

Model Name: B460M D2VX SI Rev 1.0

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03	BLOCK DIAGRAM
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05	CPU LGA1151-B-DDR4
06	CPU LGA1151-C
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10	PCH CLK BUFFER
11	PCH DMI,USB,PCIE
12	PCH MISC
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28	LDO POWER (NA)

SHEET

TITLE

29	ISL95866 PWM-IRON
30	ISL95866 VCORE-IRON
31	ISL95866 VCCGT-IRON
32	VCCSA VCCIO VCCPLL
33	RT8237 DDR BEAD
34	RT8068A VPP
35	RT8237 PCH-BEAD
36	DISCRETE POWER
37	POWER MAP
38	ATX POWER , A -PROCHOT
39	KB MS
40	DVI CONN
41	RTD2168 - DP to VGA - IC
42	RTD2168 - DP to VGA - Conn
43	REALTEK 8111G
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45	Realtek ALC887
46	REAR AUDIO JACK
47	ADUIO LED
48	R USB30 1
49	R USB30 2
50	HDMI (MASK)
51	Redriver-R USB31 (NA)
52	F USB30
53	F USB
54	F PANEL
55	COM, TPM
56	EMI-ESD
	NTC MAP

Gigabyte Technology


Title		
Cover Sheet		
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### Component value change history

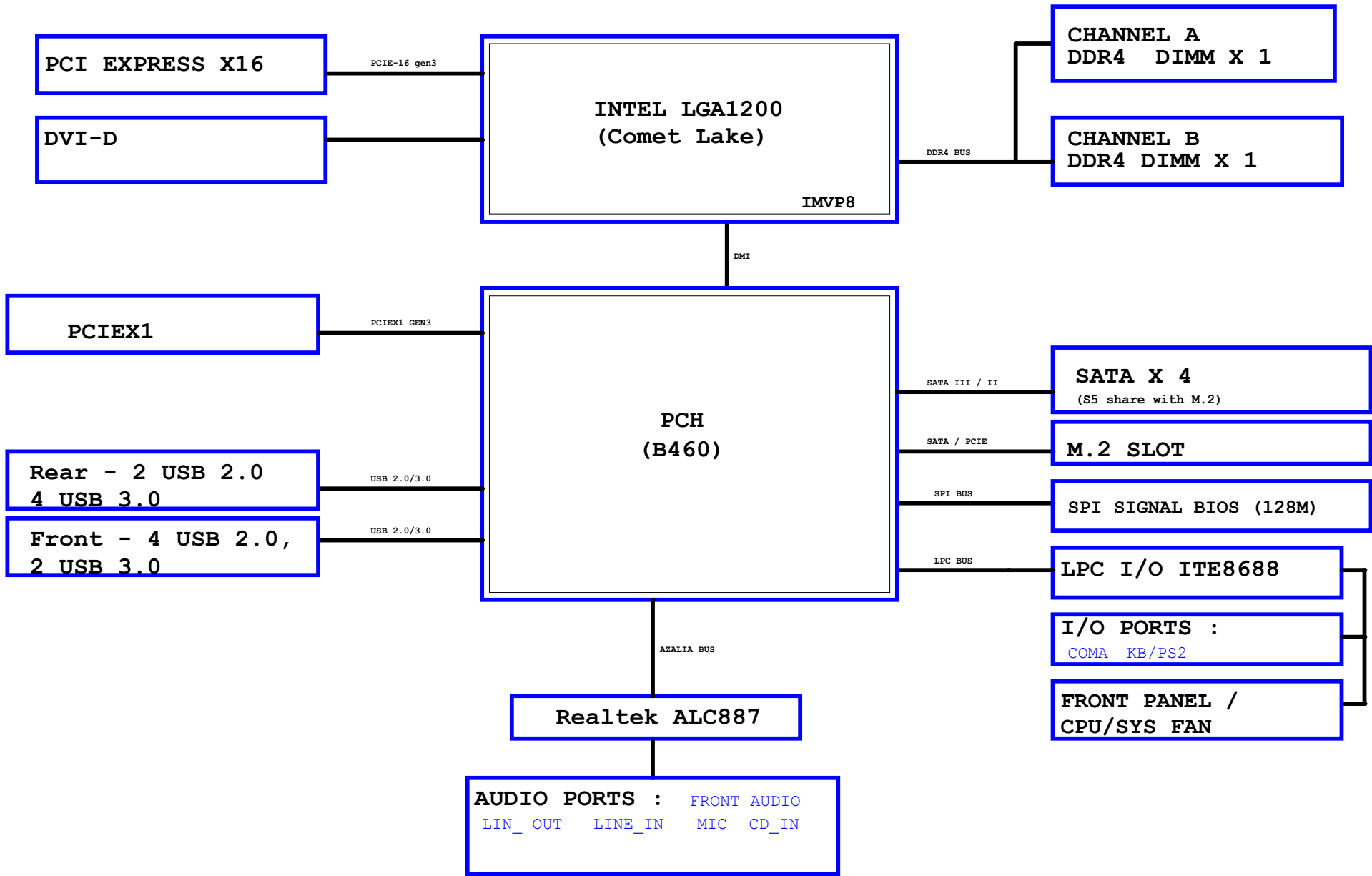
Data	Change Item	Reason
2020/03/11	NEW BOM	BOM-10A
2020/03/19	1. DAR67 change to 12.7K/4/1 2. DAR47 change to 14K/4/1 3. remove LGA1151 4. ADD LGA1200	BOM-10B

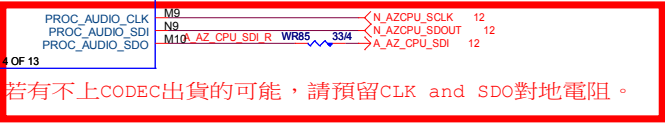
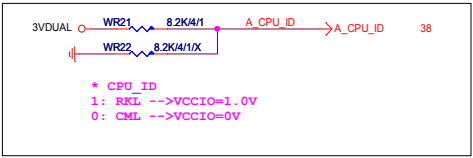
Circuit or PCB layout change

DATE	Change Item	Reason
2020/03/11	由B460M D2V修改 1. MASK SATA4.SATA5.PCIEX1_1.D-SUB 2. PCIEX1_2 rename to PCIEX1	Rev 1.0

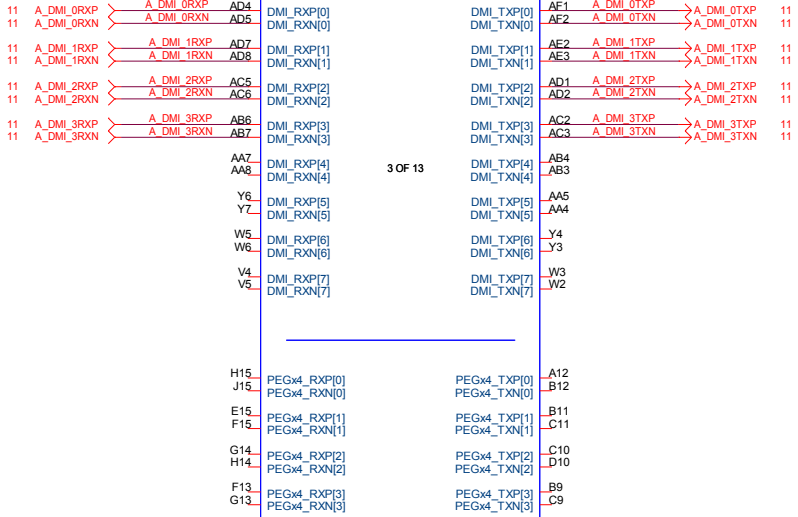
			
<b>BOM &amp; PCB MODIFY HISTORY</b>			
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BLOCK DIAGRAM





LGA1200		CML_S_P T=1900C28			
PA_EXP_RXP0	G12	PEG_RXP[0]		PEG_TXP[0]	A8 PA_EXP_TXP0
PA_EXP_RXN0	H12	PEG_RXN[0]		PEG_TXN[0]	B8 PA_EXP_TXN0
PA_EXP_RXP1	F11	PEG_RXP[1]		PEG_TXP[1]	B7 PA_EXP_TXP1
PA_EXP_RXN1	G11	PEG_RXN[1]		PEG_TXN[1]	C7 PA_EXP_TXN1
PA_EXP_RXP2	G10	PEG_RXP[2]		PEG_TXP[2]	A6 PA_EXP_TXP2
PA_EXP_RXN2	H10	PEG_RXN[2]		PEG_TXN[2]	A5 PA_EXP_TXN2
PA_EXP_RXP3	F9	PEG_RXP[3]		PEG_TXP[3]	B5 PA_EXP_TXP3
PA_EXP_RXN3	G9	PEG_RXN[3]		PEG_TXN[3]	B4 PA_EXP_TXN3
PA_EXP_RXP4	J9	PEG_RXP[4]		PEG_TXP[4]	C4 PA_EXP_TXP4
PA_EXP_RXN4	K9	PEG_RXN[4]		PEG_TXN[4]	C3 PA_EXP_TXN4
PA_EXP_RXP5	E7	PEG_RXP[5]		PEG_TXP[5]	D3 PA_EXP_TXP5
PA_EXP_RXN5	F6	PEG_RXN[5]		PEG_TXN[5]	D2 PA_EXP_TXN5
PA_EXP_RXP6	F6	PEG_RXP[6]		PEG_TXP[6]	E2 PA_EXP_TXP6
PA_EXP_RXN6	F5	PEG_RXN[6]		PEG_TXN[6]	E1 PA_EXP_TXN6
PA_EXP_RXP7	G7	PEG_RXP[7]		PEG_TXP[7]	F3 PA_EXP_TXP7
PA_EXP_RXN7	G6	PEG_RXN[7]		PEG_TXN[7]	F2 PA_EXP_TXN7
PA_EXP_RXP8	H5	PEG_RXP[8]		PEG_TXP[8]	G2 PA_EXP_TXP8
PA_EXP_RXN8	H6	PEG_RXN[8]		PEG_TXN[8]	G1 PA_EXP_TXN8
PA_EXP_RXP9	J6	PEG_RXP[9]		PEG_TXP[9]	H3 PA_EXP_TXP9
PA_EXP_RXN9	J7	PEG_RXN[9]		PEG_TXN[9]	H2 PA_EXP_TXN9
PA_EXP_RXP10	K5	PEG_RXP[10]		PEG_TXP[10]	J2 PA_EXP_TXP10
PA_EXP_RXN10	K6	PEG_RXN[10]		PEG_TXN[10]	J1 PA_EXP_TXN10
PA_EXP_RXP11	L6	PEG_RXP[11]		PEG_TXP[11]	K3 PA_EXP_TXP11
PA_EXP_RXN11	L7	PEG_RXN[11]		PEG_TXN[11]	K2 PA_EXP_TXN11
PA_EXP_RXP12	M5	PEG_RXP[12]		PEG_TXP[12]	L2 PA_EXP_TXP12
PA_EXP_RXN12	M6	PEG_RXN[12]		PEG_TXN[12]	L1 PA_EXP_TXN12
PA_EXP_RXP13	N6	PEG_RXP[13]		PEG_TXP[13]	M3 PA_EXP_TXP13
PA_EXP_RXN13	N7	PEG_RXN[13]		PEG_TXN[13]	M2 PA_EXP_TXN13
PA_EXP_RXP14	P5	PEG_RXP[14]		PEG_TXP[14]	N2 PA_EXP_TXP14
PA_EXP_RXN14	P6	PEG_RXN[14]		PEG_TXN[14]	N1 PA_EXP_TXN14
PA_EXP_RXP15	R6	PEG_RXP[15]		PEG_TXP[15]	P3 PA_EXP_TXP15
PA_EXP_RXN15	R7	PEG_RXN[15]		PEG_TXN[15]	P2 PA_EXP_TXN15

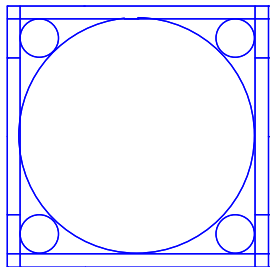
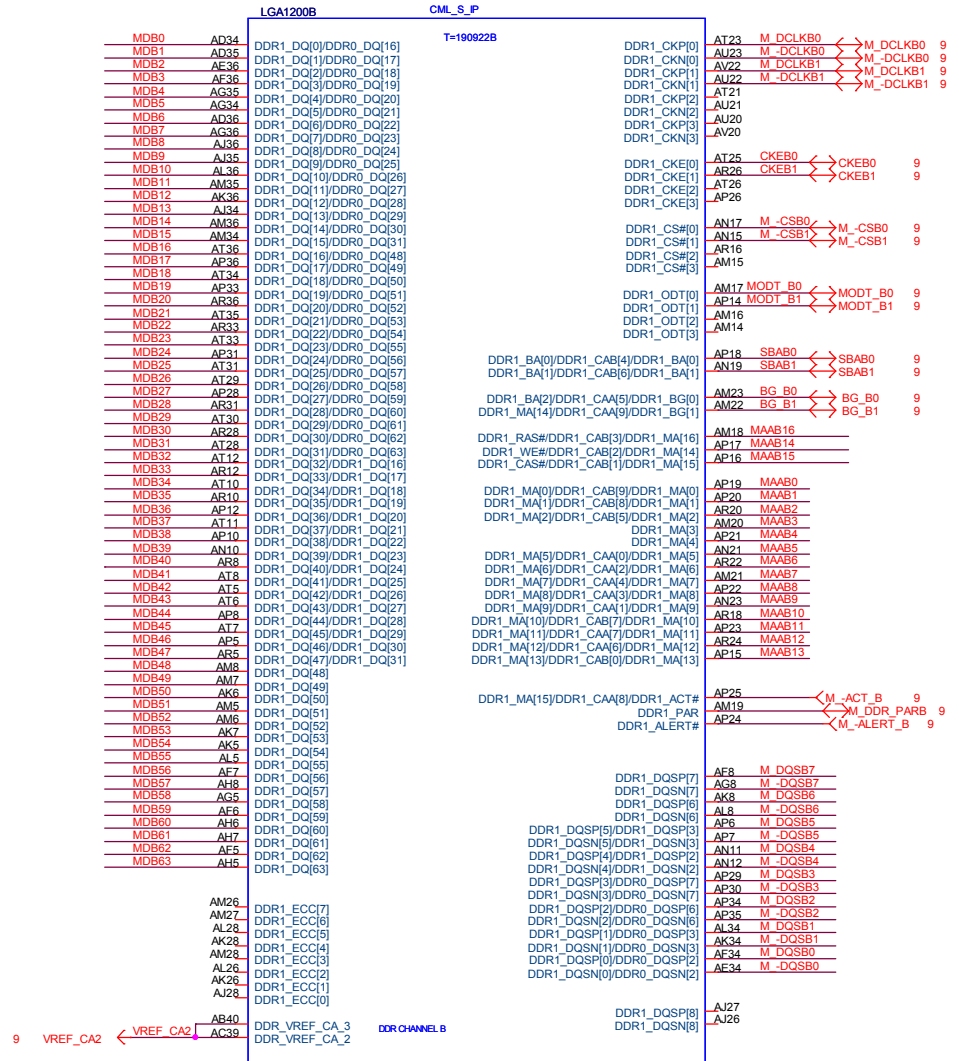


CPU-SK/1200/S/GF

## Gigabyte Technology

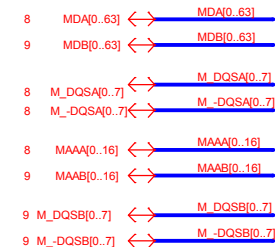
**CPU LGA1200-A**

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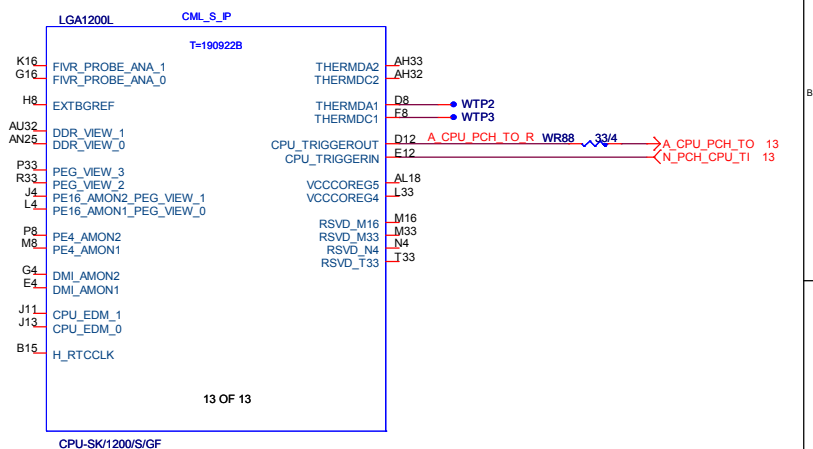
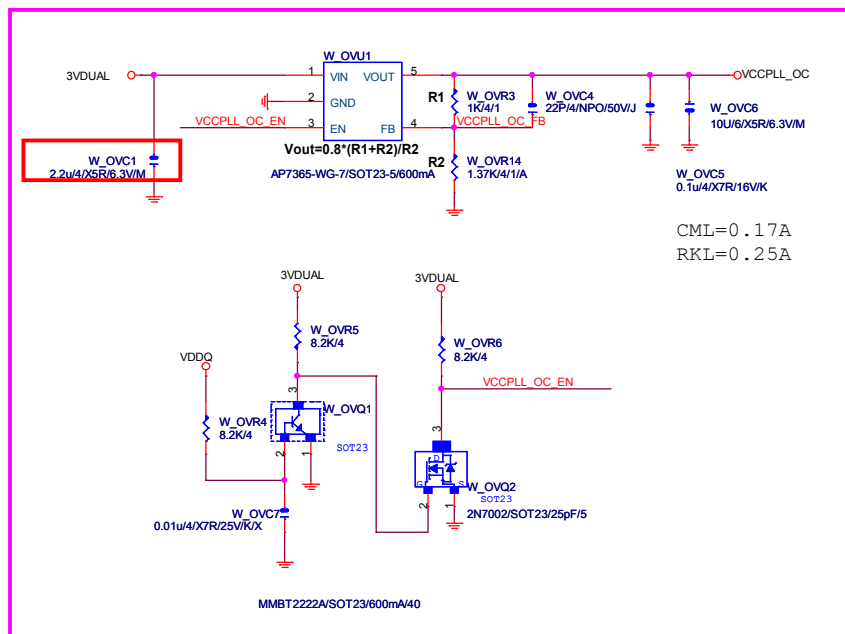
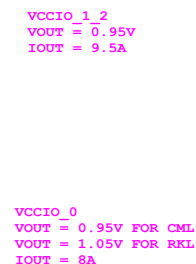
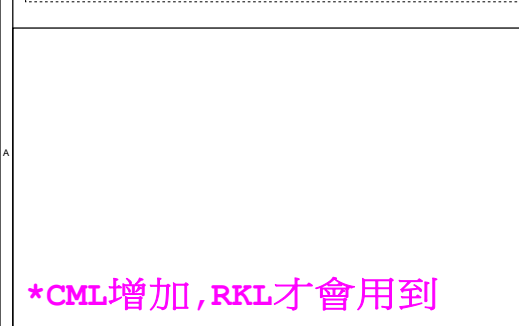


