

Model Name: GA-H110M-S2H-GSM

rev:1.0

SHEET

TITLE

01	COVER SHEET
02	BOM & PCB MODIFY HISTORY
03	BLOCK DIAGRAM
04	CPU_LGA1151-A
05	CPU_LGA1151-B-DDR4
06	CPU_LGA1151-C
07	CPU_LGA1151-D
08	DDR4 CHANNEL A
09	DDR4 CHANNEL B
10	PCH_CLK BUFFER
11	PCH_DMI,USB,PCIE
12	PCH_MISC
13	PCH SATA,PCIE,SATA_EXPRESS
14	PCH_PWR,GND
15	Dual BIOS
16	ITE 8628 LPC IO
17	HWM
18	FAN CTRL--SIO
19	PCI EXPRESS*16 SLOT
20	PCI EXPRESS*1 SLOT
21	SATA EXPRESS
22	ISL95858_856 PWM
23	ISL95858_856 MOS_VCORE
24	ISL95858_856 MOS_VCCGT
25	VCCSA_VCCIO_VCCPLL
26	RT8237_DDR_VDDQ
27	RT8068_VPP

SHEET

TITLE

28	RT8237_PCH_VCC1_0_PCH
29	DISCRETE POWER
30	ATX POWER , A_-PROCHOT
31	KB_MS_USB
32	RTD2168 - DP to VGA - IC
33	RTD2168 - DP to VGA - Conn
34	R_USB30
35	R_USB20
36	REALTEK - RTL8111G
37	USB20_LAN CONNECTOR-RTL8111G
38	Realtek ALC887
39	REAR AUDIO JACK
40	F_USB30
41	F_USB20
42	GENESYS GL850S
43	COM , LPT , TPM
44	F_PANEL
45	HDMI
46	DVI
47	EMI/ESD
48	POWER MAP
49	TABLE LIST
50	NTC MAP
51	

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Title		
Cover Sheet		
Size	Document Number	Rev
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Model Name: GA-H110M-S2H-GSM *rev:1.0*

Component value change history

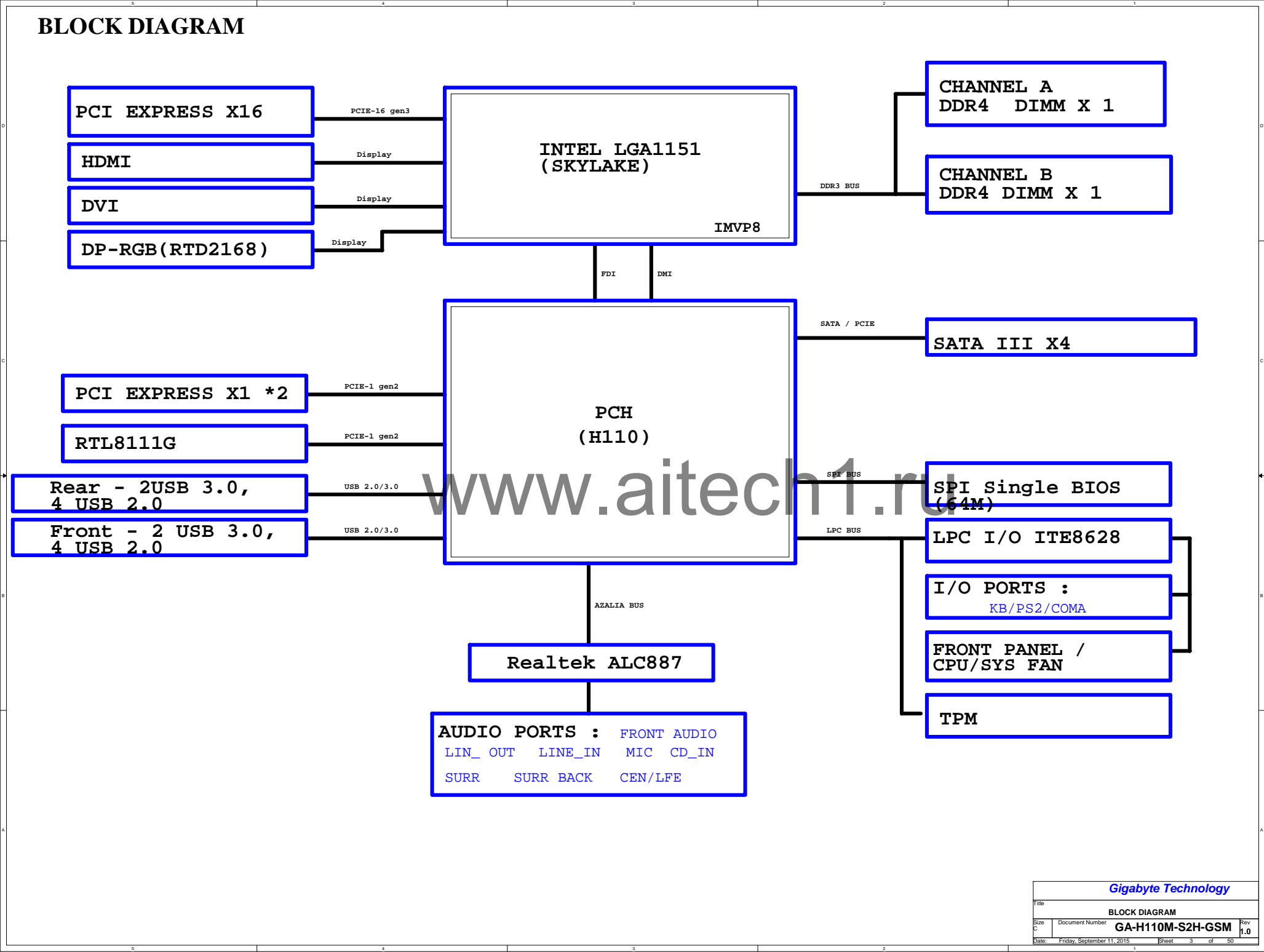
2015/09/01

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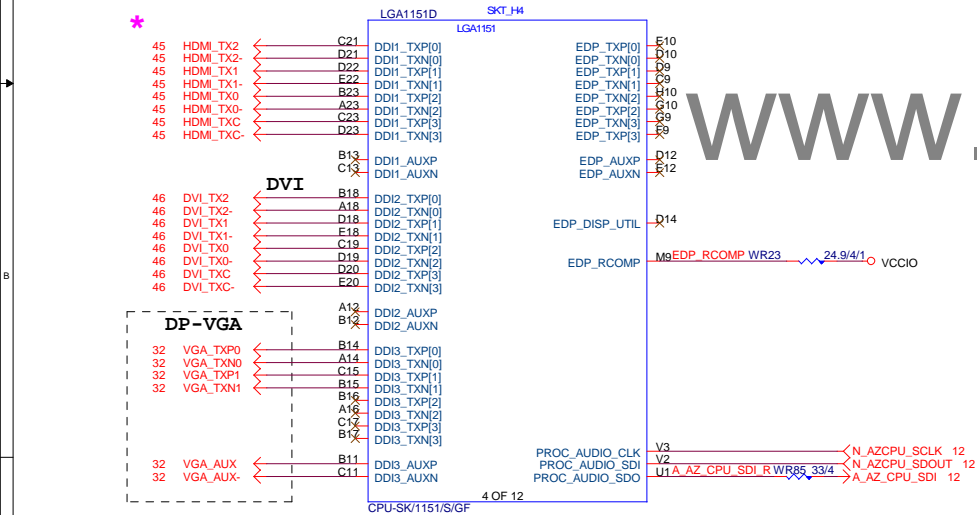
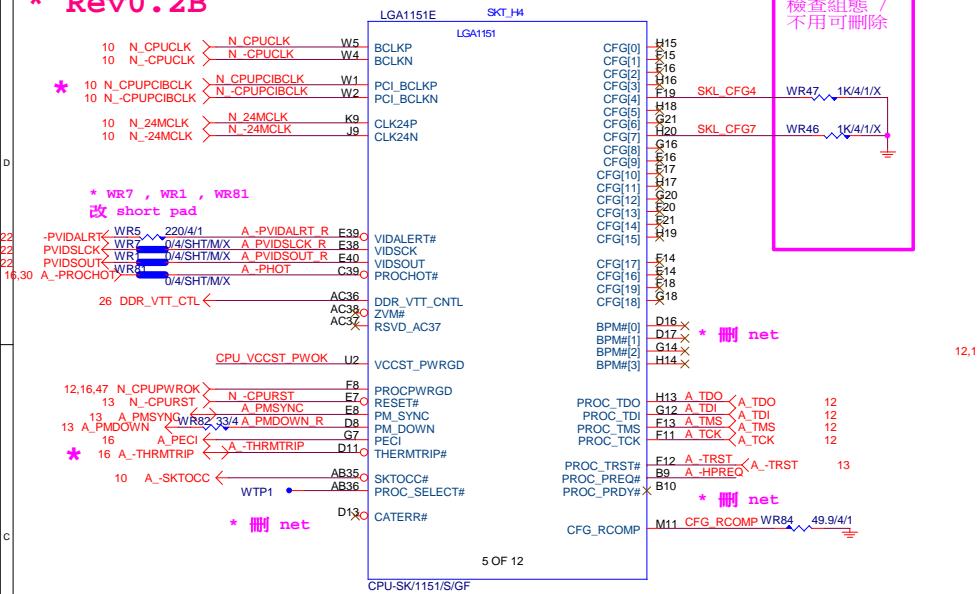
Circuit or PCB layout change

[illegible]

BLOCK DIAGRAM



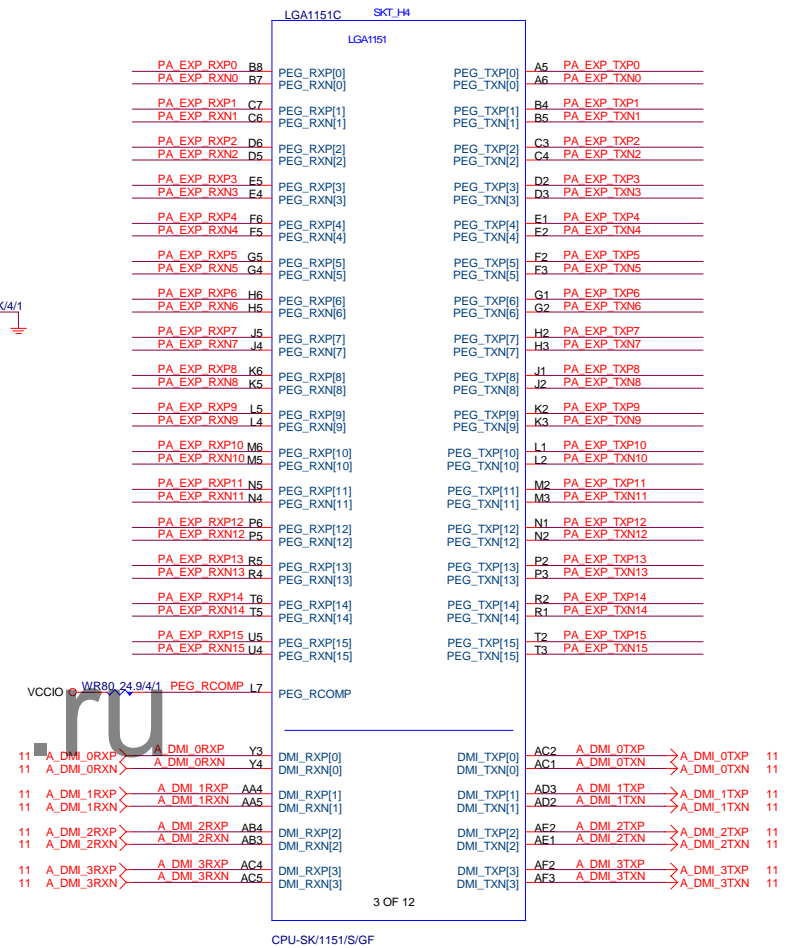
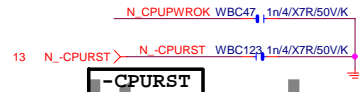
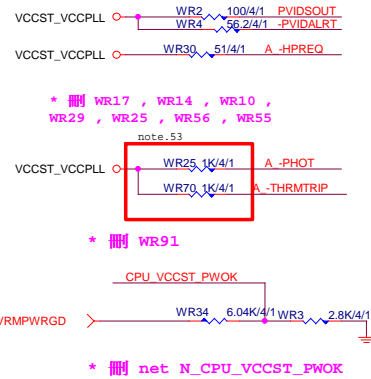
*** Rev0.2B**



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

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

Impedance=85 +- 15%



```

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

```

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

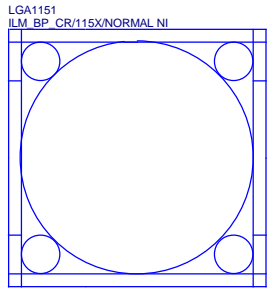
Impedance=85 +- 15%

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

FOR BIOS	
Bifurcation Config.	Signals Lanes
	CFG[6] CFG[5] CFG[2]
1x16	1 1 1
1x16 Reversed	1 1 0
2x8	1 0 1
2x8 Reversed	1 0 0
1x8+2x4	0 0 1
1x8+2x4 Reversed	0 0 0

<p align="center"><i>Gigabyte Technology</i></p>			
<p>Title</p> <p align="center">CPU LGA1151-A</p>			
Size Custom	Document Number		Rev
	<p align="center">GA-H110M-S2H-GSM</p>		1.0
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* 改DDR4 net



Need check the new CPU MB

BLACK NI

CPU-SK1151/S/GF

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CPU-SK1151/S/GF

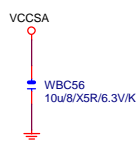
2 OF 12

- 8 MODT_A[0..1] <=> MODT_A0..11
- 9 MODT_B[0..1] <=> MODT_B0..11
- 8 MDA[0..63] <=> MDA0..63
- 9 MDB[0..63] <=> MDB0..63
- 8 M_DQSA[0..7] <=> M_DQSA0..71
- 8 M_-DQSA[0..7] <=> M_-DQSA0..71
- 8 MAAA[0..16] <=> MAAA0..161
- 9 MAAB[0..16] <=> MAAB0..161
- 9 M_DQSB[0..7] <=> M_DQSB0..71
- 9 M_-DQSB[0..7] <=> M_-DQSB0..71

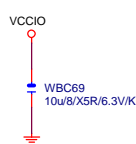
Gigabyte Technology			
Title			
CPU LGA1151-B			
Size			
Document Number			
GA-H110M-S2H-GSM			
Rev			
1.0			
Date:	Friday, September 11, 2015	Sheet	5 of 50

* 刪 WBC50 電容

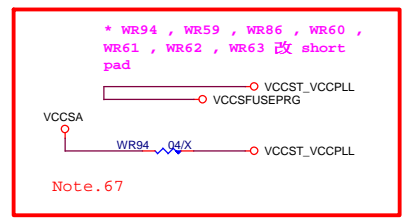
* WBC51 , WBC52
VDDQ 改 VCCSA



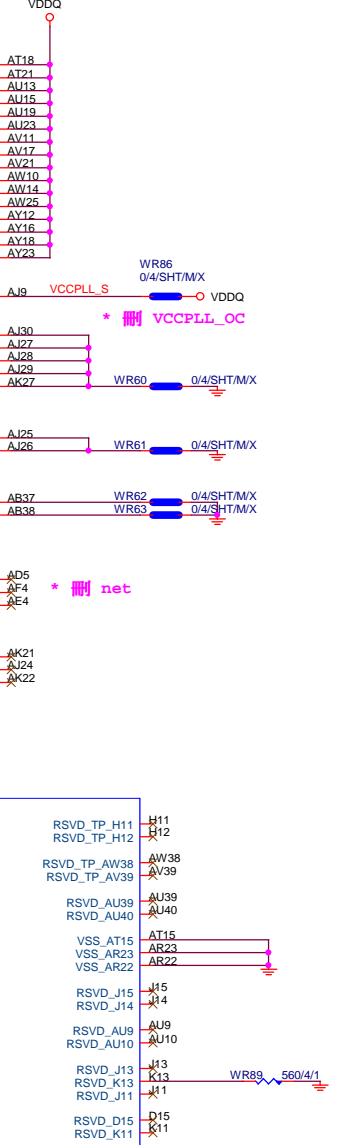
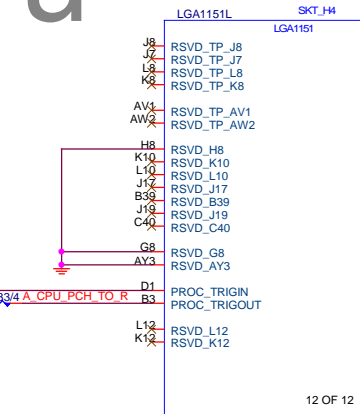
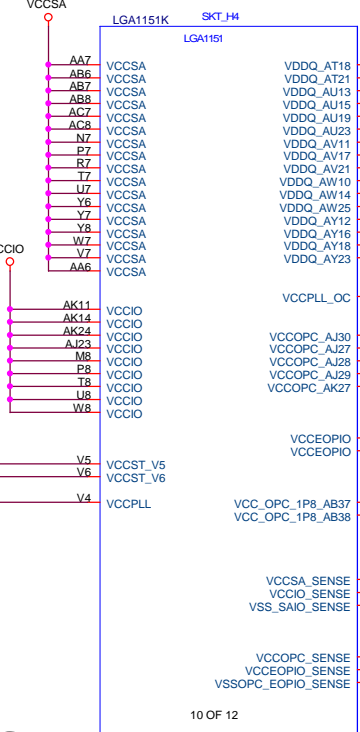
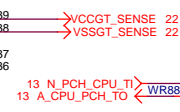
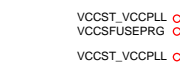
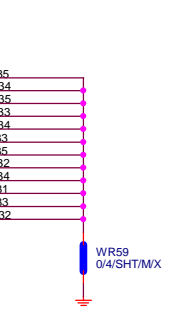
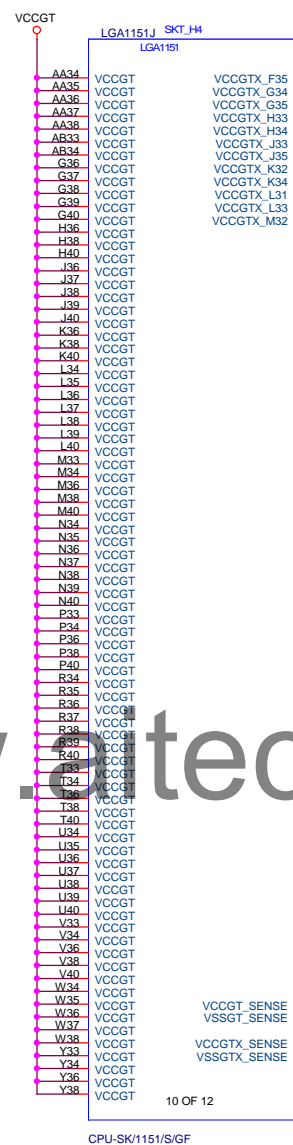
* 刪 WBC124 , WBC125 , WBC126 , WBC127 電容

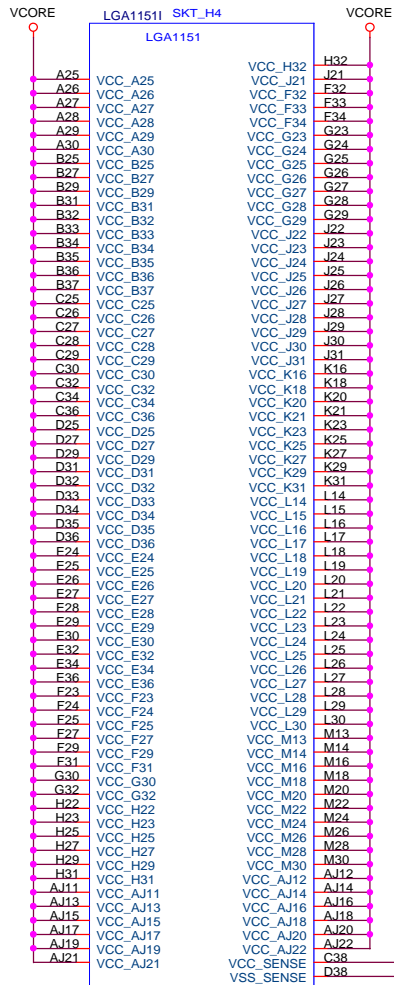


* 刪 VCCGT 電容



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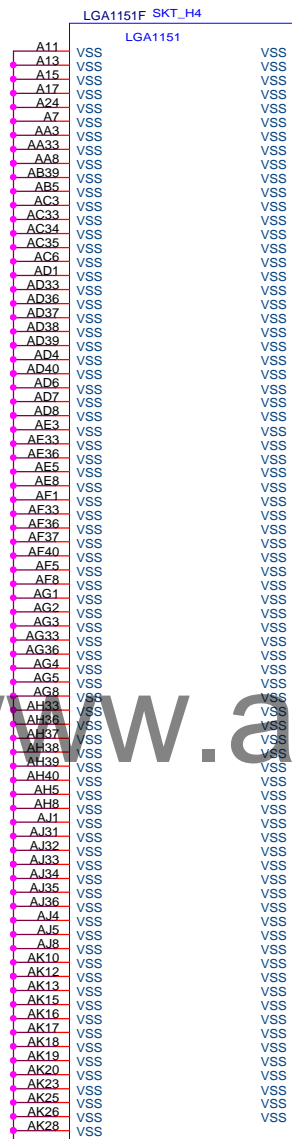




