



TITLE

SHEET

TITLE

Gigabyte Technology

Cover Sheet

Size	Document Number	GA-B250-HD3
Custom		

Rev	
1.0	

Date: Monday, December 19, 2016 Sheet 1 of 59

rev1.0

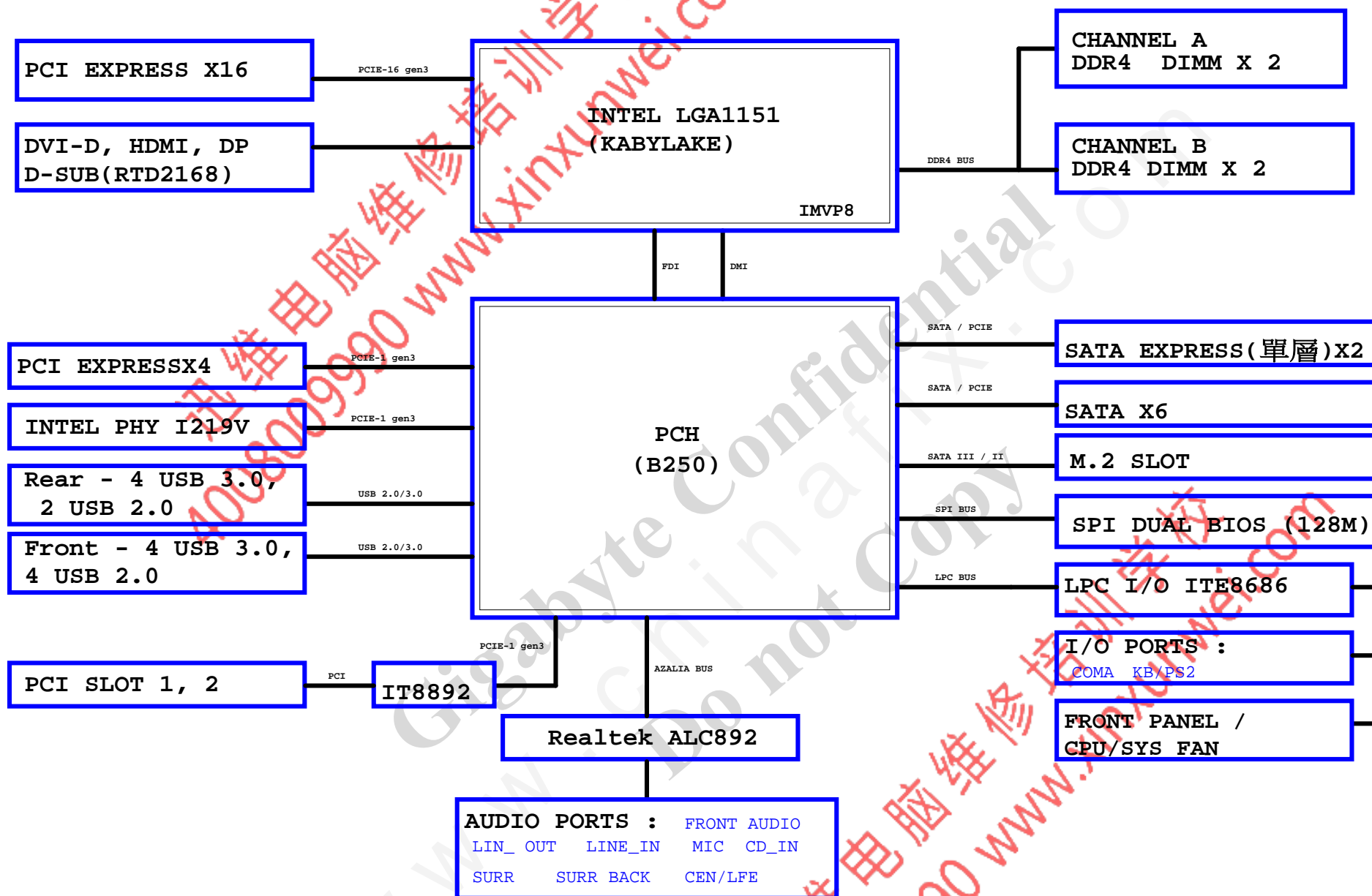
CHINA

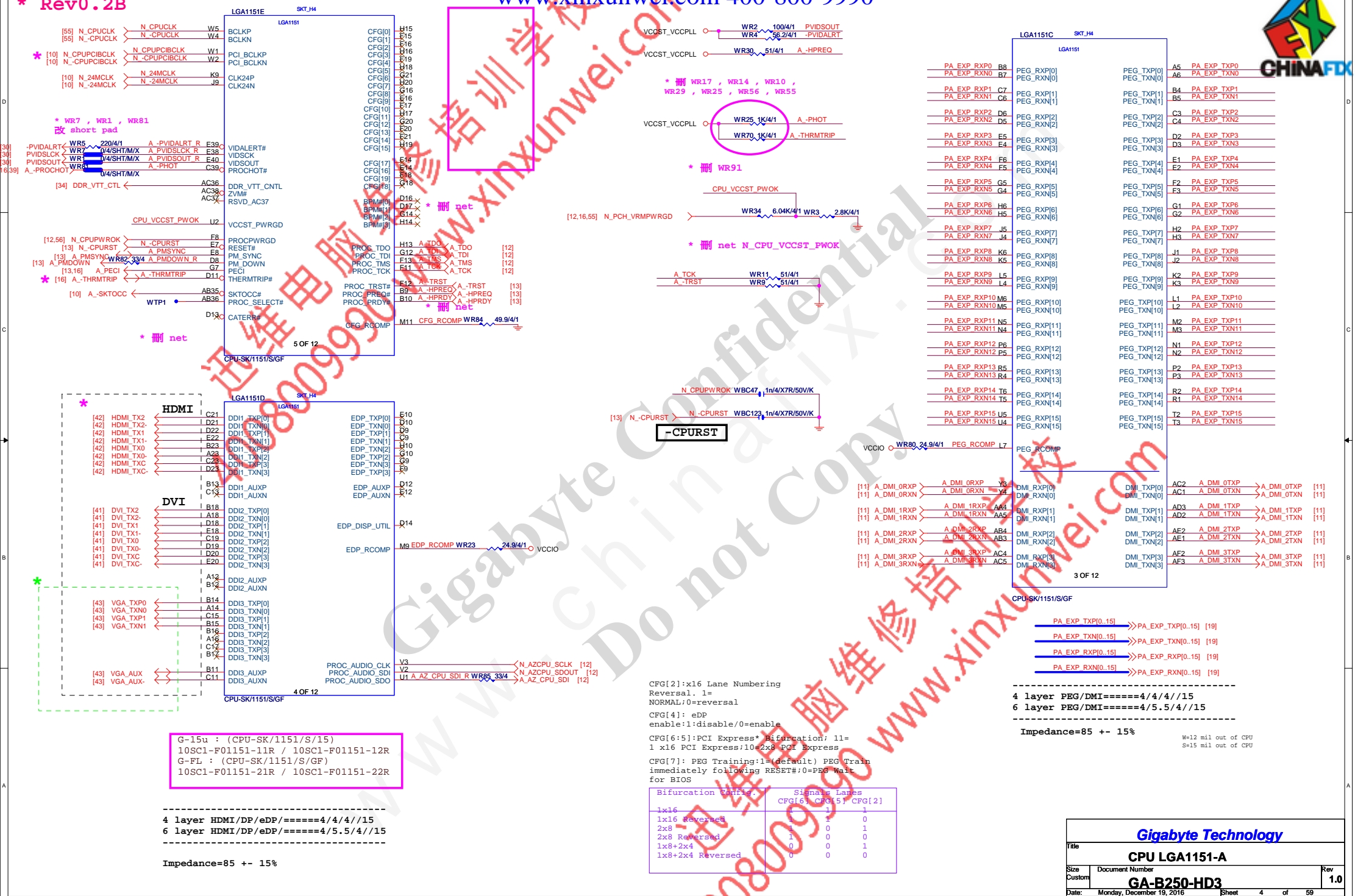
~~2016/07/19~~

[illegible]

BLOCK DIAGRAM

www.xinxunwei.com 400-800-9990





G-15u : (CPU-SK/1151/S/15)
10SC1-F01151-11R / 10SC1-F01151-12R
G-FL : (CPU-SK/1151/S/GF)
10SC1-F01151-21R / 10SC1-F01151-22R

4 layer HDMI/DP/eDP/=====4/4/4//15
6 layer HDMI/DP/eDP/=====4/5.5/4//15

Impedance=85 +- 15%

CFG[2]:x16 Lane Numbering
Reversal. 1=normal/0=reversal
CFG[4]: eDP
enable:1:disable/0=enable
CFG[6-5]:PCI Express* Bifurcation; 1l=1 x16 PCI Express/10=2x8 PCI Express
CFG[7]: PEG Training;1=(default) PEG Train immediately following RESET#;0=PEG Wait for BIOS

Bifurcation Config	Signal Lanes	CFG[6]	CFG[5]	CFG[2]
1x16	1	1	1	
1x16 Reversed	0	0	0	
2x8	1	0	1	
2x8 Reversed	1	0	0	1
1x8+2x4	0	0	0	1
1x8+2x4 Reversed	0	0	0	0

PA_EXP_TXP[0..15] >>> PA_EXP_TXP[0..15] [19]
PA_EXP_TXN[0..15] >>> PA_EXP_TXN[0..15] [19]
PA_EXP_RXP[0..15] >>> PA_EXP_RXP[0..15] [19]
PA_EXP_RXN[0..15] >>> PA_EXP_RXN[0..15] [19]

4 layer PEG/DMI=====4/4/4//15
6 layer PEG/DMI=====4/5.5/4//15

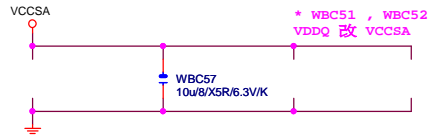
Impedance=85 +- 15%

W=12 mil out of CPU
S=15 mil out of CPU

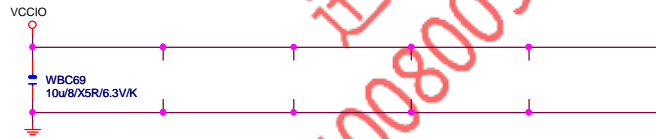
Gigabyte Technology		
CPU LGA1151-A		
Size Custom	Document Number	Rev 1.0
GA-B250-HD3		
Date: Monday, December 19, 2016	Sheet 4	of 59



* 删 WBC50 电容



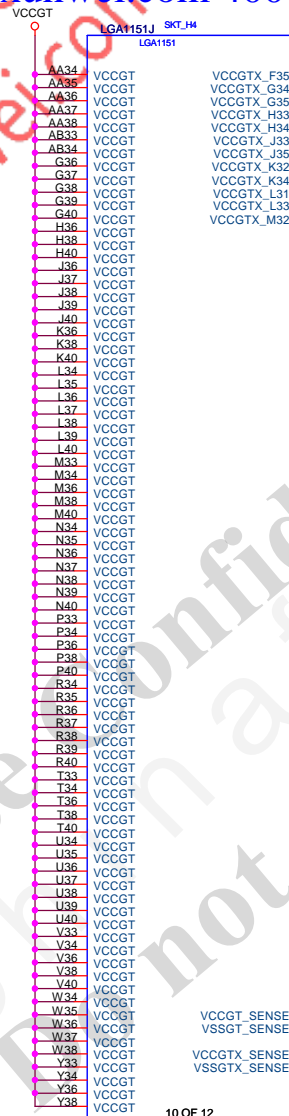
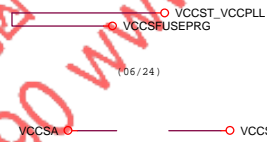
* 删 WBC124, WBC125, WBC126, WBC127 电容



* 删 VCCGT 电容

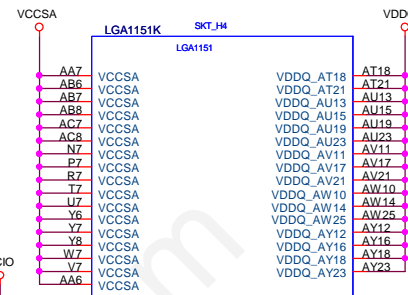
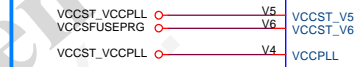
Non CPU POWER

* 删 WR54, WR59, WR66, WR60, WR61, WR62, WR63, WR Short pad



CPU-SK/1151/S/GF

Non CPU POWER

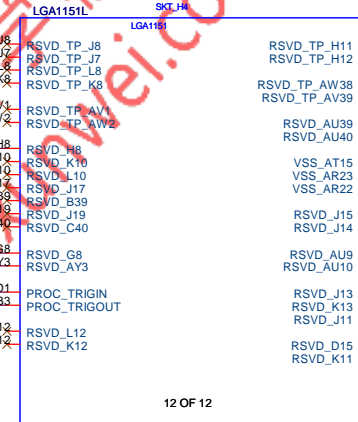


CPU-SK/1151/S/GF

Non CPU POWER



* 删 net



CPU-SK/1151/S/GF

Gigabyte Technology

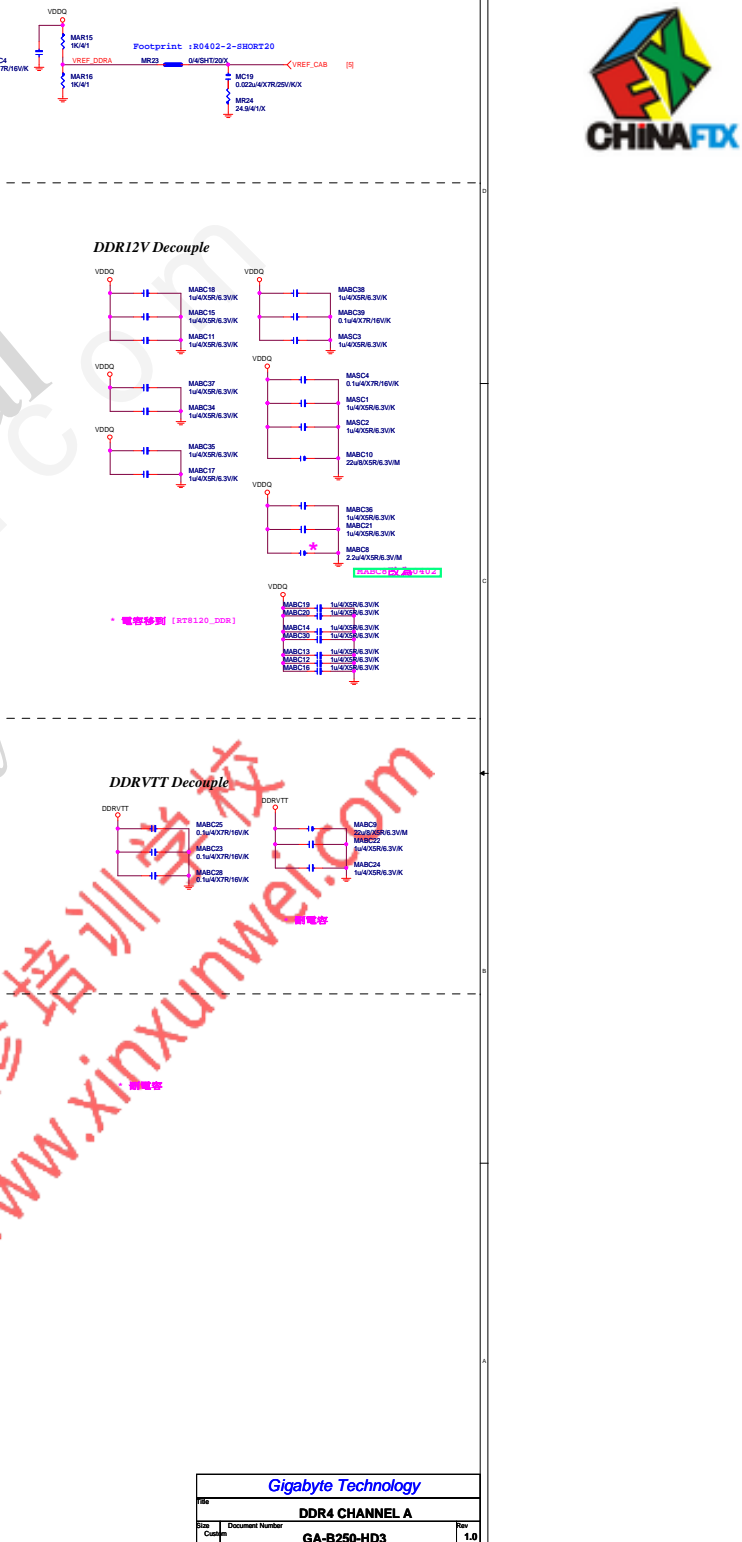
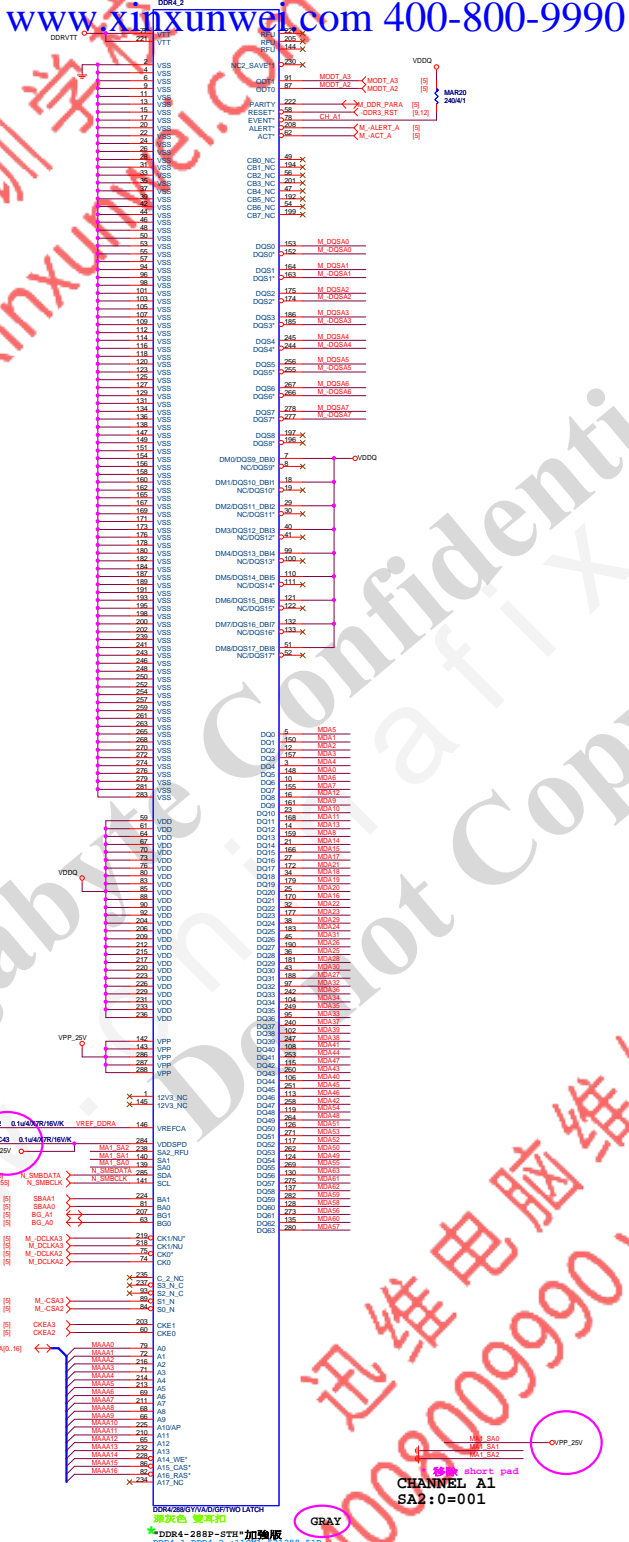
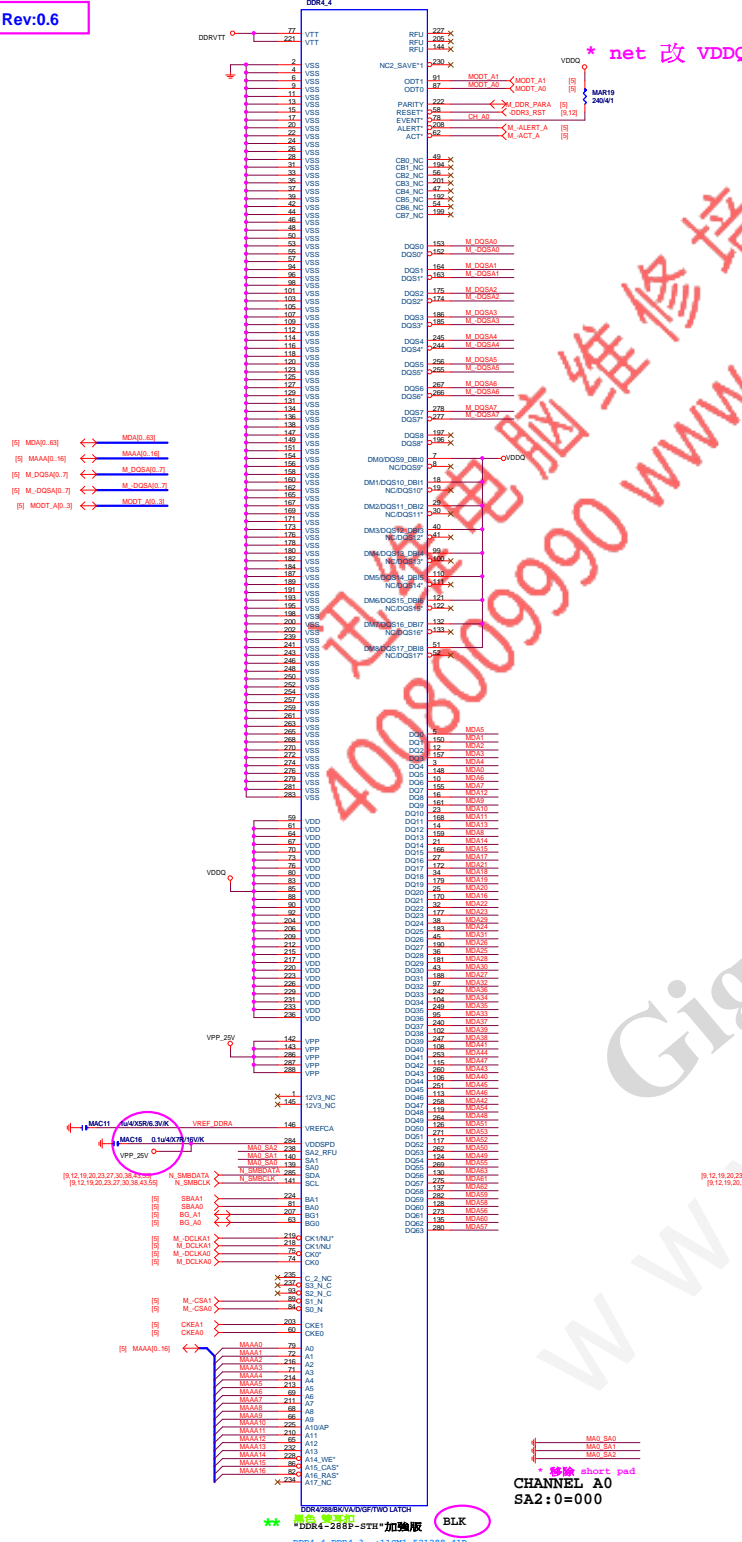
CPU LGA1151-C

