

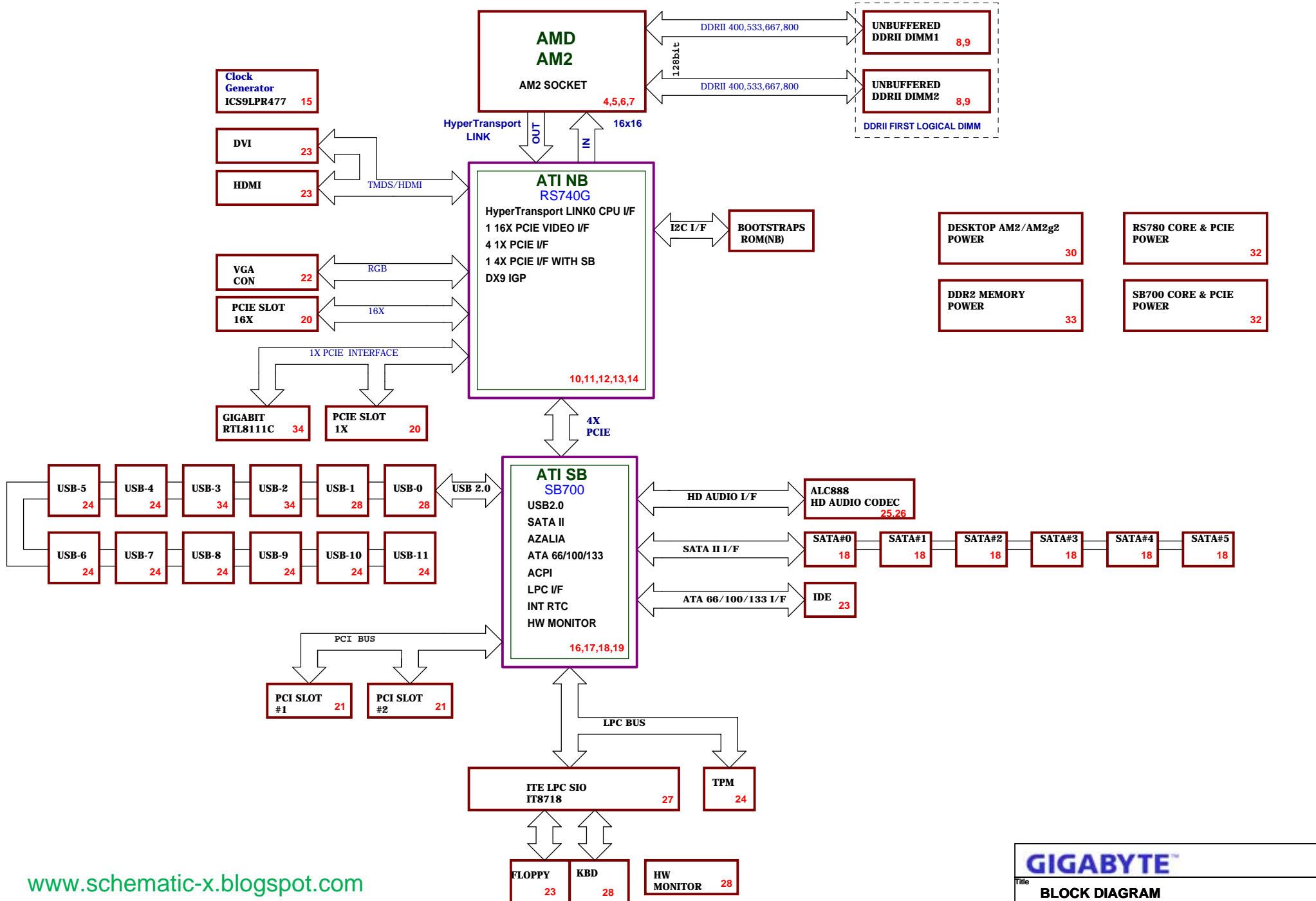
**Revision : 1.0**

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22	RGB Connector
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[illegible]

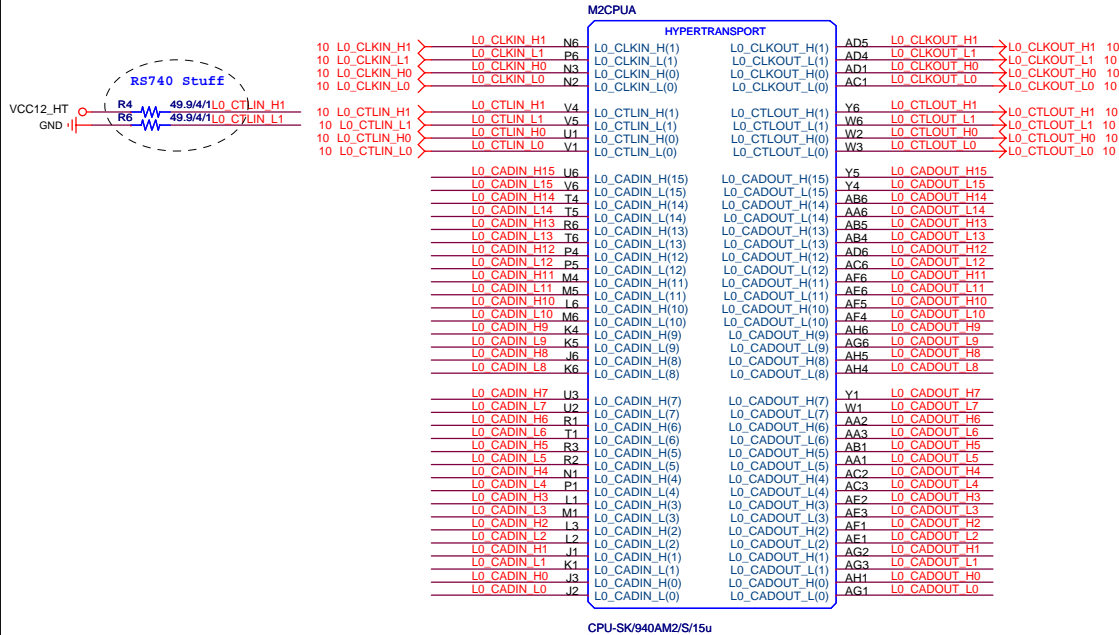


# RS740 CUSTOMER DESKTOP REFERENCE DESIGN



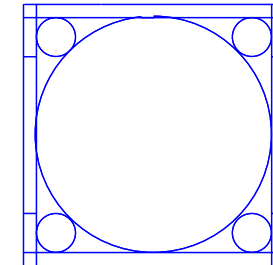
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CPU\_VDDA\_RUN = VDDA25  
VLDT\_RUN = VCC12\_HT  
CPU\_VDDIO\_SUS = DDR18V  
CPU\_VTT\_SUS = DDRVTT

VLDT\_A = VCC12\_HT  
VLDT\_B = HT12B



SOCKET\_M2

M2\_RM[12KRC-04K807-22R\_12KRC-04K807-23R]



