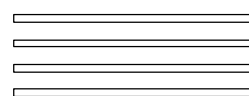


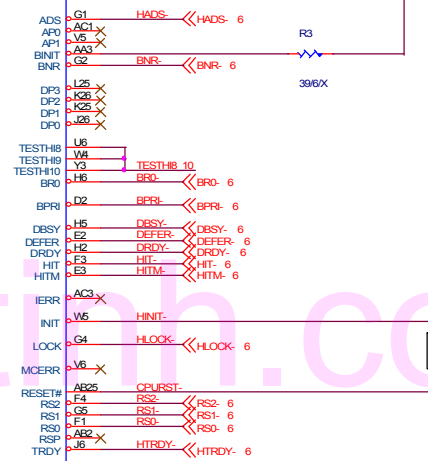
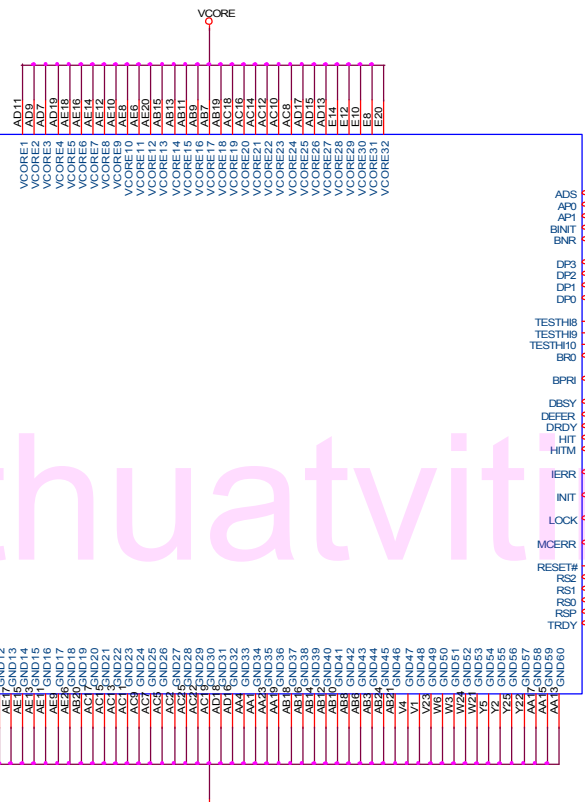
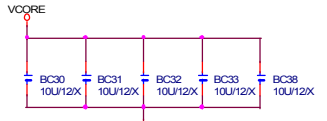
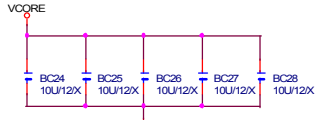
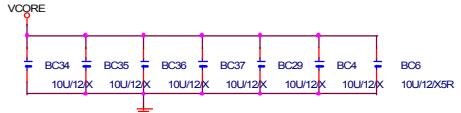
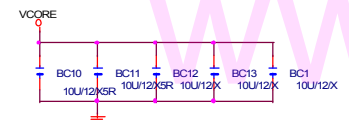
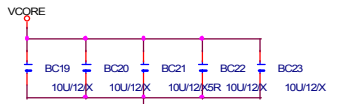
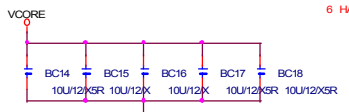
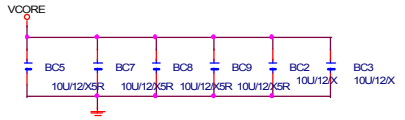
GIGABYTE GA-8IRX Schematics

Revision2.0

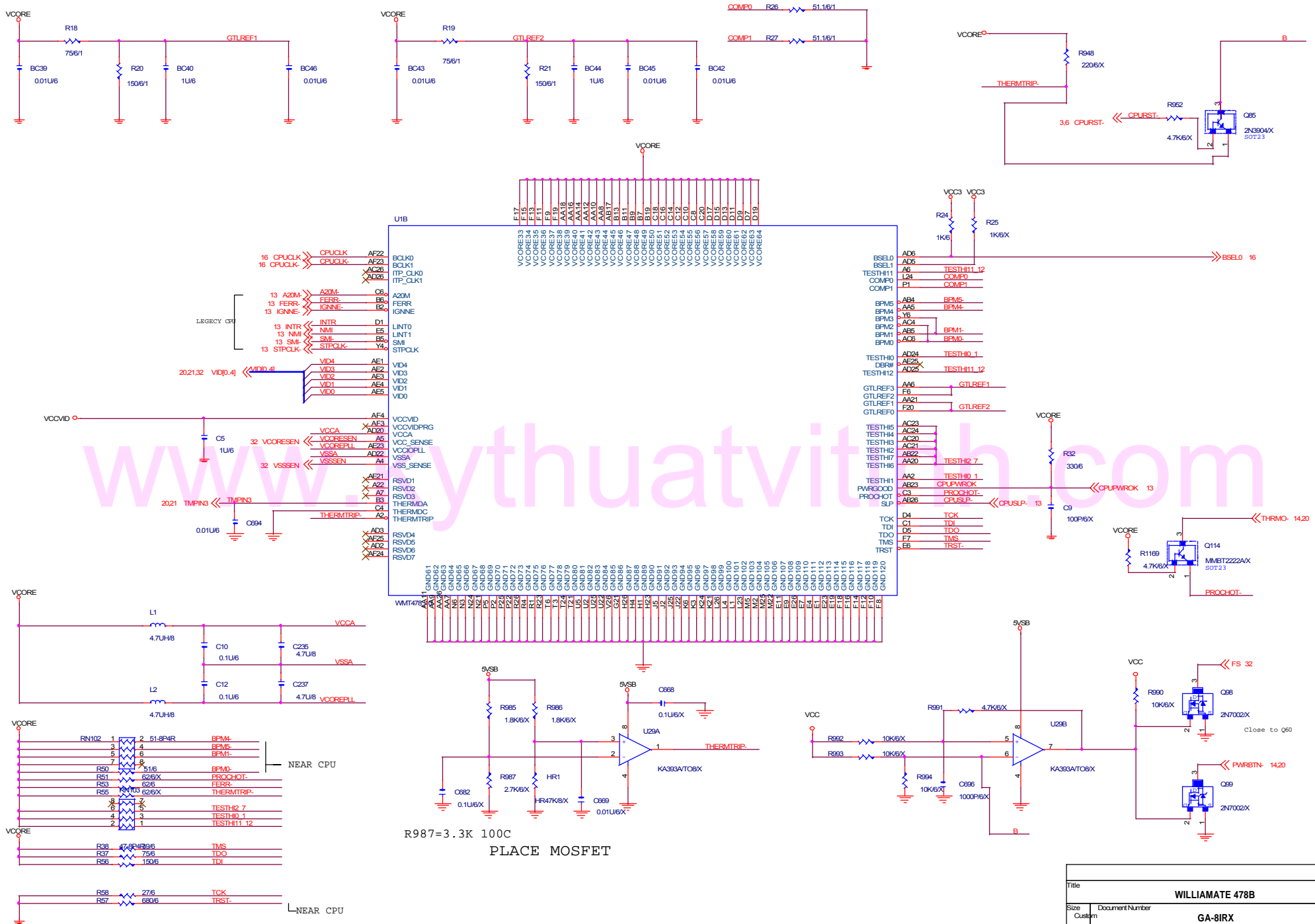
| SHEET | TITLE |
|-------|--------------------------|
| 01 | COVER SHEET |
| 02 | BOM & PCB MODIFY HISTORY |
| 03 | WILLIAMATE_478A |
| 04 | WILLIAMATE_478B |
| 05 | WILLIAMATE_478C |
| 06 | MCH-BROOKDALE_A |
| 07 | MCH-BROOKDALE_B |
| 08 | MCH-BROOKDALE_C |
| 09 | MD0_63 |
| 10 | DDR1_2 |
| 11 | DDR_TERM |
| 12 | AGP |
| 13 | ICH2_1 |
| 14 | ICH2_2 |
| 15 | FWH (DUAL BIOS) |
| 16 | CY28324 CLOCK GEN |
| 17 | PCI1_2 |
| 18 | PCI3_4 |
| 19 | PCI5_6 |
| 20 | ITE LPC I/O |
| 21 | FAN |
| 22 | IDE |

| SHEET | TITLE |
|-------|-------------------|
| 23 | KB_PS2 |
| 24 | COM_LPT_FDD |
| 25 | USB-P |
| 26 | FPANEL |
| 27 | CODEC |
| 28 | AUDIO_J1 |
| 29 | AUDIO_J2_GAMEPORT |
| 30 | DDR POWER |
| 31 | POWER1 |
| 32 | POWER2 |
| 33 | CNR |
| 34 | CT5880 (SOUND) |
| 35 | GAL,ASIC |
| 36 | RTL8100 |
| 37 | GPIO LIST |
| 38 | PCI ROUNT LIST |
| PCB | 統盟,十美,騰元 |

| | | |
|---|-----------------------------------|---|
|  | | COMPONENT SIDE (0.5 oz. Copper) VCC SIDE (2 oz. Copper) GND SIDE (1 oz. Copper) SOLDER SIDE (0.5 oz. Copper) |
| GIGABYTE | | |
| Title COVER SHEET | | |
| Size Custom | Document Number GA-8IRX | Rev 2.0 |
| Date: 星期二, 十一月 26, 2001 | Sheet 1 of 38 | |

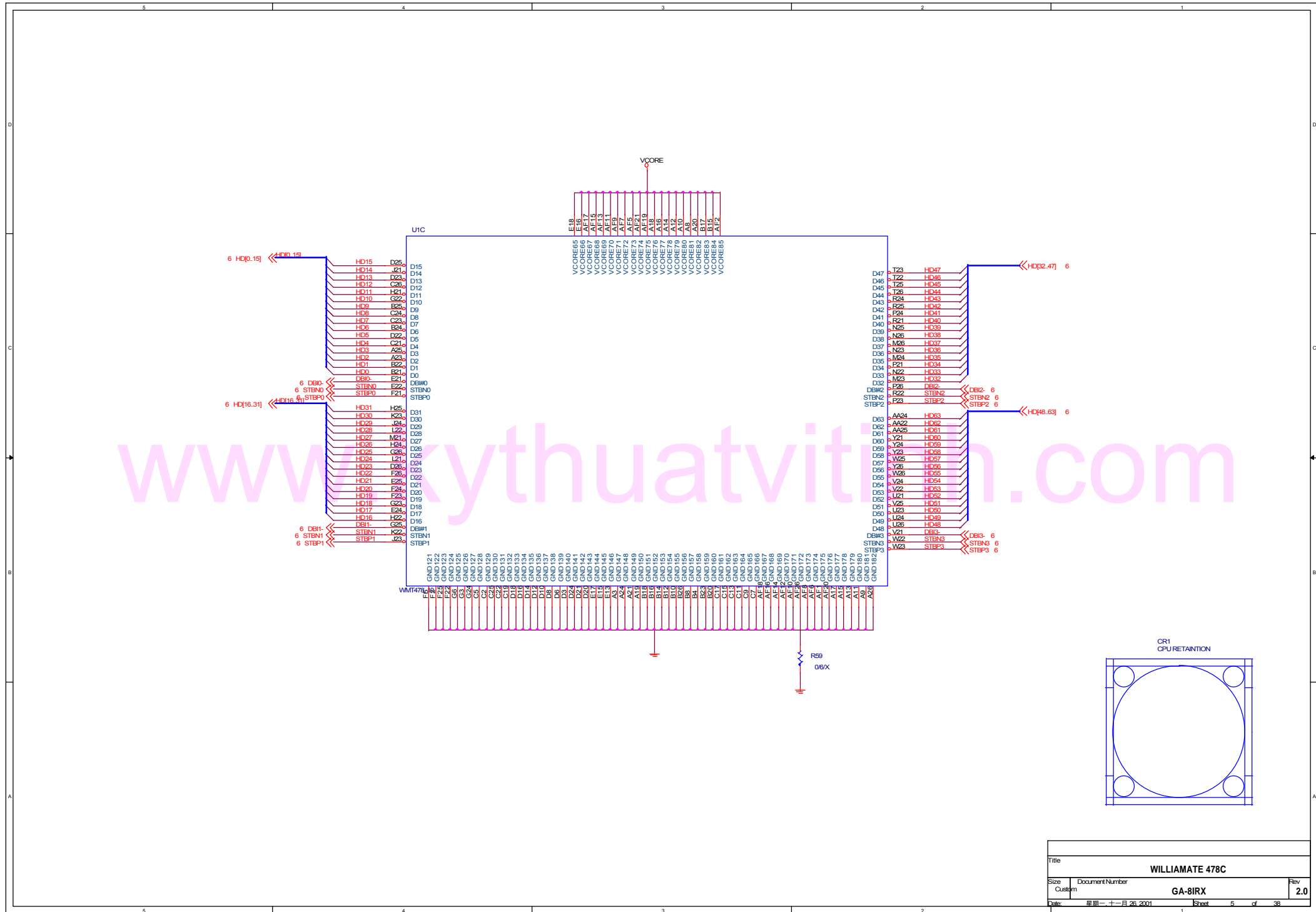


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| Title | | | WILLIAMATE 478A | |
| Size | Document Number | GA-81RX | | Rev |
| Custom | | | | 2.0 |
| Date | 星期一, 十一月 26, 2001 | Sheet | 3 | of 38 |



