

Model Name: GA-H97N-WIFI

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	ITE 8620 LPC IO
16	COM,KB_USB20
17	HWM,FAN CTRL,OV,-PROCHOT
18	DUAL BIOS
19	FP,FUSB,SPK,SATALED
20	Realtek ALC892-GR
21	REAR AUDIO JACK
22	INTEL LAN I217V(A)
23	ARTHEROS LAN AR8161B(B)
24	DISCRETE POWER
25	ATX
26	RT8120_DDR POWER,M3 POWER
27	VCORE ISL95820_1

SHEET

TITLE

28	VCORE ISL95820_2
29	DVI-I
30	HDMI*2
31	mSATA, Mini-PCIe

Gigabyte Technology

Cover Sheet

Title	GA-H97N-WIFI	
Size	Document Number	Rev
Custom	GA-H97N-WIFI	1.0
Date:	Monday, April 14, 2014	Sheet 1 of 31

2014/04/14

Circuit or PCB layout change

Gigabyte Technology

Title

BOM & PCB MODIFY HISTORY

Size	Custom
------	--------

Document Number

GA-H97N-WIFI

0

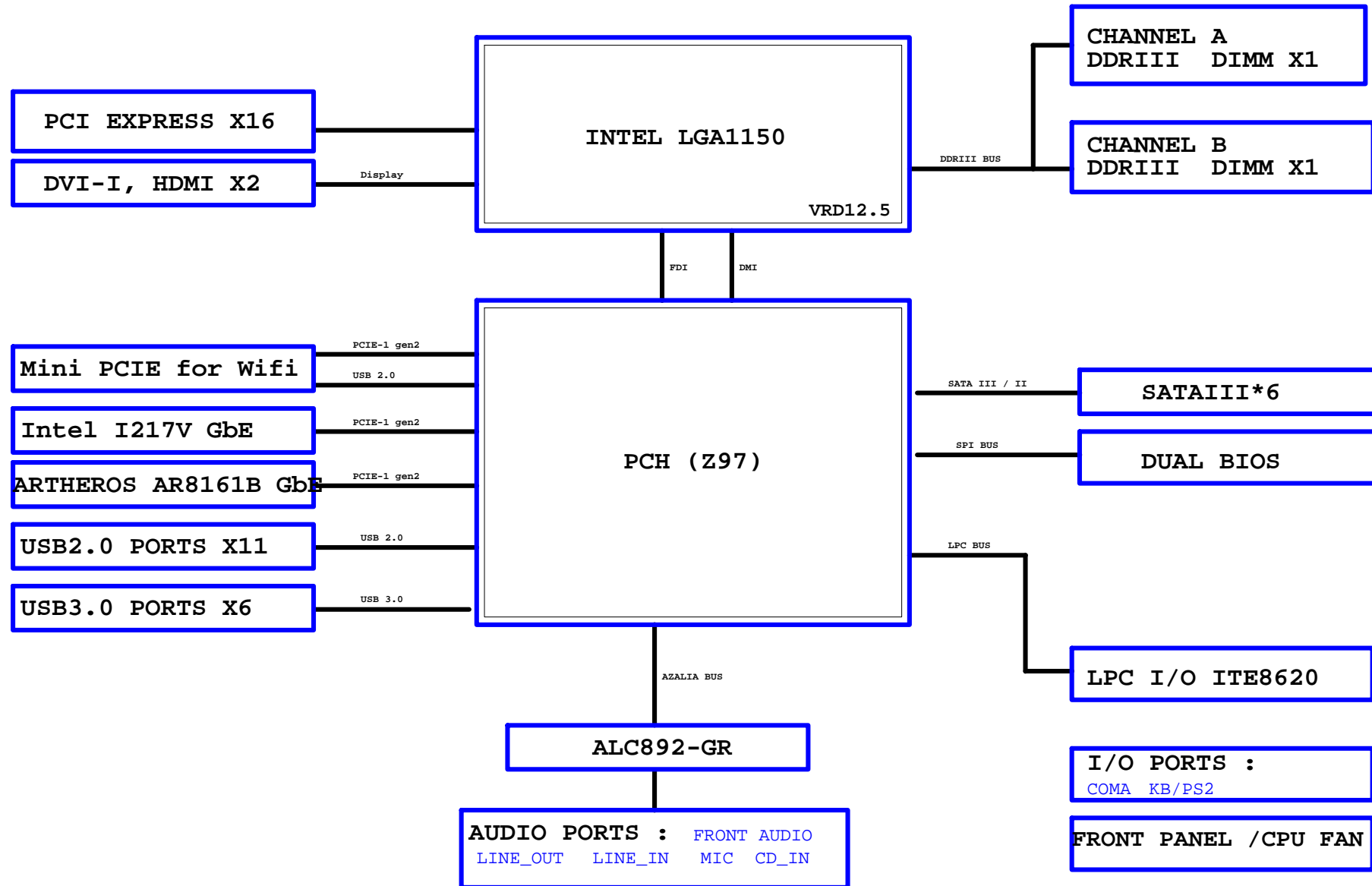
Date:

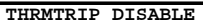
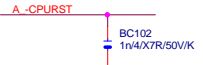
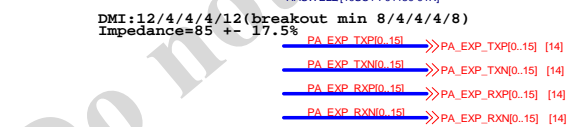
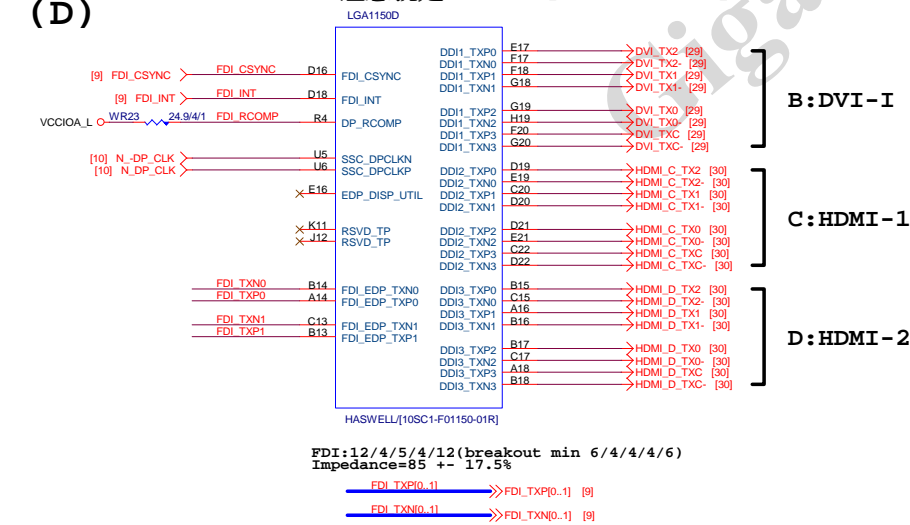
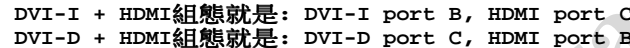
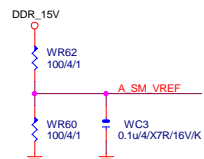
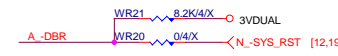
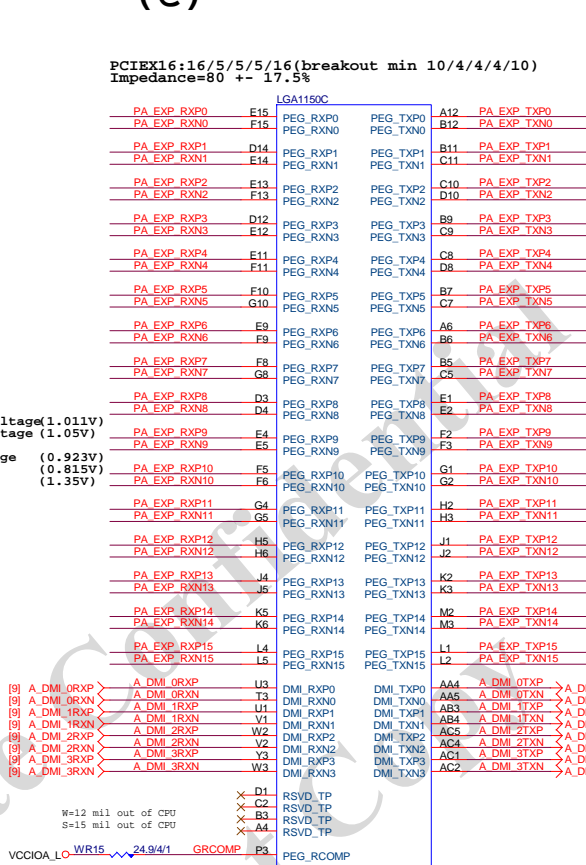
Monday, April 14, 2014

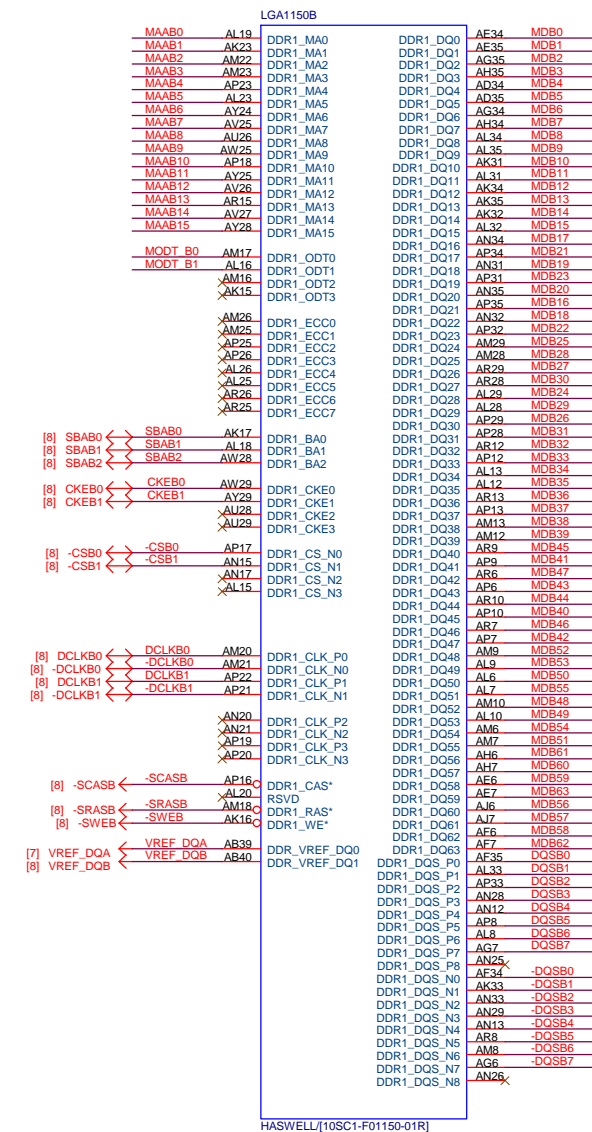
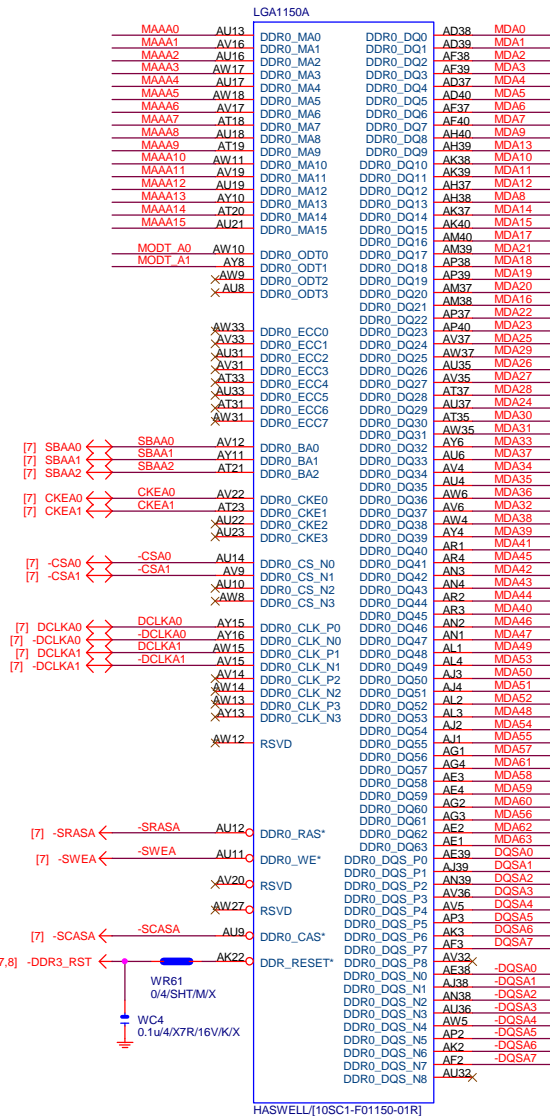
Sheet

of

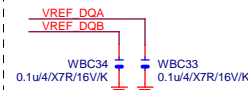
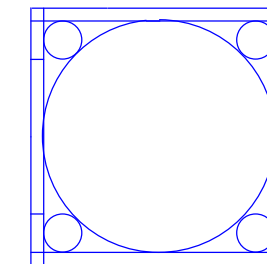
0	
---	--

