

Model Name: GA-H61M-DS2 HDMI

Revision 1.0

SHEET

TITLE

01	COVER SHEET
02	BOM & PCB MODIFY HISTORY
03	BLOCK DIAGRAM
04	CPU_LGA1155-A
05	CPU_LGA1155-B
06	CPU_LGA1155-C
07	DDR III CHANNEL A
08	DDR III CHANNEL B
09	PCH_FDI,DMI,USB,PCIE,NVRAM
10	PCH_DP,CLK BUFFER
11	PCH_HOST,SATA,PCI
12	PCH_GPIO,CTRL,AUDIO
13	PCH_PWR,GND
14	PCI EXPRESS*16 SLOT
15	PCI EXPRESS*1x2 SLOT
16	ITE 8728 LPC IO
17	COMA,KB_MS,R_USB,-PROCHOT
18	HWM,FAN CTRL,OV
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22	REAR AUDIO JACK
23	REALTEK 8111E/USB_LAN
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25	ATX,-S_WARN,-S_ACK,5VDUAL
26	Richtek_RT8120_CPU_VTT
27	VCORE INTERSIL_95836_1

SHEET

TITLE

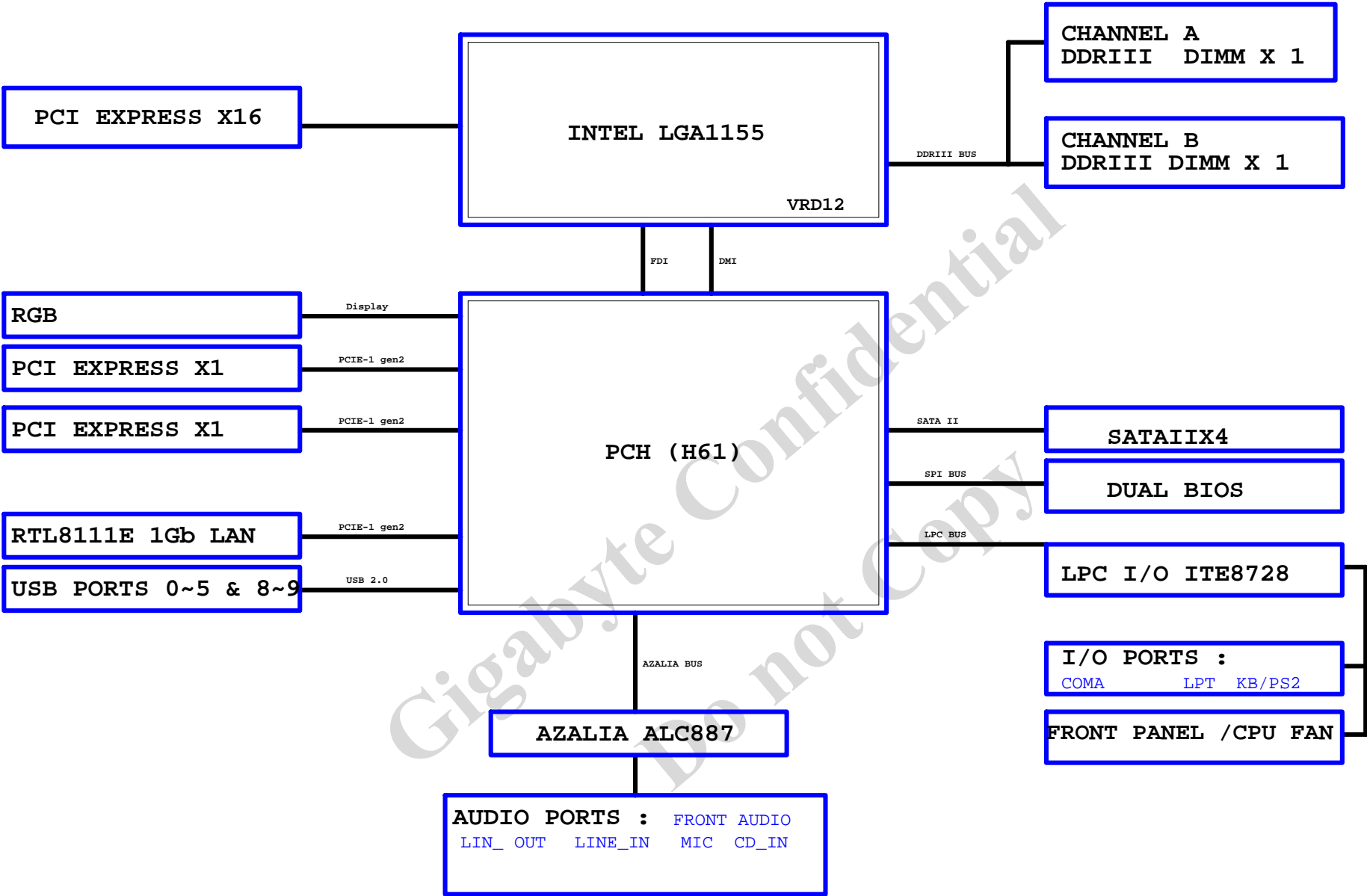
28	VCORE INTERSIL_95836_2
29	VCORE INTERSIL_95836_3
30	LPT
31	HDMI

Gigabyte Technology			
Cover Sheet			
Title	GA-H61M-DS2 HDMI		
Size	Document Number	Rev	1.0
Custom			
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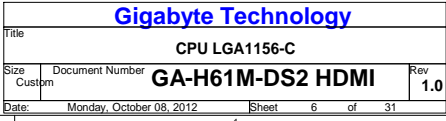
Revision 1.0

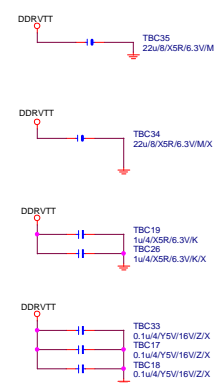
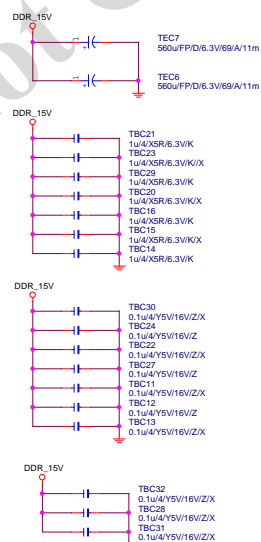
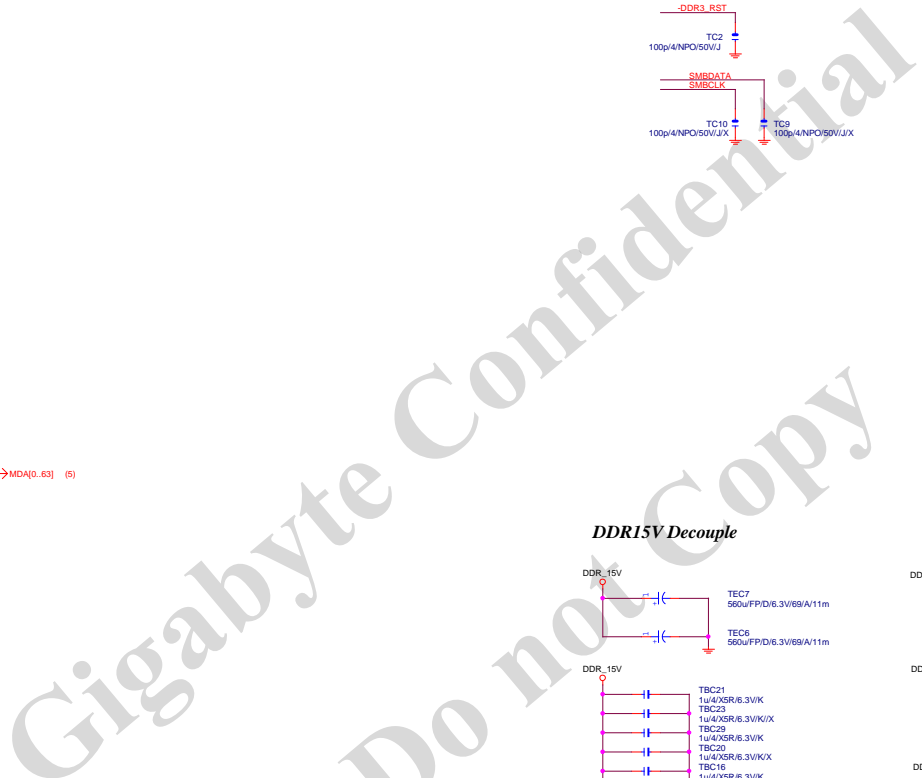
2012/09/19