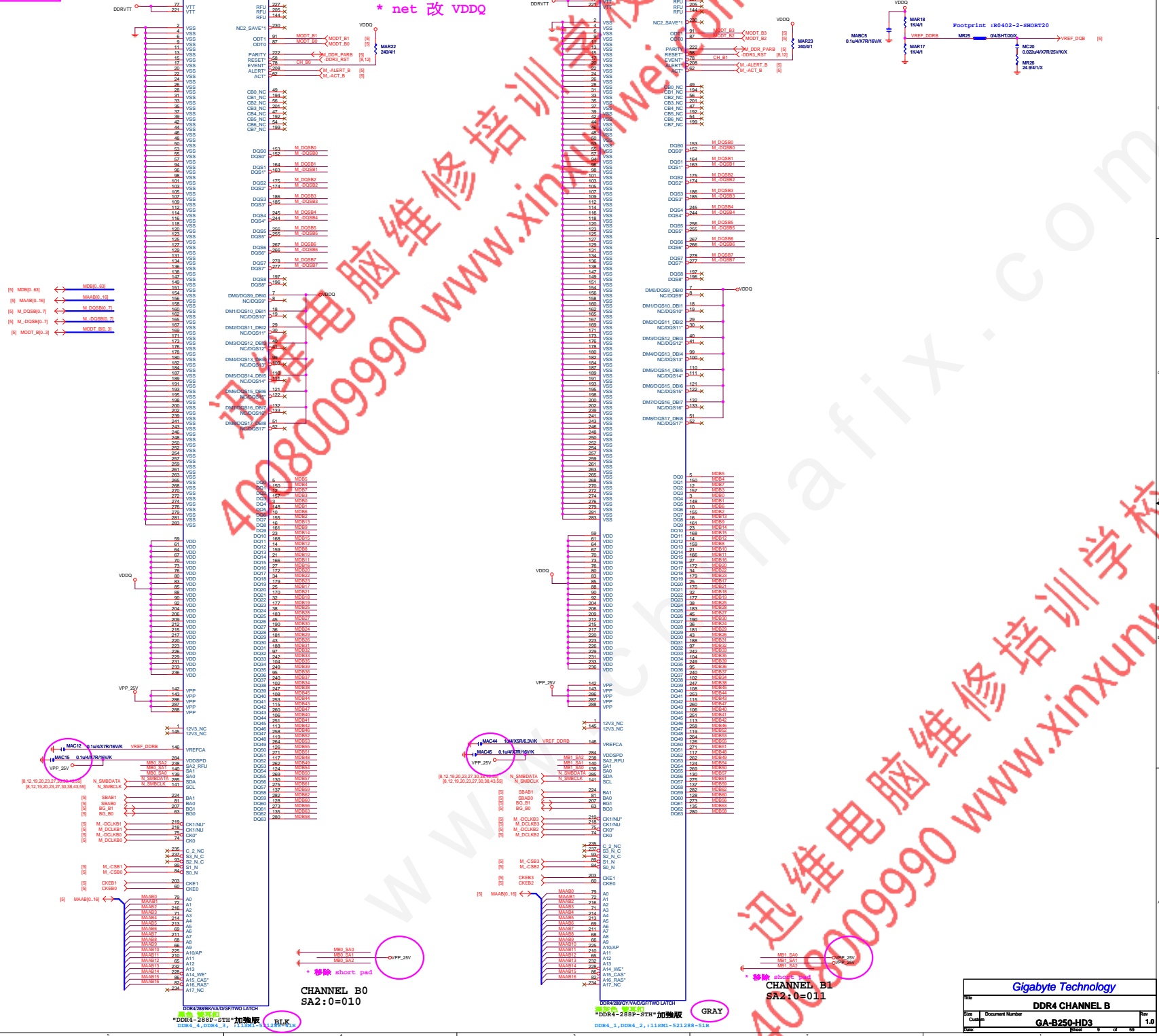
Title	Document Number	Rev
CPU LGA1151-C	GA-B250-HD3	1.0
Date: Monday, December 19, 2016	Sheet 6 of 59	



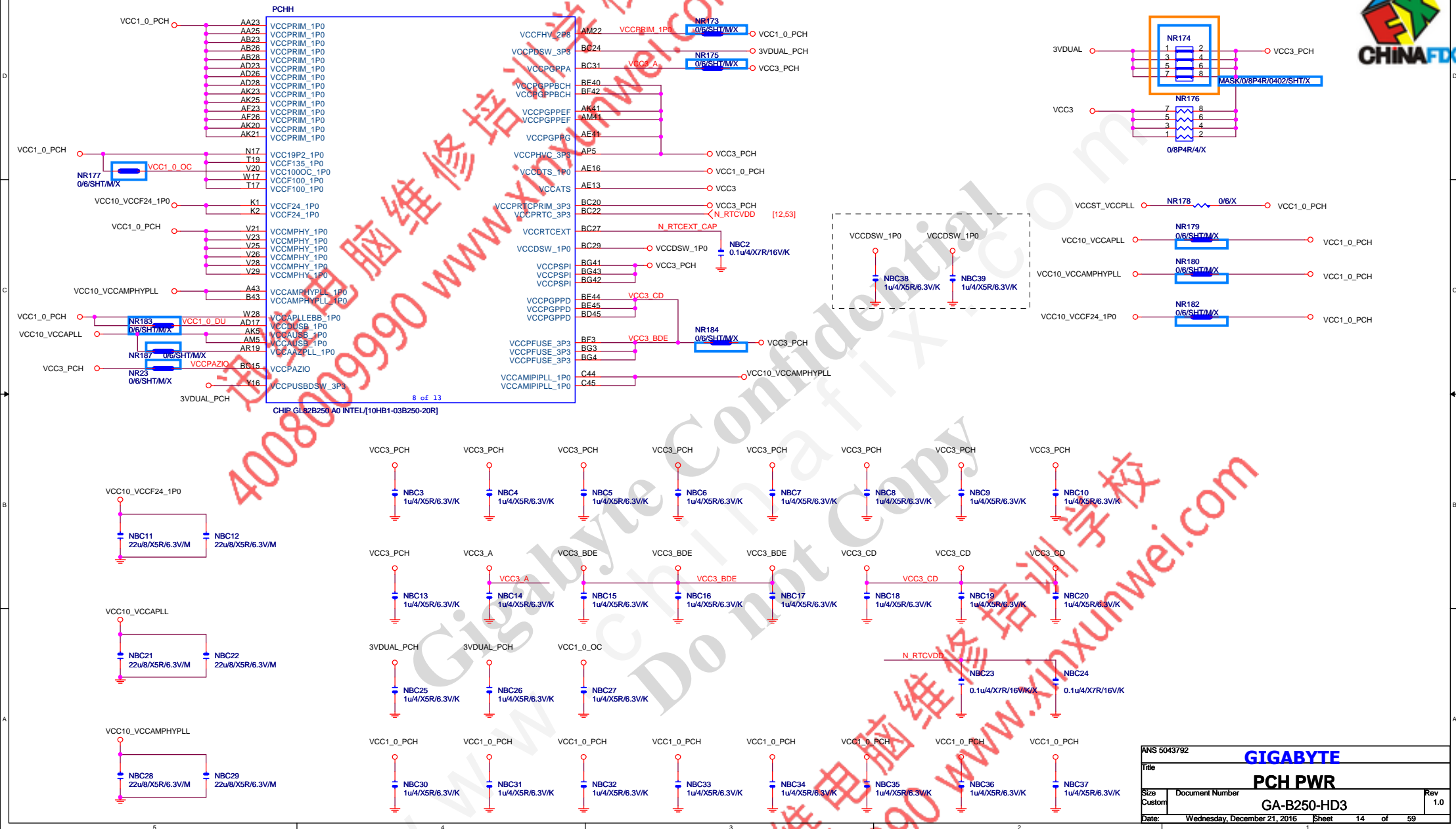
Gigabyte Technology

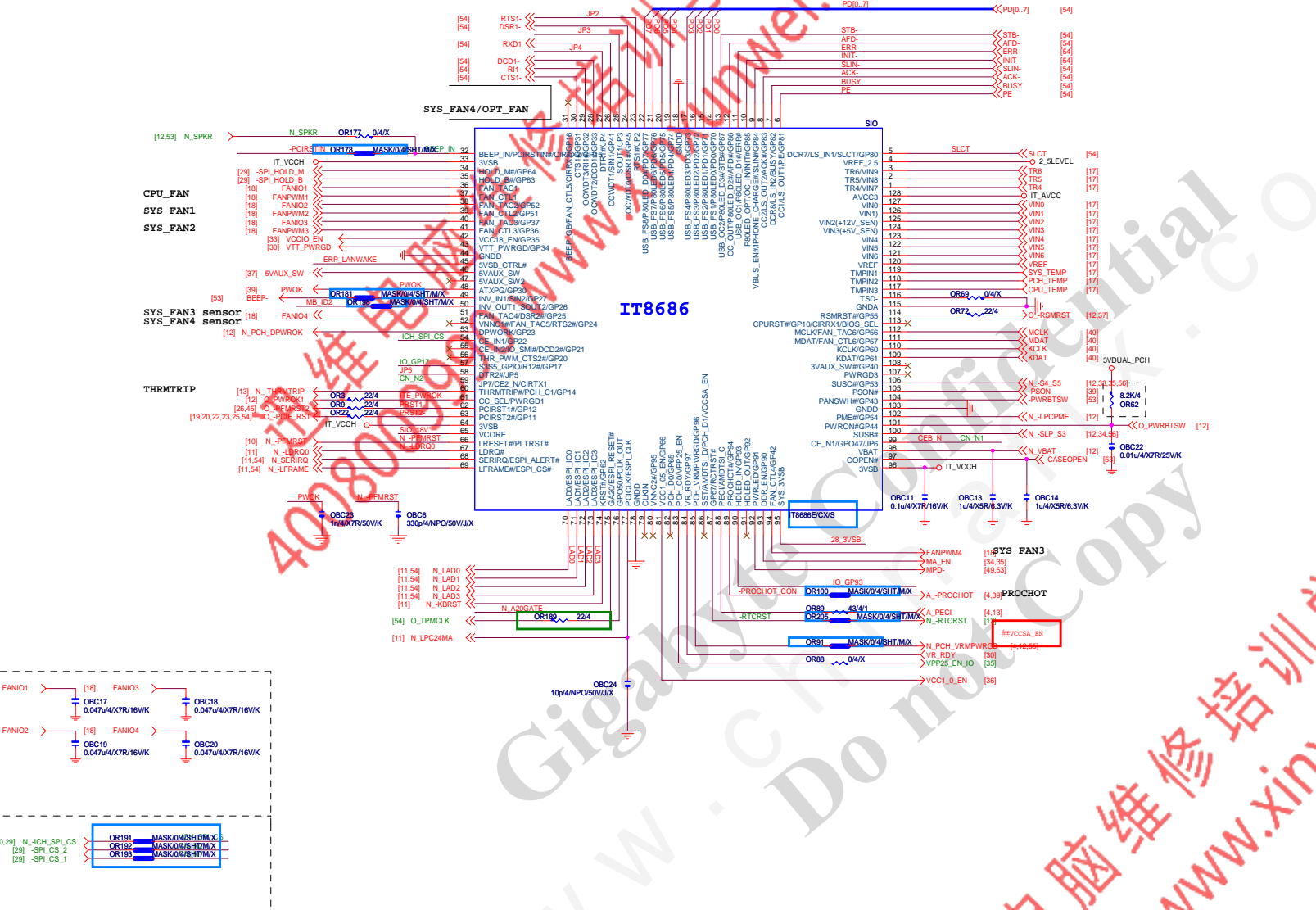
Title			CPU LGA1151-C		
Size	Document Number	Rev			
Custom	GA-B250-HD3	1.0			
Date:	Monday, December 19, 2016	Sheet	7	of	59





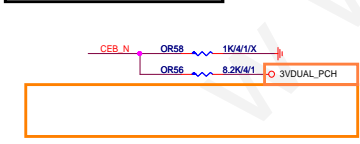
Gigabyte Technology		
DDR4 CHANNEL B		
File	Document Number	Rev
GA-B250-HD3		1.0





FAN TABLE	
CPU_FAN	FAN_CTL1 FAN_TAC1
SYS_FAN1	FAN_CTL2 FAN_TAC2
SYS_FAN2	FAN_CTL3 FAN_TAC3
SYS_FAN3	FAN_CTL4 FAN_TAC4
OPT_FAN or SYS_FAN4	FAN_CTL5 FAN_TAC5
THRMTRIP	PIN56
PROCHOT	PIN89

DUAL BIOS OPT STRAP

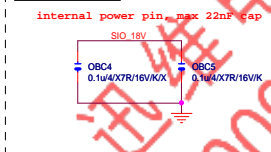


Placement CPU
[14] A-THRMTRIP ← WRT10_1K/41 N-THRMTRIP
CPU 端 A-THRMTRIP 不可與 PCH 及 SIO
N-THRMTRIP 直接連接，
否則會出現無法拉 LOW 情況。

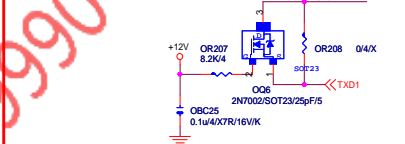
SIO CAP



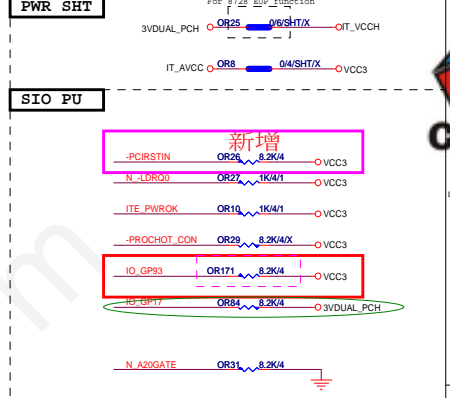
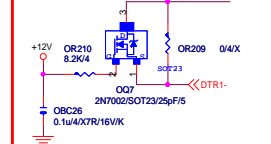
SIO_18V



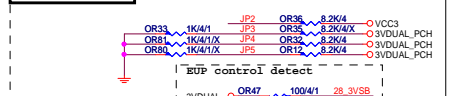
for LPC/eSPI power mode



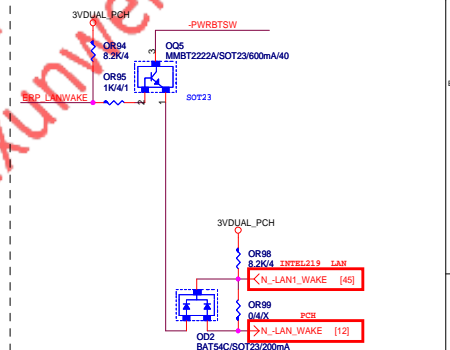
for LPC/eSPI power mode



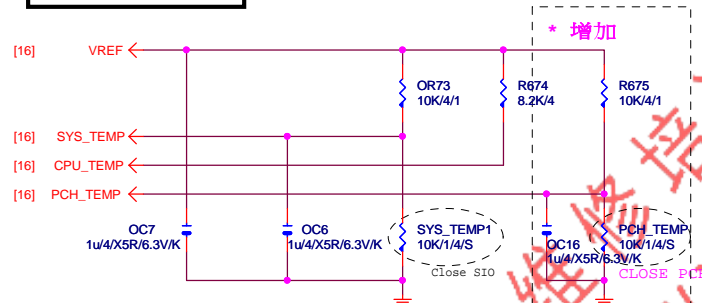
SIO STRAP



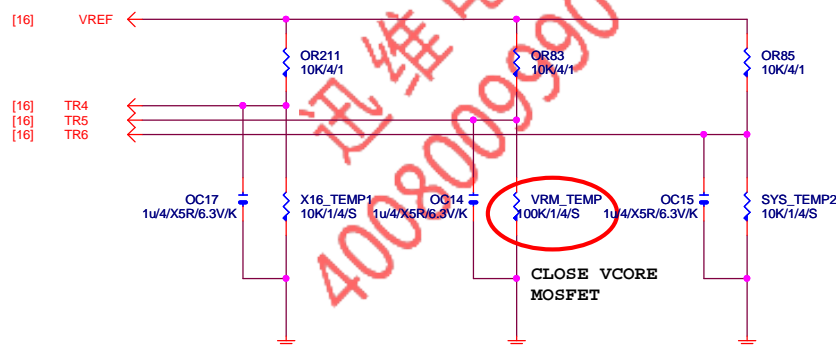
JP2	1	Disable WDT to rest PWROK
JP2	0	Enable WDT to rest PWROK
JP3		Dual-BIOS CS pin mode select bit "0" See the below table
JP4	1	LPC/eSPI power VCCBT = 3.3V
JP4	0	LPC/eSPI power VCCBT = 1.8V
JP5	0	ESPI I/F
JP6	1	Enable Dual BIOS Function (for GigaByte Only)
JP6	0	Disable Dual BIOS Function (for GigaByte Only)
JP7		Dual-BIOS CE pin mode select bit "1" See the below table
JP7	1 1	CE pin disable (Hold pin mode)
JP7	1 0	CE mode 1
JP3	0 1	CE mode 2
JP3	0 0	CE mode 3



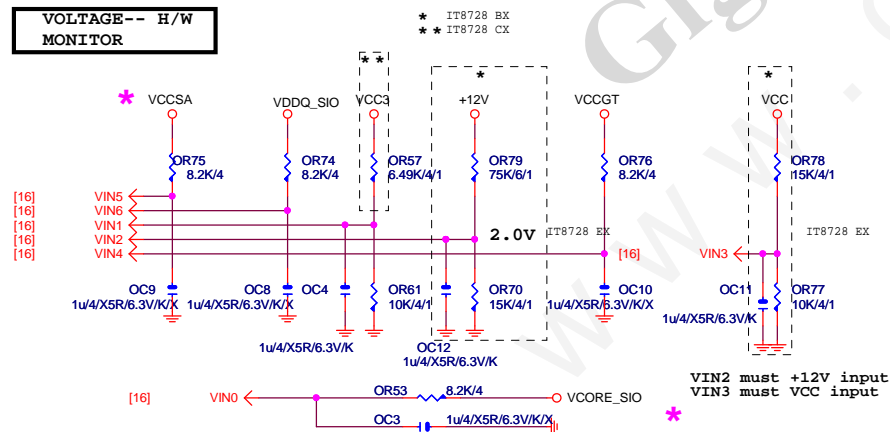
TEMP H/W MONITOR



5個FAN時使用



VOLTAGE-- H/W MONITOR



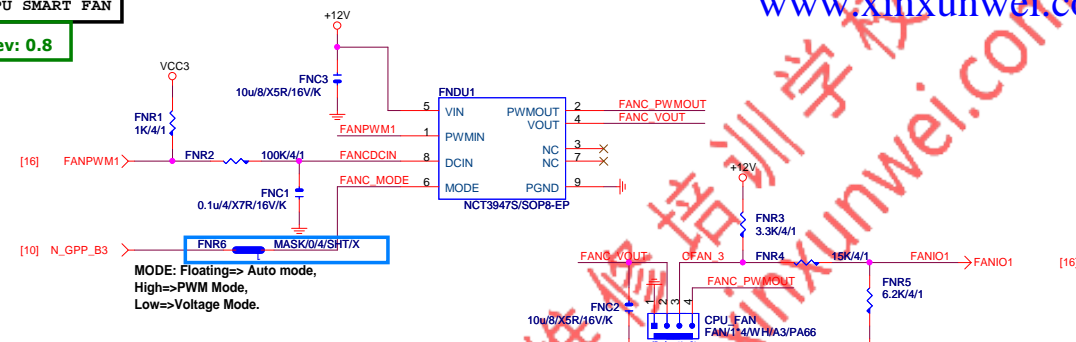
The division voltage of VIN2 & VIN3 must be around 2.9V

★Update 2015-04.24

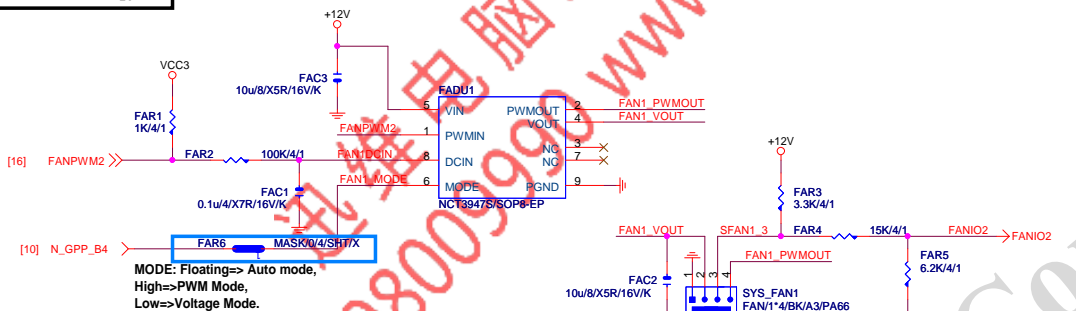


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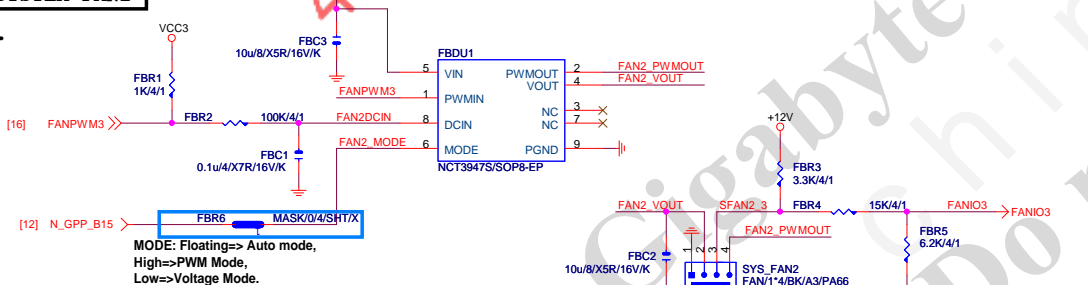
Title		
HWM,KB/MS, FAN CTRL		
Size	Document Number	Rev
Custom	GA-B250-HD3	1.0
Date:	Monday, December 19, 2016	Sheet 17 of 59



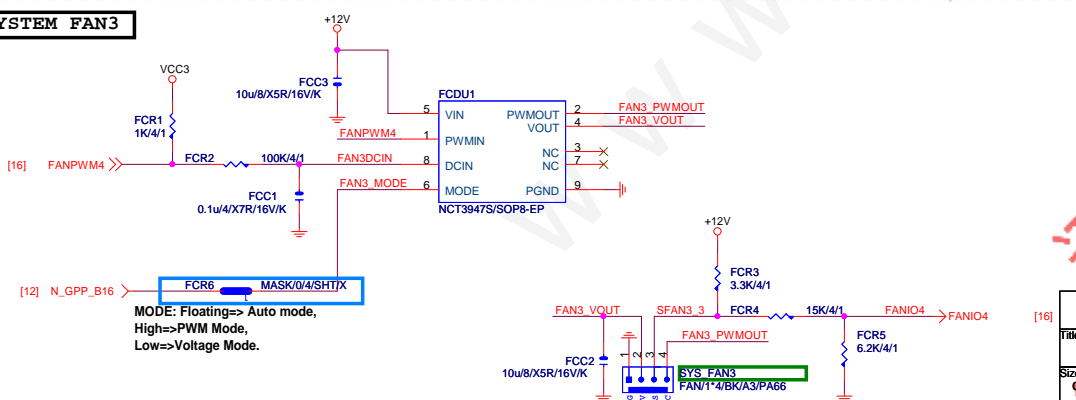
A. SYSTEM FAN1



SYSTEM FAN2



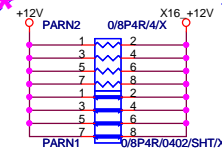
SYSTEM FAN3



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Title			
FAN CTRL			
Size	Document Number	Rev	
Custom	GA-B250-HD3	1.0	
Date:	Monday, December 19, 2016	Sheet	18 of 59

Rev 0.2

+12V protect
short-wire test

PA_EXP_RXP[0..15] >> PA_EXP_RXP[0..15] [4]
 PA_EXP_RXN[0..15] >> PA_EXP_RXN[0..15] [4]
 PA_EXP_TXP[0..15] >> PA_EXP_TXP[0..15] [4]
 PA_EXP_TXN[0..15] >> PA_EXP_TXN[0..15] [4]

PA_EXP_TXP0	PAC5	0.22u/4X5R/6.3V/K	PA_EXP_TXP0 C
PA_EXP_TXN0	PAC4	0.22u/4X5R/6.3V/K	PA_EXP_TXN0 C
PA_EXP_TXP1	PAC6	0.22u/4X5R/6.3V/K	PA_EXP_TXP1 C
PA_EXP_TXN1	PAC7	0.22u/4X5R/6.3V/K	PA_EXP_TXN1 C
PA_EXP_TXP2	PAC8	0.22u/4X5R/6.3V/K	PA_EXP_TXP2 C
PA_EXP_TXN2	PAC9	0.22u/4X5R/6.3V/K	PA_EXP_TXN2 C
PA_EXP_TXP3	PAC10	0.22u/4X5R/6.3V/K	PA_EXP_TXP3 C
PA_EXP_TXN3	PAC11	0.22u/4X5R/6.3V/K	PA_EXP_TXN3 C
PA_EXP_TXP4	PAC12	0.22u/4X5R/6.3V/K	PA_EXP_TXP4 C
PA_EXP_TXN4	PAC13	0.22u/4X5R/6.3V/K	PA_EXP_TXN4 C
PA_EXP_TXP5	PAC14	0.22u/4X5R/6.3V/K	PA_EXP_TXP5 C
PA_EXP_TXN5	PAC15	0.22u/4X5R/6.3V/K	PA_EXP_TXN5 C
PA_EXP_TXP6	PAC16	0.22u/4X5R/6.3V/K	PA_EXP_TXP6 C
PA_EXP_TXN6	PAC17	0.22u/4X5R/6.3V/K	PA_EXP_TXN6 C
PA_EXP_TXP7	PAC18	0.22u/4X5R/6.3V/K	PA_EXP_TXP7 C
PA_EXP_TXN7	PAC19	0.22u/4X5R/6.3V/K	PA_EXP_TXN7 C
PA_EXP_TXP8	PAC20	0.22u/4X5R/6.3V/K	PA_EXP_TXP8 C
PA_EXP_TXN8	PAC21	0.22u/4X5R/6.3V/K	PA_EXP_TXN8 C
PA_EXP_TXP9	PAC22	0.22u/4X5R/6.3V/K	PA_EXP_TXP9 C
PA_EXP_TXN9	PAC23	0.22u/4X5R/6.3V/K	PA_EXP_TXN9 C
PA_EXP_TXP10	PAC24	0.22u/4X5R/6.3V/K	PA_EXP_TXP10 C
PA_EXP_TXN10	PAC25	0.22u/4X5R/6.3V/K	PA_EXP_TXN10 C
PA_EXP_TXP11	PAC26	0.22u/4X5R/6.3V/K	PA_EXP_TXP11 C
PA_EXP_TXN11	PAC27	0.22u/4X5R/6.3V/K	PA_EXP_TXN11 C
PA_EXP_TXP12	PAC28	0.22u/4X5R/6.3V/K	PA_EXP_TXP12 C
PA_EXP_TXN12	PAC29	0.22u/4X5R/6.3V/K	PA_EXP_TXN12 C
PA_EXP_TXP13	PAC30	0.22u/4X5R/6.3V/K	PA_EXP_TXP13 C
PA_EXP_TXN13	PAC31	0.22u/4X5R/6.3V/K	PA_EXP_TXN13 C
PA_EXP_TXP14	PAC32	0.22u/4X5R/6.3V/K	PA_EXP_TXP14 C
PA_EXP_TXN14	PAC33	0.22u/4X5R/6.3V/K	PA_EXP_TXN14 C
PA_EXP_TXP15	PAC34	0.22u/4X5R/6.3V/K	PA_EXP_TXP15 C
PA_EXP_TXN15	PAC35	0.22u/4X5R/6.3V/K	PA_EXP_TXN15 C

