

# GIGABYTE GA-6OXT Reference Schematics

Revision : 1.0

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|--|----------|
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| INTEL PIII SOCKET-370                    | 2,3,4    |
| GMCH (INTEL 82815 EP)                    | 5,6,7    |
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## JUMPER SETTING CLR\_CMOS

|     |            |
|-----|------------|
| 1-2 | CLEAR CMOS |
| 2-3 | NORMAL     |

## BIOS\_WP

|     |               |
|-----|---------------|
| 1-2 | WRITE PROTECT |
| 2-3 | NORMAL        |

## CODEC\_EN

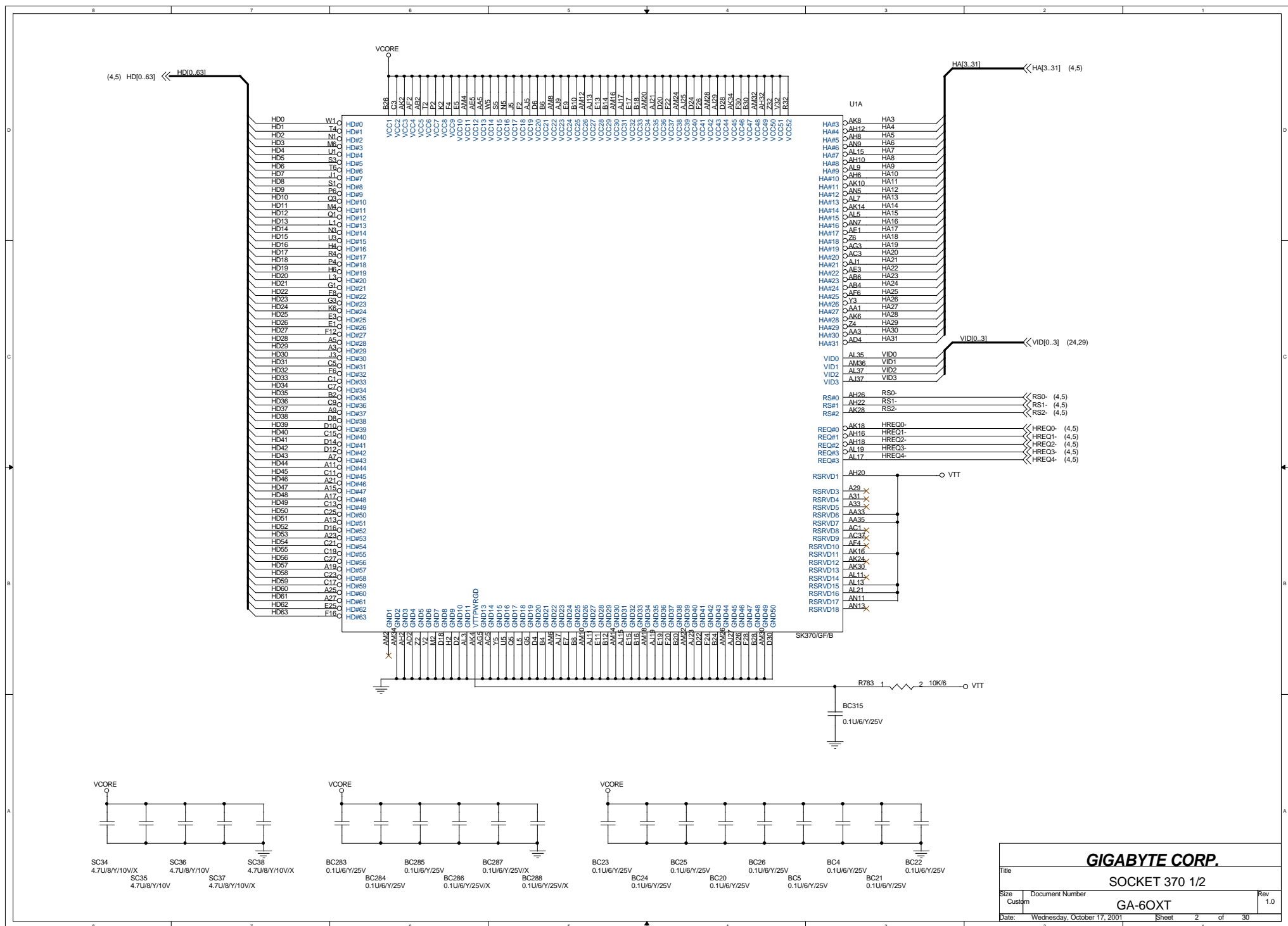
|     |         |
|-----|---------|
| 1-2 | ENABLE  |
| 2-3 | DISABLE |

| ICH2<br>GPIO  | FUNCTION                  | PULL UP/DOWN   |
|---------------|---------------------------|--|
| ** GPIO/REQA- | PRI_DWN-                  | PULL UP 4.7K TO VCC3   |
| GPIO/REQ5-    | REQ5-                     | PULL UP 2.7K TO VCC  |
| GPIO2/PIRQE-  | NOT USED                  | PULL UP 8.2K TO VCC3   |
| GPIO3/PIRQF-  | PIRQF-                    | PULL UP 8.2K TO VCC3   |
| GPIO4/PIRQG-  | PIRQG-                    | PULL UP 2.7K TO VCC  |
| GPIO5/PIRQH-  | NOT USED                  | PULL UP 8.2K TO VCC3   |
| ** GPIO6      | GREEN BUTTON              | PULL UP 8.2K TO 3VDUAL   |
| ** GPIO7      | AGP/DIMM<br>OVER VOLTAGE  | PULL UP 8.2K TO VCC3   |
| ** GPIO8      | REV. ID                   | PULL UP 4.7K TO 3VDUAL   |
| ** GPIO11     | REV. ID                   | PULL UP 4.7K TO 3VDUAL   |
| ** GPIO12     | LPCPME-                   | PULL UP 8.2K TO 3VDUAL   |
| ** GPIO13     | SMART CARD<br>READER      | PULL UP 4.7K TO 3VDUAL   |
| GPO16/GNTA-   | NOT USED                  | PULL 8.2K TO VCC3(CAN'T PULL DOWN).Because<br>BIOS Address Decode Inconect: FF |
| GPO17/GNT5-   | GNT5-                     | PULL 8.2K TO VCC3  |
| GPO18         | NOT USED                  |  |
| GPO19         | NOT USED                  |  |
| ** GPO20      | AGP OVER<br>VOLTAGE 1.6V  |  |
| ** GPO21      | AGP OVER<br>VOLTAGE 1.7V  |  |
| GPO22         | NOT USED                  | PULL 8.2K TO VCC3  |
| GPO23         | NOT USED                  |  |
| ** GPIO24     | REV. ID                   | PULL 4.7K TO 3VDUAL  |
| ** GPIO25     | BIOS WRITE<br>PROTECT     |  |
| ** GPIO27     | DIMM OVER<br>VOLTAGE 3.5V |  |
| ** GPIO28     | DIMM OVER<br>VOLTAGE 3.4V |  |

| LPC1/O<br>GPIO  | FUNCTION     | PULL UP/DOWN          |
|-----------------|--------------|-----------------------|
| ** GP50/CLKRUN- | STR FUNCTION | PULL DOWN 4.7K TO GND |

**GIGABYTE CORP.**

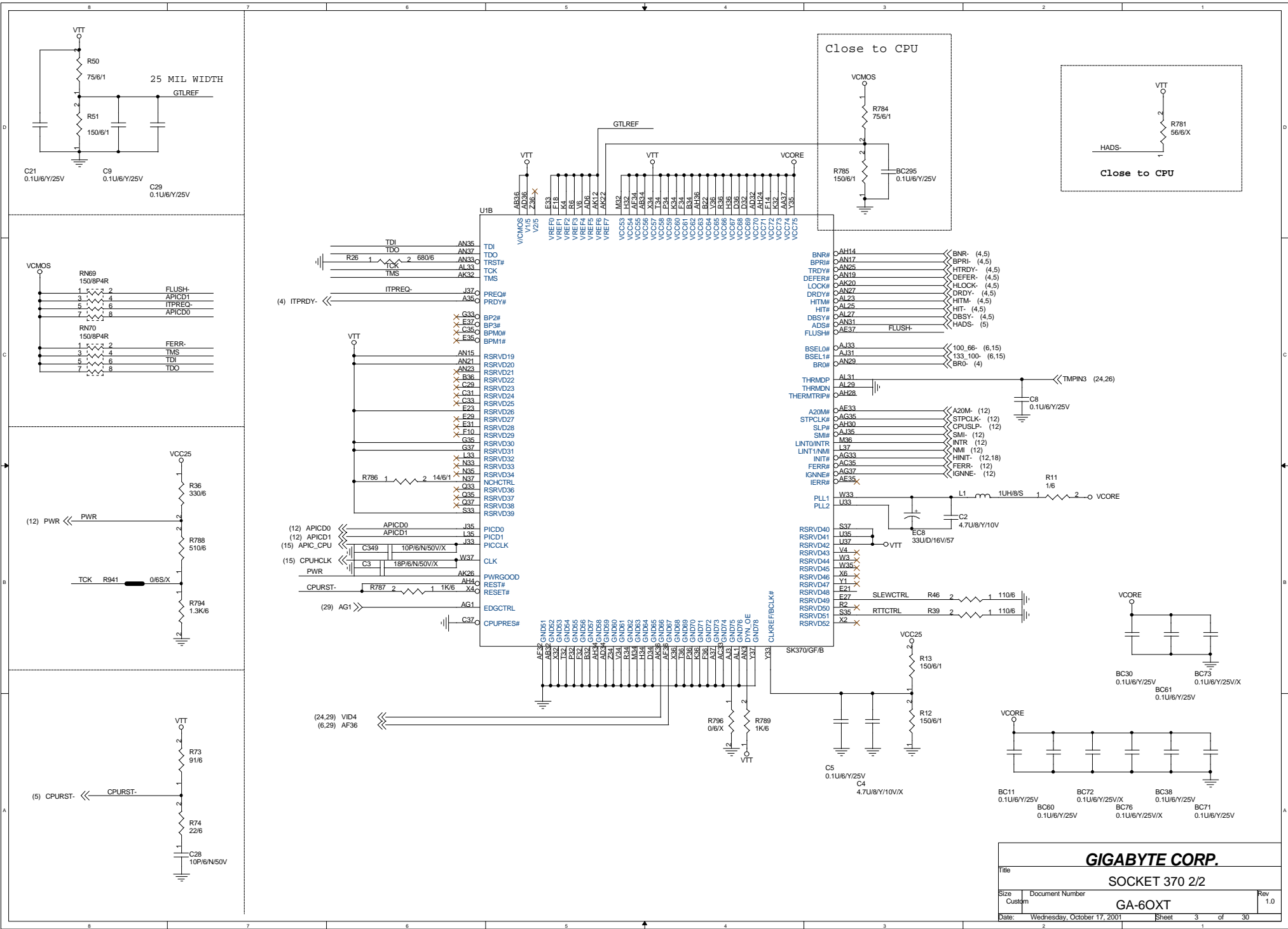
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| Title  | COVER           |                             | Rev           |
| Size   | Document Number | GA-6OXT                     | 1.0           |
| Custom | Date:           | Wednesday, October 17, 2001 | Sheet 1 of 30 |



