

GIGABYTE GA-8LS533 Schematics

Revision 1.0

SHEET

TITLE

01	COVER SHEET
02	BOM & PCB MODIFY HISTORY
03	SYSTEM BLOCK DIAGRAM
04	P4_478A
05	P4_478B
06	P4_478C
07	GMCH-A(845GL)CPU,DDR INTERFACE U1
08	GMCH-A(845GL)DDR,VGA INTERFACE
09	GMCH-A(845GL)POWER INTERFACE
10	SDR1,2
11	ICH4-1 (HUB,PCI,CNR,AC97,USB) U12
12	ICH4-2
13	FWH (FLASH ROM)
14	CLOCK GENERATOR(ICS950211AF) U13
15	PCI1 & PCI2 SLOT
16	PCI3 SLOT
17	LPC I/O & IR (ITE 8702 VER:G) U14
18	IDE1, 2 CONNECTOR
19	PS/2 KB & MOUSE & F_USB
20	FLOPPY, COM & LPT & WOR & WOL CONNECTOR
21	FAN & H/W MONITOR ,CASE OPEN
22	FRONT PANEL,LED
23	AC97 CODEC REALTEK ALC101

SHEET

TITLE

24	LINE OUT & FRONT AUDIO CONN
25	LINE IN,MIC,CDIN,AUX(CD-IN2) GAME PORT
26	MISC. PWR & ATX POWER (3VDUAL, VDDQ)
27	VCORE PWM(HIP6302+6602A)
28	SDR POWER (5VDUAL,2_5VSTR,VTT_DDR)
29	RTL8101L + Transformer
30	GPIO PIN LIST
31	PCI ROUTING

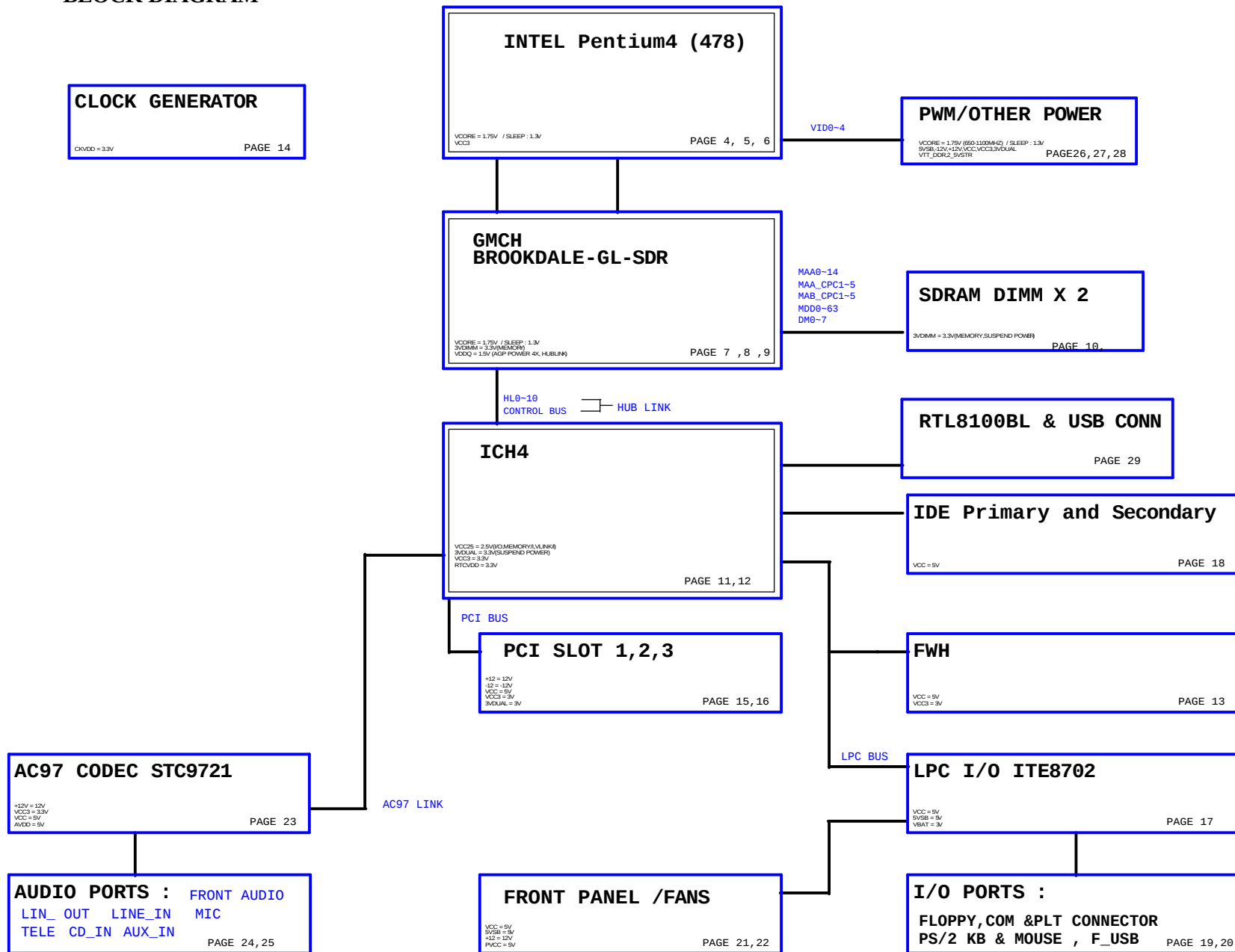
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GIGABYTE	
Title COVER SHEET	
Size Custom	Document Number GA-8LS533
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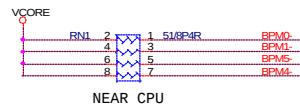
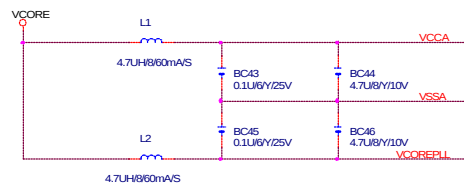
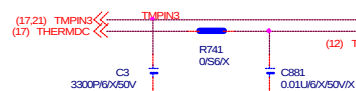
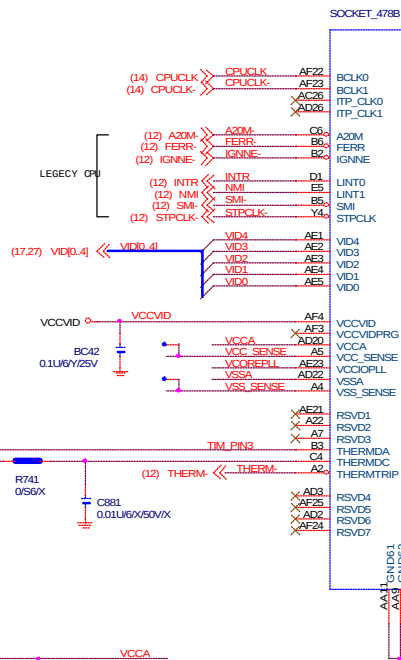
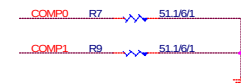
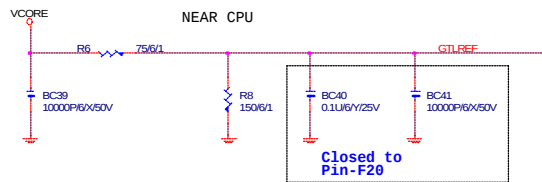
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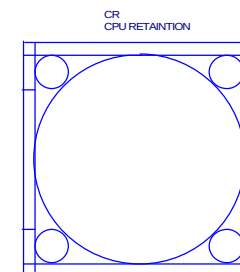
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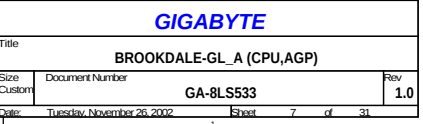
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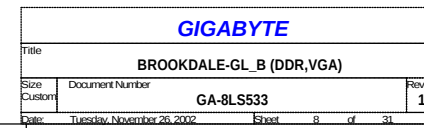
BLOCK DIAGRAM











(8) MD[0..63] >> MDI0_631

3VDIMM

3VDIMM

MD0	2	DQ0	55	MD16
MD1	3	DQ1	56	MD17
MD2	4	DQ2	57	MD18
MD3	5	DQ3	58	MD19
MD4	6	DQ4	59	MD20
MD5	7	DQ5	60	MD21
MD6	8	DQ6	61	MD22
MD7	9	DQ7	62	MD23
MD8	10	DQ8	63	MD24
MD9	11	DQ9	64	MD25
MD10	12	DQ10	65	MD26
MD11	13	DQ11	66	MD27
MD12	14	DQ12	67	MD28
MD13	15	DQ13	68	MD29
MD14	16	DQ14	69	MD30
MD15	17	DQ15	70	MD31
MD32	86	DQ32	139	MD48
MD33	87	DQ33	140	MD49
MD34	88	DQ34	141	MD50
MD35	89	DQ35	142	MD51
MD36	90	DQ36	143	MD52
MD37	91	DQ37	144	MD53
MD38	92	DQ38	145	MD54
MD39	93	DQ39	146	MD55
MD40	94	DQ40	147	MD56
MD41	95	DQ41	148	MD57
MD42	96	DQ42	149	MD58
MD43	97	DQ43	150	MD59
MD44	98	DQ44	151	MD60
MD45	99	DQ45	152	MD61
MD46	100	DQ46	153	MD62
MD47	101	DQ47	154	MD63

MD0	2	DQ0	55	MD16
MD1	3	DQ1	56	MD17
MD2	4	DQ2	57	MD18
MD3	5	DQ3	58	MD19
MD4	6	DQ4	59	MD20
MD5	7	DQ5	60	MD21
MD6	8	DQ6	61	MD22
MD7	9	DQ7	62	MD23
MD8	10	DQ8	63	MD24
MD9	11	DQ9	64	MD25
MD10	12	DQ10	65	MD26
MD11	13	DQ11	66	MD27
MD12	14	DQ12	67	MD28
MD13	15	DQ13	68	MD29
MD14	16	DQ14	69	MD30
MD15	17	DQ15	70	MD31
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MD33	87	DQ33	140	MD49
MD34	88	DQ34	141	MD50
MD35	89	DQ35	142	MD51
MD36	90	DQ36	143	MD52
MD37	91	DQ37	144	MD53
MD38	92	DQ38	145	MD54
MD39	93	DQ39	146	MD55
MD40	94	DQ40	147	MD56
MD41	95	DQ41	148	MD57
MD42	96	DQ42	149	MD58
MD43	97	DQ43	150	MD59
MD44	98	DQ44	151	MD60
MD45	99	DQ45	152	MD61
MD46	100	DQ46	153	MD62
MD47	101	DQ47	154	MD63

(8) MAA[0..12] >>

(8) MAA[0..12] >>

(8) DM[0..7] >>

(8) DM[0..7] >>

(8) SBS0 >>

(8) SBS0 >>

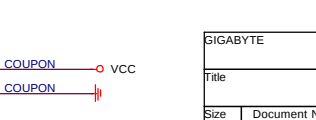
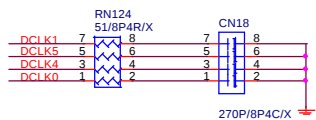
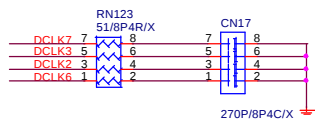
(8) SBS1 >>

