

Model Name: GA-B85M-HD3

Revision 3.0

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
08	DDR III CHANNEL B
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 X1 *2 SLOT
16	PCI SLOT
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 ALC887-VD2
23	REAR AUDIO JACK
24	REALTEK RTL8111G
25	DISCRETE POWER
26	ATX , CLOCK GEN
27	VCORE ISL95812 1

SHEET

TITLE

28	VCORE ISL95812 2
29	RT8120 DDR POWER
30	LPT, M3 POWER
31	DVI, HDMI
32	IT8892E

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Cover Sheet

Size Custom	Document Number GA-B85M-HD3	Rev 3.0
Date: Wednesday, August 06, 2014	Sheet 1 of 32	

Model Name: GA-B85M-HD3

Revision 3.0

Component value change history

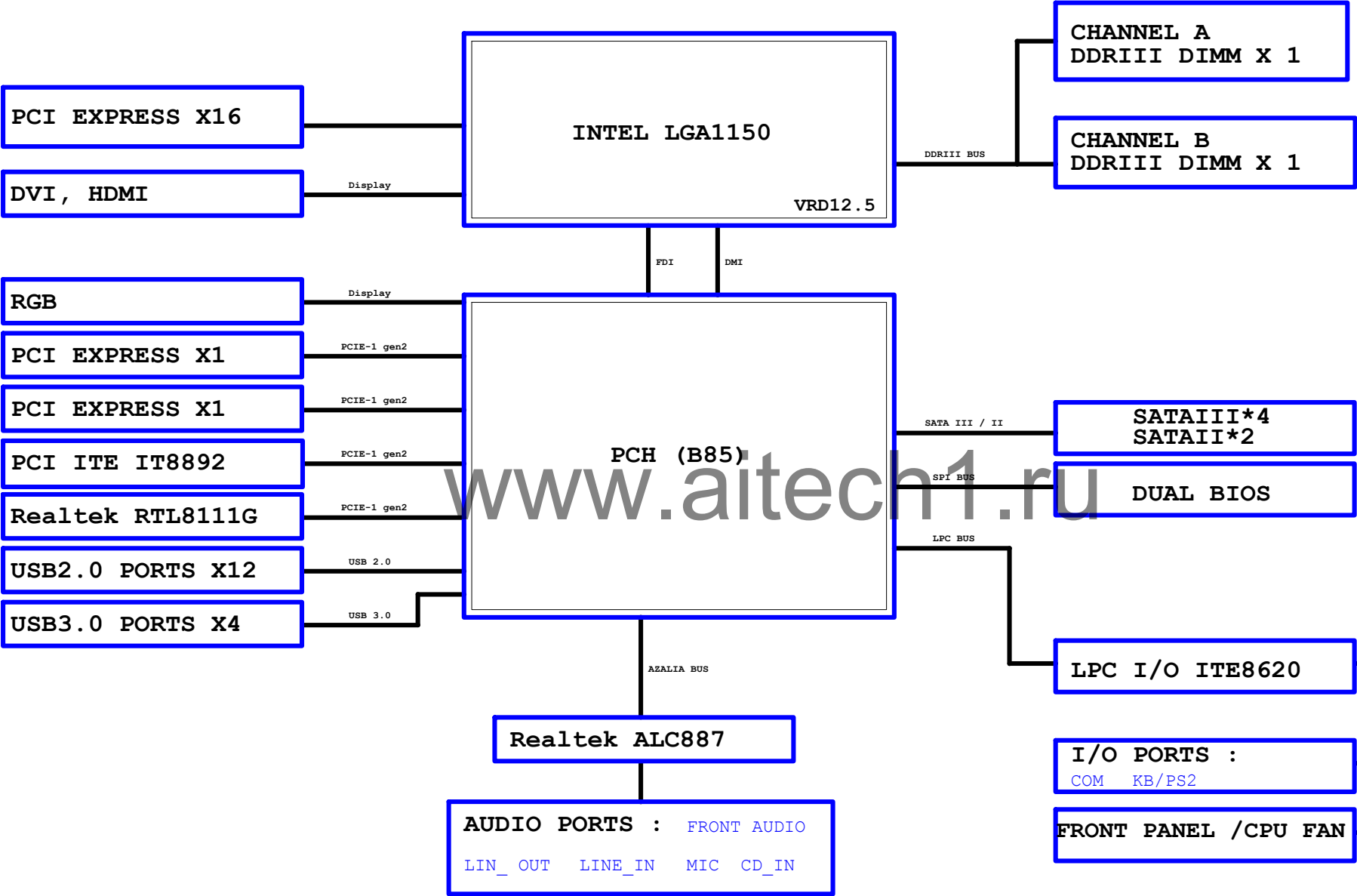
2014/07/28

Data	Change Item	Reason
2013/01/30	Modify to R0.2	
	PCIEX1_2 CLK Change Port	
	ADD Disable SVID [SVID_CTRL]	
	ADD Disable ME [DS_ME]	
	ADD -PCIE_RST Patch	
2013/02/05	O_PWROK1 reserve 0.01u Cap (For EMI)	
2013/03/11	Update to R1.0	
	Modify F_PANEL MPD+ (Super I/O GP65)	
	ADD SYS_FAN 防燒	
	ADD N_-THRMTRIP / A_-PROCHOT Protection Option	
	ADD 5VSB OVP Protection	
	ADD +12V Dummy Control	
	Reserve N_PCH_DPWROK Control	
2013/03/19	ADD EMI 0ohm (R707)	
2013/04/02		PBOM: 9MB85MHD3-00-10A
2013/04/08	Update PROCHOT	PBOM: 9MB85MHD3-00-10B
	R148: 35.7K -> 75K	
	R136: 1.4K -> 1.5K	
	DR149: 3.83K -> 13K	
2013/06/25	Update to R1.1	PBOM: 9MB85MHD3-00-11A
	Chipset change REV: C2	
2013/07/04	ADD 5VSB Protection	PBOM: 9MB85MHD3-00-11B
	Remove Super I/O OVP/UVF Function	
2013/07/11	Modify 5VSB Protection	PBOM: 9MB85MHD3-00-11C
	DEL R704: 8.2K/4	
	ADD R706: 8.2K/4	
	R705: 715/4/1 -> 825/4/1	
	DEL AUDIO AZ2225-01L CD1	

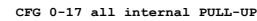
Circuit or PCB layout change

DATE	Change Item	Reason
2013/09/12	Update to R1.11	
	Follow Crystal Trace Rule	
	SYS_FAN, DDR 0ohm 0402 -> 0603	
	Update Fuse 1206 Footprint "POLYSWITCH-1206-1"	
	Update PPAK Footprint "Q_TDSON8-GDS-T"	
2013/10/22	NX1: 25M/20p -> 12p	PBOM: 9MB85MHD3-00-11D
	NC7, NX8: 27p -> 10p	
2013/11/04	NC7, NX8: 10p -> 15p	PBOM: 9MB85MHD3-00-11E
2013/11/27	MR17 0ohm -> 0603 FUSE (10FP5-06100B-00R)	PBOM: 9MB85MHD3-00-11F
	ALC887 強壯版 (10HP5-368870-32R)	
2014/02/17	Sales Costdown Rev 2.0	
	CPU Power ISL95820 1U2D -> ISL95812 1U1D	
	SIO IT8728 -> IT8620	
	DVI Non-Level Shift	
	BIOS Size 64M -> 32M	
2014/02/20	SBA線路OPTION,整合電阻成排阻,精簡線路	
2014/02/24	整合電阻成排阻	
2014/02/27	MASK/DEL CAP	
2014/03/07	DEL DR65,DR70	
2014/03/10	F11改1206,NR6改SHT PAD	
2014/03/20	Final BOM	9MB85MHD3-00-20B
2014/03/27	ADD EMI CAP, NC60 & NC61 (100p)	9MB85MHD3-00-20C
	Modify DR61 (41.2K)	
2014/06/18	Update to R2.01	
	Remove SATA MLCC	
2014/07/15	Update to R3.0	
	LAN RTL8111F -> 8111G	
	8P4R-0402 -> 0603 (KB&MS)	
	Remove 5VDUAL SHORT PROTECT	
	Remove NCT3933, use GPIO (GP24, GP25)	
	Heatsink Gray -> Black	
	NRN1 & NRN5 MASK	

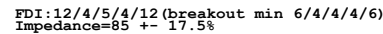
BLOCK DIAGRAM



(E)

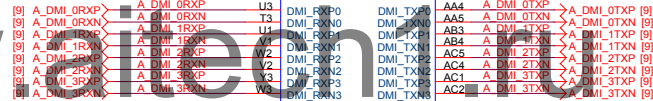


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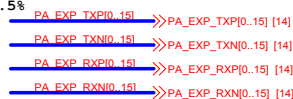


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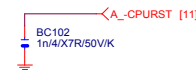
PCIEX16:16/5/5/5/16(breakout min 10/4/4/4/10)
Impedance=80 +- 17.5%



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



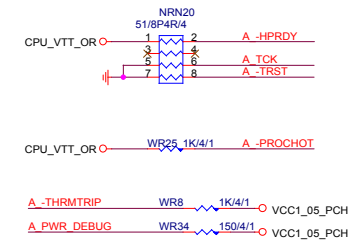
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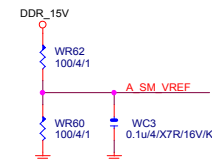
CPU SVID



CPU PU/PD



SM REF



LGA1150

(A)

LGA1150A	
MAAA0 AU13	DDR0_MA0
MAAA1 AV16	DDR0_MA1
MAAA2 AU16	DDR0_MA2
MAAA3 AW17	DDR0_MA3
MAAA4 AU17	DDR0_MA4
MAAA5 AW18	DDR0_MA5
MAAA6 AV17	DDR0_MA6
MAAA7 AT18	DDR0_MA7
MAAA8 AU18	DDR0_MA8
MAAA9 AT19	DDR0_MA9
MAAA10 AW11	DDR0_MA10
MAAA11 AV19	DDR0_MA11
MAAA12 AU19	DDR0_MA12
MAAA13 AT20	DDR0_MA13
MAAA14 AT20	DDR0_MA14
MAAA15 AU21	DDR0_MA15
MODT_A0 AW10	DDR0_ODT0
MODT_A1 AV9	DDR0_ODT1
AW9	DDR0_ODT2
AW8	DDR0_ODT3
AW33	DDR0_ECC0
AW33	DDR0_ECC1
AU31	DDR0_ECC2
AW31	DDR0_ECC3
AT33	DDR0_ECC4
AU33	DDR0_ECC5
AT31	DDR0_ECC6
AW31	DDR0_ECC7
SBA00 SBA01	DDR0_BA0
SBA02 SBA01	DDR0_BA1
SBA02 SBA02	DDR0_BA2
CKEA0 CKEA0	DDR0_CKE0
CKEA1 CKEA1	DDR0_CKE1
CKEA1 CKEA1	DDR0_CKE2
CKEA1 CKEA1	DDR0_CKE3
CSA0 CSA0	DDR0_CS_N0
CSA1 CSA1	DDR0_CS_N1
CSA1 CSA1	DDR0_CS_N2
CSA1 CSA1	DDR0_CS_N3
DCLKA0 DCLKA0	DDR0_CLK_P0
DCLKA0 DCLKA0	DDR0_CLK_N0
DCLKA1 DCLKA1	DDR0_CLK_P1
DCLKA1 DCLKA1	DDR0_CLK_N1
AV14	DDR0_CLK_P2
AW14	DDR0_CLK_N2
AW13	DDR0_CLK_P3
AW13	DDR0_CLK_N3
AW12	RSVD
SRASA SRASA	DDR0_RAS*
SWEA SWEA	DDR0_WE*
AV20	RSVD
AV27	RSVD
SCASA SCASA	DDR0_CAS*
WR61	DDR_RESET*
D4/SH1MX	
WC4	
0.1u4/X7R/16V/K/X	

HASWELL[10SC1-F01150-11R_10SC1-F01150-12R]

LGA1150

(B)

