

GIGABYTE GA-8VM533-P Schematics

Revision 1.0



SHEET TITLE

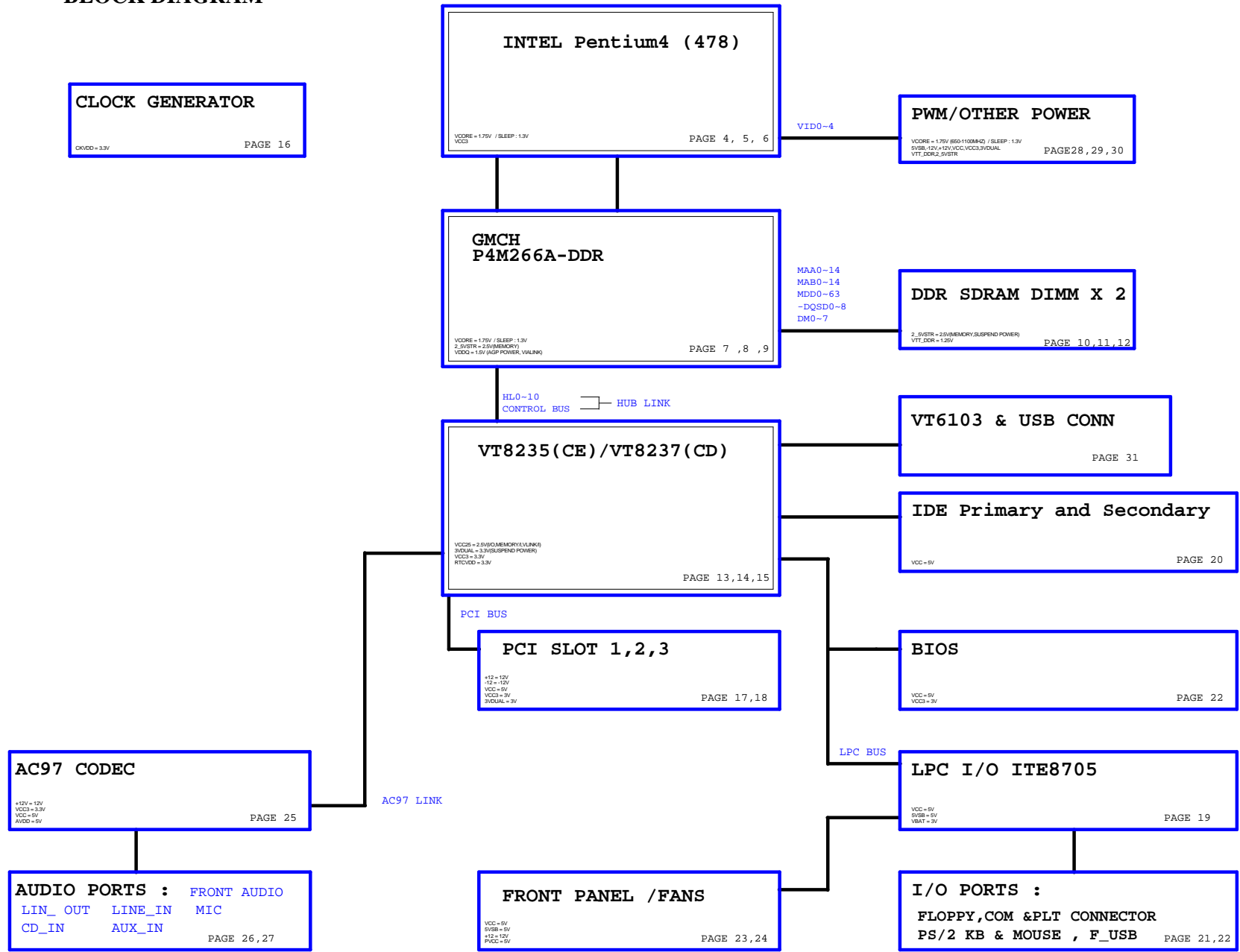
01	COVER SHEET	
02	BOM & PCB MODIFY HISTORY	
03	BLOCK DIAGRAM	
04	P4_478A	
05	P4_478B	
06	P4_478C	
07	P4M266A_A (CPU,VGA)	U1
08	P4M266A_B (DDR, VGA CON)	
09	P4M266A_C (AGP)	
10	DDR SERIAL TERMINATION	
11	DDR1,2	
12	VTT_DDR TERMMINATOR	
13	SB(VT8235) PCI, USB BUS	U12
14	SB(VT8235) IDE, GPIO,SATA	
15	SB(VT8235)VLINK,CPU,LPC,LAN	
16	CLOCK GENERATOR(CY28341-2)	U13
17	PCI1 & PCI2 SLOT	
18	PCI3 SLOT	
19	LPC I/O IR(ITE 8705)	U14
20	IDE CONNECTOR	
21	PS/2 K/B & M/S FRONT USB	
22	BIOS,FDD,COM,LPT CONN	
23	FAN & H/W MONITOR	

SHEET TITLE

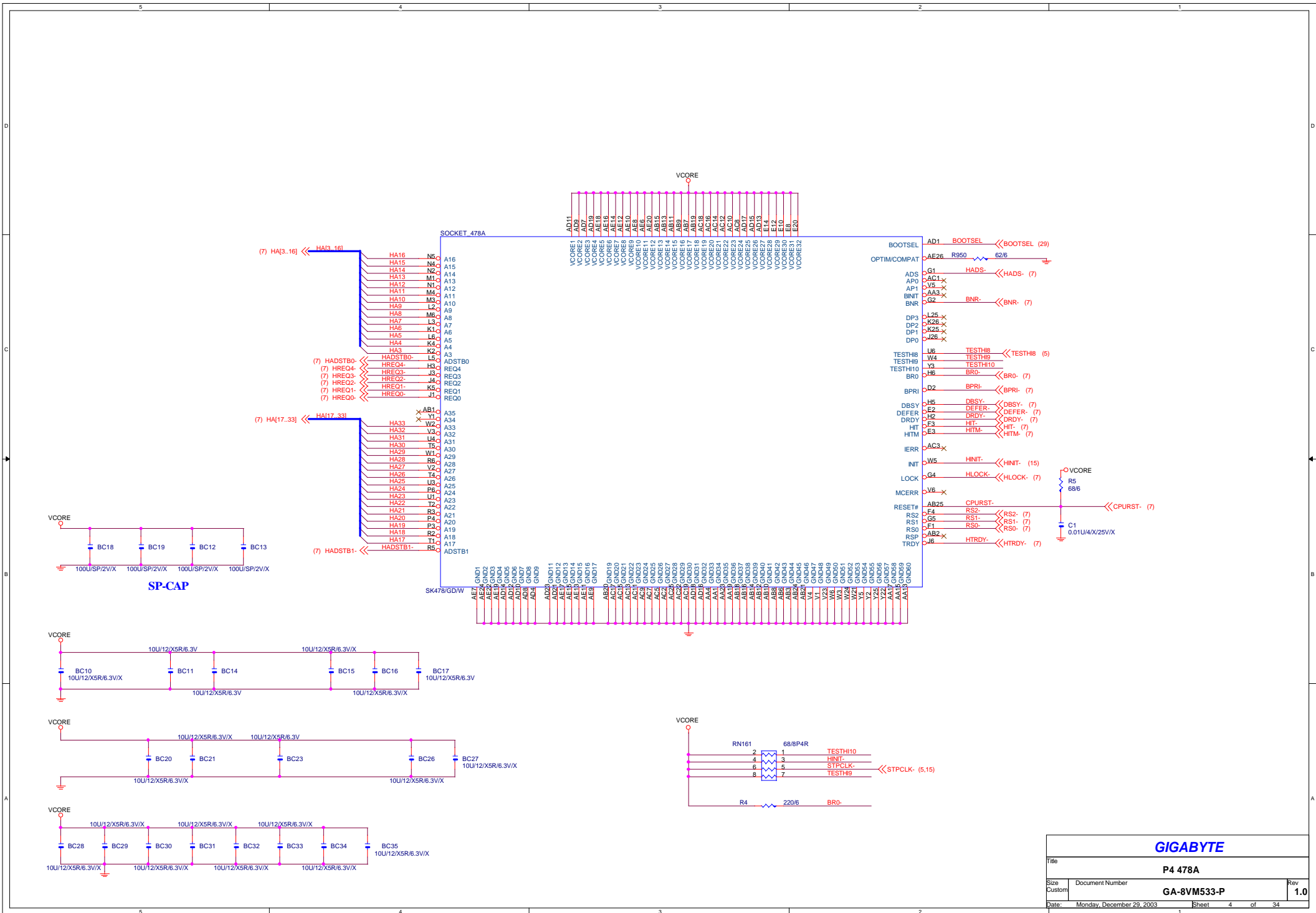
24	FRONT PANEL
25	AC97 CODEC REALTEK ALC655
26	LINE OUT & FRONT AUDIO CONN
27	LINE IN,MIC,CDIN,AUX(CD-IN2)
28	MISC. PWR & ATX POWER (3VDUAL , VDDQ)
29	VCORE PWM (FAN5090)
30	DDR POWER (5VDUAL , 2_5VSTR , VTT_DDR)
31	VT6103 & USB CONNECTOR
32	AGP SLOT
33	GPIO LIST
34	PCI ROUNTING LIST

		COMPONENT SIDE (1 oz. Copper) VCC SIDE (1 oz. Copper) GND SIDE (1 oz. Copper) SOLDER SIDE (1 oz. Copper)
GIGABYTE		
Title: COVER SHEET		
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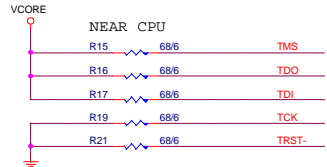
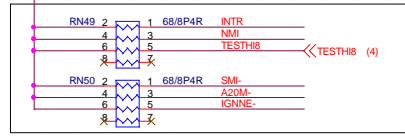
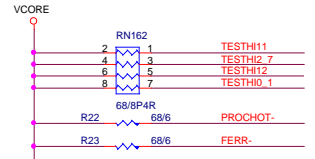
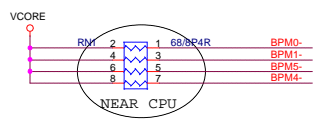
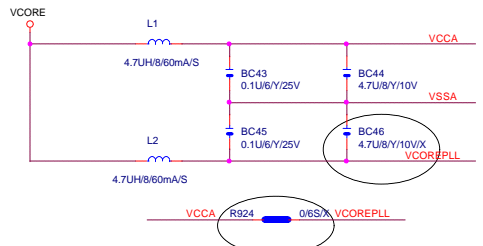
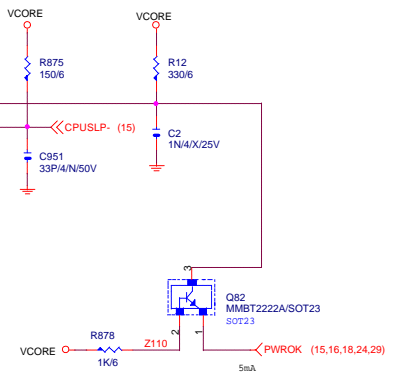
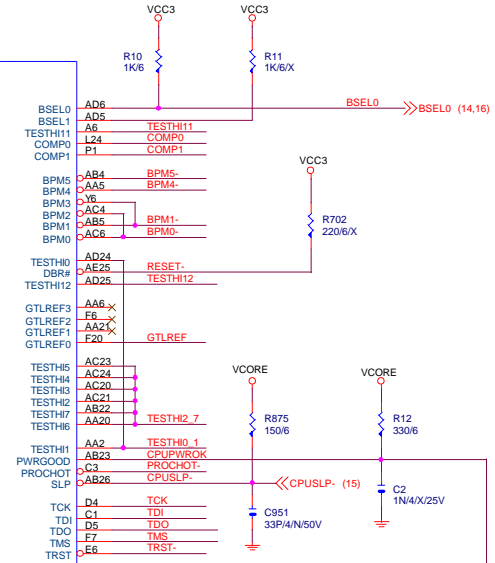
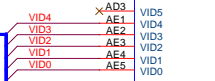
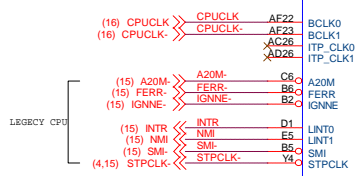
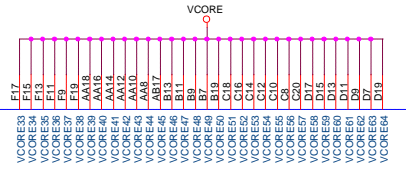
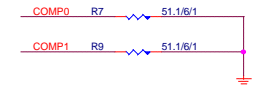
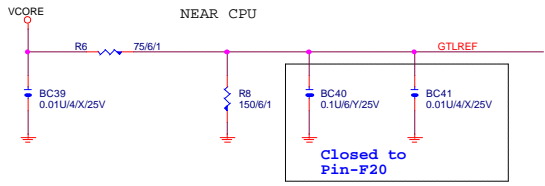
BLOCK DIAGRAM



