

Model Name: GA-C1007UN-D

Revision 1.0

SHEET

TITLE

01	COVER SHEET
02	BOM & PCB MODIFY HISTORY
03	BLOCK DIAGRAM
04	Celeron1007U PCIE_DMI_FDI_eDP
05	Celeron1007U MEM Controller
06	Celeron1007U PWR
07	Celeron1007U GND
08	DDR III CHANNEL A,B
09	NM70 FDI, DMI,USB,PCI
10	NM70 DISPLAY,GPIO
11	NM70 HOST,SATA,PCI
12	NM70 CLK BUFFER,PCIE
13	NM70 PWR
14	NM70 GND
15	IT8892E
16	PCI SLOT
17	ITE 8728 LPC IO
18	COMA,KB_MS,R_USB,-PROCHOT
19	HWM,FAN CTRL,OV,
20	DUAL BIOS
21	FP,FUSB,SPK,SATALED
22	Realtek ALC887-VD2
23	REAR AUDIO JACK
24	Realtek RTL8111F_A
25	Realtek RTL8111F_B
26	DISCRETE POWER
27	ATX

SHEET

TITLE

28	RT8120_CPU_VTT
29	VCORE PWM ISL95836_1
30	VCORE PWM ISL95836_2
31	LPT,COMB
32	JMB368
33	HDMI

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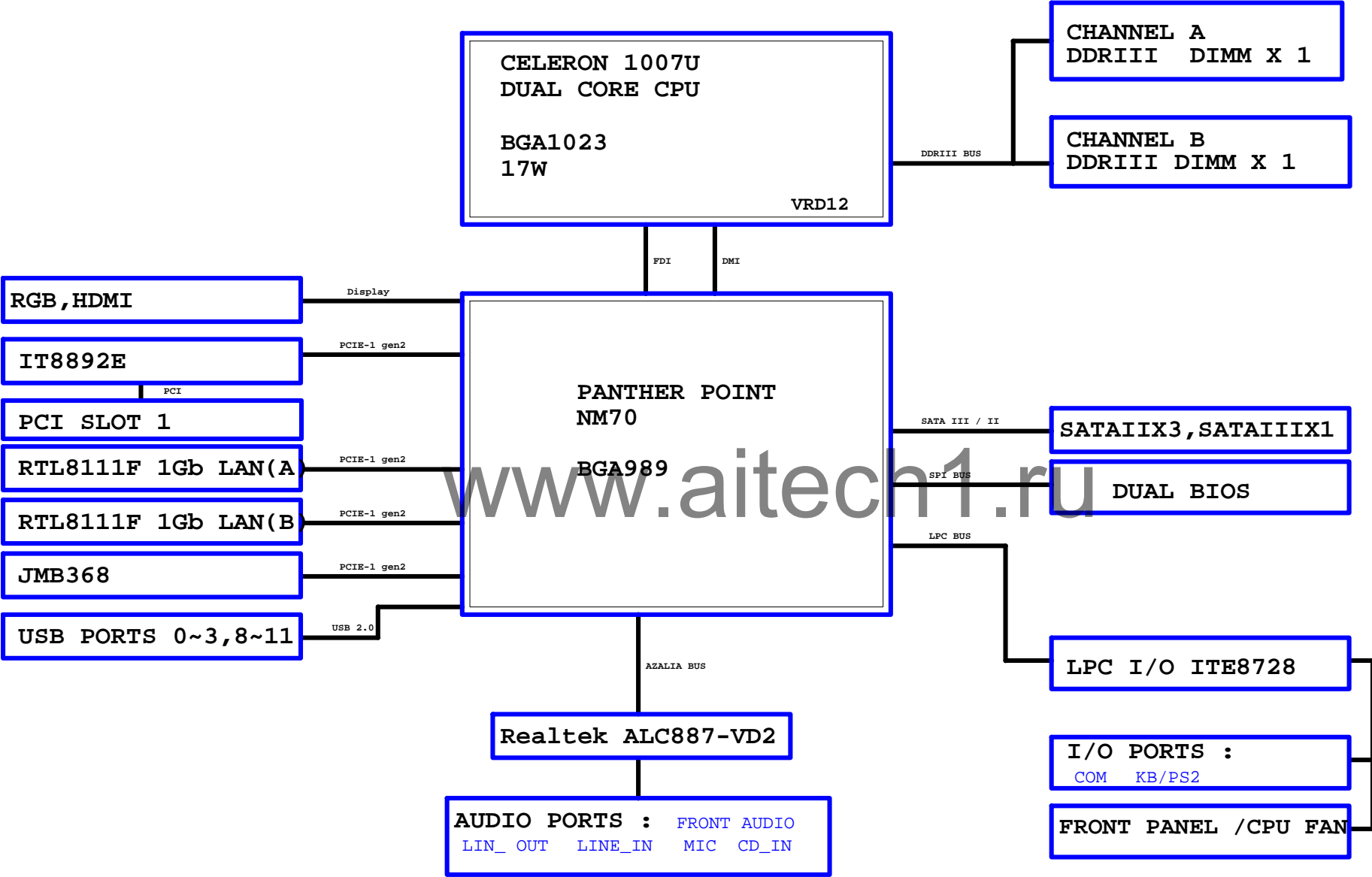
Gigabyte Technology

Title			
Cover Sheet			
Size	Document Number	Rev	
Custom	GA-C1007U7N-D	1.0	
Date:	Thursday, February 21, 2013	Sheet	1 of 33