PCIEX16:16/5/5/5/16

PCI-E REV:1.1--> 2.5GHZ

PCE-E X1(單向) BANDWIDTH=2.5GHz*(8b/10b)=2Gb/s=250MB/s

PCE-E X1(雙向) BANDWIDTH=2.5GHz*(8b/10b)X2=4Gb/s=500MB/s

PCE-E X16(單向) BANDWIDTH=2.5GHz*(8b/10b)X16=32Gb/s=4GB/s

PCE-E X16(雙向) BANDWIDTH=2.5GHz*(8b/10b)X16X2=64Gb/s=8GB/s

PCI-E REV:2.0--> 5GHZ

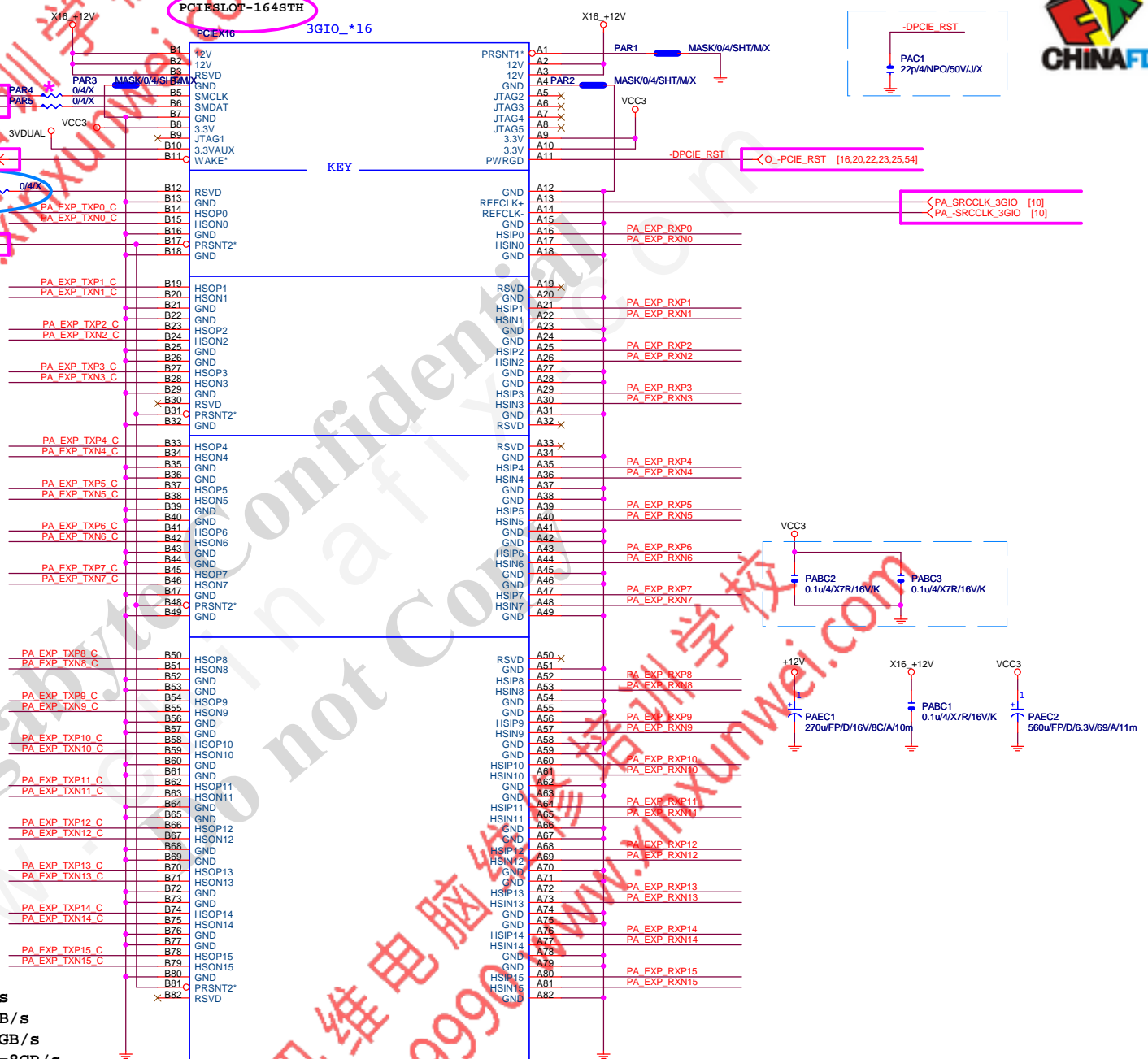
PCE-E X1(單向) BANDWIDTH=5GHz*(8b/10b)=4Gb/s=500MB/s

PCI-E REV:3.0--> 8GHZ

PCE-E X1(單向) BANDWIDTH=8GHz*(128b/130b)=8Gb/s=1GB/s

PCIESLOT-164STH

3GIO_*16



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

黑色(預留金屬加強,不上)

Gigabyte Technology

PCI EXPRESS * 16

Title	Document Number	Rev
Size Custom	GA-B250-HD3	1.0
Date: Monday, December 19, 2016	Sheet 19 of 59	

Rev 0.3

PCIE9-12

SLOT5

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Footprint "PCIESLOT-64STH-1"



PCIE*4

PCIE*4

3GIO *4

[8,9,12,19,23,27,30,38,43,55] N_SMBCLK
[8,9,12,19,23,27,30,38,43,55] N_SMBDATAN_SMBCLK
N_SMBDATA

[12,19,23,26,27,54] N_-PCIE_WAKE

N_-PCIE_WAKE

[13] PP_PCIE4_OP12
[13] PP_PCIE4_ON12PPC2 0.22u4/X5R/6.3V/K
PPC3 0.22u4/X5R/6.3V/K[13] PP_PCIE4_OP11
[13] PP_PCIE4_ON11PPC26 0.22u4/X5R/6.3V/K
PPC27 0.22u4/X5R/6.3V/K[21] PP_PCIE4_OP10_SW
[21] PP_PCIE4_ON10_SWPPC14 0.22u4/X5R/6.3V/K
PPC15 0.22u4/X5R/6.3V/K[21] PP_PCIE4_OP9_SW
[21] PP_PCIE4_ON9_SWPPC17 0.22u4/X5R/6.3V/K
PPC18 0.22u4/X5R/6.3V/K

to SWMU1

PCIE Lane Reverse

[10] -PCIE4_1_PR

3VDUAL

[12] N_GPP_D16

PPR6 8.2K/4
PPR12 0/4/SHTX

for x4 & S.B SW

PCIE4X-66P/BK/LONG DOUBLE

"PCIESLOT-64STH-1"加强版

黑色(预留金属加强,不上)

PRSTN1*
12V
12V
12V
GND
JTAG2
JTAG3
JTAG4
JTAG5
3.3V
3.3V
3.3V
PWRGDGND
REFCLK+
REFCLK-
GND
HSIP0
HSIN0
GNDRSVD
GND
HSIP1
HSIN1
GND
HSIP2
HSIN2
GND
HSIP3
HSIN3
GND
RSVD

RSVD

RSVD

RSVD

RSVD

RSVD

RSVD

RSVD

RSVD

RSVD

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RSVD

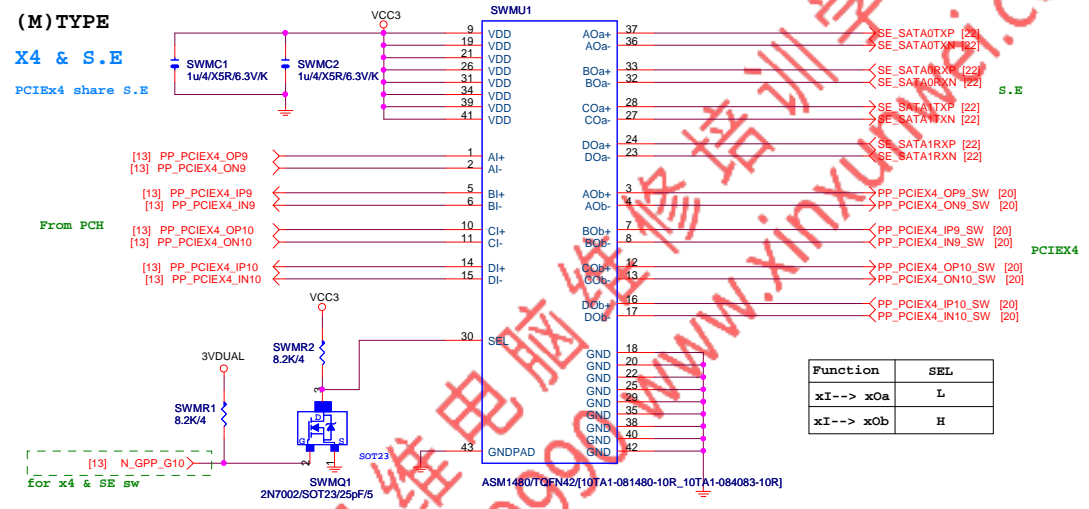
RSVD

RSVD

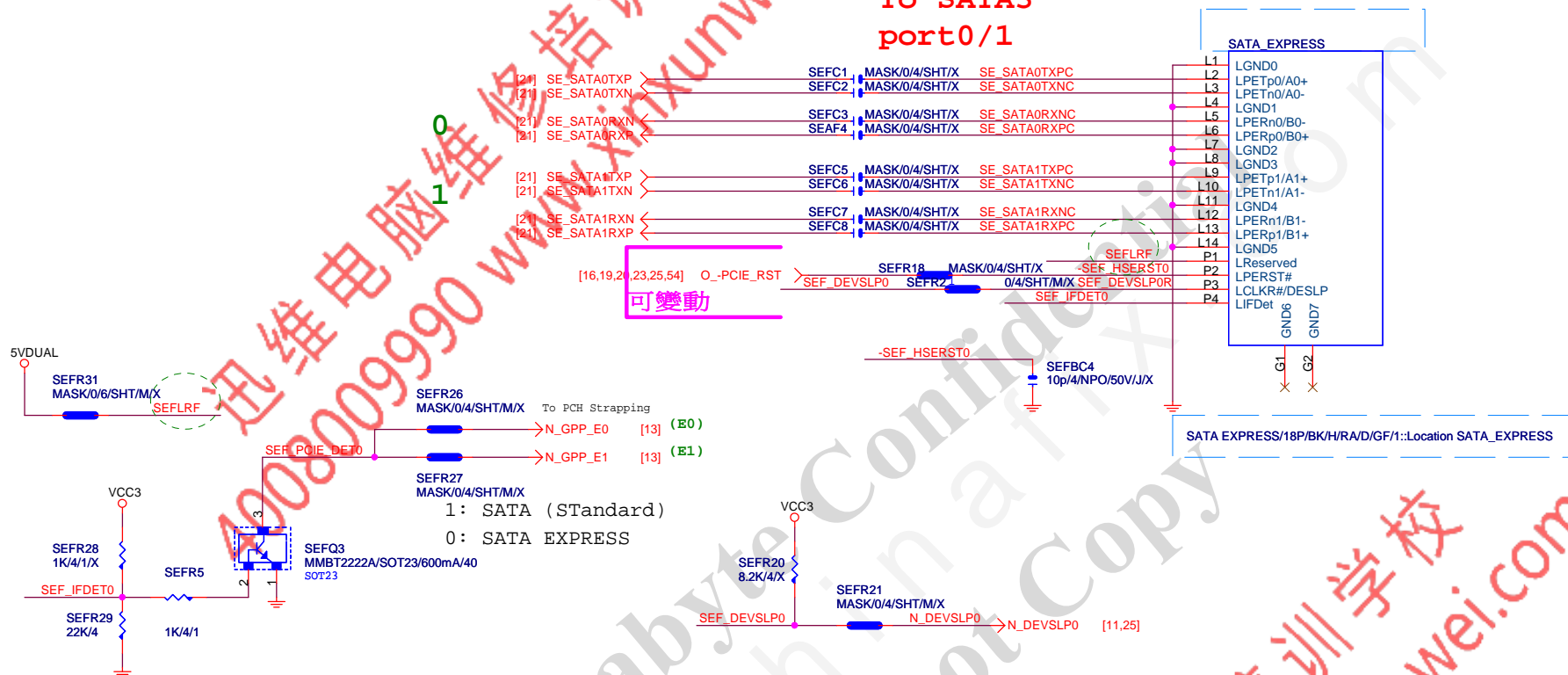
RSVD

PCIE Lane Reverse

Gigabyte Technology			
Title	PCIE_X4		
Size	Document Number	Rev	
Custom	GA-B250-HD3	1.0	
Date:	Monday, December 19, 2016	Sheet	20 of 59



B250-HD3	PCIEx4 / S.E.	GPI				GPO				M.E. Config			
		N_GPP_D16			N_GPP_E0	N_GPP_G10		-	-	P12	P11	P10(S1)	P9(S0)
		0			1	0				PCIEx4 (Reverse)			
		x			0	1				PCIEx2(Reverse)		SATA Express	
		#PEx4_Det			#SE_Det								

To SATA3
port0/1

SATA EXPRESS新增power for USB3.1小卡
每個CONNECT都要留一顆0603 0
OHM,走線40MILS 即可

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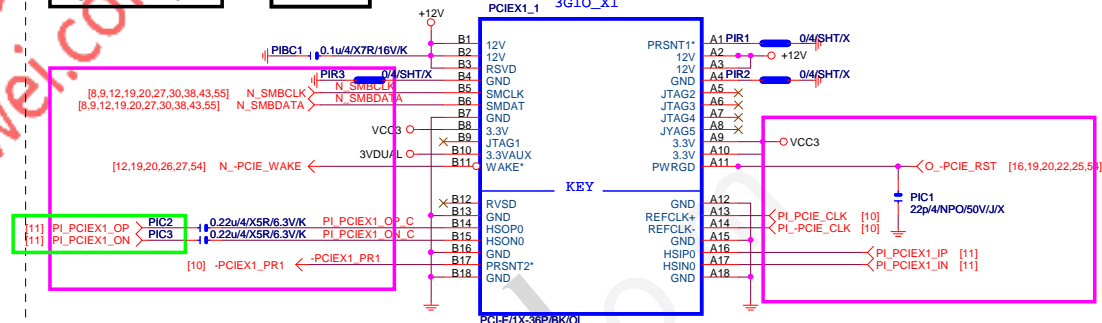
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SATA EXPRESS		
Size	Document Number	Rev
Custom	GA-B250-HD3	1.0
Date: Monday, December 19, 2016		

Sheet 1 of 59

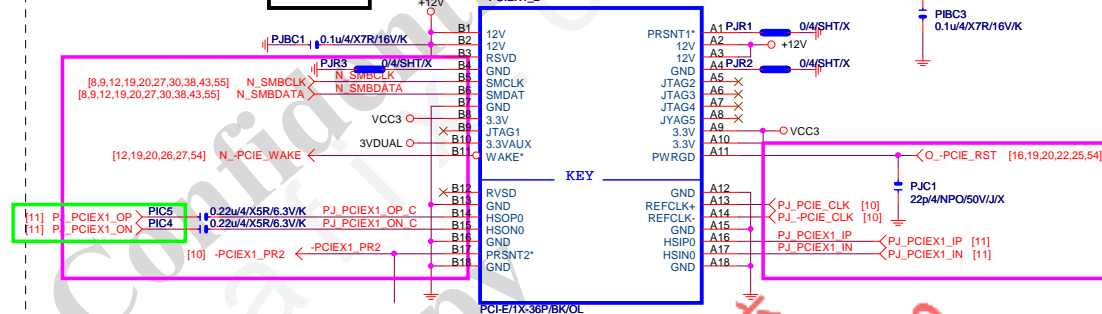
删PCIEX1_3

PCIEX1 SLOT

PCIEX1_1



PCIEX1_2



PCIEX4/X1 SWITCH

Title			
<Title>			
Size	Document Number	1.0	Rev
Customer	GA-B250-HD3		
Date:	Monday, December 19, 2016	Sheet	23 of 59

Type Q

Remark: Type Q, 但是from B250-HD3P comp name 就維持 (S)

刪除 第2根X4 & SWSU1 & SWSU2 ,
M.2 改SWQU1 切換SATA 5 & M2_PCIE_IN21_SW2 ~

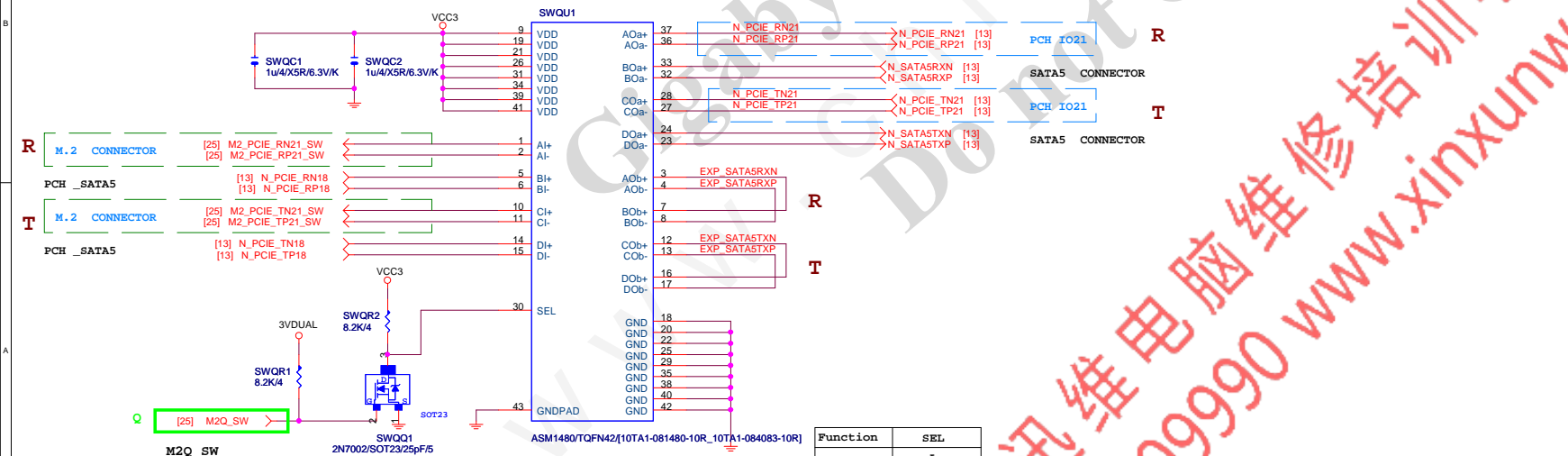
Rev 0.1

(Q)TYPE

舊的Switch, 價格低

P & N SWAP

SATA5 & M.2 SW



M2Q_SW

High : M2X4 + SATA 5 OK

Low : M2(SATA) + SATA 5 NA

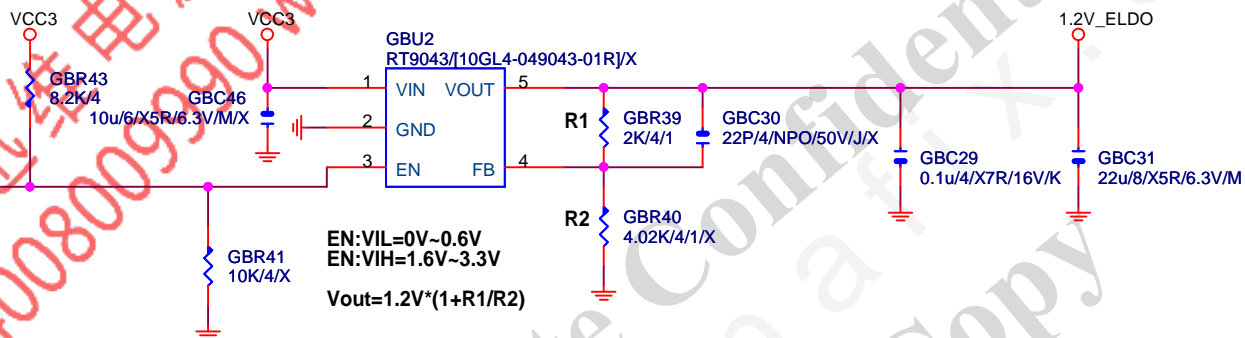
Title			
<Title>			
Size	Document Number		Rev 1.0
Custom	GA-B250-HD3		
Date:	Monday, December 19, 2016	Sheet 24 of 59	

Gigabyte Technology

Rev 0.1

KBL 改為G12

[10] N_GPP_G12



Gigabyte Technology

Title

ASM1085 POWER

Size
Custom

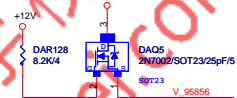
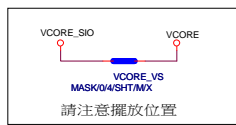
Document Number

GA-B250-HD3

Rev
1.0

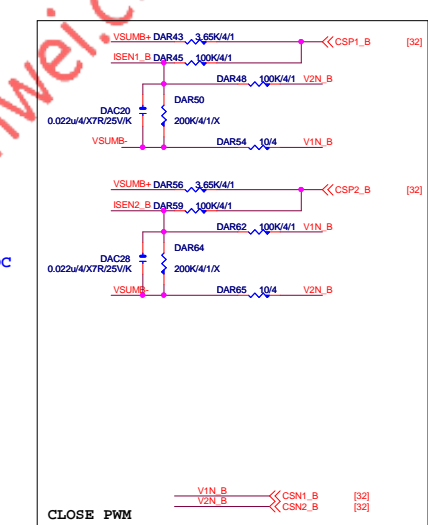
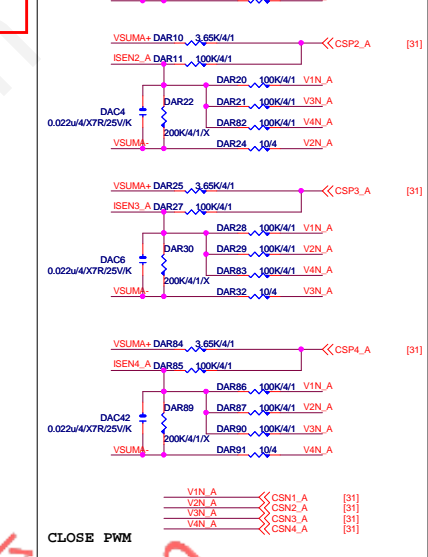
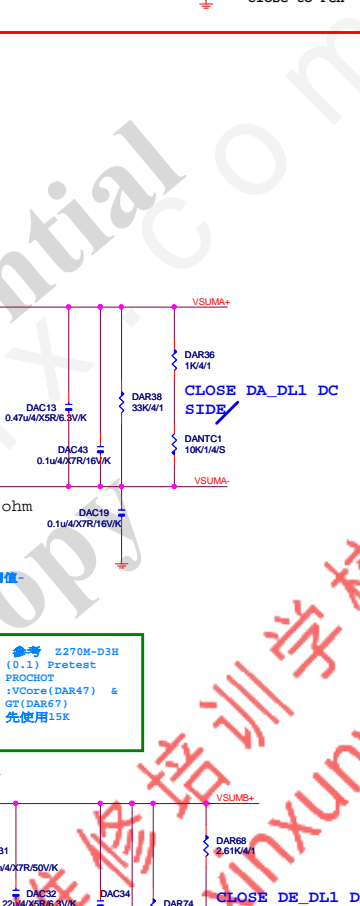
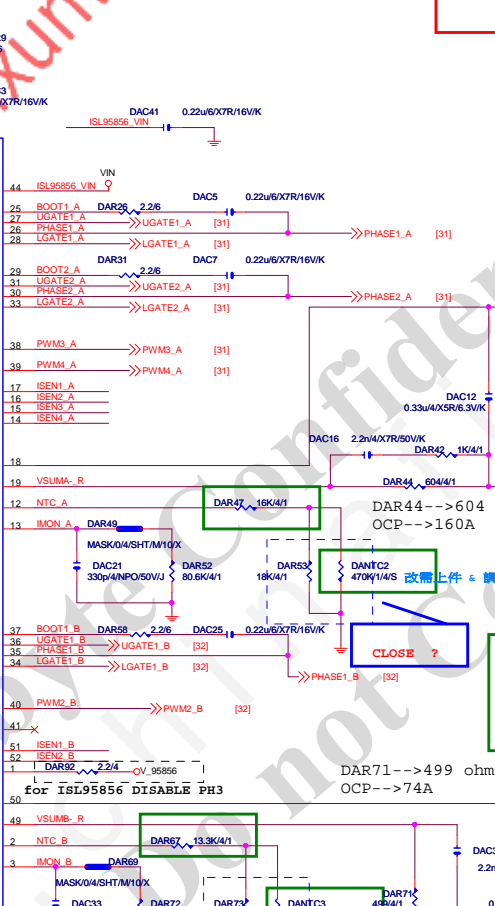
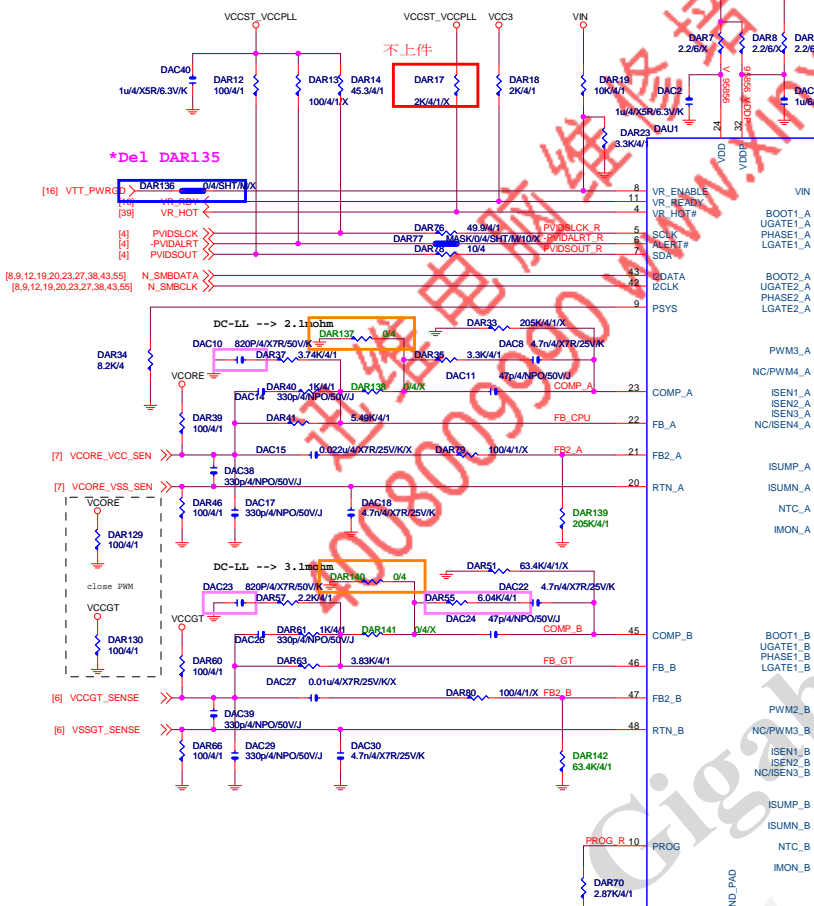
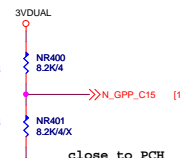
Date: Monday, December 19, 2016

