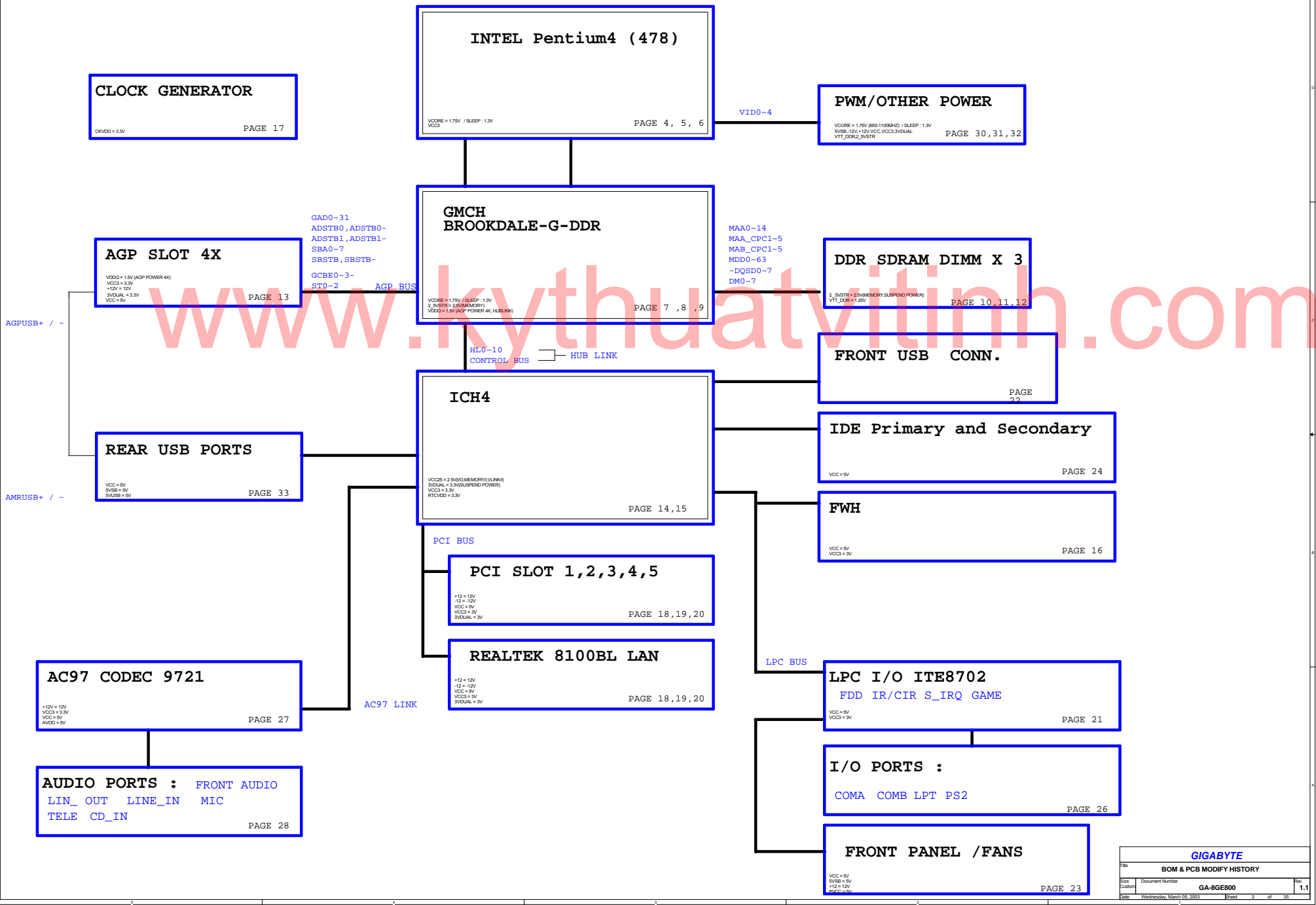


BLOCK DIAGRAM



CLOCK GENERATOR
 VDD0 = 3.3V
 PAGE 17

INTEL Pentium4 (478)
 VCCRE = 1.75V / SLEEP: 1.3V
 VCC3
 PAGE 4, 5, 6

PWM/OTHER POWER
 VCCRE = 1.75V (850-1100MHz) / SLEEP: 1.3V
 SVSB = 12V + 12V/VCC/VCC3/VDUAL
 VTT_DDR2_5VSTR
 PAGE 30, 31, 32

AGP SLOT 4X
 VCC0 = 1.8V (AGP POWER 4X)
 VCC3 = 3.3V
 +12V = 12V
 VDUAL = 3.3V
 VCC = 5V
 PAGE 13

GMCH BROOKDALE-G-DDR
 VCCRE = 1.75V / SLEEP: 1.3V
 2. DVSTRIS = 2.5V(MEMORY)
 VDDQ = 1.8V (AGP POWER 4X, HUBLINK)
 PAGE 7, 8, 9

DDR SDRAM DIMM X 3
 2. 5VSTR = 2.5V(MEMORY/SUSPEND POWER)
 VTT_DDR = 1.25V
 PAGE 10, 11, 12

ICH4
 VCC2S = 2.5V(WO MEMORY/HUBLINK)
 VDUAL = 3.3V (SUSPEND POWER)
 VCC3 = 3.3V
 RTCVDD = 3.3V
 PAGE 14, 15

FRONT USB CONN.
 PAGE 22

IDE Primary and Secondary
 VCC = 5V
 PAGE 24

FWH
 VCC = 5V
 VCC3 = 3V
 PAGE 16

PCI SLOT 1,2,3,4,5
 +12 = 12V
 -12 = 12V
 VCC = 5V
 VCC3 = 3V
 VDUAL = 3V
 PAGE 18, 19, 20

REALTEK 8100BL LAN
 +12 = 12V
 -12 = 12V
 VCC = 5V
 VCC3 = 3V
 VDUAL = 3V
 PAGE 18, 19, 20

LPC I/O ITE8702
 FDD IR/CIR S_IRQ GAME
 VCC = 5V
 VCC3 = 3V
 PAGE 21

I/O PORTS :
 COMA COMB LPT PS2
 PAGE 26

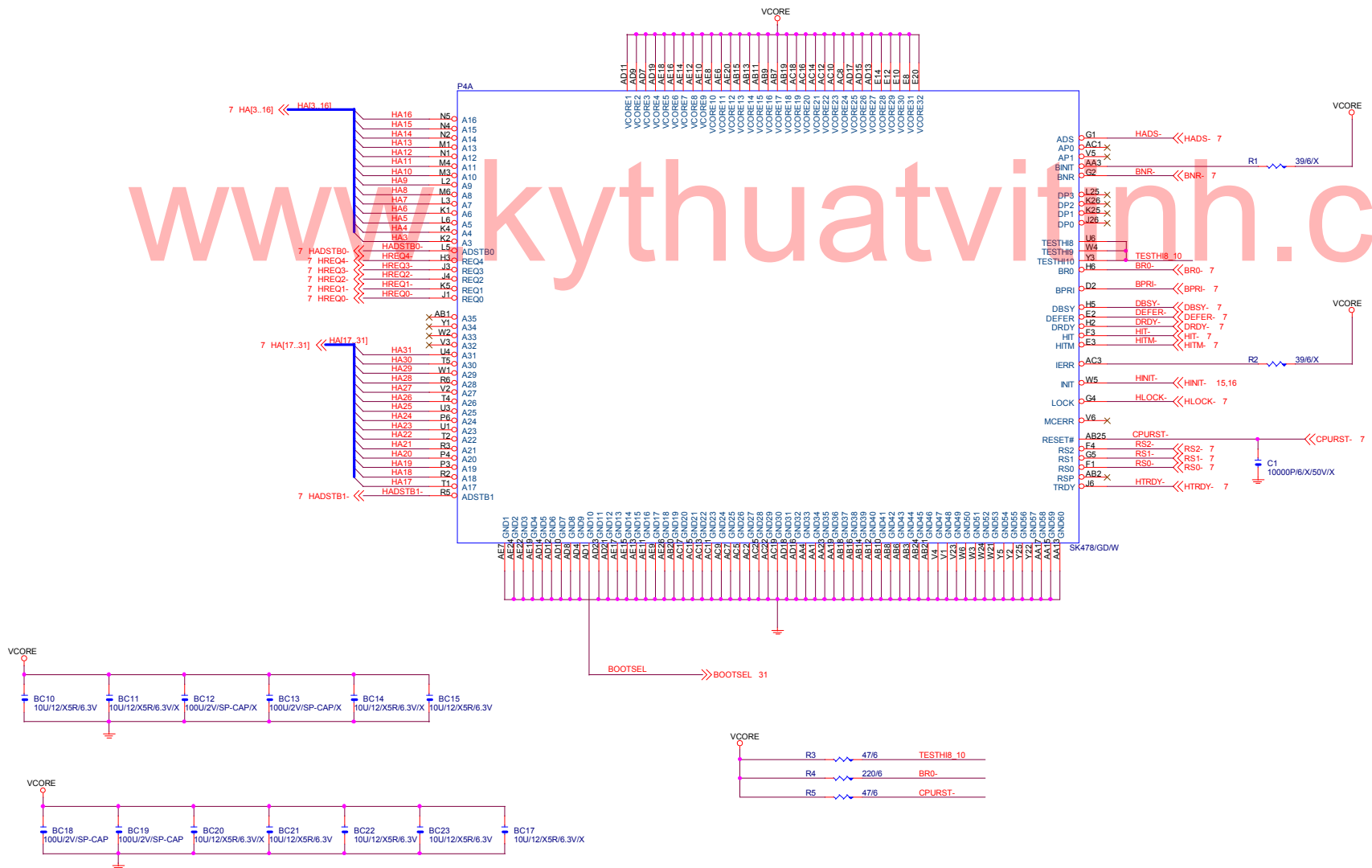
FRONT PANEL /FANS
 VCC = 5V
 SVSB = 5V
 +12 = 12V
 VCC = 5V
 PAGE 23

AC97 CODEC 9721
 +12V = 12V
 VCC3 = 3.3V
 VCC = 5V
 VDD = 5V
 PAGE 27

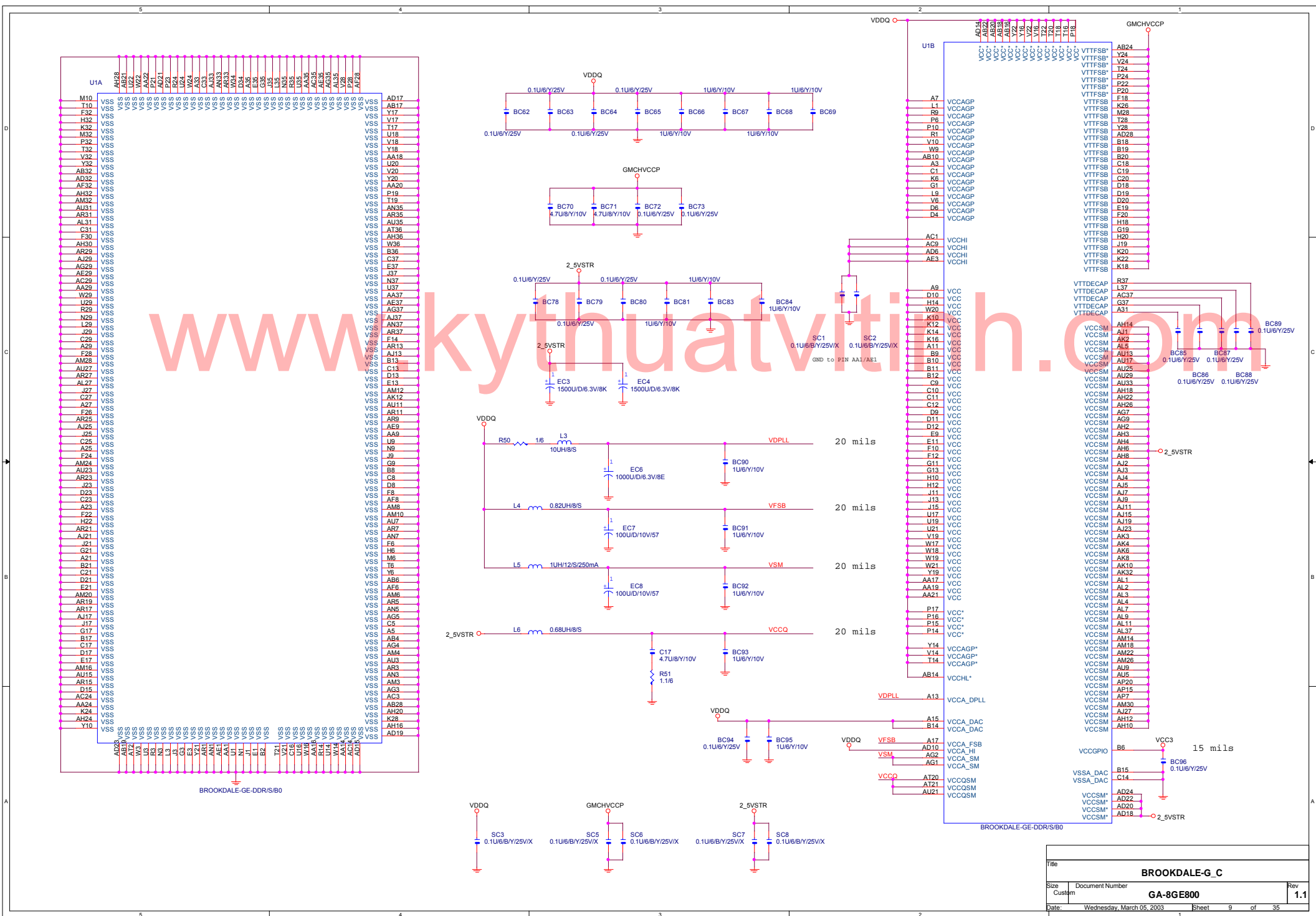
AUDIO PORTS : FRONT AUDIO
 LIN_OUT LINE_IN MIC
 TELE_CD_IN
 PAGE 28

GIGABYTE			
BOM & PCB MODIFY HISTORY			
File	Document Number	Rev	
GA-8GE800	GA-8GE800	1.1	
Date	Wednesday, March 05, 2003	Print	3 of 35

www.kythuatvitinh.com



Title		
P4 478A		
Size	Document Number	Rev
Custom	GA-8GE800	1.1
Date:	Wednesday, March 05, 2003	Sheet 4 of 35



www.kyathuathvith.com

Title		
BROOKDALE-G_C		
Size	Document Number	Rev
Custom	GA-8GE800	1.1
Date	Wednesday, March 05, 2003	Sheet 9 of 35

11,12 MD[0..63] << <<MD[0..63] 8

11,12 DM[0..7] >> >>DM[0..7] 8

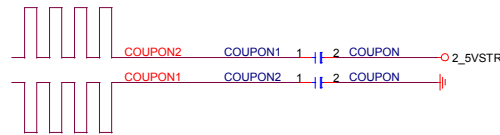
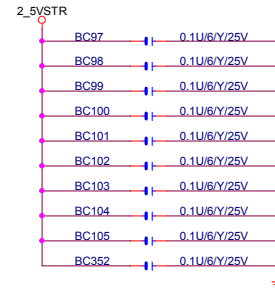
11,12 -DQS[0..7] << <<-DQS[0..7] 8