黑色cover

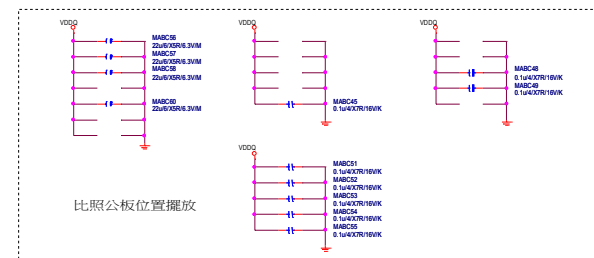
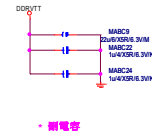
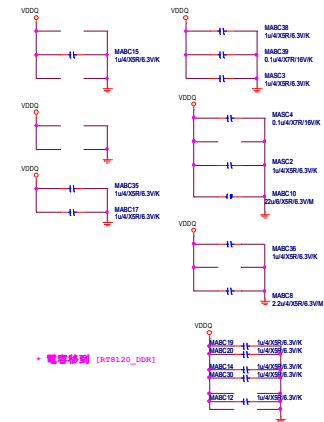
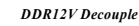
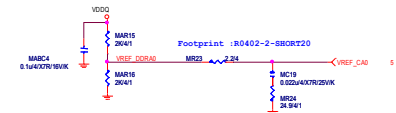
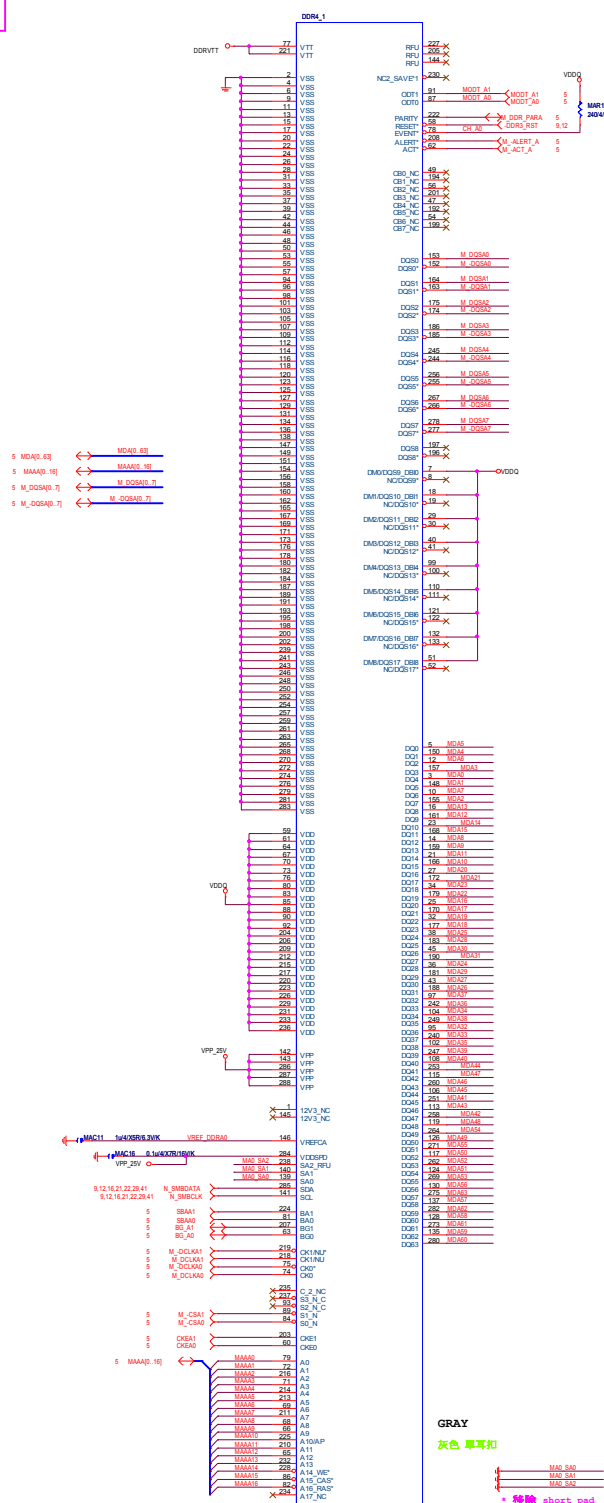
LGA1200  
I.LM\_BP\_CR/115X/BK/NI/12KRC-SF0001-81R\_12KRC-SF0001-82R/



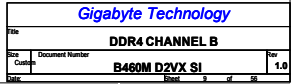
Gigabyte Technology			
CPU LGA1200-B			
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CPU LGA1200-B		1.0	
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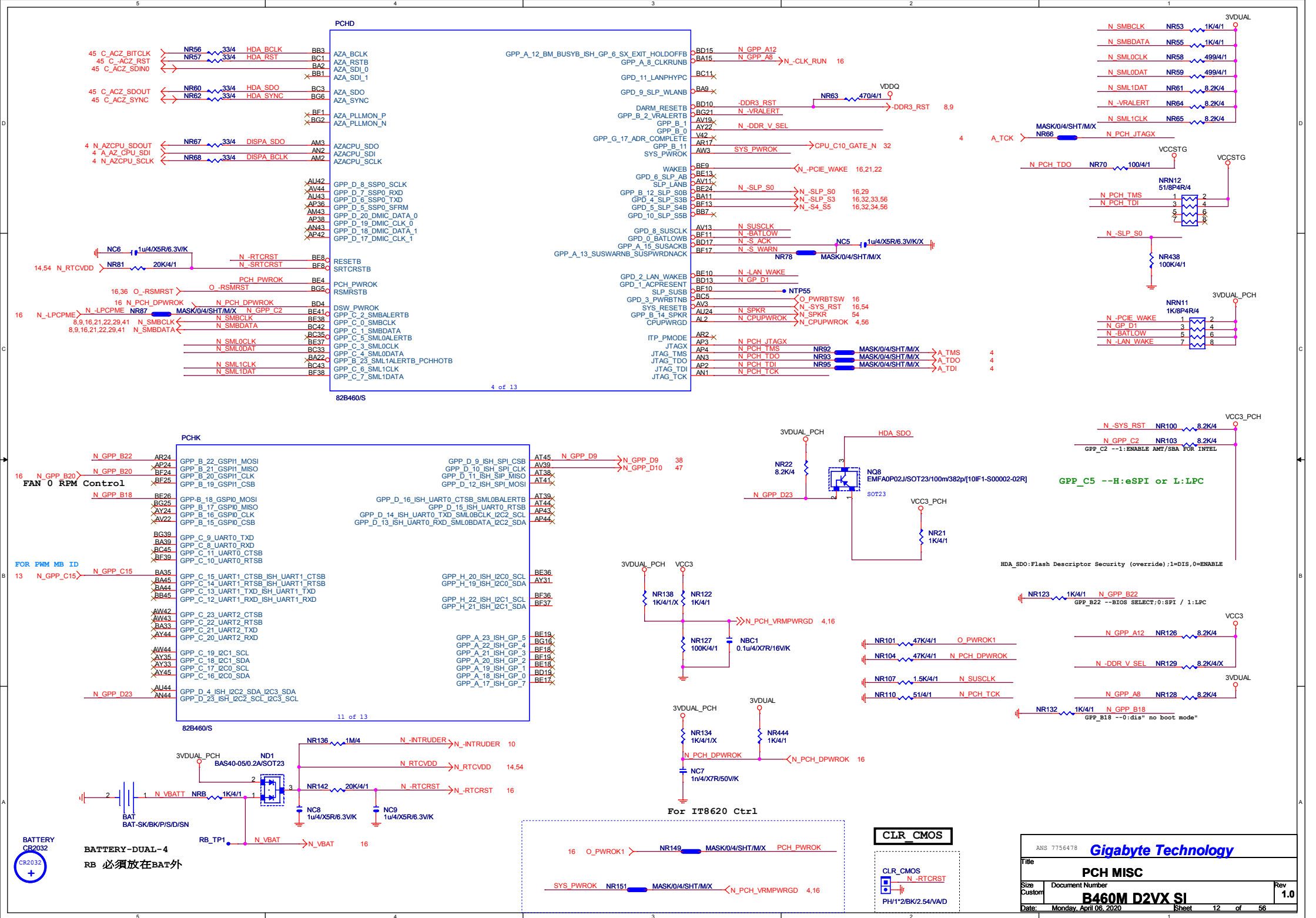


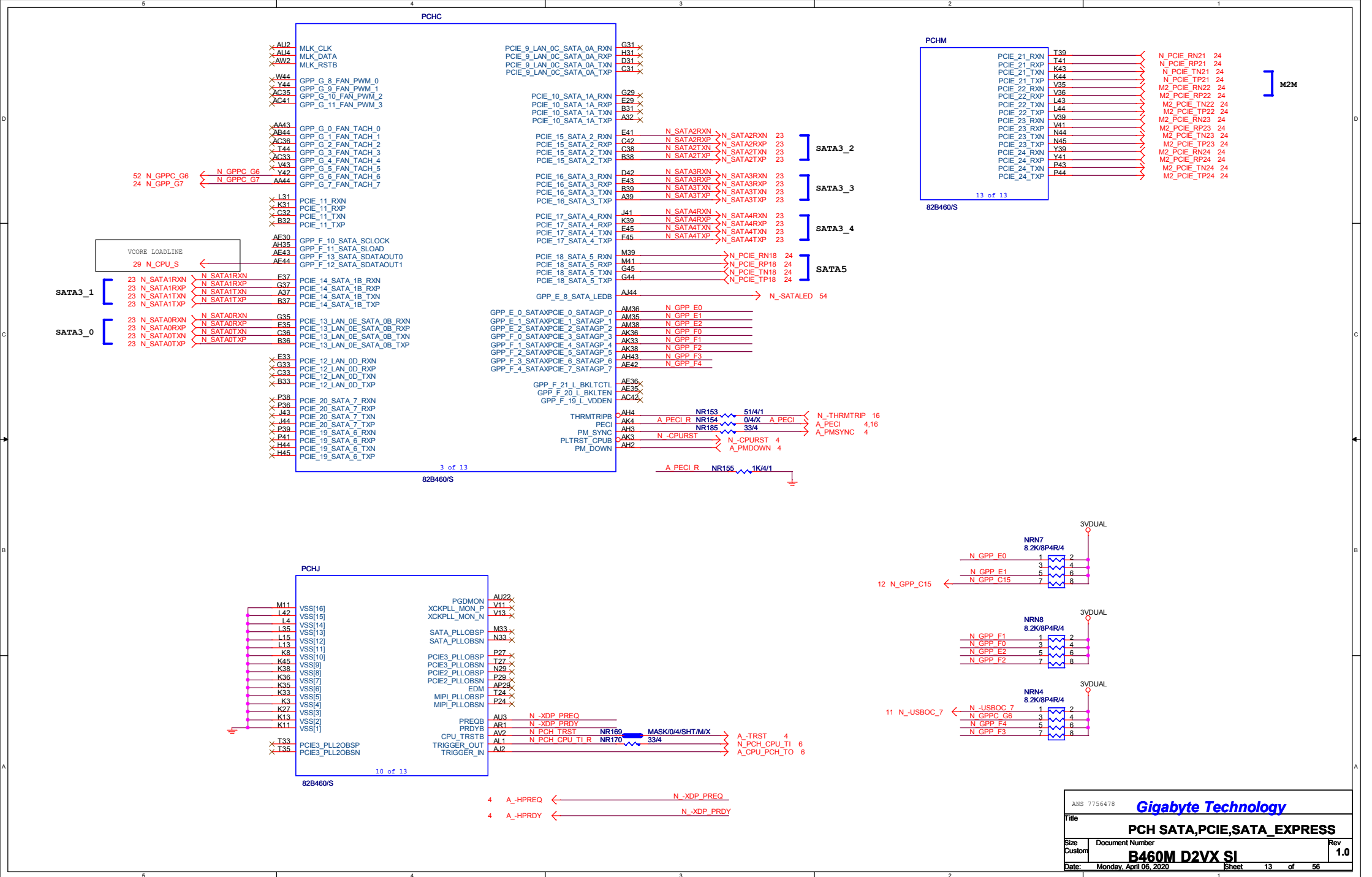








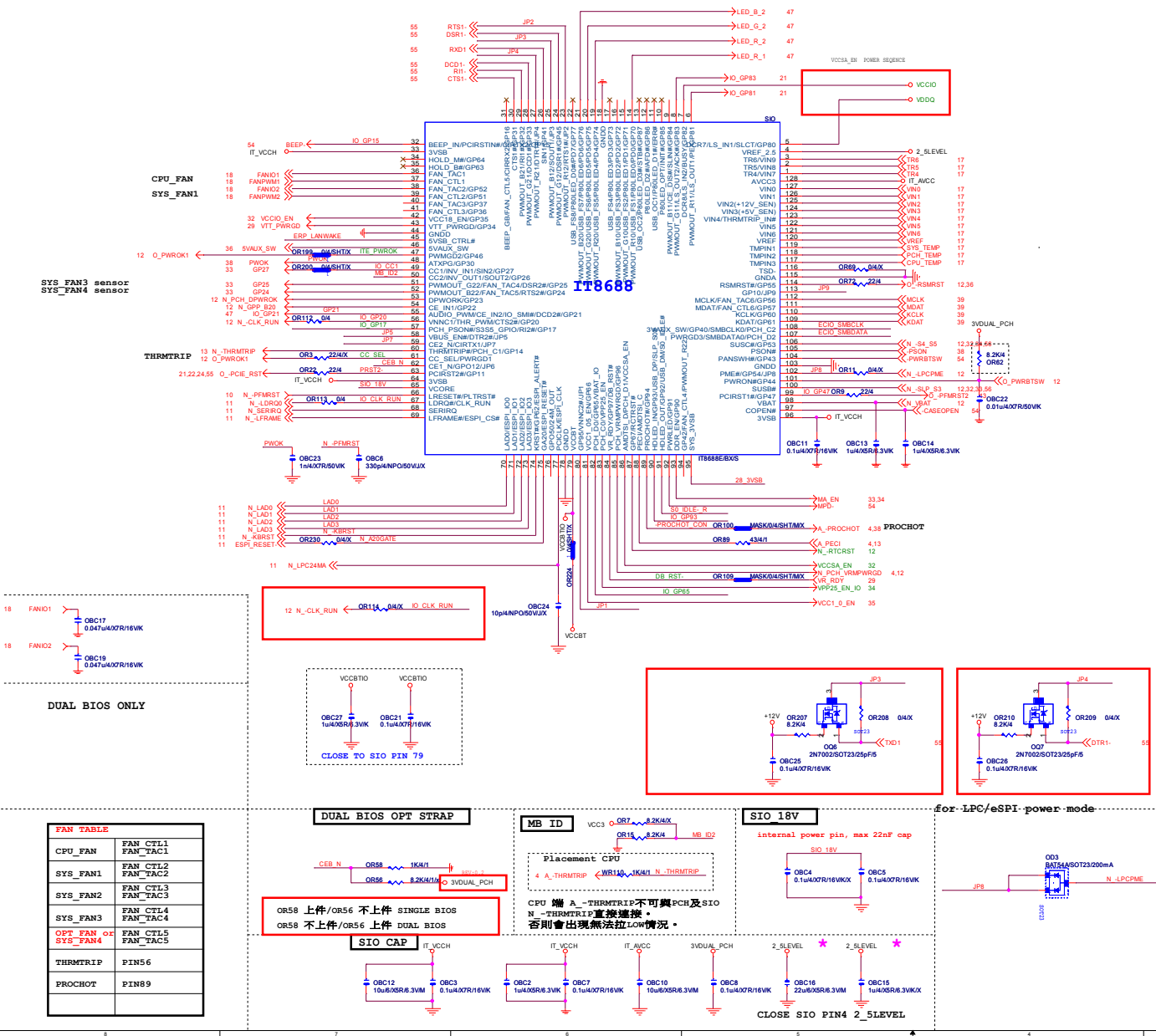




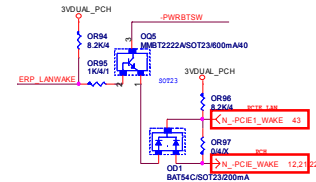
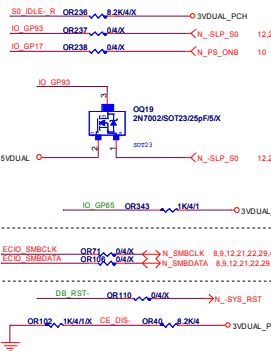








(組態一) PCIE LAN( Single & Dual LAN

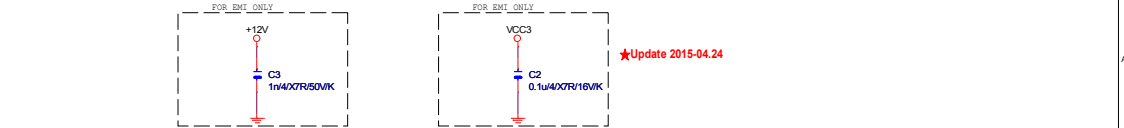
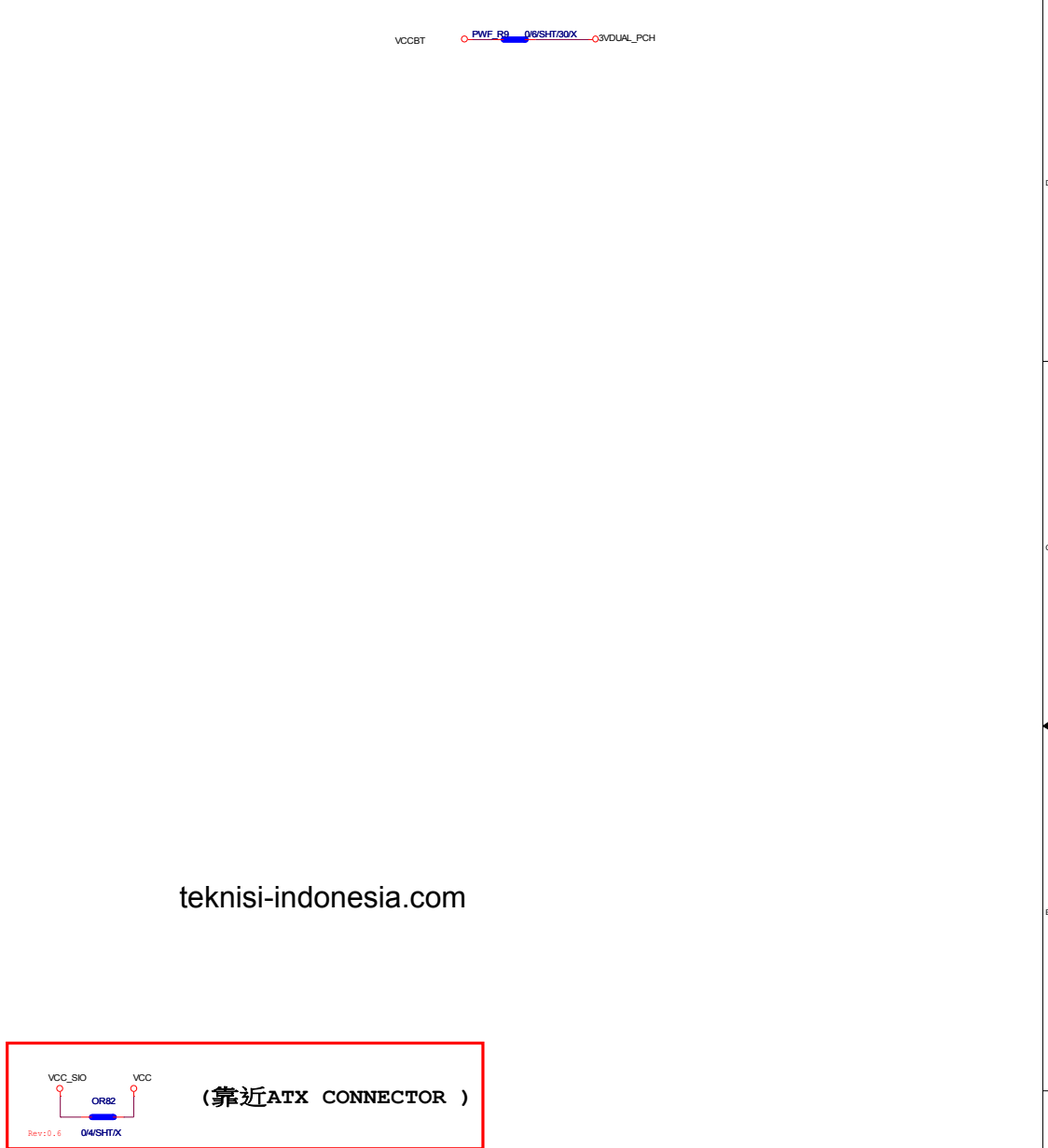
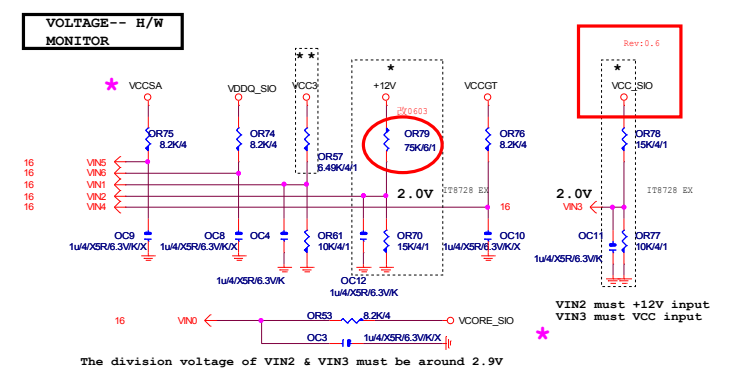
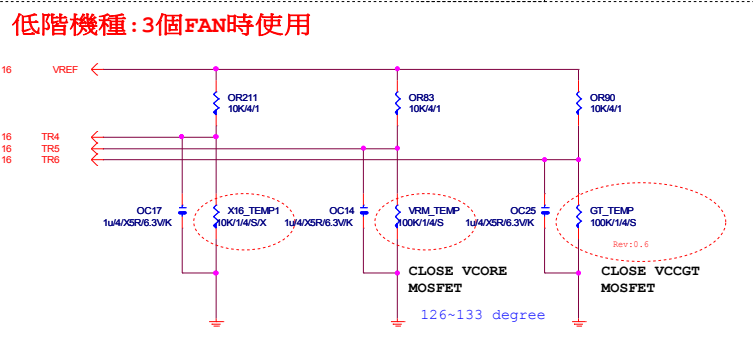
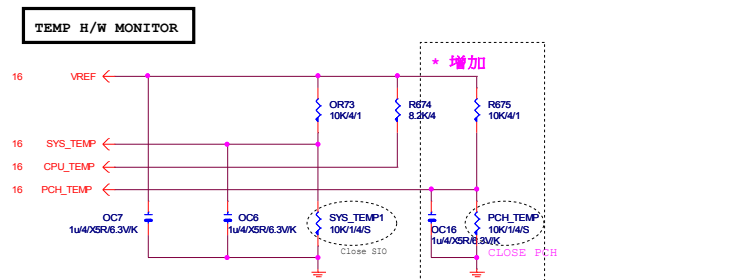
[illegible]

