

Model Name: GA-B85N PHOENIX-WIFI 2.0

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	ITE 8620 LPC IO
16	COM,KB_USB30
17	HWM,FAN CTRL,OV,-PROCHOT
18	DUAL BIOS
19	FP,FUSB,SPK,SATALED
20	Realtek ALC898
21	REAR AUDIO JACK
22	USB DAC POWER, mini PCI-E
23	INTEL LAN I217V
24	DISCRETE POWER
25	ATX,CLK GEN
26	RT8120_DDR POWER,M3 POWER
27	VCORE ISL95820_1

SHEET TITLE

28	VCORE ISL95820_2
29	DVI-I
30	HDMI+USB2.0*2
31	mSATA, Mini-PCIe
32	Breathing LED

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Cover Sheet			
Size Custom	Document Number	GA-B85N-Phoenix-WIFI 2.0	
Date:	Wednesday, April 02, 2014	Sheet	1 of 32

Model Name: GA-B85N PHOENIX-WIFI *Revision 2.0*

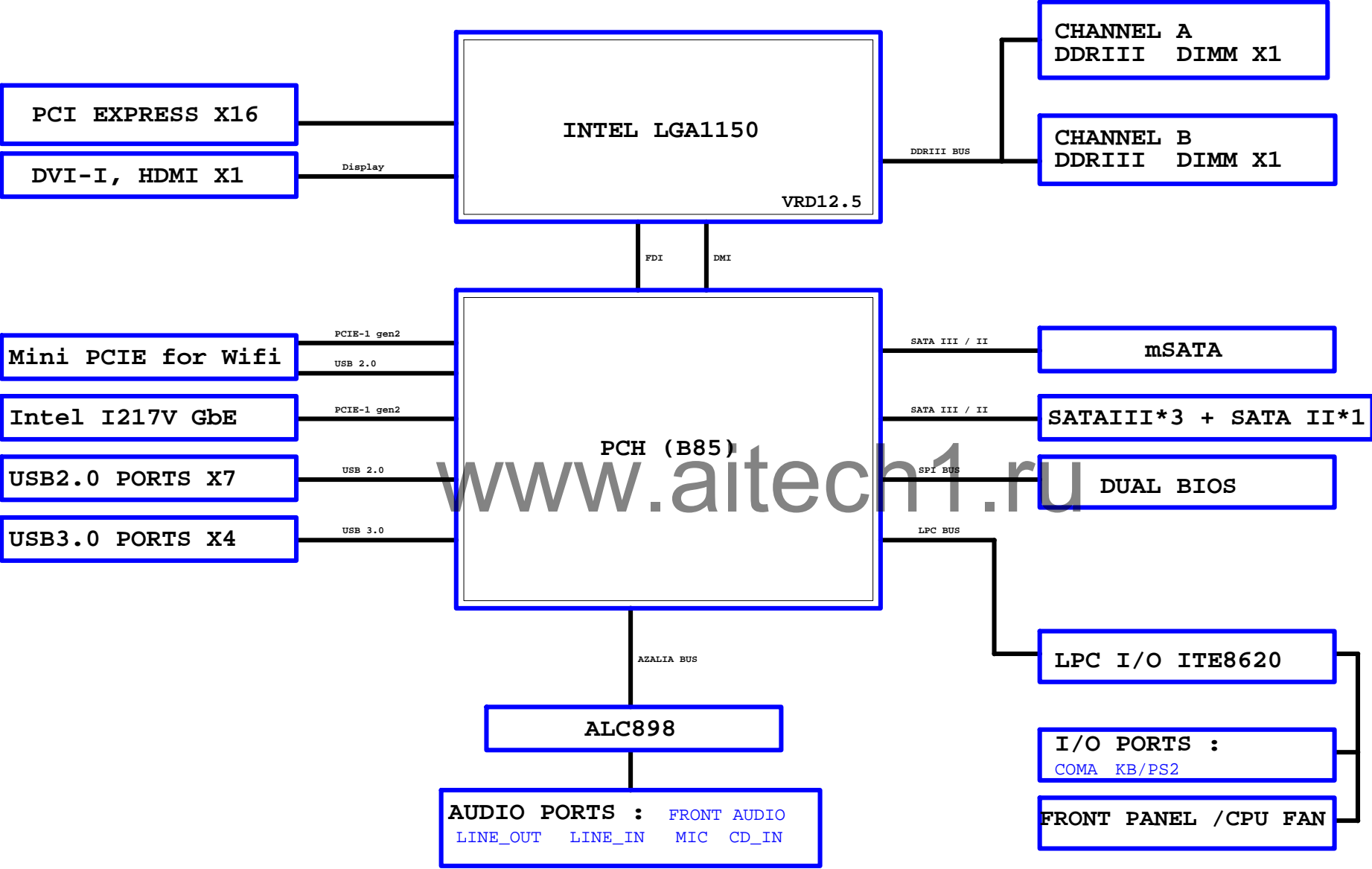
Circuit or PCB layout change

Component value change history

2013/07/02

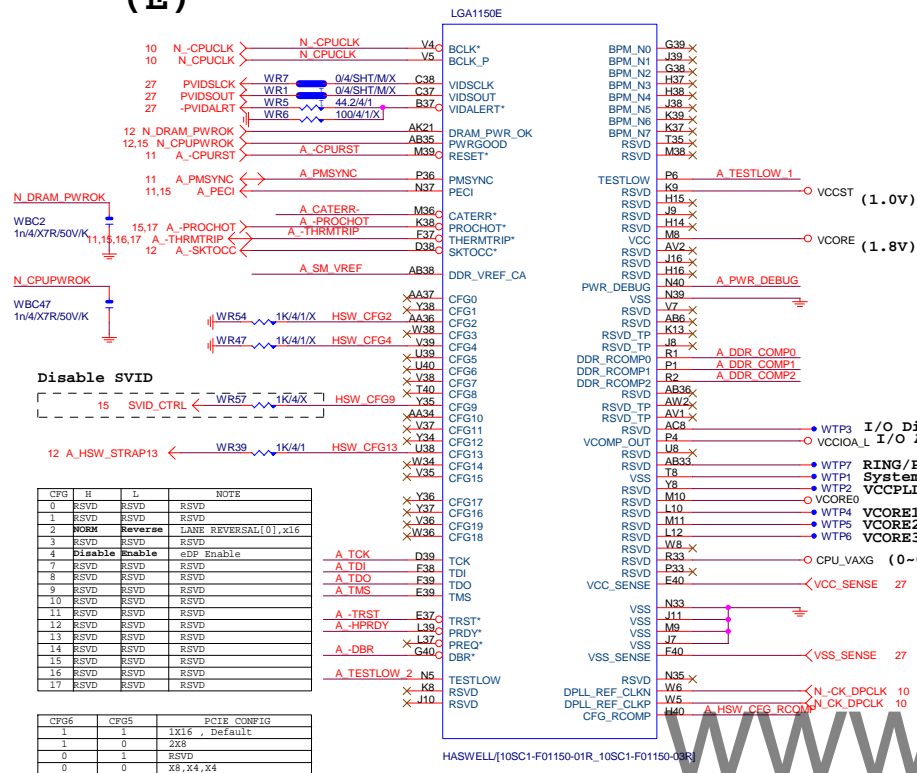
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BLOCK DIAGRAM



LGA1150

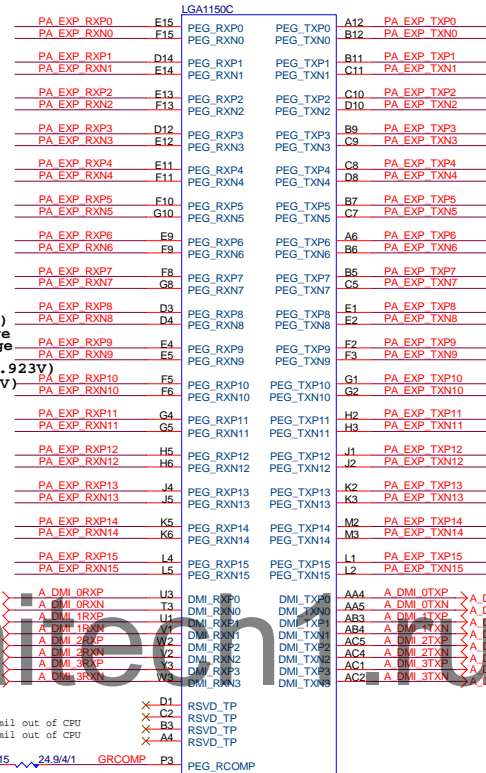
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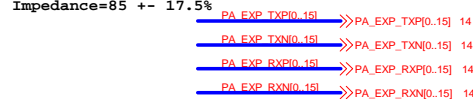
LGA1150

(C)

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



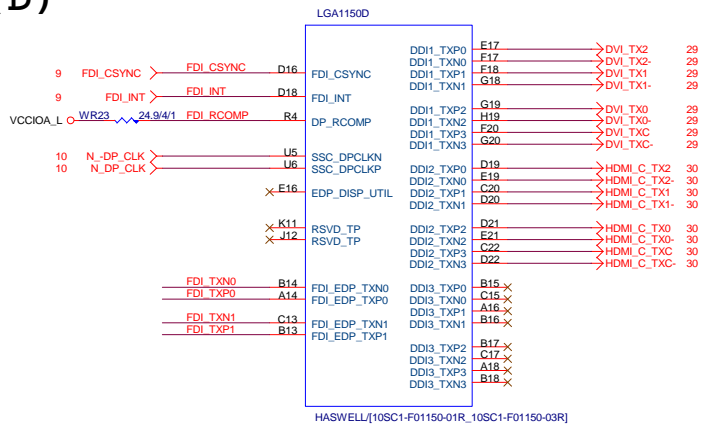
DMI:12/4/4/12(breakout min 8/4/4/8)
Impedance=85 +- 17.5%



-CPURST

LGA1150

(D)



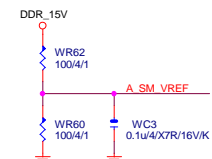
CPU SVID



CPU PU/PD



SM REF



Gigabyte Technology

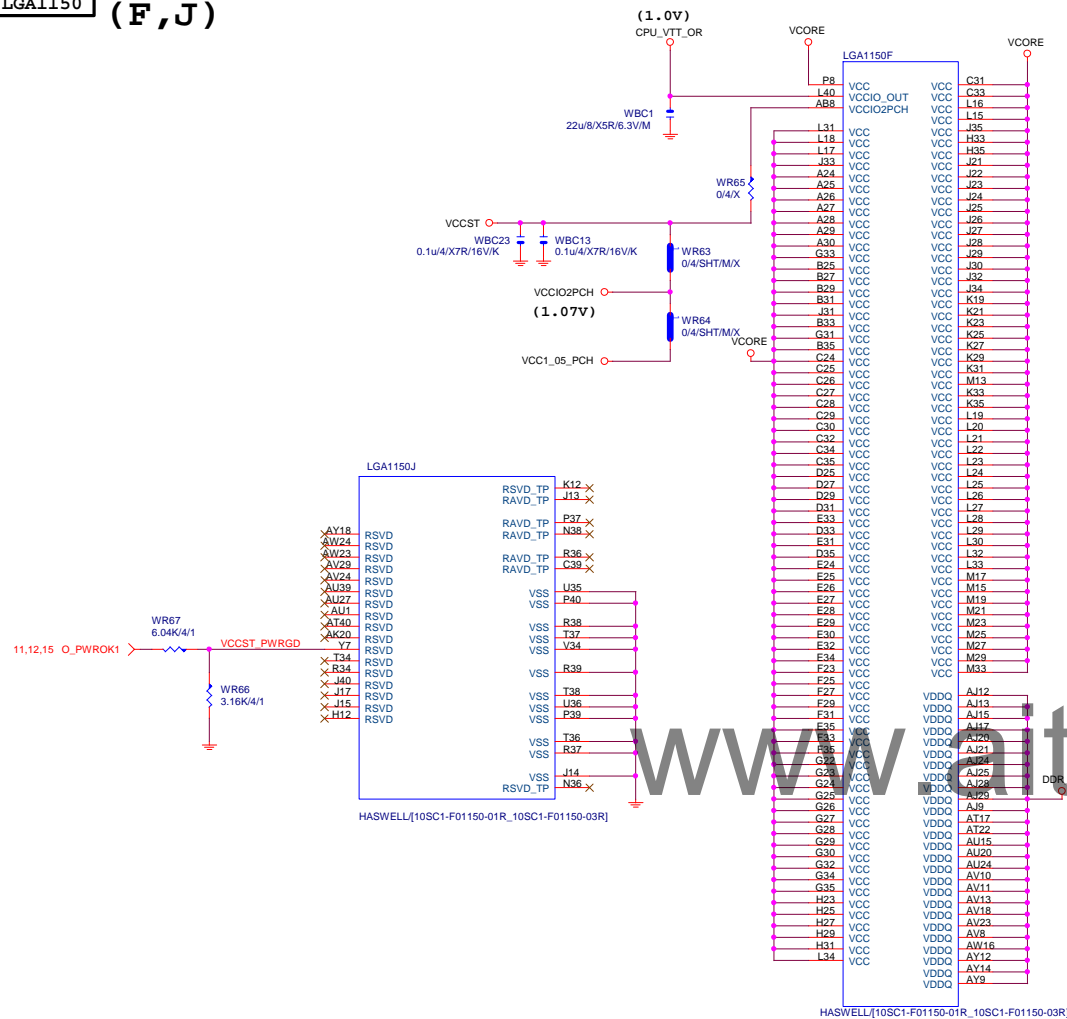
CPU LGA1150-A

Title	GA-B85N-Phoenix-WIFI	Rev	2.0
Size	Custom	Document Number	
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LGA1150A

MAAA0	AU13	DDR0_M0	DDR0_D00	AD38	MDA0
MAAA1	AV16	DDR0_M1	DDR0_D01	AD39	MDA1
MAAA2	AU16	DDR0_M2	DDR0_D02	AF38	MDA2
MAAA3	AW17	DDR0_M3	DDR0_D03	AF39	MDA3
MAAA4	AU17	DDR0_M4	DDR0_D04	AD37	MDA4
MAAA5	AU18	DDR0_M5	DDR0_D05	AD40	MDA5
MAAA6	AV17	DDR0_M6	DDR0_D06	AF37	MDA6
MAAA7	AT18	DDR0_M7	DDR0_D07	AF40	MDA7
MAAA8	AU18	DDR0_M8	DDR0_D08	AH40	MDA8
MAAA9	AT19	DDR0_M9	DDR0_D09	AH39	MDA9
MAAA10	AW11	DDR0_M10	DDR0_D10	AH38	MDA10
MAAA11	AV19	DDR0_M11	DDR0_D11	AH37	MDA11
MAAA12	AU19	DDR0_M12	DDR0_D12	AH36	MDA12
MAAA13	AY10	DDR0_M13	DDR0_D13	AH35	MDA13
MAAA14	AT20	DDR0_M14	DDR0_D14	AH34	MDA14
MAAA15	AU21	DDR0_M15	DDR0_D15	AH33	MDA15
MODT_A0	AW10	DDR0_ODT0	DDR0_ODT0	AM40	MDA16
MODT_A1	AY8	DDR0_ODT1	DDR0_ODT1	AM39	MDA17
AW9	AW9	DDR0_ODT2	DDR0_ODT2	AM38	MDA18
AW8	AW8	DDR0_ODT3	DDR0_ODT3	AM37	MDA19
AW33	AW33	DDR0_ECC0	DDR0_ECC0	AM36	MDA20
AW32	AW32	DDR0_ECC1	DDR0_ECC1	AM35	MDA21
AW31	AW31	DDR0_ECC2	DDR0_ECC2	AM34	MDA22
AW30	AW30	DDR0_ECC3	DDR0_ECC3	AM33	MDA23
AW29	AW29	DDR0_ECC4	DDR0_ECC4	AM32	MDA24
AW28	AW28	DDR0_ECC5	DDR0_ECC5	AM31	MDA25
AW27	AW27	DDR0_ECC6	DDR0_ECC6	AM30	MDA26
AW26	AW26	DDR0_ECC7	DDR0_ECC7	AM29	MDA27
AW25	AW25	DDR0_ECC8	DDR0_ECC8	AM28	MDA28
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AW22	AW22	DDR0_ECC11	DDR0_ECC11	AM25	MDA31
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AW13	AW13	DDR0_ECC20	DDR0_ECC20	AM16	MDA40
AW12	AW12	DDR0_ECC21	DDR0_ECC21	AM15	MDA41
AW11	AW11	DDR0_ECC22	DDR0_ECC22	AM14	MDA42
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AW9	AW9	DDR0_ECC24	DDR0_ECC24	AM12	MDA44
AW8	AW8	DDR0_ECC25	DDR0_ECC25	AM11	MDA45
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AW6	AW6	DDR0_ECC27	DDR0_ECC27	AM9	MDA47
AW5	AW5	DDR0_ECC28	DDR0_ECC28	AM8	MDA48
AW4	AW4	DDR0_ECC29	DDR0_ECC29	AM7	MDA49
AW3	AW3	DDR0_ECC30	DDR0_ECC30	AM6	MDA50
AW2	AW2	DDR0_ECC31	DDR0_ECC31	AM5	MDA51
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AW33	AW33	DDR0_ECC34	DDR0_ECC34	AM2	MDA54
AW32	AW32	DDR0_ECC35	DDR0_ECC35	AM1	MDA55
AW31	AW31	DDR0_ECC36	DDR0_ECC36	AM0	MDA56
AW30	AW30	DDR0_ECC37	DDR0_ECC37	AM33	MDA57
AW29	AW29	DDR0_ECC38	DDR0_ECC38	AM32	MDA58
AW28	AW28	DDR0_ECC39	DDR0_ECC39	AM31	MDA59
AW27	AW27	DDR0_ECC40	DDR0_ECC40	AM30	MDA60
AW26	AW26	DDR0_ECC41	DDR0_ECC41	AM29	MDA61
AW25	AW25	DDR0_ECC42	DDR0_ECC42	AM28	MDA62
AW24	AW24	DDR0_ECC43	DDR0_ECC43	AM27	MDA63
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AW22	AW22	DDR0_ECC45	DDR0_ECC45	AM25	MDA65
AW21	AW21	DDR0_ECC46	DDR0_ECC46	AM24	MDA66
AW20	AW20	DDR0_ECC47	DDR0_ECC47	AM23	MDA67
AW19	AW19	DDR0_ECC48	DDR0_ECC48	AM22	MDA68
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AW16	AW16	DDR0_ECC51	DDR0_ECC51	AM19	MDA71
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AW25	AW25	DDR0_ECC76	DDR0_ECC76	AM28	MDA96
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AW2	AW2	DDR0_ECC167	DDR0_ECC167	AM5	MDA187
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AW33	AW33	DDR0_ECC170	DDR0_ECC170	AM2	MDA190
AW32	AW32	DDR0_ECC171	DDR0_ECC171	AM1	MDA191
AW31	AW31	DDR0_ECC172	DDR0_ECC172	AM0	MDA192
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AW22	AW22	DDR0_ECC1			

