

Model Name: GA-H81M-S2PH

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	ITE 8620 LPC IO
16	COM,KB_MS,USB PWR
17	IT8892E
18	PCI SLOT 1,2
19	PCI EXPRESS*1 SLOT.LPT
20	HWM,FAN CTRL,OV,-PROCHOT
21	DUAL BIOS
22	FP,F_USB,SPK,SATALED
23	Realtek ALC887-VD2
24	REAR AUDIO JACK
25	REALTEK RTL8111G
26	DISCRETE POWER
27	ATX,DUMMY LOAD

www.xinxunwei.com 400-800-9990

Revision 2.1

SHEET

TITLE

28	RT8120_DDR POWER
29	VCORE ISL95812_1
30	VCORE ISL95812_2
31	HDMI

Gigabyte Technology			
Cover Sheet			
Size Custom	Document Number	GA-H81M-S2PH	Rev 2.1
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Revision 2.1

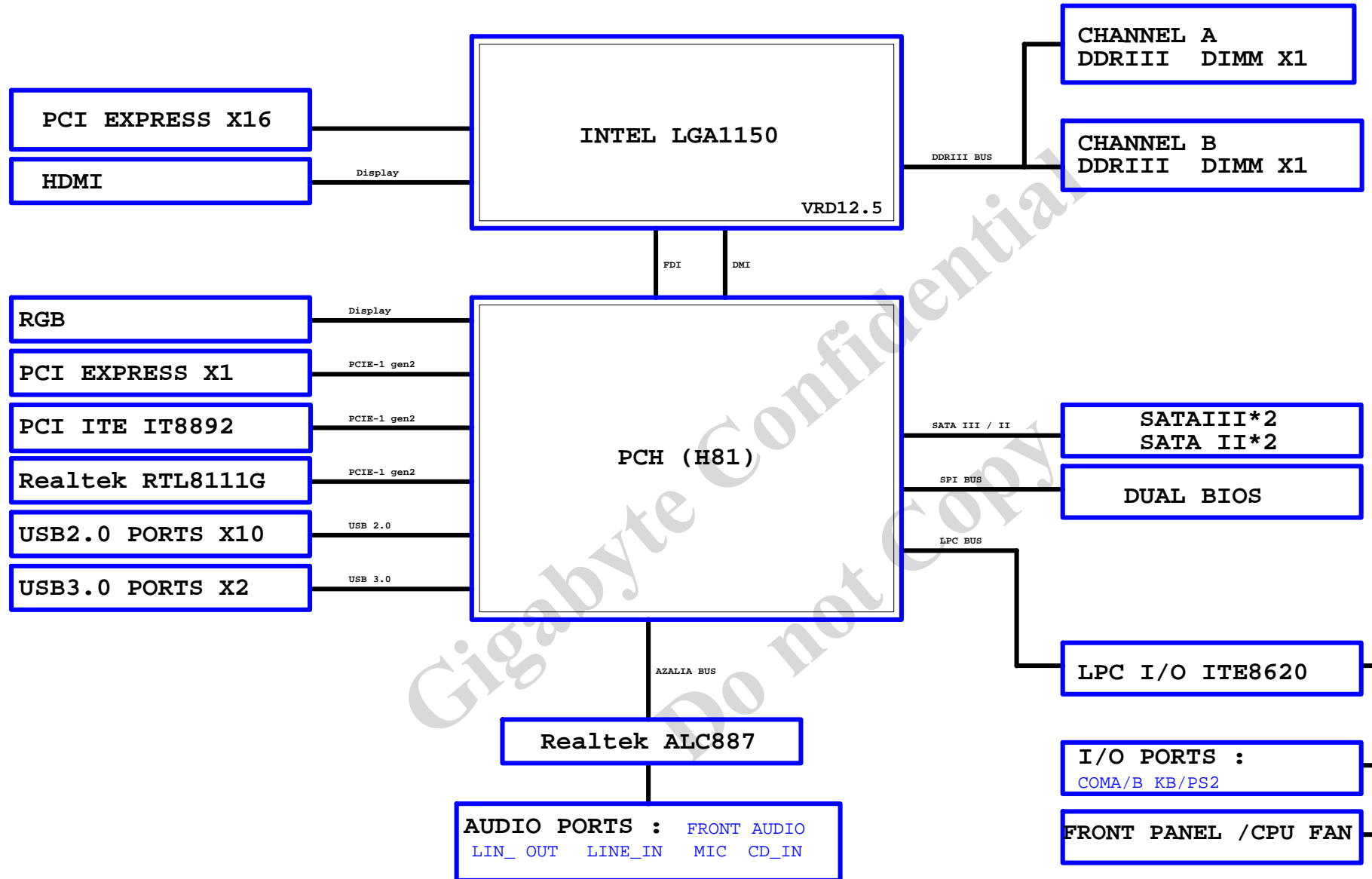
Component value change history

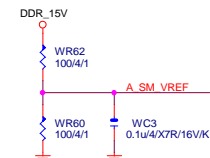
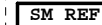
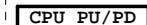
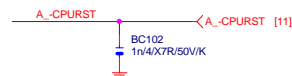
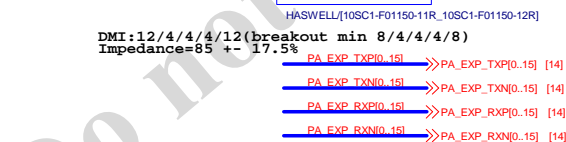
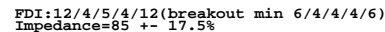
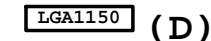
2014/10/28

Data	Change Item	Reason
2013/05/17	BACK PANEL FOR EMI KB_MS,COMA,LPT -->AGND1.	
2013/06/18	R1.0 .MODIFY PROCHOT,5VSB CIRCUIT.BOM CHANGE R_USB30/HDMI.	
2013/06/28	R1.01.FIX RSMRST TIMMING.ADD 5VSB OVP PROTECTION.	
2013/09/13	R1.02. Follow Crystal Trace Rule.	
	SYS_FAN, DDR 0ohm 0402 -> 0603	
	Update Fuse 1206 Footprint "POLYSWITCH-1206-1"	
	Update PPAK Footprint "Q_TDS0N8-GDS-T"	PBOM:9MH81MS2H-00-10D
2013/10/31	MODIFY 25MHZ X'TAL NC7/NC8 15PF.	PBOM:9MH81MS2H-00-10E
2013/12/19	MODIFY CODEC ALC887-VD2 ENHANCE VERSION.	PBOM:9MH81MS2H-00-10F
2013/12/24	USB30+HDMI 改為一體式	PBOM:9MH81MS2H-00-10G
2014/02/18	R2.0 COST DOWN.PWM MOSFET 1H1L.	
	0ohm -> Short Pad,BIOS 64M-->32M.	
2014/02/21	ADD TPM.整合電阻成排阻,精簡線路	
2014/02/24	整合電阻成排阻	
2014/02/25	MASK PWM MOSFET:DAQ3,DBQ3,DCQ3.	
2014/02/27	ADD EMI ESD RESEVED 0.1U.	
2014/03/03	REMOVE PWOK PATCH,PULL/H OC2.	
2014/03/04	ADD TPM CHIP ONBOARD OPTION.	
2014/03/07	ADD UBC1/UBC3/BC164/NC60/NC61 FOR ESD.	
2014/03/12	COM:BLACK,F_AUDIO:GRAY	
	DEL後窗AUDIO 180P	
	TPR5/TPR6/TPR7/TPR2 SHORT PAD打開,ADD TPR1	EBOM:9MH81MS2H-00-20A
2014/04/08	PBOM.Level shifter change ASM1442K.IMON DR81.	PBOM:9MH81MS2H-00-20A
2014/06/24	R2.01.REMOVE SATA CAP,FOOTPRINT MODIFY MASK	SHORT PAD. PBOM:9MH81MS2H-00-20B
2014/09/03	R2.1.LAN RTL8111F-->RTL8111G.Connector 15KV.	
	8P4R-0402 -> 0603 (KB&MS)	
	Remove 5VDUAL SHORT PROTECT	
	FUSE 1206 3.5A -> 0805 2.6A	
	Heatsink Gray -> Black, LPT-->BLACK.	
	CODEC -->NICHICON AUDIO CAP.LAYOUT 切割.	
	CPU SOCKET FOOTPRINT:LGAl150-1	

Circuit or PCB layout change

[illegible]

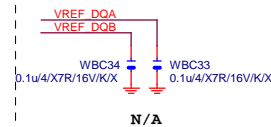
BLOCK DIAGRAM



LGA1150A			
MAAA0	AU13	DDR0_M0	DDR0_D00
MAAA1	AV16	DDR0_M1	DDR0_D01
MAAA2	AU16	DDR0_M2	DDR0_D02
MAAA3	AW17	DDR0_M3	DDR0_D03
MAAA4	AU17	DDR0_M4	DDR0_D04
MAAA5	AU18	DDR0_M5	DDR0_D05
MAAA6	AV17	DDR0_M6	DDR0_D06
MAAA7	AT18	DDR0_M7	DDR0_D07
MAAA8	AU18	DDR0_M8	DDR0_D08
MAAA9	AT19	DDR0_M9	DDR0_D09
MAAA10	AW11	DDR0_M10	DDR0_D10
MAAA11	AV19	DDR0_M11	DDR0_D11
MAAA12	AU19	DDR0_M12	DDR0_D12
MAAA13	AY10	DDR0_M13	DDR0_D13
MAAA14	AT20	DDR0_M14	DDR0_D14
MAAA15	AU21	DDR0_M15	DDR0_D15
MODT_A0	AW10	DDR0_ODT0	DDR0_ODT0
MODT_A1	AY8	DDR0_ODT1	DDR0_ODT1
AW9	AW9	DDR0_ODT2	DDR0_ODT2
AW8	AW8	DDR0_ODT3	DDR0_ODT3
AW33	AW33	DDR0_ECC0	DDR0_ECC0
AW33	AW33	DDR0_ECC1	DDR0_ECC1
AW31	AW31	DDR0_ECC2	DDR0_ECC2
AW31	AW31	DDR0_ECC3	DDR0_ECC3
AW33	AW33	DDR0_ECC4	DDR0_ECC4
AW31	AW31	DDR0_ECC5	DDR0_ECC5
AW31	AW31	DDR0_ECC6	DDR0_ECC6
AW31	AW31	DDR0_ECC7	DDR0_ECC7
SBAA0	SBAA0	DDR0_BA0	DDR0_BA0
SBAA1	SBAA1	DDR0_BA1	DDR0_BA1
SBAA2	SBAA2	DDR0_BA2	DDR0_BA2
CKEA0	CKEA0	DDR0_CKE0	DDR0_CKE0
CKEA1	CKEA1	DDR0_CKE1	DDR0_CKE1
CSA0	CSA0	DDR0_CS_N0	DDR0_CS_N0
CSA1	CSA1	DDR0_CS_N1	DDR0_CS_N1
DCLKA0	DCLKA0	DDR0_CLK_P0	DDR0_CLK_P0
DCLKA0	DCLKA0	DDR0_CLK_N0	DDR0_CLK_N0
DCLKA1	DCLKA1	DDR0_CLK_P1	DDR0_CLK_P1
DCLKA1	DCLKA1	DDR0_CLK_N1	DDR0_CLK_N1
AW14	AW14	DDR0_CLK_P2	DDR0_CLK_P2
AW14	AW14	DDR0_CLK_N2	DDR0_CLK_N2
AW13	AW13	DDR0_CLK_P3	DDR0_CLK_P3
AW13	AW13	DDR0_CLK_N3	DDR0_CLK_N3
RSVD	RSVD	DDR0_RSVD	DDR0_RSVD
SRASA	SRASA	DDR0_RAS*	DDR0_RAS*
SWEA	SWEA	DDR0_WE*	DDR0_WE*
SCASA	SCASA	DDR0_CAS*	DDR0_CAS*
DDR3_RST	DDR3_RST	DDR0_RESET*	DDR0_RESET*

HASWELL(10SC1-F01150-11R_10SC1-F01150-12R)

