

GIGABYTE GA-8ID2003 Schematics

Revision 2.0

SHEET

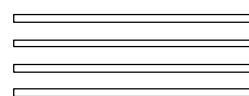
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SHEET

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GIGABYTE	
Title COVER SHEET	
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Model Name: 8ID2003

Version: 2.0

BOM 修改

History 版本	修改項目內容	修改原因
0.1-0502	9M8IR-00-10A --> 9M8ID-00-01	參考右邊修改內容
1.0A	9M8IDX --> 9M8ID-00-10A	
1.0B-0607	9M8ID-00-01 --> 9M8ID-00-10B	1. 參考右邊修改內容 2. AUDIO ALC650 --> STAC9721
1.0C-0701	9M8ID-00-10B --> 9M8ID-00-10C	1. FOR SYSTEM SHOWDOWN ISSUE R1601 200K --> 240K
1.0A-0718	9M8ID-00-10C --> 9M8ID533-00-10A	PVT
1.1A-0821	9M8ID533-00-10A->9M8ID533-00-11A	1. AUDIO STAC9721 --> ALC201A 2. CR15 0ohm -->22 ohm
11B-0913	9M8ID533-00-11A --> 9M8ID533-00-11B	1. FOR C-STEPIING CPU HANG 2. PWM HIGT SIDE MOSFET R1597,R1606 2.2 --> 4.7ohm
11C-1017	9M8ID533-00-11B --> 9M8ID533-00-11C	1. 南橋加替料 U61 : ICH2X SL5PN/C0 (10HB1-032801-A0) 1. 北橋加替料 U24 : 82845D SL5YQ/B0 (10HB1-032845-21)
11C-ECN	9M8ID533-00-11C --> 9M8ID533-00-11C	1. REMOVE 北橋替料 U24 : 82845D SL5YQ/B0 (10HB1-032845-21)
11D	9M8ID533-00-11C --> 9M8ID533-00-11D	1. 北橋加替料 U24 : 82845D SL5YQ/B0 (10HB1-032845-21) NET ST0 R67 2K REMOVE , ADD R119 6.8K 2. REMOVE BIOS WINBOND W49V002FAP 2M
11D-1106	9M8ID533-00-11D --> 9M8ID533-00-11D	1.9MK = 3MK + 4MK +5MK
11E-1129	9M8ID533-00-11D --> 9M8ID533-00-11E	1. PWM MOSFET REMOVE FDB7030 & FDB306 2. 1N5817 REMOVE DII
10J-1122	9M8ID533-00-11D --> 9M8ID533-00-11J	1. PCB REV1.1 --> REV1.11 2. C881 0.1U/6/Y25V --> 1U/8/Y/25V 3. ADD C920=1U/8/Y/25V , Q67=PMBZ5237B , R1620=10/6 4. REMOVE D60,D61= 1N5817
11J-1128	9M8ID533-00-11J --> 9M8ID533-00-11J	1. DVT --> MP
11J--ECN-1129	9M8ID533-00-11J --> 9M8ID533-00-11J	1. ADD C900 1U/6
11J-1212	9M8ID533-00-11J --> 9M8ID533-00-11J	1.9MK = 3MK + 4MK +5MK 2. DEL COLOR BOX & MANUEL
11J-0106	9M8ID533-00-11J --> 9M8ID533-00-11J	1. ADD BIOS WINBOND W49V002FAP 2M
20A-0113	9M8IR533-00-20A --> 9M8ID2003-00-20A	1. DDR --> SDRAM
20A-0124	9M8IR533-00-20A --> 9M8ID2003-00-20A	1. EC14 1000U/16V/10*16 --> 1000U/16V/8*11.5

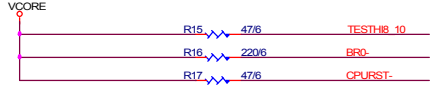
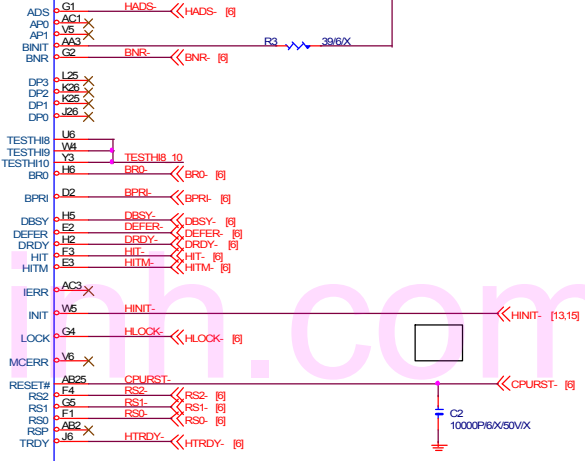
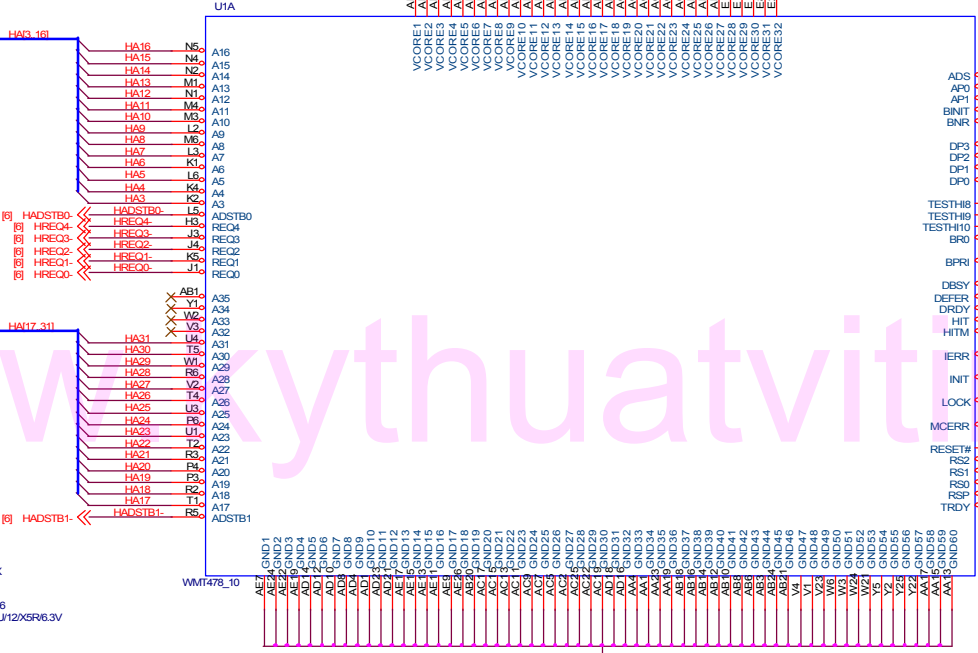
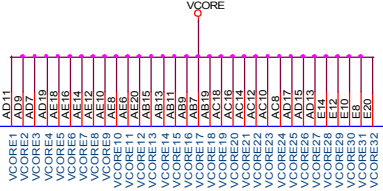
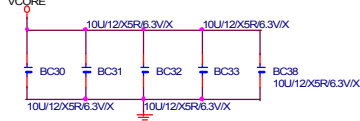
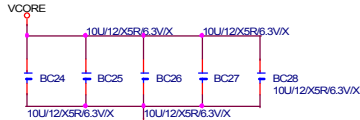
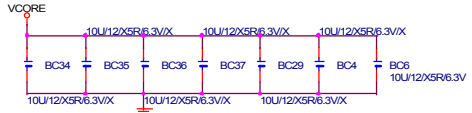
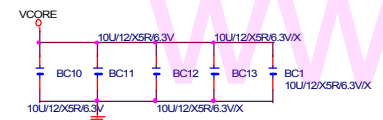
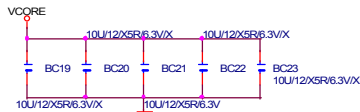
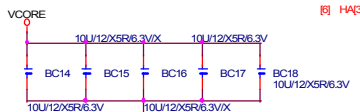
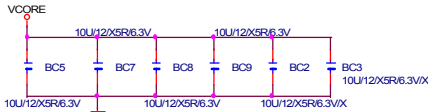
PCB version 變更(線路及Layout

Change) PCB 版本	修改項目內容	修改原因
0.1	8IR REV1.0 --> 8ID REV0.1	
1.0	8ID REV0.1 --> 8ID REV1.0	1. EMI ADD AC97 PIN9 PULL DOWN 2.2 ohm 2. EMI ADD LPC24 CLK 10P
1.0	8ID REV0.1 --> 8ID533 REV1.0	1. TEXT 8ID --> 8ID533
1.1	8ID533 REV1.0 --> 8ID533 REV1.1	1. TEXT REV1.0 --> REV1.1
1.11	8ID533 REV1.1 --> 8ID533 REV1.11	1. D61 1N5817 正端接 C900 1U/6 2. ADD PMBZ5237B CIRCUIT FOR PWM PIN12 BOOTB
2.0	8IR533 REV2.0 --> 8ID533 REV2.0	1. DDR --> SDRAM

