

GIGABYTE GA-8IE800

Schematics

Revision 1.1

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 RTL8100B & B-USB CONNECTOR
33	GPIO LIST
34	PCI ROUTE LIST
35	
36	
37	
38	
PCB	十美,育富,群祥,智恩 4V藍C

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-8IE800
Date: Wednesday, February 19, 2003	Sheet 1 of 34
Rev 1.12	

Version: 1.1

BOM 修改

History
版本
10A-1226

History 版本	修改項目內容	修改原因
10A-1226	9M8IE533-00-20B --> 9M8IE800-00-10A	參考右邊修改內容
11A-0115	9M8IE800-00-10A --> 9M8IE800-00-11A	1. L17~L19 1.1U -->>2.3UH 2. BC47~BC49 1U --> 10U/8 3. Q59 76107/T0252 --> 3296/T0253 4. ADD CEC3=100U & EC2,EC14=100U 5. ADD NC7SZ125 & R1757=1K 6. REMOVE BC50,BC88,EC82,R251
11B-0123	9M8IE800-00-11A --> 9M8IE800-00-11B	1. Q170,Q172,Q174 REMOVE 15N03 & 2. Q171,Q173,Q175 REMOVE 07N03 & 3.ADD CC41,CC42=22P,CR16=1M,CX1=220F 4.ADD EC49=1000U 5.ADD Q112,Q113=2N7002,Q114,Q184=MBT 6.ADD R823,R829,R1750=1K,R826,R1751=8.2K 7. R1752=620,R827=100K,R828=22K 8.ADD R850,R851,R852=2.2 ohm 9.REMOVE CR58,CR62=0ohm , R214=33ohm
11C-0214	9M8IE800-00-11B --> 9M8IE800-00-11C	1. PCB REV1.11 --> REV1.12

PCB version 變更(線路及Layout

[illegible]**GIGABYTE**

Title	BOM & PCB MODIFY HISTORY
-------	--------------------------

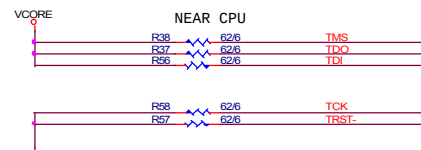
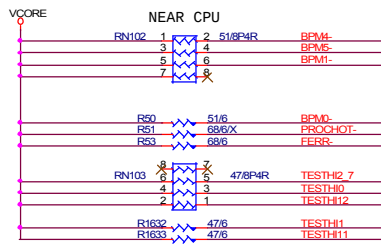
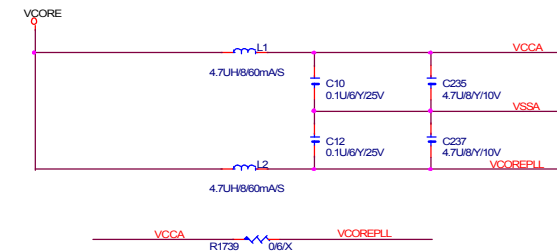
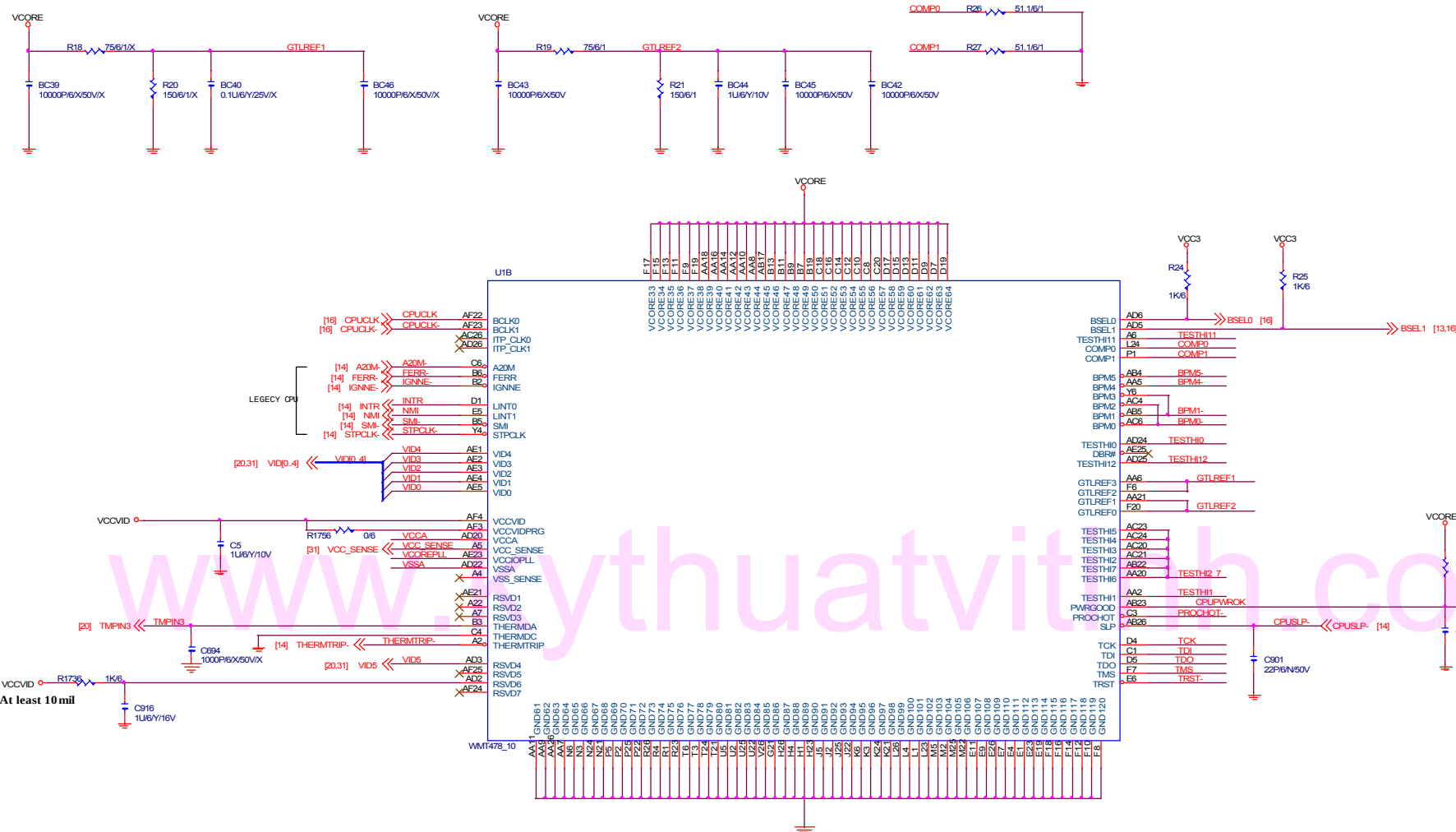
Size	Document Number
------	-----------------

GA-8IE800

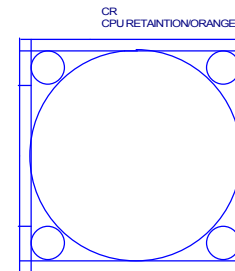
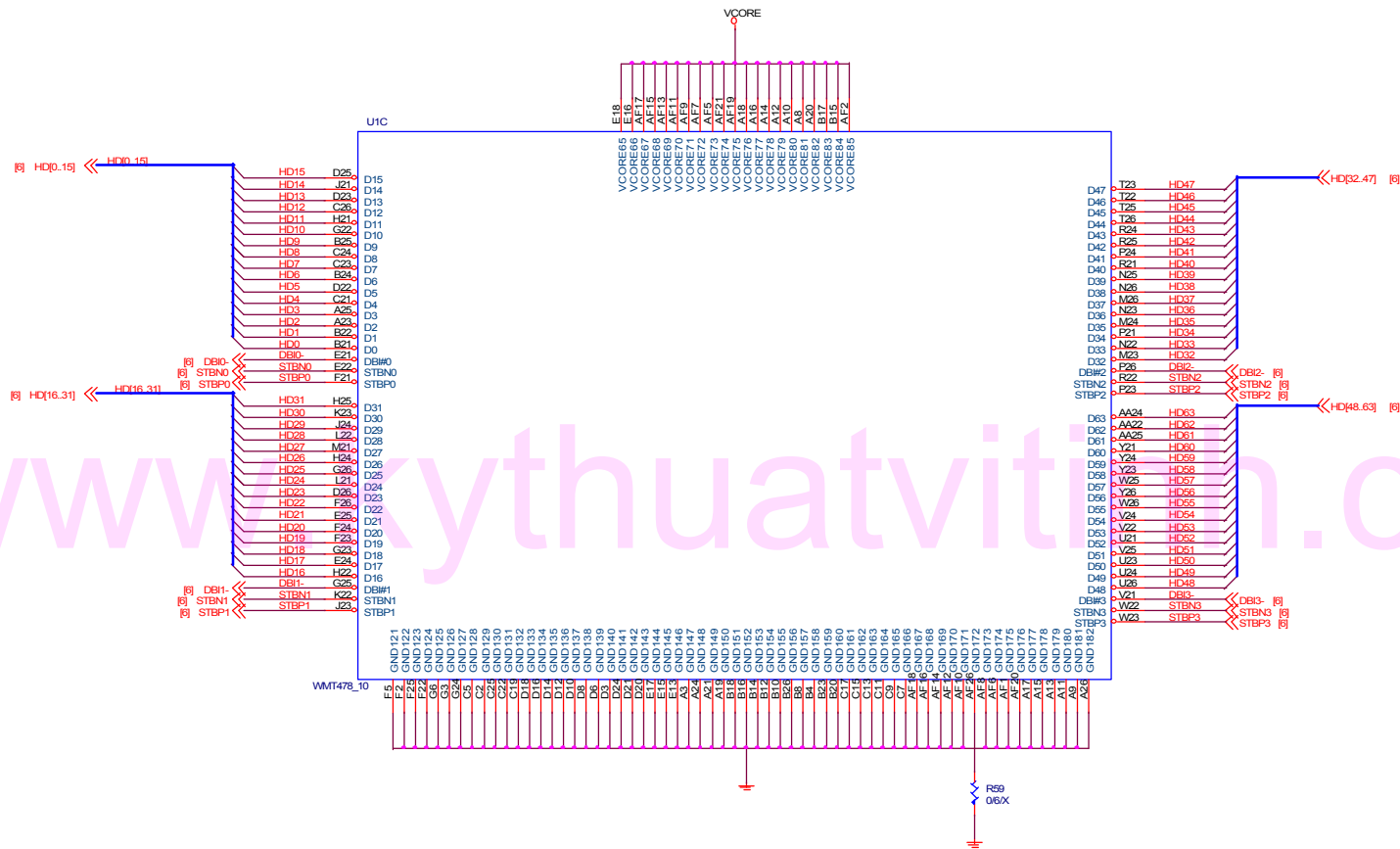
Date: Wednesday, February 19, 2003

