

Model Name: GA-B85M-HD3 R4 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
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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Gigabyte Technology			
Title Cover Sheet			
Size Custom	Document Number GA-B85M-HD3 R4		Rev 1.0
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Revision 1.0

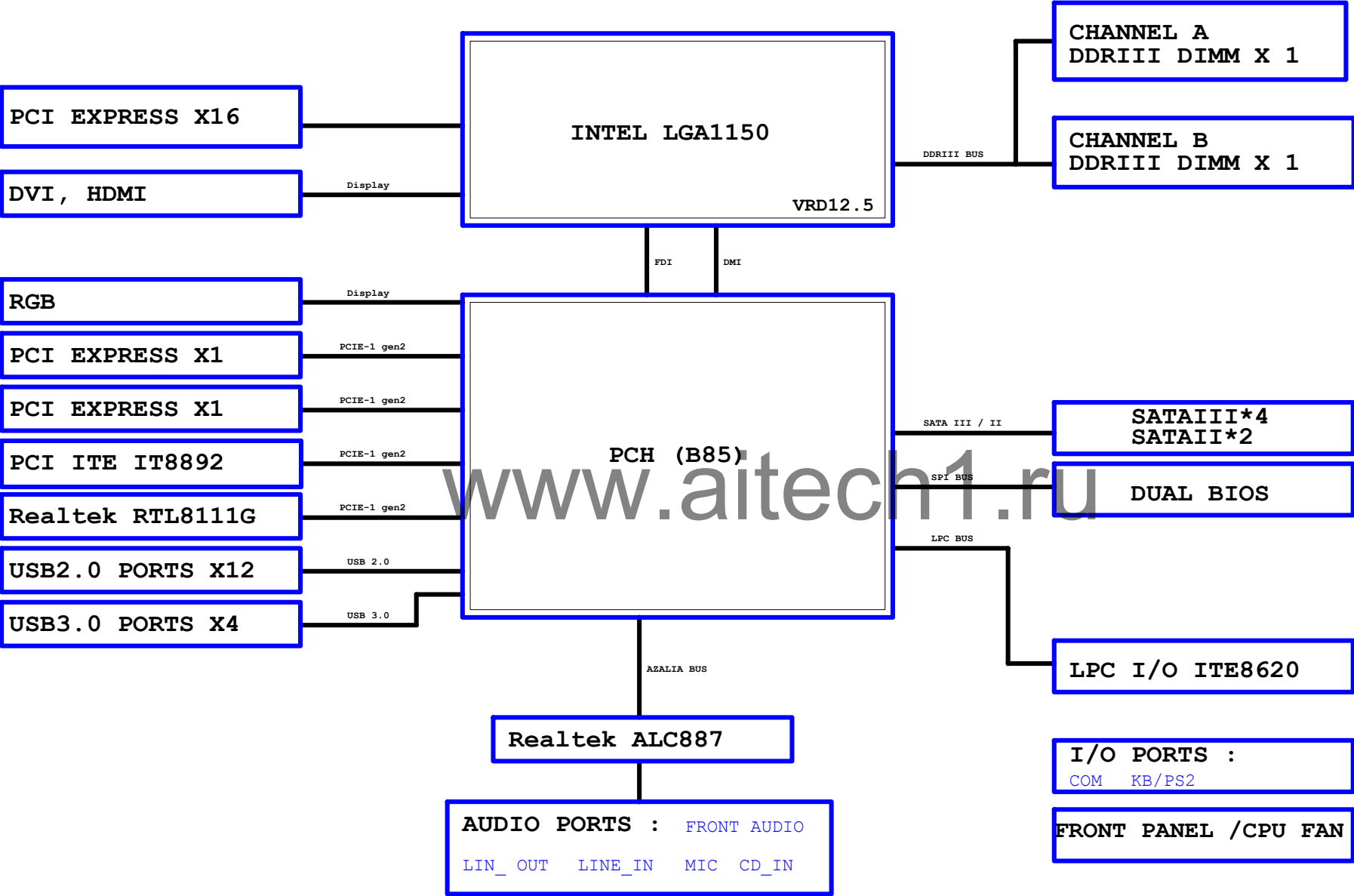
Component value change history

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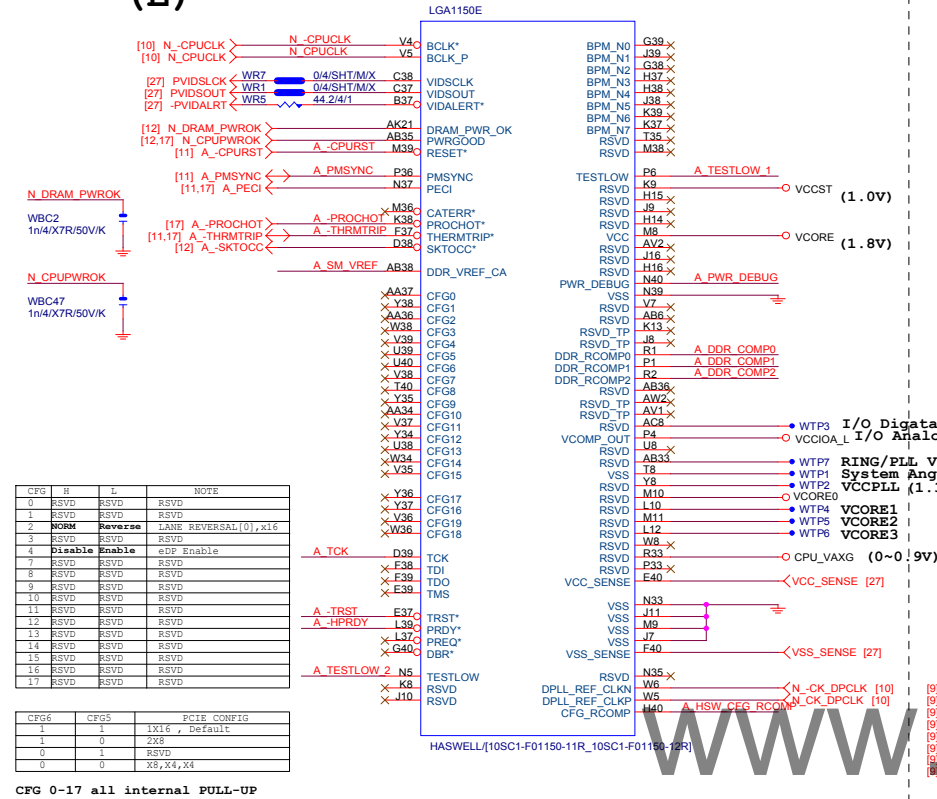
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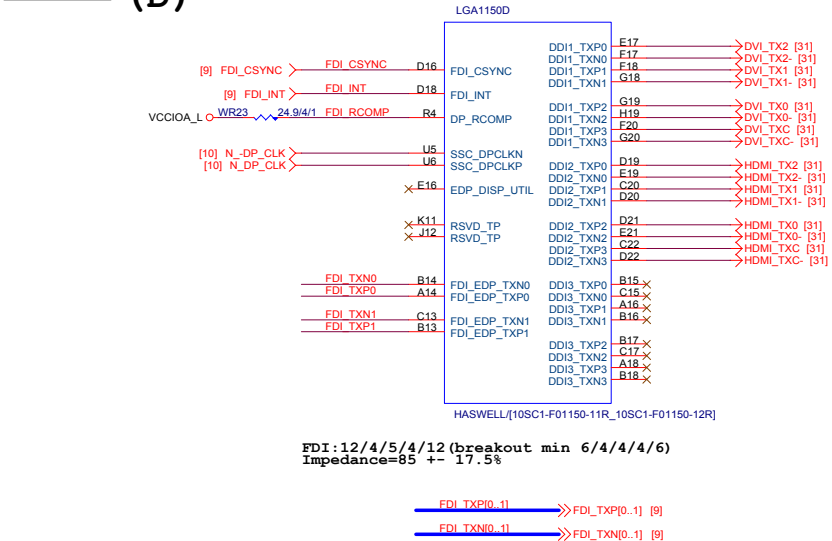
BLOCK DIAGRAM



LGA1150 (E)



LGA1150 (D)

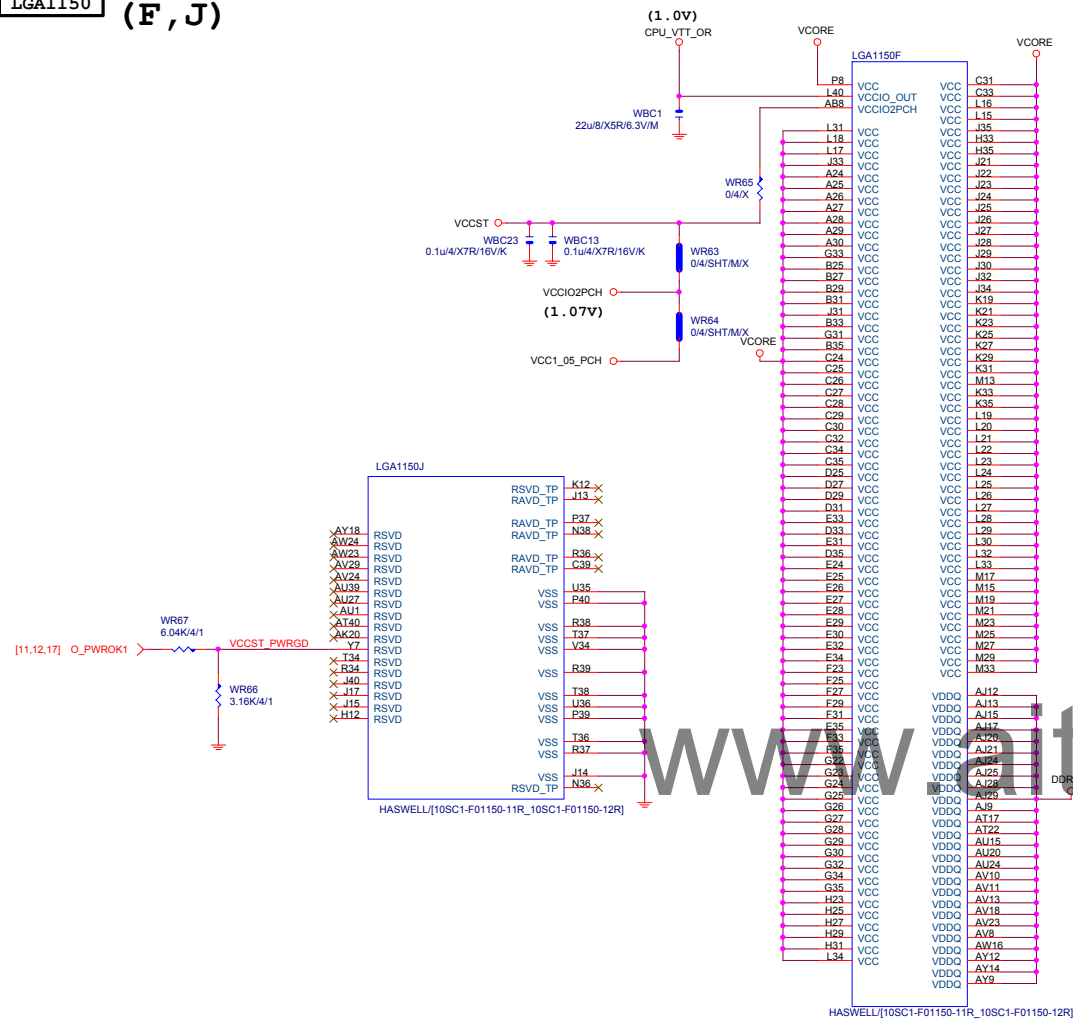


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MAAA0 AU13	DDR0_MA0
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MAAA2 AU16	DDR0_MA2
MAAA3 AW17	DDR0_MA3
MAAA4 AU17	DDR0_MA4
MAAA5 AW18	DDR0_MA5
MAAA6 AW17	DDR0_MA6
MAAA7 AT18	DDR0_MA7
MAAA8 AU18	DDR0_MA8
MAAA9 AT19	DDR0_MA9
MAAA10 AW11	DDR0_MA10
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	

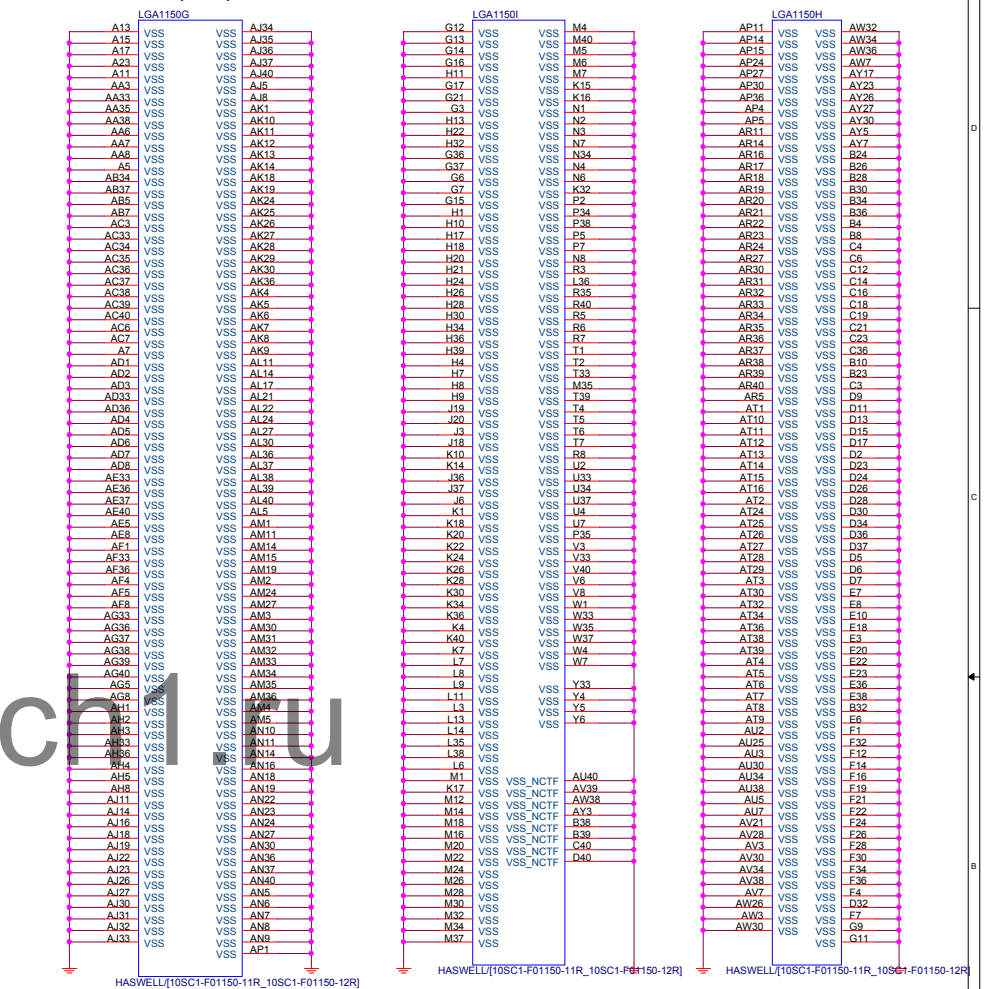
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MAAB2	AM22	DDR1_MA2	DDR1_DQ2
MAAB3	AM23	DDR1_MA3	DDR1_DQ3
MAAB4	AP23	DDR1_MA4	DDR1_DQ4
MAAB5	AL23	DDR1_MA5	DDR1_DQ5
MAAB6	AY24	DDR1_MA6	DDR1_DQ6
MAAB7	AV25	DDR1_MA7	DDR1_DQ7
MAAB8	AW26	DDR1_MA8	DDR1_DQ8
MAAB9	AW26	DDR1_MA9	DDR1_DQ9
MAAB10	AP18	DDR1_MA10	DDR1_DQ10
MAAB11	AY25	DDR1_MA11	DDR1_DQ11
MAAB12	AV26	DDR1_MA12	DDR1_DQ12
MAAB13	AR15	DDR1_MA13	DDR1_DQ13
MAAB14	AV27	DDR1_MA14	DDR1_DQ14
MAAB15	AY28	DDR1_MA15	DDR1_DQ15
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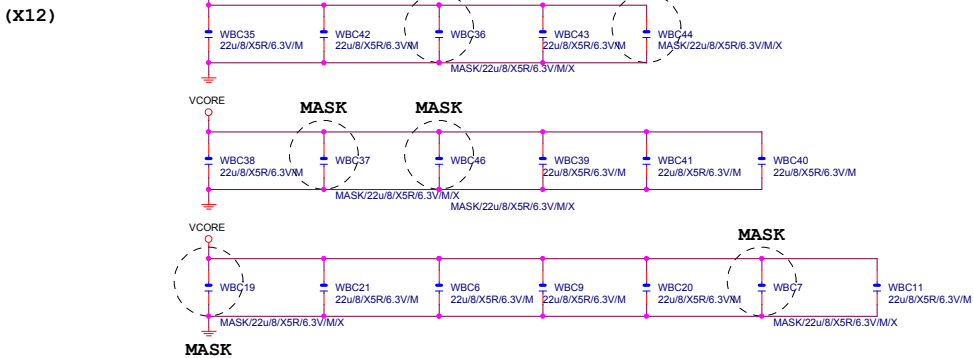
LGA1150 (F, J)