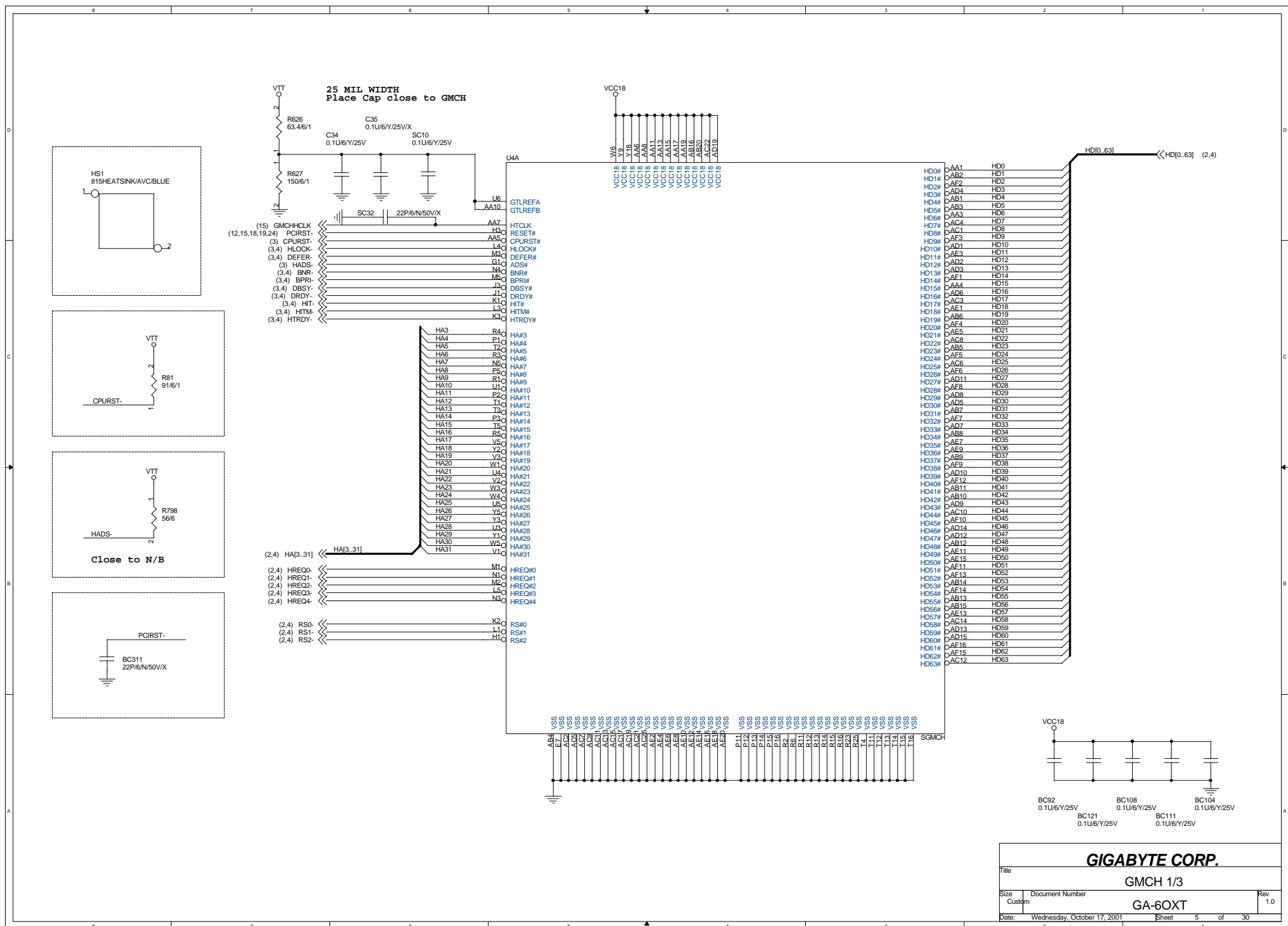
**GIGABYTE CORP.**

**SOCKET 370 1/2**

|       |                             |       |         |
|-------|-----------------------------|-------|---------|
| Title | Document Number             |       | Rev     |
|       | GA-60XT                     |       | 1.0     |
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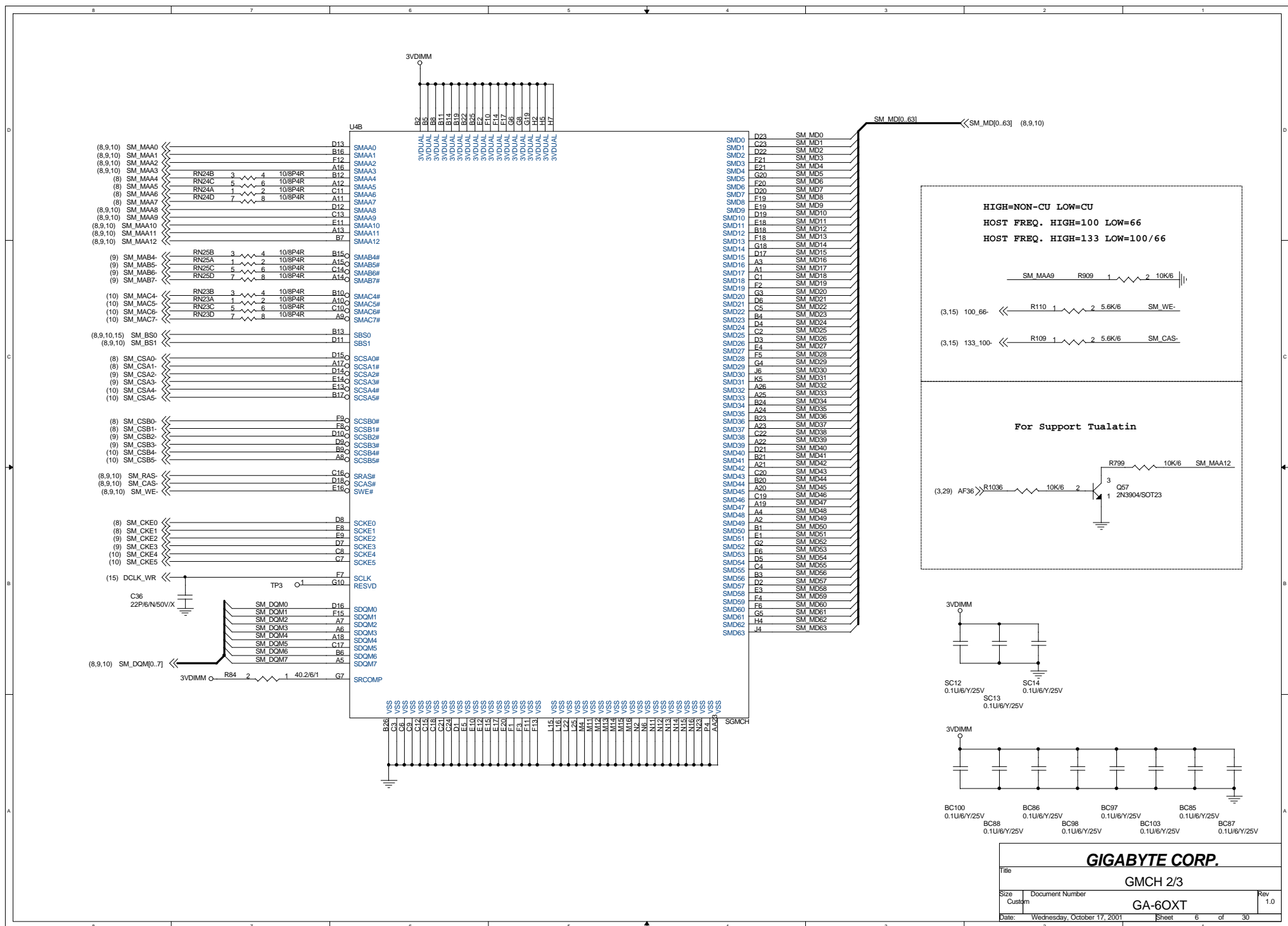




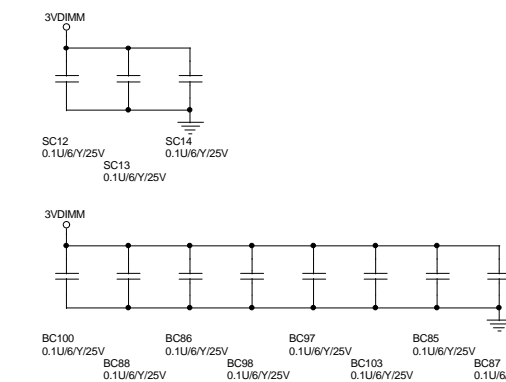
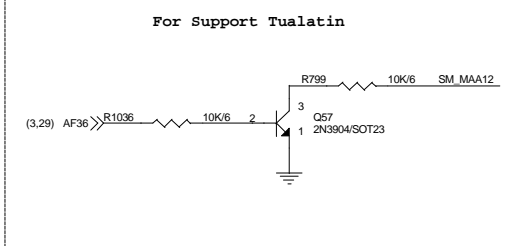
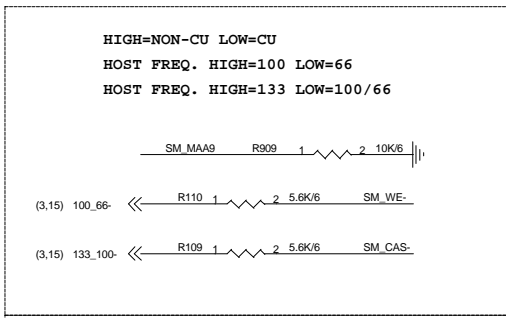
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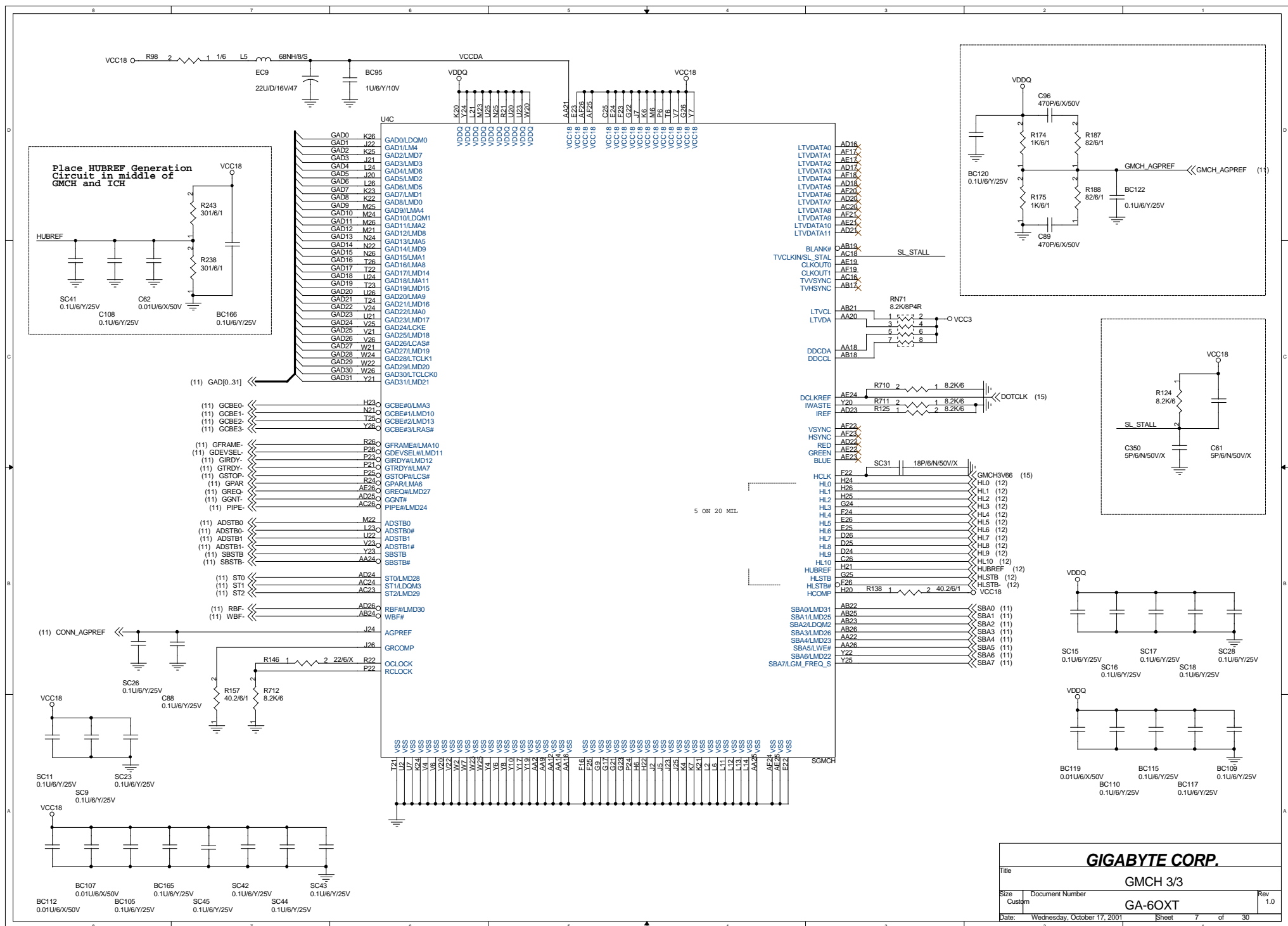
Title: **GMCH 1/3**

|                                   |                                 |               |
|-----------------------------------|---------------------------------|---------------|
| Size: Custom                      | Document Number: <b>GA-60XT</b> | Rev: 1.0      |
| Date: Wednesday, October 17, 2001 |                                 | Sheet 5 of 30 |



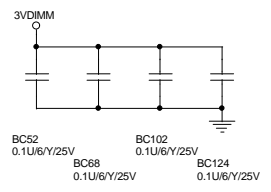
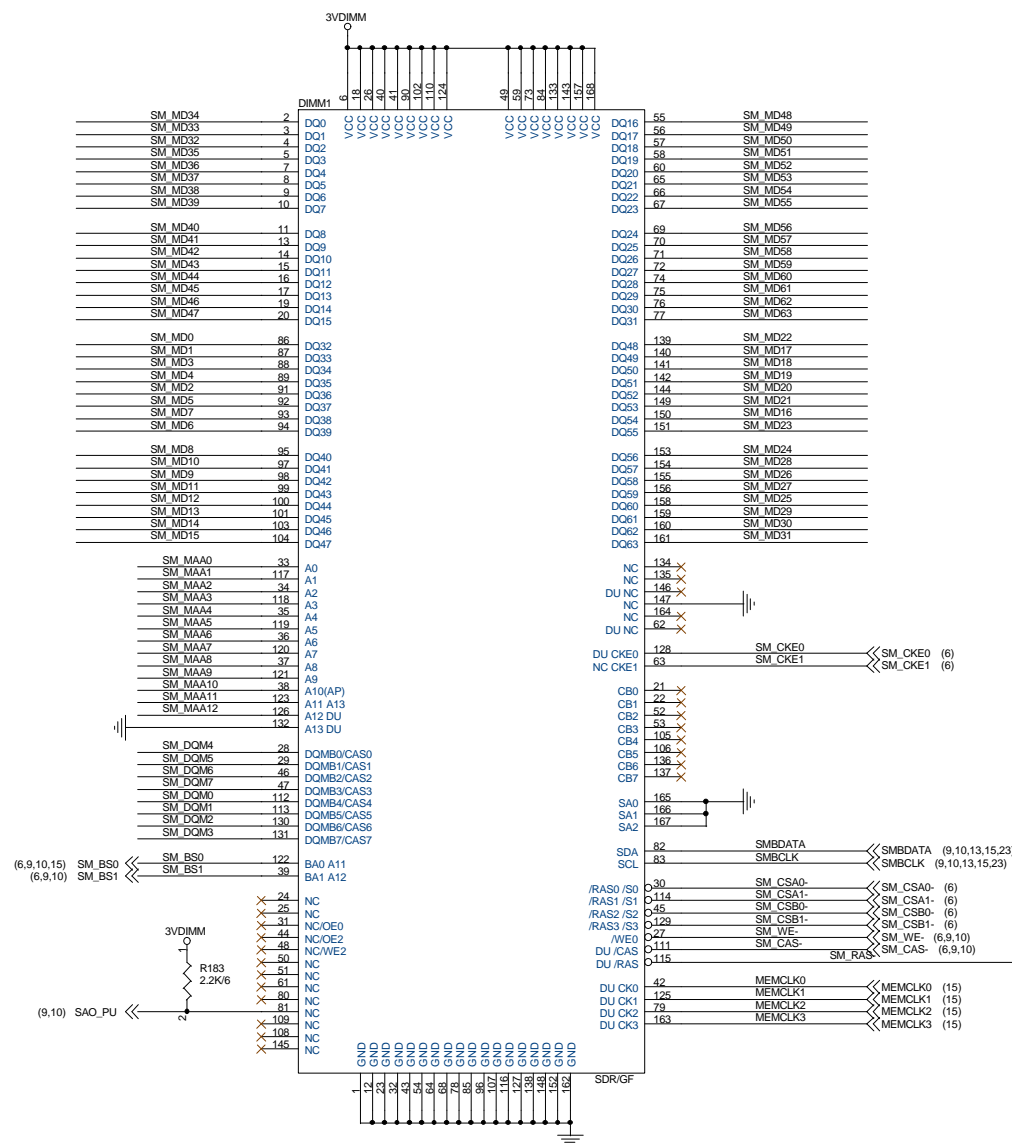
HIGH=NON-CU LOW=CU  
 HOST FREQ. HIGH=100 LOW=66  
 HOST FREQ. HIGH=133 LOW=100/66





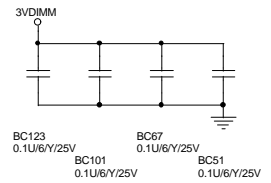
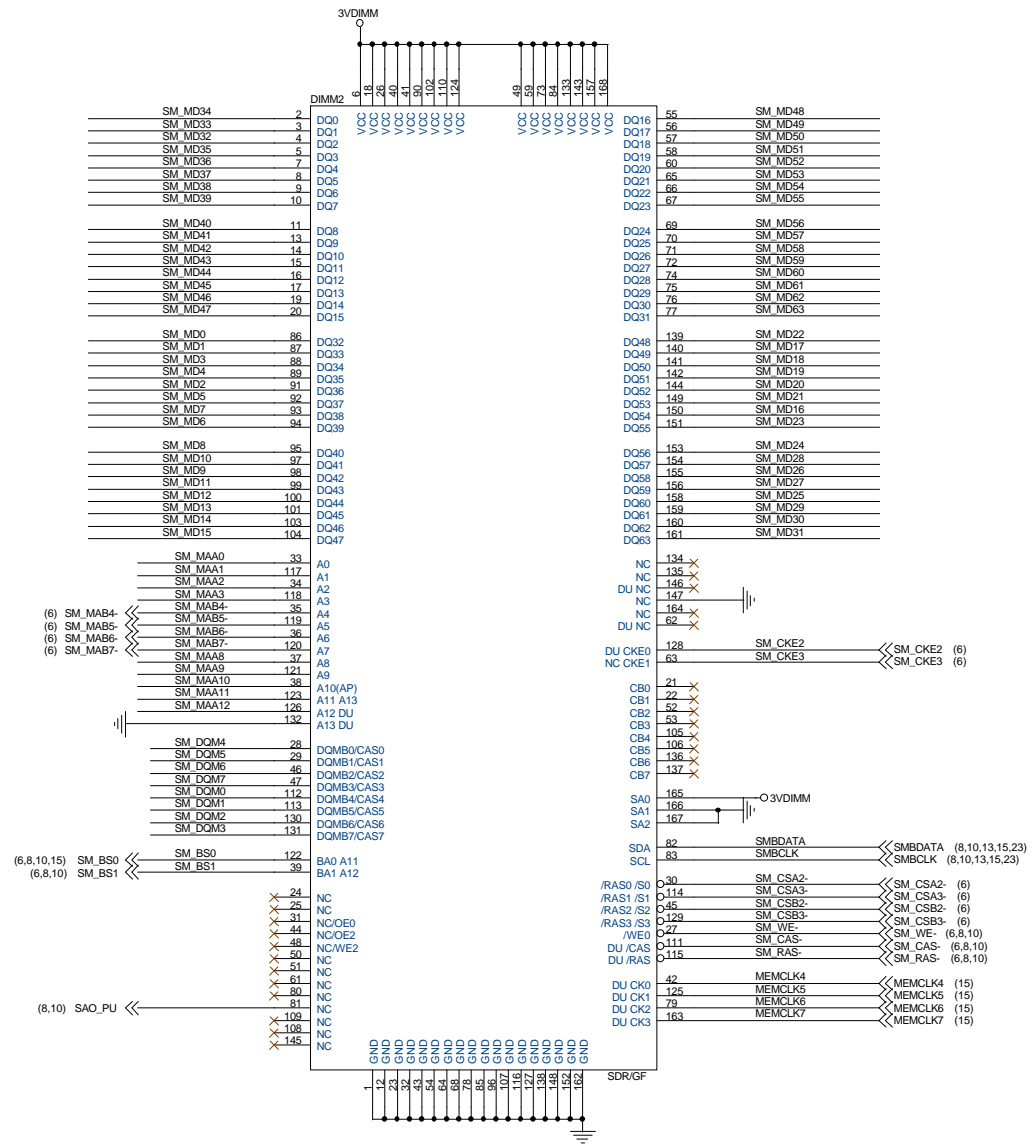
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| Size<br>Custom                       | Document Number<br><b>GA-60XT</b> | Rev<br>1.0 |
| Date:<br>Wednesday, October 17, 2001 | Sheet<br>7                        | of<br>30   |