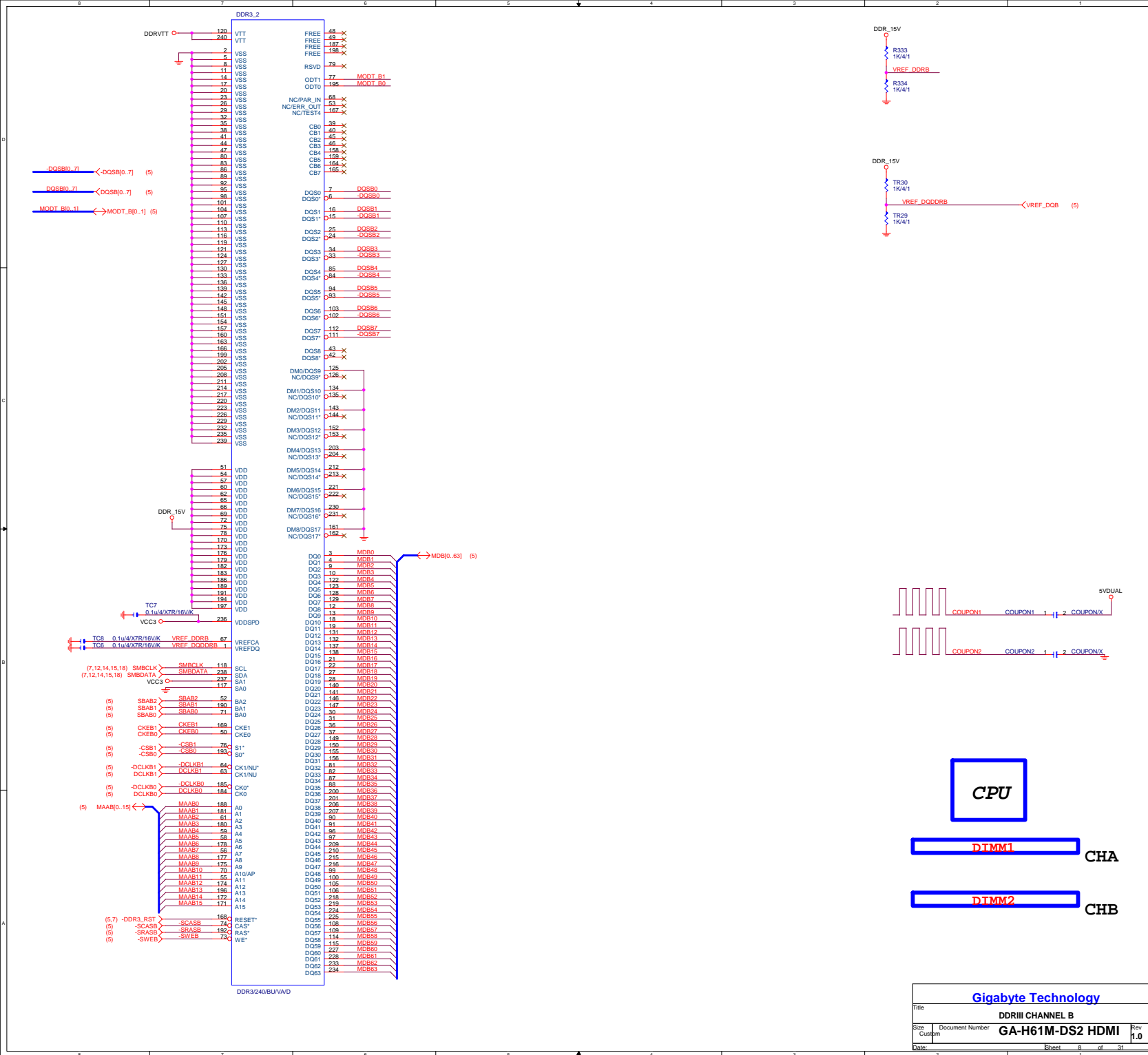
BLOCK DIAGRAM

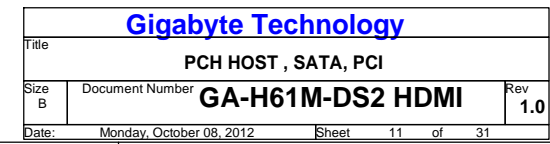




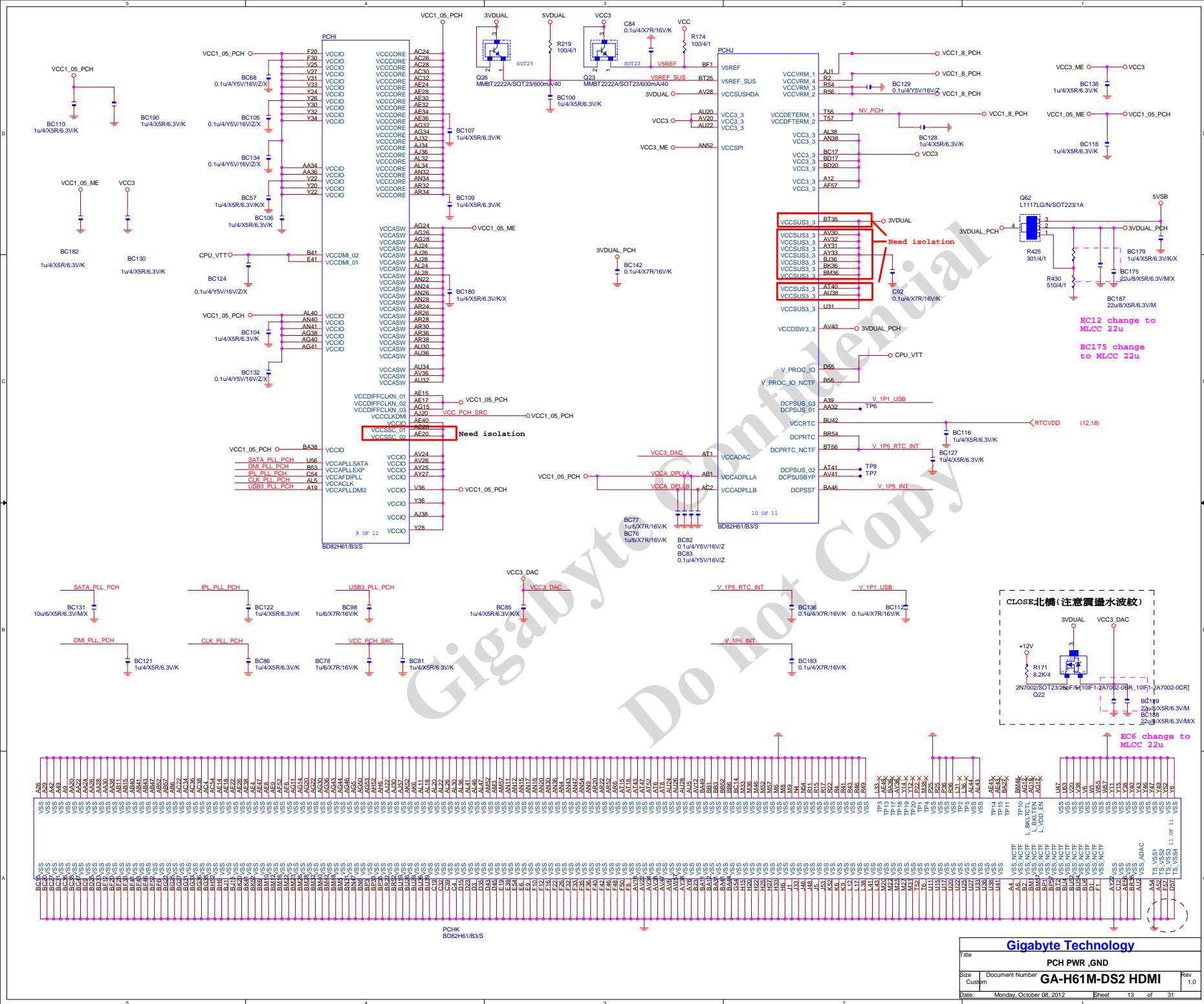




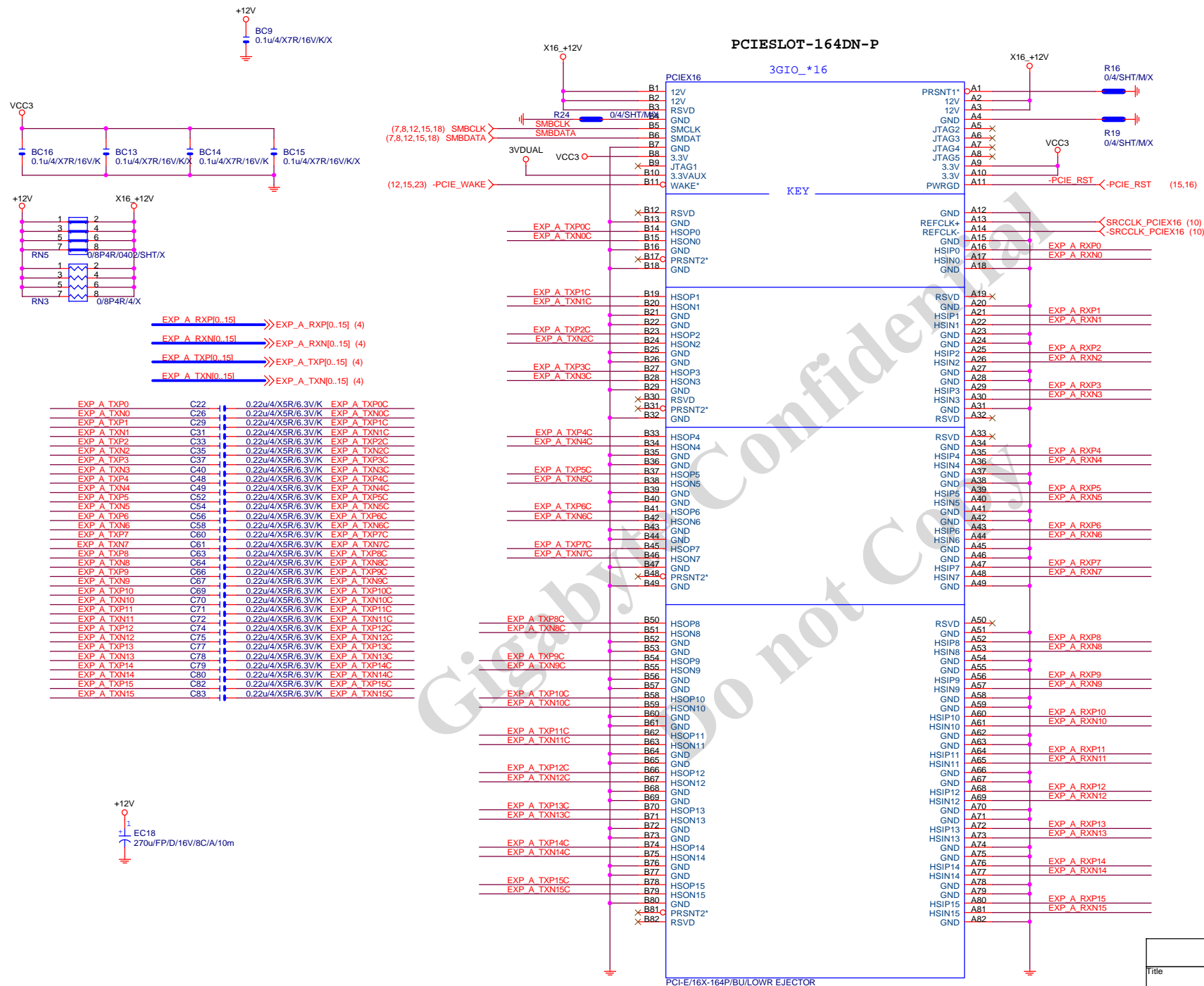




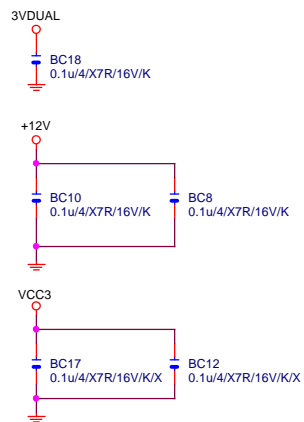
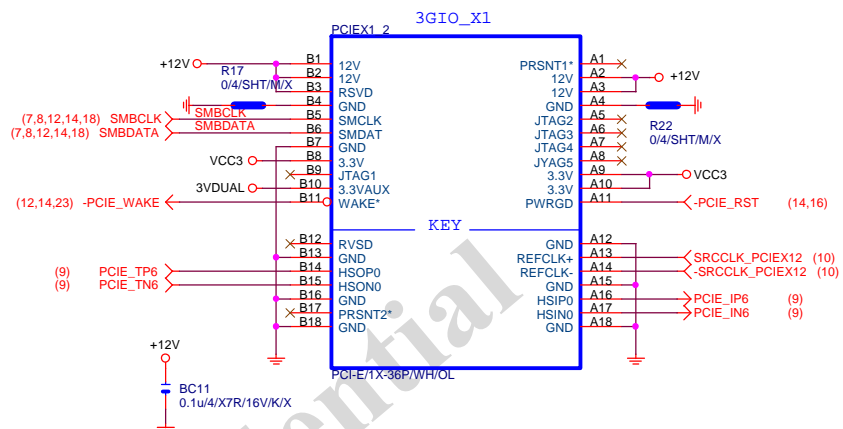
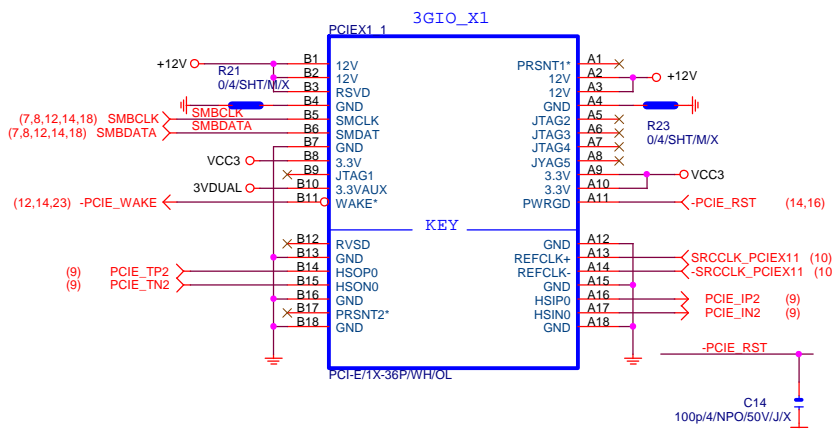
H1X7-SATA2-HS-MASK



