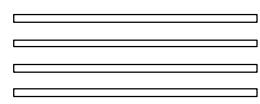


8SR533P Schematics

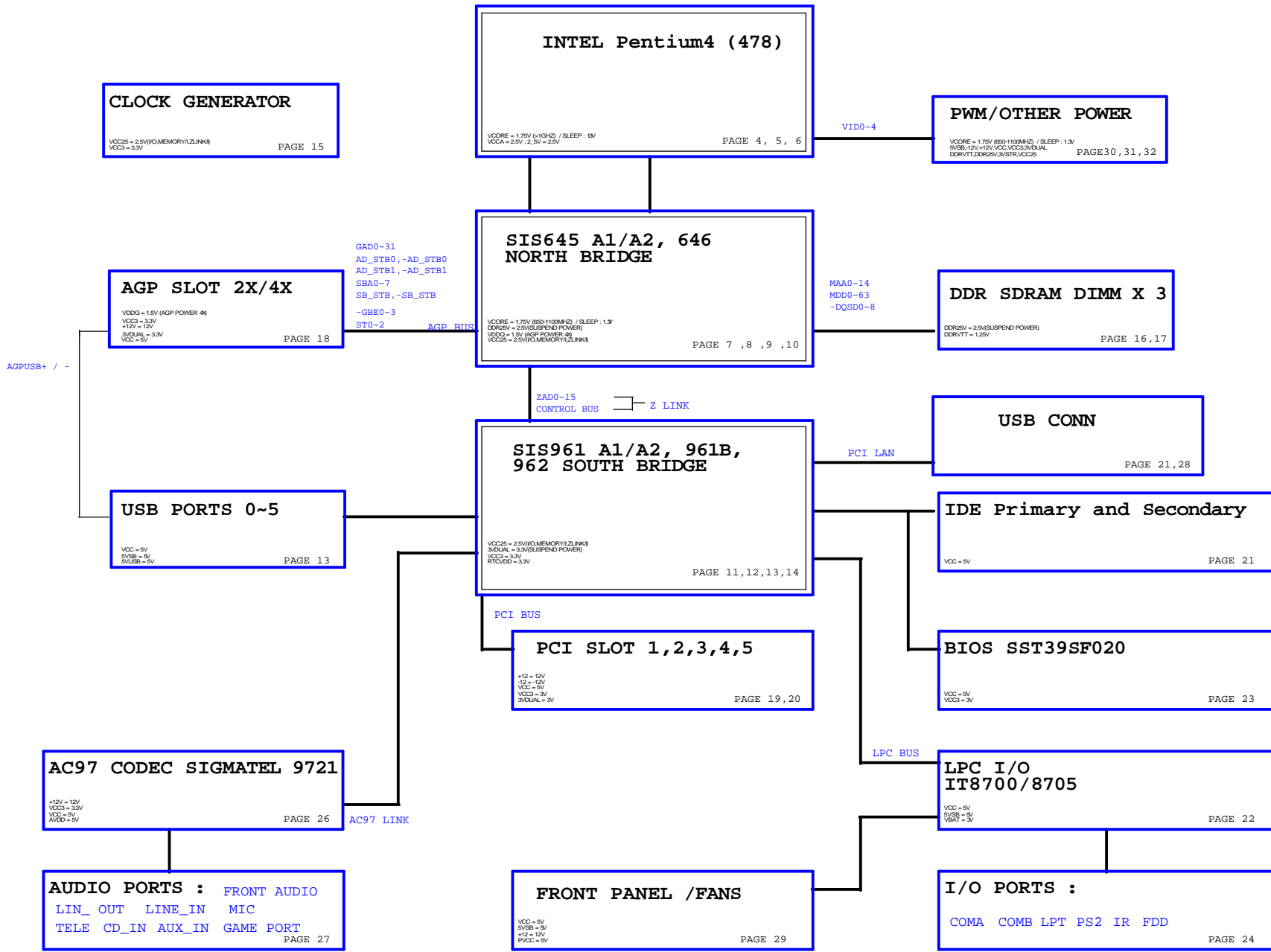
Revision 3.0

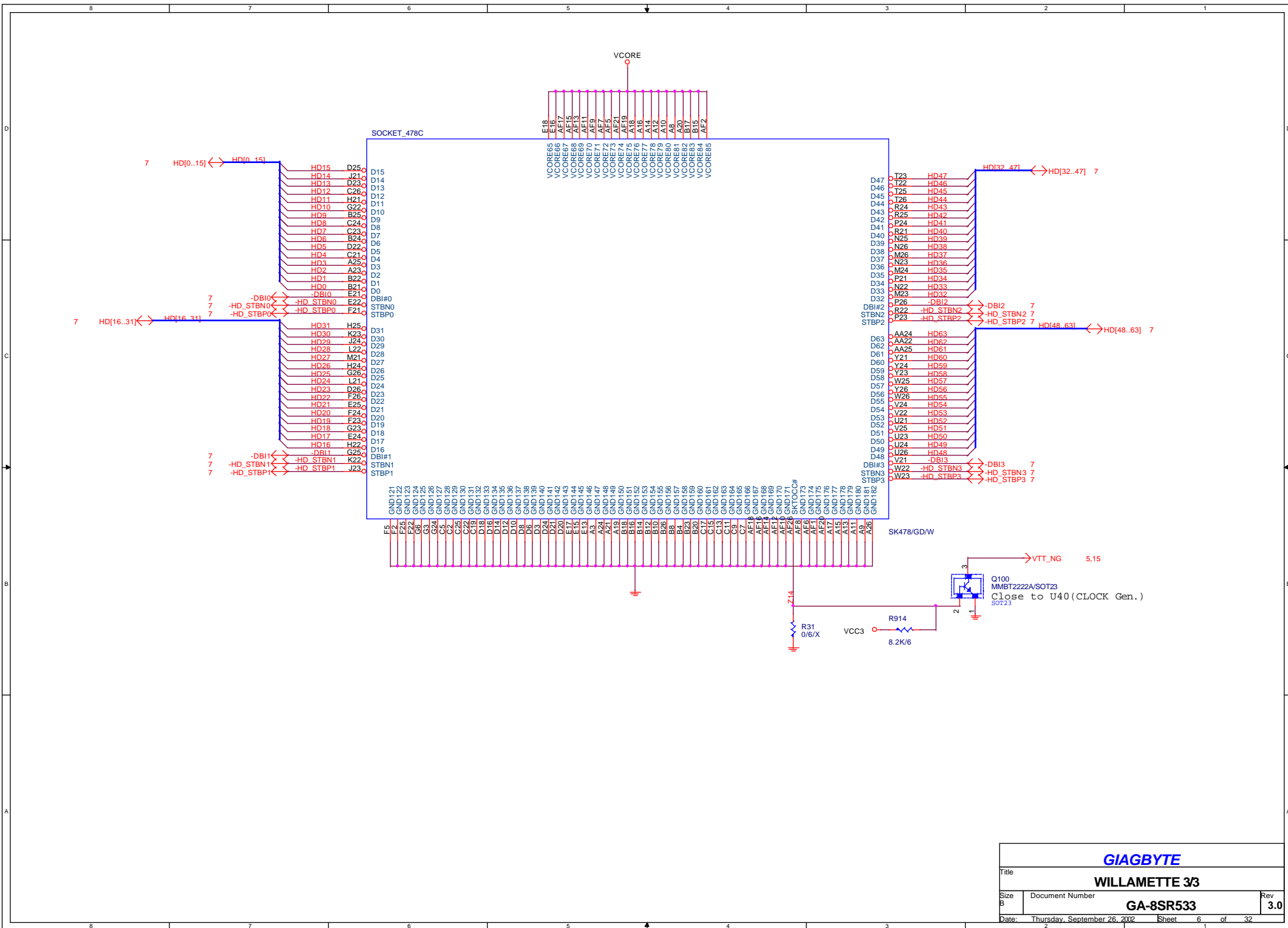
SHEET	TITLE
1	COVER SHEET
2	BOM & PCB MODIFY HISTORY
3	BLOCK DIAGRAM
4,5,6	INTEL CPU_WMT_478
7-10	SIS645 (NORTH BRIDGE) HOST; DDR; AGP,HYPER ZIP
11-14	SIS961 (SOUTH BIRDGE)
15	CLOCK GENERATOR (ICS952001)
16,17	DDR SDRAM DIMMS 1,2,3
18	AGP SLOT
19,20	PCI SLOT 1,2,3,4,5,6
21	IDE,FRONT USB,PCIRST#
22	LPCIO_IT8705
23	BIOS
24	COM,PRT,FDD,KB/MS,IR
25	AUDIO (CT5880)/AC 97
26	AUDIO JACK,GAME PORT
27	FAN, SMB PORT
28	PANEL,STR LED,FANS ,CPU GN
29	VCORE PHASE PWM HIP 6302 + 6602
30	DDR POWER,3VDUAL,VDDQ DC POWER
31	ATX CONN, GPIO LIST
32	RTL8100BL

PCB Size: 294*200 mm

	
GIGABYTE	
COVER SHEET	
Size Custom	Document Number GA-8SR533P
Date: Thursday, September 26, 2002	Rev 3.0
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8SR533 BLOCK DIAGRAM

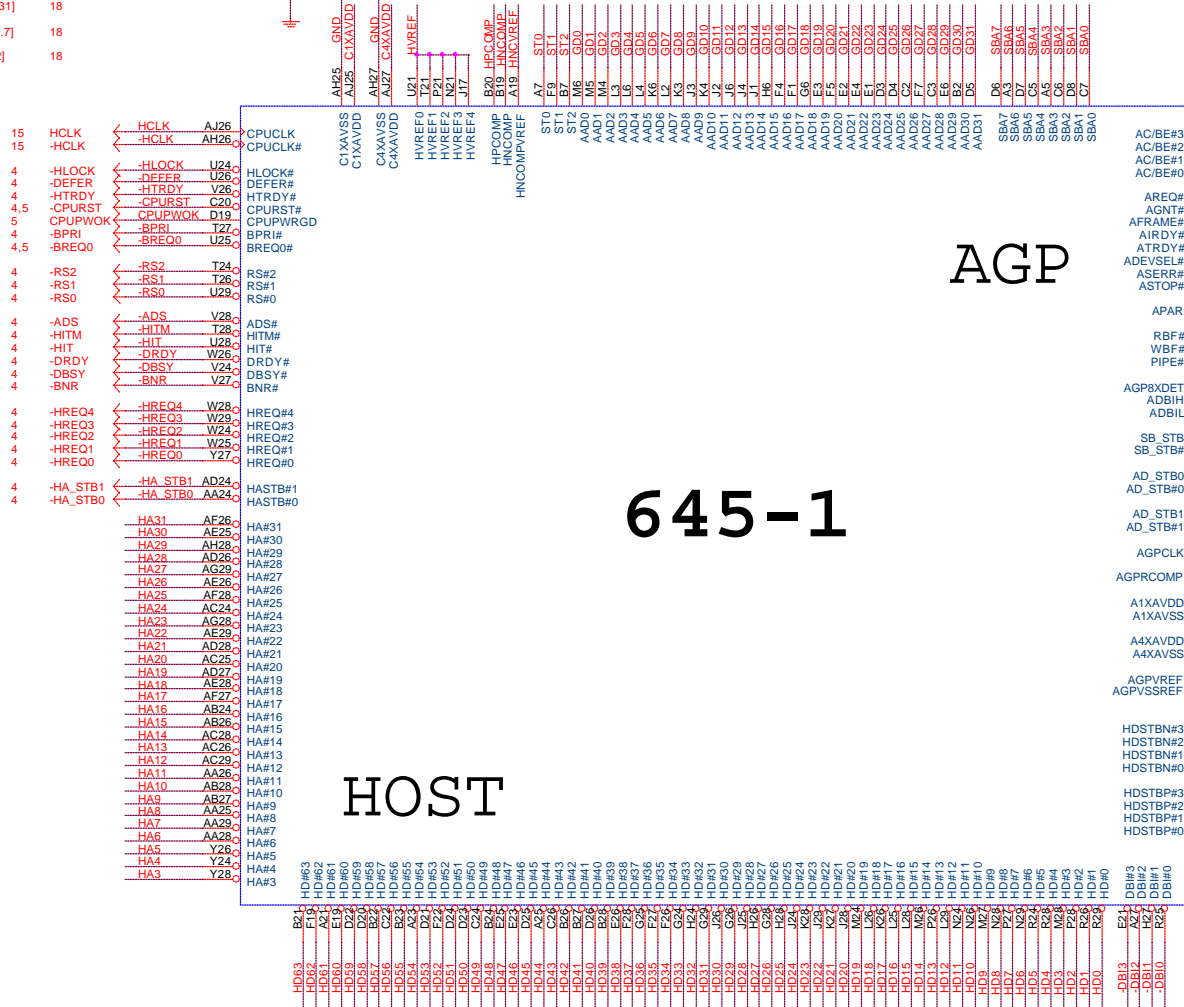




GIAGBYTE		
Title		
WILLAMETTE 3/3		
Size	Document Number	Rev
B	GA-8SR533	3.0
Date:	Thursday, September 26, 2002	Sheet 6 of 32

