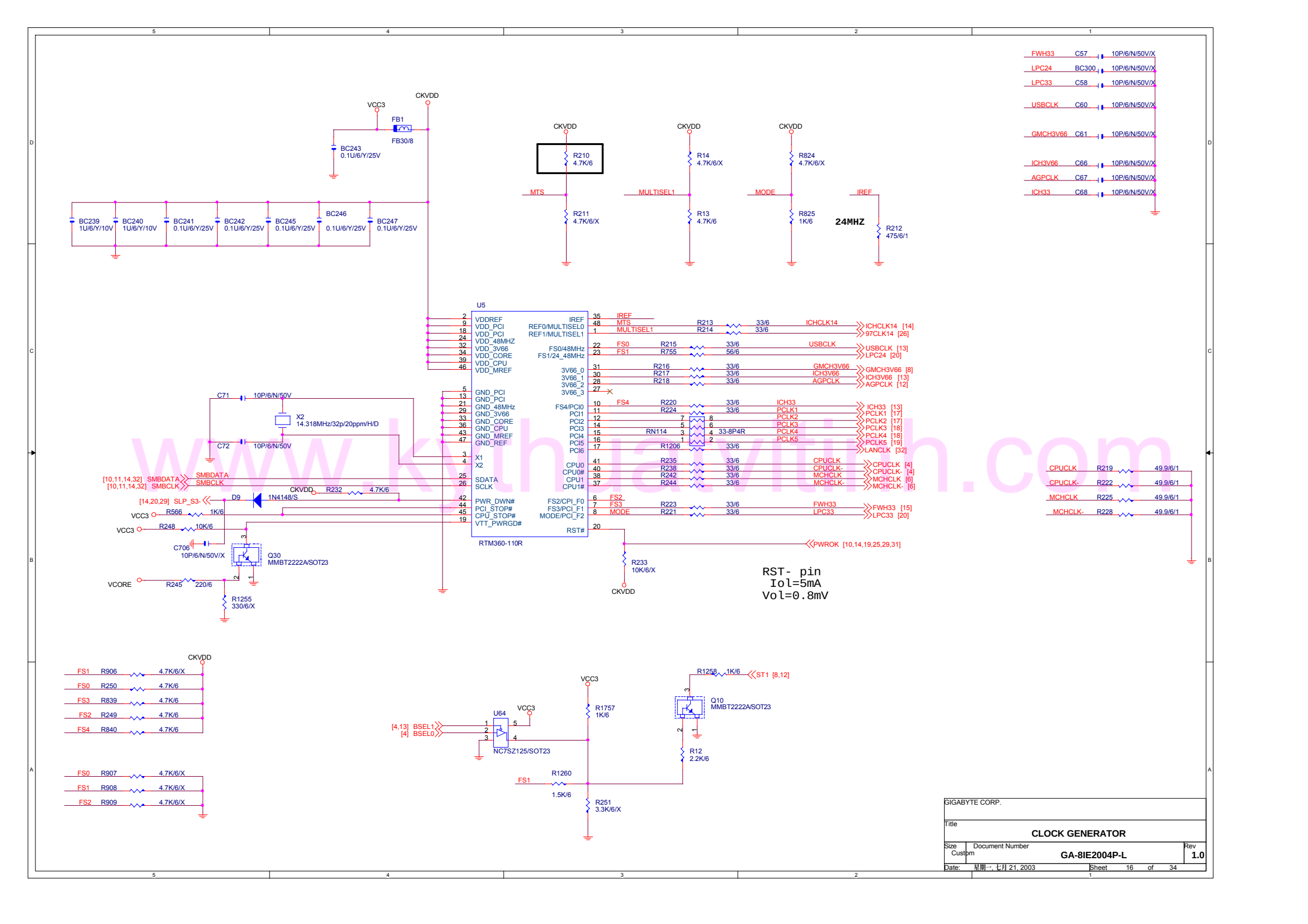


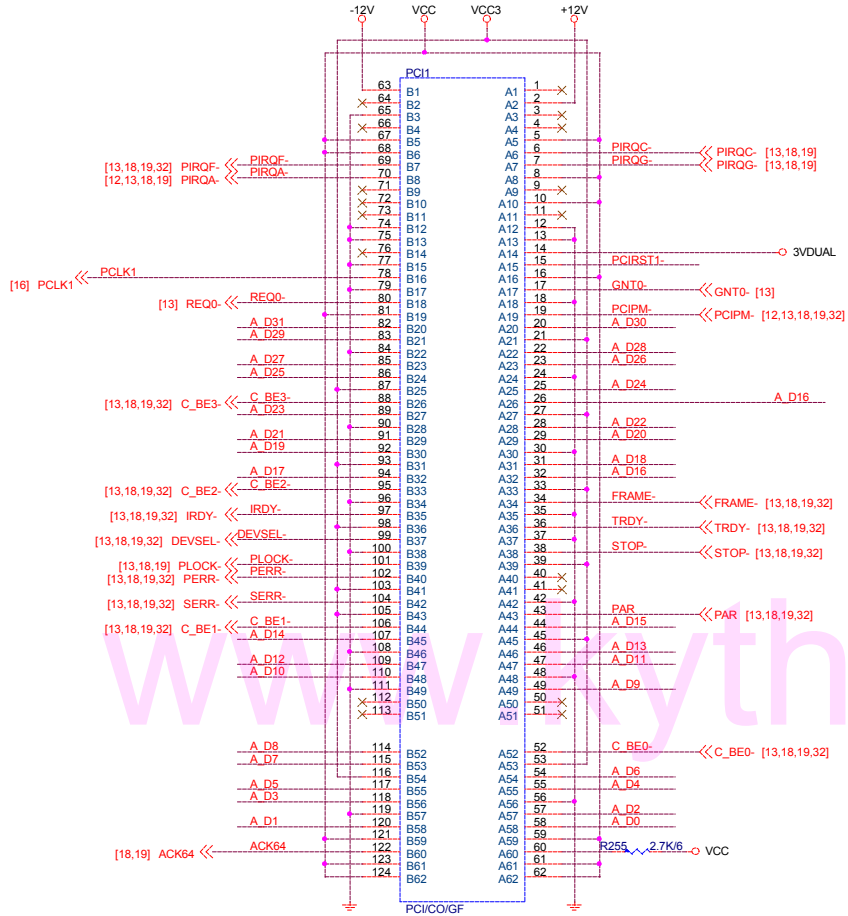


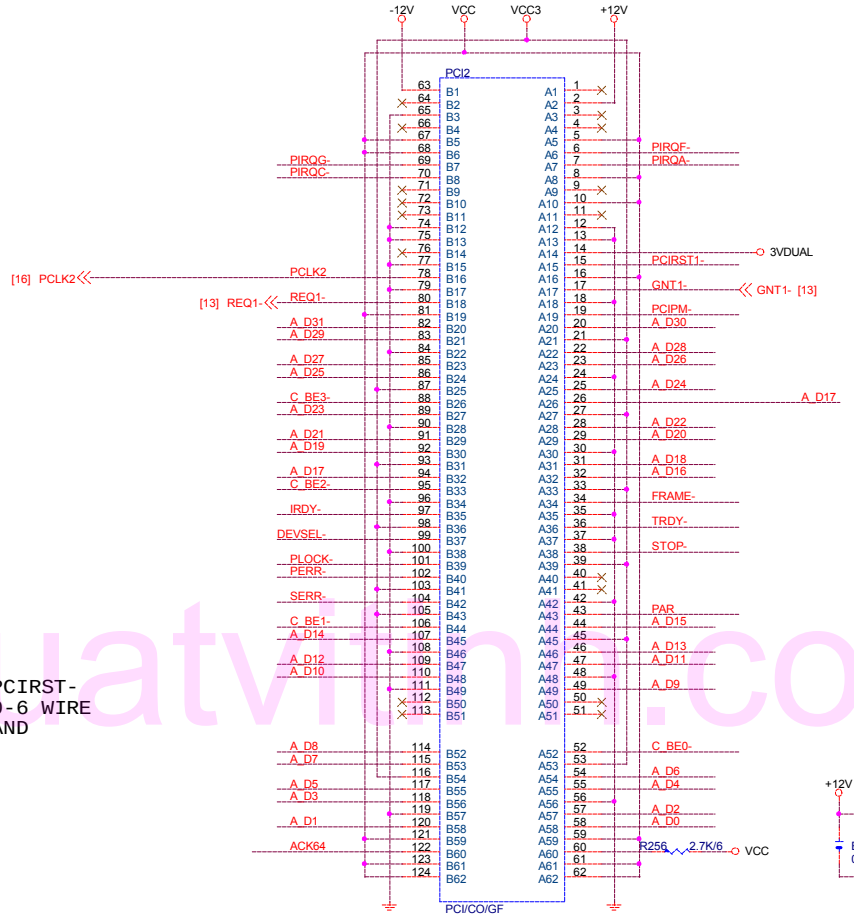

RTCVDD
RTCVDD [20]
R1426 1K/6
VBAT [20]
R1428 82K/6
RTCRST-
C847 1U/6/Y/10V
CLR_CMOS
3VDUAL
D55
R1427 1K/6
BAT54C/SOT23
C850 0.047U/6/Y/25V
VBIAS
C848 1U/6/Y/10V/X
C849 1U/6/Y/10V
R1429 0/S6/X
JP1*3/X
CLR_CMOS
1-2 : CLEAR CMOS
2-3 : NORMAL
BAT
BAT+BAT SOCKET
U3A
ICH4 Rev.B0
U3C
ICH4 Rev.B0
3/21 ADD
VCC3
R1634 4.7K/6/X
REV1.0
R1431 10K/6
R1432 10K/6
R1443 1K/6
R1444 62/6
R1445 330K/6
R1446 10M/6
R1448 10M/6
R1451 10K/6
X7
32.768KHZ/XTAL CYL [KDS]
C851 10P/6/N/50V/X
C852 18P/6/N/50V
C853 18P/6/N/50V
BC458 0.1U/6/Y/25V
BC459 10000P/6/X/50V
BC460 1U/6/Y/10V
BC461 0.1U/6/Y/25V
BC462 0.1U/6/Y/25V
BC463 0.1U/6/Y/25V
R1452 10K/6
R1453 220K/6
R1457 22K/6
R1455 10K/6/X
R1523 10K/6/X
R1459 4.7K/6
R1460 4.7K/6
R1461 8.2K/6
R1462 8.2K/6/X
R1463 4.7K/6
R1464 10K/6
R1465 8.2K/6
R1466 4.7K/6/X
R1467 4.7K/6/X
R1468 4.7K/6
R1469 4.7K/6
R1470 4.7K/6
R1471 8.2K/6
R1472 10K/6/X
R1532 8.2K/6
RN147 8.2K/8P4R
C854 10P/6/N/50V/X
GIGABYTE
Title
ICH4 2/2
Size Custom
Document Number
GA-8IE2004P-L
Rev 1.0
Date: 星期一, 七月 21, 2003
Sheet 14 of 34



