

Model Name: GA-H81M-H

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	ITE 8620
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 , CLOCK GEN
26	VCORE ISL95812_1
27	VCORE ISL95812_2

SHEET

TITLE

28	RT8120_DDR POWER
29	HDMI
30	
31	
32	

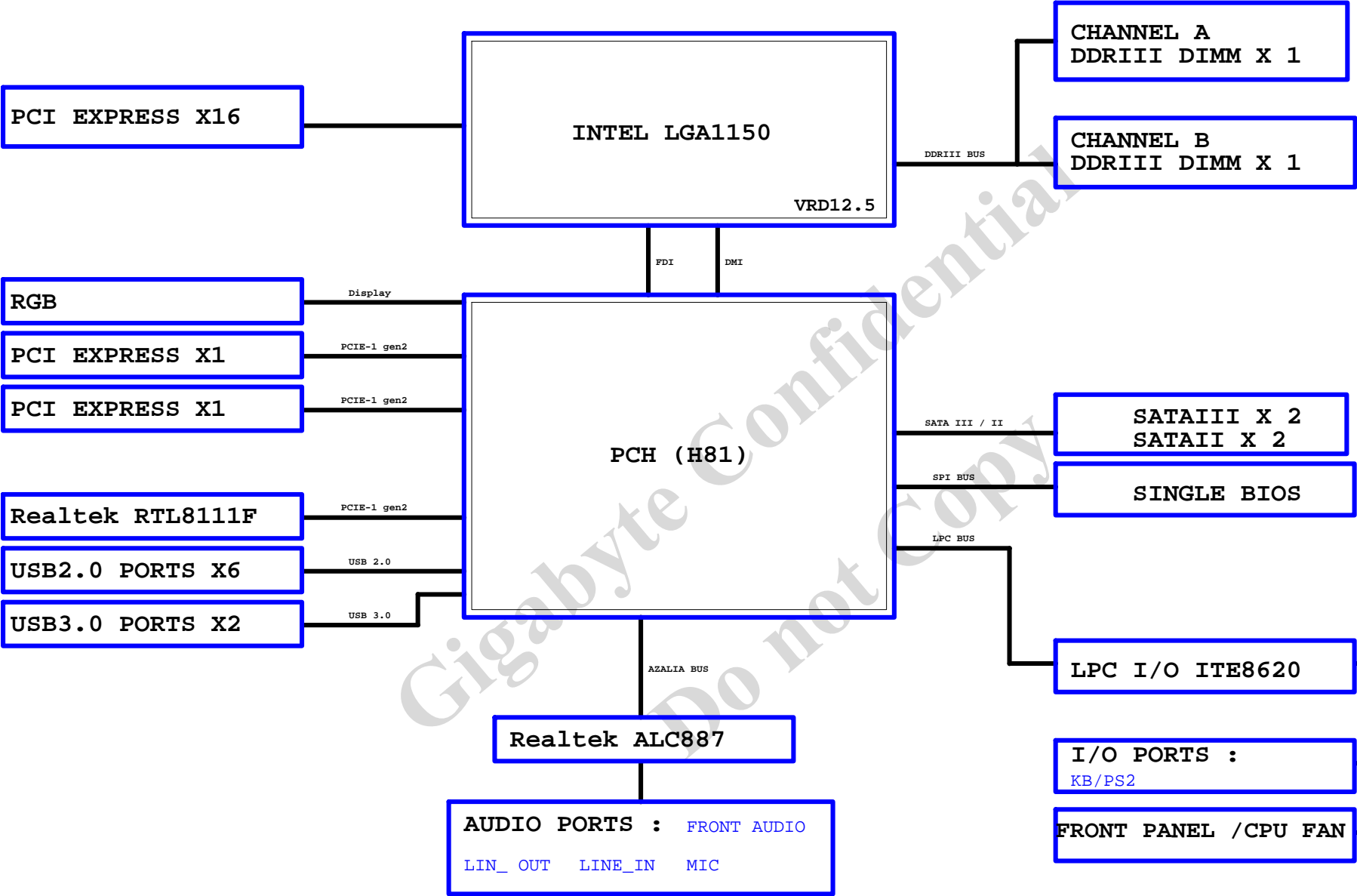
Gigabyte Technology

Cover Sheet

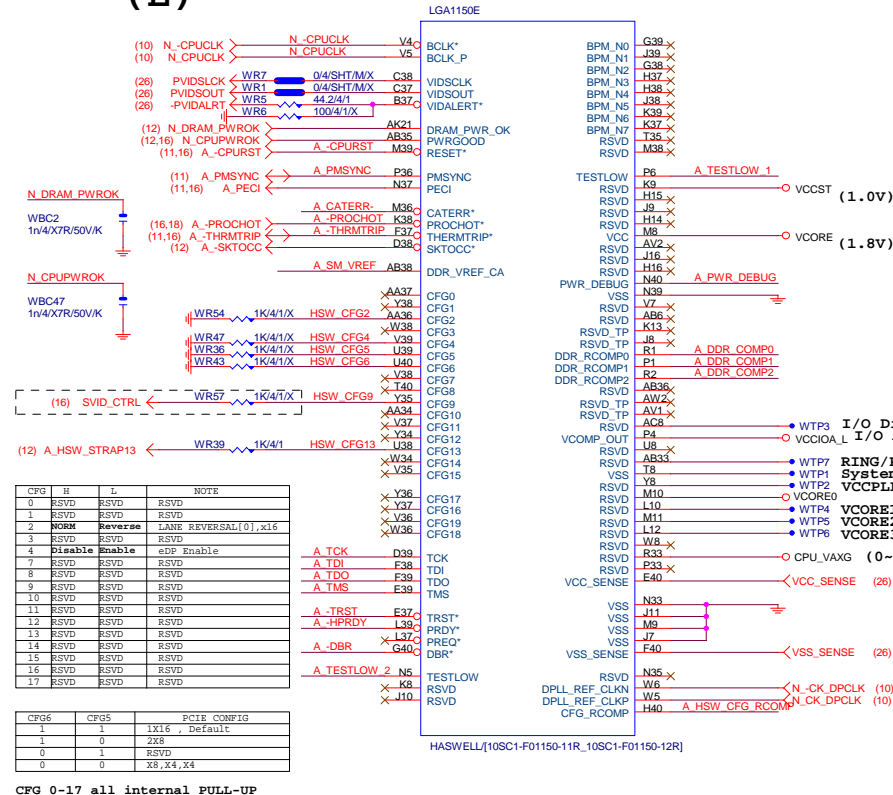
Size Custom	Document Number GA-H81M-H	Rev 1.0
Date: Friday, September 27, 2013	Sheet 1 of 29	

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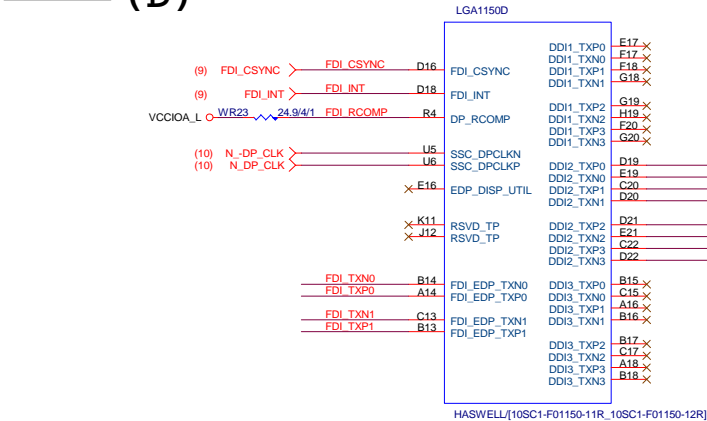
BLOCK DIAGRAM



LGA1150 (E)



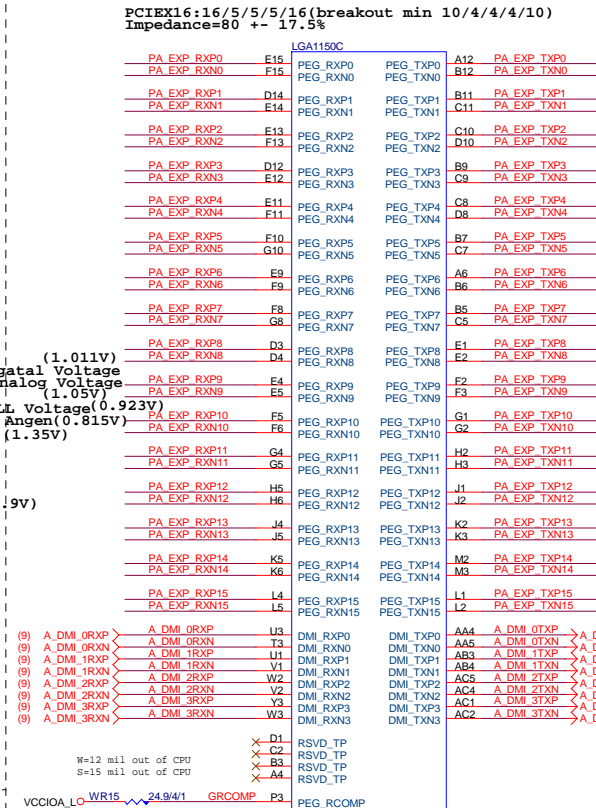
LGA1150 (D)



FDI:12/4/5/4/12(breakout min 6/4/4/4/6)
Impedance=85 +- 17.5%

FDI_TXP0_11 >>> FDI_TXP[0..1] (9)
FDI_TXN0_11 >>> FDI_TXN[0..1] (9)

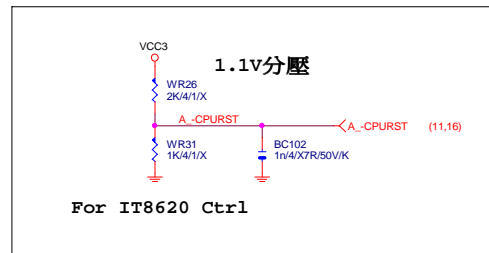
LGA1155 (C)



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

PA_EXP_TXP0_15 >>> PA_EXP_TXP[0..15] (14)
PA_EXP_TXN0_15 >>> PA_EXP_TXN[0..15] (14)
PA_EXP_RXP0_15 >>> PA_EXP_RXP[0..15] (14)
PA_EXP_RXN0_15 >>> PA_EXP_RXN[0..15] (14)

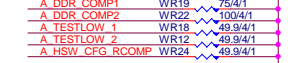
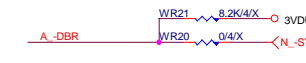
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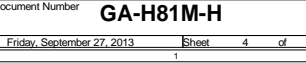
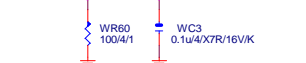
CPU SVID



CPU PU/PD



SM REF



LGA1150 (A)