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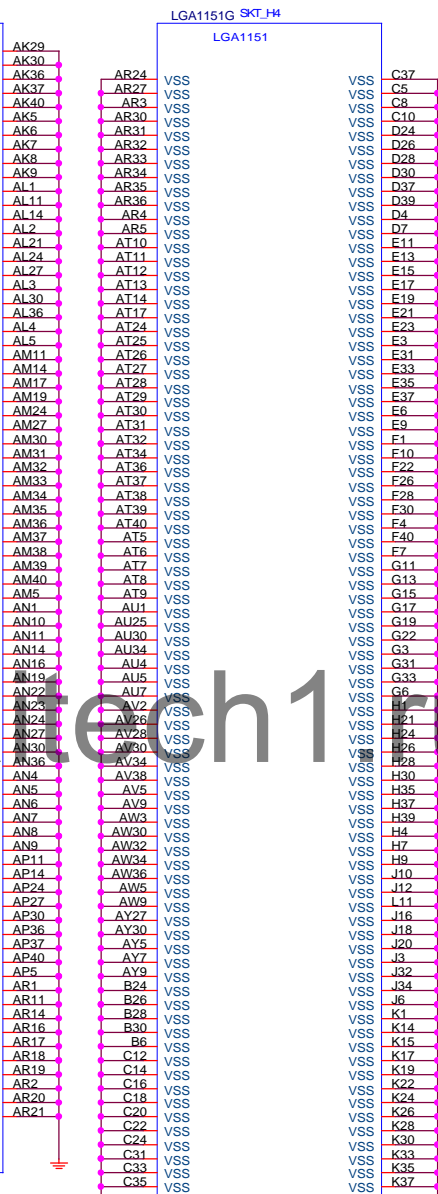
CPU-SK/1151/S/GF

* 刪 Vcore 電容



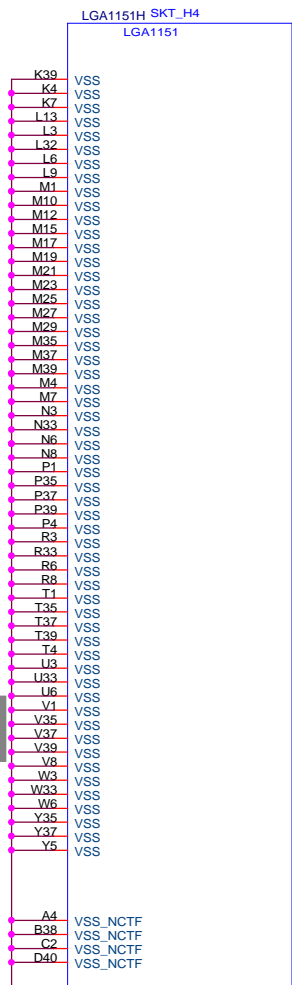
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CPU-SK/1151/S/GF



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CPU-SK/1151/S/GF



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CPU-SK/1151/S/GF

A4 VSS_NCTF

B38 VSS_NCTF

C2 VSS_NCTF

D40 VSS_NCTF

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Title

CPU LGA1151-C

Size

Document Number

Rev

GA-H110M-S2H-GSM

1.0

Date:

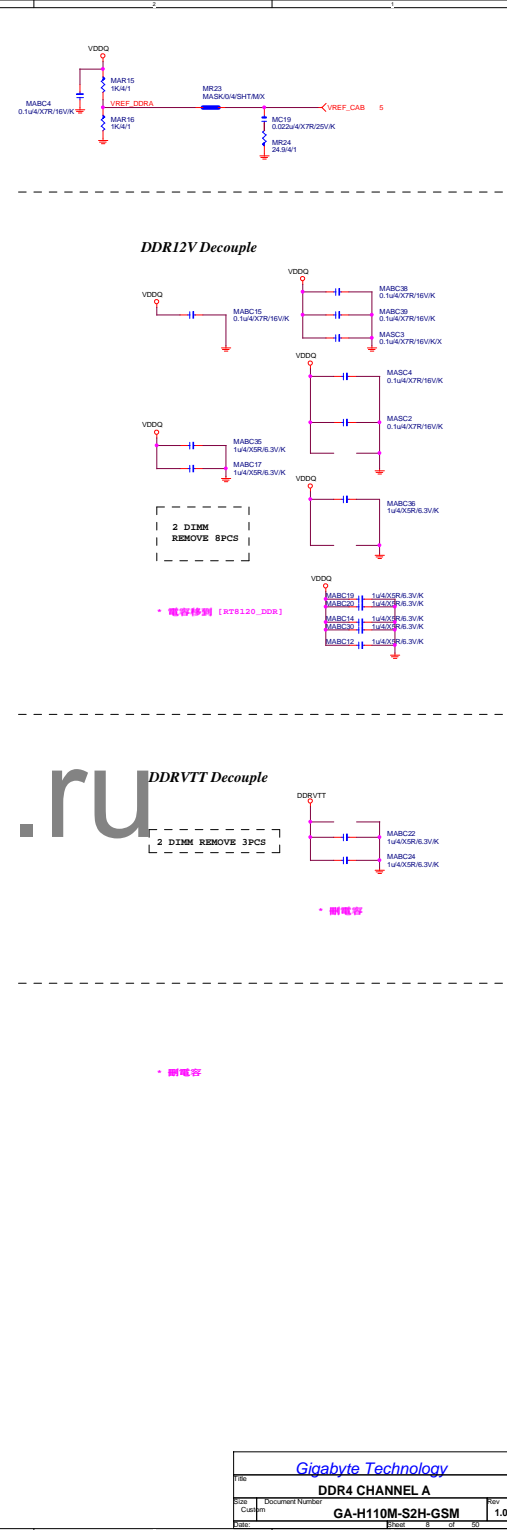
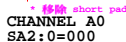
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Sheet

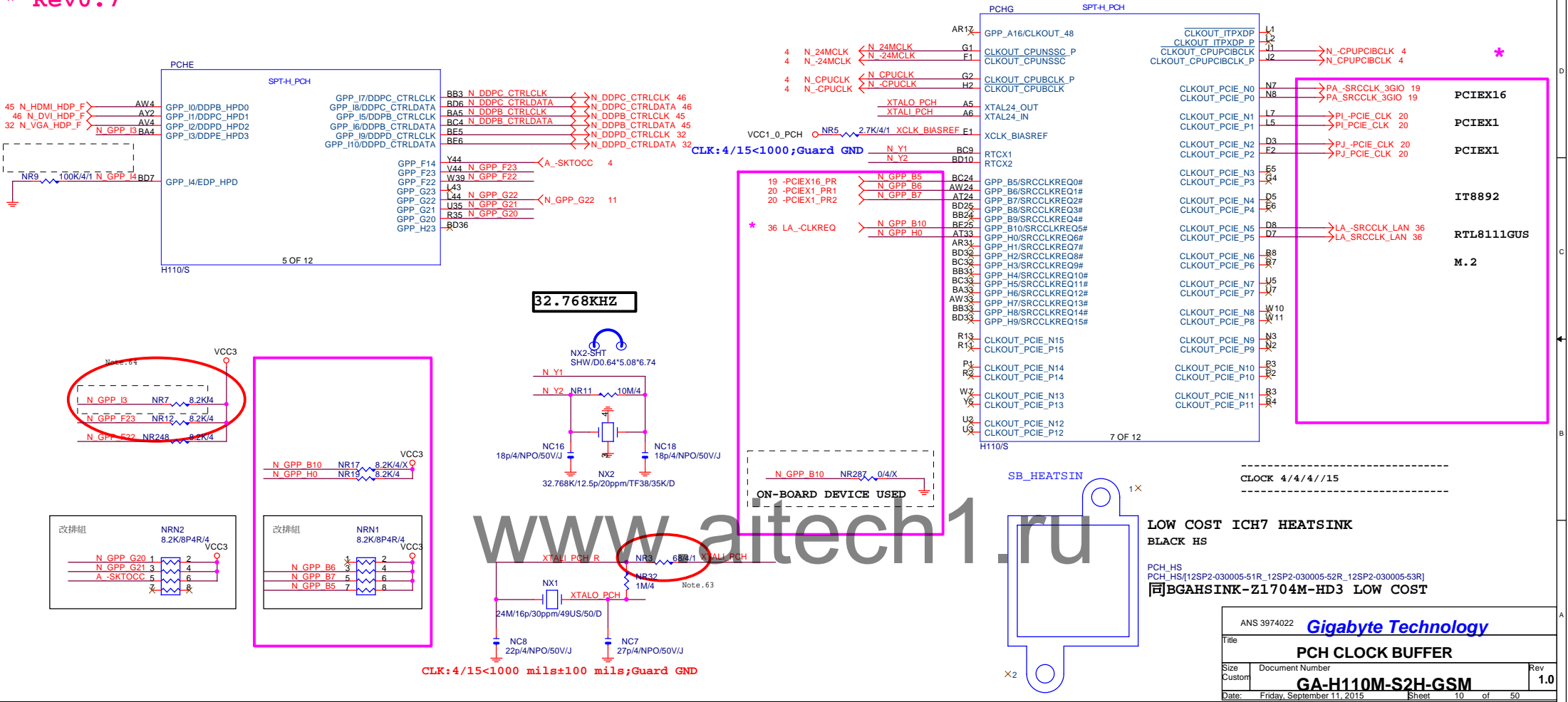
7

of

50



* Rev0.7



LOW COST ICH7 HEATSINK
BLACK HS

PCH_HS
PCH_HS[12SP2-030005-51R_12SP2-030005-52R_12SP2-030005-53R]
同BGHSINK-Z1704M-HD3 LOW COST

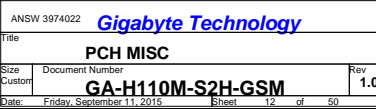
Title		ANS 3974022	
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Date:		Sheet 10 of 50	

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PCH CLOCK BUFFER

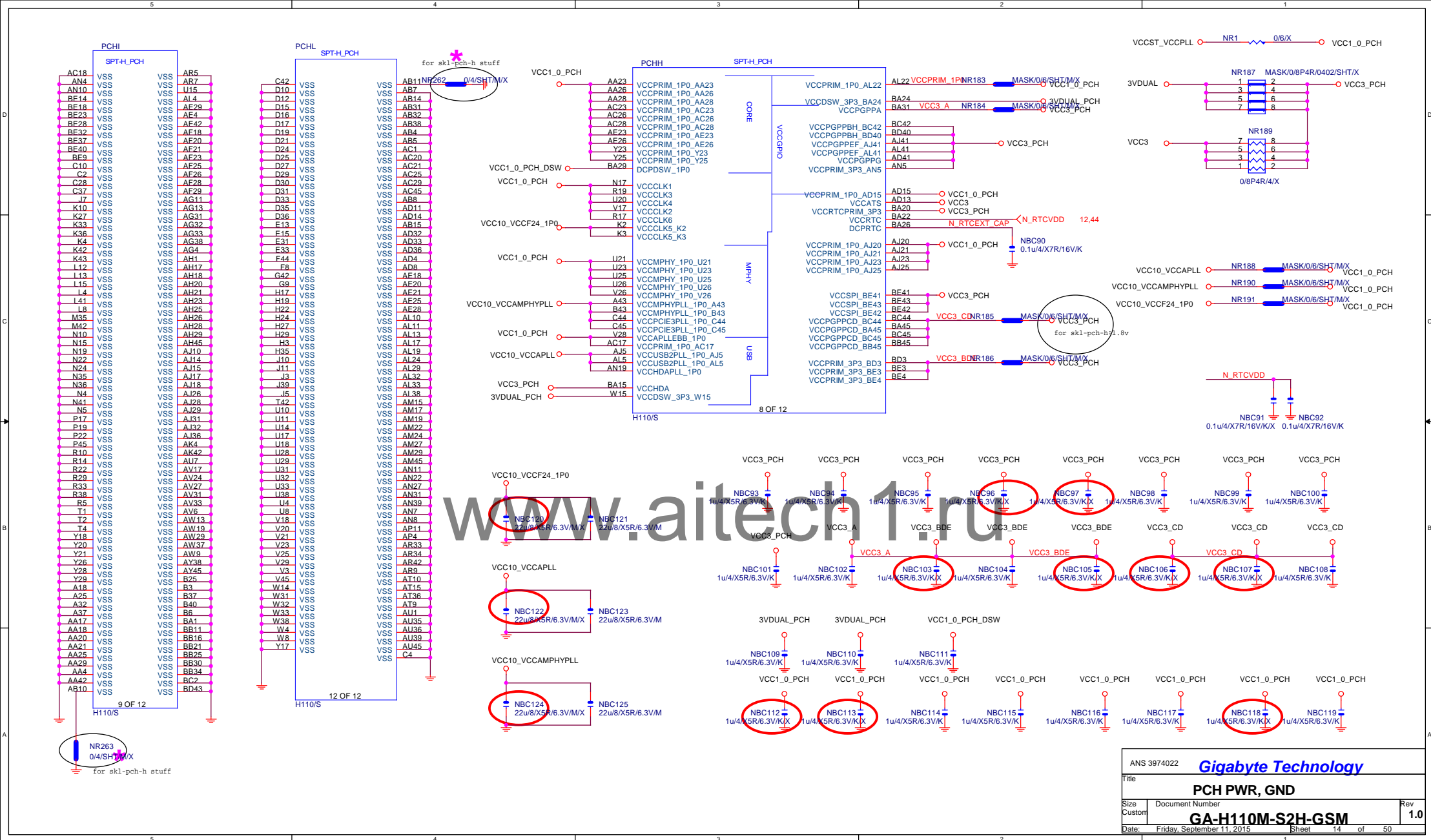
GA-H110M-S2H-GSM

Rev 1.0





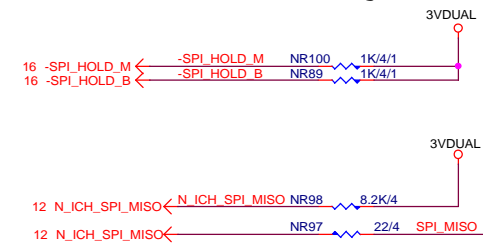
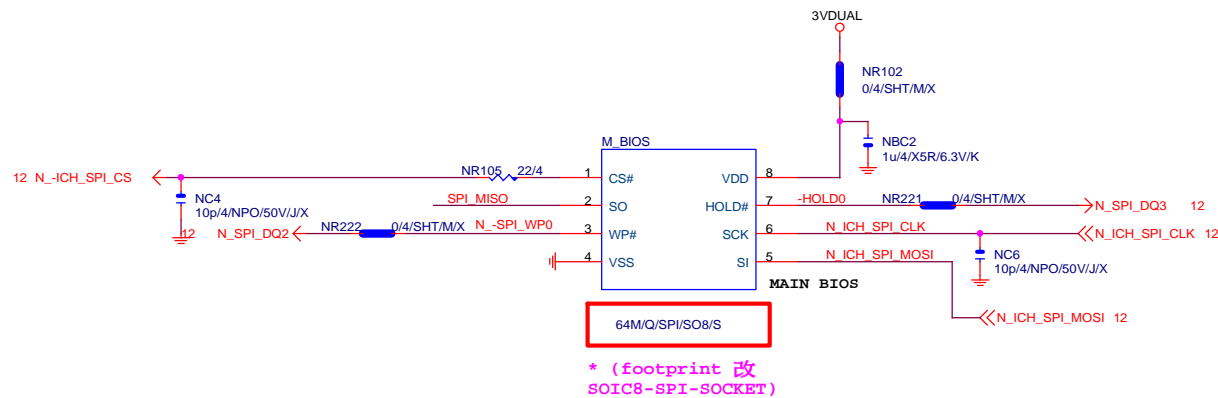
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Rev 0.1

BIOS

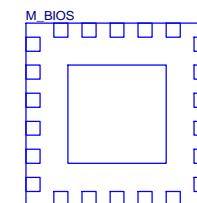
MOSI For DMI RX Termination Voltage



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

1 means floating
0 means PD 1K

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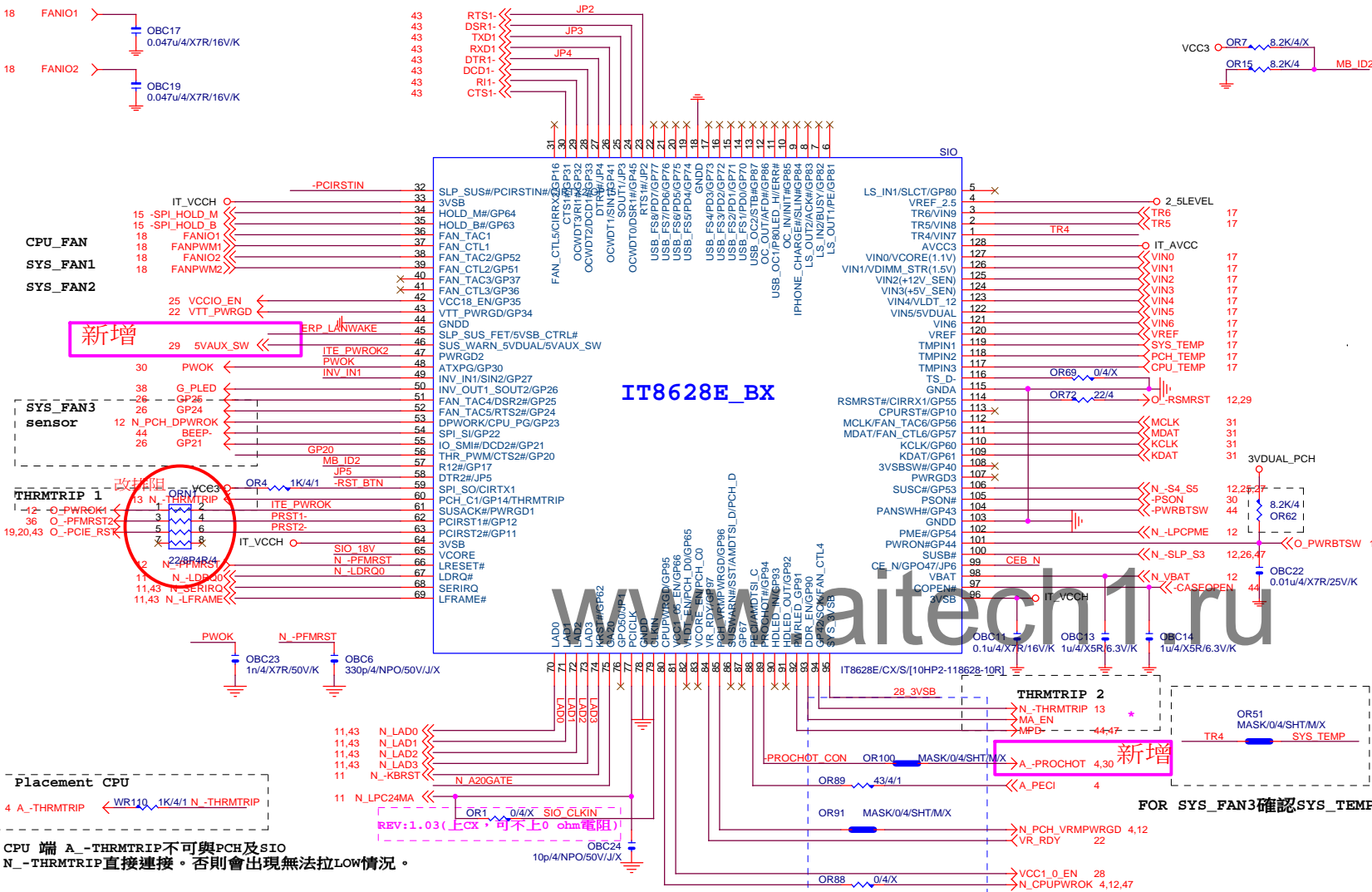
LCP/G-FL/1.27mm/200MIL/WHITE[10SL2-000008-31R]X

* 試産先上, PVT 移除

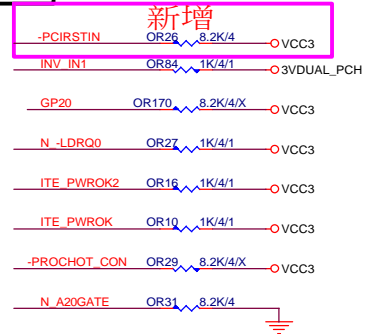
BIOS_PH

Gigabyte Technology

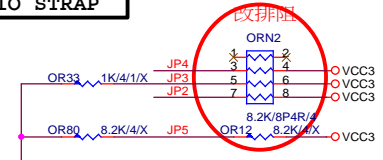
Title	BIOS
Size	Custom
Document Number	GA-H110M-S2H-GSM
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SIO PU



SIO STRAP

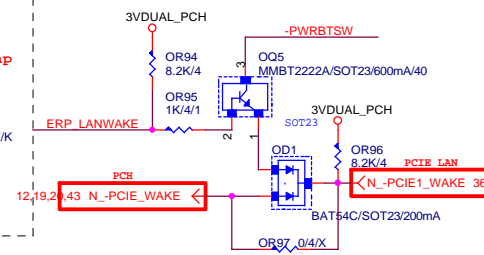


EUP control detect		
3VDUAL	OR47	100/4/1 28.3VSB

JP2	1	Disable WDT
JP2	0	Enable WDT to rest PWROK
JP3	0	SPI-Flash Disable
JP3	1	SPI-Flash Enable
JP4	1	k8 power sequency function is Disable
JP4	0	k8 power sequency function is Enable
JP5	1	anti-surge Disable
JP5	0	anti-surge Enable
JP3	1 1	The default value of EC Index 63h/6Bh/73h is 80h.
JP3	1 0	The default value of EC Index 63h/6Bh/73h is FFh
JP5	0 1	The default value of EC Index 63h/6Bh/73h is 00h.
JP5	0 0	The default value of EC Index 63h/6Bh/73h is 40h.