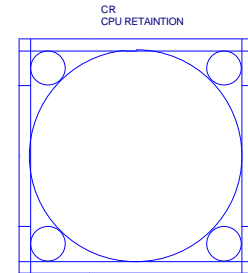
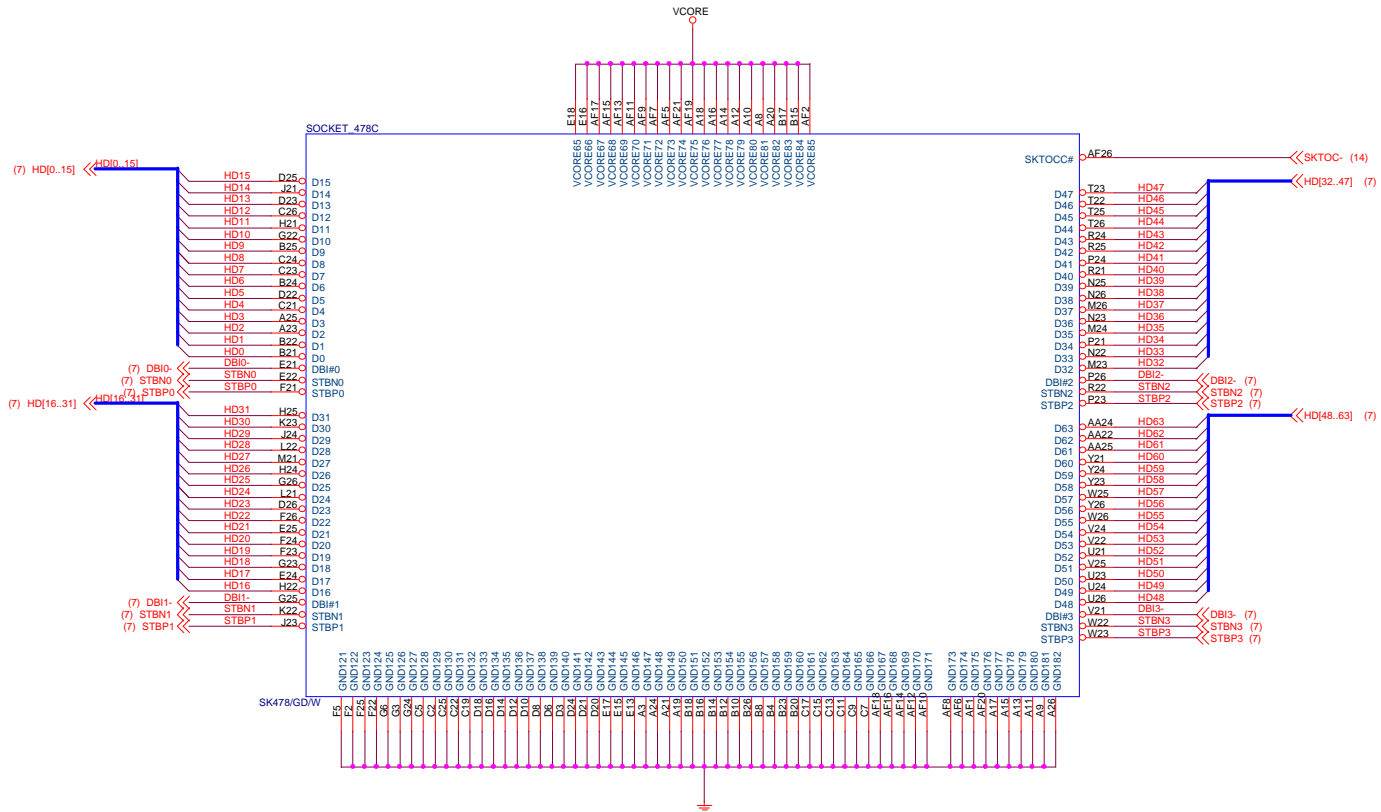
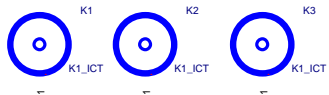
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BOM & PCB MODIFY HISTORY			
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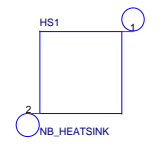
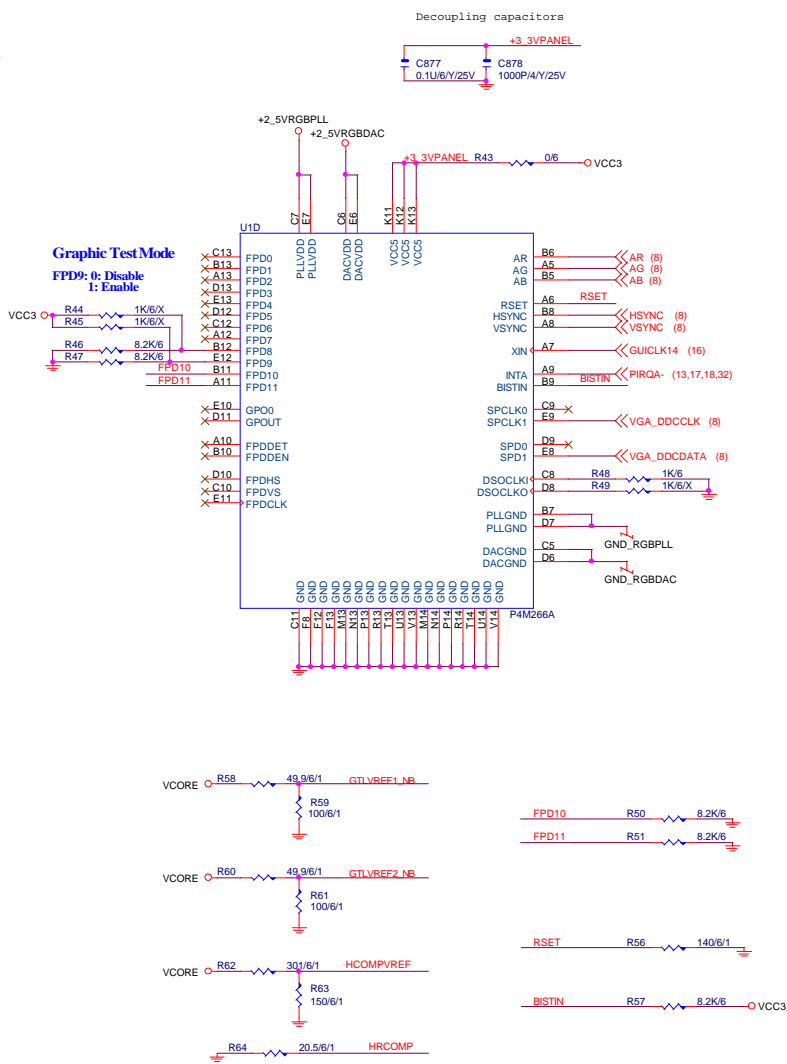
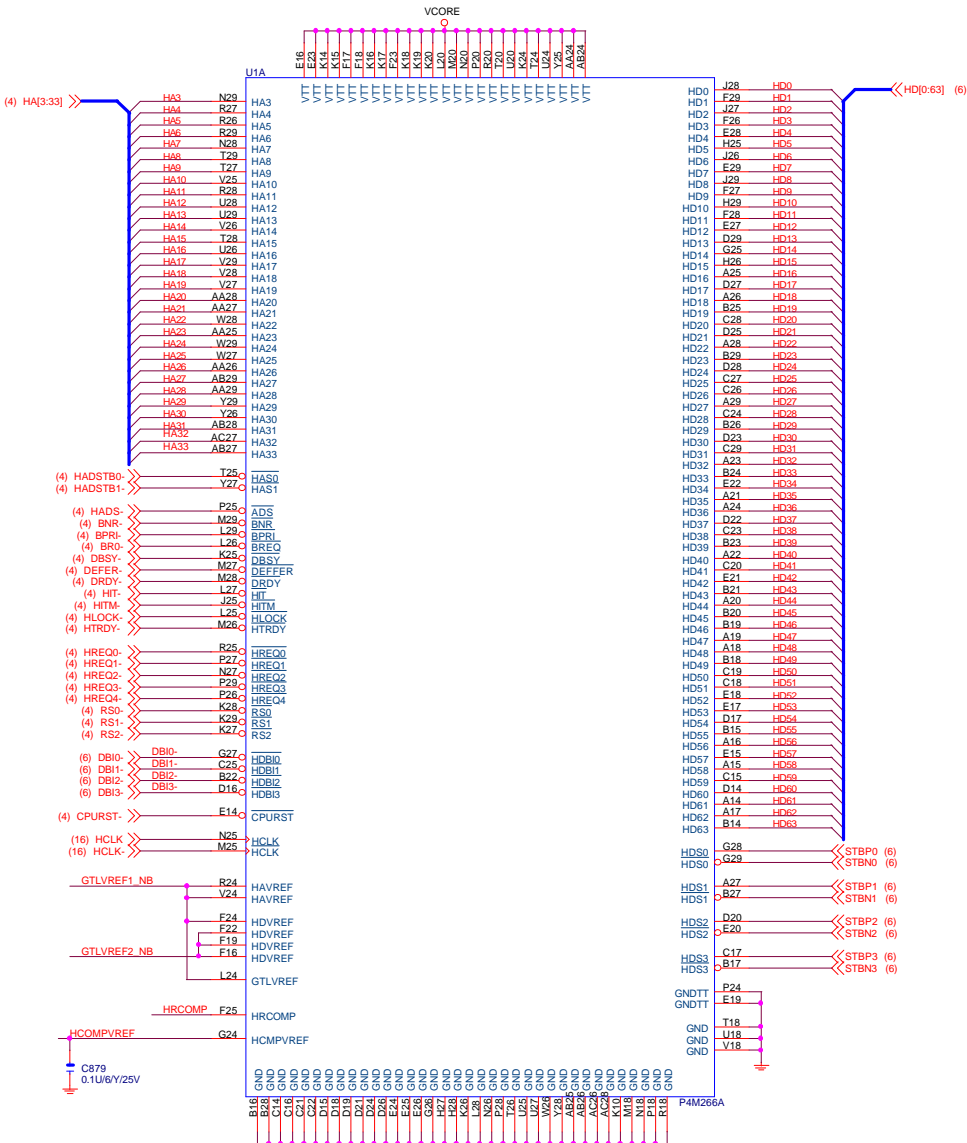
GIGABYTE		
P4 478A		
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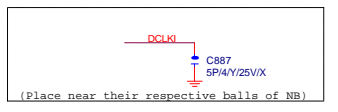
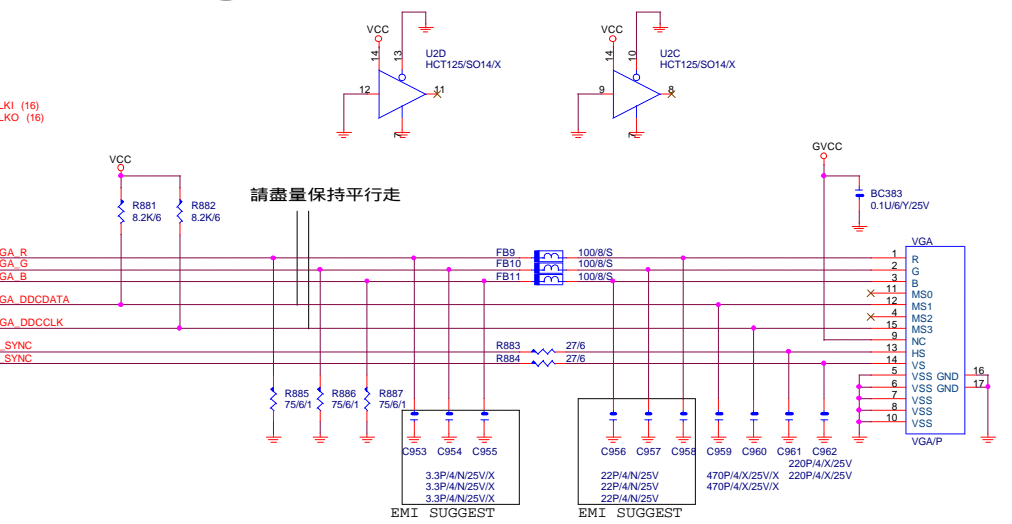
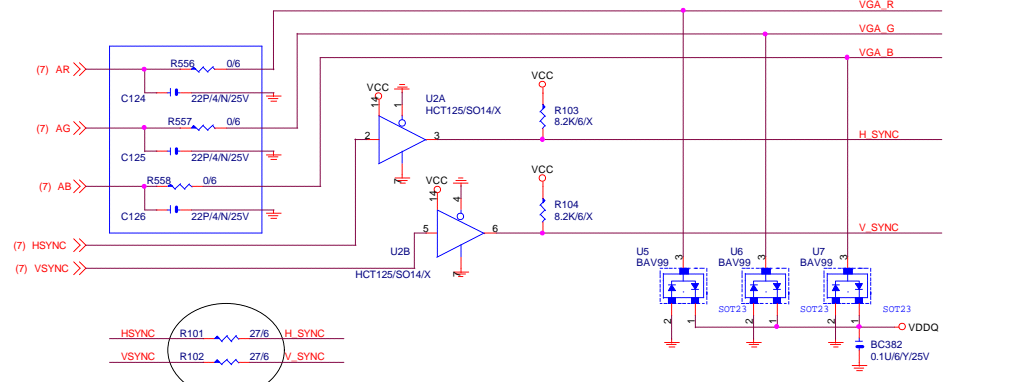
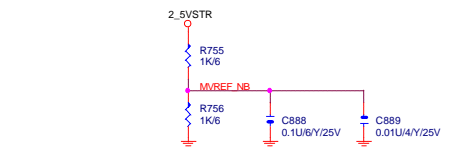
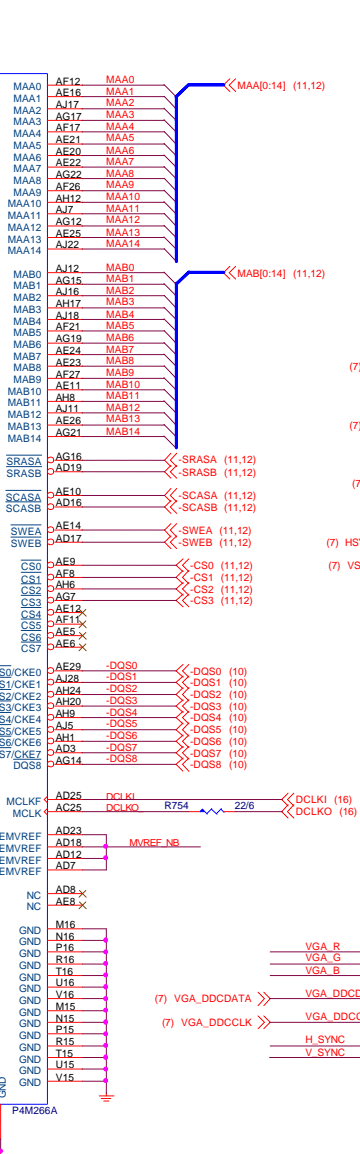
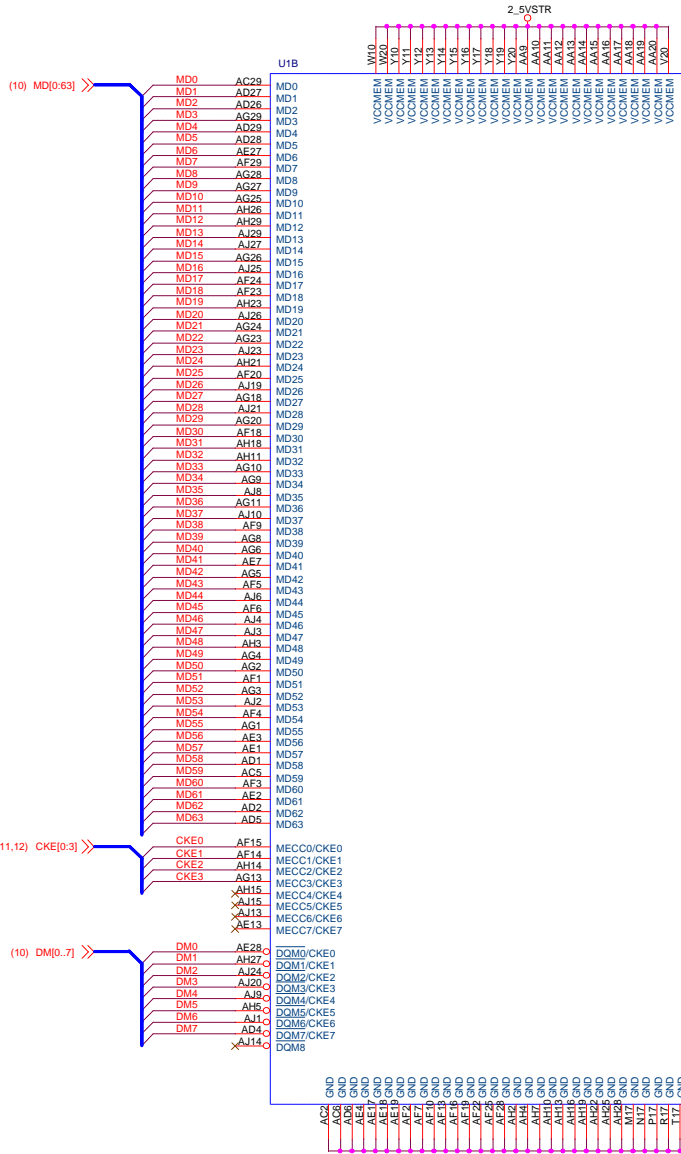
GIGABYTE		
Title		
P4 478B		
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P4 478C		
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P4M266A_A (CPU,VGA)		
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P4M266A_B (DDR, VGA CON)		
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(11,12) MD[0..63] << <<MD[0..63] (8)