BLOCK DIAGRAM





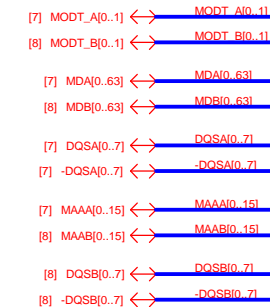
Place in CPU bottom side

CR
CPU RETENTION/X

LGA1150_P



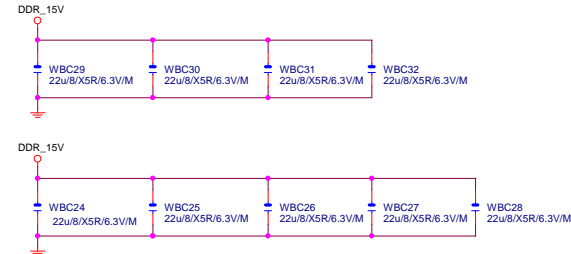
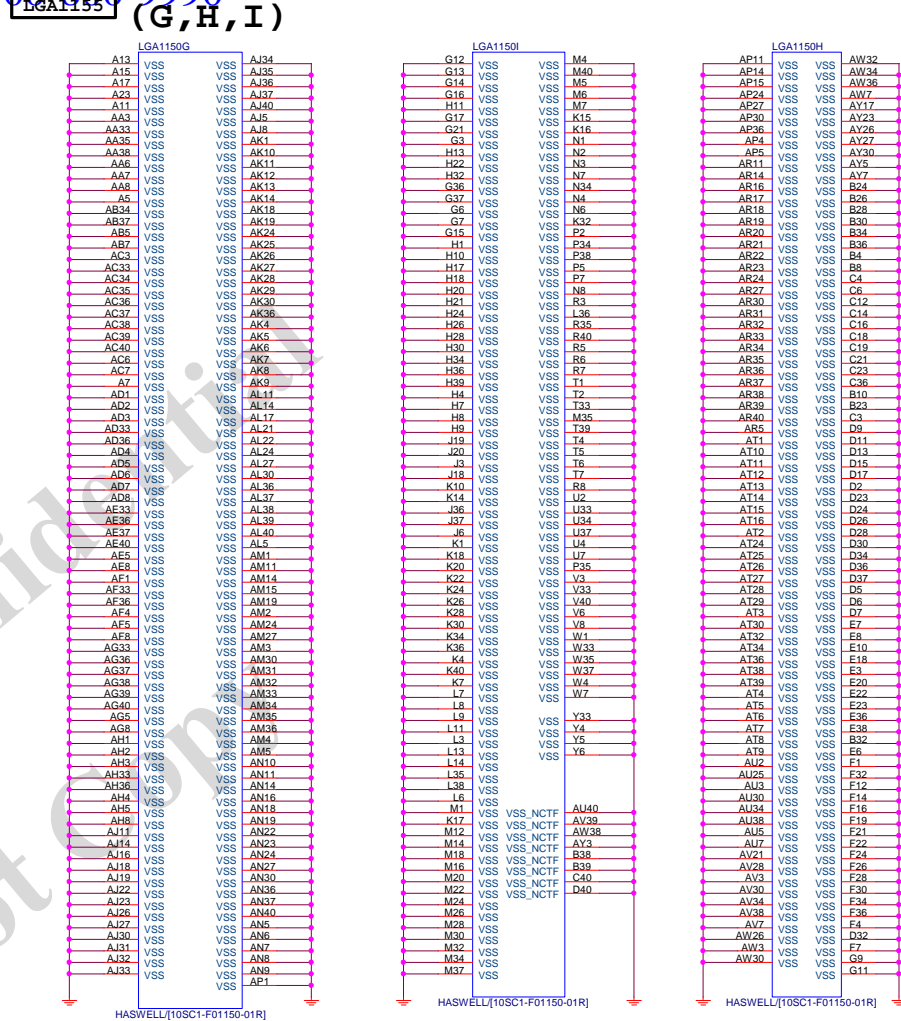
DDR BUS

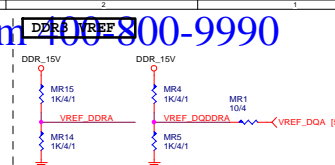
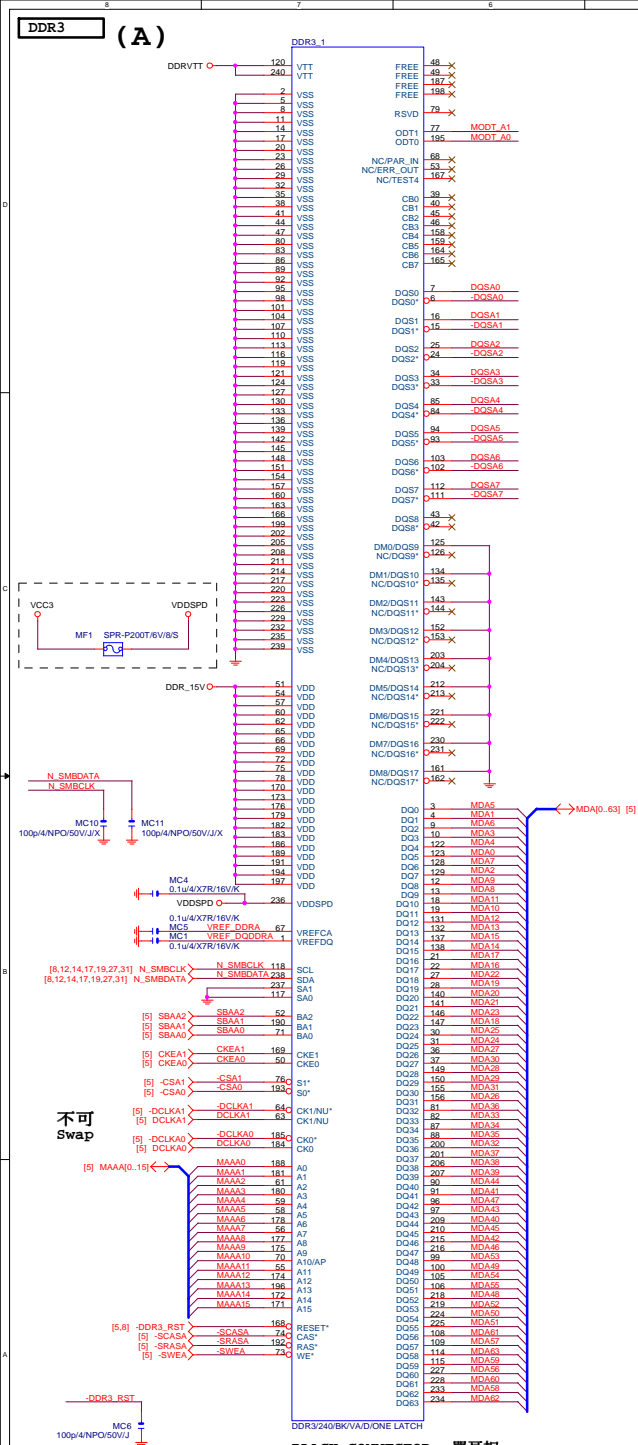


Gigabyte Technology

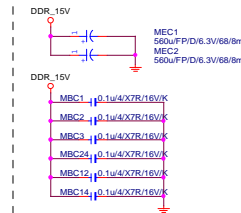
CPU LGA1156-B

Title	Document Number	Rev
GA-Z97N-WIFI	1.0	
Date:	Monday, April 14, 2014	Sheet 5 of 31

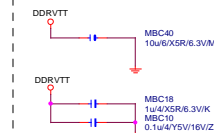


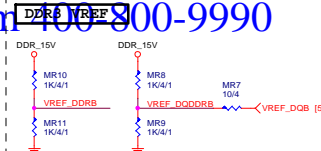
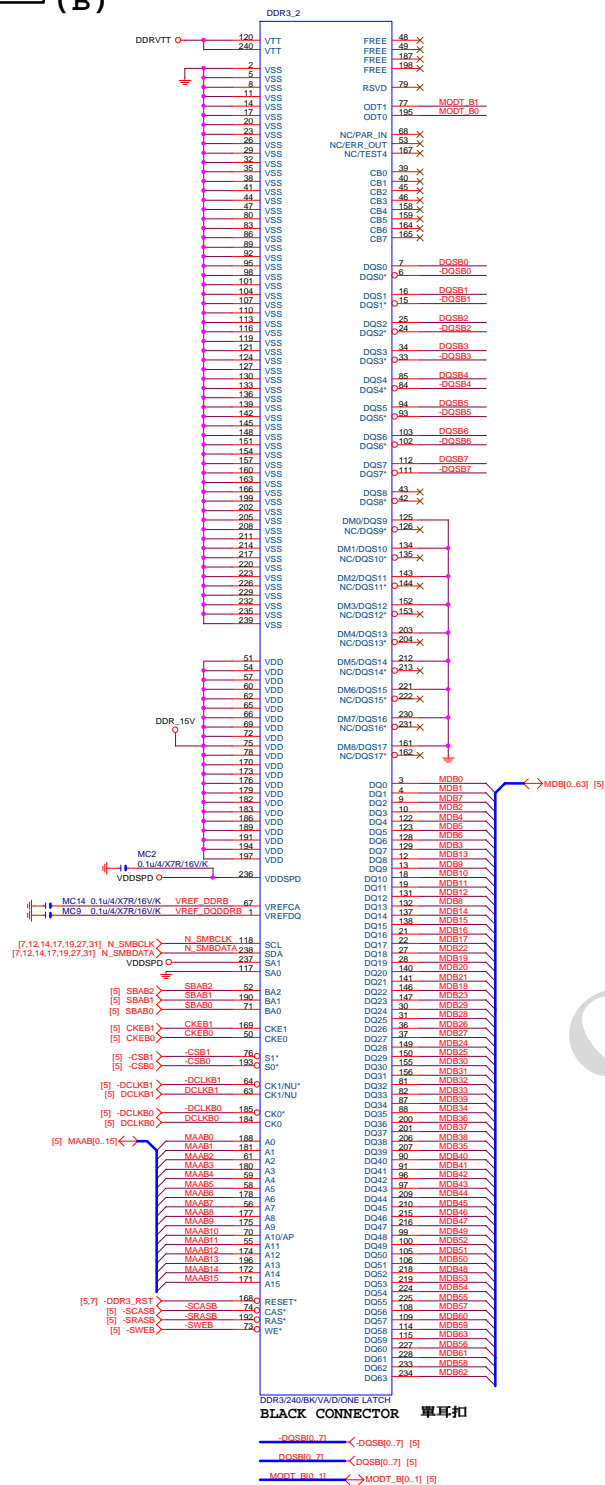


DDR15V Decouple

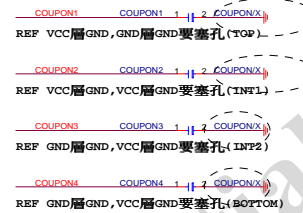


DDRVTT Decouple





COUPON



DIMM1

CHA

DIMM2

 CHB

PCH

(B)

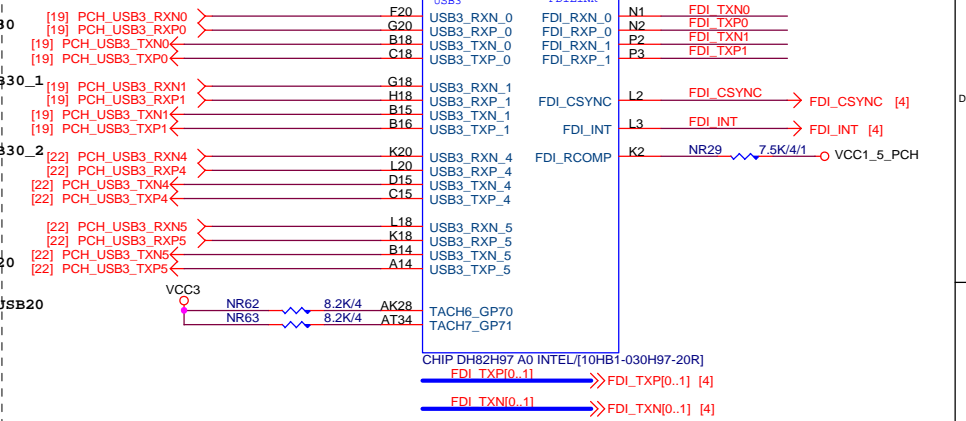
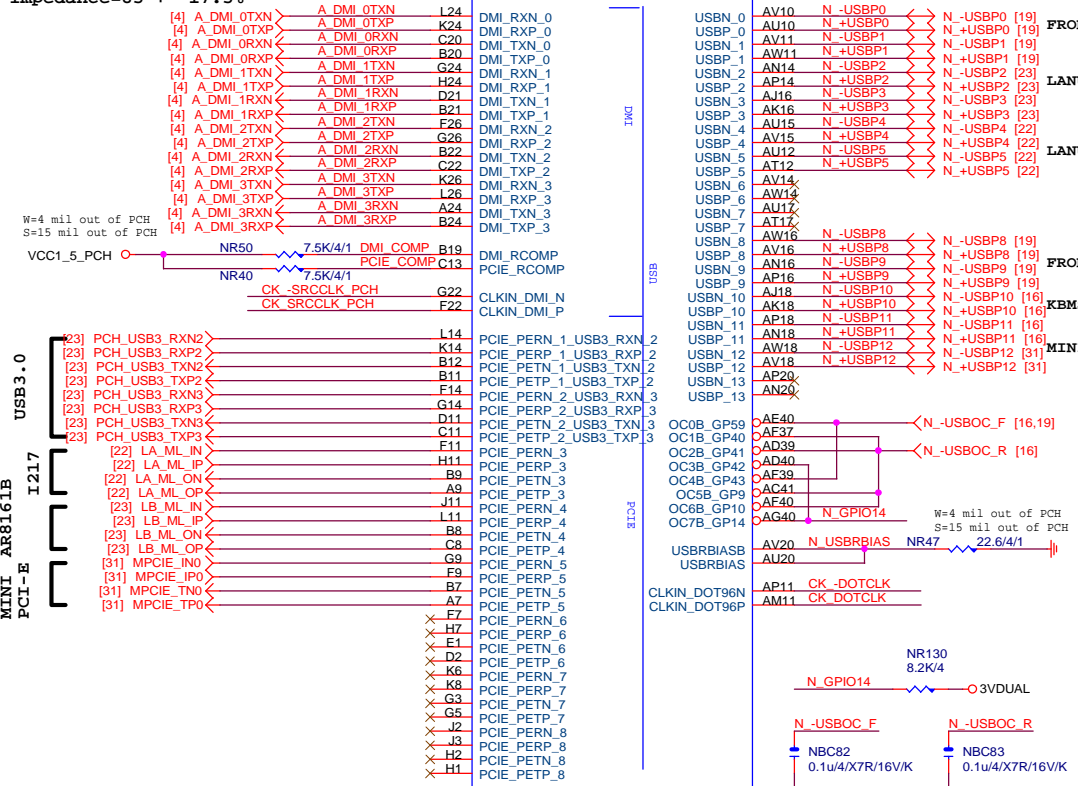
DMI:12/4/4/4/12(breakout min 8/4/4/4/8)
Impedance=85 +- 17.5%

