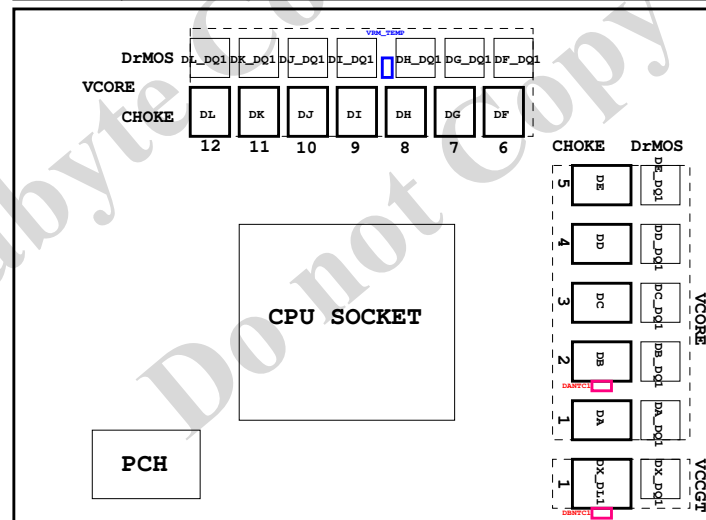


Model Name: B560M AORUS ELITE

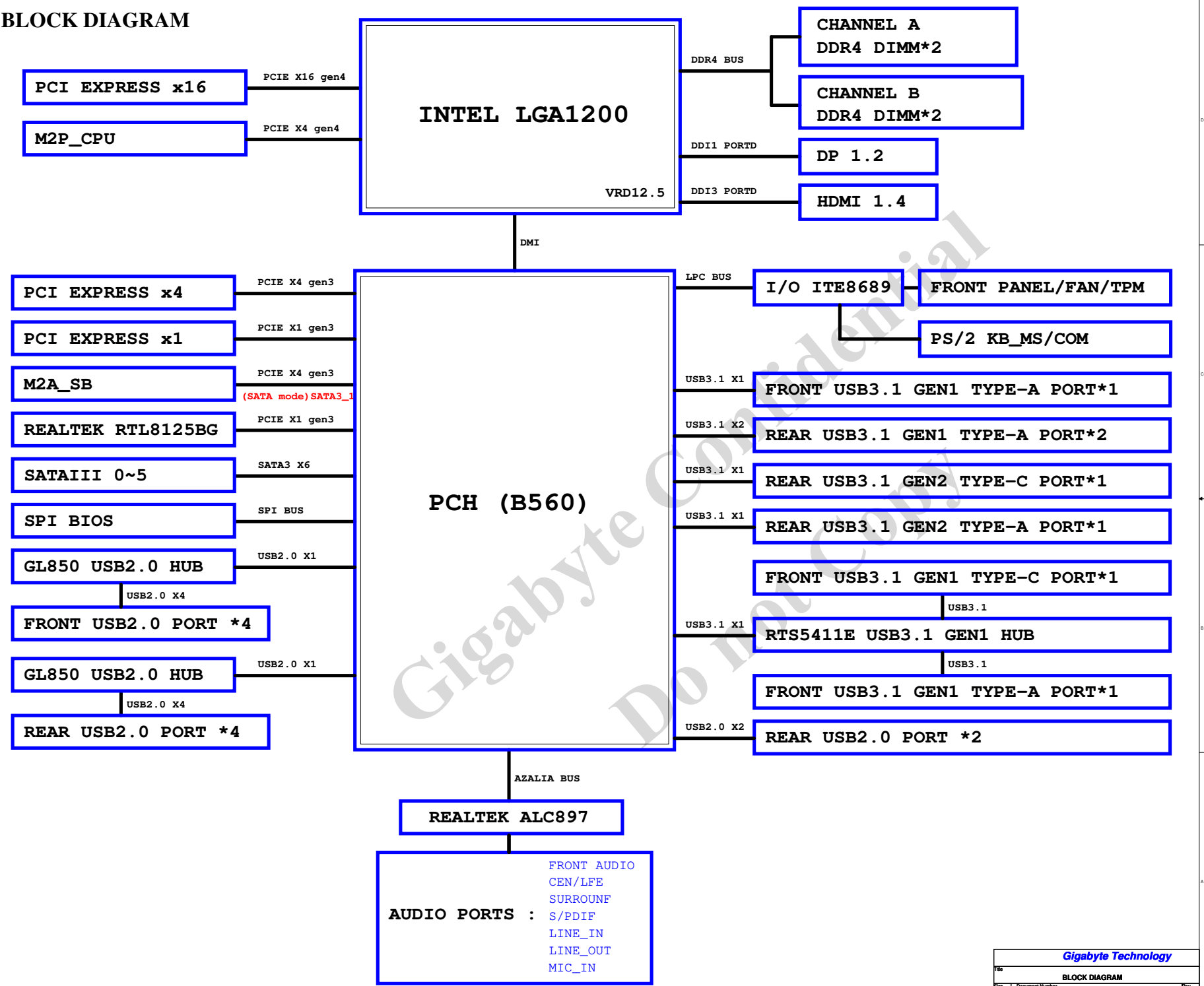
SHEET TITLE Rev 1.01

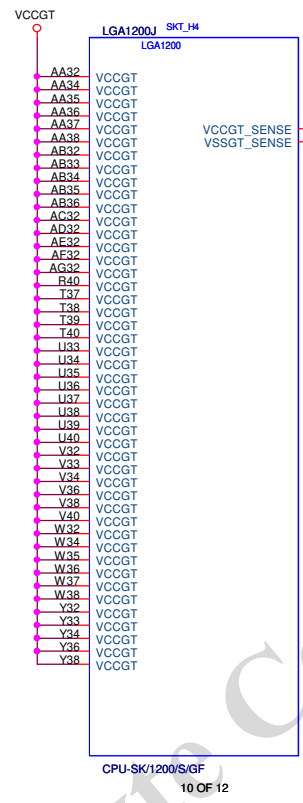
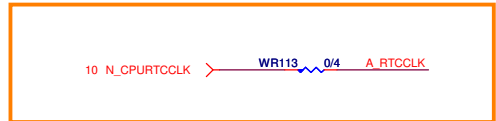
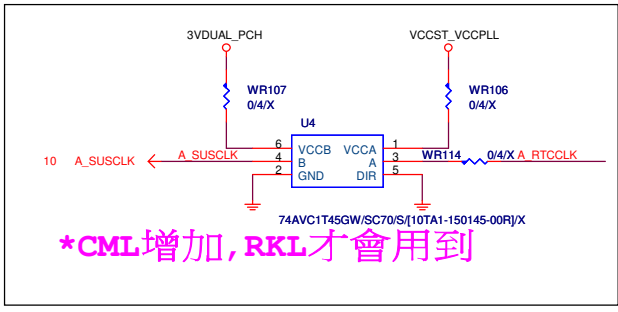
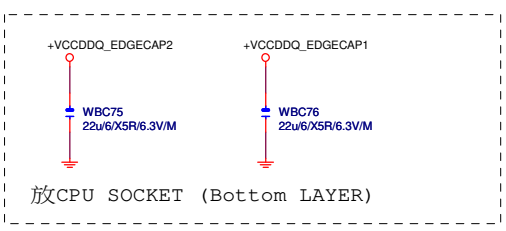
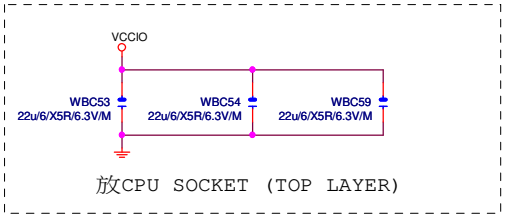
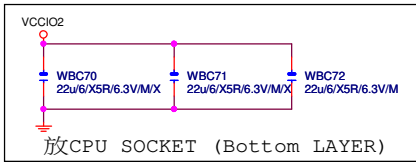
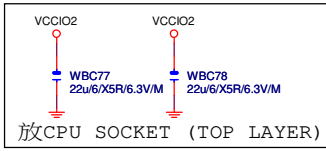
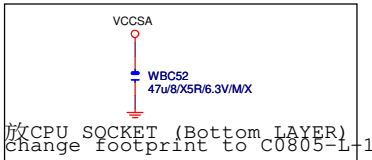
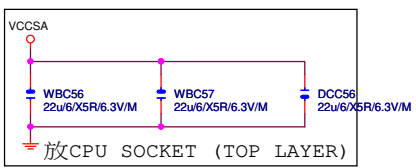
01	COVER SHEET
02	BOM & PCB MODIFY HISTORY
03	BLOCK DIAGRAM
04	CPU_LGA1200-A (RKL_R0.1)
05	CPU_LGA1200-B-DDR4 (RKL_R0.1)
06	CPU_LGA1200-C (RKL_R0.1)
07	CPU_LGA1200-D (RKL_R0.1)
08	DDR 4 CHANNEL A (CML_R0.1)
09	DDR 4 CHANNEL B (CML_R0.1)
10	PCH CLK,DMI,CNVI (RKL_R0.1)
11	PCH SPI,USB (RKL_R0.1)
12	PCH PCIE,SATA (RKL_R0.1)
13	PCH ESPI,MISC (RKL_R0.1)
14	PCH GPP,HDA (RKL_R0.1)
15	PCH PWR,GND (RKL_R0.1)
16	Heatsink
17	ITE ITE8689 (RKL_R0.1)
18	HWM (RKL_R0.1)
19	FAN CTRL-CFL-SIO_5 FAN (RKL_R0.1)
20	Single BIOS for CS mode (RKL_R0.1)
21	PCI EXPRESS X16 SLOT (REV0.3)
22	PCI EXPRESS X4 SLOT(PCH) (REV0.51)
23	PCI EXPRESS X1 (REV0.51)
24	SATA
25	M.2 x4 (A)_SB (RKL_R0.1)
26	(RKL_R0.1)
27	POSCAP_0+0_H570_Q570 (RKL_R0.1)
28	M.2 x4 (P)_CPU (RKL_R0.1)
29	COM,LPT,TPM, THB (CML_R0.94)
30	ISL69269_L=0.15u (RKL_R0.1)
31	RAA229001_L=0.15u (RKL_R0.1)
32	VCORE_PSTAGE-1_L=0.15u (RKL_R0.1)
33	VCORE_PSTAGE-2_L=0.15u (RKL_R0.1)
34	VCORE_PSTAGE-3_L=0.15u (RKL_R0.1)
35	VCCGT_PSTAGE_L=0.15u (RKL_R0.1)
36	VCCSA_MOS (RKL_R0.1)
37	VCCIO-Ferrite-Z系列 (RKL_R0.1)
38	VCCIO2-Ferrite-Z系列 (RKL_R0.1)
39	RT8237_DDR_B560 (RKL_R0.1)
40	RT8068A_VPP_B560
41	NCP81269_VCC18_PCH
42	RT8068_VCC1V8_PRIM
43	DISCRETE POWER (REV0.1)
44	ATX POWER , A_-PROCHOT
45	GL850S_1_Rear USB20 X4 (CML_R0.94)
46	CNVi_M2_WIFI (CML_R0.94)
47	HDMI / DP (RKL_R0.1)
48	U32G2 (RKL_R0.1)
49	(RKL_R0.1)

SHEET	TITLE
50	GL850S_2_Fornt USB20 X4 (CML_R0.94)
51	ITE5201_G_Type-C (RKL_R0.1)
52	RTS5411 4port Hub (Chip) (RKL_R0.1)
53	Front Type-C (CML_R0.94)
54	F_U32 (CML_R0.94)
55	KB_MS_USB (CML_R0.94)
56	Redriver_A_Type-A (RKL_R0.1)
57	REALTEK RTL8125BS (CML_R0.3)
58	USB30_LAN CONNECTOR-8125 (CML_R0.3)
59	Realtek ALC897 (RKL_R0.6)
60	REAR AUDIO JACK (RKL_R0.6)
61	CPU POWER-1 (RKL_R0.1)
62	CPU POWER-1 (RKL_R0.1)
63	NCT3933
64	F_PANEL
65	IT5702 (RKL_R1.0)
66	PCH/AUDIO/DEBUG/C_LED1/2 (RKL_R1.0)
67	D_LED1/D_LED2
68	SMBUS SWITCH (RKL_R0.1)
69	(RKL_R0.1)
70	EMI-ESD
71	POWER MAP
72	NTC MAP



BLOCK DIAGRAM

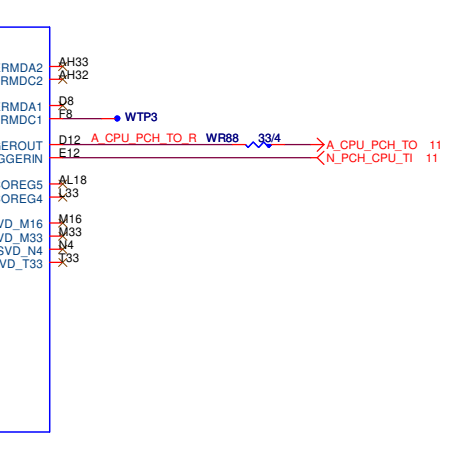
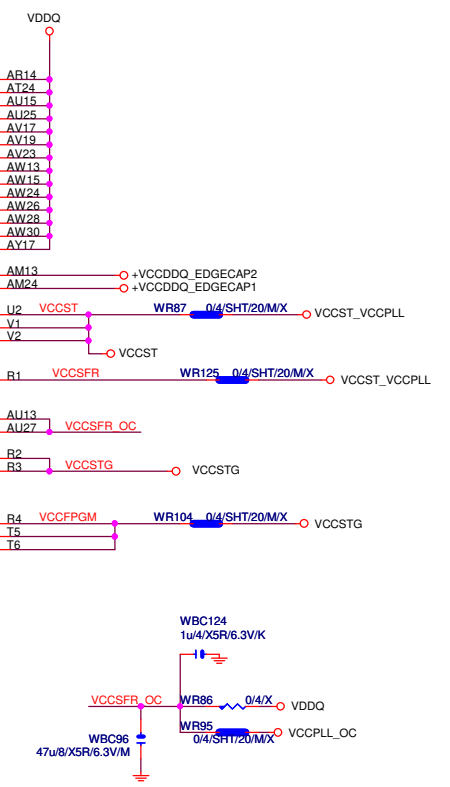
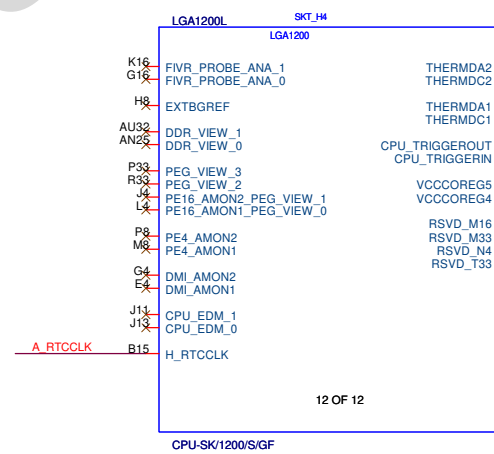
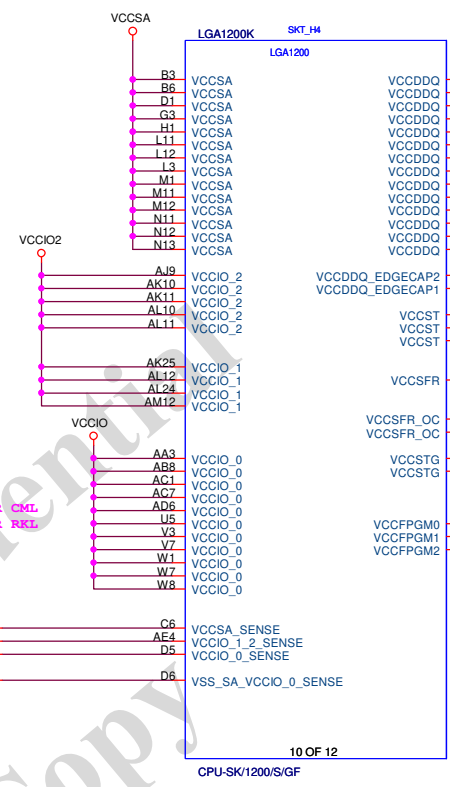


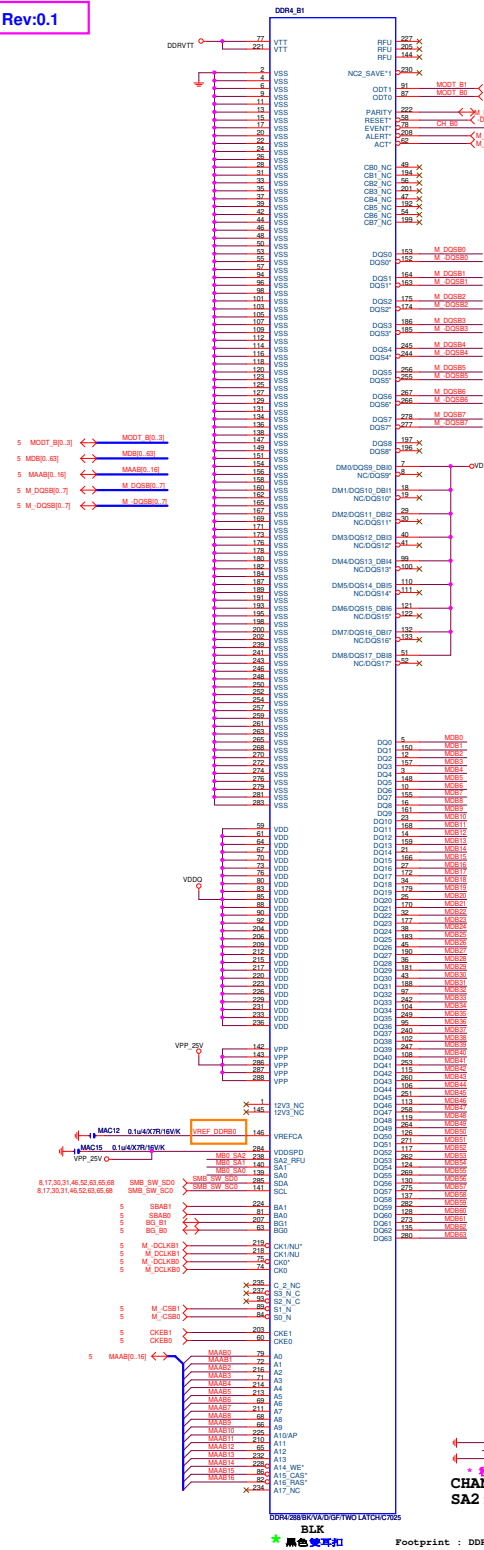


VCCIO_1_2
VOUT = 0.95V
IOUT = 9.5A

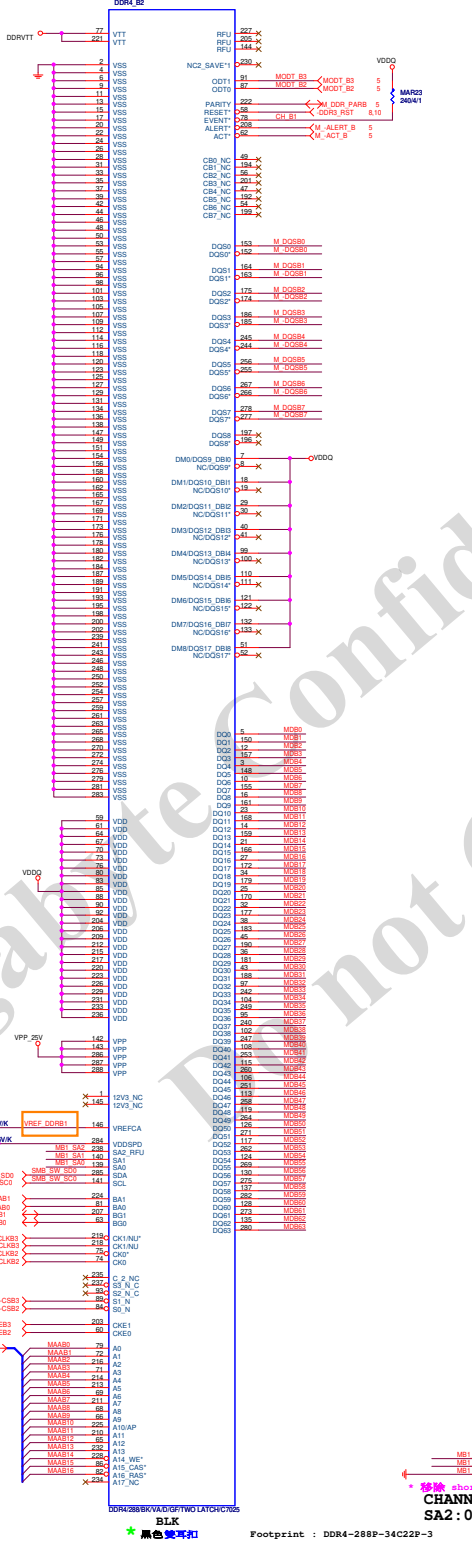
VCCIO_0
VOUT = 0.95V FOR CML
VOUT = 1.05V FOR RKL
IOUT = 8A