(8) SBS1 >>

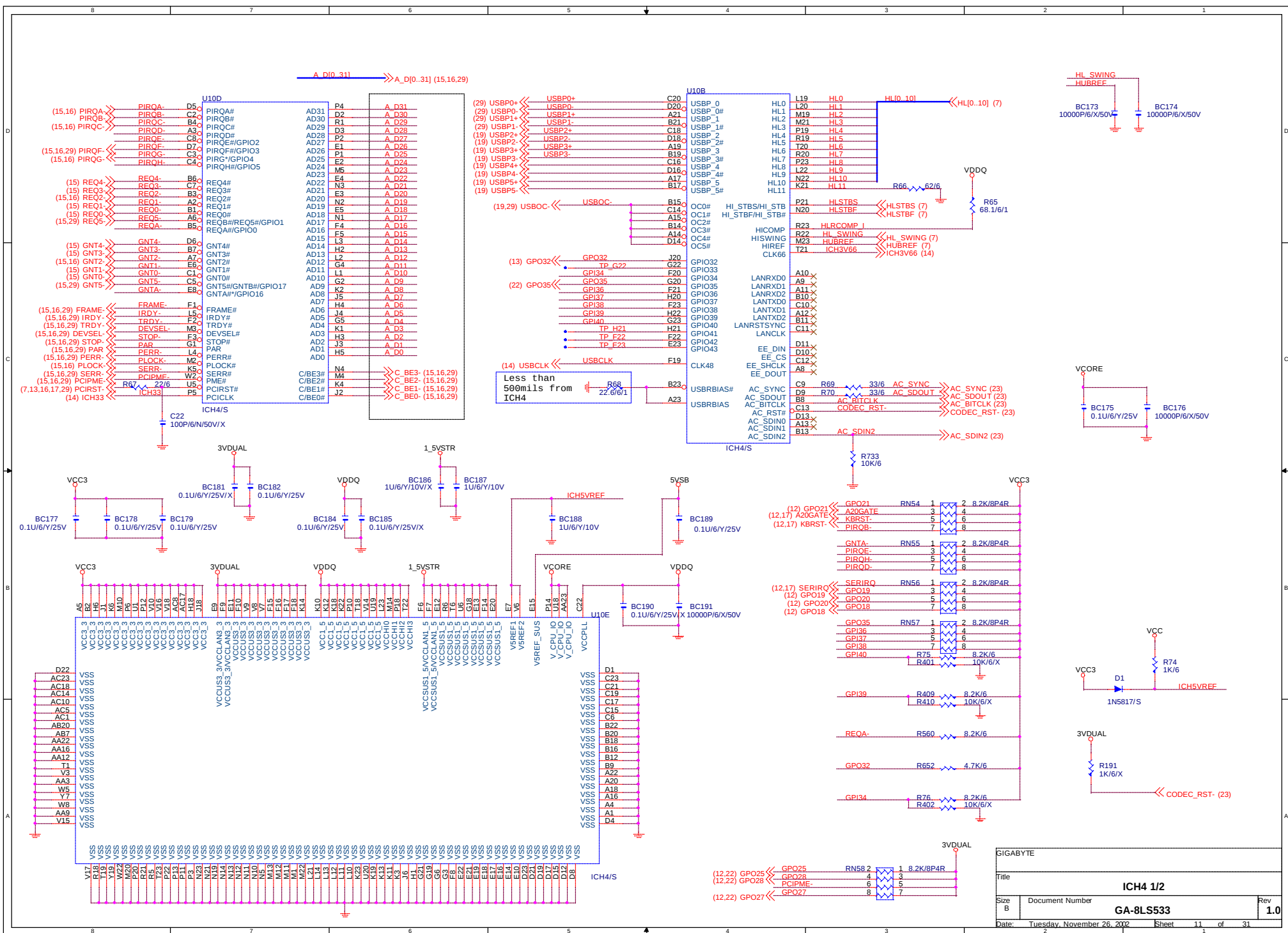
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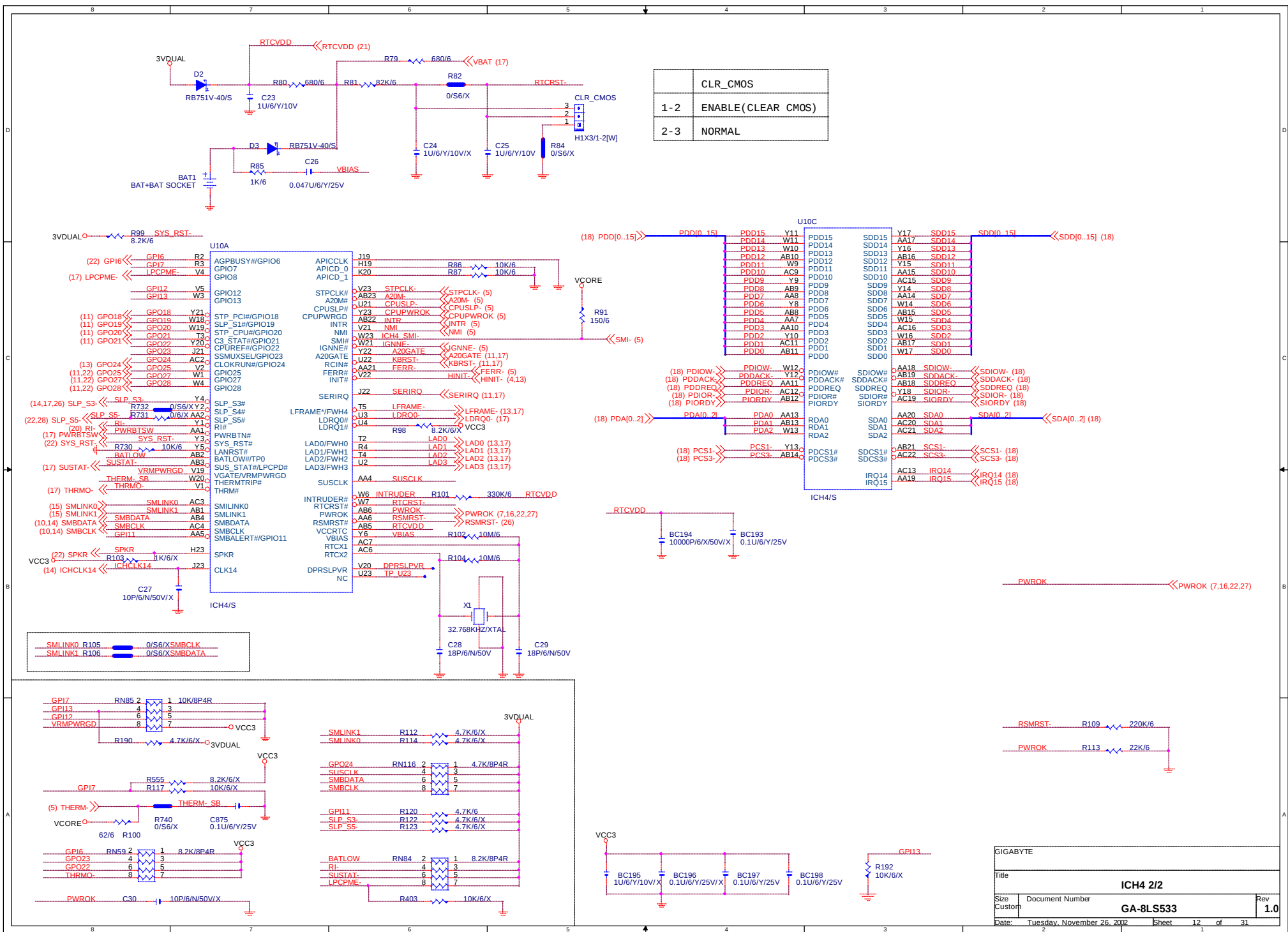
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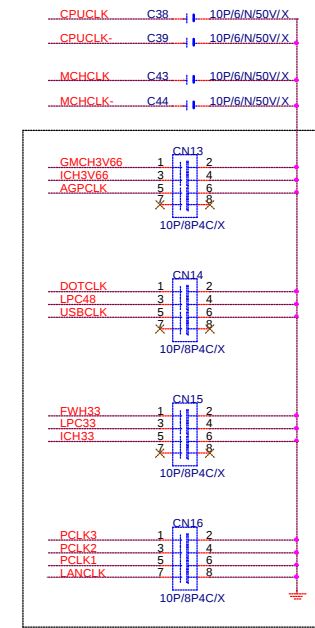
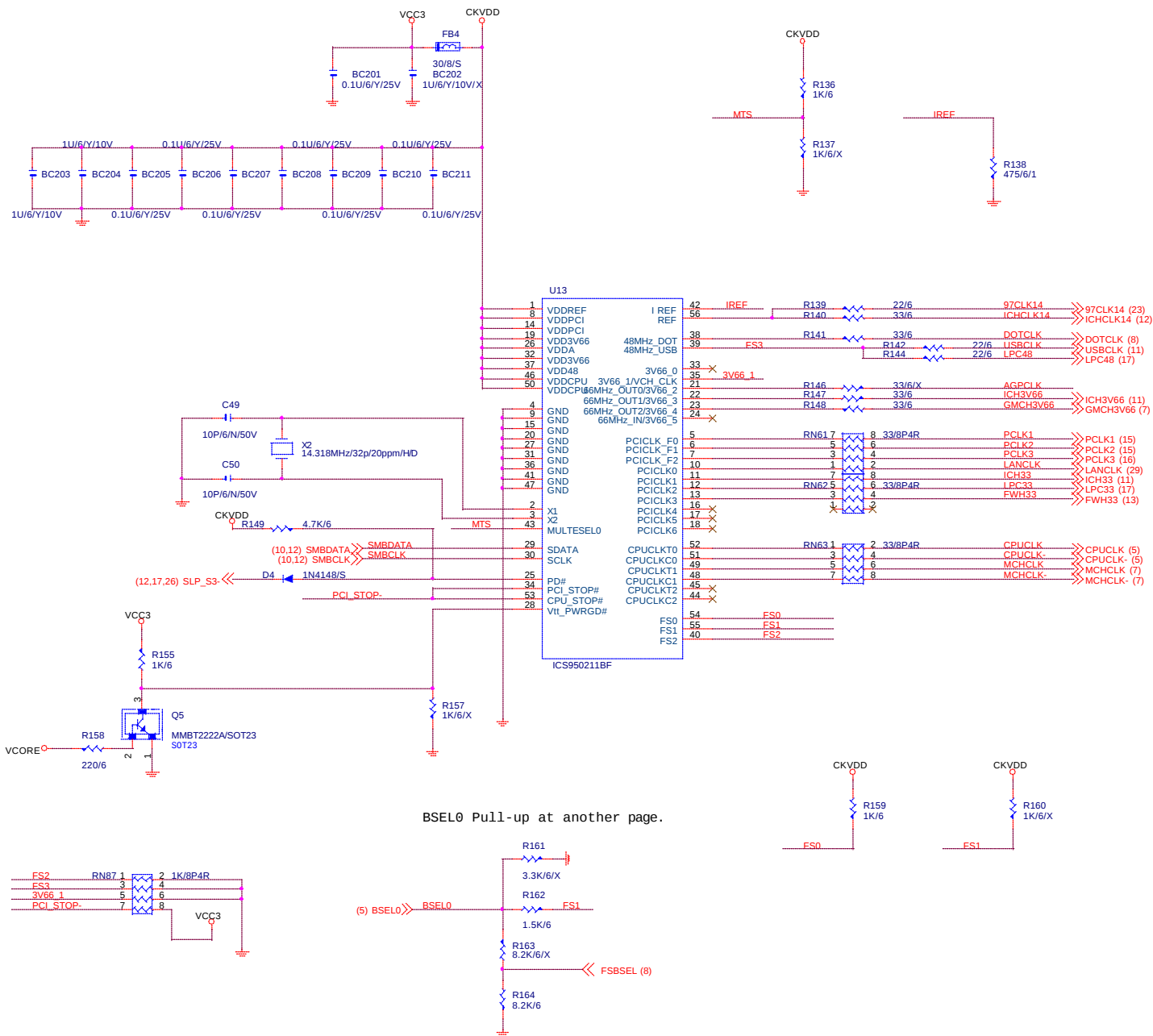
CLOSE TO DDR SOCKET