ERP WAKE on LAN (依LAN組態選擇)

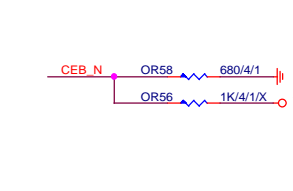
Realtek/ATHEROS LAN



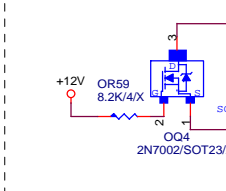
FAN TABLE	
CPU_FAN	FAN_CTL1 FAN_TAC1
SYS_FAN1	FAN_CTL2 FAN_TAC2
SYS_FAN2	FAN_CTL3 FAN_TAC3
SYS_FAN3	FAN_CTL5 FAN_TAC5
OPT_FAN or SYS_FAN4	N/A
THRMTRIP1	YES PIN60
THRMTRIP2	YES PIN94

IT8620E GPIO問題匯整	
PIN 50	GP26-第一次接上POWER時 會拉 Lo
PIN 90/91	DEFAULT為HDLed FUNCTION, GP93 BYPASS TO GP92 高溫時 GP92 會被拉Lo(ITE BUG)
PIN 108	GP40--- POWER ON 時會拉 Lo
PIN	MOUSE 跟FAN6 FUNCTION 111/112擇一使用,不然會互相干擾
PIN 22	PIN22-需高於3V,若低於 將部分COM PORT及LPT裝置 蜂鳴器會異常動作。

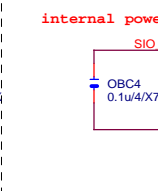
DUAL BIOS OPT STRAP



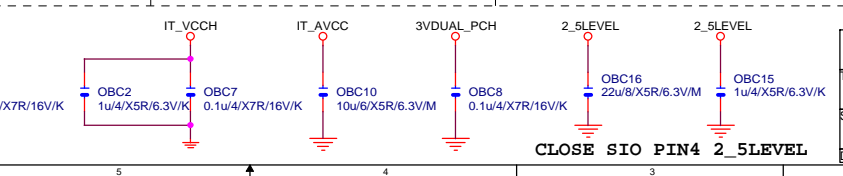
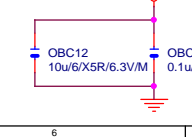
Power leakage



SIO_18V

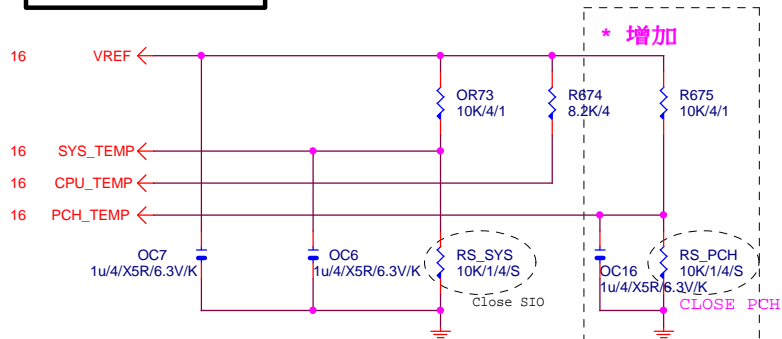


SIO CAP



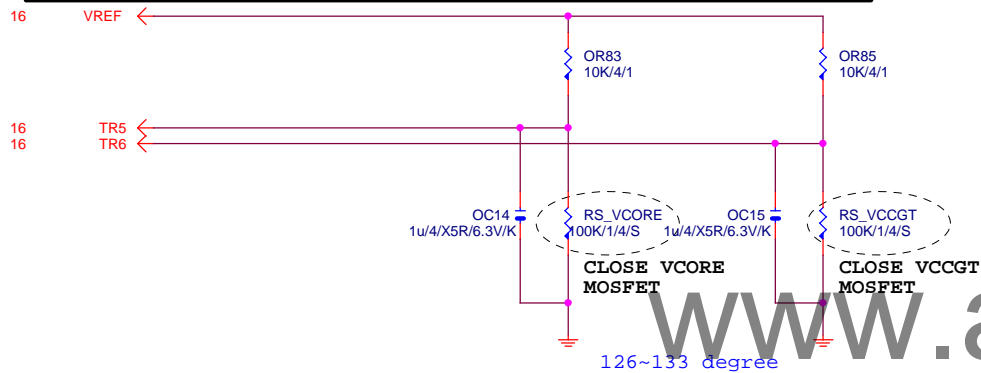
TEMP H/W MONITOR

REV 1.08



RS_VCORE, RS_VCCGT, CLOSE CPU_VCORE & VCCGT MOSFET

-PROCHOT:有mos heartsink不用prochot function

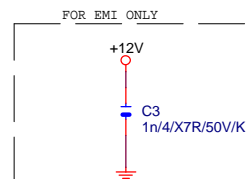
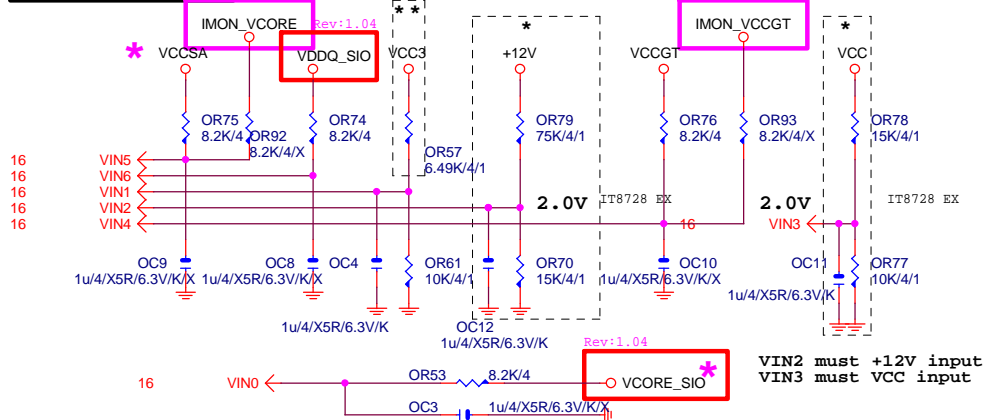


VOLTAGE-- H/W MONITOR

Connect to PWM

* IT8728 BX
** IT8728 CX

Connect to PWM

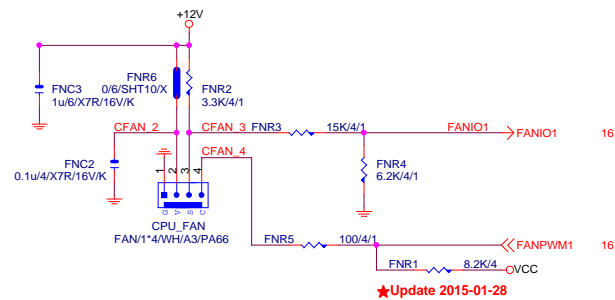


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Title				
HWM,KB/MS, FAN CTRL				
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CPU SMART FAN

Rev: 0.7

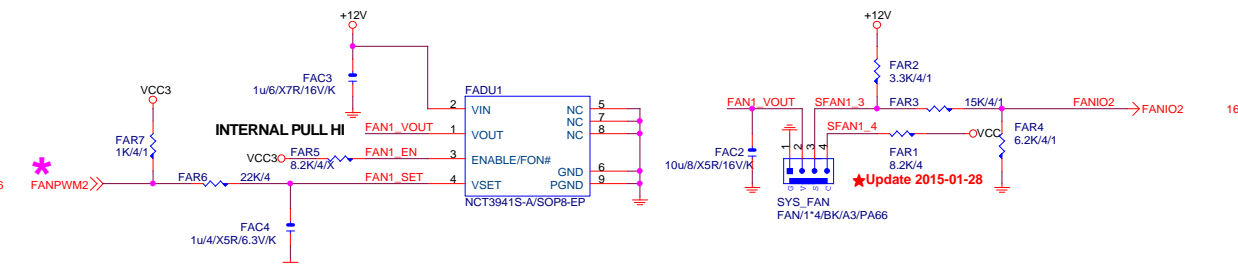


SYSTEM FAN1

Linear SYS_FAN

Enable Function (NCT3941S)
Full Turn On Function (NCT3941S-A)

A.

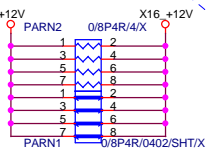


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Title		
FAN CTRL		
Size	Document Number	Rev
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Rev 0.2

+12V_protect
short-wire test

PA_EXP_RXP0_15] >> PA_EXP_RXP[0..15] 4
 PA_EXP_RXN0_15] >> PA_EXP_RXN[0..15] 4
 PA_EXP_TXP0_15] >> PA_EXP_TXP[0..15] 4
 PA_EXP_TXN0_15] >> PA_EXP_TXN[0..15] 4

PA_EXP_TXP0	PAC5	0.22u4/X5R/6.3V/K	PA_EXP_TXP0 C
PA_EXP_TXN0	PAC4	0.22u4/X5R/6.3V/K	PA_EXP_TXN0 C
PA_EXP_TXP1	PAC6	0.22u4/X5R/6.3V/K	PA_EXP_TXP1 C
PA_EXP_TXN1	PAC7	0.22u4/X5R/6.3V/K	PA_EXP_TXN1 C
PA_EXP_TXP2	PAC8	0.22u4/X5R/6.3V/K	PA_EXP_TXP2 C
PA_EXP_TXN2	PAC9	0.22u4/X5R/6.3V/K	PA_EXP_TXN2 C
PA_EXP_TXP3	PAC10	0.22u4/X5R/6.3V/K	PA_EXP_TXP3 C
PA_EXP_TXN3	PAC11	0.22u4/X5R/6.3V/K	PA_EXP_TXN3 C
PA_EXP_TXP4	PAC12	0.22u4/X5R/6.3V/K	PA_EXP_TXP4 C
PA_EXP_TXN4	PAC13	0.22u4/X5R/6.3V/K	PA_EXP_TXN4 C
PA_EXP_TXP5	PAC14	0.22u4/X5R/6.3V/K	PA_EXP_TXP5 C
PA_EXP_TXN5	PAC15	0.22u4/X5R/6.3V/K	PA_EXP_TXN5 C
PA_EXP_TXP6	PAC16	0.22u4/X5R/6.3V/K	PA_EXP_TXP6 C
PA_EXP_TXN6	PAC17	0.22u4/X5R/6.3V/K	PA_EXP_TXN6 C
PA_EXP_TXP7	PAC18	0.22u4/X5R/6.3V/K	PA_EXP_TXP7 C
PA_EXP_TXN7	PAC19	0.22u4/X5R/6.3V/K	PA_EXP_TXN7 C
PA_EXP_TXP8	PAC21	0.22u4/X5R/6.3V/K	PA_EXP_TXP8 C
PA_EXP_TXN8	PAC20	0.22u4/X5R/6.3V/K	PA_EXP_TXN8 C
PA_EXP_TXP9	PAC22	0.22u4/X5R/6.3V/K	PA_EXP_TXP9 C
PA_EXP_TXN9	PAC23	0.22u4/X5R/6.3V/K	PA_EXP_TXN9 C
PA_EXP_TXP10	PAC24	0.22u4/X5R/6.3V/K	PA_EXP_TXP10 C
PA_EXP_TXN10	PAC25	0.22u4/X5R/6.3V/K	PA_EXP_TXN10 C
PA_EXP_TXP11	PAC26	0.22u4/X5R/6.3V/K	PA_EXP_TXP11 C
PA_EXP_TXN11	PAC27	0.22u4/X5R/6.3V/K	PA_EXP_TXN11 C
PA_EXP_TXP12	PAC28	0.22u4/X5R/6.3V/K	PA_EXP_TXP12 C
PA_EXP_TXN12	PAC29	0.22u4/X5R/6.3V/K	PA_EXP_TXN12 C
PA_EXP_TXP13	PAC30	0.22u4/X5R/6.3V/K	PA_EXP_TXP13 C
PA_EXP_TXN13	PAC31	0.22u4/X5R/6.3V/K	PA_EXP_TXN13 C
PA_EXP_TXP14	PAC32	0.22u4/X5R/6.3V/K	PA_EXP_TXP14 C
PA_EXP_TXN14	PAC33	0.22u4/X5R/6.3V/K	PA_EXP_TXN14 C
PA_EXP_TXP15	PAC34	0.22u4/X5R/6.3V/K	PA_EXP_TXP15 C
PA_EXP_TXN15	PAC35	0.22u4/X5R/6.3V/K	PA_EXP_TXN15 C

PCIE16:16/5/5/5/16

PCI-E REV:1.1--> 2.5GHZ

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

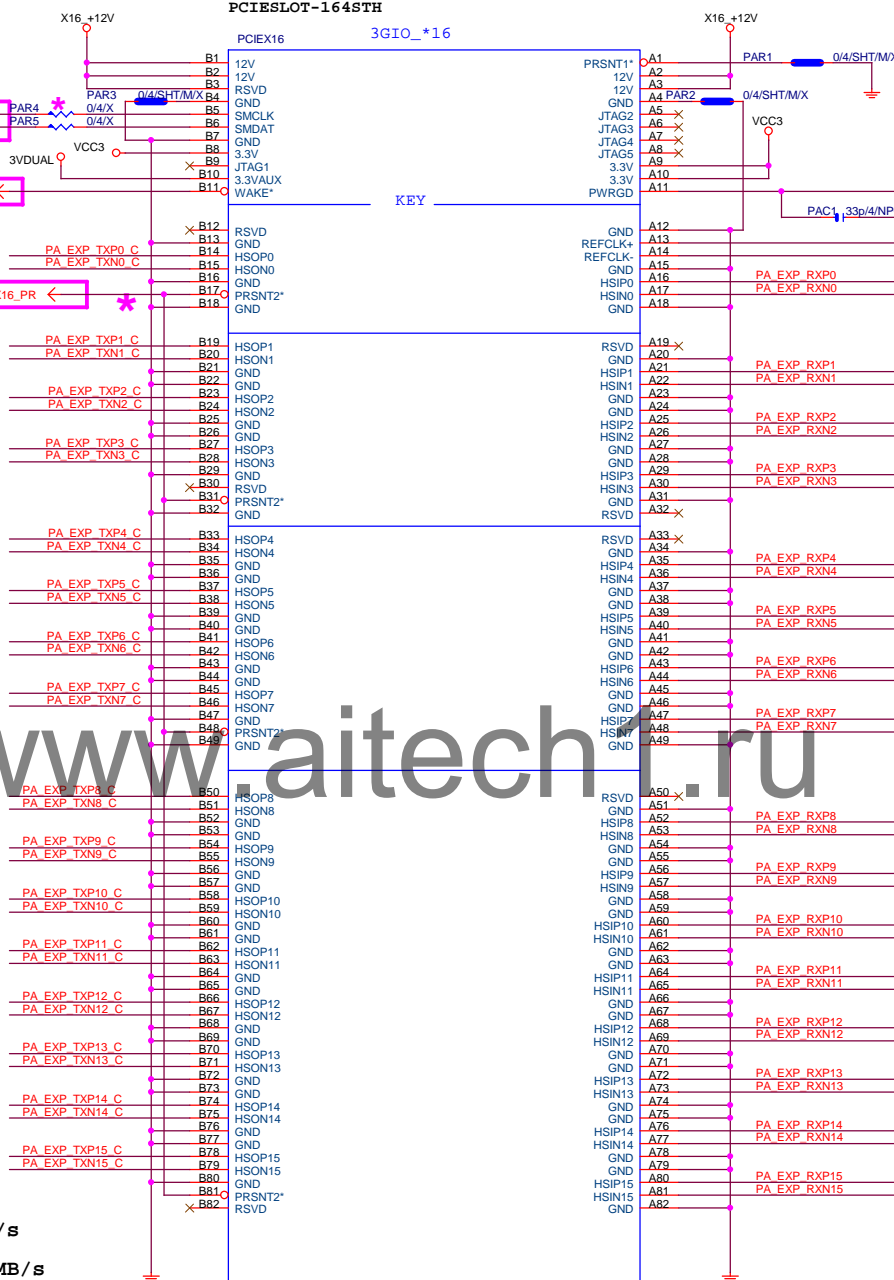
PCE-E X1(雙向) BANDWIDTH=2.5GHz*(8b/10b)X2=4Gb/s=500MB/s