(6,9,10) SM\_MD[0..63] << SM\_MD[0..63]  
 (6,9,10) SM\_MAA[0..12] << SM\_MAA[0..12]  
 (6,9,10) SM\_DQM[0..7] << SM\_DQM[0..7]



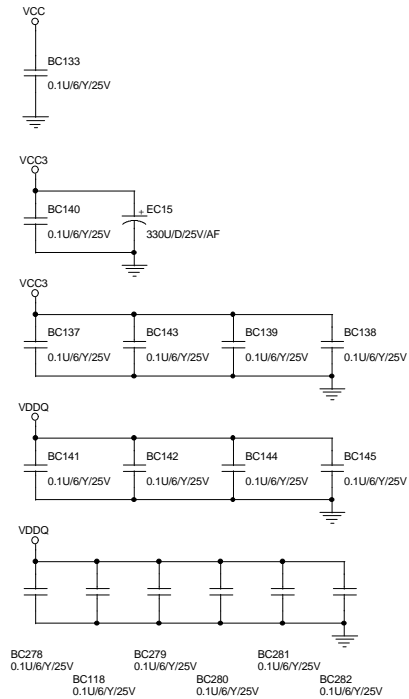
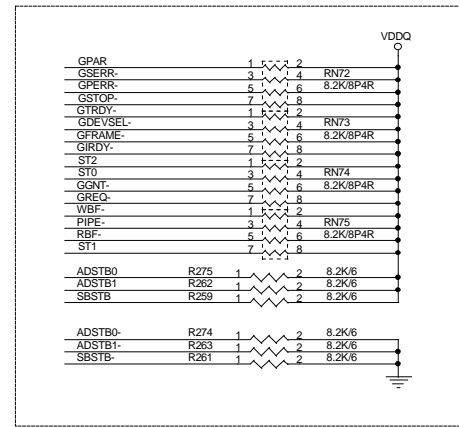
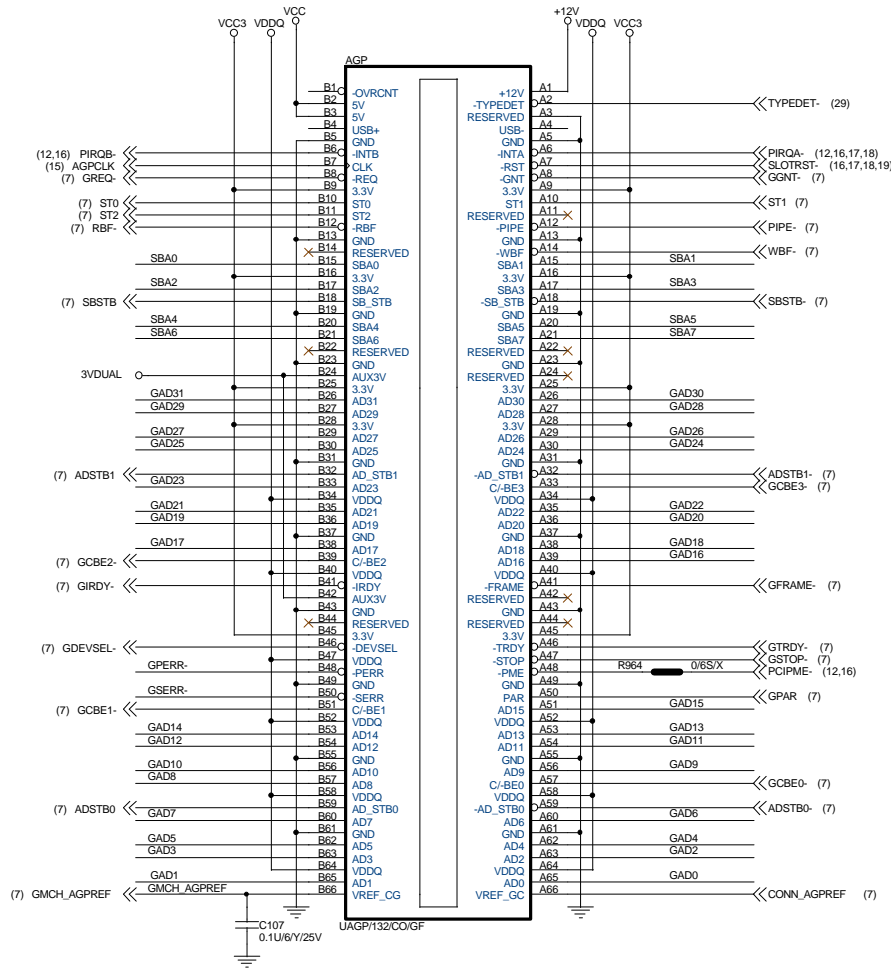
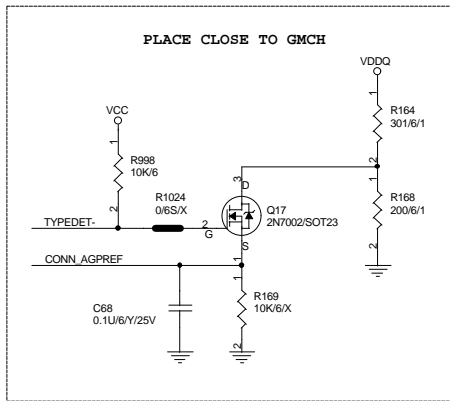
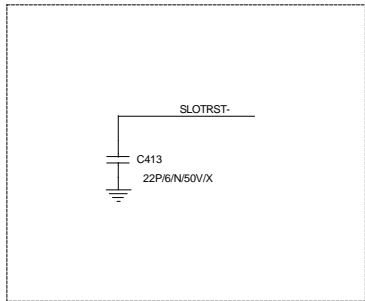
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| Title<br><b>DIMM1</b>                |                                   |            |
| Size<br>Custom                       | Document Number<br><b>GA-6OXT</b> | Rev<br>1.0 |
| Date:<br>Wednesday, October 17, 2001 | Sheet<br>8                        | of<br>30   |

(6,8,10) SM\_MD[0..63] << SM\_MD[0..63]  
 (6,8,10) SM\_MAA[0..12] << SM\_MAA[0..12]  
 (6,8,10) SM\_DQM[0..7] << SM\_DQM[0..7]

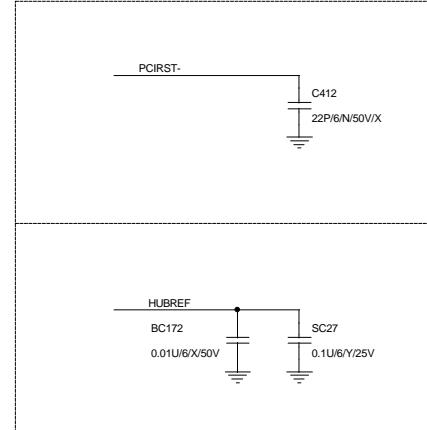
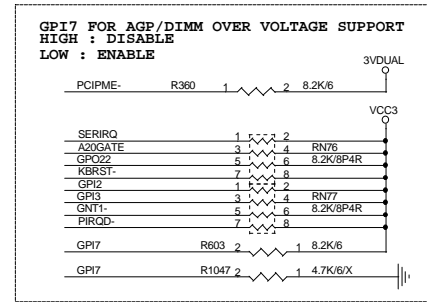
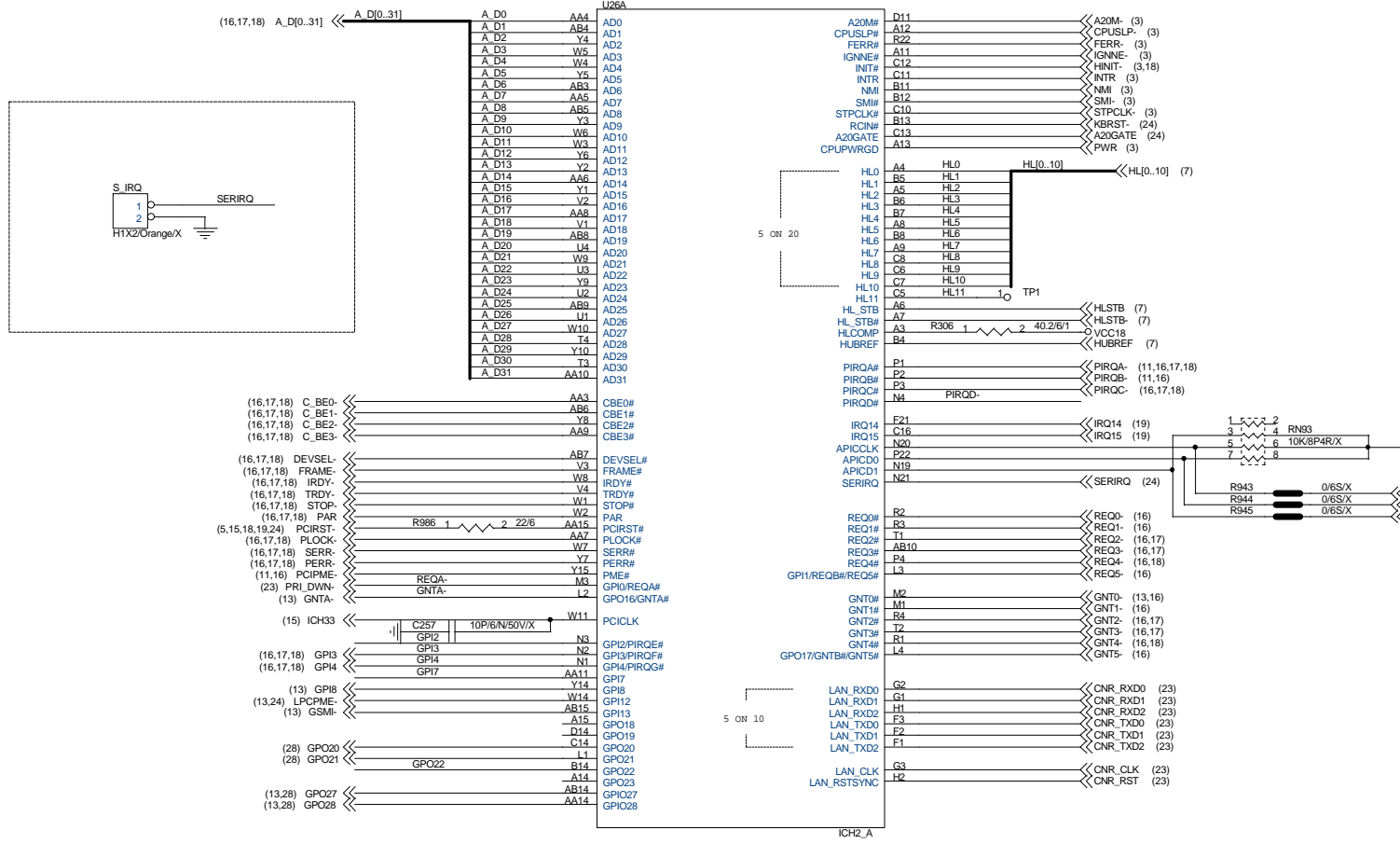




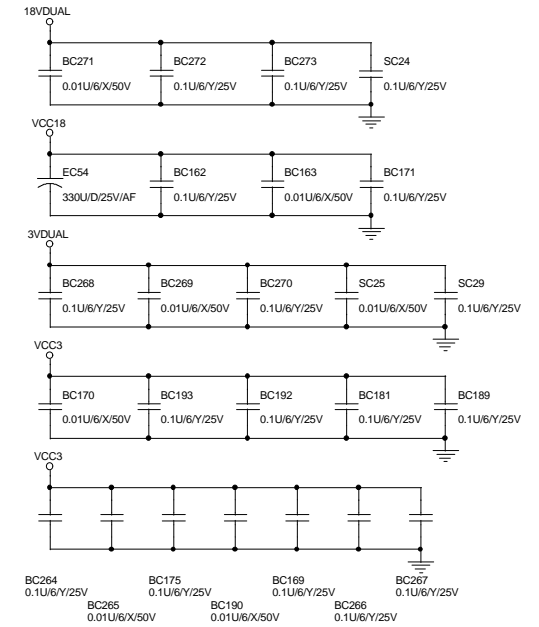
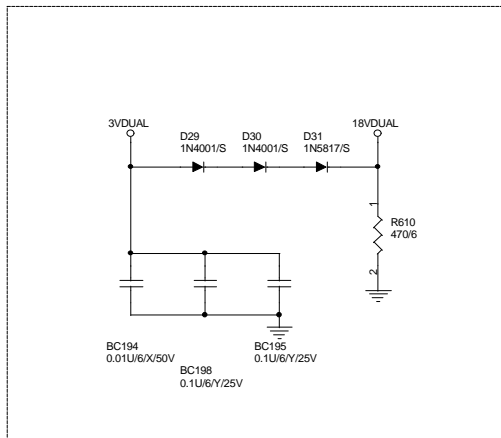
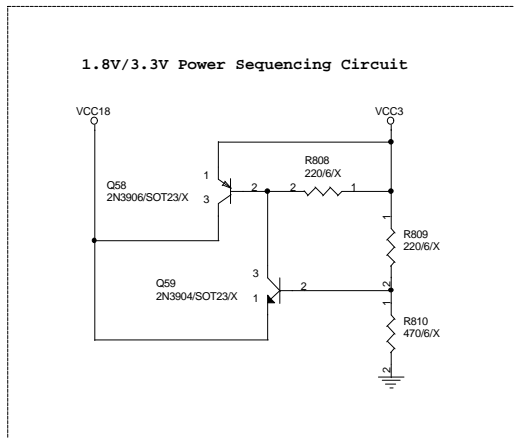
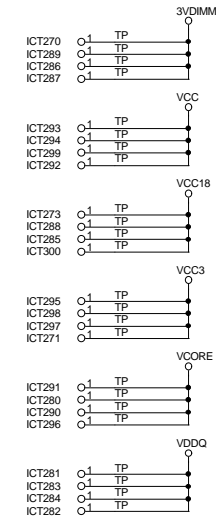
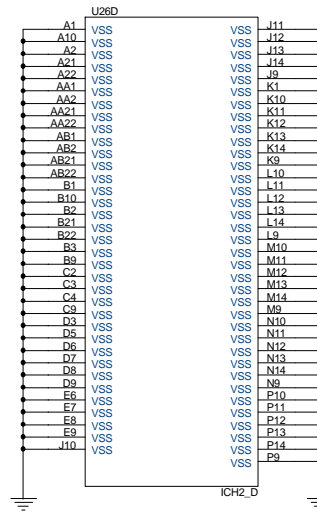
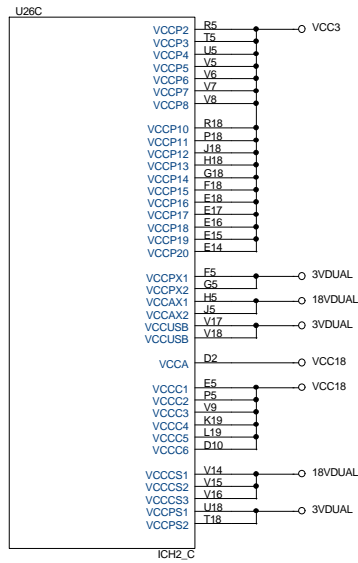
(7) SBA[0..7] << SBA[0..7]  
 (7) ST[0..2] << ST[0..2]  
 (7) GAD[0..31] << GAD[0..31]



\*\* ICH2 PIN A3,B4  
Trace length can't Exceed 0.5"  
X2 trace width WITH HUBLINK TRACE  
\*This two parts must  
place near to ICH2

