

Model Name: GA-H97M-D3H

Revision 1.0

SHEET

TITLE

01	COVER SHEET
02	BOM & PCB MODIFY HISTORY
03	BLOCK DIAGRAM
04	CPU LGA1150-A
05	CPU LGA1150-B
06	CPU LGA1150-C
07	DDR III CHANNEL A 1,2
08	DDR III CHANNEL B 1,2
09	PCH FDI,DMI,USB,PCIE,NVRAM
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 EXPRESS*4 SLOT
16	PCI SLOT1,2
17	ITE 8620 LPC IO
18	COM,KB MS USB,USB30 20
19	HWM,FAN CTRL,OV,-PROCHOT
20	DUAL BIOS
21	FP,FUSB,SPK,SATALED
22	Realtek ALC892-GR
23	REAR AUDIO JACK
24	REALTEK RTL8111F
25	DISCRETE POWER
26	ATX ,TPM
27	VCORE ISL95820 1

SHEET

TITLE

28	VCORE ISL95820 2
29	RT8120 DDR POWER
30	LPT, M3 POWER
31	DVI, HDMI
32	IT8892E

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Gigabyte Technology

Cover Sheet

Size Custom	Document Number GA-H97M-D3H	Rev 1.0
Date: Monday, April 28, 2014	Sheet 1 of 32	

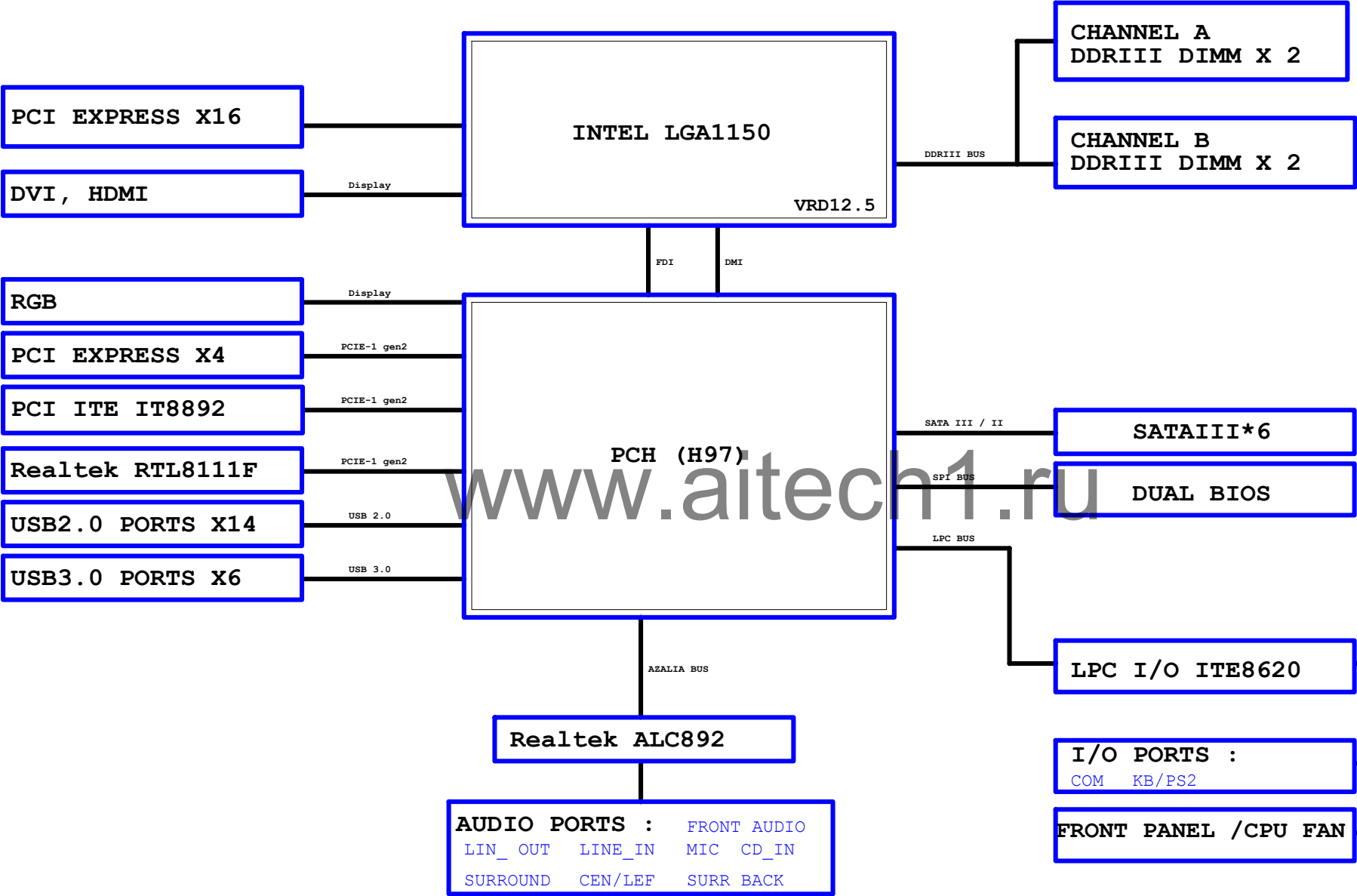
Revision 1.0

Component value change history

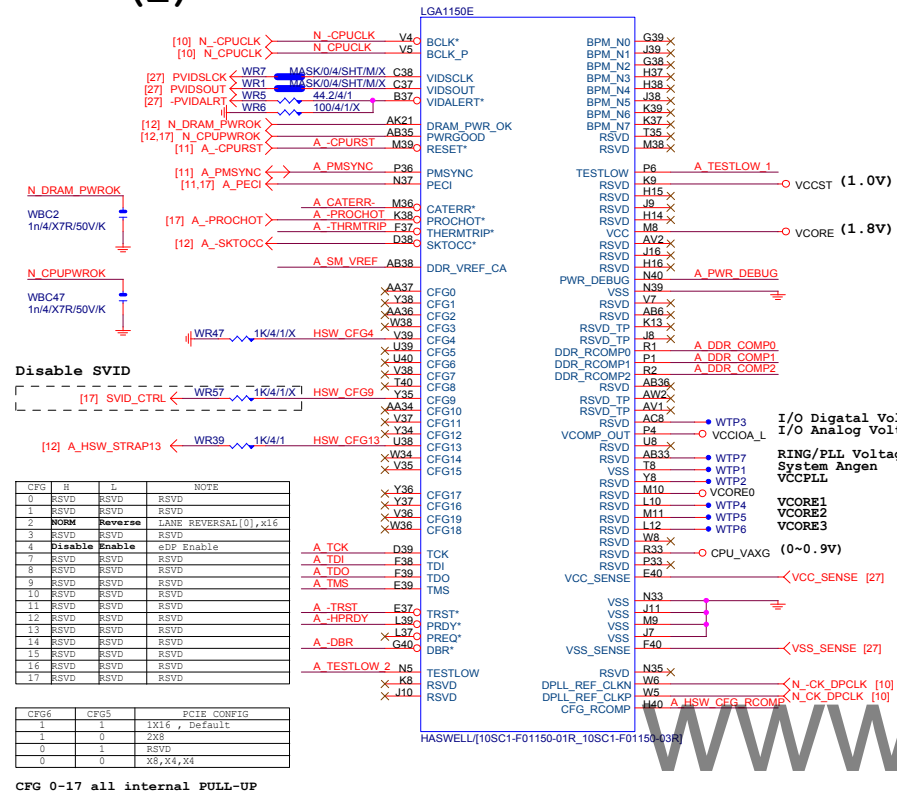
Data	Change Item	Reason
2013/12/09	機構變更MOS_HS尺寸:長度大小由89修改為79mm,孔大小由D3mm修改為D4mm	
2013/12/11	MR.LIN:移除1 PORT 1 FUSE規格	
2013/12/12	MR.LIN:移除DVI LEVEL SHIFTER改成COSTDOWN設計方式	
2013/12/20	HDD LED/FUSB3.0 ESD PROTECTOR	
2013/12/24	MODIFY AP NOTE	
2013/12/26	MODIFY AP NOTE:USB防燒,IT8620斜插ISSUE	
2013/12/27	R0.1 GERBER OUT	
2014/1/13	AP NOTE:DVI LEVEL SHIFTER改回	
	PCH_HS,MOS_HS:9 SERIES	
	加回AP431 BOM VCC1_5_PCH_OV	
2014/1/16	AP NOTE(UATX):DVI LEVEL SHIFTER移除	BIOS DRIVING 800mV 2dB
	BIOS_PH移除	
2014/1/27	COSTDOWN:5VDUAL-->FUSEVCC_R2,DEL UD7	BAT54A
2014/1/28	AP NOTE:移除F_USB保護線路及AP431	
2014/2/10	CPU FAN PIN2增加C319 0.1u/4/X7R/16V/K	
	Q47,Q48:2N7002 GATE~VCC3	
	FOOT MASK	
2014/2/18	C136:0.1u/6/X7R/25V/K	
	H97 Vcore High /low side ON: 10IF9-584081-00R NTMFS4C08NT1G	
	Non-Vcore High /low side ON: 10IF9-070410-00R NTMFS4C10NT1G	
2014/2/19	R1.0 GERBER OUT	
2014/04/11	Update H97 Chipset 料號 [10HB1-030H97-20R]	
2014/04/25	Update DDR RC	PBOM: 9MH97MD3H-00-10C
	R396: 27K -> 20K	
	R657: 487 -> 680	
	R380: 2.26K -> 2.15K	

[illegible]

BLOCK DIAGRAM

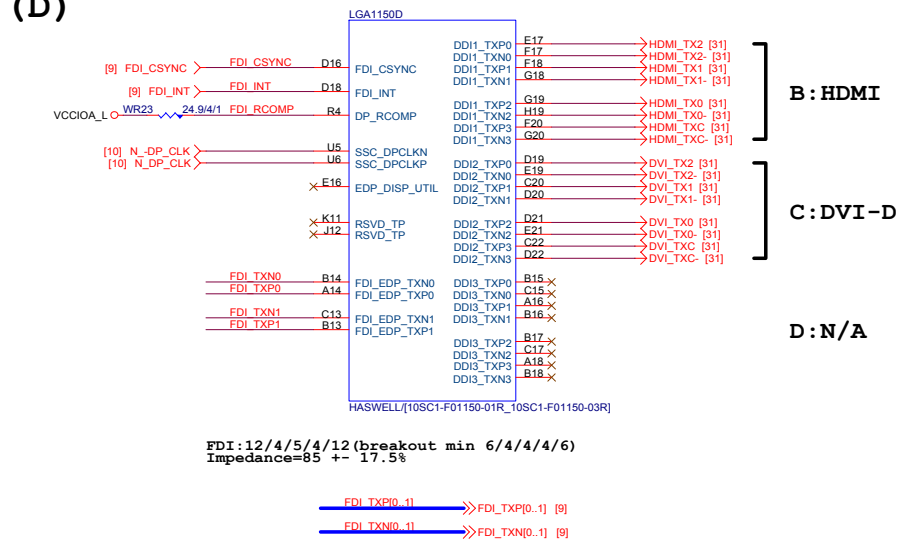


LGA1150 (E)



LGA1150

(D)



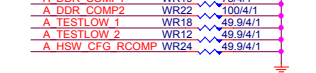
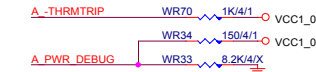
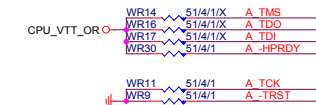
LGA1155 (C)



CPU SVID



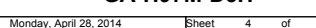
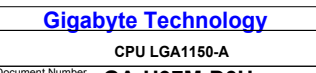
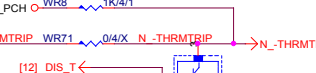
CPU PU/PD



SM REF



THRMTRIP DISABLE



LGA1150A			
MAAA0	AU13	DDR0_MA0	DDR0_D00
MAAA1	AV16	DDR0_MA1	DDR0_D01
MAAA2	AU16	DDR0_MA2	DDR0_D02
MAAA3	AW17	DDR0_MA3	DDR0_D03
MAAA4	AU17	DDR0_MA4	DDR0_D04
MAAA5	AW18	DDR0_MA5	DDR0_D05
MAAA6	AW17	DDR0_MA6	DDR0_D06
MAAA7	AT18	DDR0_MA7	DDR0_D07
MAAA8	AU18	DDR0_MA8	DDR0_D08
MAAA9	AT19	DDR0_MA9	DDR0_D09
MAAA10	AW11	DDR0_MA10	DDR0_D10
MAAA11	AV19	DDR0_MA11	DDR0_D11
MAAA12	AU19	DDR0_MA12	DDR0_D12
MAAA13	AT20	DDR0_MA13	DDR0_D13
MAAA14	AT20	DDR0_MA14	DDR0_D14
MAAA15	AU21	DDR0_MA15	DDR0_D15
MODT_A0	AW10	DDR0_ODT0	DDR0_D16
MODT_A1	AV3	DDR0_ODT1	DDR0_D17
MODT_A2	AW9	DDR0_ODT2	DDR0_D18
MODT_A3	AU8	DDR0_ODT3	DDR0_D19
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(F, J)



(G, H, I)

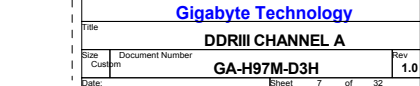


(X18)



(x9)



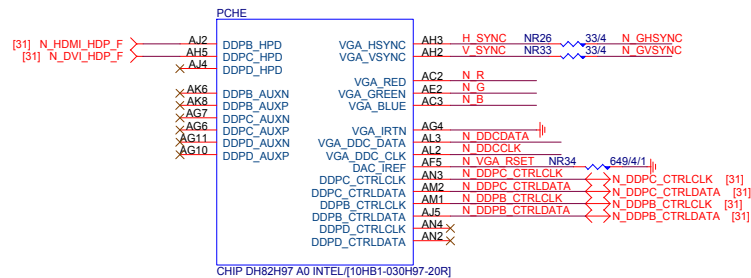


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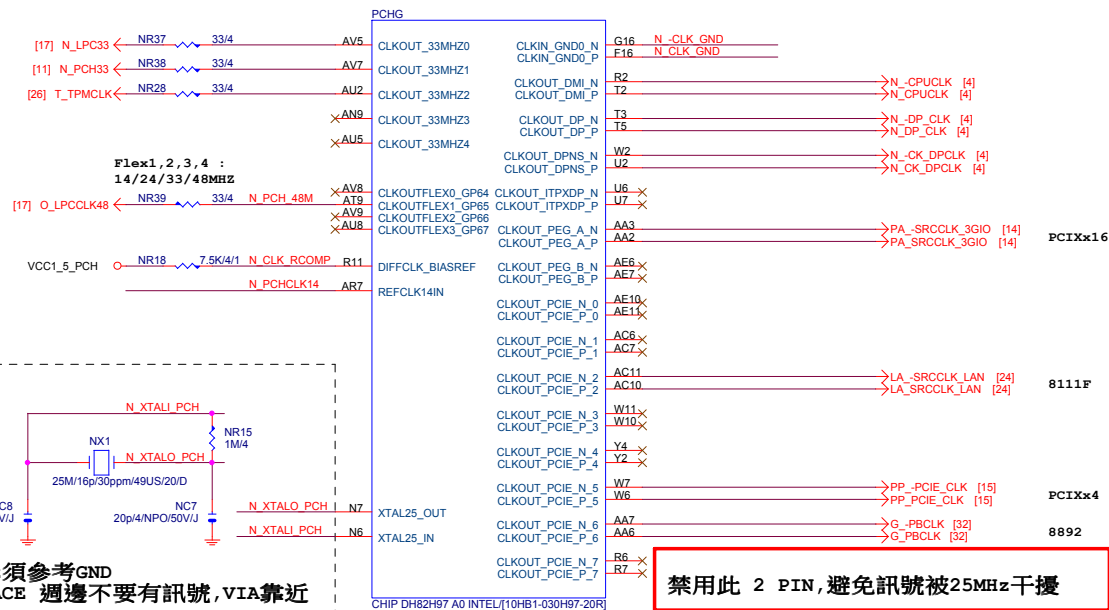
DIMM1 (灰)