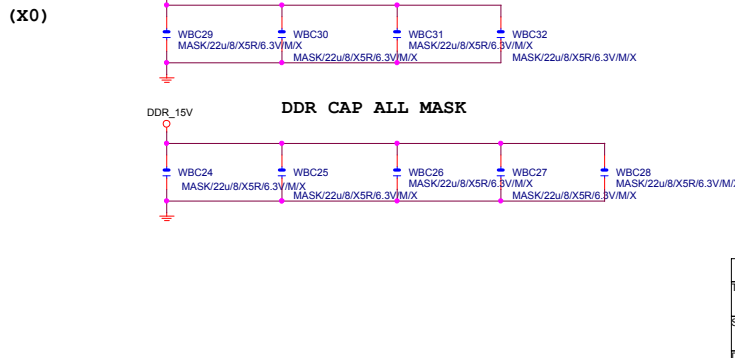
LGA1155 (G, H, I)



VCore CAP

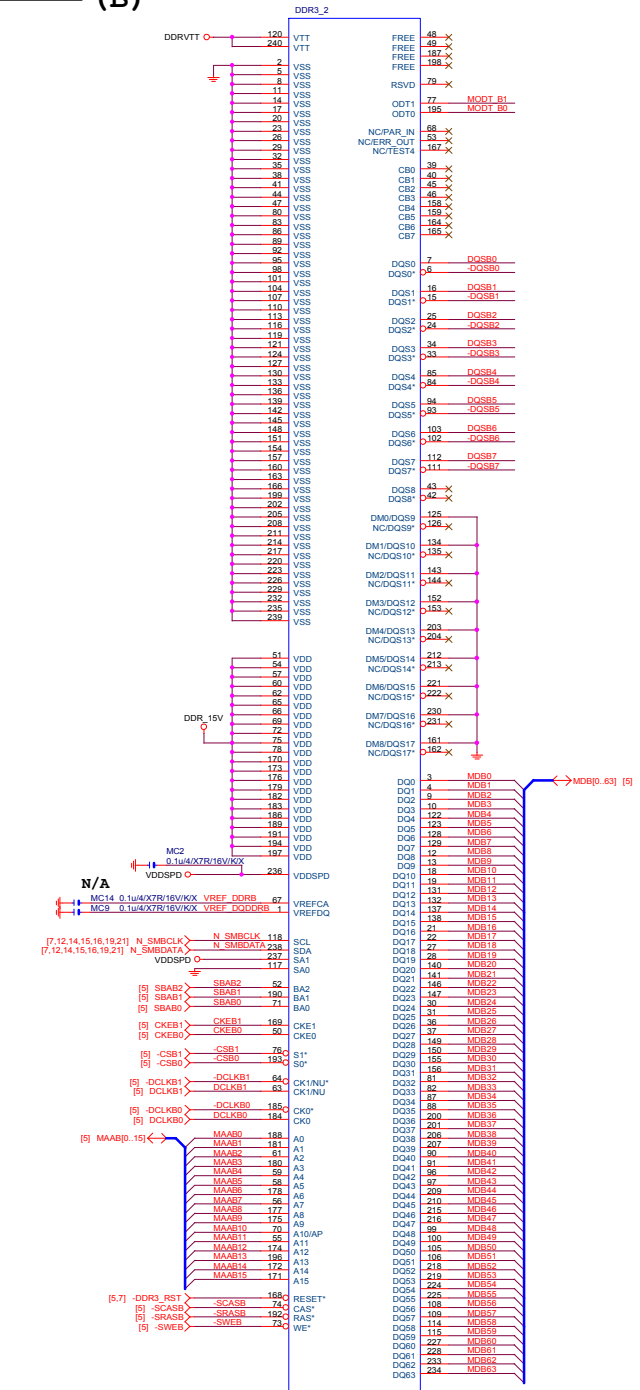


DDR CAP

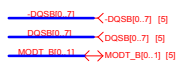


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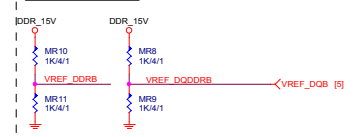
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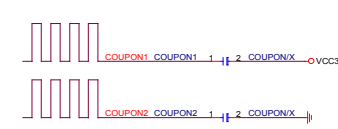
DDR3/240(BK/A/D)
BLACK CONNECTOR



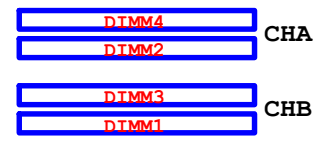
DDR3 VREF



COUPON

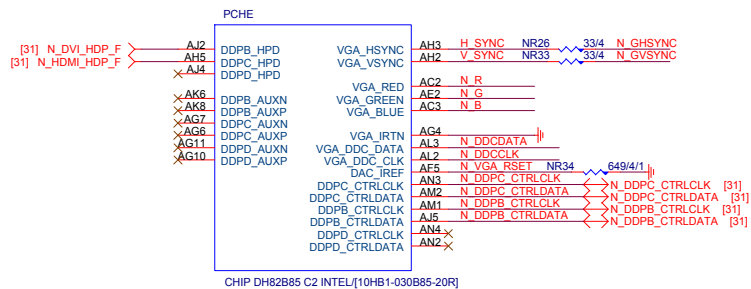


CPU



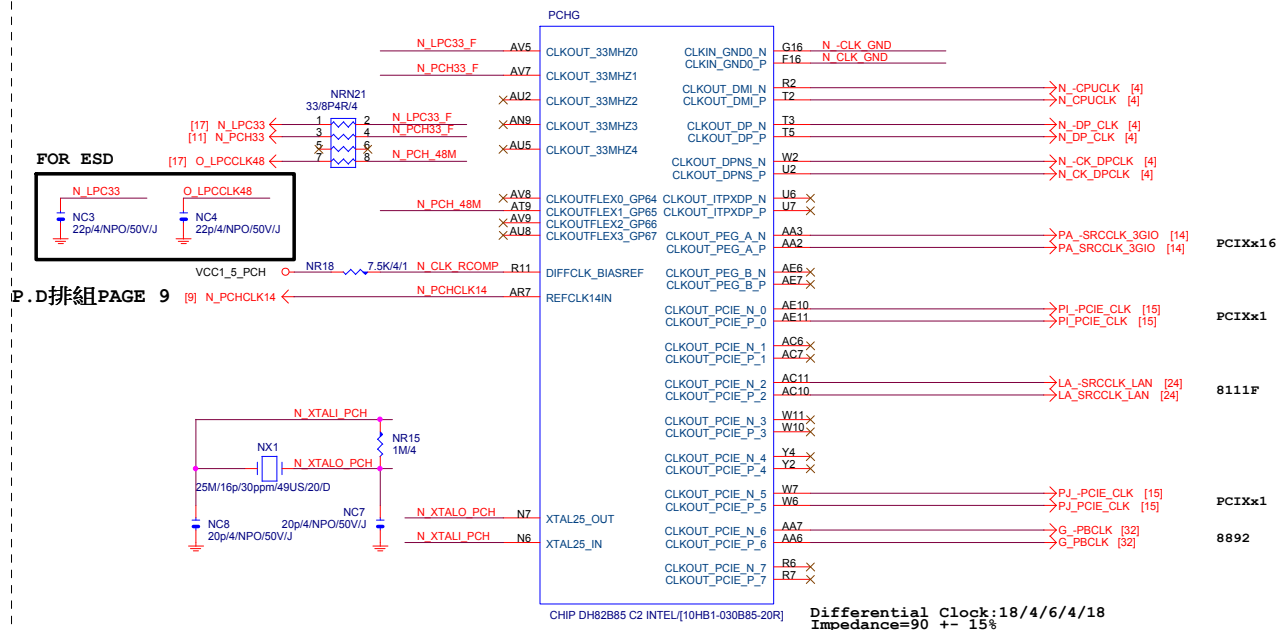
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(E)



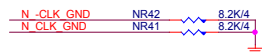
CHIP DH82B85 C2 INTEL/I10HB1-030B85-20R1

(G)

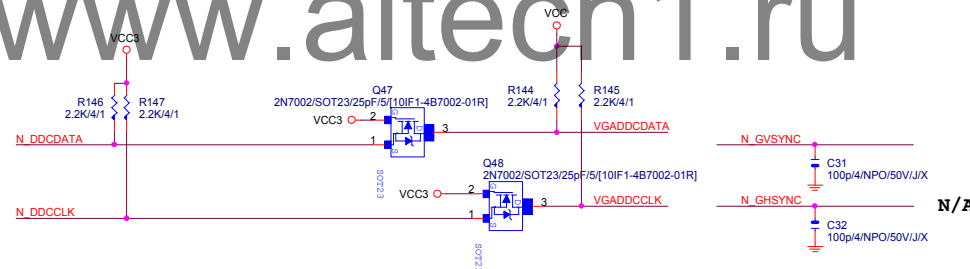


Differential Clock:18/4/6/4/18
Impedance=90 +- 15%

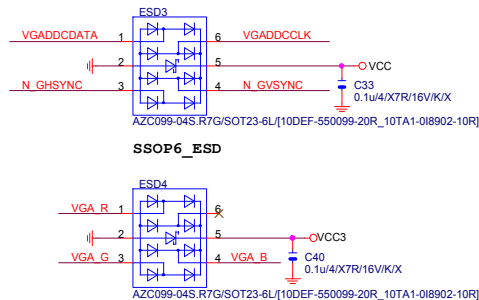
PCH	CLK	PD
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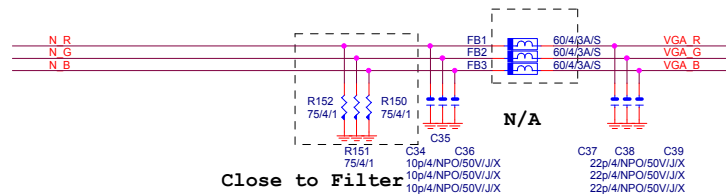
VGA DDC



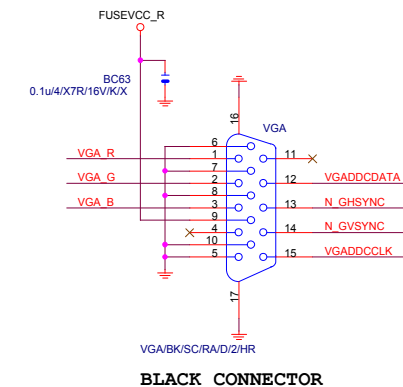
VGA ESD



VGA DDC



VGA CONNECTOR

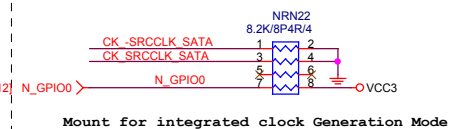


BLACK CONNECTOR

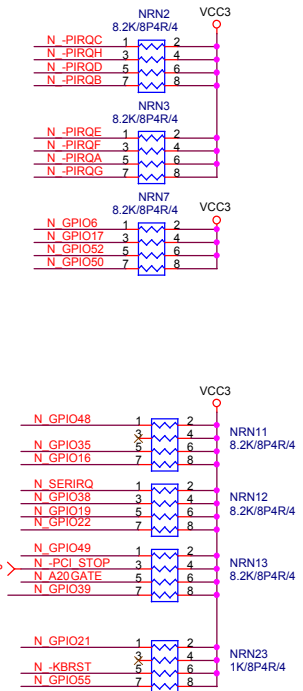
Gigabyte Technology

Title			
PCH DISPLAY ,CLK BUFFER			
Size	Document Number		Rev
Custom	GA-B85M-HD3 R4		1.0
Date:	Monday, February 02, 2015	Sheet	10 of 32

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%



PCH	PU/PD
-----	-------



The diagram shows the pinout for SATA3.0 and SATA2.0 ports, categorized by White and Black connectors. Each connector has a 7-pin header with a ground pin at the bottom.