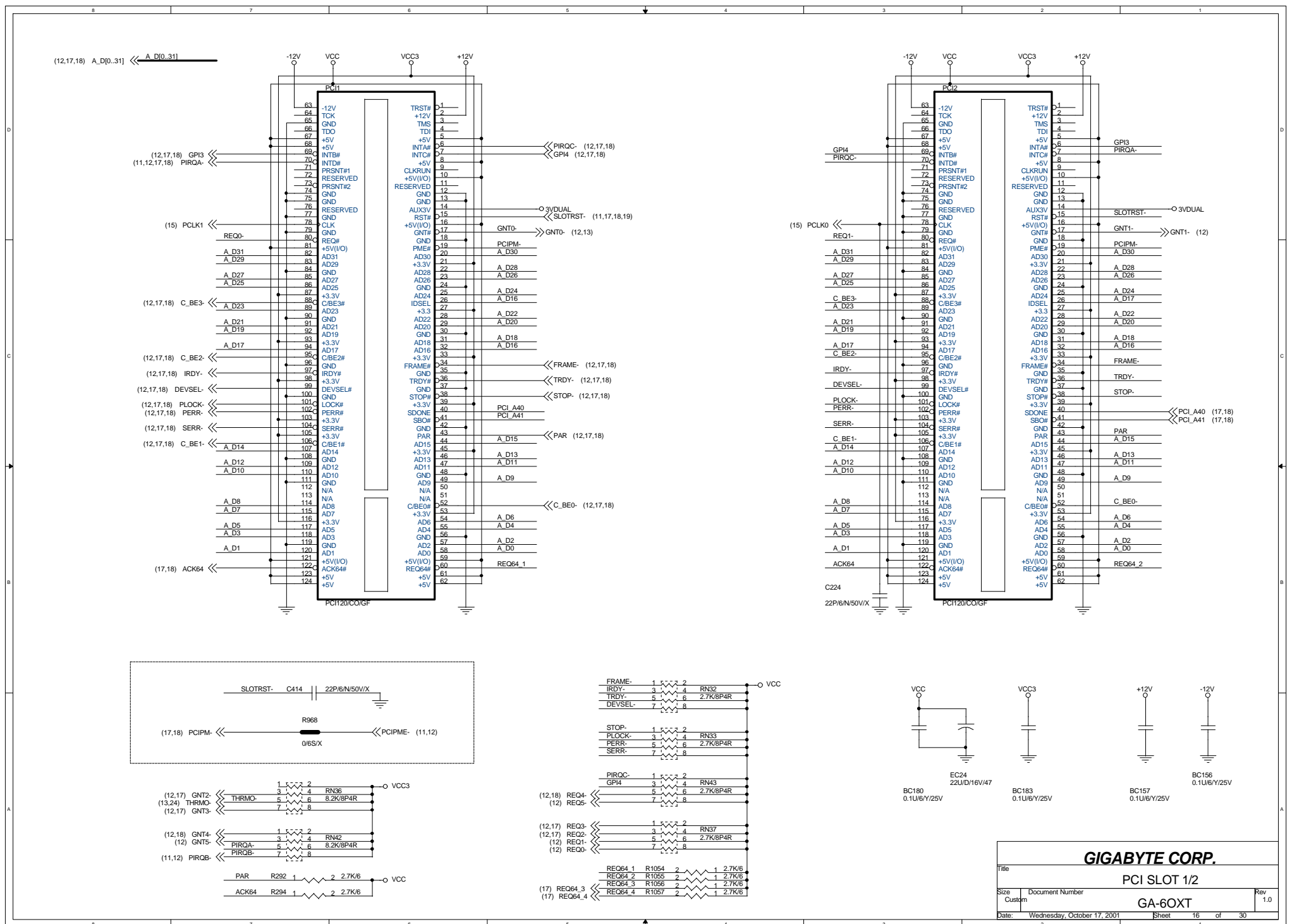






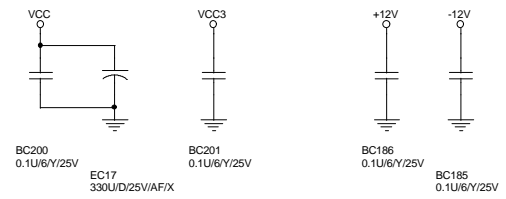
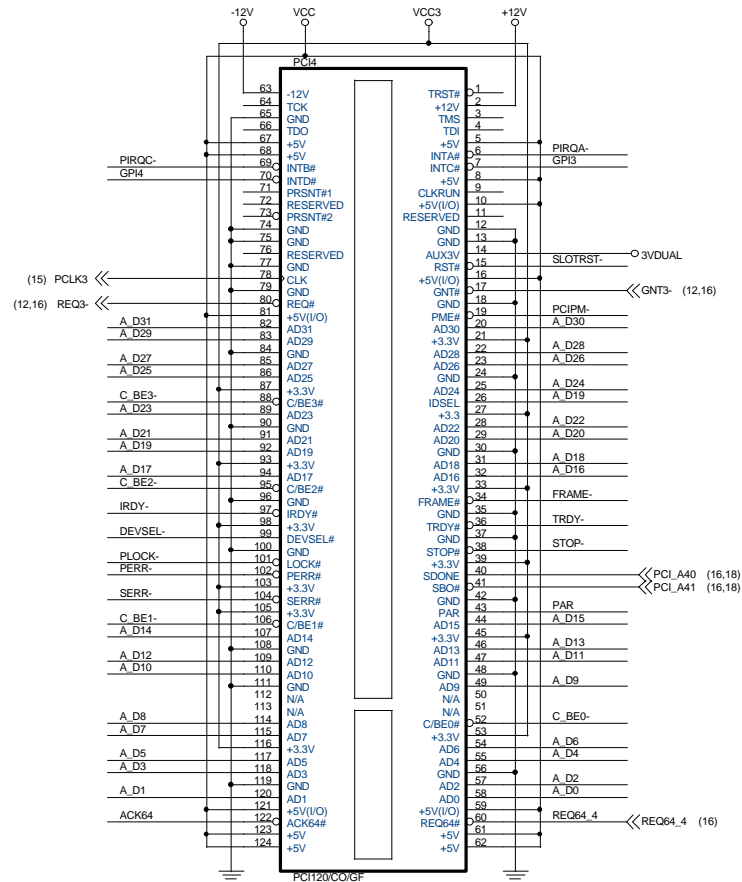
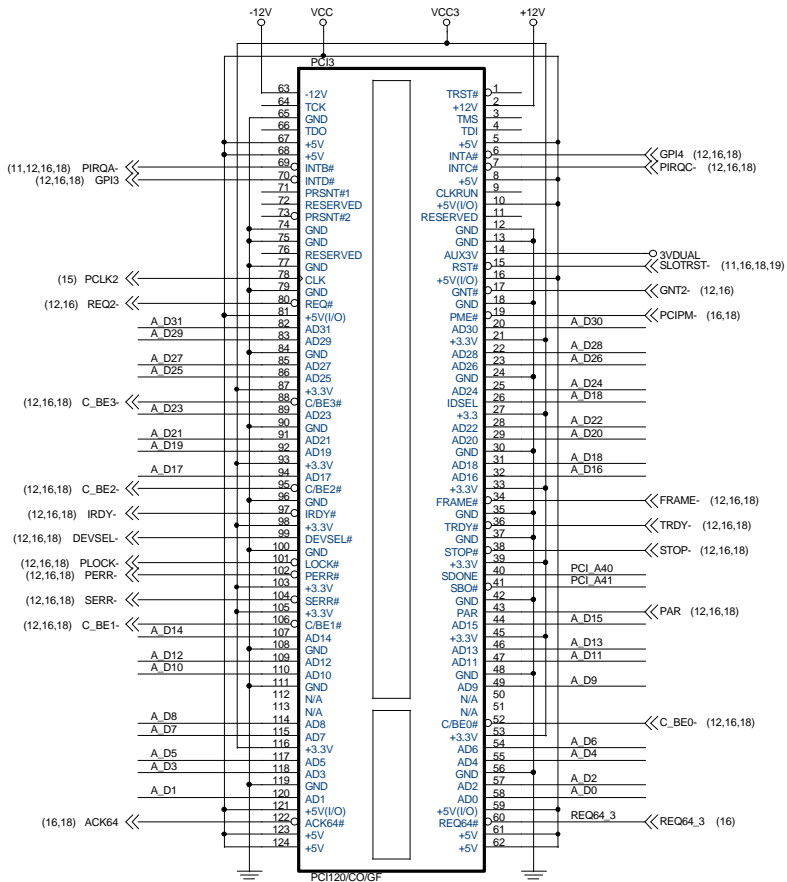
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| <b>GIGABYTE CORP.</b>                |                            |            |  |
| Title<br>ICH USB PORT                |                            |            |  |
| Size<br>Custom                       | Document Number<br>GA-60XT | Rev<br>1.0 |  |
| Date:<br>Wednesday, October 17, 2001 | Sheet<br>14                | of 30      |  |





|                                   |                 |                |
|-----------------------------------|-----------------|----------------|
| <b>GIGABYTE CORP.</b>             |                 |                |
| PCI SLOT 1/2                      |                 |                |
| Title                             | Document Number | Rev            |
| Size                              | Custom          | 1.0            |
| Date: Wednesday, October 17, 2001 |                 | Sheet 16 of 30 |

(12,16,18) A\_D[0..31] << A\_D[0..31]

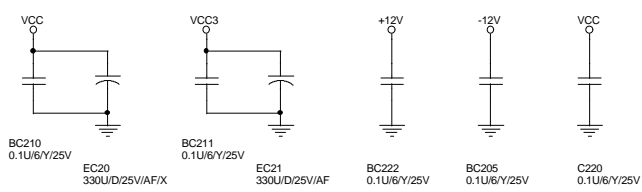
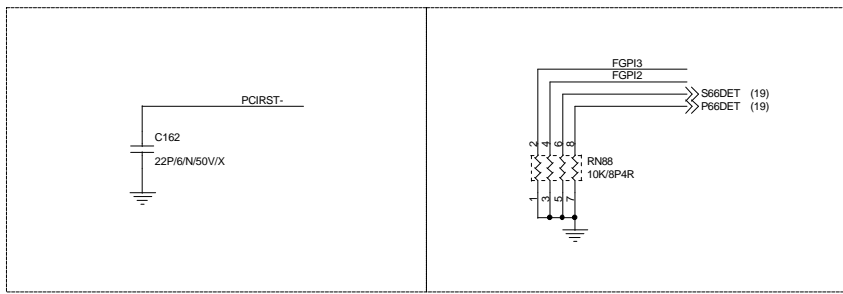
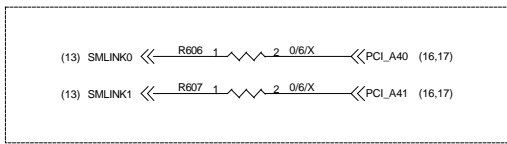
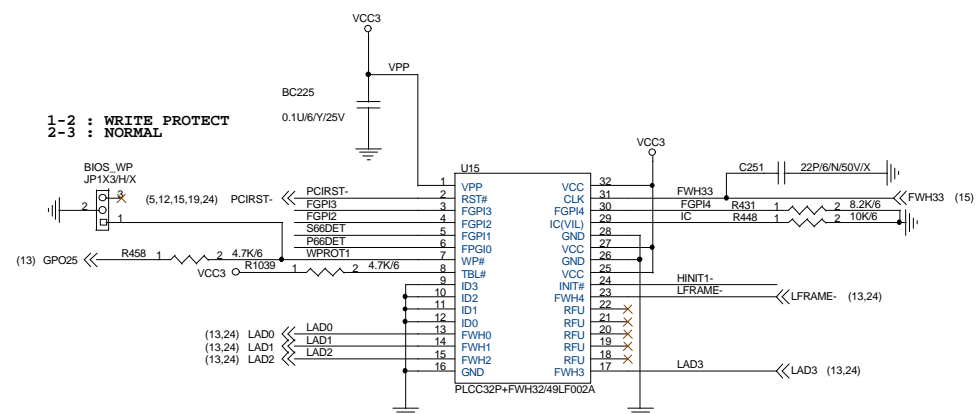
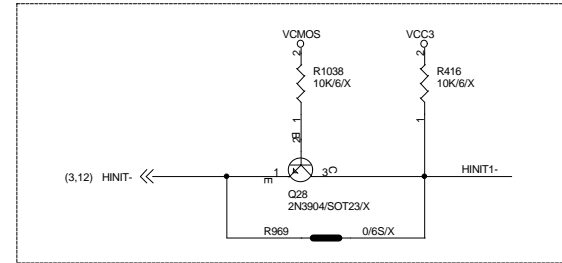
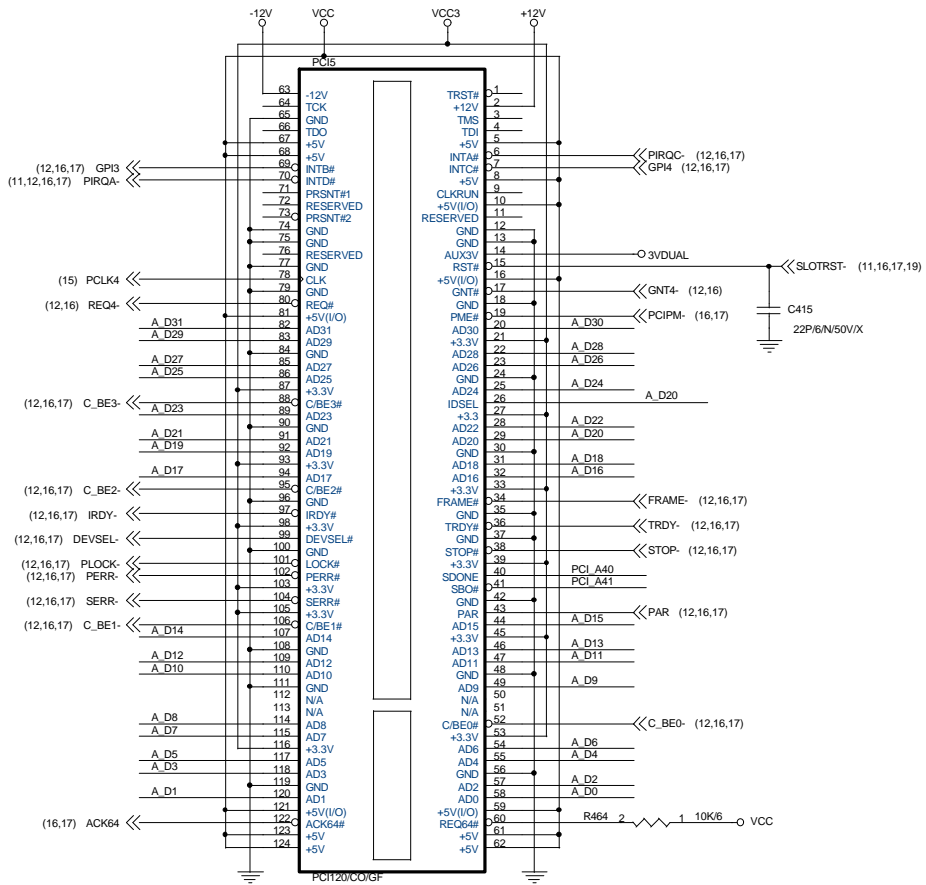


**GIGABYTE CORP.**

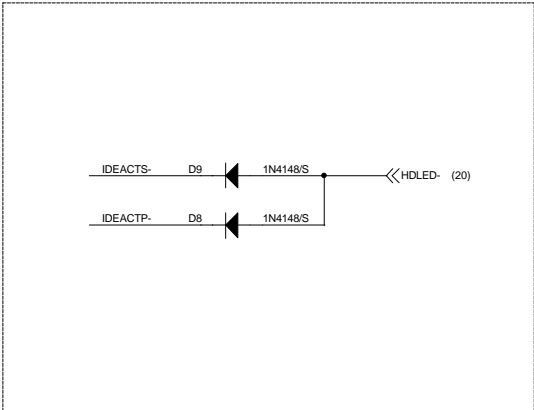
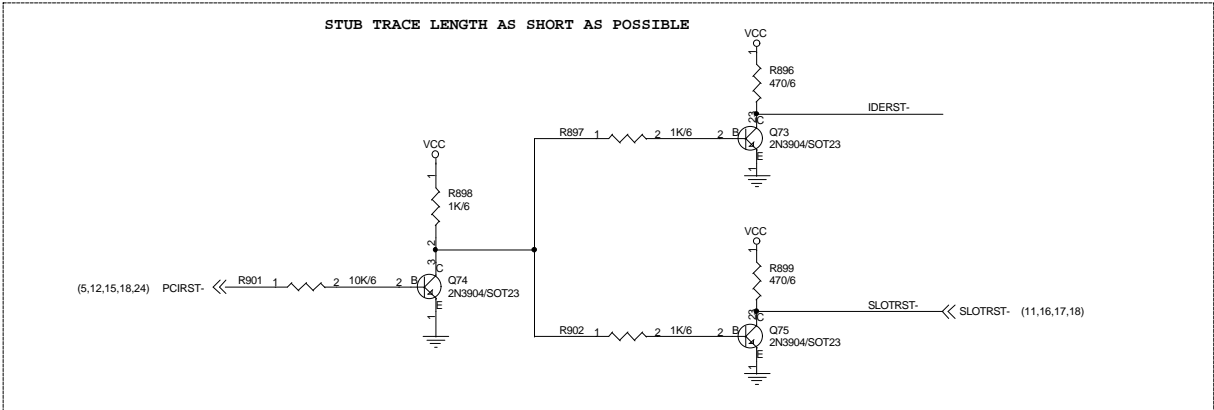
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|                                   |                                 |          |
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| Date: Wednesday, October 17, 2001 | Sheet: 17                       | of 30    |