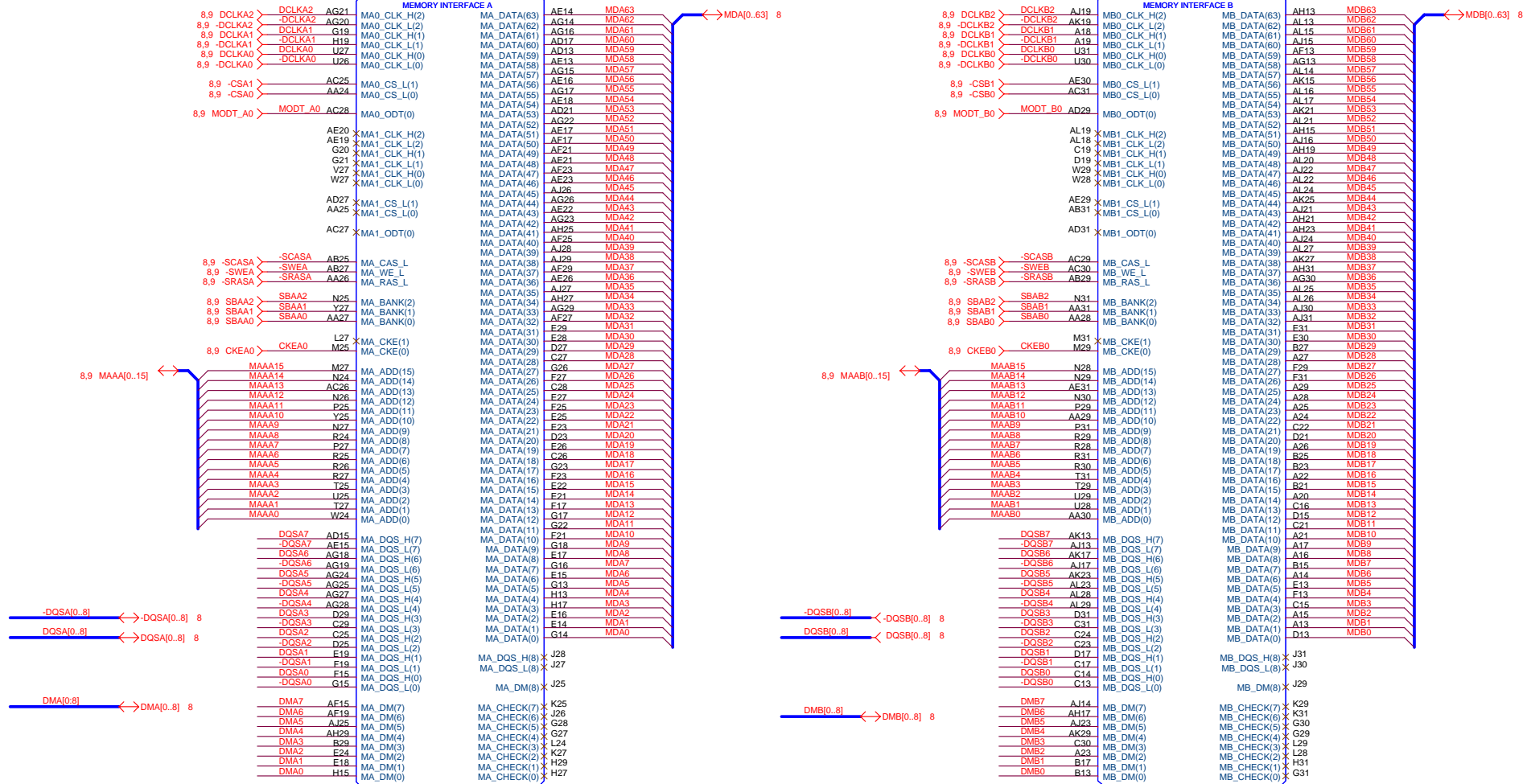
**GIGABYTE**

Title  
**CPU HYPER TRANSPORT**

Size	Document Number	Rev
Custom	<b>GA-MA74GM-S2H</b>	<b>1.0</b>
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M2CPUB

M2CPUC

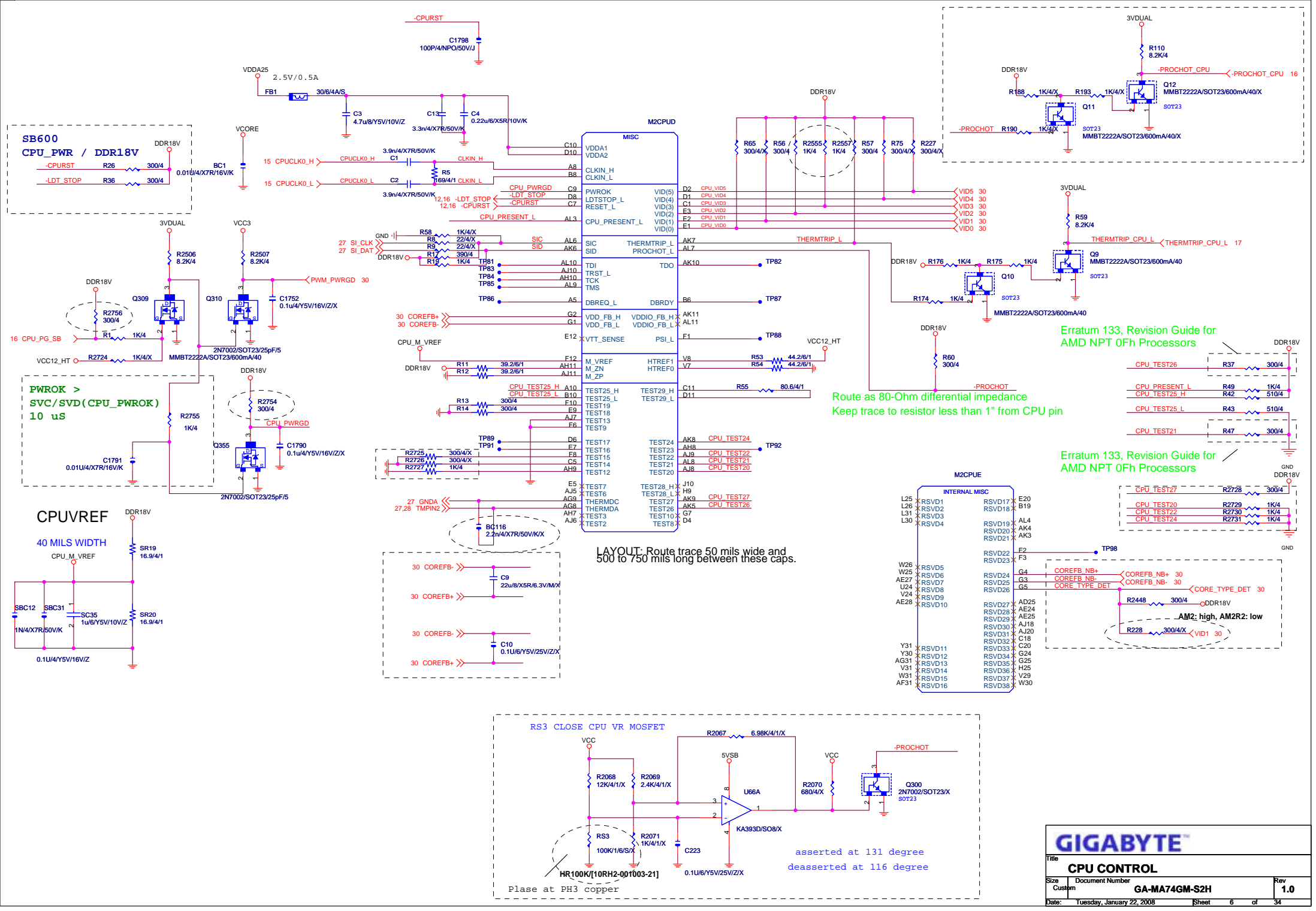


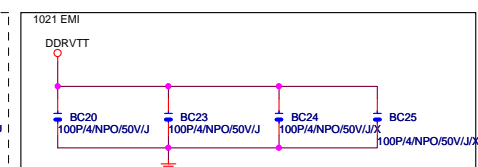
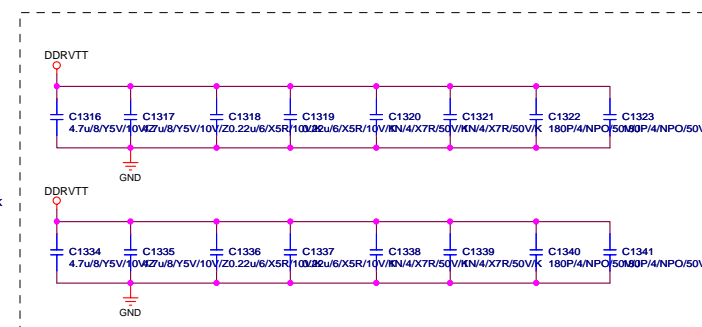
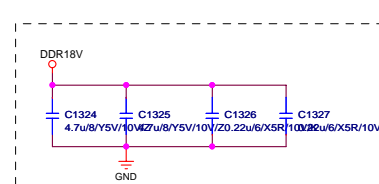
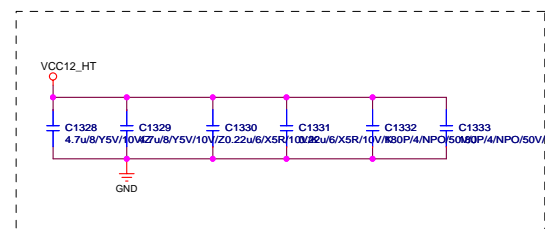
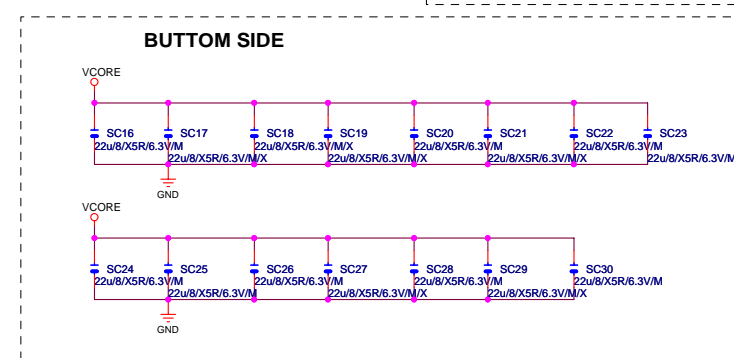
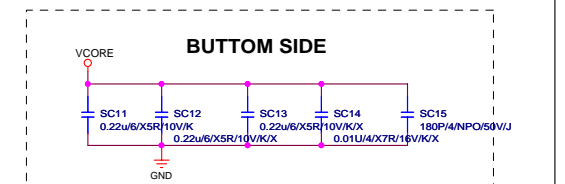
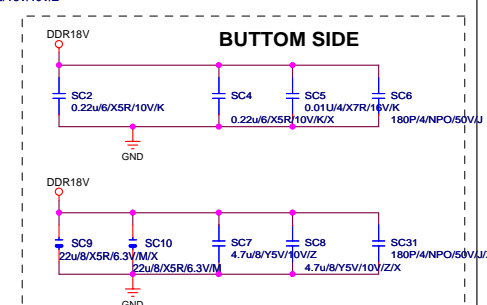
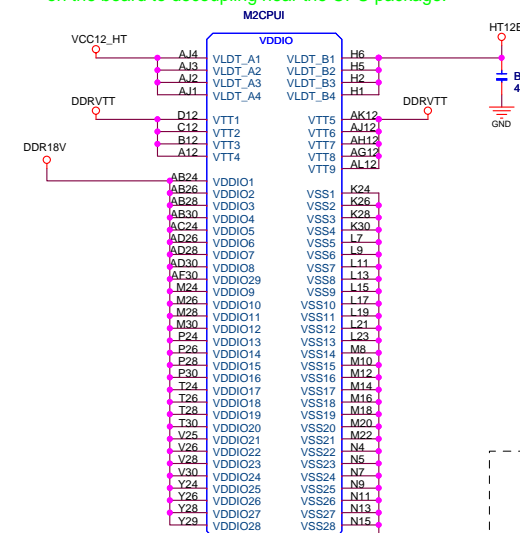
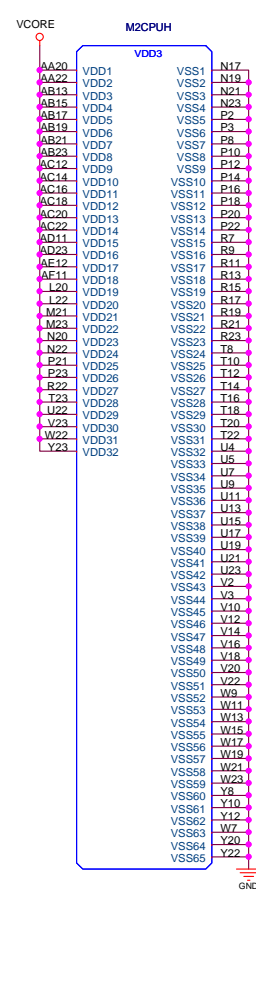
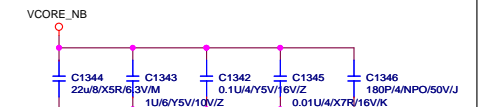
GIGABYTE™