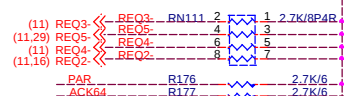
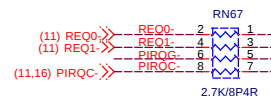
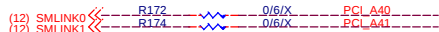
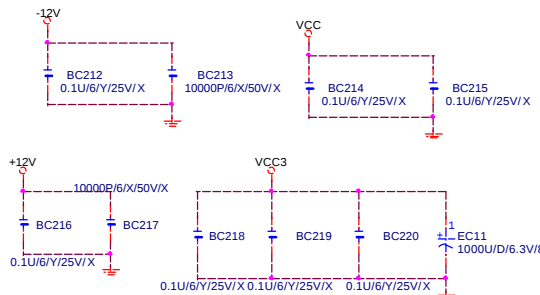
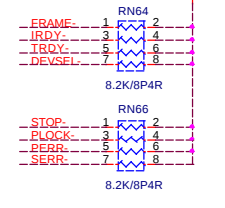
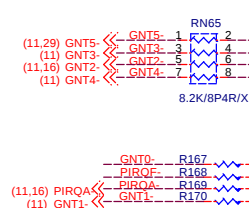
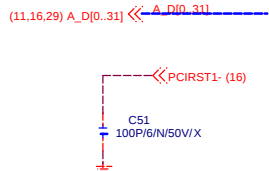
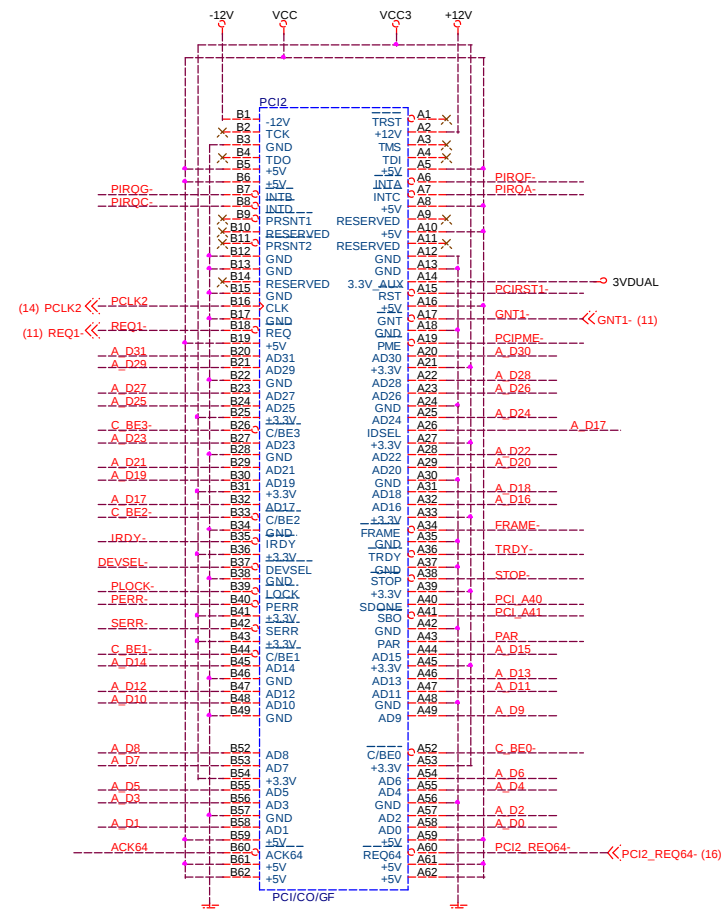
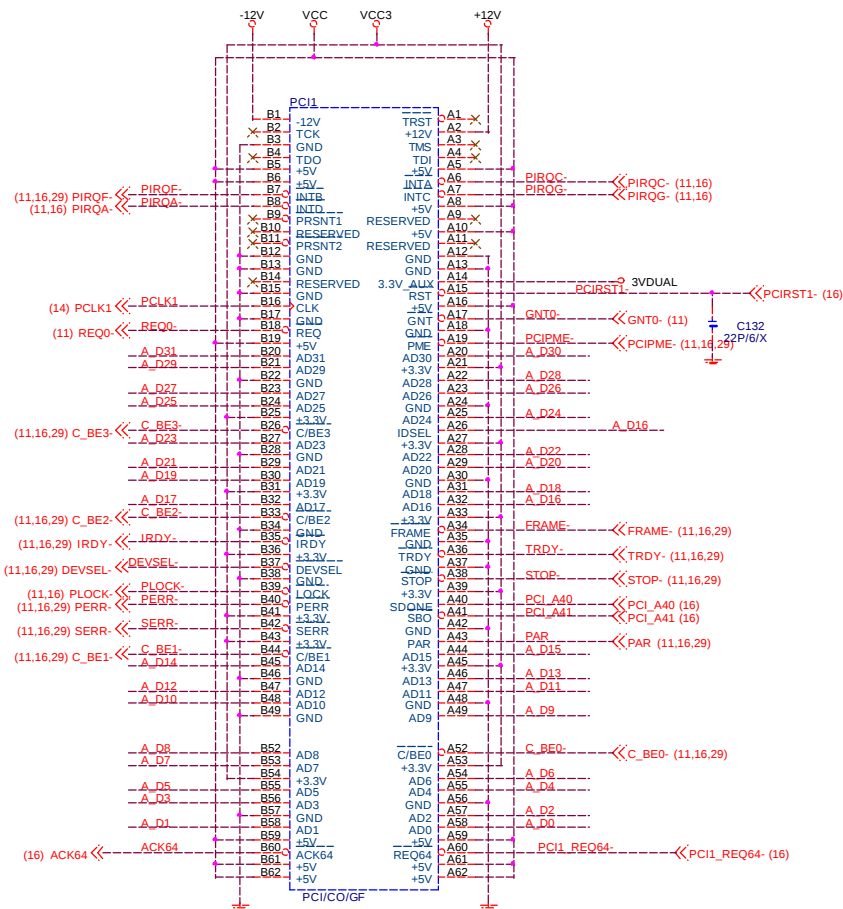
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Title	
DDR1,2	
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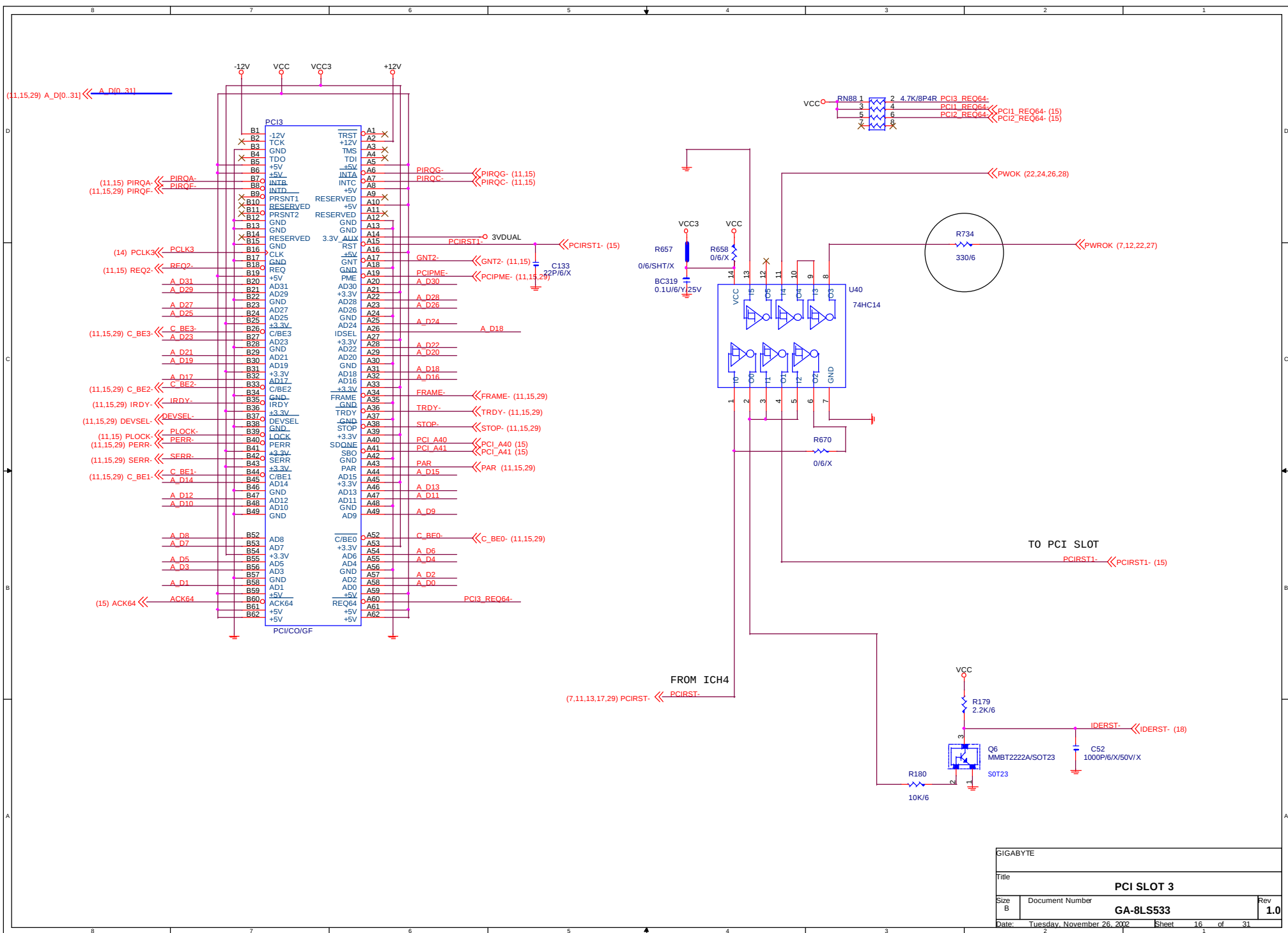