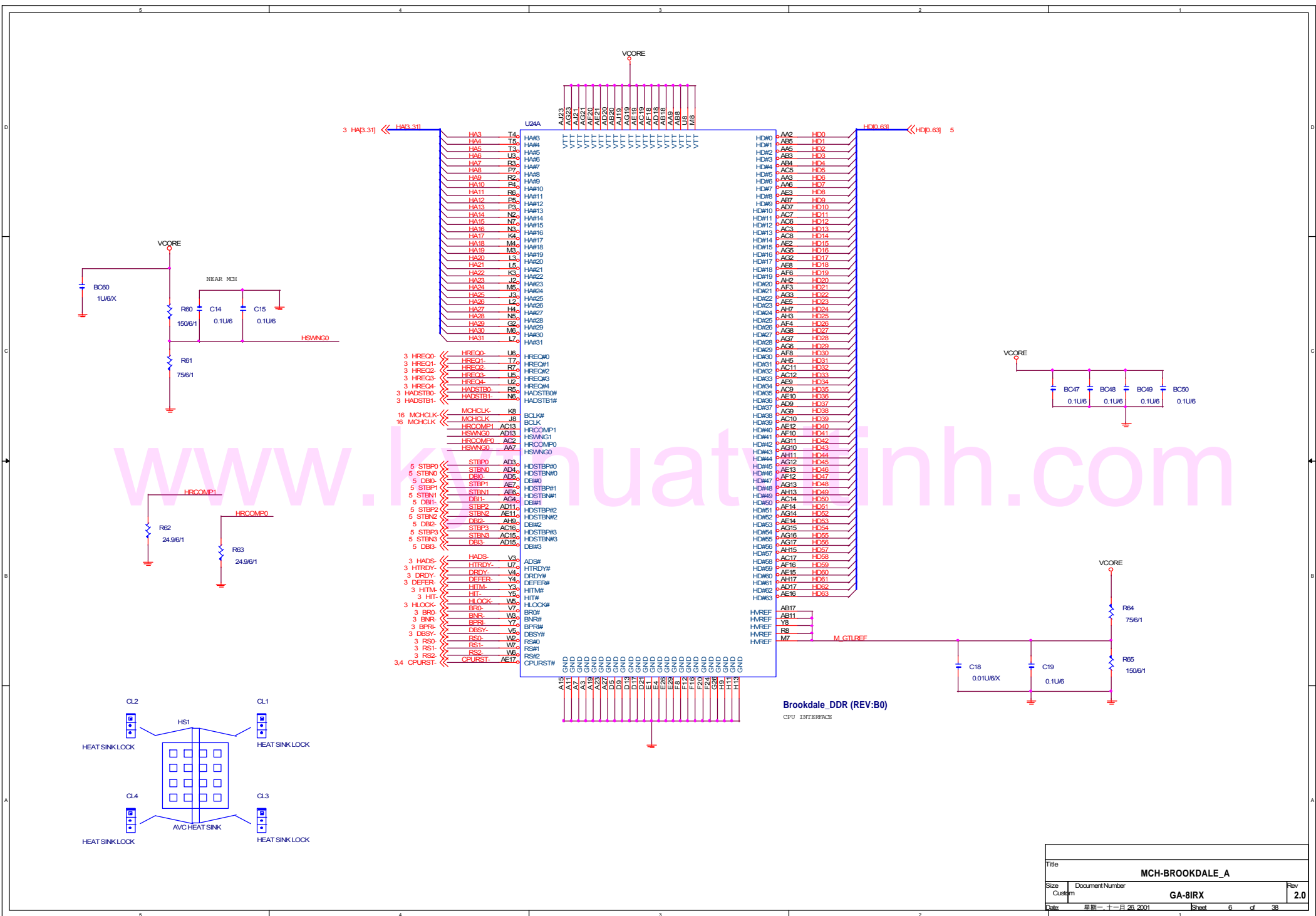
R987=3.3K 100C
PLACE MOSFET

| | | | |
|-----------------|-------------------|-------|---------|
| Title | | | |
| WILLIAMATE 478B | | | |
| Size | Document Number | Rev | |
| Custom | GA-BIRX | 2.0 | |
| Date | 星期一, 十二月 26, 2001 | Sheet | 4 of 38 |

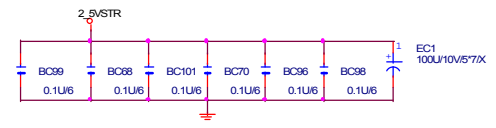
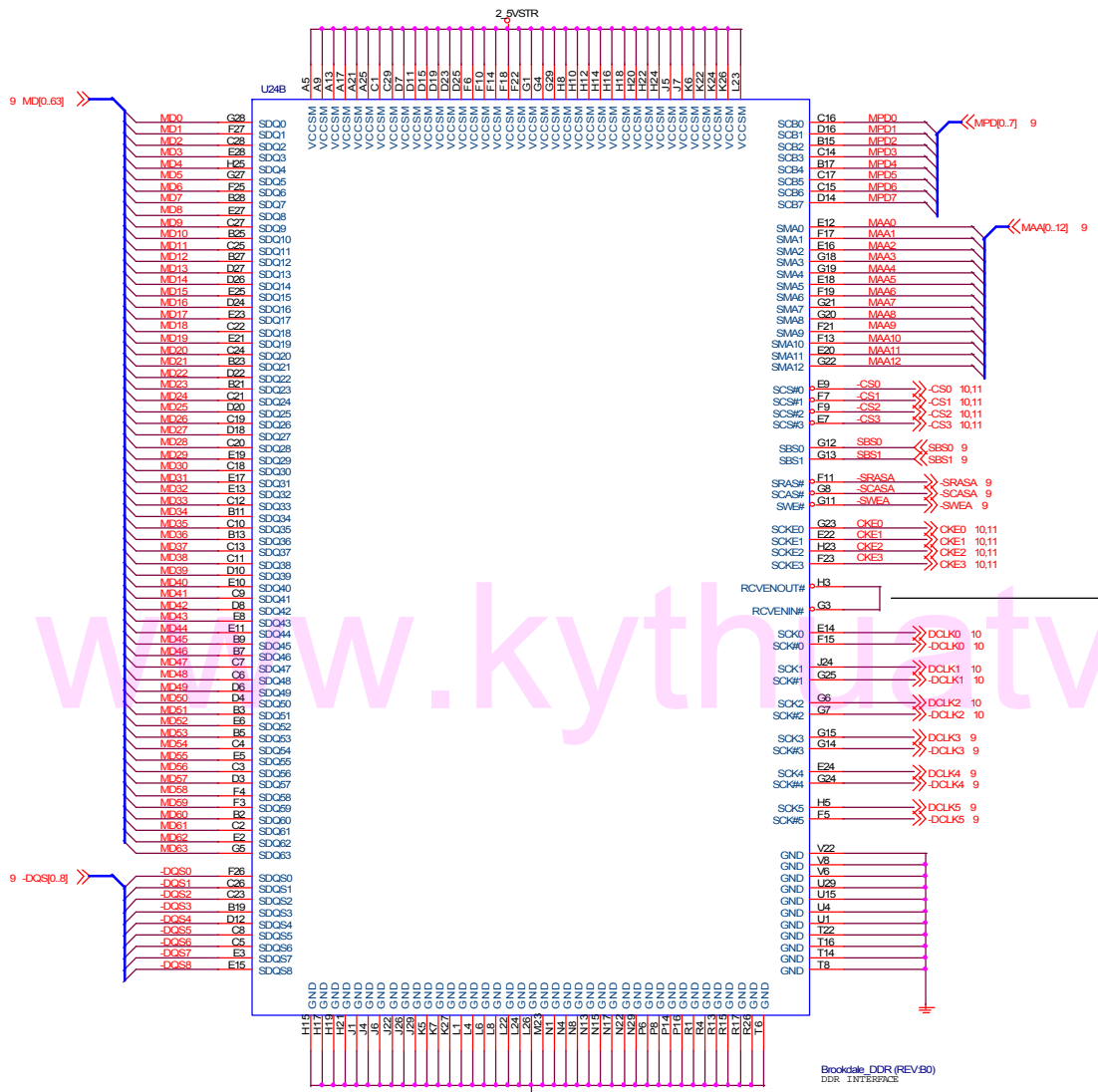


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| | | | | |
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| Size | Document Number | GA-8IRX | | Rev |
| Custom | | | | 2.0 |
| Date | 星期二, 十一月 28, 2001 | Sheet | 5 | of 38 |

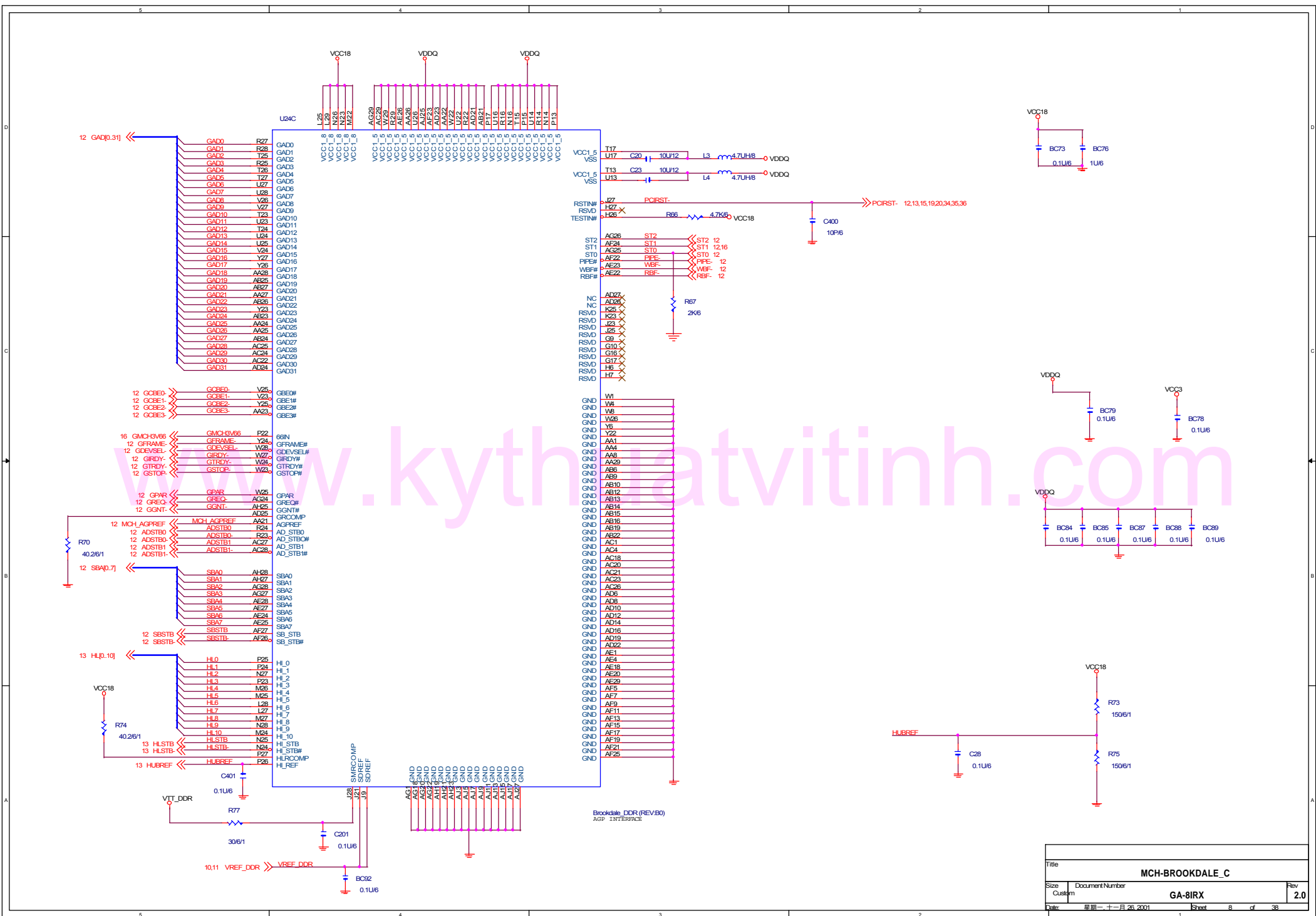


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| Size | Document Number | GA-8RX | | Rev | 2.0 |
| Custom | | | | Date | 星期一, 十一月 26, 2001 |
| | | | Sheet | 6 | of 38 |