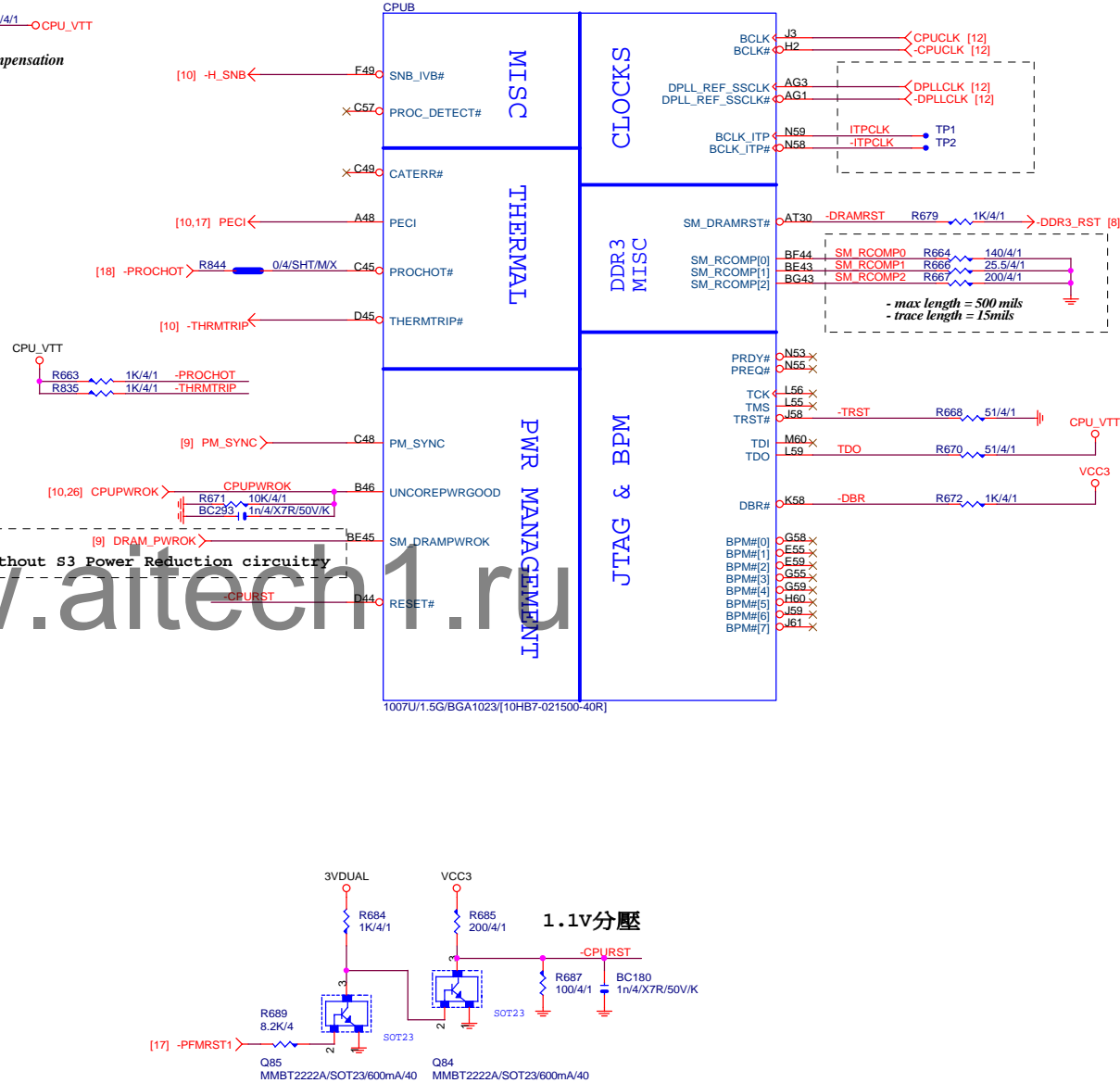
D

CD

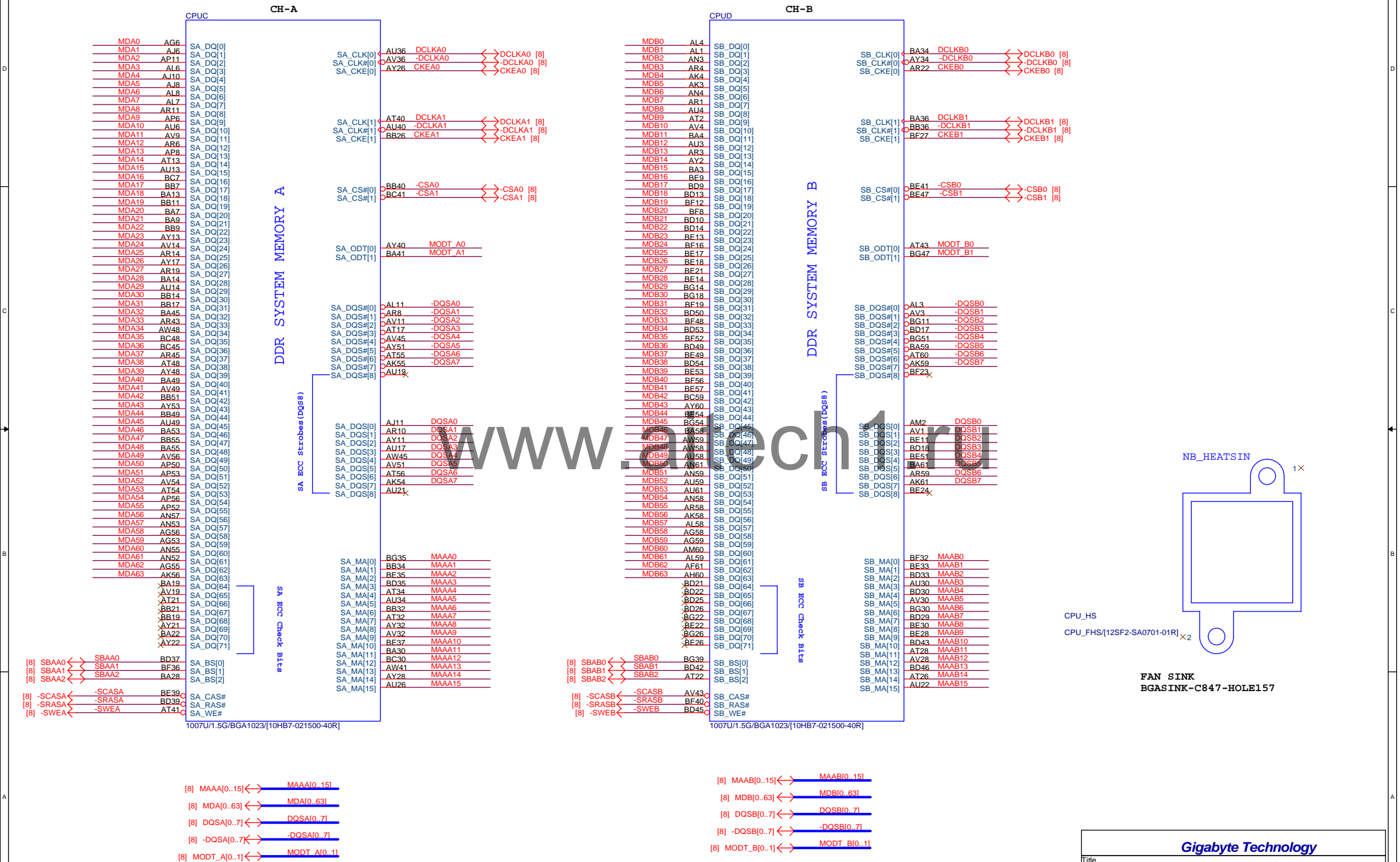
BLOCK DIAGRAM



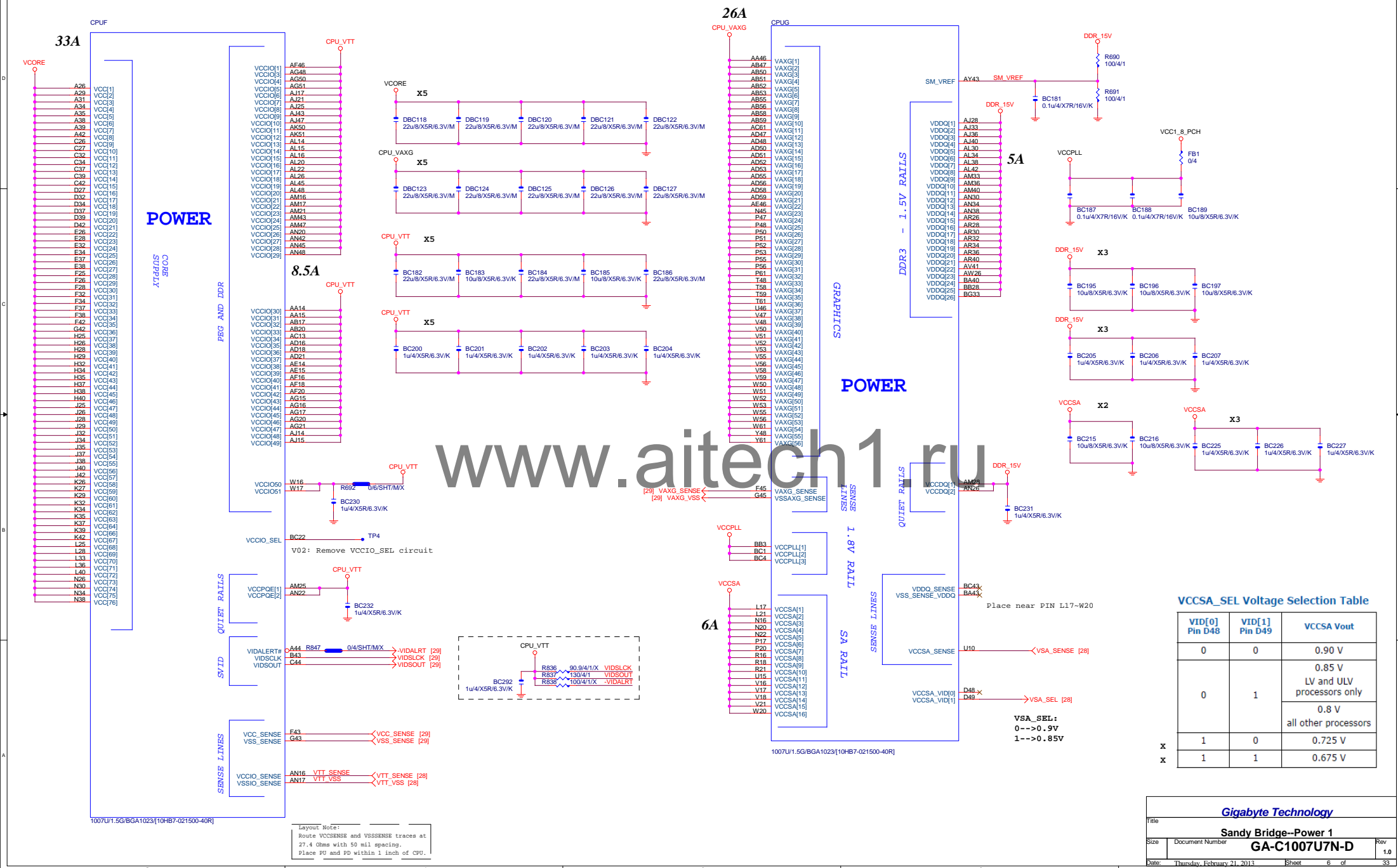
Ivy Bridge 2C BGA Processor (CLK,MISC,JTAG)



Ivy Bridge 2C BGA Processor (DDR3)

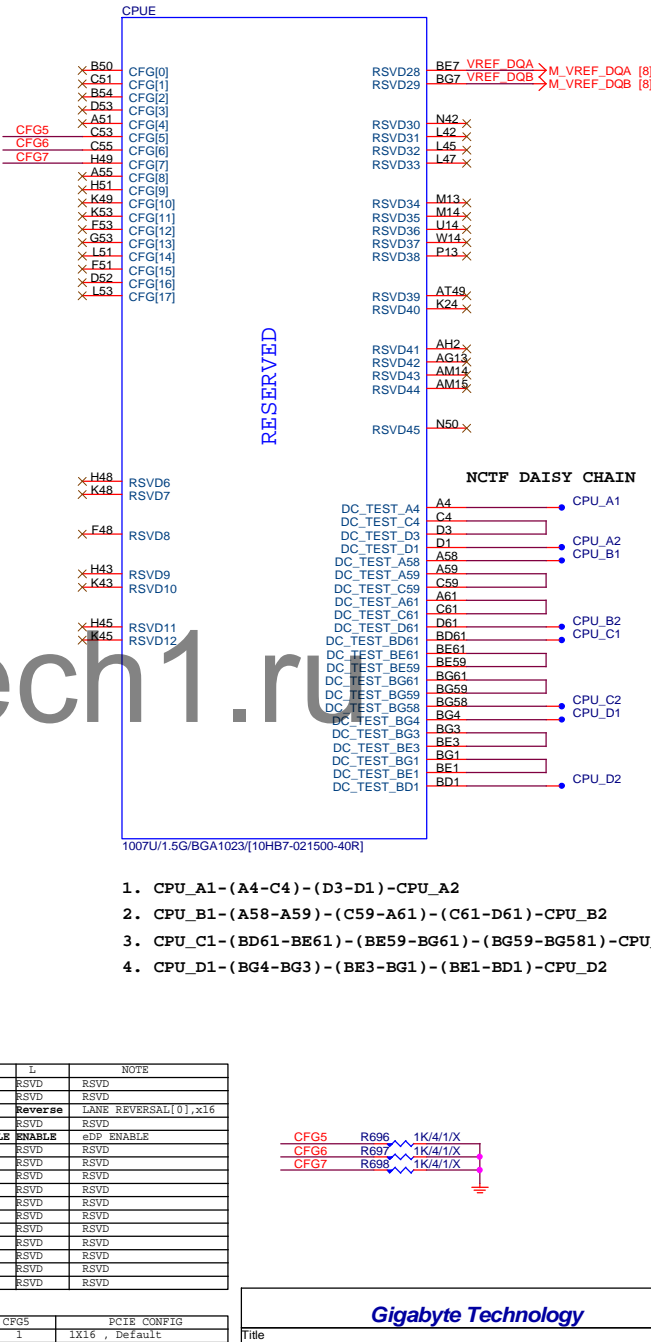
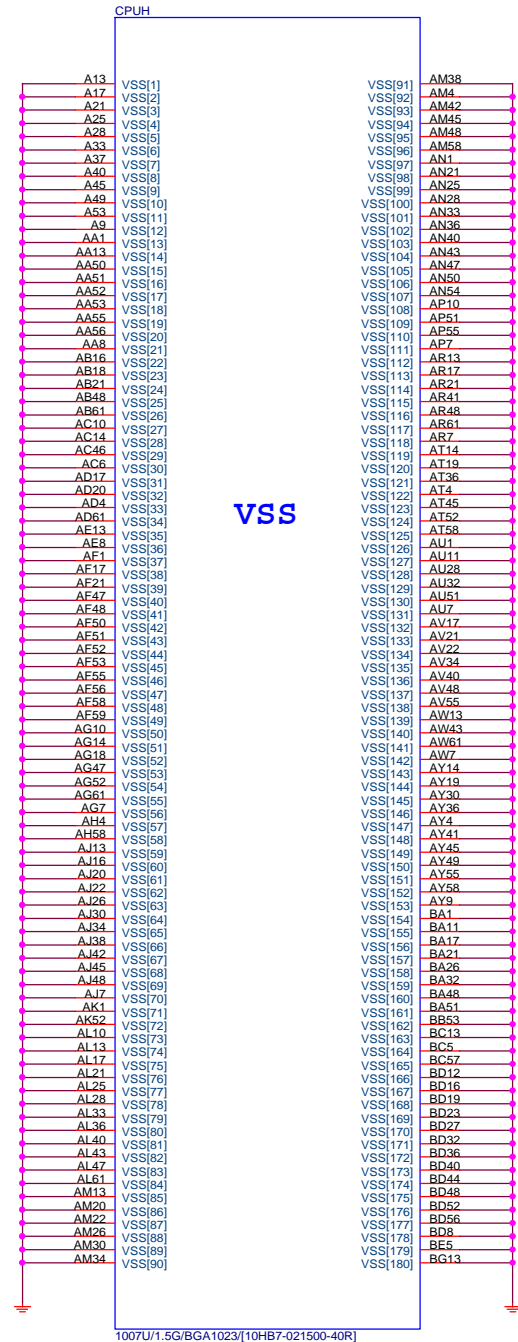


Ivy Bridge 2C BGA Processor (Power)



Ivy Bridge 2C BGA Processor (GND)

Ivy Bridge 2C BGA Processor (Reserved)



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CFG	H	L	NOTE
0	RSVD	RSVD	RSVD
1	RSVD	RSVD	RSVD
2	NORM	Reverse	LANE REVERSAL[0],x16
3	RSVD	RSVD	RSVD
4	DISABLE	ENABLE	eDP ENABLE
7	RSVD	RSVD	RSVD
8	RSVD	RSVD	RSVD
9	RSVD	RSVD	RSVD
10	RSVD	RSVD	RSVD
11	RSVD	RSVD	RSVD
12	RSVD	RSVD	RSVD
13	RSVD	RSVD	RSVD
14	RSVD	RSVD	RSVD
15	RSVD	RSVD	RSVD
16	RSVD	RSVD	RSVD
17	RSVD	RSVD	RSVD