SATA3.0 WHITE CONNECTOR

Pin 1: GND
Pin 2: T+
Pin 3: T-
Pin 4: GND
Pin 5: R+
Pin 6: R-
Pin 7: GND

Pinout details:

- NC44 N SATA0TXPC, NC43 N SATA0TXN (Pins 1, 2)
- NC38 N SATA0RXN, NC37 N SATA0RXP (Pins 3, 4)
- NC36 N SATA2TXPC, NC35 N SATA2TXN (Pins 5, 6)
- NC30 N SATA2RXN, NC29 N SATA2RXP (Pins 7, 8)

SATA3.1 WHITE CONNECTOR

Pin 1: GND
Pin 2: T+
Pin 3: T-
Pin 4: GND
Pin 5: R+
Pin 6: R-
Pin 7: GND

Pinout details:

- NC42 N SATA1TXPC, NC41 N SATA1TXN (Pins 1, 2)
- NC40 N SATA1RXN, NC39 N SATA1RXP (Pins 3, 4)
- NC34 N SATA3TXPC, NC33 N SATA3TXN (Pins 5, 6)
- NC32 N SATA3RXN, NC31 N SATA3RXP (Pins 7, 8)

SATA3.2 WHITE CONNECTOR

Pin 1: GND
Pin 2: T+
Pin 3: T-
Pin 4: GND
Pin 5: R+
Pin 6: R-
Pin 7: GND

Pinout details:

- NC36 N SATA2TXPC, NC35 N SATA2TXN (Pins 1, 2)
- NC30 N SATA2RXN, NC29 N SATA2RXP (Pins 3, 4)
- NC24 N SATA4TXPC, NC23 N SATA4TXN (Pins 5, 6)
- NC22 N SATA4RXN, NC21 N SATA4RXP (Pins 7, 8)

SATA3.3 WHITE CONNECTOR

Pin 1: GND
Pin 2: T+
Pin 3: T-
Pin 4: GND
Pin 5: R+
Pin 6: R-
Pin 7: GND

Pinout details:

- NC57 N SATA5TXPC, NC56 N SATA5TXN (Pins 1, 2)
- NC55 N SATA5RXN, NC54 N SATA5RXP (Pins 3, 4)
- NC49 N SATA5TXPC, NC48 N SATA5TXN (Pins 5, 6)
- NC47 N SATA5RXN, NC46 N SATA5RXP (Pins 7, 8)

SATA2.0 BLACK CONNECTOR

Pin 1: GND
Pin 2: T+
Pin 3: T-
Pin 4: GND
Pin 5: R+
Pin 6: R-
Pin 7: GND

Pinout details:

- NC44 N SATA0TXPC, NC43 N SATA0TXN (Pins 1, 2)
- NC38 N SATA0RXN, NC37 N SATA0RXP (Pins 3, 4)
- NC36 N SATA2TXPC, NC35 N SATA2TXN (Pins 5, 6)
- NC30 N SATA2RXN, NC29 N SATA2RXP (Pins 7, 8)

SATA2.1 BLACK CONNECTOR

Pin 1: GND
Pin 2: T+
Pin 3: T-
Pin 4: GND
Pin 5: R+
Pin 6: R-
Pin 7: GND

Pinout details:

- NC42 N SATA1TXPC, NC41 N SATA1TXN (Pins 1, 2)
- NC40 N SATA1RXN, NC39 N SATA1RXP (Pins 3, 4)
- NC34 N SATA3TXPC, NC33 N SATA3TXN (Pins 5, 6)
- NC32 N SATA3RXN, NC31 N SATA3RXP (Pins 7, 8)

SATA2.4 BLACK CONNECTOR

Pin 1: GND
Pin 2: T+
Pin 3: T-
Pin 4: GND
Pin 5: R+
Pin 6: R-
Pin 7: GND

Pinout details:

- NC44 N SATA0TXPC, NC43 N SATA0TXN (Pins 1, 2)
- NC38 N SATA0RXN, NC37 N SATA0RXP (Pins 3, 4)
- NC36 N SATA2TXPC, NC35 N SATA2TXN (Pins 5, 6)
- NC30 N SATA2RXN, NC29 N SATA2RXP (Pins 7, 8)

SATA2.5 BLACK CONNECTOR

Pin 1: GND
Pin 2: T+
Pin 3: T-
Pin 4: GND
Pin 5: R+
Pin 6: R-
Pin 7: GND

Pinout details:

- NC42 N SATA1TXPC, NC41 N SATA1TXN (Pins 1, 2)
- NC40 N SATA1RXN, NC39 N SATA1RXP (Pins 3, 4)
- NC34 N SATA3TXPC, NC33 N SATA3TXN (Pins 5, 6)
- NC32 N SATA3RXN, NC31 N SATA3RXP (Pins 7, 8)

N/A

GPIO37 PU VCC3 ENABLE SBA
For H87&B85

N/A

MASK
NR184
MASK/8.2K4/X

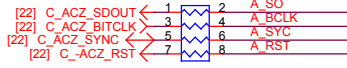
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N_GPIO38

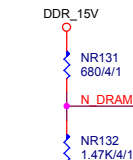
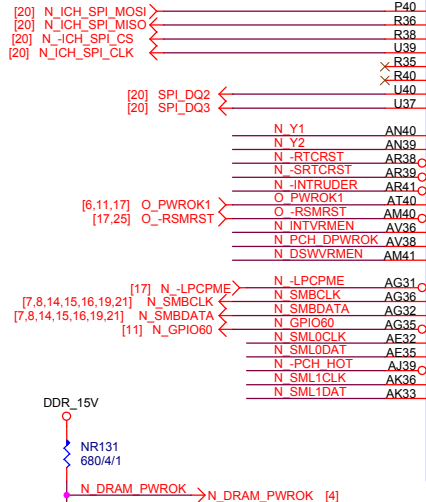
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MASK/MMBT2222A/SO T23/60mA/40V
SOT23

PCH

(D)



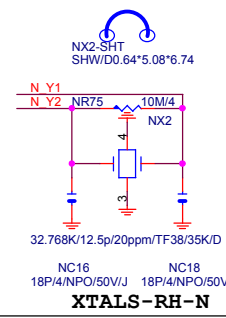
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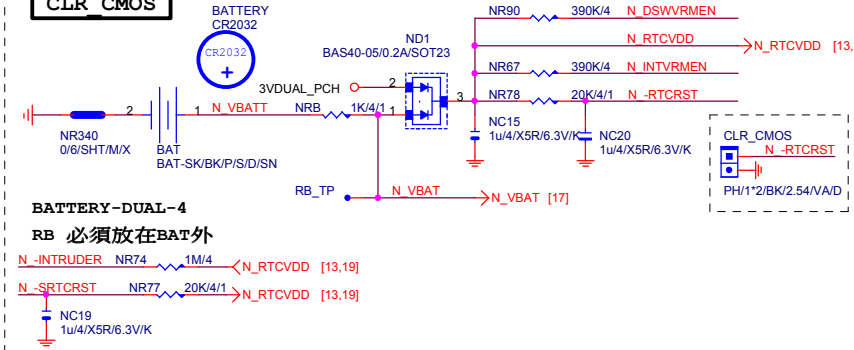
HSW STRAP13

N/A

32.768KHZ



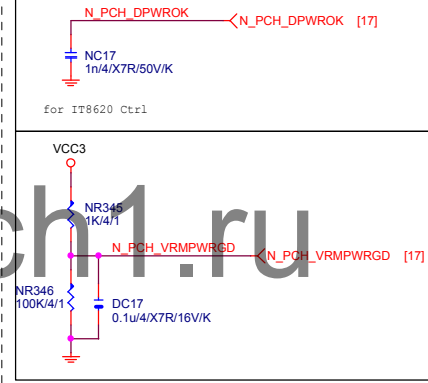
CLR CMOS



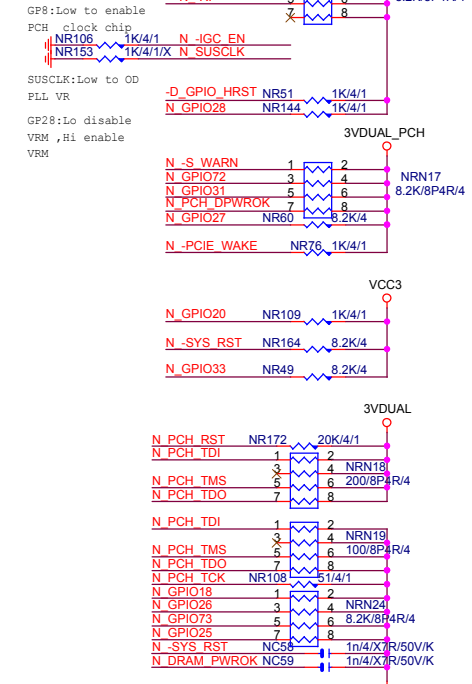
ACZ SDOUT

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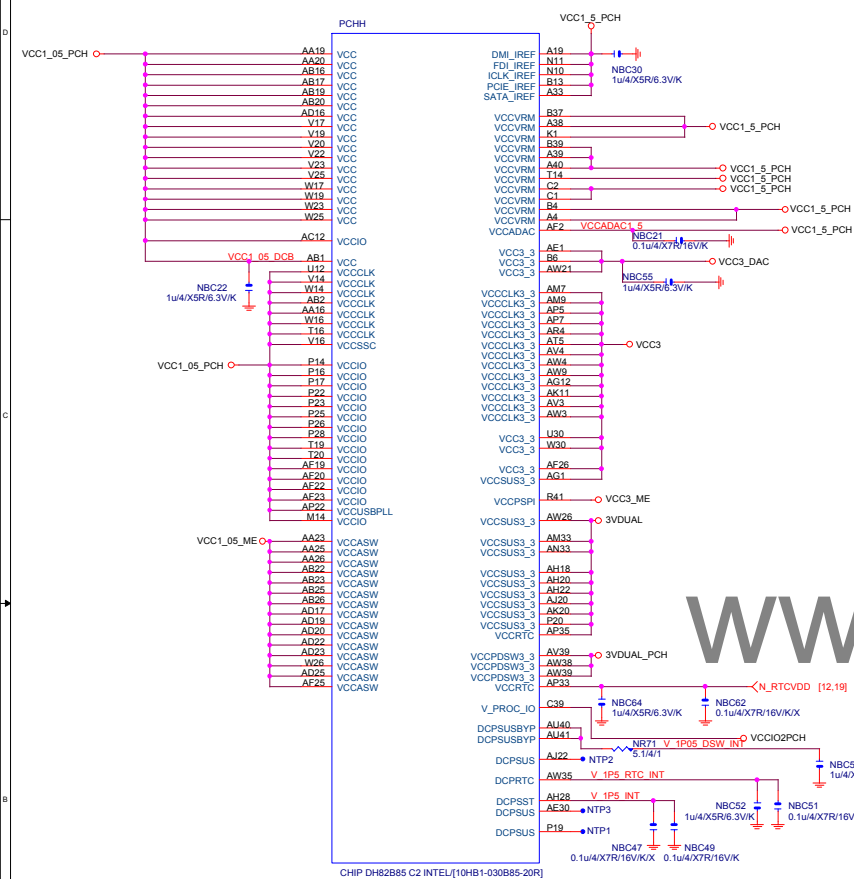
PCH DPWROK



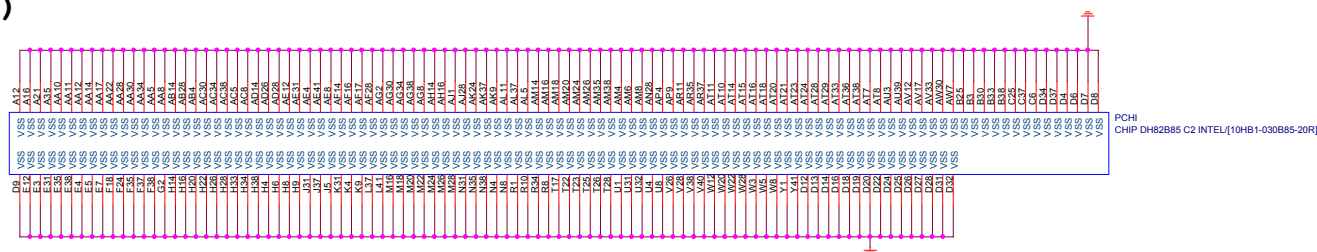
PCH PU/PD



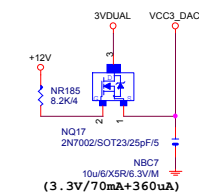
PCH (H)



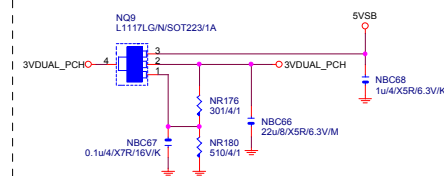
PCH (I)



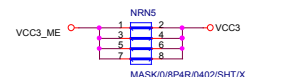
VCC3 DAC



3VDUAL PCH

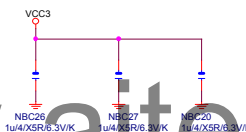


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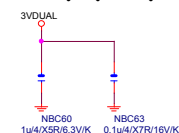
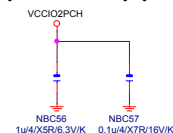


CAP

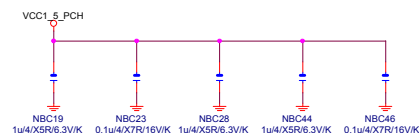
(3.3V) (X3)



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

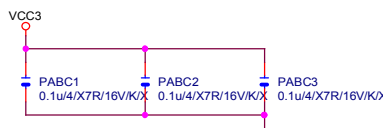


(1.5V) (x5)

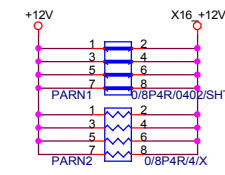


PCIEX16 CAP

N/A



PCIEX16 PROTECT SHT



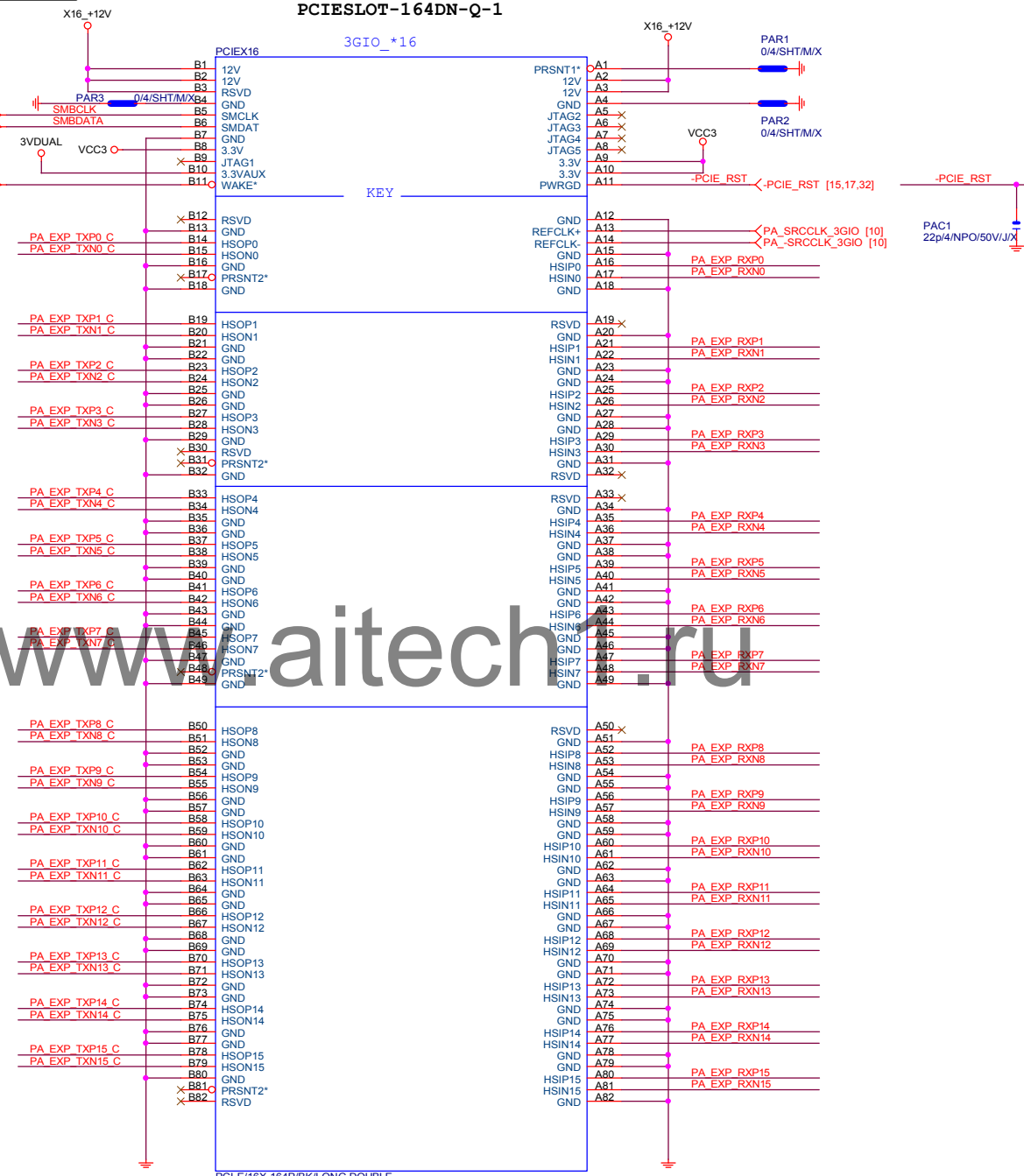
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PA EXP TXN0	PAC4	0.22u4/X5R/6.3V/K	PA EXP TXN0 C
PA EXP TXP1	PAC6	0.22u4/X5R/6.3V/K	PA EXP TXP1 C
PA EXP TXN1	PAC7	0.22u4/X5R/6.3V/K	PA EXP TXN1 C
PA EXP TXP2	PAC8	0.22u4/X5R/6.3V/K	PA EXP TXP2 C
PA EXP TXN2	PAC9	0.22u4/X5R/6.3V/K	PA EXP TXN2 C
PA 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
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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
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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
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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_RXP[0..15] [4]
PA EXP RXN0.[15] >>> PA_EXP_RXN[0..15] [4]
PA EXP TXP0.[15] >>> PA_EXP_TXP[0..15] [4]
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PCIEX16 SLOT

