

Model Name: GA-B85M-DS3H

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 X1 *2 SLOT
16	ITE 8620 LPC IO
17	COM,KB_MS_USB,USB30_20
18	HWM,FAN CTRL,OV,-PROCHOT
19	DUAL BIOS
20	FP,FUSB,SPK,SATALED
21	Realtek ALC887-VD2
22	REAR AUDIO JACK
23	REALTEK RTL8111F
24	DISCRETE POWER
25	ATX
26	VCORE ISL95820_1
27	VCORE ISL95820_2

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Revision 1.12

SHEET

TITLE

28	RT8120_DDR POWER
29	LPT, M3 POWER
30	DVI

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Cover Sheet

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Revision 1.12

Component value change history

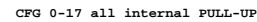
2013/11/27

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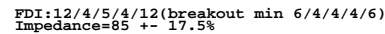
Circuit or PCB layout change

[illegible]

(E)

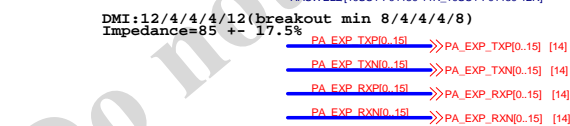


(D)

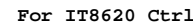


FDI_TXP[0..1] >> FDI_TXP[0..1] [9]
FDI_TXN[0..1] >> FDI_TXN[0..1] [9]

1. CON
(C)



-CPURST



CPU SVID



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Title			
CPU LGA1150-A			
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LGA1150 (A)

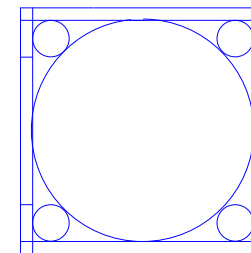
LGA1150 (B)

LGA1150 (CR)

LGA1150A

LGA1150B

CR
CPU RETAINTION/X



LGA1150_P



ILM_BP/1156/CSP/ILM_BP/1156/CSP/[12KRC-0F0001-52R_12KRC-0F0001-51R]

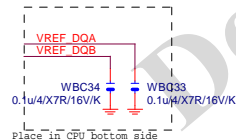
DDR BUS

- [7] MODT_A[0..3] <-> MODT_A10..31
- [8] MODT_B[0..3] <-> MODT_B10..31
- [7] MDA[0..63] <-> MDA10..631
- [8] MDB[0..63] <-> MDB10..631
- [7] DQSA[0..7] <-> DQSA10..71
- [7] -DQSA[0..7] <-> -DQSA10..71
- [7] MAA[0..15] <-> MAA10..151
- [8] MAB[0..15] <-> MAB10..151
- [8] DQSB[0..7] <-> DQSB10..71
- [8] -DQSB[0..7] <-> -DQSB10..71

MAAA0	AU13	DDR0_MA0	DDR0_D00	AD38	MDA0
MAAA1	AV16	DDR0_MA1	DDR0_D01	AD39	MDA1
MAAA2	AU16	DDR0_MA2	DDR0_D02	AF38	MDA2
MAAA3	AW17	DDR0_MA3	DDR0_D03	AF39	MDA3
MAAA4	AU17	DDR0_MA4	DDR0_D04	AD37	MDA4
MAAA5	AW18	DDR0_MA5	DDR0_D05	AD40	MDA5
MAAA6	AV17	DDR0_MA6	DDR0_D06	AE37	MDA6
MAAA7	AT18	DDR0_MA7	DDR0_D07	AF40	MDA7
MAAA8	AU18	DDR0_MA8	DDR0_D08	AH40	MDA9
MAAA9	AT19	DDR0_MA9	DDR0_D09	AH39	MDA10
MAAA10	AW11	DDR0_MA10	DDR0_D10	AK38	MDA10
MAAA11	AV19	DDR0_MA11	DDR0_D11	AK39	MDA11
MAAA12	AU19	DDR0_MA12	DDR0_D12	AH37	MDA12
MAAA13	AW10	DDR0_MA13	DDR0_D13	AH38	MDA13
MAAA14	AT20	DDR0_MA14	DDR0_D14	AK37	MDA14
MAAA15	AU21	DDR0_MA15	DDR0_D15	AK40	MDA15
MODT_A0	AW10	DDR0_ODT0	DDR0_D16	AM40	MDA17
MODT_A1	AV8	DDR0_ODT1	DDR0_D17	AM39	MDA21
MODT_A2	AW9	DDR0_ODT2	DDR0_D18	AP38	MDA18
MODT_A3	AU8	DDR0_ODT3	DDR0_D19	AP39	MDA19
			DDR0_D20	AM37	MDA20
			DDR0_D21	AM38	MDA16
			DDR0_D22	AP37	MDA22
			DDR0_D23	AP40	MDA23
			DDR0_D24	AW37	MDA29
			DDR0_D25	AU35	MDA26
			DDR0_D26	AW35	MDA27
			DDR0_D27	AT37	MDA28
			DDR0_D28	AU37	MDA24
			DDR0_D29	AT35	MDA30
			DDR0_D30	AW35	MDA31
			DDR0_D31	AW35	MDA33
			DDR0_D32	AU6	MDA37
			DDR0_D33	AW4	MDA34
			DDR0_D34	AW4	MDA35
			DDR0_D35	AW6	MDA32
			DDR0_D36	AW4	MDA38
			DDR0_D37	AW4	MDA39
			DDR0_D38	AR1	MDA41
			DDR0_D39	AR4	MDA45
			DDR0_D40	AN3	MDA42
			DDR0_D41	AN4	MDA43
			DDR0_D42	AR2	MDA44
			DDR0_D43	AR3	MDA40
			DDR0_D44	AN2	MDA46
			DDR0_D45	AN1	MDA47
			DDR0_D46	AL1	MDA49
			DDR0_D47	AL4	MDA53
			DDR0_D48	AL4	MDA50
			DDR0_D49	AJ4	MDA51
			DDR0_D50	AL2	MDA52
			DDR0_D51	AL3	MDA48
			DDR0_D52	AJ2	MDA54
			DDR0_D53	AJ1	MDA55
			DDR0_D54	AG1	MDA57
			DDR0_D55	AG4	MDA61
			DDR0_D56	AE3	MDA58
			DDR0_D57	E4	MDA59
			DDR0_D58	AG2	MDA60
			DDR0_D59	AG3	MDA56
			DDR0_D60	AE2	MDA62
			DDR0_D61	AE1	MDA63
			DDR0_D62	AE39	DQSA0
			DDR0_D63	AJ39	DQSA1
			DDR0_D64	AN39	DQSA2
			DDR0_D65	AV36	DQSA3
			DDR0_D66	AV5	DQSA4
			DDR0_D67	AK3	DQSA5
			DDR0_D68	AK3	DQSA6
			DDR0_D69	AF3	DQSA7
			DDR0_D70	AV32	DQSA8
			DDR0_D71	AE38	DQSA0
			DDR0_D72	AJ38	DQSA1
			DDR0_D73	AN38	DQSA2
			DDR0_D74	AJ36	DQSA3
			DDR0_D75	AW5	DQSA4
			DDR0_D76	AP2	DQSA5
			DDR0_D77	AK2	DQSA6
			DDR0_D78	AF2	DQSA7
			DDR0_D79	AU32	DQSA8

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

MAAB0	AL19	DDR1_MA0	AE34	MDB0
MAAB1	AK23	DDR1_MA1	AE35	MDB1
MAAB2	AM22	DDR1_MA2	AG35	MDB2
MAAB3	AM23	DDR1_MA3	AH35	MDB3
MAAB4	AP23	DDR1_MA4	AD34	MDB4
MAAB5	AL23	DDR1_MA5	AD35	MDB5
MAAB6	AY24	DDR1_MA6	AG34	MDB6
MAAB7	AY25	DDR1_MA7	AH34	MDB7
MAAB8	AU26	DDR1_MA8	AL34	MDB8
MAAB9	AW25	DDR1_MA9	AL35	MDB9
MAAB10	AP18	DDR1_MA10	AK31	MDB10
MAAB11	AY28	DDR1_MA11	AL31	MDB11
MAAB12	AY28	DDR1_MA12	AK34	MDB12
MAAB13	AR15	DDR1_MA13	AK35	MDB13
MAAB14	AV27	DDR1_MA14	AK32	MDB14
MAAB15	AY28	DDR1_MA15	AL32	MDB15
MODT_B0	AM17	DDR1_ODT0	AP34	MDB17
MODT_B1	AL16	DDR1_ODT1	AN31	MDB19
MODT_B2	AM16	DDR1_ODT2	AP31	MDB23
MODT_B3	AK15	DDR1_ODT3	AP35	MDB20
			AP35	MDB16
			AN32	MDB18
			AP32	MDB22
			AM29	MDB25
			AM28	MDB28
			AR29	MDB27
			AR28	MDB30
			AL23	MDB34
			AL28	MDB29
			AP29	MDB26
			AP28	MDB31
			AR12	MDB32
			AL12	MDB33
			AL13	MDB34
			AL12	MDB35
			AR13	MDB36
			AP13	MDB37
			AM13	MDB38
			AM12	MDB39
			AR9	MDB45
			AP9	MDB41
			AR6	MDB47
			AP6	MDB43
			AR10	MDB44
			AP10	MDB40
			AR7	MDB46
			AP7	MDB42
			AM9	MDB52
			AL9	MDB53
			AL6	MDB50
			AL7	MDB55
			AM10	MDB48
			AL10	MDB49
			AM6	MDB51
			AM2	MDB54
			AH6	MDB61
			AH7	MDB60
			AE6	MDB59
			AE7	MDB63
			AJ6	MDB56
			AJ7	MDB57
			AF6	MDB58
			AF7	MDB62
			AF35	DQSB0
			AL33	DQSB1
			AN28	DQSB2
			AN29	DQSB3
			AN12	DQSB4
			AR8	DQSB5
			AM8	DQSB6
			AG6	DQSB7
			AN25	DQSB8