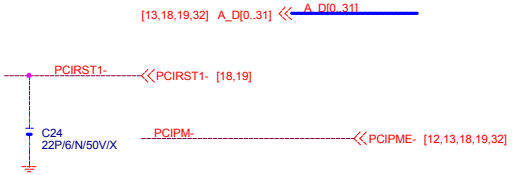
GIGABYTE CORP.		
Title: FWH		
Size: B	Document Number: GA-8IE2004P-L	Rev: 1.0
Date: 星期一, 七月 21, 2003	Sheet 15 of 34	


VCC3
CKVDD
FB1
FB30/8
BC243 0.1U/6/Y/25V
BC239 1U/6/Y/10V
BC240 1U/6/Y/10V
BC241 0.1U/6/Y/25V
BC242 0.1U/6/Y/25V
BC245 0.1U/6/Y/25V
BC246 0.1U/6/Y/25V
BC247 0.1U/6/Y/25V
R210 4.7K/6
R211 4.7K/6/X
R14 4.7K/6/X
R13 4.7K/6
R824 4.7K/6/X
R825 1K/6
24MHZ
R212 475/6/1
MTS
MULTISEL1
MODE
IREF
FWH33 C57 10P/6/N/50V/X
LPC24 BC300 10P/6/N/50V/X
LPC33 C58 10P/6/N/50V/X
USBCLK C60 10P/6/N/50V/X
GMCH3V66 C61 10P/6/N/50V/X
ICH3V66 C66 10P/6/N/50V/X
AGPCLK C67 10P/6/N/50V/X
ICH33 C68 10P/6/N/50V/X
U5
RTM360-110R
VDDREF
VDD_PCI
VDD_48MHZ
VDD_3V66
VDD_CORE
VDD_CPU
VDD_MREF
GND_PCI
GND_48MHz
GND_3V66
GND_CORE
GND_CPU
GND_MREF
GND_REF
X1
X2
SDATA
SCLK
PWR_DWN#
PCI_STOP#
CPU_STOP#
VTT_PWRGD#
RST#
REF0/MULTISEL0
REF1/MULTISEL1
FS0/48MHz
FS1/24_48MHz
3V66_0
3V66_1
3V66_2
3V66_3
FS4/PCI0
PCI1
PCI2
PCI3
PCI4
PCI5
PCI6
CPU0
CPU0#
CPU1
CPU1#
FS2/CPI_F0
FS3/PCI_F1
MODE/PCI_F2
C71 10P/6/N/50V
C72 10P/6/N/50V
X2 14.318MHz/32p/20ppm/H/D
[10,11,14,32] SMBDATA
[10,11,14,32] SMBCLK
SMBDATA
SMBCLK
[14,20,29] SLP_S3-
D9 1N4148/S
R232 4.7K/6
R566 1K/6
R248 10K/6
C706 10P/6/N/50V/X
Q30 MMBT2222A/SOT23
VCORE
R245 220/6
R1255 330/6/X
R213 33/6
R214 33/6
ICHCLK14
ICHCLK14 [14]
97CLK14 [26]
R215 33/6
R755 56/6
USBCLK
USBCLK [13]
LPC24 [20]
R216 33/6
R217 33/6
R218 33/6
GMCH3V66
ICH3V66
AGPCLK
GMCH3V66 [8]
ICH3V66 [13]
AGPCLK [12]
R220 33/6
R224 33/6
ICH33
ICH33 [13]
PCLK1 [17]
PCLK2 [17]
PCLK3 [18]
PCLK4 [18]
PCLK5 [19]
LANCLK [32]
RN114 33-8P4R
R1206 33/6
R235 33/6
R238 33/6
R242 33/6
R244 33/6
CPUCLK
CPUCLK- [4]
MCHCLK [6]
MCHCLK- [6]
R223 33/6
R221 33/6
FWH33
LPC33
FWH33 [15]
LPC33 [20]
PWROK [10,14,19,25,29,31]
R233 10K/6/X
CPUCLK R219 49.9/6/1
CPUCLK- R222 49.9/6/1
MCHCLK R225 49.9/6/1
MCHCLK- R228 49.9/6/1
RST- pin
Iol=5mA
Vol=0.8mV
FS1 R906 4.7K/6/X
FS0 R250 4.7K/6
FS3 R839 4.7K/6
FS2 R249 4.7K/6
FS4 R840 4.7K/6
FS0 R907 4.7K/6/X
FS1 R908 4.7K/6/X
FS2 R909 4.7K/6/X
U64
NC7SZ125/SOT23
[4,13] BSEL1
[4] BSEL0
R1757 1K/6
R1258 1K/6
ST1 [8,12]
Q10 MMBT2222A/SOT23
R12 2.2K/6
R1260 1.5K/6
R251 3.3K/6/X
GIGABYTE CORP.
Title
CLOCK GENERATOR
Size Custom
Document Number GA-8IE2004P-L
Rev 1.0
Date: 星期一, 七月 21, 2003
Sheet 16 of 34