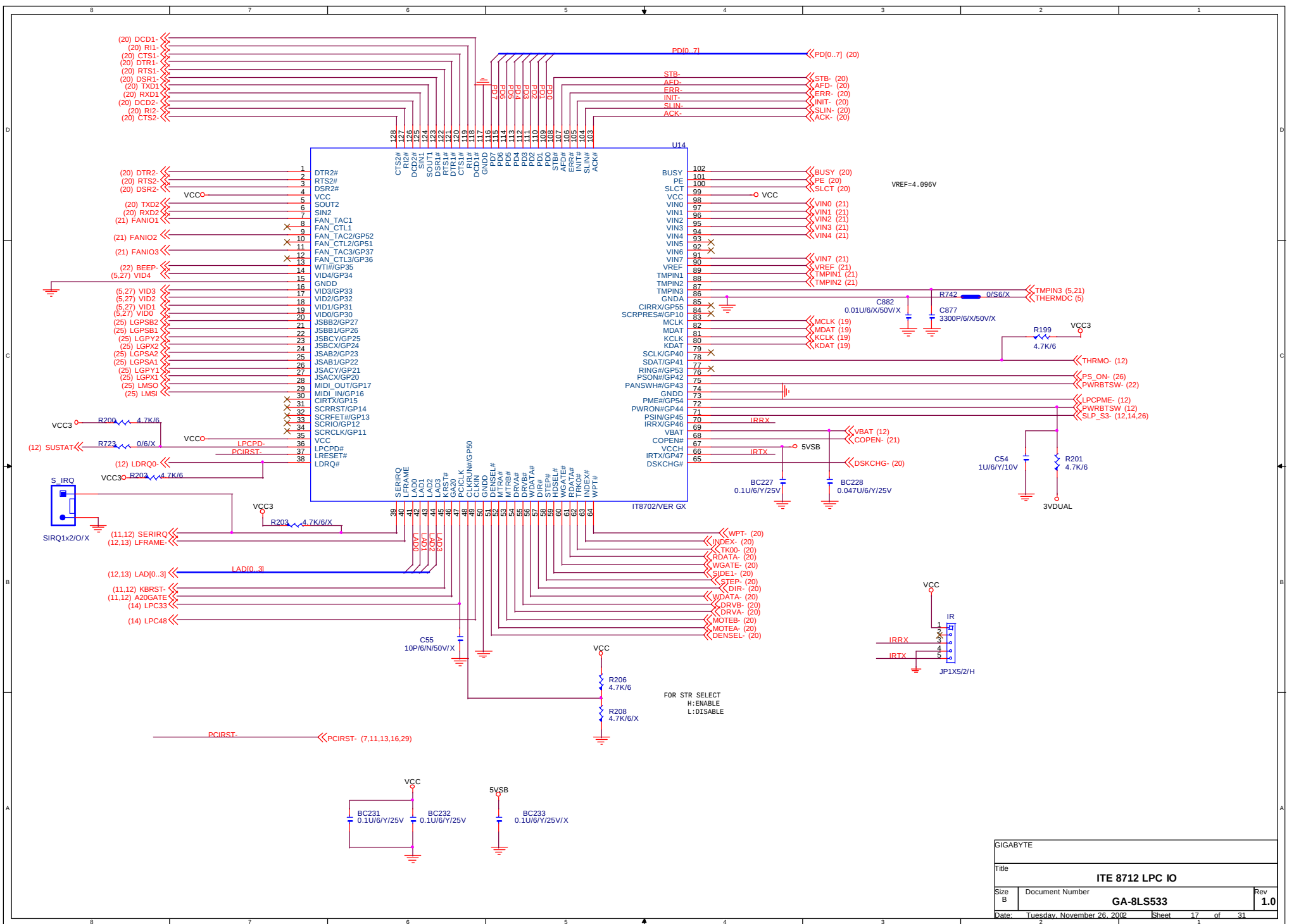


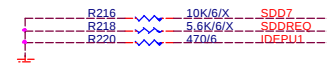
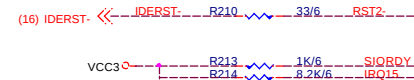
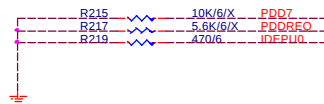
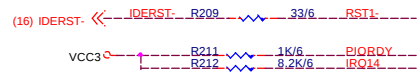
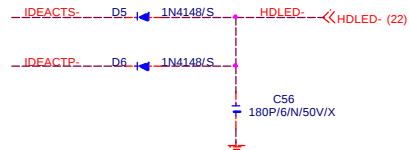
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Size	Document Number	Rev	
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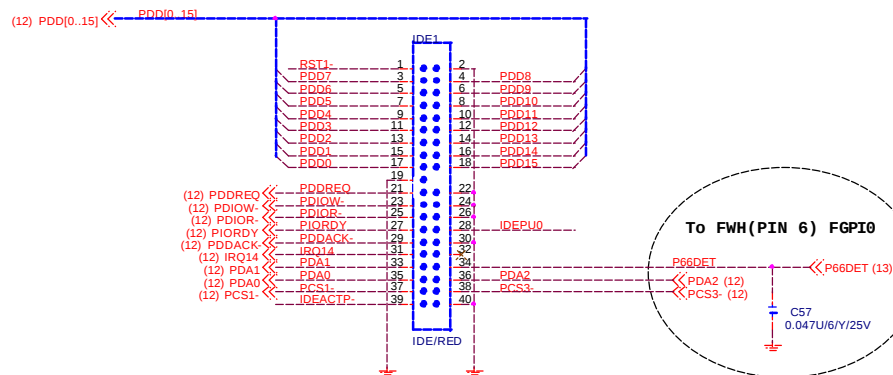
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Title	PCI SLOT 1/2
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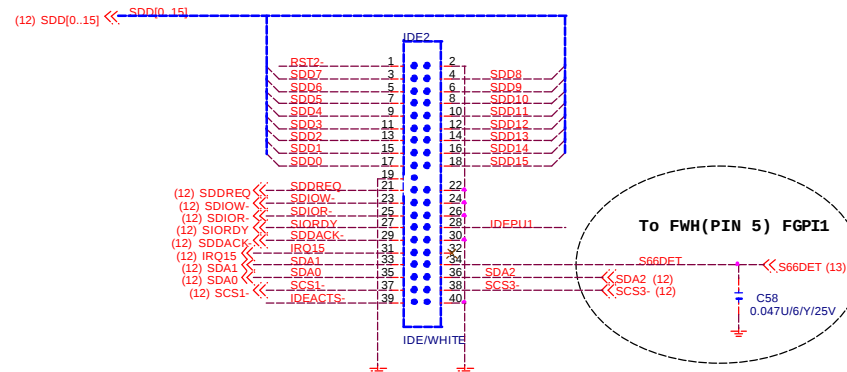




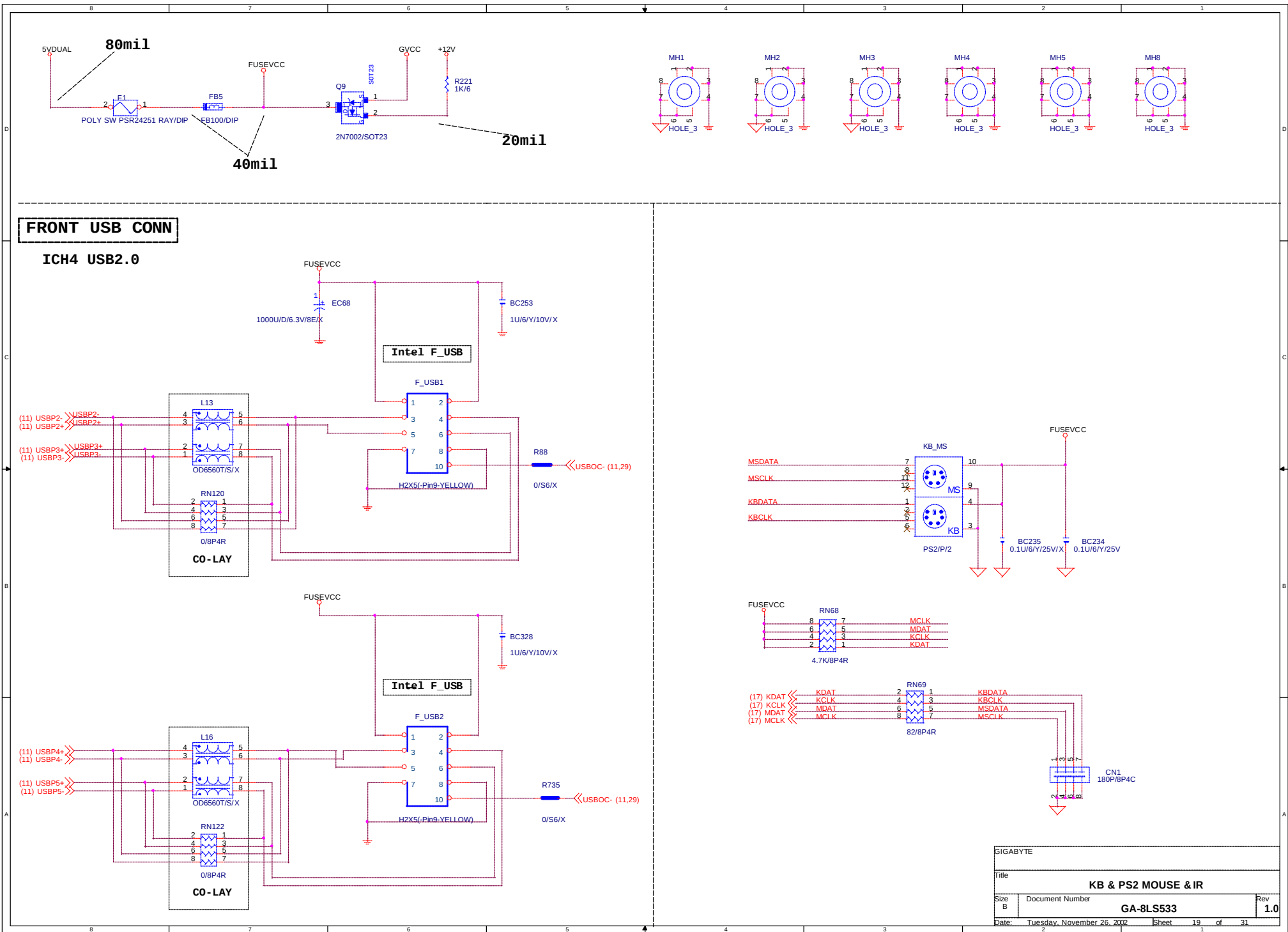
PRIMARY IDE CONNECTOR



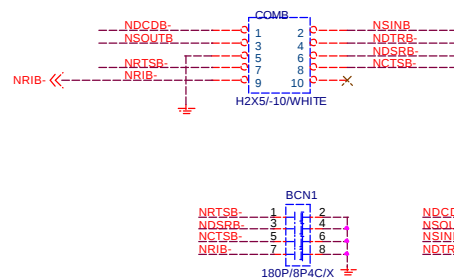
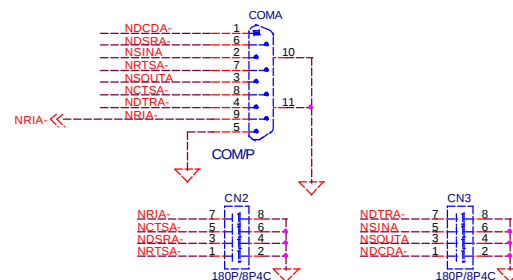
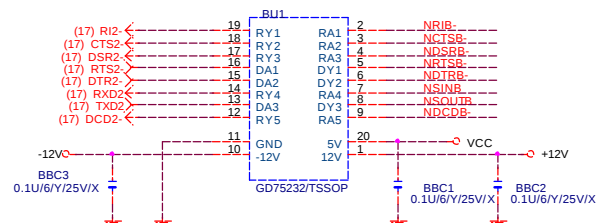
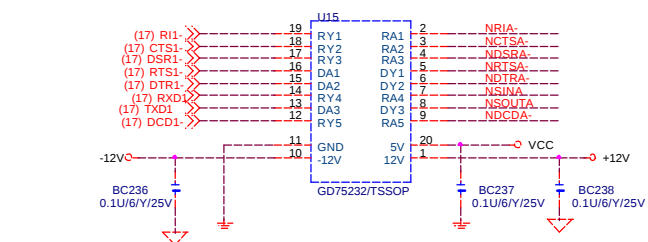
SECONDARY IDE CONNECTOR