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

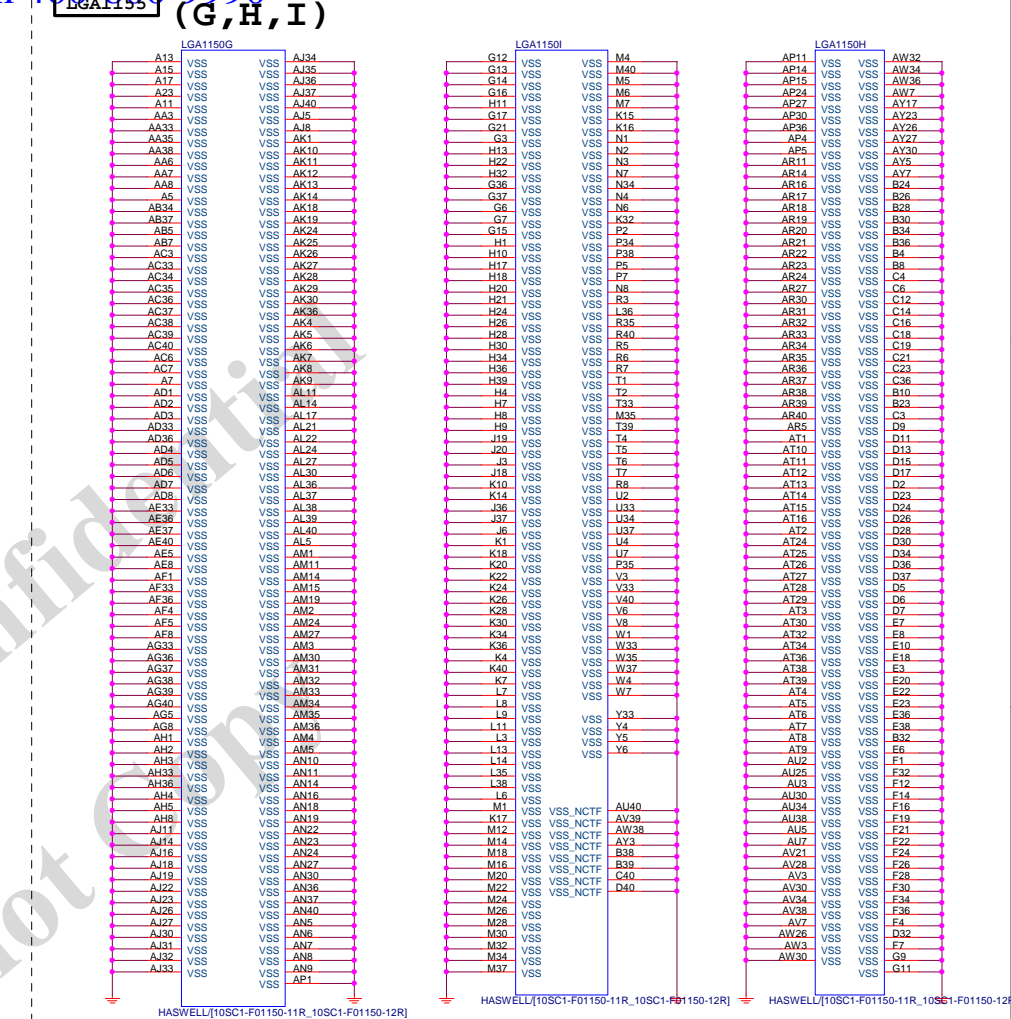
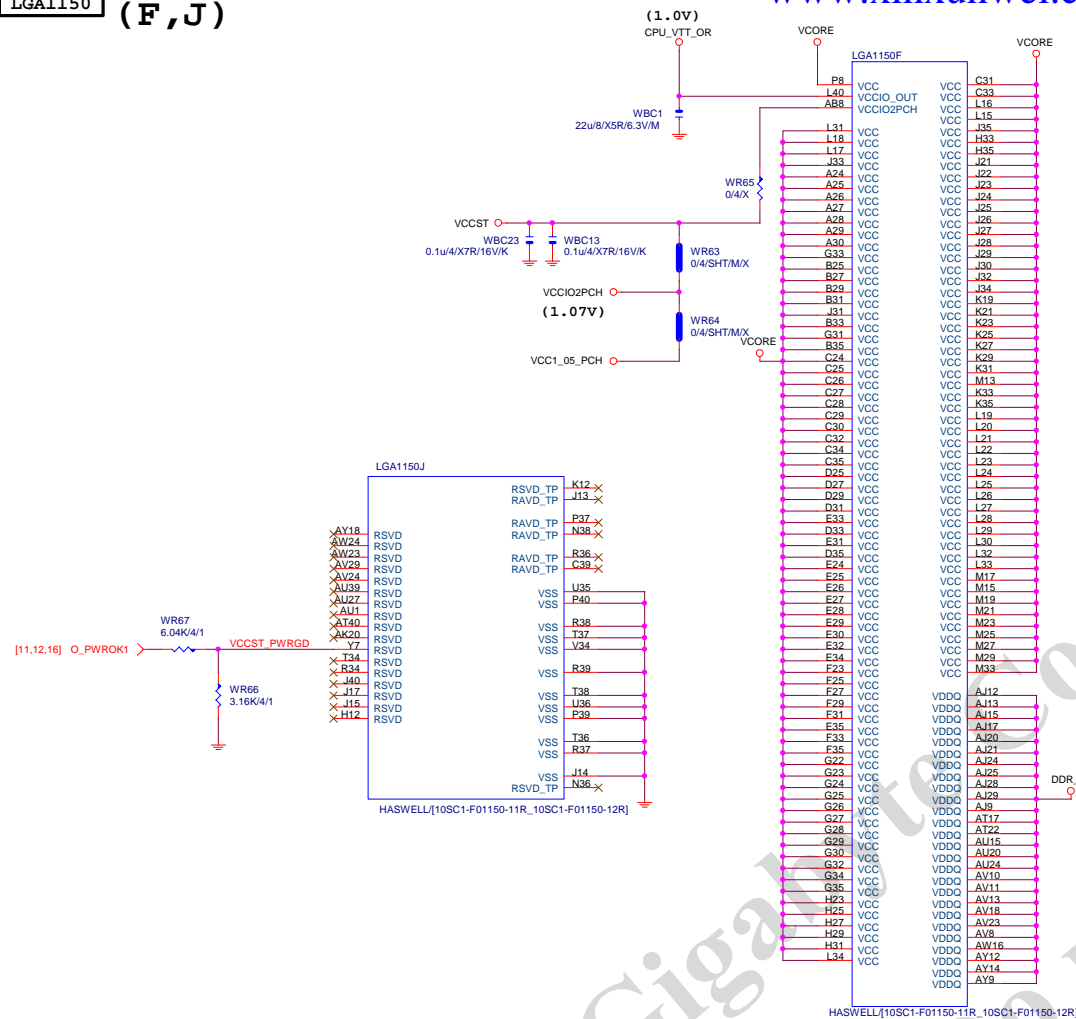
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LGA1150 (F,J)

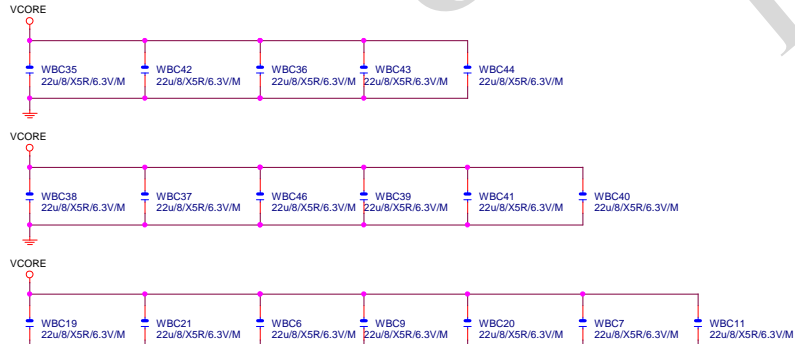
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LGA1150 (G,H,I)



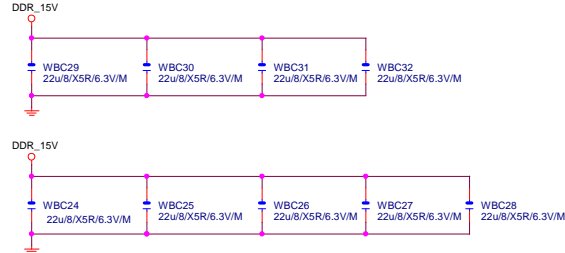
VCore CAP

(X18)



DDR CAP

(X9)



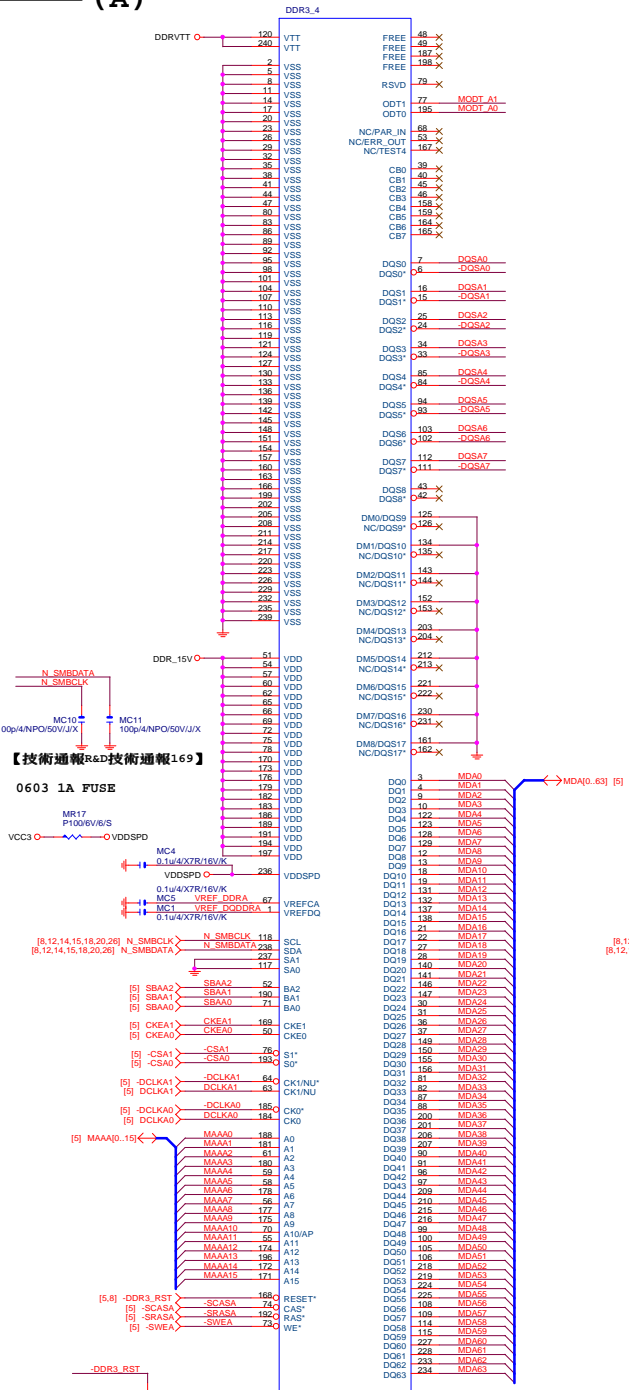
Gigabyte Technology

Title		CPU LGA1150-C	
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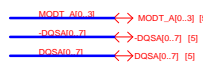
Rev 1.12

DDR3

(A)

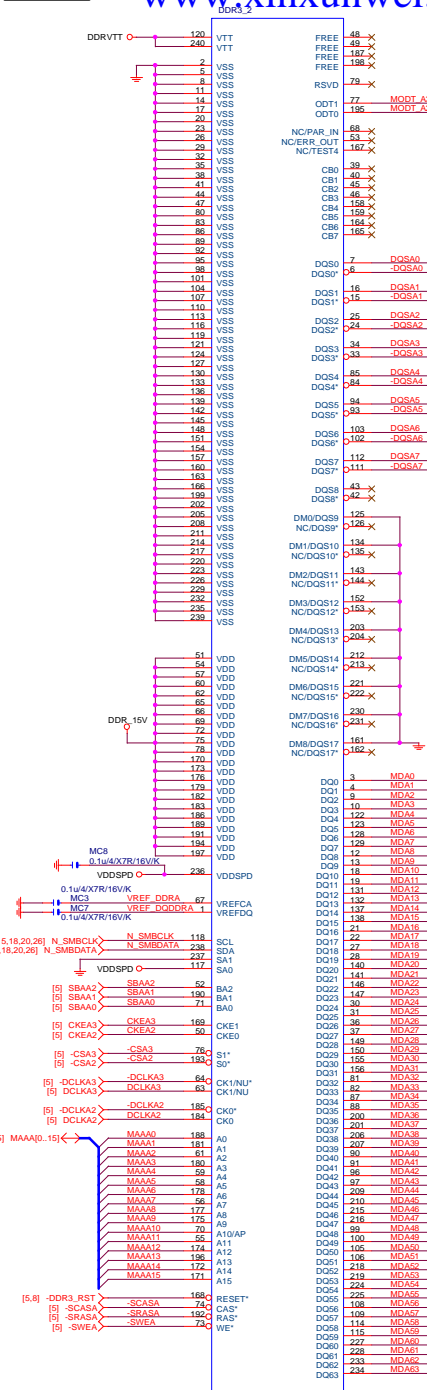


BLACK CONNECTOR



DDR3

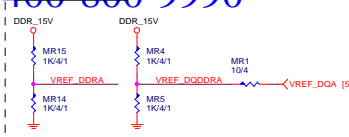
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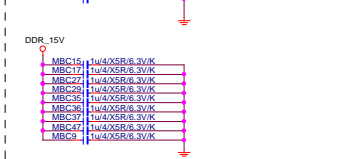
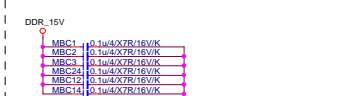
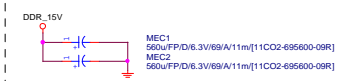
GRAY CONNECTOR