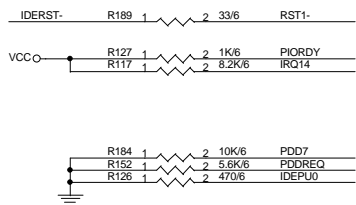
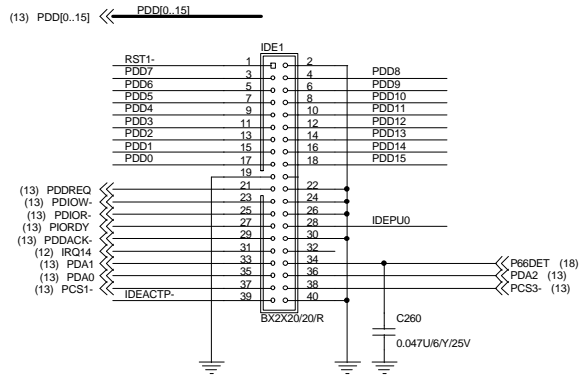
(12,16,17) A\_D0[0..31] << A\_D0\_31



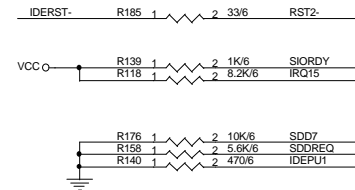
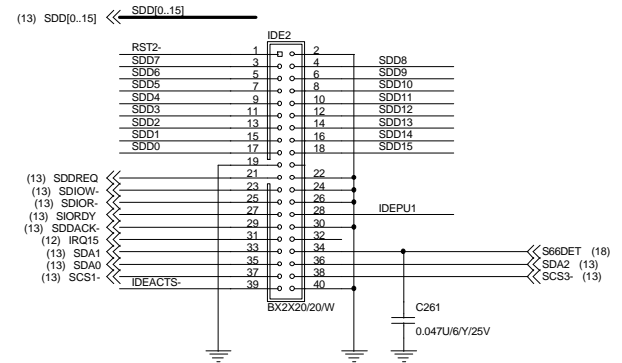
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| Title<br><b>PCI SLOT 5 &amp; FWH</b> |                                   |            |
| Size<br>Custom                       | Document Number<br><b>GA-60XT</b> | Rev<br>1.0 |
| Date:<br>Wednesday, October 17, 2001 | Sheet<br>18 of 30                 |            |



PRIMARY IDE CONNECTOR

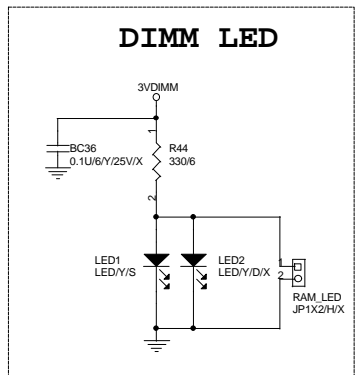
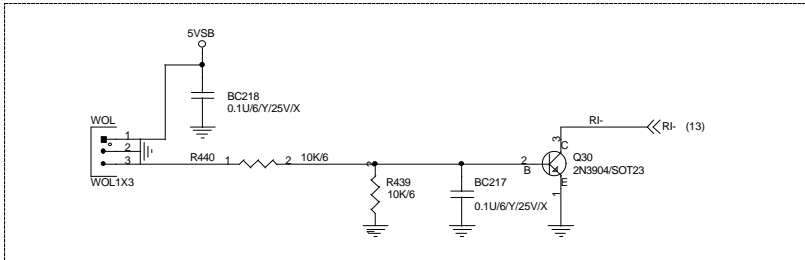
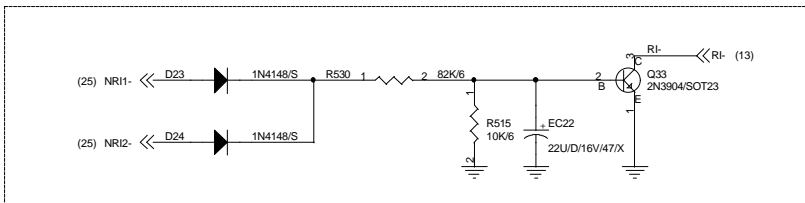
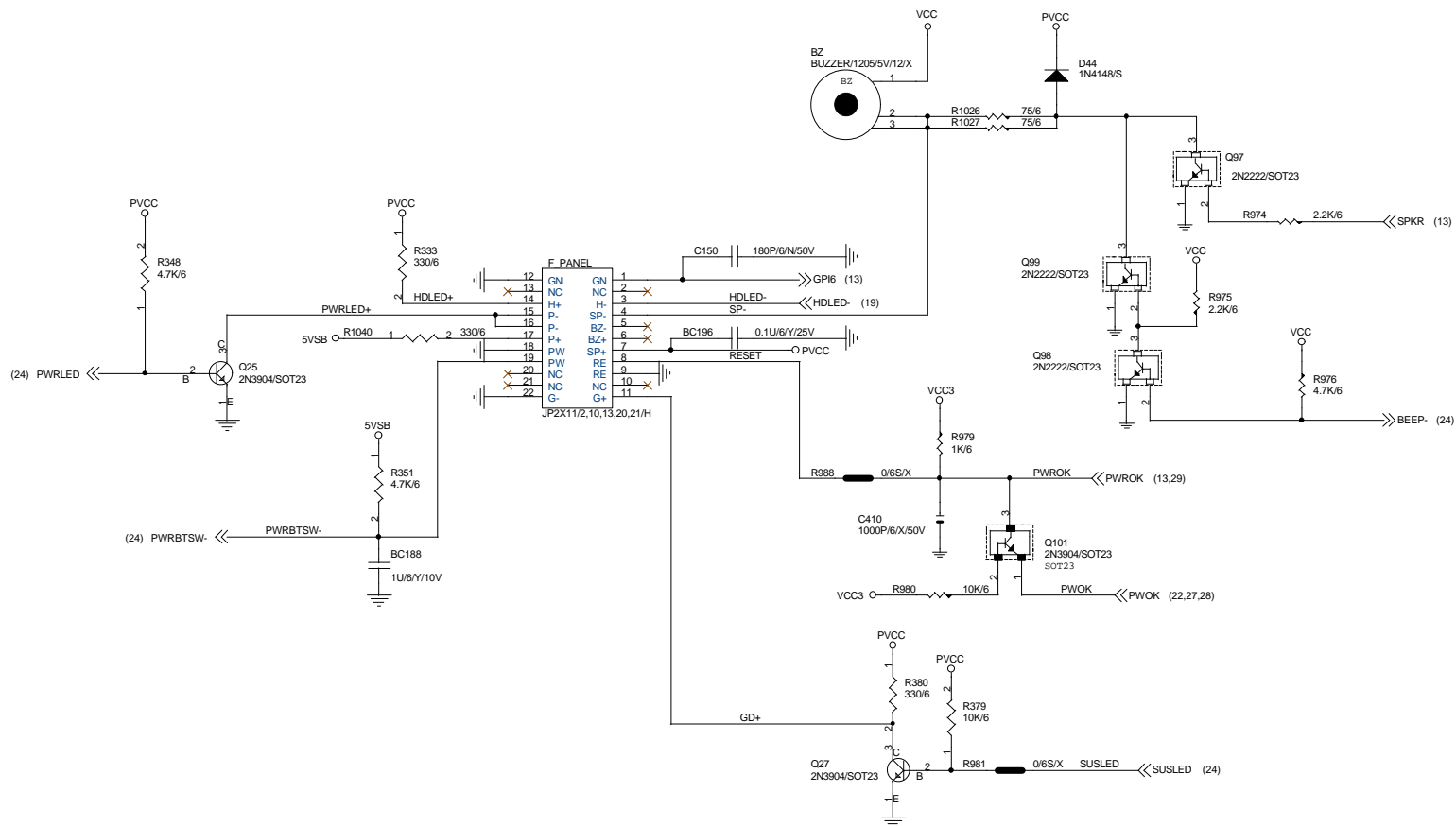


SECONDARY IDE CONNECTOR

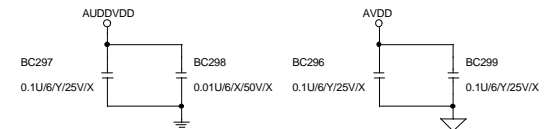
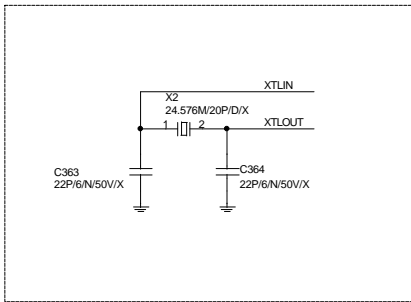
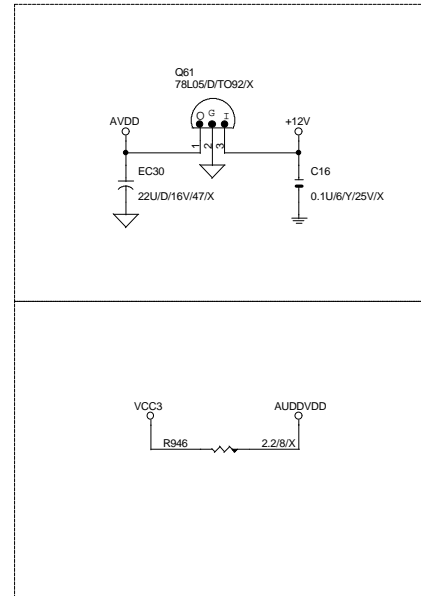
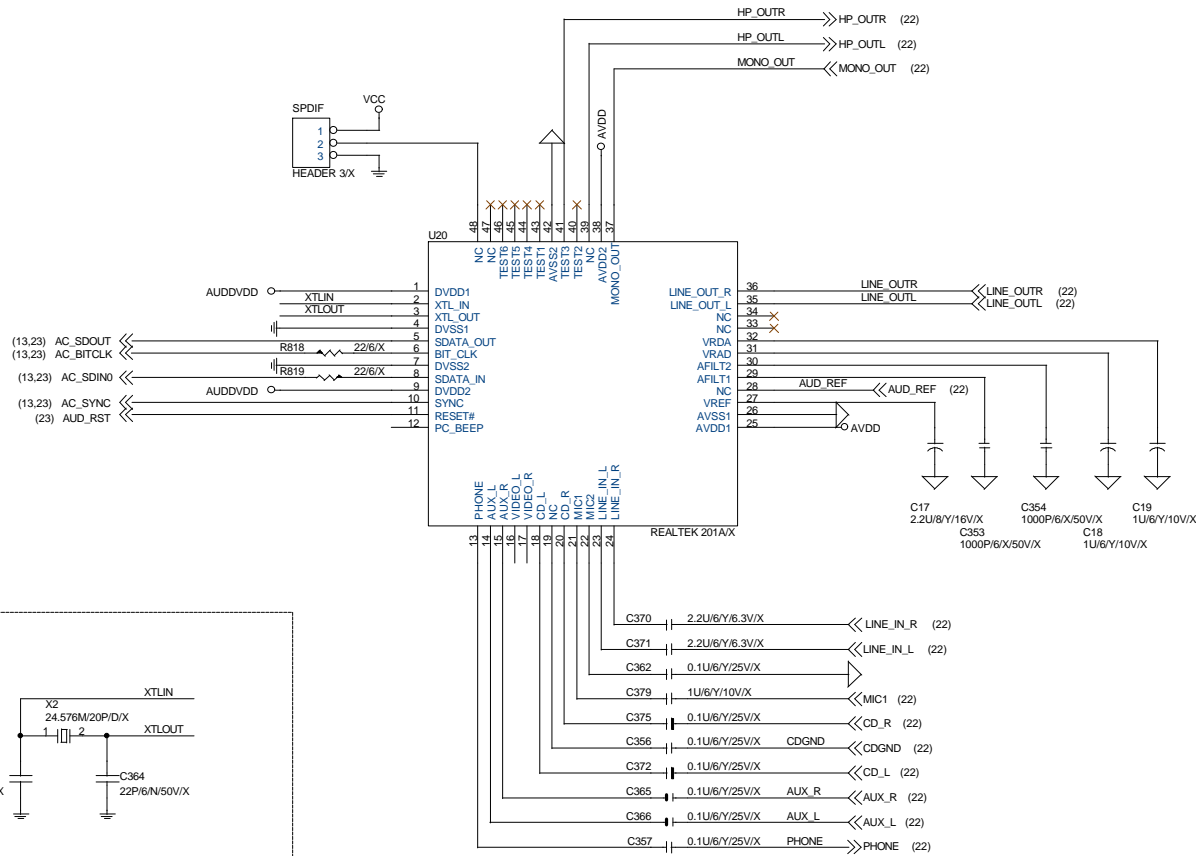