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

PCH

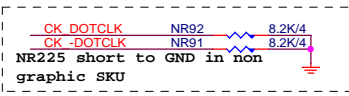
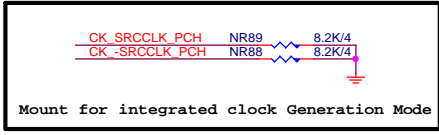
(F)

USB2.0/3.0 PORT要對應
USB20 1/9 debug Capability Test 一定要拉出來



USB3.0:20/5/7/5/20 (breakout min 8/4/4/4/8) ; ONLY 3 VIAS
Impedance=85 +- 17.5%
Back Panel < 10000 MILLS
Front Panel < 6000 MILLS

PCH CLK PD

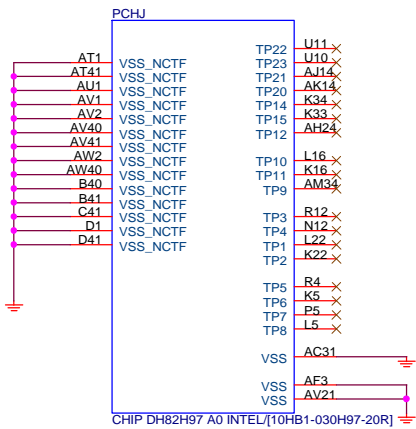


PCIEX1:15/4/4/4/15 (breakout min 8/4/4/4/8)
Impedance=85 +- 17.5%

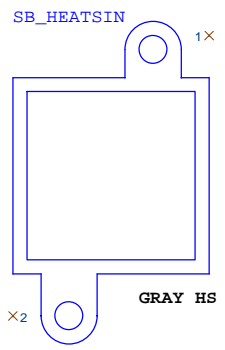
PCH

(J)

PCH PCIE ,DMI 15/4/4/4/15
usb2.0 12/5/7/5/12
usb3.0 20/5/7/5/20



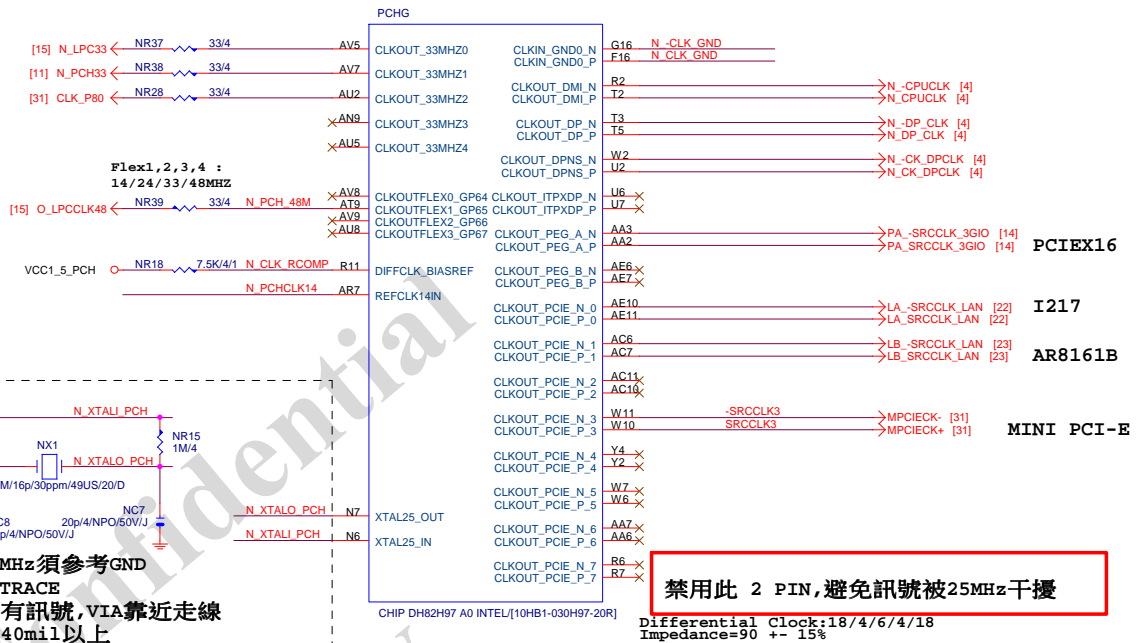
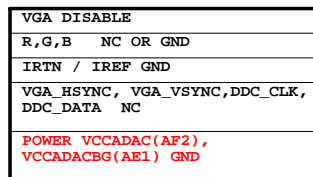
PCH H/S



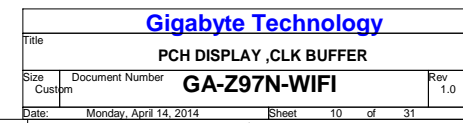
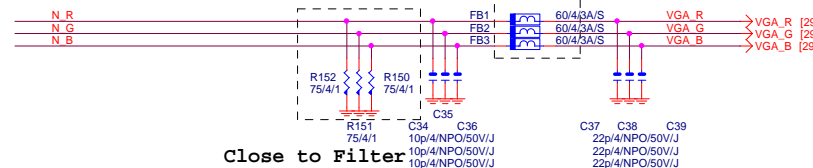
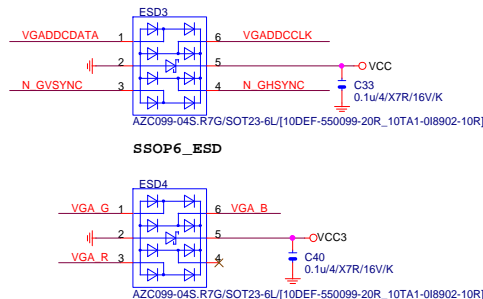
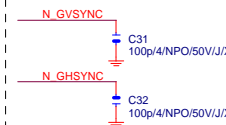
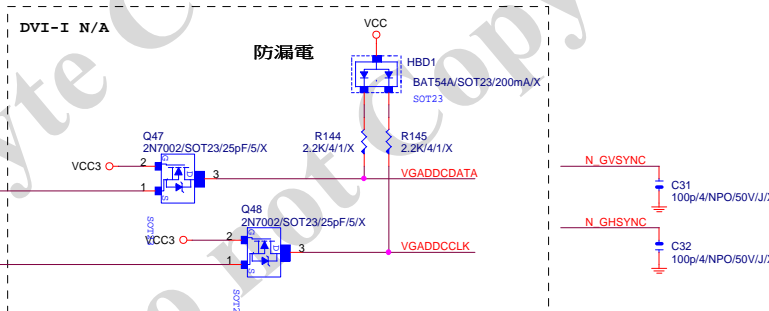
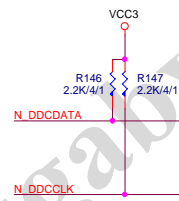
USB TABLE

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



N_PCHCLK14 NR118 8.2K/4



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%

H97 N/A

Z97+I217V N/A

PCHC

CL_CLK

CL_DATA

CL_RSTB

APWROK

CLINK

FAN

PWM0

PWM1

PWM2

PWM3

TACH0_GP17

TACH1_GP1

TACH2_GP6

TACH3_GP7

TACH4_GP8

TACH5_GP9

SSTCTL

SCLOCK_GP22

SLOAD_GP38

SDATAOUT0_GP39

SDATAOUT1_GP48

GPIO

RST

SATALED

SATA_RCOMP

SATA0GP_GP21

SATA1GP_GP19

SATA2GP_GP36

SATA3GP_GP37

SATA4GP_GP16

SATA5GP_GP49

EDP_BKLTCTL

EDP_BKLTEN

EDP_VDDEN

RSVD

RCINB

SERIRQ

THRMTRIPB

PECI

PM_SYNCN

PLTRST_PROCB

SATA_RXN_0

SATA_RXP_0

SATA_TXN_0

SATA_TXP_0

SATA_RXN_1

SATA_RXP_1

SATA_TXN_1

SATA_TXP_1

SATA_RXN_2

SATA_RXP_2

SATA_TXN_2

SATA_TXP_2

SATA_RXN_3

SATA_RXP_3

SATA_TXN_3

SATA_TXP_3

SATA_RXN_4

SATA_RXP_4

SATA_TXN_4

SATA_TXP_4

SATA_RXN_5

SATA_RXP_5

SATA_TXN_5

SATA_TXP_5

SATA_RXN_6

SATA_RXP_6

SATA_TXN_6

SATA_TXP_6

SATA_RXN_7

SATA_RXP_7

SATA_TXN_7

SATA_TXP_7

SATA_RXN_8

SATA_RXP_8

SATA_TXN_8

SATA_TXP_8

SATA_RXN_9

SATA_RXP_9

SATA_TXN_9

SATA_TXP_9

SATA_RXN_10

SATA_RXP_10

SATA_TXN_10

SATA_TXP_10

SATA_RXN_11

SATA_RXP_11

SATA_TXN_11

SATA_TXP_11

SATA_RXN_12

SATA_RXP_12

SATA_TXN_12

SATA_TXP_12

SATA_RXN_13

SATA_RXP_13

SATA_TXN_13

SATA_TXP_13

SATA_RXN_14

SATA_RXP_14

SATA_TXN_14

SATA_TXP_14

SATA_RXN_15

SATA_RXP_15

SATA_TXN_15

SATA_TXP_15

SATA_RXN_16

SATA_RXP_16

SATA_TXN_16

SATA_TXP_16

SATA_RXN_17

SATA_RXP_17

SATA_TXN_17

SATA_TXP_17

SATA_RXN_18

SATA_RXP_18

SATA_TXN_18

SATA_TXP_18

SATA_RXN_19

SATA_RXP_19

SATA_TXN_19

SATA_TXP_19

SATA_RXN_20

SATA_RXP_20

SATA_TXN_20

SATA_TXP_20

SATA_RXN_21

SATA_RXP_21

SATA_TXN_21

SATA_TXP_21

SATA_RXN_22

SATA_RXP_22

SATA_TXN_22

SATA_TXP_22

SATA_RXN_23

SATA_RXP_23

SATA_TXN_23

SATA_TXP_23

SATA_RXN_24

SATA_RXP_24

SATA_TXN_24

SATA_TXP_24

SATA_RXN_25

SATA_RXP_25

SATA_TXN_25

SATA_TXP_25

SATA_RXN_26

SATA_RXP_26

SATA_TXN_26

SATA_TXP_26

SATA_RXN_27

SATA_RXP_27

SATA_TXN_27

SATA_TXP_27

SATA_RXN_28

SATA_RXP_28

SATA_TXN_28

SATA_TXP_28

SATA_RXN_29

SATA_RXP_29

SATA_TXN_29

SATA_TXP_29

SATA_RXN_30

SATA_RXP_30

SATA_TXN_30

SATA_TXP_30

SATA_RXN_31

SATA_RXP_31

SATA_TXN_31

SATA_TXP_31

SATA_RXN_32

SATA_RXP_32

SATA_TXN_32

SATA_TXP_32

SATA_RXN_33

SATA_RXP_33

SATA_TXN_33

SATA_TXP_33

SATA_RXN_34

SATA_RXP_34

SATA_TXN_34

SATA_TXP_34

SATA_RXN_35

SATA_RXP_35

SATA_TXN_35

SATA_TXP_35

SATA_RXN_36

SATA_RXP_36

SATA_TXN_36

SATA_TXP_36

SATA_RXN_37

SATA_RXP_37

SATA_TXN_37

SATA_TXP_37

SATA_RXN_38

SATA_RXP_38

SATA_TXN_38

SATA_TXP_38

SATA_RXN_39

SATA_RXP_39

SATA_TXN_39

SATA_TXP_39

SATA_RXN_40

SATA_RXP_40

SATA_TXN_40

SATA_TXP_40

SATA_RXN_41

SATA_RXP_41

SATA_TXN_41

SATA_TXP_41

SATA_RXN_42

SATA_RXP_42

SATA_TXN_42

SATA_TXP_42

SATA_RXN_43

SATA_RXP_43

SATA_TXN_43

SATA_TXP_43

SATA_RXN_44

SATA_RXP_44

SATA_TXN_44

SATA_TXP_44

SATA_RXN_45

SATA_RXP_45

SATA_TXN_45

SATA_TXP_45

SATA_RXN_46

SATA_RXP_46

SATA_TXN_46

SATA_TXP_46

SATA_RXN_47

SATA_RXP_47

SATA_TXN_47

SATA_TXP_47

SATA_RXN_48

SATA_RXP_48

SATA_TXN_48

SATA_TXP_48

SATA_RXN_49

SATA_RXP_49

SATA_TXN_49

SATA_TXP_49

SATA_RXN_50

SATA_RXP_50

SATA_TXN_50

SATA_TXP_50

SATA_RXN_51

SATA_RXP_51

SATA_TXN_51

SATA_TXP_51

SATA_RXN_52

SATA_RXP_52

SATA_TXN_52

SATA_TXP_52

SATA_RXN_53

SATA_RXP_53

SATA_TXN_53

SATA_TXP_53

SATA_RXN_54

SATA_RXP_54

SATA_TXN_54

SATA_TXP_54

SATA_RXN_55

SATA_RXP_55

SATA_TXN_55

SATA_TXP_55

SATA_RXN_56

SATA_RXP_56

SATA_TXN_56

SATA_TXP_56

SATA_RXN_57

SATA_RXP_57

SATA_TXN_57

SATA_TXP_57

SATA_RXN_58

SATA_RXP_58

SATA_TXN_58

SATA_TXP_58

SATA_RXN_59

SATA_RXP_59

SATA_TXN_59

SATA_TXP_59

SATA_RXN_60

SATA_RXP_60

SATA_TXN_60

SATA_TXP_60

SATA_RXN_61

SATA_RXP_61

SATA_TXN_61

SATA_TXP_61

SATA_RXN_62

SATA_RXP_62

SATA_TXN_62

SATA_TXP_62

SATA_RXN_63

SATA_RXP_63

SATA_TXN_63

SATA_TXP_63

SATA_RXN_64

SATA_RXP_64

SATA_TXN_64

SATA_TXP_64

SATA_RXN_65

SATA_RXP_65

SATA_TXN_65

SATA_TXP_65

SATA_RXN_66

SATA_RXP_66

SATA_TXN_66

SATA_TXP_66

SATA_RXN_67

SATA_RXP_67

SATA_TXN_67

SATA_TXP_67

SATA_RXN_68

SATA_RXP_68

SATA_TXN_68

SATA_TXP_68

SATA_RXN_69

(D)