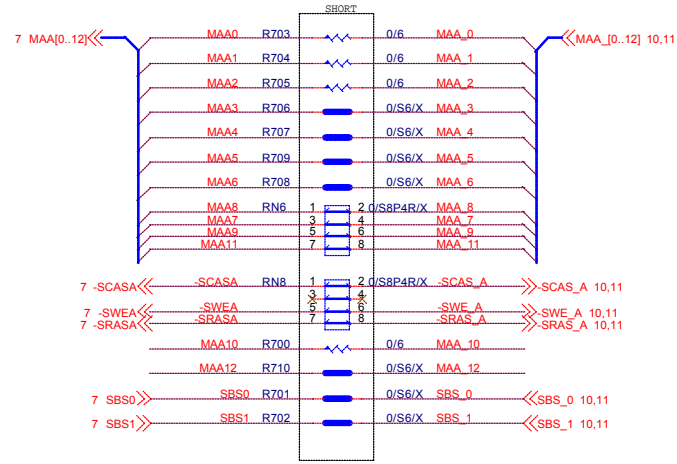
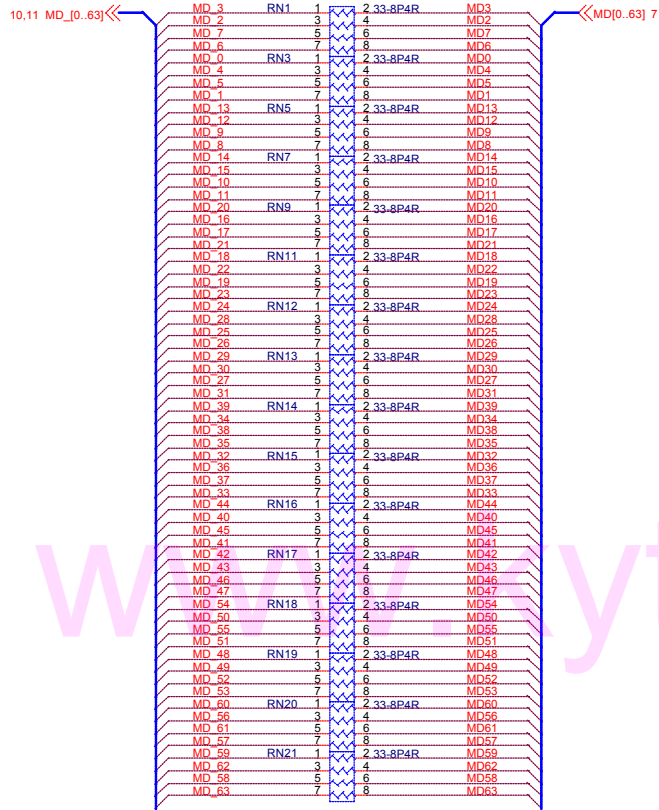


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| | | | |
|--------|-------------------|---------|-----------------|
| Title | | | MCH-BROOKDALE_B |
| Size | Document Number | GA-81RX | |
| Custom | | Rev | 2.0 |
| Date | 星期一, 十二月 26, 2001 | Sheet | 7 of 38 |

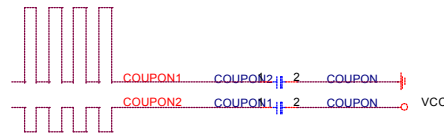
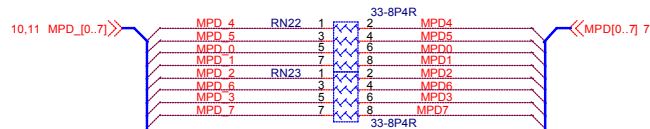
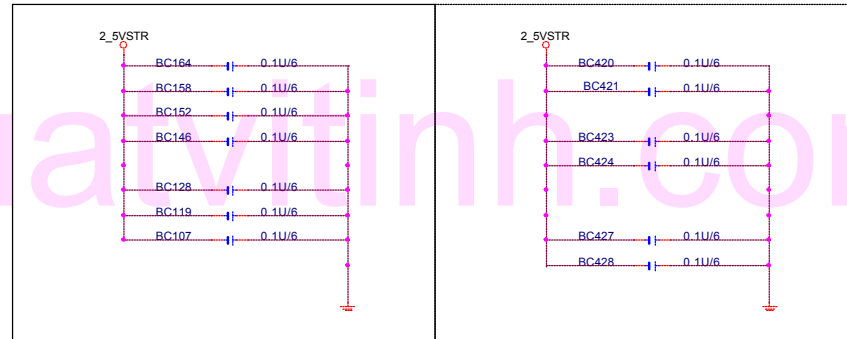


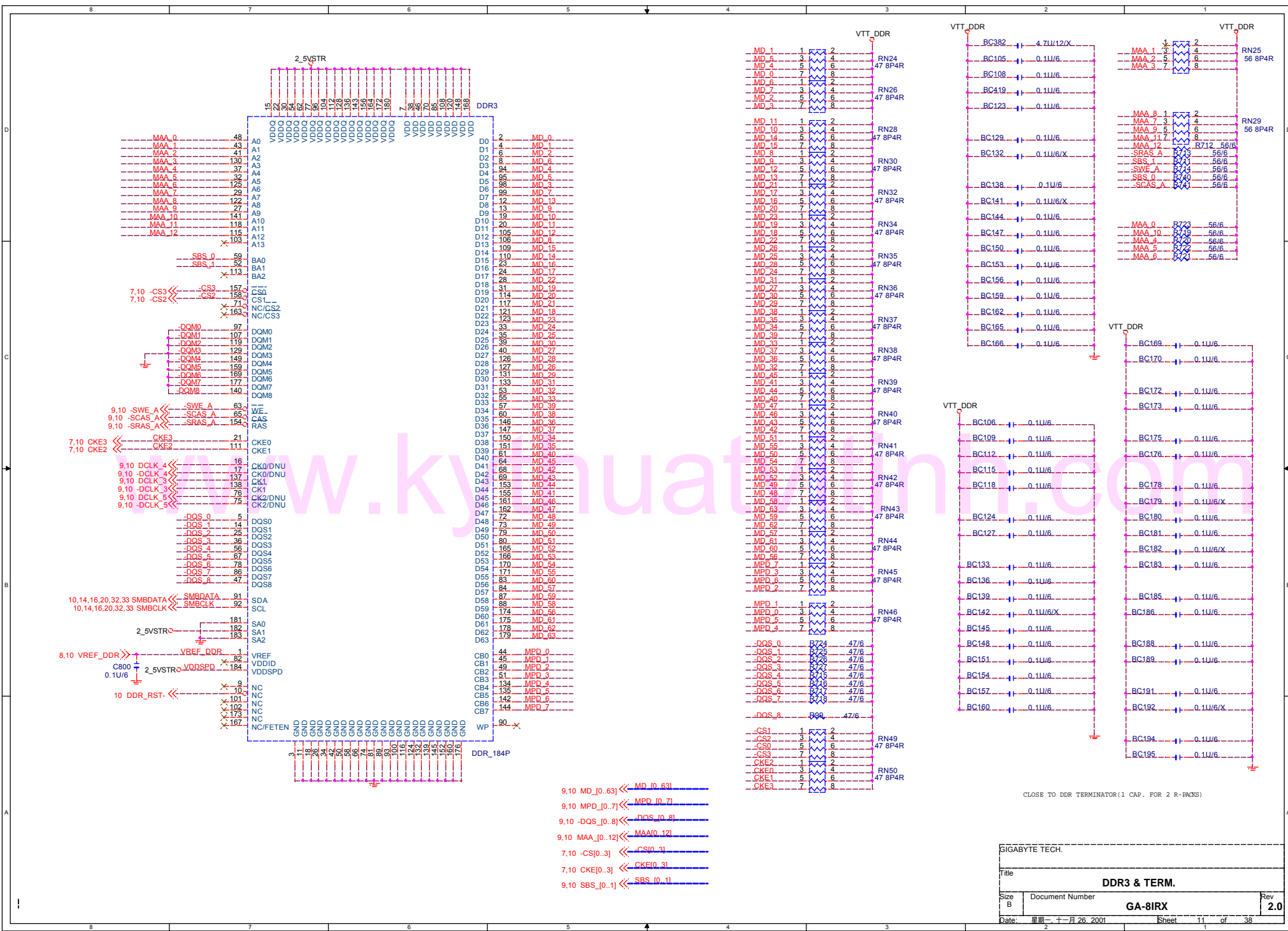
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| Size | Document Number | Rev | | 2.0 |
| Custom | GA-8IRX | | | |
| Date | 星期一, 十一月 26, 2001 | Sheet | 8 | of 38 |



BETWEEN DIMM1 & DIMM2

BETWEEN DIMM2 & DIMM3





- 9.10 MD[0..63] << MD[0..63]
- 9.10 MPD[0..7] << MPD[0..7]
- 9.10 -DQS[0..8] << -DQS[0..8]
- 9.10 MAA[0..12] << MAA[0..12]
- 7.10 -CS[0..3] << -CS[0..3]
- 7.10 CKE[0..3] << CKE[0..3]
- 9.10 SBS[0..1] << SBS[0..1]

CLOSE TO DDR TERMINATOR(1 CAP. FOR 2 R-FINCS)

| | |
|-------------------------|-----------------|
| GIGABYTE TECH. | |
| File | |
| DDR3 & TERM. | |
| Size B | Document Number |
| GA-8IRX | |
| Date: 星期二, 十一月 26, 2001 | Rev 2.0 |
| Sheet 11 | of 38 |

4X only

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

14,33,36 USB0C << USB0C- R100 0/6/X

25 USBAGP+ << USBAGP+

13 PIROB << PIROB

8 GREQ << GREQ

8 RBF << RBF

8 SBSTB << SBSTB

8 SBSTB << SBSTB

8 SBSTB << SBSTB

8 SBSTB << SBSTB

8 SBSTB << SBSTB

8 SBSTB << SBSTB

8 SBSTB << SBSTB

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8 SBSTB << SBSTB

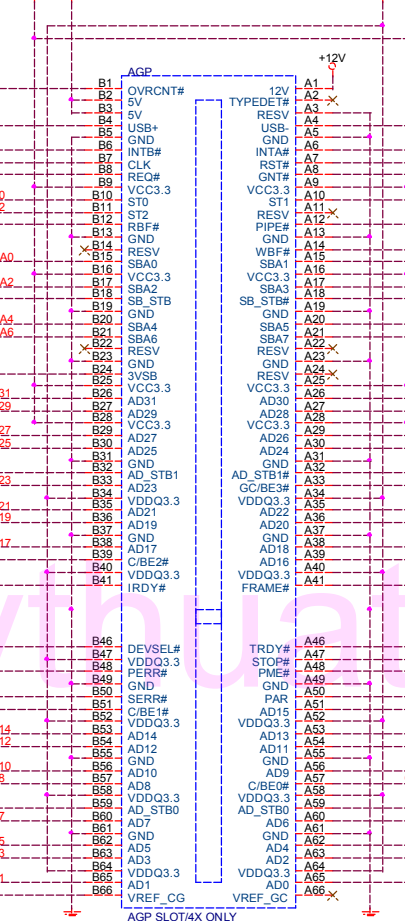
8 SBSTB << SBSTB

8 SBSTB << SBSTB

8 SBSTB << SBSTB

8 SBSTB << SBSTB

VCC3 VCC VDDQ +12V



USBAGP- << USBAGP- 25
PIROA- << PIROA- 13,17,18,19
PCIRST- << PCIRST- 8,13,15,19,20,34,35,36
GGNT- << GGNT- 8

PIPE- << PIPE- 8
WBF- << WBF- 8
SBSTB- << SBSTB- 8

ADSTB1- << ADSTB1- 8
GCBE3- << GCBE3- 8

GFRAME- << GFRAME- 8
GTRDY- << GTRDY- 8
GSTOP- << GSTOP- 8
PCIPME- << PCIPME- 13,17,18,19,36

GPARR << GPARR 8
GGNT- << GGNT- 8

ADSTB0- << ADSTB0- 8

GPARR << GPARR 8
GGNT- << GGNT- 8

ADSTB0- << ADSTB0- 8

GPARR << GPARR 8
GGNT- << GGNT- 8

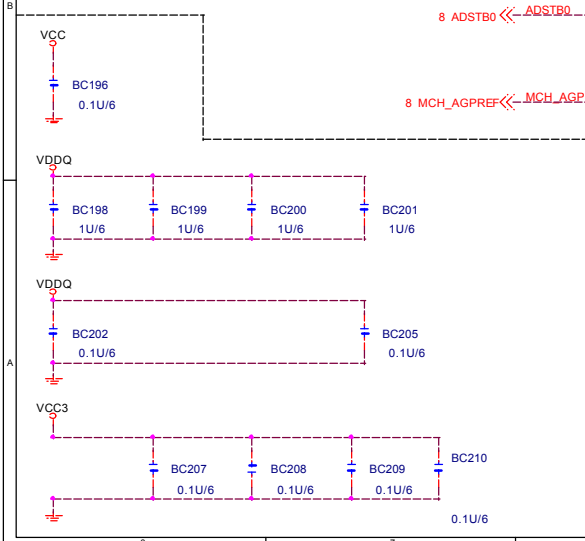
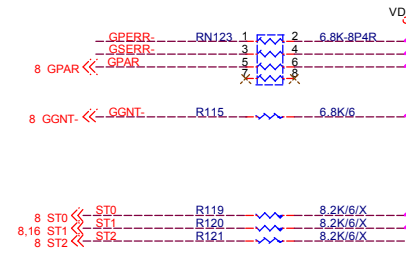
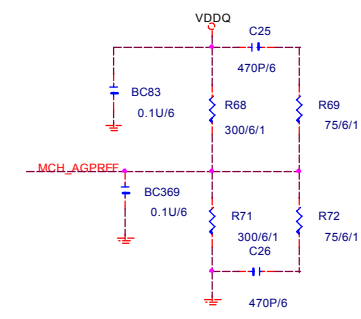
ADSTB0- << ADSTB0- 8