EC6D_8D10MM-RH



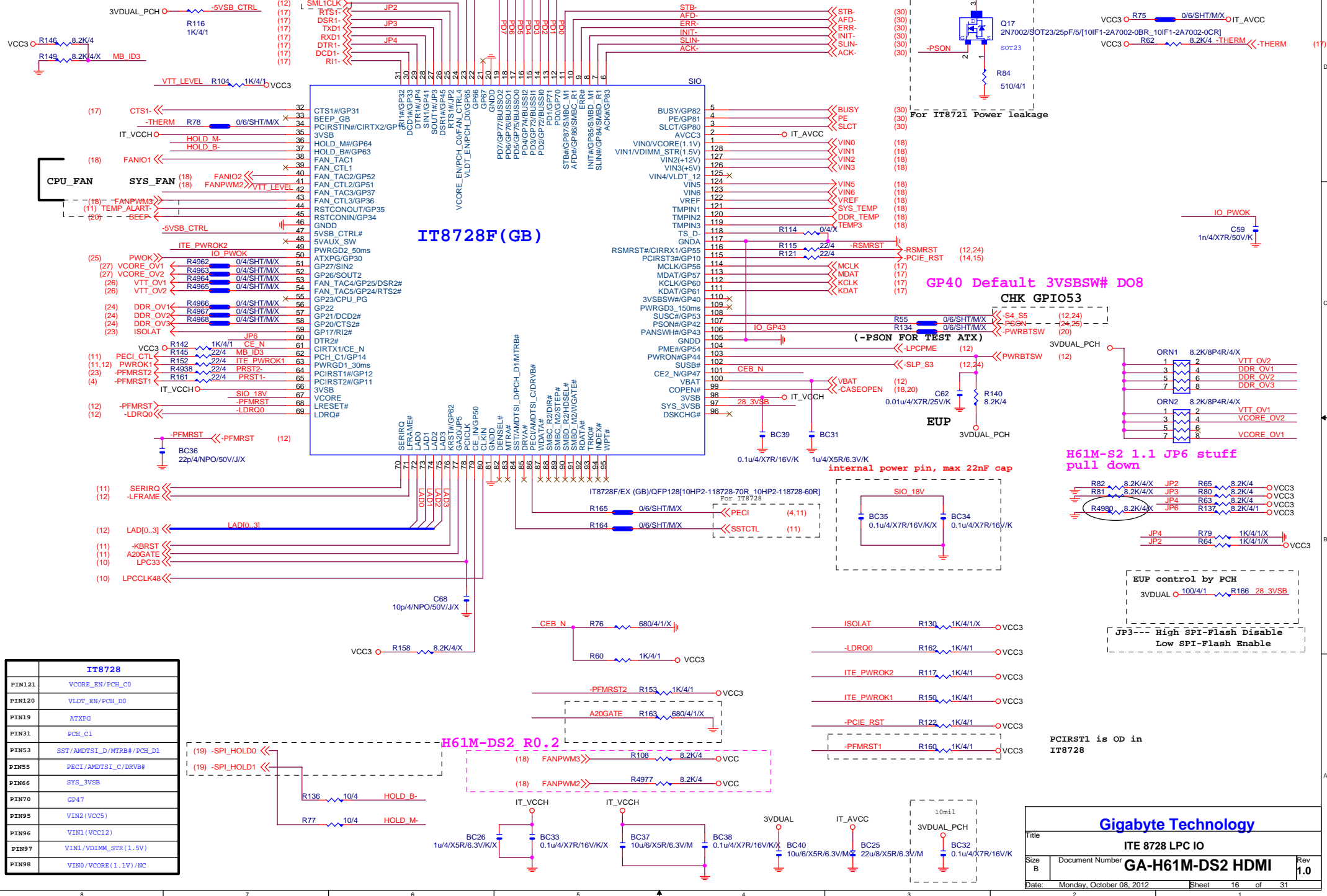
PCIE*1



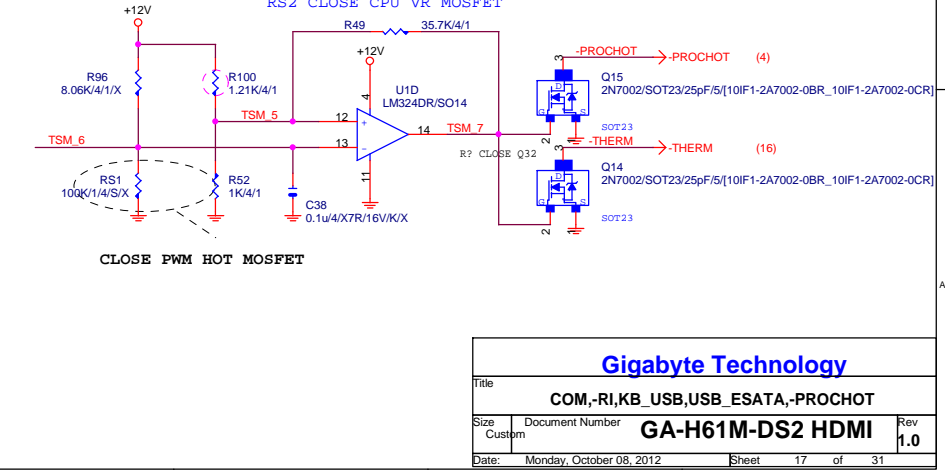
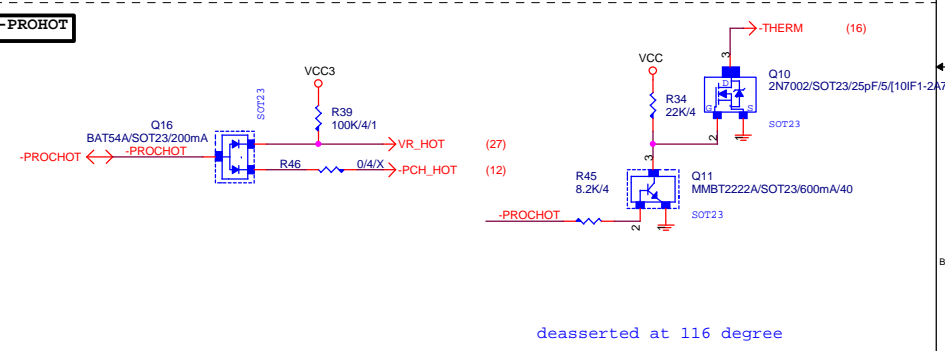
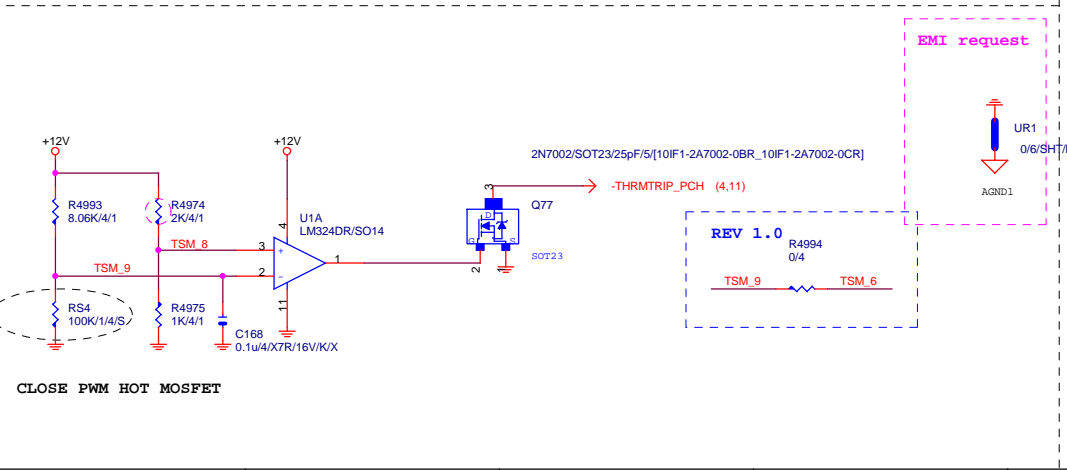
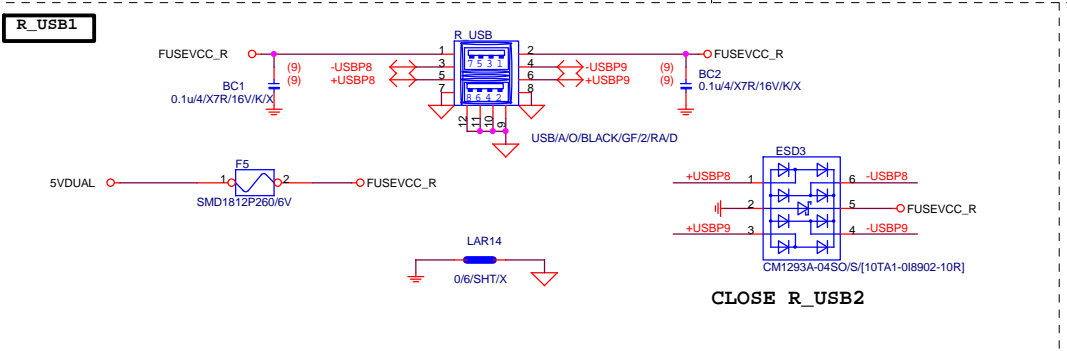
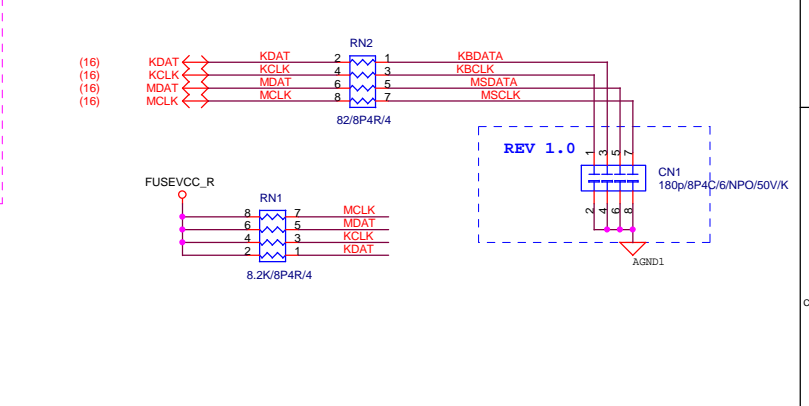
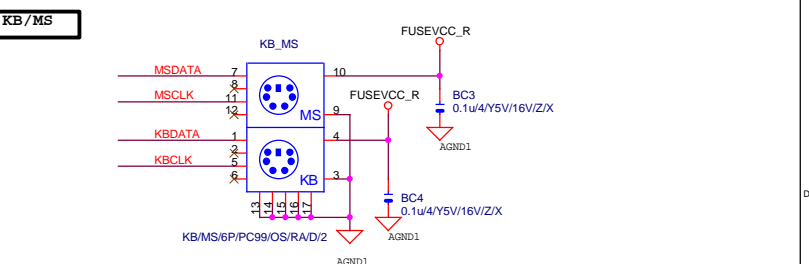
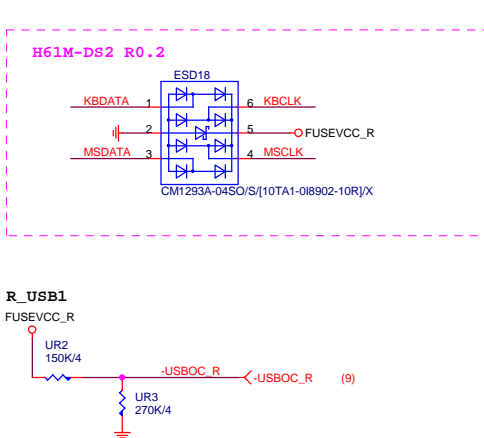
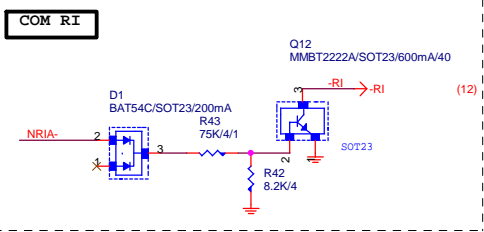
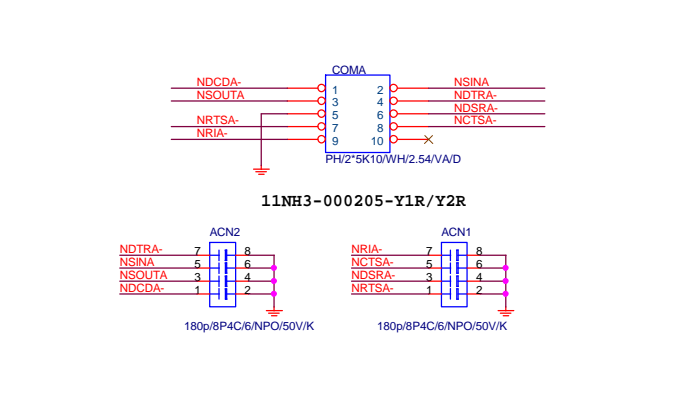
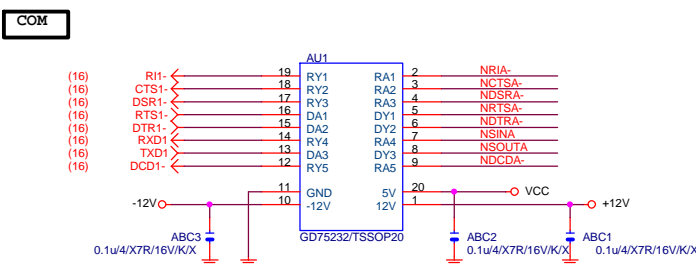
CLK GEN