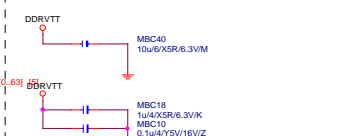
DDR3 VREF



DDR15V Decouple



DDRVT Decouple



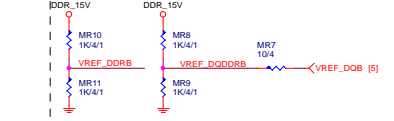
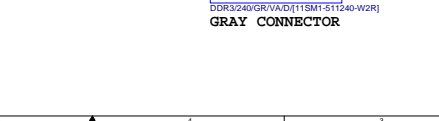
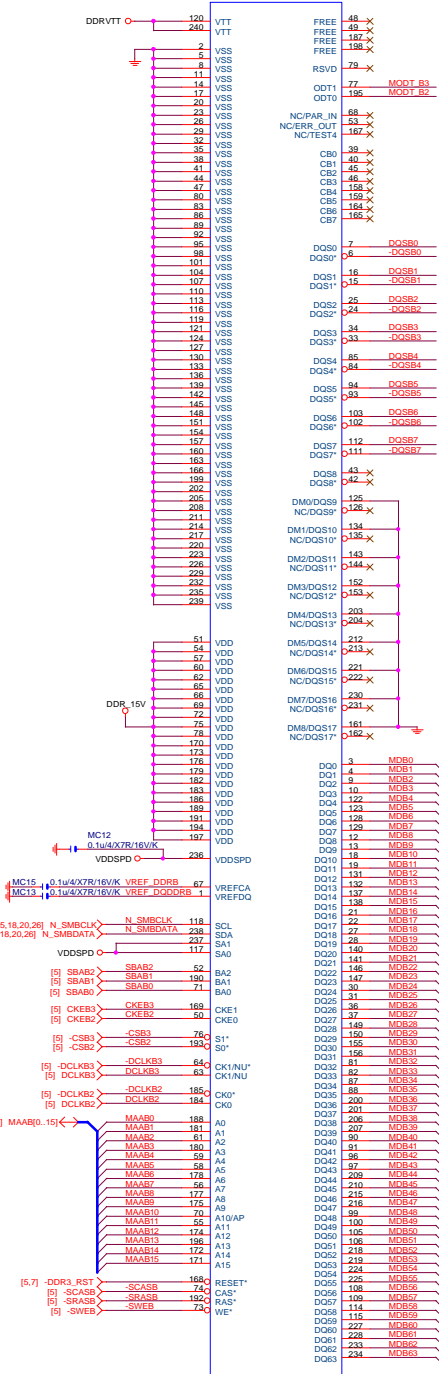
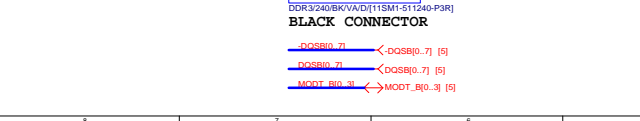
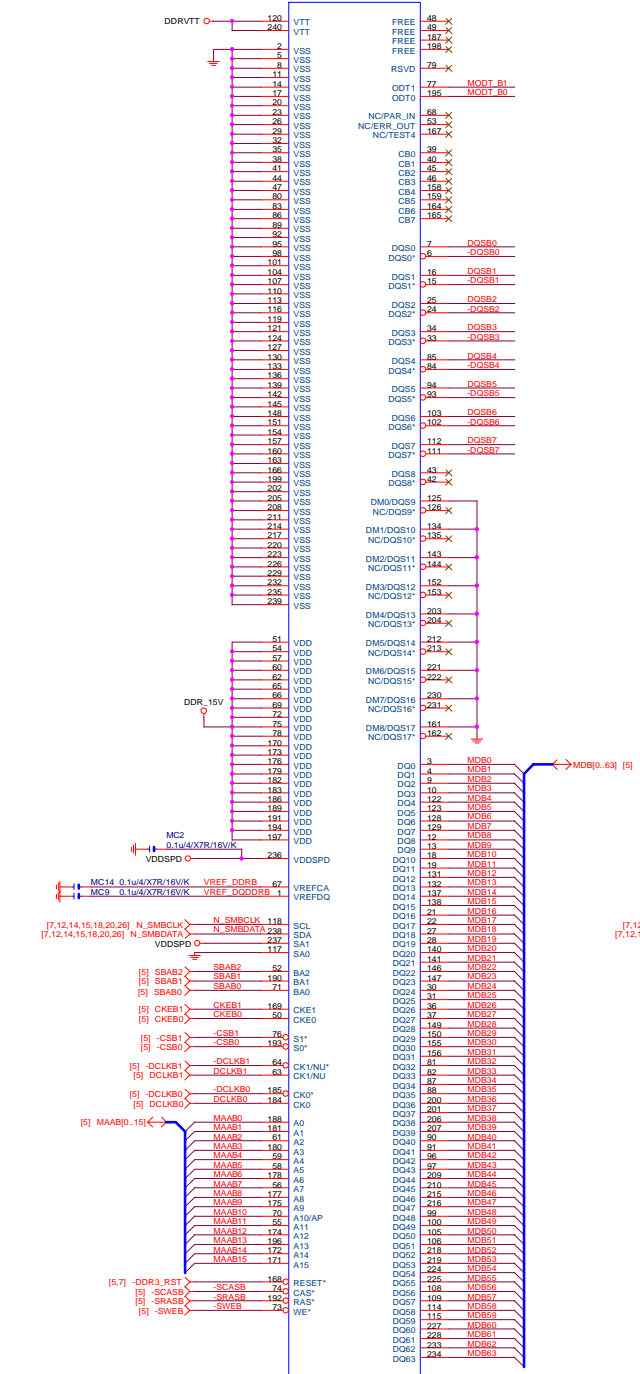
Gigabyte Technology
File
DDRIII CHANNEL A
Size Document Number
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DDR3

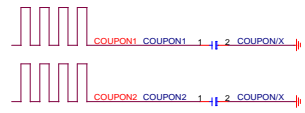
(B)

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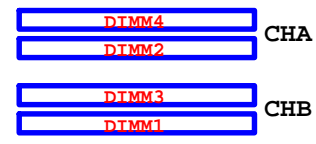
DDR3_VA01



COUPON



CPU



Gigabyte Technology

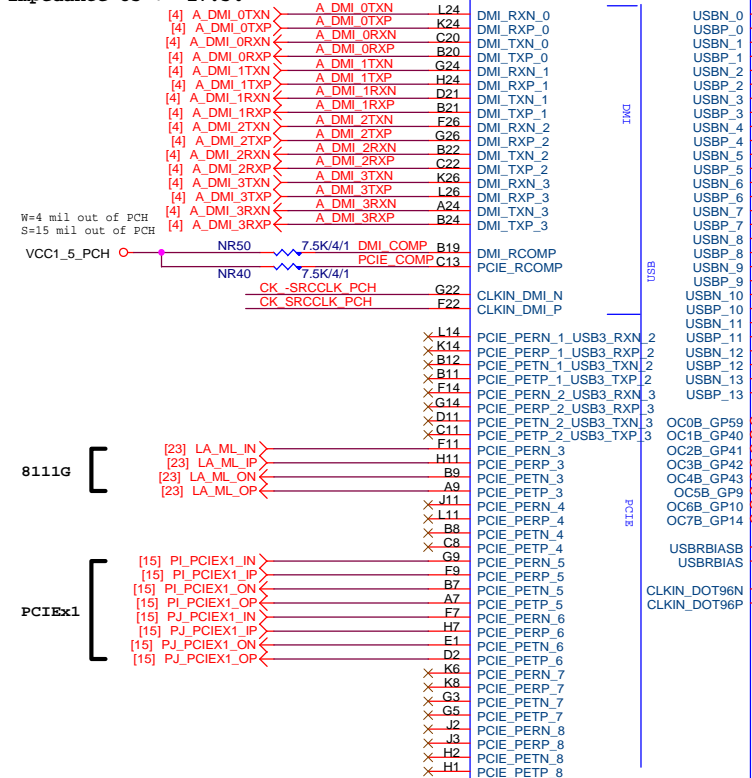
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PCH (B)

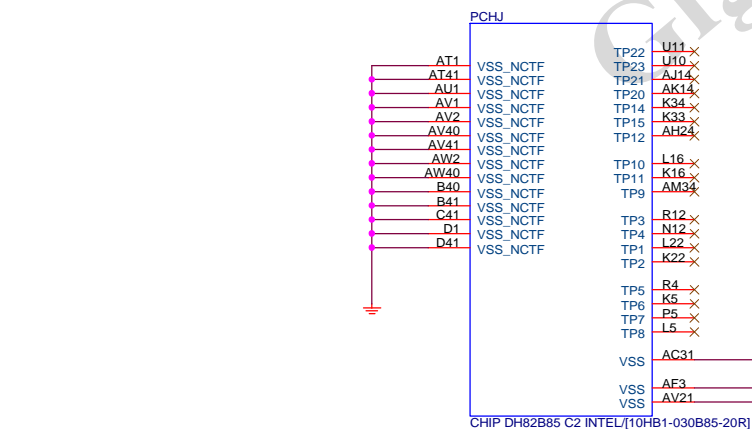
DMI:12/4/4/4/12(breakout min 8/4/4/4/8)
Impedance=85 +- 17.5%



放靠近 Device & PCI-E Slot
Impedance=80 +- 17.5%

PCIEX1:16/5/5/5/16 (breakout min 8/4/4/4/8)

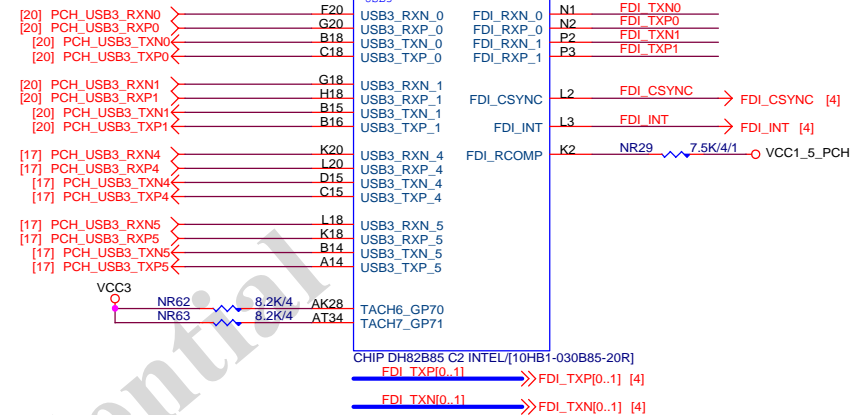
PCH (J)



CHIP DH82B85 C2 INTEL/[10HB1-030B85-20R]

PCH (F)

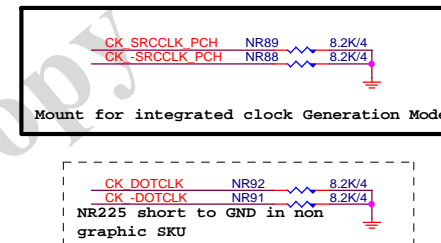
B85: Port 6/7 N/A
H81: Port 6/7/12/13 N/A