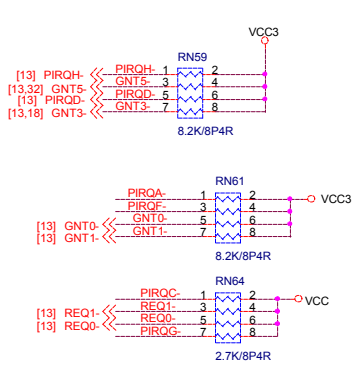


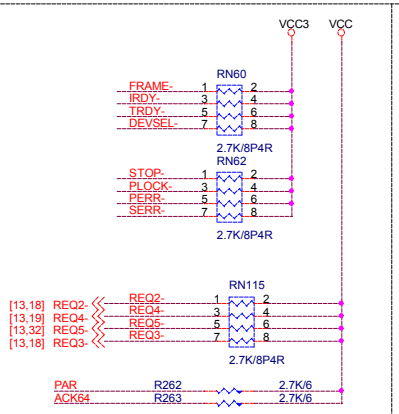


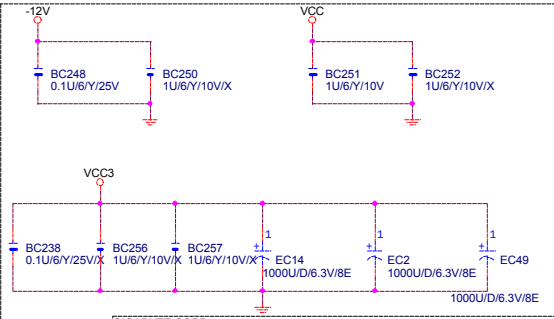
PCIRST-
0-6 WIRE
AND



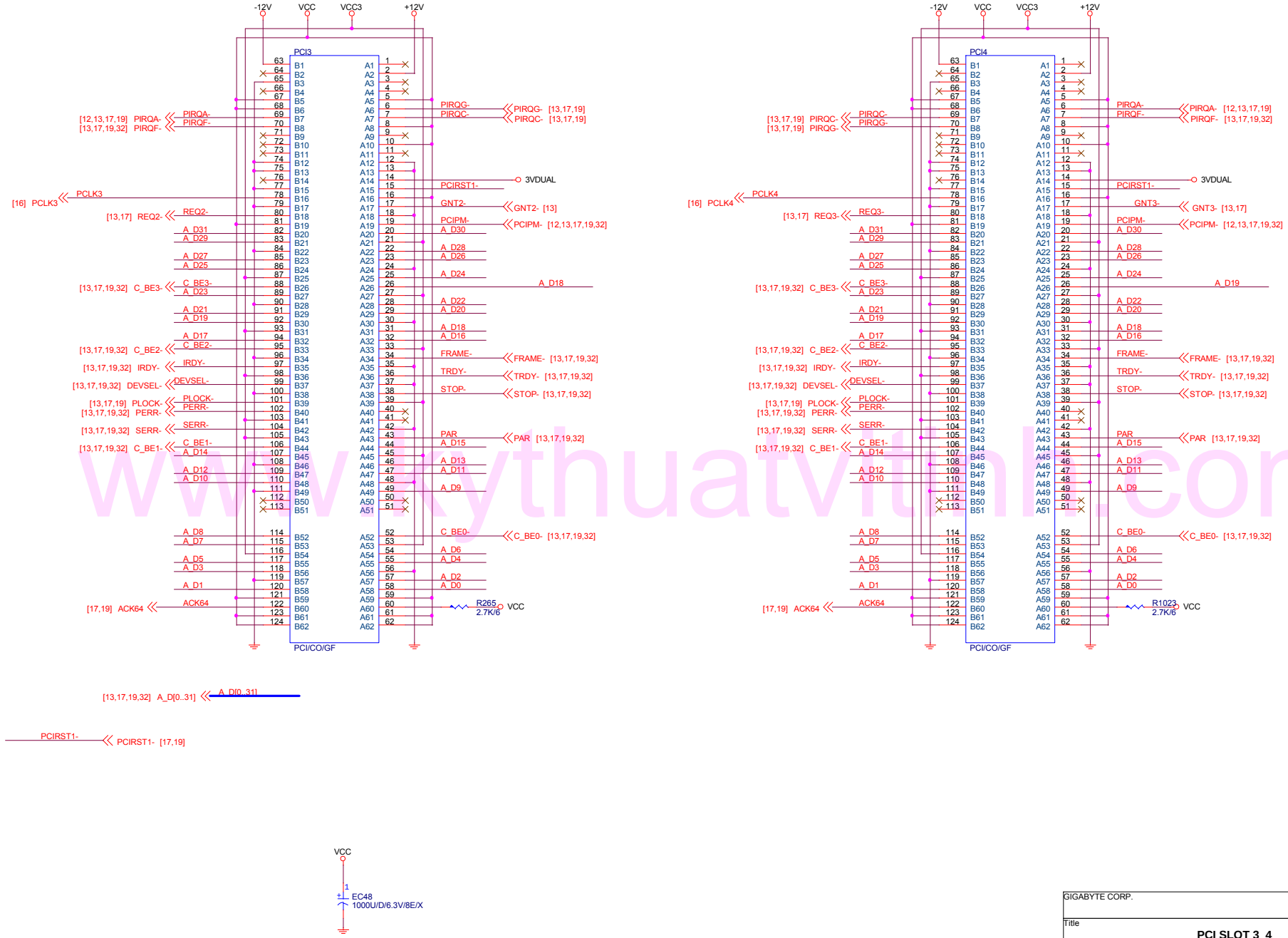
CLOSE PCI1 SLOT



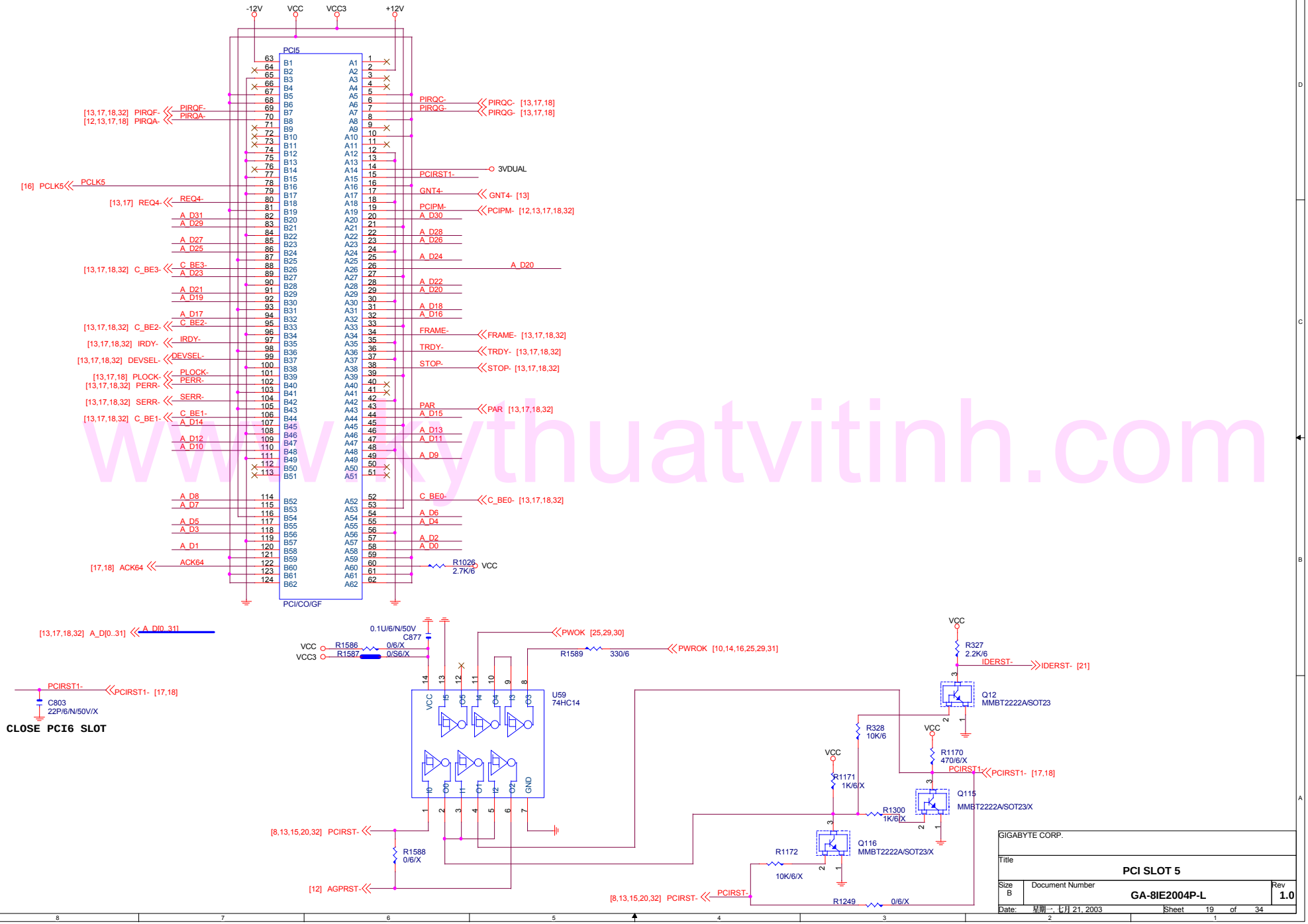


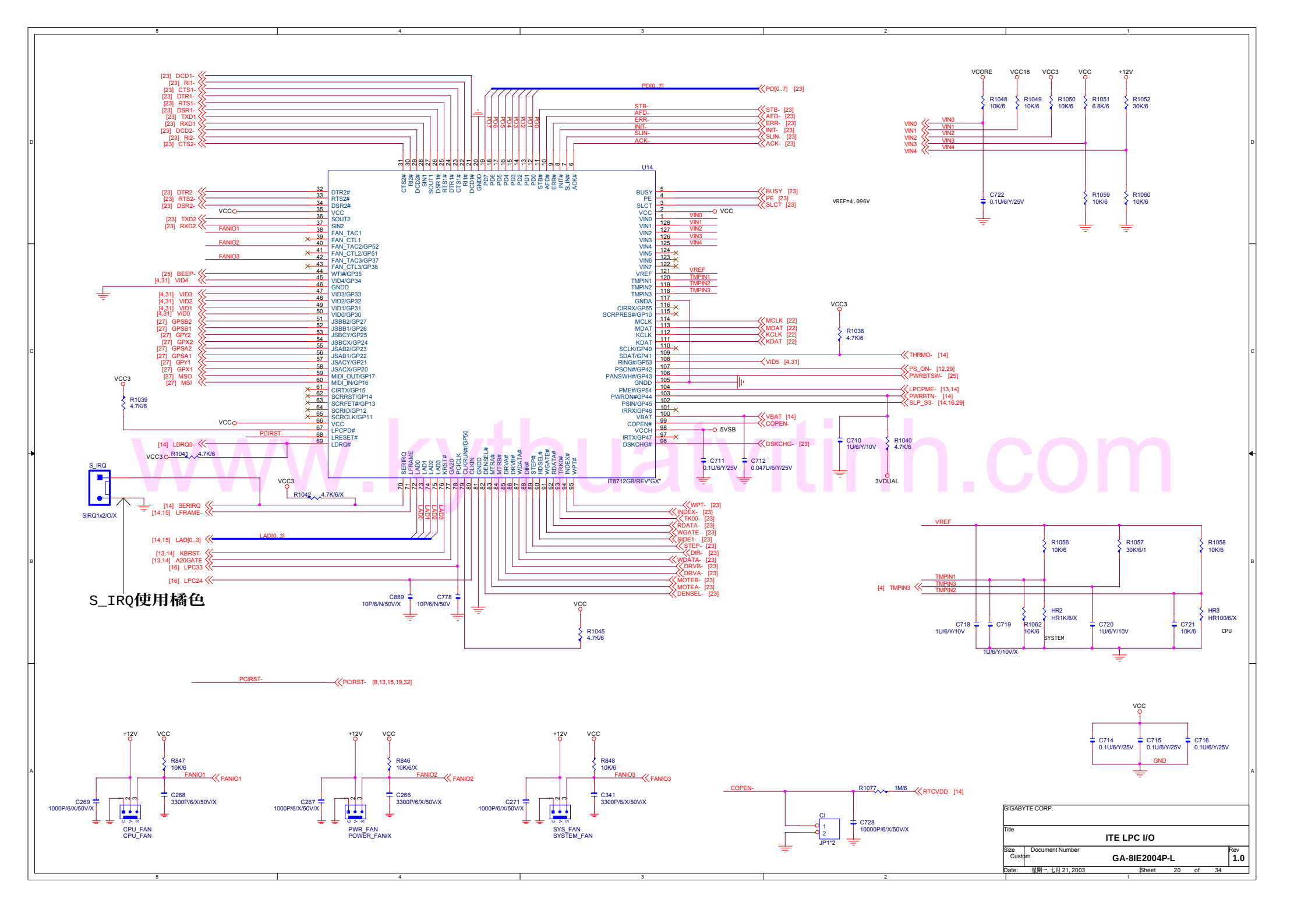


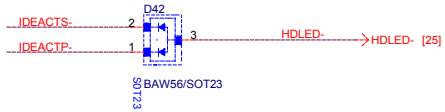
GIGABYTE CORP.		
Title: PCI SLOT 1/2		
Size: B	Document Number: GA-8IE2004P-L	Rev: 1.0
Date: 星期一, 七月 21, 2003	Sheet 17 of 34	

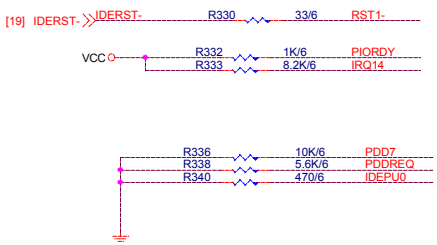


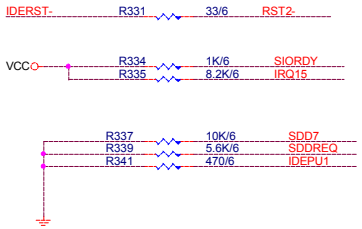
GIGABYTE CORP.		
Title: PCI SLOT 3_4		
Size: B	Document Number: GA-8IE2004P-L	Rev: 1.0
Date: 星期一, 七月 21, 2003	Sheet 18 of 34	



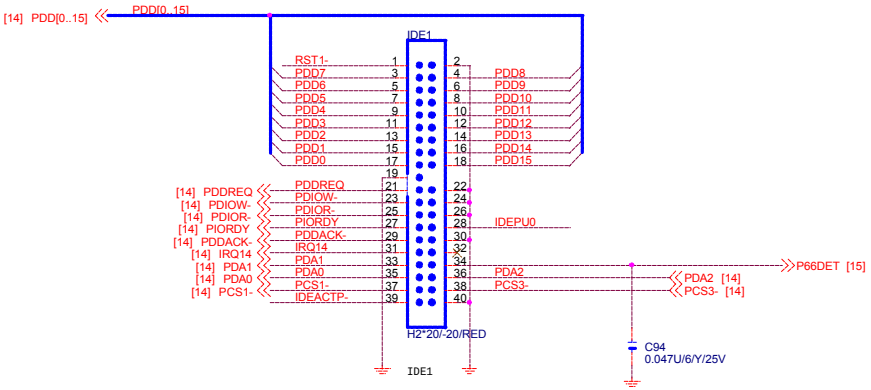

U14
IT8712GB/REV"GX"
S_IRQ
SIRQ1x2/O/X
S_IRQ使用橘色
CPU_FAN
CPU_FAN
PWR_FAN
POWER_FAN/X
SYS_FAN
SYSTEM_FAN
JP1*2
SYSTEM
CPU
VREF=4.096V
3VDUAL
GIGABYTE CORP.
ITE LPC I/O
GA-8IE2004P-L
Rev 1.0
Sheet 20 of 34
Date: 星期一, 七月 21, 2003





