

SHEET

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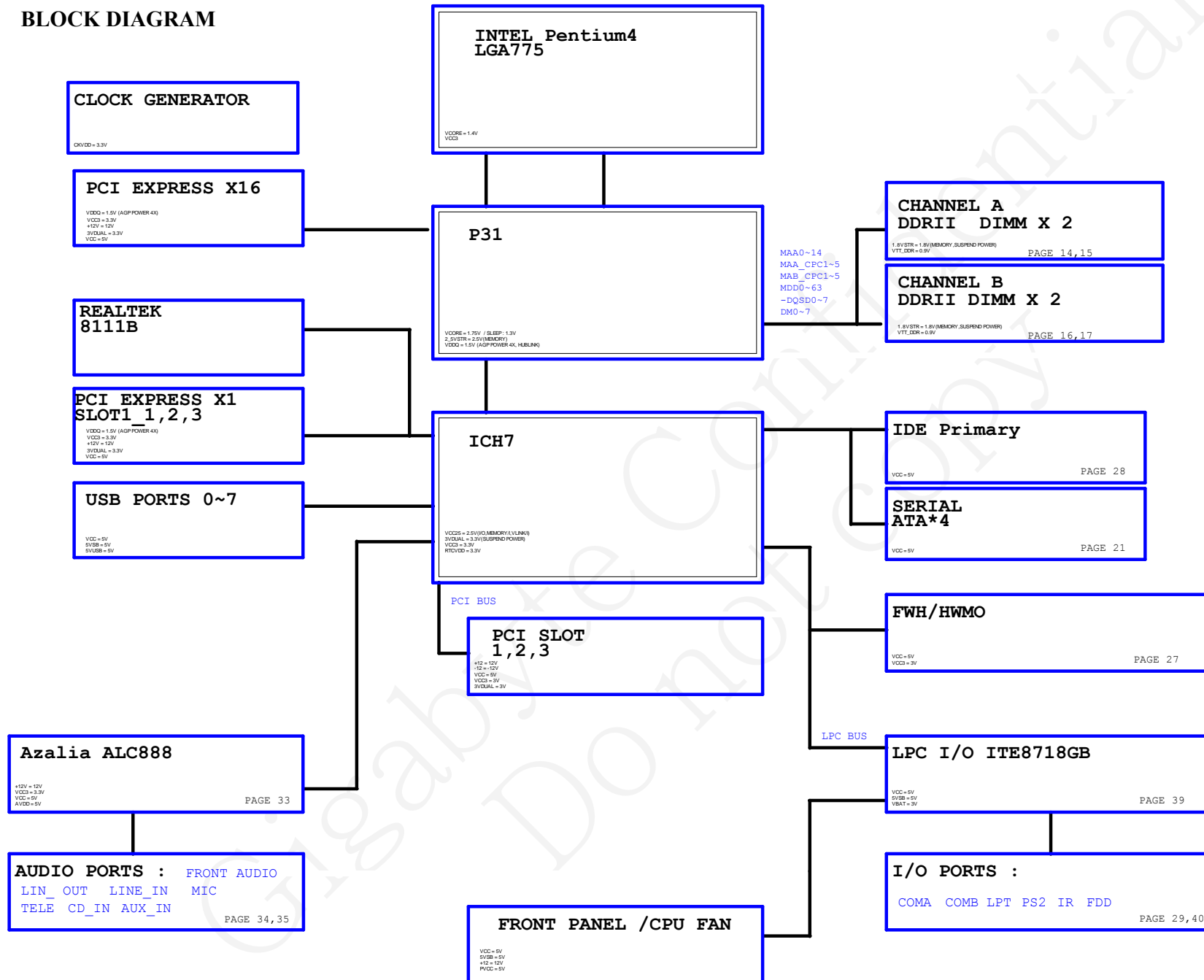
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03	BOM & PCB MODIFY HISTORY
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05	L775 B,D
06	L775 C
07	L775 E,F,G,H
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09	BROADWATER DDR
10	BROADWATER PCI EXP 16,DMI
11	BROADWATER VGA,MISC
12	BROADWATER GND
13	BROADWATER PWR
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15	DDRII CHANNEL B-SHARE 1,2
16	DDRII CLOCK BUFFER / TERMINATION
17	PCI EXPRESS*16 SLOT
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19	ICH7 IDE, GPIO, SATA, CTRL
20	ICH7 VCC, GND
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23	PCI EXPRESS*1 SLOT 1,2,3
24	PCI SLOT 1,2,3
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26	IDE/FLOPPY
27	KB_PS2

28	FRONT PANEL
29	FRONT USB,REAL USB CONNECT
30	PROCESSOR HOT
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32	REAR AUDIO JACK
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35	ITE 8712/8718 GBKX
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37	VCORE PWM
38	DISCRETE POWER
39	GPIO DEFINE
40	GPIO DEFINE
41	
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Intel Confidential

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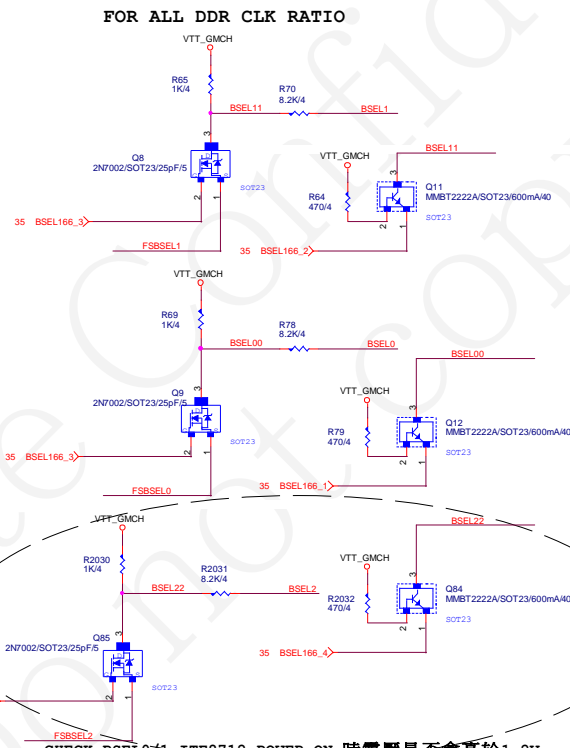
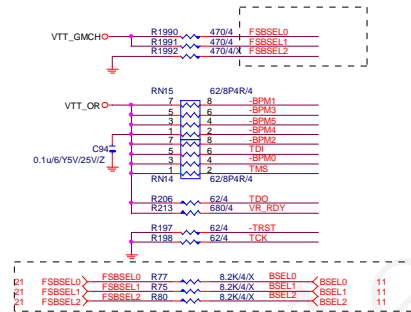
BLOCK DIAGRAM