ACZ_SDOUT



PCH_DPWROK



CPU VRMPWRGD

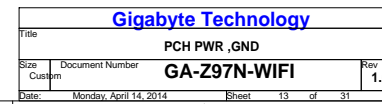


HSW_STRAP13

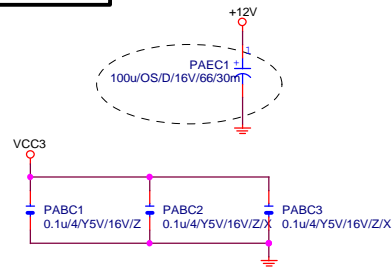
32.768KHZ

CLR_CMOS

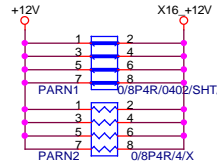
PCH	PU/PD
-----	-------



PCIEX16 CAP



PCIEX16 PROTECT SHT

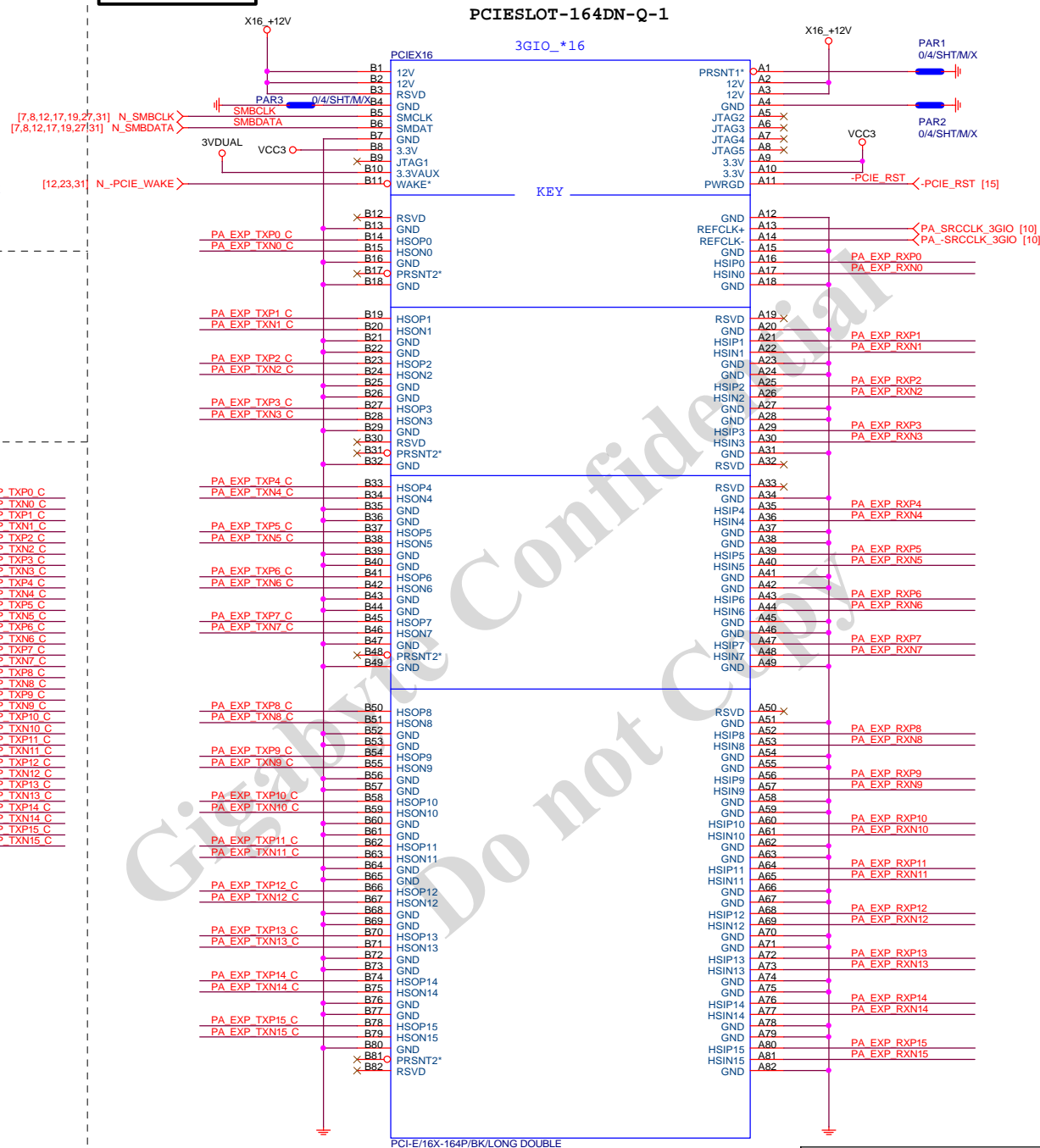


PCIEX16 AC CAP

PA EXP TXP0	PAC5	0.22uF/4X5R/6.3V/K	PA EXP TXP0 C
PA EXP TXN0	PAC4	0.22uF/4X5R/6.3V/K	PA EXP TXN0 C
PA EXP TXP1	PAC6	0.22uF/4X5R/6.3V/K	PA EXP TXP1 C
PA EXP TXN1	PAC7	0.22uF/4X5R/6.3V/K	PA EXP TXN1 C
PA EXP TXP2	PAC8	0.22uF/4X5R/6.3V/K	PA EXP TXP2 C
PA EXP TXN2	PAC9	0.22uF/4X5R/6.3V/K	PA EXP TXN2 C
PA EXP TXP3	PAC10	0.22uF/4X5R/6.3V/K	PA EXP TXP3 C
PA EXP TXN3	PAC11	0.22uF/4X5R/6.3V/K	PA EXP TXN3 C
PA EXP TXP4	PAC12	0.22uF/4X5R/6.3V/K	PA EXP TXP4 C
PA EXP TXN4	PAC13	0.22uF/4X5R/6.3V/K	PA EXP TXN4 C
PA EXP TXP5	PAC14	0.22uF/4X5R/6.3V/K	PA EXP TXP5 C
PA EXP TXN5	PAC15	0.22uF/4X5R/6.3V/K	PA EXP TXN5 C
PA EXP TXP6	PAC16	0.22uF/4X5R/6.3V/K	PA EXP TXP6 C
PA EXP TXN6	PAC17	0.22uF/4X5R/6.3V/K	PA EXP TXN6 C
PA EXP TXP7	PAC18	0.22uF/4X5R/6.3V/K	PA EXP TXP7 C
PA EXP TXN7	PAC19	0.22uF/4X5R/6.3V/K	PA EXP TXN7 C
PA EXP TXP8	PAC20	0.22uF/4X5R/6.3V/K	PA EXP TXP8 C
PA EXP TXN8	PAC21	0.22uF/4X5R/6.3V/K	PA EXP TXN8 C
PA EXP TXP9	PAC22	0.22uF/4X5R/6.3V/K	PA EXP TXP9 C
PA EXP TXN9	PAC23	0.22uF/4X5R/6.3V/K	PA EXP TXN9 C
PA EXP TXP10	PAC24	0.22uF/4X5R/6.3V/K	PA EXP TXP10 C
PA EXP TXN10	PAC25	0.22uF/4X5R/6.3V/K	PA EXP TXN10 C
PA EXP TXP11	PAC26	0.22uF/4X5R/6.3V/K	PA EXP TXP11 C
PA EXP TXN11	PAC27	0.22uF/4X5R/6.3V/K	PA EXP TXN11 C
PA EXP TXP12	PAC28	0.22uF/4X5R/6.3V/K	PA EXP TXP12 C
PA EXP TXN12	PAC29	0.22uF/4X5R/6.3V/K	PA EXP TXN12 C
PA EXP TXP13	PAC30	0.22uF/4X5R/6.3V/K	PA EXP TXP13 C
PA EXP TXN13	PAC31	0.22uF/4X5R/6.3V/K	PA EXP TXN13 C
PA EXP TXP14	PAC32	0.22uF/4X5R/6.3V/K	PA EXP TXP14 C
PA EXP TXN14	PAC33	0.22uF/4X5R/6.3V/K	PA EXP TXN14 C
PA EXP TXP15	PAC34	0.22uF/4X5R/6.3V/K	PA EXP TXP15 C
PA EXP TXN15	PAC35	0.22uF/4X5R/6.3V/K	PA EXP TXN15 C

PA EXP RXP0 [0..15] >>> PA_EXP_RXP[0..15] [4]
PA EXP RXN0 [0..15] >>> PA_EXP_RXN[0..15] [4]
PA EXP TXP0 [0..15] >>> PA_EXP_TXP[0..15] [4]
PA EXP TXN0 [0..15] >>> PA_EXP_TXN[0..15] [4]

PCIEX16 SLOT

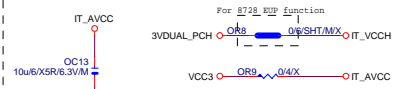
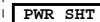
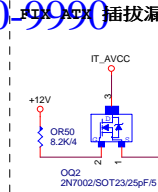
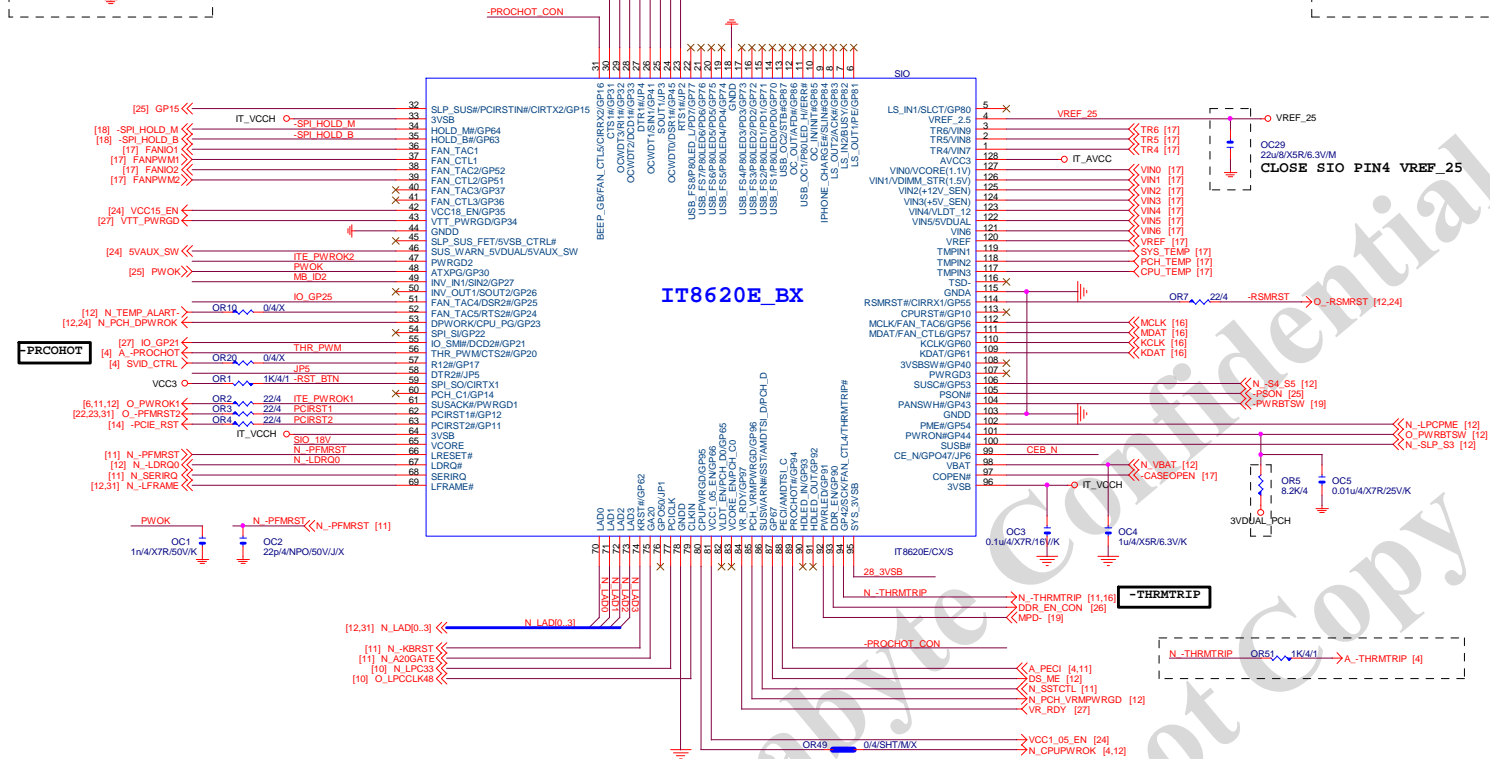


BLACK CONNECTOR

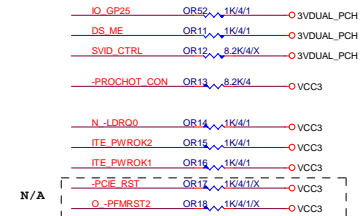
Gigabyte Technology

Title		
PCI EXPRESS * 16		
Size	Document Number	Rev
Custom	GA-Z97N-WIFI	1.0
Date:	Monday, April 14, 2014	Sheet 14 of 31

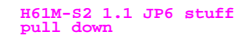
FANIO CAP 1~2



SIO PU



SIO STRAP



ITE recommandé

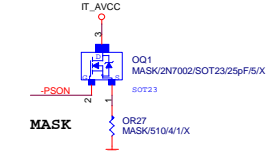
EUP control by PCH

3VDUAL OR26 100/4/1 28 3VSB

```
JP3--- High SPI-Flash Disable |
      Low SPI-Flash Enable    |
```