DM 0	RN3	1	2 10/8P4R	DM0
-DQS 0		3	4	-DQS0
MD 2		5	6	MD2
MD 6		7	8	MD6
MD 0	RN5	1	2 10/8P4R	MD0
MD 4		3	4	MD4
MD 5		5	6	MD5
MD 1		7	8	MD1
MD 12	RN6	1	2 10/8P4R	MD12
MD 13		3	4	MD13
-DQS 1		5	6	-DQS1
DM 1		7	8	DM1
MD 14	RN7	1	2 10/8P4R	MD14
MD 15		3	4	MD15
MD 10		5	6	MD10
MD 11		7	8	MD11
-DQS 2	RN9	1	2 10/8P4R	-DQS2
DM 2		3	4	DM2
MD 18		5	6	MD18
MD 22		7	8	MD22
MD 25	RN11	1	2 10/8P4R	MD25
MD 25		3	4	MD25
-DQS 3		5	6	-DQS3
DM 3		7	8	DM3
MD 26	RN12	1	2 10/8P4R	MD26
MD 30		3	4	MD30
MD 27		5	6	MD27
MD 31		7	8	MD31
MD 32	RN13	1	2 10/8P4R	MD32
MD 36		3	4	MD36
MD 33		5	6	MD33
MD 37		7	8	MD37
MD 39	RN14	1	2 10/8P4R	MD39
MD 35		3	4	MD35
MD 40		5	6	MD40
MD 44		7	8	MD44
-DQS 4	RN15	1	2 10/8P4R	-DQS4
DM 4		3	4	DM4
MD 34		5	6	MD34
MD 38		7	8	MD38
MD 45	RN16	1	2 10/8P4R	MD45
MD 41		3	4	MD41
DM 5		5	6	DM5
-DQS 5		7	8	-DQS5
MD 48	RN17	1	2 10/8P4R	MD48
MD 49		3	4	MD49
MD 52		5	6	MD52
MD 53		7	8	MD53
MD 50	RN18	1	2 10/8P4R	MD50
MD 51		3	4	MD51
MD 60		5	6	MD60
MD 61		7	8	MD61
DM 6	RN19	1	2 10/8P4R	DM6
-DQS 6		3	4	-DQS6
MD 54		5	6	MD54
MD 55		7	8	MD55
MD 56	RN20	1	2 10/8P4R	MD56
MD 57		3	4	MD57
DM 7		5	6	DM7
-DQS 7		7	8	-DQS7
MD 59	RN21	1	2 10/8P4R	MD59
MD 63		3	4	MD63
MD 58		5	6	MD58
MD 62		7	8	MD62

MD 20	RN2	1	2 10/8P4R	MD20
MD 16		3	4	MD16
MD 17		5	6	MD17
MD 21		7	8	MD21
MD 42	RN4	1	2 10/8P4R	MD42
MD 46		3	4	MD46
MD 43		5	6	MD43
MD 47		7	8	MD47

MD 7	RN8	1	2 10/8P4R	MD7
MD 3		3	4	MD3
MD 8		5	6	MD8
MD 9		7	8	MD9
MD 19	RN10	1	2 10/8P4R	MD19
MD 23		3	4	MD23
MD 24		5	6	MD24
MD 28		7	8	MD28

www.kythuathuatinh.com



GIGABYTE		
Title		
DDR SERIAL TERM.		
Size B	Document Number	Rev
	GA-8GE800	1.1
Date:	Wednesday, March 05, 2003	Sheet 10 of 35

8.12 MAA_CPC[1..5] >> MAA_CPC[1..5]

2_5VSTR

8.12 MAA[0..12] >>

- MAA0 48
- MAA1 49
- MAA_CPC1 43
- MAA_CPC2 41
- MAA3 130
- MAA_CPC4 37
- MAA_CPC5 32
- MAA6 125
- MAA7 29
- MAA8 122
- MAA9 27
- MAA10 141
- MAA11 118
- MAA12 115

8.12 SBS0 >> SBS0

8.12 SBS1 >> SBS1

8.12 -CS0 >> -CS0

8.12 -CS1 >> -CS1

10.12 DM[0..7] >>

- DM 0 97
- DM 1 107
- DM 2 119
- DM 3 129
- DM 4 149
- DM 5 159
- DM 6 169
- DM 7 177

8.12 -SWEA >> -SWEA

8.12 -SCASA >> -SCASA

8.12 -SRASA >> -SRASA

8.12 CKE0 >> CKE0

8.12 CKE1 >> CKE1

10.12 -DQS[0..7] >>

- DQS 0 5
- DQS 1 14
- DQS 2 25
- DQS 3 36
- DQS 4 56
- DQS 5 67
- DQS 6 78
- DQS 7 86

12.15.17.31 SMBDATA >> SMBDATA

12.15.17.31 SMBCLK >> SMBCLK

VREF_DDR

2_5VSTR

BC106

0.1U/6/Y/25V

2_5VSTR

R52

150/6/1

R53

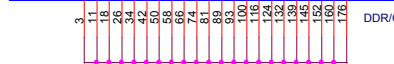
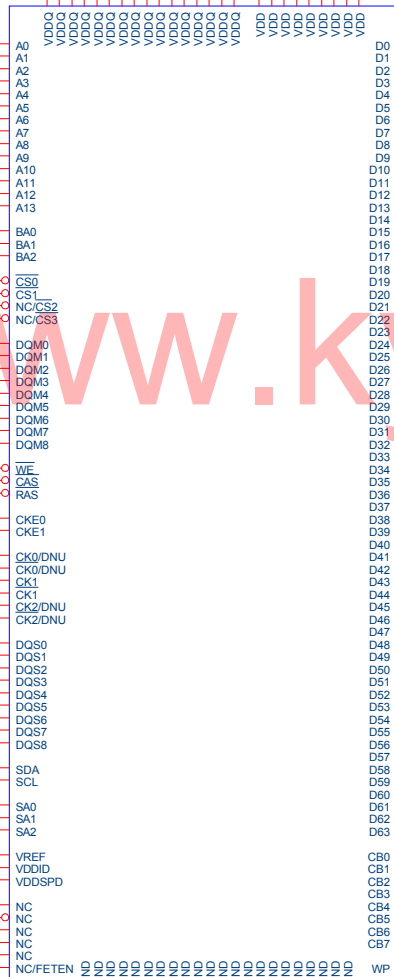
150/6/1

BC108

0.1U/6/Y/25V

BC109

1U/6/Y/10V



2_5VSTR

8.12 MAB_CPC[1..5] >>

- MAA0 48
- MAB_CPC1 43
- MAB_CPC2 41
- MAA3 130
- MAB_CPC4 37
- MAB_CPC5 32
- MAA6 125
- MAA7 29
- MAA8 122
- MAA9 27
- MAA10 141
- MAA11 118
- MAA12 115

8.12 -CS2 >> -CS2

8.12 -CS3 >> -CS3

8.12 CKE2 >> CKE2

8.12 CKE3 >> CKE3

8.12 DCLK4 >>

8.12 -DCLK4 >>

8.12 -DCLK3 >>

8.12 DCLK5 >>

8.12 -DCLK5 >>

-DQS 0 5

-DQS 1 14

-DQS 2 25

-DQS 3 36

-DQS 4 56

-DQS 5 67

-DQS 6 78

-DQS 7 86

SMBDATA 91

SMBCLK 92

SA0 181

SA1 182

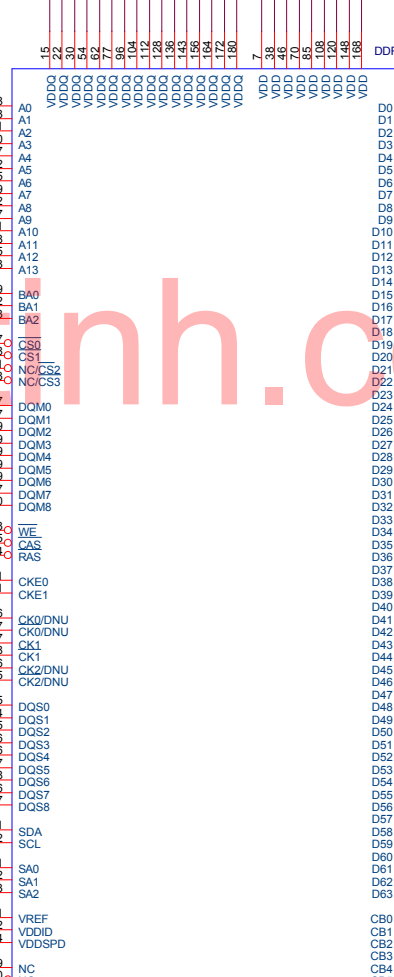
SA2 183

VREF_DDR

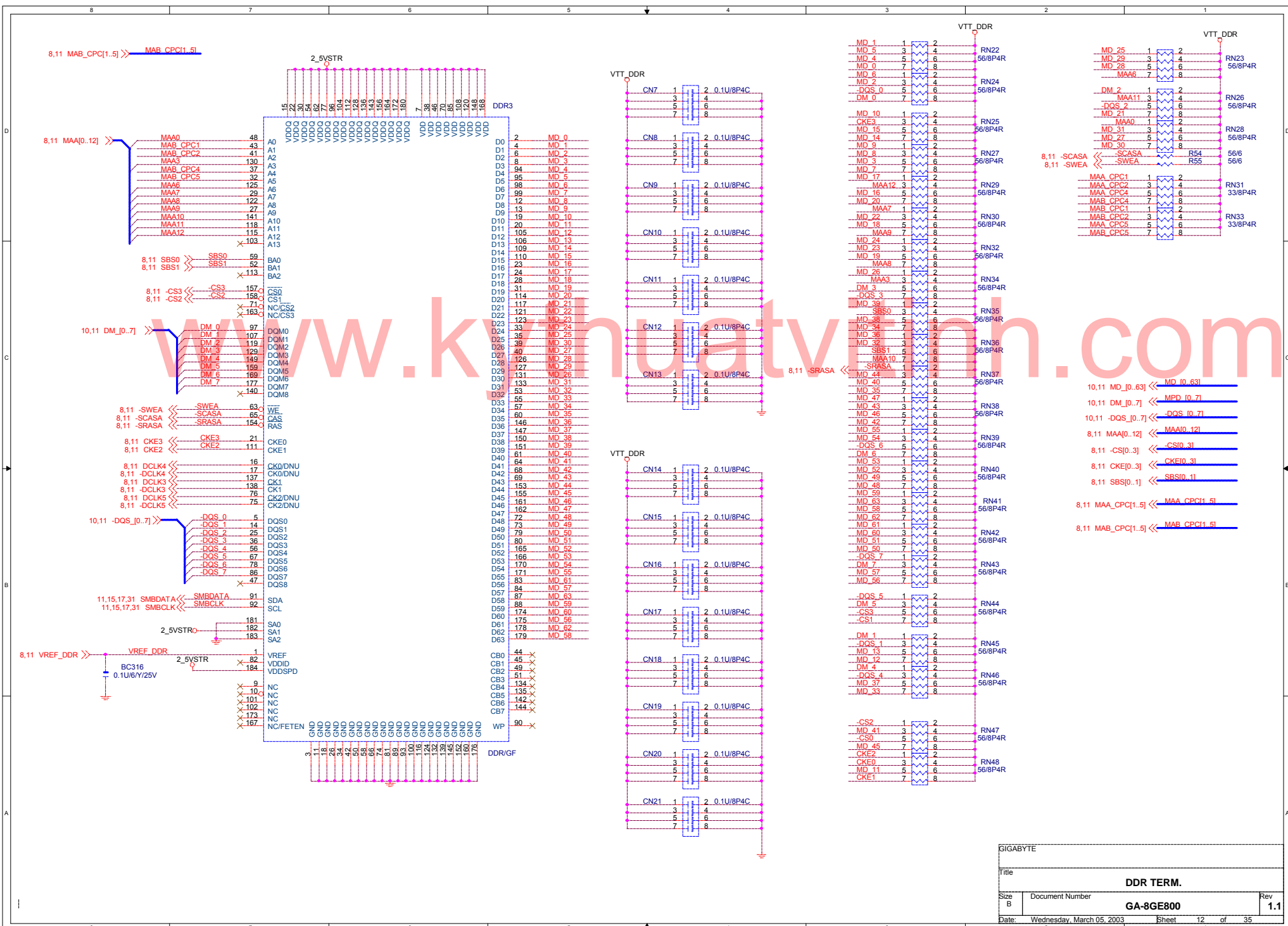
2_5VSTR

BC107

0.1U/6/Y/25V

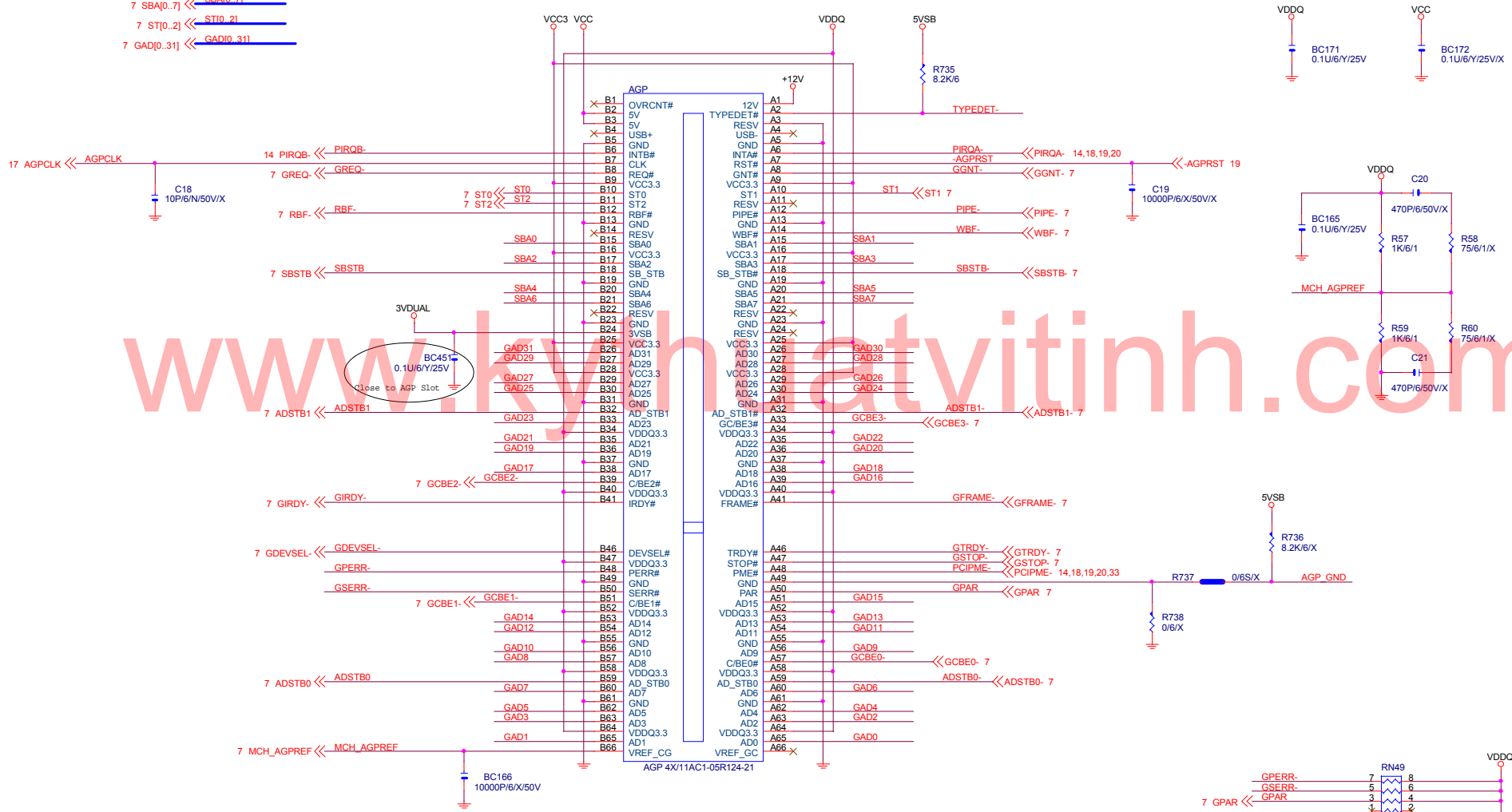


GIGABYTE		
Title		
DDR1,2		
Size	Document Number	Rev
B	GA-8GE800	1.1
Date:	Wednesday, March 05, 2003	Sheet 11 of 35