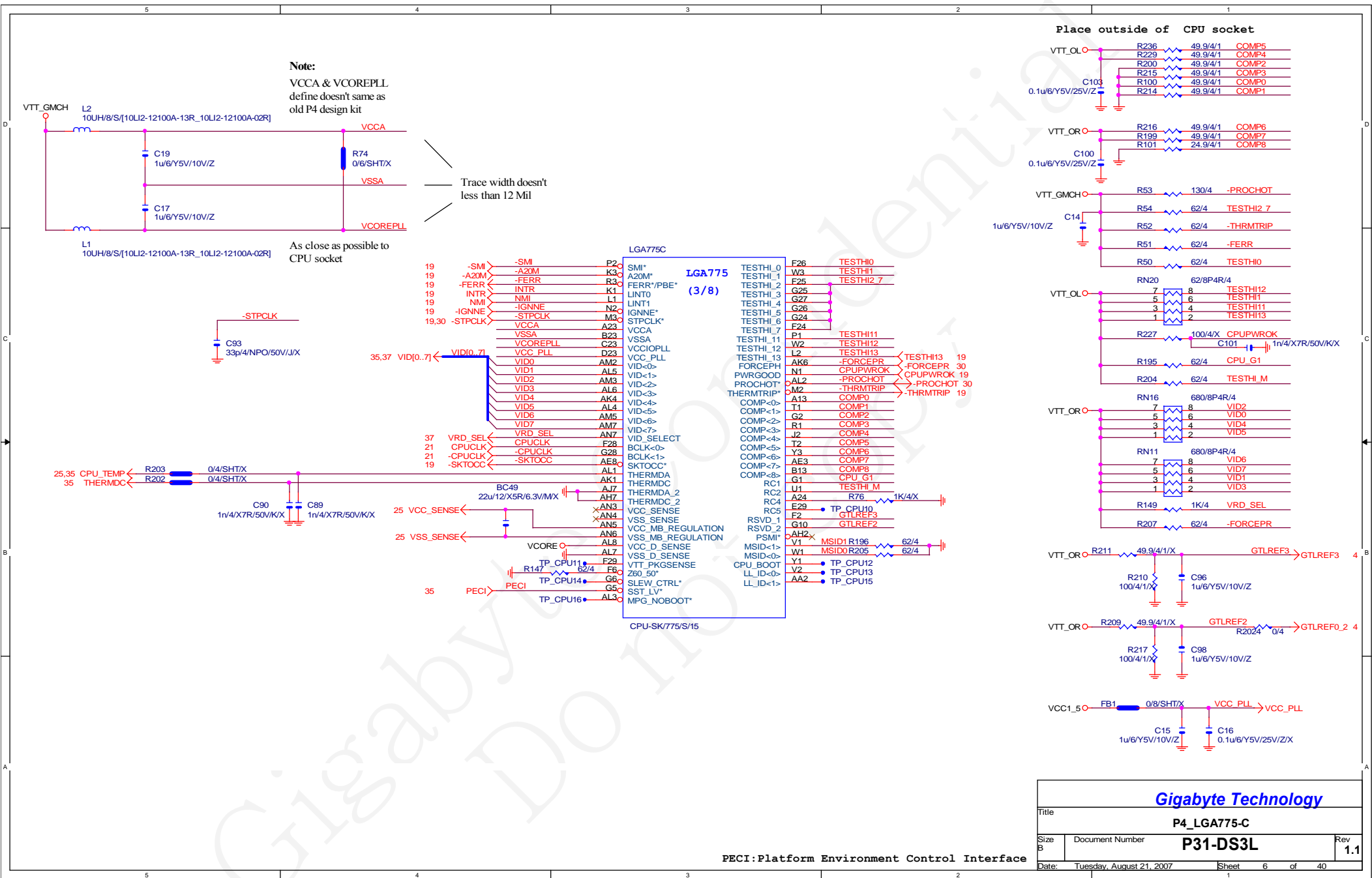
Component value change history

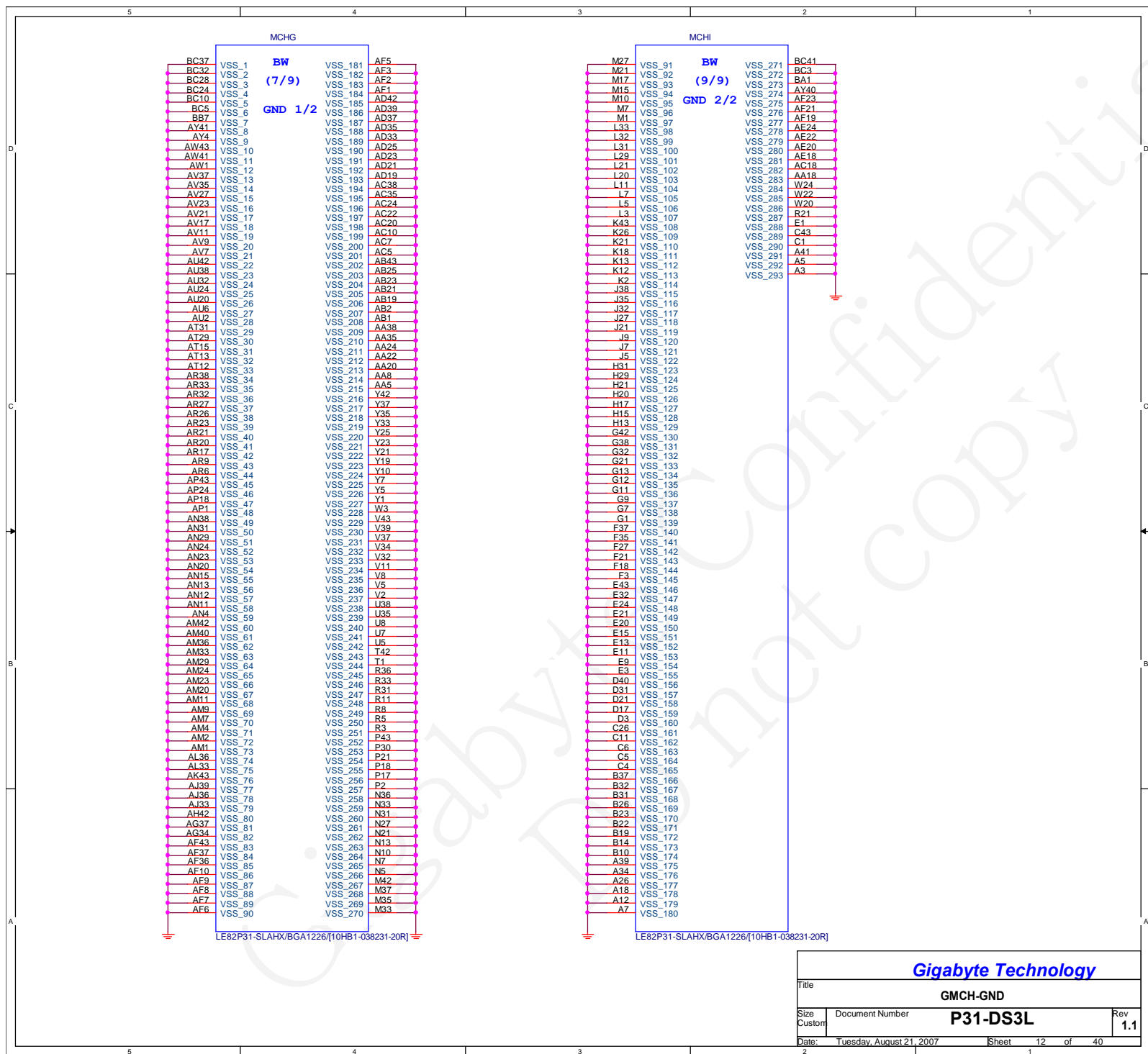
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BOM & PCB MODIFY HISTORY			
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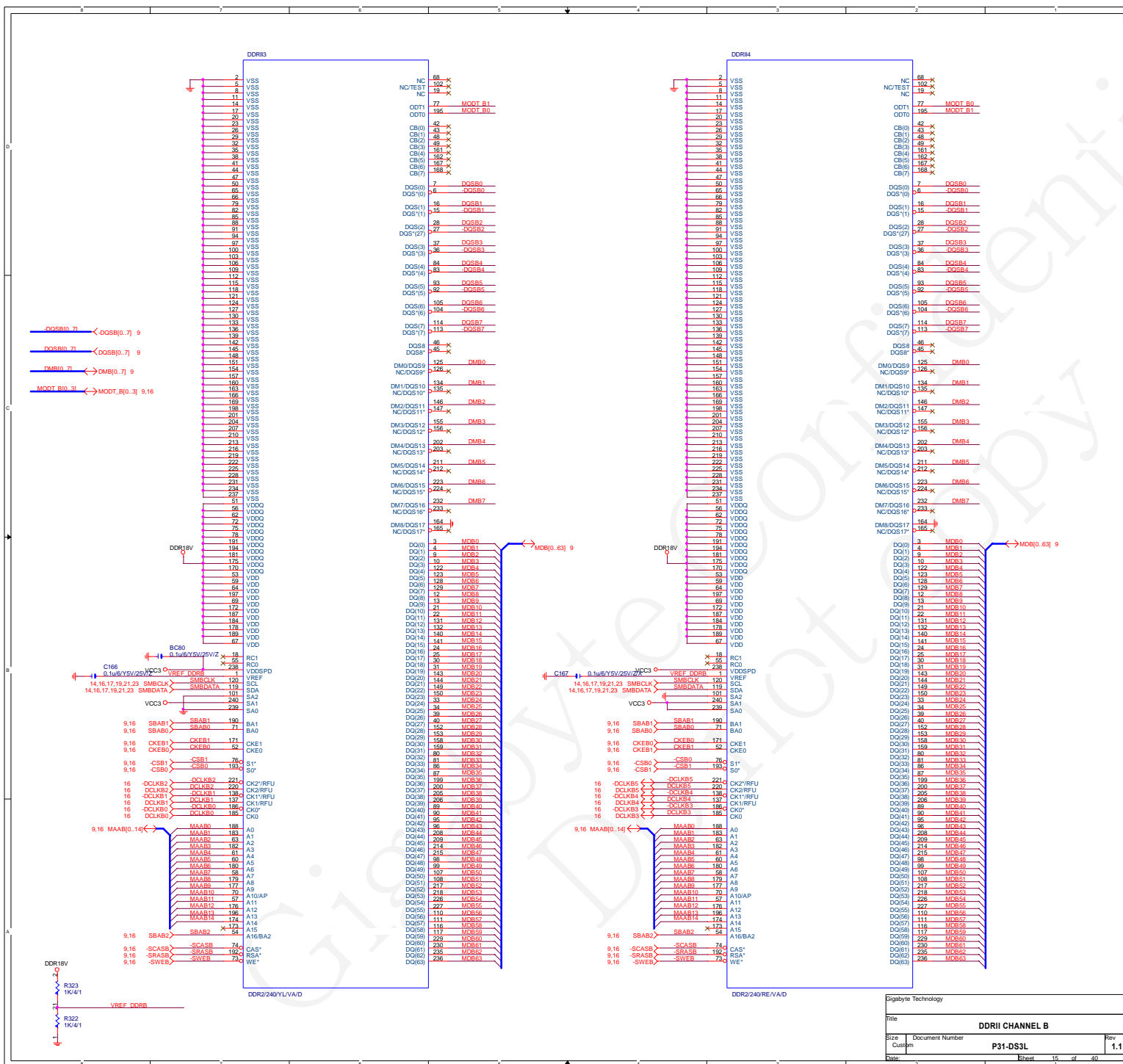
	FSA	FSB	FSC		
	FSBSEL0	FSBSEL1	FSBSEL2	Clock	
?	1	0	1	100MHz	
?	1	0	0	133MHz	
G31	0	1	0	200MHz	2/2. 66/3.33/4+
G31	0	0	0	260MHz	2/2. 5/3/4
G31	0	0	1	333MHz	2/2.4