CFG6	CFG5	PCIE CONFIG
1	1	1X16, Default
1	0	2X8
0	1	RSVD
0	0	X8,X4,X4

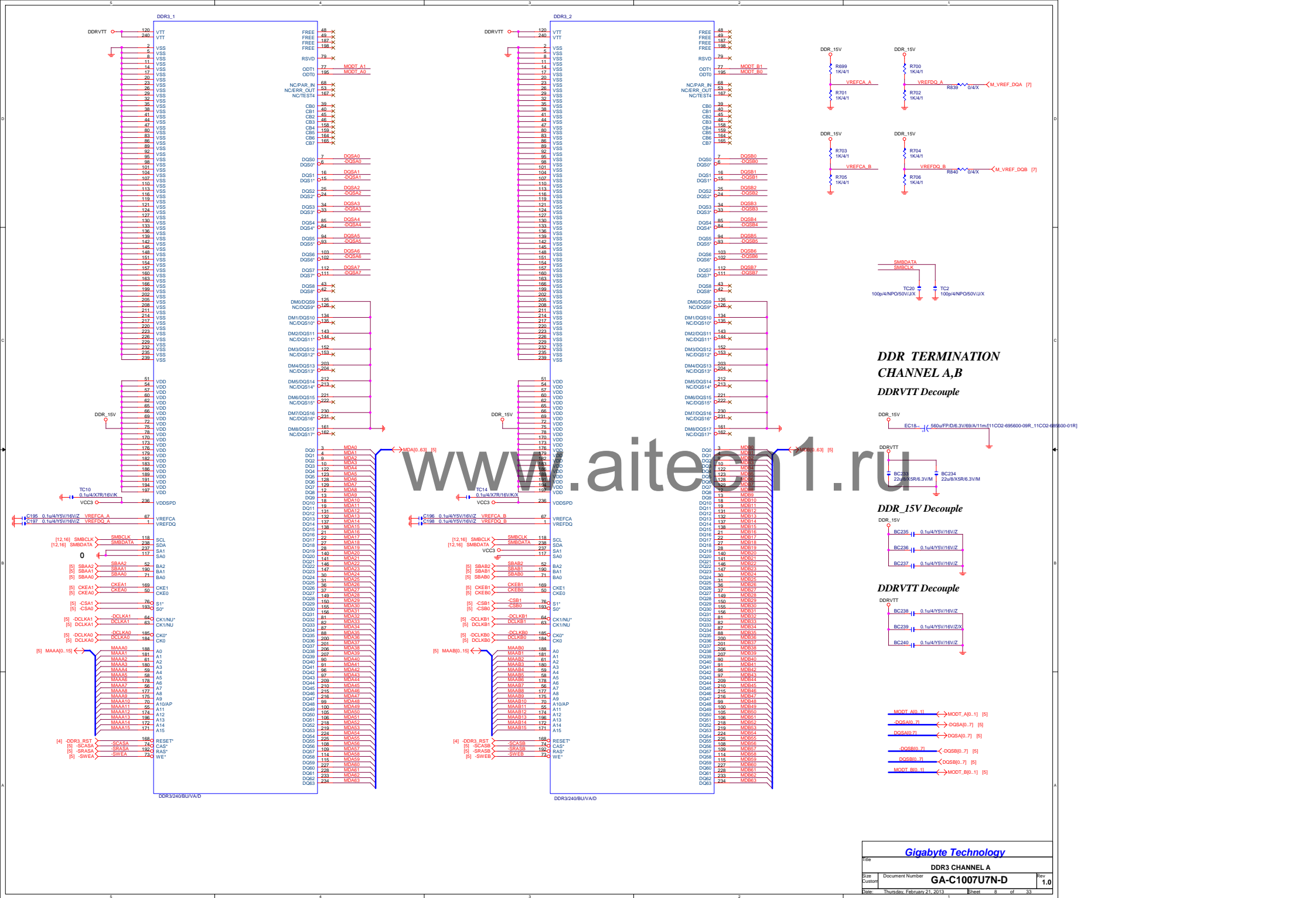
CFG 0-17 all internal PULL-UP

Gigabyte Technology

Title: Sandy Bridge --GND

Size: Document Number: **GA-C1007U7N-D** Rev: 1.0

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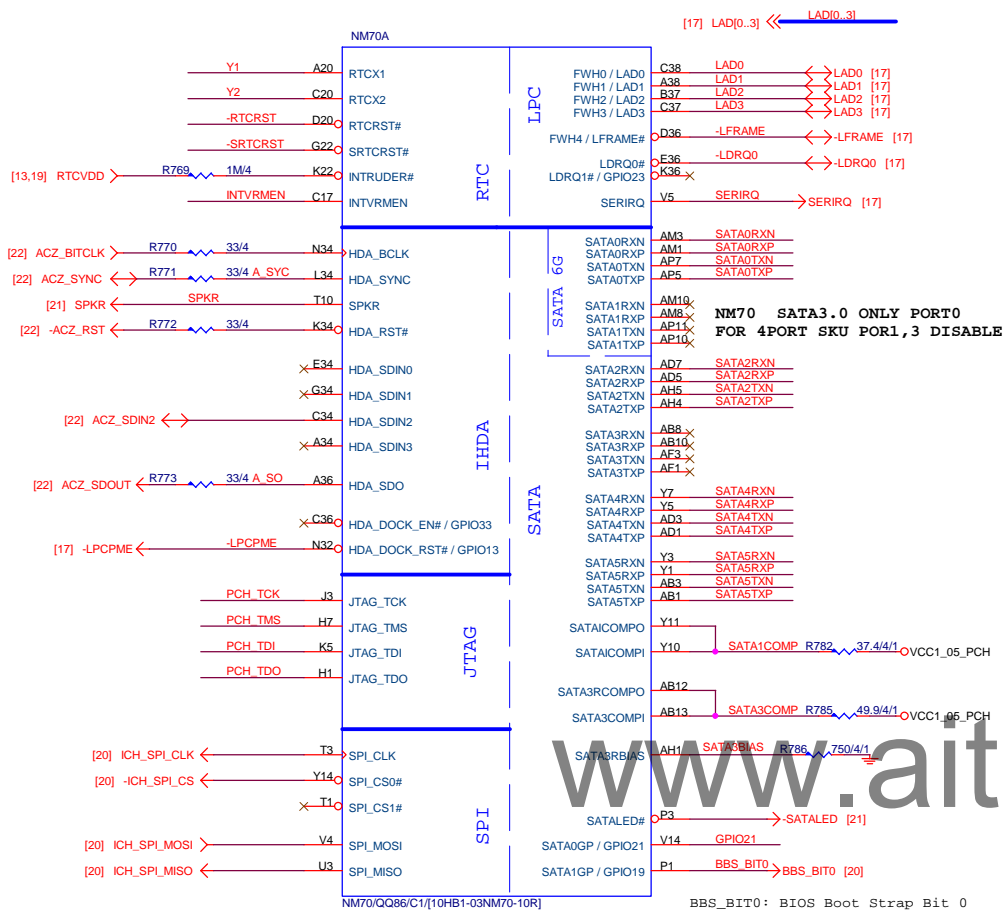
DDR TERMINATION
CHANNEL A,B
DDRVTT Decouple

DDR 15V Decouple

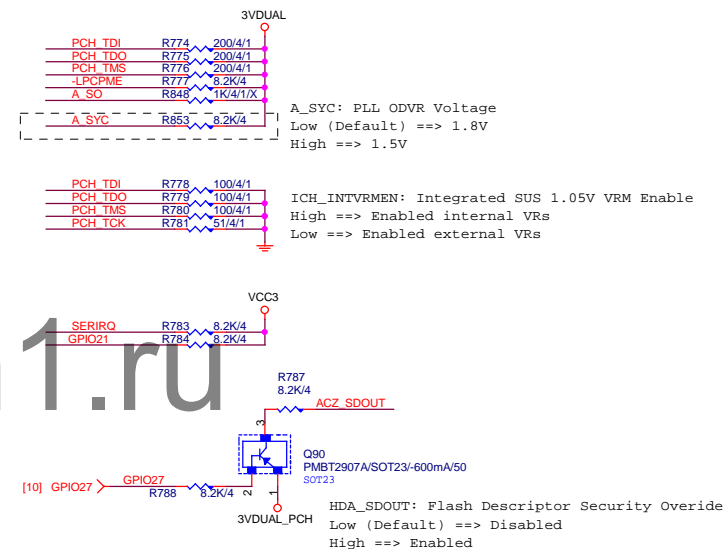
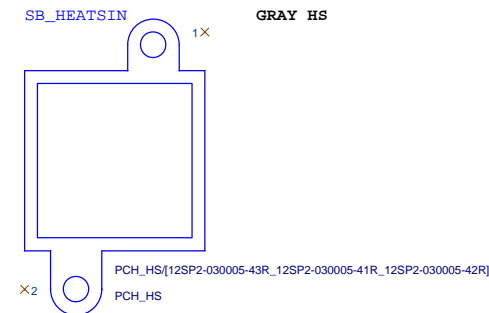
DDRVTT Decouple



