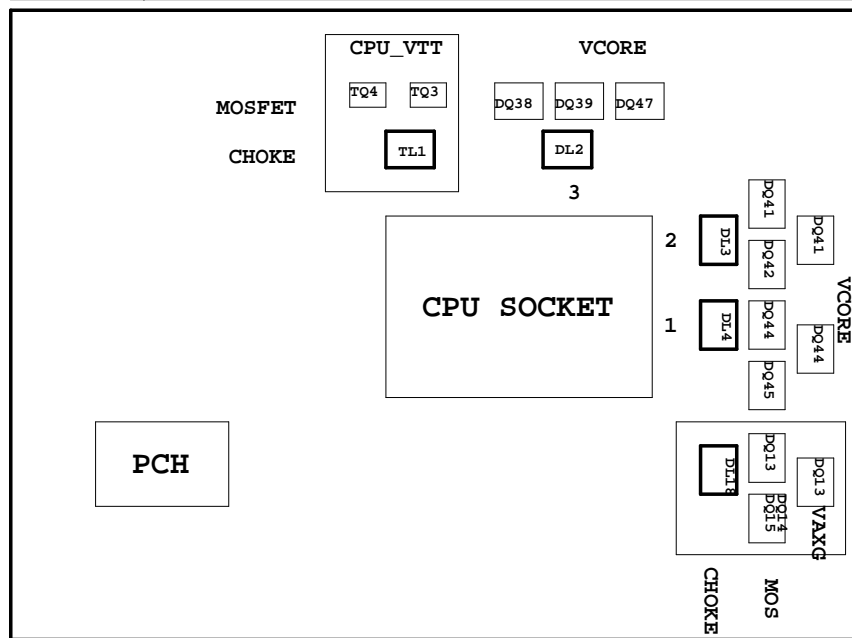


SHEET TITLE

01	COVER SHEET
02	BOM & PCB MODIFY HISTORY
03	BLOCK DIAGRAM
04	CPU_LGA1155-A
05	CPU_LGA1155-B
06	CPU_LGA1155-C
07	DDR III CHANNEL A
08	DDR III CHANNEL B
09	PCH_FDI,DMI,USB,PCIE
10	PCH_DP,CLK BUFFER
11	PCH_HOST,SATA,PCI
12	PCH_GPIO,CTRL,AUDIO
13	PCH_PWR,GND
14	PCI EXPRESS*16 SLOT
15	PCI EXPRESSX4 SLOT / PCIE X1 SLOT
16	PCI SLOT 1~2
17	I/O ITE8728
18	COM, LPT, TPM
19	Dual BIOS
20	ALC887
21	REAR AUDIO JACK
22	ISL95836_VCORE_1
23	ISL95836_VCORE_2
24	DISCRETE POWER
25	PCH CORE / VOLTAGE CONSOLE
26	RT8120_CPU_VTT
27	VCCSA POWER

SHEET TITLE

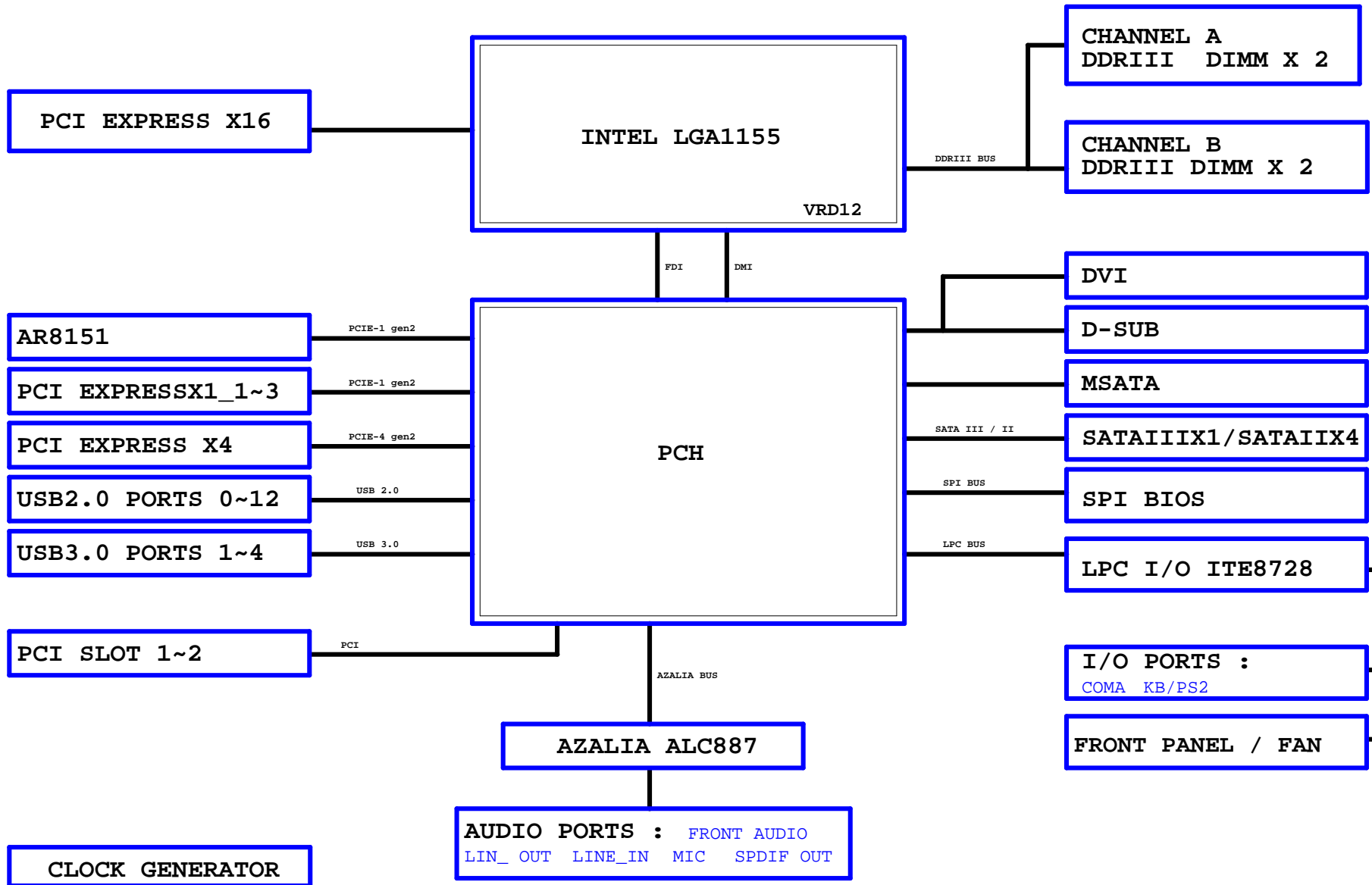
28	F_PANEL , F_USB
29	ATX POWER, CLOCK GEN
30	HWM,KB/MS , FAN CTRL
31	ARTHEROS AR8161
32	mSATA
33	DDR / M3 POWER
34	DVI
35	
36	
37	
38	
39	
40	

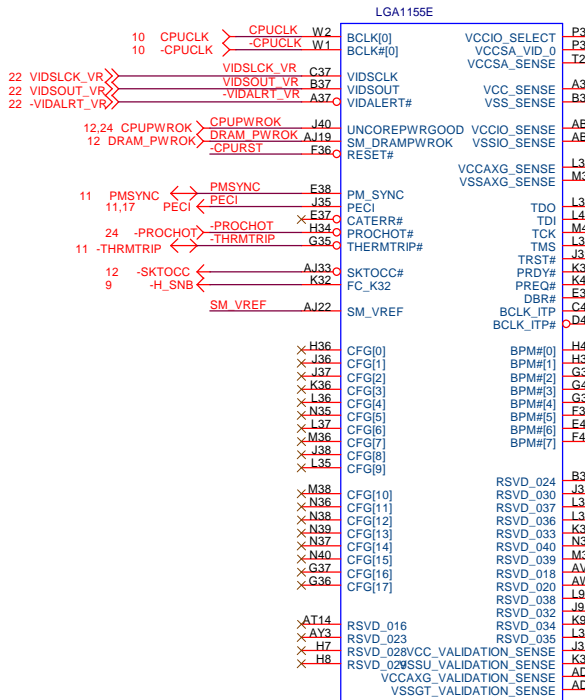


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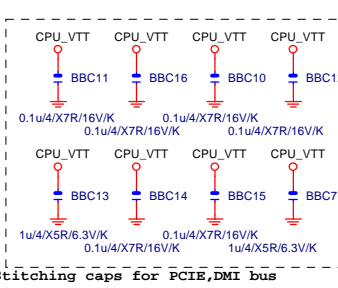
Title		
Cover Sheet		
Size	Document Number	Rev
Custom	GA-B75-D3V	1.1
Date:	Wednesday, July 04, 2012	Sheet 1 of 34

BLOCK DIAGRAM

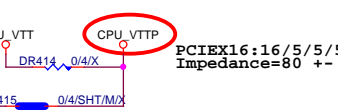




According intel
CDI/IBP#476733



stitching caps for CPU_VTT, CPU_VTTTP



close cpu socket

PCIEX16:16/5/5/5/16(breakout min 10/4/4/4/10)
Impedance=80 +/- 17.5%; L<5inch

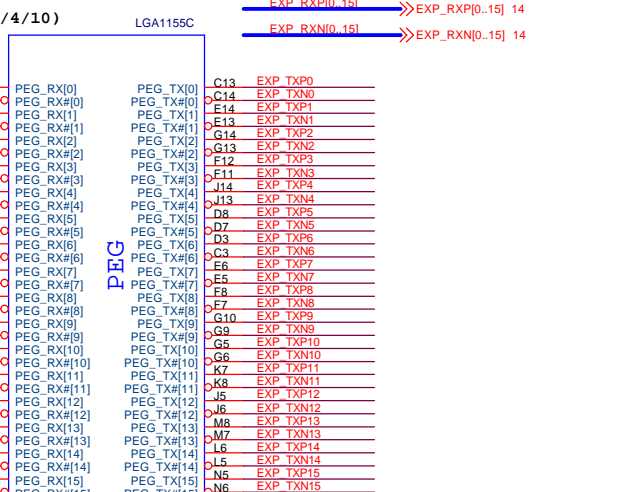
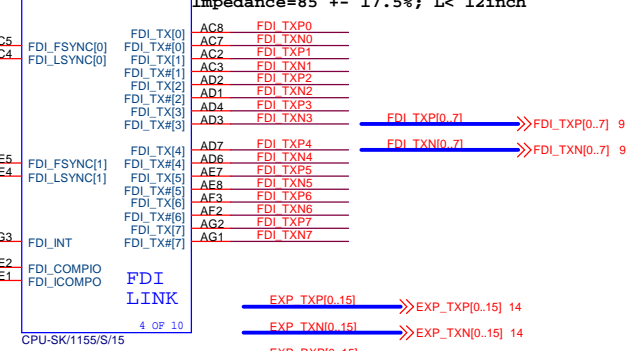
FDI:4/5(SINGLE END)

FDI:4/5(SINGLE END)

FDI:4/5(SINGLE END)

FDI:10/5(SINGLE END)

LGA1155D FDI:12/4/5/4/12(breakout min 6/4/4/4/6)
Impedance=85 +/- 17.5%; L<12inch

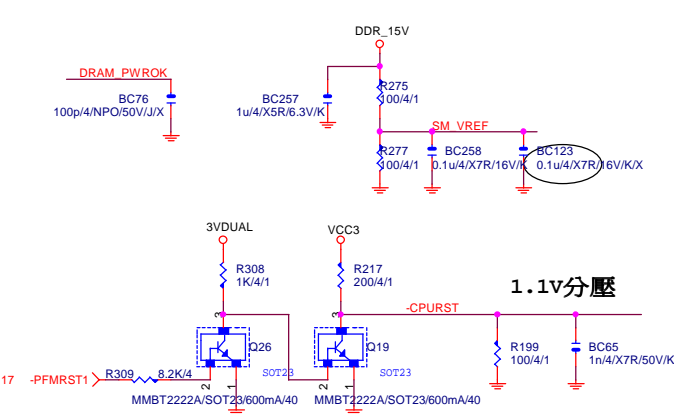


CFG5=1: 1x16 PEG
CFG5=0: 2x8 PEG

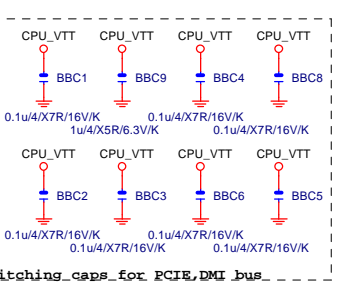
CFG	H	L	NOTE
0	RSVD	RSVD	RSVD
1	RSVD	RSVD	RSVD
2	NORM	Reverse	LANE REVERSAL[0], x16
3	RSVD	RSVD	RSVD
4	RSVD	RSVD	RSVD
7	RSVD	RSVD	RSVD
8	RSVD	RSVD	RSVD
9	RSVD	RSVD	RSVD
10	RSVD	RSVD	RSVD
11	RSVD	RSVD	RSVD
12	RSVD	RSVD	RSVD
13	RSVD	RSVD	RSVD
14	RSVD	RSVD	RSVD
15	RSVD	RSVD	RSVD
16	RSVD	RSVD	RSVD
17	RSVD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

CFG6	CFG5	PCI-E CONFIG
1	1	1x16, Default
1	0	2x8
0	1	RSVD
0	0	X8, X4, X4

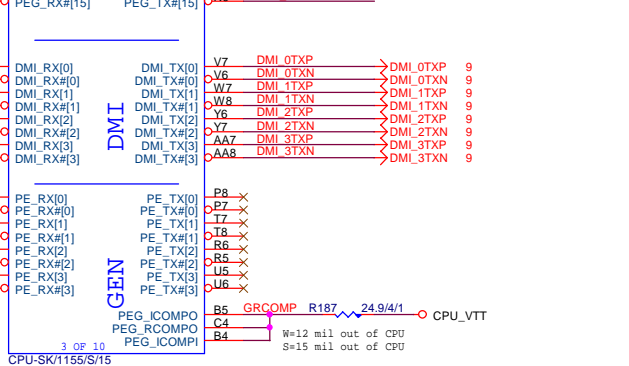
CFG 0-17 all internal PULL-UP



DMI:12/4/5/4/12(breakout min 8/4/4/4/8)
Impedance=85 +/- 17.5%



stitching caps for CPU_VTT, CPU_VTTTP



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CPU LGA1155-A

Size	Document Number	Rev
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LGA1155A

Pin list for LGA1155A showing connections for MAA0-AV27, MAA1-AV24, MAA2-AW24, MAA3-AW23, MAA4-AV23, MAA5-AT24, MAA6-AT23, MAA7-AU22, MAA8-AV22, MAA9-AT22, MAA10-AV28, MAA11-AU21, MAA12-AT21, MAA13-AW32, MAA14-AU20, MAA15-AT20, SWEA, SCASA, SRASA, SBA00, SBA01, SBA02, CSA0, CSA1, CSA2, CSA3, CKEA0, CKEA1, CKEA2, CKEA3, MODT_A0, MODT_A1, MODT_A2, MODT_A3, DCLKA0, DCLKA1, DCLKA2, DCLKA3, DDR3_RST, TR1, TBC9, AV13, AV12, AV11, AV10, AV9, AV8, AV7, AV6, AV5, AV4, AV3, AV2, AV1, AV0, AP38, AP37, AP36, AP35, AP34, AP33, AP32, AP31, AP30, AP29, AP28, AP27, AP26, AP25, AP24, AP23, AP22, AP21, AP20, AP19, AP18, AP17, AP16, AP15, AP14, AP13, AP12, AP11, AP10, AP9, AP8, AP7, AP6, AP5, AP4, AP3, AP2, AP1, AP0, AP-1, AP-2, AP-3, AP-4, AP-5, AP-6, AP-7, AP-8, AP-9, AP-10, AP-11, AP-12, AP-13, AP-14, AP-15, AP-16, AP-17, AP-18, AP-19, AP-20, AP-21, AP-22, AP-23, AP-24, AP-25, AP-26, AP-27, AP-28, AP-29, AP-30, AP-31, AP-32, AP-33, AP-34, AP-35, AP-36, AP-37, AP-38.

DDR_0

1 OF 10

CPU-SK/1155/S/15

LGA1155B

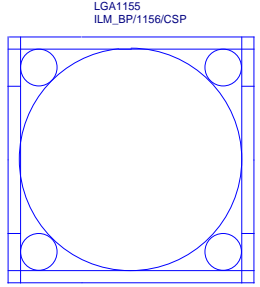
Pin list for LGA1155B showing connections for MAAB0-AK24, MAAB1-AM20, MAAB2-AM19, MAAB3-AK18, MAAB4-AP19, MAAB5-AP18, MAAB6-AM18, MAAB7-AL18, MAAB8-MA18, MAAB9-AN18, MAAB10-AN23, MAAB11-AU17, MAAB12-AT18, MAAB13-AR26, MAAB14-AY16, MAAB15-AV16, SWEB, SCASB, SRASB, SBAB0, SBAB1, SBAB2, CSB0, CSB1, CSB2, CSB3, CKEB0, CKEB1, CKEB2, CKEB3, MODT_B0, MODT_B1, MODT_B2, MODT_B3, DCLKB0, DCLKB1, DCLKB2, DCLKB3, VREF_DQB, VREF_DQA, AN16, AN15, AL16, AM16, AP16, AR16, AL15, AM15, AP15, AR15, AP39, AP38, AR40, AR37, AR36, AR35, AR34, AR33, AR32, AR31, AR30, AR29, AR28, AR27, AR26, AR25, AR24, AR23, AR22, AR21, AR20, AR19, AR18, AR17, AR16, AR15, AR14, AR13, AR12, AR11, AR10, AR9, AR8, AR7, AR6, AR5, AR4, AR3, AR2, AR1, AR0, AR-1, AR-2, AR-3, AR-4, AR-5, AR-6, AR-7, AR-8, AR-9, AR-10, AR-11, AR-12, AR-13, AR-14, AR-15, AR-16, AR-17, AR-18, AR-19, AR-20, AR-21, AR-22, AR-23, AR-24, AR-25, AR-26, AR-27, AR-28, AR-29, AR-30, AR-31, AR-32, AR-33, AR-34, AR-35, AR-36, AR-37, AR-38, AR-39, AR-40.

DDR_1

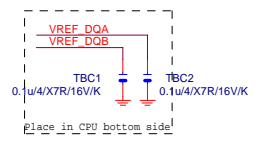
2 OF 10

CPU-SK/1155/S/15

Pin list for LGA1155B showing connections for SB_DQS[0], SB_DQS[1], SB_DQS[2], SB_DQS[3], SB_DQS[4], SB_DQS[5], SB_DQS[6], SB_DQS[7], SB_DQS[8], SB_DQS[9], SB_DQS[10], SB_DQS[11], SB_DQS[12], SB_DQS[13], SB_DQS[14], SB_DQS[15], SB_DQS[16], SB_DQS[17], SB_DQS[18], SB_DQS[19], SB_DQS[20], SB_DQS[21], SB_DQS[22], SB_DQS[23], SB_DQS[24], SB_DQS[25], SB_DQS[26], SB_DQS[27], SB_DQS[28], SB_DQS[29], SB_DQS[30], SB_DQS[31], SB_DQS[32], SB_DQS[33], SB_DQS[34], SB_DQS[35], SB_DQS[36], SB_DQS[37], SB_DQS[38], SB_DQS[39], SB_DQS[40], SB_DQS[41], SB_DQS[42], SB_DQS[43], SB_DQS[44], SB_DQS[45], SB_DQS[46], SB_DQS[47], SB_DQS[48], SB_DQS[49], SB_DQS[50], SB_DQS[51], SB_DQS[52], SB_DQS[53], SB_DQS[54], SB_DQS[55], SB_DQS[56], SB_DQS[57], SB_DQS[58], SB_DQS[59], SB_DQS[60], SB_DQS[61], SB_DQS[62], SB_DQS[63].