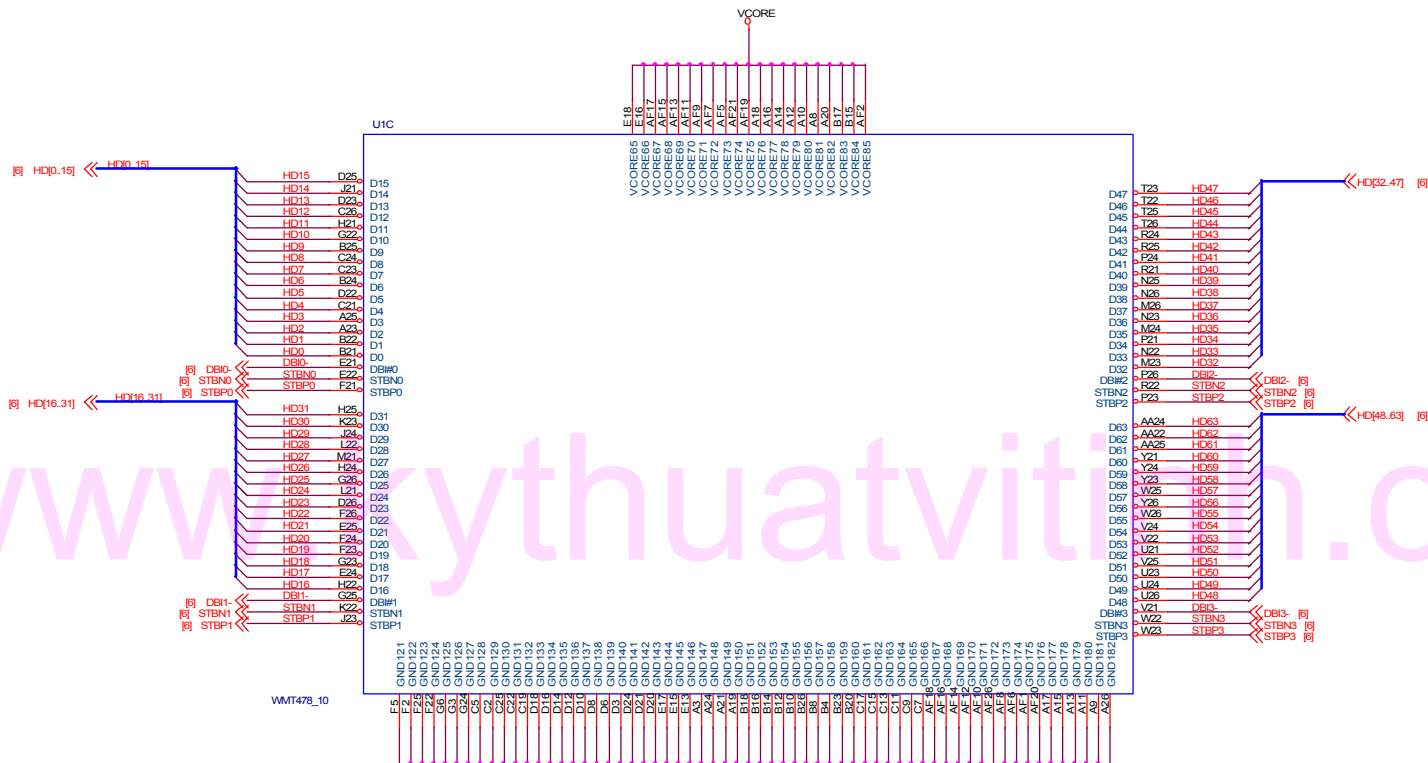
GIGABYTE

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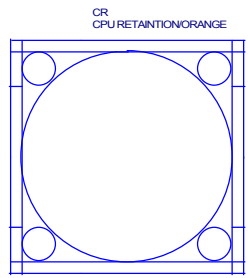
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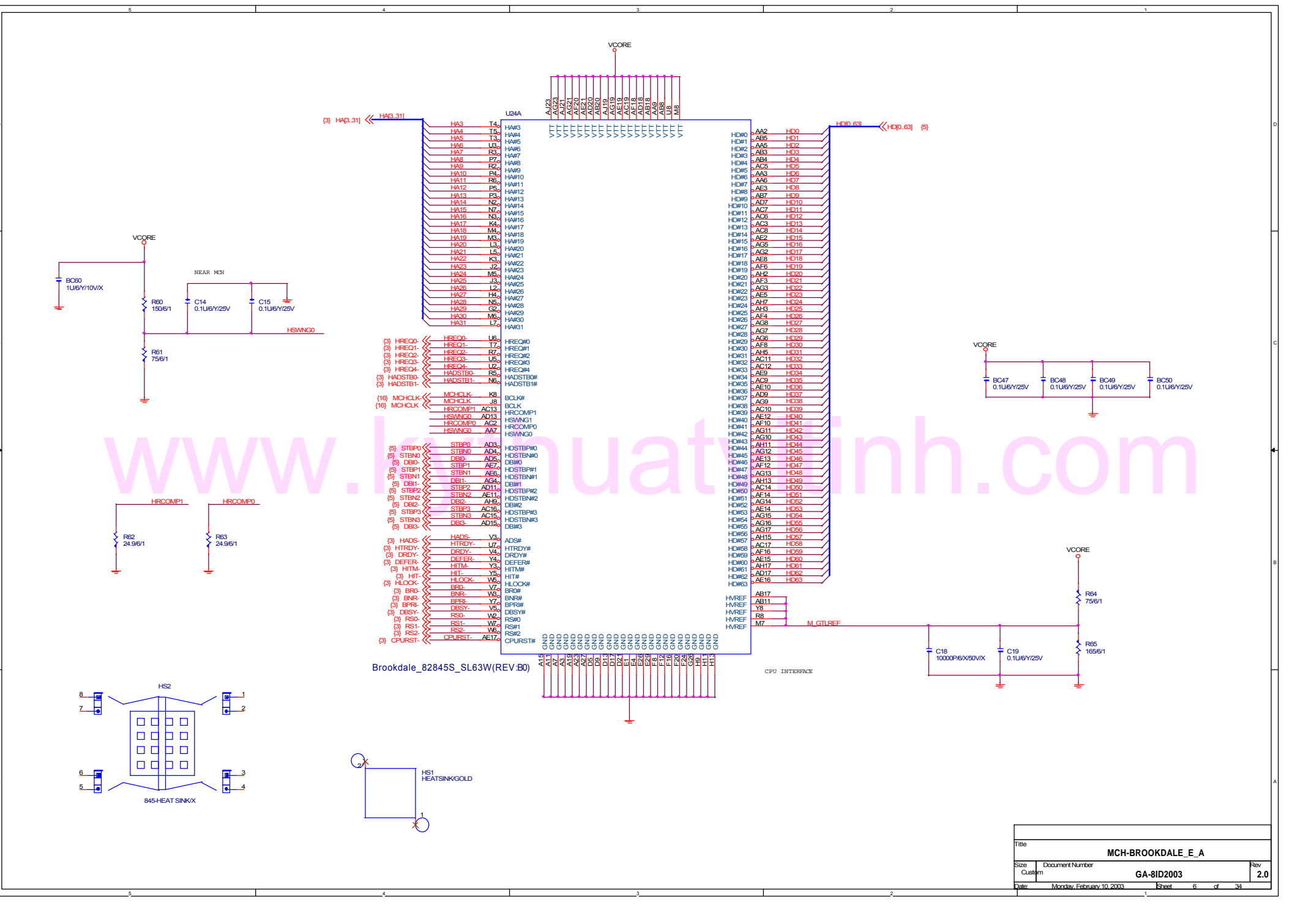
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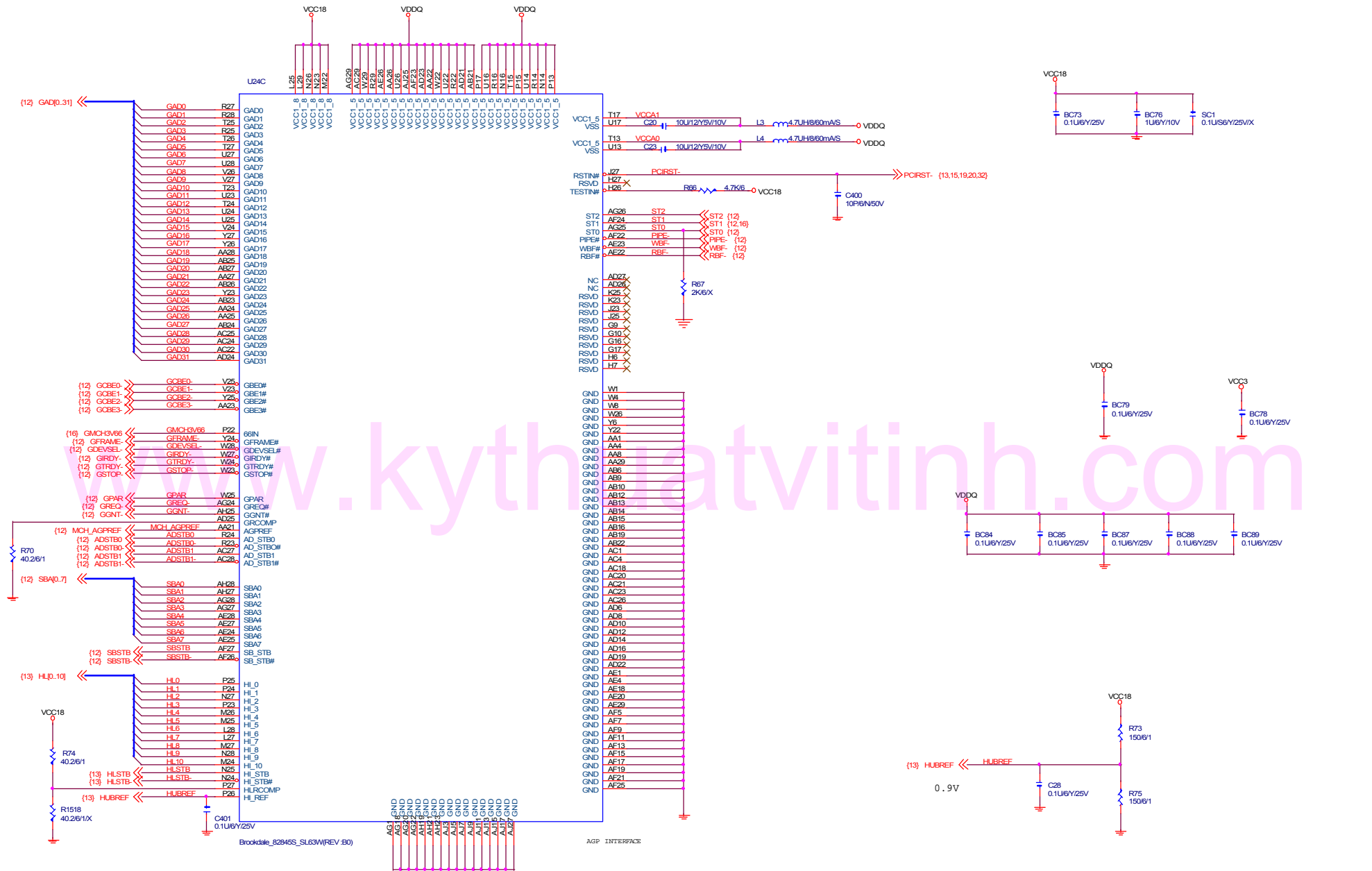
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Size	Document Number	Rev		2.0
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Brookdale_82845S_SL63W (REV B0)

CPU INTERFACE

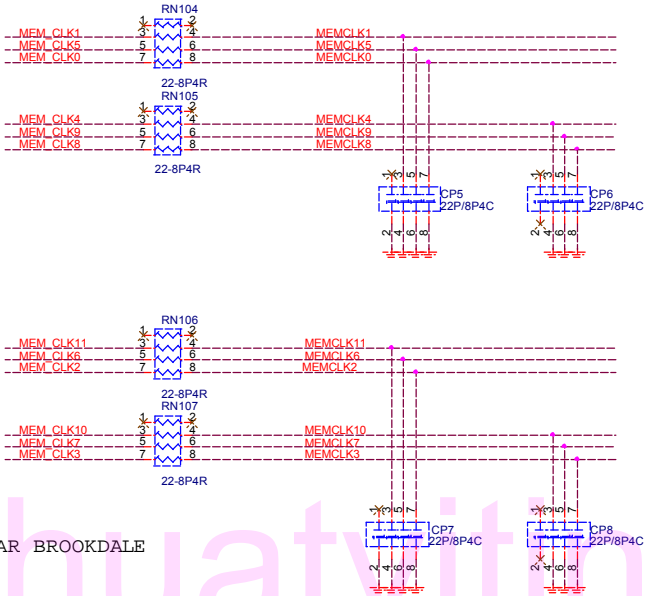
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Size	Document Number	Rev			
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Title		
MCH-BROOKDALE_E_C		
Size	Document Number	Rev
Custom	GA-8ID2003	2.0
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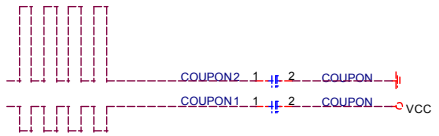
[10,11] MEMCLK[0..11] << MEMCLK[0..11]

[7] MEM_CLK[0..11] << MEM_CLK[0..11]



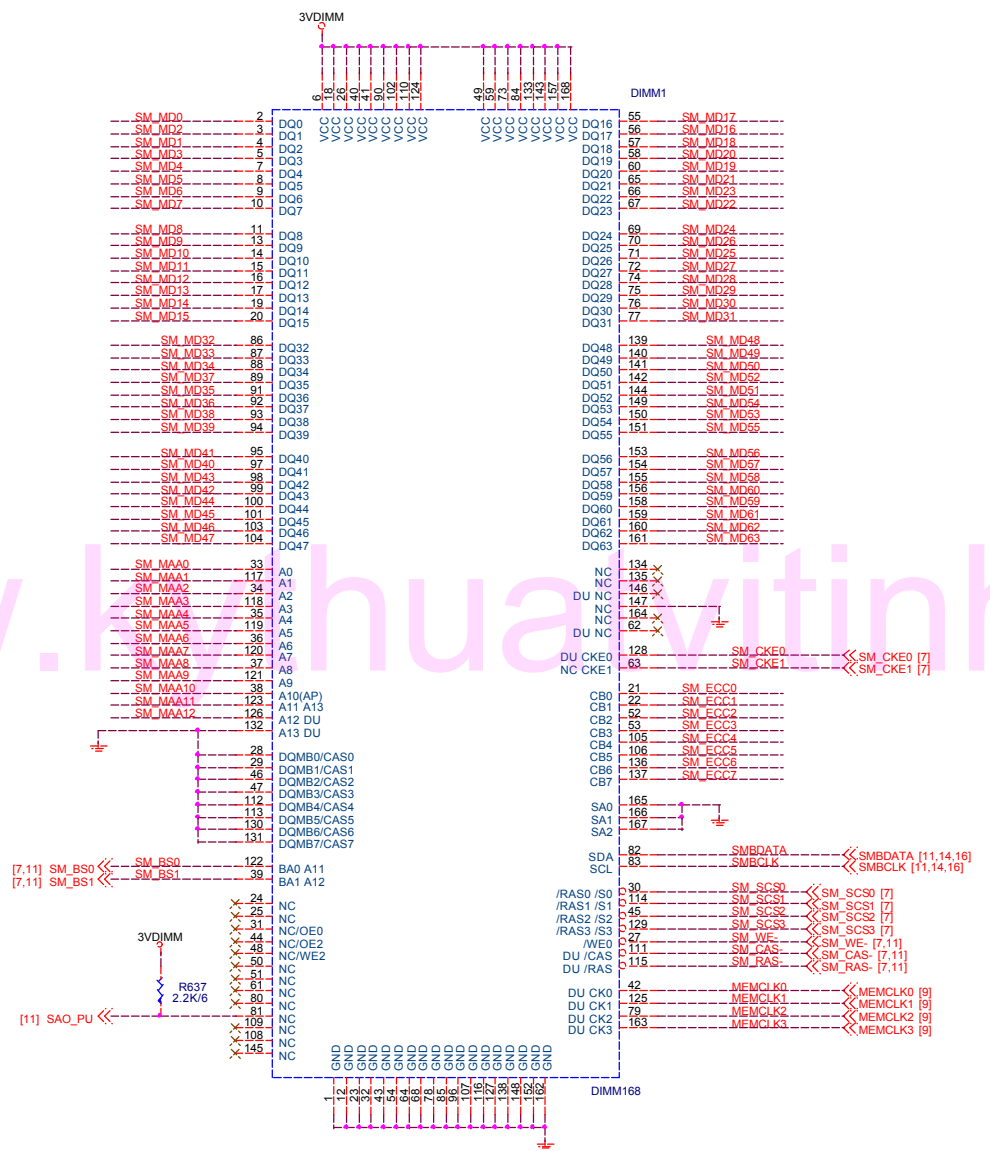
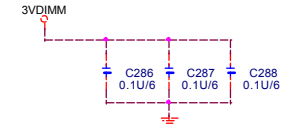
ONLY FOR EMI