DB[0..3] ↔ DB[0..3] 6
 HD[0..63] ↔ HD[0..63] 6
 HA[3..31] ↔ HA[3..31] 4
 GD[0..31] ↔ GD[0..31] 18
 SBA[0..7] ↔ SBA[0..7] 18
 ST[0..2] ↔ ST[0..2] 18

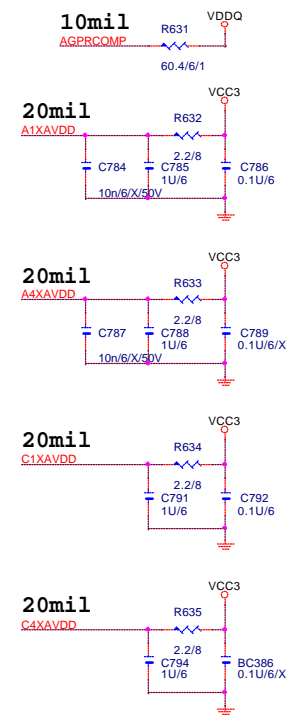
SIS 645 A1/A2 , 646
 共用



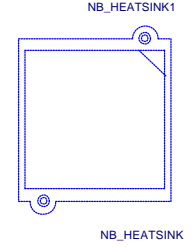
645-1

AGP

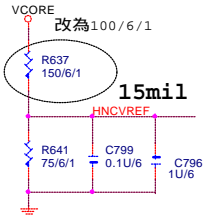
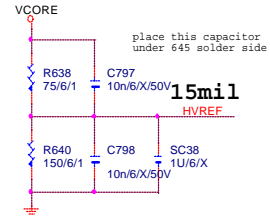
HOST



N.B HEATSINK



VCORE
 10mil R636 33/6/1 HNCOMP
 Original=20 ohm Rds-on(n) = 10 ohm HNCVREF = 1/3 VCORE
 10mil R638 75/6/1 HPCOMP
 Original=113 ohm Rds-on(p) = 56 ohm HPCVERP = 2/3 VCORE
Change to 90.9/6/1 for F8B533+DDR333 chamber room fail issue.
 Original=113 ohm



GIGABYTE		
SIS645(HOST/AGP)		
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	GA-8SR533	3.0
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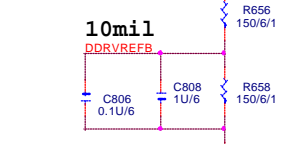
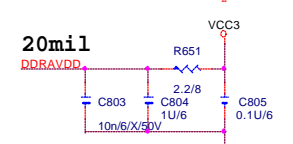
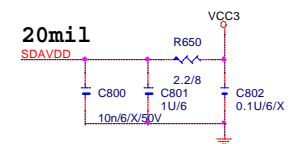
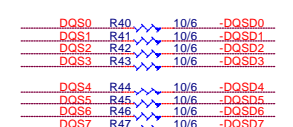
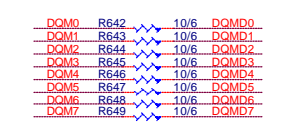
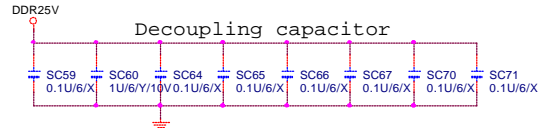
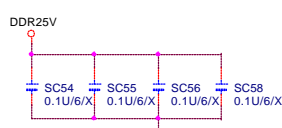
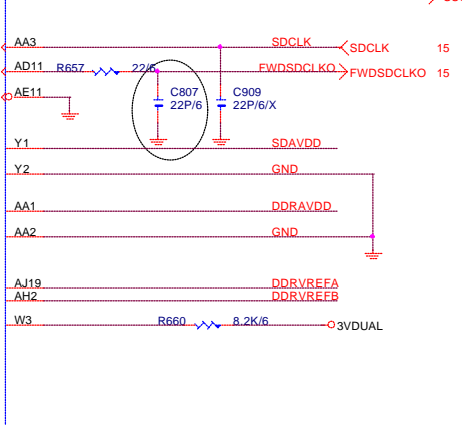
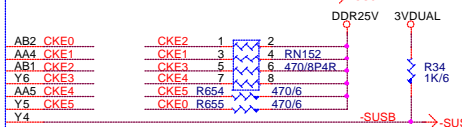
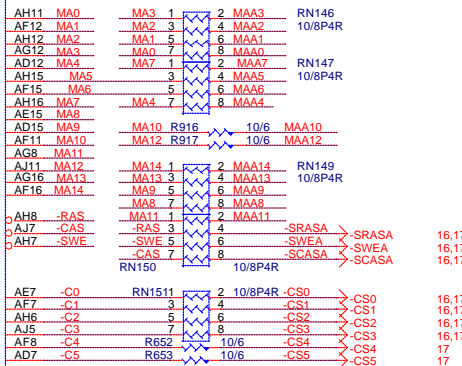
DQM0_71 → DQM0[0..7] 16,17
 MA0_141 → MA0[0..14] 16,17
 DQSD0_71 → DQSD0[0..7] 16,17
 CKE0_51 → CKE0[0..5] 16,17

SIS 645 A1/A2, 646
共用

U38B

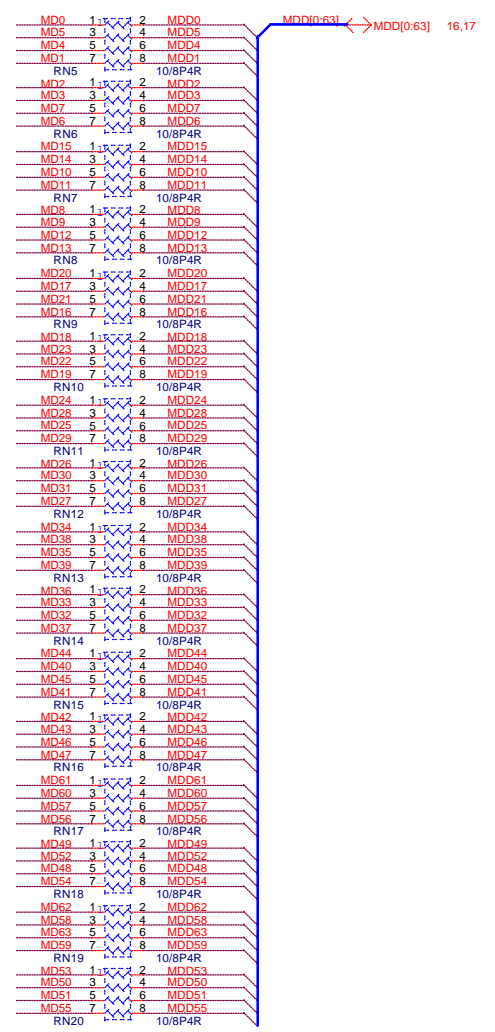
645-2

MD0	AJ23	MD0/SMD63
MD1	AG22	MD1/SMD30
MD2	AH21	MD2/SMD29
MD3	AJ21	MD3/SMD59
MD4	AD23	MD4/SMD31
MD5	AE23	MD5/SMD62
MD6	AF22	MD6/SMD57
MD7	AF21	MD7/SMD28
DQMD0	AD22	DQM0/SMD61
DQSD0	AH22	DQS0/CSB#0
MD8	AD21	MD8/SMD27
MD9	AG20	MD9/SMD58
MD10	AE19	MD10/SMD55
MD11	AF19	MD11/SMD23
MD12	AE21	MD12/SMD26
MD13	AD20	MD13/SMD56
MD14	AD19	MD14/SMD24
MD15	AH19	MD15/SMD25
DQMD1	AD20	DQM1/SMD25
DQSD1	AH20	DQS1/CSB#1
MD16	AF18	MD16/SMD22
MD17	AG18	MD17/SMD53
MD18	AH17	MD18/SMD20
MD19	AD16	MD19/SMD19
MD20	AD18	MD20/SMD54
MD21	AD17	MD21/SMD21
MD22	AF17	MD22/SMD51
MD23	AJ17	MD23/SMD50
DQMD2	AE17	DQM2/SMD52
DQSD2	AH18	DQS2/CSB#2
MD24	AD14	MD24/SMD18
MD25	AG14	MD25/SMD17
MD26	AJ13	MD26/SMD7
MD27	AE13	MD27/SMD6
MD28	AJ15	MD28/SMD49
MD29	AD14	MD29/SMD49
MD30	AD13	MD30/SMD3
MD31	AF13	MD31/SMD16
DQMD3	AH13	DQM3/SMD16
DQSD3	AH14	DQS3/CSB#3
MD32	AD10	MD32/SMD5
MD33	AH10	MD33/SMD4
MD34	AE9	MD34/SMD47
MD35	AD8	MD35/SMD45
MD36	AG10	MD36/SMD41
MD37	AF10	MD37/SMD40
MD38	AH9	MD38/SMD46
MD39	AF9	MD39/SMD15
DQMD4	AD9	DQM4/SMD15
DQSD4	AJ9	DQS4/CSB#4
MD40	AH5	MD40/SMD13
MD41	AG4	MD41/SMD3
MD42	AE5	MD42/SMD2
MD43	AH3	MD43/SMD10
MD44	AG6	MD44/SMD44
MD45	AF6	MD45/SMD12
MD46	AF5	MD46/SMD41
MD47	AF4	MD47/SMD9
DQMD5	AH4	DQM5/SMD11
DQSD5	AJ3	DQS5/CSB#5
MD48	AE4	MD48/SMD40
MD49	AD6	MD49/SMD8
MD50	AE2	MD50/SMD37
MD51	AG5	MD51/SMD36
MD52	AG2	MD52/SMD39
MD53	AG1	MD53/SMD7
MD54	AF3	MD54/SMD6
MD55	AC6	MD55/SMD5
DQMD6	AD4	DQM6/SMD38
DQSD6	AF2	DQS6/CSB#6
MD56	AB6	MD56/SMD35
MD57	AD3	MD57/SMD34
MD58	AA6	MD58/SMD1
MD59	AB3	MD59/SMD0
MD60	AC4	MD60/SMD4
MD61	AE1	MD61/SMD3
MD62	AD2	MD62/SMD33
MD63	AC1	MD63/SMD32
DQMD7	AB4	DQM7/SMD2
DQSD7	AC2	DQS7/CSB#7



DDR MD DAMPING

Near DIMM 1



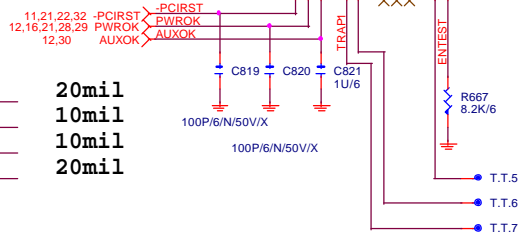
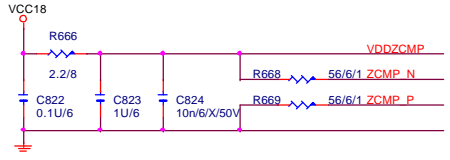
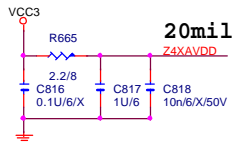
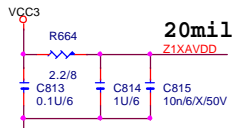
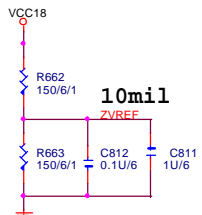
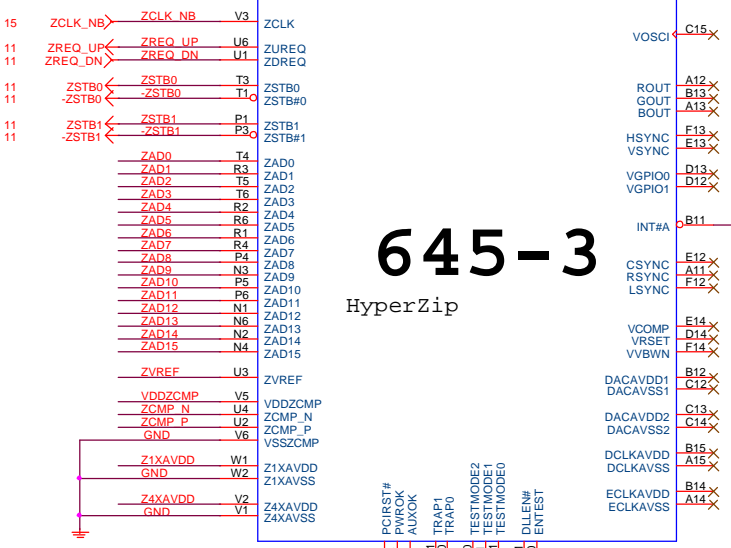
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Title SIS645(DDR)		
Size Custom	Document Number GA-8SR533	Rev 3.0
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ZAD[0..15] → ZAD[0..15] 11