GPARR << GPARR 8
GGNT- << GGNT- 8

ADSTB0- << ADSTB0- 8

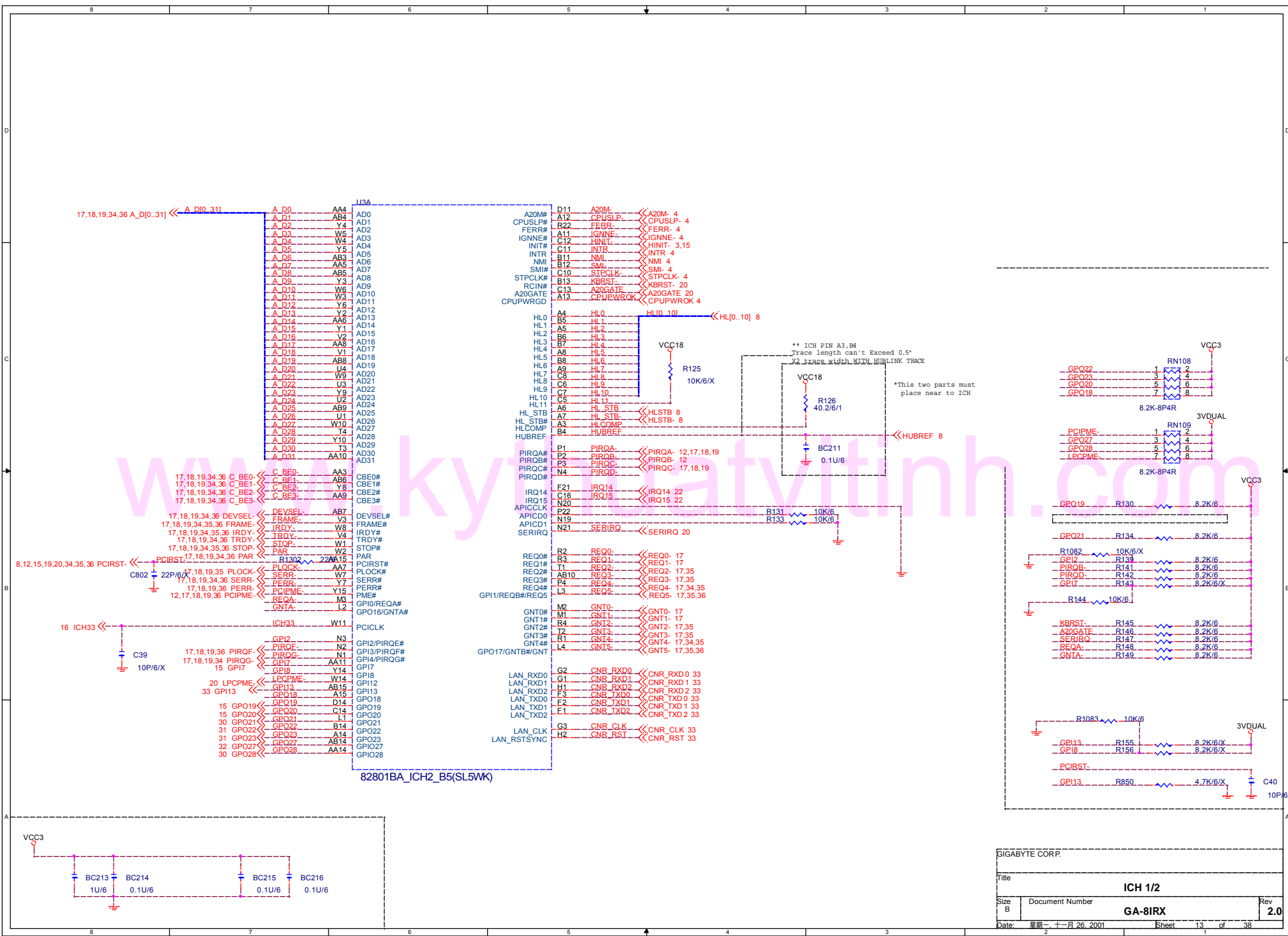
GPARR << GPARR 8
GGNT- << GGNT- 8

ADSTB0- << ADSTB0- 8

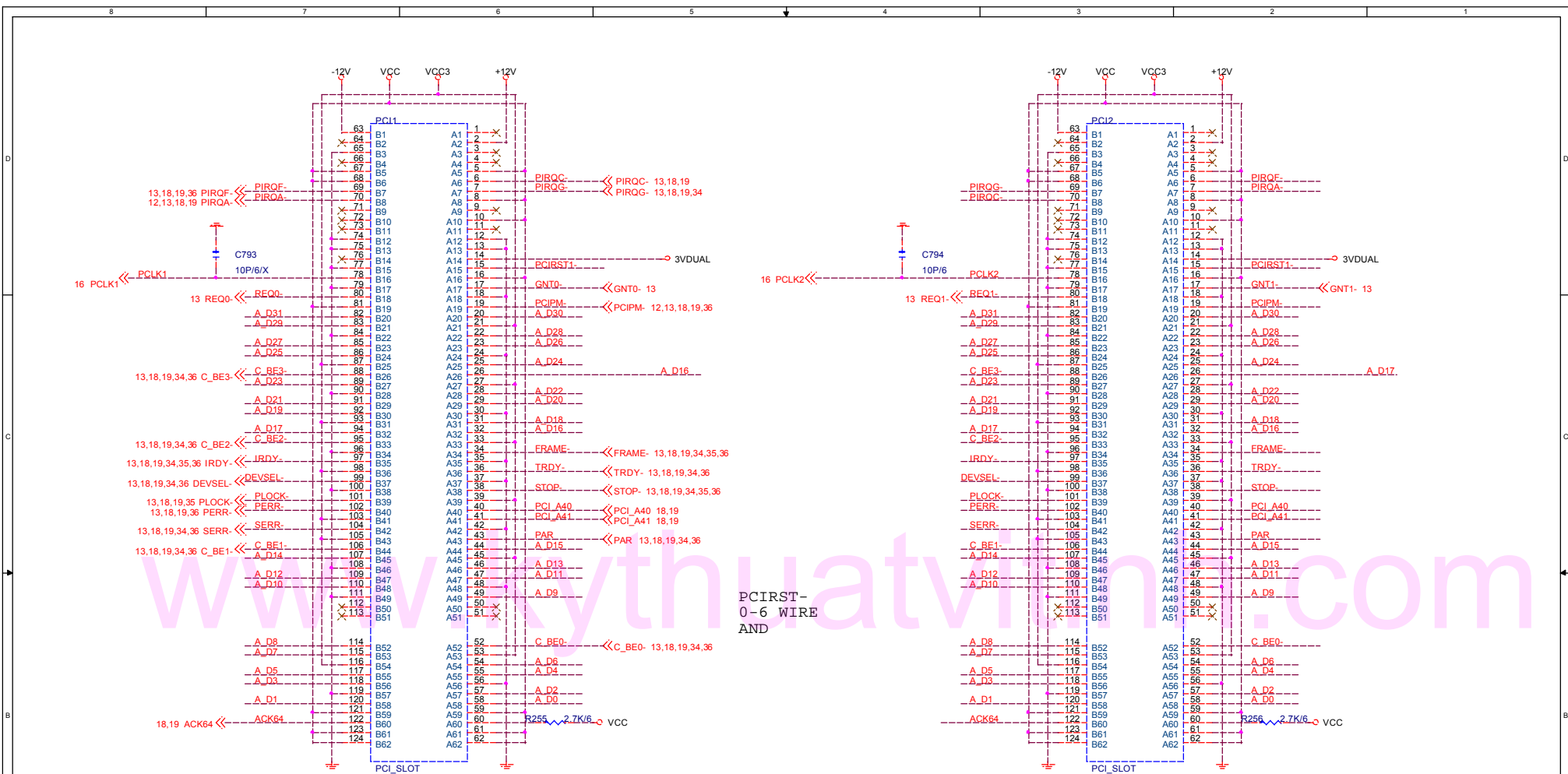


GIGABYTE CORP.

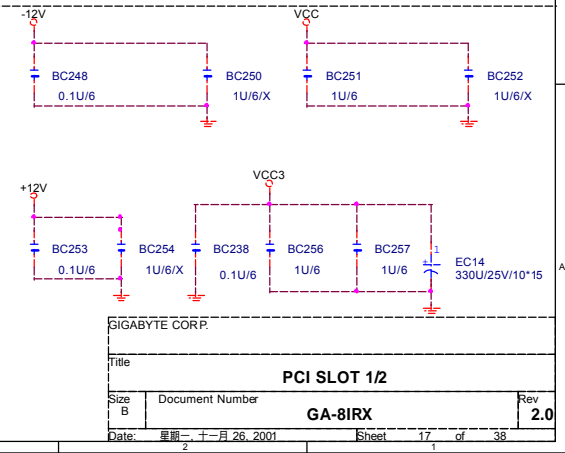
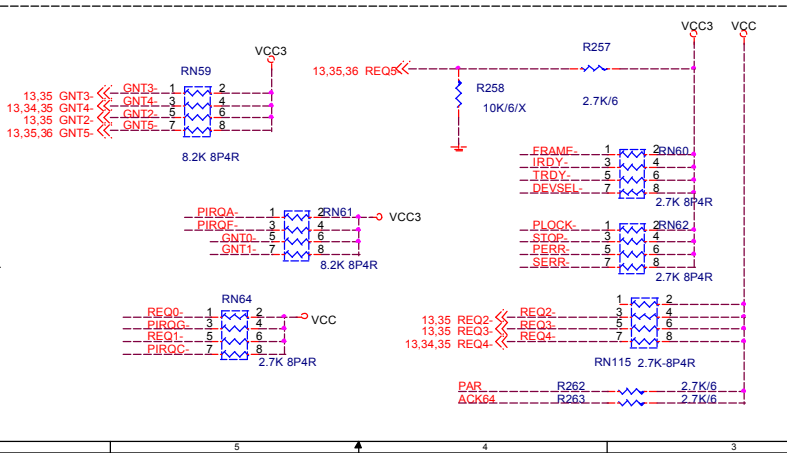
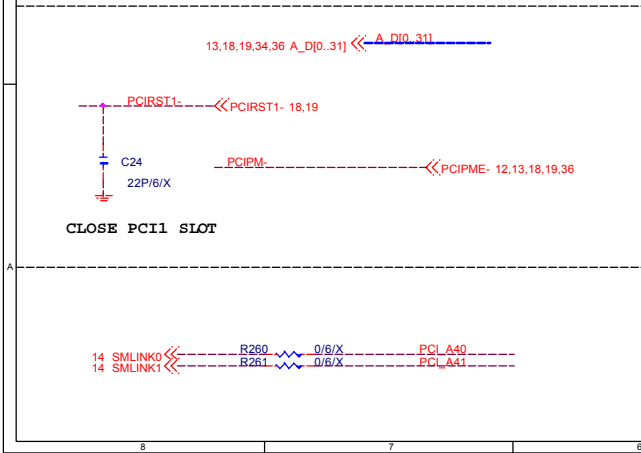
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| Title | | AGP SLOT | |
| Size | Document Number | GA-8IRX | |
| Custom | | Rev | 2.0 |
| Date: | 星期一 十一月 26, 2001 | Sheet | 12 of 38 |

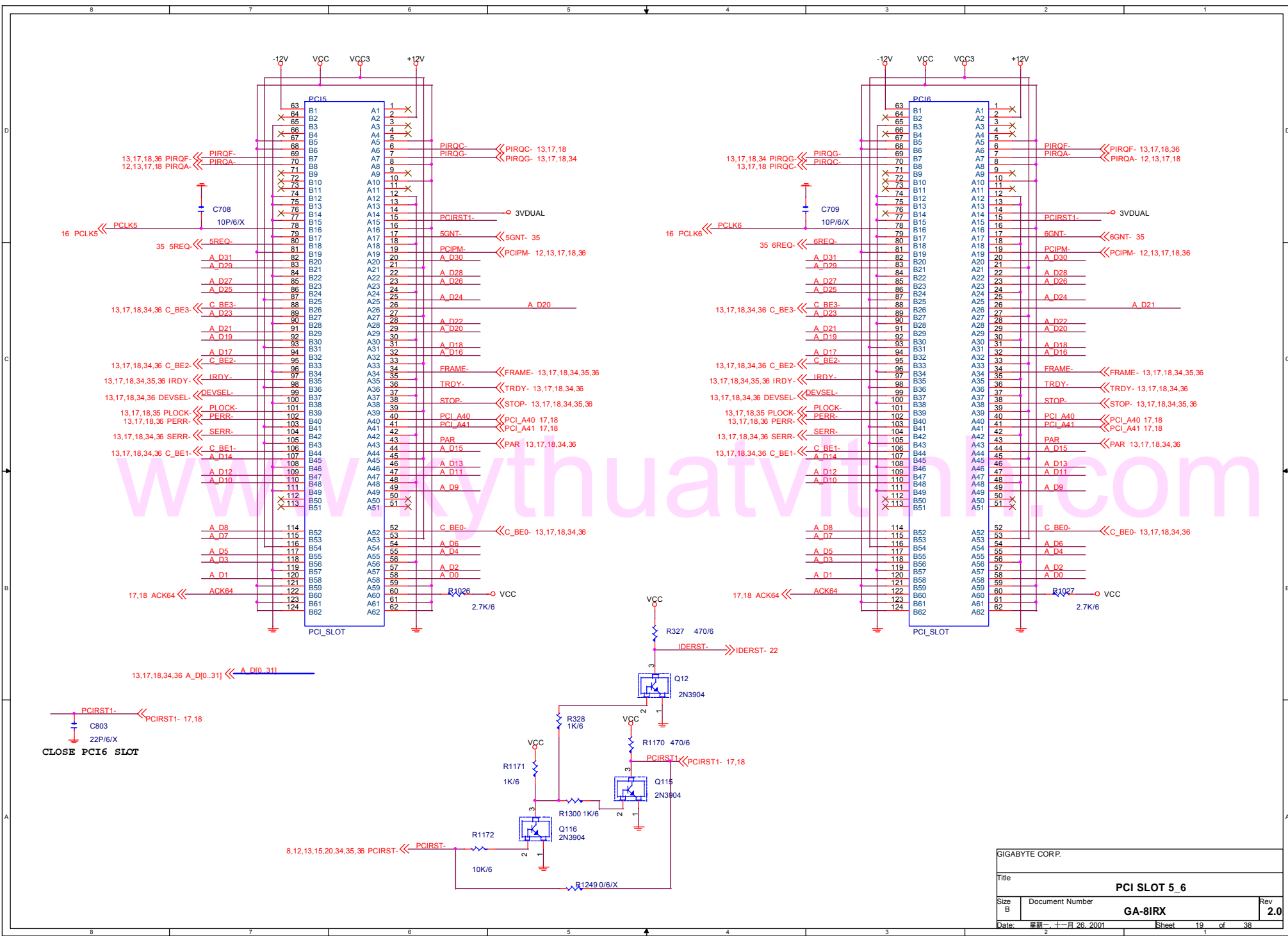


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| Title | | ICH 1/2 | |
| Size | Document Number | GA-8IRX | |
| Date: | 星期一, 十一月 26, 2001 | Sheet | 13 of 38 |
| | | Rev | 2.0 |