PCH (E)



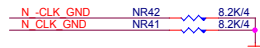
VGA_DISABLE
R,G,B NC OR GND
IRTN / IREF GND
VGA_HSYNC, VGA_VSYNC, DDC_CLK, DDC_DATA NC
POWER VCCADAC (AF2) , VCCADACBG (AE1) GND

PCH (G)



Differential Clock:18/4/6/4/18
Impedance=90 +- 15%

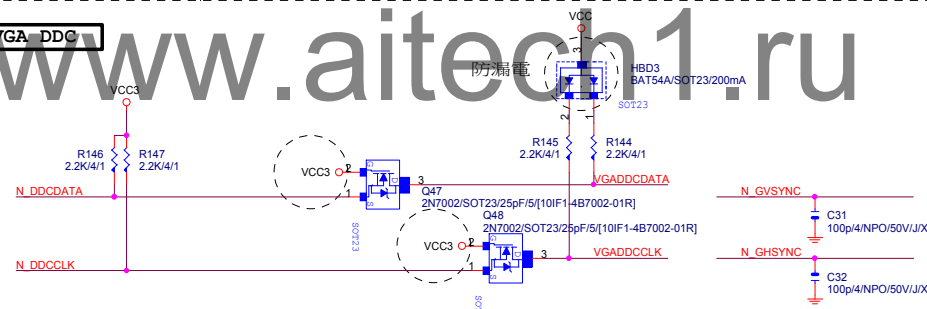
PCH	CLK	PD
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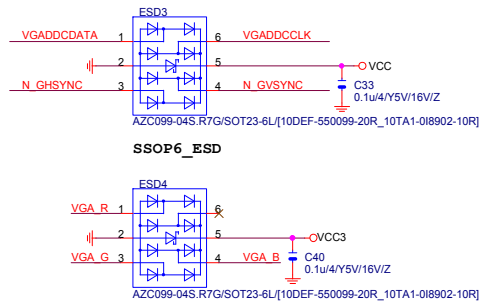
Mount for integrated clock Generation
Mode



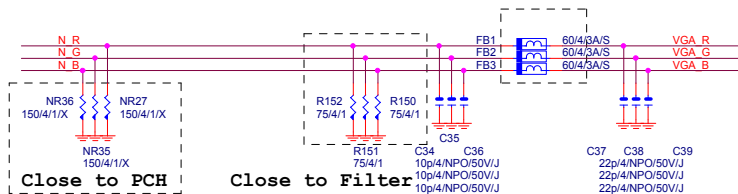
VGA DDC



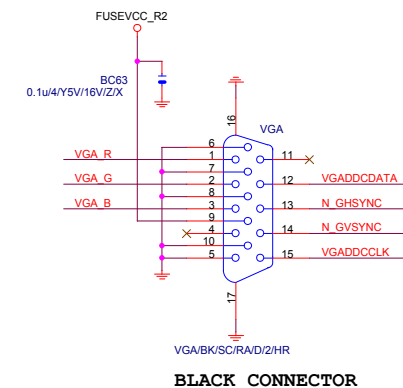
VGA ESD



VGA DDC



VGA CONNECTOR



H97 N/A

PCHC	SA



N_SATA1TXP 0.01u4/X7R/25V/K NC42 → N_SATA1TXPC 9 TXP3 → GND 1
 N_SATA1TXN 0.01u4/X7R/25V/K NC41 → N_SATA1TXNC 10 TXN3 → GND 2
 N_SATA1TXP 0.01u4/X7R/25V/K NC40 → N_SATA1TXPC 12 RX13 → GND 3
 N_SATA1TXN 0.01u4/X7R/25V/K NC39 → N_SATA1TXNC 13 RX23 → GND 4
 N_SATA1TXP 0.01u4/X7R/25V/K NC40 → N_SATA1TXPC 12 RX13 → GND 5
 N_SATA1TXN 0.01u4/X7R/25V/K NC39 → N_SATA1TXNC 13 RX23 → GND 6
 N_SATA1TXP 0.01u4/X7R/25V/K NC40 → N_SATA1TXPC 12 RX13 → GND 7
 N_SATA1TXN 0.01u4/X7R/25V/K NC39 → N_SATA1TXNC 13 RX23 → GND 8

SATA3_0_1
 SATA3_0_1_TXP0 NC1 → TXP0 → GND 1
 SATA3_0_1_TXN0 NC2 → TXN0 → GND 2
 SATA3_0_1_TXP1 NC3 → TXP1 → GND 3
 SATA3_0_1_TXN1 NC4 → TXN1 → GND 4
 SATA3_0_1_TXP2 NC5 → TXP2 → GND 5
 SATA3_0_1_TXN2 NC6 → TXN2 → GND 6
 SATA3_0_1_TXP3 NC7 → TXP3 → GND 7
 SATA3_0_1_TXN3 NC8 → TXN3 → GND 8

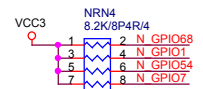
N SATA2TXP	0.01u/4X/7R/25V/K	NC36	N SATA2TXPC	2	GND	N SATA3TXP	0.01u/4X/7R/25V/K	NC34	N SATA3TXPC	2	GND
N SATA2RXN	0.01u/4X/7R/25V/K	NC35	N SATA2TXNC	3	T-	N SATA3TXN	0.01u/4X/7R/25V/K	NC33	N SATA3TXNC	3	T-
				4	T-					4	T-
N SATA2RXN	0.01u/4X/7R/25V/K	NC30	N SATA2RXNC	5	GND	N SATA3RXN	0.01u/4X/7R/25V/K	NC32	N SATA3RXNC	5	GND
N SATA2RXP	0.01u/4X/7R/25V/K	NC29	N SATA2RXPNC	6	R+	N SATA3RXP	0.01u/4X/7R/25V/K	NC31	N SATA3RXPNC	6	R+
				7	(GND)					7	(GND)

SATA3 4
 SATA2 7/BK/H/OP/VA/D/I/B

SATA3 5
 SATA2 7/BK/H/OP/VA/D/I/B

BLACK CONNECTOR

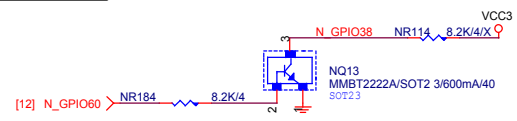
BVDUAL_PCH

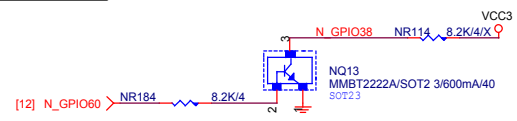


Z97 N/A

Z97 N/A

VCC3_M

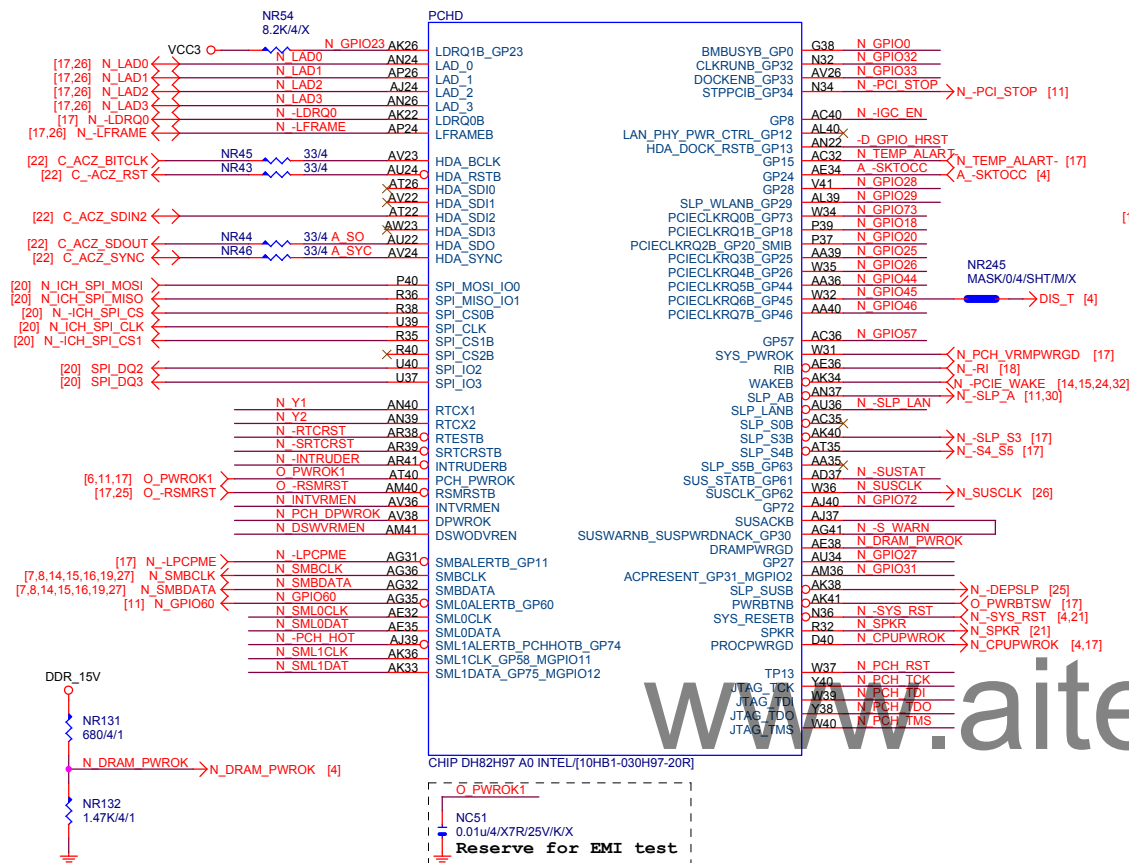




PCH HOST , SATA, PCI

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(D)

[illegible]

3VDDUAL_PCH

NR69
8.2K/4

N_PCH_DPWROK

NC17
1n4/X7R/50V/K

for I78620 Ctrl

VCC3

NR345
1K/4

N_PCH_VRMPWRGD

NR346
100K/4

DC17
0.1u4/X7R/16V/K

I78620 Ctrl

NR155 8.2K/4/X N GPIO4S

3VDUAL

NR139 8.2K/4/X N GPIO46

NR103 8.2K/4/X N GPIO44
N GPIO57

A -SKTOCC
N TEMP_ALARM-
N -RI

GP8:Low to enable
PCH_clock chip

NR106 1K/4/1 N -AGC_EN NR105 8.2K/4/X
NR153 1K/4/1X N SUSCLK NR154 8.2K/4/X

SUSCLK:Low to OD
PLL VR

GF28:Lo disable
VRM ,Hi enable
VRM

N -SUSTAT NR133 8.2K/4/X
-D_GPIO_HRST NR151 1K/4/1
N GPIO28 NR144 1K/4/1
N GPIO29 NR96 1K/4/1

3VDUAL_PCH

N -S_WARN NR129 8.2K/4
N GPIO27 NR60 8.2K/4
N GPIO31 NR72 8.2K/4
N -SLP_LAN NR73 8.2K/4/X
N GPIO27 NR100 8.2K/4
N -PCIE_WAKE NR87 1K/4/1
N GPIO29 NR95 1K/4/1X

VCC3

NR145 8.2K/4/X N GPIO20 NR109 8.2K/4
N GPIO0 NR115 8.2K/4
N -SYS_RST NR164 8.2K/4
N GPIO32 NR162 8.2K/4/X
NR48 8.2K/4/X N GPIO33 NR49 8.2K/4

3VDUAL

N PCH_RST NR172 20K/4/1
N PCH_TDI NR170 200/4/1
N PCH_TDO NR141 200/4/1
N PCH_TMS NR169 200/4/1
N PCH_TCK NR87 200/4/1X
N PCH_RST NR143 1K/4/1X
N PCH_TDI NR171 100/4/1
N PCH_TDO NR168 100/4/1
N PCH_TMS NR142 100/4/1
N PCH_TCK NR108 51/4/1
N GPIO18 NR79 8.2K/4
N GPIO73 NR134 8.2K/4
N GPIO26 NR107 8.2K/4
N GPIO25 NR106 8.2K/4
N -SYS_RST NC59 1n/4X/R/50V/K
N DRAM_EBROK NC58 1n/4X/R/50V/K

[illegible]

CLR_CMOS

BATTERY
CR2032

BATTERY-DUAL-4

RB 必須放在BAT外

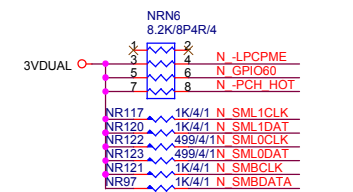
NR340 MASK/0/6/SHT/M/X
BAT BAT-SK/BK/P/S/D/SN

NR74 1M/4
NR77 20K/4/1
NC19 1u4/X5R/6.3V/K

NR90 390K/4
NR67 390K/4
NR78 20K/4/1
NC15 1u4/X5R/6.3V/K
NC20 1u4/X5R/6.3V/K

NR_RTCVDD → N_RTCVDD [13,15]
N_INTVRMEN
N_RTCSRST
N_VBAT [17]

CLR_CMOS
N_RTCSRST
PH/1*2/BK/2.54/VAD



Gigabyte Technology

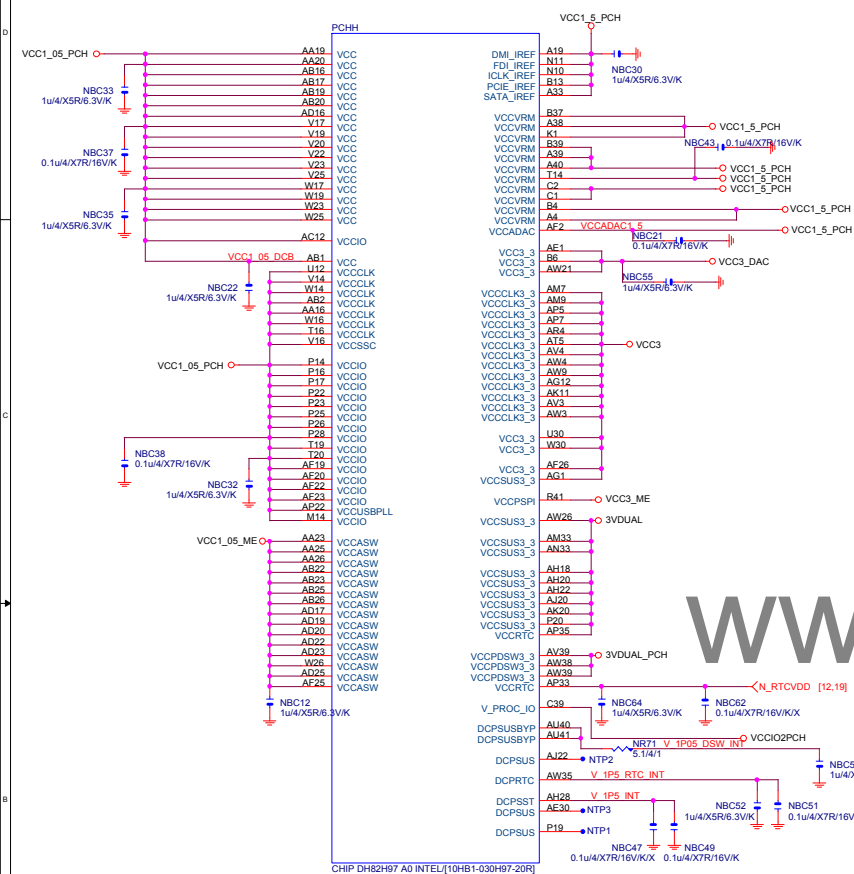
PCH GPIO , CTRL , AUDIO

GA-H97M-D3H

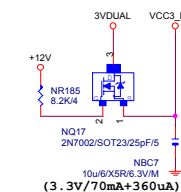
Rev	1.0
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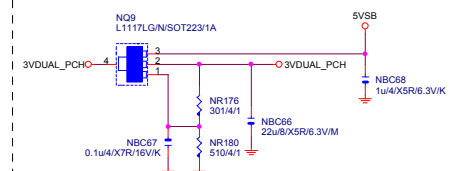
PCH (H)