(11,12) DM[0..7] >> >>DM[0..7] (8)

(11,12) -DQS[0..8] << <<-DQS[0..8] (8)

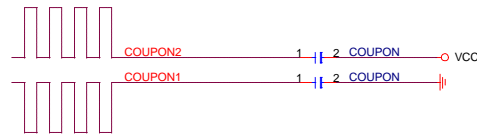
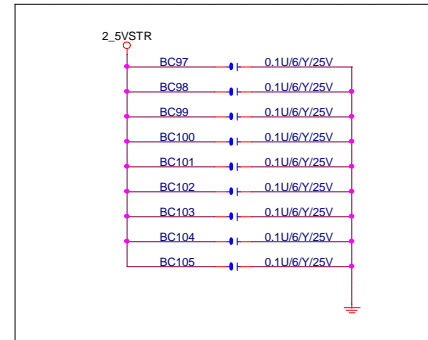
MD 6	RN3	1	2 0/8P4R/X	MD6
MD 2		3	4	MD2
DM 0		5	6	DM0
-DQS 0		7	8	-DQS0
MD 1	RN5	1	2 0/8P4R/X	MD1
MD 5		3	4	MD5
MD 4		5	6	MD4
MD 0		7	8	MD0
DM 1	RN6	1	2 0/8P4R/X	DM1
-DQS 1		3	4	-DQS1
MD 13		5	6	MD13
MD 12		7	8	MD12
MD 11	RN7	1	2 0/8P4R/X	MD11
MD 10		3	4	MD10
MD 14		5	6	MD14
MD 15		7	8	MD15
MD 22	RN9	1	2 0/8P4R/X	MD22
MD 18		3	4	MD18
DM 2		5	6	DM2
-DQS 2		7	8	-DQS2
-DQS 3	RN11	1	2 0/8P4R/X	-DQS3
DM 3		3	4	DM3
MD 29		5	6	MD29
MD 25		7	8	MD25
MD 31	RN12	1	2 0/8P4R/X	MD31
MD 27		3	4	MD27
MD 30		5	6	MD30
MD 26		7	8	MD26
MD 37	RN13	1	2 0/8P4R/X	MD37
MD 33		3	4	MD33
MD 36		5	6	MD36
MD 32		7	8	MD32
MD 40	RN14	1	2 0/8P4R/X	MD40
MD 44		3	4	MD44
MD 35		5	6	MD35
MD 39		7	8	MD39
MD 38	RN15	1	2 0/8P4R/X	MD38
MD 34		3	4	MD34
DM 4		5	6	DM4
-DQS 4		7	8	-DQS4
DM 5	RN16	1	2 0/8P4R/X	DM5
-DQS 5		3	4	-DQS5
MD 41		5	6	MD41
MD 45		7	8	MD45
MD 49	RN17	1	2 0/8P4R/X	MD49
MD 53		3	4	MD53
MD 52		5	6	MD52
MD 48		7	8	MD48
MD 51	RN18	1	2 0/8P4R/X	MD51
MD 60		3	4	MD60
MD 51		5	6	MD51
MD 55		7	8	MD55
MD 50	RN19	1	2 0/8P4R/X	MD50
MD 54		3	4	MD54
-DQS 6		5	6	-DQS6
DM 6		7	8	DM6
-DQS 7	RN20	1	2 0/8P4R/X	-DQS7
DM 7		3	4	DM7
MD 56		5	6	MD56
MD 57		7	8	MD57
MD 59	RN21	1	2 0/8P4R/X	MD59
MD 63		3	4	MD63
MD 58		5	6	MD58
MD 62		7	8	MD62

MD 21	RN2	1	2 0/8P4R/X	MD21
MD 17		3	4	MD17
MD 16		5	6	MD16
MD 20		7	8	MD20
MD 47	RN4	1	2 0/8P4R/X	MD47
MD 43		3	4	MD43
MD 46		5	6	MD46
MD 42		7	8	MD42

MD 9	RN8	1	2 0/8P4R/X	MD9
MD 8		3	4	MD8
MD 3		5	6	MD3
MD 7		7	8	MD7
MD 28	RN10	1	2 0/8P4R/X	MD28
MD 24		3	4	MD24
MD 23		5	6	MD23
MD 19		7	8	MD19

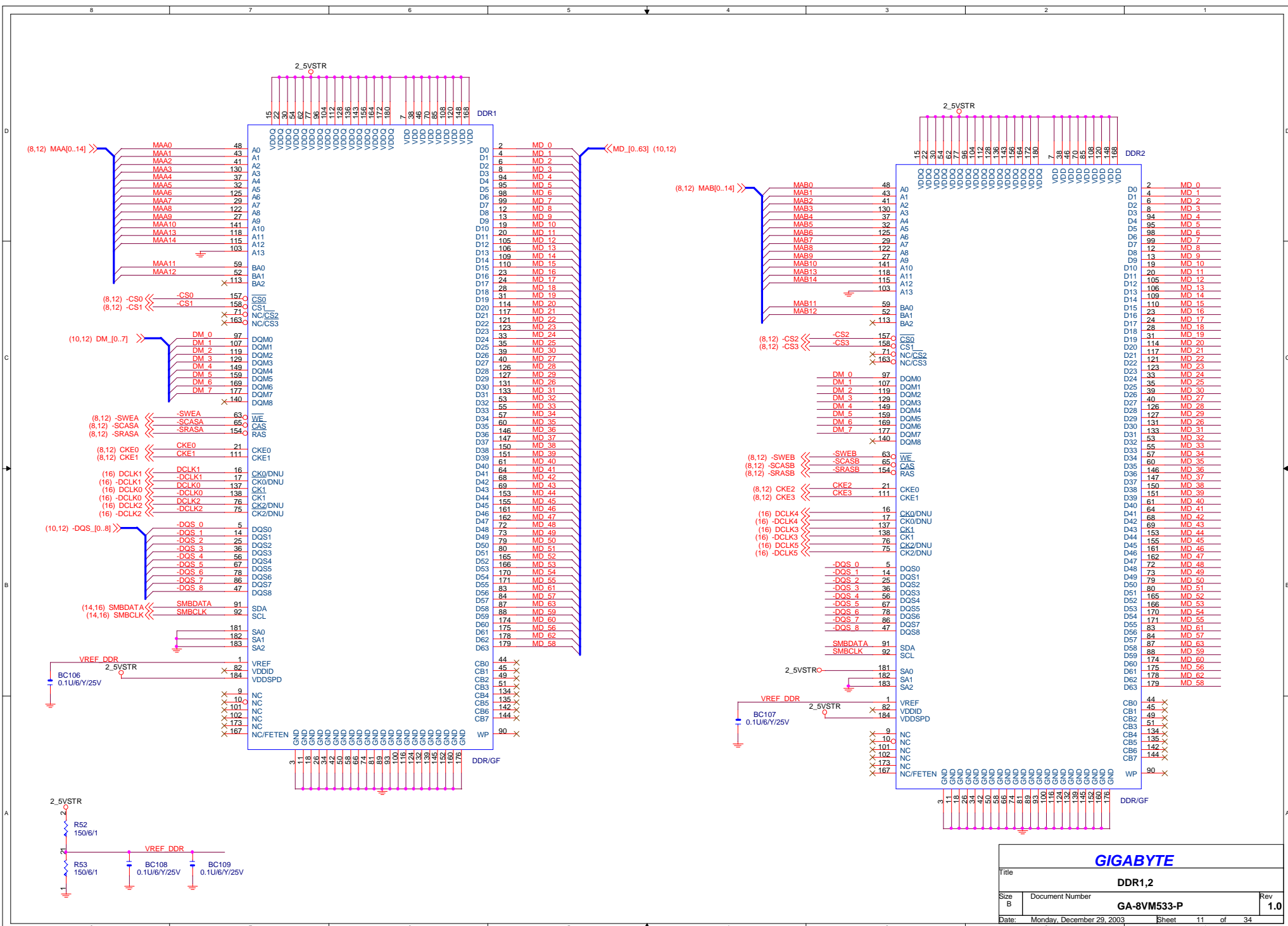
-DQS 8 R879 0/6S/X -DQS8

BETWEEN DIMM1 & DIMM2



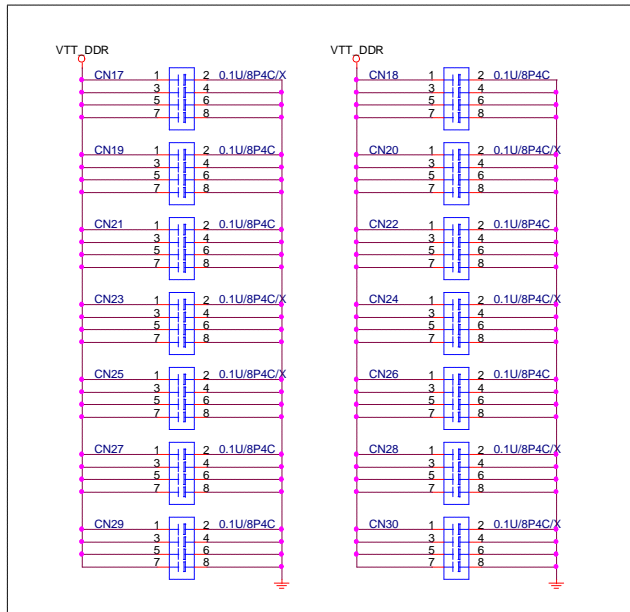
GIGABYTE

Title		
DDR SERIAL TERM.		
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Title		
DDR1,2		
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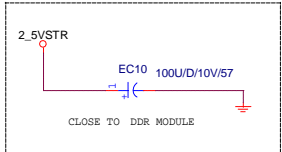
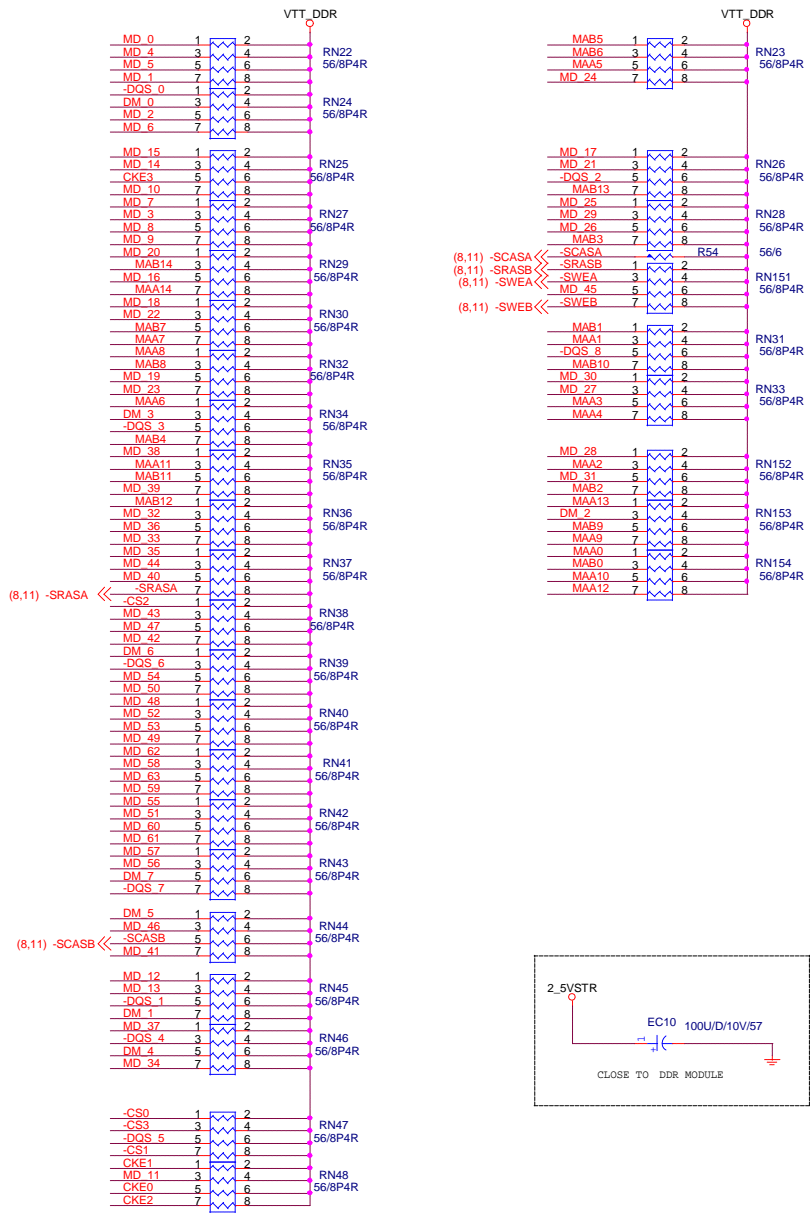


- (10,11) MD[0..63] << MD[0..63]
- (10,11) DM[0..7] << MPD[0..7]
- (10,11) -DQS[0..8] << -DQS[0..8]

- (8,11) -CS[0..3] << -CS[0..3]
- (8,11) CKE[0..3] << CKE[0..3]

