B550M AORUS ELITE

Revision : 1.01

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2015.12.30--B.L

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Title: COVER SHEET		
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Model Name: B550M AORUS ELITE

Component value change history

Version: 1.01

Date	Change Item	Reason
2020.02.04	Update MA_L1 & MA_L2 Footprint	
	APU_STESYNC For HDMI AR22 PU 1K, AR21 N/A	
	Update USB Connector name	
2020.02.05	PCIEX16 Add IO_GP81 For 支援Bifurcation	
2020.02.06	Update strap table. page 9	
	LPC_CK0 Pull Down -> Up	
2020.02.07	Spec update ATX 24pin header改為空心pin	
	Add ATX -12V	
2020.02.18	Update BOM to 01A	
	Modify LED Header	
2020.03.06	Update to R0.2	
	IT5702 料號改為10HP2-NW5702-13R	
	Update LED 模組Add MCUR158,MCUR159	
2020.03.11	Q-Flash LED 改為3VDUAL	
	ADD PWM power sequence	
	Update CLK REQ & CLK 與PCIE Port 對應	
2020.03.18	IT5702 PIN7&11 Pull High 改為A_VDD18S5	
2020.03.23	Update PWM power sequence	
2020.03.27	PWM ADD SMB Switch	
	Add DAC9 close to DAQ2	
	Add DAR11,DAR12	
	Add AR130,AR131	
2020.04.08	Update to R1.0	
	ADD PCIEX16 A32 Bifurcation GPIO	
	ADD UC56	
2020.04.14	FIX Renoir APU CMOS 無法 clear issue	
	C92 & C225 改47u(0805)	
2020.04.16	FIX PWM VCCIO(PIN7) 漏電	
	FIX AUDIO 漏電 (Renoir Only)	
	Add IT5702 WTD	

Circuit or PCB layout change for next version

Date	Change Item	Reason
2020.04.20	移除PWM SMBUS switch	
2020.05.08	ADD ECD_Q4, DEL ECD_Q5	
	Update PWM 料號, DEL DAJP	
2020.05.21	Update PWM 料號為10TA1-622904-08R	
2020.05.29	AR39, AR40 改為499 ohm	
2020.07.10	Update to R1.01	
	Modify from B550M DS3H R1.01	

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Title: BOM & PCB HISTORY		
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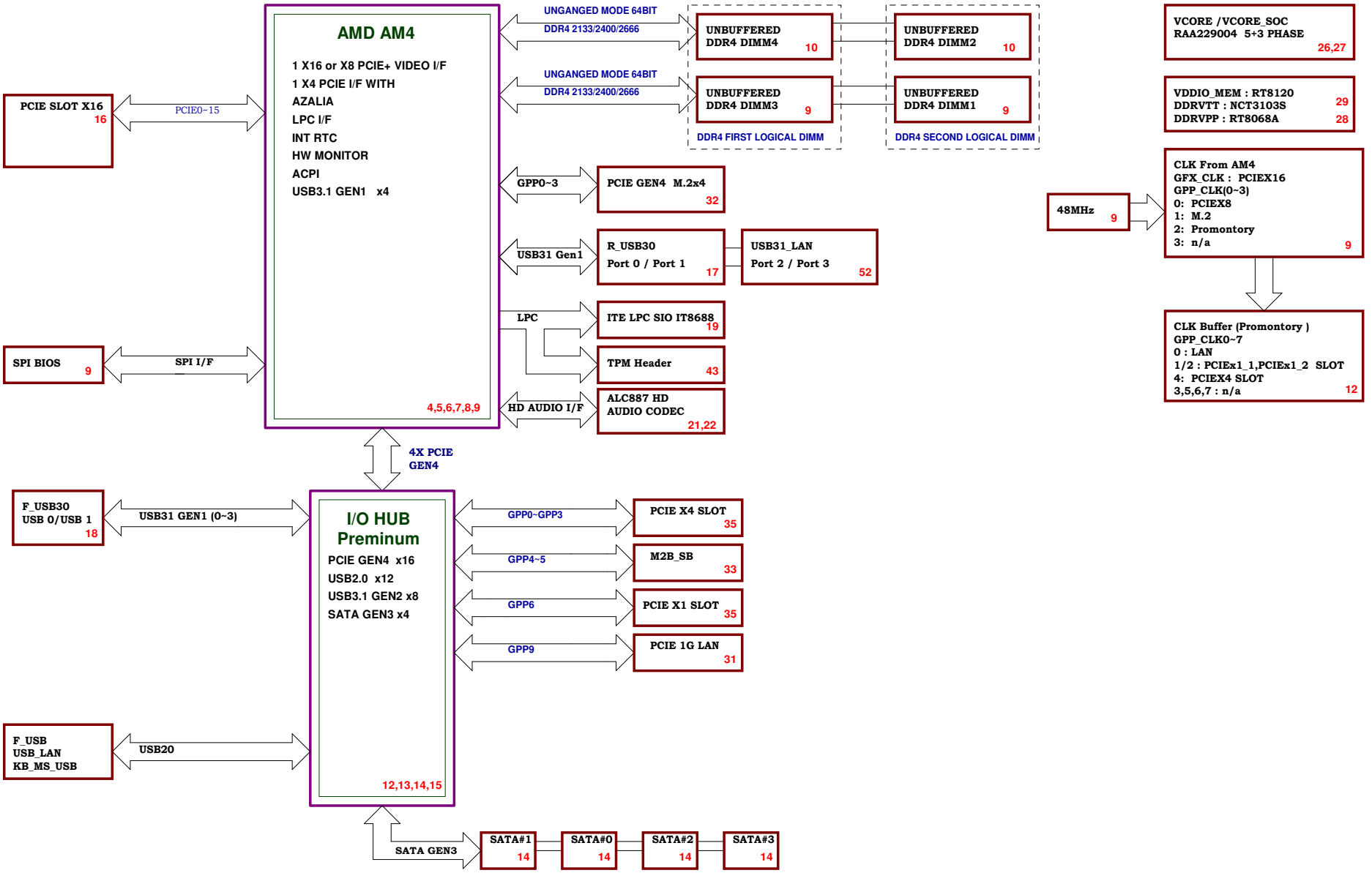

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Title	BLOCK DIAGRAM	
Size: Custom	Document Number: B550M AORUS ELITE	Rev: 1.01
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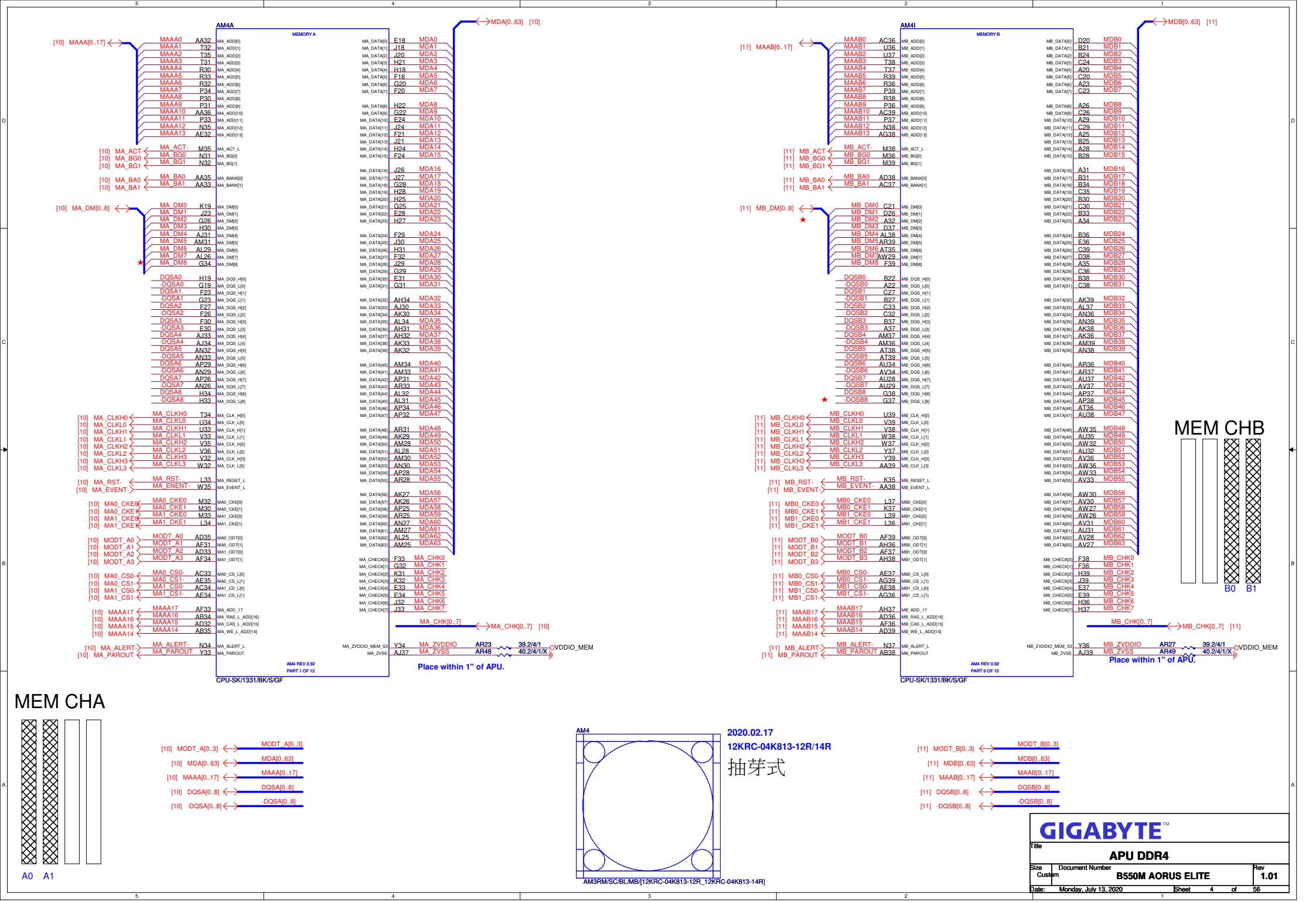

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Title	APU DDR4		
Size: Custom	Document Number: B550M AORUS ELITE		Rev: 1.01
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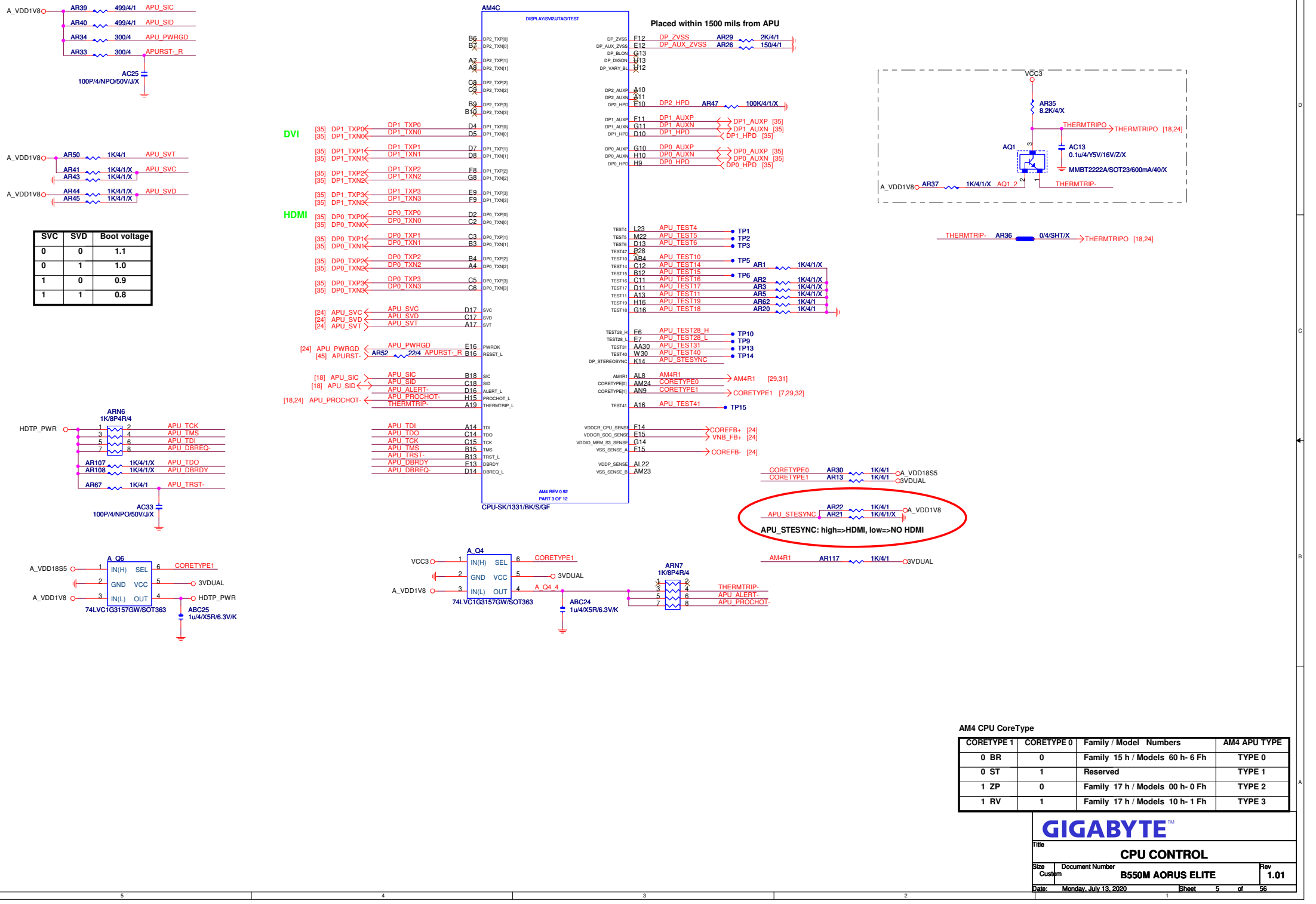

AM4 CPU CoreType

CORETYPE 1	CORETYPE 0	Family / Model Numbers	AM4 APU TYPE
0 BR	0	Family 15 h / Models 60 h- 6 Fh	TYPE 0
0 ST	1	Reserved	TYPE 1
1 ZP	0	Family 17 h / Models 00 h- 0 Fh	TYPE 2
1 RV	1	Family 17 h / Models 10 h- 1 Fh	TYPE 3

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Title: CPU CONTROL

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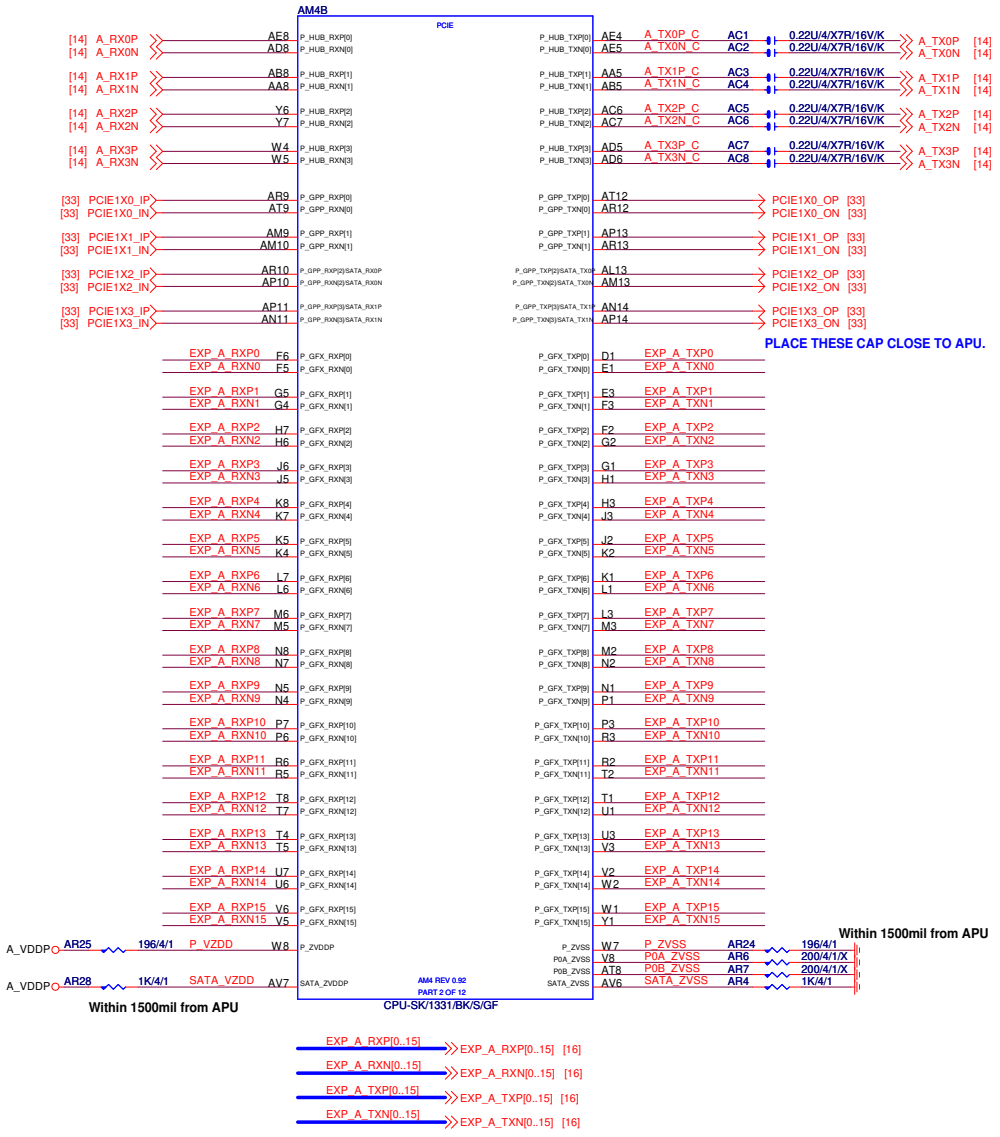