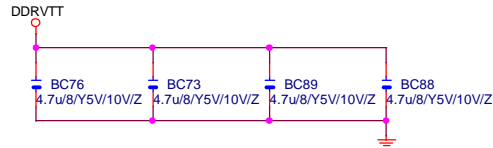
Gigabyte Technology

Title			GMCH-GND
Size	Document Number	P31-DS3L	
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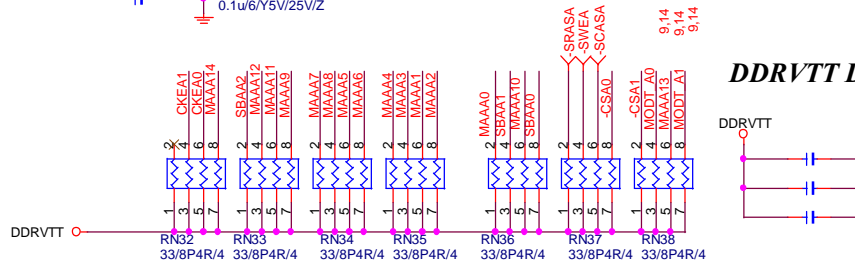
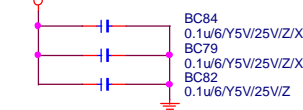


DDR TERMINATION CHANNEL A

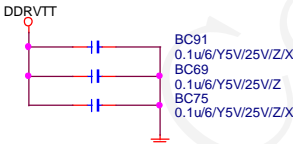
DDRVTT Decouple



DDR18V Decouple

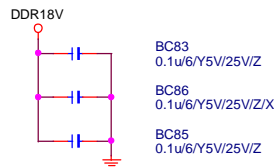


DDRVTT Decouple

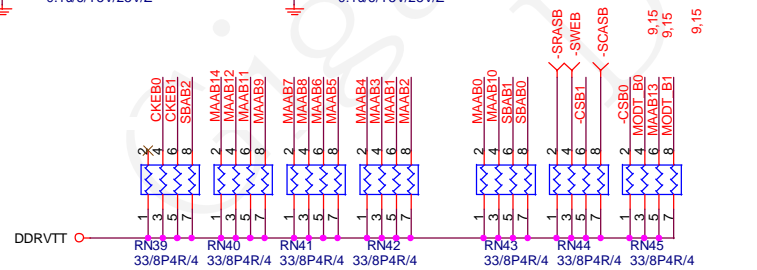
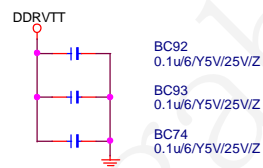


DDR TERMINATION CHANNEL B

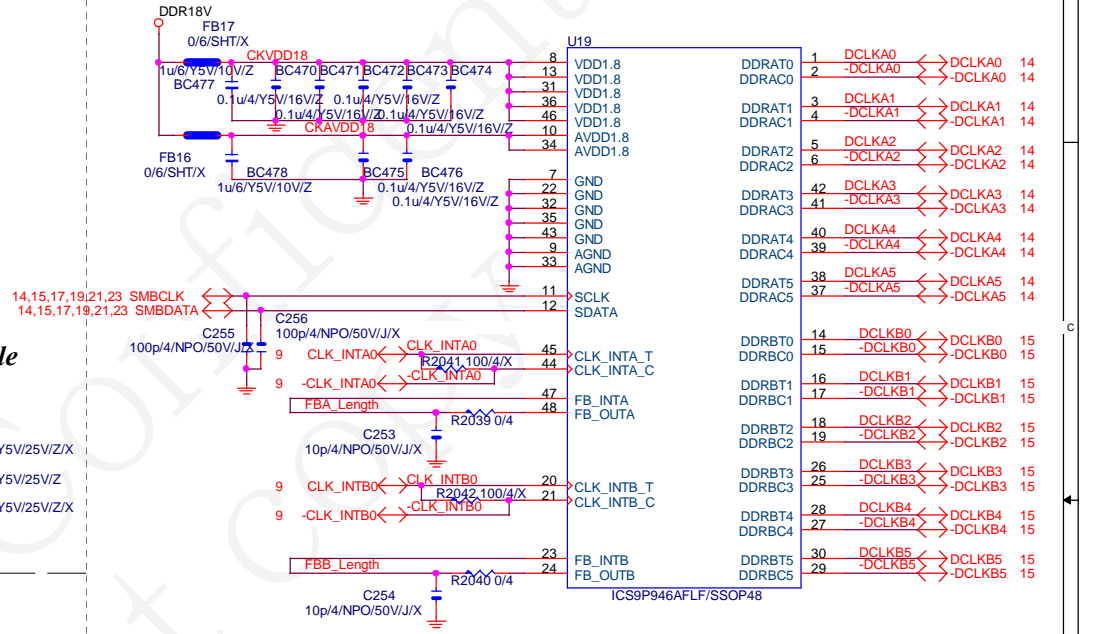
DDR18V Decouple



DDRVTT Decouple

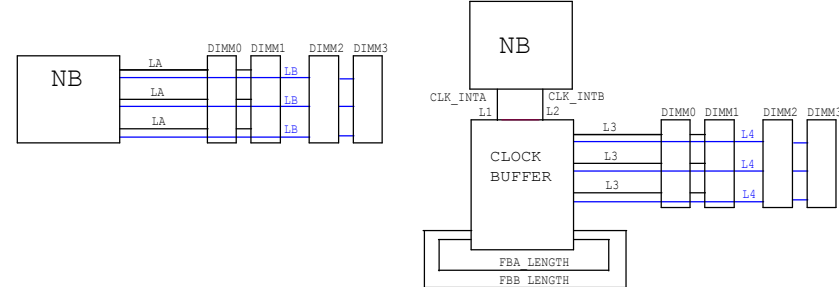


DDR2 CLOCK BUFFER



NOTICE

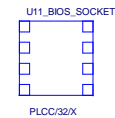
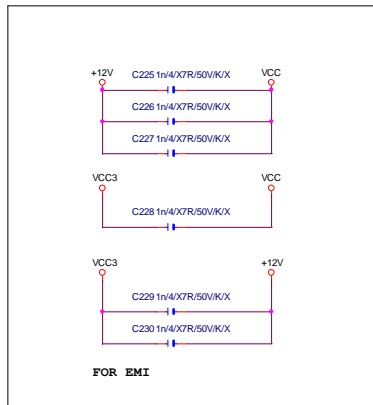
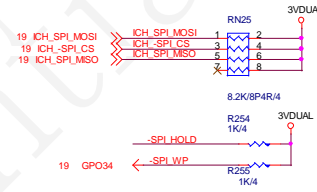
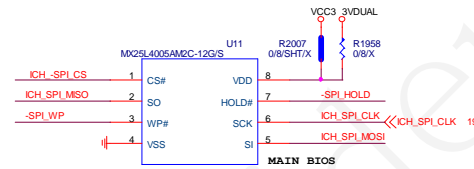
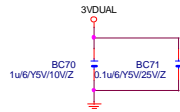
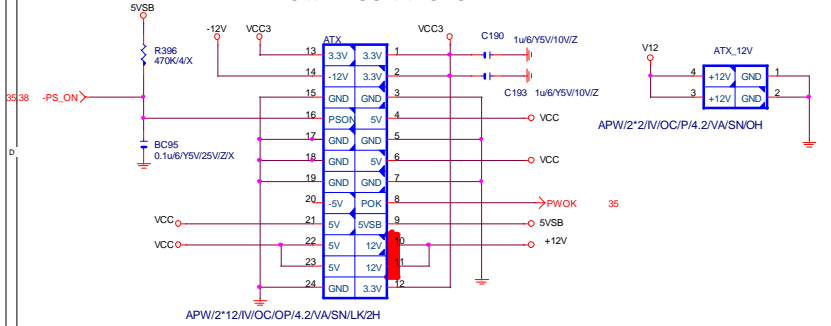
FBA_LENGTH=L1+L3-LA
FBB_LENGTH=L2+L4-LB



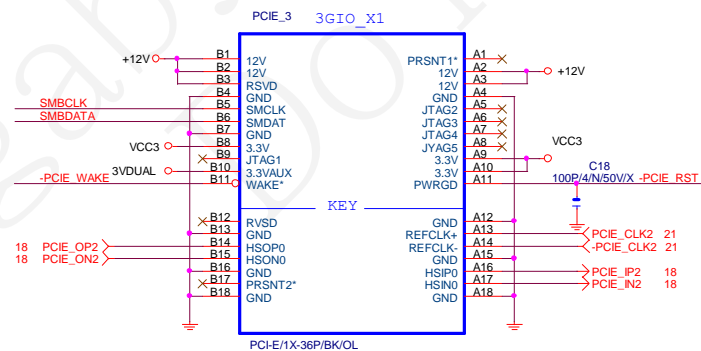
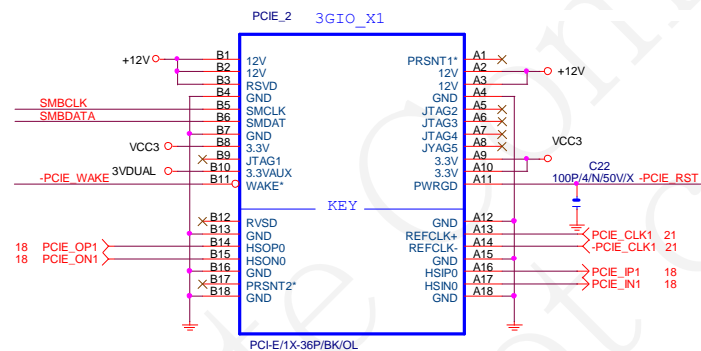
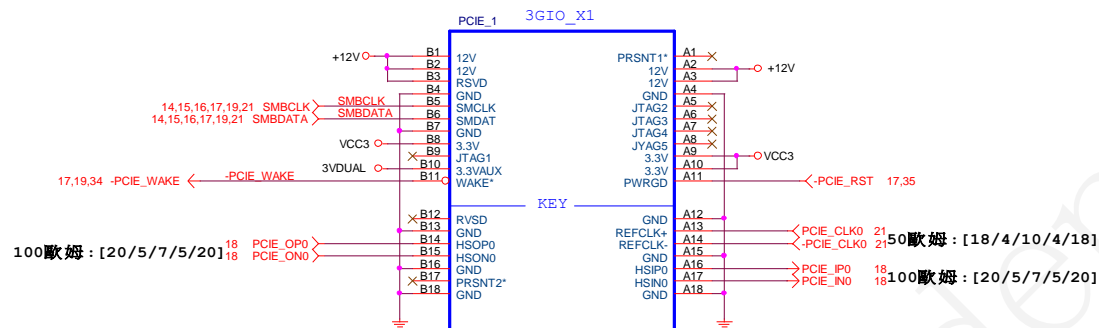
Gigabyte Technology