Place in CPU bottom side



LGA1150B			
MAAB0	AL19	DDR1_M0	DDR1_D00
MAAB1	AK23	DDR1_M1	DDR1_D01
MAAB2	AK23	DDR1_M2	DDR1_D02
MAAB3	AK23	DDR1_M3	DDR1_D03
MAAB4	AP23	DDR1_M4	DDR1_D04
MAAB5	AL23	DDR1_M5	DDR1_D05
MAAB6	AL24	DDR1_M6	DDR1_D06
MAAB7	AV25	DDR1_M7	DDR1_D07
MAAB8	AL26	DDR1_M8	DDR1_D08
MAAB9	AW25	DDR1_M9	DDR1_D09
MAAB10	AP18	DDR1_M10	DDR1_D10
MAAB11	AV26	DDR1_M11	DDR1_D11
MAAB12	AL26	DDR1_M12	DDR1_D12
MAAB13	AL25	DDR1_M13	DDR1_D13
MAAB14	AV27	DDR1_M14	DDR1_D14
MAAB15	AY28	DDR1_M15	DDR1_D15
MODT_B0	AM17	DDR1_ODT0	DDR1_ODT0
MODT_B1	AL16	DDR1_ODT1	DDR1_ODT1
AM16	AM16	DDR1_ODT2	DDR1_ODT2
AK15	AK15	DDR1_ODT3	DDR1_ODT3
AM26	AM26	DDR1_ECC0	DDR1_ECC0
AP25	AP25	DDR1_ECC1	DDR1_ECC1
AP25	AP25	DDR1_ECC2	DDR1_ECC2
AP26	AP26	DDR1_ECC3	DDR1_ECC3
AL26	AL26	DDR1_ECC4	DDR1_ECC4
AL25	AL25	DDR1_ECC5	DDR1_ECC5
AR26	AR26	DDR1_ECC6	DDR1_ECC6
AR25	AR25	DDR1_ECC7	DDR1_ECC7
SBAB0	SBAB0	DDR1_BA0	DDR1_BA0
SBAB1	SBAB1	DDR1_BA1	DDR1_BA1
SBAB2	SBAB2	DDR1_BA2	DDR1_BA2
CKEB0	CKEB0	DDR1_CKE0	DDR1_CKE0
CKEB1	CKEB1	DDR1_CKE1	DDR1_CKE1
CSB0	CSB0	DDR1_CS_N0	DDR1_CS_N0
CSB1	CSB1	DDR1_CS_N1	DDR1_CS_N1
DCLKB0	DCLKB0	DDR1_CLK_P0	DDR1_CLK_P0
DCLKB0	DCLKB0	DDR1_CLK_N0	DDR1_CLK_N0
DCLKB1	DCLKB1	DDR1_CLK_P1	DDR1_CLK_P1
DCLKB1	DCLKB1	DDR1_CLK_N1	DDR1_CLK_N1
AN20	AN20	DDR1_CLK_P2	DDR1_CLK_P2
AN21	AN21	DDR1_CLK_N2	DDR1_CLK_N2
AP19	AP19	DDR1_CLK_P3	DDR1_CLK_P3
AP20	AP20	DDR1_CLK_N3	DDR1_CLK_N3
SCASB	SCASB	DDR1_CAS*	DDR1_CAS*
SRASB	SRASB	DDR1_RAS*	DDR1_RAS*
SWEB	SWEB	DDR1_WE*	DDR1_WE*
VREF_DQA	VREF_DQA	DDR1_VREF_DQA	DDR1_VREF_DQA
VREF_DQB	VREF_DQB	DDR1_VREF_DQB	DDR1_VREF_DQB
DQSB0	DQSB0	DDR1_DQS_P0	DDR1_DQS_P0
DQSB0	DQSB0	DDR1_DQS_N0	DDR1_DQS_N0
DQSB1	DQSB1	DDR1_DQS_P1	DDR1_DQS_P1
DQSB1	DQSB1	DDR1_DQS_N1	DDR1_DQS_N1
DQSB2	DQSB2	DDR1_DQS_P2	DDR1_DQS_P2
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DQSB3	DQSB3	DDR1_DQS_P3	DDR1_DQS_P3
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DQSB7	DQSB7	DDR1_DQS_P7	DDR1_DQS_P7
DQSB7	DQSB7	DDR1_DQS_N7	DDR1_DQS_N7
DQSB8	DQSB8	DDR1_DQS_P8	DDR1_DQS_P8
DQSB8	DQSB8	DDR1_DQS_N8	DDR1_DQS_N8

HASWELL(10SC1-F01150-11R_10SC1-F01150-12R)

CR
CPU RETENTION/X

LGA1150_P

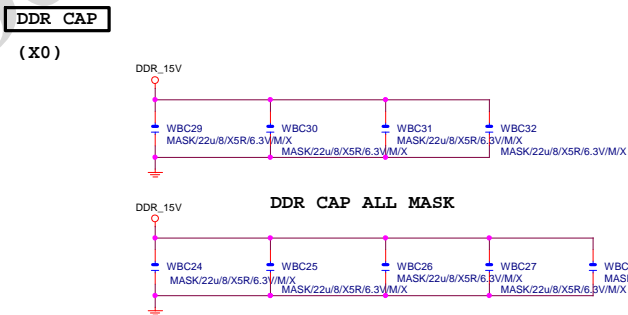
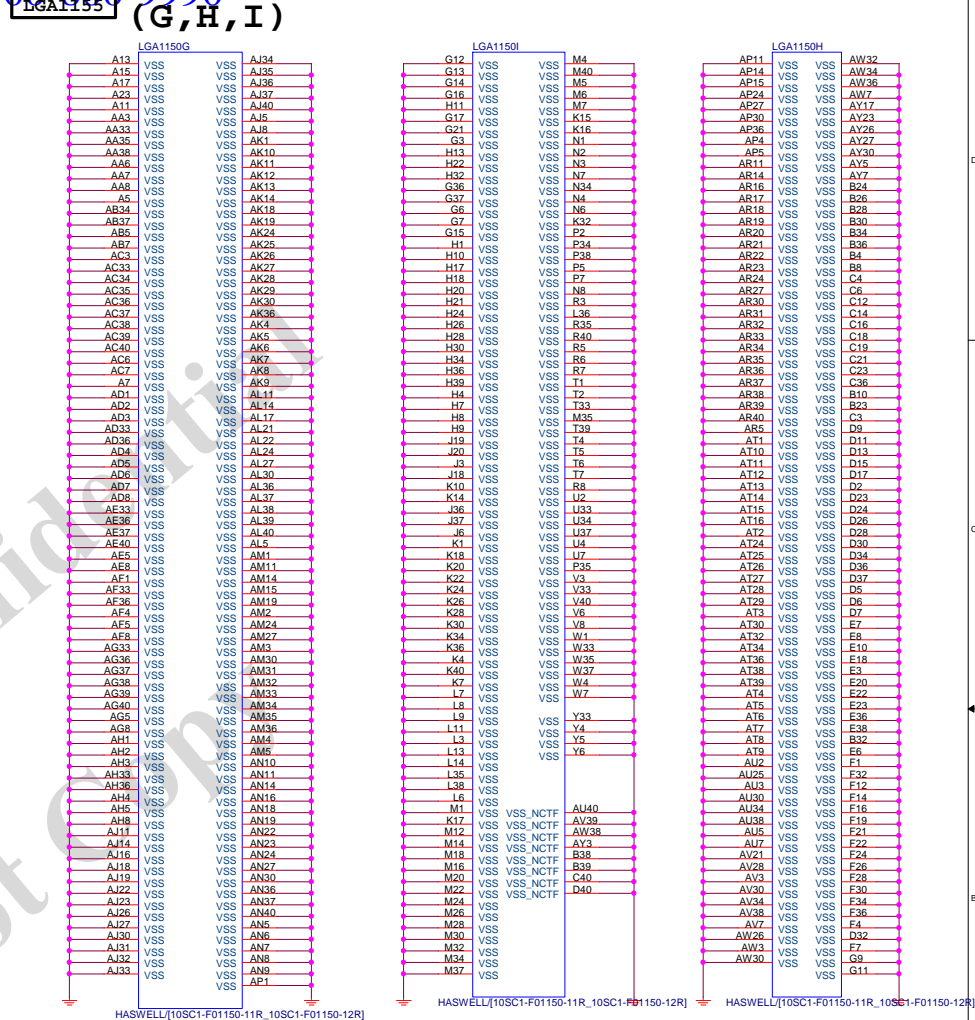
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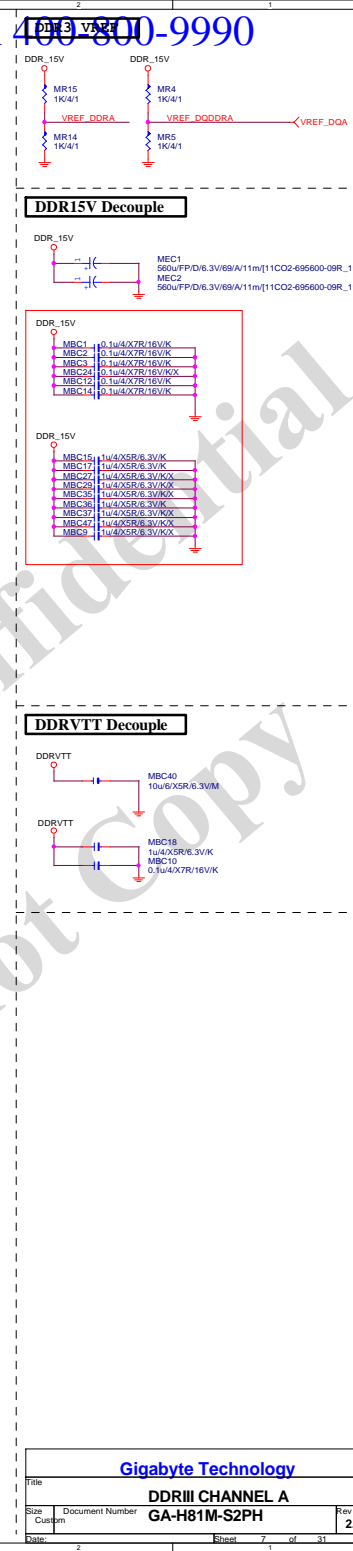
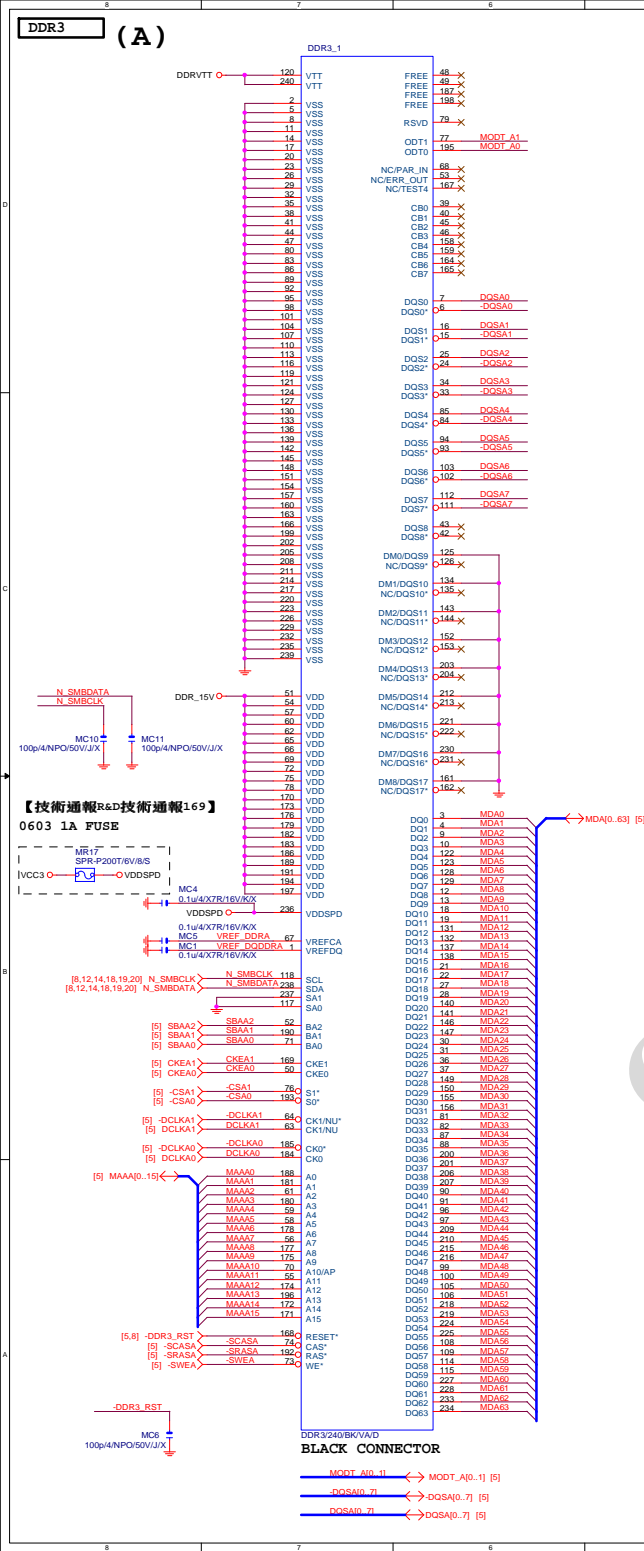
DDR BUS

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[8] MODT_B[0..1]	MODT_B0_11
[7] MDA[0..63]	MDA[0..63]
[8] MDB[0..63]	MDB[0..63]
[7] DQSA[0..7]	DQSA[0..7]
[7] -DQSA[0..7]	-DQSA[0..7]
[7] MAAA[0..15]	MAAA[0..15]
[8] MAAB[0..15]	MAAB[0..15]
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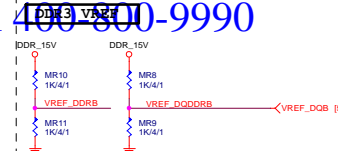
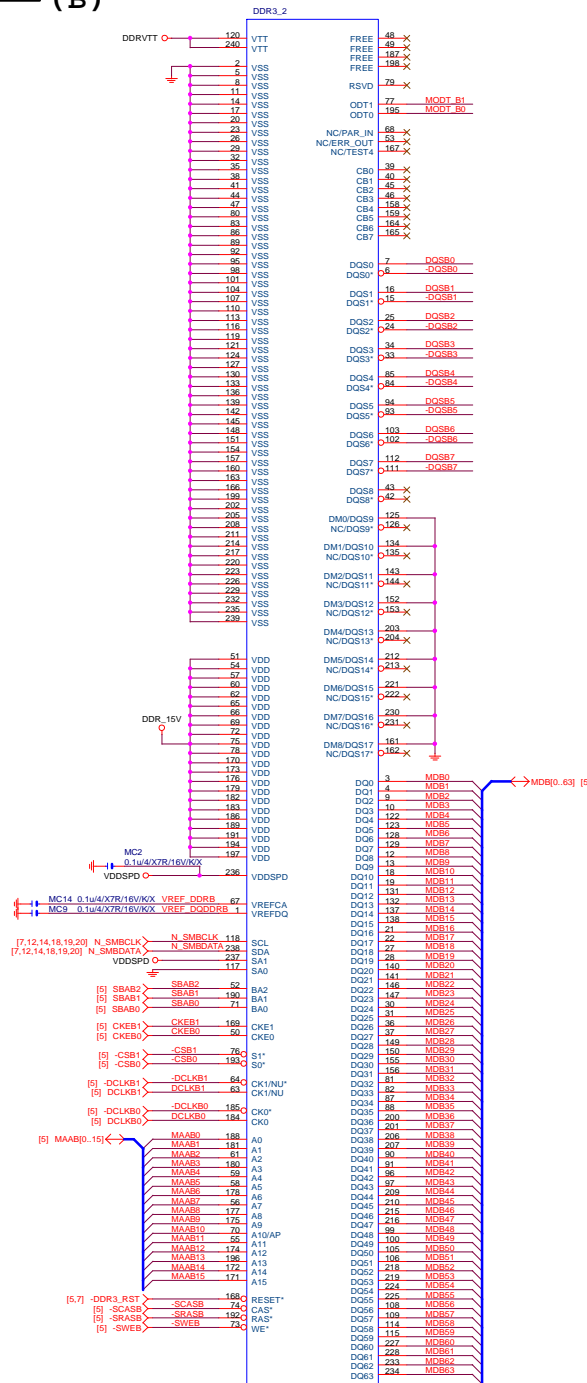
Gigabyte Technology