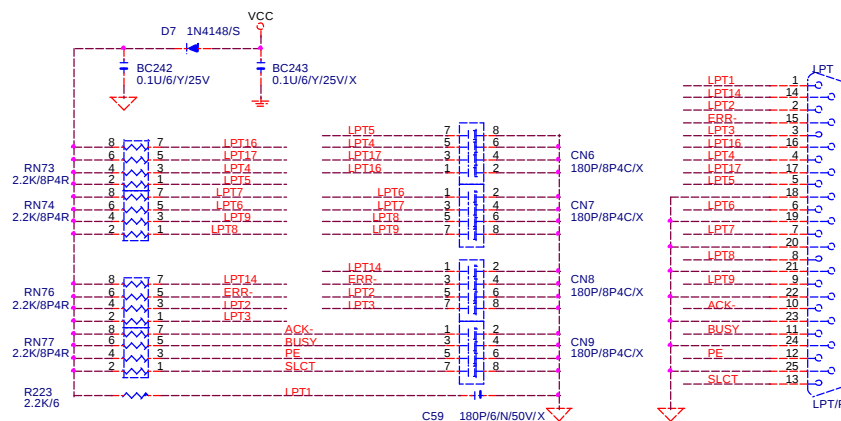
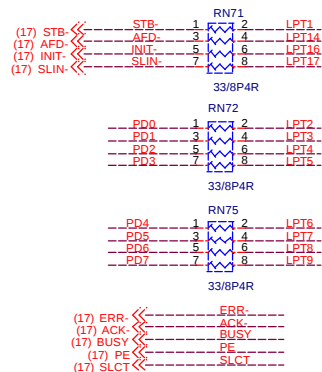
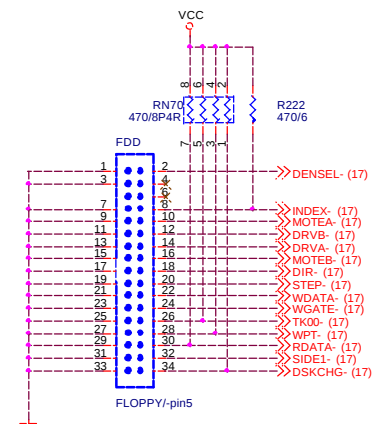
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Title			
IDE CONNECTOR			
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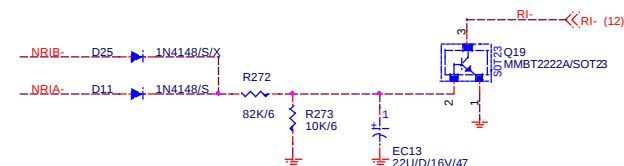
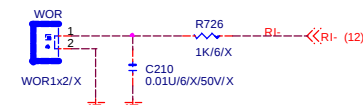
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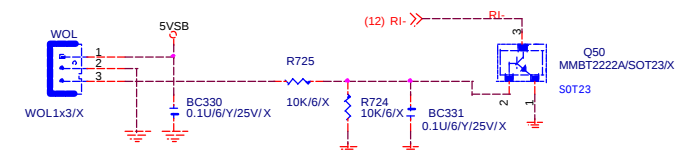
FLOPPY



WOR

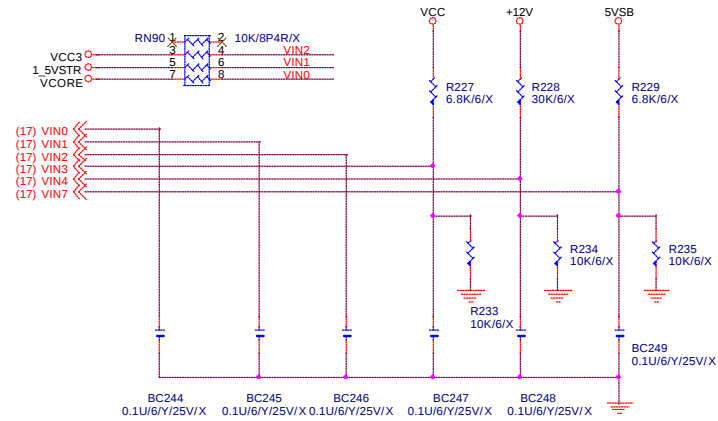
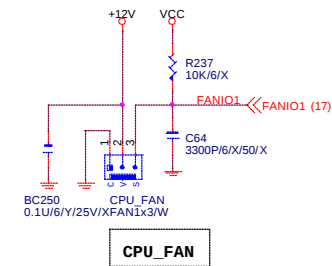
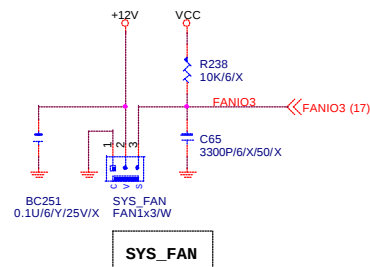
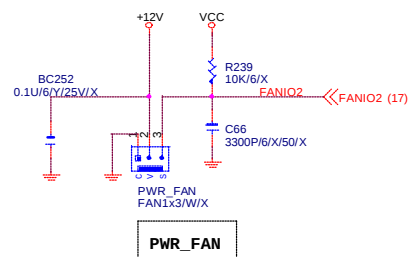
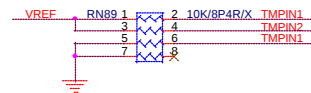
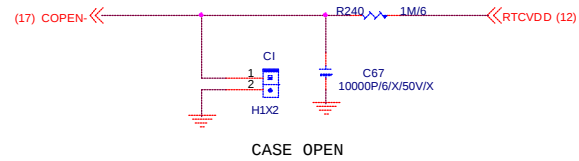
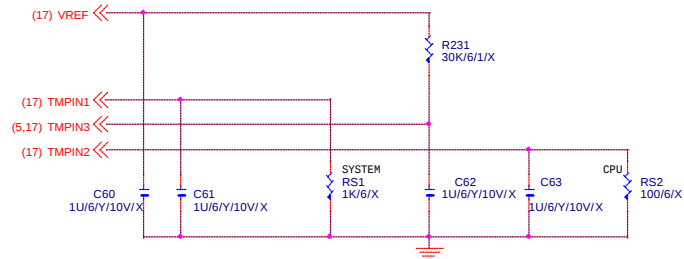


WOL

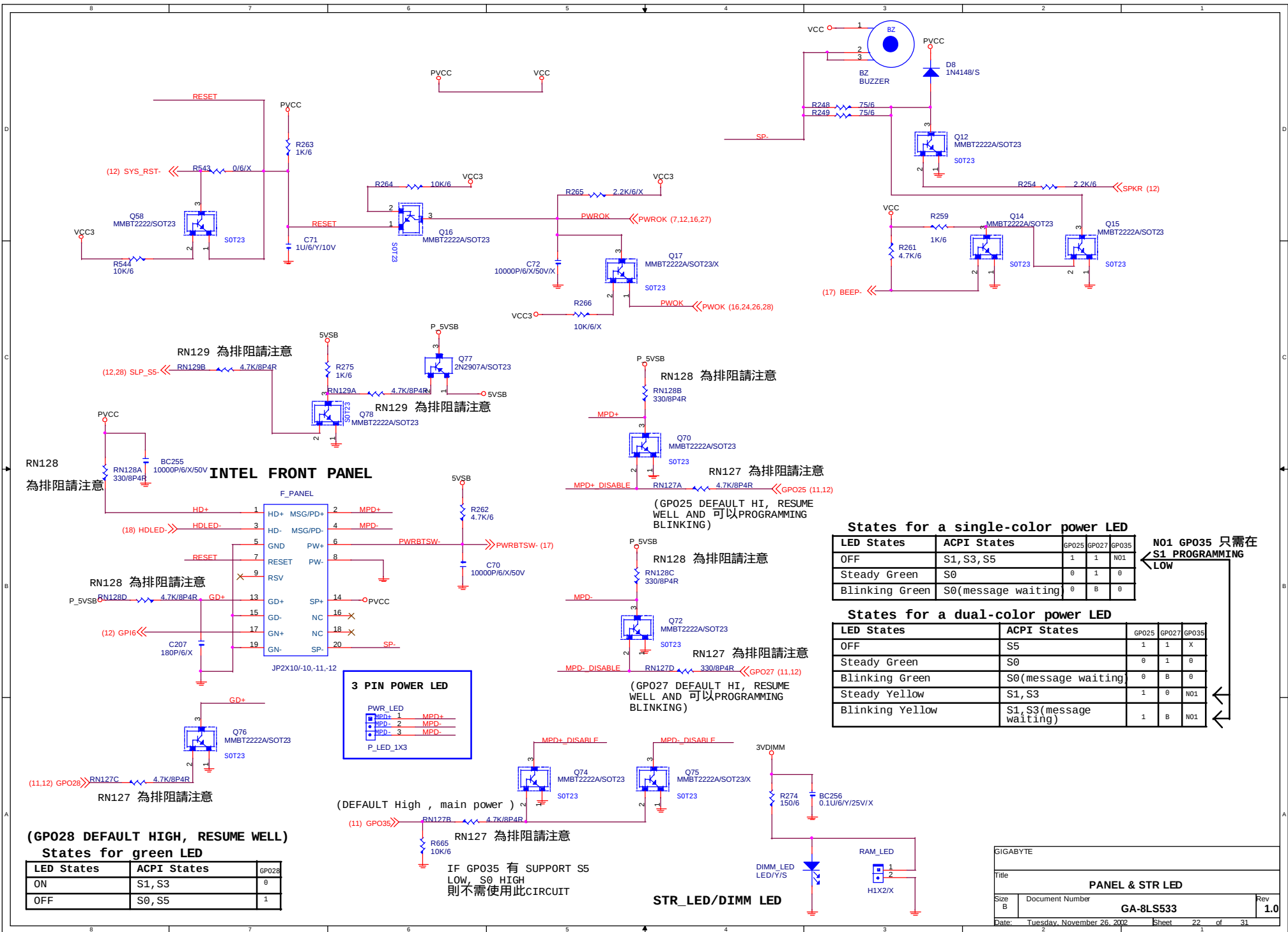


GIGABYTE			
Title			
COM & WOR & WOL & LPT PORT & FLOOPY			
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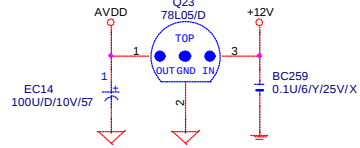
Hardware Monitor circuits



GIGABYTE			
Title			
FAN/ HW MONITOR			
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AVDD