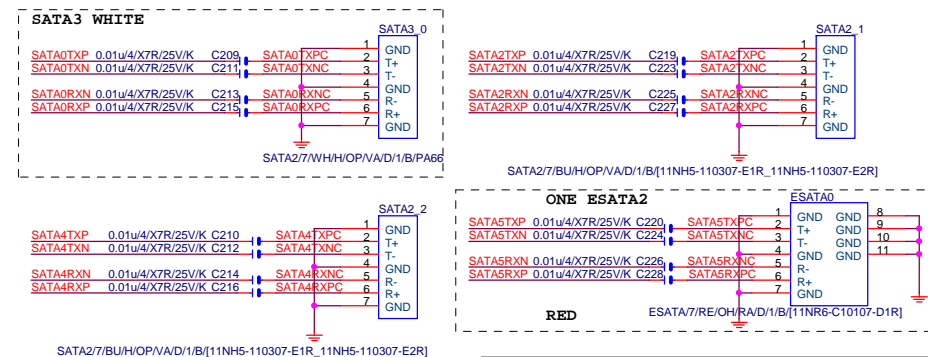
PCH A



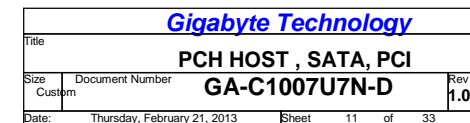
PCH HS

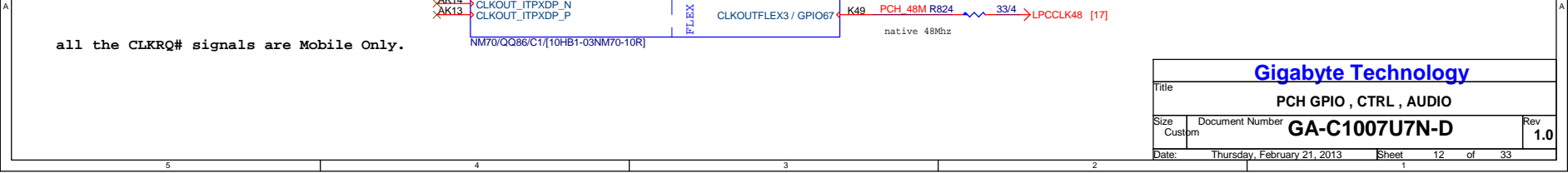


SATA CONN



H1X7-SATA2-HS-MASK





NM70H		
H5	VSS[0]	
AA17	VSS[1]	AK38
AA2	VSS[2]	AK4
AA3	VSS[3]	AK42
AA33	VSS[4]	AK46
AA34	VSS[5]	AK8
AB11	VSS[6]	AL16
AB14	VSS[7]	AL17
AB39	VSS[8]	AL19
AB4	VSS[9]	AL2
AB43	VSS[10]	AL21
AB5	VSS[11]	AL23
AB7	VSS[12]	AL26
AC19	VSS[13]	AL27
AC2	VSS[14]	AL31
AC21	VSS[15]	AL33
AC24	VSS[16]	AL34
AC33	VSS[17]	AL48
AC34	VSS[18]	AM11
AC48	VSS[19]	AM14
AD10	VSS[20]	AM36
AD11	VSS[21]	AM39
AD12	VSS[22]	AM43
AD13	VSS[23]	AM45
AD19	VSS[24]	AM7
AD24	VSS[25]	AN2
AD26	VSS[26]	AN29
AD27	VSS[27]	AN3
AD33	VSS[28]	AN31
AD34	VSS[29]	AP12
AD36	VSS[30]	AP19
AD37	VSS[31]	AP28
AD38	VSS[32]	AP2
AD39	VSS[33]	AP38
AD4	VSS[34]	AP4
AD40	VSS[35]	AP42
AD42	VSS[36]	AP46
AD43	VSS[37]	AP8
AD46	VSS[38]	AR2
AD8	VSS[39]	AR48
AE2	VSS[40]	AT11
AE3	VSS[41]	AT13
AE10	VSS[42]	AT16
AE12	VSS[43]	AT22
AD14	VSS[44]	AT26
AD16	VSS[45]	AT28
AF16	VSS[46]	AT30
AF19	VSS[47]	AT32
AF24	VSS[48]	AT34
AF26	VSS[49]	AT39
AF27	VSS[50]	AT42
AF29	VSS[51]	AT46
AF31	VSS[52]	AT7
AF33	VSS[53]	AU24
AF38	VSS[54]	AU30
AF4	VSS[55]	AV16
AF42	VSS[56]	AV20
AF46	VSS[57]	AV24
AF5	VSS[58]	AV30
AF7	VSS[59]	AV38
AF8	VSS[60]	AV4
AG19	VSS[61]	AV43
AG2	VSS[62]	AV8
AG31	VSS[63]	AW14
AG48	VSS[64]	AW18
AH11	VSS[65]	AW2
AH3	VSS[66]	AW22
AH36	VSS[67]	AW26
AH39	VSS[68]	AW28
AH40	VSS[69]	AW32
AH42	VSS[70]	AW34
AH46	VSS[71]	AW38
AH7	VSS[72]	AW40
AJ19	VSS[73]	AW48
AJ21	VSS[74]	AV11
AJ24	VSS[75]	AY12
AJ33	VSS[76]	AY22
AJ34	VSS[77]	AY28
AK12	VSS[78]	
AK3	VSS[79]	

NM70/QQ86/C1/[10HB1-03NM70-10R]

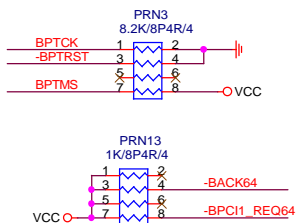
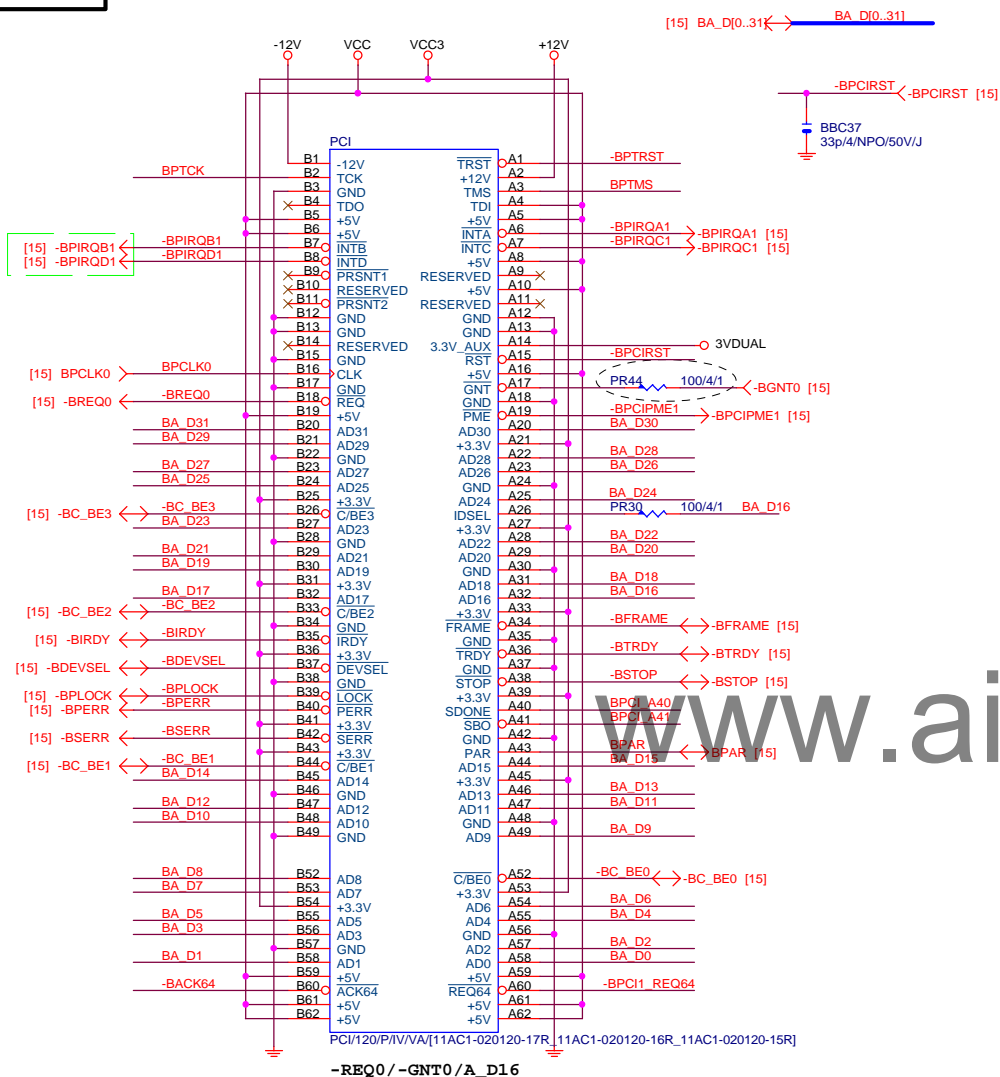
NM70I		
AY4	VSS[159]	
AY42	VSS[160]	H46
AY46	VSS[161]	K18
AY8	VSS[162]	K26
B11	VSS[163]	K39
B15	VSS[164]	K46
B19	VSS[165]	K7
B23	VSS[166]	L18
B27	VSS[167]	L2
B31	VSS[168]	L20
B35	VSS[169]	L26
B39	VSS[170]	L28
B7	VSS[171]	L36
F45	VSS[172]	L48
BB12	VSS[173]	M12
BB16	VSS[174]	P16
BB20	VSS[175]	M18
BB22	VSS[176]	M22
BB24	VSS[177]	M24
BB28	VSS[178]	M30
BB30	VSS[179]	M32
BB36	VSS[180]	M34
BB4	VSS[181]	M38
BB46	VSS[182]	M4
BC14	VSS[183]	M42
BC18	VSS[184]	M46
BC2	VSS[185]	M8
BC22	VSS[186]	N18
BC26	VSS[187]	P30
BC32	VSS[188]	N47
BC34	VSS[189]	P11
BC36	VSS[190]	P18
BC40	VSS[191]	T33
BC42	VSS[192]	P40
BC48	VSS[193]	P43
BD46	VSS[194]	P47
BD6	VSS[195]	P7
BE22	VSS[196]	R2
BE26	VSS[197]	R48
BE40	VSS[198]	T12
BF10	VSS[199]	T31
BF12	VSS[200]	T37
BF16	VSS[201]	T4
BF20	VSS[202]	W34
BF22	VSS[203]	T46
BF24	VSS[204]	T47
BF28	VSS[205]	T8
BD3	VSS[206]	V11
BF30	VSS[207]	V17
BF32	VSS[208]	V26
BF38	VSS[209]	V27
BF40	VSS[210]	V29
BF4	VSS[211]	V31
BG17	VSS[212]	V36
BG21	VSS[213]	V39
BG33	VSS[214]	V43
BG44	VSS[215]	V7
BG8	VSS[216]	W17
BH1	VSS[217]	W19
BH15	VSS[218]	W2
BH17	VSS[219]	W27
BH19	VSS[220]	W46
H10	VSS[221]	Y12
BH27	VSS[222]	Y38
BH31	VSS[223]	Y4
BH33	VSS[224]	Y42
BH35	VSS[225]	Y46
BH39	VSS[226]	Y8
BH43	VSS[227]	BG29
BH7	VSS[228]	N24
D3	VSS[229]	AJ3
D12	VSS[230]	AD47
D16	VSS[231]	B43
D18	VSS[232]	BE10
D22	VSS[233]	BG41
D24	VSS[234]	G14
D26	VSS[235]	H16
D30	VSS[236]	T36
D32	VSS[237]	BG22
D34	VSS[238]	BG24
D38	VSS[239]	C22
D42	VSS[240]	AP13
D8	VSS[241]	M14
E18	VSS[242]	AP3
E26	VSS[243]	AP1
G18	VSS[244]	BE16
G20	VSS[245]	BC16
G26	VSS[246]	BG28
G28	VSS[247]	BJ28
G36	VSS[248]	
G48	VSS[249]	
H12	VSS[250]	
H18	VSS[251]	
H22	VSS[252]	
H24	VSS[253]	
H26	VSS[254]	
H30	VSS[255]	
H32	VSS[256]	
H34	VSS[257]	
F3	VSS[258]	

NM70/QQ86/C1/[10HB1-03NM70-10R]