Power leakage

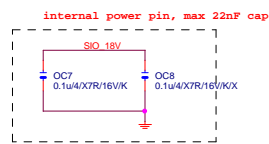
N/A



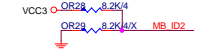
DUAL BIOS OPT STRAP



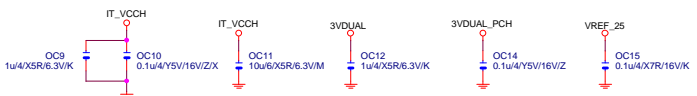
SIO_18V



MB ID

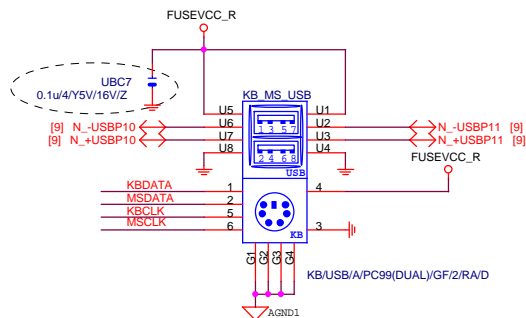


SIO CAP



IT8620E GPIO問題匯整	
PIN 50	GP26----
PIN 90/91	第一次接上POWER時會拉 LO DEFAULT為HIDLED FUNCTION, GP93 BYPASS TO GP92
PIN 108	高溫時 GP92 會被拉Lo(1TE SP4)---- POWER ON 時會拉 Lo
PIN 111/112	MOUSE 與FAN6 FUNCTION 擇一使用, 不然會互相干擾

KB/MS

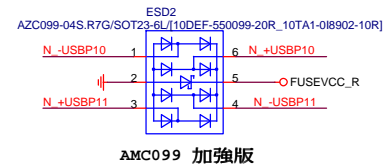


USB2.0 FWR



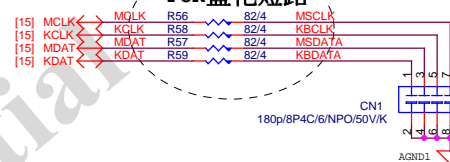
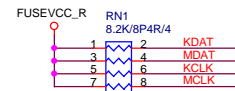
Close to connector
KB_MS_USB 2-Port 2.0A

USB2.0 ESD



AMC099 加強版

KB_MS

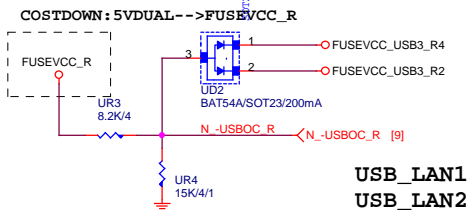


FOR鹽化短路

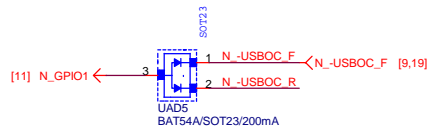
180p/8P4C/6/NPO/50V/K

-USBOC_R

USB POWER PROTECT



USB_LAN1
USB_LAN2

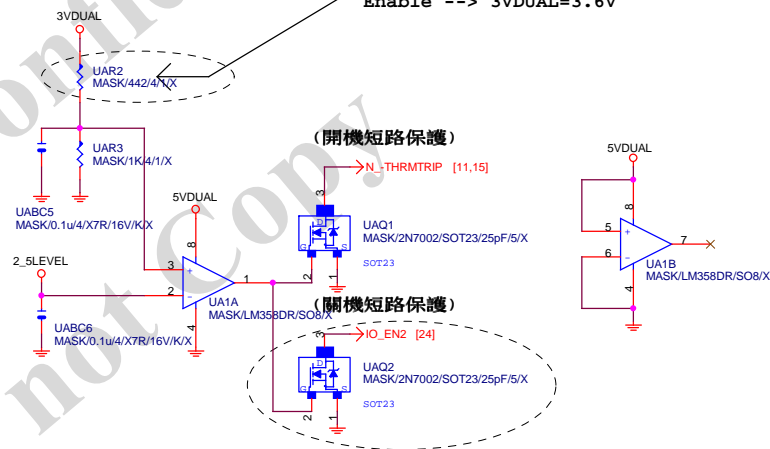


USB2.0 Short Power Protection

N/A

USB2.0 Signal & power short protection

USB2.0 Signal > 4.85V
Enable --> 3VDUAL=3.6V

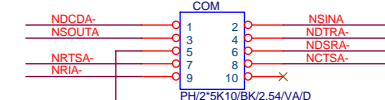
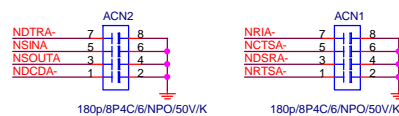
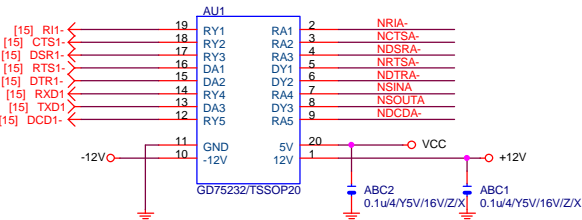


(開機短路保護)

(關機短路保護)

COM

COM RI

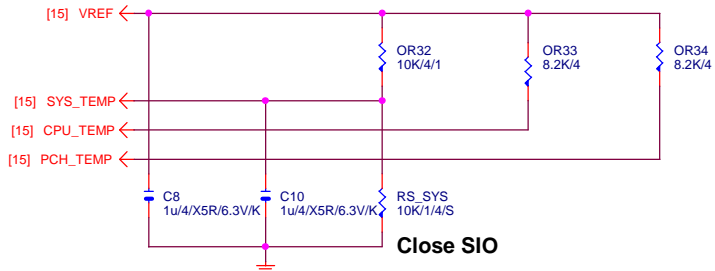


BLACK PIN2X5-CUT10-COM

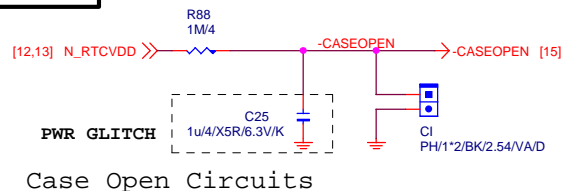
Gigabyte Technology

Title			
COM-RI,KB_USB,USB_ESATA-PROCHOT			
Size	Document Number	Rev	
Custom	GA-Z97N-WIFI	1.0	
Date:	Monday, April 14, 2014	Sheet	1 of 31

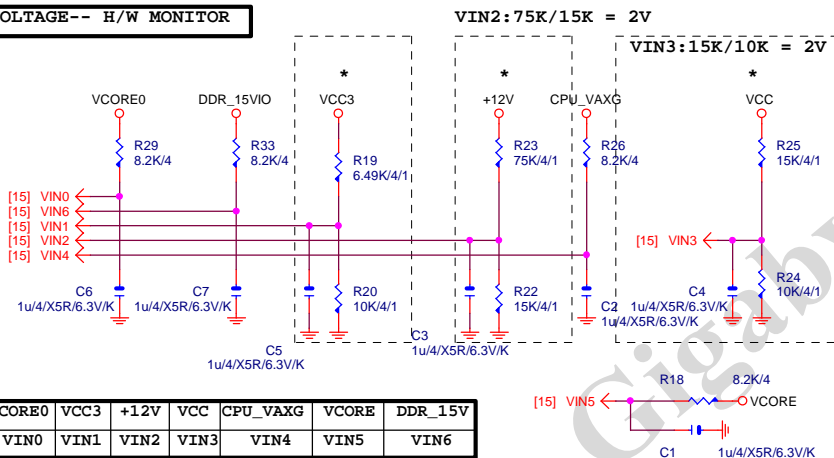
TEMP H/W MONITOR



CASE OPEN

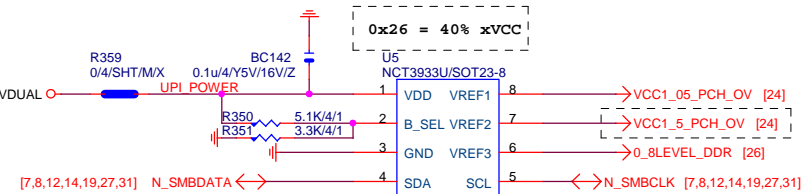


VOLTAGE-- H/W MONITOR



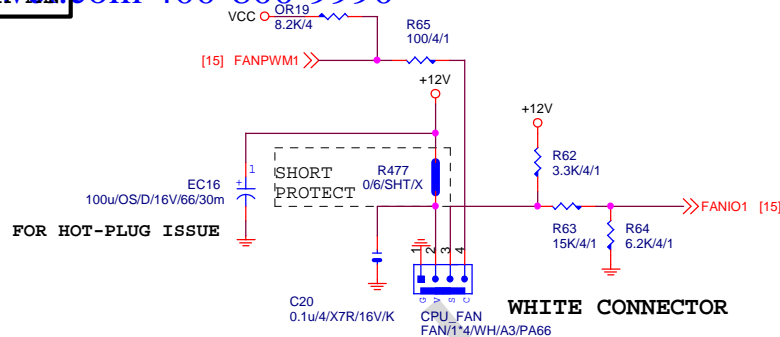
OV NCT3933

接pwm feedback pin



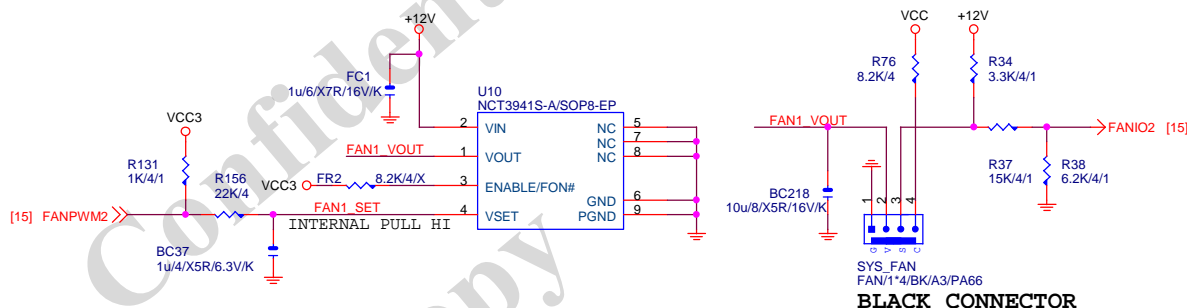
www.xinxiang.com 400-800-9990

CPU SMART FAN

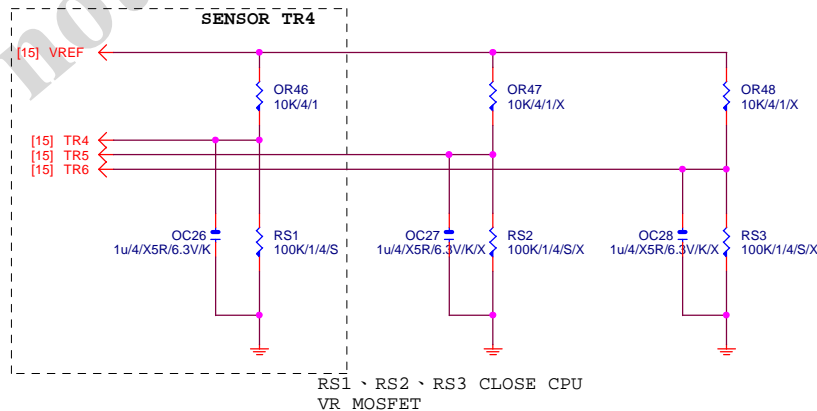


SYS SMART FAN

Linear SYS_FAN

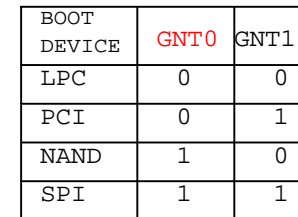


-PROHOT

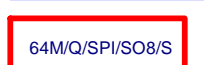


Gigabyte Technology

Title			HWM,FAN CTRL,OV	
Size	Document Number	GA-Z97N-WIFI		Rev
Custom				1.0
Date:	Monday, April 14, 2014	Sheet	17	of 31



64M/Q/SPI/SO8/S



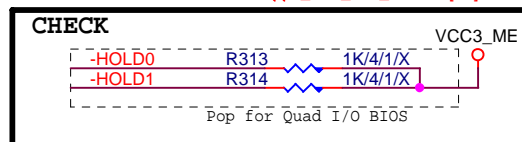
[12] N_ICH_SPI_MOSI >> N_ICH_SPI_MOSI NR10 8.2K/4/X
 [12] N_ICH_SPI_CS >> N_ICH_SPI_CS NR9 8.2K/4/X
 [15] -SPI_HOLD_M >> -SPI_HOLD M NR3 1K/4/1
 [15] -SPI_HOLD_B >> -SPI_HOLD B NR11 1K/4/1