Title			DDR2 CLOCK BUFFER/TERMINATOR
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ATX POWER CONNECTOR



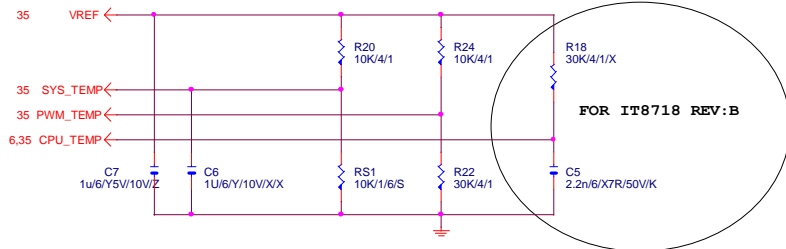
GIGABYTE			
Title	ATX POWER CONNECTOR,DUAL BIOS		
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Custom			
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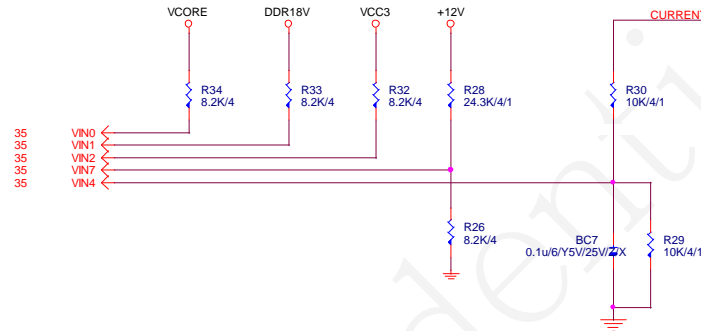
Intel Confidential

Title			PCI E SLOT 1, 2, 3
Size	Document Number	P31-DS3L	
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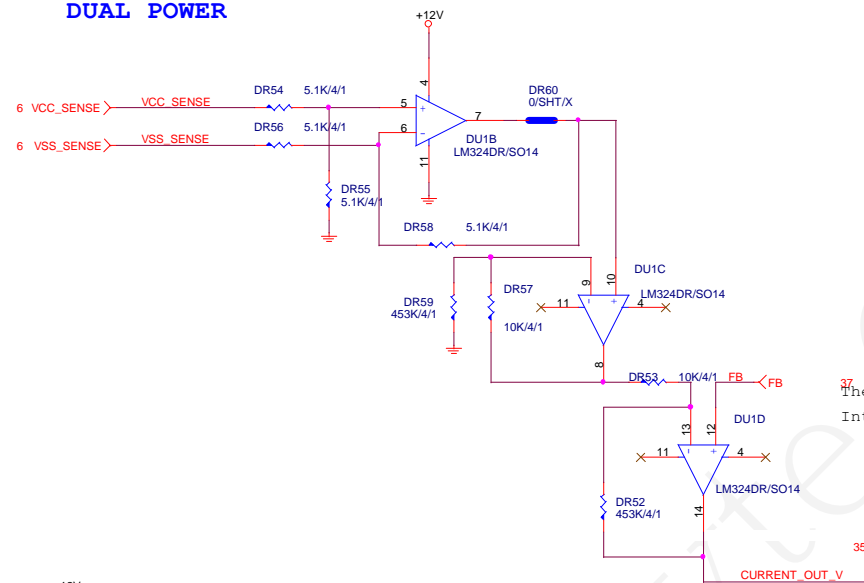
TEMP. SENSE



VOLTAGE SENSE



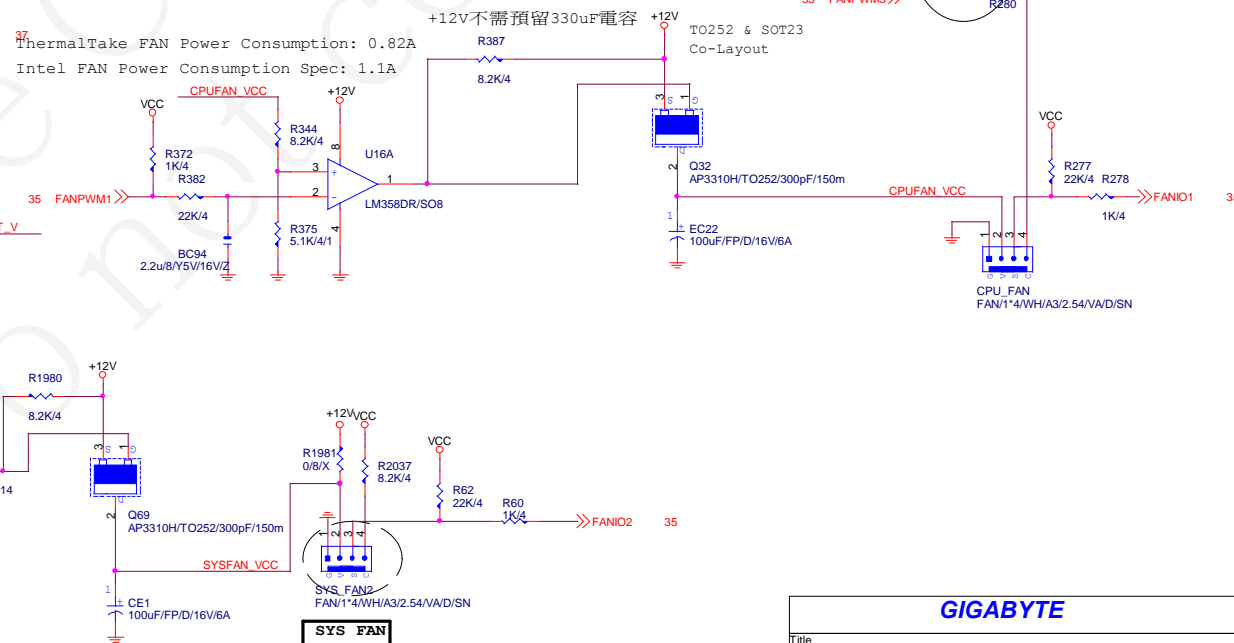
DUAL POWER



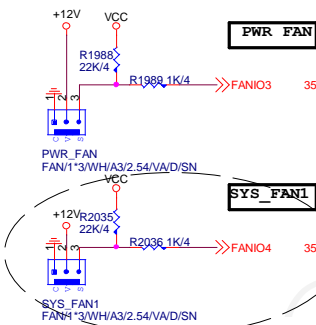
CPU/SYS FAN

If use PBSS5240 1pcs : (non airflow)	If use PBSS5240 1pcs : (with airflow)
CPUFAN_VCC=12V: Temp=40 deg	CPUFAN_VCC=12V: Temp=33 deg
CPUFAN_VCC=11V: Temp=82 deg	CPUFAN_VCC=11V: Temp=62 deg
CPUFAN_VCC=10V: Temp=70 deg	CPUFAN_VCC=10V: Temp=86 deg
CPUFAN_VCC= 9V: Temp=110 deg	CPUFAN_VCC= 9V: Temp=117 deg
CPUFAN_VCC= 8V: Temp>200 deg	CPUFAN_VCC= 8V: Temp>122 deg

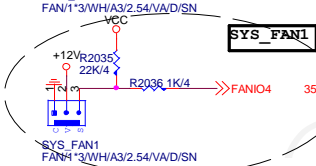
ThermalTake FAN Power Consumption: 0.82A
Intel FAN Power Consumption Spec: 1.1A



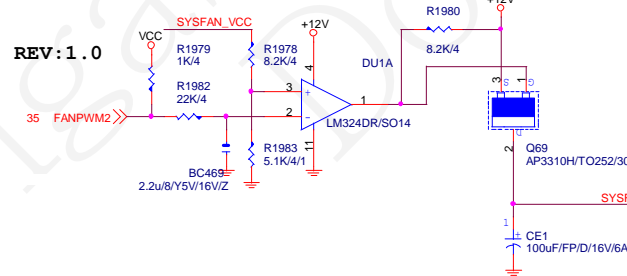
PWR_FAN



SYS_FAN1

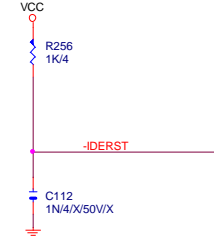
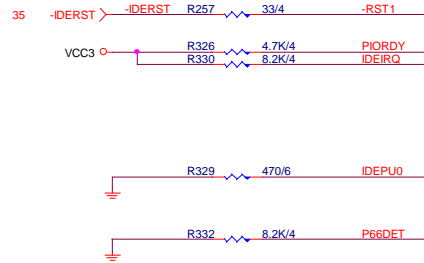
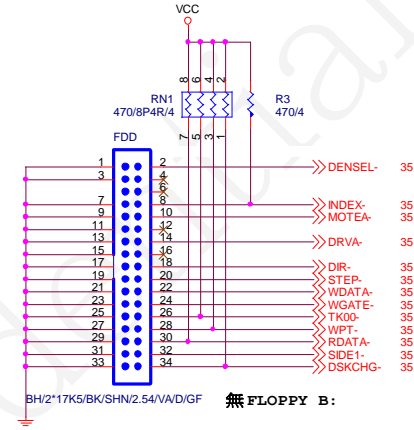
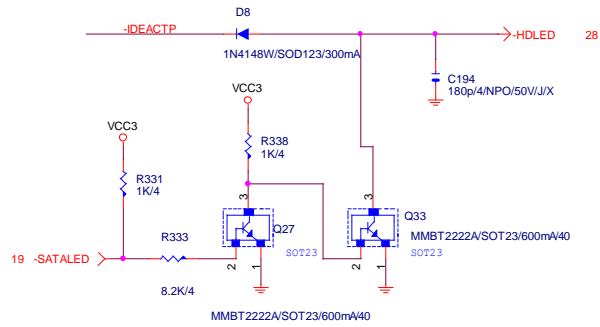