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Title		
PCH ,GND		
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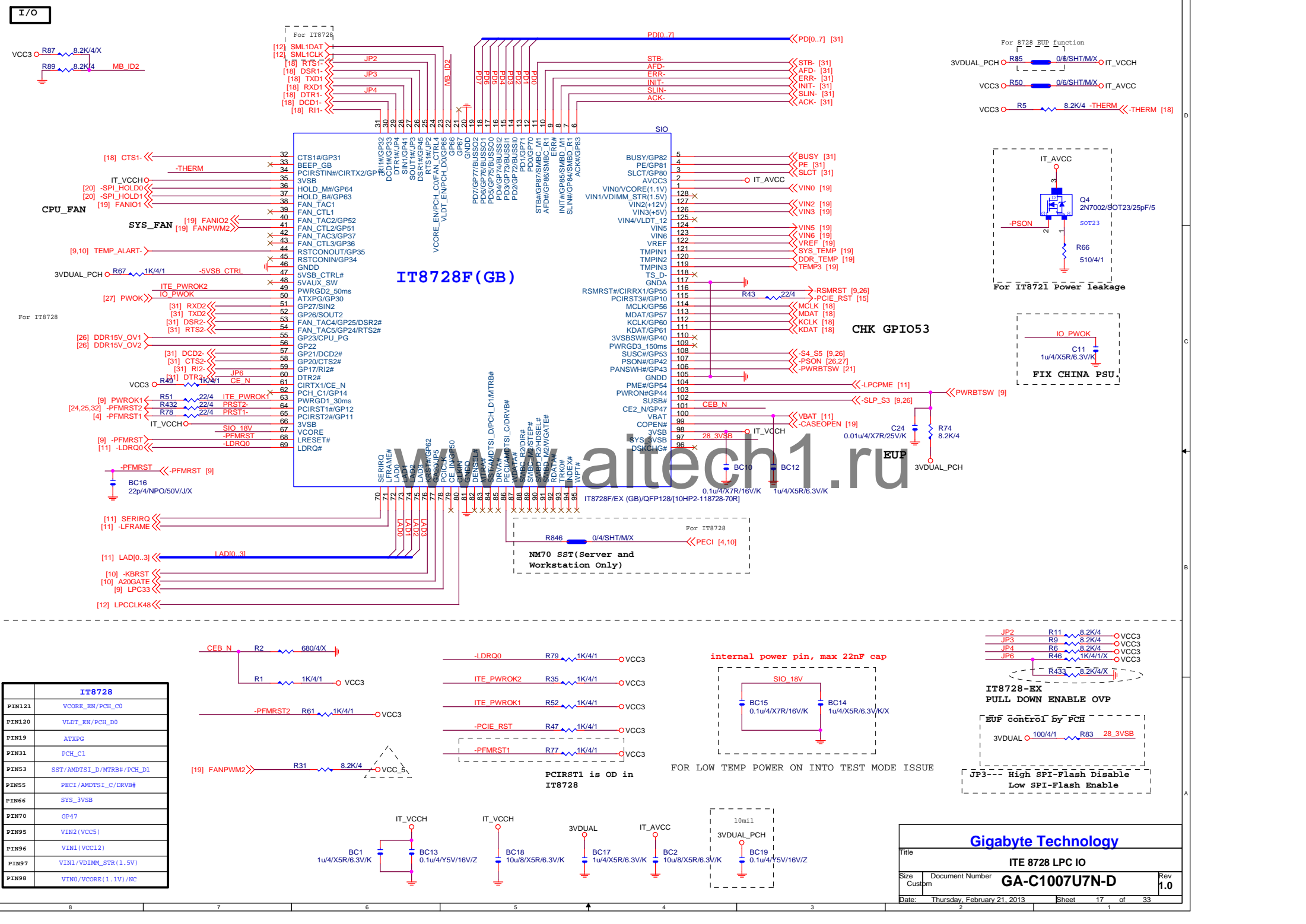
PCI SLOT



-BSTOP <-> BSTOP [15]
 BPC1_A40
 BPC1_A41
 BPAR <-> BPAR [15]
 BA_D15

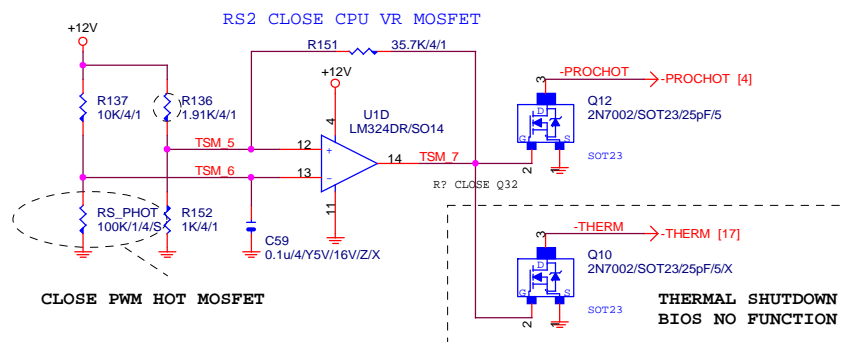
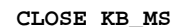
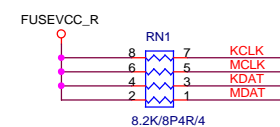
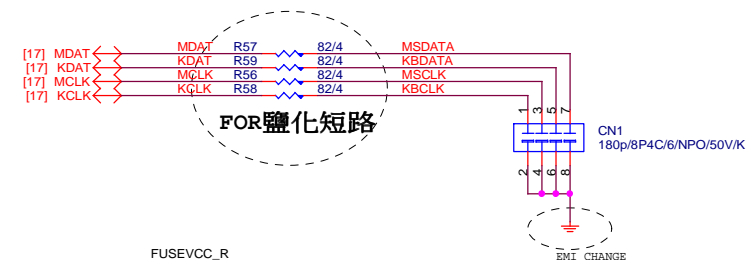
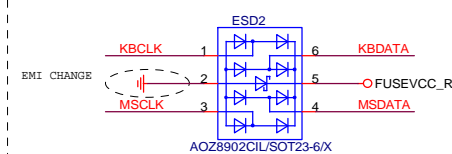
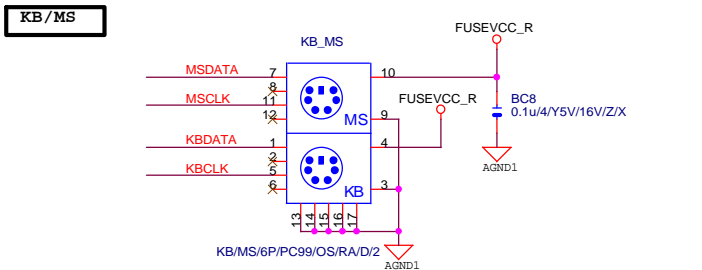
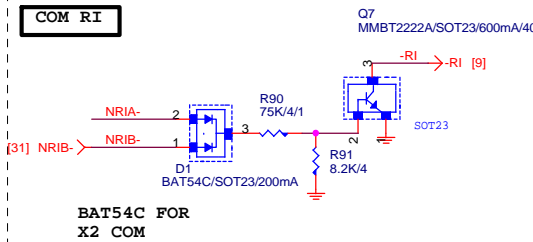
Gigabyte Technology

Title			
PCI SLOT 1			
Size Custom	Document Number	GA-C1007U7N-D	Rev 1.0
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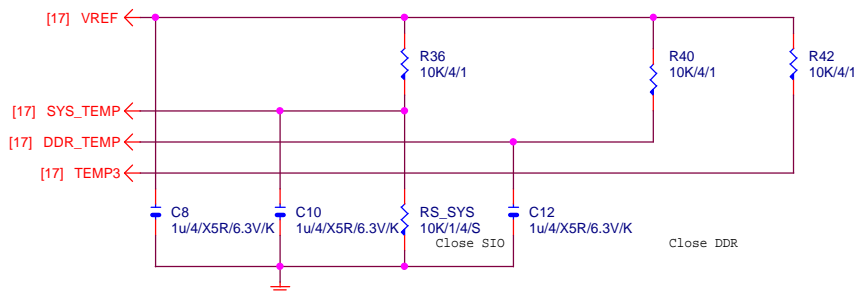


I/O

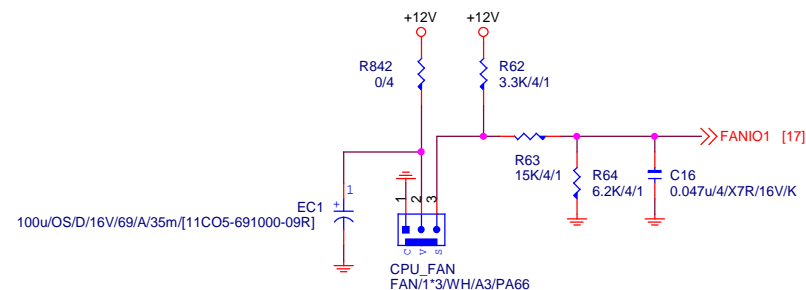
IT8728	
PIN121	VCORE_EN/PCH_C0
PIN120	VLDT_EN/PCH_D0
PIN19	ATXPG
PIN31	PCH_C1
PIN53	SST/AMDTSI_D/MTRB#/PCH_D1
PIN55	PECI/AMDTSI_C/DRV#
PIN66	SYS_3VSB
PIN70	GP47
PIN95	VIN2 (VCC5)
PIN96	VIN1 (VCC12)
PIN97	VIN1/VDIMM_STR (1.5V)
PIN98	VIN0/VCORE (1.1V)/NC