5VDUAL

[15] -SPI_HOLD_M >> -SPI_HOLD M NR20 1K/4/1/X
 [15] -SPI_HOLD_B >> -SPI_HOLD B NR21 1K/4/1/X

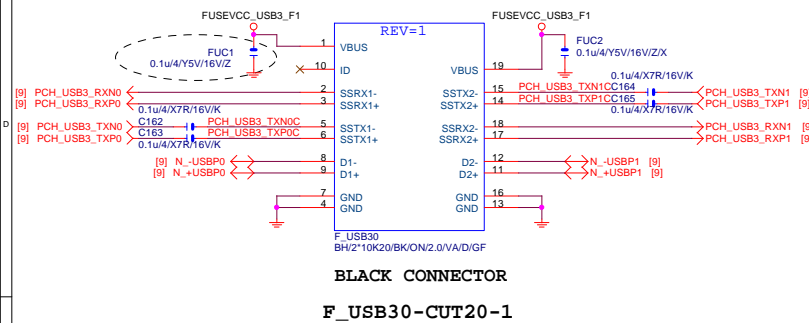
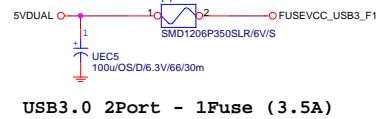
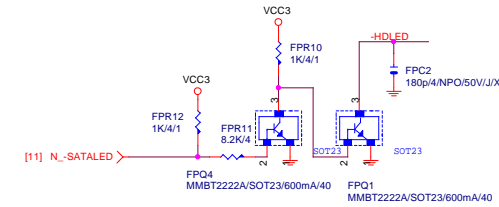
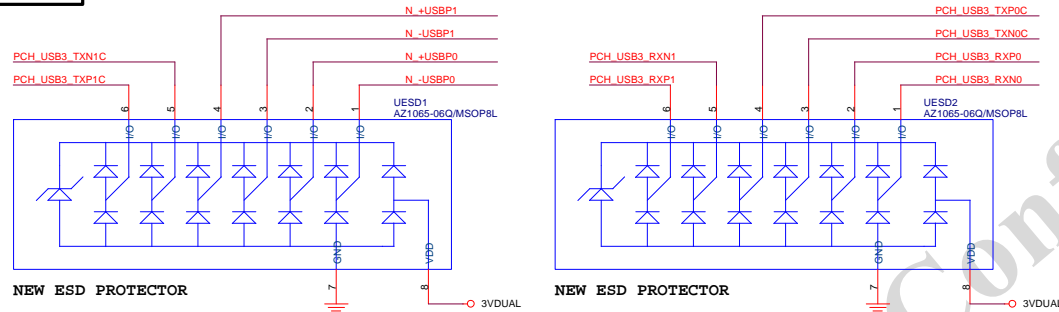
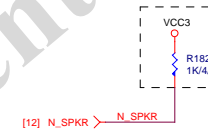
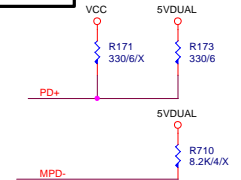
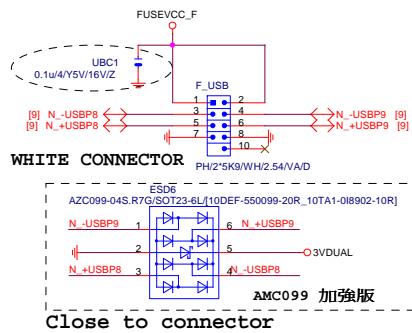
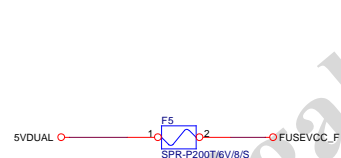
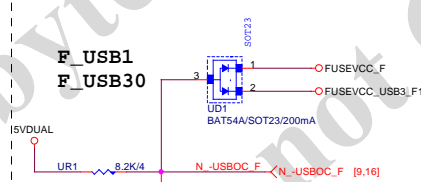
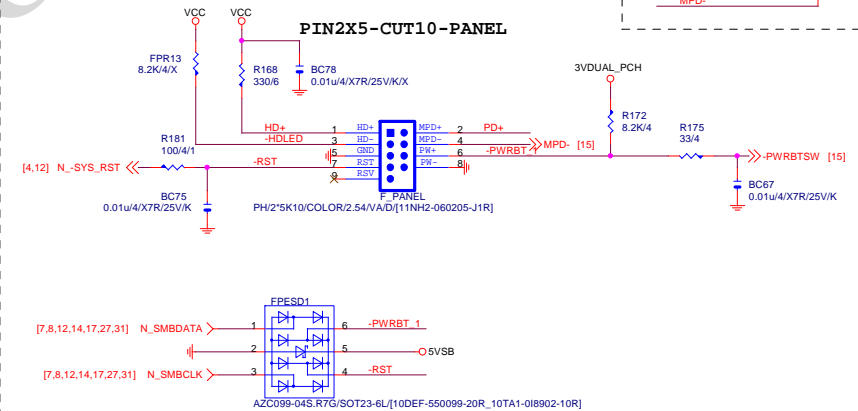
VCC3_ME

N_ -SPI_WP1 NR2 8.2K/4/X
 N_ -SPI_WP0 NR1 8.2K/4/X
 [12] N_ICH_SPI_MISO >> N_ICH_SPI_MISO NR5 8.2K/4



指定用NXP

Rev	
1.0	

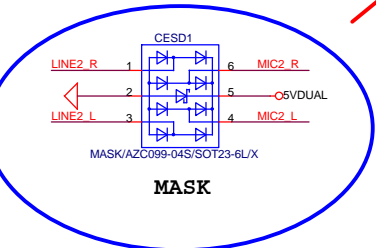
F_USB30**Polyswitch-1206-1****SATA LED****F_USB30 ESD PROTECTOR****SPKR****INTEL FRONT PANEL****PWR LED****FRONT USB20****FUSEVCC_F****-USBOC_F****PIN2X5-CUT10-PANEL**

Gigabyte Technology

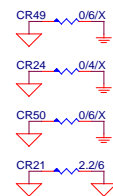
Title			
FP,F_USB,USB PWR,SPKR,SATA LED			
Size	Document Number	Rev	
Custom		GA-Z97N-WIFI	
Date:	Monday, April 14, 2014	Sheet	19 of 31

1.0

CR5/CR8/CR11/CR4/ CR17/CR22/CR45/CR33/ CR47/CR40/CR26/CR37/ CR13/CR11/CR57/CR53	62 ohm	62 ohm	62 ohm	75 ohm	75 ohm
CR51/CD1/CBC7	O	O	X	X	O
CD2/CD3/CQ3/CQ5	X	X	O	O	X
CR1/CR14/CR17/CR22	62 ohm	62 ohm	62 ohm	75 ohm	1K ohm

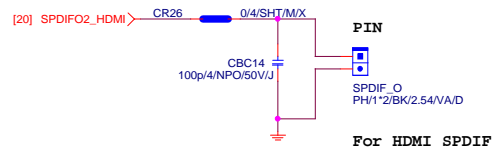


CODEC POWER/EMI PAD

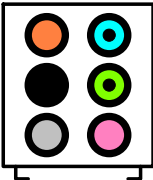


ADD CD2 For ESD PROTECT DIODE

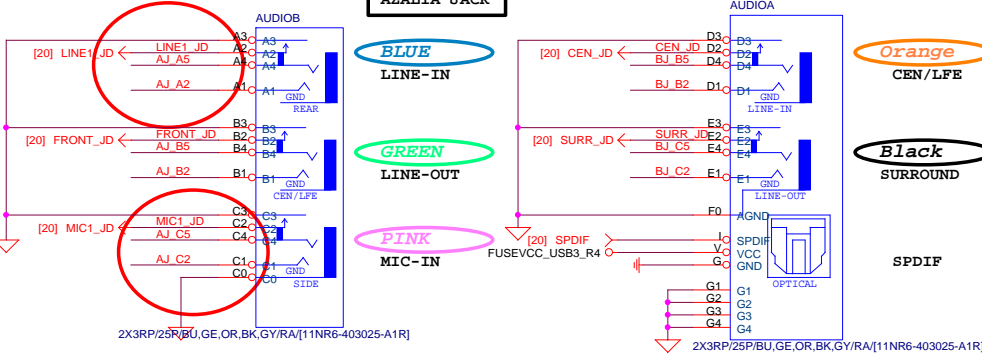
SPDIF_OUT



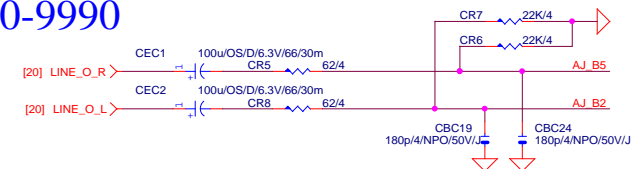
AZALIA JACK



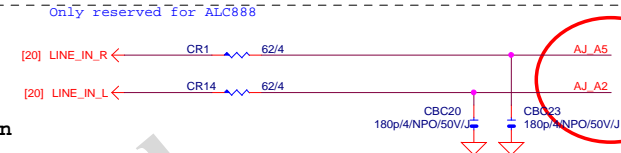
AZALIA JACK

BLUE
LINE-INGREEN
LINE-OUTPINK
MIC-IN

LINE-OUT

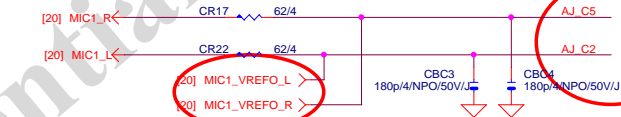


LINE-IN

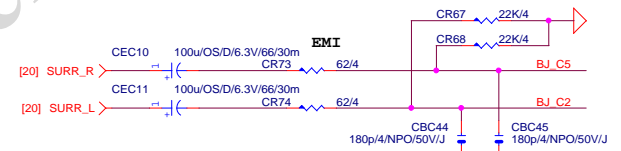
Verify MIC function
in LINE-in

For 889A/888

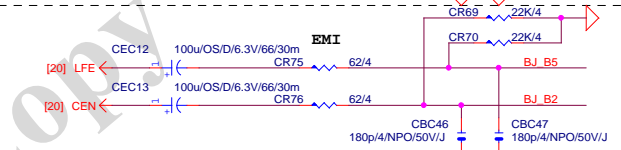
MIC-IN



SURROUND

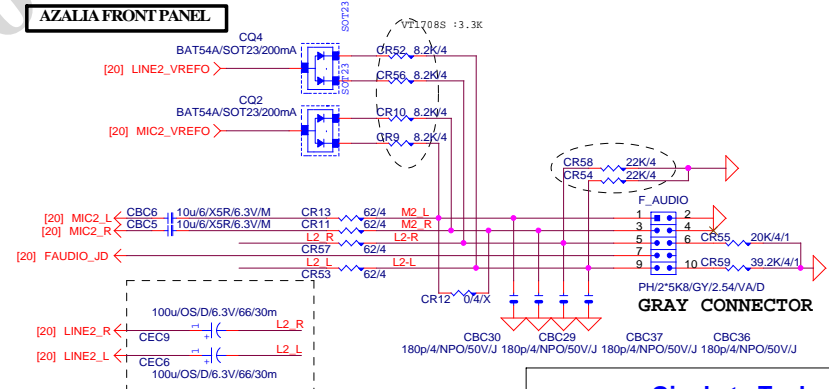


CEN/LFE



SURRBACK

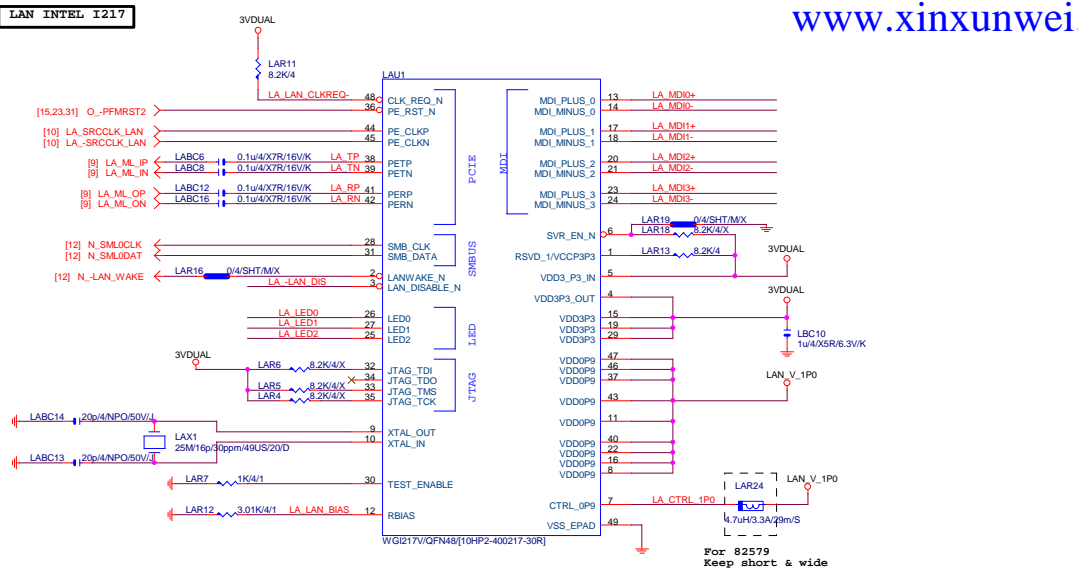
AZALIA FRONT PANEL



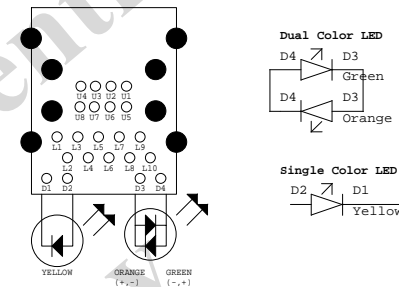
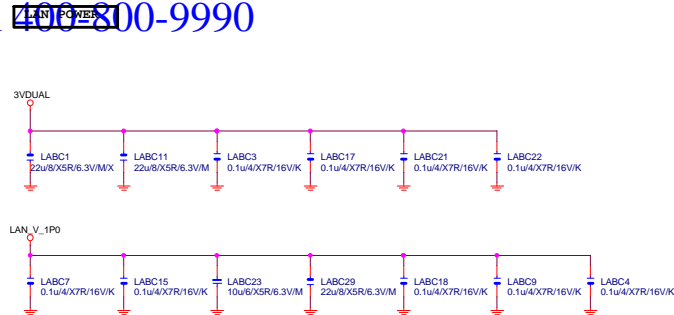
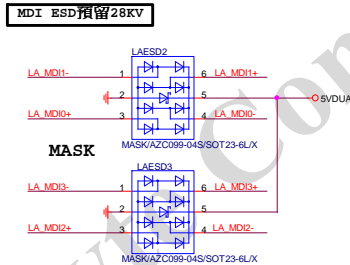
Gigabyte Technology

Title		
AUDIO JACK		
Size	Document Number	Rev
Custom	GA-Z97N-WIFI	1.0
Date:	Monday, April 14, 2014	Sheet 21 of 31