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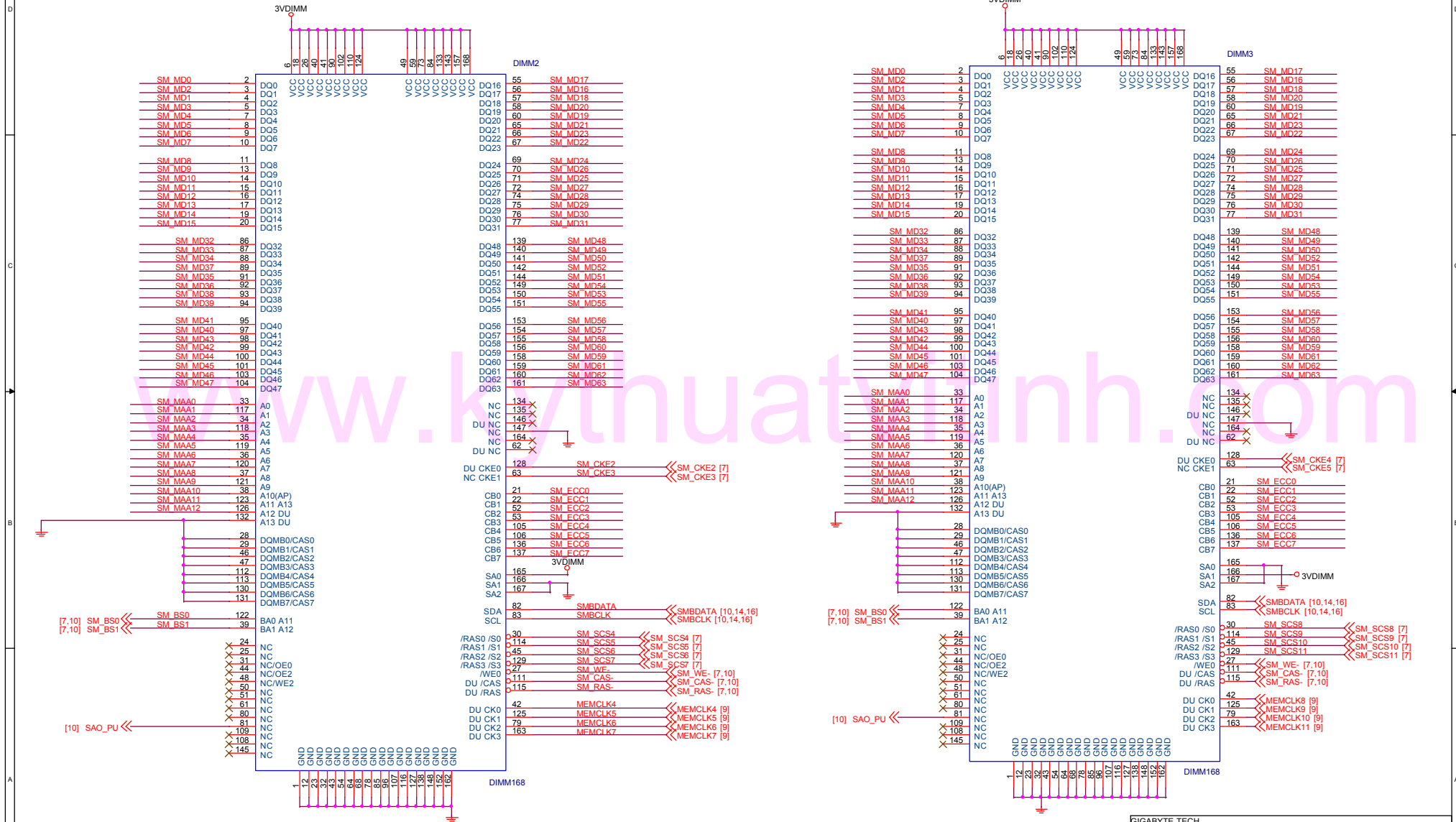
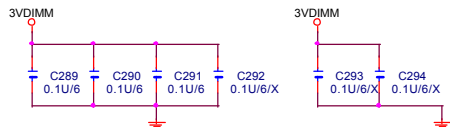


GIGABYTE CORP.	
File	
MD0_63 SERIAL TERM.	
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[7,11] SM_MD[0..63] << SM_MD[0..63]
 [7,11] SM_MAA[0..12] << SM_MAA[0..12]
 [7,11] SM_ECC[0..7] << SM_ECC[0..7]



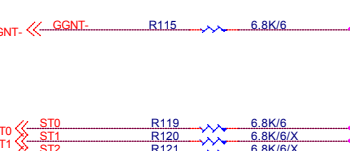
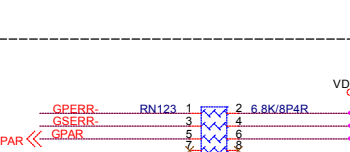
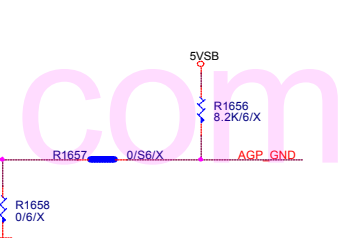
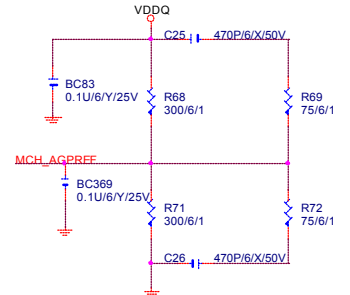
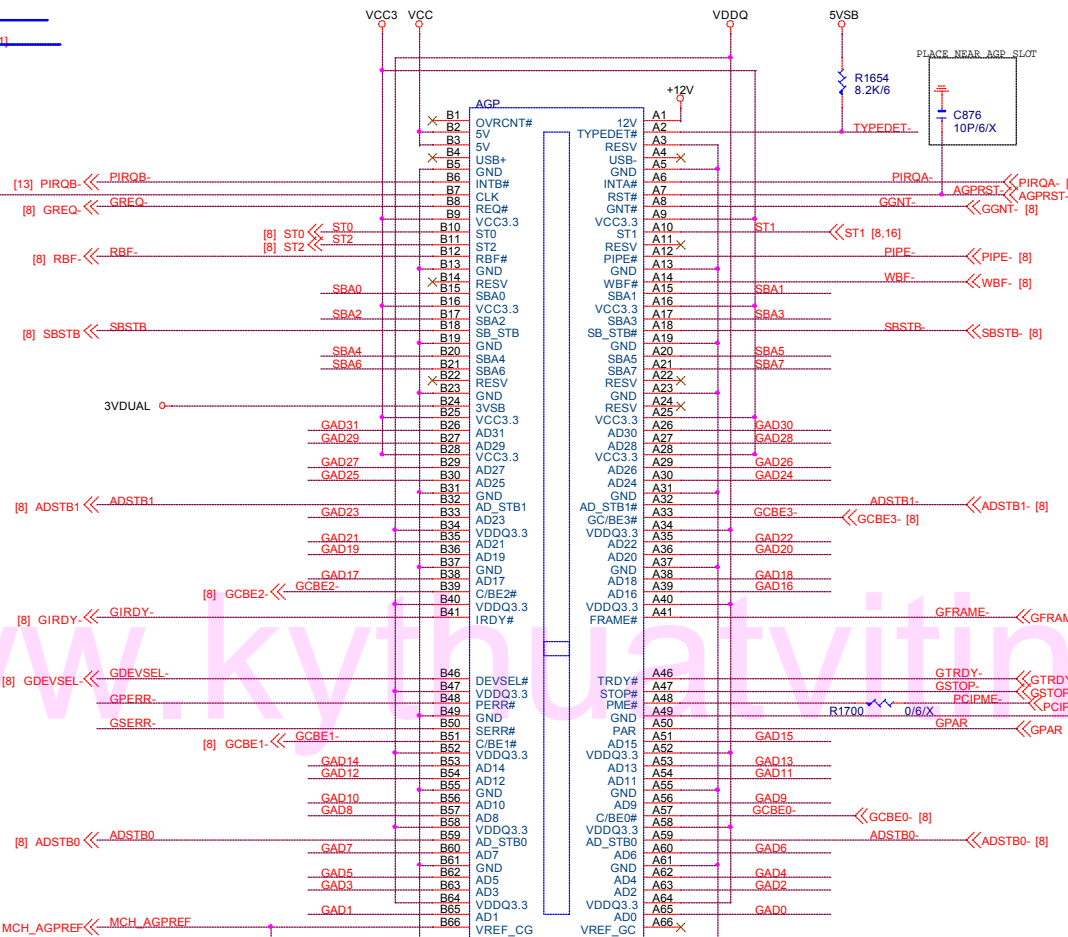
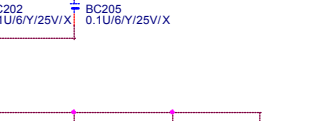
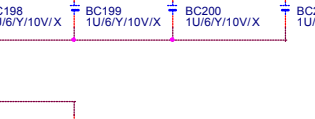
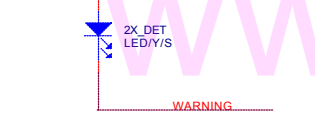
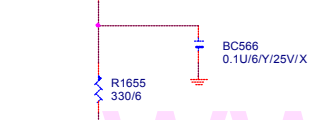
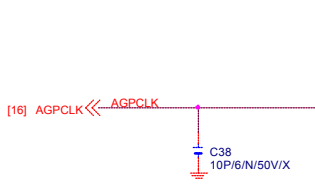
[7,10] SM_MD[0..63] << SM_MD[0..63]
 [7,10] SM_MAA[0..12] << SM_MAA[0..12]
 [7,10] SM_ECC[0..7] << SM_ECC[0..7]



GIGABYTE TECH.	
Title	DDR3 & TERM.
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4X only

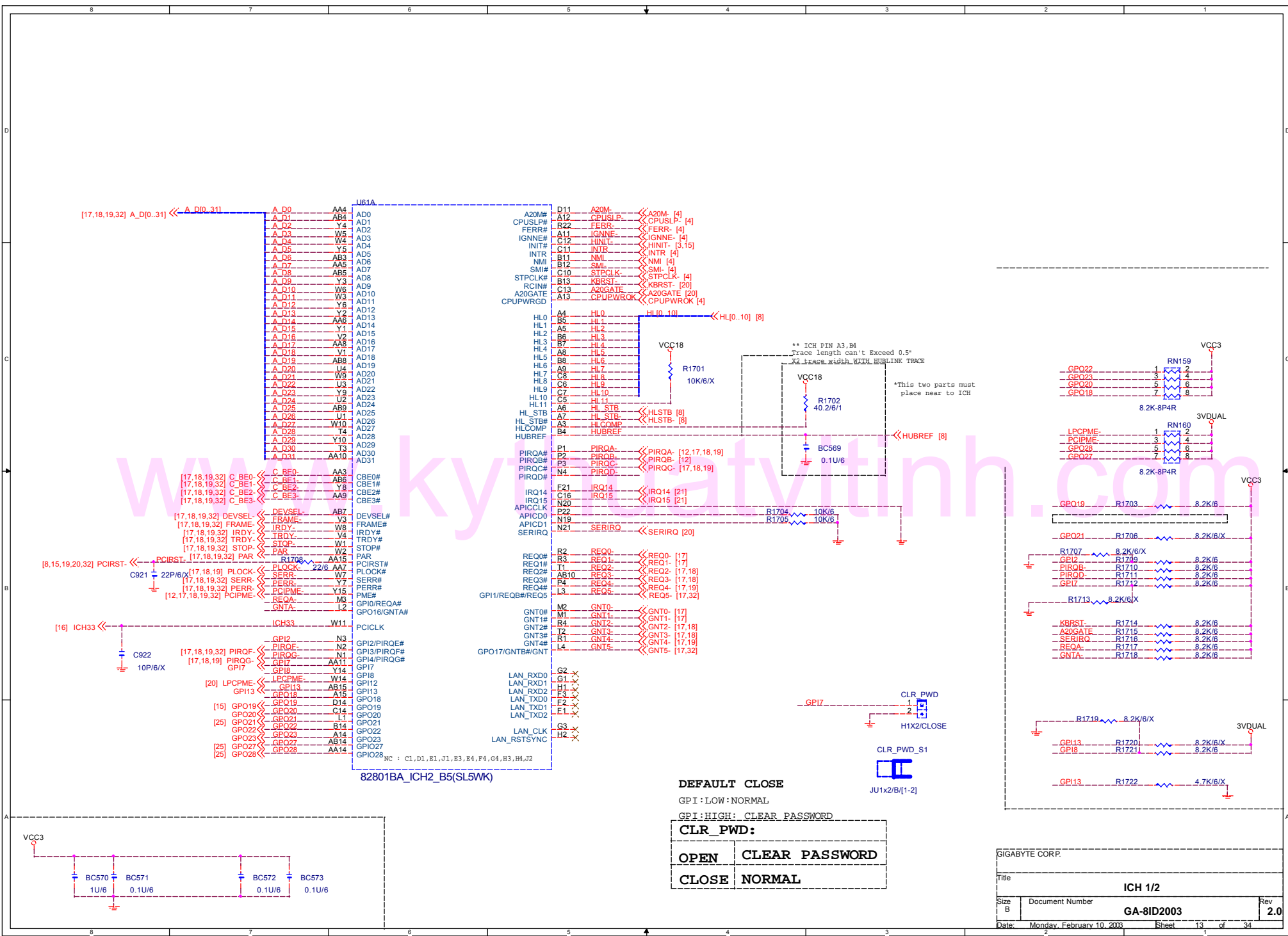
[8] SBA[0..7] << SBA[0..7]
 [8,16] ST[0..2] << ST[0..2]
 [8] GAD[0..31] << GAD[0..31]