Gigabyte Technology			
Title			
PCIEX1,X2/CLK GEN			
Size	Document Number	GA-H61M-DS2 HDMI	
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GP23 Default CPU_PG DOD8

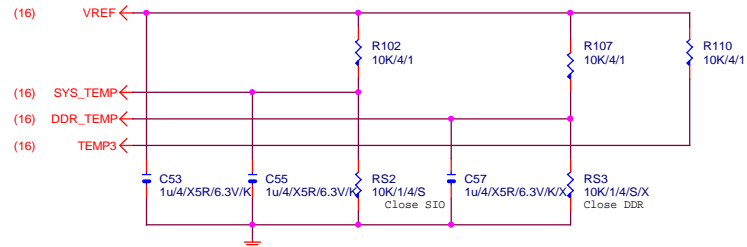


	IT8728
PIN121	VCORE_EN/PCH_C0
PIN120	VLDT_EN/PCH_D0
PIN19	ATXP0
PIN31	PCH_C1
PIN53	SST/AMDTSI_D/MTRB#/PCH_D1
PIN55	PECI/AMDTSI_C/DRV#
PIN66	SYS_3VSB
PIN70	GP47
PIN95	VIN2(VCC5)
PIN96	VIN1(VCC12)
PIN97	VIN1/VDIMM_STR(1.5V)
PIN98	VIN0/VCORE(1.1V)/NC

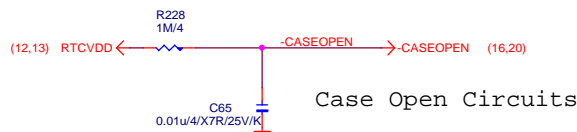


Gigabyte Technology			
Title			
COM,-RI,KB_USB,USB_ESATA,-PROCHOT			
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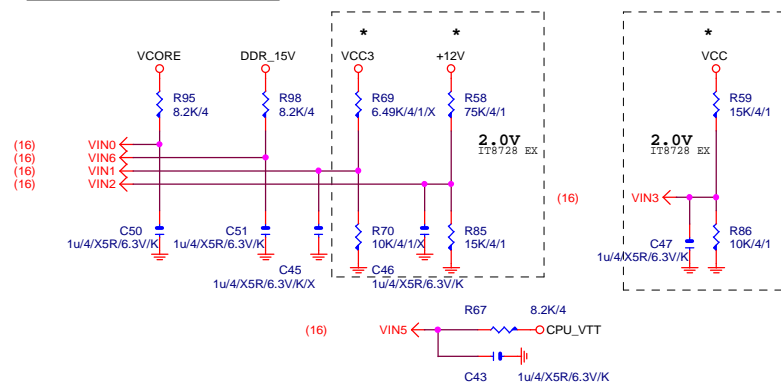
TEMP H/W MONITOR



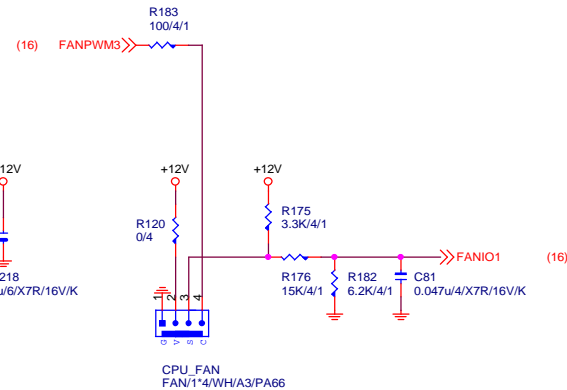
CASE OPEN



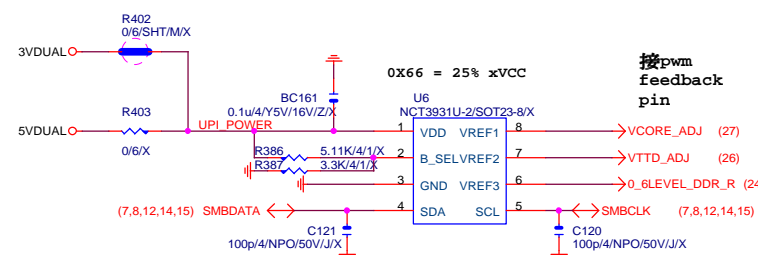
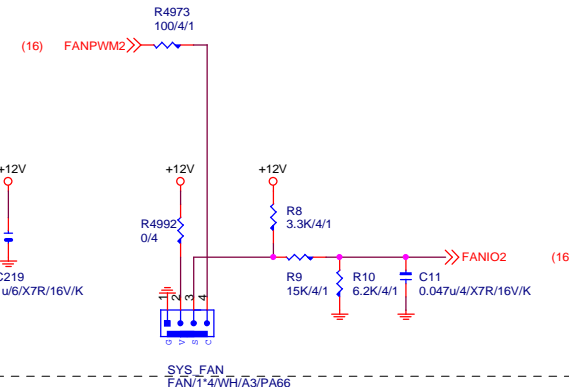
VOLTAGE-- H/W MONITOR



CPU SMART FAN



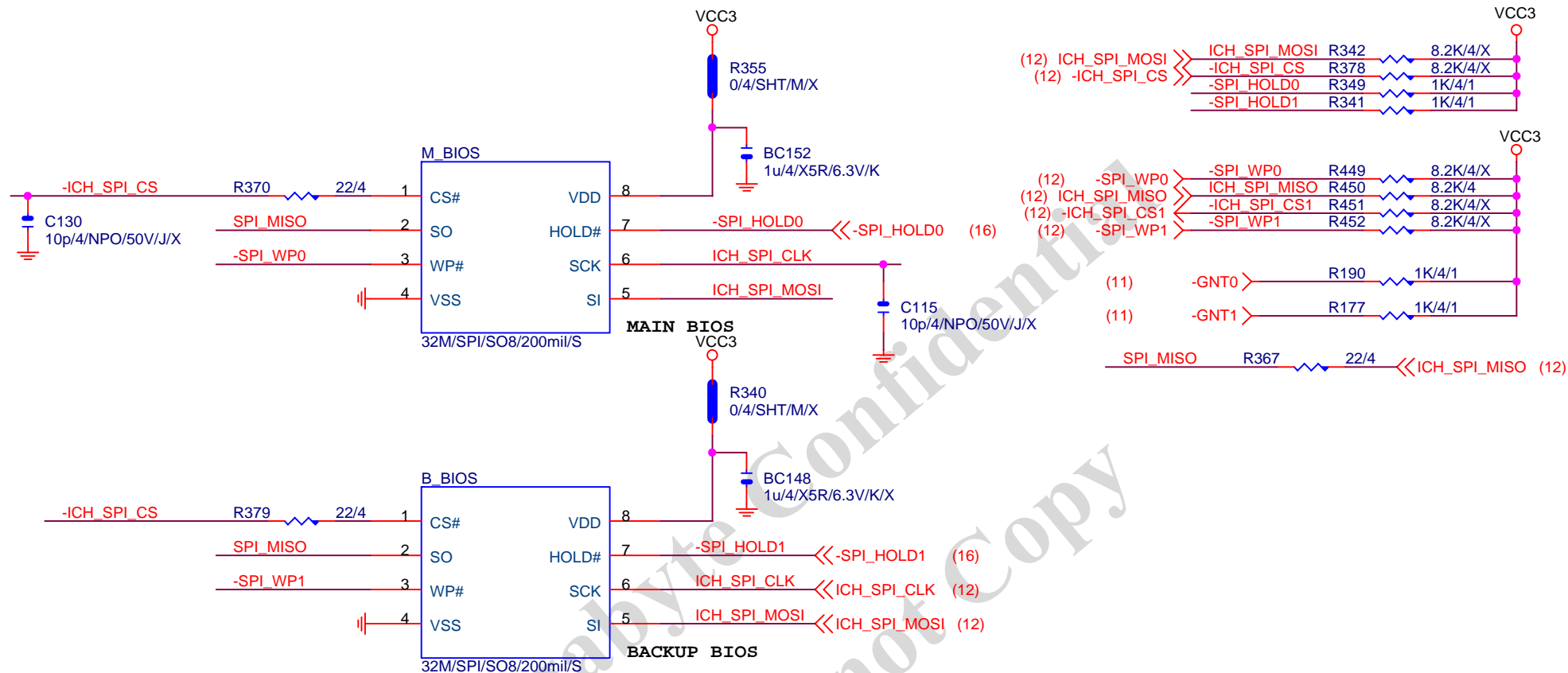
SYS SMART FAN



Gigabyte Technology

Title		
HWM,FAN CTRL,OV		
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DUAL BIOS



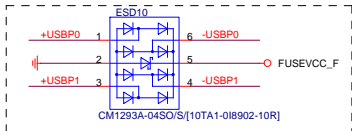
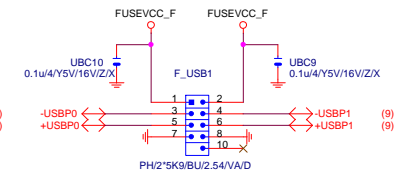
BOOT DEVICE	GNT1	GNT0
LPC	0	0
PCI	0	1
SPI	1	1

1 means floating
0 means PD 1K

Gigabyte Technology

Title		
DUAL BIOS		
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FRONT USB1

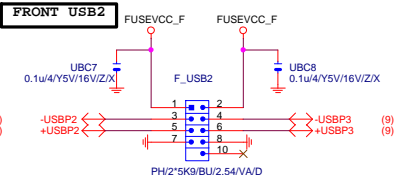
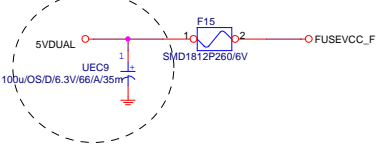


