

# GIGABYTE GA-6OXT Reference Schematics

Revision : 1.0

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## JUMPER SETTING

1-2	CLEAR CMOS
2-3	NORMAL

## BIOS\_WP

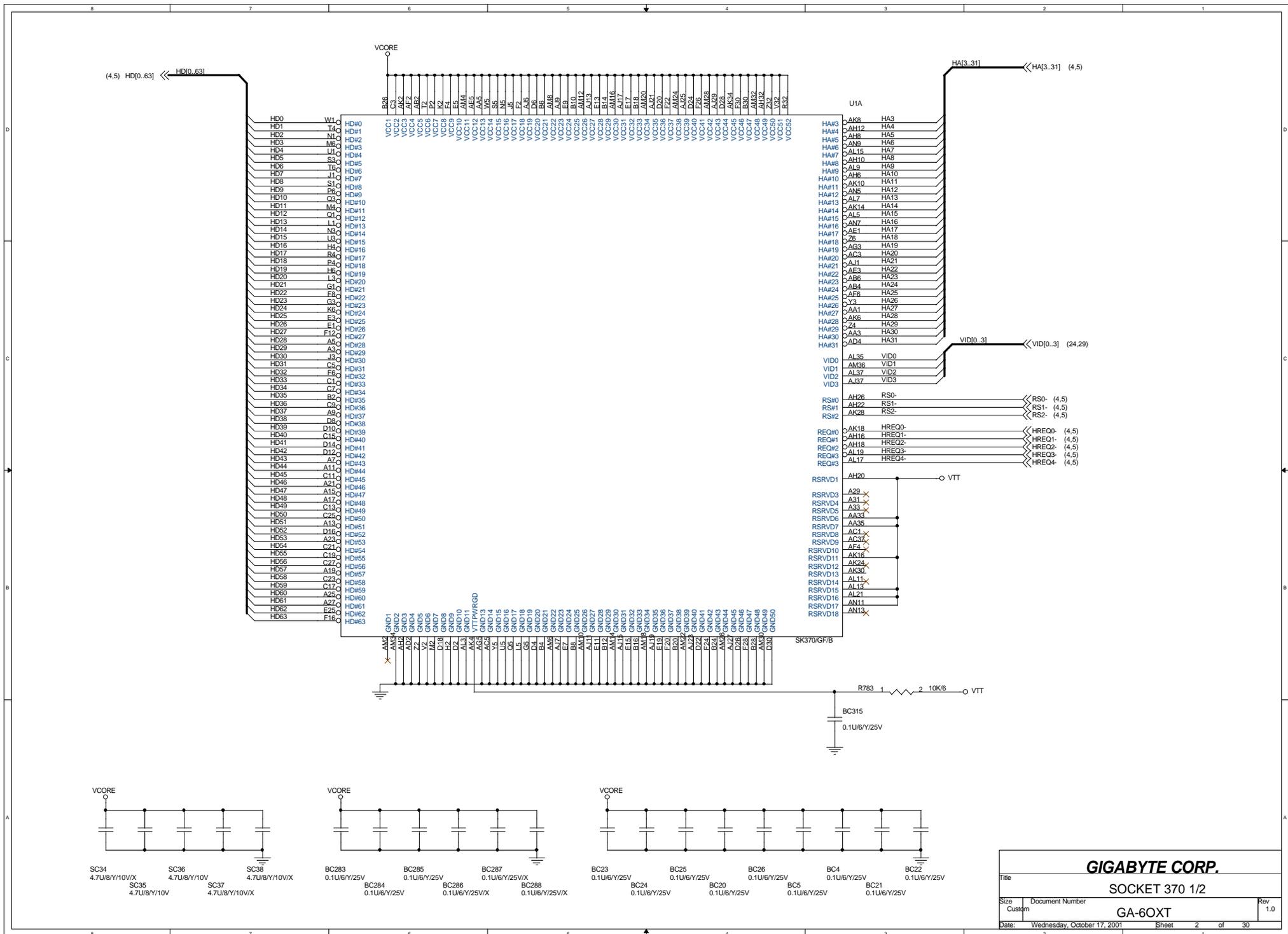
1-2	WRITE PROTECT
2-3	NORMAL

## CODEC\_EN

1-2	ENABLE
2-3	DISABLE

ICH2 GPIO	FUNCTION	PULL UP/DOWN
** GPIO/REQA-	PRI_DWN-	PULL UP 47K TO VCC3
GPIO/REQ5-	REQ5-	PULL UP 27K TO VCC
GPIO2/PIRQE-	NOT USED	PULL UP 82K TO VCC3
GPIO3/PIRQF-	PIRQF-	PULL UP 82K TO VCC3
GPIO4/PIRQG-	PIRQG-	PULL UP 27K TO VCC
GPIO5/PIRQH-	NOT USED	PULL UP 82K TO VCC3
** GPIO6	GREEN BUTTON	PULL UP 82K TO 3VDUAL
** GPIO7	AGP/DIMM OVER VOLTAGE	PULL UP 82K TO VCC3
** GPIO8	REV. ID	PULL UP 47K TO 3VDUAL
** GPIO11	REV. ID	PULL UP 47K TO 3VDUAL
** GPIO12	LPCPME-	PULL UP 82K TO 3VDUAL
** GPIO13	SMART CARD READER	PULL UP 47K TO 3VDUAL
GPO16/GNTA-	NOT USED	PULL 82K TO VCC3(CAN'T PULL DOWN).Because BIOS Address Decode Inconect: FF
GPO17/GNT5-	GNT5-	PULL 82K TO VCC3
GPO18	NOT USED	
GPO19	NOT USED	
** GPO20	AGP OVER VOLTAGE 1.6V	
** GPO21	AGP OVER VOLTAGE 1.7V	
GPO22	NOT USED	PULL 82K TO VCC3
GPO23	NOT USED	
** GPIO24	REV. ID	PULL 47K TO 3VDUAL
** GPIO25	BIOS WRITE PROTECT	
** GPIO27	DIMM OVER VOLTAGE 3.5V	
** GPIO28	DIMM OVER VOLTAGE 3.4V	

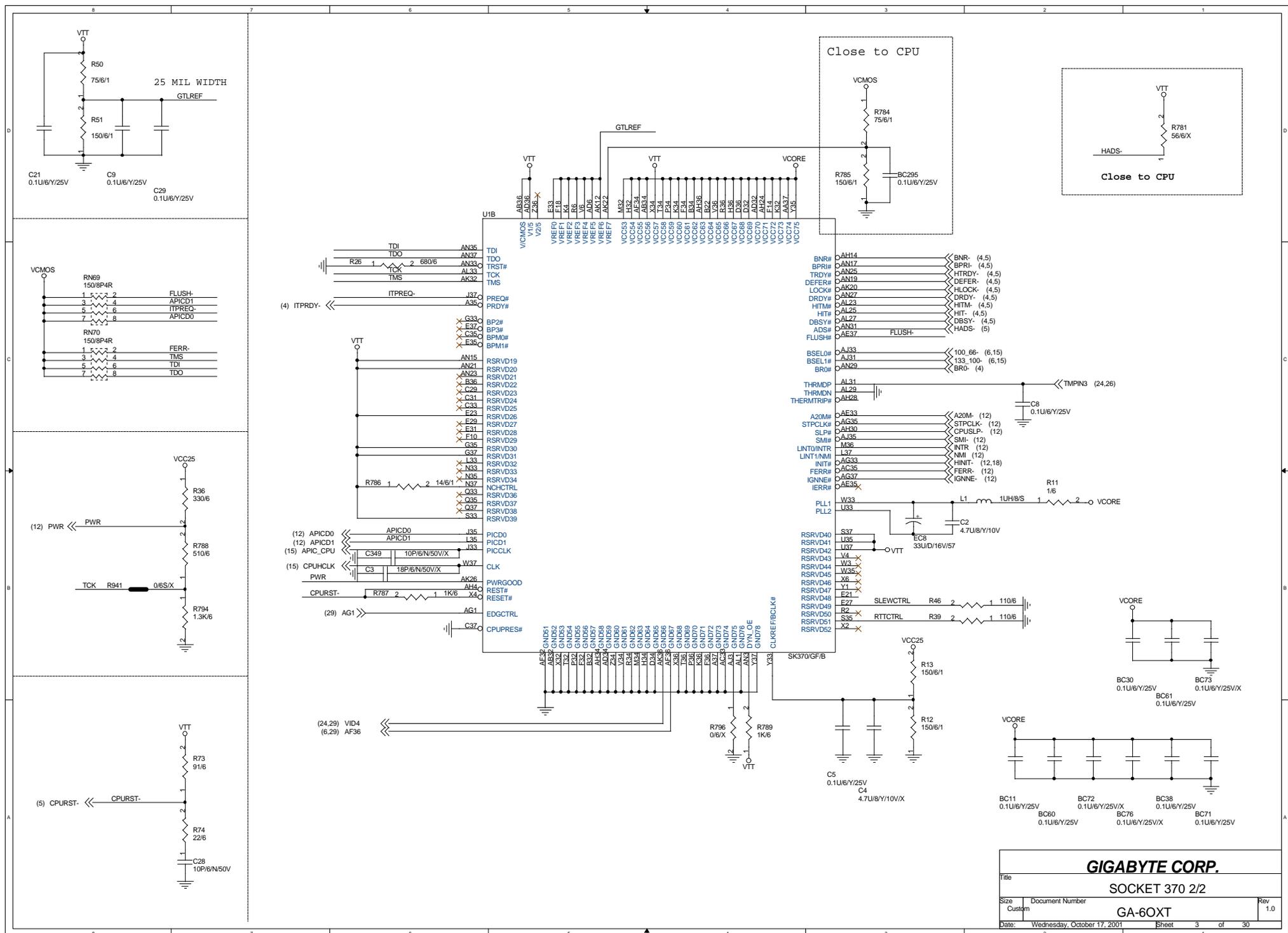
LPC I/O GPIO	FUNCTION	PULL UP/DOWN
** GP50/CLKRUN-	STR FUNCTION	PULL DOWN 47K TO GND



**GIGABYTE CORP.**

**SOCKET 370 1/2**

Title		SOCKET 370 1/2	
Size	Document Number	GA-60XT	
Custom		Rev 1.0	
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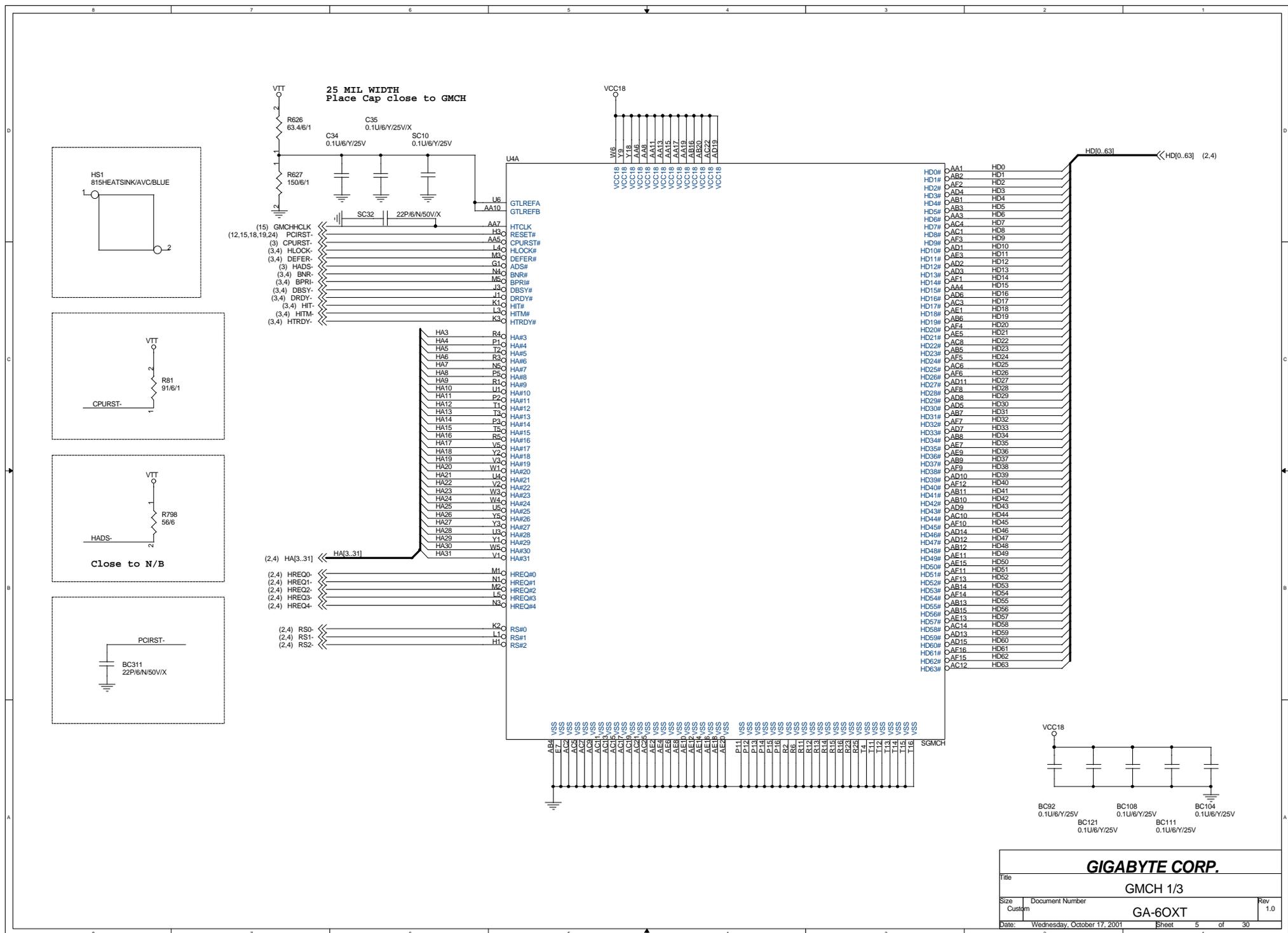


**GIGABYTE CORP.**

Title  
**SOCKET 370 2/2**

Size Custom	Document Number <b>GA-60XT</b>	Rev 1.0
Date: Wednesday, October 17, 2001      Sheet 3 of 30		