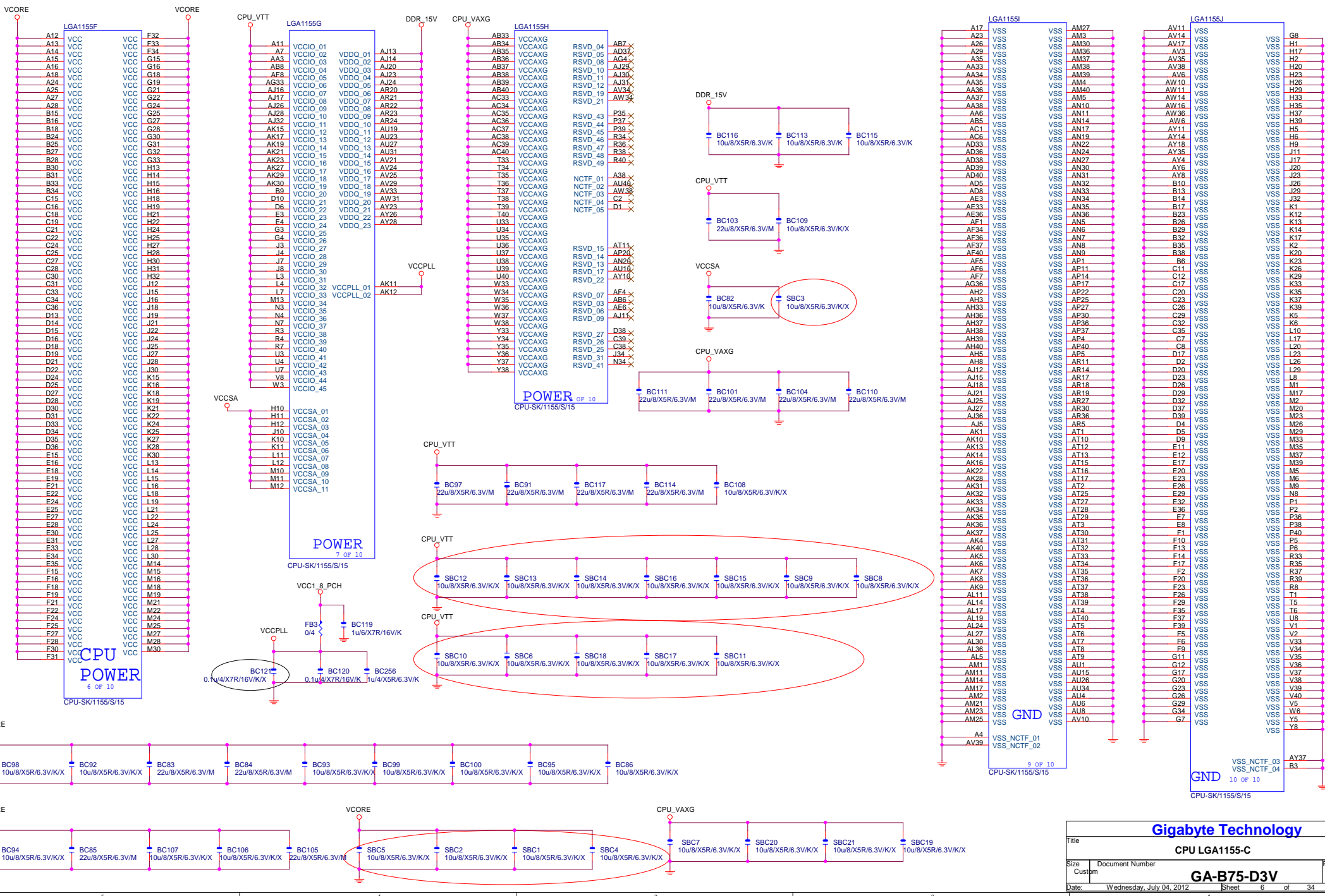


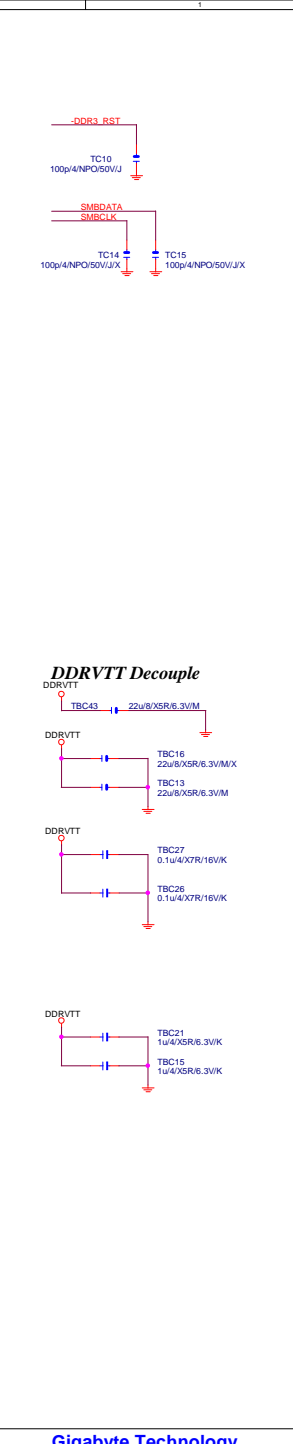
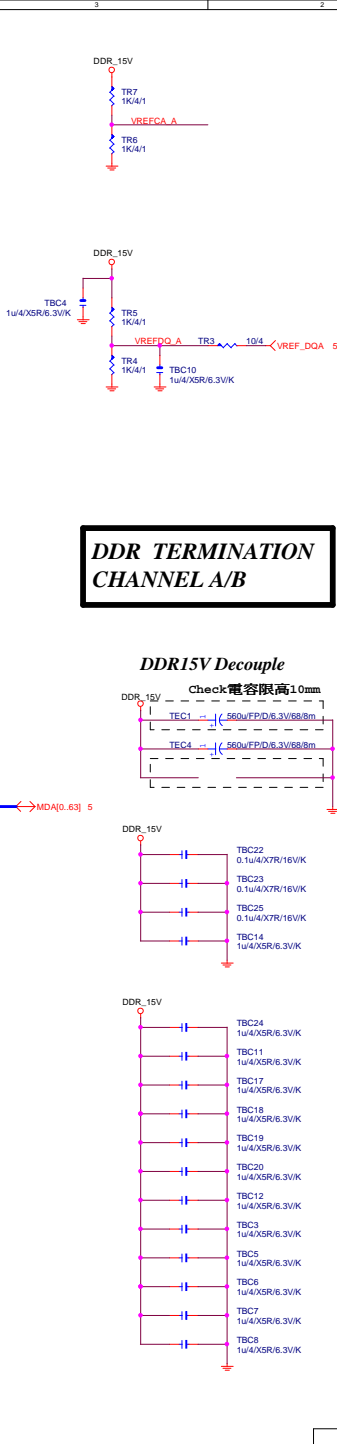
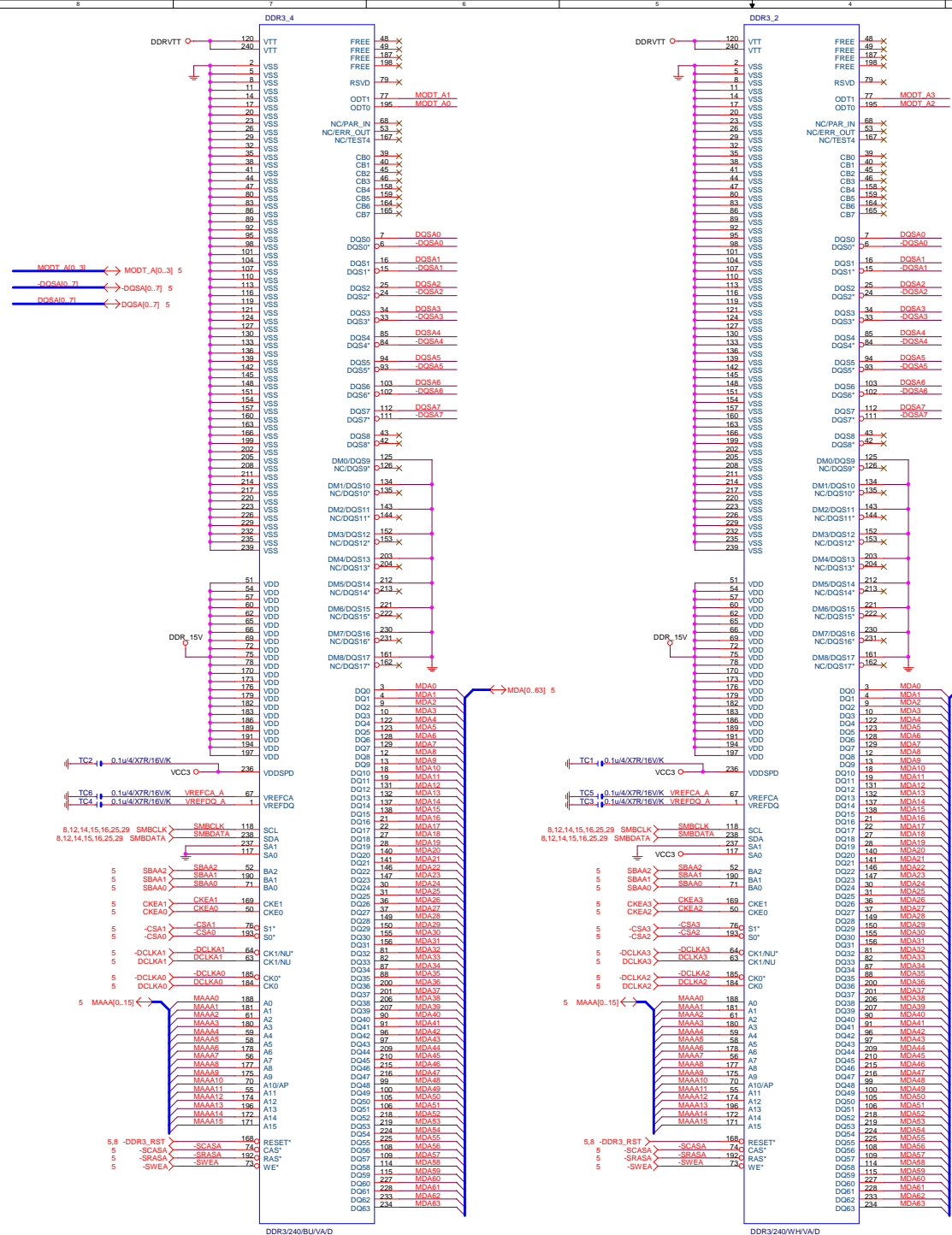
Need check the new CPU ME



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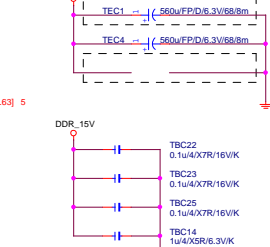
Table with 4 columns: Title (CPU LGA1155-B), Document Number (GA-B75-D3V), Date (Wednesday, July 04, 2012), and Sheet (5 of 34). Includes a revision number of 1.1.



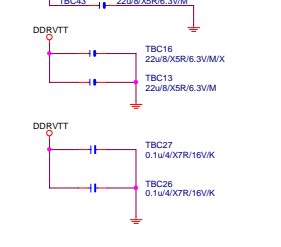


DDR TERMINATION CHANNEL A/B

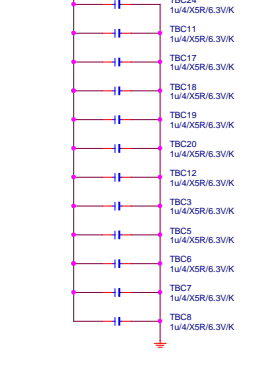
DDR15V Decouple



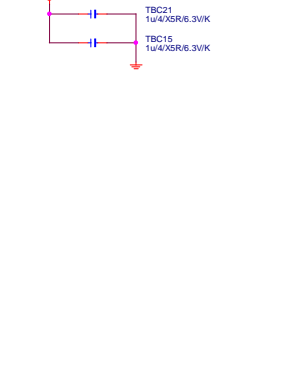
DDRVRTT Decouple

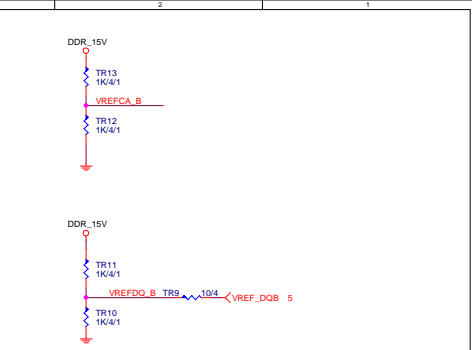
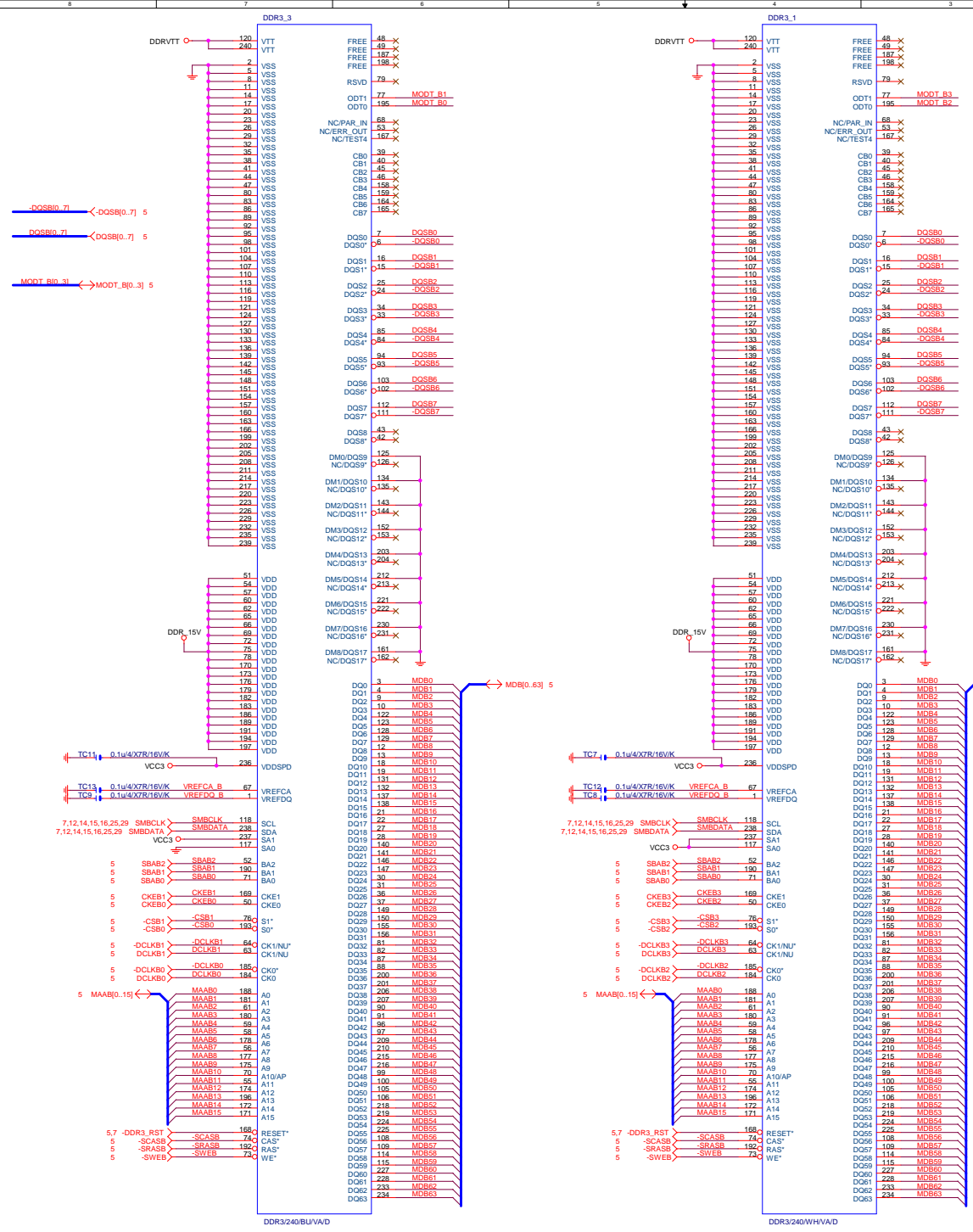


Check 电容限高10mm



Check 电容限高10mm



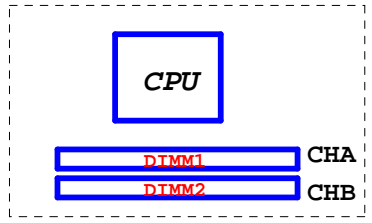


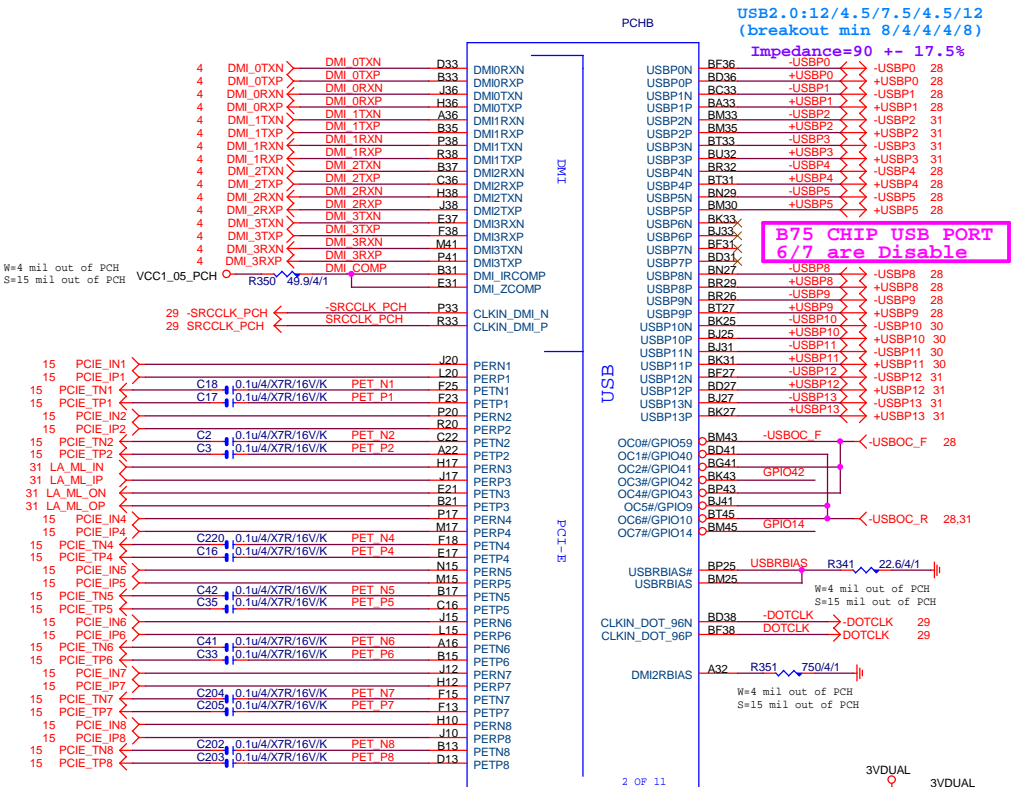
DDR3 1066,1333,1600MHZ BANDWIDTH

DDR3 1066MHZ
 DDR3 clock=533MHZ
 DDR3 single channel bandwidth=533x2x8Byte=8.5GB/s
 DDR3 dual channel bandwidth=533x2x2x8Byte=17GB/s

DDR3 1333MHZ
 DDR3 clock=667MHZ
 DDR3 single channel bandwidth=10.6GB/s
 DDR3 dual channel bandwidth=21GB/s

DDR3 1600MHZ
 DDR3 clock=800MHZ
 DDR3 single channel bandwidth=12.8GB/s
 DDR3 dual channel bandwidth=25.6GB/s



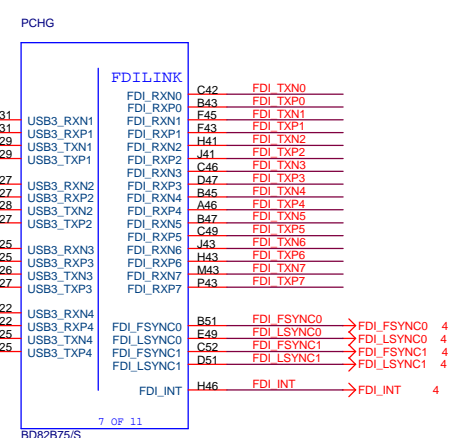


USB3.0:20/5/7/5/20 (breakout min 8/4/4/4/8) ; ONLY 3 VIAS
Impedance=85 +- 17.5%
Back Panel < 10000 MILS
Front Panel < 6000 MILS

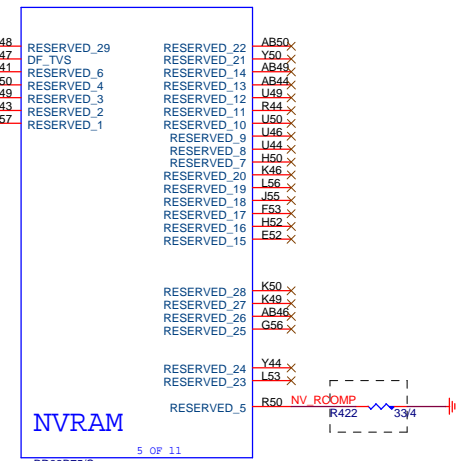
B75 CHIP USB PORT 6/7 are Disable

OC[3:0]# for Device 29 (ports 0-7)
 OC[7:4]# for Device 26 (ports 8-13)

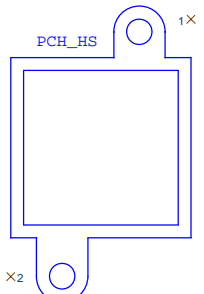
USB OC#	USB0,1
OC0#	USB2,3
OC1#	USB4,5
OC2#	USB6,7
OC3#	USB8,9
OC4#	USB10,11
OC5#	USB12,13
OC6#	USB12,13
OC7#	Not Use



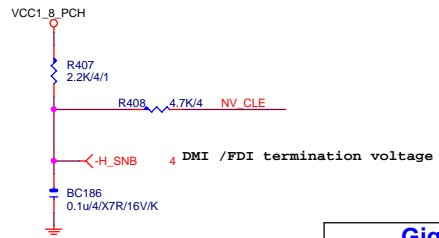
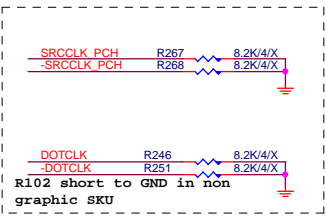
FDI_TXP0_71 >>> FDI_TXP0[.7] 4
 FDI_TXN0_71 >>> FDI_TXN0[.7] 4