Title			
CPU LGA1156-B			
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(B)



COUPON



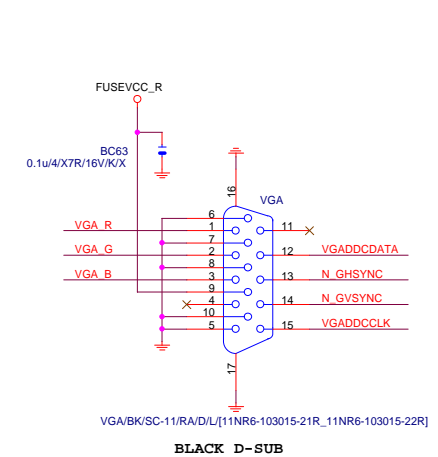
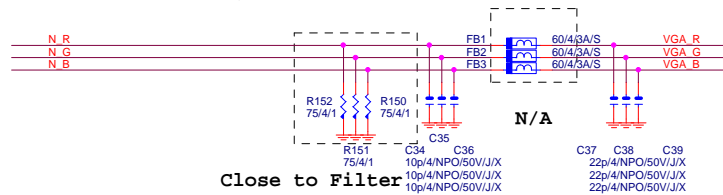
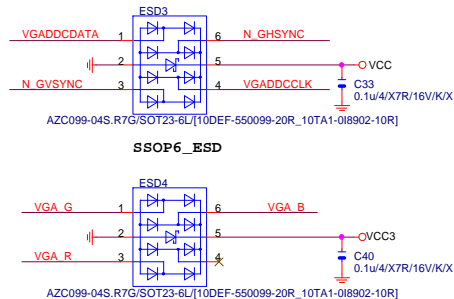
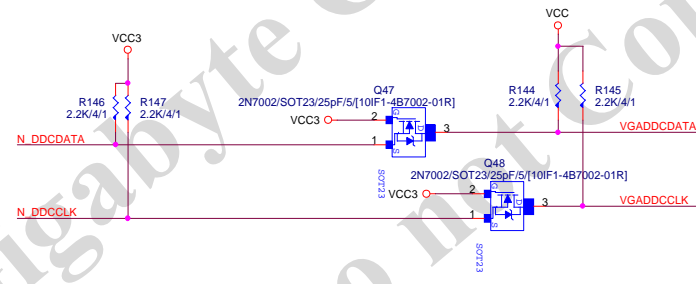
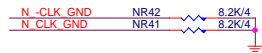
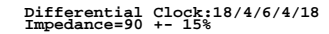
CPU

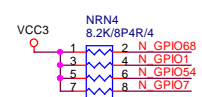
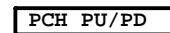
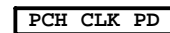
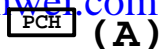
DIMM1 CHA

DIMM2 CHB

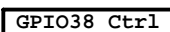
Gigabyte Technology

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Custom			
Date	Sheet	B	of 31





H81 N/A

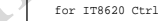
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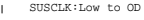


N/A

N_PCH_DPW



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GP8:Low to enable
PCH clock chip
:NB106 1K/
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CLR_CMOS



Title			
PCH GPIO , CTRL , AUDIO			
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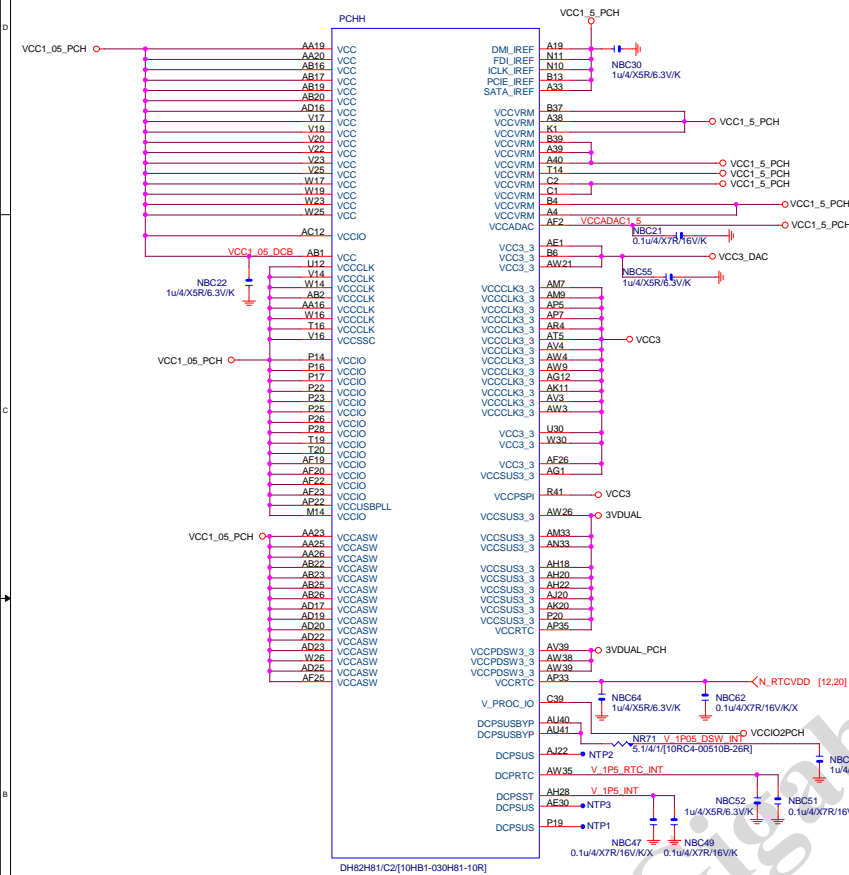
PCH (H)

VCC3_DAC

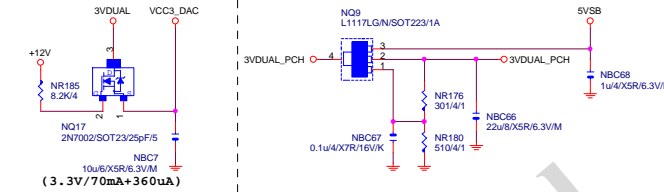
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SHT PWR

M3 POWER

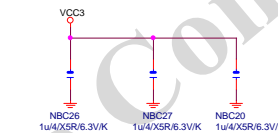


CLOSE北橋(注意震盪水波紋)



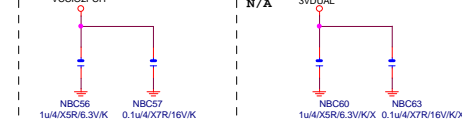
CAP

(3.3V) (X3)

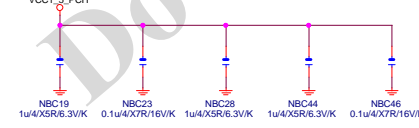


(1.05V) N/A

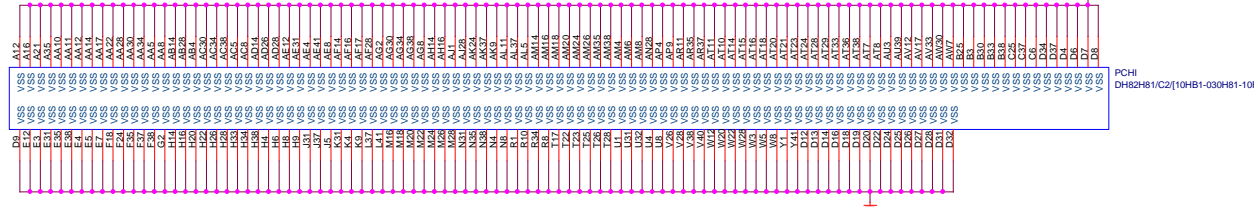
(1.05V) (X2) (3.3V) (X2)



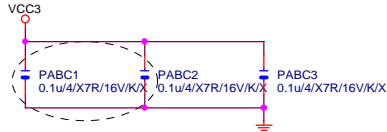
(1.05V) (X5)



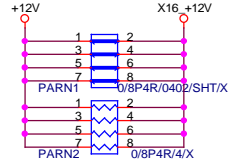
PCH (I)



PCIEX16 CAP



PCIEX16 PROTECT SHT



PCIEX16 AC CAP

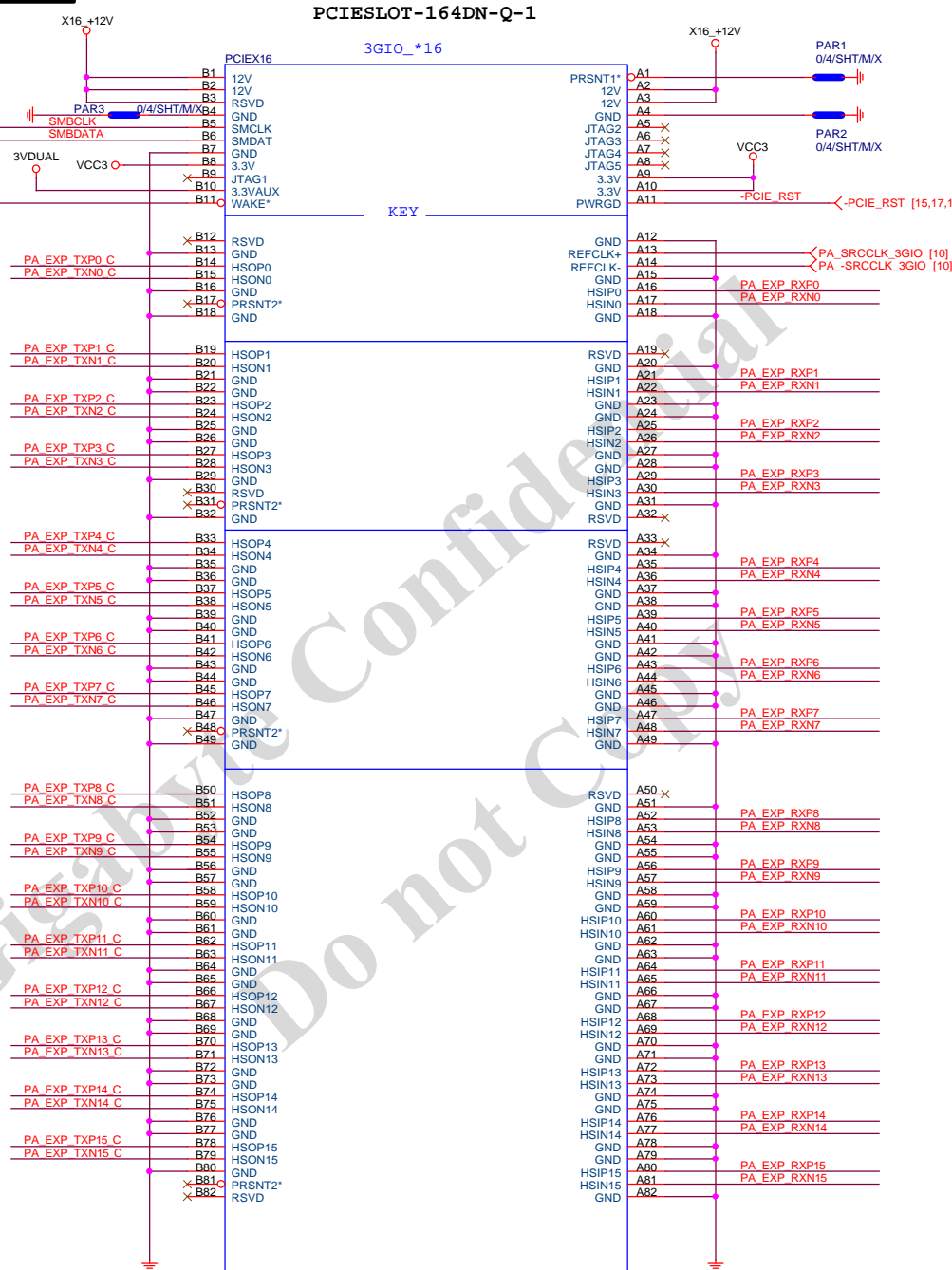
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PA EXP TXN0	PAC4	0.22u/4/X5R/6.3V/K	PA EXP TXN0 C
PA EXP TXP1	PAC6	0.22u/4/X5R/6.3V/K	PA EXP TXP1 C
PA EXP TXN1	PAC7	0.22u/4/X5R/6.3V/K	PA EXP TXN1 C
PA EXP TXP2	PAC8	0.22u/4/X5R/6.3V/K	PA EXP TXP2 C
PA EXP TXN2	PAC9	0.22u/4/X5R/6.3V/K	PA EXP TXN2 C
PA EXP TXP3	PAC10	0.22u/4/X5R/6.3V/K	PA EXP TXP3 C
PA EXP TXN3	PAC11	0.22u/4/X5R/6.3V/K	PA EXP TXN3 C
PA EXP TXP4	PAC12	0.22u/4/X5R/6.3V/K	PA EXP TXP4 C
PA EXP TXN4	PAC13	0.22u/4/X5R/6.3V/K	PA EXP TXN4 C
PA EXP TXP5	PAC14	0.22u/4/X5R/6.3V/K	PA EXP TXP5 C
PA EXP TXN5	PAC15	0.22u/4/X5R/6.3V/K	PA EXP TXN5 C
PA EXP TXP6	PAC16	0.22u/4/X5R/6.3V/K	PA EXP TXP6 C
PA EXP TXN6	PAC17	0.22u/4/X5R/6.3V/K	PA EXP TXN6 C
PA EXP TXP7	PAC18	0.22u/4/X5R/6.3V/K	PA EXP TXP7 C
PA EXP TXN7	PAC19	0.22u/4/X5R/6.3V/K	PA EXP TXN7 C
PA EXP TXP8	PAC20	0.22u/4/X5R/6.3V/K	PA EXP TXP8 C
PA EXP TXN8	PAC21	0.22u/4/X5R/6.3V/K	PA EXP TXN8 C
PA EXP TXP9	PAC22	0.22u/4/X5R/6.3V/K	PA EXP TXP9 C
PA EXP TXN9	PAC23	0.22u/4/X5R/6.3V/K	PA EXP TXN9 C
PA EXP TXP10	PAC24	0.22u/4/X5R/6.3V/K	PA EXP TXP10 C
PA EXP TXN10	PAC25	0.22u/4/X5R/6.3V/K	PA EXP TXN10 C
PA EXP TXP11	PAC26	0.22u/4/X5R/6.3V/K	PA EXP TXP11 C
PA EXP TXN11	PAC27	0.22u/4/X5R/6.3V/K	PA EXP TXN11 C
PA EXP TXP12	PAC28	0.22u/4/X5R/6.3V/K	PA EXP TXP12 C
PA EXP TXN12	PAC29	0.22u/4/X5R/6.3V/K	PA EXP TXN12 C
PA EXP TXP13	PAC30	0.22u/4/X5R/6.3V/K	PA EXP TXP13 C
PA EXP TXN13	PAC31	0.22u/4/X5R/6.3V/K	PA EXP TXN13 C
PA EXP TXP14	PAC32	0.22u/4/X5R/6.3V/K	PA EXP TXP14 C
PA EXP TXN14	PAC33	0.22u/4/X5R/6.3V/K	PA EXP TXN14 C
PA EXP TXP15	PAC34	0.22u/4/X5R/6.3V/K	PA EXP TXP15 C
PA EXP TXN15	PAC35	0.22u/4/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