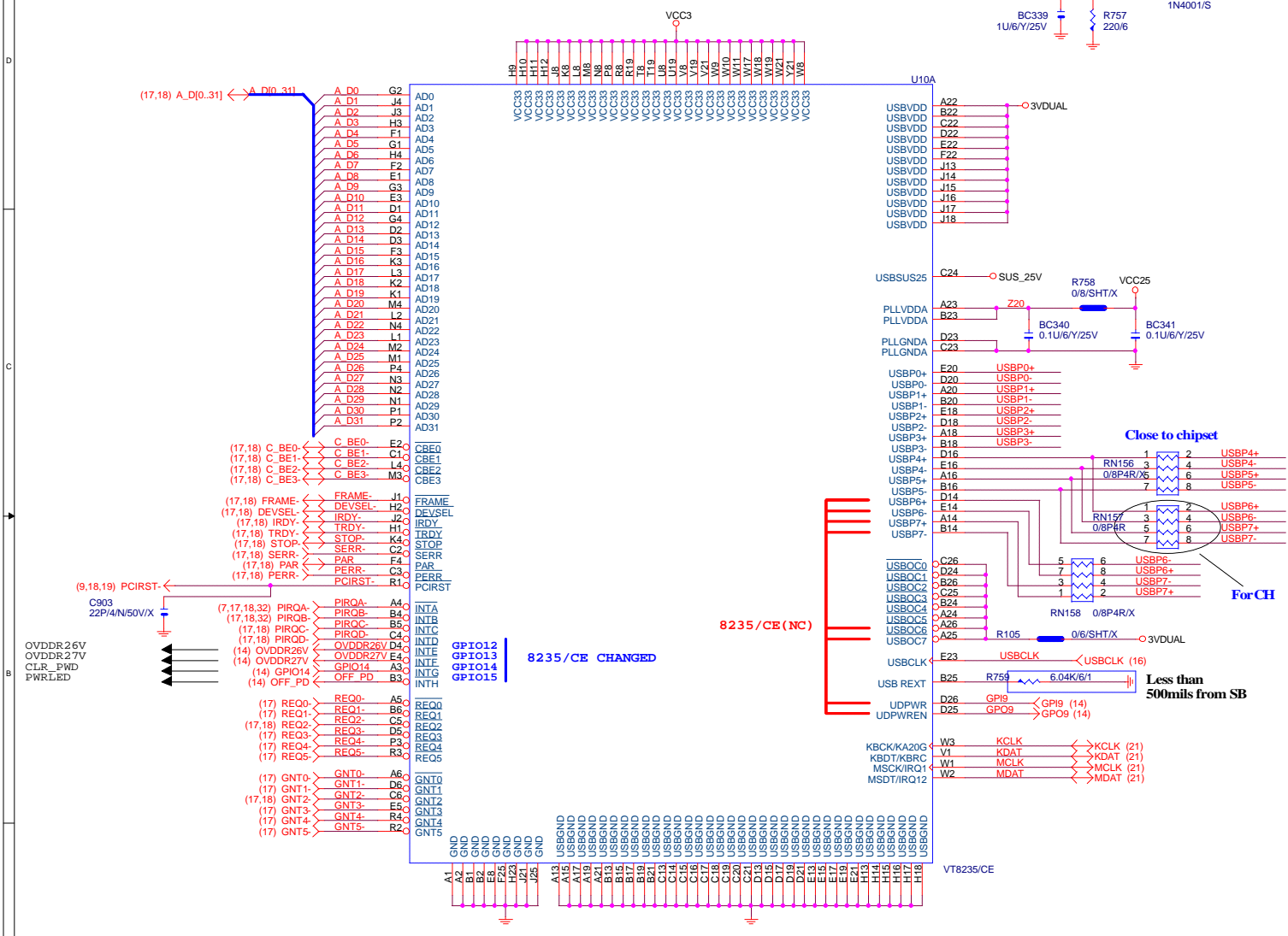
- (8,11) MAA[0..14] << MAA[0..14]
- (8,11) MAB[0..14] << MAB[0..14]

CLOSE TO DDR TERMINATOR(1 CAP. FOR 2 R-PACKS)



GIGABYTE		
Title DDR TERM.		
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SB VT8237 (PCI, USB BUS, KB/MS)



OVDDR2.6V
OVDDR2.7V
CLR_PWD
PWRLED

BIOS WRITE PROTECT

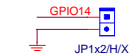
CLEAR PASSWORD

CLEAR PASSWORD	Normal
OPEN	CLR_PWD
CLOSE	CLR_PWD

CLEAR_PASSWD



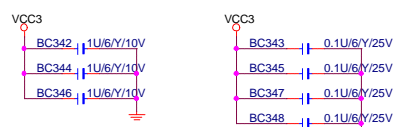
CLR_PWD



JP1x2/H/X



不使用USB
UDPWR/UDPWREN時, UDPWR必須FULL-DOWN



Decoupling capacitors

GIGABYTE

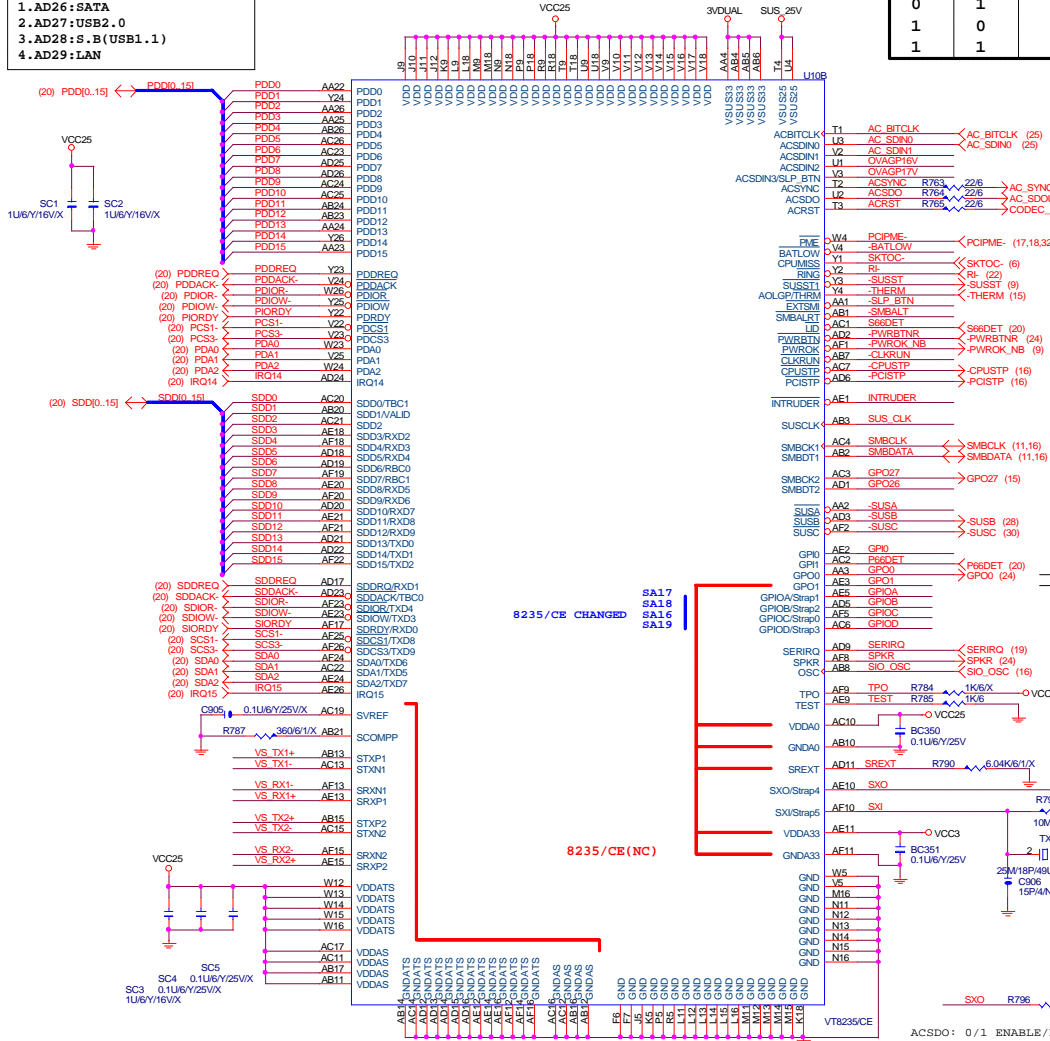
Title		
SB VT8235CE (PCI, USB BUS, KB/MS)		
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SB VT8237 (SATA,IDE, AC97, POWER MANAGEMENT, PGIO)

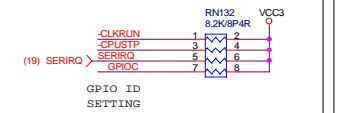
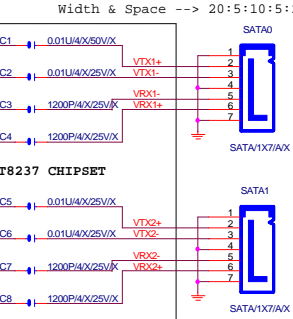
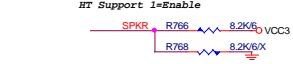
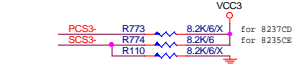
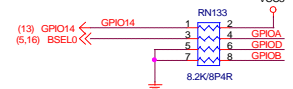
- VT8237 INTERNAL IDSEL LIST:**
- AD26:SATA
 - AD27:USB2.0
 - AD28:S.B(USB1.1)
 - AD29:LAN

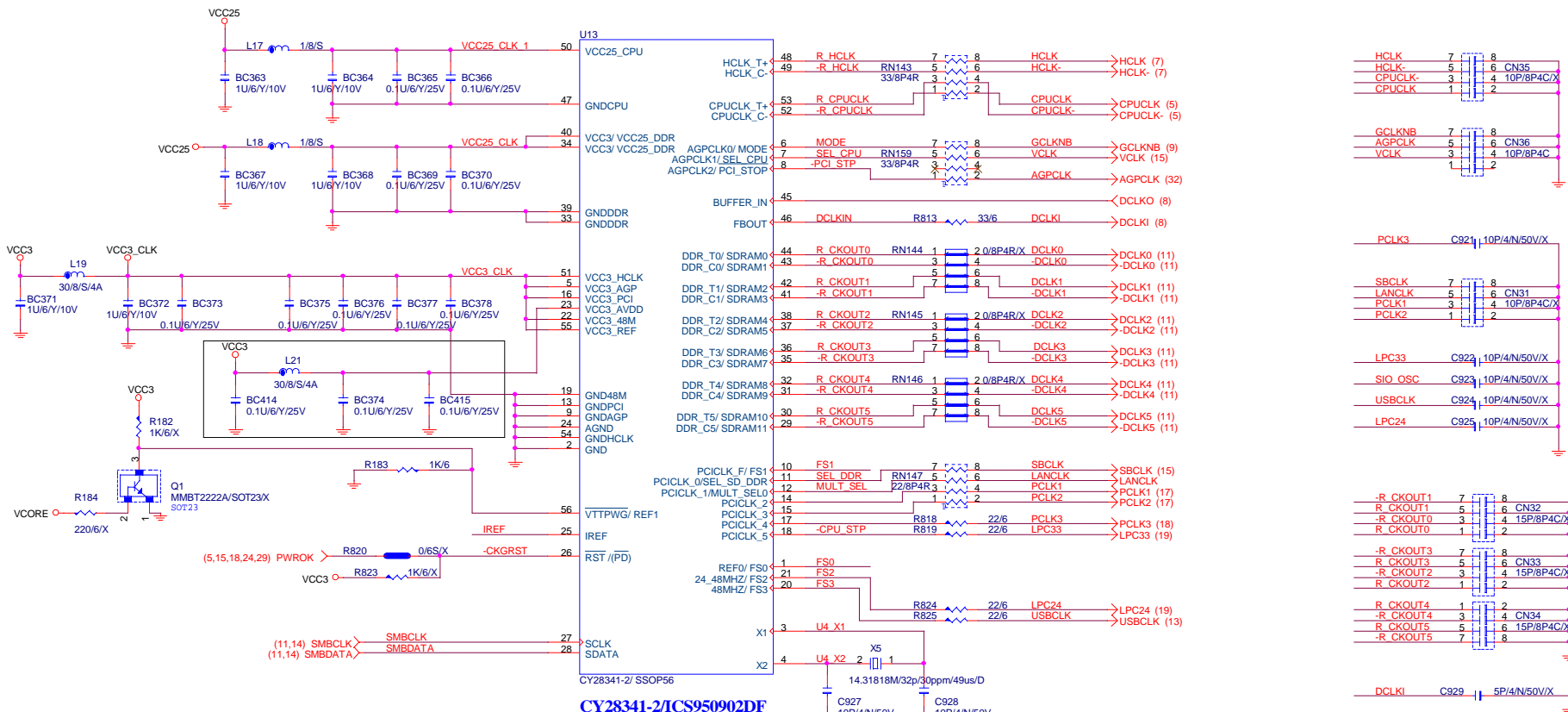
F/SDA1	F/SDA0	GTL Driving Strength
0	0	WEAK
0	1	MIDDLE WEAK
1	0	STRONG
1	1	STRONGEST

GPIOB
 0 ---> IOQ=12
 1 ---> IOQ=1



GPIOID = GTL Pull
 0 --> Enable
 1 --> Disable





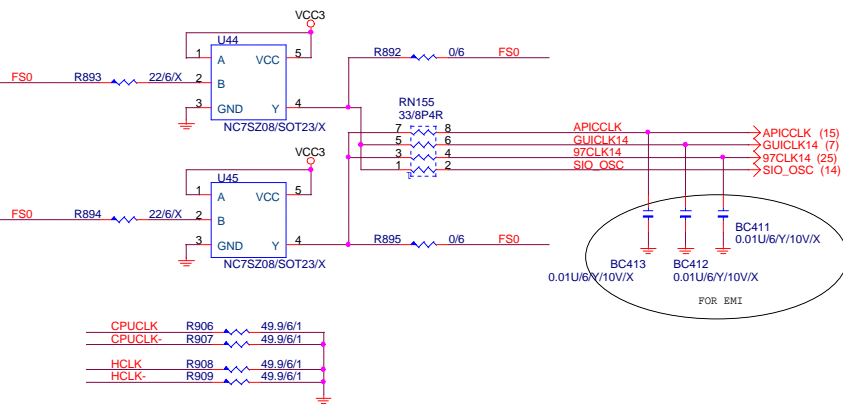
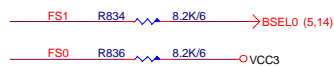
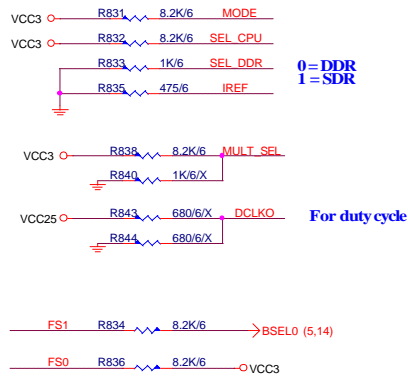
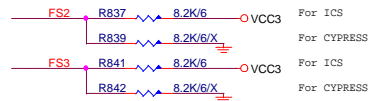
CLOCK FREQUENCY TABLE