**GIGABYTE CORP.**

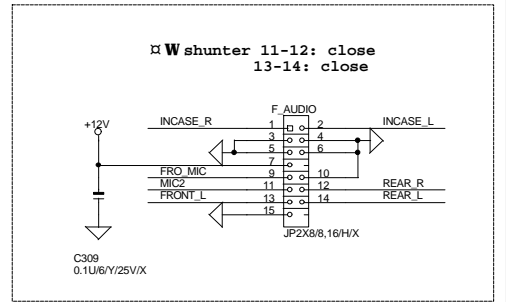
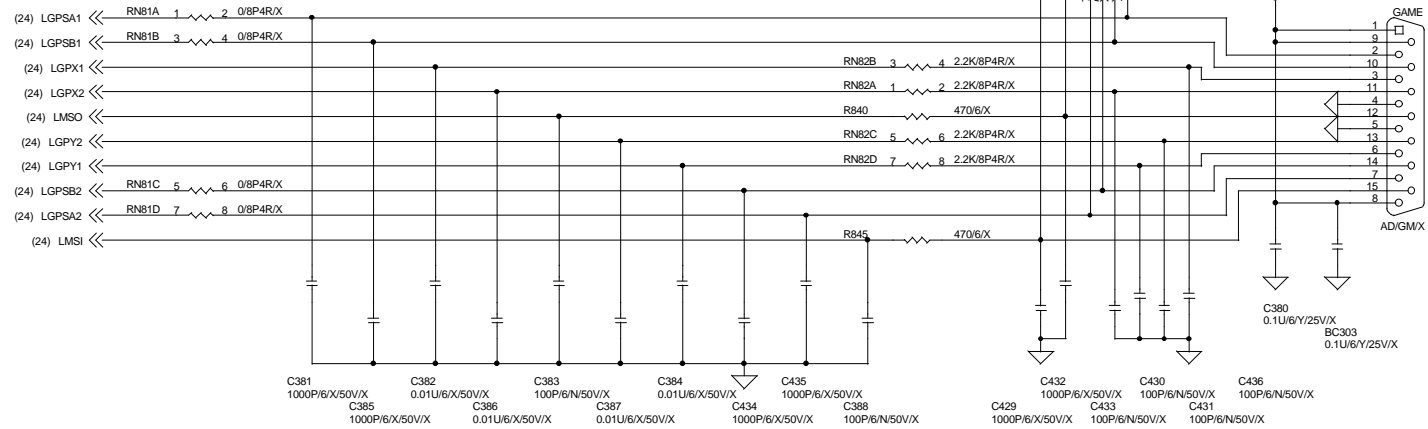
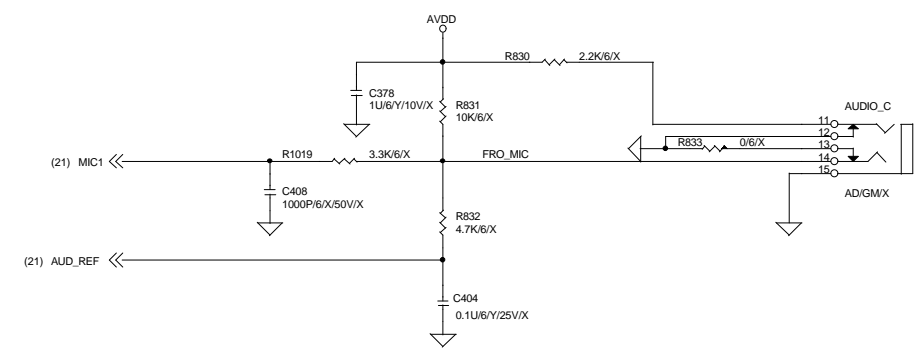
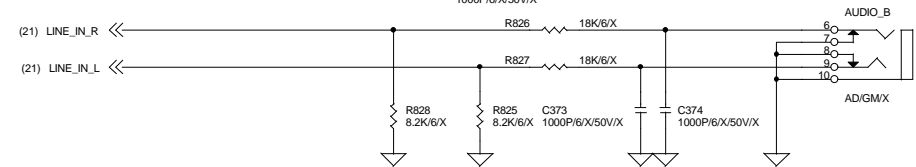
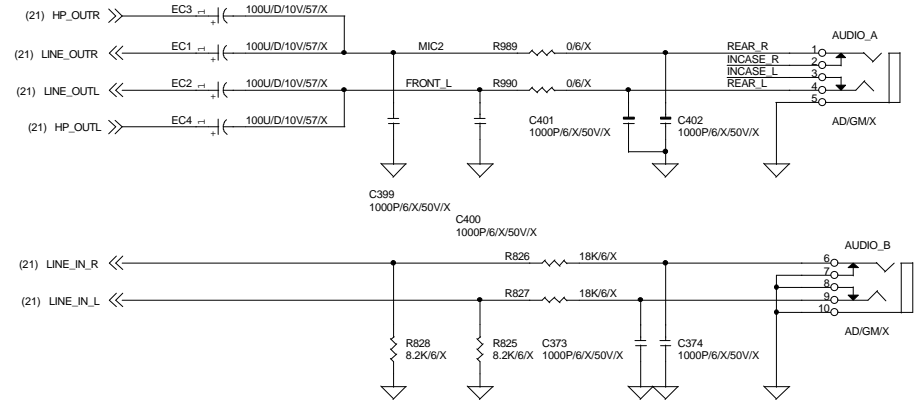
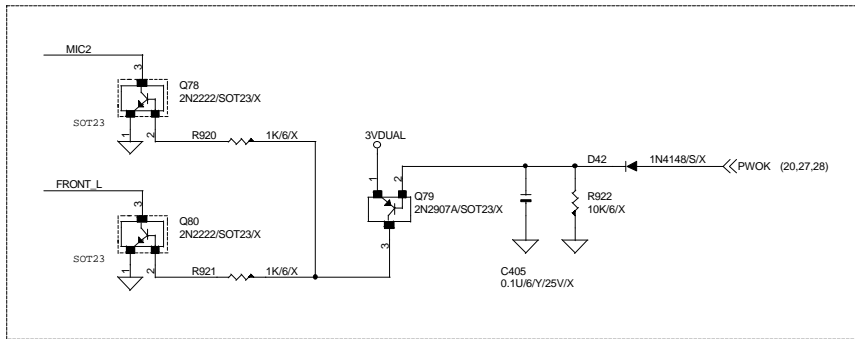
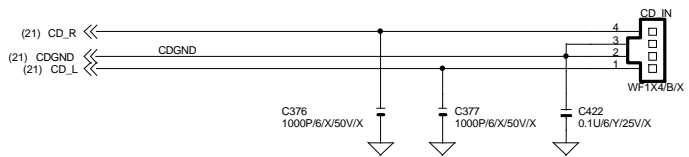
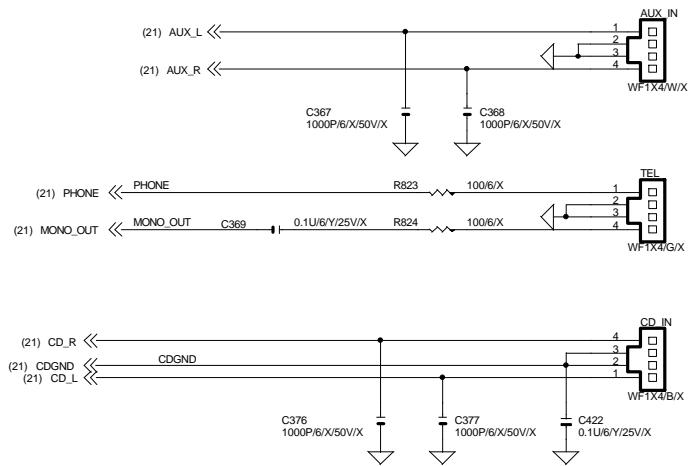
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| Title         |                             |         | Rev      |
| IDE CONNECTOR |                             |         |          |
| Size          | Document Number             | GA-6OXT |          |
| Custom        |                             | 1.0     |          |
| Date:         | Wednesday, October 17, 2001 | Sheet   | 19 of 30 |



|  |                          |          |  |
|--|--------------------------|----------|--|
| <b>GIGABYTE CORP.</b>                      |                          |          |  |
| Title: <b>PANEL &amp; STR LED &amp; RI</b> |                          |          |  |
| Size: Custom                               | Document Number: GA-60XT | Rev: 1.0 |  |
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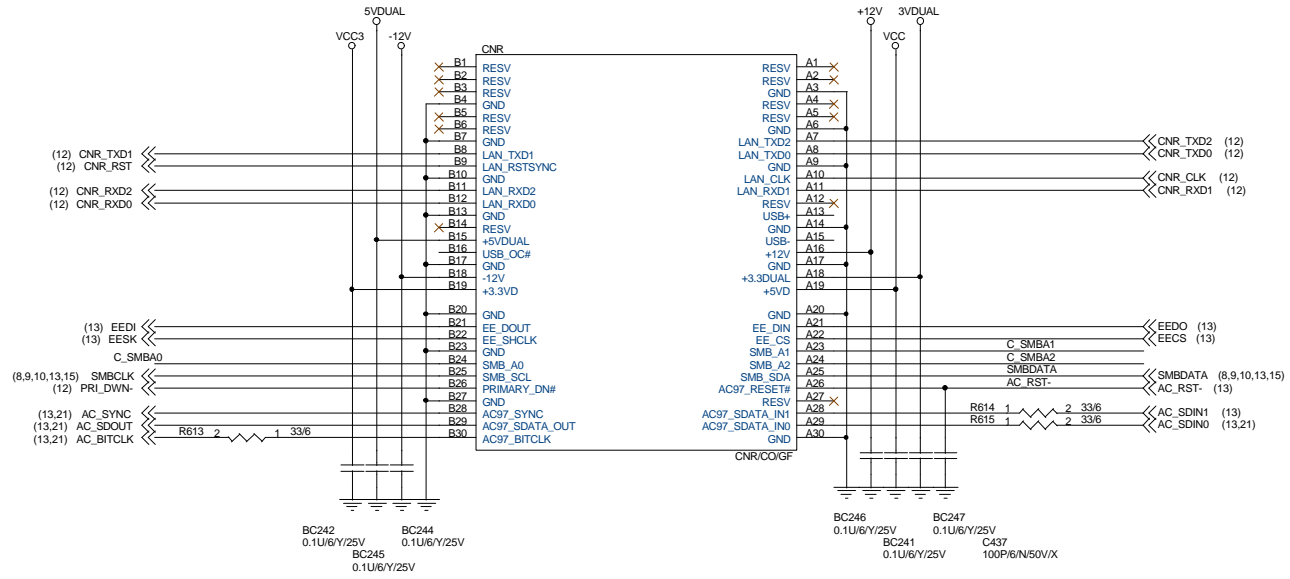


|                       |                                   |             |            |
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| <b>GIGABYTE CORP.</b> |                                   |             |            |
| Title<br><b>CODEC</b> |                                   |             |            |
| Size<br>Custom        | Document Number<br><b>GA-6OXT</b> |             | Rev<br>1.0 |
| Date:                 | Wednesday, October 17, 2001       | Sheet<br>21 | of 30      |

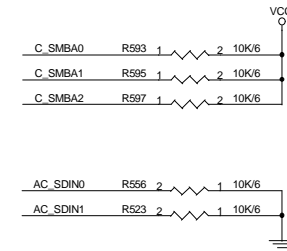
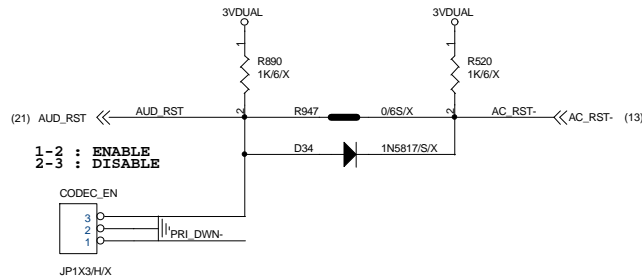
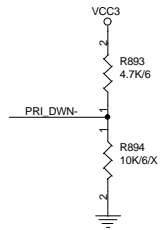


|                                     |                                   |            |
|-------------------------------------|-----------------------------------|------------|
| <b>GIGABYTE CORP.</b>               |                                   |            |
| Title<br><b>PHONE JACK</b>          |                                   |            |
| Size<br>Custom                      | Document Number<br><b>GA-60XT</b> | Rev<br>1.0 |
| Date<br>Wednesday, October 17, 2001 | Sheet<br>22                       | of<br>30   |

# CNR

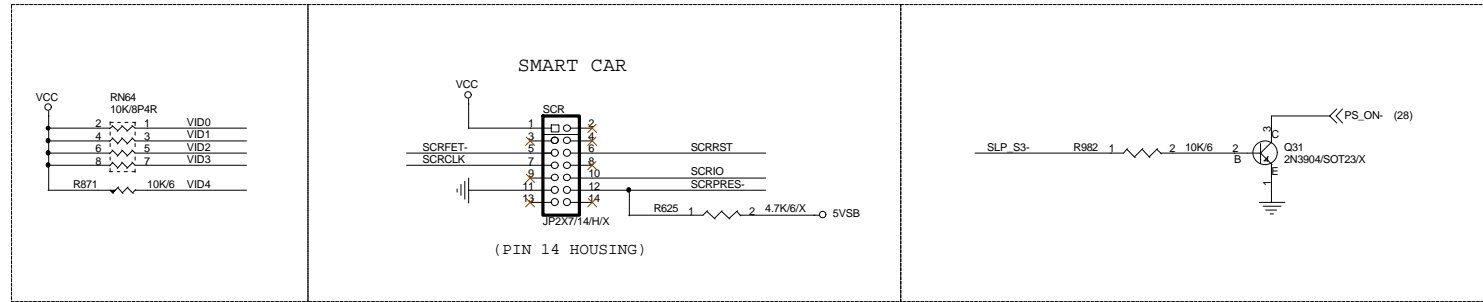
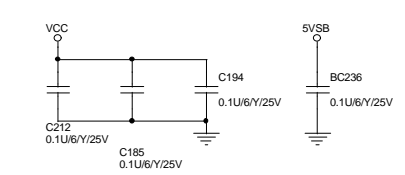
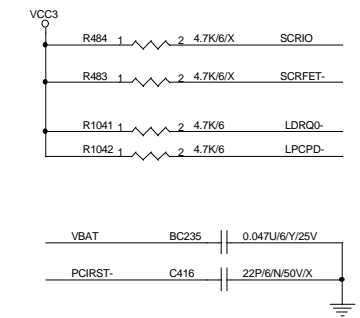
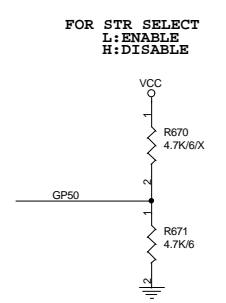
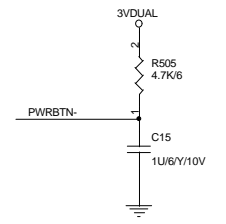
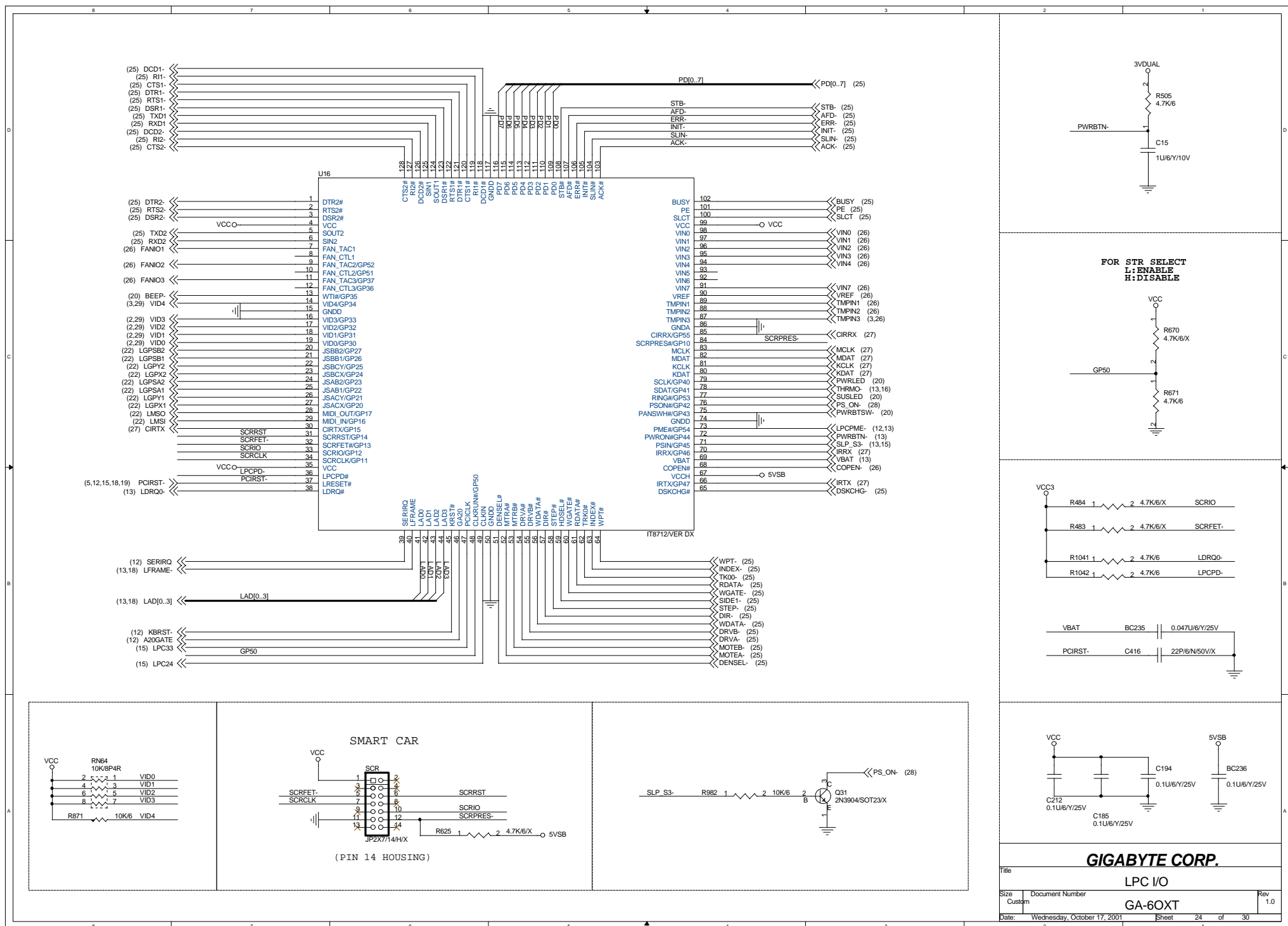


**PLEASE CONNECT GPI PIN**

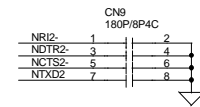
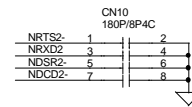
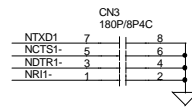
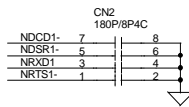
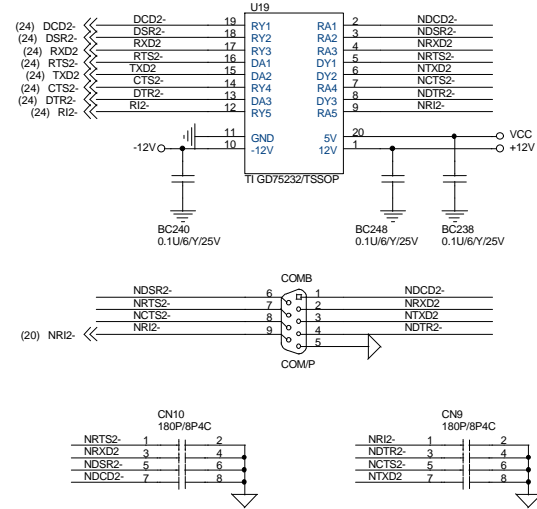
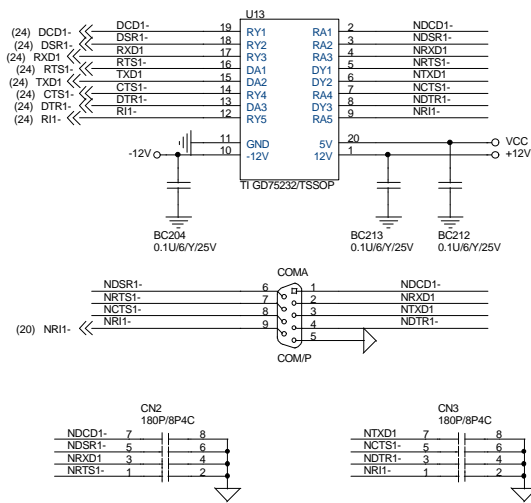