31 VCCSA_SENSE
38 VCCIO2_SENSE
37 VCCIO_SENSE
31,37 VSSSA_VIO_SENSE

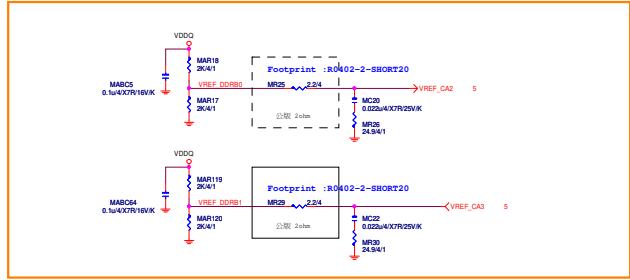




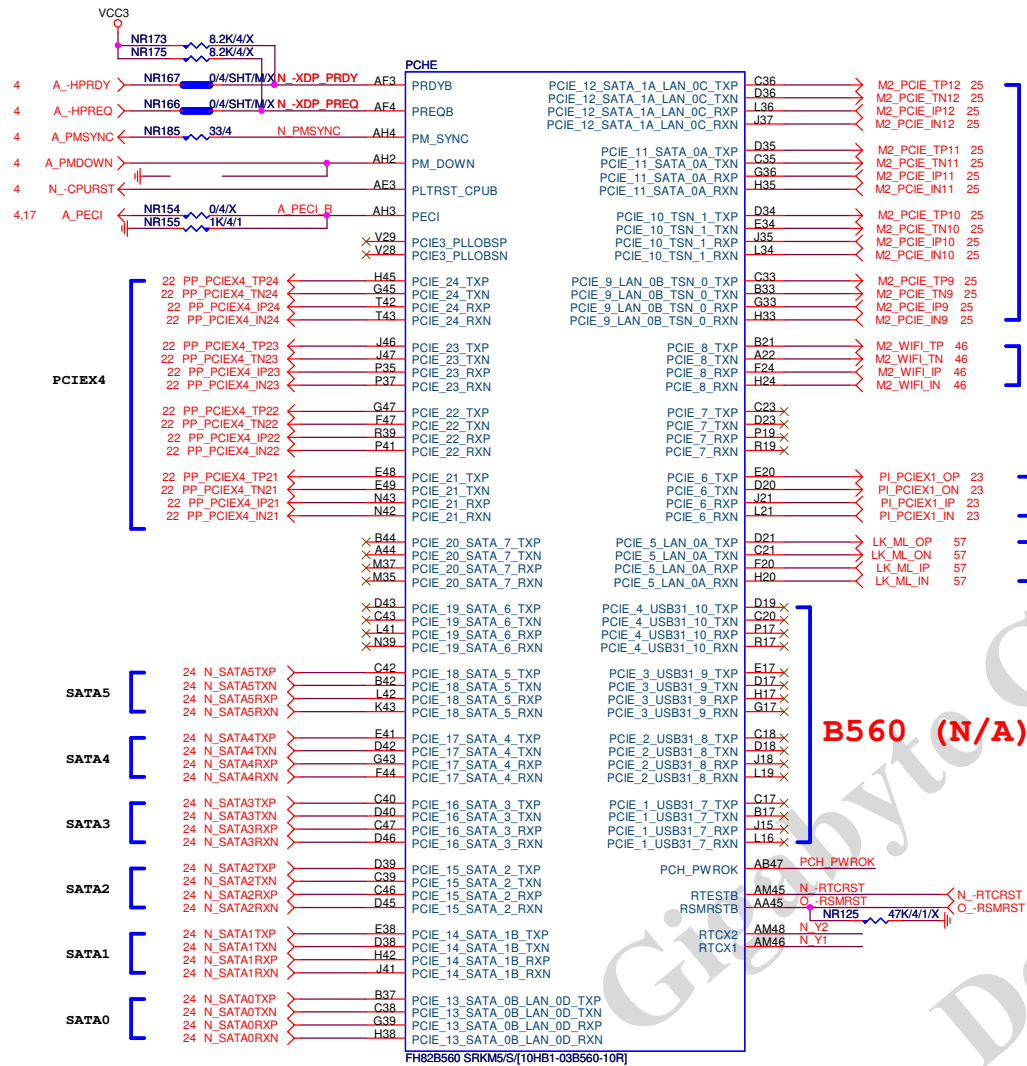
✱ 移除 short pad
CHANNEL B0
SA2:0=010



✱ 移除 short pad
CHANNEL B1
SA2:0=011



RKL_TGP_PCH-H R0.1



M2A_SB

Hybrid CNVi

PCIEX1_1

LAN_RTL8125

B560 (N/A)

Intel 500 series PCH PCIE P5-P12							
ITEM	PCIE P5	PCIE P6	PCIE P7	PCIE P8	PCIE P9	PCIE P10	PCIE P11
H510	PCIE /Gbe	PCIE	PCIE	PCIE	Gbe ONLY	N/A	PCIE
B560	PCIE /Gbe	PCIE	PCIE	PCIE	PCIE /Gbe	PCIE SATA_0'	PCIE SATA_1' Gbe
H570	PCIE /Gbe	PCIE	PCIE	PCIE	PCIE /Gbe	PCIE SATA_0'	PCIE SATA_1' Gbe
Z590	PCIE /Gbe	PCIE	PCIE	PCIE	PCIE /Gbe	PCIE SATA_0'	PCIE SATA_1' Gbe
Q570	PCIE /Gbe	PCIE	PCIE	PCIE	PCIE /Gbe	PCIE SATA_0'	PCIE SATA_1' Gbe
W580	PCIE /Gbe	PCIE	PCIE	PCIE	PCIE /Gbe	PCIE SATA_0'	PCIE SATA_1' Gbe

Intel 500 series PCH PCIE P13-P24											
ITEM	PCIE P13	PCIE P14	PCIE P15	PCIE P16	PCIE P17	PCIE P18	PCIE P19	PCIE P20	PCIE P21	PCIE P22	PCIE P23
H510	SATA_0 /Gbe	SATA_1	SATA_2	SATA_3	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B560	SATA_0 /Gbe	SATA_1	SATA_2	SATA_3	SATA_4	SATA_5	N/A	N/A	PCIE	PCIE	PCIE
H570	PCIE SATA_0 Gbe	PCIE SATA_1	PCIE SATA_2	PCIE SATA_3	PCIE SATA_4	PCIE SATA_5	PCIE	PCIE	PCIE	PCIE	PCIE
Z590	PCIE SATA_0 Gbe	PCIE SATA_1	PCIE SATA_2	PCIE SATA_3	PCIE SATA_4	PCIE SATA_5	PCIE	PCIE	PCIE	PCIE	PCIE
Q570	PCIE SATA_0 Gbe	PCIE SATA_1	PCIE SATA_2	PCIE SATA_3	PCIE SATA_4	PCIE SATA_5	PCIE	PCIE	PCIE	PCIE	PCIE
W580	PCIE SATA_0 Gbe	PCIE SATA_1	PCIE SATA_2	PCIE SATA_3	PCIE SATA_4	PCIE SATA_5	PCIE SATA_6	PCIE SATA_7	PCIE	PCIE	PCIE

RTC 32.768KHZ

DIP X'TAL

Del DIP NX1

OPTION

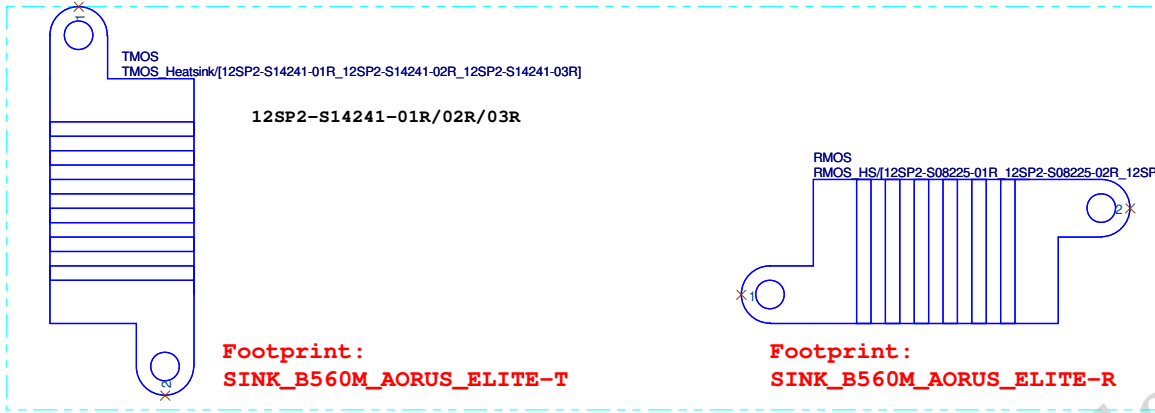
SMD X'TAL

(09/21)intel 500 note item 6

Intel 500 series PCH USB P7-P10				
ITEM	USB P7	USB P8	USB P9	USB P10
H510	NA	NA	NA	NA
B560	NA	NA	NA	NA
H570	U3.2 Gen1x1	U3.2 Gen1x1	PCIE	PCIE
Z590	U3.2 Gen2x1	U3.2 Gen2x1	U3.2 Gen2x1	U3.2 Gen2x1
Q570	U3.2 Gen2x1	U3.2 Gen2x1	U3.2 Gen1x1	U3.2 Gen1x1
W580	U3.2 Gen2x1	U3.2 Gen2x1	U3.2 Gen2x1	U3.2 Gen2x1

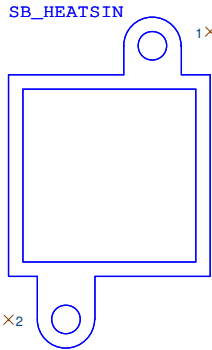
裝甲HEATSINK 分成四大部份

MOS_HS



PCH_HS

Location: PCH_HS 12SP2-S04207-J2R/J4R

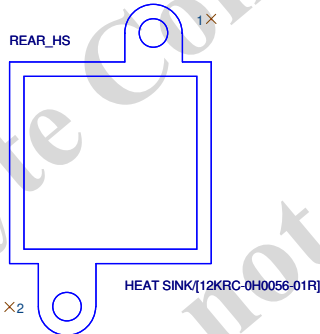


PCH_HS
PCH_HS[12SP2-S04207-M1R_12SP2-S04207-M2R_12SP2-S04207-M3R]

FOOTPRINTS :
sink_b550m_aorus_pro_pch

裝甲

Location: REAR_HS 12KRC-0H0044-01R

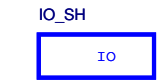


HEAT SINK[12KRC-0H0056-01R]

Footprint :
Z590_AORUS_ELITE_AX_IO_COVER

後窗鐵片

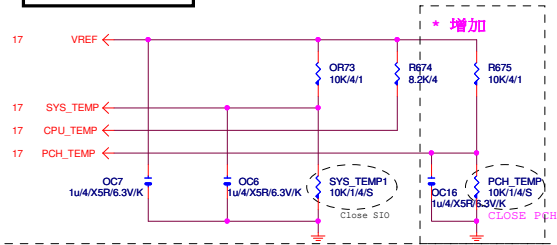
Location: IO_SH 11AIO-0C0015-22R



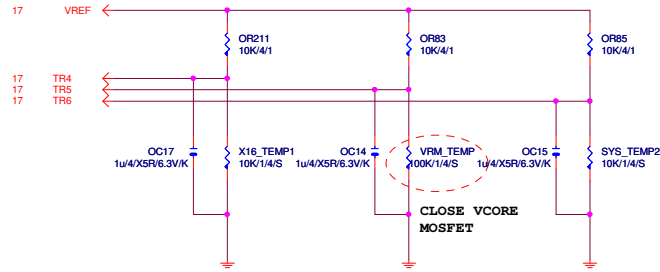
IO[11AIO-0C0062-02R]

- * PCB顏色 : 咖啡黑
- * 文字面 : 灰色
- * 疊構 : E
- * 圖騰: ID設計Z590版GIGABYTE GAMING

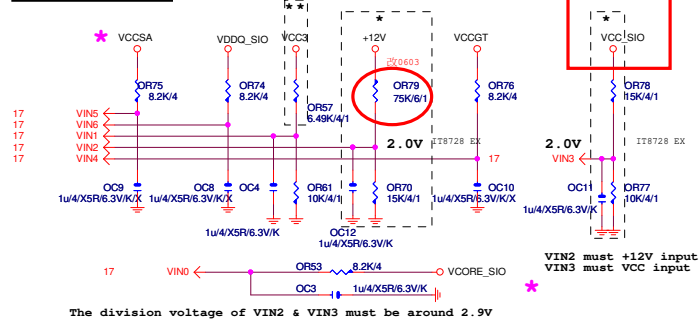
TEMP H/W MONITOR



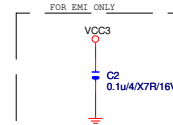
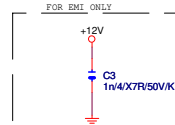
5個FAN時使用



VOLTAGE-- H/W MONITOR



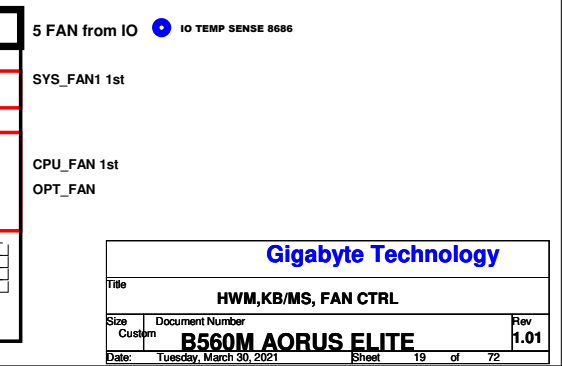
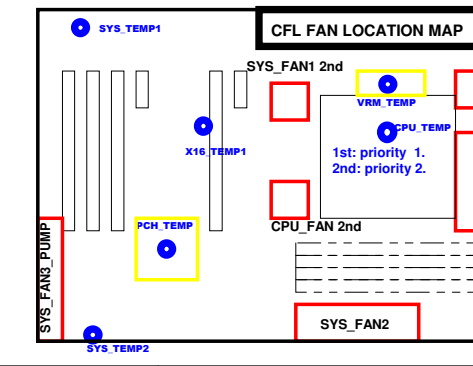
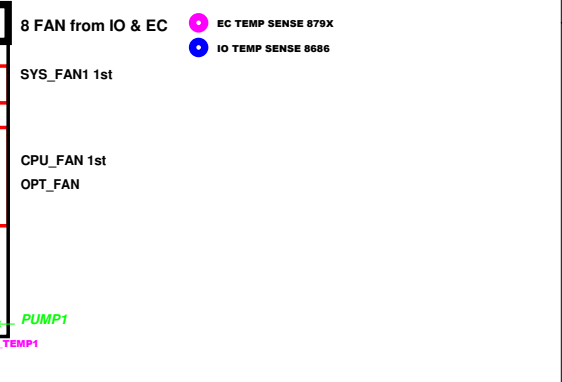
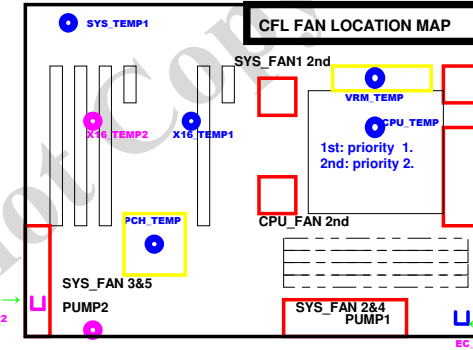
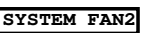
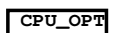
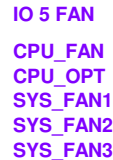
(靠近ATX CONNECTOR)



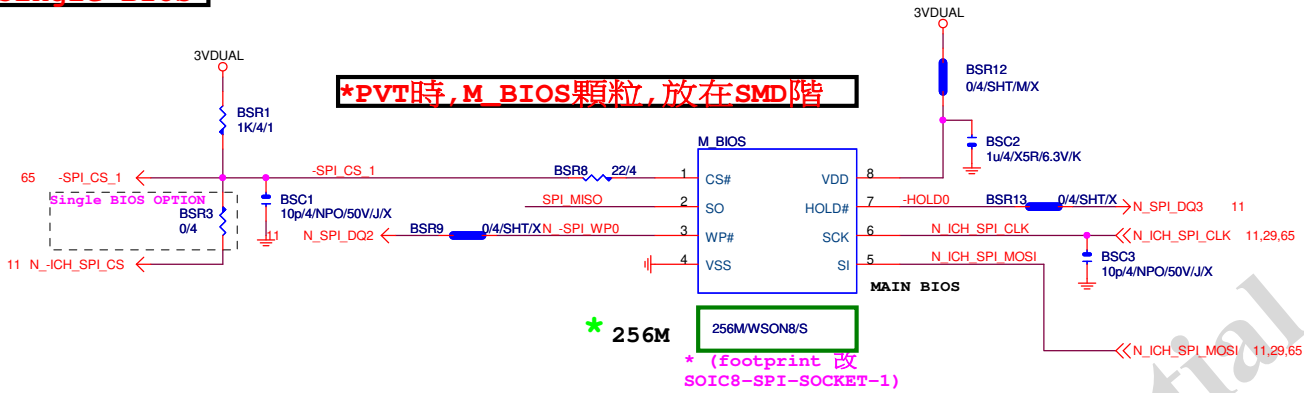
★Update 2015-04.24

Gigabyte Technology

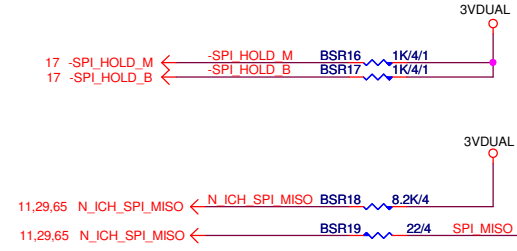
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Size	Document Number	Rev	
Custom	B560M AORUS ELITE	1.01	
Date:	Tuesday, March 30, 2021	Sheet	18 of 72



DUAL BIOS *Single BIOS

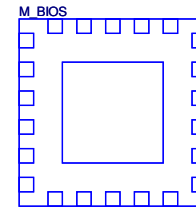


MOSI For DMI RX Termination Voltage



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

1 means floating
0 means PD 1K



LCP/G-FL/1.27mm/200MIL/WHITE[10SL2-000008-71R]/X

* 試產先上, PVT 移除

Gigabyte Technology

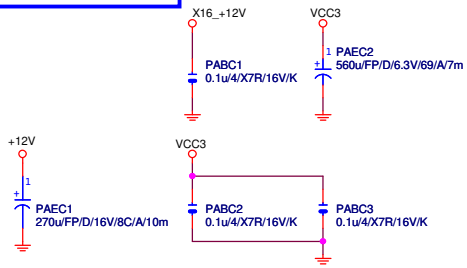
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Size	Document Number	Rev	1.01
Custom	B560M AORUS ELITE		
Date:	Tuesday, March 30, 2021	Sheet	20 of 72