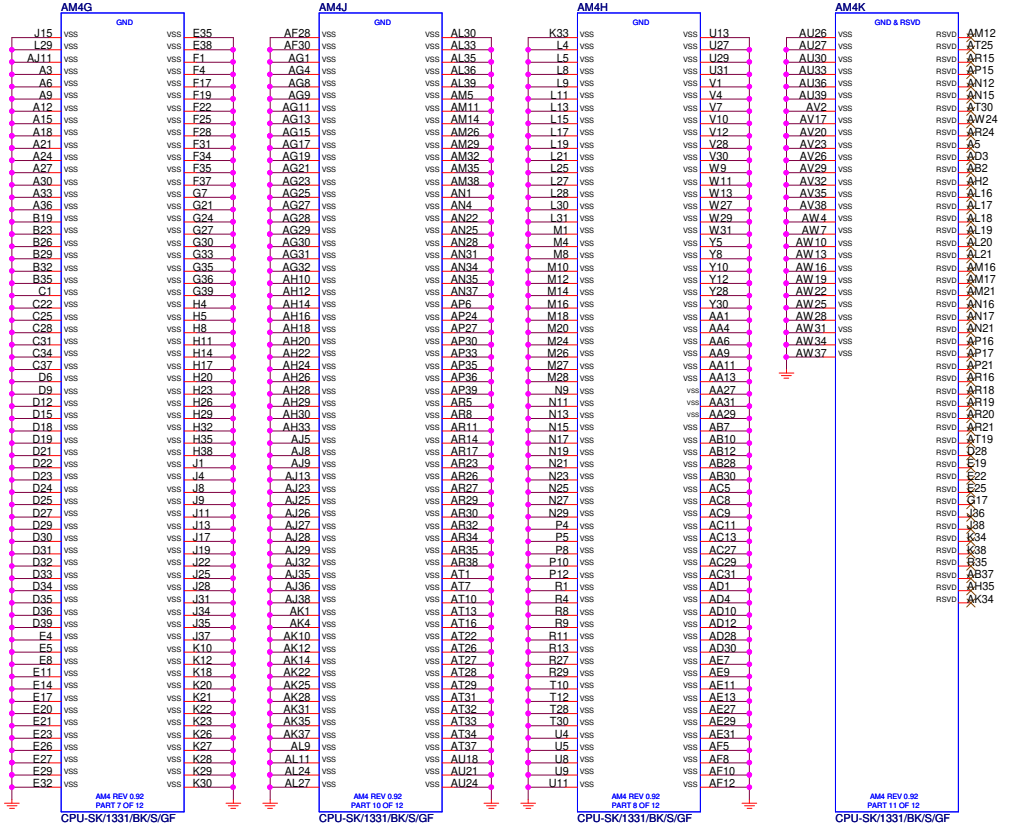

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Title	AM4_PCIE LINK, GND	
Size: Custom	Document Number: B550M AORUS ELITE	Rev: 1.01
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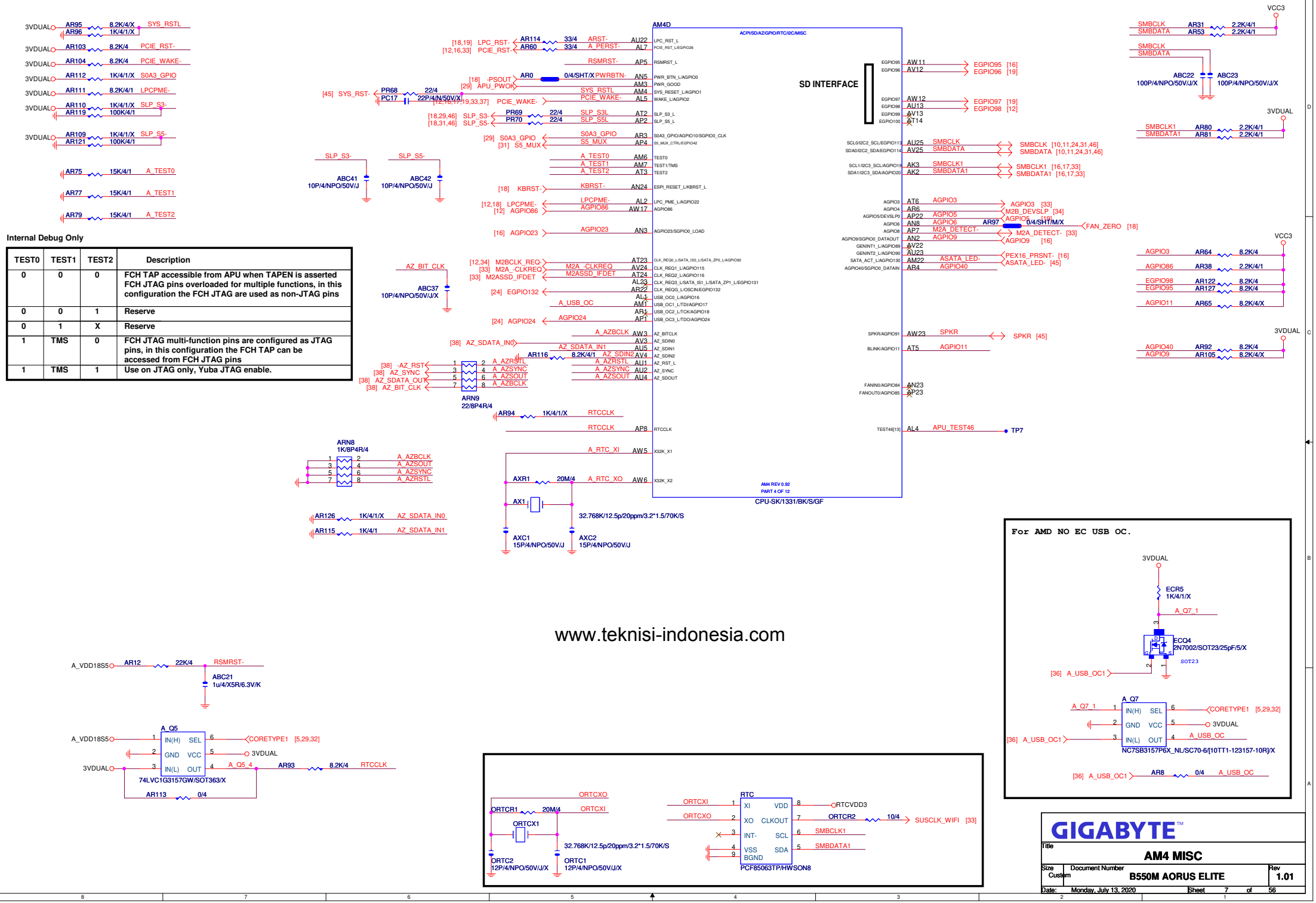
3VDUAL AR95 8.2K/4/X AR96 1K/4/1/X SYS_RSTL
3VDUAL AR103 8.2K/4 PCIE_RST-
3VDUAL AR104 8.2K/4 PCIE_WAKE-
3VDUAL AR112 1K/4/1/X S0A3_GPIO
3VDUAL AR111 8.2K/4/1 LPCPME-
3VDUAL AR110 1K/4/1/X SLP_S3-
AR119 100K/4/1
3VDUAL AR109 1K/4/1/X SLP_S5-
AR121 100K/4/1
AR75 15K/4/1 A_TEST0
AR77 15K/4/1 A_TEST1
AR79 15K/4/1 A_TEST2
Internal Debug Only
TEST0 TEST1 TEST2 Description
0 0 0 FCH TAP accessible from APU when TAPEN is asserted FCH JTAG pins overloaded for multiple functions, in this configuration the FCH JTAG are used as non-JTAG pins
0 0 1 Reserve
0 1 X Reserve
1 TMS 0 FCH JTAG multi-function pins are configured as JTAG pins, in this configuration the FCH TAP can be accessed from FCH JTAG pins
1 TMS 1 Use on JTAG only, Yuba JTAG enable.
AM4D
ACPI/SD/AZ/GPIO/RTC/I2C/MISC
SD INTERFACE
CPU-SK/1331/BK/S/GF
AM4 REV 0.92
PART 4 OF 12
[18,19] LPC_RST- AR114 33/4 ARST- AU22
[12,16,33] PCIE_RST- AR60 33/4 A_PERST- AL7
RSMRST- AP5
[18] -PSOUT AR0 0/4/SHT/X PWRBTN- AN5
[29] APU_PWOK AM3
SYS_RSTL AM4
[45] SYS_RST- PR68 22/4 PC17 22P/4/N/50V/X PCIE_WAKE- AL5
[18,29,46] SLP_S3- PR69 22/4 SLP_S3L AT2
[18,31,46] SLP_S5- PR70 22/4 SLP_S5L AP2
[29] S0A3_GPIO AR3
[31] S5_MUX AP4
SLP_S3- ABC41 10P/4/NPO/50V/J
SLP_S5- ABC42 10P/4/NPO/50V/J
A_TEST0 AM6
A_TEST1 AM7
A_TEST2 AT3
[18] KBRST- AN24
[12,18] LPCPME- AL2
[12] AGPIO86 AW17
[16] AGPIO23 AN3
AZ_BIT_CLK ABC37 10P/4/NPO/50V/J/X
[12,34] M2BCLK_REQ AT23
[33] M2A_-CLKREQ AV24
[33] M2ASSD_IFDET AT24
AL23
[24] EGPIO132 AR22
AL1
A_USB_OC AM1
AR1
[24] AGPIO24 AP1
[38] AZ_SDATA_IN0 A_AZBCLK AW3
AZ_SDATA_IN1 AU5
AR116 8.2K/4/1 AZ_SDIN2 AV4
[38] -AZ_RST A_AZRSTL AU1
[38] AZ_SYNC A_AZSYNC AU2
[38] AZ_SDATA_OUT A_AZSOUT AU4
[38] AZ_BIT_CLK A_AZBCLK
ARN9 22/8P4R/4
AR94 1K/4/1/X RTCCLK
RTCCLK AP8
A_RTC_XI AW5
AXR1 20M/4 A_RTC_XO AW6
AX1 32.768K/12.5p/20ppm/3.2*1.5/70K/S
AXC1 15P/4/NPO/50V/J
AXC2 15P/4/NPO/50V/J
ARN8 1K/8P4R/4
A_AZBCLK A_AZSOUT A_AZSYNC A_AZRSTL
AR126 1K/4/1/X AZ_SDATA_IN0
AR115 1K/4/1 AZ_SDATA_IN1
EGPIO95 AW11 EGPIO95 [16]
EGPIO96 AV12 EGPIO96 [19]
EGPIO97 AW12 EGPIO97 [19]
EGPIO98 AU13 EGPIO98 [12]
EGPIO99 AV13
EGPIO100 AT14
SCL0/I2C2_SCL/EGPIO113 AU25 SMBCLK SMBCLK [10,11,24,31,46]
SDA0/I2C2_SDA/EGPIO114 AV25 SMBDATA SMBDATA [10,11,24,31,46]
SCL1/I2C3_SCL/AGPIO19 AK3 SMBCLK1 SMBCLK1 [16,17,33]
SDA1/I2C3_SDA/AGPIO20 AK2 SMBDATA1 SMBDATA1 [16,17,33]
AGPIO3 AT6 AGPIO3 AGPIO3 [33]
AGPIO4 AR6 M2B_DEVSLP [34]
AGPIO5/DEVSLP0 AP22 AGPIO5 AGPIO5 [18]
AGPIO6 AN8 AGPIO6 AR97 0/4/SHT/M/X FAN_ZERO [18]
AGPIO8 AP7 M2A_DETECT- M2A_DETECT- [33]
AGPIO9/SGPIO0_DATAOUT AN2 AGPIO9 AGPIO9 [16]
GENINT1_L/AGPIO89 AV22
GENINT2_L/AGPIO90 AU23 PEX16_PRSNT- PEX16_PRSNT- [16]
SATA_ACT_L/AGPIO130 AM22 ASATA_LED- ASATA_LED- [45]
AGPIO40/SGPIO0_DATAIN AR4 AGPIO40
SPKR/AGPIO91 AW23 SPKR SPKR [45]
BLINK/AGPIO11 AT5 AGPIO11
FANIN0/AGPIO84 AN23
FANOUT0/AGPIO85 AP23
TEST46[13] AL4 APU_TEST46 TP7
SMBCLK AR31 2.2K/4/1
SMBDATA AR53 2.2K/4/1
ABC22 100P/4/NPO/50V/J/X ABC23 100P/4/NPO/50V/J/X
SMBCLK1 AR80 2.2K/4/1
SMBDATA1 AR81 2.2K/4/1
AGPIO3 AR64 8.2K/4
AGPIO86 AR38 2.2K/4/1
EGPIO98 AR122 8.2K/4
EGPIO95 AR127 8.2K/4
AGPIO11 AR65 8.2K/4/X
AGPIO40 AR92 8.2K/4
AGPIO9 AR105 8.2K/4/X
VCC3
3VDUAL
A_VDD18S5 AR12 22K/4 RSMRST-
ABC21 1u/4/X5R/6.3V/K
A_Q5
IN(H) SEL GND VCC IN(L) OUT
74LVC1G3157GW/SOT363/X
CORETYPE1 [5,29,32]
A_Q5_4 AR93 8.2K/4 RTCCLK
AR113 0/4
ORTCXO ORTCR1 20M/4 ORTCXI ORTCX1
32.768K/12.5p/20ppm/3.2*1.5/70K/S
ORTC2 12P/4/NPO/50V/J/X ORTC1 12P/4/NPO/50V/J/X
RTC
XI VDD XO CLKOUT INT- SCL VSS BGND SDA
PCF85063TP/HWSON8
RTCVDD3 ORTCR2 10/4 SUSCLK_WIFI [33] SMBCLK1 SMBDATA1
For AMD NO EC USB OC.
ECR5 1K/4/1/X A_Q7_1
ECQ4 2N7002/SOT23/25pF/5/X
SOT23
[36] A_USB_OC1
A_Q7
NC7SB3157P6X_NL/SC70-6/[10TT1-123157-10R]/X
CORETYPE1 [5,29,32]
A_USB_OC
AR8 0/4
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Title AM4 MISC
Size Custom Document Number B550M AORUS ELITE Rev 1.01
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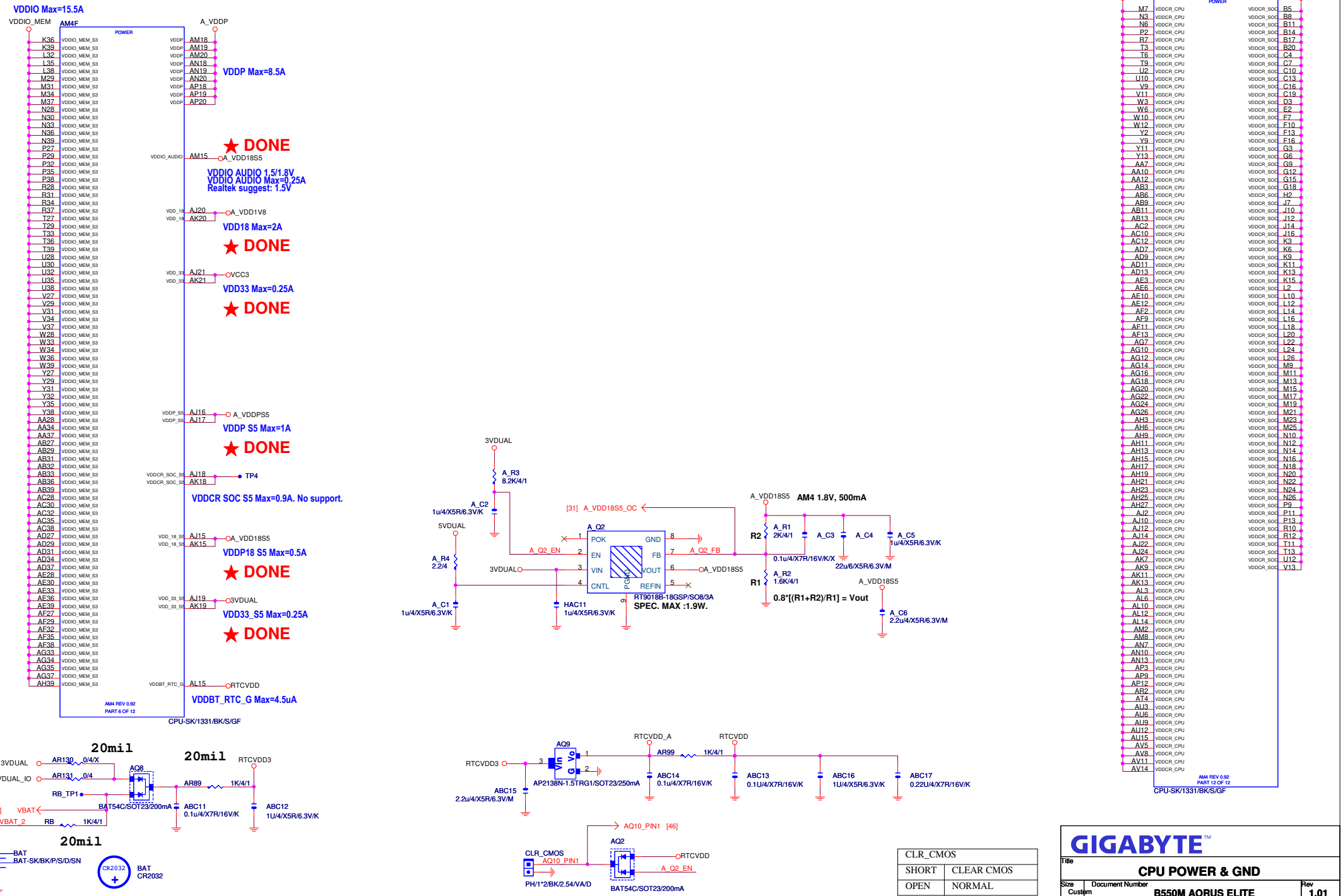
VDDIO Max=15.5A
VDDIO_MEM
AM4F
POWER
A_VDDP
VDDP Max=8.5A
DONE
VDDIO_AUDIO
AM15
A_VDD18S5
VDDIO AUDIO 1.5/1.8V
VDDIO AUDIO Max=0.25A
Realtek suggest: 1.5V
VDD_18
AJ20
AK20
A_VDD1V8
VDD18 Max=2A
DONE
VDD_33
AJ21
AK21
VCC3
VDD33 Max=0.25A
DONE
VDDP_S5
AJ16
AJ17
A_VDDPS5
VDDP S5 Max=1A
DONE
VDDCR_SOC_S5
AJ18
AK18
TP4
VDDCR SOC S5 Max=0.9A. No support.
VDD_18_S5
AJ15
AK15
A_VDD18S5
VDDP18 S5 Max=0.5A
DONE
VDD_33_S5
AJ19
AK19
3VDUAL
VDD33_S5 Max=0.25A
DONE
VDDBT_RTC_G
AL15
RTCVDD
VDDBT_RTC_G Max=4.5uA
AM4 REV 0.92
PART 6 OF 12
CPU-SK/1331/BK/S/GF
Vcore EDC =125A
Vcore 0.75~1.5V
Vcore SOC EDC=75A
Vcore SOC 0.75~1.2V
VCORE
AM4L
POWER
VCORE_SOC
AM4 REV 0.92
PART 12 OF 12
CPU-SK/1331/BK/S/GF
3VDUAL
A_R3
8.2K/4/1
A_C2
1u/4/X5R/6.3V/K
5VDUAL
A_R4
2.2/4
A_C1
1u/4/X5R/6.3V/K
[31] A_VDD18S5_OC
A_Q2
POK
EN
VIN
CNTL
GND
FB
VOUT
REFIN
PGND
A_Q2_EN
A_Q2_FB
A_VDD18S5
HAC11
1u/4/X5R/6.3V/K
RT9018B-18GSP/SO8/3A
SPEC. MAX :1.9W.
A_VDD18S5
AM4 1.8V, 500mA
R2
A_R1
2K/4/1
A_C3
0.1u/4/X7R/16V/K/X
A_C4
22u/6/X5R/6.3V/M
A_C5
1u/4/X5R/6.3V/K
R1
A_R2
1.6K/4/1
0.8*[(R1+R2)/R1] = Vout
A_VDD18S5
A_C6
2.2u/4/X5R/6.3V/M
20mil
3VDUAL
AR130
0/4/X
3VDUAL_IO
AR131
0/4
AQ8
RB_TP1
BAT54C/SOT23/200mA
20mil
RTCVDD3
AR89
1K/4/1
ABC11
0.1u/4/X7R/16V/K
ABC12
1U/4/X5R/6.3V/K
[18]
VBAT
VBAT_2
RB
1K/4/1
20mil
BAT
BAT-SK/BK/P/S/D/SN
CR2032
BAT
CR2032
RTCVDD_A
RTCVDD
AQ9
RTCVDD3
AR99
1K/4/1
ABC15
2.2u/4/X5R/6.3V/M
AP2138N-1.5TRG1/SOT23/250mA
ABC14
0.1u/4/X7R/16V/K
ABC13
0.1U/4/X7R/16V/K
ABC16
1U/4/X5R/6.3V/K
ABC17
0.22U/4/X7R/16V/K
AQ10_PIN1 [46]
AQ2
CLR_CMOS
AQ10_PIN1
RTCVDD
A_Q2_EN
PH/1*2/BK/2.54/VA/D
BAT54C/SOT23/200mA
CLR_CMOS
SHORT
CLEAR CMOS
OPEN
NORMAL
NOT ADD ICT FOR RTCVDD PIN
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CPU POWER & GND
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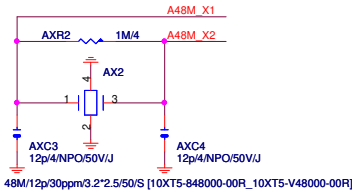
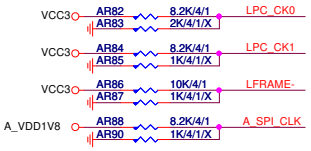
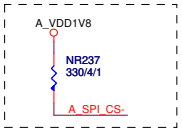


AM4 STRAP

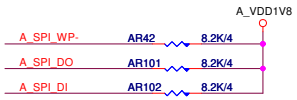
	SPI_CLK	LFRAME-	SYS_RST-	LPC_CLK0	LPC_CLK1
PULL HIGH	Internal clock mode	SPI ROM	Normal reset mode	PSP modify SPI page reg bits[24:24]	Use 48MHz crystal clock
PULL LOW	Extal clock mode	LPC ROM	Short reset mode	PSP not modify SPI page reg bits[24:24]	Use 100MHz extl clock input.

Bule: default

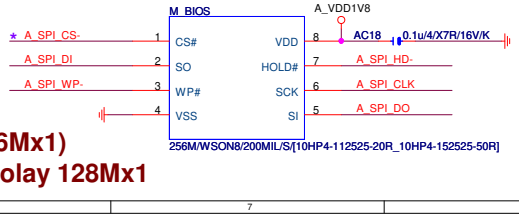




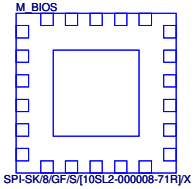
★1.8V SPI ROM USE



Fix flash BIOS fail Issue 1K to 330 ohm



★WSON8 BIOS Socket



Single (256Mx1)
 # Layout colay 128Mx1

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DDR4_A1

DDR4_A2

* net 改 VDDQ

DDRVTT

VDDIO_MEM

VPP_MEM

MAR19 1K/4/1

MAR1 1K/4/1

MR19 0/6/X

MR0 0/6/SHT10/X

MA_EVENT- [4]

MA_CHK[0..7] [4]

MA_DM[0..8] [4]

MODT_A[0..3] [4]

MDA[0..63] [4]

MAAA[0..17] [4]

DQSA[0..8] [4]

-DQSA[0..8] [4]

DDR4288BK/VA/D/GF/TWO LATCH/C7025

CHANNEL A0
SA2:0=000

CHANNEL A1
SA2:2=010

DDR12V Decouple

VDDIO_MEM

MABC18 0.1u/4/X7R/16V/K

MABC38 0.1u/4/X7R/16V/K

MASC3 0.1u/4/X7R/16V/K/X

MASC2 0.1u/4/X7R/16V/K

MABC10 22u/6/X5R/6.3V/M

MABC36 1u/4/X5R/6.3V/K

MABC21 1u/4/X5R/6.3V/K

MABC8 2.2u/4/X5R/6.3V/M

MABC20 1u/4/X5R/6.3V/K

MABC30 1u/4/X5R/6.3V/K

* 電容移到 [RT8120_DDR]