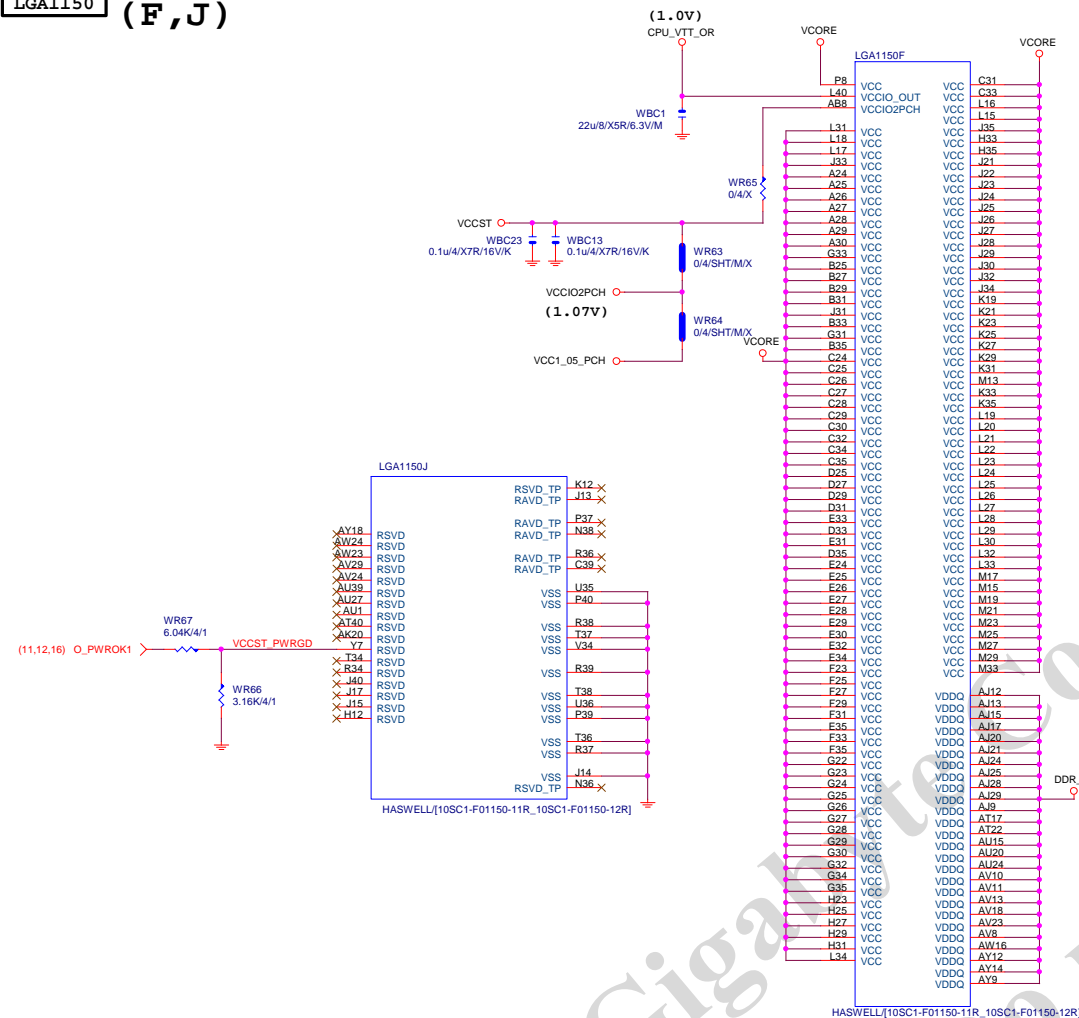
LGA1150A		DDR0_MA0	DDR0_D00	AD38	MDA0
MAAA0	AU13	DDR0_MA1	DDR0_D01	AD39	MDA1
MAAA1	AV16	DDR0_MA2	DDR0_D02	AF38	MDA2
MAAA2	AU16	DDR0_MA3	DDR0_D03	AF39	MDA3
MAAA3	AW17	DDR0_MA4	DDR0_D04	AD37	MDA4
MAAA4	AU17	DDR0_MA5	DDR0_D05	AD40	MDA5
MAAA5	AW18	DDR0_MA6	DDR0_D06	AE37	MDA6
MAAA6	AV17	DDR0_MA7	DDR0_D07	AF40	MDA7
MAAA7	AT18	DDR0_MA8	DDR0_D08	AH40	MDA9
MAAA8	AU18	DDR0_MA9	DDR0_D09	AH39	MDA10
MAAA9	AW19	DDR0_MA10	DDR0_D10	AK38	MDA11
MAAA10	AT19	DDR0_MA11	DDR0_D11	AK39	MDA12
MAAA11	AW19	DDR0_MA12	DDR0_D12	AH37	MDA12
MAAA12	AU19	DDR0_MA13	DDR0_D13	AH38	MDA14
MAAA13	AT20	DDR0_MA14	DDR0_D14	AK37	MDA14
MAAA14	AW21	DDR0_MA15	DDR0_D15	AK40	MDA15
MAAA15	AU21	DDR0_MA16	DDR0_D16	AM40	MDA17
MODT_A0	AW10	DDR0_ODT0	DDR0_D17	AM39	MDA21
MODT_A1	AY8	DDR0_ODT1	DDR0_D18	AP38	MDA18
AW9		DDR0_ODT2	DDR0_D19	AP39	MDA19
AW8		DDR0_ODT3	DDR0_D20	AM37	MDA20
AW33		DDR0_ECC0	DDR0_D21	AM38	MDA16
AW33		DDR0_ECC1	DDR0_D22	AP37	MDA22
AU31		DDR0_ECC2	DDR0_D23	AP40	MDA23
AW31		DDR0_ECC3	DDR0_D24	AW37	MDA29
AU33		DDR0_ECC4	DDR0_D25	AU35	MDA26
AT33		DDR0_ECC5	DDR0_D26	AW35	MDA27
AT31		DDR0_ECC6	DDR0_D27	T37	MDA28
AW31		DDR0_ECC7	DDR0_D28	AU37	MDA24
SBAA0	SBAA0	DDR0_BA0	DDR0_D29	AT35	MDA30
SBAA1	SBAA1	DDR0_BA1	DDR0_D30	AW35	MDA31
SBAA2	SBAA2	DDR0_BA2	DDR0_D31	AY6	MDA33
CKEA0	CKEA0	DDR0_CK0	DDR0_D32	AU6	MDA37
CKEA1	CKEA1	DDR0_CK1	DDR0_D33	AW6	MDA36
CSA0	CSA0	DDR0_CS_N0	DDR0_D34	AW6	MDA32
CSA1	CSA1	DDR0_CS_N1	DDR0_D35	AW4	MDA38
DCLKA0	DCLKA0	DDR0_CLK_P0	DDR0_D36	AW4	MDA39
DCLKA1	DCLKA1	DDR0_CLK_P1	DDR0_D37	AR1	MDA41
DCLKA2	DCLKA2	DDR0_CLK_P2	DDR0_D38	AR4	MDA45
DCLKA3	DCLKA3	DDR0_CLK_P3	DDR0_D39	AN3	MDA42
DCLKA4	DCLKA4	DDR0_CLK_P4	DDR0_D40	AN4	MDA43
DCLKA5	DCLKA5	DDR0_CLK_P5	DDR0_D41	AR2	MDA44
DCLKA6	DCLKA6	DDR0_CLK_P6	DDR0_D42	AR3	MDA40
DCLKA7	DCLKA7	DDR0_CLK_P7	DDR0_D43	AN2	MDA46
DCLKA8	DCLKA8	DDR0_CLK_P8	DDR0_D44	AN1	MDA47
DCLKA9	DCLKA9	DDR0_CLK_P9	DDR0_D45	AL1	MDA49
DCLKA10	DCLKA10	DDR0_CLK_P10	DDR0_D46	AL4	MDA53
DCLKA11	DCLKA11	DDR0_CLK_P11	DDR0_D47	AL4	MDA50
DCLKA12	DCLKA12	DDR0_CLK_P12	DDR0_D48	AJ4	MDA51
DCLKA13	DCLKA13	DDR0_CLK_P13	DDR0_D49	AL2	MDA52
DCLKA14	DCLKA14	DDR0_CLK_P14	DDR0_D50	AJ2	MDA48
DCLKA15	DCLKA15	DDR0_CLK_P15	DDR0_D51	AJ2	MDA54
DCLKA16	DCLKA16	DDR0_CLK_P16	DDR0_D52	AJ1	MDA55
DCLKA17	DCLKA17	DDR0_CLK_P17	DDR0_D53	AG1	MDA57
DCLKA18	DCLKA18	DDR0_CLK_P18	DDR0_D54	AG4	MDA61
DCLKA19	DCLKA19	DDR0_CLK_P19	DDR0_D55	AE3	MDA58
DCLKA20	DCLKA20	DDR0_CLK_P20	DDR0_D56	E4	MDA59
DCLKA21	DCLKA21	DDR0_CLK_P21	DDR0_D57	AG2	MDA60
DCLKA22	DCLKA22	DDR0_CLK_P22	DDR0_D58	AG3	MDA56
DCLKA23	DCLKA23	DDR0_CLK_P23	DDR0_D59	AE2	MDA62
DCLKA24	DCLKA24	DDR0_CLK_P24	DDR0_D60	AE1	MDA63
DCLKA25	DCLKA25	DDR0_CLK_P25	DDR0_D61	AE39	DQSA0
DCLKA26	DCLKA26	DDR0_CLK_P26	DDR0_D62	AJ39	DQSA1
DCLKA27	DCLKA27	DDR0_CLK_P27	DDR0_D63	AN39	DQSA2
DCLKA28	DCLKA28	DDR0_CLK_P28	DDR0_D64	AV36	DQSA3
DCLKA29	DCLKA29	DDR0_CLK_P29	DDR0_D65	AV5	DQSA4
DCLKA30	DCLKA30	DDR0_CLK_P30	DDR0_D66	AP3	DQSA5
DCLKA31	DCLKA31	DDR0_CLK_P31	DDR0_D67	AK3	DQSA6
DCLKA32	DCLKA32	DDR0_CLK_P32	DDR0_D68	AF3	DQSA7
DCLKA33	DCLKA33	DDR0_CLK_P33	DDR0_D69	AV32	DQSA0
DCLKA34	DCLKA34	DDR0_CLK_P34	DDR0_D70	AE38	DQSA1
DCLKA35	DCLKA35	DDR0_CLK_P35	DDR0_D71	AJ38	DQSA2
DCLKA36	DCLKA36	DDR0_CLK_P36	DDR0_D72	AN38	DQSA3
DCLKA37	DCLKA37	DDR0_CLK_P37	DDR0_D73	AJ36	DQSA4
DCLKA38	DCLKA38	DDR0_CLK_P38	DDR0_D74	AW5	DQSA5
DCLKA39	DCLKA39	DDR0_CLK_P39	DDR0_D75	AP2	DQSA6
DCLKA40	DCLKA40	DDR0_CLK_P40	DDR0_D76	AK2	DQSA7
DCLKA41	DCLKA41	DDR0_CLK_P41	DDR0_D77	AF2	DQSA7
DCLKA42	DCLKA42	DDR0_CLK_P42	DDR0_D78	AJ32	DQSA7

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

LGA1150 (B)

		LGA1150B			
		MAAB0	AL19	DDR1_MA0	AE34 MD80
		MAAB1	AK23	DDR1_MA1	AE35 MD81
		MAAB2	AM22	DDR1_MA2	AG35 MD82
		MAAB3	AM23	DDR1_MA3	AH35 MD83
		MAAB4	AP23	DDR1_MA4	AD34 MD84
		MAAB5	AL23	DDR1_MA5	AD35 MD85
		MAAB6	AY24	DDR1_MA6	AG34 MD86
		MAAB7	AY25	DDR1_MA7	AH34 MD87
		MAAB8	AU26	DDR1_MA8	AL34 MD88
		MAAB9	AW25	DDR1_MA9	AL35 MD89
		MAAB10	AP18	DDR1_MA10	AK31 MD810
		MAAB11	AY25	DDR1_MA11	AL31 MD811
		MAAB12	AY26	DDR1_MA12	AK34 MD812
		MAAB13	AR15	DDR1_MA13	AK35 MD813
		MAAB14	AV27	DDR1_MA14	AK32 MD814
		MAAB15	AY28	DDR1_MA15	AL32 MD815
				DDR1_MA16	AN34 MD817
		MODT_B0	AM17	DDR1_ODT0	AP34 MD821
		MODT_B1	AL16	DDR1_ODT1	AK31 MD819
			AM16	DDR1_ODT2	AP31 MD823
			AK15	DDR1_ODT3	AN35 MD820
				DDR1_ODT4	AP35 MD816
				DDR1_ODT5	AN32 MD818
			AM26	DDR1_EC00	AP32 MD822
			AM25	DDR1_EC01	AM29 MD825
			AP25	DDR1_EC02	MD828
			AP26	DDR1_EC03	MD827
			AL26	DDR1_EC04	AR28 MD830
			AL25	DDR1_EC05	AL29 MD824
			AR26	DDR1_EC06	AL28 MD829
			AR25	DDR1_EC07	AP29 MD826
				DDR1_EC08	AP28 MD831
				DDR1_EC09	AR12 MD832
				DDR1_EC10	AK13 MD834
				DDR1_EC11	AL12 MD835
				DDR1_EC12	AK13 MD836
				DDR1_EC13	AP13 MD837
				DDR1_EC14	AM12 MD839
				DDR1_EC15	AR9 MD845
				DDR1_EC16	AP9 MD841
				DDR1_EC17	AR6 MD847
				DDR1_EC18	AP6 MD843
				DDR1_EC19	AR10 MD844
				DDR1_EC20	AP10 MD840
				DDR1_EC21	AP7 MD846
				DDR1_EC22	MD842
				DDR1_EC23	AM9 MD852
				DDR1_EC24	AL9 MD863
				DDR1_EC25	AL6 MD860
				DDR1_EC26	AL7 MD855
				DDR1_EC27	AM10 MD849
				DDR1_EC28	AL10 MD849
				DDR1_EC29	AM6 MD854
				DDR1_EC30	AM7 MD851
				DDR1_EC31	AM6 MD851
				DDR1_EC32	AP7 MD860
				DDR1_EC33	AE6 MD859
				DDR1_EC34	AE7 MD863
				DDR1_EC35	AJ6 MD866
				DDR1_EC36	AJ7 MD867
				DDR1_EC37	AF6 MD858
				DDR1_EC38	AF7 MD862
				DDR1_EC39	AF35 DO880
				DDR1_EC40	AL33 DO881
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				DDR1_EC42	AN28 DO883
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				DDR1_EC299	
				DDR1_EC300	
				DDR1_EC301	
				DDR1_EC302	
				DDR1_EC303	
				DDR1_EC304	
				DDR1_EC305	
				DDR1_EC306	
				DDR1_EC307	
				DDR1_EC308	
				DDR1_EC309	
				DDR1_EC310	

LGA1150 (F,J)

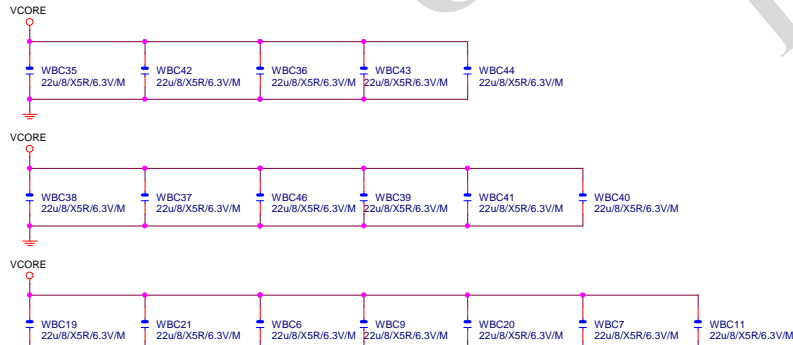


LGA1155 (G,H,I)



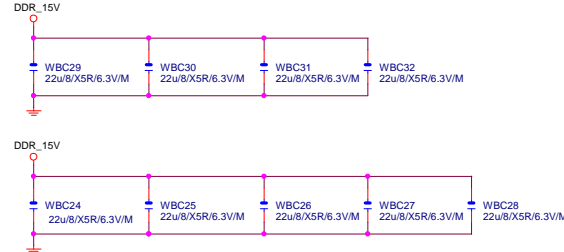
VCore CAP

(X18)



DDR CAP

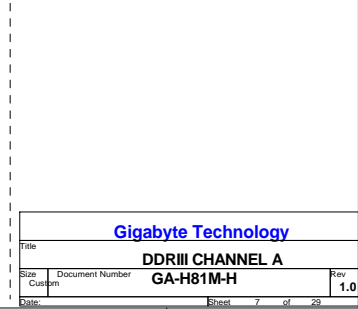
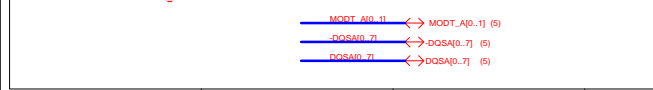
(X9)