Frequency table for CY28341-2 (Default)
 Frequency table for CY28341-3

FS3	FS2	FS1	FS0	CPUCLK	AGPCLK	PCICLK
0	0	0	1	100.00	66.70	33.30
0	0	1	1	133.33	66.67	33.33
1	1	1	0	200.00	66.67	33.33

Frequency table for ICS950902

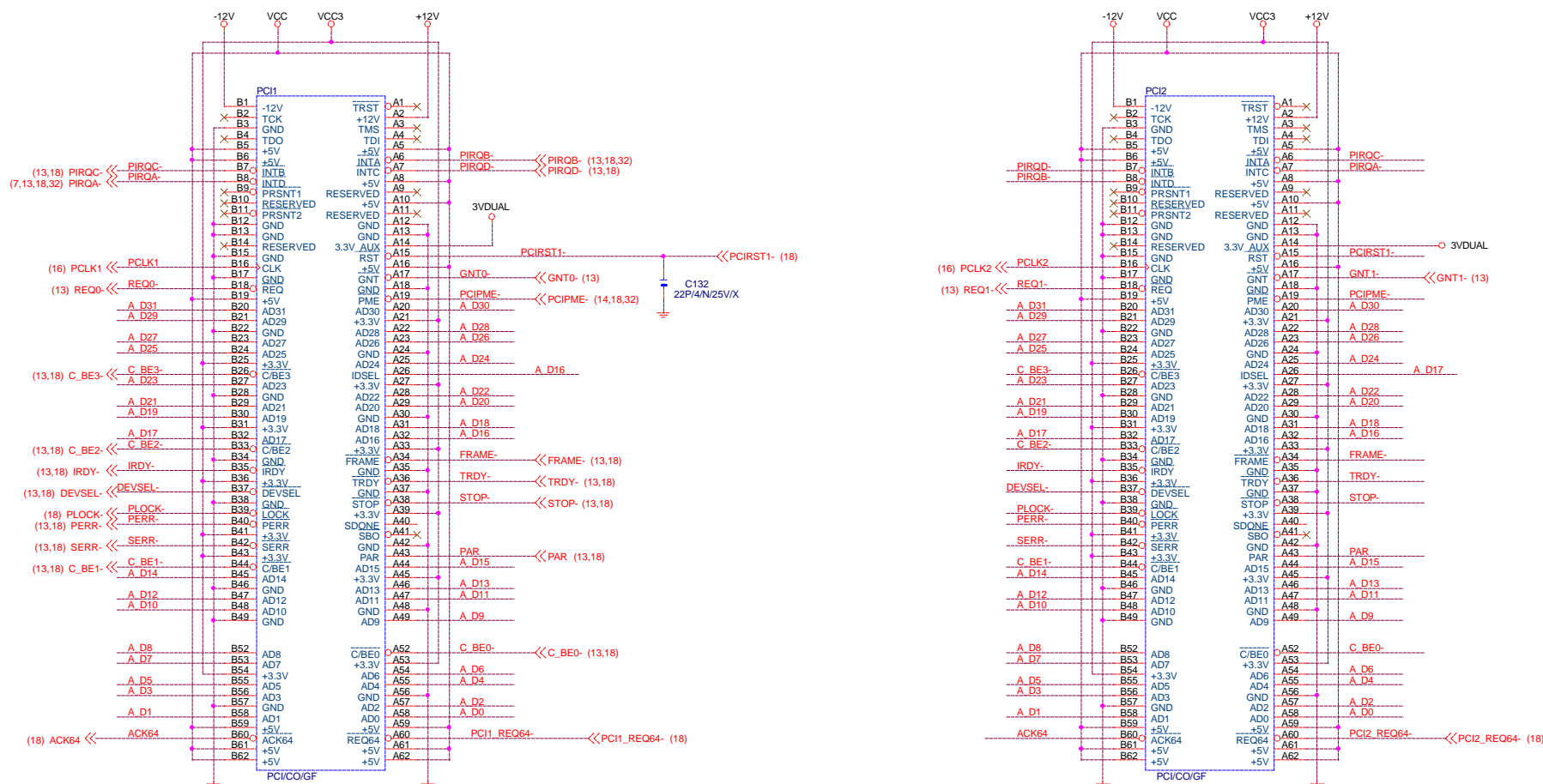
FS3	FS2	FS1	FS0	CPUCLK	AGPCLK	PCICLK
1	1	0	1	100.00	66.60	33.30
1	1	1	1	133.30	66.60	33.30
1	1	1	0	200.00	66.60	33.30



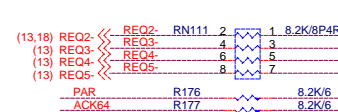
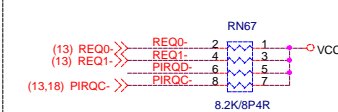
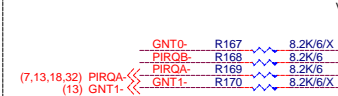
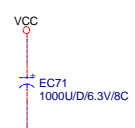
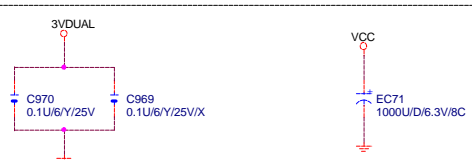
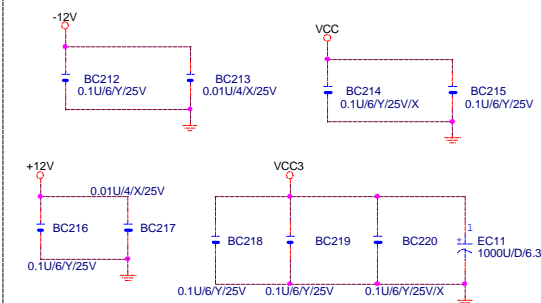
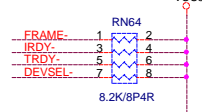
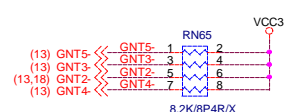
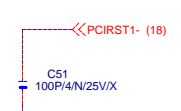
GIGABYTE

CLOCK GENERATOR

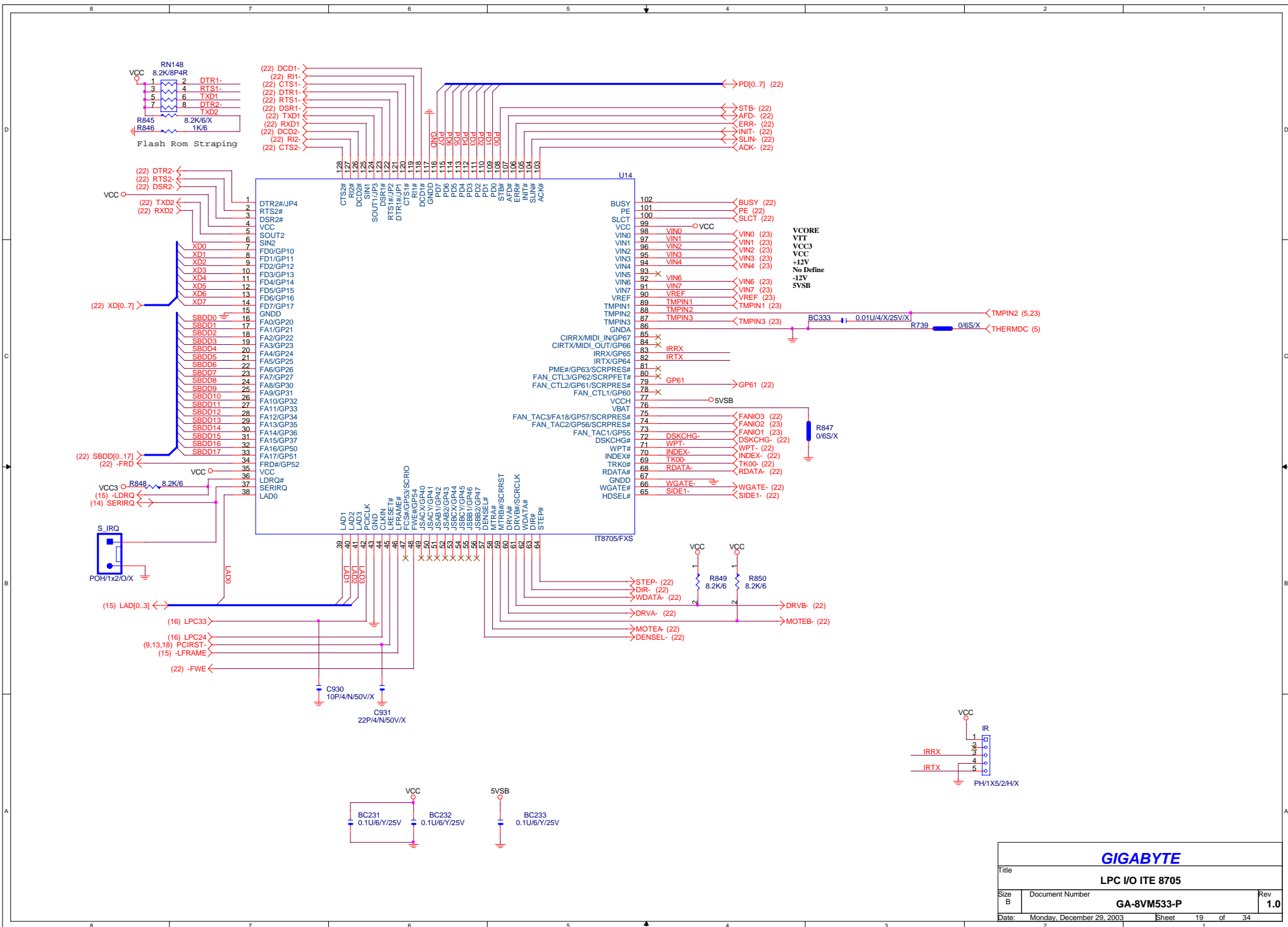
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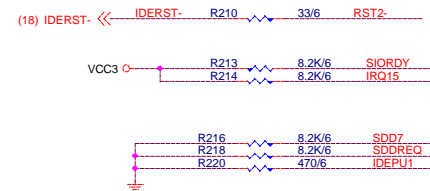
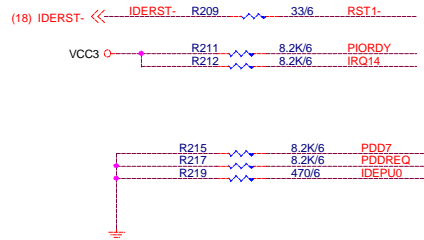
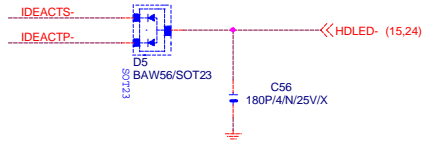
(13,18) A_D10..31 << A_D10_31



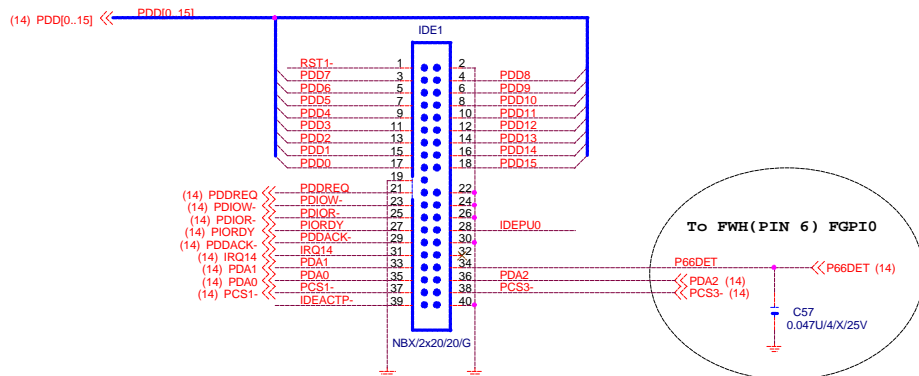
GIGABYTE		
PCI SLOT 1/2		
Title		
Size B	Document Number	Rev
	GA-8VM533-P	1.0
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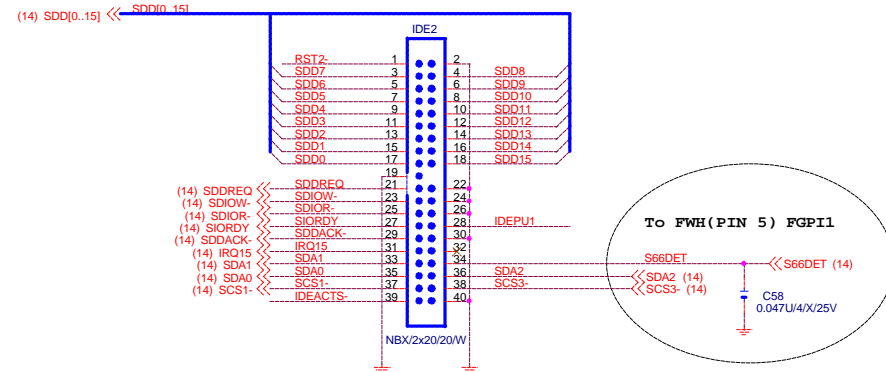
GIGABYTE		
Title LPC I/O ITE 8705		
Size B	Document Number GA-8VM533-P	Rev 1.0
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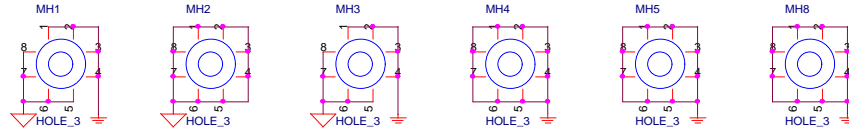
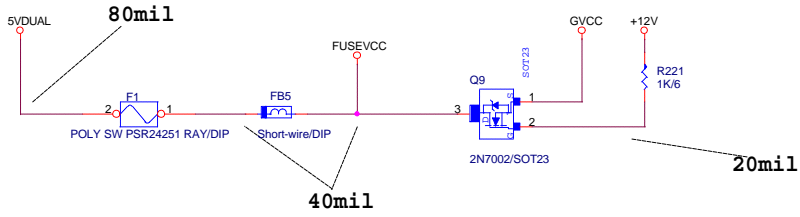
PRIMARY IDE CONNECTOR