LGA1150 (F,J)

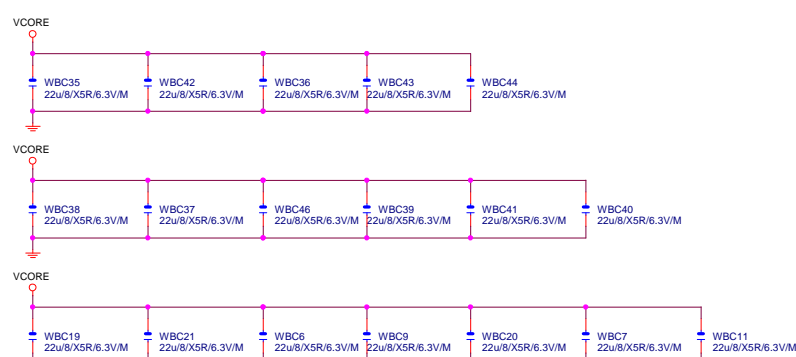


LGA1150 (G,H,I)



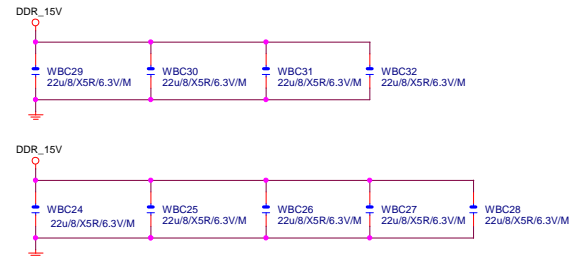
VCore CAP

(X18)



DDR CAP

(x9)

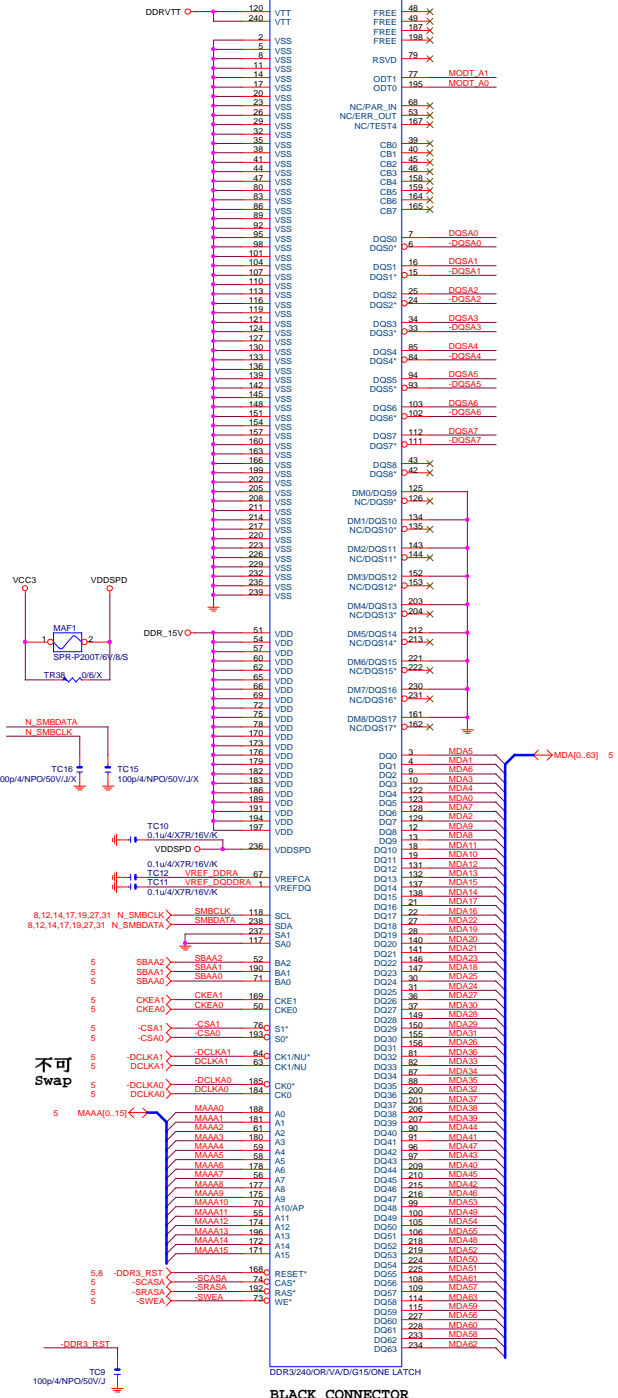


Gigabyte Technology

Title			
CPU LGA1150-C			
Size	Document Number	Rev	
Custom	GA-B85N-Phoenix-WIFI	2.0	
Date:	Wednesday, April 02, 2014	Sheet	6 of 32

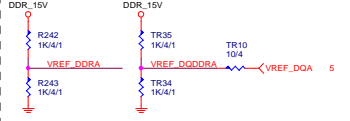
DDR3

(A)

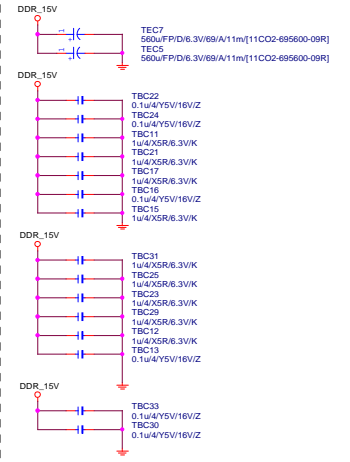


DDR3

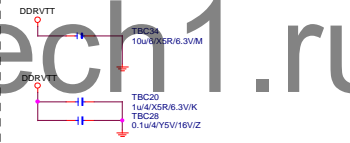
DDR3 VREF



DDR15V Decouple



DDRVTT Decouple



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

VCC1_5_PCH

NR50 7.5K/4/1 DMI_COMP

NR40 7.5K/4/1 PCIE_COMP

CK_SRCCLK_PCH

CK_SRCCLK_PCH

1217

PCI-E

AR1010

23 LA_ML_IN

23 LA_ML_IP

23 LA_ML_ON

23 LA_ML_OP

31 MPCIE_IN0

31 MPCIE_IP0

31 MPCIE_TN0

31 MPCIE_TP0

0.1u4/X7R/16V/K

0.1u4/X7R/16V/K

NBC84PET_N5

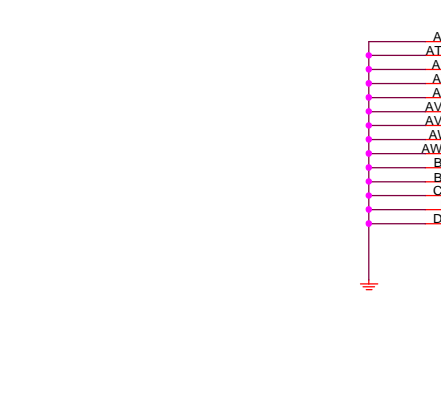
NBC85PET_P5

NBC85PET_P6

```

_PCIEX1:16/5/5/5/16_(breakout_min_8/4/4/4/8)

```



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

		USBN_8	AK16	N	+USBP8	N	-USBP8	19
		USBP_8	AN16	N	-USBP9	N	+USBP8	19
		USBN_9	AN16	N	-USBP9	N	-USBP9	19
		USBP_9	AP16	N	+USBP9	N	+USBP9	19
		USBN_10	AJ18	N	-USBP10	N	-USBP10	30
		USBP_10	AK18	N	+USBP10	N	+USBP10	30
			AP18	N	-USBP11	N	+USBP10	30

PCIE_PERP_2_USB3_RXP_3	OC0B_GP59	AE40	N_USBOC_R	16,22
PCIE_PETN_2_USB3_TXN1_3	OC1B_GP40	AE37		
PCIE_PETP_2_USB3_TXP_3	OC2B_GP41	AD39	N_USBOC_F	16,15
PCIE_PERN_3	OC3B_GP42	AD40		
PCIE_PETN_3	OC4B_GP43	AE39		
PCIE_PETP_3	OC5B_GP9	AC41		
PCIE_PERN_4	OC6B_GP10	AF40		
PCIE_PERP_4	OC7B_GP14	AG40	N_GPIO14	

W=4 mil out of p
S=15 mil out of p

PCIE_PETN_4	USBRBIASB USBRBIAS	AV20	N_USBRBIAS	NR47	22.6/4/1
PCIE_PETP_4		AU20			
PCIE_PERN_5					
PCIE_PERP_5					
PCIE_PETN_5	CLKIN_DOT96N	AP11	CK -DOTCLK		
PCIE_PETP_5	CLKIN_DOT96P	AM11	CK_DOTCLK		

PCIE_PERN_6
PCIE_PERP_6
PCIE_PETN_6
PCIE_PERN_7
PCIE_PERP_7
PCIE_PETN_7
PCIE_PERN_8
PCIE_PERP_8
PCIE_PETN_8

NR130
8.2K/4

N_GPIO14

O3VDUAL

N_USBOC_F

N_USBOC_R

NBC82
0.1u/4/X7R/16V/K

NBC83
0.1u/4/X7R/16V/K

DH82B85/S

(—)

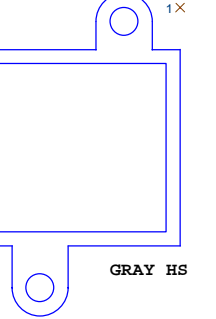
VCC3

ech'

CONCLUSIONS

Abstract

B_HEATSIN



CH_HS
CH_HS/[12SP2-S03507-01R]

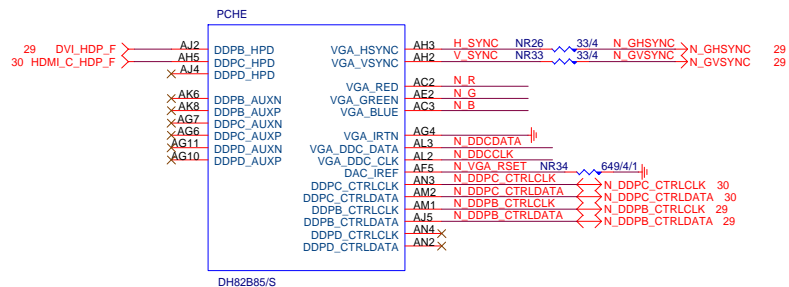
```
OC[3:0]# for Device 29 (ports 0-7)
OC[7:4]# for Device 26 (ports 8-13)
```

USB OC# Configure	
OC0#	F_USB30
OC1#	USB30_LAN2
OC2#	USB30_LAN1
OC3#	N/A
OC4#	F_USB20
OC5#	KB_MS_USB
OC6#	MINI_PCIE
OC7#	Not Use

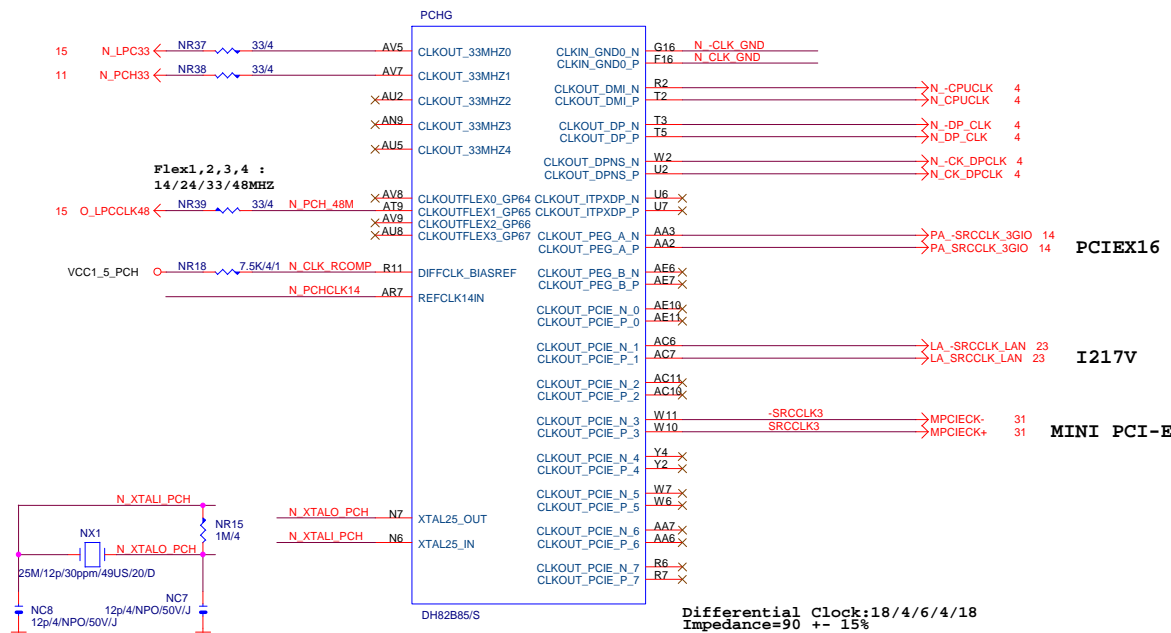
Gigabyte Technology

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PCH FDI,DMI,USB ,PCIE,NVRAM			
Size	Document Number		Rev
Custom		GA-B85N-Phoenix-WIFI	2.0
Date:	Wednesday, April 02, 2014	Sheet	9 of 32

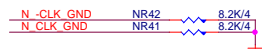
PCH (E)



PCH (G)