		LGA1150B					
	MAAB0	AL19	DDR1_MA0	DDR1_DQ0	AE34	MOB0	
	MAAB1	AK23	DDR1_MA1	DDR1_DQ1	AE35	MOB1	
	MAAB2	AM22	DDR1_MA2	DDR1_DQ2	AG35	MOB2	
	MAAB3	AM23	DDR1_MA3	DDR1_DQ3	AH35	MOB3	
	MAAB4	AP23	DDR1_MA4	DDR1_DQ4	AM34	MOB4	
	MAAB5	AL23	DDR1_MA5	DDR1_DQ5	AD35	MOB5	
	MAAB6	AY24	DDR1_MA6	DDR1_DQ6	AG34	MOB6	
	MAAB7	AV25	DDR1_MA7	DDR1_DQ7	AH34	MOB7	
	MAAB8	AU26	DDR1_MA8	DDR1_DQ8	AL35	MOB9	
	MAAB9	AW26	DDR1_MA9	DDR1_DQ9	AK31	MOB10	
	MAAB10	AP18	DDR1_MA10	DDR1_DQ10	AL31	MOB11	
	MAAB11	AY25	DDR1_MA11	DDR1_DQ11	AK34	MOB12	
	MAAB12	AV26	DDR1_MA12	DDR1_DQ12	AM35	MOB13	
	MAAB13	AR15	DDR1_MA13	DDR1_DQ13	AK32	MOB14	
	MAAB14	AV27	DDR1_MA14	DDR1_DQ14	AL32	MOB15	
	MAAB15	AY28	DDR1_MA15	DDR1_DQ15	AN34	MOB17	
				DDR1_DQ16	AP31	MOB21	
	MODT_B0	AM17	DDR1_ODT0	DDR1_DQ17	AN31	MOB19	
	MODT_B1	AL16	DDR1_ODT1	DDR1_DQ18	AP31	MOB23	
		AM16	DDR1_ODT2	DDR1_DQ19	AN35	MOB20	
		AK15	DDR1_ODT3	DDR1_DQ20	AP35	MOB16	
				DDR1_DQ21	AN32	MOB18	
		AM26	DDR1_ECC0	DDR1_DQ22	AP32	MOB22	
		AM25	DDR1_ECC1	DDR1_DQ23	AM29	MOB25	
		AP25	DDR1_ECC2	DDR1_DQ24	AM28	MOB28	
		AP26	DDR1_ECC3	DDR1_DQ25	AR29	MOB27	
		AL26	DDR1_ECC4	DDR1_DQ26	AR28	MOB30	
		AL25	DDR1_ECC5	DDR1_DQ27	AL29	MOB24	
		AR26	DDR1_ECC6	DDR1_DQ28	AL28	MOB29	
		AR25	DDR1_ECC7	DDR1_DQ29	AP29	MOB26	
				DDR1_DQ30	AP28	MOB31	
		AK17	DDR1_BA0	DDR1_DQ31	DR32	AR12	MOB32
		SBA01	DDR1_BA1	DDR1_DQ32	AP12	MOB33	
		SBA02	DDR1_BA2	DDR1_DQ33	AL12	MOB34	
				DDR1_DQ34	AL12	MOB35	
				DDR1_DQ35	AR13	MOB36	
		AW29	DDR1_CKE0	DDR1_DQ36	AP13	MOB37	
		AY29	DDR1_CKE1	DDR1_DQ37	AM13	MOB38	
		AU28	DDR1_CKE2	DDR1_DQ38	AM12	MOB39	
		AU29	DDR1_CKE3	DDR1_DQ39	AR9	MOB45	
				DDR1_DQ40	AP9	MOB47	
		AP17	DDR1_CS_N0	DDR1_DQ41	AR6	MOB47	
		AN15	DDR1_CS_N1	DDR1_DQ42	AP8	MOB43	
		AN17	DDR1_CS_N2	DDR1_DQ43	AR10	MOB44	
		AL15	DDR1_CS_N3	DDR1_DQ44	AP10	MOB40	
				DDR1_DQ45	AR7	MOB46	
				DDR1_DQ47	AU7	MOB42	
				DDR1_DQ49	AM9	MOB52	
				DDR1_DQ49	AL9	MOB53	
				DDR1_DQ50	AL6	MOB50	
				DDR1_DQ51	AL7	MOB51	
				DDR1_DQ52	AL10	MOB49	
				DDR1_DQ53	AM6	MOB54	
				DDR1_DQ54	AM7	MOB51	
				DDR1_DQ55	AH6	MOB61	
				DDR1_DQ56	AH7	MOB60	
				DDR1_DQ57	AE6	MOB59	
				DDR1_DQ58	AE7	MOB63	
				DDR1_DQ59	AE6	MOB66	
				DDR1_DQ60	AJ7	MOB57	
				DDR1_DQ61	AF6	MOB58	
				DDR1_DQ62	AF7	MOB62	
				DDR1_DQ63	AF35	MOB60	
				DDR1_DQ64	AF33	MOB61	
					</		

(F, J)



(G, H, I)



(x12)

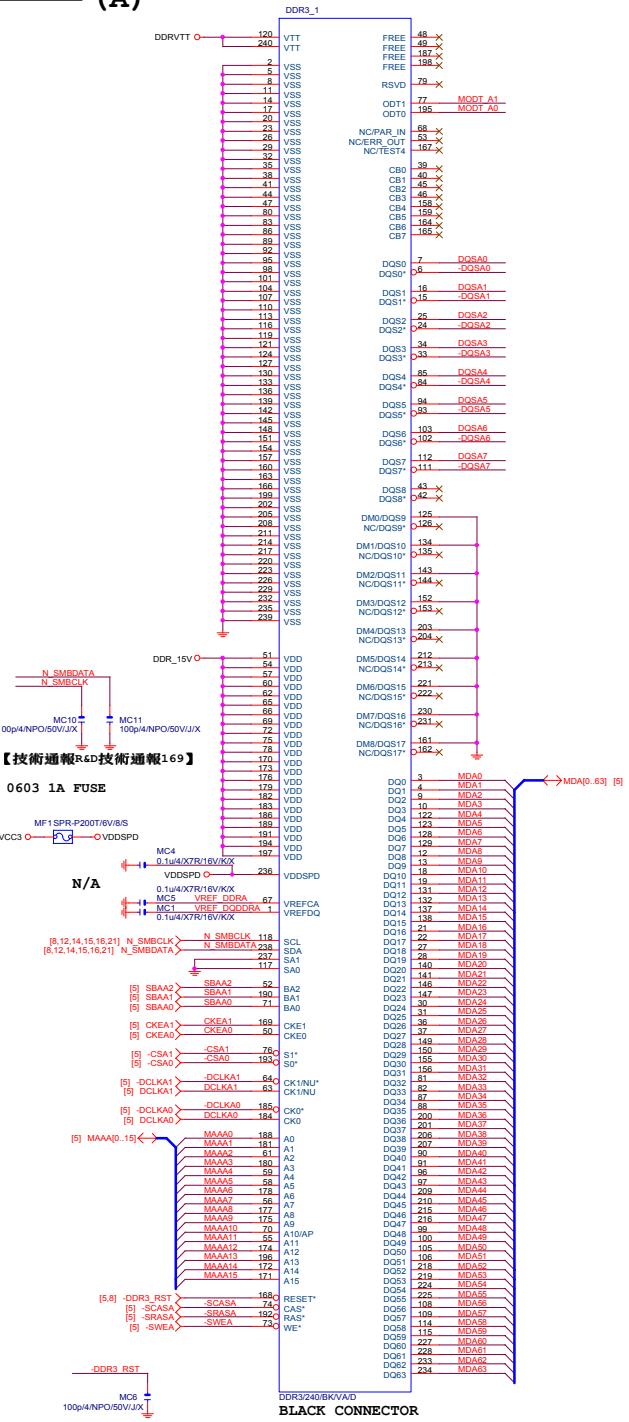


(x0)

3.0

DDR3

(A)



【技術通報R&D技術通報169】

0603 1A FUSE

N/A

VDDSPD

SCL

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BA2

BA1

BA0

CKE1

CKE0

CSA1

CSA0

CK1/NU*

CK1/NU*

CK0*

CK0*

MAAA0

MAAA1

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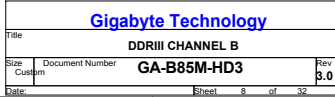
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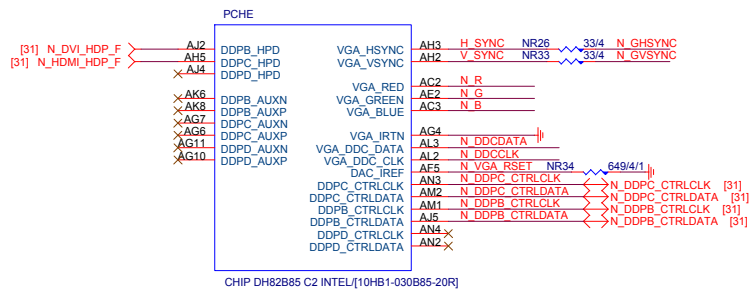
MAA298

MAA299



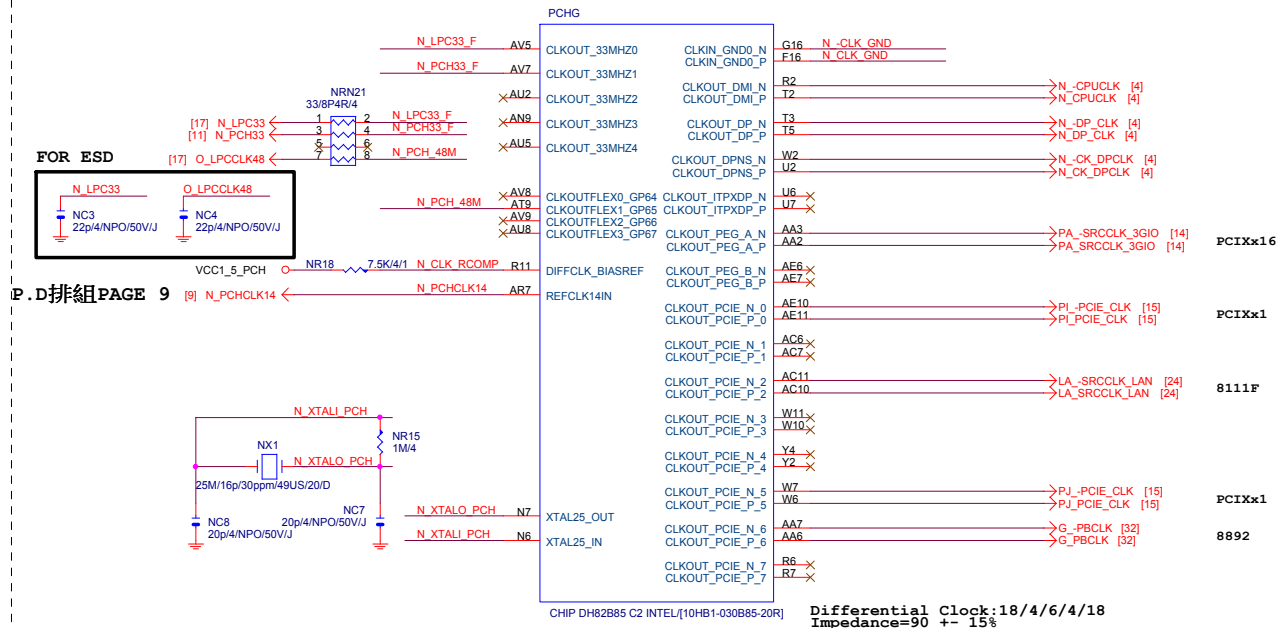
PCH

(E)

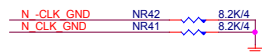


PCH

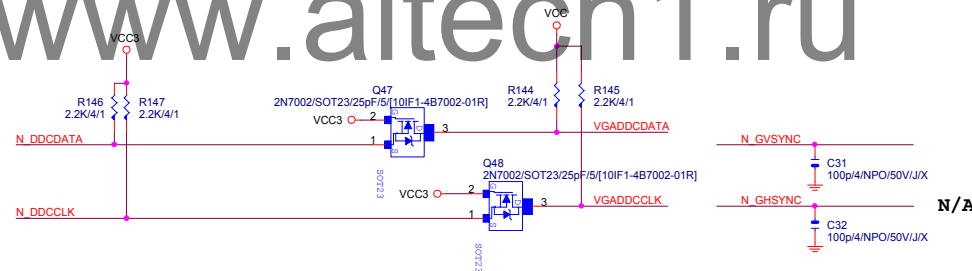
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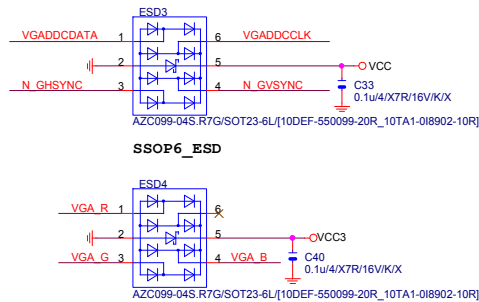
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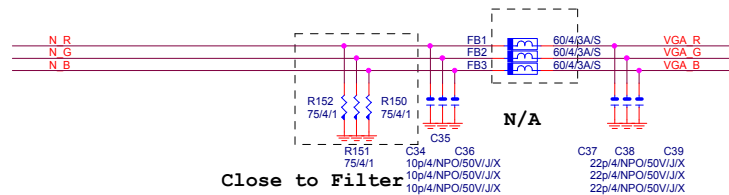
VGA DDC



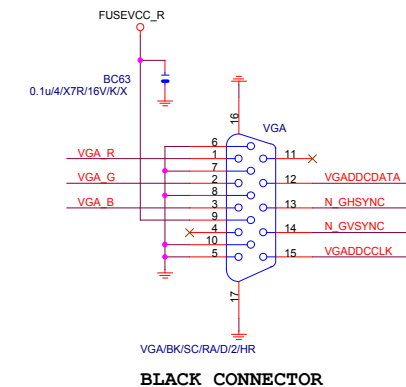
VGA ESD



VGA DDC



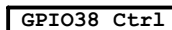
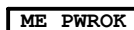
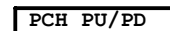
VGA CONNECTOR



Gigabyte Technology

Title		
PCH DISPLAY_CLK BUFFER		
Size Custom		
Document Number		
GA-B85M-HD3		
Date: Wednesday, August 06, 2014		
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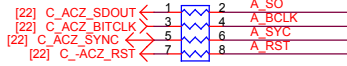
SATA3 : 20/7.5/4.5/7.5/20 (breakout min 8/4/4/4/8)
Impedance=90 +- 17.5%
SATA2 : 15/7.5/4.5/7.5/15 (breakout min 8/4/4/4/8)
Impedance=90 +- 17.5%