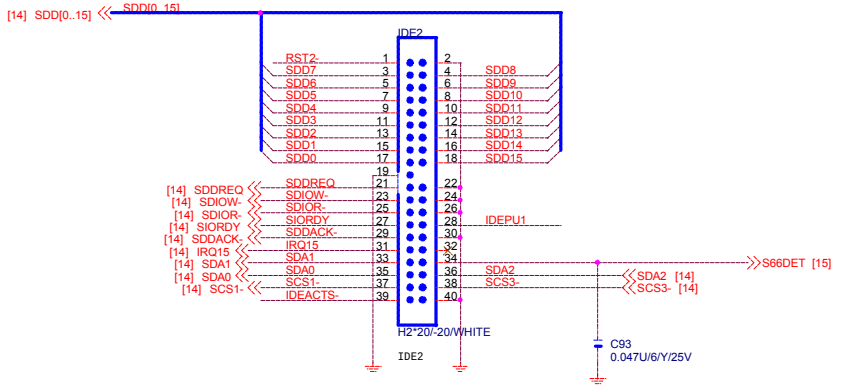


PRIMARY IDE CONNECTOR



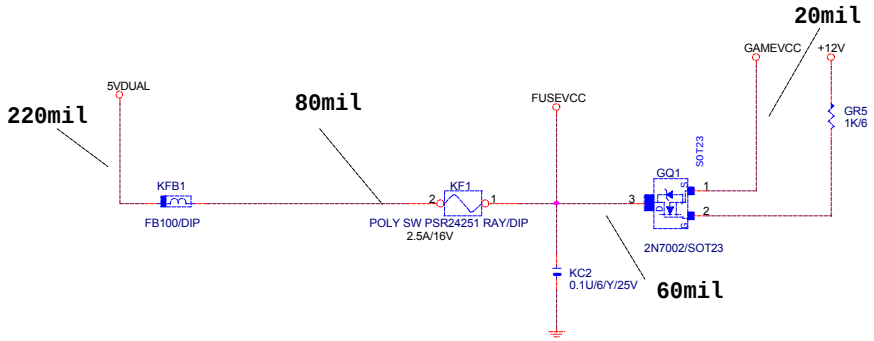
BIOS:CABLE DETECT AND DEVICE DETECT

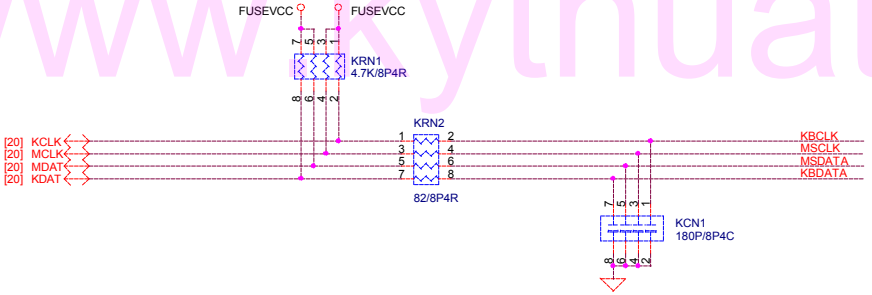
SECONDARY IDE CONNECTOR

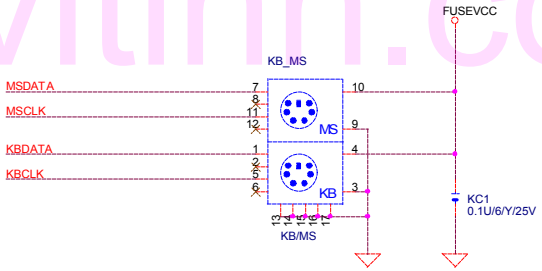


GIGABYTE CORP.		
Title: IDE CONNECTOR		
Size: B	Document Number: GA-8IE2004P-L	Rev: 1.0
Date: 星期一, 七月 21, 2003	Sheet 21 of 34	

模組化線路



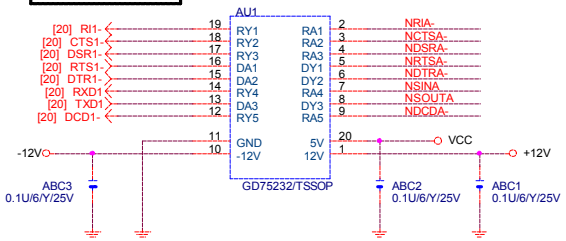


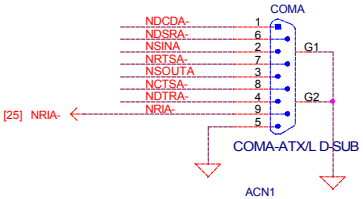


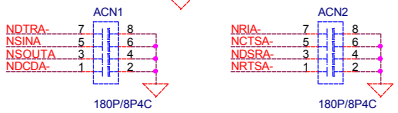
GIGABYTE CORP.		
Title: KB & PS2 MOUSE & IR		
Size: B	Document Number: GA-8IE2004P-L	Rev: 1.0
Date: 星期一, 七月 21, 2003	Sheet 22 of 34	