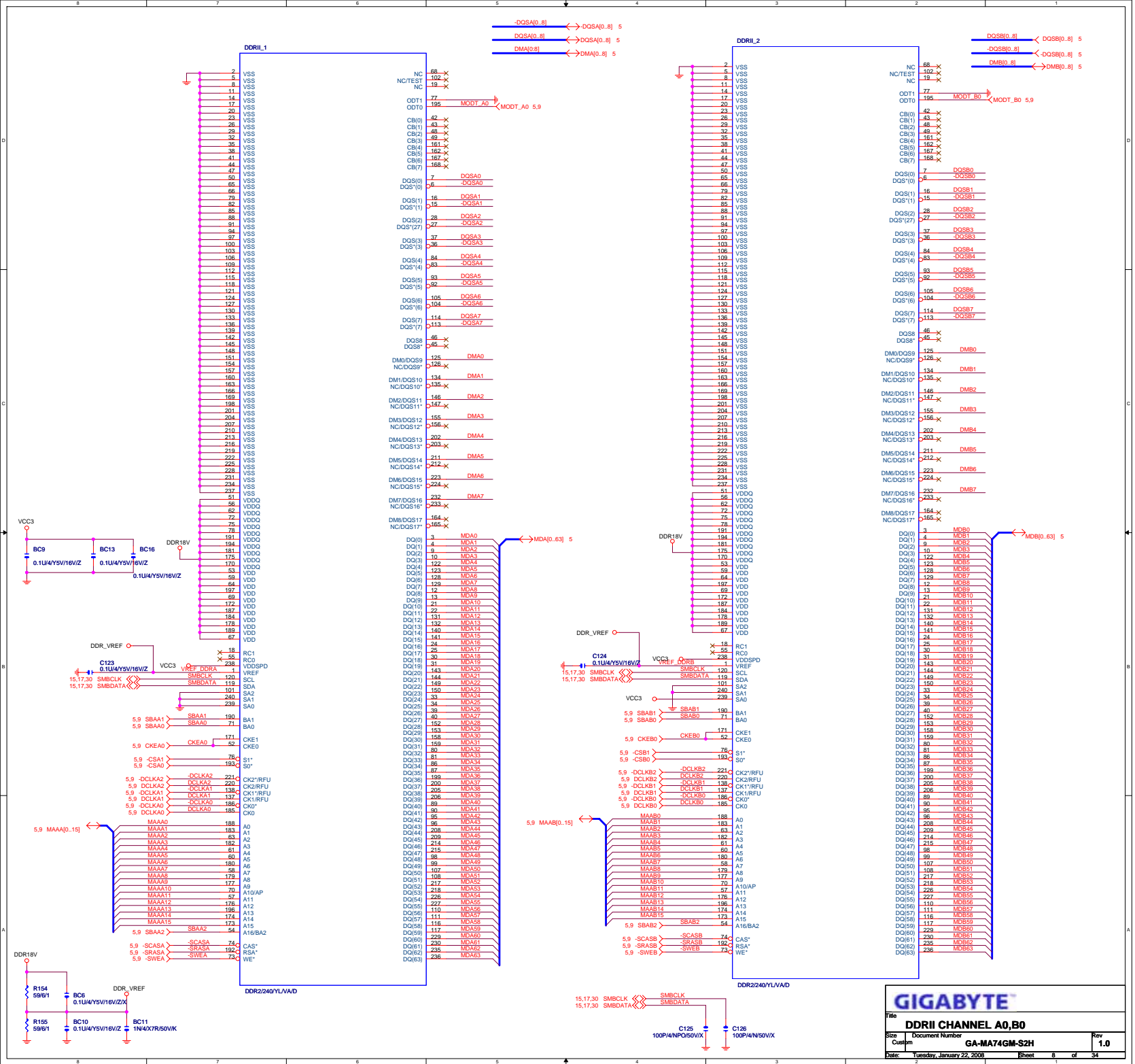
CPU DDRII MEMORY

Size Custom Document Number GA-MA74GM-S2H Rev 1.0

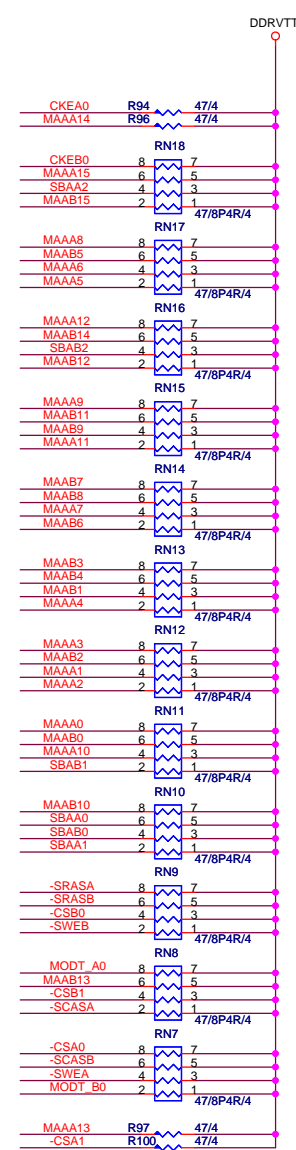
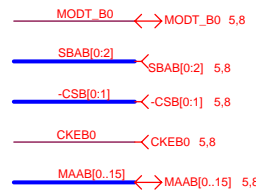
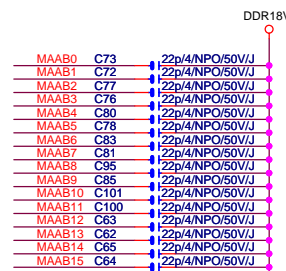
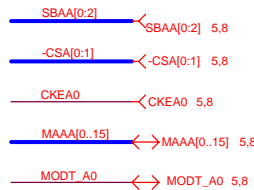
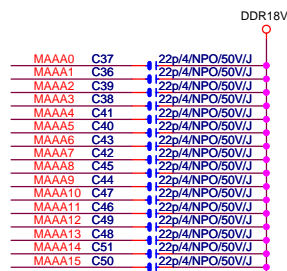
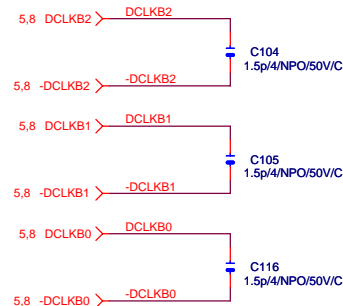
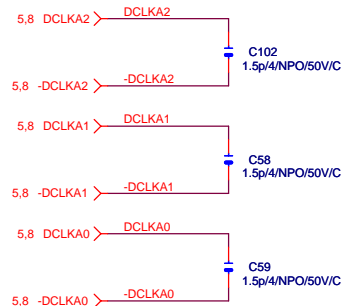
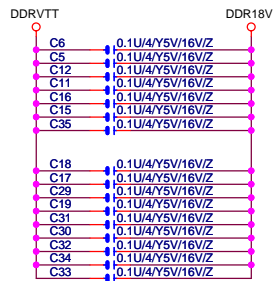