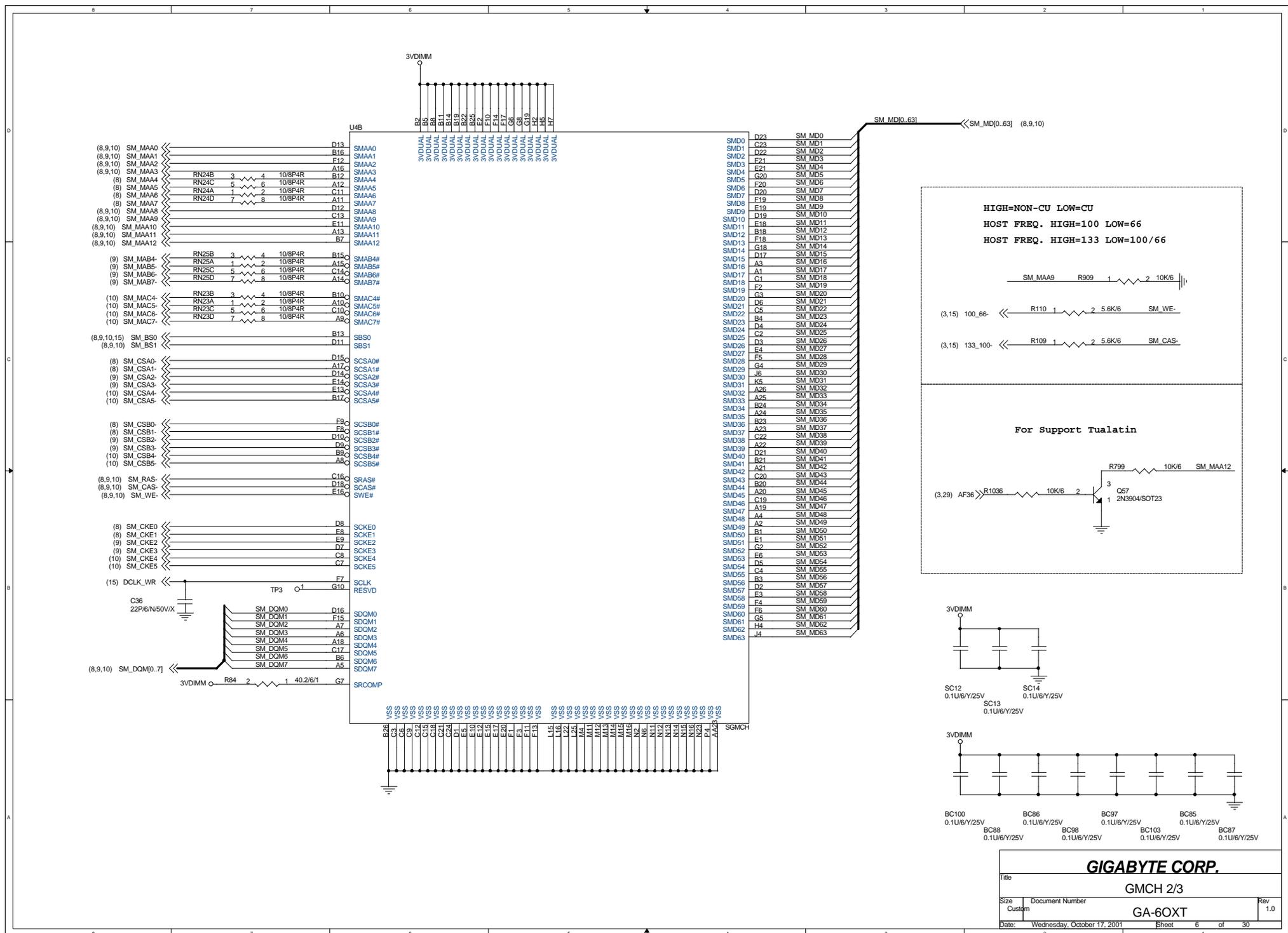




**GIGABYTE CORP.**

Title: **GMCH 1/3**

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

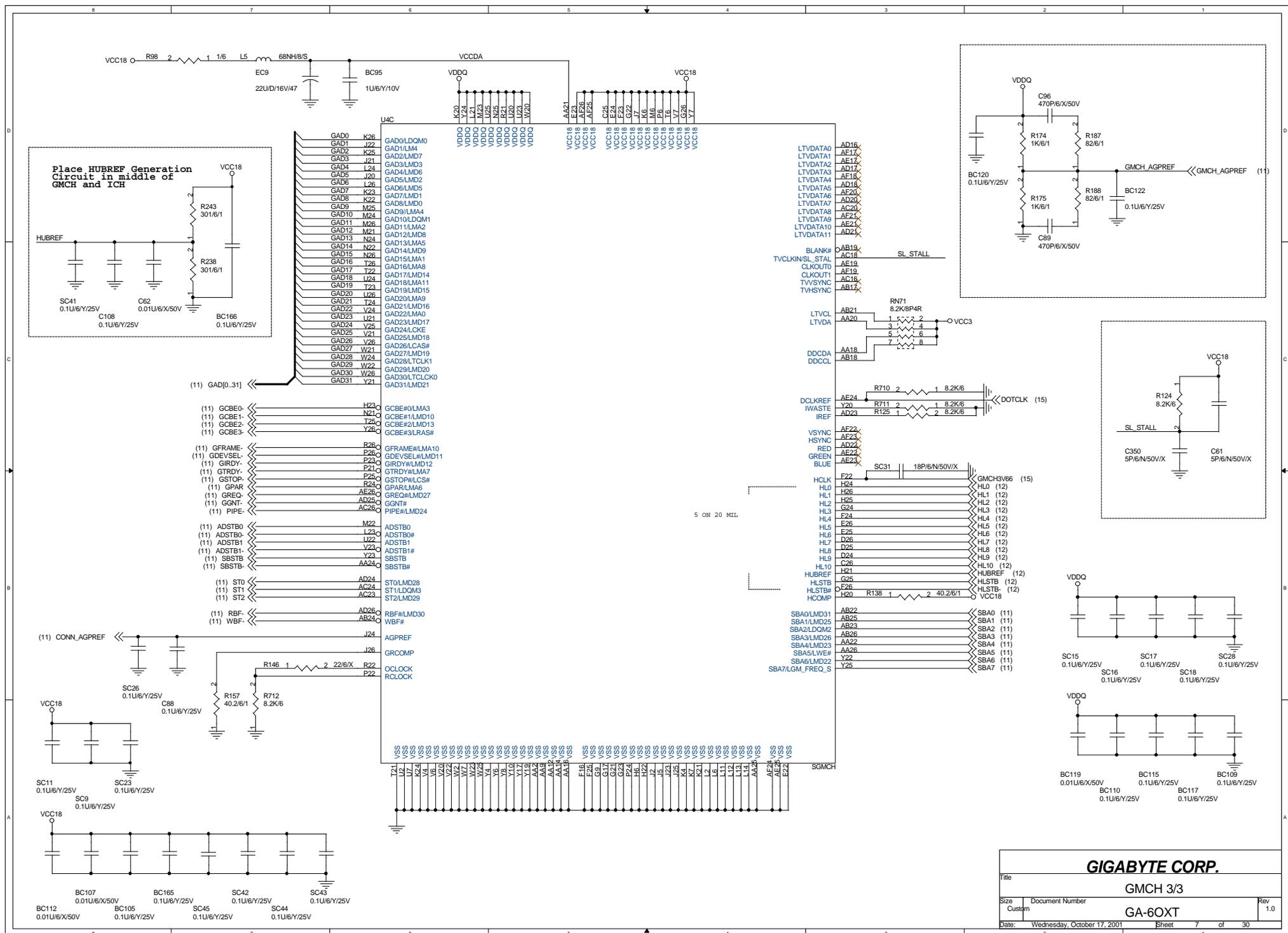
For Support Tualatin

**GIGABYTE CORP.**

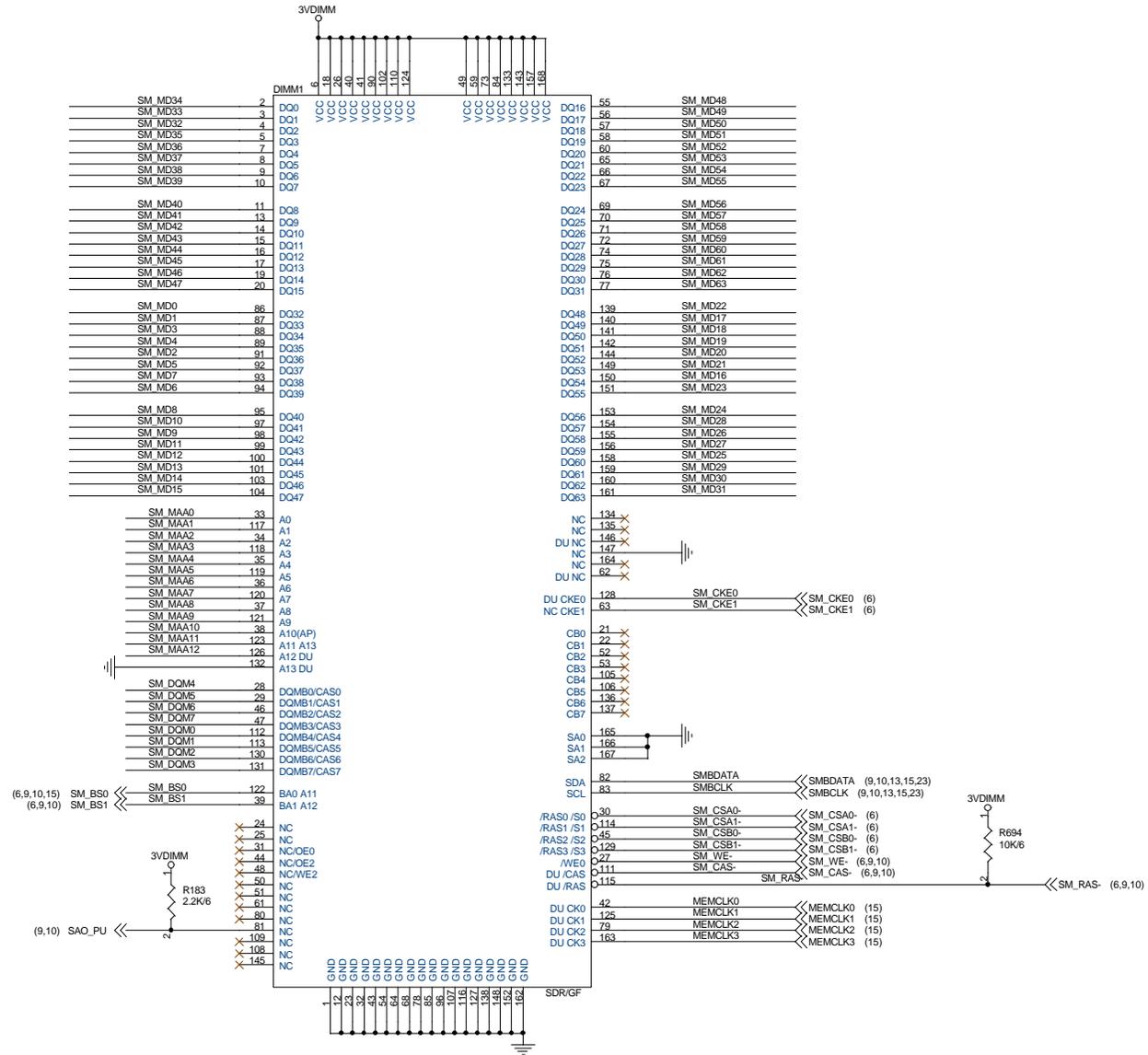
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Size: Custom	Document Number: <b>GA-60XT</b>	Rev: 1.0
Date: Wednesday, October 17, 2001		

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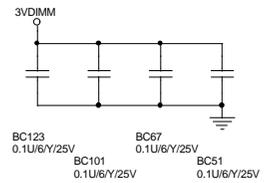
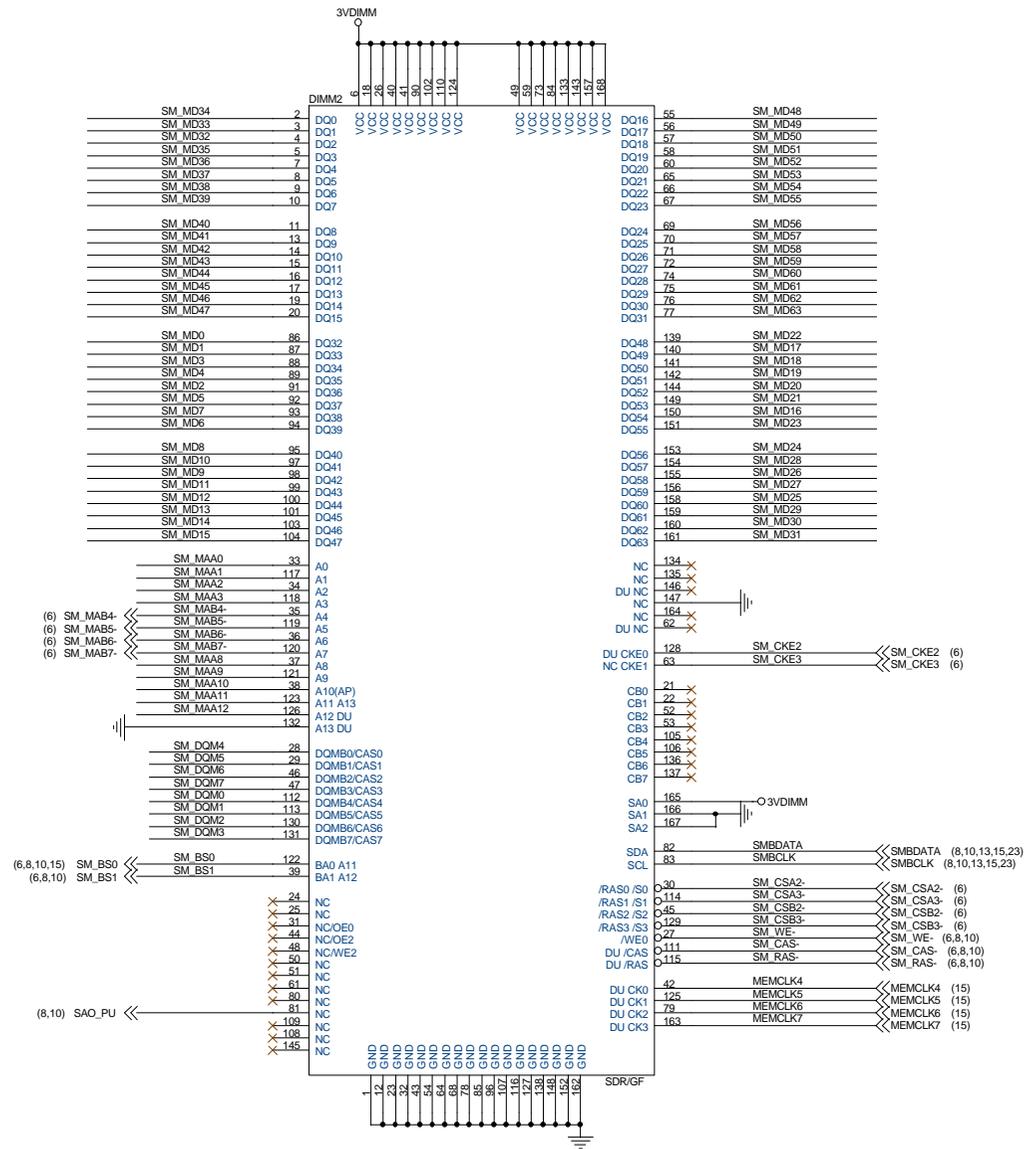
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 (6,9,10) SM\_MAA[0..12] << SM\_MAA[0..12]  
 (6,9,10) SM\_DQM[0..7] << SM\_DQM[0..7]