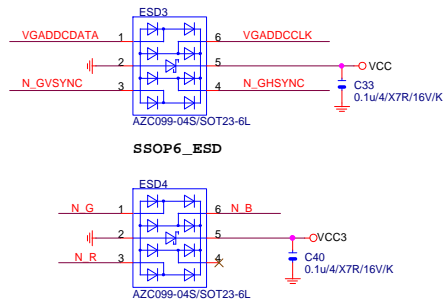
PCH CLK PD



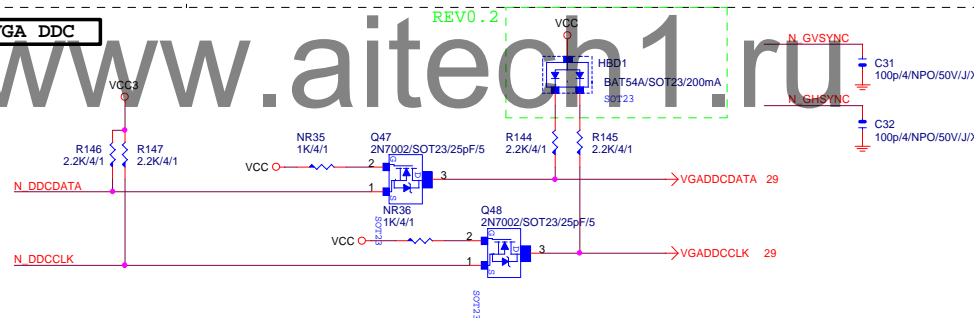
Mount for integrated clock Generation
Mode



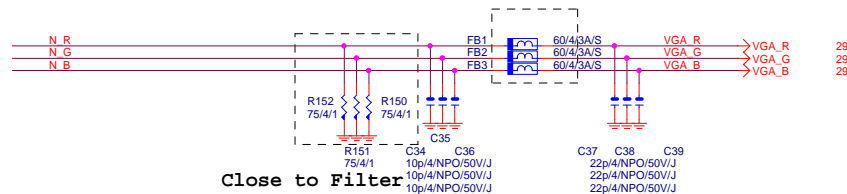
VGA ESD



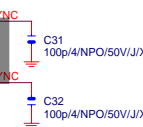
VGA DDC



VGA DDC

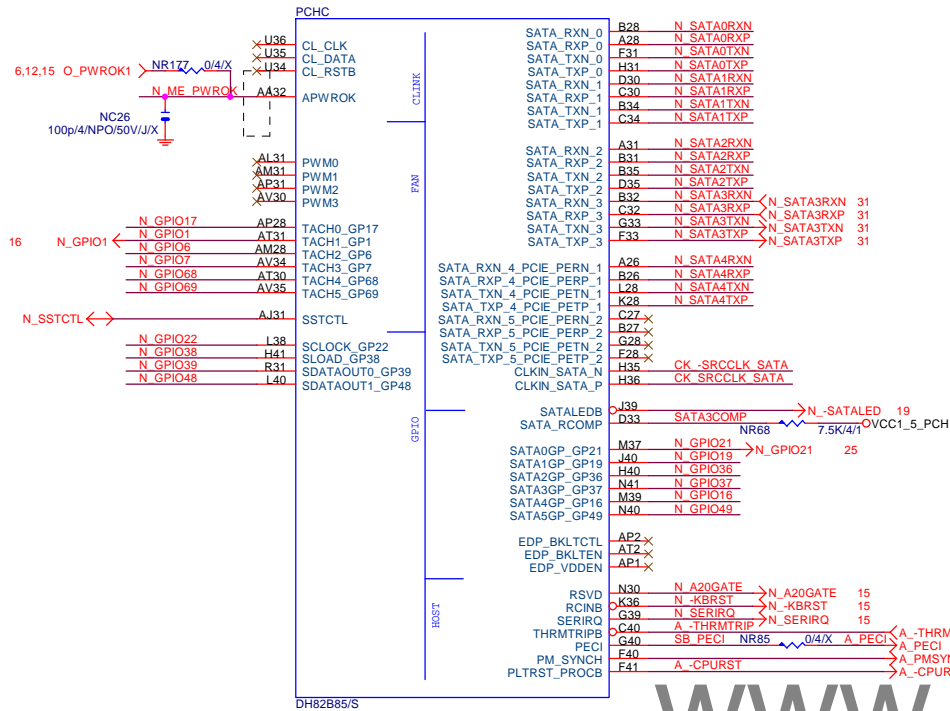


VGA CONNECTOR

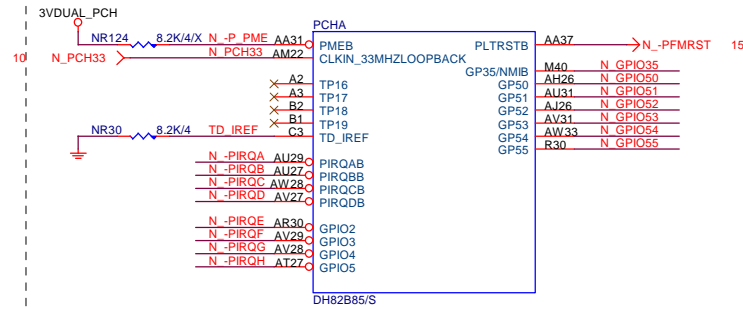


PCH (C)

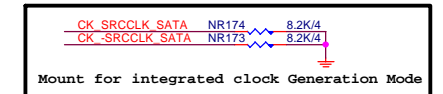
SATA3 : 20/7.5/4.5/7.5/20 (breakout min 8/4/4/4/8)
Impedance=90 +- 17.5%
SATA2 : 15/7.5/4.5/7.5/15 (breakout min 8/4/4/4/8)
Impedance=90 +- 17.5%



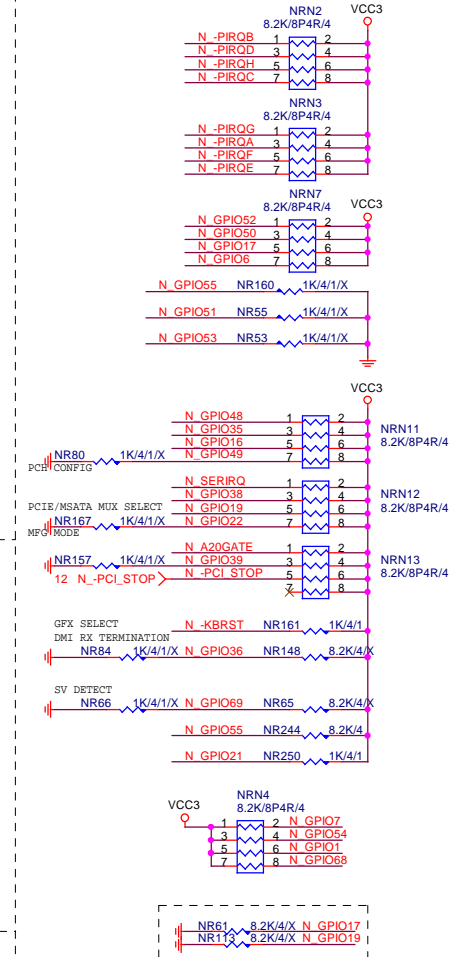
PCH (A)



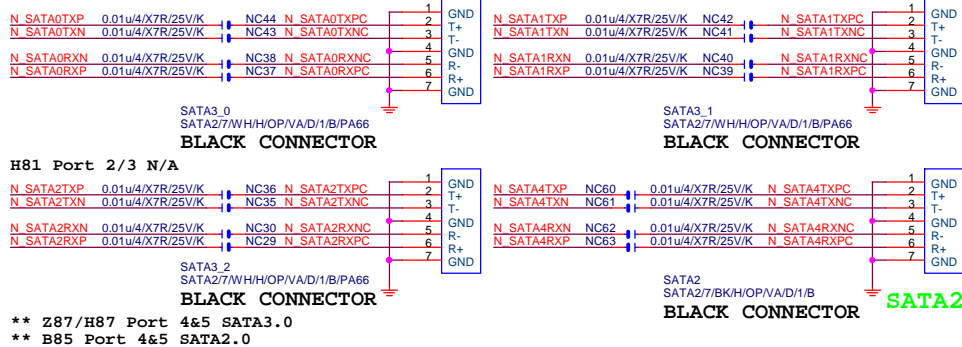
PCH CLK PD



PCH PU/PD



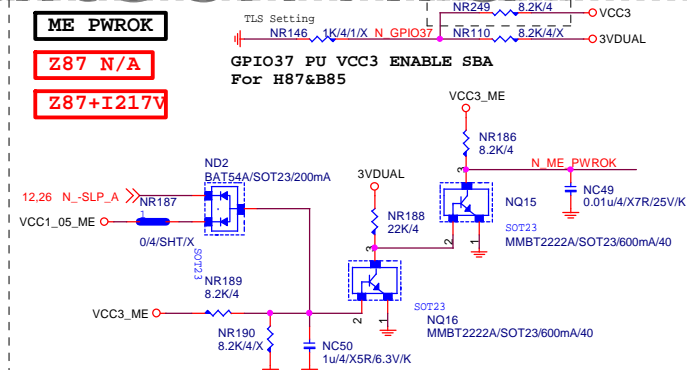
SATA CONNECTOR



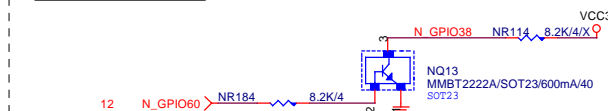
ME PWROK

Z87 N/A

Z87+I217V



GPIO38 Ctrl

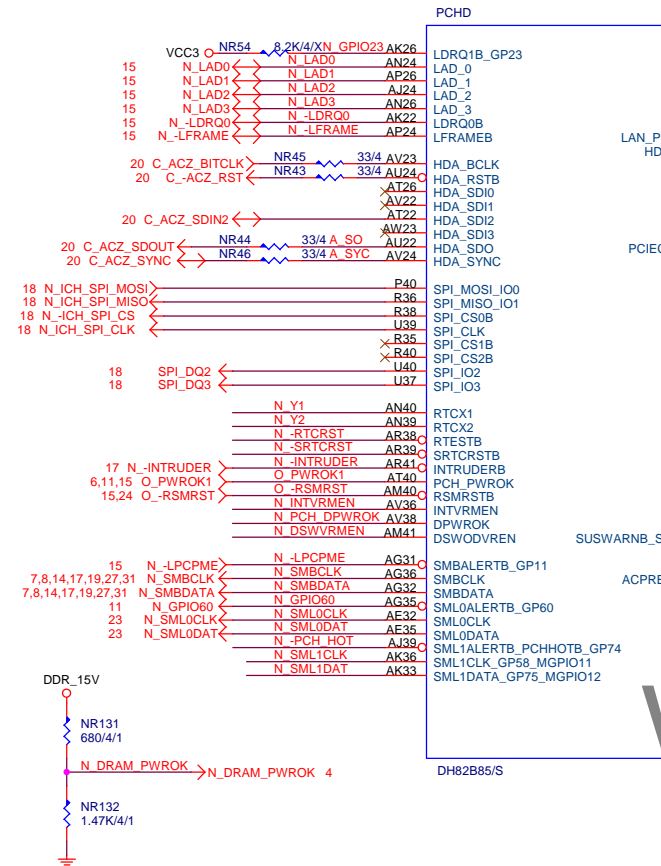


Gigabyte Technology

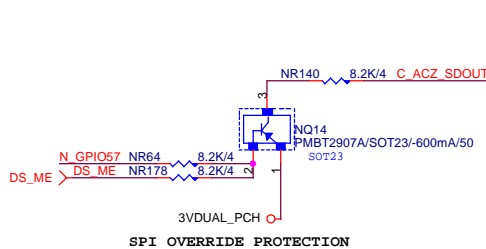
Title	PCH HOST , SATA, PCI		Rev	2.0
Size	Document Number	GA-B85N-Phoenix-WIFI		
Custpm				
Date:	Wednesday, April 02, 2014	Sheet	11	of 32

PCH (D)

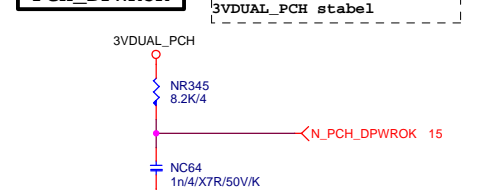
15 N_LAD[0..3] << N_LAD[0..3]