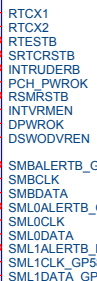
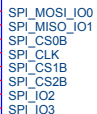
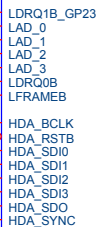
Title			
PCH HOST , SATA, PCI			
Size	Document Number		Rev
Custom	GA-B85M-HD3		3.0
Date:	Wednesday, August 06, 2014	Sheet	11 of 32

PCH

(D)



PCHD



Reserve for EMI test

NC51 0.01u4/X7R/25V/K/X

NC16 18P/4/NPO/50V/J

NC18 18P/4/NPO/50V/J

XTALS-RH-N

32.768KHZ

32.768K/12.5p/20ppm/TF38/35K/D

NC16 18P/4/NPO/50V/J

NC18 18P/4/NPO/50V/J

XTALS-RH-N

32.768KHZ

32.768K/12.5p/20ppm/TF38/35K/D

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NC18 18P/4/NPO/50V/J

XTALS-RH-N

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NC16 18P/4/NPO/50V/J

NC18 18P/4/NPO/50V/J

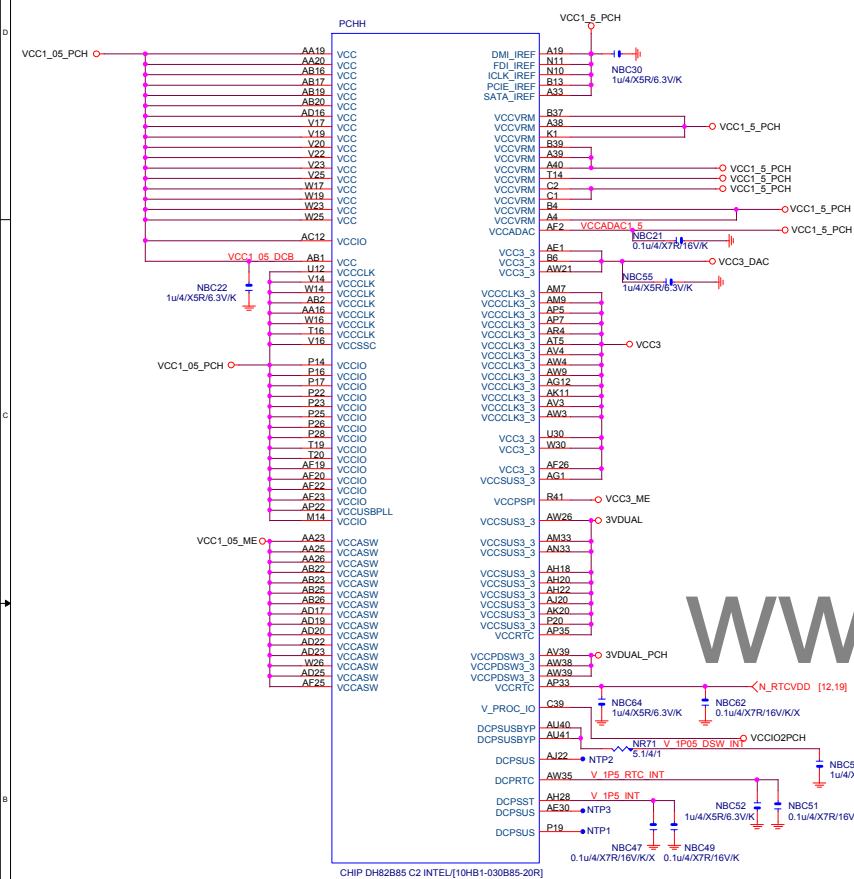
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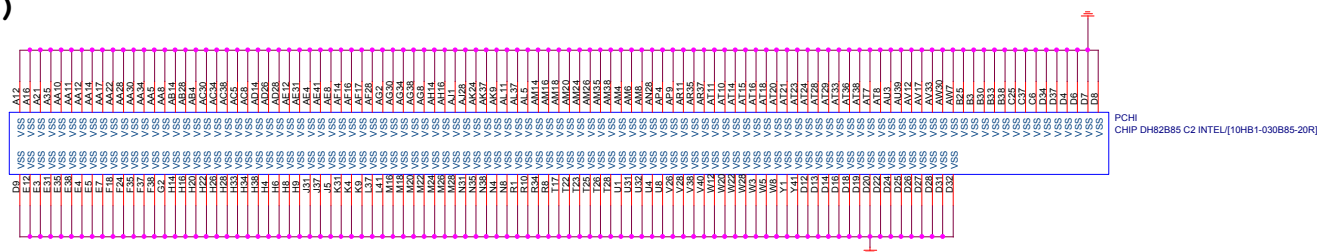
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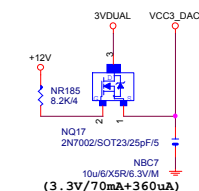
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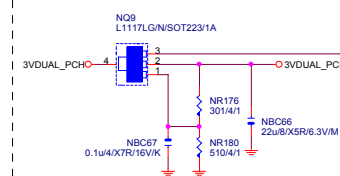
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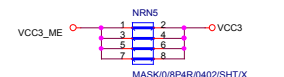
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3VDUAL PCH

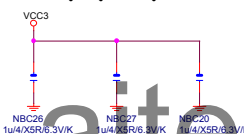


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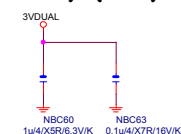
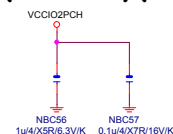


CAP

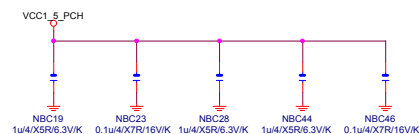
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(1.05V)(x2) (3.3V) (x2)

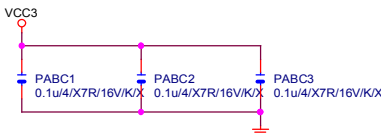


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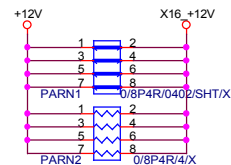


PCIEX16 CAP

N/A



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
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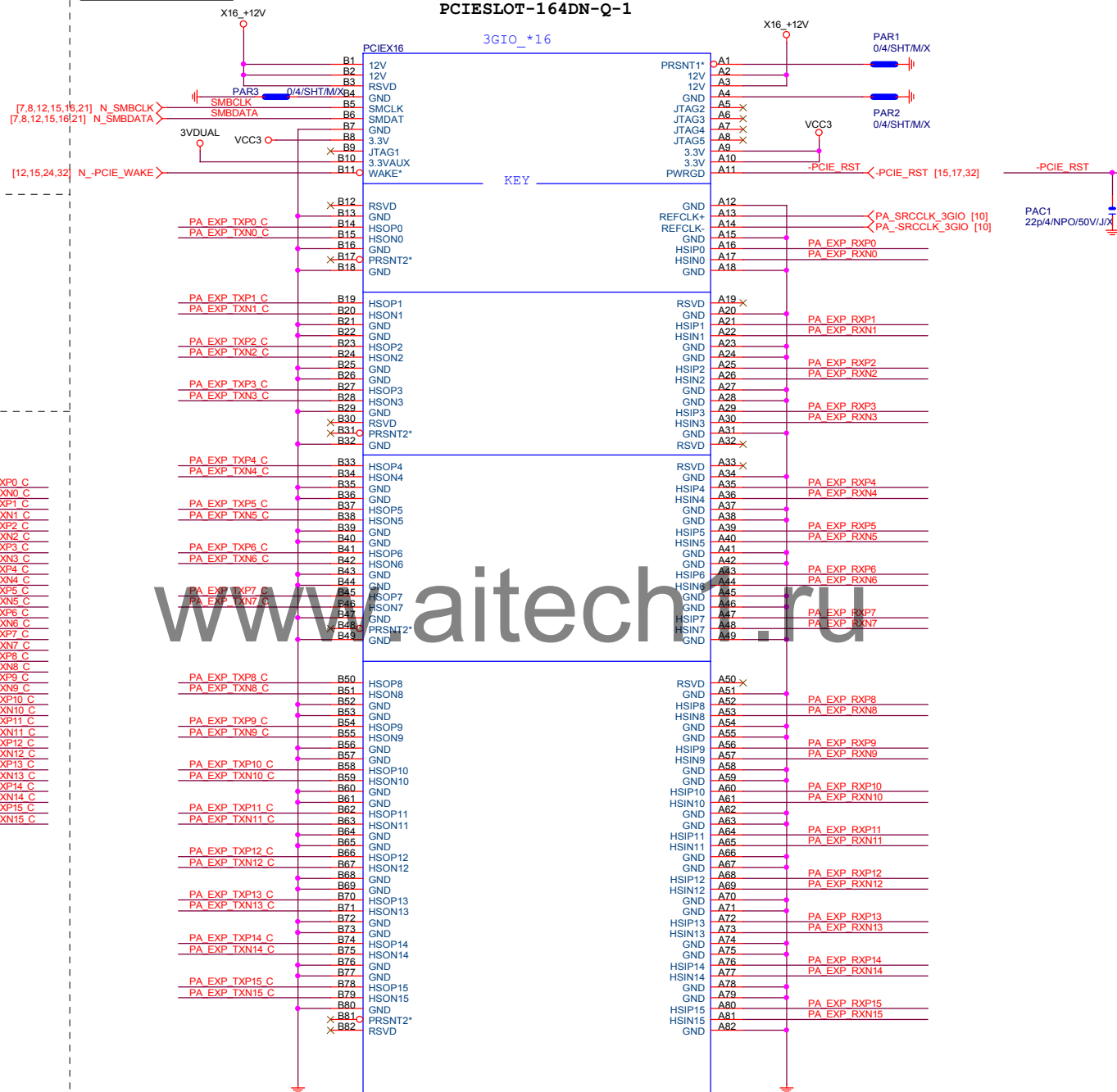
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PCIEX16 SLOT

PCIESLOT-164DN-Q-1



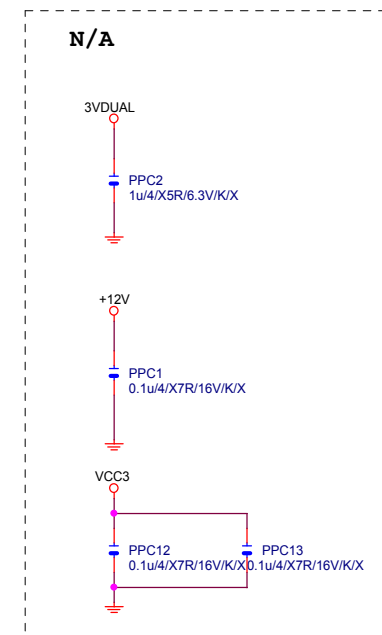
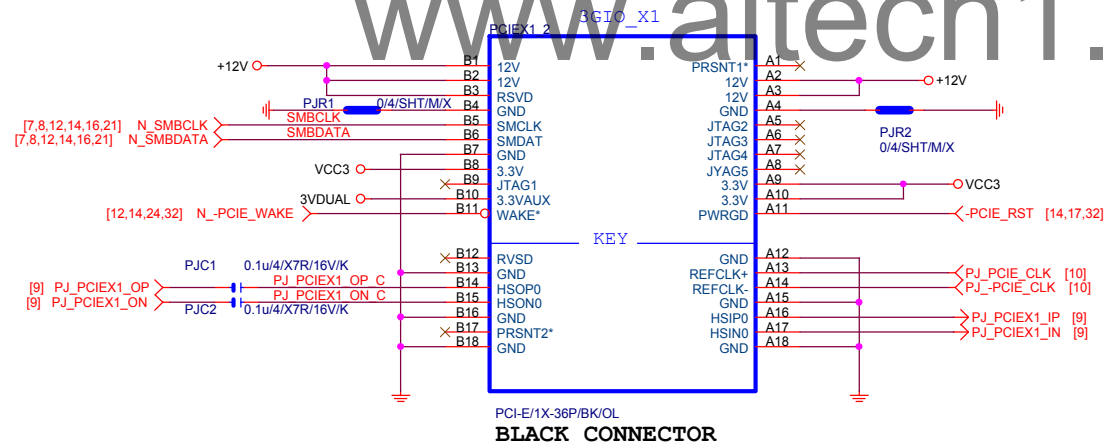
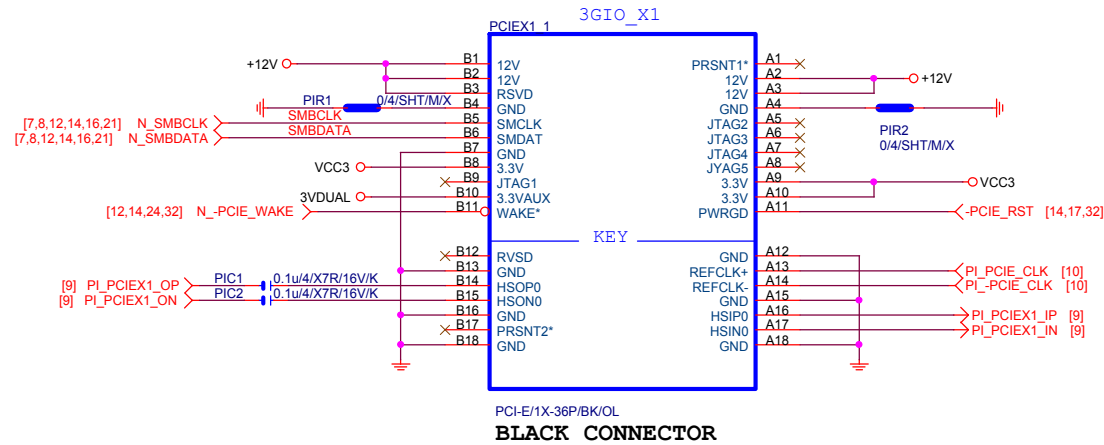
PCI-E/16X-164P/BK/LONG DOUBLE