TEMP H/W MONITOR

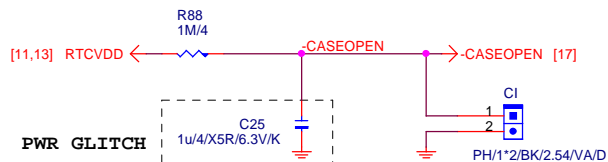


CPU SMART FAN

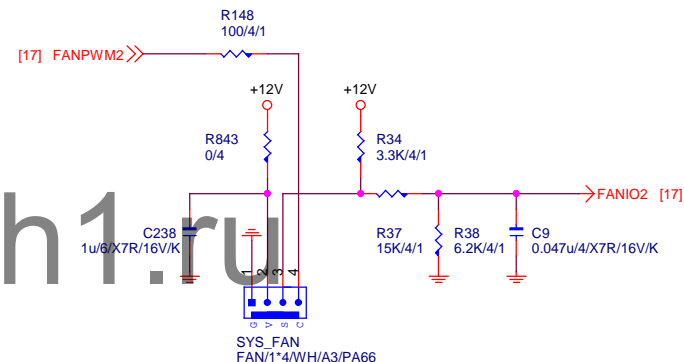


CASE OPEN

Case Open Circuits

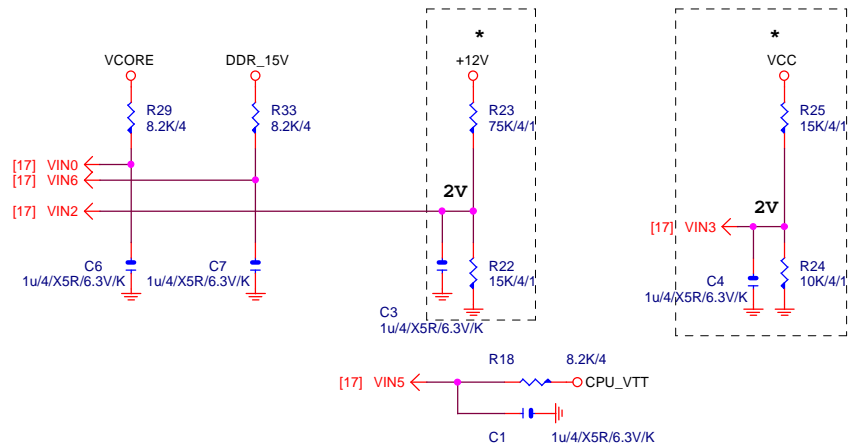


SYS SMART FAN



VOLTAGE-- H/W MONITOR

IT8728/EX VIN2/VIN3-->2V



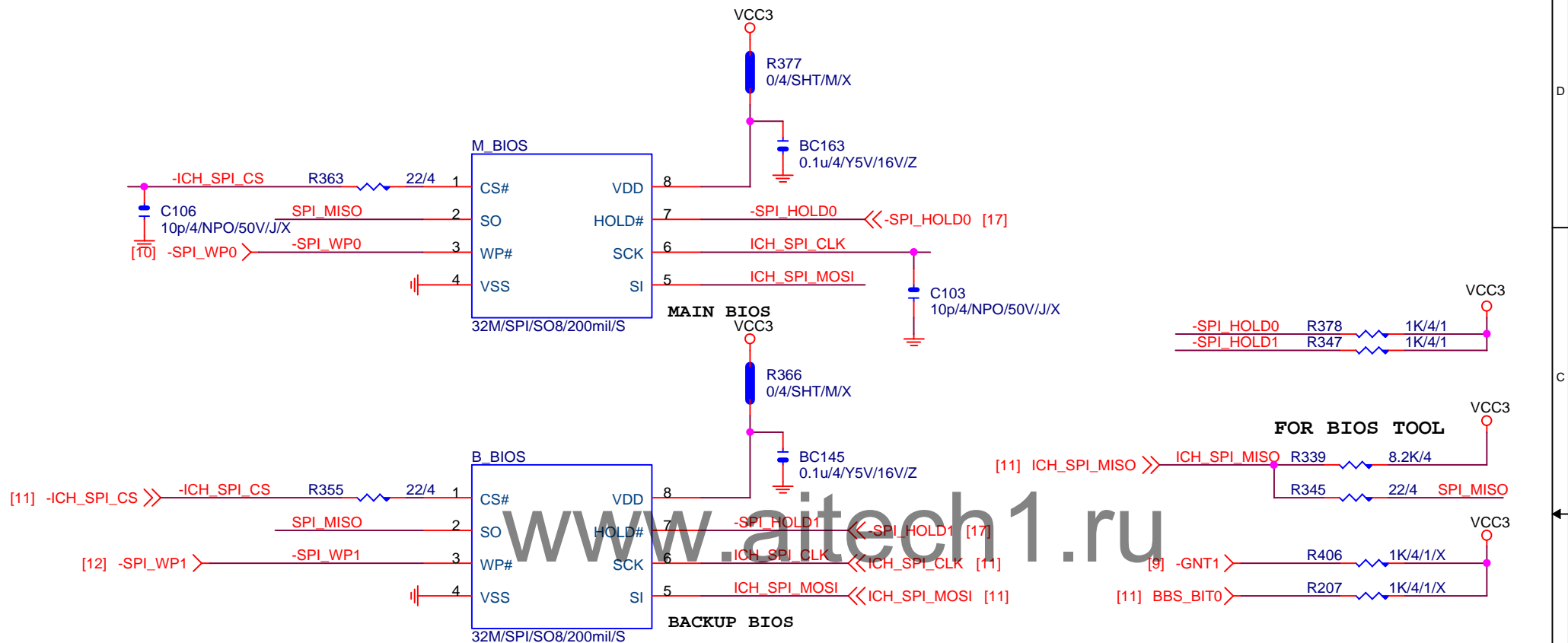
O.V.

N/A

Gigabyte Technology

Title			HWM,FAN CTRL,OV
Size	Document Number	GA-C1007U7N-D	
Custom		Rev	1.0
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DUAL BIOS



B65使用64M BIOS

使用H67暫用32M

H61使用32M BIOS

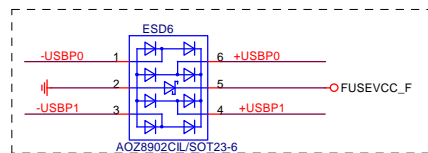
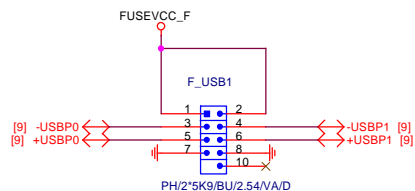
Boot BIOS Strap		
PCI GNT#1	BBS BIT0	Boot BIOS Location
1	1	SPI (Default)
0	1	Reserved (NAND)
0	0	LPC

1 means floating
0 means PD 1K

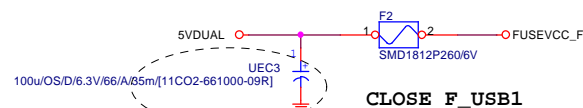
Gigabyte Technology

Title		
DUAL BIOS		
Size A	Document Number GA-C1007U7N-D	Rev 1.0
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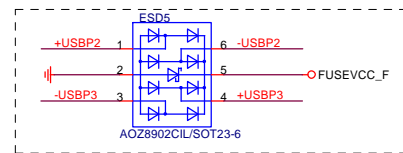
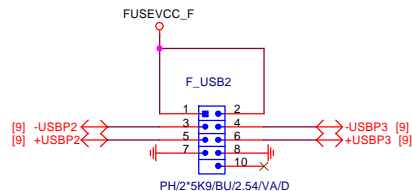
FRONT USB1



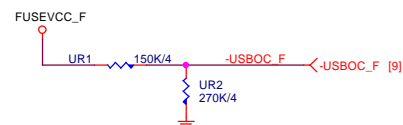
Close to connector



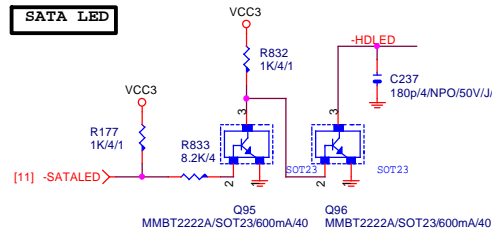
FRONT USB2



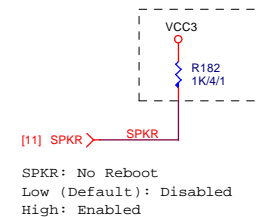
Close to connector



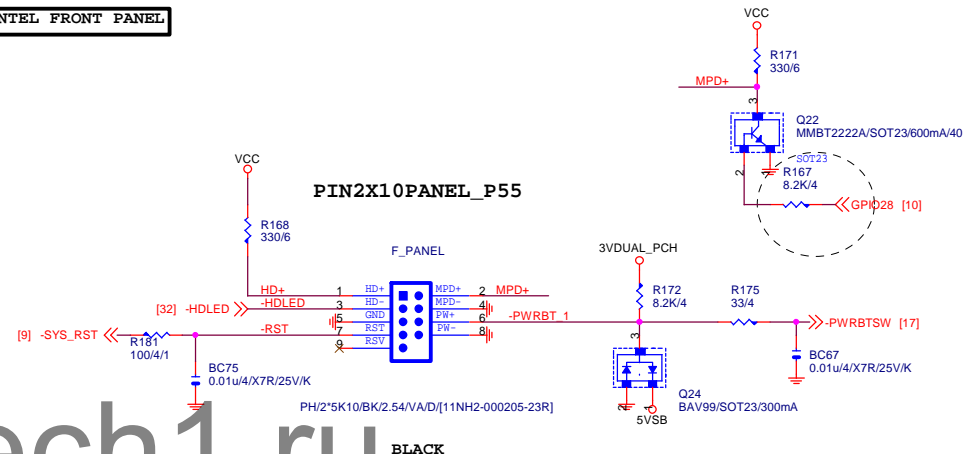
SATA LED



SPKR



INTEL FRONT PANEL



BLACK

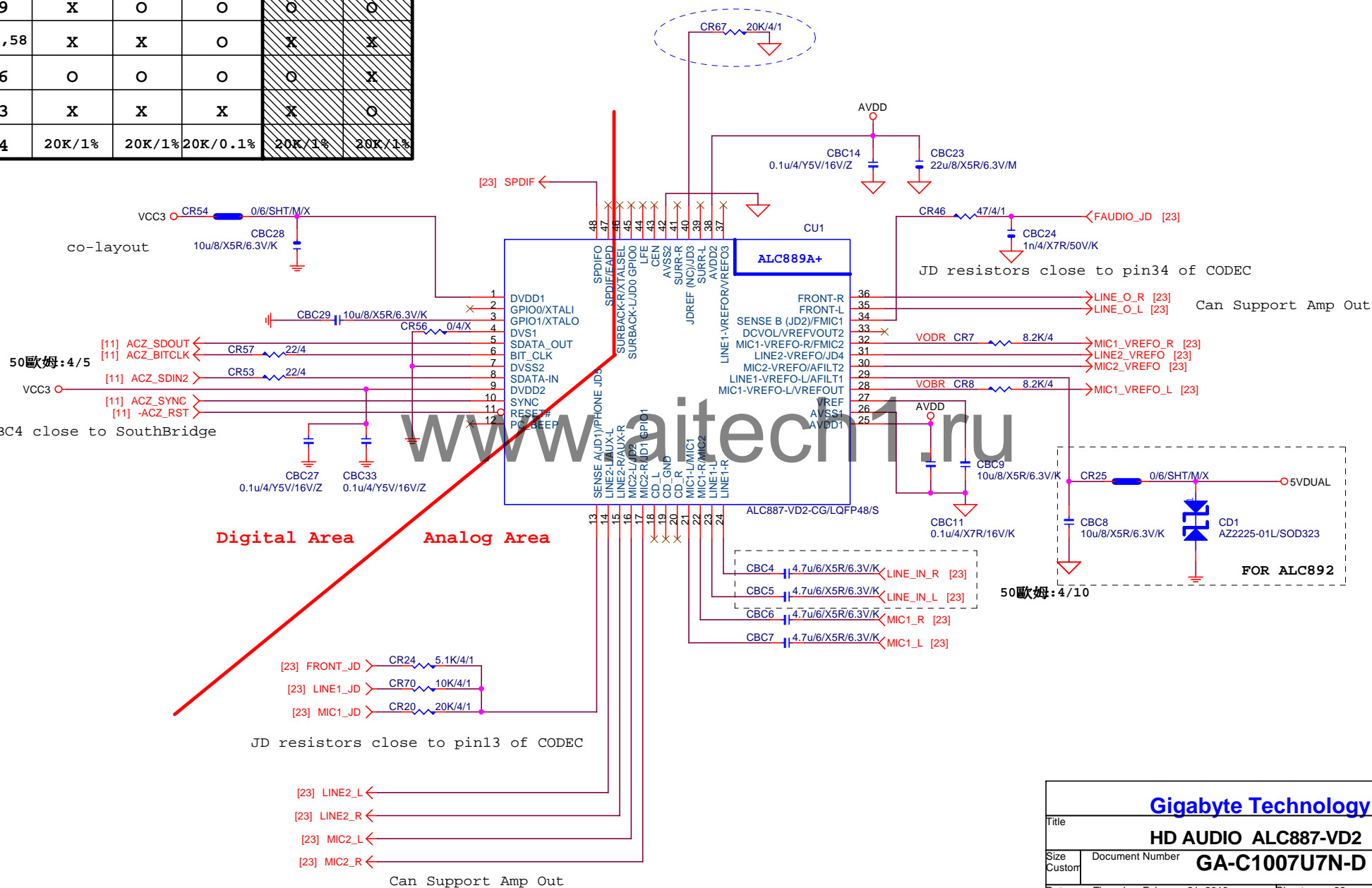
Gigabyte Technology

Title	FP,F USB,USB PWR,SPKR,SATA LED
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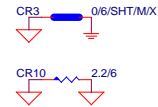
Size Custom	Document Number	GA-C1007U7N-D	Rev 1.0
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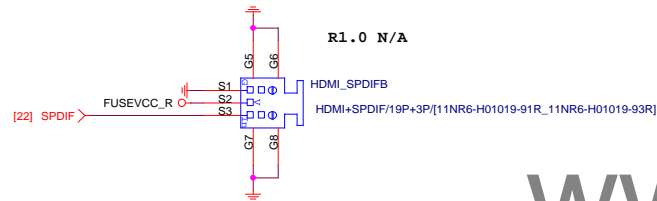
	ALC888B	ALC888-VA	ALC889A	ALC888-VD	ALC892
CR59	X	O	O	O	O
CR53,58	X	X	O	X	X
CR56	O	O	O	O	X
CR63	X	X	X	X	O
CR34	20K/1%	20K/1%	20K/0.1%	20K/1%	20K/1%