**GIGABYTE CORP.**

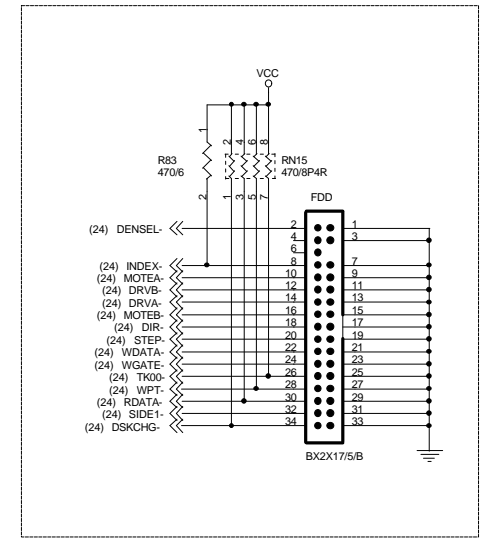
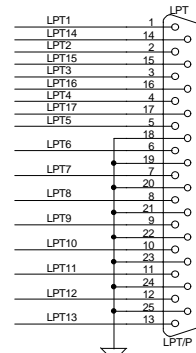
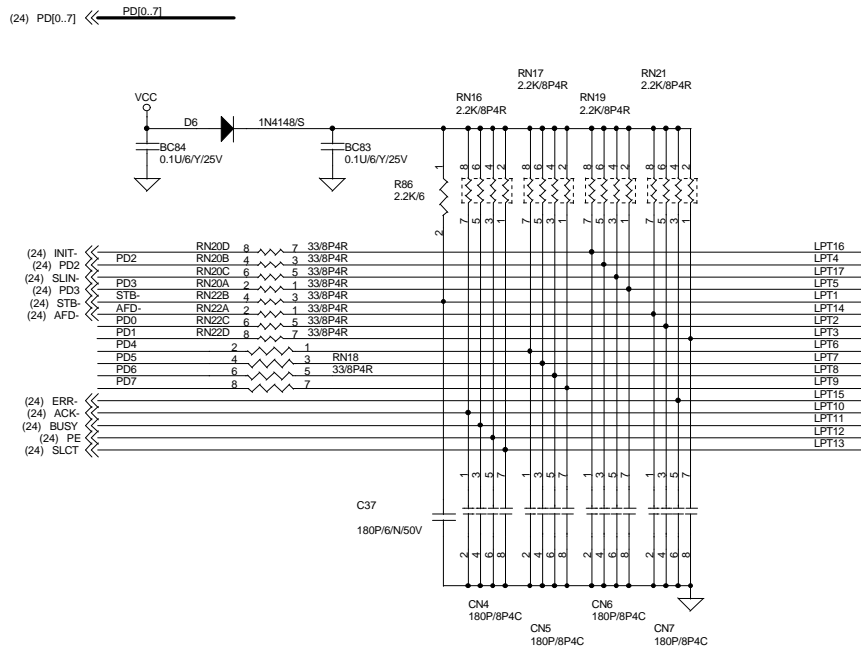
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|--------|-----------------------------|-------|-----|----|-----|
| Title  |                             |       | FWH |    |     |
| Size   | Document Number             |       |     |    | Rev |
| Custom | GA-6OXT                     |       |     |    | 1.0 |
| Date:  | Wednesday, October 17, 2001 | Sheet | 23  | of | 30  |

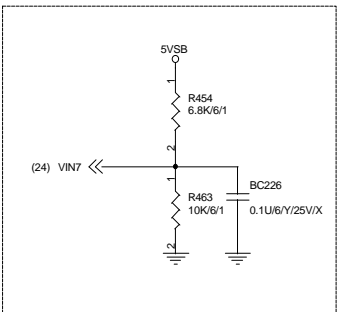
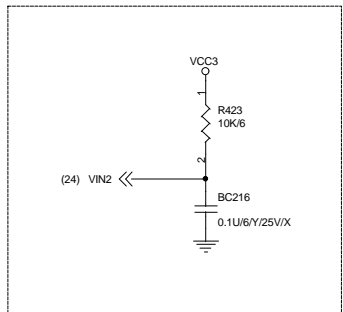
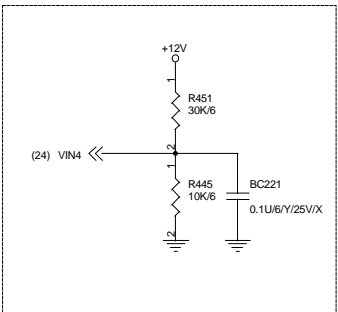
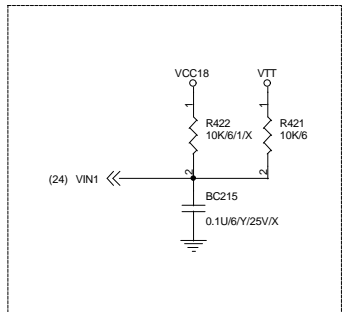
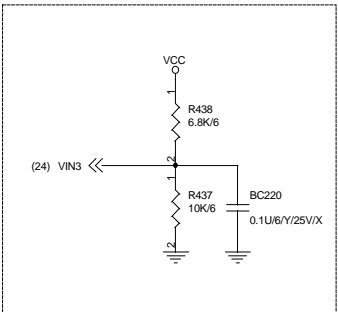
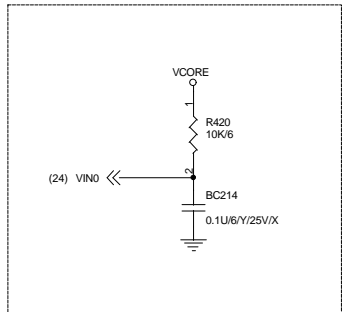
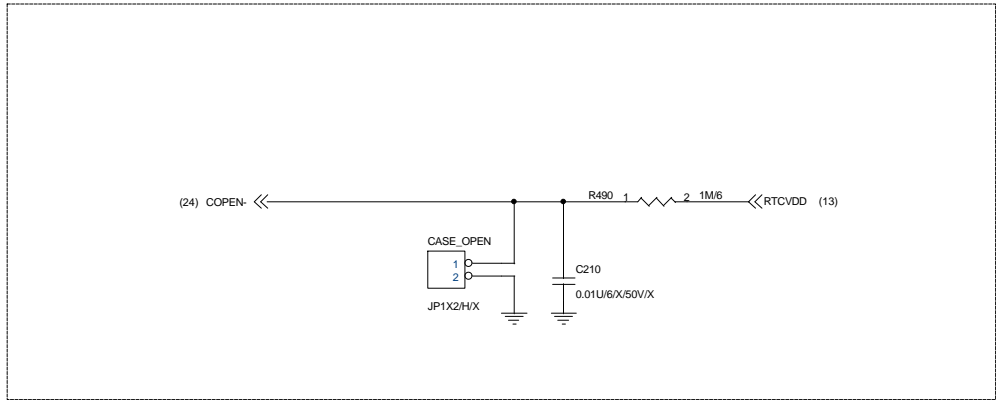
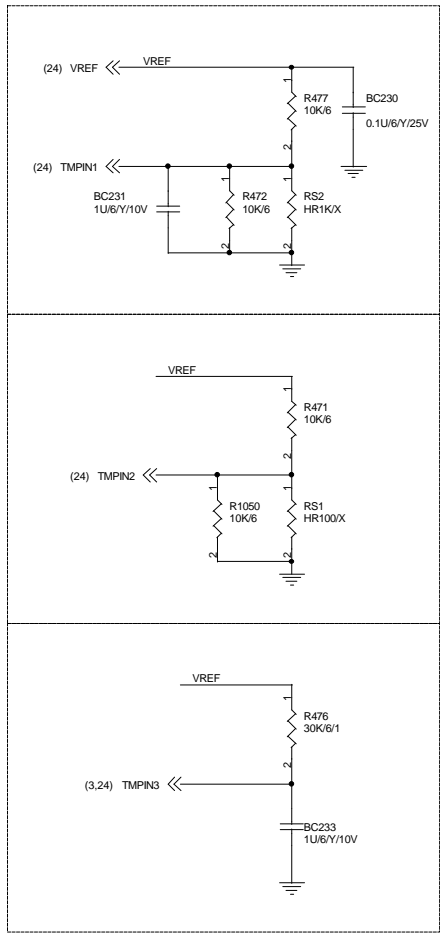
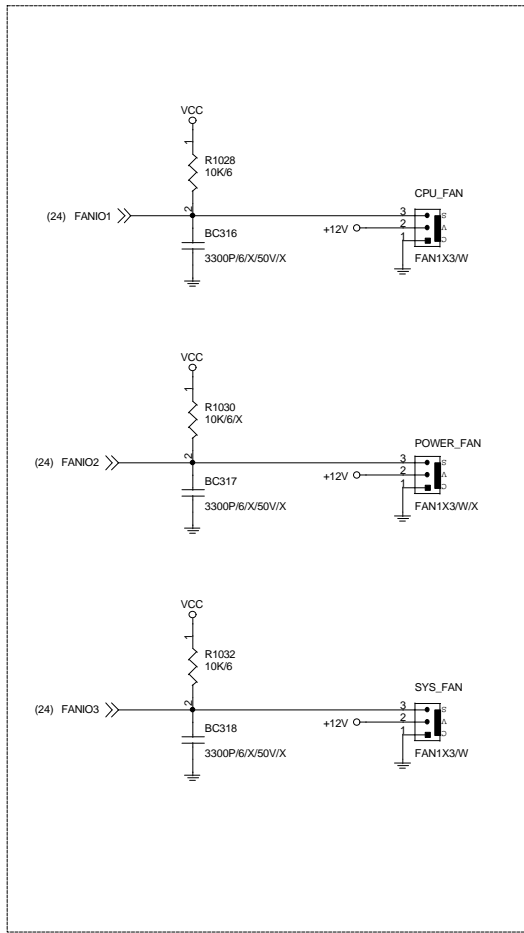


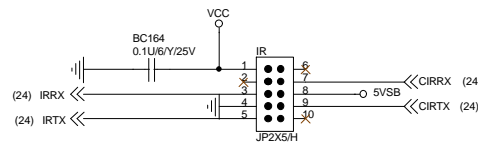
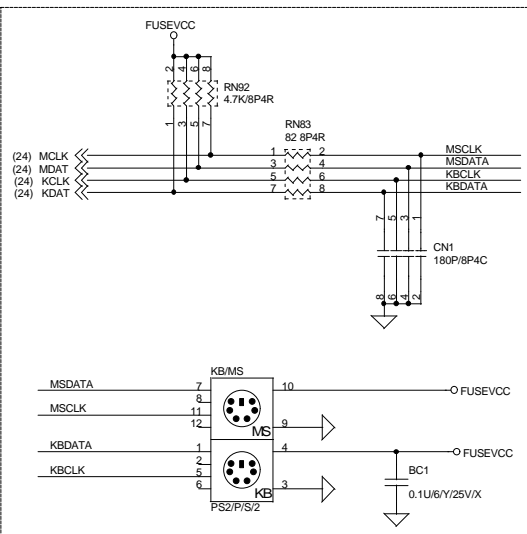
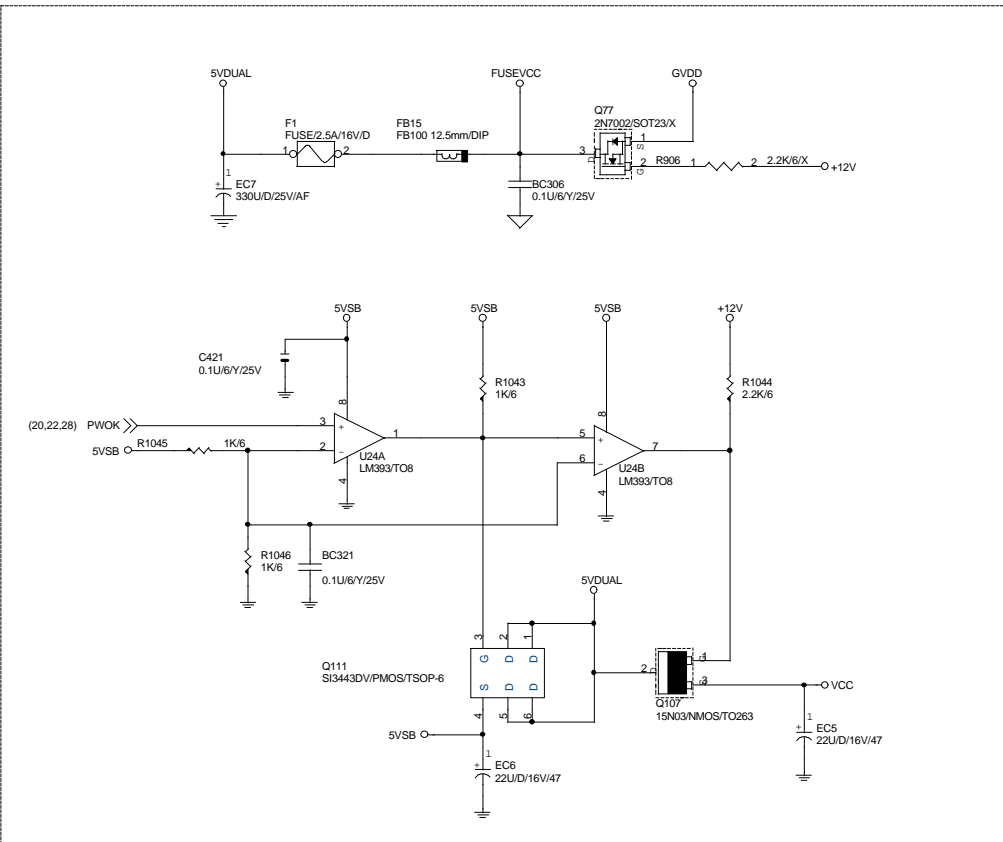
# COM PORT



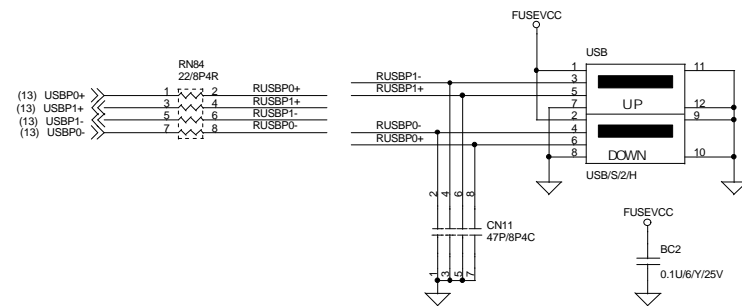
# PRT PORT



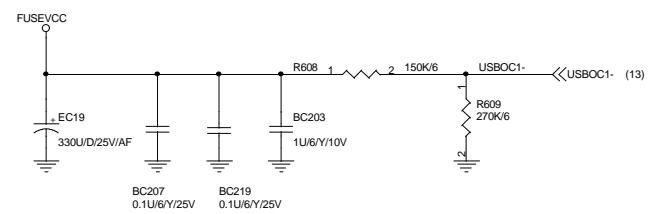
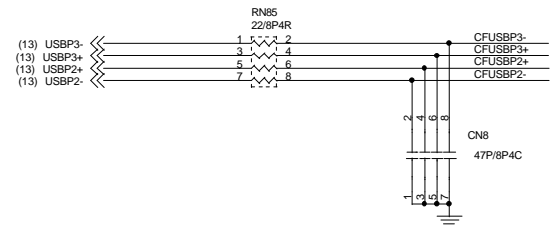
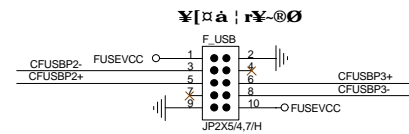