[7,8,12,18,19,20] N_SMBCLK
 [7,8,12,18,19,20] N_SMBDATA

[12,17,19,25] N_-PCIE_WAKE



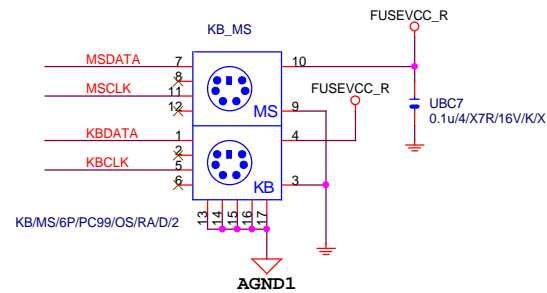
PCI-E/16X-164P/BK/LONG DOUBLE

BLACK CONNECTOR

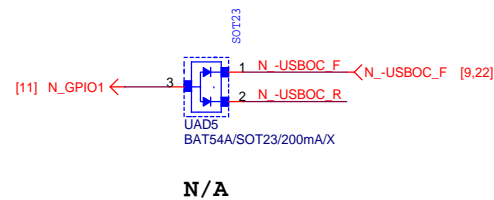
Gigabyte Technology

Title			PCI EXPRESS * 16		
Size			GA-H81M-S2PH		
Custom			Rev 2.1		
Date:			Tuesday, October 28, 2014		
Sheet			14 of 31		

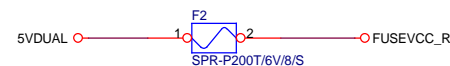
KB/MS



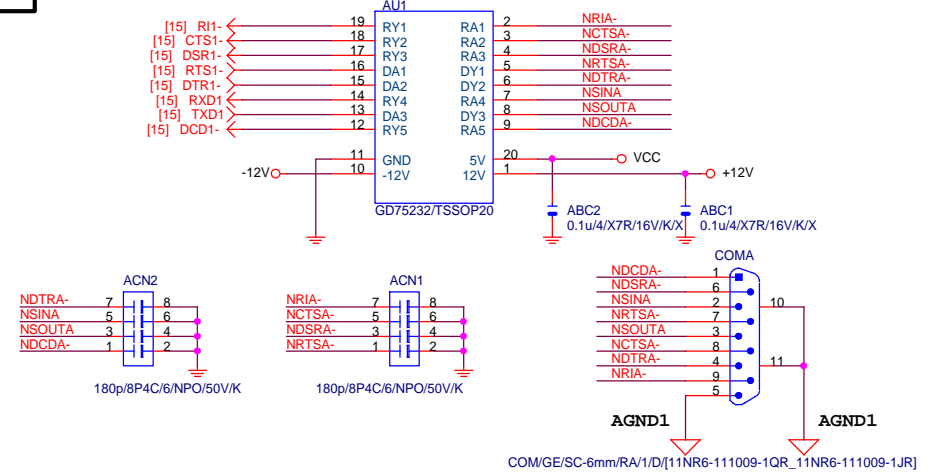
USB POWER PROTECT



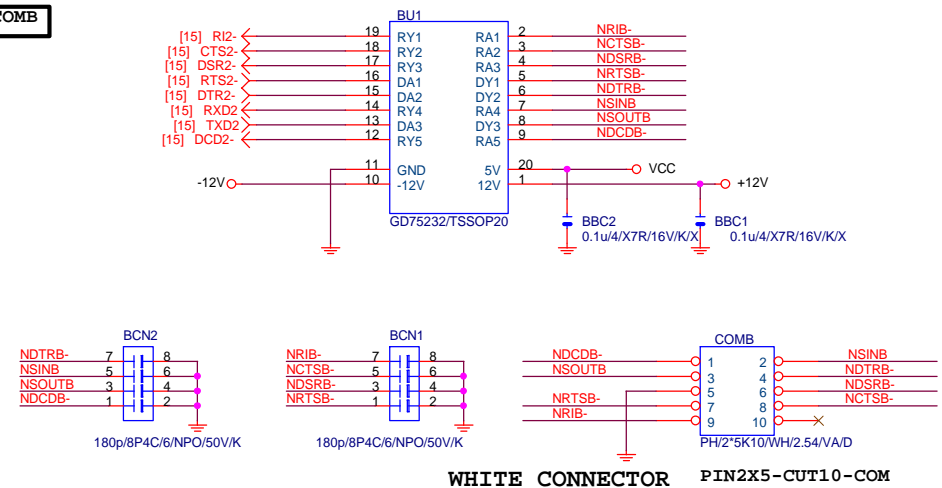
R_USB PWR



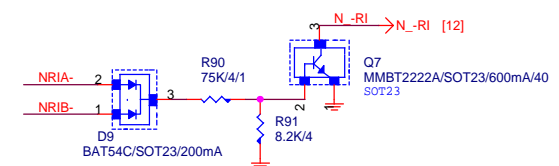
COMA



COMB

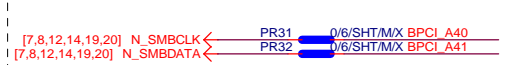
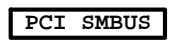
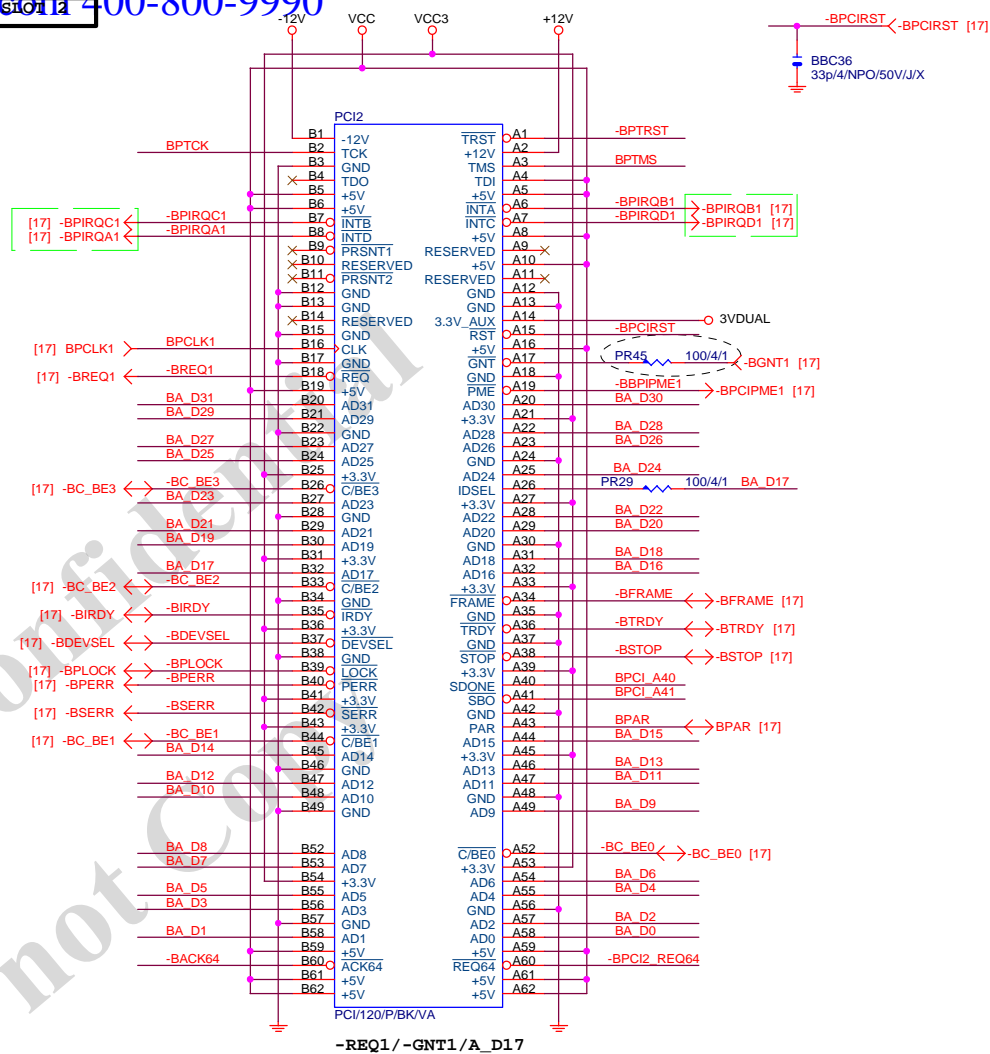


COM RI

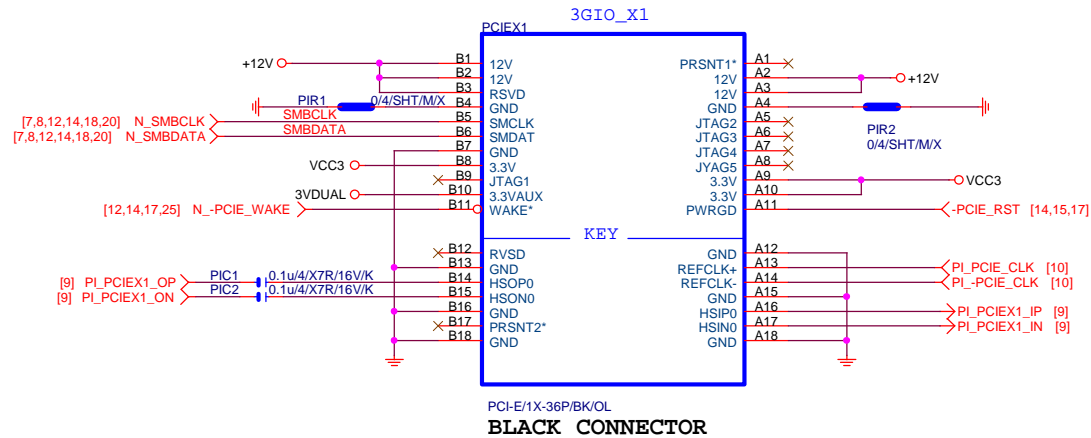


Gigabyte Technology

Title			COM,-RI,KB_MS
Size	Document Number	GA-H81M-S2PH	
Custom		Rev	2.1
Date:	Tuesday, October 28, 2014	Sheet	16 of 31