REV:1.0

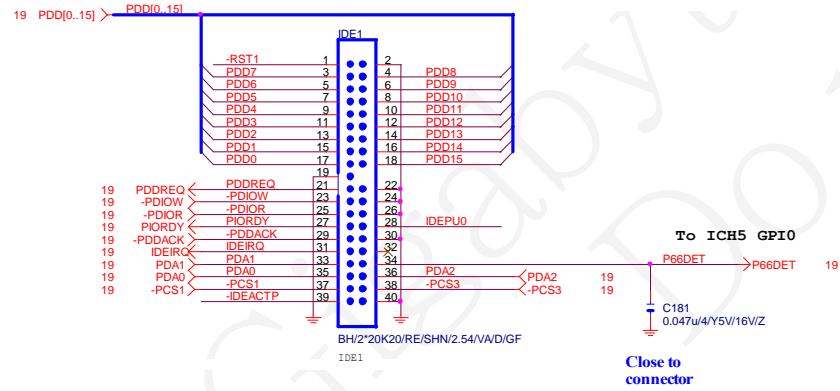


SYS_FAN

GIGABYTE		
Title		
HWM/FAN/C/BIOS		
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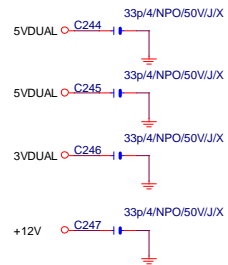
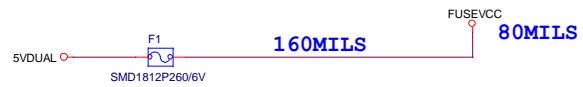


Default 不上,由IT8712 OUTPUT,REV0.2 驗證

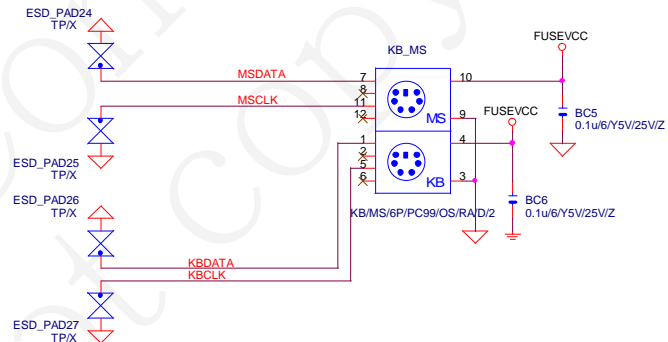
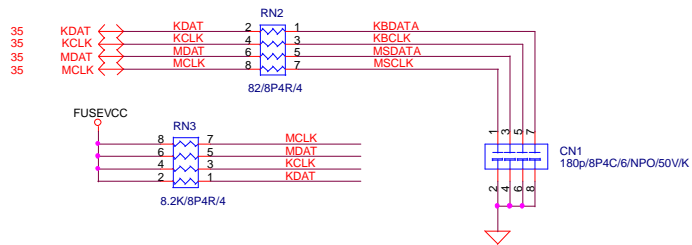
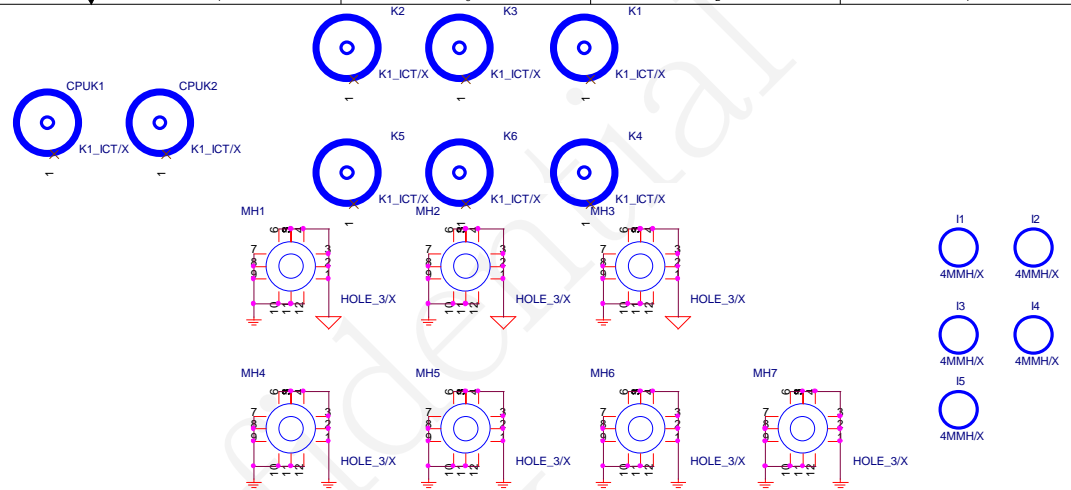


PRIMARY IDE CONNECTOR

Intel Confidential			
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FOR EMI

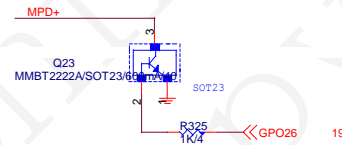
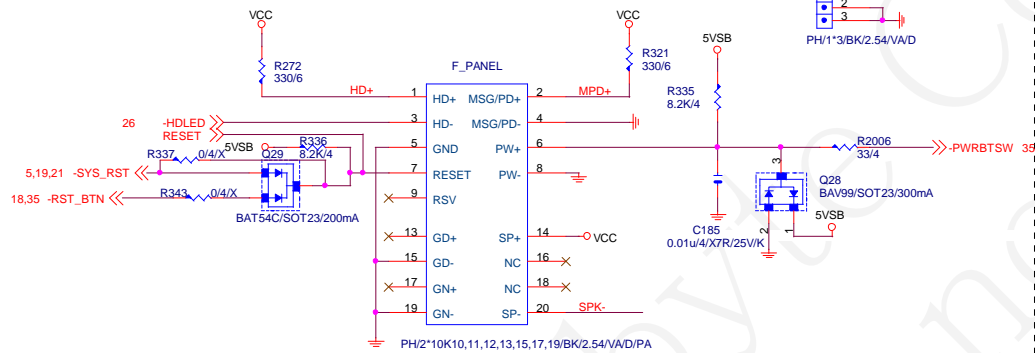


GIGABYTE CORP.			
Title			
KB & PS2 MOUSE & IR			
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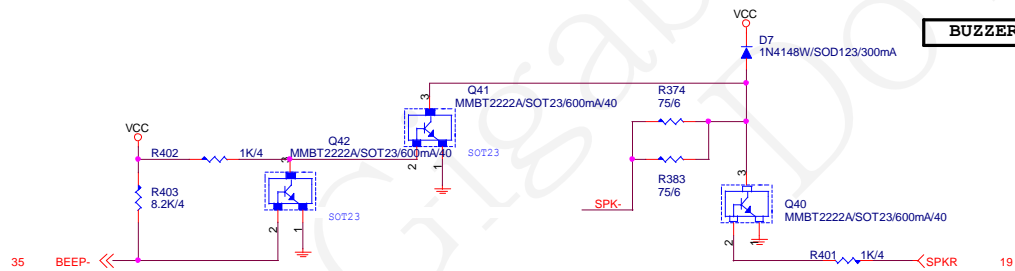
INTEL FRONT PANEL

3 PIN POWER LED
LAYOUT PLACE CLOSE
TO F_PANEL

PWR_LED
1 MPD+
2 MPD+
3 PH/1*3/BK/2.54/V/D



BUZZER

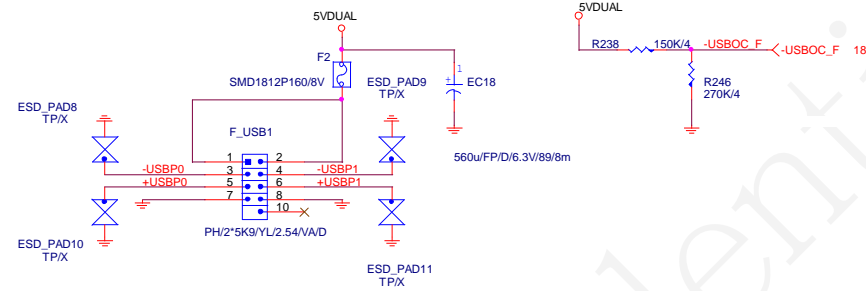


Intel Confidential

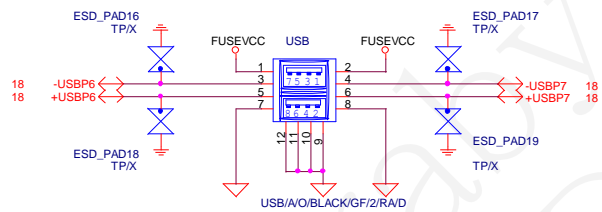
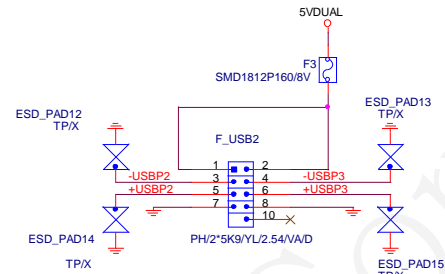
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FRONT PANEL			
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FRONT USB