Rev 0.3

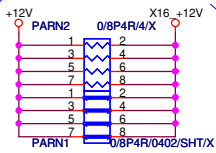
PCIEX16 CAP

PCIEX16 SLOT

PCIESLOT-1645TH



PCIEX16 PROTECT SHT

+12 protect
short-wire test

PCIEX16 AC CAP

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

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

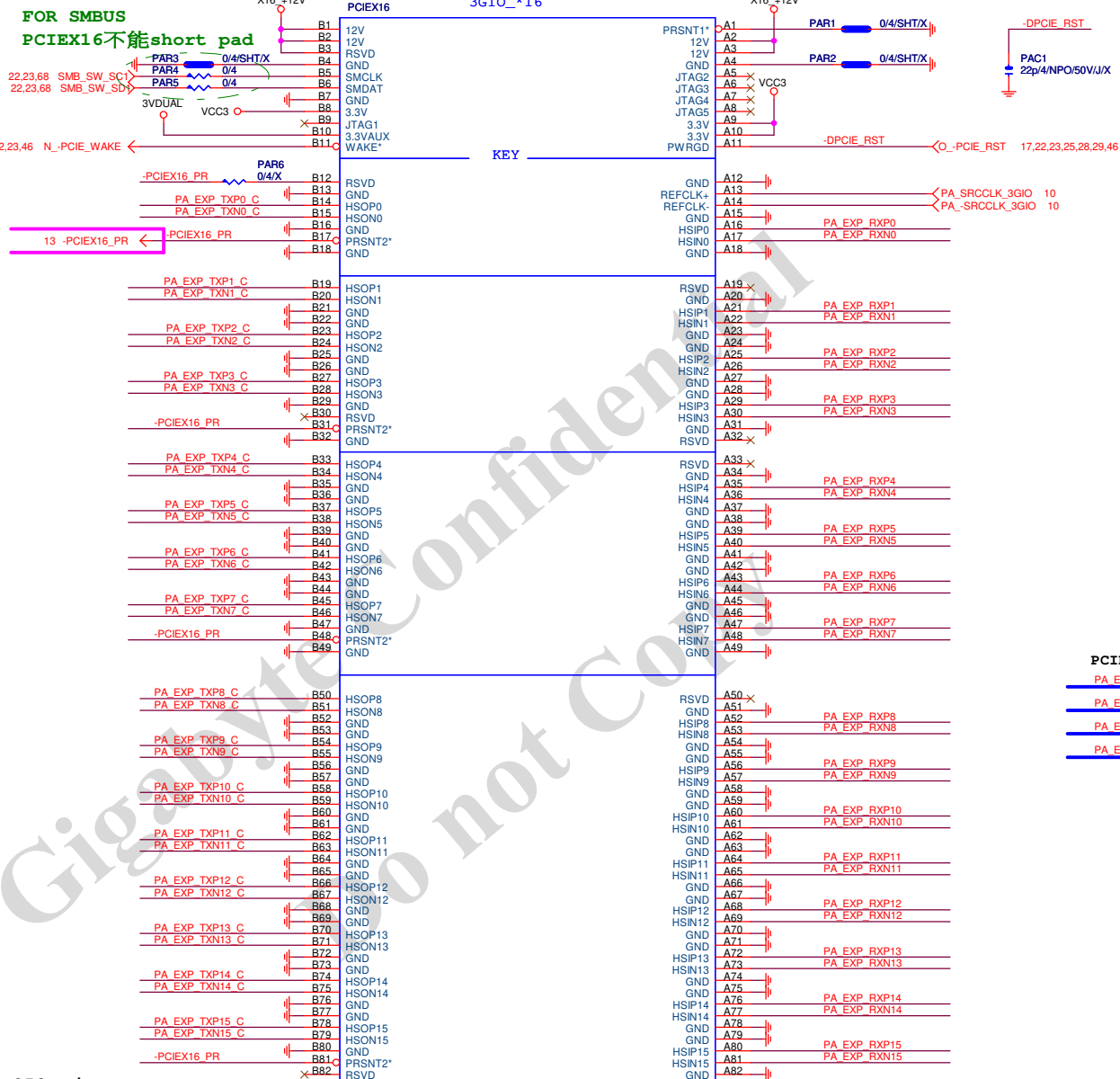
PCE-E X16(雙向) BANDWIDTH=2.5GHz*(8b/10b) X16X2=64Gb/s=8GB/s

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



PCI-E16X-164P/BK/LONG DOUBLE/HK2/SHELL/GEN4.0

黑色 金屬加強

PCIEX16:16/5/5/5/16

PA EXP RXP0..15] >>> PA_EXP_RXP0..15] 4
PA EXP RXN0..15] >>> PA_EXP_RXN0..15] 4
PA EXP TXP0..15] >>> PA_EXP_TXP0..15] 4
PA EXP TXN0..15] >>> PA_EXP_TXN0..15] 4

Gigabyte Technology

Title			PCI EXPRESS * 16
Size	Document Number	Rev	1.01
Custom	B560M AORUS ELITE		
Date:	Tuesday, March 30, 2021	Sheet	21 of 72

Rev 0.51

PCIE*4



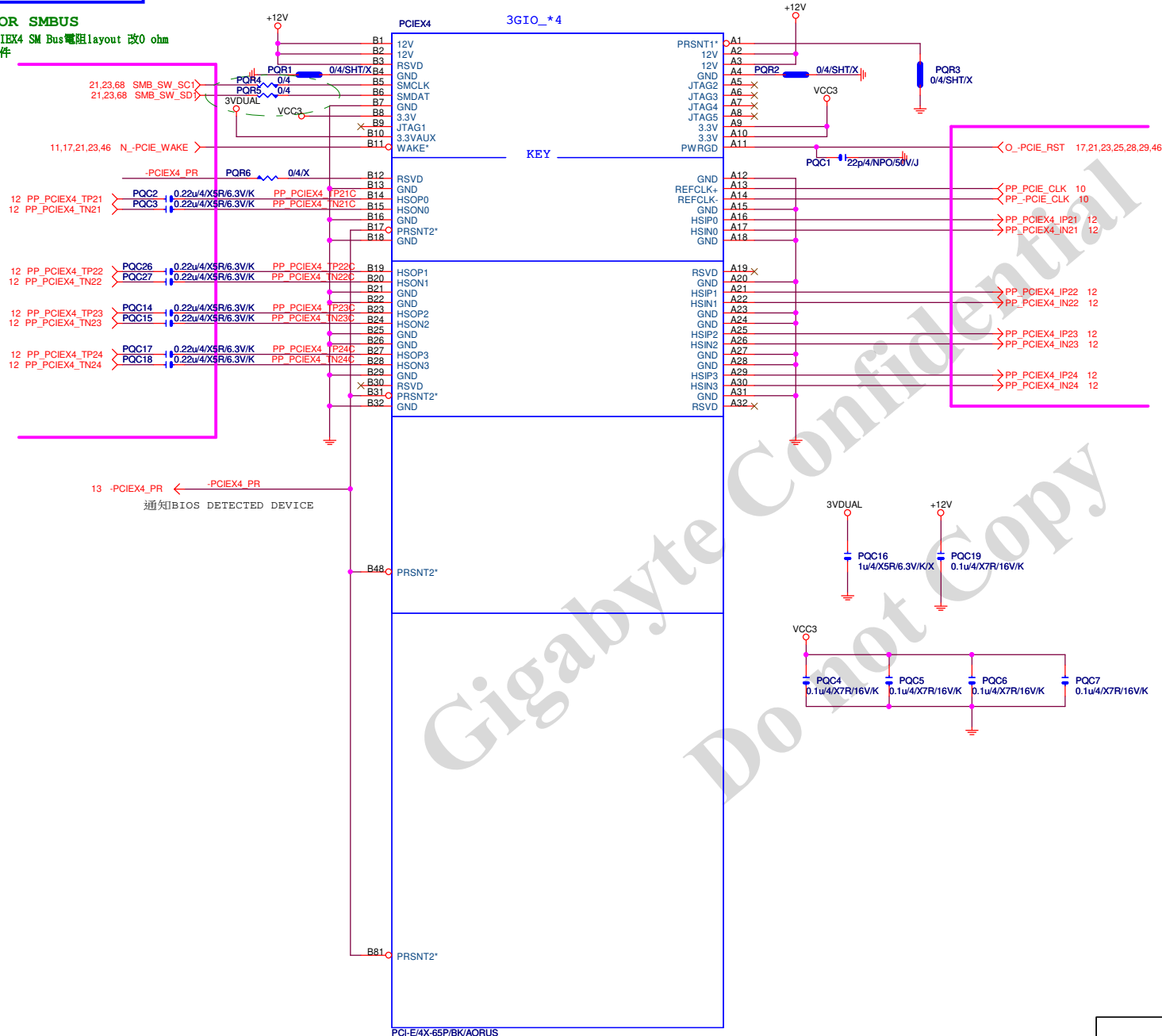
Footprint "PCIESLOT-64P-1"

FOR SMBUS

PCIE X4 SM Bus 电阻 layout 改 0 ohm

上件

*



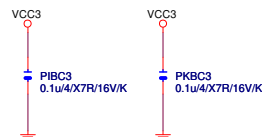
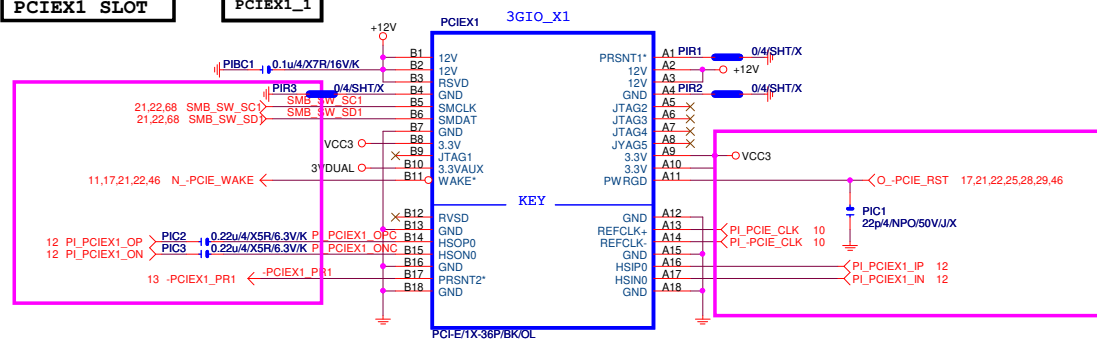
黑色

Gigabyte Technology			
Title			
PCIE X4			
Size	Document Number	Rev	
Custom	B560M AORUS ELITE	1.01	
Date:	Tuesday, March 30, 2021	Sheet	22 of 72

Rev 0.51

PCIEX1 SLOT

PCIEX1_1



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Title			
PCIE X1 *3			
Size	Document Number	Rev	
Custom	B560M AORUS ELITE	1.01	
Date:	Tuesday, March 30, 2021	Sheet	23 of 72

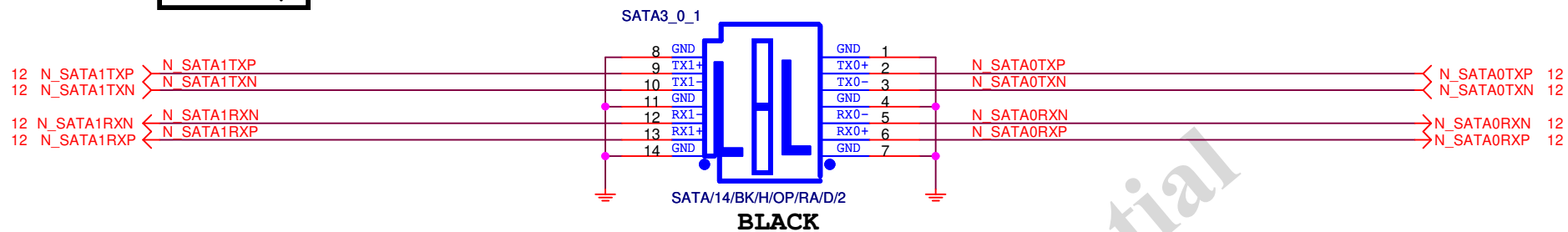
IO18/IO19 To SATA3 port0/1

6 SATA3 from Z490 (90度R-A)

SATA3 0/1

上 Port (8~14)

下 Port (1~7)

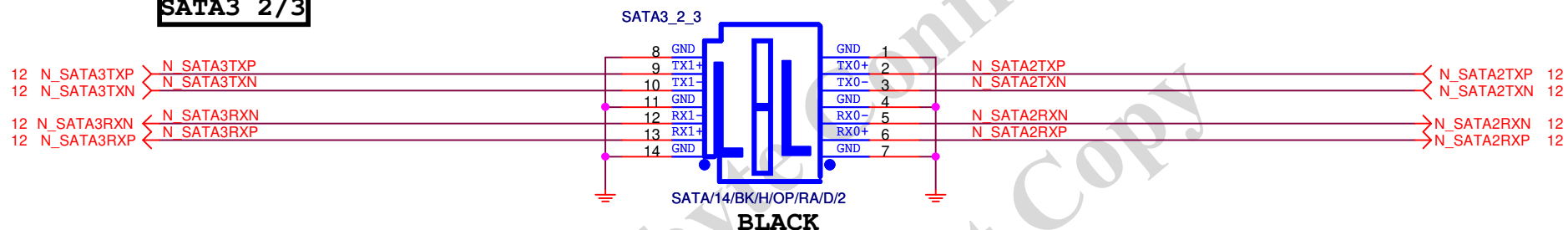


Footprint : H2X7-SATA2-D90

IO20/IO21 To SATA3 port2/3

上 Port (8~14)

下 Port (1~7)

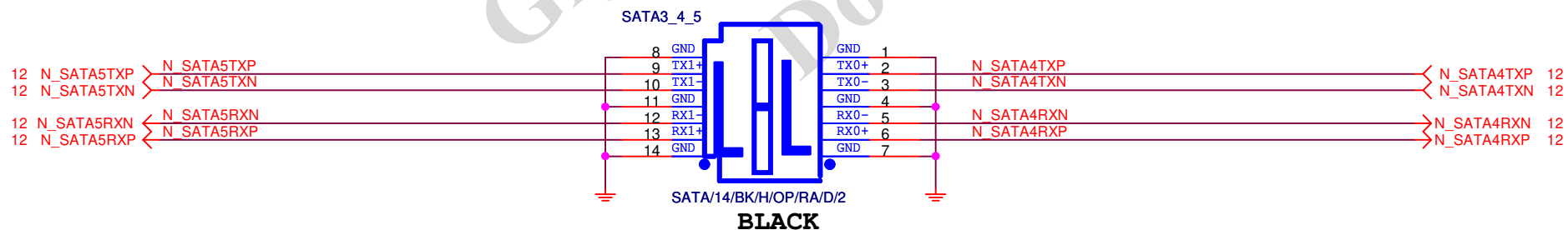


Footprint : H2X7-SATA2-D90

IO22/IO23 To SATA3 port4/5

上 Port (8~14)

下 Port (1~7)



Footprint : H2X7-SATA2-D90

Gigabyte Technology

Title

SATA

Size

Document Number

Rev

B560M AORUS ELITE

1.01

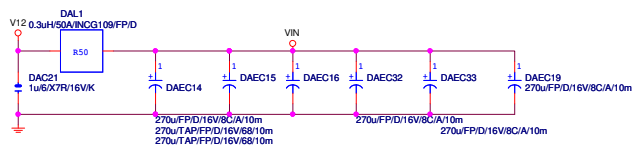
Date: Tuesday, March 30, 2021

Sheet 24 of 72

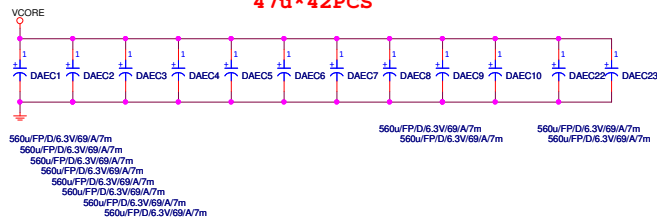
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GIGABYTE™			
Title AQC113C			
Size Custom	Document Number B560M AORUS ELITE		Rev 1.01
Date: Tuesday, March 30, 2021	Sheet	26 of	72

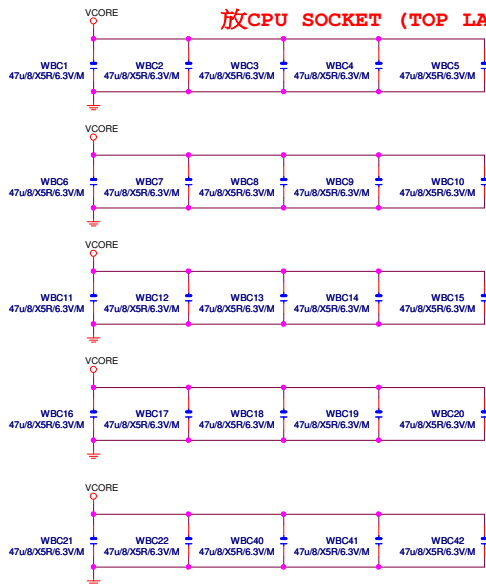
VIN CAP 270u*6PCS



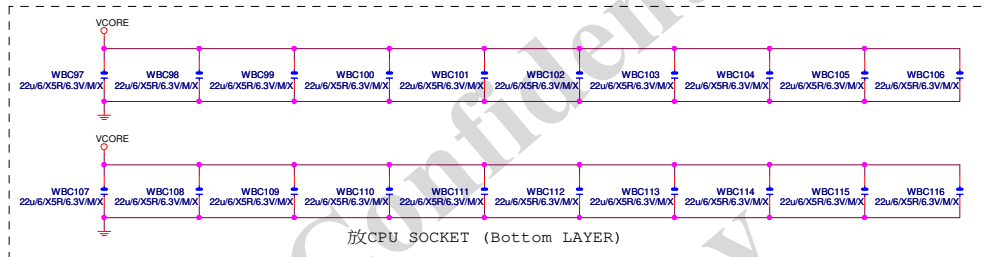
VCORE CAP 560u*12PCS 47u*42PCS



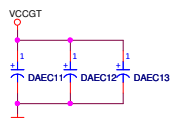
放CPU SOCKET (TOP LAYER)



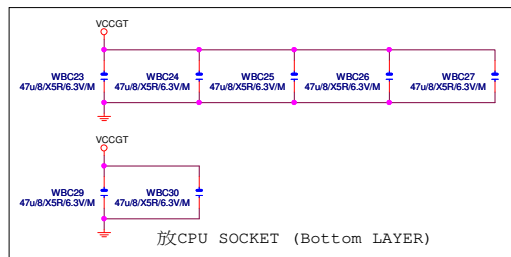
放CPU SOCKET (Bottom LAYER)



VCCGT CAP 560u*3PCS 47u*7PCS

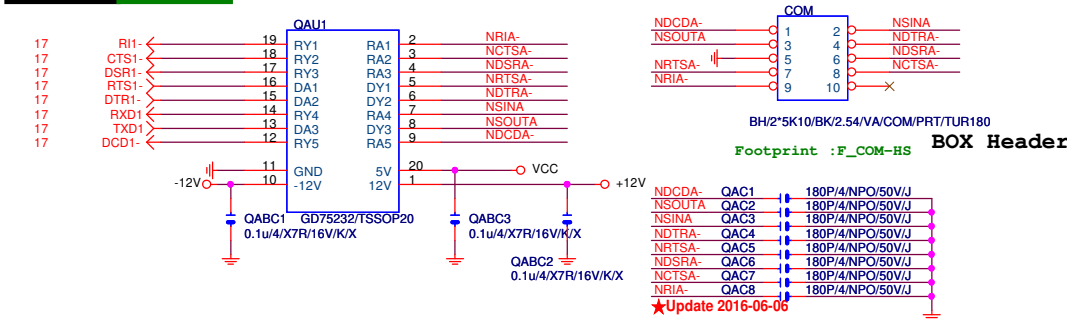


560uF/6.3V/69A/7m
560uF/6.3V/69A/7m
560uF/6.3V/69A/7m



COM PORT

Rev: 0.94

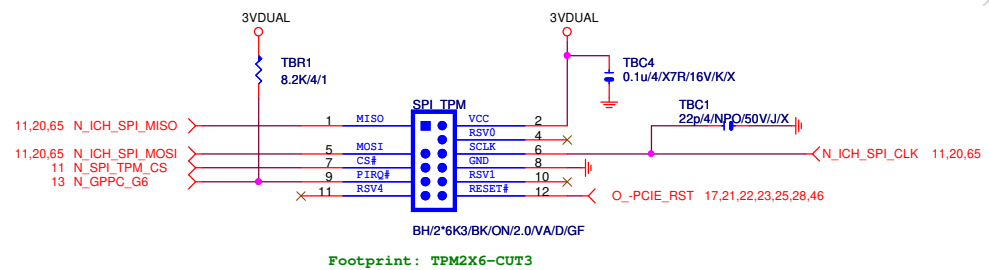


LPT PORT

RTD3 GPIO refer by Intel RVP

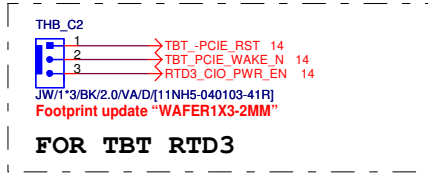
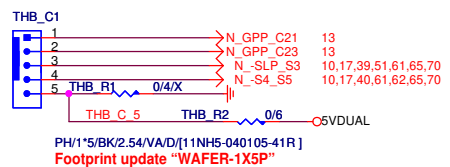
GPIO	CFL-S	CML-U	CML-H	CML-S
TBT_PERST_N	GPP_F_2	GPPC_C15_SLOT1_RST_N	GPP_F4_SATAPCIE7	GPP_F2
TBT_Wake_N	GPP_H_15	GPPC_D11_SLOT1_WAKE_N	GPPK_18	GPP_H15
RTD3_PWN_EN	GPP_I_5	GPPC_D15	GPP_H_16_SML4_CLK	GPP_K23

