

Model Name: GA-H61M-DS2H

Revision 2.0

SHEET

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05	CPU_LGA1155-B
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SHEET

TITLE

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Gigabyte Technology


Cover Sheet

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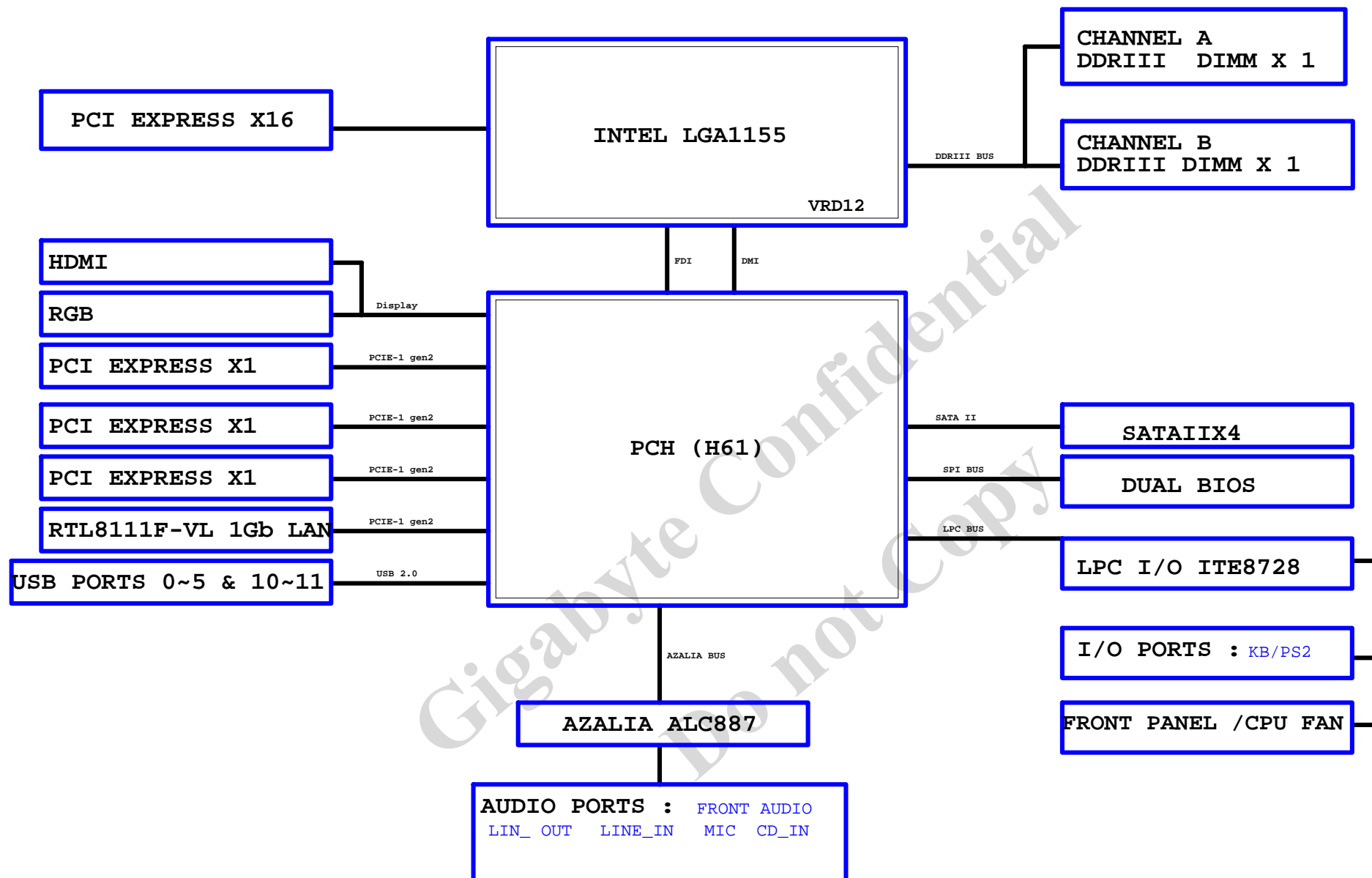
Revision 2.0