VCC3 DAC



3VDUAL PCH

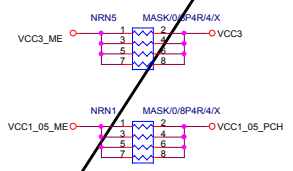


SHT PWR

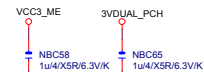
H97 N/A

MASK FOOT

MASK

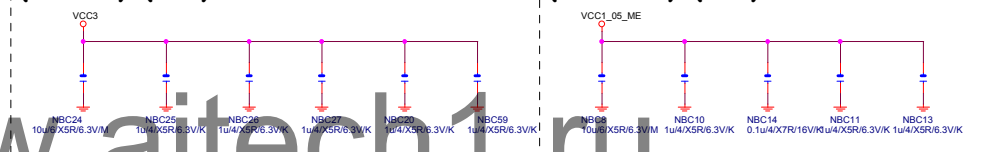


CAP



(3.3V) (x6)

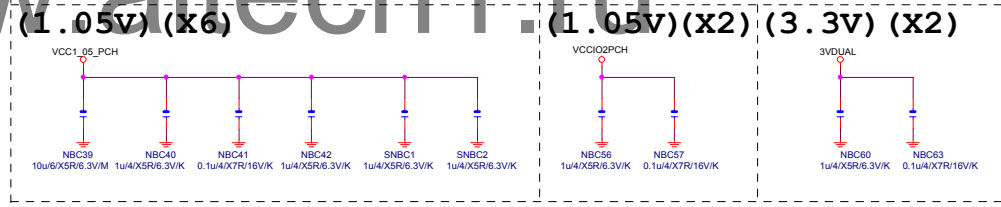
(1.05V) (x5)



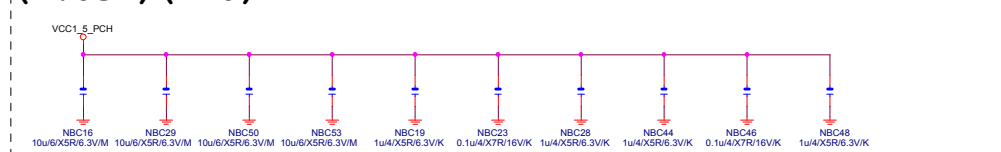
(1.05V) (x6)

(1.05V)(x2) (3.3V) (x2)

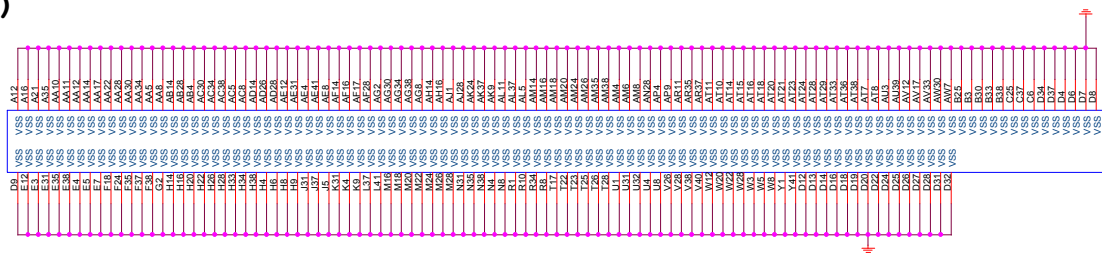
(3.3V) (x2)



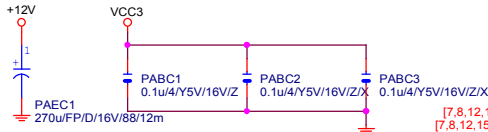
(1.05V) (x10)



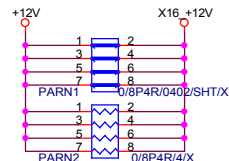
PCH (I)

PCI
CHIP DH82H03 AG INTEL (10UR1 020H03 2050)

PCIEX16 CAP



PCIEX16 PROTECT SHT



PCIEX16 AC CAP

PA EXP TXP0	PAC5	0.22u4/X5R/6.3V/K	PA EXP TXP0 C
PA EXP TXN0	PAC4	0.22u4/X5R/6.3V/K	PA EXP TXN0 C
PA EXP TXP1	PAC6	0.22u4/X5R/6.3V/K	PA EXP TXP1 C
PA EXP TXN1	PAC7	0.22u4/X5R/6.3V/K	PA EXP TXN1 C
PA EXP TXP2	PAC8	0.22u4/X5R/6.3V/K	PA EXP TXP2 C
PA EXP TXN2	PAC9	0.22u4/X5R/6.3V/K	PA EXP TXN2 C
PA EXP TXP3	PAC10	0.22u4/X5R/6.3V/K	PA EXP TXP3 C
PA EXP TXN3	PAC11	0.22u4/X5R/6.3V/K	PA EXP TXN3 C
PA EXP TXP4	PAC12	0.22u4/X5R/6.3V/K	PA EXP TXP4 C
PA EXP TXN4	PAC13	0.22u4/X5R/6.3V/K	PA EXP TXN4 C
PA EXP TXP5	PAC14	0.22u4/X5R/6.3V/K	PA EXP TXP5 C
PA EXP TXN5	PAC15	0.22u4/X5R/6.3V/K	PA EXP TXN5 C
PA EXP TXP6	PAC16	0.22u4/X5R/6.3V/K	PA EXP TXP6 C
PA EXP TXN6	PAC17	0.22u4/X5R/6.3V/K	PA EXP TXN6 C
PA EXP TXP7	PAC18	0.22u4/X5R/6.3V/K	PA EXP TXP7 C
PA EXP TXN7	PAC19	0.22u4/X5R/6.3V/K	PA EXP TXN7 C
PA EXP TXP8	PAC20	0.22u4/X5R/6.3V/K	PA EXP TXP8 C
PA EXP TXN8	PAC21	0.22u4/X5R/6.3V/K	PA EXP TXN8 C
PA EXP TXP9	PAC22	0.22u4/X5R/6.3V/K	PA EXP TXP9 C
PA EXP TXN9	PAC23	0.22u4/X5R/6.3V/K	PA EXP TXN9 C
PA EXP TXP10	PAC24	0.22u4/X5R/6.3V/K	PA EXP TXP10 C
PA EXP TXN10	PAC25	0.22u4/X5R/6.3V/K	PA EXP TXN10 C
PA EXP TXP11	PAC26	0.22u4/X5R/6.3V/K	PA EXP TXP11 C
PA EXP TXN11	PAC27	0.22u4/X5R/6.3V/K	PA EXP TXN11 C
PA EXP TXP12	PAC28	0.22u4/X5R/6.3V/K	PA EXP TXP12 C
PA EXP TXN12	PAC29	0.22u4/X5R/6.3V/K	PA EXP TXN12 C
PA EXP TXP13	PAC30	0.22u4/X5R/6.3V/K	PA EXP TXP13 C
PA EXP TXN13	PAC31	0.22u4/X5R/6.3V/K	PA EXP TXN13 C
PA EXP TXP14	PAC32	0.22u4/X5R/6.3V/K	PA EXP TXP14 C
PA EXP TXN14	PAC33	0.22u4/X5R/6.3V/K	PA EXP TXN14 C
PA EXP TXP15	PAC34	0.22u4/X5R/6.3V/K	PA EXP TXP15 C
PA EXP TXN15	PAC35	0.22u4/X5R/6.3V/K	PA EXP TXN15 C

PA EXP RXP0.15] >>> PA_EXP_RXP0.15] [4]

PA EXP RXN0.15] >>> PA_EXP_RXN0.15] [4]

PA EXP TXP0.15] >>> PA_EXP_TXP0.15] [4]

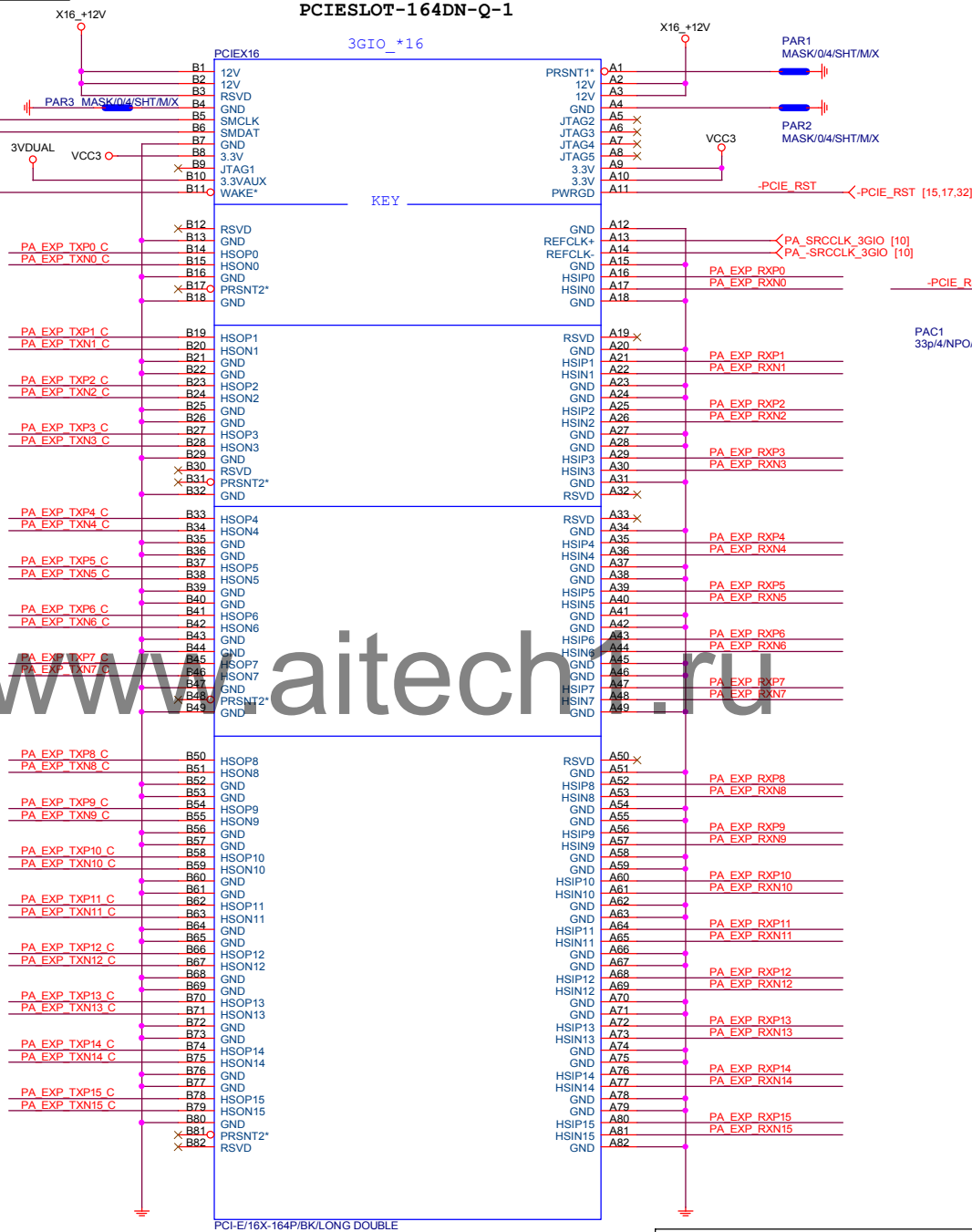
PA EXP TXN0.15] >>> PA_EXP_TXN0.15] [4]

PCIEX16 SLOT

[7,8,12,15,16,19,27] N_SMBCLK
[7,8,12,15,16,19,27] N_SMBDATA

[12,15,24,32] N_-PCIE_WAKE

PCIESLOT-164DN-Q-1



BLACK CONNECTOR

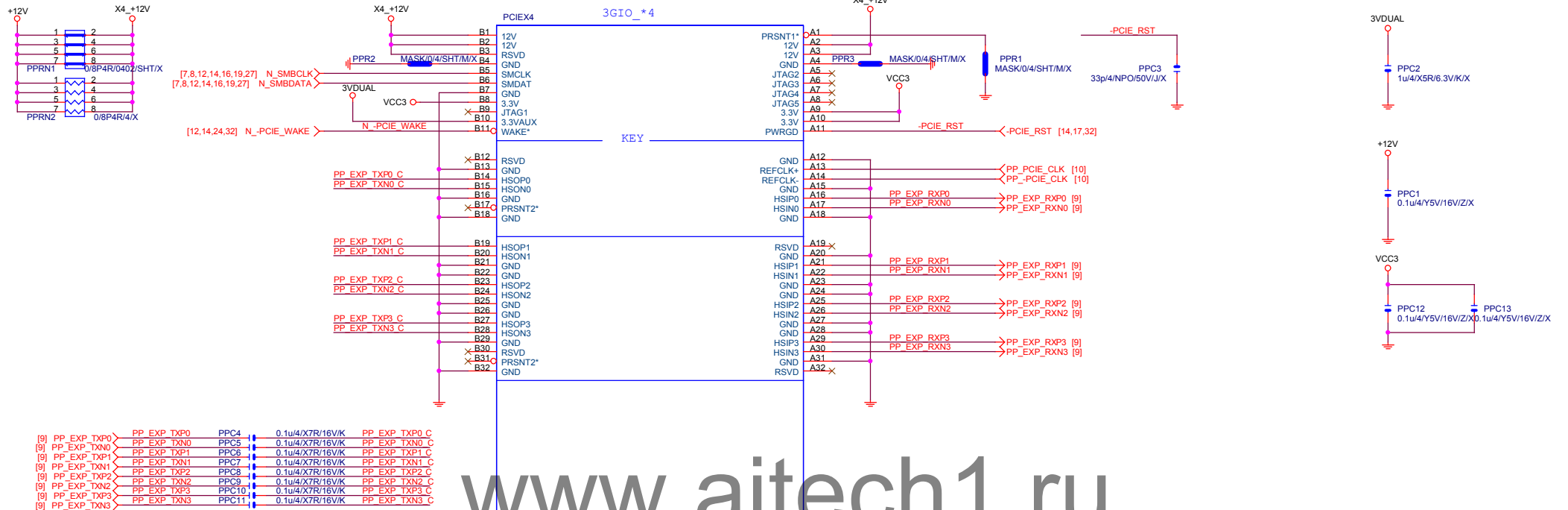
Gigabyte Technology

Title			PCI EXPRESS * 16	
Size			Document Number	
Custom			GA-H97M-D3H	
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			2	1

Rev 1.0

PCIEX4 SLOT

PCIESLOT-64D-98D-P



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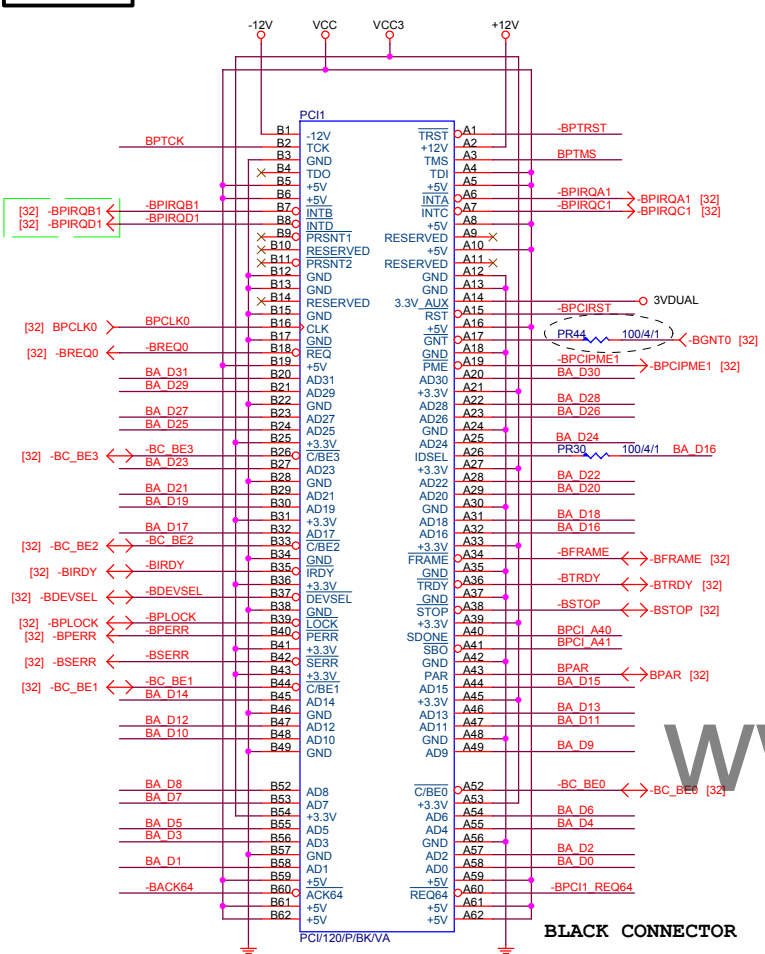
PCI-E/4X-65P/BK/LONG DOUBLE