-TYPE_DET FOR 4X LOW
 -TYPE_DET FOR 2X, (8X HIGH OR LOW)

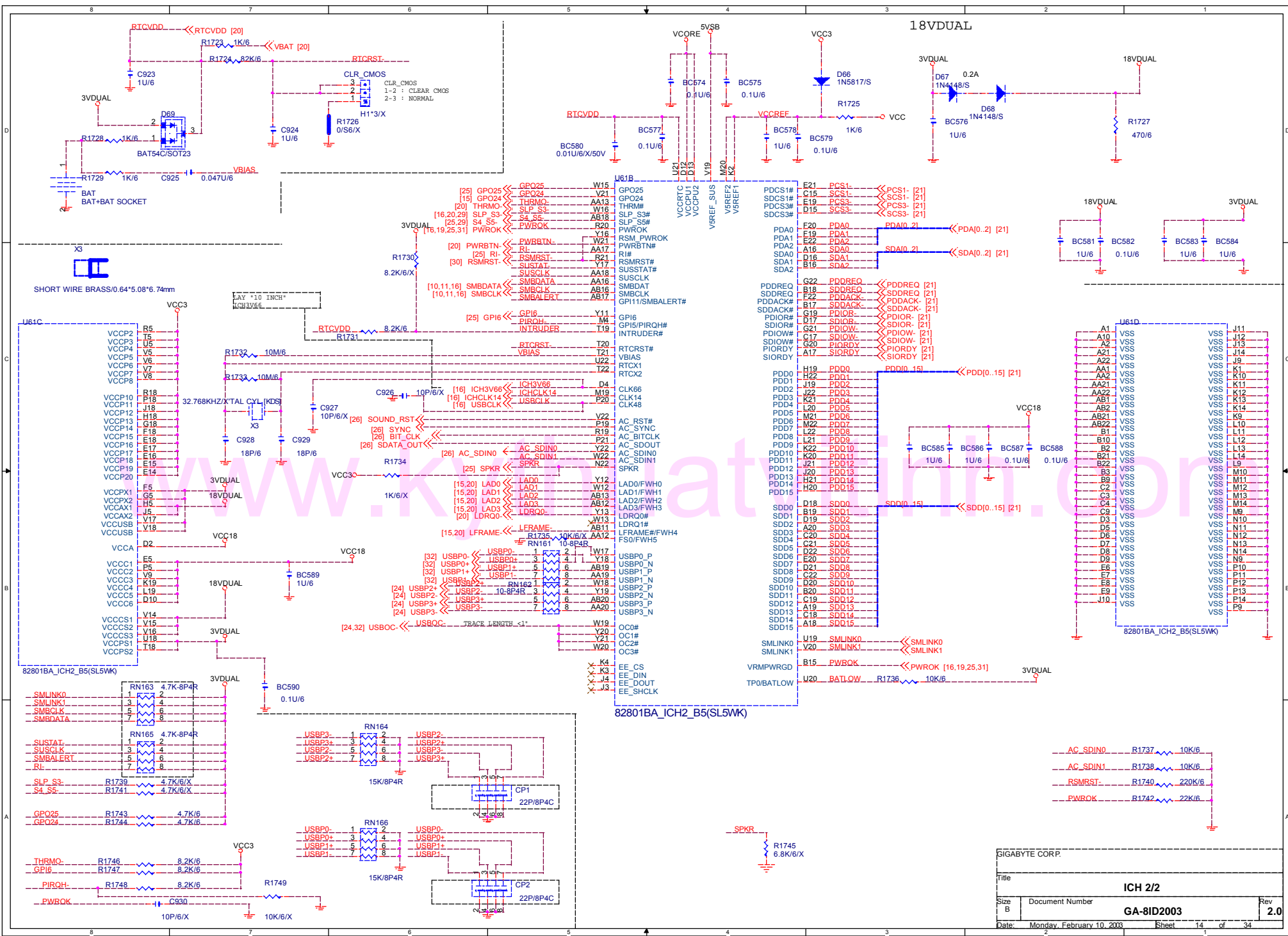
Layout 時整組線路均需靠近 AGP SLOT

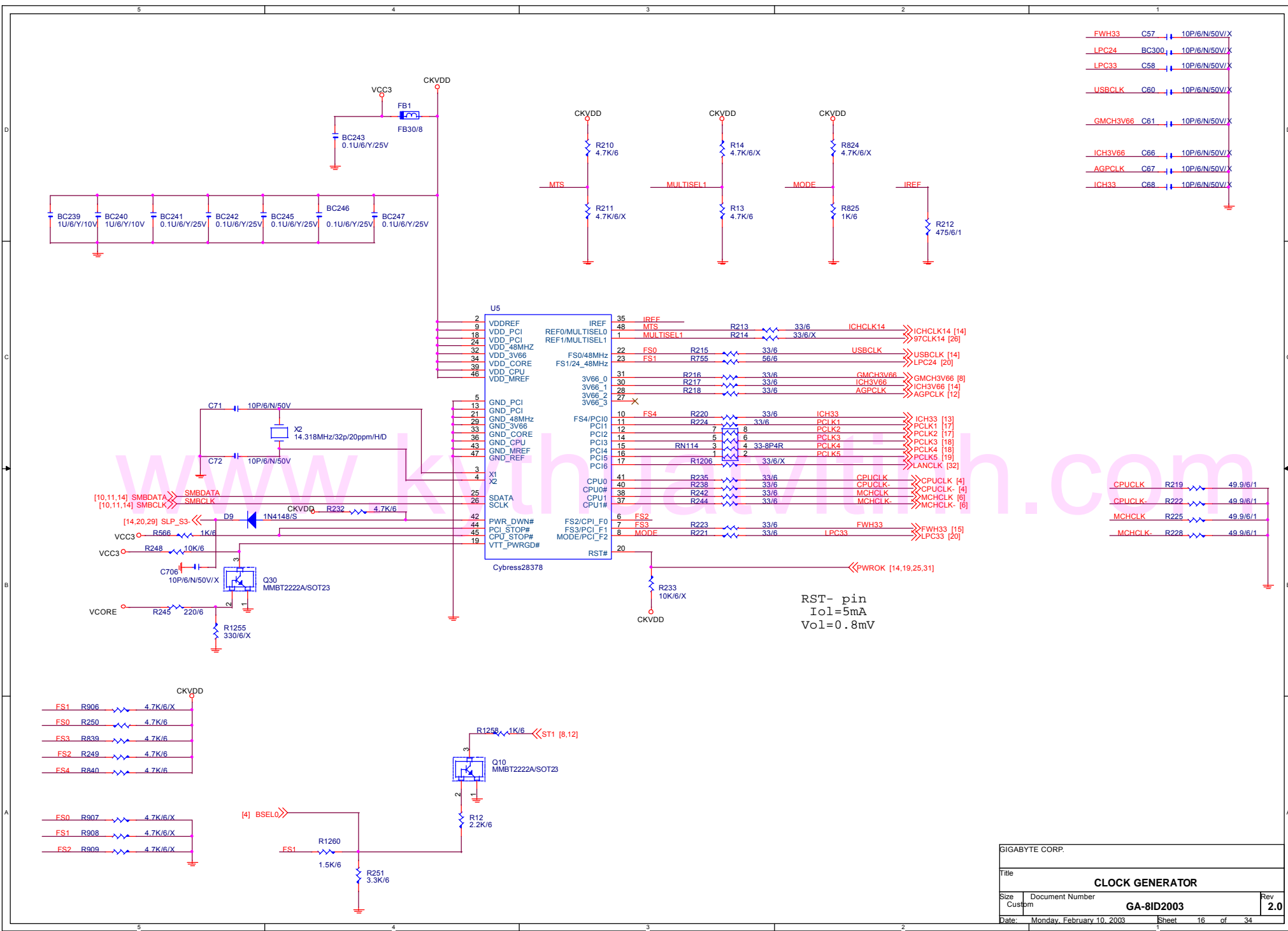
GIGABYTE CORP.		
Title AGP SLOT		
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DEFAULT CLOSE
 GPI : LOW : NORMAL
 GPI : HIGH : CLEAR PASSWORD

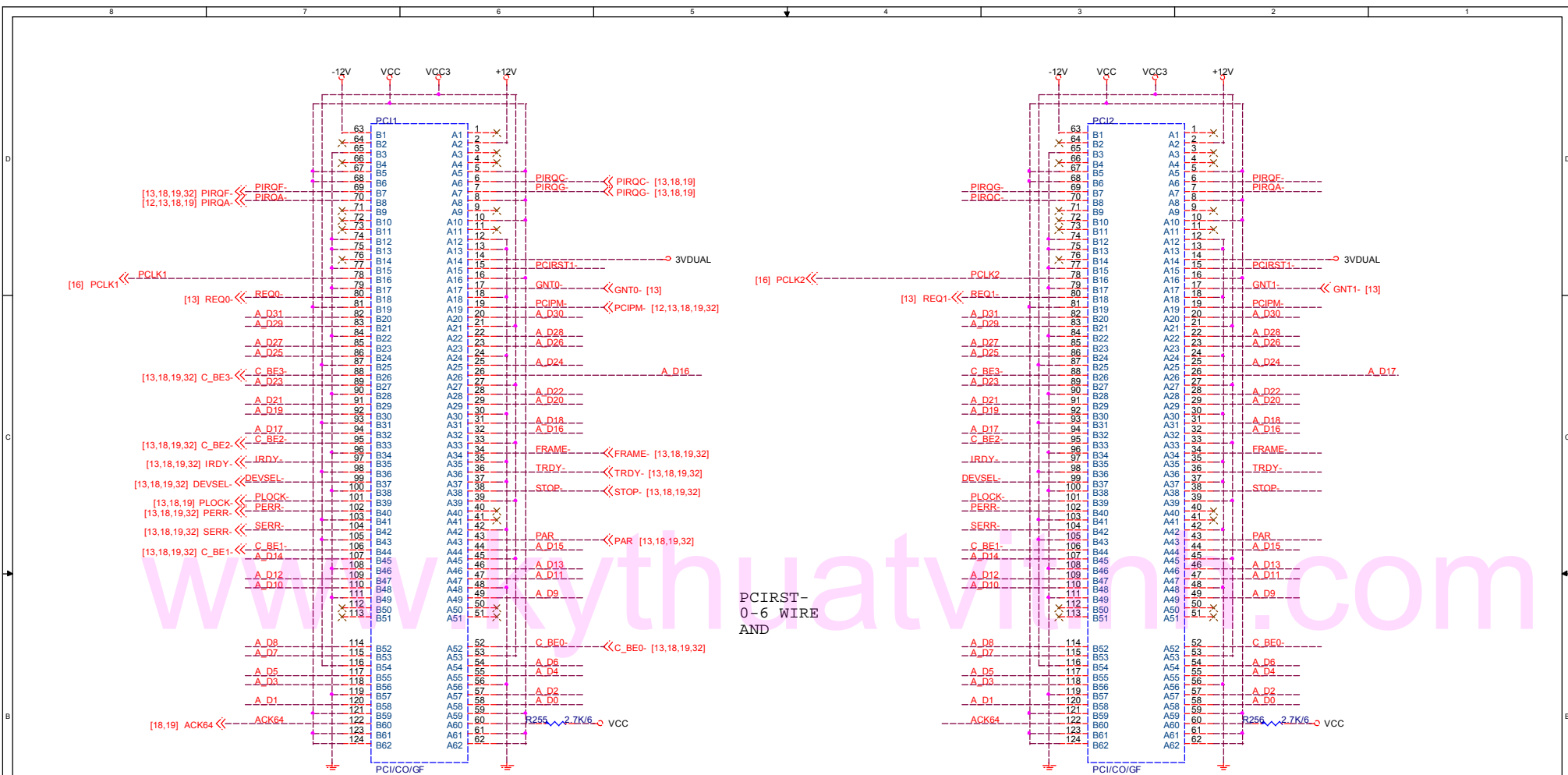
CLR_PWD:	
OPEN	CLEAR PASSWORD
CLOSE	NORMAL