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

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

PCI-E REV:2.0--> 5GHZ

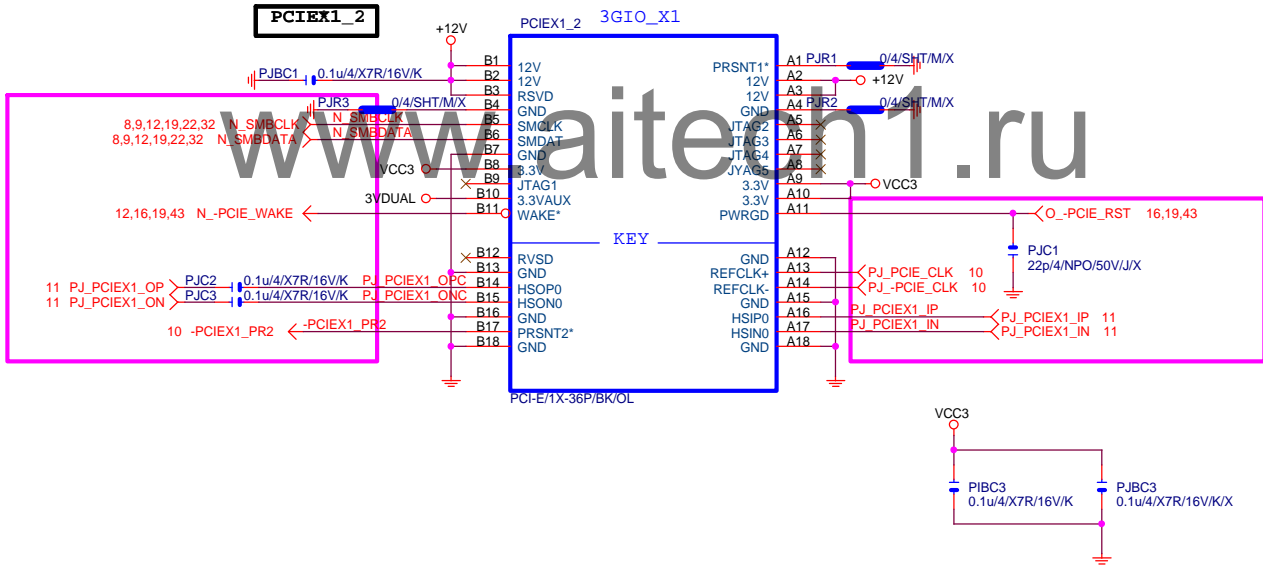
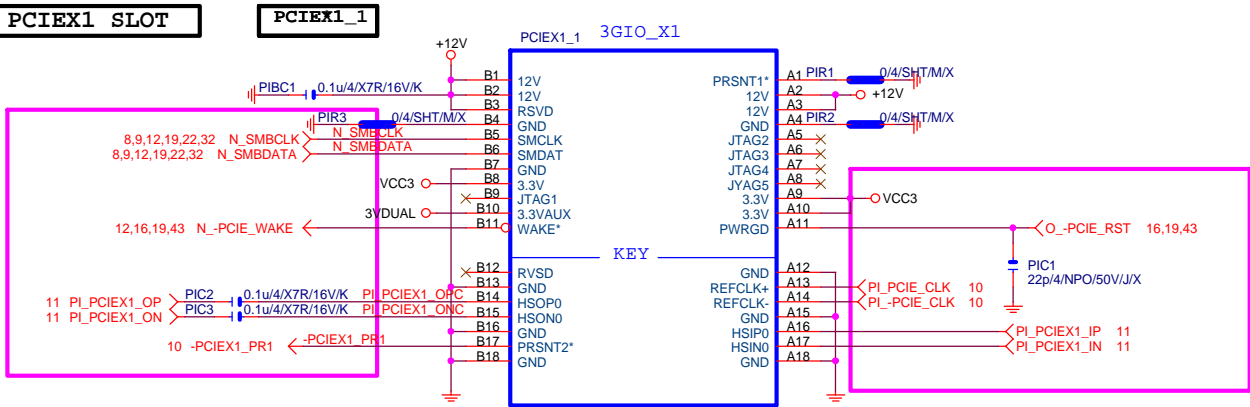
PCIESLOT-1645TH



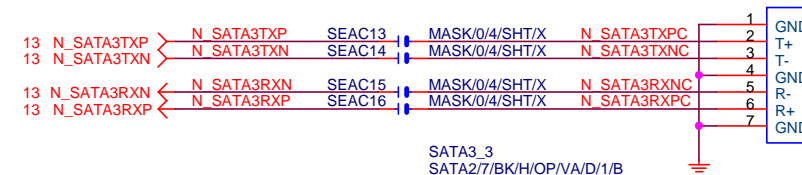
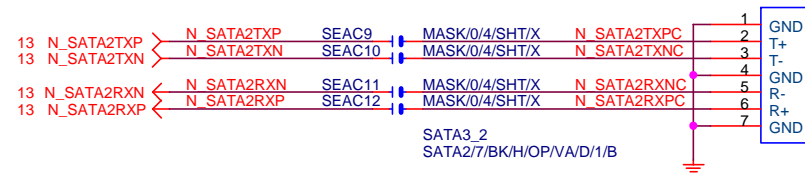
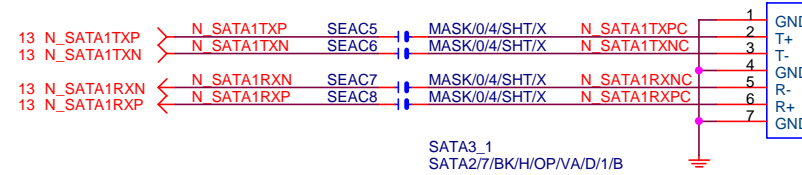
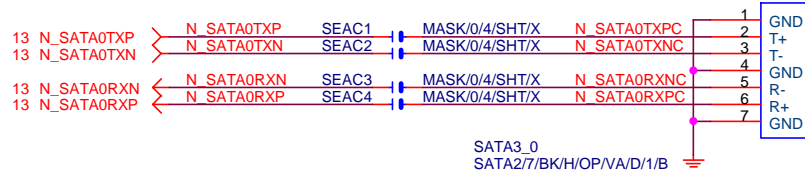
PCI-E/16X-164P/GY/LONG DOUBLE/HK*2

Gigabyte Technology

Title			PCI EXPRESS * 16	
Size	Custom	Document Number	Rev 1.0	
Date			Friday, September 11, 2015	
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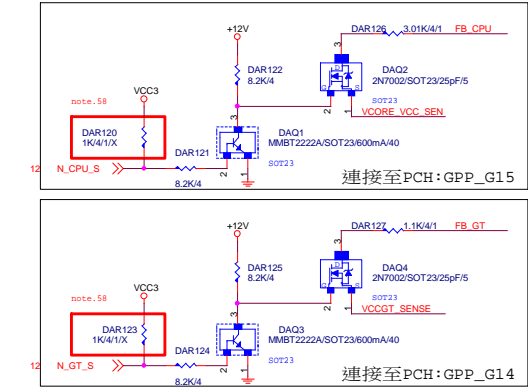
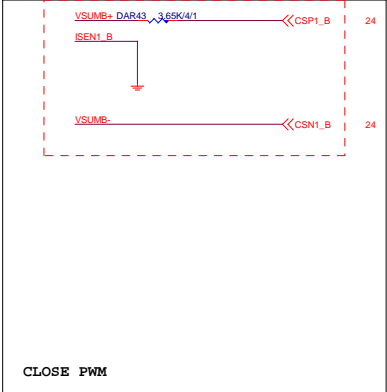
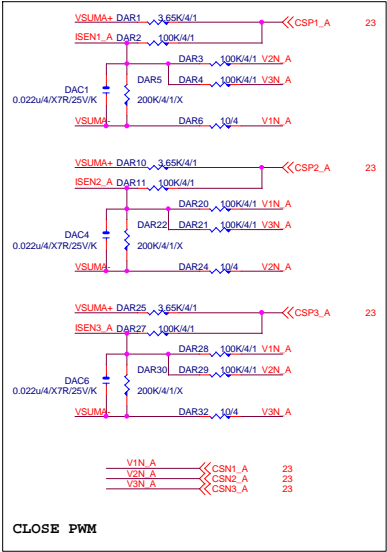
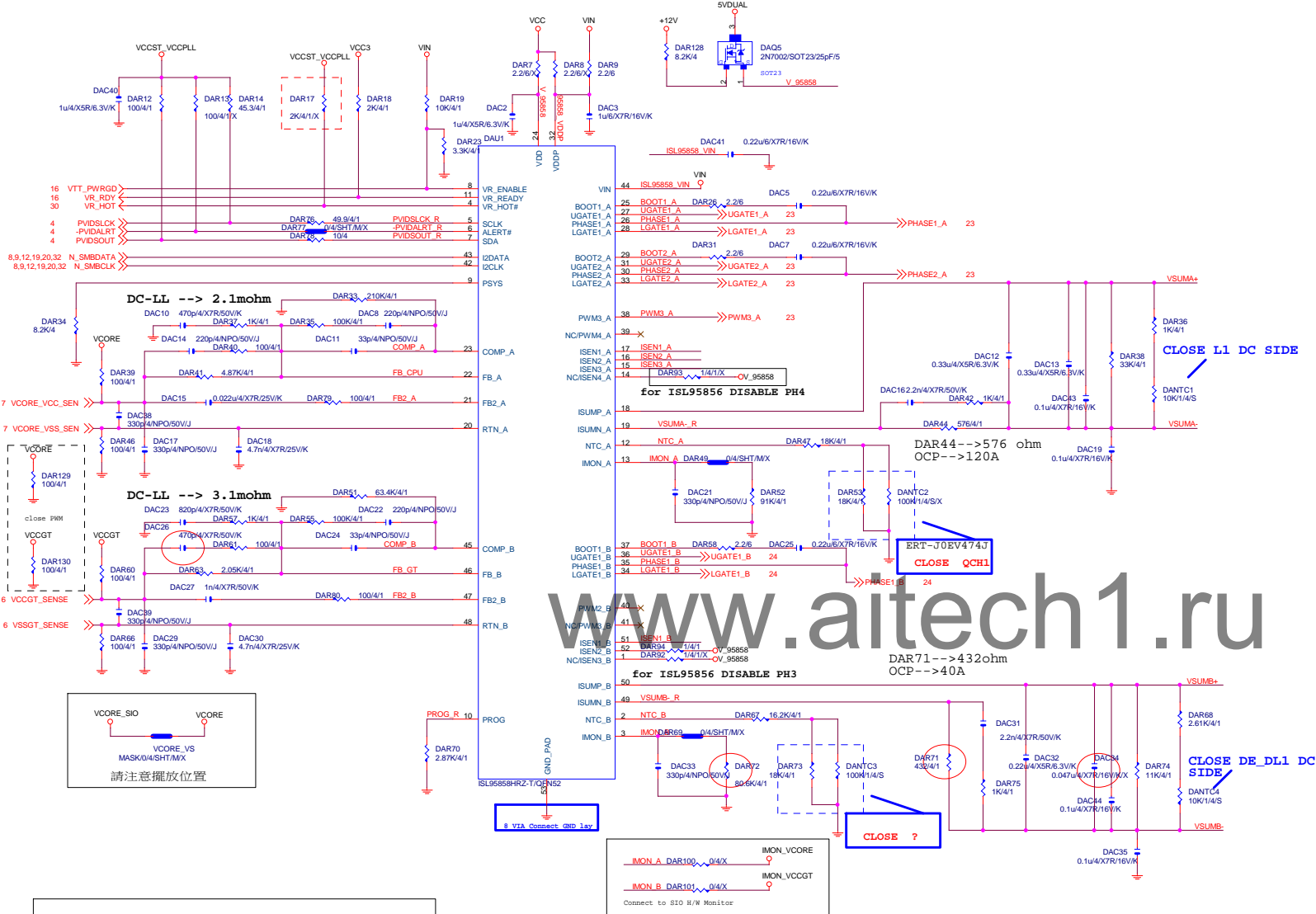


Rev 0.6

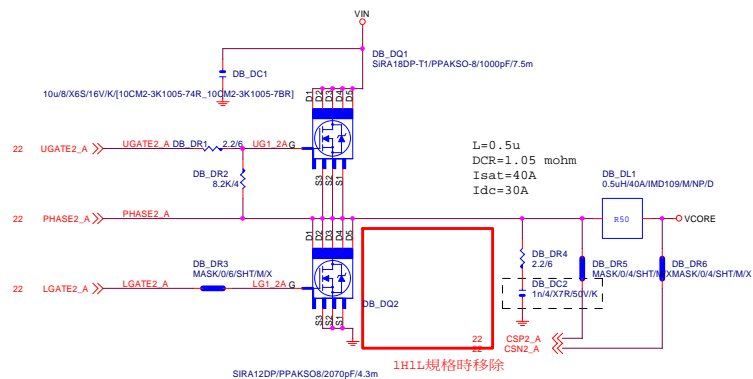


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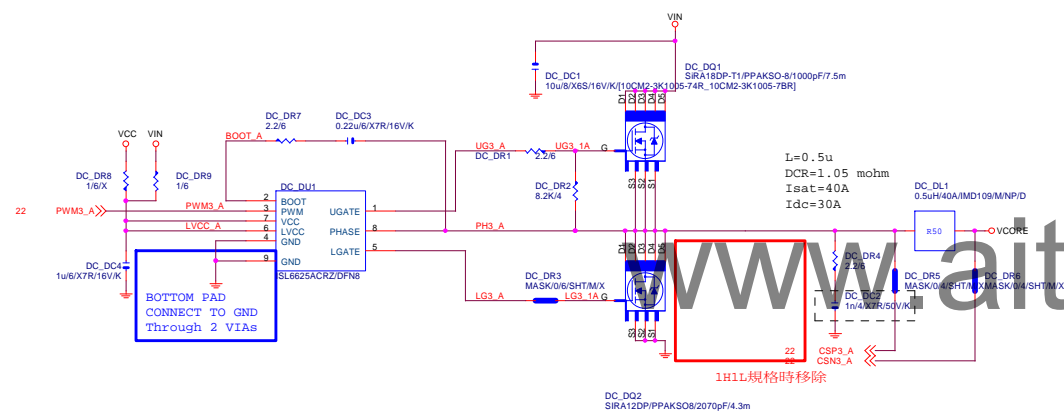
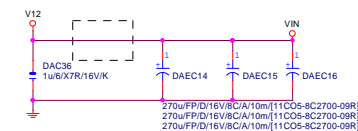
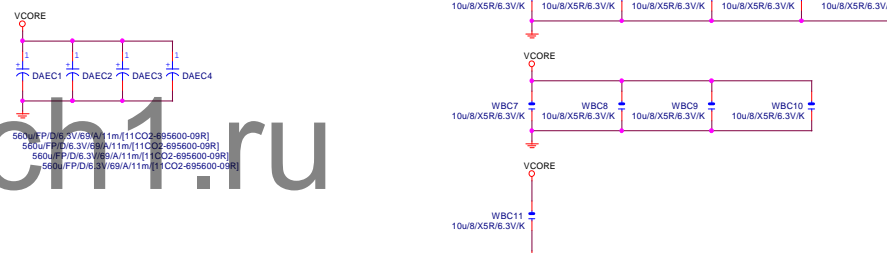
Gigabyte Technology			
Title			
SATA EXPRESS			
Size	Document Number		Rev
Custom	GA-H110M-S2H-GSM		1.0
Date:	Friday, September 11, 2015	Sheet	21 of 50



VCORE



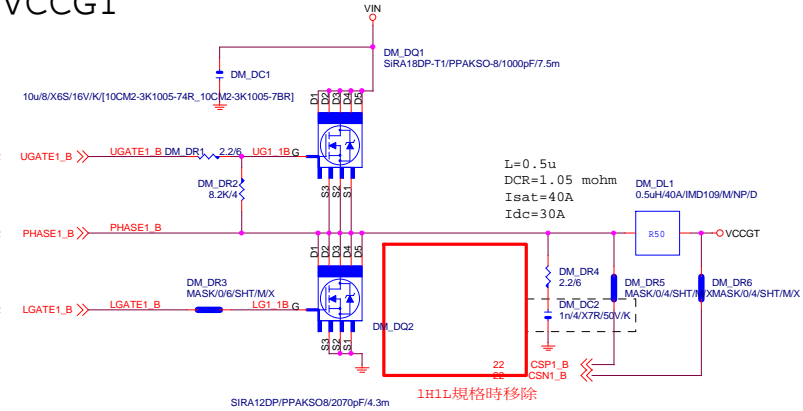
VIN CAP 270u*3PCS

VCORE CAP 560u*4PCS
22u*10PCS

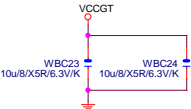
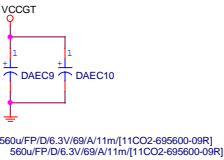
GIGABYTE™

Title			
ISL95858_MOS			
Size	Document Number	Rev	
Custom	GA-H110M-S2H-GSM	1.0	
Date:	Friday, September 11, 2015	Sheet	23 of 50

VCCGT



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



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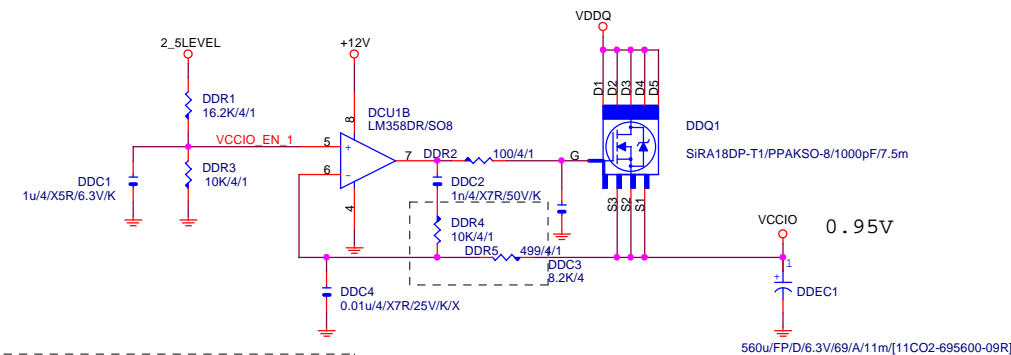
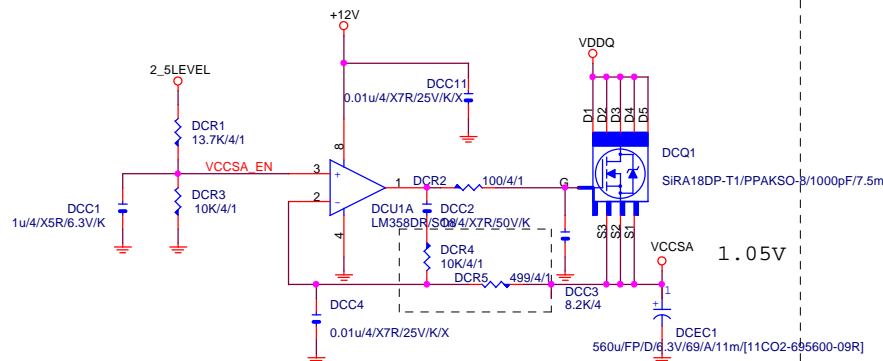
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Document Number GA-H110M-S2H-GSM Rev 1.0

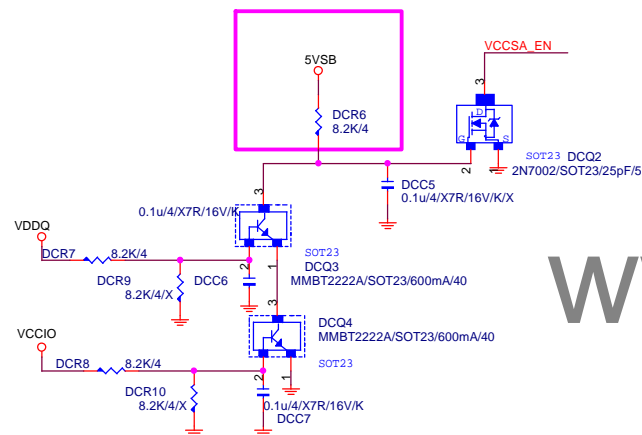
Date: Friday, September 11, 2015 Sheet 24 of 50

VCCSA REV:0.4

VCCIO

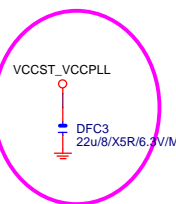
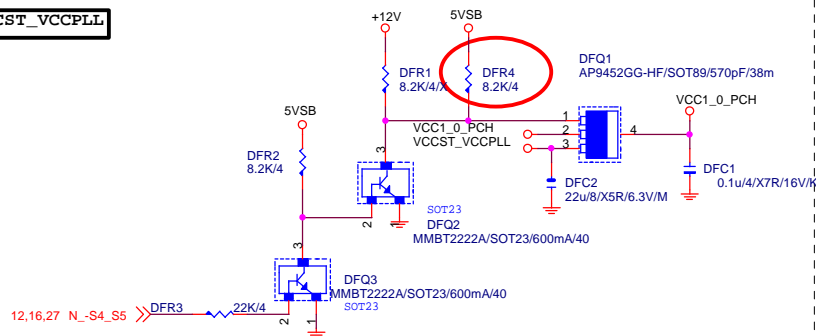