BLACK CONNECTOR

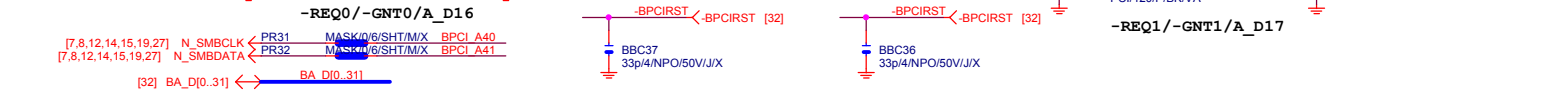
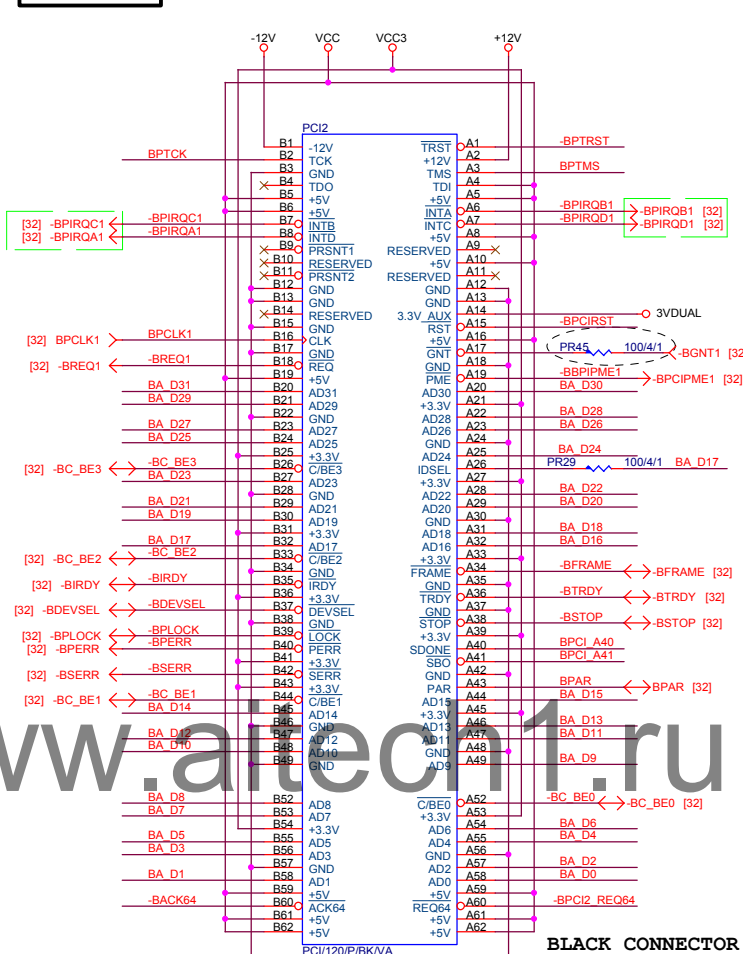
Gigabyte Technology

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Size Custom	Document Number		Rev
	GA-H97M-D3H		1.0
Date:	Monday, April 28, 2014	Sheet	15 of 32

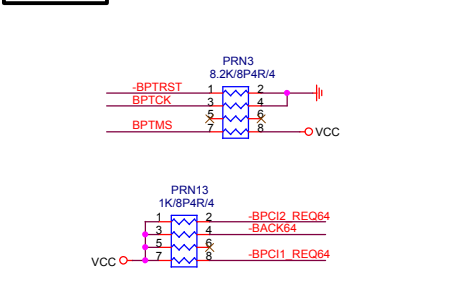
PCI SLOT 1



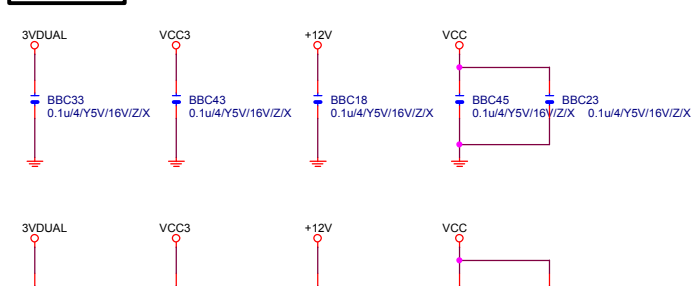
PCI SLOT 2



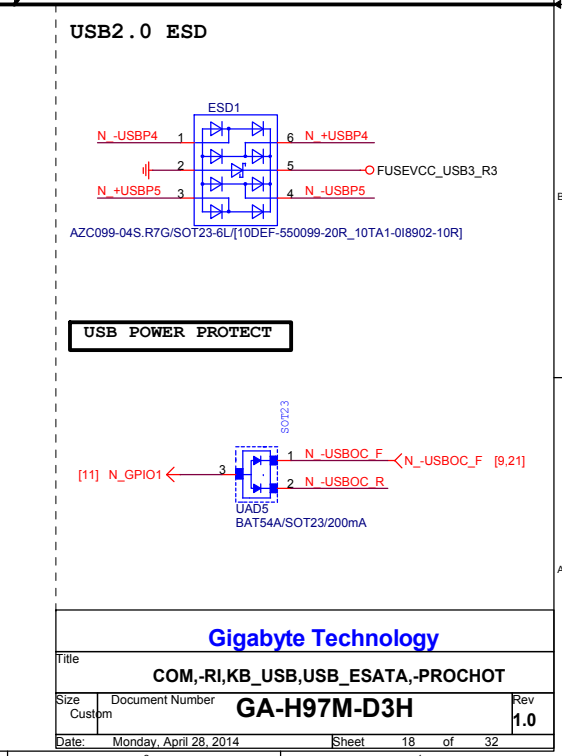
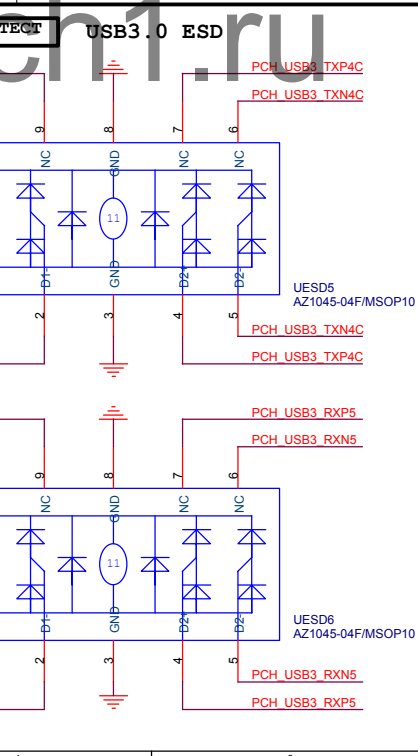
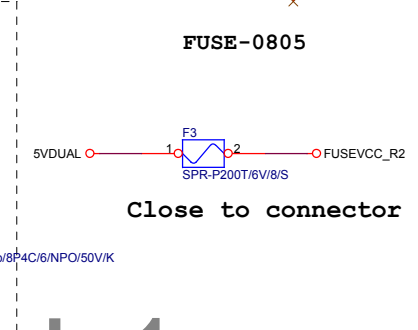
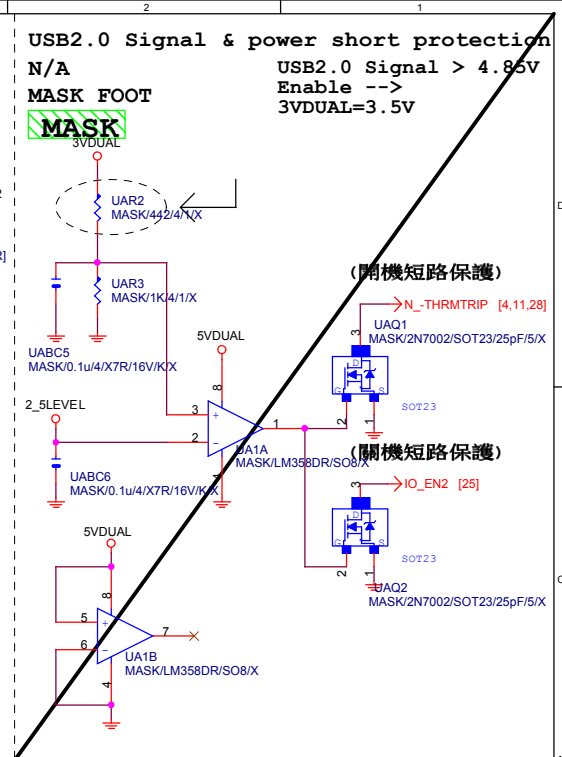
PCI PU



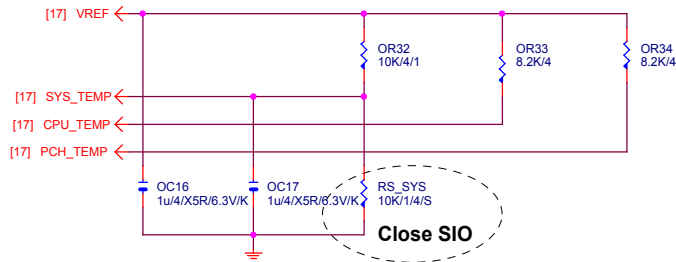
PCI CAP



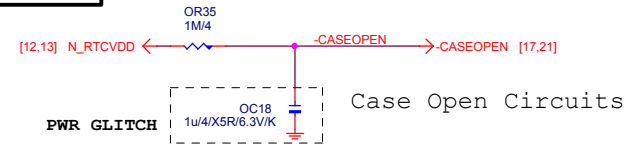
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PCI SLOT 1&2			
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GA-H97M-D3H			
Date:			
Monday, April 28, 2014			
Sheet			
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Rev			
1.0			



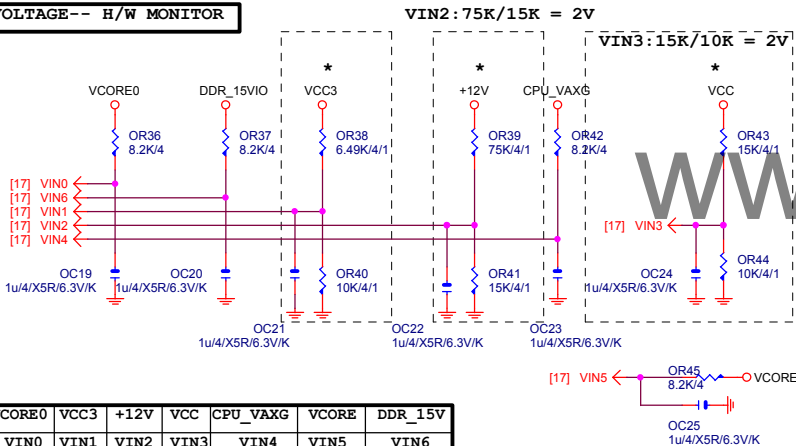
TEMP H/W MONITOR



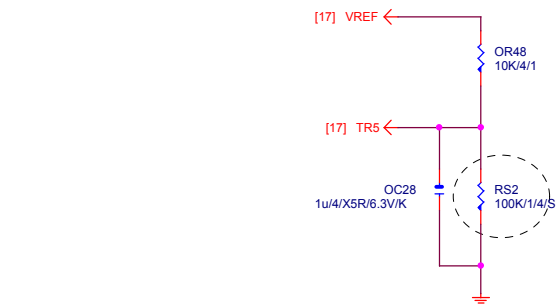
CASE OPEN



VOLTAGE-- H/W MONITOR

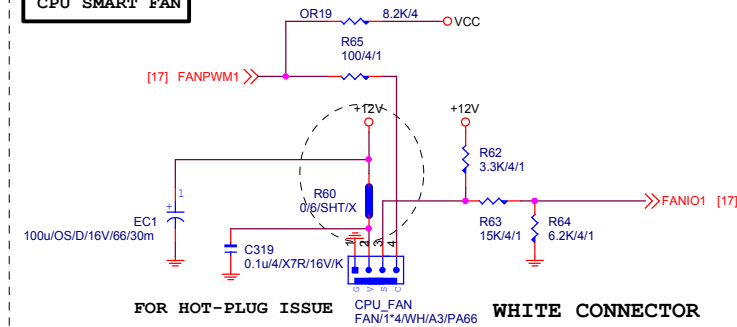


VCORE0	VCC3	+12V	VCC	CPU_VAXG	VCORE	DDR_15V
VIN0	VIN1	VIN2	VIN3	VIN4	VIN5	VIN6



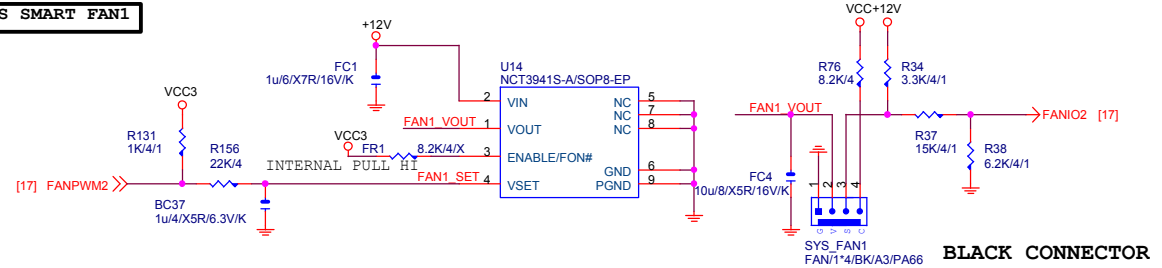
RS2 CLOSE CPU VR MOSFET
RS2 CLOSE MOSFET (VIN) : DCQ1