TPM CONNECT



Thunderbolt

★Update 2015-12-29



FOR TBT RTD3

Z490系列使用

TBT_-PCIE_RST : CFL connector to GPP_F_2

TBT_PCIE_WAKE_N : CFL connector to GPP_H_15

RTD3_CIO_PWR_EN : CFL connector to GPP_K_23

Gigabyte Technology

Title

FP,F_USB,USB PWR,BZ

Size Custom

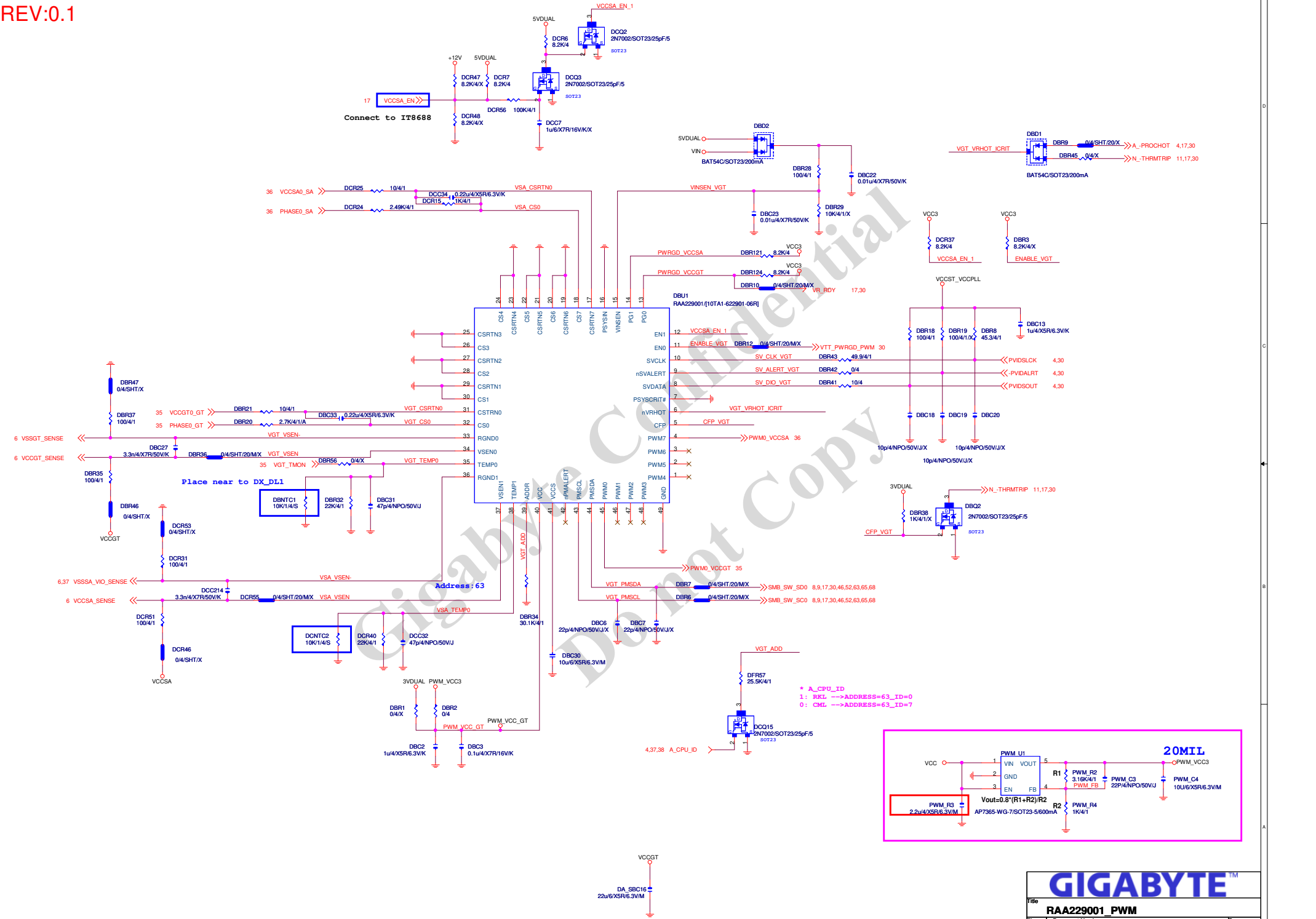
Document Number

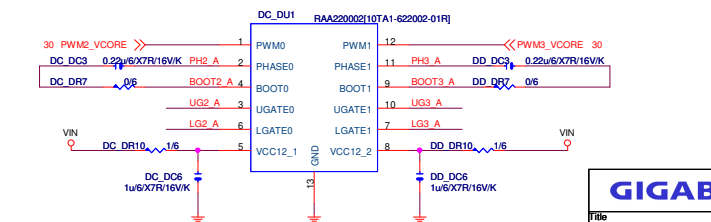
B560M AORUS ELITE

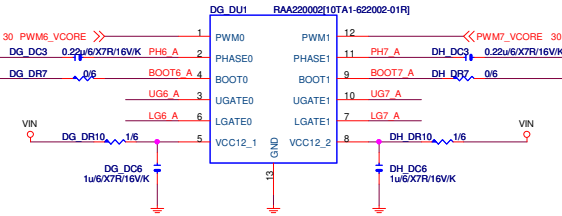
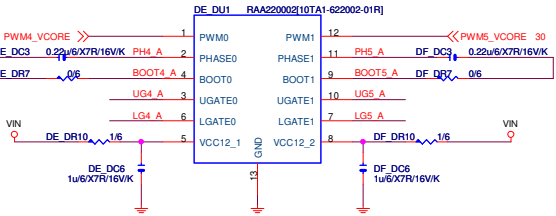
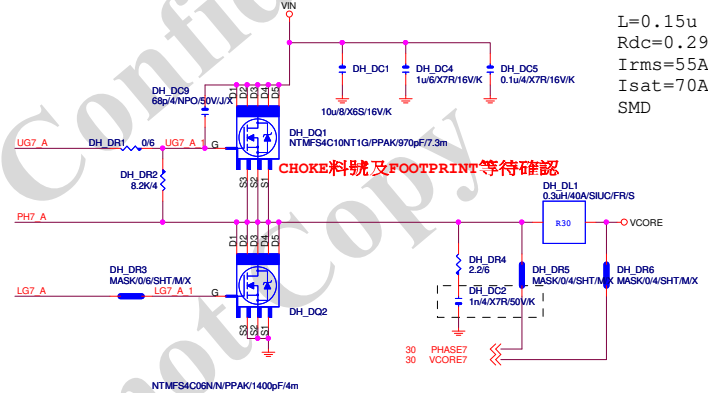
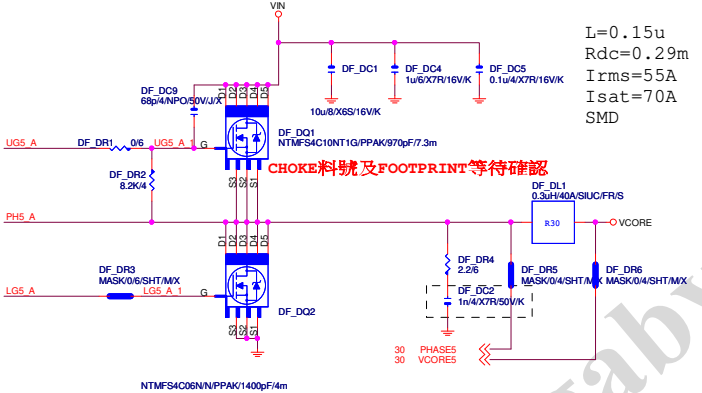
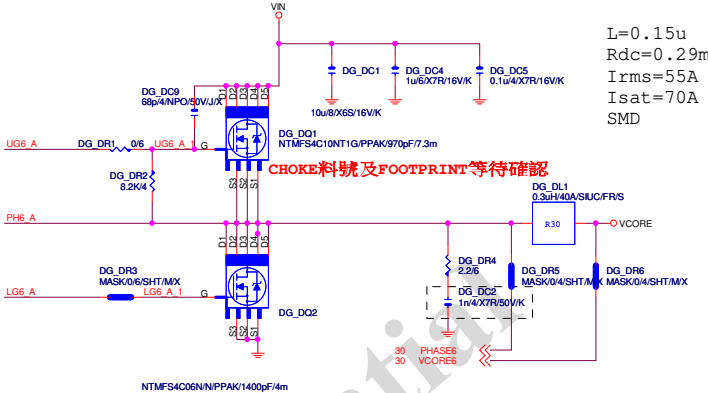
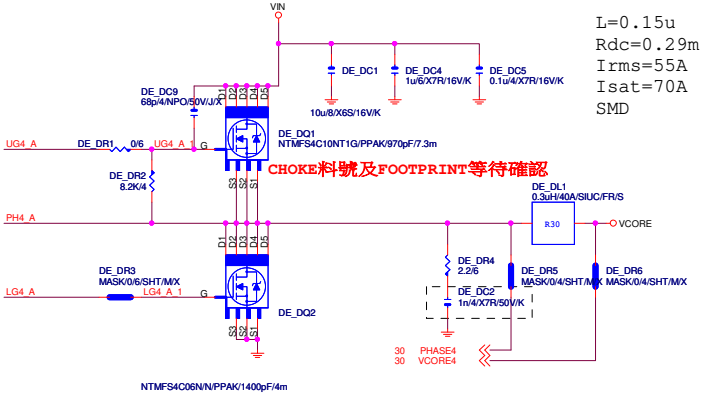
Date: Tuesday, March 30, 2021

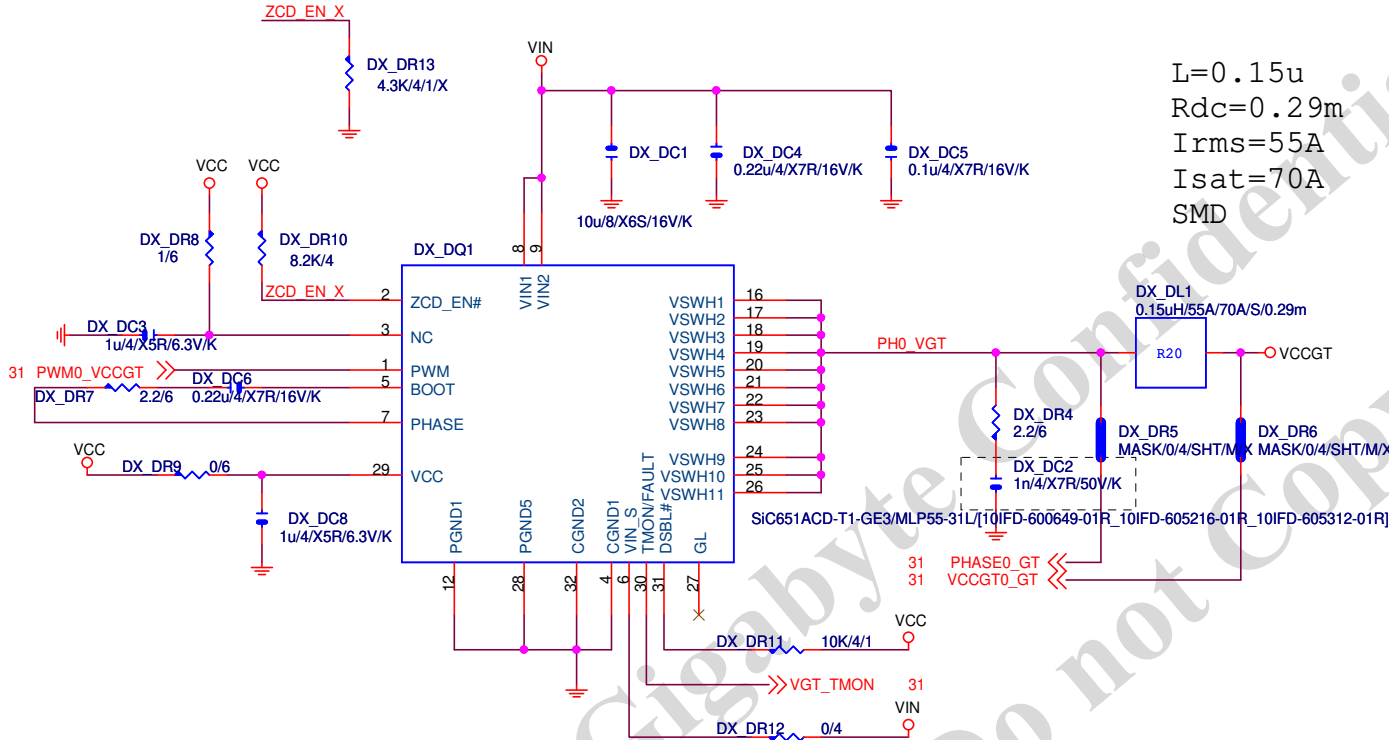
Sheet 29 of 72

Rev 1.01

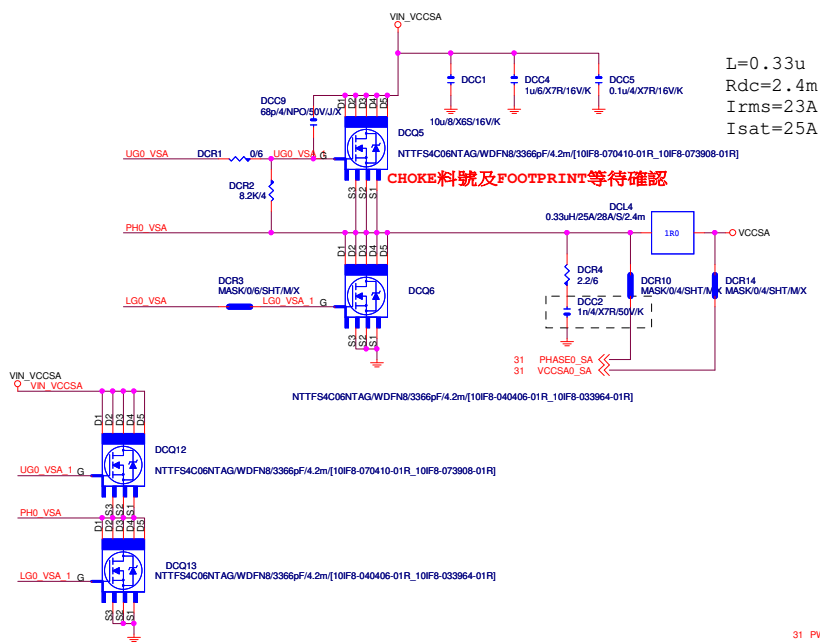






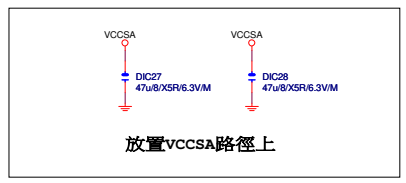


L=0.15u
Rdc=0.29m
Irms=55A
Isat=70A
SMD



L=0.33u
Rdc=2.4m
Irms=23A
Isat=25A

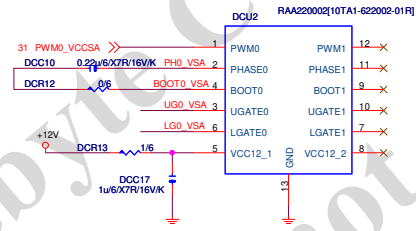
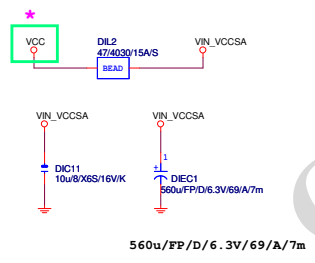
VCCSA CAP



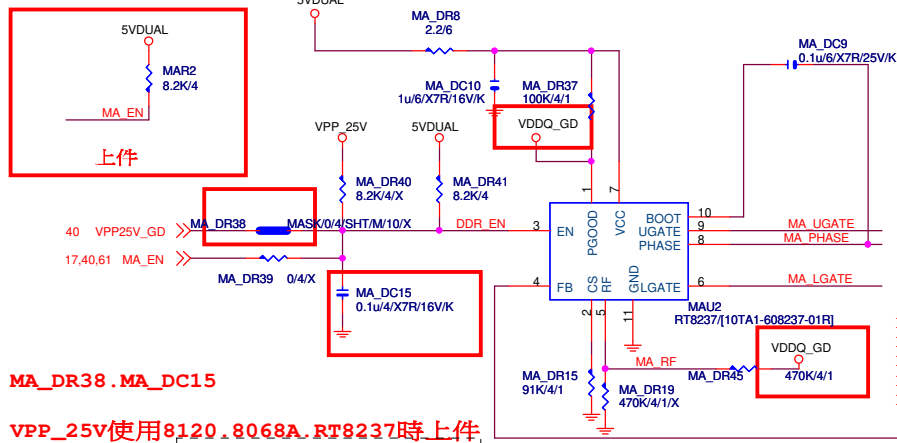
CPU SOCKET 已經有22u/6 *4pcs

VIN CAP

100u*1PCS



DDR4



PIN7-->20mil
PIN1-->6mil
PIN2-->6mil
PIN5-->6mil
PIN3-->6mil

MOSFET請依MOSFET使用規則, 自行選擇
ON-->10IF9-040406-10R[NTMFS4C06M/N/PPAK/1400pF/4m]
VISHAY-->10IF9-040012-10R[SIRA12DP/PPAKS08/2070pF/4.3m]