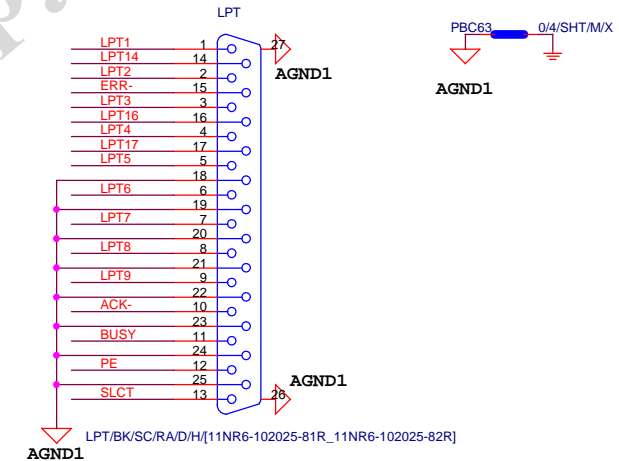
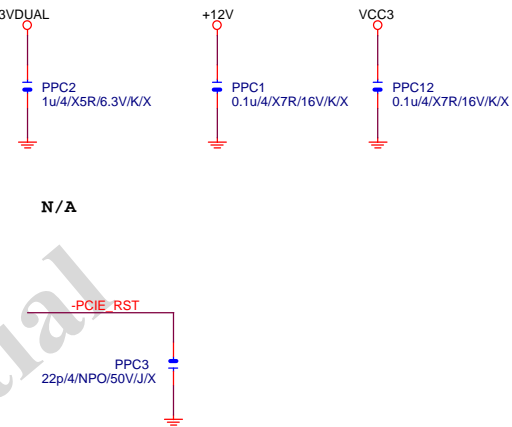
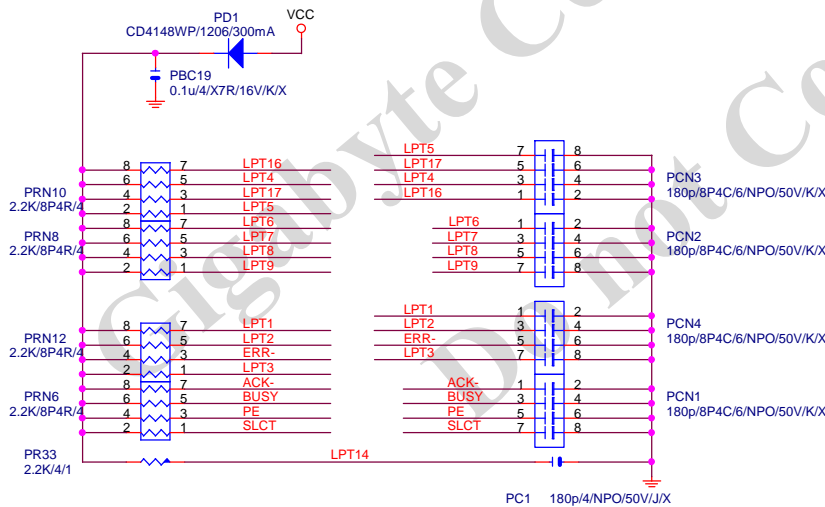
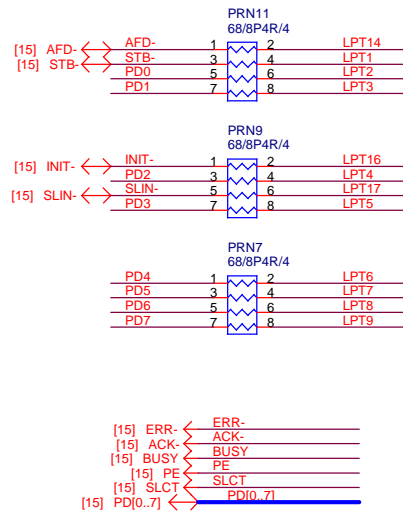


PCIEX1 SLOT



LPT PORT

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

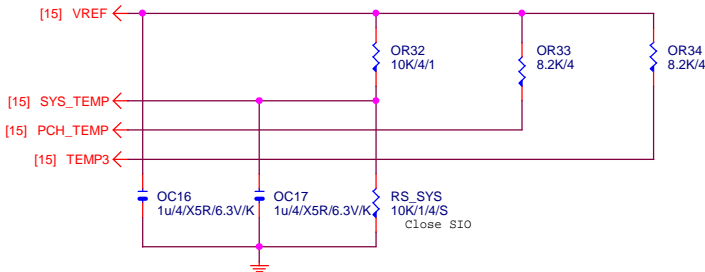


BLACK

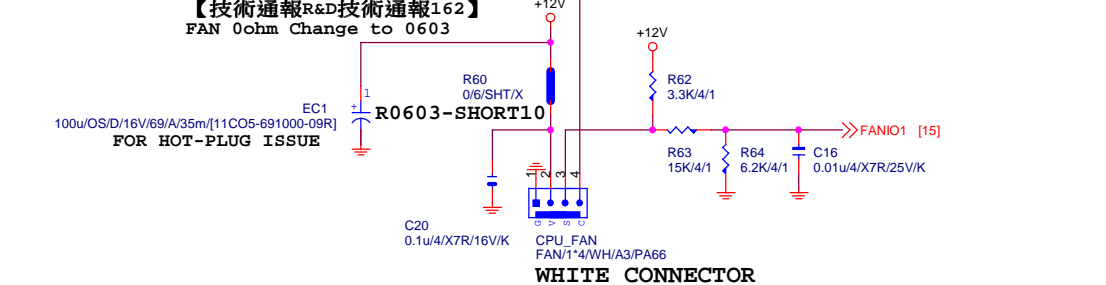
Gigabyte Technology

Title			LPT
Size	Document Number	GA-H81M-S2PH	
B		Rev	2.1
Date: Tuesday, October 28, 2014		Sheet	19 of 31

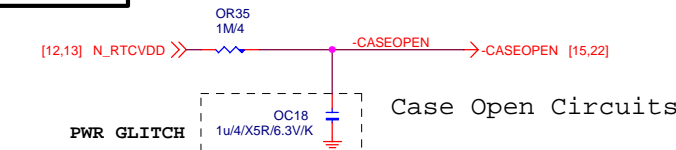
TEMP H/W MONITOR



CPU SMART FAN

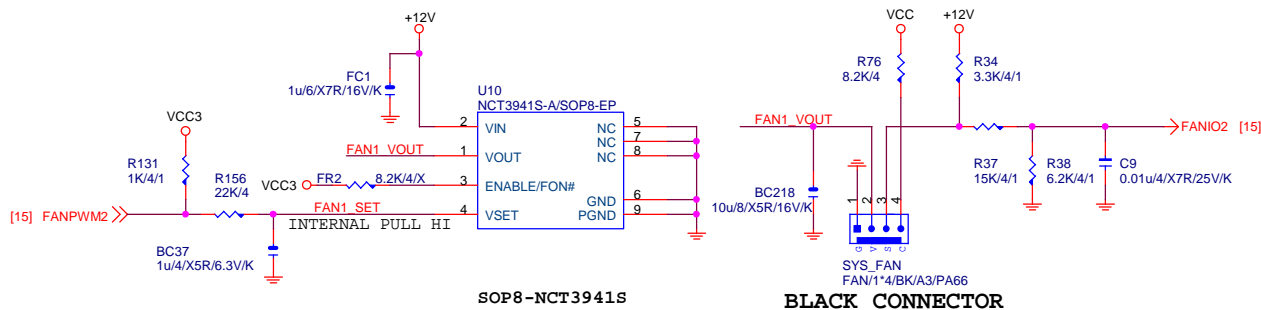


CASE OPEN

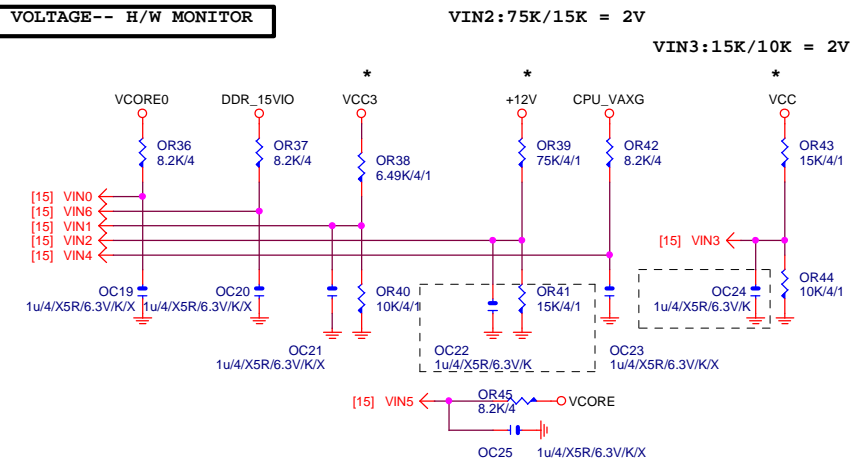


SYS SMART FAN

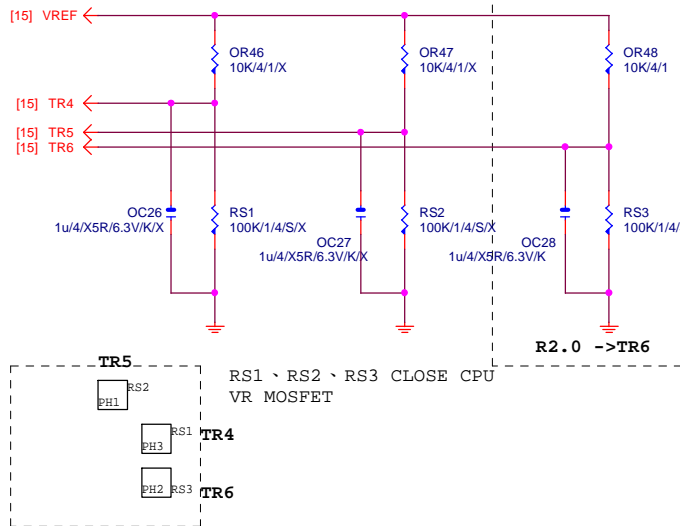
Linear SYS_FAN



VOLTAGE-- H/W MONITOR

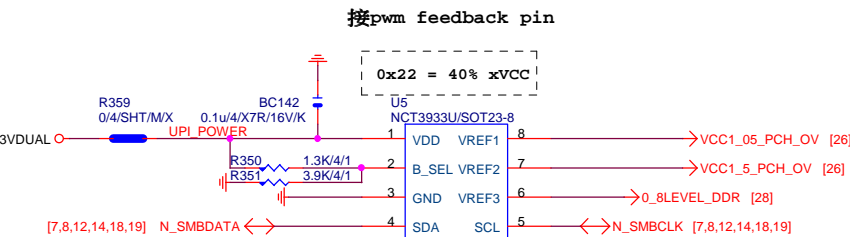


THERMISTOR MONITOR

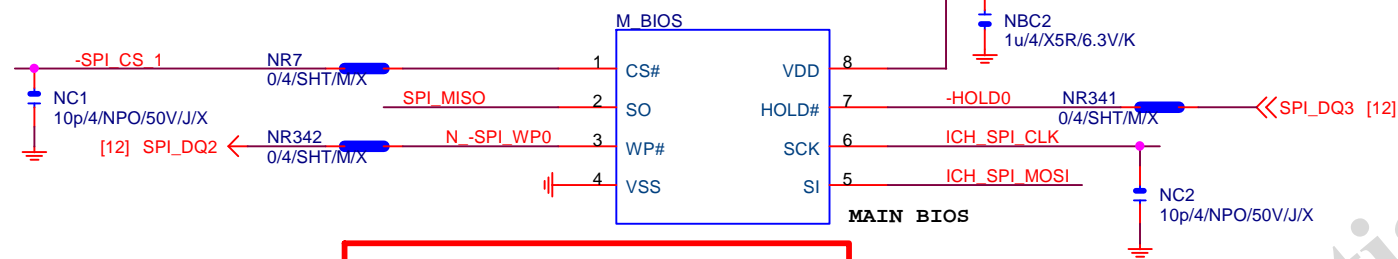


-PROHOT

OV NCT3933

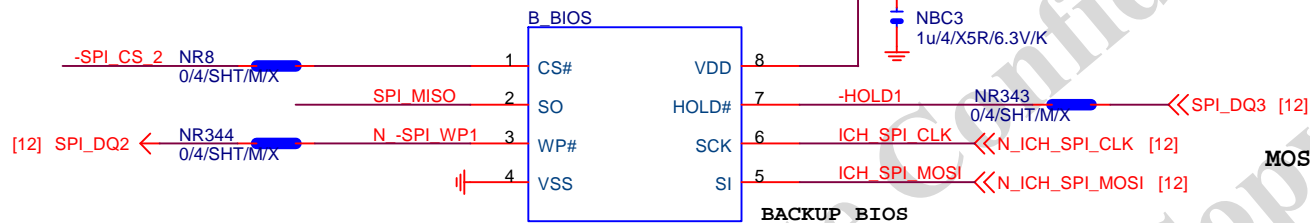


Gigabyte Technology			
Title HWM,FAN CTRL,OV			
Size Custom	Document Number	GA-H81M-S2PH	
Date: Tuesday, October 28, 2014	Sheet	20	of 31
		Rev	2.1