Sheet 2 of 34

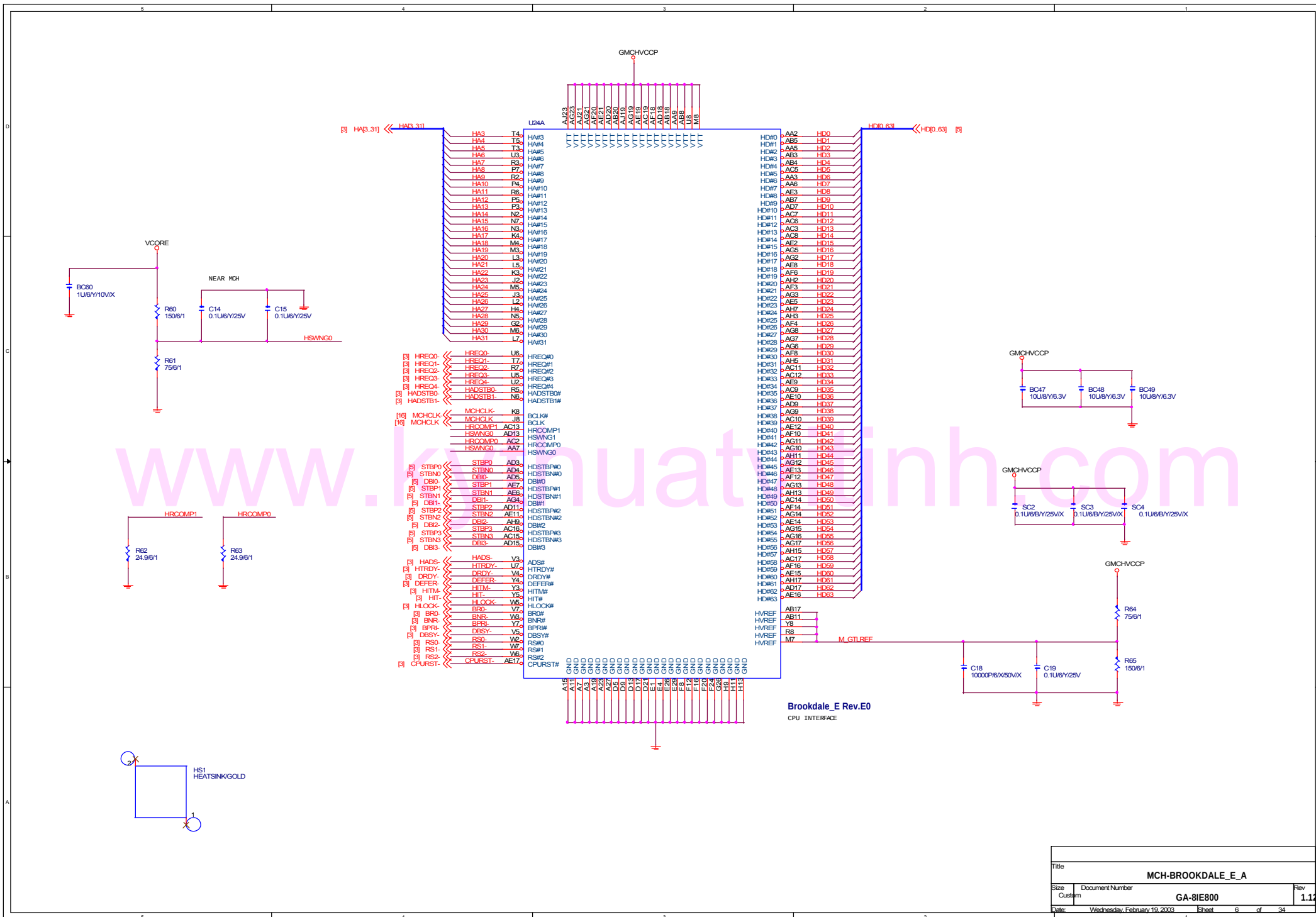
1.12

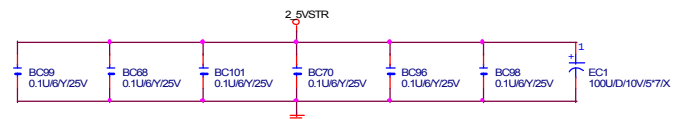


Title			
WILLIAMATE 478B			
Size	Document Number	GA-8IE800	Rev
Custom			1.12
Date	Wednesday, February 19, 2003	Sheet	4 of 34



Title			WILLIAMATE 478C	
Size	Document Number	GA-8IE800		Rev
Custom				1.12
Date:	Wednesday, February 19, 2003	Sheet	5	of 34

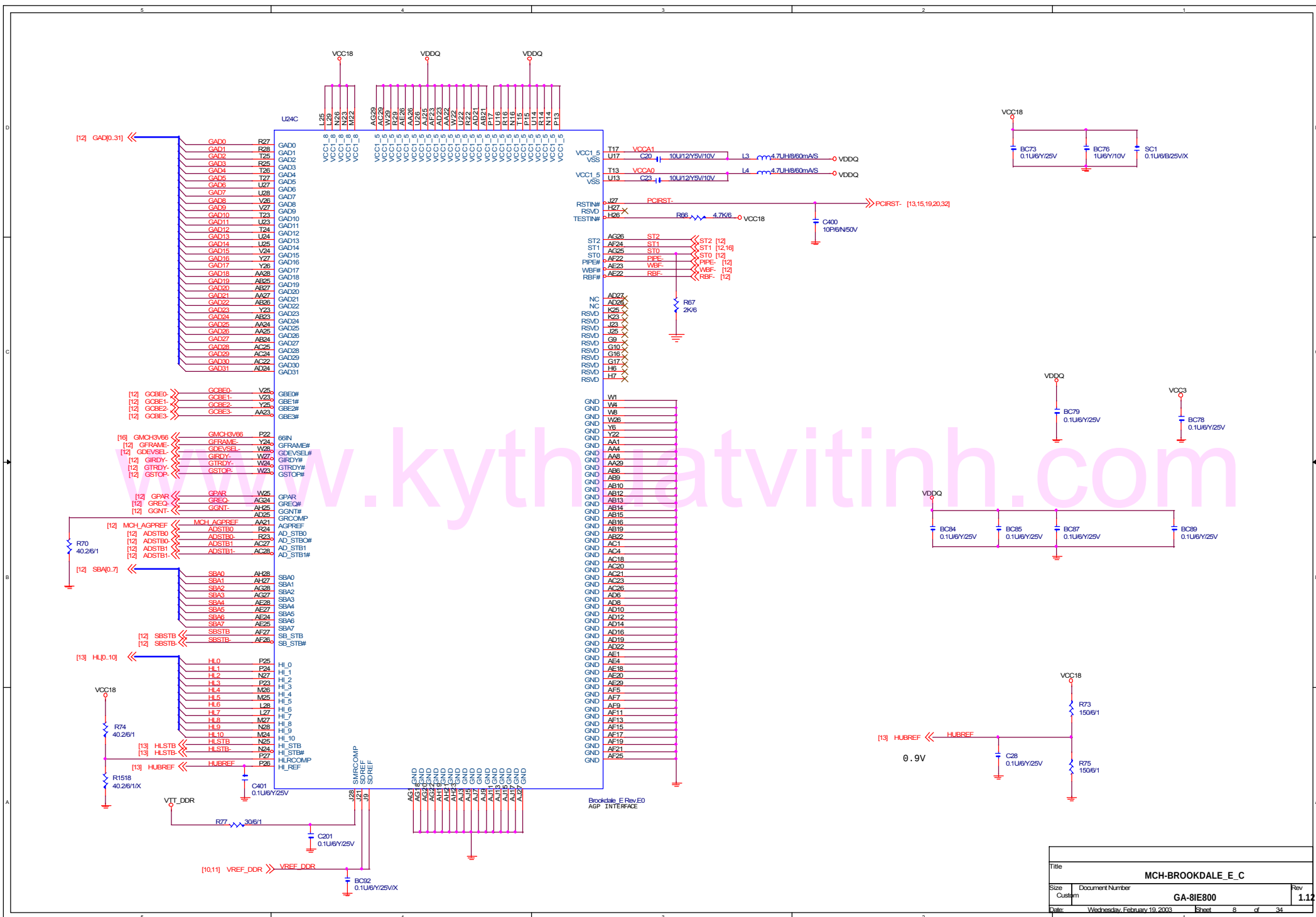


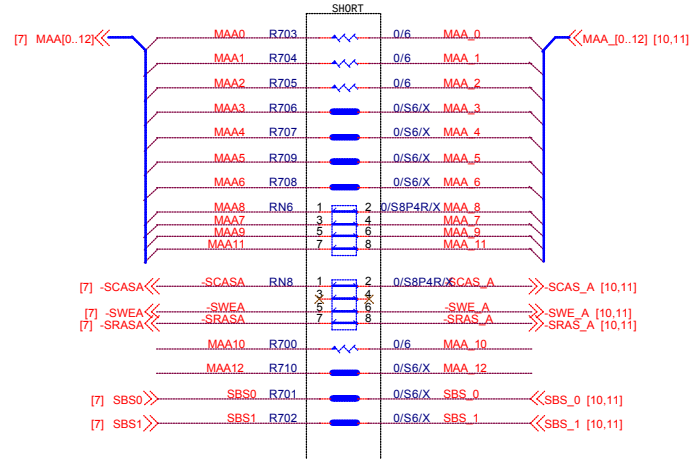
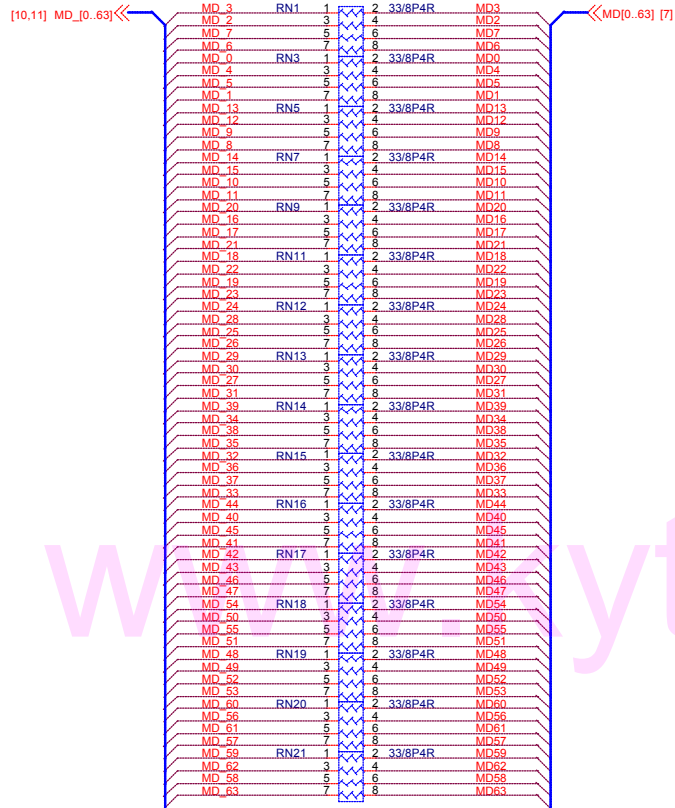


MD40 E10 SDQ40 RCVENOUT# G3
MD41 C9 SDQ41
MD42 D8 SDQ42
MD43 E8 SDQ43
MD44 E11 SDQ44
MD45 F8 SDQ45
MD46 B7 SDQ46
MD47 C7 SDQ47
MD48 C6 SDQ48
MD49 D6 SDQ49
MD50 D4 SDQ50
MD51 B3 SDQ51
MD52 E6 SDQ52
MD53 B5 SDQ53

RCVENOUT# G3
RCVENIN# G3
E14 DCLK0 [10]
F15 DCLK0 [10]
J24 DCLK1 [10]
G25 DCLK1 [10]
G6 DCLK2 [10]
G7 DCLK2 [10]
G15 DCLK3 [8]

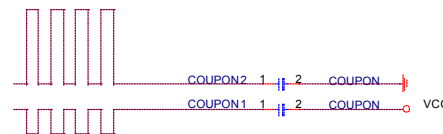
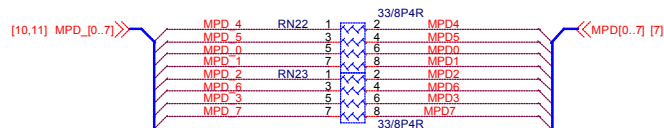
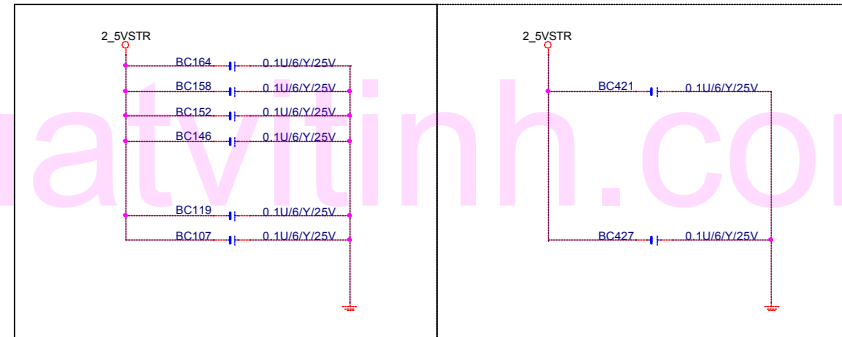
注意:DDR版要在SOLDER SIDE
LAY 1 INCH 長度(5MIL)