Gigabyte Technology

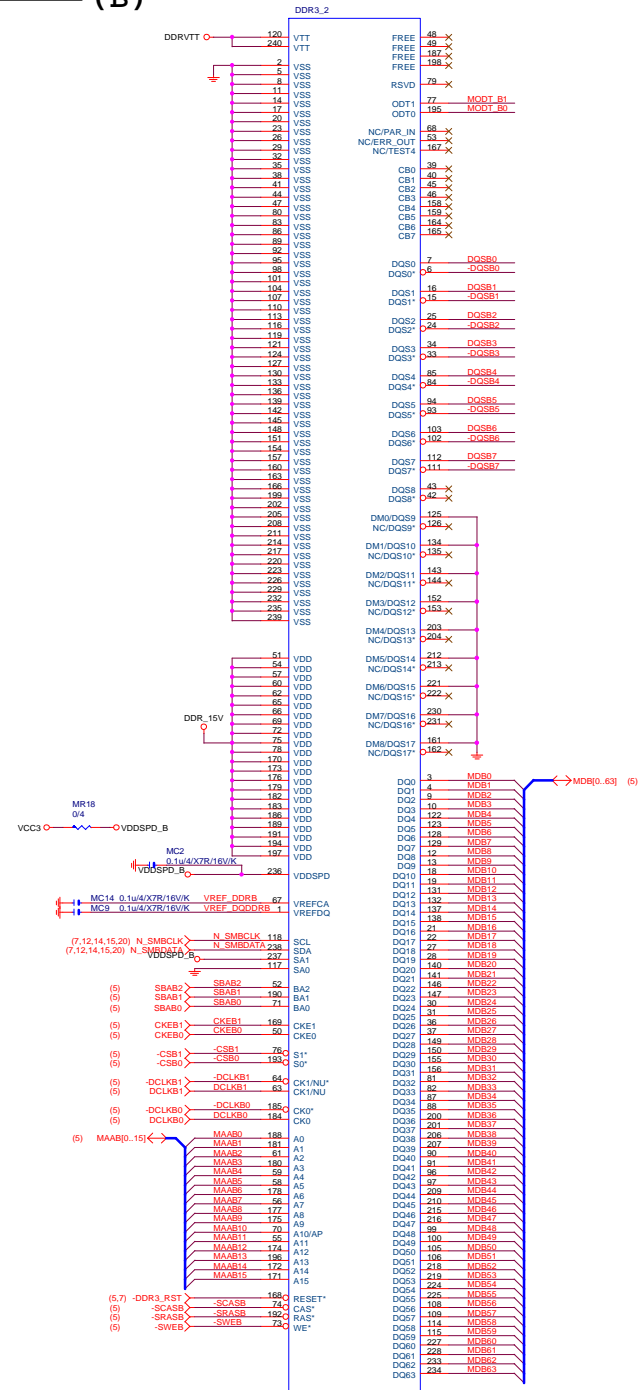
Title		CPU LGA1150-C	
Size	Document Number	GA-H81M-H	
Custpm			
Date:	Friday, September 27, 2013	Sheet	6 of 29

Rev 1.0

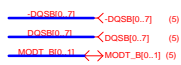


DDR3

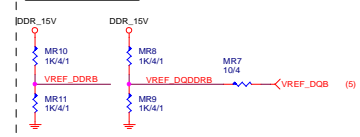
(B)



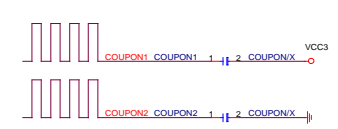
DDR3/240/BK/VA/D
BLACK CONNECTOR



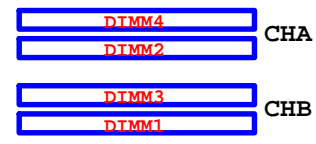
DDR3 VREF



COUPON



CPU



PCH

(B)

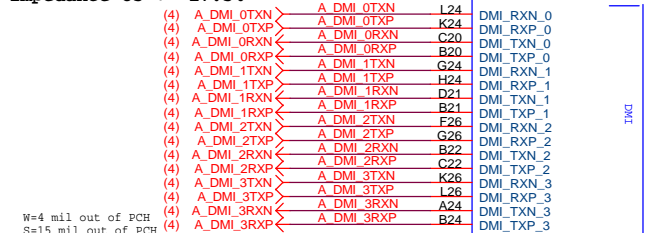
DMI:12/4/4/4/12(breakout min 8/4/4/4/8)
Impedance=85 +- 17.5%

USB2.0 : 12/4.5/7.5/4.5/12 (breakout min 8/4/4/4/8)
Impedance=90 +- 17.5%

PCHB

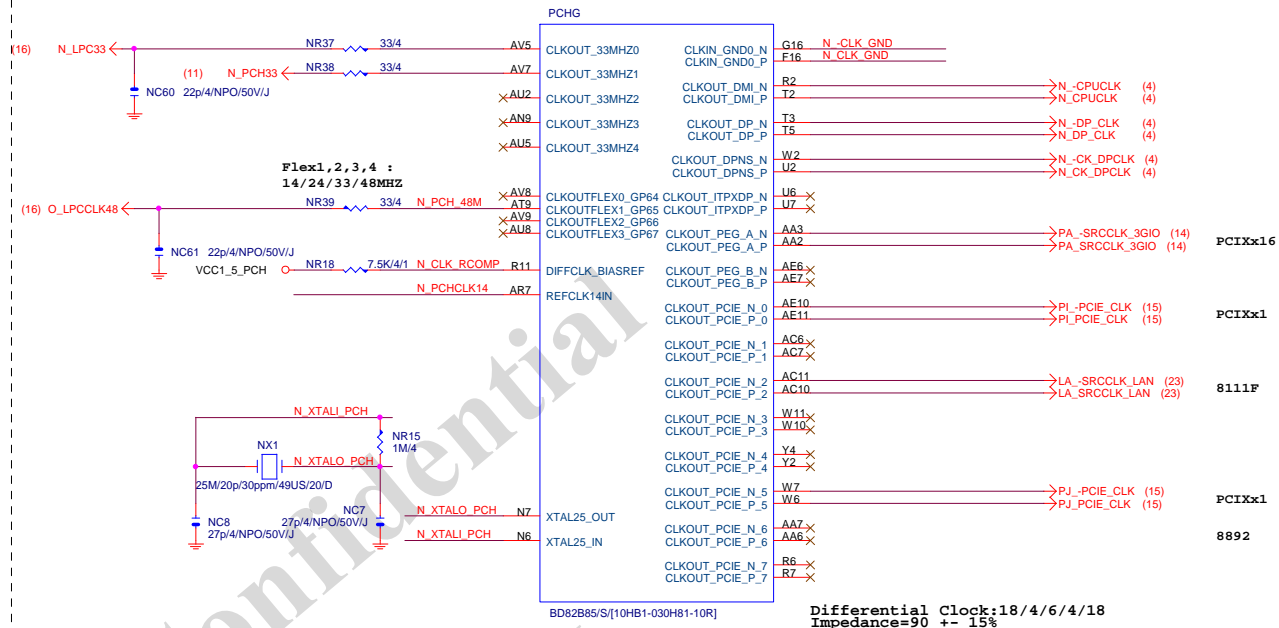
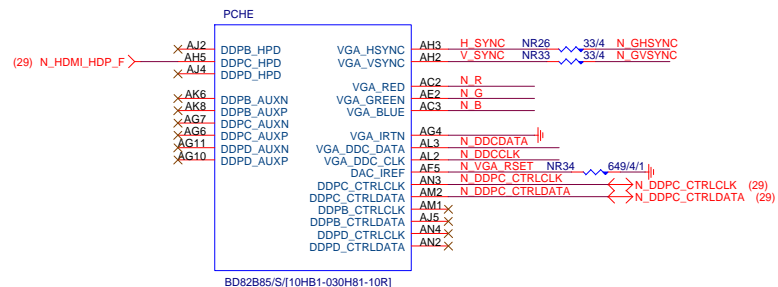
B85: Port 6/7 N/A

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



PCH (E)

PCH (G)



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

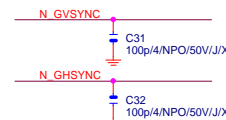
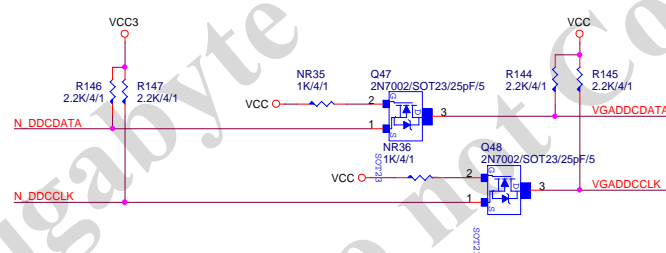
PCH CLK PD



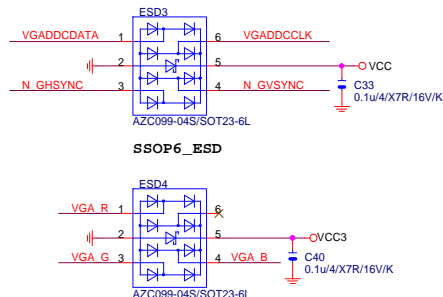
Mount for integrated clock Generation Mode



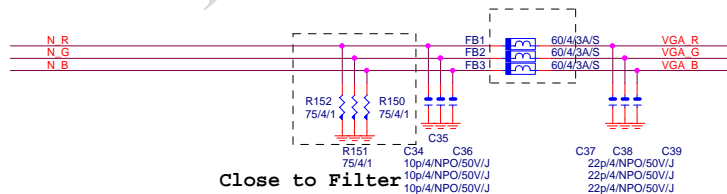
VGA DDC



VGA ESD

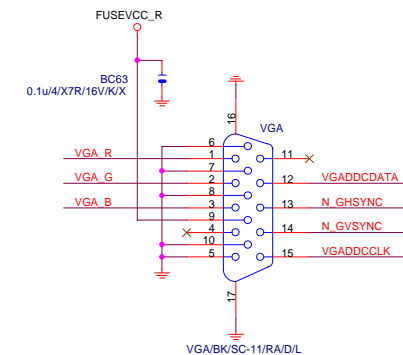


VGA DDC



Close to Filter

VGA CONNECTOR



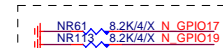
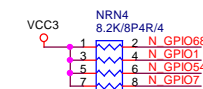
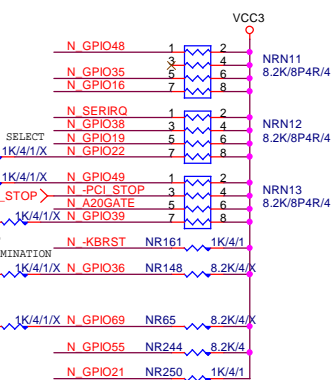
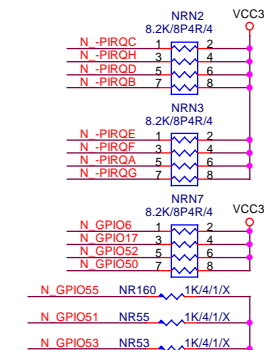
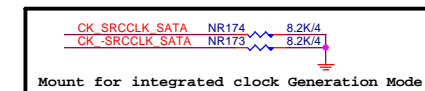
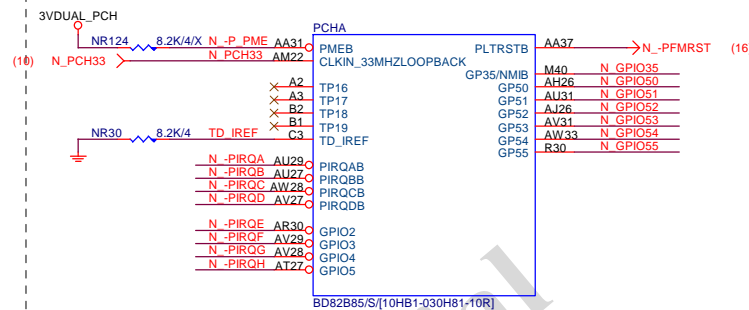
Gigabyte Technology

PCH DISPLAY, CLK BUFFER

GA-H81M-H

Title: PCH DISPLAY, CLK BUFFER
Size: Custom
Document Number: GA-H81M-H
Date: Friday, September 27, 2013
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Rev: 1.0

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%



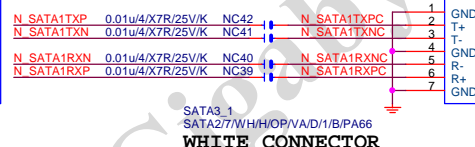
N SATA0TXP 0.01u4/X7R/25V/K NC44 N SATA0TXPC
N SATA0TXN 0.01u4/X7R/25V/K NC43 N SATA0XNC

N SATA0RXN 0.01u4/X7R/25V/K NC38 N SATA0RXNC
N SATA0RXP 0.01u4/X7R/25V/K NC37 N SATA0RXPC

SATA3_0
SATA2/7/WH/HOP/VA/D/1/B/PA66

WHITE CONNECTOR

H81 Port 2/3 N/A



GPIO37 PU VCC3 ENABLE SBA
For H87&B85

(12) N_GPIO060 NR184 8.2K/4

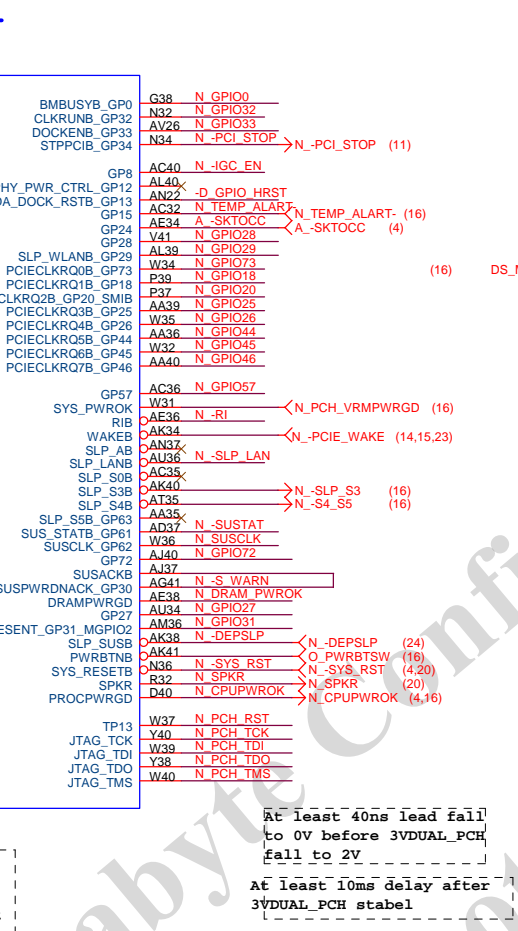
N_GPIO38 NR114 8.2K/4/X ♀

VCC:

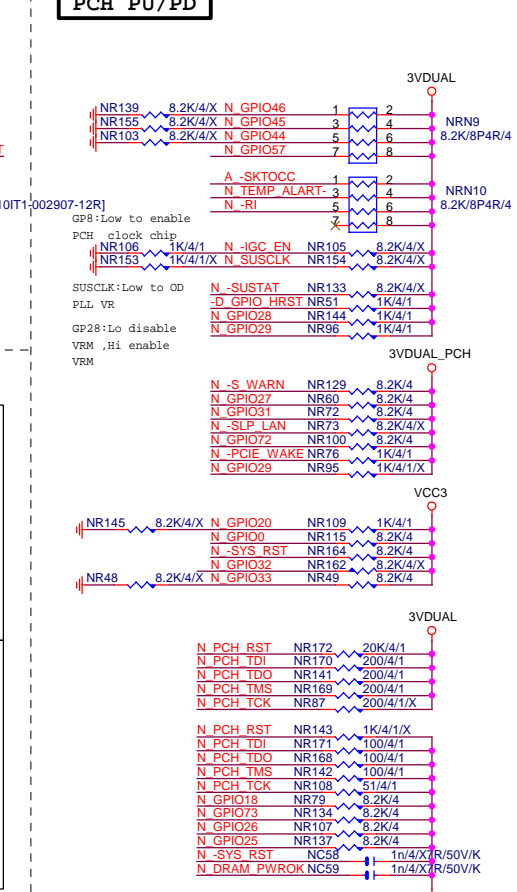
NO13 MMBT2222A/SOT23/600mA/40 SOT23

Title			
PCH HOST , SATA, PCI			
Size	Document Number	Rev	
Custom	GA-H81M-H	1.0	
Date:	Friday, September 27, 2013	Sheet	11 of 29

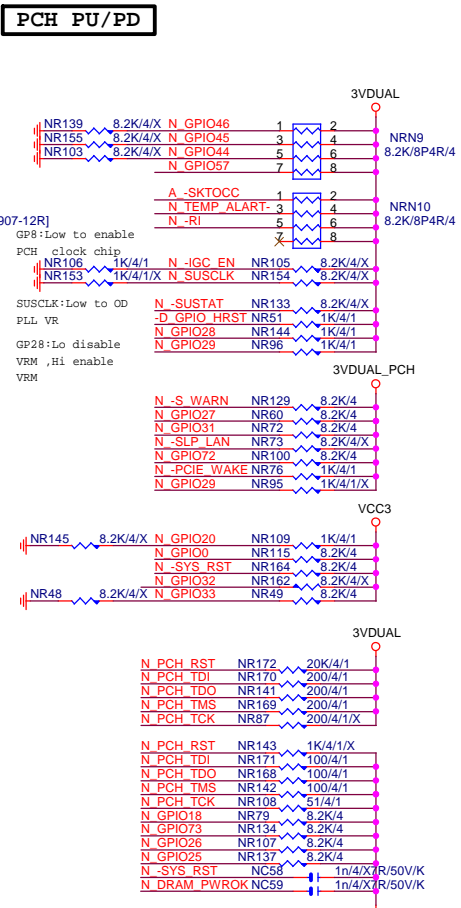
(D)



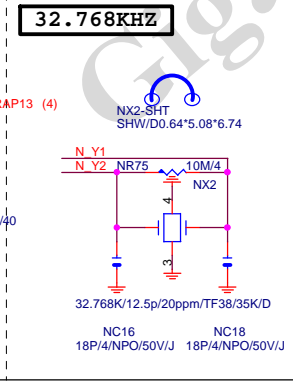
ACZ_SDOUT



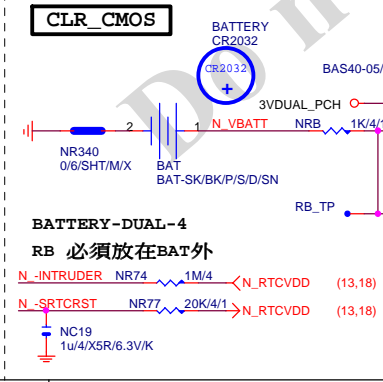
PCH PU/PD



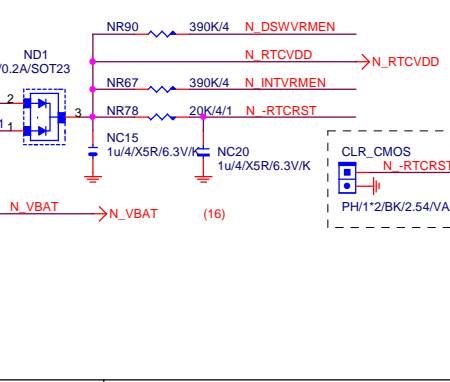
HSW_STRAP13



32.768KHZ

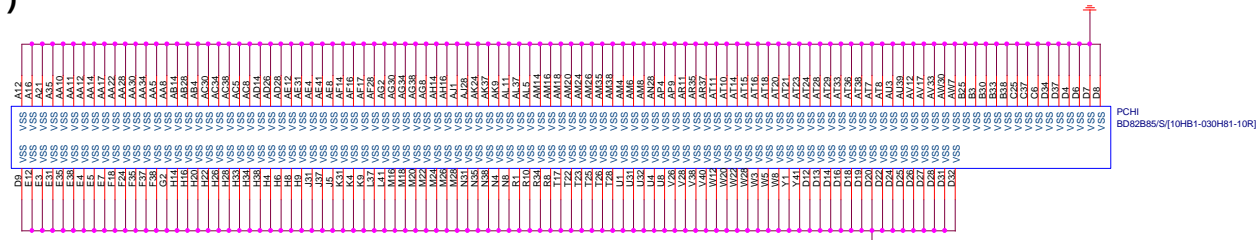


CLR_CMOS

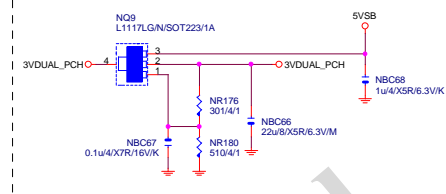


Gigabyte Technology			
Title PCH GPIO , CTRL , AUDIO			
Size Custom	Document Number GA-H81M-H	Rev 1.0	
Date:	Friday, September 27, 2013	Sheet 12 of 29	

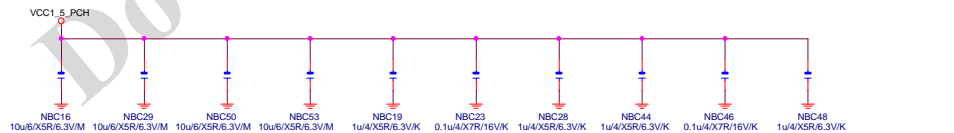
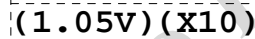
PCH (I)



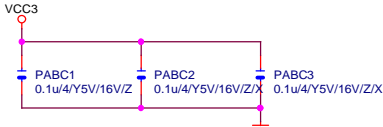
SHT PWR



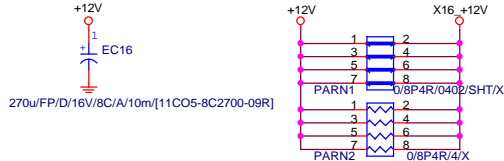
VCC3_ME 3VDUAL PCH



PCIEX16 CAP



PCIEX16 PROTECT SHT

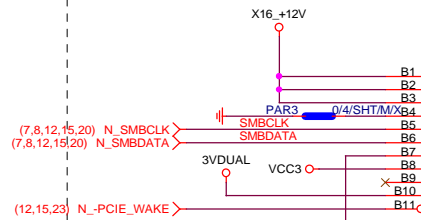


PCIEX16 AC CAP

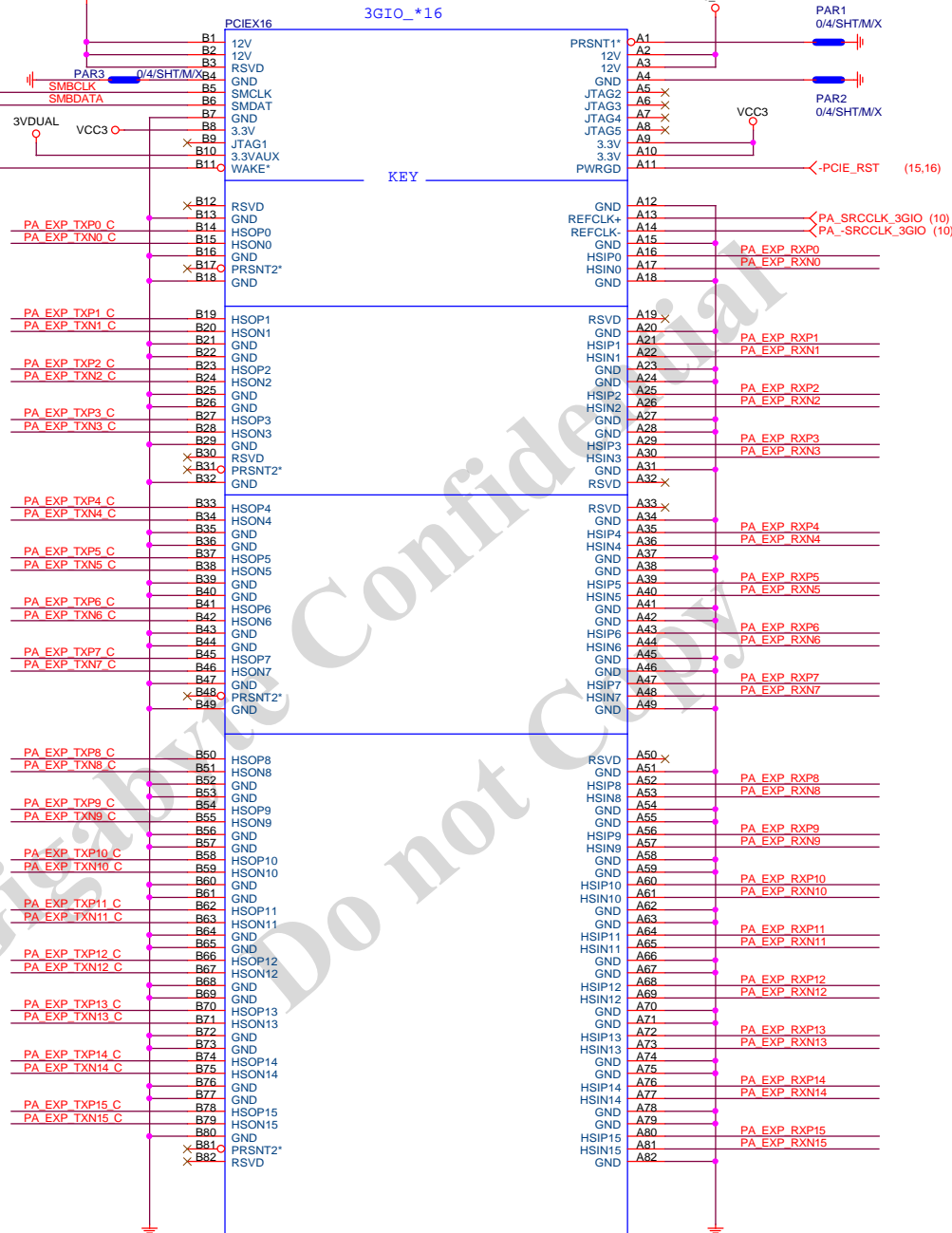
PA EXP TXP0	PAC5	0.22u4/X5R/6.3V/K	PA EXP TXP0 C
PA EXP TXN0	PAC4	0.22u4/X5R/6.3V/K	PA EXP TXN0 C
PA EXP TXP1	PAC6	0.22u4/X5R/6.3V/K	PA EXP TXP1 C
PA EXP TXN1	PAC7	0.22u4/X5R/6.3V/K	PA EXP TXN1 C
PA EXP TXP2	PAC8	0.22u4/X5R/6.3V/K	PA EXP TXP2 C
PA EXP TXN2	PAC9	0.22u4/X5R/6.3V/K	PA EXP TXN2 C
PA EXP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

PA EXP RXP0.15] >>> PA_EXP_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



PCIESLOT-164DN-P



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

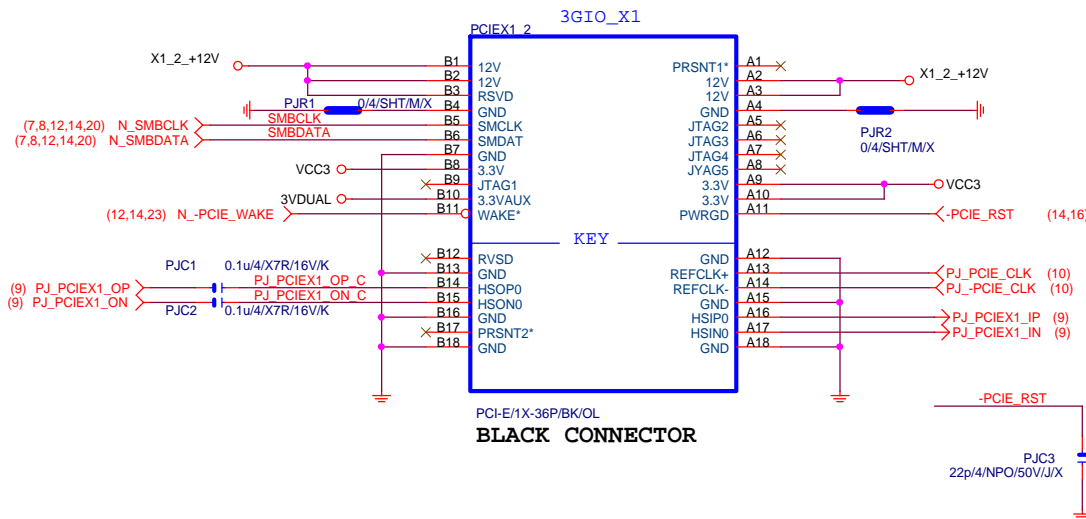
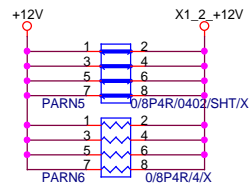
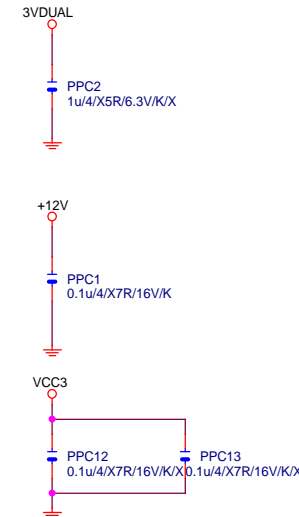
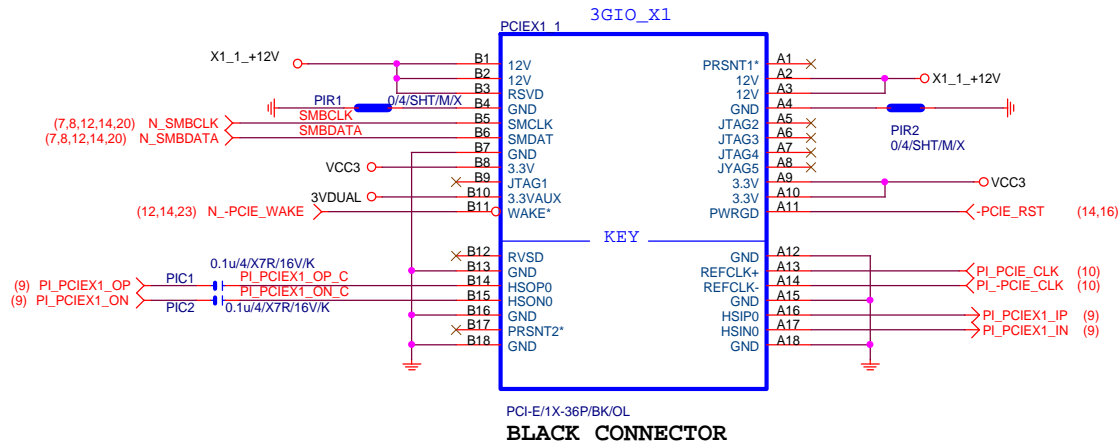
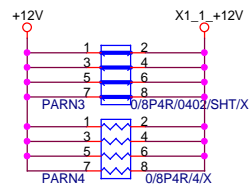
BLACK CONNECTOR