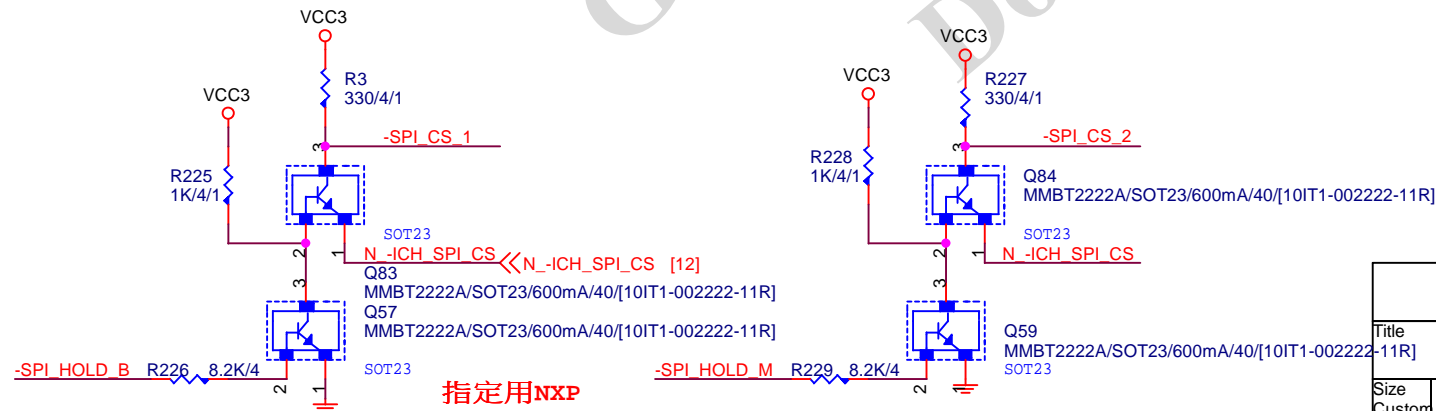
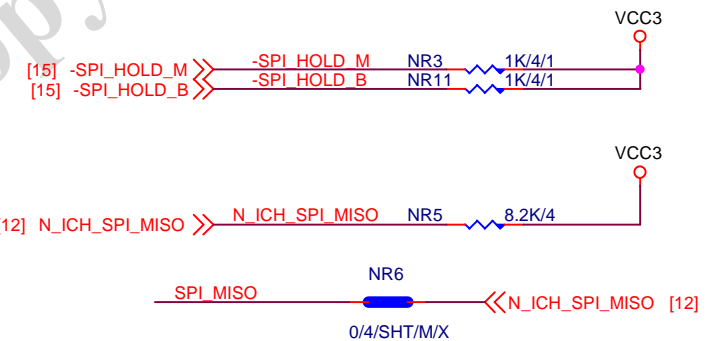


BOOT DEVICE	GNT0	GNT1
LPC	0	0
PCI	0	1
NAND	1	0
SPI	1	1

1 means floating
0 means PD 1K



MOSI For DMI RX Termination Voltage



指定用NXP

Gigabyte Technology

DUAL BIOS

GA-H81M-S2PH

Rev
2.1

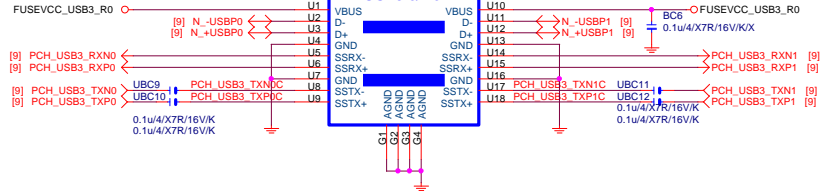
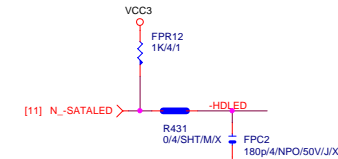
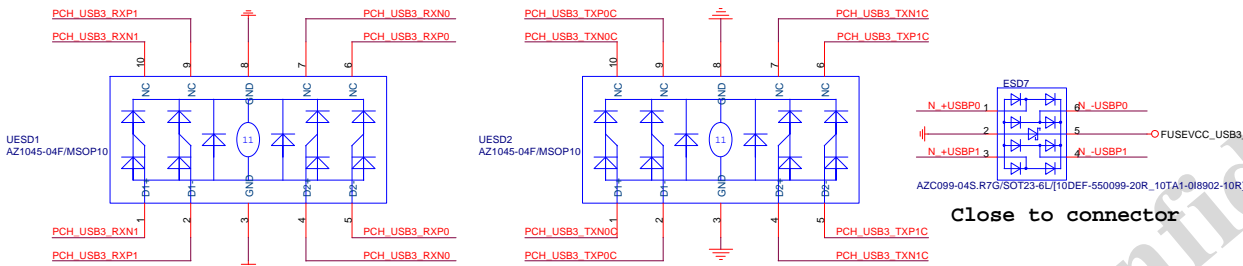
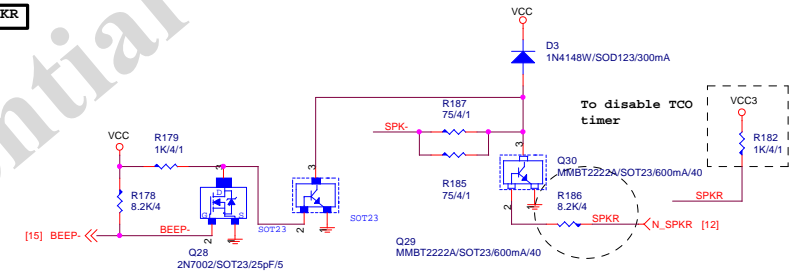
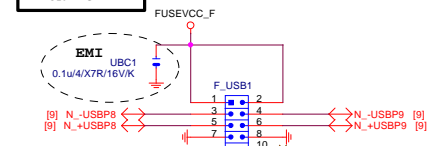
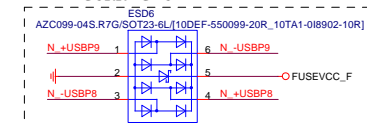
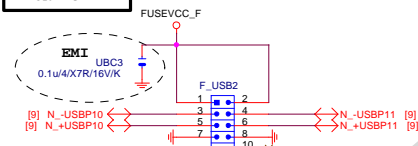
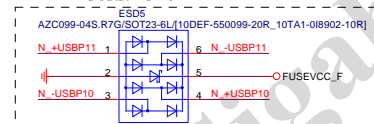
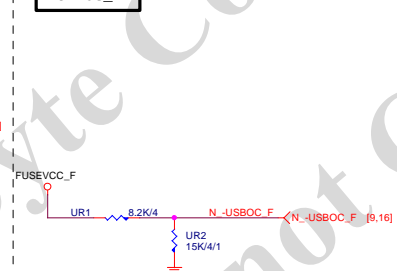
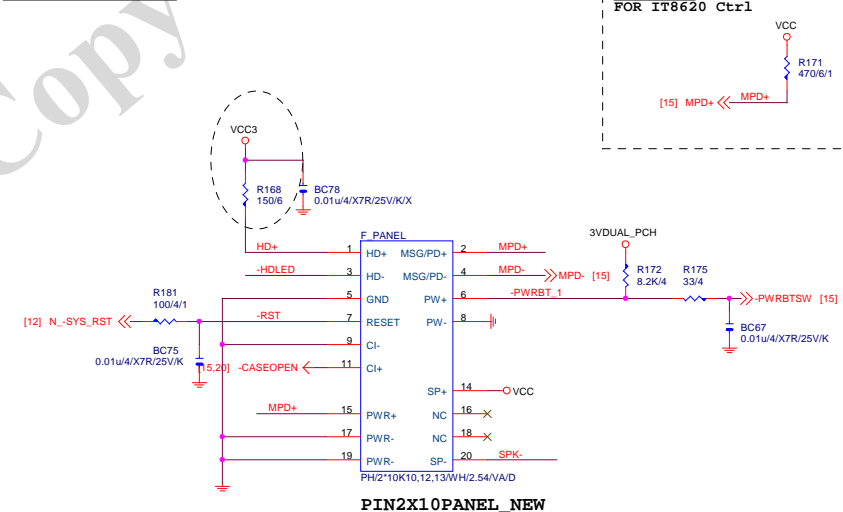
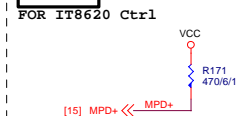
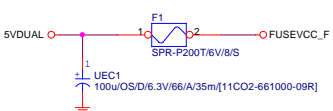
Title
Custom

Size
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Document Number

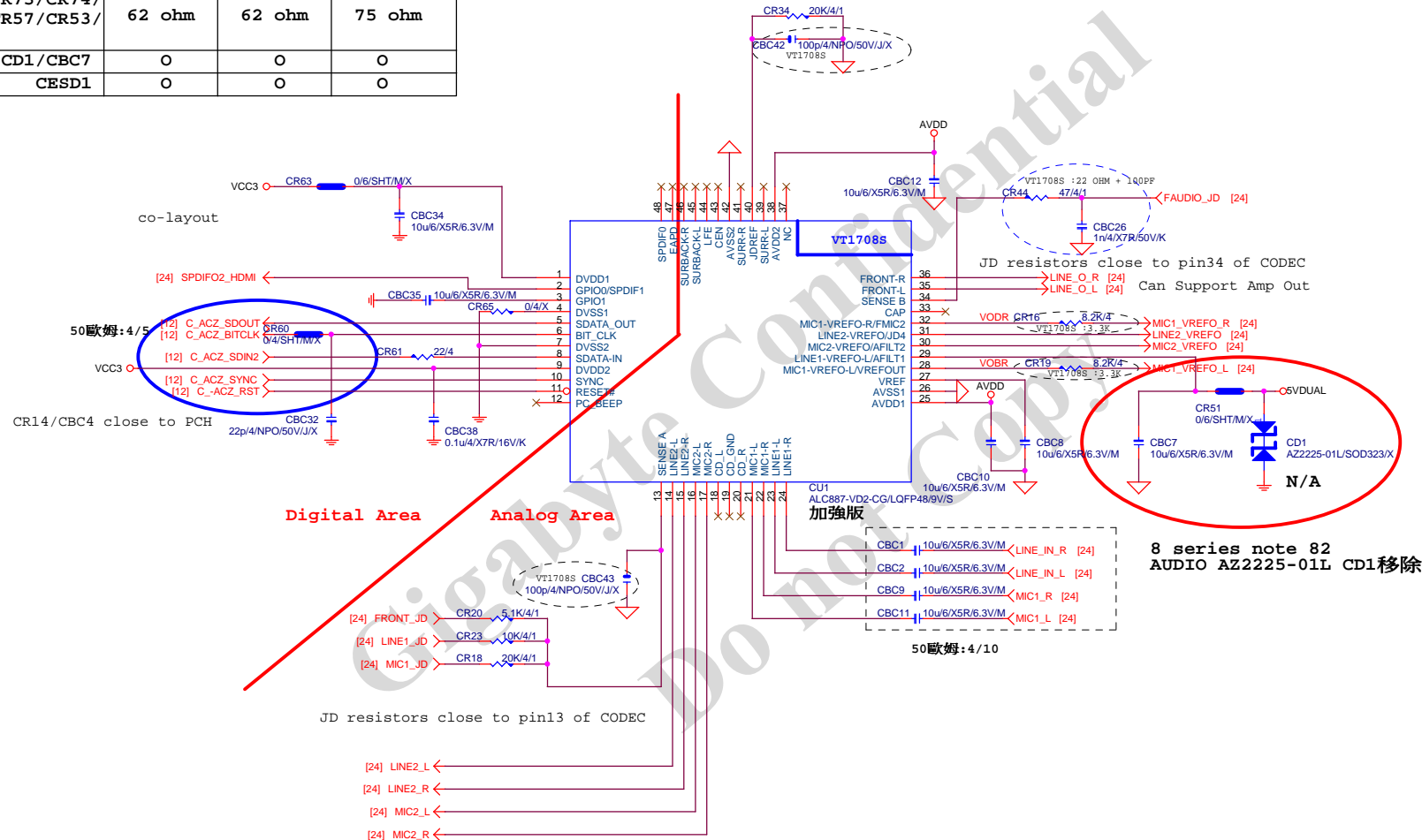
Date: Tuesday, October 28, 2014

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R_USB30**USB30+HDMI 一體式**R_USB30
USB3.0+HDMI/18P+19P/BK/OS/RA[11NR6-H03037-01R]**USB3.0/2.0****FUSE-0805****USB3.0 2Port - 1Fuse (2.6A)****SATA LED****USB30_HDMI ESD PROTECT****Close to connector****SPKR****FRONT USB1****WHITE CONNECTOR****Close to connector****FRONT USB2****WHITE CONNECTOR****Close to connector****-USBOC_F****INTEL FRONT PANEL****PWR LED****FUSEVCC_F****FUSE-0805****F_USB1, F_USB2 4-Port 2.0A**

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

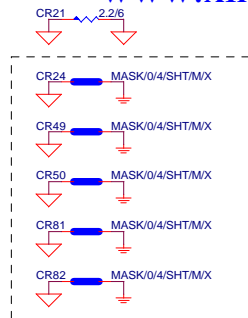
	ALC892	ALC887-VD2	VT1708S-CE
CR44/CBC26	47ohm+1nF	47ohm+1nF	22ohm+100P
CBC42/CBC43	X	X	100P/4
CR6/CR7/CR58/CR54/ CR67/CR68/CR69/CR70	22K/4	22K/4	10K/4/1
CR5/CR8/CR1/CR14/ CR17/CR22/CR73/CR74/ CR13/CR11/CR57/CR53/ CR75/CR76	62 ohm	62 ohm	75 ohm
CR51/CD1/CBC7	O	O	O
CESD1	O	O	O



8 series note 82
AUDIO AZ2225-01L CD1移除

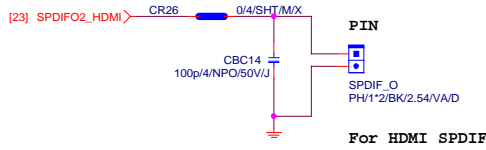
Gigabyte Technology

Title	HD AUDIO ALC887B-VD2/VT1708S/VT2021		
Size	Document Number	GA-H81M-S2PH	Rev 2.1
Custom			
Date:	Tuesday, October 28, 2014	Sheet 23	of 31