SIS 645 A1/A2 , 646
共用

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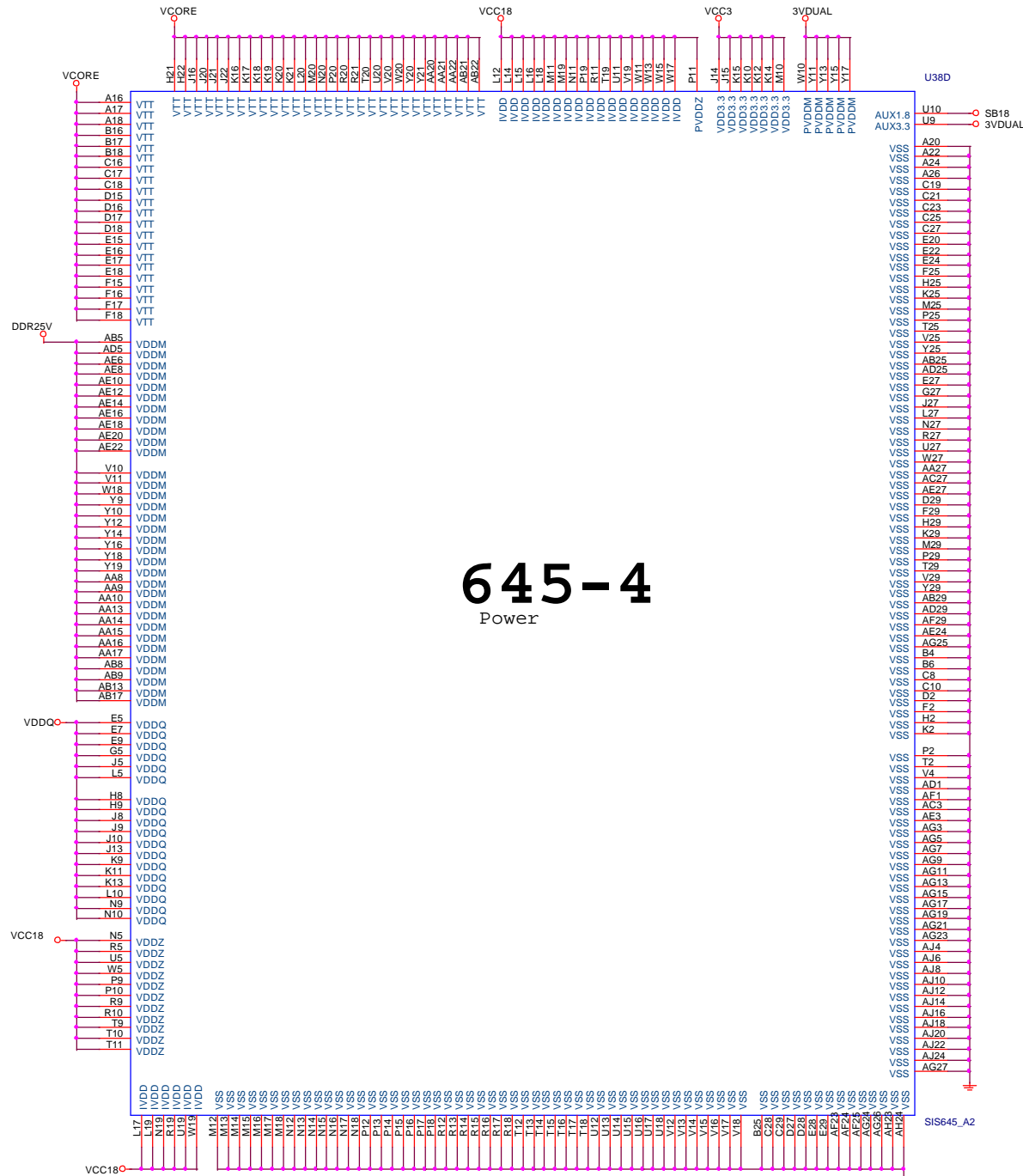
HyperZip



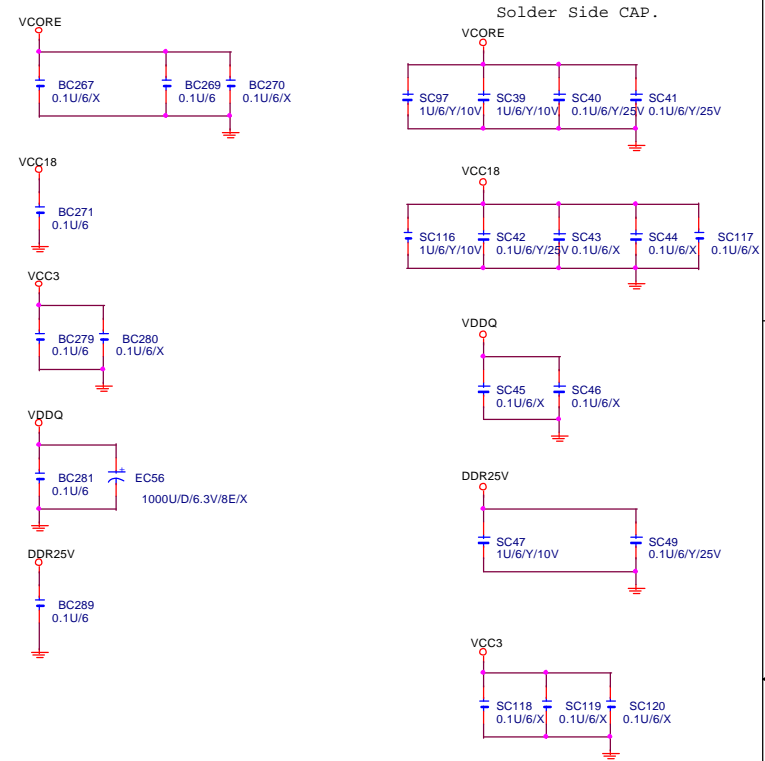
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Title SIS645(HYPER ZIP)		
Size	Document Number	Rev
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Power



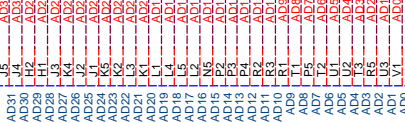
SIS 645 A1/A2 , 646
共用



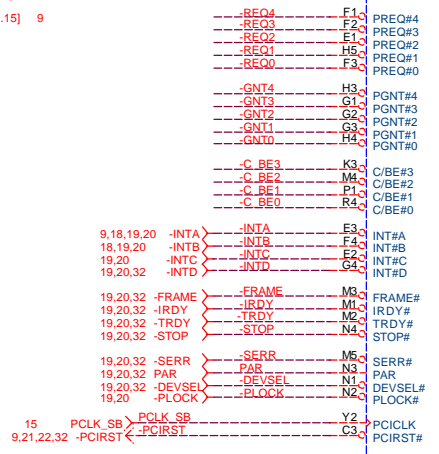
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Title SIS645(PWR)		
Size Custom	Document Number GA-8SR533	Rev 3.0
Date: Thursday, September 26, 2002 Sheet 10 of 32		

961A-1

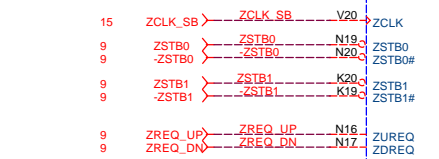
共用



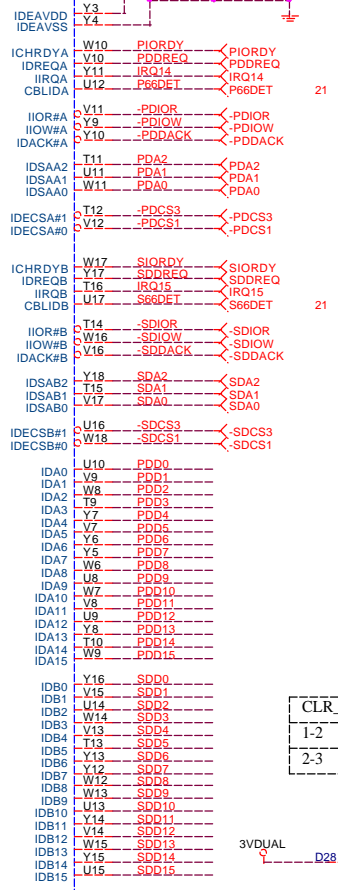
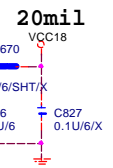
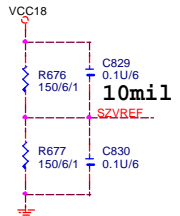
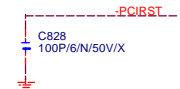
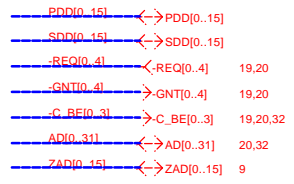
PCI



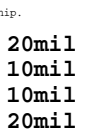
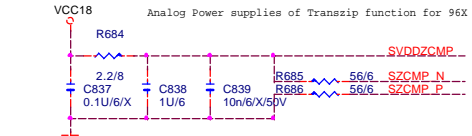
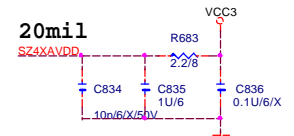
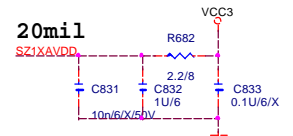
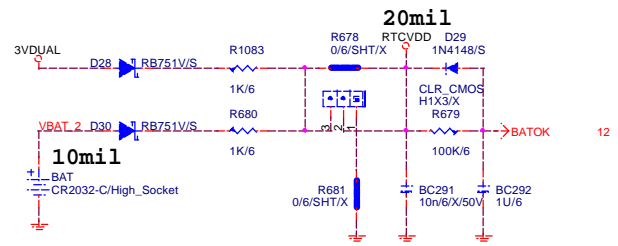
IDE



HyperZip



CLR_CMOS CLEAR COMS JUMPER	
1-2	Enable
2-3	Disable (Default)



Analog Power supplies of Transzip function for 96X Chip.