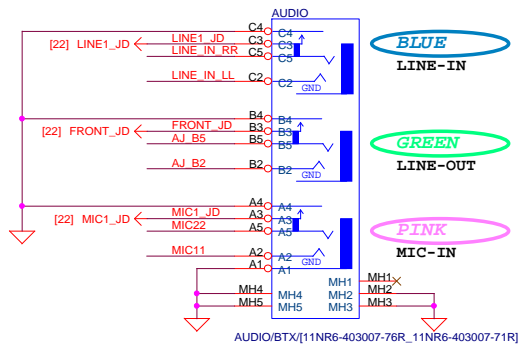
CODEC POWER/EMI PAD



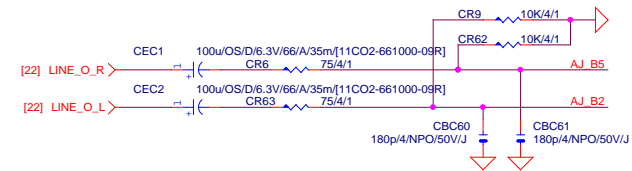
SPDIF



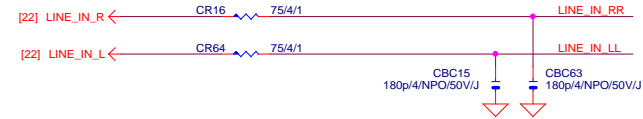
AZALIA JACK



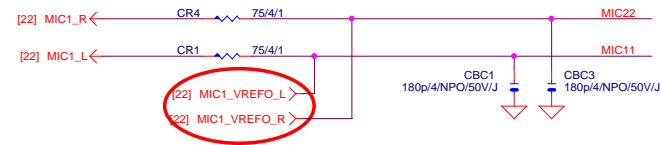
LINE-OUT



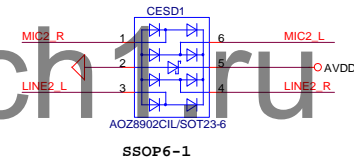
LINE-IN



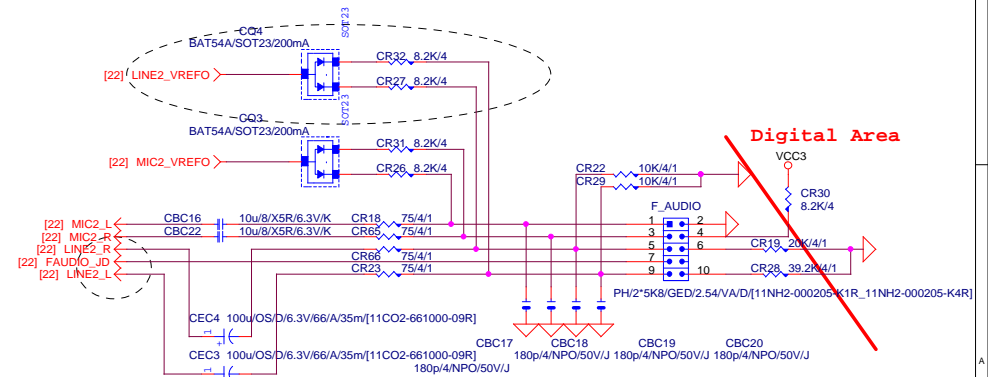
MIC-IN



F_AUDIOESD

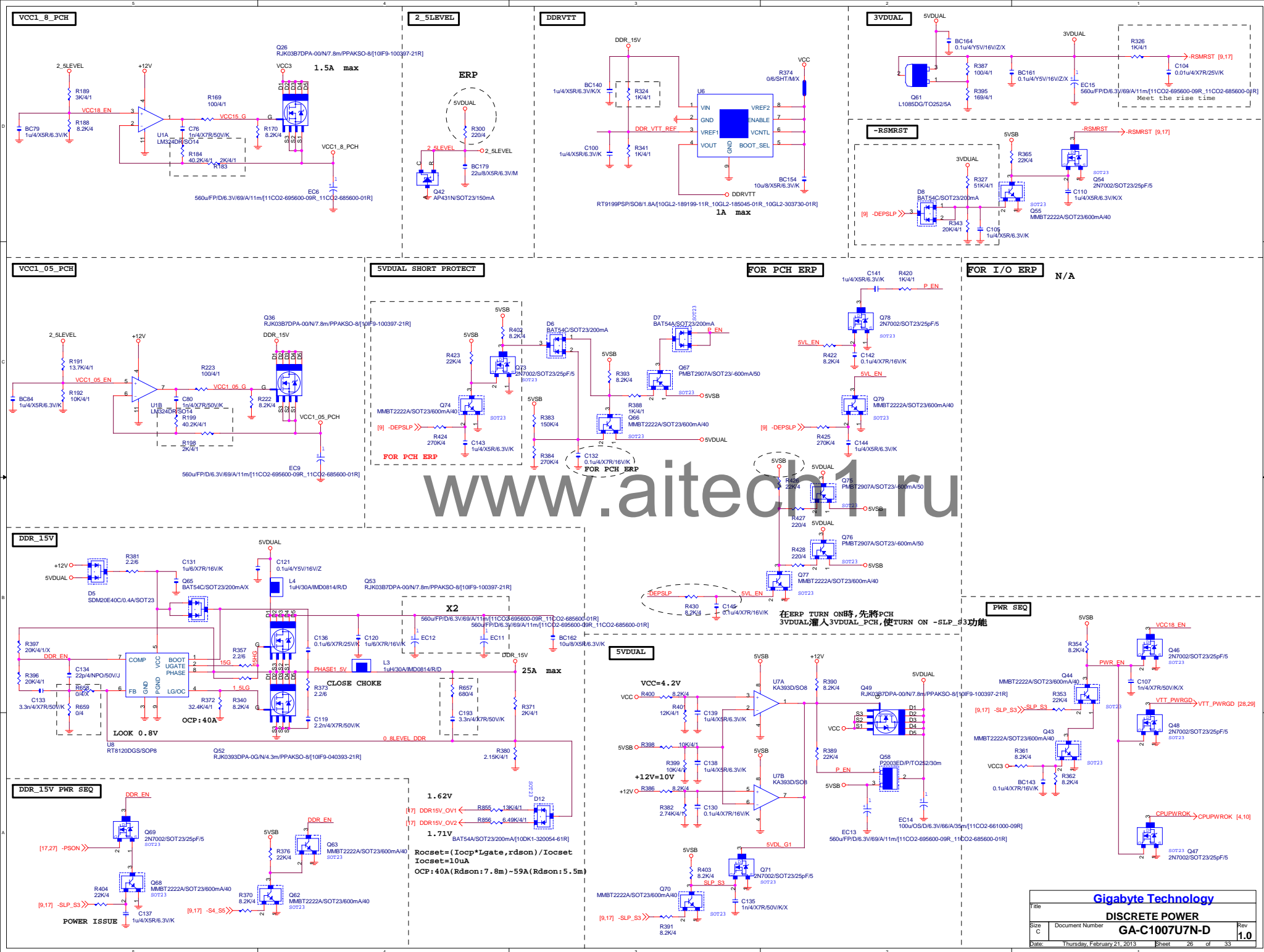


AZALIA FRONT PANEL

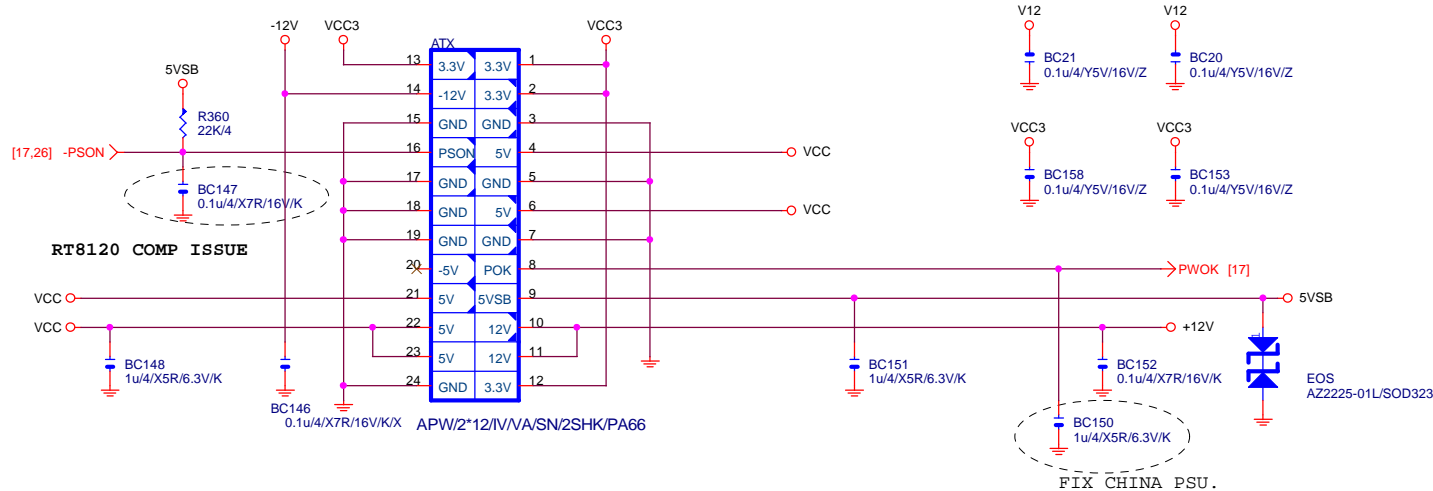


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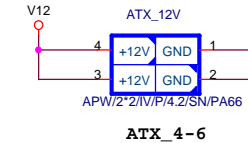
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ATXX24 POWER CONNECTOR

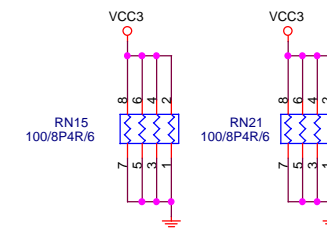


ATXX4 POWER CONNECTOR

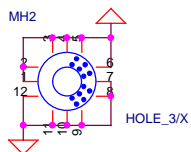


MIN. LOAD

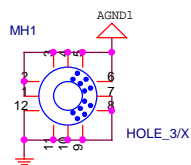
FIX PWR MINMUN LOAD



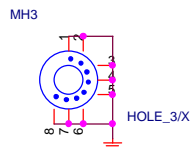
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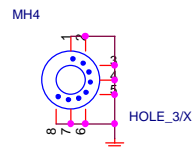
HOLE_4-RH-5MM-1



HOLE_4-RH-5MM-1

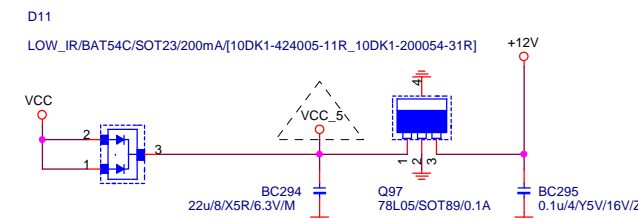
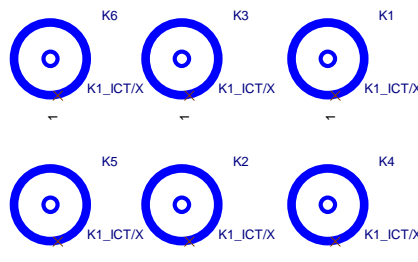