DDR VIN CAP
560u*2PCS

CHOKE與CAP料號可變

SUPPORT DDR4 1.2V

25A MAX

L=1u
DCR=2.5 mohm
Isat=35A
Idc=28A

請放置CHOKE一出來位置, 先預留.
請自行確認ripple後再決定是否上件

Remote sense請從最重的負載端點拉回

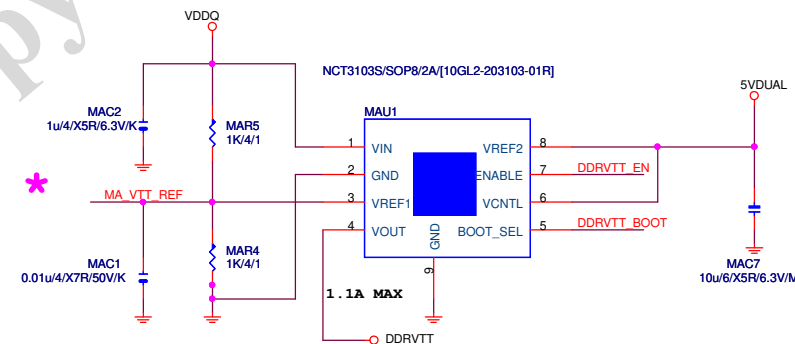
PWR SEQ

CLOSE TO DDR POWER PLANE

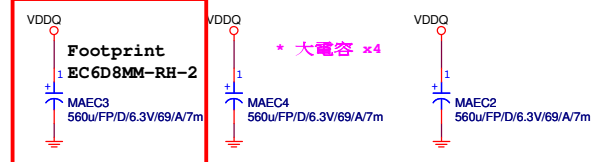
For power sequence require

VPP_25V使用8120時上件

DDRVTT



DDR CAP 560u*3PCS



DDRVTT CAP

* 大電容 x0

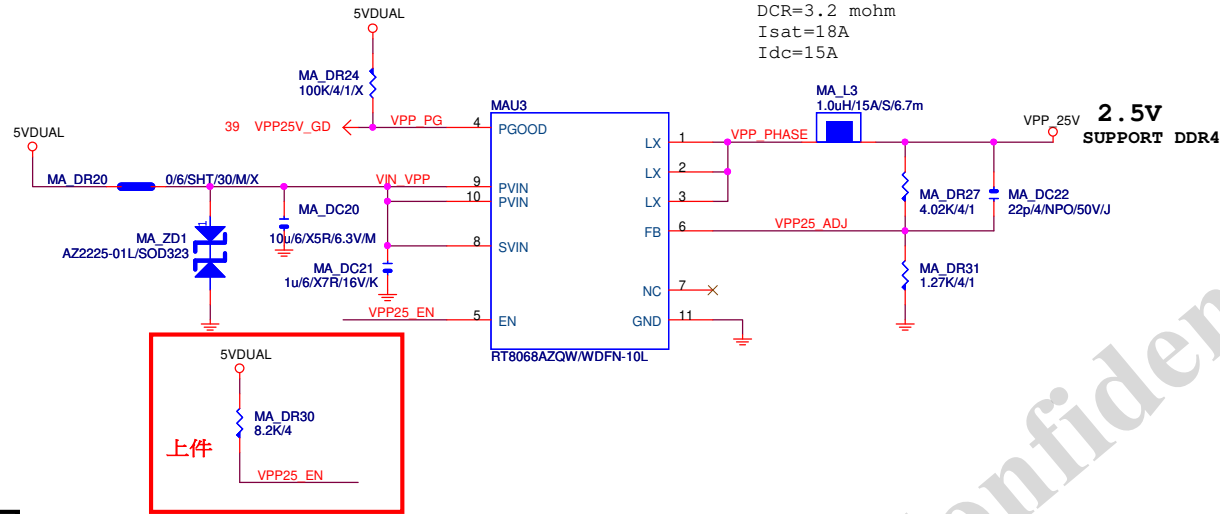
GIGABYTE™			
Title RT8237_DDR4 POWER			
Size Custom	Document Number B560M AORUS ELITE		Rev 1.01
Date Tuesday, March 30, 2021	Sheet 39 of 72		

REV:0.11

VPP 25V

CHOKE與CAP料號可變

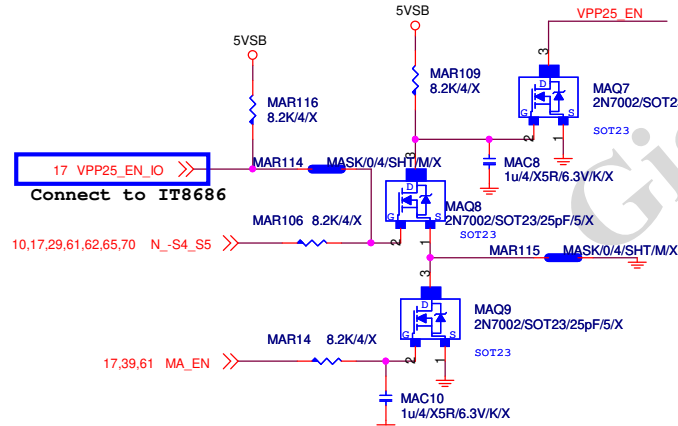
L=1u
DCR=3.2 mohm
Isat=18A
Idc=15A



PWR SEQ

PWR SEQ

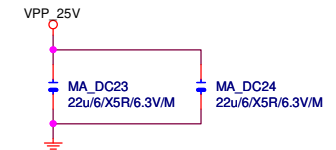
* 刪 MA_DR32



17 VPP25_EN_IO >> MASK/0/4/SHT/M/X VPP25_EN

VPP CAP 22u*2PCS

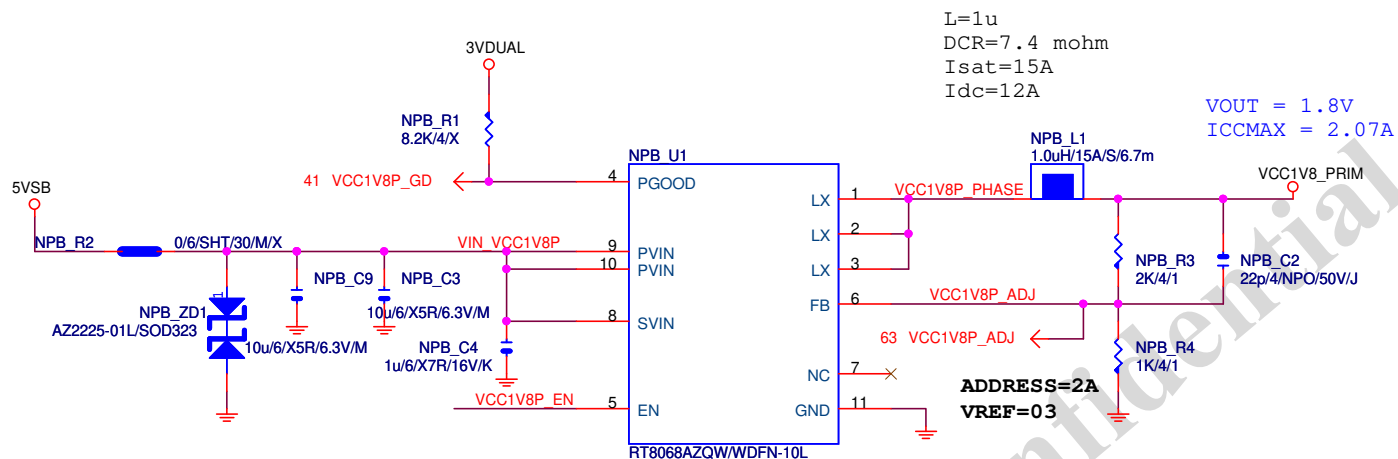
* 大電容 x0



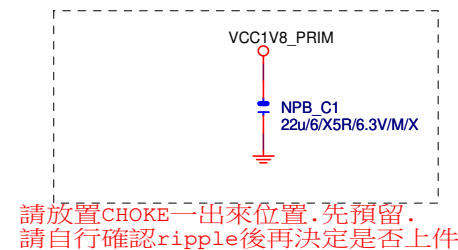
GIGABYTE™			
Title RT8068A_VPP25 POWER			
Size Custom	Document Number B560M AORUS ELITE		Rev 1.01
	Date: Tuesday, March 30, 2021		
Sheet 40 of 72			

REV: 0.1

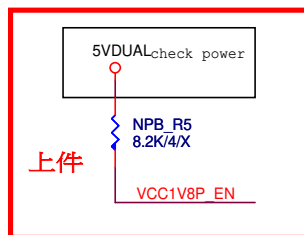
VCC1V8 PRIM



CHOKE與CAP料號可變



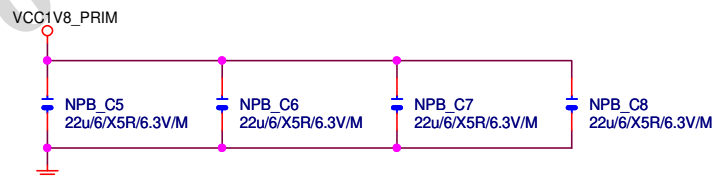
PWR SEQ



connect to PCH pin AD46



VCC1V8_PRIM CAP 22u*4PCS



GIGABYTE™

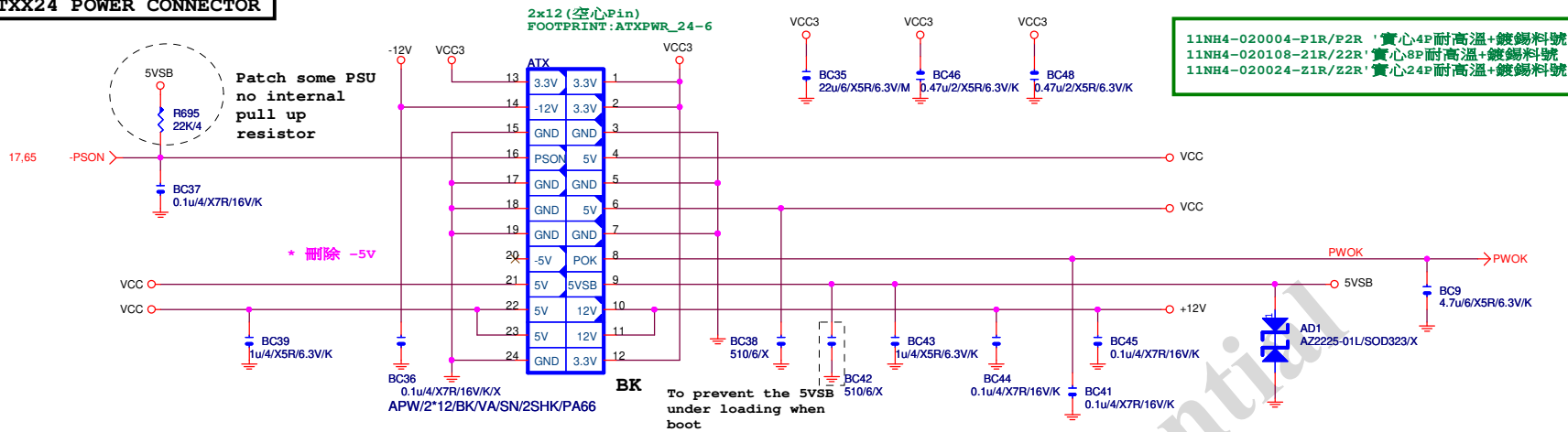
Title
RT8068_VCC1V8_PRIM

Size Custom Document Number
B560M AORUS ELITE

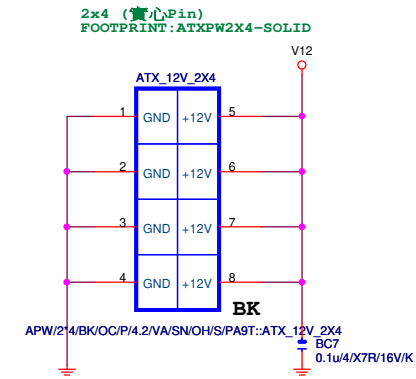
Rev
1.01

Date: Tuesday, March 30, 2021 Sheet 42 of 72

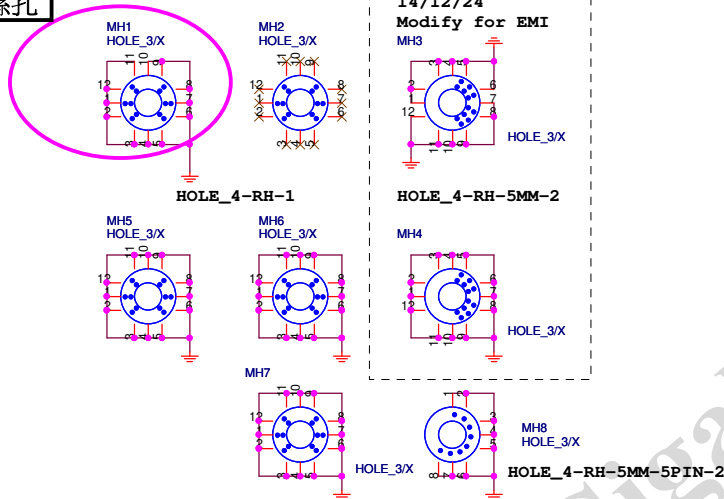
ATXX24 POWER CONNECTOR



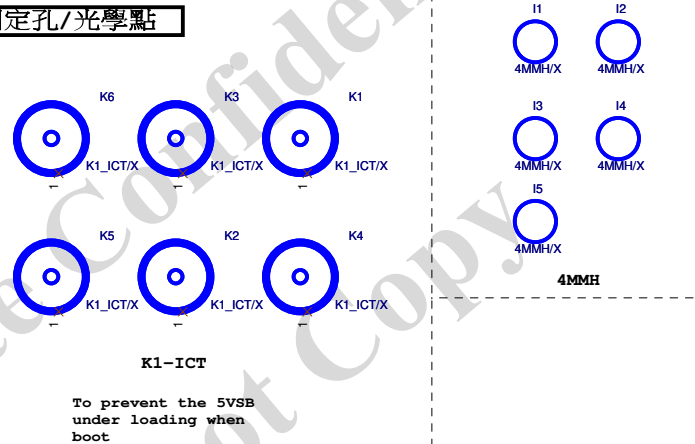
ATXX4 POWER CONNECTOR



螺絲孔

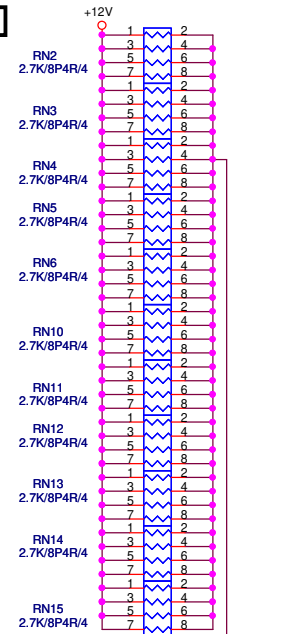


固定孔/光學點

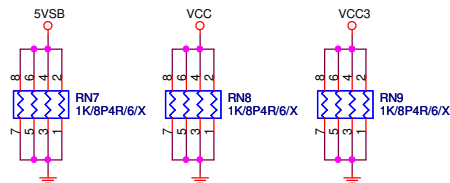


+12V DUMMY LOAD

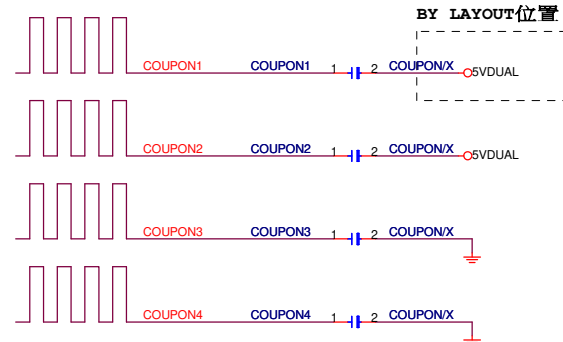
To fix 12V light load
abnormal issue



DUMMY LOAD



COUPON



Gigabyte Technology

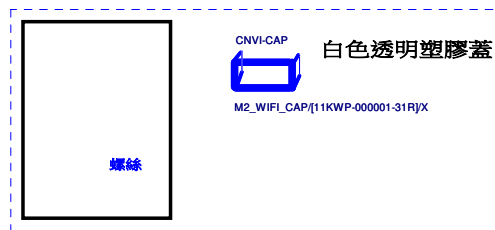
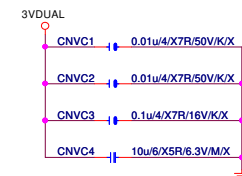
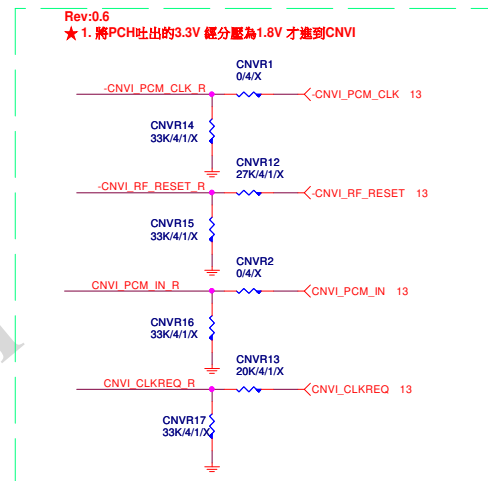
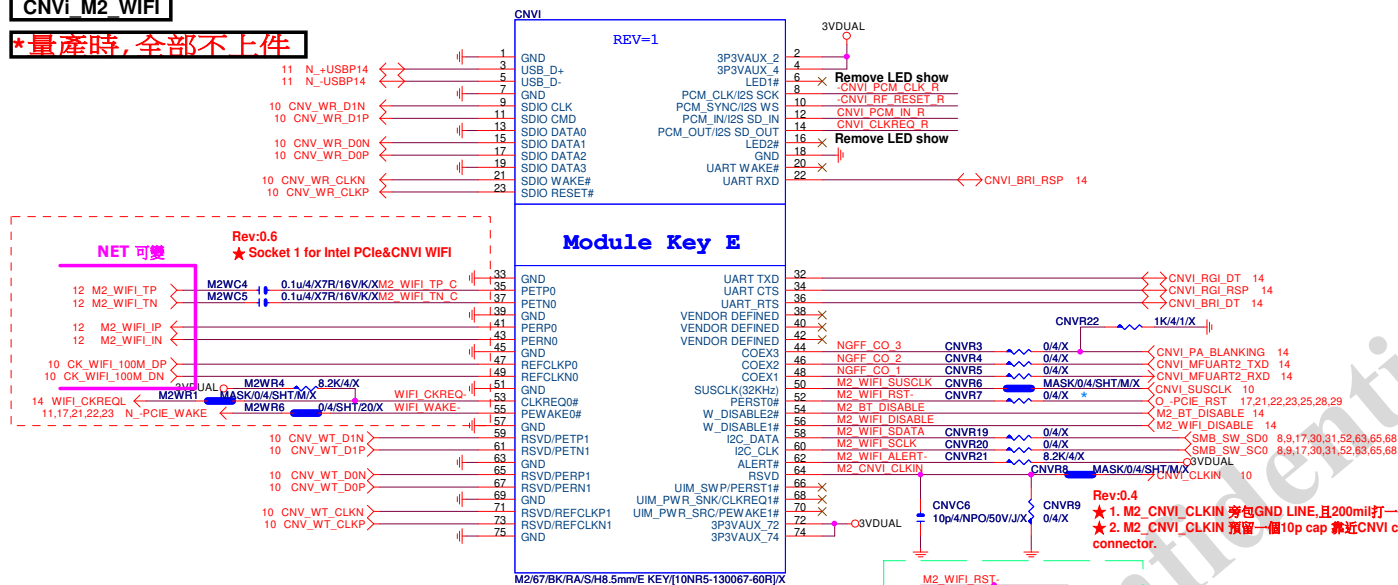
Title ATX POWER CONNECTOR

Size Custom Document Number

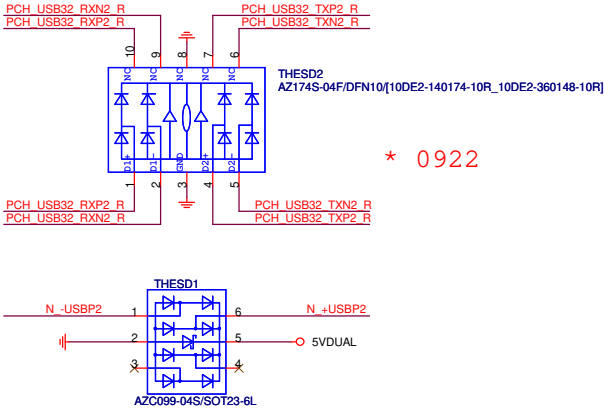
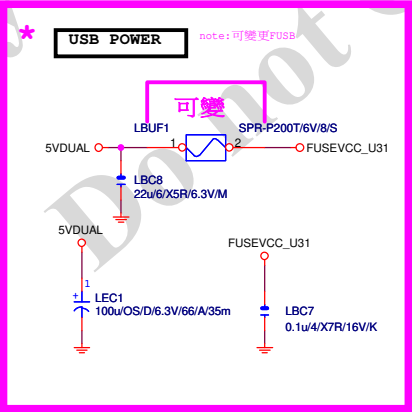
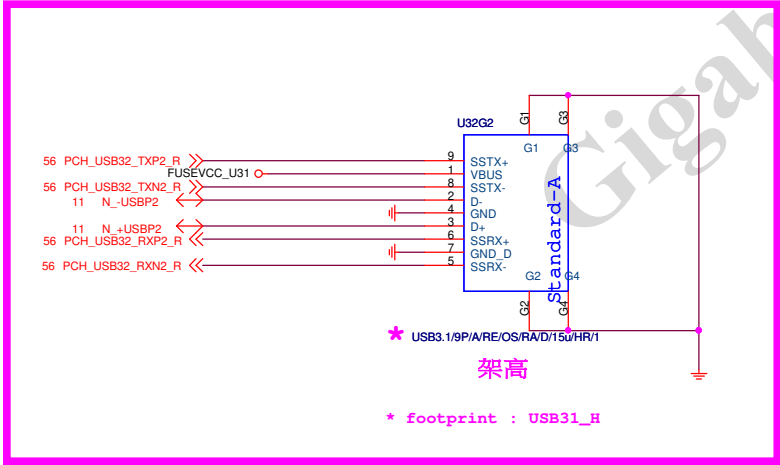
Date: Tuesday, March 30, 2021 Sheet 44 of 72