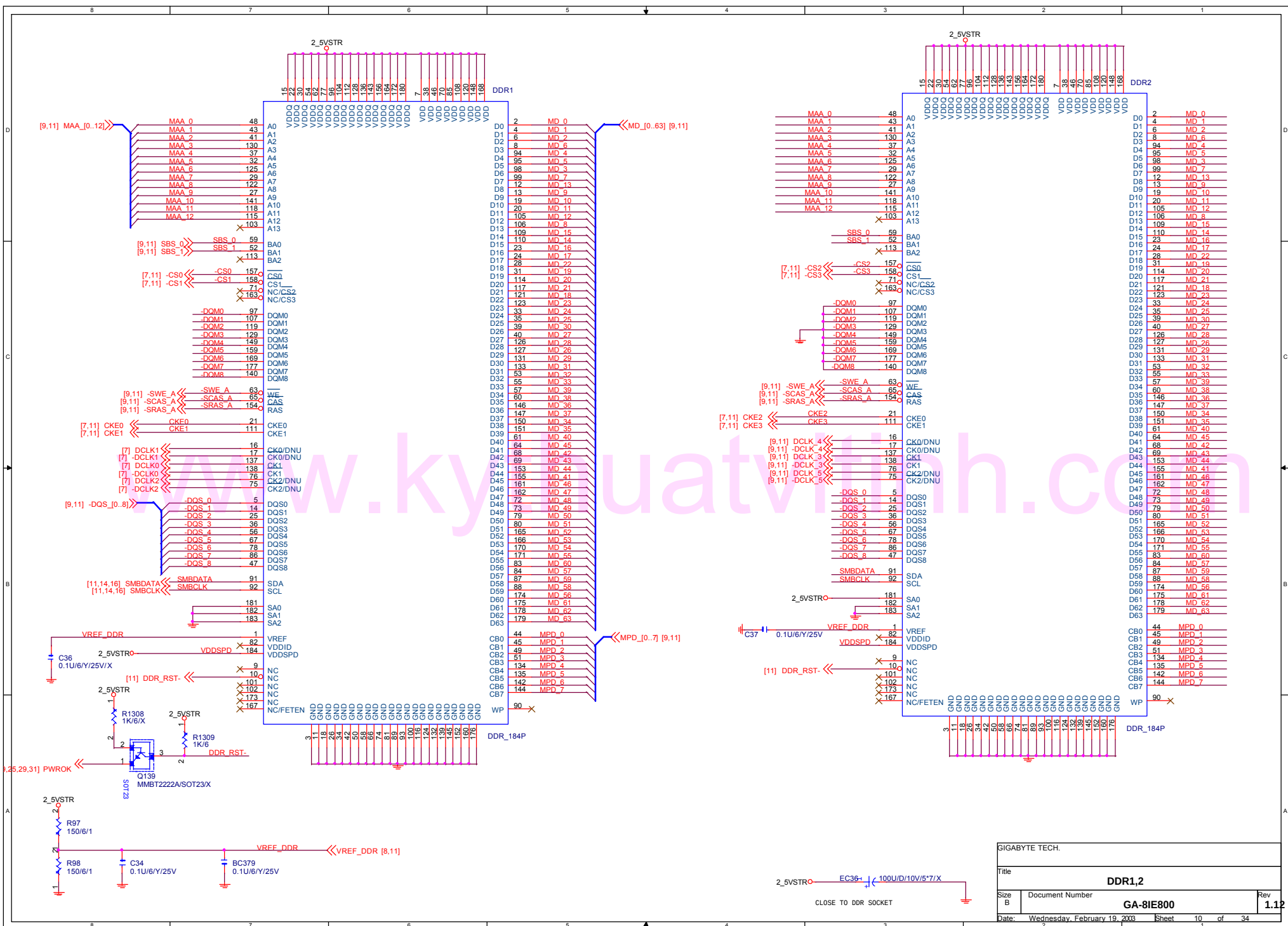


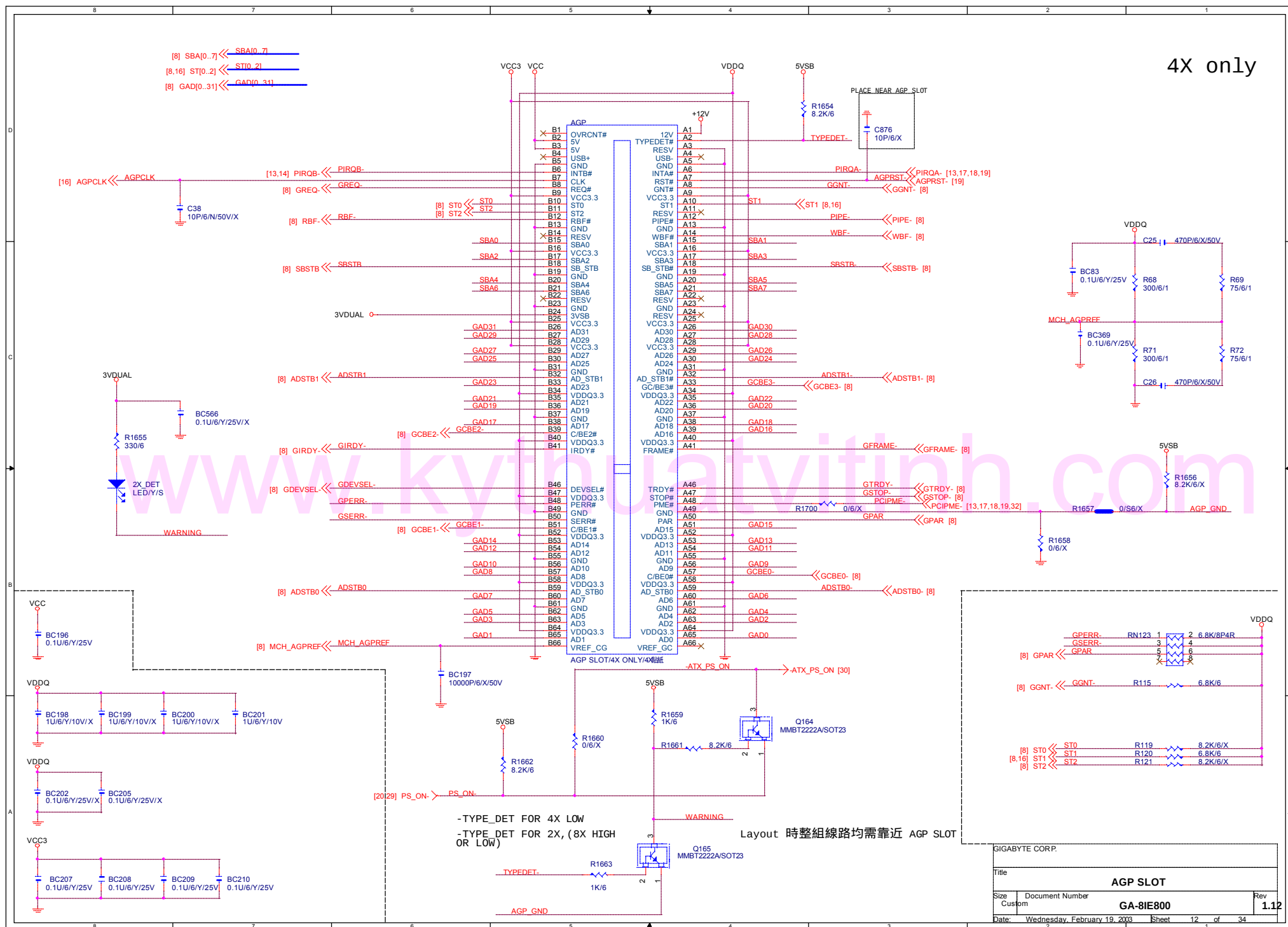


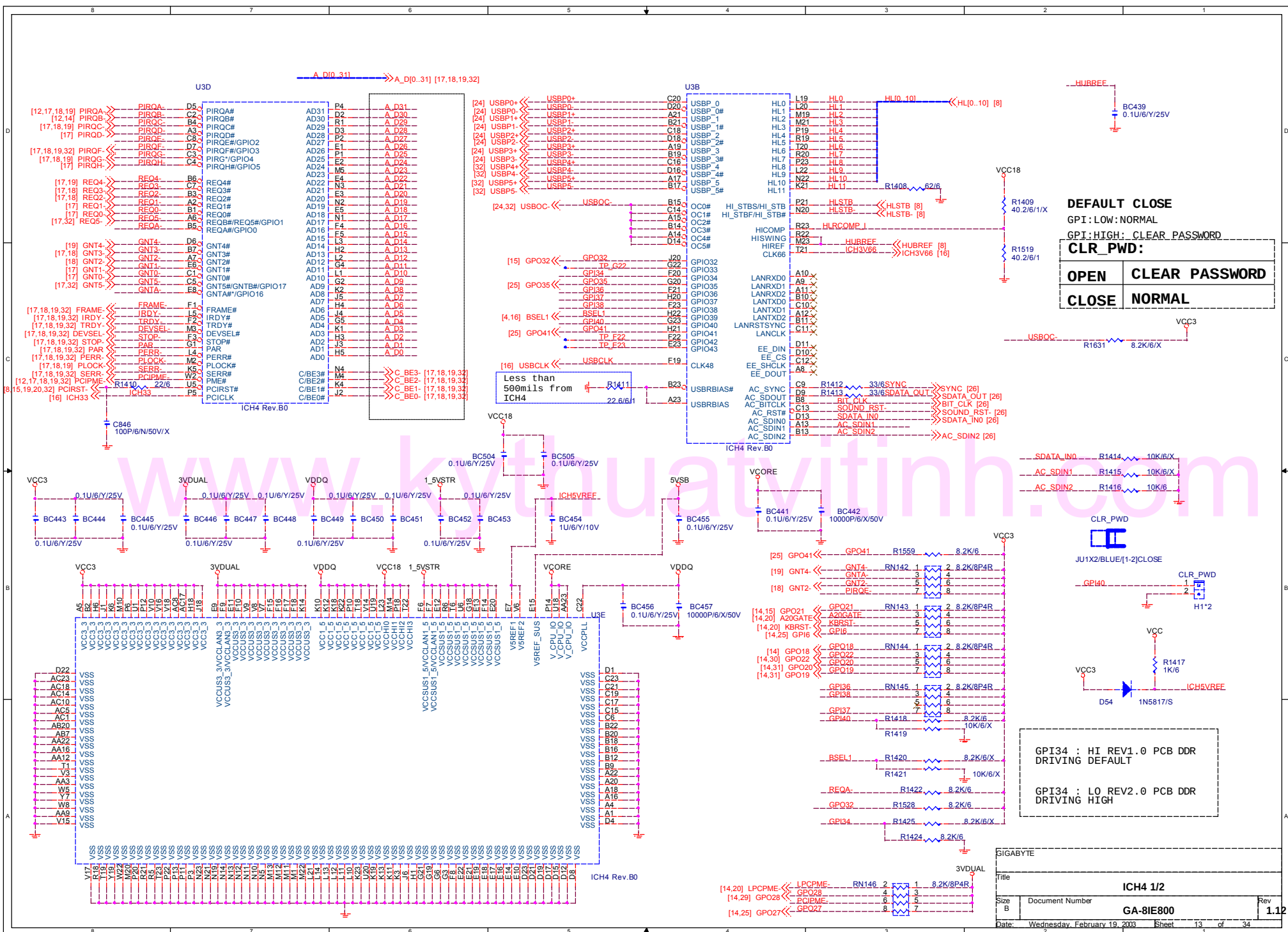
BETWEEN DIMM1 & DIMM2

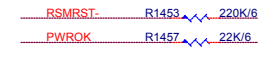
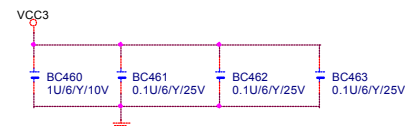
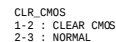
BETWEEN DIMM2 & DIMM3