SECONDARY IDE CONNECTOR

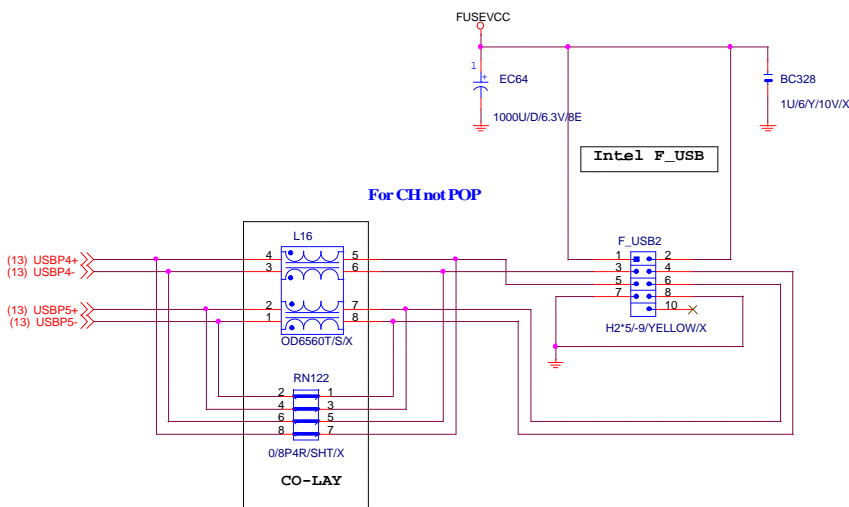
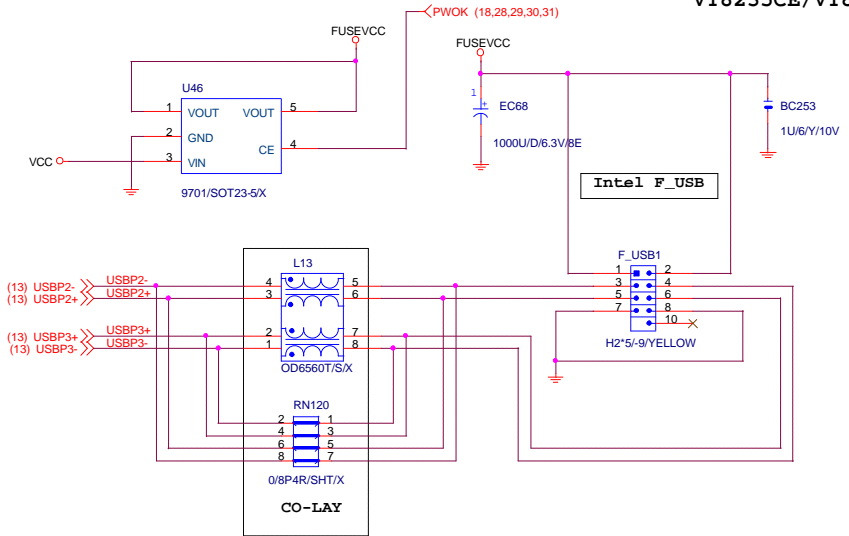


GIGABYTE		
Title IDE CONNECTOR		
Size B	Document Number GA-8VM533-P	Rev 1.0
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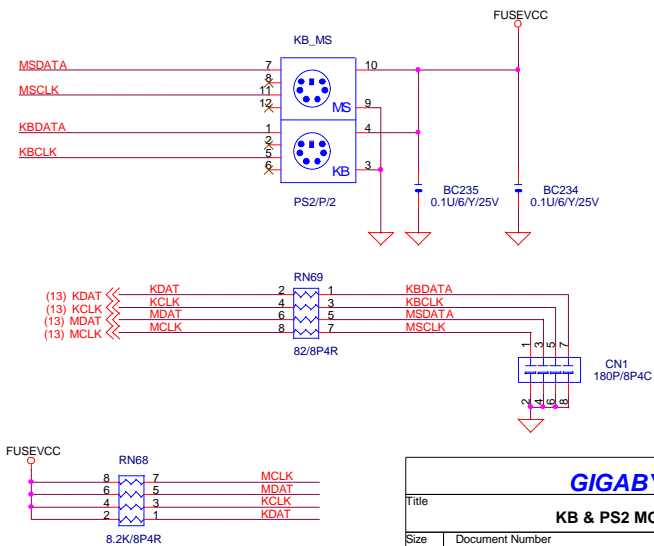
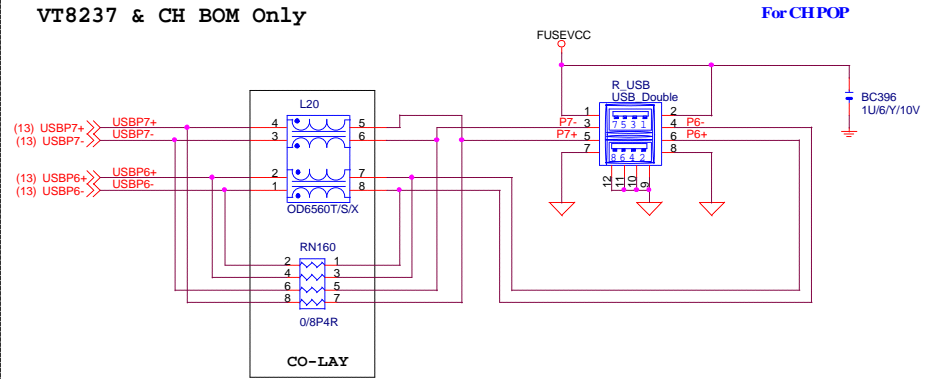
FRONT USB CONN

VT8235CE/VT8237 USB2.0



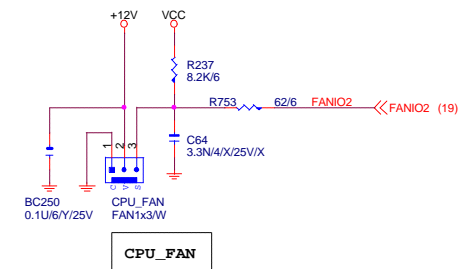
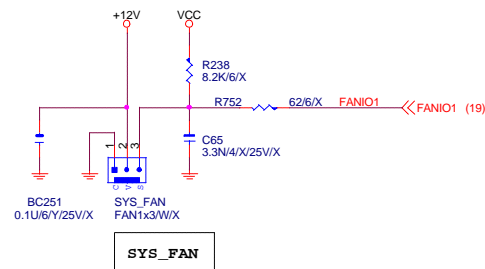
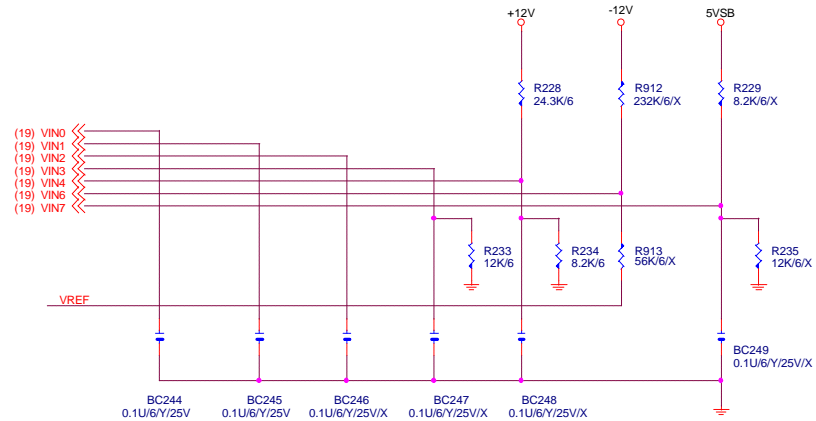
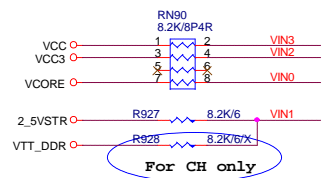
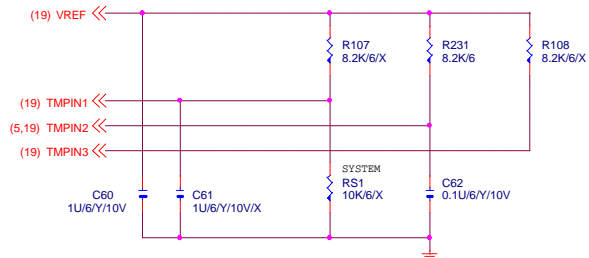
REAR USB CONN

VT8237 & CH BOM Only

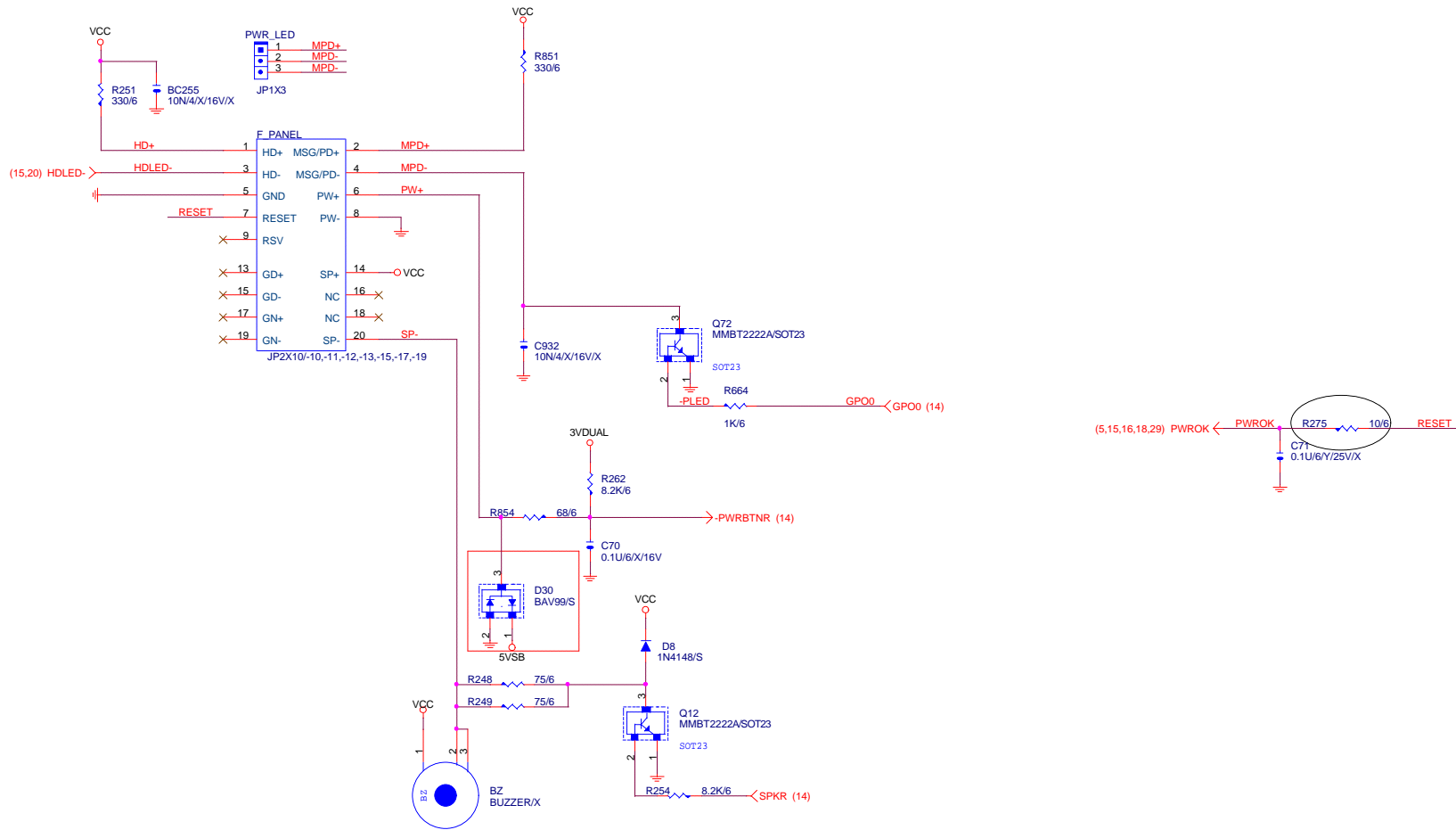


GIGABYTE		
Title KB & PS2 MOUSE & IR		
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Hardware Monitor circuits



GIGABYTE		
Title FAN/ HW MONITOR		
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States for a single-color power LED

LED States	ACPI States	GPO25	GPO27	GPO35
OFF	S1, S3, S5	1	1	NO1
Steady Green	S0	0	1	0
Blinking Green	S0(message waiting)	0	B	0

NO1 GPO35 只需在
S1 PROGRAMMING
← LOW

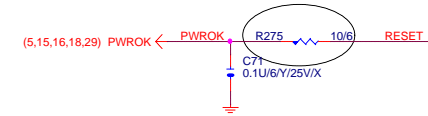
States for a dual-color power LED

LED States	ACPI States	GPO25	GPO27	GPO35
OFF	S5	1	1	X
Steady Green	S0	0	1	0
Blinking Green	S0(message waiting)	0	B	0
Steady Yellow	S1, S3	1	0	NO1
Blinking Yellow	S1, S3(message waiting)	1	B	NO1

(GPO28 DEFAULT HIGH, RESUME WELL)

States for green LED

LED States	ACPI States	GPO28
ON	S1, S3	0
OFF	S0, S5	1

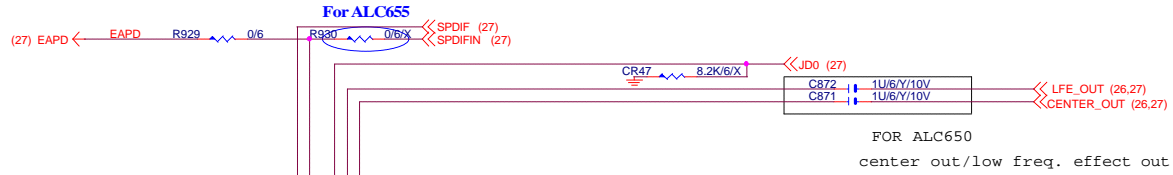
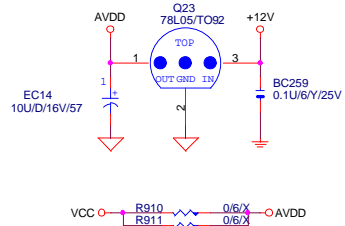


GIGABYTE

PANEL & STR LED

Title		
PANEL & STR LED		
Size B	Document Number	Rev
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AVDD