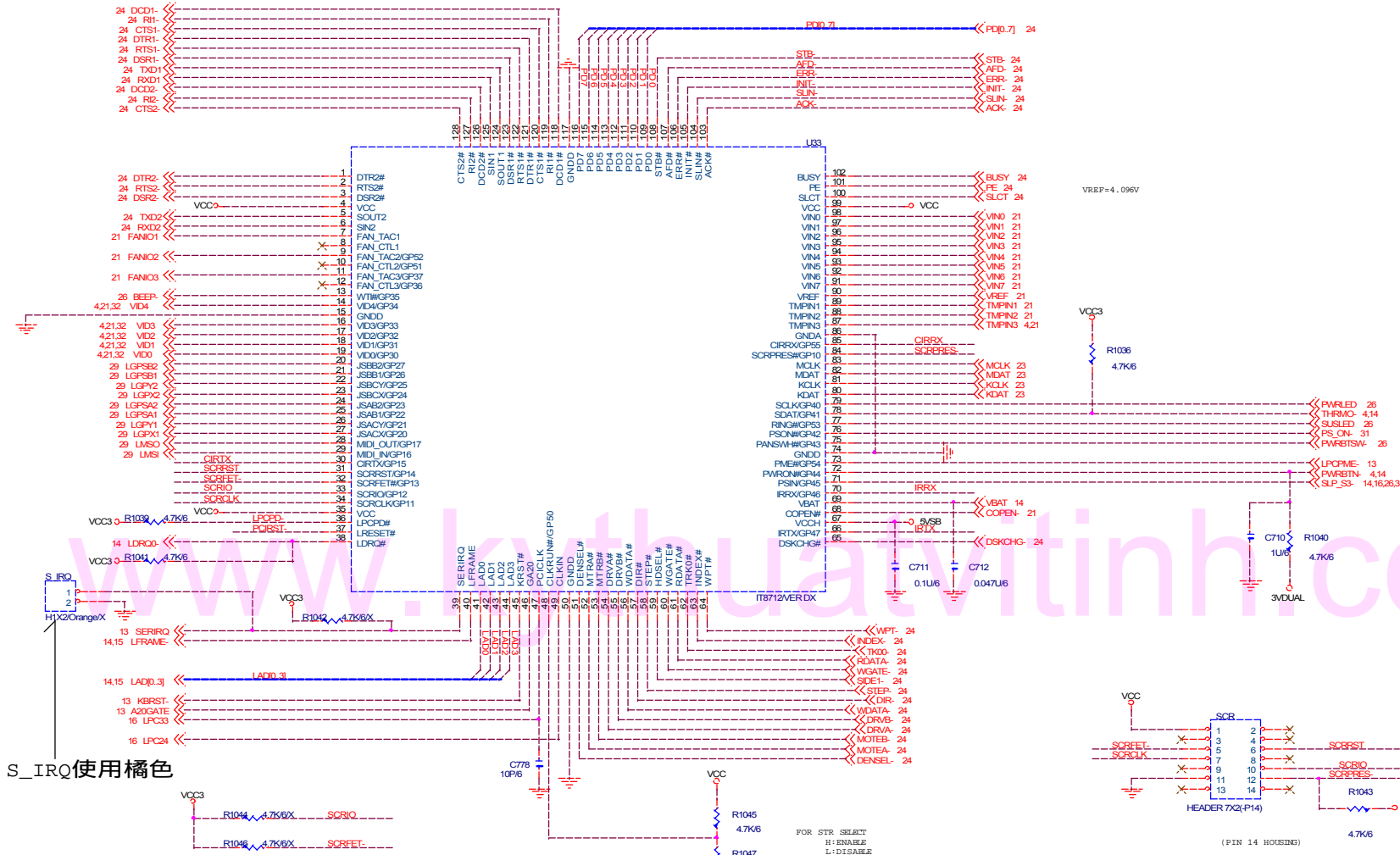


PCIRST-0-6 WIRE AND

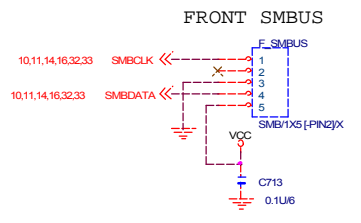
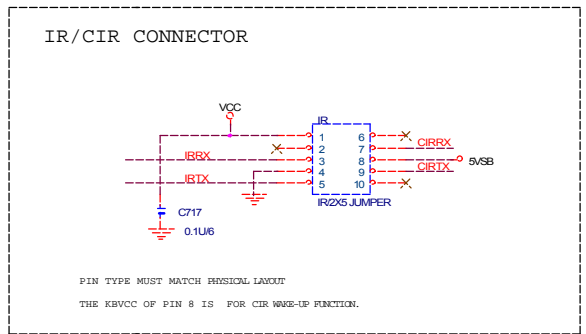
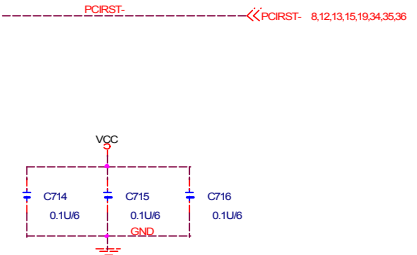




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| GIGABYTE CORP. | | | |
| Title PCI SLOT 5_6 | | | |
| Size B | Document Number | GA-8IRX | Rev 2.0 |
| Date: | 星期一, 十一月 26, 2001 | Sheet | 19 of 38 |

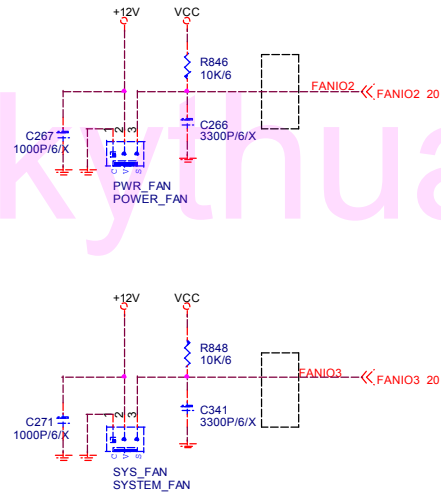
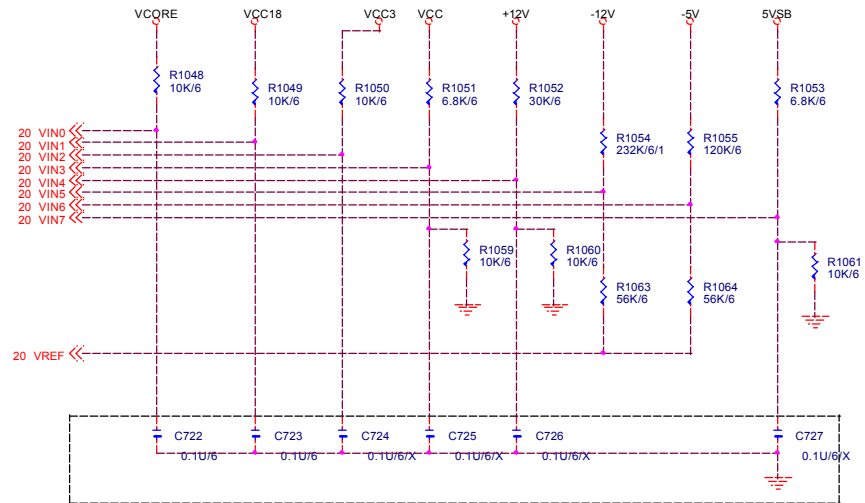
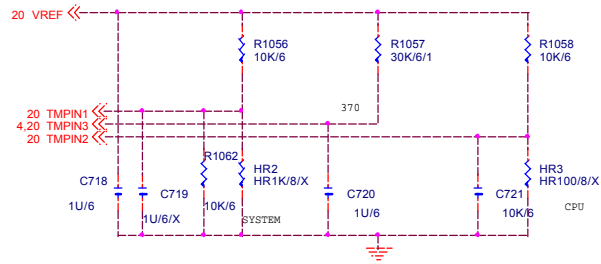


S_IRQ使用橘色

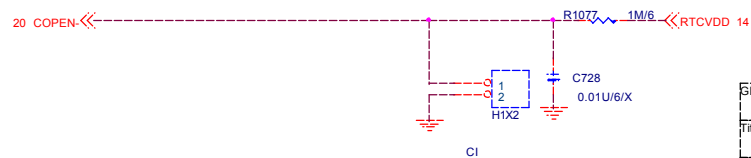
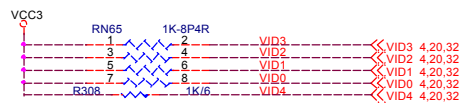


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| GIGABYTE CORP. | | | |
| Title | | | |
| ITE LPC I/O | | | |
| Size | Document Number | Rev | |
| Custom | GA-8IRX | 2.0 | |
| Date | 星期 十一月 26, 2001 | Sheet | 20 of 38 |

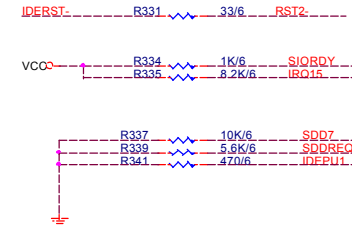
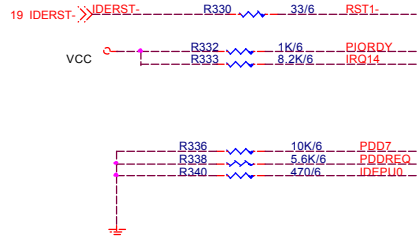
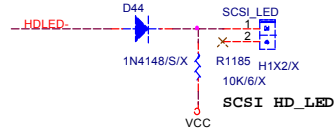
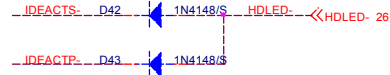
Hardware Monitor circuits



CPU Voltage ID output

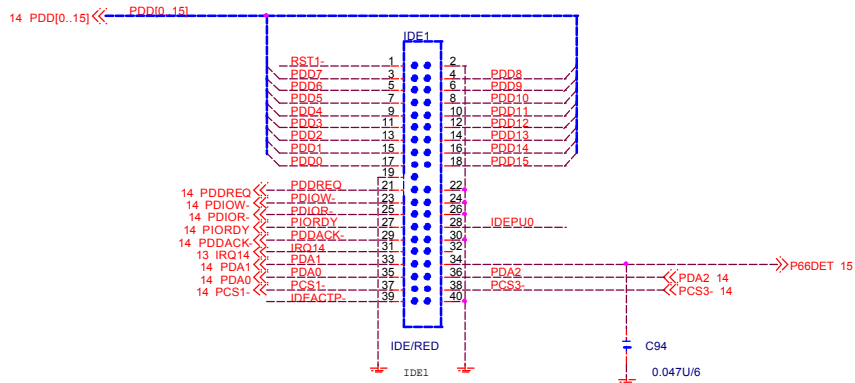


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|-------------------------|-------------------|----------------|
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| File | | |
| HAREWARE MONITOR | | |
| Size | Document Number | Rev |
| B | GA-8IRX | 2.0 |
| Date: | 星期一, 十一月 26, 2001 | Sheet 21 of 38 |



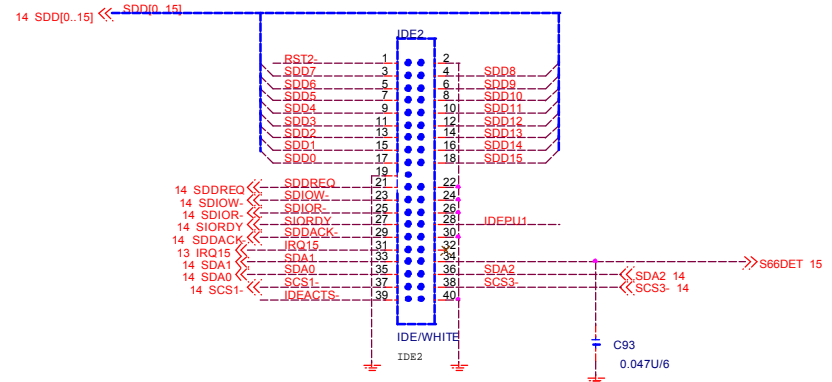
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PRIMARY IDE CONNECTOR