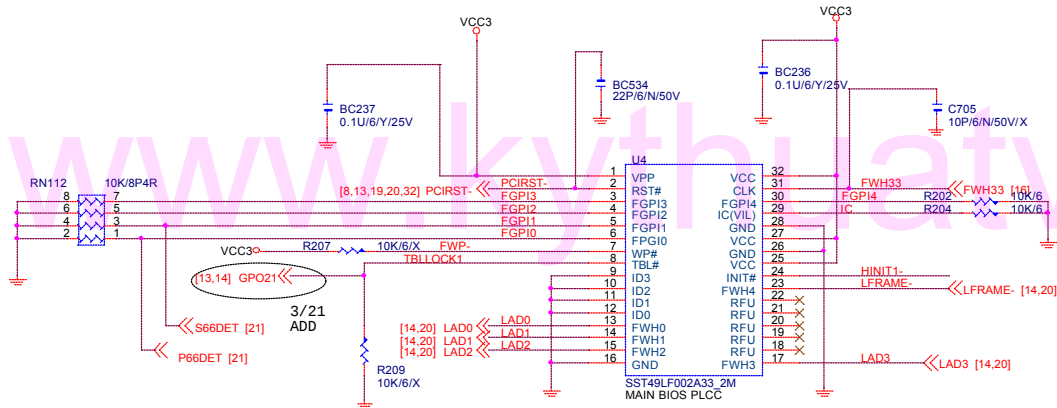
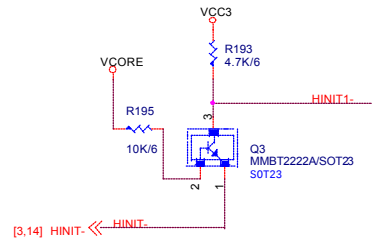