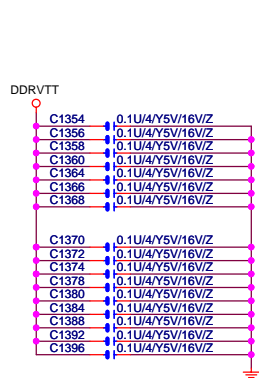
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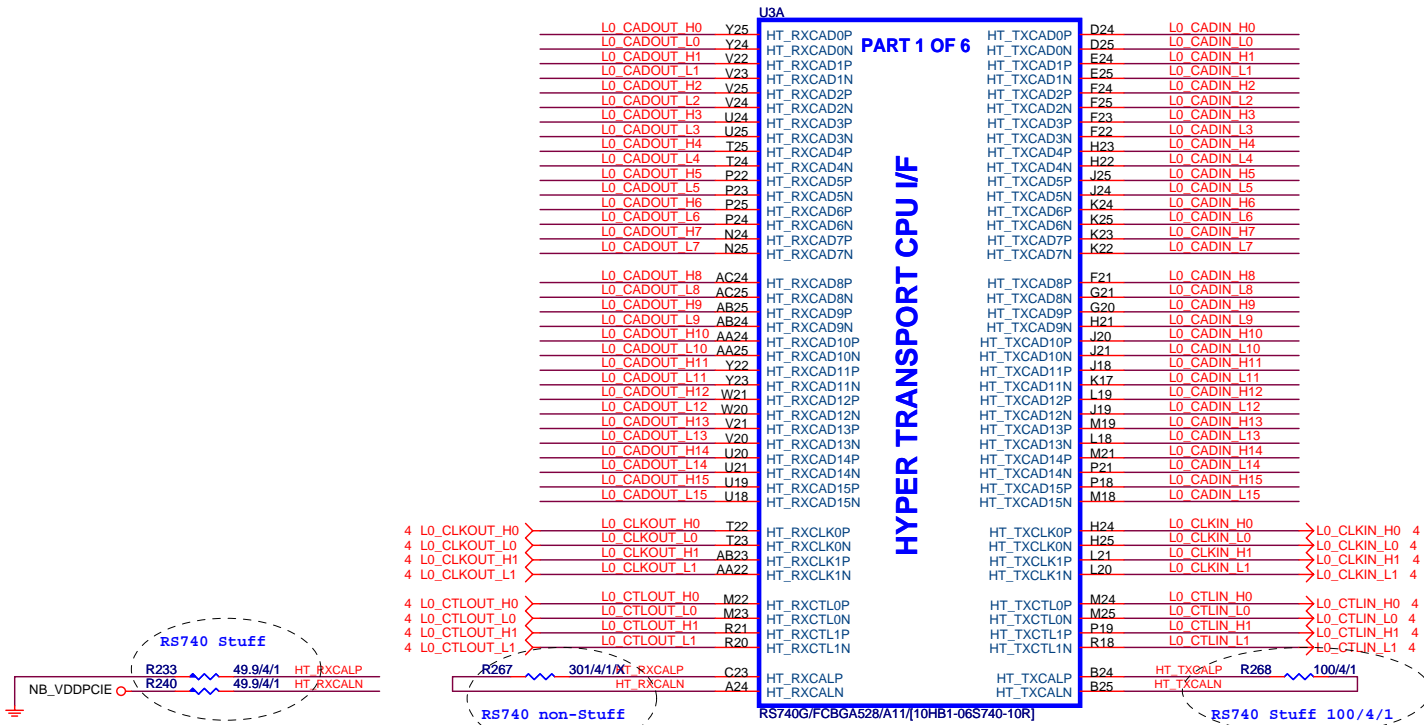










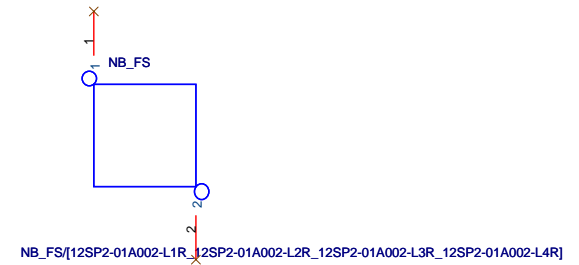


L0 CADIN\_L[0..15] <L0\_CADIN\_L[0..15] 4

L0 CADIN\_H[0..15] <L0\_CADIN\_H[0..15] 4

L0 CADOUT\_L[0..15] <L0\_CADOUT\_L[0..15] 4

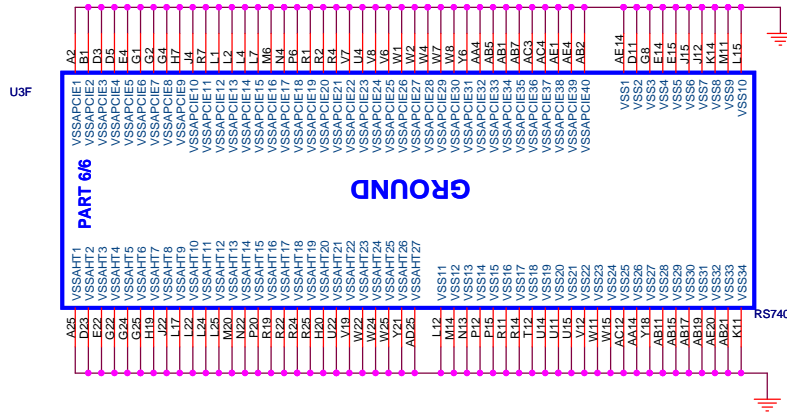
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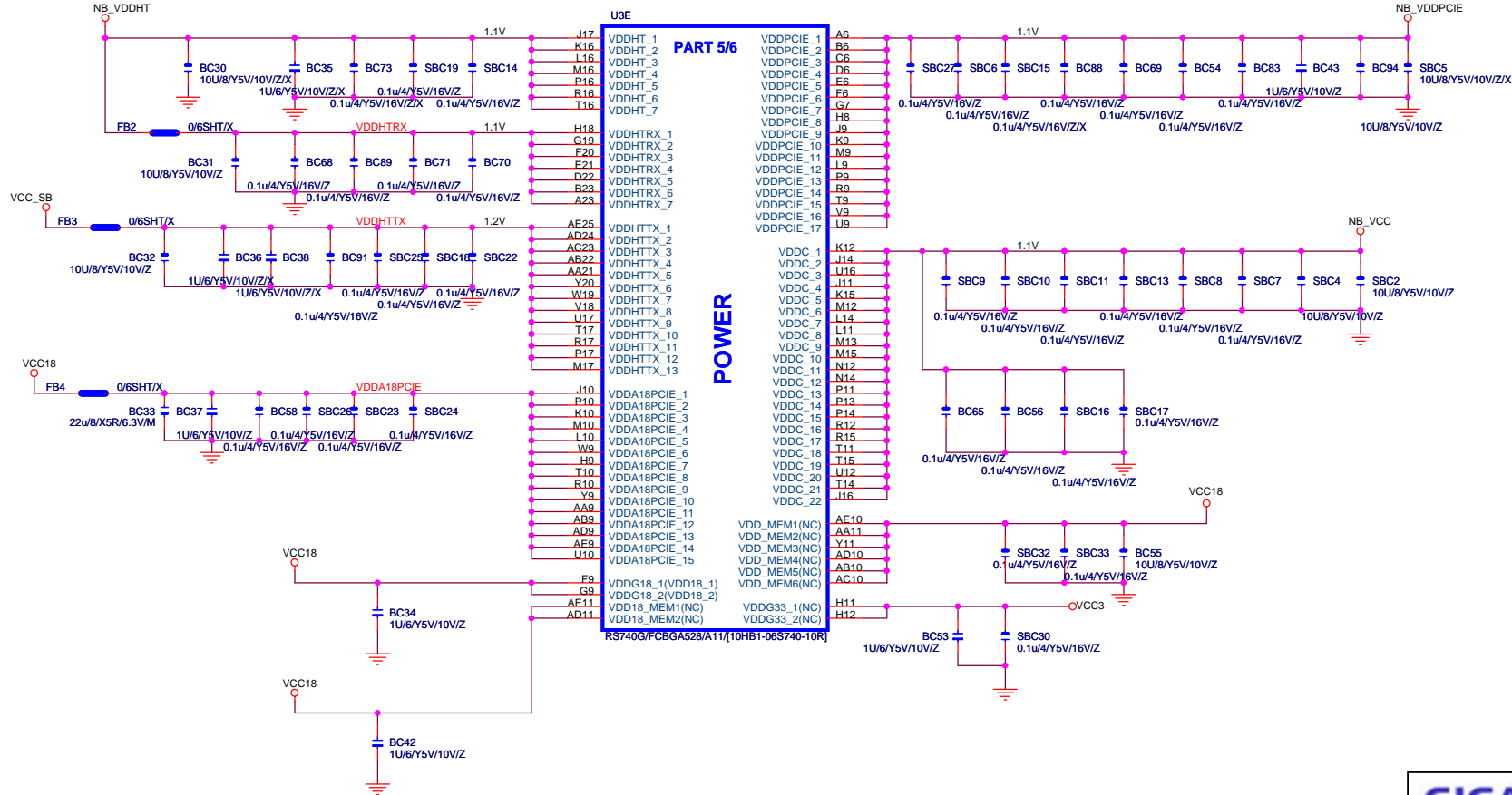