BLACK CONNECTOR

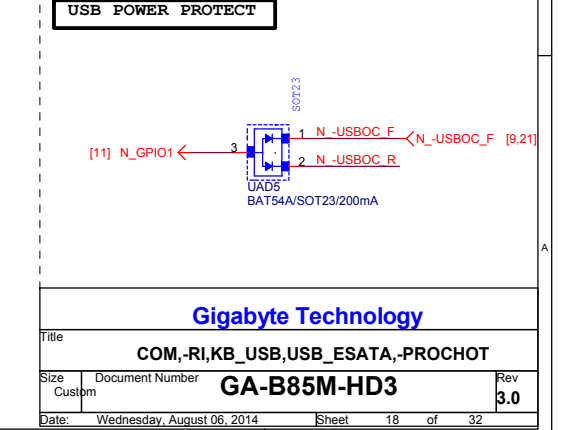
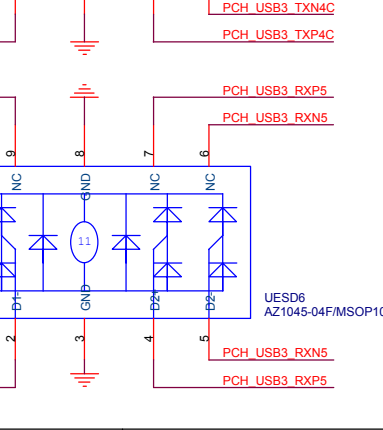
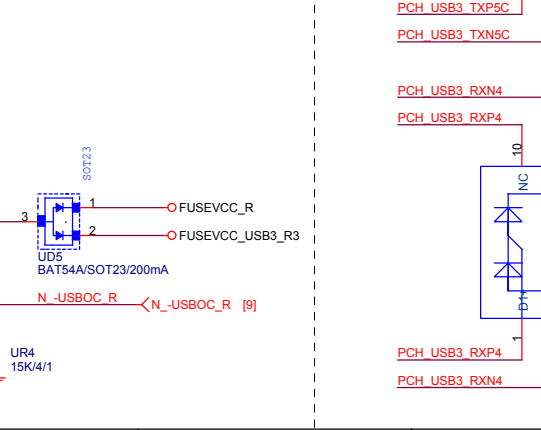
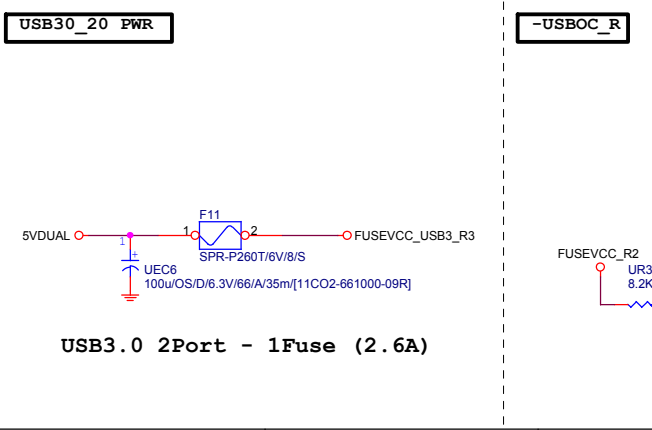
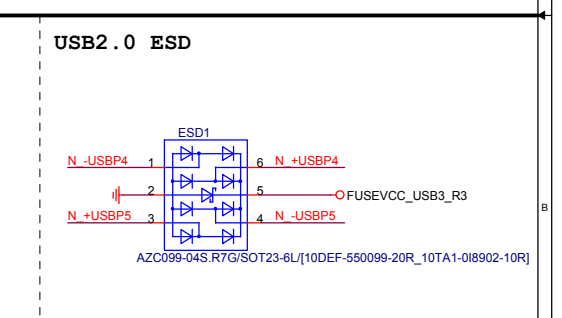
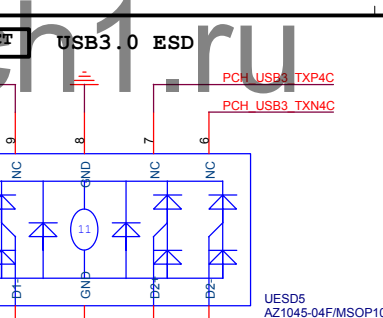
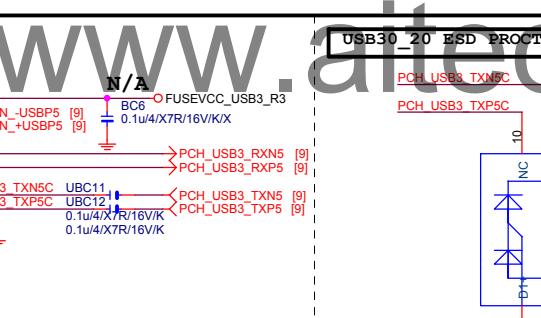
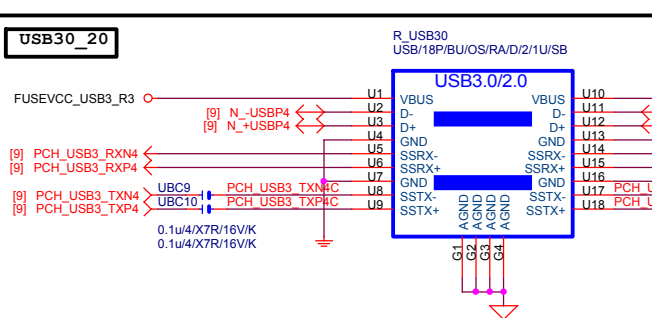
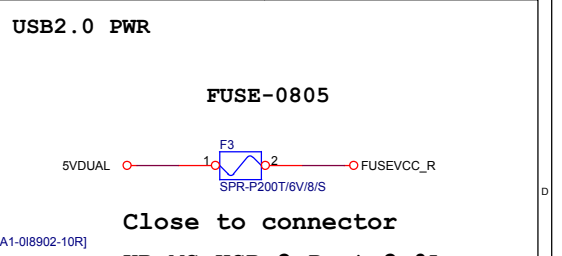
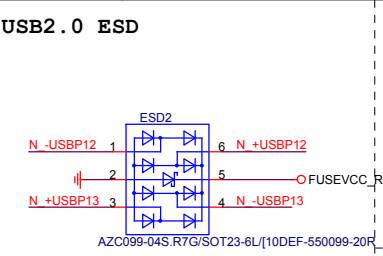
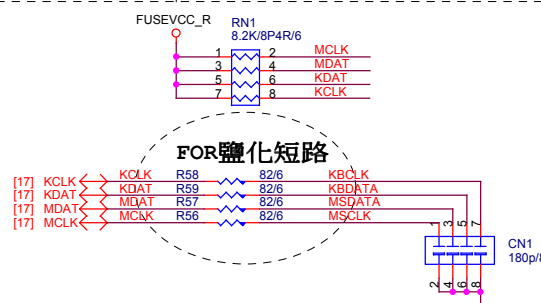
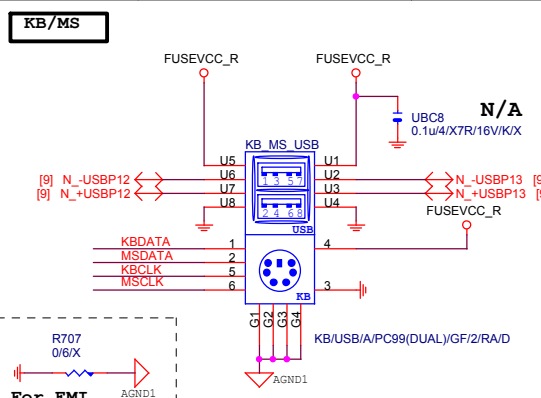
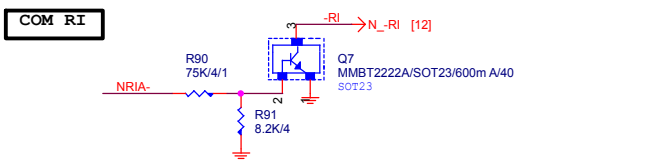
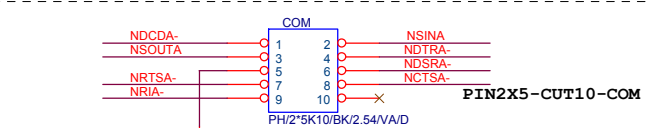
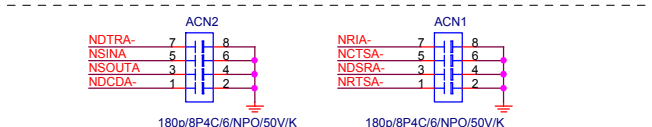
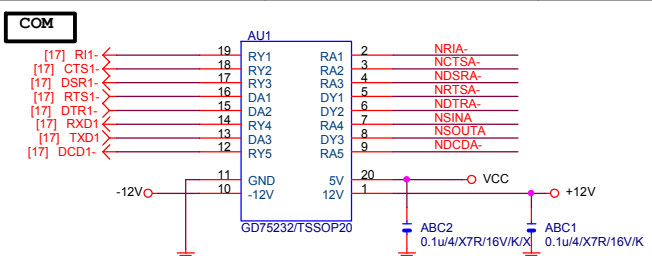
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Custom			Rev 3.0	
Date: Wednesday, August 06, 2014			Sheet 14 of 32	

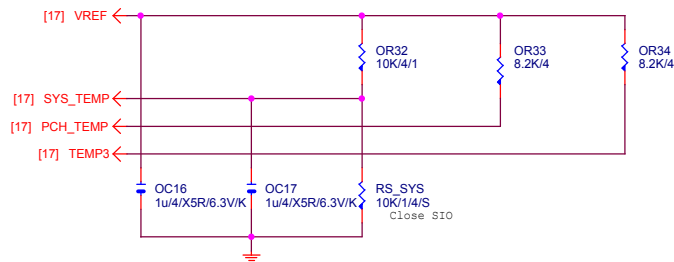
PCIEX1 SLOT



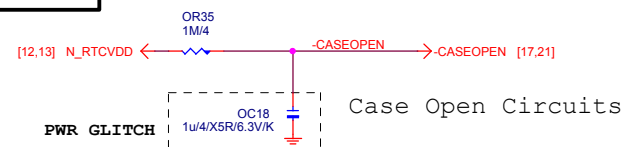
Gigabyte Technology			
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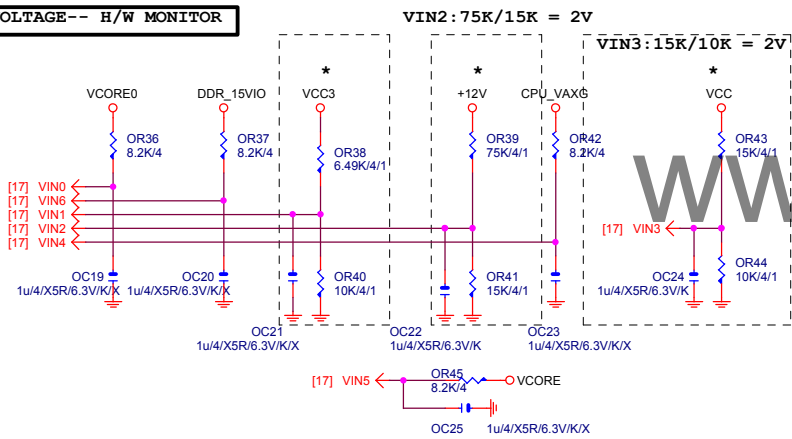
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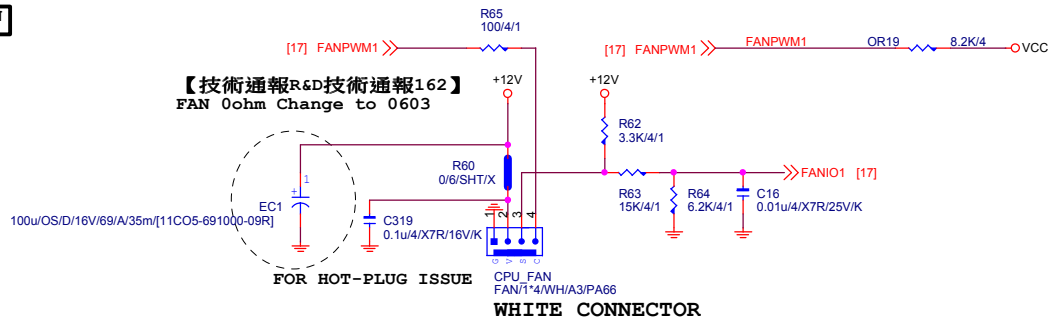
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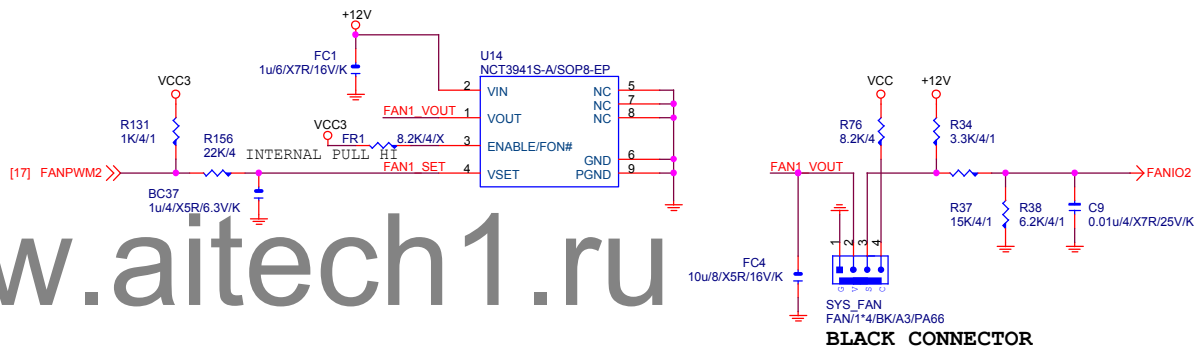
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CPU SMART FAN