DDRVTT Decouple

DDRVTT

MABC23 0.1u/4/X7R/16V/K

MABC22 1u/4/X5R/6.3V/K

MABC26 0.1u/4/X7R/16V/K

MABC4 0.1u/4/X7R/16V/K

MAR15 1K/4/1

MAR16 1K/4/1

VREF_DDRA

GIGABYTE

Title	DDR4 CHANNEL A		
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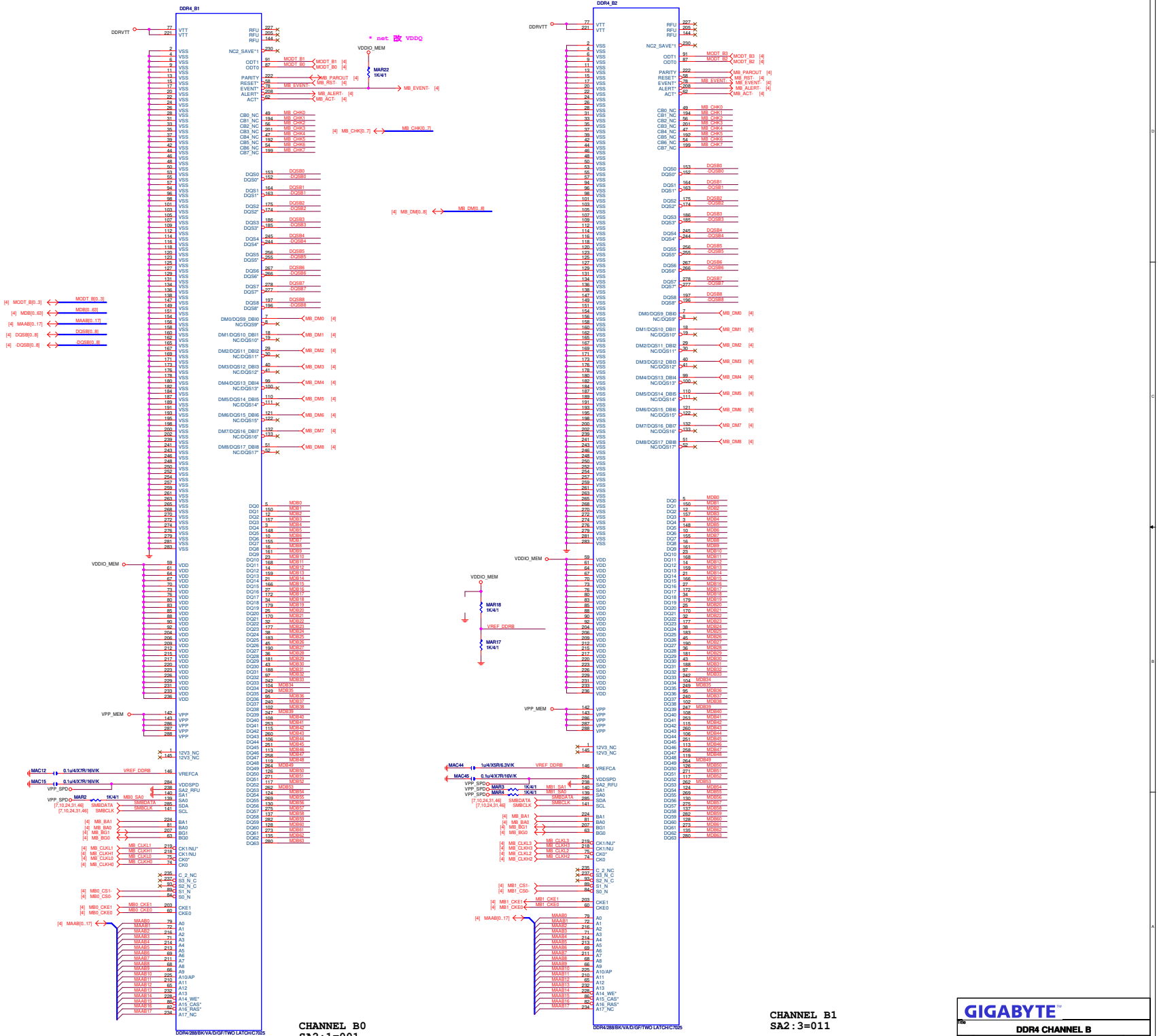

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Title	DDR4 CHANNEL B	
Size: Custom	Document Number: B550M AORUS ELITE	Rev: 1.01
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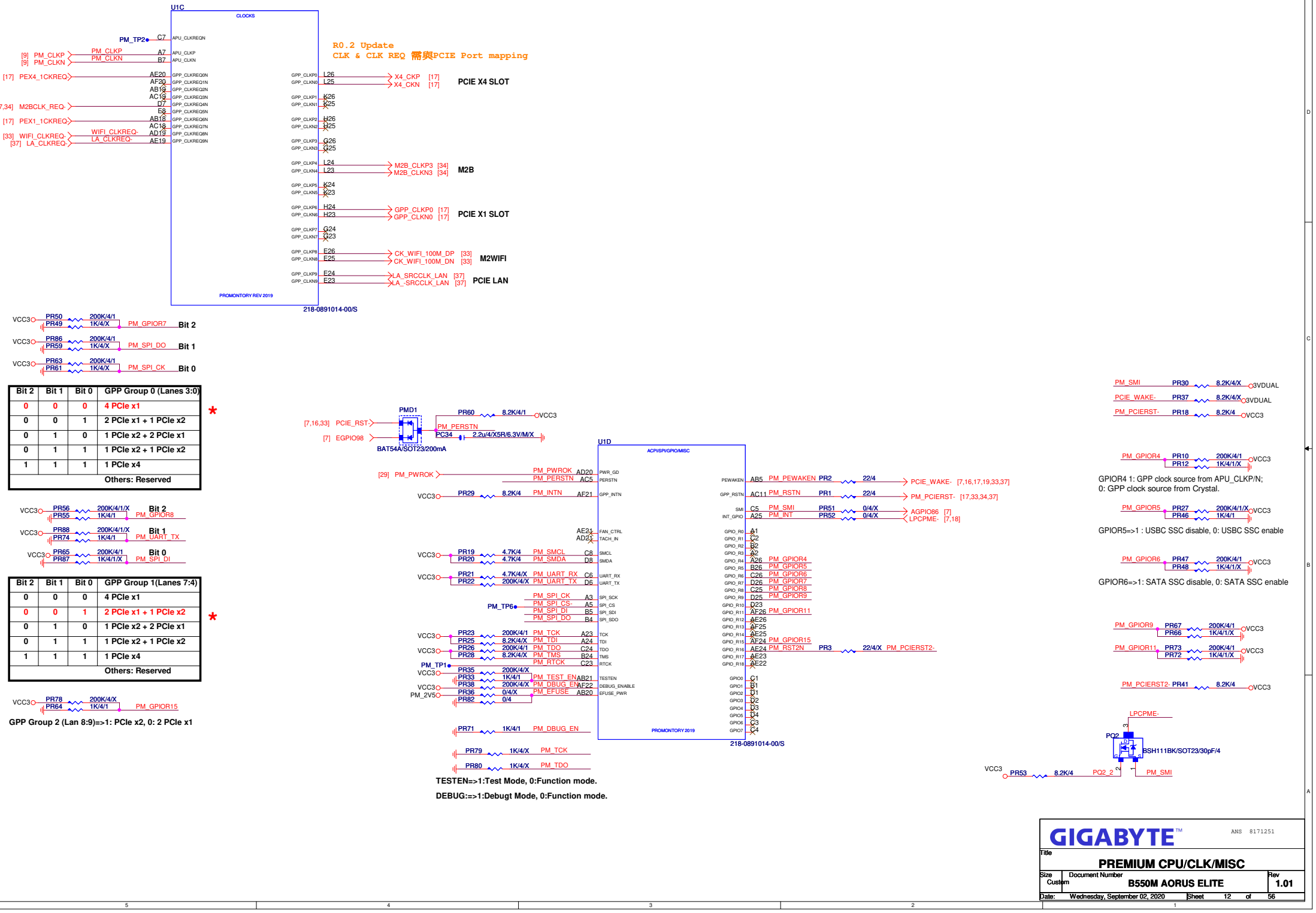

Bit 2	Bit 1	Bit 0	GPP Group 0 (Lanes 3:0)
0	0	0	4 PCIe x1
0	0	1	2 PCIe x1 + 1 PCIe x2
0	1	0	1 PCIe x2 + 2 PCIe x1
0	1	1	1 PCIe x2 + 1 PCIe x2
1	1	1	1 PCIe x4
			Others: Reserved

Bit 2	Bit 1	Bit 0	GPP Group 1(Lanes 7:4)
0	0	0	4 PCIe x1
0	0	1	2 PCIe x1 + 1 PCIe x2
0	1	0	1 PCIe x2 + 2 PCIe x1
0	1	1	1 PCIe x2 + 1 PCIe x2
1	1	1	1 PCIe x4
			Others: Reserved

Title	PREMIUM CPU/CLK/MISC
Size	Custom
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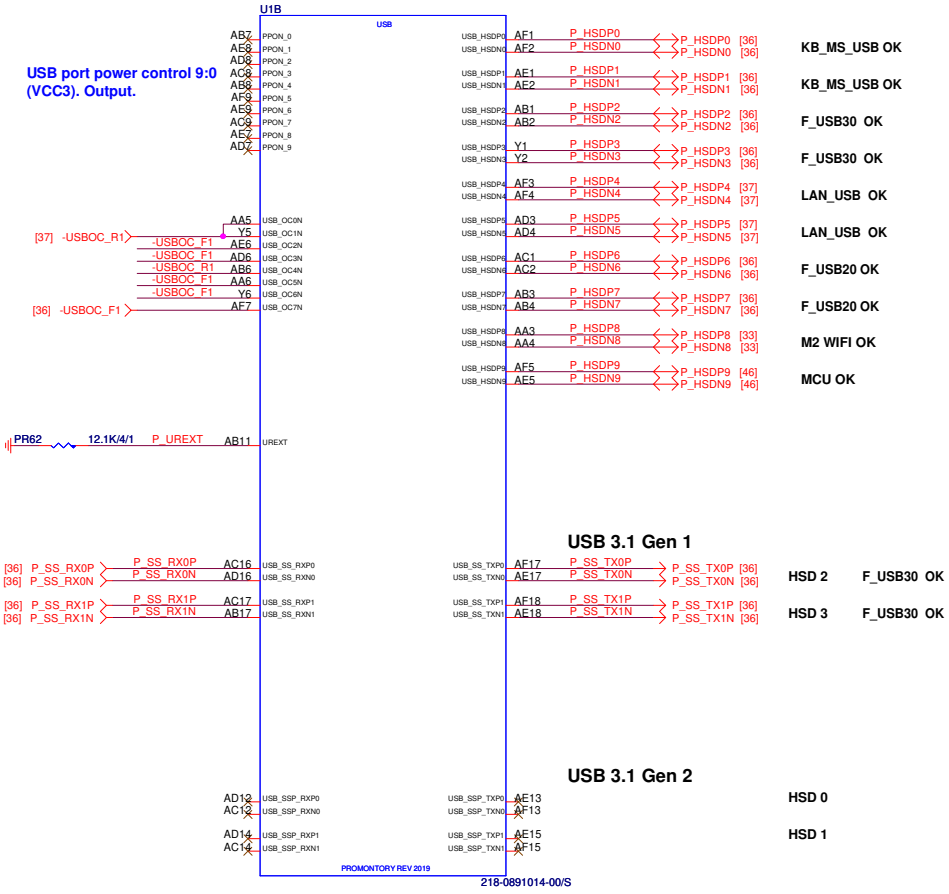

USB32G2	USB20	USB_OC
0	0	0
1	1	1
USB32G1		
0	2	2
1	3	3
	4	4
	5	5
	6	6
	7	7
	8	7
	9	7

GIGABYTE™ ANS 8171251

Title: PM USB

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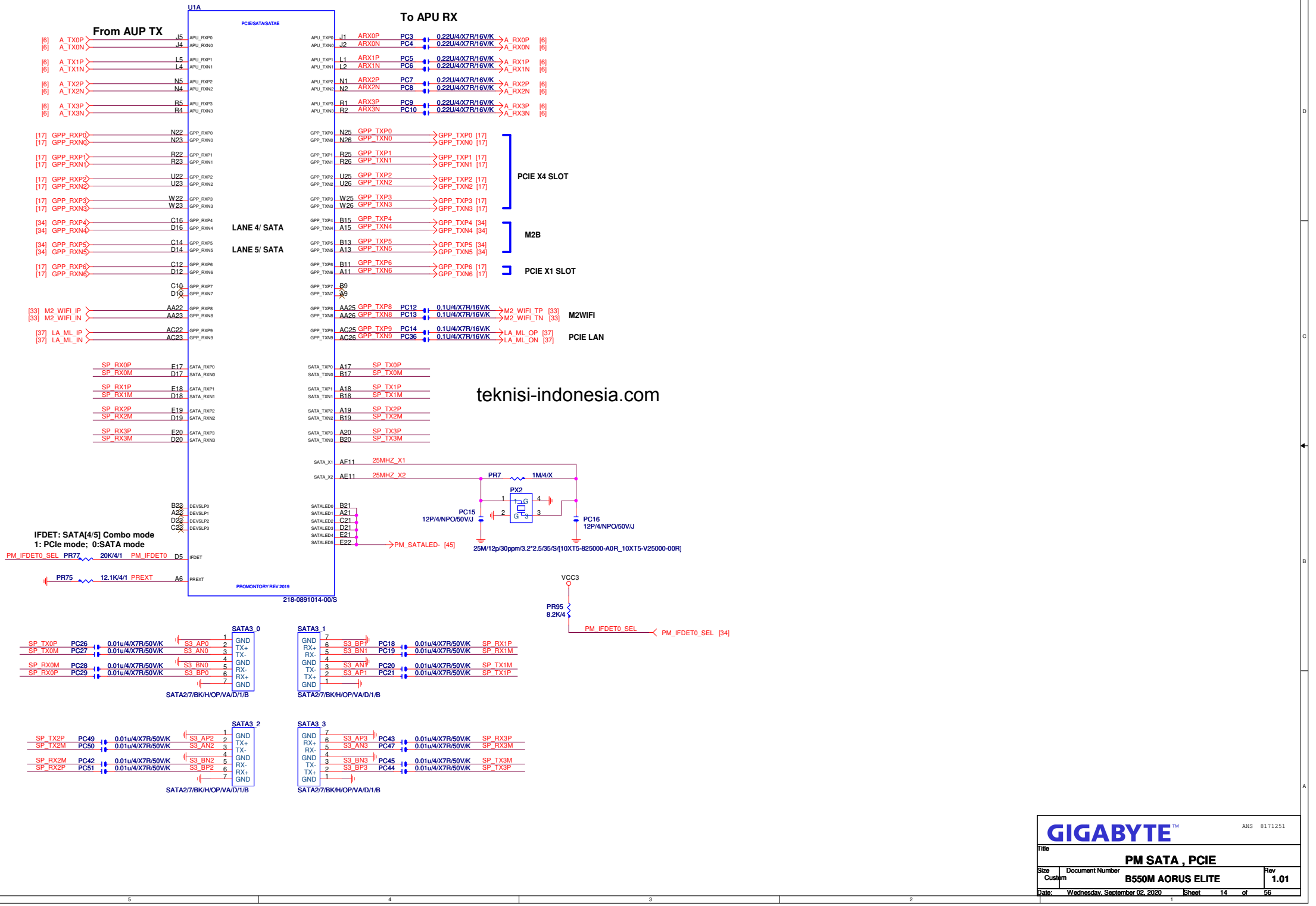