GIGABYTE

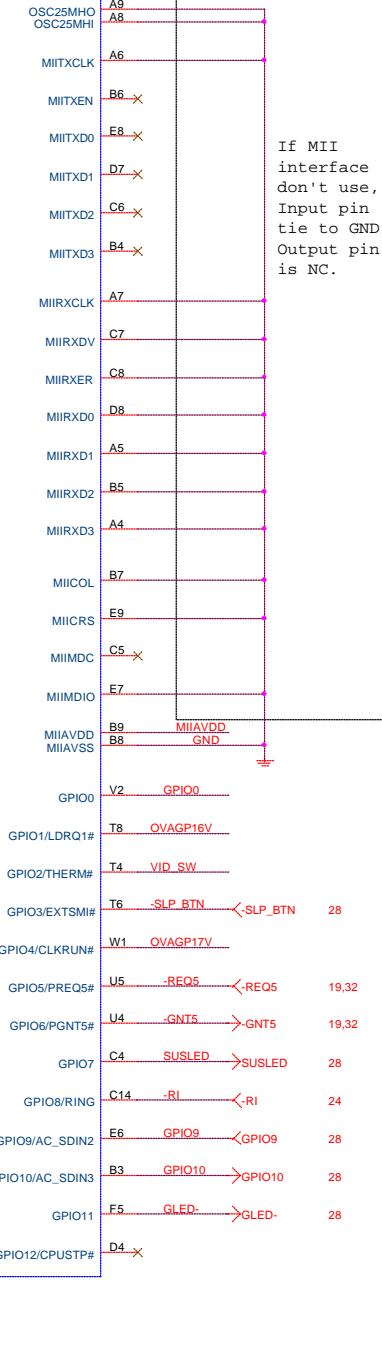
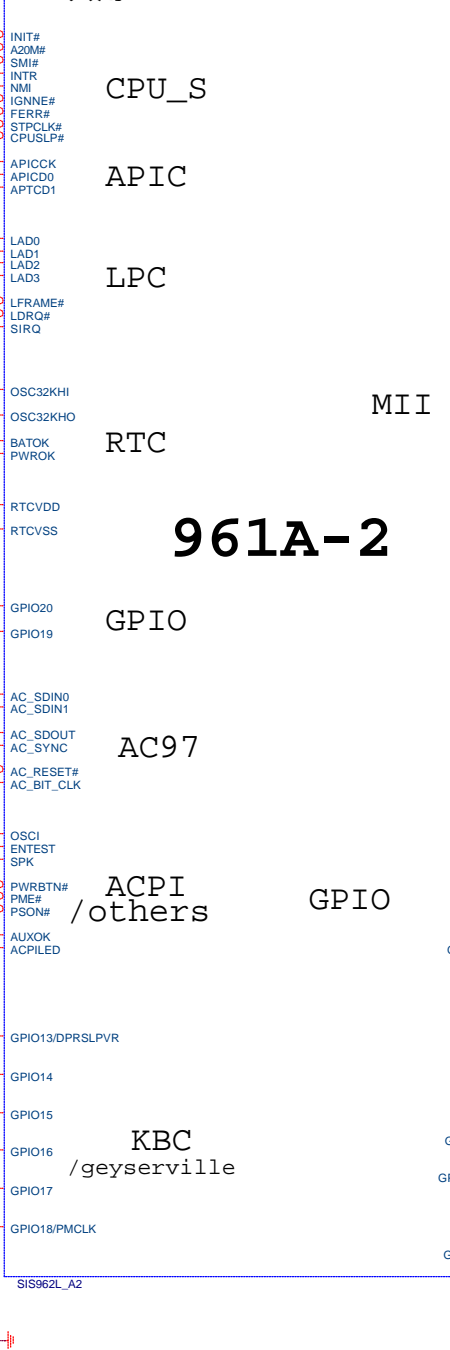
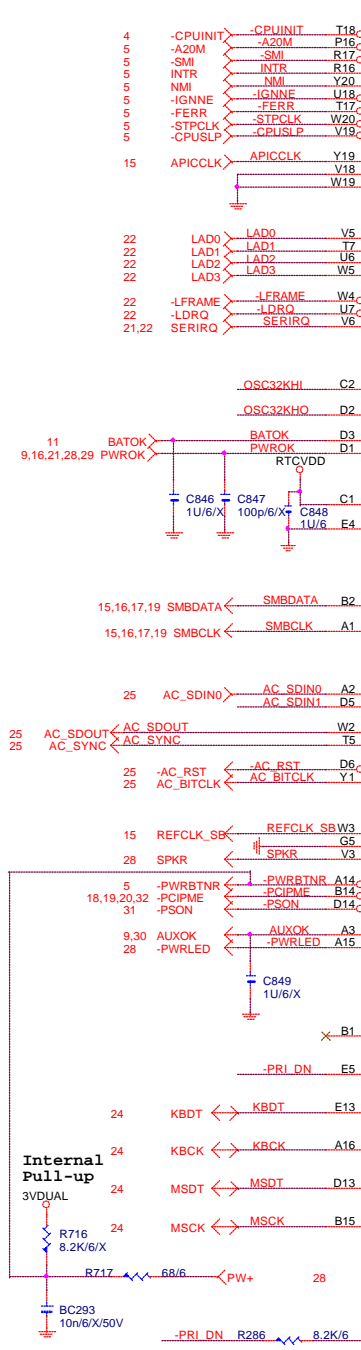
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Size: Custom Document Number: **GA-8SR533** Rev: **3.0**

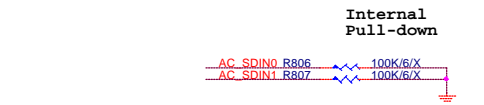
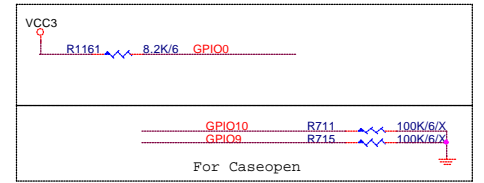
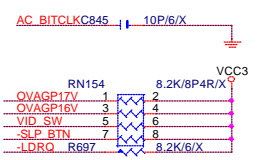
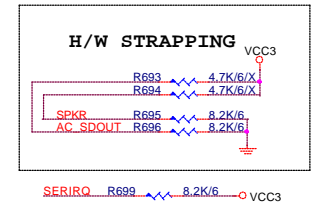
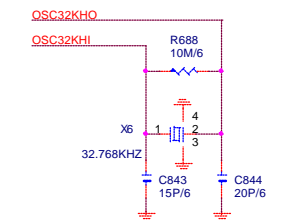
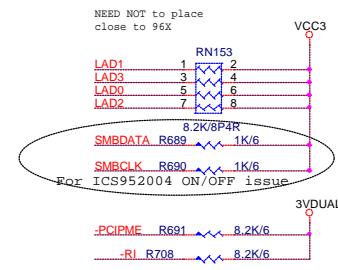
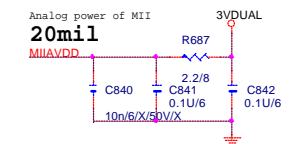
Date: Thursday, September 26, 2002 Sheet 11 of 32

SIS 961 A1/A2 , 961B, 962

共用



If MII interface don't use, Input pin tie to GND. Output pin is NC.

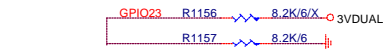
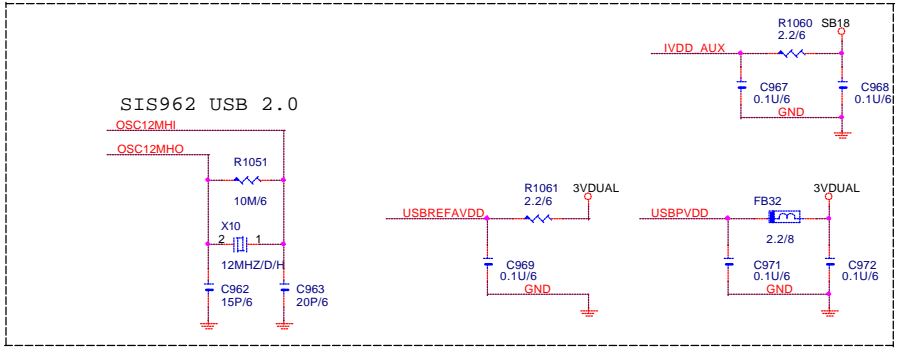
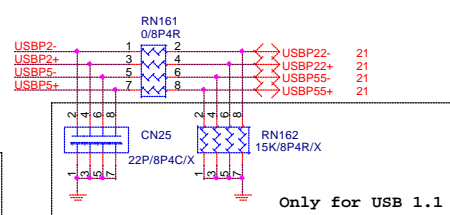
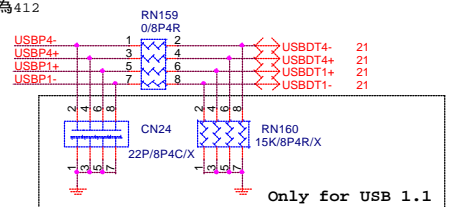
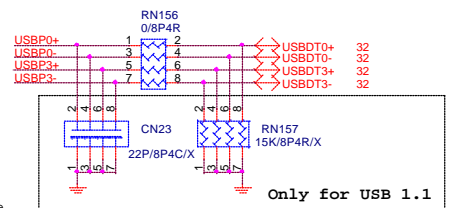
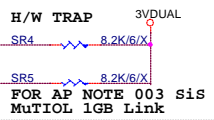
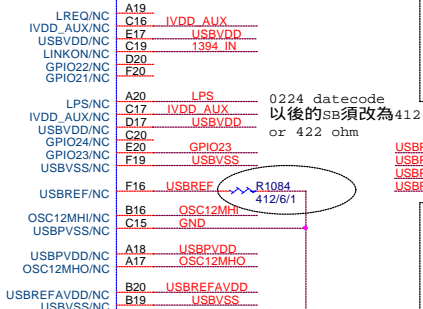
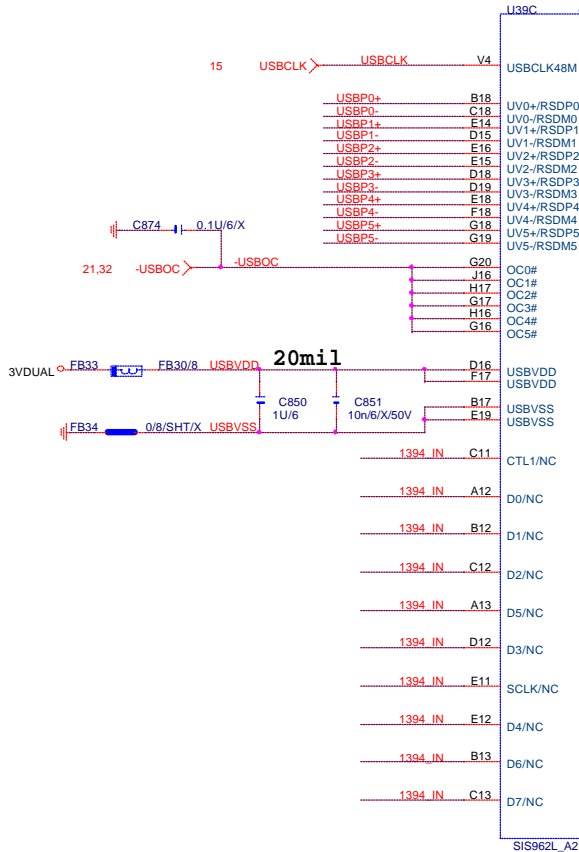


GIGABYTE			
Title	SIS961A(CPU,LPC,RTC,AC97,GPIO,ACPI,KBC)		
Size	Document Number	Rev	3.0
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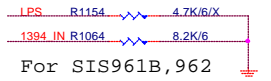
SIS 961 A1/A2 , 961B, 962
共用

961A-3

USB



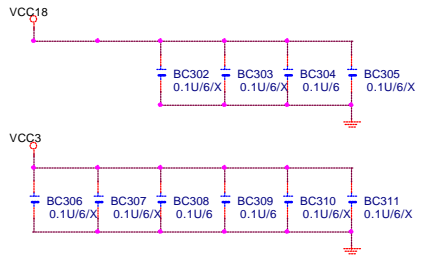
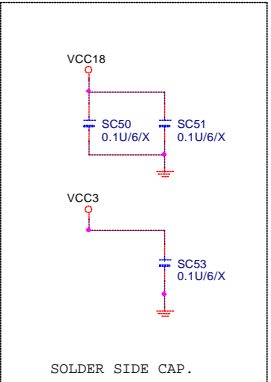
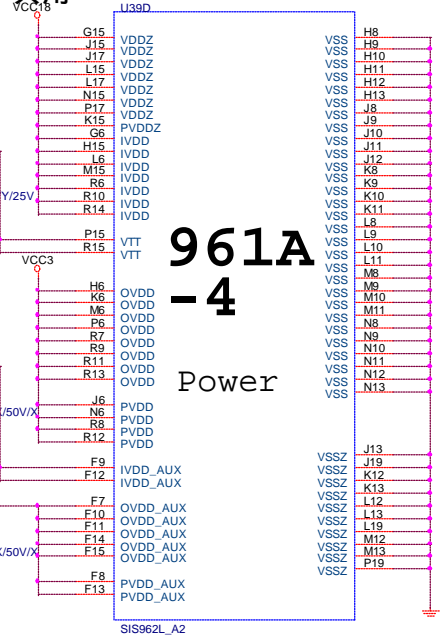
All of 1394 pin:
Output pin(LPS, LREQ) can be open.
All input pin connect together
and pull-down to gnd.