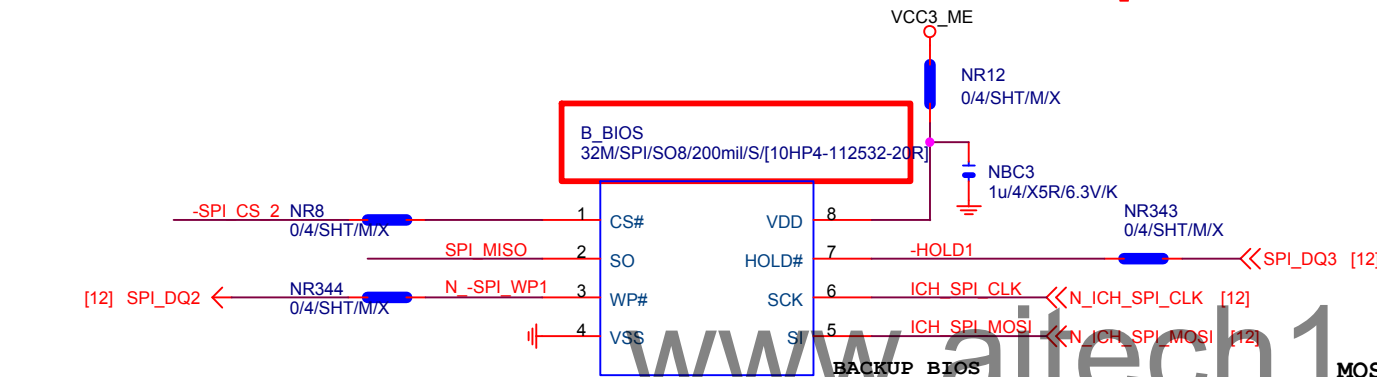
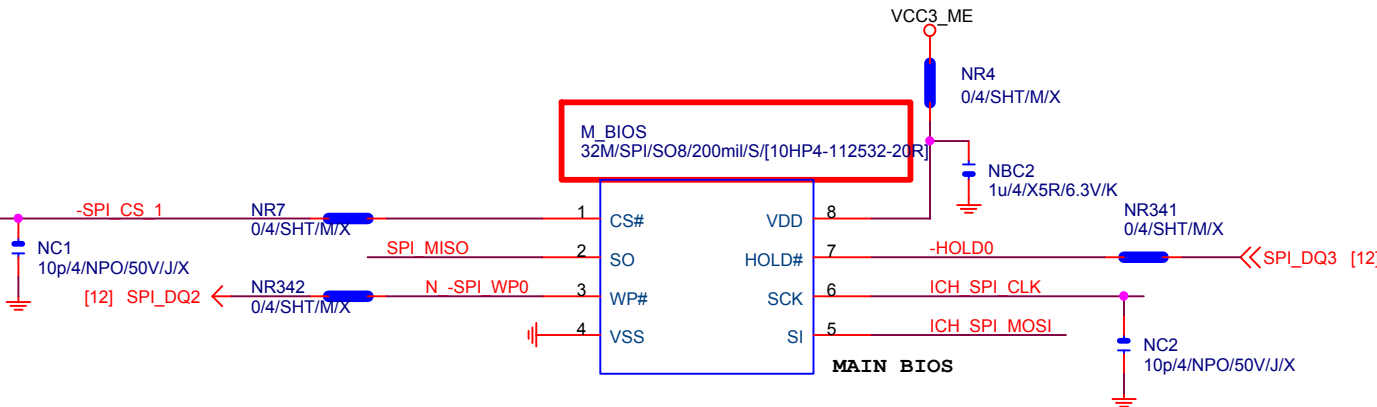
SYS SMART FAN



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Gigabyte Technology

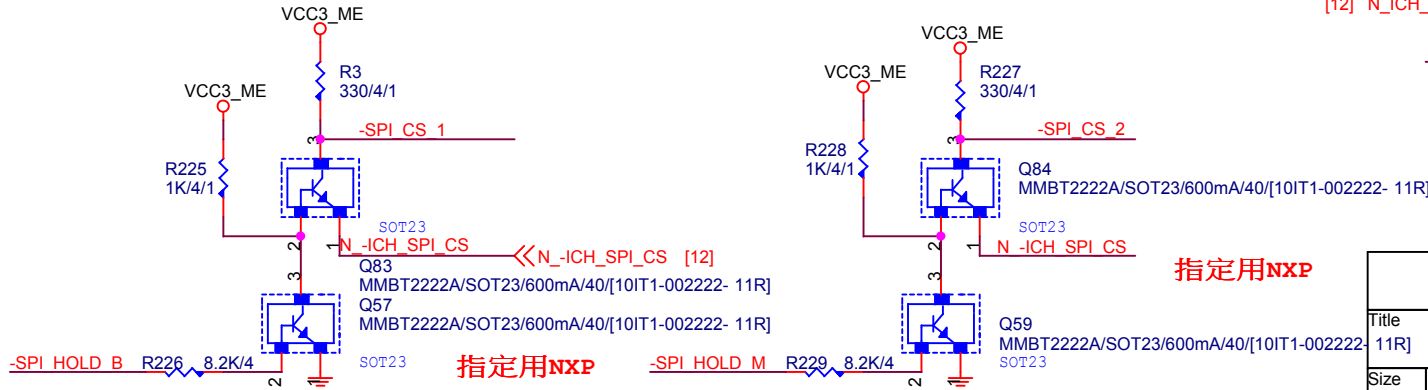
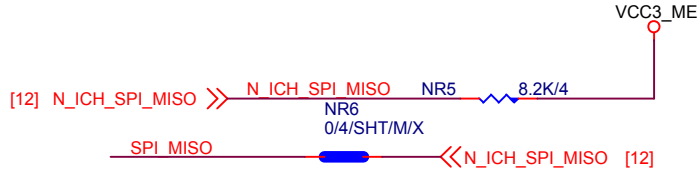
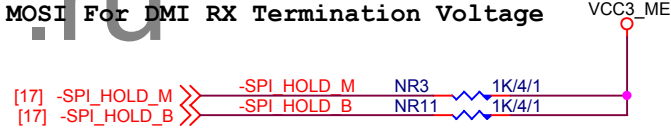
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Size			GA-B85M-HD3
Custom			Rev 3.0
Date:	Wednesday, August 06, 2014	Sheet	19 of 32



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

1 means floating
0 means PD 1K

MOSI For DMI RX Termination Voltage

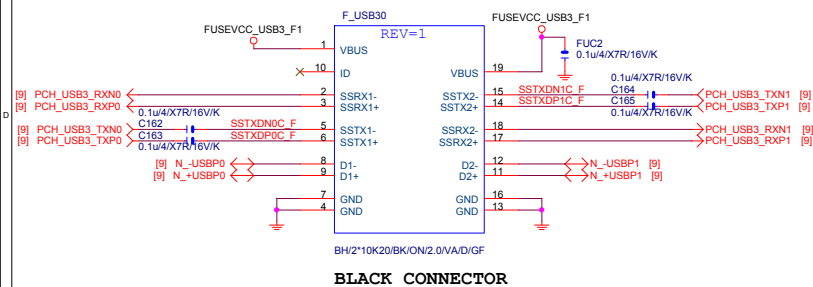


指定用NXP

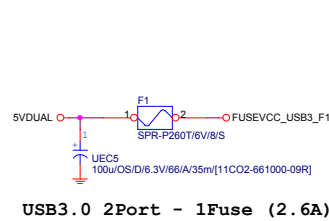
Gigabyte Technology

Title 11R		
DUAL BIOS		
Size Custom	Document Number GA-B85M-HD3	Rev 3.0
Date: Wednesday, August 06, 2014	Sheet 20	of 32

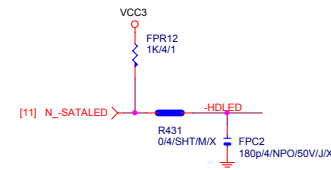
F_USB30



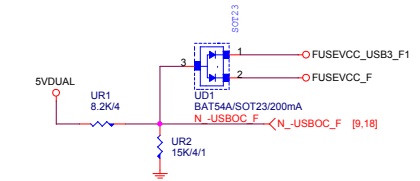
F_USB30 PWR



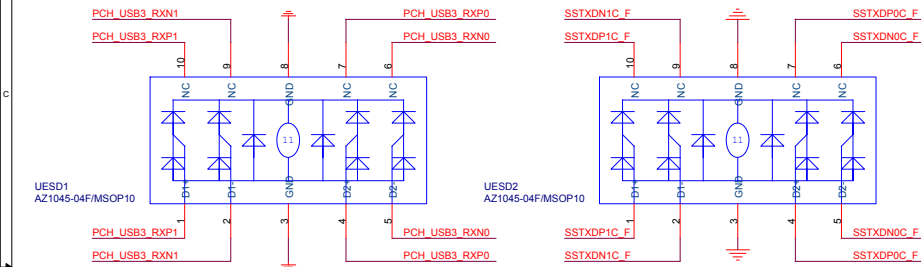
SATA LED



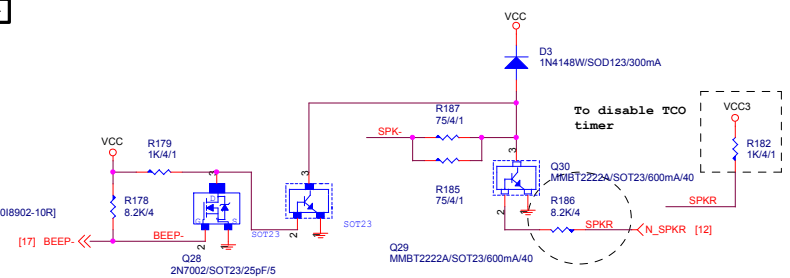
-USB0C_F



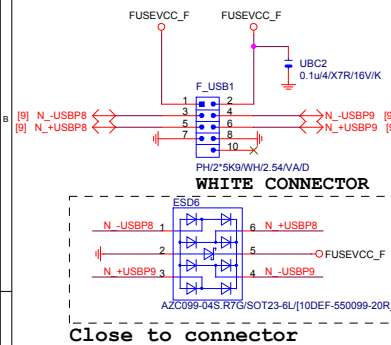
F_USB30 ESD PROTECT



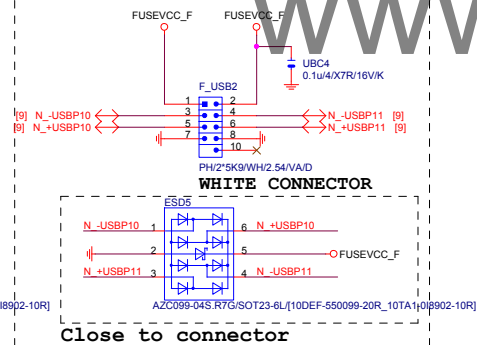
SPKR



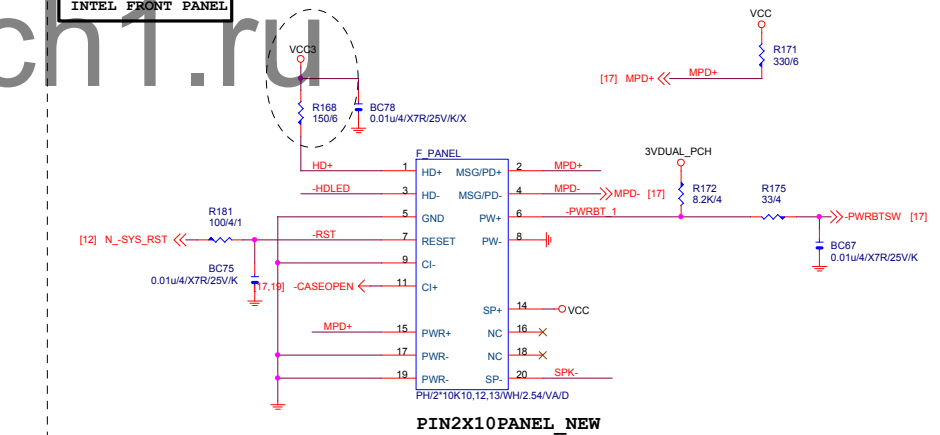
FRONT USB1



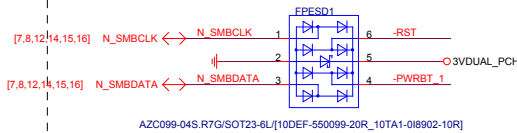
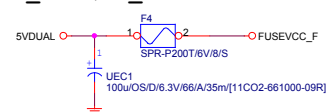
FRONT USB2