COMA

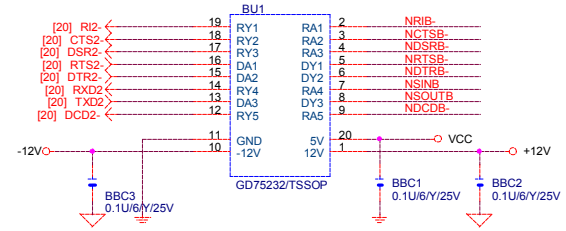
模組化線路

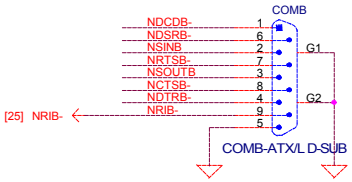


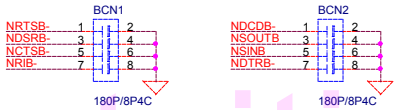




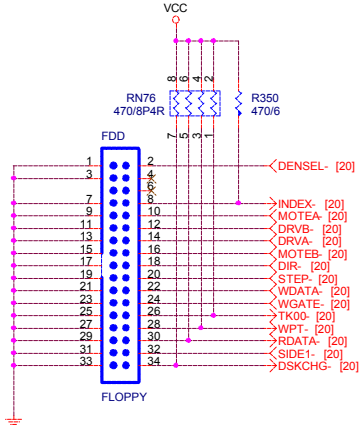
COMB



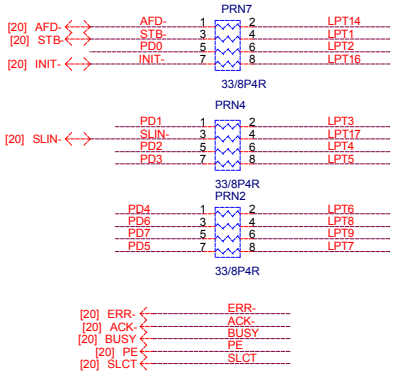


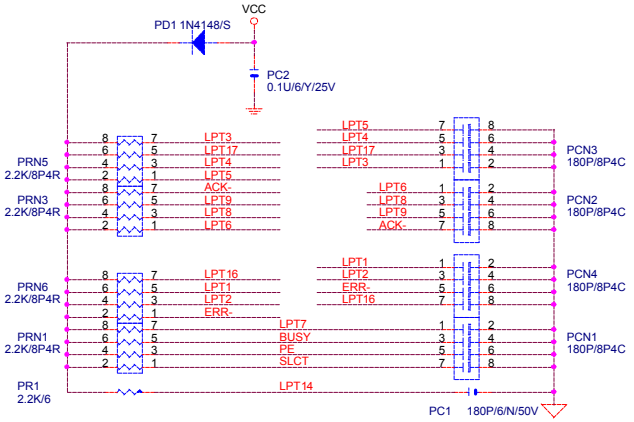


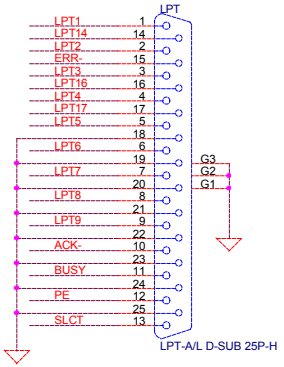
FLOPPY



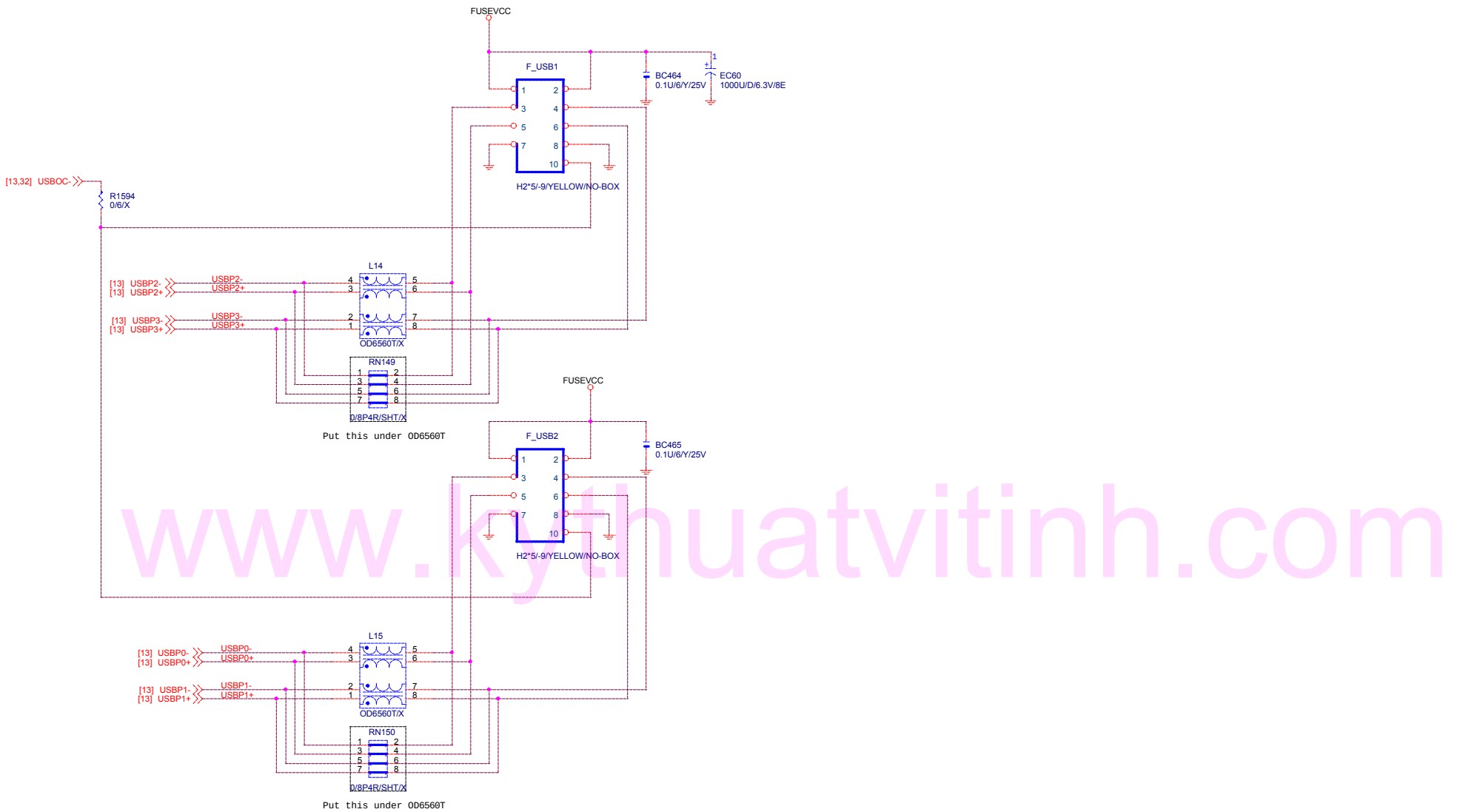
PRT PORT



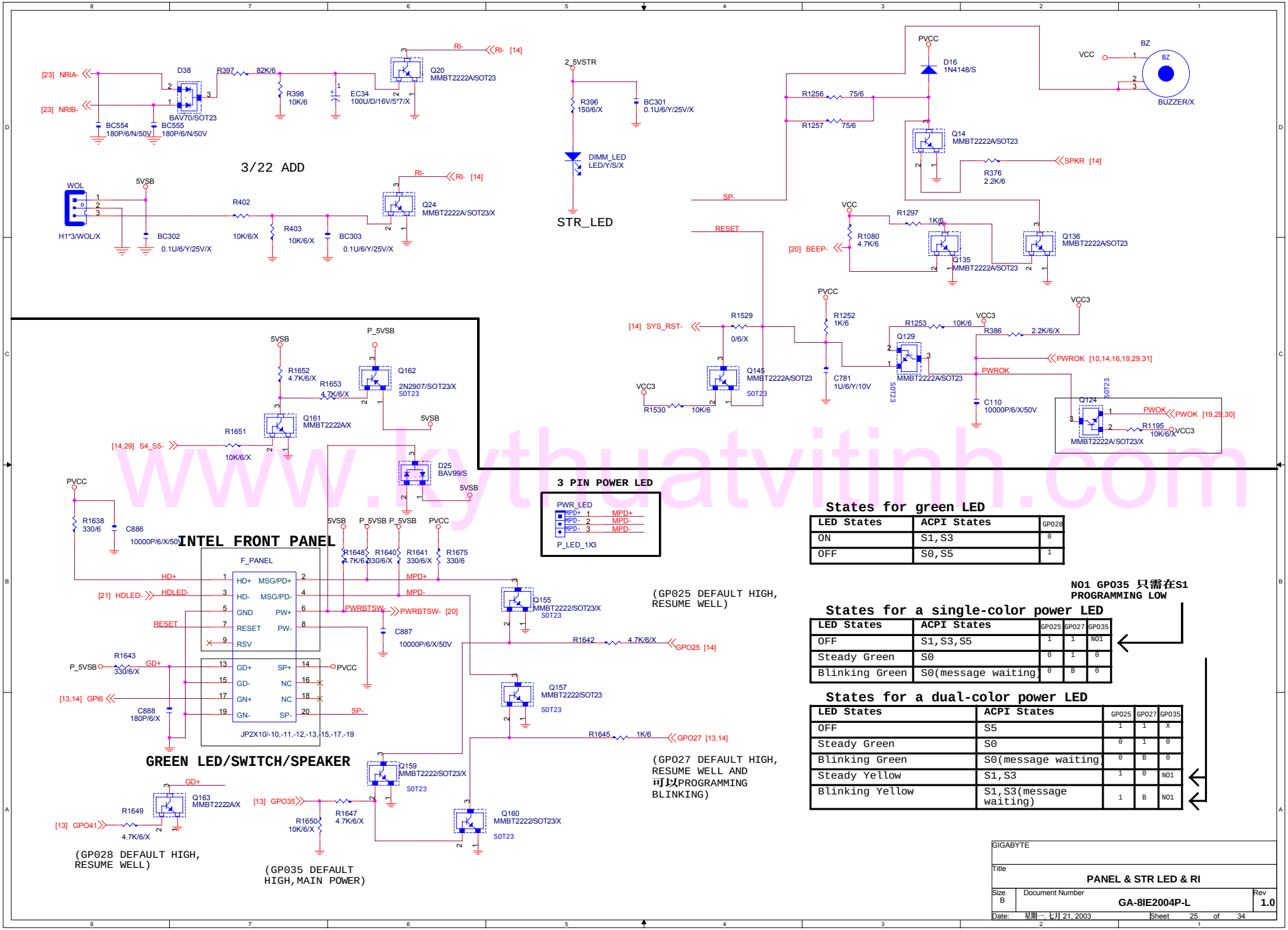




GIGABYTE CORP.		
Title: COM & IR & LPT PORT &FLOOPY		
Size: B	Document Number: GA-8IE2004P-L	Rev: 1.0
Date: 星期一, 七月 21, 2003	Sheet 23 of 34	



GIGABYTE		
Title	ICH USB+LAN PORT	
Size B	Document Number GA-8IE2004P-L	Rev 1.0
Date: 星期一, 七月 21, 2003	Sheet 24 of 34	



States for green LED

LED States	ACPI States	GP028
ON	S1,S3	0
OFF	S0,S5	1

States for a single-color power LED

LED States	ACPI States	GP025	GP027	GP035
OFF	S1,S3,S5	1	1	NO1
Steady Green	S0	0	1	0
Blinking Green	S0(message waiting)	0	B	0

States for a dual-color power LED

LED States	ACPI States	GP025	GP027	GP035
OFF	S5	1	1	X
Steady Green	S0	0	1	0
Blinking Green	S0(message waiting)	0	B	0
Steady Yellow	S1,S3	1	0	NO1
Blinking Yellow	S1,S3(message waiting)	1	B	NO1

GIGABYTE

Title: PANEL & STR LED & RI

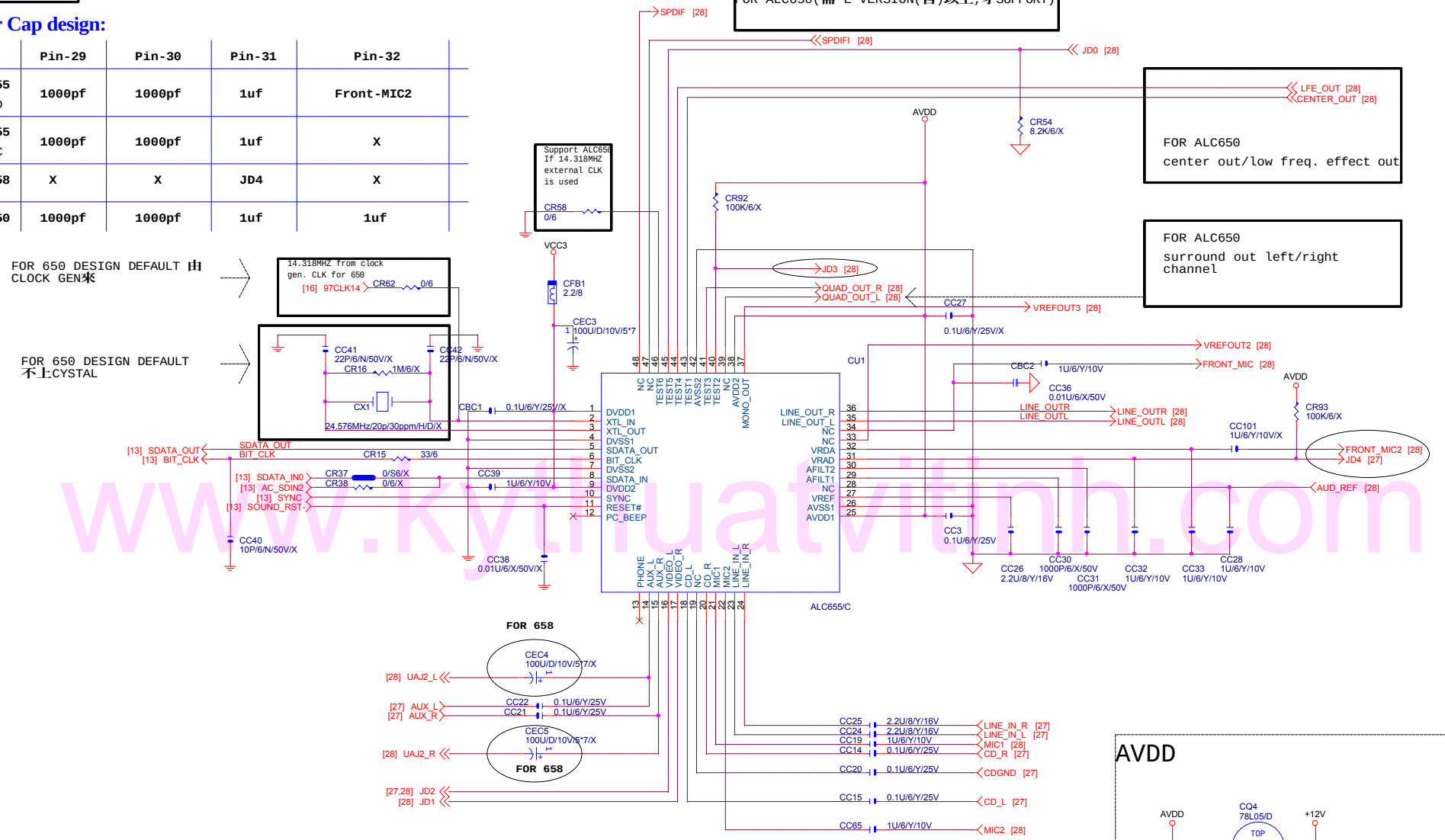
Size: B | Document Number: GA-8IE2004P-L | Rev: 1.0

Date: 星期一, 七月 21, 2003 | Sheet 25 of 34

模組化線路

Filter Cap design:

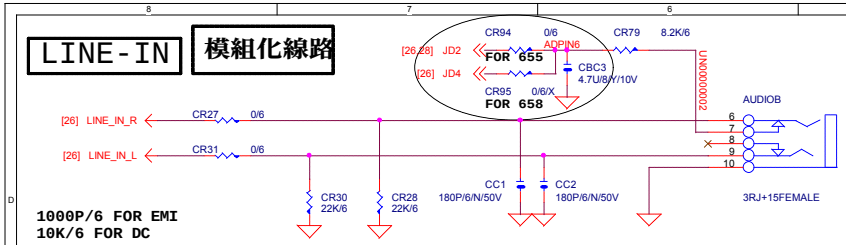
	Pin-29	Pin-30	Pin-31	Pin-32
ALC655 Rev D	1000pf	1000pf	1uf	Front-MIC2
ALC655 Rev C	1000pf	1000pf	1uf	X
ALC658	X	X	JD4	X
ALC650	1000pf	1000pf	1uf	1uf



Arrangement of Jack detection Pin:

	Pin-45(JD0)	Pin-17(JD1)	Pin-16(JD2)	Pin-40(JD3)	Pin-31(JD4)
ALC655	for MIC-IN	for FRONT-OUT	for LINE-IN		
ALC658	for MIC-IN	for UAJ1	for UAJ2	for FRONT-OUT Exernal pull high is needed	for LINE-IN Exernal pull high is needed

LINE-IN 模組化線路

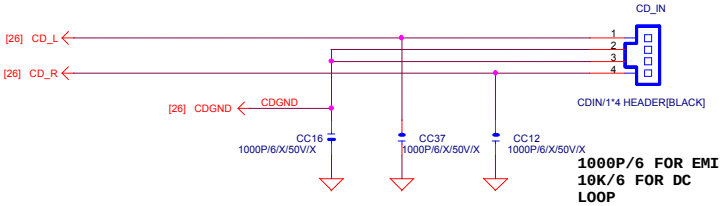


1000P/6 FOR EMI
10K/6 FOR DC
LOOP

LINE IN SENSING(當OUTPUT)
R>4K OHM=>POWER SPEAKER
4K OHM>R>400 OHM=>MICROPHONE
R<400 OHM=>HEADPHONE

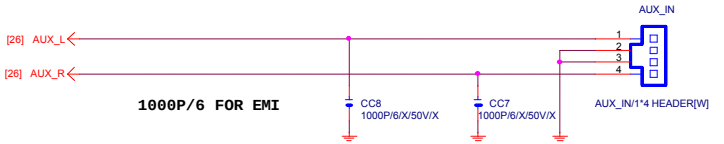
LINE IN SENSING(當INPUT)
swing of input signal>-40dbv(10mv)===>line in device active
swing of input signal<-40dbv(10mv)===>unknown line in device

CDIN



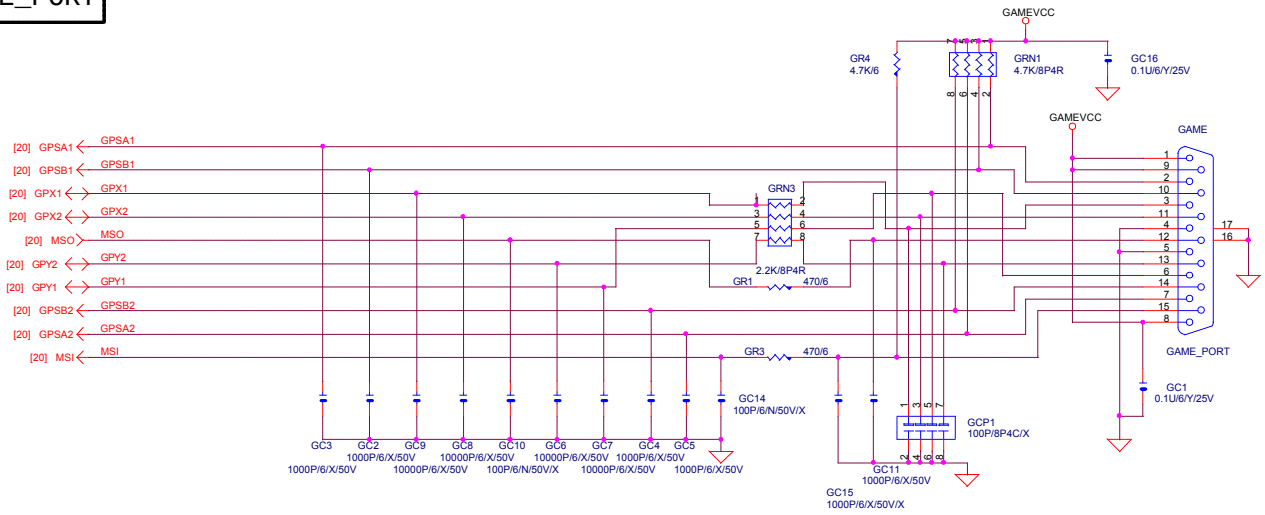
1000P/6 FOR EMI
10K/6 FOR DC
LOOP

AUX_IN



1000P/6 FOR EMI

GAME_PORT



GIGABYTE CORP.

Title: PHONE JACK, GAME PORT

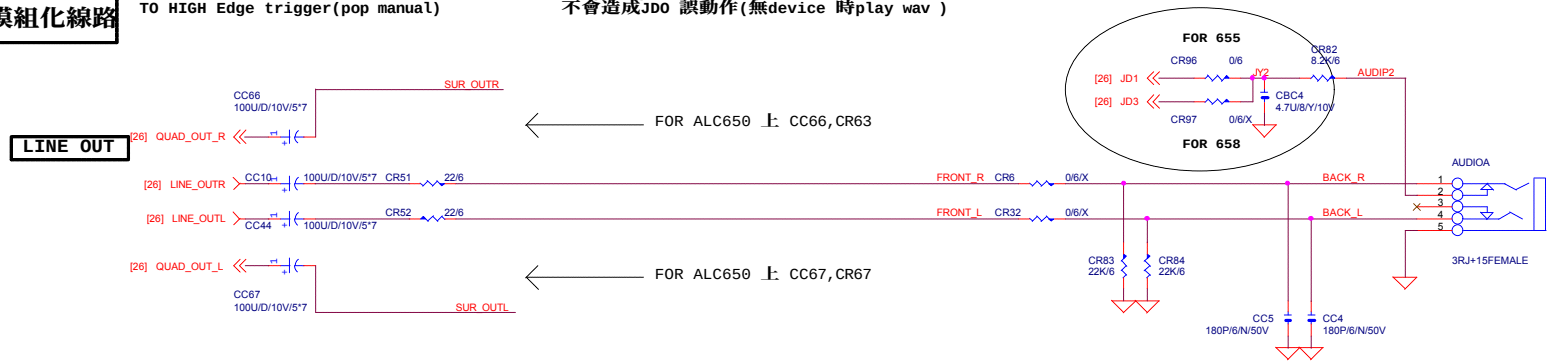
Size: Custom | Document Number: GA-8IE2004P-L | Rev: 1.0

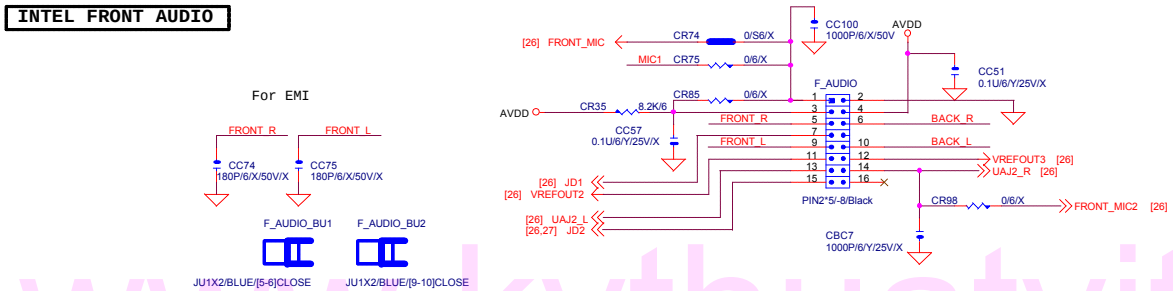
Date: 星期一, 七月 21, 2003 | Sheet 27 of 34

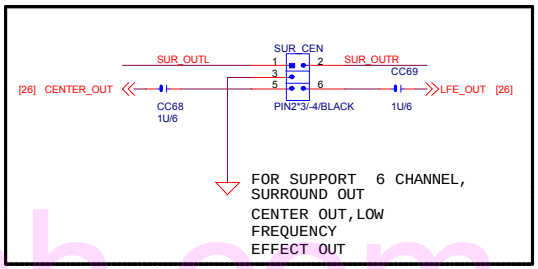
模組化線路

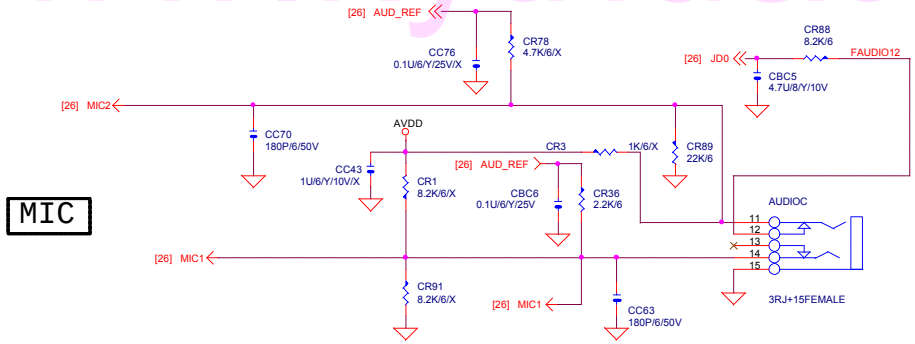
JDO,JD2,GPIO0 為偵測DEVICE INPUT 時由LOW TO HIGH Edge trigger(pop manual)

1/2(3.14)RC=1/2(3.14)8.2K*4.7U=4.3HZ以上AC 信號全部衰減 TO 0V 不會造成JDO 誤動作(無device 時play wav)