PCIESLOT-164DN-Q-1

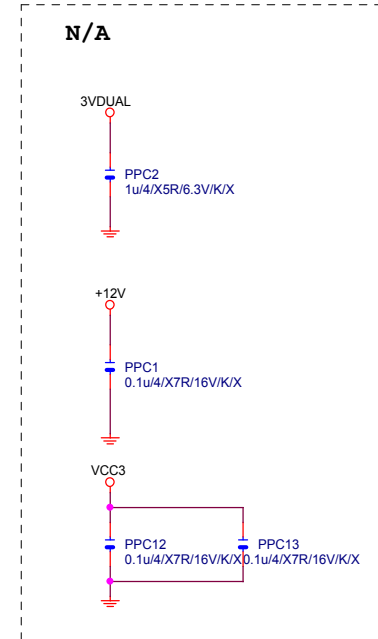
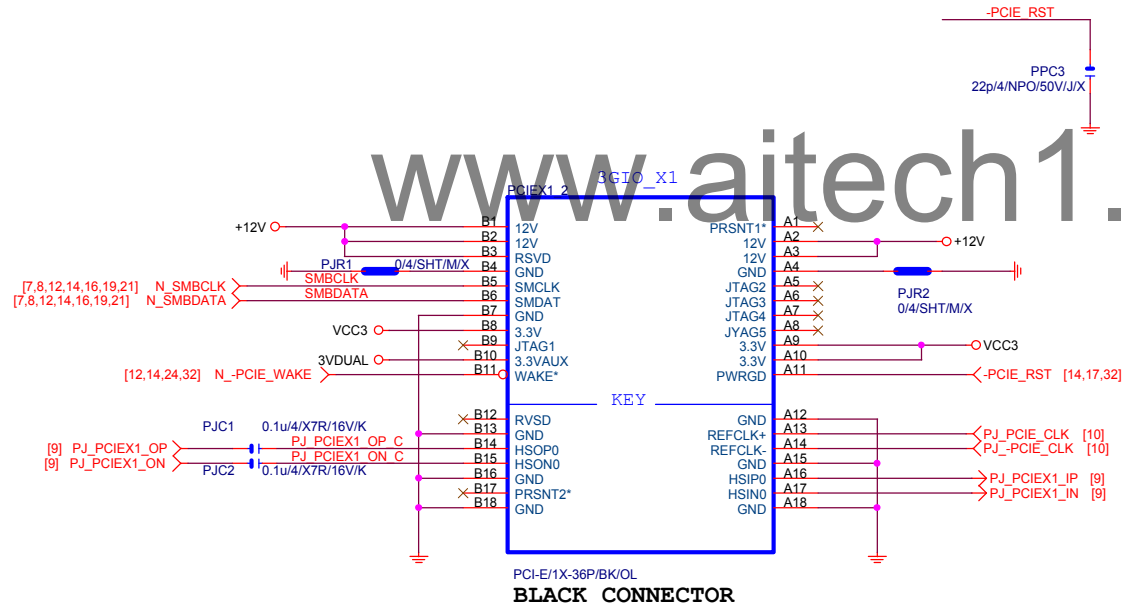
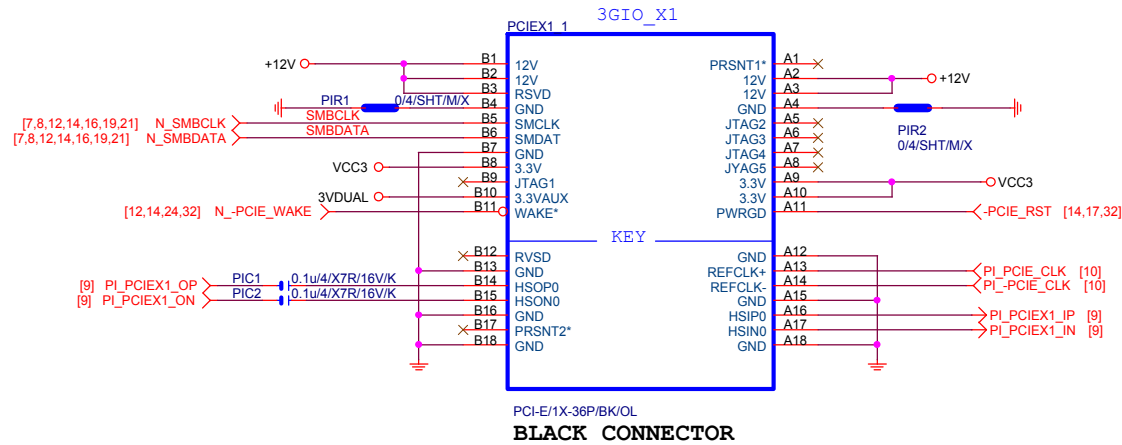


BLACK CONNECTOR

Gigabyte Technology

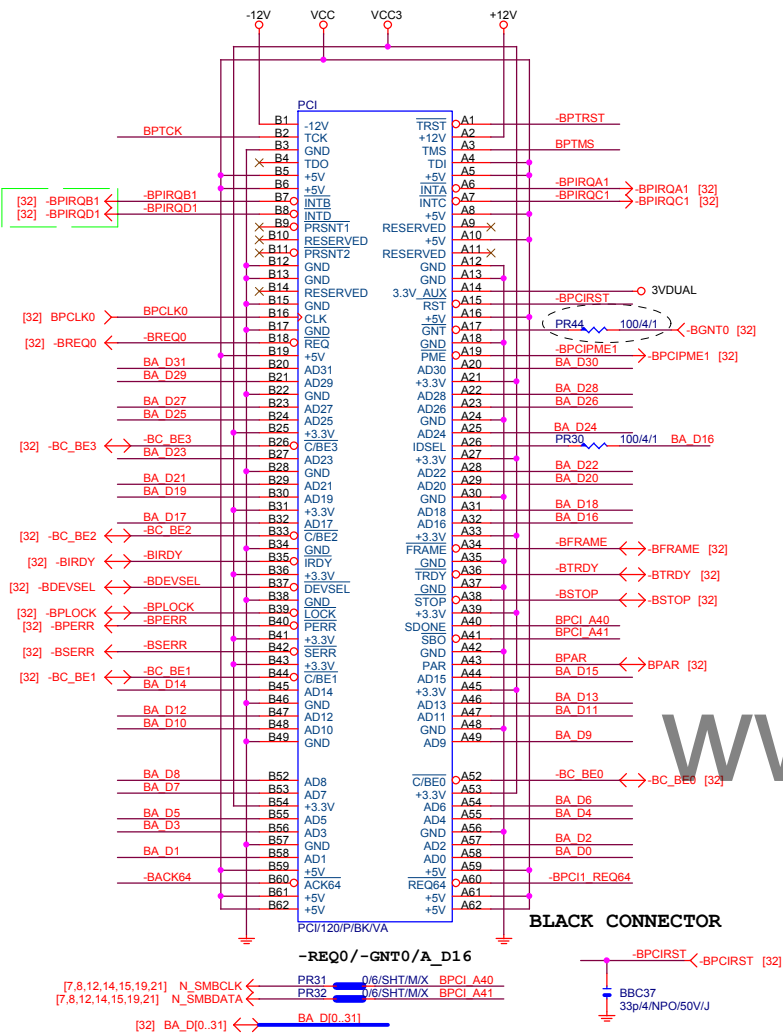
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Size	Document Number	Rev
Custom	GA-B85M-HD3 R4	1.0
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PCIEX1 SLOT

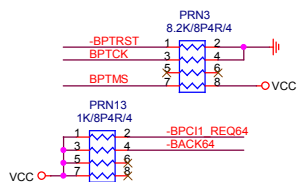


Gigabyte Technology			
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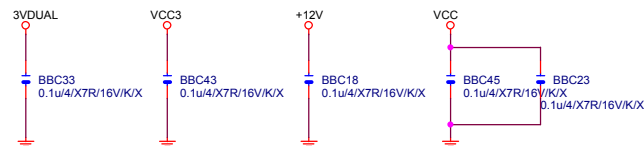
PCI SLOT 1



PCI	PU
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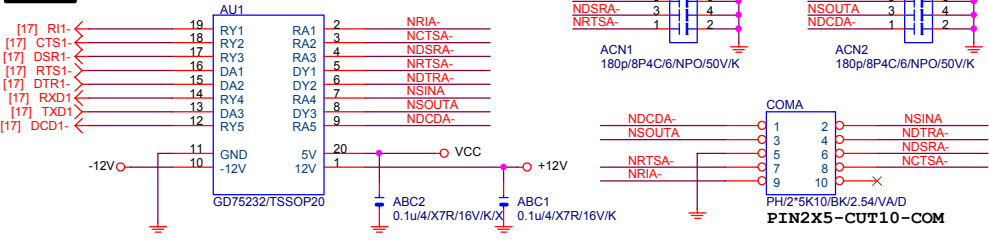
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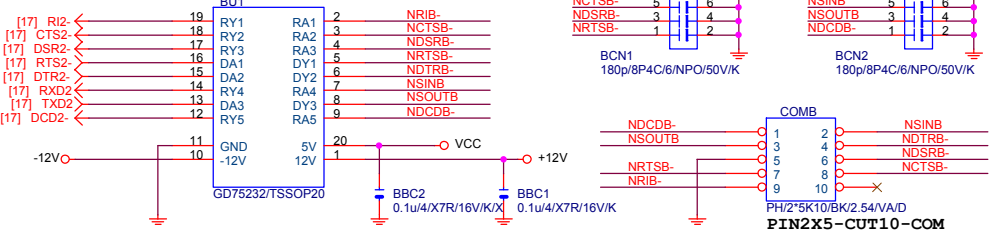
Gigabyte Technology

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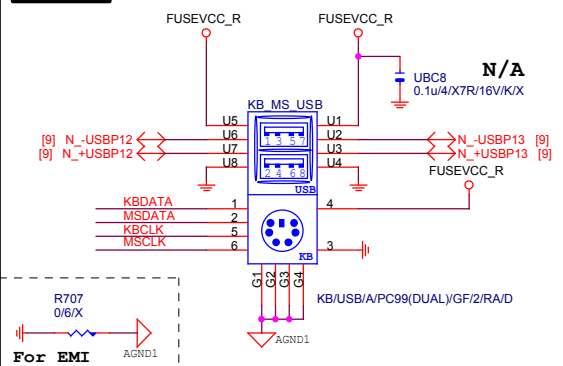
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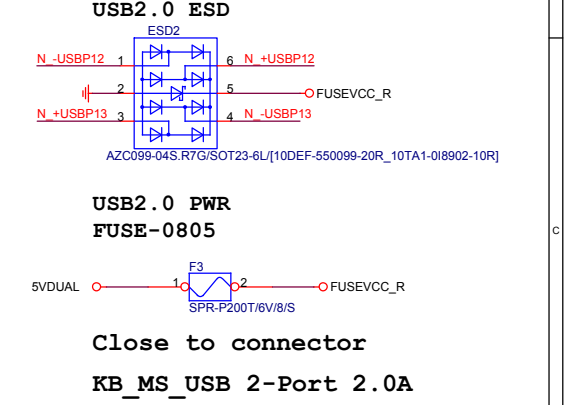
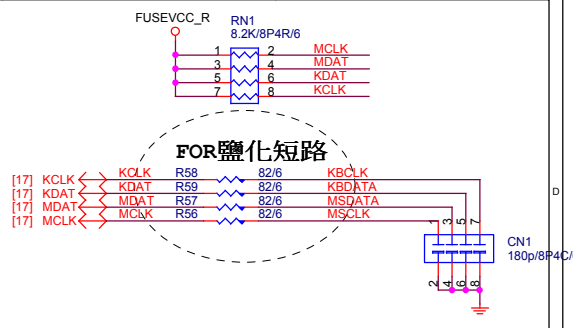
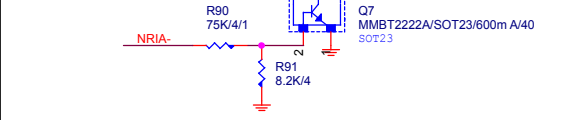
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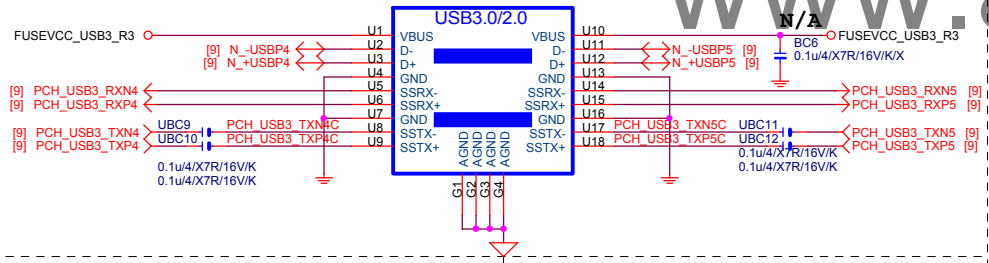
KB/MS