INTEL FRONT PANEL

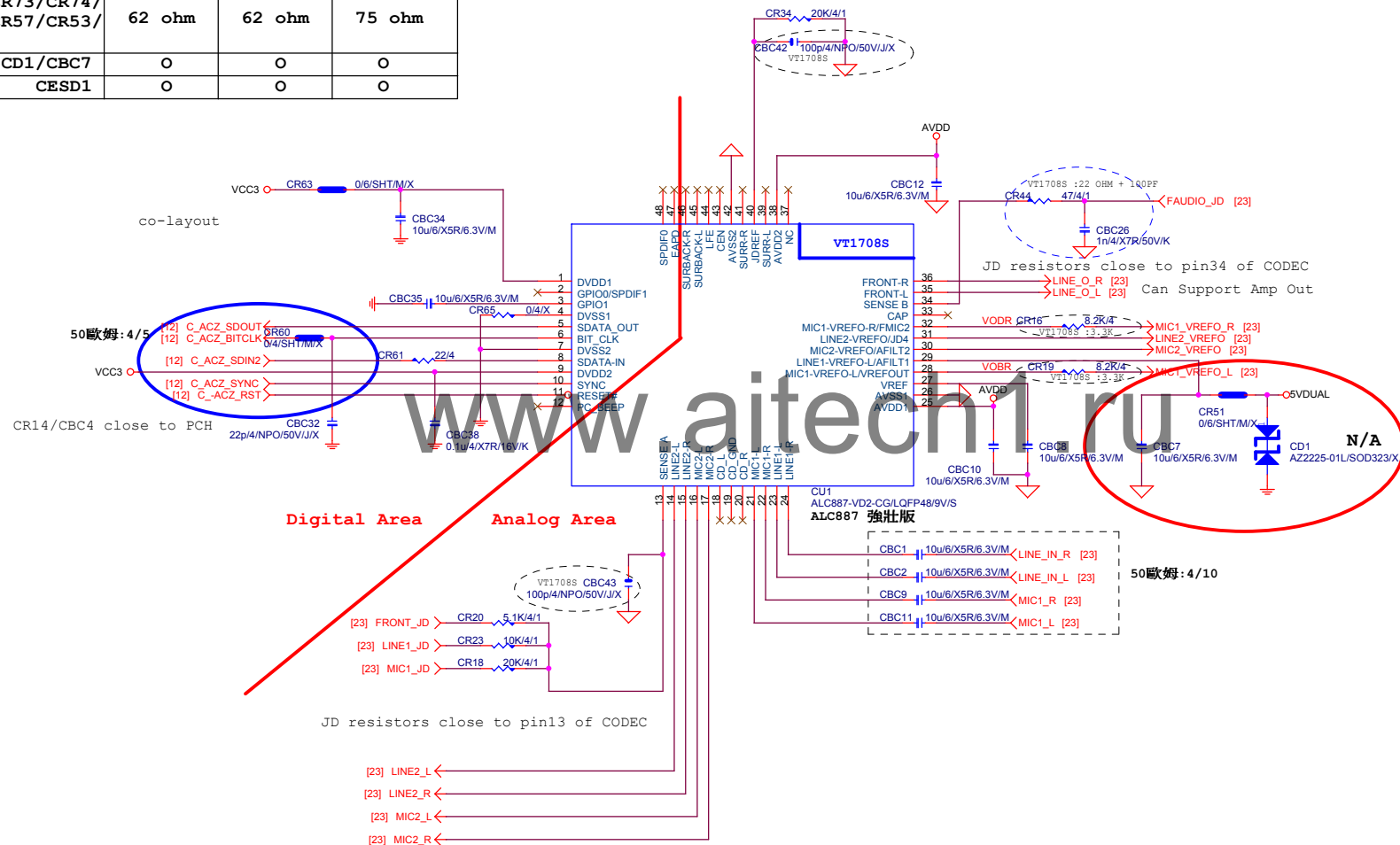


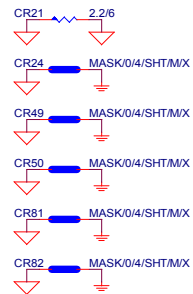
FUSE-0805 F_USB1, F_USB2 4-Port 2.0A



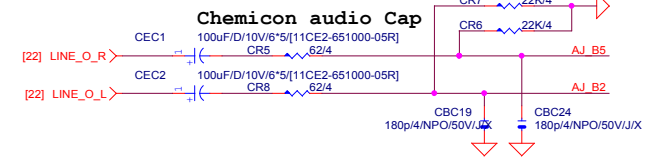
Gigabyte Technology			
FP,F_USB,USB PWR,SPKR,SATA LED			
GA-B85M-HD3			
Rev	3.0		
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	ALC892	ALC887-VD2	VT1708S-CE
CR44/CBC26	47ohm+1nF	47ohm+1nF	22ohm+100P
CBC42/CBC43	X	X	100P/4
CR6/CR7/CR58/CR54/ CR67/CR68/CR69/CR70	22K/4	22K/4	10K/4/1
CR5/CR8/CR1/CR14/ 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





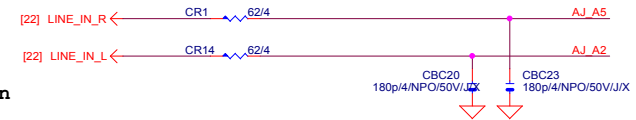
LINE-OUT



LINE-IN

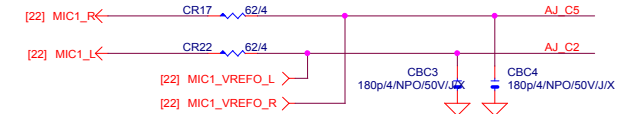
Verify MIC function
in LINE-in

Only reserved for ALC888



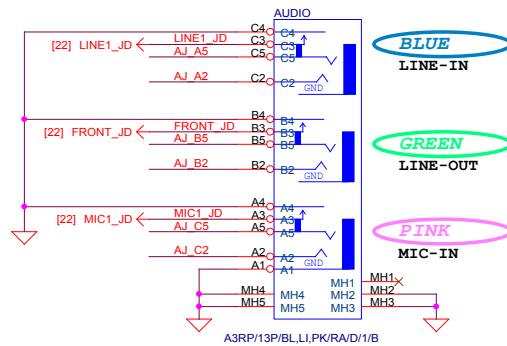
For 889A/888

MIC-IN

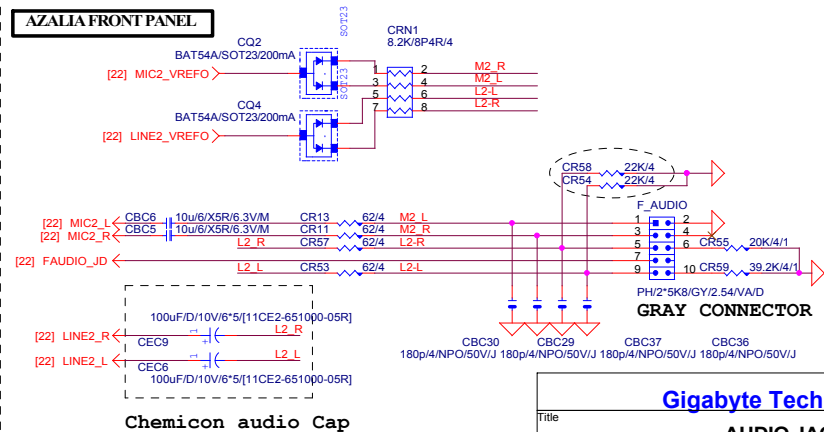


SPDIF_OUT

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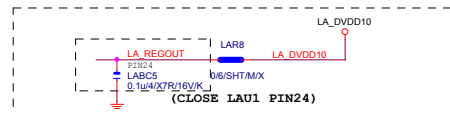
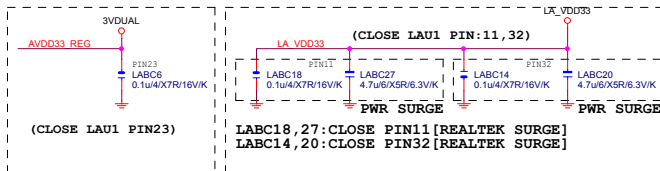
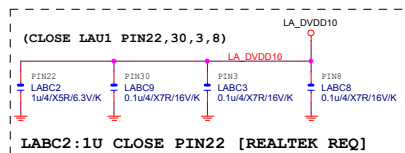
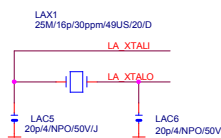
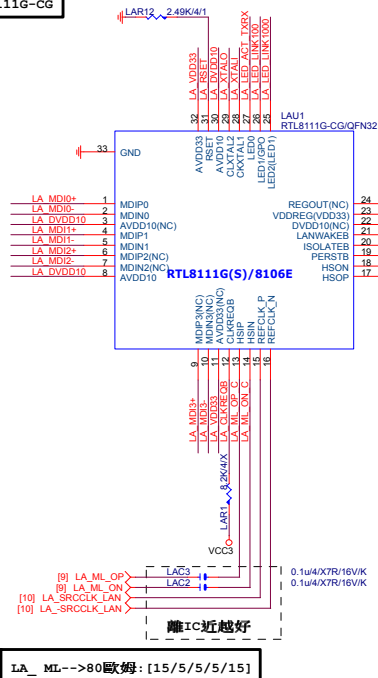
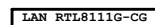


AZALIA FRONT PANEL



Gigabyte Technology

Title			
AUDIO JACK			
Size	Document Number	GA-B85M-HD3	
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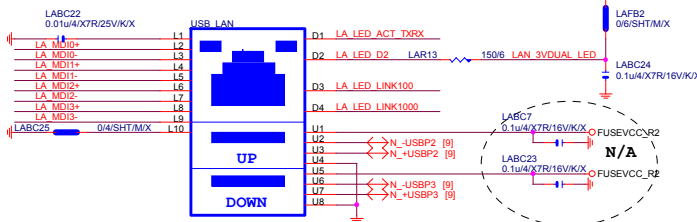


NOTE:
RT8106E:PIN3,11,22,24-->NC
LABC2LABC3,LABC5,LABC18,LABC27-->N/A

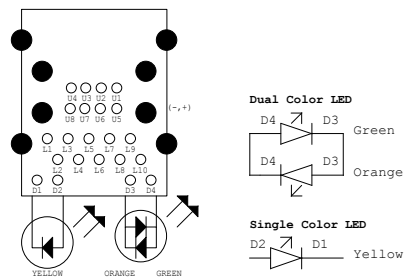
BOM NOTICE *

料號	規格	廠商
11NR6-702009-96R 1G LAN (12core)		LAN (RU9 ESD+)
[LED]獨立走線, 可省略外加IACZ099料件LAESD1]		

1. 9KV ESD BOM:
USB LAN (RU9): 11NR6-702009-96R
2. 28KV ESD BOM:
USB LAN (RU9): 11NR6-702009-96R
LAESD2, LAESD3: 上件AZC398-04S



★ UBESD3
AZC099-04S.R7G/SOT23-6L[10DEF-550099-20R_10TA1-0I8902-10R]
使用RU9 USB LAN可省略LAESD1保護LED

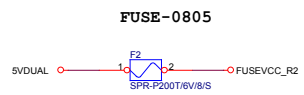


注意:USB PORT(目前:暫代6,7PORT)
USB-->90歐姆:[15/4.5/7.5/4.5/15]