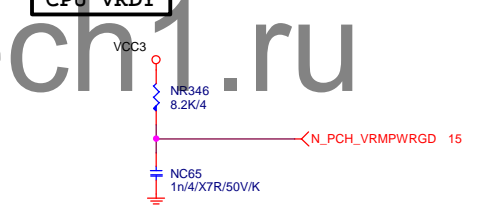
ACZ_SDOUT



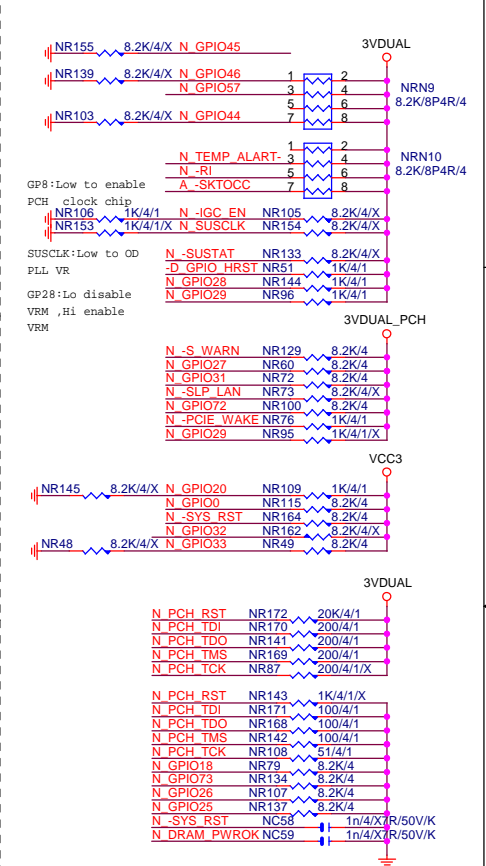
PCH_DPWROK



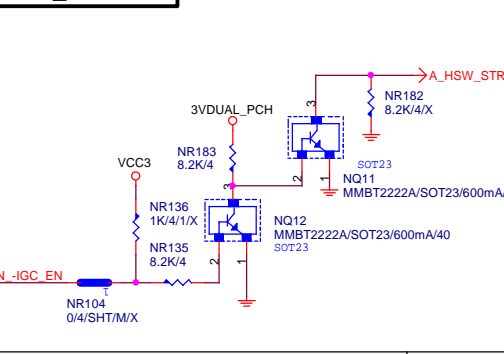
CPU_VRDY



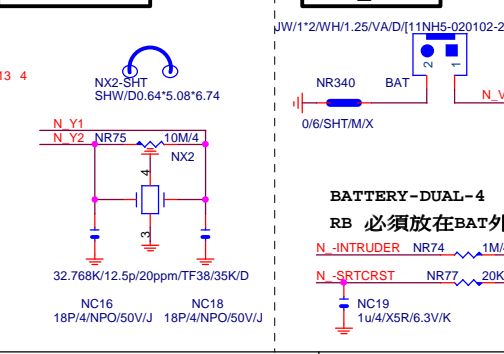
PCH_PU/PD



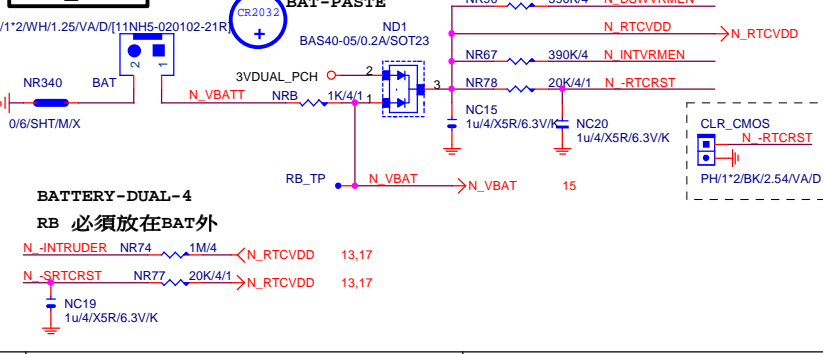
HSW_STRAP13



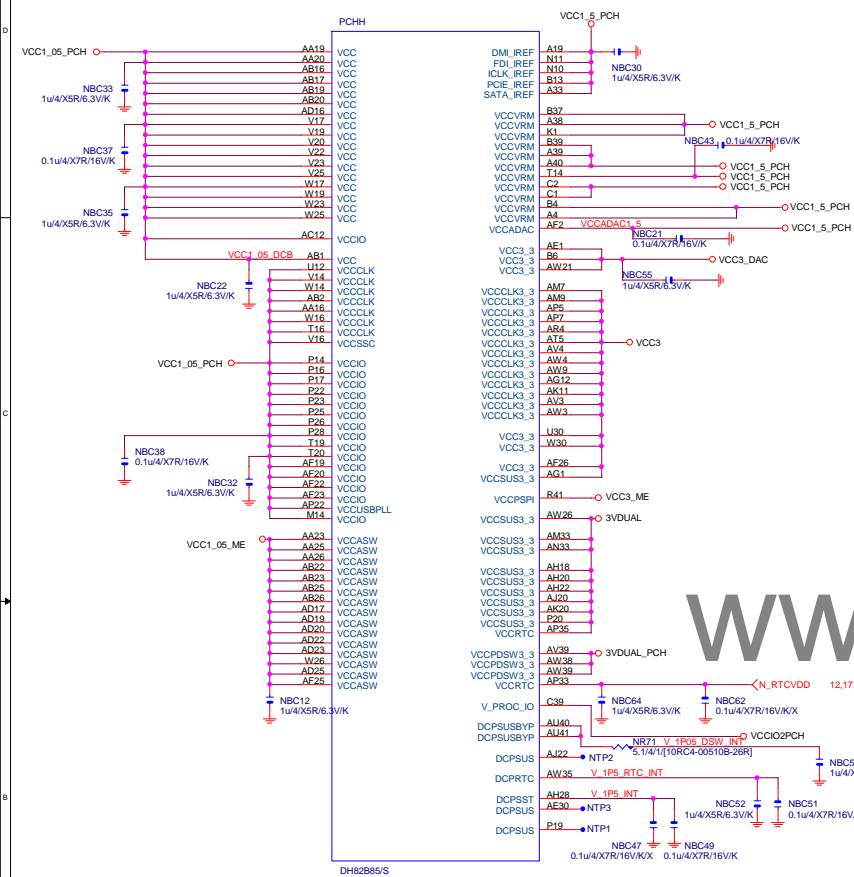
32.768KHZ



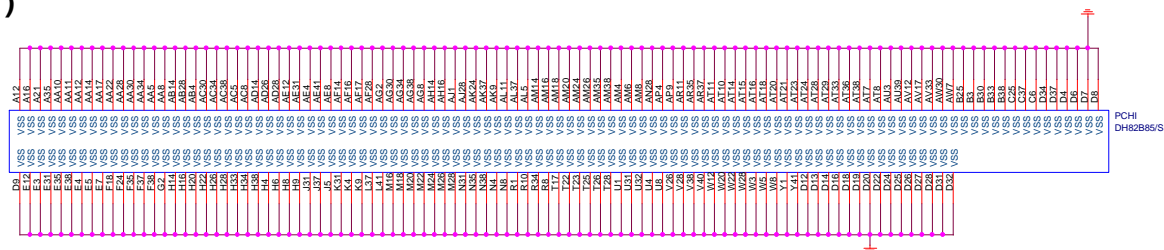
CLR_CMOS



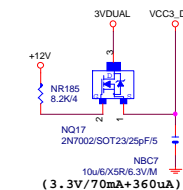
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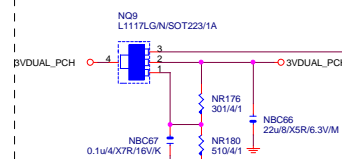
PCH (I)



VCC3_DAC

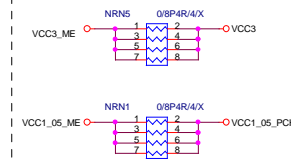


3VDUAL_PCH



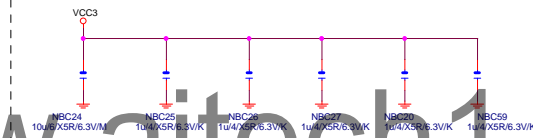
SHT PWR

M3 POWER

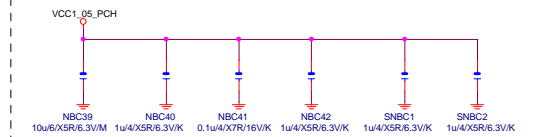


CAP

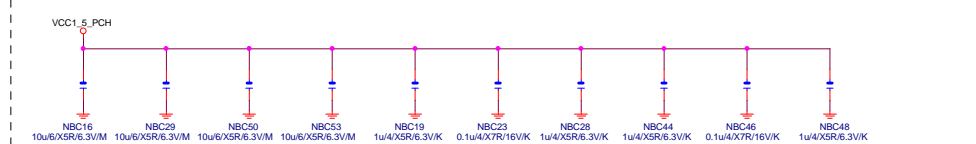
(3.3V) (X6)



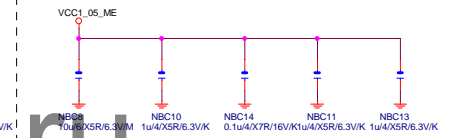
(1.05V)(x6)



(1.05V) (x10)



(1.05V) (x5)



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



3.3V) (x2)

3VDUAL

NBC60 NBC63

1u/4/X5R/6.3V/K 0.1u/4/X7R/16

Figure 1



NBC48
1u/4/X5R/6.3V/K

Byte Technology

A-B85N-Phoenix-WIE

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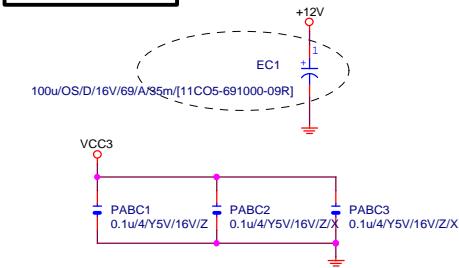
Gigabyte Technology

PCH PWR ,GND

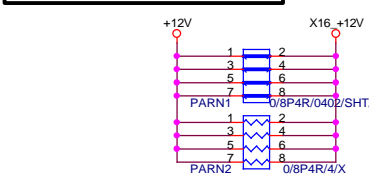
Size Custom	Document Number GA-B85N-Phoenix-WIFI	Rev 2.0
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Date: Wednesday, April 02, 2014 Sheet 13 of 32

PCIEX16 CAP



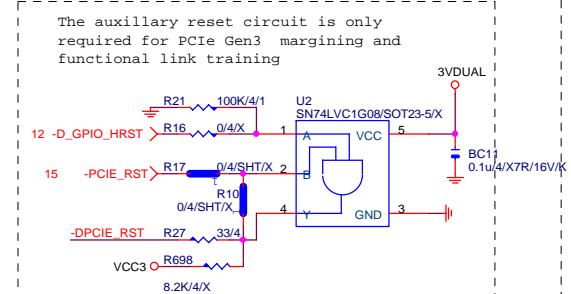
PCIEX16 PROTECT SHT



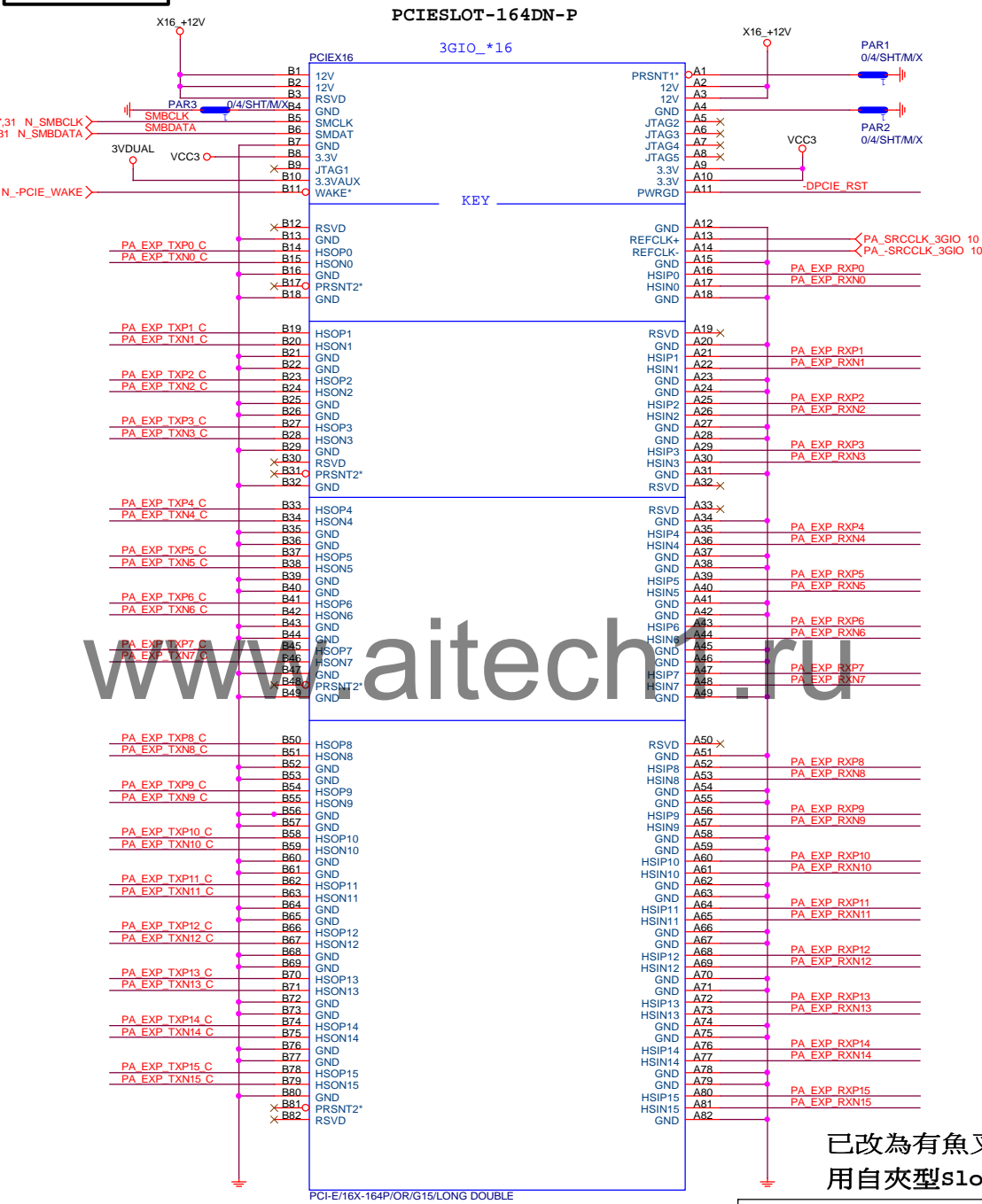
PCIEX16 AC CAP

PA EXP TXP0	PAC5	0.22u/4/X5R/6.3V/K	PA EXP TXP0 C
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	PAC19	0.22u/4/X5R/6.3V/K	PA EXP TXP7 C
PA EXP TXN7	PAC18	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 RXP10.15] >>> PA_EXP_RXP[0.15] 4
PA EXP RXN10.15] >>> PA_EXP_RXN[0.15] 4
PA EXP TXP10.15] >>> PA_EXP_TXP[0.15] 4
PA EXP TXN10.15] >>> PA_EXP_TXN[0.15] 4



PCIEX16 SLOT



BLACK CONNECTOR

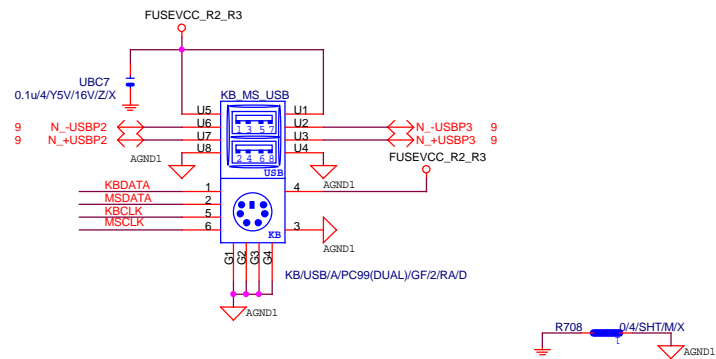
已改為有魚叉腳的slot
用自夾型slot

Gigabyte Technology

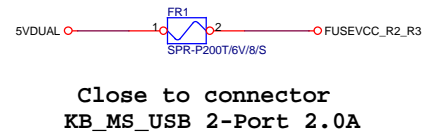
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Size			Document Number		
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Date			Wednesday, April 02, 2014		
Sheet			14 of 32		
Page			1 of 1		

GA-B85N-Phoenix-WIFI 2.0

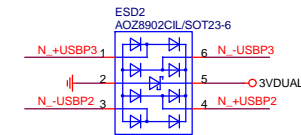
KB/MS



USB2.0 PWR

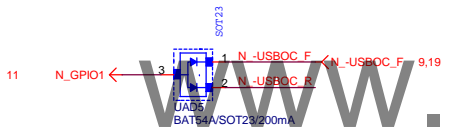
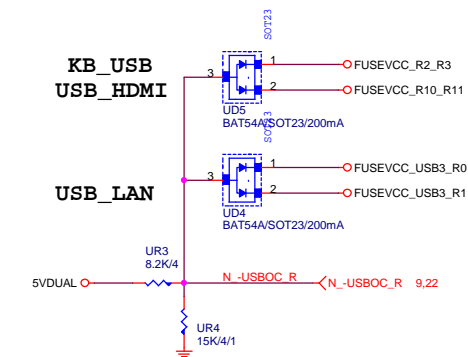


USB2.0 ESD



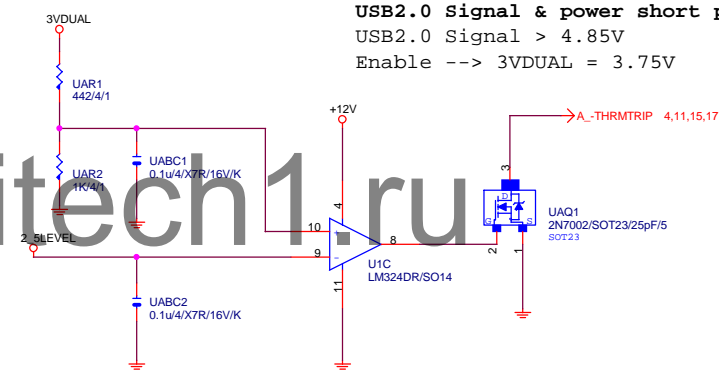
-USBOC_R

USB POWER PROTECT

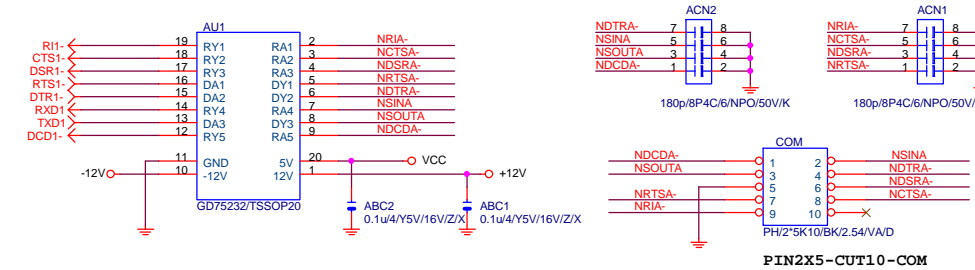


USB2.0 Short Power Protection

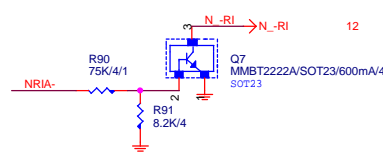
USB2.0 Signal & power short protection
USB2.0 Signal > 4.85V
Enable --> 3VDUAL = 3.75V