Rev 1.01

B560M AORUS ELITE



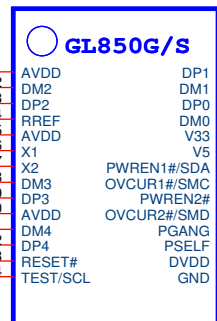
USB31 TYPE A Connector / power source / FUSE which choose for project demand



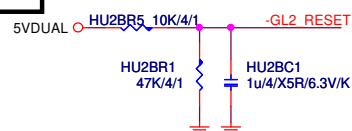
P/N SWAP

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HUB2

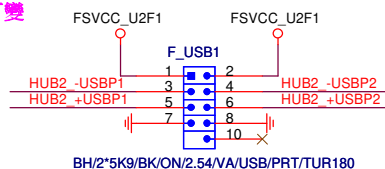


HUB RESET



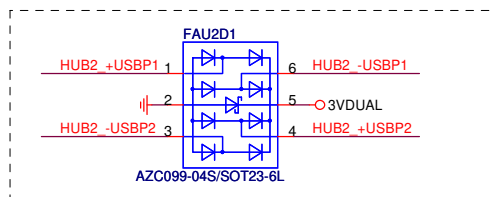
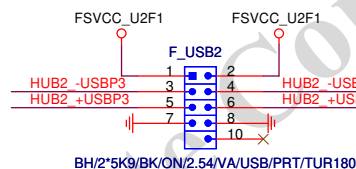
FRONT USB1

NET 可變

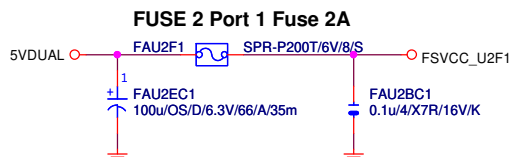


FRONT USB2

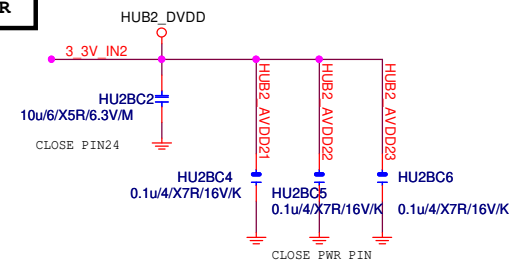
NET 可變



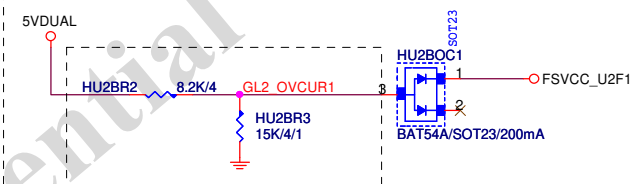
Close to connector
FUSE 2 Port 1 Fuse 2A



HUB PWR

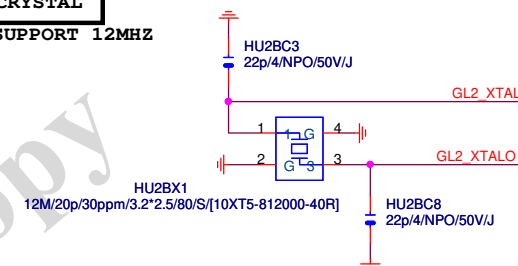


HUB OVER CURRENT SENSE



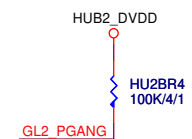
HUB CRYSTAL

ONLY SUPPORT 12MHZ



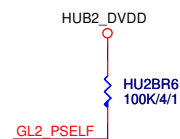
HUB MODE

Ganged mode



P.H. USE GL_OVCUR1
DETECT ALL PORT

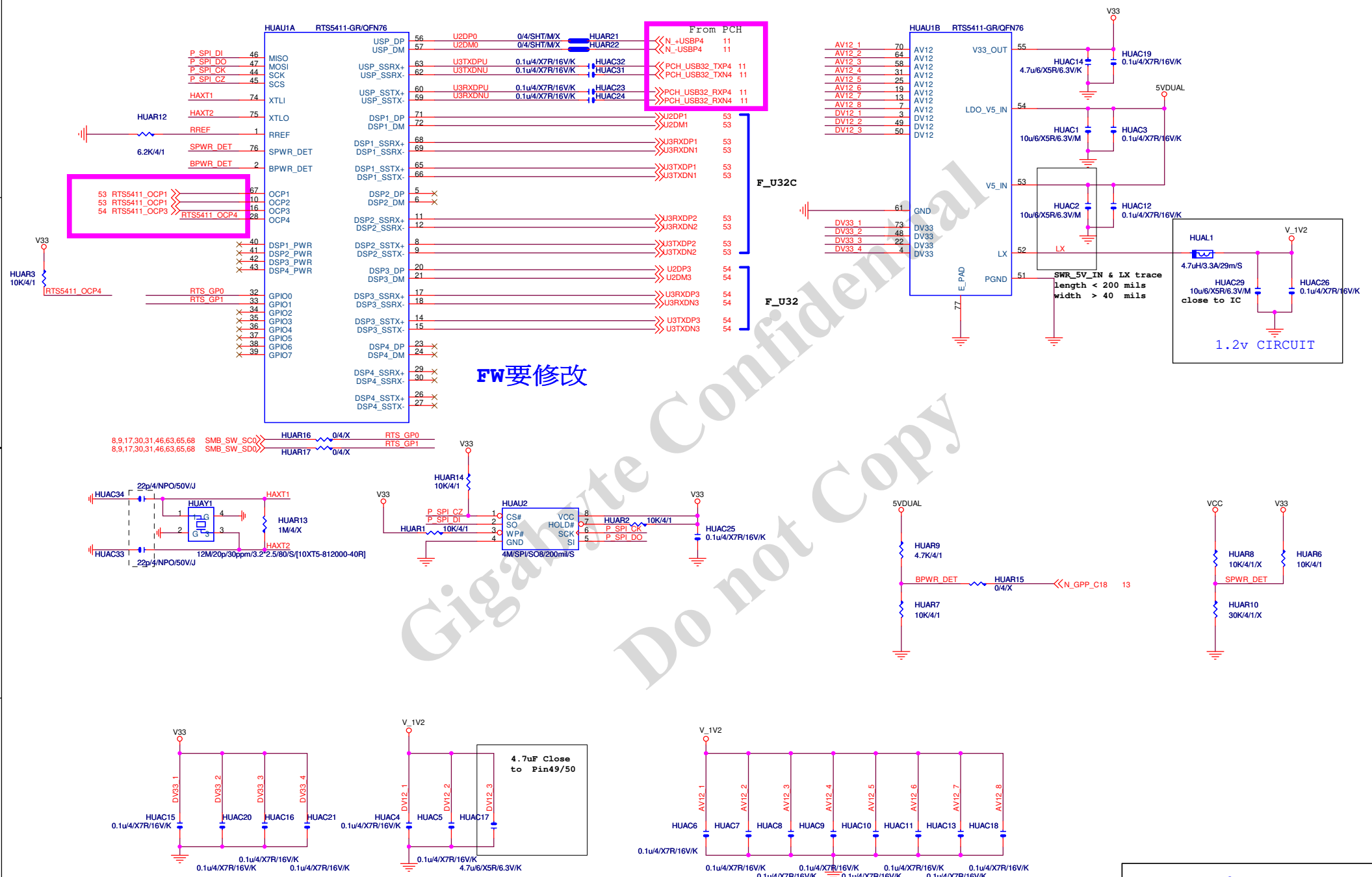
PSELF

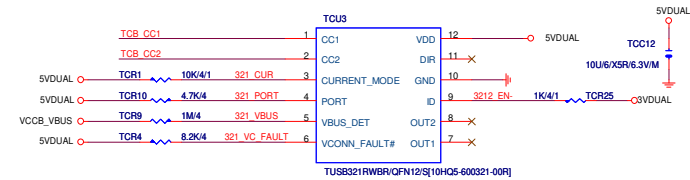


HUB self-power mode:
P.H.=EVERY PORT 500mA.
P.D.=EVERY PORT 100mA.

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Title			HUB GL850GS 1
Size	Document Number	B560M AORUS ELITE	
Custom			
Date:	Tuesday, March 30, 2021	Sheet	50 of 72
Rev			1.01





CURRENT MODE

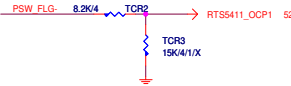
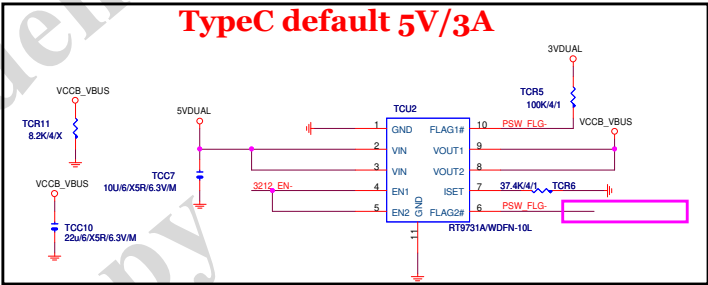
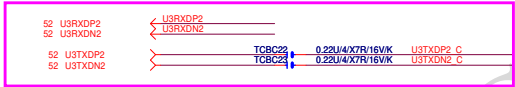
L - Default current / Pull down to GND or NC
M - Medium (1.5A) current / Pull up to VDD 500K
H - High (3.0A) current / Pull up to VDD 10K

PORT

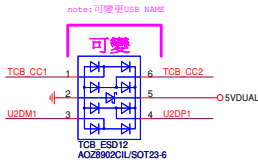
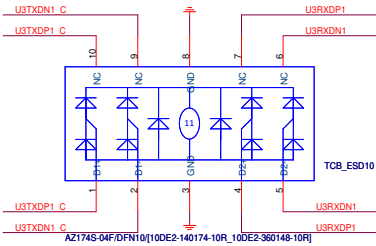
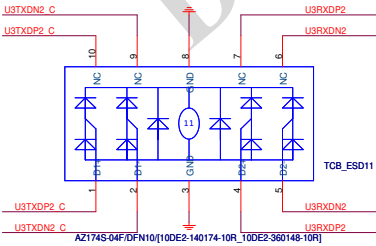
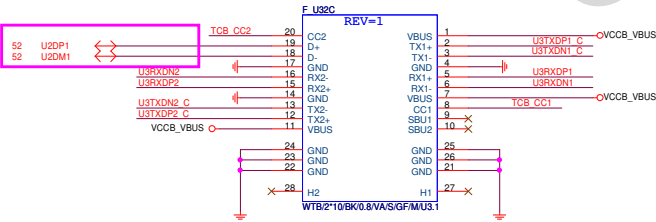
H - HOST
L - Device
NC - Dual Role

USB 3.x SuperSpeed

可變



Color markers can be changed by model

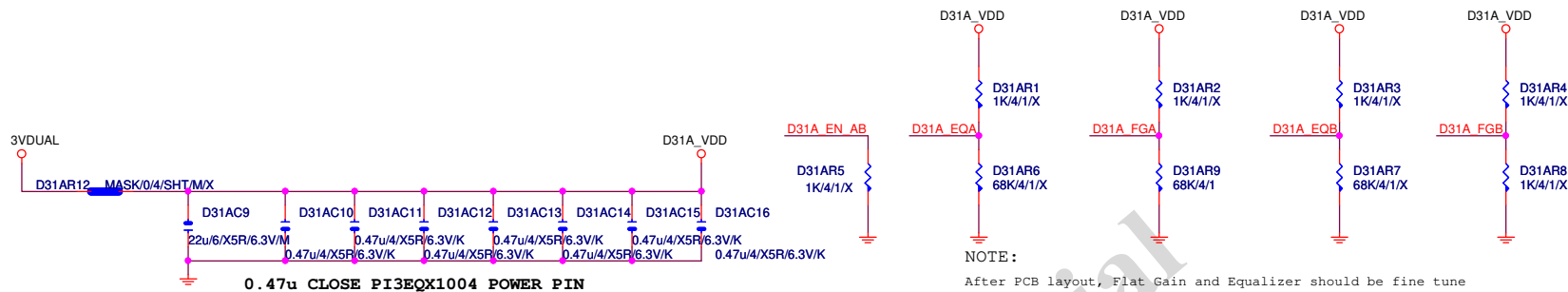


GIGABYTE™

USB3.2 GEN2 PI3EQX1004B1 Rev0.1

Type-A

GROUP A



PCH Site

USB Type C Connector Site

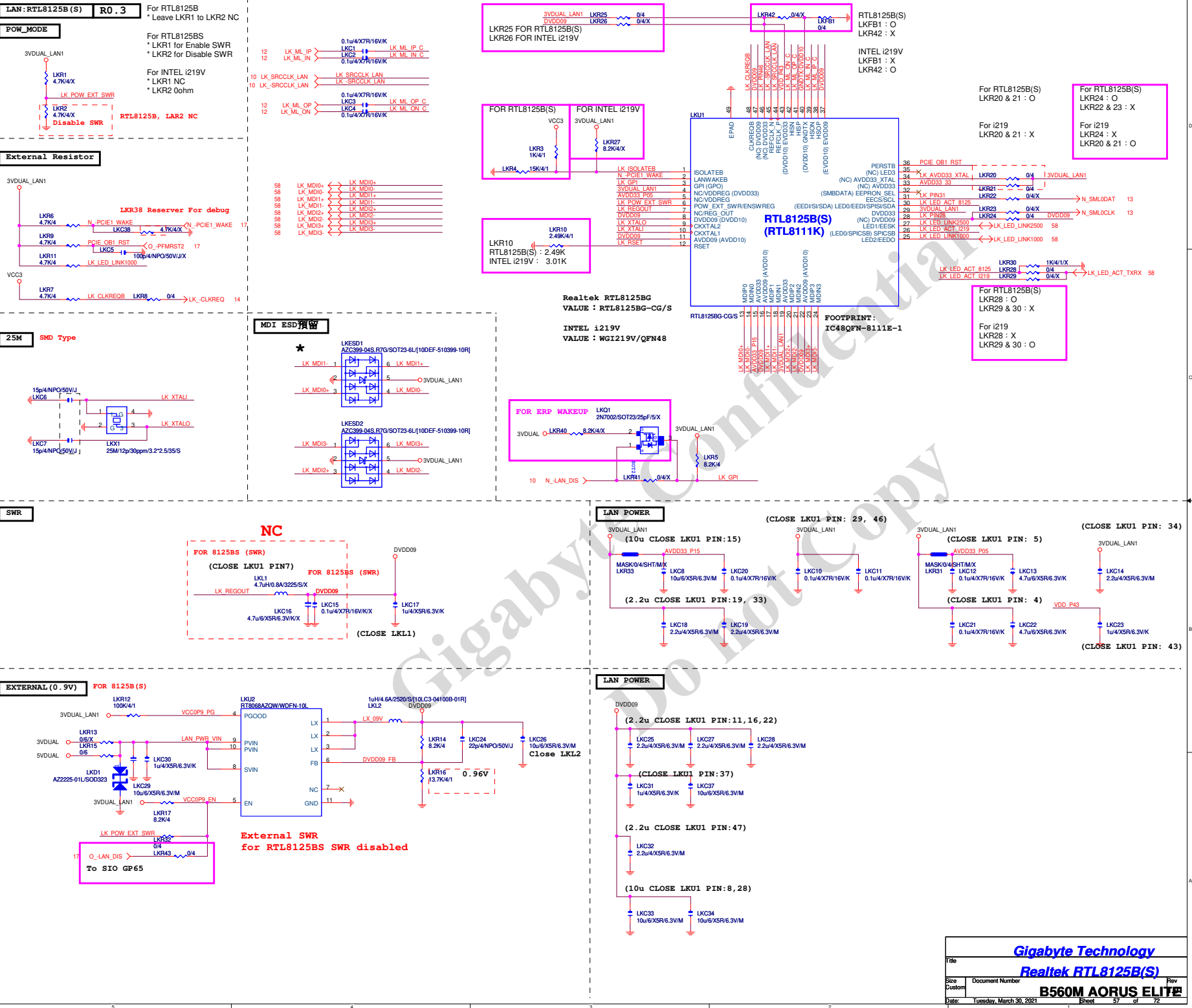
USB Type A Connector Site

Layout Rule:

1. Differential Pair can't be swapped
2. Redriver to Connector Length min. 1 inch
3. PCH to Redriver Length min. 6 inch

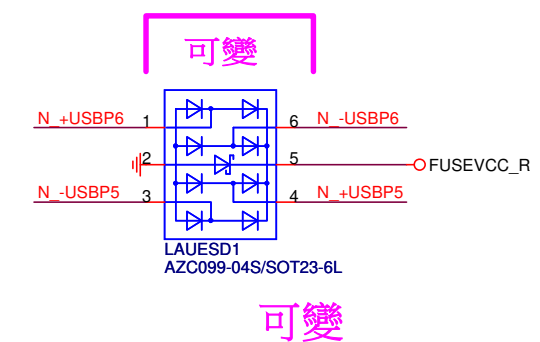
GIGABYTE™

Title		
Redriver_A_TYPE-A		
Size	Document Number	Rev
B	B560M AORUS ELITE	1.01
Date:	Tuesday, March 30, 2021	Sheet 56 of 72



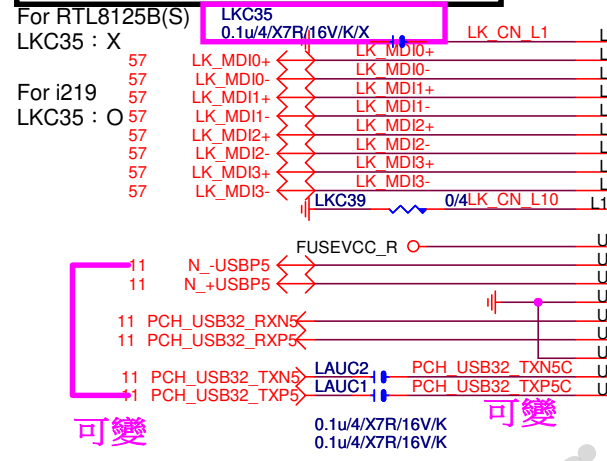
USB_LAN CONNECTOR R0.3

RMA ESD PROTECT note:可變更USB NAME

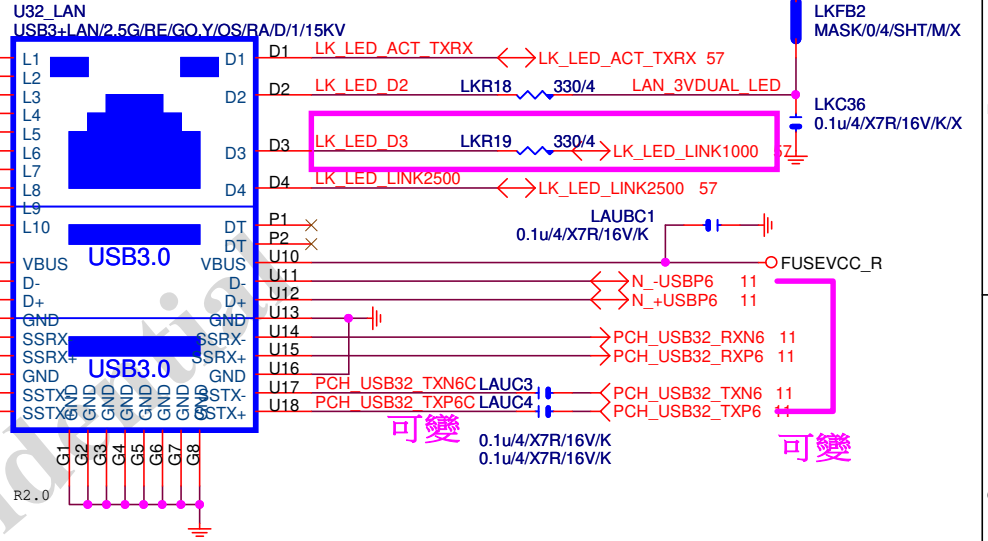


USB_LAN CONNECTOR note:可變更USB NAME

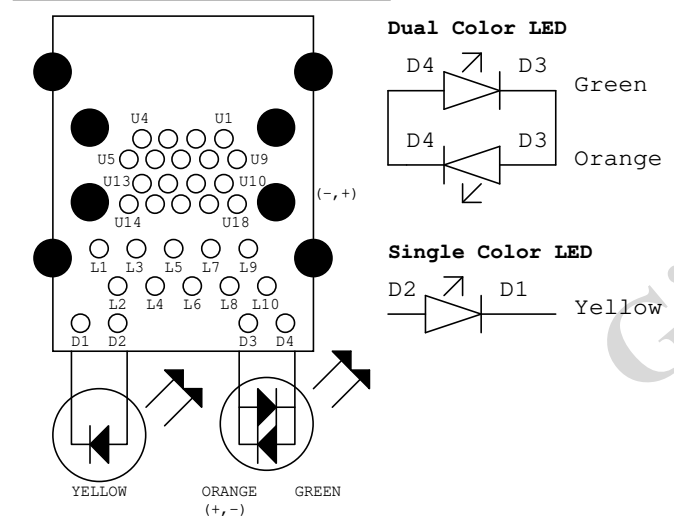
LA_MDI-->100歐姆: [20/4/8/4/20]