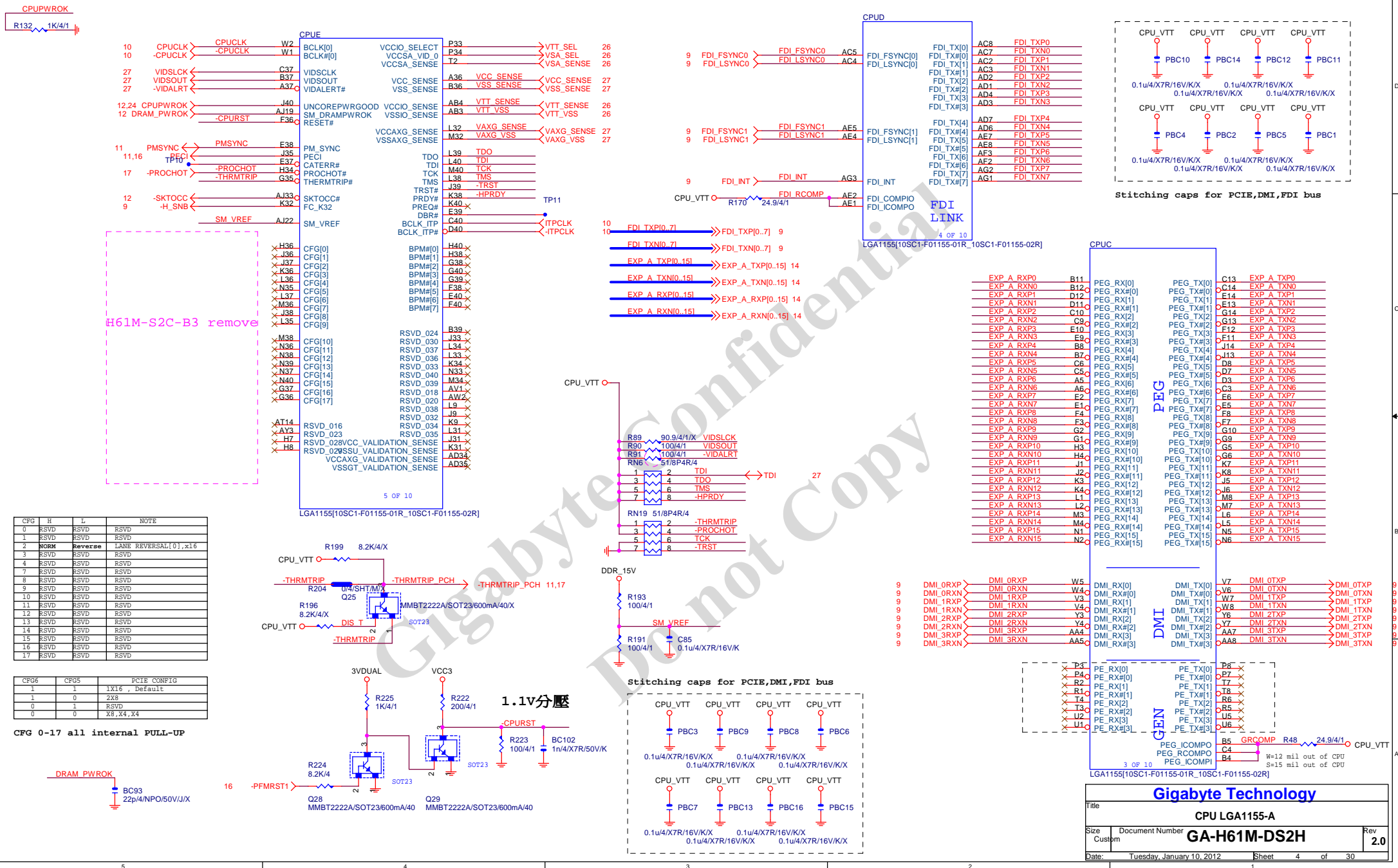
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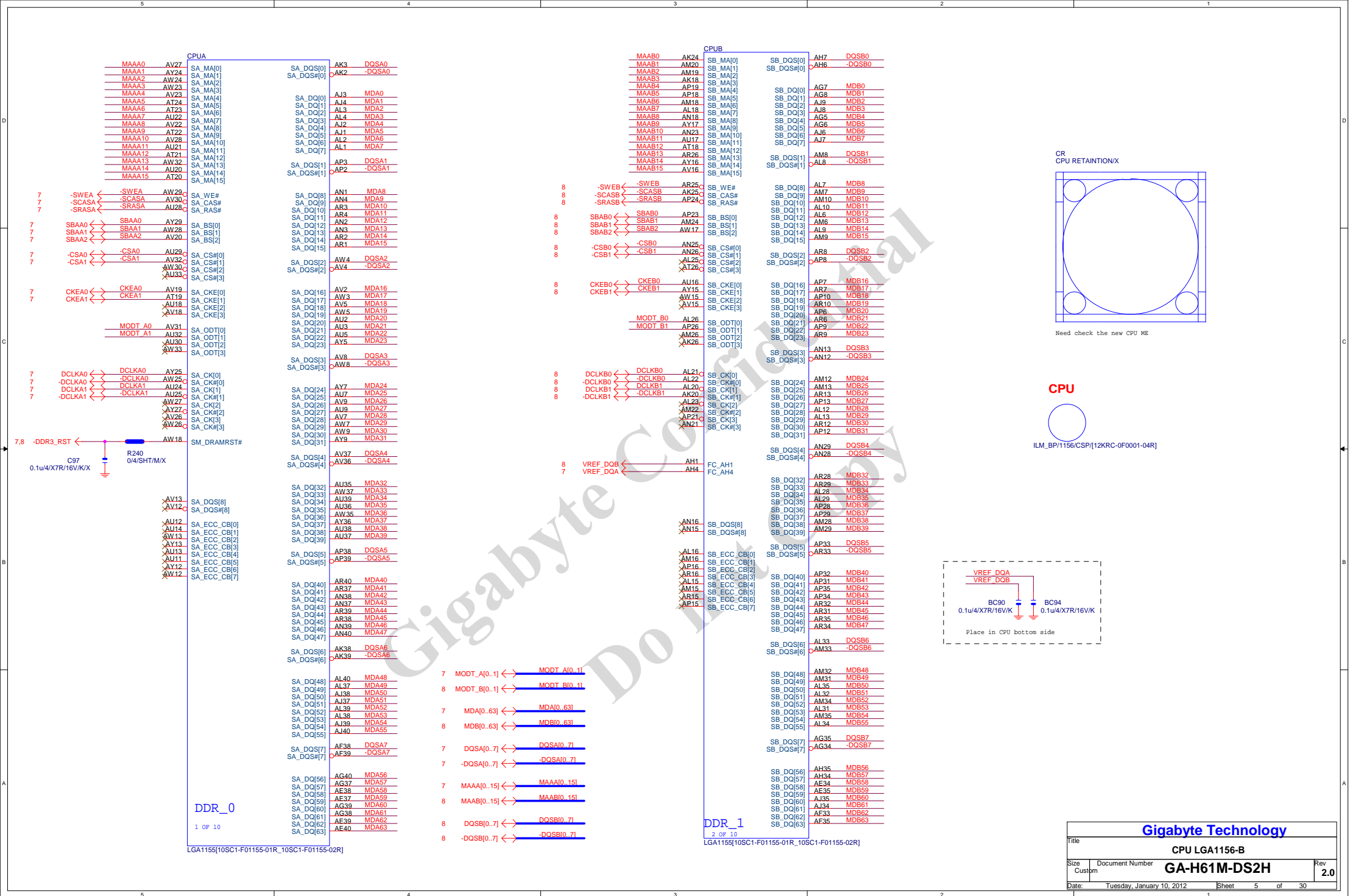
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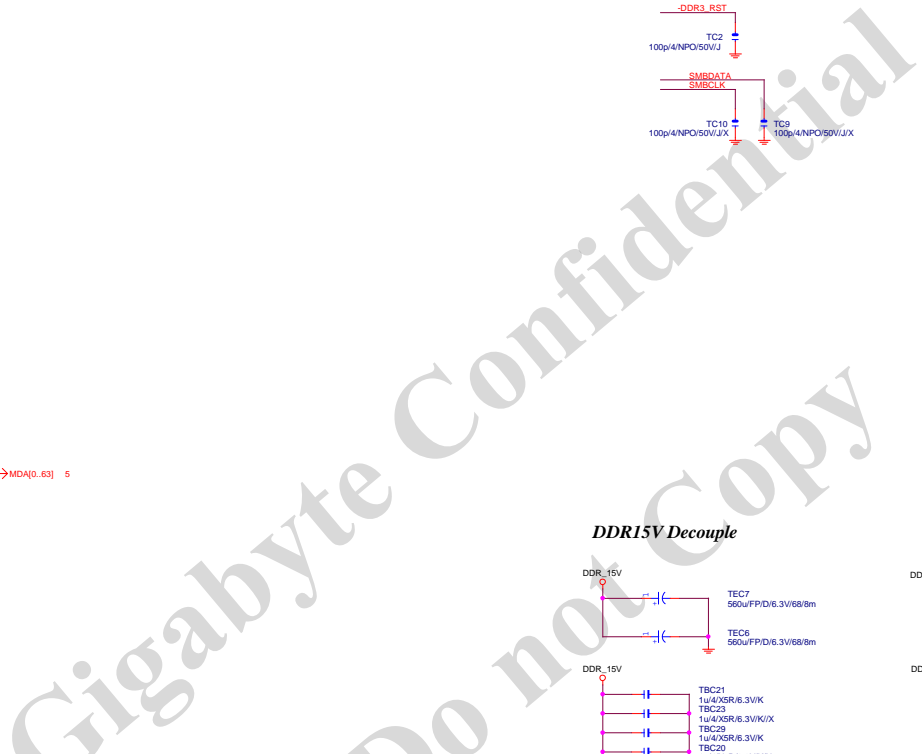
				
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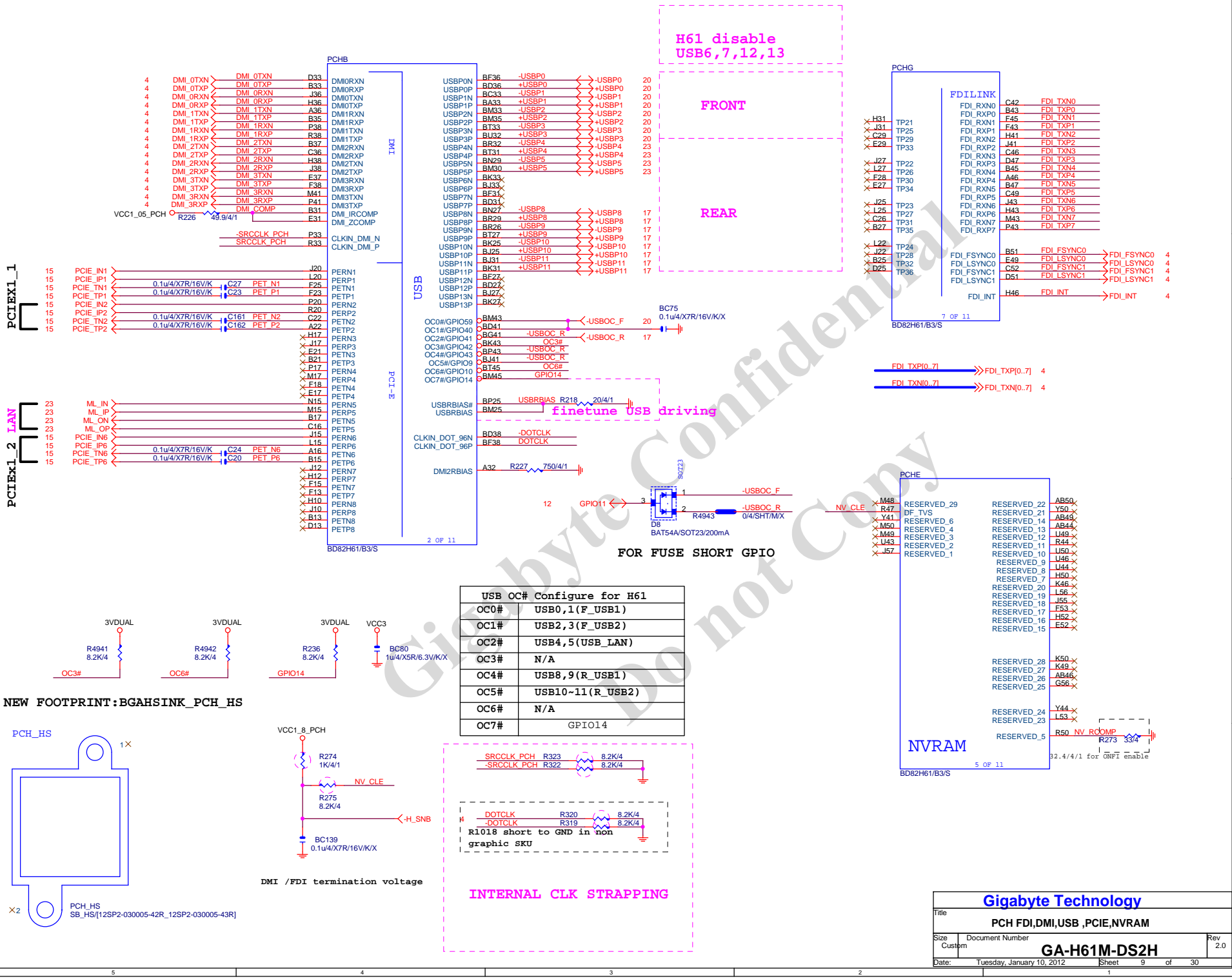
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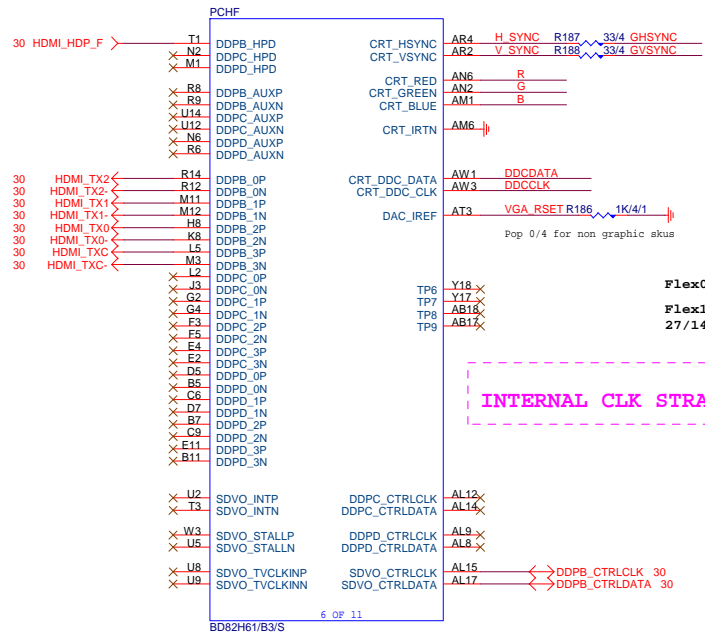