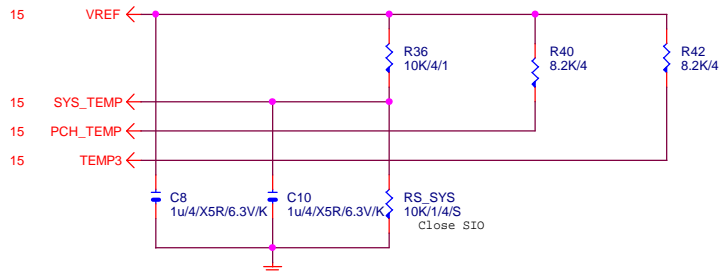
COM



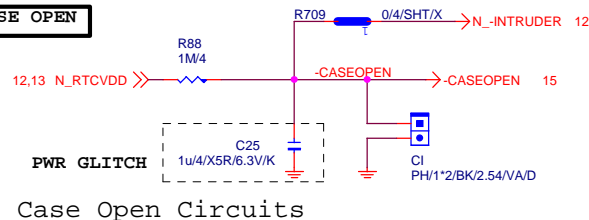
COM RI



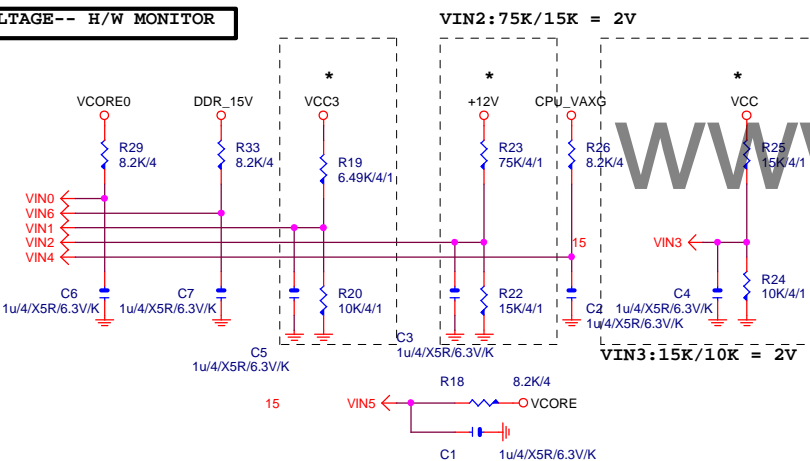
TEMP H/W MONITOR



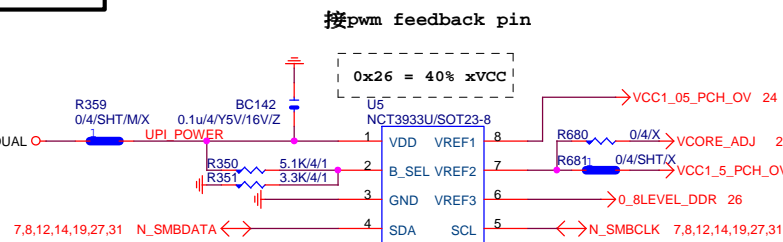
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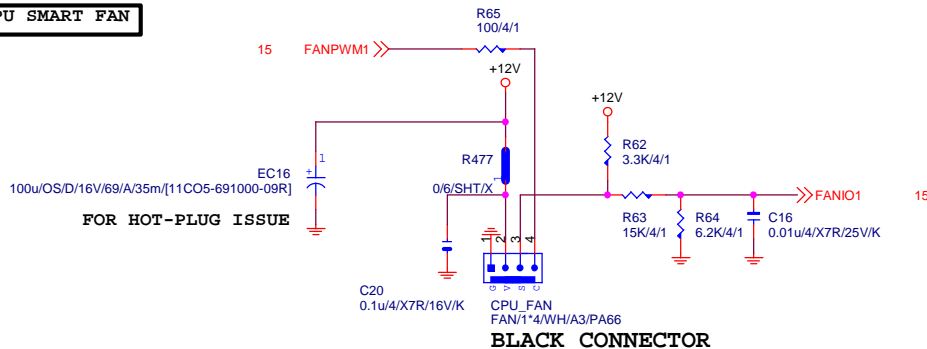
VOLTAGE-- H/W MONITOR



OV NCT3933

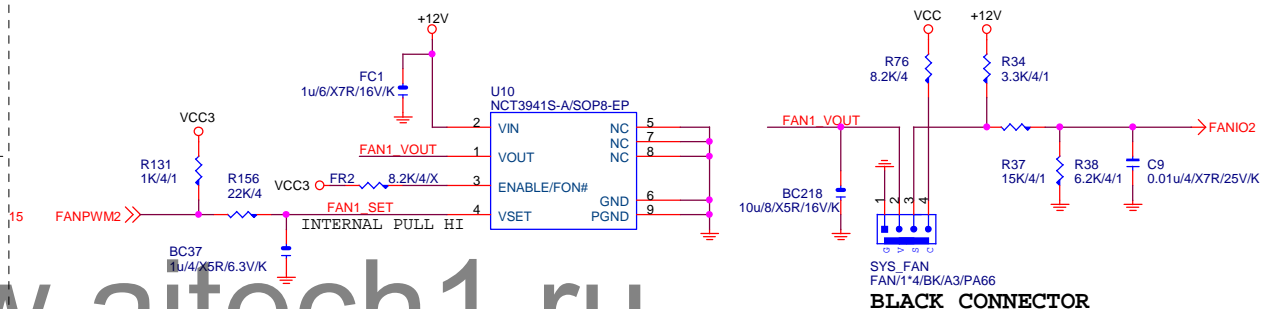


CPU SMART FAN

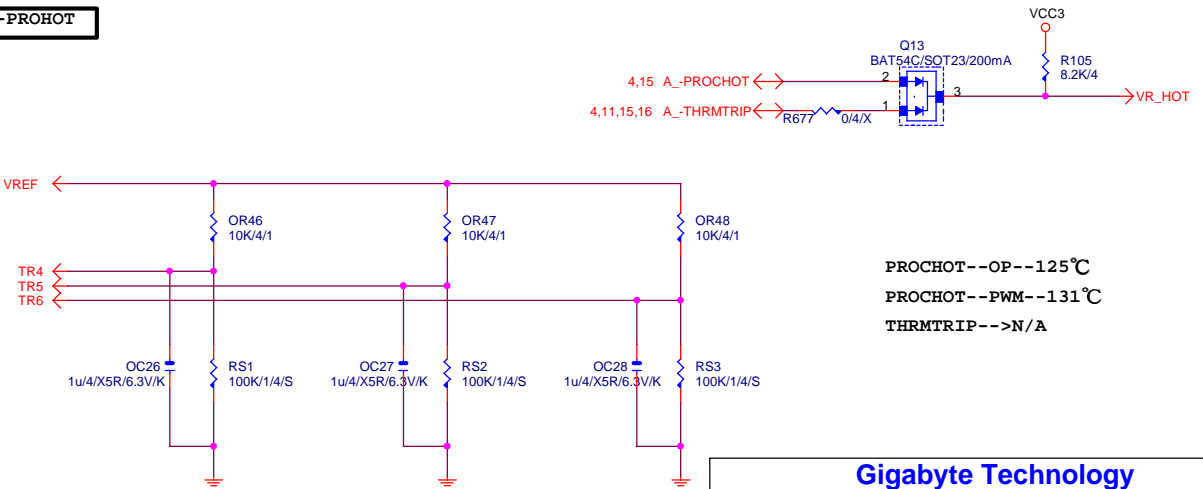


SYS SMART FAN

Linear SYS_FAN



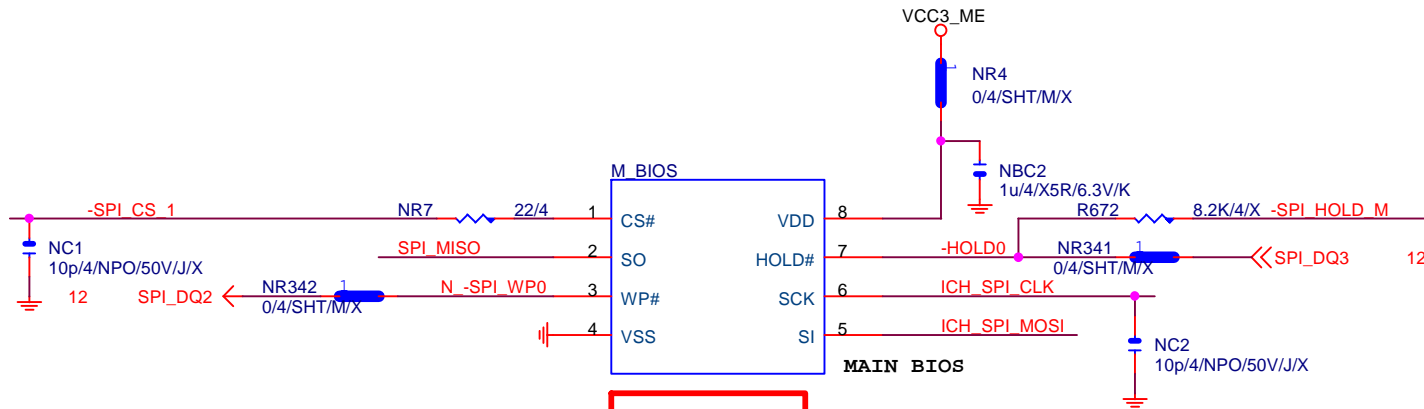
-PROHOT



RS1、RS2、RS3 CLOSE CPU
VR MOSFET

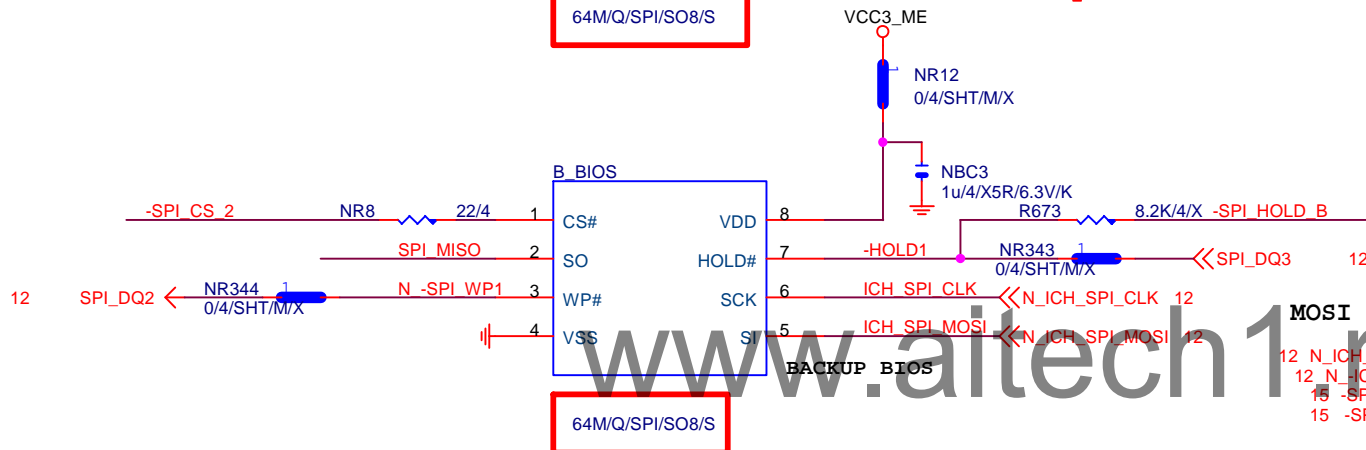
Gigabyte Technology

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Size	Document Number	Rev	
Custom		GA-B85N-Phoenix-WIFI2.0	
Date:	Wednesday, April 02, 2014	Sheet	17 of 32

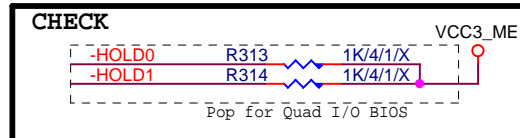
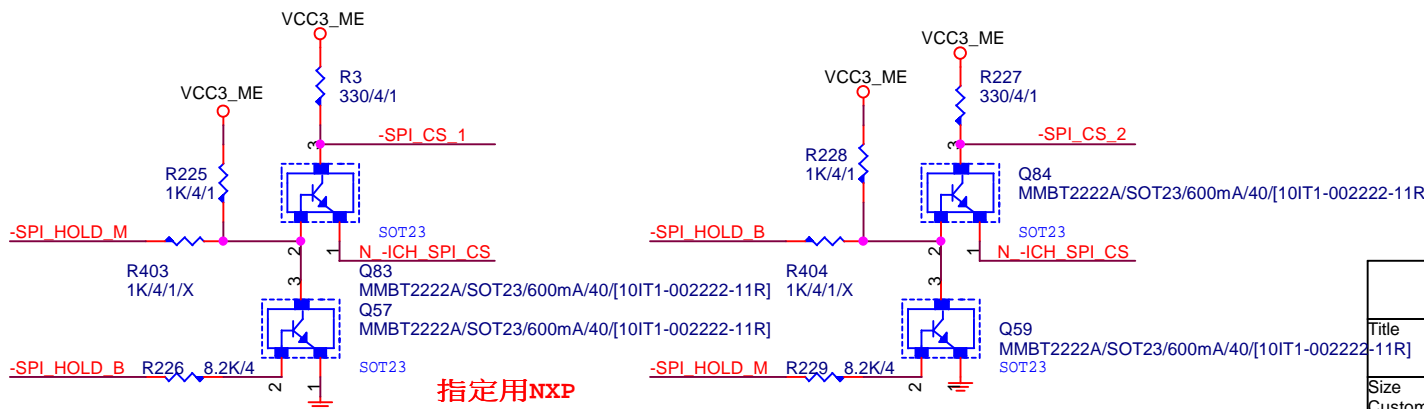
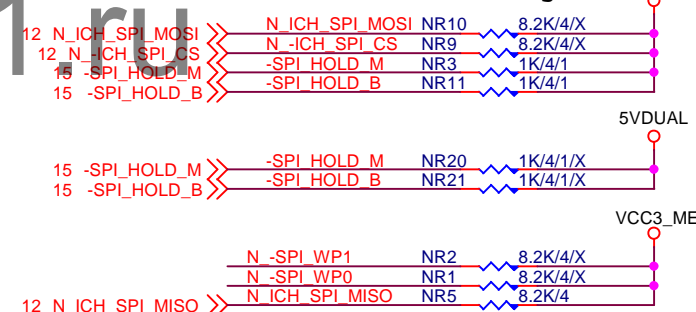


BOOT DEVICE	GNT0	GNT1
LPC	0	0
PCI	0	1
NAND	1	0
SPI	1	1

1 means floating
0 means PD 1K



MOSI For DMI RX Termination Voltage



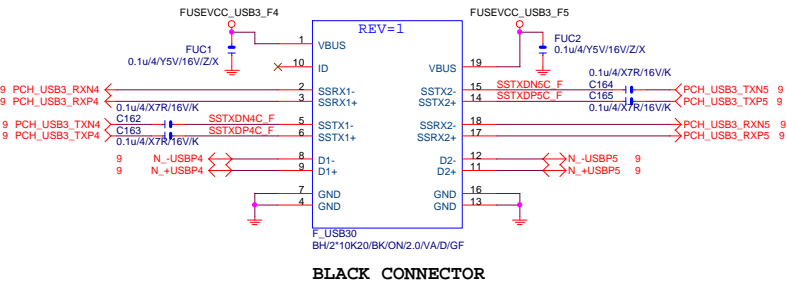
Gigabyte Technology

DUAL BIOS

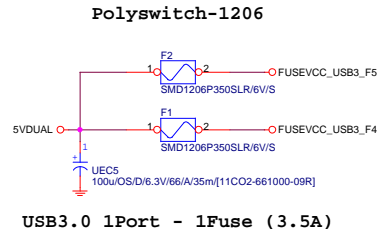
GA-B85N-Phoenix-WIFI2.0

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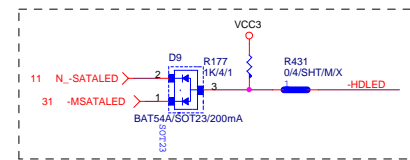
F_USB30