VCCIO_EN 1 DDR10 0/4/SHT/M/X VCCIO_EN 16
Connect to IT8620



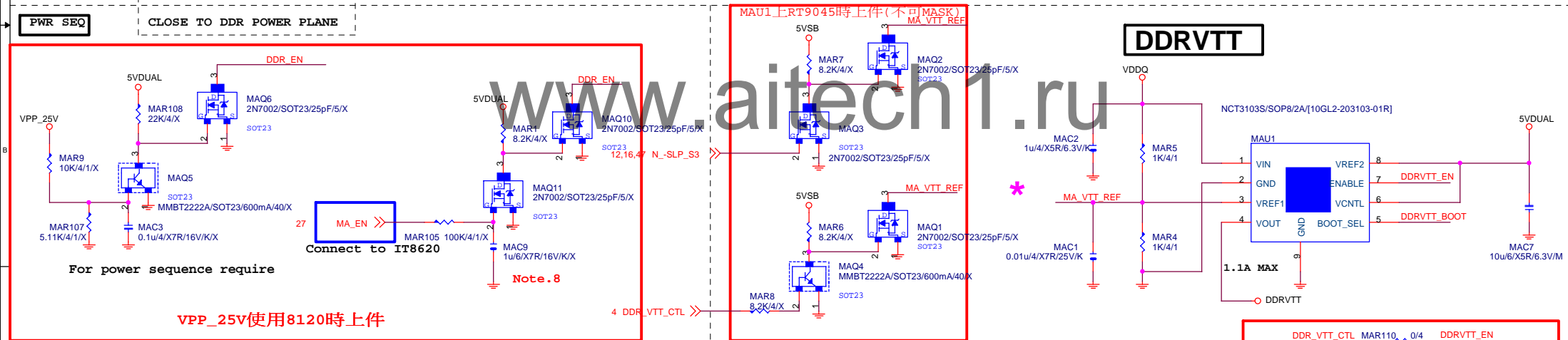
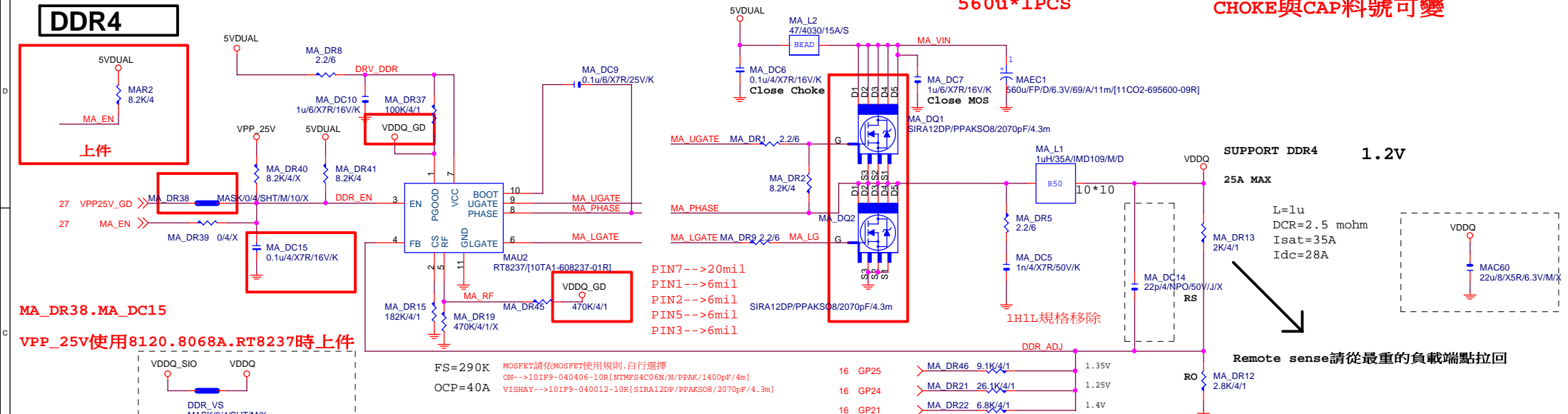
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VCCST_VCCPLL



GIGABYTE™			
Title VCCSA_VCCIO			
Size Custom	Document Number GA-H110M-S2H-GSM	Rev 1.0	
Date: Friday, September 11, 2015	Sheet 25	of 50	

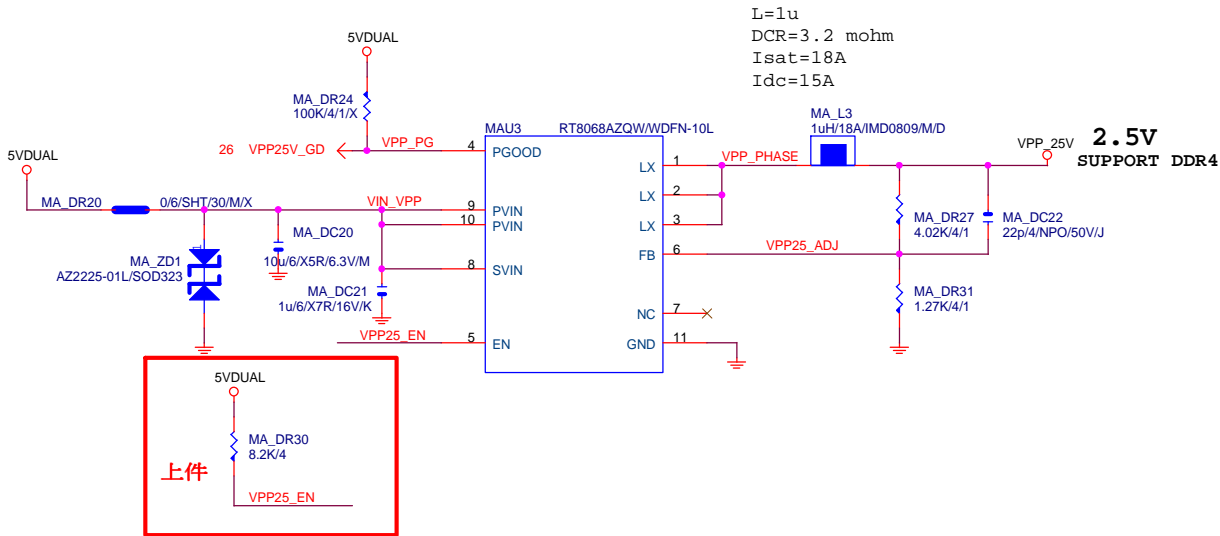
DDR4



REV:0.4

VPP_25V

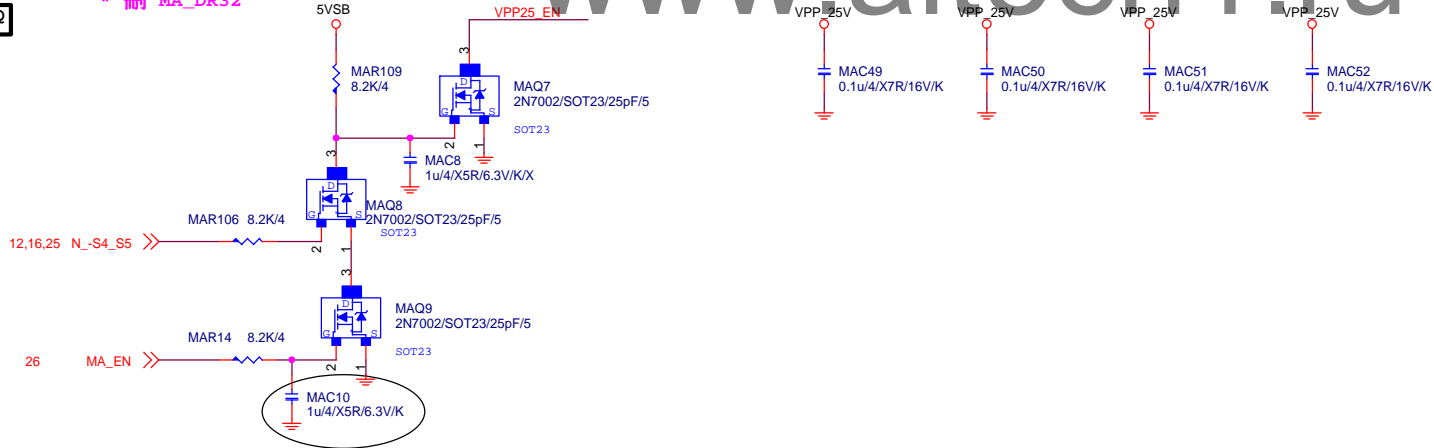
CHOKE與CAP料號可變



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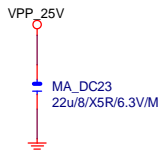
PWR_SEQ

* 刪 MA_DR32



VPP CAP 22u*1PCS

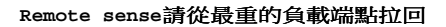
* 大電容 x0



GIGABYTE™

Title		
RT9018_VPP25 POWER		
Size	Document Number	Rev
Custom	GA-H110M-S2H-GSM	1.0
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W/K
OS



PWR SEQ

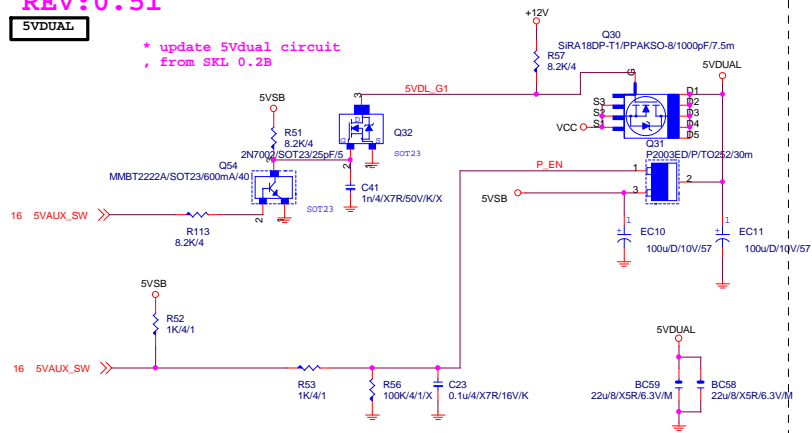


Title			
RT8237_PCH POWER			
Size	Document Number	Rev	
Custom	GA-H110M-S2H-GSM	1.0	
Date:	Friday, September 11, 2015	Sheet	28 of 50

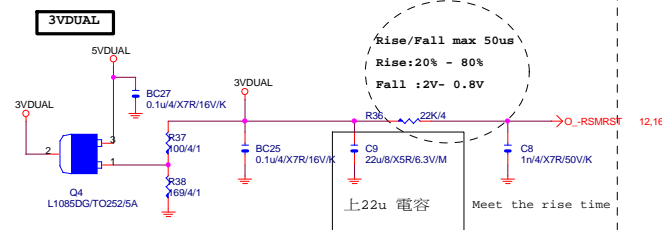
REV:0.51

5VDUAL

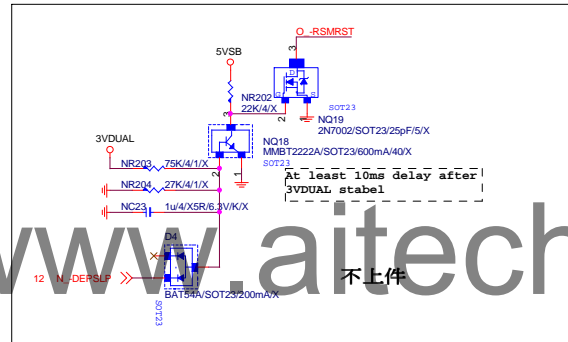
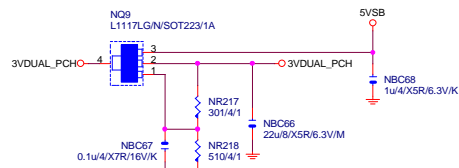
* update 5Vdual circuit
from SKL 0.2B



3VDUAL



3VDUAL_PCH



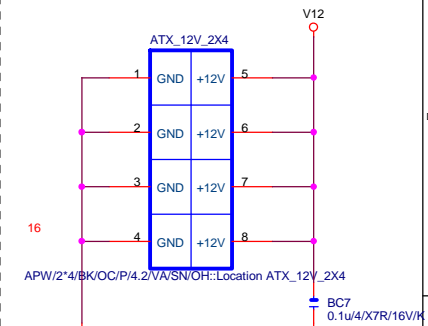
www.aitech1.ru

不上件

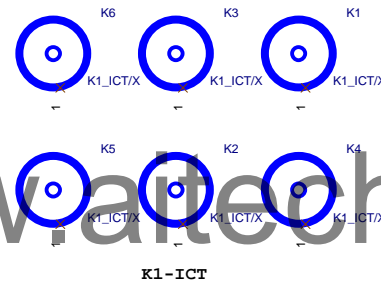
Gigabyte Technology

Title			DISCRETE POWER
Size	Document Number	GA-H110M-S2H-GSM	
Custom		Rev	1.0
Date:	Friday, September 11, 2015	Sheet	29 of 50

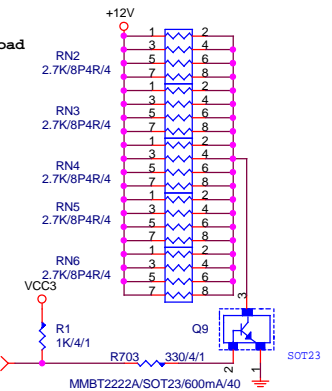
ATXX4 POWER CONNECTOR



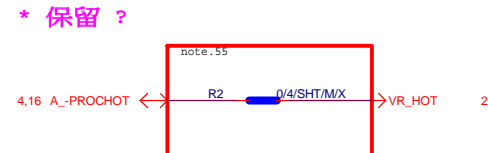
固定孔/光學點



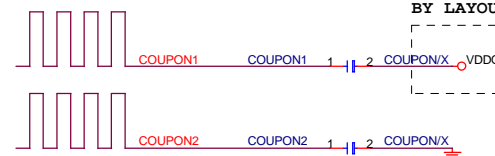
+12V DUMMY LOAD



-PROHOT



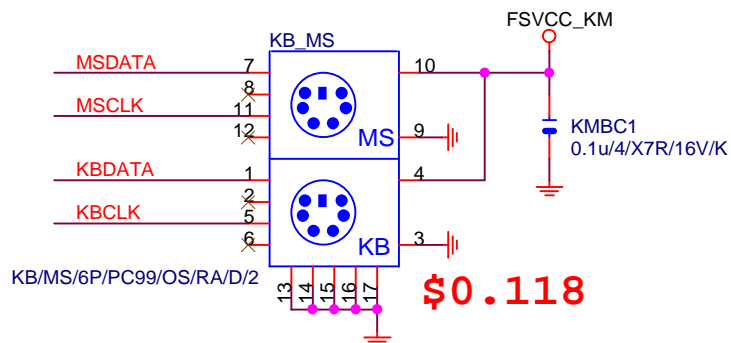
BY LAYOUT位置



Title			
ATX POWER CONNECTOR			
Size Custom	Document Number	GA-H110M-S2H-GSM	Rev 1.0
Date:	Friday, September 11, 2015	Sheet	30 of 50

KB_MS_USB

Rev: 0.7

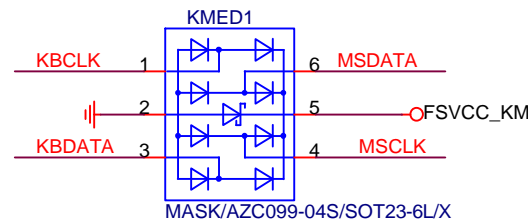
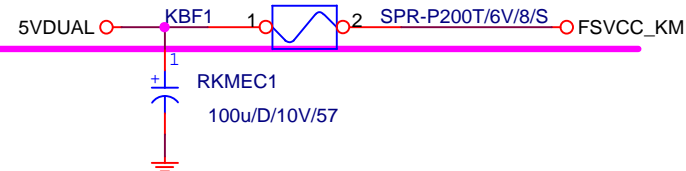


ESD

NET 可變, 與其他USB SHARE

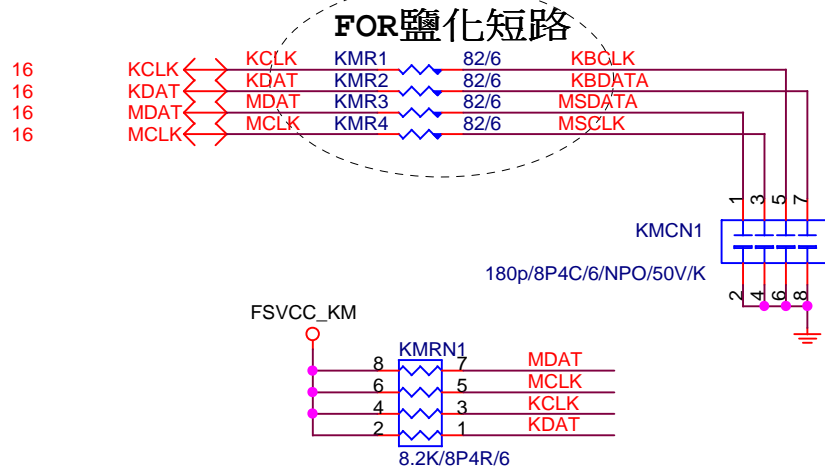
KB PWR

FUSE-0805



KB_MS_USB DAMPING/PU

KB_MS_USB PWR



Gigabyte Technology

Title

KB_MS_USB

Size
A

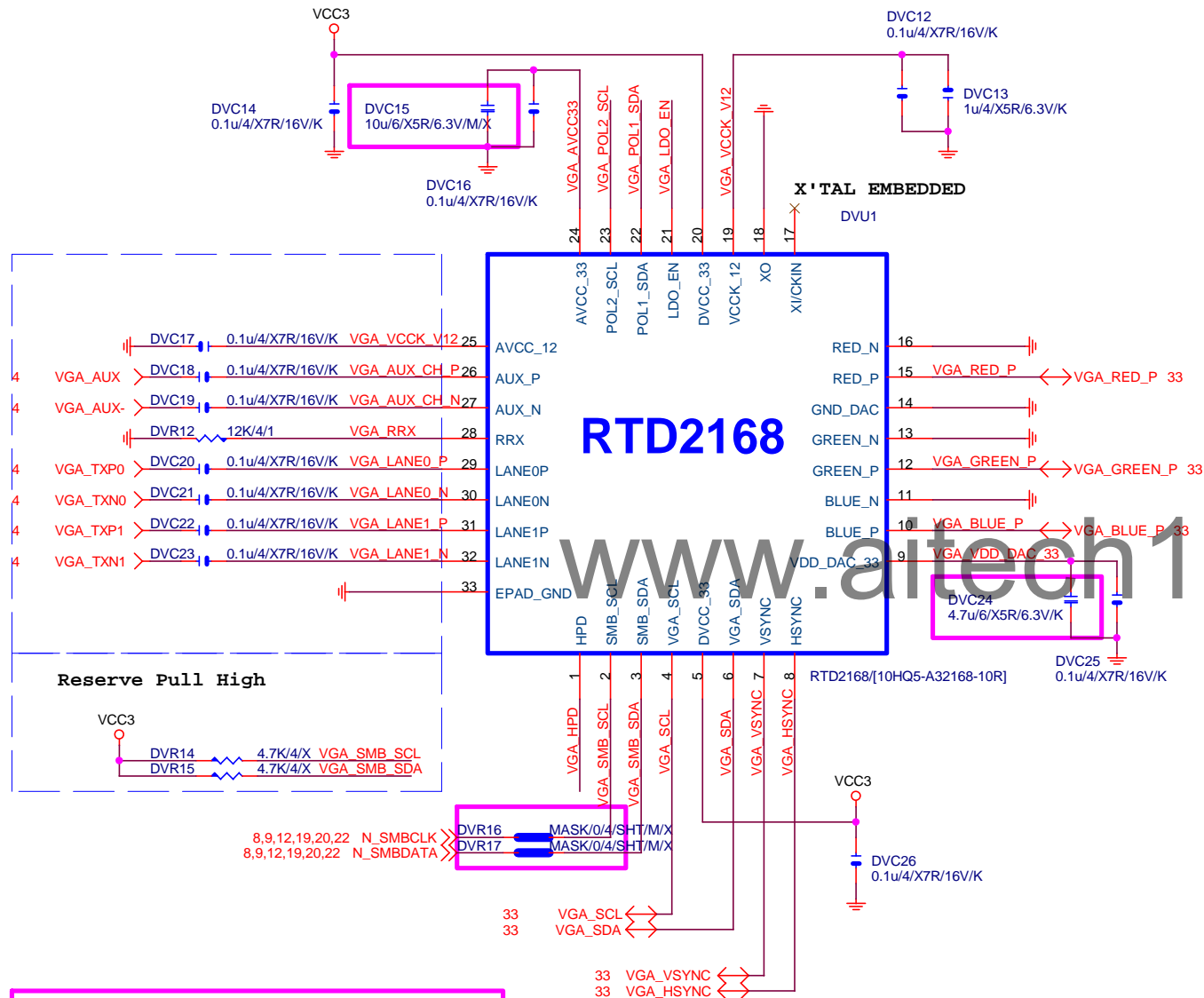
Document Number

GA-H110M-S2H-GSM

Rev
1.0

Date: Friday, September 11, 2015

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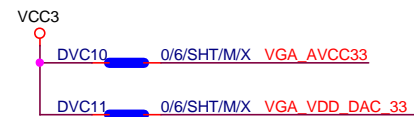