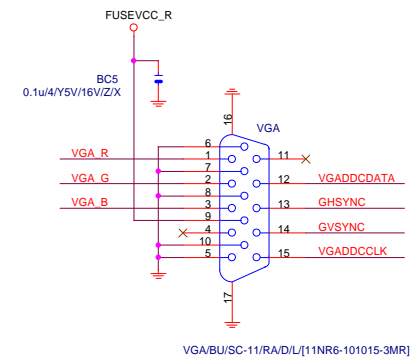
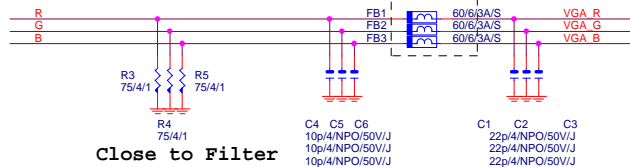
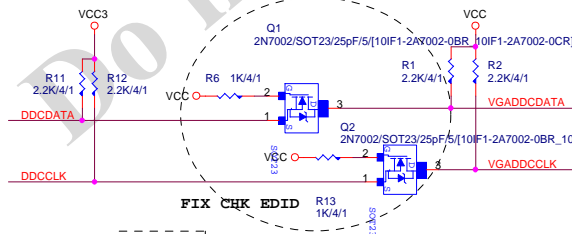
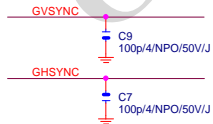
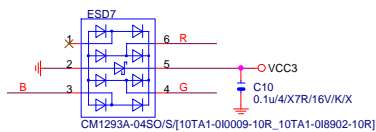
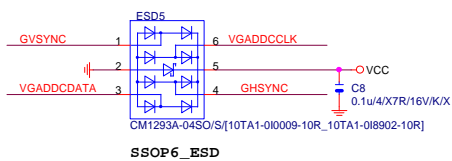
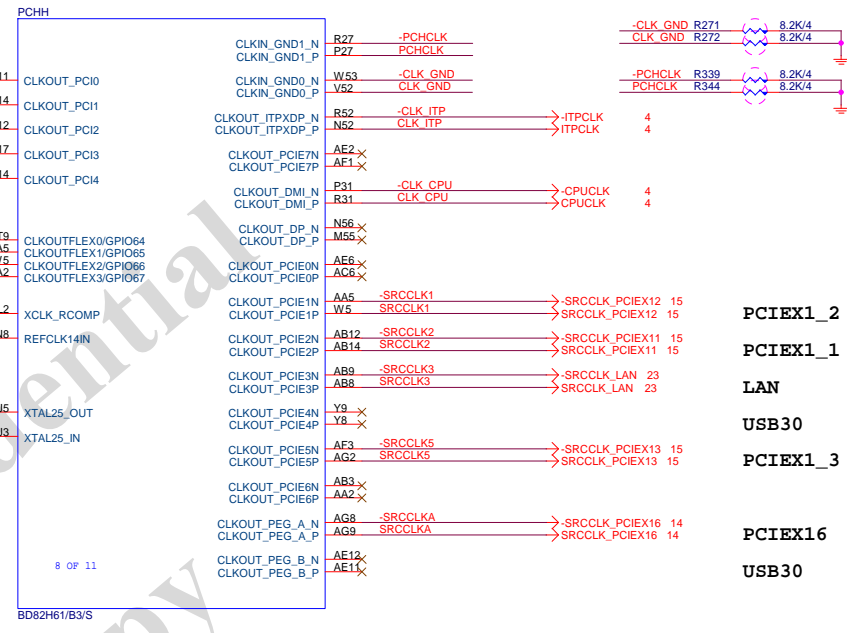
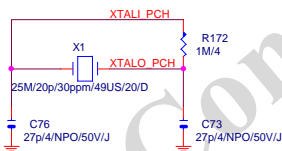




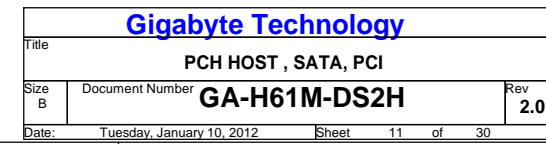


Flex0,2 : 33MHZ
 Flex1,3 :
 27/14/24/48/25MHZ

INTERNAL CLK STRAPPING

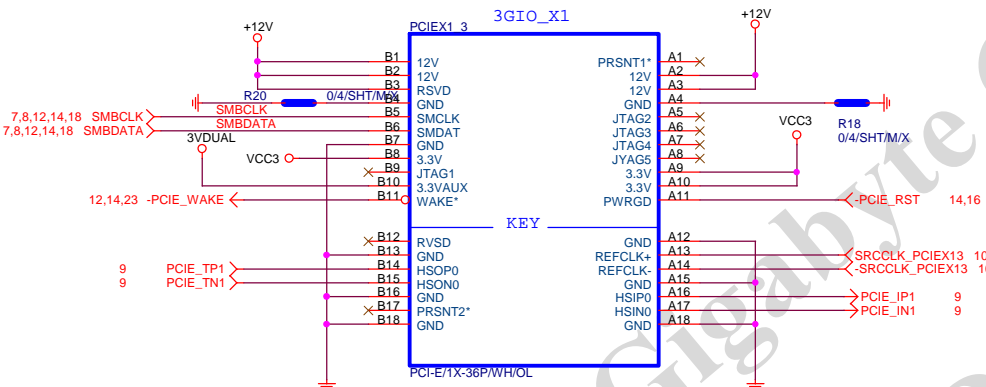
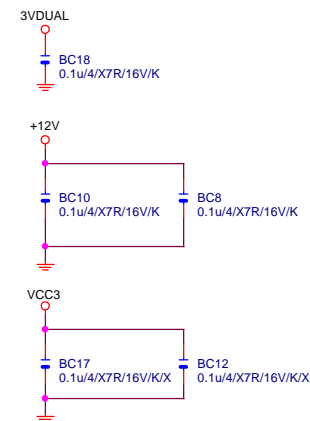
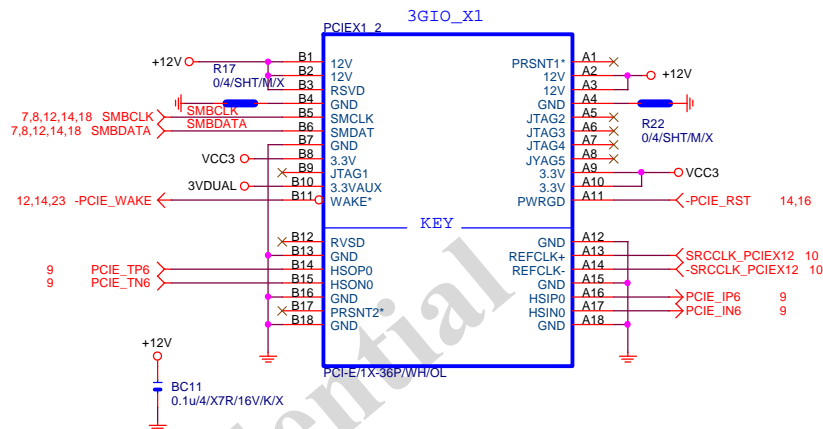
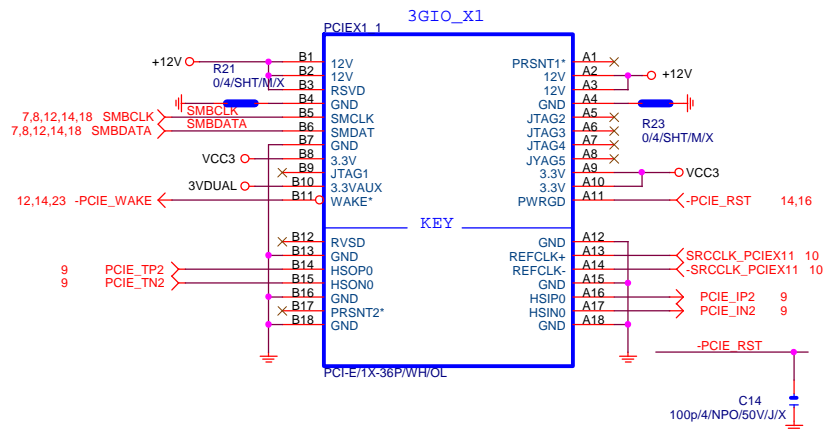