GIGABYTE		
SIS961A(USB)		
Title		
Size	Document Number	Rev
Custom	GA-8SR533	3.0
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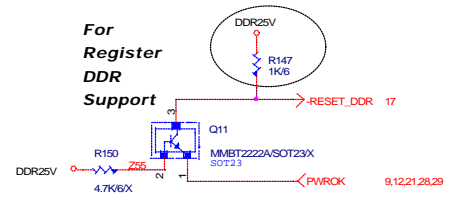
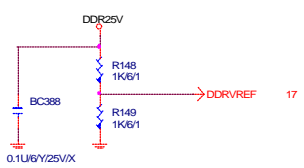
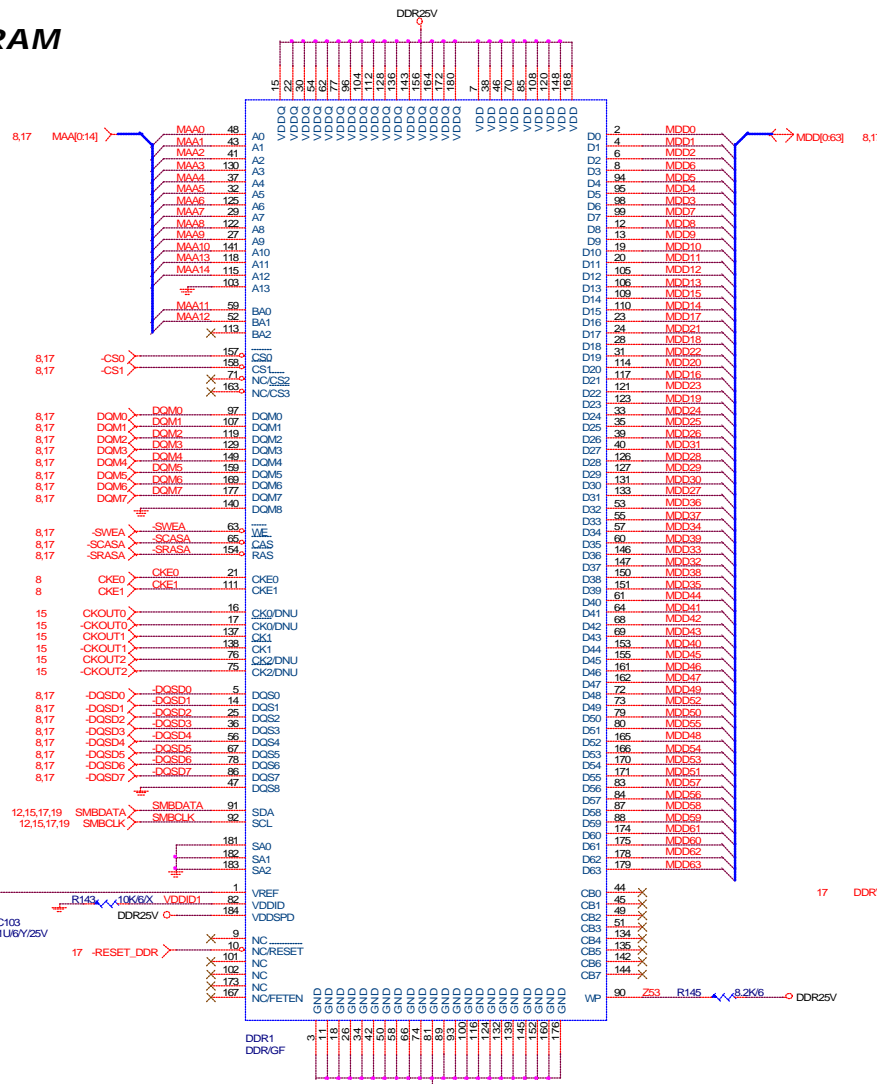
共用
VCC18



GIGABYTE

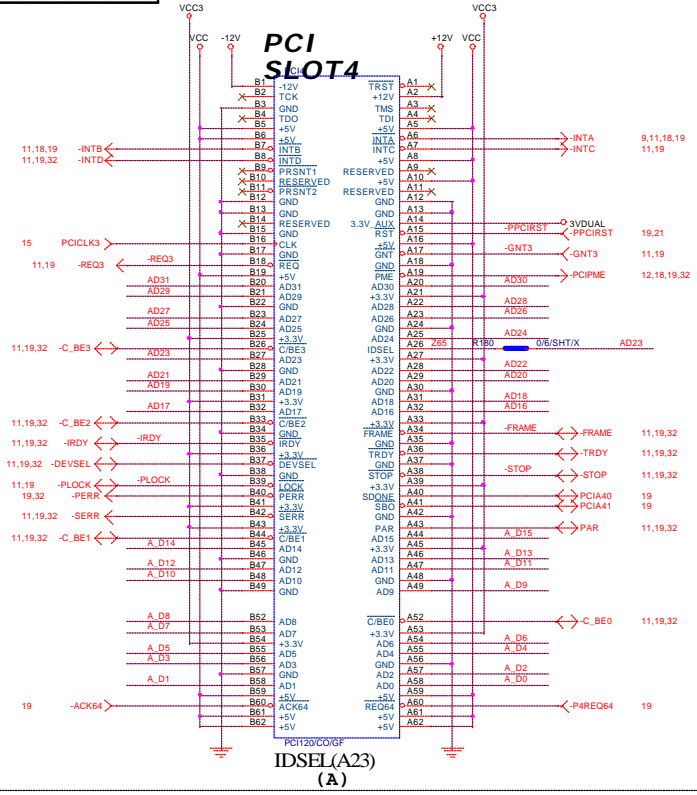
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SIS961A(PWR)		
Size	Document Number	Rev
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DDR SDRAM 1,2

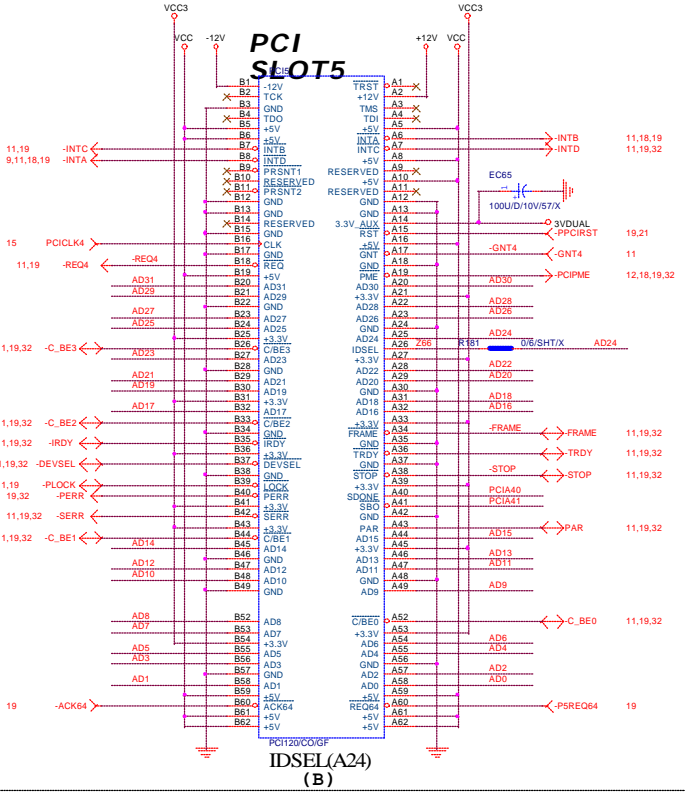


GIGABYTE		
DDR UNBUFFERED 1,2		
Title		
Size	Document Number	Rev
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PCI SLOT 4,5,6



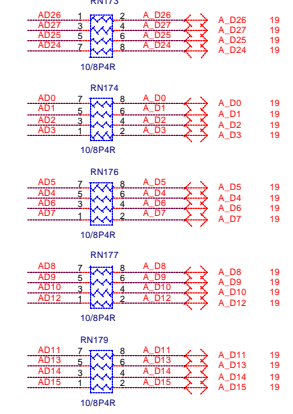
IDSEL(A23)
(A)



IDSEL(A24)
(B)

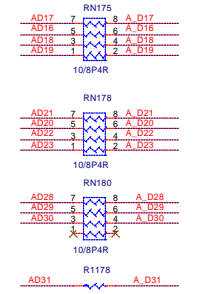
-PPCIRST
Close PCI Slot5
C44
100pF/N50V/X

Damping R Between PCI4& PCI5



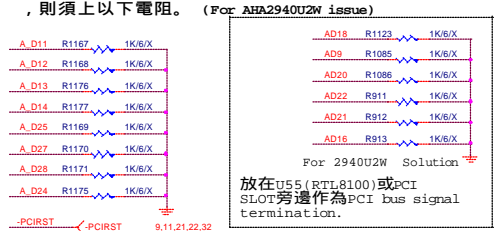
PCI add Damping Resistor for AHA2940U2W issue

Damping R Between PCI3& PCI4



如果RTL8100BL未上

PCI的走線要盡量 避免走"π"型。



，則須上以下電阻。(For AHA2940U2W issue)

放在U55(RTL8100)或PCI SLOT旁邊作為PCI bus signal termination.

	INTA#	IDSEL	REQX-
PCI1	BCDA	AD20	REQ0
PCI2	CDAB	AD21	REQ1
PCI3	DABC	AD22	REQ2
PCI4	ABCD	AD23	REQ3
PCI5	BCDA	AD24	REQ4
RTL8100	D	AD26	REQ5

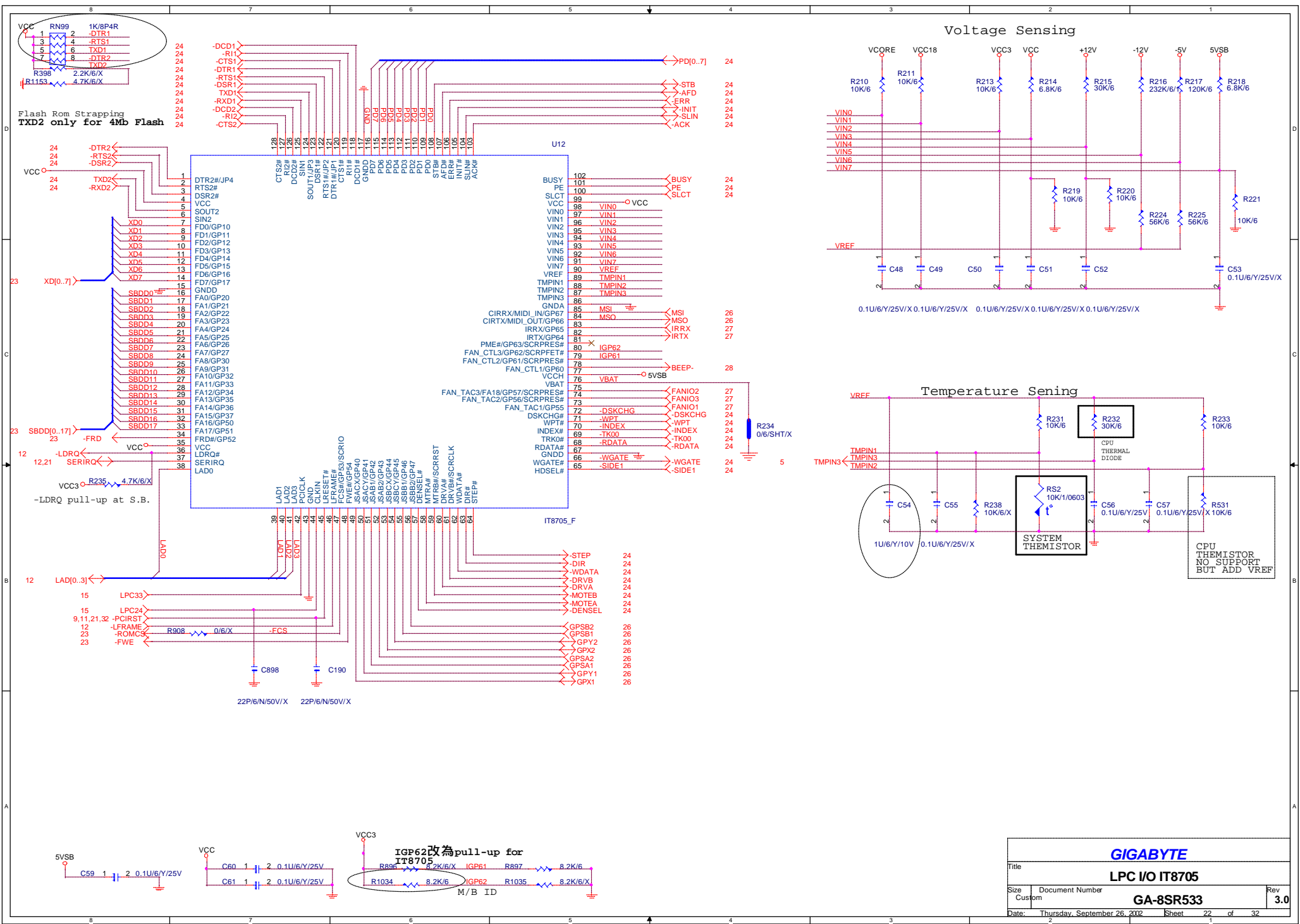
GIGABYTE

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Size: Document Number **GA-8SR533** Rev: **3.0**