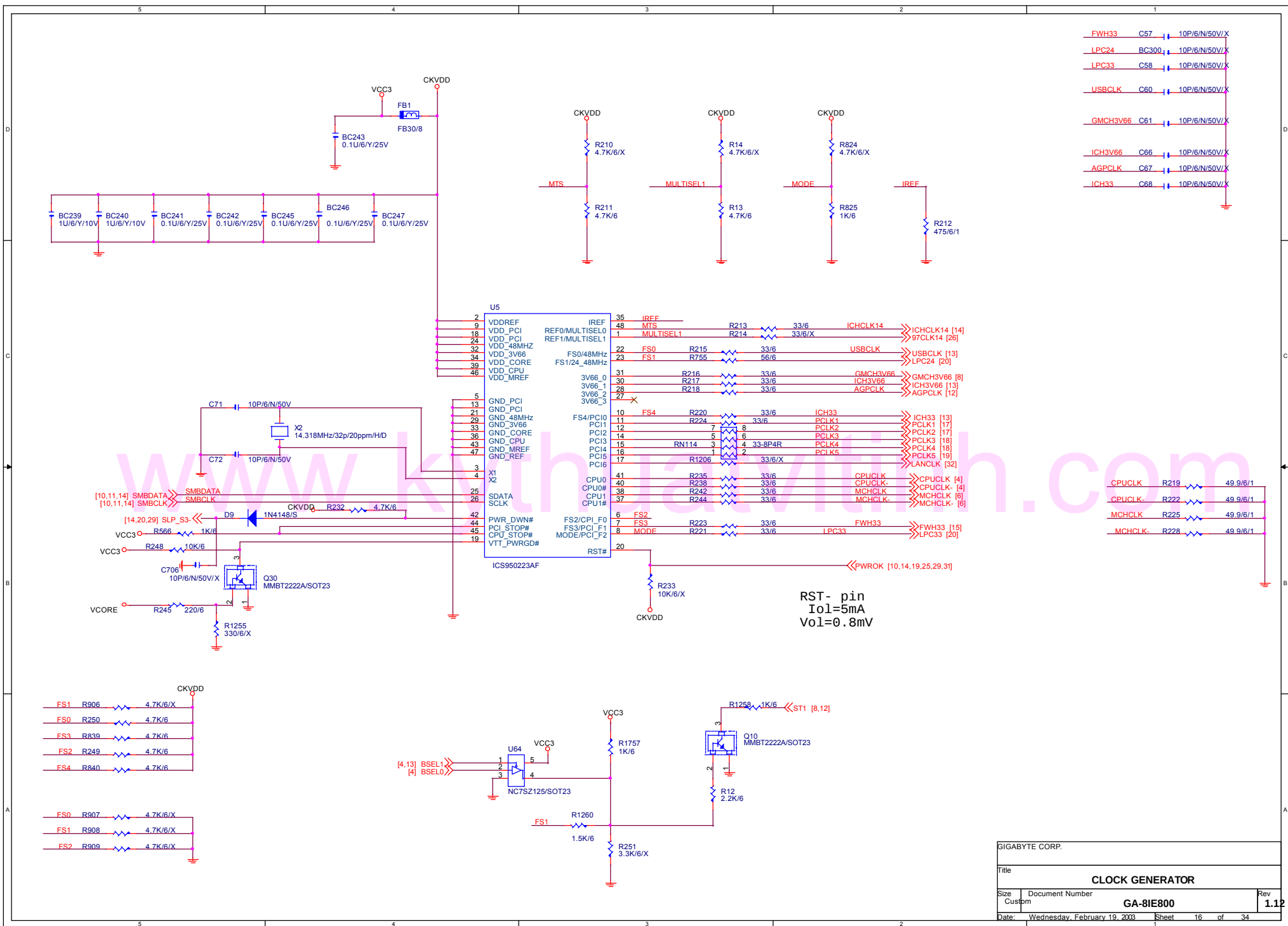


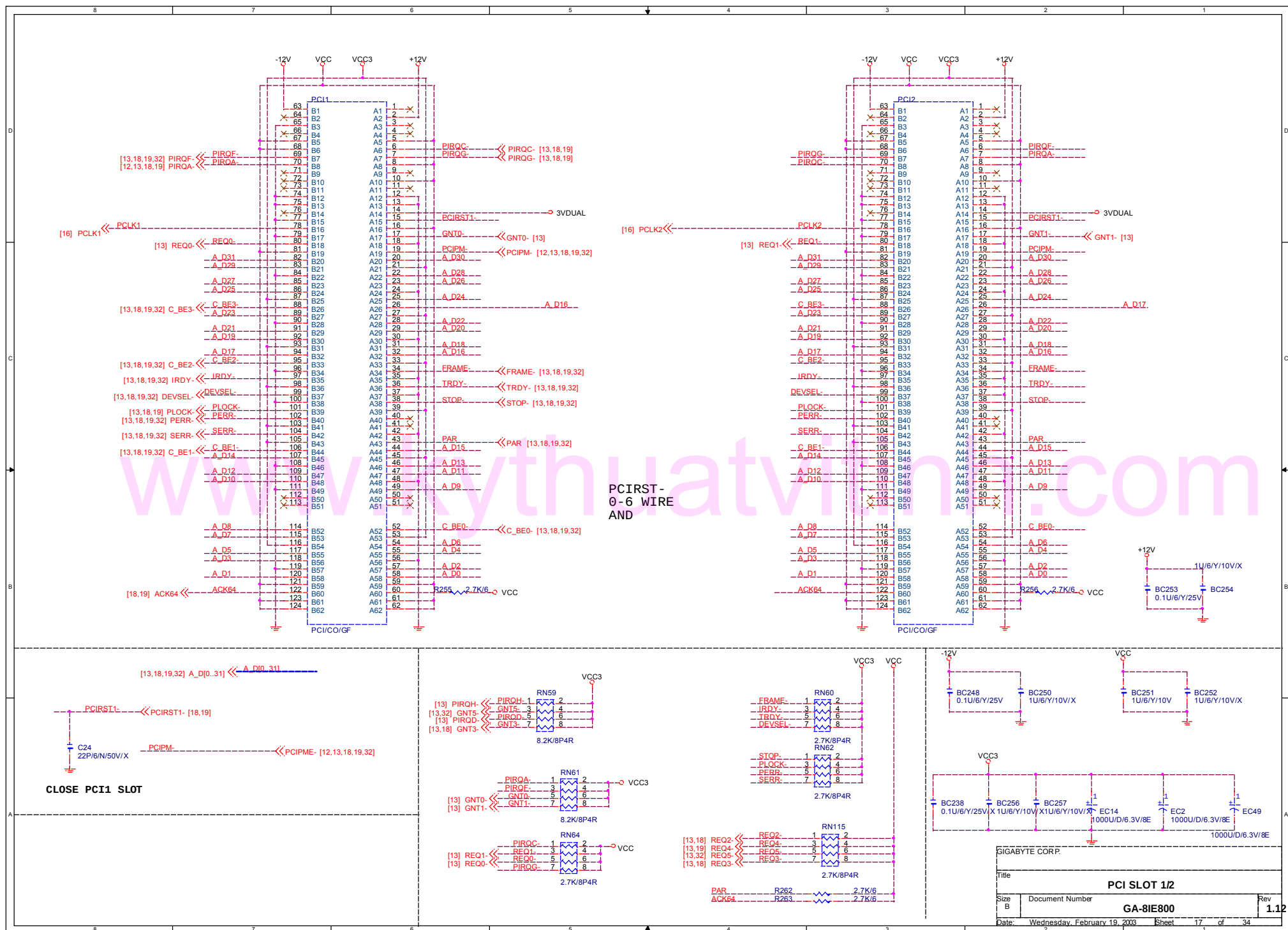


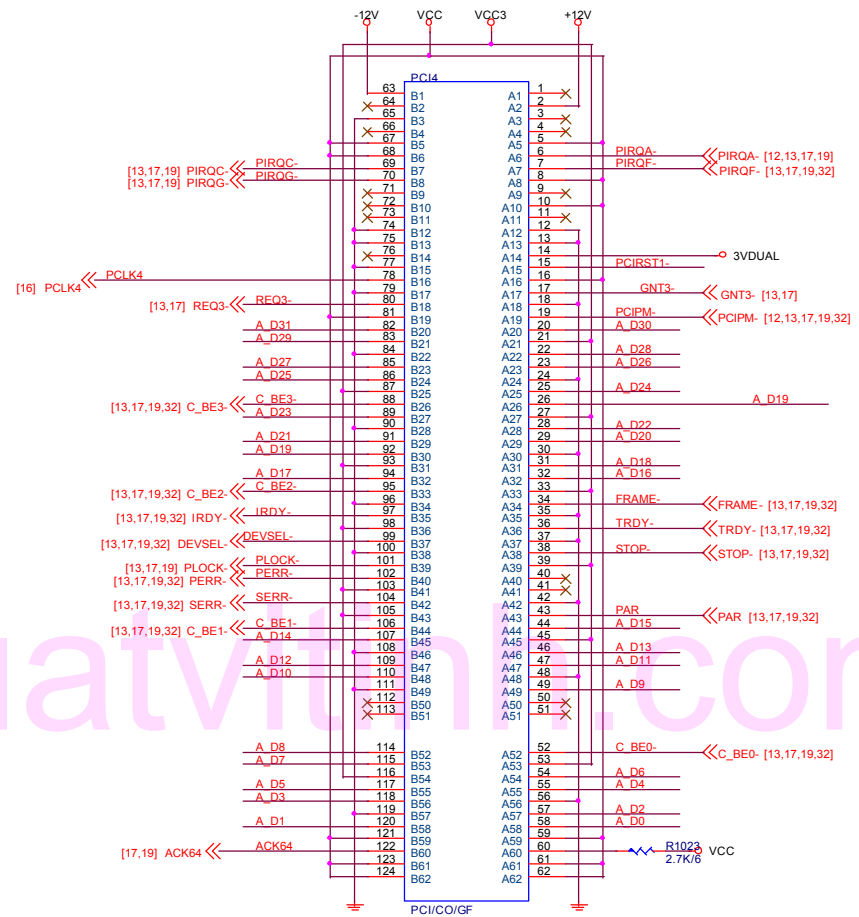
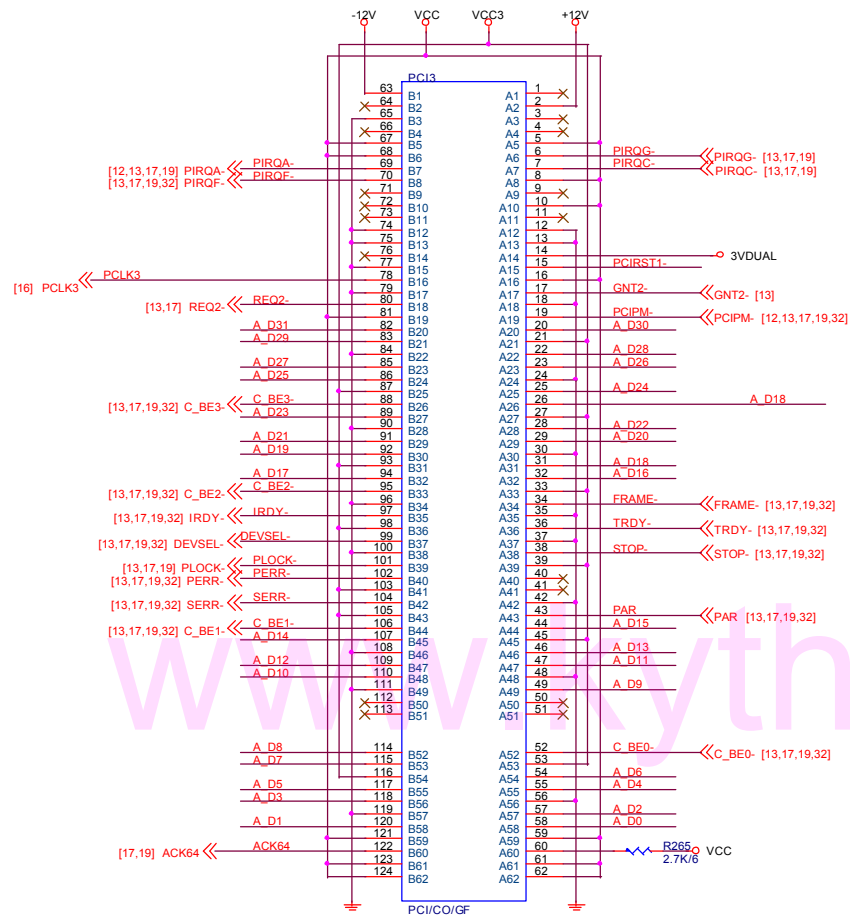
2002/04/15 MODIFY WRITE PROTECT



GIGABYTE CORP.			
Title		FWH	
Size B	Document Number	GA-8IE800	Rev 1.12
Date:	Wednesday, February 19, 2003	Sheet 15	of 34

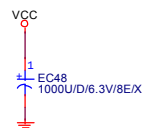




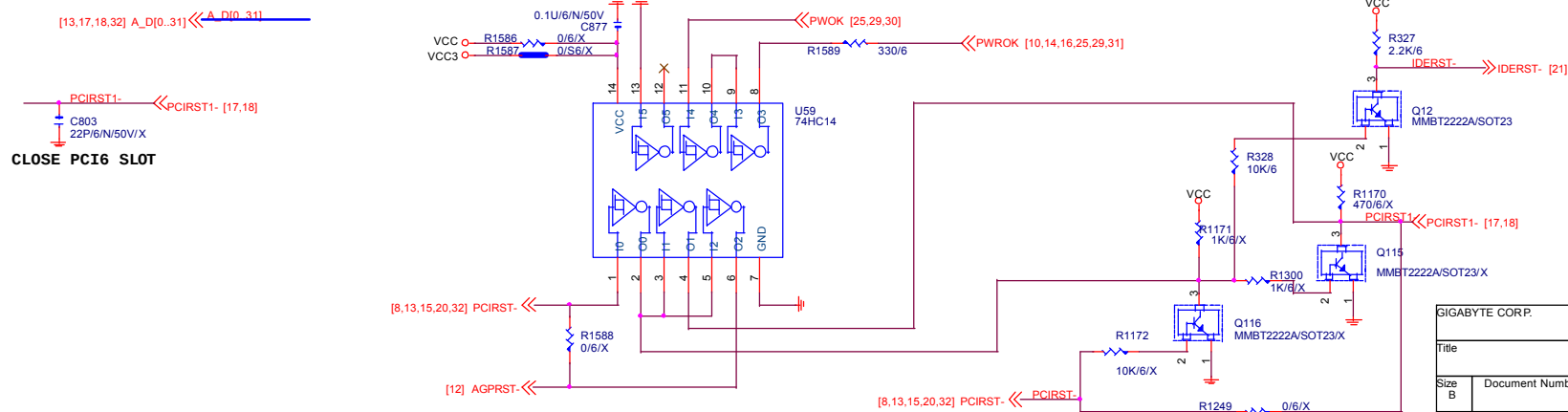
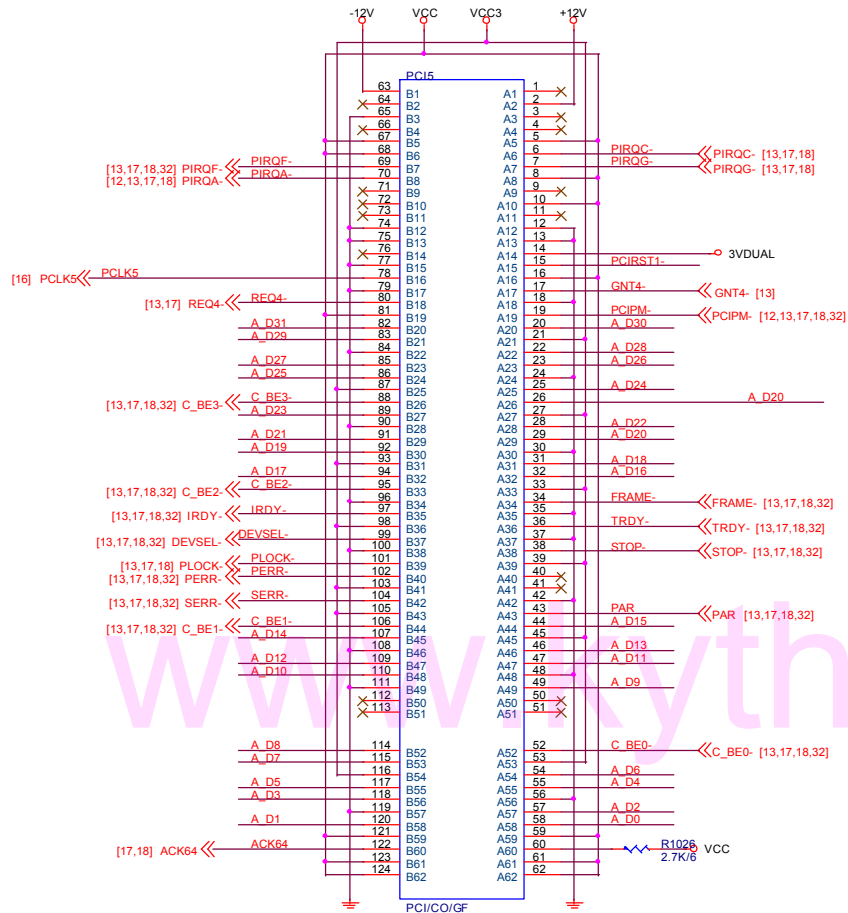


[13,17,19,32] A_D0[0..31] << A_D0_311

PCIRST1- << PCIRST1- [17,19]

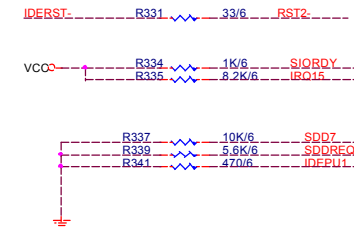
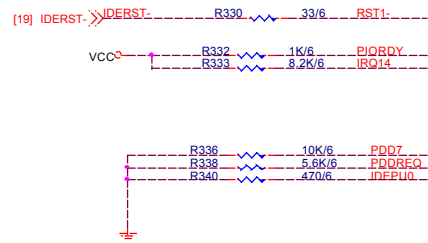
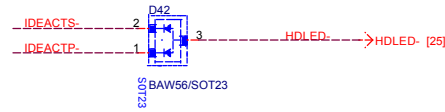


GIGABYTE CORP.			
Title			
PCI SLOT 3_4			
Size	Document Number	Rev	
B	GA-8IE800	1.12	
Date:	Wednesday, February 19, 2003	Sheet	18 of 34

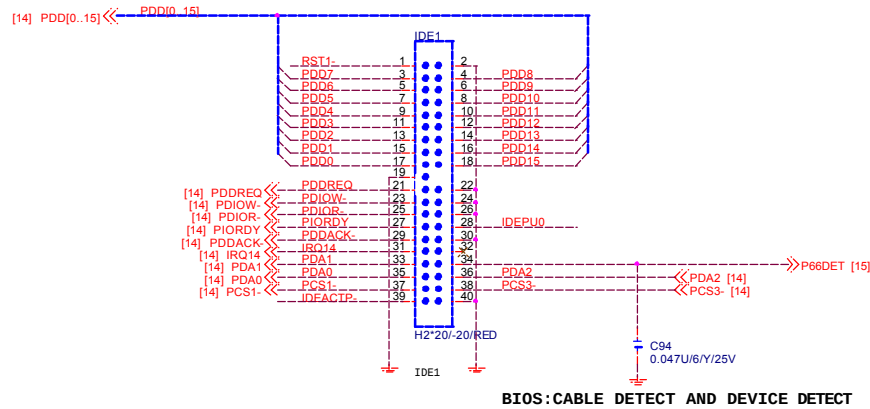


GIGABYTE CORP.			
Title		PCI SLOT 5	
Size	Document Number	GA-8IE800	Rev
Date:	Wednesday, February 19, 2003	Sheet 19	of 34