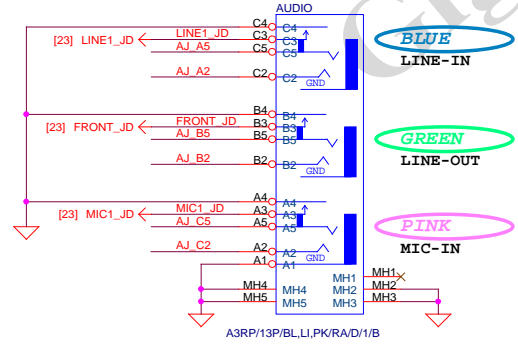
AUDIO切割

SPDIF_OUT



For HDMI SPDIF

SPDIF_OUT

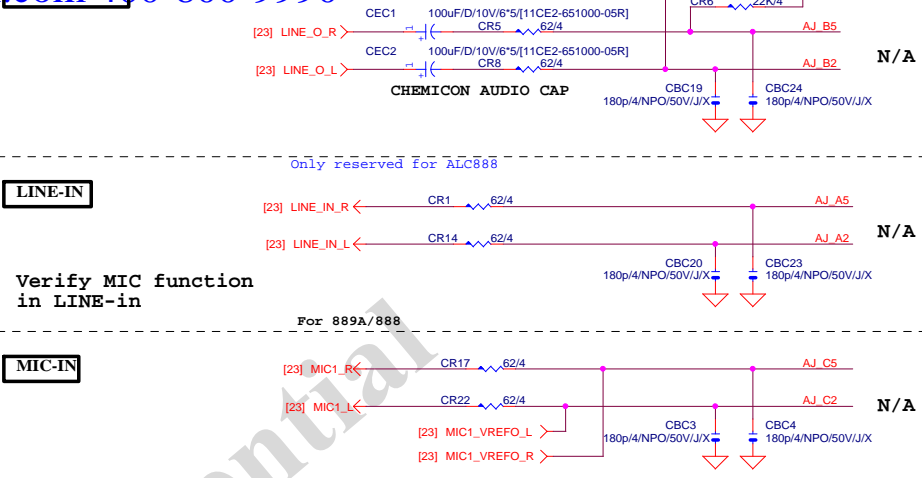


A3RP13P/BL, LI, PK/RA/D/1/B

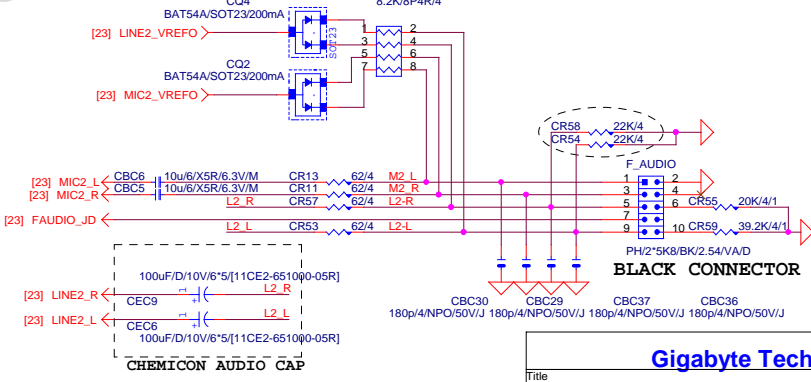
LINE-IN

Verify MIC function in LINE-in

MIC-IN

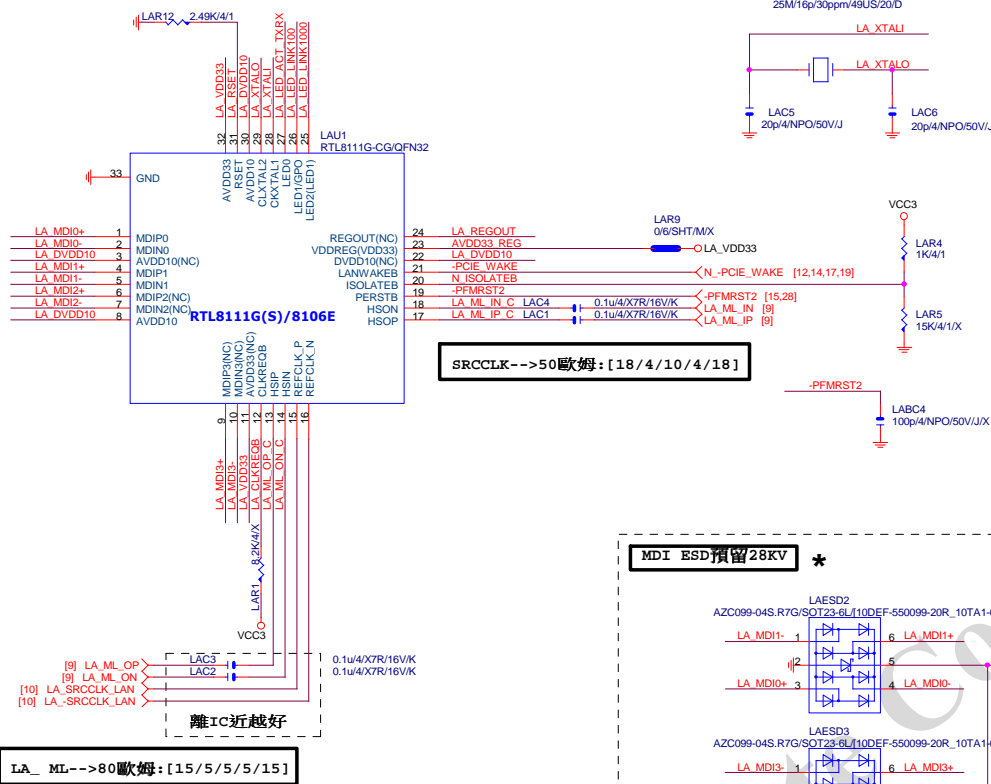


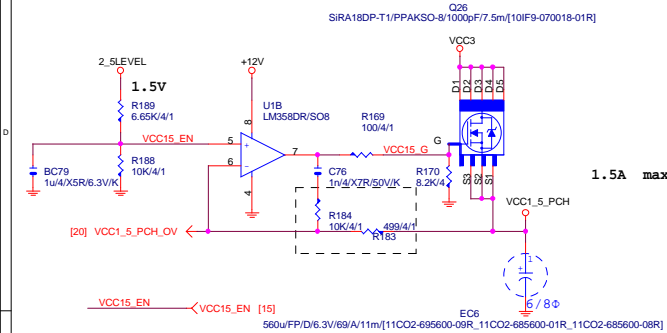
AZALIA FRONT PANEL



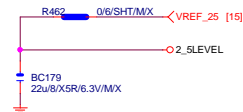
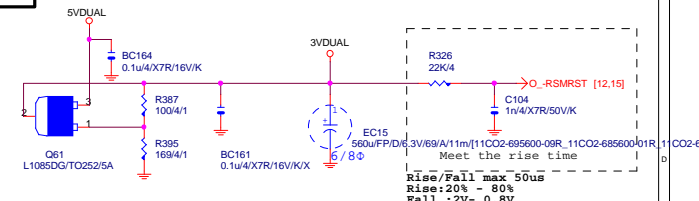
Gigabyte Technology			
Title			
AUDIO JACK			
Size	Document Number	GA-H81M-S2PH	
Custom			Rev 2.1
Date:	Tuesday, October 28, 2014	Sheet	24 of 31

LAN RTL8111G-CG

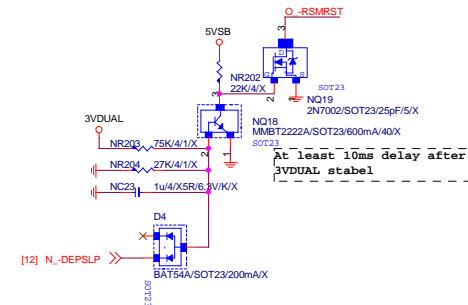
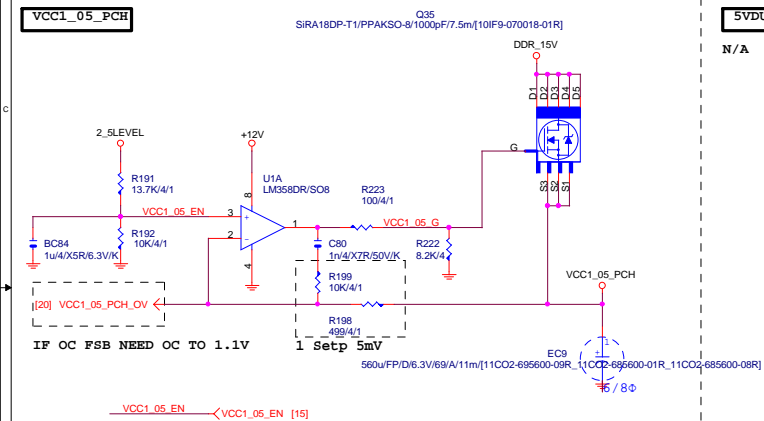


VCC1_5_PCH**2_5LEVEL**

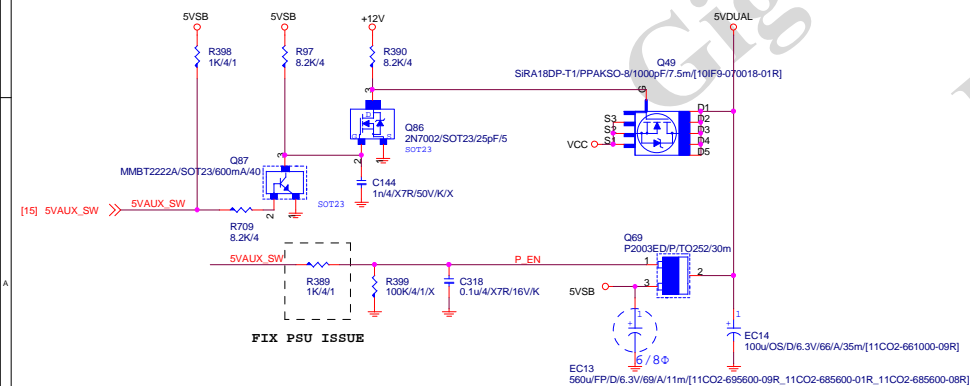
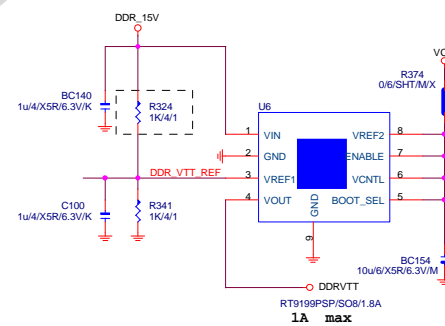
FROM I/O

**3VDUAL****-RSMRST**

N/A

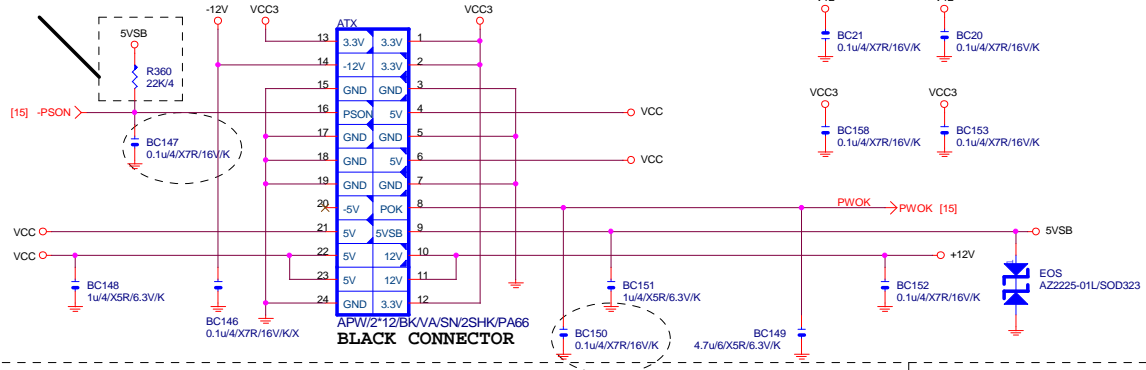
**VCC1_05_PCH****5VDUAL SHORT PROTECT**

N/A

5VDUAL**DDRVTT**

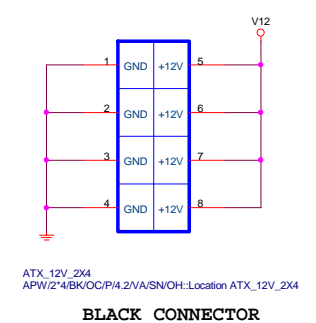
ATXX24 POWER CONNECTOR

【技術通報R&D技術通報155】

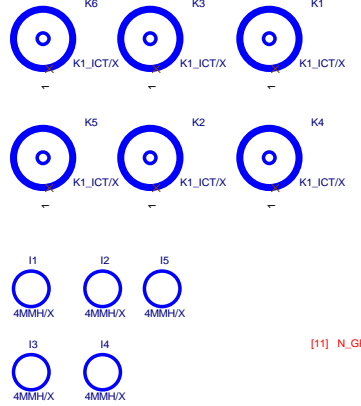
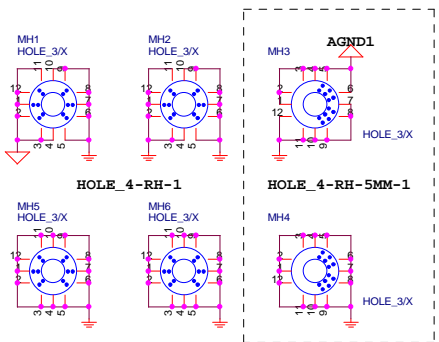