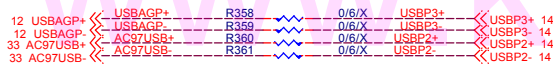
BIOS:CABLE DETECT AND DEVICE DETECT

SECONDARY IDE CONNECTOR



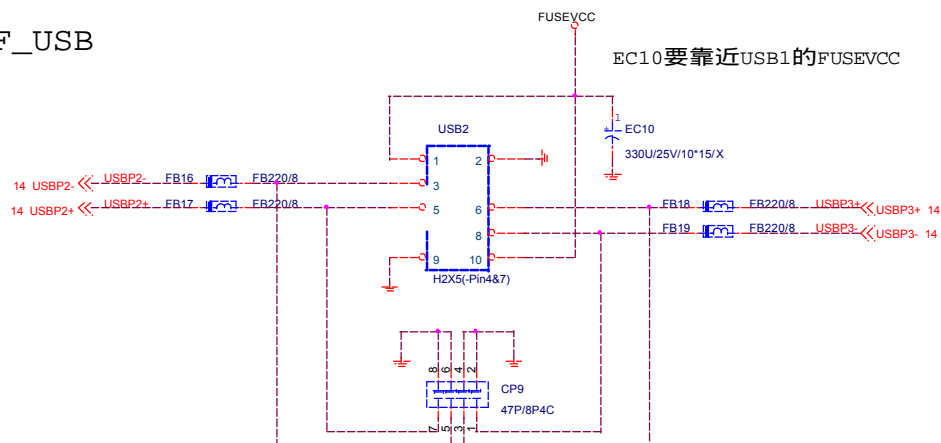
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| GIGABYTE CORP. | | | |
| Title | | | |
| IDE CONNECTOR | | | |
| Size B | Document Number | GA-8IRX | Rev 2.0 |
| Date: | 星期一 十一月 26, 2001 | Sheet | 22 of 38 |

REAR USB PORT



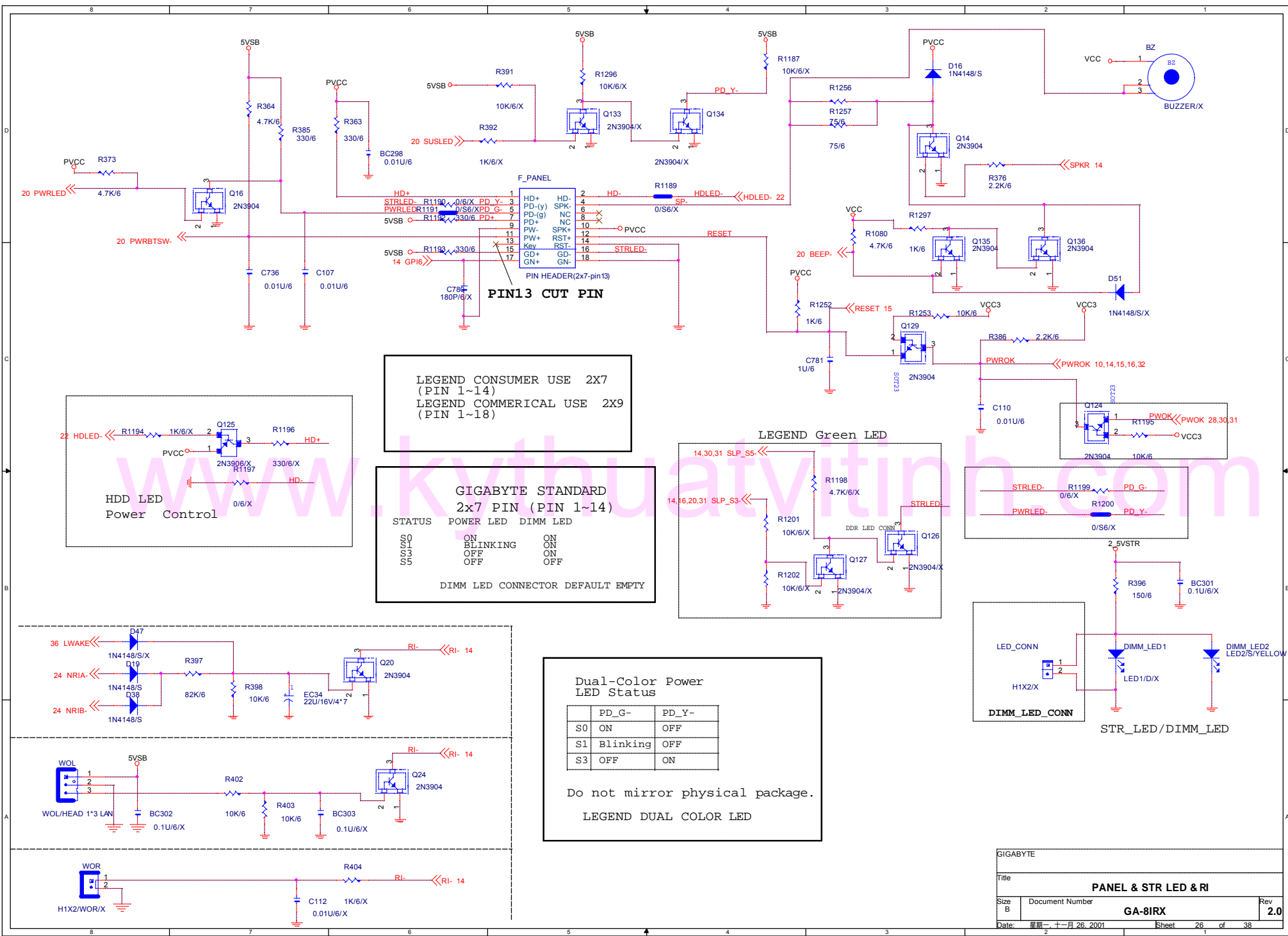
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F_USB

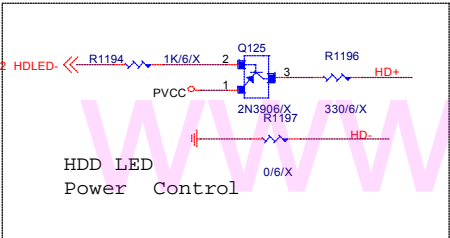


FOR COMPAQ

| | | | |
|------------------------|-----------------|---------|---------|
| GIGABYTE CORP. | | | |
| Title ICH USB+LAN PORT | | | |
| Size B | Document Number | GA-8IRX | Rev 2.0 |
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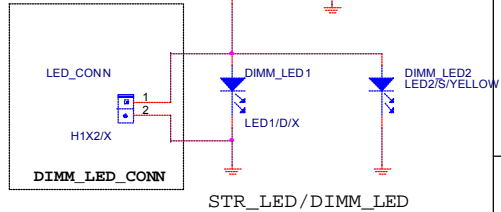
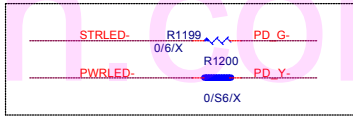
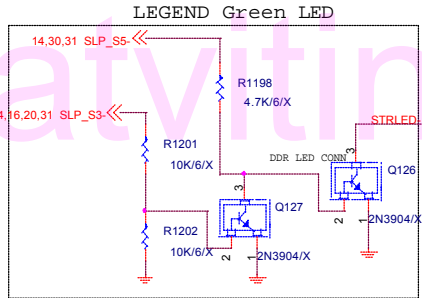
LEGEND CONSUMER USE 2X7
(PIN 1~14)
LEGEND COMMERCIAL USE 2X9
(PIN 1~18)



GIGABYTE STANDARD
2x7 PIN (PIN 1~14)
STATUS POWER LED DIMM LED

| | | |
|----|----------|-----|
| S0 | ON | ON |
| S1 | BLINKING | ON |
| S3 | OFF | ON |
| S5 | OFF | OFF |

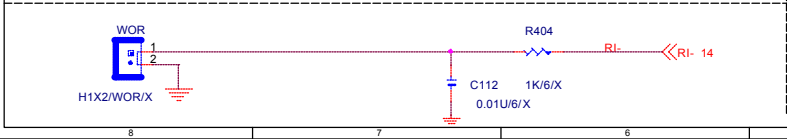
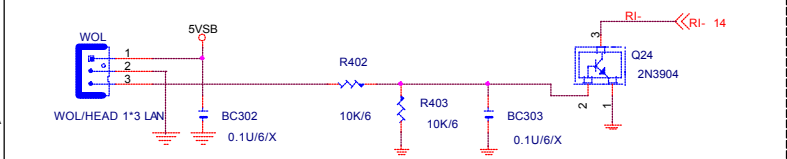
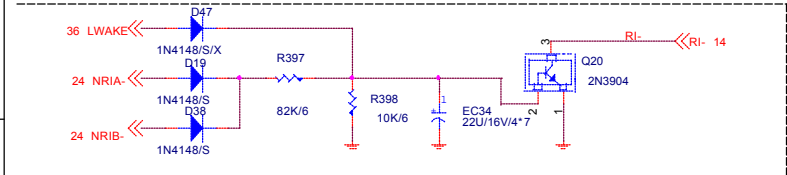
DIMM LED CONNECTOR DEFAULT EMPTY

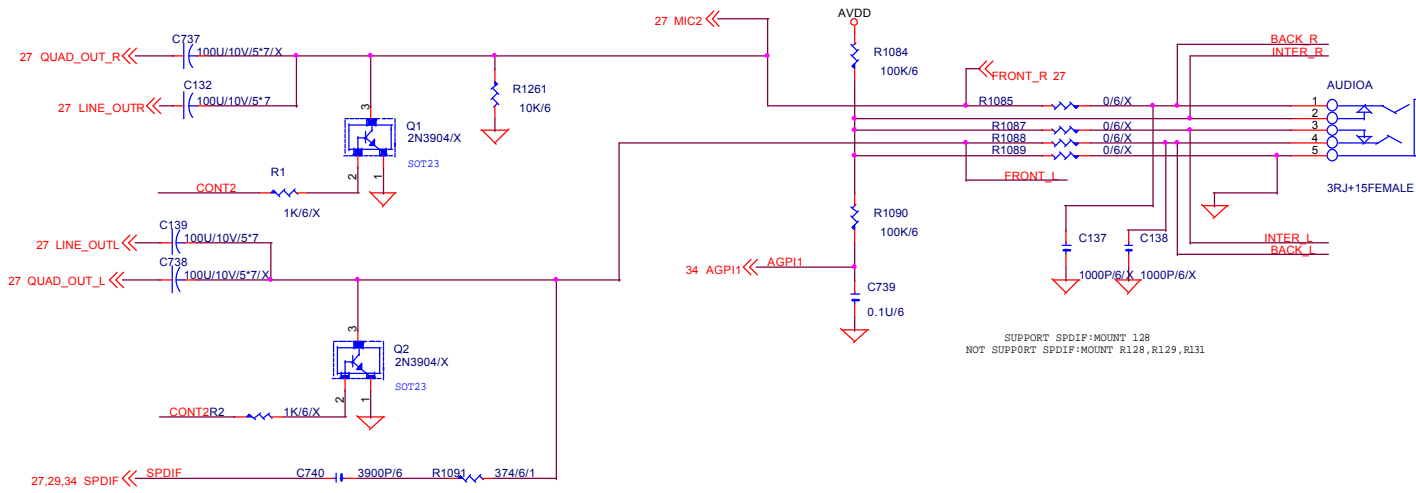


Dual-Color Power LED Status

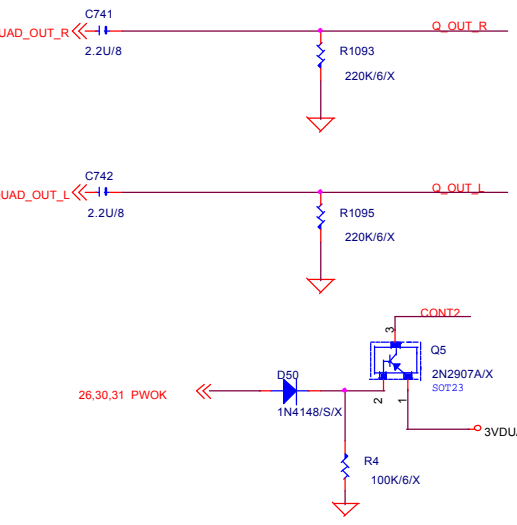
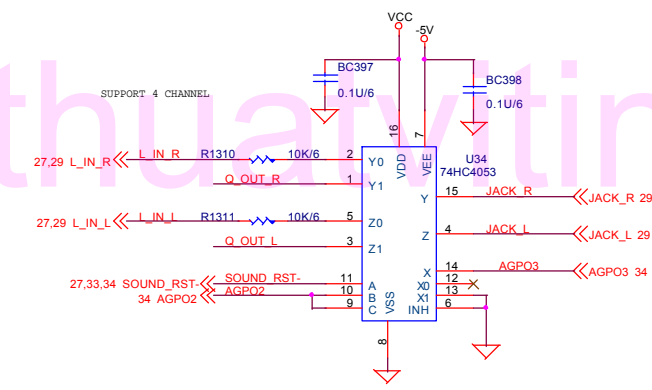
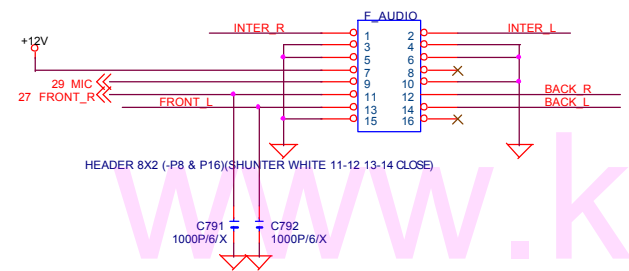
| | | |
|----|----------|-------|
| | PD_G- | PD_Y- |
| S0 | ON | OFF |
| S1 | Blinking | OFF |
| S3 | OFF | ON |