ERP Wake on LAN		
Single LAN	Realtek	組態:
	Atheros	
	Intel 219	組態二
	Atheros+Atheros	組態一
Dual LAN (只留一個 LAN交換器 ERP下 WAKE UP)	Intel 219+Atheros	組態三
	Intel 219+Intel 210	
	No Support: ERP	Single LAN BOM只上OR97。 Dual LAN BOM只上OR97、OR99。

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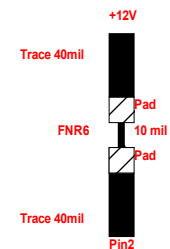
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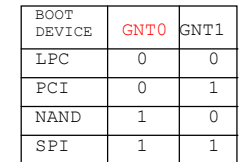


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Title			
HWM,KB/MS, FAN CTRL			
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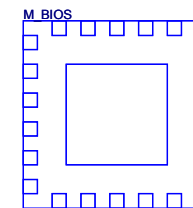
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### MOSI For DMI RX Termination Voltage




3VDUAL

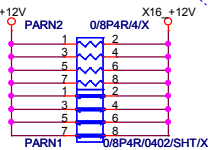
BSC5  
0.1u4/X7R/16V/K/X



\* 試產先上，PVT 移除

CEC\_R0.3

			
Title			
CEC relate circuit			
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+12V protect  
short-wire test

PA\_EXP\_RXP[0..15] >> PA\_EXP\_RXP[0..15] 4  
 PA\_EXP\_RXN[0..15] >> PA\_EXP\_RXN[0..15] 4  
 PA\_EXP\_TXP[0..15] >> PA\_EXP\_TXP[0..15] 4  
 PA\_EXP\_TXN[0..15] >> PA\_EXP\_TXN[0..15] 4

PA_EXP_TXP0	PAC5	0.22u4/X5R16.3V/K	PA_EXP_TXP0 C
PA_EXP_TXN0	PAC4	0.22u4/X5R16.3V/K	PA_EXP_TXN0 C
PA_EXP_TXP1	PAC6	0.22u4/X5R16.3V/K	PA_EXP_TXP1 C
PA_EXP_TXN1	PAC7	0.22u4/X5R16.3V/K	PA_EXP_TXN1 C
PA_EXP_TXP2	PAC8	0.22u4/X5R16.3V/K	PA_EXP_TXP2 C
PA_EXP_TXN2	PAC9	0.22u4/X5R16.3V/K	PA_EXP_TXN2 C
PA_EXP_TXP3	PAC10	0.22u4/X5R16.3V/K	PA_EXP_TXP3 C
PA_EXP_TXN3	PAC11	0.22u4/X5R16.3V/K	PA_EXP_TXN3 C
PA_EXP_TXP4	PAC12	0.22u4/X5R16.3V/K	PA_EXP_TXP4 C
PA_EXP_TXN4	PAC13	0.22u4/X5R16.3V/K	PA_EXP_TXN4 C
PA_EXP_TXP5	PAC14	0.22u4/X5R16.3V/K	PA_EXP_TXP5 C
PA_EXP_TXN5	PAC15	0.22u4/X5R16.3V/K	PA_EXP_TXN5 C
PA_EXP_TXP6	PAC16	0.22u4/X5R16.3V/K	PA_EXP_TXP6 C
PA_EXP_TXN6	PAC17	0.22u4/X5R16.3V/K	PA_EXP_TXN6 C
PA_EXP_TXP7	PAC18	0.22u4/X5R16.3V/K	PA_EXP_TXP7 C
PA_EXP_TXN7	PAC19	0.22u4/X5R16.3V/K	PA_EXP_TXN7 C
PA_EXP_TXP8	PAC21	0.22u4/X5R16.3V/K	PA_EXP_TXP8 C
PA_EXP_TXN8	PAC20	0.22u4/X5R16.3V/K	PA_EXP_TXN8 C
PA_EXP_TXP9	PAC22	0.22u4/X5R16.3V/K	PA_EXP_TXP9 C
PA_EXP_TXN9	PAC23	0.22u4/X5R16.3V/K	PA_EXP_TXN9 C
PA_EXP_TXP10	PAC24	0.22u4/X5R16.3V/K	PA_EXP_TXP10 C
PA_EXP_TXN10	PAC25	0.22u4/X5R16.3V/K	PA_EXP_TXN10 C
PA_EXP_TXP11	PAC26	0.22u4/X5R16.3V/K	PA_EXP_TXP11 C
PA_EXP_TXN11	PAC27	0.22u4/X5R16.3V/K	PA_EXP_TXN11 C
PA_EXP_TXP12	PAC28	0.22u4/X5R16.3V/K	PA_EXP_TXP12 C
PA_EXP_TXN12	PAC29	0.22u4/X5R16.3V/K	PA_EXP_TXN12 C
PA_EXP_TXP13	PAC30	0.22u4/X5R16.3V/K	PA_EXP_TXP13 C
PA_EXP_TXN13	PAC31	0.22u4/X5R16.3V/K	PA_EXP_TXN13 C
PA_EXP_TXP14	PAC32	0.22u4/X5R16.3V/K	PA_EXP_TXP14 C
PA_EXP_TXN14	PAC33	0.22u4/X5R16.3V/K	PA_EXP_TXN14 C
PA_EXP_TXP15	PAC34	0.22u4/X5R16.3V/K	PA_EXP_TXP15 C
PA_EXP_TXN15	PAC35	0.22u4/X5R16.3V/K	PA_EXP_TXN15 C

PCIEX16:16/5/5/5/16

PCI-E REV:1.1--&gt; 2.5GHZ

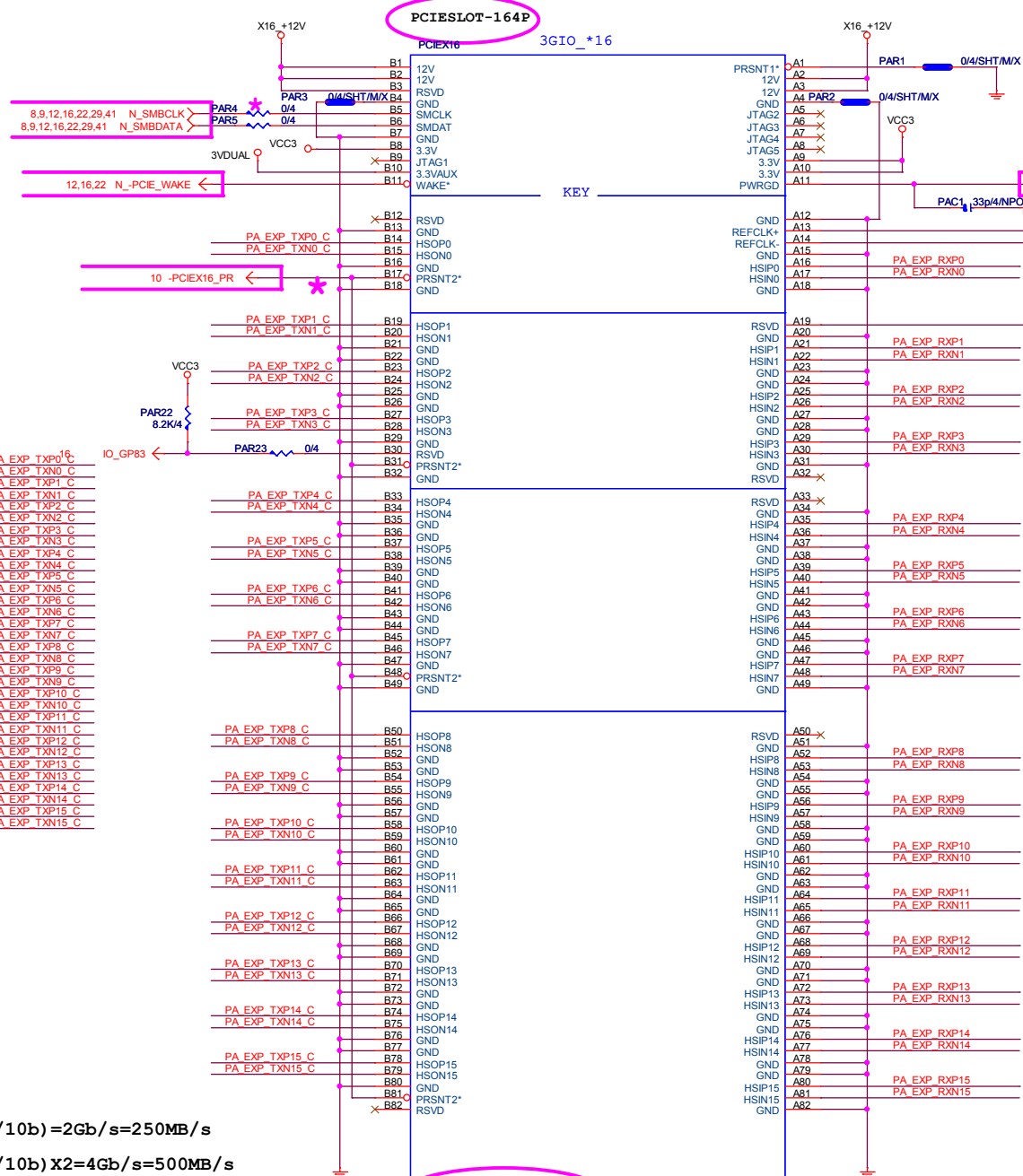
PCE-E X1(單向) BANDWIDTH=2.5GHz\*(8b/10b)=2Gb/s=250MB/s

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

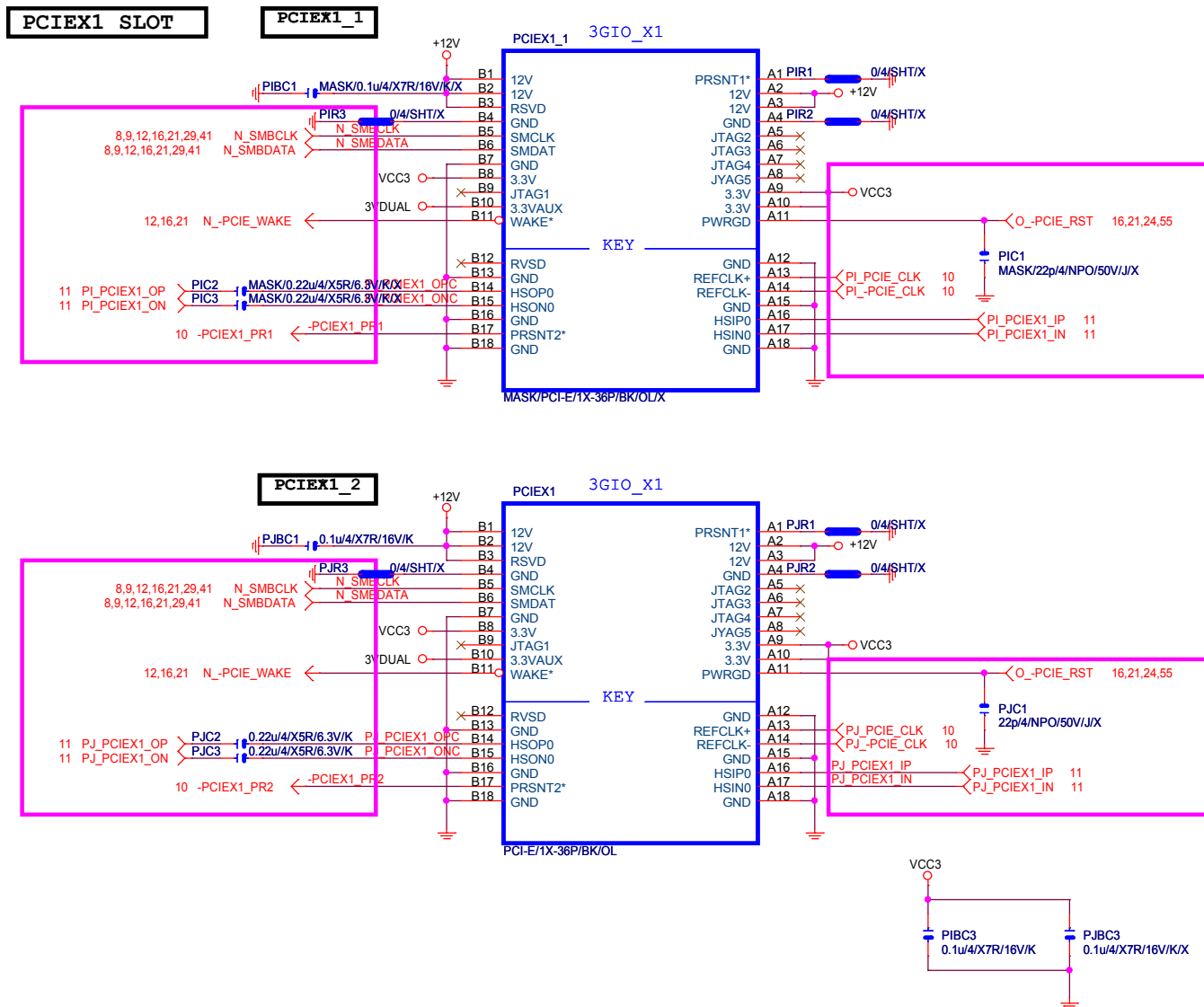
PCE-E X16(雙向) BANDWIDTH=2.5GHz\*(8b/10b)X16X2=64Gb/s=8GB/s

PCI-E REV:2.0--&gt; 5GHZ



PCI-E/16X-164P/GY/LONG DOUBLE/HK\*2

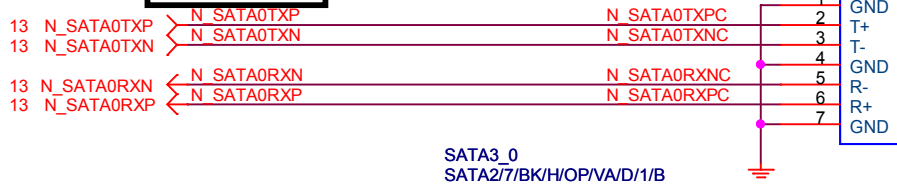
黑色SLOT



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Title		
PCIE_X4		
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### SATA3 0/1

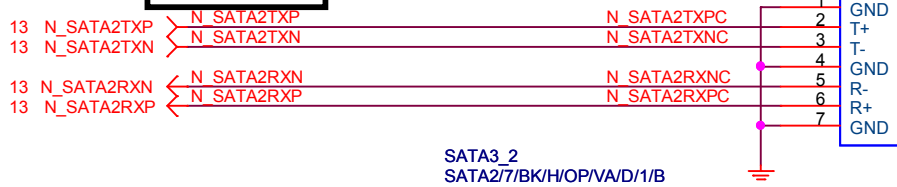


BLACK CONNECTOR

SATA3\_1  
SATA2/7/BK/H/OP/VA/D/1/B



### SATA3 2/3

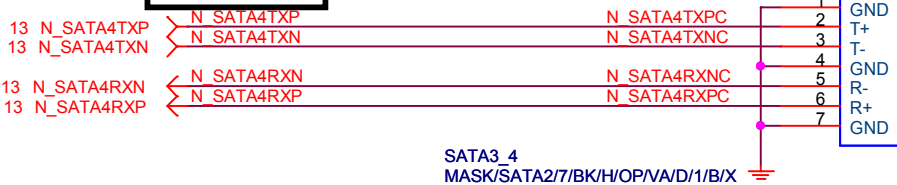


BLACK CONNECTOR

SATA3\_3  
SATA2/7/BK/H/OP/VA/D/1/B



### SATA3 4/5



BLACK CONNECTOR

SATA3\_5  
MASK/SATA2/7/BK/H/OP/VA/D/1/B/X



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Rev 0.4

M.2 Lane4 from PCH port24

M.2 Lane3 from PCH port23

M.2 Lane2 from PCH port22

M.2 Lane2 from PCH port21

支援SATA and M.2 function

需與M2 -CLKREQ對應

SATA : GND.  
PCIE : HIGH

★ Footprint : NGFF-M-75P-8CM-09MM-SMD

舊的Switch,價格低

SATA Conn

M2Q\_SW

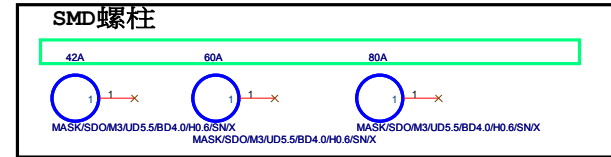
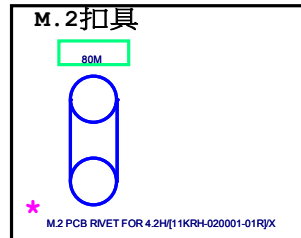
High : M2X4 + SATA 5 OK

Low : M2 (SATA) + SATA 5 NA

M.2 PCIE Mode

M.2 SATA Mode

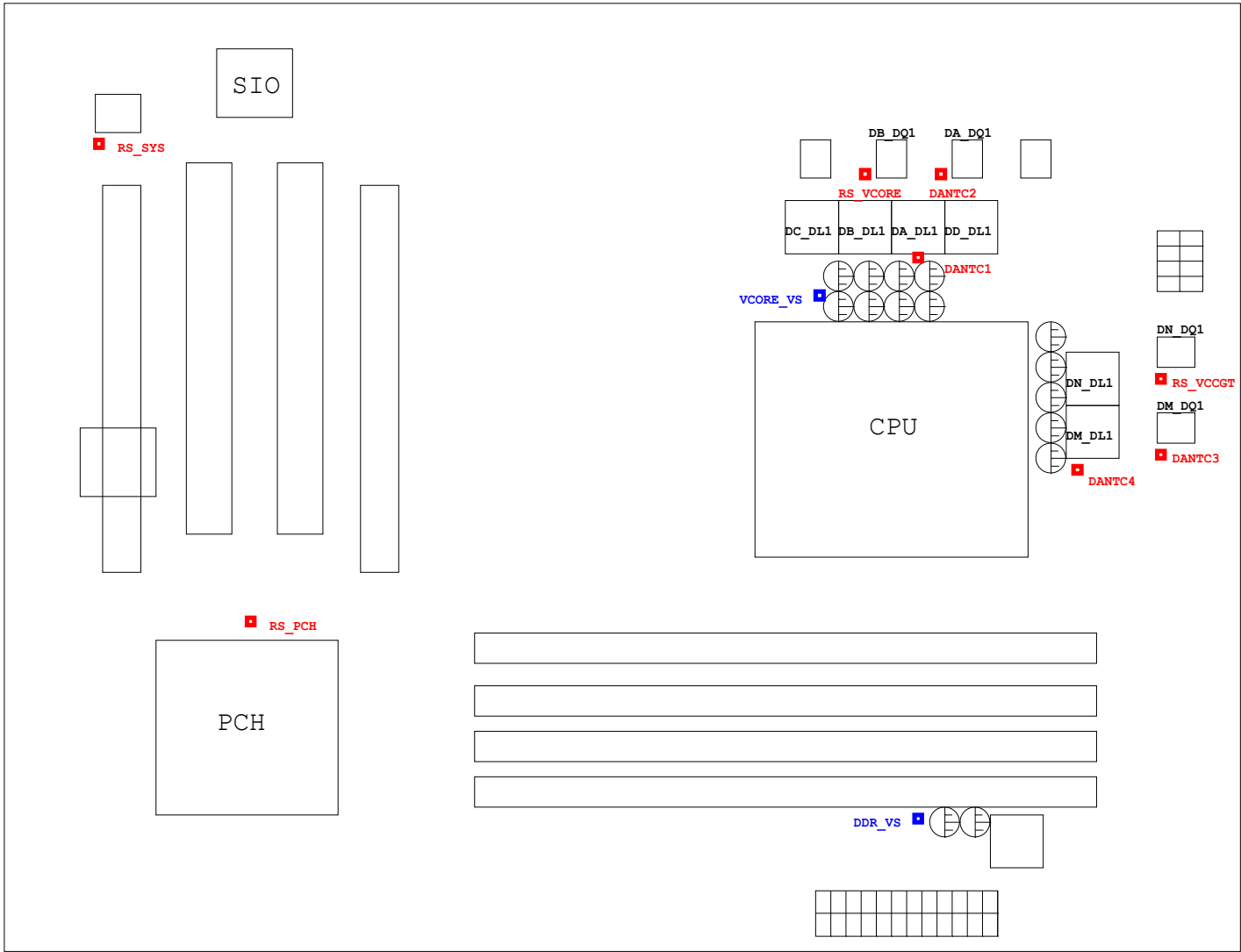
www.teknisi-indonesia.com



Function	SEL
xI--> x0a	L
xI--> x0b	H

Gigabyte Technology		
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M.2 X4		
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熱敏電阻	擺放靠近位置	走線方式
DANTC1	DA_DL1	N/A
DANTC2	DA_DQ1	Differential
DANTC3	DM_DQ1	N/A
DANTC4	DM_DL1	Differential
RS_VCORE	DB_DQ1	N/A
RS_VCCGT	DN_DQ1	N/A
RS_PCH	PCH	N/A
RS_SYS	CU1	N/A