Gigabyte Technology			
Title			
PCH DISPLAY ,CLK BUFFER			
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H1X7-SATA2-HS-MASK

PCIEX1*3

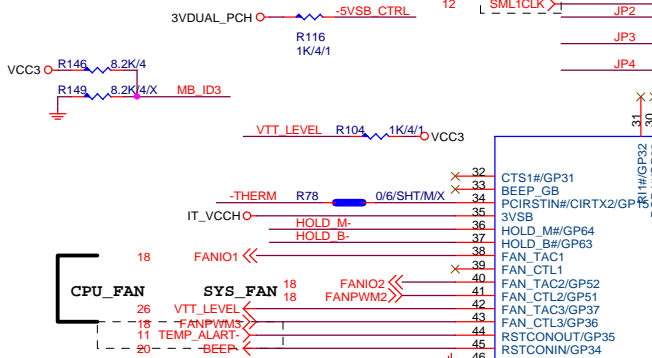


Gigabyte Technology

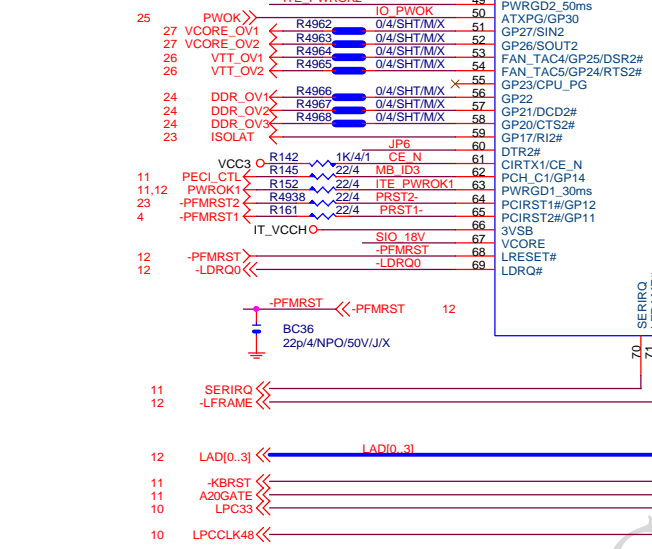
Title			
PCIEX1,X2/CLK GEN			
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GP22 Default GP22 DIOD8

GP23 Default CPU_PG DOD8

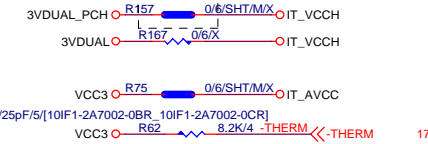
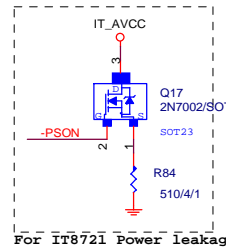
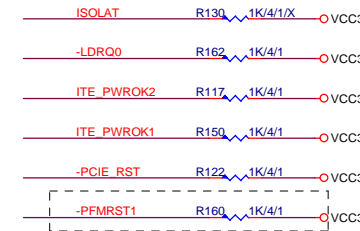
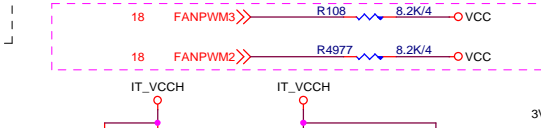
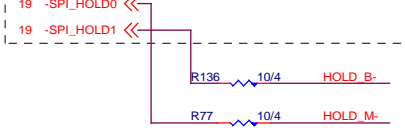


IT8728F(GB)



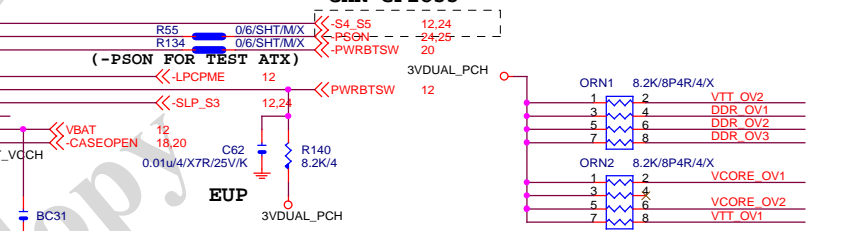
IT8728	
PIN121	VCORE_EN/PCH_C0
PIN120	VLDT_EN/PCH_D0
PIN19	ATXPG
PIN31	PCH_C1
PIN53	SST/AMDTSI_D/MTRB#/PCH_D1
PIN55	PEC1/AMDTSI_C/DRVB#
PIN66	SYS_3VSB
PIN70	GP47
PIN95	VIN2 (VCC5)
PIN96	VIN1 (VCC12)
PIN97	VIN1/VDIMM_STR (1.5V)
PIN98	VIN0/VCORE (1.1V)/NC

H61M-DS2 R0.2

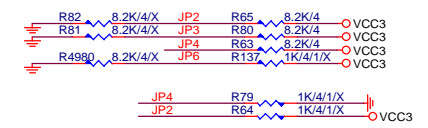


GP40 Default 3VBSW# DO8

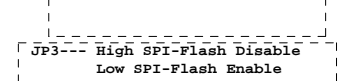
CHK GPIO53



H61M-S2 1.1 JP6 stuff pull down



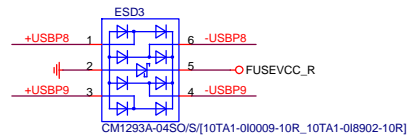
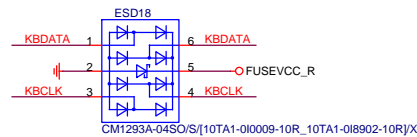
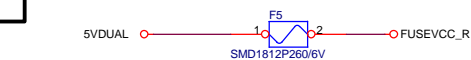
EUP control by PCH



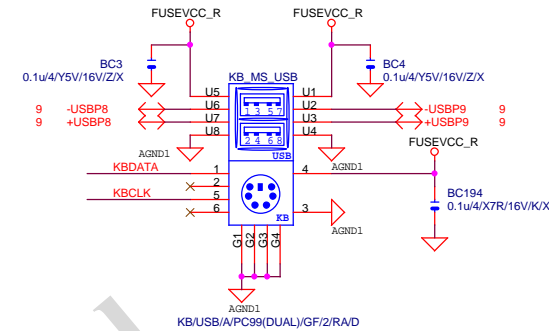
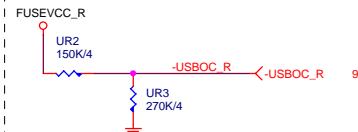
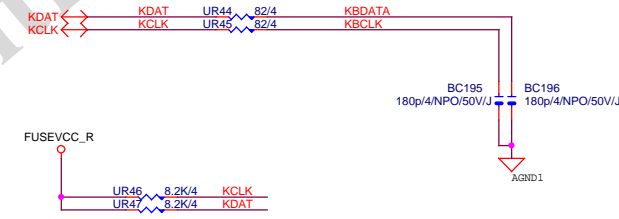
PCIRST1 is OD in IT8728

Gigabyte Technology			
Title			
ITE 8728 LPC IO			
Size B			
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GA-H61M-DS2H			
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Rev 2.0			