### REAR USB PORT

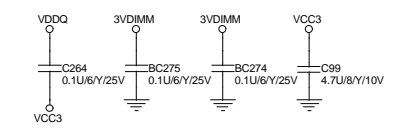
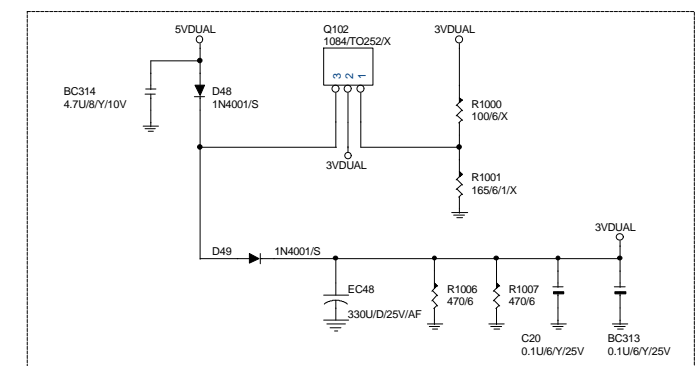
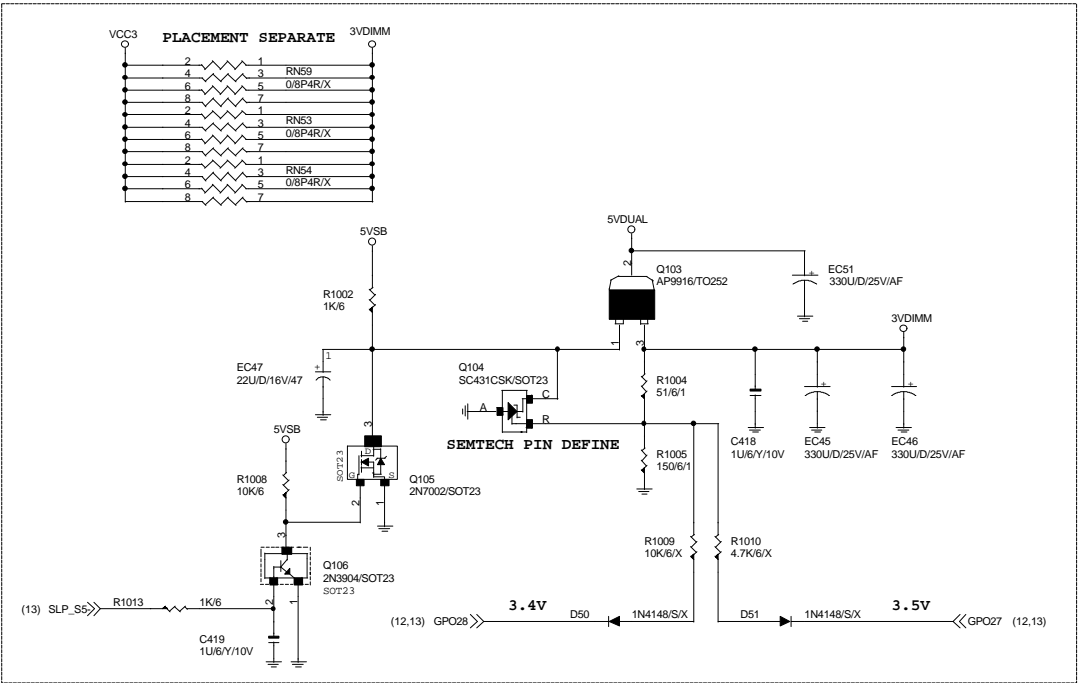
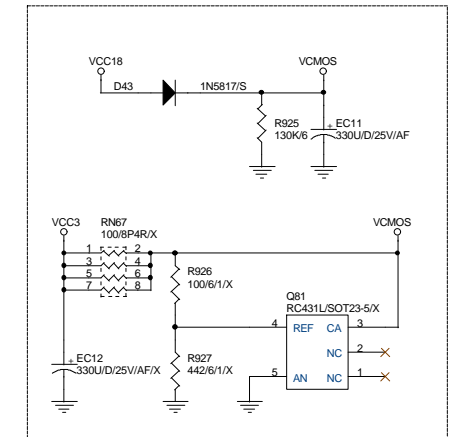
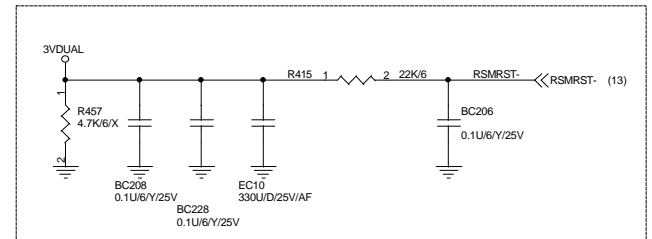
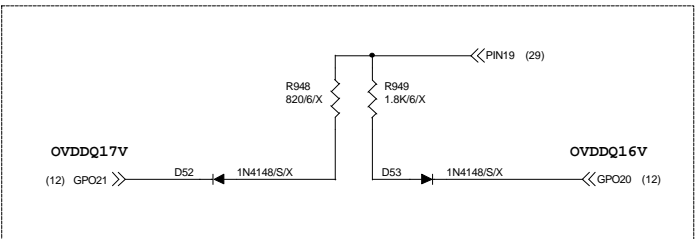
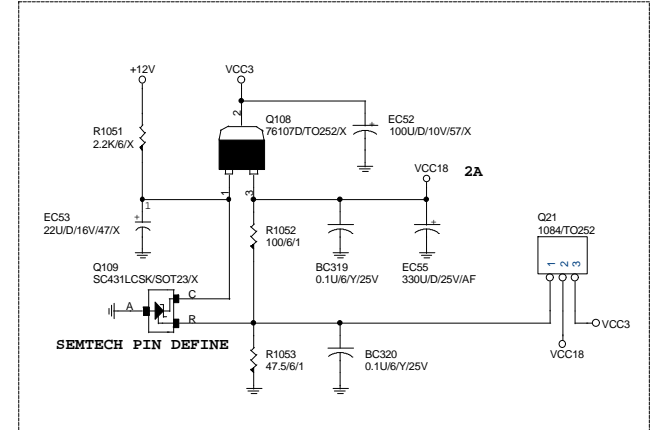
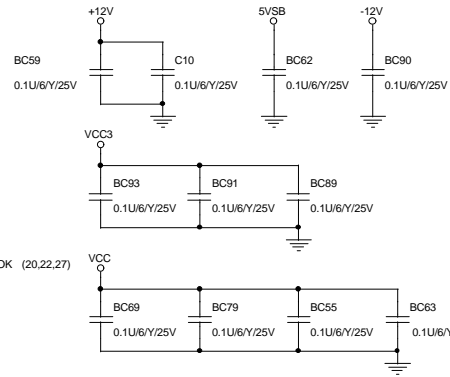
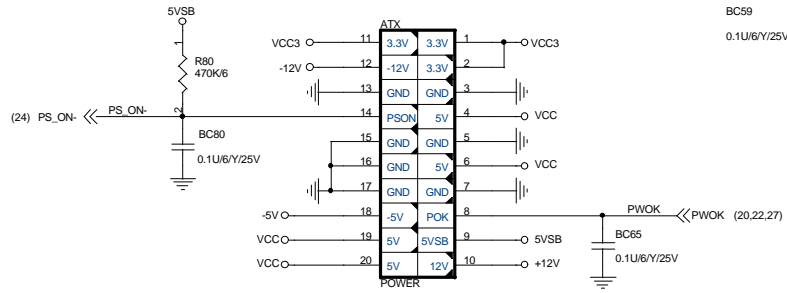


### FRONT USB PORT

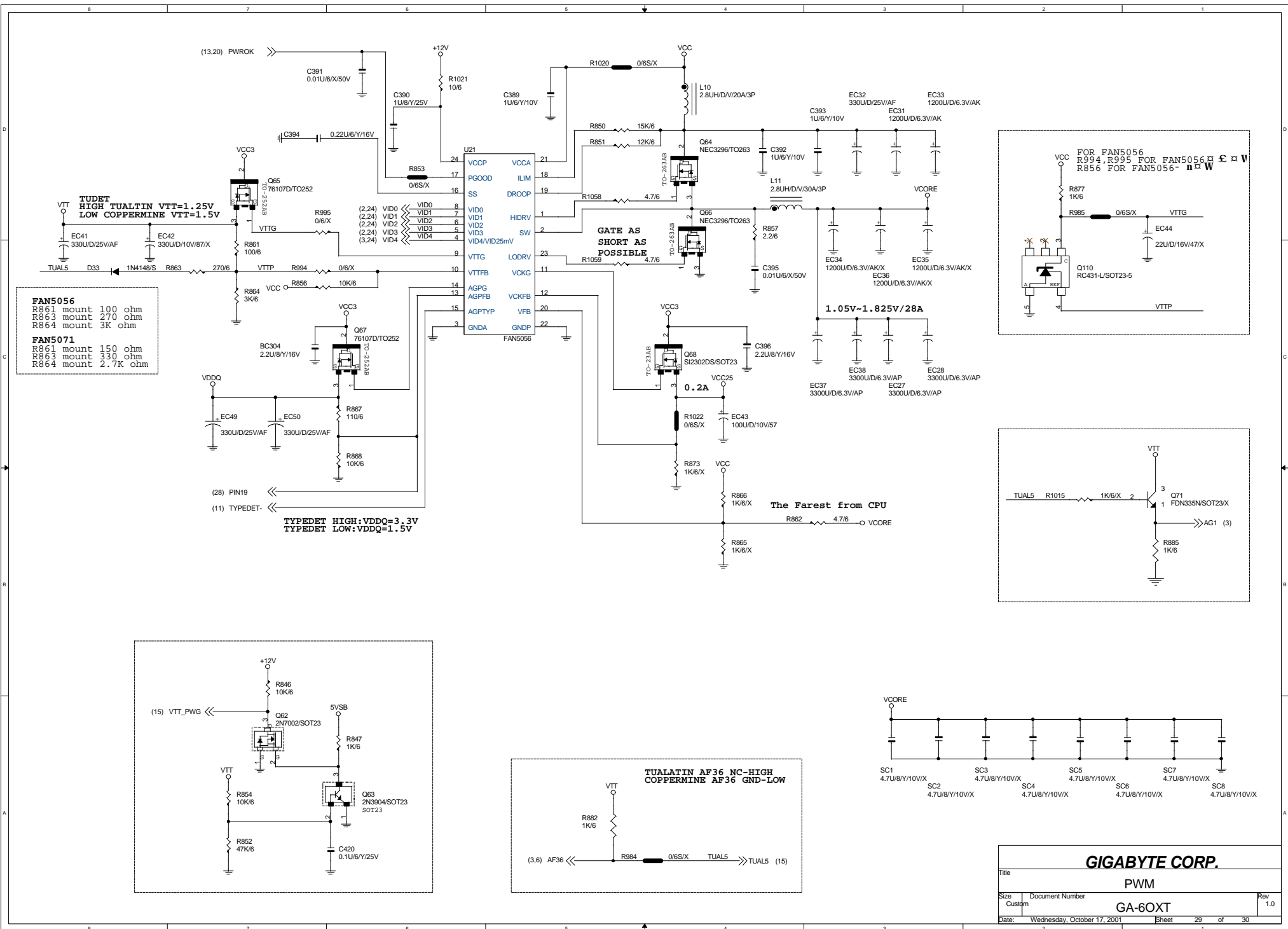


|   |                                   |            |  |
|---|-----------------------------------|------------|--|
| <b>GIGABYTE CORP.</b>                                 |                                   |            |  |
| Title<br><b>KB &amp; PS2 MOUSE &amp; IR &amp; USB</b> |                                   |            |  |
| Size<br>Custom  | Document Number<br><b>GA-60XT</b> | Rev<br>1.0 |  |
| Date:<br>Wednesday, October 17, 2001                  | Sheet<br>27                       | of 30      |  |

### ATX POWER CONNECTOR



|                                |                             |                |
|--------------------------------|-----------------------------|----------------|
| <b>GIGABYTE CORP.</b>          |                             |                |
| <b>ATX CONN. &amp; STR PWR</b> |                             |                |
| Title                          |                             | Rev            |
| Size                           |                             | 1.0            |
| Document Number                | GA-60XT                     |                |
| Date:                          | Wednesday, October 17, 2001 | Sheet 28 of 30 |



# Model Name: GA-6OXT

## Version: 0.1

1. Add BC321 0.1uF bypass capacitor on U24 reference voltage pin
2. Removed R866 1K ohm for adjustment VCORE feedback voltage
3. PCB color change to Blue from Gold
4. Add 12LC2-04BLUE-01 Blue Thunder label
5. Add 12ME-6OXT-1001 English Manual Rev:1.0
6. Add 12QE-6OXT-1001 English Quick Installation Rev:1.0
7. Del 12CR1-1UB020-00 Front USB Cable with Bracket
8. R1044 change to 2.2K ohm from 1K ohm for 5VDUAL circuit
9. U24 change main source to 10TA1-800393-01 TI LM393 from 10TA1-800393-12 Fairchild KA393AD
10. U24 add second source 10TA1-800393-04 Philips LM393D
11. U26 add 10HB1-032801-60 ICH2 FW82801BA Rev:B0SL5FC as main source
12. APIC CPU waveform adjustment
  - R281 change to 22 ohm from 33 ohm
  - Del C352 22pF capacitor
  - Del R1049 0 ohm resistor
  - Change R812 to 150 ohm 1% resistor from 130 ohm 1% resistor
  - Change U9 to ICS950508BF from RTM560-50R
  - D41 add 1N4148 diode
  - R846, R854 add 10K ohm resistor
  - R847 add 1K ohm resistor
  - R852 add 47K ohm resistor
  - C420 add 0.1uF capacitor
  - Q62 add 2N7002
  - Q63 add 2N3904
13. VTT Power Improved
  - Del EC44 22uF 16V capacitor
  - Del EC42 100uF 10V capacitor
  - EC41 change to 330uF 25V from 100uF 10V capacitor
  - Add SC39, SC40 and C428 location
14. Add EMI solution
  - Add C438, C439 location and both are mount 10pF capacitor
  - Change FB14 to 10LF2-022000-11 200 ohm Bead from 30 ohm Bead
15. GAME PORT circuit modify
  - Add C429-C436 location
  - Removed CN12 and CN13 location
  - Del Q77 2N7002
  - Del R906 2.2K ohm resistor
16. HUBREF voltage quality Improve
  - Add SC41 location and mount 0.1uF capacitor
17. Del Q110 second source 10GL4-200431-20SC43L
18. CPU Transient Improved
  - C389 change to 1uF from 0.01uF capacitor
  - R1021 add 10 ohm resistor
  - Del R865 1K ohm resistor
  - Add R1058, R1059 location and both are mount 4.7 ohm resistor
  - Change R850 to 15K ohm from 10K ohm resistor
19. PCICLK0 clock Improved
  - Del C224 22pF capacitor
20. Solved Ring Indicate can't wakeup issue
  - Del EC22 22uF 16V capacitor

21. AC\_RST- signal quality Improved
  - Add C437 location
22. VCC18 Power Improved
  - Add SC42-SC45 location and all are mount 0.1uF capacitor

## Version: 1.0

1. Audio precision Line-in record fail issue
  - C370, C371 change to 2.2uF 6.3V from 1uF 10V capacitor
2. RTC too fast issue
  - C136, C140 change to 22pF from 10pF apacitor
3. Del U1 Socket370 main source AMP 11SC1-920370-22 and second source FCI 11SC1-920370-25
4. Add U1 Socket370 main source AMP 11SC1-920370-21
5. Del XI X'TAL second source Fujicom 11XH5-814318-00
6. FDD compatible issue
  - Change R83 to 470 ohm from 2.2K ohm resistor
  - Change RN15 to 470 ohm 8P4R from 2.2K ohm 8P4R resistor
7. Audio precision Line-in record passband fail issue
  - Change R826, R827 to 18K ohm from 10K ohm resistor
8. Front audio priority issue
  - R989, R990 trace cut off

### GIGABYTE CORP.

|        |                 |                             |          |
|--------|-----------------|-----------------------------|----------|
| Title  |                 | HISTORY                     |          |
| Size   | Document Number | Date                        | Rev      |
| Custom | GA-6OXT         | Wednesday, October 17, 2001 | 1.0      |
| Date:  |                 | Sheet                       | 30 of 30 |