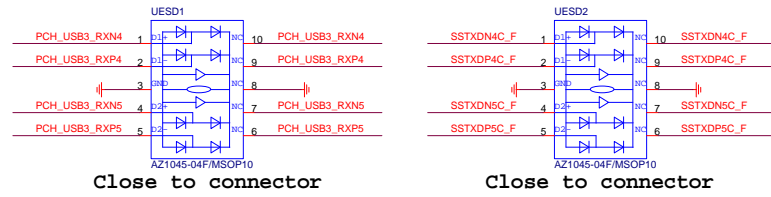
F_USB30 PWR



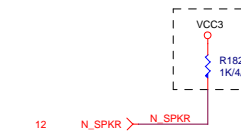
SATA LED



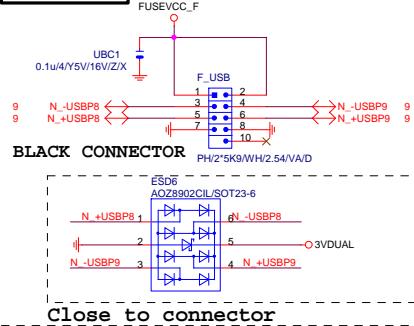
F_USB30 ESD PROTECT



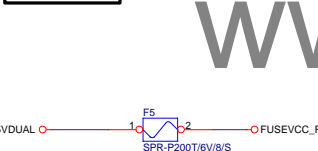
SPKR



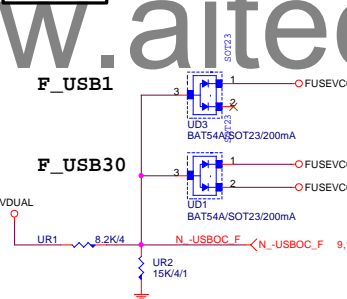
FRONT USB1



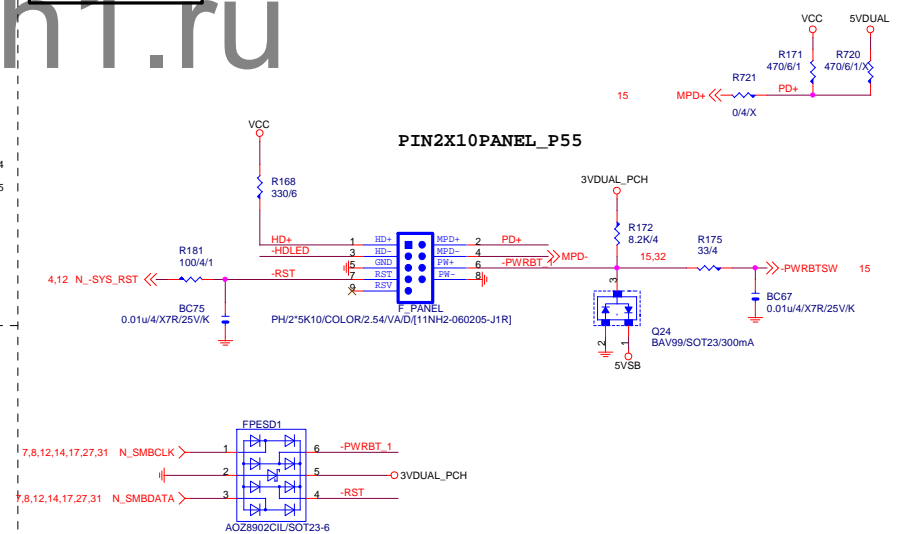
FUSEVCC_F



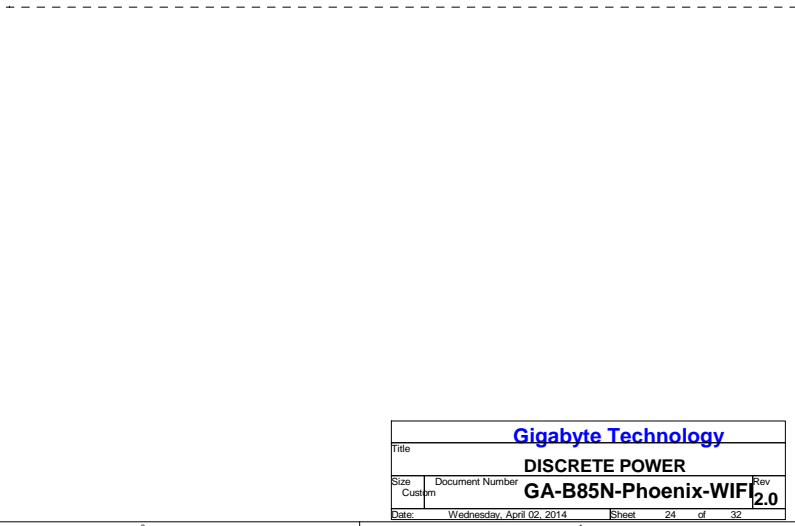
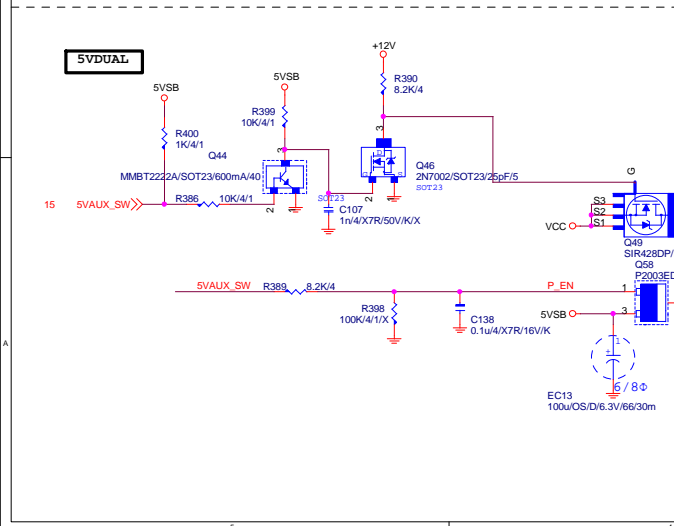
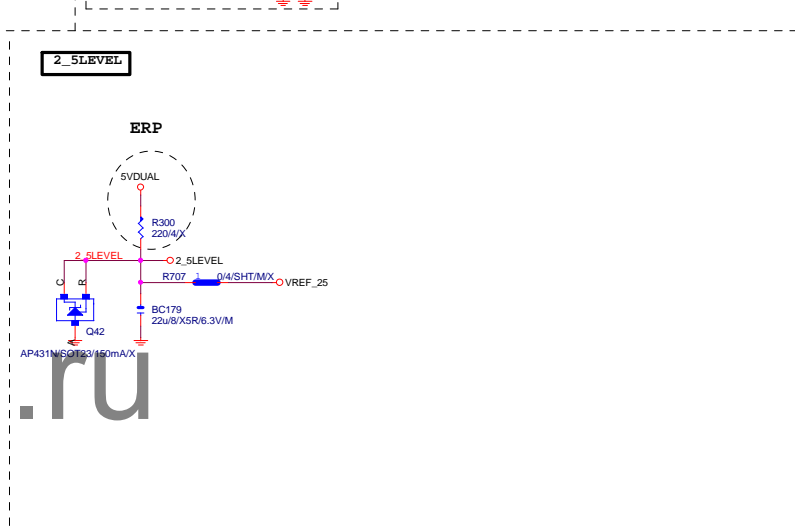
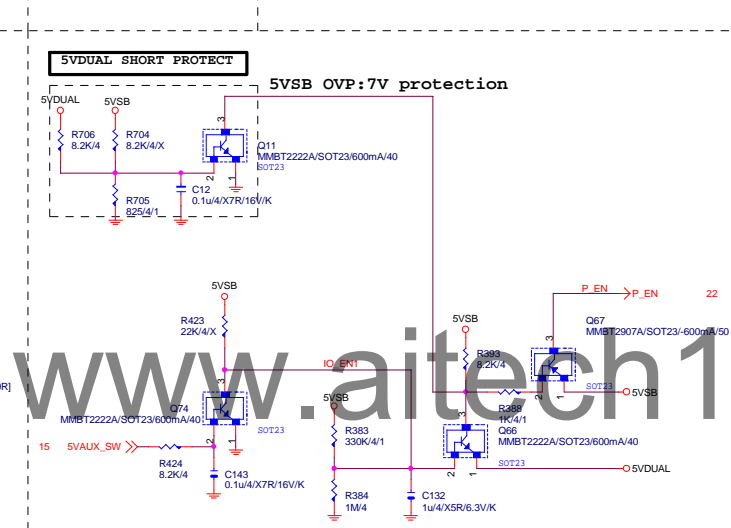
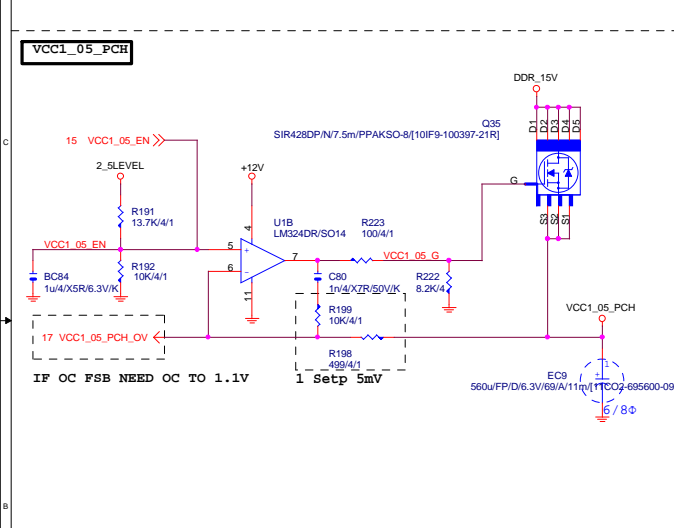
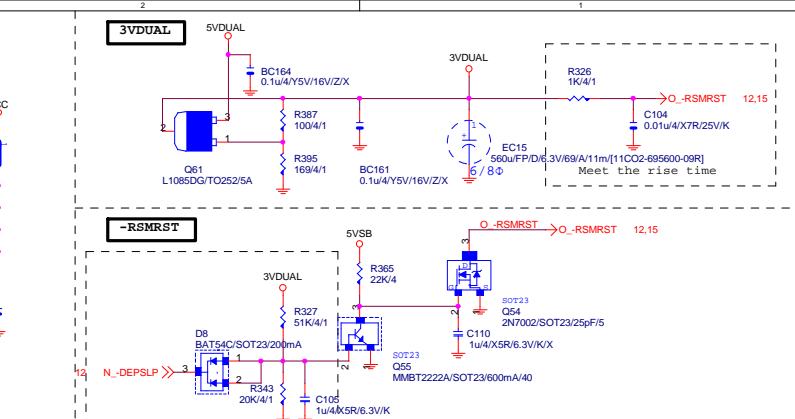
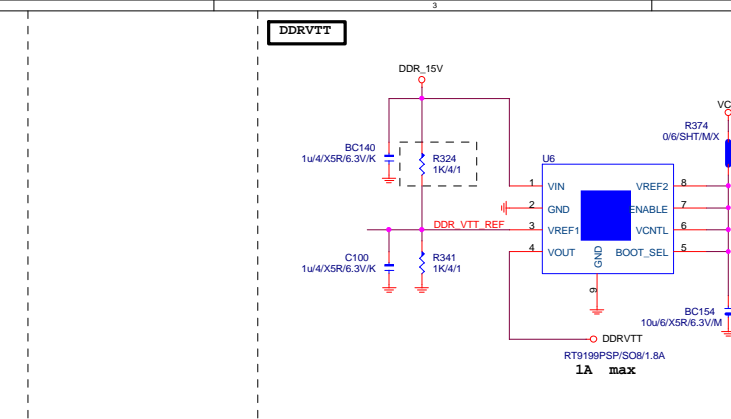
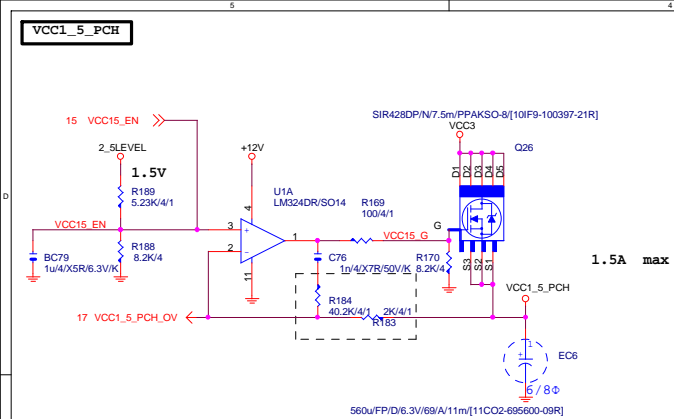
-USBOC_F



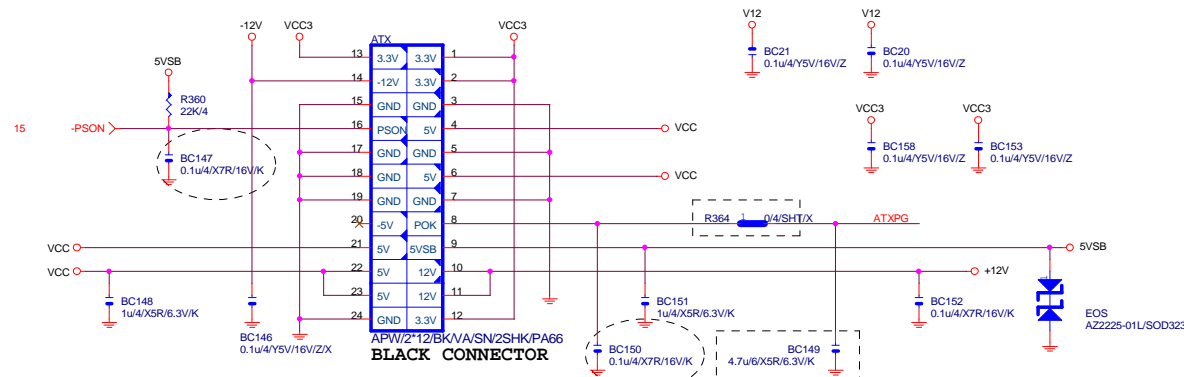
INTEL FRONT PANEL



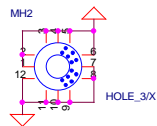
[illegible]



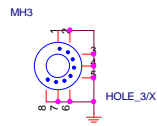
ATXX24 POWER CONNECTOR



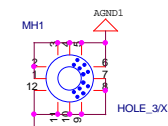
MB LOCATION



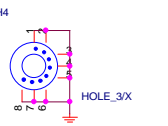
HOLE_4-RH-5MM-1



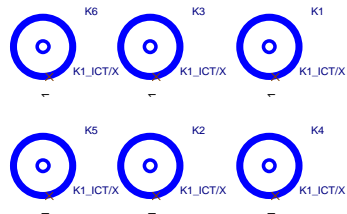
HOLE_4-RH-5MM-5PIN-1



HOLE_4-RH-5MM-1

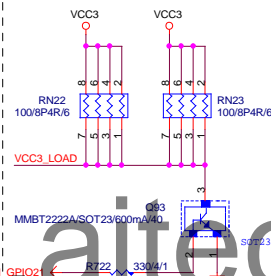


HOLE_4-RH-5MM-5PIN-1



To prevent the 5VSB under loading when boot

FIX PWR MINMUN LOAD



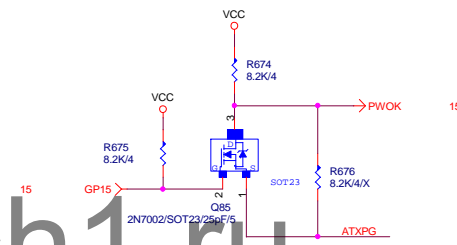
ATXX4 POWER CONNECTOR



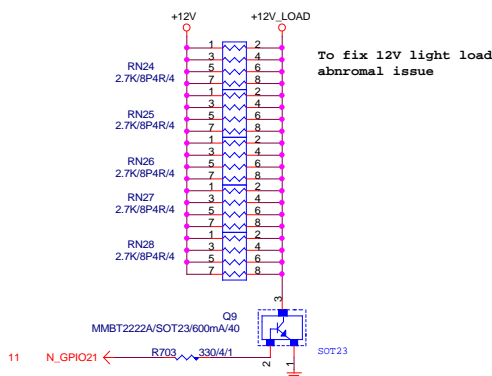
ATX_4-6
BLACK CONNECTOR

PWOK PATCH

【技術通報R&D技術通報154】



【技術通報R&D技術通報153】



To fix 12V light load abnormal issue

CLK GEN

N/A

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ATX CONNECTOR

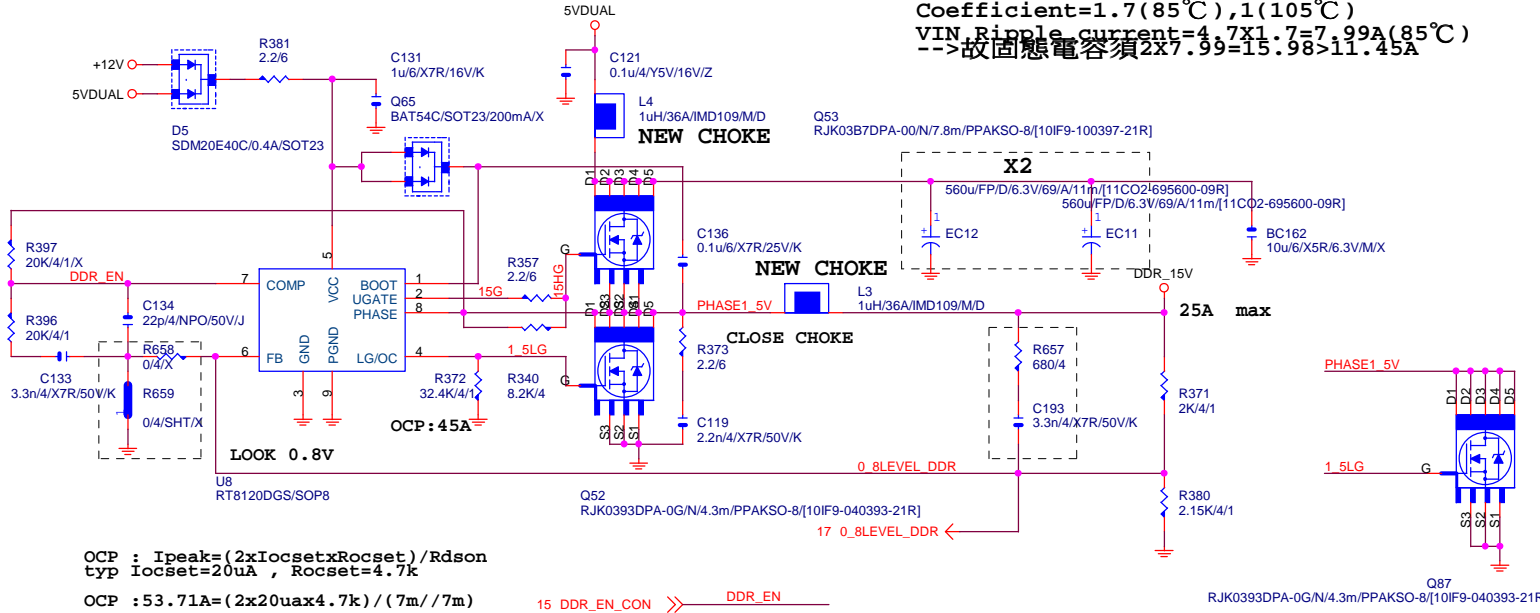
GA-B85N-Phoenix-WIFI

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DDR15V

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 $2 \times 7.99 = 15.98 > 11.45A$