Title	PM SATA , PCIE	
Size: Custom	Document Number: B550M AORUS ELITE	Rev: 1.01
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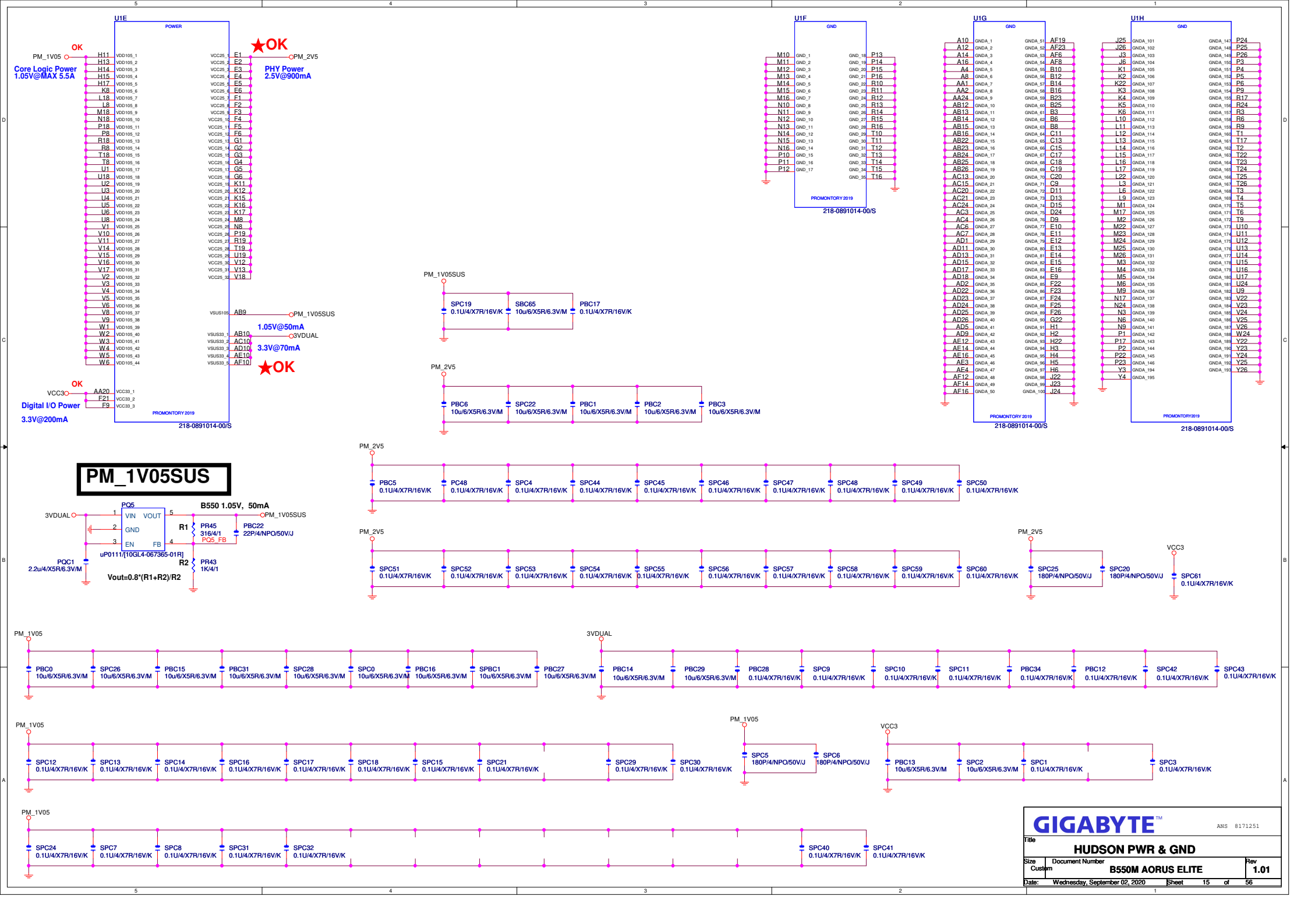
U1E
POWER
OK
PM_1V05
Core Logic Power
1.05V@MAX 5.5A
VDD105_1 VDD105_2 VDD105_3 VDD105_4 VDD105_5 VDD105_6 VDD105_7 VDD105_8 VDD105_9 VDD105_10 VDD105_11 VDD105_12 VDD105_13 VDD105_14 VDD105_15 VDD105_16 VDD105_17 VDD105_18 VDD105_19 VDD105_20 VDD105_21 VDD105_22 VDD105_23 VDD105_24 VDD105_25 VDD105_26 VDD105_27 VDD105_28 VDD105_29 VDD105_30 VDD105_31 VDD105_32 VDD105_33 VDD105_34 VDD105_35 VDD105_36 VDD105_37 VDD105_38 VDD105_39 VDD105_40 VDD105_41 VDD105_42 VDD105_43 VDD105_44
VCC25_1 VCC25_2 VCC25_3 VCC25_4 VCC25_5 VCC25_6 VCC25_7 VCC25_8 VCC25_9 VCC25_10 VCC25_11 VCC25_12 VCC25_13 VCC25_14 VCC25_15 VCC25_16 VCC25_17 VCC25_18 VCC25_19 VCC25_20 VCC25_21 VCC25_22 VCC25_23 VCC25_24 VCC25_25 VCC25_26 VCC25_27 VCC25_28 VCC25_29 VCC25_30 VCC25_31 VCC25_32
★OK
PM_2V5
PHY Power
2.5V@900mA
VSUS105
PM_1V05SUS
1.05V@50mA
3VDUAL
VSUS33_1 VSUS33_2 VSUS33_3 VSUS33_4 VSUS33_5
3.3V@70mA
★OK
OK
VCC3
Digital I/O Power
3.3V@200mA
VCC33_1 VCC33_2 VCC33_3
PROMONTORY 2019
218-0891014-00/S
U1F
GND
PROMONTORY 2019
218-0891014-00/S
U1G
GND
PROMONTORY 2019
218-0891014-00/S
U1H
GND
PROMONTORY2019
218-0891014-00/S
PM_1V05SUS
SPC19 0.1U/4/X7R/16V/K
SBC65 10u/6/X5R/6.3V/M
PBC17 0.1U/4/X7R/16V/K
PM_2V5
PBC6 10u/6/X5R/6.3V/M
SPC22 10u/6/X5R/6.3V/M
PBC1 10u/6/X5R/6.3V/M
PBC2 10u/6/X5R/6.3V/M
PBC3 10u/6/X5R/6.3V/M
PM_1V05SUS
PQ5
B550 1.05V, 50mA
3VDUAL
VIN VOUT GND EN FB
PM_1V05SUS
R1
PR45 316/4/1 PQ5_FB
PBC22 22P/4/NPO/50V/J
uP0111/[10GL4-067365-01R]
PQC1 2.2u/4X5R/6.3V/M
R2
PR43 1K/4/1
Vout=0.8*(R1+R2)/R2
PM_2V5
PBC5 0.1U/4/X7R/16V/K
PC48 0.1U/4/X7R/16V/K
SPC4 0.1U/4/X7R/16V/K
SPC44 0.1U/4/X7R/16V/K
SPC45 0.1U/4/X7R/16V/K
SPC46 0.1U/4/X7R/16V/K
SPC47 0.1U/4/X7R/16V/K
SPC48 0.1U/4/X7R/16V/K
SPC49 0.1U/4/X7R/16V/K
SPC50 0.1U/4/X7R/16V/K
PM_2V5
SPC51 0.1U/4/X7R/16V/K
SPC52 0.1U/4/X7R/16V/K
SPC53 0.1U/4/X7R/16V/K
SPC54 0.1U/4/X7R/16V/K
SPC55 0.1U/4/X7R/16V/K
SPC56 0.1U/4/X7R/16V/K
SPC57 0.1U/4/X7R/16V/K
SPC58 0.1U/4/X7R/16V/K
SPC59 0.1U/4/X7R/16V/K
SPC60 0.1U/4/X7R/16V/K
PM_2V5
SPC25 180P/4/NPO/50V/J
SPC20 180P/4/NPO/50V/J
VCC3
SPC61 0.1U/4/X7R/16V/K
PM_1V05
PBC0 10u/6/X5R/6.3V/M
SPC26 10u/6/X5R/6.3V/M
PBC15 10u/6/X5R/6.3V/M
PBC31 10u/6/X5R/6.3V/M
SPC28 10u/6/X5R/6.3V/M
SPC0 10u/6/X5R/6.3V/M
PBC16 10u/6/X5R/6.3V/M
SPBC1 10u/6/X5R/6.3V/M
PBC27 10u/6/X5R/6.3V/M
3VDUAL
PBC14 10u/6/X5R/6.3V/M
PBC29 10u/6/X5R/6.3V/M
PBC28 0.1U/4/X7R/16V/K
SPC9 0.1U/4/X7R/16V/K
SPC10 0.1U/4/X7R/16V/K
SPC11 0.1U/4/X7R/16V/K
PBC34 0.1U/4/X7R/16V/K
PBC12 0.1U/4/X7R/16V/K
SPC42 0.1U/4/X7R/16V/K
SPC43 0.1U/4/X7R/16V/K
PM_1V05
SPC12 0.1U/4/X7R/16V/K
SPC13 0.1U/4/X7R/16V/K
SPC14 0.1U/4/X7R/16V/K
SPC16 0.1U/4/X7R/16V/K
SPC17 0.1U/4/X7R/16V/K
SPC18 0.1U/4/X7R/16V/K
SPC15 0.1U/4/X7R/16V/K
SPC21 0.1U/4/X7R/16V/K
SPC29 0.1U/4/X7R/16V/K
SPC30 0.1U/4/X7R/16V/K
PM_1V05
SPC5 180P/4/NPO/50V/J
SPC6 180P/4/NPO/50V/J
VCC3
PBC13 10u/6/X5R/6.3V/M
SPC2 10u/6/X5R/6.3V/M
SPC1 0.1U/4/X7R/16V/K
SPC3 0.1U/4/X7R/16V/K
PM_1V05
SPC24 0.1U/4/X7R/16V/K
SPC7 0.1U/4/X7R/16V/K
SPC8 0.1U/4/X7R/16V/K
SPC31 0.1U/4/X7R/16V/K
SPC32 0.1U/4/X7R/16V/K
SPC40 0.1U/4/X7R/16V/K
SPC41 0.1U/4/X7R/16V/K
GIGABYTE
ANS 8171251
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HUDSON PWR & GND
Size Custom
Document Number
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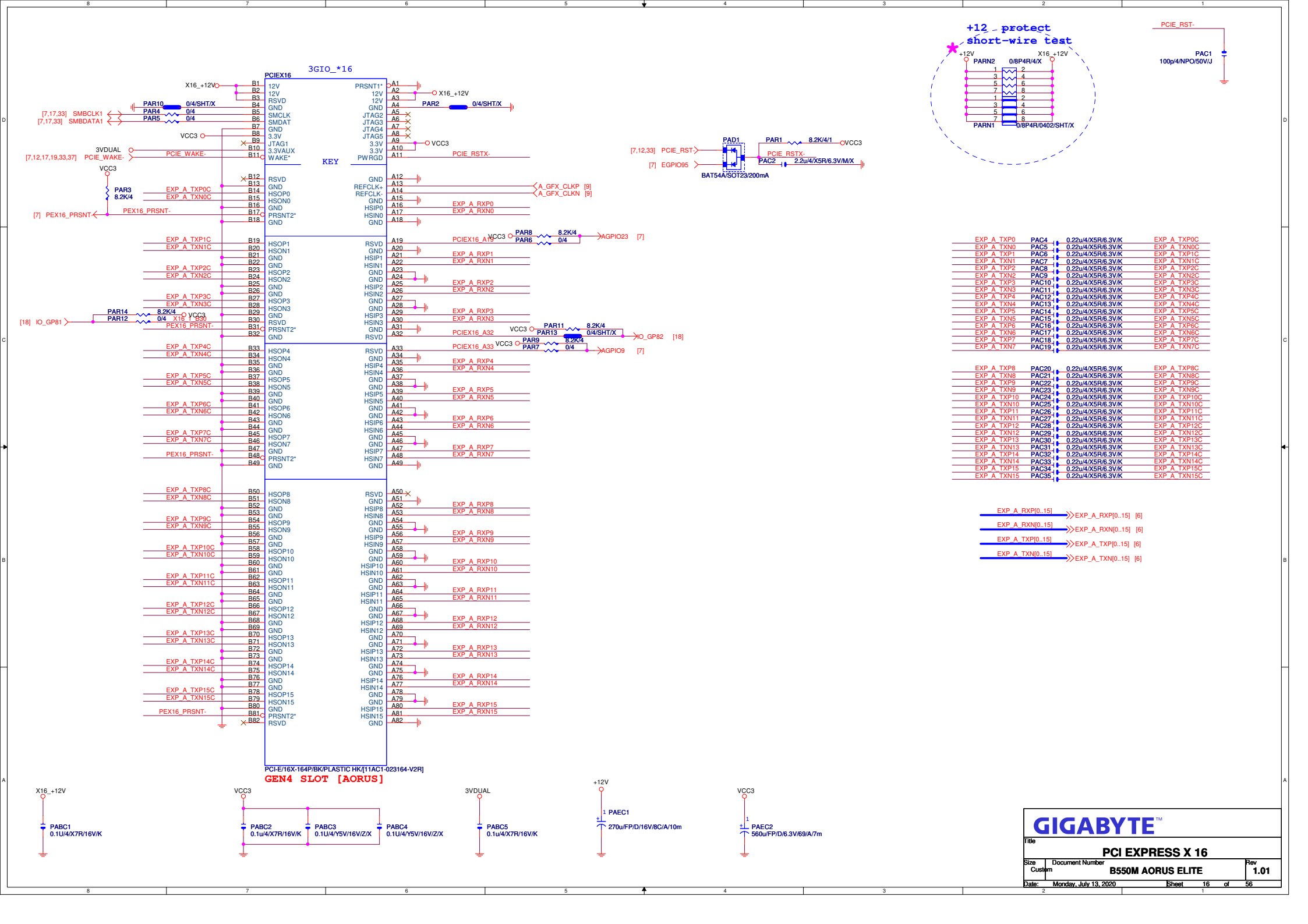
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PCIEX16
KEY
PCI-E/16X-164P/BK/PLASTIC HK/[11AC1-023164-V2R]
GEN4 SLOT [AORUS]
+12 protect
short-wire test
PAD1
BAT54A/SOT23/200mA
PAC1
100p/4/NPO/50V/J
PARN1
PARN2
0/8P4R/4/X
0/8P4R/0402/SHT/X
PAC4
PAC5
PAC6
PAC7
PAC8
PAC9
PAC10
PAC11
PAC12
PAC13
PAC14
PAC15
PAC16
PAC17
PAC18
PAC19
PAC20
PAC21
PAC22
PAC23
PAC24
PAC25
PAC26
PAC27
PAC28
PAC29
PAC30
PAC31
PAC32
PAC33
PAC34
PAC35
PABC1
0.1U/4/X7R/16V/K
PABC2
0.1u/4/X7R/16V/K
PABC3
0.1U/4/Y5V/16V/Z/X
PABC4
0.1U/4/Y5V/16V/Z/X
PABC5
0.1u/4/X7R/16V/K
PAEC1
270u/FP/D/16V/8C/A/10m
PAEC2
560u/FP/D/6.3V/69/A/7m
GIGABYTE
PCI EXPRESS X 16
B550M AORUS ELITE
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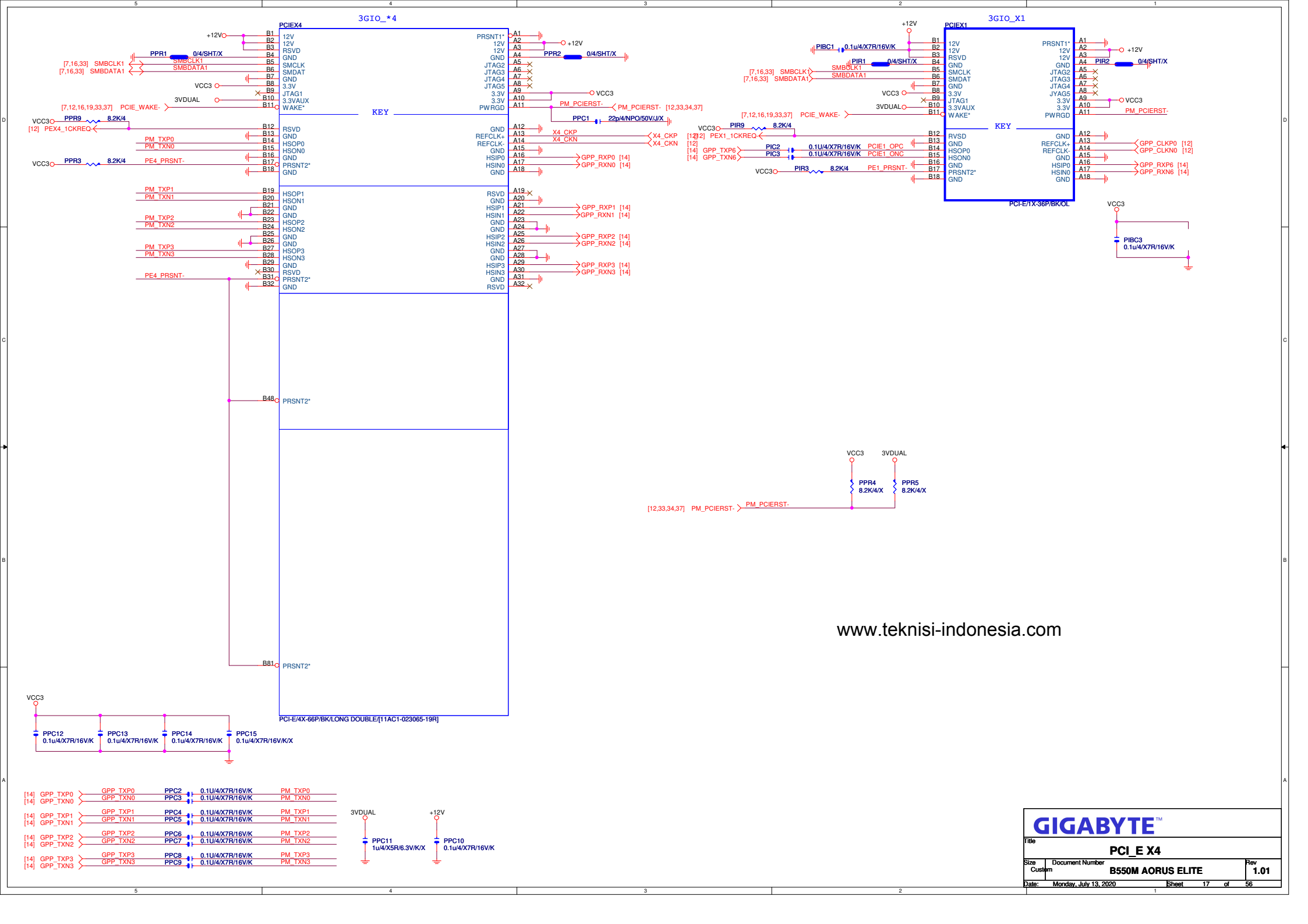
56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PCIEX4
KEY
PCI-E/4X-66P/BK/LONG DOUBLE/[11AC1-023065-19R]
3GIO_X1
PCIEX1
KEY
PCI-E/1X-36P/BK/OL
PPR1 0/4/SHT/X
PPR2 0/4/SHT/X
PPR9 8.2K/4
PPR3 8.2K/4
PPC1 22p/4/NPO/50V/J/X
PPC12 0.1u/4/X7R/16V/K
PPC13 0.1u/4/X7R/16V/K
PPC14 0.1u/4/X7R/16V/K
PPC15 0.1u/4/X7R/16V/K/X
PPC2 0.1U/4/X7R/16V/K
PPC3 0.1U/4/X7R/16V/K
PPC4 0.1U/4/X7R/16V/K
PPC5 0.1U/4/X7R/16V/K
PPC6 0.1U/4/X7R/16V/K
PPC7 0.1U/4/X7R/16V/K
PPC8 0.1U/4/X7R/16V/K
PPC9 0.1U/4/X7R/16V/K
PPC11 1u/4/X5R/6.3V/K/X
PPC10 0.1u/4/X7R/16V/K
PIBC1 0.1u/4/X7R/16V/K
PIR1 0/4/SHT/X
PIR2 0/4/SHT/X
PIR9 8.2K/4
PIR3 8.2K/4
PIC2 0.1U/4/X7R/16V/K
PIC3 0.1U/4/X7R/16V/K
PIBC3 0.1u/4/X7R/16V/K
PPR4 8.2K/4/X
PPR5 8.2K/4/X
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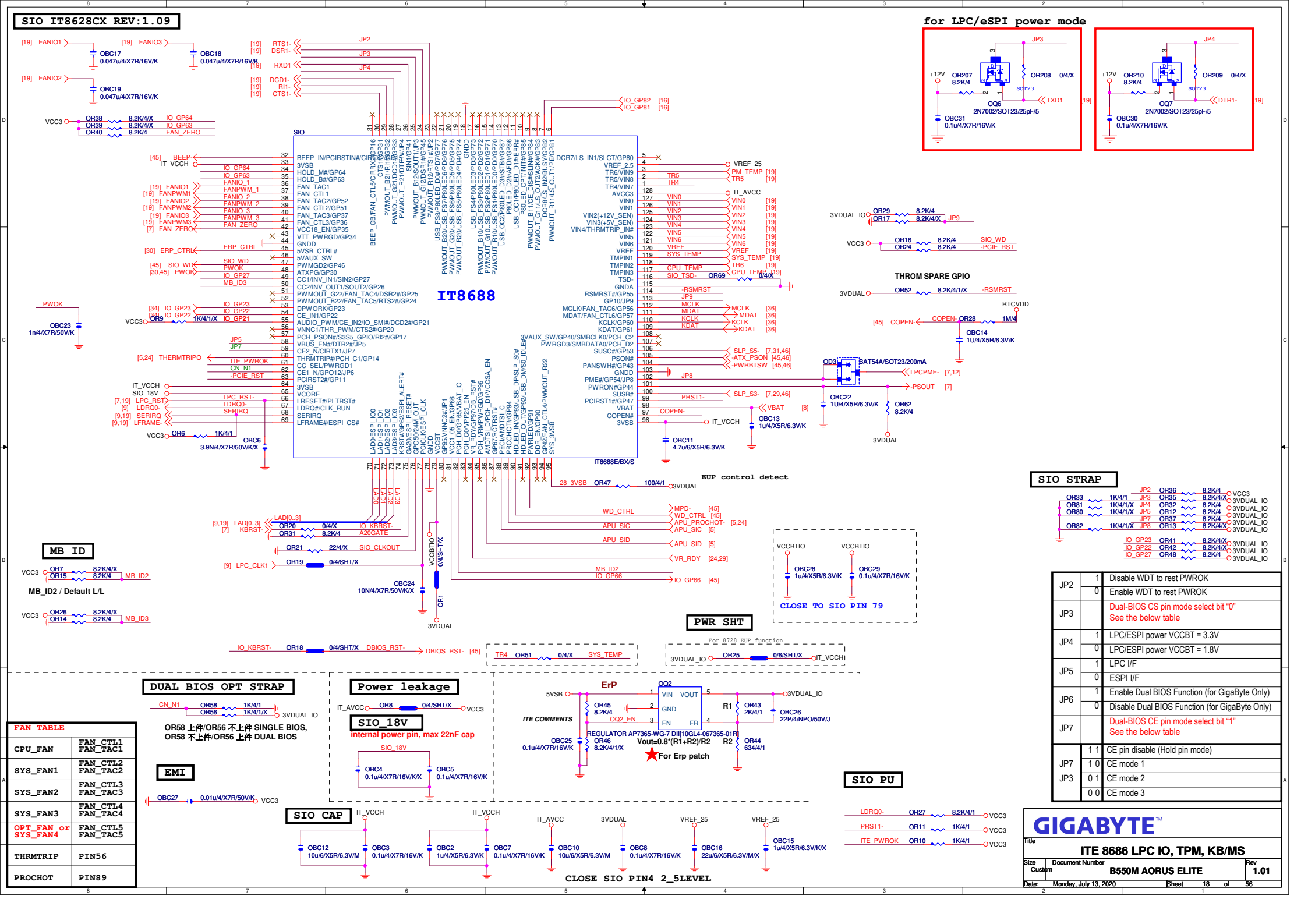
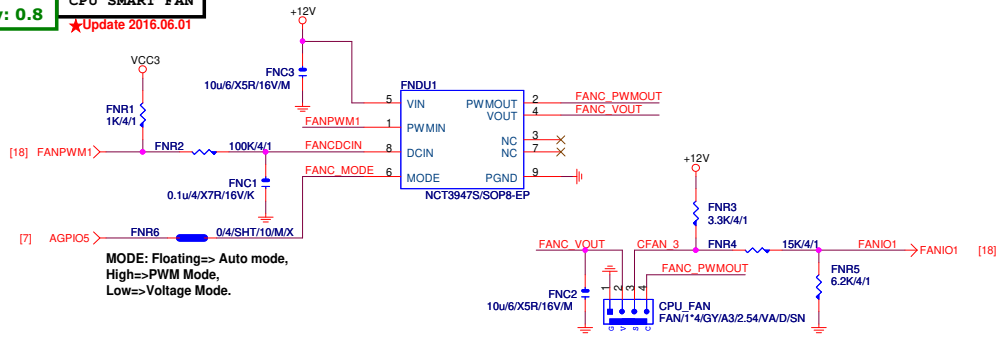
SIO IT8628CX REV:1.09



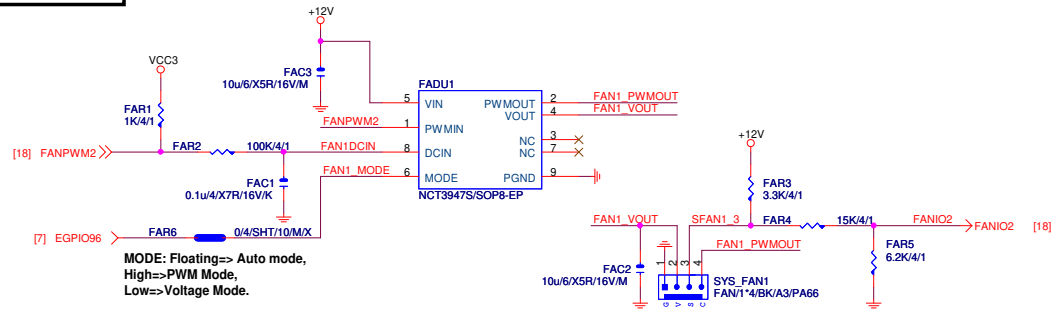
Rev: 0.8

CPU SMART FAN

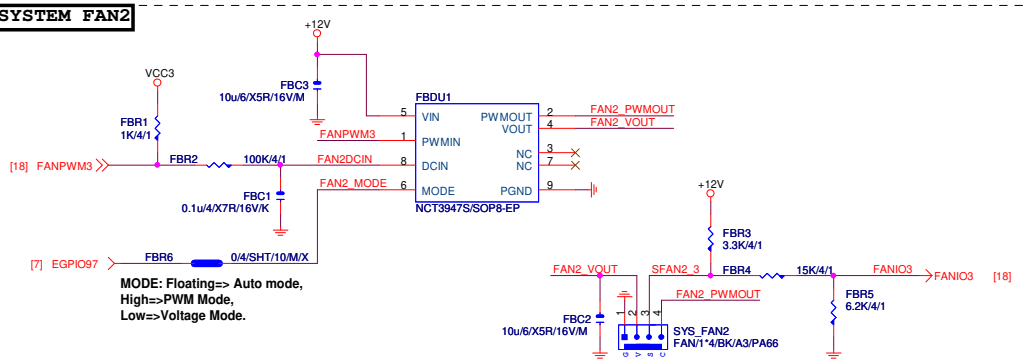
★Update 2016.06.01



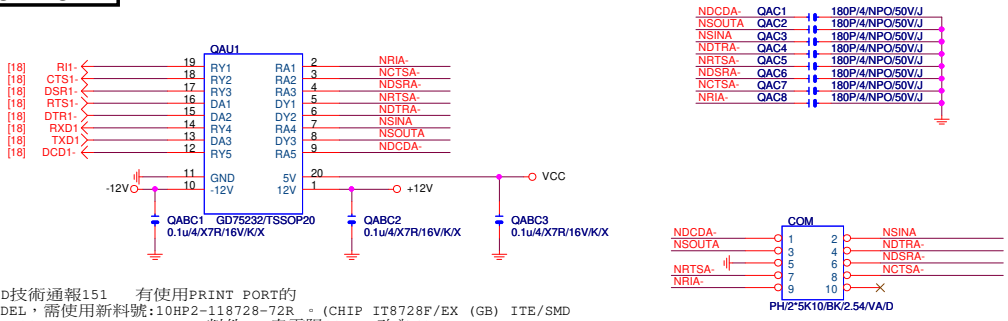
SYSTEM FAN1



SYSTEM FAN2

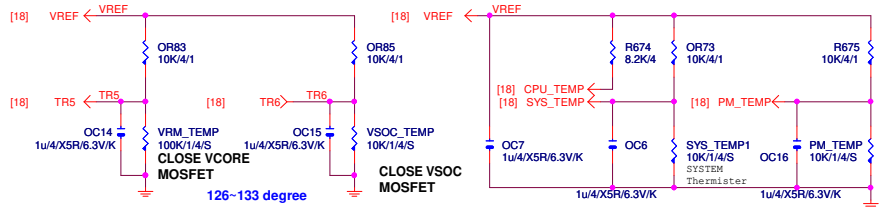


COM PORT



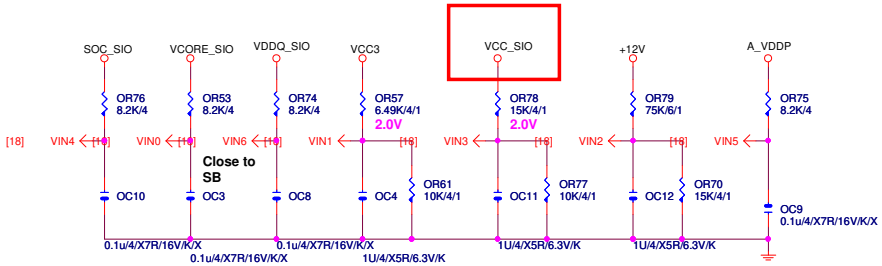
R&D技術通報151　有使用PRINT PORT的
MODEL，需使用新料號:10HP2-118728-72R ◦(CHIP IT8728F/EX (GB) ITE/SMD
QFP128 PRINTPORT SORTING)料件◦ 串電阻33 ohm改為68 ohm◦

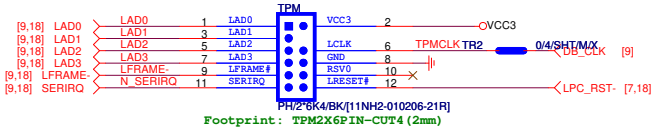
Hardware Monitor circuits - Tempature

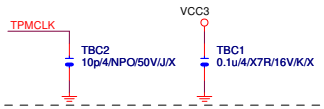


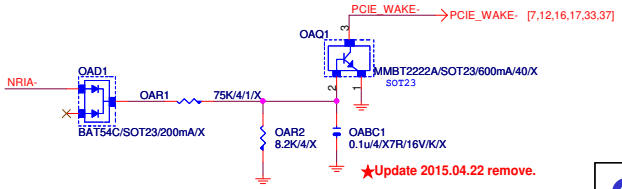
Hardware Monitor circuits - VOLTAGE

Rev:0.6









★Update 2015.04.22 remove.