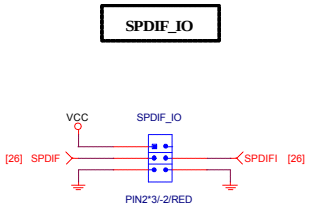




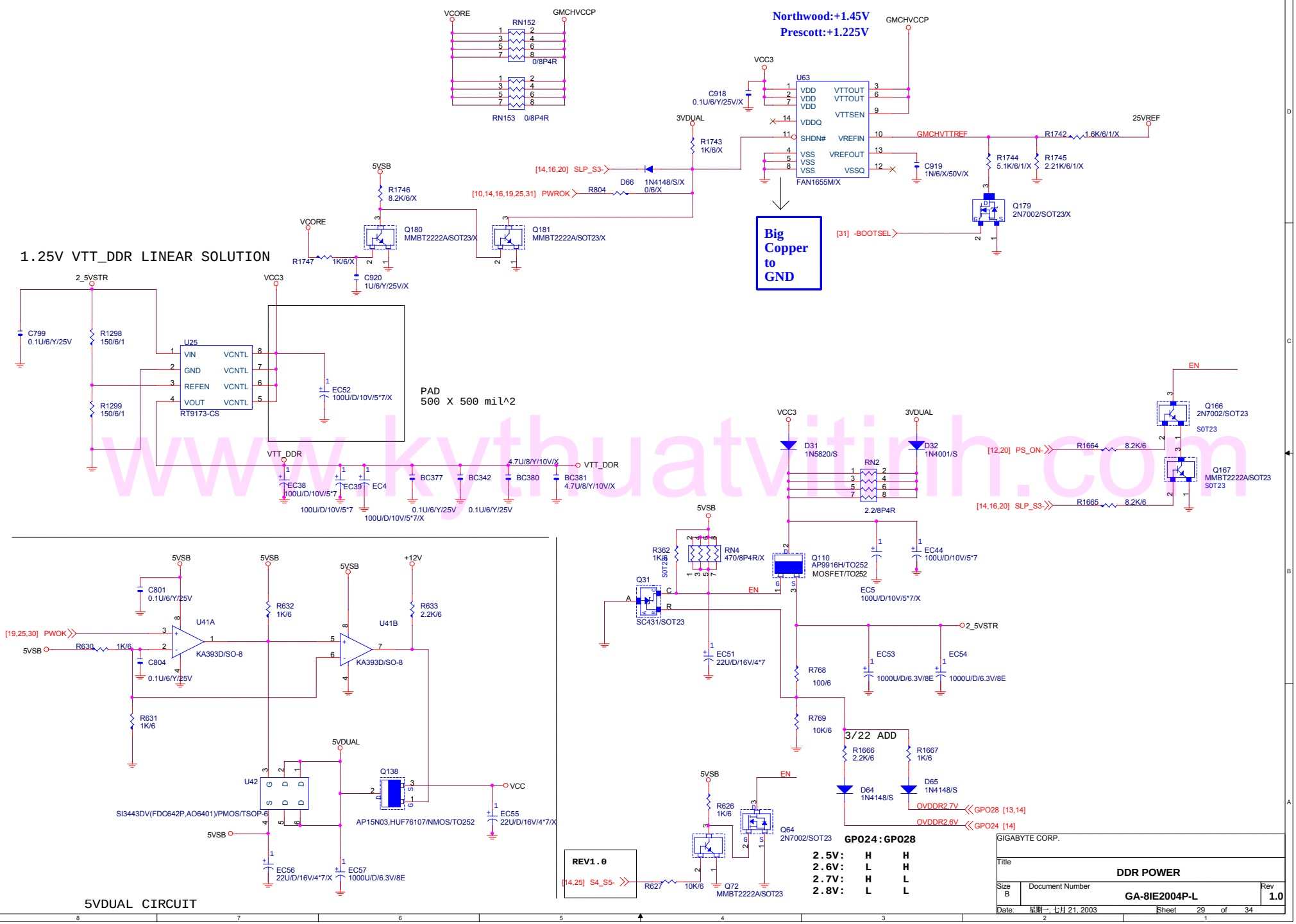


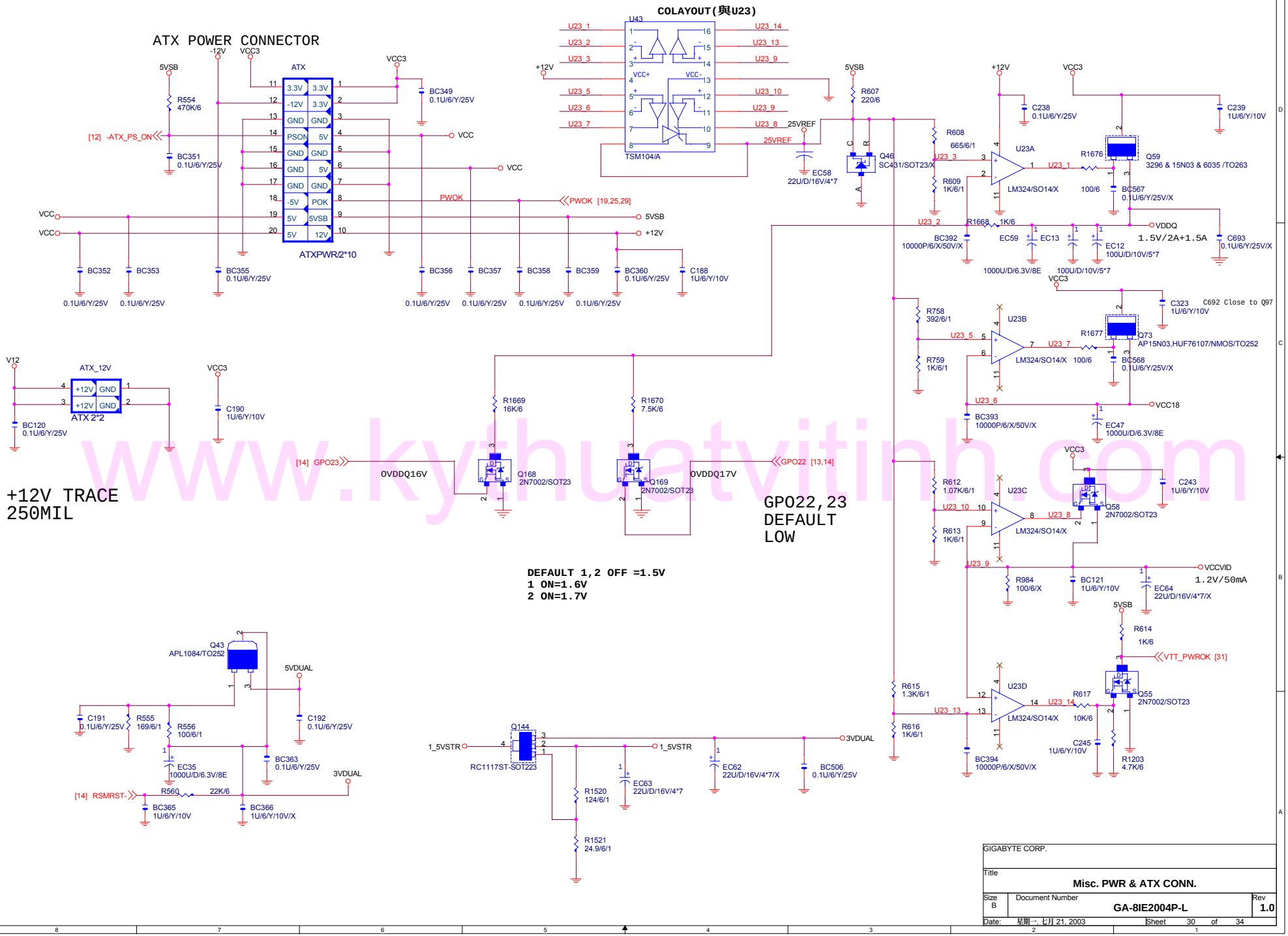
MICROPHONE IN SENSING(當INPUT)(利用vref 偏壓與CR43,CR32 並聯求出阻抗)
7.1k ohm>R>2.3k ohm===>microphone in
R<2.3k ohm or R>7.1k ohm===>unknown device

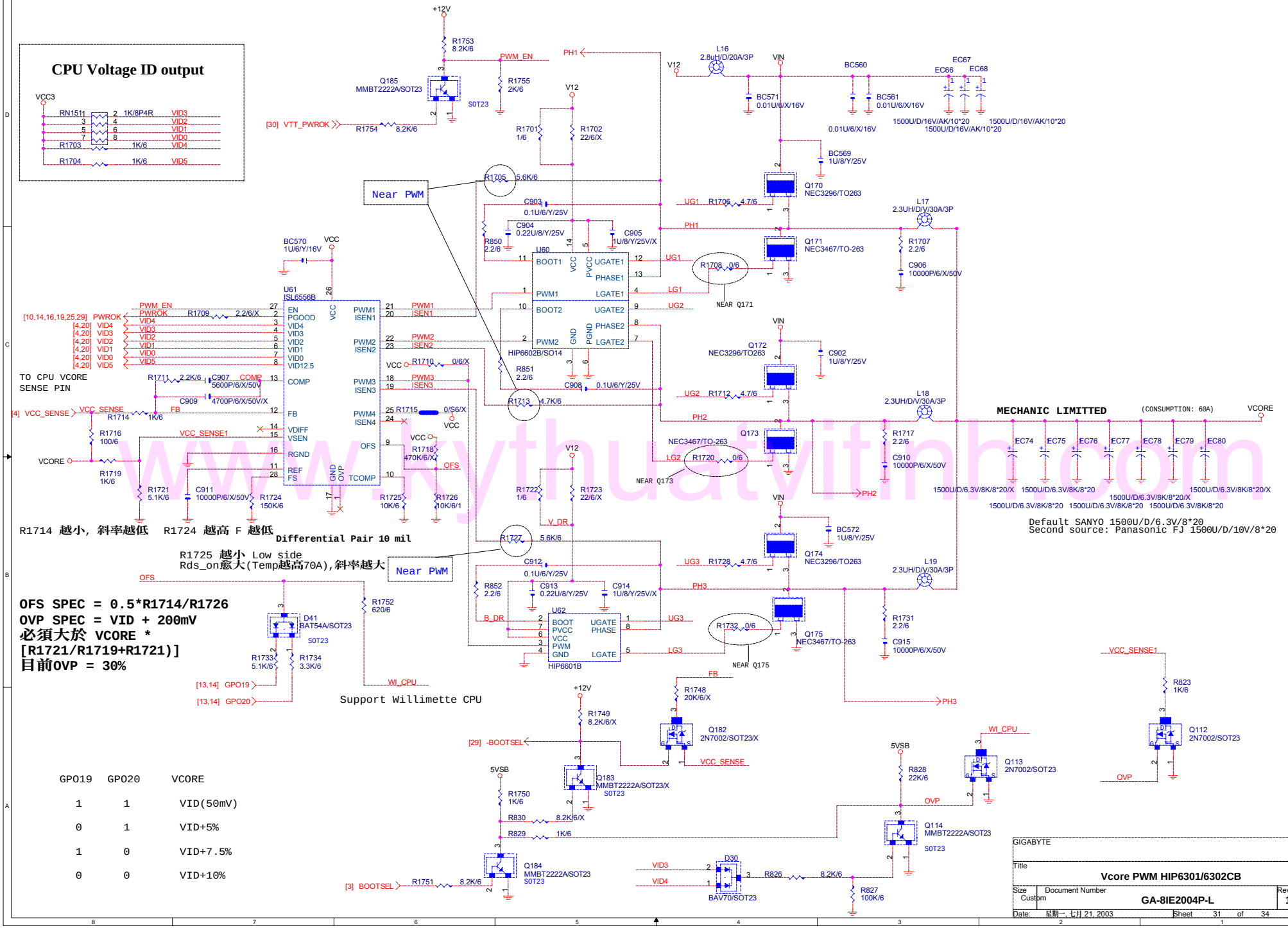
MICROPHONE IN SENSING(當OUTPUT)
R>4K OHM=>POWER SPEAKER
4K OHM>R>400 OHM=>MICROPHONE
R<400 OHM=>HEADPHONE



GIGABYTE CORP.	
Title	PHONE JACK, GAME PORT
Size: Custom	Document Number: GA-8IE2004P-L
Rev	1.0
Date: 星期一, 七月 21, 2003	Sheet 28 of 34