**GIGABYTE CORP.**

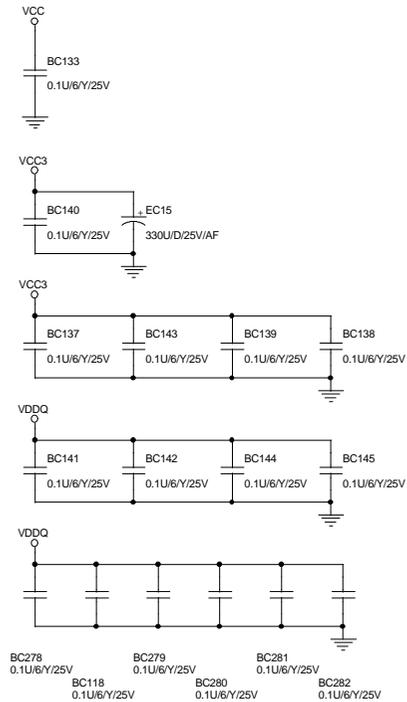
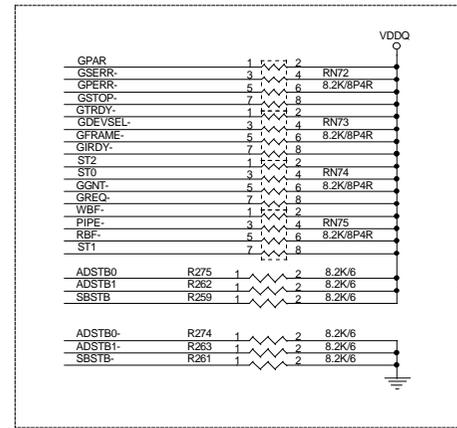
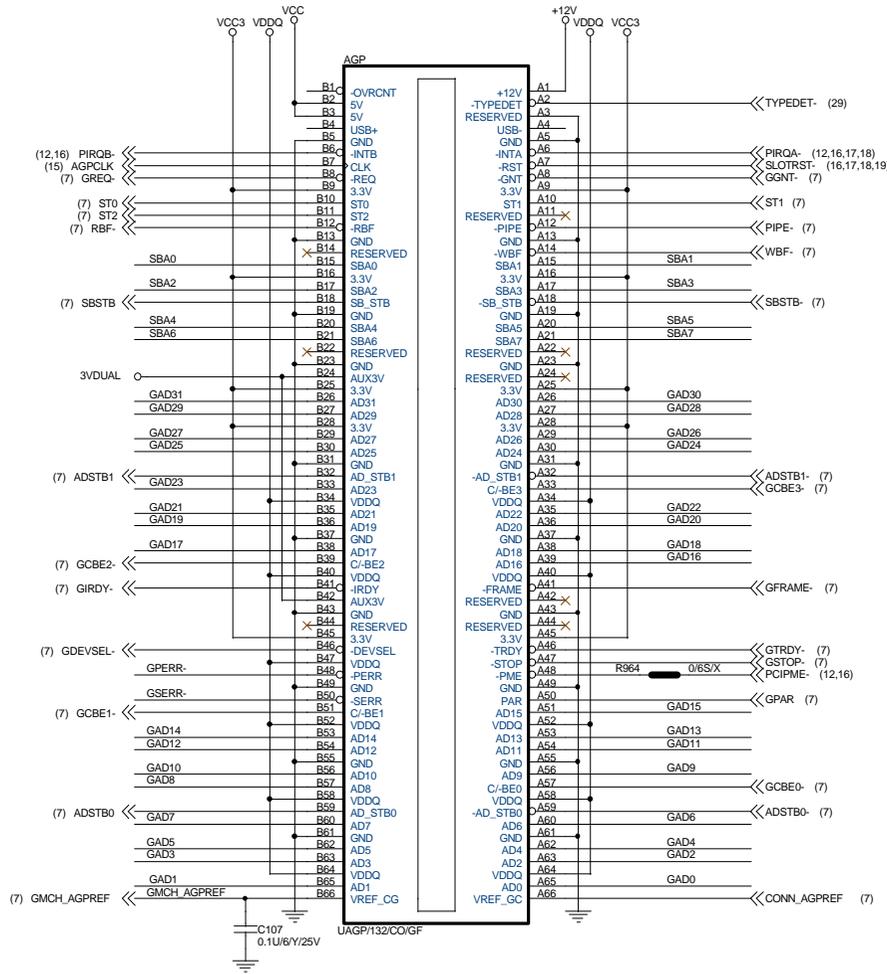
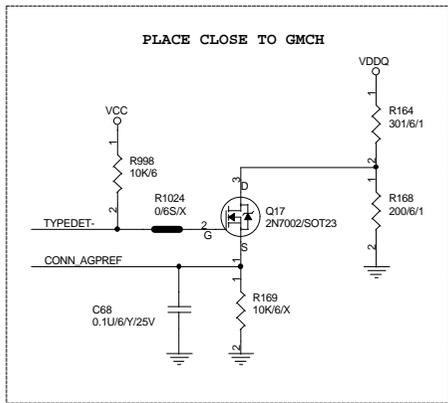
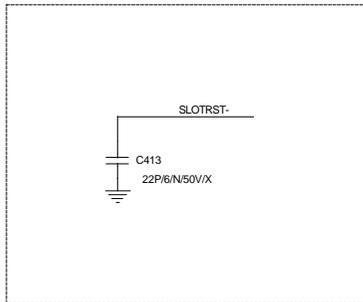
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Size	Document Number	GA-60XT		Rev	1.0
Custom	Date: Wednesday, October 17, 2001			Sheet	8 of 30

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

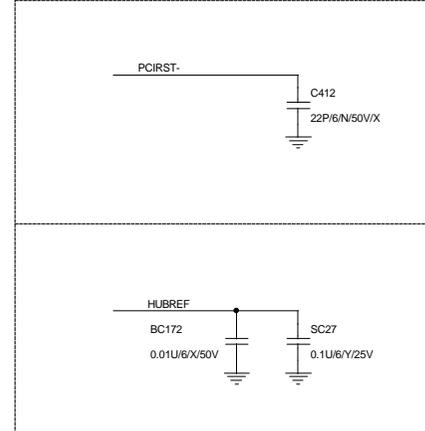
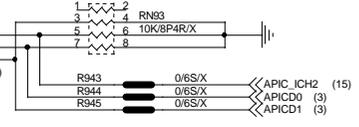
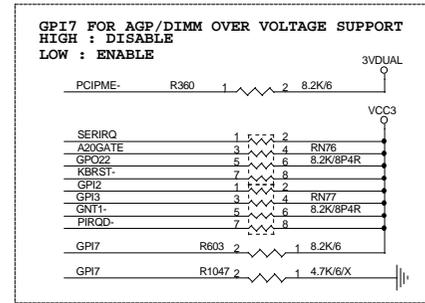
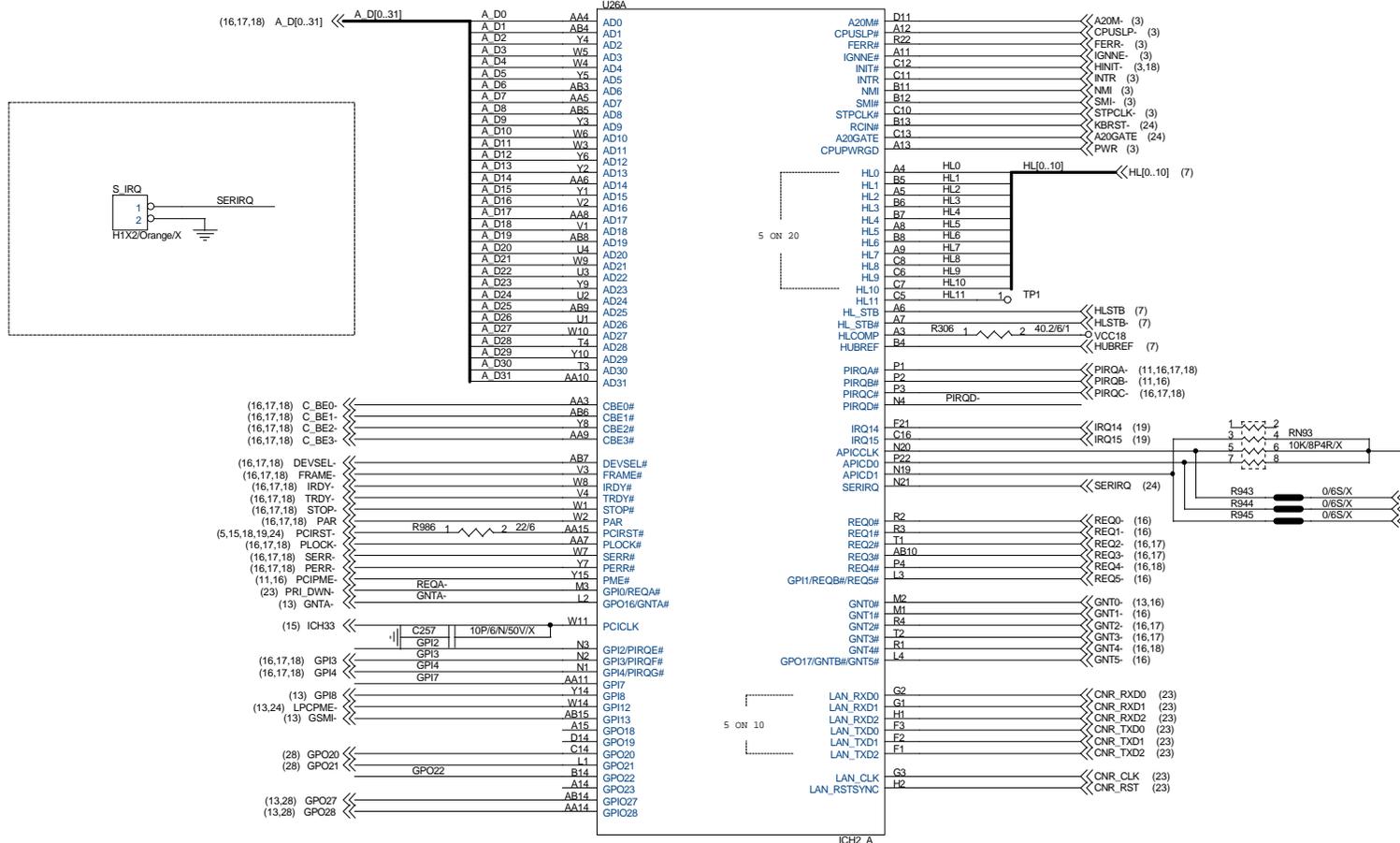




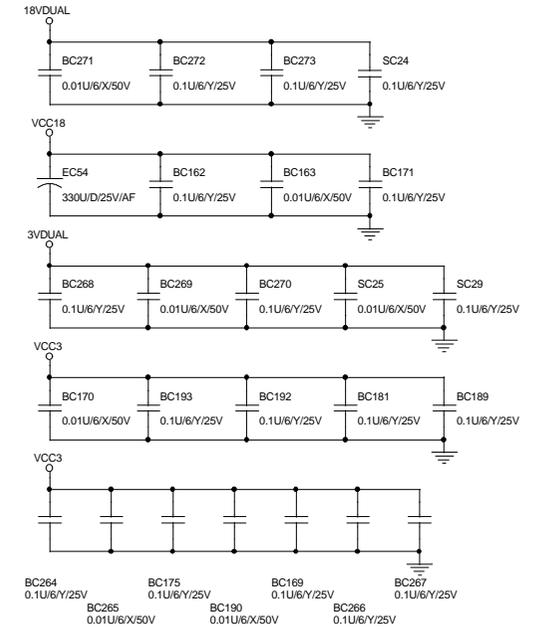
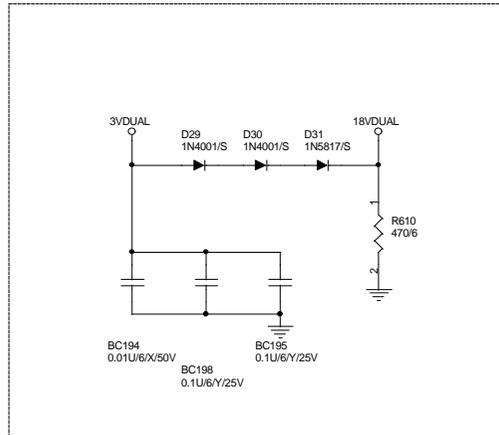
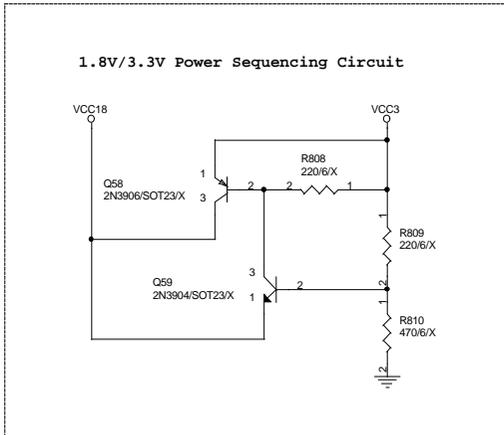
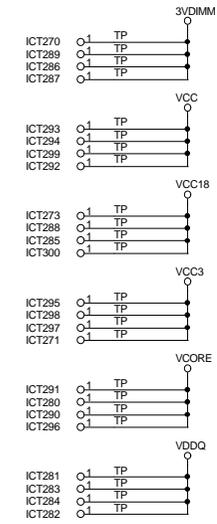
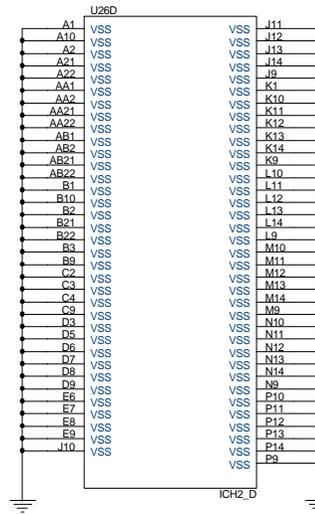
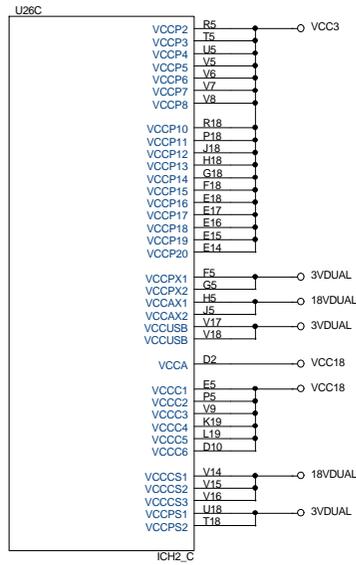
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 (7) ST[0..2] << ST[0..2]  
 (7) GAD[0..31] << GAD[0..31]



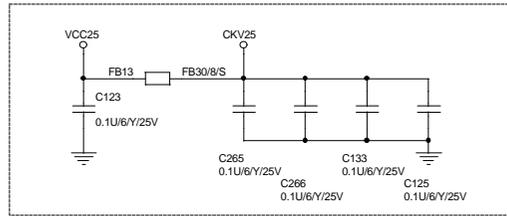
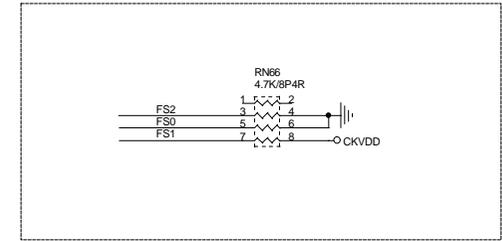
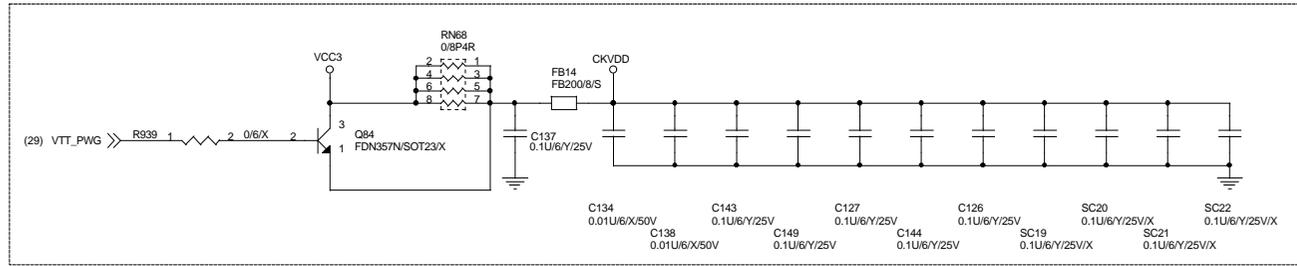
\*\* ICH2 PIN A3,B4  
Trace length can't Exceed 0.5"  
X2 trace width WITH HUBLINK TRACE  
\*This two parts must  
place near to ICH2





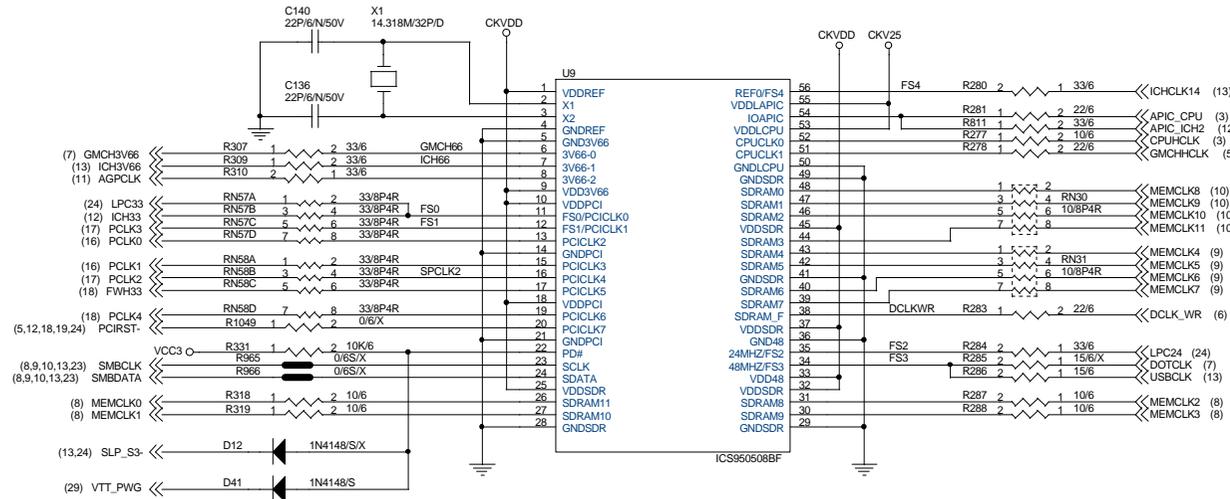
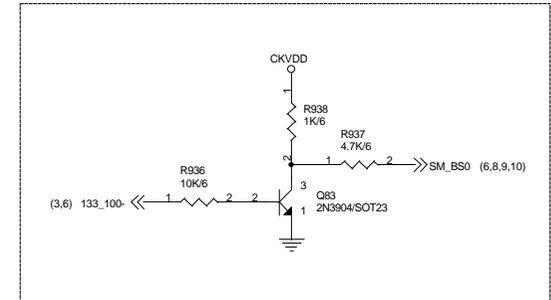
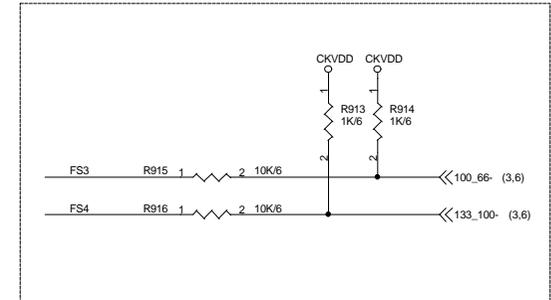