CPU SMART FAN

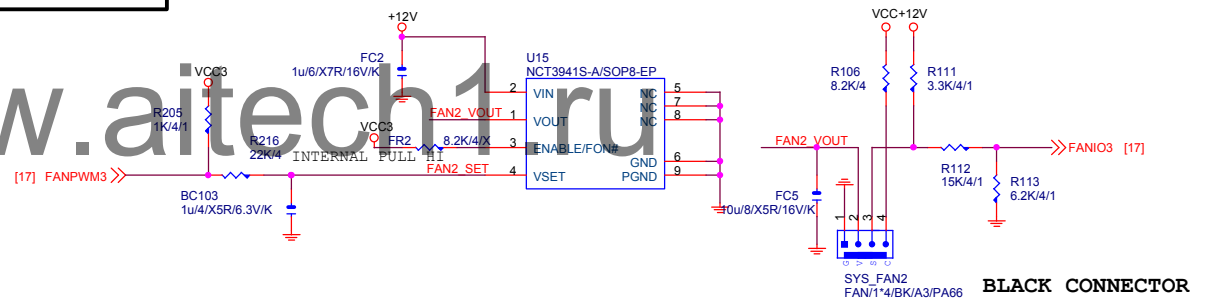


FOR HOT-PLUG ISSUE CPU_FAN FAN1*4/WH/A3/PA66 WHITE CONNECTOR

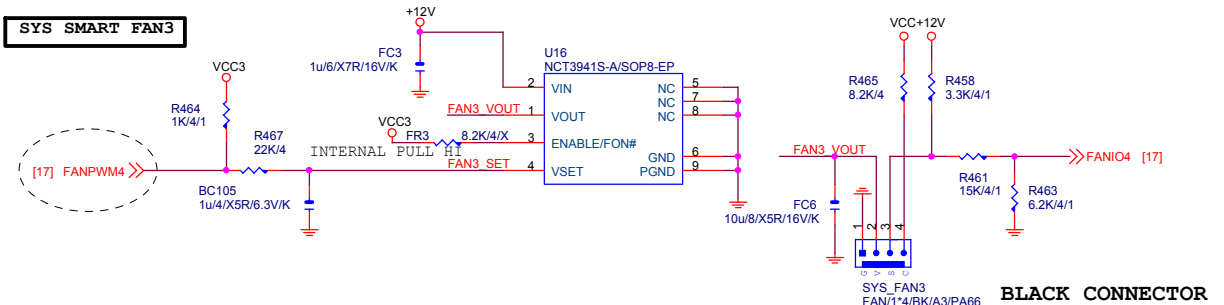
SYS SMART FAN1



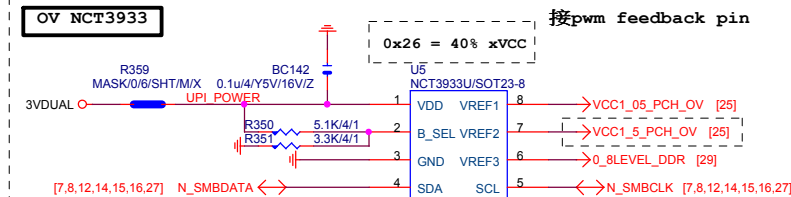
SYS SMART FAN2



SYS SMART FAN3

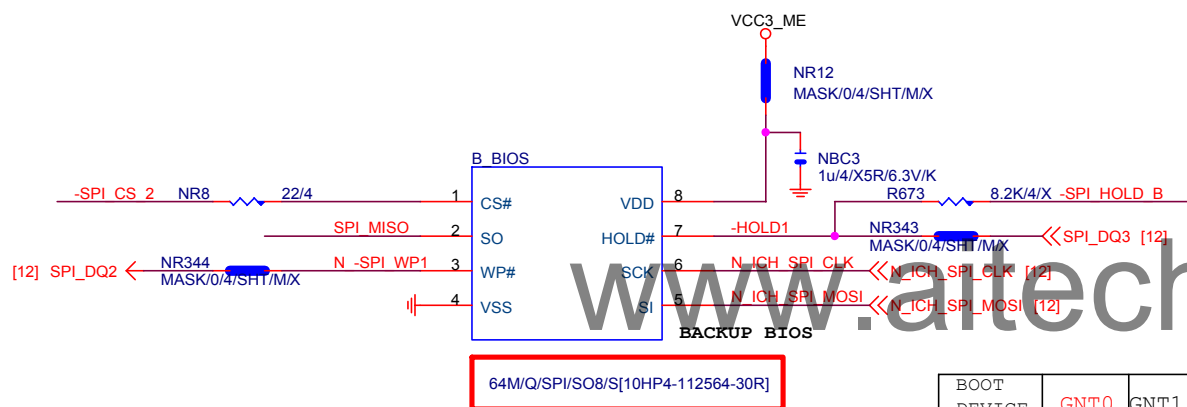
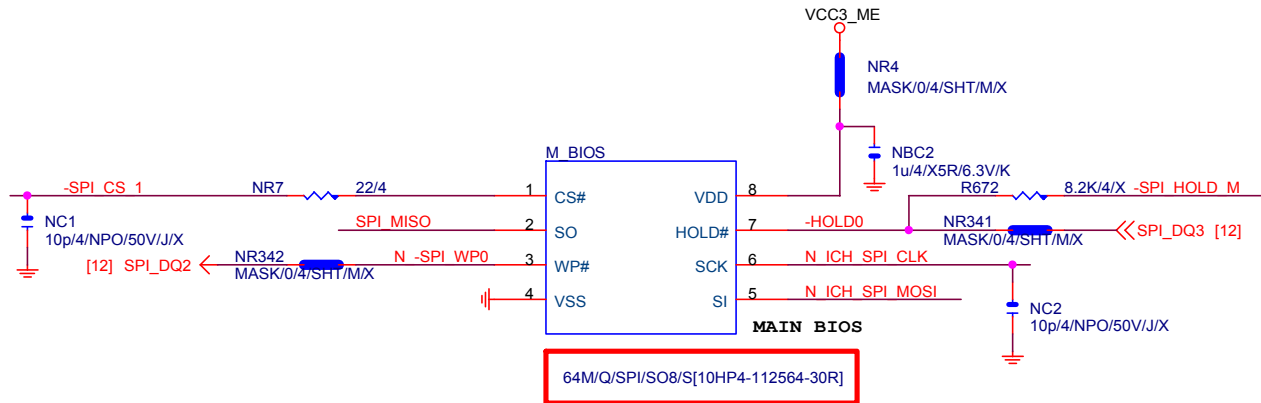


OV NCT3933



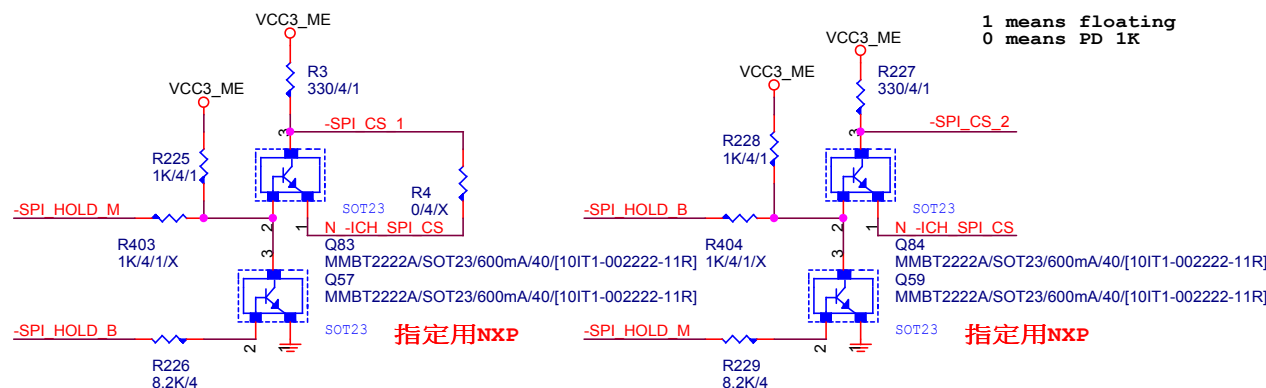
Gigabyte Technology

Title		HWM,FAN CTRL,OV	
Size	Document Number	GA-H97M-D3H	
Custom		Rev 1.0	
Date:	Monday, April 28, 2014	Sheet	19 of 32



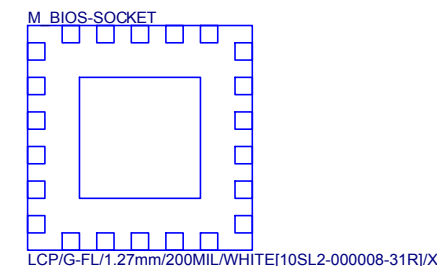
BOOT DEVICE	GNT0	GNT1
LPC	0	0
PCI	0	1
NAND	1	0
SPI	1	1

1 means floating
0 means PD 1K

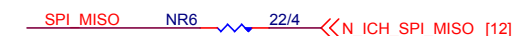
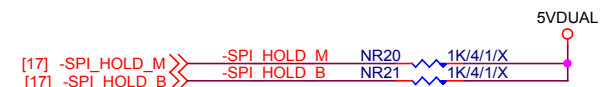
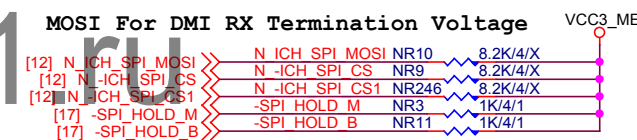


BIOS DEBUG PORT

BIOS_PH R1.0 移除



MOSI For DMI RX Termination Voltage

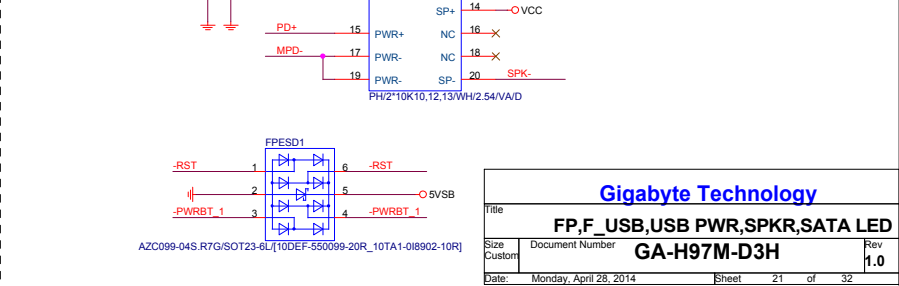
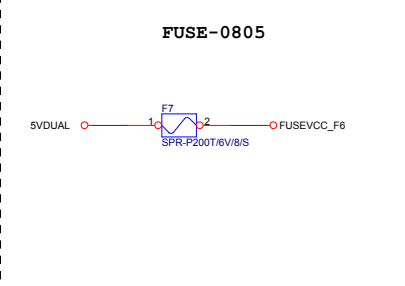
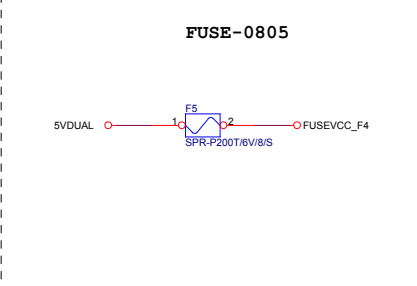
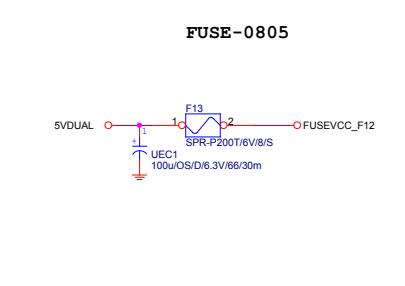
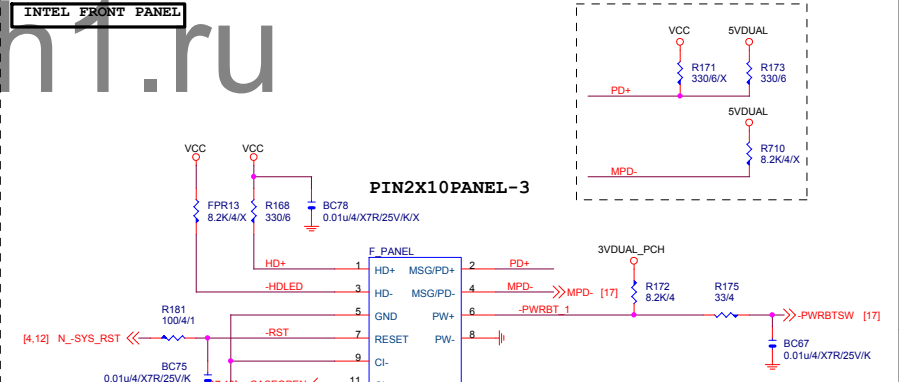
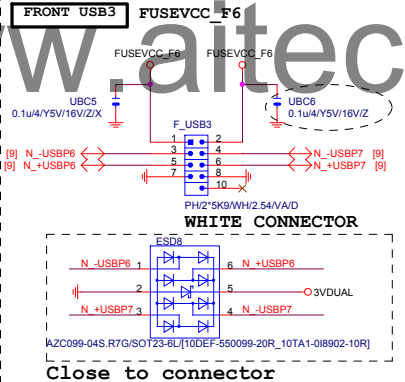
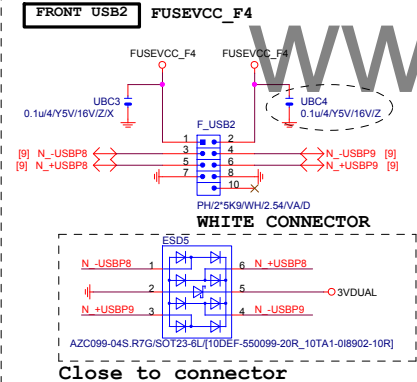
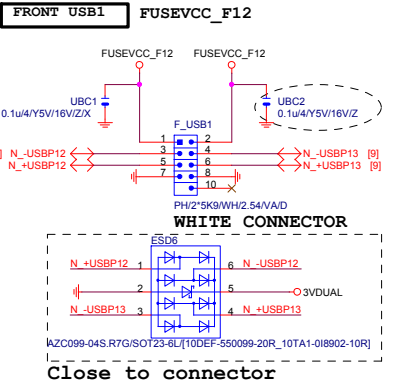
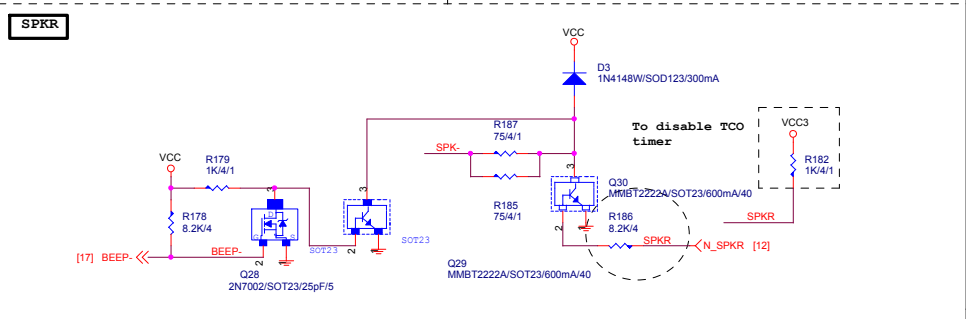
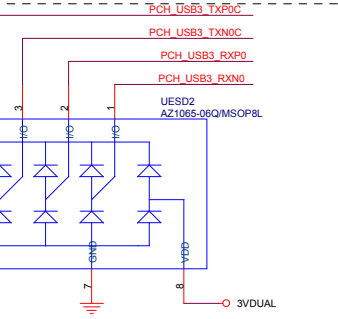
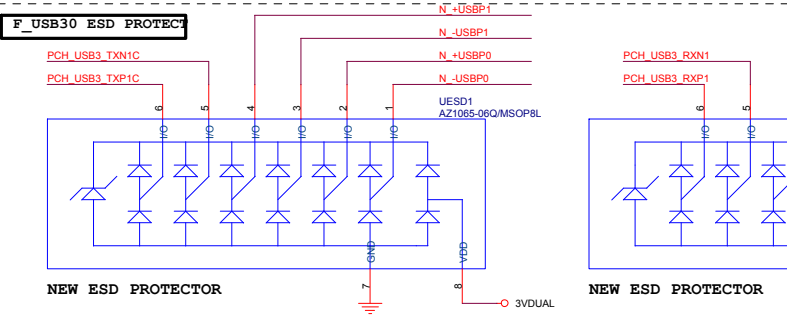
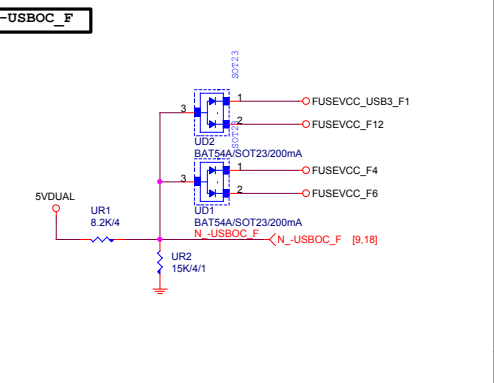
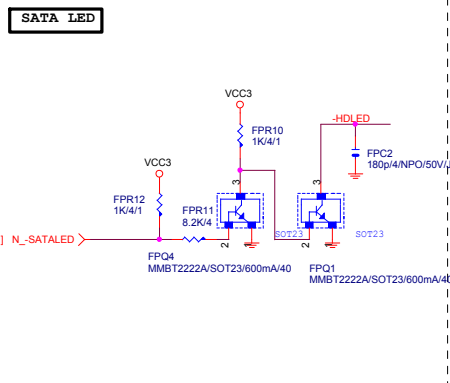
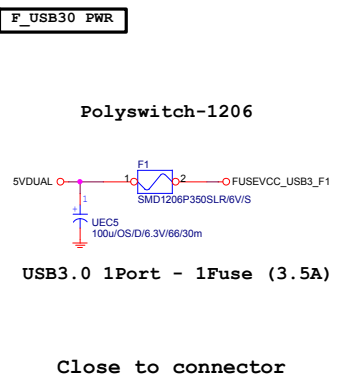
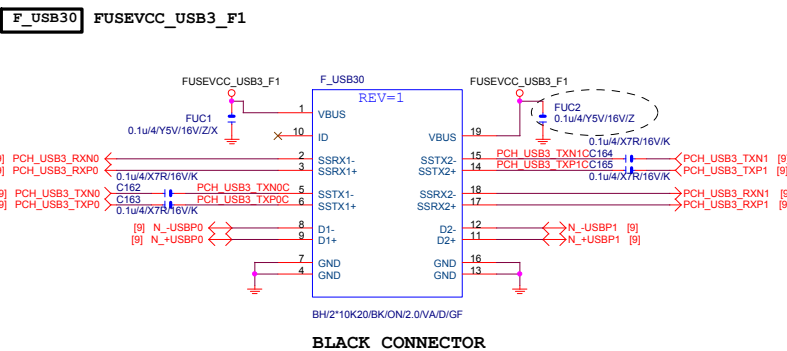