Sheet 28 of 59

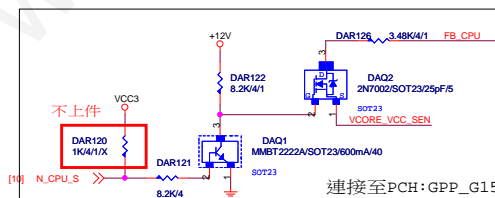
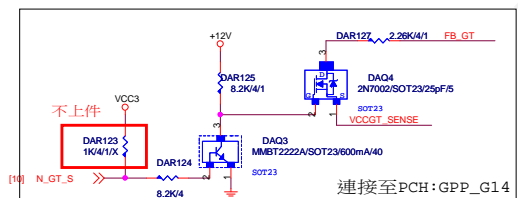


H: ISL95856 or ISL95858

L: ISL95866 or ISL95868

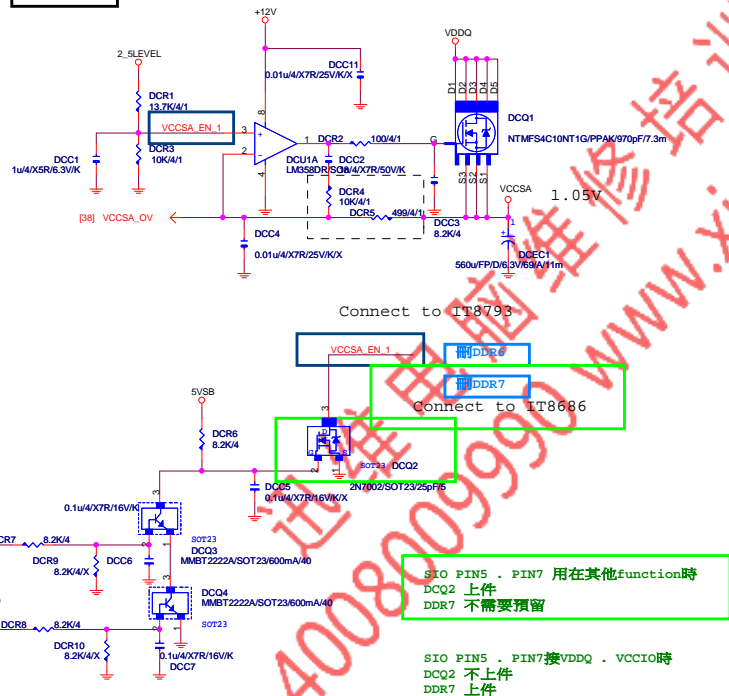


Vcore	ISL95856	ISL95866	Vccgt	ISL95856	ISL95866
DAR137	X	V	DAR140	X	V
DAR138	V	X	DAR141	V	X
DAR139	X	V	DAR142	X	V
DAC15	V	X	DAC27	V	X
DAR79	V	X	DAR80	V	X
DAR33	V	X	DAR51	V	X

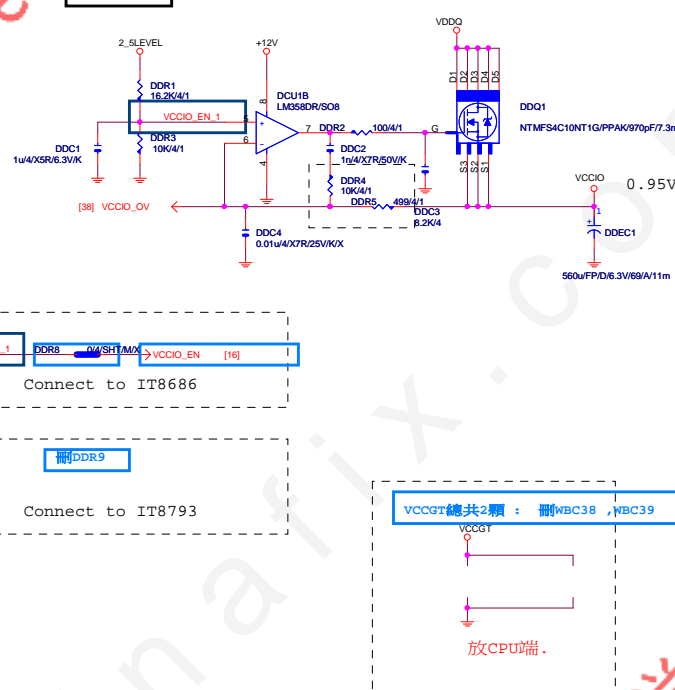


Z系列才需要留
連接至PCH GPP_G13

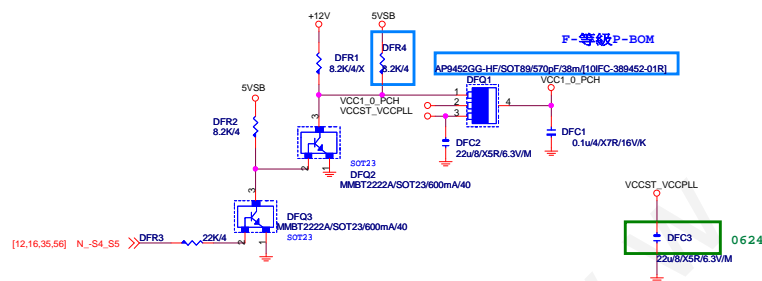
VCCSA



VCCIO



VCCST_VCCPLL



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Title: VCCSA_VCCIO_no 44E

Size: Document Number

Custom: GA-B250-HD3

Date: Monday, December 19, 2016

Sheet: 33 of 59

Rev: 1.0

REV:0.1

VPP_25V

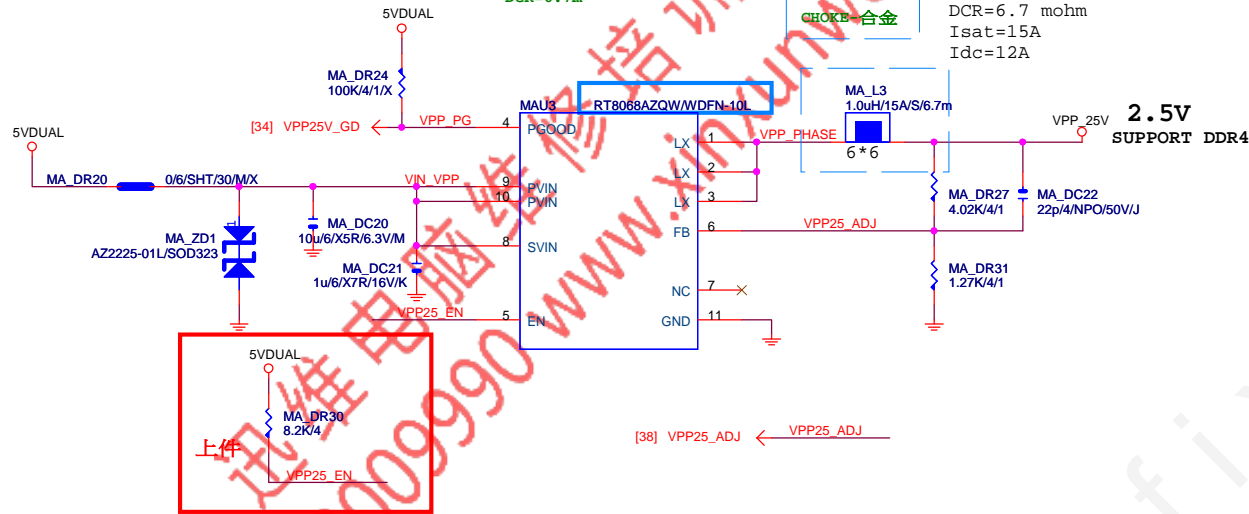
www.xinxunwei.com 400-800-9990



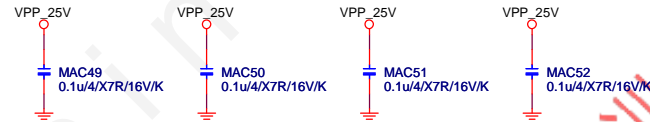
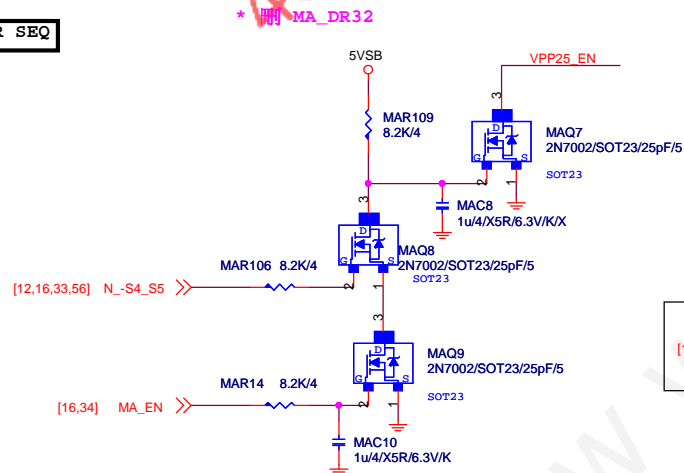
SMD Molding(合金)
10LC4-15100B-01R CORE 1.0uH 15A
TAI-TECH SMD TMPA0603S-1R0MN-D
DCR=6.7m

CHOKE與CAP料號可變

L=1u
DCR=6.7 mohm
Isat=15A
Idc=12A

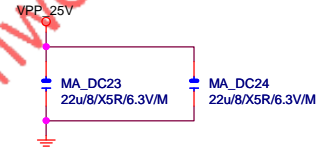


PWR_SEQ



VPP CAP 22u*1PCS

* 大電容 22u

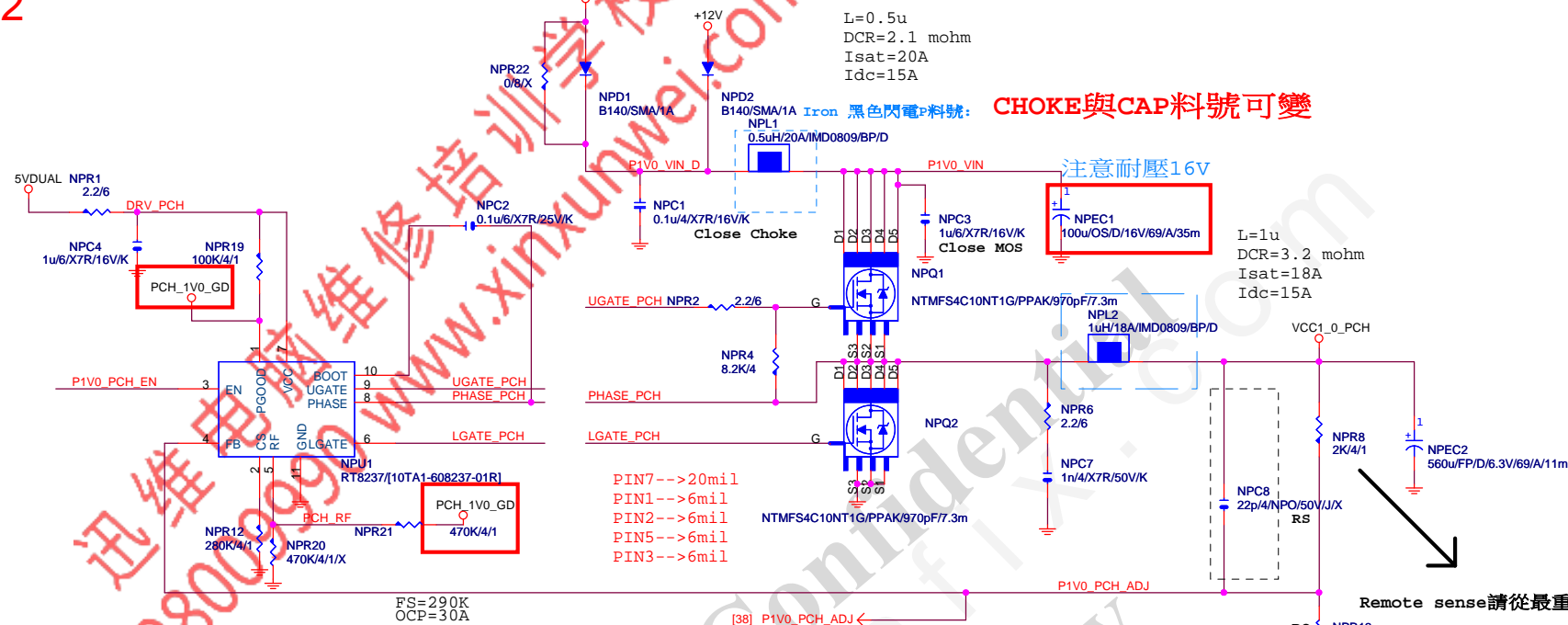


[16] VPP25_EN_IO >> MAR114_0/4/X VPP25_EN

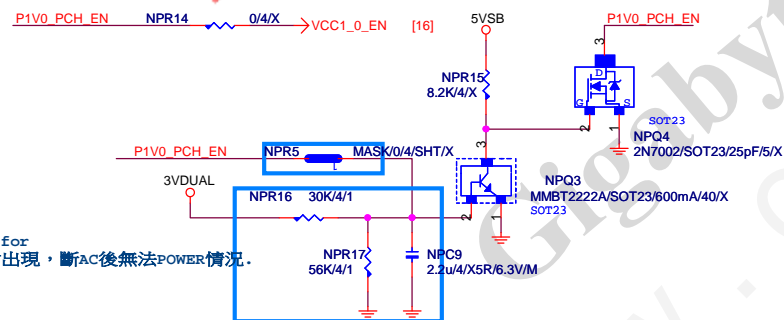
GIGABYTE™			
Title			
RT8068A_VPP25 POWER			
Size		Document Number	Rev
Custom		GA-B250-HD3	1.0
Date:		Monday, December 19, 2016	Sheet 35 of 59

REV:0.2

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PWR_SEQ



請放置CHOKE一出來的地方

GIGABYTE™

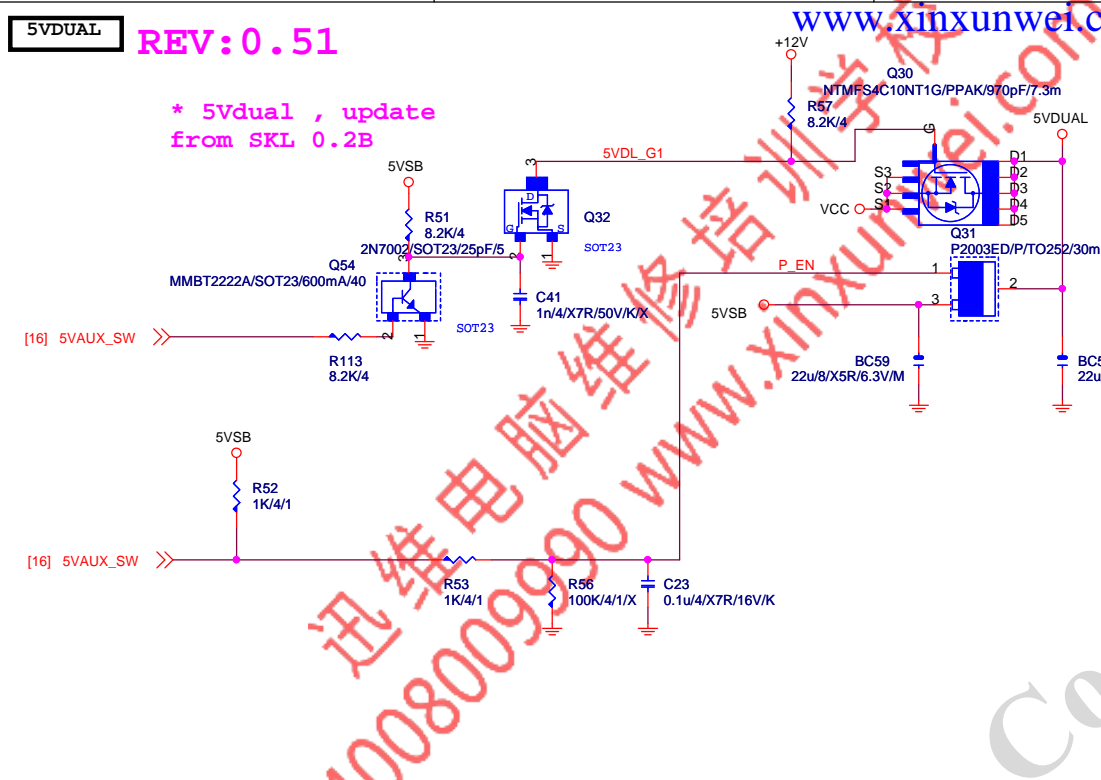
Title RT8237_PCH POWER

Size	Document Number	Rev
Custom	GA-B250-HD3	1.0
Date:	Monday, December 19, 2016	Sheet 36 of 59

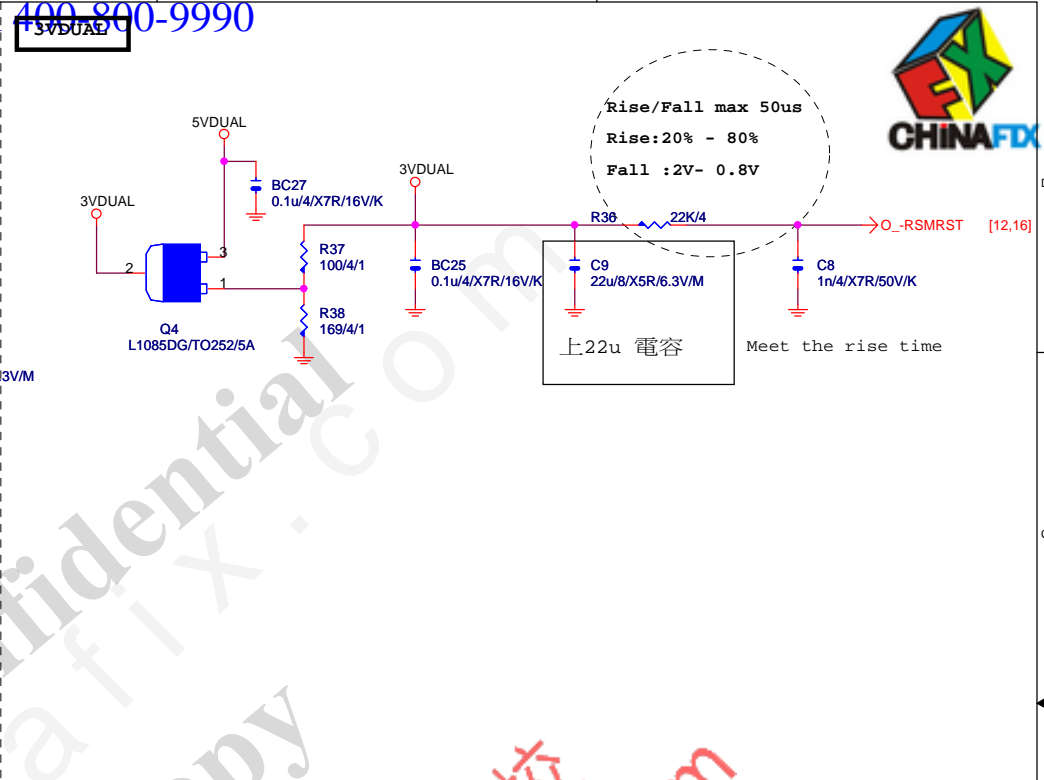
5VDUAL

REV:0.51

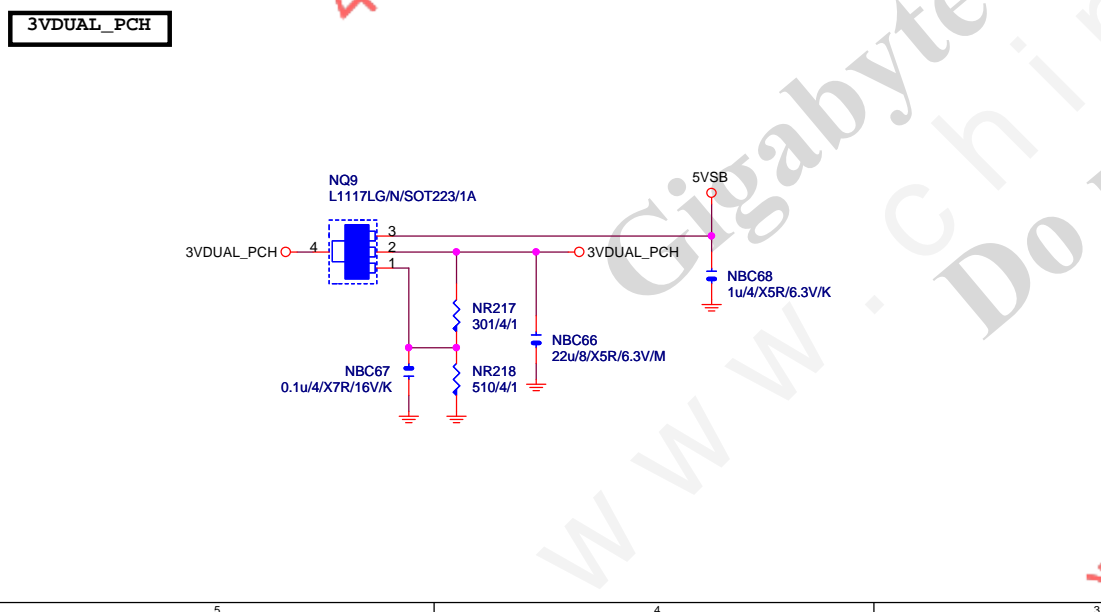
* 5Vdual , update
from SKL 0.2B



5VDUAL

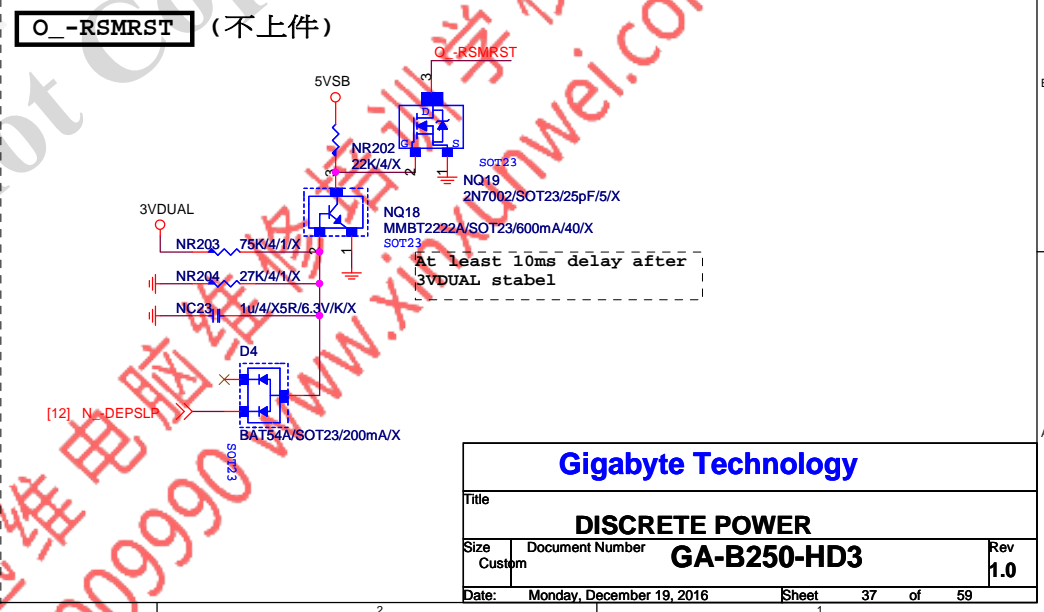


3VDUAL_PCH



O_-RSMRST

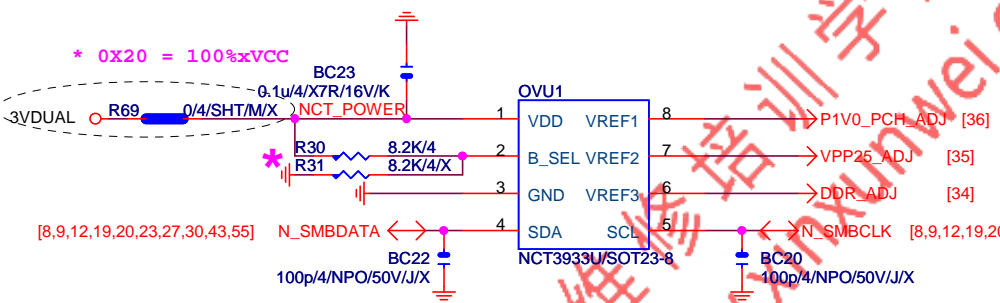
(不上件)