<b>GIGABYTE CORP.</b>		
Title		
ICH USB PORT		
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**ICS94301AF**  
**Q84 mount FDN357N**  
**R939 unmount 0 ohm**  
**RN68 unmount 0 ohm 8P4R**  
**D41 unmount 1N4148**  
**D12 unmount 1N4148**  
**R1049 unmount 0 ohm**

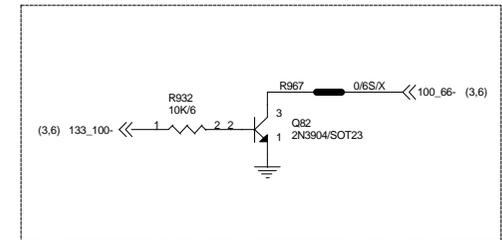
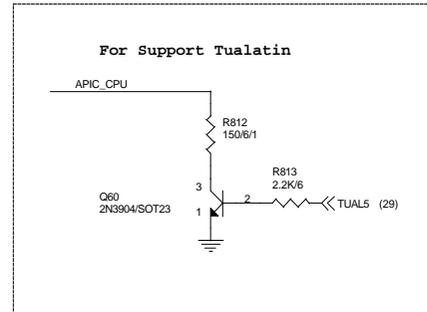
**ICS950508BF**  
**Q84 unmount FDN357N**  
**R939 unmount 0 ohm**  
**RN68 mount 0 ohm 8P4R**  
**D41 unmount 1N4148**  
**D12 unmount 1N4148**  
**R1049 unmount 0 ohm**

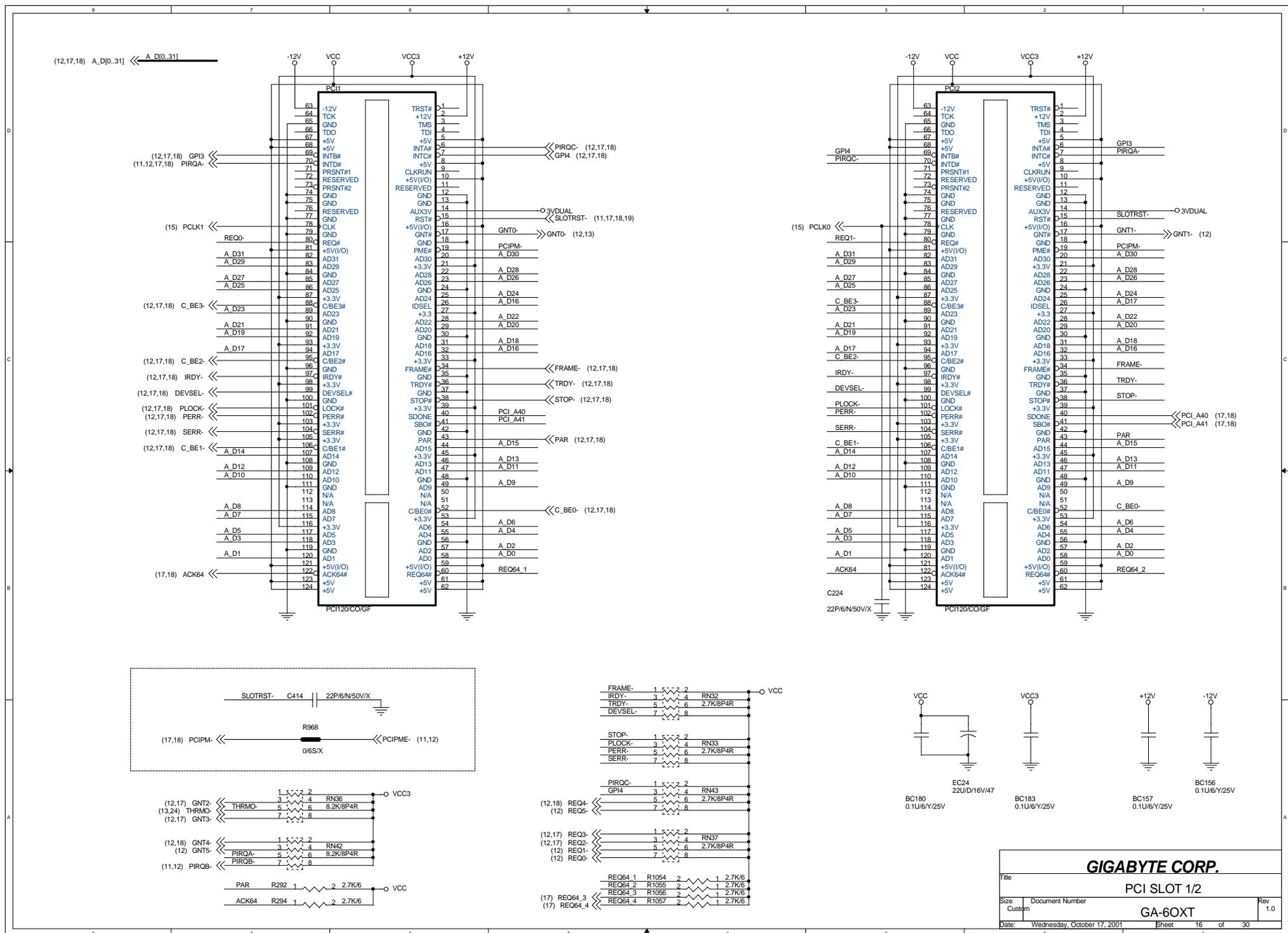


GMCH66	C438	10P/6/N/50V
ICH66	C439	10P/6/N/50V
GMCH3V66	C142	10P/6/N/50V/X
CPUHCLK	C119	10P/6/N/50V
GMCHHCLK	C113	10P/6/N/50V
ICH3V66	C146	10P/6/N/50V/X
APIC_CPU	C351	10P/6/N/50V/X
APIC_ICH2	C352	22P/6/N/50V/X

DCLKWR	C114	10P/6/N/50V/X
DOTCLK	C116	10P/6/N/50V/X
USBCLK	C117	10P/6/N/50V/X
PCLK4	C343	10P/6/N/50V/X
AGPCLK	C147	10P/6/N/50V/X
ICH33	C151	10P/6/N/50V/X
FWH33	C148	10P/6/N/50V/X
LPC33	C152	10P/6/N/50V/X
LPC24	C115	10P/6/N/50V/X

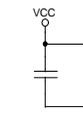
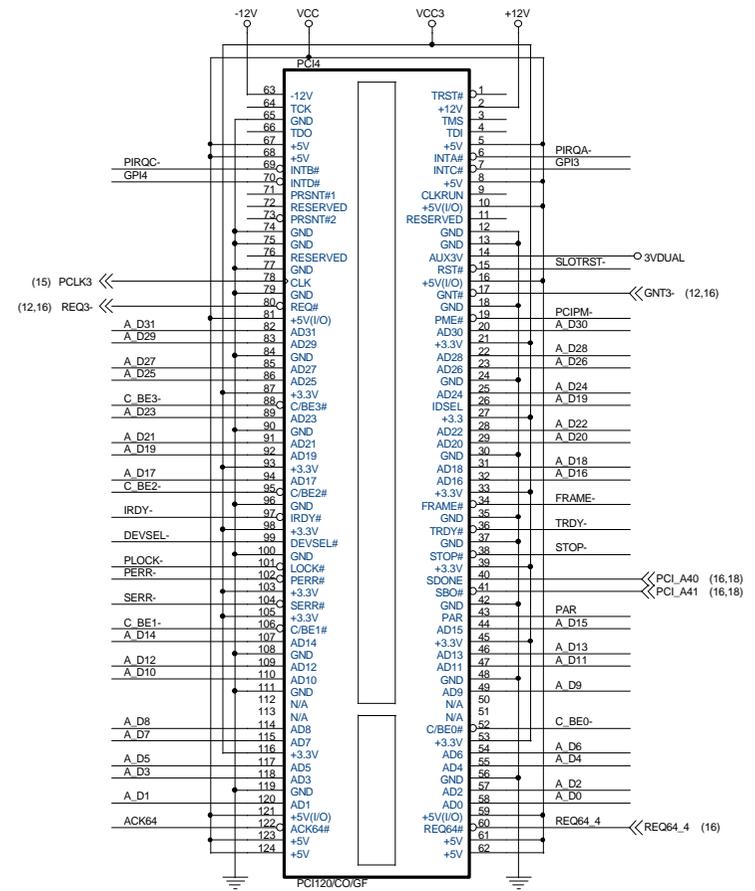
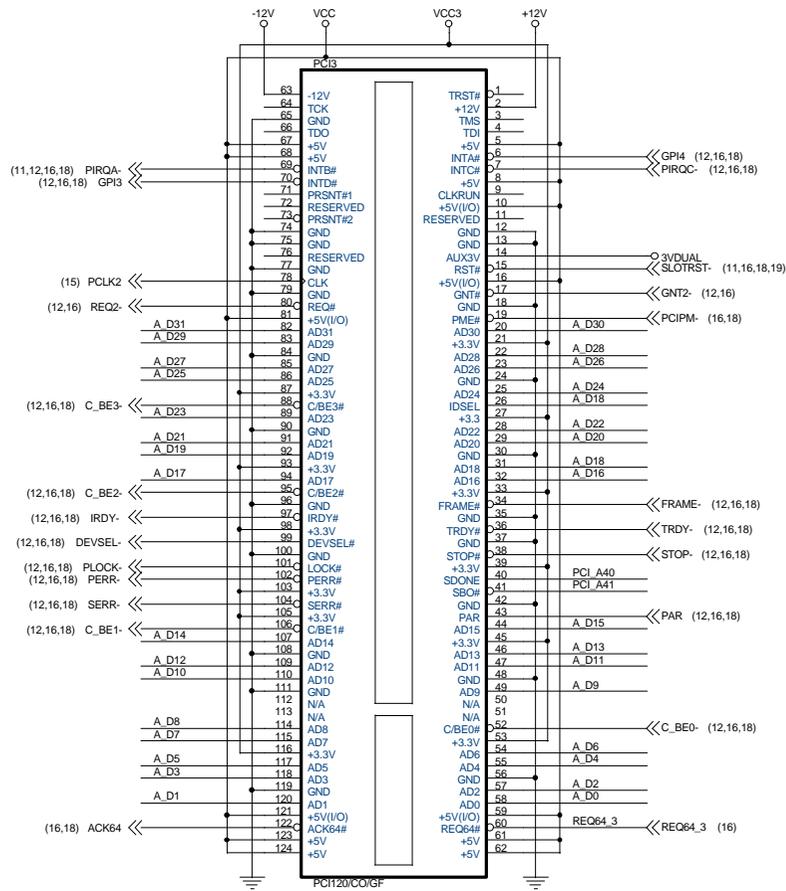
MEMCLK0	C278	10P/6/N/50V
MEMCLK1	C274	10P/6/N/50V
MEMCLK2	C281	10P/6/N/50V
MEMCLK3	C282	10P/6/N/50V
MEMCLK4	C283	10P/6/N/50V
MEMCLK5	C284	10P/6/N/50V
MEMCLK6	C273	10P/6/N/50V
MEMCLK7	C277	10P/6/N/50V
MEMCLK8	C275	10P/6/N/50V
MEMCLK9	C276	10P/6/N/50V
MEMCLK10	C279	10P/6/N/50V
MEMCLK11	C280	10P/6/N/50V



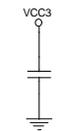


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Size	Custom	1.0
<b>GA-60XT</b>		
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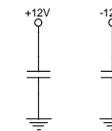
(12,16,18) A\_D[0..31] << A\_D[0..31]



BC200  
0.1U/6V/25V



BC201  
0.1U/6V/25V



BC196  
0.1U/6V/25V

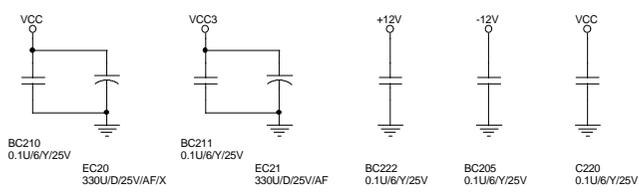
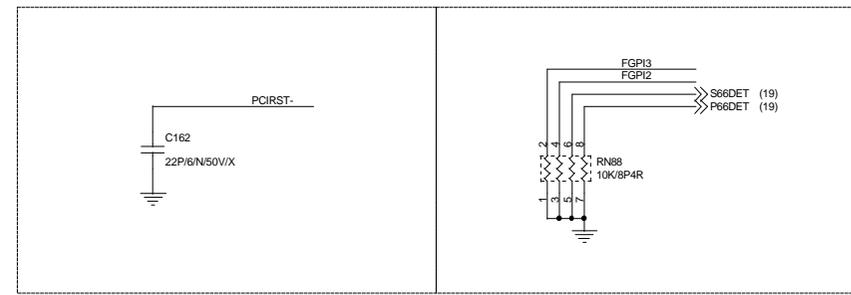
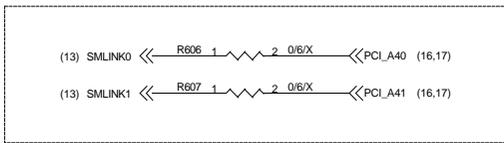
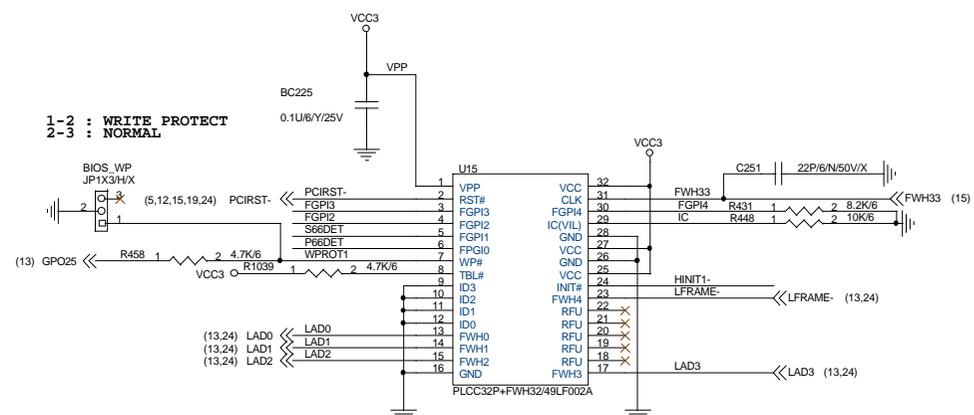
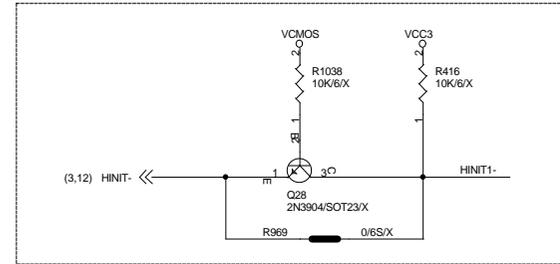
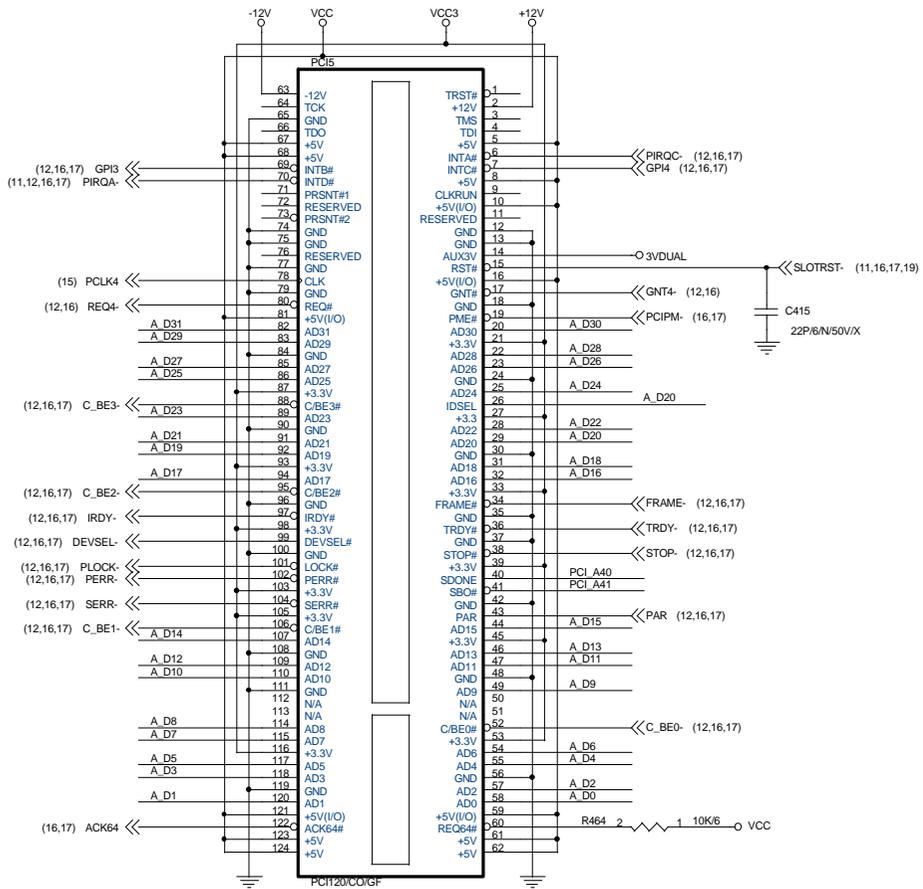