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Title	CKG, HWM, TPM, THB	
Size: Custom	Document Number: B550M AORUS ELITE	Rev: 1.01
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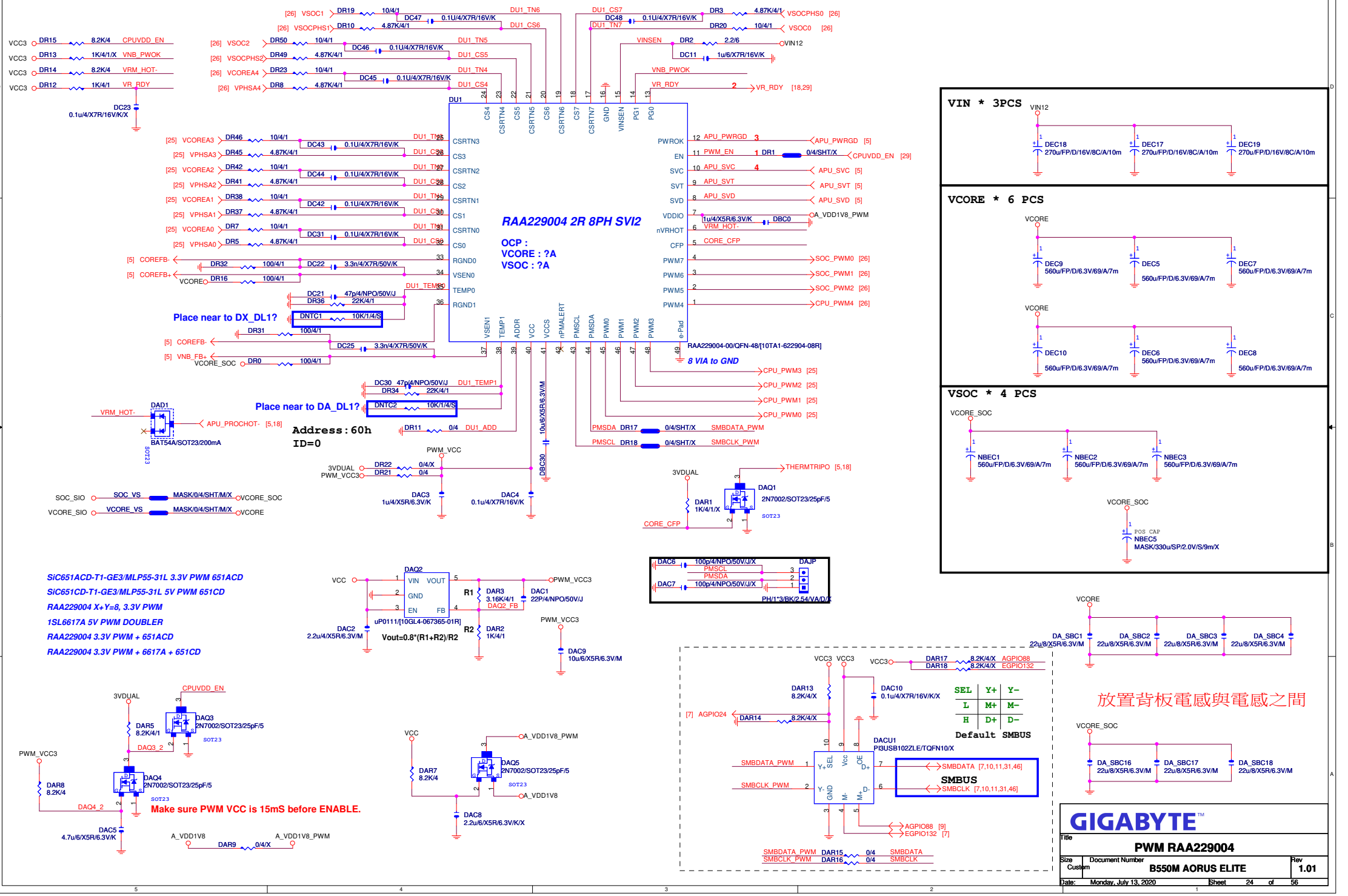
REV:0.1



Title	PWM RAA229004
Size	Custom
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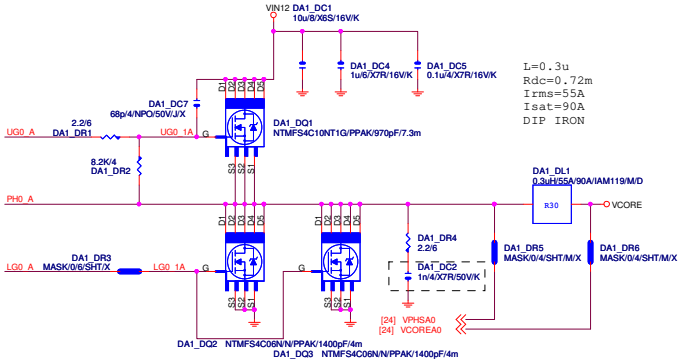
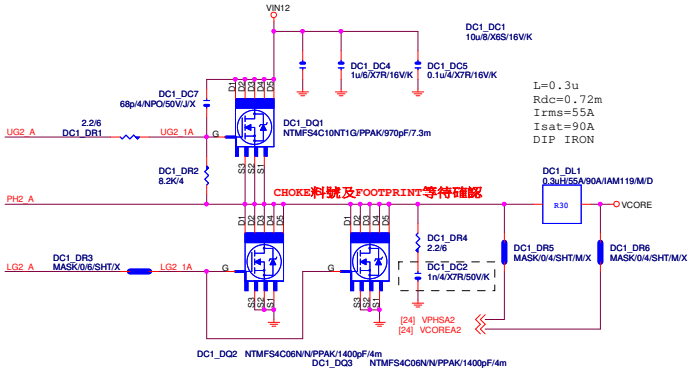
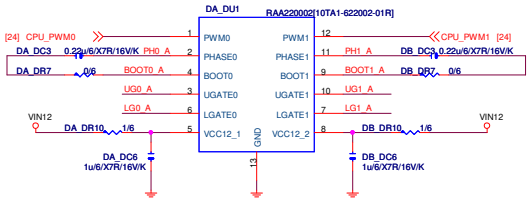
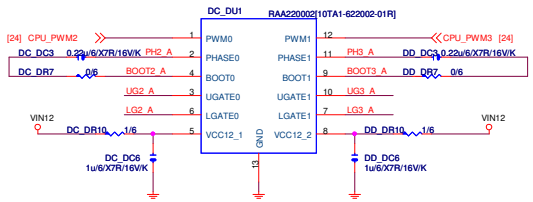
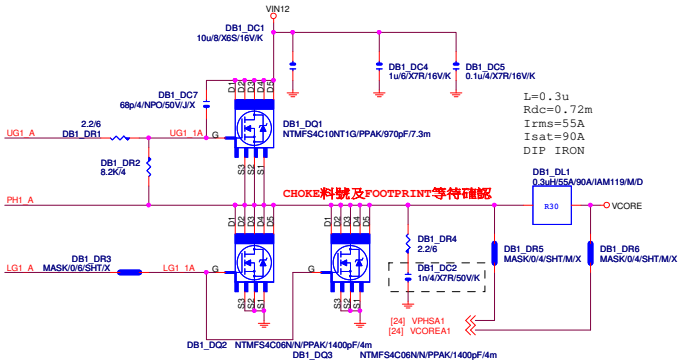
REV:0.1

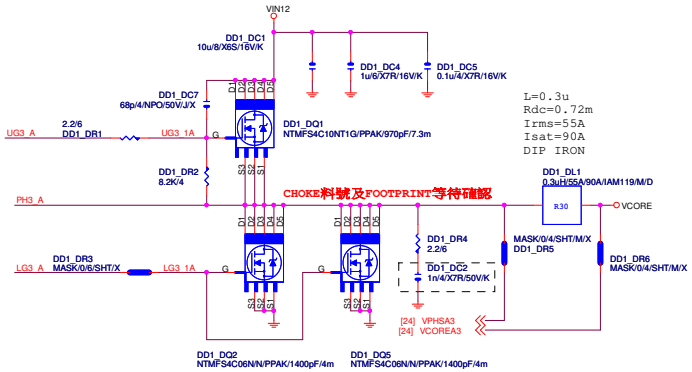












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Title: PWM XDPE132G5C

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Custom	B550M AORUS ELITE	1.01

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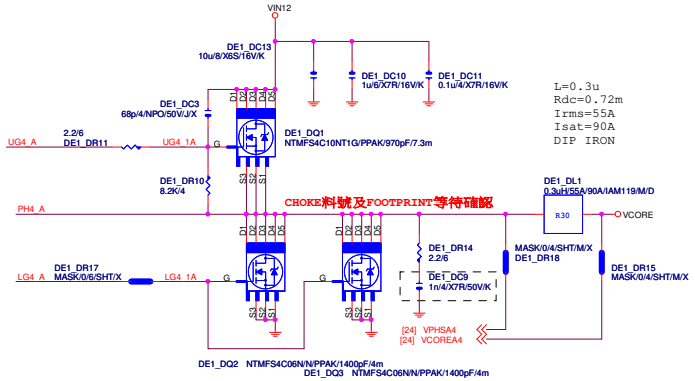
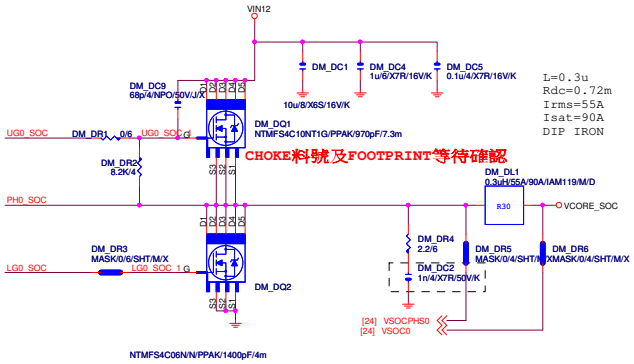
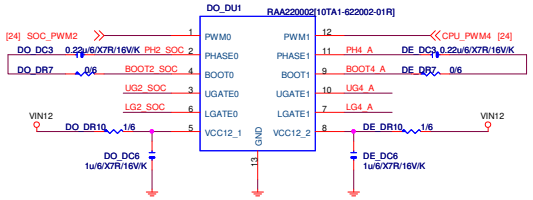
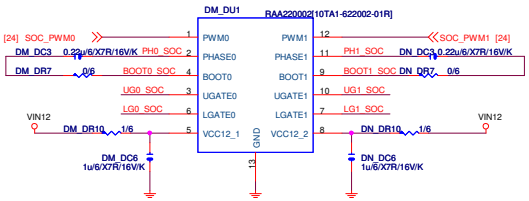
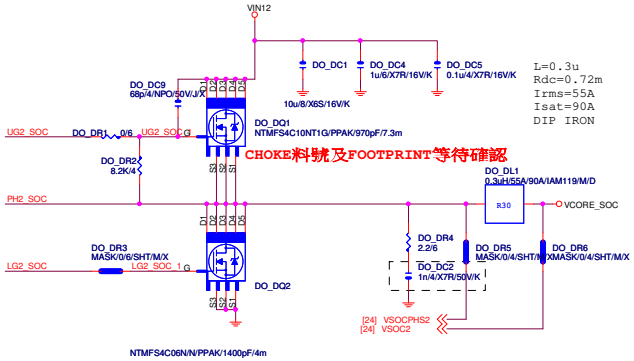
REV:0.1

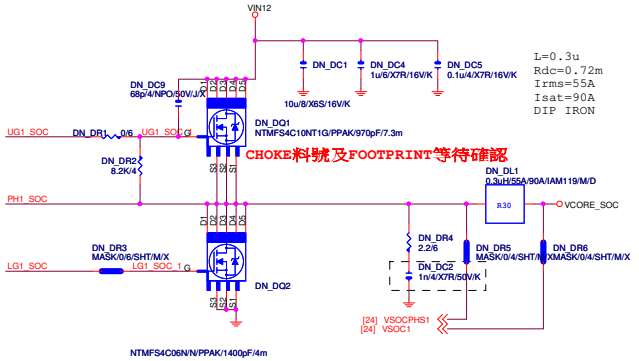












GIGABYTE™

Title	IR3555_MOS-2	
Size: Custom	Document Number: B550M AORUS ELITE	Rev: 1.01
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PWR SEQ

CHOKE與CAP料號可變

A_VDDP 0.9V or 1.05V

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

RF: low=>DEM mode, high=>CCM mode.

Remote sense請從最重的負載端點拉回

請放置CHOKE一出來的地方

CORETYPE1	CORETYPE0	VPPD_ALW
1	X	0.9V
0	X	1.05V

OK

★CHECK

★Sequence

APU_PWOK control PM_PWRGD

GIGABYTE

Title: POWER SEQUENCE

Size: Custom | Document Number: B550M AORUS ELITE | Rev: 1.01

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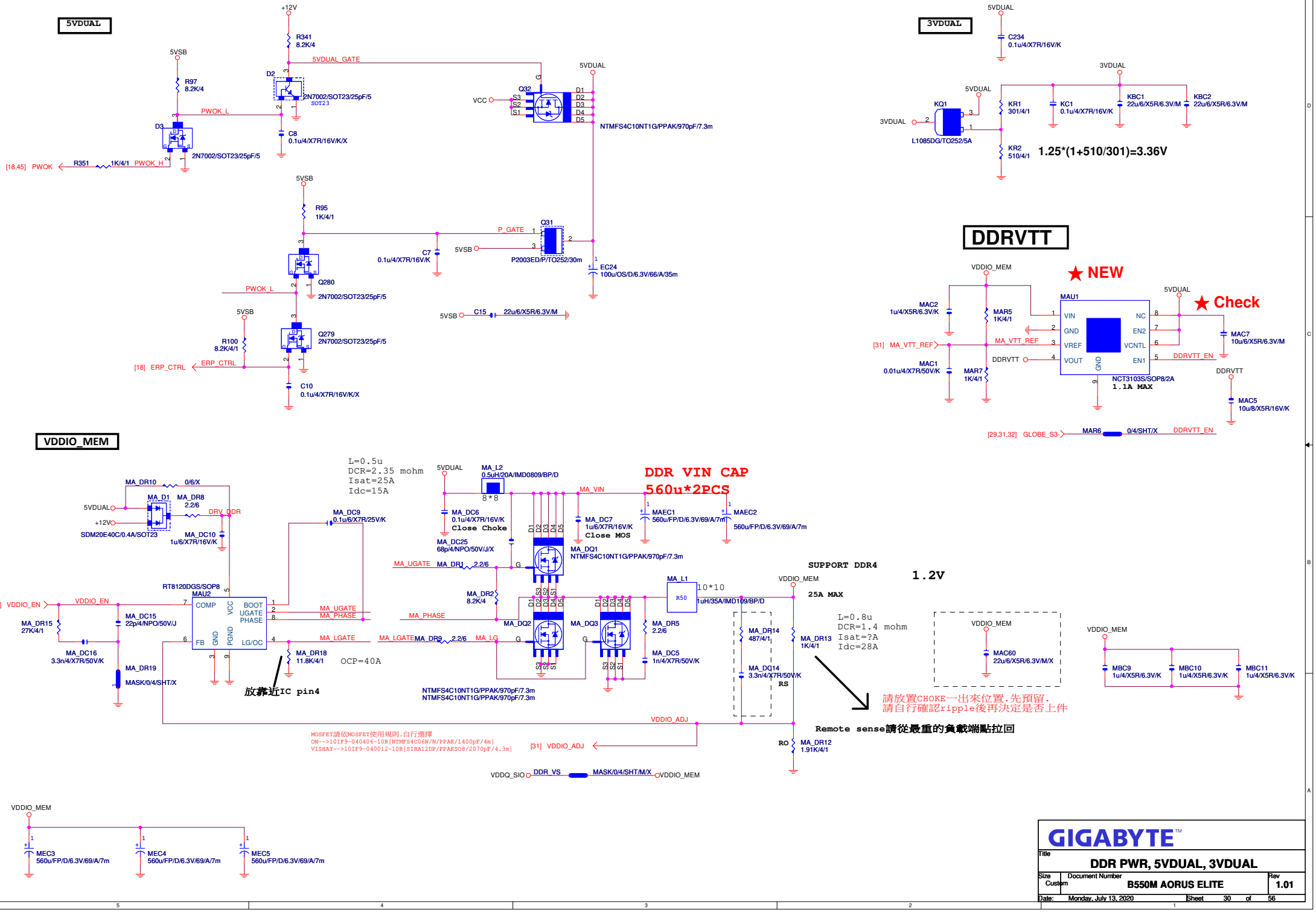
5VDUAL
+12V
R341
8.2K/4
5VDUAL_GATE
5VSB
R97
8.2K/4
D2
2N7002/SOT23/25pF/5
PWOK_L
C8
0.1u/4/X7R/16V/K/X
D3
2N7002/SOT23/25pF/5
[18,45] PWOK
R351
1K/4/1
PWOK_H
VCC
Q32
NTMFS4C10NT1G/PPAK/970pF/7.3m
R95
1K/4/1
P_GATE
Q31
P2003ED/P/TO252/30m
C7
0.1u/4/X7R/16V/K
EC24
100u/OS/D/6.3V/66/A/35m
Q280
2N7002/SOT23/25pF/5
C15
22u/6/X5R/6.3V/M
R100
8.2K/4/1
ERP_CTRL
[18] ERP_CTRL
Q279
2N7002/SOT23/25pF/5
C10
0.1u/4/X7R/16V/K/X
3VDUAL
C234
0.1u/4/X7R/16V/K
KQ1
L1085DG/TO252/5A
KR1
301/4/1
KC1
0.1u/4/X7R/16V/K
KBC1
22u/6/X5R/6.3V/M
KBC2
22u/6/X5R/6.3V/M
KR2
510/4/1
1.25*(1+510/301)=3.36V
DDRVTT
VDDIO_MEM
NEW
MAU1
MAC2
1u/4/X5R/6.3V/K
MAR5
1K/4/1
[31] MA_VTT_REF
MAC1
0.01u/4/X7R/50V/K
MAR7
1K/4/1
VIN
GND
VREF
VOUT
NC
EN2
VCNTL
EN1
NCT3103S/SOP8/2A
1.1A MAX
Check
MAC7
10u/6/X5R/6.3V/M
DDRVTT_EN
MAC5
10u/8/X5R/16V/K
[29,31,32] GLOBE_S3
MAR6
0/4/SHT/X
VDDIO_MEM
L=0.5u
DCR=2.35 mohm
Isat=25A
Idc=15A
MA_DR10
0/6/X
MA_D1
MA_DR8
2.2/6
SDM20E40C/0.4A/SOT23
MA_DC10
1u/6/X7R/16V/K
DRV_DDR
MA_DC9
0.1u/6/X7R/25V/K
RT8120DGS/SOP8
MAU2
[31] VDDIO_EN
MA_DR15
27K/4/1
MA_DC15
22p/4/NPO/50V/J
MA_DC16
3.3n/4/X7R/50V/K
MA_DR19
MASK/0/4/SHT/X
COMP
FB
GND
PGND
VCC
BOOT
UGATE
PHASE
LG/OC
MA_UGATE
MA_PHASE
MA_LGATE
MA_DR18
11.8K/4/1
OCP=40A
放靠近IC pin4
MA_L2
0.5uH/20A/IMD0809/BP/D
8*8
MA_VIN
DDR VIN CAP
560u*2PCS
MA_DC6
0.1u/4/X7R/16V/K
Close Choke
MA_DC7
1u/6/X7R/16V/K
Close MOS
MAEC1
560u/FP/D/6.3V/69/A/7m
MAEC2
560u/FP/D/6.3V/69/A/7m
MA_DC25
68p/4/NPO/50V/J/X
MA_DQ1
NTMFS4C10NT1G/PPAK/970pF/7.3m
MA_UGATE
MA_DR1
2.2/6
MA_DR2
8.2K/4
MA_DQ2
MA_DQ3
MA_DR9
2.2/6
MA_LG
MA_L1
10*10
R50
1uH/35A/IMD109/BP/D
MA_DR5
2.2/6
MA_DC5
1n/4/X7R/50V/K
NTMFS4C10NT1G/PPAK/970pF/7.3m
NTMFS4C10NT1G/PPAK/970pF/7.3m
SUPPORT DDR4
1.2V
25A MAX
MA_DR14
487/4/1
MA_DR13
1K/4/1
MA_DQ14
3.3n/4/X7R/50V/K
RS
L=0.8u
DCR=1.4 mohm
Isat=?A
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
VDDIO_ADJ
RO
MA_DR12
1.91K/4/1
[31] VDDIO_ADJ
VDDQ_SIO
DDR_VS
MASK/0/4/SHT/M/X
MAC60
22u/6/X5R/6.3V/M/X
MBC9
1u/4/X5R/6.3V/K
MBC10
1u/4/X5R/6.3V/K
MBC11
1u/4/X5R/6.3V/K
MEC3
560u/FP/D/6.3V/69/A/7m
MEC4
560u/FP/D/6.3V/69/A/7m
MEC5
560u/FP/D/6.3V/69/A/7m
GIGABYTE
Title
DDR PWR, 5VDUAL, 3VDUAL
Size
Custom
Document Number
B550M AORUS ELITE
Rev
1.01
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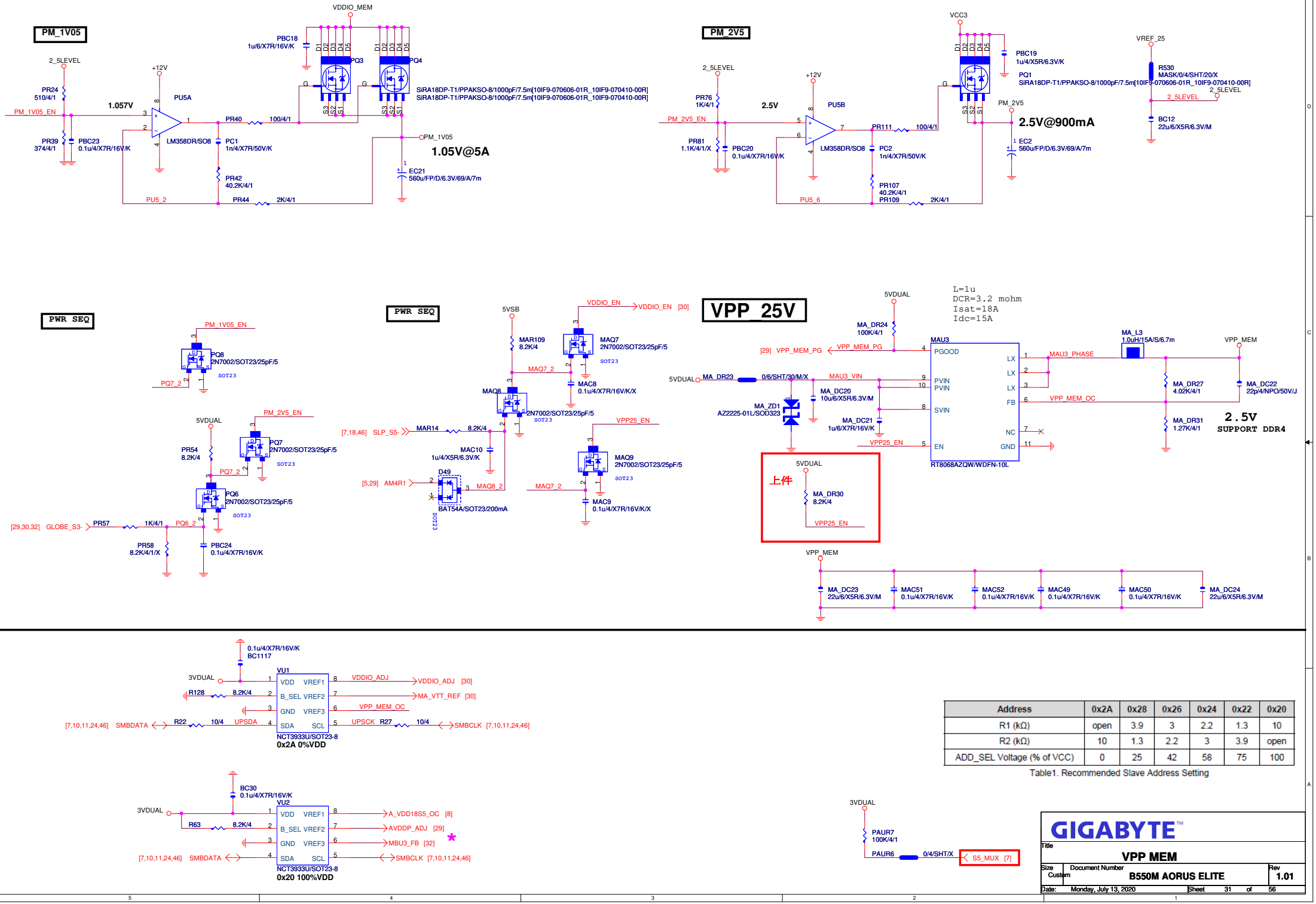
30
of
56