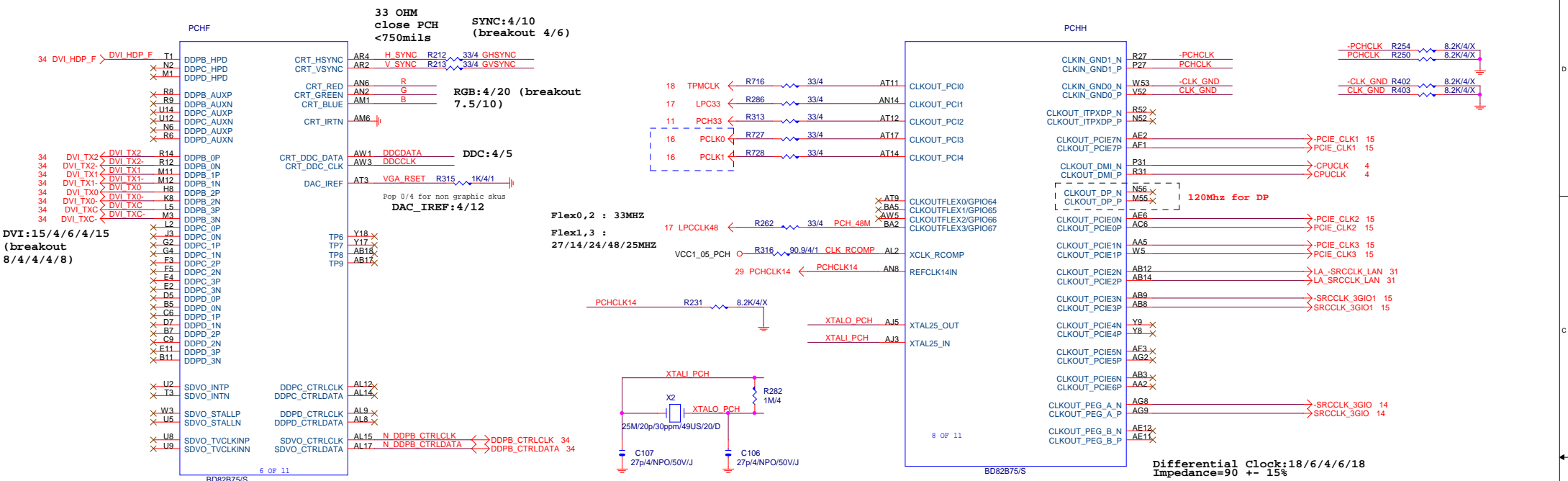
放靠近 Device & PCI-E Slot
PCIEX1:16/5/5/5/16 (breakout min 8/4/4/4/8)
Impedance=80 +- 17.5%



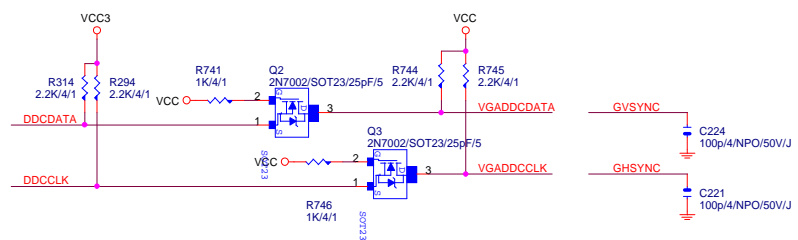
NEW 7 MODEL
Footprint: BGAHSINK-75;
3mm孔徑



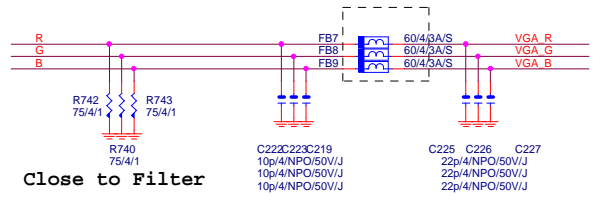
Gigabyte Technology			
Title: PCH FDI,DMI,USB,PCI-E			
Size: Custom	Document Number: GA-B75-D3V	Rev: 1.1	
Date: Wednesday, July 04, 2012	Sheet: 9	of: 34	



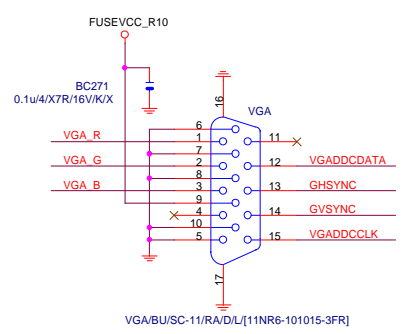
VGA DDC



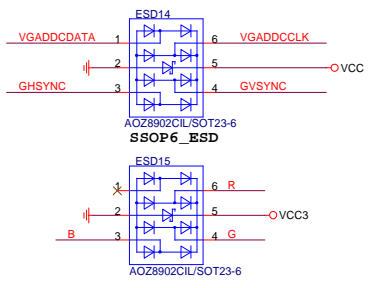
VGA DDC



VGA CONNECTOR

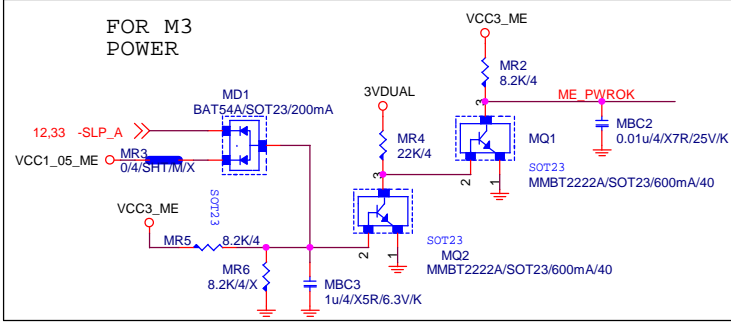
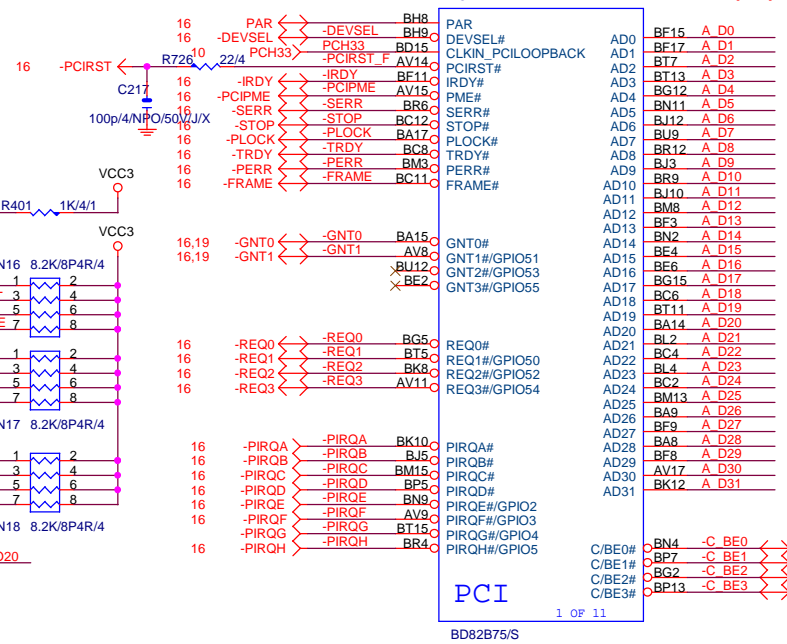
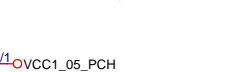
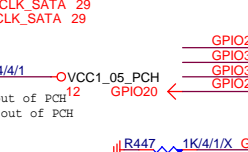
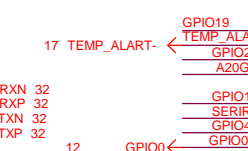
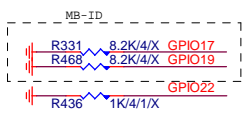
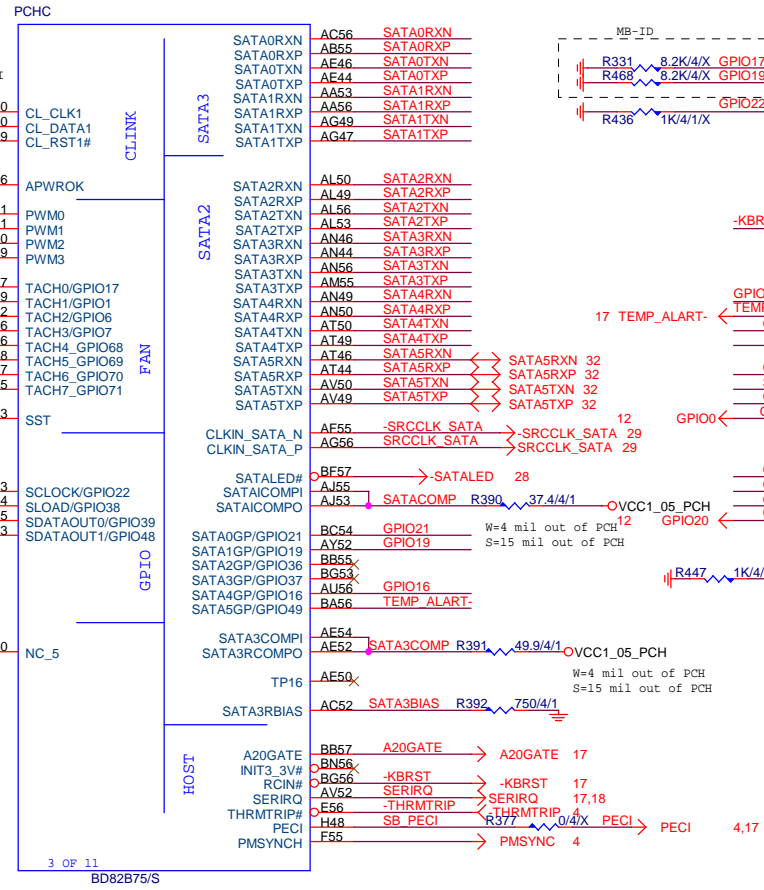
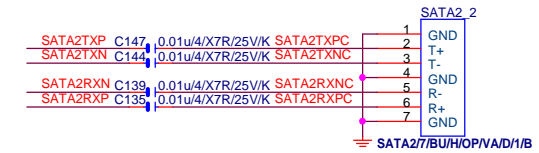
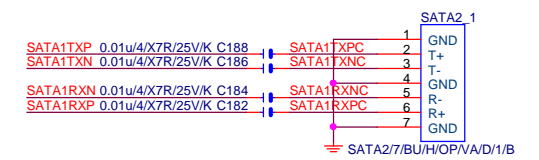
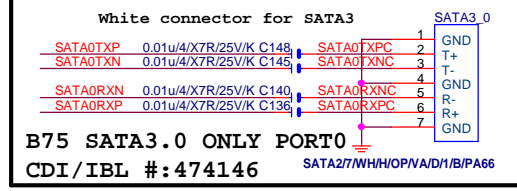
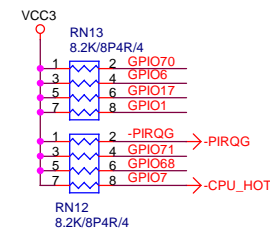
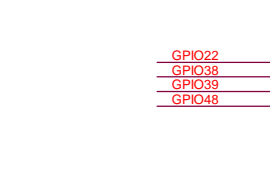
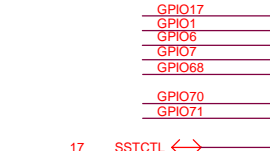
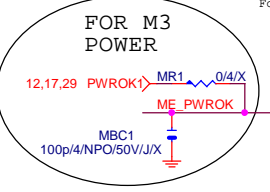


VGA ESD



Gigabyte Technology			
Title PCH DISPLAY ,CLK BUFFER			
Size	Document Number	Rev	
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Date:	Wednesday, July 04, 2012	Sheet	10 of 34

SATA:20/4.5/7.5/4.5/20 (breakout min 8/4/4/4/8)
Impedance=90 +/- 17.5%

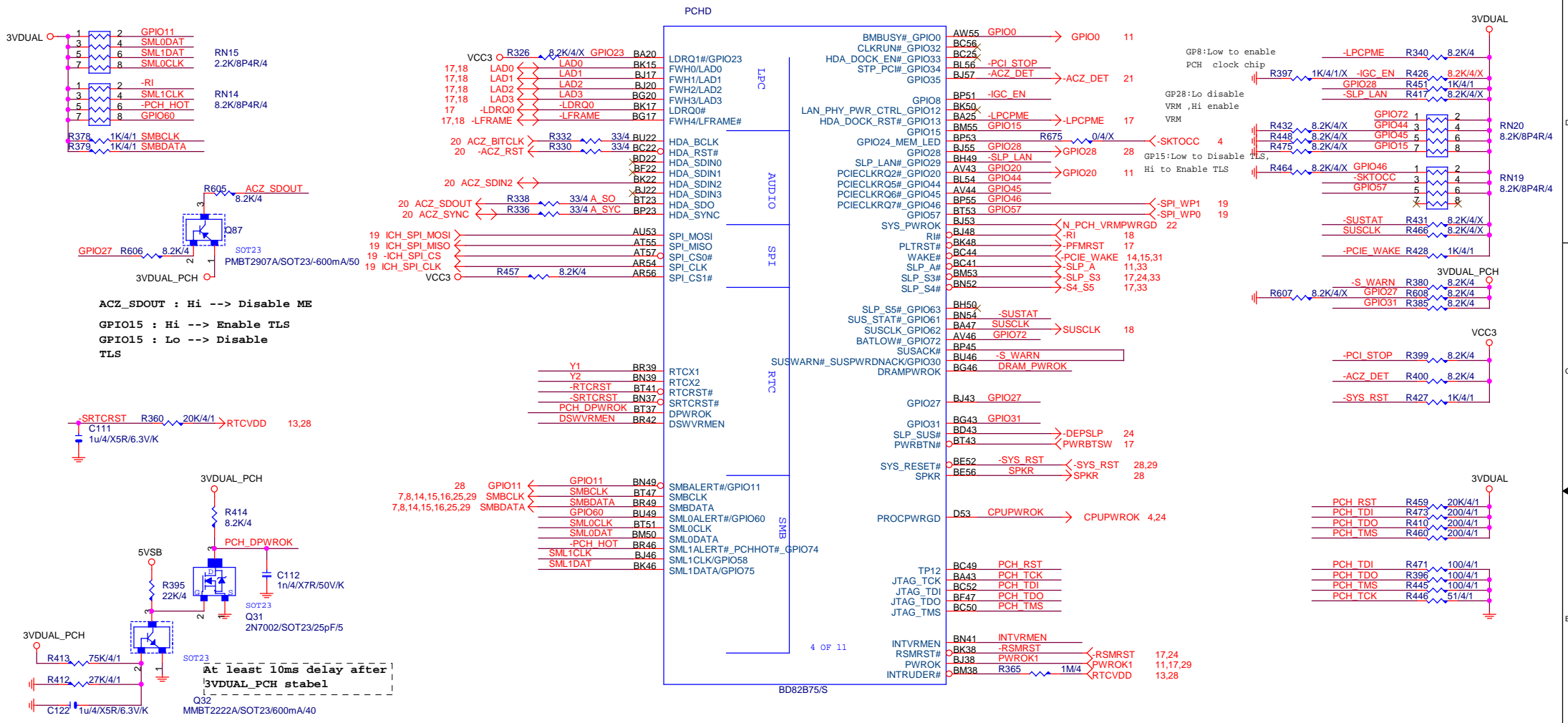


Gigabyte Technology

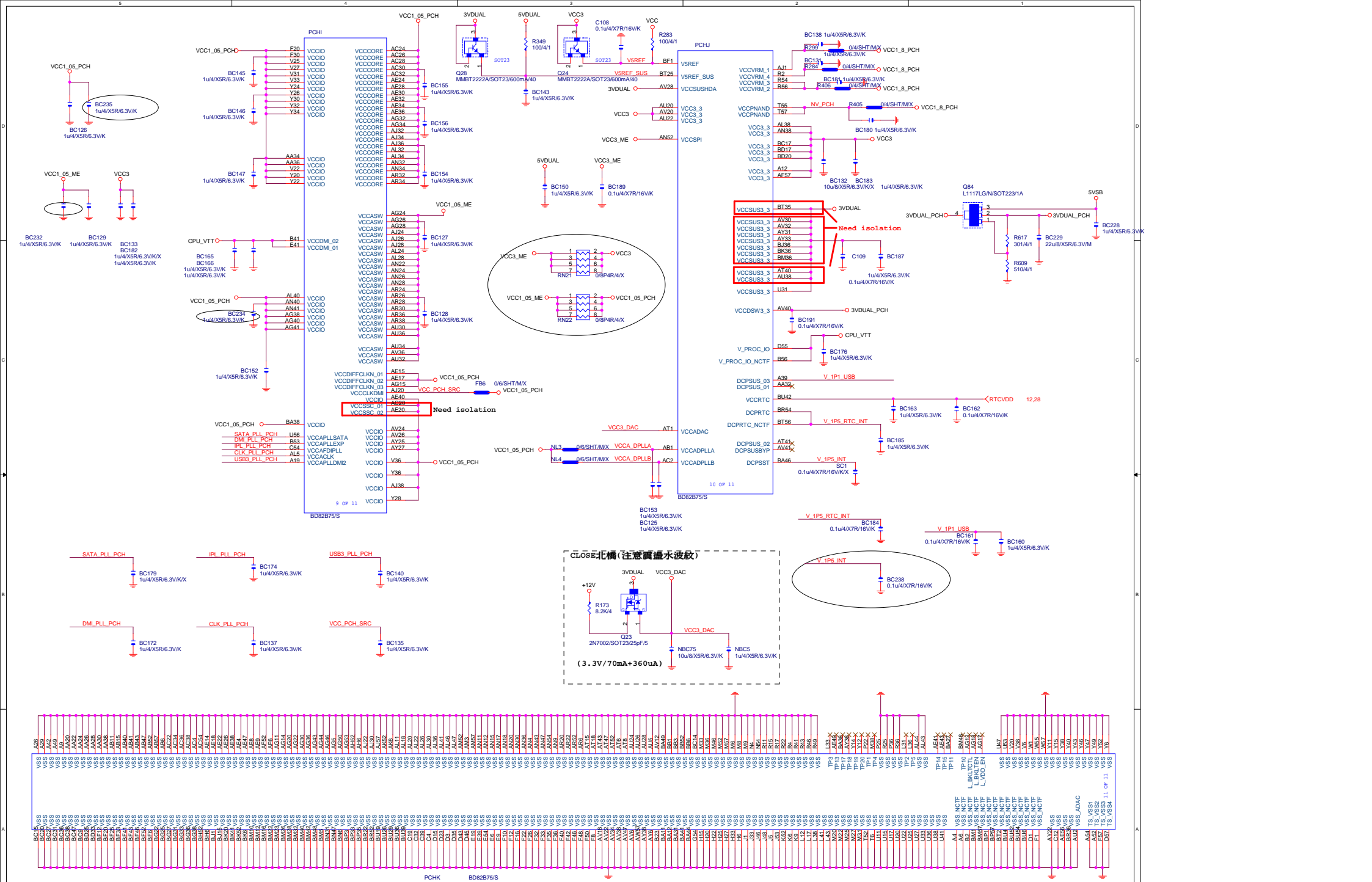
Title: PCH HOST, SATA, PCI

Size: B Document Number: GA-B75-D3V Rev: 1.1

Date: Wednesday, July 04, 2012 Sheet: 11 of 34

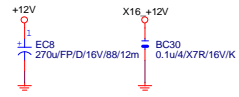


Gigabyte Technology		
PCH GPIO , CTRL , AUDIO		
Size	Document Number	Rev
B	GA-B75-D3V	1.1
Date:	Wednesday, July 04, 2012	Sheet 12 of 34

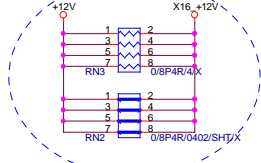


Gigabyte Technology

Title		PCH PWR, GND	
Size	Document Number	GA-B75-D3V	
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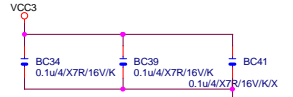
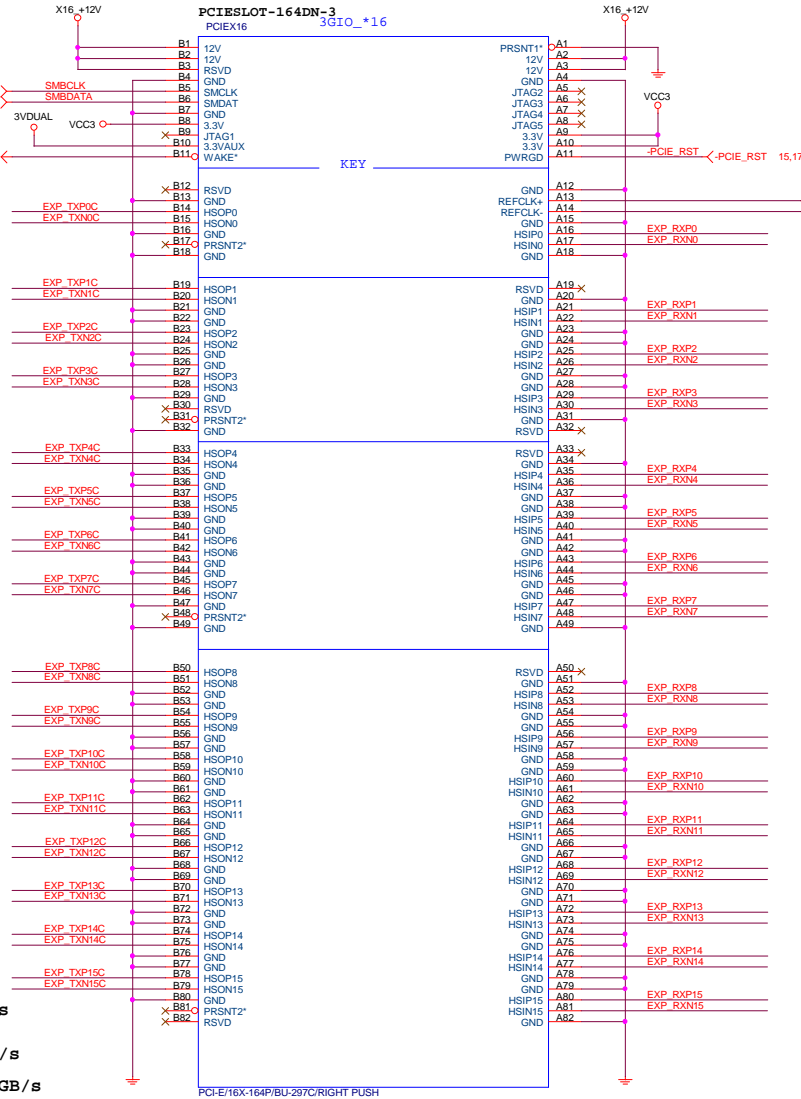
+12 protect short-wire test