Gigabyte Technology

Title			PCI EXPRESS * 16	
Size			GA-H81M-H	
Custom			Rev 1.0	
Date:			Friday, September 27, 2013	
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PCIEX1 SLOT

PCIEX1 PROTECT SHT



Gigabyte Technology			
PCI EXPRESS X 1 PORT			
Title	Document Number	Rev	
Size	Custom	GA-H81M-H	
Date:	Friday, September 27, 2013	Sheet	15 of 29

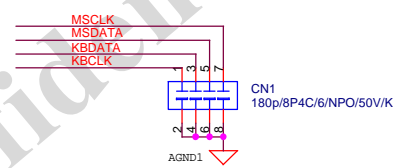
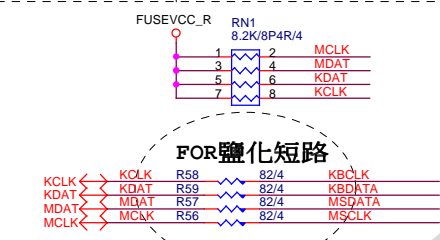
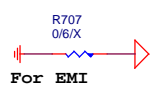
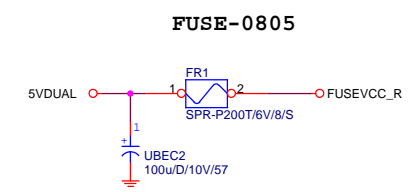
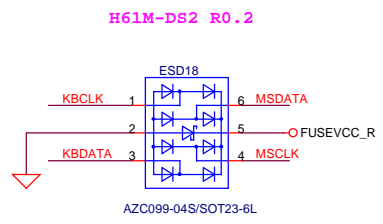
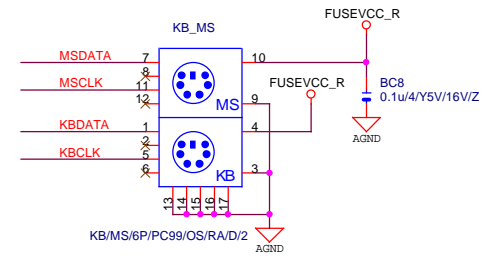
COM

KB/MS

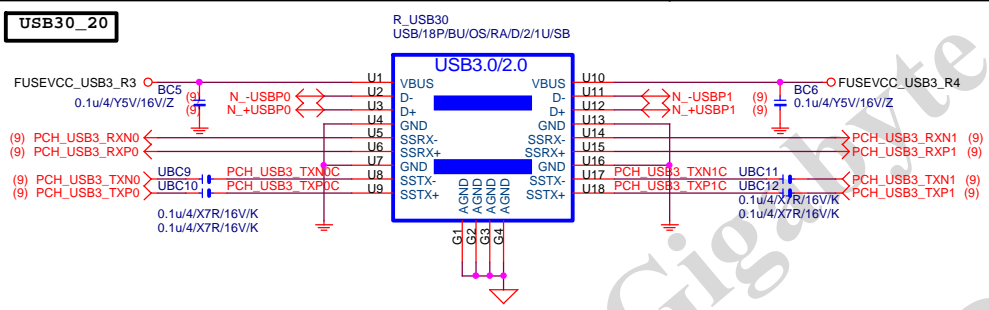
KB_MS ESD

USB2.0 PWR

COM RI

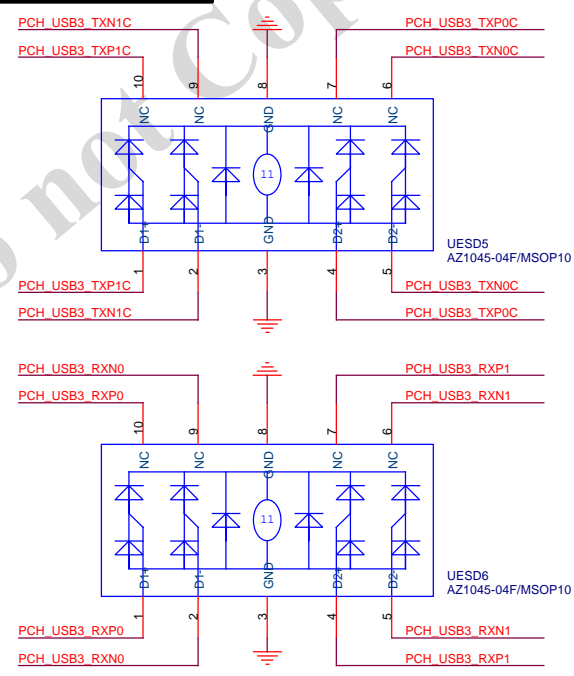


USB30_20

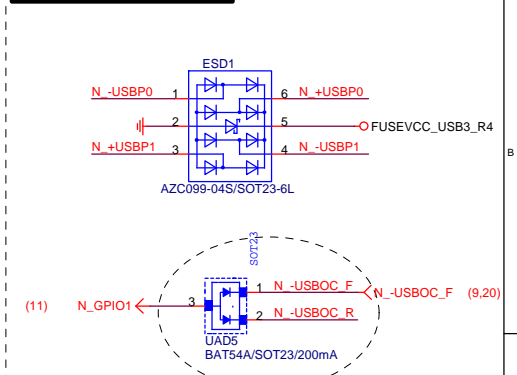


USB30_20 ESD PROTECT

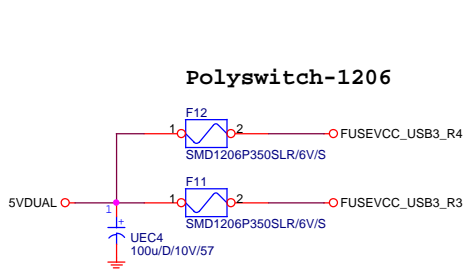
USB3.0 ESD



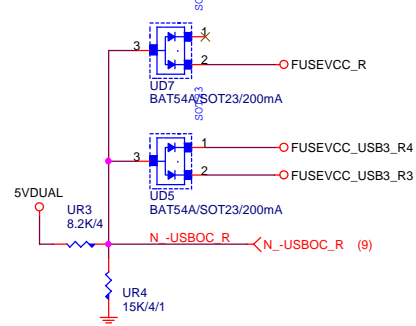
USB POWER PROTECT



USB30_20 PWR



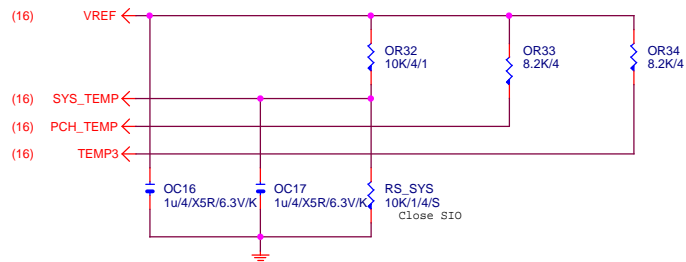
-USBOC_R



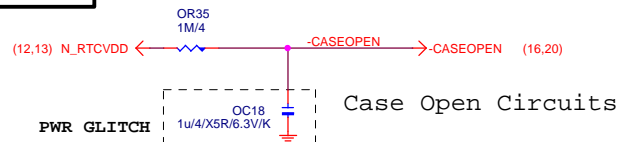
N_GPIO1接USBOC,S3/S4/S5會拉LOW

USB3.0 1Port - 1Fuse (3.5A)

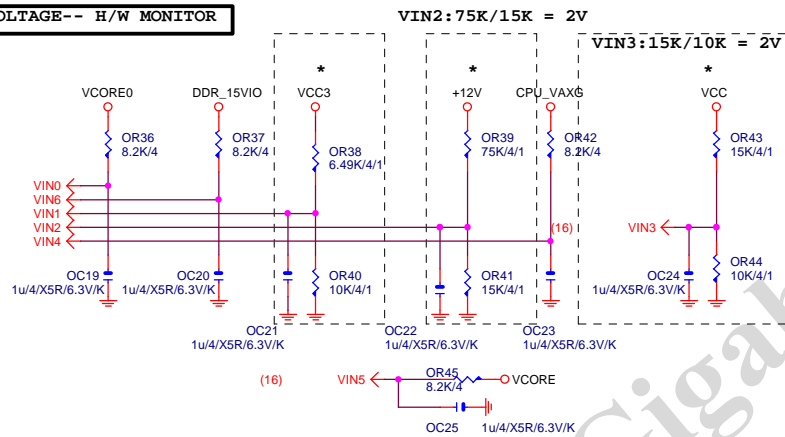
TEMP H/W MONITOR



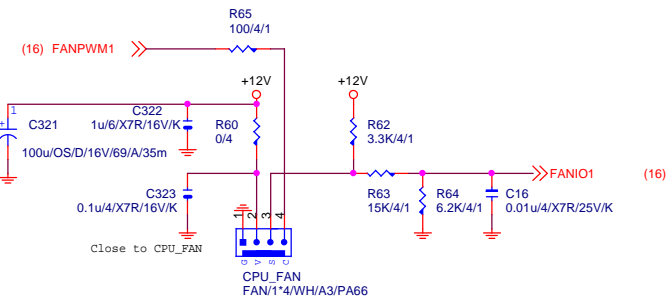
CASE OPEN



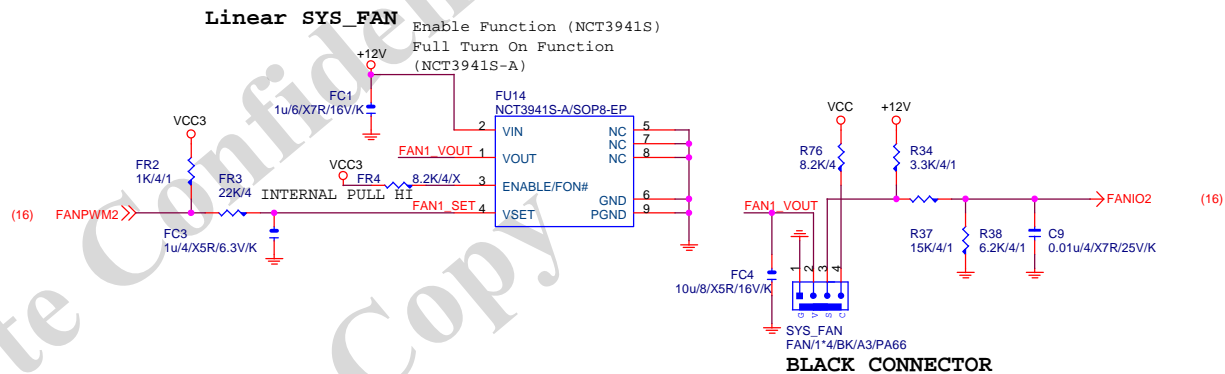
VOLTAGE-- H/W MONITOR



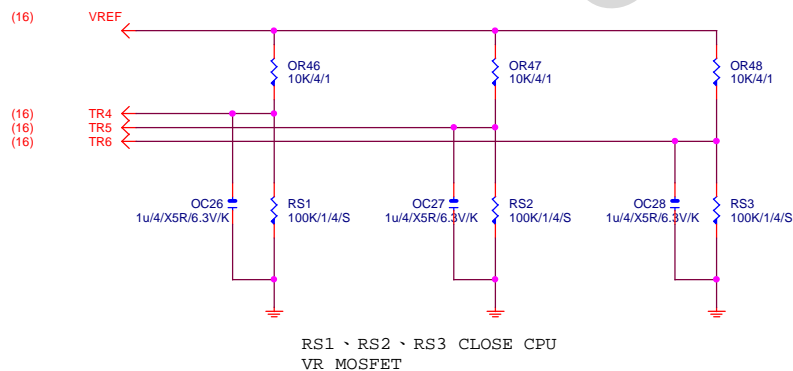
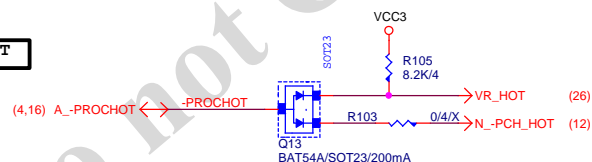
CPU SMART FAN