Rev 0.1

Gigabyte Technology

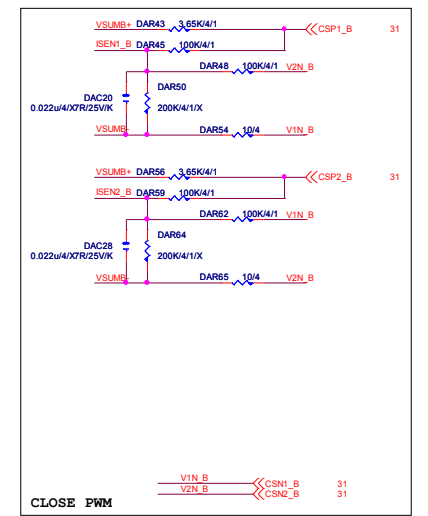
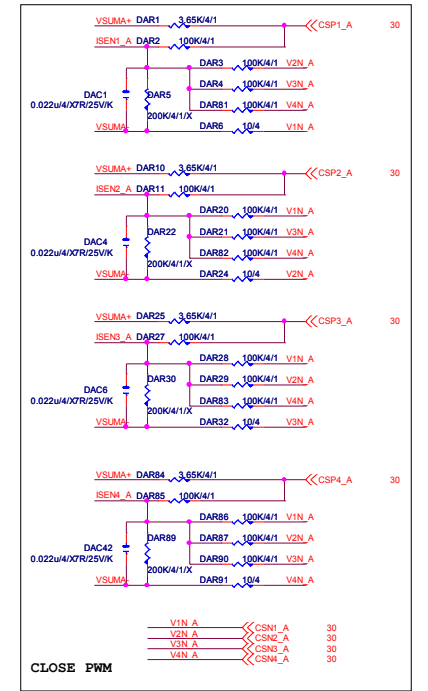
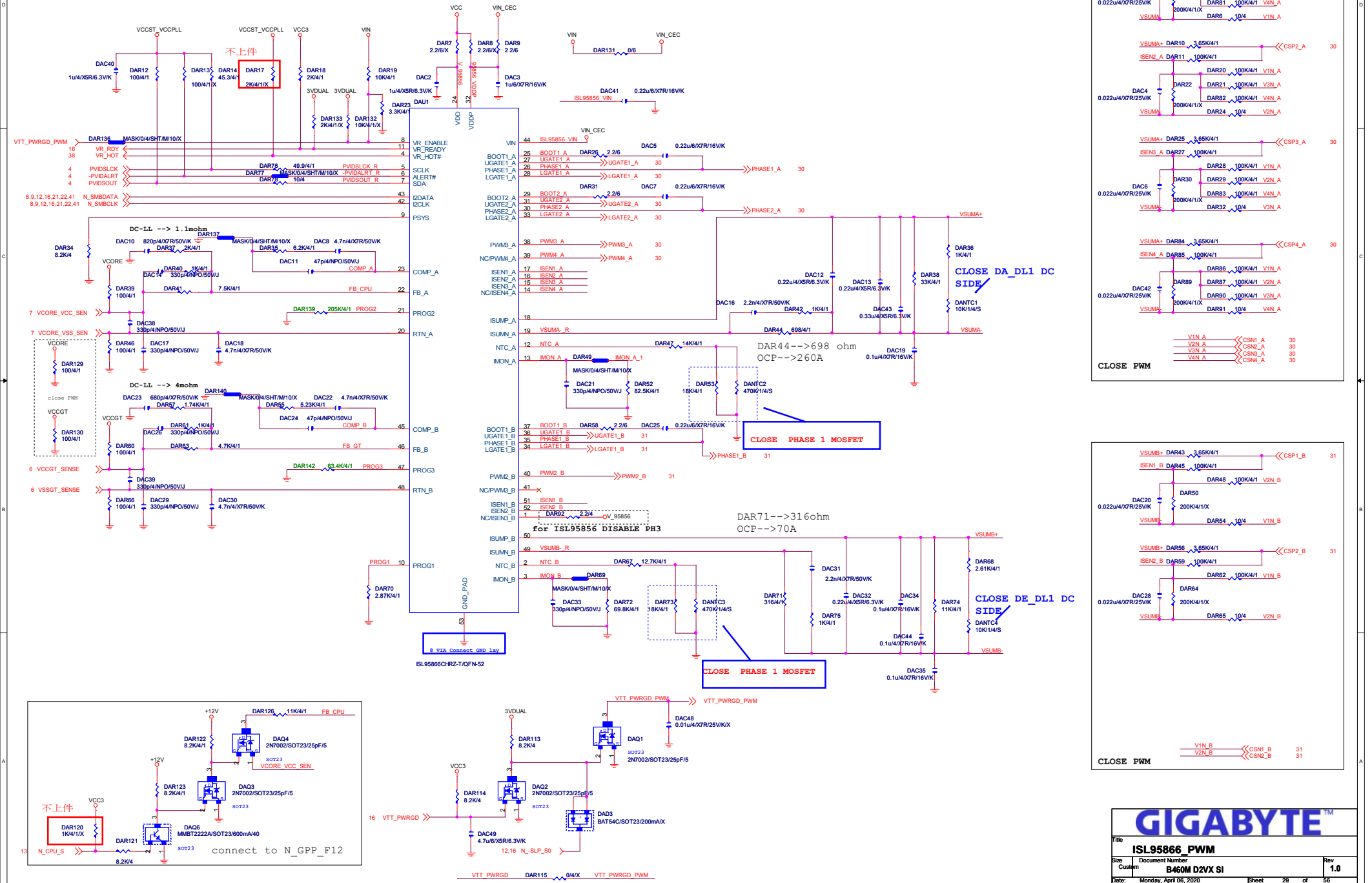
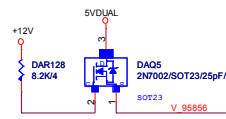
Title			
ASM1085 POWER			
Size Custom	Document Number		Rev
	B460M D2VX SI		1.0
Date:	Monday, April 06, 2020		Sheet 28 of 56

VCORE\_SIO VCORE

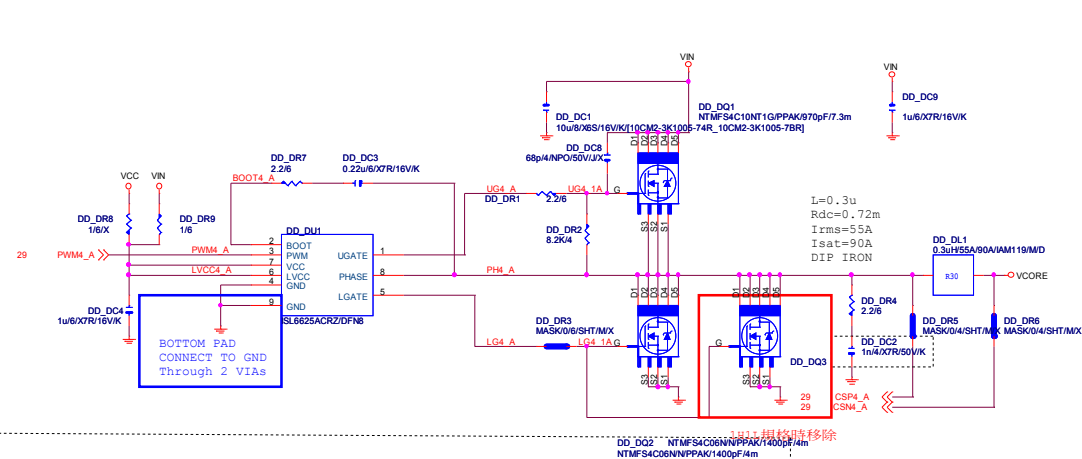
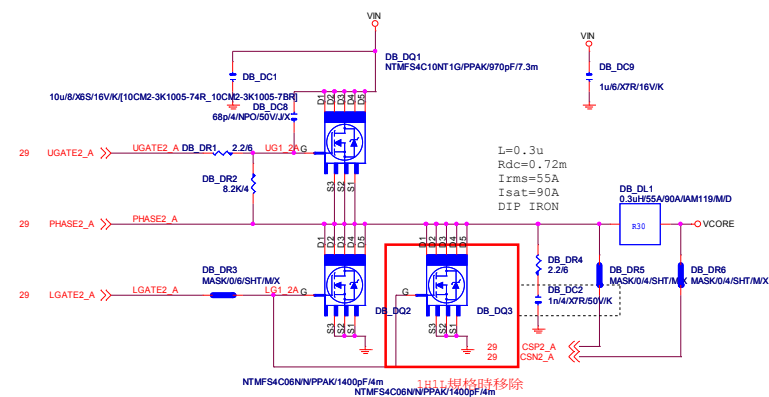
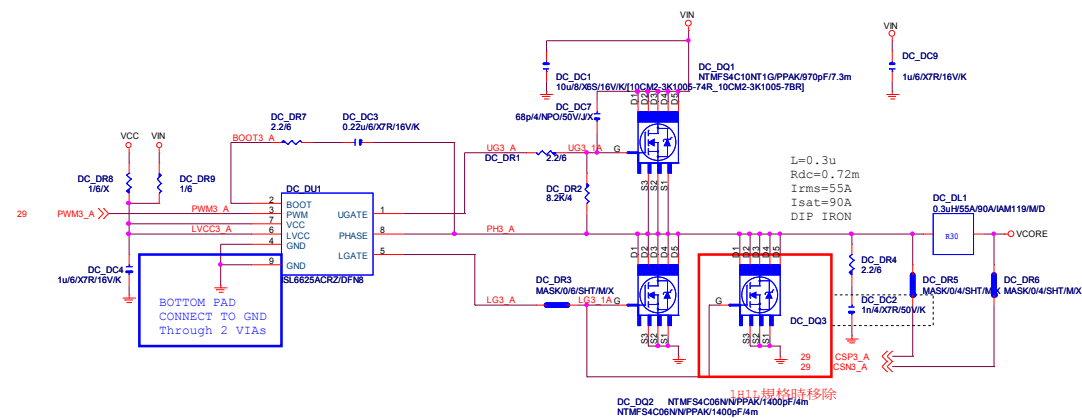
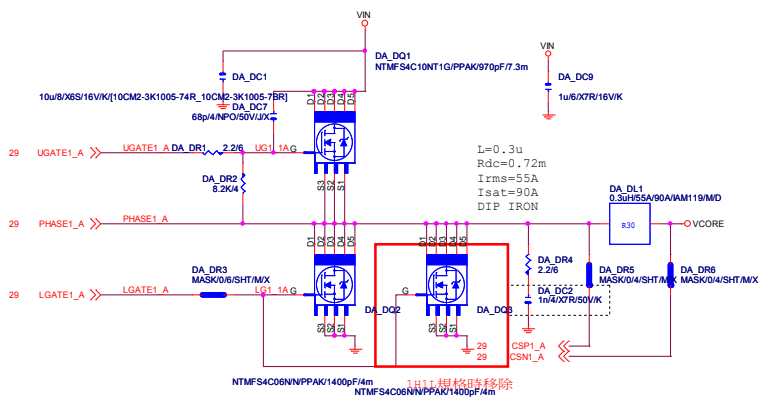
VCORE\_VS  
MASK0/4/SHT/M/X

請注意擺放位置

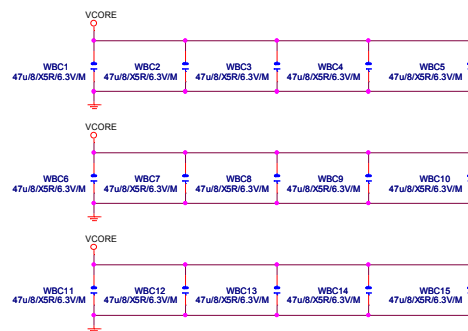
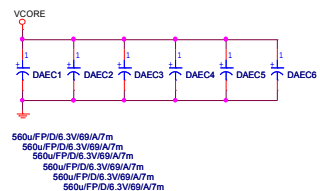
DAR131 short pad footprint:R0603-RH-SHORT30-MASK



## VCORE



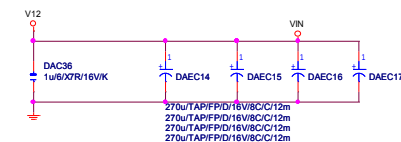
VCORE CAP 560u\*6PCS  
22u\*20PCS



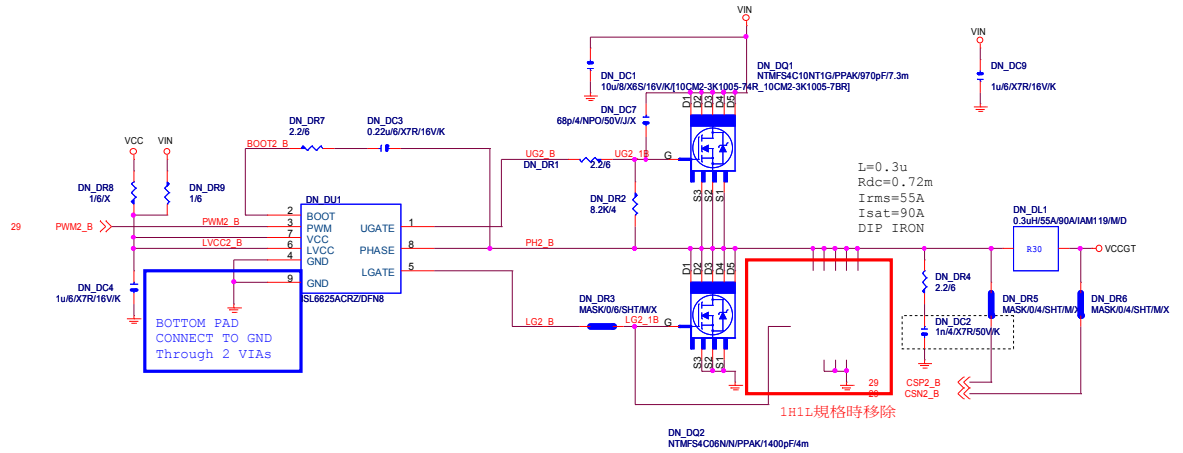
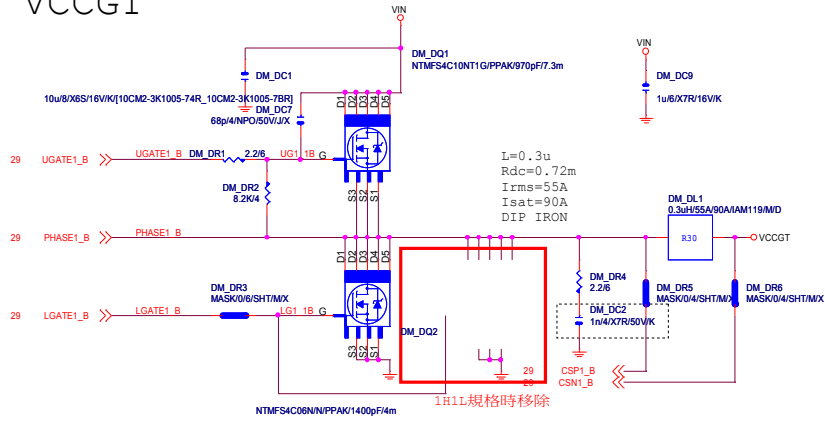
放CPU SOCKET (TOP LAYER)



## VIN CAP 270u\*4PCS

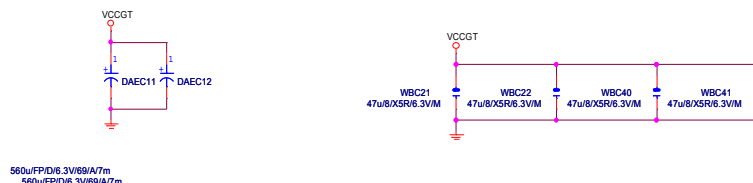


# VCCGT



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VCCGT CAP 560u\*2PCS  
22u\*4PCS



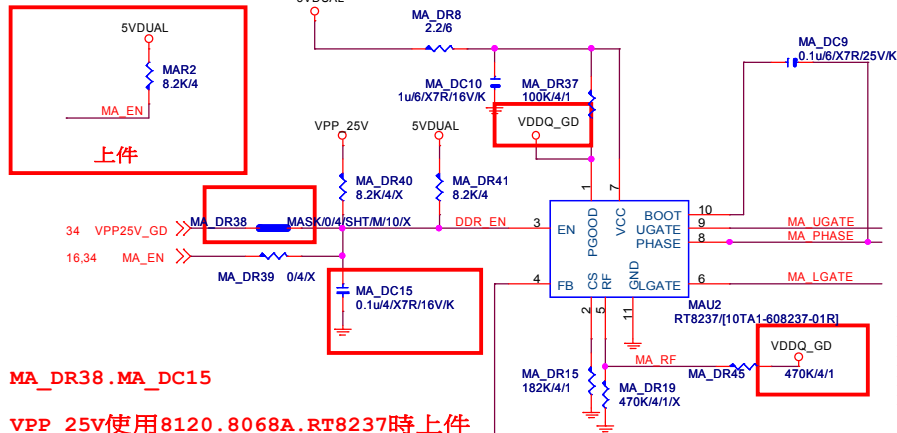
<b>GIGABYTE™</b>			
Title			
<b>ISL95866_MOS</b>			
Size	Document Number		Rev
Custom	<b>B460M D2VX SI</b>		<b>1.0</b>
Date:	Monday, April 06, 2020	Sheet 31 of 56	





REV:0.3

## DDR4



MA\_DR38.MA\_DC15

VPP\_25V使用8120.8068A.RT8237時上件

FS=290K  
OCP=40AMOSFET請依MOSFET使用規則,自行選擇  
ON-->101F9-040406-10R[NMFS4C06N/N/PPAK/1400pF/4m]  
VISHAY-->101F9-040012-10R[SIRAL2DP/PPAKS08/2070pF/4.3m]

16 GP25 > MA\_DR46 9.1K/4/1 1.35V

16 GP24 > MA\_DR21 26.1K/4/1 1.25V

16 GP27 > MA\_DR22 6.8K/4/1 1.4V

CHOKE與CAP料號可變

DDR VIN CAP  
560u\*2PCS

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

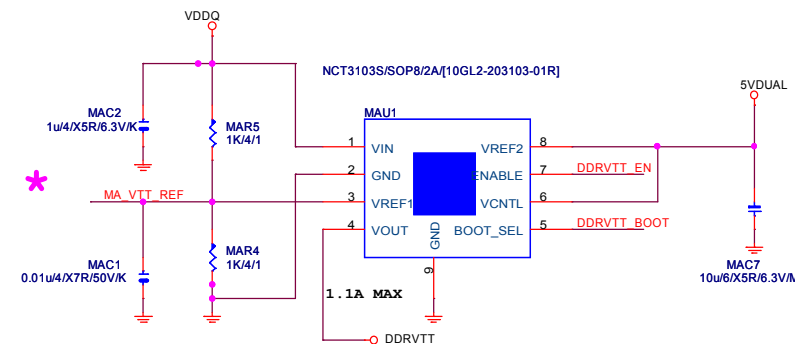
CLOSE TO DDR POWER PLANE

For power sequence require

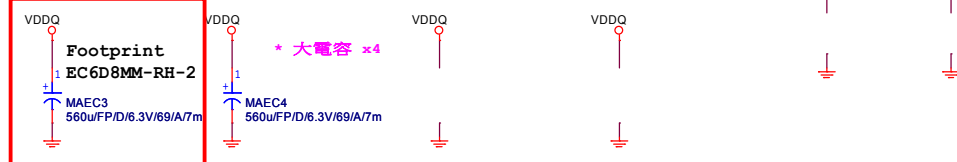
VPP\_25V使用8120時上件

MAU1上RT9045時上件(不可MASK)

## DDRVTT

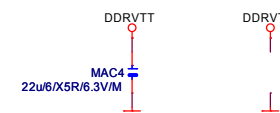


DDR CAP 560u\*4PCS 22u\*2PCS



DDRVTT CAP

\* 大電容 x0

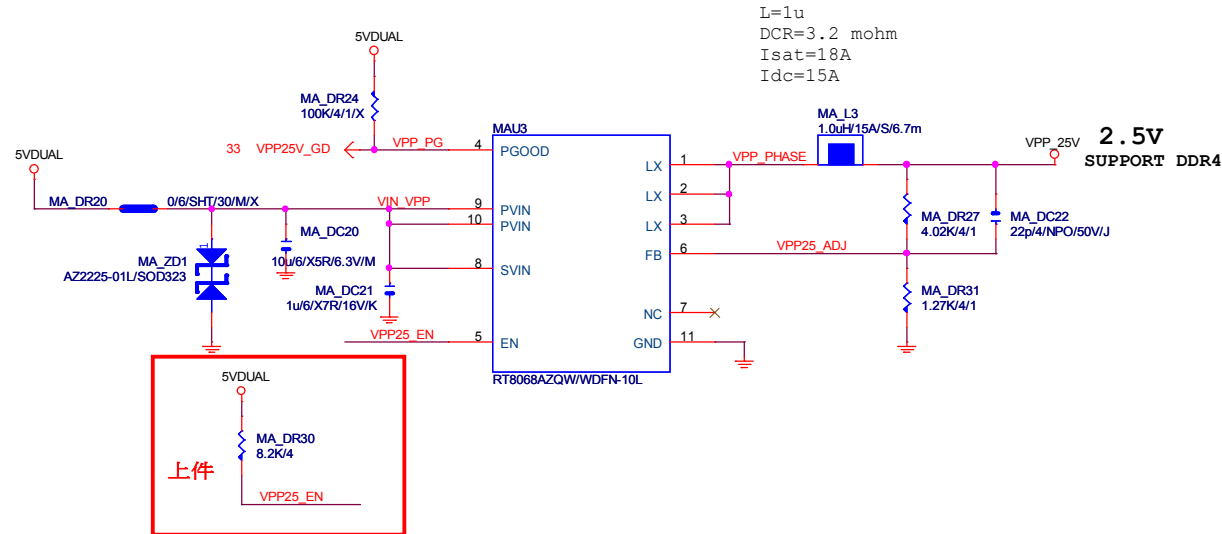


GIGABYTE™			
Title RT8237_DDR4 POWER			
Size Custom	Document Number B460M D2VX SI		Rev 1.0
Date: Monday, April 06, 2020	Sheet 33	of 56	