PCIEX16:16/5/5/5/16



EXP_TXP0	C43	0.22u/4X5R6.3V/KE/EXP_TXP0C
EXP_TXN0	C36	0.22u/4X5R6.3V/KE/EXP_TXN0C
EXP_TXP1	C47	0.22u/4X5R6.3V/KE/EXP_TXP1C
EXP_TXN1	C49	0.22u/4X5R6.3V/KE/EXP_TXN1C
EXP_TXP2	C52	0.22u/4X5R6.3V/KE/EXP_TXP2C
EXP_TXN2	C54	0.22u/4X5R6.3V/KE/EXP_TXN2C
EXP_TXP3	C57	0.22u/4X5R6.3V/KE/EXP_TXP3C
EXP_TXN3	C59	0.22u/4X5R6.3V/KE/EXP_TXN3C
EXP_TXP4	C62	0.22u/4X5R6.3V/KE/EXP_TXP4C
EXP_TXN4	C64	0.22u/4X5R6.3V/KE/EXP_TXN4C
EXP_TXP5	C65	0.22u/4X5R6.3V/KE/EXP_TXP5C
EXP_TXN5	C67	0.22u/4X5R6.3V/KE/EXP_TXN5C
EXP_TXP6	C69	0.22u/4X5R6.3V/KE/EXP_TXP6C
EXP_TXN6	C71	0.22u/4X5R6.3V/KE/EXP_TXN6C
EXP_TXP7	C76	0.22u/4X5R6.3V/KE/EXP_TXP7C
EXP_TXN7	C75	0.22u/4X5R6.3V/KE/EXP_TXN7C
EXP_TXP8	C79	0.22u/4X5R6.3V/KE/EXP_TXP8C
EXP_TXN8	C80	0.22u/4X5R6.3V/KE/EXP_TXN8C
EXP_TXP9	C81	0.22u/4X5R6.3V/KE/EXP_TXP9C
EXP_TXN9	C82	0.22u/4X5R6.3V/KE/EXP_TXN9C
EXP_TXP10	C86	0.22u/4X5R6.3V/KE/EXP_TXP10C
EXP_TXN10	C87	0.22u/4X5R6.3V/KE/EXP_TXN10C
EXP_TXP11	C90	0.22u/4X5R6.3V/KE/EXP_TXP11C
EXP_TXN11	C91	0.22u/4X5R6.3V/KE/EXP_TXN11C
EXP_TXP12	C92	0.22u/4X5R6.3V/KE/EXP_TXP12C
EXP_TXN12	C93	0.22u/4X5R6.3V/KE/EXP_TXN12C
EXP_TXP13	C95	0.22u/4X5R6.3V/KE/EXP_TXP13C
EXP_TXN13	C96	0.22u/4X5R6.3V/KE/EXP_TXN13C
EXP_TXP14	C97	0.22u/4X5R6.3V/KE/EXP_TXP14C
EXP_TXN14	C98	0.22u/4X5R6.3V/KE/EXP_TXN14C
EXP_TXP15	C99	0.22u/4X5R6.3V/KE/EXP_TXP15C
EXP_TXN15	C100	0.22u/4X5R6.3V/KE/EXP_TXN15C



PCI-E REV:1.1--> 2.5GHZ

PCE-E X1 (單向) BANDWIDTH=2.5GHz*(8b/10b)=2Gb/s=250MB/s

PCE-E X1 (雙向) BANDWIDTH=2.5GHz*(8b/10b)X2=4Gb/s=500MB/s

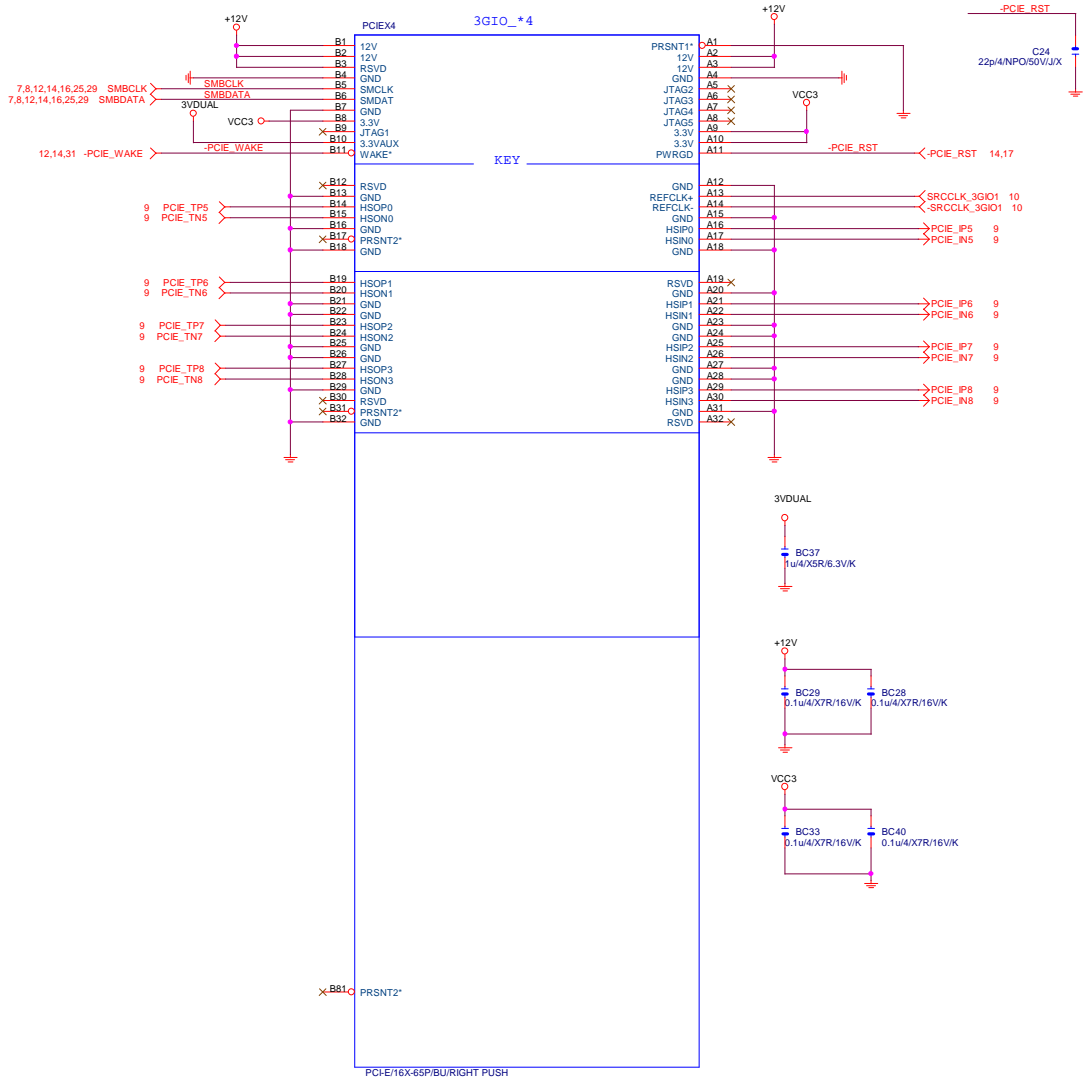
PCB-E X16 (單向) BANDWIDTH=2.5GHz*(8b/10b)X16=32Gb/s=4GB/s

PCB-E X16 (雙向) BANDWIDTH=2.5GHz*(8b/10b)X16X2=64Gb/s=8GB/s

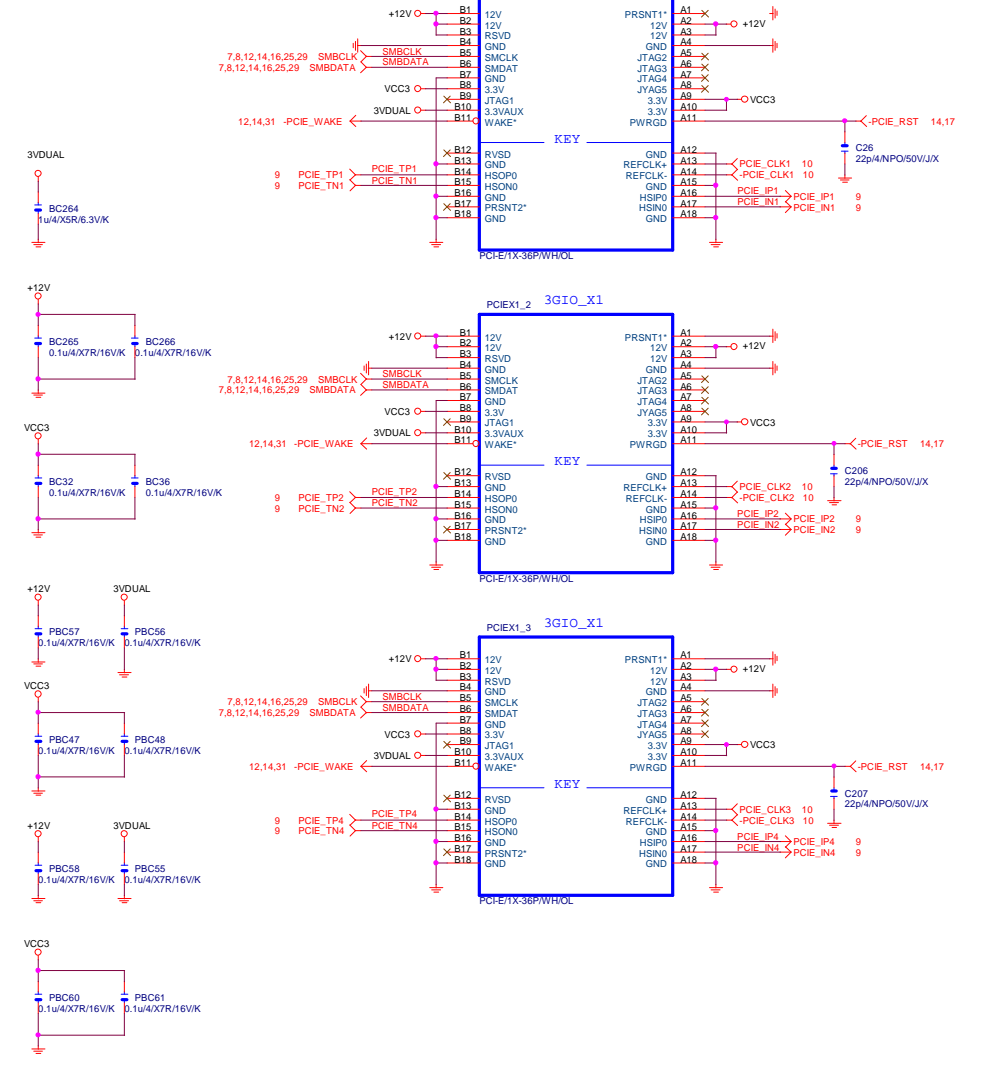
PCI-E REV:2.0--> 5GHZ

Gigabyte Technology		
Title	PCI EXPRESS * 16	
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PCIE*4



PCIE*1



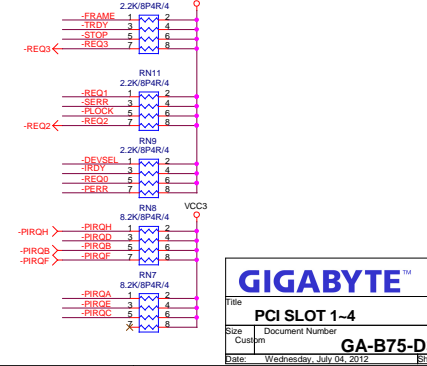
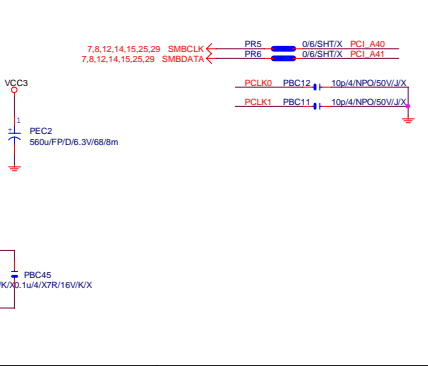
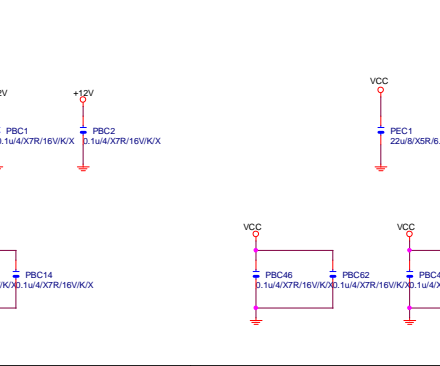
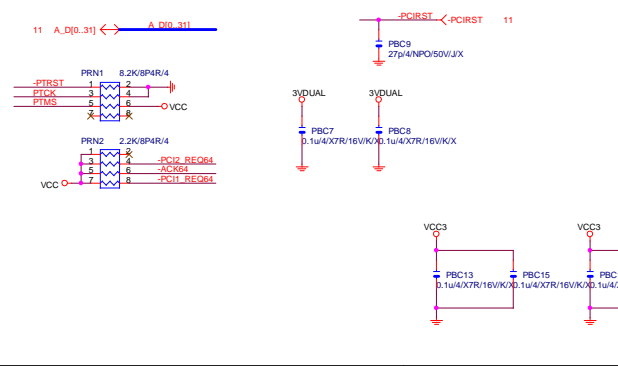
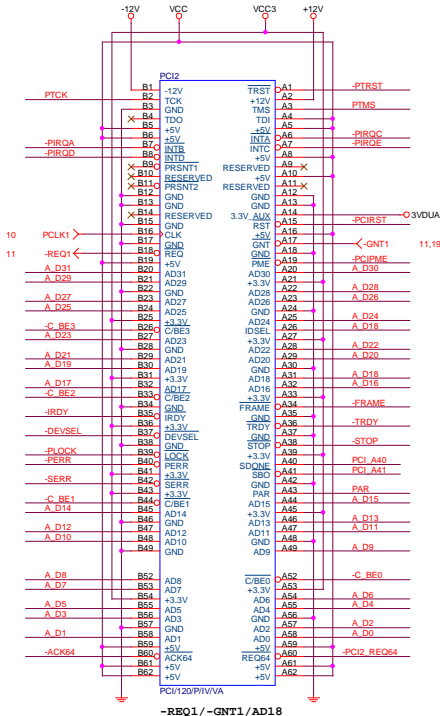
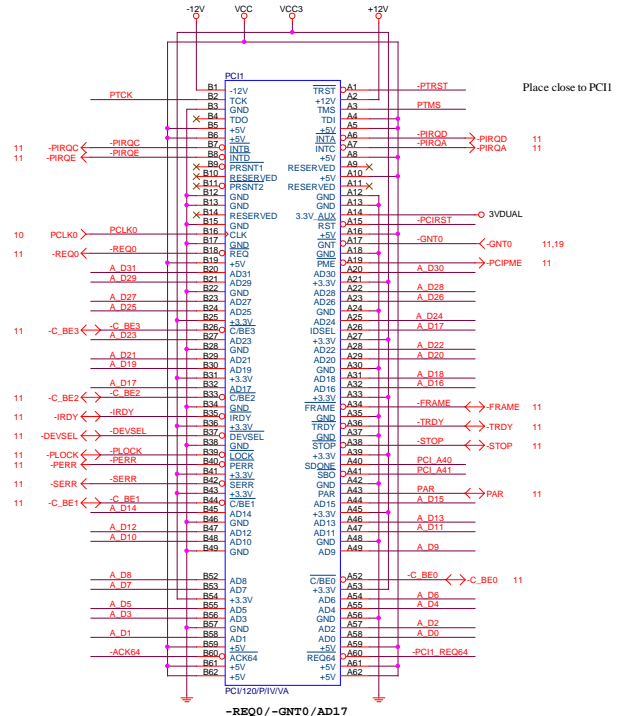
Gigabyte Technology		
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PCI SLOT 1

PCI SLOT 2

PCI SLOT 3

PCI SLOT 4



GIGABYTE

Title: PCI SLOT 1-4

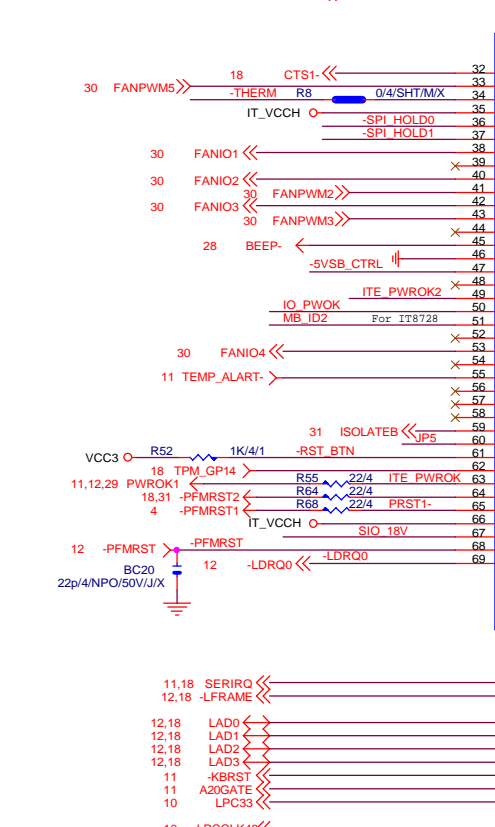
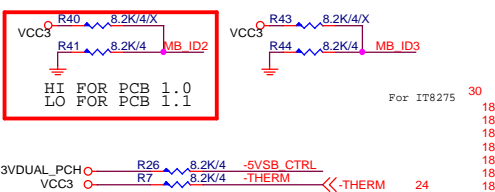
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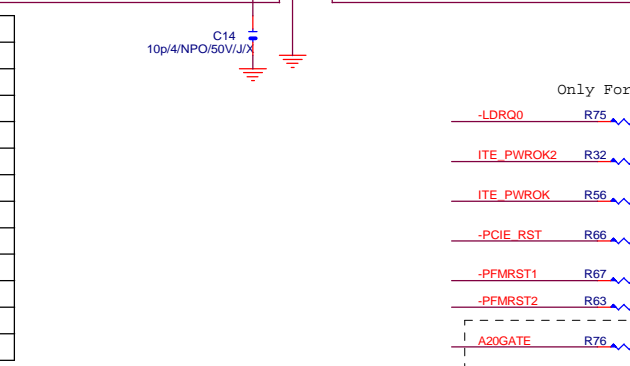
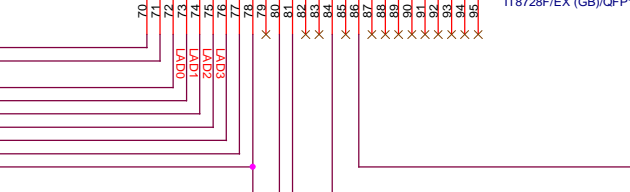
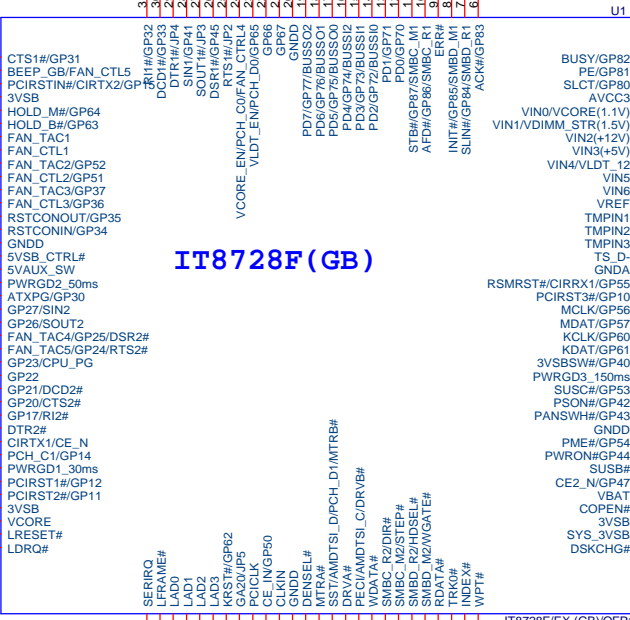
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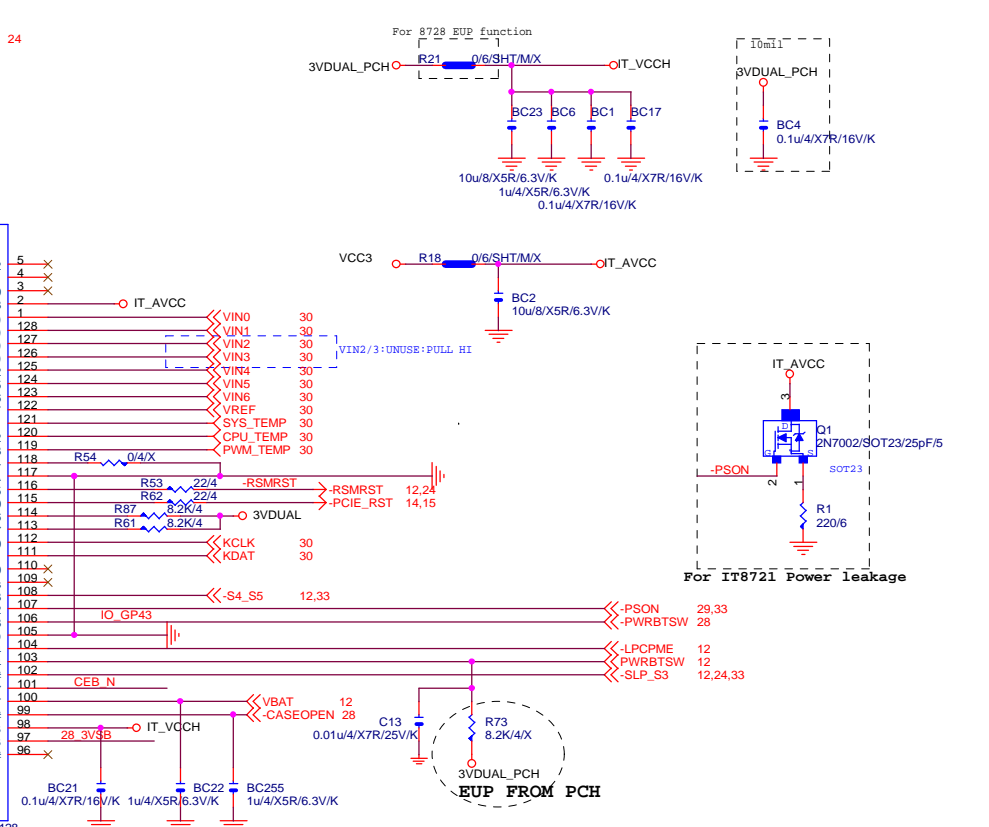
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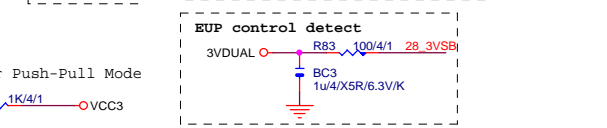
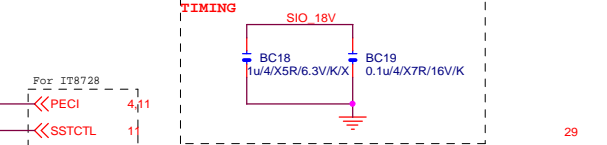
	IT8721	IT8728
PIN121	FAN_CTL4/VID_TURBO	VCORE_EN/PCH_C0
PIN120	VDDA_EN	VLDT_EN/PCH_D0
PIN19	GP30	ATXPG
PIN31	GP14	PCH_C1
PIN53	SST/AMDTSI_D/PECI_AVA/MTRB#/PCH_D	SST/AMDTSI_D/MTRB#/PCH_D1
PIN55	PECI/AMDTSI_C/DRVB#/PCH_C	PECI/AMDTSI_C/DRVB#
PIN66	GP47	SYS_3VSB
PIN70	SYS_3VSB	GP47
PIN95	VIN3/ATXPG	VIN2 (VCC5)
PIN96	VIN2	VIN1 (VCC12)
PIN97	VIN1 (VCC5)	VIN1/VDIMM_STR (1.5V)
PIN98	VIN0 (VCC12)	VIN0/VCORE (1.1V)