USB3.0:20/5/7/5/20 (breakout min
8/4/4/4/8) ; ONLY 3 VIAS

Impedance=85 +/- 17.5%
Back Panel < 10000 MILS
Front Panel < 6000 MILS

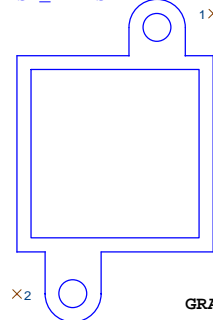
PCH	CLK	PD
-----	-----	----



PCH H/S

LOW COST ICH7 HEATSINK

SB HEATSIN



PCH_HS
PCH_HS/12SP2-030005-43R_12SP2-030005-41R_12SP2-030005-42R

USB TABLE

```
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OC[7:4]# for Device 26 (ports 8-13)
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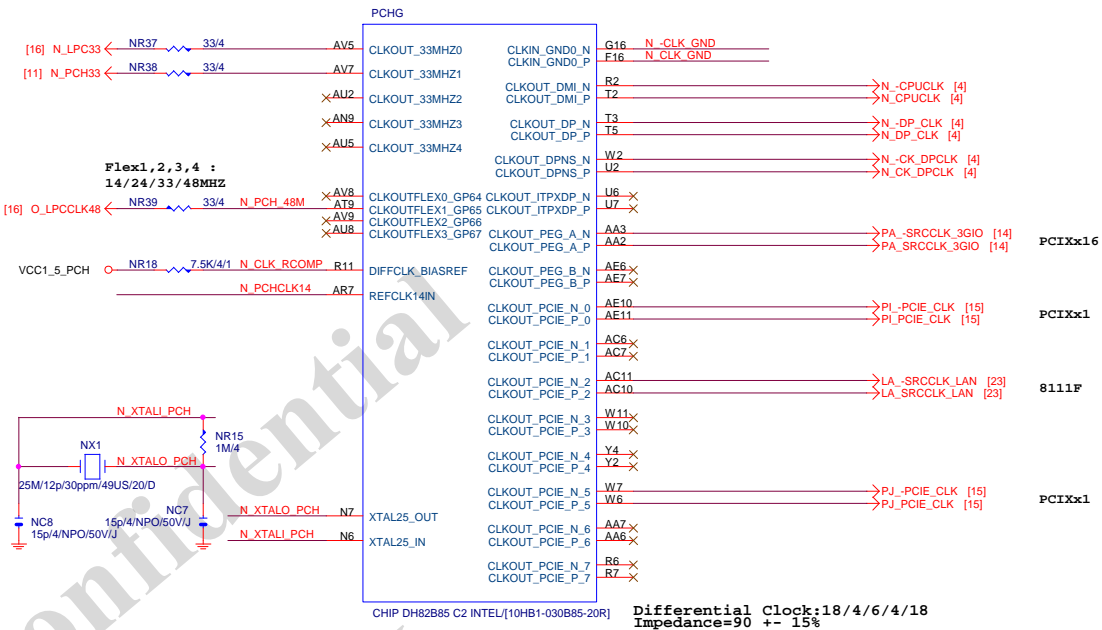
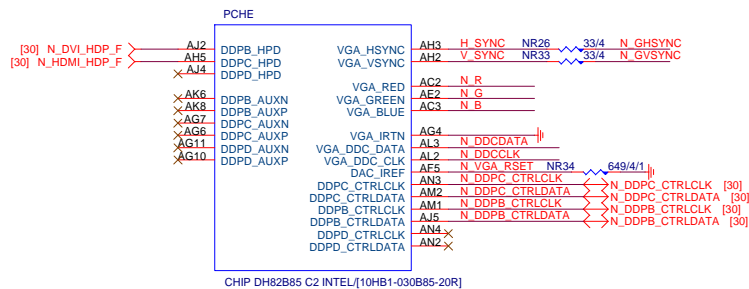
USB OC# Configure	
OC0#	F_USB30
OC1#	USB_LAN
OC2#	R_USB30
OC3#	N/A
OC4#	F_USB1
OC5#	F_USB2
OC6#	KB_MS_USB
OC7#	Not Use

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Title			
PCH FDI,DMI,USB ,PCIE,NVRAM			
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PCH (E)

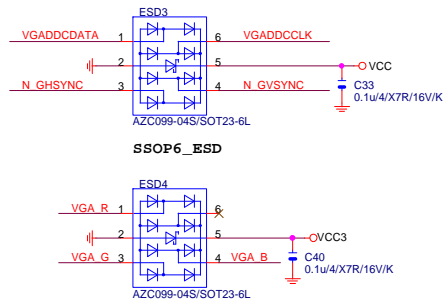
PCH (G)

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

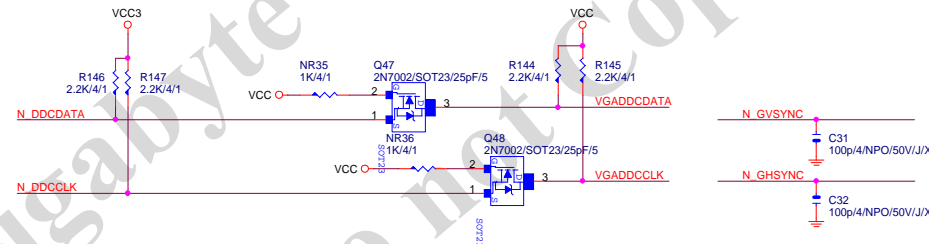
PCH CLK PD

Mount for integrated clock Generation
Mode

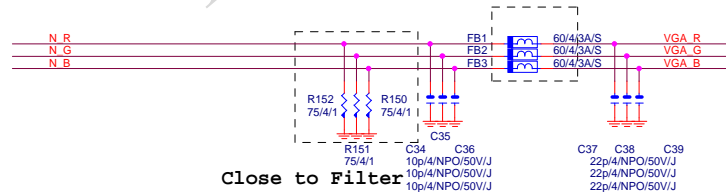
VGA ESD



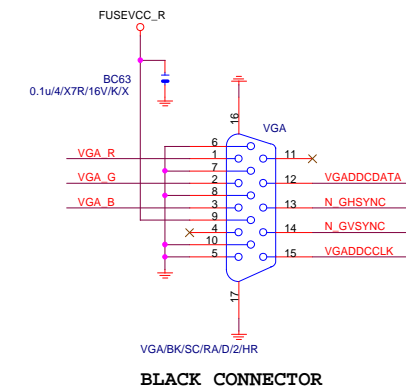
VGA DDC



VGA DDC



VGA CONNECTOR

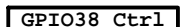
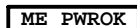
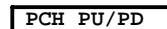
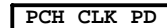
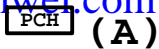


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PCH DISPLAY_CLK BUFFER

GA-B85M-DS3H

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Custom			
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SATA2_4
SATA2/7/BK/H/OP/NA/D/1/B

BLACK CONNECTOR

SATA2_5
SATA2/7/BK/H/OP/NA/D/1/B

BLACK CONNECTOR

The diagram illustrates the pin connections for two types of SATA connectors, SATA2_4 and SATA2_5, which are labeled as "BLACK CONNECTOR".