RTD2168

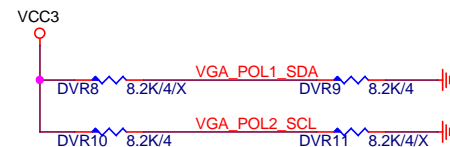
Reserve Pull High

放置PCH端

POWER

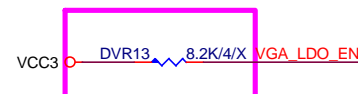


Power on latch



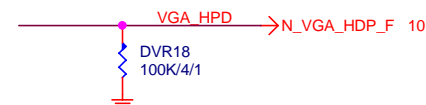
		POL1_SDA(PIN22)	
		0	1
POL2_SCL (PIN23)	0	X	EP MODE
	1	ROM ONLY MODE	EEPROM MODE

Embedded LDO



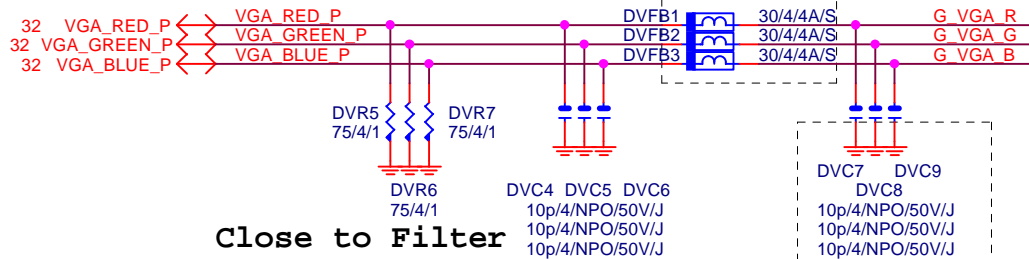
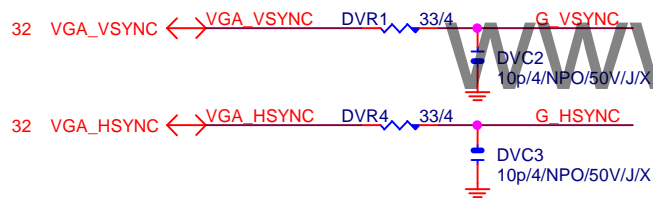
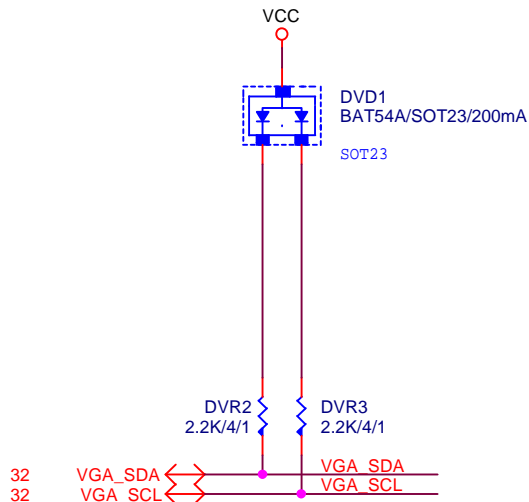
LDO_EN(PIN21)	
0	1
VCCCK_V12 from External 1.2V	VCCCK_V12 from Embedded LDO

DP HPD



Gigabyte Technology
DP-VGA RTD2168

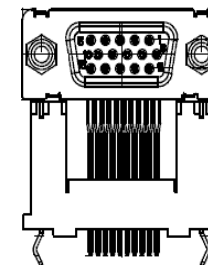
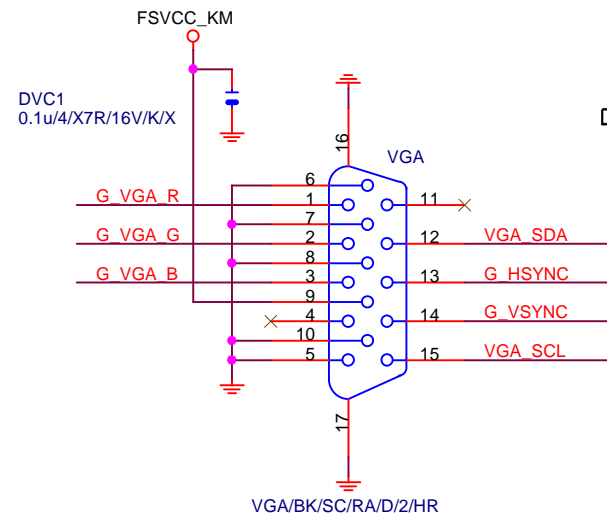
VGA SIGNAL R1.03



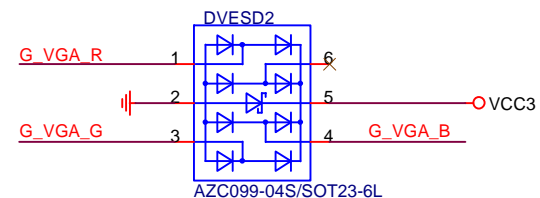
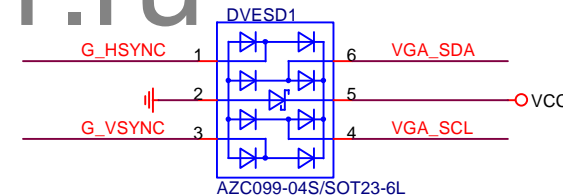
Close to Filter

FOR EMI

VGA CONN.



VGA ESD

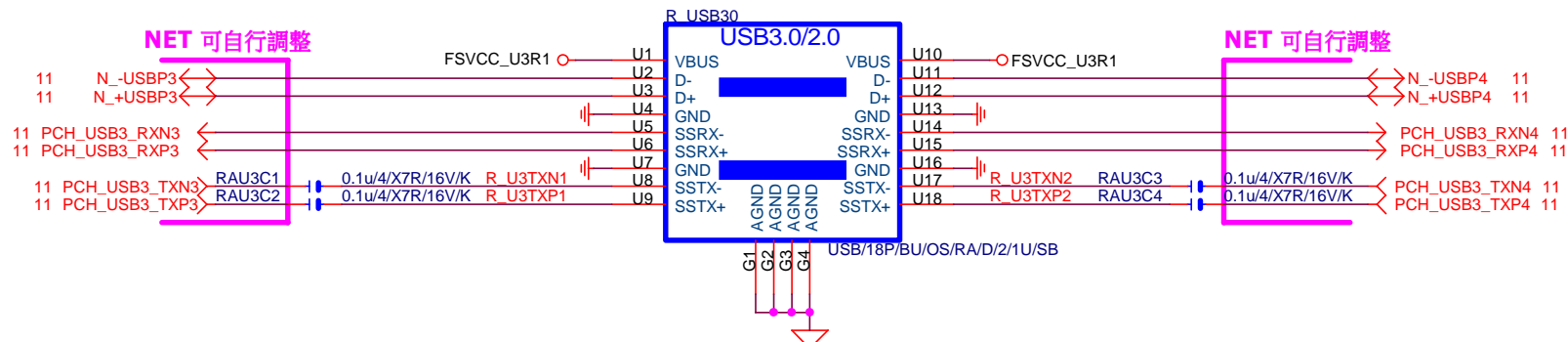


Gigabyte Technology
NXP-PTN3356

Title				Rev 1.0
NXP-PTN3356				
Size Custom	Document Number GA-H110M-S2H-GSM			Rev 1.0
Date:	Friday, September 11, 2015	Sheet	33 of 50	

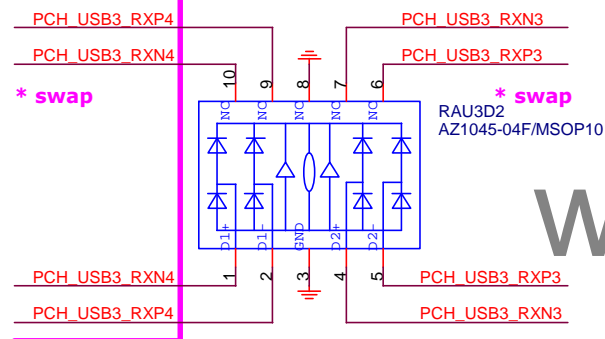
Rev: 0.7

ESD 可自行SWAP PIN ,CONN端 NET 名稱 不可

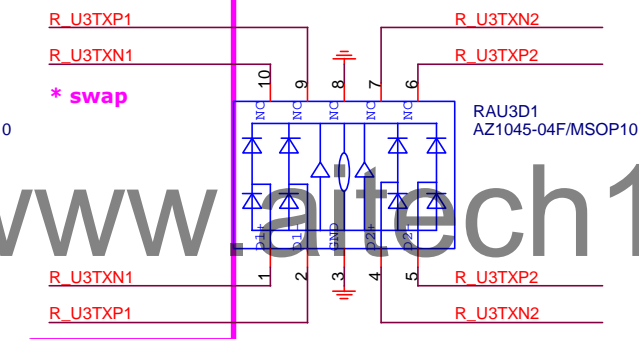


ESD

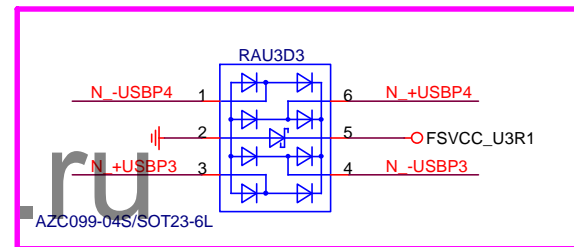
NET 可自行調整



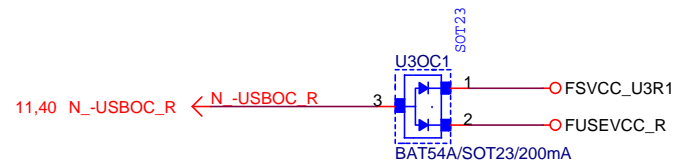
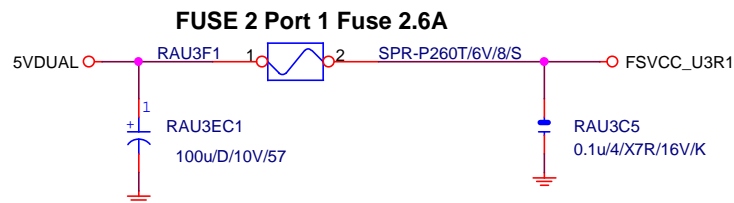
NET 可自行調整



NET 可自行調整



FUSE



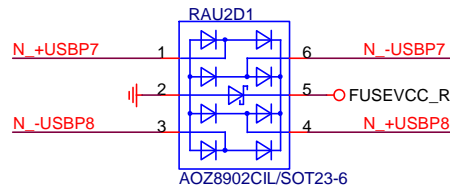
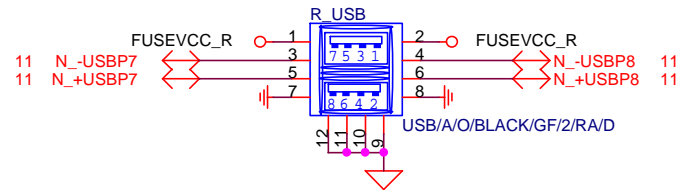
Gigabyte Technology

Title		R_USB30,USB_OC	
Size	Document Number	GA-H110M-S2H-GSM	
Custom		1.0	
Date:	Friday, September 11, 2015	Sheet	34 of 50

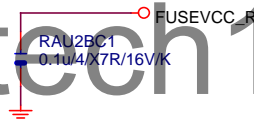
Rev: 0.61

REAR USB1

NET 可變



FUSE 2 Port 1 Fuse 2A

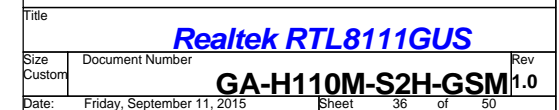


ESD

FUSE

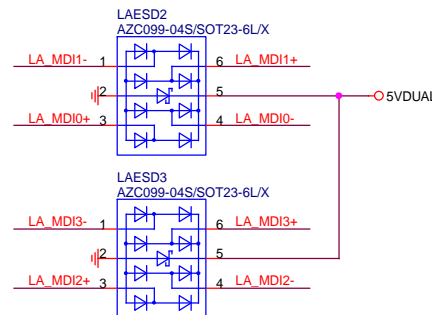
Gigabyte Technology

Title		R_USB30,USB_OC	
Size	Document Number	GA-H110M-S2H-GSM	
Custom		1.0	
Date:	Friday, September 11, 2015	Sheet	35 of 50



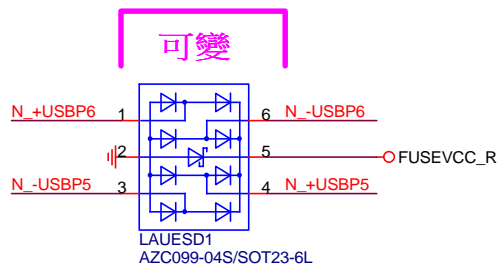
MDI ESD預留 *

MDI ESD預留

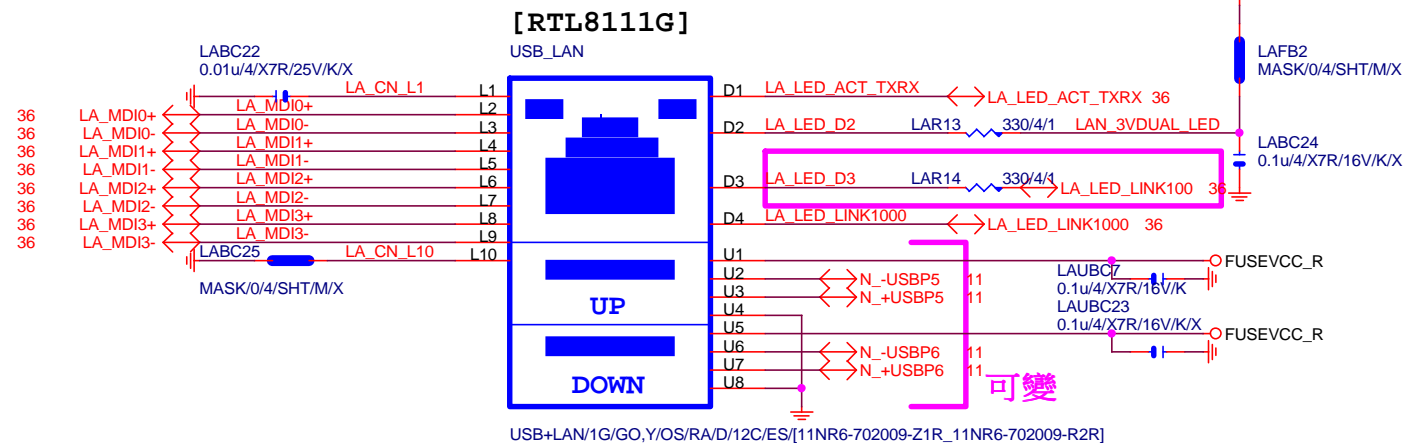


R1.06

note:可變更USB NAME



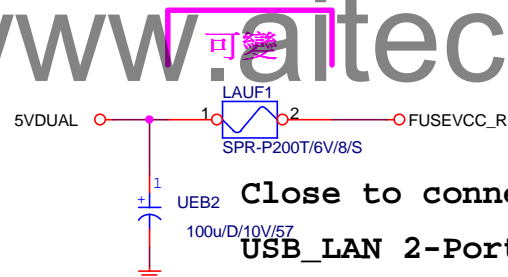
note:可變更USB NAME



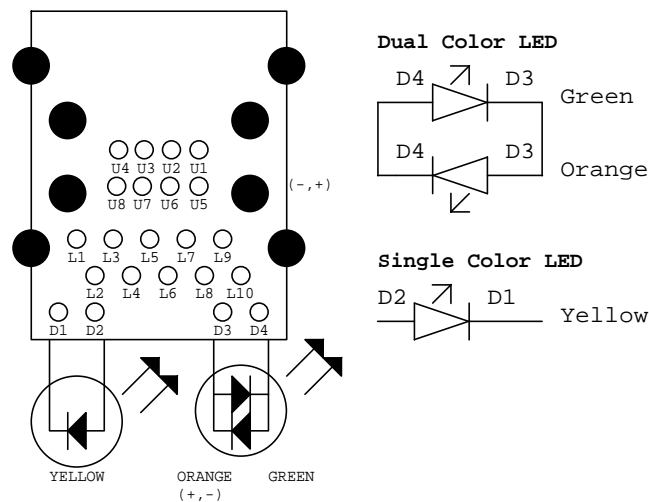
LA MDI-->100歐姆:[20/4/8/4/20]

USB POWER

note:可變更FUSE

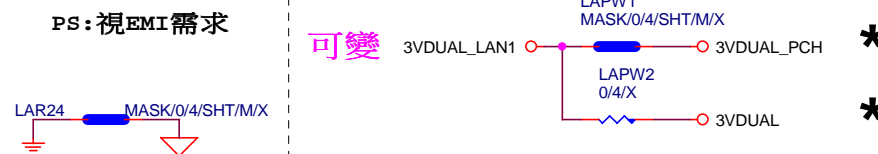


Close to connector
D/10V/57
USB_LAN 2-Port 2.0A
FUSE-0805



LAN POWER

note: lan power連接及電流



Gigabyte Technology

LAN CONNECTOR-RTL8111G

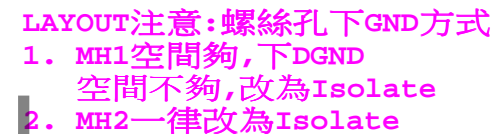
Size	Document Number
Custom	

GA-H110M-S2H-GSM

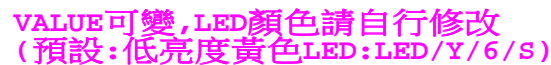
Rev	1.0
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Date: Friday, September 11, 2015

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DGND	Isolate	

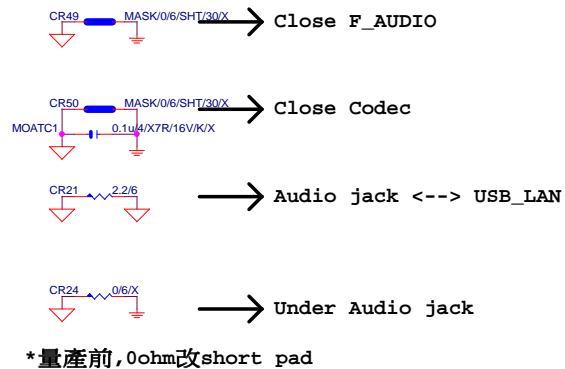


BOM OPTION : 1. Chemicon音效電容
2. 金屬外罩 Reserve (上件與否,依照各Model spec)
3. LED Reserve (上件與否和LED顏色,依照各Model spec)