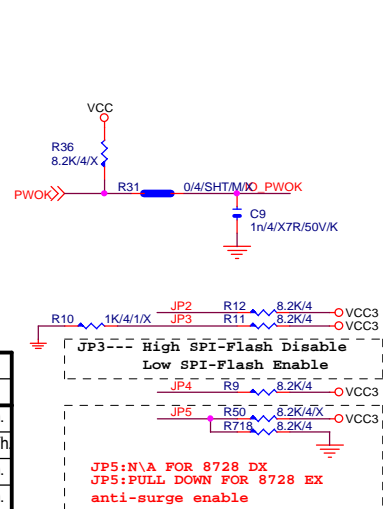
Hi :Disable WDT
Lo :Enable WDT to rest PWROK



internal power pin, max 22nF cap---->2uF for 8728 低温相容性---->用程式卡下不良.
FOR EX 改用1颗0.1u 修正VCORE / 3VDUAL



JP4	Function
1	k8 power sequency function is Disable
0	k8 power sequency function is Enable
JP3	1 0 The default value of EC Index 63h/6Bh/73h is FFh
JP5	0 1 The default value of EC Index 63h/6Bh/73h is 00h
	0 0 The default value of EC Index 63h/6Bh/73h is 40h.



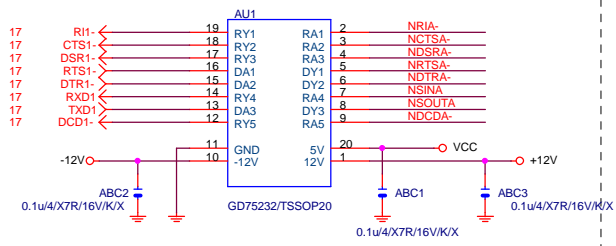
Gigabyte Technology

Title: ITE 8728 LPC IO

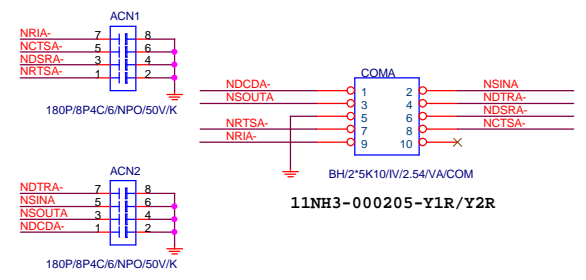
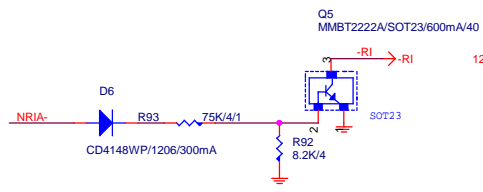
Size: Custom Document Number: GA-B75-D3V Rev: 1.1

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COMA

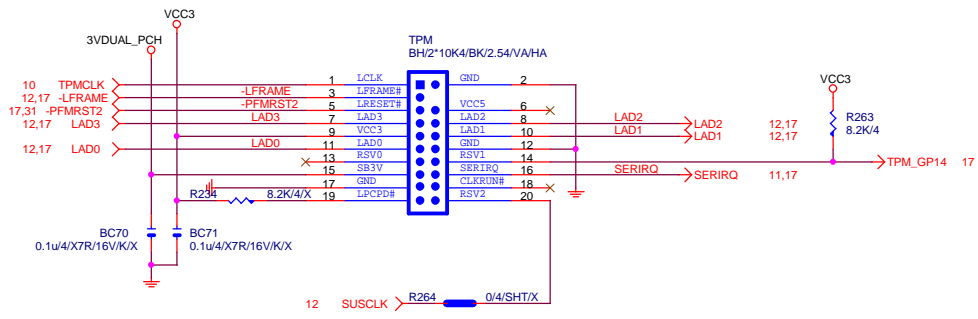


COM RI



LPT PORT

TPM



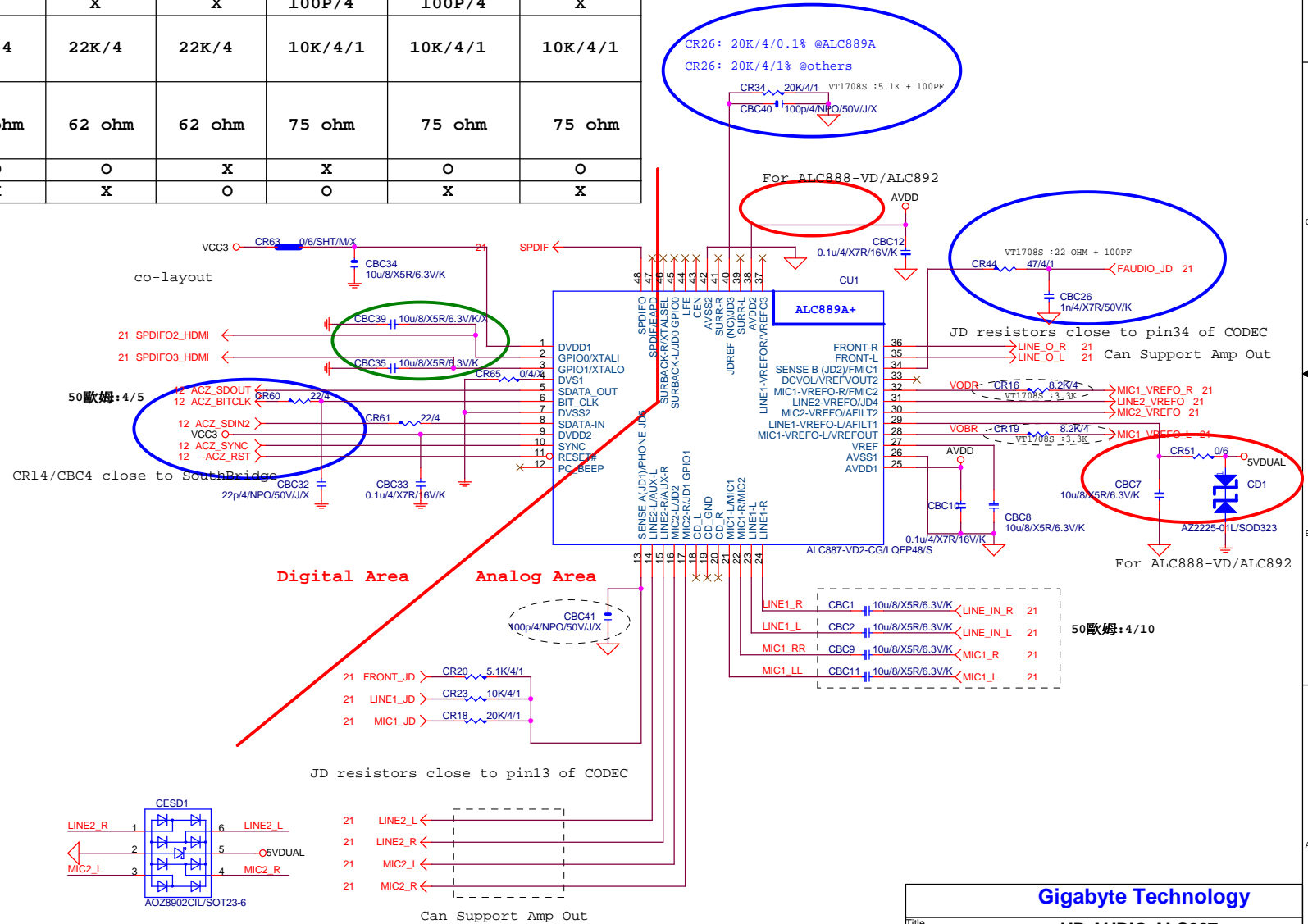
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Gigabyte Technology

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BIOS			
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	ALC662	ALC887-VD2	ALC889	VT1708S-CD	VT1708S-CE	VT2021
CR49	X	X	O	O	X	O
CBC36	O	O	X	X	O	X
CR28/CBC11	47ohm+1nF	47ohm+1nF	47ohm+1nF	22ohm+100P	22ohm+100P	47ohm+1nF
CR52	X	O	O	O	O	O
CR57	O	X	X	X	X	X
CBC1/CBC2	10uF/X5R	10uF/X5R	22uF/X5R	10uF/X5R	10uF/X5R	10uF/X5R
CR18	5.11K/4/1	5.11K/4/1	5.11K/4/1	5.1K/4/1	5.1K/4/1	5.1K/4/1
CR36	20K/4/1	20K/4/1	20K/4/1	5.1K/4/1	20K/4/1	5.1K/4/1
CBC38/CBC39	X	X	X	100P/4	100P/4	X
CR10/CR8/CR20/CR45/ CR42/CR51/CR43/CR22/ CR27/CR26	22K/4	22K/4	22K/4	10K/4/1	10K/4/1	10K/4/1
CR7/CR9/CR5/CR13/ CR29/CR32/CR46/CR19/ CR50/CR41/CR21/CR47/ CR2/CR11/CR14/CR24	62 ohm	62 ohm	62 ohm	75 ohm	75 ohm	75 ohm
CFB1/CD1/CBC4	O	O	X	X	O	O
CD2/CD3/CQ3/CQ4	X	X	O	O	X	X



CR26: 20K/4/0.1% @ALC889A
 CR26: 20K/4/1% @others

For ALC888-VD/ALC892

JD resistors close to pin34 of CODEC
 Can Support Amp Out

For ALC888-VD/ALC892

50欧姆: 4/10

JD resistors close to pin13 of CODEC

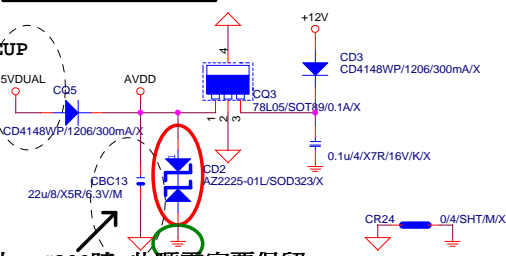
Can Support Amp Out

Gigabyte Technology

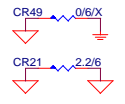
HD AUDIO ALC887

Title	HD AUDIO ALC887	
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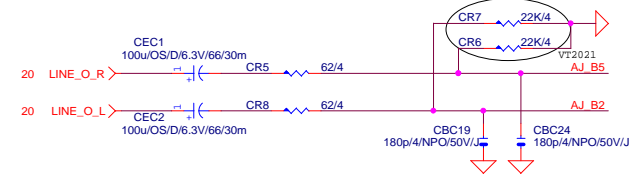
CODEC POWER/EMI PAD



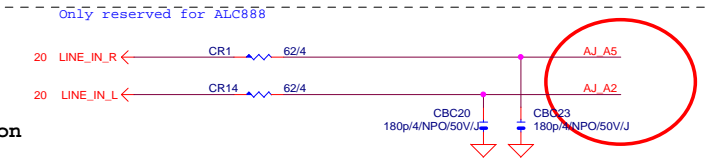
上ALC892時,此顆電容要保留
ADD CD2 For ESD PROTECT DIODE



LINE-OUT

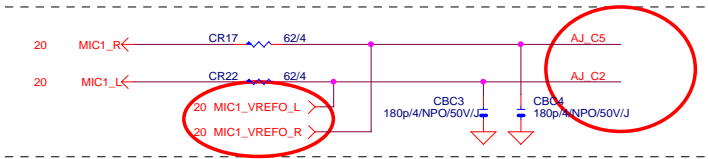


LINE-IN

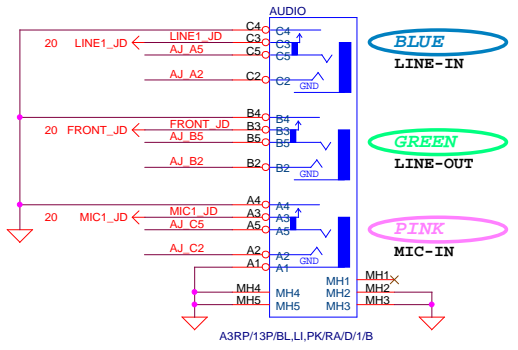
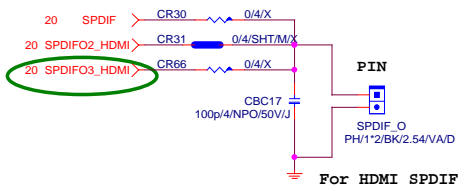


Verify MIC function in LINE-in

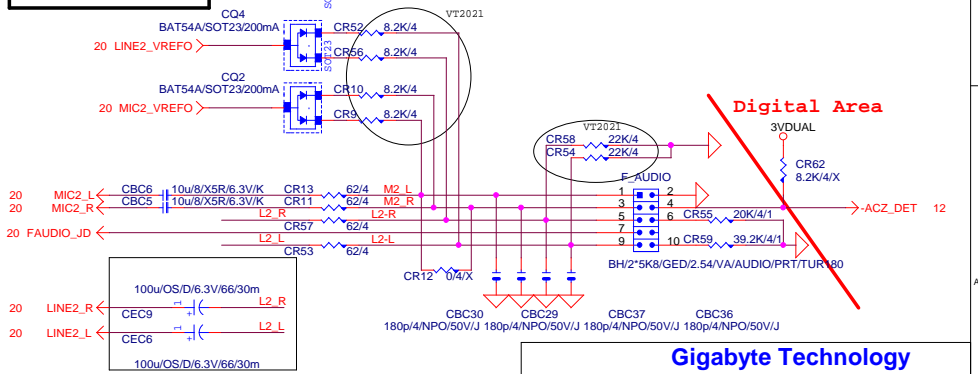
MIC-IN



SPDIF_OUT

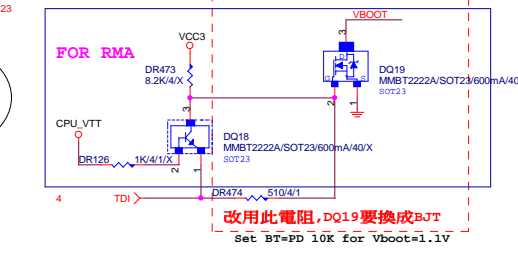
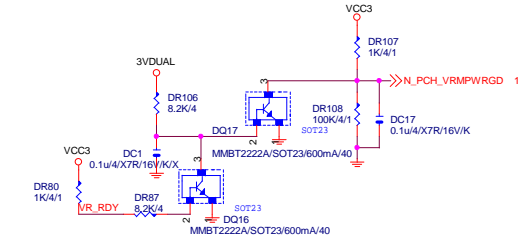
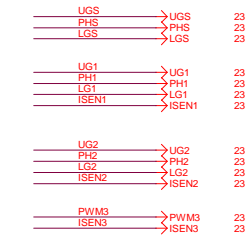
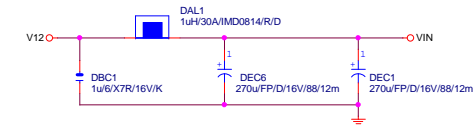
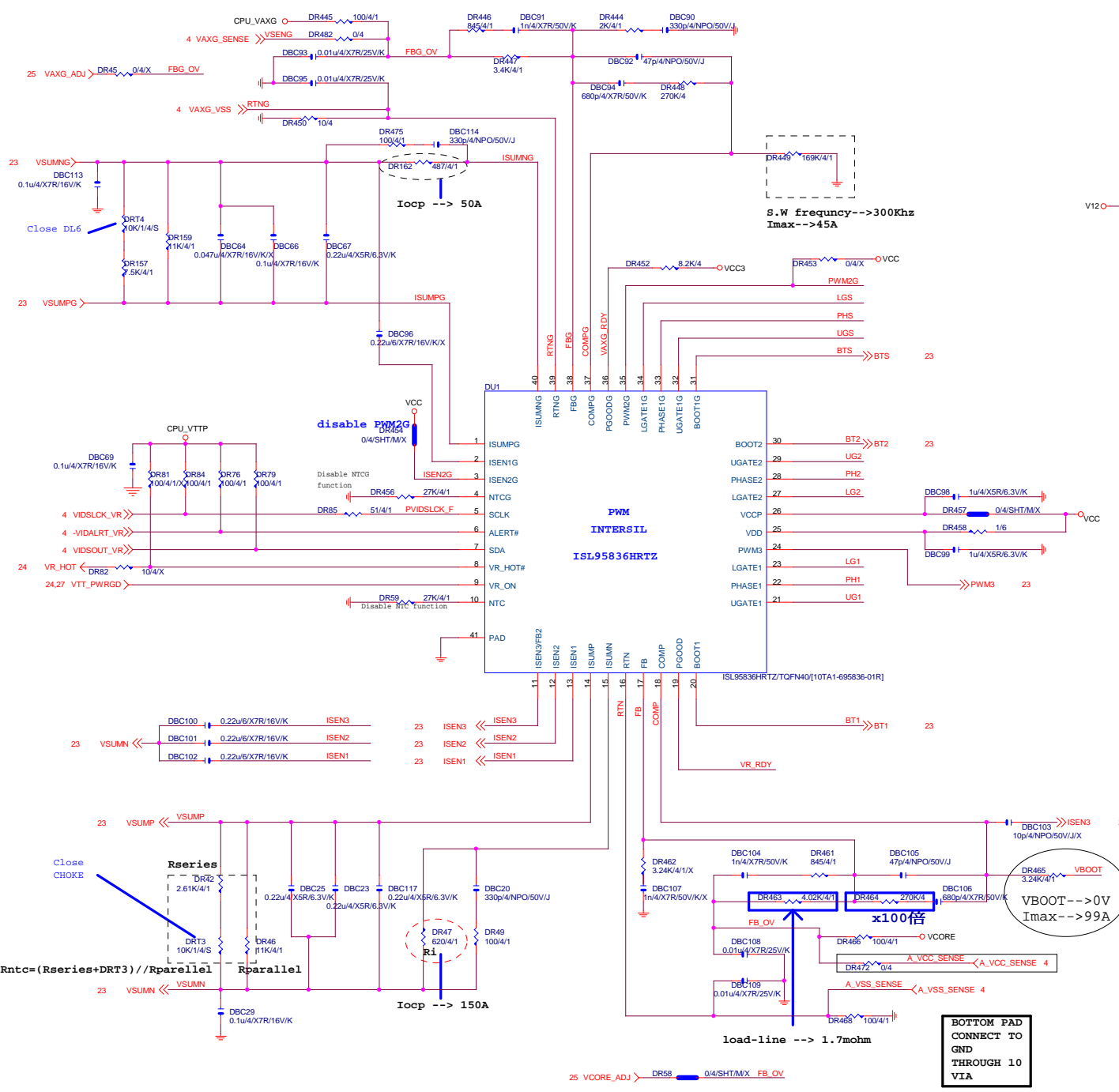


AZALIA FRONT PANEL



Digital Area

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AUDIO JACK		
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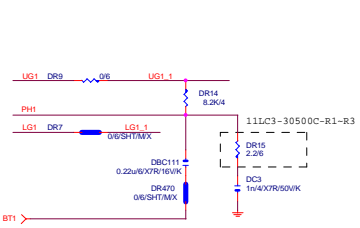