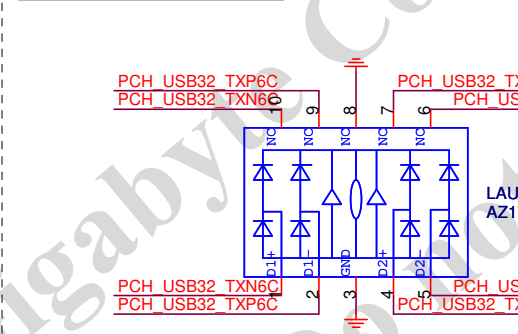
[RTL8125BS] 請依Spec 自行確認USB type EX: U32_LAN or U32G2_LAN



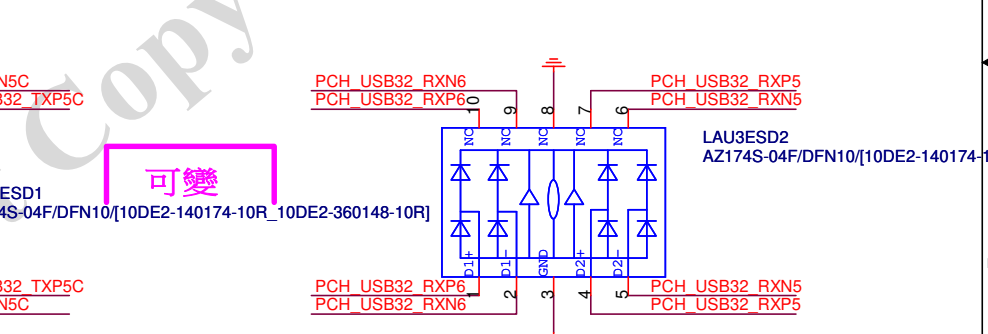
USB30_LAN LAYOUT示意圖



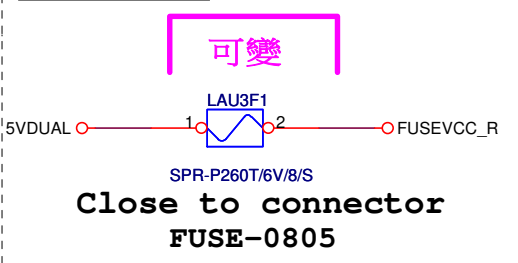
RMA ESD PROTECT note:可變更USB NAME



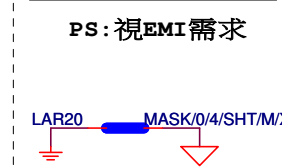
可變



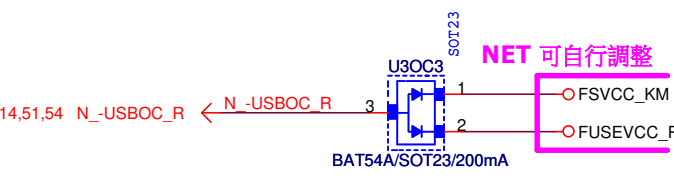
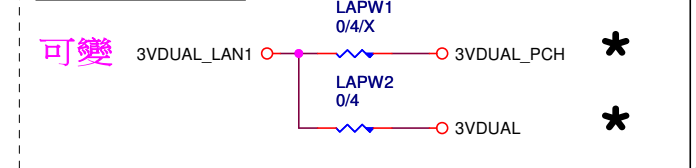
USB POWER note:可變更FUSE



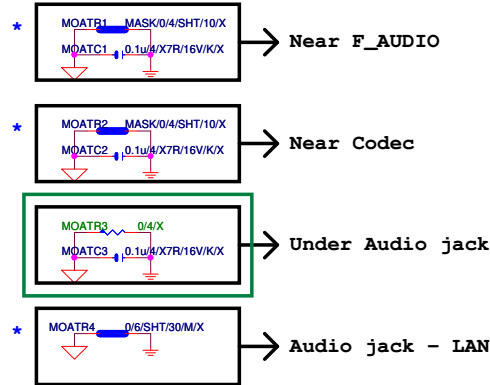
EMI SHORT PAD PS:視EMI需求



LAN POWER note: lan power連接及電流



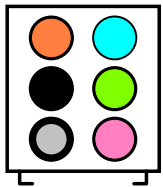
Rev 6.0



*量産前,MOATR1/MOATR2/MOATR40ohm改short pad

For HDMI SPDIF (依SPEC保留或移除)

AZALIA JACK



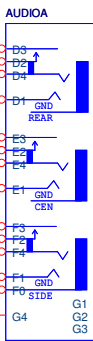
AZALIA JACK

BLUE
LINE-IN

GREEN
LINE-OUT

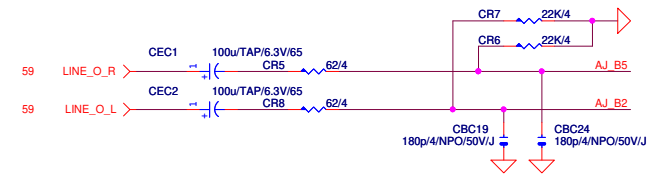
PINK
MIC-IN

2X3RP/26P/OR,BK,GY,BU,GE,PK/RA

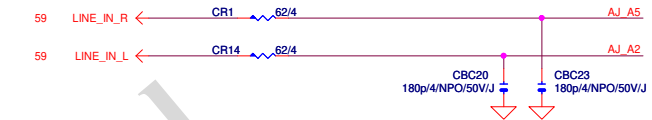


2X3RP/26P/OR,BK,GY,BU,GE,PK/RA

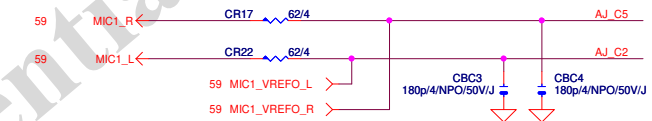
LINE-OUT



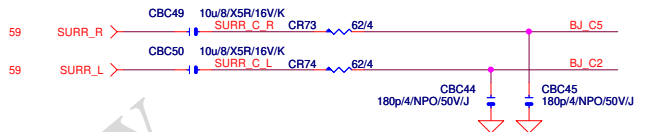
LINE-IN



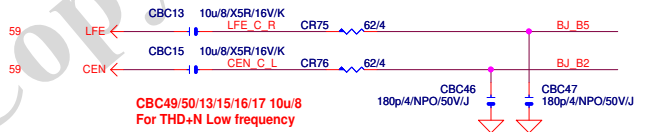
MIC-IN



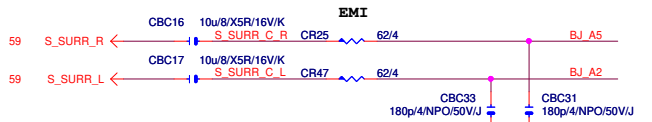
SURROUND



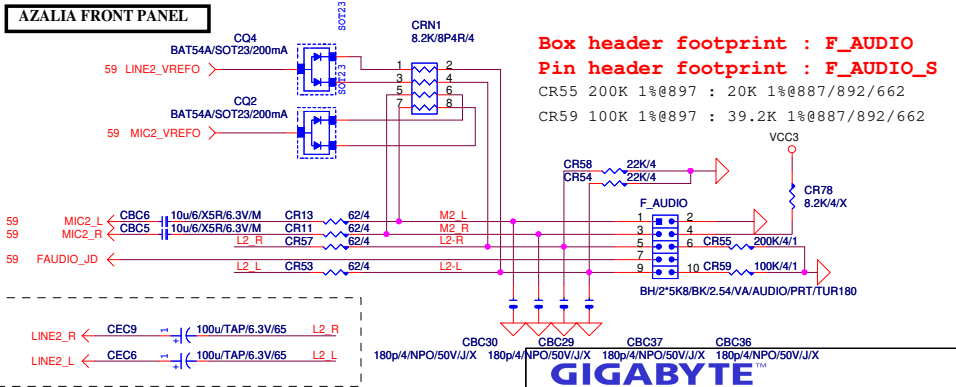
CEN/LFE



SURR BACK

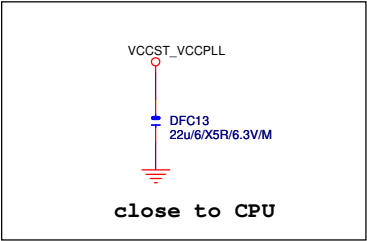
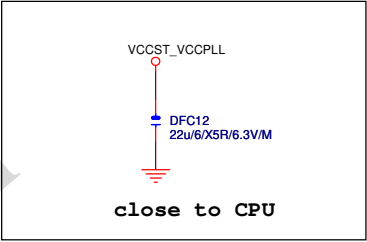
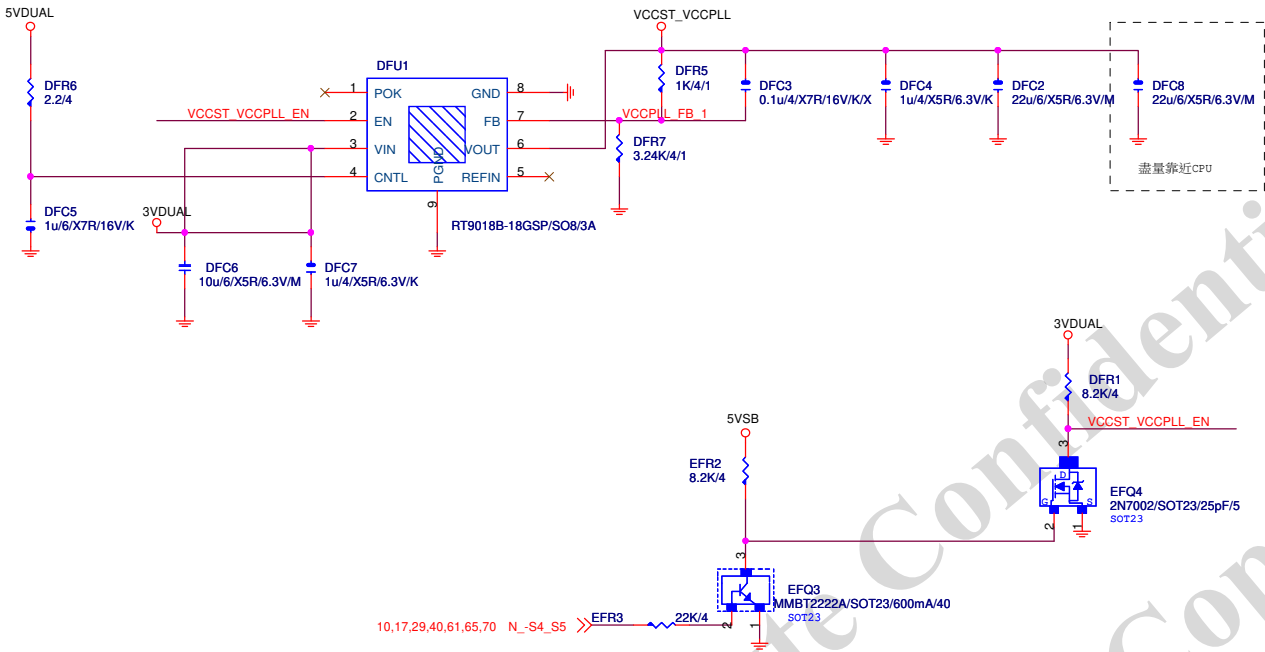


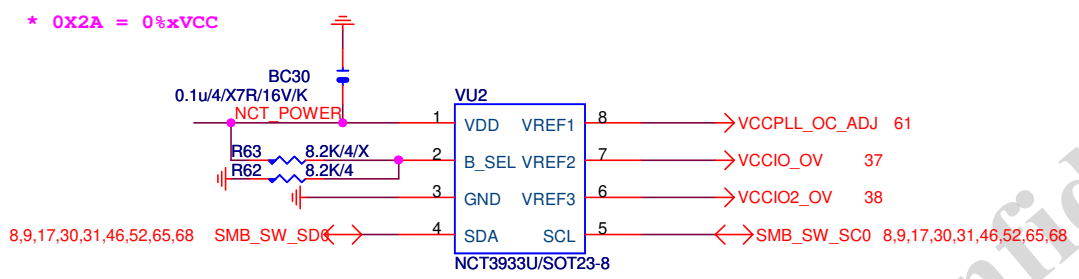
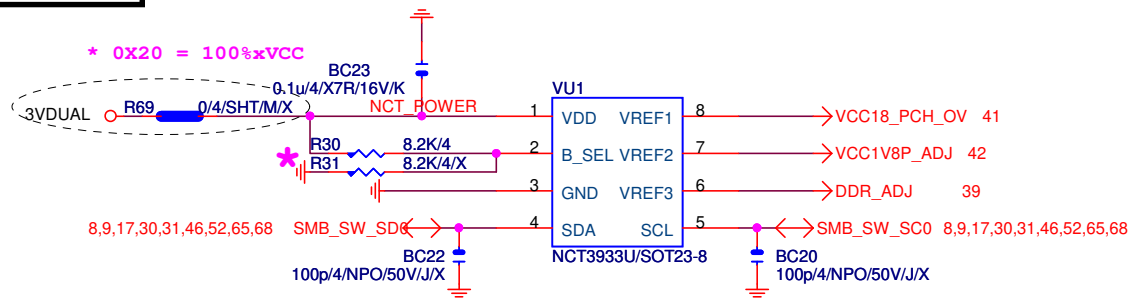
AZALIA FRONT PANEL



Title		
AUDIO JACK		
Size	Document Number	Rev
Custom	B560M AORUS ELITE	1.01
Date:	Tuesday, March 30, 2021	Sheet 60 of 72

VCCST_VCCPLL 替換原先MOS開關線路





NCT3933	0X2A	0X20
VREF1	VCC18_PCH	VCCPLL_OC
VREF2	VCCIO	VCC1V8_PRIM
VREF3	VCCIO2	VDDQ

Gigabyte Technology

CPU CORE VR-2

Size Custom

Document Number

Rev

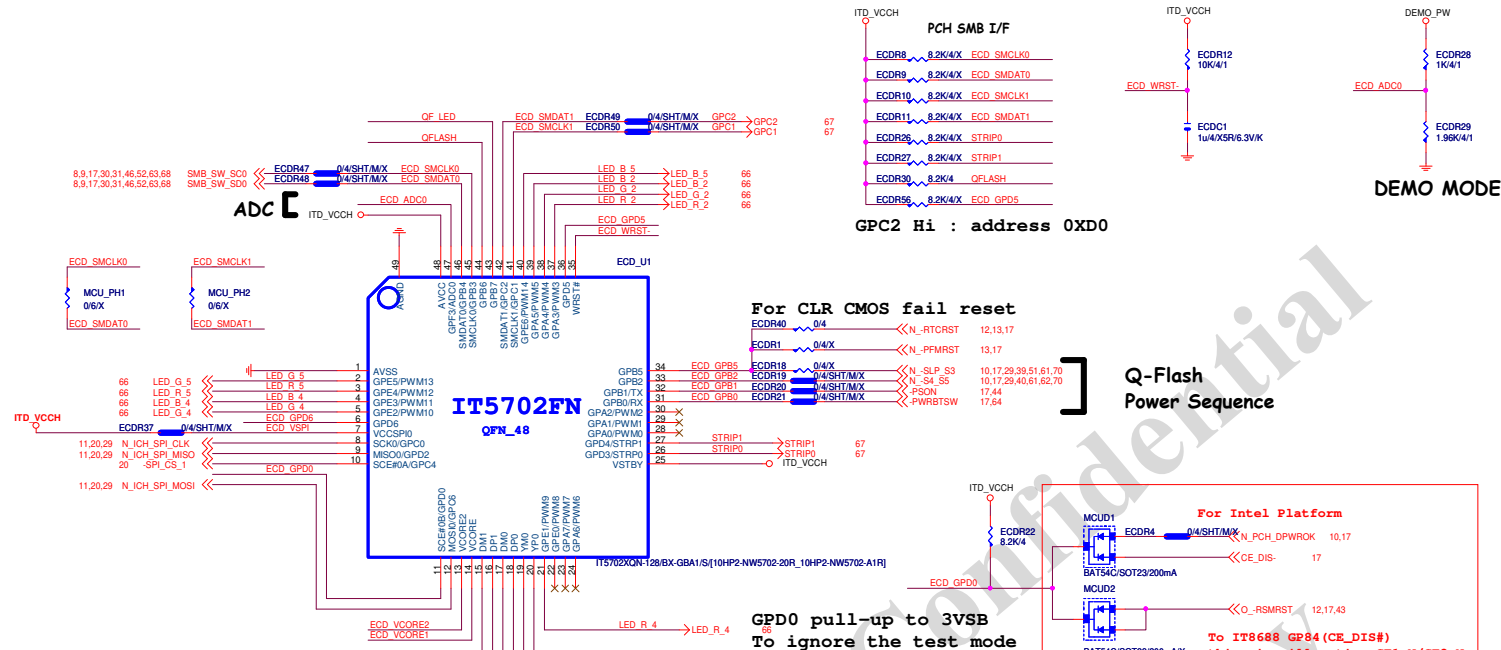
B560M AORUS ELITE

1.01

Date: Tuesday, March 30, 2021

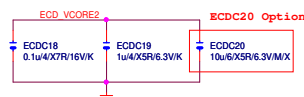
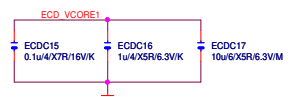
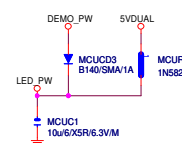
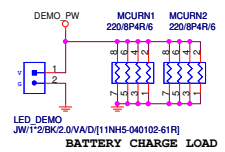
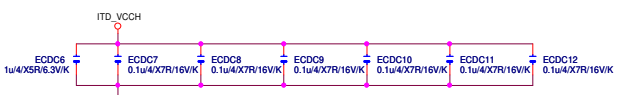
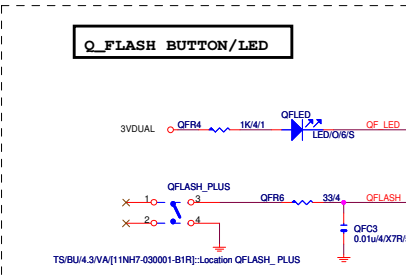
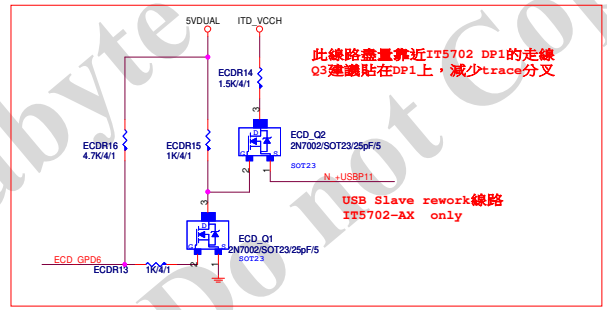
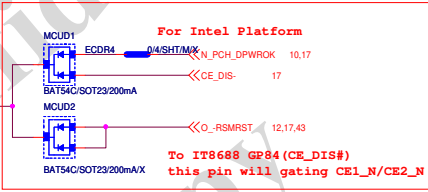
Sheet 63 of 72