BOM NOTICE *

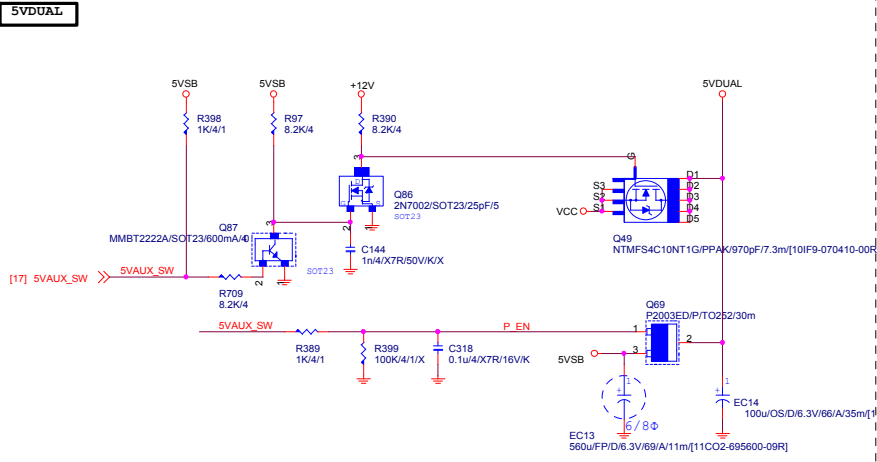
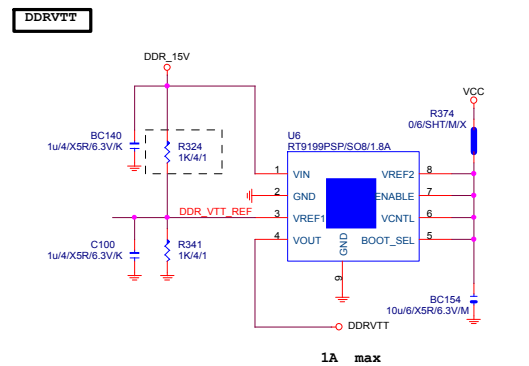
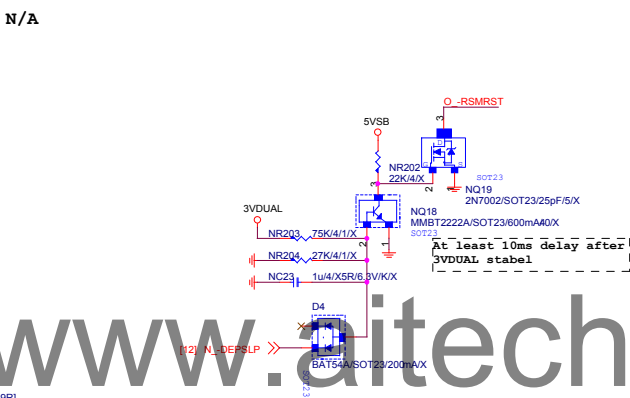
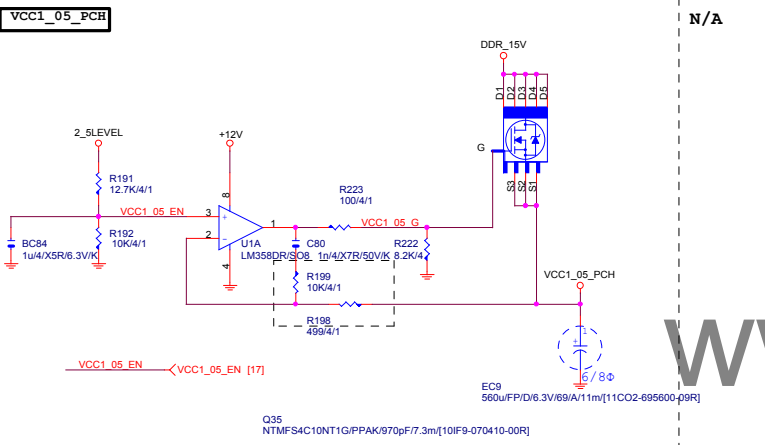
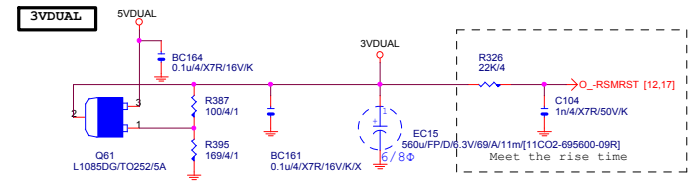
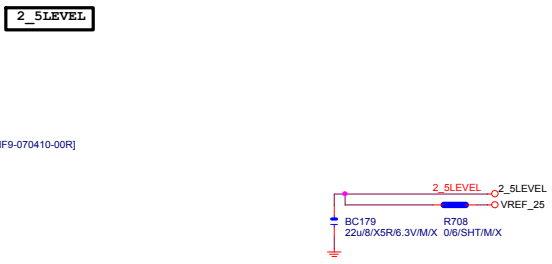
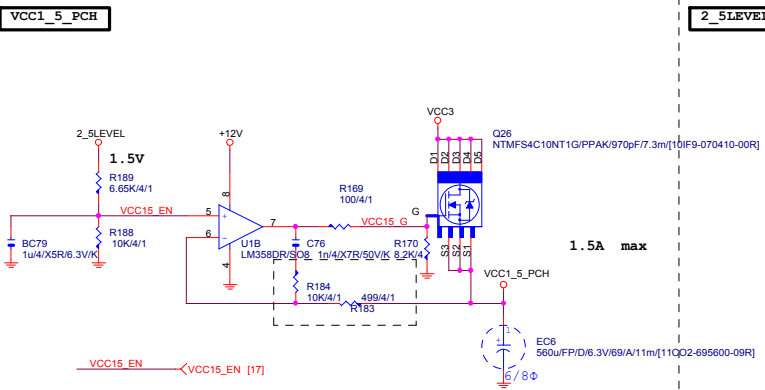
料號	規格	廠商
11NR6-702009-96R 1G LAN (12core)	UDE (RU9 ESD+)	
[LED獨立走線,可省略外加AZC099料件]LAESD1+		

1. 9KV ESD BOM: USB LAN (RU9) :11NR6-702009-96R 2. 28KV ESD BOM: USB LAN (RU9) :11NR6-702009-96R LAESD2, LAESD3; 上件-AZC398-04S
--



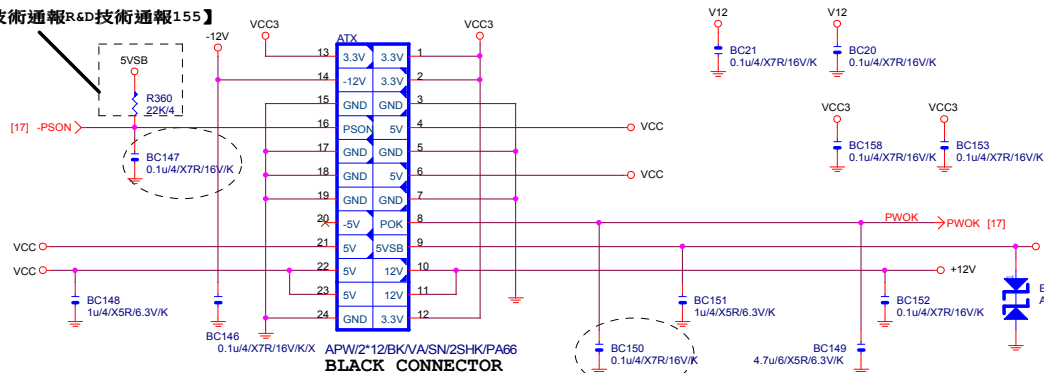
EMI SHORT PAD





ATXX24 POWER CONNECTOR

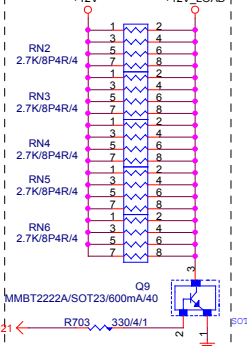
【技術通報R&D技術通報155】



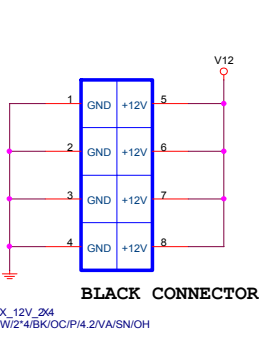
BLACK CONNECTOR

【技術通報R&D技術通報153】

To fix 12V light load abnormal issue



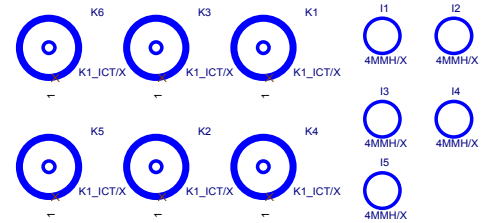
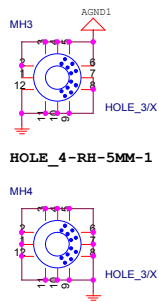
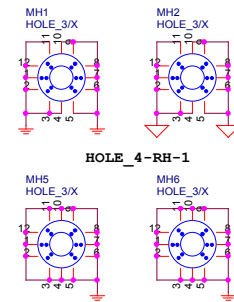
ATXX4 POWER CONNECTOR



BLACK CONNECTOR

ATX_12V_24
APW/2'4/BK/OC/PI/4.2VA/SN/OH

TPM

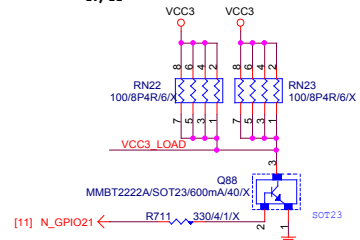


To prevent the 5VSB under loading when boot

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FIX PWR MINMUN LOAD

N/A



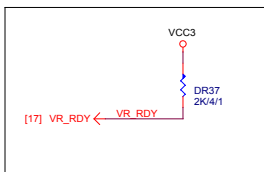
PWOK PATCH

【技術通報R&D技術通報154】

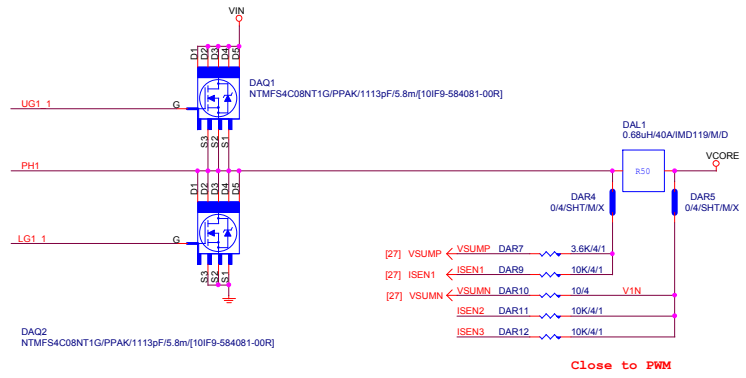
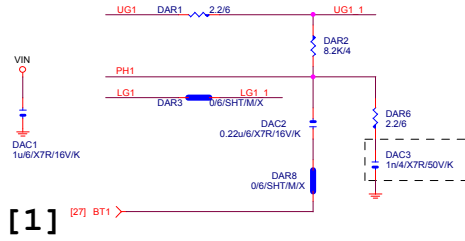
R_PROG1 (Kohm)	3-Phase Iccmax (A)
24.9	105
28.7	114
34.0	129
42.2	144

R_PROG2 (Kohm)	Fsw (KHz)	VBOOT
64.9	315	1.75
73.2	315	1.70
80.6	315	1.65
90.9	315	0

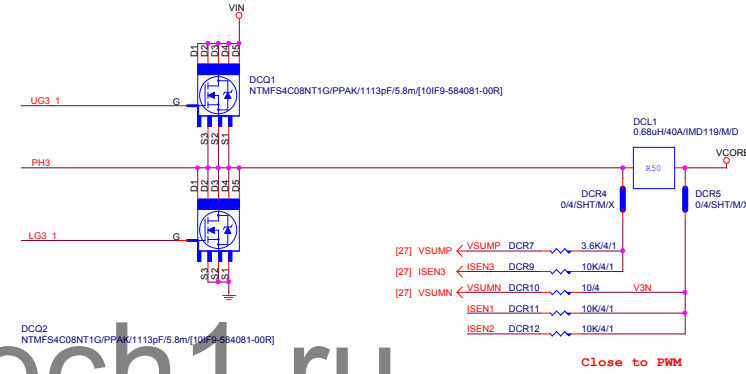
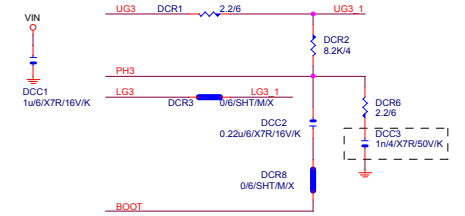
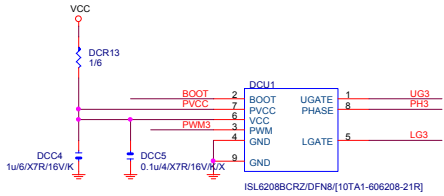
R_PROG3 (Kohm)	Fast Slew Rate (mV/us)
3.24	12
5.76	24
9.31	40
13.3	45



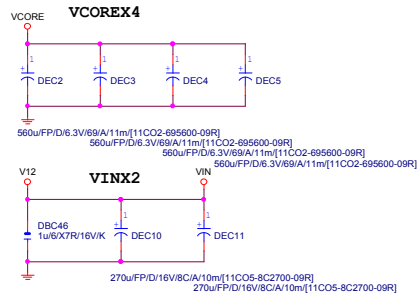
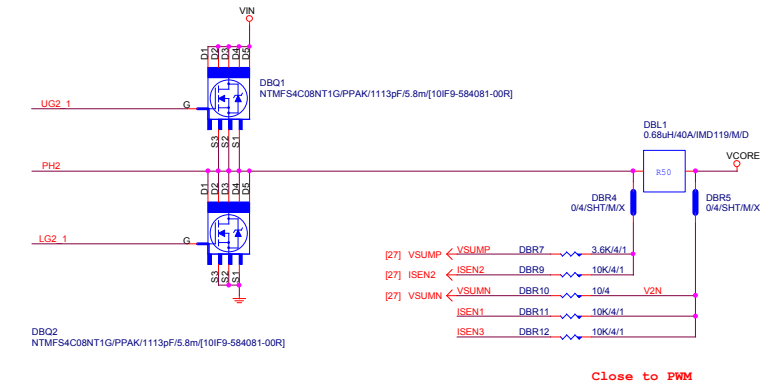
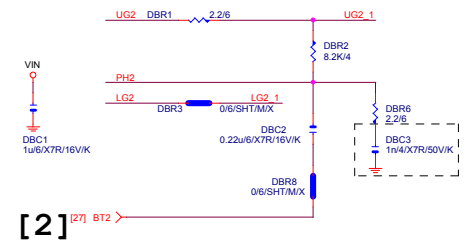
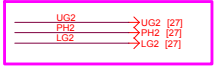
PHASE 1