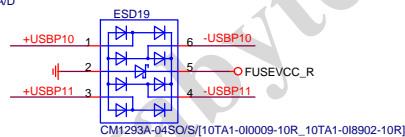
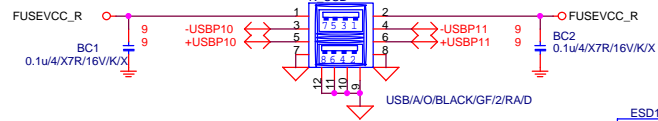
KB/MS



CLOSE R_USB2

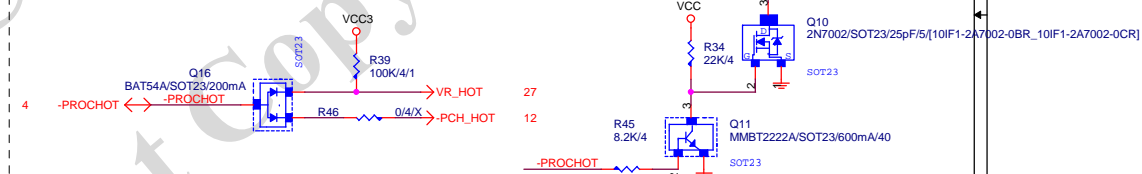
change to
0402 SIZE

R_USB1



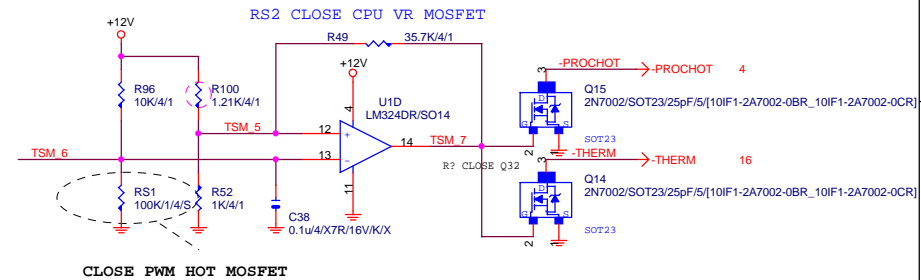
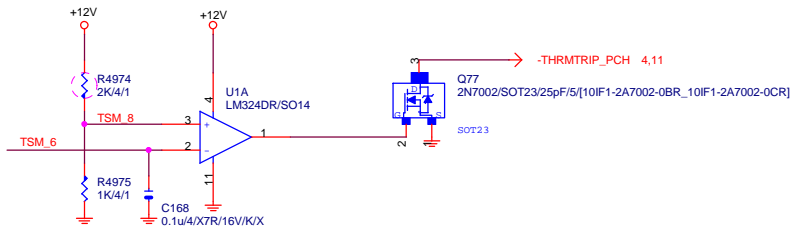
CLOSE R_USB2

-PROHOT



deasserted at 116 degree

EMI request



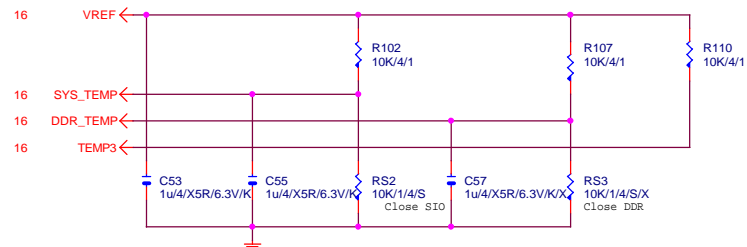
CLOSE PWM HOT MOSFET

Gigabyte Technology

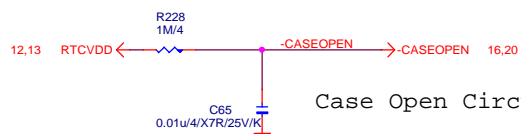
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COM,-RI,KB_USB,USB_ESATA,-PROHOTSize
Custom Document Number
GA-H61M-DS2HRev
2.0

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TEMP H/W MONITOR



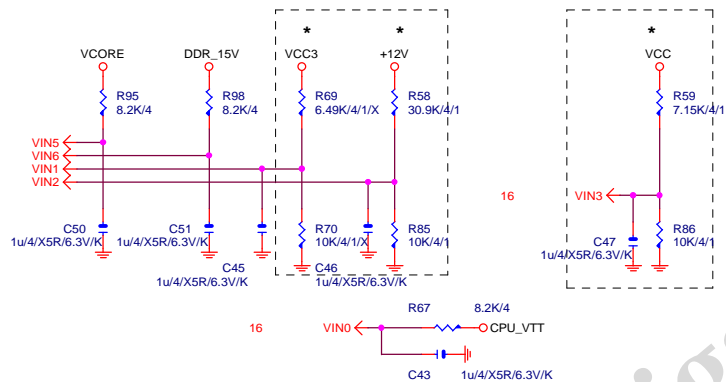
CASE OPEN



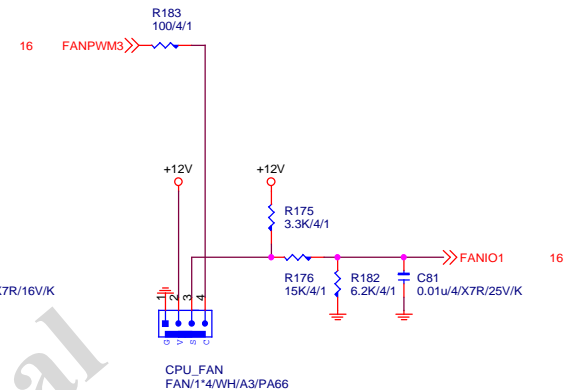
Case Open Circuits

VOLTAGE-- H/W MONITOR

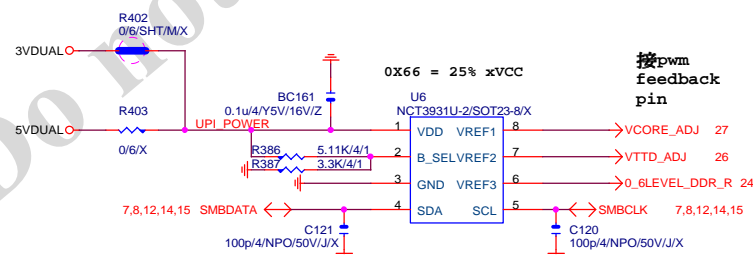
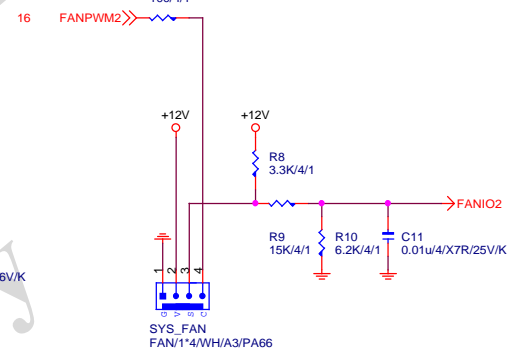
I (VAXG)



CPU SMART FAN



SYS SMART FAN



接pwm
feedback
pin

Gigabyte Technology

Title		
HWM,FAN CTRL,OV		
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DUAL BIOS

M_BIOS

32M/SPI/SO8/200mil/S

B_BIOS

32M/SPI/SO8/200mil/S

MAIN BIOS

VCC3

BACKUP BIOS

VCC3

Resistors:

- R340: 0/4/SHT/M/X
- R342: 8.2K/4/X
- R349: 1K/4/1
- R370: 22/4
- R378: 8.2K/4/X
- R379: 22/4
- R449: 8.2K/4/X
- R450: 8.2K/4
- R451: 8.2K/4/X
- R452: 8.2K/4/X
- R190: 1K/4/1
- R177: 1K/4/1
- R367: 22/4

Capacitors:

- C130: 10p/4/NPO/50V/J/X
- C115: 10p/4/NPO/50V/J/X
- BC152: 1u/4/X5R/6.3V/K
- BC148: 1u/4/X5R/6.3V/K/X

Connections:

- 12 ICH_SPI_MOSI >> ICH_SPI_MOSI R342 >> 8.2K/4/X
- 12 -ICH_SPI_CS >> -ICH_SPI_CS R378 >> 8.2K/4/X
- SPI_HOLD0 R349 >> 1K/4/1
- SPI_HOLD1 R341 >> 1K/4/1
- 12 -SPI_WP0 >> -SPI_WP0 R449 >> 8.2K/4/X
- 12 ICH_SPI_MISO >> ICH_SPI_MISO R450 >> 8.2K/4
- 12 -ICH_SPI_CS1 >> -ICH_SPI_CS1 R451 >> 8.2K/4/X
- 12 -SPI_WP1 >> -SPI_WP1 R452 >> 8.2K/4/X
- 11 -GNT0 >> R190 >> 1K/4/1
- 11 -GNT1 >> R177 >> 1K/4/1
- SPI_MISO R367 >> 22/4 >> ICH_SPI_MISO 12

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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DUAL BIOS

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

1 means floating
0 means PD 1K

Gigabyte Technology

DUAL BIOS

GA-H61M-DS2H

Size A

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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

DUAL BIOS

GA-H61M-DS2H

Size A

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Rev 2.0

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[illegible][illegible]

DUAL BIOS

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

1 means floating
0 means PD 1K

Gigabyte Technology

DUAL BIOS

GA-H61M-DS2H

Size A

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[illegible]

DUAL BIOS

The diagram illustrates the dual BIOS configuration for the GA-H61M-DS2H motherboard. It features two BIOS chips: M_BIOS (Main BIOS) and B_BIOS (Backup BIOS), both operating at 32M/SPI/SO8/200mil/S.