REV: 0.1

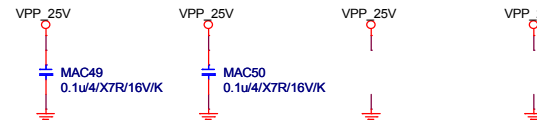
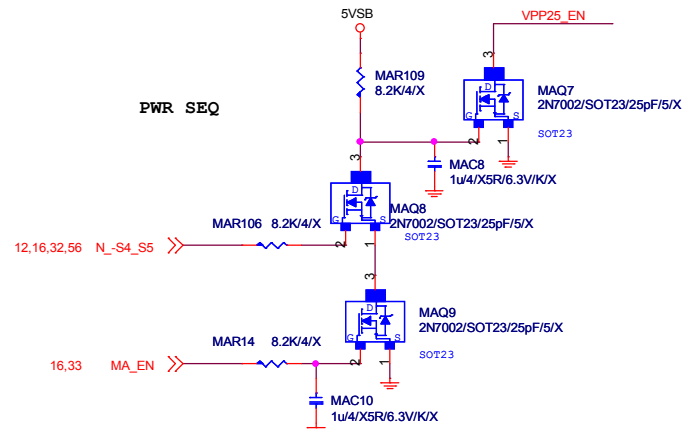
VPP 25V

## CHOKES與CAP料號可變



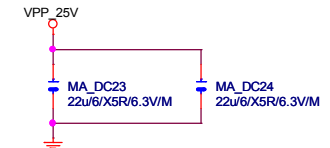
PWR	SEQ
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16
17	17
18	18
19	19
20	20
21	21
22	22
23	23
24	24
25	25
26	26
27	27
28	28
29	29
30	30
31	31
32	32
33	33
34	34
35	35
36	36
37	37
38	38
39	39
40	40
41	41
42	42
43	43
44	44
45	45
46	46
47	47
48	48
49	49
50	50
51	51
52	52
53	53
54	54
55	55
56	56
57	57
58	58
59	59
60	60
61	61
62	62
63	63
64	64
65	65
66	66
67	67
68	68
69	69
70	70
71	71
72	72
73	73
74	74
75	75
76	76
77	77
78	78
79	79
80	80
81	81
82	82
83	83
84	84
85	85
86	86
87	87
88	88
89	89
90	90
91	91
92	92
93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100

\* 删除 MA\_DR32



VPP CAP 22u\*1PCS

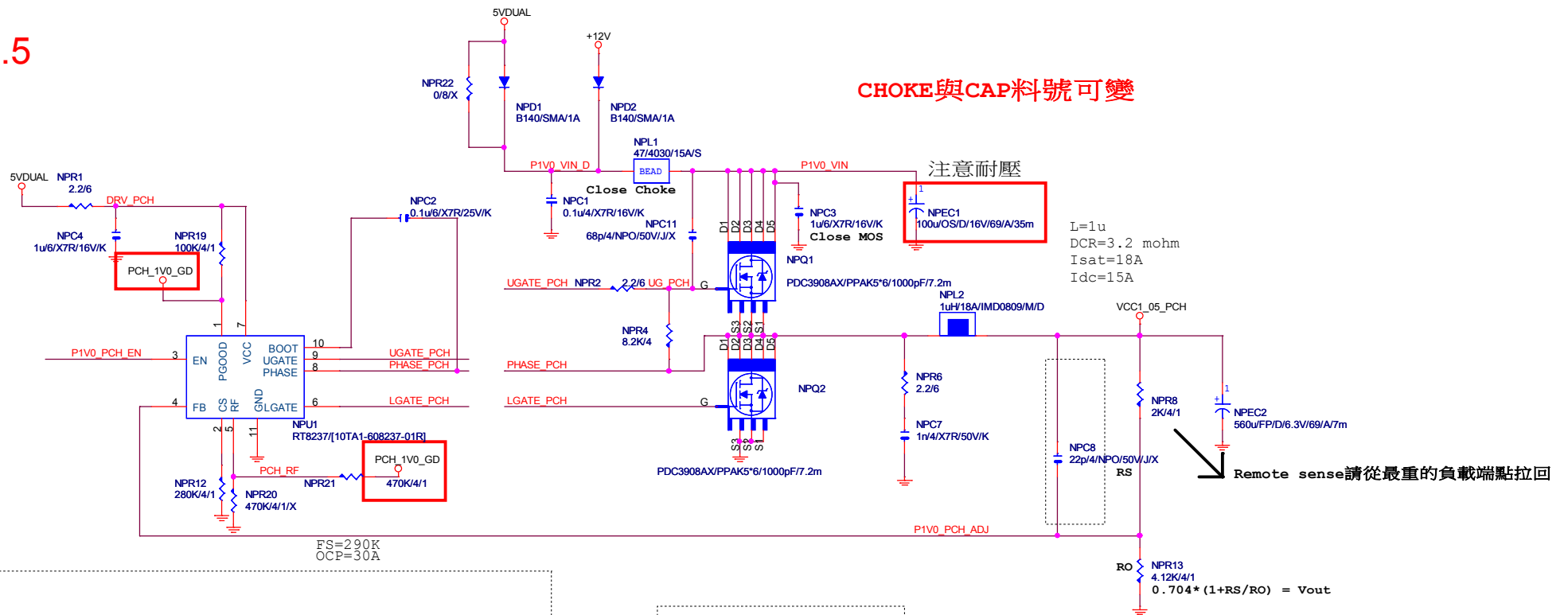
\* 大電容 x0

**GIGABYTE™**

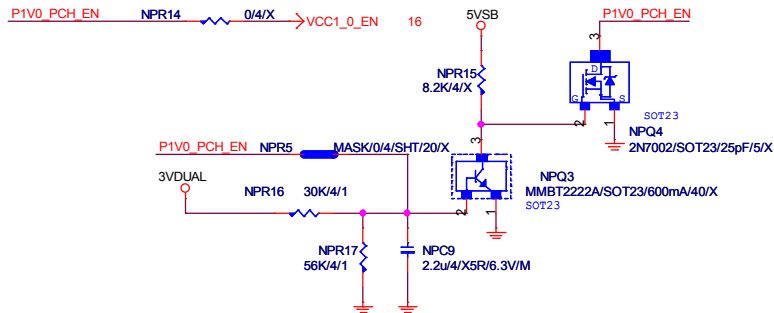
Title			
RT8068A_VPP25 POWER			
Size	Document Number	Rev	
Custom	B460M D2VX SI	1.0	
Date:	Monday, April 06, 2020	Sheet	34 of 56

REV:0.5

CHOKE與CAP料號可變



PWR\_SEQ



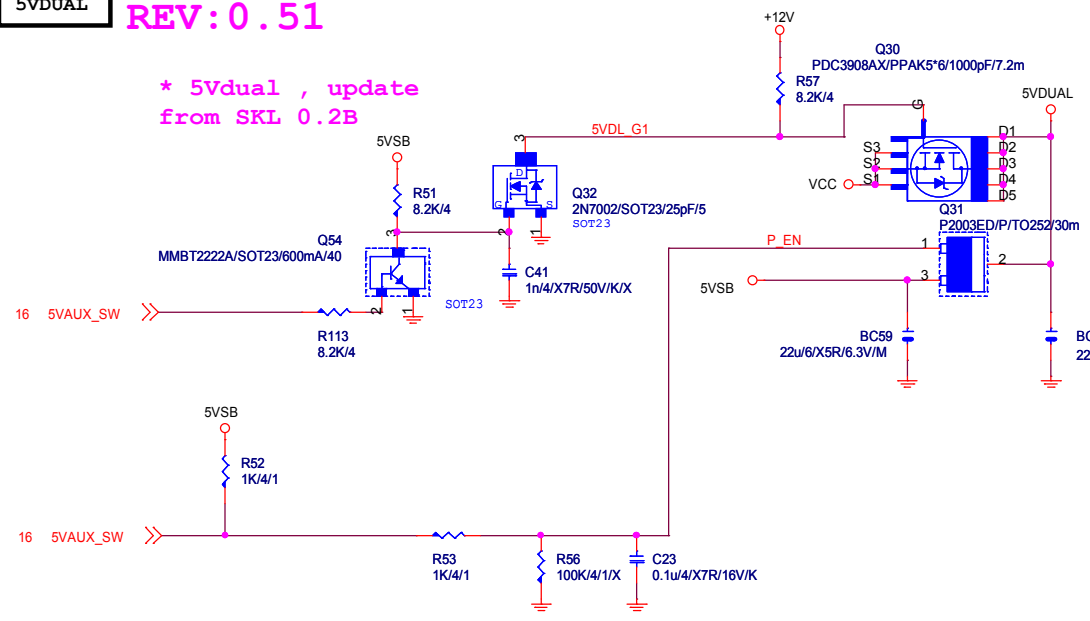
GIGABYTE™

Title			
RT8237_PCH POWER			
Size	Document Number	Rev	
Custom	B460M D2VX SI	1.0	
Date:	Monday, April 06, 2020	Sheet	35 of 56

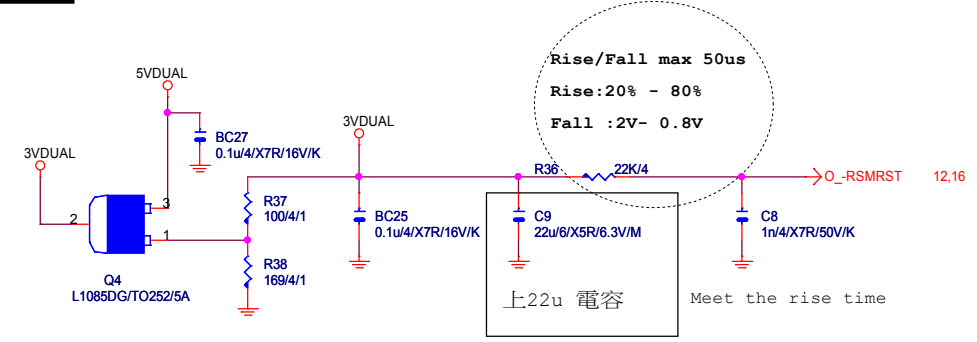
5VDUAL

REV:0.51

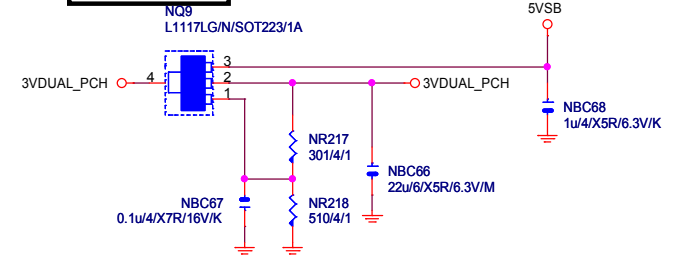
\* 5Vdual , update  
from SKL 0.2B



3VDUAL



3VDUAL\_PCH

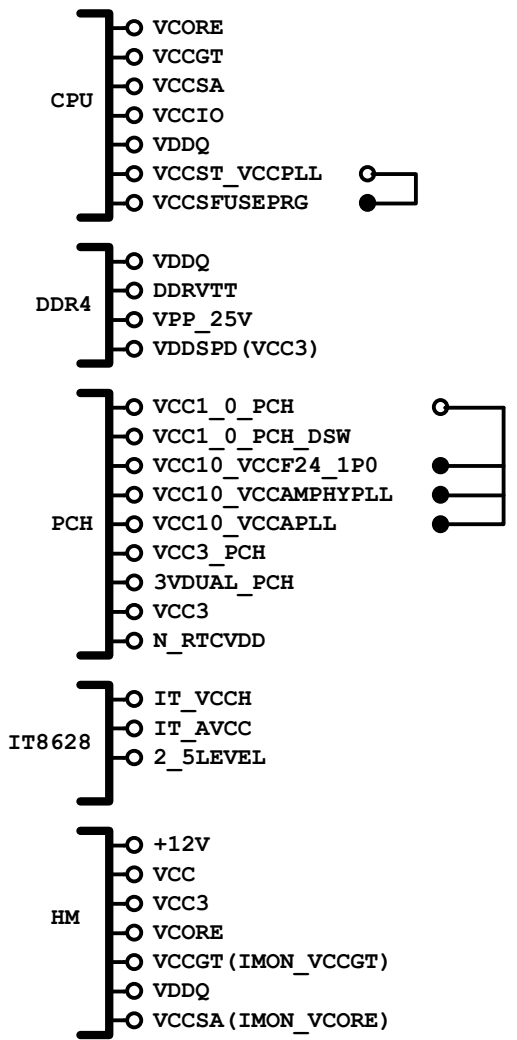


O\_RSMRST (不上件)

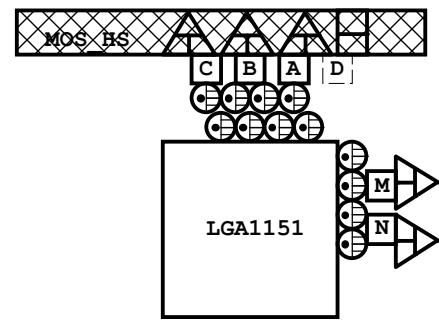
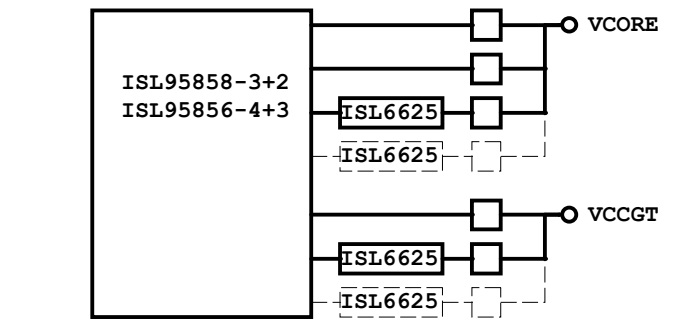
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Gigabyte Technology			
Title			
DISCRETE POWER			
Size	Document Number	Rev	
Custom	B460M D2VX SI	1.0	
Date:	Monday, April 06, 2020	Sheet	36 of 56