ECD_U1 請放在PCH到BIOS路徑上. 避免線過長



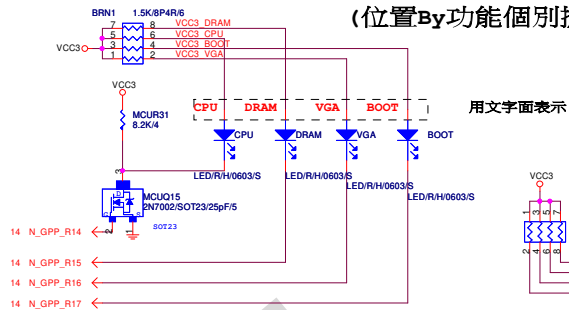
For Re-driver enable pin
ECD_GP05 ECDRS 0Ω
Re-driver enable pull-down 8.2K

Q-Flash
Power Sequence



第一區 LED CONTROL

DEBUG PORT LED *4
(位置By功能個別擺放)



N_GPP_R14	CPU DEBUG
N_GPP_R15	DDR DEBUG
N_GPP_R16	VGA DEBUG
N_GPP_R17	BOOT DEVICE DEBUG

第三區 LED

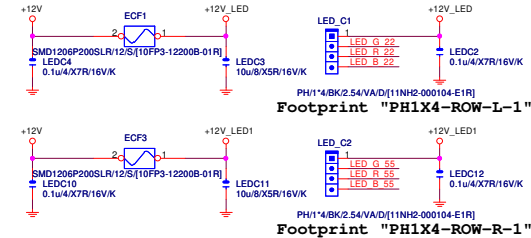
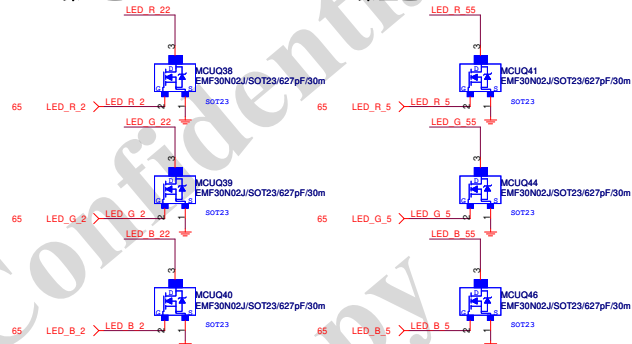
第三區 LED CONTROL

第五區 LED

第二區 LED CONTROL

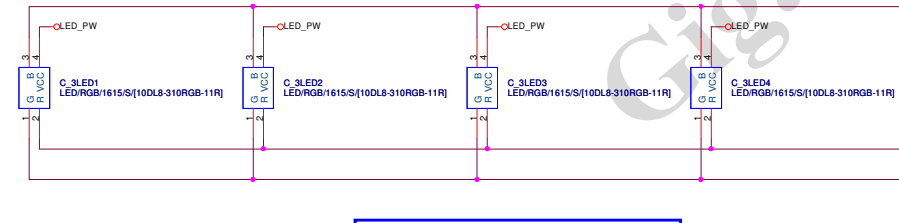
第五區 LED CONTROL

燈條 LED (LED_C1放在PCB左邊板邊位置)
燈條 LED (LED_C2放在PCB右邊板邊位置)



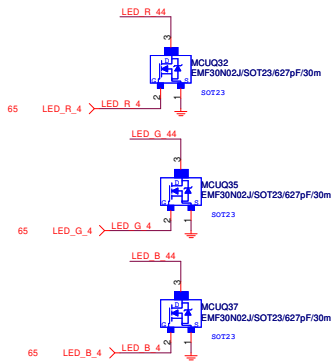
第四區 LED

FOR AUDIO 正發光 LED*5 (位置在背板AUDIO切割線)



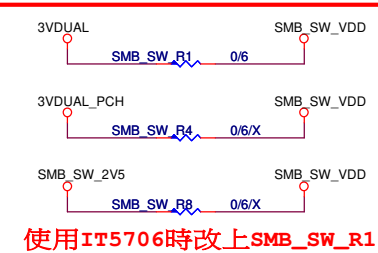
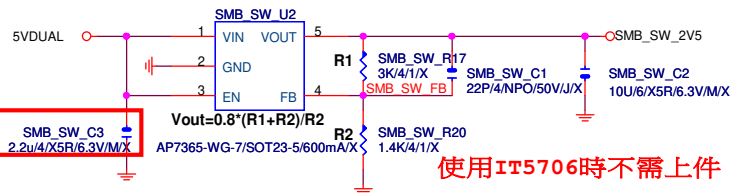
FOOTPRINT: LED-4P-RGB

第四區 LED CONTROL



GIGABYTE™		
PCH/AUDIO/DEBUG/C_LED1/2		
Size	Document Number	Rev
Custom	B560M AORUS ELITE	1.01
Date:	Tuesday, March 30, 2021	Sheet 66 of 72

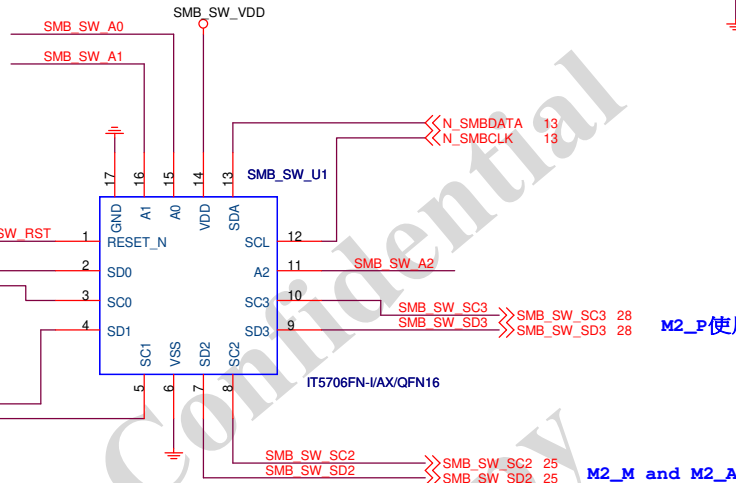
REV:0.1



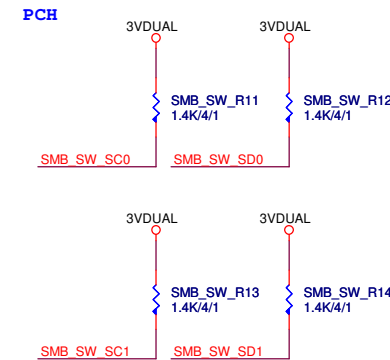
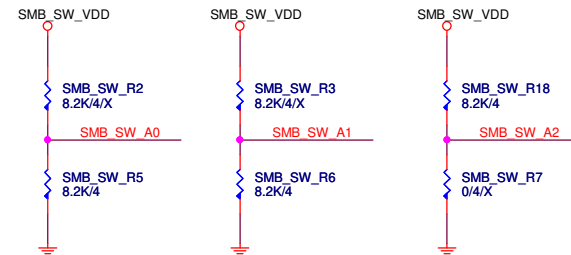
other

8,9,17,30,31,46,52,63,65 SMB_SW_SD0
8,9,17,30,31,46,52,63,65 SMB_SW_SC0

PCIE SLOT 21,22,23 SMB_SW_SD1
21,22,23 SMB_SW_SC1



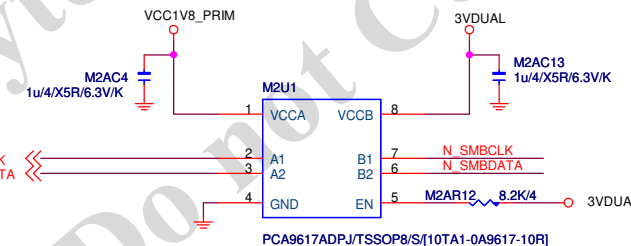
ADDRESS = 74



N SMBCLK SMB_SW_R21 0/4/X SMB_SW_SC0
N SMBDATA SMB_SW_R22 0/4/X SMB_SW_SD0

N SMBCLK SMB_SW_R23 0/4/X SMB_SW_SC1
N SMBDATA SMB_SW_R24 0/4/X SMB_SW_SD1

SMB_SW_U1 不上件時. 電阻要上



GIGABYTE™			
Title			
SMBUS SWITCH			
Size	Document Number	Rev	
Custom	B560M AORUS ELITE	1.01	
Date:	Tuesday, March 30, 2021	Sheet	68 of 72

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GIGABYTE™		
Title		
AQC113C		
Size	Document Number	Rev
Custom	B560M AORUS ELITE	1.01
Date:	Tuesday, March 30, 2021	Sheet 69 of 72

CLOSE SIO

EMIC1
100p/4/NPO/50V/J/X

10,17,29,39,51,61,65 N_SLP_S3 ←

EMIC2
100p/4/NPO/50V/J/X

10,17,29,40 61,62,65 N_S4_S5 ←

CLOSE PCH

EMIC4
100p/4/NPO/50V/J/X

4,1) N_CPUPWROK ←

GIGABYTE™

Title

EMI/ESDSize
A

Document Number

B560M AORUS ELITE

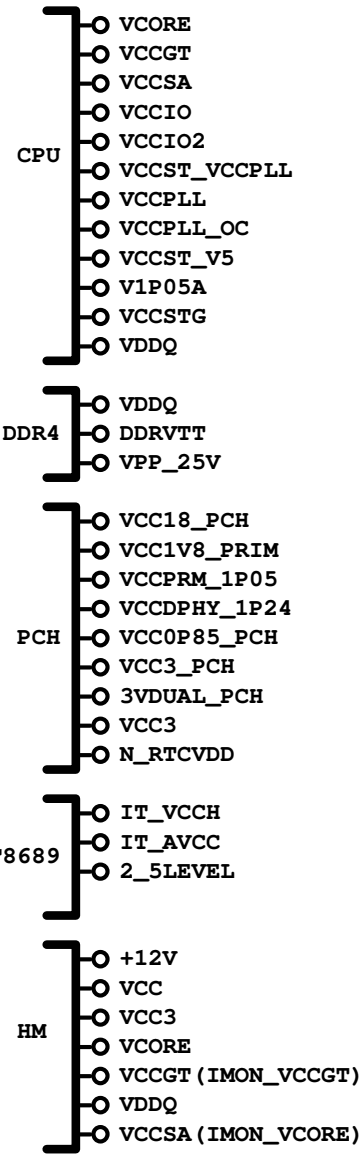
Rev

1.01

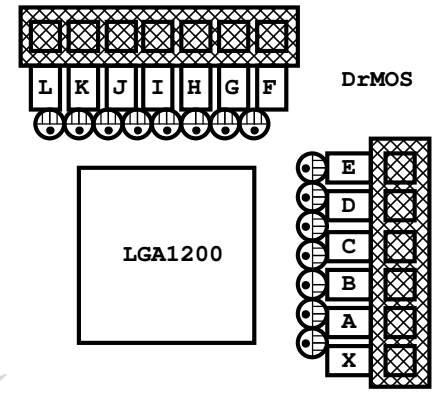
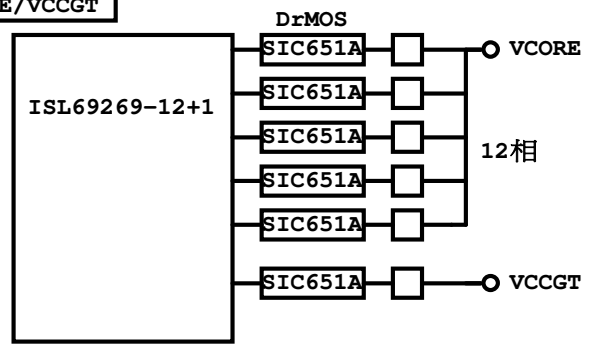
Date: Tuesday, March 30, 2021

Sheet 70 of 72

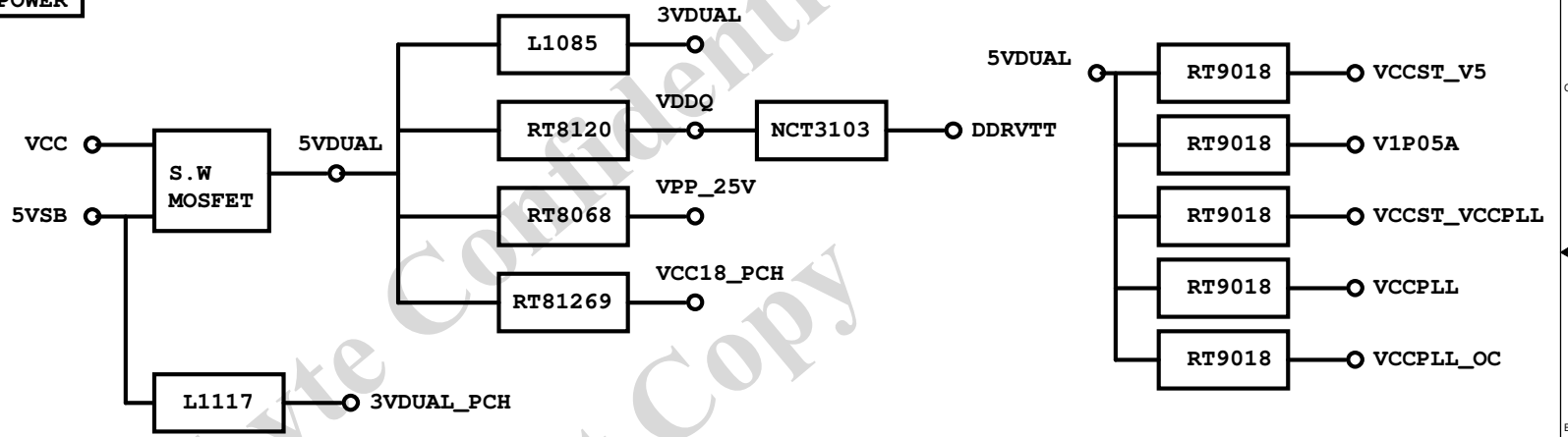
POWER BLOCK MAP



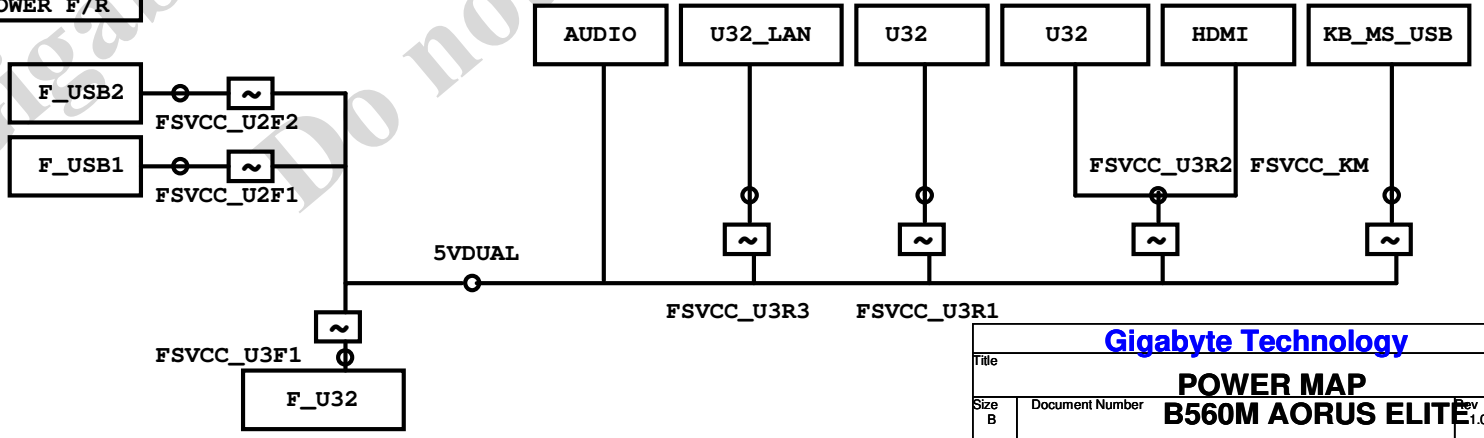
VCORE/VCCGT

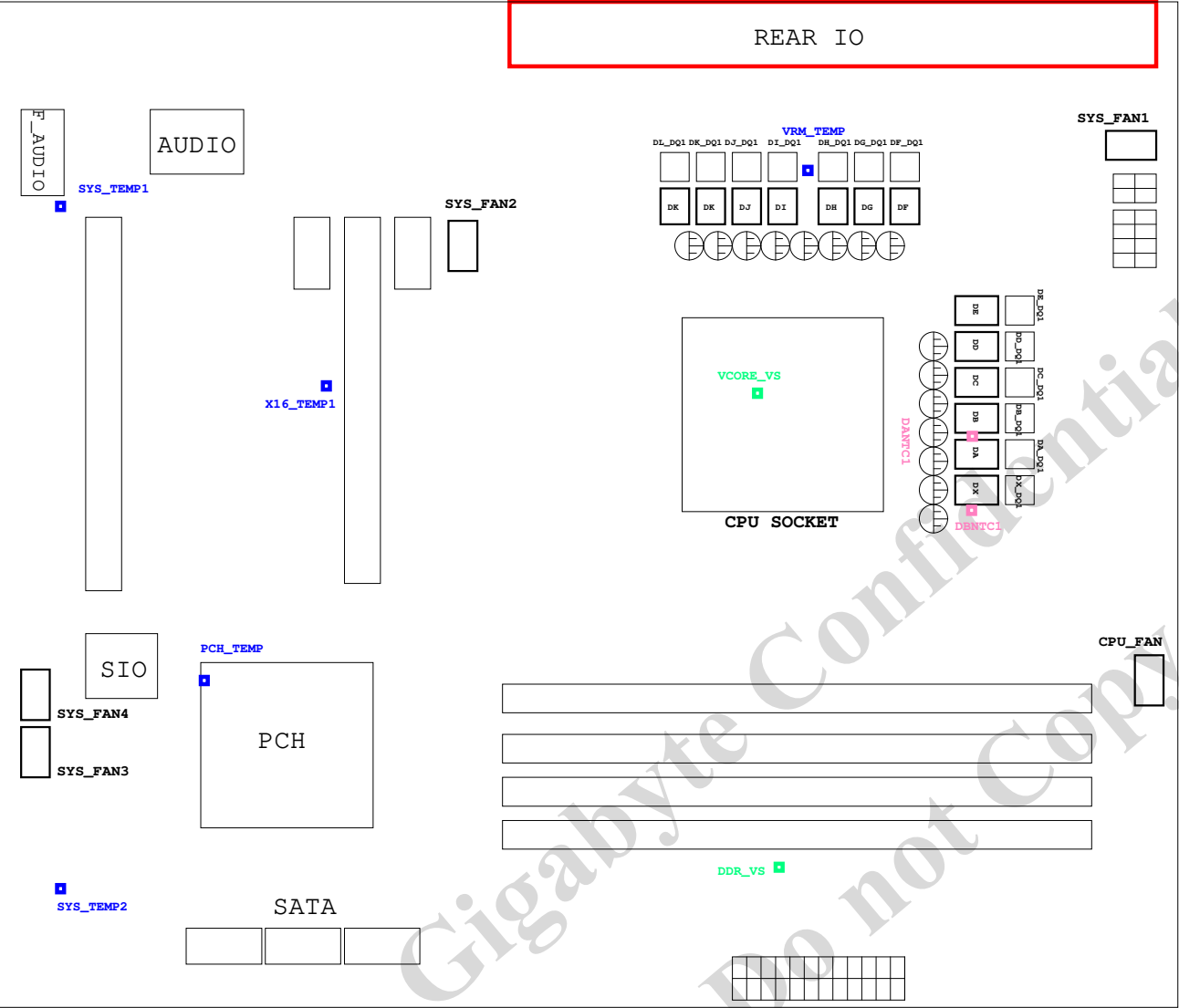


POWER



FUSE POWER F/R





熱敏電阻	擺放靠近位置	走線方式
DANTC1	DA_DL2	Differential
DANTC2	DA_DQ3	Differential
DANTC3	DM_DQ2	Differential
DANTC4	DM_DL1	Differential
VRM_TEMP	DC_DQ1	N/A
X16_TEMP1	PCIEX16	N/A
PCH_TEMP	PCH	N/A
SYS_TEMP1	F_AUDIO	N/A
SYS_TEMP2	F_PANEL	N/A

- SIO RS
- PWM RS
- SIO VIN

■ FAN