BOTTOM PAD CONNECT TO GND THROUGH 10 VIA

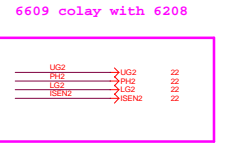
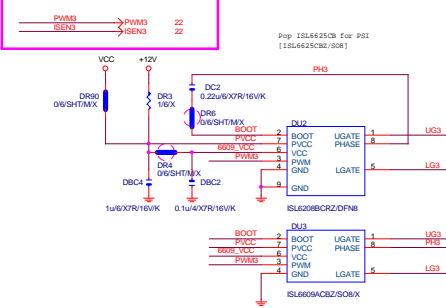
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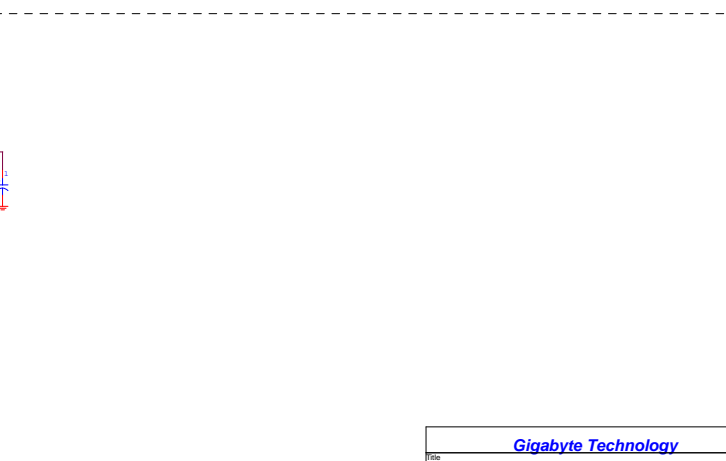
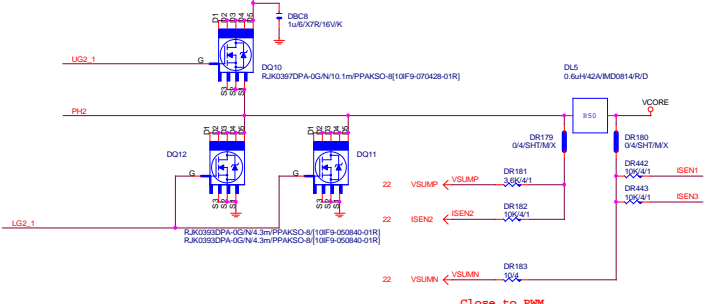
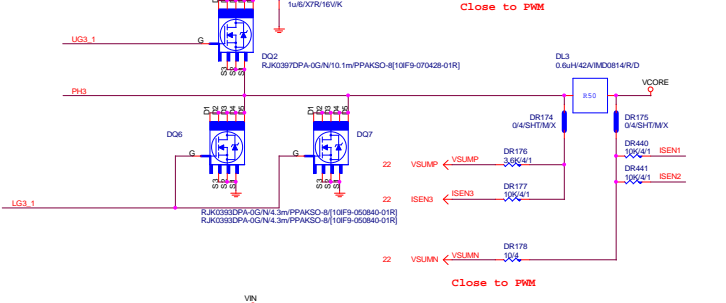
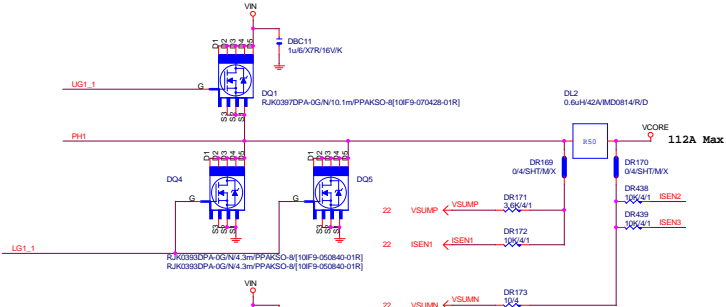
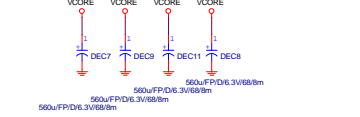
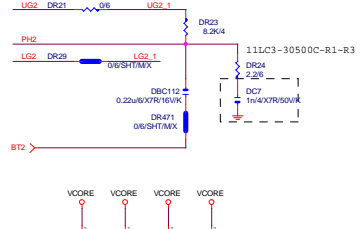
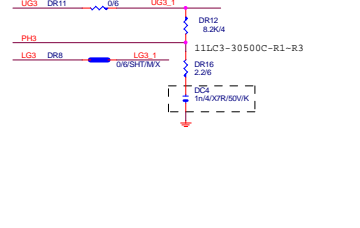
[1]



[3]



[2]



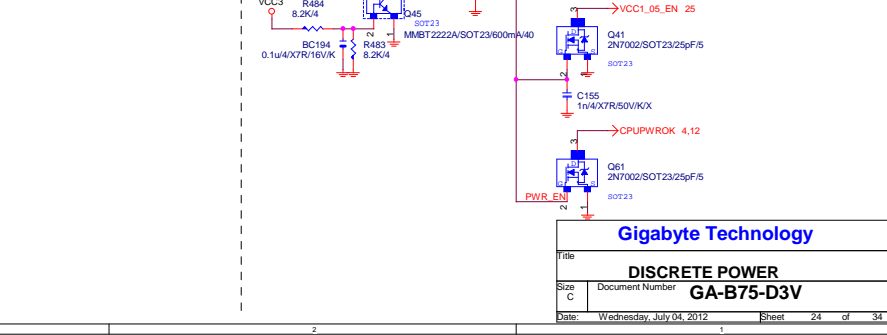
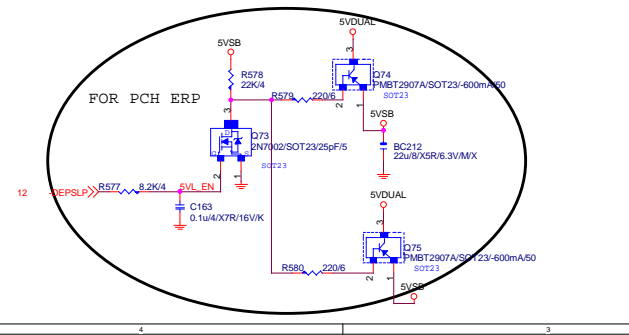
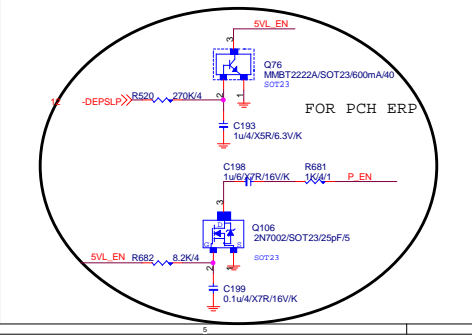
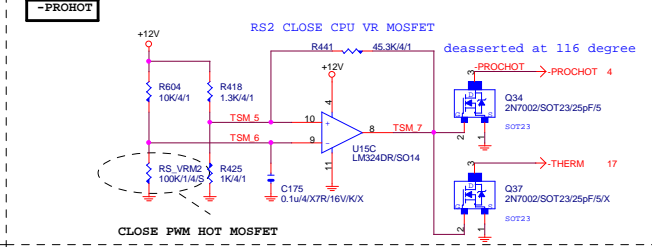
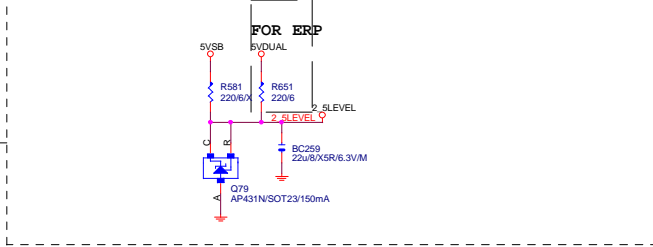
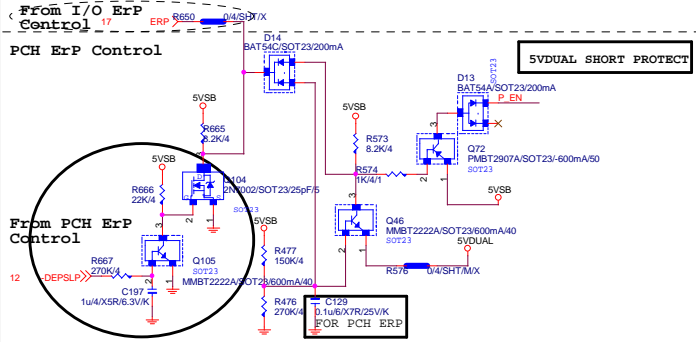
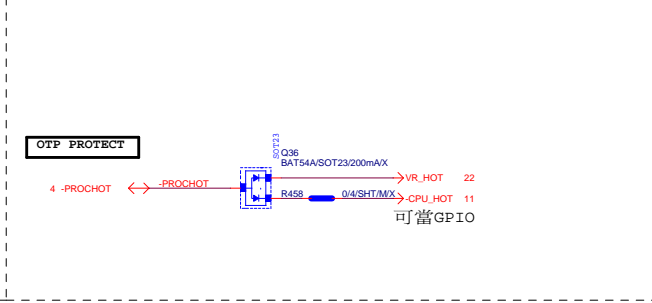
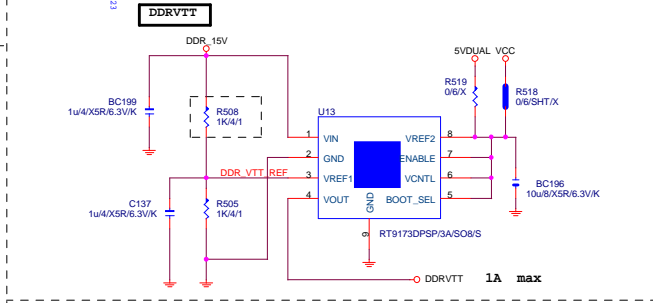
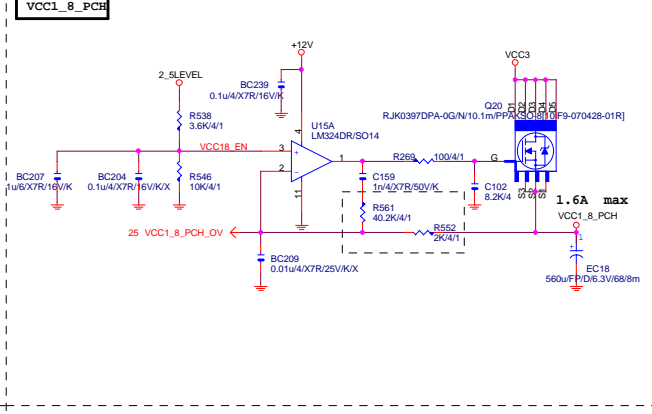
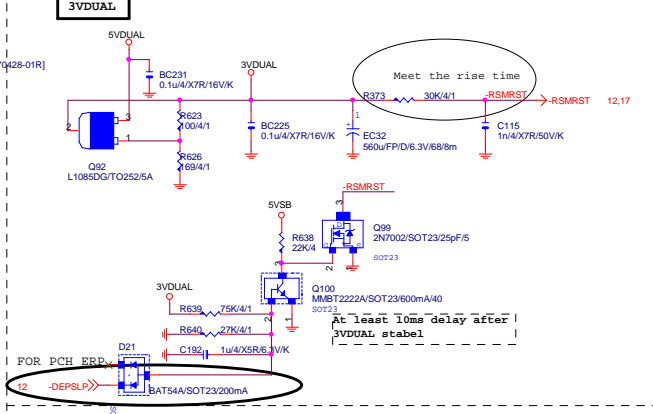
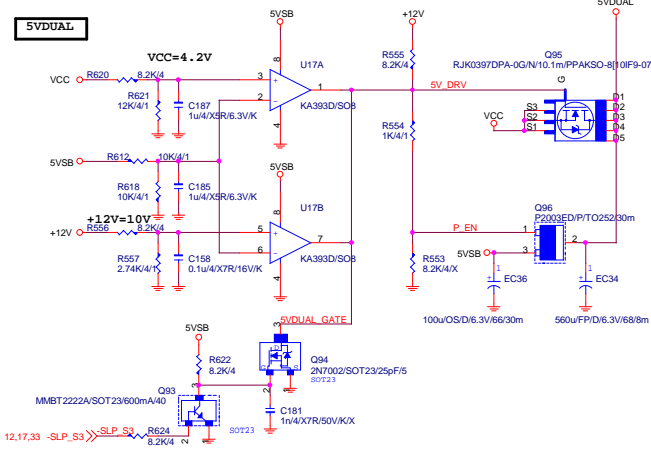
Vauxg

Gigabyte Technology

CPU CORE VR-3

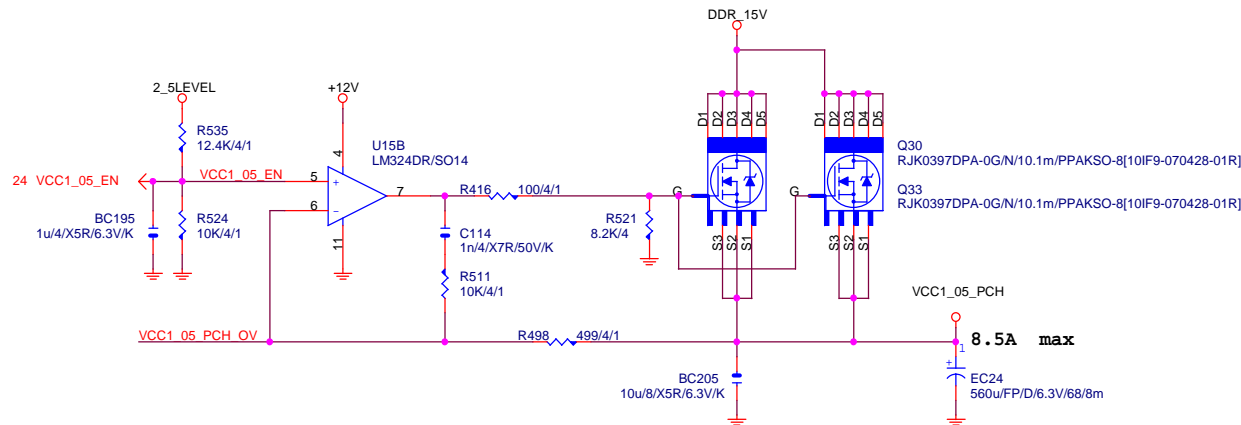
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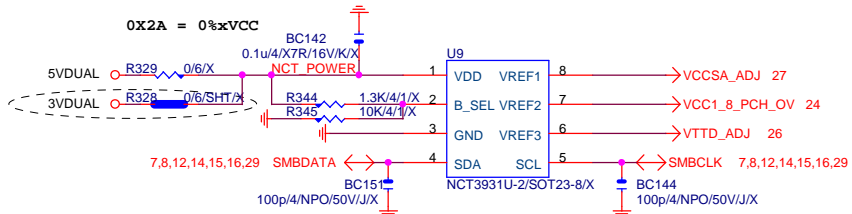
Gigabyte Technology		
Title DISCRETE POWER		
Size C	Document Number GA-B75-D3V	Rev 1.1
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VCC1_05_PCH

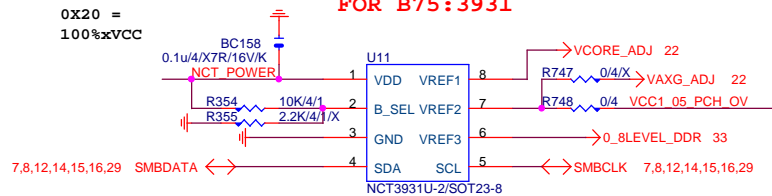


Voltage console

ADDRESS	0X2A	0X20	0X22	0X26
R1 (K)	OPEN	10	1.3	3
R2 (K)	10	OPEN	3.9	2.2
%VCC	0	100	75	42



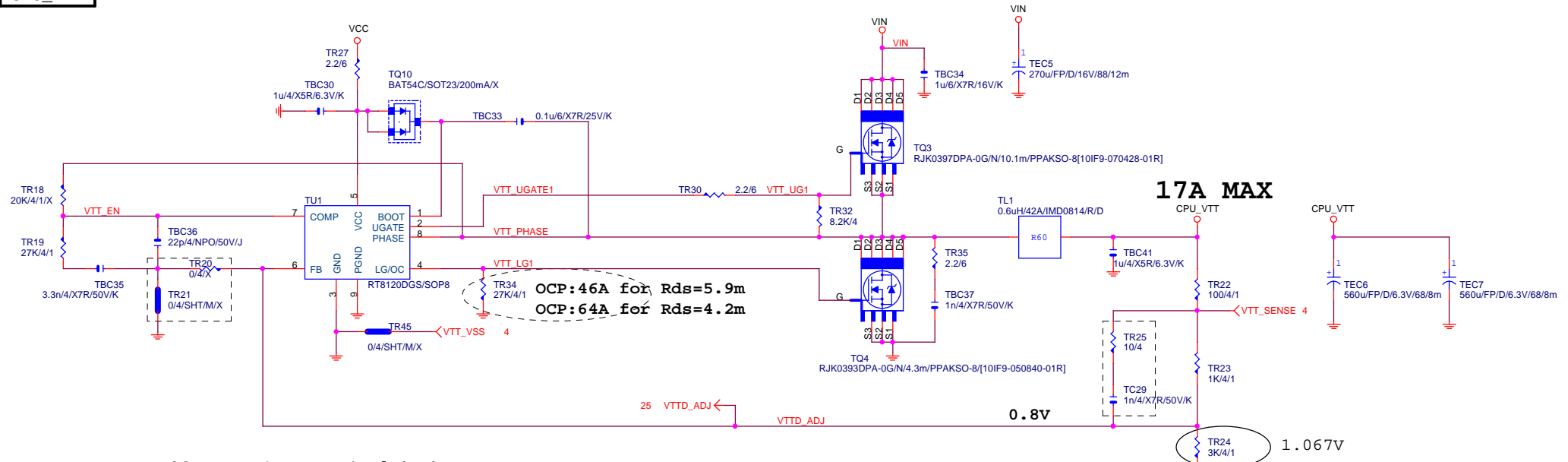
FOR B75:3931



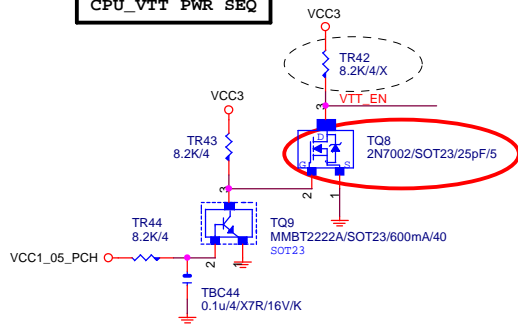
up6262	0X2A	0X20
VREF1	VCC1_05_PCH	VCORE
VREF2	VCC1_8_PCH	VCCSA
VREF3	CPU_VTT	DDR

Gigabyte Technology		
Title PCH CORE / VOLTAGE CONSOLE		
Size B	Document Number GA-B75-D3V	Rev 1.1
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CPU_VTT



CPU_VTT PWR SEQ



$$OCP: 46A = \frac{R_{oset} * I_{ocset}}{R_{ds(on)}}$$

$$= \frac{27K * 10\mu A}{5.9m}$$

VTT_SEL	
HI	1.05V
LO	1.0V

According intel
CDI/IBP#476733, 固定1.05V

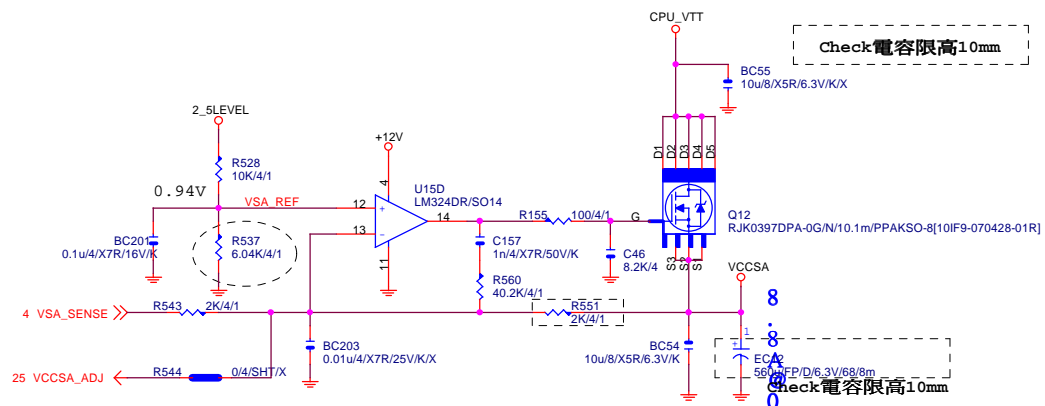
GIGABYTE™

Title: **RT8120_CPU_VTT**

Size: Custom Document Number: **GA-B75-D3V** Rev: **1.1**

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VCC_SA



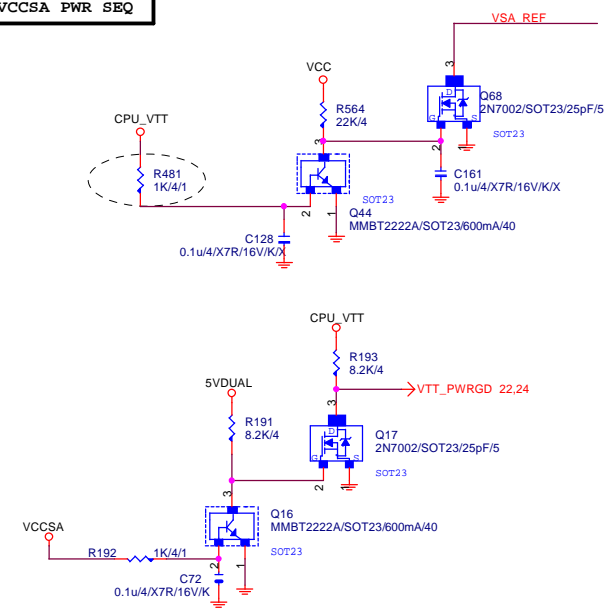
PDG 1.01

VSA_SEL	0.85V
HI	0.85V
LO	0.925V

According intel
CDI / IBP#476733, 固定0.925V

8
.
8
5
/
0
.
9
2
5
V

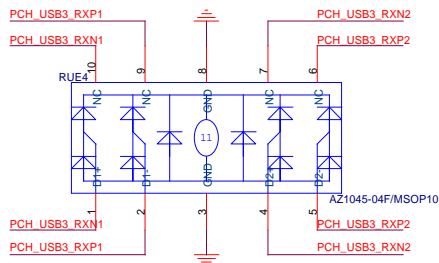
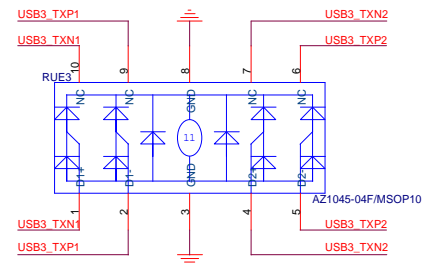
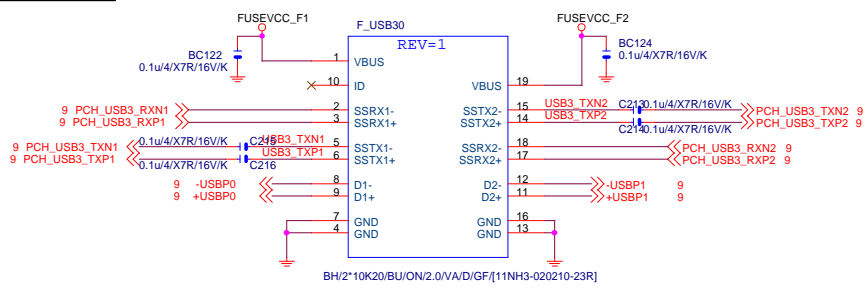
VCCSA PWR SEQ