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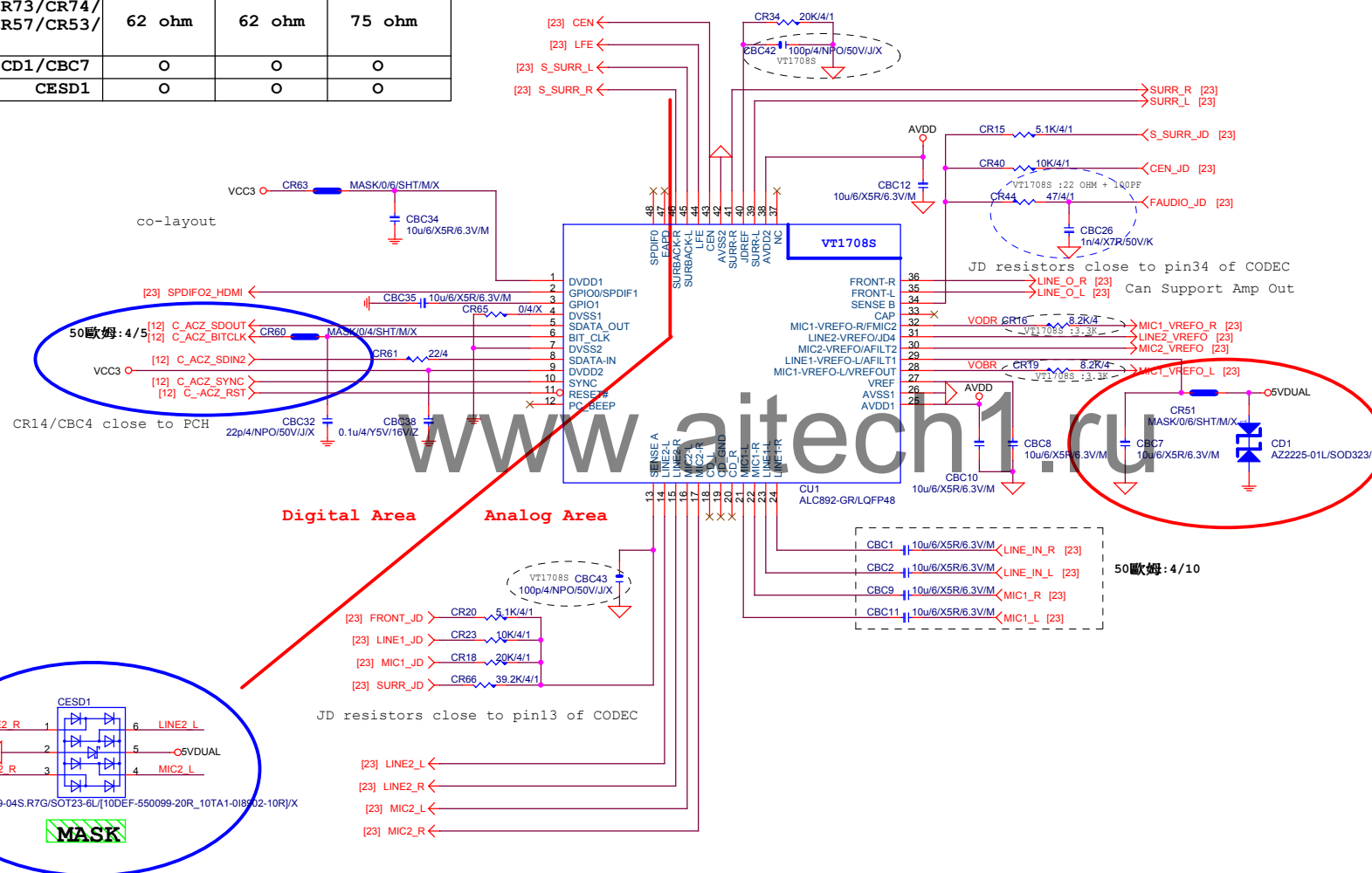
DUAL BIOS

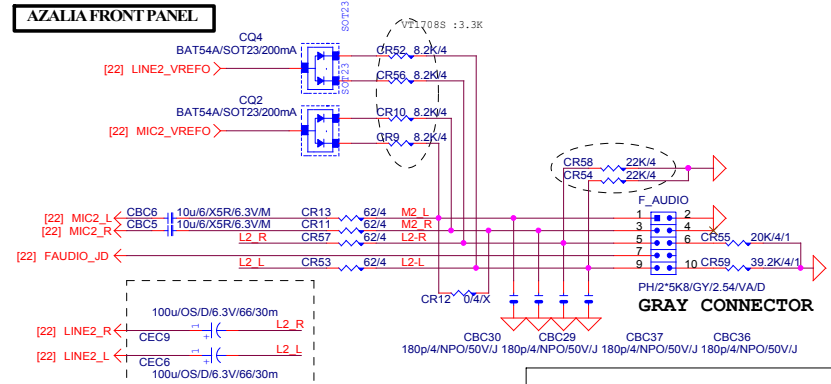
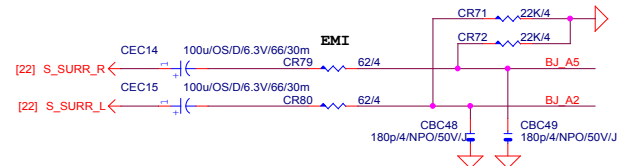
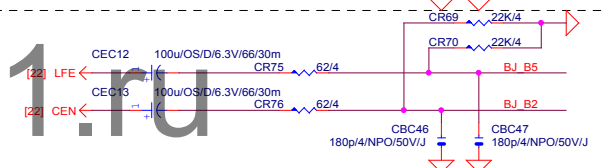
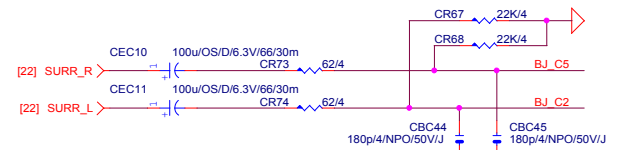
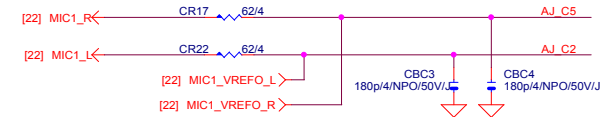
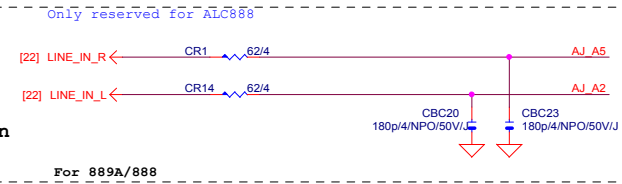
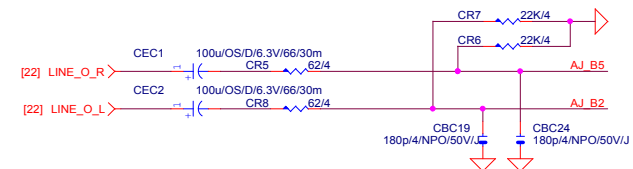
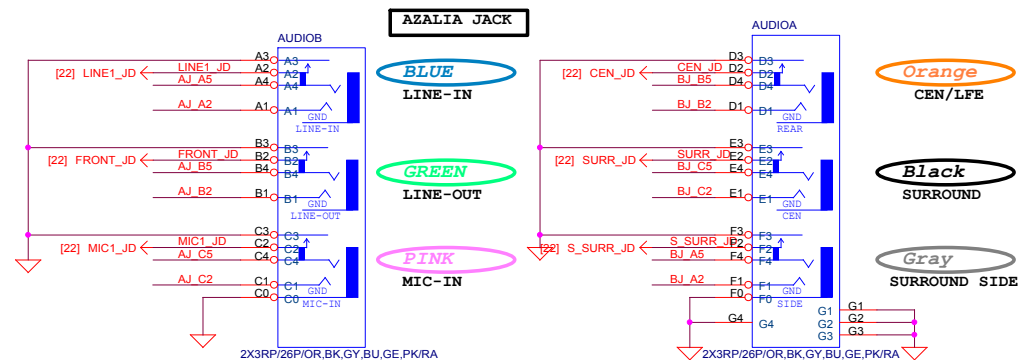
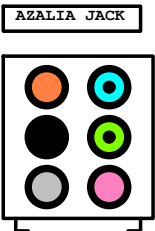
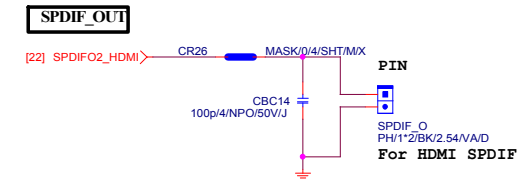
GA-H97M-D3H

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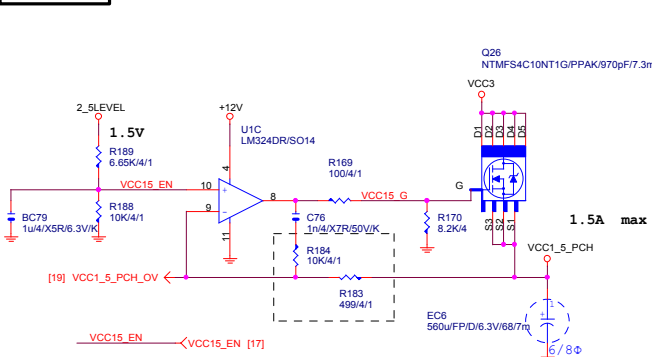
	ALC892	ALC887-VD2	VT1708S-CE
CR44/CBC26	47ohm+1nF	47ohm+1nF	22ohm+100P
CBC42/CBC43	X	X	100P/4
CR6/CR7/CR58/CR54/ CR67/CR68/CR69/CR70	22K/4	22K/4	10K/4/1
CR5/CR8/CR1/CR14/ CR17/CR22/CR73/CR74/ CR13/CR11/CR57/CR53/ CR75/CR76	62 ohm	62 ohm	75 ohm
CR51/CD1/CBC7	O	O	O
CESD1	O	O	O





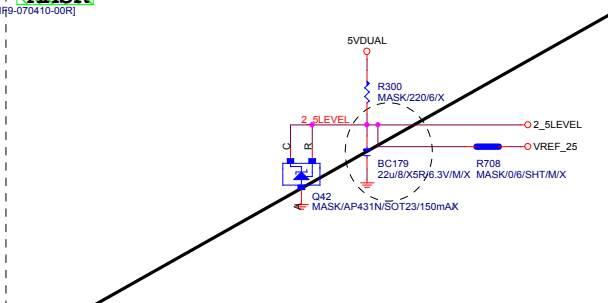
Gigabyte Technology			
Title			
AUDIO JACK			
Size Custom	Document Number	GA-H97M-D3H	Rev 1.0
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VCC1_5_PCH

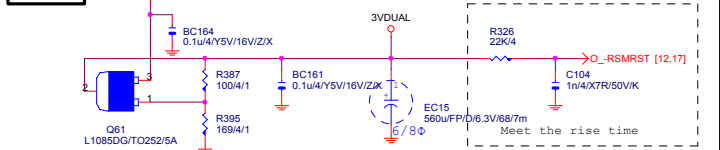


2_5LEVEL

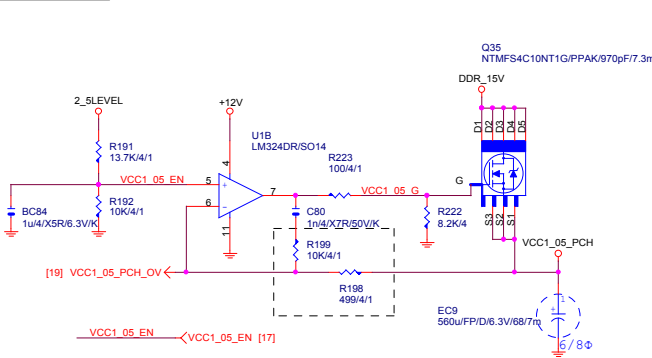
FOOT MASK
MASK



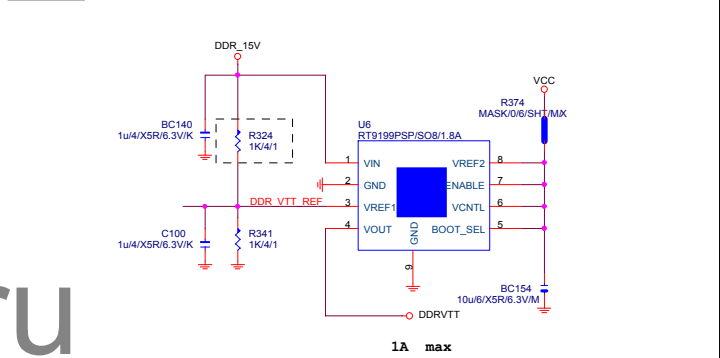
3VDUAL



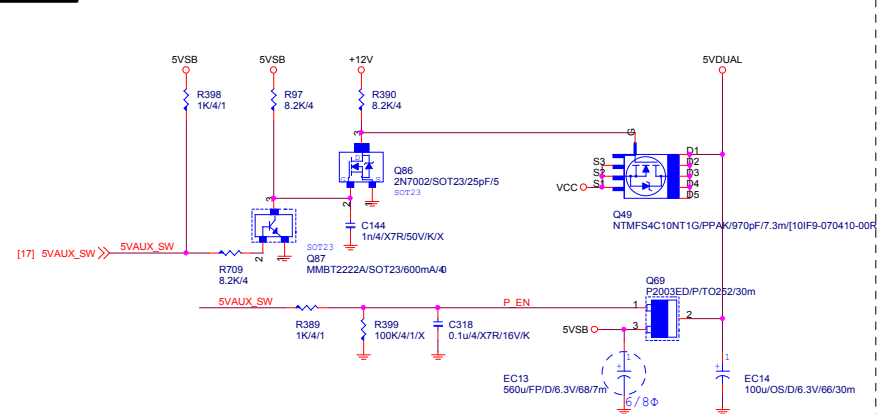
VCC1_05_PCH



DDRVTT



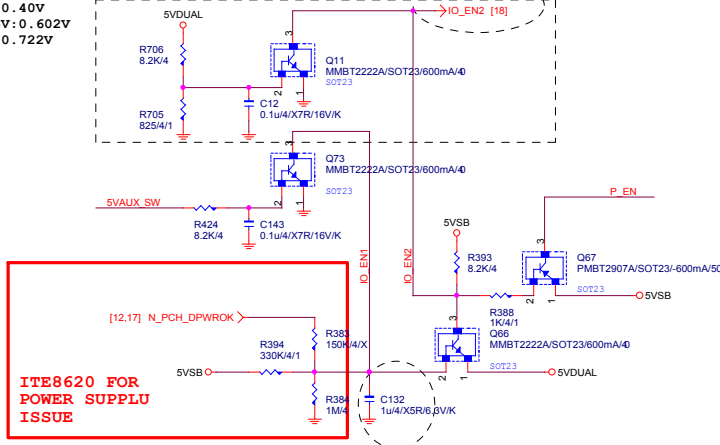
5VDUAL



5VDUAL SHORT PROTECT

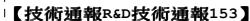
5V: 0.40V
7.5V: 0.602V
9V: 0.722V

5VSB OVP:7.5V protection

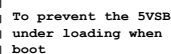
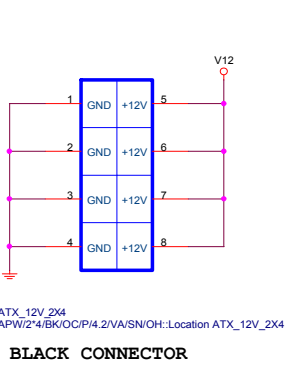