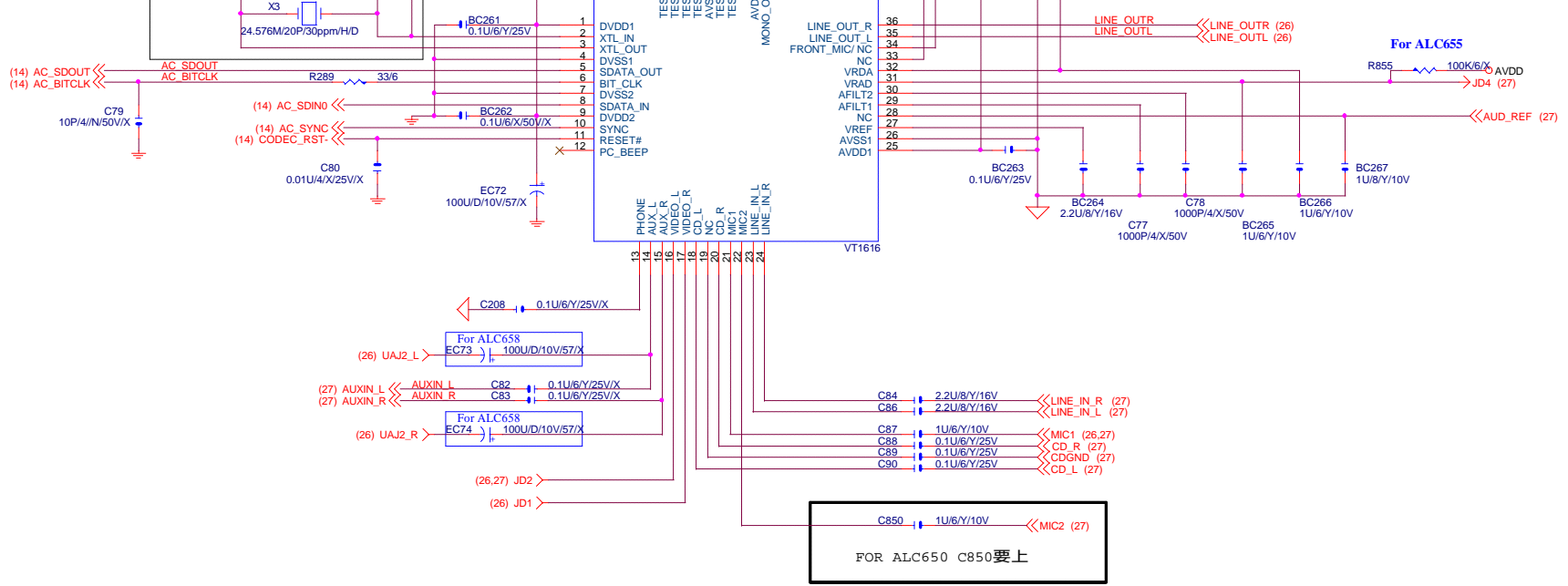
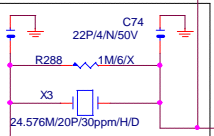


If 14.318MHZ external CLK is used
INSTALL R283

FOR 655/VT1617



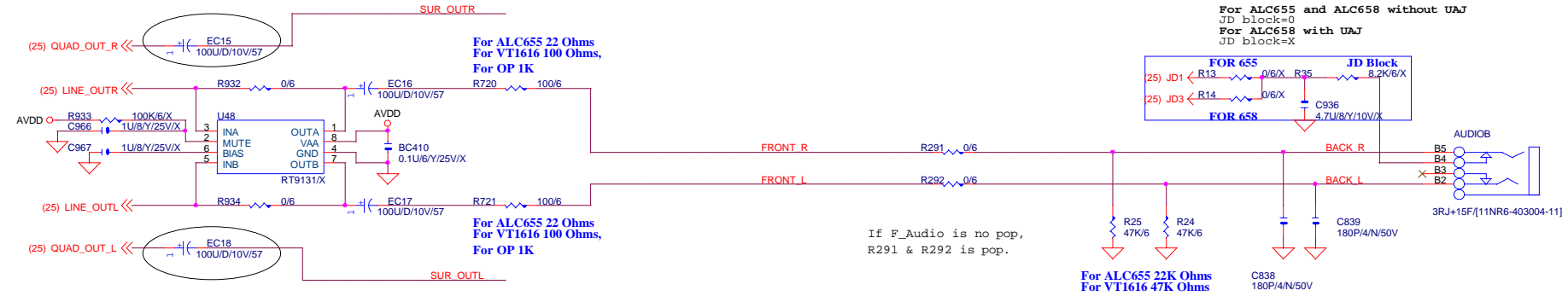
FOR VT1616



C850 1uF/6V/10V MIC2 (27)
FOR ALC650 C850要上

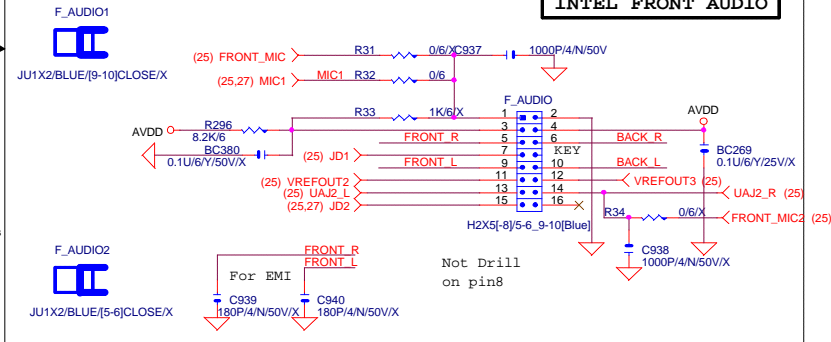
LINE-OUT

For ALC655 and ALC658 without UAJ
 JD_block=0
 For ALC658 with UAJ
 JD_block=X

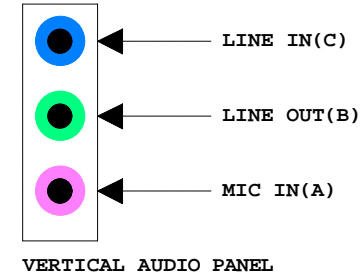


If F_Audio is no pop,
 R291 & R292 is pop.

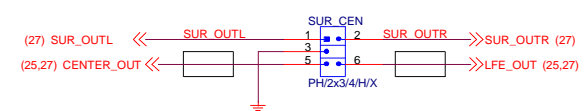
INTEL FRONT AUDIO



直立式Audio Jack

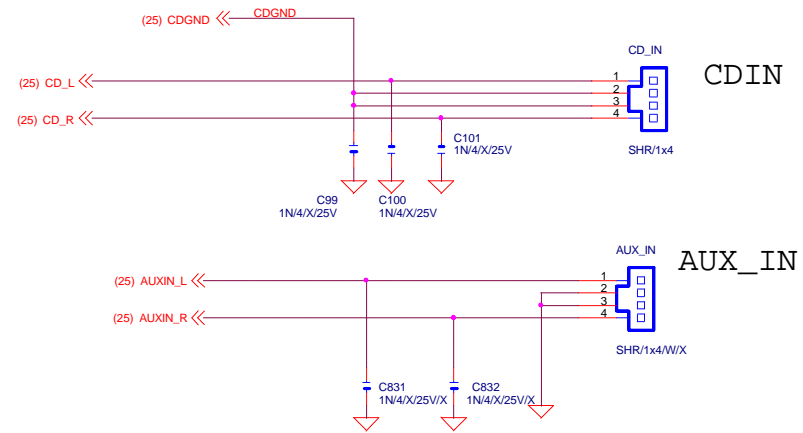
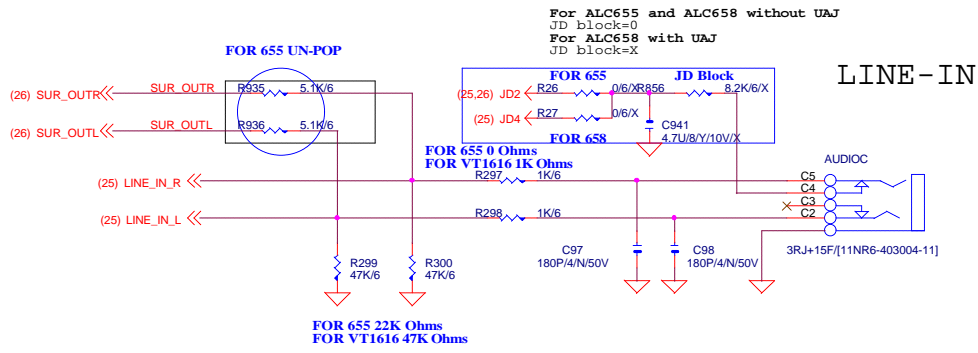


GBT 6 Chanel CONN

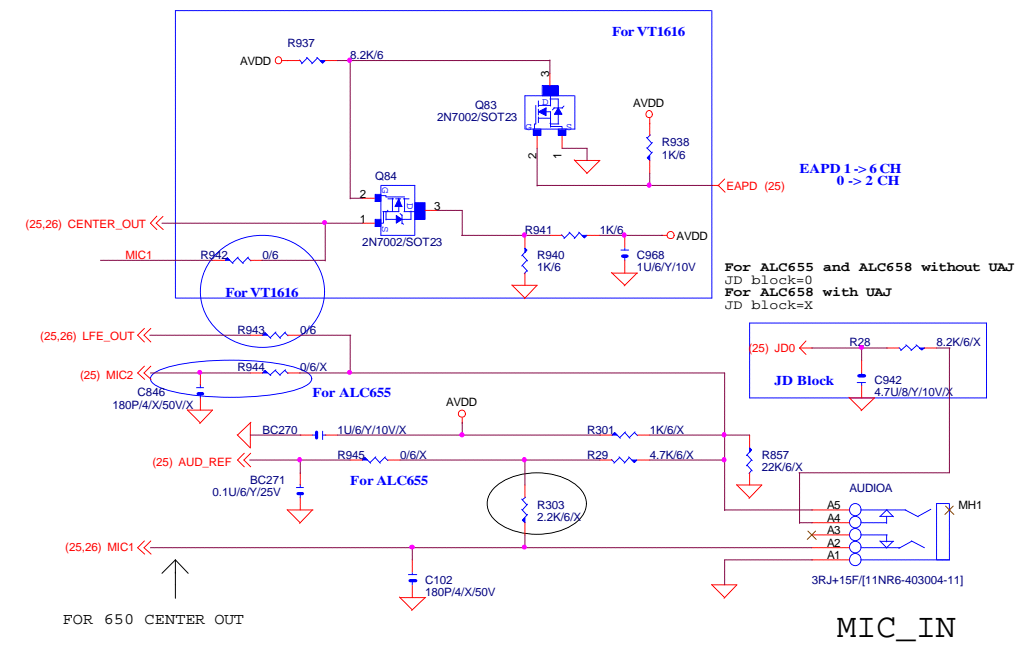
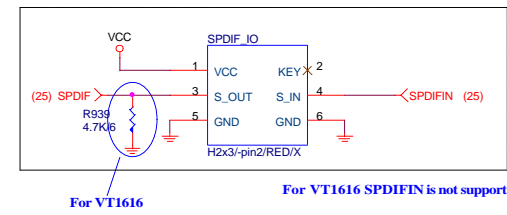


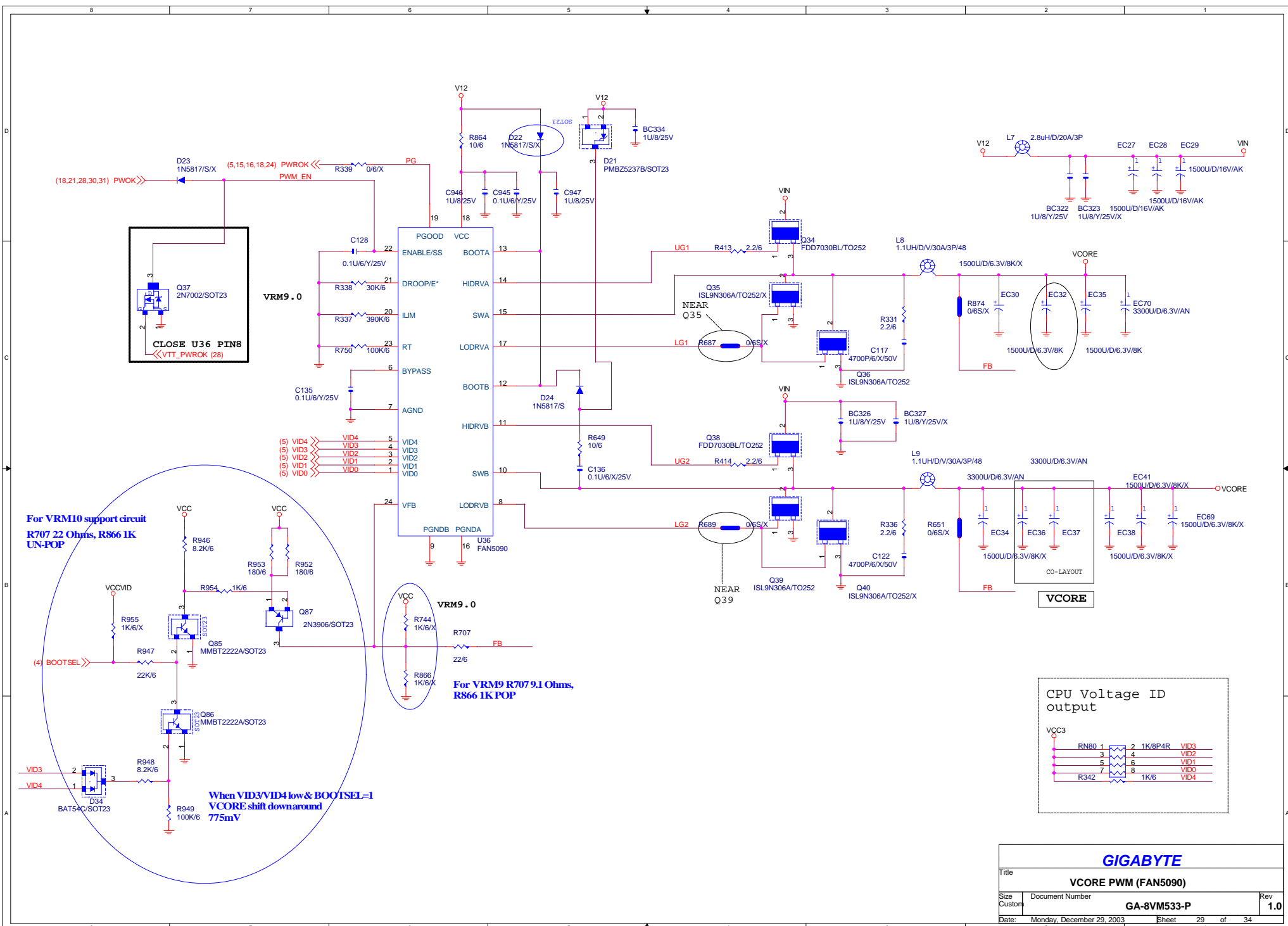
FOR SUPPORT 6 CHANNEL,
 SURROUND OUT
 SURR_CEN_LFE CENTER OUT, LOW
 FREQUENCY
 EFFECT OUT

GIGABYTE		
Title LJACK LINE OUT		
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SPDIF





(18,21,28,30,31) PWOK >>> D23 1N5817/S/X (5,15,16,18,24) PWROK <<< PWM_EN R339 0/6/X

CLOSE U36 PIN8
 Q37 2N7002/SOT23
 VTT_PWROK (28)