90 欧姆 : [15/4.5/7.5/4.5/15]

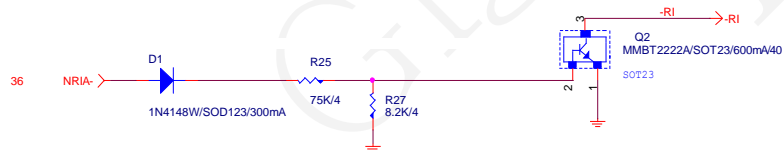


90 欧姆 : [15/4.5/7.5/4.5/15]



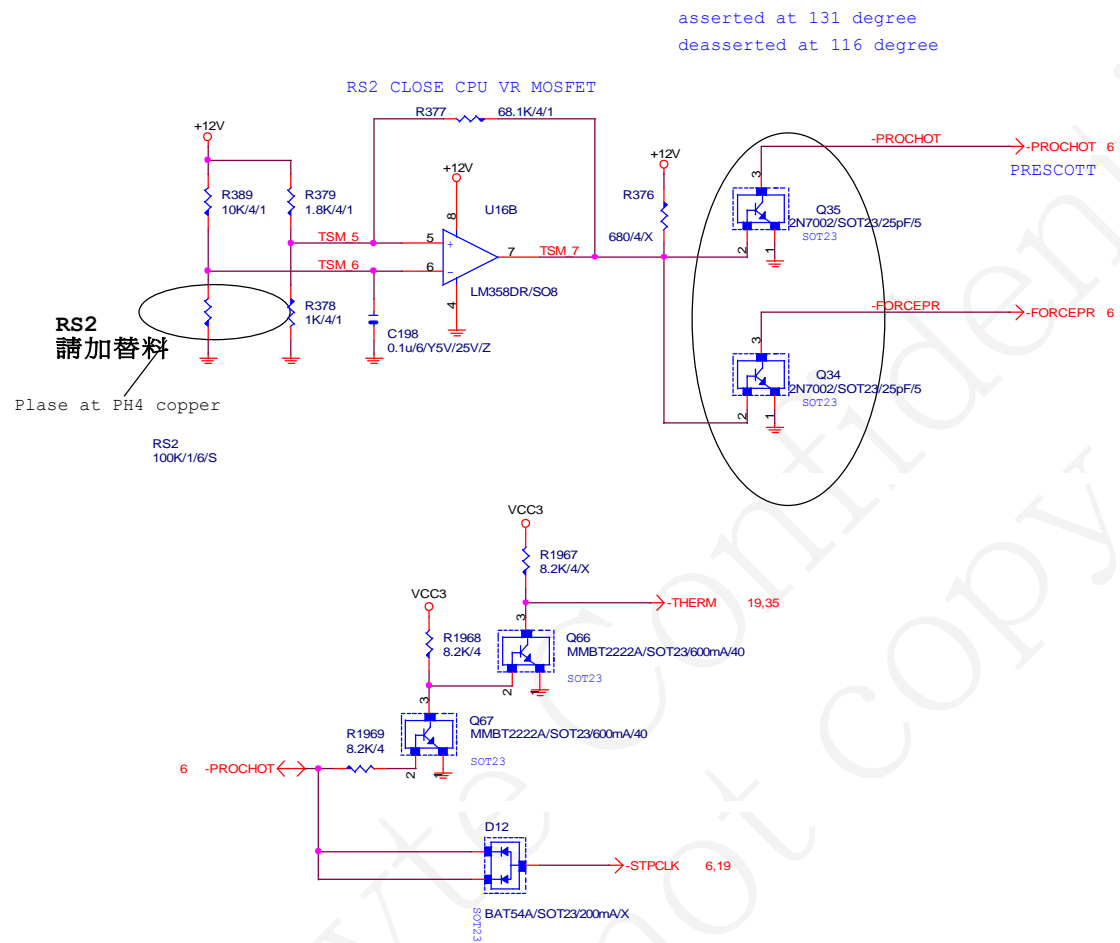
R19 0/S6/X
FOR 882 EMI
靠近USB

VCC VCC3
C207 1n4/X7R/50V/K/X
C208 1n4/X7R/50V/K/X
靠近FRONT USB



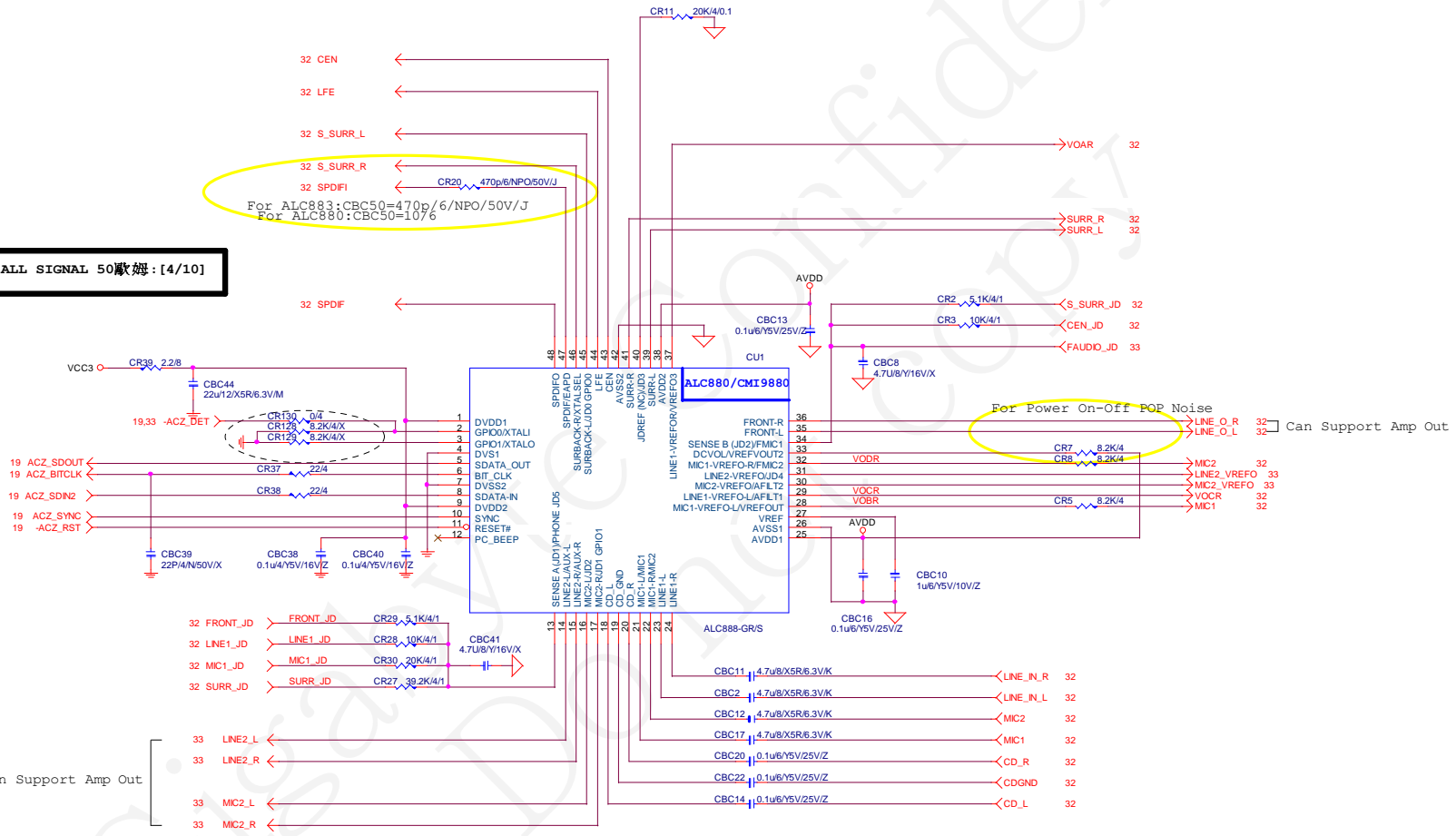
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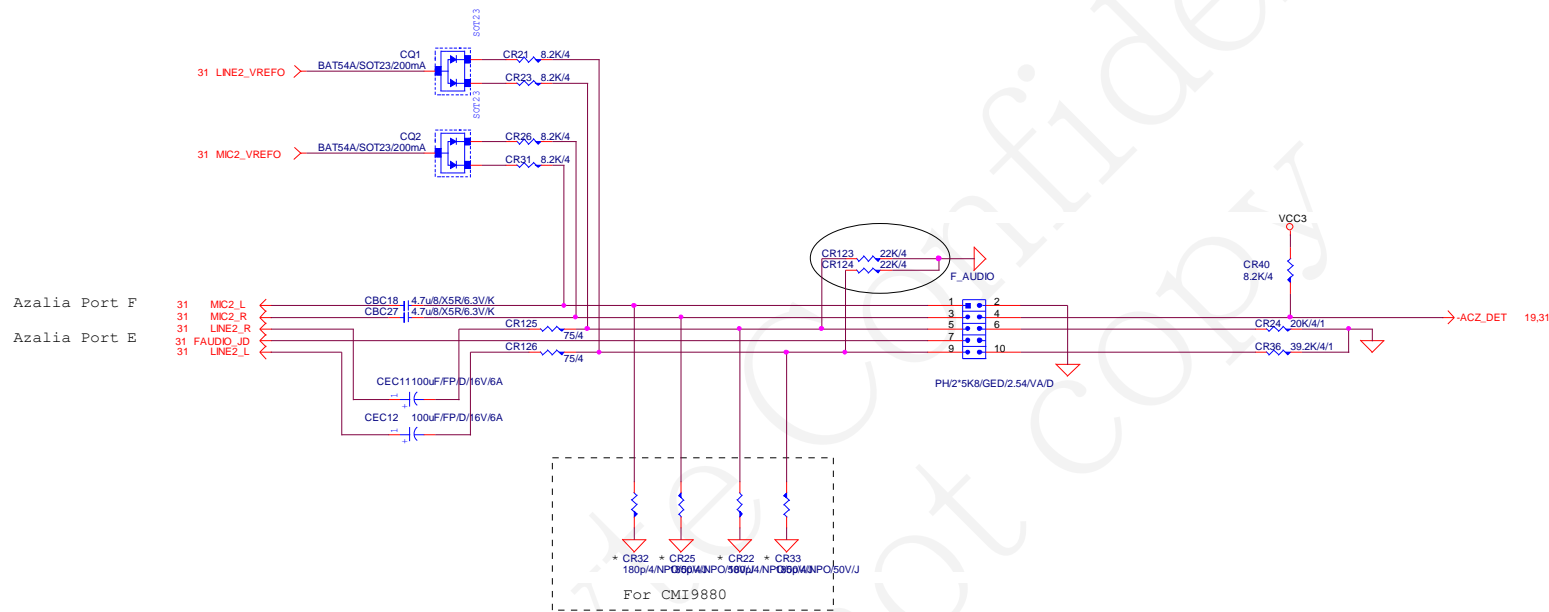
Intel Confidential