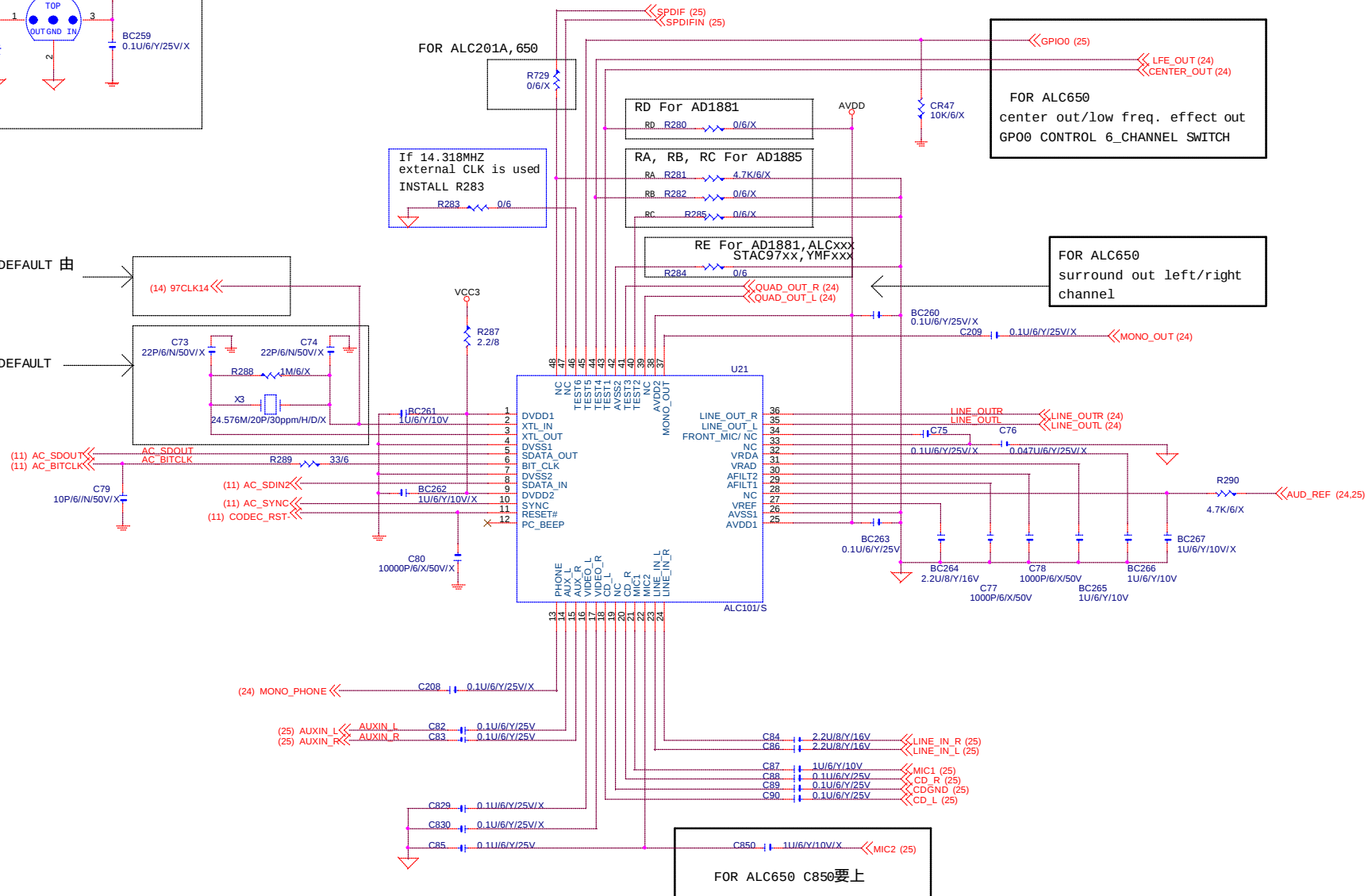


FOR ALC201A, 650

If 14.318MHZ
external CLK is used
INSTALL R283

FOR 650 DESIGN DEFAULT 由
CLOCK GEN 来

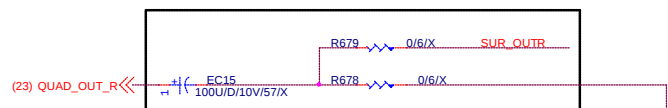
FOR 650 DESIGN DEFAULT
不上 CRYSTAL



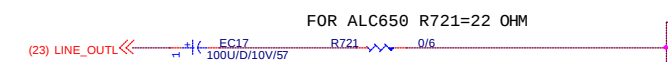
FOR ALC650 C850要上

GIGABYTE			
Title			
AC97 CODEC			
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FOR ALC650 上EC15, R679



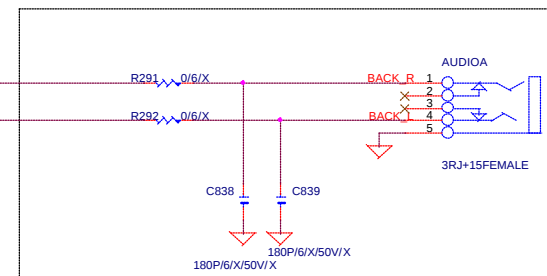
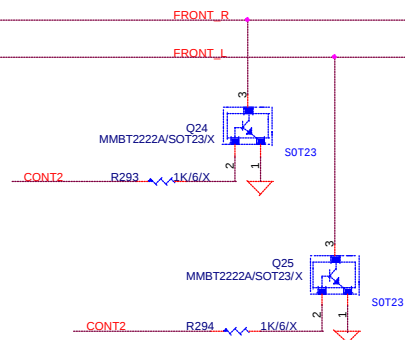
FOR ALC650 R720=22 OHM



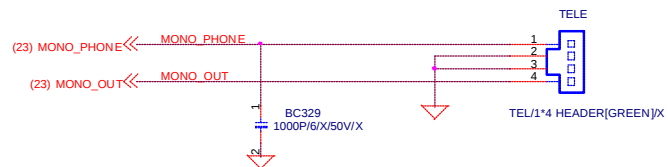
FOR ALC650 R721=22 OHM

FOR ALC650 上EC18, R681

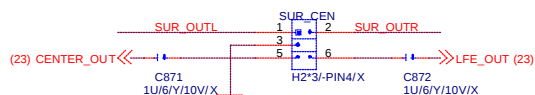
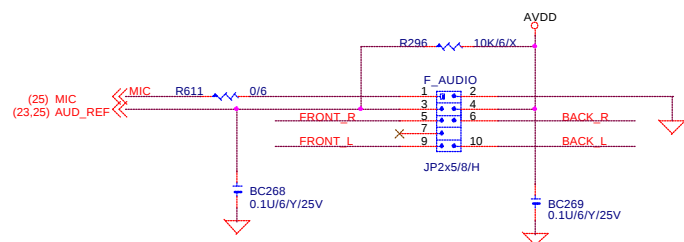
LINE-OUT



TELE



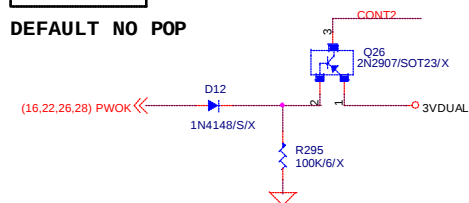
INTEL FRONT AUDIO



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

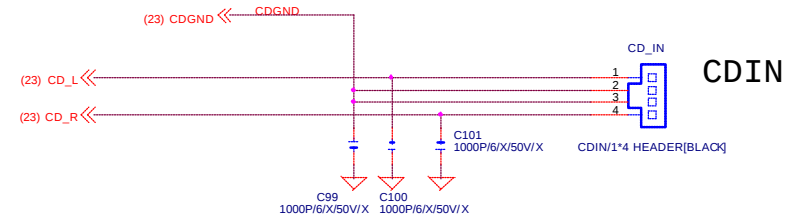
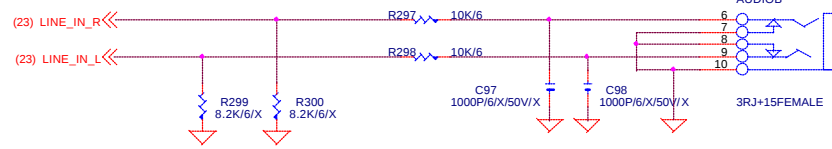
ANTI-POP

DEFAULT NO POP

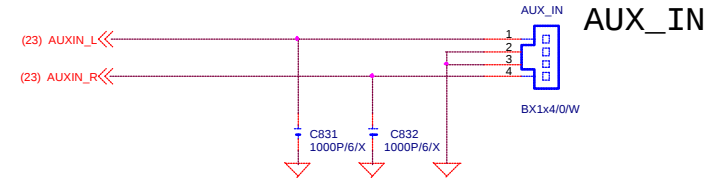
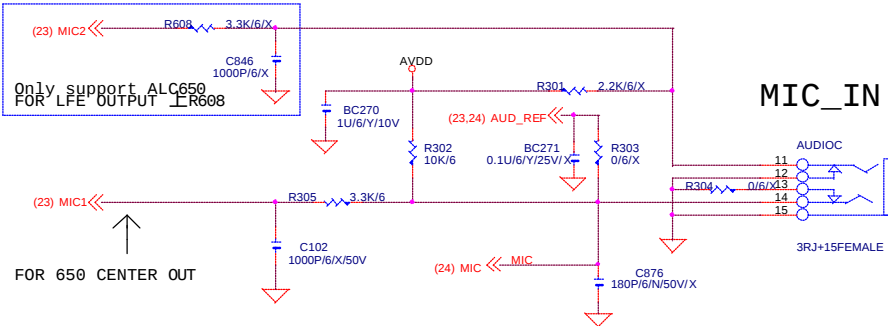


GIGABYTE			
Title			
LJACK LINE OUT			
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LINE-IN