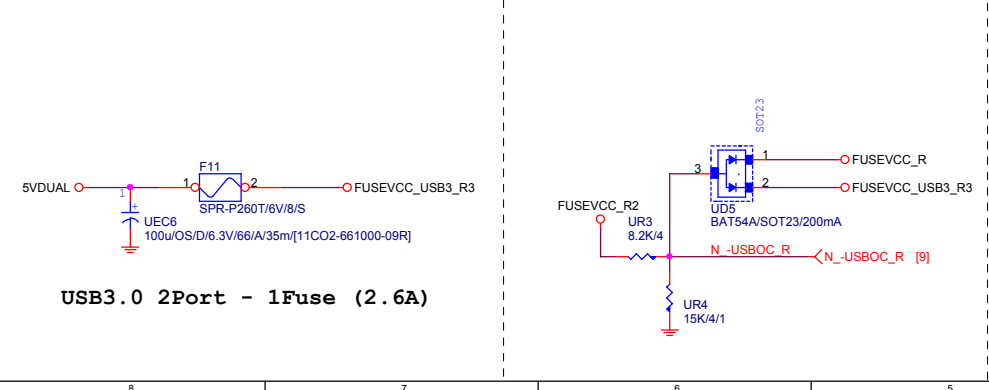
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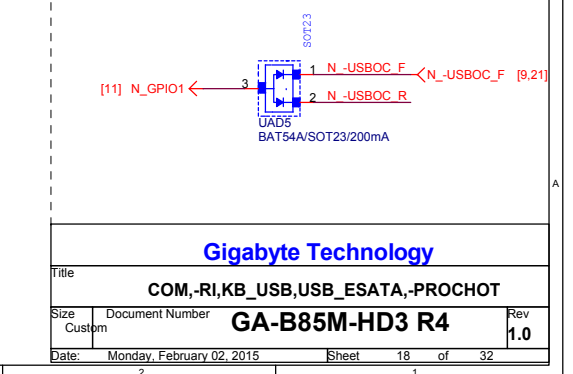
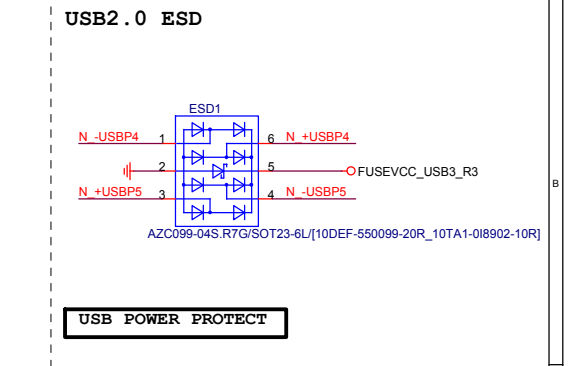
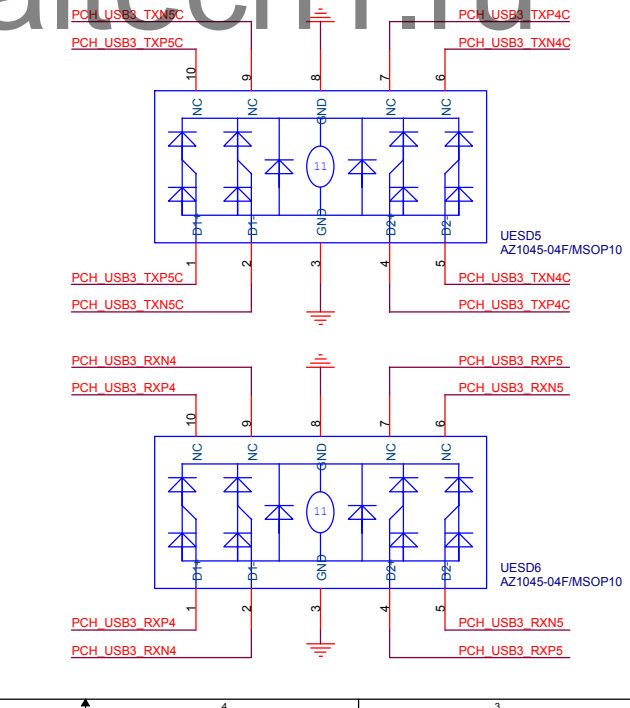
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USB30_20 PWR

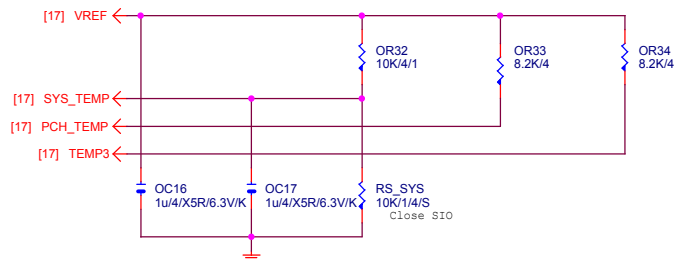


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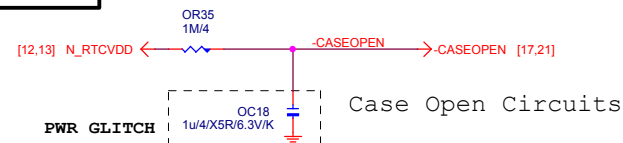


Gigabyte Technology			
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COM,-RI,KB_USB,USB_ESATA,-PROCHOT			
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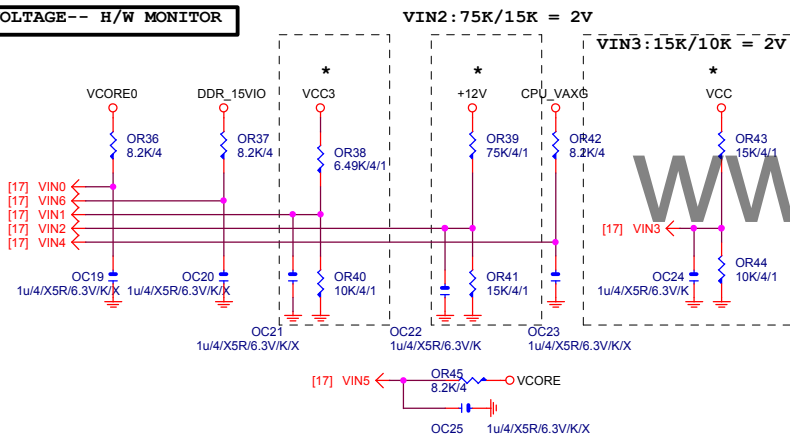
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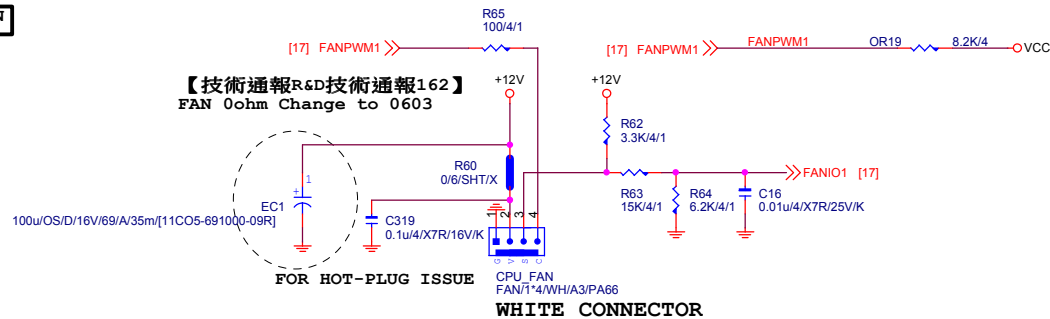
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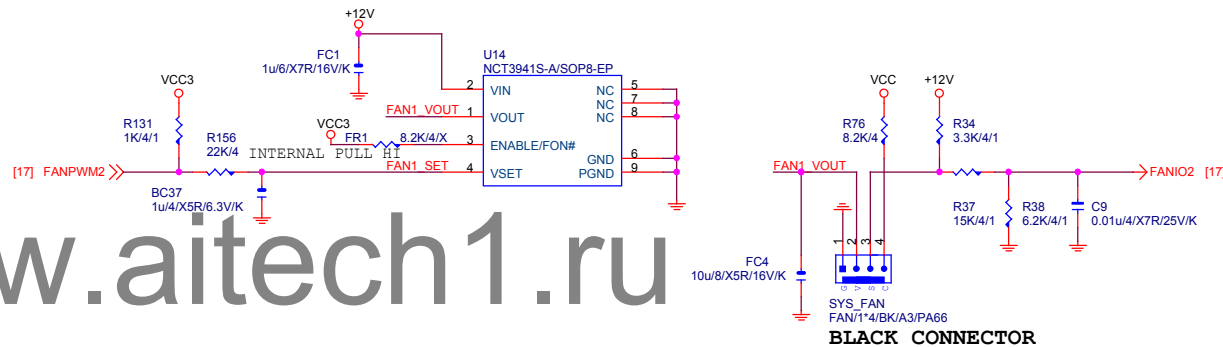
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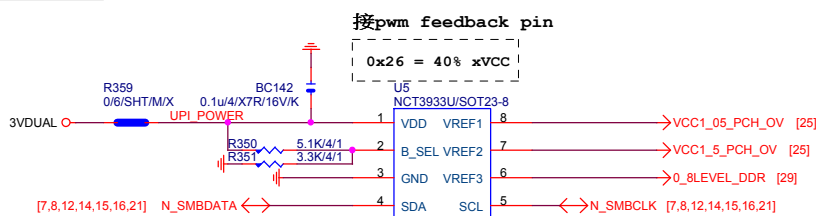
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SYS SMART FAN

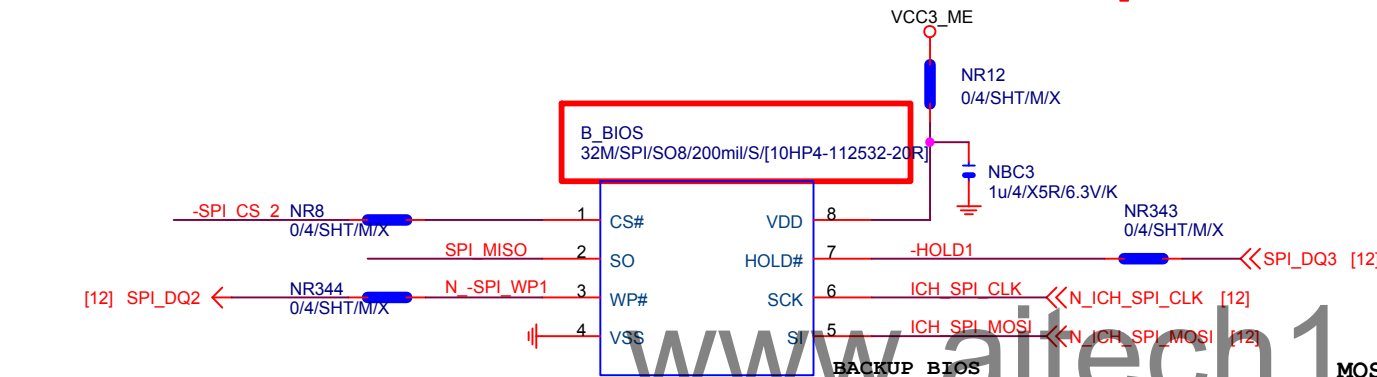
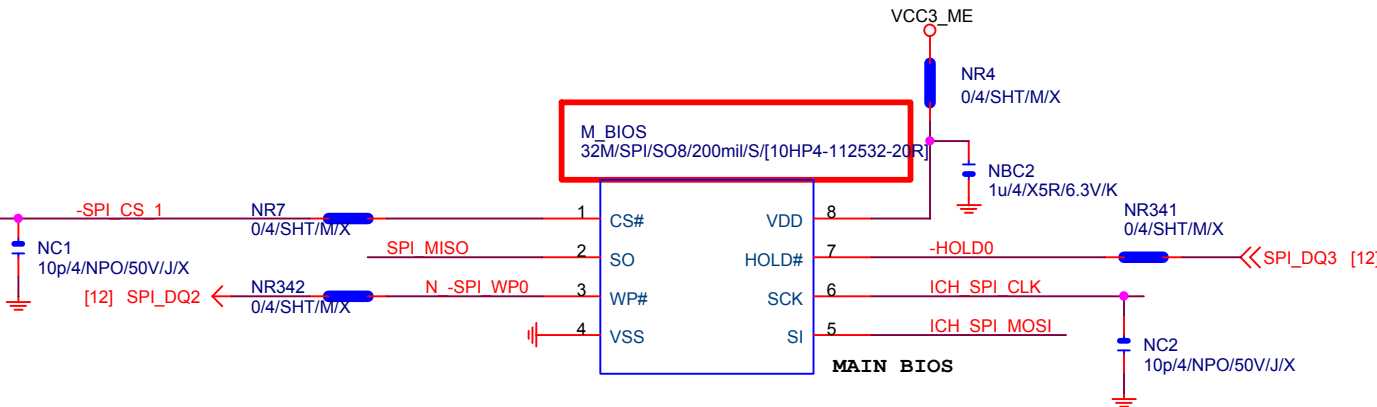


OV NCT3933



Gigabyte Technology

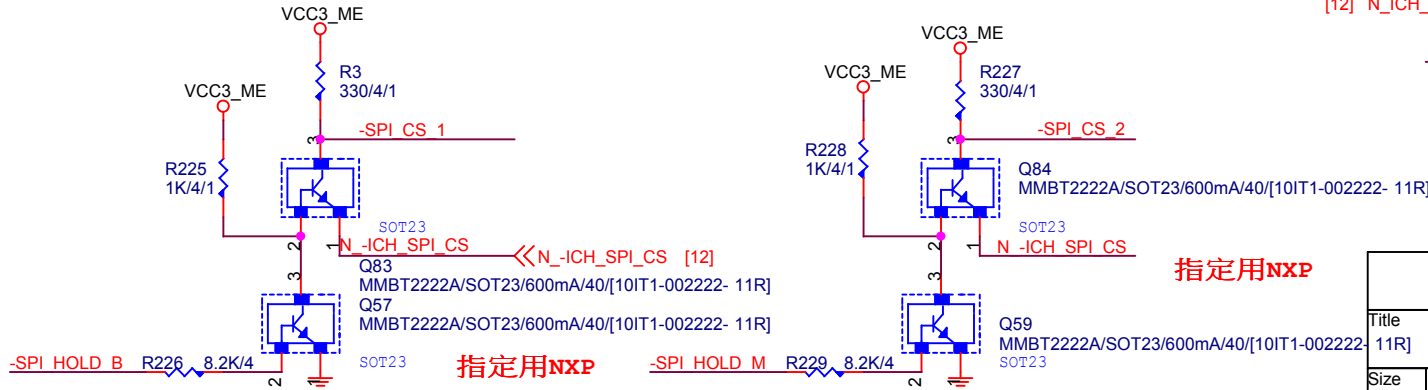
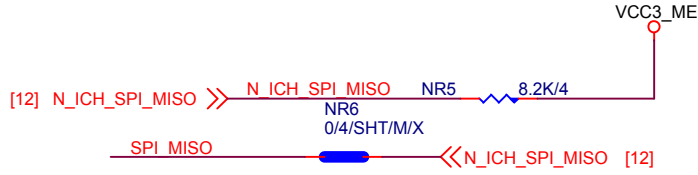
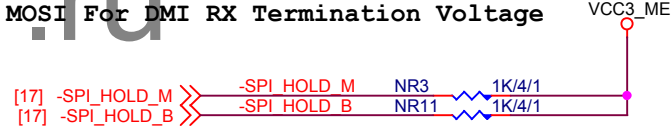
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Size	Document Number	GA-B85M-HD3 R4	
Custom		Rev 1.0	
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BOOT DEVICE	GNT0	GNT1
LPC	0	0
PCI	0	1
NAND	1	0
SPI	1	1