SATA2_4 Pin Connections:

- Pin 1: N_SATA4TXP (Blue)
- Pin 2: NC45 (Blue)
- Pin 3: N_SATA4TXN (Blue)
- Pin 4: NC46 (Blue)
- Pin 5: N_SATA4RXN (Blue)
- Pin 6: NC47 (Blue)
- Pin 7: N_SATA4RXN (Blue)
- Pin 8: N_SATA4RXP (Blue)
- Pin 9: NC48 (Blue)
- Pin 10: N_SATA4RXP (Blue)

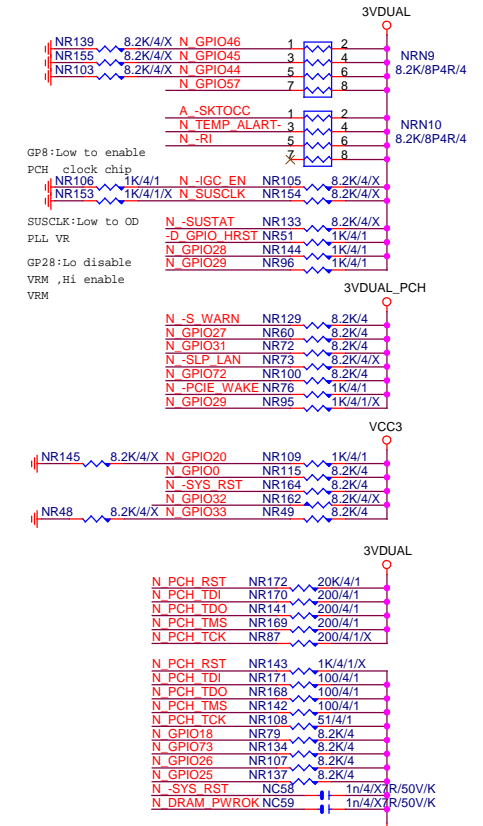
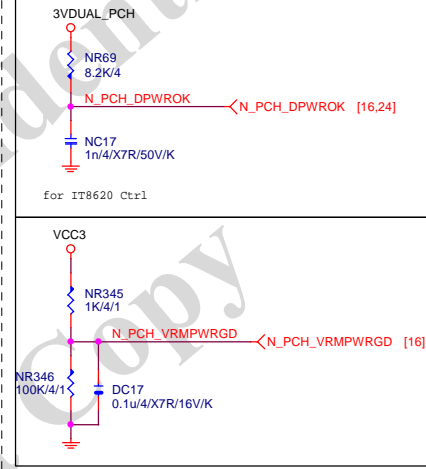
SATA2_5 Pin Connections:

- Pin 1: N_SATA5TXP (Blue)
- Pin 2: NC57 (Blue)
- Pin 3: N_SATA5TXN (Blue)
- Pin 4: NC56 (Blue)
- Pin 5: N_SATA5RXN (Blue)
- Pin 6: NC55 (Blue)
- Pin 7: N_SATA5RXN (Blue)
- Pin 8: N_SATA5RXP (Blue)
- Pin 9: NC54 (Blue)
- Pin 10: N_SATA5RXP (Blue)

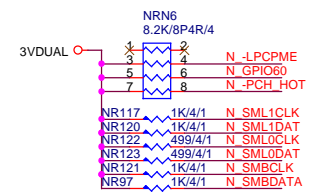
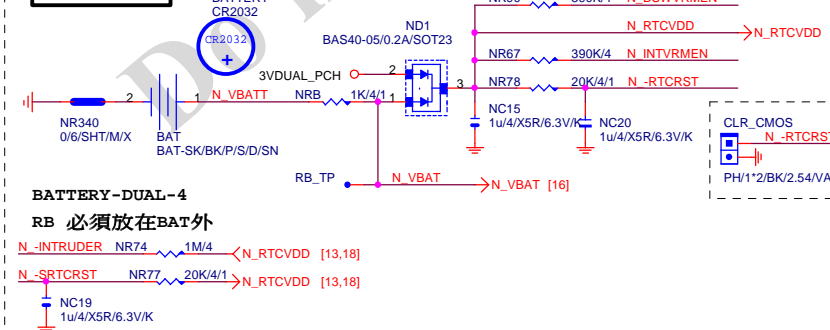
Ground Connections:

- Pin 2: GND
- Pin 3: T+
- Pin 4: T-
- Pin 5: GND
- Pin 6: R-
- Pin 7: R+
- Pin 8: GND
- Pin 9: R-
- Pin 10: R+

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

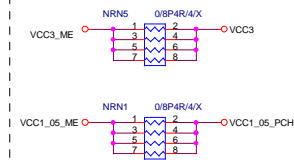
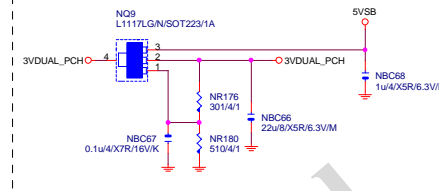
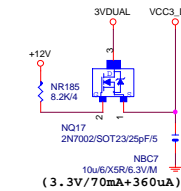


CLR_CMOS

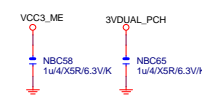


Title			
PCH GPIO , CTRL , AUDIO			
Size	Document Number	Rev	
Custom	GA-B85M-DS3H	1.1	
Date:	Wednesday, November 27, 2013	Sheet	12 of 30

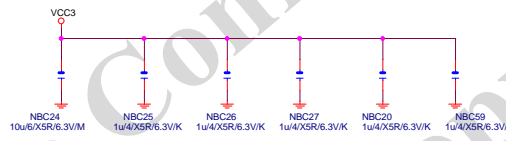
CLOSE北橋(注意震盪水波紋)



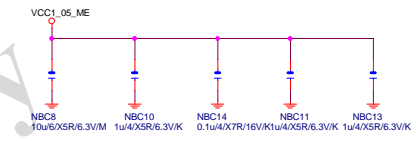
CAP



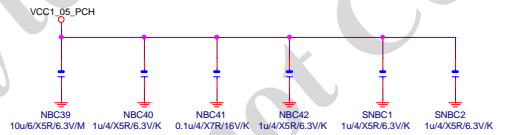
(3.3V) (X6)



(1.05V) (x5)



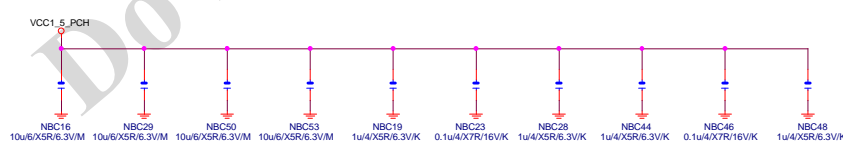
(1.05V) (X6)



▶ (1.05V)(x2) (3.3V)(x2)



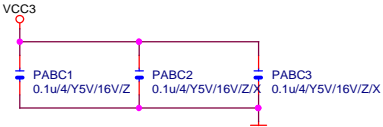
(1.05V) (x10)



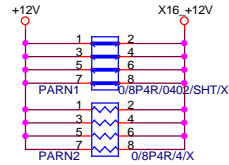
PCH (I)



PCIEX16 CAP



PCIEX16 PROTECT SHT



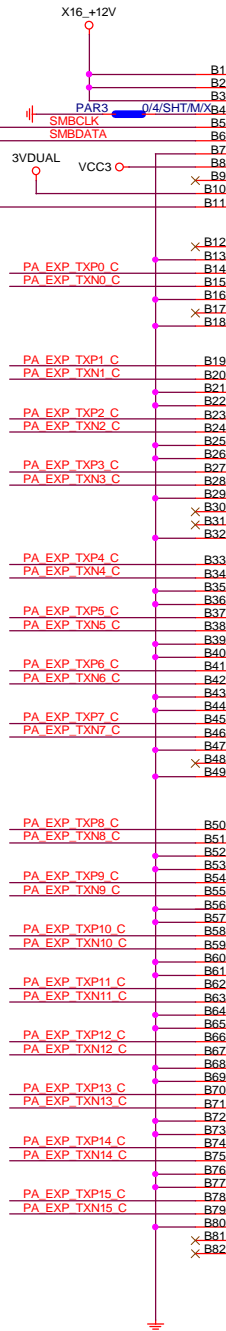
PCIEX16 AC CAP

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	PAC19	0.22u4/X5R/6.3V/K	PA EXP TXP7 C