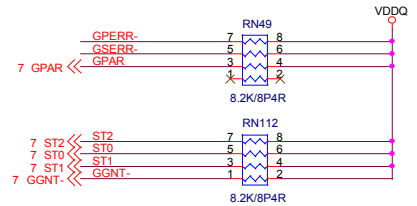
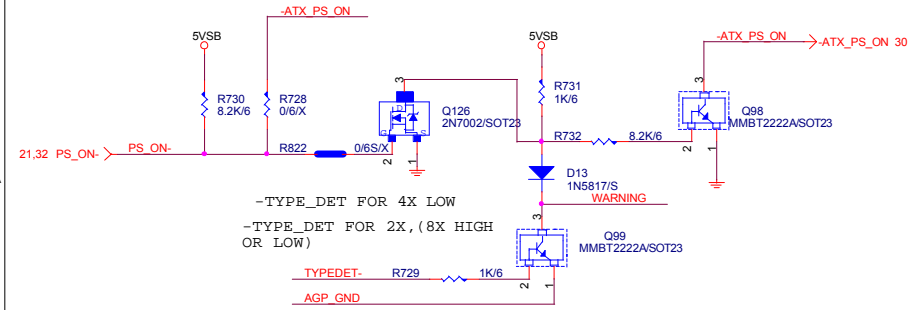


GIGABYTE		
Title		
DDR TERM.		
Size	Document Number	Rev
B	GA-8GE800	1.1
Date: Wednesday, March 05, 2003		
Sheet		12 of 35

7 SBA[0..7] << SBA[0..7]
 7 ST[0..2] << ST[0..2]
 7 GAD[0..31] << GAD[0..31]

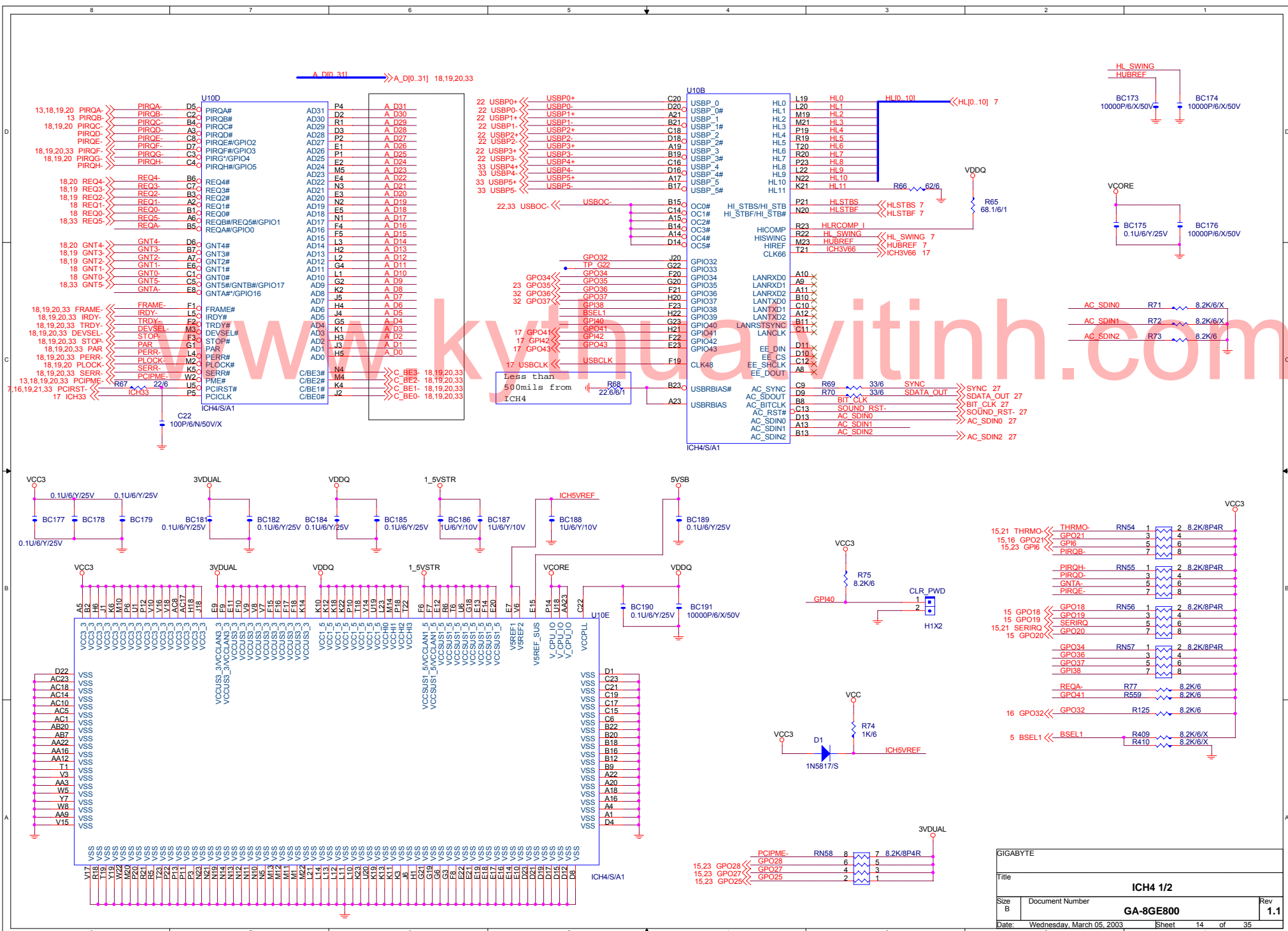


www.kyohatvihin.com

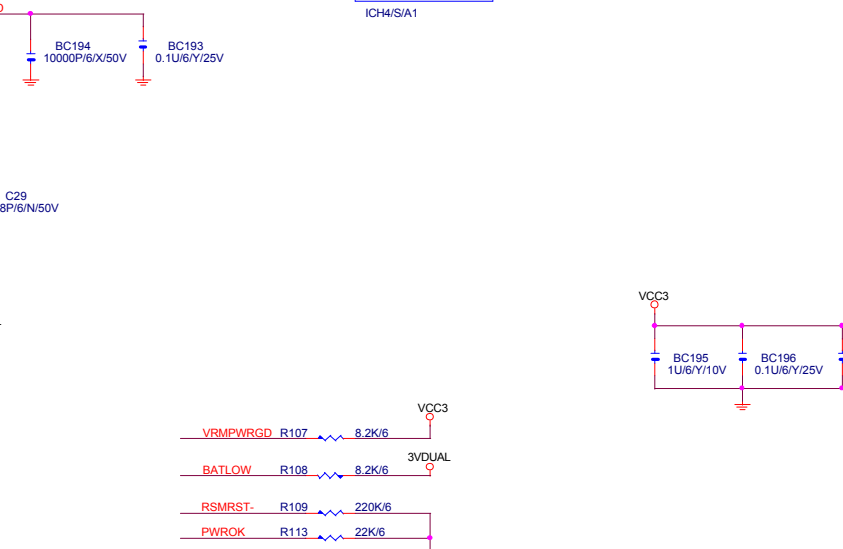
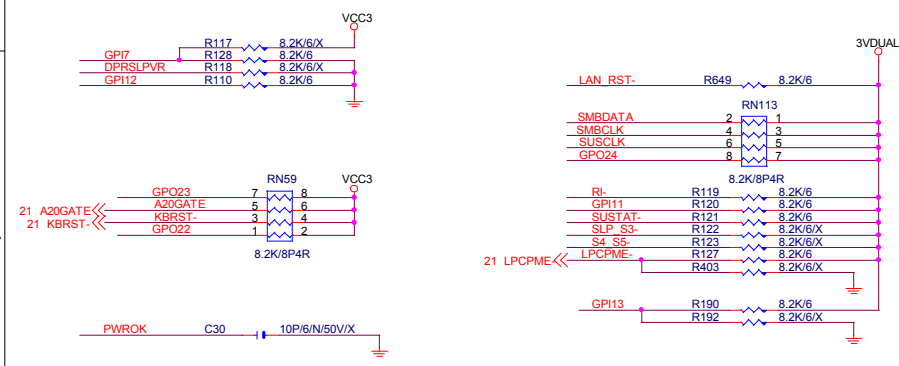
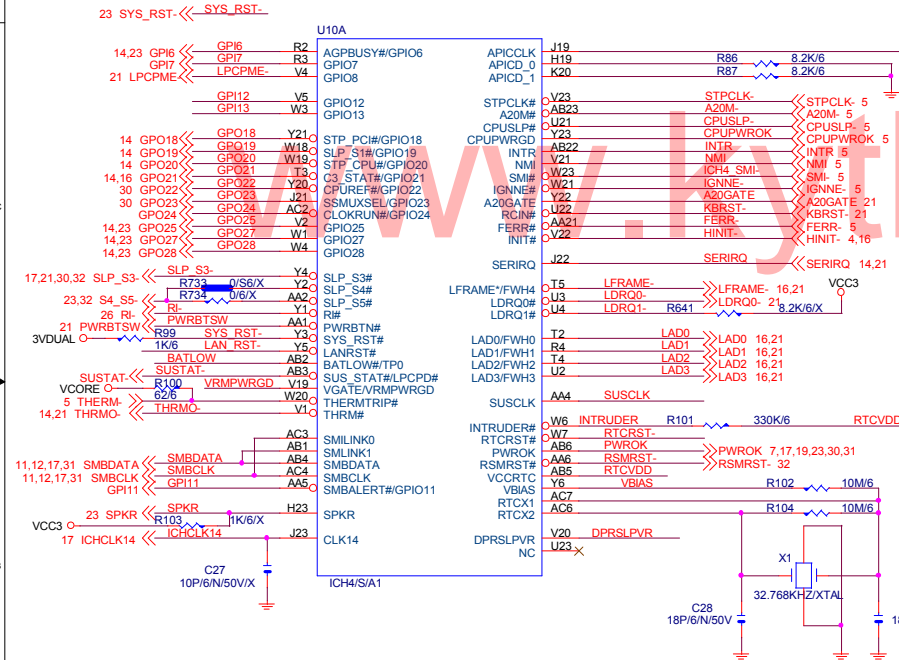
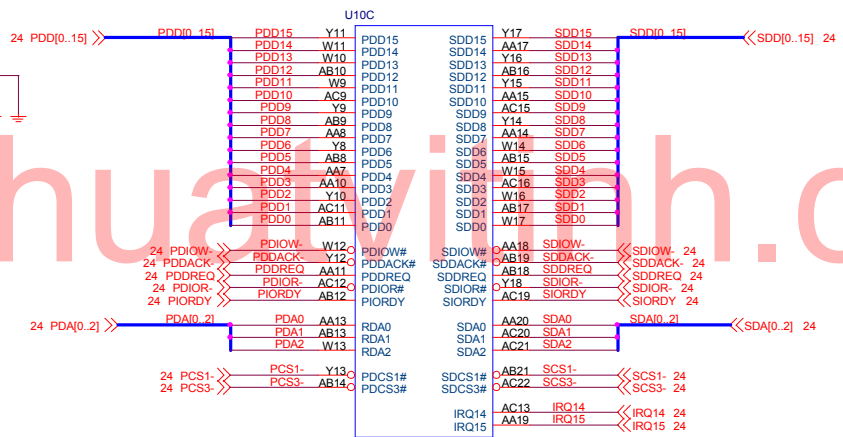
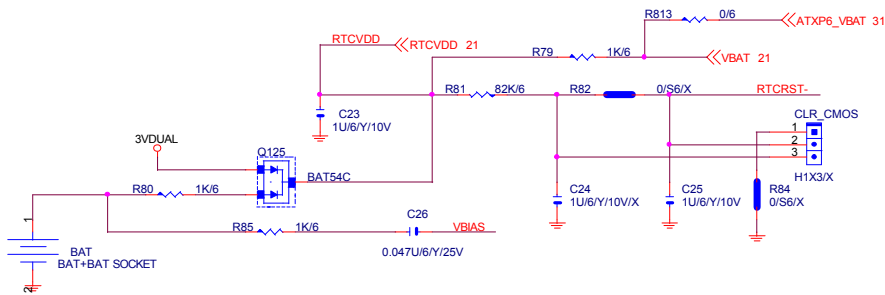


Layout 時整組線路均需靠近 AGP SLOT

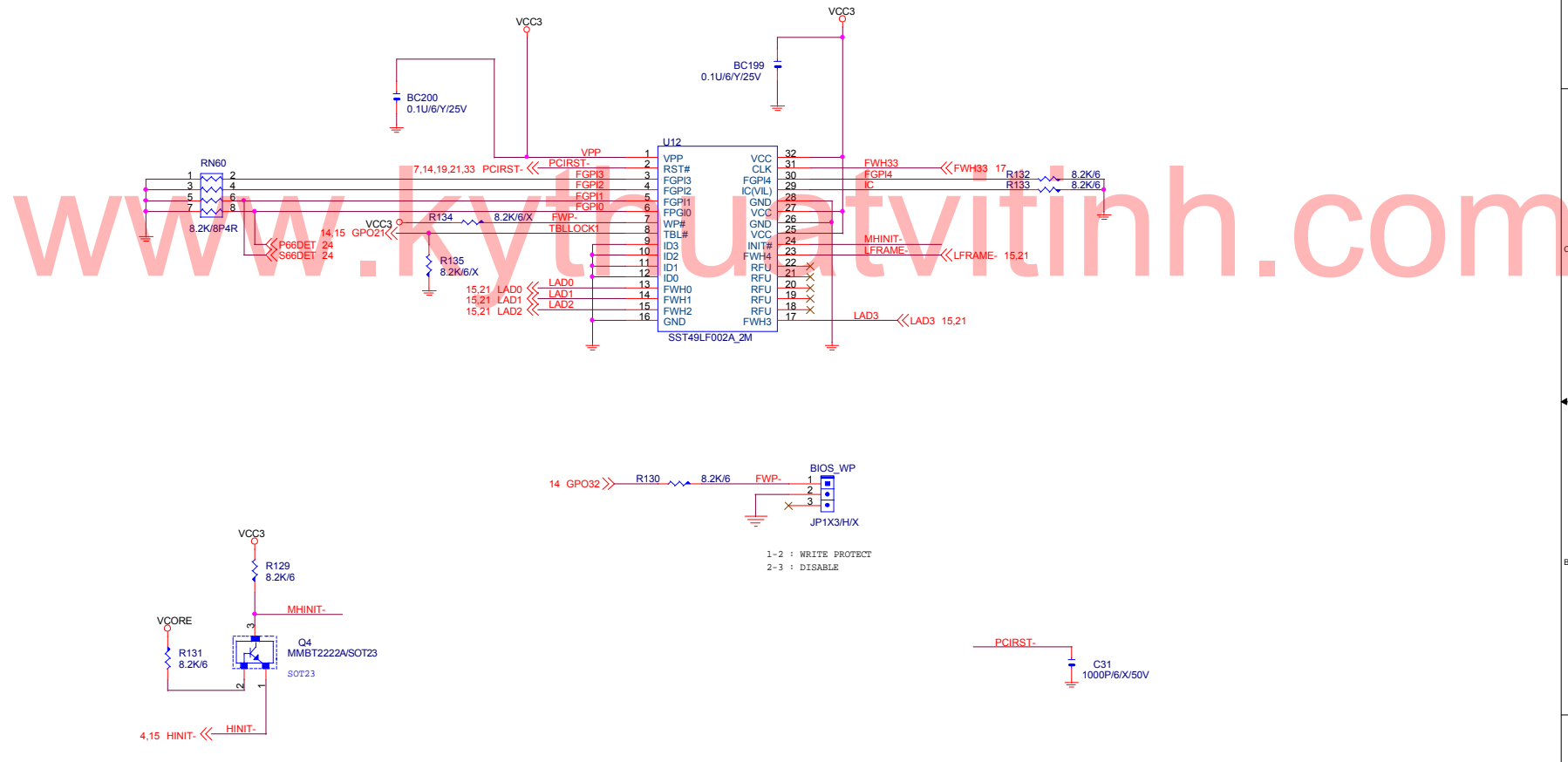
GIGABYTE		
Title		
AGP SLOT		
Size	Document Number	Rev
Custom	GA-8GE800	1.1
Date:	Wednesday, March 05, 2003	Sheet 13 of 35