CPU Voltage ID output
VCC3
RN1511
1K/8P4R
VID3
VID2
VID1
VID0
R1703
1K/6
VID4
R1704
1K/6
VID5
+12V
R1753 8.2K/6
PWM_EN
Q185 MMBT2222A/SOT23
SOT23
[30] VTT_PWROK
R1754 8.2K/6
R1755 2K/6
V12
R1701 1/6
R1702 22/6/X
PH1
L16 2.8uH/D/20A/3P
VIN
BC560
BC571 0.01U/6/X/16V
BC561 0.01U/6/X/16V
EC67
EC66
EC68
1500U/D/16V/AK/10*20
1500U/D/16V/AK/10*20
BC569 1U/8/Y/25V
Q170 NEC3296/TO263
Near PWM
R1705 5.6K/6
C903 0.1U/6/Y/25V
C904 0.22U/8/Y/25V
C905 1U/8/Y/25V/X
R850 2.2/6
U60
BOOT1
UGATE1
PHASE1
LGATE1
BOOT2
UGATE2
PHASE2
LGATE2
PVCC
GND
PGND
HIP6602B/SO14
UG1
R1706 4.7/6
LG1
R1708 0/6
NEAR Q171
Q171 NEC3467/TO-263
L17 2.3UH/D/V/30A/3P
R1707 2.2/6
C906 10000P/6/X/50V
BC570 1U/6/Y/16V
VCC
U61 ISL6556B
PWM_EN
PWROK
R1709 2.2/6/X
[10,14,16,19,25,29] PWROK
[4,20] VID4
[4,20] VID3
[4,20] VID2
[4,20] VID1
[4,20] VID0
[4,20] VID5
EN
PGOOD
VID4
VID3
VID2
VID1
VID0
VID12.5
PWM1
ISEN1
PWM2
ISEN2
PWM3
ISEN3
PWM4
ISEN4
TO CPU VCORE
SENSE PIN
R1711 2.2K/6
C907 5600P/6/X/50V
COMP
C909 4700P/6/X/50V/X
[4] VCC_SENSE
VCC_SENSE
R1714 1K/6
FB
VDIFF
VSEN
RGND
REF
FS
OFS
TCOMP
GND
OVP
R1716 100/6
VCORE
R1719 1K/6
VCC_SENSE1
R1721 5.1K/6
C911 10000P/6/X/50V
R1724 150K/6
R1710 0/6/X
R1715 0/S6/X
R1718 470K/6/X
R1725 10K/6
R1726 10K/6/1
R1714 越小，斜率越低 R1724 越高 F 越低
Differential Pair 10 mil
R1725 越小 Low side
Rds_on愈大(Temp越高70A),斜率越大
Near PWM
OFS SPEC = 0.5*R1714/R1726
OVP SPEC = VID + 200mV
必須大於 VCORE *
[R1721/R1719+R1721)]
目前OVP = 30%
OFS
D41 BAT54A/SOT23
R1752 620/6
R1733 5.1K/6
R1734 3.3K/6
[13,14] GPO19
[13,14] GPO20
WI_CPU
Support Willimette CPU
GPO19 GPO20 VCORE
1 1 VID(50mV)
0 1 VID+5%
1 0 VID+7.5%
0 0 VID+10%
Q172 NEC3296/TO263
C902 1U/8/Y/25V
UG2
R1712 4.7/6
L18 2.3UH/D/V/30A/3P
R1713 4.7K/6
V_DR
R1722 1/6
R1723 22/6/X
R1727 5.6K/6
C912 0.1U/6/Y/25V
C908 0.1U/6/Y/25V
R851 2.2/6
R852 2.2/6
C913 0.22U/8/Y/25V
C914 1U/8/Y/25V/X
B_DR
U62
BOOT
UGATE
PVCC
PHASE
VCC
PWM
GND
LGATE
HIP6601B
UG3
R1728 4.7/6
LG3
R1732 0/6
NEAR Q175
Q175 NEC3467/TO-263
L19 2.3UH/D/V/30A/3P
R1731 2.2/6
C915 10000P/6/X/50V
Q173 NEC3467/TO-263
LG2
R1720 0/6
NEAR Q173
R1717 2.2/6
C910 10000P/6/X/50V
Q174 NEC3296/TO263
BC572 1U/8/Y/25V
MECHANIC LIMITTED
(CONSUMPTION: 60A)
VCORE
EC74
EC75
EC76
EC77
EC78
EC79
EC80
1500U/D/6.3V/8K/8*20/X
1500U/D/6.3V/8K/8*20
Default SANYO 1500U/D/6.3V/8*20
Second source: Panasonic FJ 1500U/D/10V/8*20
PH2
PH3
R1748 20K/6/X
Q182 2N7002/SOT23/X
[29] -BOOTSEL
VCC_SENSE
R1749 8.2K/6/X
Q183 MMBT2222A/SOT23/X
5VSB
R1750 1K/6
R830 8.2K/6/X
R829 1K/6
Q184 MMBT2222A/SOT23
[3] BOOTSEL
R1751 8.2K/6
VID3
VID4
D30 BAV70/SOT23
R826 8.2K/6
R827 100K/6
R828 22K/6
Q113 2N7002/SOT23
Q114 MMBT2222A/SOT23
OVP
R823 1K/6
Q112 2N7002/SOT23
GIGABYTE
Title
Vcore PWM HIP6301/6302CB
Size Custom
Document Number
GA-8IE2004P-L
Rev 1.0
Date: 星期一, 七月 21, 2003
Sheet 31 of 34

	10/100 8100C	Giga 8110S	Giga 8110SB
AVDDH	N/A	3.3V	3.3V
V_12P	2.5V	N/A	3.3V
AVDDL	3.3V	2.5V	2.5V
V_DAC	N/A	2.5V	2.5V
DVDD	2.5V	1.8V	1.3V
DVDD_A	2.5V	1.8V	1.3V

LU1:
100M:RTL8100C

LR15:
100M:5.9K/6/1

LR4:
93C46:N/A
93C56:8.2K/6

LQ3:
100M:2N2907A
1G:N/A

DVDD:
100M:2.5V
1G:1.8V

IDESEL 21
-REQ/-GNT(5)
-PIRQF

LBC25:
100M:0.1U/6

FOR 100M:P35-152-11Z9

FOR EMI

FOR EMI

POWER DECOUPLING CAP.

REAR USBX2

Close to USB port

LAN EEPROM

When Inetl & GBT Gigabit (8110S)
Note: LEDS1-0 must set to 00 in EEPROM

Spacing : at least 50 mils between each differential pair

LR22, LR23, LBC26 Close to Lan Chip
Realtek suggestion (TX+, TX-).

LR24, LR25, LBC27 Close to Lan Chip
Realtek Suggestion (RX+, RX-).

RTL8100C 10M/100M	10Mb	---	ON	OFF
	100Mb	---	ON	OFF
	Link	---	ON	---
	Active	Blink	---	---

GIGABYTE

Title: LAN RTL8100C

Size: Custom | Document Number: GA-8IE2004P-L | Rev: 1.0

Date: 星期一, 七月 21, 2003 | Sheet 32 of 34

GIGABYTE GA-8IE2004P-L GPIO LIST

Revision 1.0

SHEET TITLE

GPI		
GPI0/REQA-	NA	PULL 8.2K TO VCC3
GPI1/REQ5-		PULL 2.7K TO VCC
GPI2/PIRQE-	ID	PULL 8.2K TO VCC3 (default)
GPI3/PIRQF-		PULL 8.2K TO VCC3
GPI4/PIRQG-		PULL 8.2K TO VCC3
GPI5/PIRQH-	ID	PULL 8.2K TO VCC3 (default)
GPI6		PULL 8.2K TO VCC3(GREEN_BUTTON)
GPI7		PULL DOWN 10K TO GND
GPI8	ID	PULL 8.2K TO VCC3 (default)
GPI9	NA	NOT IMPLEMENTED
GPI10	NA	NOT IMPLEMENTED
GPI11		PULL 4.7K TO 3VDUAL (SMBALERT)
GPI12/LPCPME-		PULL 8.2K TO 3VDUAL (PME-)
GPI13		NC
GPI14	NA	NOT IMPLEMENTED
GPI15	NA	NOT IMPLEMENTED

SHEET TITLE

GPO		
GPO16	NA	PULL 8.2K TO VCC3(CAN'T PULL DOWN)因為會decode bios address 不正確:FF
GPO17		PULL 8.2K TO VCC3 (GNT5-)
GPO18	NA	PULL 8.2K TO VCC3 此OUTPUT會TOGGLE,(在開機時),BIOS POST OK
GPO19		PULL 8.2K TO VCC3
GPO20		PULL 8.2K TO VCC3
GPO21		PULL 8.2K TO VCC3 (TOP BLOCK)
GPO22		PULL 8.2K TO VCC3
GPO23		PULL 8.2K TO VCC3
GPO24		PULL 4.7K TO 3VDUAL
GPO25		PULL 4.7K TO 3VDUAL (POWER LED)
GPO26		NOT IMPLEMENTED
GPO27		PULL 8.2K TO 3VDUAL (POWER LED)
GPO28		PULL 8.2K TO 3VDUAL
GPO32		PULL 8.2K TO 3VDUAL (BIOS WRITE PROTECT)
GPO35		PULL DOWN 10K TO GND (POWER LED)

COMPONENT SIDE (0.5 oz. Copper)
VCC SIDE (1 oz. Copper)
GND SIDE (1 oz. Copper)
SOLDER SIDE (0.5 oz. Copper)

GIGABYTE

Title: GPIO LIST

Size: Custom | Document Number: GA-8IE2004P-L | Rev: 1.0

Date: 星期一, 七月 21, 2003 | Sheet 33 of 34

LAN33

GIGABYTE GA-8IE2004P-L PCI ROUNTING LIST

Revision 1.0

SHEET TITLE

PCI ROUNTING	PIRQ-	REQ-/GNT-	IDSEL-	CLOCK
PCI1	PIRQC/F/G/A-	0REQ-	A_D16-	PCLK1
PCI2	PIRQF/G/A/C-	1REQ-	A_D17-	PCLK2
PCI3	PIRQG/A/C/F-	2REQ-	A_D18-	PCLK3
PCI4	PIRQA/C/F/G-	3REQ-	A_D19-	PCLK4
PCI5	PIRQC/F/G/A-	4REQ-	A_D20-	PCLK5
AGP	PIRQA/B-	GREQ-	NA	AGPCLK

SHEET TITLE

COMPONENT SIDE (0.5 oz. Copper)
VCC SIDE (1 oz. Copper)
GND SIDE (1 oz. Copper)
SOLDER SIDE (0.5 oz. Copper)

GIGABYTE

Title: PCI ROUNT LIST

Size: Custom | Document Number: GA-8IE2004P-L | Rev: 1.0

Date: 星期一, 七月 21, 2003 | Sheet 34 of 34