BC185  
0.1U/6V/25V

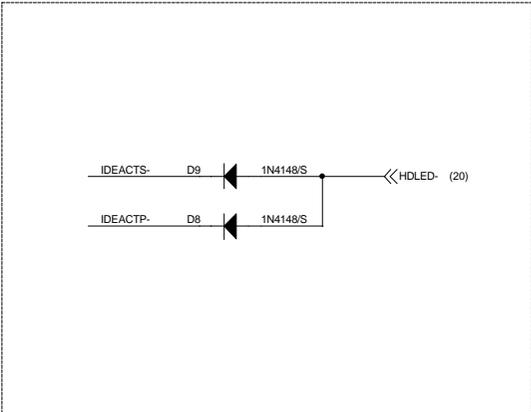
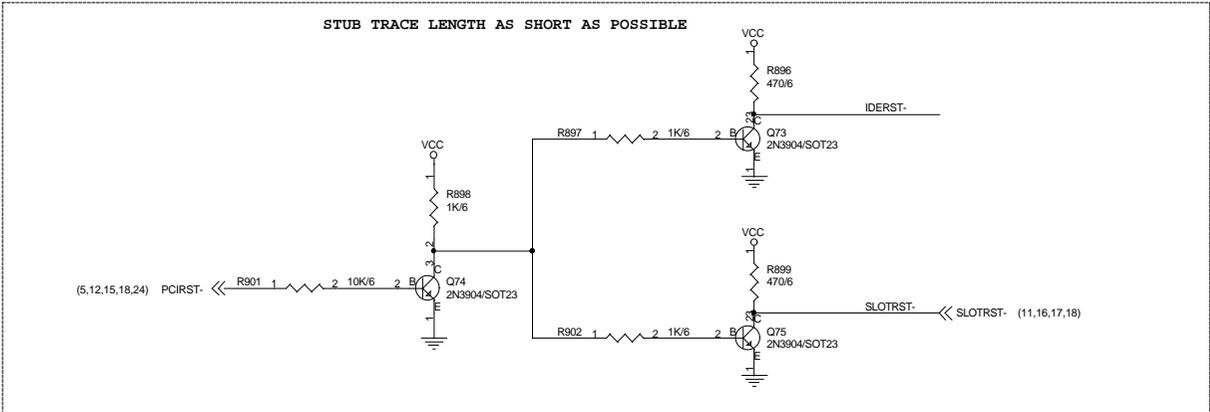
**GIGABYTE CORP.**

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Size	Document Number	Rev	
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Date:	Wednesday, October 17, 2001	Sheet	17 of 30

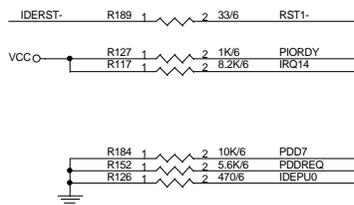
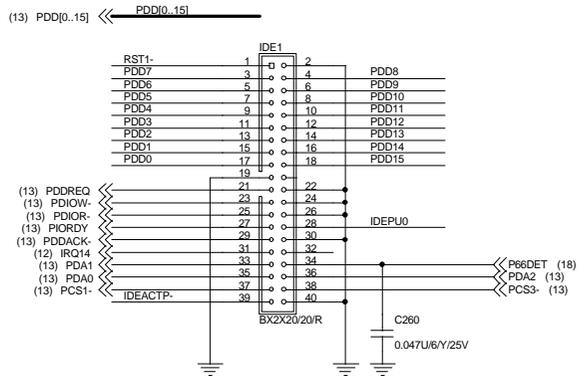
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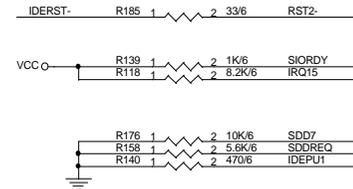
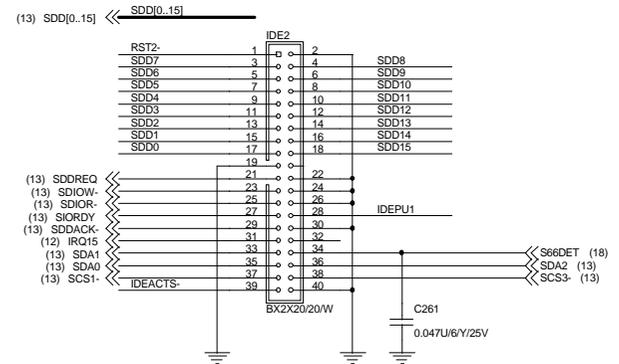
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Title <b>PCI SLOT 5 &amp; FWH</b>		
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PRIMARY IDE CONNECTOR

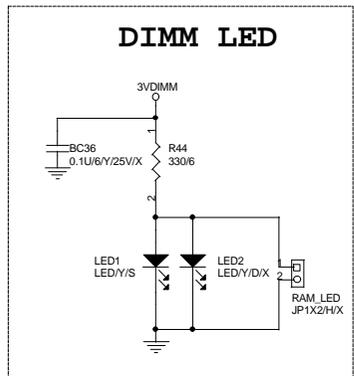
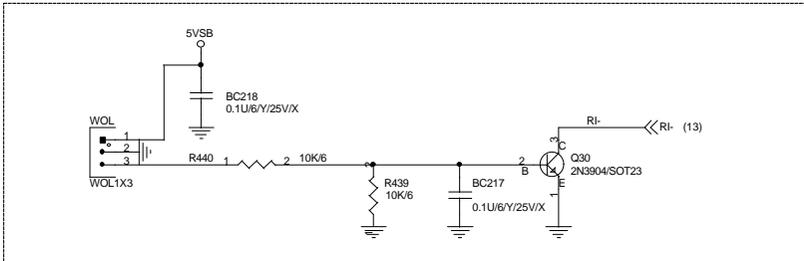
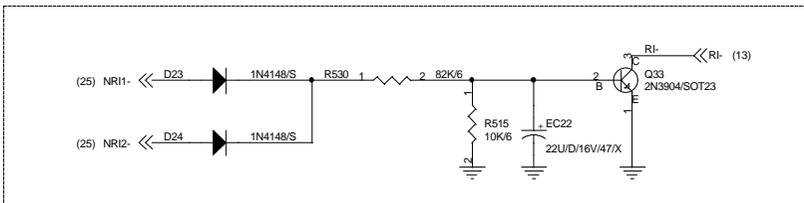
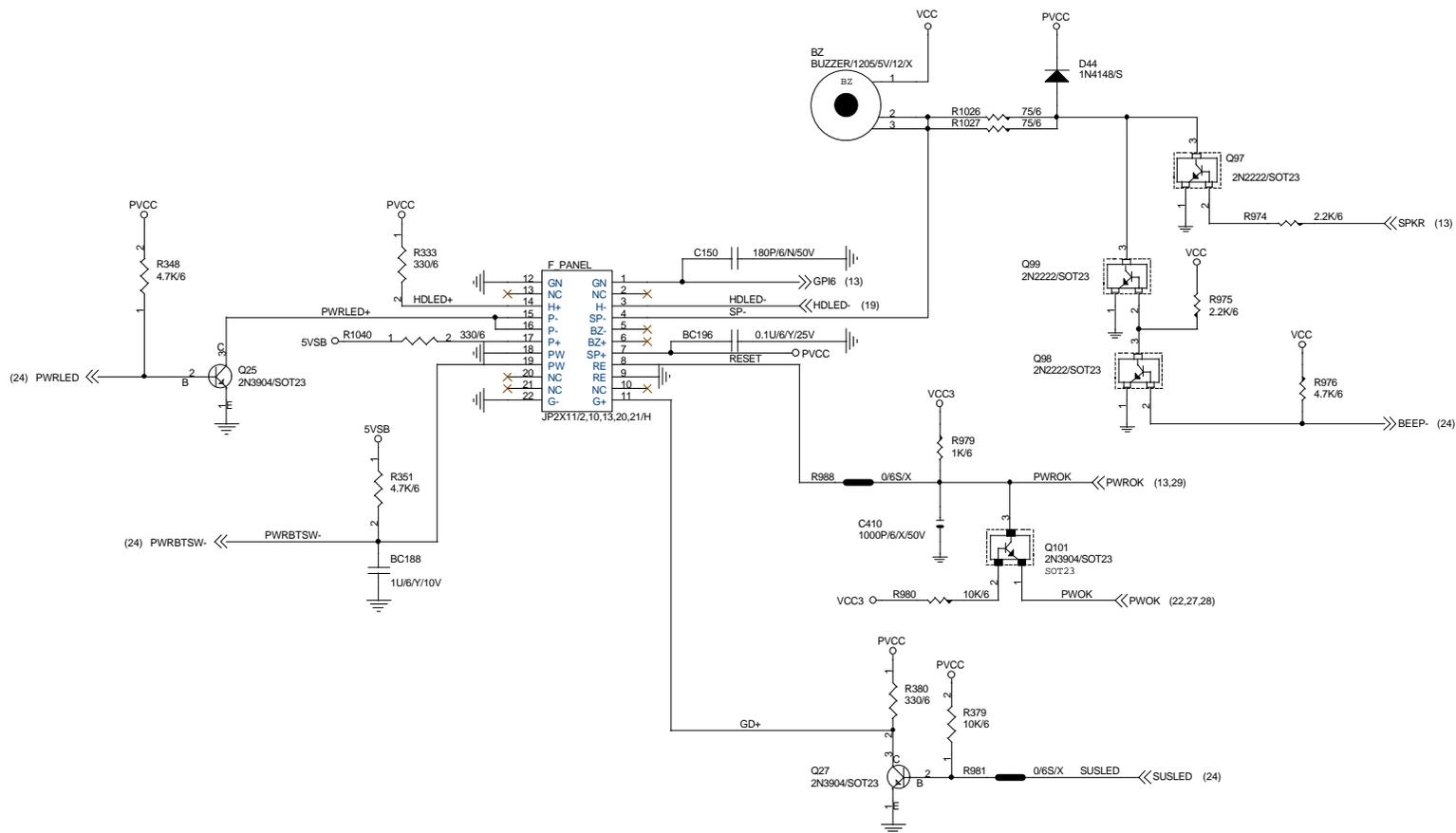


SECONDARY IDE CONNECTOR

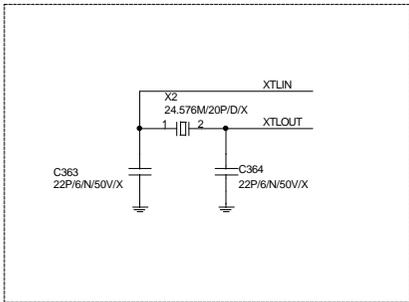
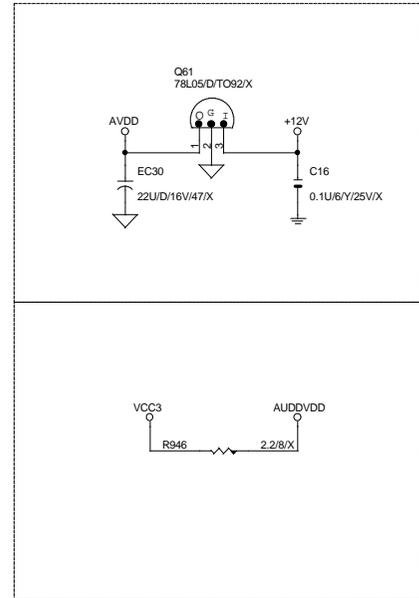
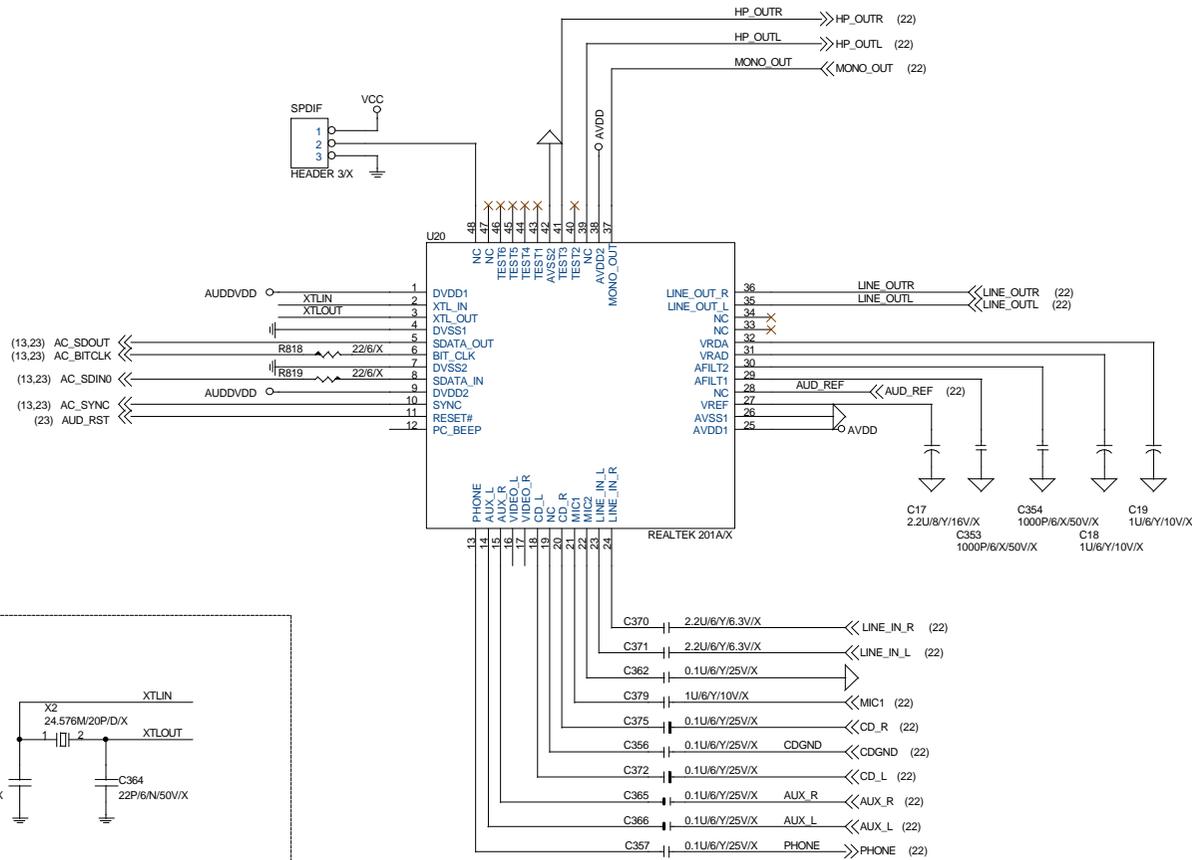