Gigabyte Technology

Title			VCCSA POWER		
Size	Document Number		Rev		1.1
Custom	GA-B75-D3V				
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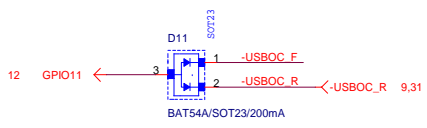
FRONT USB1



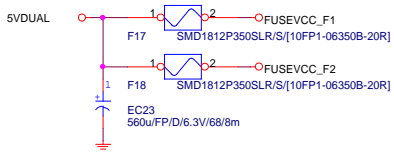
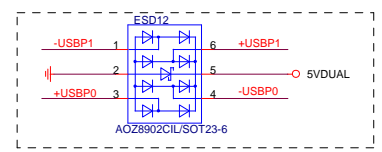
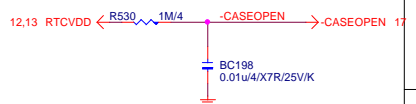
ESD Close to connector

ESD Close to connector

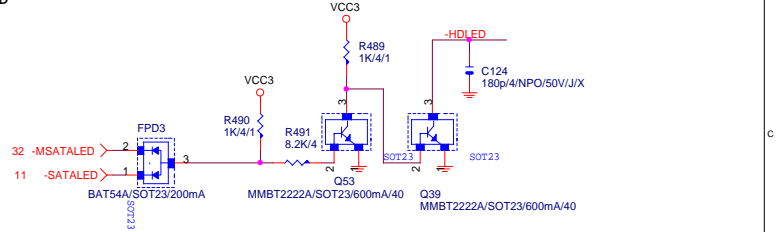
F_USB POWER PROTECT



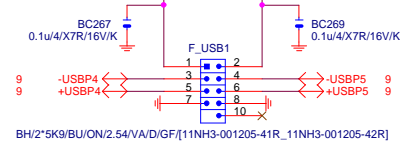
CASE OPEN



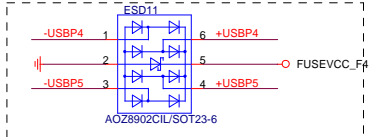
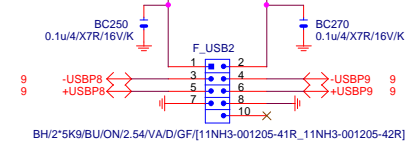
SATA LED



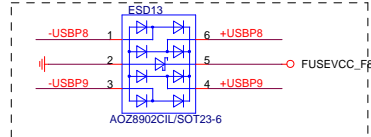
FRONT USB1



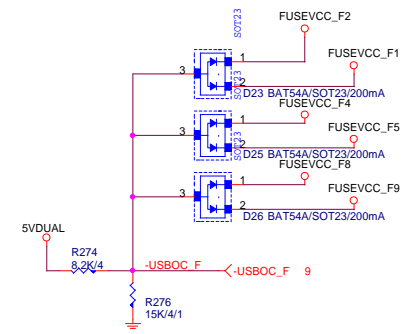
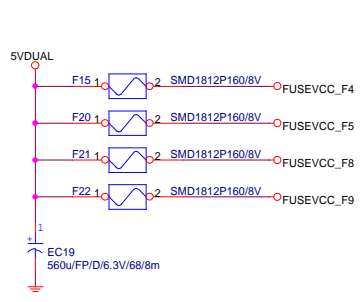
FRONT USB2



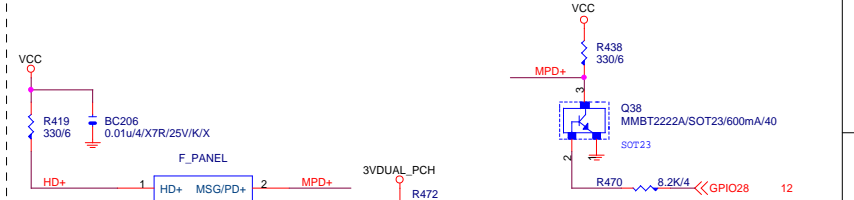
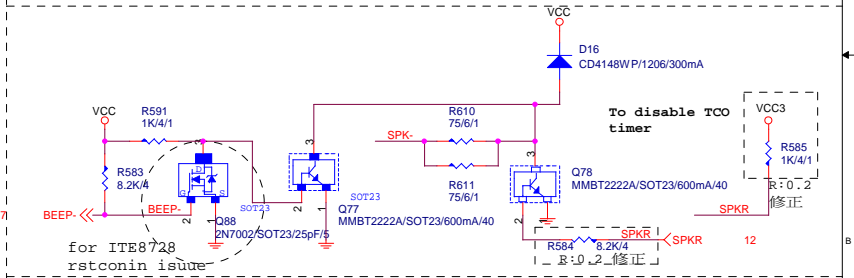
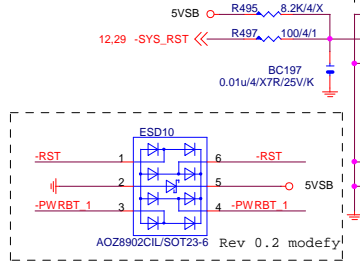
ESD Close to connector



ESD Close to connector

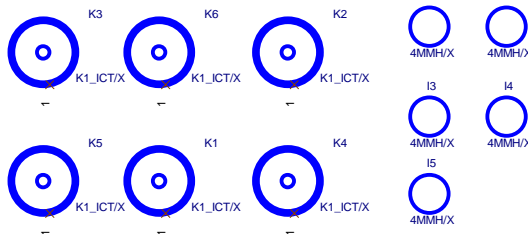
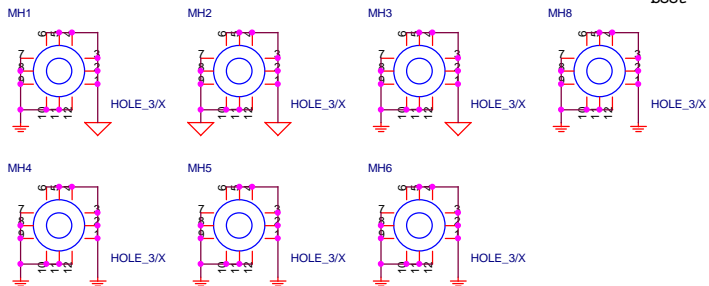
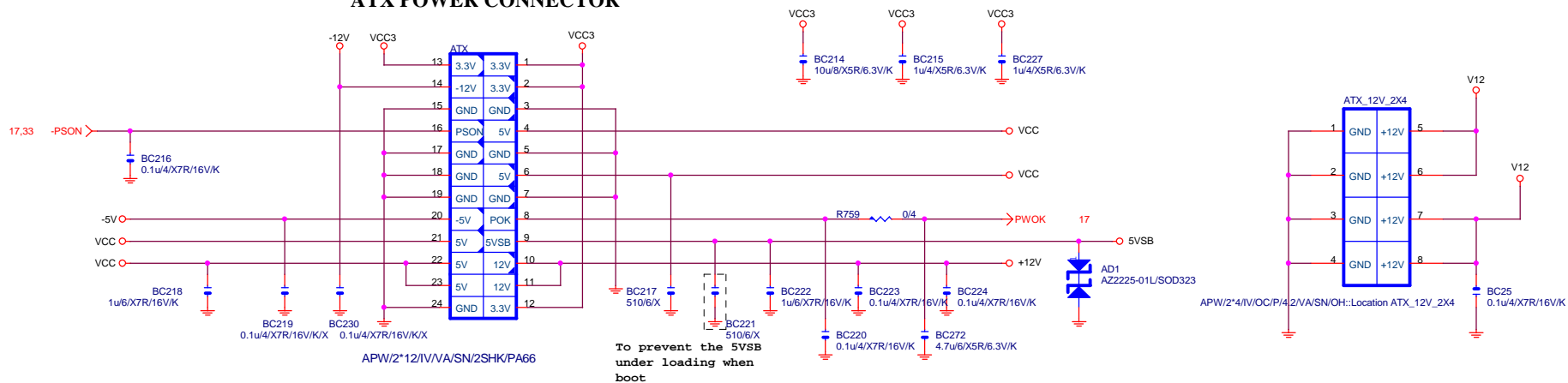


INTEL FRONT PANEL

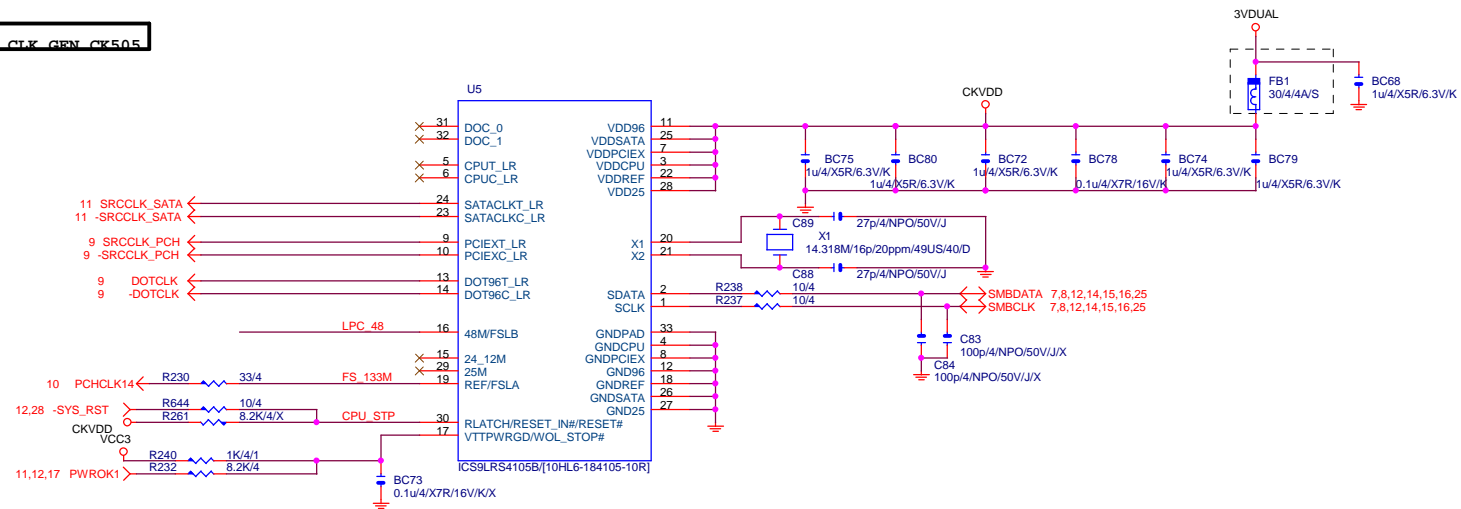


Gigabyte Technology		
FP,F_USB,USB PWR,FDD,BZ		
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ATX POWER CONNECTOR



CLK_GRP_CK505



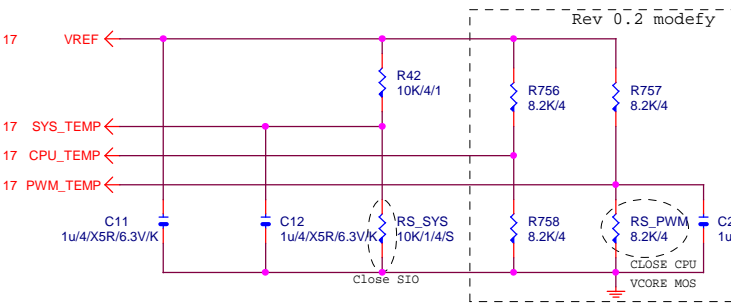
CPU Frequency Selection

FS	CPU
0	100M <Default>
1	133M

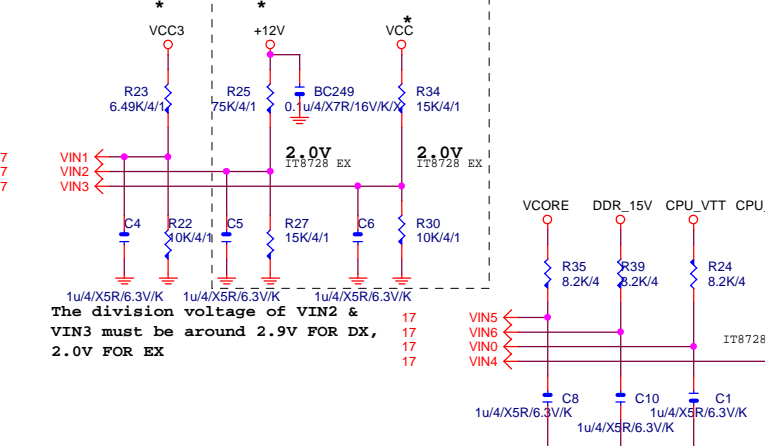
Gigabyte Technology

Title		
ATX POWER CONNECTOR		
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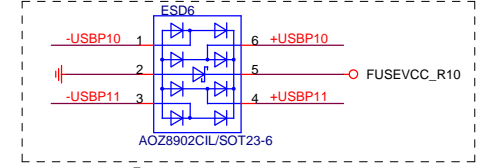
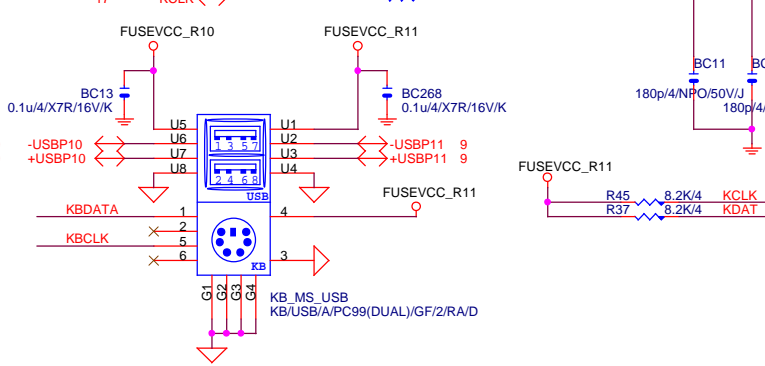
TEMP H/W MONITOR



VOLTAGE-- H/W MONITOR

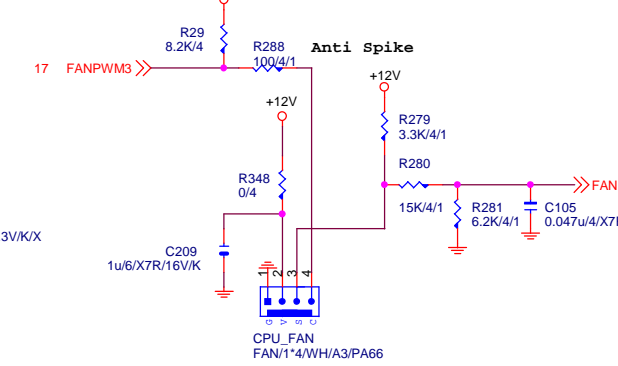


KB/USB

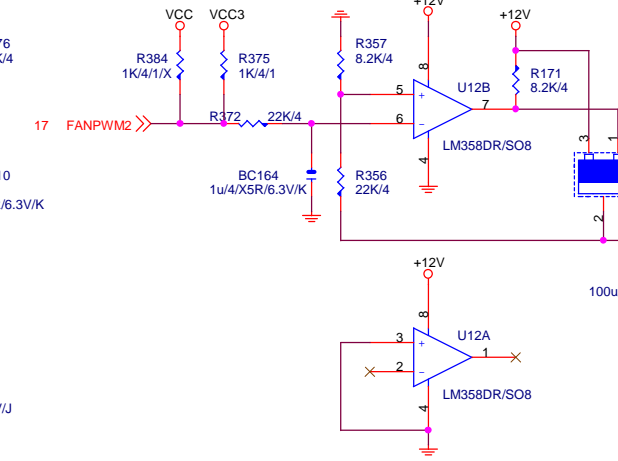


ESD Close to connector

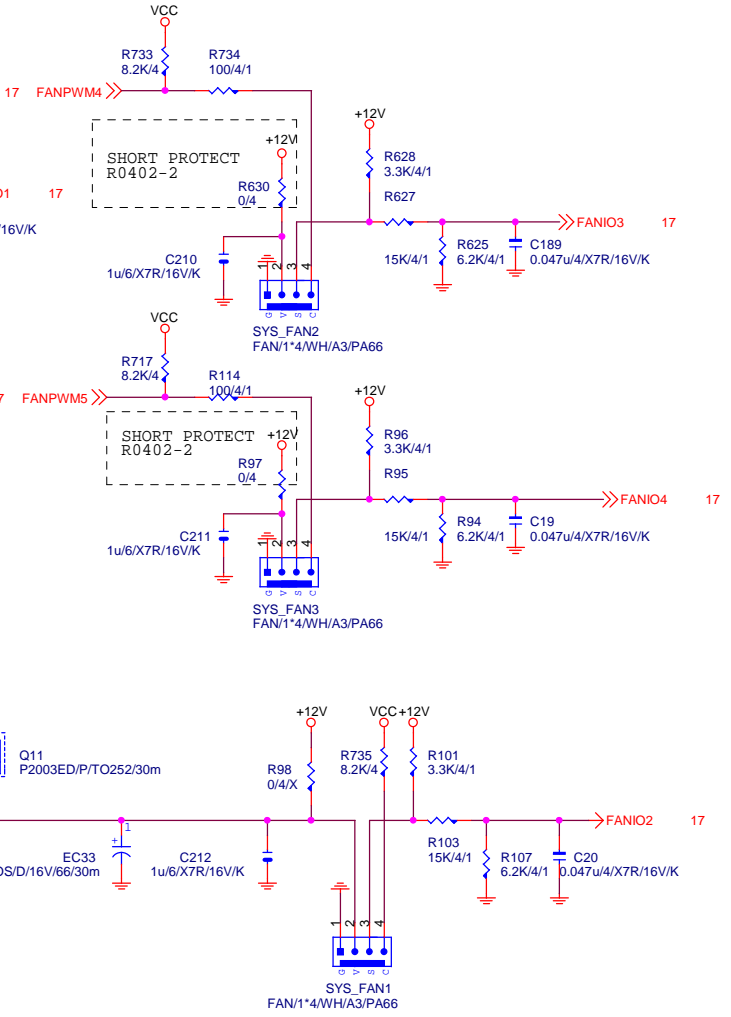
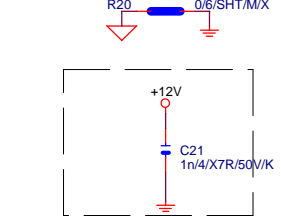
CPU SMART FAN