Close to connector

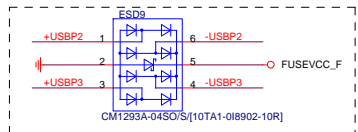
SATA LED



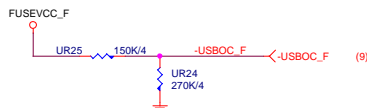
CLOSE F_USB1



FRONT USB3

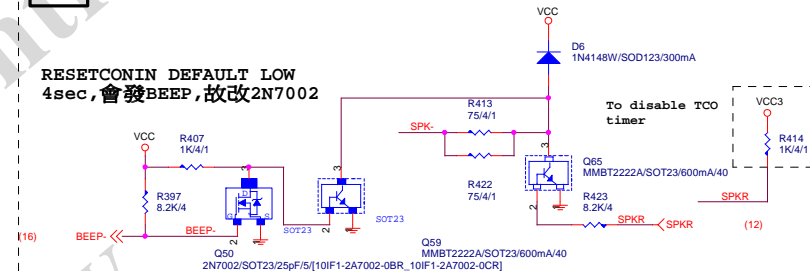


Close to connector

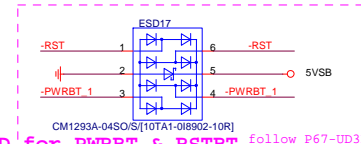


SPKR

RESETCONIN DEFAULT LOW
4sec, 會發BEEP, 故改2N7002

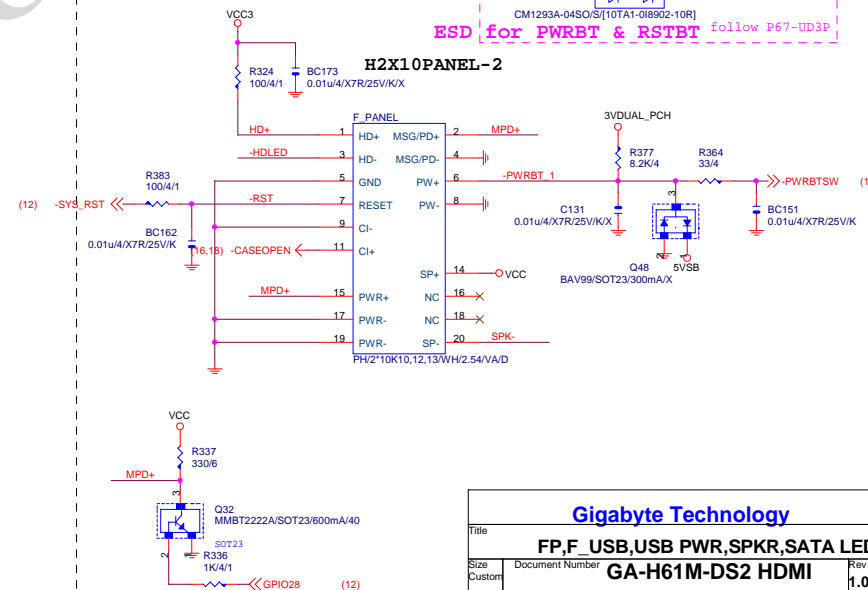


INTEL FRONT PANEL



ESD for PWRBT & RSTBT follow P67-UD3P

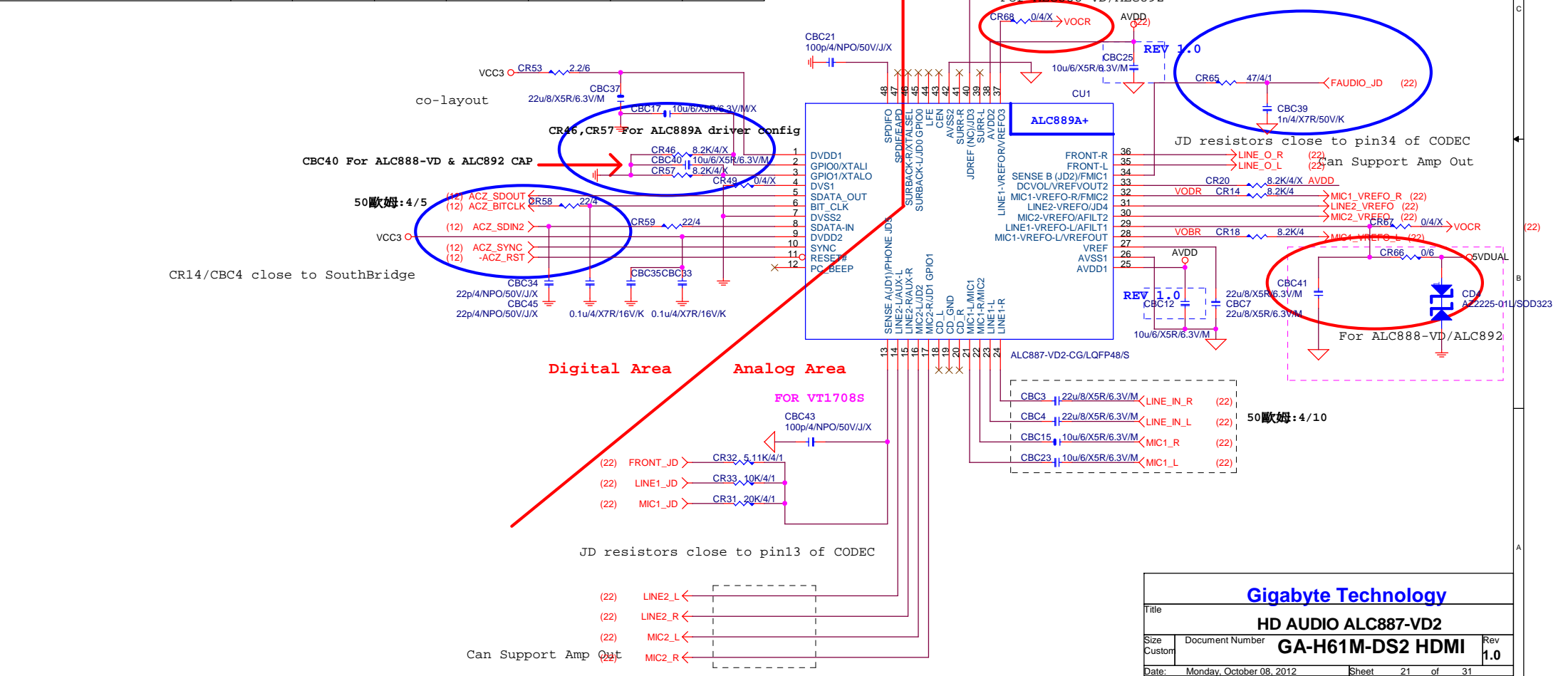
H2X10PANEL-2



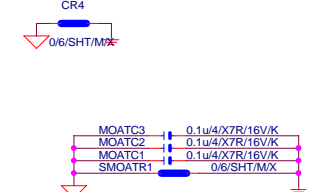
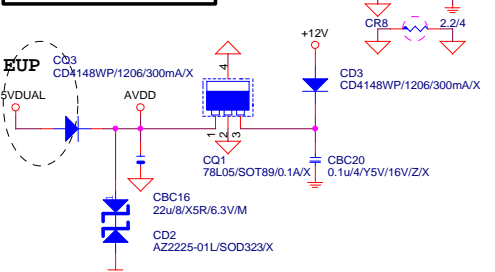
Gigabyte Technology

Title			
FP,F_USB,USB PWR,SPKR,SATA LED			
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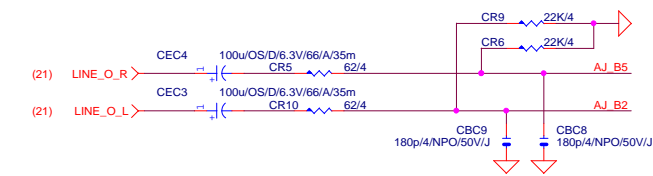
	ALC883	ALC888-VA	ALC888B	ALC888-VD	ALC892R	ALC889	ALC889A
CR46	X	X	X	X	X	X	O
CR57	X	X	X	X	X	X	O
CR49	O	O	X	X	X	O	O
CBC40	X	X	X	10uF/X5R	10uF/X5R	X	X
CR20	O	X	X	X	X	X	X
CR26	20K/1%	20K/1%	20K/1%	20K/1%	20K/1%	20K/1%	20K/0.1%
CR47	X	X	O	X	O	O	X
CR48	O	O	X	O	X	X	O
CBC2/CBC4/CBC5/ CBC6/CBC10/CBC11	4.7uF /X5R	4.7uF /X5R	4.7uF /X5R	4.7uF /X5R	4.7uF /X5R	10uF /X5R	4.7uF /X5R
CR1/CR3/CR10/CR12/ CR15/CR19/CR56/CR27/ CR55/CR37/CR28/CR34/ CR6/CR9/CR51/CR61	75 ohm	75 ohm	75 ohm	75 ohm	75 ohm	66 ohm or lower	75 ohm
CR66/CR68/CD3/CBC41	X	X	X	O	X	X	X
CR67/CD1/CD2/CQ3/CQ5	O	O	O	X	O	O	O



CODEC POWER/EMI PAD

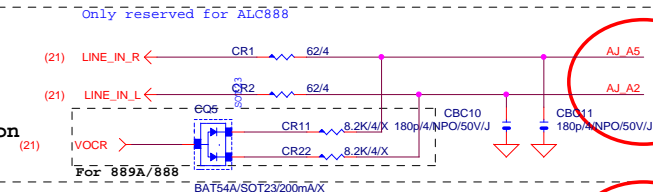


LINE-OUT

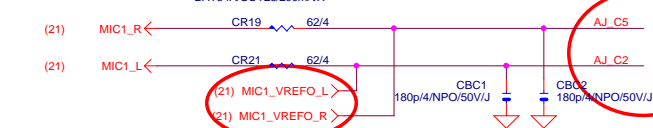


LINE-IN

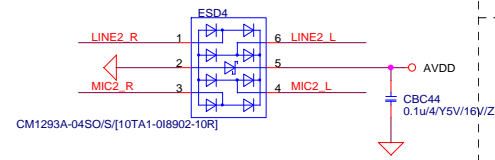
Verify MIC function
in LINE-in



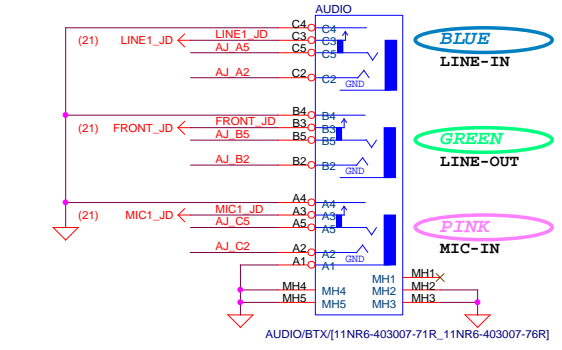
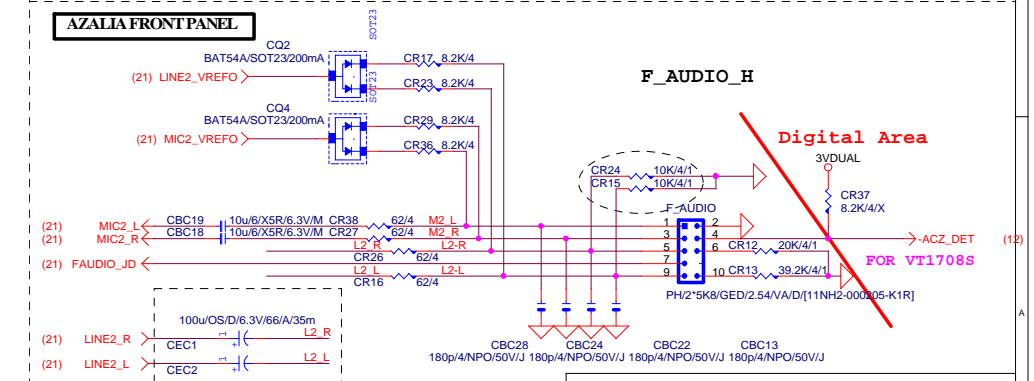
MIC-IN