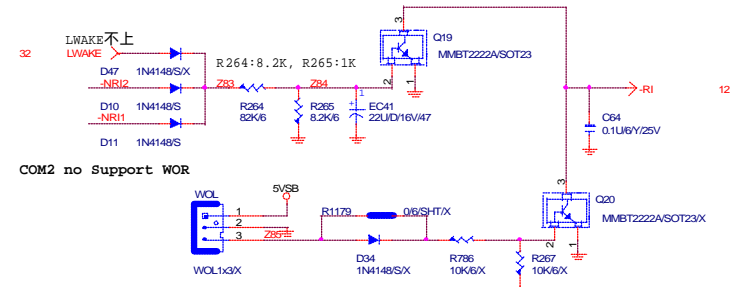
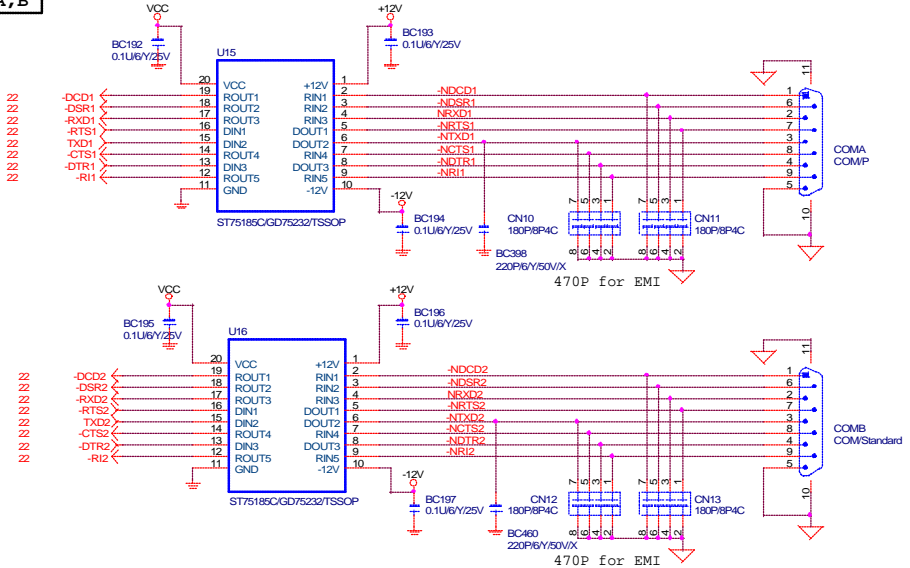
Custom: **GA-8SR533**

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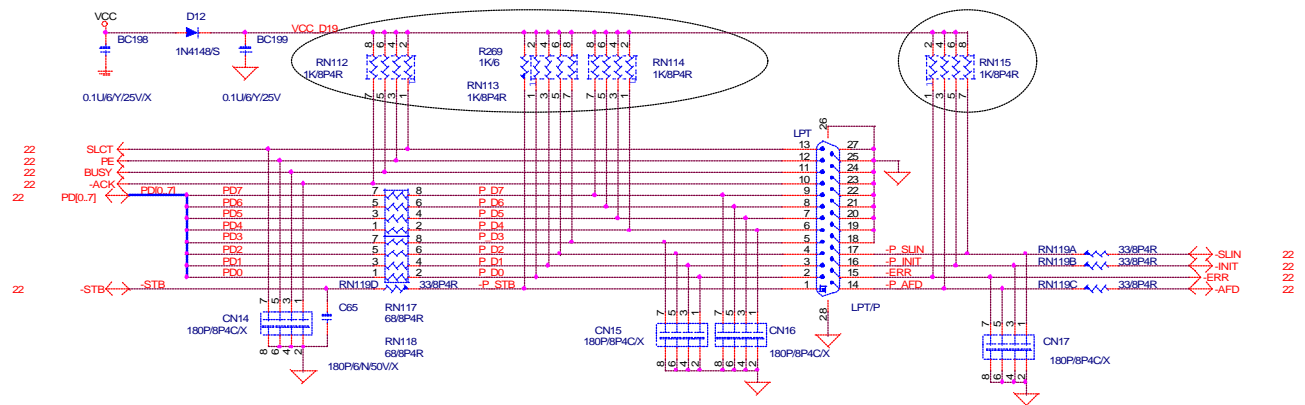


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Title LPC I/O IT8705		
Size Custom	Document Number GA-8SR533	Rev 3.0
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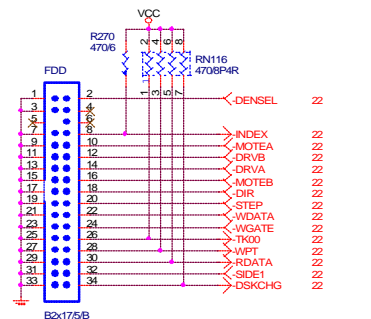
COM A, B



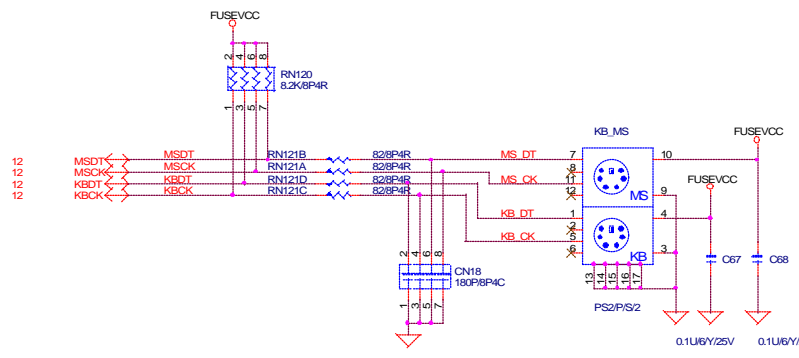
LPT



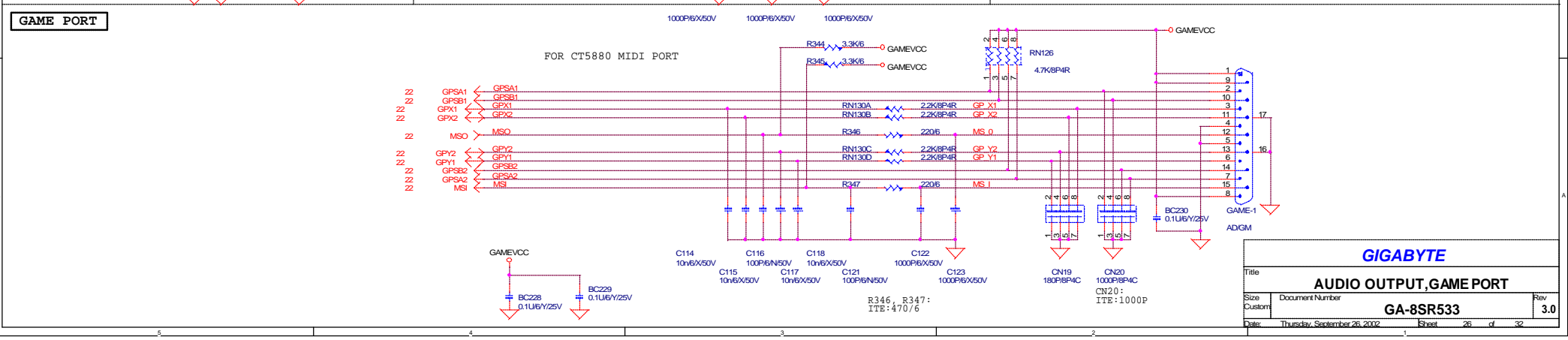
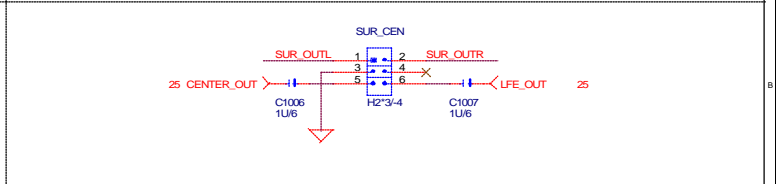
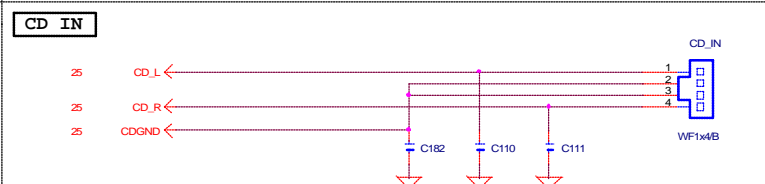
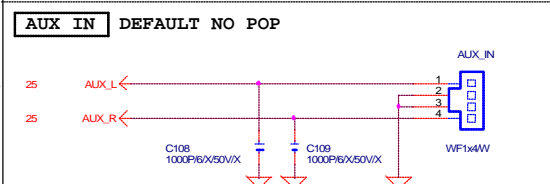
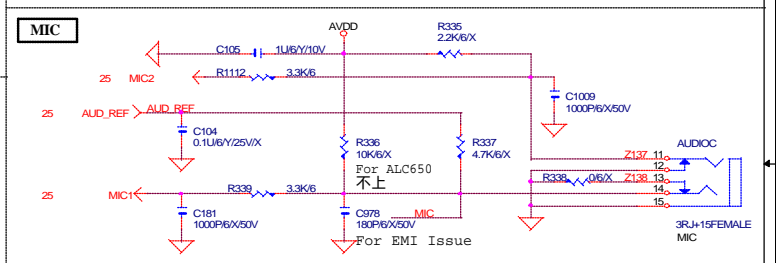
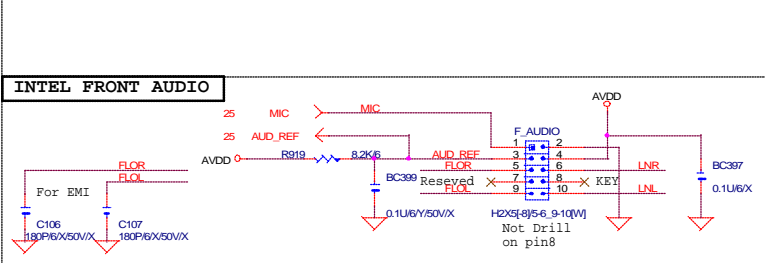
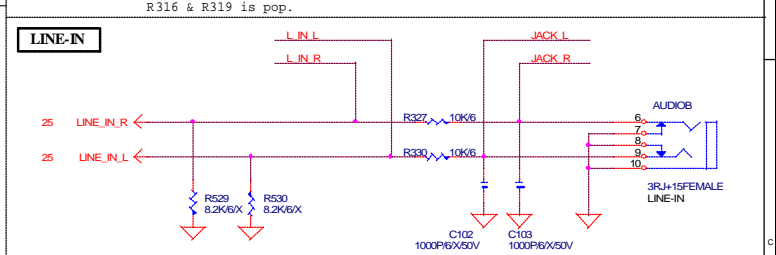
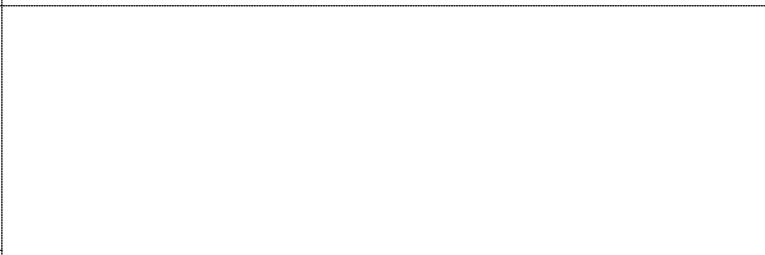
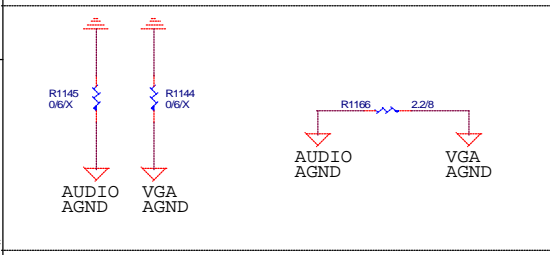
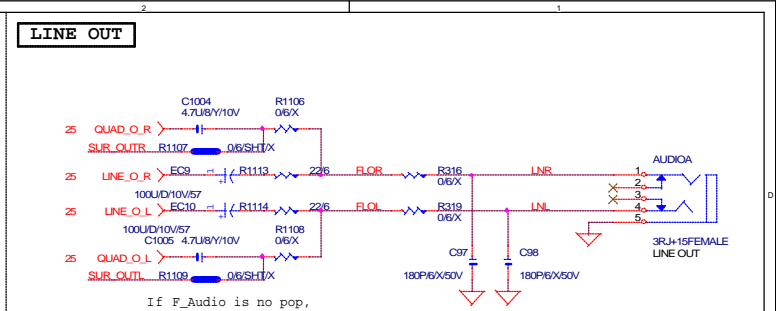
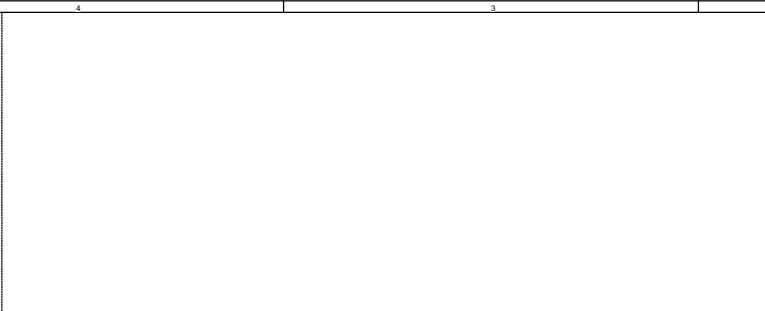
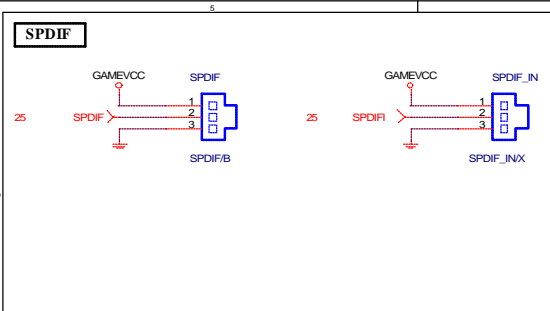
FDD