M_BIOS Connections:

- CS#: Connected to -ICH_SPI_CS via R370 (22/4).
- SPI_MISO: Connected to ICH_SPI_MISO via R342 (8.2K/4/X).
- SPI_WP0: Connected to -SPI_HOLD0 via R349 (1K/4/1).
- VSS: Grounded.
- VDD: Connected to VCC3 via R355 (0/4/SHT/M/X) and BC152 (1u/4/X5R/6.3V/K).
- HOLD#: Connected to -SPI_HOLD0 via R341 (1K/4/1).
- SCK: Connected to ICH_SPI_CLK via C115 (10p/4/NPO/50V/J/X).
- SI: Connected to ICH_SPI_MOSI via R340 (0/4/SHT/M/X) and BC148 (1u/4/X5R/6.3V/K/X).

B_BIOS Connections:

- CS#: Connected to -ICH_SPI_CS via R379 (22/4).
- SPI_MISO: Connected to ICH_SPI_MISO via R342 (8.2K/4/X).
- SPI_WP1: Connected to -SPI_HOLD1 via R449 (8.2K/4/X).
- VSS: Grounded.
- VDD: Connected to VCC3 via R340 (0/4/SHT/M/X) and BC148 (1u/4/X5R/6.3V/K/X).
- HOLD#: Connected to -SPI_HOLD1 via R451 (8.2K/4/X).
- SCK: Connected to ICH_SPI_CLK via R452 (8.2K/4/X).
- SI: Connected to ICH_SPI_MOSI via R452 (8.2K/4/X).

Other Connections:

- GNT0: Connected to GNT1 via R190 (1K/4/1).
- GNT1: Connected to GNT0 via R177 (1K/4/1).
- SPI_MISO: Connected to ICH_SPI_MISO via R367 (22/4).

Legend:

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

1 means floating
0 means PD 1K

Gigabyte Technology

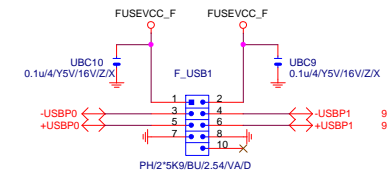
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Size A: Document Number: GA-H61M-DS2H Rev 2.0

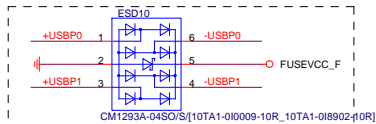
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[illegible][illegible][illegible][illegible][illegible]

FRONT USB1



change to BLUE COLOR

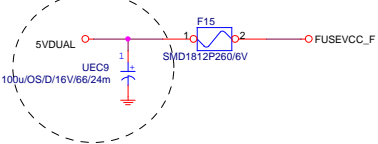


Close to connector

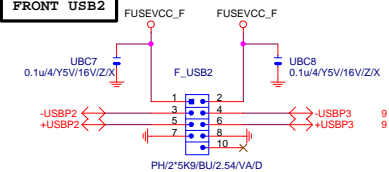
SATA LED



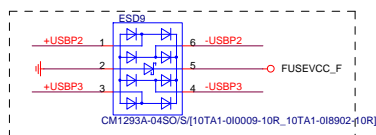
CLOSE F_USB1



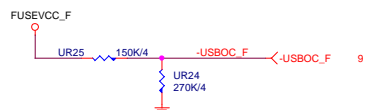
FRONT USB2



FRONT USB3

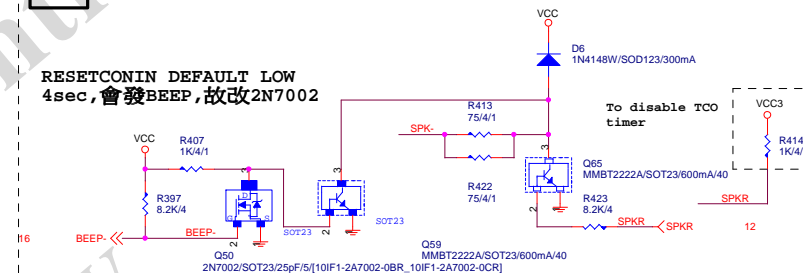


Close to connector

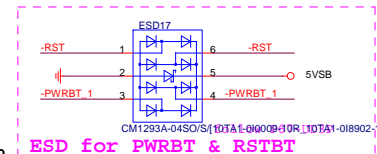


SPKR

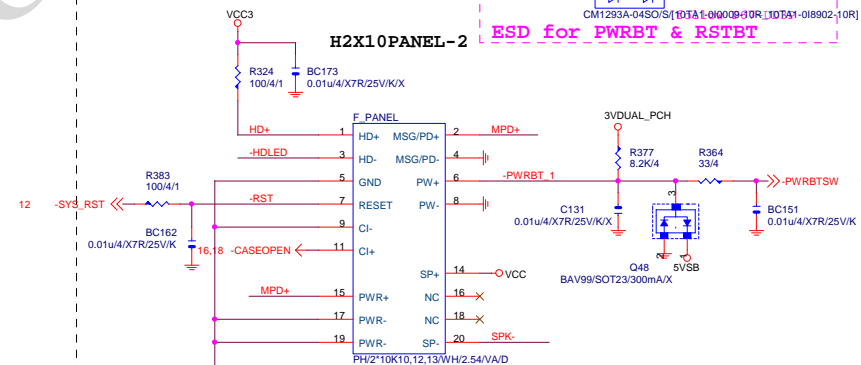
RESETCONIN DEFAULT LOW
4sec,會發BEEP,故改2N7002



INTEL FRONT PANEL



H2X10PANEL-2



Gigabyte Technology			
Title	FP,F_USB,USB PWR,SPKR,SATA LED		
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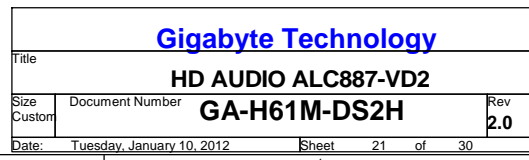
FOR VT1708S