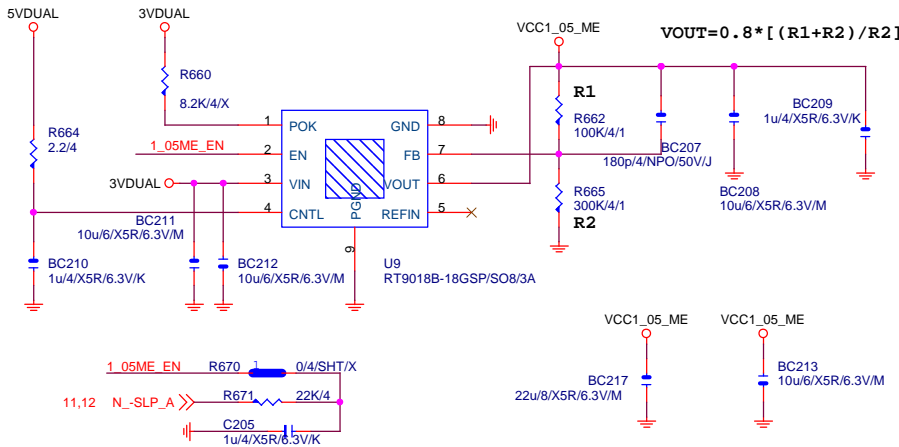


VCC1_05_ME

Z87 N/A

Z87+I217V

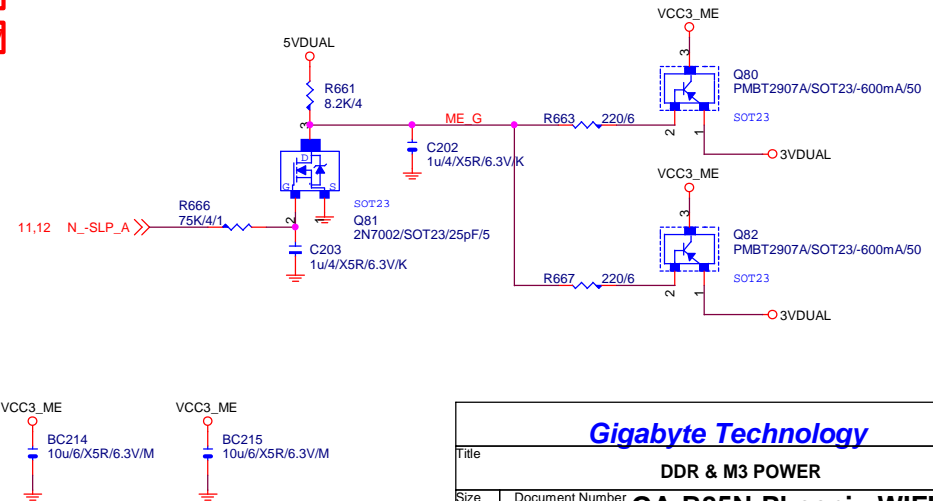
【技術通報R&D技術通報156】
 (RICHTEK), (NUVOTON), (EMC)做共用
 PIN7分壓阻值須做修改為100K以上電阻值



VCC3_ME

Z87 N/A

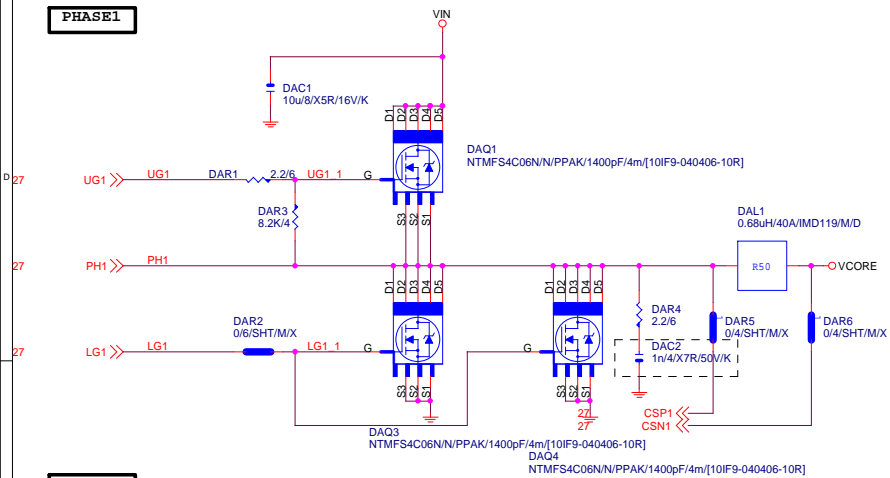
Z87+I217V



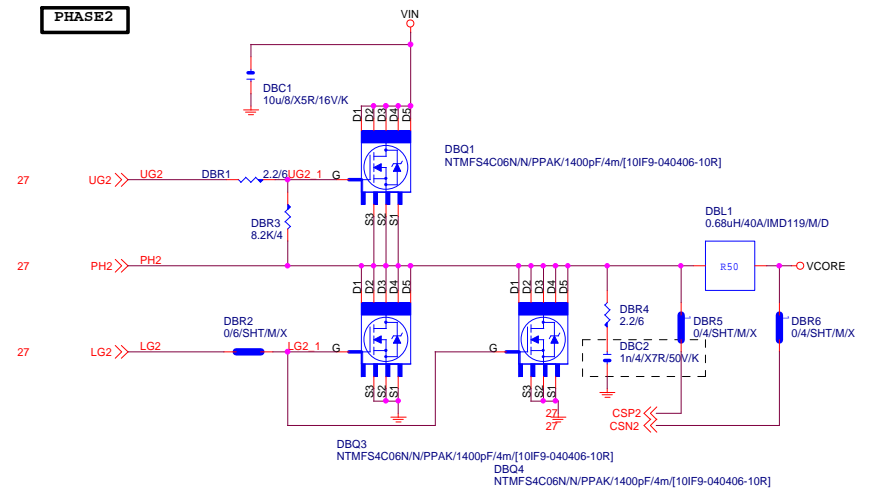
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DDR & M3 POWER			
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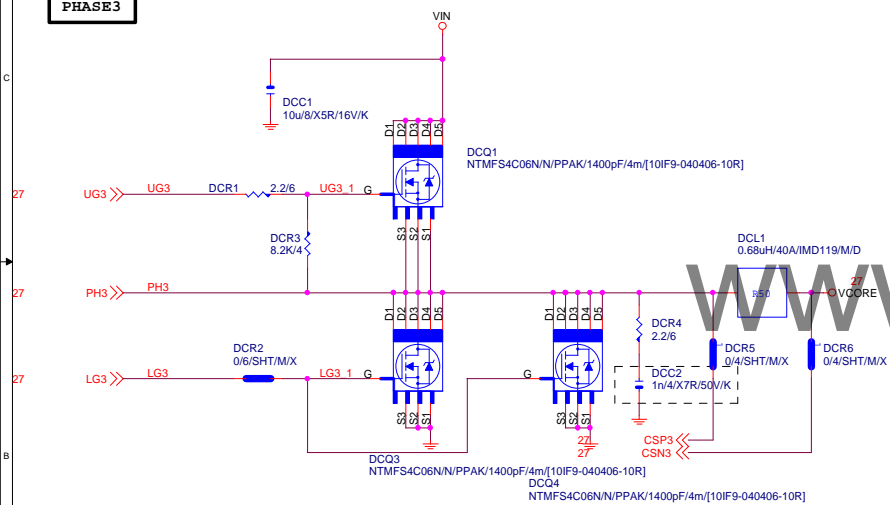
PHASE1



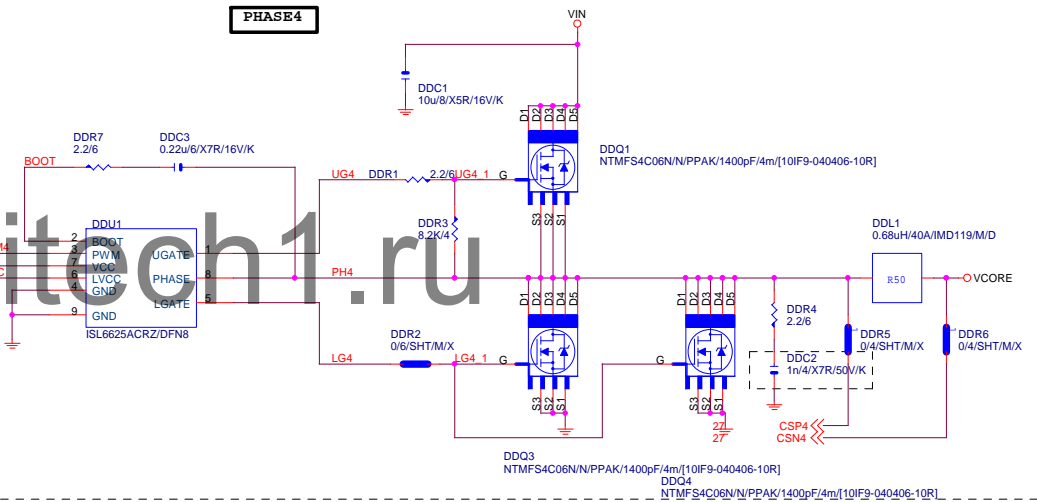
PHASE2



PHASE3

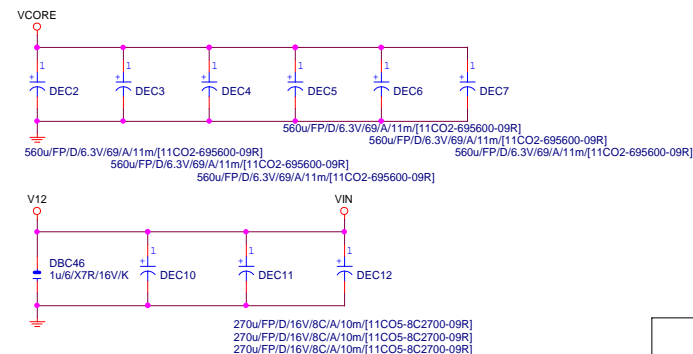


PHASE4



MOS HEATSINK

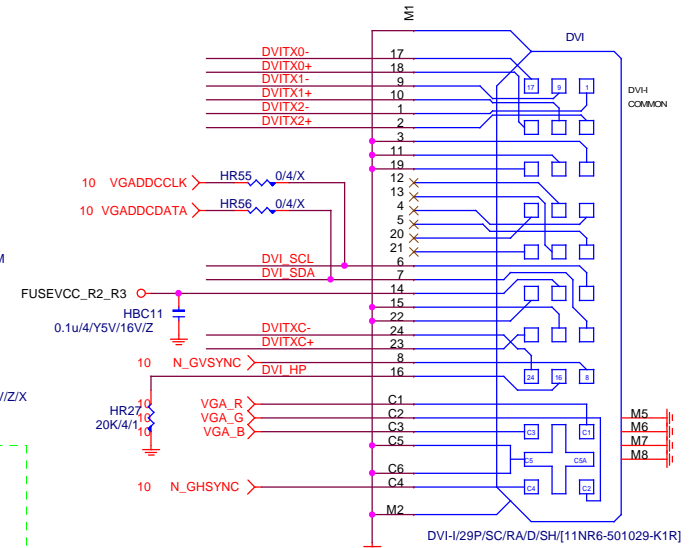
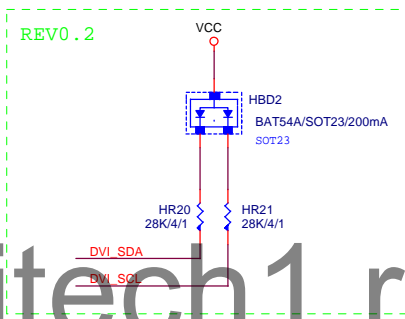
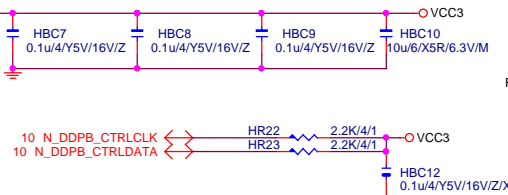
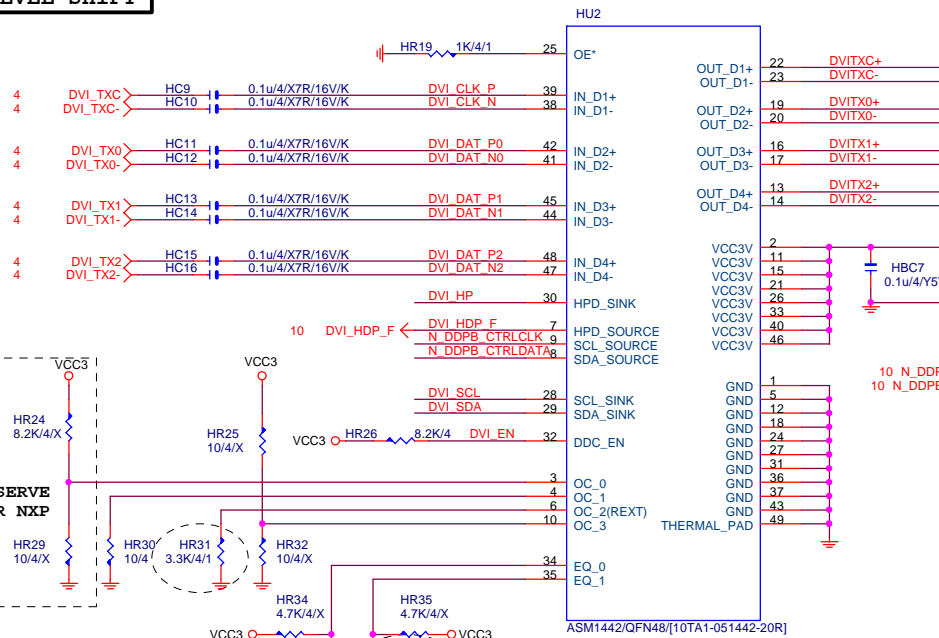
N/A