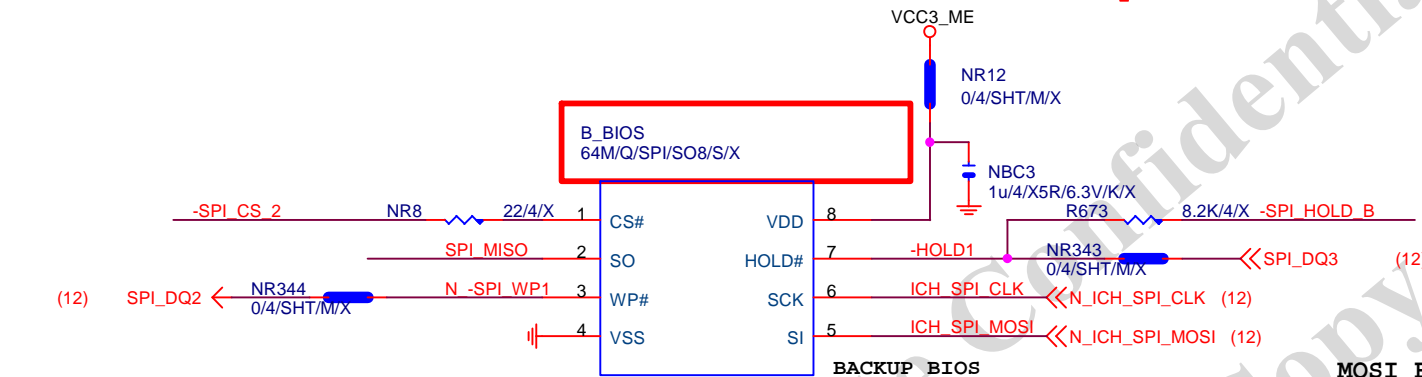
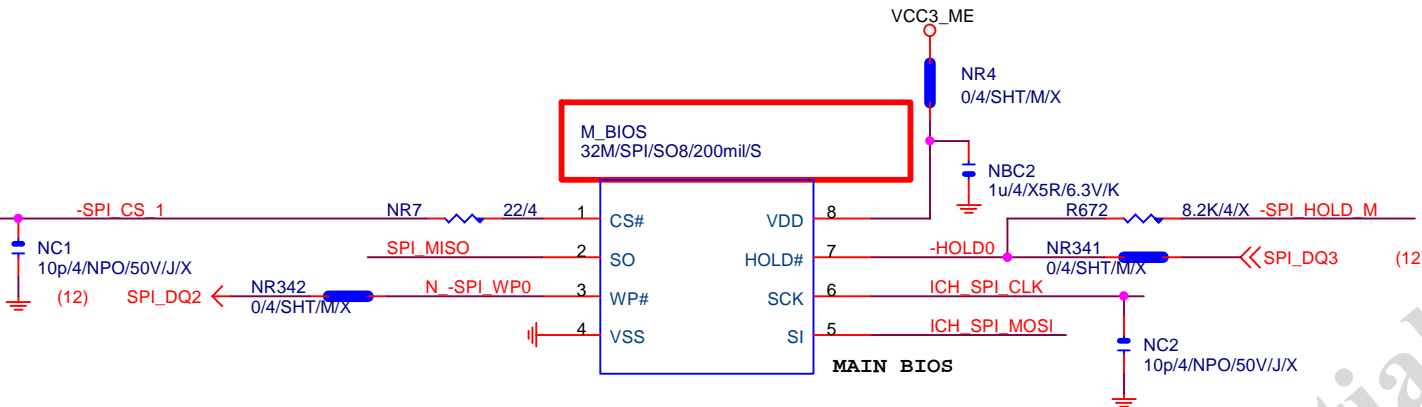


SYS SMART FAN



-PROHOT

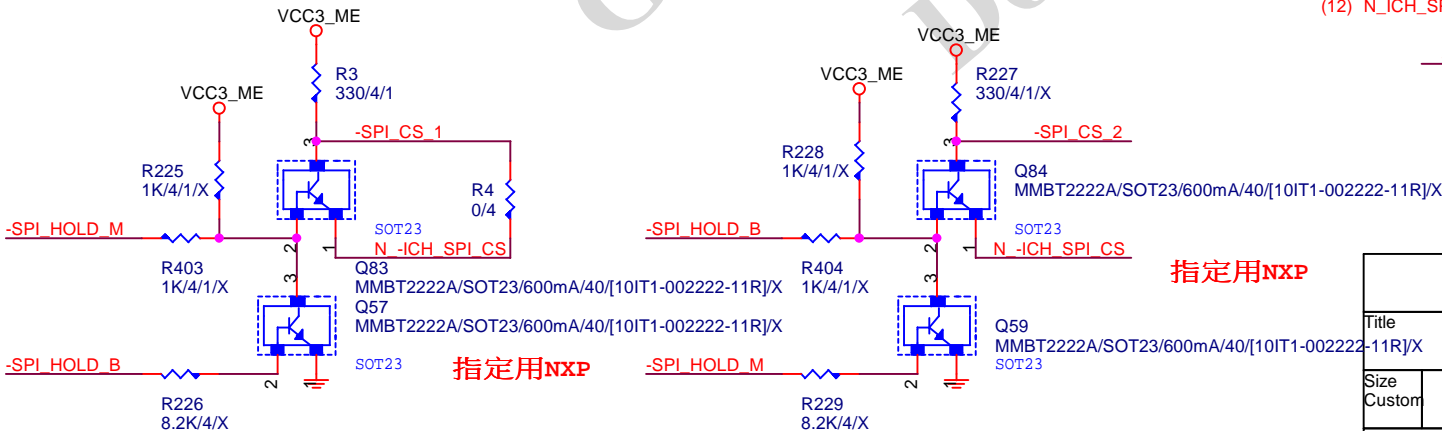
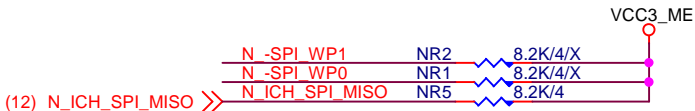
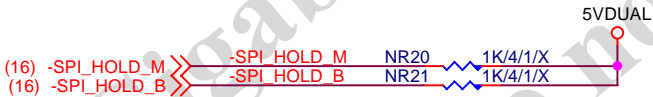
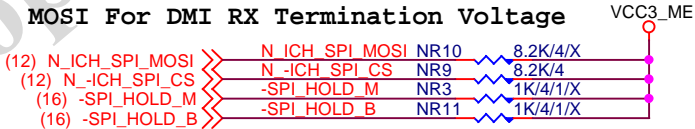




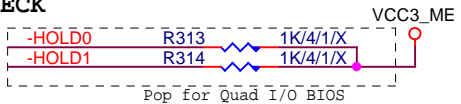
BOOT DEVICE	GNT0	GNT1
LPC	0	0
PCI	0	1
NAND	1	0
SPI	1	1

1 means floating
0 means PD 1K

MOSI For DMI RX Termination Voltage



CHECK



Gigabyte Technology

DUAL BIOS

GA-H81M-H

Rev 1.0

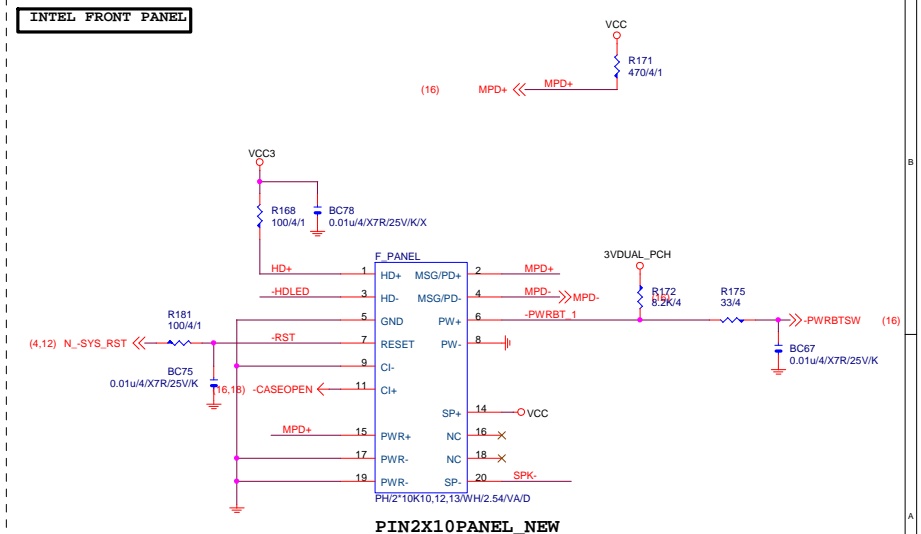
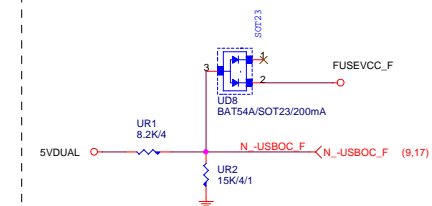
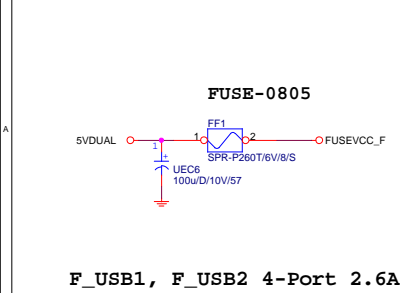
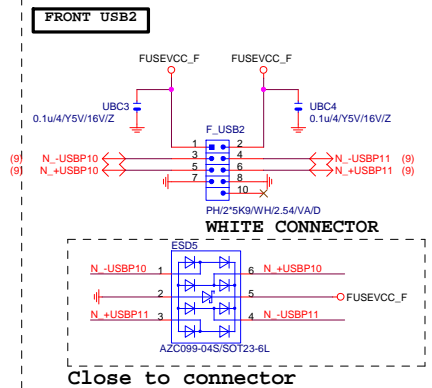
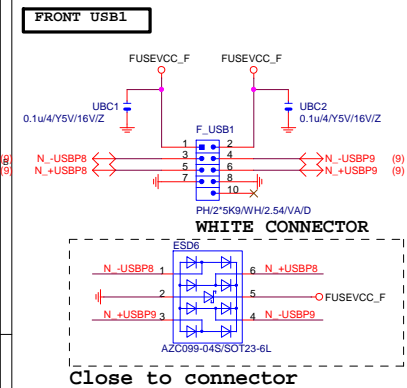
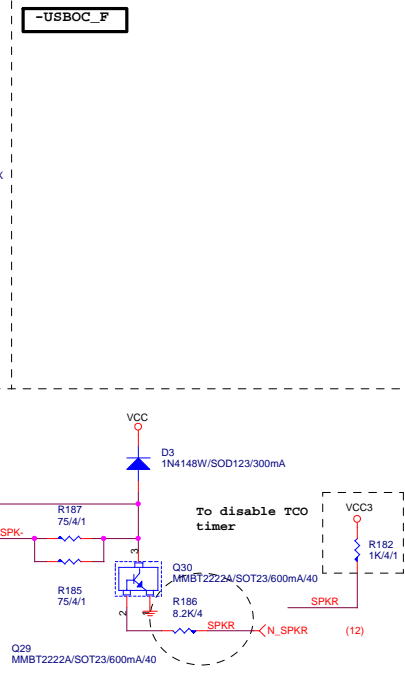
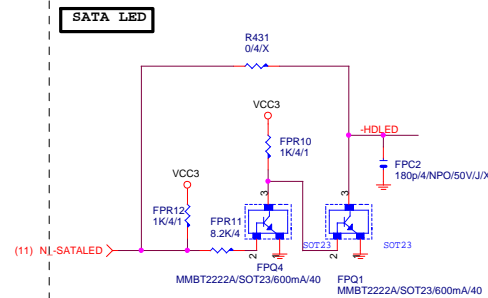
Title

Size Custom

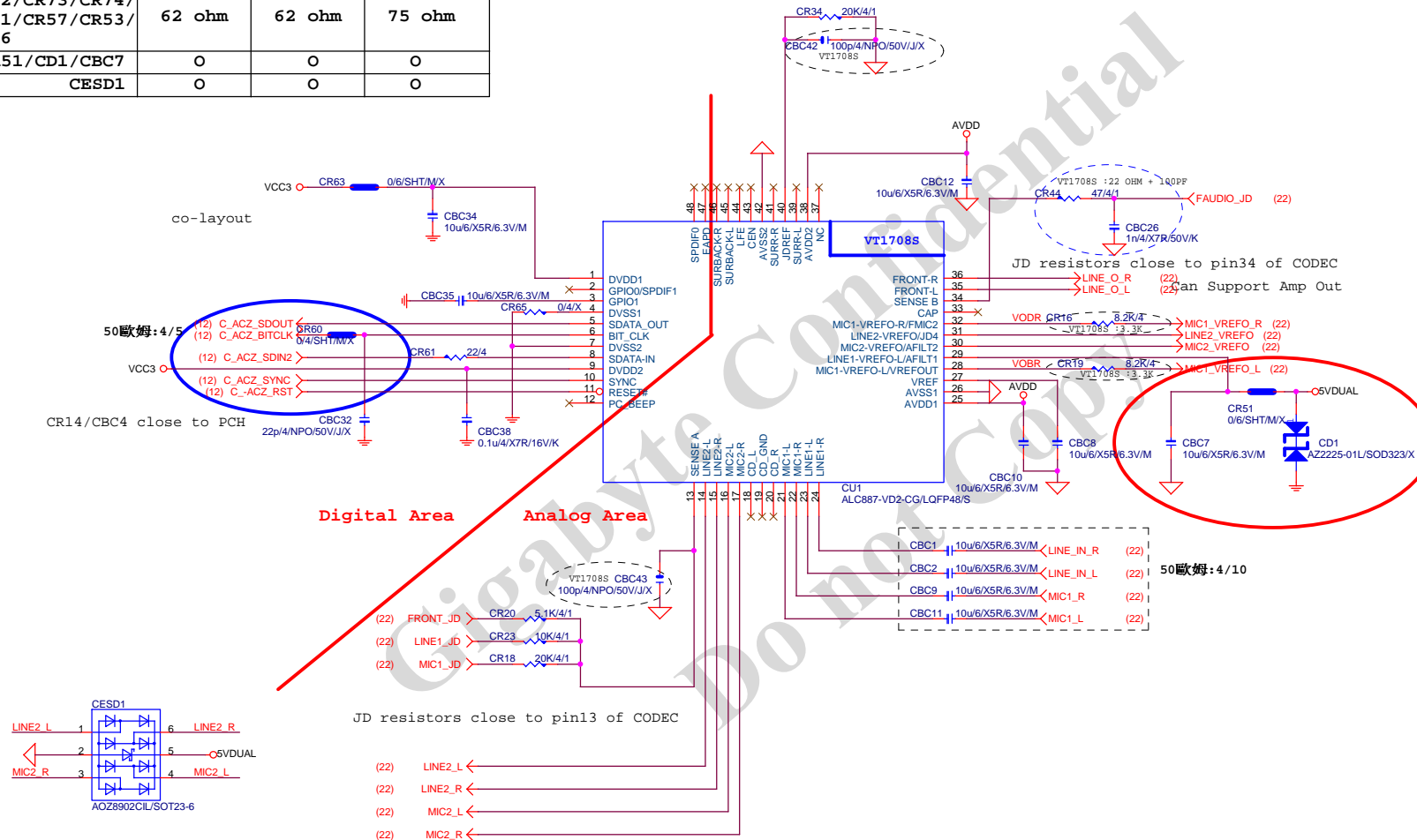
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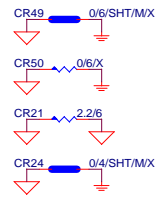
Date: Friday, September 27, 2013