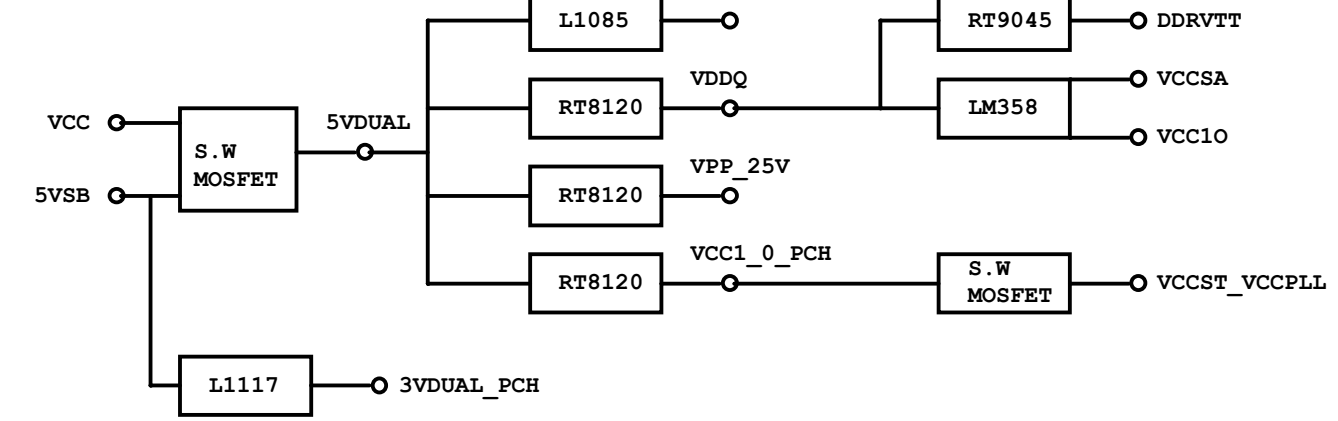
POWER BLOCK MAP



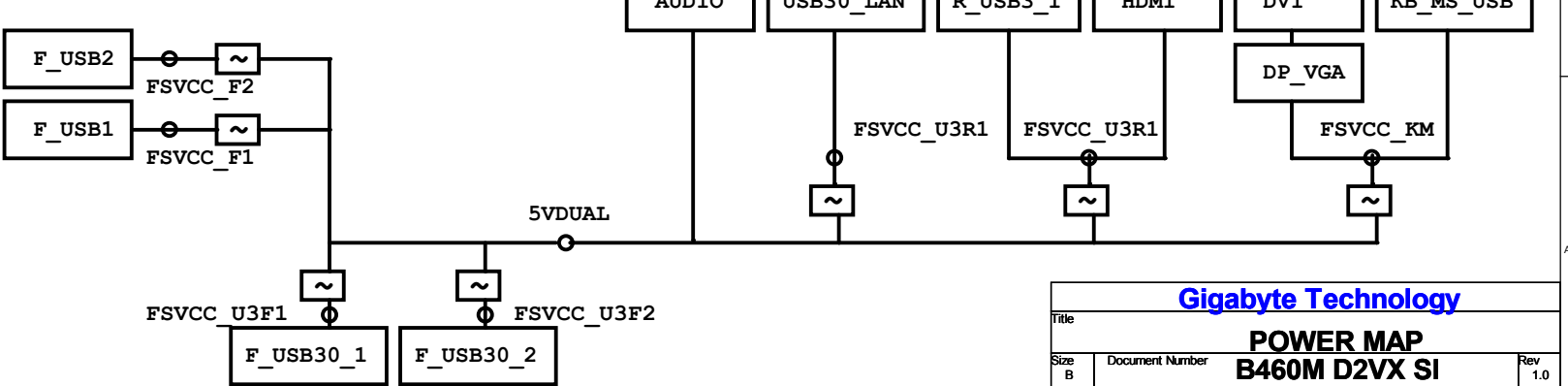
VCORE/VCCGT



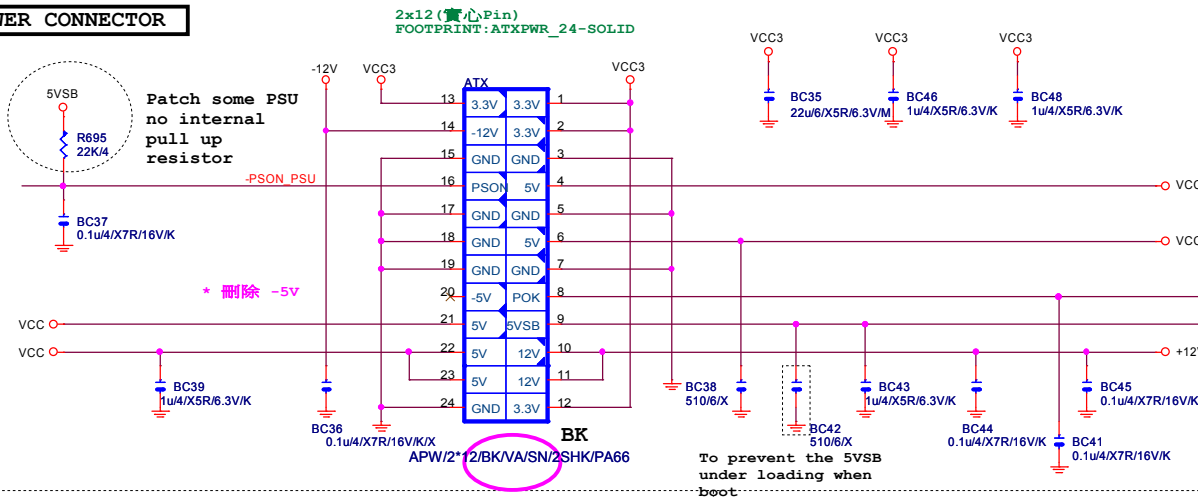
POWER



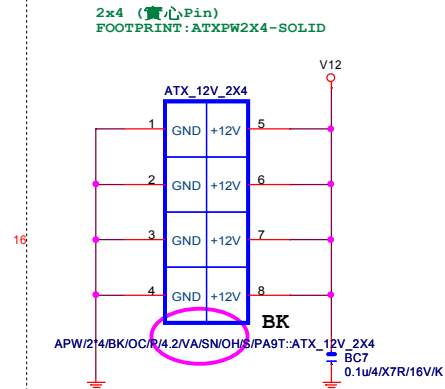
FUSE POWER F/R



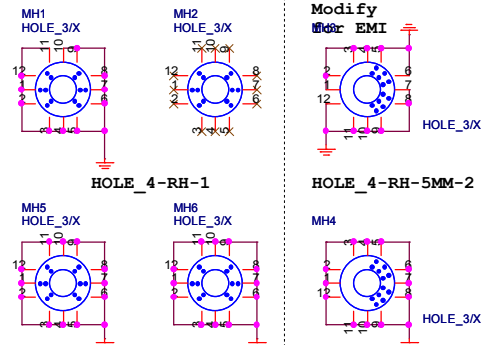
## ATXX24 POWER CONNECTOR



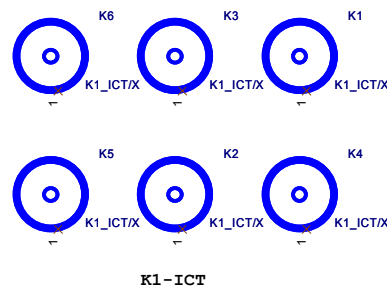
## ATXX4 POWER CONNECTOR



## 螺絲孔



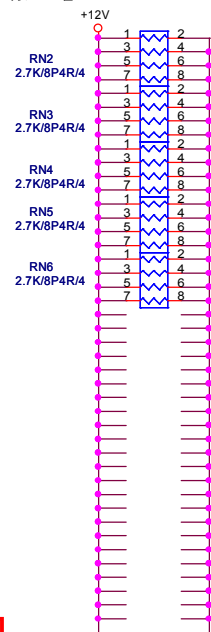
## 固定孔/光學點



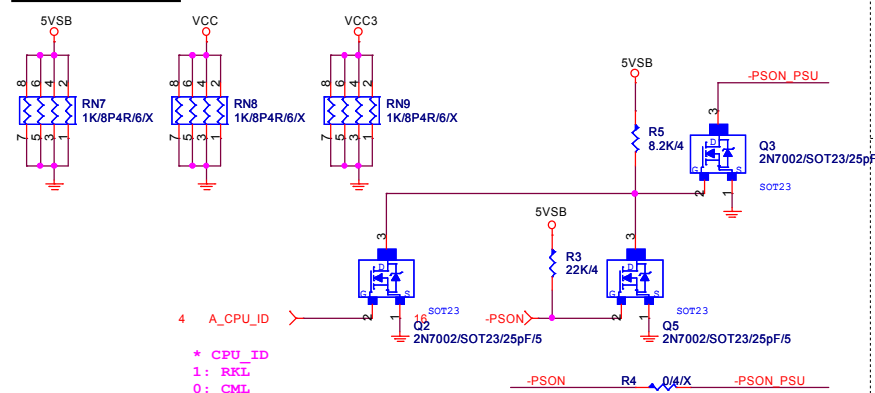
## +12V DUMMY LOAD

【技術通報R&D技術通報153】

To fix 12V light load  
abnormal issue



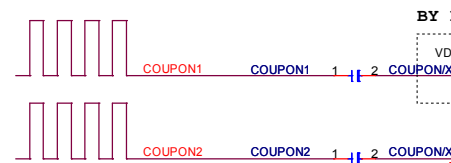
## DUMMY LOAD



## -PROHOT

4.16 A\_-PROHOT <-> A\_-PROCHOTR2 MASK/0/4/SHT/MX VR\_HOT 29

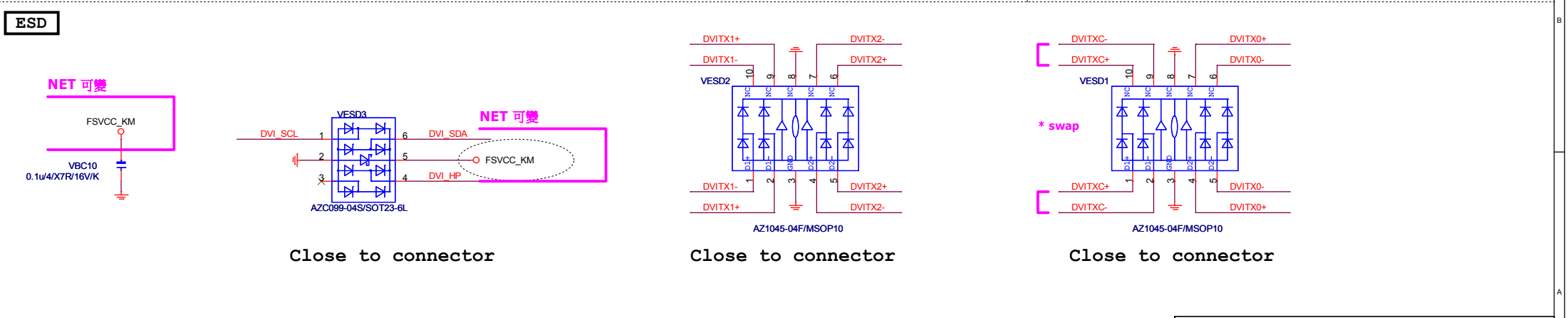
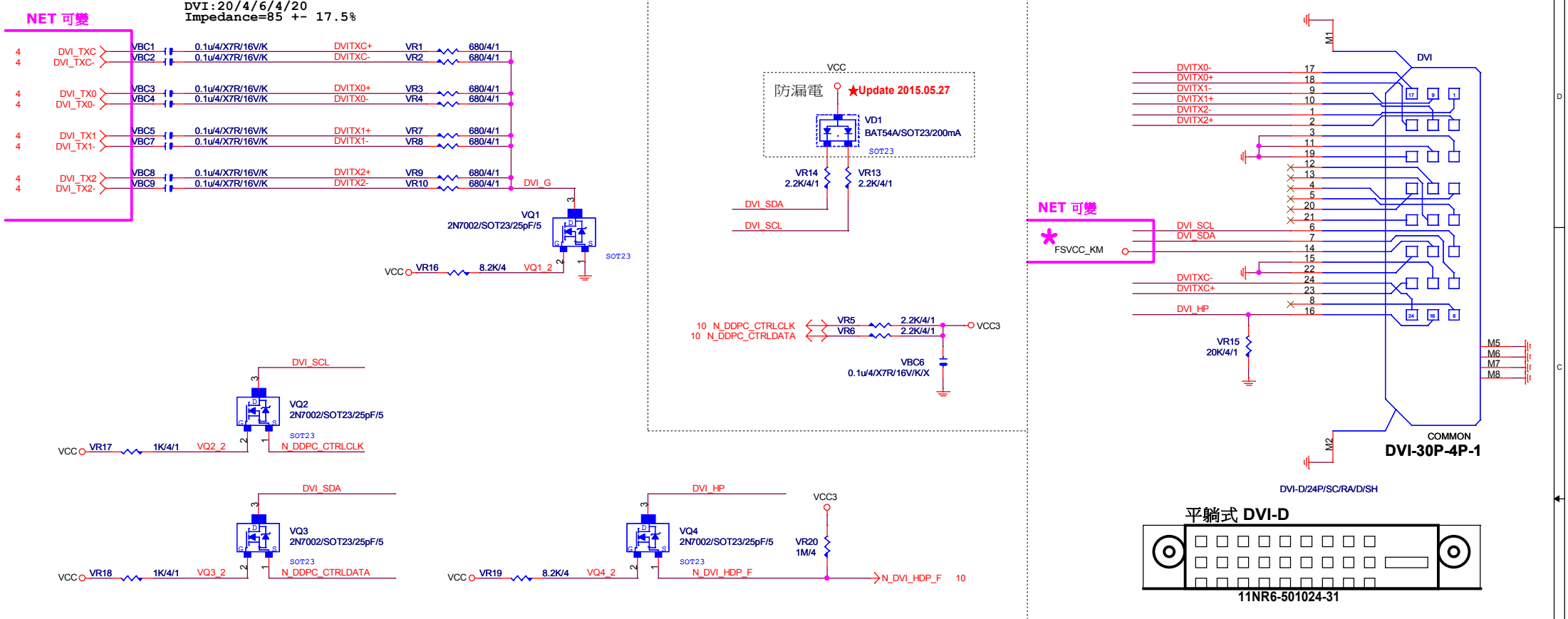
## COUPON



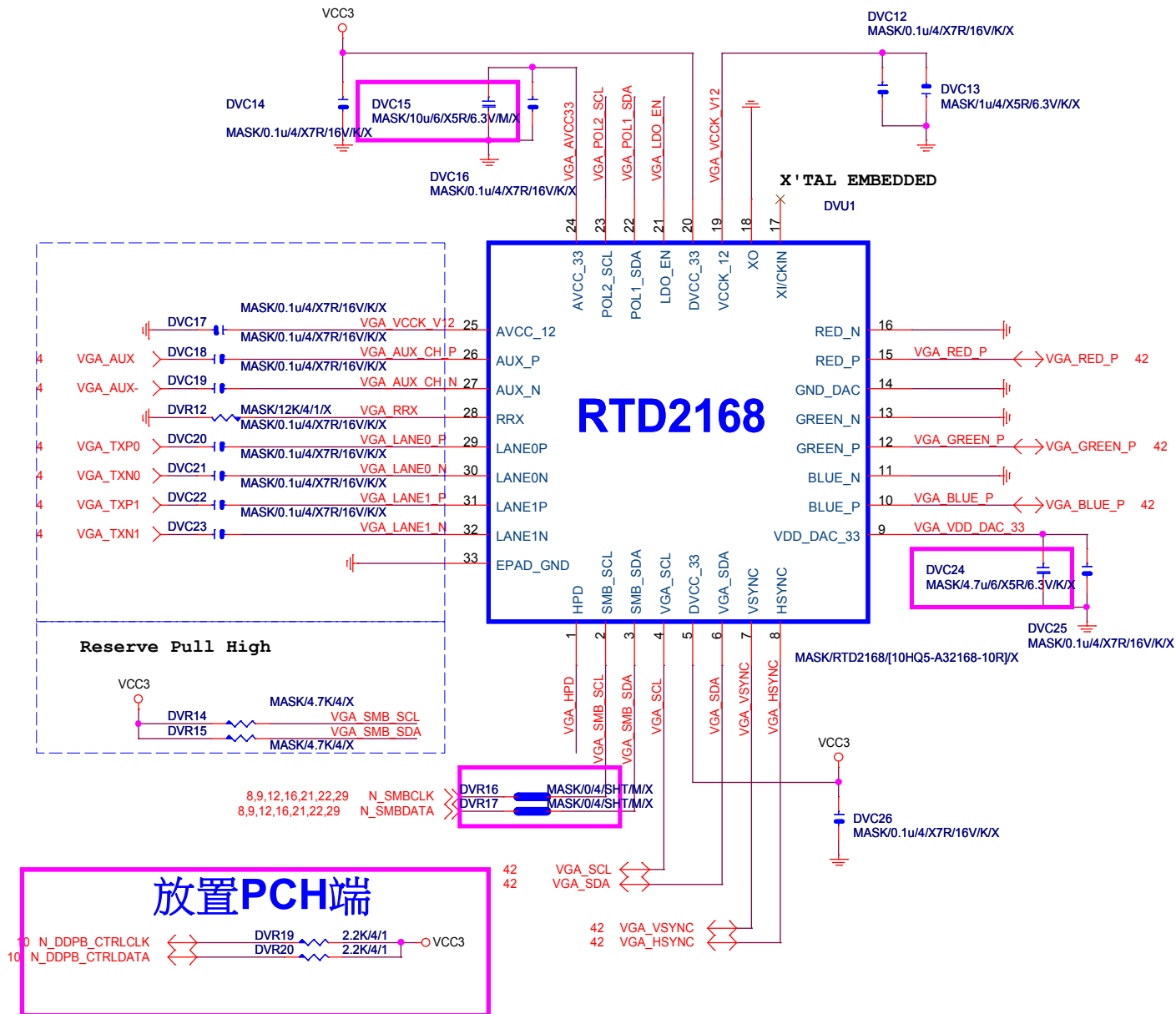
## Gigabyte Technology

ATX POWER CONNECTOR		
Title	Document Number	Rev
	B460M D2VX SI	1.0
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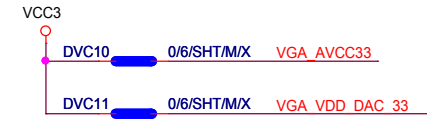
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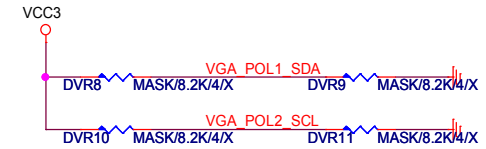




## POWER



Power on latch



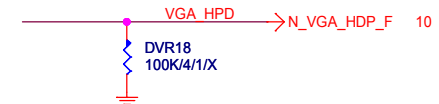
		POL1_SDA(PIN22)	
		0	1
POL2_SCL (PIN23)	0	X	EP MODE
	1	<b>ROM ONLY MODE</b>	EEPROM MODE

## Embedded LDO



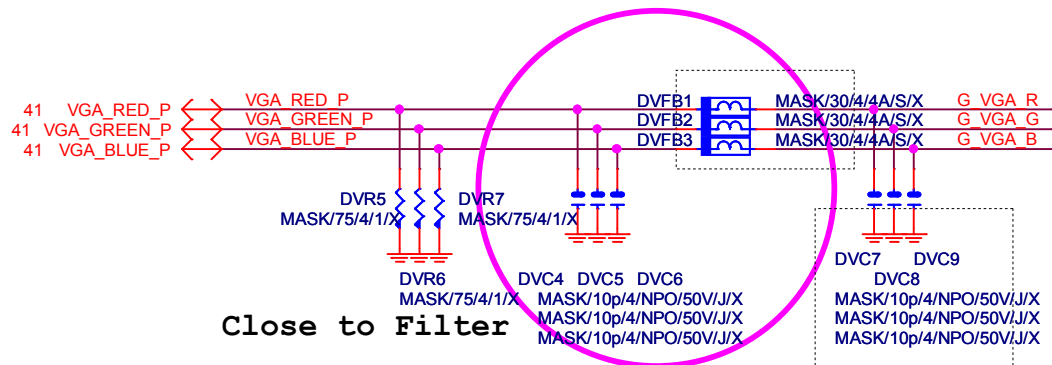
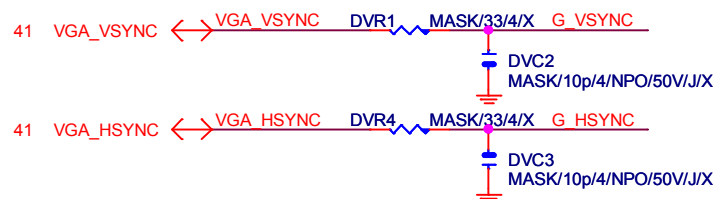
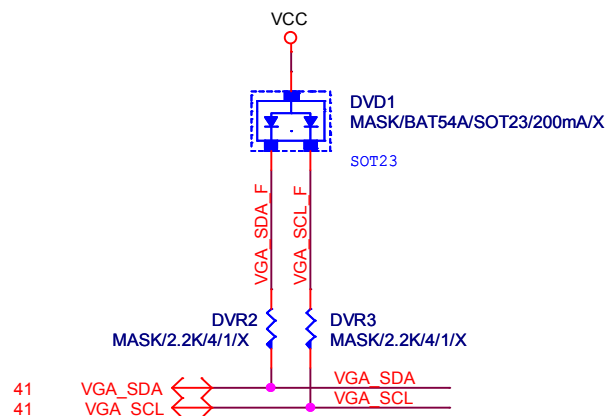
LDO_EN(PIN21)	
0	1
VCCK_V12 from External 1.2V	VCCK_V12 from Embedded LDO

## DP HPD



## VGA SIGNAL

R2.0

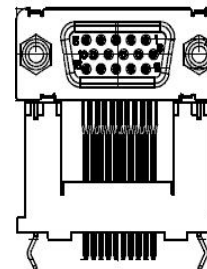
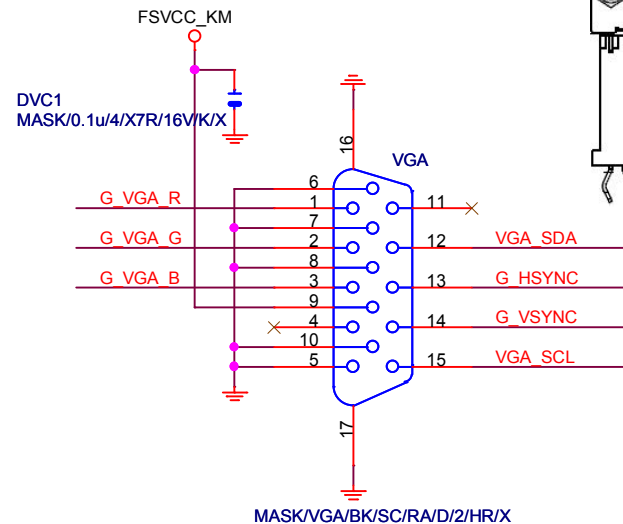


Close to Filter

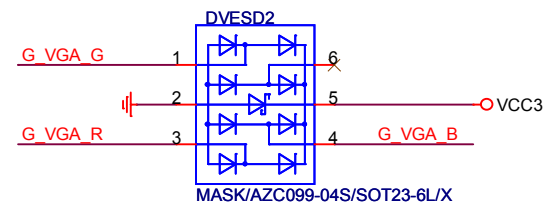
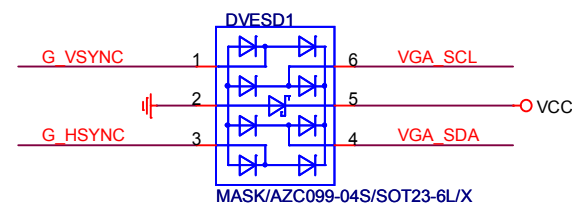
FOR EMI

## VGA CONN.

架高型VGA (BLACK)



## VGA ESD



Gigabyte Technology  
DP-VGA RTD2168

Title

Size

Document Number

B360M D2VX SI

Rev

1.01

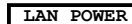
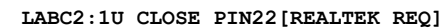
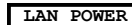
Date:

Monday, April 06, 2020

Sheet

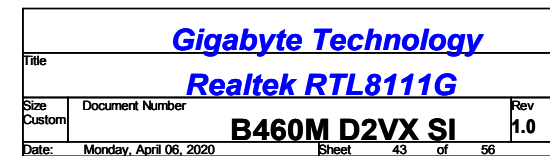
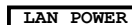
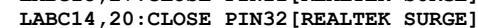
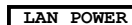
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(CLOSE LAU1 PIN23)