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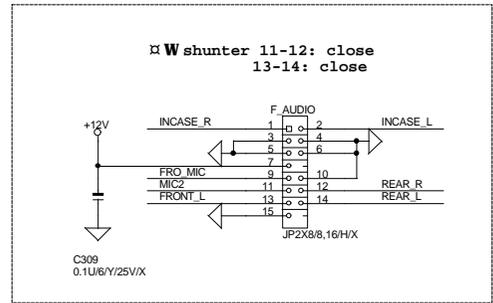
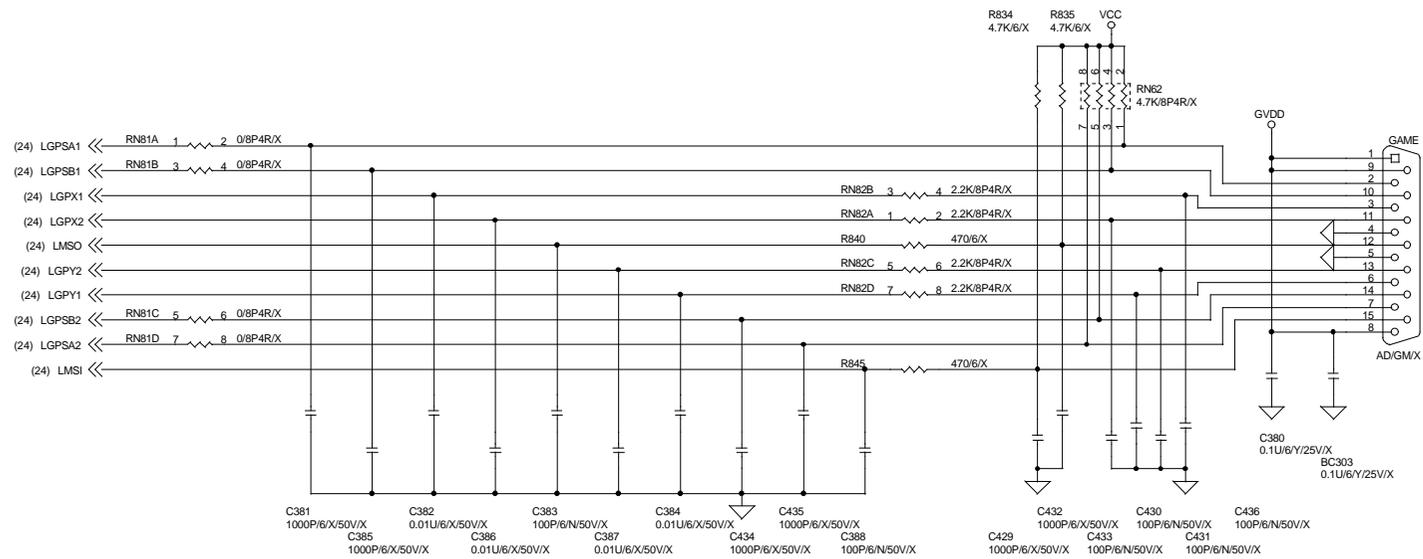
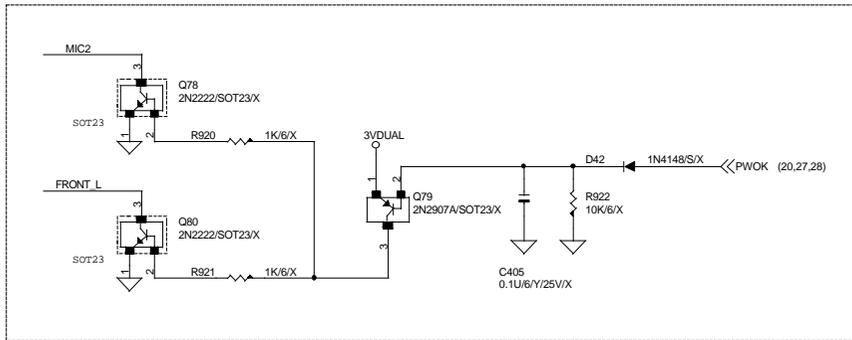
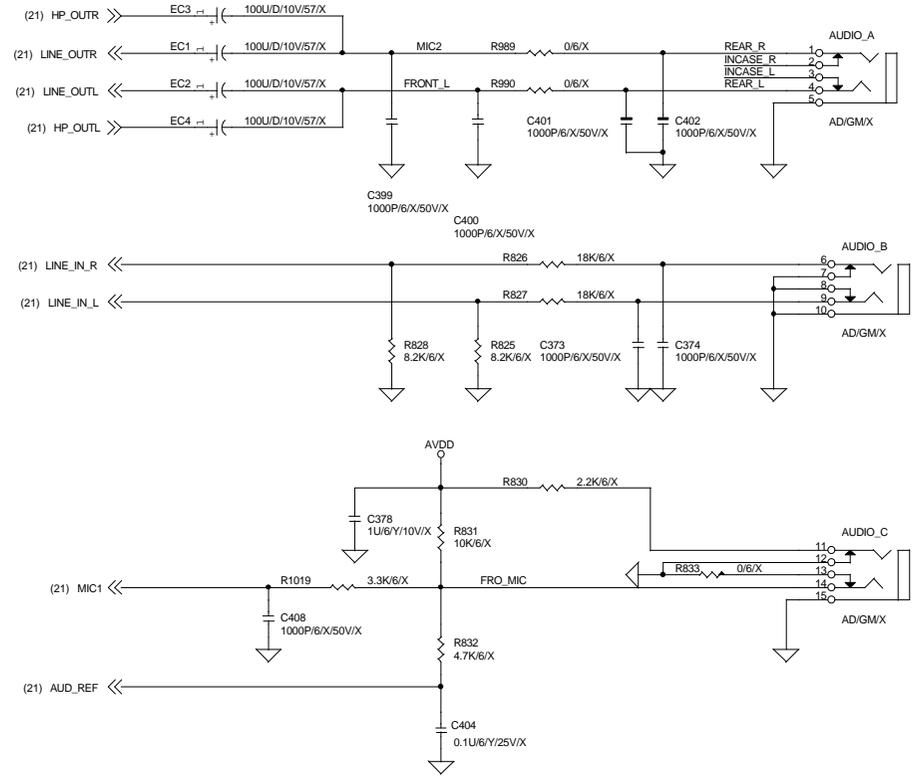
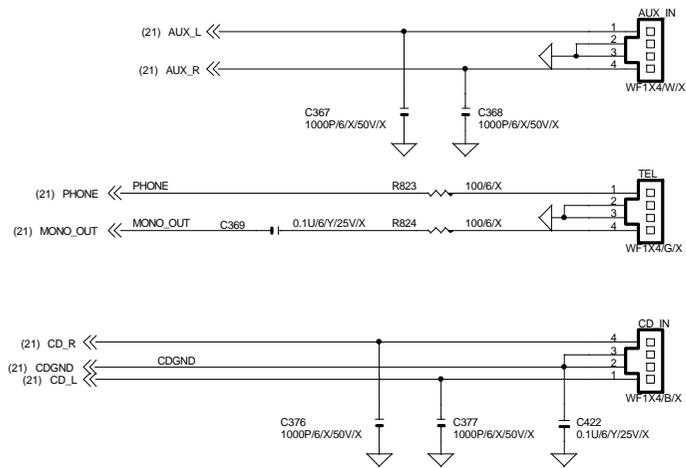
Title			Rev
IDE CONNECTOR			1.0
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<b>GIGABYTE CORP.</b>		
Title <b>PANEL &amp; STR LED &amp; RI</b>		
Size Custom	Document Number <b>GA-60XT</b>	Rev 1.0
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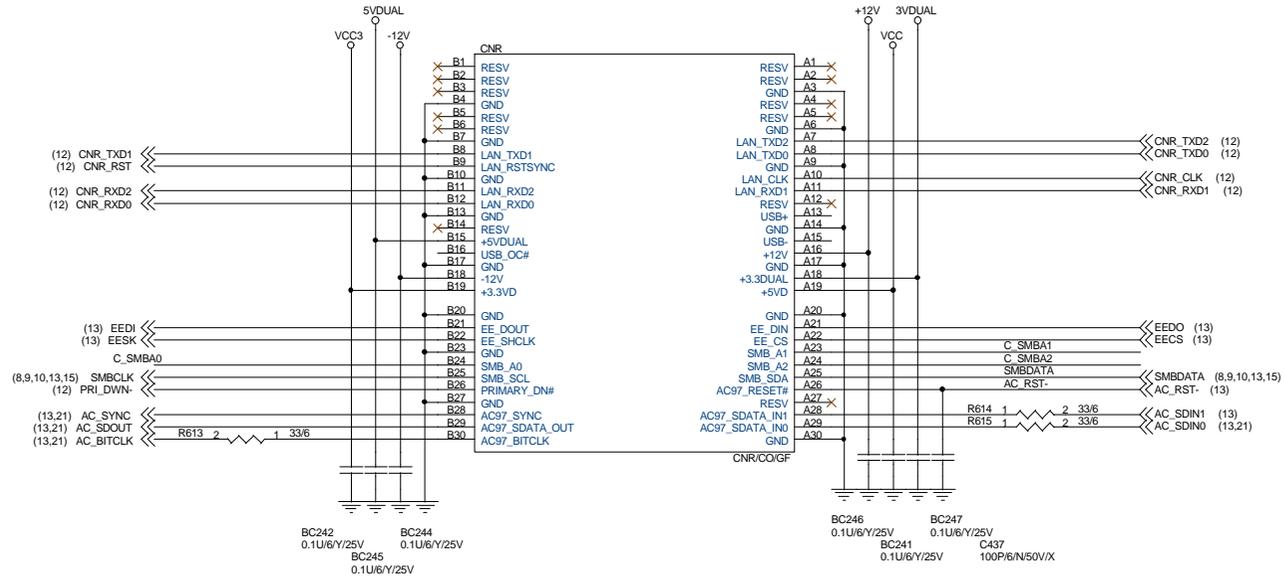


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Title <b>CODEC</b>			
Size Custom	Document Number <b>GA-6OXT</b>		Rev 1.0
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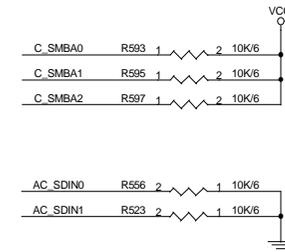
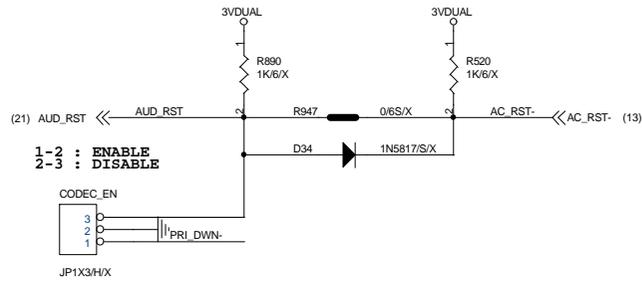
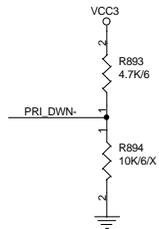


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Title <b>PHONE JACK</b>			
Size Custom	Document Number <b>GA-60XT</b>	Rev 1.0	
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# CNR

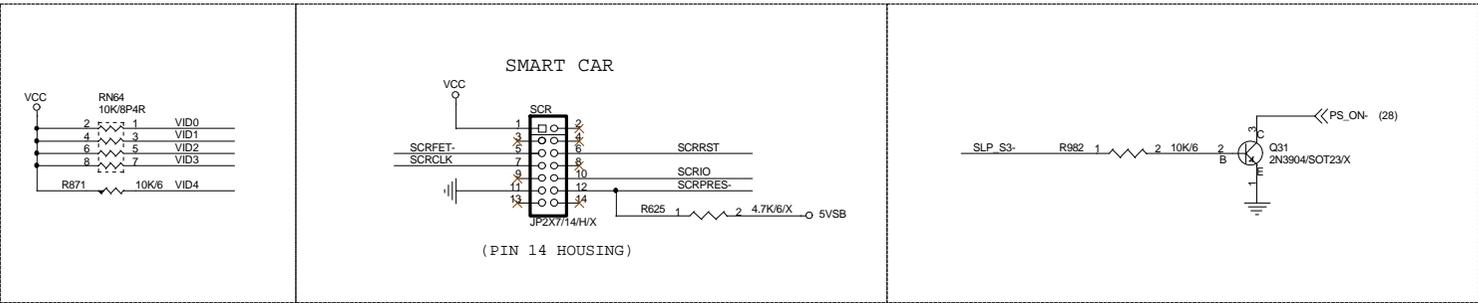
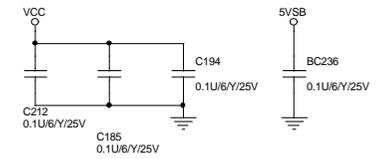
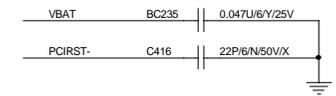
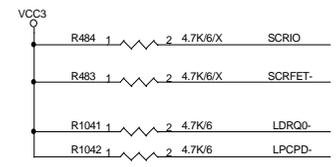
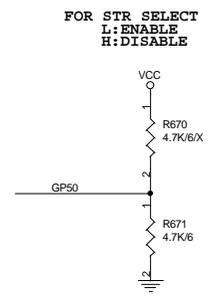
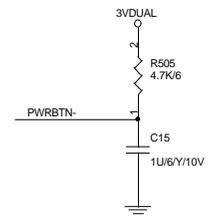
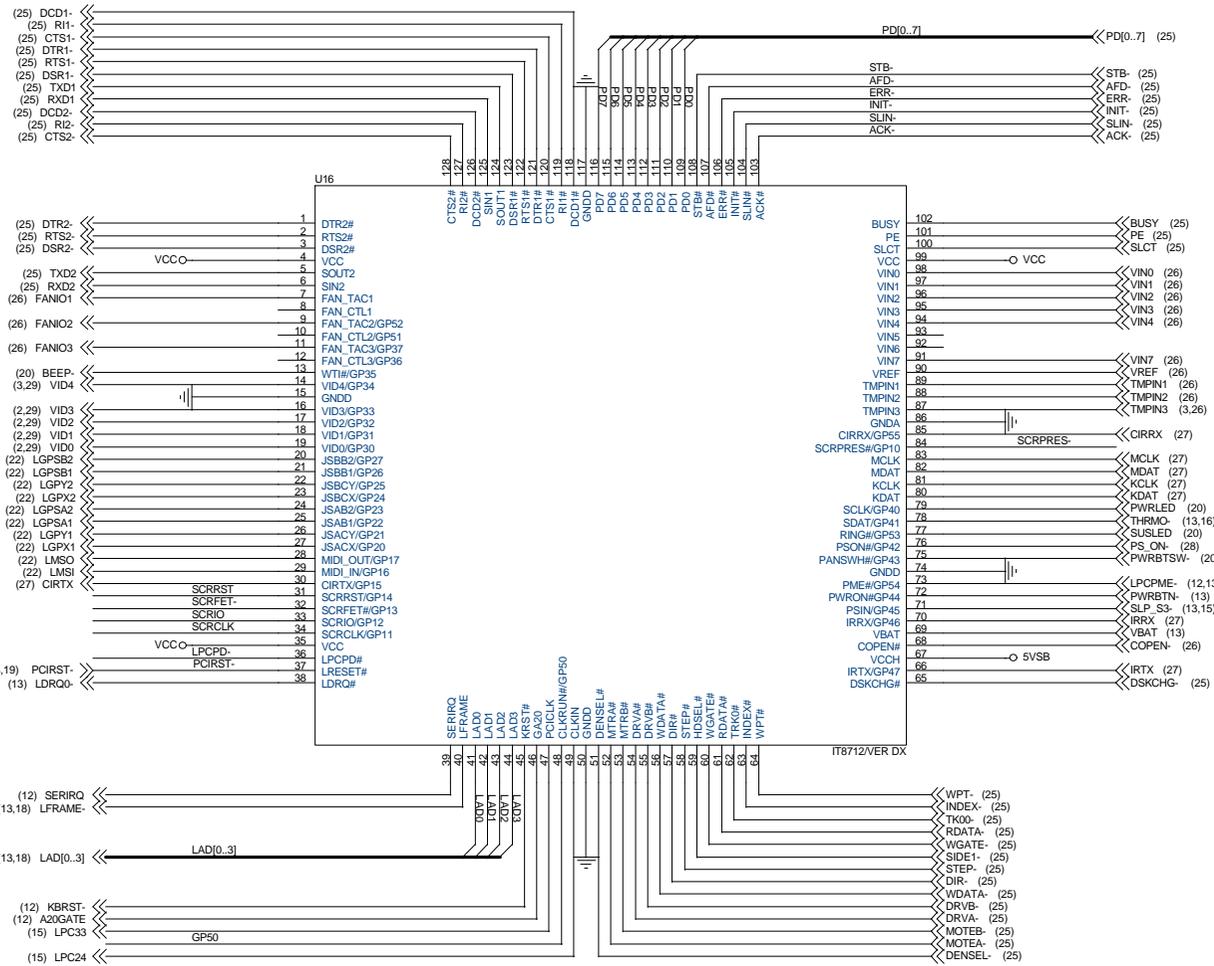