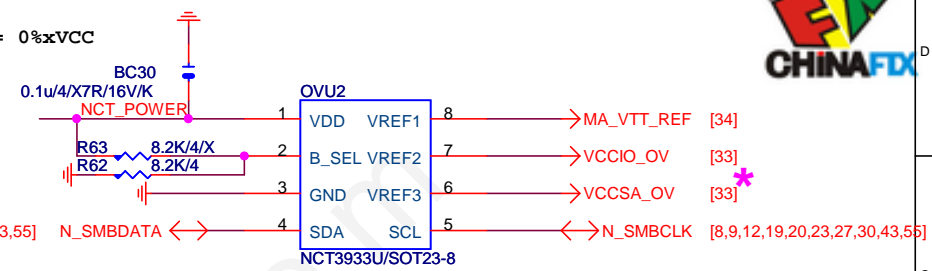
Gigabyte Technology

Title			
DISCRETE POWER			
Size	Document Number	GA-B250-HD3	
Custom			
Date:	Monday, December 19, 2016	Sheet	37 of 59

OVER VOLTAGE



0X2A = 0%xVCC



0X22 = 75%xVCC

* 删除 OVU3

NCT3933	0X2A	0X20	0X22
VREF1	DDRVTT	VREF_DDRA_DQ	PCH Core
VREF2	VREF_DDRA_CA	N/A	VCC1_5_PCH
VREF3	VREF_DDRA_CA	VREF_DDRB_DQ	SMREF

Gigabyte Technology

Title: **CPU CORE VR-2**

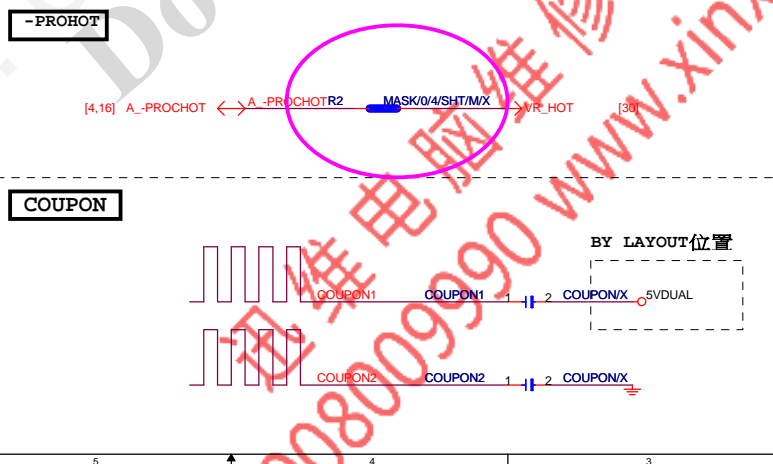
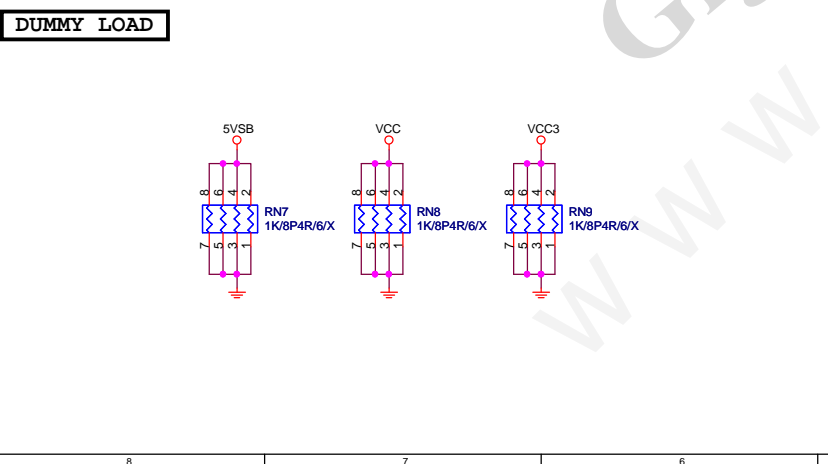
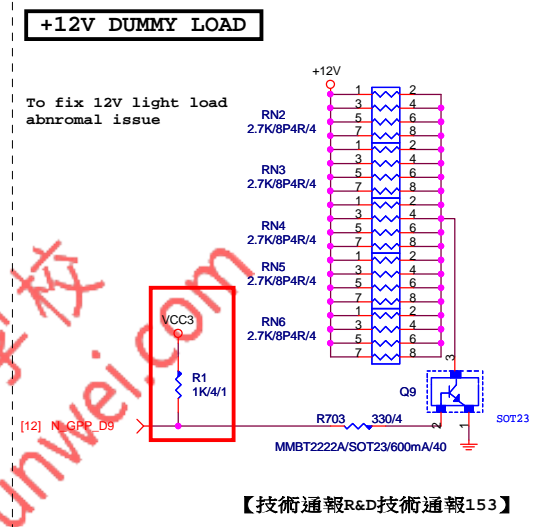
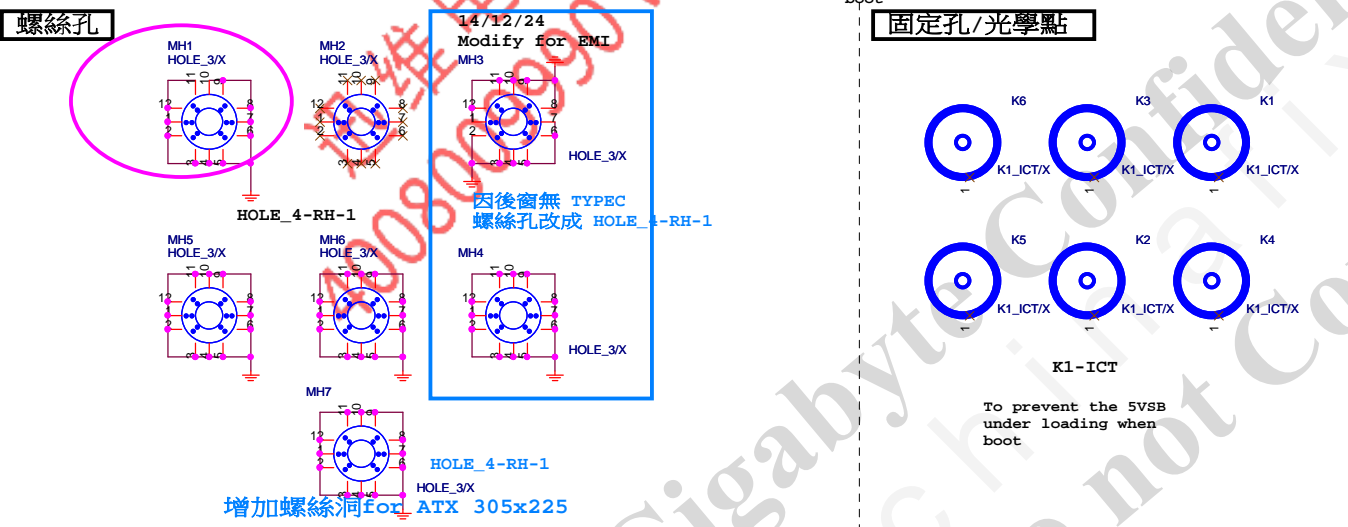
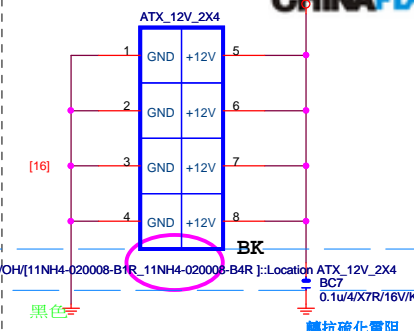
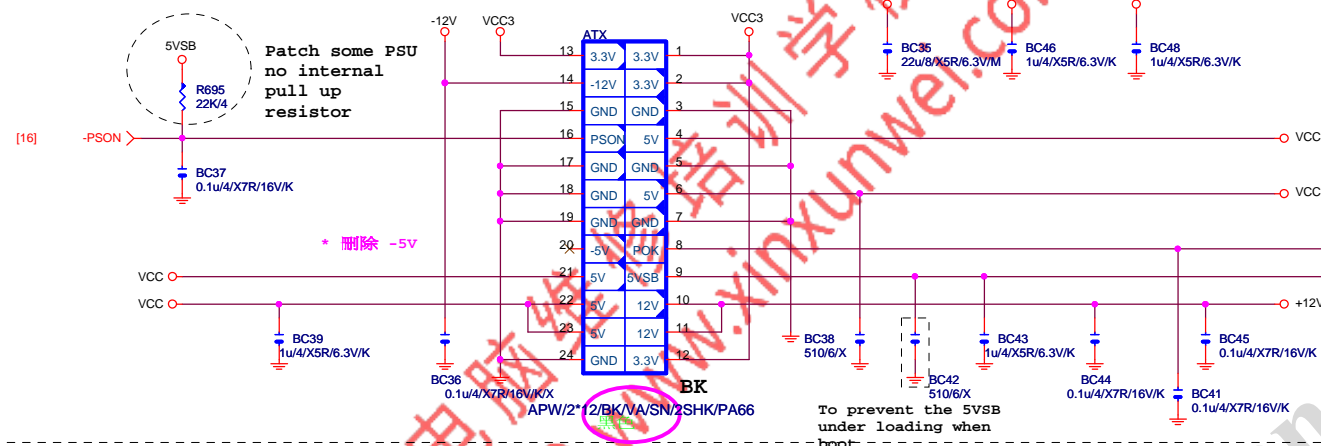
Size Custom	Document Number: GA-B250-HD3	Rev: 1.0
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Date: Monday, December 19, 2016 Sheet 38 of 59

ATXX24 POWER CONNECTOR

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ATXX4 POWER CONNECTOR

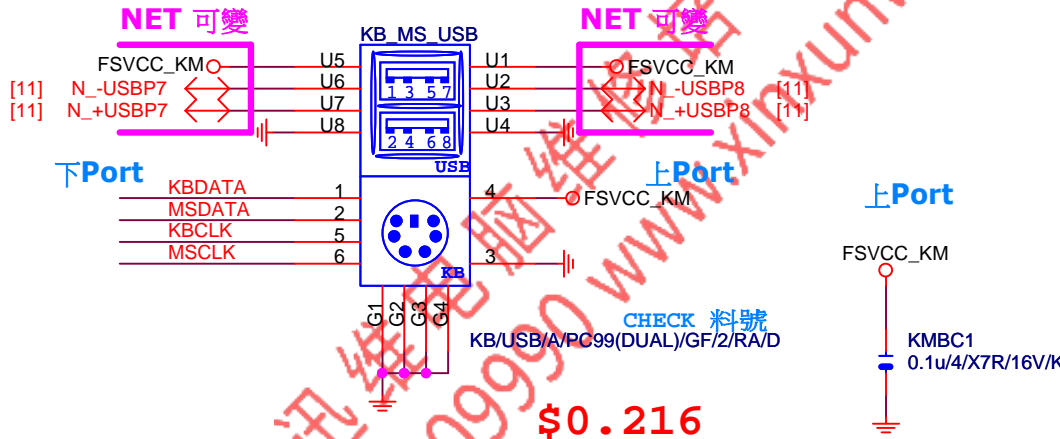


Gigabyte Technology			
Title			
ATX POWER CONNECTOR			
Size	Document Number	GA-B250-HD3	
Custom		Rev 1.0	
Date:	Monday, December 19, 2016	Sheet	39 of 59

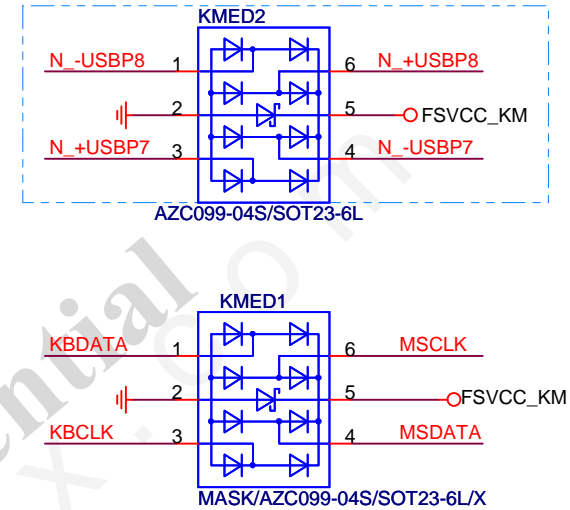
KB_MS_USB

Rev: 0.81

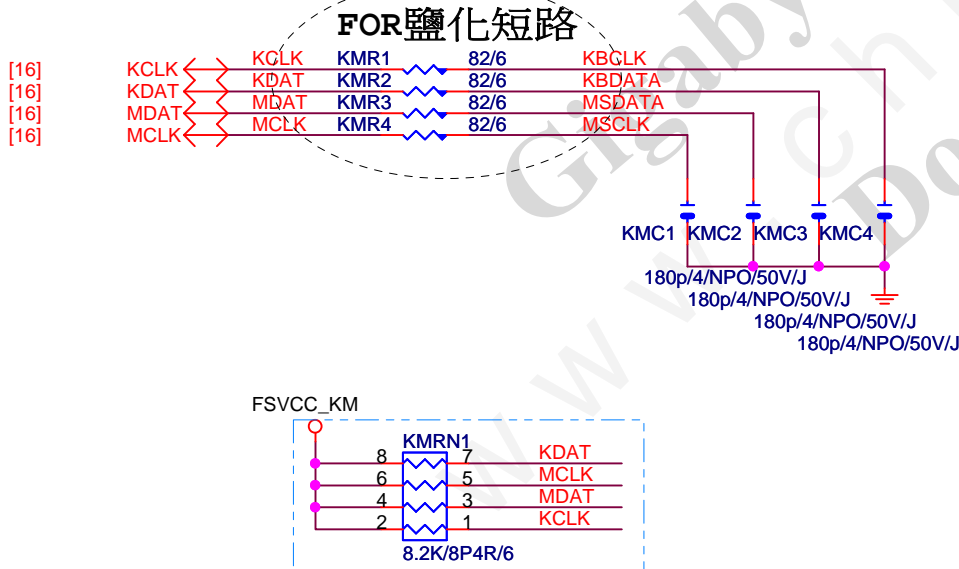
新connector : PS2(在上)+USB2.0*2(在下) 因為比較會與旁邊connector有干涉 且深度較長較佔空間
所以不使用
所有200 series 請下一版改回原本用料: PS2(在下)+USB2.0*2(在上)



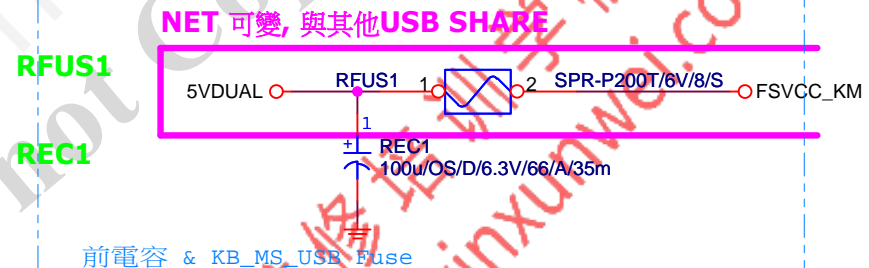
ESD



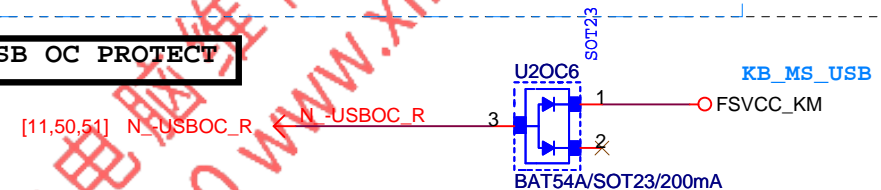
KB_MS_USB DAMPING/PU



KB_MS_USB PWR



USB OC PROTECT



Gigabyte Technology

Title

KB_MS_USB

Size A

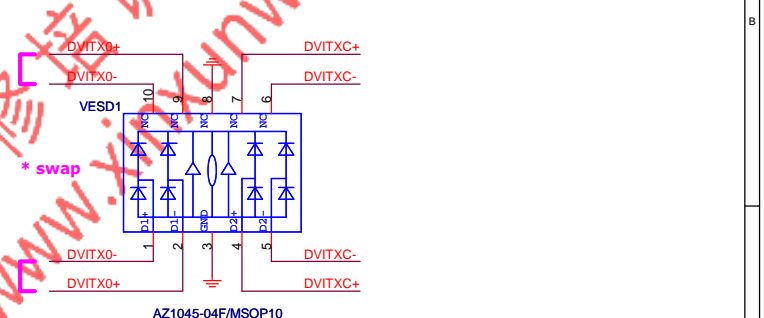
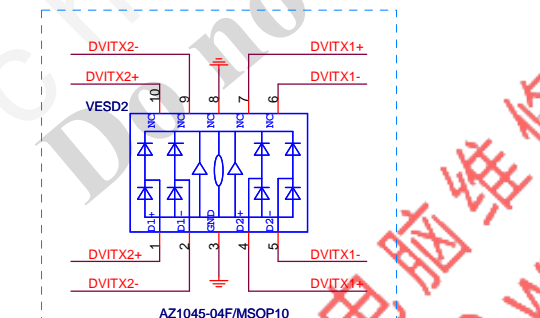
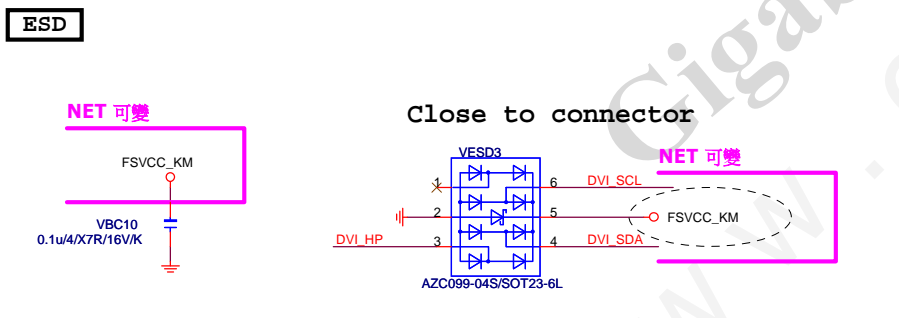
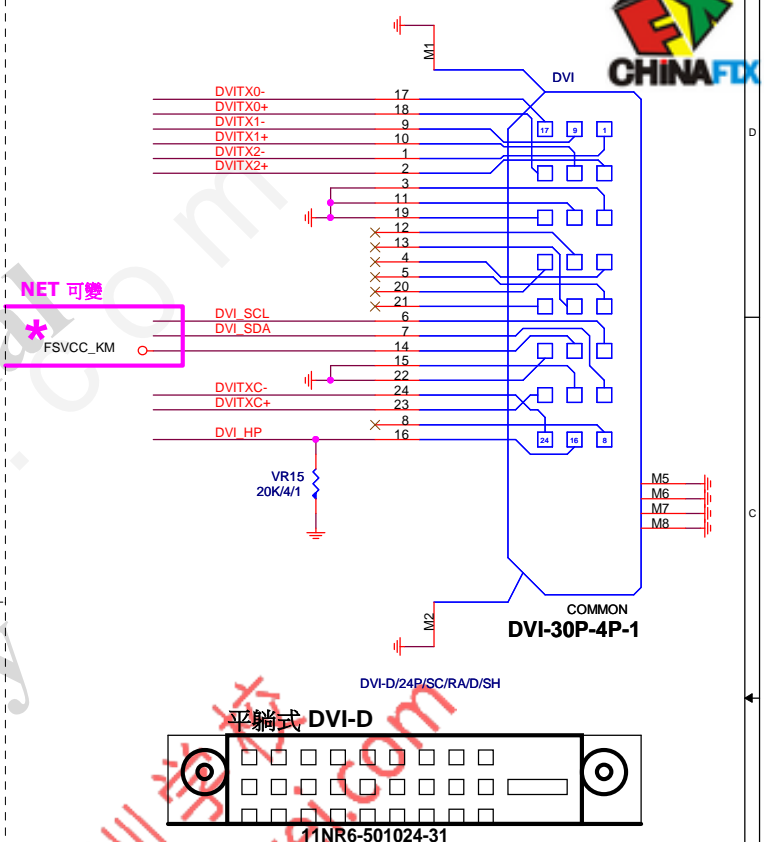
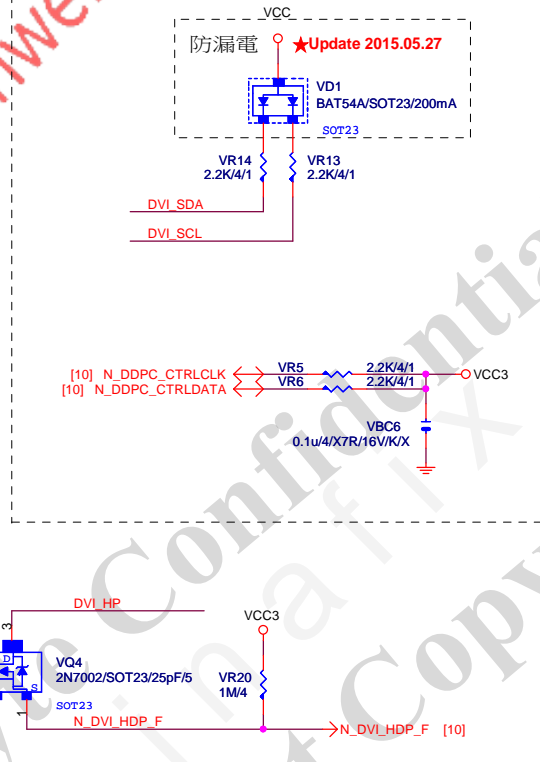
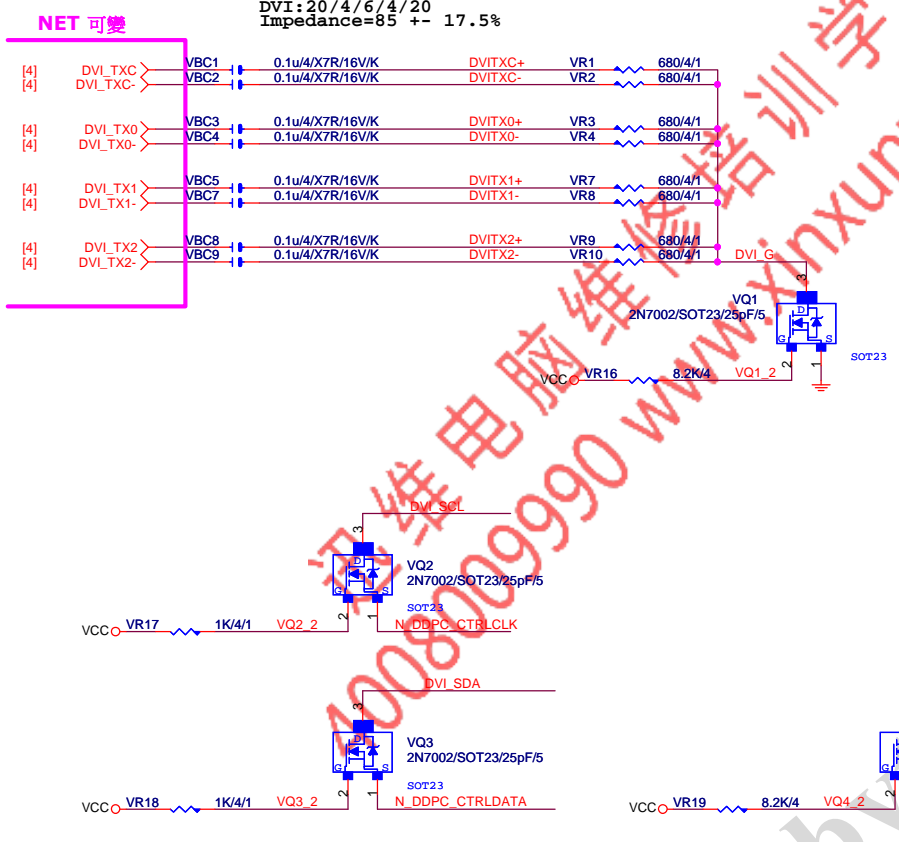
Document Number