Title		
FAN CONTROL		
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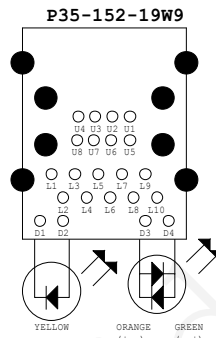
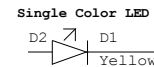
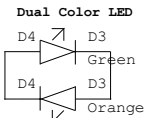
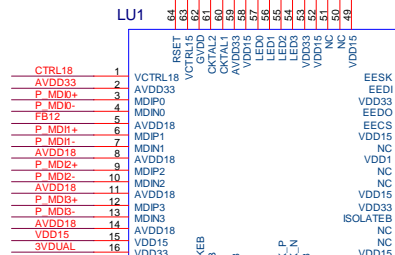
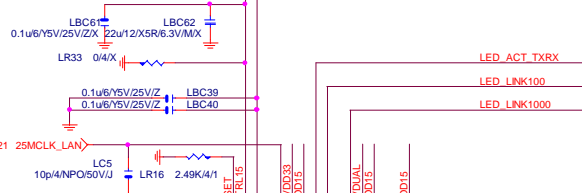
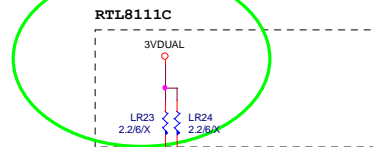
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PCIE-1G LAN

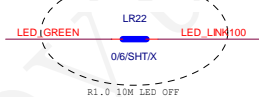


Power domain chart

	RTL8111B / RTL8101E	RTL8111C
AVDD33	3.3V	3.3V
AVDD18	1.8V	1.2V
EVDD18	1.8V	1.2V
DVDD15	1.5V	1.2V

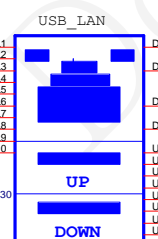
100歐姆: [20/5/7/5/20]

50歐姆: [18/4/10/4/18]

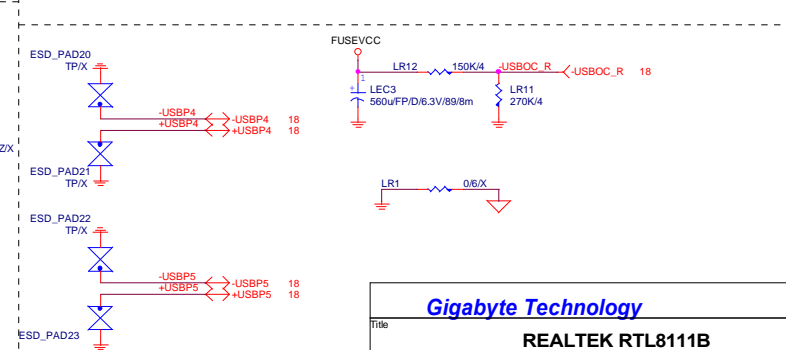
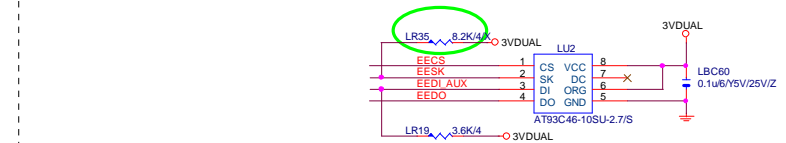
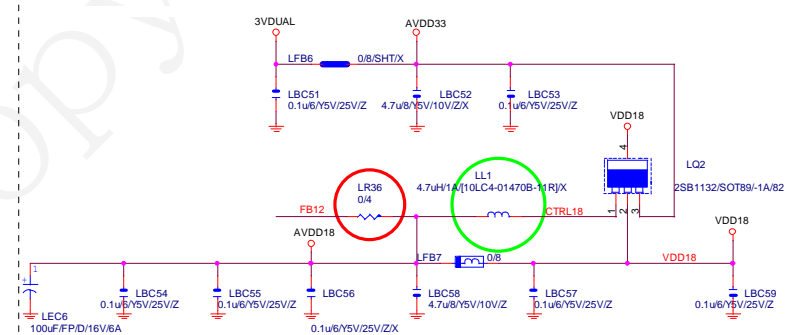
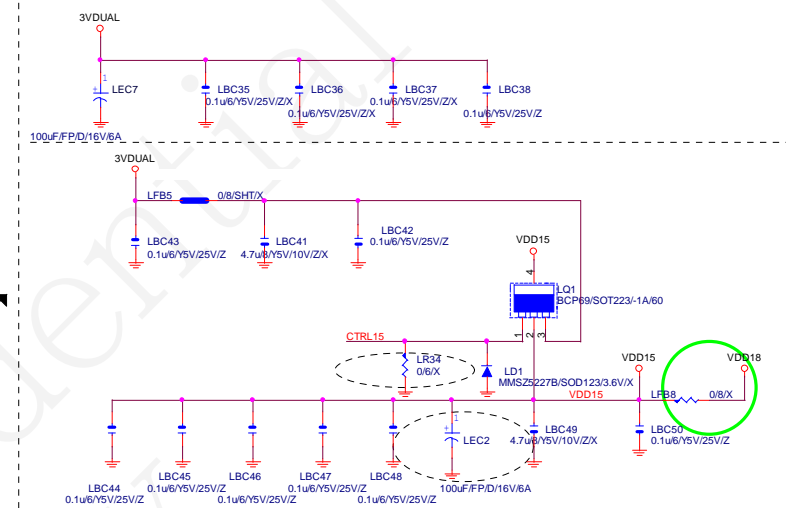


USB LAN CONNECTOR

LAN 100歐姆: [30/4/8/4/30] FOR B 製程



90歐姆: [15/4.5/7.5/4.5/15]