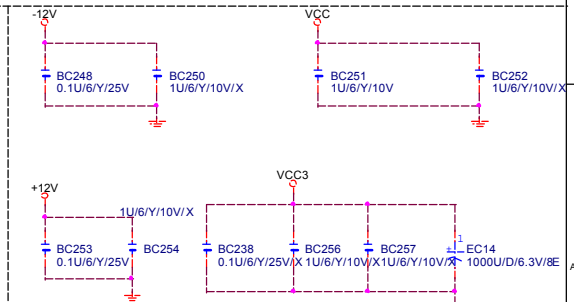
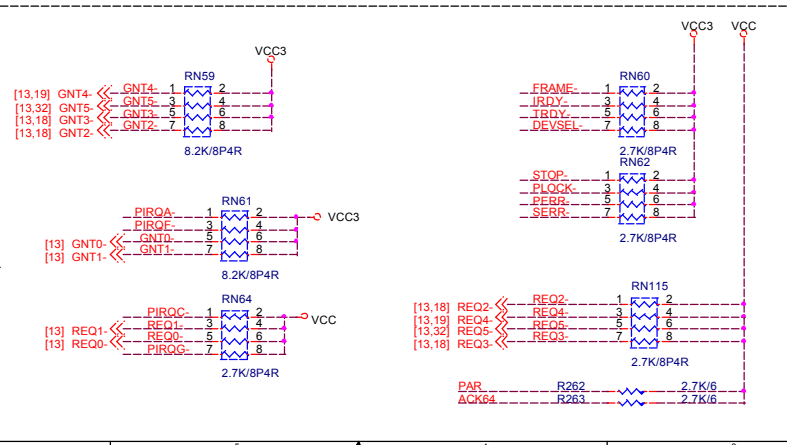
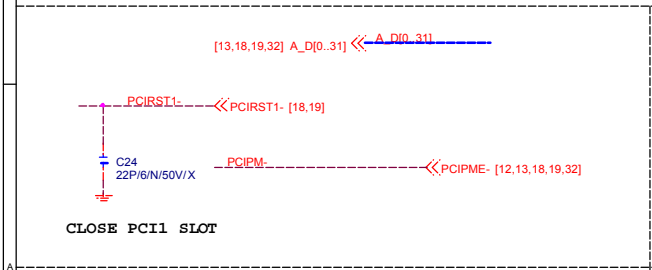


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CLOCK GENERATOR		
Size	Document Number	Rev
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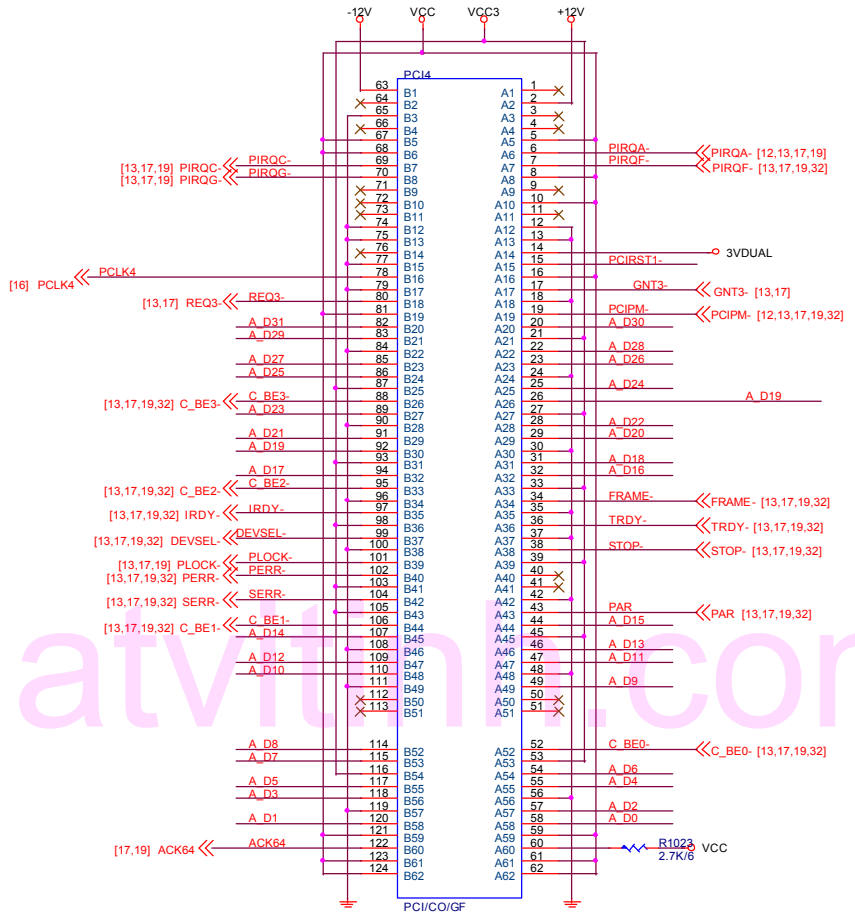
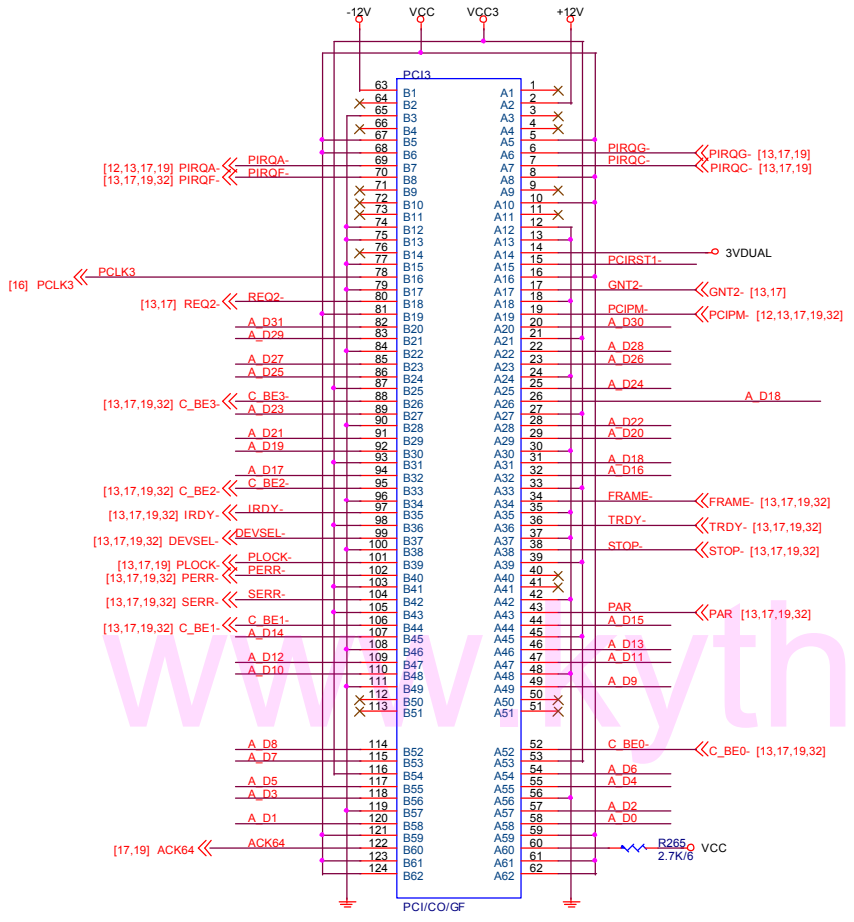
RST- pin
Iol=5mA
Vol=0.8mV



PCIRST-
0-6 WIRE
AND

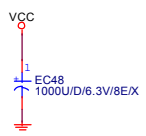


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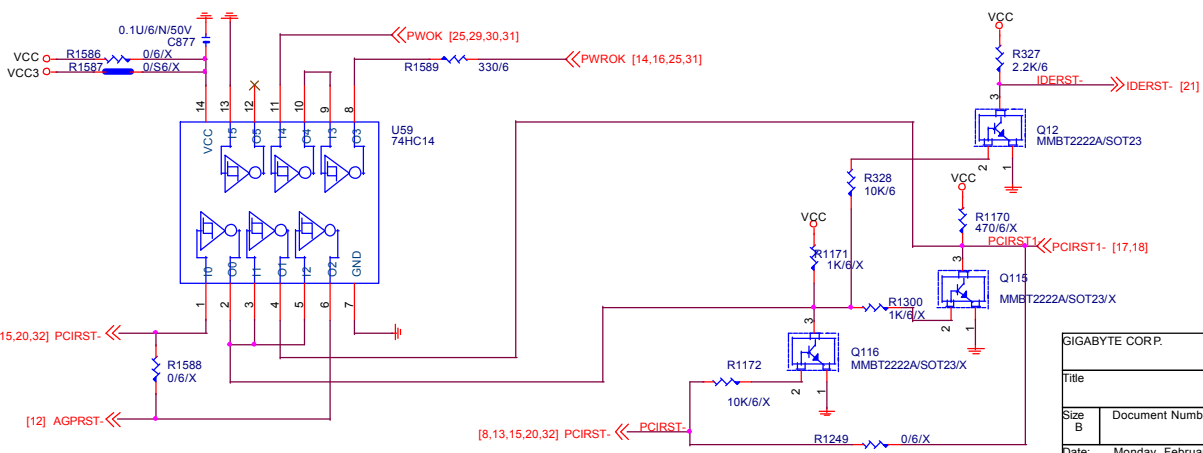
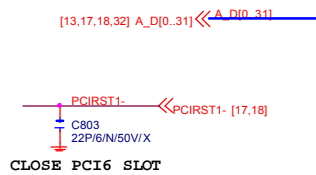
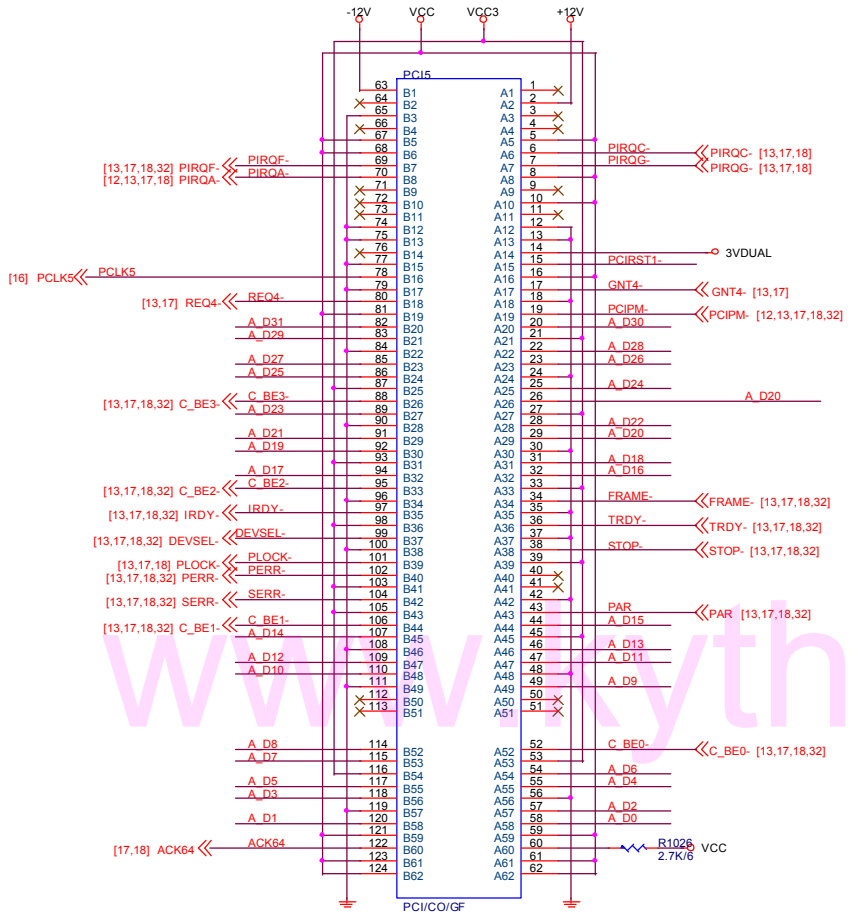