GA-B250-HD3

Rev 1.0

Date: Monday, December 19, 2016

Sheet 40 of 59

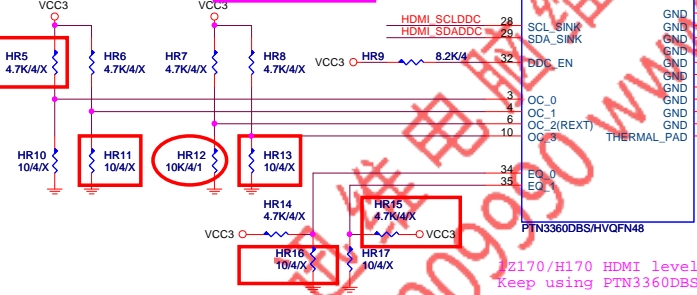


HDMI LEVEL SHIFT

NET 可變



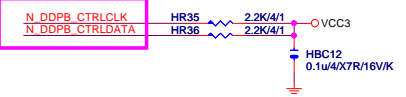
Port 自行調整



PTN3360:PIN 4/10/34/35 NC PIN,都不上值;只上HR12:10K
ASM1442:紅色框要上,HR12:3.16K

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

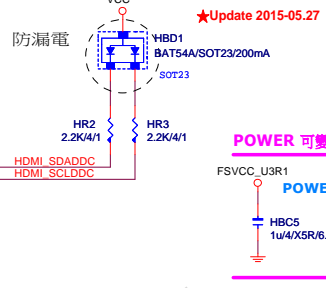
Port 自行調整



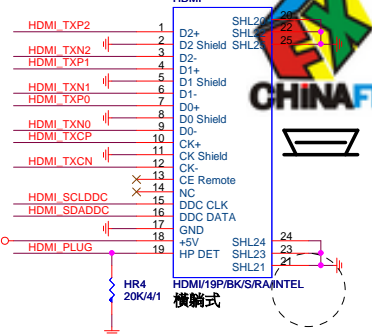
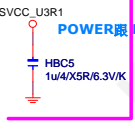
【技術通報R&D技術通報150】

HDMI eye diagram 1.4版(deep color)會fail
原因: 因目前的HDMI訊號過長,造成RISING TIME過慢,而會壓到eye diagram
改善: ASMEDIA ASM1442 : 3.16K(PIN6 PULL DOWN電阻) 10ohm(PIN4 PULL DOWN電阻)

Z170/H170 HDMI level shift "NO NEED TO CHANGE".
Keep using PTN3360DBS/HVQFN48

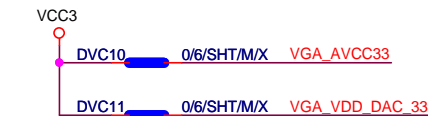
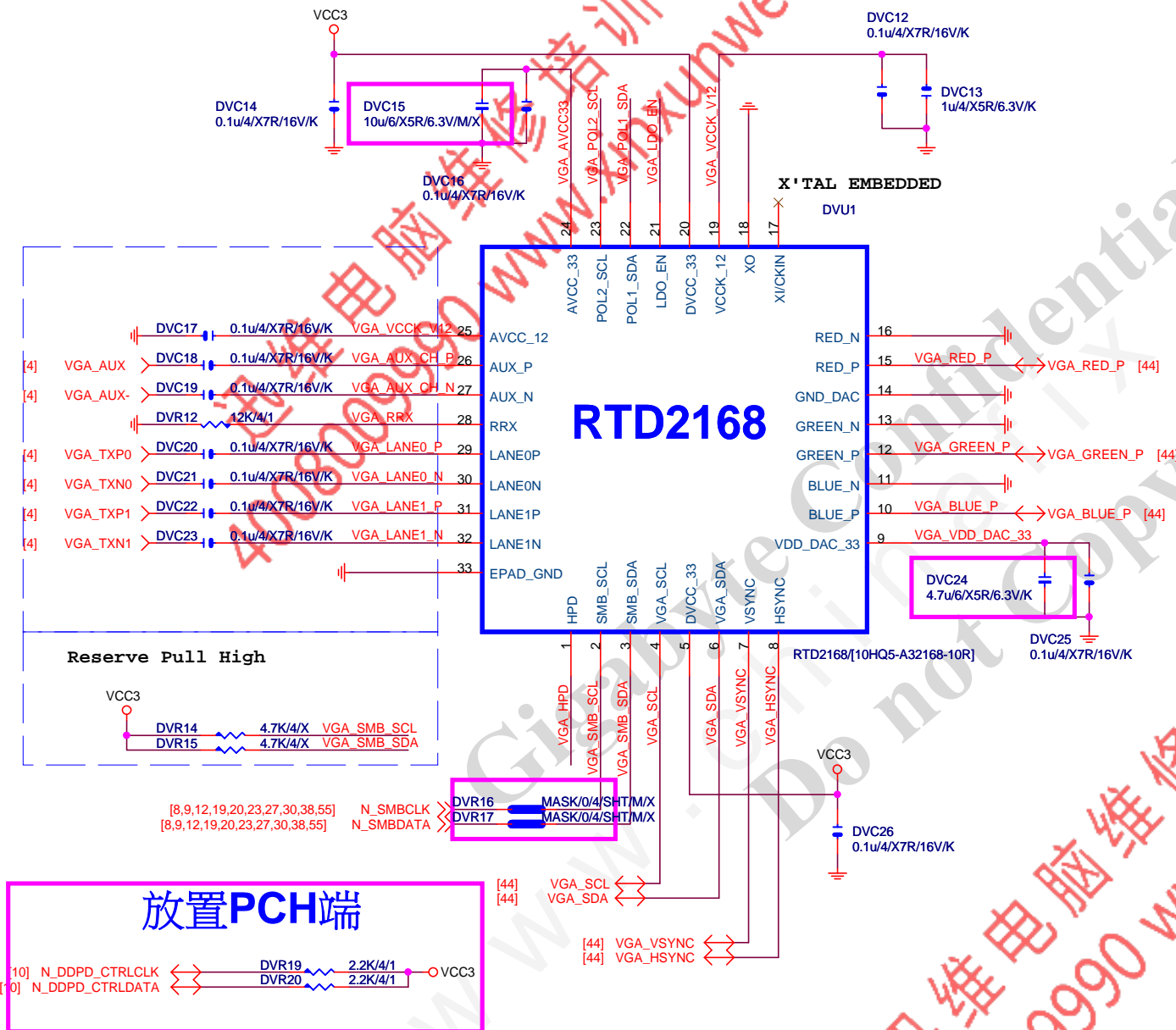


POWER 可變

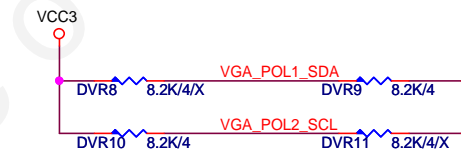


跟 R_USB3 改沒有架高,所以HDMI上件





Power on latch



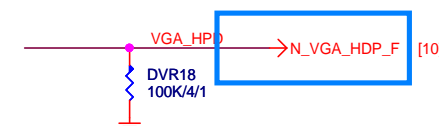
		POL1_SDA (PIN22)	
		0	1
POL2_SCL (PIN23)	0	X	EP MODE
	1	ROM ONLY MODE	EEPROM MODE

Embedded LDO

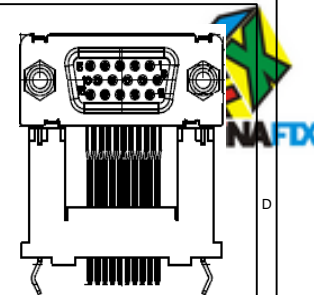
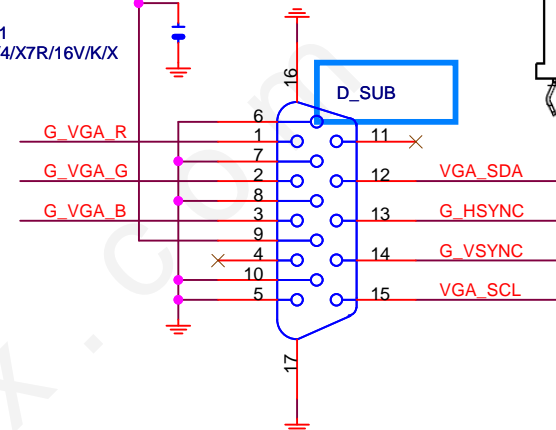


		0	1
VCC3	VCC3	VCC3	VCC3
VCC3	VCC3	VCC3	VCC3

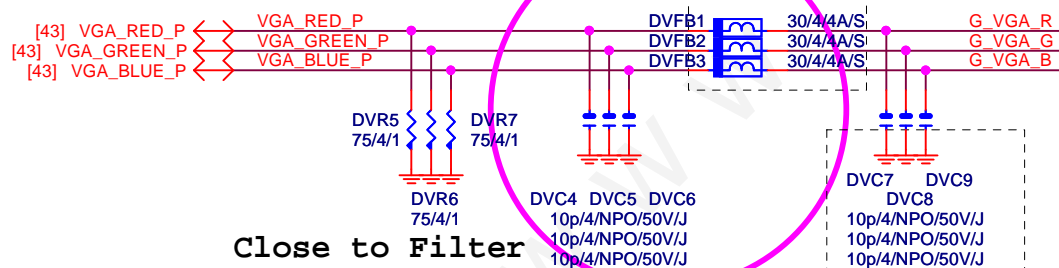
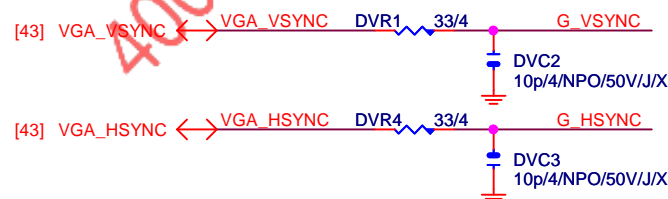
DP HPD



Gigabyte Technology
NXP-PTN3356

FSVCC_KM
DVC1
0.1u/4/X7R/16V/K/X

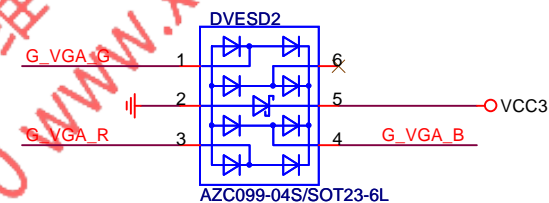
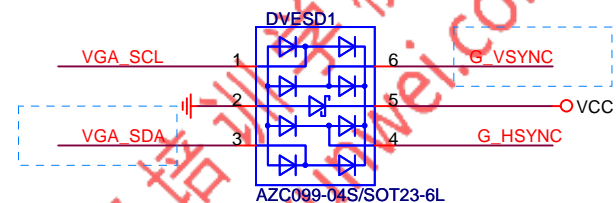
VGA/BK/SC/RA/D/2/HR



Close to Filter

FOR EMI

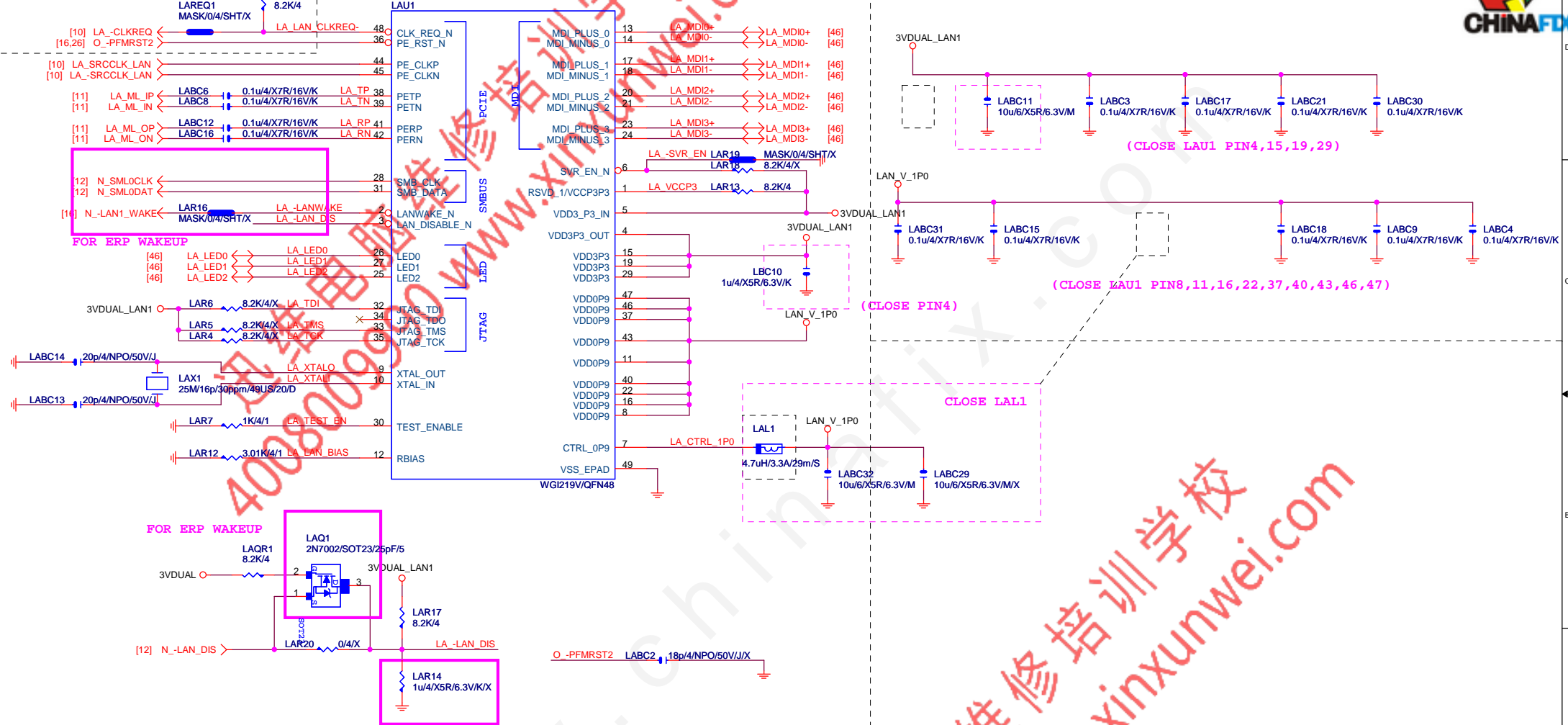
VGA ESD



Gigabyte Technology			
Title			
DP-VGA RTD2168			
Size	Document Number	Rev	
Custom	GA-B250-HD3	1.0	
Date:	Monday, December 19, 2016	Sheet	44 of 59



L1+CLK REQ# 節能:
需對應LA_SRCCLK_LAN之CLKREQ#



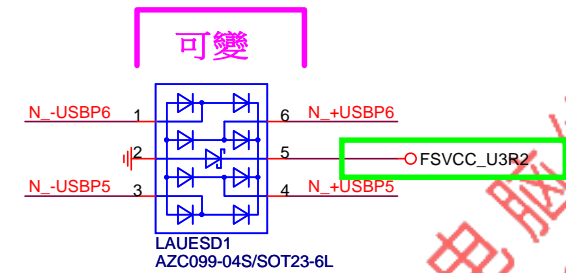
Gigabyte Technology

INTEL I219

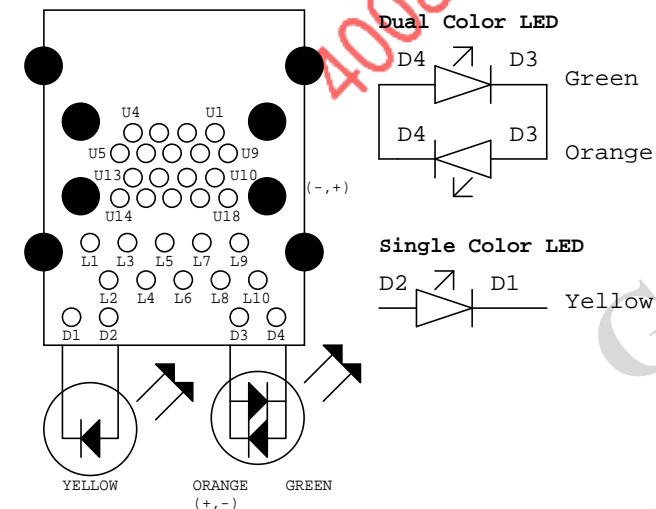
Title		Rev
Size Custom		1.0
Document Number		GA-B250-HD3
Date:	Monday, December 19, 2016	Sheet 45 of 59

USB_LAN CONNECTOR R1.1

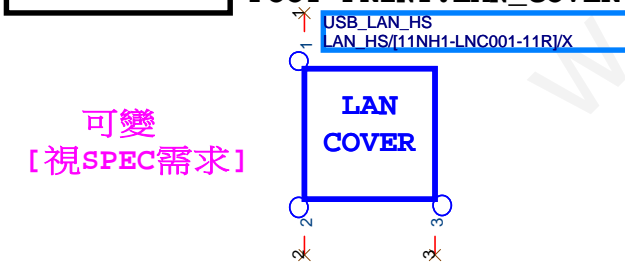
RMA ESD PROTECT note:可變更USB NAME



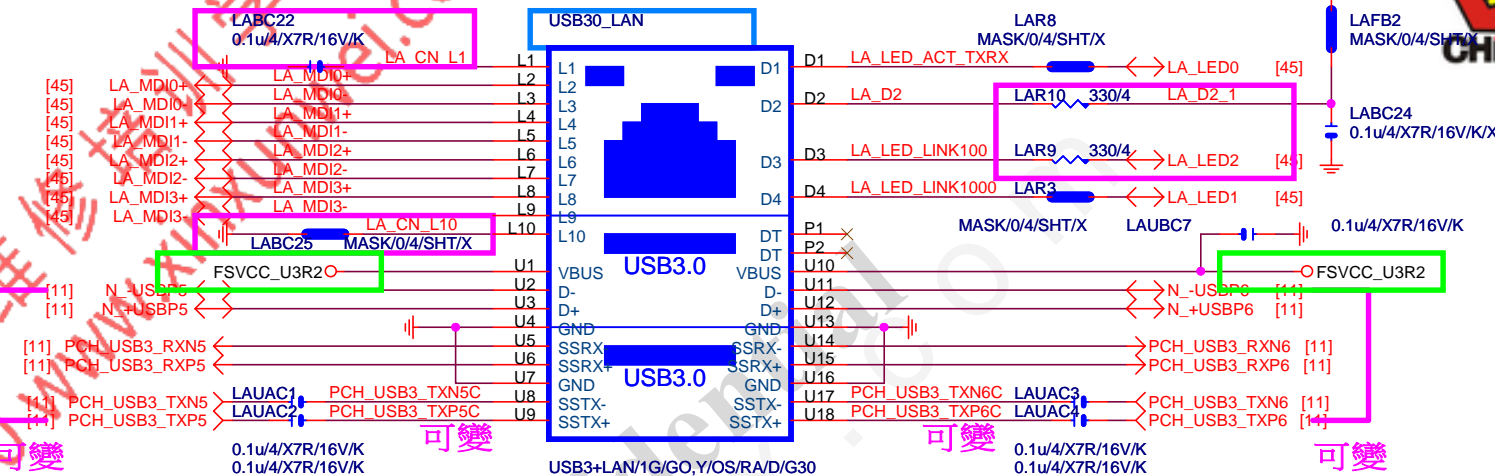
USB30_LAN LAYOUT示意圖



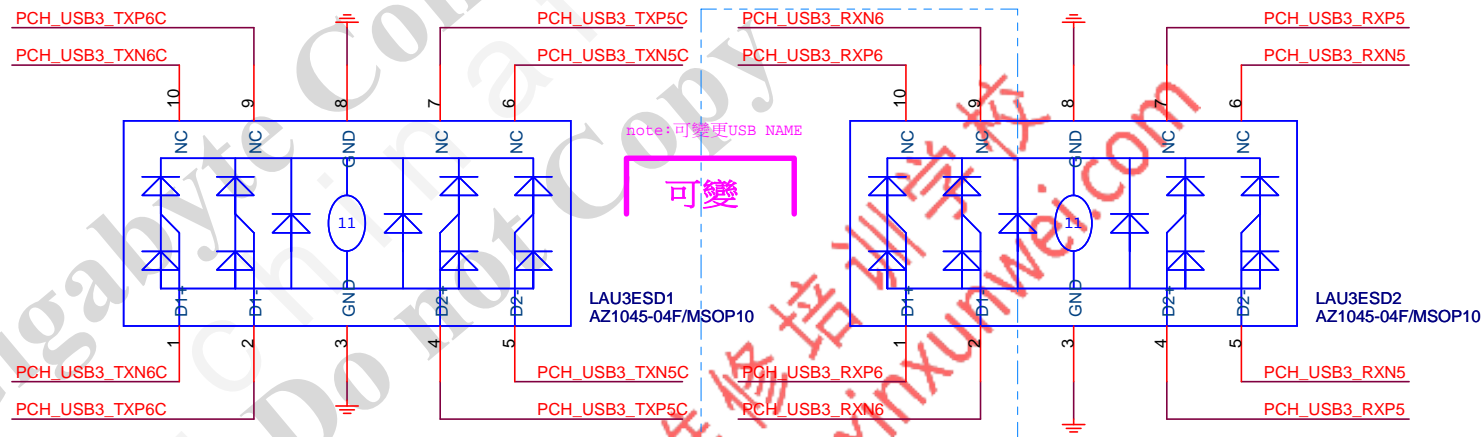
LAN_COVER FOOT PRINT:LAN_COVER



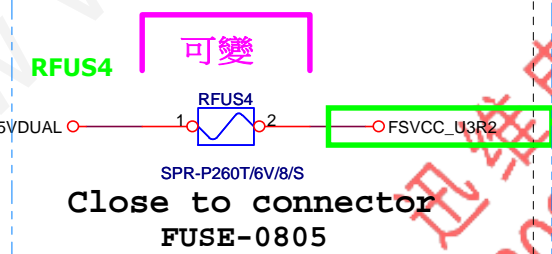
USB_LAN CONNECTOR [I219]



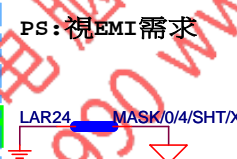
LA_MDI-->100歐姆:[20/4/8/4/20]



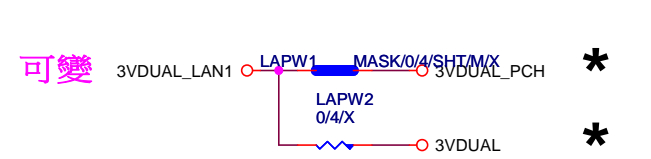
USB POWER note:可變更FUSE



EMI SHORT PAD PS:視EMI需求



LAN POWER note: lan power連接及電流



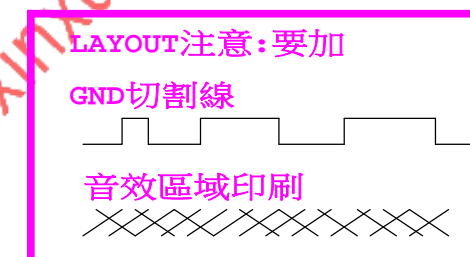
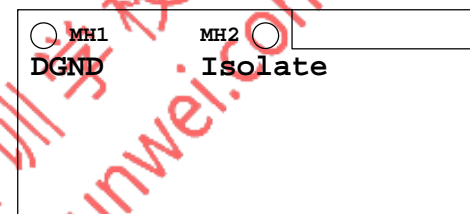
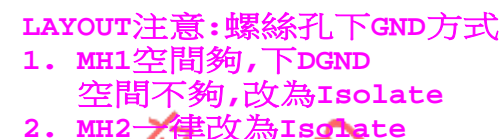