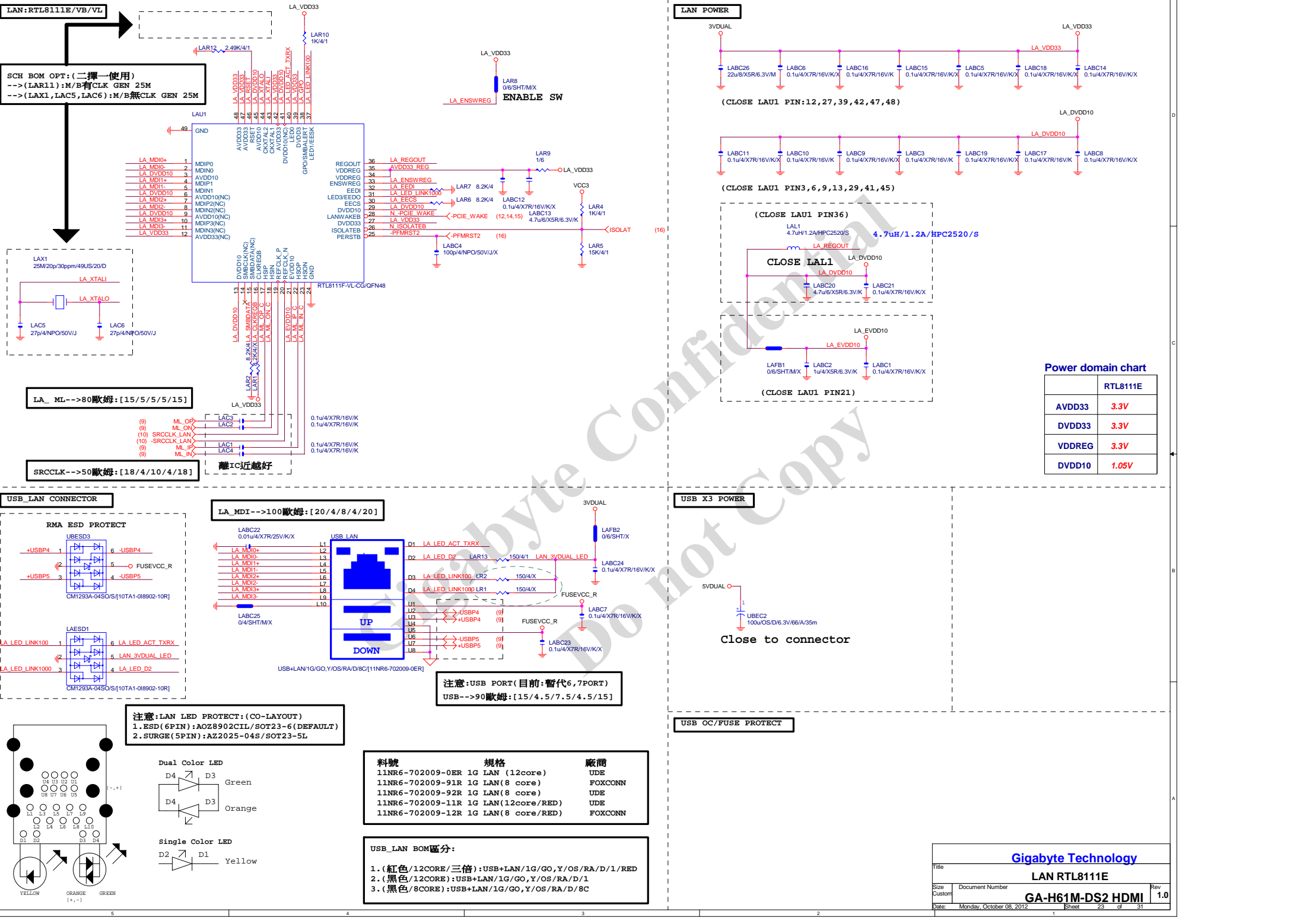
AZALIA JACK



AZALIA FRONT PANEL

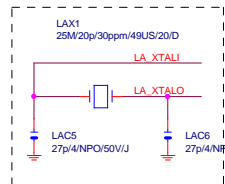


Gigabyte Technology			
Title			
AUDIO JACK			
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LAN:RTL8111E/VB/VL

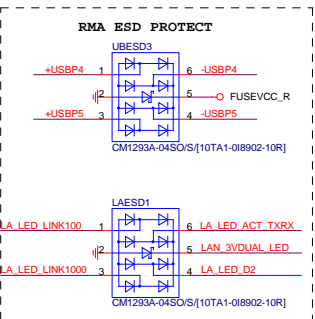
SCH BOM OPT:(二擇一使用)
-->(LAR11):M/B有CLK GEN 25M
-->(LAX1,LAC5,LAC6):M/B無CLK GEN 25M



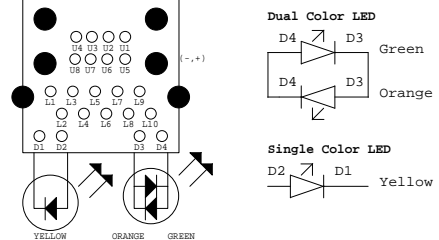
LA_ML-->80歐姆:[15/5/5/15]

SRCLK-->50歐姆:[18/4/10/4/18]

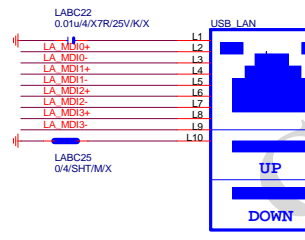
USB LAN CONNECTOR



注意:LAN LED PROTECT:(CO-LAYOUT)
1.ESD(6PIN):AOZ8902CIL/SOT23-6(DEFAULT)
2.SURGE(5PIN):AZ2025-04S/SOT23-5L



LA_MDI-->100歐姆:[20/4/8/4/20]

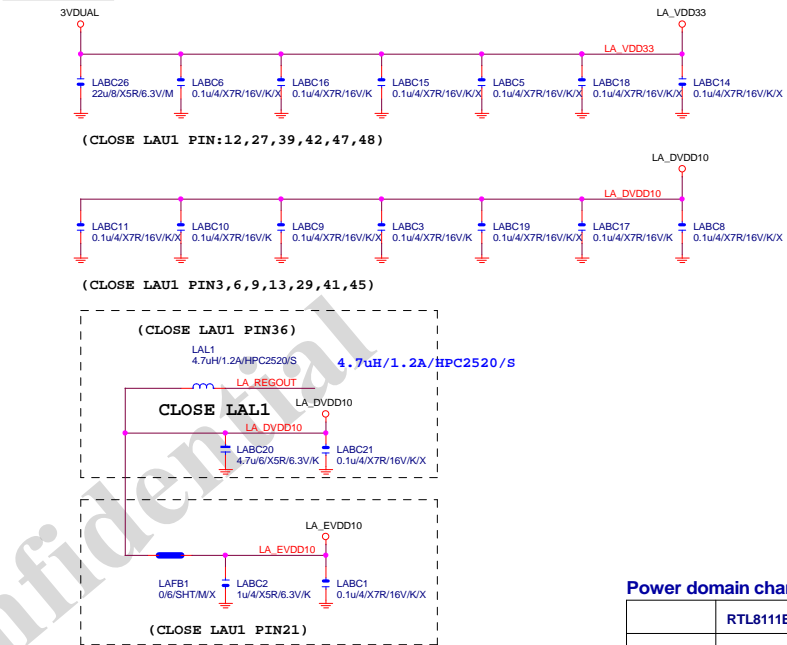


注意:USB PORT(目前:暫代6,7PORT)
USB-->90歐姆:[15/4.5/7.5/4.5/15]

料號	規格	廠商
11NR6-702009-0ER	1G LAN(12core)	UDE
11NR6-702009-91R	1G LAN(8 core)	FOXCONN
11NR6-702009-92R	1G LAN(8 core)	UDE
11NR6-702009-11R	1G LAN(12core/RED)	UDE
11NR6-702009-12R	1G LAN(8 core/RED)	FOXCONN

USB LAN BOM區分:
1.(紅色/12CORE/三倍):USB+LAN/1G/GO,Y/OS/RA/D/1/RED
2.(黑色/12CORE):USB+LAN/1G/GO,Y/OS/RA/D/1
3.(黑色/8CORE):USB+LAN/1G/GO,Y/OS/RA/D/8C

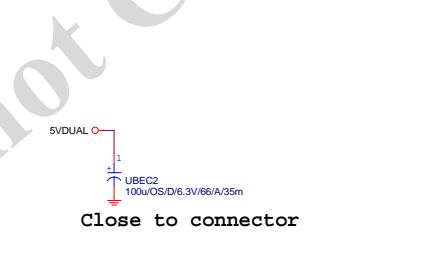
LAN POWER



Power domain chart

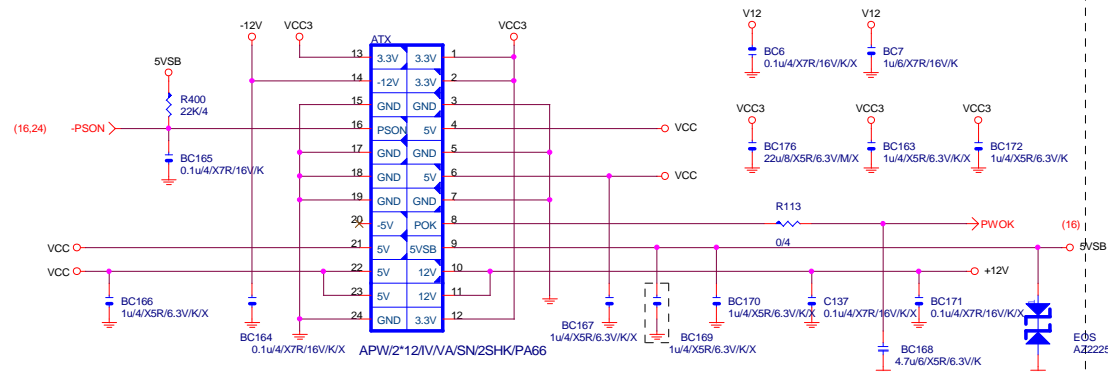
	RTL8111E
AVDD33	3.3V
DVDD33	3.3V
VDD33	3.3V
DVDD10	1.05V

USB X3 POWER

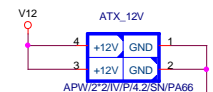


USB OC/FUSE PROTECT

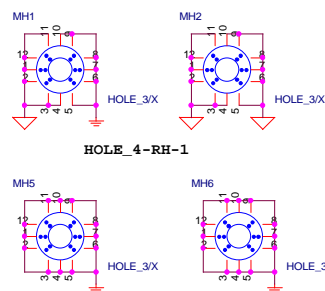
ATXX24 POWER CONNECTOR



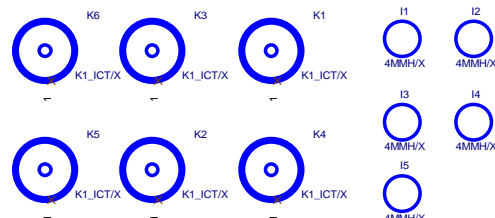
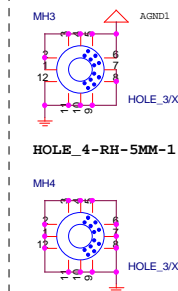
ATXX4 POWER CONNECTOR