1 means floating
0 means PD 1K

MOSI For DMI RX Termination Voltage



Gigabyte Technology

DUAL BIOS

GA-B85M-HD3 R4

Rev 1.0

Title 11R

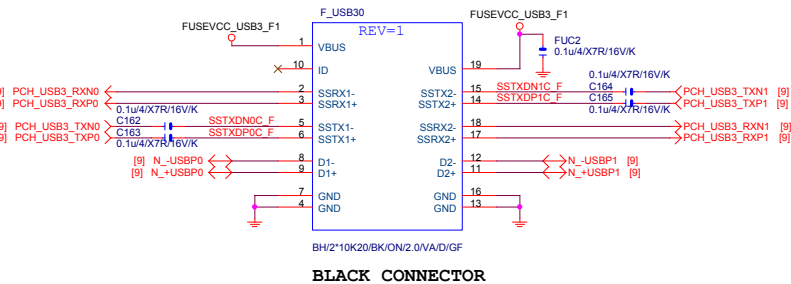
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Document Number

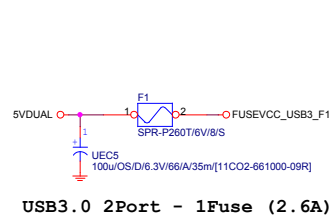
Date: Monday, February 02, 2015

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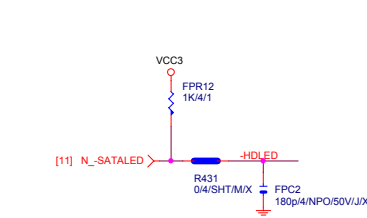
F_USB30



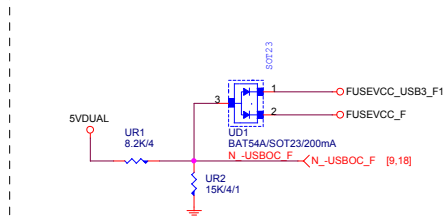
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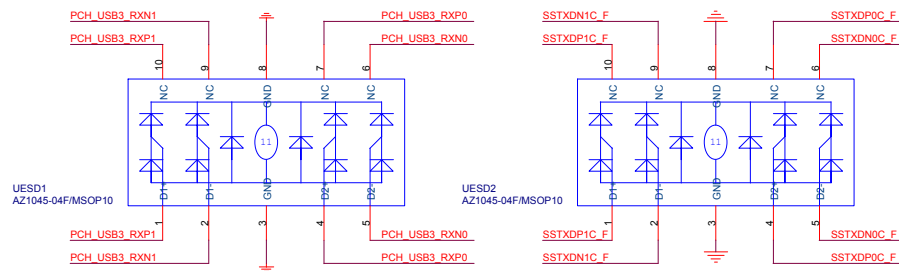
SATA LED



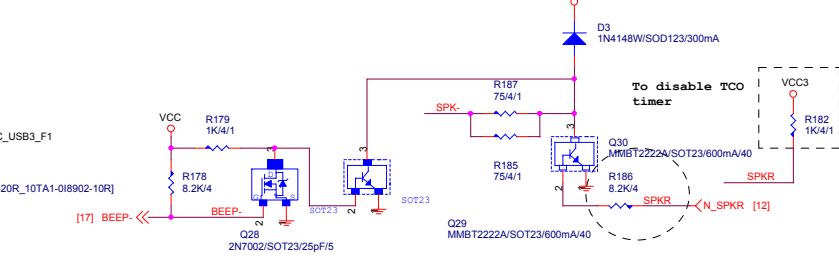
-USB0C_F



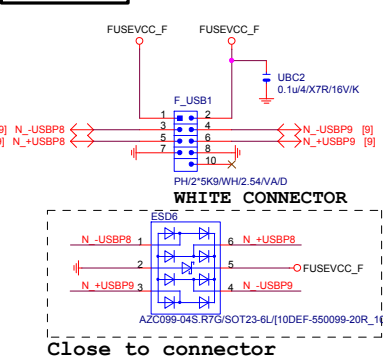
F_USB30 ESD PROTECT



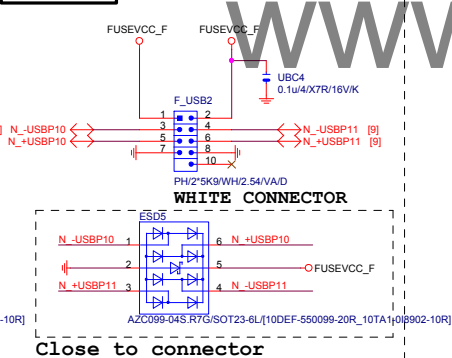
SPKR



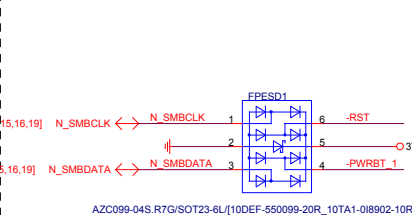
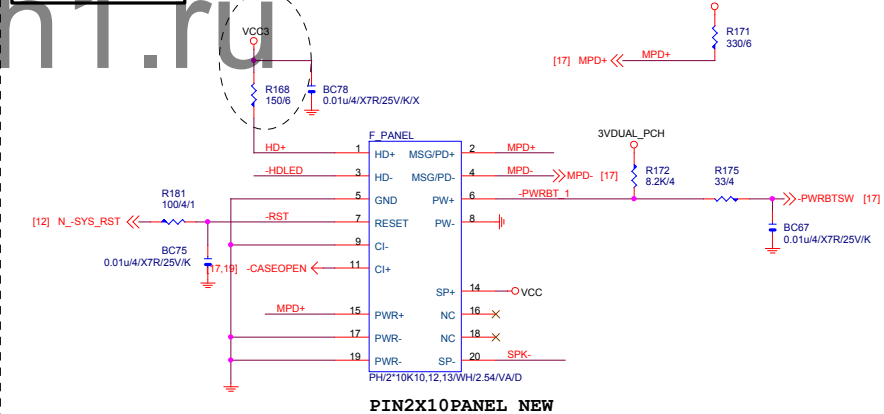
FRONT USB1



FRONT USB2



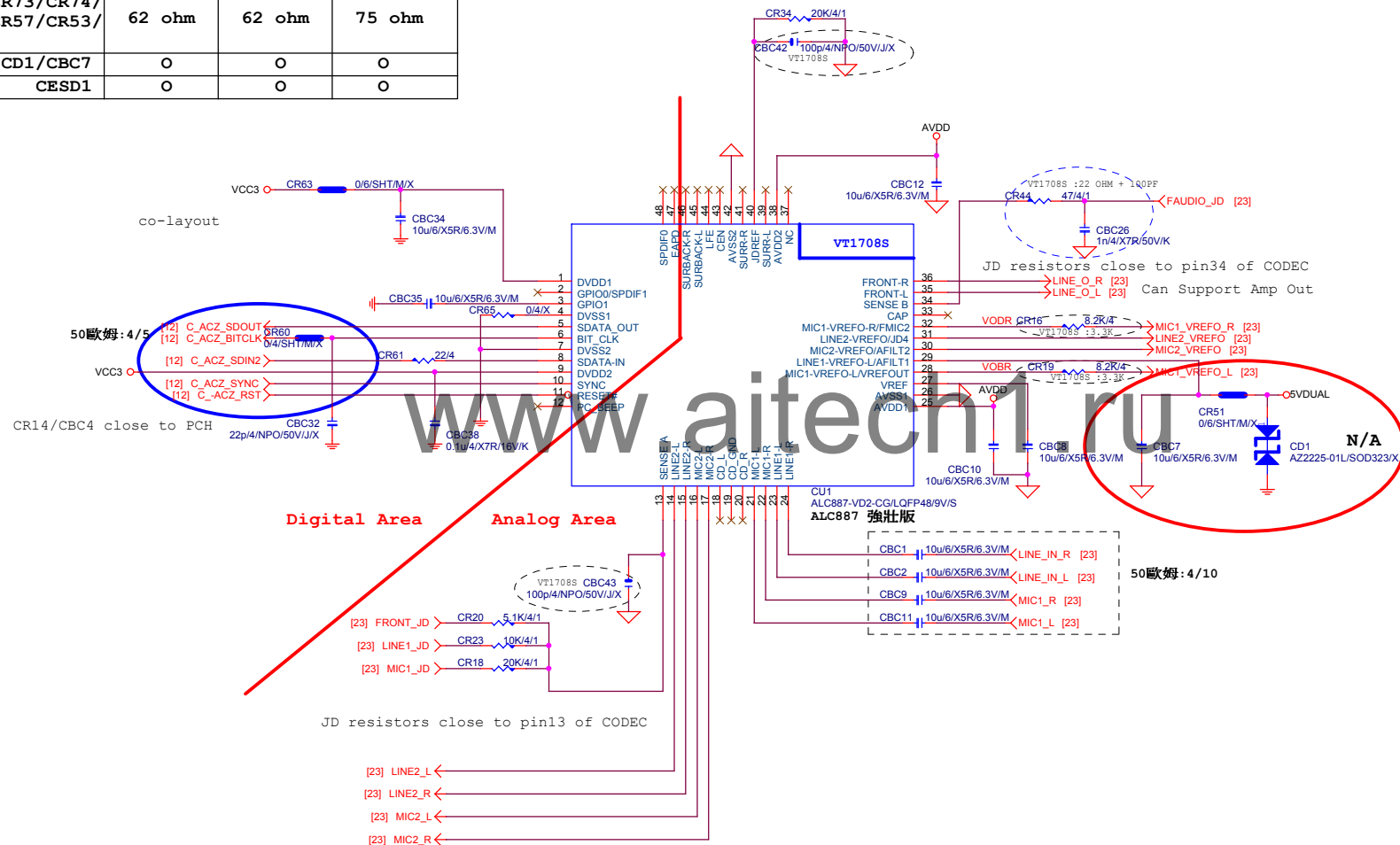
INTEL FRONT PANEL

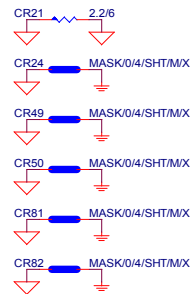


Gigabyte Technology			
File	Document Number	Rev	1.0
FP,F_USB,USB PWR,SPKR,SATA LED			
GA-B85M-HD3 R4			
Date:	Monday, February 02, 2015	Sheet	21 of 32

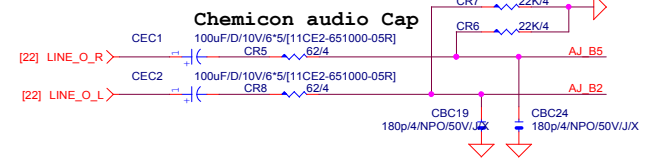
AZALIA CODEC ALC892/ALC887-VD2/VT1708-CE Colay

	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





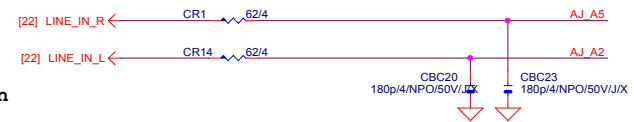
LINE-OUT



LINE-IN

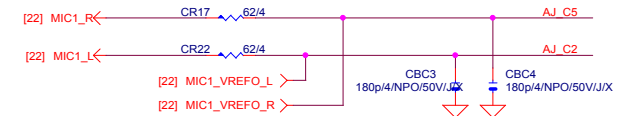
Verify MIC function
in LINE-in

Only reserved for ALC888



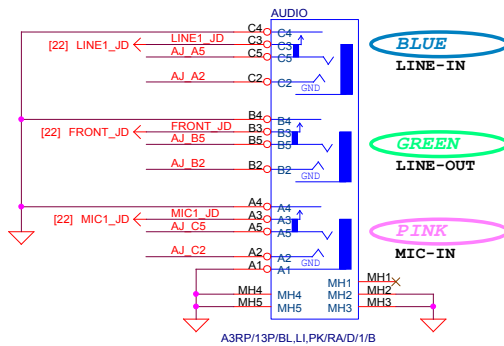
For 889A/888

MIC-IN

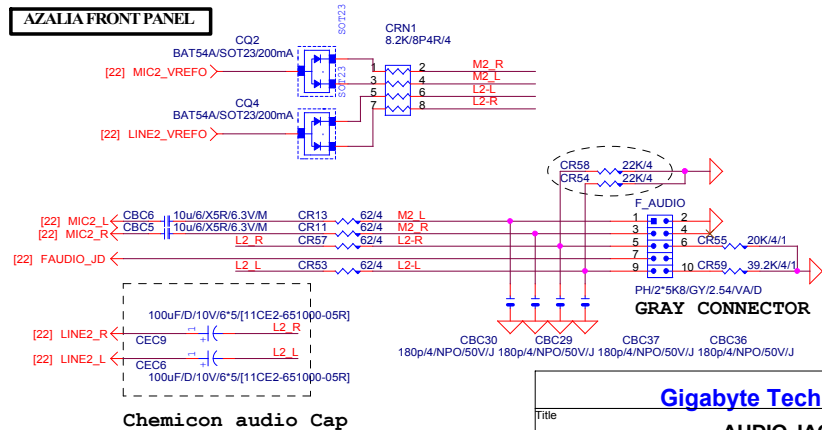


SPDIF_OUT

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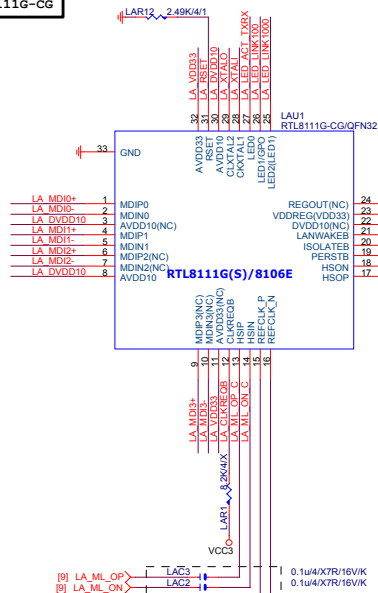
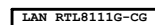