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DVI LEVEL SHIFT



ASM1442
DEFAULT 0/1/1 SWING:460mV -4dB

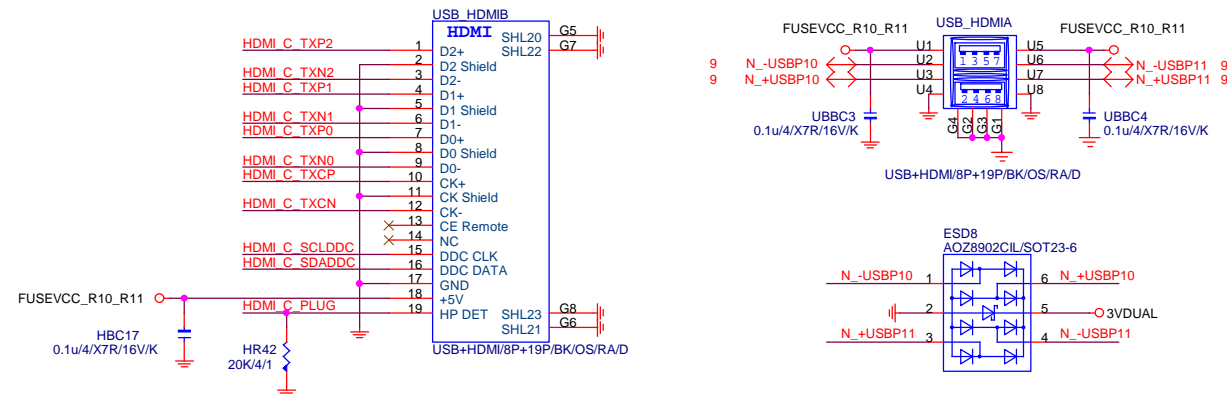
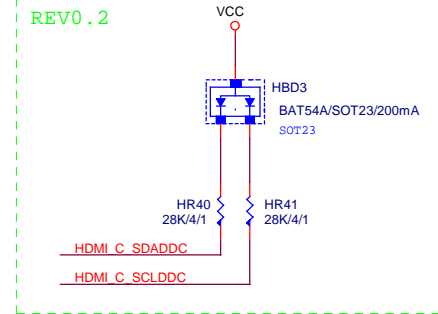
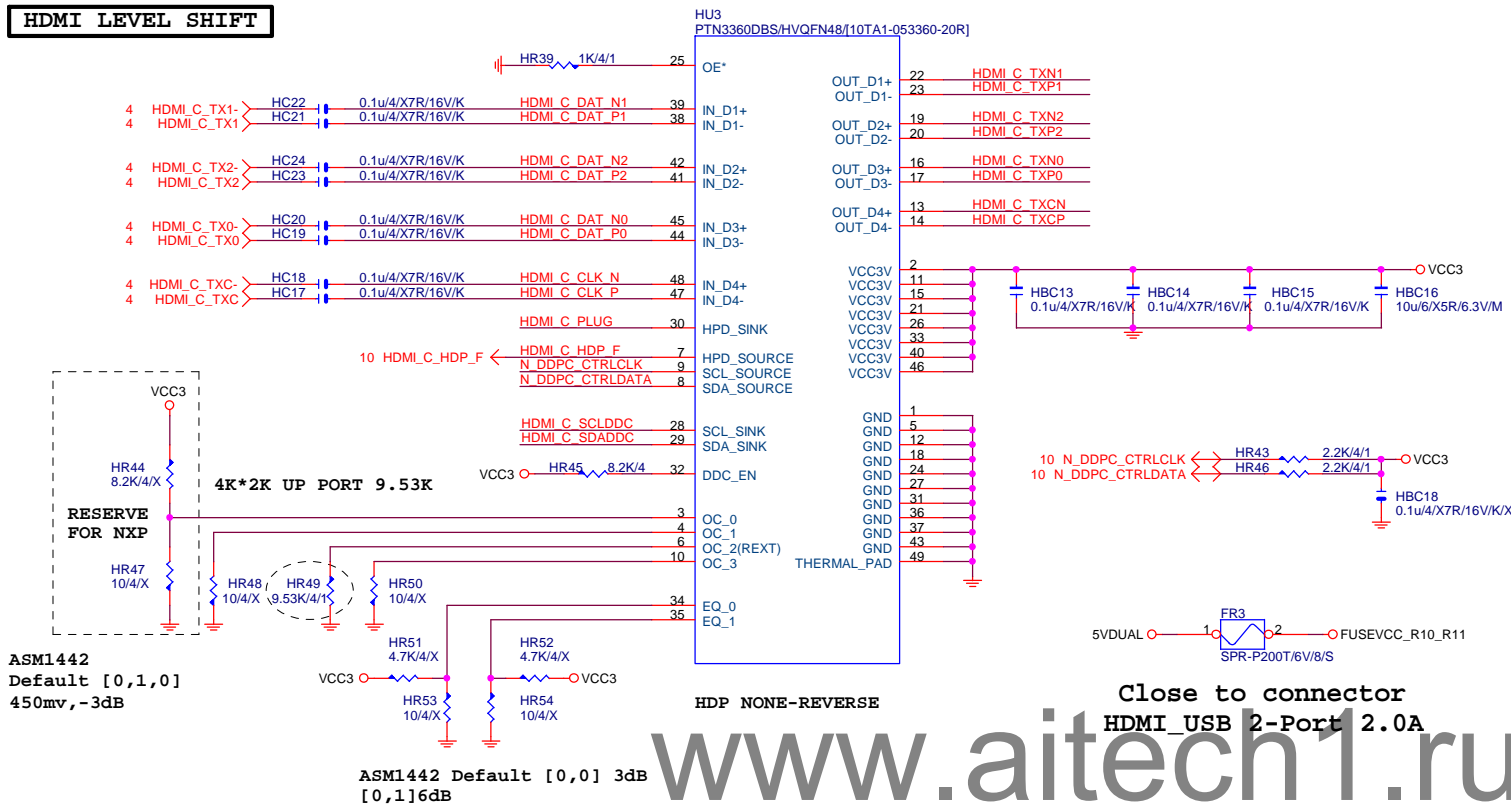
ASM1442 1 1:3dB

HDP NONE-REVERSE

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Gigabyte Technology			
DVI			
Size	Document Number	GA-B85N-Phoenix-WIFI	
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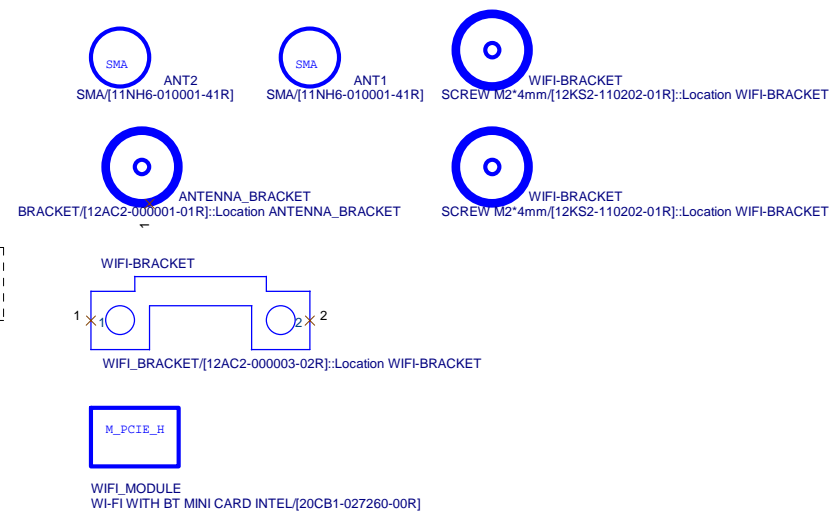
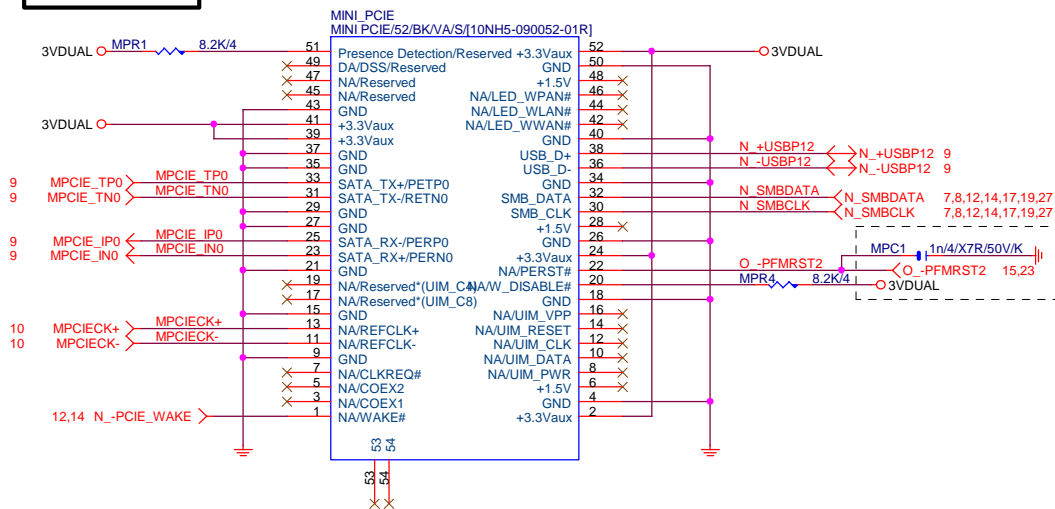
HDMI LEVEL SHIFT



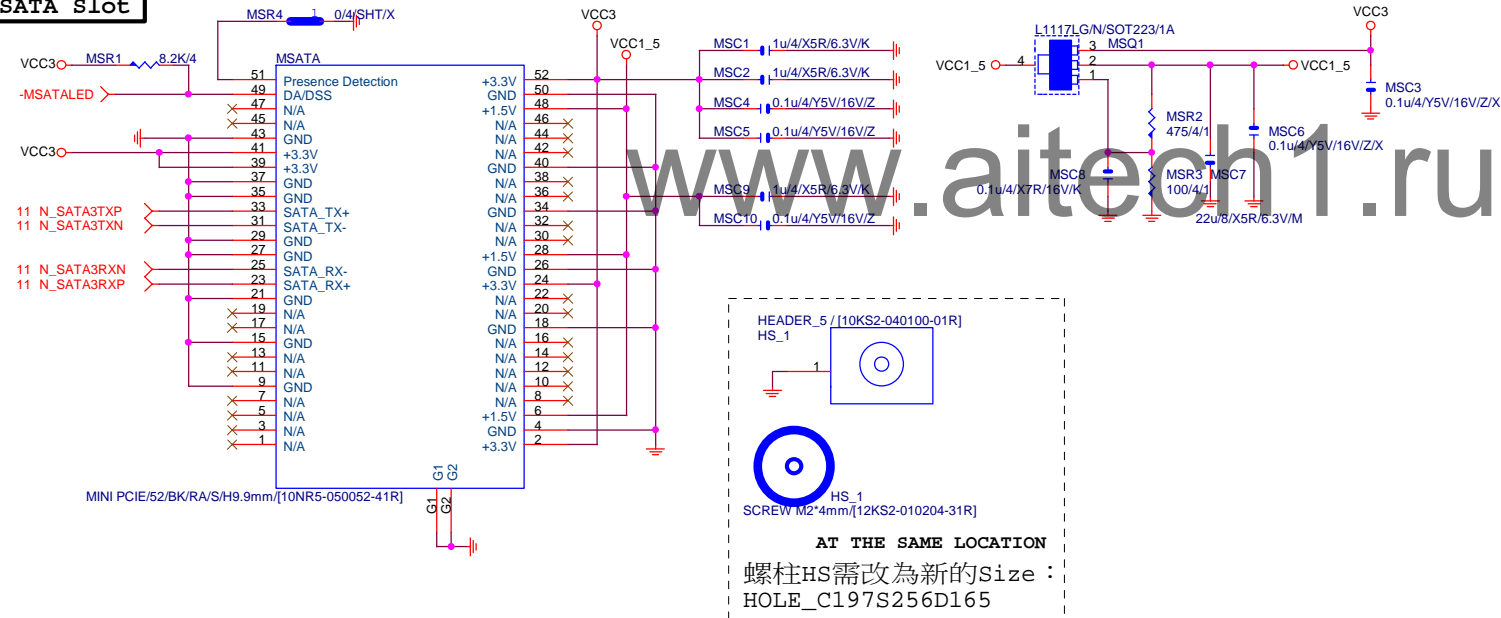
Gigabyte Technology

Title			HDMI + USB2.0 * 2	
Size	Document Number	GA-B85N-Phoenix-WIFI		Rev
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Mini PCIe

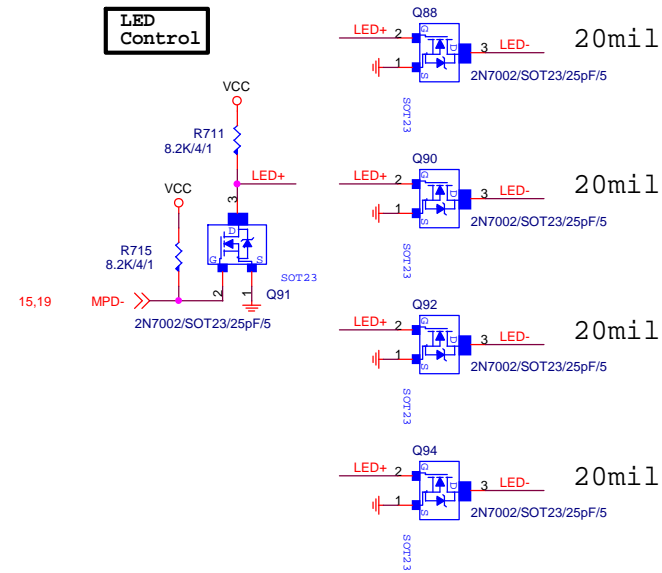
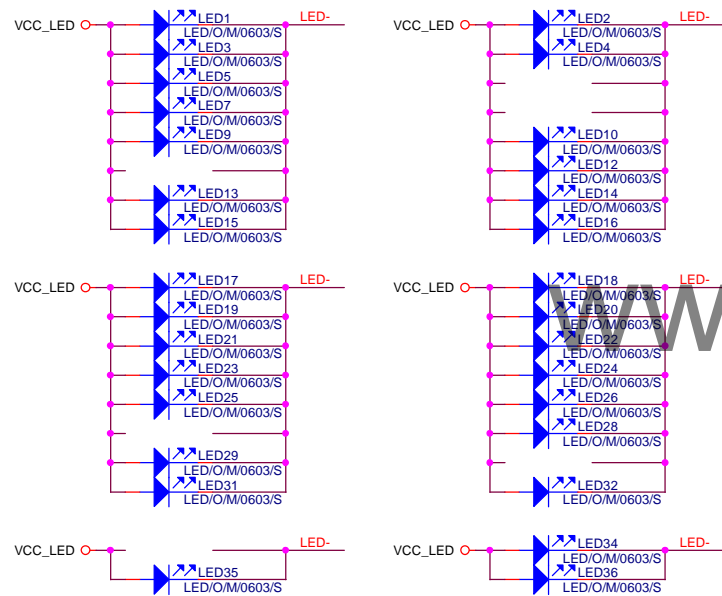
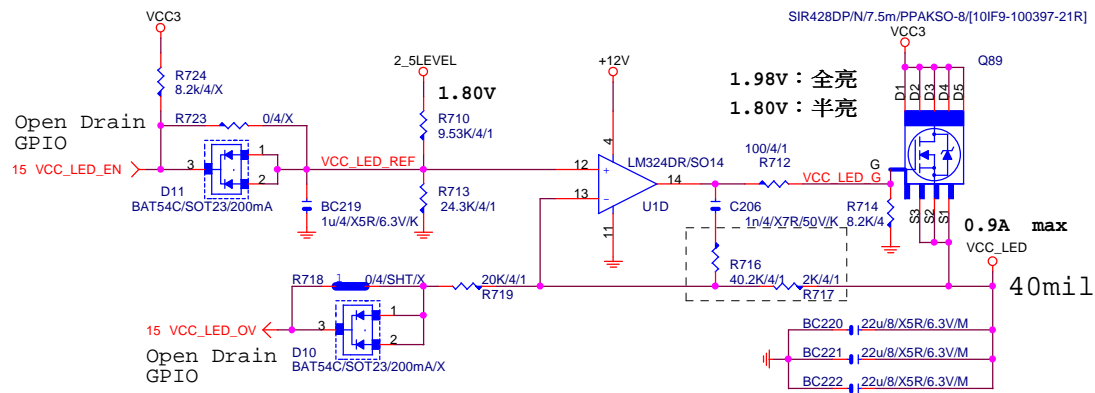


mSATA Slot



AT THE SAME LOCATION

螺柱HS需改為新的Size :
HOLE_C197S256D165



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Gigabyte Technology			
Title			
Breathing LED			
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