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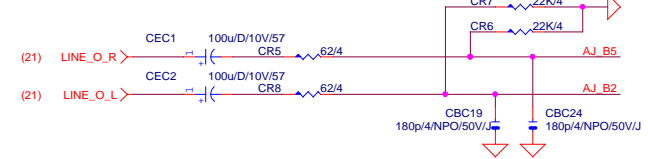


	ALC892	ALC887-VD2	VT1708S-CE
CR44/CBC26	47ohm+1nF	47ohm+1nF	22ohm+100P
CBC42/CBC43	X	X	100P/4
CR6/CR7/CR58/CR54/ CR67/CR68/CR69/CR70	22K/4	22K/4	10K/4/1
CR5/CR8/CR1/CR14/ CR17/CR22/CR73/CR74/ CR13/CR11/CR57/CR53/ CR75/CR76	62 ohm	62 ohm	75 ohm
CR51/CD1/CBC7	O	O	O
CESD1	O	O	O





LINE-OUT



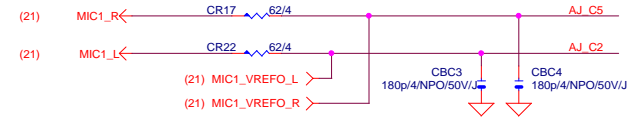
Only reserved for ALC888

LINE-IN

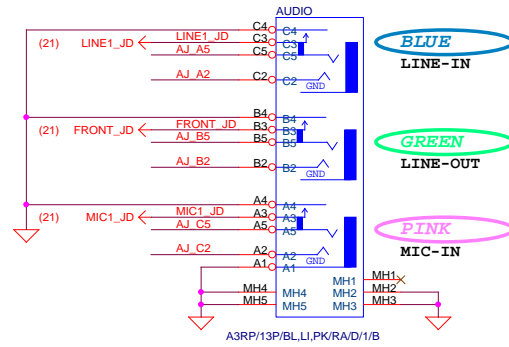
Verify MIC function
in LINE-in

For 889A/888

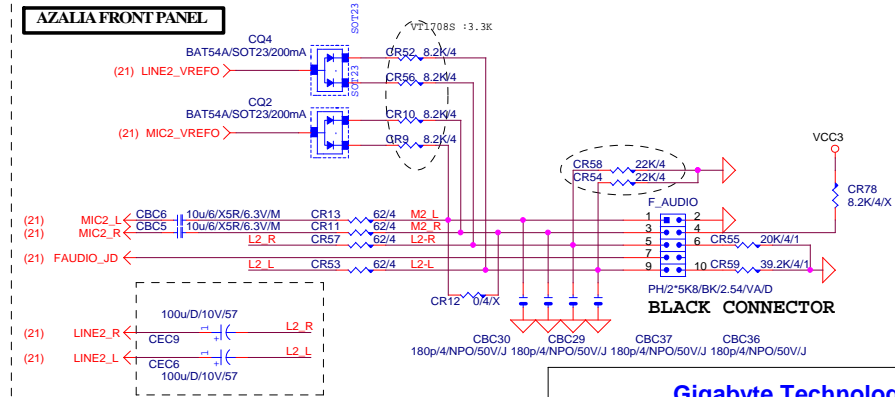
MIC-IN



SPDIF_OUT



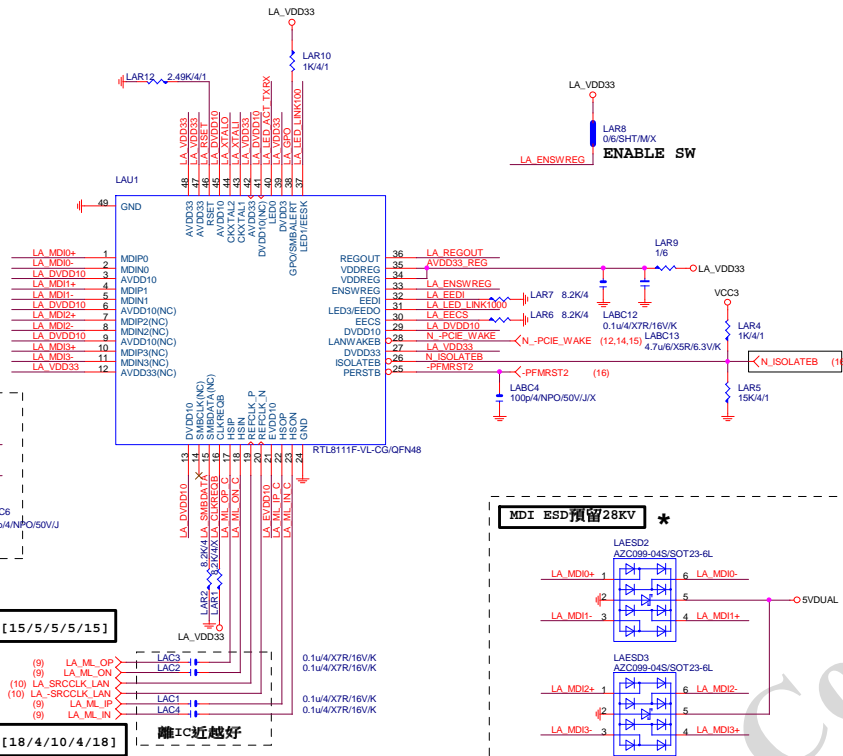
AZALIA FRONT PANEL



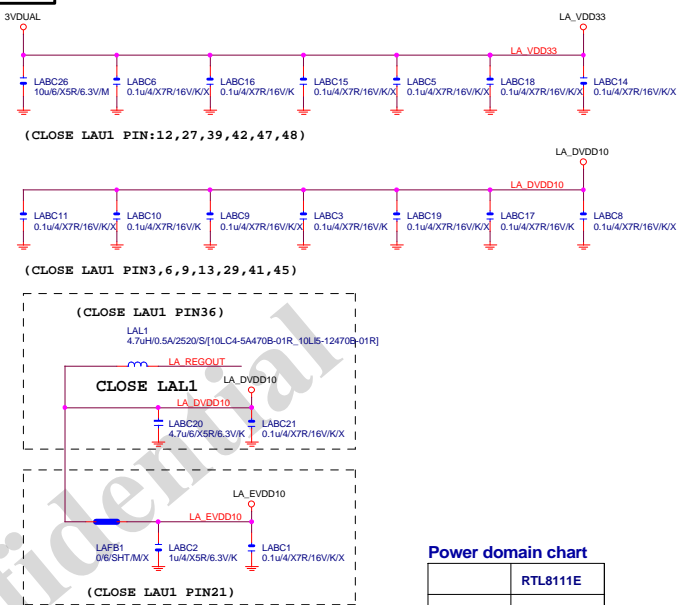
Gigabyte Technology

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AUDIO JACK			
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LAN:RTL8111F/VB/VL



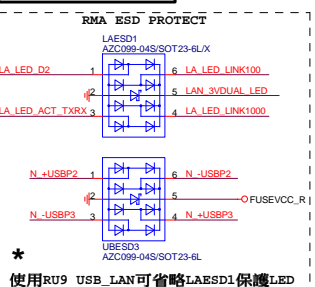
LAN POWER



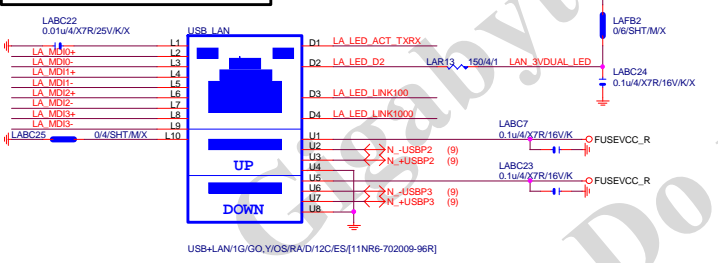
Power domain chart

	RTL8111E
AVDD33	3.3V
DVDD33	3.3V
VDDREG	3.3V
DVDD10	1.05V

USB LAN CONNECTOR



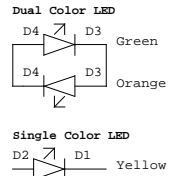
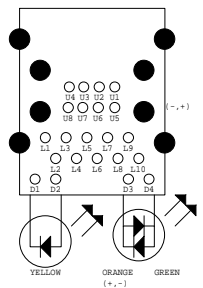
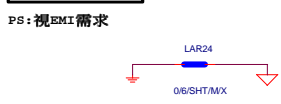
LA_MDI-->100歐姆:[20/4/8/4/20]



USB X3 POWER



EMI SHORT PAD



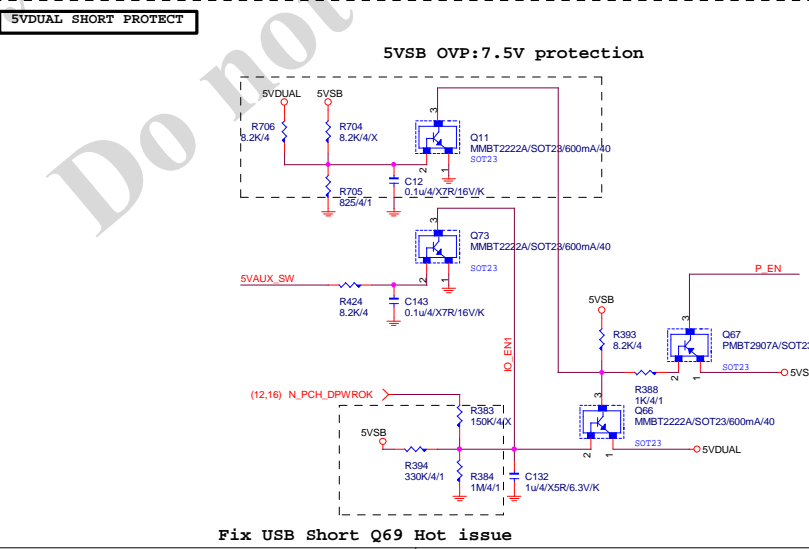
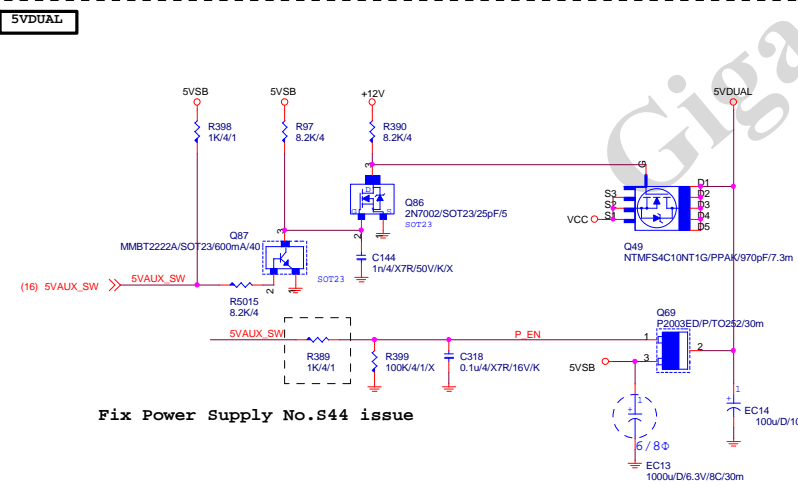
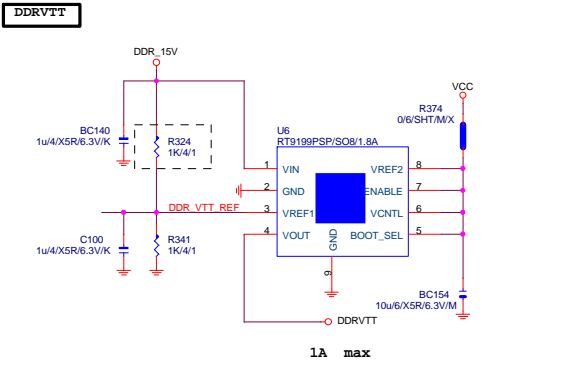
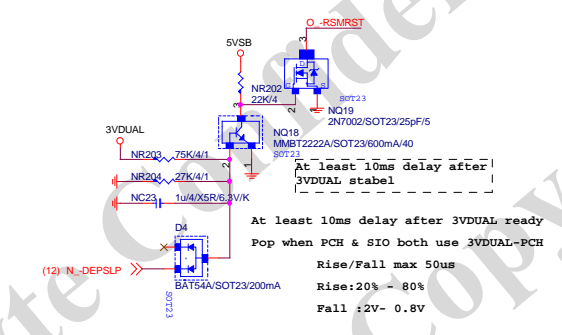
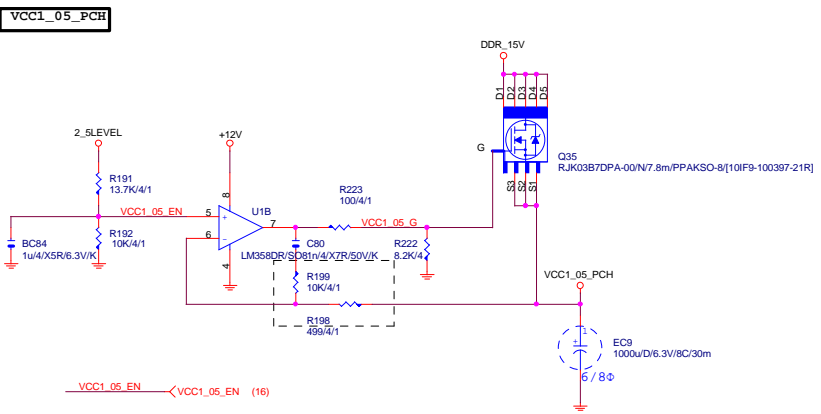
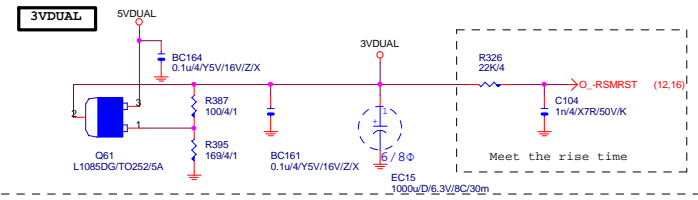
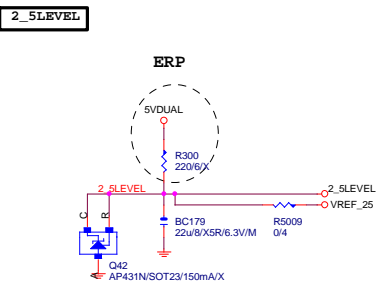
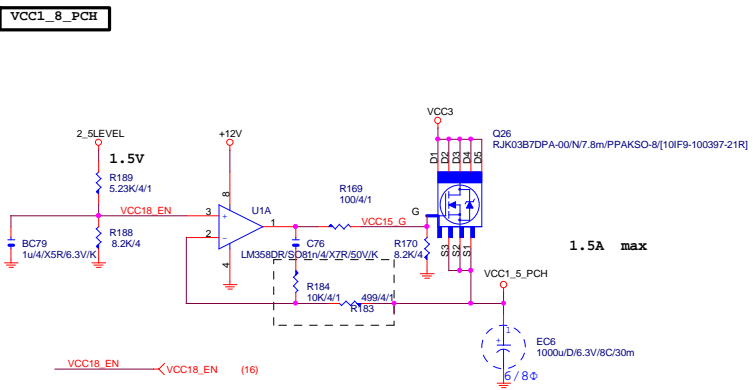
BOM NOTICE *