ATX 4-4



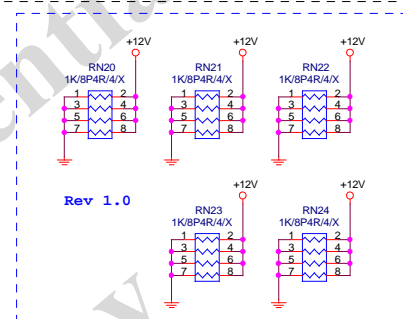
HOLE 4-RH-5MM-1



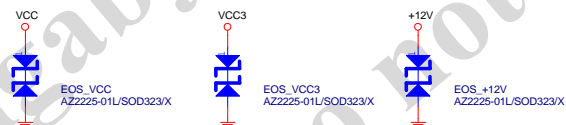
```
| To prevent the 5VSB
| under loading when
| boot
```

5VDUAL1(USB PORT/DDRIII POWER)
5VDUAL(3VDUAL/OTHER)

```
-S WARN-->5VDUAL1-->-S ACK(PCH)-->-DEPSLP/-RSMRST-->5VDUAL-->3VDUAL
```



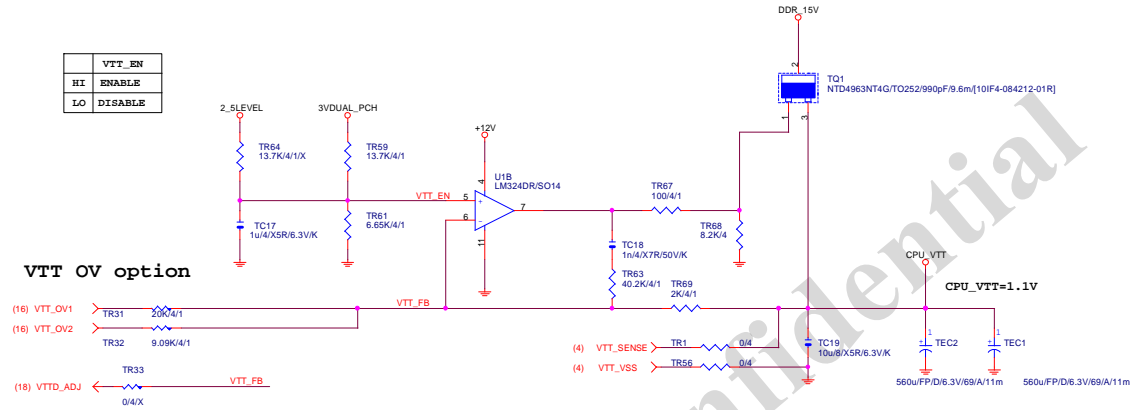
Rev 1.0



CPU_VTT

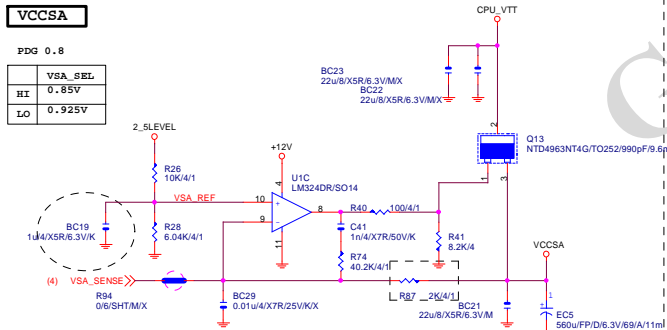
	VTT_EN
HI	ENABLE
LO	DISABLE

VTT OV option

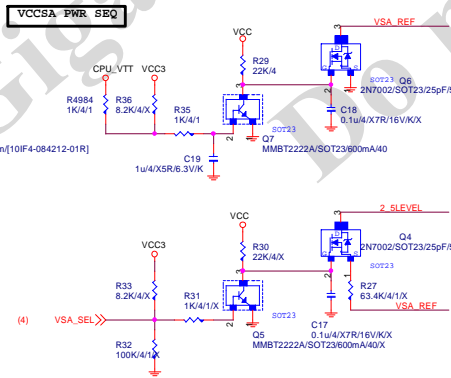


VCCSA

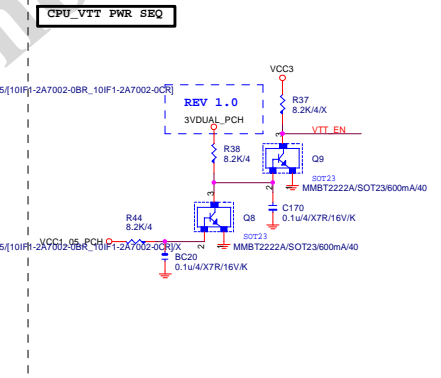
PDG	0.8
	VSA_SEL
HI	0.85V
LO	0.925V



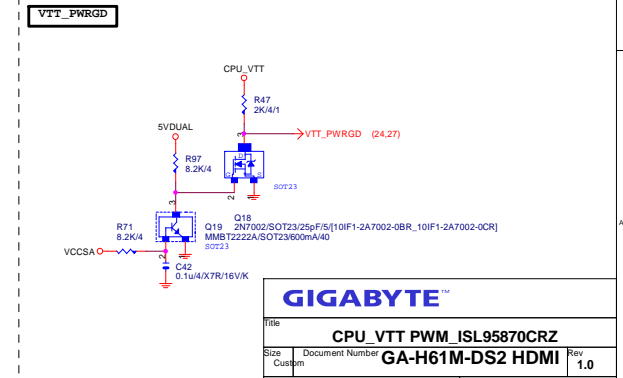
VCCSA_PWR_SEQ



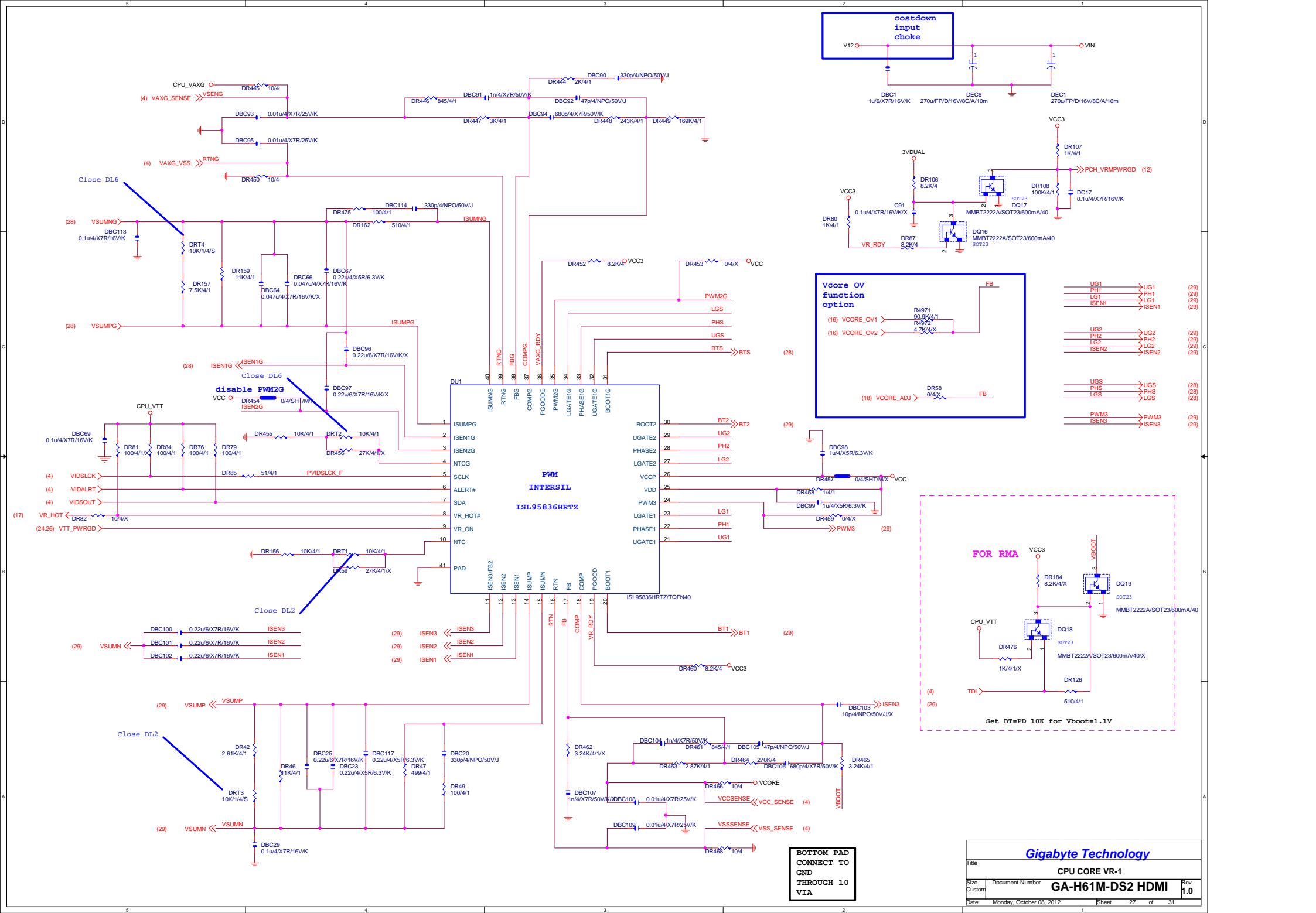
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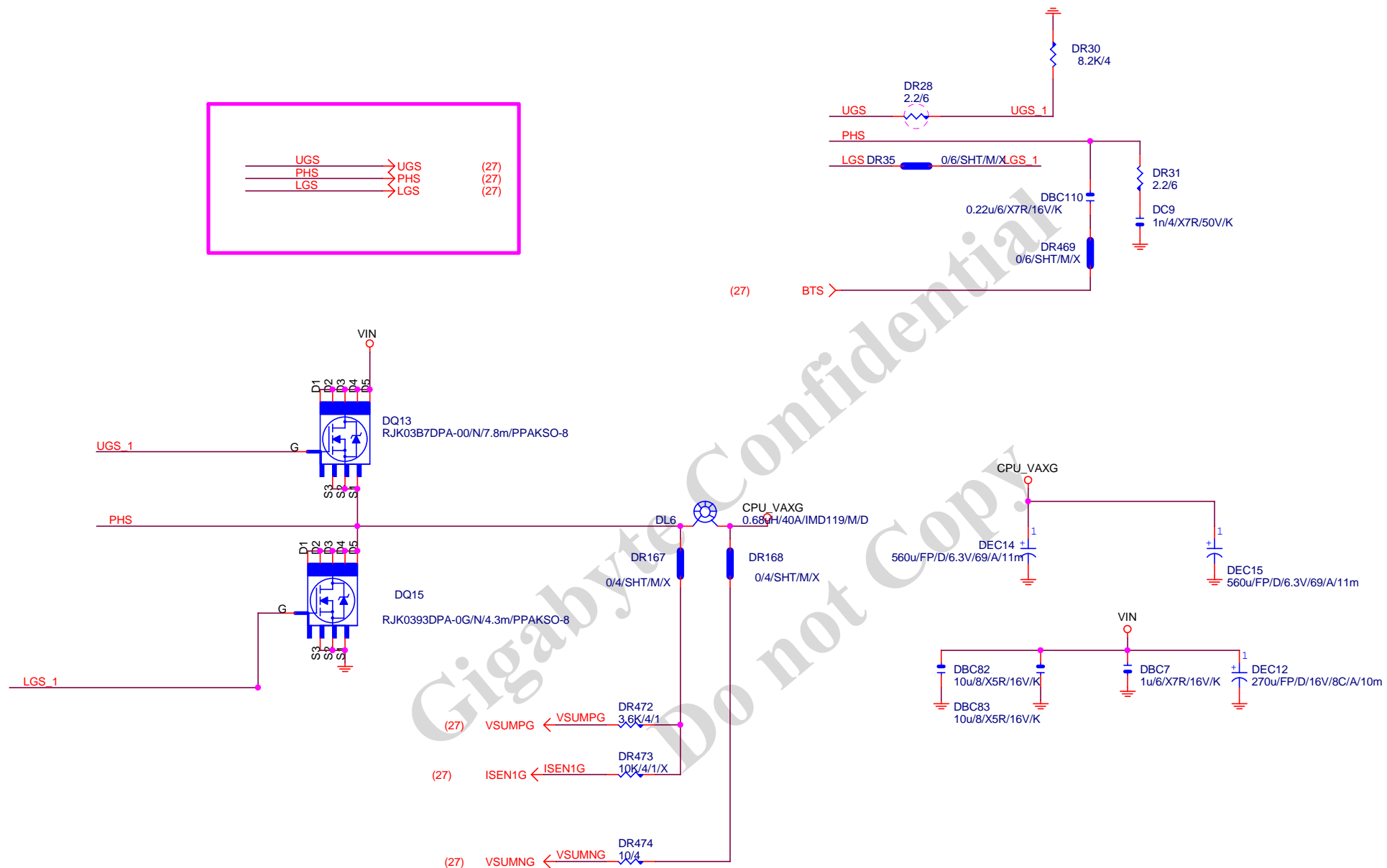
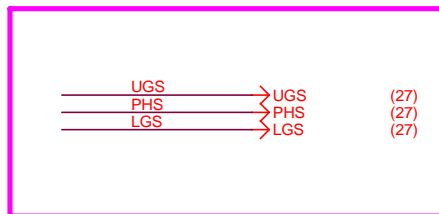
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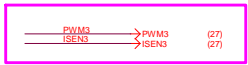
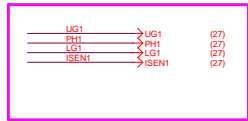