HOLE_4-RH-5MM-5PIN-1



HOLE_4-RH-5MM-5PIN-1

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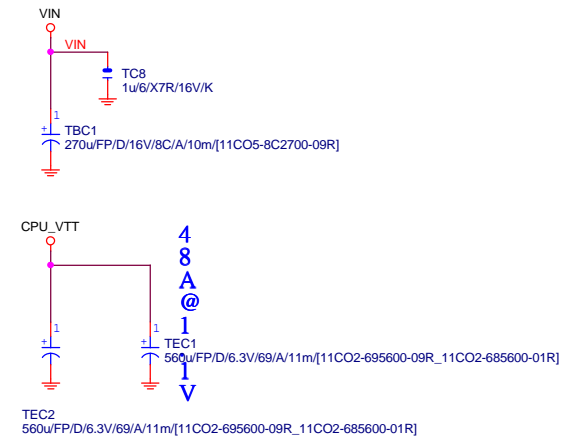
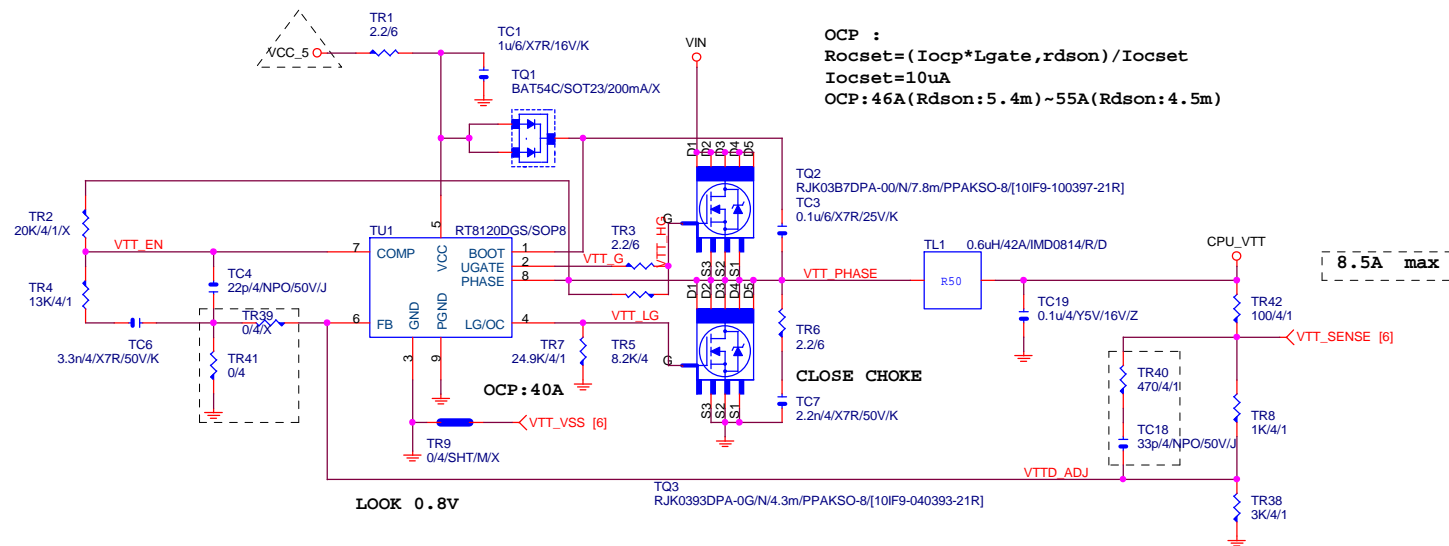


FIX POWER SUPPLY MIN LOAD +5V ISSUE

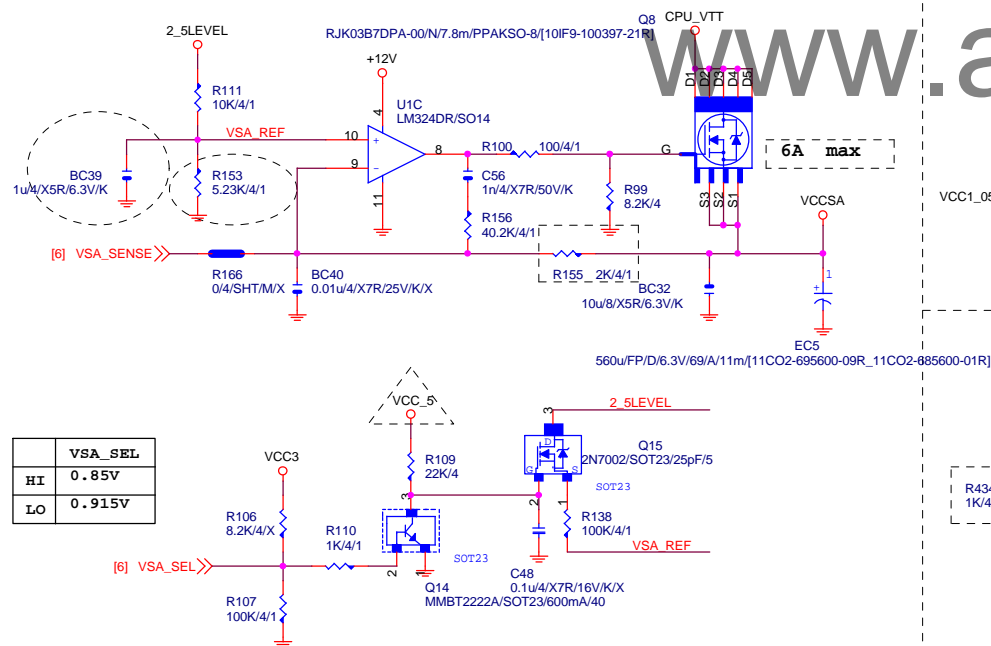
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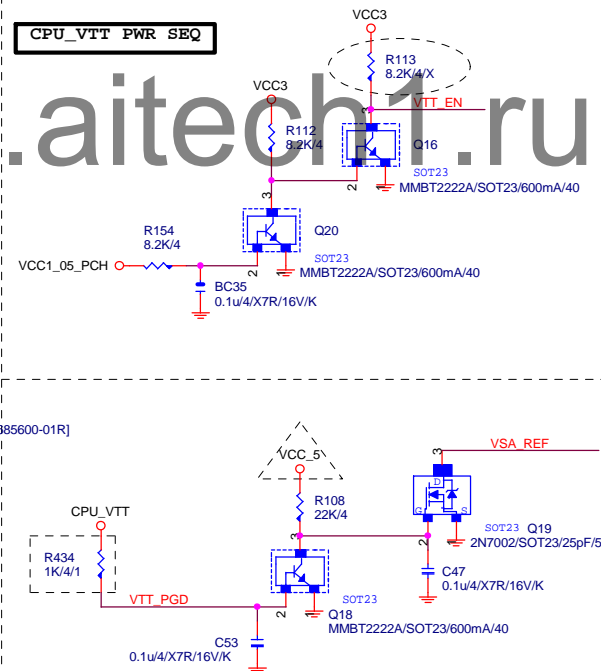
CPU_VTT



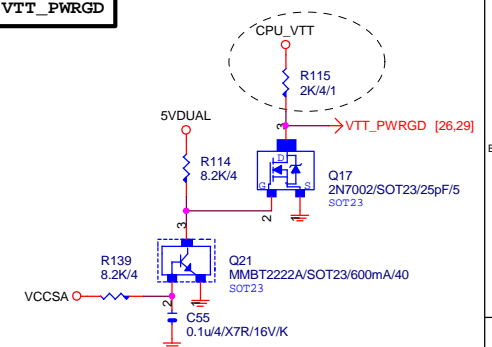
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VTT_PWRGD



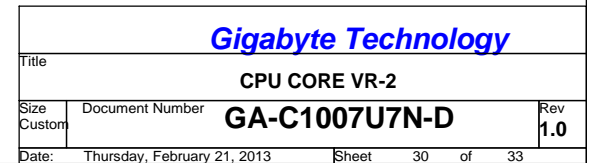
GIGABYTE™

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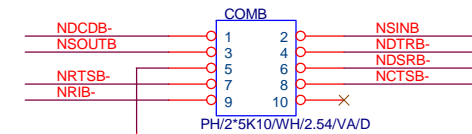
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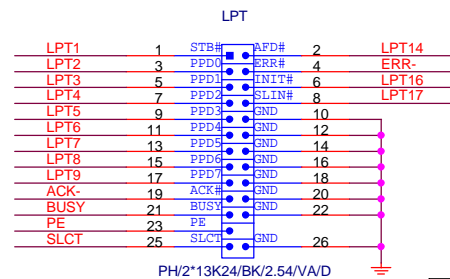


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COMB



LPT PORT

PIN2X13_LPT-CUT24

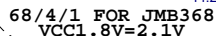
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LPT,COMB

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1.0

L1117LG/N/SOT223/1A/X



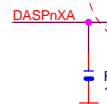
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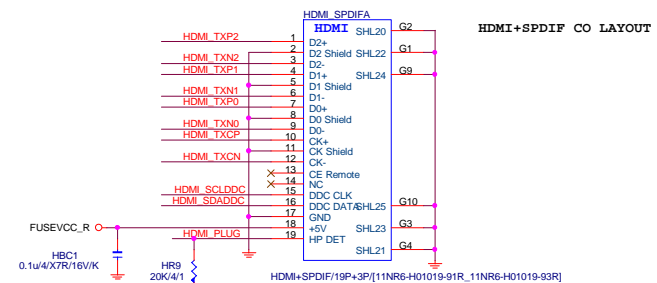
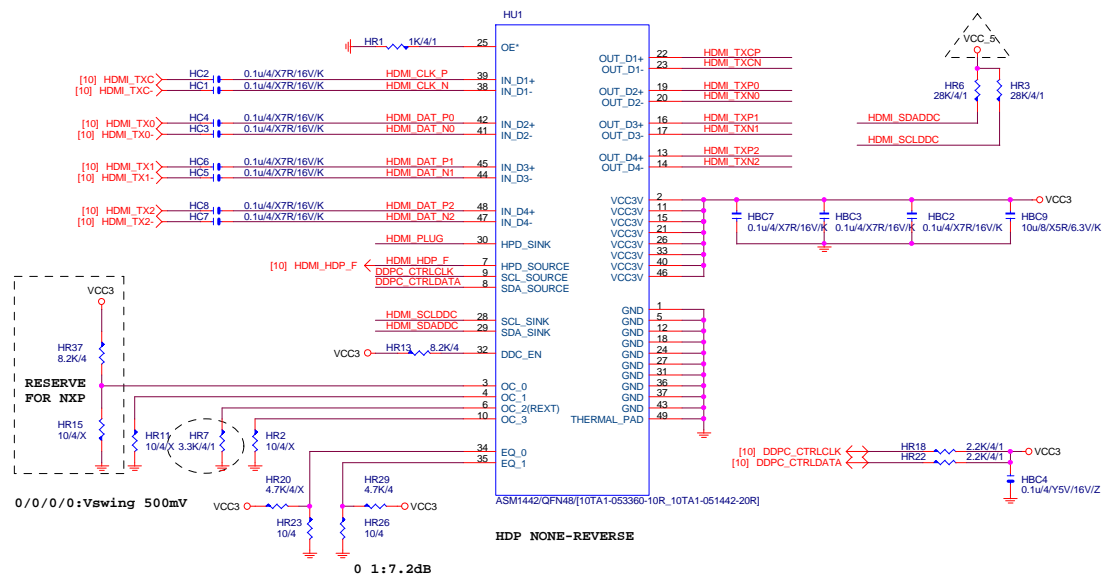
Near to PIN



close to pin17

PH CBLID N PDIAGnA

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DEFAULT HDMI+SPDIF

SIGLE HDMI:

11NR6-H01019-91R_11NR6-H01019-93R

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HDMI / DVI			
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