RS740/RX780/RS780 POWER DIFFERENCE TABLE

PIN NAME	RS740	RX780	RS780	PIN NAME	RS740	RX780	RS780
VDDHT	NC	+1.1V	+1.1V	IOPLLVD	+1.2V	NC	+1.1V
VDDHTRX	NC	+1.1V	+1.1V	AVDD	+3.3V	NC	+3.3V
VDDHTTX	+1.2V	+1.2V	+1.2V	AVDDDI	+1.8V	NC	+1.8V
VDDA18PCIE	NC	+1.8V	+1.8V	AVDDQ	+1.8V	NC	+1.8V
VDD18	+1.8V	+1.8V	+1.8V	PLLVD	+1.2V	NC	+1.1V
VDD18_MEM	NC	NC	+1.8V	PLLVD18	+1.8V	NC	+1.8V
VDDPCIE	+1.2V	+1.1V	+1.1V	VDDA18PCIEPLL	+1.2V	+1.8V	+1.8V
VDDC	+1.2V	+1.1V	+1.1V	VDDA18HTPLL	+1.8V	+1.8V	+1.8V
VDD_MEM	+1.8V	NC	+1.8V(DDR2) +1.5V(DDR3)	VDDLTP18	+1.8V	NC	+1.8V
VDD33	+3.3V	NC	+3.3V	VDDLTP18	+1.8V	NC	+1.8V
IOPLLVD18	+1.8V	NC	+1.8V	VDDLTP18	+1.8V	NC	+1.8V




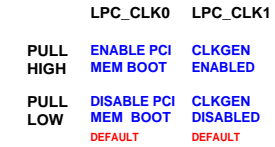
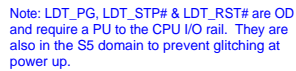






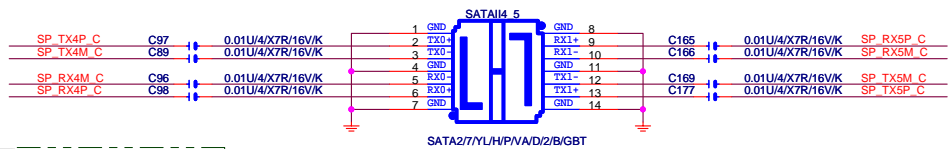
A diagram showing a square with a vertical line and a horizontal line. The vertical line is labeled 'SB\_HS' and has a small circle at its bottom end. The horizontal line is labeled 'SB\_HS' and has a small circle at its right end.

X4   
SHW/D0.64\*5.08\*6.74









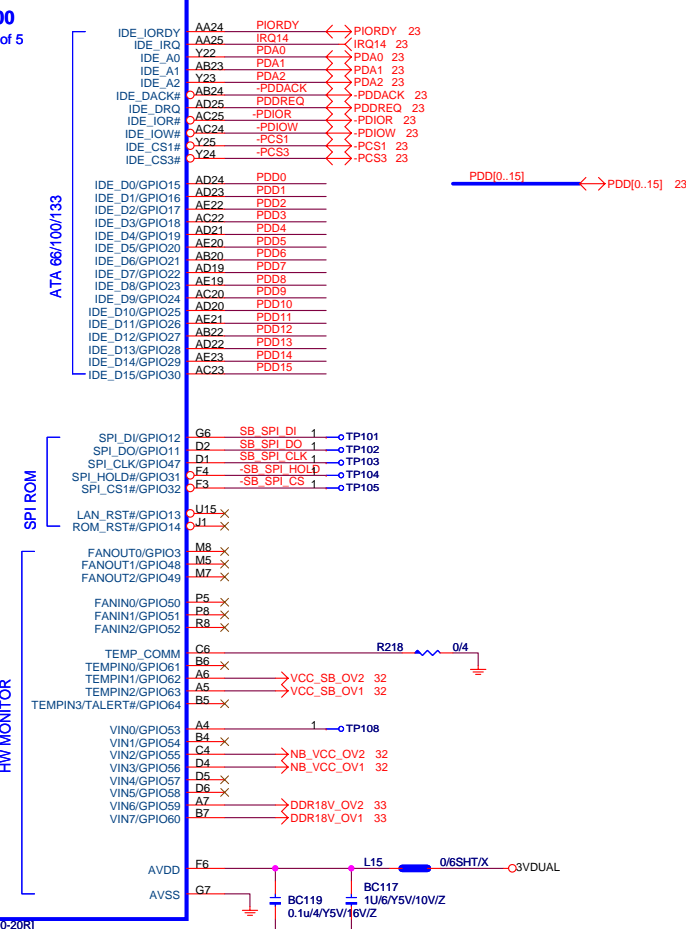
**PLACE SATA AC COUPLING  
CAPS CLOSE TO SB600**



## SERIAL ATA

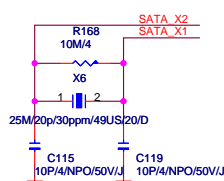
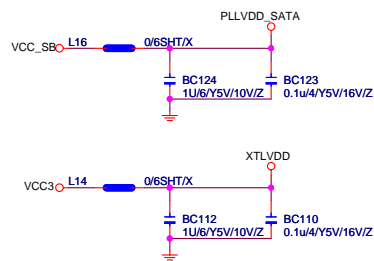
SATA PWR