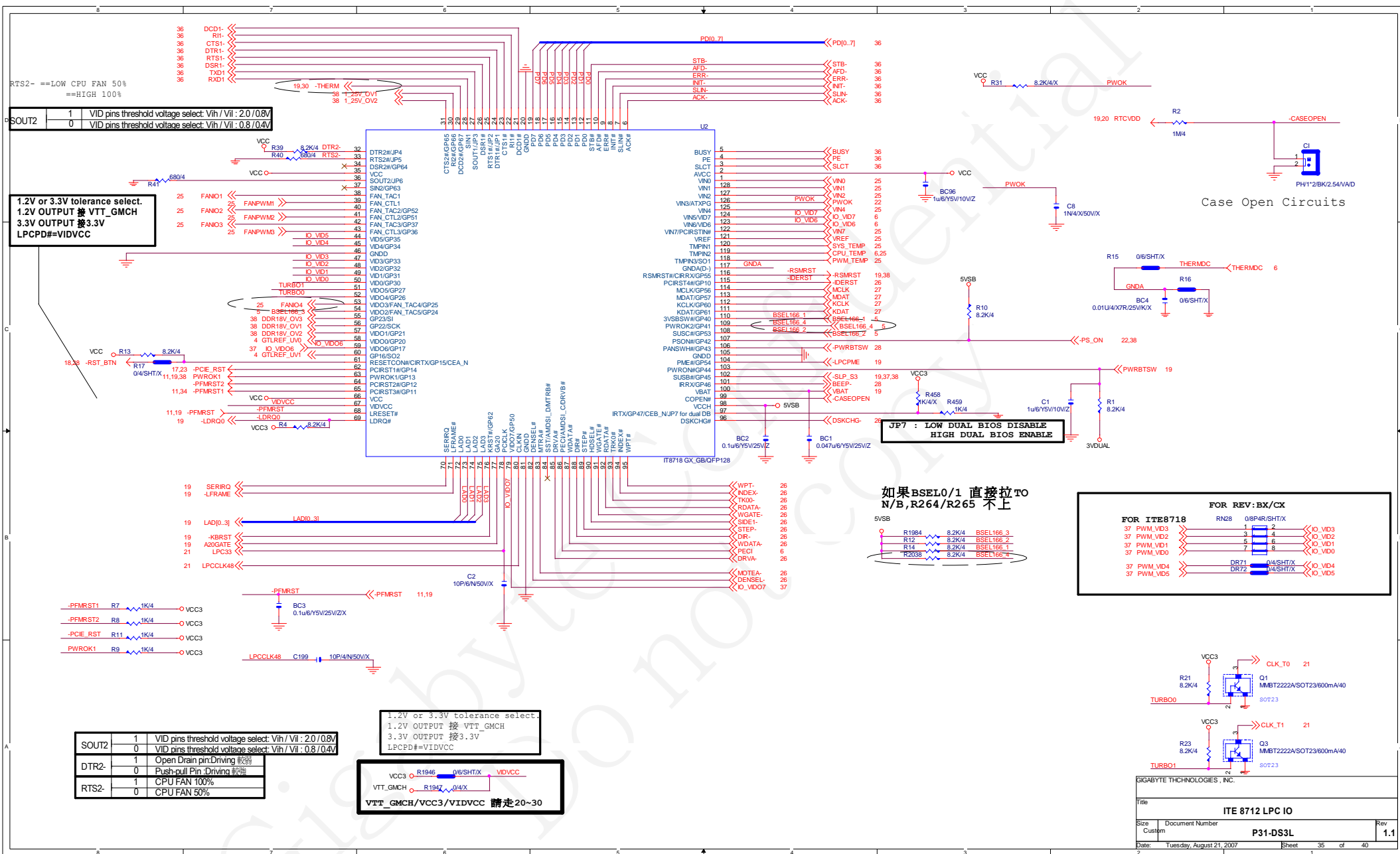


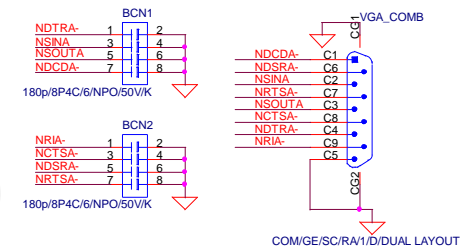
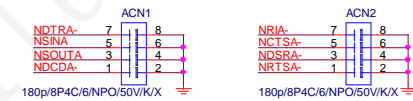
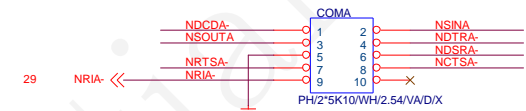
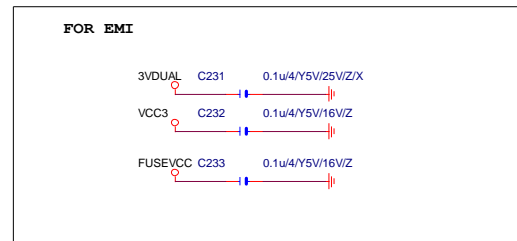
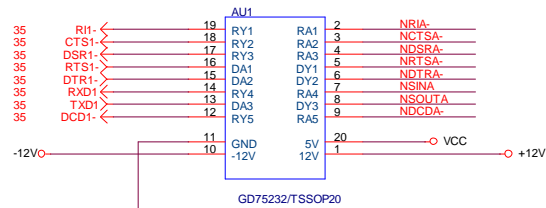
Gigabyte Technology

REALTEK RTL8111B

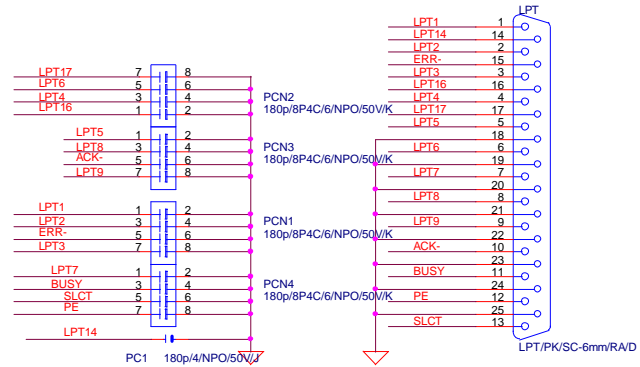
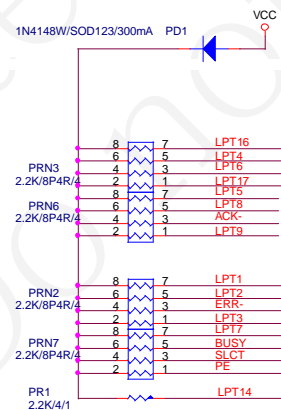
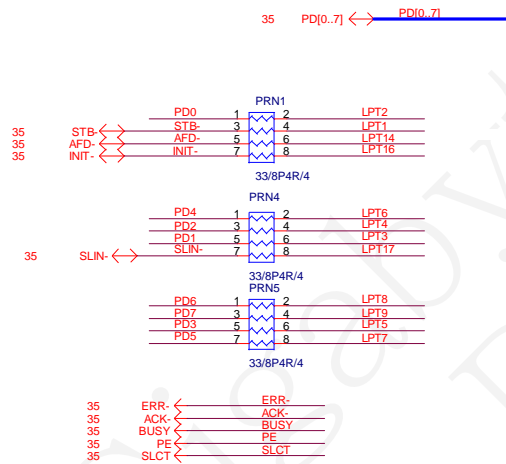
P31-DS3L

1.1





PLACE NEAR VGA_COM CONNECTOR



GIGABYTE THCNOLOGIES, INC.			
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GPO PIN

Pin Name	Pin Number	Power Well	Pin Type		GPIO Application
GPIO[38]	I/O	VCC3	GPI	(NA)	(NA)
GPIO[39]	I/O	VCC3	GPI	(NA)	(NA)
GPIO[40:47]		NOT IMPLEMENTED		NOT IMPLEMENTED	
GPIO[48]	I/O	VCC3	-GNT[4]	(NA)	-GNT[4]
GPIO[49]	I/O	VTT_GMCHCPUPWRGD	(P.U VTT_OL)		CPUPWROK
PCI1	PCLK0	-PCIRST	-REQ0/-GNT0	-PIRQE	A_D16
PCI2	PCLK1	-PCIRST	-REQ1/-GNT1	-PIRQD	A_D17
PCI3	PCLK2	-PCIRST	-REQ2/-GNT2	-PIRQC	A_D18
1394b	1394CLK	-PFMRST2	-REQ3/-GNT3	-PIRQH	A_D23
IT8212	RAIDCLK	-PFMRST2	-REQ4/-GNT4	-PIRQG	A_D22

ICH6 GPIO Table:

NAME	PWR LANE	USAGE	NAME	PWR LANE	USAGE
GPI0	V5REF	M/B ID (-REQ6)	GPI41	VCC3	M/B ID
GPI1	V5REF	-REQ5	GPO48	VCC3	-GNT4
GPI2	V5REF	-PIRQE	GPO49	V-CPUIO	CPUPWOK
GPI3	V5REF	-PIRQF			
GPI4	V5REF	-PIRQG			
GPI5	V5REF	-PIRQH			
GPI6	VCC3	-SLP_BTN			
GPI7	VCC3	DUAL BIOS			
GPI8	3VDAUL	-LANWAKE			
GPI9	3VDAUL	-USBOC4			
GPI10	3VDAUL	-USBOC5			
GPI11	3VDAUL	-SMBALT			
GPI12	VCC3	ATX_DET			
GPI13	3VDAUL	-LPCPME			
GPI14	3VDAUL	-USBOC6			
GPI15	3VDAUL	-USBOC7			
GPO16	VCC3	CPU OV1 (-GNT6)			
GPO17	VCC3	-GNT5			
GPO18	VCC3	CPU OV2			
GPO19	VCC3	DUAL BIOS			
GPO20	VCC3	BIOS T-BLOCK			
GPO21	VCC3	DUAL BIOS			
GPO23	VCC3	DDR OV0			
GPI024	3VDAUL	GREEN LED			
GPI025	3VDAUL	DDR OV1			
GPI26	VCC3	SATA_GP0			
GPI027	3VDAUL	+PWRLED			
GPI028	3VDAUL	-PWRLED			
GPI29	VCC3	SATA GP1			
GPI30	VCC3	SATA GP2			
GPI31	VCC3	SATA GP3			
GPI032	VCC3	BIOS WP			
GPI033	VCC3	AZALIA DET			
GPI034	VCC3	PWRLED			
GPI40	V5REF	-REQ4			

PWROK/RESET Table:

ITE8712BHX PIN	NET NAME	TARGET
PIN62/-PCIRST1	-PCIE_RST	1. PCI-E * 1 Slot1 2. PCI-E * 1 Slot2 3. PCI-E * 1 Slot3 4. PCI-E * 16 Slot
PIN64/-PCIRST2	-PFMRST2	1. Onboard PCI Lan 2. Onboard 1394 Chip 3. OnBoard FWB
PIN65/-PCIRST3	-PFMRST1	1. Onboard PCI-E Lan 2. Onboard SATA Chip 3. GMCH
PIN115/-PCIRST4	-PFMRST -IDERST	Reserved For IDE
PIN63/PWROK1	PWROK1	1. GMCH 2. ICH6 3. 5VDUAL SWITCH 4. DPS CONTROL
PIN109/PWROK2	-THERM	1. ICH6

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