PLEASE CONNECT GPI PIN

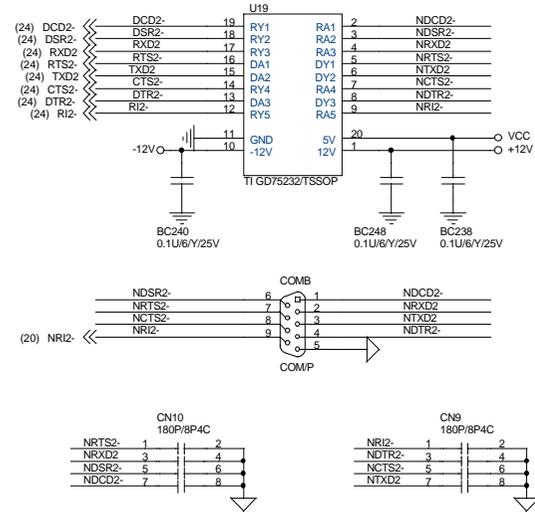
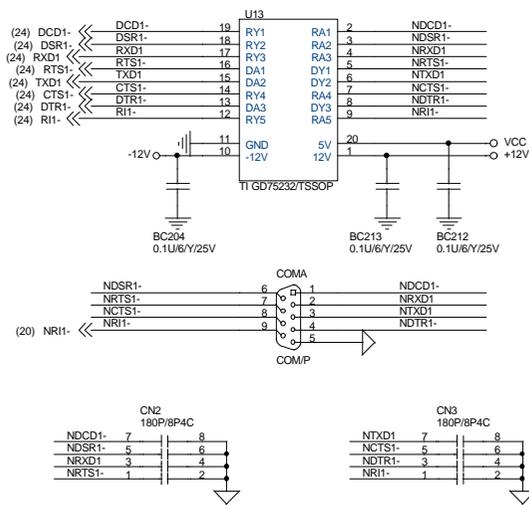


**GIGABYTE CORP.**

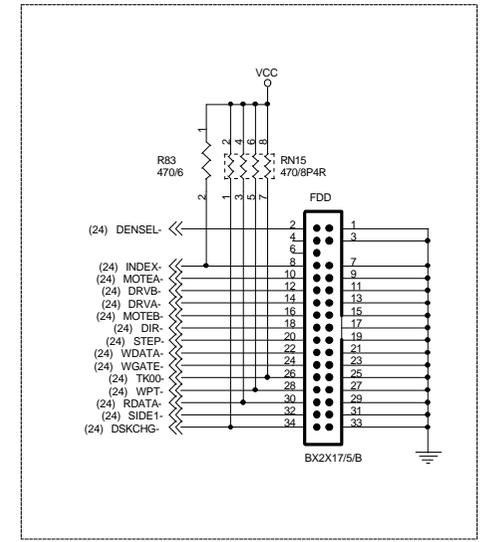
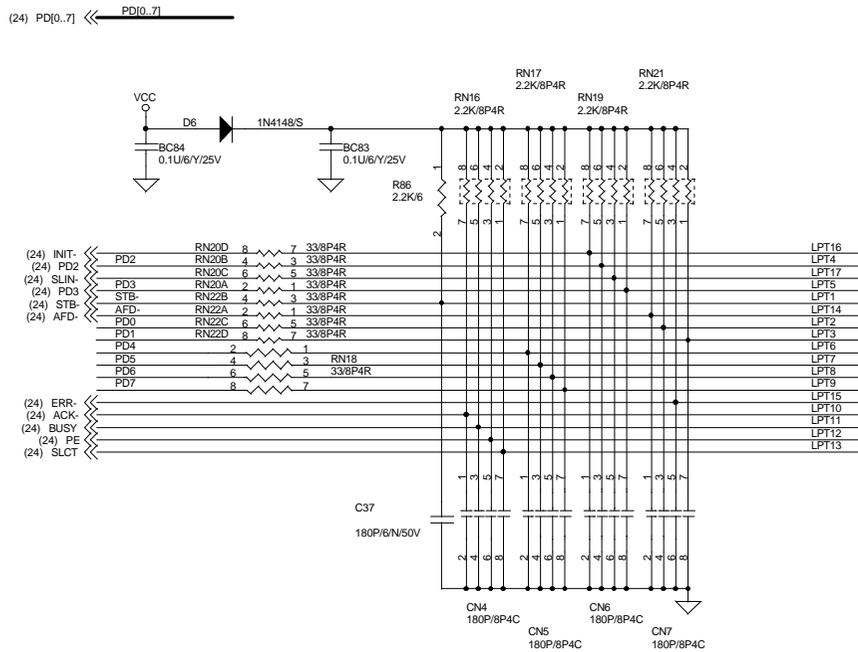
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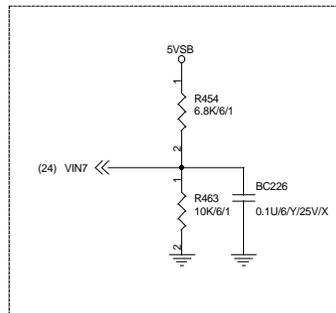
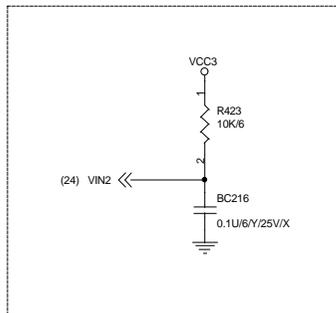
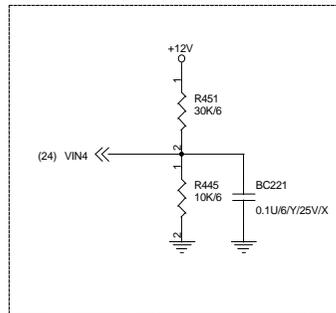
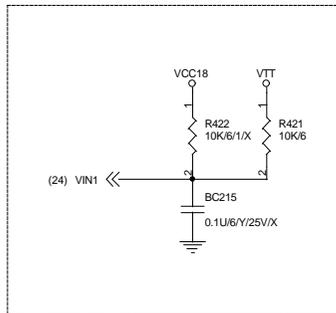
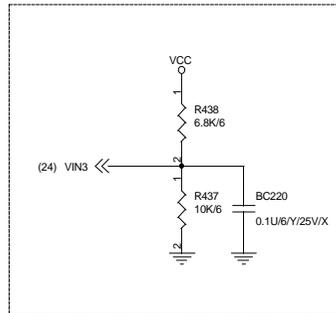
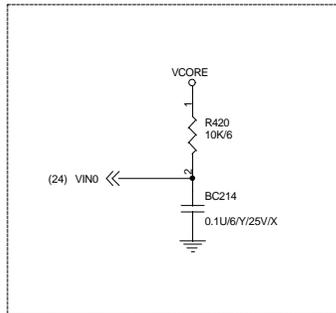
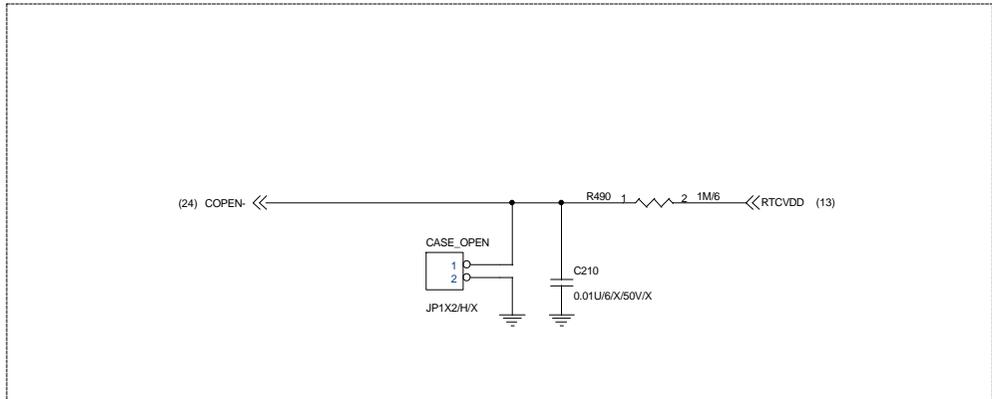
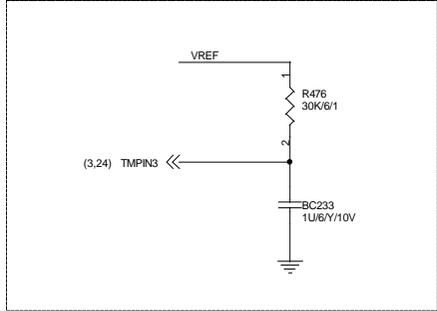
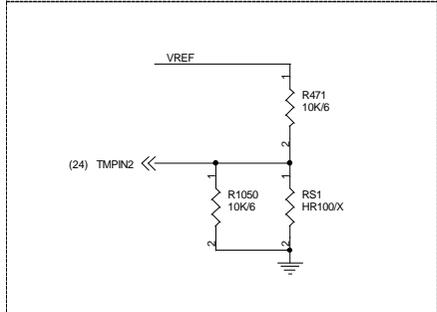
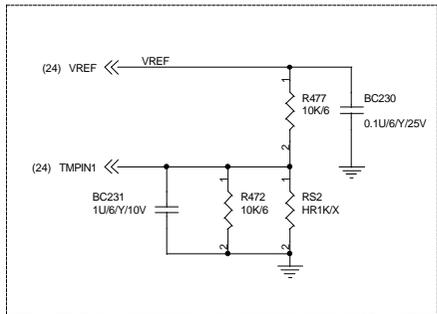
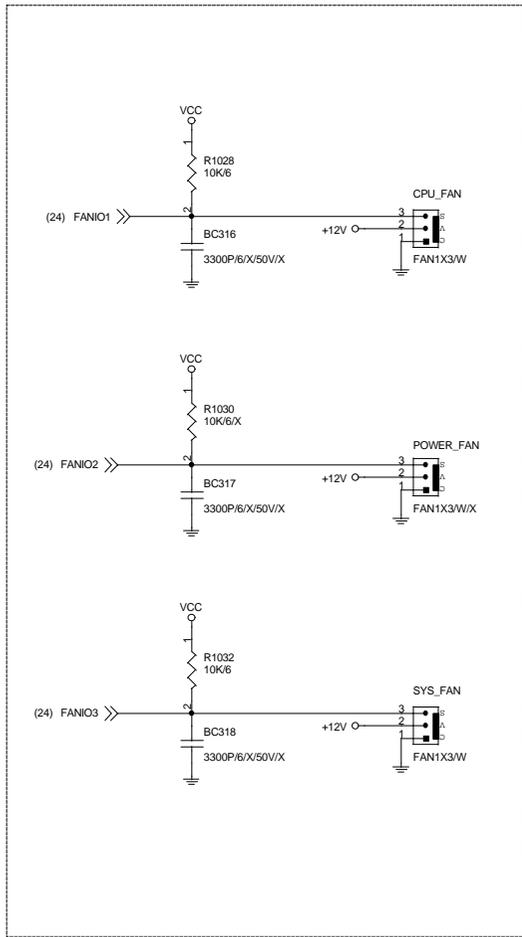


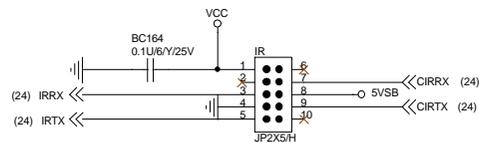
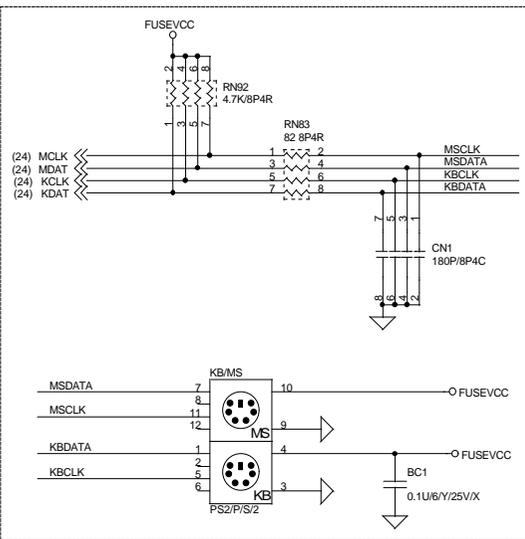
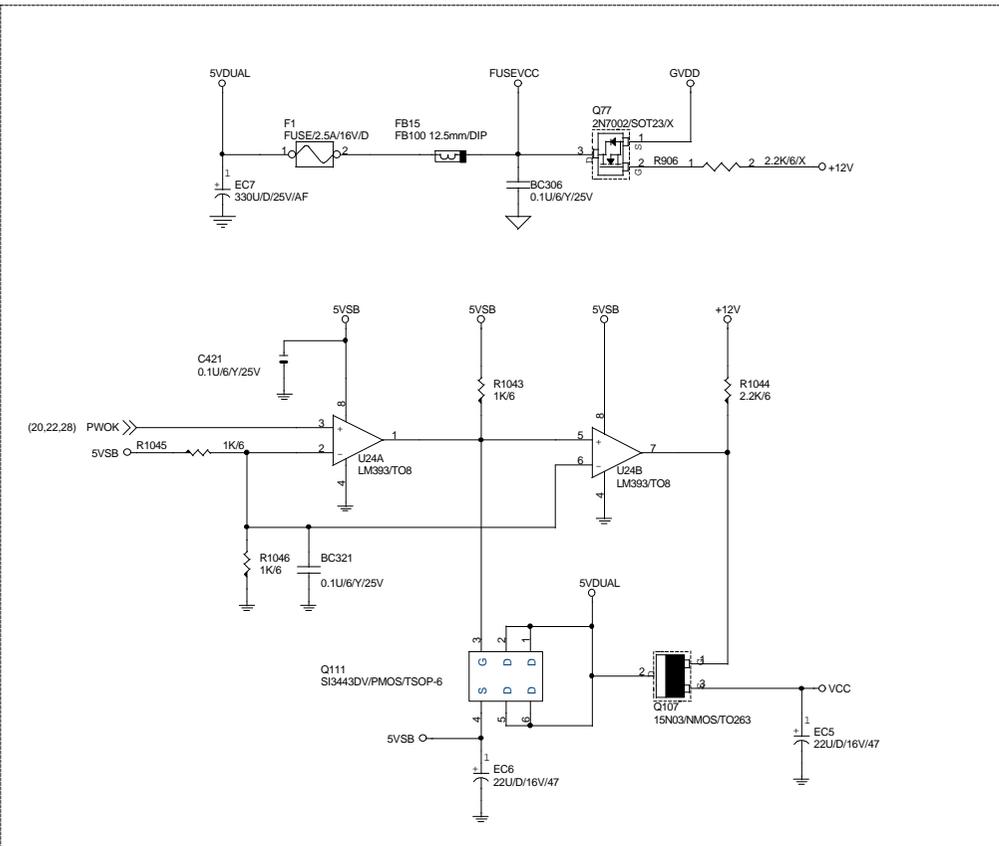
# COM PORT