料號	規格	廠商
11NR6-702009-96R	1G LAN (12core)	UDE(RU9 ESD+)
[LED獨立走線,可省略外加AZC099料件LAESD1]		
1. 9KV ESD BOM:		
USB_LAN (RU9):11NR6-702009-96R		
2. 28KV ESD BOM:		
USB_LAN (RU9):11NR6-702009-96R		
LAESD2,LAESD3:上件AZC398-04S		

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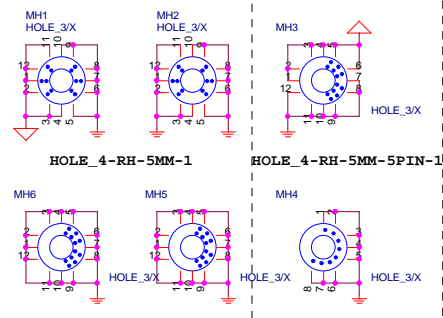
Realtek RTL8111G

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DISCRETE POWER		
GA-H81M-H		
Rev	1.0	

【技術通報R&D技術通報155】

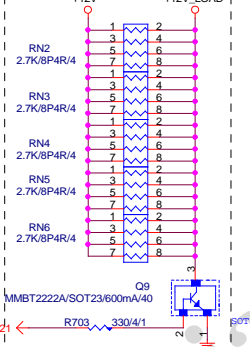


To prevent the 5VSB
under loading when
boot

TPM

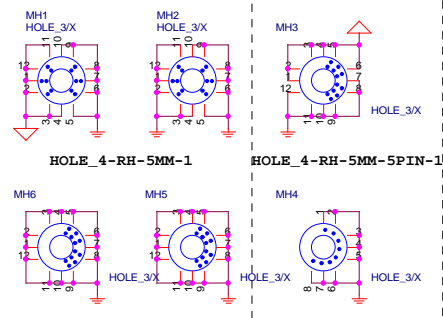
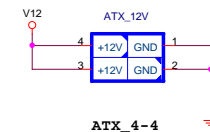
To fix 12V light load

To fix 12V light load abnromal issue	+12V LOAD
---	-----------



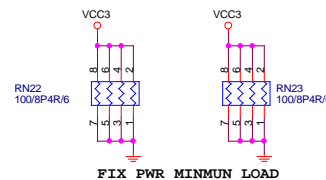
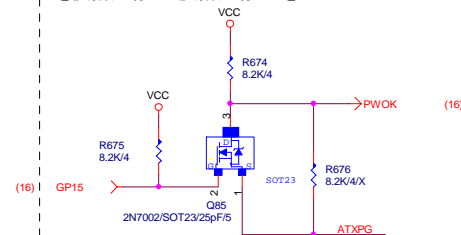
ATXX4 POWER CONNECTOR

APW/2*2/BK/P/4.2/SN/PA66/[11NH4-020004-G2R]



林德通報D&D林德

【技術通報R&D技術通報154】



FIX PWR MINMUN LOAD

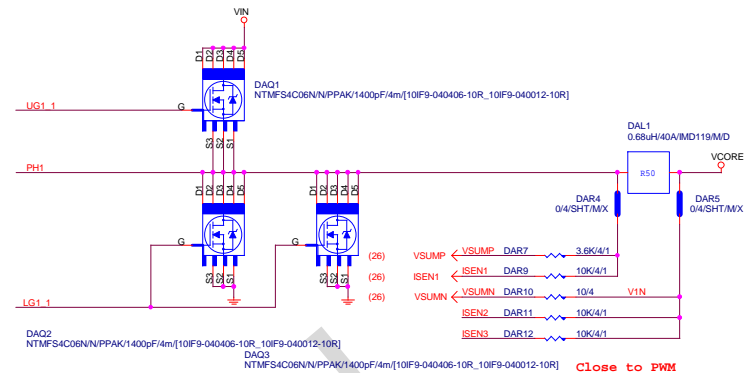
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ATX CONNECTOR

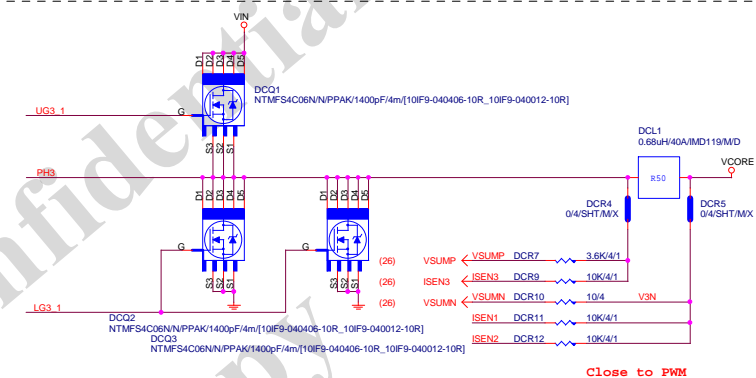
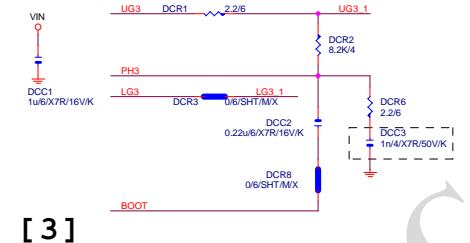
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Diagram illustrating the flow of information from the input (UG1, PH1, LG1) to the output (UG1, PH1, LG1) through a system, with each output labeled (26).



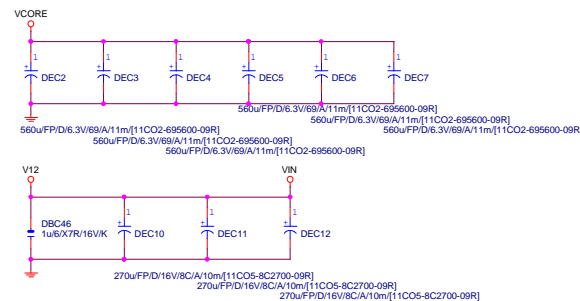
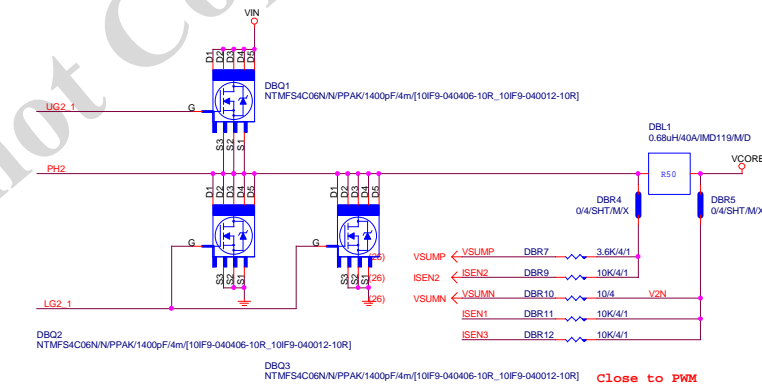
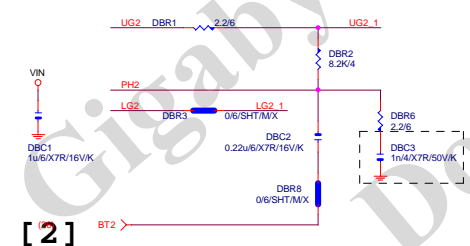
PWM3 → PWM3 (26)

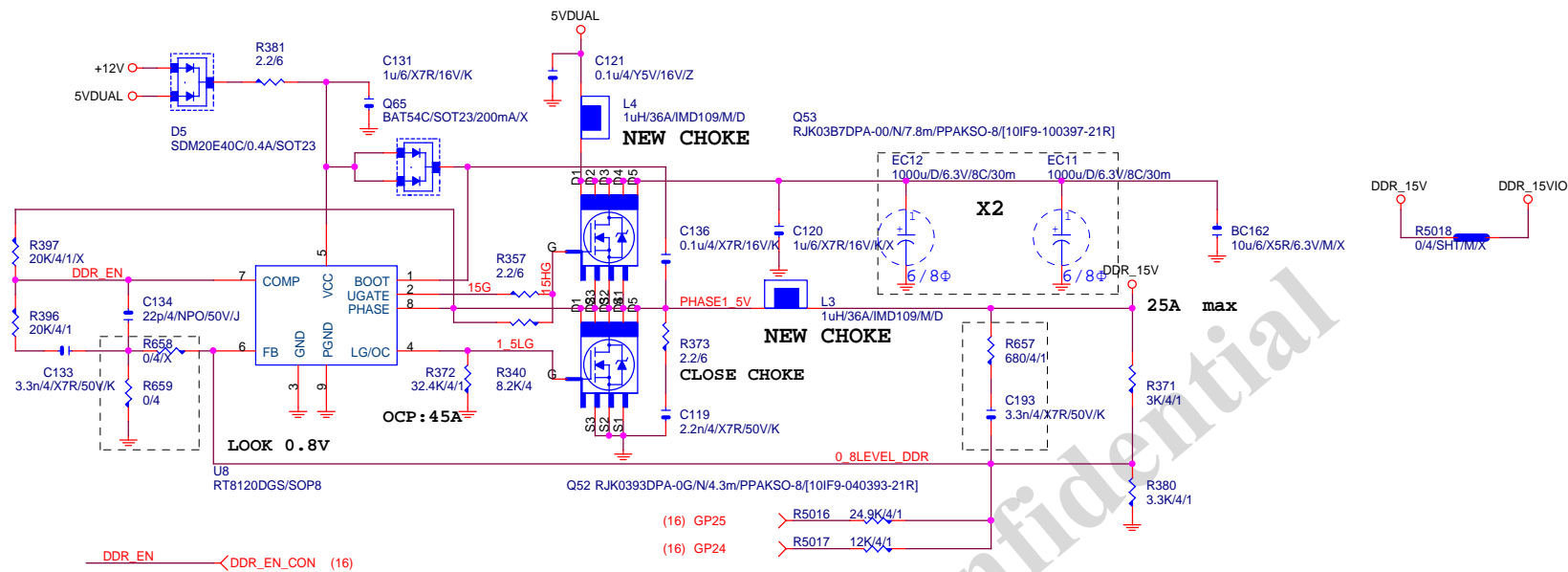


UG2 26

PH2 26

LG2 26





VIN=5V, VOUT=1.5V, IOUT=25A, PHASE=1

IRMS=11.45A

560u/FP/D/6.3V/68/8m RIPPLE CURRENT=4.7A

Coefficient=1.7(85°C), 1(105°C)

VIN Ripple current=4.7X1.7=7.99A(85°C)

-->故固態電容須2X7.99=15.98>11.45A

$Rocset = (I_{ocp} * L_{gate, rdson}) / I_{ocset}$

$Rocset = (45A * 6.7m\Omega) / 10uA = 30K$

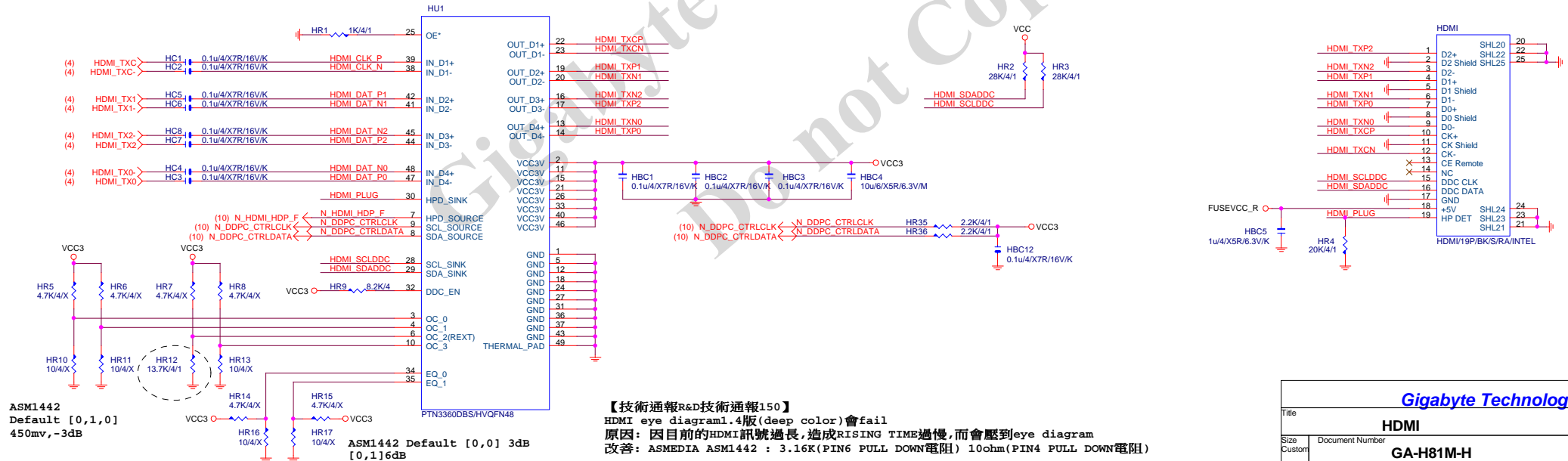
$I_{ocset} = 10uA$

Gigabyte Technology

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DDR POWER		
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HDMI LEVEL SHIFT

HDMI:20/4/6/4/20
Impedance=85 +- 17.5%



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HDMI		
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		1.0