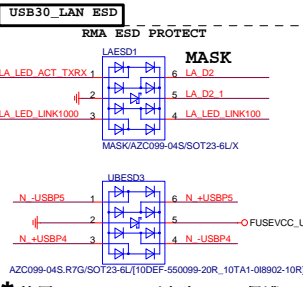
LAN INTEL I217



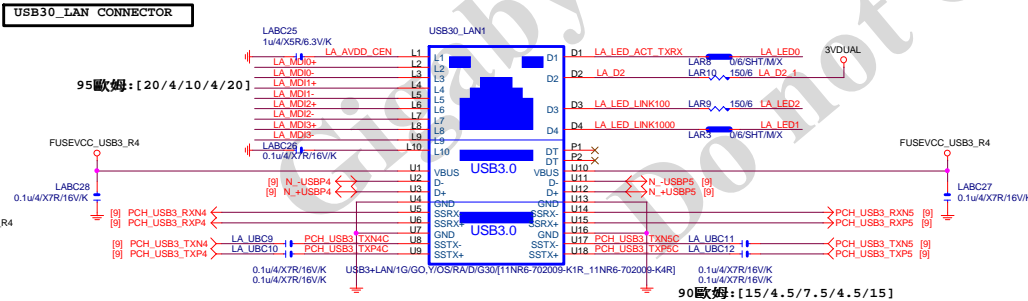
MDI ESD預留28KV



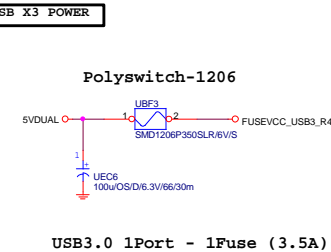
USB30_LAN ESD



USB30_LAN CONNECTOR



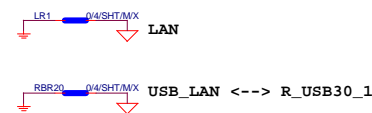
USB X3 POWER

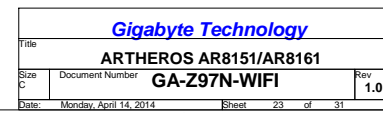


USB30 ESD PROTECT

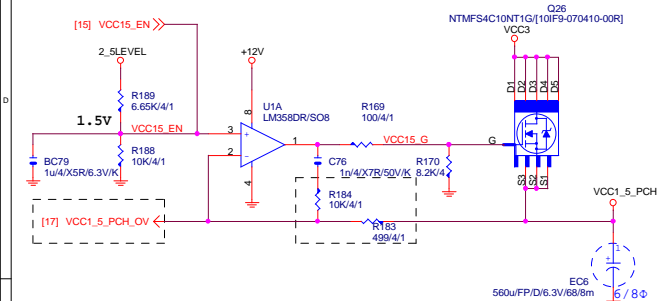


EMI SHORT PAD

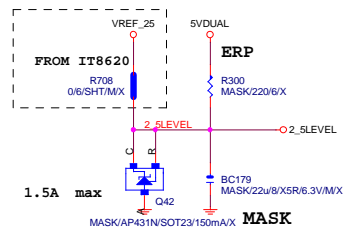




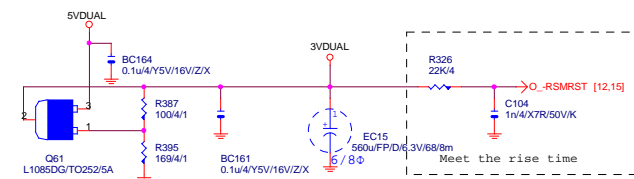
VCC1_5_PCH



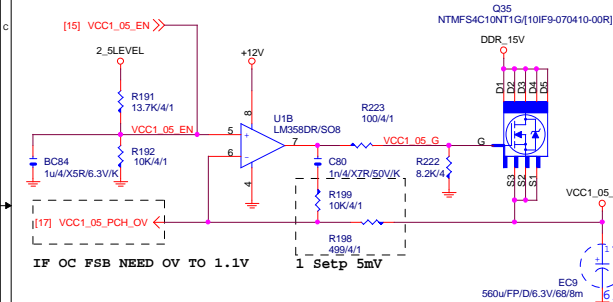
2_5LEVEL



3VDUAL



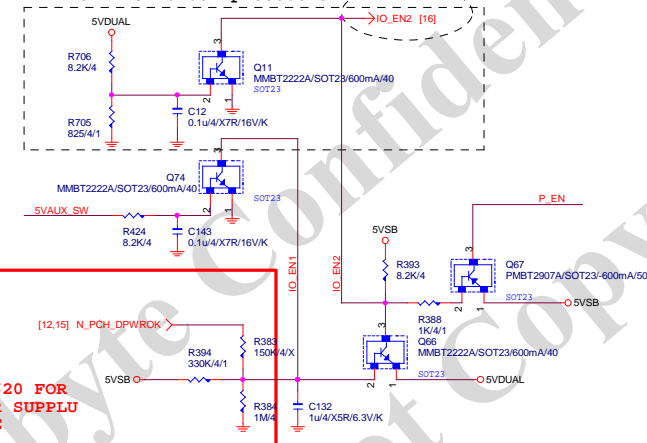
VCC1_05_PCH



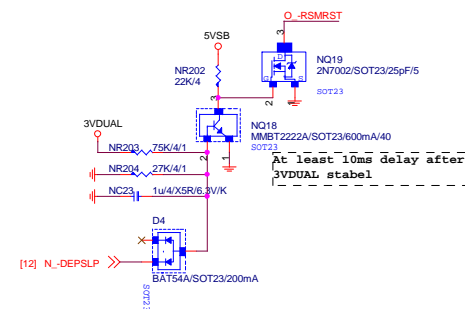
5VDUAL SHORT PROTECT

5VSB OVP: 7.5V protection

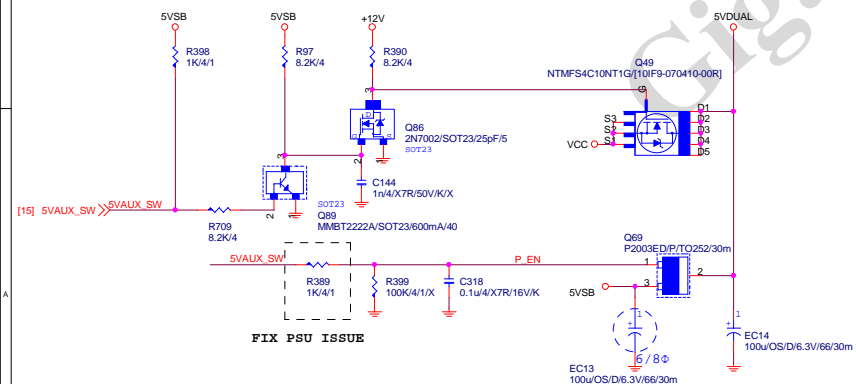
5V: 0.40V
7.5V: 0.602V
9V: 0.722V



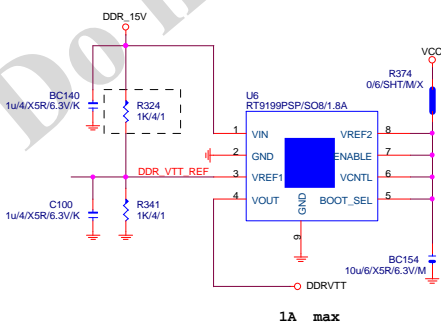
-RSMRST



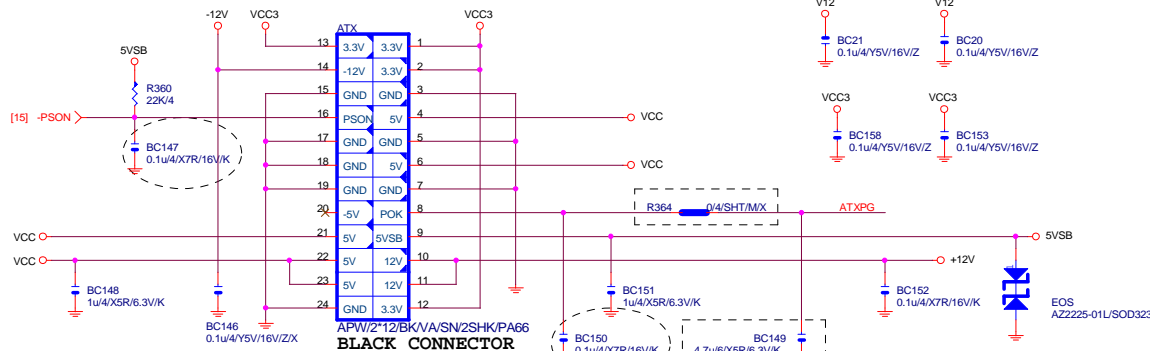
5VDUAL



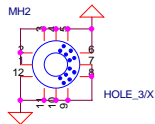
DDRVTT



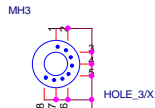
ATXX24 POWER CONNECTOR



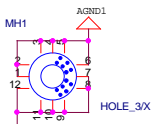
MB LOCATION



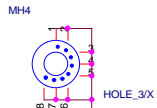
HOLE_4-RH-5MM-1



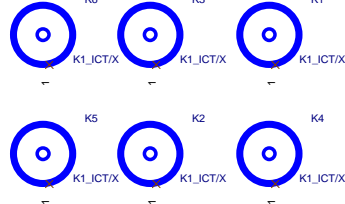
HOLE_4-RH-5MM-5PIN-1



HOLE_4-RH-5MM-1

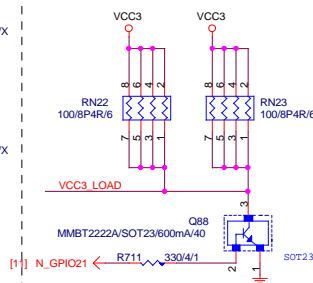


HOLE_4-RH-5MM-5PIN-1

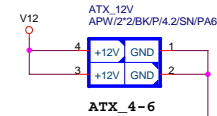


To prevent the 5VSB under loading when boot

FIX PWR MINMUN LOAD



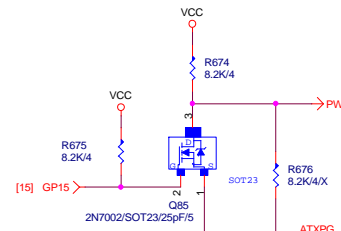
ATXX4 POWER CONNECTOR



BLACK CONNECTOR

PWOK PATCH

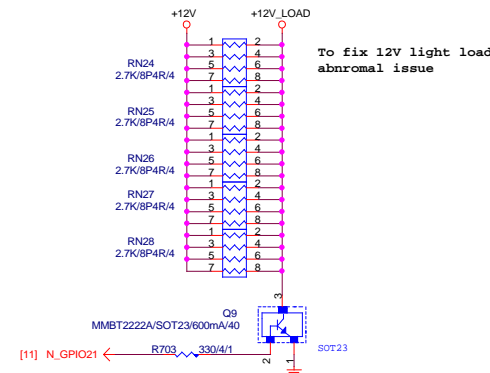
【技術通報R&D技術通報154】



CLK GEN

N/A

【技術通報R&D技術通報153】



Gigabyte Technology

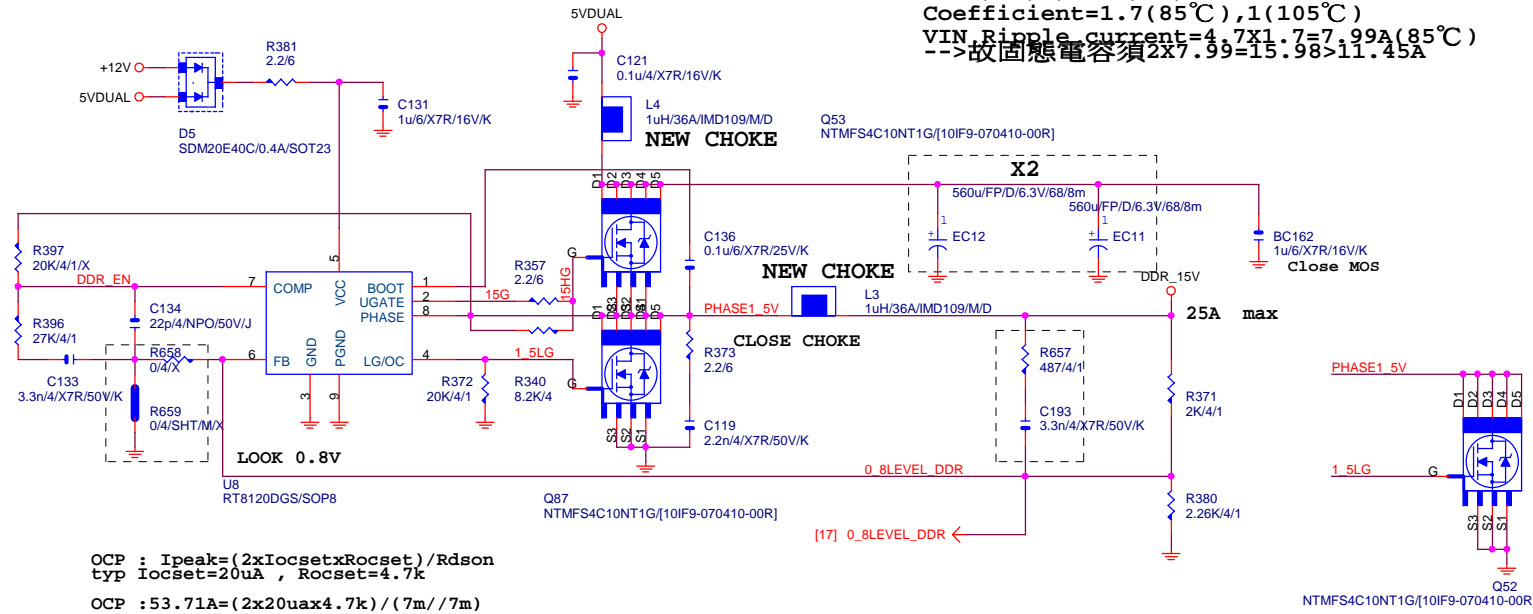
ATX CONNECTOR

GA-Z97N-WIFI

Rev 1.0

Date: Monday, April 14, 2014 Sheet 25 of 31

DDR15V



PWR_SEQ

[15] DDR_EN_CON >> DDR_EN

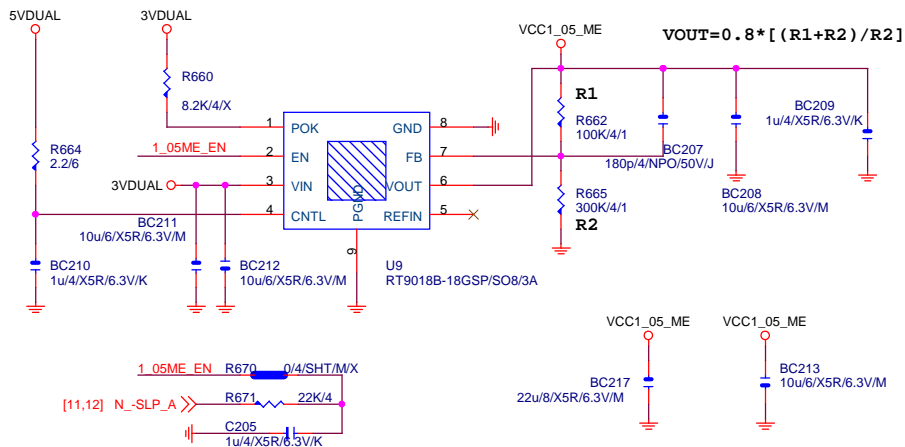
From DDR_15V source
10 mils trace to SIODDR_15V DDR_15VIO
Mk20 0/4/SHT/M/X