[13,17,19,32] A_D0..31 << A_D0..31

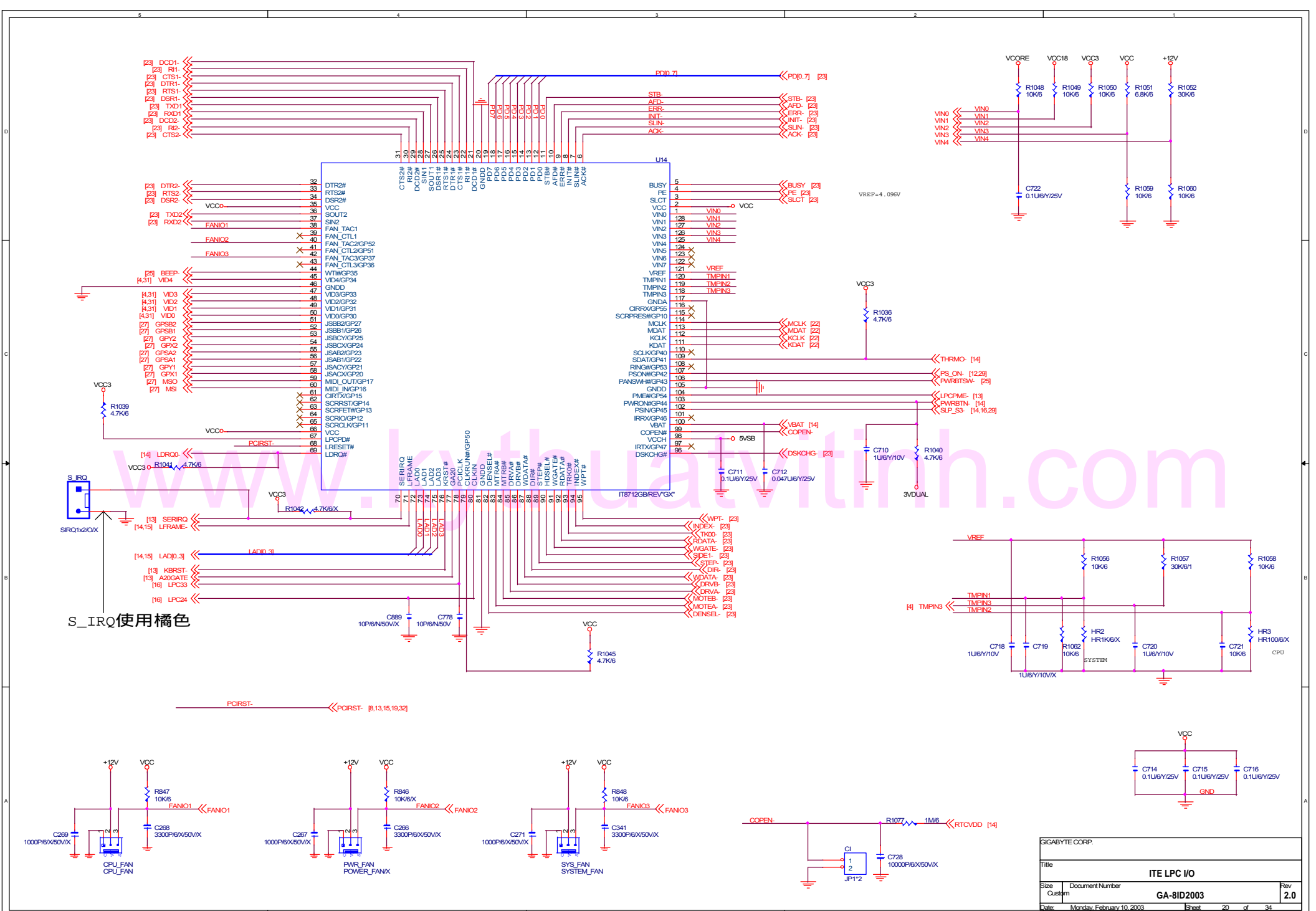
PCIRST1 << PCIRST1- [17,19]



GIGABYTE CORP.			
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PCI SLOT 3_4			
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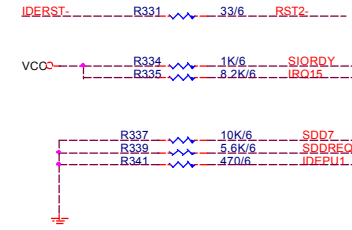
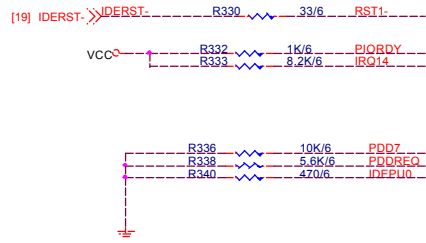
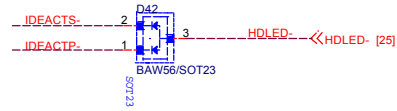


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S_IRQ使用橘色

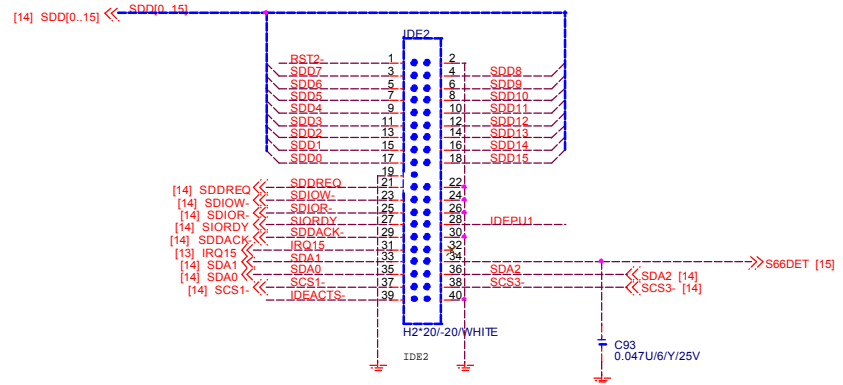
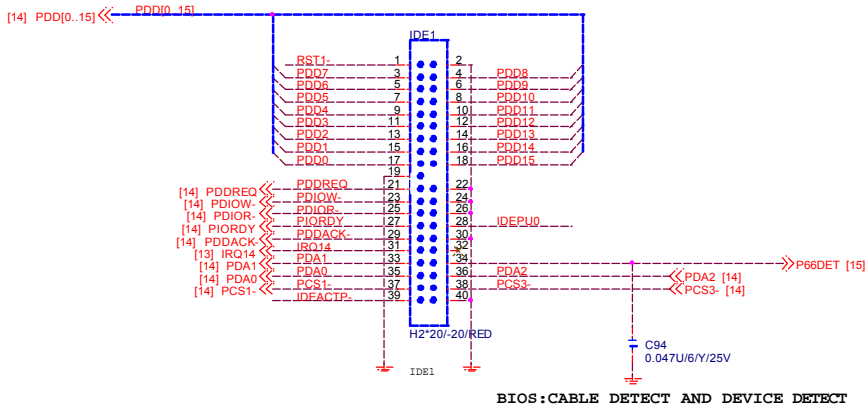
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Title		
ITE LPC I/O		
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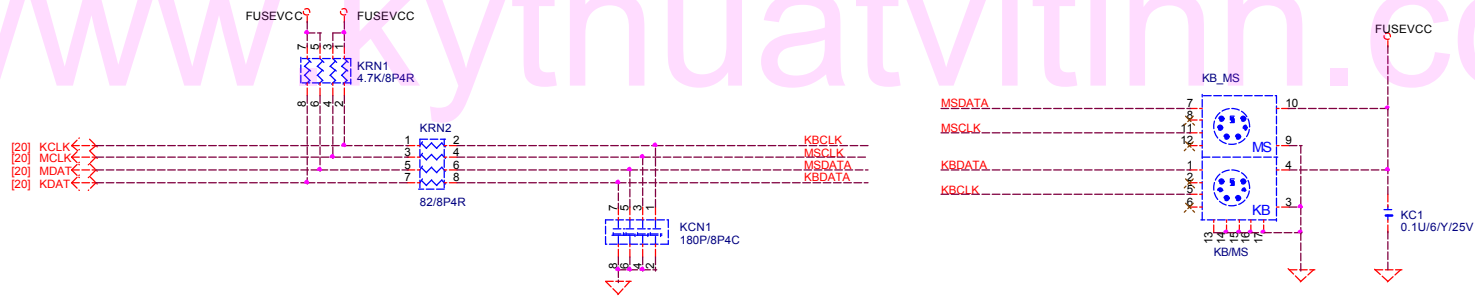
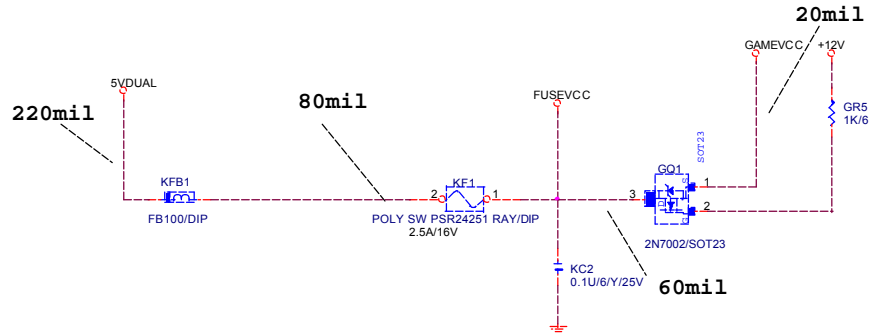
PRIMARY IDE CONNECTOR

SECONDARY IDE CONNECTOR



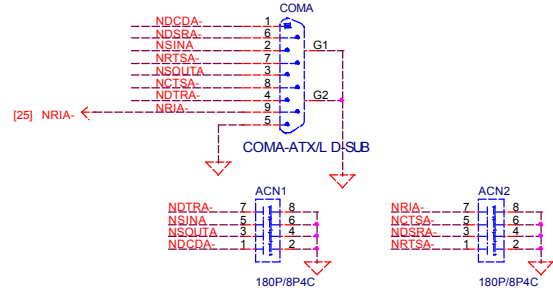
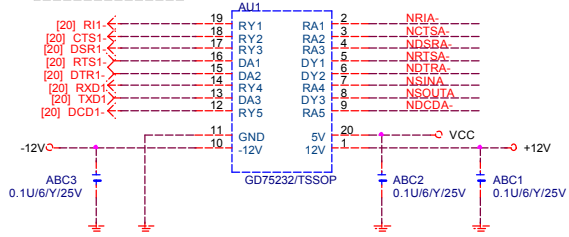
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模組化線路

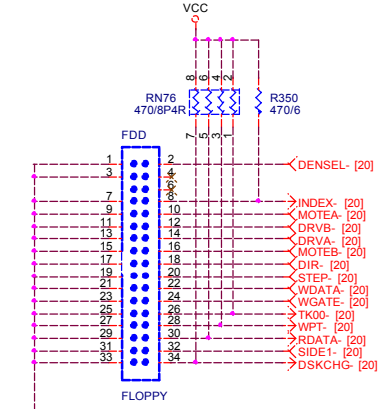


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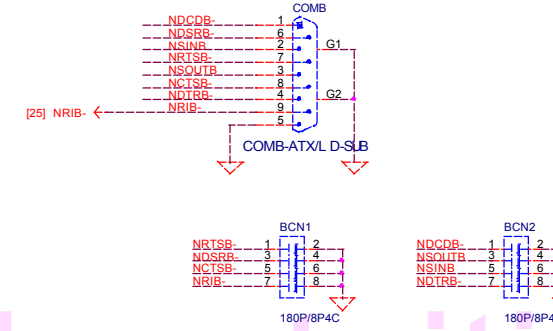
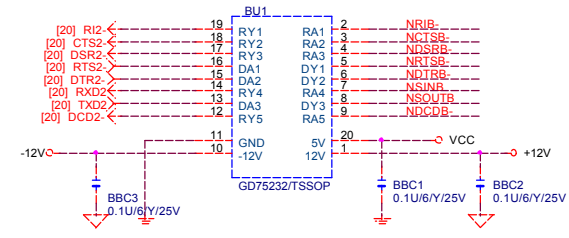
模組化線路



FLOPPY

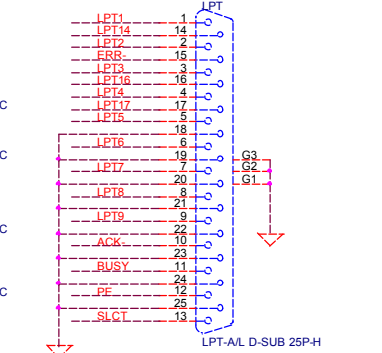
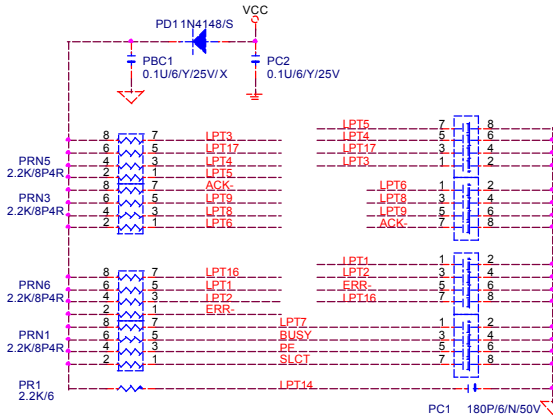
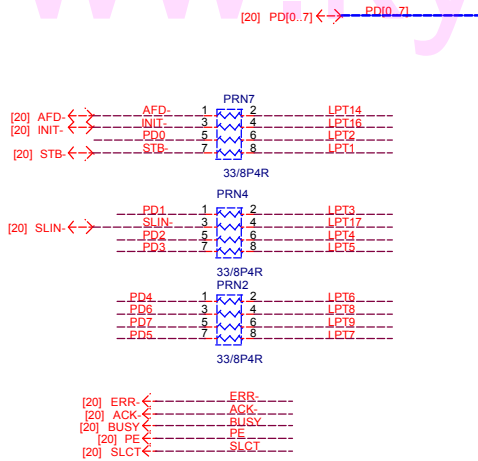