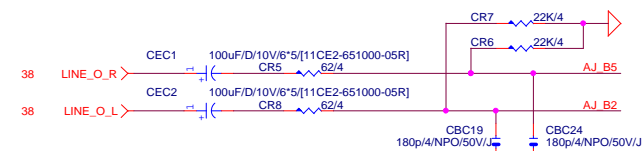
LAYOUT注意:要加
GND切割線

音效區域印刷

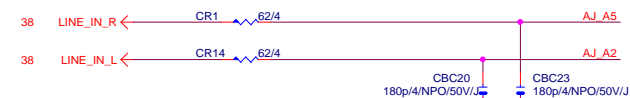
Rev 0.5



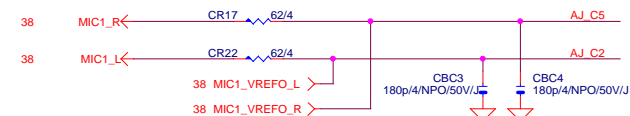
LINE-OUT



LINE-IN

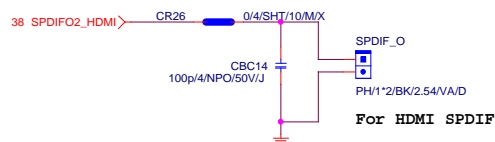


MIC-IN



SURROUND

SPDIF_OUT

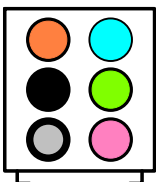


SPDIF_IN

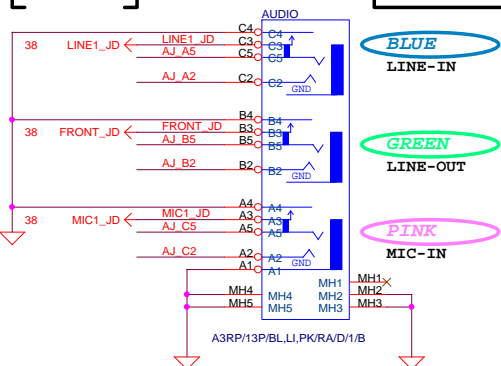
CEN/LFE

SURRBACK

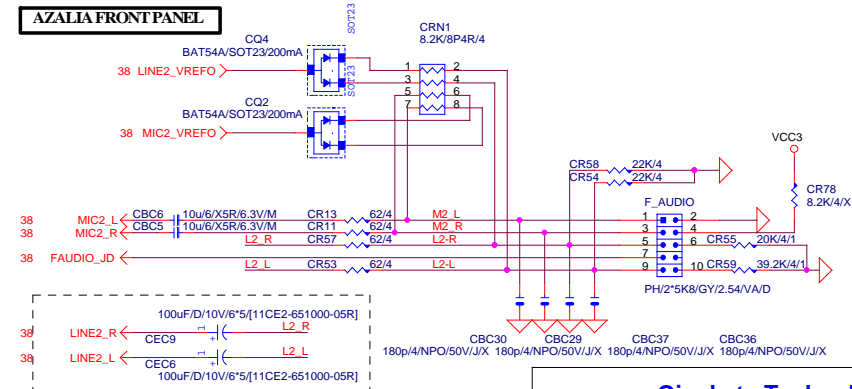
AZALIA JACK



AZALIA JACK



AZALIA FRONT PANEL

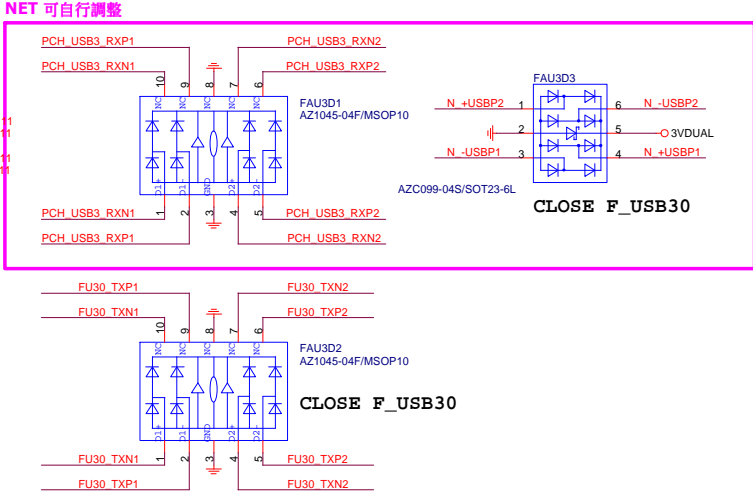
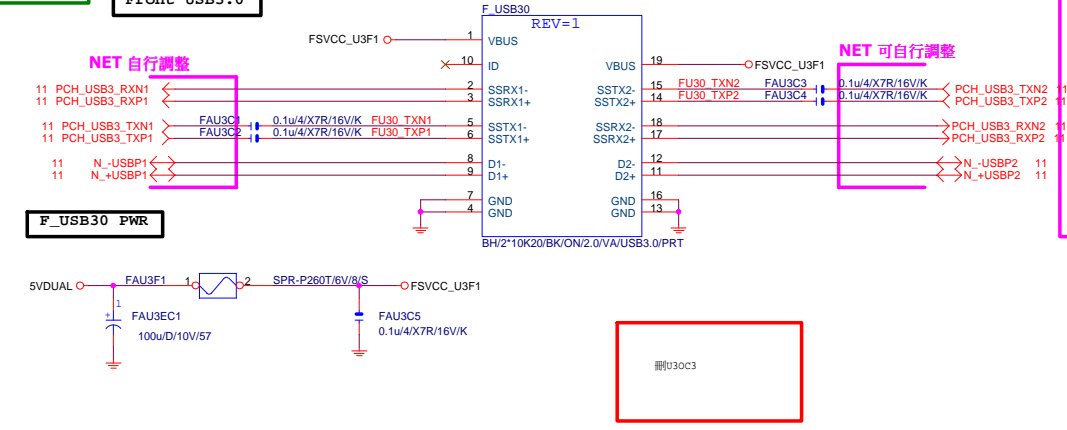


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Title			
AUDIO JACK			
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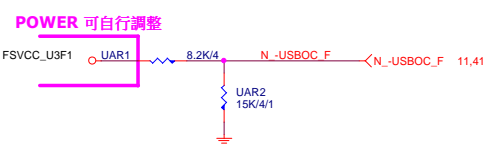
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Front USB3.0

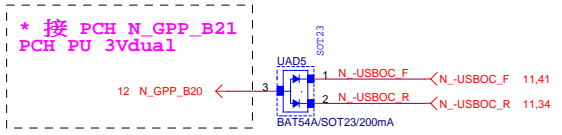
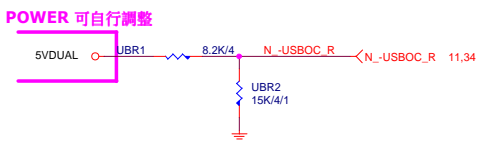


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-USBOC_F



-USBOC_R

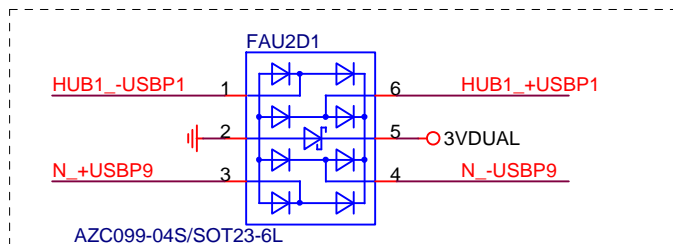
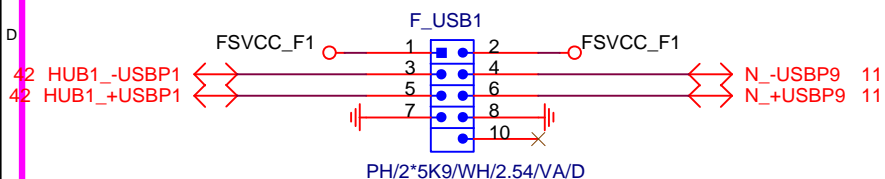


Rev: 0.61

FRONT USB1

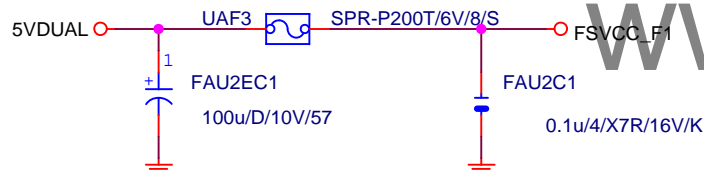
NET 可變

FUSB2X5-HS



Close to connector

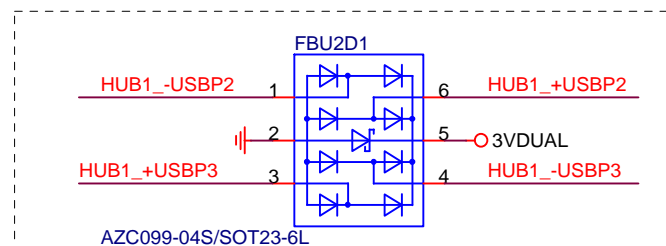
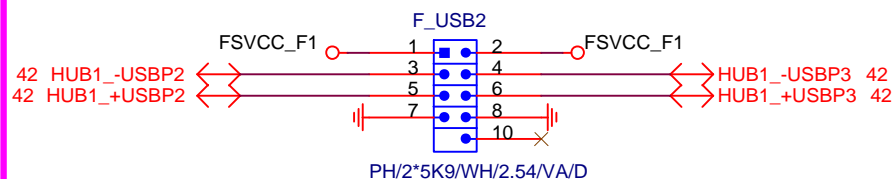
FUSE 2 Port 1 Fuse 2A



FRONT USB2

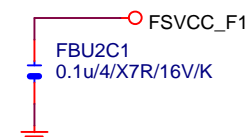
NET 可變

FUSB2X5-HS

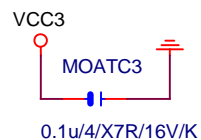
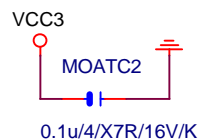
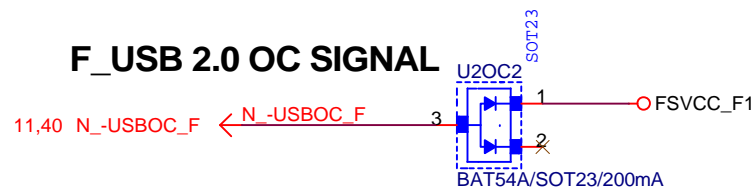


Close to connector

FUSE 2 Port 1 Fuse 2A



F_USB 2.0 OC SIGNAL



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Title

USB2.0

Size
A

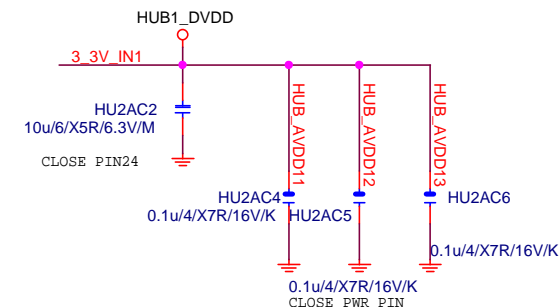
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GA-H110M-S2H-GSM

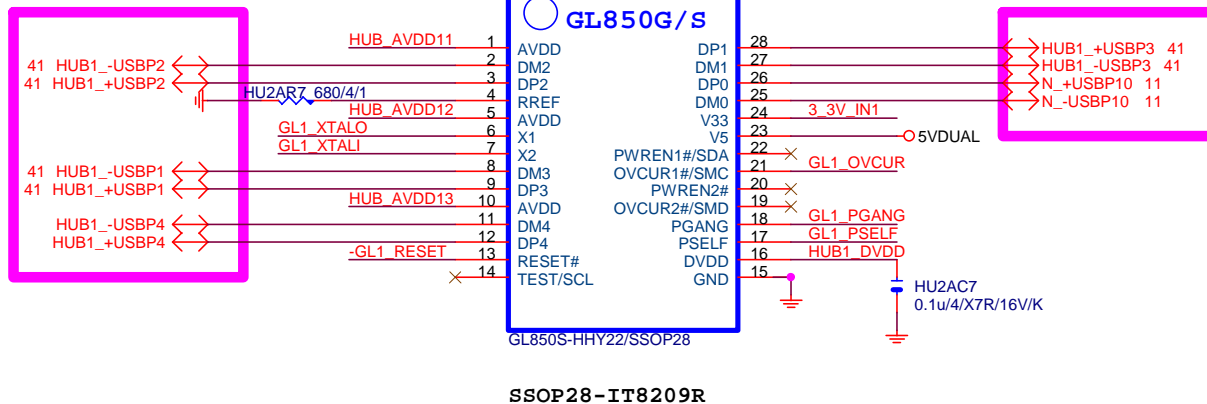
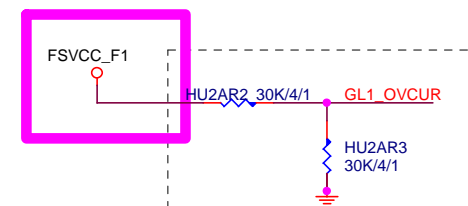
Date: Friday, September 11, 2015

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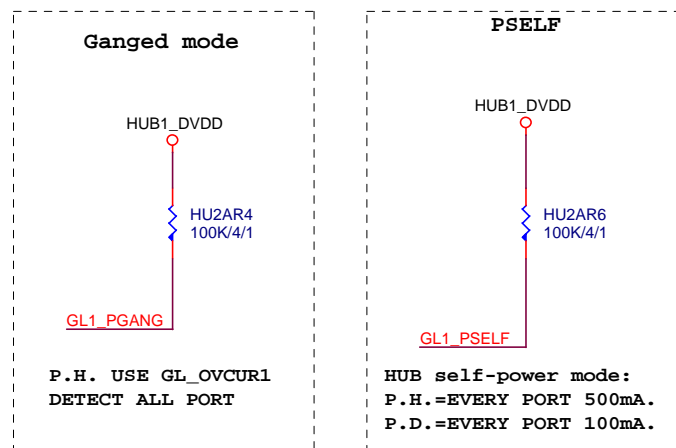
Rev
1.0