ATXX24 POWER CONNECTOR

【技術通報R&D技術通報155】

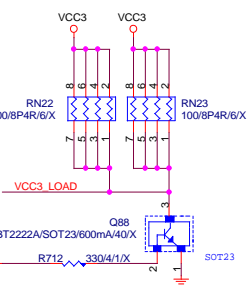


MB LOCATION



FIX PWR MINMUN LOAD

N/A



PWOK PATCH

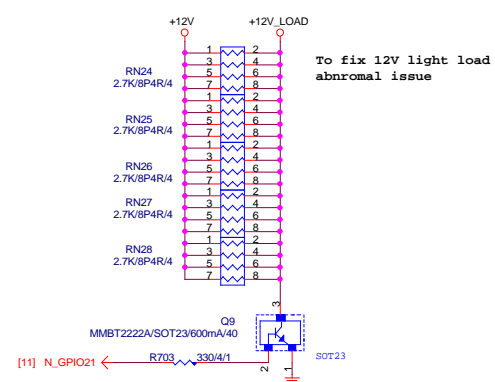
【技術通報R&D技術通報154】

N/A

CLK GEN

N/A

【技術通報R&D技術通報153】



DDR15V

www.xinxunwei.com 400-800-9990

VIN=5V, VOUT=1.5V, IOUP=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 $2 \times 7.99 = 15.98 > 11.45A$

PWR SEQ

DDR_EN <DDR_EN_CON [15]

From DDR_15V source
10 mils trace to SIO

DDR_15V DDR_15VIO
MR20 0/4/SHT/M/X

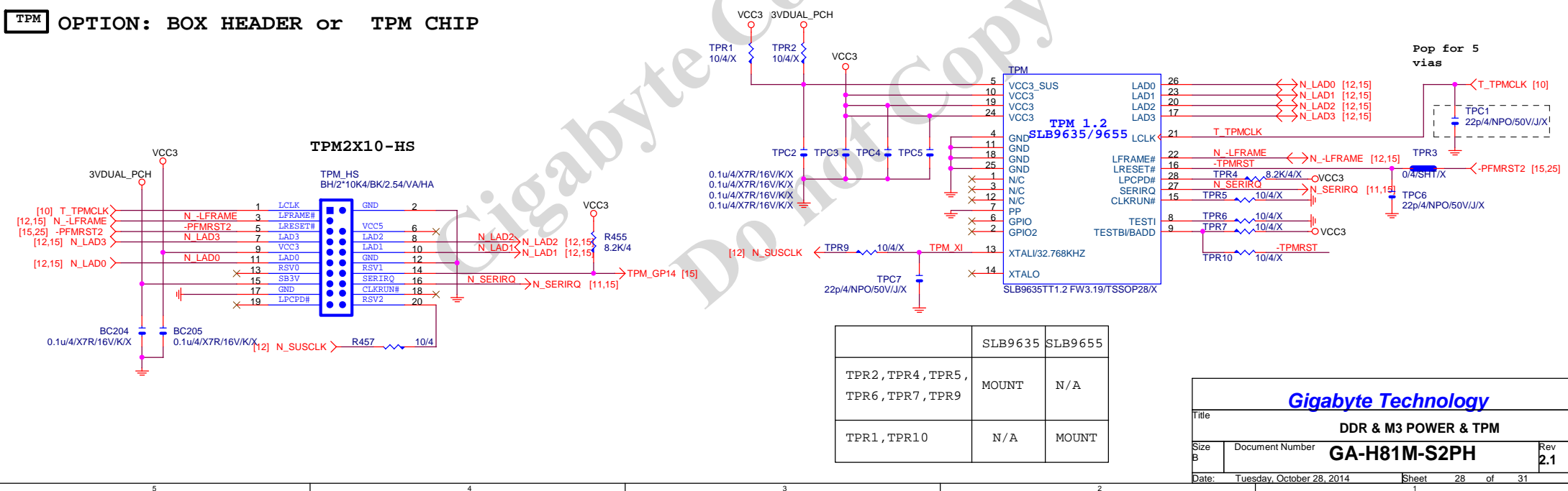
VCC3_ME

VCC1_05_ME

H81 N/A

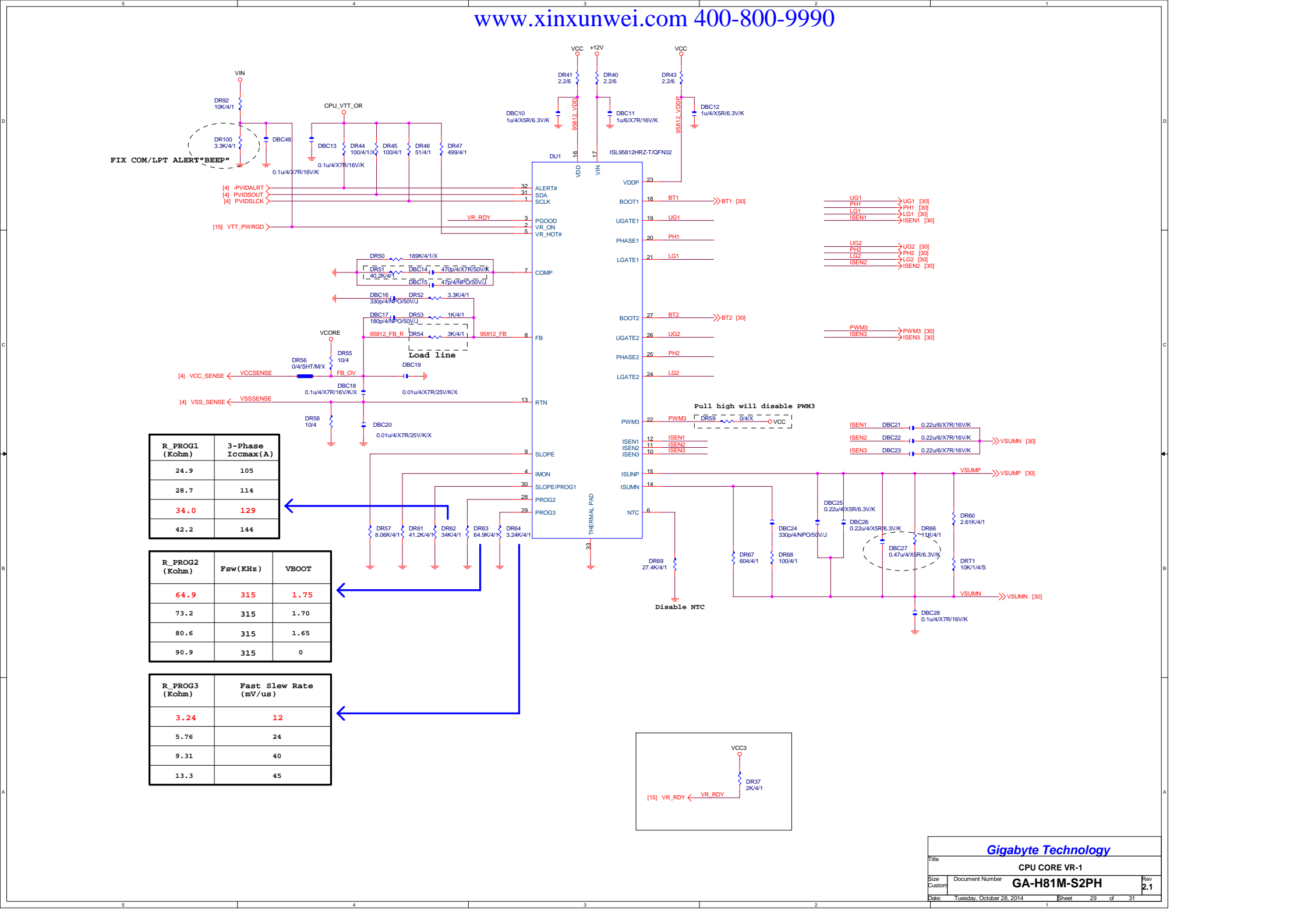
OCP : $I_{peak} = (2 \times I_{ocset} \times R_{ocset}) / R_{dson}$
typ $I_{ocset} = 20uA$ $R_{ocset} = 4.7k$
OCP : $53.71A = (2 \times 20uA \times 4.7k) / (7m / 7m)$

TPM OPTION: BOX HEADER or TPM CHIP

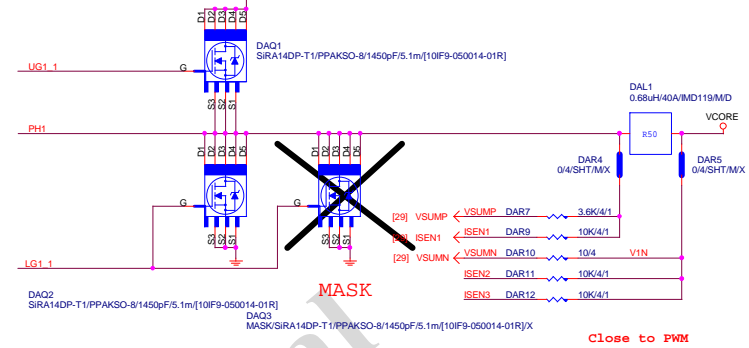
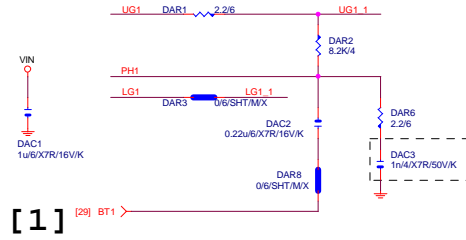


Gigabyte Technology

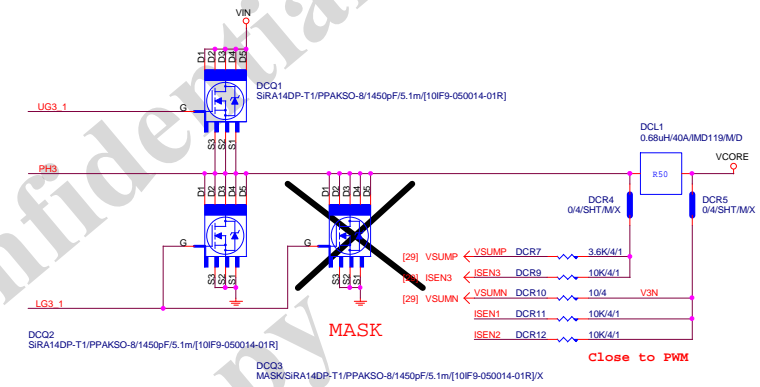
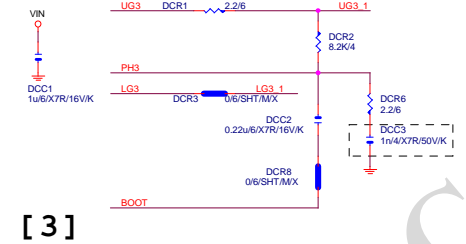
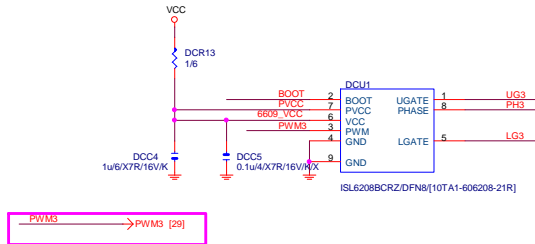
DDR & M3 POWER & TPM			
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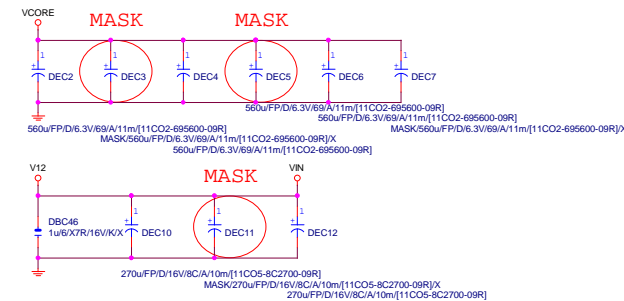
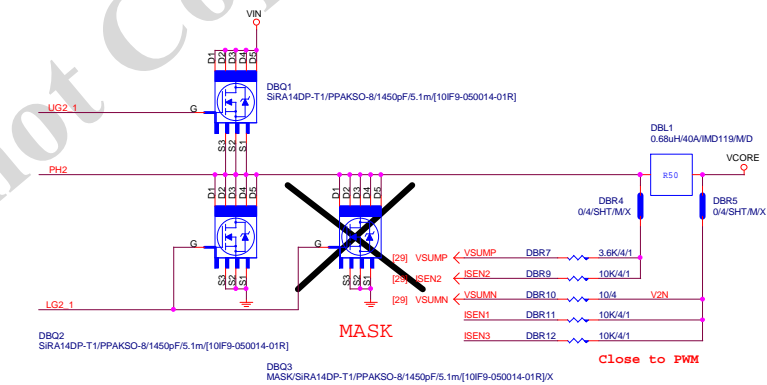
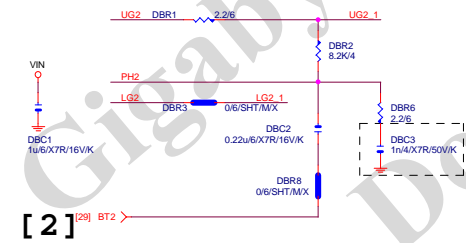
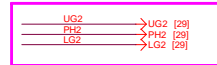
PHASE 1



PHASE 3



PHASE 2



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