**ITE8620 FOR
POWER SUPPLU
ISSUE**

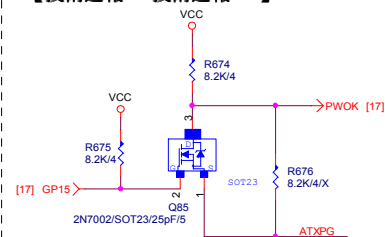
【技術通報R&D技術通報155】

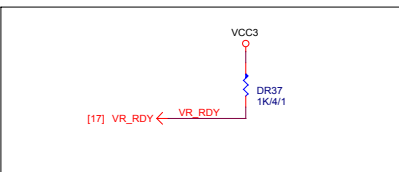
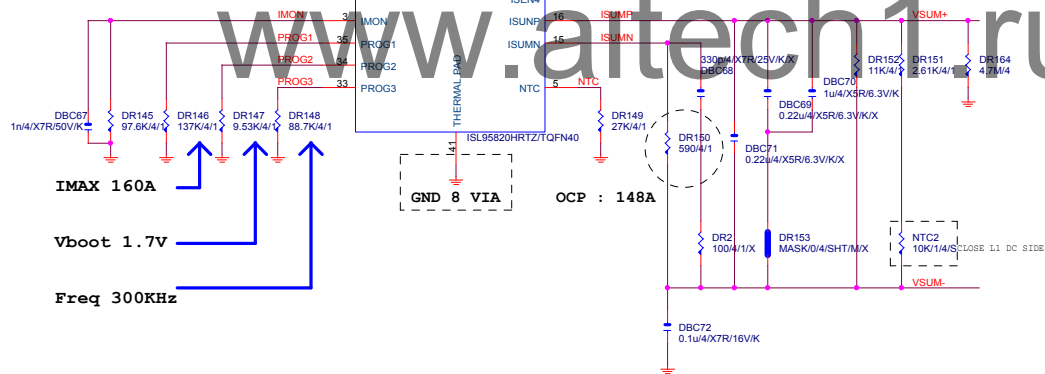
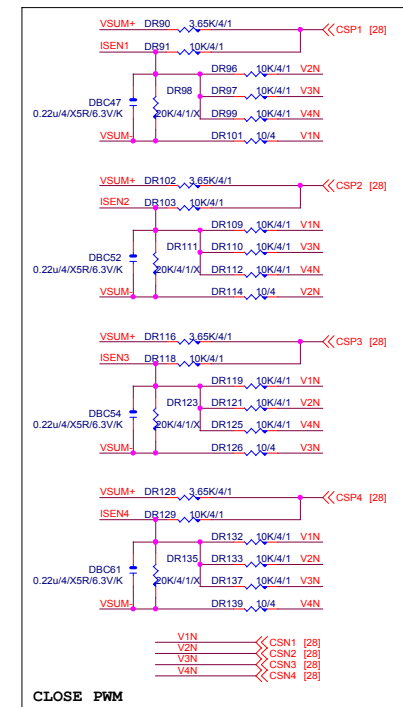


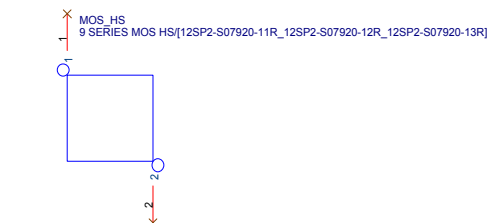
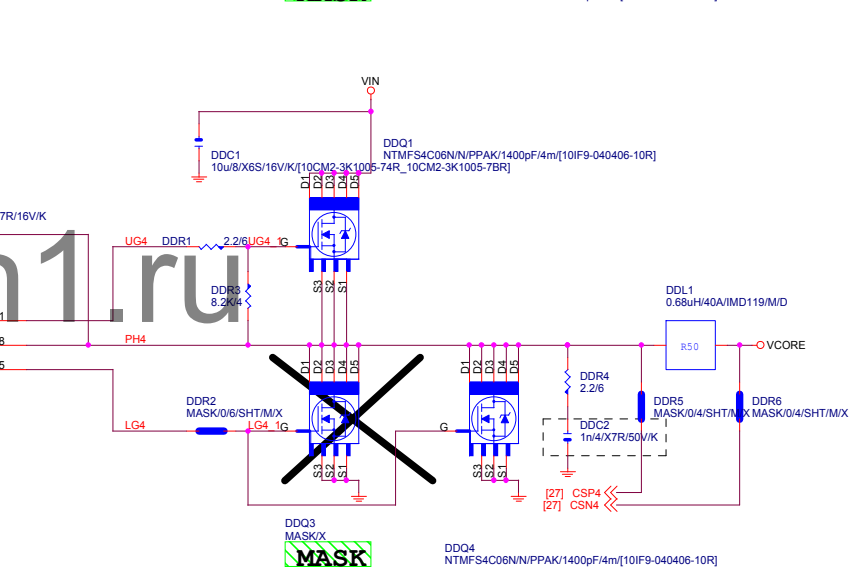
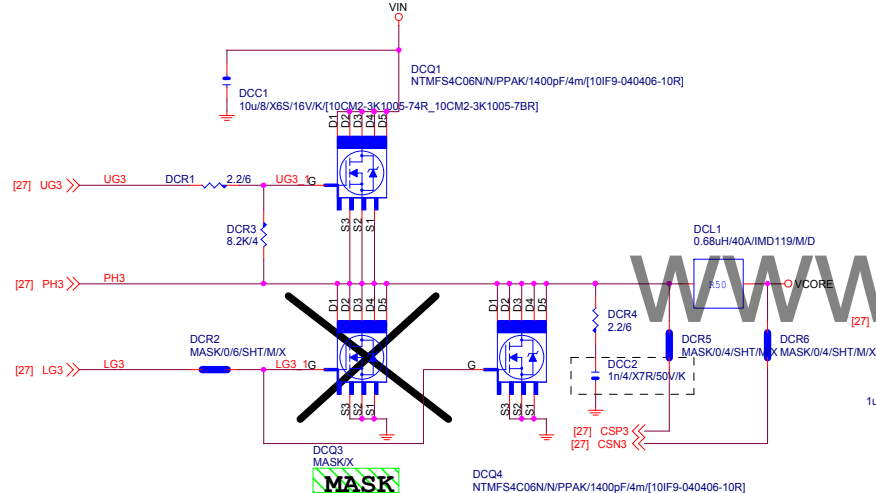
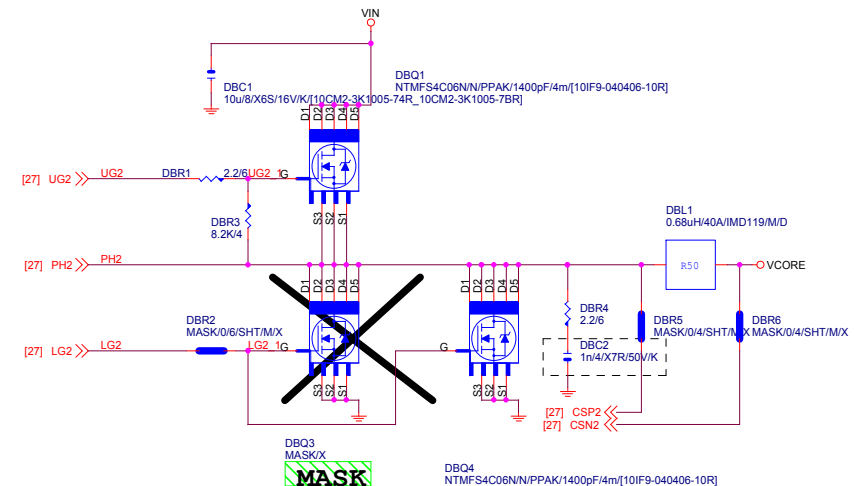
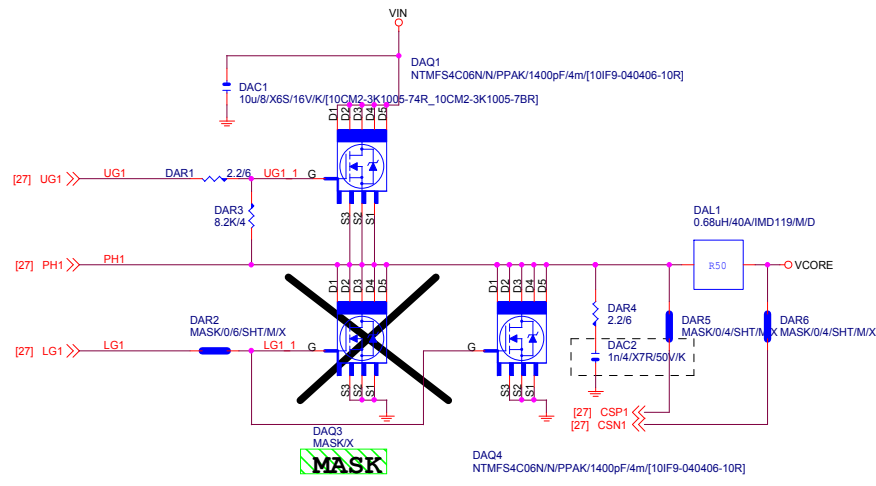
To fix 12V light load
abnromal issue +12V

[illegible]

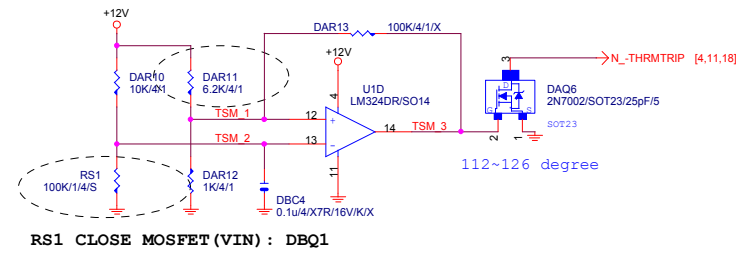
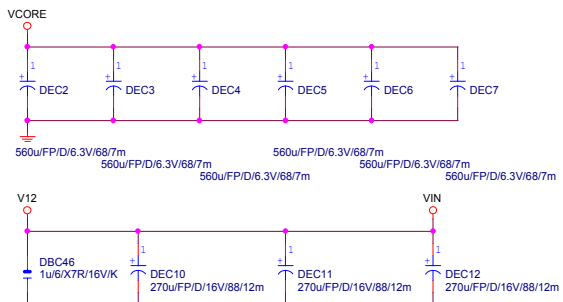
【技術通報R&D技術通報154】







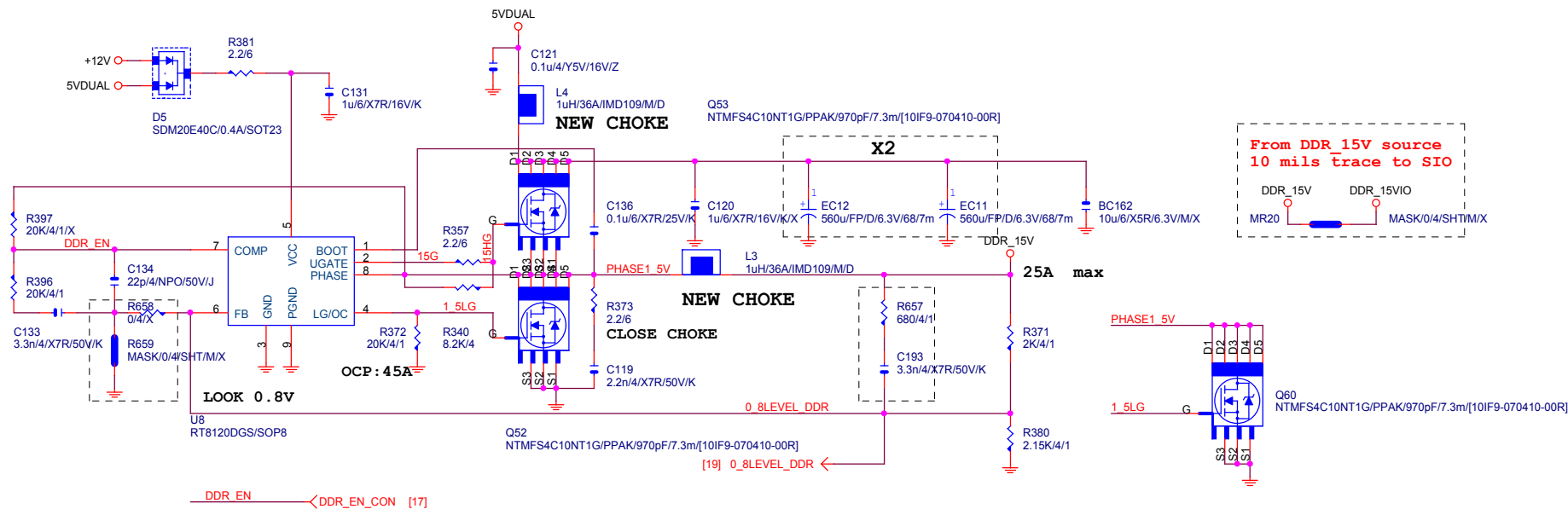
9 Series MOS Heatsink (Screw fix)
 MOSHSINK-Z97X-SLI
 H97 MODEL: 一上一下, DAQ3, DBQ3, DCQ3, DDQ3 MASK FOOTPRINT



RS1 CLOSE MOSFET (VIN) : DBQ1

Gigabyte Technology			
Title			
CPU CORE VR-2			
Size			
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DDR15V



PWR_SEQ

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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

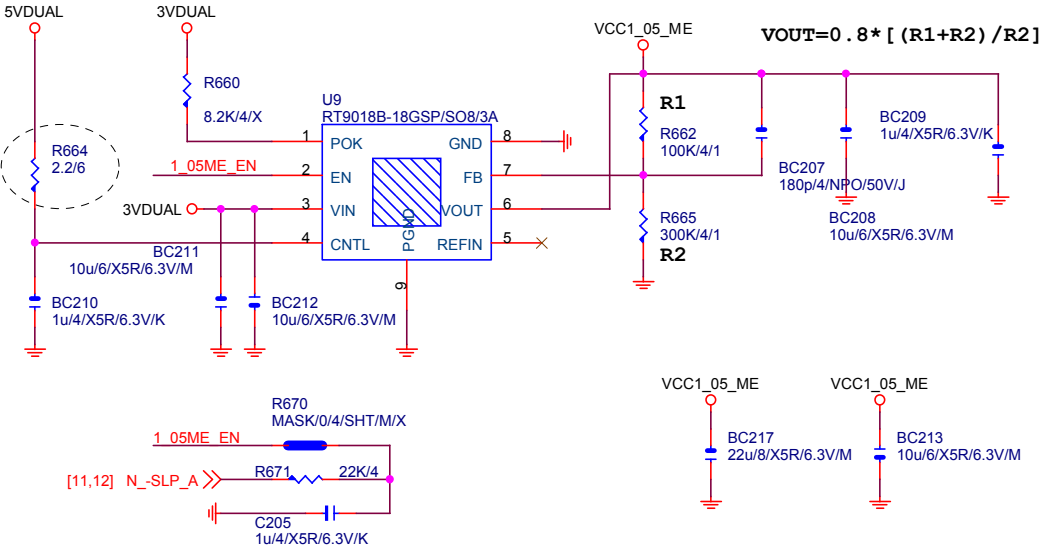
Rocset=(Iocp*Lgate, rdson)/Iocset
Rocset=(45A*6.7mOhm)/10uA = 30K
Iocset=10uA