Do not mirror physical package.
LEGEND DUAL COLOR LED



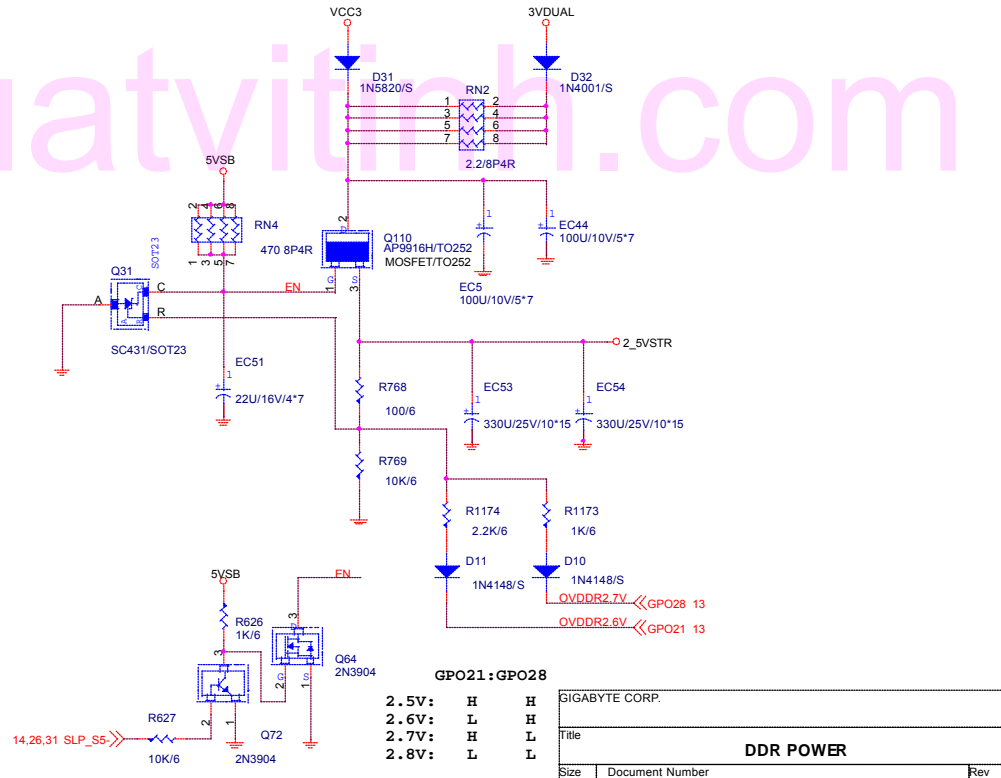
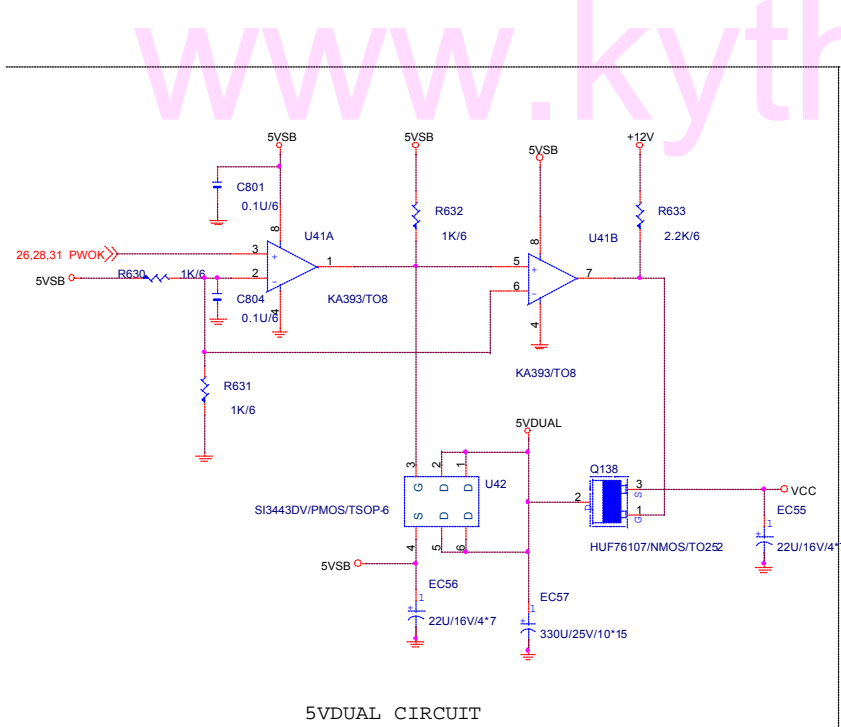
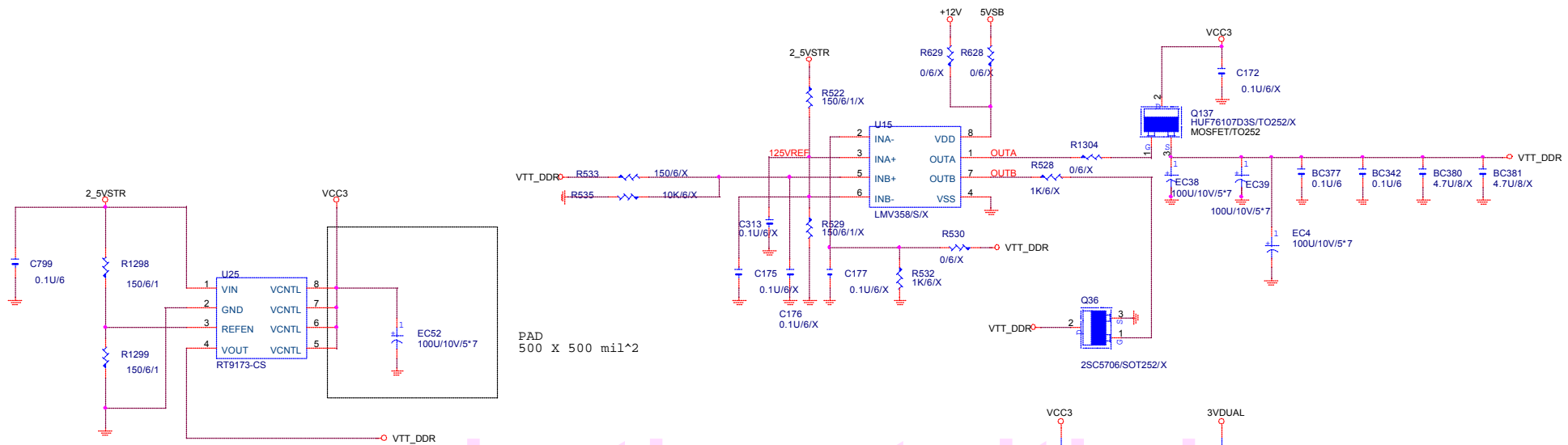


SUPPORT SPDIF MOUNT 128
NOT SUPPORT SPDIF MOUNT R128, R129, R131



| | | | |
|-----------------------|------------------|----------------|----------------|
| GIGABYTE CORP. | | | |
| Title | | | |
| LJACK LINE OUT | | | |
| Size B | Document Number | GA-8IRX | Rev 2.0 |
| Date: | 星期一 十一月 26, 2001 | Sheet 28 | of 38 |