CBC42
100p/4/NPO/50V/J/X

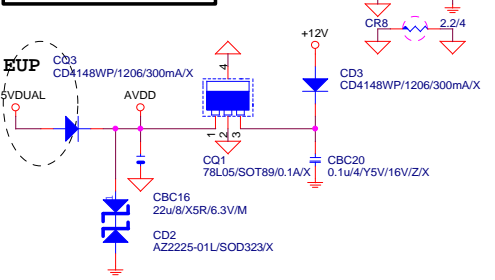
CR26 20K/4/1

CR26: 20K/4/0.1% @ALC889A

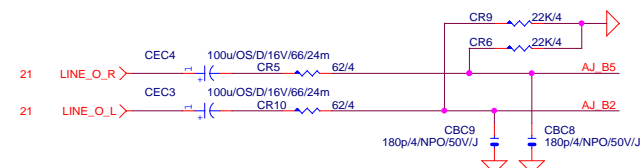
CR26: 20K/4/1% @others



CODEC POWER/EMI PAD

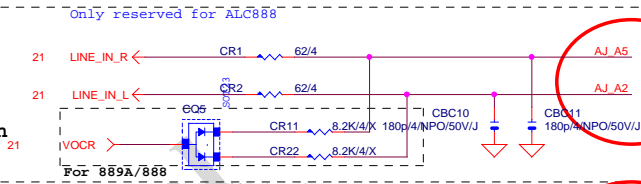


LINE-OUT

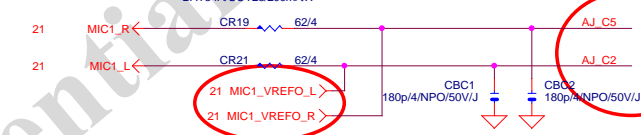


LINE-IN

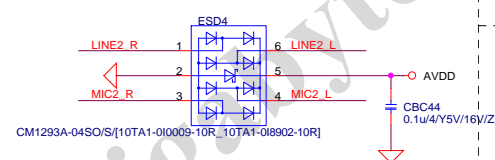
Verify MIC function in LINE-in



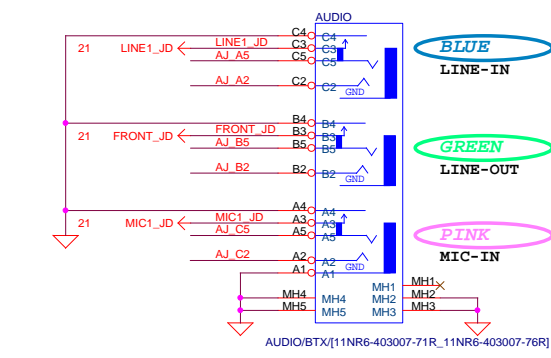
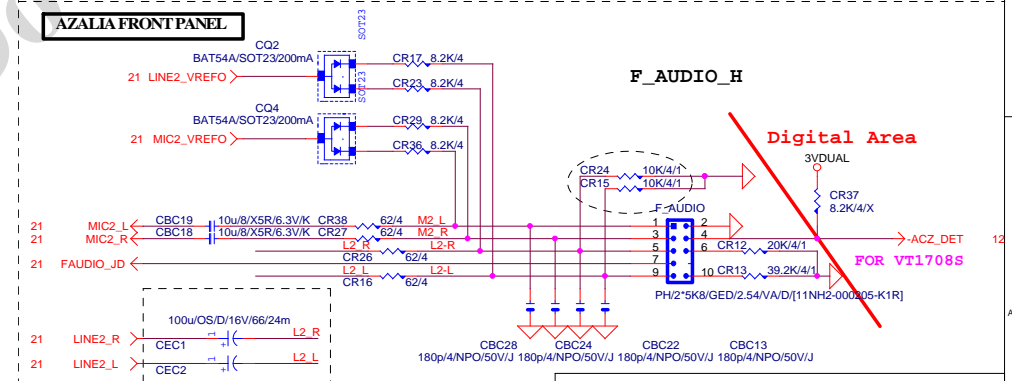
MIC-IN



AZALIA JACK

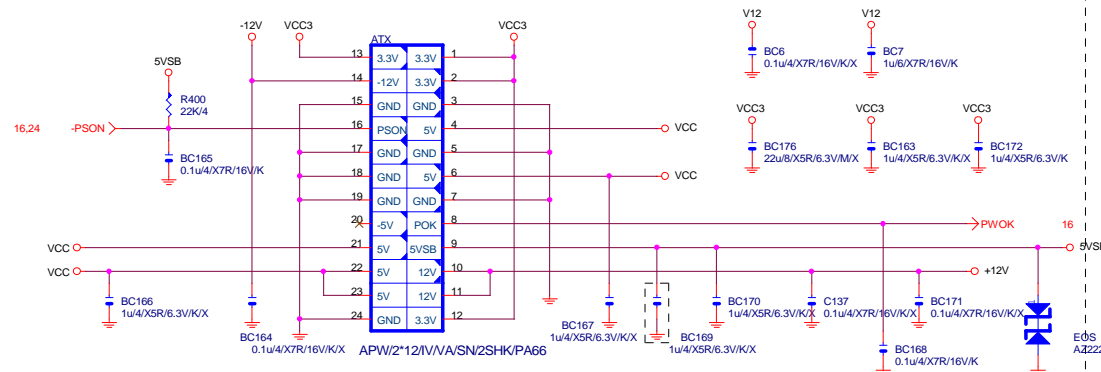


AZALIA FRONT PANEL

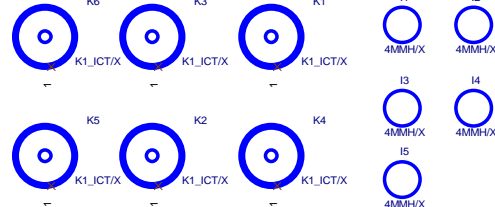
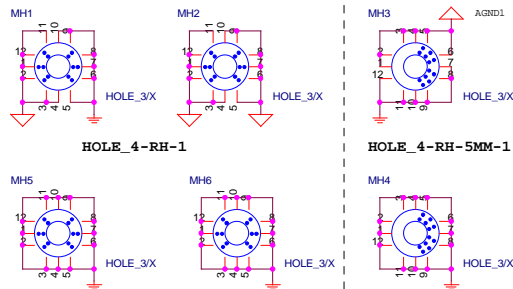
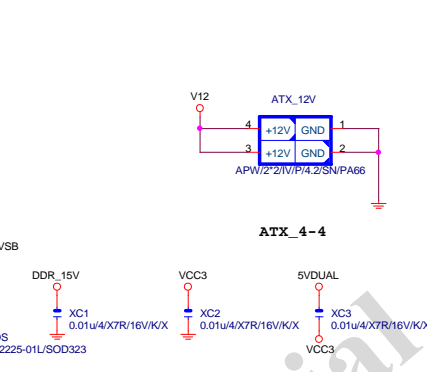


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Title			
AUDIO JACK			
Size			
Document Number			
GA-H61M-DS2H			
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2.0			
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ATXX24 POWER CONNECTOR



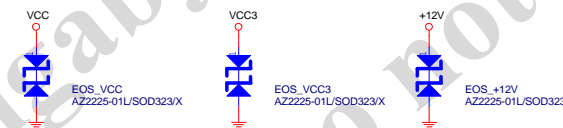
ATXX4 POWER CONNECTOR



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

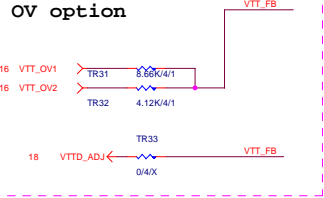


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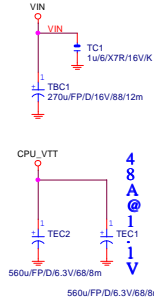
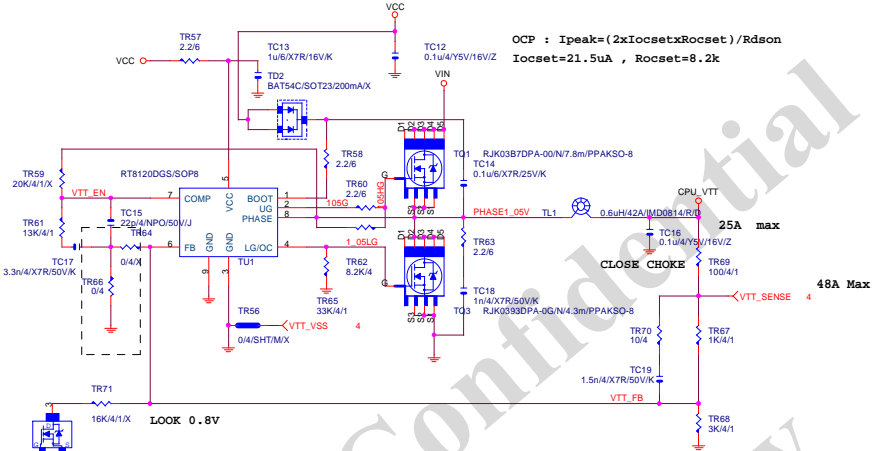
Title		
ATX CONNECTOR		
Size	Document Number	Rev
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CPU_VTT