1.12

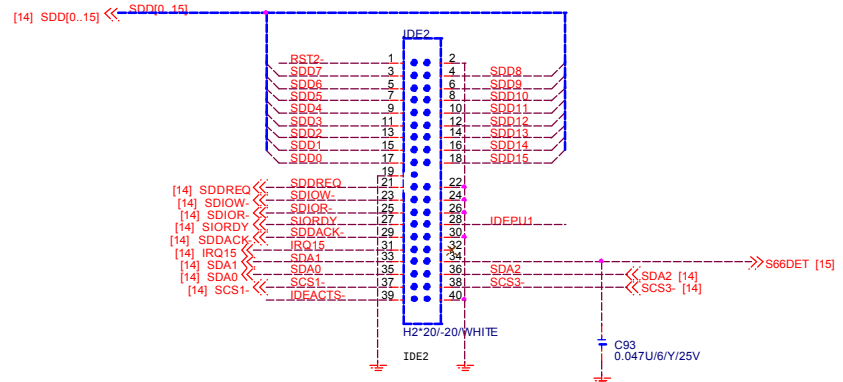


PRIMARY IDE CONNECTOR



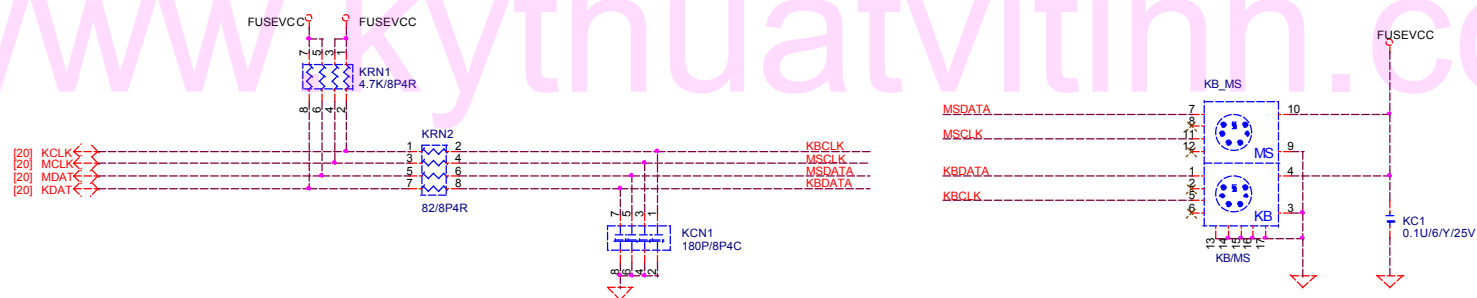
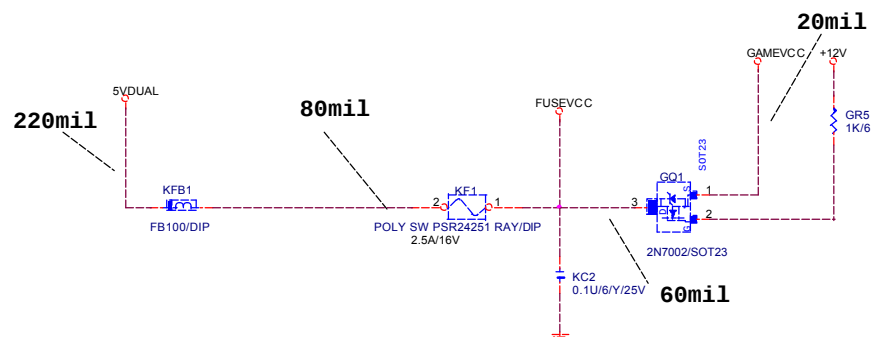
BIOS:CABLE DETECT AND DEVICE DETECT

SECONDARY IDE CONNECTOR



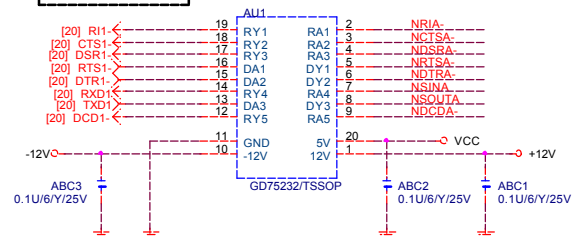
GIGABYTE CORP.			
Title IDE CONNECTOR			
Size B	Document Number	GA-8IE800	
Date: Wednesday, February 19, 2003	Sheet	21	of 34
			Rev 1.12

模組化線路

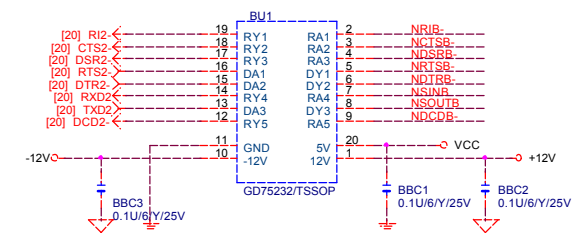


COMA

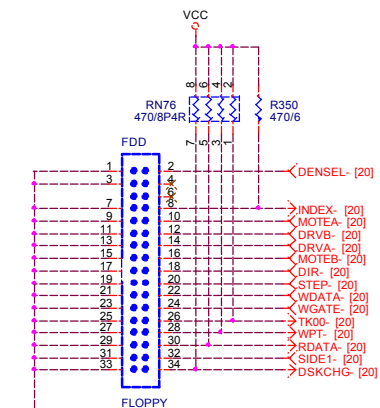
模組化線路



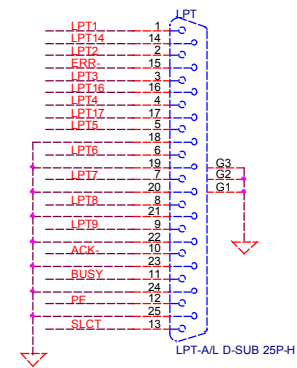
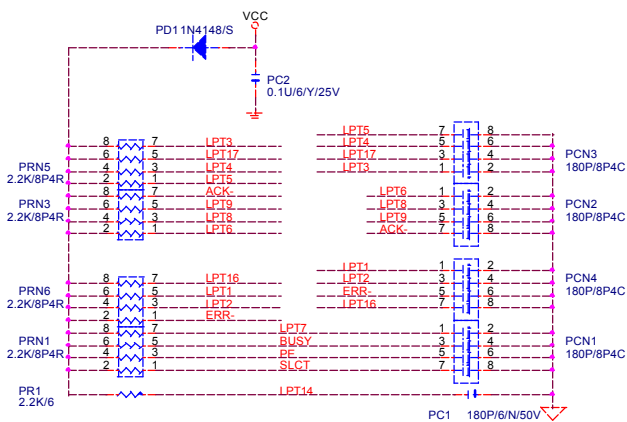
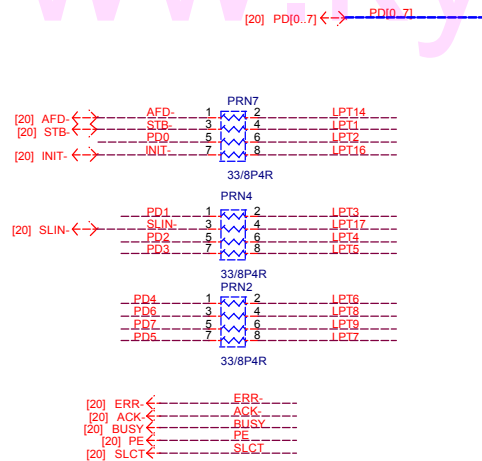
COMB



FLOPPY



PRT PORT



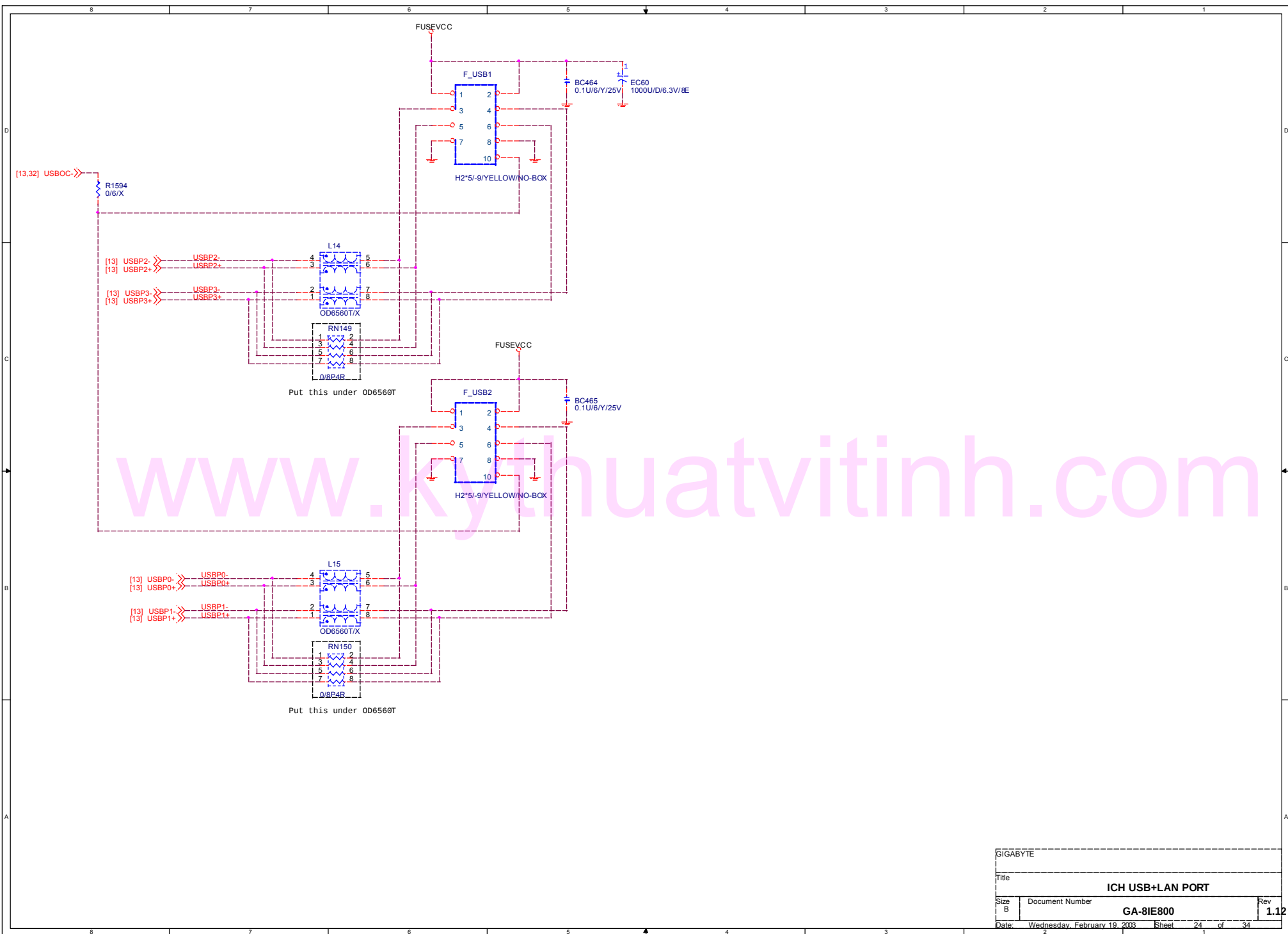
GIGABYTE CORP.