PA EXP TXN7	PAC18	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_RXP[0..15] [4]
PA EXP RXN0.[15] >>> PA_EXP_RXN[0..15] [4]
PA EXP TXP0.[15] >>> PA_EXP_TXP[0..15] [4]
PA EXP TXN0.[15] >>> PA_EXP_TXN[0..15] [4]

PCIEX16 SLOT

[7,8,12,15,18,20,26] N_SMBCLK
[7,8,12,15,18,20,26] N_SMBDATA
[12,15,23] N_-PCIE_WAKE

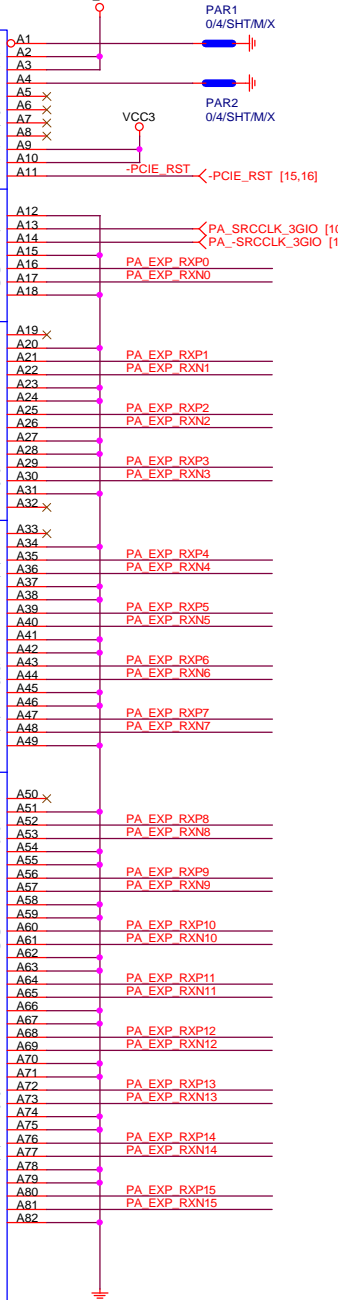
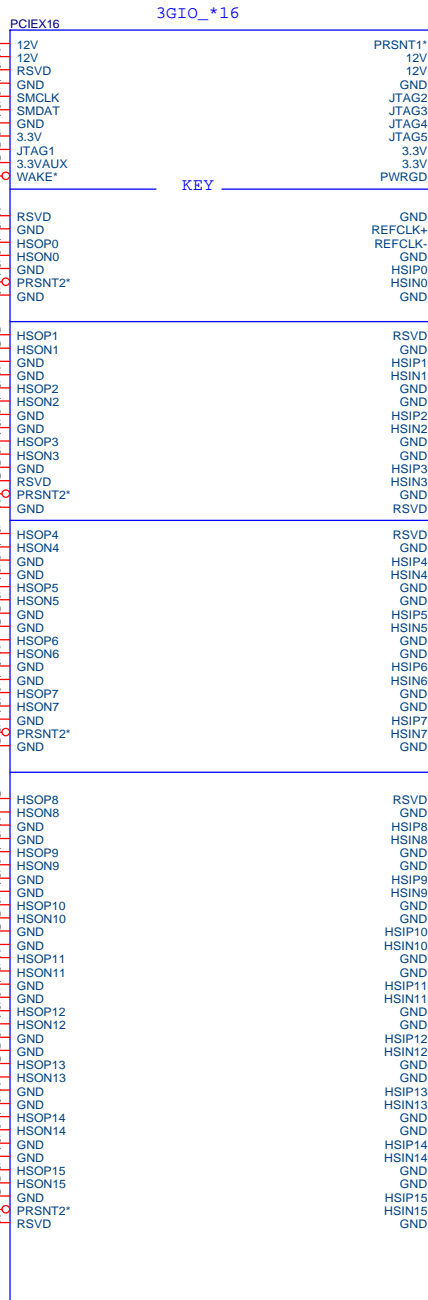


PCI EXPRESS 164P/16X/BLACK LOT/[11AC1-021164-C1R]

BLACK CONNECTOR

www.xinxunwei.com 400-800-9990

PCIESLOT-164DN-P

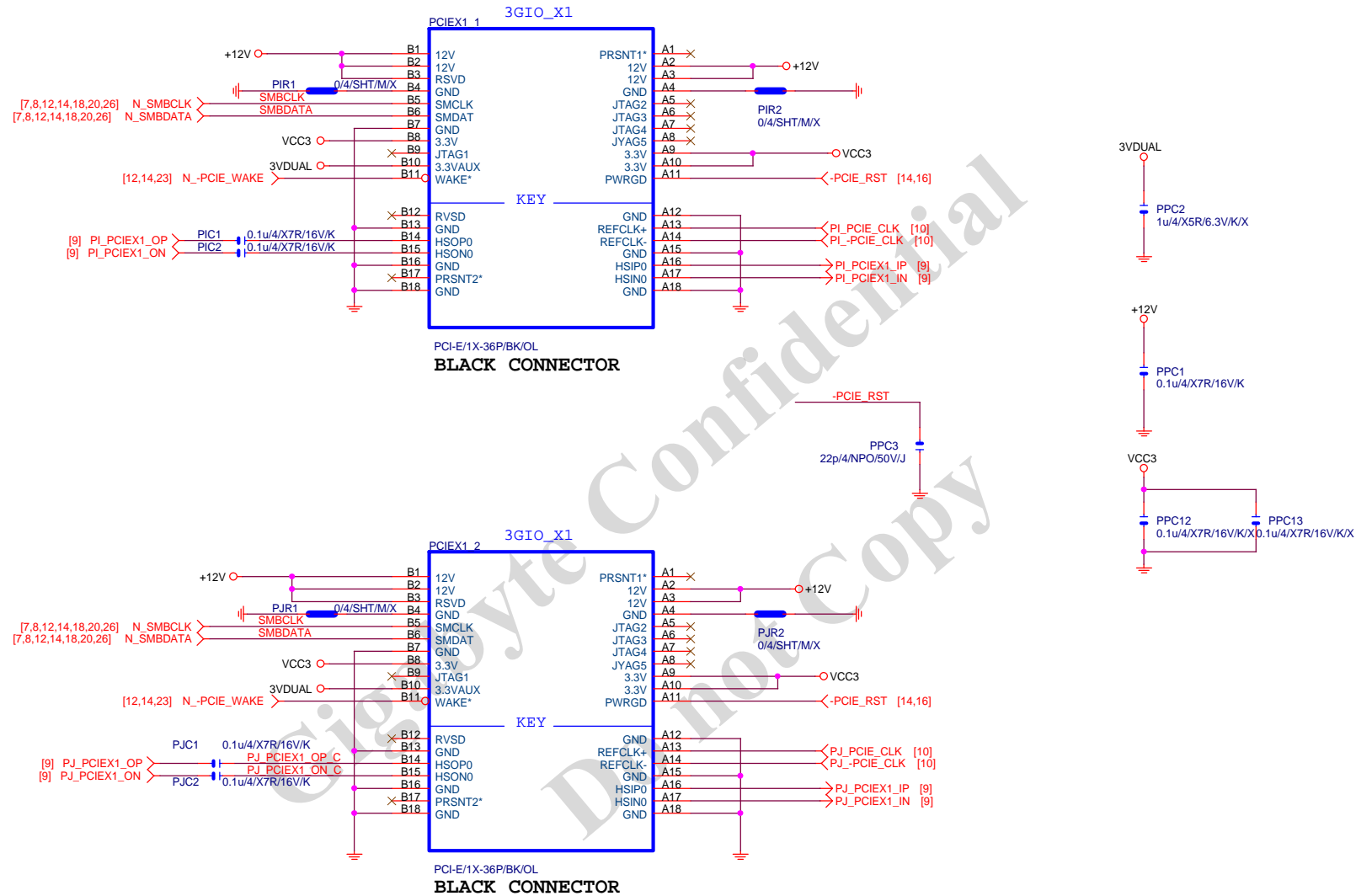


PAC1
22p4/NPO/50V/U/X

Gigabyte Technology

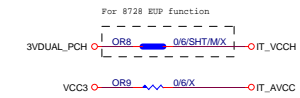
Title			PCI EXPRESS * 16		
Size			GA-B85M-DS3H		
Custom			Rev 1.12		
Date:			Wednesday, November 27, 2013		
Sheet			14 of 30		

PCIEX1 SLOT

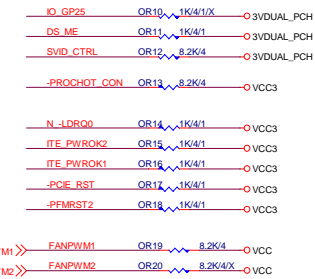


Gigabyte Technology

Title			
PCI EXPRESS X 1 PORT			
Size	Document Number	Rev	
Custom	GA-B85M-DS3H	1.12	
Date:	Wednesday, November 27, 2013	Sheet	15 of 30

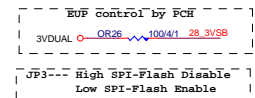


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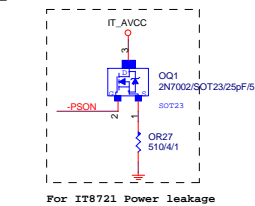


SIO_STRAP

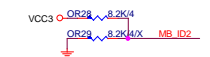
H61M-S2 1.1 JP6 stuff pull down



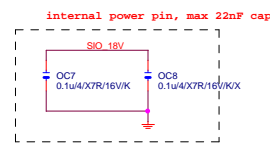
Power leakage



MB_ID



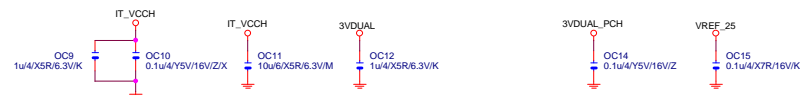
SIO_18V



DUAL BIOS OPT STRAP

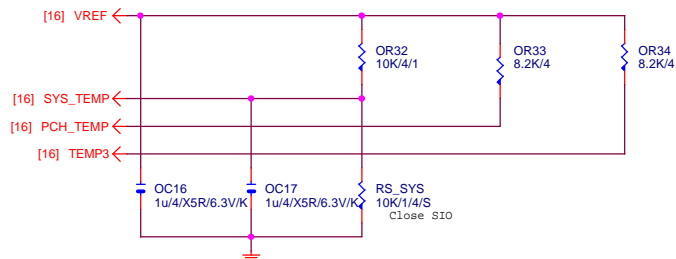
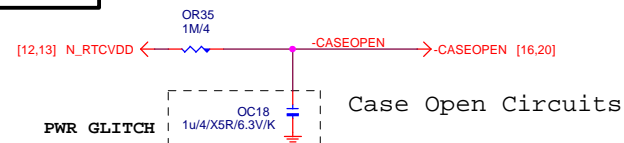
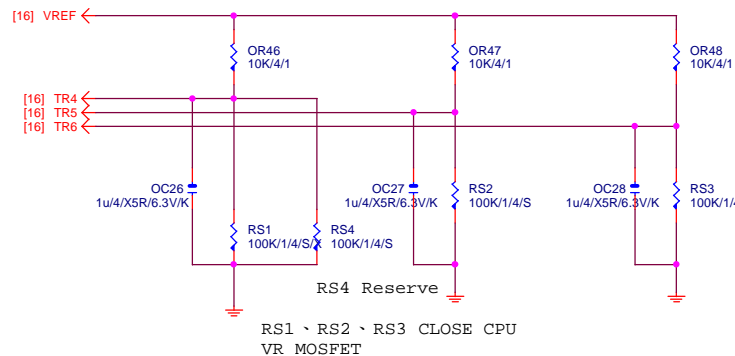
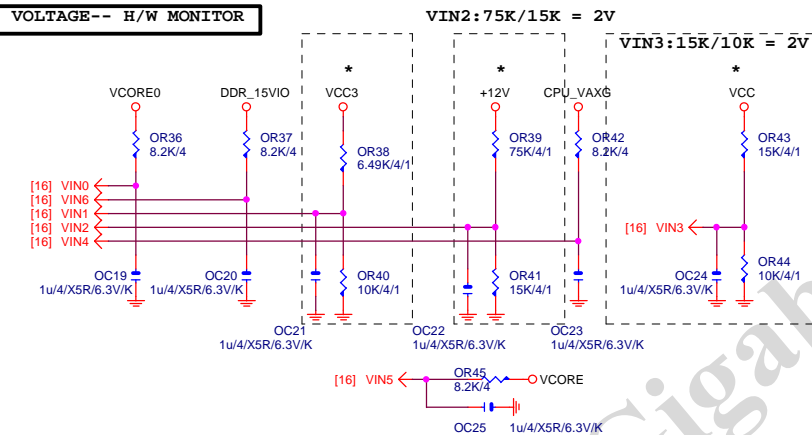
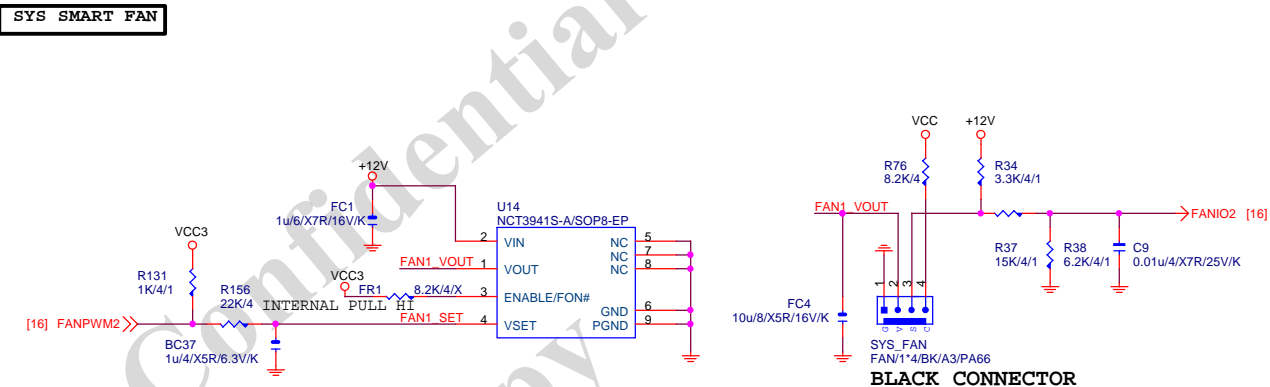
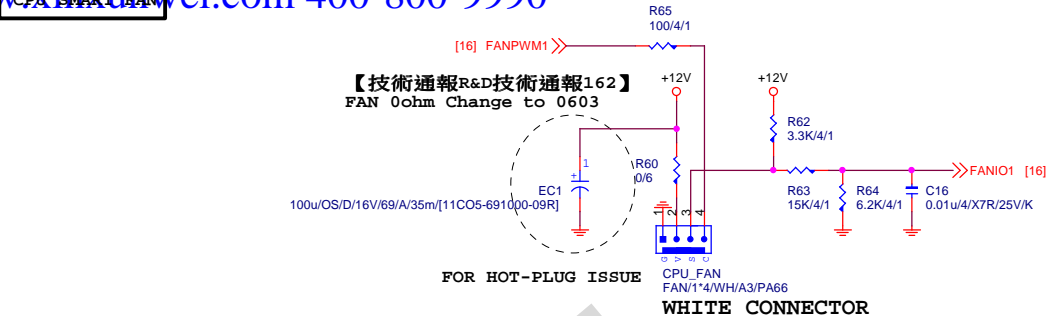
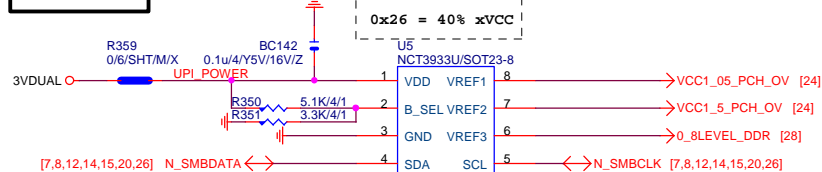


SIO_CAP



Gigabyte Technology

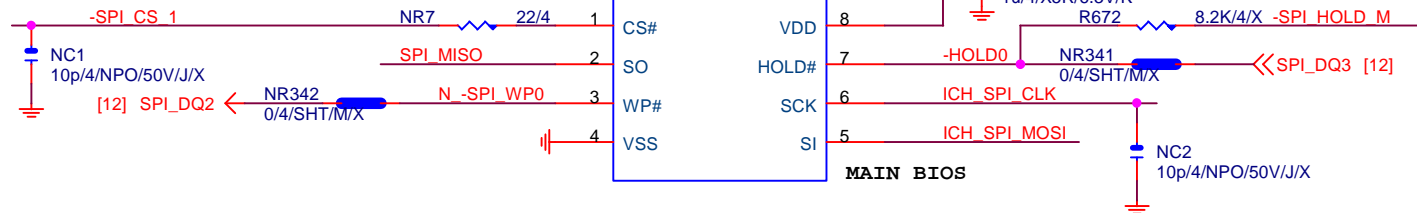
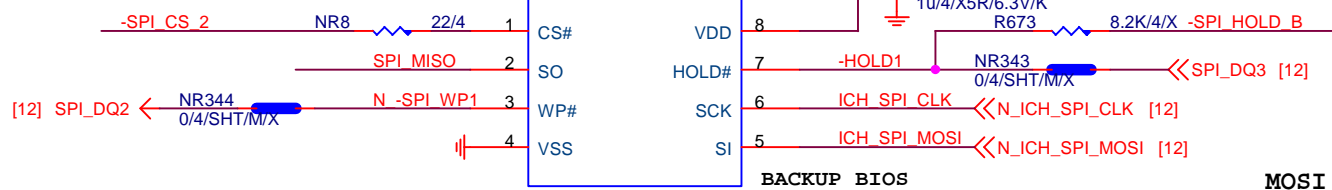