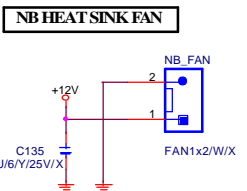
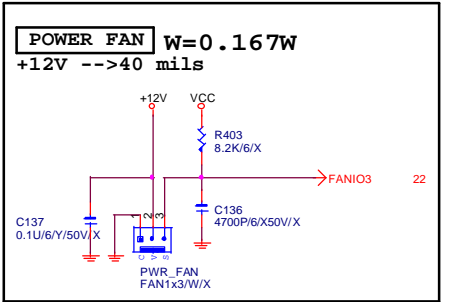
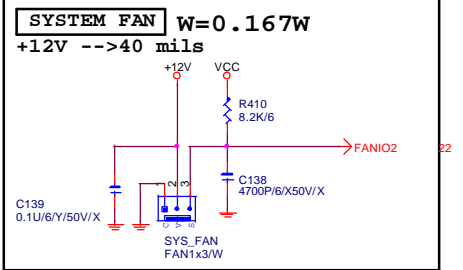
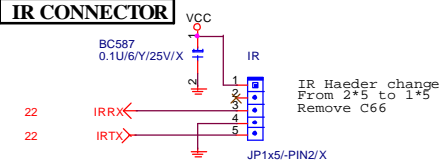
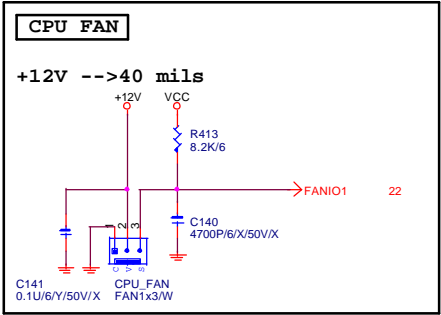
KBC/PS2



GIGABYTE		
Title COM,PRT,FDD,KB,IR		
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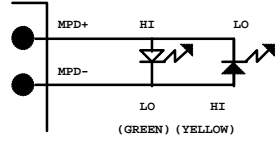


GIGABYTE		
AUDIO OUTPUT, GAME PORT		
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GIGABYTE		
Title		
FAN		
Size Custom	Document Number	Rev
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FRONT PANEL



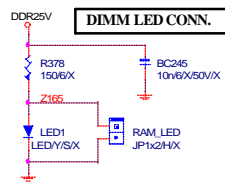
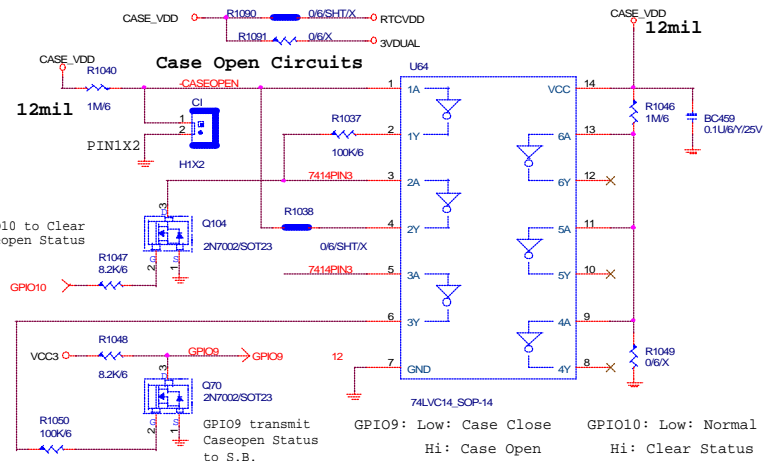
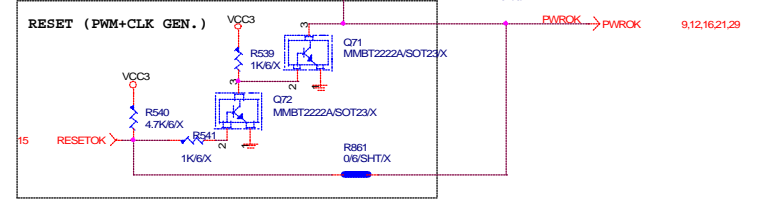
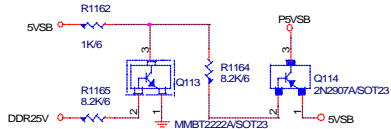
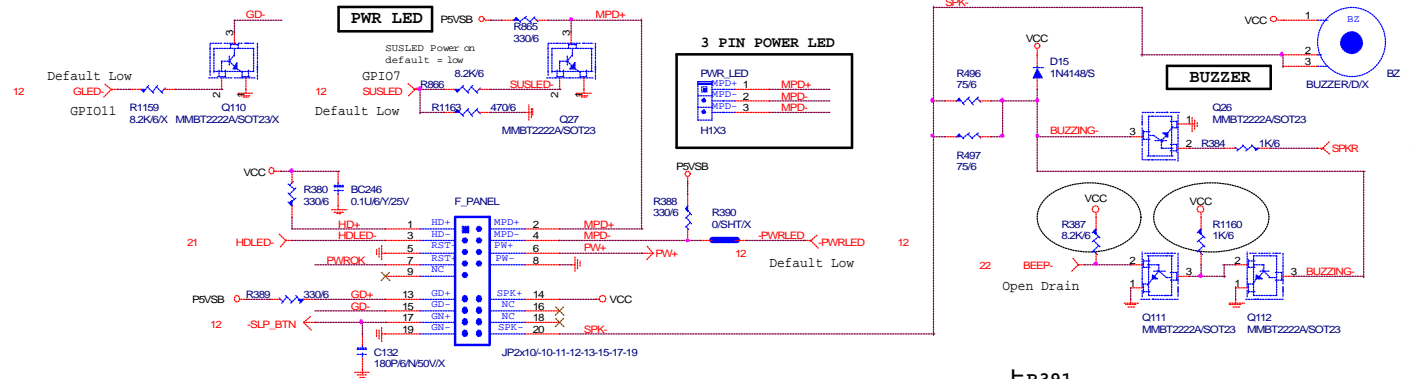
States for a single-color power LED

LED States	ACPI States	MPD+	MPD-
OFF	S1,S3,S5	HI	HI
Steady Green	S0	HI	LO
Blinking Green	S0(message waiting)	HI	BLINKING

States for a dual-color power LED

LED States	ACPI States	MPD+	MPD-
OFF	S5	HI	HI
Steady Green	S0	HI	LO
Blinking Green	S0(message waiting)	HI	BLINKING
Steady Yellow	S1,S3	LO	HI
Blinking Yellow	S1,S3(message waiting)	LO	BLINKING

	S0	S1	S3	S5
GPIO11(GLED-)	0	1	1	0
GPIO7(SUSLED)	0	B	B	0
ACPILED(Pin A15)	0	0	0	1



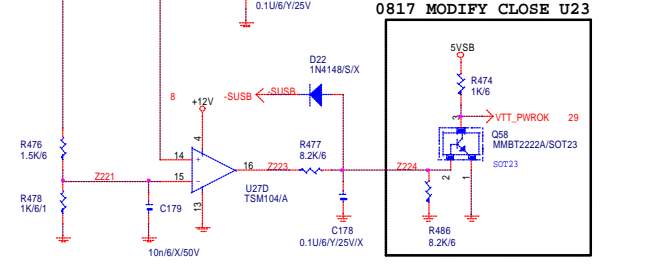
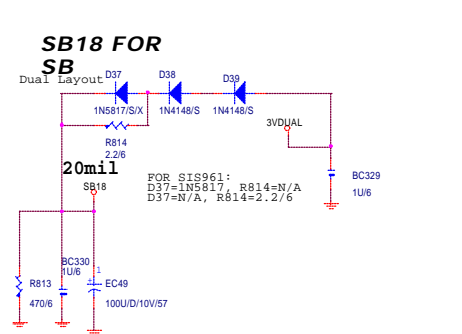
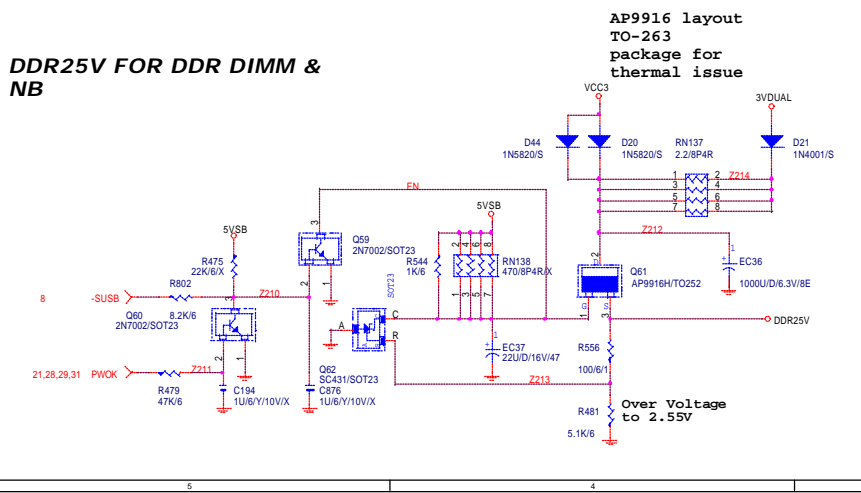
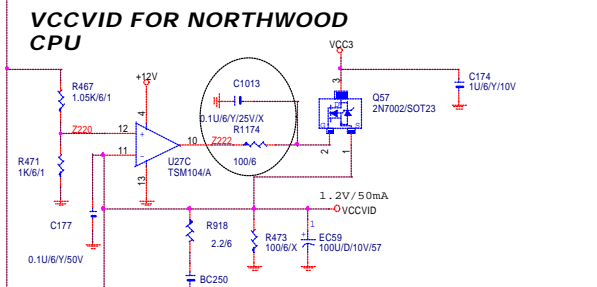
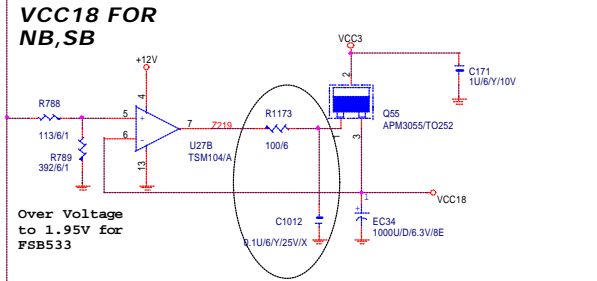
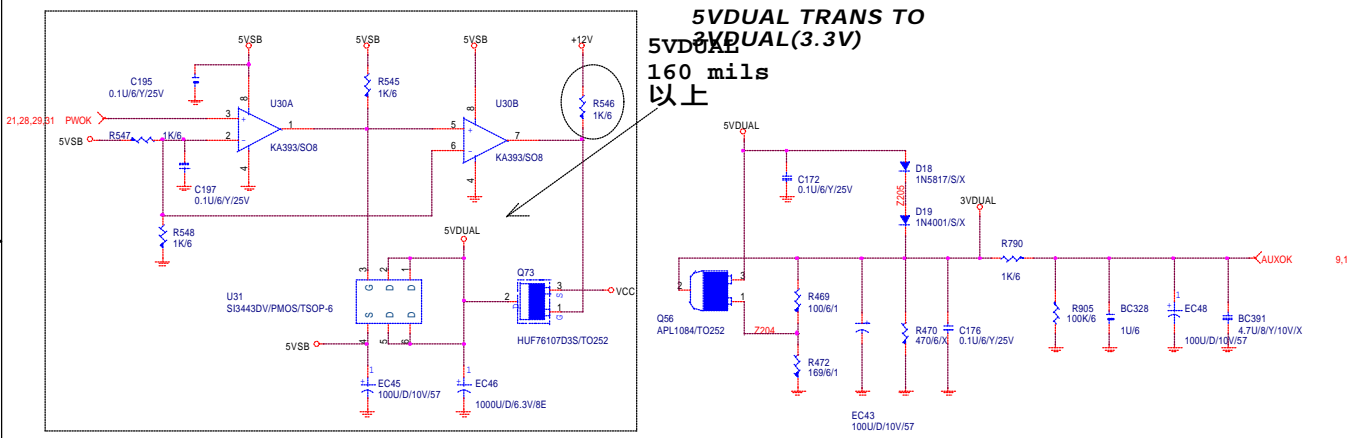
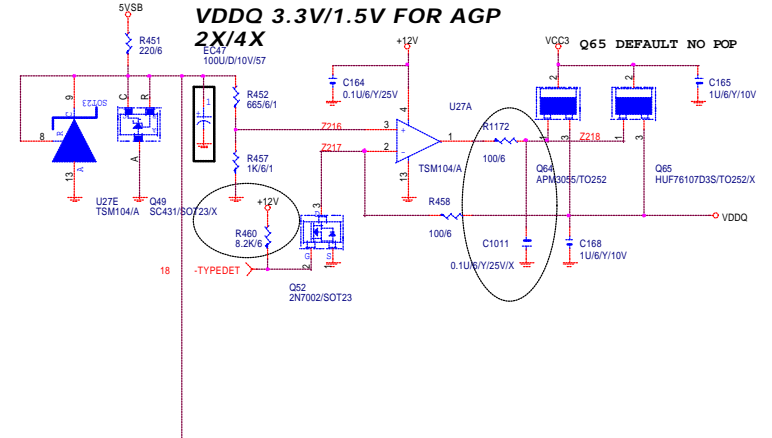
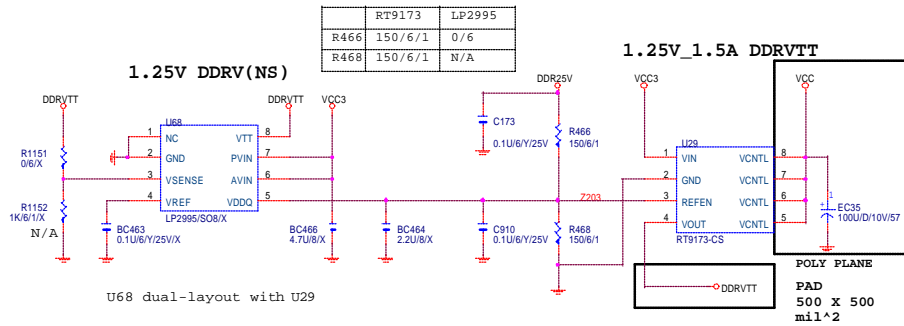
74LVC14:
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10TC1-120014-01
10TC1-120014-02