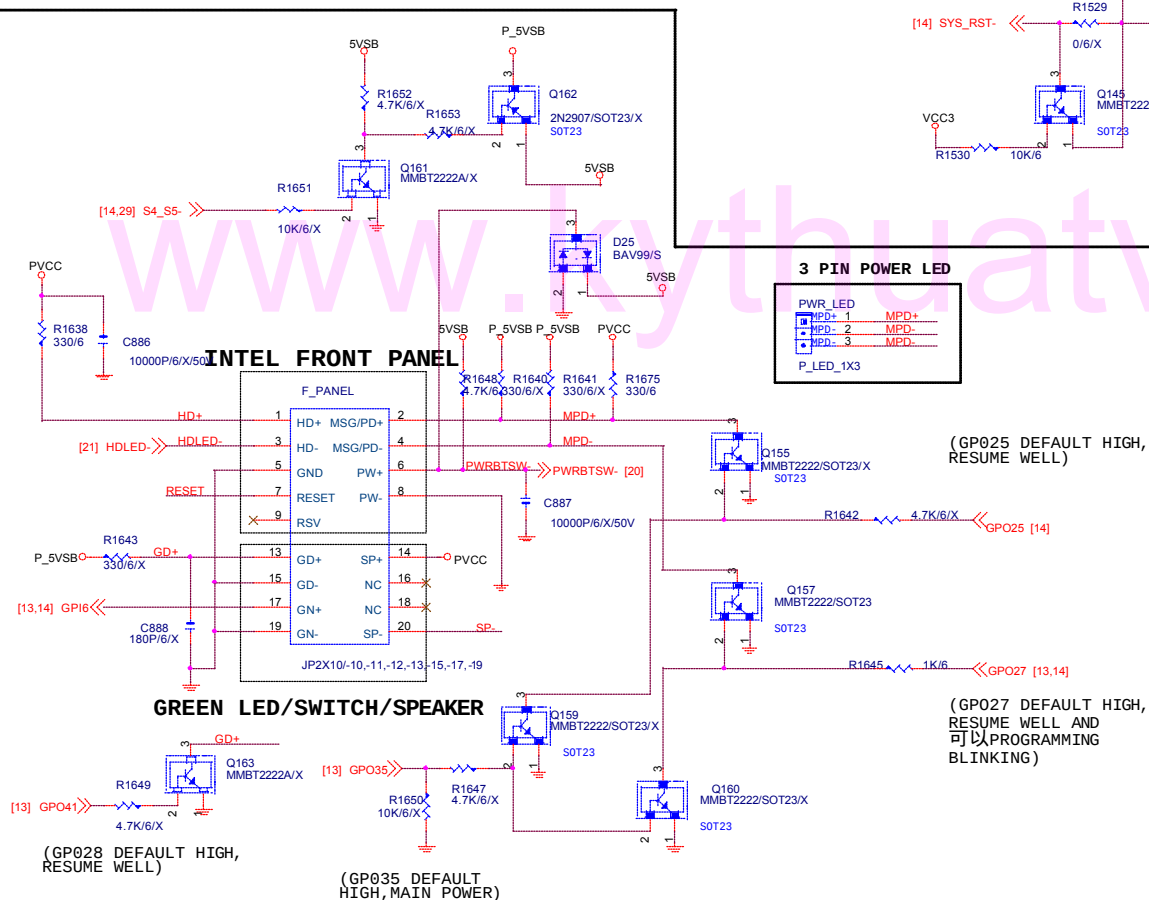
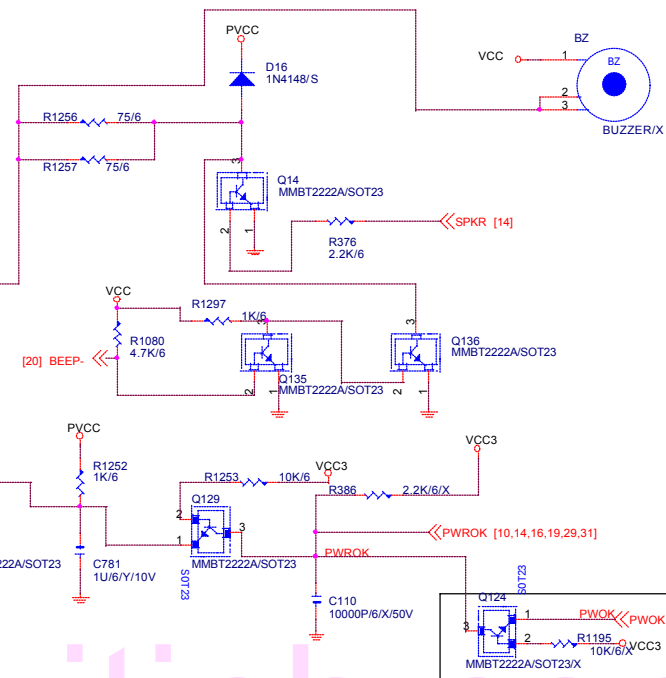
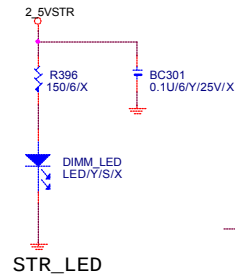
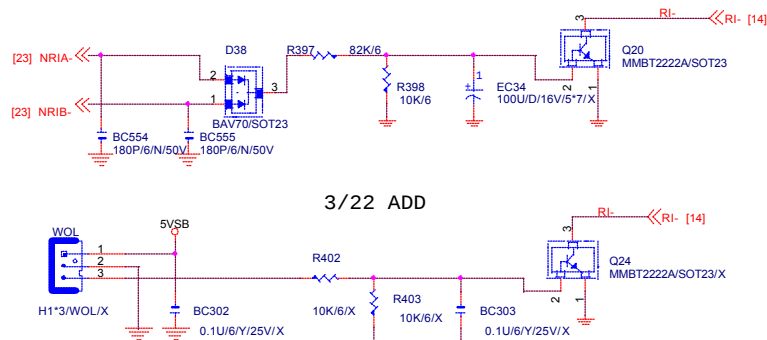
Title COM & IR & LPT PORT & FLOOPY

Size B Document Number GA-8IE800

Rev 1.12

Date: Wednesday, February 19, 2003 Sheet 23 of 34





States for green LED

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

N01 GP035 只需在S1 PROGRAMMING LOW

States for a single-color power LED

LED States	ACPI States	GP025	GP027	GP035
OFF	S1, S3, S5	1	1	N01
Steady Green	S0	0	1	0
Blinking Green	S0(message waiting)	0	B	0

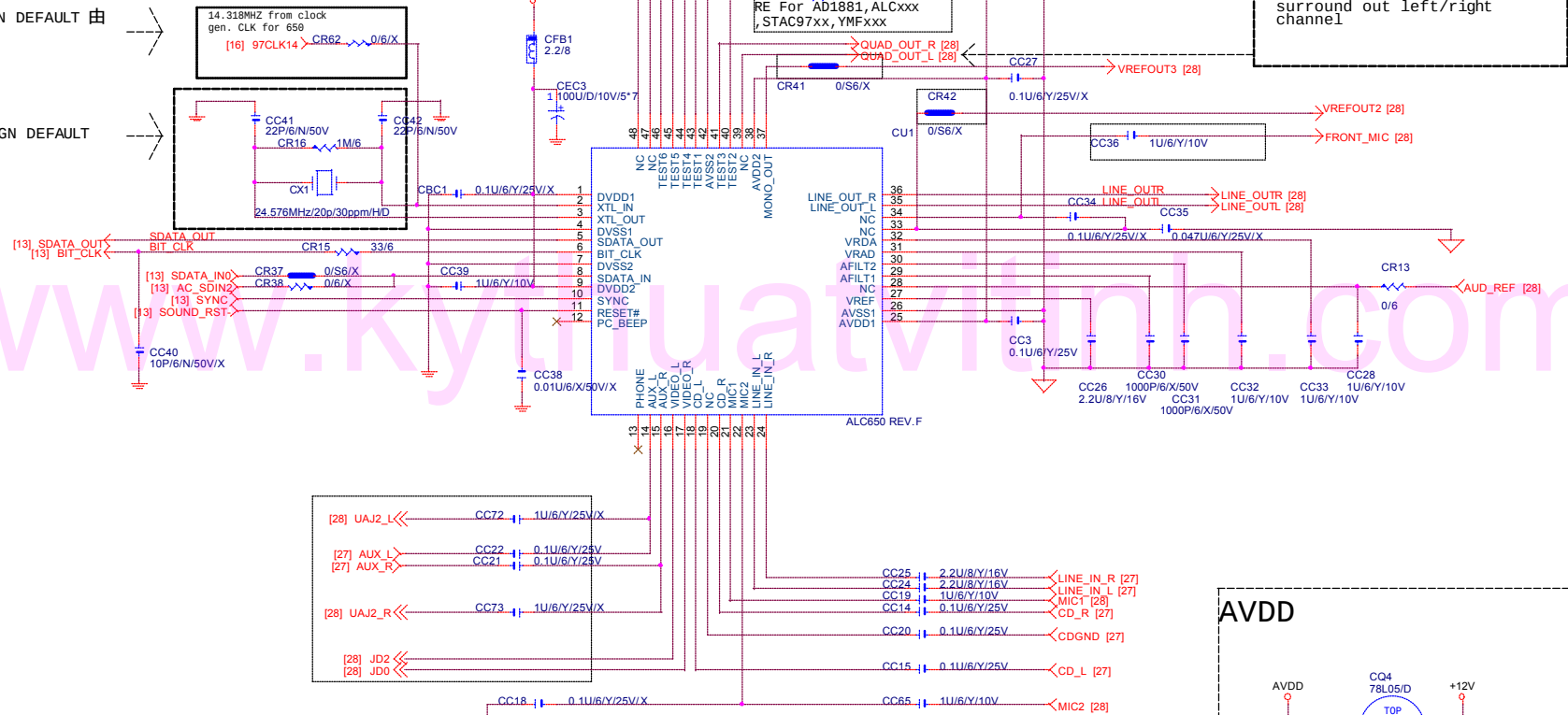
States for a dual-color power LED

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	N01
Blinking Yellow	S1, S3(message waiting)	1	B	N01

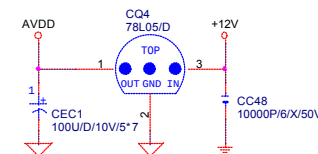
模組化線路

FOR 650 DESIGN DEFAULT 由
CLOCK GEN來

FOR 650 DESIGN DEFAULT
不上CRYSTAL



AVDD



GIGABYTE CORP.

Title

AC97

Size B

Document Number

GA-8IE800

Rev 1.12

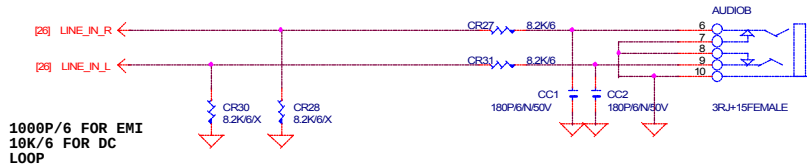
Date:

Wednesday, February 19, 2003

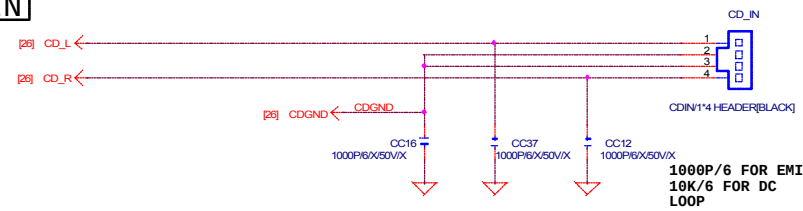
Sheet 26 of 34

LINE-IN

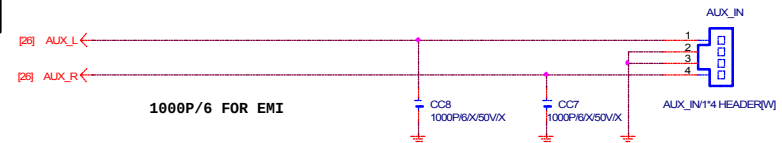
模組化線路



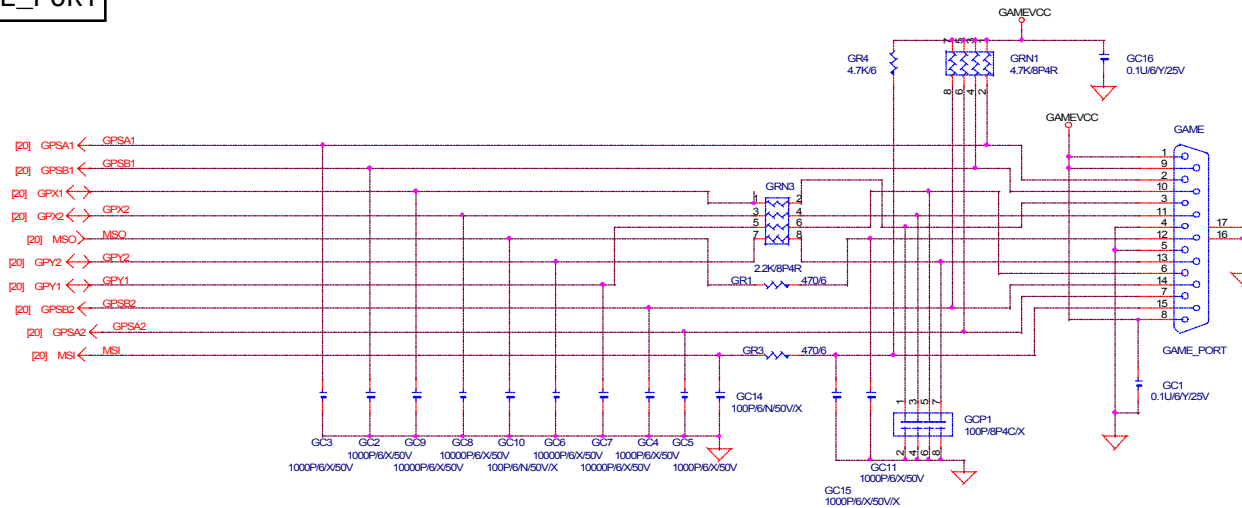
CDIN



AUX_IN



GAME_PORT

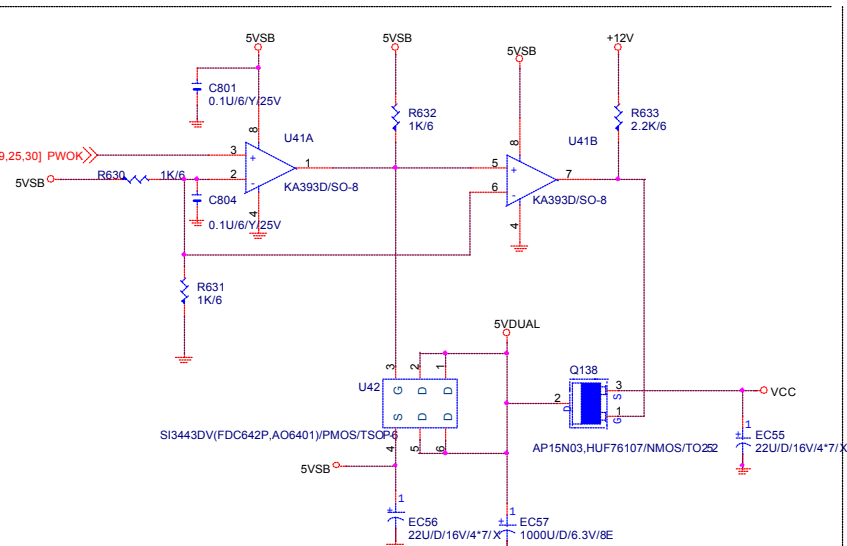
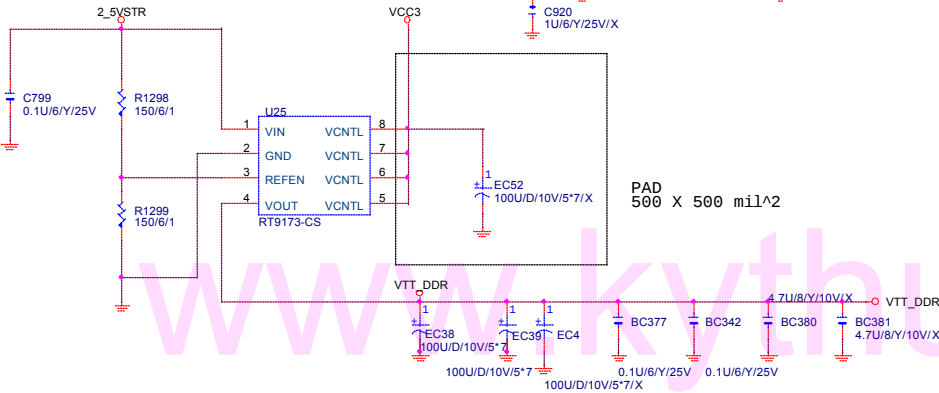


GIGABYTE CORP.			
Title			
PHONE JACK, GAME PORT			
Size	Document Number	Rev	
Custom	GA-8IE800	1.12	
Date	Wednesday, February 19, 2003	Sheet	27 of 34

LINE OUT



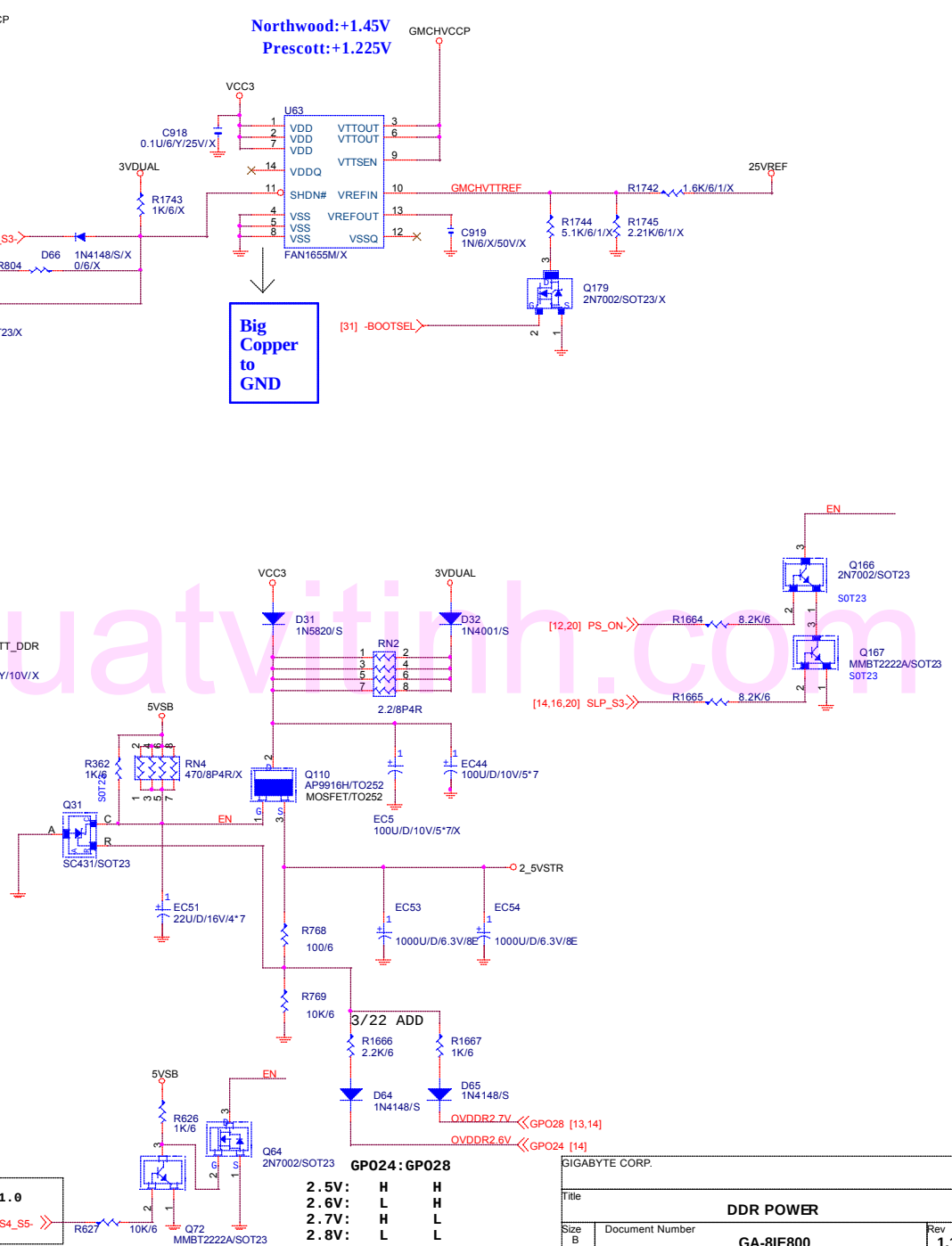
1.25V VTT_DDR LINEAR SOLUTION



5VDUAL CIRCUIT

REV1.0

[14,25] S4_S5- >>



Big Copper to GND

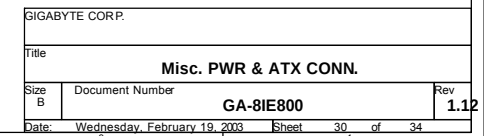
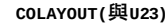
GP024:GP028

2.5V:	H	H
2.6V:	L	H
2.7V:	H	L
2.8V:	L	L

GIGABYTE CORP.

Title			DDR POWER
Size	Document Number	GA-8IE800	
Date:	Wednesday, February 19, 2008	Sheet	29 of 34

Rev 1.12



CPU Voltage ID output

Pin	Resistor	Voltage Level
VID3	R1703	VID3
VID2	R1704	VID2
VID1	R1705	VID1
VID0	R1706	VID0
VID5	R1707	VID5

Near PWM

Support willimette CPU

GP019	GP020	VCore
1	1	VID(50mV)
0	1	VID+5%
1	0	VID+7.5%
0	0	VID+10%

Title Block:

GIGABYTE
 Title: Vcore PWM HIP6301/6302CB
 Size: Custom
 Document Number: GA-8IE800
 Date: Wednesday, February 19, 2003
 Sheet: 31 of 34
 Rev: 1.12

GP019	GP020	VCORE
1	1	VID(50mV)
0	1	VID+5%
1	0	VID+7.5%
0	0	VID+10%

OFS SPEC = $0.5 \cdot R_{1726} / R_{1714}$
OVP SPEC = VID + 200mV
必須大於 VCore *
[R1721/R1719+R1721]]
目前OVP = 30%

Support Willimette CPU

MECHANIC LIMITED

(CONSUMPTION: 60A)

Default SANYO 1500U/D/6.3V/8*20
Second source: Panasonic FJ 1500U/D/10V/8*20

GIGABYTE

Title Vcore PWM HIP6301/6302CB

Size Custom	Document Number GA-8IE800	Rev 1.12
Date: Wednesday, February 19, 2003	Sheet 31 of 34	

GIGABYTE GA-8IE800 GPIO LIST

Revision 1.1

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		
GP016	NA	PULL 8.2K TO VCC3 (CAN'T PULL DOWN)因為會decode bios address 不正確:FF
GP017		PULL 8.2K TO VCC3 (GNT5-)
GP018	NA	PULL 8.2K TO VCC3 此OUTPUT 會TOGGLE, (在開機時), BIOS POST
GP019		PULL 8.2K TO VCC3
GP020		PULL 8.2K TO VCC3
GP021		PULL 8.2K TO VCC3 (TOP BLOCK)
GP022		PULL 8.2K TO VCC3
GP023		PULL 8.2K TO VCC3
GP024		PULL 4.7K TO 3VDUAL
GP025		PULL 4.7K TO 3VDUAL (POWER LED)
GP026		NOT IMPLEMENTED
GP027		PULL 8.2K TO 3VDUAL (POWER LED)
GP028		PULL 8.2K TO 3VDUAL
GP032		PULL 8.2K TO 3VDUAL (BIOS WRITE PROTECT)
GP035		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-8IE800	Rev 1.12
Date: Wednesday, February 19, 2003 Sheet 33 of 34		

Revision 1.1

TITLE

[illegible]

TITLE

[illegible]

www.kythuatvitinh.com

		COMPONENT SIDE (0.5 oz. Copper) VCC SIDE (1 oz. Copper) GND SIDE (1 oz. Copper) SOLDER SIDE (0.5 oz. Copper)	
			
Title			
PCI ROUNT LIST			
Size	Document Number	Rev	
Custom	GA-8IE800	1.1	
Date:	Wednesday, February 19, 2003	Sheet	34 of 34