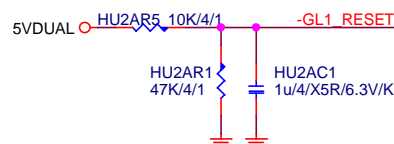
HUB OVER CURRENT SENSE



HUB MODE

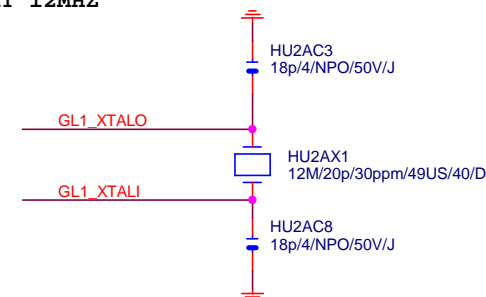


HUB RESET



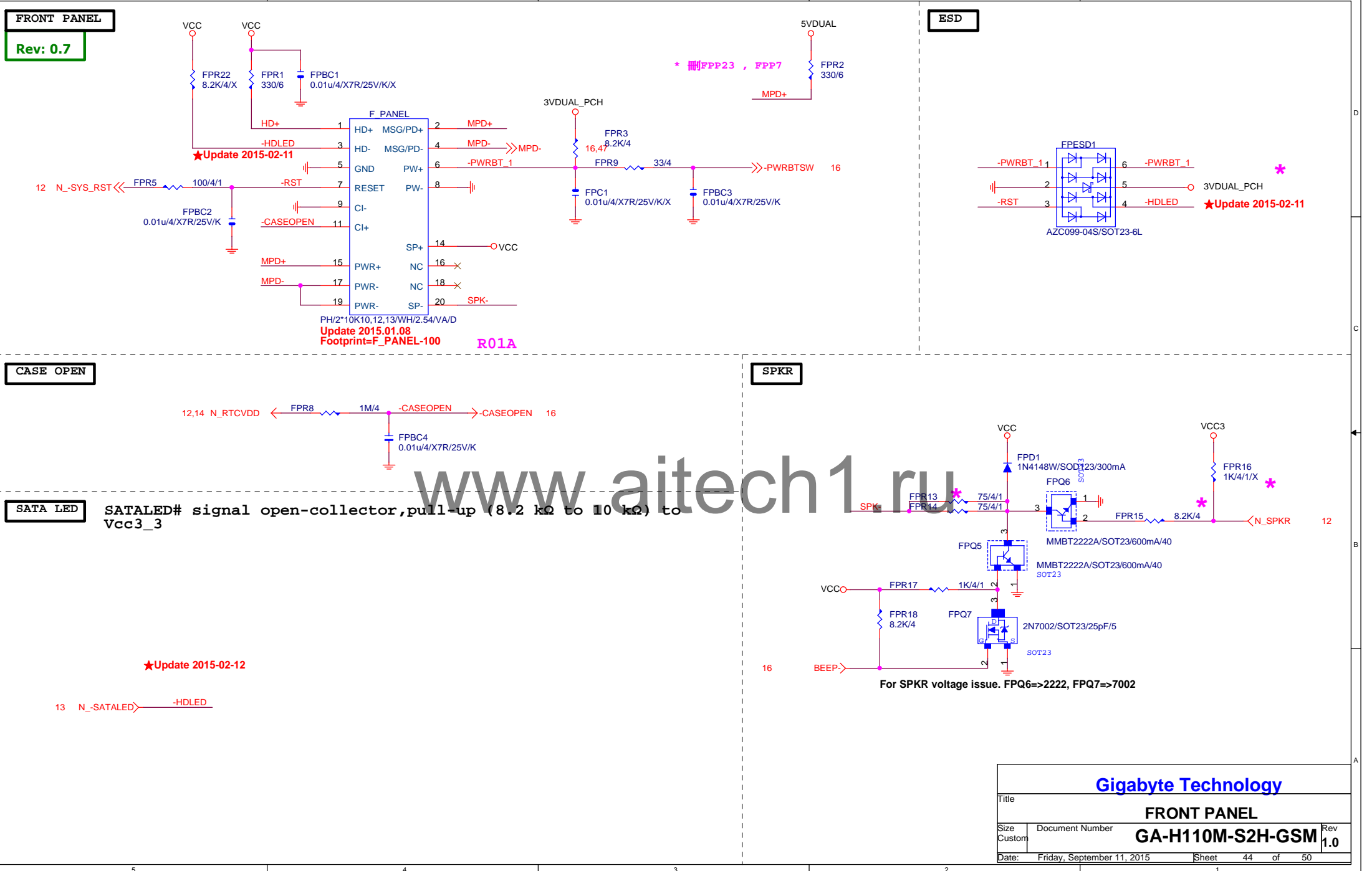
HUB CRYSTAL

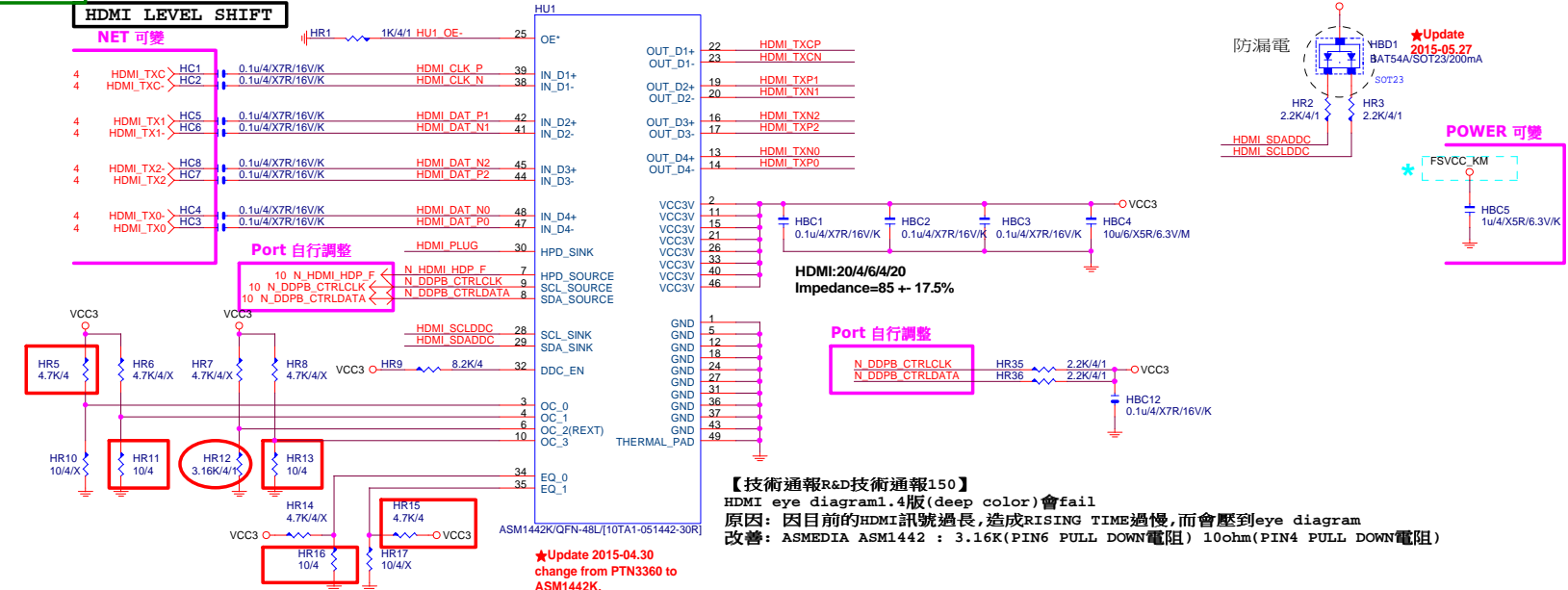
ONLY SUPPORT 12MHZ



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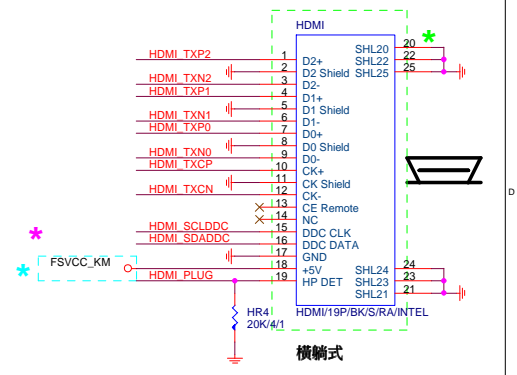
Title			
HUB GL850GS_1			
Size	Document Number	Rev	
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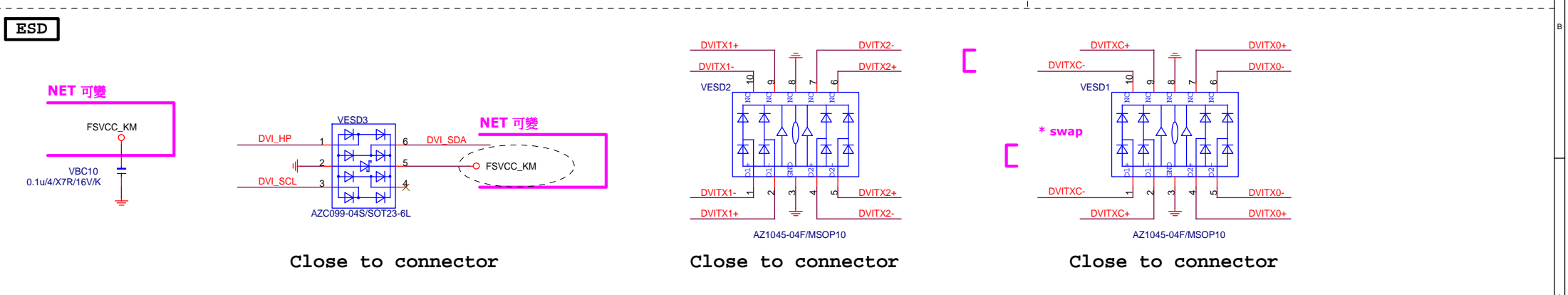
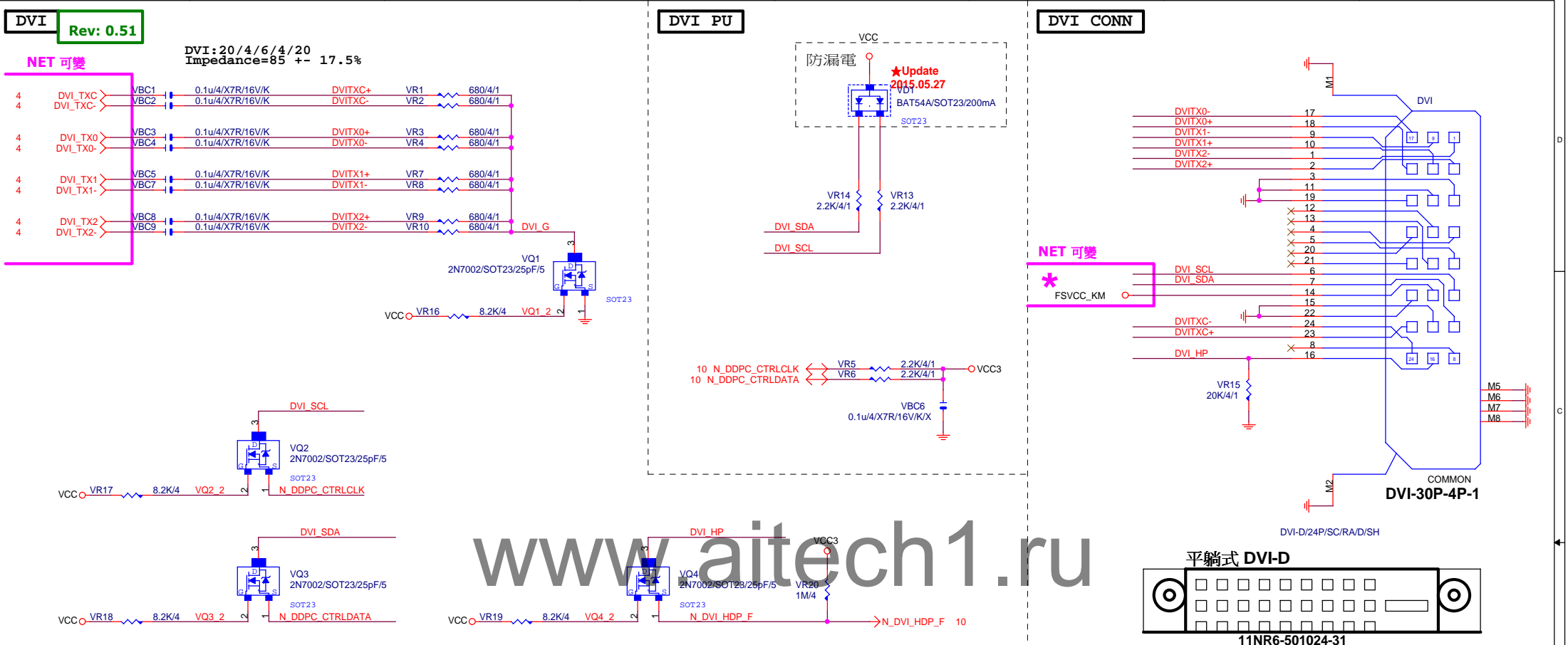


PTN3360:PIN 4/10/34/35 NC PIN,都不上值;只上HR12:10K
ASM1442:紅色框要上,HR12:3.16K

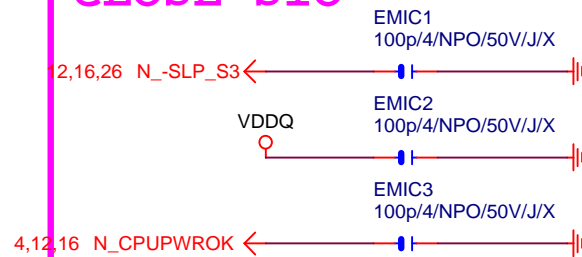
【技術通報R&D技術通報150】
HDMI eye diagram1.4版(deep color)會fail
原因: 因目前的HDMI訊號過長,造成RISING TIME過慢,而會壓到eye diagram
改善: ASMEDIA ASM1442 : 3.16K(PIN6 PULL DOWN電阻) 10ohm(PIN4 PULL DOWN電阻)



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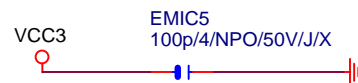
CLOSE SIO



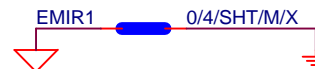
CLOSE PCH



close to PCH (NR17)



R_USB30_2 & DVI 之間



close to SIO (PIN92)MPD-

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Title

EMI/ESDSize
A

Document Number

GA-H110M-S2H-GSM

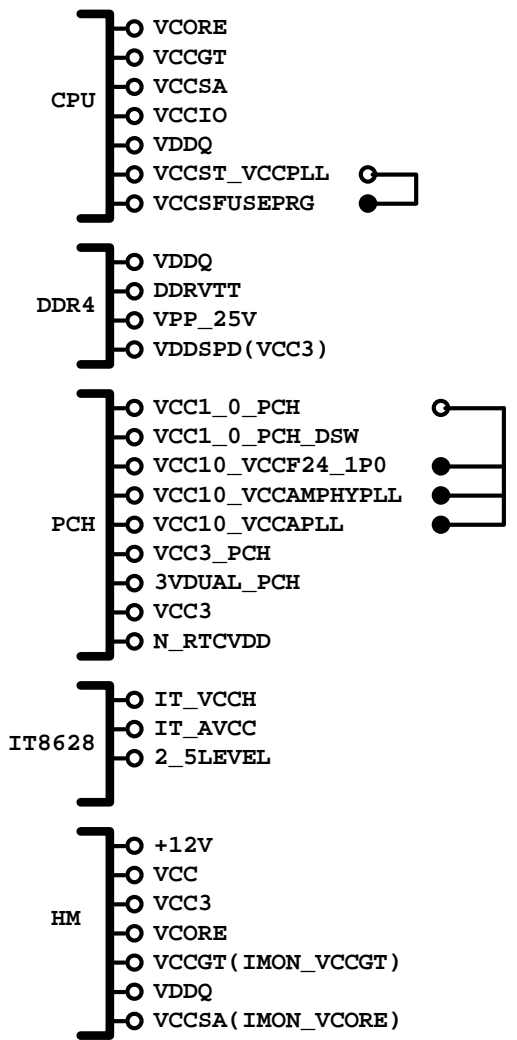
Rev

1.0

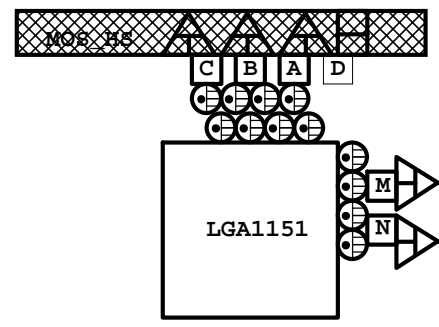
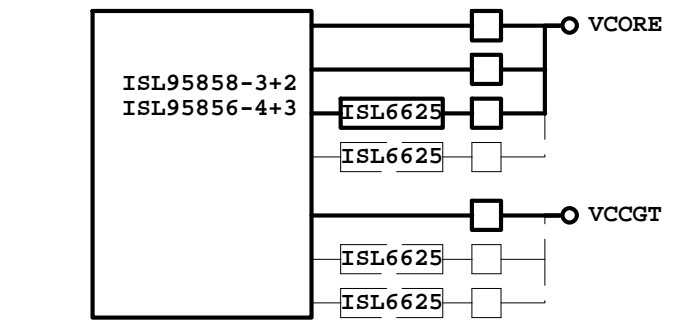
Date: Friday, September 11, 2015

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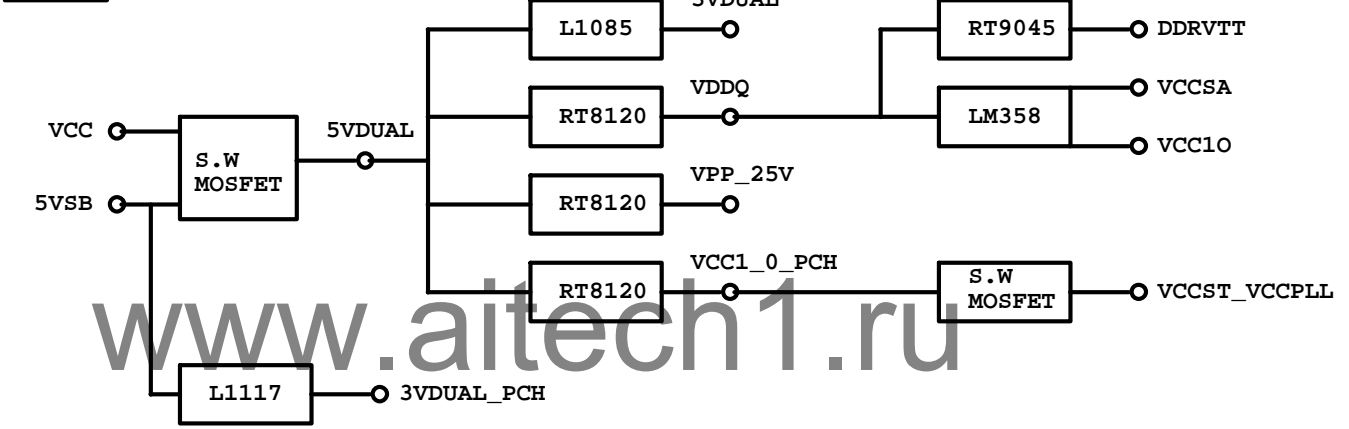
POWER BLOCK MAP



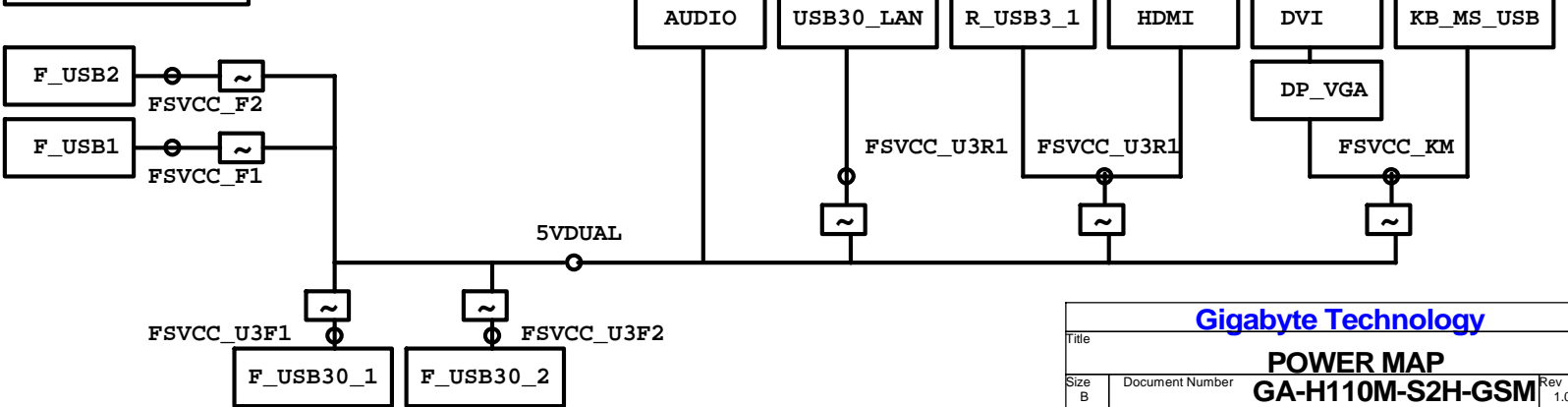
VCORE/VCCGT



POWER



FUSE POWER F/R



固態電容料號.請自行修改

日系黑色固態	Capture Value
11C02-C85600-01R	560u/FP/D/6.3V/68/C/8m
11C05-C82700-01R	270u/FP/D/16V/88/C/12m
11C05-C61000-01R	100u/OS/D/16V/66/C/30m
11C02-C51000-01R	100u/FP/D/6.3V/65/C/13m

日系一般固態	Capture Value
11C02-685600-01R	560u/FP/D/6.3V/68/8m
11C05-882700-01R	270u/FP/D/16V/88/12m
11C05-661000-03R	100u/OS/D/16V/66/30m
11C02-651000-02R	100u/OS/D/6.3V/66/30m

台系固態	Capture Value
11C02-661000-09R	100u/OS/D/6.3V/66/A/35m
11C05-691000-09R	100u/OS/D/16V/69/A/35m
11C05-8C2700-09R	270u/FP/D/16V/8C/A/10m
11C02-695600-09R	560u/FP/D/6.3V/69/A/11m

IRON CHOKE

	料號	Capture Value	SIZE	Footprint
DIP	11LC5-M4500C-01R	0.5uH/40A/IMD109/M/D	10*10	CHOKE05U-40A-1PQ-3
DIP	11LC5-M2500C-01R	0.5uH/20A/IMD0809/M/D	8*8	CHOKE1U-R50M-IF

Ferrite

	料號	Capture Value	SIZE	Footprint
DIP	11LC5-F3500C-11R	0.5uH/32A/INCG109/FSI/D	10*10	CHOKE05U-40A-1PQ-3
DIP	11LC5-F2500C-11R	0.5uH/25A/INC0809/F/D	8*8	CHOKE1U-R50M-IF
SMD	未建(SIUC1007-R30M-JJ1W)		10*7	CHOKE11X8MM-SMD

BEAD

	料號	Capture Value	SIZE	Footprint
DIP	10LFB-15470A-01R	47/4030/15A/S	4*3	BEADC8B-BPH_SMD

PWM料號

	料號	Capture Value	Footprint
PWM	ISL95856	10TA1-695856-01R	IC52QFN-6x6-G
PWM	ISL95858	10TA1-695858-01R	IC52QFN-6x6-G
PWM	IR35201	10TA1-635201-00R	IC56QFN-9VRS4339
PWM	IR3570	10TA1-603570-00R	IC40MLFP-ISL95835

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Title

RT8120_DDR4 POWER

Size Custom

Document Number

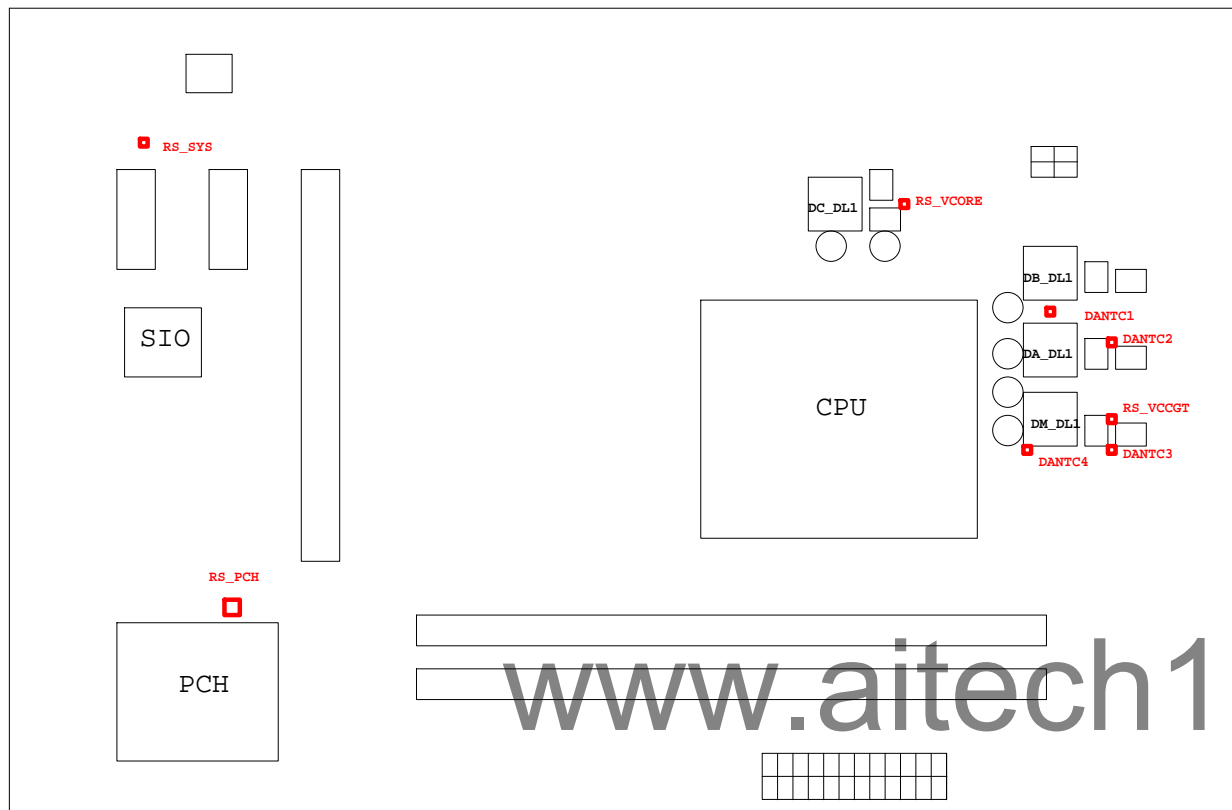
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熱敏電阻	擺放靠近位置	走線方式
DANTC4	DM_DL1	Differential
DANTC1	DA_DL1	Differential
DANTC3	DM_DQ1	Differential
DANTC2	DA_DQ1	Differential
RS_VCORE	DA_DQ1	N/A
RS_VCCGT	DM_DQ1	N/A
RS_PCH	PCH	N/A
RS_SYS	CU1	N/A