COMB



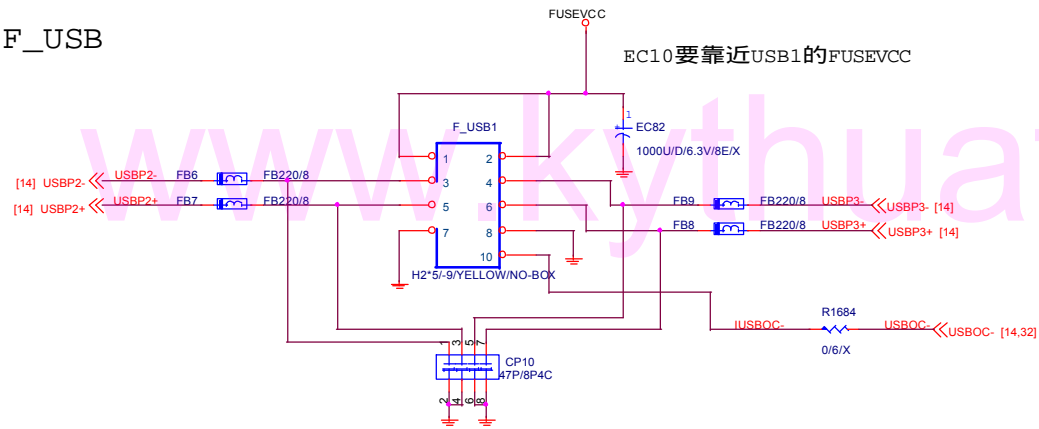
PRT PORT

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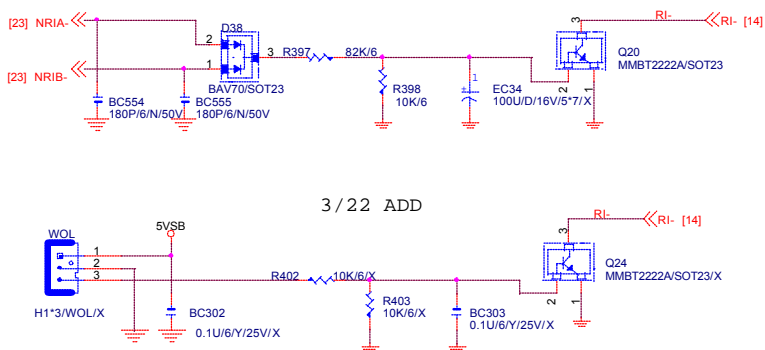


GIGABYTE CORP.			
Title			
COM & IR & LPT PORT & FLOOPY			
Size B	Document Number	GA-8ID2003	Rev 2.0
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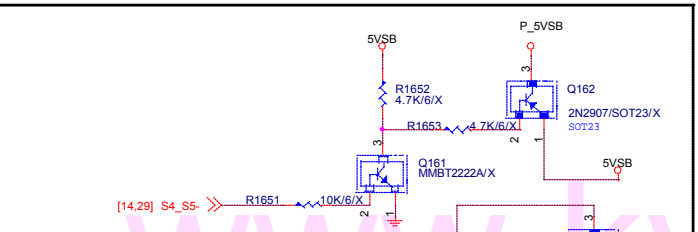
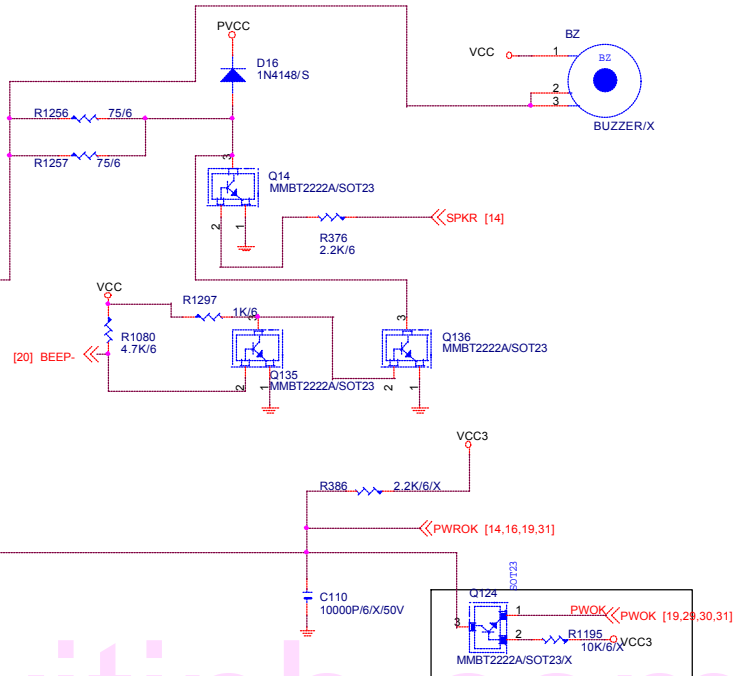
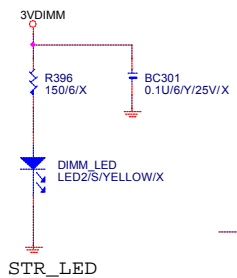
F_USB



GIGABYTE			
Title			
ICH USB+LAN PORT			
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3 / 22 ADD



INTEL FRONT PANEL

GREEN LED/SWITCH/SPEAKER

3 PIN POWER LED

PWR_LED	MPD+	MPD+
	MPD-	MPD-
	MPD-	MPD+
P_LED_1X3		

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

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

NO1 GPO35 只需在S1 PROGRAMMING LOW

(GPO25 DEFAULT HIGH, RESUME WELL)

(GPO27 DEFAULT HIGH, RESUME WELL AND 可以PROGRAMMING BLINKING)

(GPO28 DEFAULT HIGH, RESUME WELL)

(GPO35 DEFAULT HIGH, MAIN POWER)

模組化線路

FOR ALC650 (需 E VERSION (含) 以上, 才 SUPPORT)

Support ALC650
If 14.318MHz
external CLK
is used

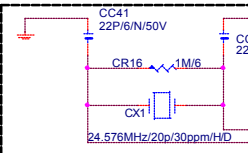
FOR ALC650
center out/low freq. effect out

FOR ALC650
surround out left/right
channel

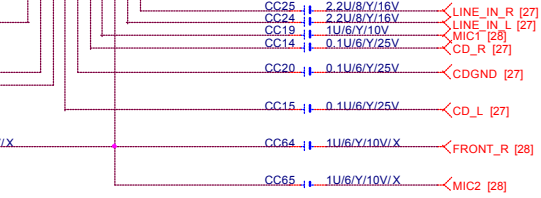
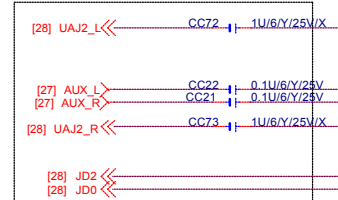
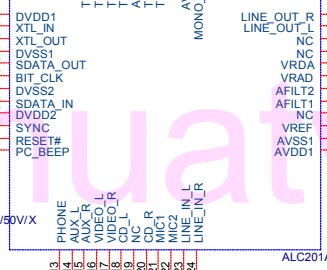
FOR 650 DESIGN DEFAULT 由
CLOCK GEN

14.318MHz from clock
gen. CLK for 650
[16] 97CLK14 > CR62 0/6/X

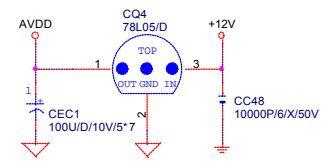
FOR 650 DESIGN DEFAULT
不上 CRYSTAL



[14] SDATA_OUT
[14] BIT_CLK
[14] AC_SDINO
[14] SYNC
[14] SOUND_RST



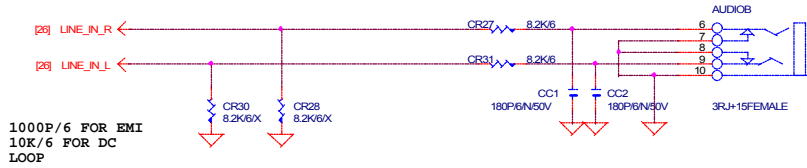
AVDD



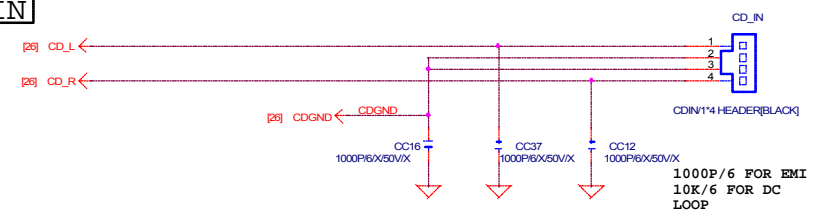
GIGABYTE CORP.			
Title			
AC97			
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LINE-IN