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## Gigabyte Technology

## Realtek RTL8111G

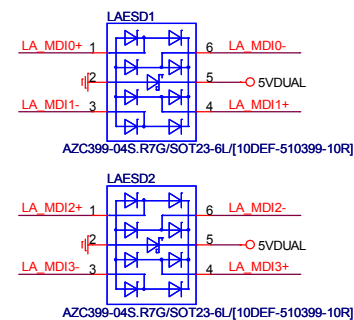
## B460M D2VX SI

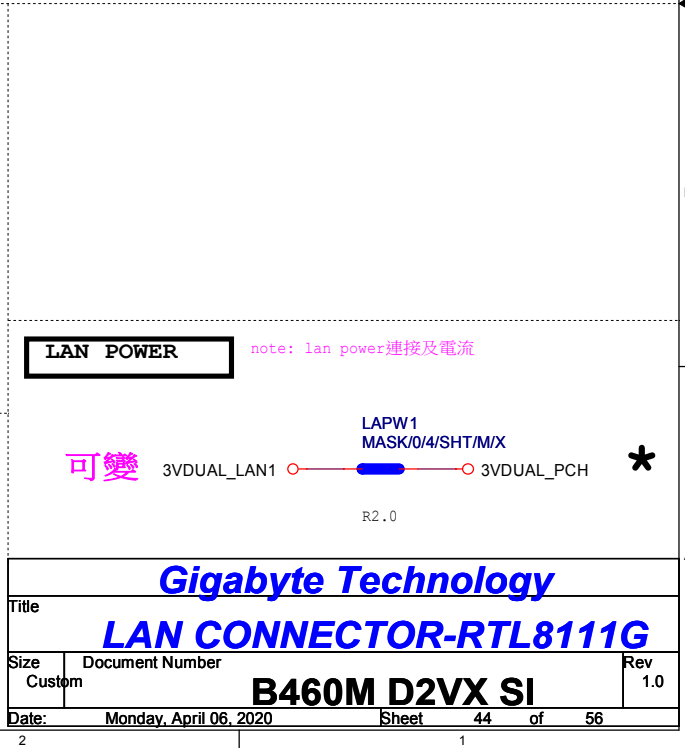
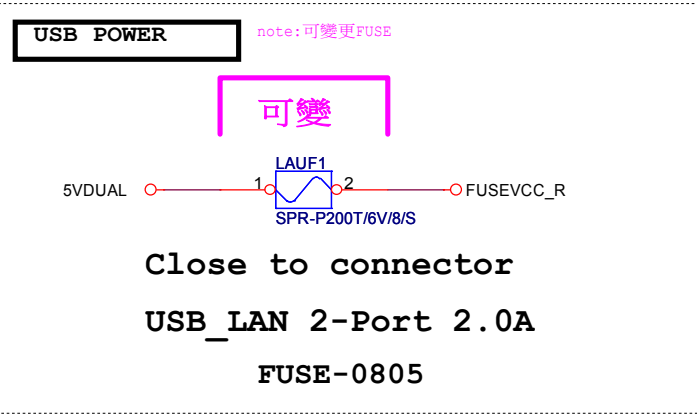
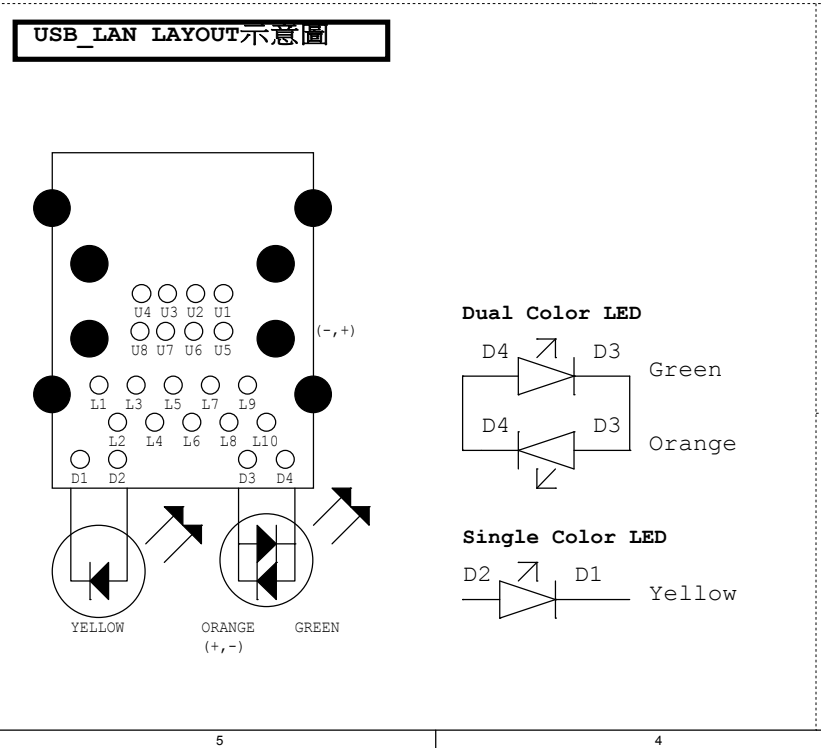
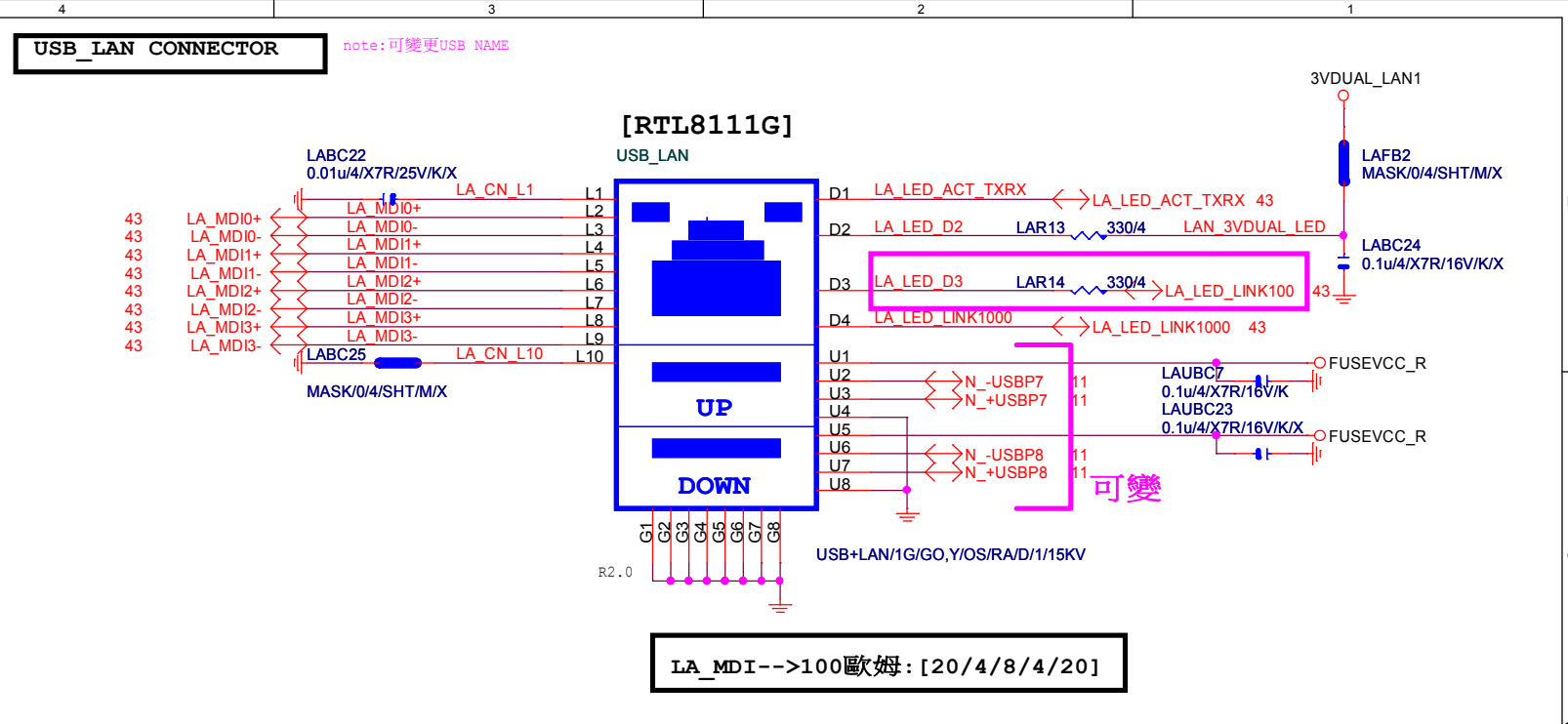
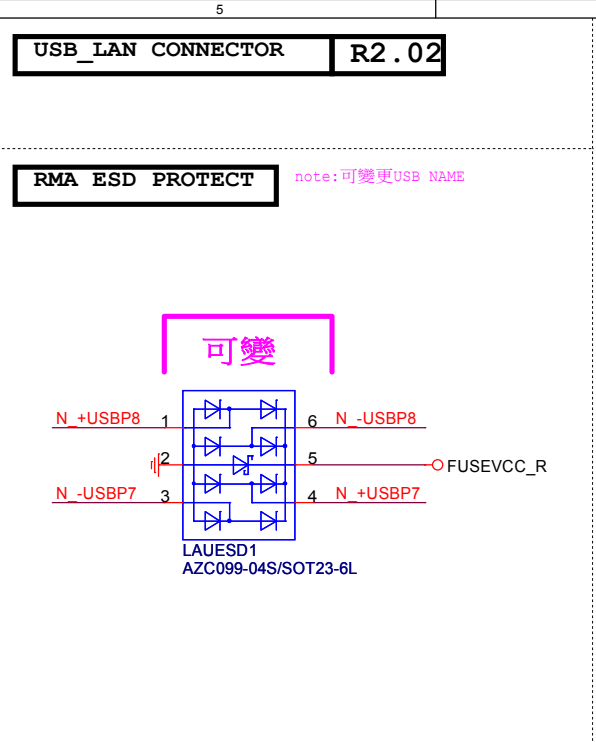
Rev	
1.0	

Date: Monday, April 06, 2020

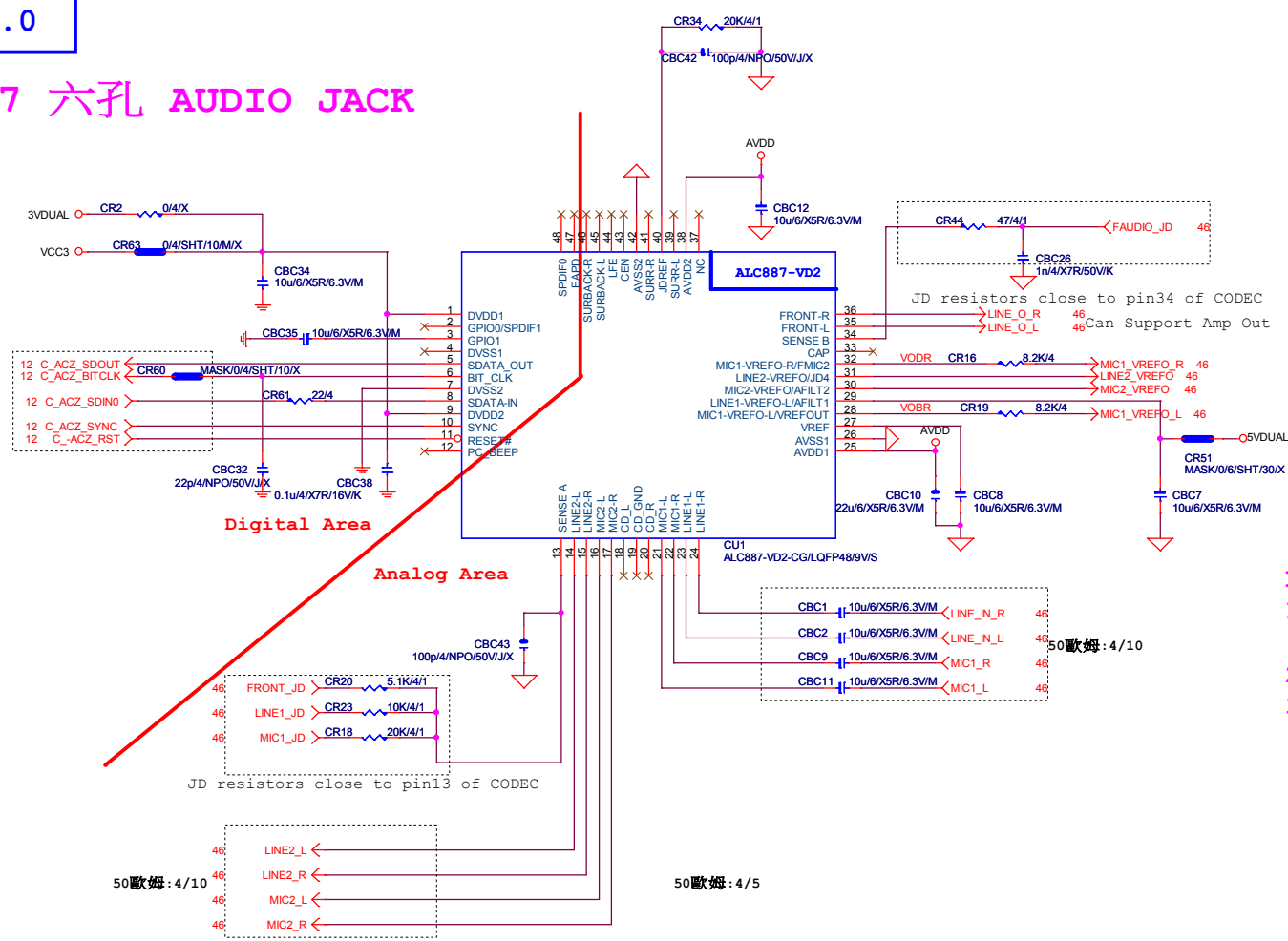
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## MDI ESD

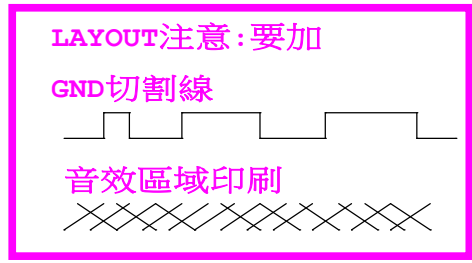
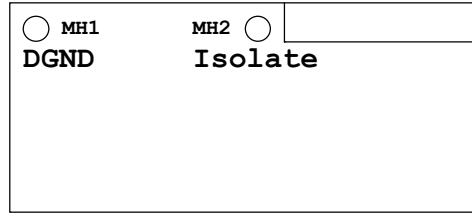




ALC887 六孔 AUDIO JACK

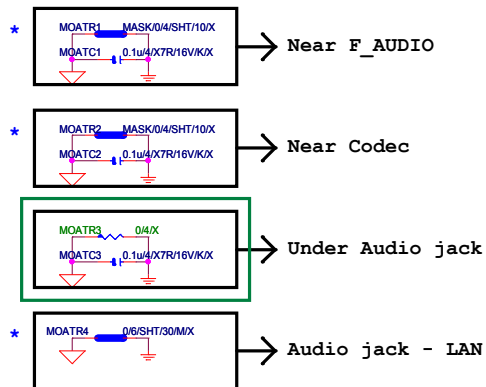


LAYOUT注意:螺絲孔下GND方式  
1. MH1空間夠,下DGND  
空間不夠,才改為Isolate  
2. MH2一律改為Isolate  
3. Codec下方,第二層必須參考GND



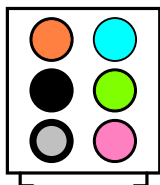
BOM OPTION : 1. Chemicon音效電容  
2. 金屬外罩 Reserve (LAYOUT上件與否,依照各Model spec)  
3. LED Reserve (上件與否和LED顏色,依照各Model spec)

Rev 6.0



\*量産前,MOATR1/MOATR2/MOATR4 ....0ohm改short pad

#### AZALIA JACK

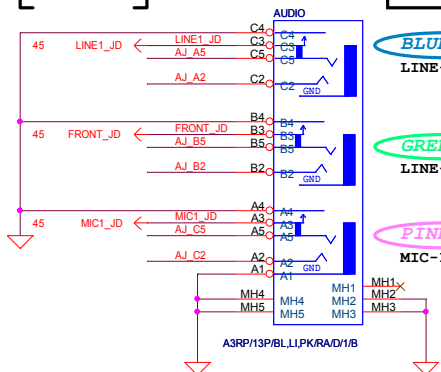


#### AZALIA JACK

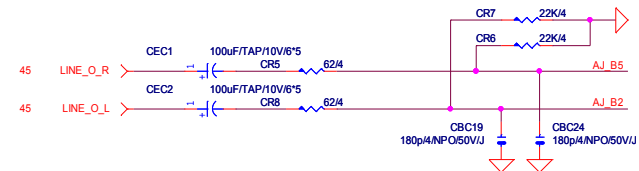
BLUE  
LINE-IN

GREEN  
LINE-OUT

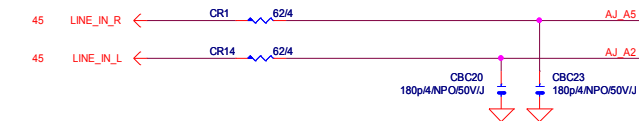
PINK  
MIC-IN



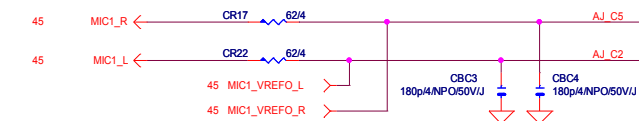
#### LINE-OUT



#### LINE-IN



#### MIC-IN

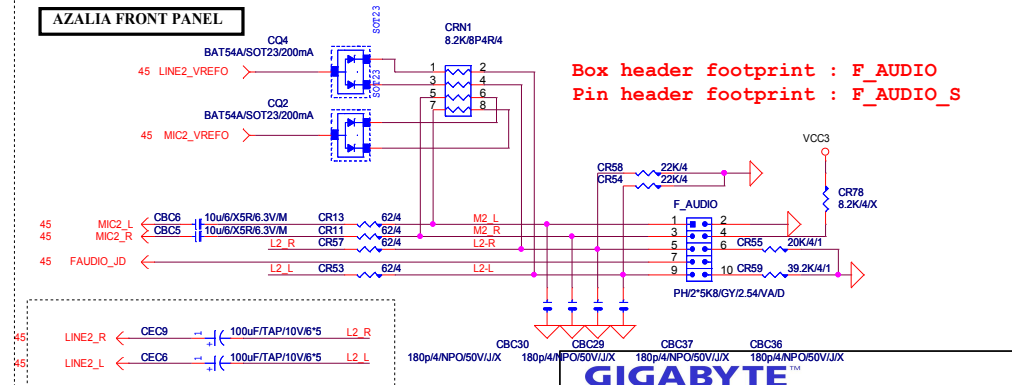


#### SURROUND

#### CEN/LFE

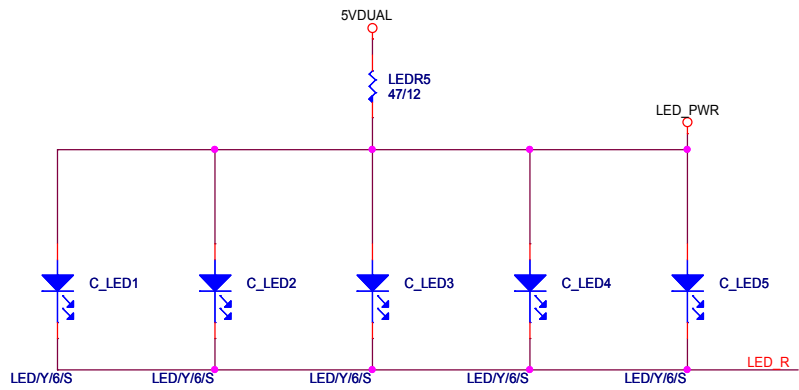
#### SURR BACK

#### AZALIA FRONT PANEL



GIGABYTE

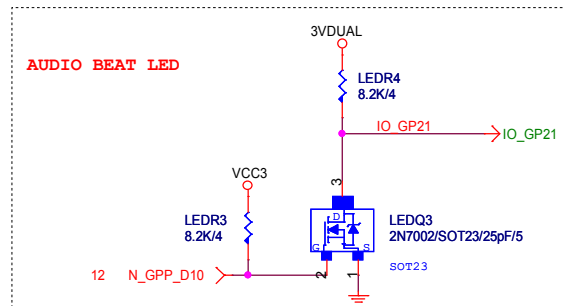
Title			Rev
AUDIO JACK			1.0
Size	Document Number		
Custom	B460M D2VX SI		
Date:	Monday, April 06, 2020	Sheet	46 of 56



第一區 LED CONTROL

BOM OPTION :

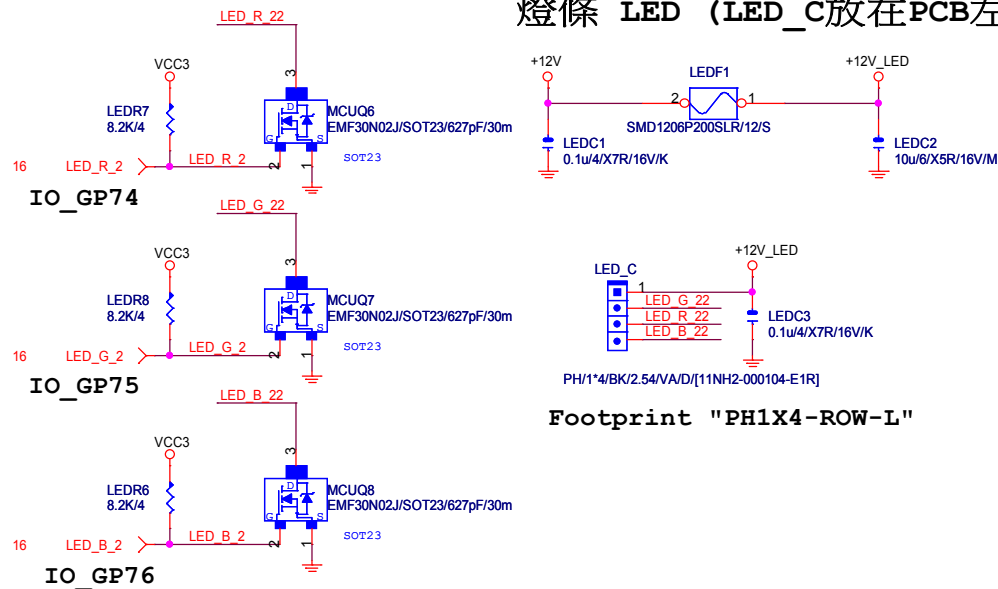
1. YELLOW LED : LED/Y/6/S
2. RED LED : LED/R/H/0603/S
3. BLUE LED : LED/B/6/S



AUDIO BEAT LED

第二區 LED CONTROL

燈條 LED (LED\_C放在PCB左邊板邊位置)