GIGABYTE	
Title	
ICH4 1/2	
Size	Document Number
B	GA-8GE800
Date:	Wednesday, March 05, 2003
Sheet	14 of 35
Rev	1.1

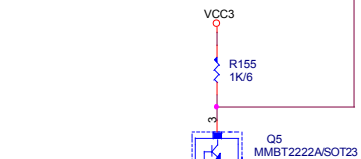
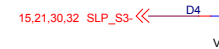
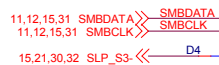
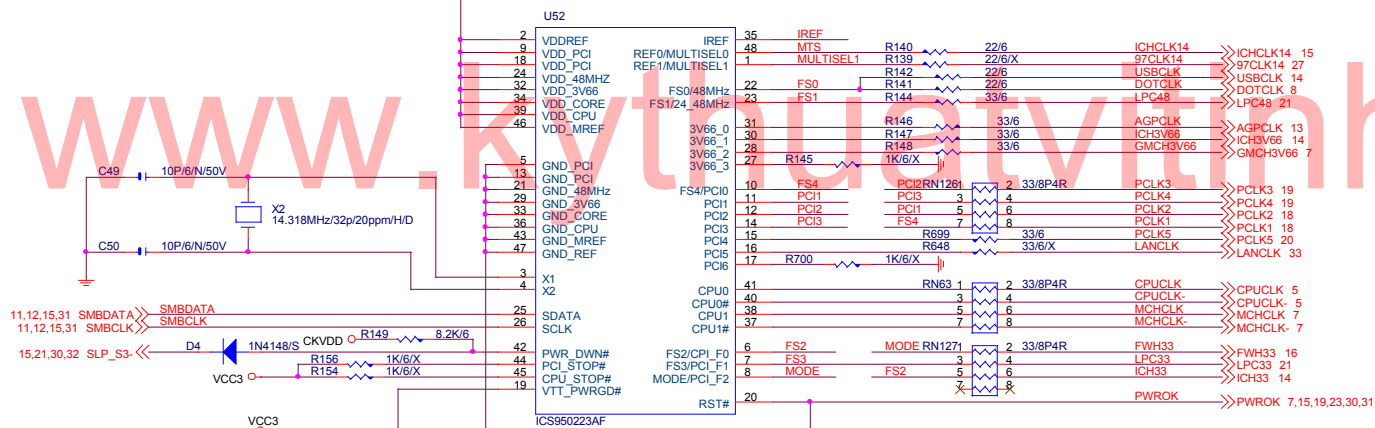
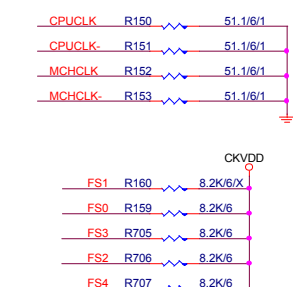
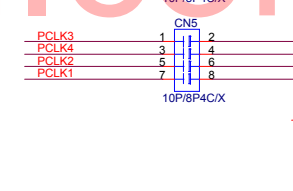
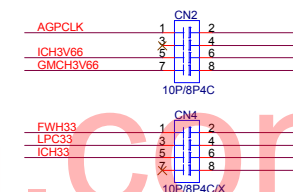
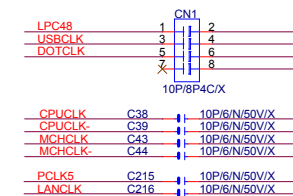
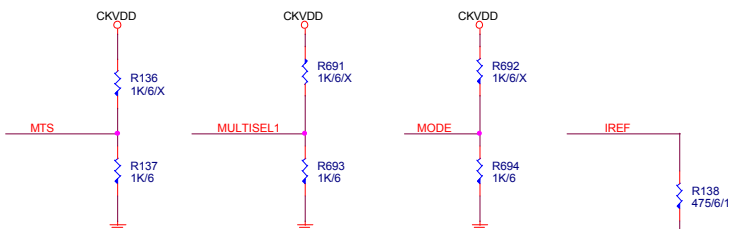
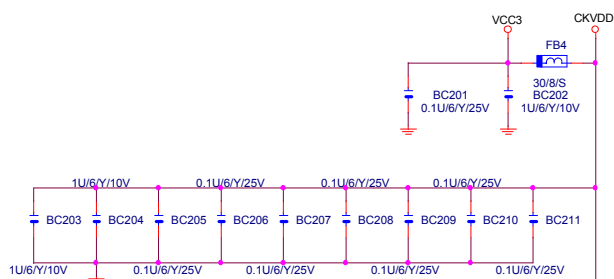


GIGABYTE		
Title		
ICH4 2/2		
Size	Document Number	Rev
Custom	GA-8GE800	1.1
Date:	Wednesday, March 05, 2003	Sheet 15 of 35

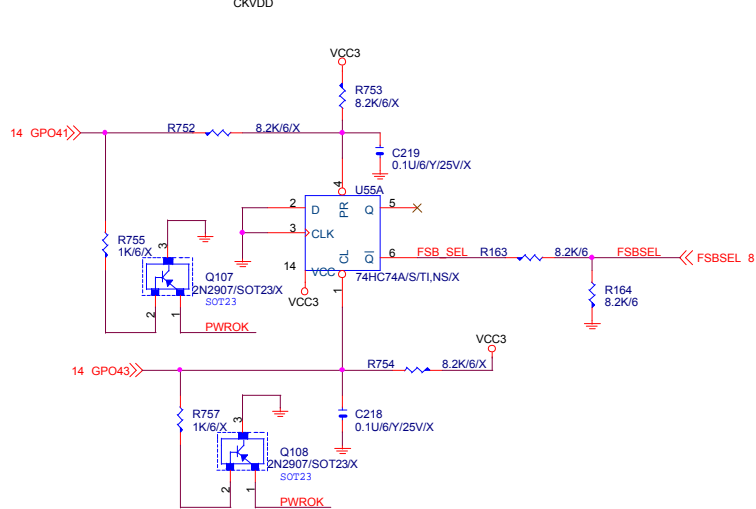
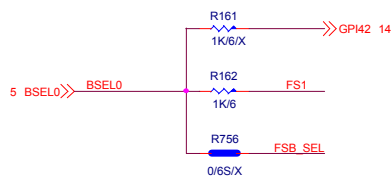


www.kytruatvith.com

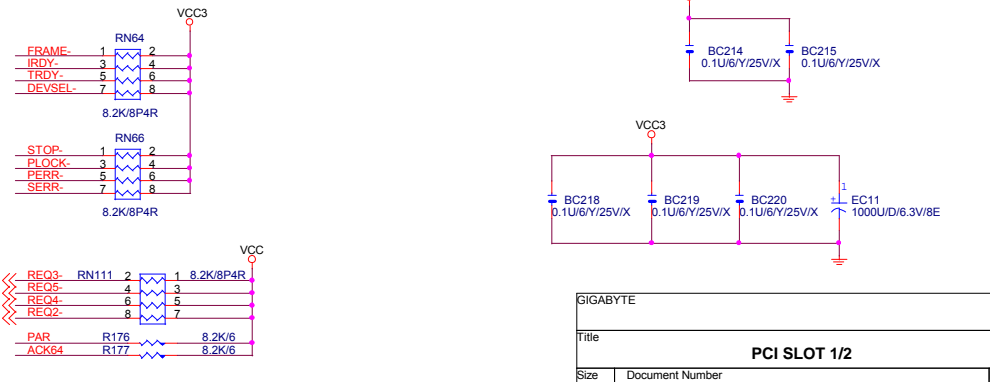
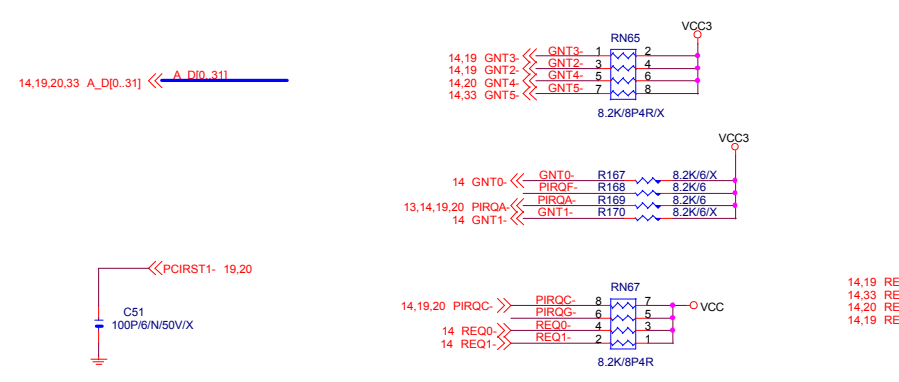
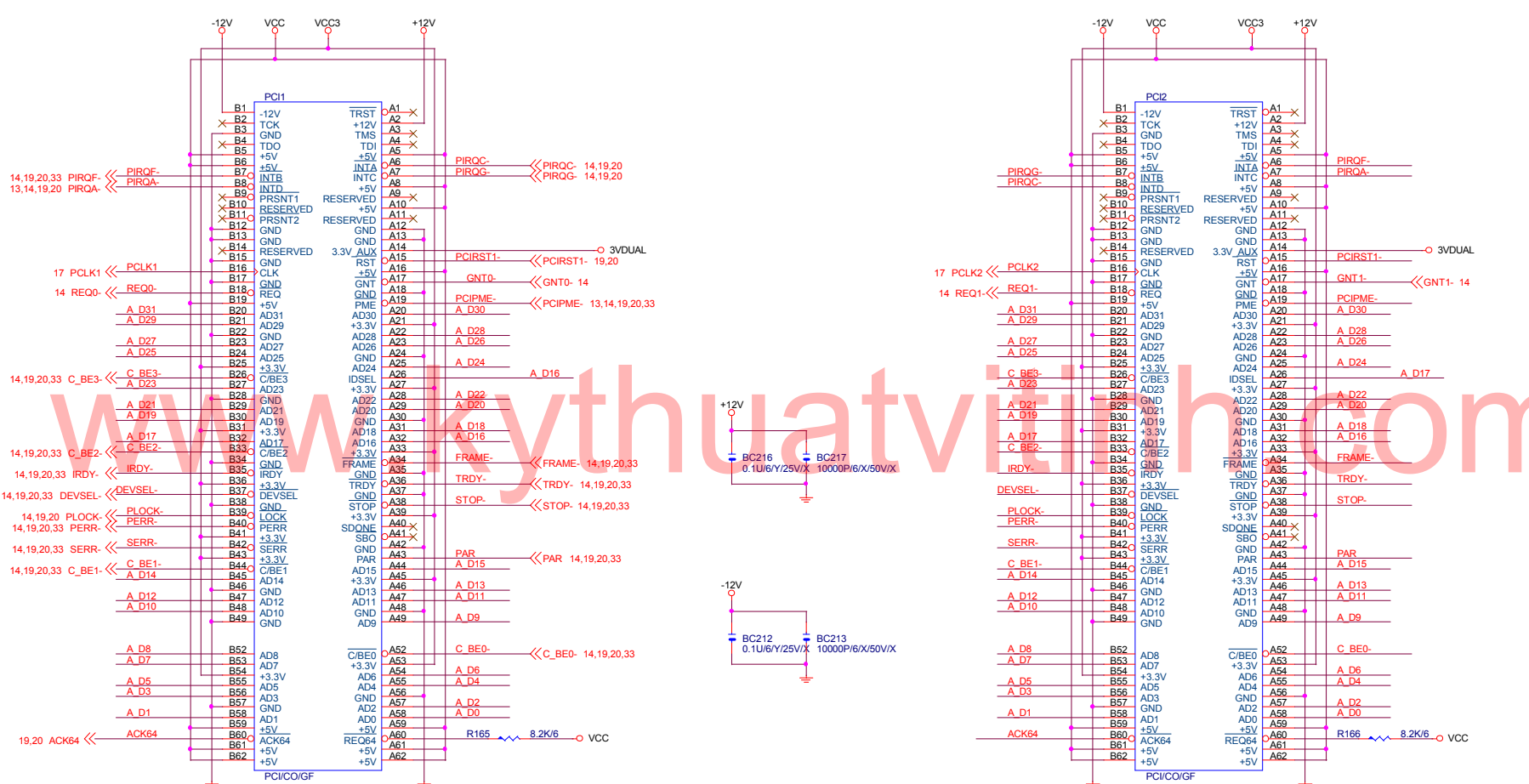
GIGABYTE		
Title		
FWH(DUAL BIOS)		
Size B	Document Number	Rev
	GA-8GE800	1.1
Date:	Wednesday, March 05, 2003	Sheet 16 of 35



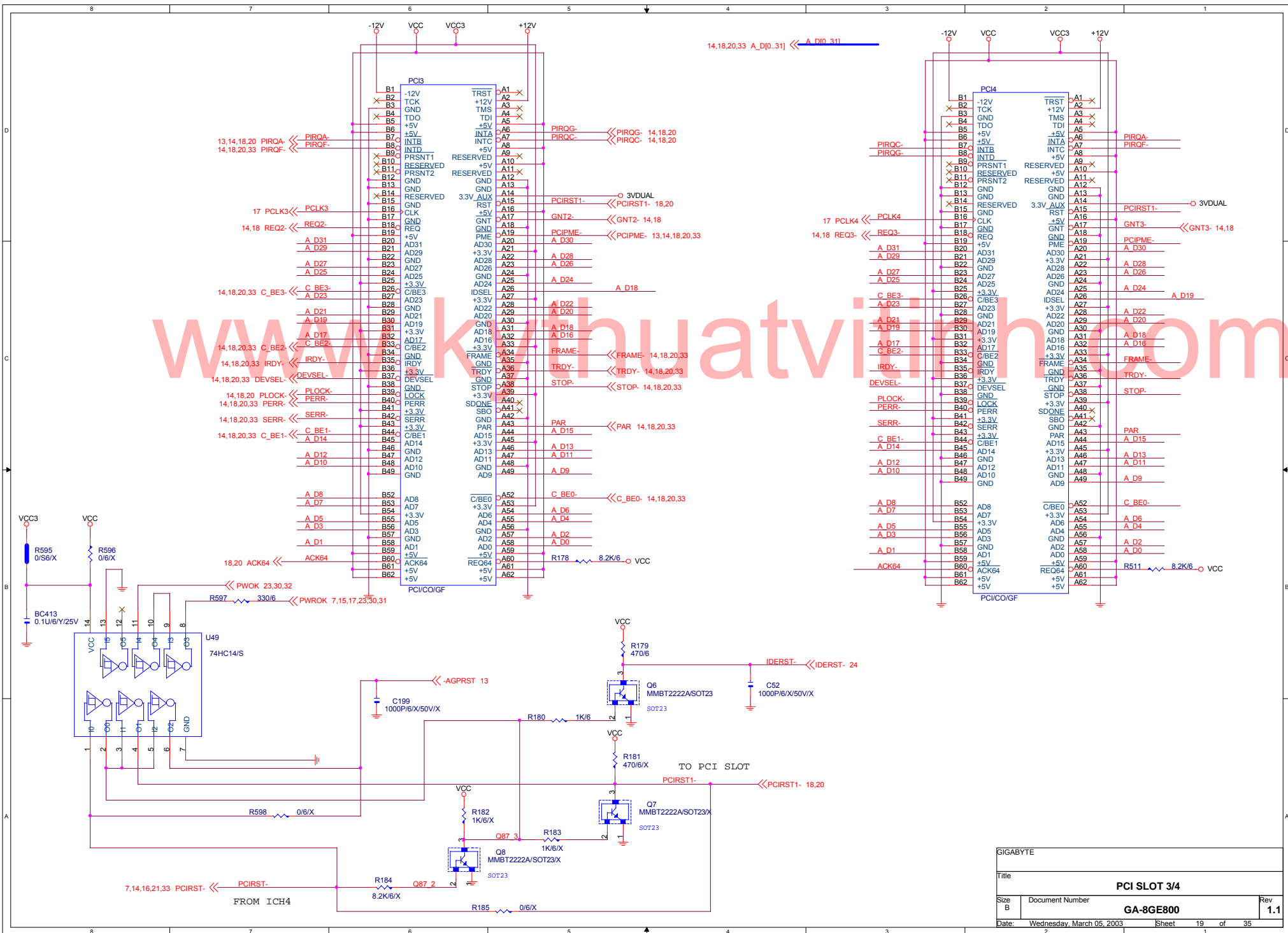
BSEL0 Pull-up at another page.