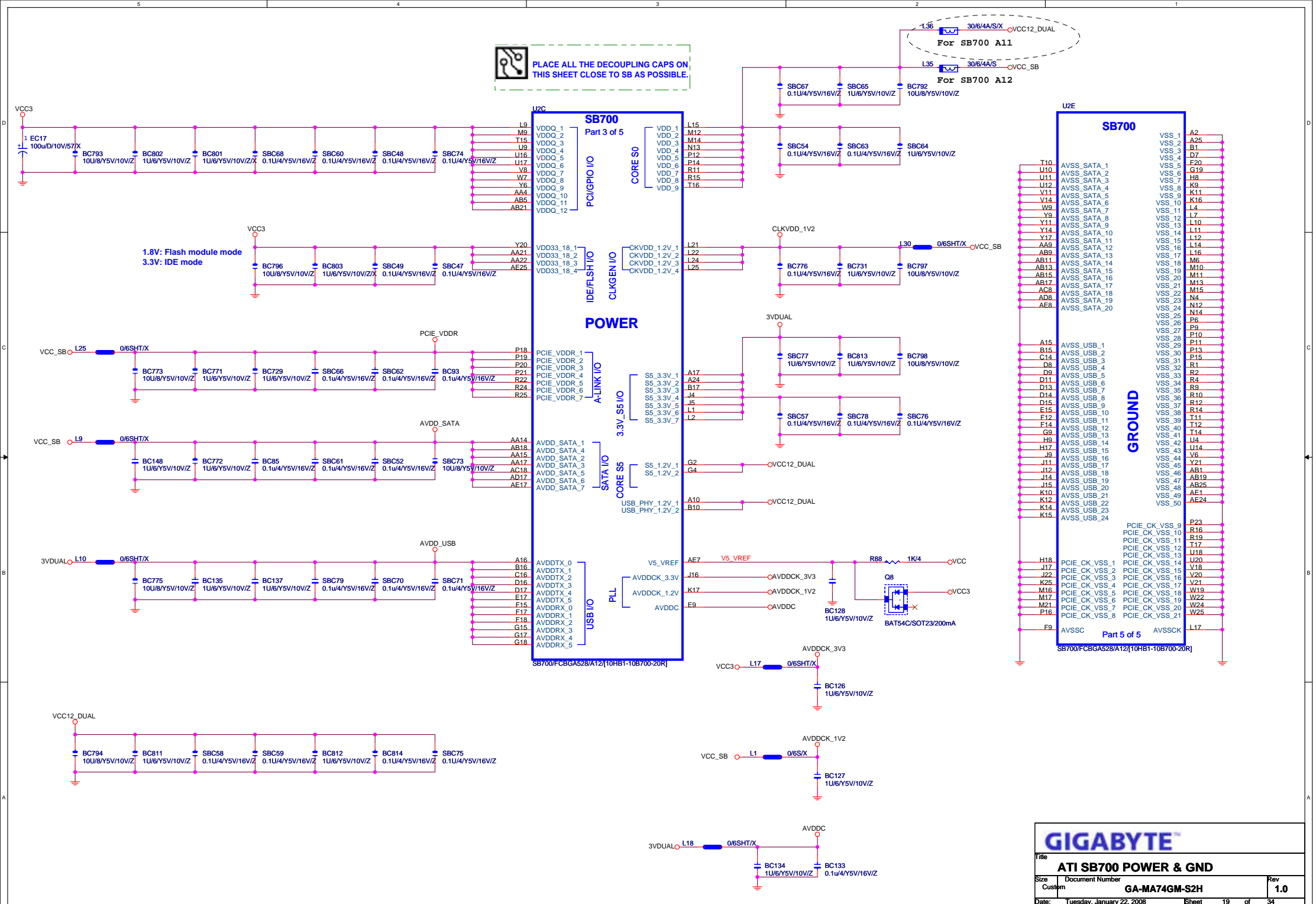
## HW MONITOR

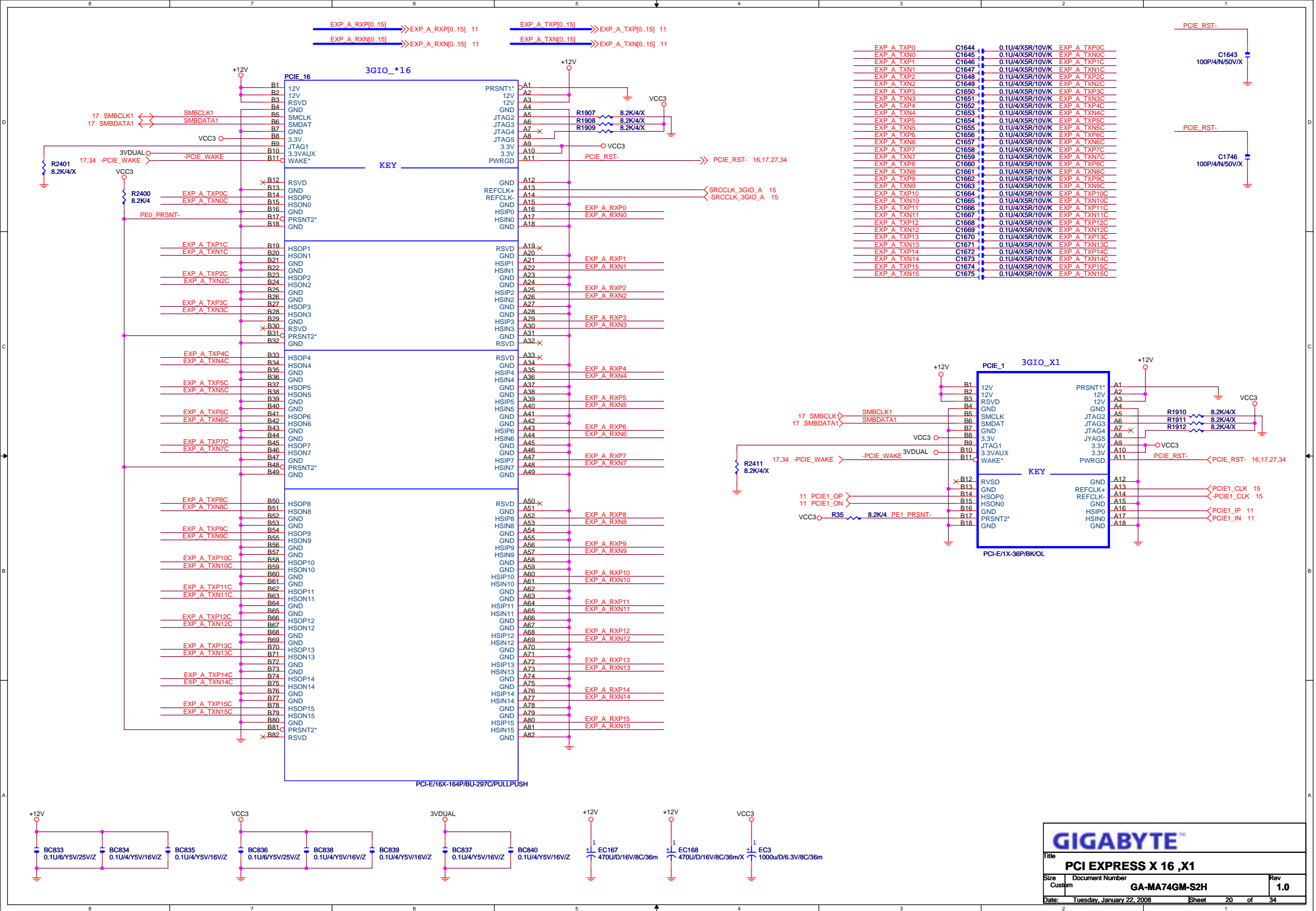


PLACE SATA\_CAL  
RES VERY CLOSE  
TO BALL OF U600

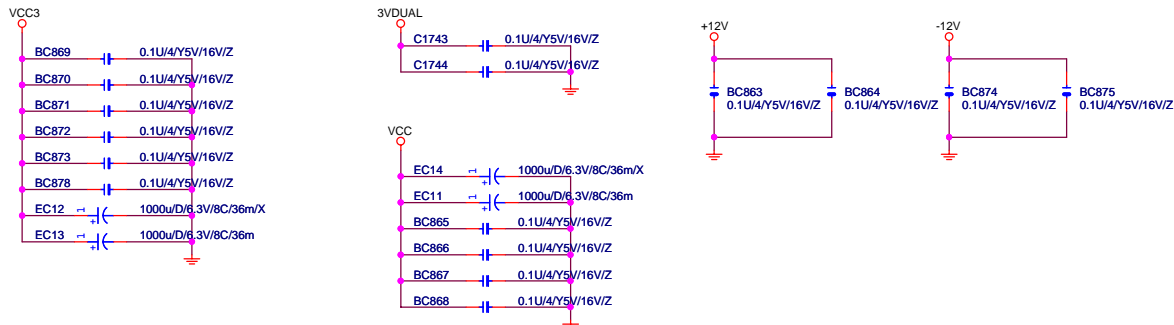
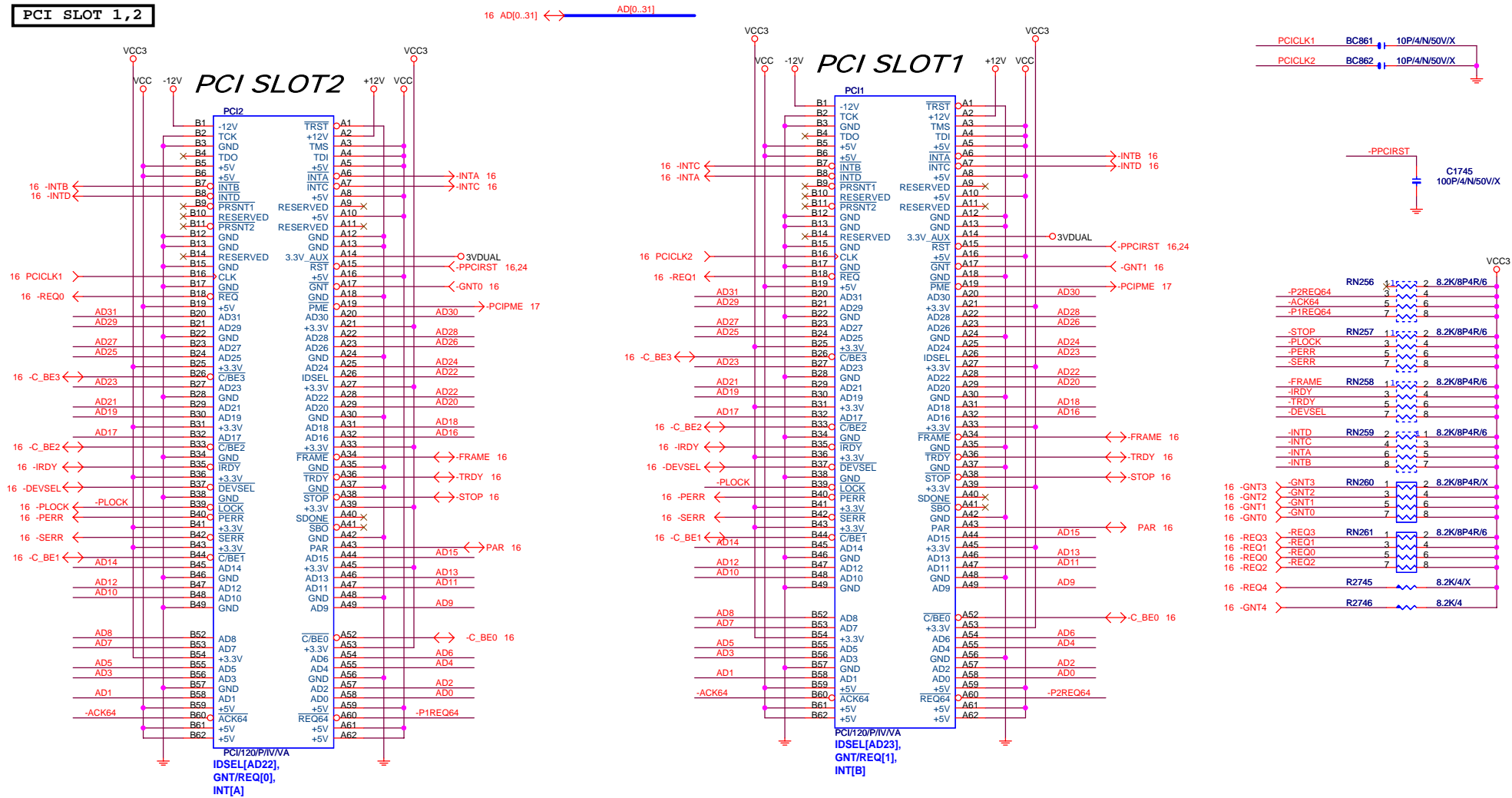
**NOTE:**  
R650 IS 1K 1% FOR 25MHz  
XTAL, 4.99K 1% FOR 100MHz  
INTERNAL CLOCK