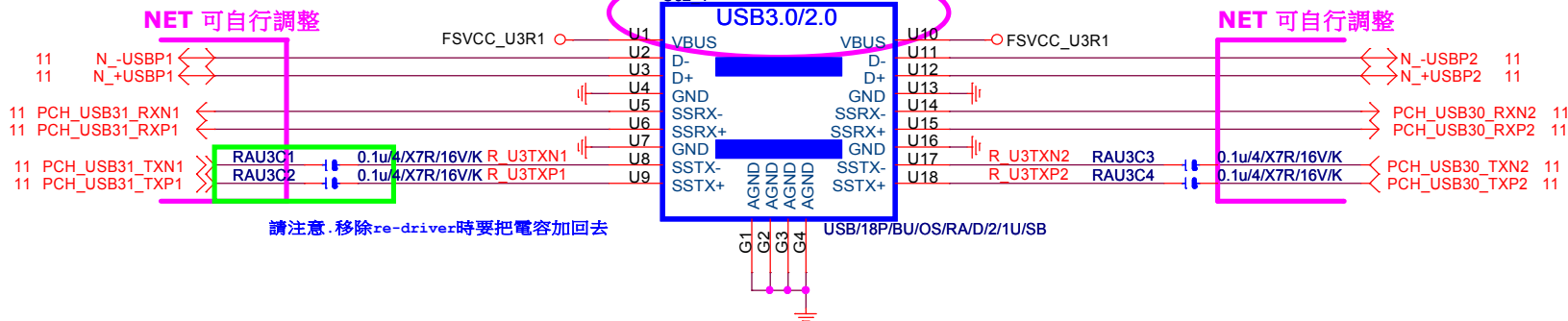
Footprint "PH1X4-ROW-L"

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GIGABYTE™		
Title Amient Single LED		
Size Custom	Document Number B460M D2VX SI	Rev 1.0
Date: Monday, April 06, 2020	Sheet 47	of 56

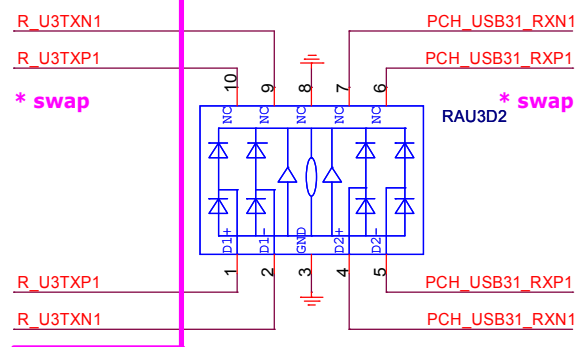
Rev: 0.7

ESD 可自行SWAP PIN ,CONN端 NET 名稱 不可

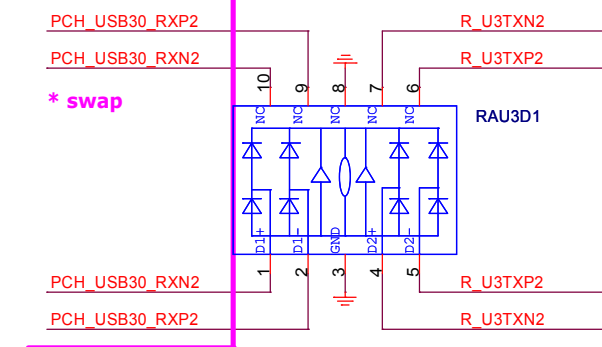


ESD

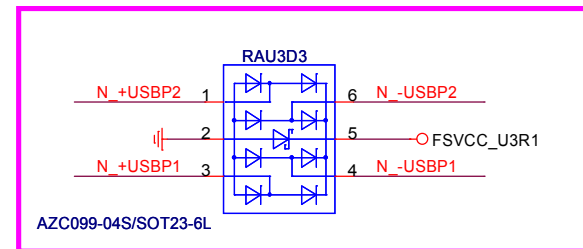
NET 可自行調整



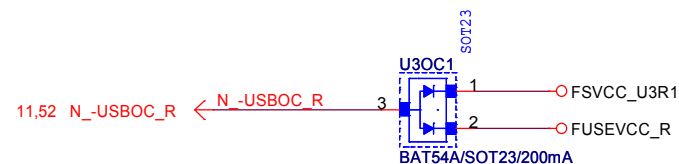
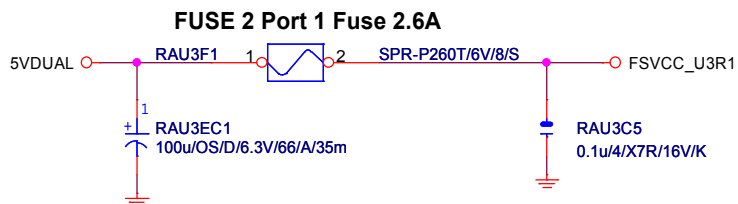
NET 可自行調整



NET 可自行調整



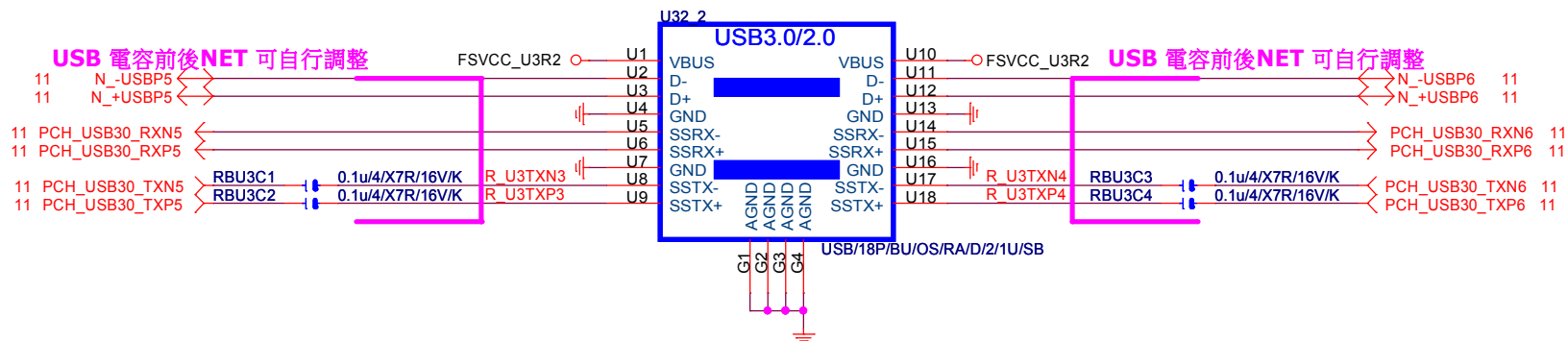
FUSE



Gigabyte Technology

Title					Rev 1.0
R_USB30,USB_OC					
Size	Document Number				Rev 1.0
Custom	B460M D2VX SI				
Date:		Monday, April 06, 2020		Sheet	48 of 56



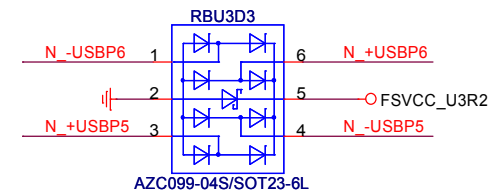


## ESD

ESD 可自行SWAP PIN

ESD 可自行SWAP PIN

ESD 可自行SWAP PIN

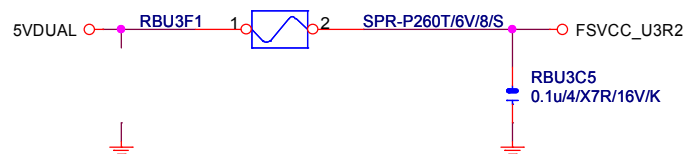


AZ1045-04F/MSOP10/[10DE2-140174-10R/10DE2-360148-10R]

AZ1045-04F/MSOP10/[10DE2-140174-10R/10DE2-360148-10R]

## FUSE

FUSE 2 Port 1 Fuse 2.6A



Gigabyte Technology

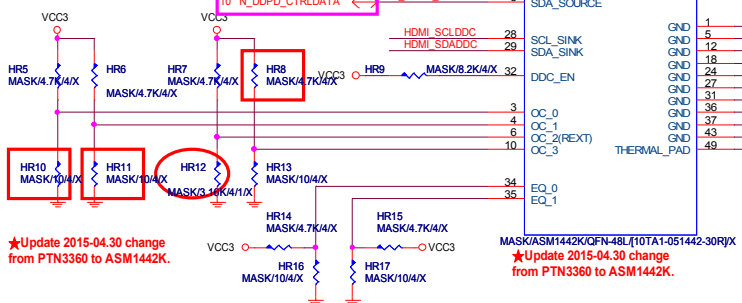
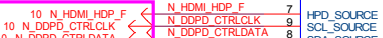
Title			
R_USB30,USB_OC			
Size	Document Number		Rev
Custom	B460M D2VX SI		1.0
Date:	Monday, April 06, 2020	Sheet	49 of 56

HDMI LEVEL SHIFT

NET 可變



Port 自行調整

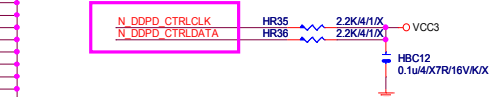


★Update 2015-04.30 change from PTN3360 to ASM1442K.

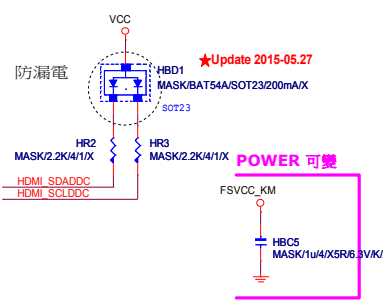
★Update 2015-04.30 change from PTN3360 to ASM1442K.

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

Port 自行調整

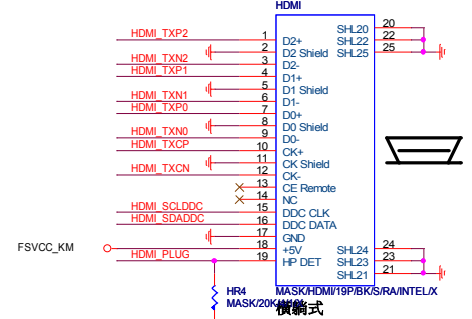
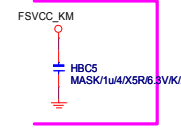


【技術通報R&D技術通報150】  
HDMI eye diagram 1.4版 (deep color) 會fail  
原因: 因目前的HDMI訊號過長, 造成RISING TIME過慢, 而會壓到eye diagram  
改善: ASMEDIA ASM1442 : 3.16K (PIN6 PULL DOWN電阻) 10ohm (PIN4 PULL DOWN電阻)

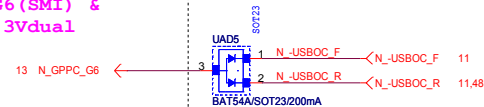
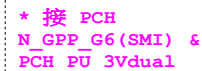
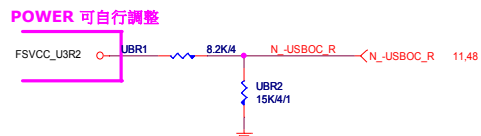
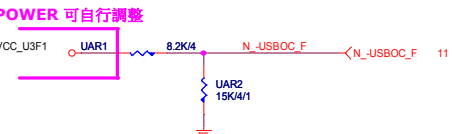
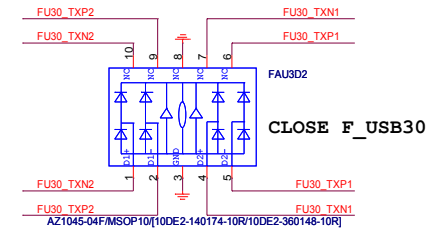
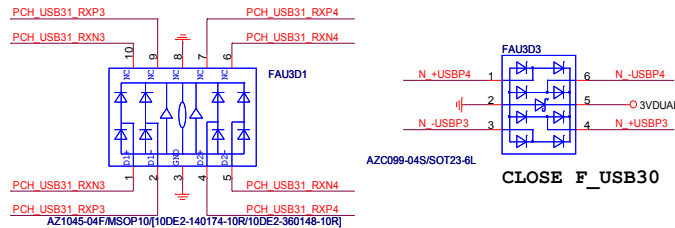
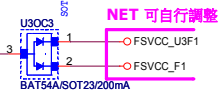
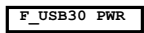


★Update 2015-05.27

POWER 可變

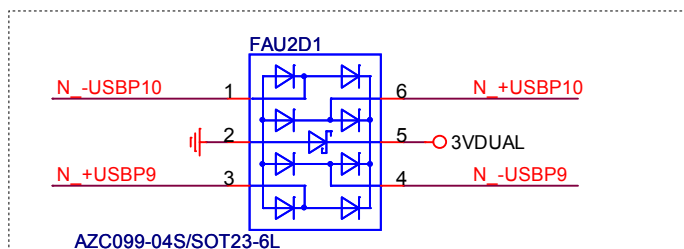
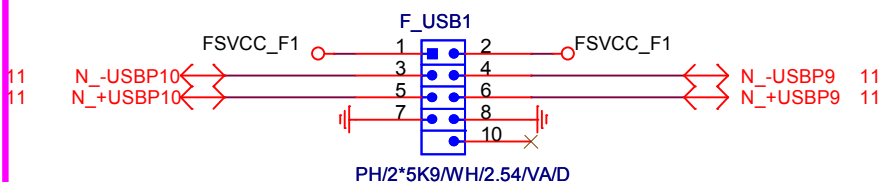






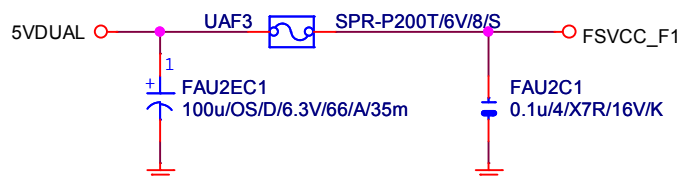
NET 可變

## FUSB2X5-HS



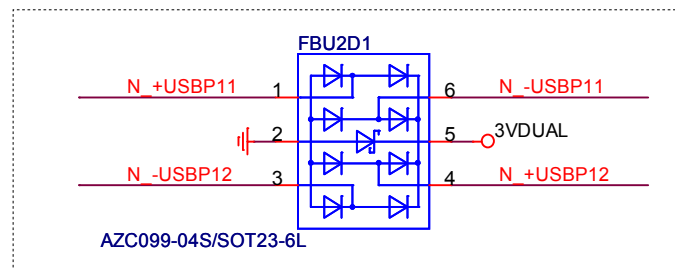
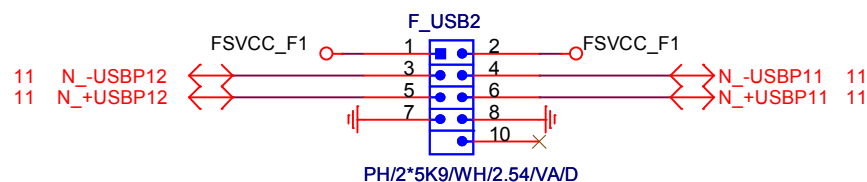
Close to connector

FUSE 2 Port 1 Fuse 2A



NET 可變

## FUSB2X5-HS



Close to connector

FUSE 2 Port 1 Fuse 2A

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F\_USB 2.0 OC SIGNAL

Gigabyte Technology

Title

USB2.0

Size  
A

Document Number

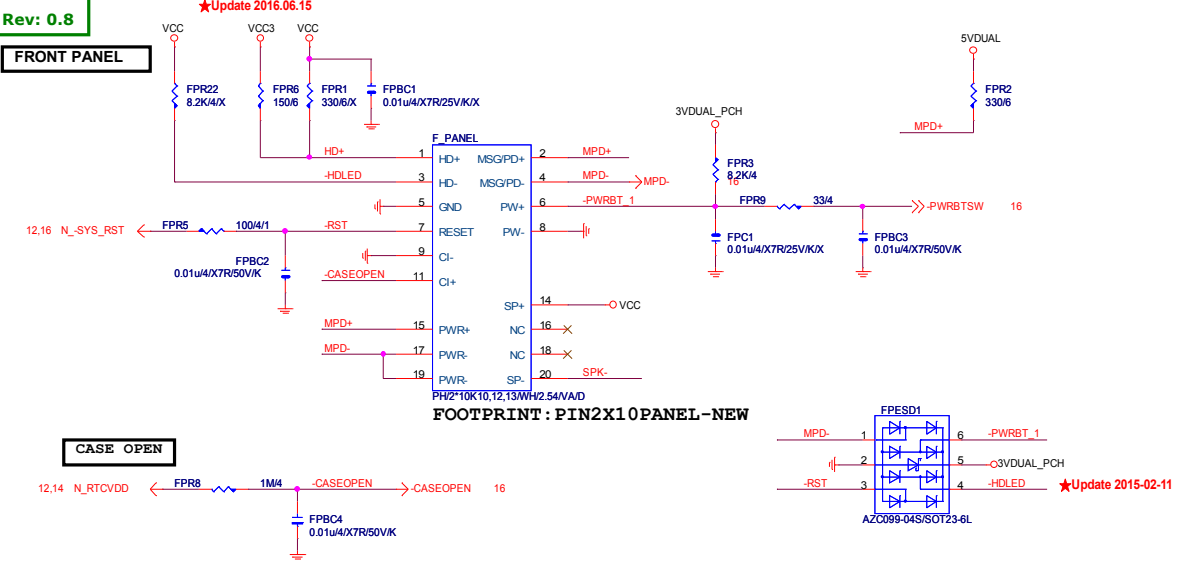
B460M D2VX SI

Rev  
1.0

Date: Monday, April 06, 2020

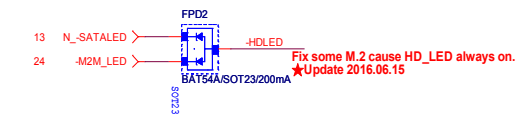
Sheet 53 of 56

FRONT PANEL

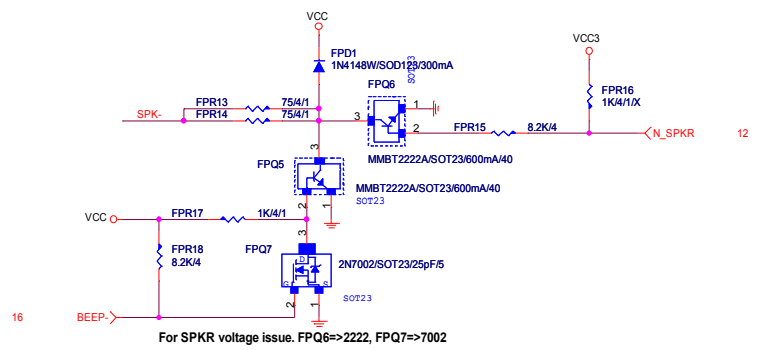


FRONT PANEL SHORT

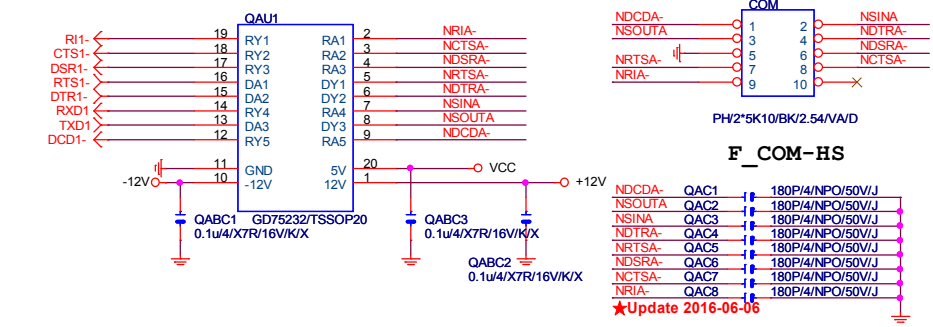
SATA/M.2 LED



SPKR



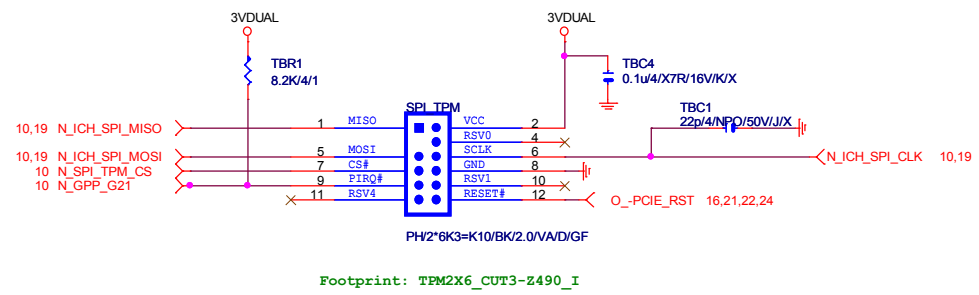
COM PORT



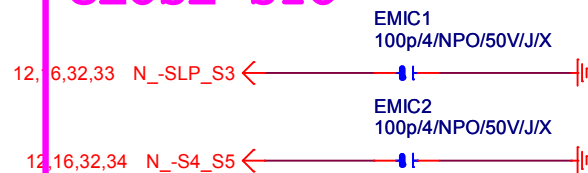
LPT PORT

COM RI N/A

TPM CONNECT



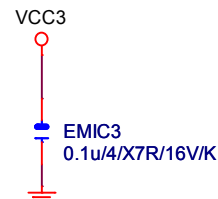
## CLOSE SIO



## CLOSE PCH



## CLOSE NR47

**GIGABYTE™**

Title

**EMI/ESD**Size  
A

Document Number

**B460M D2VX SI**

Rev

**1.0**

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