Address	0x2A	0x28	0x26	0x24	0x22	0x20
R1 (kΩ)	open	3.9	3	2.2	1.3	10
R2 (kΩ)	10	1.3	2.2	3	3.9	open
ADD_SEL Voltage (% of VCC)	0	25	42	58	75	100

Table1. Recommended Slave Address Setting

GIGABYTE™

Title: VPP MEM

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PWR SEQ

5VDUAL

上件

MB_DR30
8.2K/4

VDD18_EN

MBDR2
8.2K/4

MBDQ1
2N7002/SOT23/25pF/5

MBDQ1_2

MBDC2
0.1u/4/X7R/16V/K/X

MBDQ2
2N7002/SOT23/25pF/5

[29,30,31] GLOBE_S3

MBDR1
8.2K/4

MBDQ2_2

MBDC1
1u/4/X5R/6.3V/K/X

Fix Q_FLASH fail with CPU.

MBDR3
8.2K/4

MBDQ3
2N7002/SOT23/25pF/5

MBDQ3_2

MBDC3
1u/4/X5R/6.3V/K/X

MBDQ4
2N7002/SOT23/25pF/5

[29,46] Q_FLASH

MBDR4
0/4

MBDQ4_2

A_VDDPS5

3VDUAL

UR2
8.2K/4/1

UC58
1u/4/X5R/6.3V/K

UR28
8.2K/4/X

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

UC61

UU5

UU5_OK

UU5_EN

UR29
2.2/4

UC60
1u/4/X5R/6.3V/K

SUC10
1u/4/X5R/6.3V/K

POK
EN
VIN
CNTL
GND
FB
VOUT
REFIN
PGND

RT9018B-18GSP/SO8/3A

SPEC. MAX :1.9W.

A_VDDPS5

UC56
22u/6/X5R/6.3V/M

R2
UR27
102K/4/1

UC57
0.1u/4/X7R/16V/K/X

UC55
22u/6/X5R/6.3V/M

UC59
1u/4/X5R/6.3V/K

UU5_FB

R1
UR25
750K/4/1

0.8*[(R1+R2)/R1] = Vout =1.121V

【技術通報R&D技術通報156】
RT9018(RICHTEK)與NCT3730(NUVOTON),
EM5103GE(EMC)做共用,針對PIN7(FB)分壓阻值部份
(R1/R2)須做修改為100K以上電阻值

UR1
562K/4/1

UQ1
2N7002/SOT23/25pF/5

UR4
1K/4/1

UQ1_2

UQ2
MMBT2222A/SOT23/600mA/40

[5,7,29] CORETYPE1

UR30
8.2K/4/1

UQ2_2

CORETYPE1	CORETYPE0	VPPD_ALW
1	X	0.9V
0	X	1.05V

REV:0.4

A_VDD1V8

VCC3

MB_DR24
100K/4/1

[29] MBU3_PG

MBU3_PG

MBU3

PGOOD
PVIN
PVIN
SVIN
EN
LX
LX
LX
FB
NC
GND

RT8068AZQW/WDFN-10L

VCC3

MB_DR23
0/6/SHT/30/M/X

MB_ZD1
AZ2225-01L/SOD323

MB_DC20
10u/6/X5R/6.3V/M

MB_DC21
1u/6/X7R/16V/K

MBU3_VIN

VDD18_EN

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

CHOKE與CAP料號可變

MBU3_PHASE

MB_L3
1.0uH/15A/S/6.7m

MB_DR27
4.02K/4/1

MB_DR31
2K/4/1

MB_DC22
22p/4/NPO/50V/J

MBU3_FB

MBU3_FB [31]

A_VDD1V8

VPP CAP

A_VDD1V8

MB_DC23
22u/6/X5R/6.3V/M

MBC50
0.1u/4/X7R/16V/K

MBC49
0.1u/4/X7R/16V/K

MBC52
0.1u/4/X7R/16V/K

MBC51
0.1u/4/X7R/16V/K

22u*1PCS

GIGABYTE™

Title: FAN, A_VDD1V8

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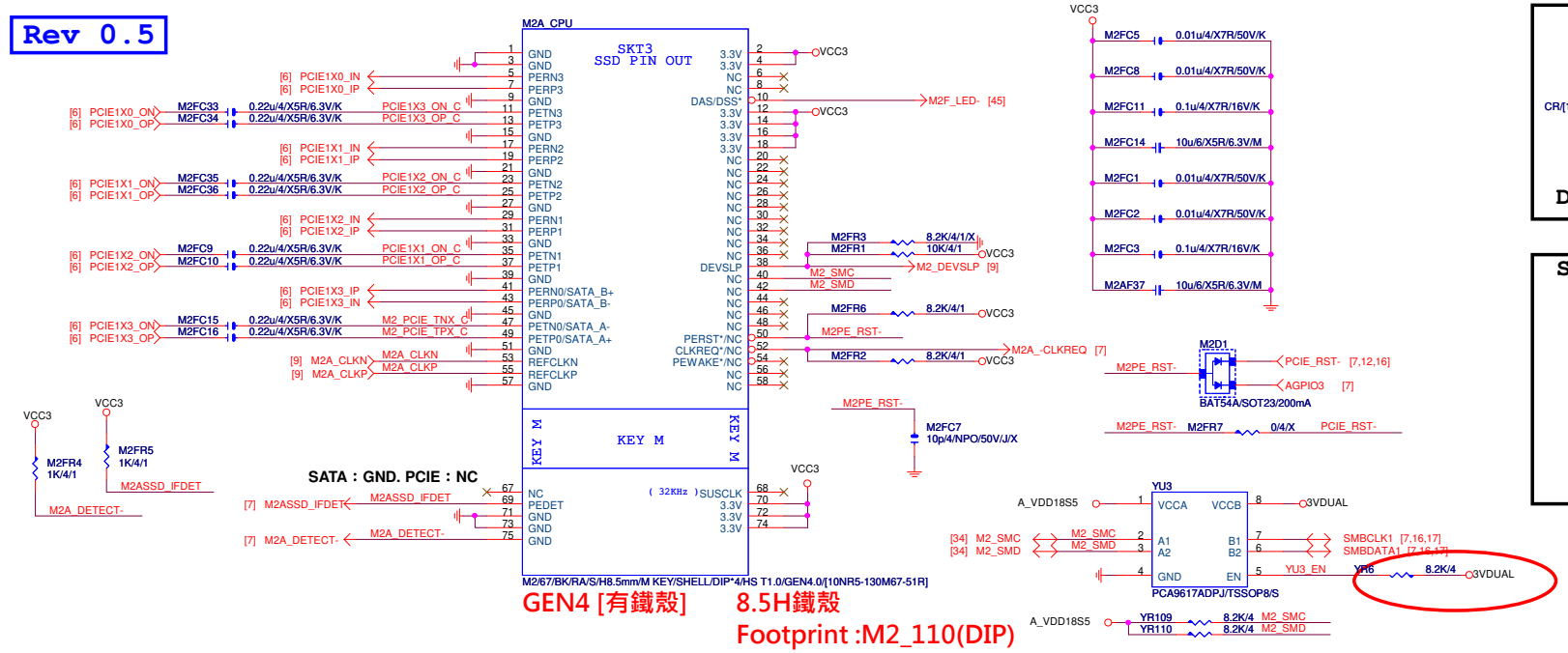
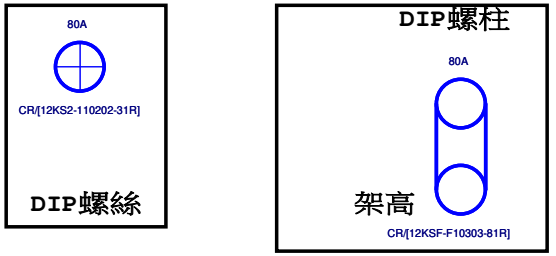
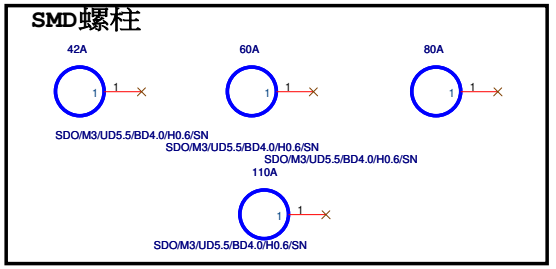
Rev 0.5





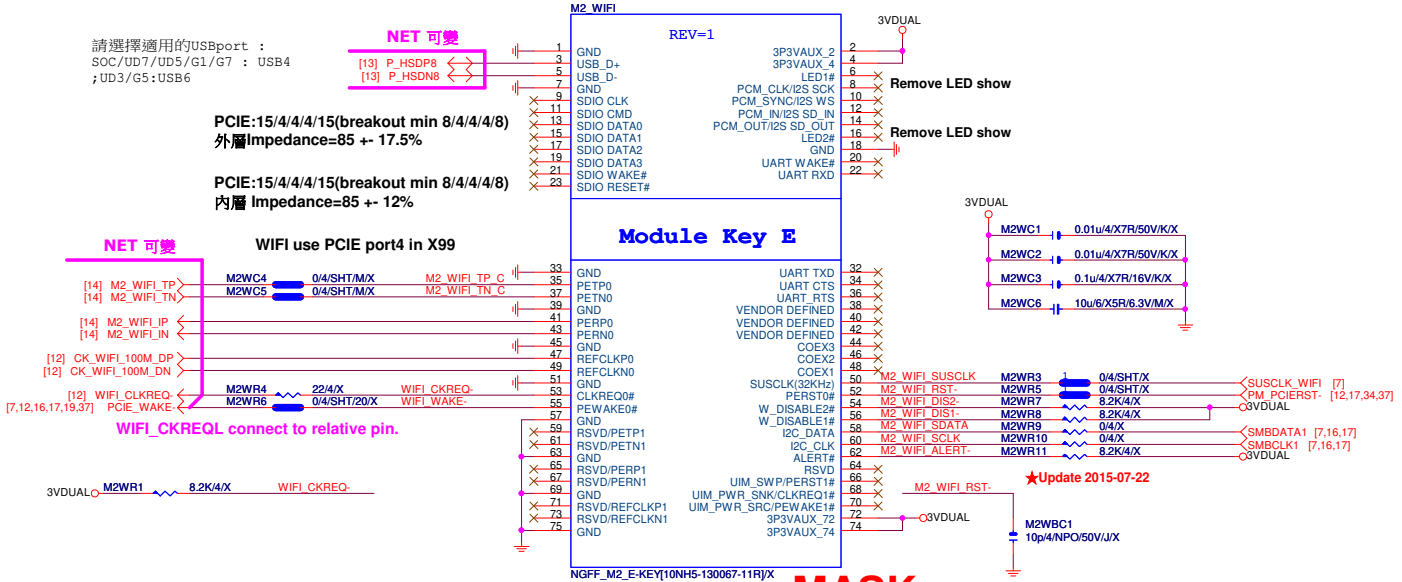


GEN4 [有鐵殼] 8.5H鐵殼

Footprint :M2_110(DIP)

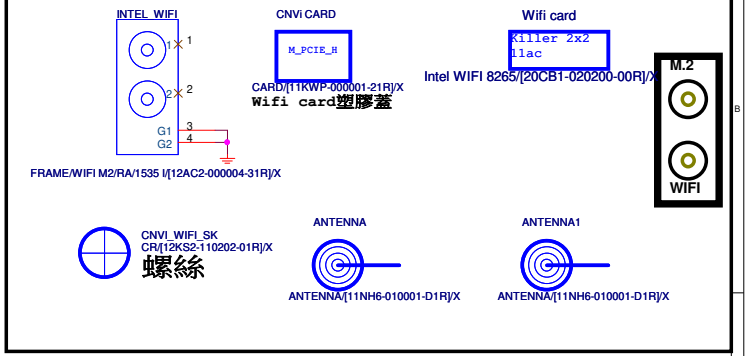
Rev: 0.2

FOR M.2 WIFI MODULE @ REAR PANEL



★Update 2015-02-11

一套WIFI MODULE包含外框+WIFI CARD+天線



Footprint Notice.

★Update 2015-07-22

★Footprint for 直立式 SMD: WIFI-EKEY

MASK

Footprint Notice.

★Update 2015-07-22

★Footprint for 橫躺式SMD: NGFF-E-75P-2

GIGABYTE

Title	M.2 SOCKET	
Size: Custom	Document Number: B550M AORUS ELITE	Rev: 1.01
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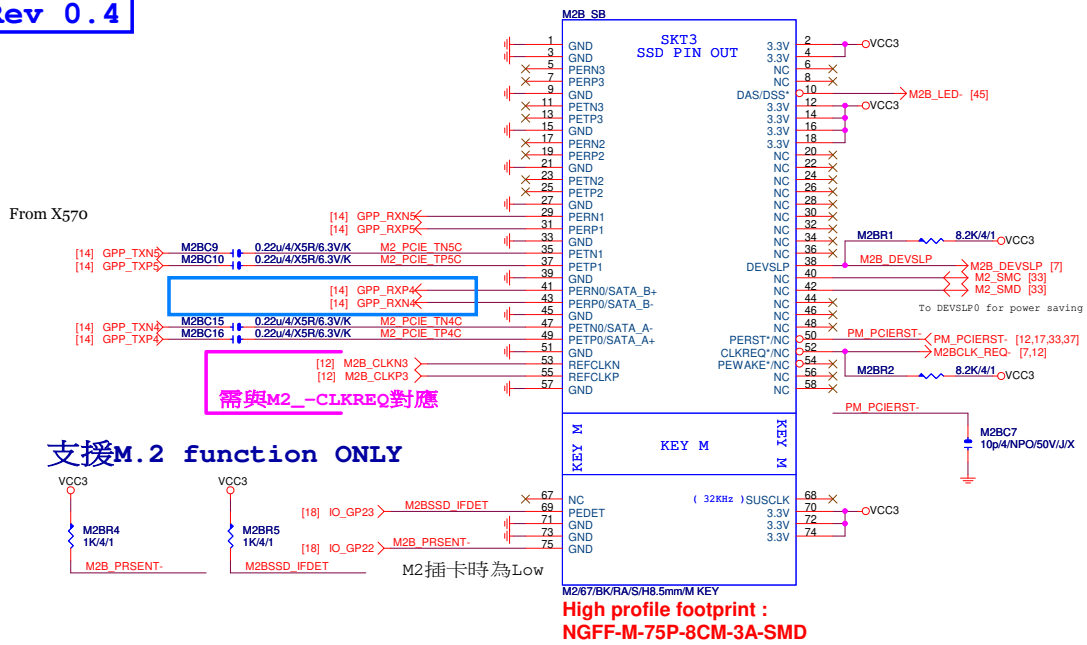
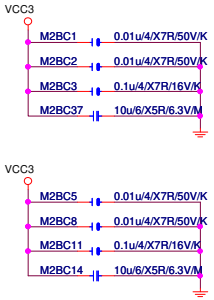
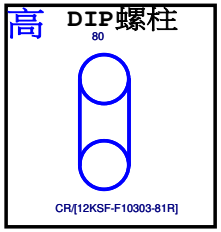
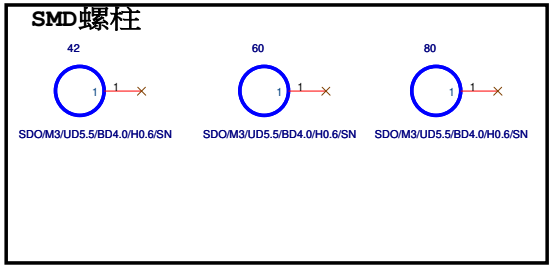
Rev 0.4