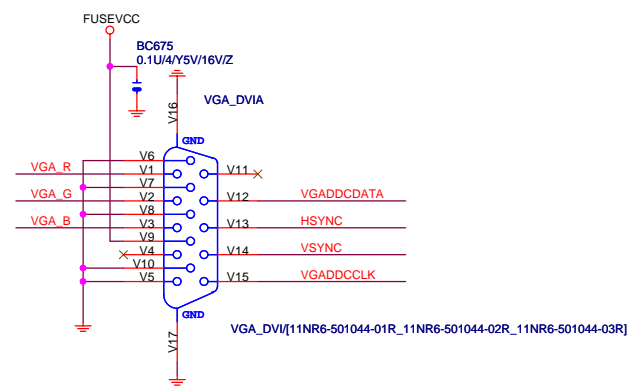
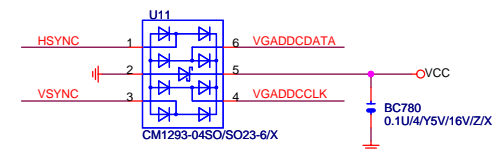
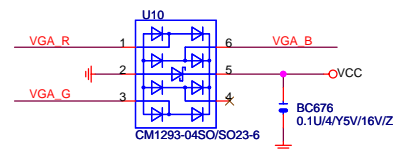
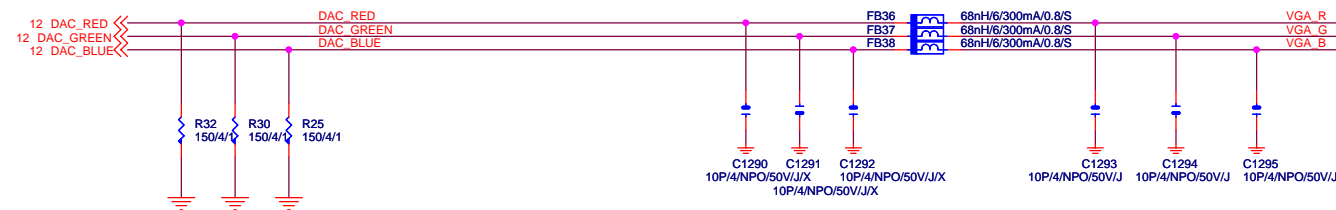
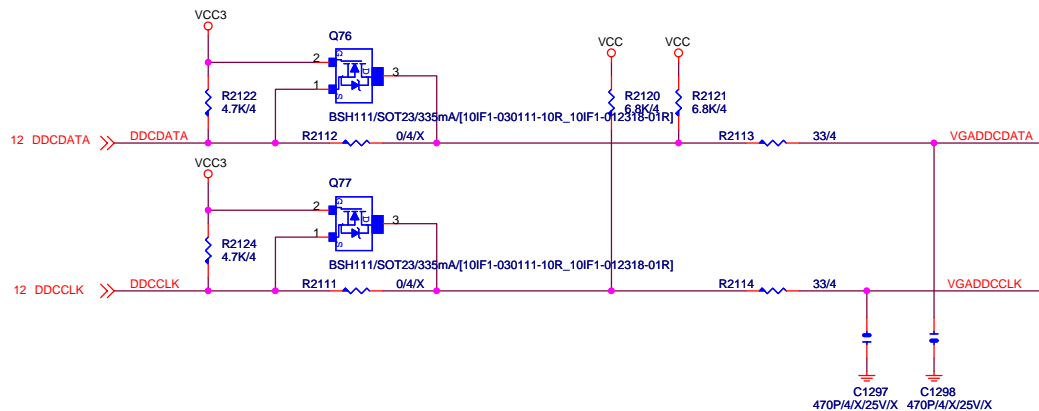
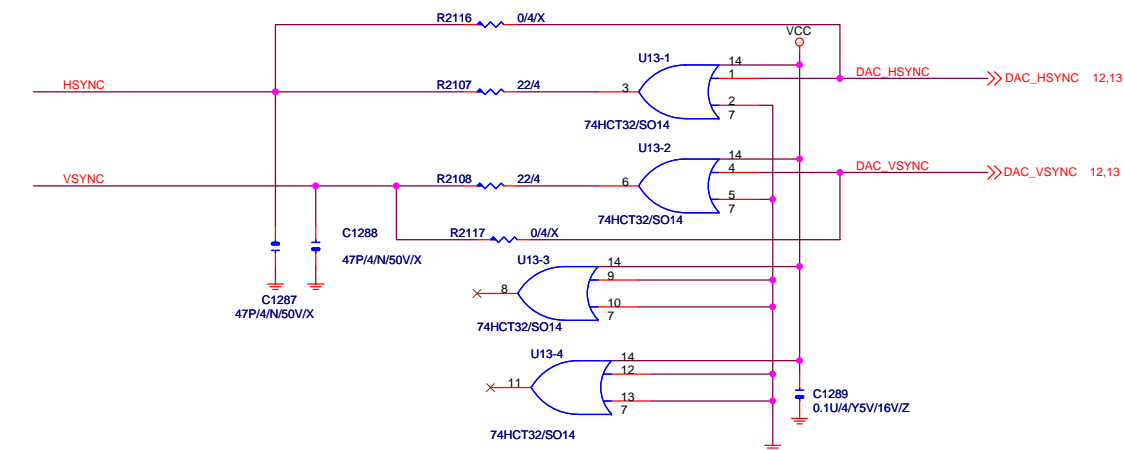