1. 2.5V VTT_DDR LINEAR SOLUTION

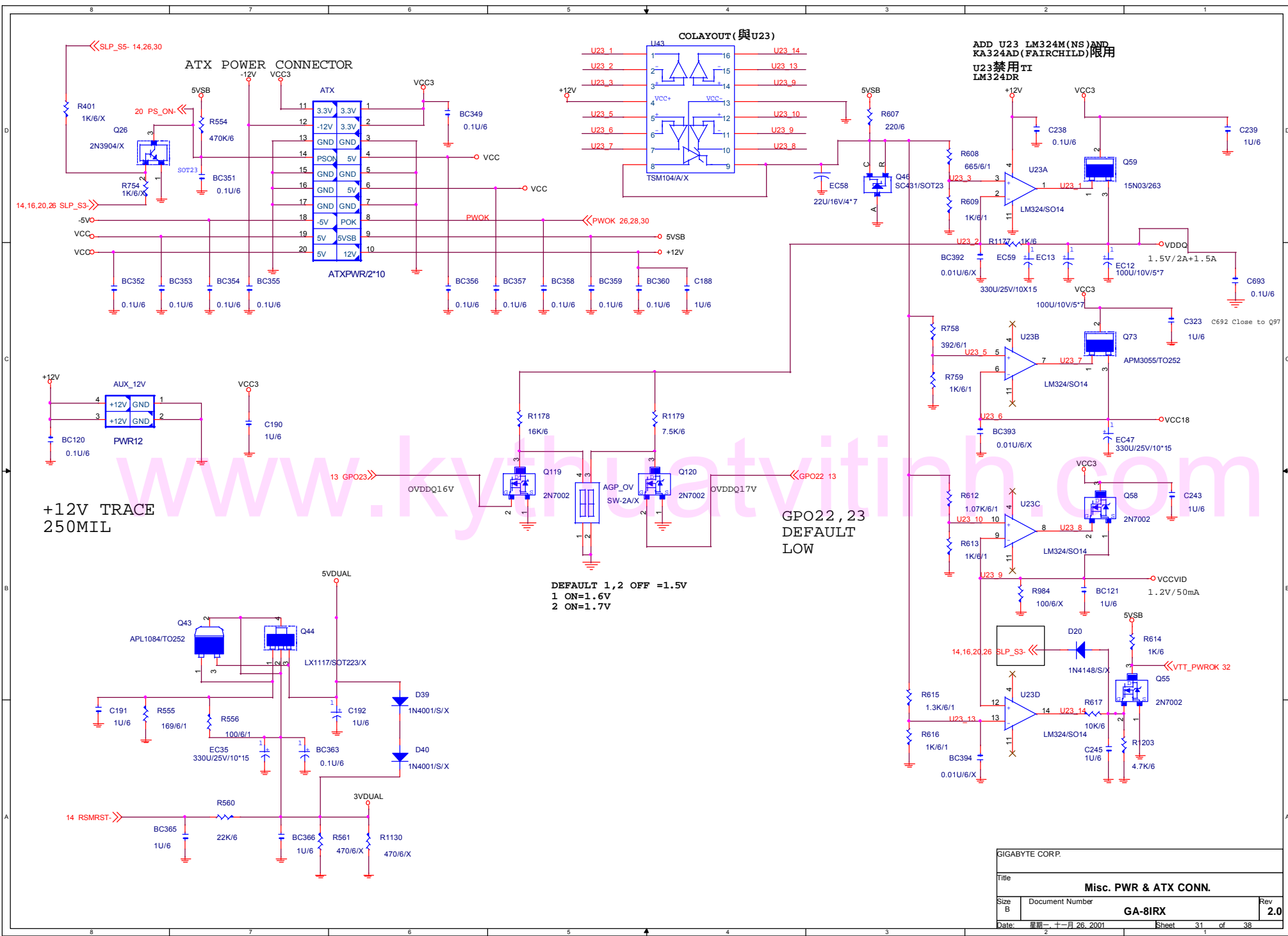


GPO21:GPO28

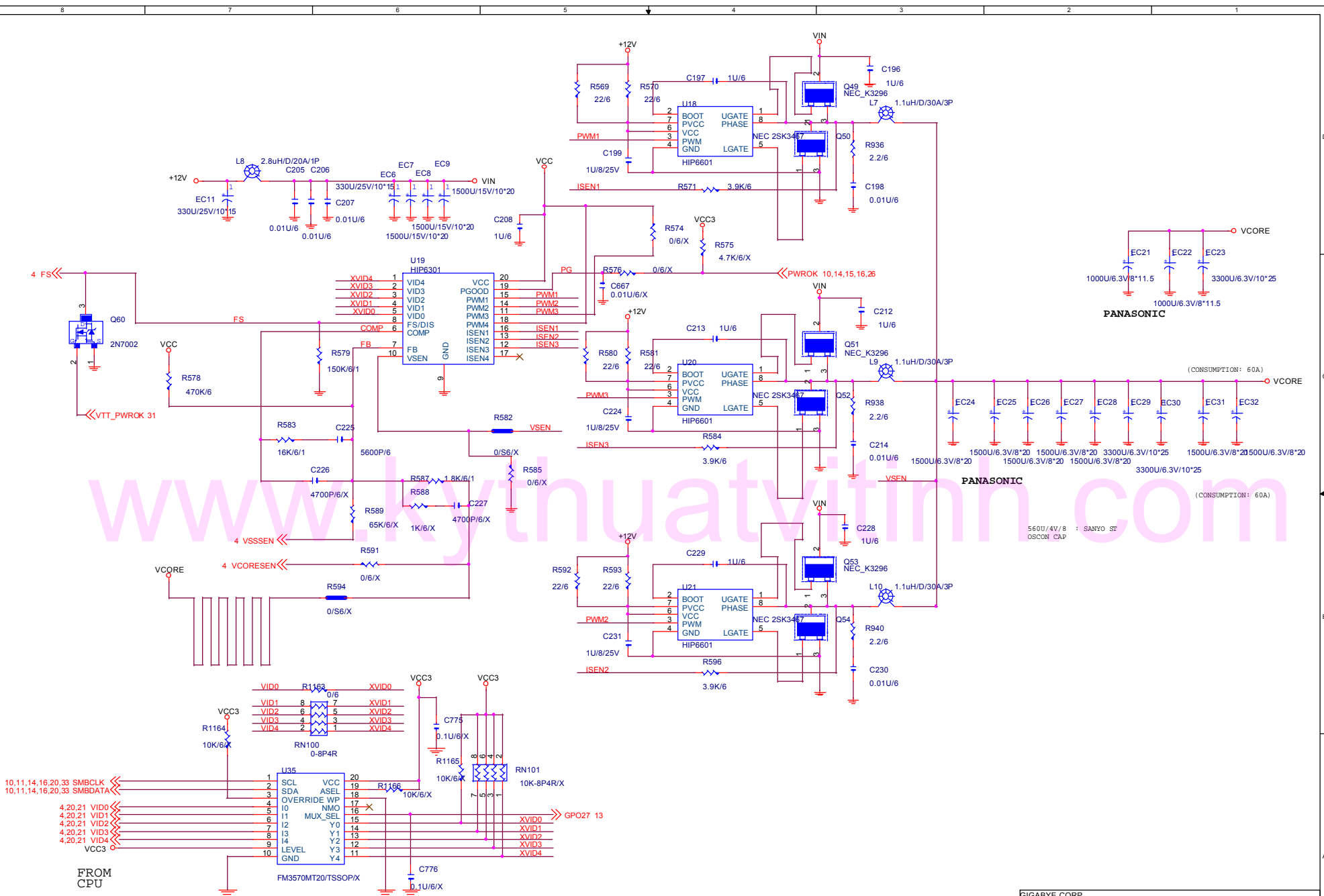
| | | |
|-------|---|---|
| 2.5V: | H | H |
| 2.6V: | L | H |
| 2.7V: | H | L |
| 2.8V: | L | L |

| | |
|-------------------------|-------------------------|
| GIGABYTE CORP. | |
| Title | DDR POWER |
| Size B | Document Number GA-8IRX |
| Date: 星期一, 十一月 26, 2001 | Sheet 30 of 38 |
| Rev | 2.0 |

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| | | | |
|----------------------------------|------------------|----------------|----------------|
| GIGABYTE CORP. | | | |
| Title | | | |
| Misc. PWR & ATX CONN. | | | |
| Size B | Document Number | GA-8IRX | Rev 2.0 |
| Date: | 星期一 十一月 26, 2001 | Sheet 31 | of 38 |

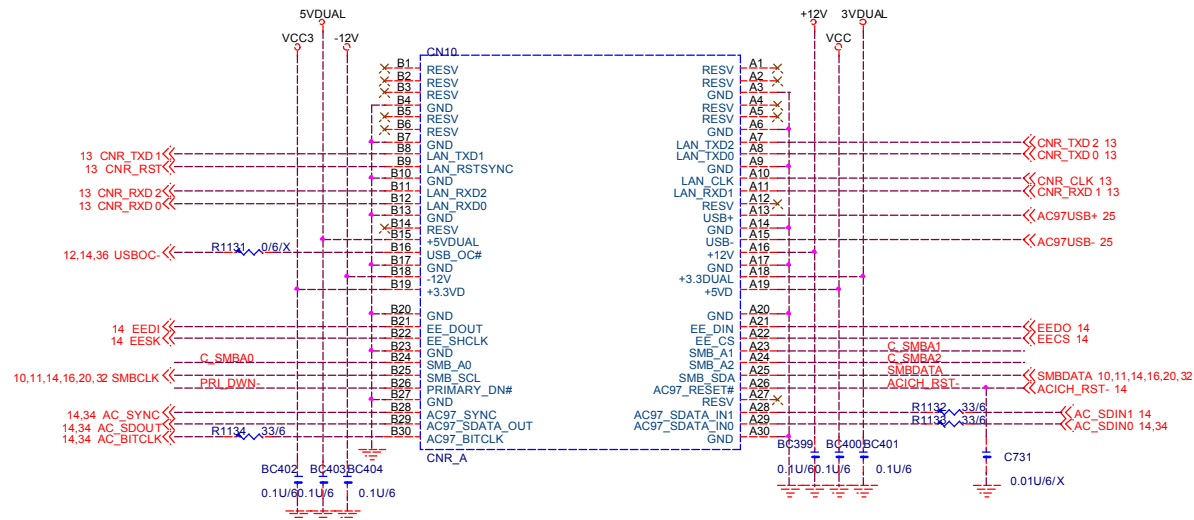


Option ckt:CPU 超電壓

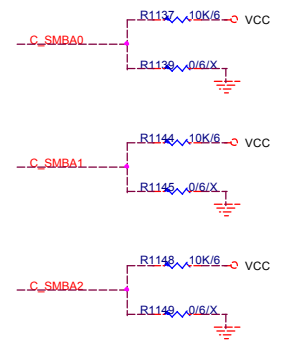
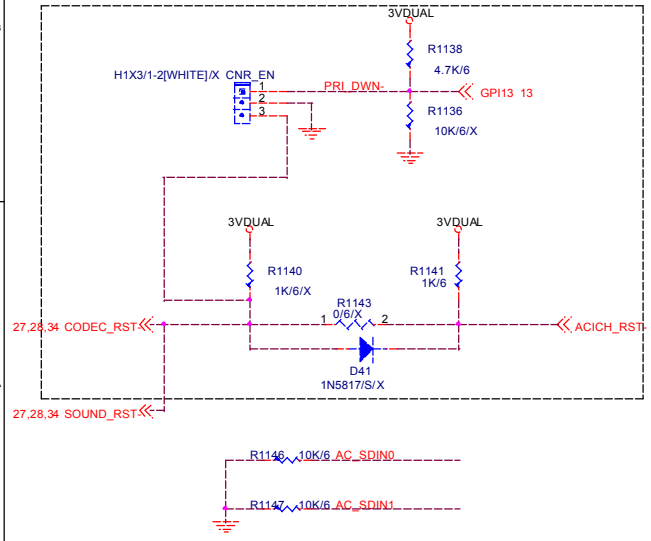
OPTION CKT:VCORE VOLTAGE ADJUST FOR CPU OVER SPEED
 GPIO High: Bypass input VID to output VID
 GPIO Low: Output VID switch to internal memory value
 PS: I2C address - 10011110

| | |
|-------------------------------|-----------------|
| GIGABYTE CORP. | |
| Title | |
| Vcore PWM HIP6301+6601 | |
| Size | Document Number |
| Custom | GA-8IRX |
| Date: 星期二, 十一月 26, 2001 | Rev 2.0 |
| Sheet 32 | of 38 |

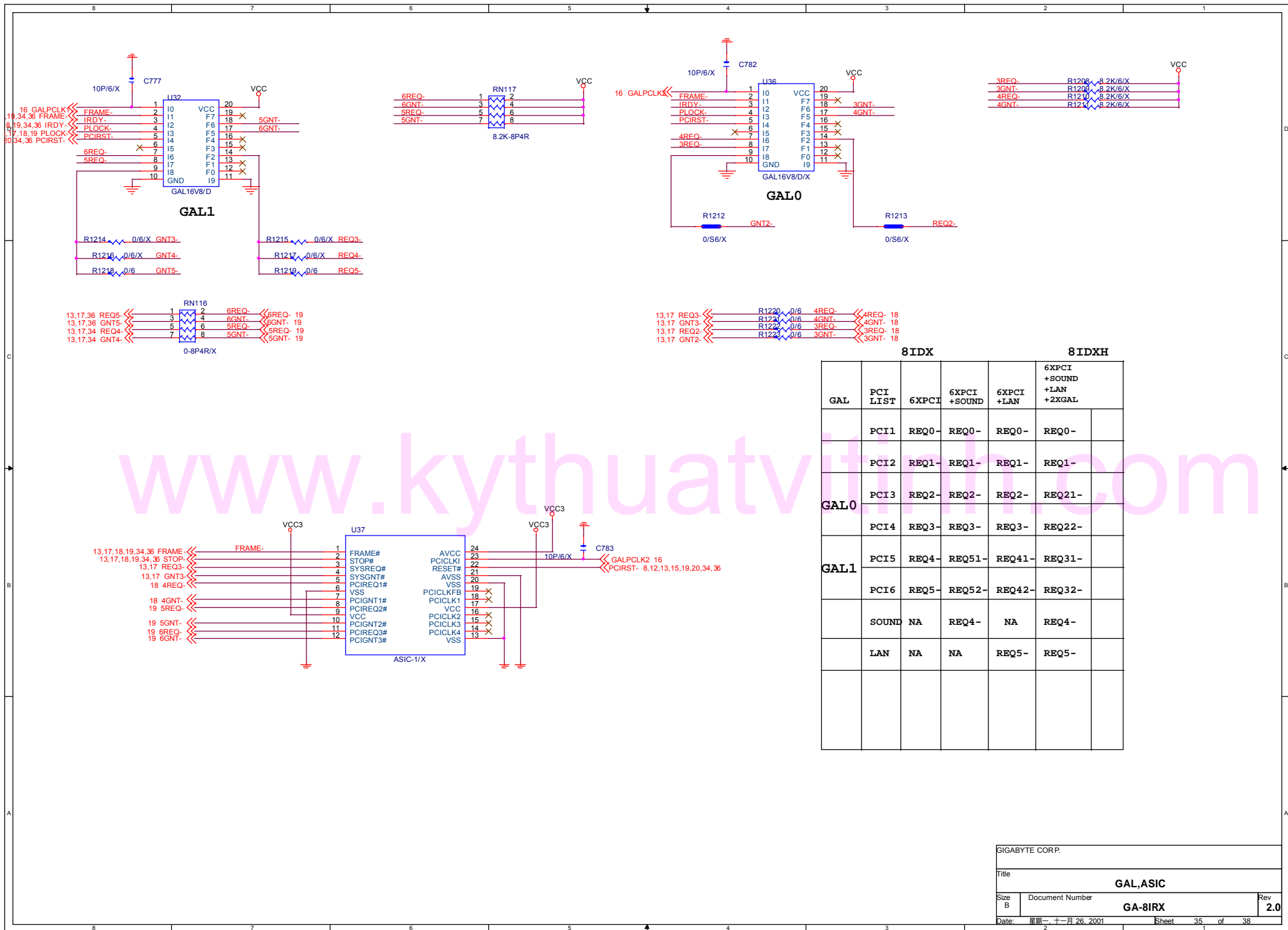
CNR



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| | | | |
|----------------|-------------------|----------------|---------|
| SIGABYTE CORP. | | | |
| Title: CNR | | | |
| Size B | Document Number | GA-8IRX | Rev 2.0 |
| Date | 星期一, 十一月 26, 2001 | Sheet 33 of 38 | |



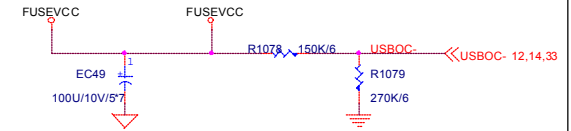
| GAL | PCI LIST | 8IDX | | 8IDXH | |
|------|----------|--------|---------------|-------------|---------------------------|
| | | 6XPCCI | 6XPCCI +SOUND | 6XPCCI +LAN | 6XPCCI +SOUND +LAN +2XGAL |
| | PCI1 | REQ0- | REQ0- | REQ0- | REQ0- |
| | PCI2 | REQ1- | REQ1- | REQ1- | REQ1- |
| GAL0 | PCI3 | REQ2- | REQ2- | REQ2- | REQ21- |
| | PCI4 | REQ3- | REQ3- | REQ3- | REQ22- |
| GAL1 | PCI5 | REQ4- | REQ51- | REQ41- | REQ31- |
| | PCI6 | REQ5- | REQ52- | REQ42- | REQ32- |
| | SOUND | NA | REQ4- | NA | REQ4- |
| | LAN | NA | NA | REQ5- | REQ5- |

PCIRST ->> PCIRST- 8,12,13,15,19,20,34,35

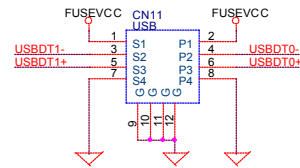
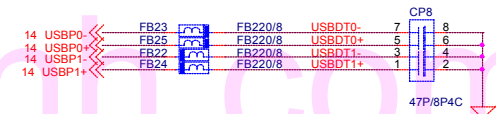
8100/8100B NOTE:

Pin 65 pull-down (5.9K 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)

EC49 要靠近 USB_PORT 的 FUSEVCC



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| | | | |
|----------------|------------------|-------|----------|
| GIGABYTE CORP. | | | |
| Title | | | |
| RTL8100 | | | |
| Size | Document Number | Rev | |
| Custom | GA-8IRX | 2.0 | |
| Date: | 星期一 十一月 26, 2001 | Sheet | 36 of 38 |