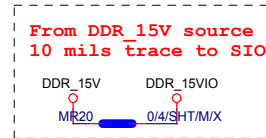


PHASE 3



PHASE 2



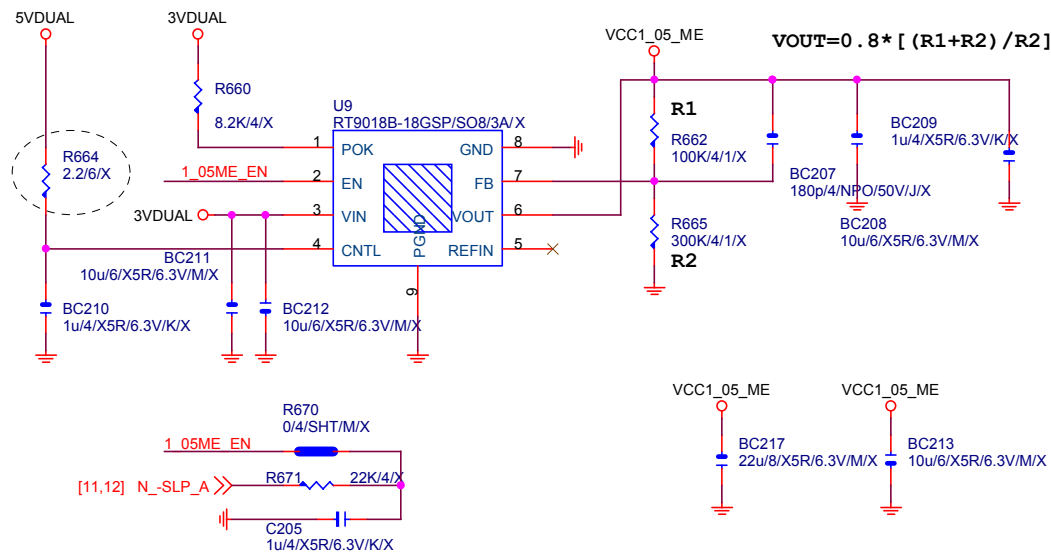


H	L	L	L	VIN=5V, VOUT=1.5V, IOUT=25A, P
H	H	L	H	IRMS=11.45A
H	H	H	T	560u/FP/D/6.3V/68/8m RIPPLE

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

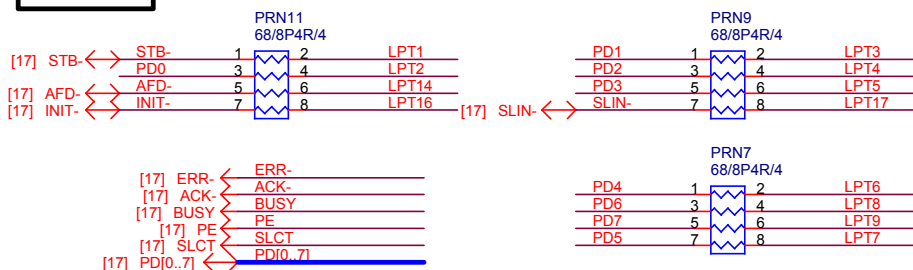

N/A

【技術通報R&D技術通報156】
(RICHTEK), (NUVOTON), (EMC)做共用
PIN7分壓阻值須做修改為100K以上電阻值



Second source
EM5103 - 10GL2-305103-01R
NCT3730S -
10GL2-303730-01R

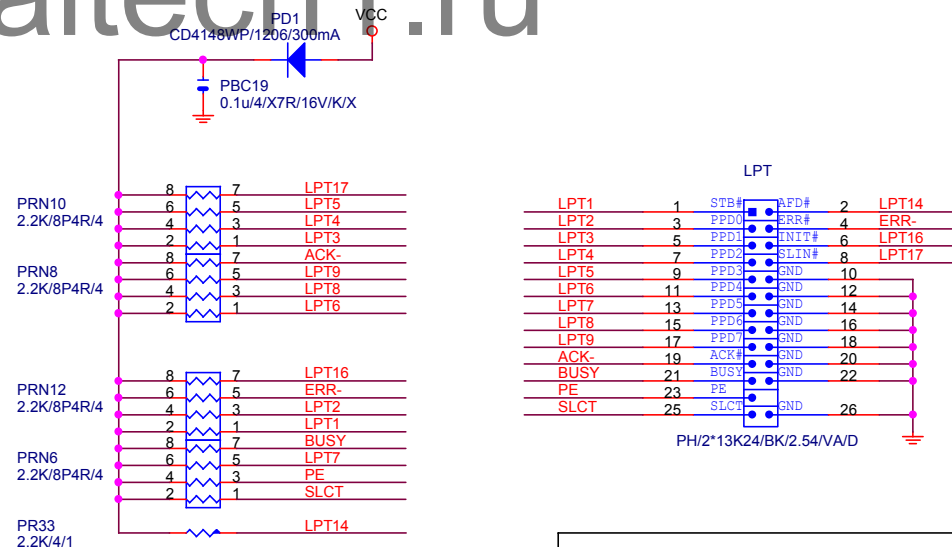
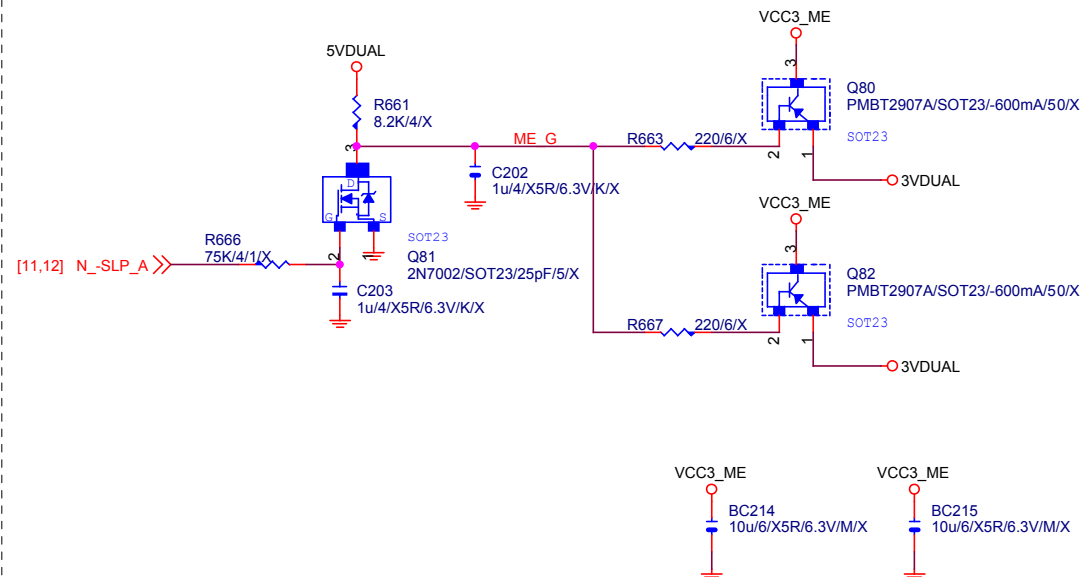
LPT PORT



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

VCC3 ME

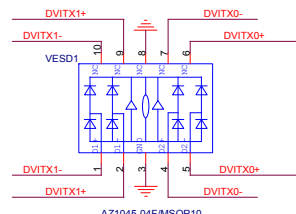
N/A



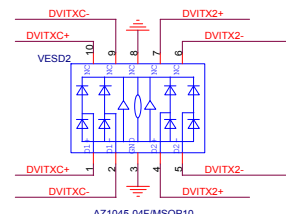
Gigabyte Technology

Title			
LPT			
Size Custom	Document Number	GA-B85M-HD3	Rev 3.0
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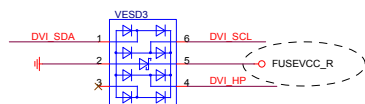
DVI



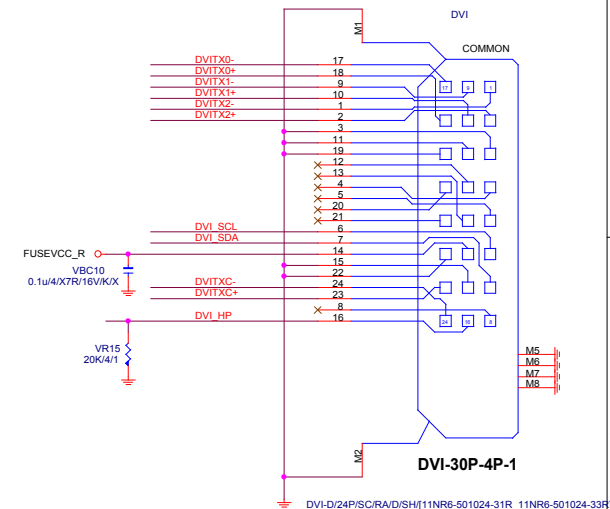
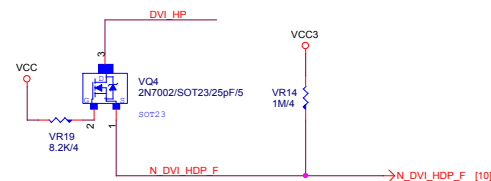
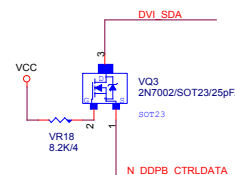
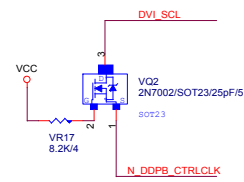
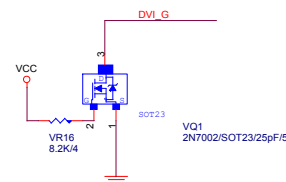
Close to connector



Close to connector

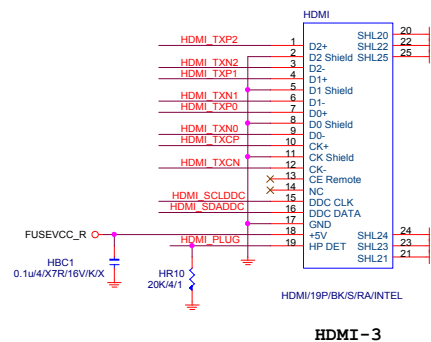
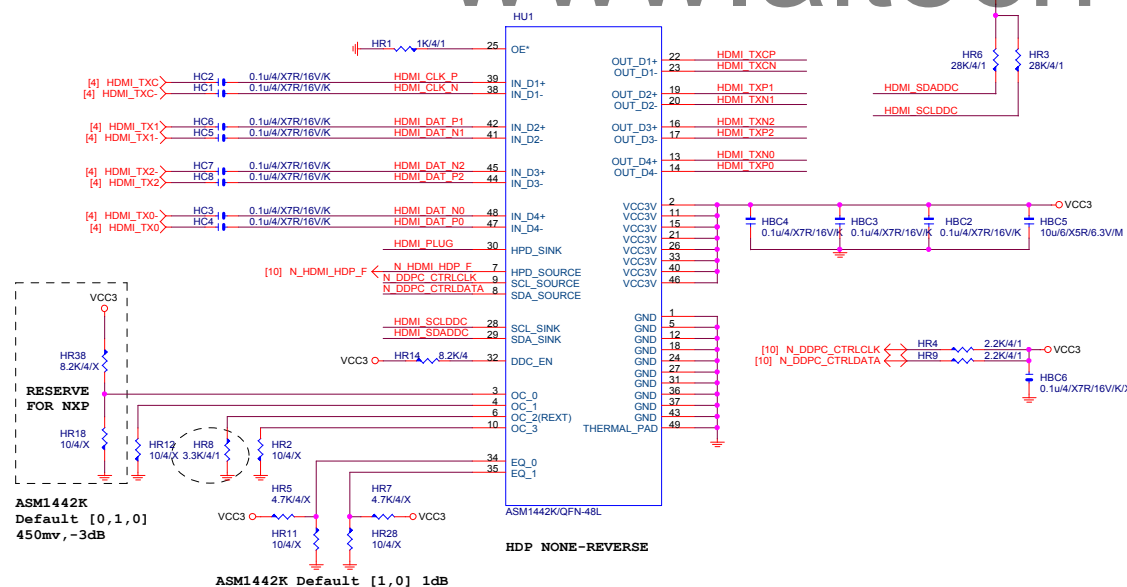


Close to connector



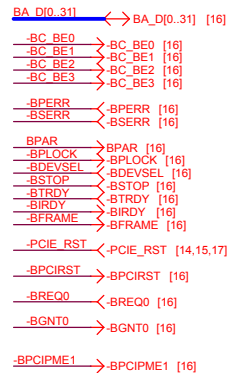
HDMI LEVEL SHIFT

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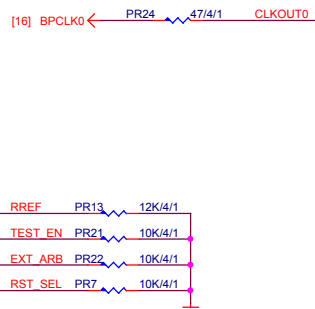


PCIE TO PCI

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



IT8892: PR24 -> 47ohm
IT8893: PR24 -> 22ohm



High: Enable PCI CLK 66MHz
Low: Disable PCI CLK 66MHz

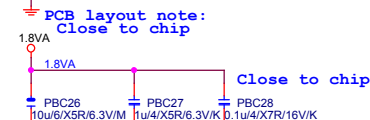
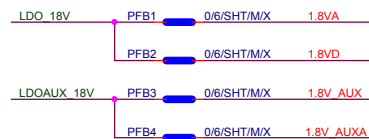
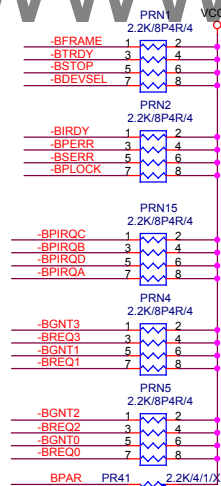
High: PCICLK INPUT form CLK Gen
Low: PCICLK OUTPUT form IT8893 chip

IT8892

PCI slot

PCI slot

chipset side



Gigabyte Technology			
Title			
ITE IT8892E			
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