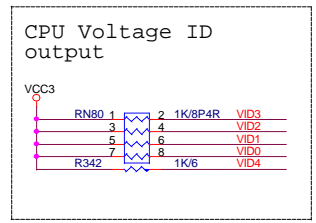
VRM9.0

(5) VID4 >>> VID3 >>> VID2 >>> VID1 >>> VID0 >>>

For VRM10 support circuit
 R707 22 Ohms, R866 1K UN-POP

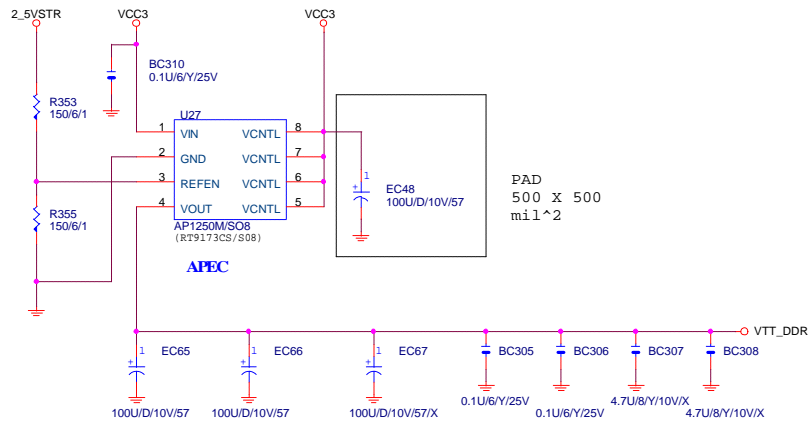
VRM9.0
 For VRM9 R707 9.1 Ohms, R866 1K POP

When VID3/VID4 low & BOOTSEL=1
 VCORE shift down around 775mV



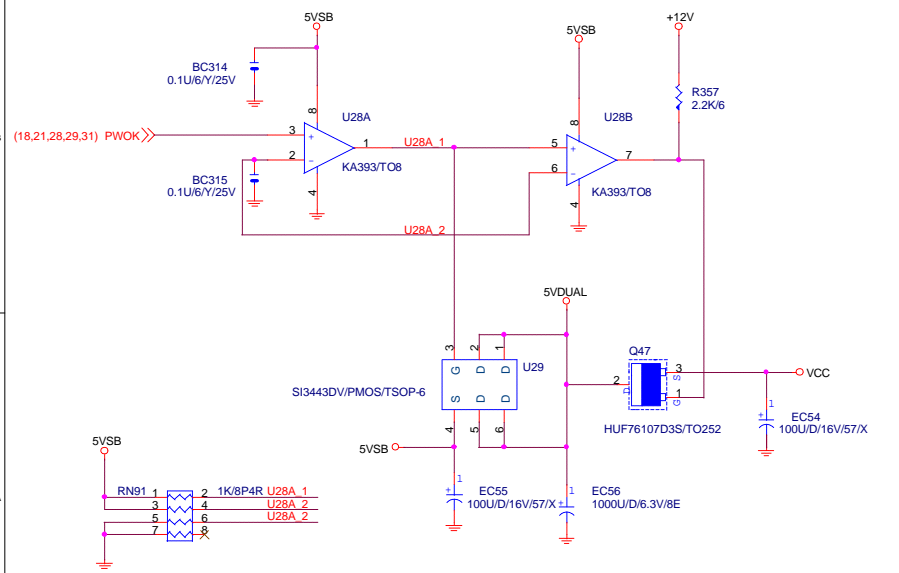
GIGABYTE			
Title VCORE PWM (FAN5090)			
Size Custom	Document Number GA-8VM533-P	Rev 1.0	
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1.25V VTT_DDR LINEAR SOLUTION

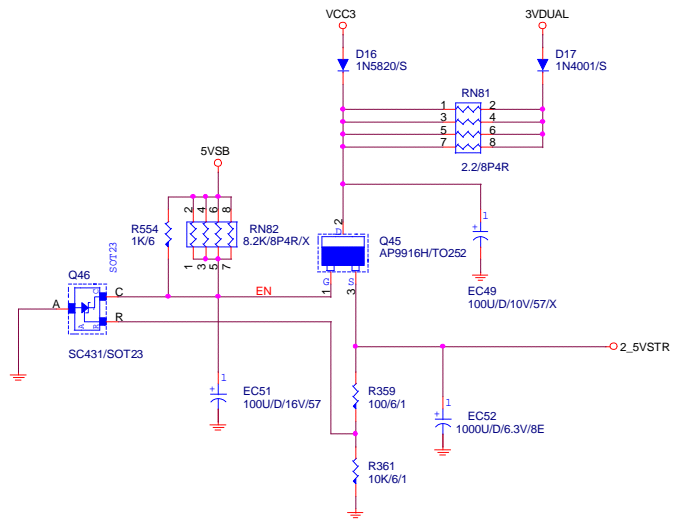


VTT_DDR

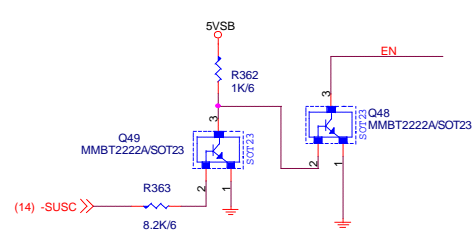
5VDUAL



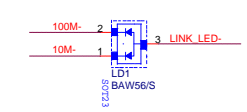
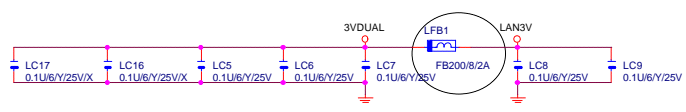
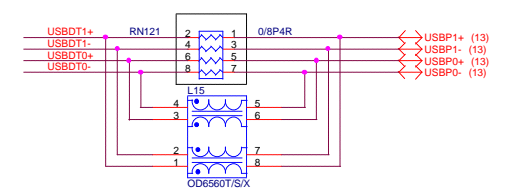
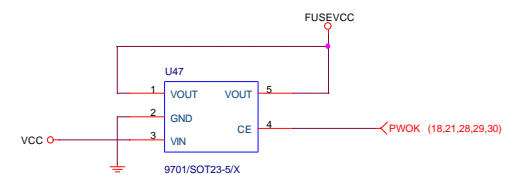
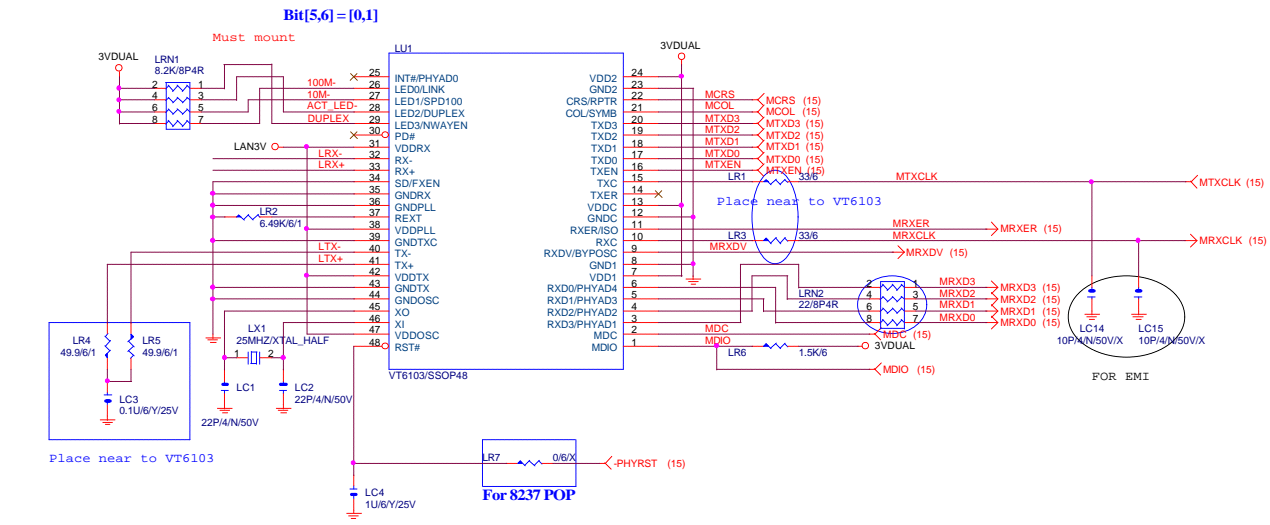
5VDUAL CIRCUIT



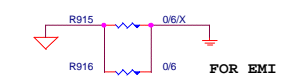
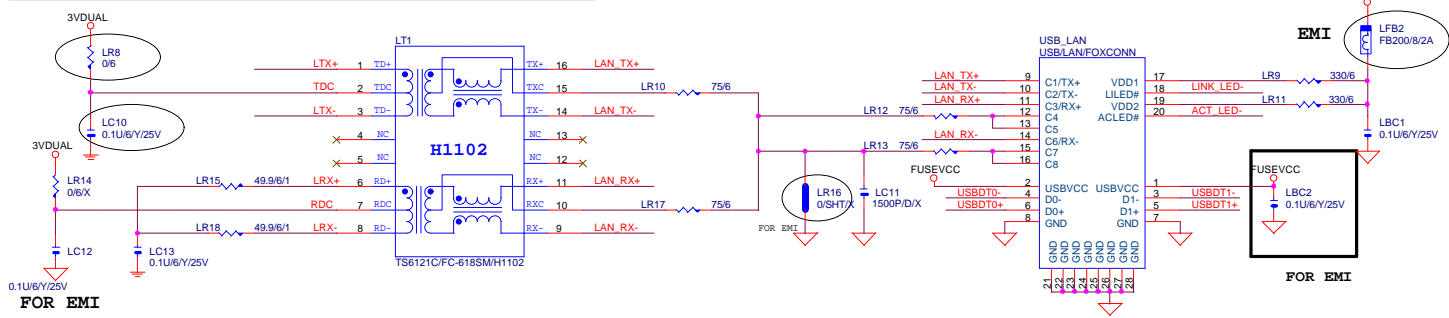
2_5VSTR



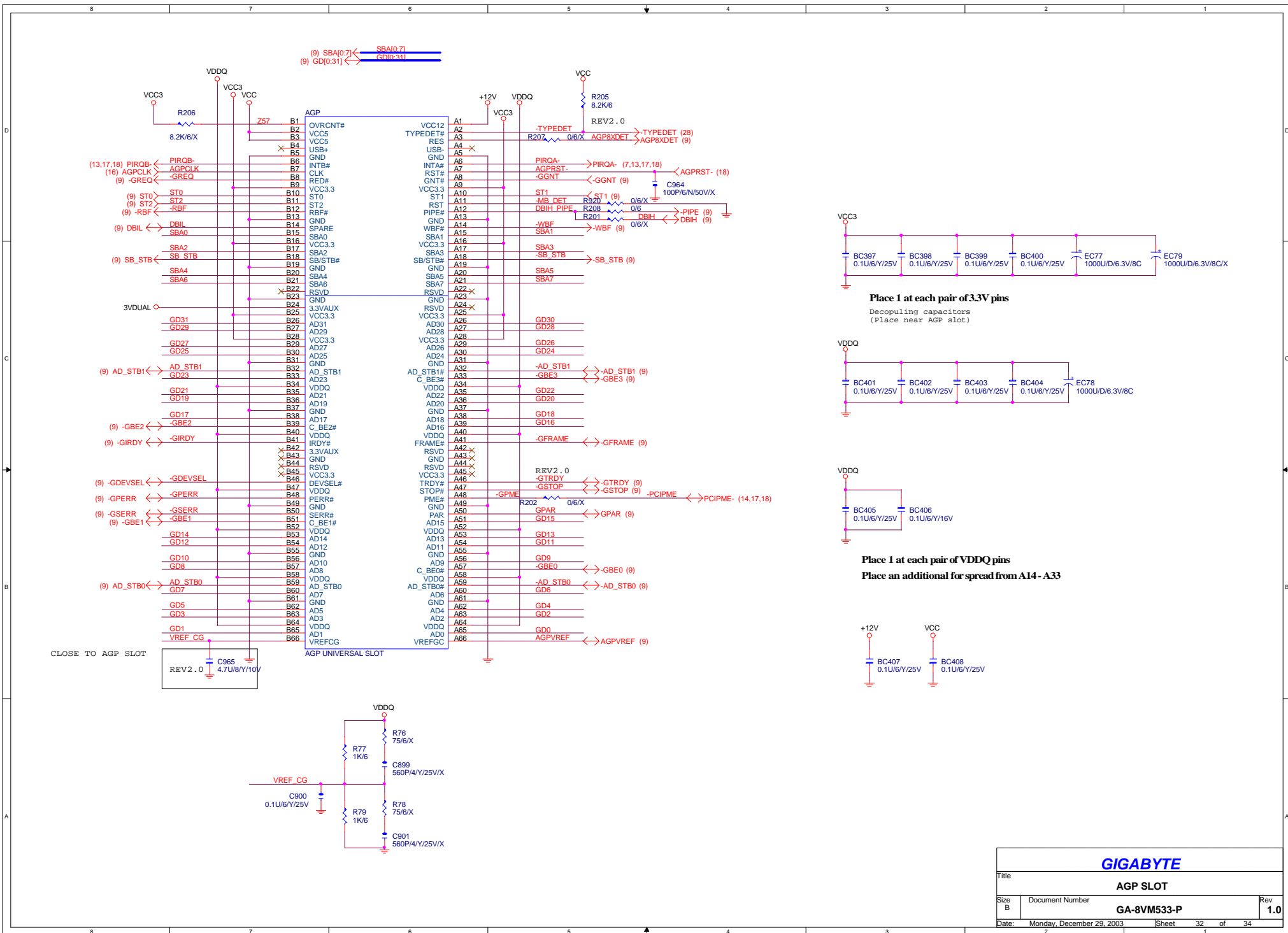
GIGABYTE		
DDR POWER		
Title		
Size B	Document Number	Rev
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10/100M BASE TRANSFORMER(1:1)+FOXCONN(RJ45+USBX2)



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Size			PHY VT6103	
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				1.0



GIGABYTE GA-8VM533-P GPIO LIST

Revision 1.0

SHEET TITLE

SHEET	TITLE
GPI	
PIRQA-	PULL 8.2K TO VCC3
PIRQB-	PULL 8.2K TO VCC3
PIRQC-	PULL 8.2K TO VCC3
PIRQD-	PULL 8.2K TO VCC3
GPI1	P66DET (PRIMARY IDE DETECT)
GPI4	S66DET (SECONDARY IDE DETECT)
GPI8	GPIO8 (ID SETTING)
GPI14	GPIO14 (CLR_PWD)
GPI22	GPIO22 (ID SETTING)
GPI23	GPIO23 (ID SETTING)
GP62	INFO_LINK (LPC)

SHEET TITLE

SHEET	TITLE
GPO	
GPO0	POWER LED CONTROL (MAIN)
GPO1	POWER LED CONTROL
GPO15	OFF_PD (PWR LED ON/OFF)
GP60	GREEN LED (LPC)
GP61	BIOS_WP (LPC)

GIGABYTE GA-8VM533-P PCI ROUNTING LIST

Revision 1.0

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

GIGABYTE		
Title		
PCI ROUNT LIST		
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