AZALIA FRONT PANEL

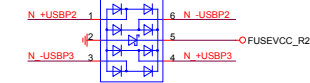
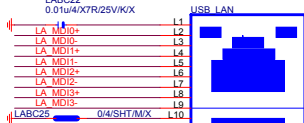
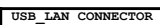
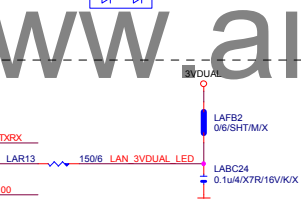
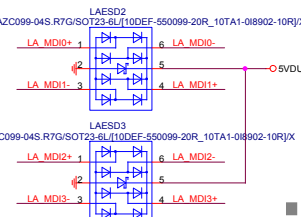


Gigabyte Technology

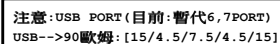
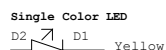
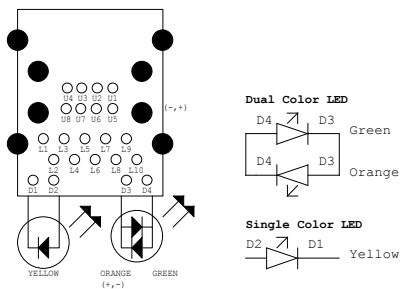
Title			
AUDIO JACK			
Size	Document Number	GA-B85M-HD3 R4	
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SRCCLK-->50歐姆:[18/4/10/4/18]

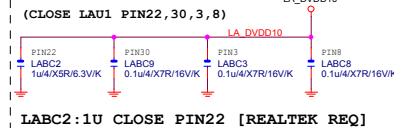
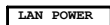


★ UBESD3
AZC099-04S.R7G/SOT23-6L[10DEF-550099-20R_10TA1-0I8902-10R]
使用RU9 USB LAN可省略LAESD1保護LED

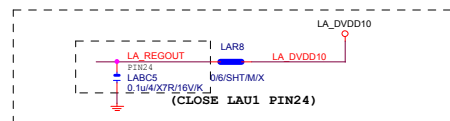
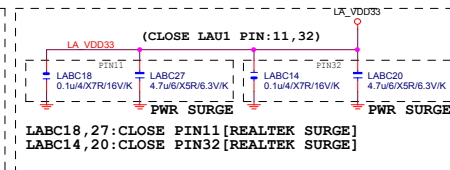
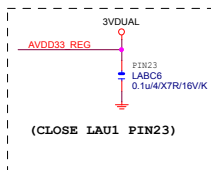


料號	規格	廠商
11NR6-702009-96R 1G LAN (12core)		UDE (RU9 ESD+)
[LED獨立走線,可省略外加AZC099料件LAESD1]		

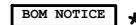
1. 9KV ESD BOM:
USB_LAN (RU9):11NR6-702009-96R
2. 28KV ESD BOM:
USB_LAN (RU9):11NR6-702009-96R
LAESD2, LAESD3: 上件AZC398-04S



```
LABC2:1U CLOSE PIN22 [REALTEK REQ]
```

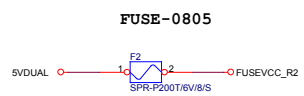
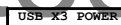


NOTE:
RT8106E:PIN3,11,22,24-->NC
LABC2LABC3,LABC5,LABC18,LABC27-->N/A



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



PS:視EMI需求

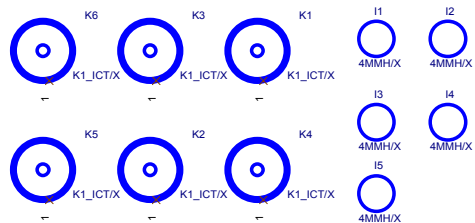
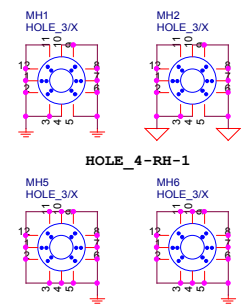
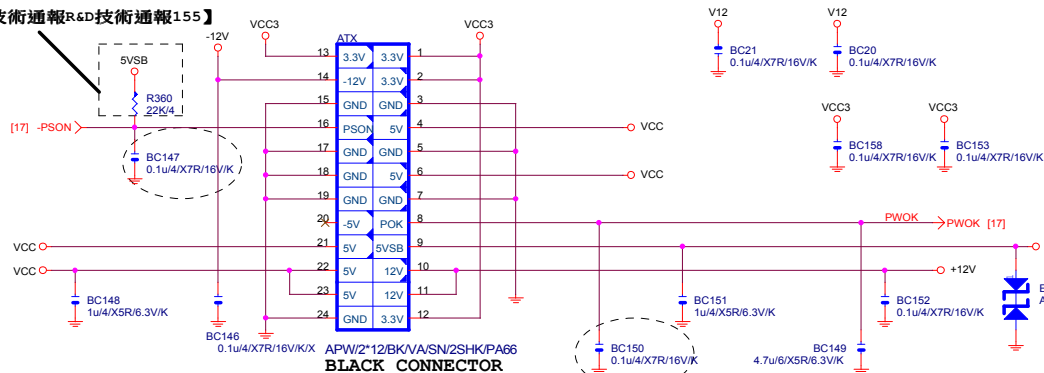


料號	規格	廠商
11NR6-702009-96R 1G LAN (12core)		UDE (RU9 ESD+)
[LED獨立走線,可省略外加AZC099料件LAESD1]		

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

ATXX24 POWER CONNECTOR

【技術通報R&D技術通報155】



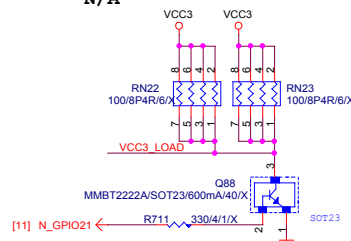
To prevent the 5VSB under loading when boot

TPM

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FIX PWR MINMUN LOAD

N/A



PWOK PATCH

【技術通報R&D技術通報154】

Gigabyte Technology

ATX CONNECTOR

GA-B85M-HD3 R4

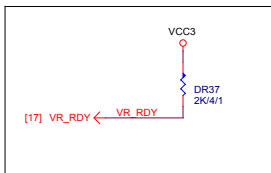
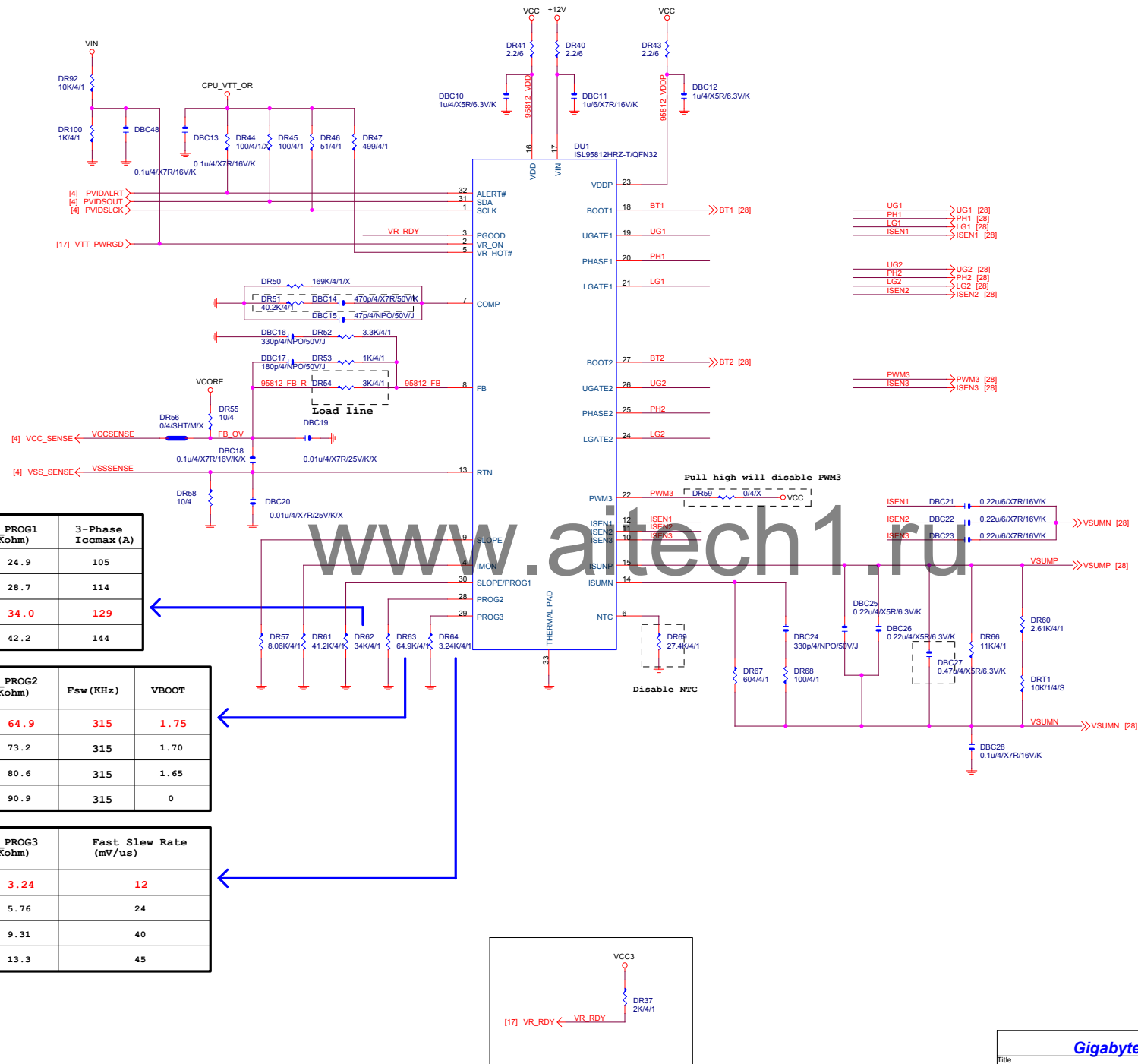
Rev 1.0

Date: Monday, February 02, 2015 Sheet 26 of 32

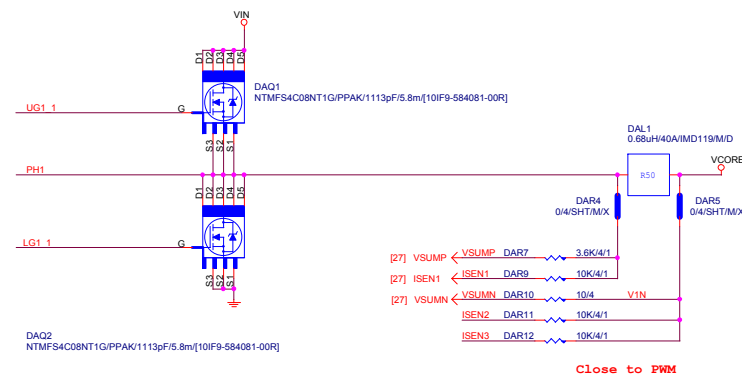
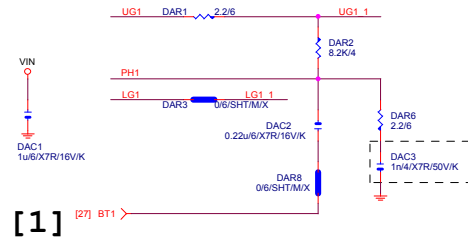
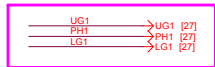
R_PROG1 (Kohm)	3-Phase Iccmax (A)
24.9	105
28.7	114
34.0	129
42.2	144

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

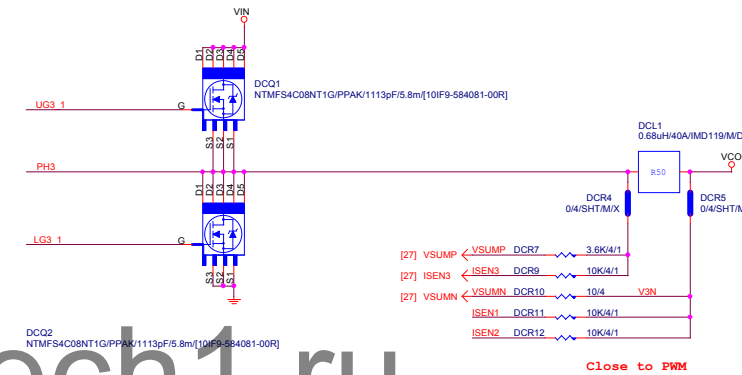
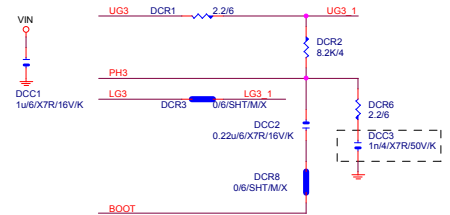
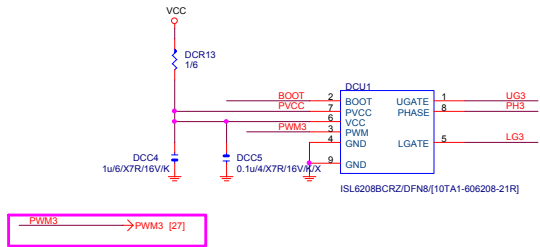
R_PROG3 (Kohm)	Fast Slew Rate (mV/us)
3.24	12
5.76	24
9.31	40
13.3	45



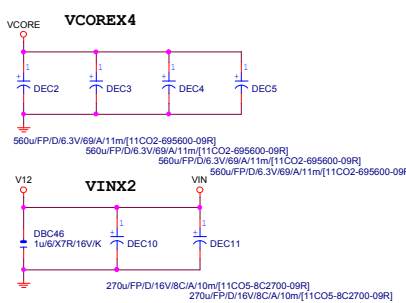
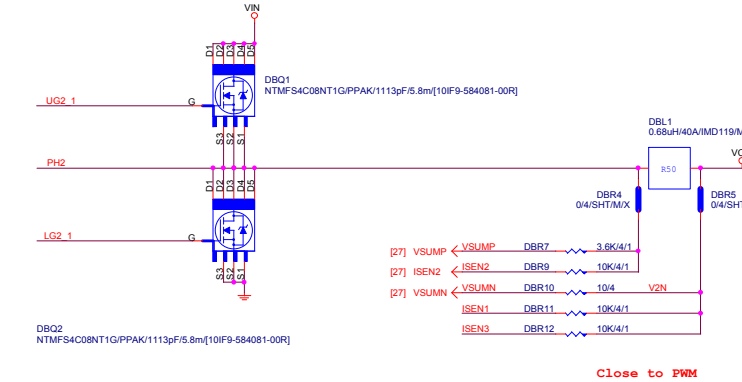
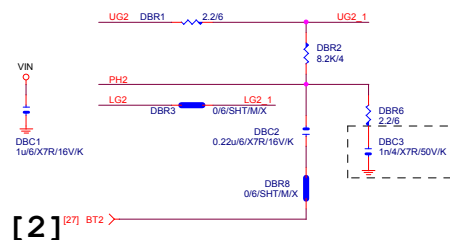
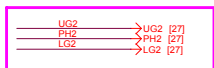
PHASE 1



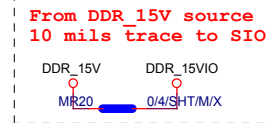
PHASE 3



PHASE 2



Gigabyte Technology			
File		CPU CORE VR-2	
Size	Document Number	GA-B85M-HD3 R4	Rev 1.0
Custom			
Date	Monday, February 02, 2015	Sheet 28 of 32	