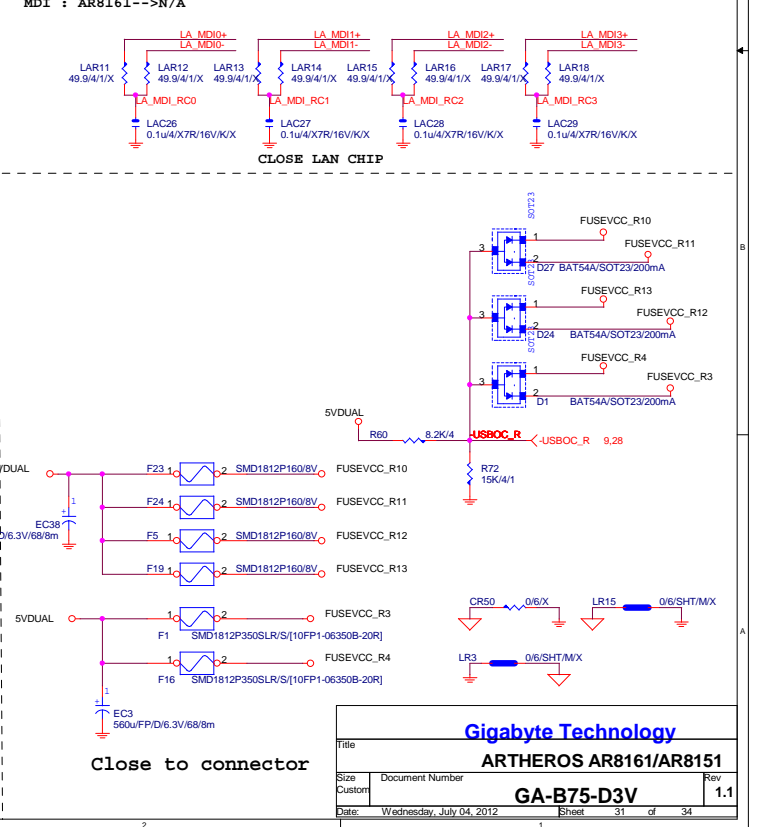
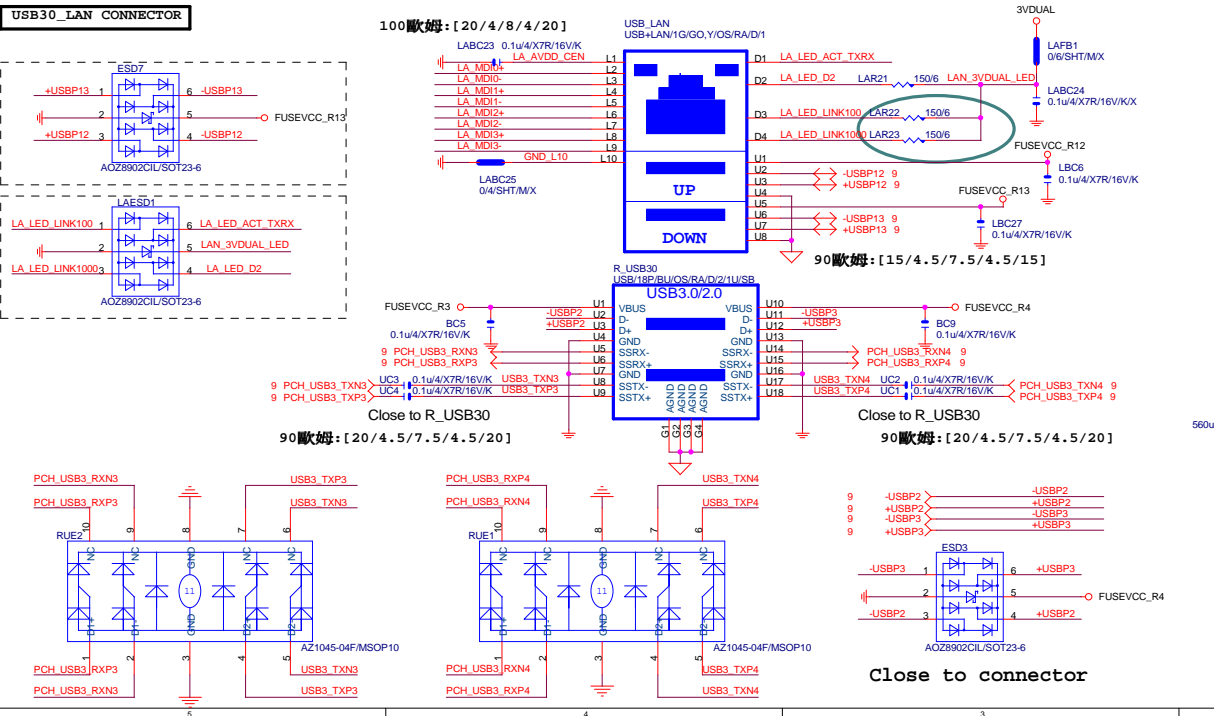
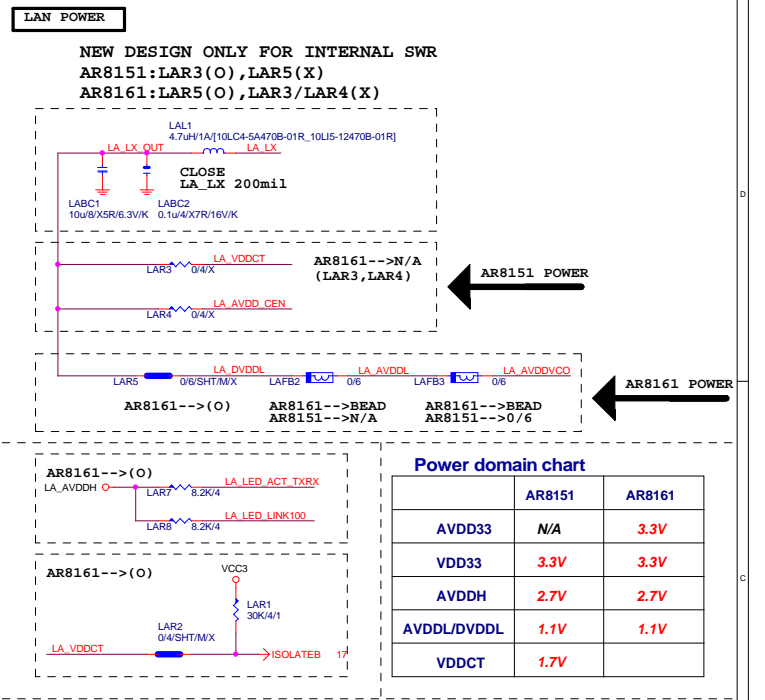
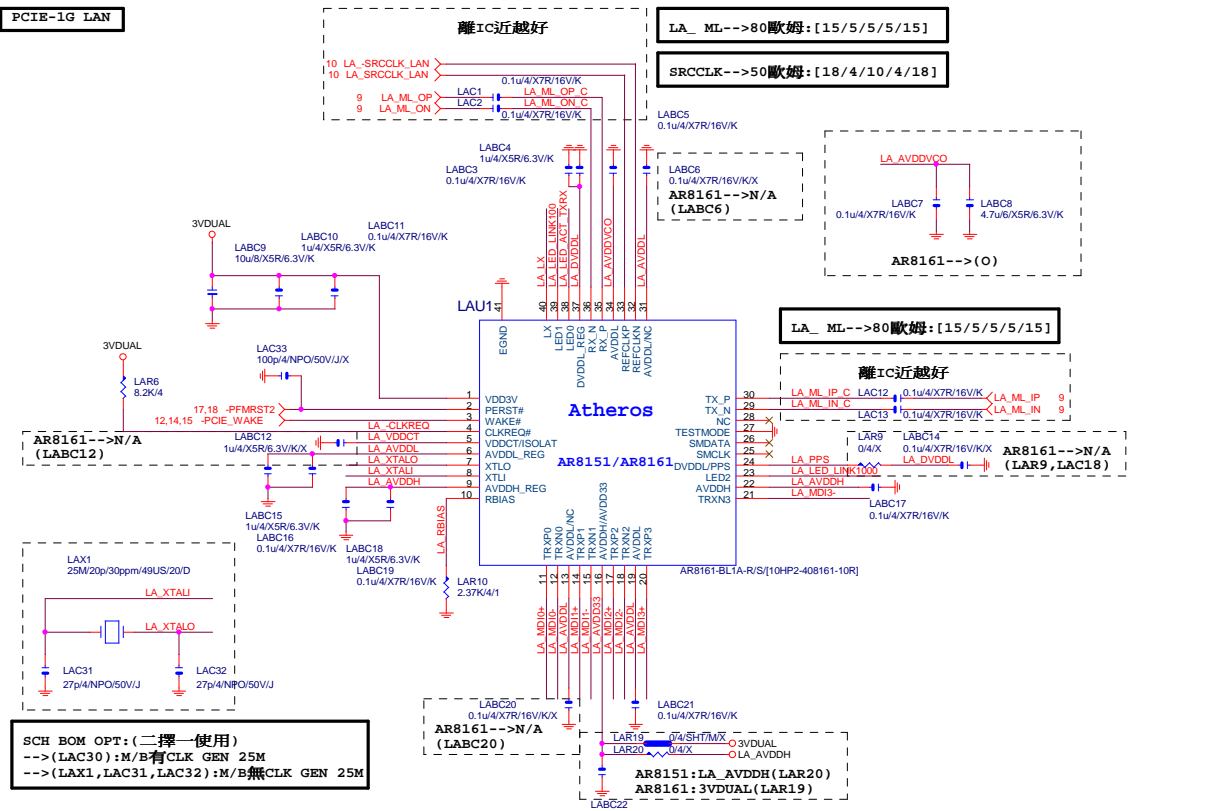
SYS FAN



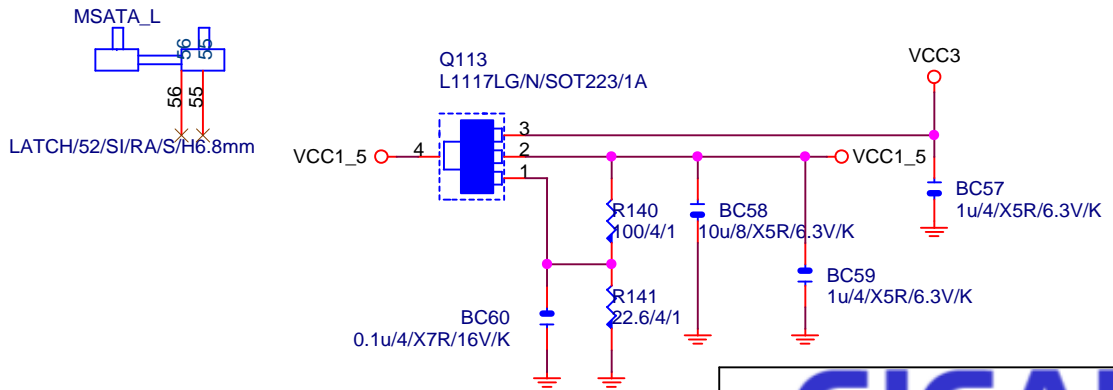
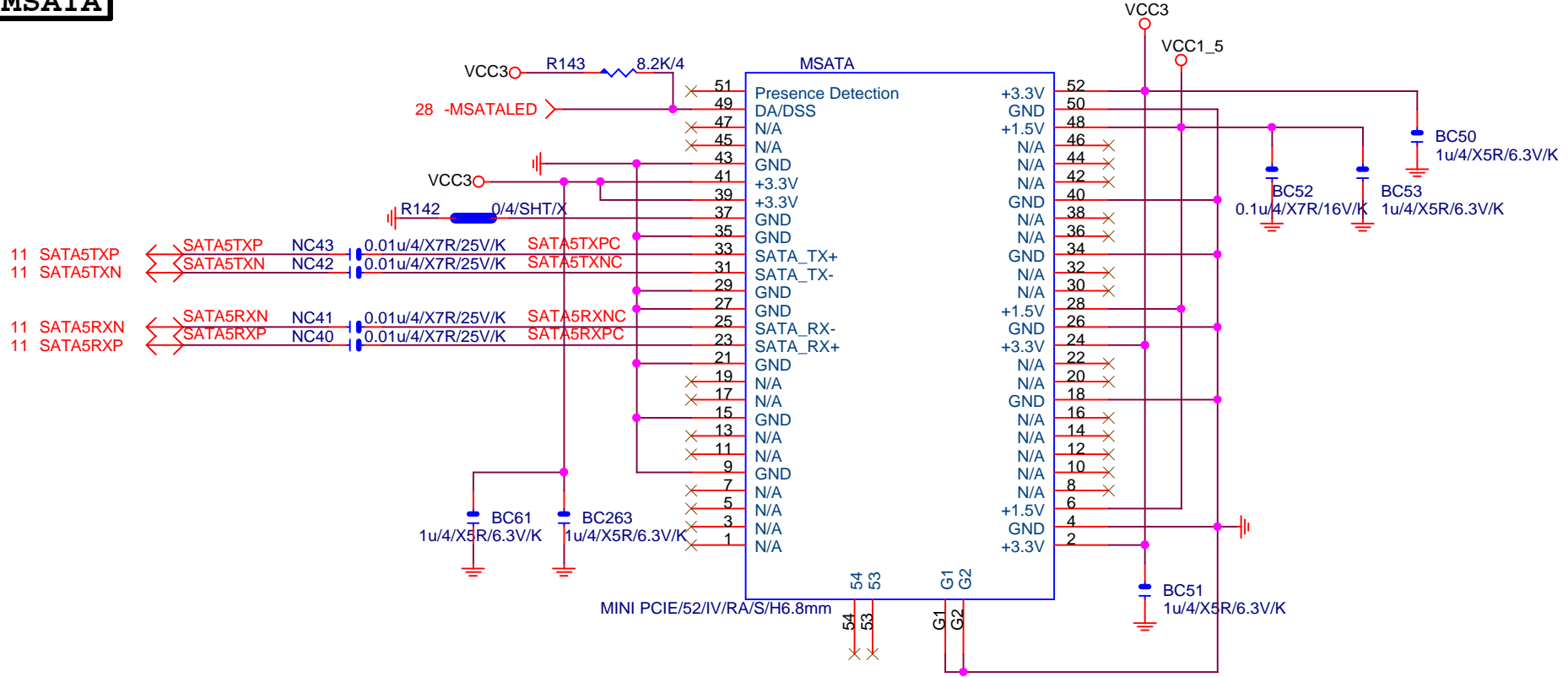
FOR EMI ONLY



Gigabyte Technology			
Title			
HWM,KB/MS, FAN CTRL			
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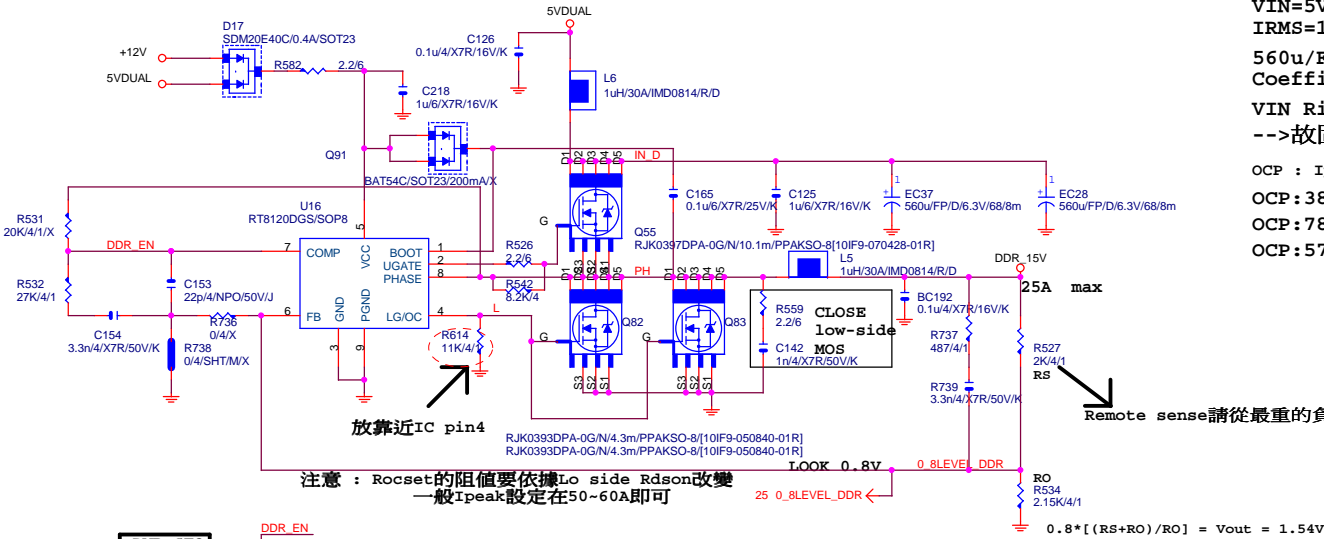
MSATA



GIGABYTE™

Title		
MSATA		
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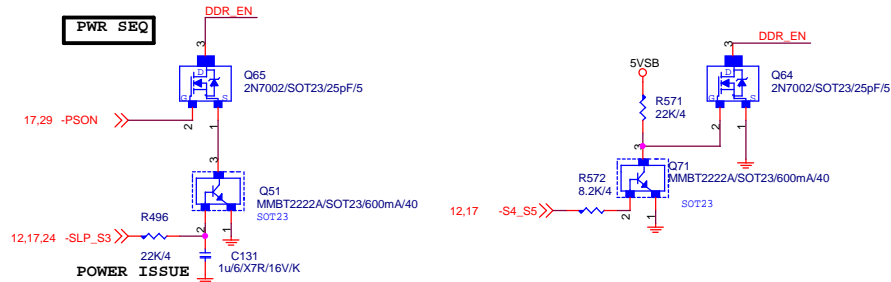
DDR18V



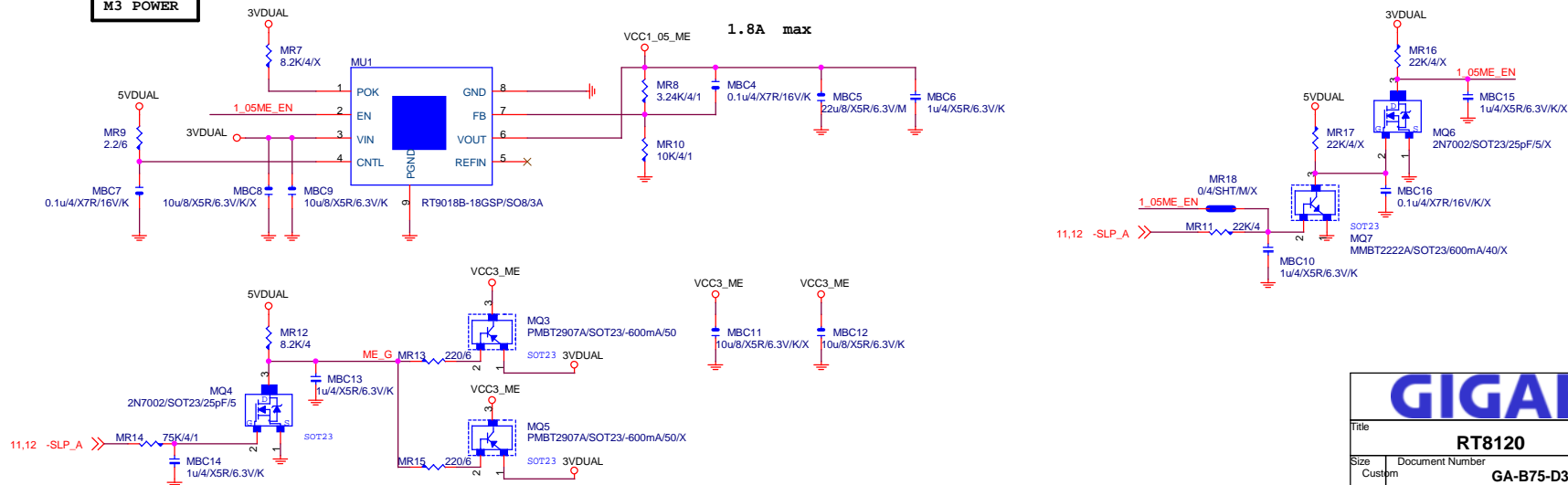
VIN=5V, VOUT=1.5V, IOUT=25A, PHASE=1
 IRMS=11.45A
 560u/FP/D/6.3V/68/8m RIPPLE CURRENT=4.7A
 Coefficient=1.7(85°C), 1(105°C)
 VIN Ripple current=4.7X1.7=7.99A(85°C)
 ---故固態電容須2X7.99=15.98>11.45A

OCP : $I_{peak} = (2 * I_{ocset} * R_{ocset}) / R_{ds}$
 OCP: 38.31A for Rds=6.7m for vishay@4.5V
 OCP: 78.78A for Rds=3.3m for renesas@10V
 OCP: $57A = R_{ocset} * I_{ocset} / R_{ds}(on)$
 = 11K * 10uA / [5/5]

PWR SEQ



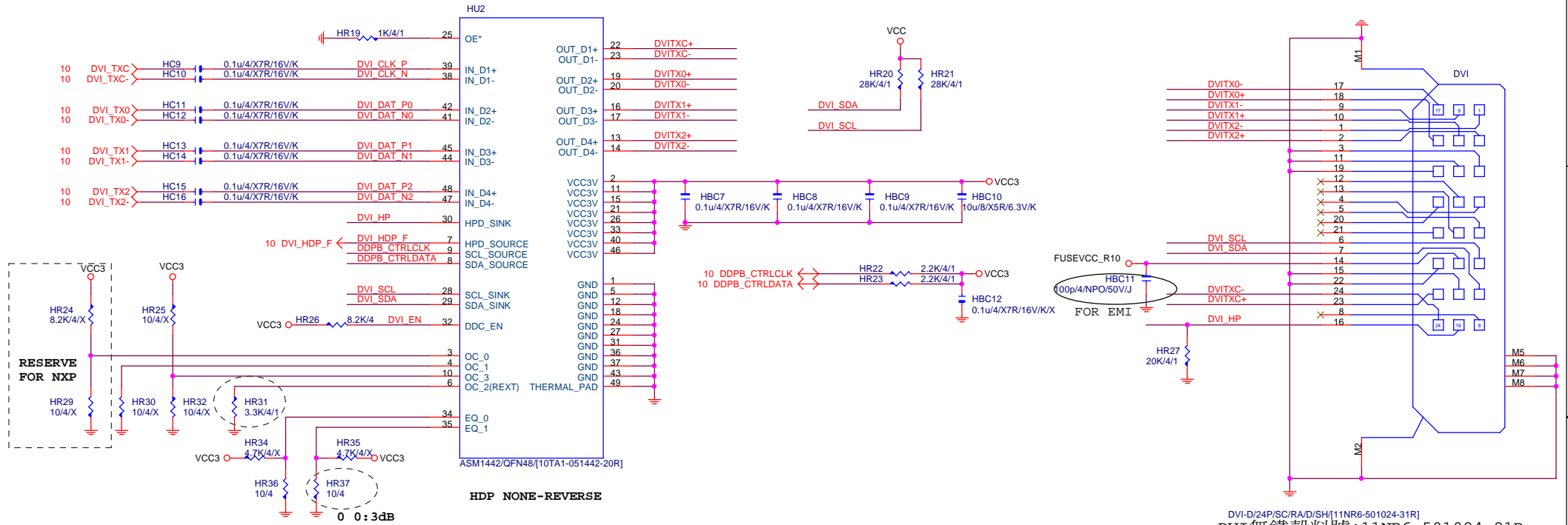
M3 POWER



GIGABYTE™

Title		
RT8120		
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DVI LEVEL SHIFT



廠商量測結果建議設定 (pin10, pin4, pin3) = (0, 1, 1)

CG2 (PIN10)	CG1 (PIN4)	CG0 (PIN3)	SWING	
0	1	0	450	Default
0	1	1	460	
0	0	1	420	
0	0	0	450	

DVI-D/24P/SC/RA/D/SH[11NR6-501024-31R]
 DVI無鐵殼料號: 11NR6-501024-21R
 DVI有鐵殼料號: 11NR6-501024-31R

Gigabyte Technology

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		1	1.1