High profile footprint :
NGFF-M-75P-8CM-3A-SMD

刪除M2C_SOCKET & PU1

GIGABYTE™

Title	M.2 SLOT FROM PCH(B)	
Size: Custom	Document Number: B550M AORUS ELITE	Rev: 1.01
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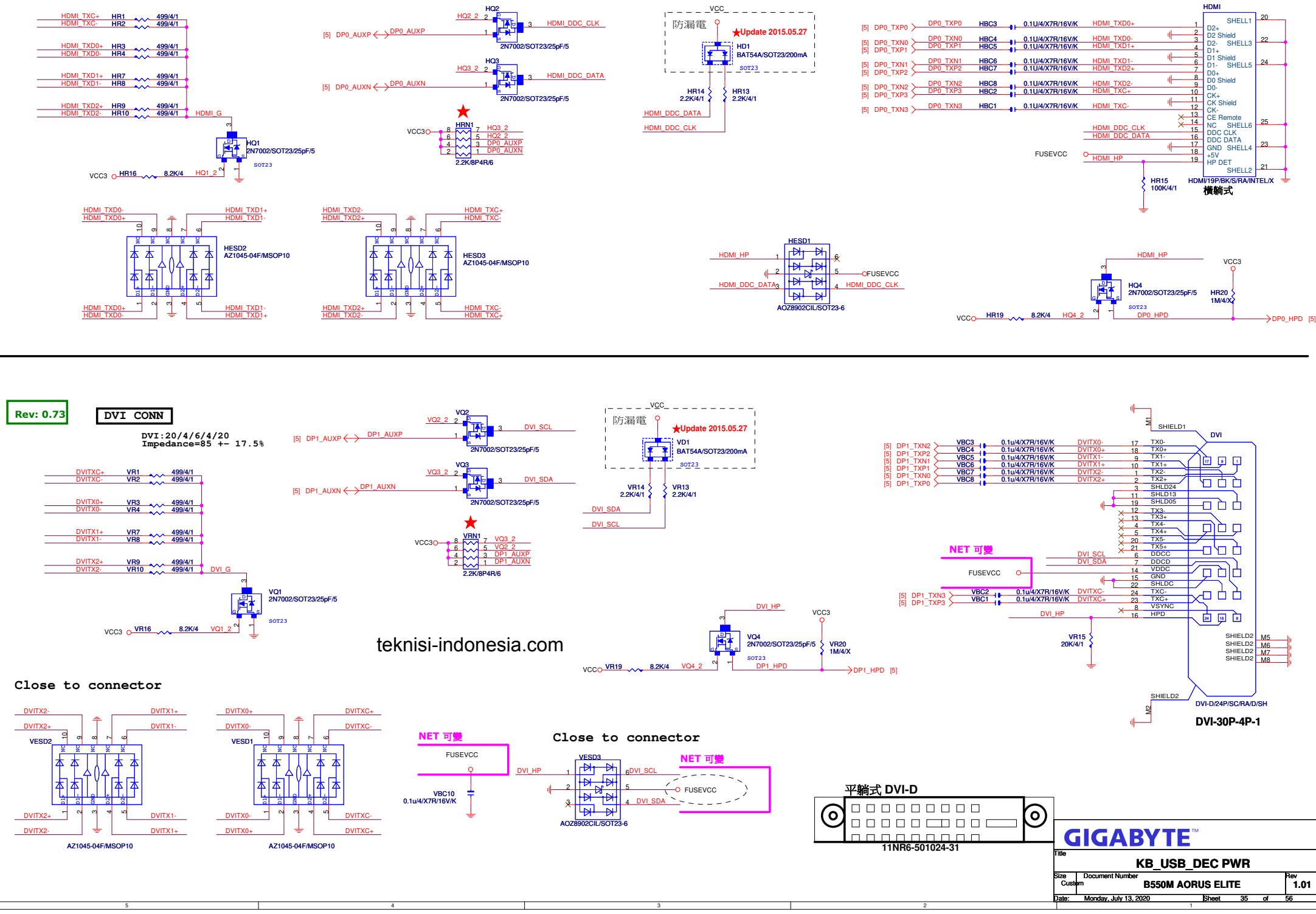
HDMI_TXC+ HR1 499/4/1
HDMI_TXC- HR2 499/4/1
HDMI_TXD0+ HR3 499/4/1
HDMI_TXD0- HR4 499/4/1
HDMI_TXD1+ HR7 499/4/1
HDMI_TXD1- HR8 499/4/1
HDMI_TXD2+ HR9 499/4/1
HDMI_TXD2- HR10 499/4/1
HDMI_G
HQ1
2N7002/SOT23/25pF/5
SOT23
VCC3 HR16 8.2K/4 HQ1_2
HQ2
HQ2_2
[5] DP0_AUXP DP0_AUXP
HDMI_DDC_CLK
2N7002/SOT23/25pF/5
HQ3
HQ3_2
[5] DP0_AUXN DP0_AUXN
HDMI_DDC_DATA
2N7002/SOT23/25pF/5
HRN1
HQ3_2
HQ2_2
DP0_AUXP
DP0_AUXN
2.2K/8P4R/6
VCC
防漏電
★Update 2015.05.27
HD1
BAT54A/SOT23/200mA
SOT23
HR14 2.2K/4/1
HR13 2.2K/4/1
HDMI_DDC_DATA
HDMI_DDC_CLK
HDMI
[5] DP0_TXP0 DP0_TXP0 HBC3 0.1U/4/X7R/16V/K HDMI_TXD0+
[5] DP0_TXN0 DP0_TXN0 HBC4 0.1U/4/X7R/16V/K HDMI_TXD0-
[5] DP0_TXP1 DP0_TXP1 HBC5 0.1U/4/X7R/16V/K HDMI_TXD1+
[5] DP0_TXN1 DP0_TXN1 HBC6 0.1U/4/X7R/16V/K HDMI_TXD1-
[5] DP0_TXP2 DP0_TXP2 HBC7 0.1U/4/X7R/16V/K HDMI_TXD2+
[5] DP0_TXN2 DP0_TXN2 HBC8 0.1U/4/X7R/16V/K HDMI_TXD2-
[5] DP0_TXP3 DP0_TXP3 HBC2 0.1U/4/X7R/16V/K HDMI_TXC+
[5] DP0_TXN3 DP0_TXN3 HBC1 0.1U/4/X7R/16V/K HDMI_TXC-
HDMI_DDC_CLK
HDMI_DDC_DATA
FUSEVCC
HDMI_HP
HR15 100K/4/1
SHELL1
D2+
D2 Shield
D2- SHELL3
D1+
D1 Shield
D1- SHELL5
D0+
D0 Shield
D0-
CK+
CK Shield
CK-
CE Remote
NC SHELL6
DDC CLK
DDC DATA
GND SHELL4
+5V
HP DET
SHELL2
HDMI/19P/BK/S/RA/INTEL/X
橫躺式
HESD2
AZ1045-04F/MSOP10
HESD3
AZ1045-04F/MSOP10
HESD1
AOZ8902CIL/SOT23-6
HQ4
2N7002/SOT23/25pF/5
HR20 1M/4/X
HR19 8.2K/4 HQ4_2
DP0_HPD
DP0_HPD [5]
Rev: 0.73
DVI CONN
DVI:20/4/6/4/20
Impedance=85 +- 17.5%
DVITXC+ VR1 499/4/1
DVITXC- VR2 499/4/1
DVITX0+ VR3 499/4/1
DVITX0- VR4 499/4/1
DVITX1+ VR7 499/4/1
DVITX1- VR8 499/4/1
DVITX2+ VR9 499/4/1
DVITX2- VR10 499/4/1
DVI_G
VQ1
2N7002/SOT23/25pF/5
SOT23
VCC3 VR16 8.2K/4 VQ1_2
VQ2
VQ2_2
[5] DP1_AUXP DP1_AUXP
DVI_SCL
2N7002/SOT23/25pF/5
VQ3
VQ3_2
[5] DP1_AUXN DP1_AUXN
DVI_SDA
2N7002/SOT23/25pF/5
VRN1
VQ3_2
VQ2_2
DP1_AUXP
DP1_AUXN
2.2K/8P4R/6
VCC
防漏電
★Update 2015.05.27
VD1
BAT54A/SOT23/200mA
SOT23
VR14 2.2K/4/1
VR13 2.2K/4/1
DVI_SDA
DVI_SCL
teknisi-indonesia.com
DVI_HP
VCC3
VQ4
2N7002/SOT23/25pF/5
SOT23
VR20 1M/4/X
VCC VR19 8.2K/4 VQ4_2
DP1_HPD
DP1_HPD [5]
DVI
SHIELD1
[5] DP1_TXN2 VBC3 0.1u/4/X7R/16V/K DVITX0-
[5] DP1_TXP2 VBC4 0.1u/4/X7R/16V/K DVITX0+
[5] DP1_TXN1 VBC5 0.1u/4/X7R/16V/K DVITX1-
[5] DP1_TXP1 VBC6 0.1u/4/X7R/16V/K DVITX1+
[5] DP1_TXN0 VBC7 0.1u/4/X7R/16V/K DVITX2-
[5] DP1_TXP0 VBC8 0.1u/4/X7R/16V/K DVITX2+
TX0-
TX0+
TX1-
TX1+
TX2-
TX2+
SHLD24
SHLD13
SHLD05
TX3-
TX3+
TX4-
TX4+
TX5-
TX5+
DDCC
DDCD
VDDC
GND
SHLDC
TXC-
TXC+
VSYNC
HPD
SHIELD2
DVI-D/24P/SC/RA/D/SH
DVI-30P-4P-1
NET 可變
FUSEVCC
VBC2 0.1u/4/X7R/16V/K
VBC1 0.1u/4/X7R/16V/K
[5] DP1_TXN3
[5] DP1_TXP3
DVI_SCL
DVI_SDA
DVI_HP
VR15 20K/4/1
Close to connector
VESD2
DVITX2-
DVITX2+
DVITX1+
DVITX1-
AZ1045-04F/MSOP10
VESD1
DVITX0+
DVITX0-
DVITXC+
DVITXC-
AZ1045-04F/MSOP10
NET 可變
FUSEVCC
VBC10 0.1u/4/X7R/16V/K
Close to connector
VESD3
DVI_HP
DVI_SCL
DVI_SDA
FUSEVCC
AOZ8902CIL/SOT23-6
NET 可變
平躺式 DVI-D
11NR6-501024-31
GIGABYTE
Title
KB_USB_DEC PWR
Size Custom
Document Number
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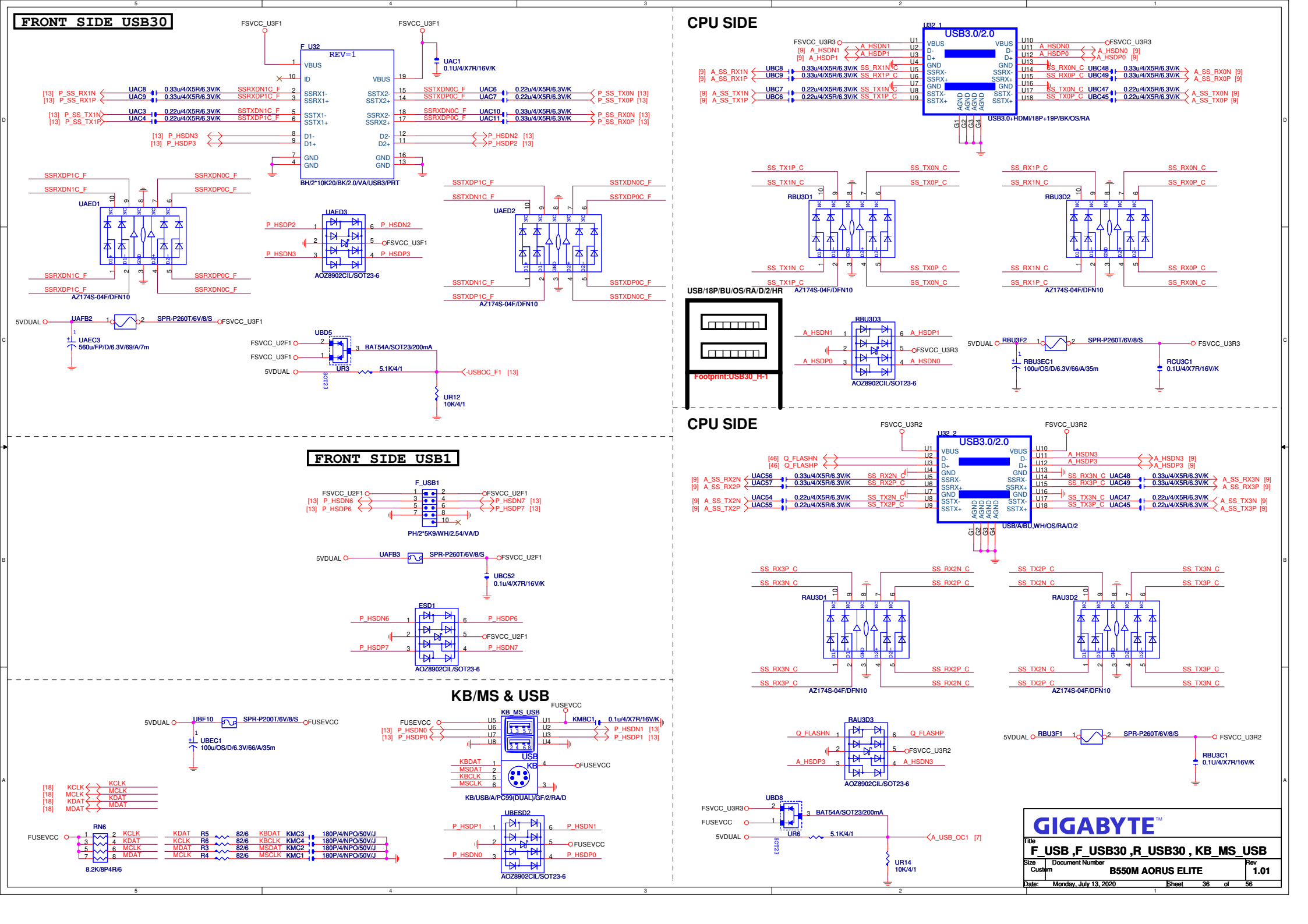
FRONT SIDE USB30
F_U32
REV=1
BH/2*10K20/BK/2.0/VA/USB3/PRT
UAED1
UAED2
UAED3
AZ174S-04F/DFN10
AOZ8902CIL/SOT23-6
UAFB2
SPR-P260T/6V/8/S
UAEC3
560u/FP/D/6.3V/69/A/7m
UBD5
BAT54A/SOT23/200mA
UR3
5.1K/4/1
UR12
10K/4/1
CPU SIDE
U32_1
USB3.0/2.0
USB3.0+HDMI/18P+19P/BK/OS/RA
RBU3D1
RBU3D2
RBU3D3
USB/18P/BU/OS/RA/D/2/HR
Footprint:USB30_H-1
RBU3F2
RBU3EC1
100u/OS/D/6.3V/66/A/35m
RCU3C1
0.1U/4/X7R/16V/K
FRONT SIDE USB1
F_USB1
PH/2*5K9/WH/2.54/VA/D
UAFB3
UBC52
ESD1
CPU SIDE
U32_2
USB/A/BU/WH/OS/RA/D/2
RAU3D1
RAU3D2
RAU3D3
KB/MS & USB
UBF10
UBEC1
KB_MS_USB
KB/USB/A/PC99(DUAL)/GF/2/RA/D
UBESD2
RN6
8.2K/8P4R/6
UBD8
BAT54A/SOT23/200mA
UR6
5.1K/4/1
UR14
10K/4/1
GIGABYTE
Title
F_USB ,F_USB30 ,R_USB30 , KB_MS_USB
Size
Custom
Document Number
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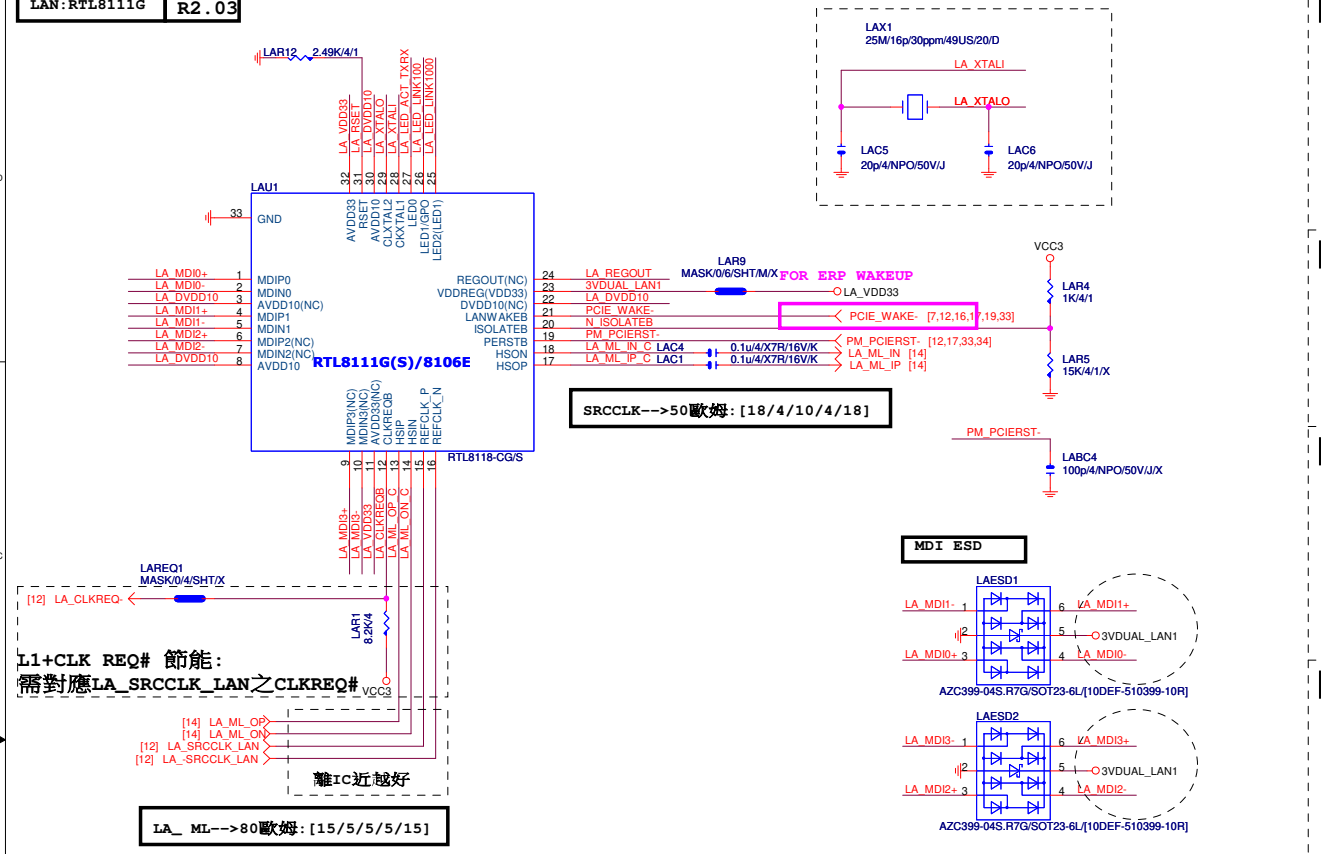
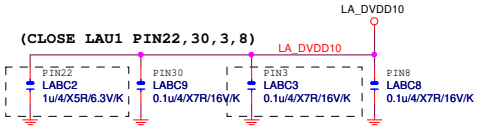
56

LAN:RTL8111G R2.03

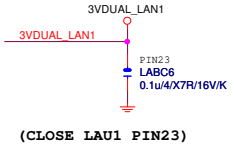


MDI ESD

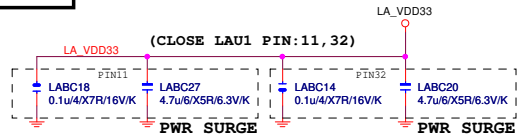
LAN POWER



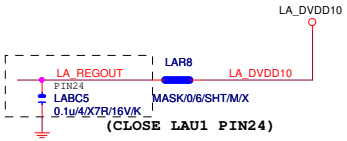
LAN POWER



LAN POWER

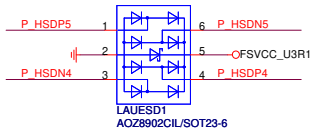


LAN POWER

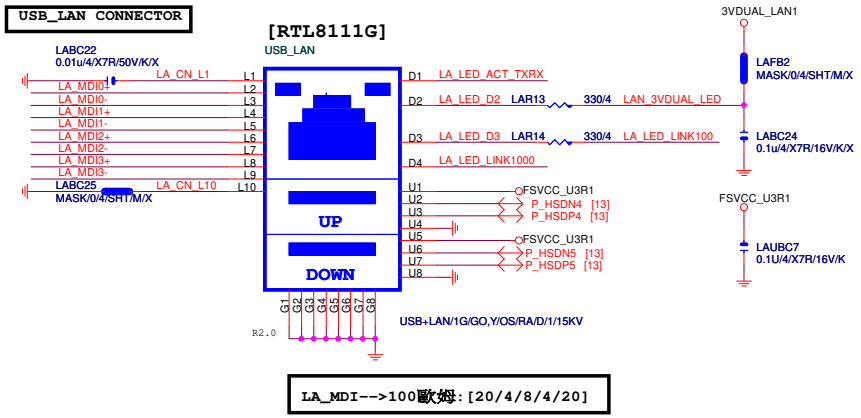


USB_LAN CONNECTOR R2.03

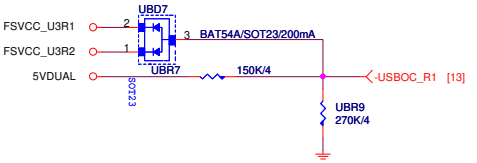
RMA ESD PROTECT



USB_LAN CONNECTOR



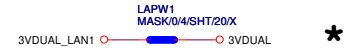
LA_MDI-->100歐姆:[20/4/8/4/20]



USB POWER

Close to connector
USB_LAN 2-Port 2.0A
FUSE-0805

LAN POWER



*

EMI

LAN AGND change GND
Remove Short Pad

GIGABYTE™

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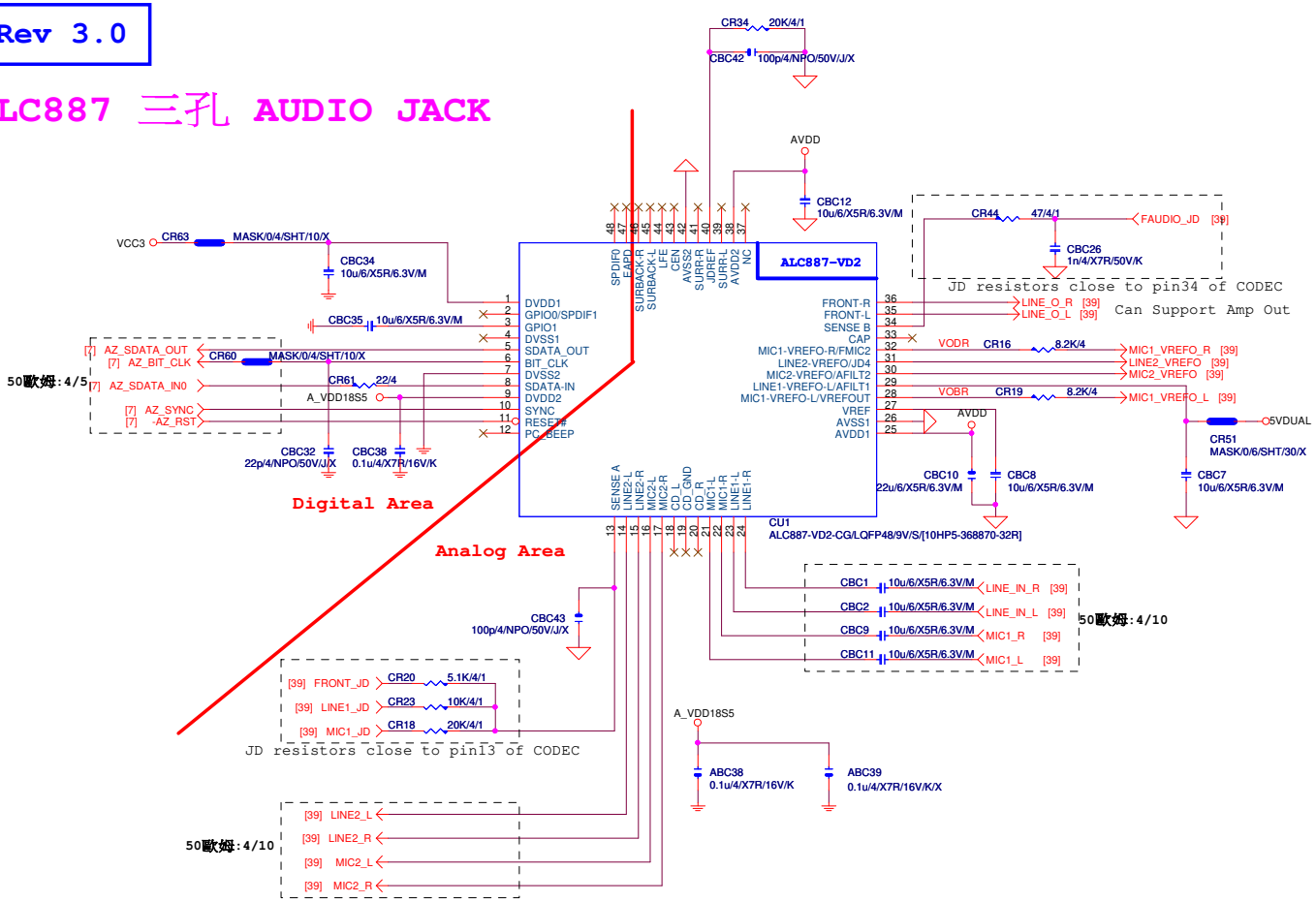
Rev 3.0