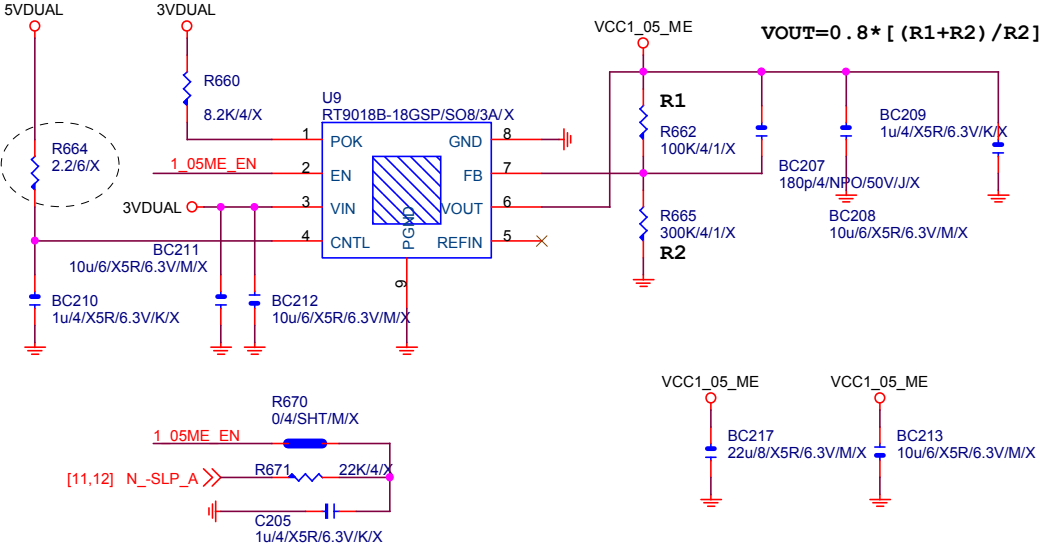


VIN=5V, VOUT=1.5V, IOUT=25A, PHASE=1
IRMS=11.45A
560uF/P/D/6.3V/68/8m RIPPLE CURRENT=4.7A
Coefficient=1.7(85°C), 1(105°C)
VIN Ripple current=4.7X1.7=7.99A(85°C)
-->故固态电容须2X7.99=15.98>11.45A

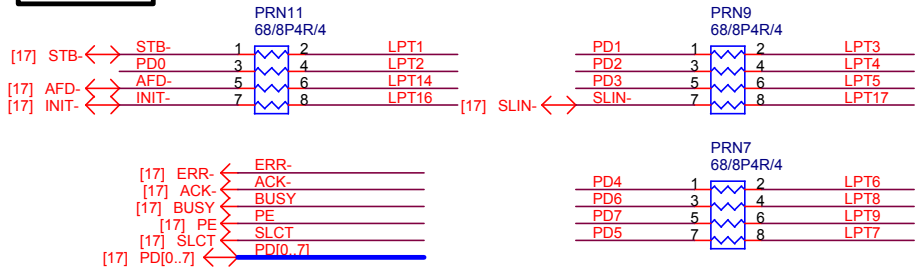
```
Rocset=(Iocp*Lgate,rdson)/Iocset
Rocset=(45A*6.7mOhm)/10uA = 30K
Iocset=10uA
```

VCC1_05_ME

N/A



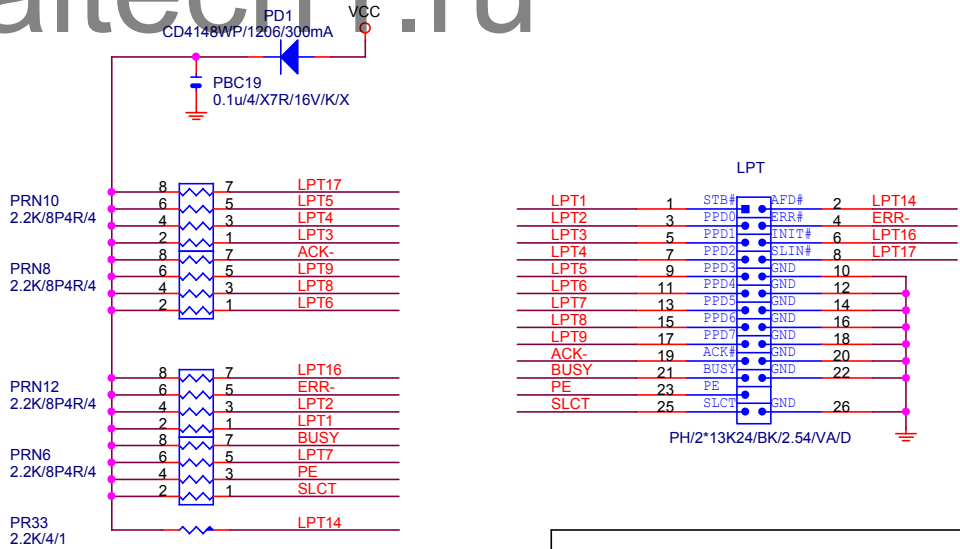
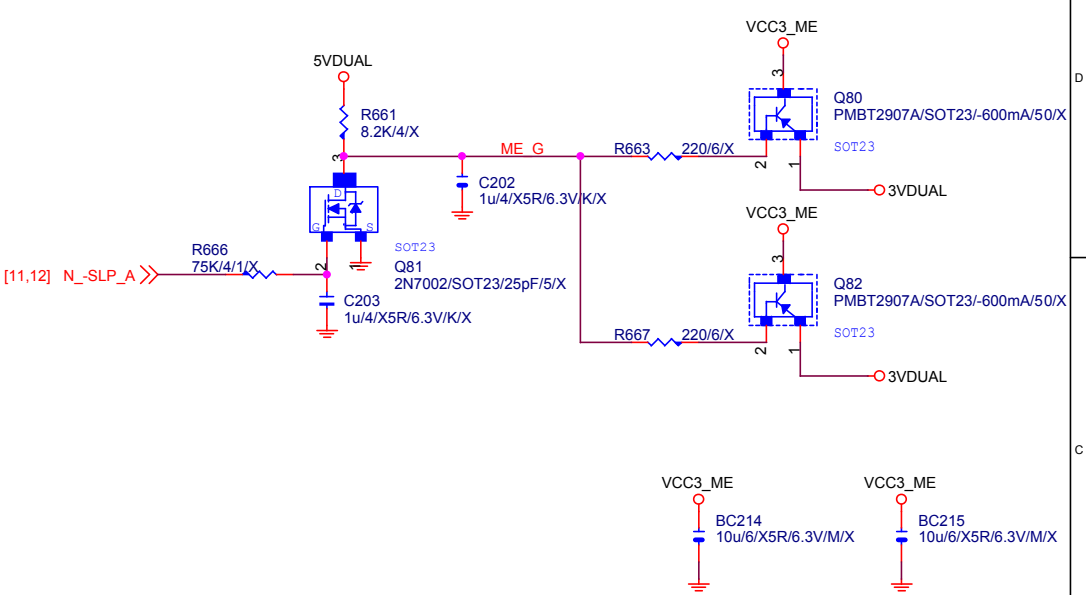
LPT PORT



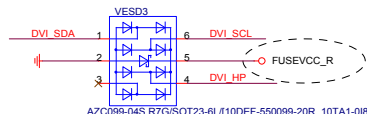
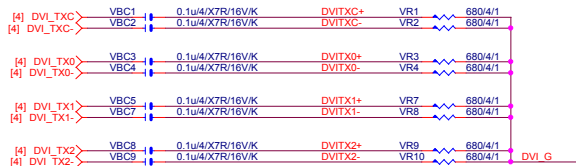
【技術通報R&D技術通報151】
33ohm Change to 68ohm

VCC3_ME

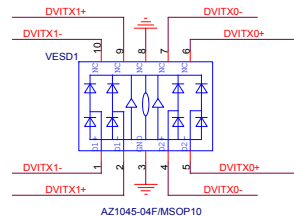
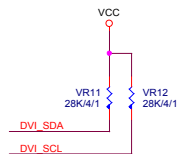
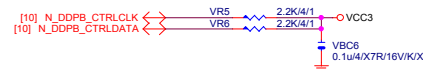
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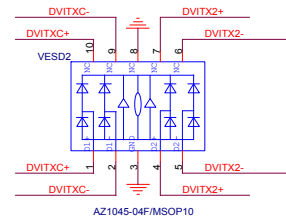
DVI



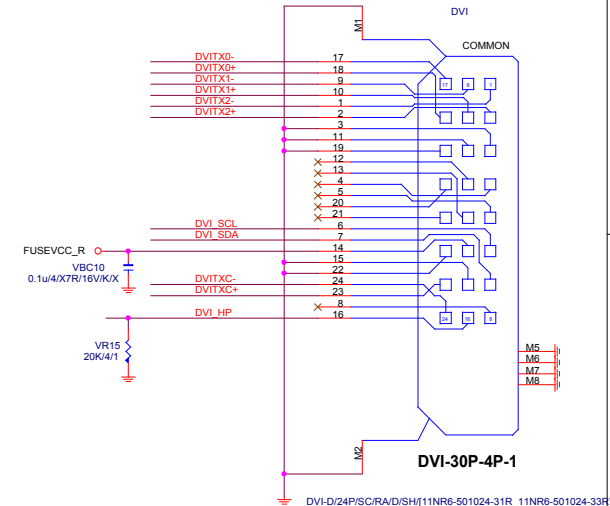
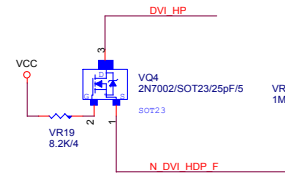
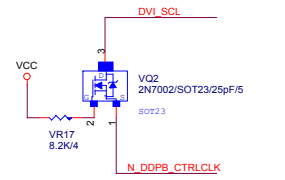
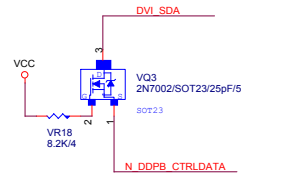
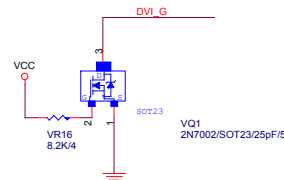
Close to connector



Close to connector

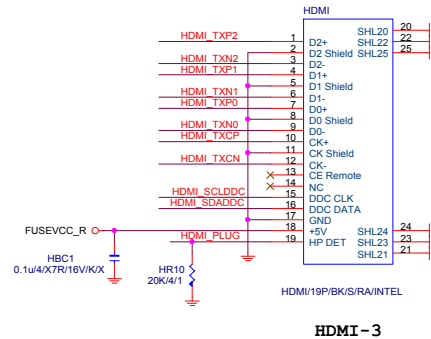
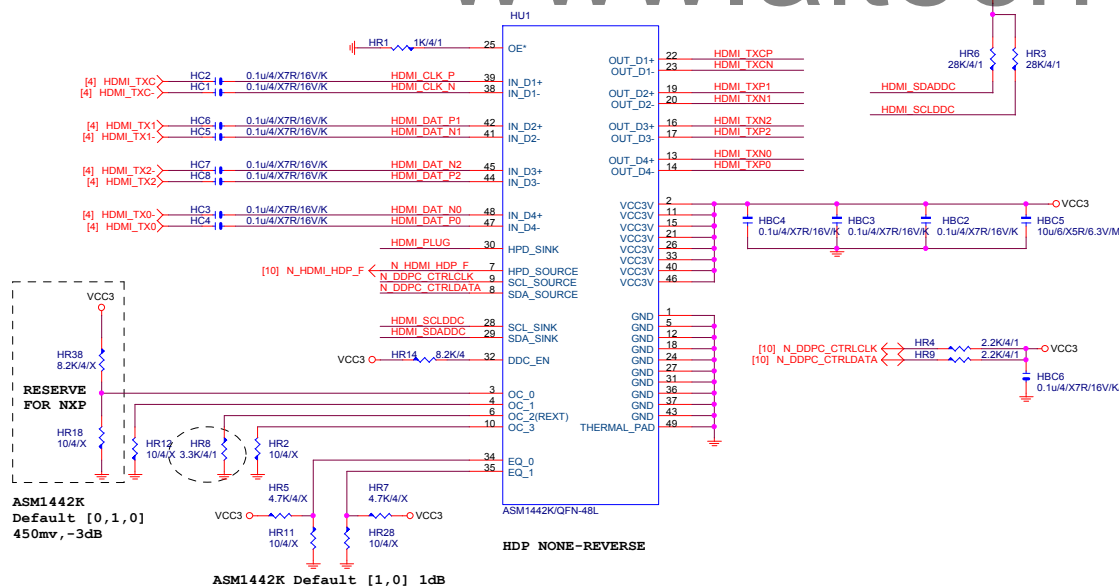


Close to connector



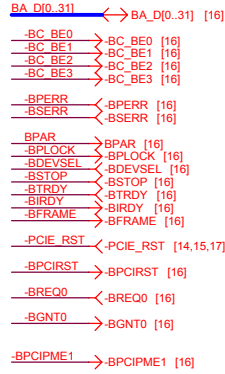
HDMI LEVEL SHIFT

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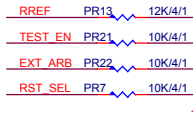


PCIE TO PCI

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



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



[10] G_PBCLK<
[10] G_PBCLK<

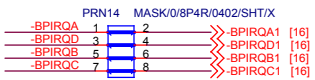


High: Enable PCI CLK 66MHz
Low: Disable PCI CLK 66MHz



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

IT8892

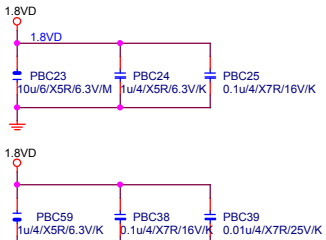
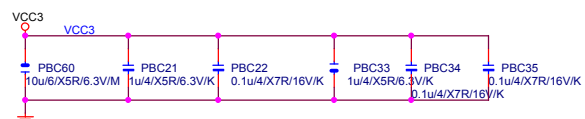
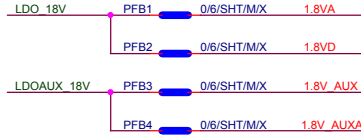
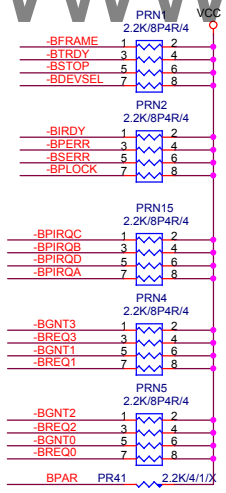
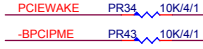


PCI slot

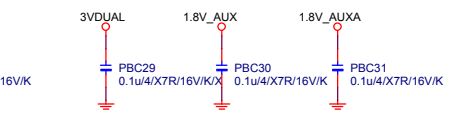
PCI slot



chipset side



PCB layout note:
Close to chip



PCB layout note:
Close to chip

Gigabyte Technology

ITE IT8892E
GA-B85M-HD3 R4

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Size	Custom	1.0
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