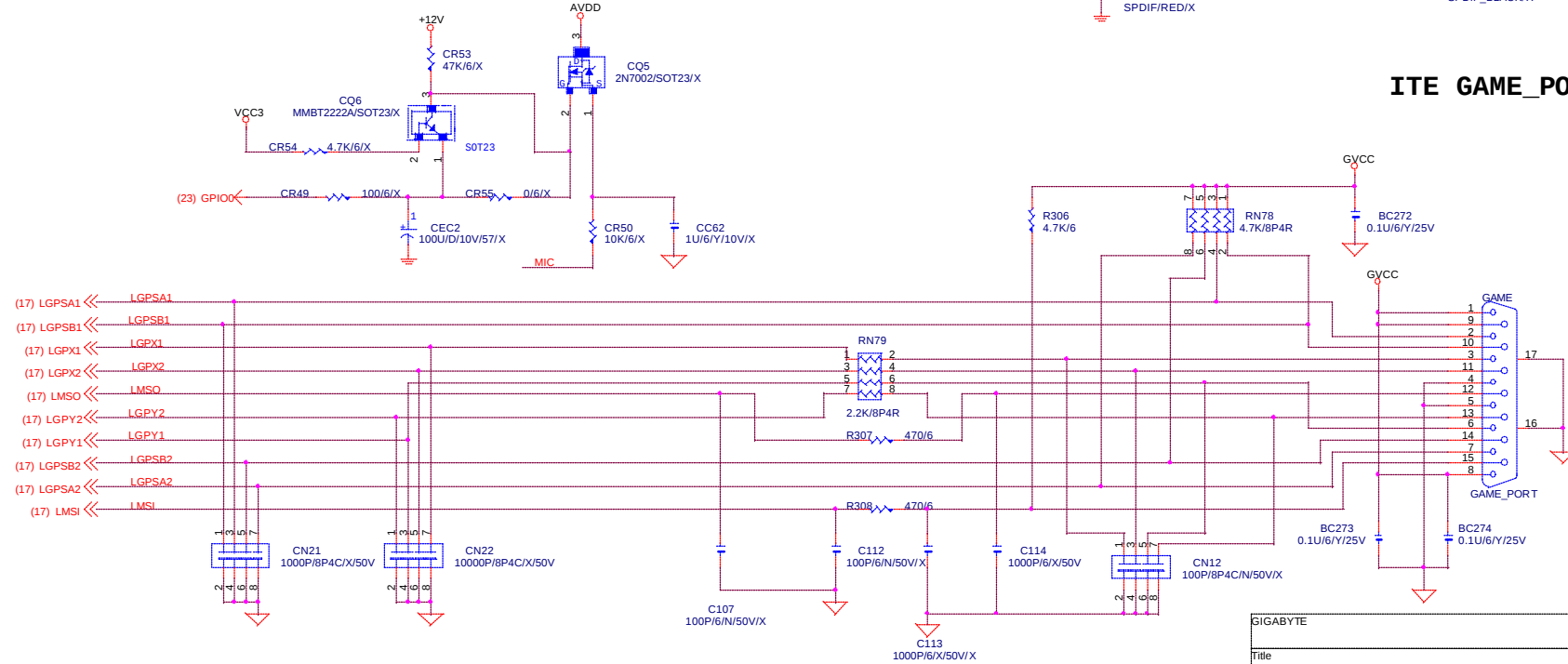
MIC_IN



SPDIF

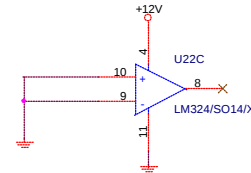
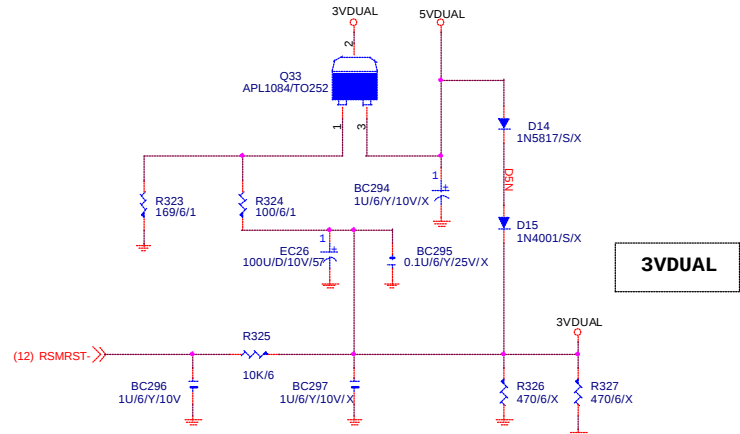
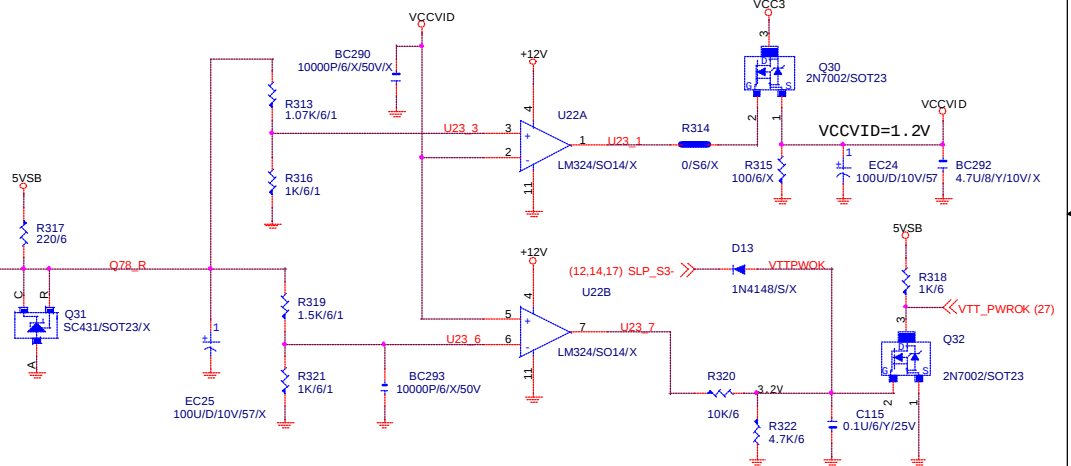
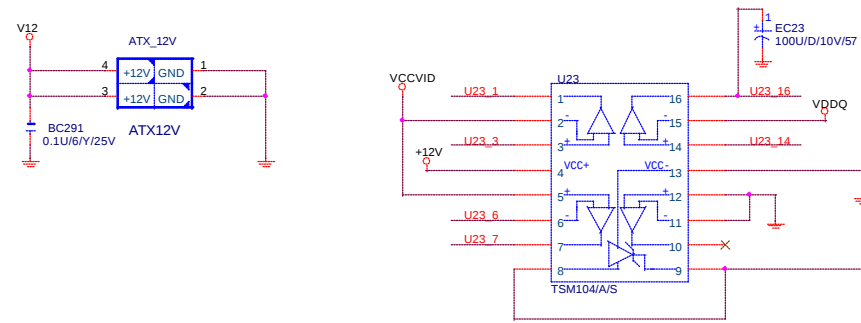
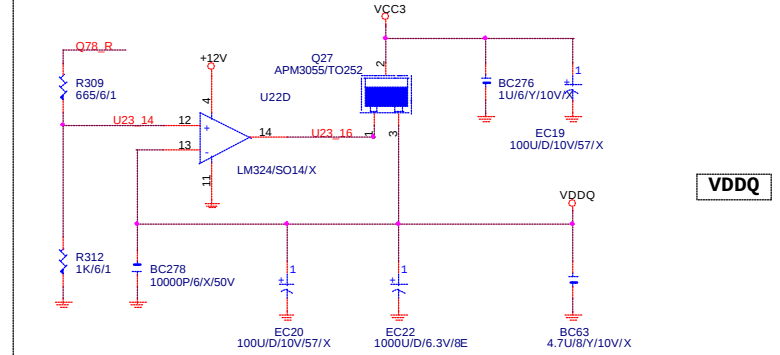
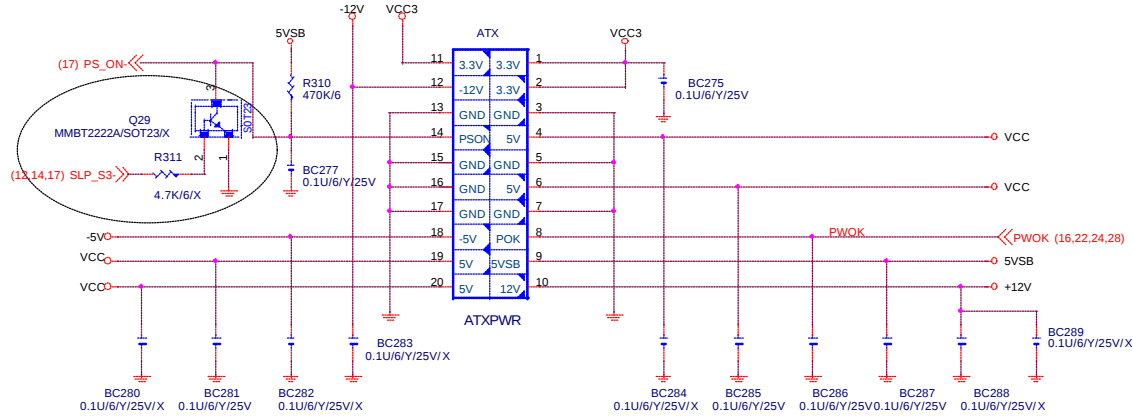


ITE GAME_PORT



GIGABYTE			
Title			
PHONE JACK, GAME PORT			
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ATX POWER CONNECTOR



GIGABYTE			
Title			
Misc. PWR & ATX CONN.			
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1.25V VTT_DDR LINEAR SOLUTION