ALC887 三孔 AUDIO JACK



LAYOUT注意:螺絲孔下GND方式

1. MH1空間夠,下DGND
   空間不夠,改為Isolate
2. MH2一律改為Isolate

MH1	MH2
DGND	Isolate

GIGABYTE™

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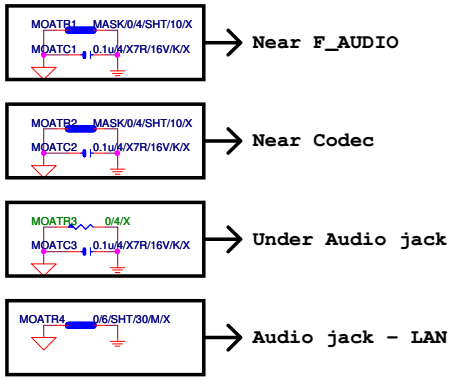
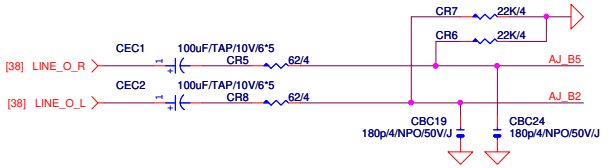
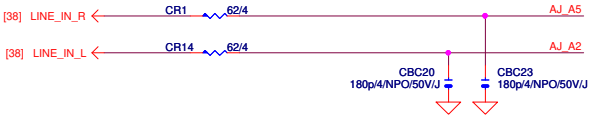


*量產前,0ohm改short pad

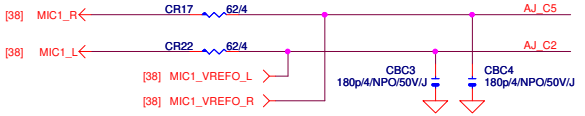
LINE-OUT



LINE-IN



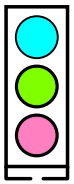
MIC-IN

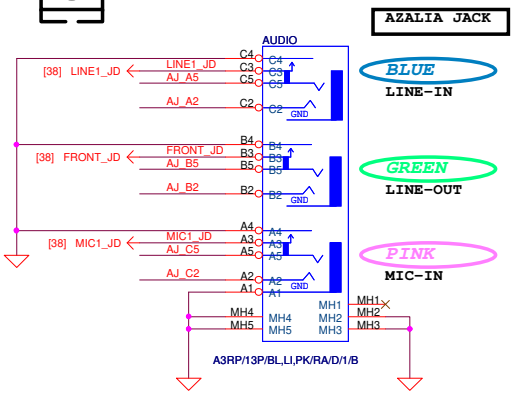


SURROUND

CEN/LFE

AZALIA JACK





AZALIA JACK

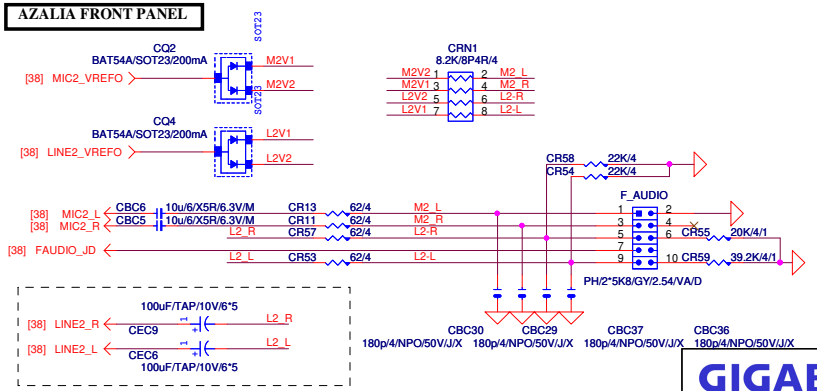
BLUE
LINE-IN

GREEN
LINE-OUT

PINK
MIC-IN

SURR BACK

AZALIA FRONT PANEL



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Title	AUDIO JACK	
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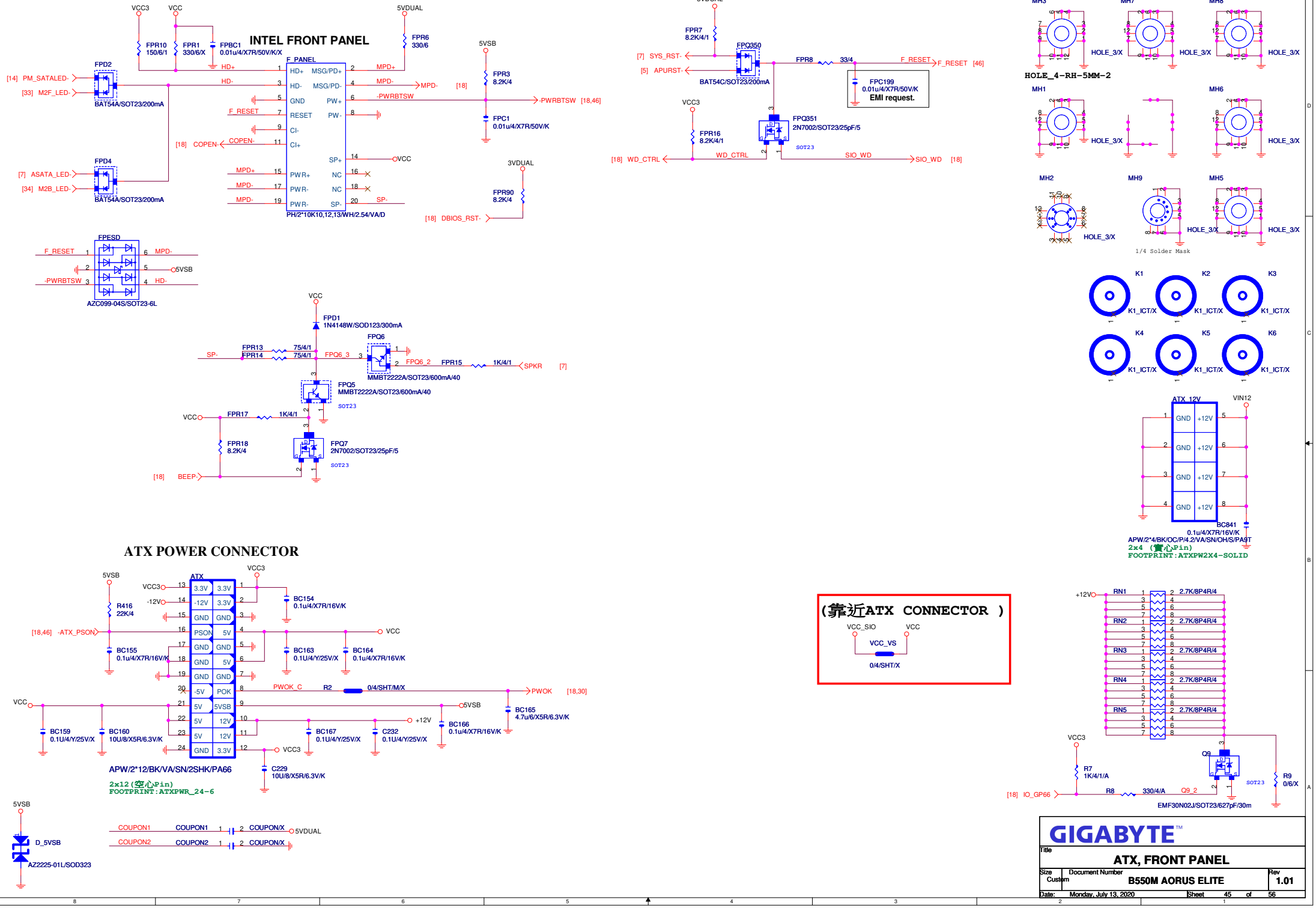
INTEL FRONT PANEL
F_PANEL
PH/2*10K10,12,13/WH/2.54/VA/D
BAT54A/SOT23/200mA
AZC099-04S/SOT23-6L
FPD1 1N4148W/SOD123/300mA
MMBT2222A/SOT23/600mA/40
2N7002/SOT23/25pF/5
BAT54C/SOT23/200mA
EMI request.
ATX POWER CONNECTOR
ATX
APW/2*12/BK/VA/SN/2SHK/PA66
2x12 (空心Pin)
FOOTPRINT:ATXPWR_24-6
(靠近ATX CONNECTOR)
VCC_SIO
VCC_VS
0/4/SHT/X
HOLE_4-RH-5MM-2
HOLE_3/X
1/4 Solder Mask
ATX_12V
APW/2*4/BK/OC/P4.2/VA/SN/OH/S/PA9T
2x4 (空心Pin)
FOOTPRINT:ATXPW2X4-SOLID
EMF30N02J/SOT23/627pF/30m
D_5VSB
AZ2225-01L/SOD323
GIGABYTE
ATX, FRONT PANEL
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Rev 1.0

ECD_U1 請放在PCH到BIOS路徑上.避免線過長

ADC

DEMO MODE

PCH SMB I/F

PULL DOWN WHEN Q_FLASH ACTIVE

For AMD MCU update

IT5702FN

QFN_48

IT5702XQN-128/BX-GBA1/S/[10HP2-NW5702-A1R]

GPD0 pull-up to 3VSB
To ignore the test mode

to PCH USB Host
PCH USB HID device

to PCH USB Host

to USB Connector

USB Switch for Q-flash

此線路盡量靠近IT5702 DP1的走線
Q3建議貼在DP1上，減少trace分叉

USB Slave rework線路
IT5702-AX only

Q_FLASH BUTTON/LED

R0.2 Update

ORANGE

TS/BU/4.3/VA/[11NH7-030001-B1R]:Location QFLASH_ PLUS

ECDC20 Option

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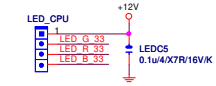
Rev 1.0

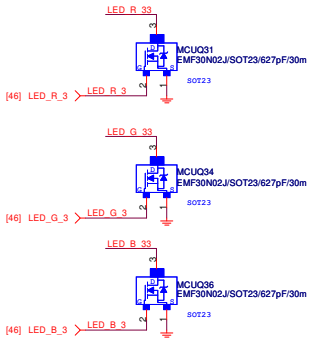
第三區 LED

燈條 LED (LED_CPU放在CPU附近位置)



Footprint "PH1X4-FAN-AMD-L"

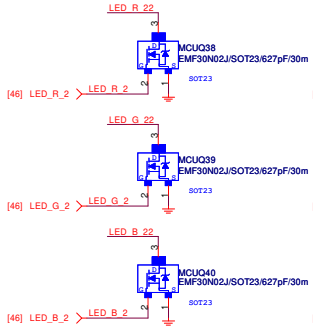
第三區 LED CONTROL



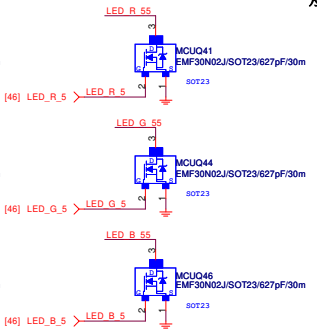
第四區 LED

第五區 LED

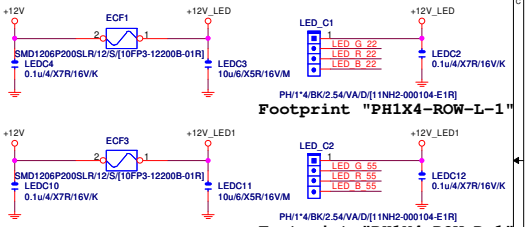
第二區 LED CONTROL



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)



GIGABYTE™

Title	CPU/AUDIO/LED_C	
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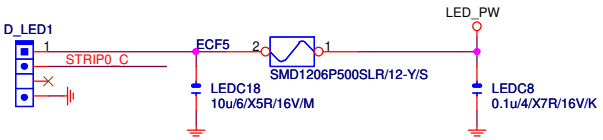
第六區 LED (靠近左上板邊位置)

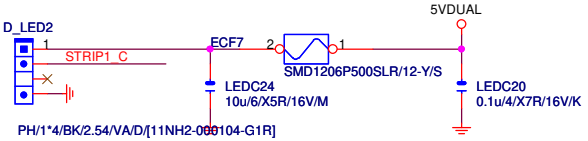
Digital LED Strip1



Footprint PH1X4-CUT3-LED-L

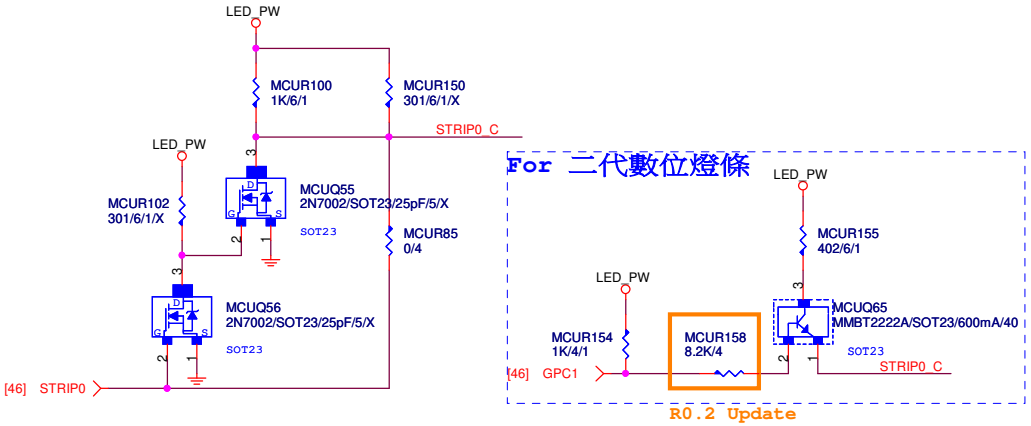
第七區(靠近右下CPU板邊位置)

Digital LED Strip2

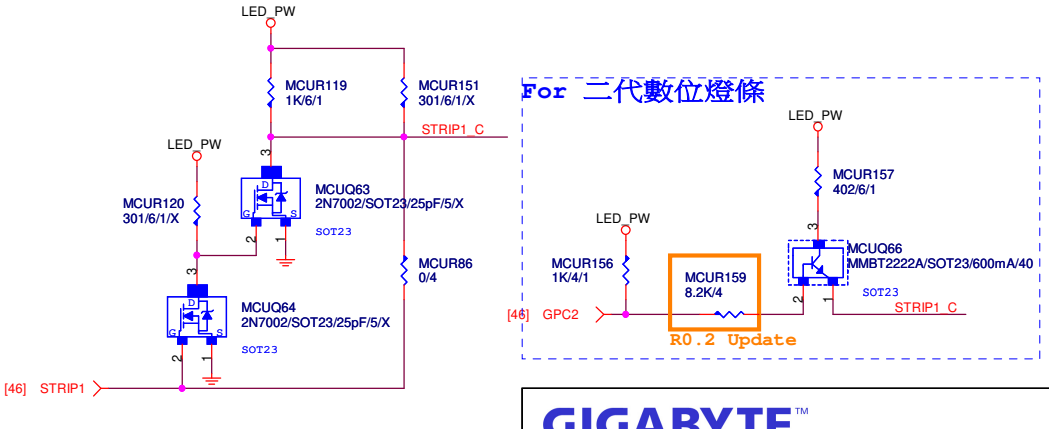


Footprint "PH1X4-CUT3-LED-R"
(for pin-name 與 model-name 同方向)

燈條 Level shift



燈條 Level shift



GIGABYTE™

Title	D_LED	
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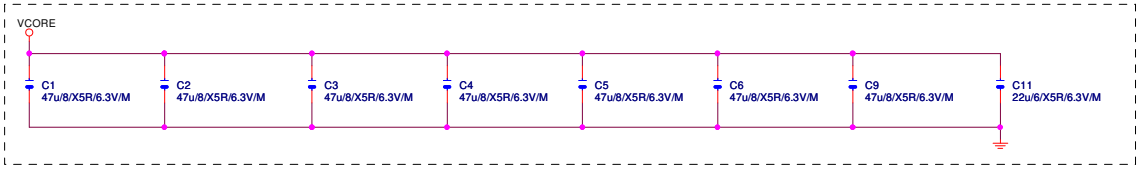

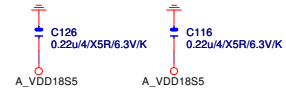

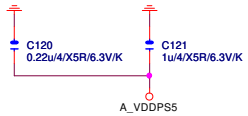

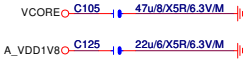

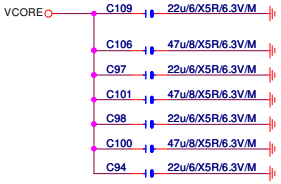

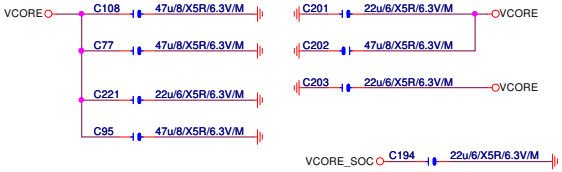

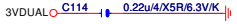

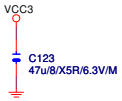

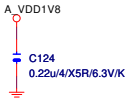

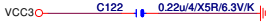

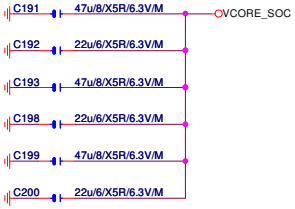

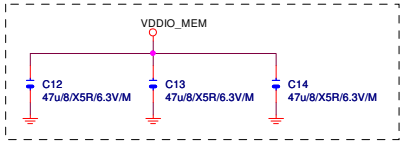

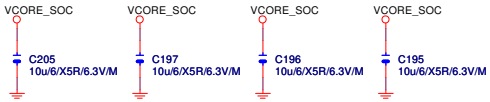

GIGABYTE™

Title	CPU BOTTOM CAP	
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CPU TOP CAVITY

VCORE C70 47u/8/X5R/6.3V/M
VCORE C223 22u/6/X5R/6.3V/M
VCORE C63 47u/8/X5R/6.3V/M
VCORE C72 22u/6/X5R/6.3V/M
VCORE C65 47u/8/X5R/6.3V/M
VCORE C62 22u/6/X5R/6.3V/M

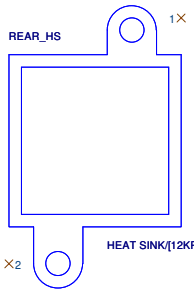
VCORE C64 47u/8/X5R/6.3V/M
VCORE C225 47u/8/X5R/6.3V/M
VCORE C224 47u/8/X5R/6.3V/M
C92 47u/8/X5R/6.3V/M VCORE
C53 47u/8/X5R/6.3V/M VCORE
C17 47u/6/X5R/6.3V/M VDDIO_MEM
C19 47u/6/X5R/6.3V/M VDDIO_MEM

C52 47u/8/X5R/6.3V/M VCORE_SOC
C26 22u/6/X5R/6.3V/M VCORE_SOC
C27 47u/8/X5R/6.3V/M VCORE_SOC
C31 22u/6/X5R/6.3V/M VCORE_SOC
C93 47u/8/X5R/6.3V/M VCORE_SOC
C25 22u/6/X5R/6.3V/M VCORE_SOC
VDDIO_MEM C20 47u/6/X5R/6.3V/M

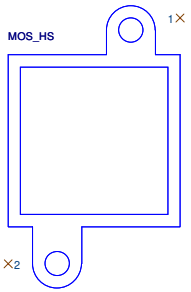
VCORE EMC12 0.1u/4/X7R/16V/K
EMC13 0.1u/4/X7R/16V/K
EMC14 0.1u/4/X7R/16V/K
EMC15 0.1u/4/X7R/16V/K

Cross Plane CAP

VCORE VCORE_SOC
EMC4 0.1u/4/X7R/16V/K
EMC5 0.1u/4/X7R/16V/K
EMC7 0.1u/4/X7R/16V/K
EMC10 0.1u/4/X7R/16V/K
EMC11 0.1u/4/X7R/16V/K



HEAT SINK/[12KRC-0H0047-01R]



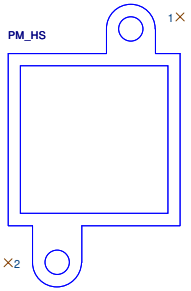
MOS_HS

T+R
Footprint :
sink_z490_ud-t

HEAT SINK/[12SP2-S10840-31R_12SP2-S10840-32R]

IO_SH

IO_SH/[11AIO-0C0052-02R]



PCH_HS

Footprint :BGAHSINK_SB-N

PM_HS/[12SP2-S03509-51R_12SP2-S03509-52R]

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