GIGABYTE

PANEL, STR LED

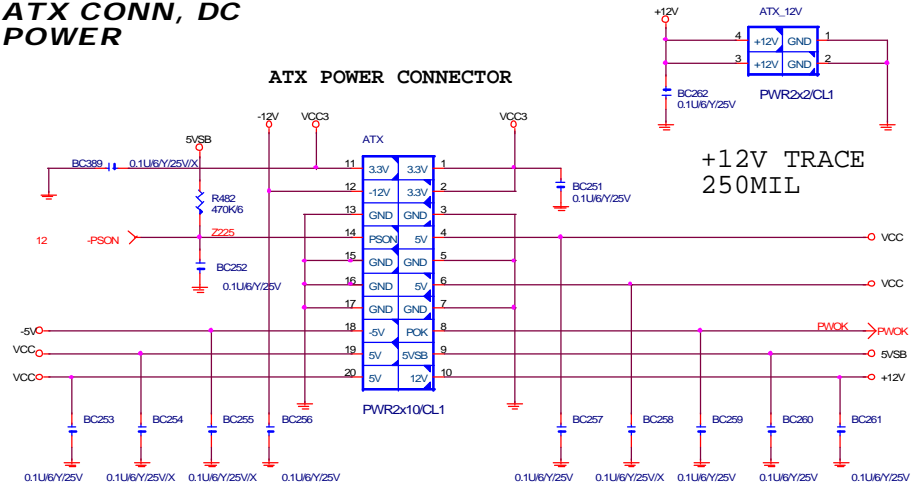
Title	PANEL, STR LED		Rev	3.0
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1.25V DDRVTT LINEAR SOLUTION



ATX CONN, DC POWER

ATX POWER CONNECTOR



21,28,29,30

8SRXL South Bridge GPIO LIST			
ITEM	DESCRIPTION	STATUS	Default
GP00	Non Use		Hi
GP01	Non Use		Hi
GP04	Non Use		Hi
GP02	Non Use		Hi
GP03	Green Button	Hi:Normal, Lo:Into Green mode	Hi
GPIO5	REQ5		
GPIO6	GNT5		
GP07	Non Use		Hi
GP011	Non Use		Hi
GPI8	Wake On Ring	Hi:Normal, Lo:Ring Power On	Hi
GPI9	Case Open	Hi:Case Open, Lo:Normal	Lo
GPI10	Clear Caseopen status	Hi:Clear Caseopen Status, Lo:Normal	Lo
GPI13	Non Use		Hi
GP012	Non Use		Hi
GPI14	Primary Down	Lo:CODEC Only	Lo
GPIO15	KB Data		Hi
GPIO16	KB Clk		Hi
GPIO17	MS Data		Hi
GPIO18	MS Clk		Hi

States for a single-color power LED

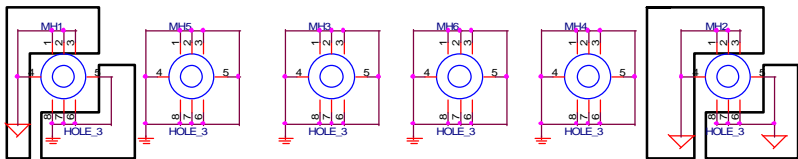
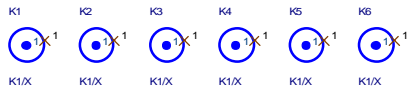
LED States	ACPI States	MPD+	MPD-	BIOS	
				GPIO7	ACPILED
OFF	S5	HI	HI	LO	HI/NC
Steady Green	S0	HI	LO	LO	LO
Blinking Green	S0(message waiting)	HI	BLINKING	LO	BLINKING

States for a dual-color power LED

LED States	ACPI States	MPD+	MPD-	BIOS	
				GPIO7	ACPILED
OFF	S5	HI	HI	LO	HI/NC
Steady Green	S0	HI	LO	LO	LO
Blinking Green	S0(message waiting)	HI	BLINKING	LO	BLINKING
Steady Yellow	S1,S3	LO	HI	HI	HI
Blinking Yellow	S1,S3(message waiting)	LO	BLINKING	HI	BLINKING

States for green LED

LED States	ACPI States	GLLED-	BIOS
			GPIO11
ON	S1,S3	HI	HI
OFF	S0,S5	LO	LO



EMI (VCC.GND CUT HOLE PLANE)

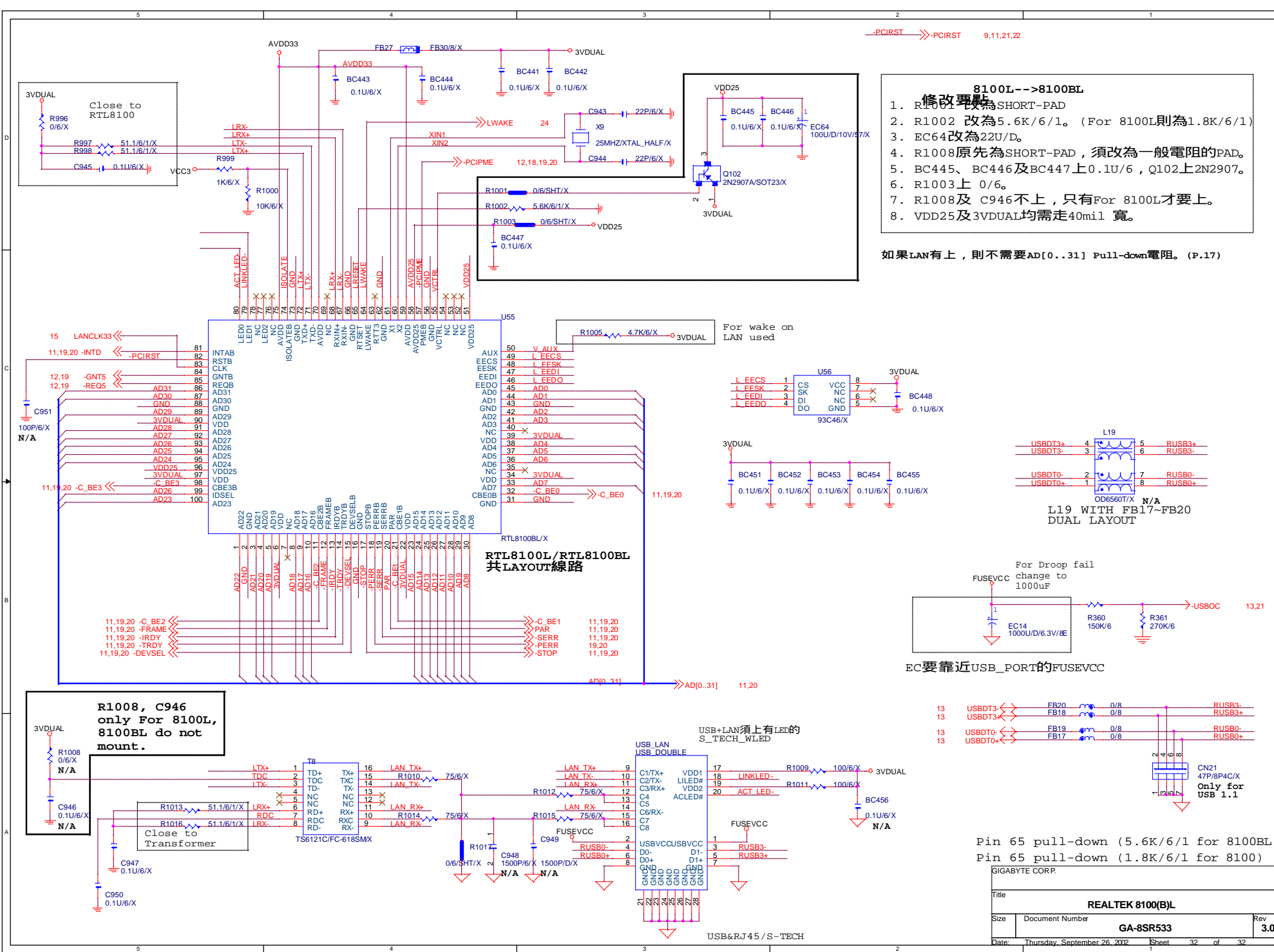
EMI (VCC.LGND CUT HOLE PLANE)

BIOS REQUEST

SINGLE	DUAL	INTEL LED DEFINED				GIGABYTE LED DEFINED				SINGLE	DUAL
		GPIO7	ACPILED	GPIO11		GPIO7	ACPILED	GPIO11			
GREEN	GREEN	S0	LO	LO	LO	S0	LO	LO	LO	GREEN	GREEN
OFF	YELLOW	S1	HI	HI	HI	S1	LO	BLINKING	HI	(BLINK)	(BLINK)
OFF	YELLOW	S3	HI	HI	HI	S3	HI	HI	HI	OFF	YELLOW
OFF	OFF	S4/S5	LO	HI/NC	LO	S4/S5	LO	HI/NC	LO	OFF	OFF

GIGABYTE

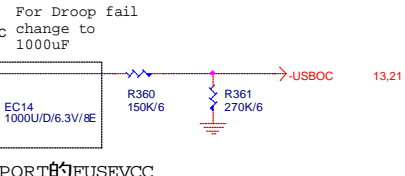
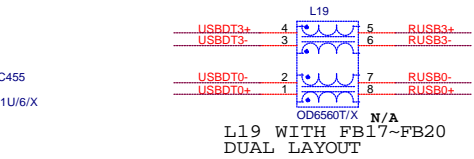
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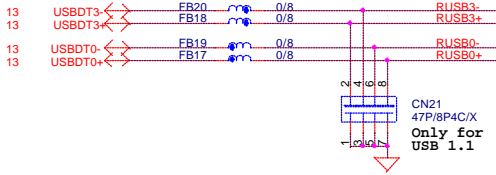
- 8100L-->8100BL 修改要點**
1. R1001 改為SHORT-PAD
 2. R1002 改為5.6K/6/1。(For 8100L則為1.8K/6/1)
 3. EC64改為22U/D.
 4. R1008原先為SHORT-PAD, 須改為一般電阻的PAD.
 5. BC445、BC446及BC447上0.1U/6, Q102上2N2907.
 6. R1003上 0/6.
 7. R1008及 C946不上, 只有For 8100L才要上.
 8. VDD25及3VDUAL均需走40mil 寬.

如果LAN有上, 則不需要AD[0..31] Pull-down電阻。(P.17)

RTL8100L/RTL8100BL 共LAYOUT線路



EC要靠近USB_PORT的FUSEVCC



Pin 65 pull-down (5.6K/6/1 for 8100BL)
Pin 65 pull-down (1.8K/6/1 for 8100)

GIGABYTE CORP.		
Title		
REALTEK 8100(B)L		
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R1008, C946 only For 8100L, 8100BL do not mount.

USB+LAN須上有LED的 S_TECH_WLED