Gigabyte Technology

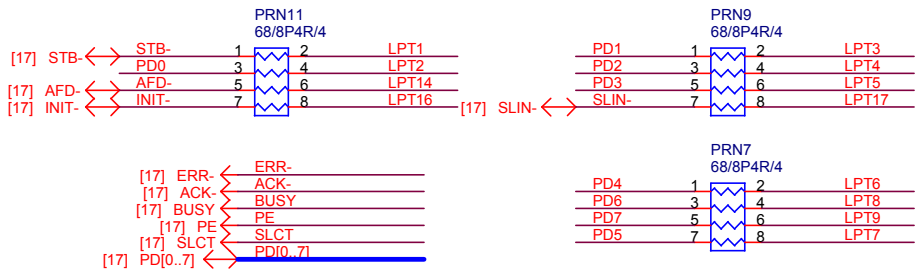
Title			
DDR POWER			
Size	Document Number	Rev	
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VCC1_05_ME

Z97 N/A



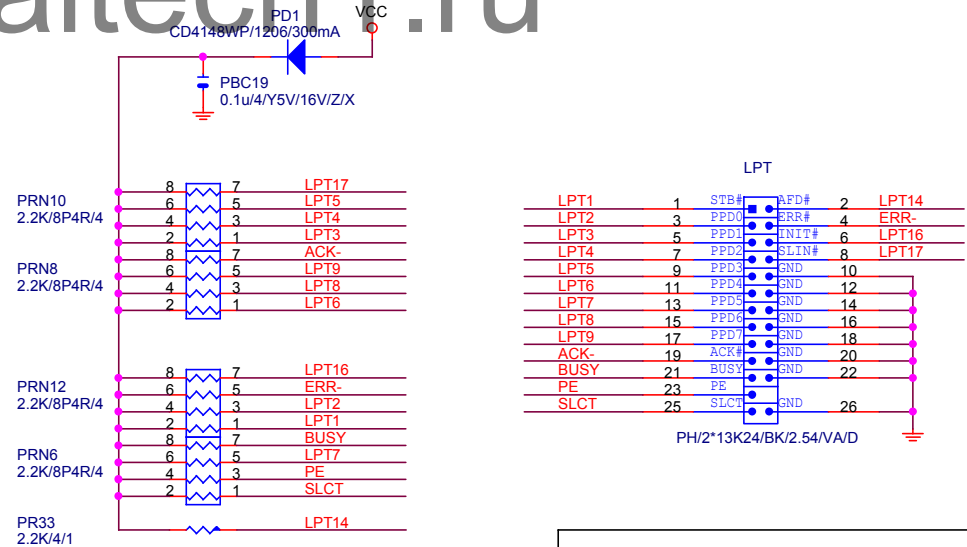
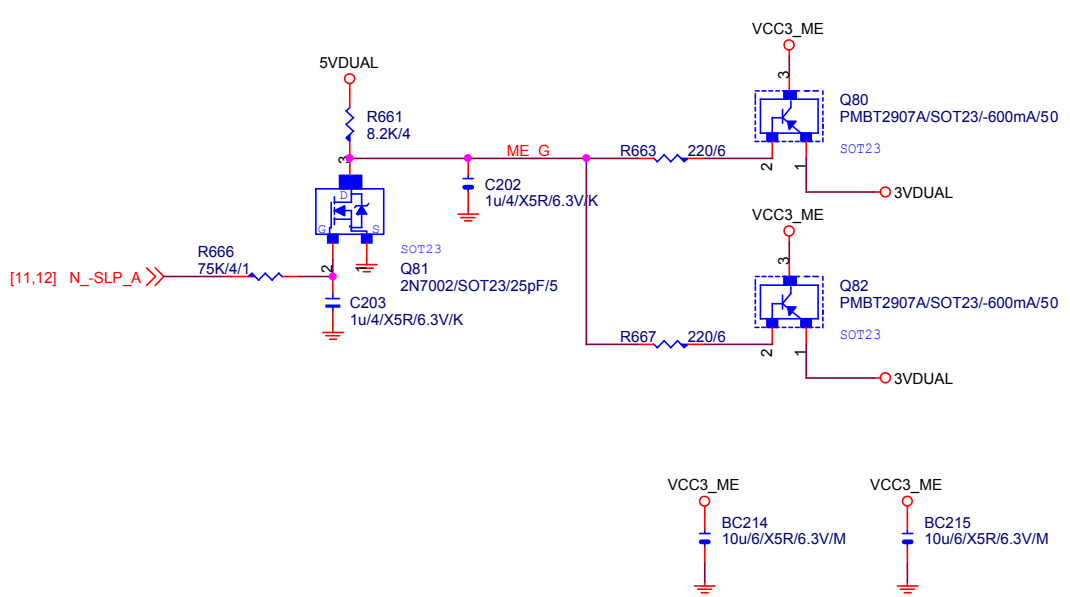
LPT PORT



【技術通報R&D技術通報151】
33ohm Change to 68ohm

VCC3_ME

Z97 N/A



Gigabyte Technology

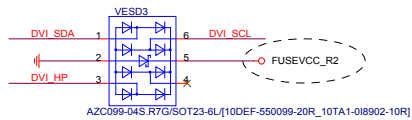
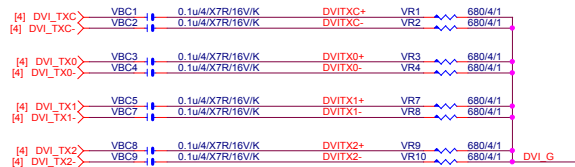
LPT

GA-H97M-D3H

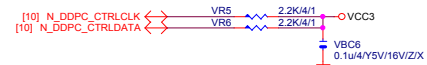
Rev 1.0

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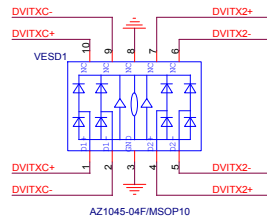
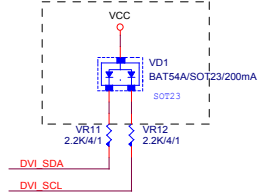
DVI LEVEL SHIFT



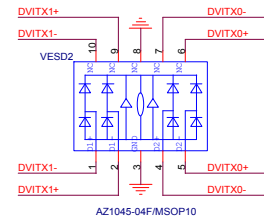
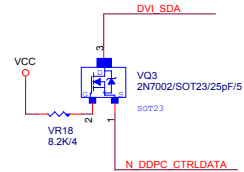
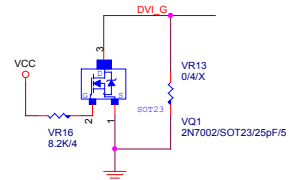
Close to connector



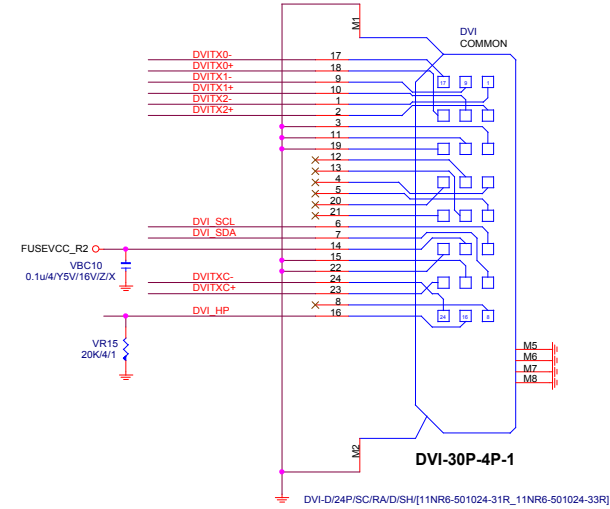
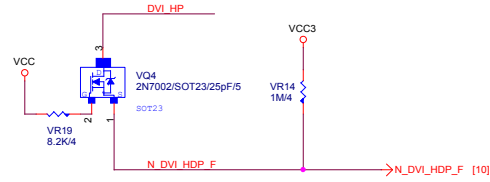
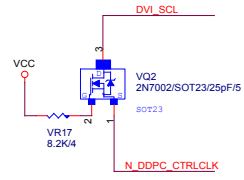
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Close to connector

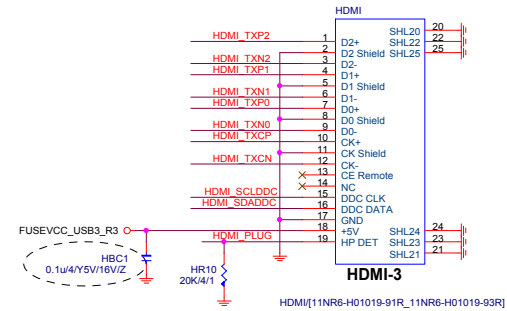
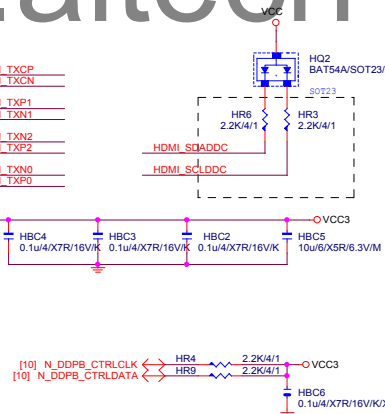
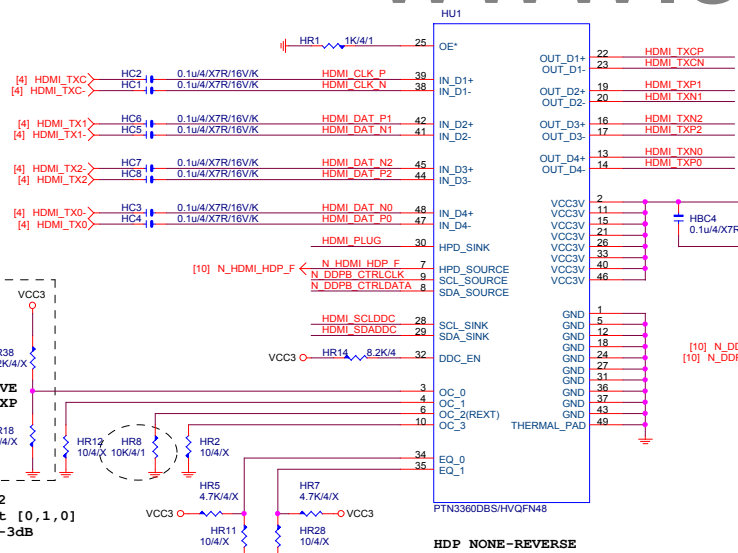


Close to connector



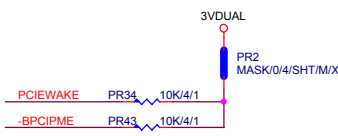
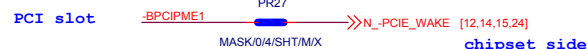
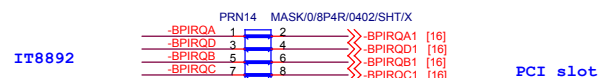
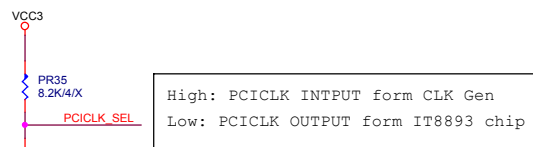
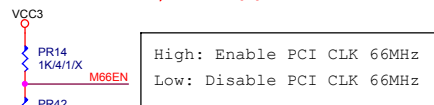
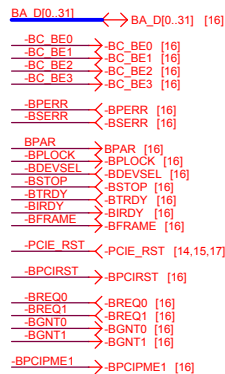
HDMI LEVEL SHIFT

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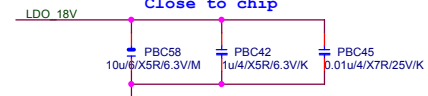
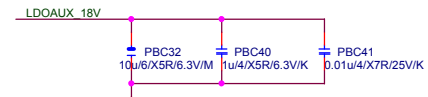
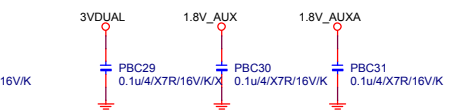
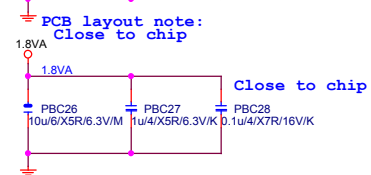
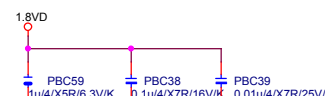
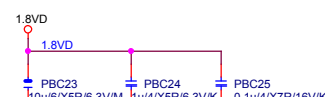
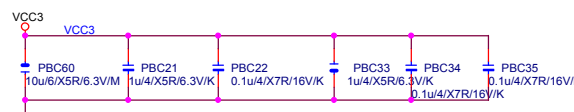
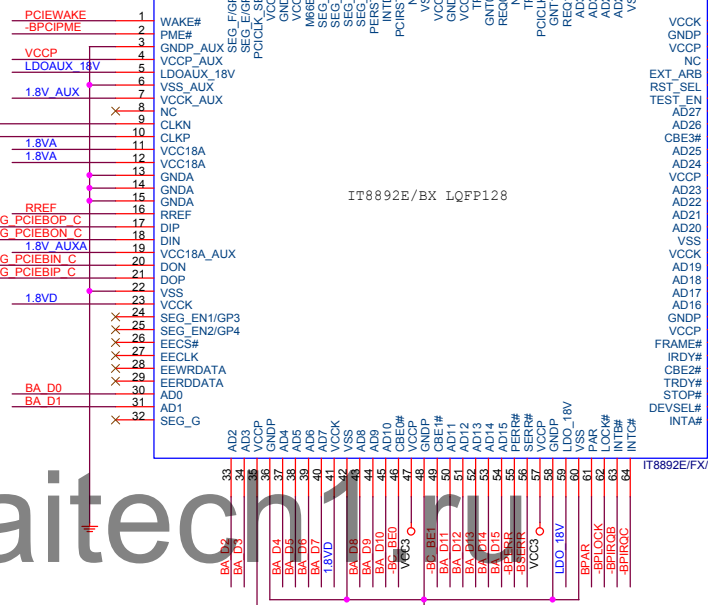
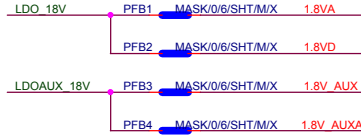
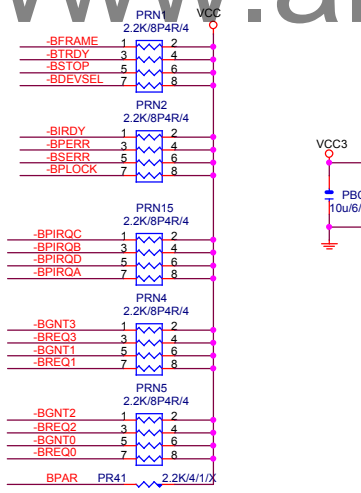
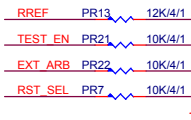
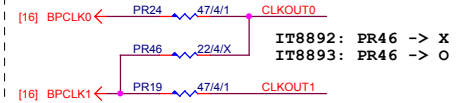
PCIE TO PCI

PCI:5/4/5 Impedance=50 +- 15%



Co-Lay IT8893 (IT8893 CLKOUT1 N/A)

```
IT8892: PR24 -> 47ohm
IT8893: PR24 -> 22ohm
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Gigabyte Technology

ITE IT8892E
GA-H97M-D3H

Rev	1.0
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