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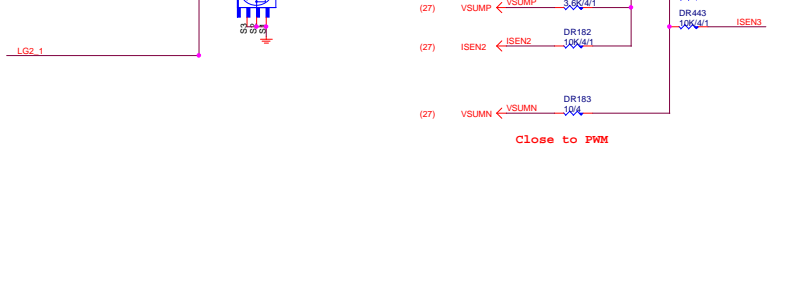
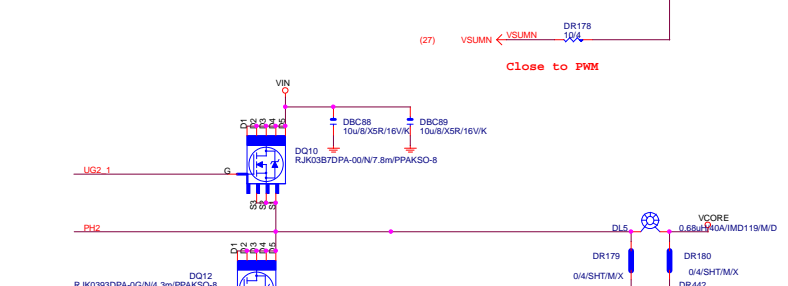
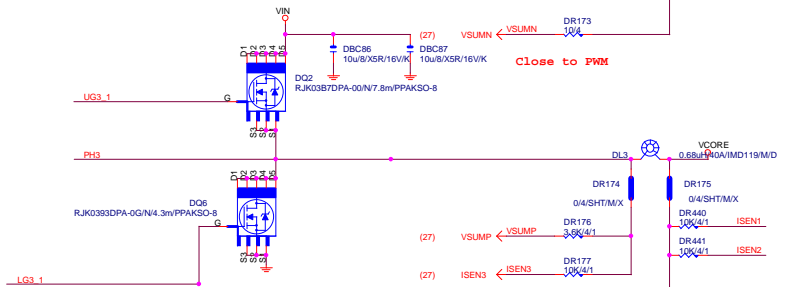
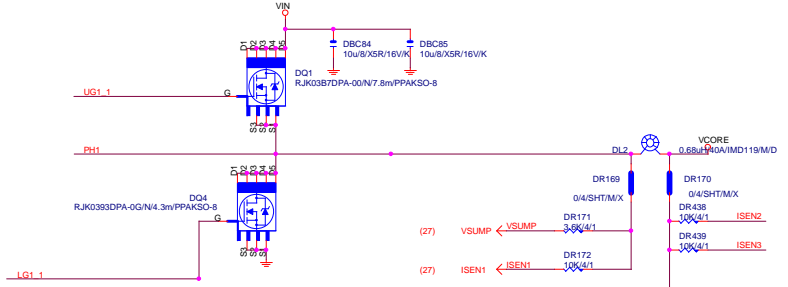
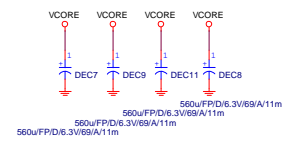
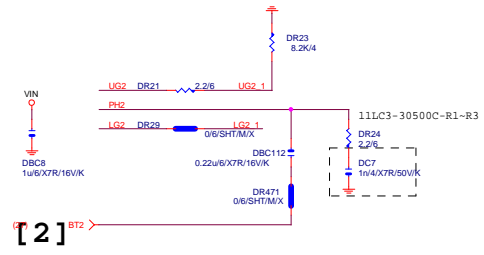
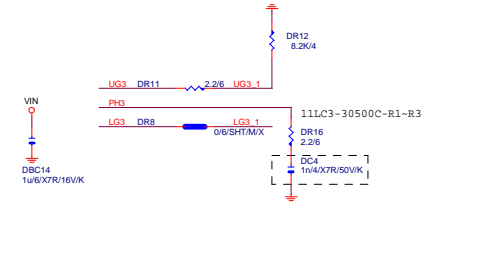
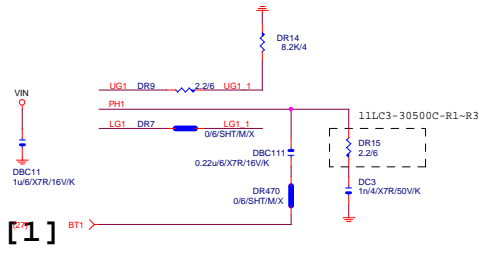
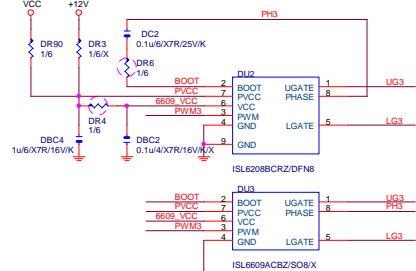


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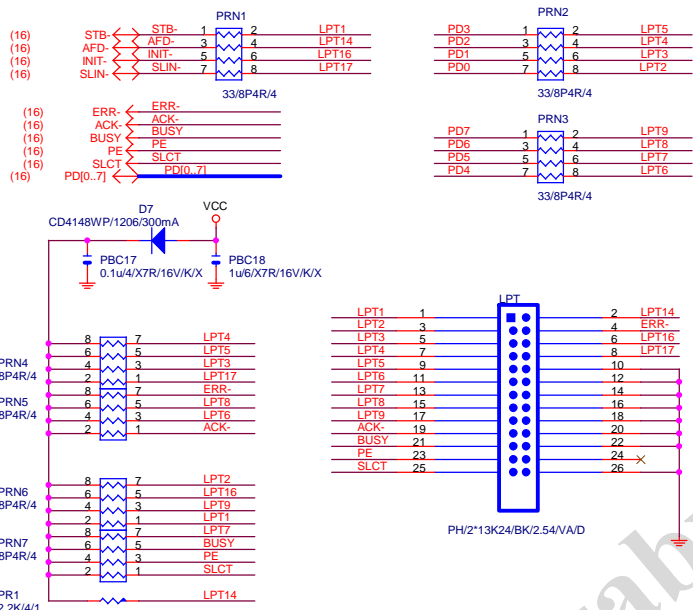




Pop 18L6425CB for PB2
[18L6425CBZ/S08]



LPT PORT

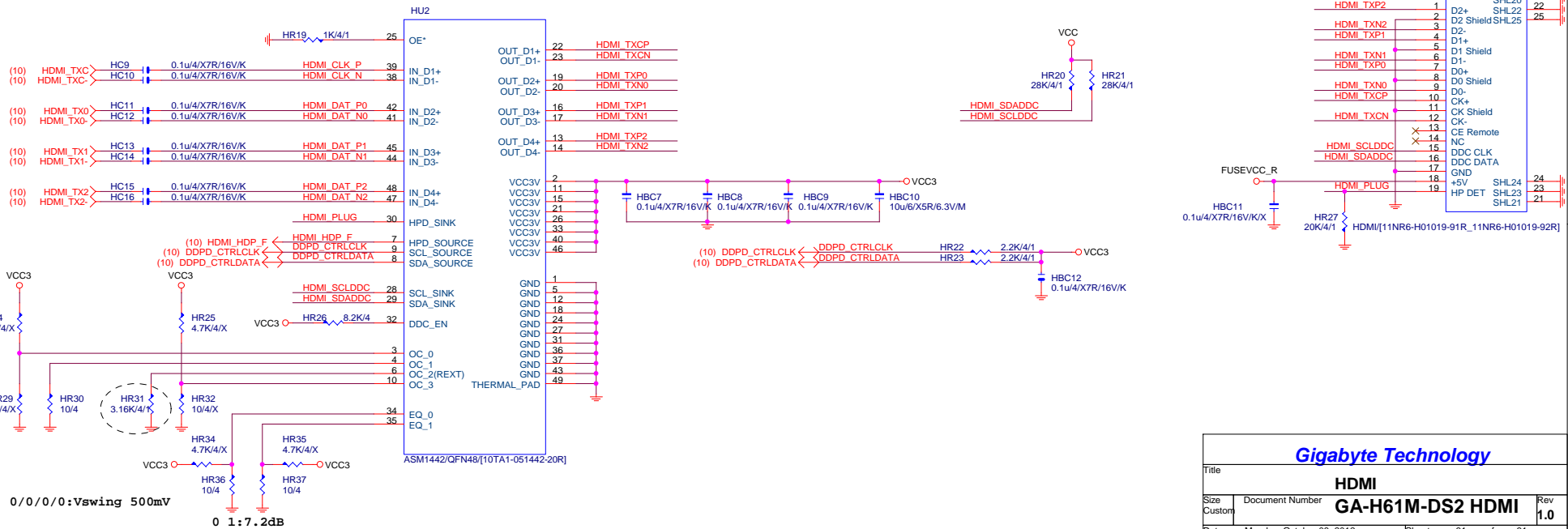


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HDMI LEVEL SHIFT

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



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HDMI			
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