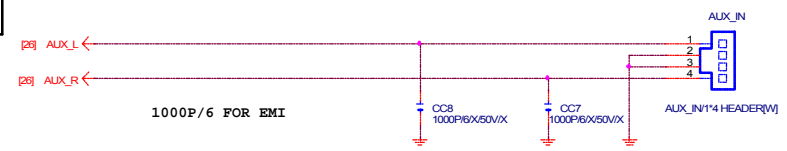
模組化線路



CDIN

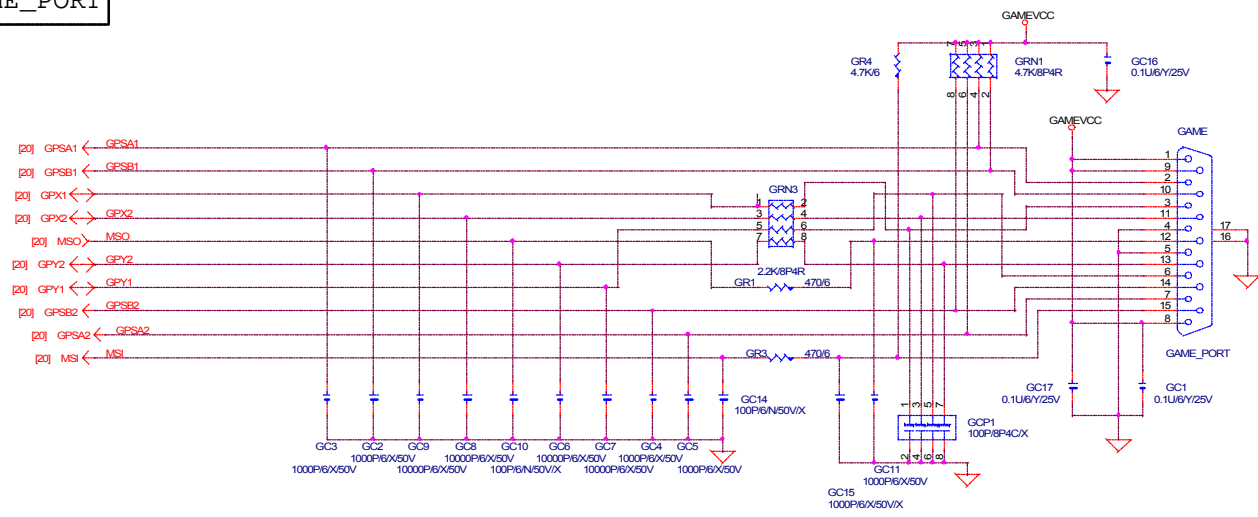


AUX_IN

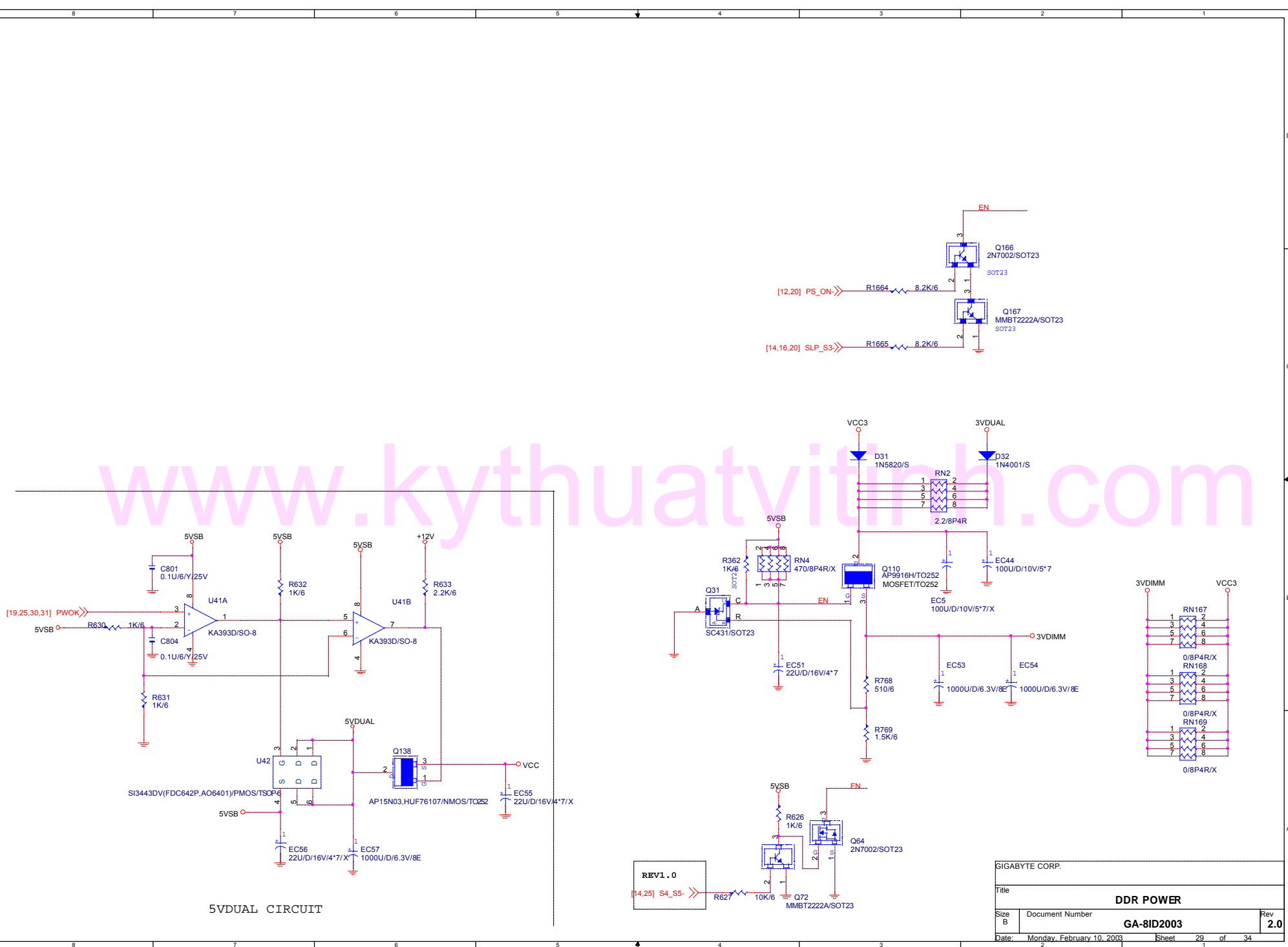


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GAME_PORT



GIGABYTE CORP.			
Title			
PHONE JACK, GAME PORT			
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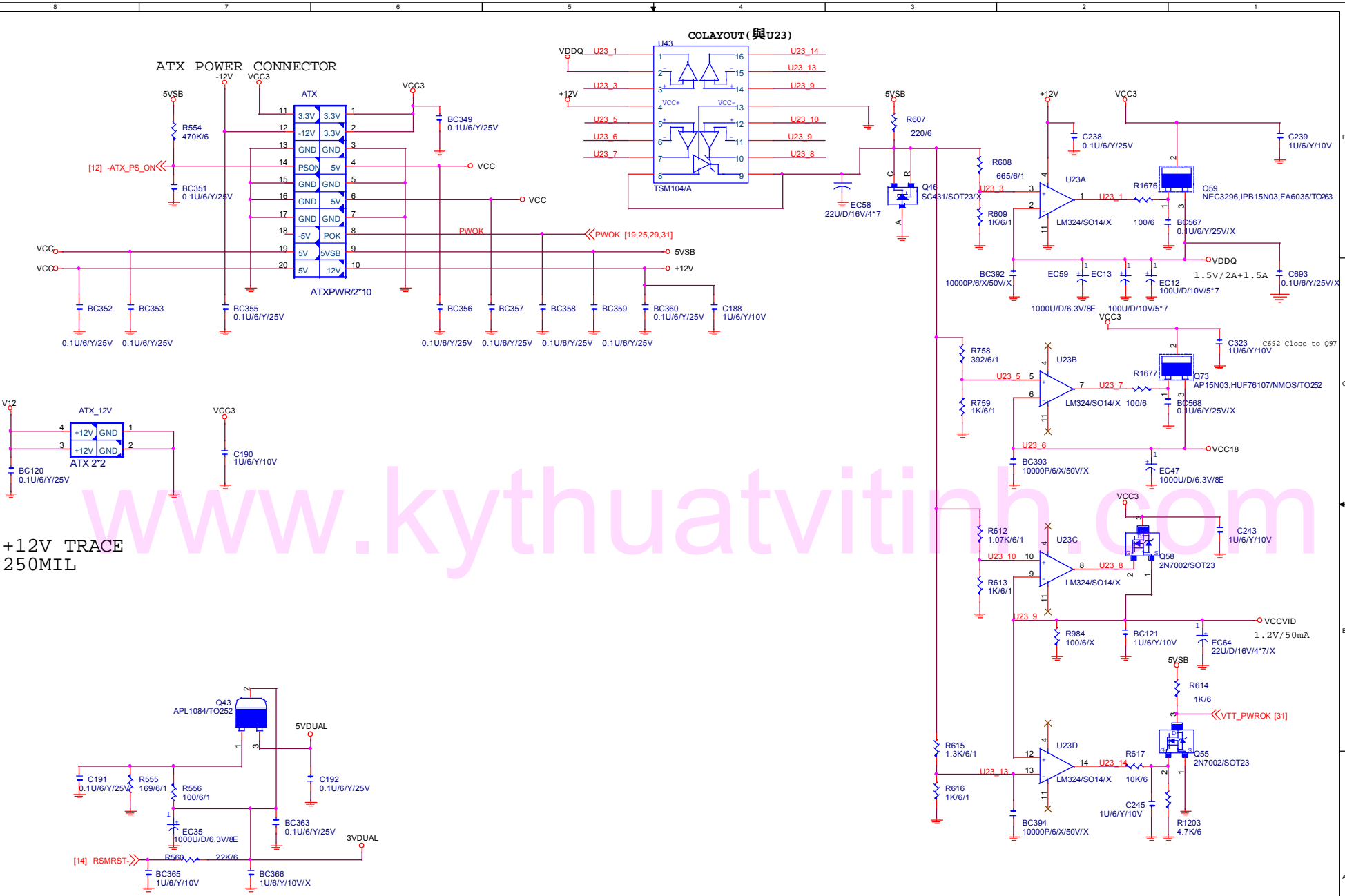


5VDUAL CIRCUIT

REV1.0

[14.25] S4_S5-

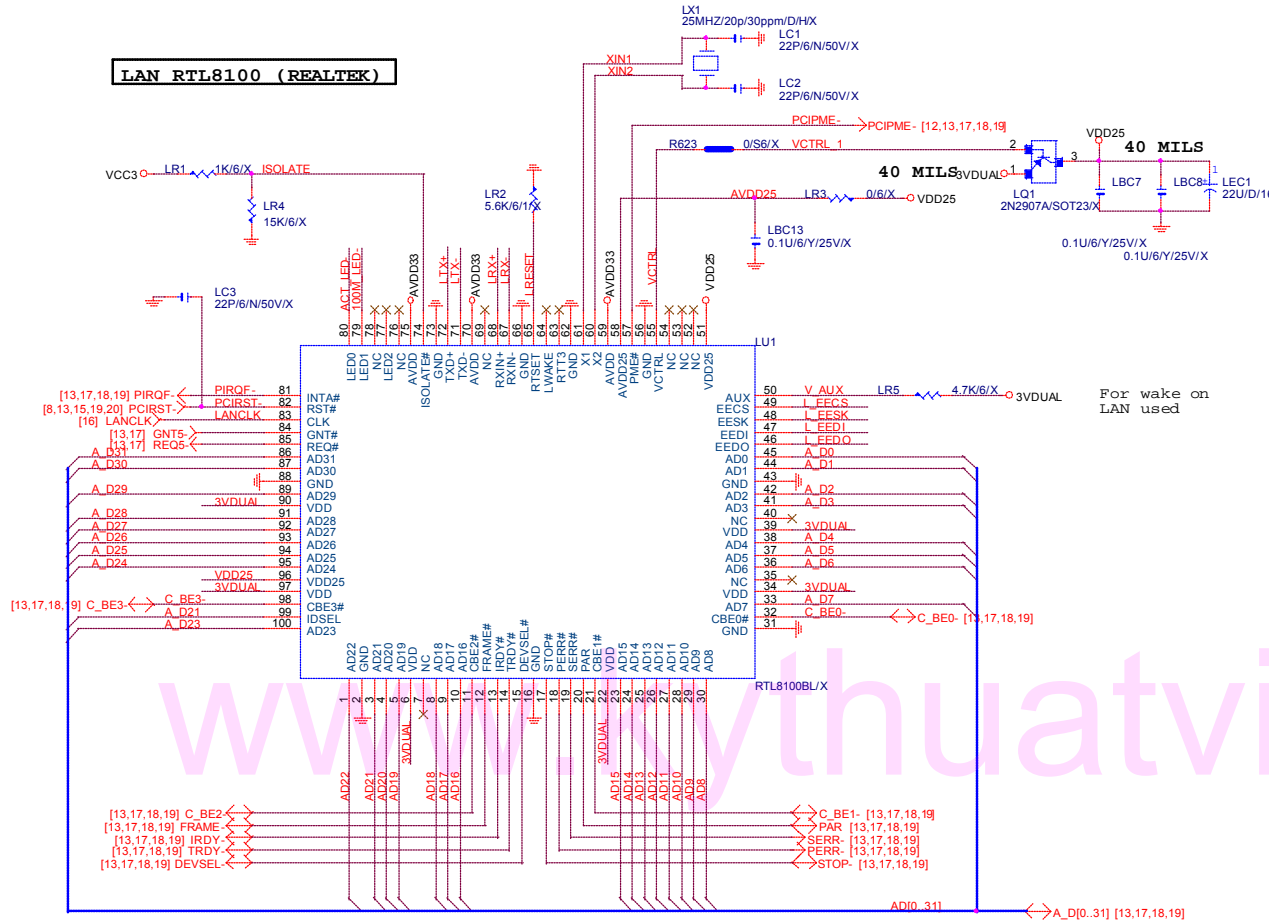
GIGABYTE CORP.		
Title		
DDR POWER		
Size	Document Number	Rev
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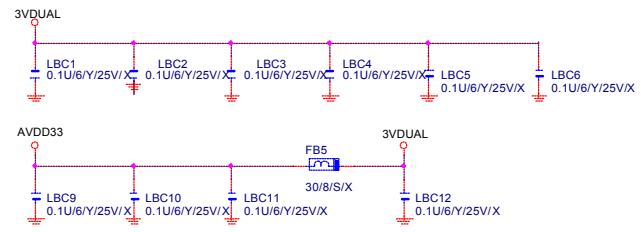
+12V TRACE
250MIL

GIGABYTE CORP.			
Title			
Misc. PWR & ATX CONN.			
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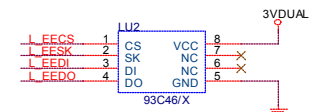
LAN RTL8100 (REALTEK)



POWER DECOUPLING CAP.



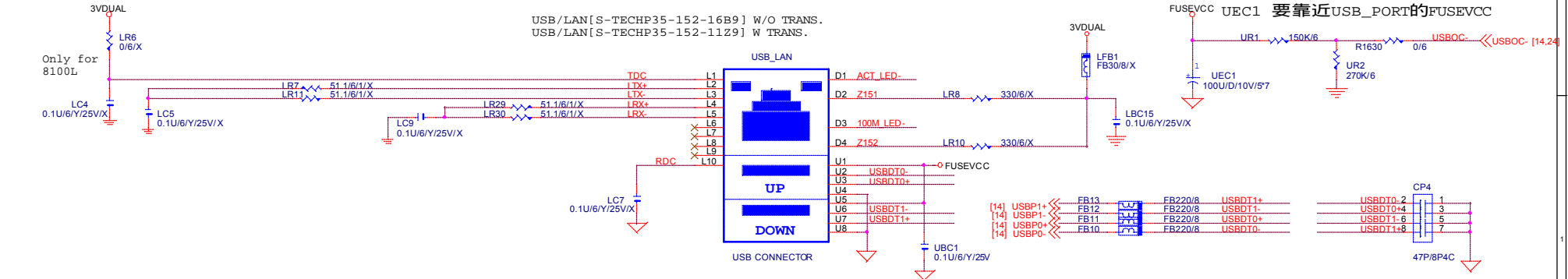
LAN EEPROM



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)

For wake on LAN used

USB/LAN[S-TECHP35-152-16B9] W/O TRANS.
 USB/LAN[S-TECHP35-152-11Z9] W TRANS.



GIGABYTE		
LAN RTL8100B		
Title		
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GIGABYTE GA-8ID2003 GPIO LIST

Revision 2.0

SHEET

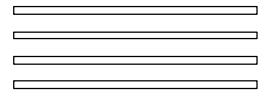
TITLE

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		
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