GIGABYTE			
Title			
CLOCK GENERATOR			
Size	Document Number	Rev	
Custom	GA-8GE800	1.1	
Date:	Wednesday, March 05, 2003	Sheet	17 of 35

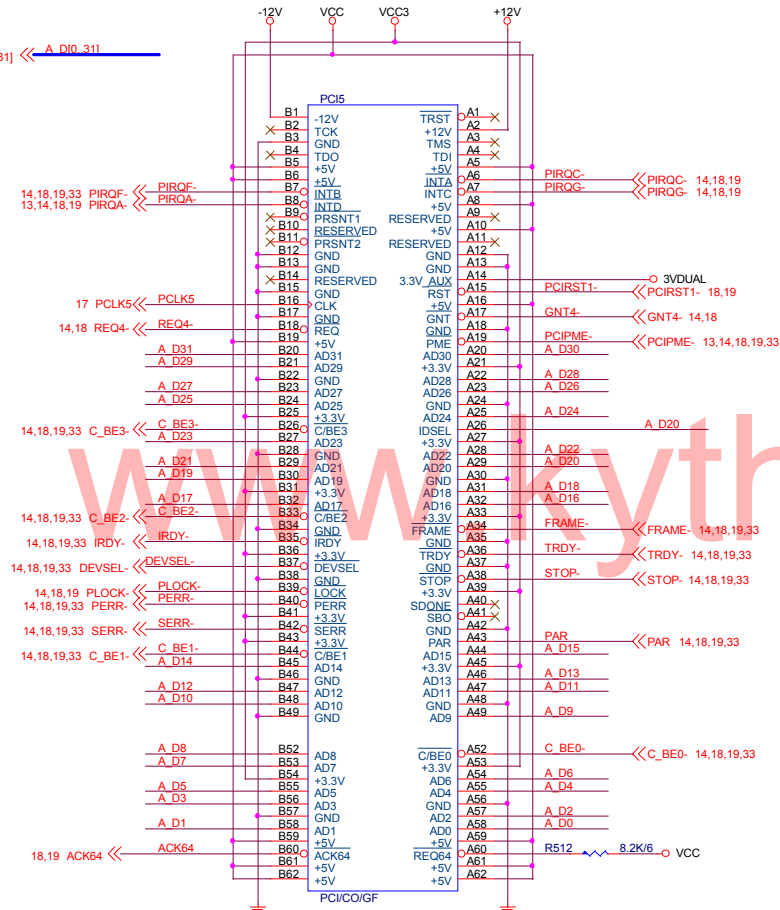


GIGABYTE		
Title		
PCI SLOT 1/2		
Size	Document Number	Rev
B	GA-8GE800	1.1
Date:	Wednesday, March 05, 2003	Sheet 18 of 35

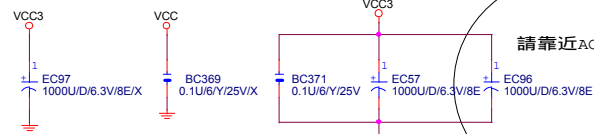


GIGABYTE		
Title		
PCI SLOT 3/4		
Size	Document Number	Rev
B	GA-8GE800	1.1
Date:	Wednesday, March 05, 2003	Sheet 19 of 35

14,18,19,33 A_D[0..31] << A_D[0..31]



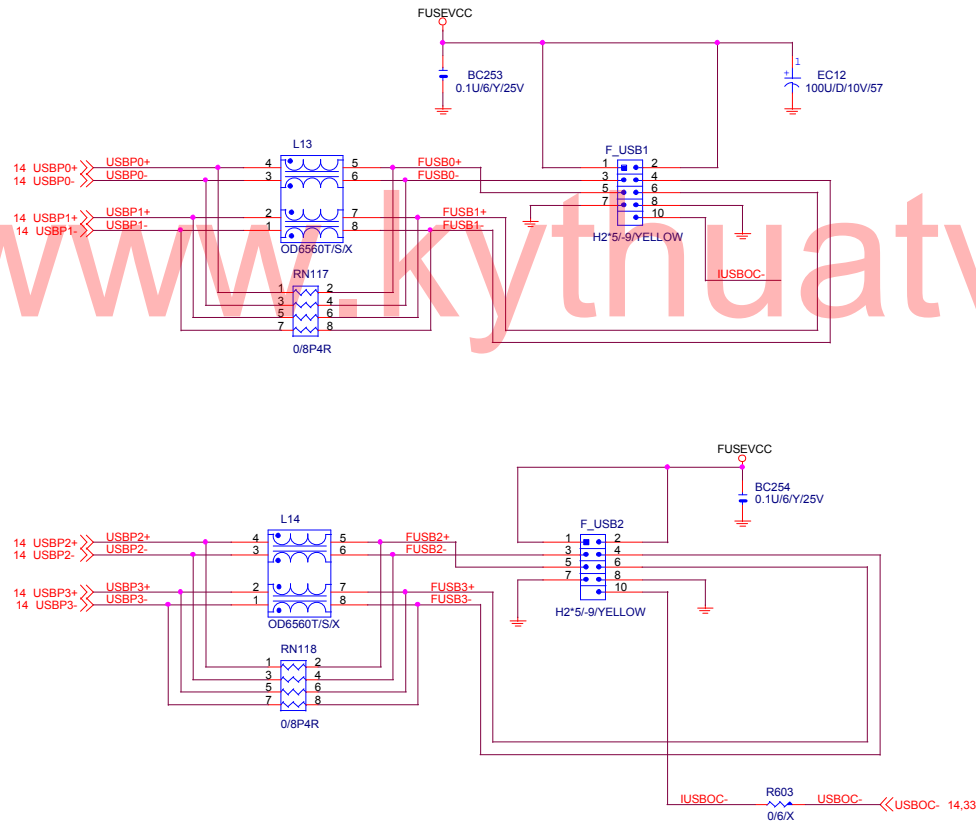
www.kythuathatvithinh.com



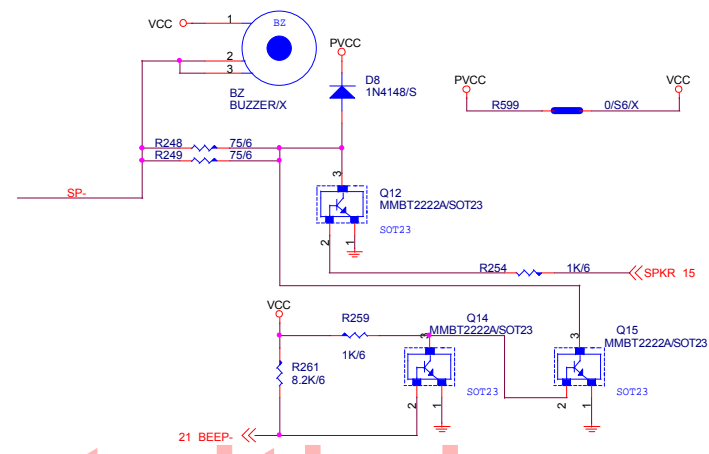
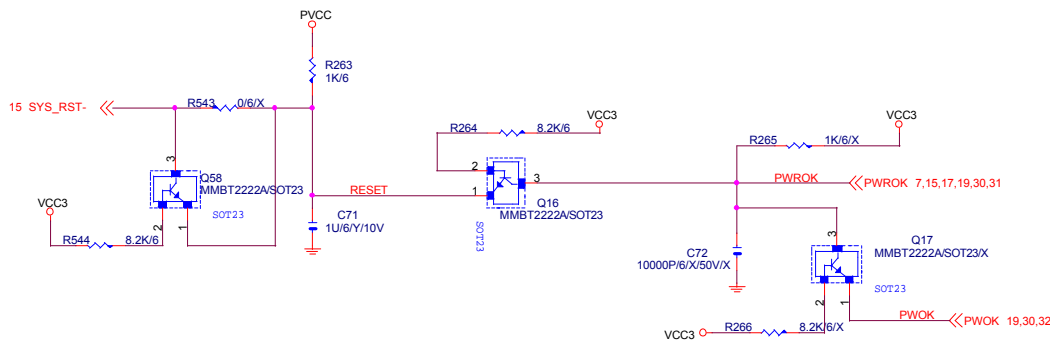
請靠近AC97使用端

GIGABYTE		
Title		
PCI SLOT 5		
Size B	Document Number	Rev
	GA-8GE800	1.1
Date:	Wednesday, March 05, 2003	Sheet 20 of 35

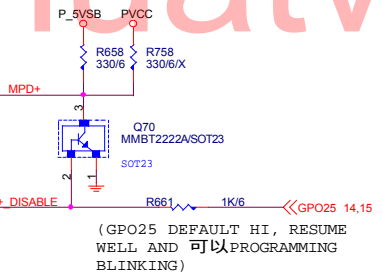
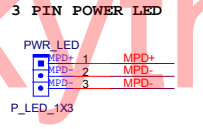
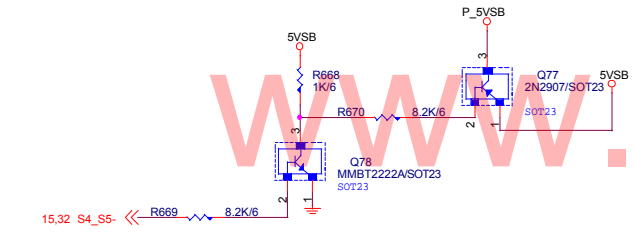
ICH4 USB2.0



GIGABYTE		
Title		
ICH USB+LAN PORT		
Size B	Document Number	Rev
	GA-8GE800	1.1
Date:	Wednesday, March 05, 2003	Sheet 22 of 35



www.kyathuatvith.com



(GPO28 DEFAULT HIGH, RESUME WELL)

States for green LED

LED States	ACPI States	GPO28
ON	S1, S3	0
OFF	S0, S5	1

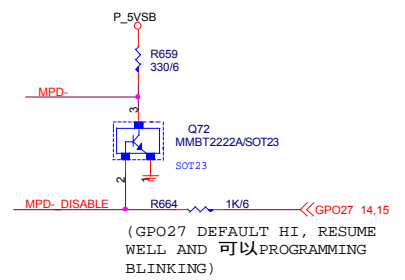
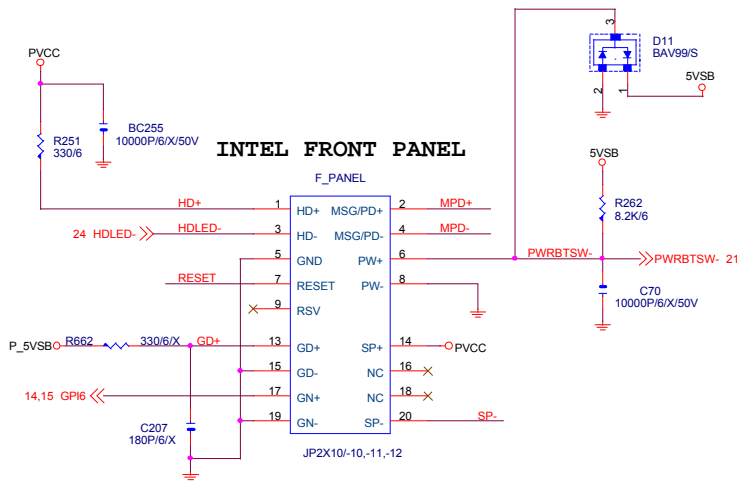
States for a single-color power LED

LED States	ACPI States	GPO25	GPO27	GPO35
OFF	S1, S3, S5	1	1	NO1
Steady Green	S0	0	1	0
Blinking Green	S0(message waiting)	0	B	0

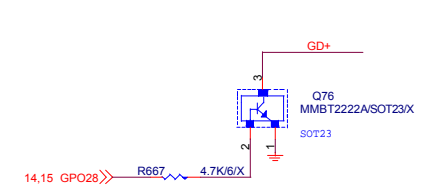
NO1 GPO35 只需在 S1 PROGRAMMING LOW

States for a dual-color power LED

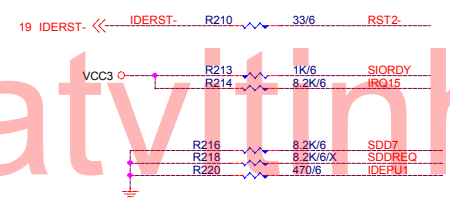
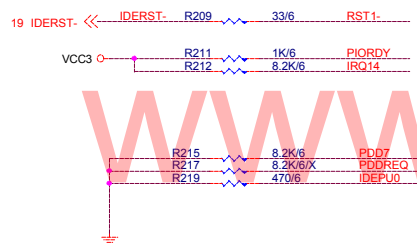
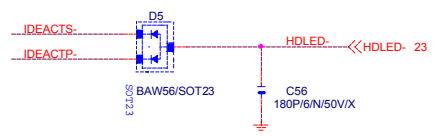
LED States	ACPI States	GPO25	GPO27	GPO35
OFF	S5	1	1	X
Steady Green	S0	0	1	0
Blinking Green	S0(message waiting)	0	B	0
Steady Yellow	S1, S3	1	0	NO1
Blinking Yellow	S1, S3(message waiting)	1	B	NO1