VTT OV option

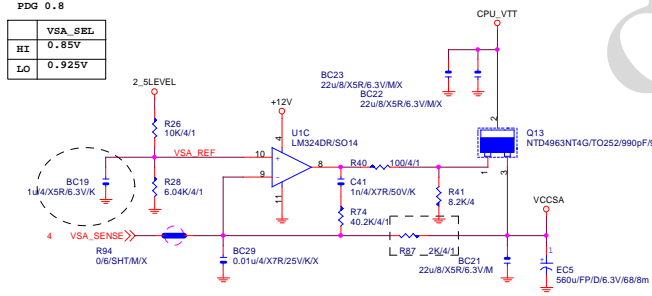


VTT_EN	
HI	ENABLE
LO	DISABLE

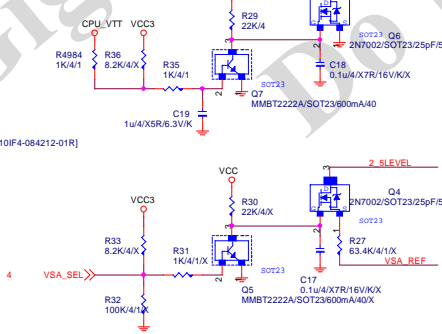


VCCSA

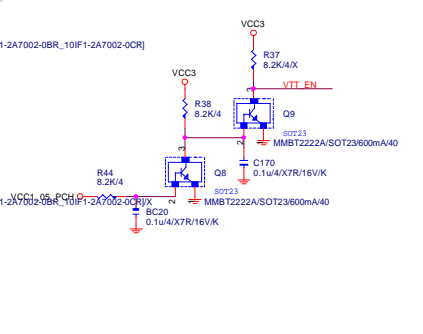
PDG	0.8
VSA_SEL	
HI	0.85V
LO	0.925V



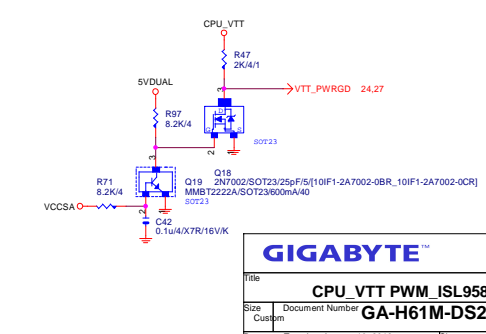
VCCSA_PWR_SEQ



CPU_VTT_PWR_SEQ

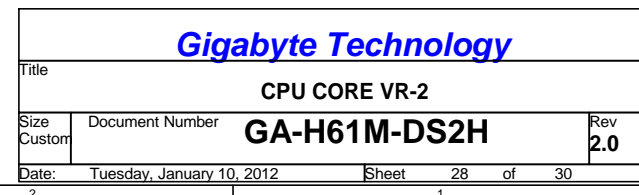


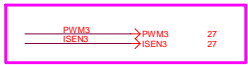
VTT_PWRGD



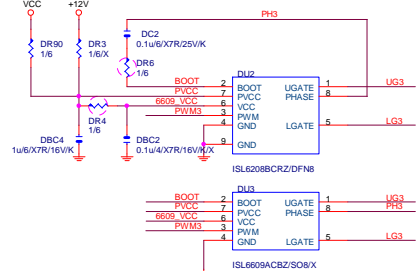
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File
CPU_VTT PWM_ISL95870CRZ
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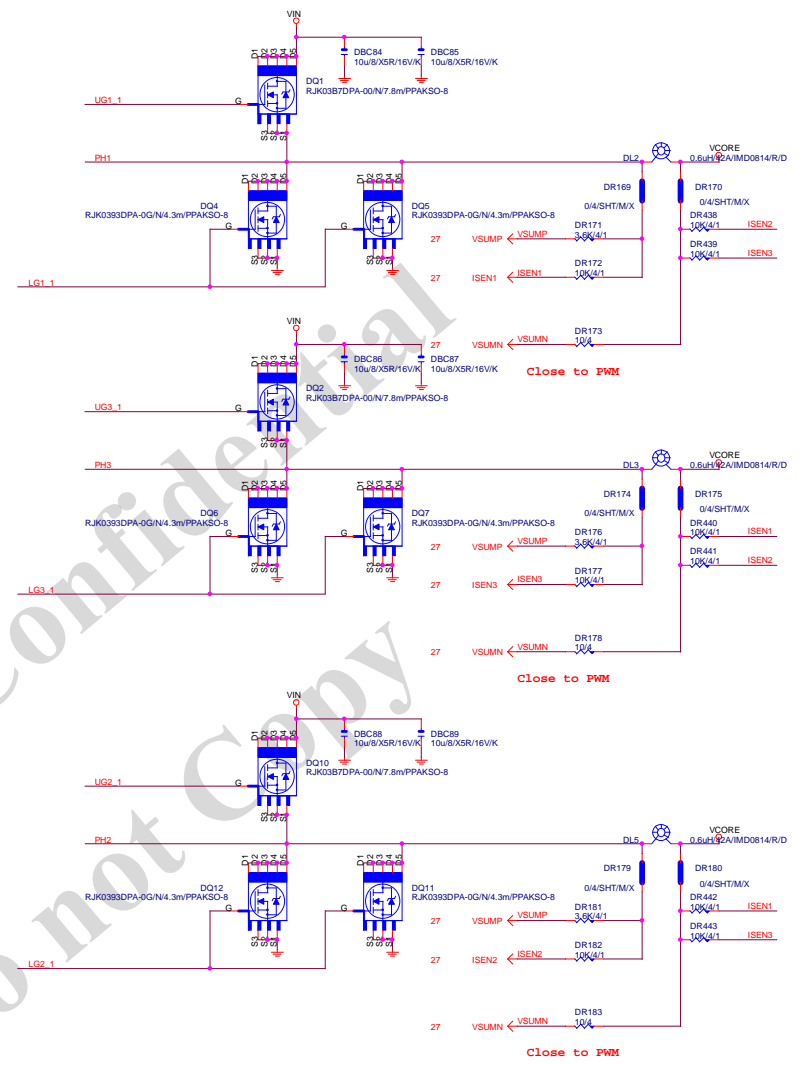
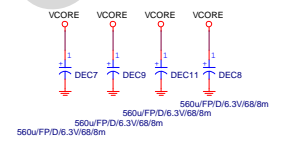
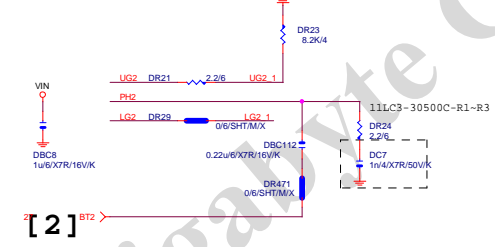
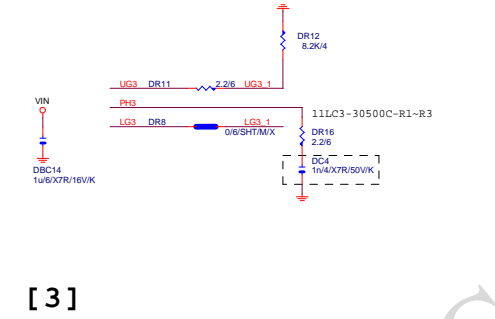
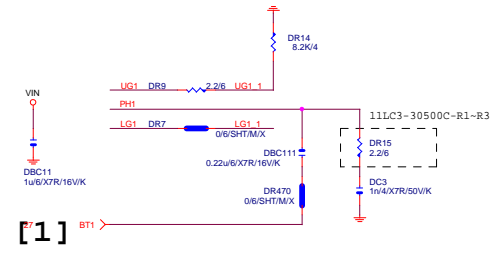
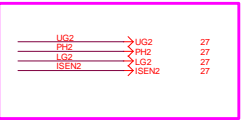




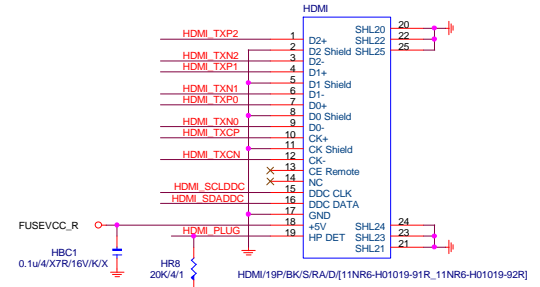
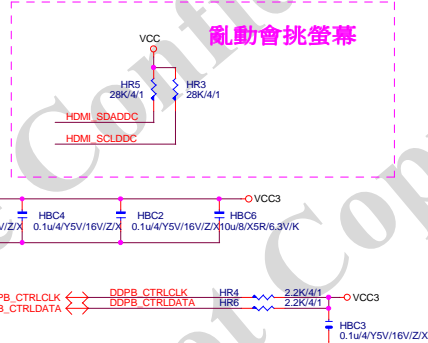
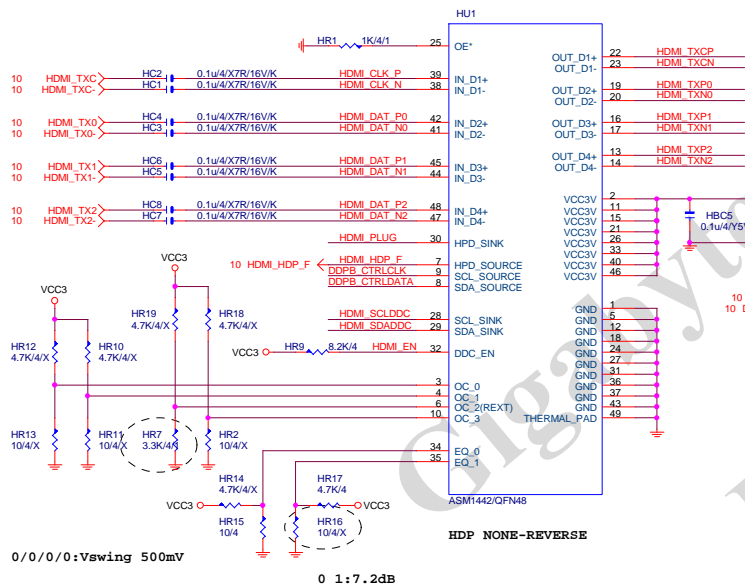
Pop 1S16425CB for PB1
(1S16425CBZ/S08)



6609 colay with 6208



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CPU CORE VR-3			
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HDMI			
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