[48] CEN ←

[48] LFE ←

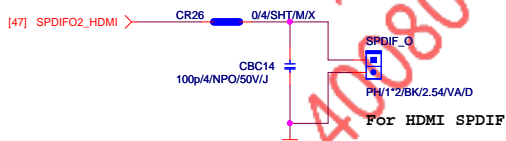
[48] S_SURR_L ←

[48] S_SURR_R ←



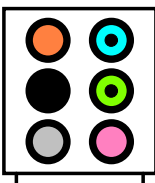


SPDIF_OUT

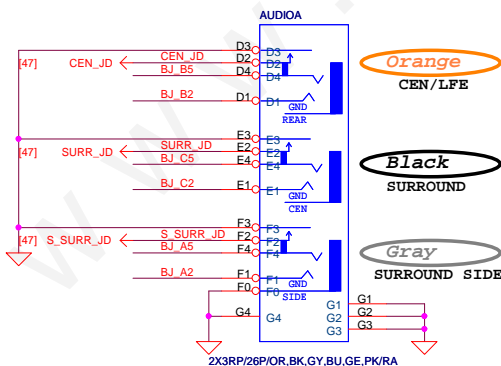
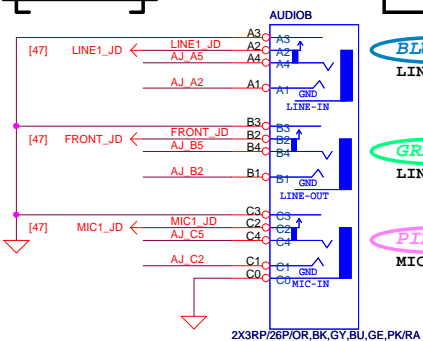


SPDIF_IN

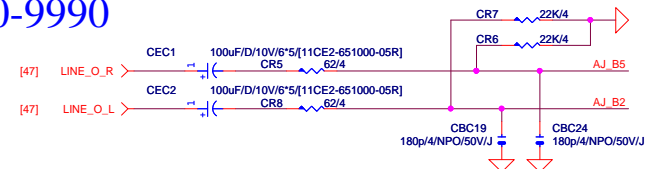
AZALIA JACK



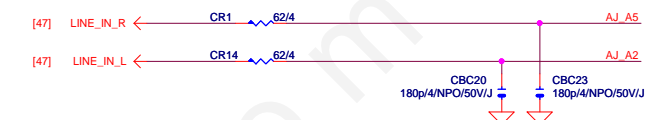
AZALIA JACK

BLUE
LINE-INGREEN
LINE-OUTPINK
MIC-INOrange
CEN/LFEBlack
SURROUNDGray
SURROUND SIDE

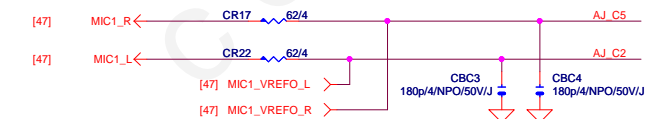
LINE-OUT



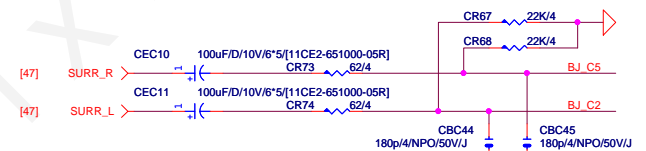
LINE-IN



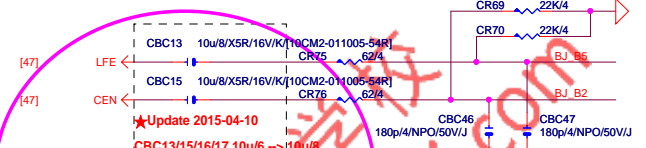
MIC-IN



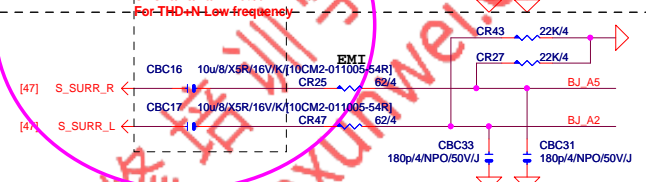
SURROUND



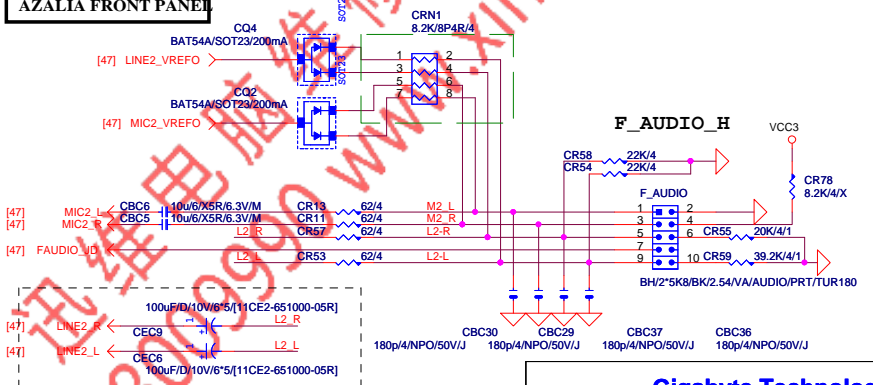
CEN/LFE



SURR BACK



AZALIA FRONT PANEL



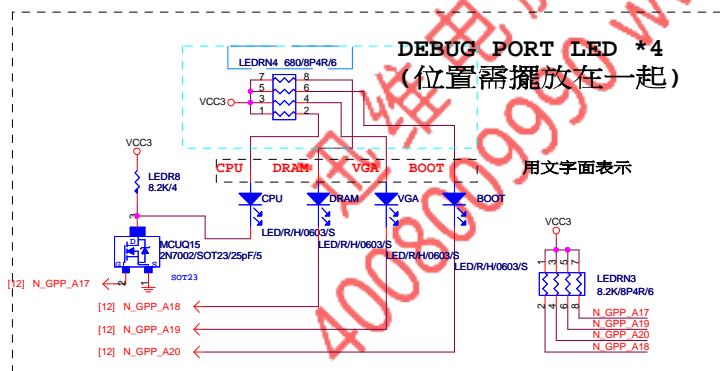
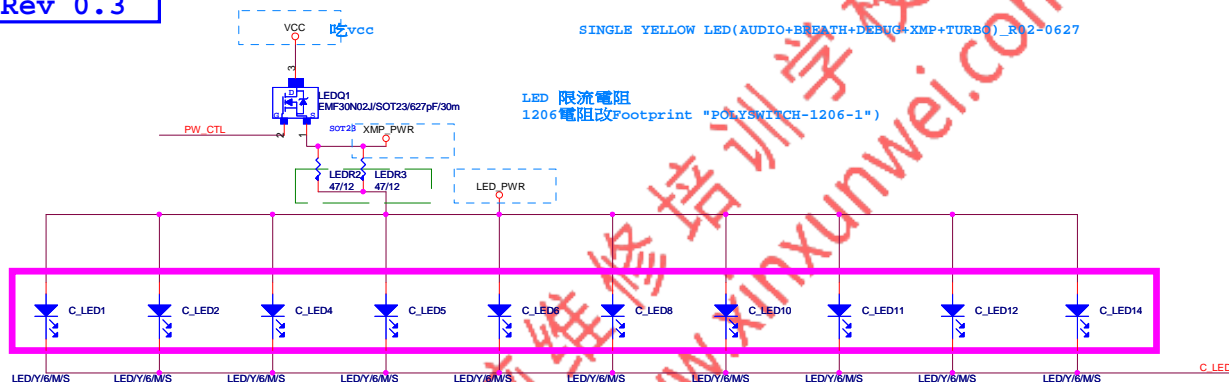
Gigabyte Technology

AUDIO JACK

GA-B250-HD3

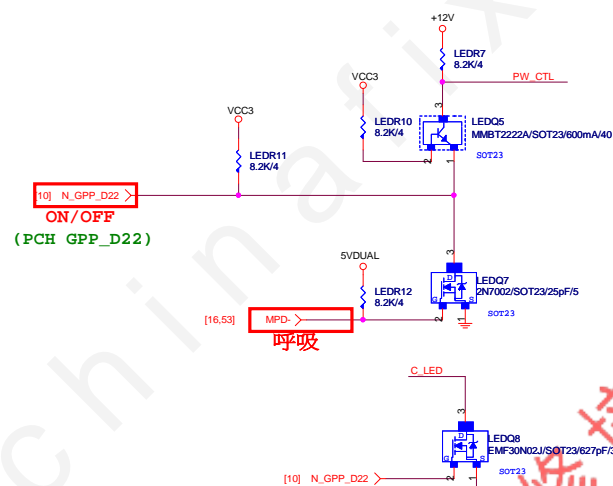
Rev 1.0

Date: Monday, December 19, 2016 Sheet 48 of 59



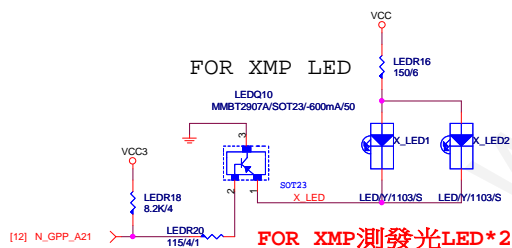
Ambient LED Control

	N_GPP_D22	IO GP91
Still Mode	H	L
OFF Mode	L	L
Pluse Mode	H	BREATH



B250-HD3 PCB鑲空"Turbo"字樣因chipset無法ON, 請移除 ("XMP" 保留 for 2400 XMP)

FOR XMP LED

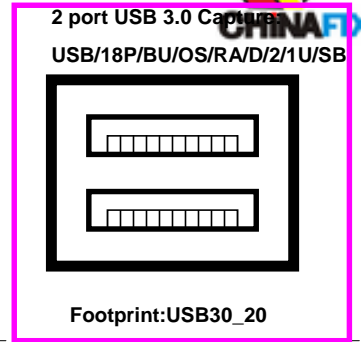
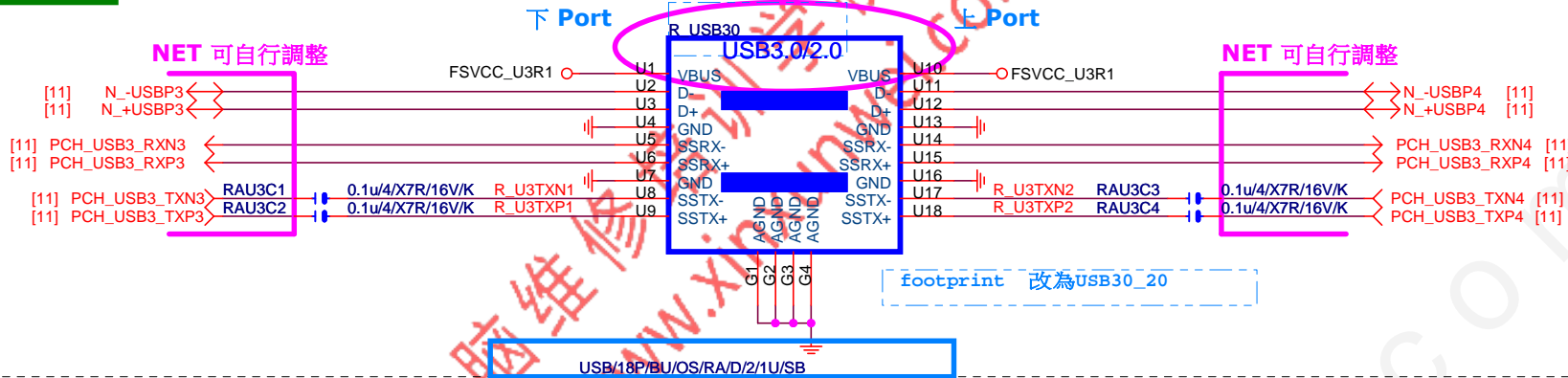


FOR TURBO LED

Rev: 0.7

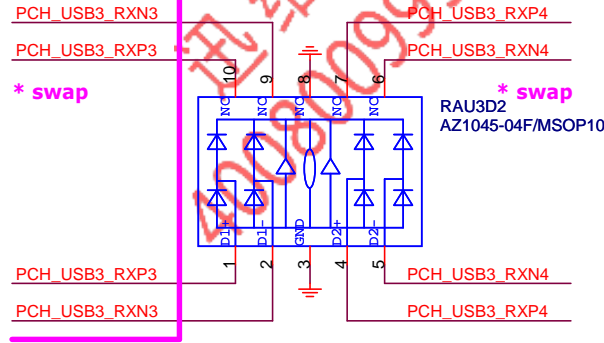
ESD 可自行SWAP PIN ,CONN端 NET 名稱 不可

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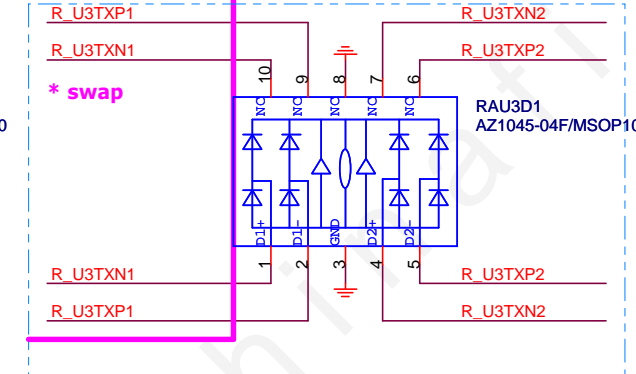


ESD

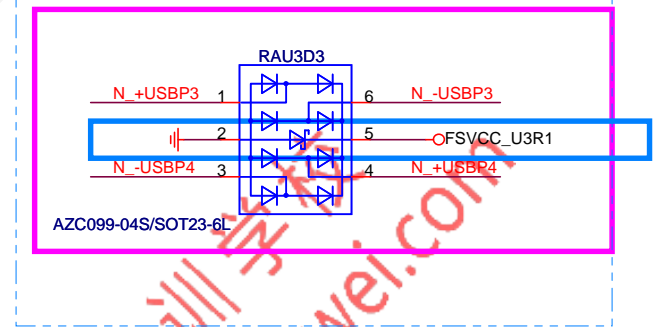
NET 可自行調整



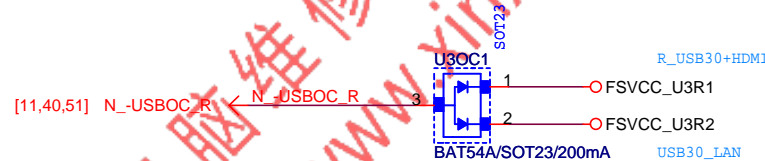
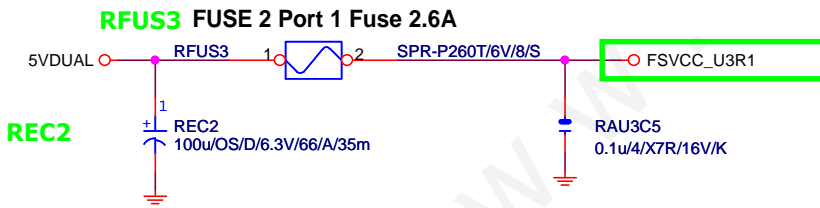
NET 可自行調整



NET 可自行調整

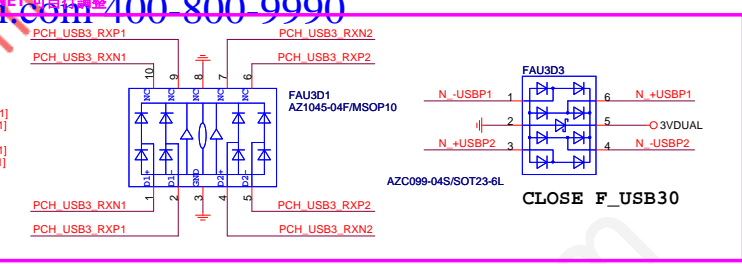
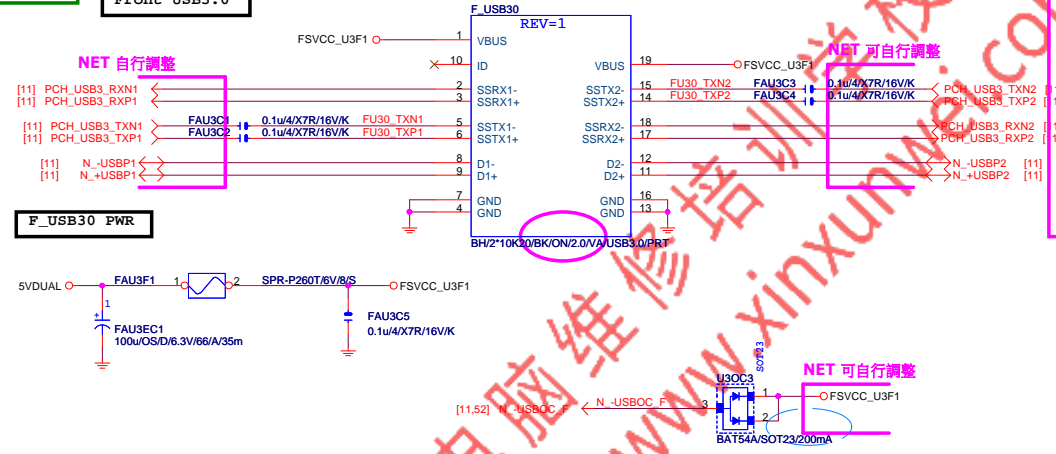


FUSE

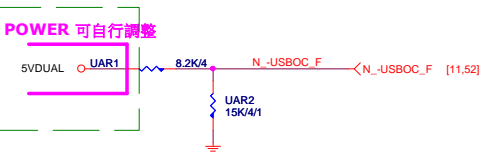


Gigabyte Technology			
Title			
R_USB30,USB_OC			
Size	Document Number	GA-B250-HD3	
Custom			Rev 1.0
Date:	Monday, December 19, 2016	Sheet	50 of 59

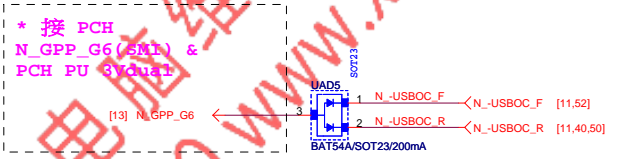
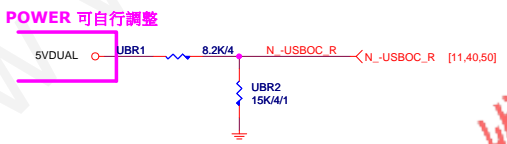
Front USB3.0



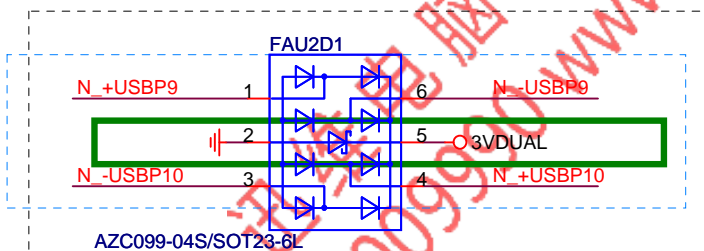
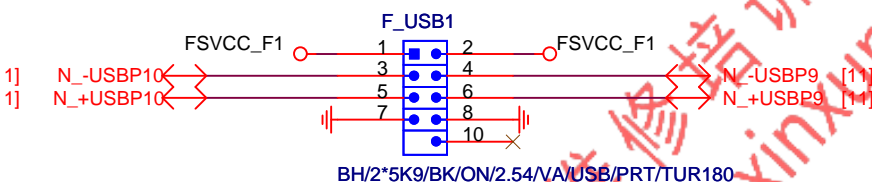
-USBOC_F



-USBOC_R

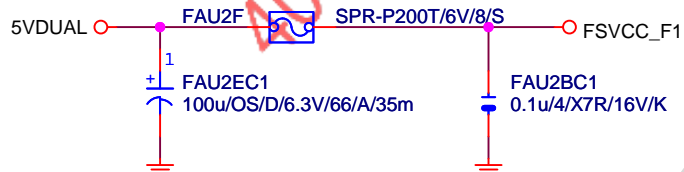


FUSB2X5-HS



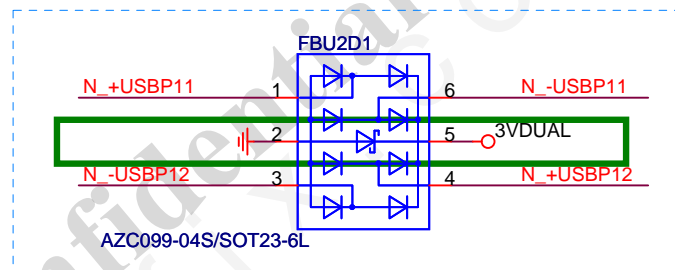
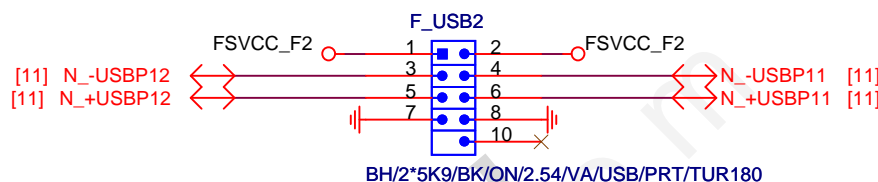
Close to connector

FUSE 2 Port 1 Fuse 2A



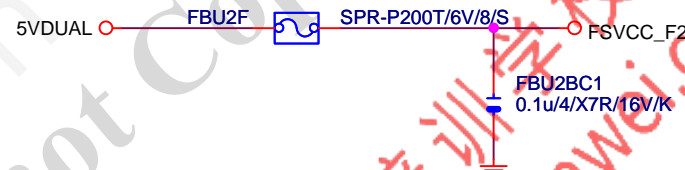
F_USB 2.0 OC SIGNAL

FUSB2X5-HS

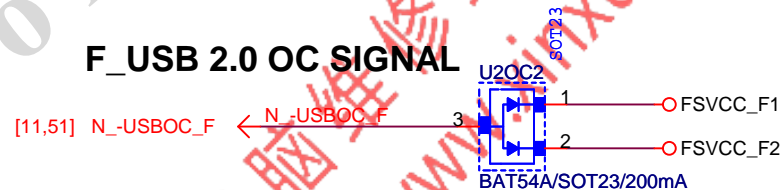


Close to connector

FUSE 2 Port 1 Fuse 2A



F_USB 2.0 OC SIGNAL



Gigabyte Technology

Title

USB2.0

Size
A

Document Number

GA-B250-HD3

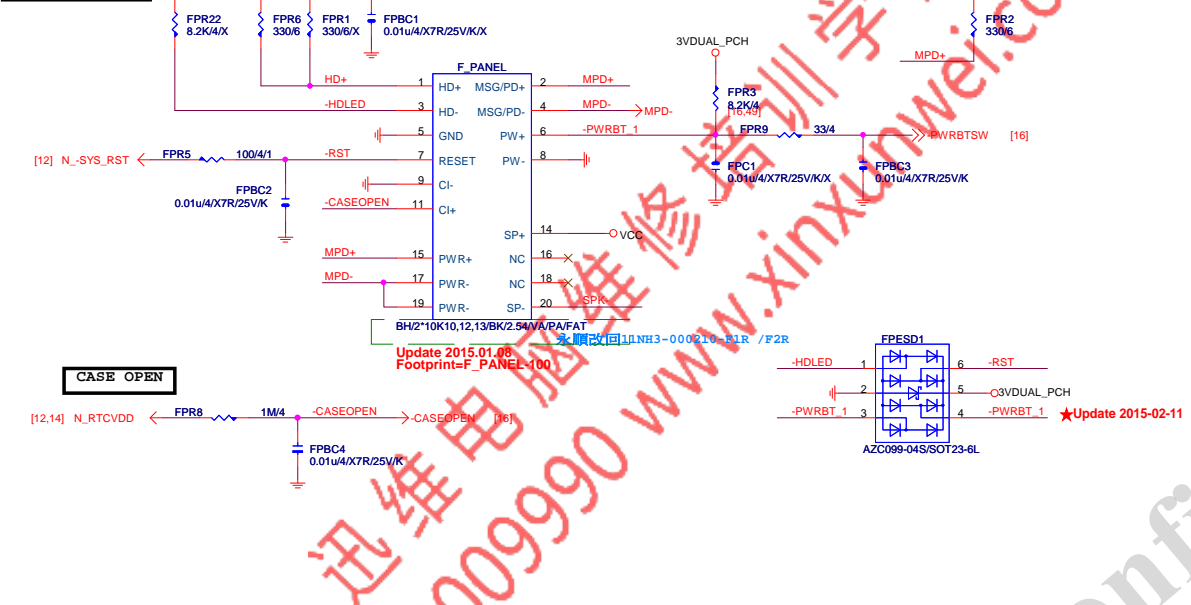
Rev
1.0

Date: Monday, December 19, 2016

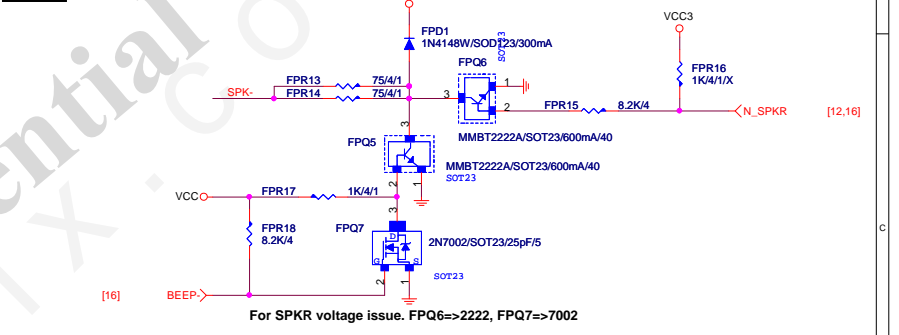
Sheet 52 of 59



FRONT PANEL



SPKR



FRONT PANEL SHORT



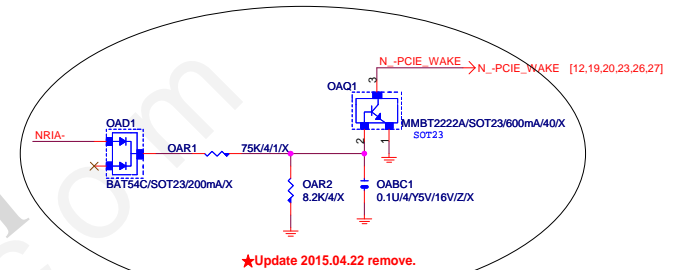
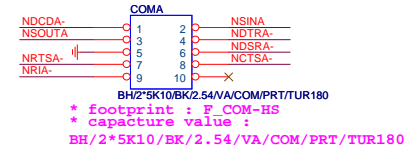
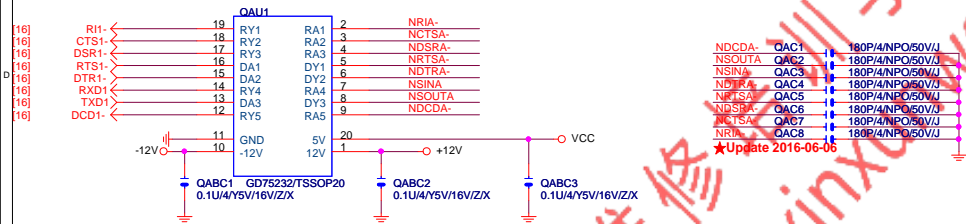
Gigabyte Technology			
Title			
FRONT PANEL			
Size	Document Number	GA-B250-HD3	Rev 1.0
Custom			
Date:	Monday, December 19, 2016	Sheet 53	of 59