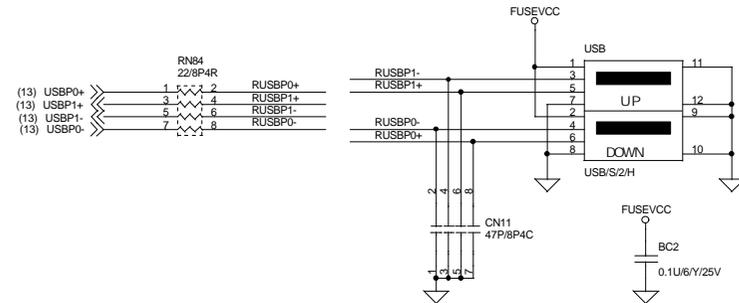
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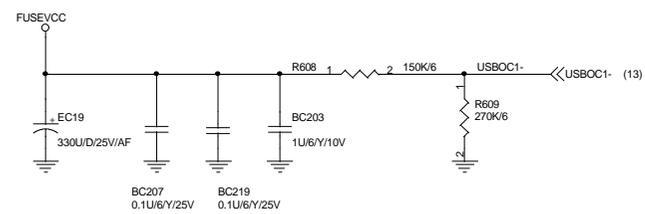
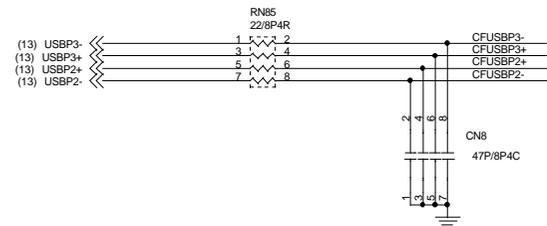
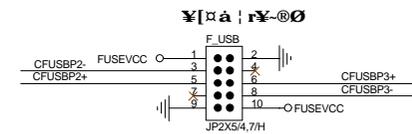




### REAR USB PORT

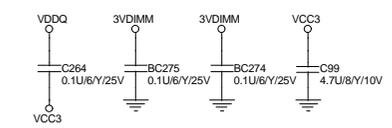
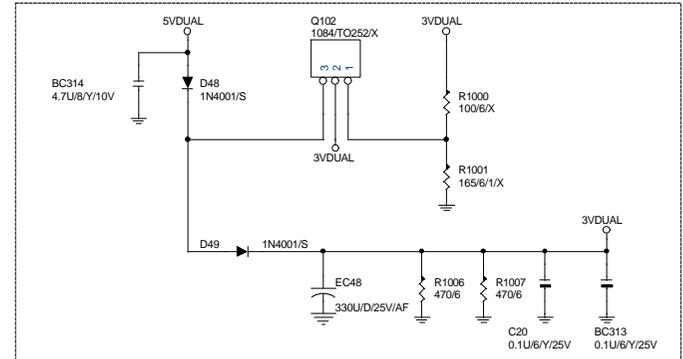
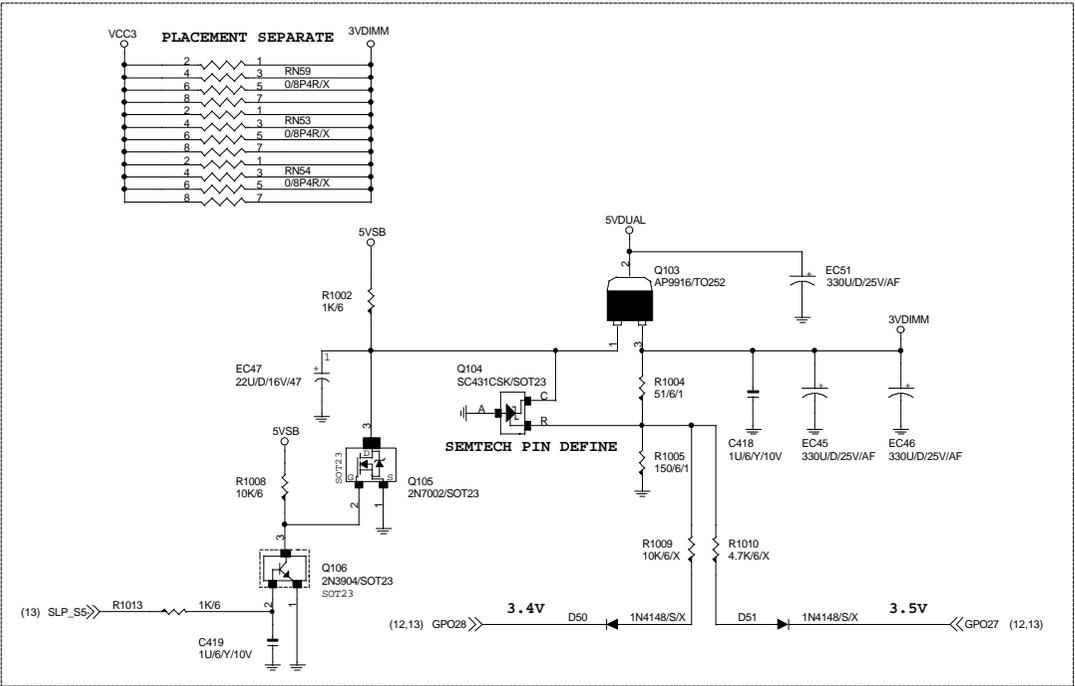
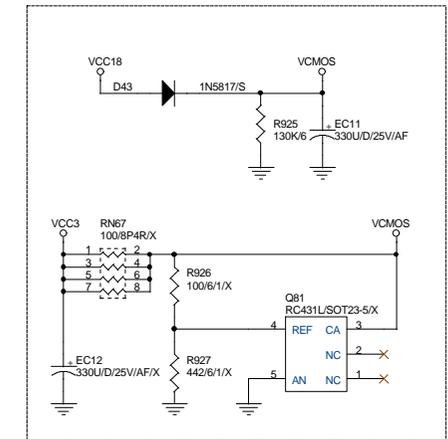
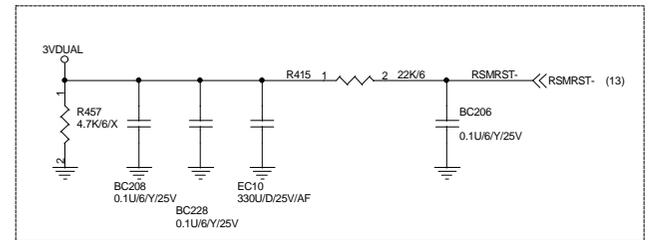
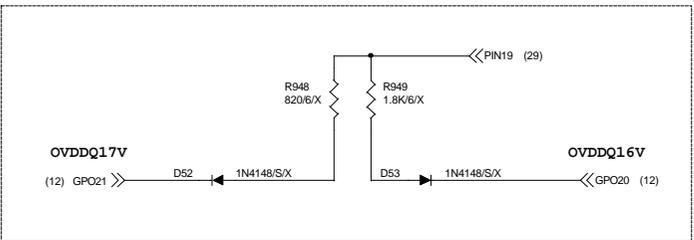
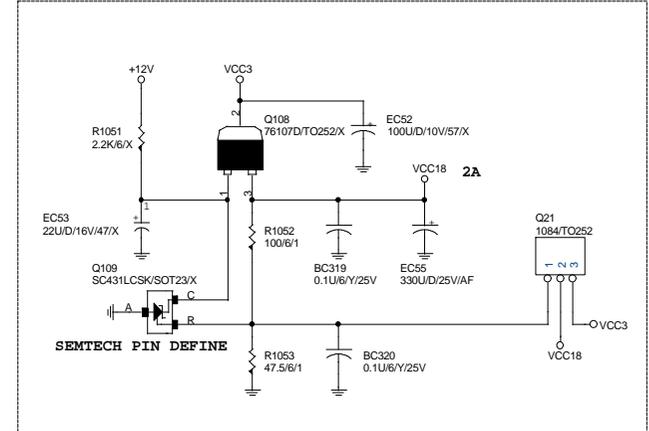
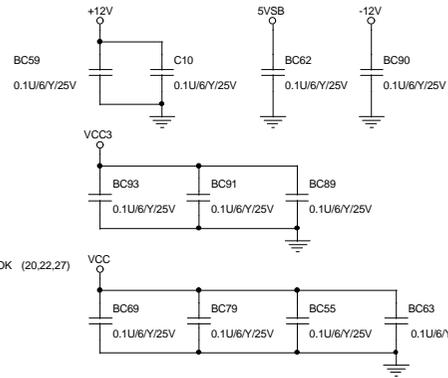
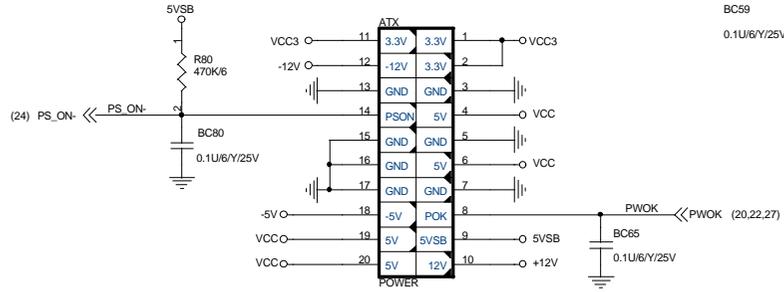


### FRONT USB PORT

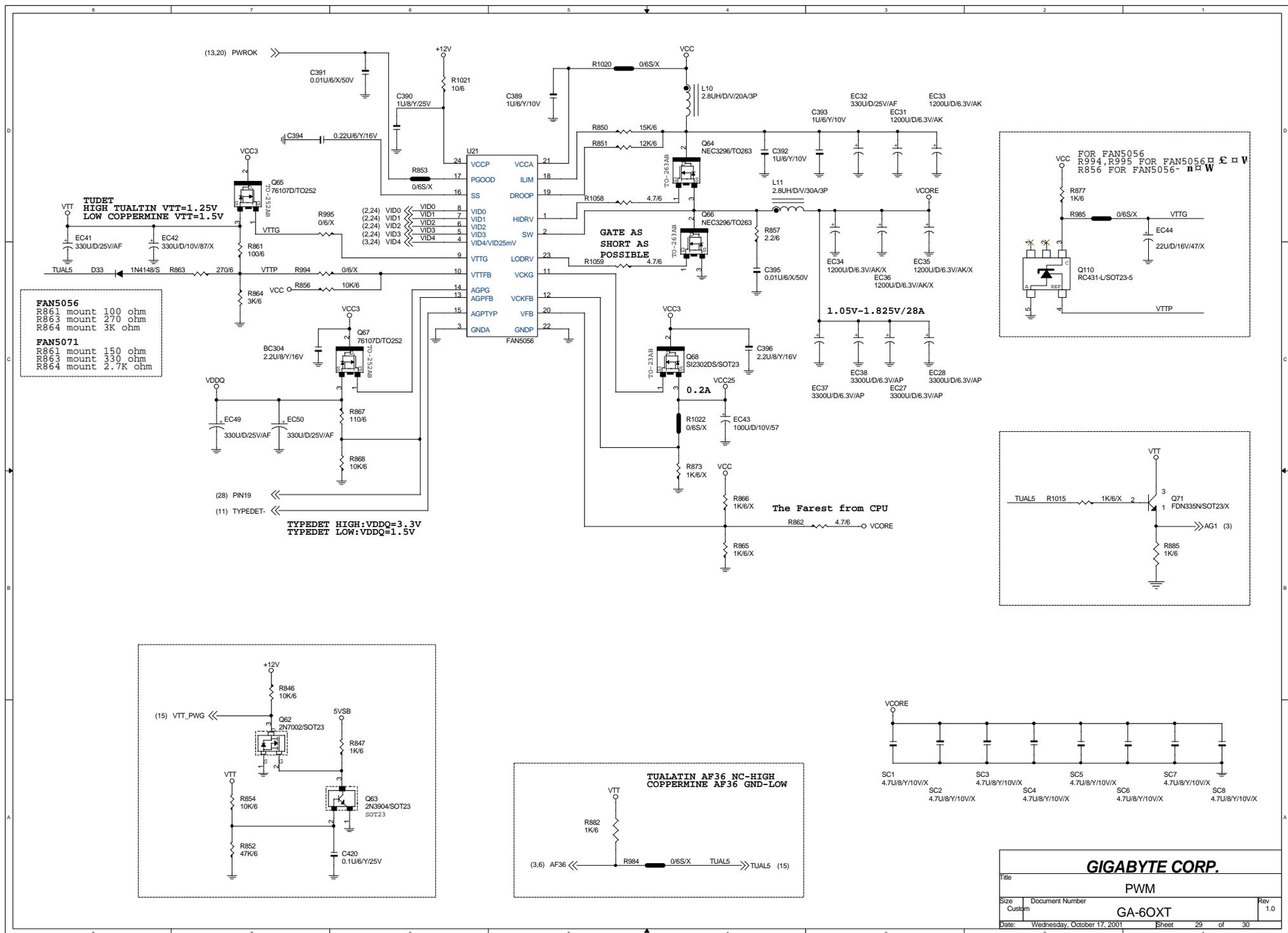


<b>GIGABYTE CORP.</b>			
Title <b>KB &amp; PS2 MOUSE &amp; IR &amp; USB</b>			
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### ATX POWER CONNECTOR



<b>GIGABYTE CORP.</b>		
<b>ATX CONN. &amp; STR PWR</b>		
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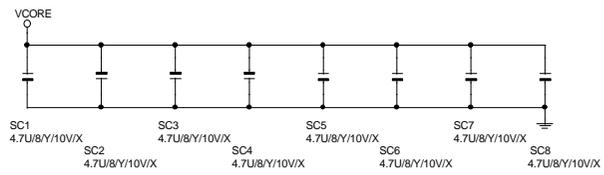
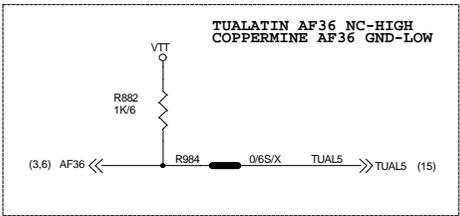
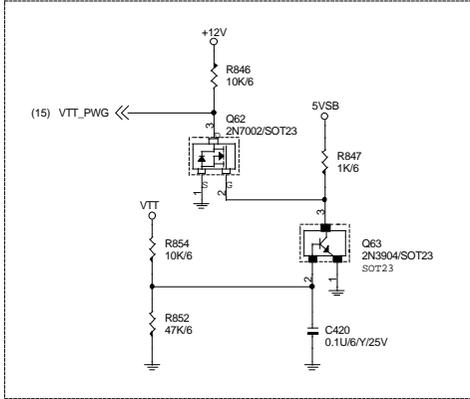
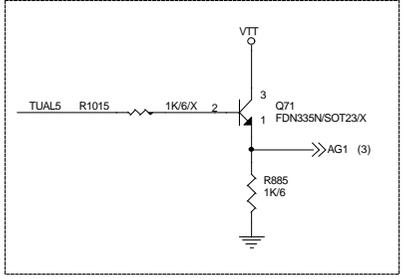
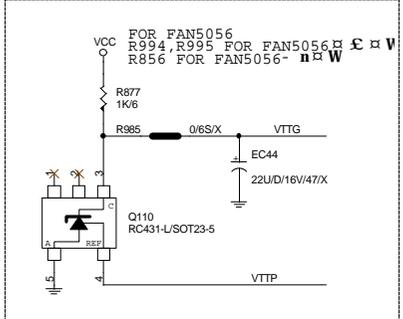
**FAN5056**  
 R861 mount 100 ohm  
 R863 mount 270 ohm  
 R864 mount 3k ohm

**FAN5071**  
 R861 mount 150 ohm  
 R863 mount 330 ohm  
 R864 mount 2.7K ohm

**TYPEDET HIGH: VDDQ=3.3V**  
**TYPEDET LOW: VDDQ=1.5V**

**GATE AS SHORT AS POSSIBLE**

**The Forest from CPU**



<b>GIGABYTE CORP.</b>			
Title PWM			
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# 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 X1 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.

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