Title			ITE 8728 LPC IO
Size	Document Number	GA-B85M-DS3H	
C			Rev 1.12
Date	Wednesday, November 27, 2013	Sheet	16 of 30

TEMP H/W MONITOR**CASE OPEN****VOLTAGE-- H/W MONITOR****SYS SMART FAN****OV NCT3933**

接pwm feedback pin

Gigabyte Technology

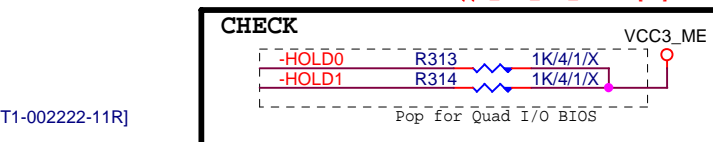
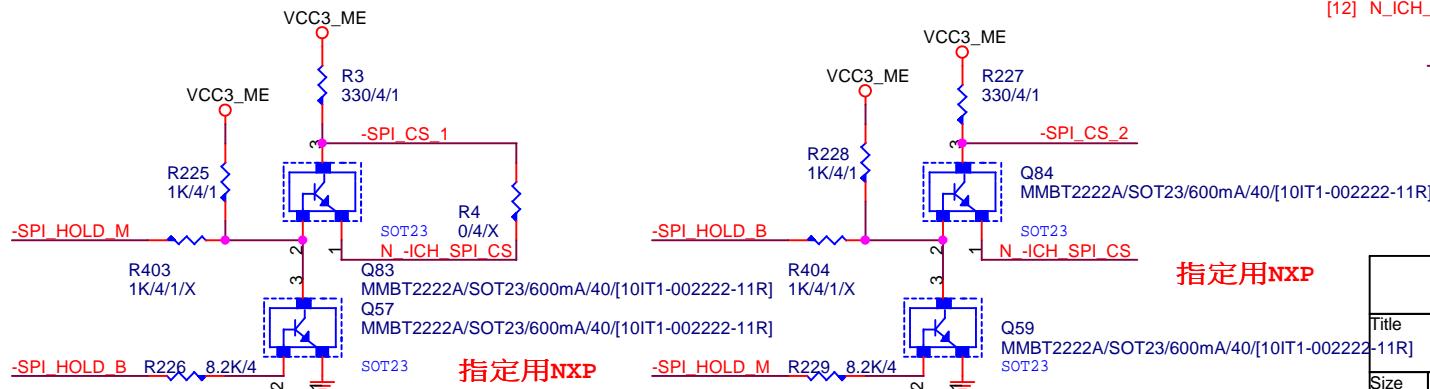
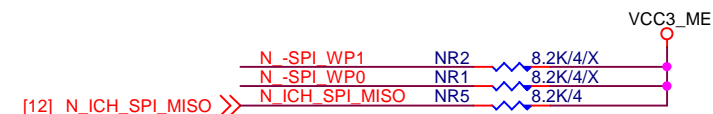
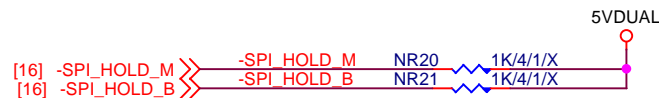
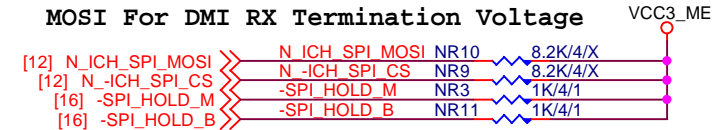
Title			HWM,FAN CTRL,OV		
Size	Document Number	GA-B85M-DS3H			Rev
Custom					1.12
Date:	Wednesday, November 27, 2013	Sheet	18	of	30

B_BIOS
64M/Q/SPI/SO8/S

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

指定用NXP

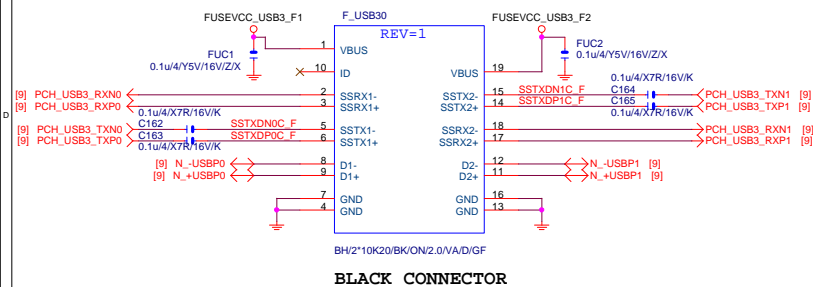
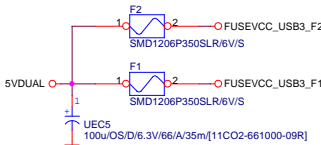
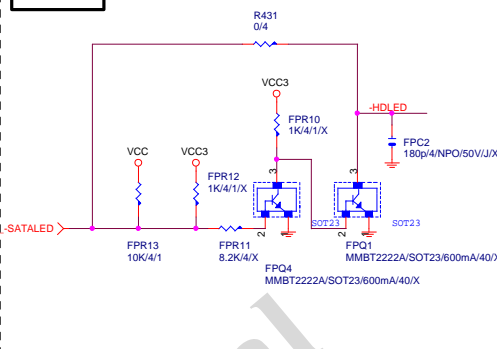
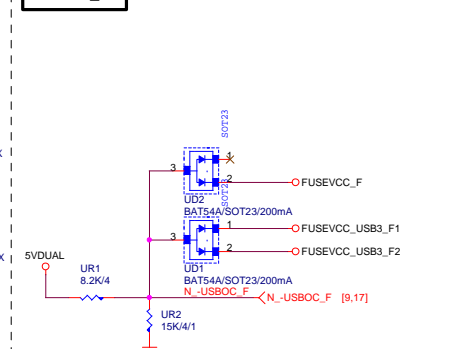
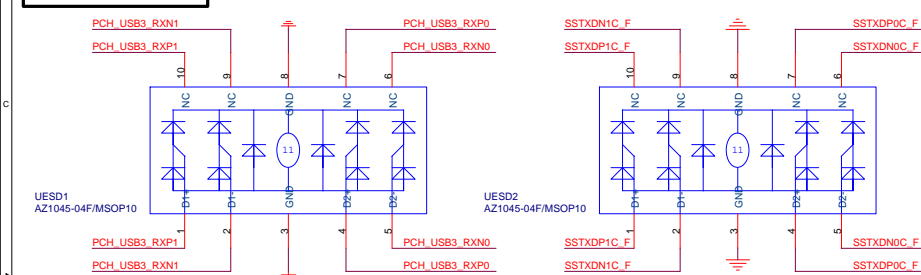
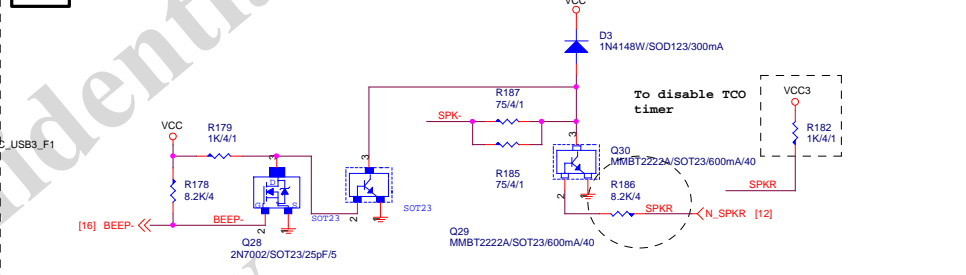
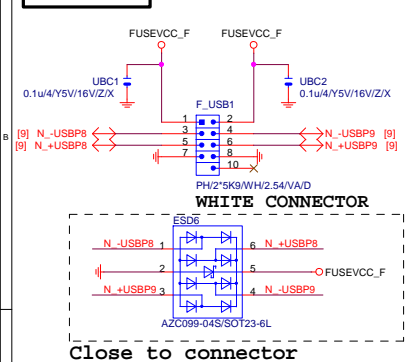
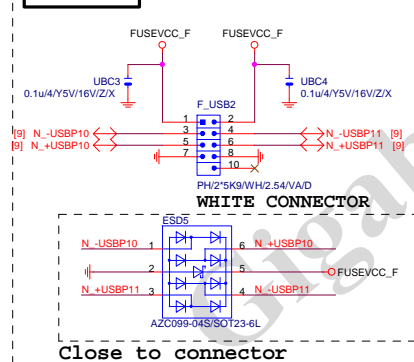
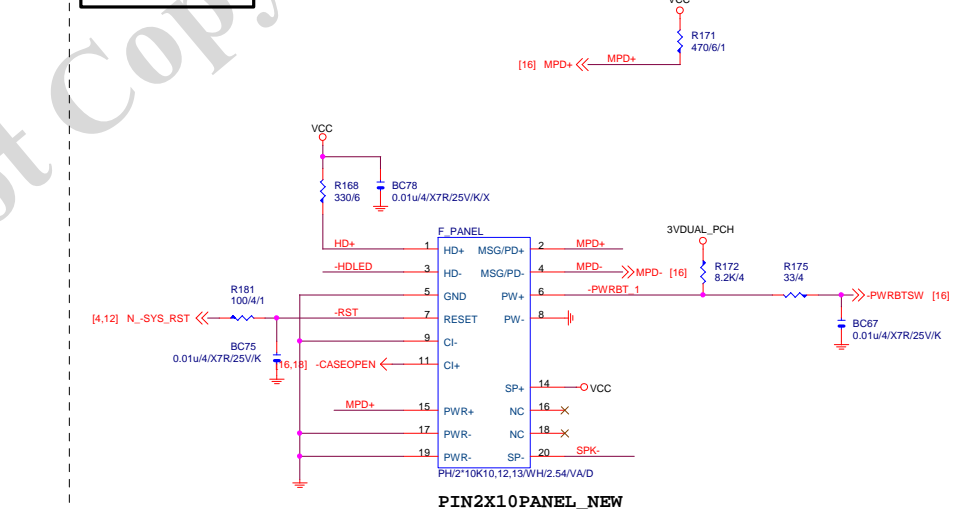
Gigabyte Technology

DUAL BIOS

GA-B85M-DS3H

Rev
1.12

Title	Document Number	Rev
Size Custom	Wednesday, November 27, 2013	19 of 30

F_USB30**Polyswitch-1206****SATA_33B****-USBOC_F****F_USB30 ESD PROTECT****SPKR****FRONT USB1****FRONT USB2****INTEL FRONT PANEL****Gigabyte Technology**

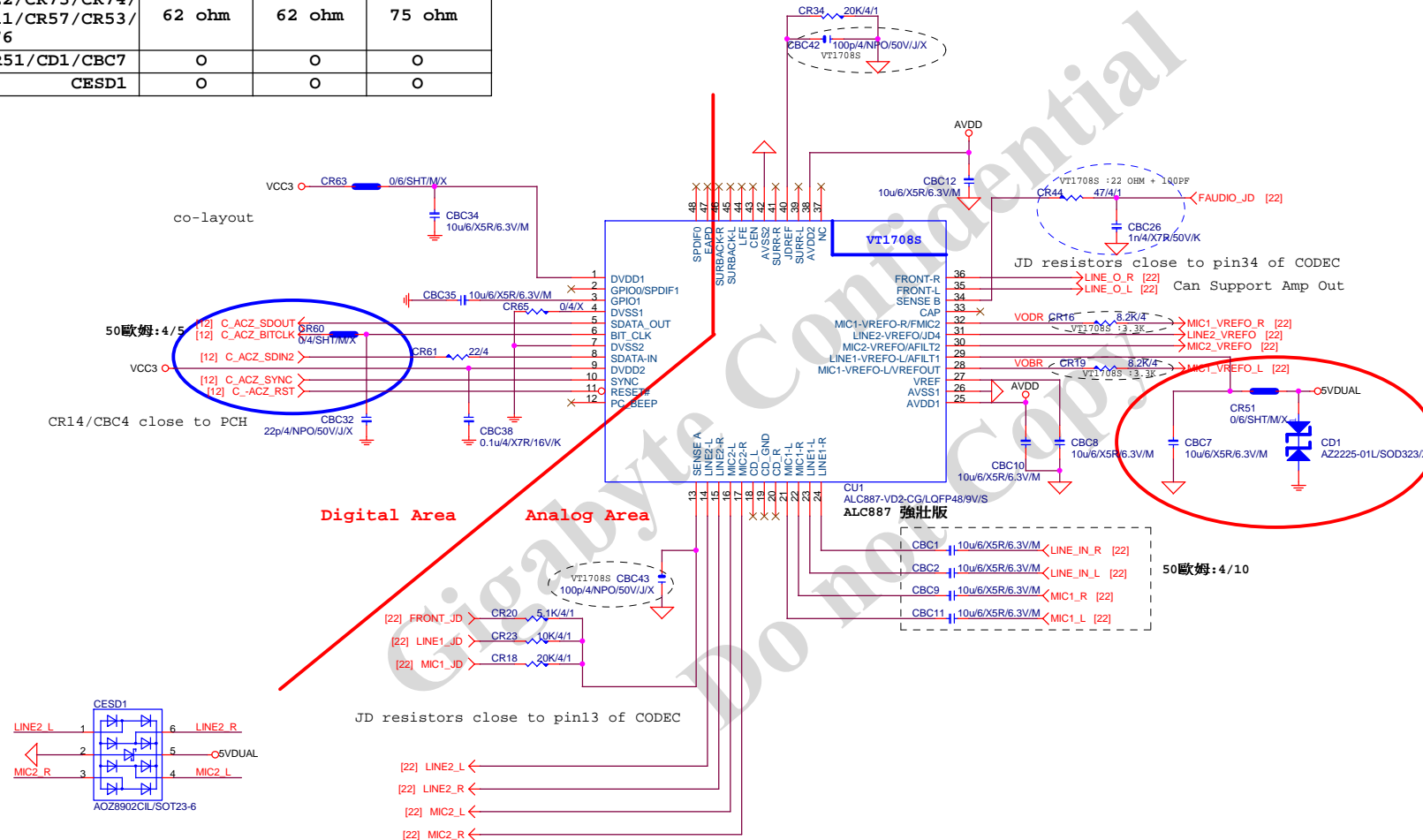
FP_F_USB,USB PWR,SPKR,SATA LED			
Size	Document Number	GA-B85M-DS3H	
Date:	Wednesday, November 27, 2013	Sheet	20 of 30

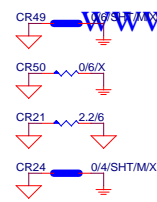
Rev 1.12

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



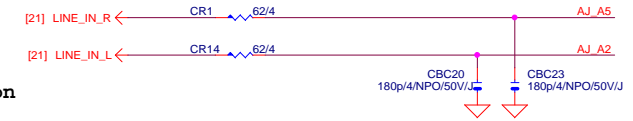


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LINE-IN

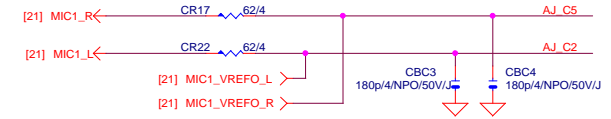
Verify MIC function
in LINE-in