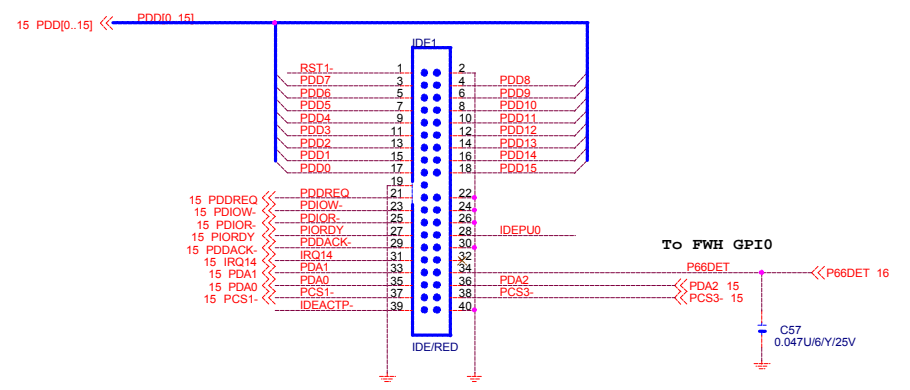
(DEFAULT HIGH, main power)



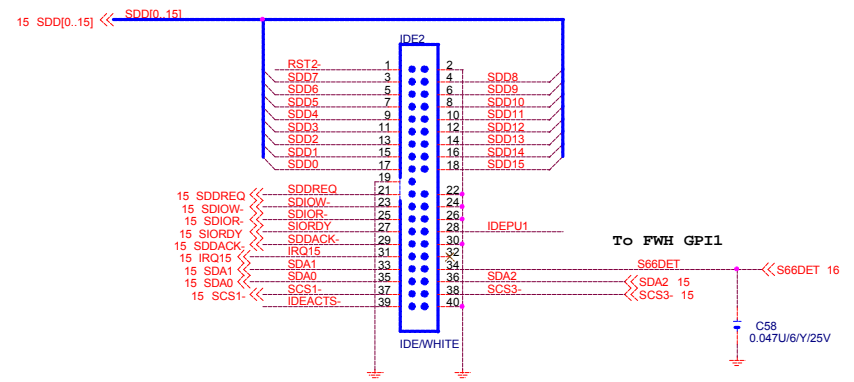
IF GPO35 有 SUPPORT S5 LOW, S0 HIGH 則不需使用此CIRCUIT



PRIMARY IDE CONNECTOR

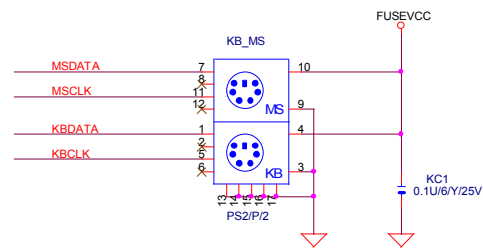
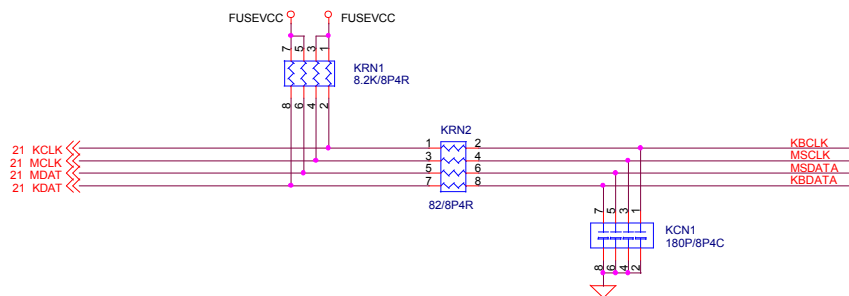
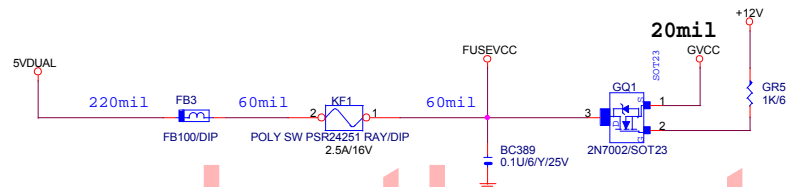


SECONDARY IDE CONNECTOR

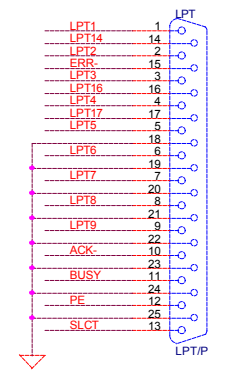
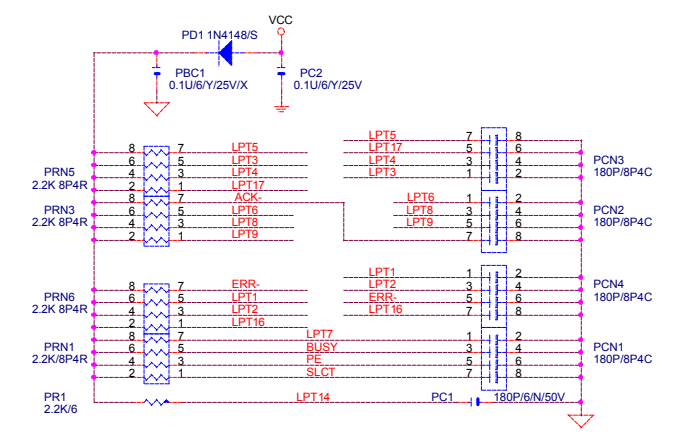
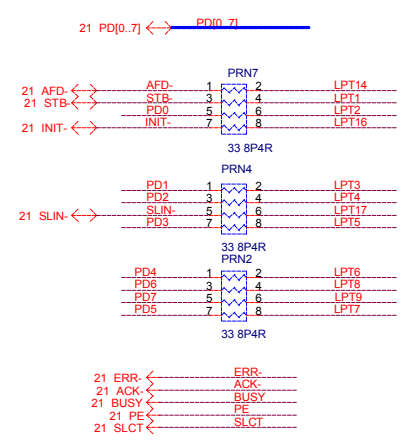
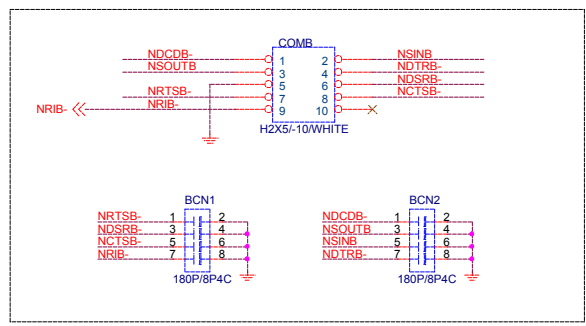
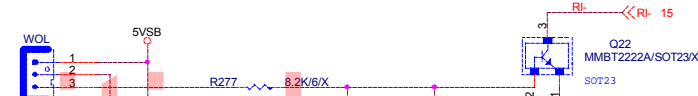
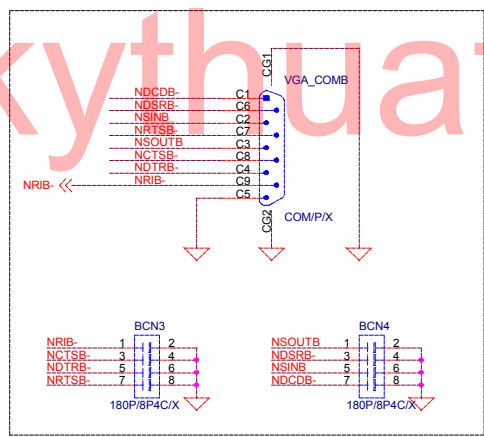
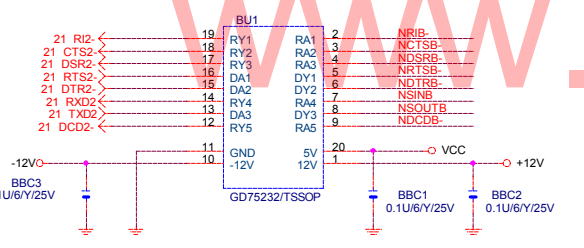
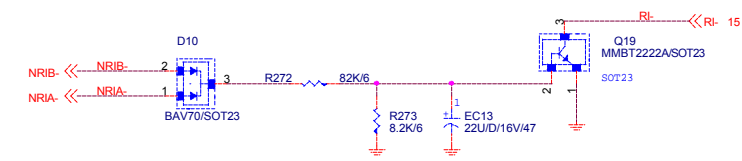
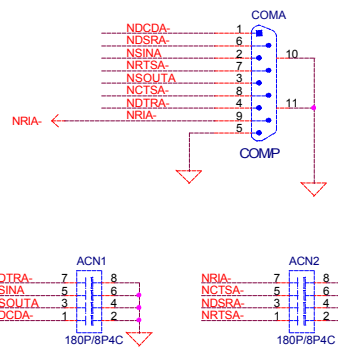
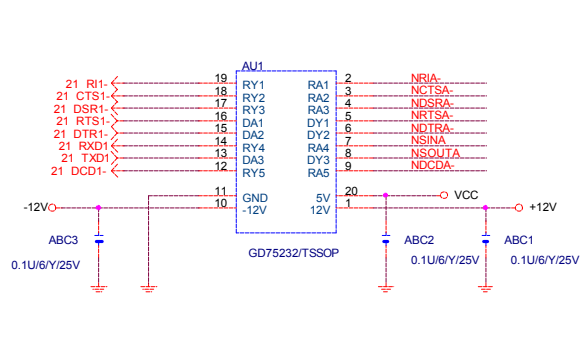


GIGABYTE		
Title		
IDE CONNECTOR		
Size B	Document Number	Rev
	GA-8GE800	1.1
Date:	Wednesday, March 05, 2003	Sheet 24 of 35

www.kythuatvithinh.com

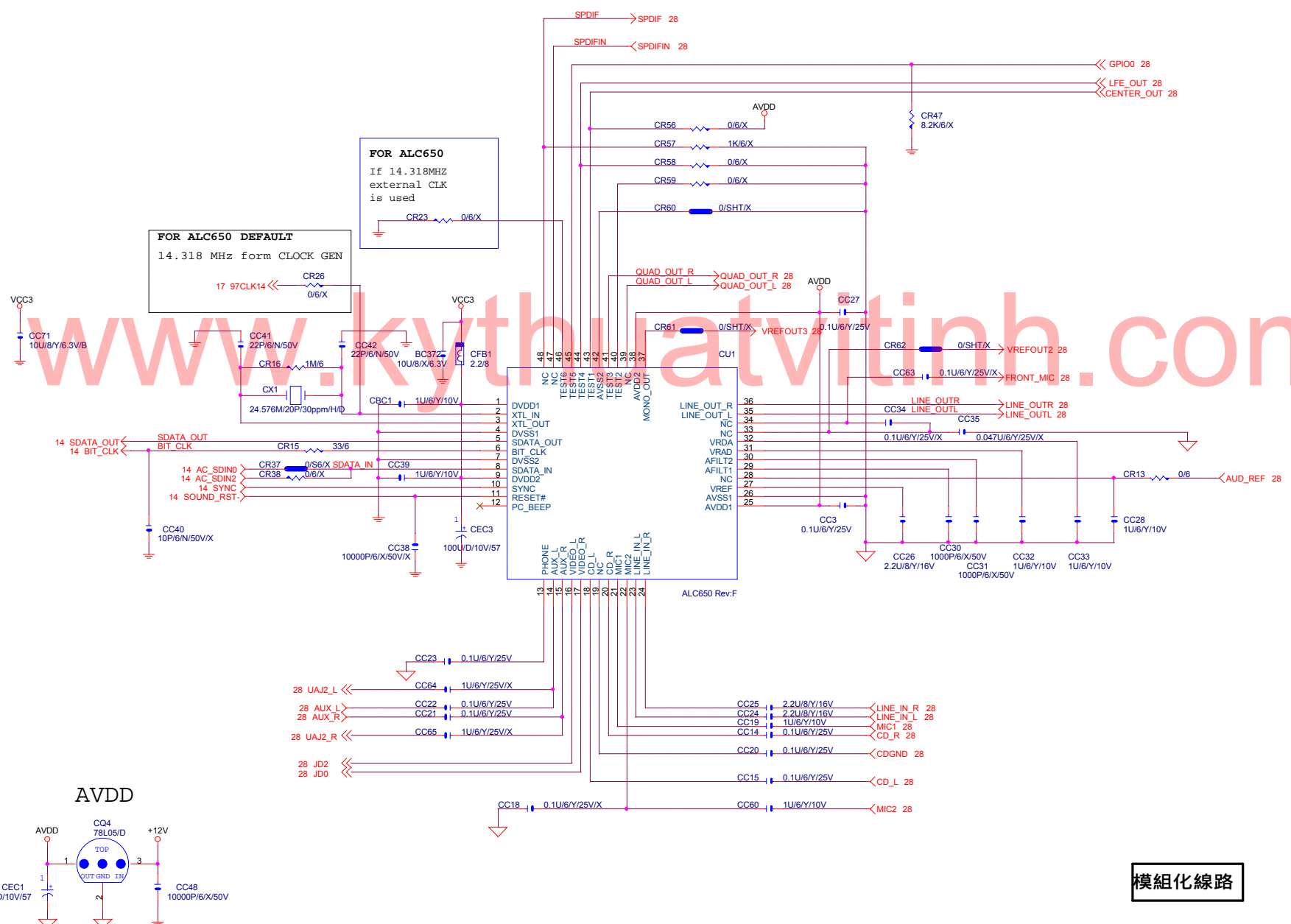


模組化線路



模組化線路

GIGABYTE CORP.		
Title		
COM & IR & LPT PORT & FLOOPY		
Size	Document Number	Rev
B	GA-8GE800	1.1
Date:	Wednesday, March 05, 2003	Sheet 26 of 35

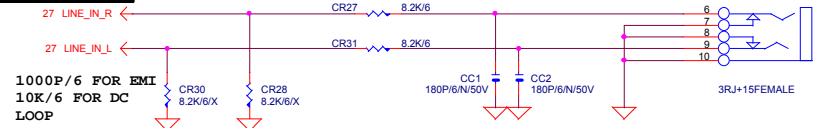


www.kyathatvithinh.com

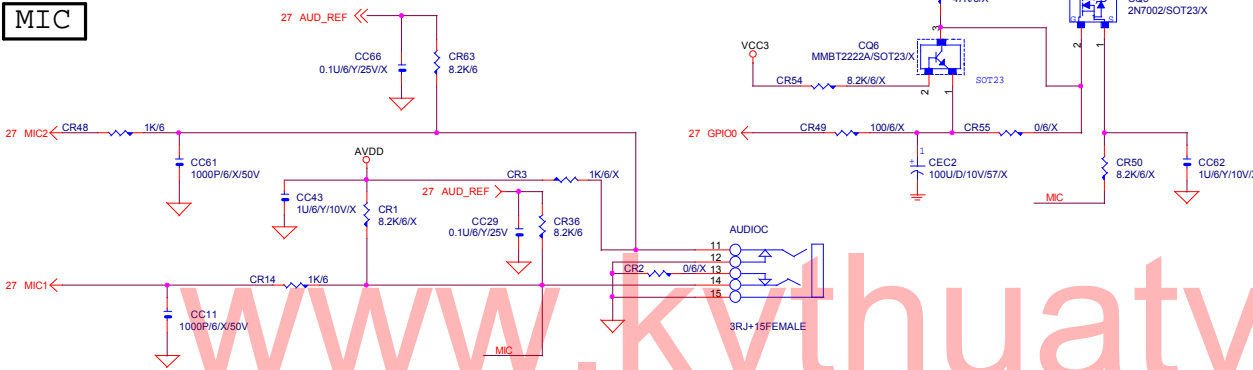
模組化線路

GIGABYTE CORP.		
Title		
AC97		
Size B	Document Number	Rev
	GA-8GE800	1.1
Date:	Wednesday, March 05, 2003	Sheet 27 of 35