5VDUAL

5VSB

BC314 0.1U/6/Y/25V

BC315 0.1U/6/Y/25V

U28A KA393/TO8

U28B KA393/TO8

U28A_1

U28A_2

U28A_2

U28A_2

SI3443DV/PMOS/TSOP-6

U29

Q47 HUF76107/NMOS/TO252

EC54 100U/D/10V/57/X

EC55 100U/D/10V/57/X

EC56 1000U/D/6.3V/8E

EC57 100U/D/10V/57/X

EC58 100U/D/10V/57/X

EC59 100U/D/10V/57/X

EC60 100U/D/10V/57/X

EC61 100U/D/10V/57/X

EC62 100U/D/10V/57/X

EC63 100U/D/10V/57/X

EC64 100U/D/10V/57/X

EC65 100U/D/10V/57/X

EC66 100U/D/10V/57/X

EC67 100U/D/10V/57/X

EC68 100U/D/10V/57/X

EC69 100U/D/10V/57/X

EC70 100U/D/10V/57/X

EC71 100U/D/10V/57/X

EC72 100U/D/10V/57/X

EC73 100U/D/10V/57/X

EC74 100U/D/10V/57/X

EC75 100U/D/10V/57/X

EC76 100U/D/10V/57/X

EC77 100U/D/10V/57/X

EC78 100U/D/10V/57/X

EC79 100U/D/10V/57/X

EC80 100U/D/10V/57/X

EC81 100U/D/10V/57/X

EC82 100U/D/10V/57/X

EC83 100U/D/10V/57/X

EC84 100U/D/10V/57/X

EC85 100U/D/10V/57/X

EC86 100U/D/10V/57/X

EC87 100U/D/10V/57/X

EC88 100U/D/10V/57/X

EC89 100U/D/10V/57/X

EC90 100U/D/10V/57/X

EC91 100U/D/10V/57/X

EC92 100U/D/10V/57/X

EC93 100U/D/10V/57/X

EC94 100U/D/10V/57/X

EC95 100U/D/10V/57/X

EC96 100U/D/10V/57/X

EC97 100U/D/10V/57/X

EC98 100U/D/10V/57/X

EC99 100U/D/10V/57/X

EC100 100U/D/10V/57/X

EC101 100U/D/10V/57/X

EC102 100U/D/10V/57/X

EC103 100U/D/10V/57/X

EC104 100U/D/10V/57/X

EC105 100U/D/10V/57/X

EC106 100U/D/10V/57/X

EC107 100U/D/10V/57/X

EC108 100U/D/10V/57/X

EC109 100U/D/10V/57/X

EC110 100U/D/10V/57/X

EC111 100U/D/10V/57/X

EC112 100U/D/10V/57/X

EC113 100U/D/10V/57/X

EC114 100U/D/10V/57/X

EC115 100U/D/10V/57/X

EC116 100U/D/10V/57/X

EC117 100U/D/10V/57/X

EC118 100U/D/10V/57/X

EC119 100U/D/10V/57/X

EC120 100U/D/10V/57/X

EC121 100U/D/10V/57/X

EC122 100U/D/10V/57/X

EC123 100U/D/10V/57/X

EC124 100U/D/10V/57/X

EC125 100U/D/10V/57/X

EC126 100U/D/10V/57/X

EC127 100U/D/10V/57/X

EC128 100U/D/10V/57/X

EC129 100U/D/10V/57/X

EC130 100U/D/10V/57/X

EC131 100U/D/10V/57/X

EC132 100U/D/10V/57/X

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EC140 100U/D/10V/57/X

EC141 100U/D/10V/57/X

EC142 100U/D/10V/57/X

EC143 100U/D/10V/57/X

EC144 100U/D/10V/57/X

EC145 100U/D/10V/57/X

EC146 100U/D/10V/57/X

EC147 100U/D/10V/57/X

EC148 100U/D/10V/57/X

EC149 100U/D/10V/57/X

EC150 100U/D/10V/57/X

EC151 100U/D/10V/57/X

EC152 100U/D/10V/57/X

EC153 100U/D/10V/57/X

EC154 100U/D/10V/57/X

EC155 100U/D/10V/57/X

EC156 100U/D/10V/57/X

EC157 100U/D/10V/57/X

EC158 100U/D/10V/57/X

EC159 100U/D/10V/57/X

EC160 100U/D/10V/57/X

EC161 100U/D/10V/57/X

EC162 100U/D/10V/57/X

EC163 100U/D/10V/57/X

EC164 100U/D/10V/57/X

EC165 100U/D/10V/57/X

EC166 100U/D/10V/57/X

EC167 100U/D/10V/57/X

EC168 100U/D/10V/57/X

EC169 100U/D/10V/57/X

EC170 100U/D/10V/57/X

EC171 100U/D/10V/57/X

EC172 100U/D/10V/57/X

EC173 100U/D/10V/57/X

EC174 100U/D/10V/57/X

EC175 100U/D/10V/57/X

EC176 100U/D/10V/57/X

EC177 100U/D/10V/57/X

EC178 100U/D/10V/57/X

EC179 100U/D/10V/57/X

EC180 100U/D/10V/57/X

EC181 100U/D/10V/57/X

EC182 100U/D/10V/57/X

EC183 100U/D/10V/57/X

EC184 100U/D/10V/57/X

EC185 100U/D/10V/57/X

EC186 100U/D/10V/57/X

EC187 100U/D/10V/57/X

EC188 100U/D/10V/57/X

EC189 100U/D/10V/57/X

EC190 100U/D/10V/57/X

EC191 100U/D/10V/57/X

EC192 100U/D/10V/57/X

EC193 100U/D/10V/57/X

EC194 100U/D/10V/57/X

EC195 100U/D/10V/57/X

EC196 100U/D/10V/57/X

EC197 100U/D/10V/57/X

EC198 100U/D/10V/57/X

EC199 100U/D/10V/57/X

EC200 100U/D/10V/57/X

EC201 100U/D/10V/57/X

EC202 100U/D/10V/57/X

EC203 100U/D/10V/57/X

EC204 100U/D/10V/57/X

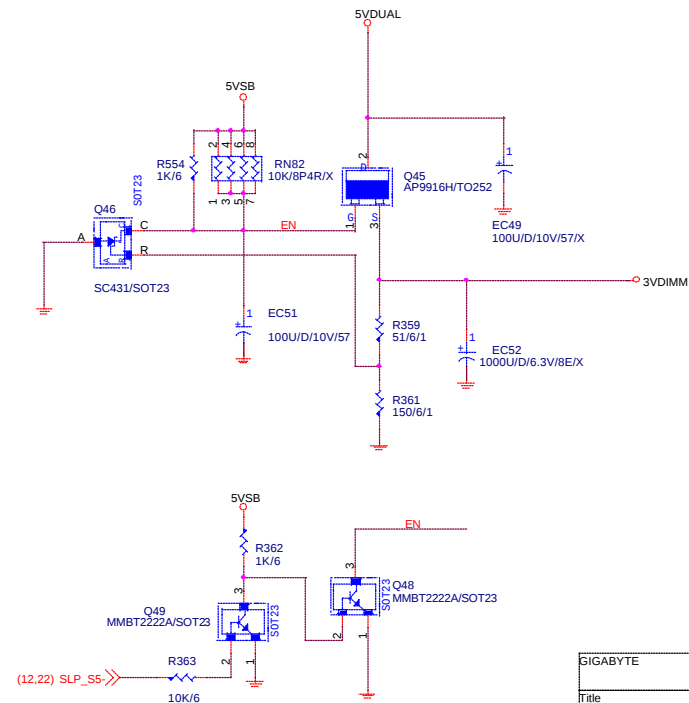
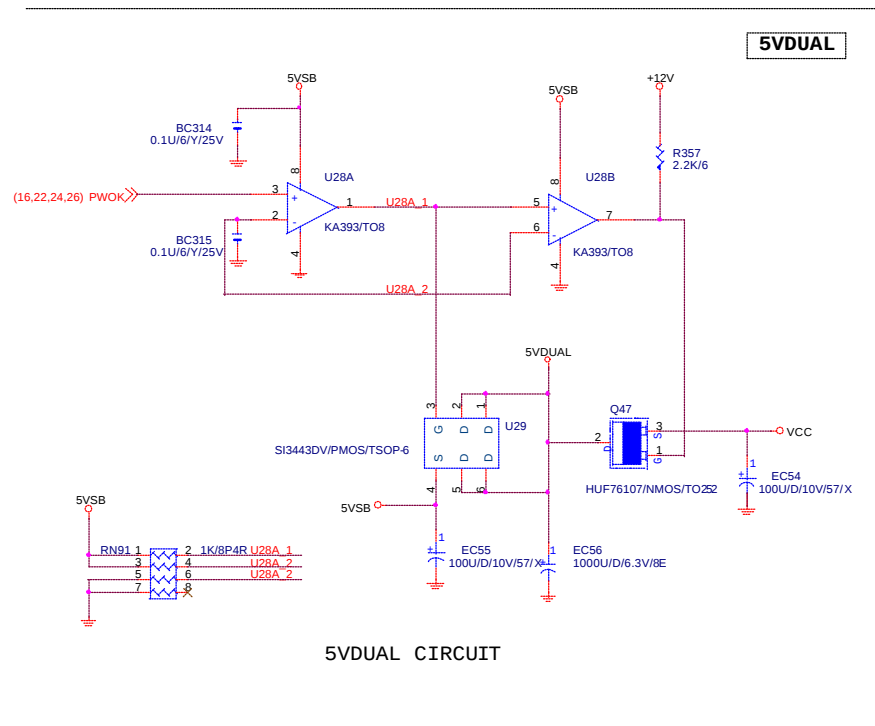
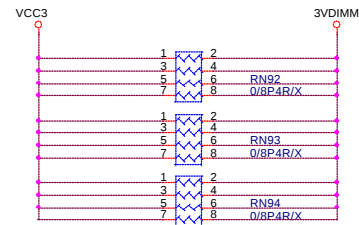
EC205 100U/D/10V/57/X

EC206 100U/D/10V/57/X

EC207 100U/D/10V/57/X

EC208 100U/D/10V/57/X

EC209



GIGABYTE			
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DDR POWER			
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POWER DECOUPLING CAP.

3V DUAL

LBC1 0.1U/6/Y/25V/X

LBC2 0.1U/6/Y/25V/X

LBC3 0.1U/6/Y/25V

LBC4 0.1U/6/Y/25V/X

LBC5 0.1U/6/Y/25V/X

LBC6 0.1U/6/Y/25V/X

AVDD33

FB6 30/8/S

3V DUAL

LBC9 0.1U/6/Y/25V/X

LBC10 0.1U/6/Y/25V

LBC11 0.1U/6/Y/25V

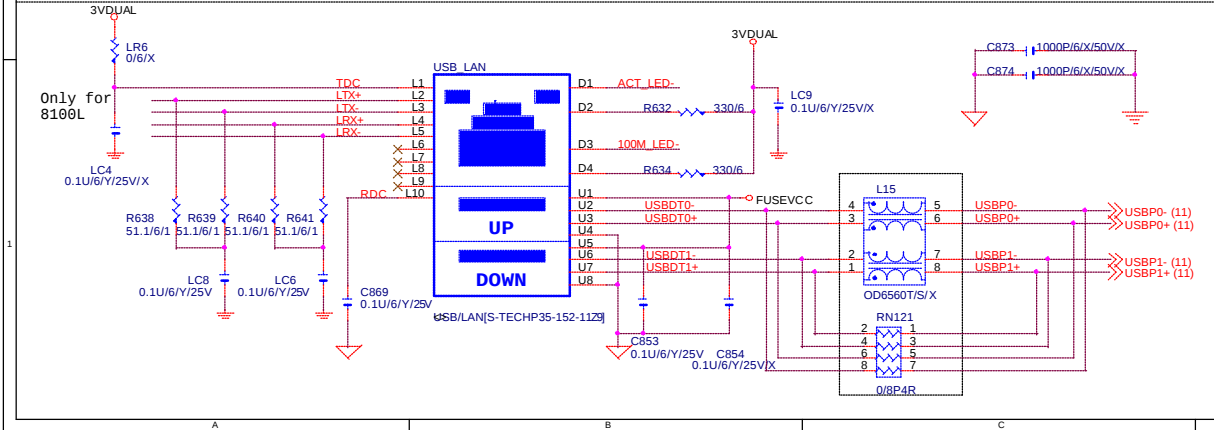
LBC12 0.1U/6/Y/25V

The diagram shows the LAN EEPROM (93C46) chip, labeled U2, connected to a 3V DUAL supply. The chip has the following pins and connections:

- Pin 1: L_EECS
- Pin 2: L_EESK
- Pin 3: L_EEDI
- Pin 4: L_EEDO
- Pin 5: GND
- Pin 6: NC
- Pin 7: NC
- Pin 8: VCC

The 3V DUAL supply is connected to pin 8 through a 0.1uF/5V/25V capacitor. A 5.6K/6 resistor is connected between pin 4 and the 3V DUAL supply.

8101L NOTE:



The diagram illustrates the USB_VCC circuit for the EC64 module. It features a 1000µF/6.3V/8E electrolytic capacitor connected to the FUSEVCC pin and ground. A 150K/6 resistor (R645) is connected between FUSEVCC and the USBOC pin. A 270K/6 resistor (R646) is connected between the USBOC pin and ground. The USBOC pin is also connected to the USBOC- (11,19) pin.

EC64 要靠近USB_PORT的FUSEVCC

FUSEVCC

6R45 150K/6

USB_OC- (11.19)

EC64

1000U/D/6.3V/8E

270K/6

GIGABYTE GA-8LS533 GPIO LIST

Revision 1.0

SHEET

TITLE

GPI		
PIRQB-		PULL 8.2K TO VCC3
PIRQD-		PULL 8.2K TO VCC3
PIRQE-		PULL 8.2K TO VCC3
PIRQH-		PULL 8.2K TO VCC3
GPI6		PULL 8.2K TO VCC3 (GREEN_BUTTON)
GPI7		NOT IMPLEMENTED
GPI8		PULL 8.2K TO 3VDUAL, LPC PME.
GPI9	NA	NOT IMPLEMENTED
GPI10	NA	NOT IMPLEMENTED
GPI11		PULL 4.7K TO 3VDUAL (SMBALERT)
GPI12		PULL DOWN 10K.
GPI13		PULL DOWN 10K, CNR_PRIMARY
GPI14	NA	NOT IMPLEMENTED
GPI15	NA	NOT IMPLEMENTED

SHEET

TITLE

GPO		
GP018		PULL 8.2K TO VCC3
GP019		PULL 8.2K TO VCC3
GP020		PULL 8.2K TO VCC3
GP021		PULL 8.2K TO VCC3
GP022		PULL 8.2K TO VCC3
GP023		PULL 8.2K TO VCC3
GP024		PULL 1K TO 3VDUAL (TOP BLOCK)
GP025		PULL 4.7K TO 3VDUAL, BIOS WRITE PROTECT.
GP026		NOT IMPLEMENTED
GP027		PULL 8.2K TO 3VDUAL, LAN 100/10 DETECT.
GP028		PULL 8.2K TO 3VDUAL

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3

2

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GIGABYTE GA-8LS533 PCI ROUNTING LIST

Revision 1.0

PCI DEVICE	IDSEL	INT	CLOCK	REQ	GNT	
PCI SLOT1	16	C, F, G, A	PCLK1	REQ0 -	GNT0 -	
PCI SLOT2	17	F, G, A, C	PCLK2	REQ1 -	GNT1 -	
PCI SLOT3	18	G, A, C, F	PCLK3	REQ2 -	GNT2 -	
	19					
	20					
	21					
	26					
	28					
	23					
	NA					