Only reserved for ALC888

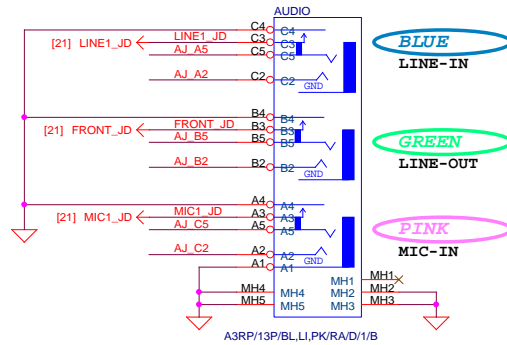


For 889A/888

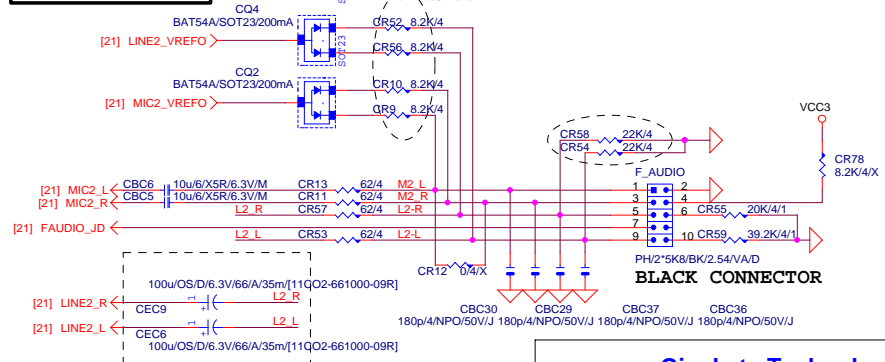
MIC-IN



SPDIF_OUT



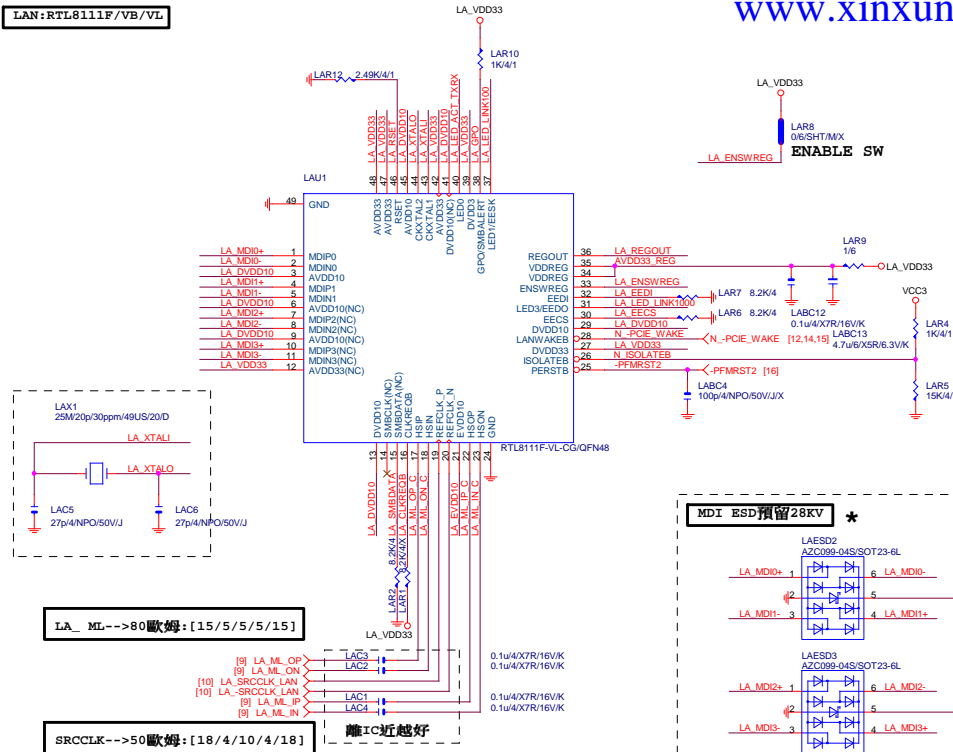
AZALIA FRONT PANEL



Gigabyte Technology

Title			
AUDIO JACK			
Size	Document Number	GA-B85M-DS3H	Rev
Custom			1.12
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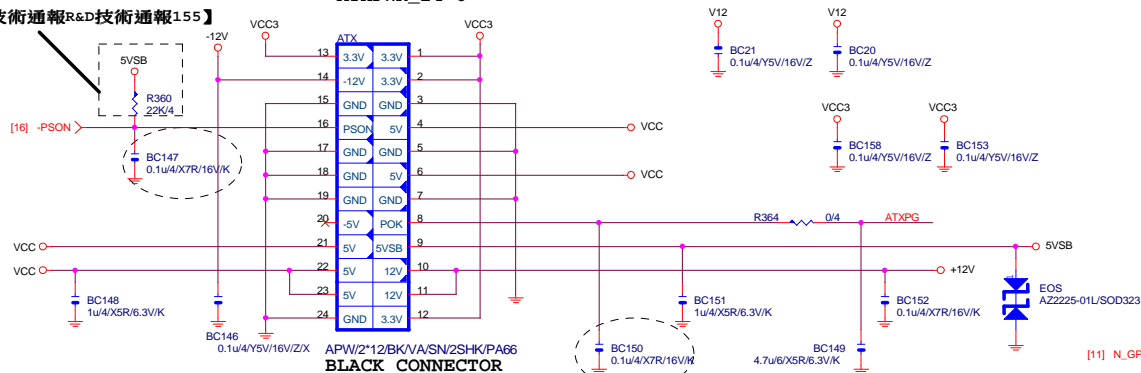
LAN:RTL8111F/VB/VL



ATXX24 POWER CONNECTOR

【技術通報R&D技術通報155】

ATXPWR_24-6



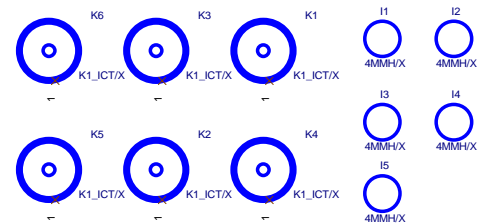
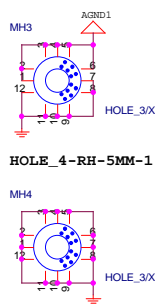
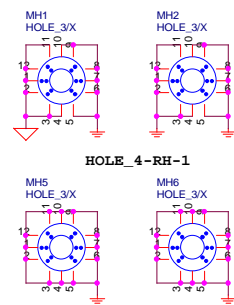
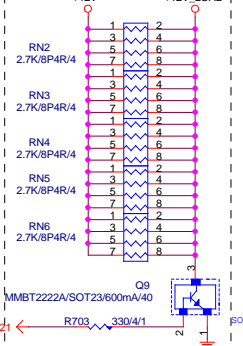
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ATXX4 POWER CONNECTOR

ATXPWR2X4-6

【技術通報R&D技術通報153】

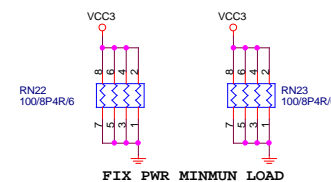
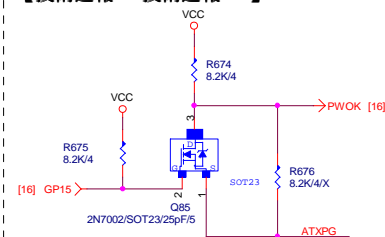
To fix 12V light load abnormal issue



To prevent the 5VSB under loading when boot

PWOK PATCH

【技術通報R&D技術通報154】



FIX PWR MINMUN LOAD

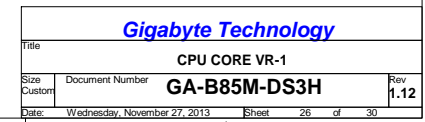
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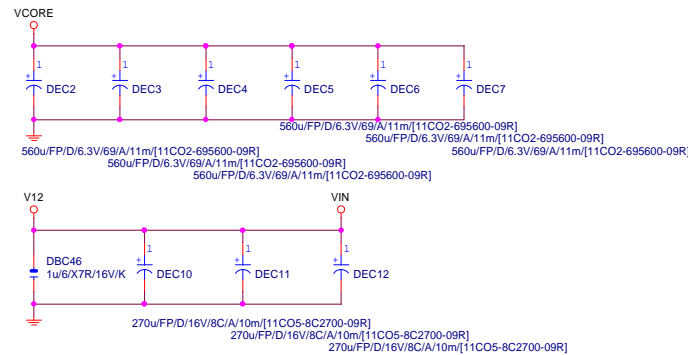
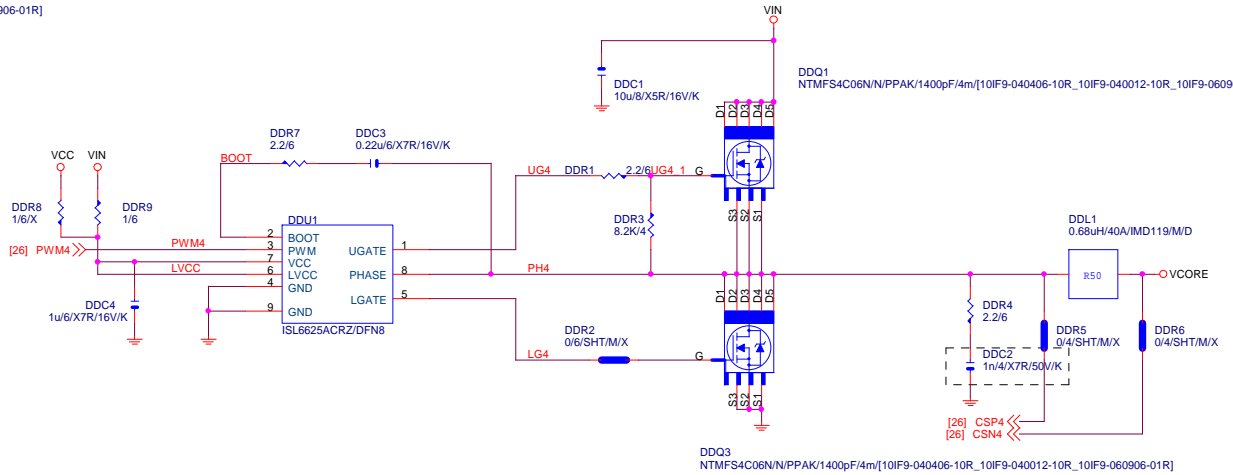
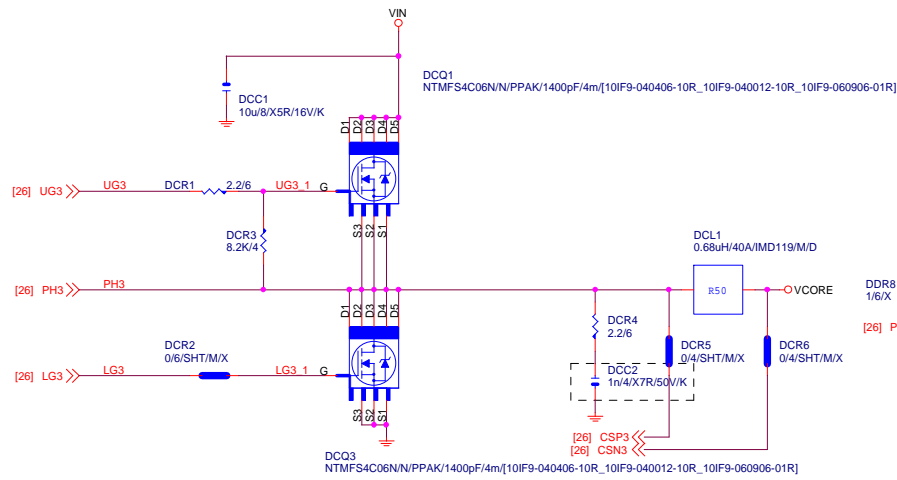
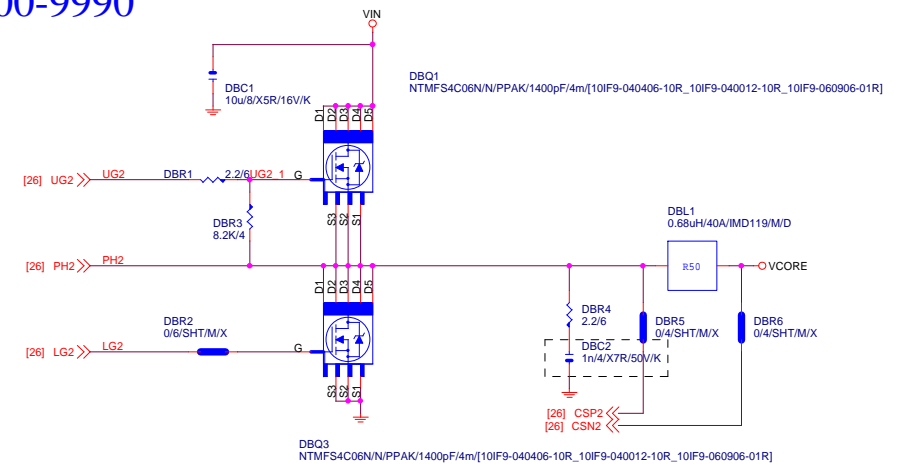
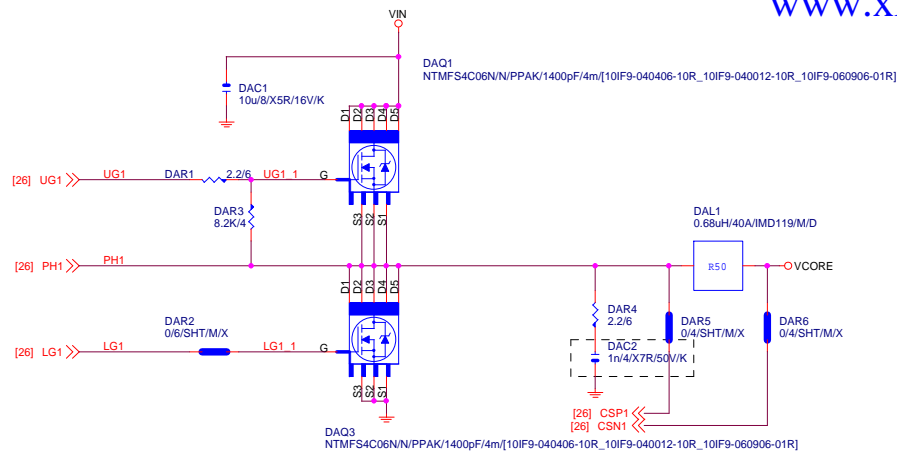
ATX CONNECTOR

GA-B85M-DS3H

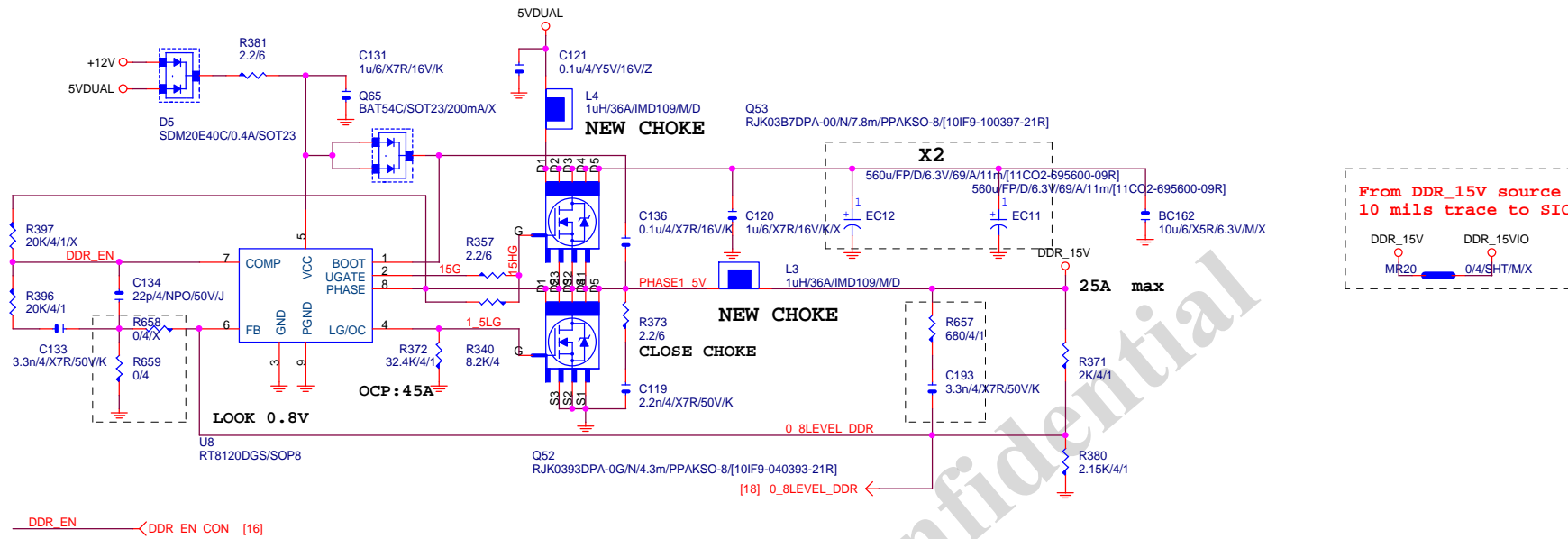
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DDR15V



PWR_SEQ

VIN=5V, VOUT=1.5V, IOU=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

$Rocset = (I_{ocp} * L_{gate, rdson}) / I_{ocset}$
 $Rocset = (45A * 6.7m\Omega) / 10\mu A = 30K$
 $I_{ocset} = 10\mu A$

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DDR POWER			
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(RICHTER), (NUVOTON), (EMC)做共用
PIN7分壓阻值須做修改為100K以上電阻值