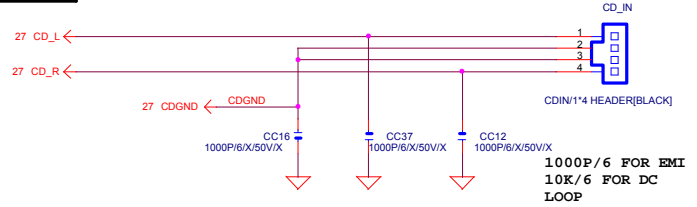
LINE-IN



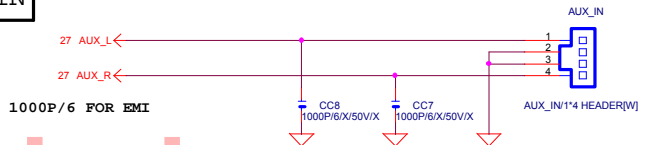
MIC



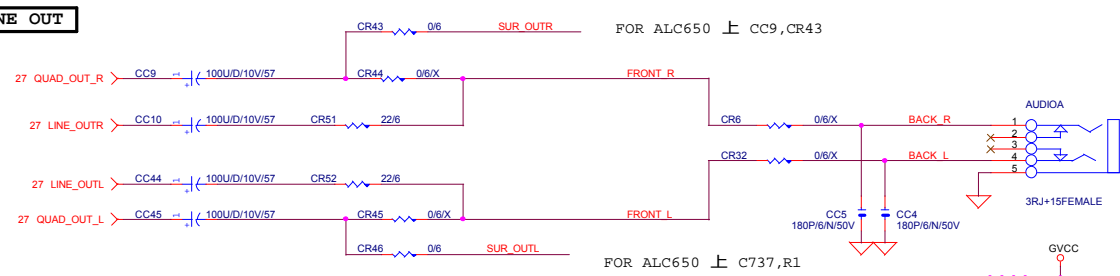
CDIN



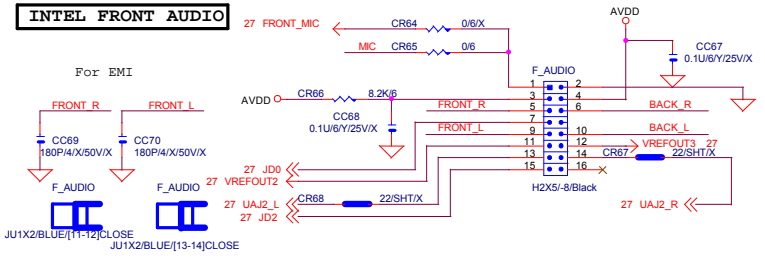
AUX_IN



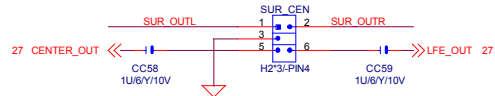
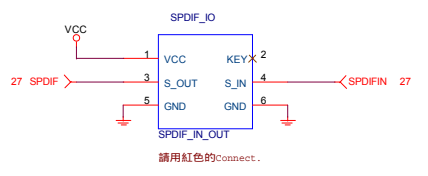
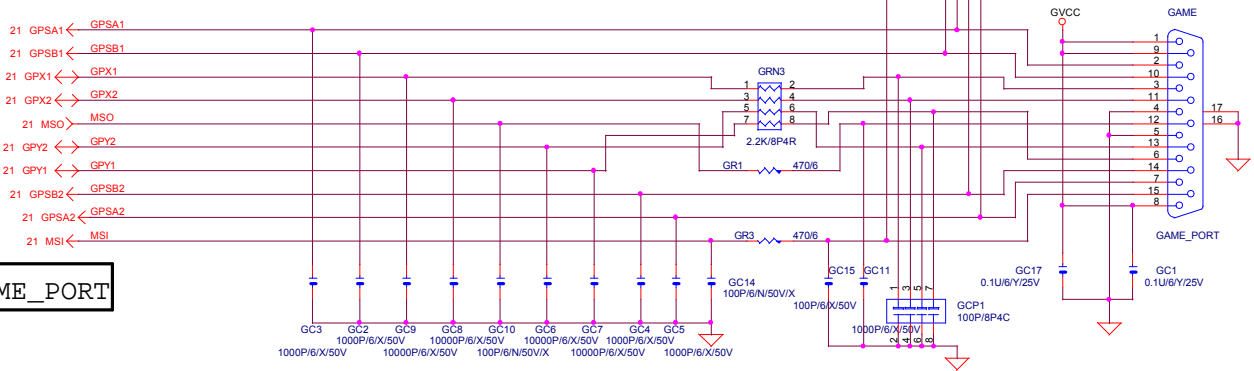
LINE OUT



INTEL FRONT AUDIO



GAME_PORT

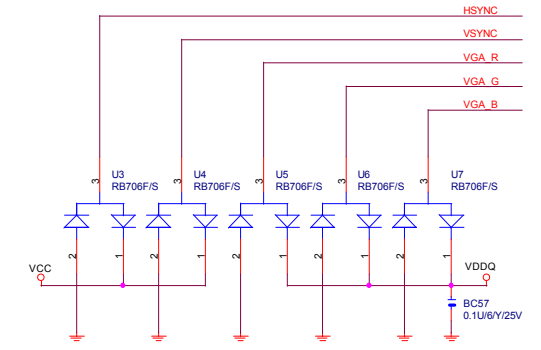
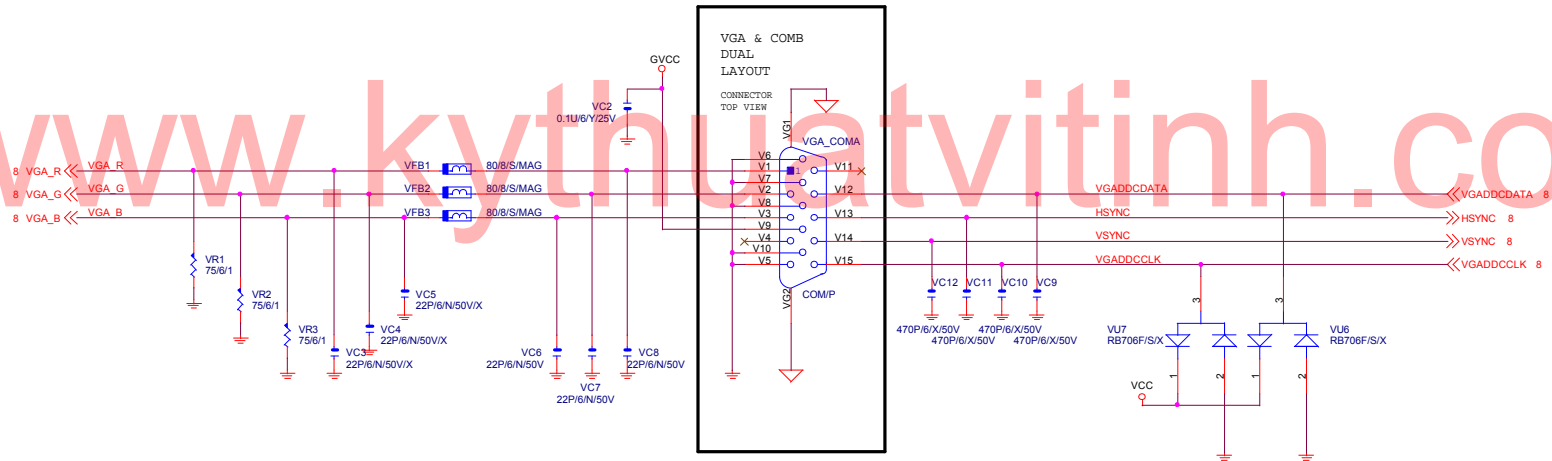


FOR SUPPORT 6 CHANNEL, SURROUND OUT CENTER OUT, LOW FREQUENCY EFFECT OUT

模組化線路

SISGABYTE CORP.			
Title			
PHONE JACK, GAME PORT			
Size	Document Number	Rev	
Custom	GA-8GE800	1.1	
Date	Wednesday, March 05, 2003	Sheet	28 of 35
2		1	

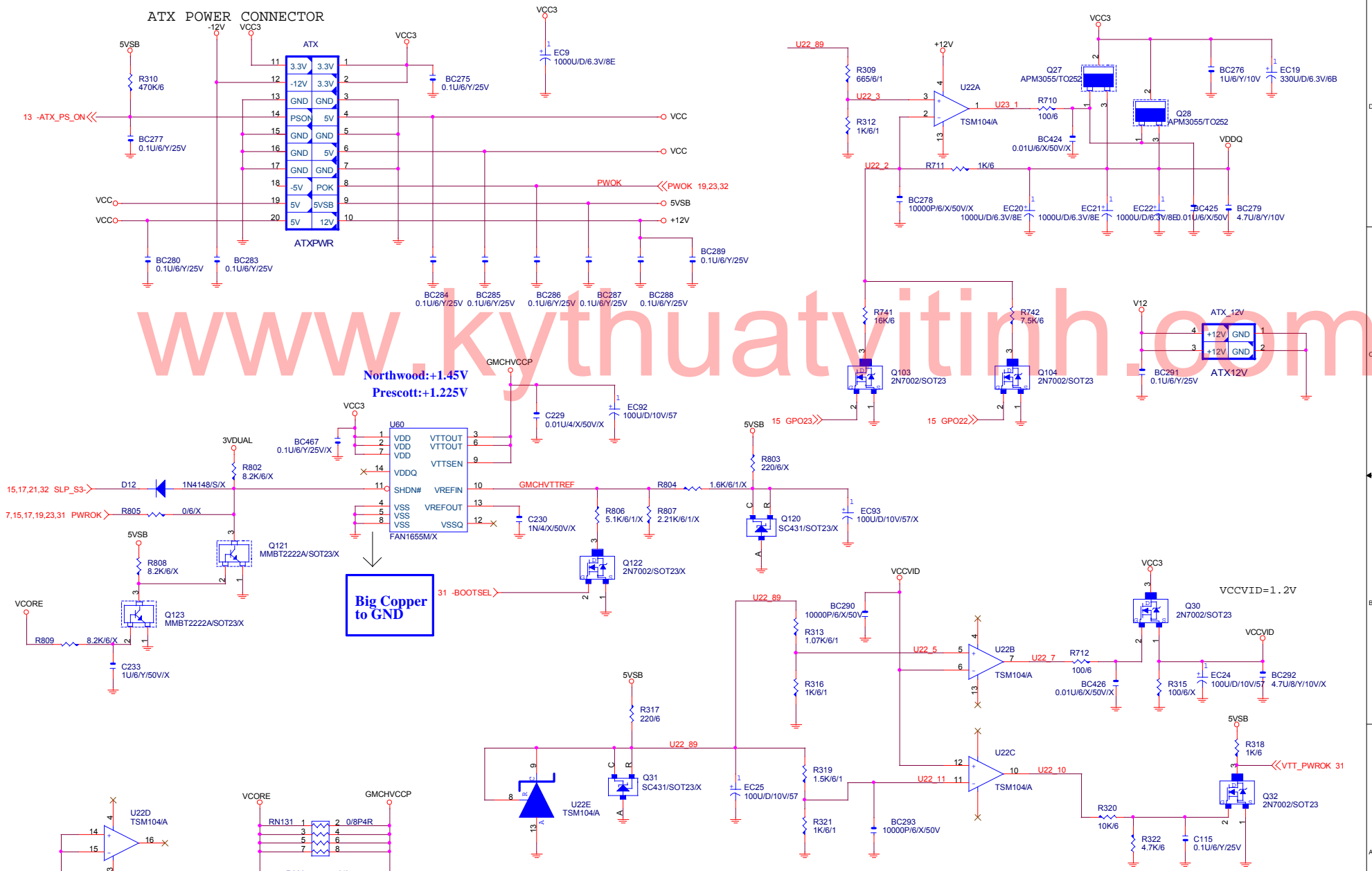
www.kythatvithinh.com



模組化線路

Title			VGA CONNECTOR		
Size	Document Number	Rev			
Custom	GA-8GE800	1.1			
Date	Wednesday, March 05, 2003	Sheet	29	of	35

ATX POWER CONNECTOR

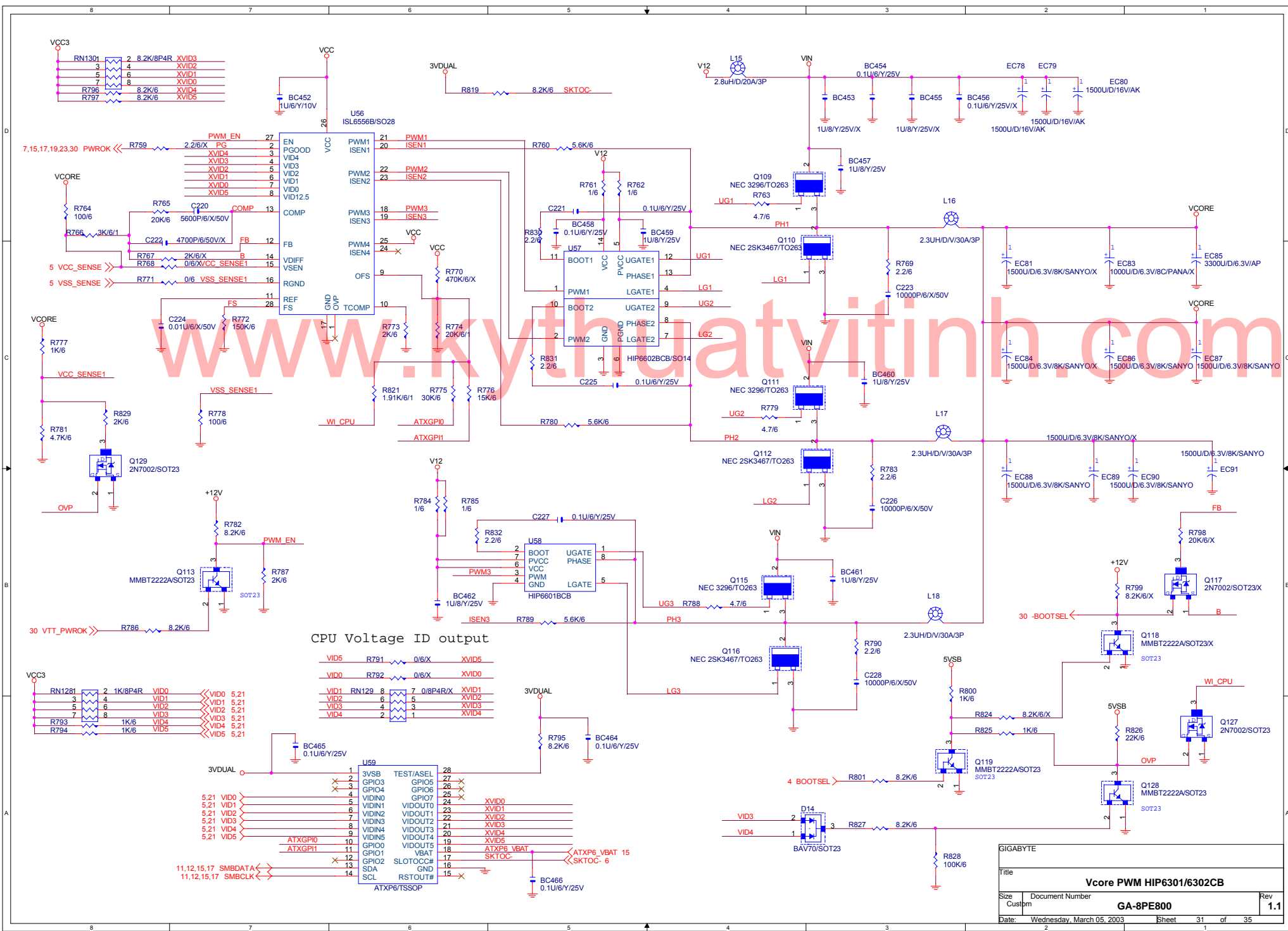


www.kythuatvithinh.com

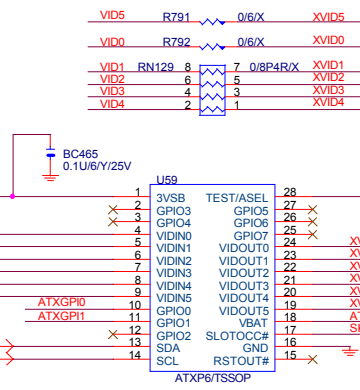
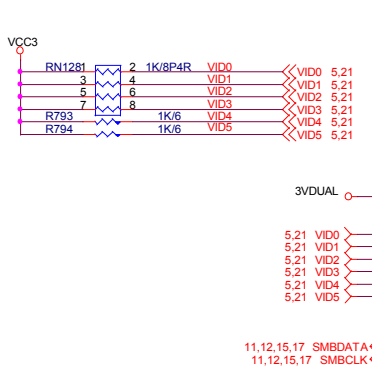
Northwood:+1.45V
Prescott:+1.225V