COM PORT

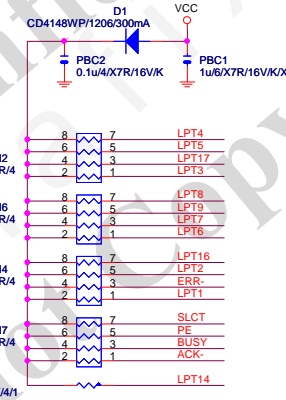
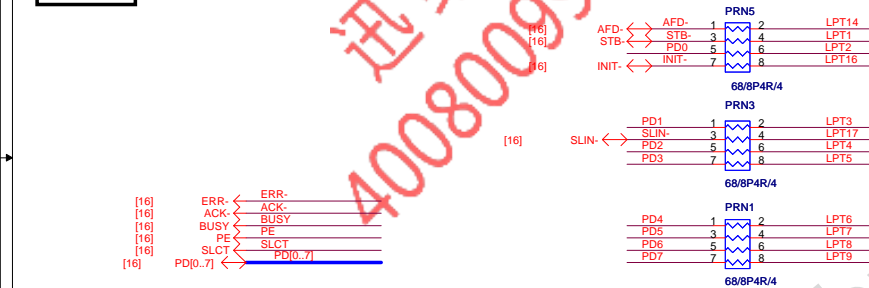
Rev: 0.81

COM RT N/A

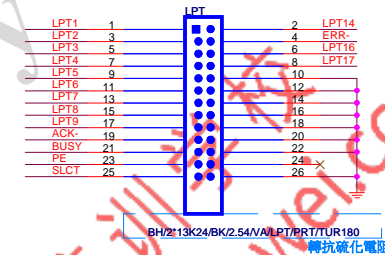
COMA



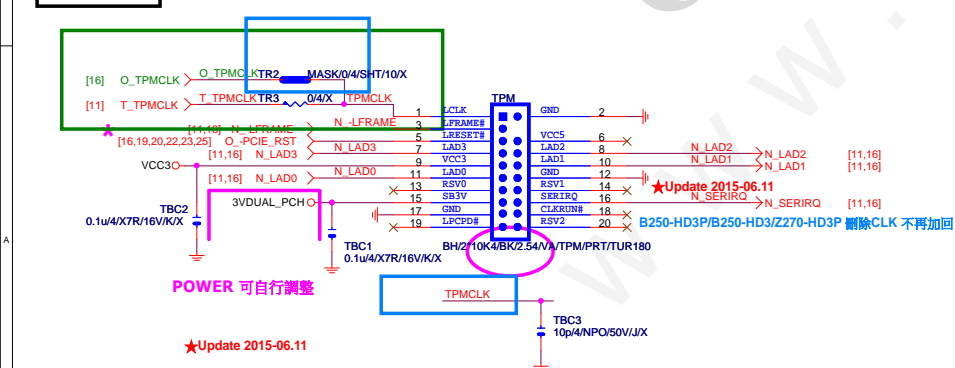
LPT PORT



R&D技術通報151 有使用PRINT PORT的
MODEL，需使用新料號：10HP2-118728-72R。(CHIP IT8728F/EX (GB) ITE/SMD
QFP128 PRINTPORT SORTING)料件。串電阻33 ohm改為68 ohm。



TPM CONNECT



Thunderbolt

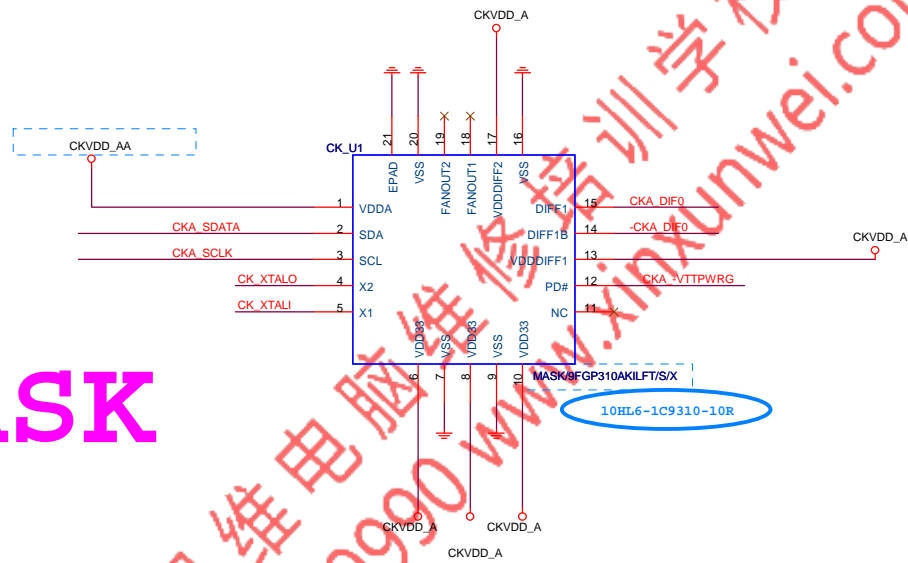
★Update 2015-12-29

Thunderbolt pin header移除

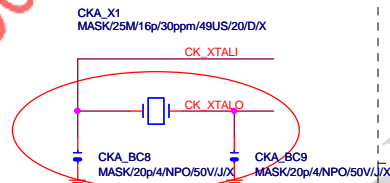
Gigabyte Technology

Title			FP,F_USB,USB PWR,BZ
Document Number			GA-B250-HD3
Rev			1.0
Date	Monday, December 19, 2016	Sheet	54 of 59

IDT9FGP310



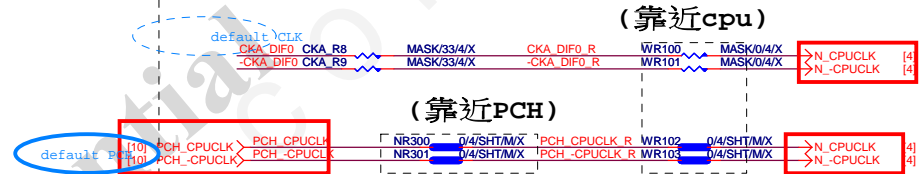
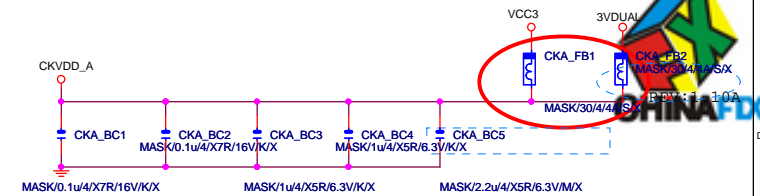
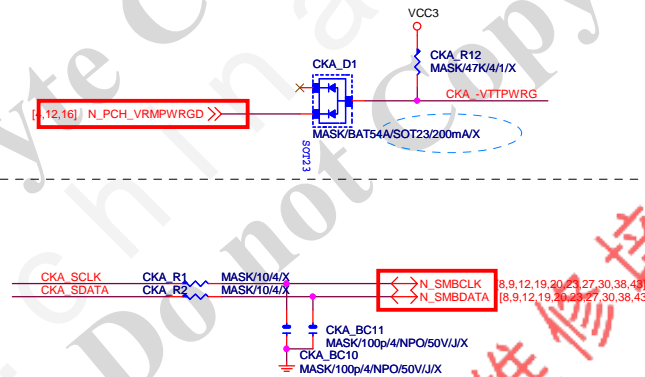
MASK



删除CK_HS

*可變，依需求上件不上件。

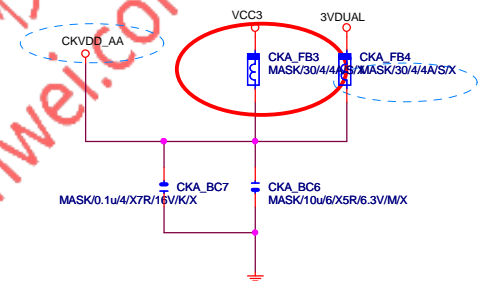
SMBUS



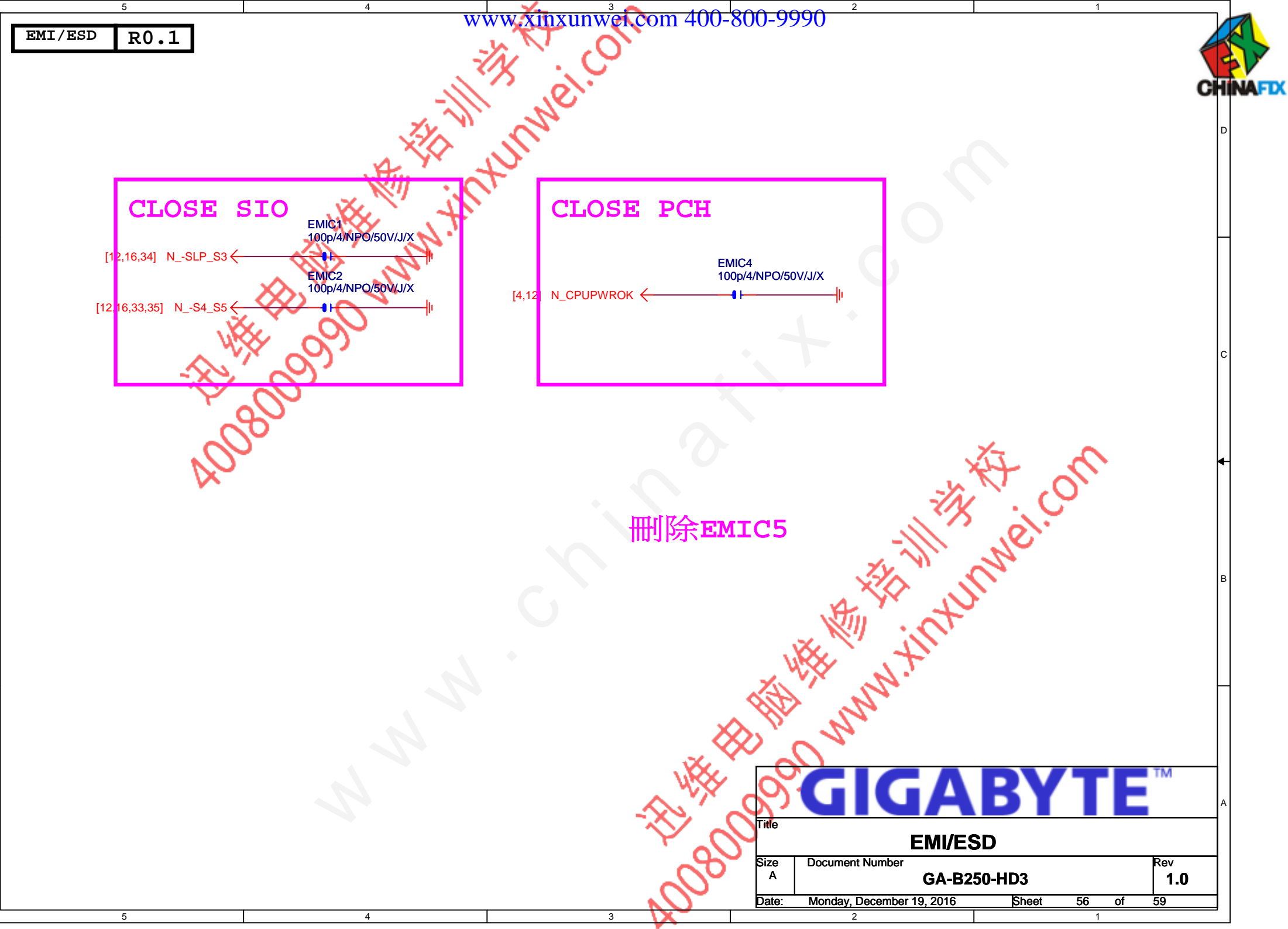
Reserve CLK Buffer

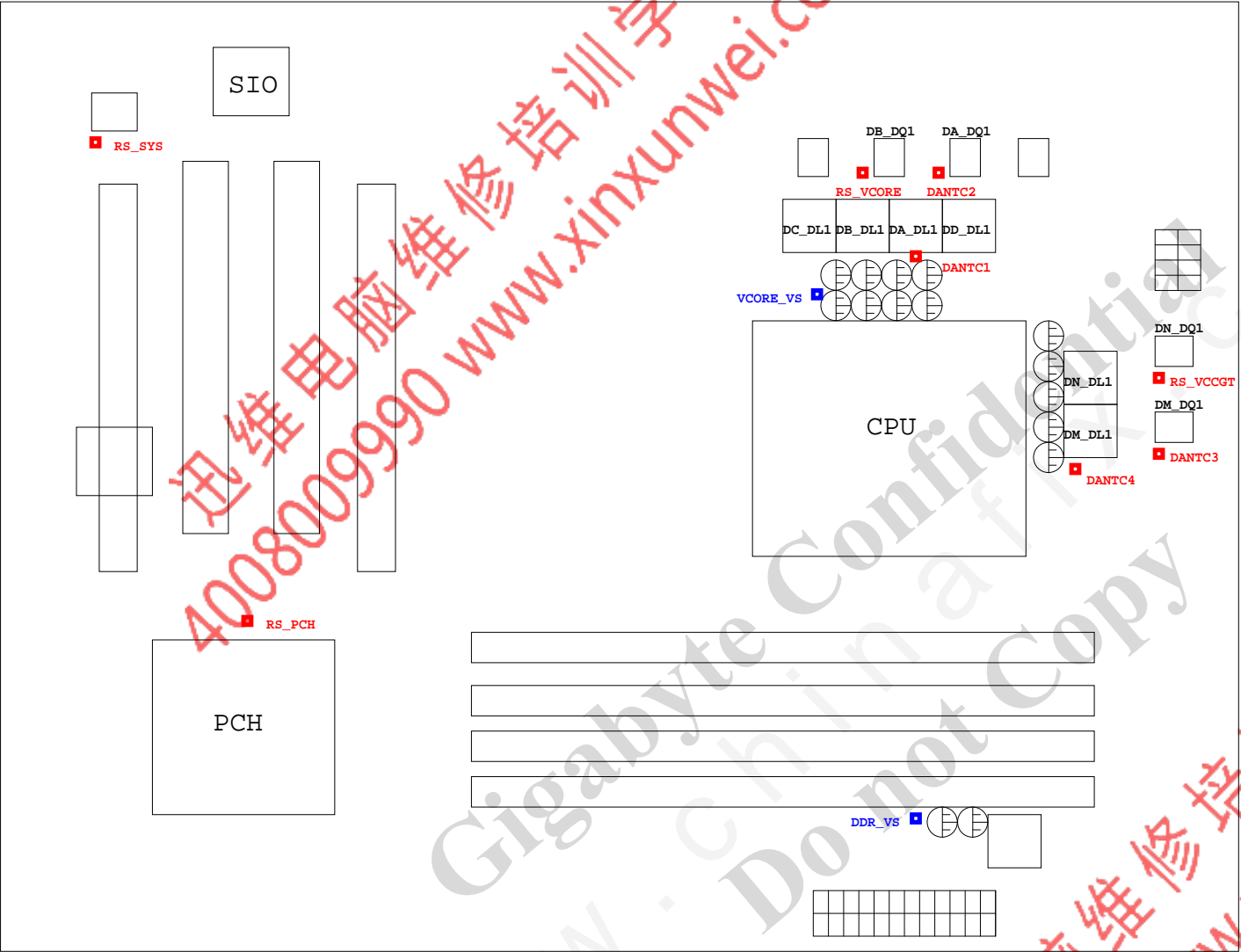
OPTION .
For PCH:NR300,NR301,WR102,WR103.
For CLK:CKA_R8,CKA_R9,WR100,WR101,CKA_D1,CKA_FB2,CKA_FB4

- REV0.2 1.Add CKA_FB3、CKA_FB4、CKA_BC6、CKA_BC7
2.Change CK_U1 PIN1 to CKVDD_AA
3.Change CKA_BC5 to 2.2u/4/X5R/6.3V/M
4.Change CK_U1 Capture Value to 9FGP320AKILFT/VFQFPN20



GIGABYTE™			
Title			
9FGP320AKILFT CLK BUFFER			
Size	Document Number	Rev	
Custom	GA-B250-HD3	1.0	
Date:	Monday, December 19, 2016	Sheet	55 of 59



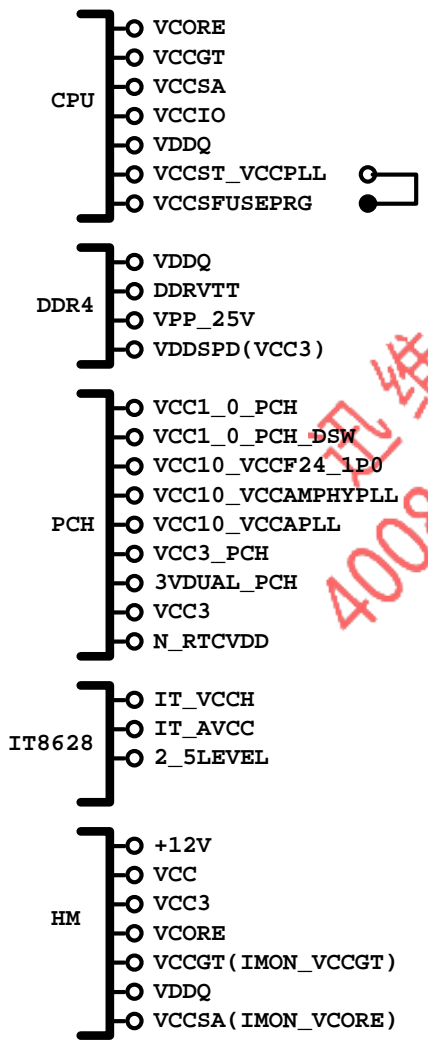


熱敏電阻	擺放靠近位置	走線方式
DANTC1	DA_DL1	N/A
DANTC2	DA_DQ1	Differential
DANTC3	DM_DQ1	N/A
DANTC4	DM_DL1	Differential
RS_VCORE	DB_DQ1	N/A
RS_VCCGT	DN_DQ1	N/A
RS_PCH	PCH	N/A
RS_SYS	CU1	N/A

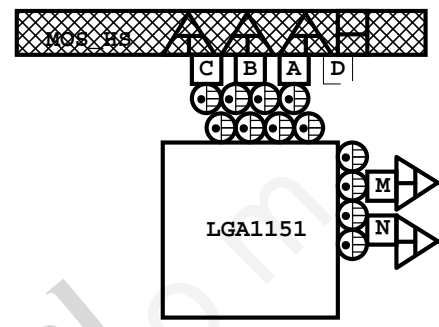
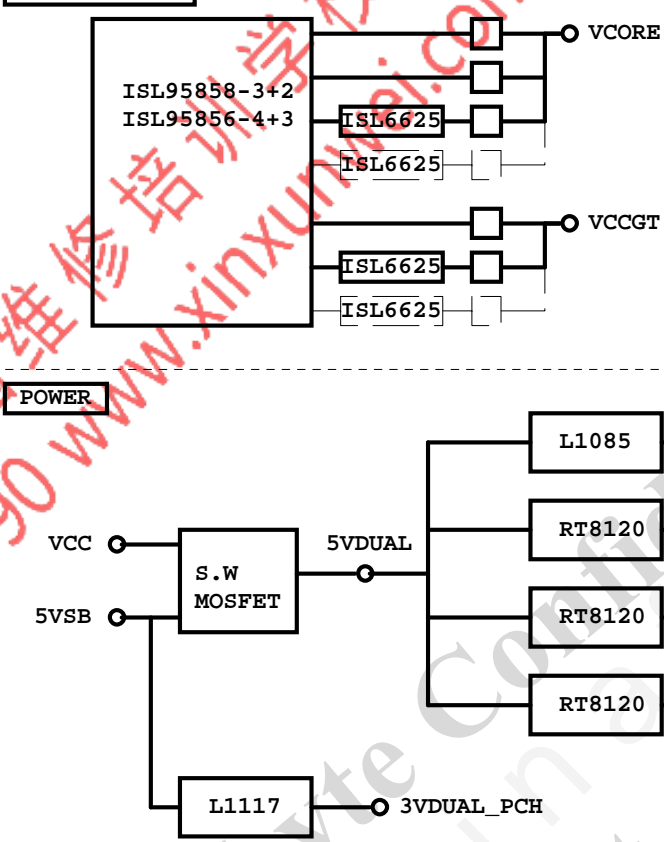
POWER BLOCK MAP

VCORE/VCCGT

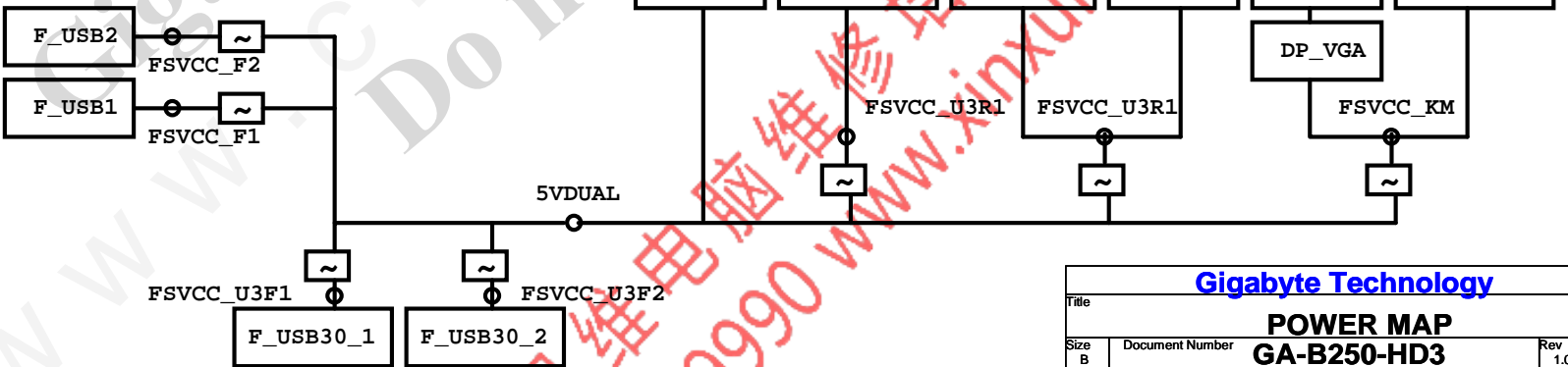
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POWER



FUSE POWER F/R



Gigabyte Technology			
Title			
POWER MAP			
Size	Document Number	Rev	
B	GA-B250-HD3	1.0	
Date:	Monday, December 19, 2016	Sheet	58 of 59