VCC1_05_ME

Z97 N/A

Z97+I217V STUFF

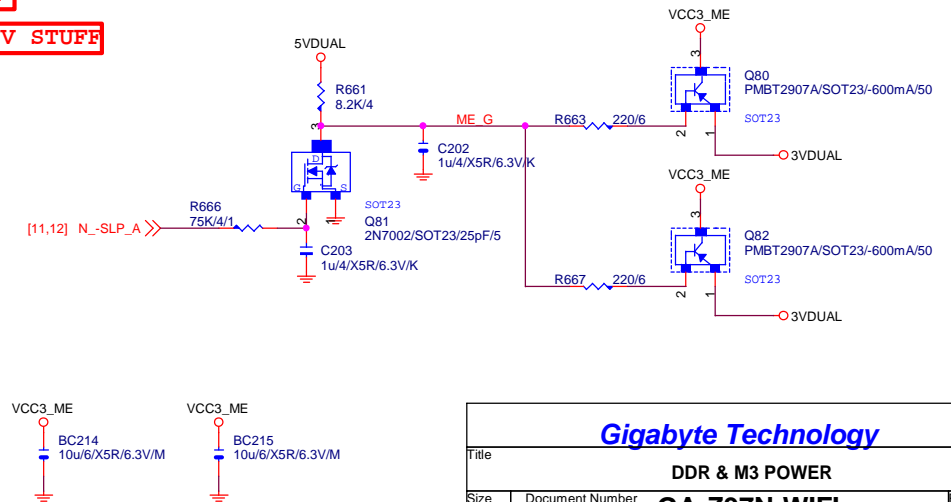
【技術通報R&D技術通報156】
(RICHTEK), (NUVOTON), (EMC)做共用
PIN7分壓阻值須做修改為100K以上電阻值



VCC3_ME

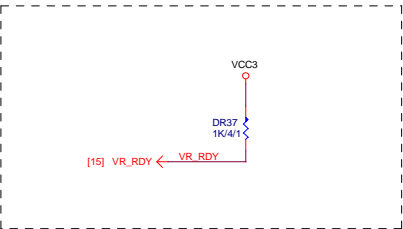
Z97 N/A

Z97+I217V STUFF

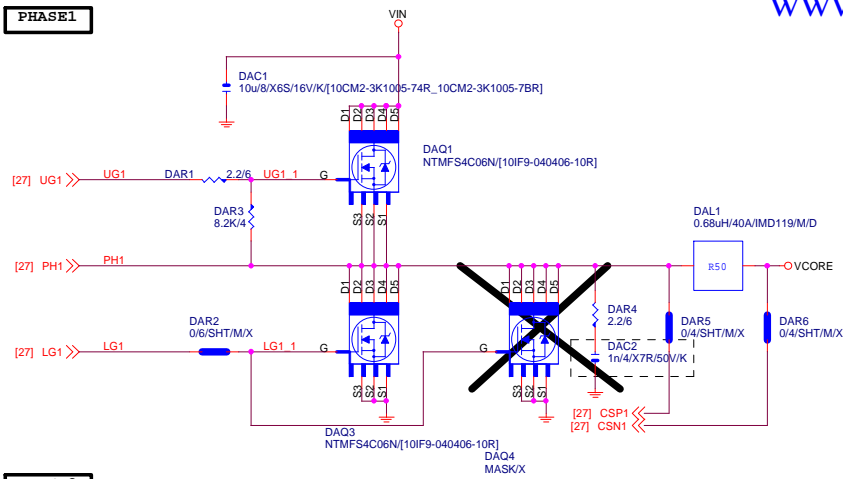


Gigabyte Technology

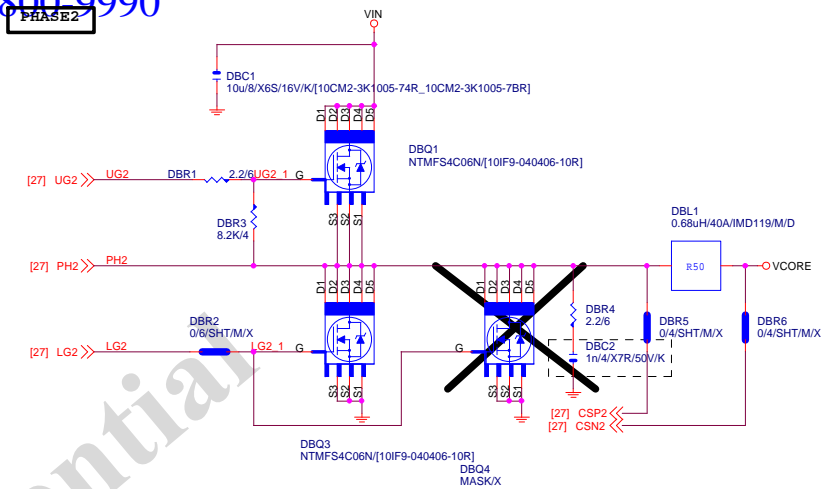
Title	
-------	--



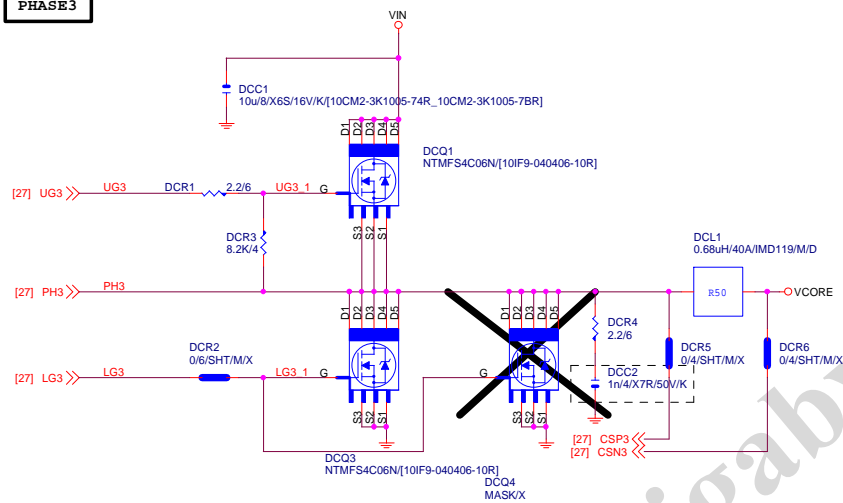
PHASE1



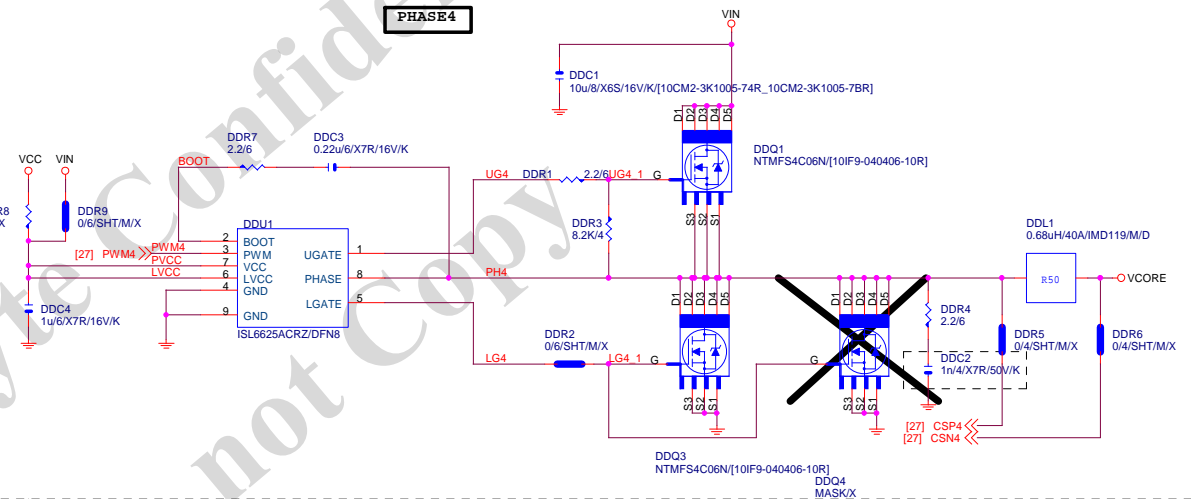
PHASE2



PHASE3

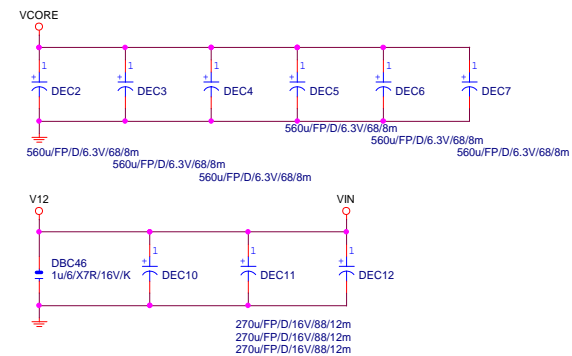


PHASE4



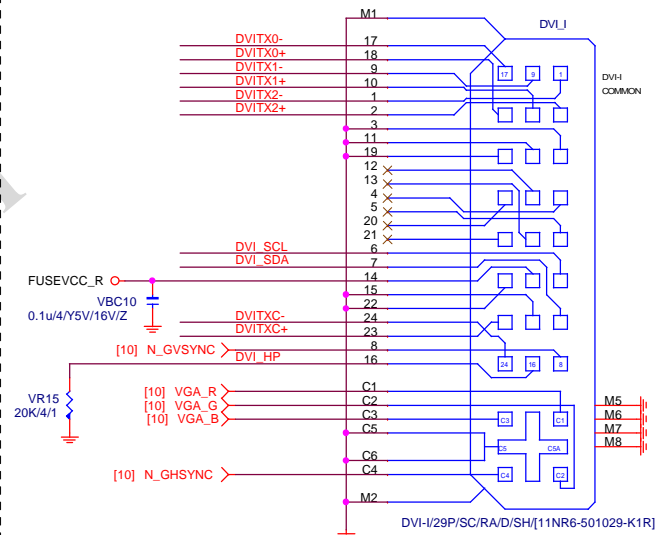
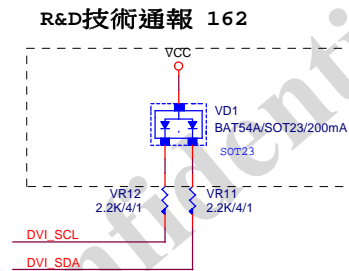
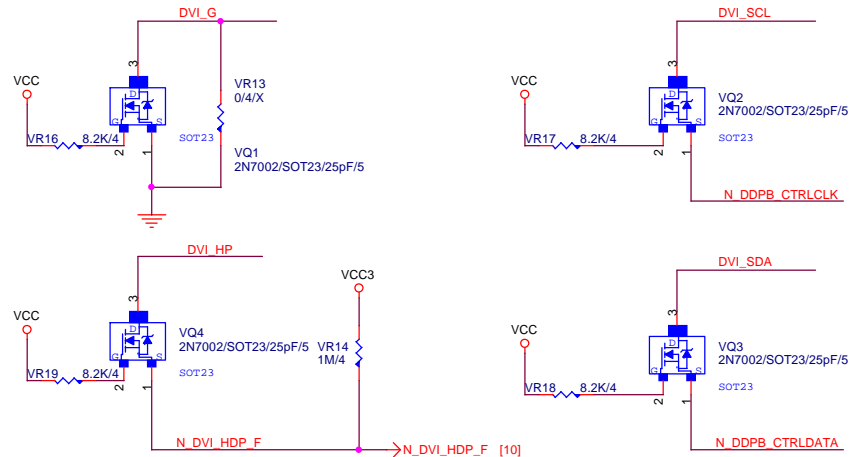
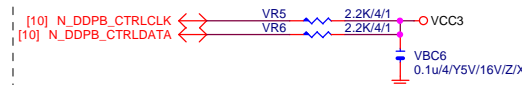
MOS HEATSINK

N/A



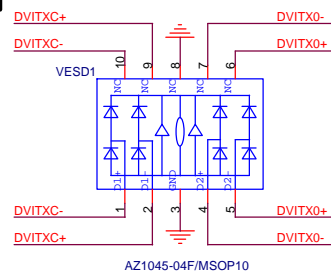
Gigabyte Technology

Title	CPU CORE VR-2		
Size	Document Number	GA-Z97N-WIFI	Rev 1.0
Date:	Monday, April 14, 2014	Sheet 28	of 31

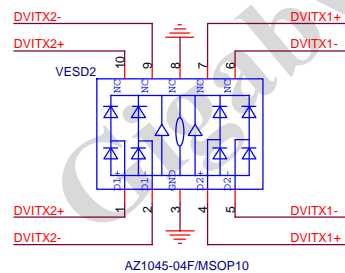


```
| INSERT TRANSFER CONNECTOR
| TO DISABLE DDC_EN FOR VGA
| CSM FAIL.
```

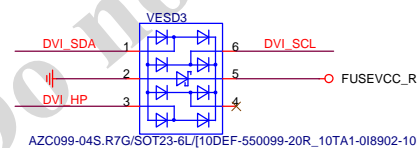
DVI ESD



Close to connector



Close to connector



<i>Gigabyte Technology</i>			
Title			
DVI-I			
Size Custom	Document Number	GA-Z97N-WIFI	
		Rev 1.0	
Date:	Monday, April 14, 2014	Sheet	29 of 31



N/A