Big Copper to GND

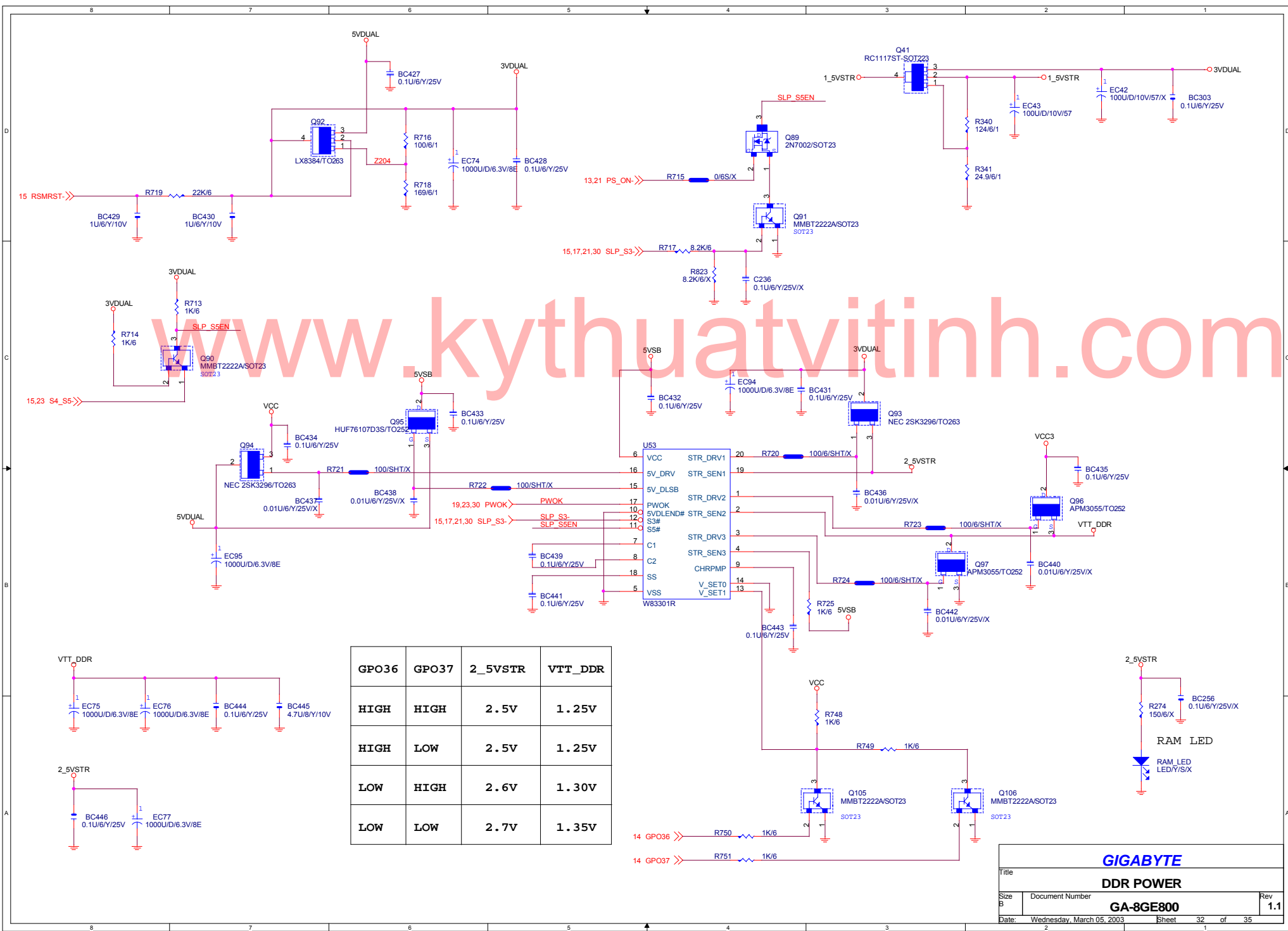
GIGABYTE		
Title		
Misc. PWR & ATX CONN.		
Size	Document Number	Rev
B	GA-8GE800	1.1
Date:	Wednesday, March 05, 2003	Sheet 30 of 35



CPU Voltage ID output



GIGABYTE			
Title			
Vcore PWM HIP6301/6302CB			
Size	Document Number	Rev	
Custom	GA-8PE800	1.1	
Date:	Wednesday, March 05, 2003	Sheet	31 of 35



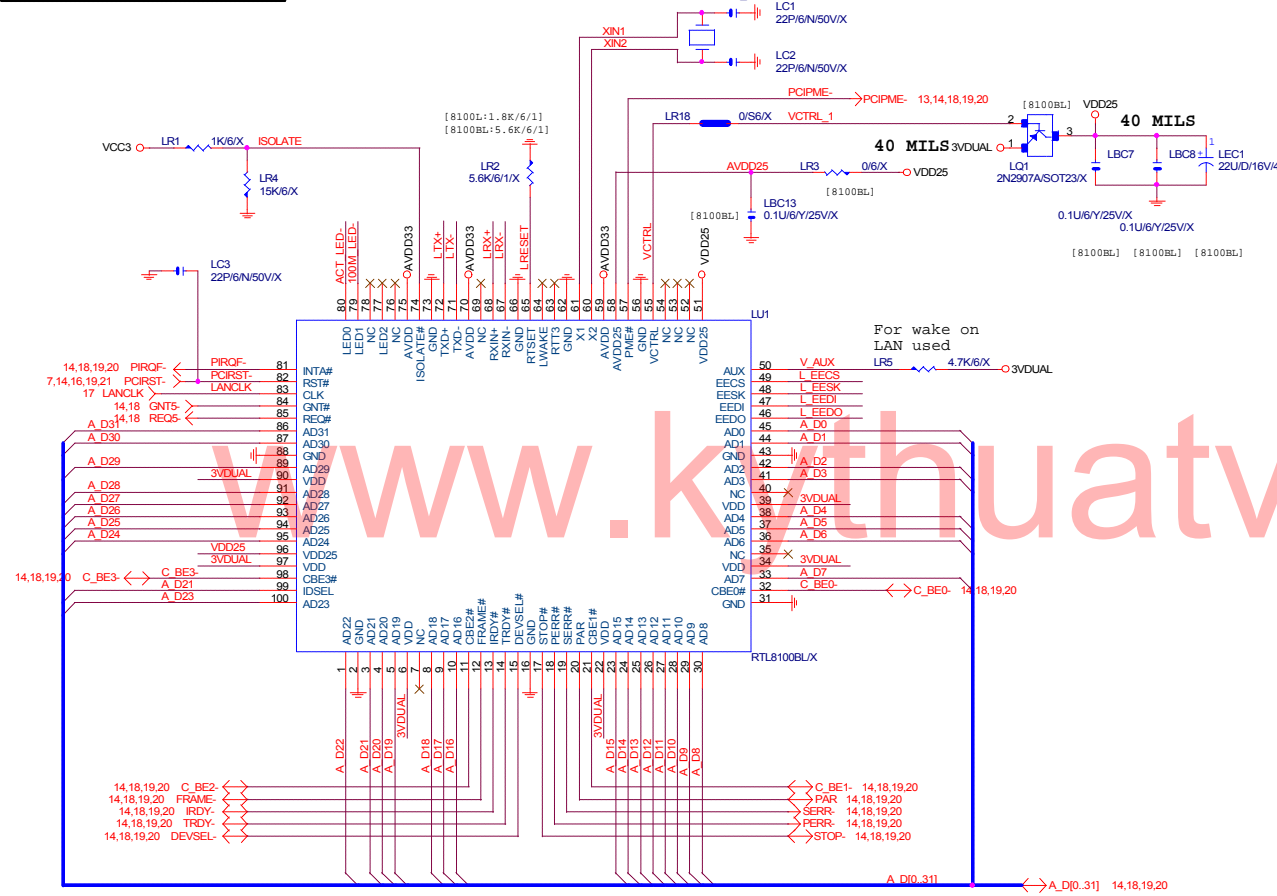
	GPO36	GPO37	2_5VSTR	VTT_DDR
HIGH	HIGH	HIGH	2.5V	1.25V
HIGH	LOW	HIGH	2.5V	1.25V
LOW	HIGH	HIGH	2.6V	1.30V
LOW	LOW	HIGH	2.7V	1.35V

GIGABYTE

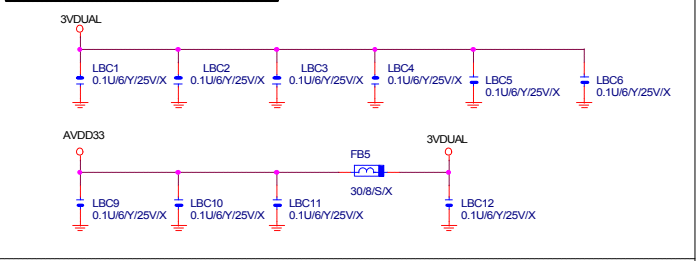
DDR POWER

Title		
GA-8GE800		
Size B	Document Number	Rev 1.1
Date: Wednesday, March 05, 2003 Sheet 32 of 35		

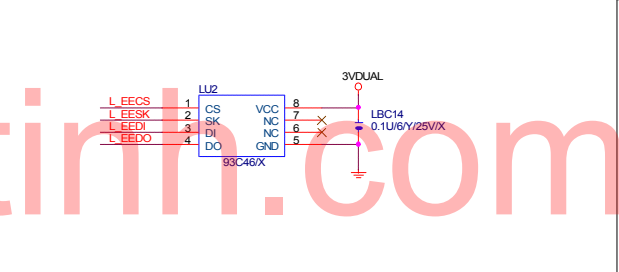
LAN RTL8100 (REALTEK)



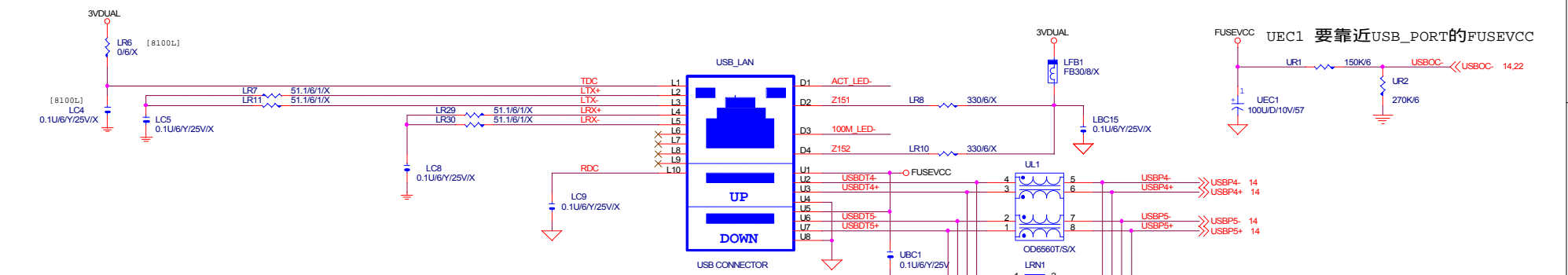
POWER DECOUPLING CAP.



LAN EEPROM



8100/8100B NOTE:
 Pin 65 pull-down (5.6K for 8100B)
 Pin 65 pull-down (1.8K for 8100)
 R502 remove pull-down (1.8K for 8100B)
 R502:0/6 pull-down (1.8K for 8100)



GIGABYTE		
LAN RTL8100B		
Title	Document Number	Rev
	GA-8GE800	1.1
Date: Wednesday, March 05, 2003	Sheet 33 of 35	

GIGABYTE GA-8PE667 PCI ROUNTING LIST *Revision : 0.1*

PCI DEVICE	IDSEL	INT	CLOCK	REQ	GNT
PCI SLOT1	16	C,F,G,A	PCLK1	REQ0-	GNT0-
PCI SLOT2	17	F,G,A,C	PCLK2	REQ1-	GNT1-
PCI SLOT3	18	G,A,C,F	PCLK3	REQ2-	GNT2-
PCI SLOT4	19	A,C,F,G	PCLK4	REQ3-	GNT3-
PCI SLOT5	20	C,F,G,A	PCLK5	REQ4-	GNT4-
LAN	21	F	LANCLK	REQ5-	GNT5-

www.kythuatvithinh.com

GIGABYTE GA-8PE667 GPIO LIST

Revision 0.1

SHEET TITLE

SHEET	TITLE	
GPI		
GPI0/REQA-		PULL DOWN 15K, detect IDE1 connector type.
GPI1/REQ5-		PULL DOWN 15K, detect IDE2 connector type.
GPI2/PIRQE-		PULL 8.2K TO VCC3
GPI3/PIRQF-		PULL 8.2K TO VCC3
GPI4/PIRQG-		PULL 8.2K TO VCC3
GPI5/PIRQH-		PULL 8.2K TO VCC3
GPI6		PULL 8.2K TO VCC3 (GREEN_BUTTON)
GPI7		NOT IMPLEMENTED
GPI8		PULL 8.2K TO 3VDUAL, LPC PME.
GPI9	NA	NOT IMPLEMENTED
GPI10	NA	NOT IMPLEMENTED
GPI11		PULL 4.7K TO 3VDUAL (SMBALERT)
GPI12		PULL DOWN 10K.
GPI13		PULL DOWN 10K, CNR_PRIMARY
GPI14	NA	NOT IMPLEMENTED
GPI15	NA	NOT IMPLEMENTED

SHEET TITLE

SHEET	TITLE	
GPO		
GPO16		PULL 8.2K TO VCC3
GPO17		PULL 8.2K TO VCC3 (GNT5-)
GPO18		PULL 8.2K TO VCC3
GPO19		PULL 8.2K TO VCC3
GPO20		PULL 8.2K TO VCC3
GPO21		PULL 8.2K TO VCC3
GPO22		PULL 8.2K TO VCC3
GPO23		PULL 8.2K TO VCC3
GPO24		PULL 1K TO 3VDUAL (TOP BLOCK)
GPO25		PULL 4.7K TO 3VDUAL, POWER LED CONTROL.
GPO26		NOT IMPLEMENTED
GPO27		PULL 8.2K TO 3VDUAL, POWER LED CONTROL.
GPO28		PULL 8.2K TO 3VDUAL, GREEN LED.
GPO32		PULL 8.2K TO 3VDUAL, BIOS WRITE PROTECT.
GPO35		PULL DOWN 10K, POWER LED CONTROL.