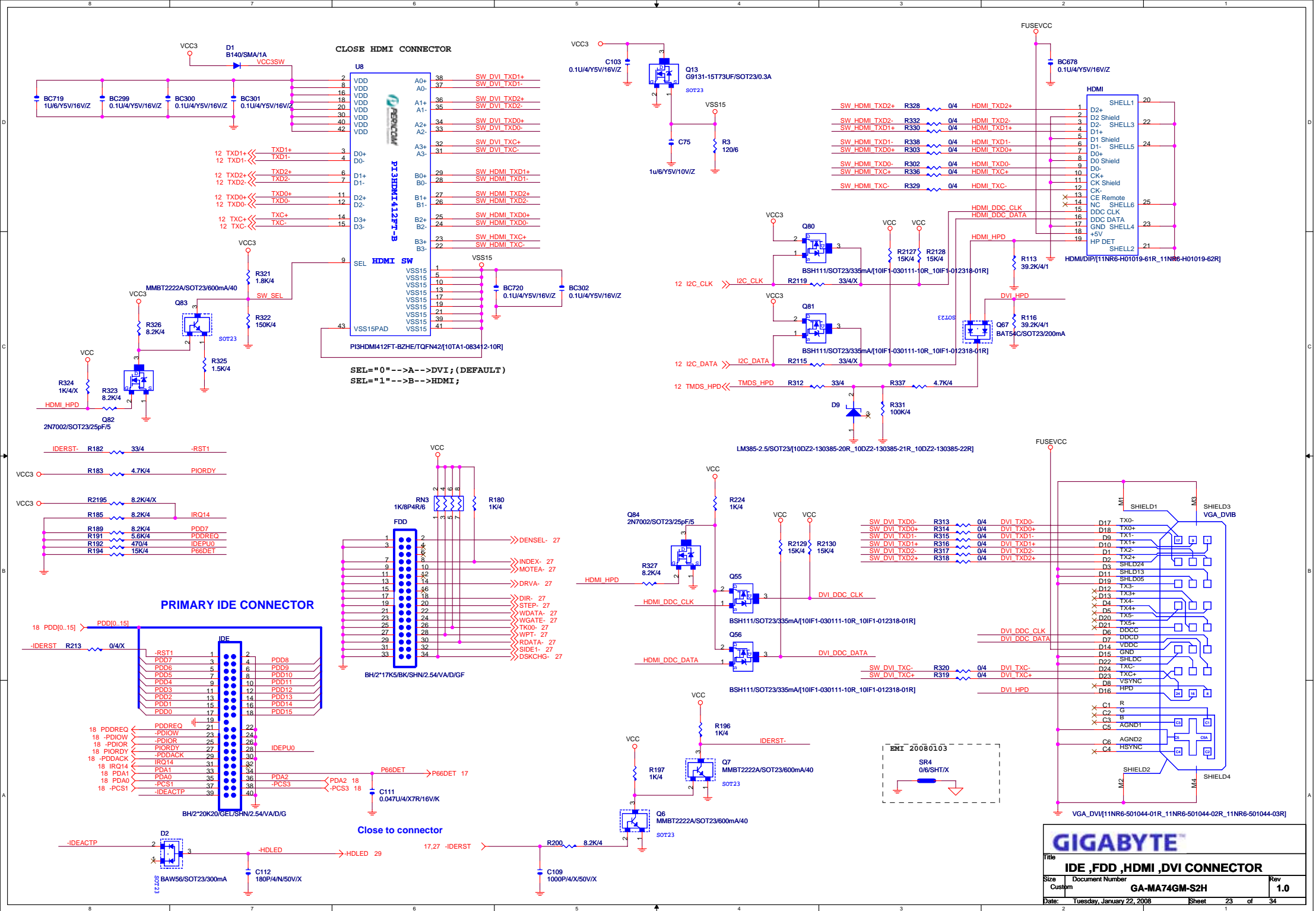




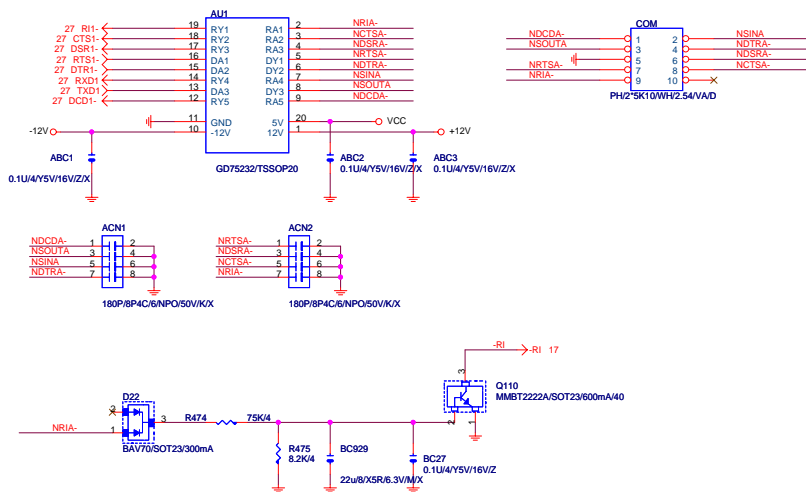
PCI SLOT 1,2
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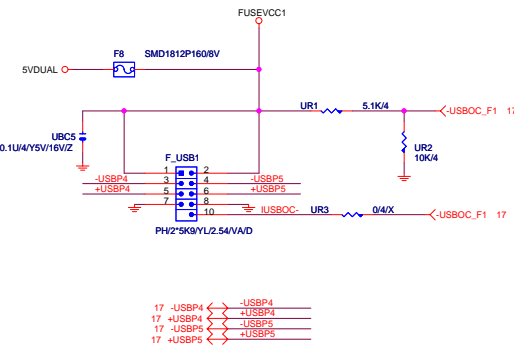




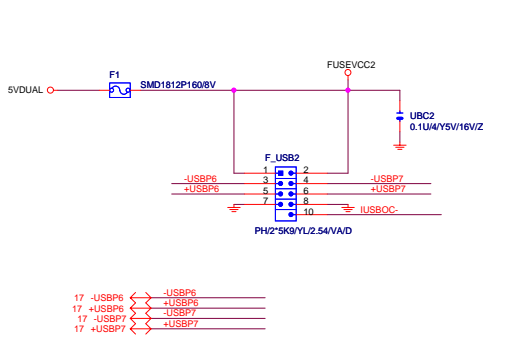




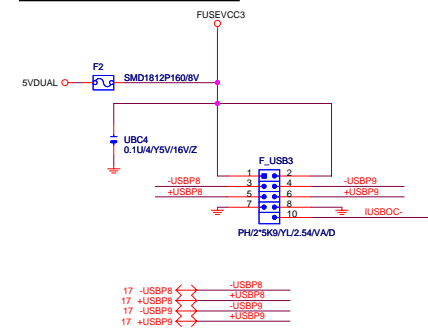
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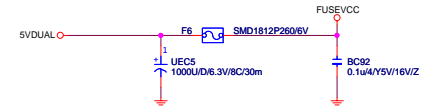
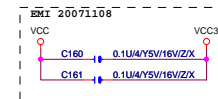
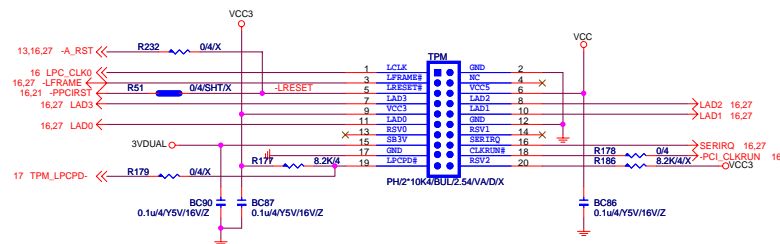
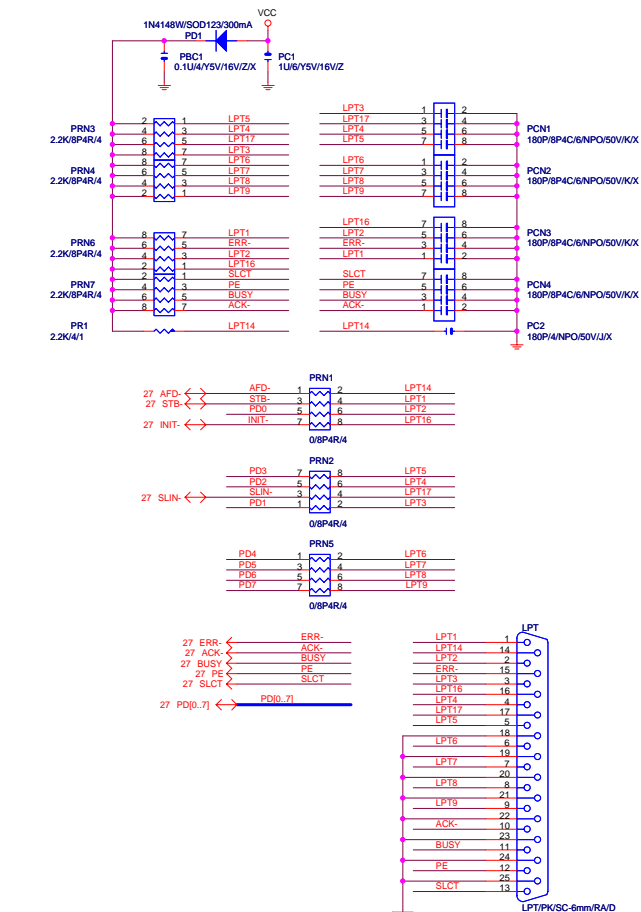
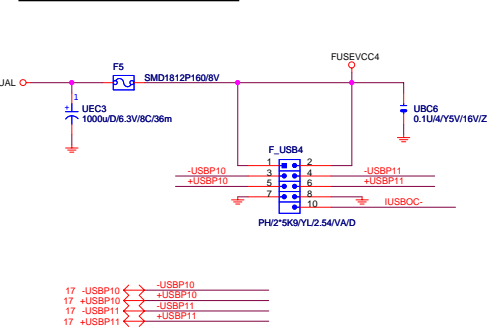
### FRONT SIDE USB2



### FRONT SIDE USB3



### FRONT SIDE USB4



**GIGABYTE**

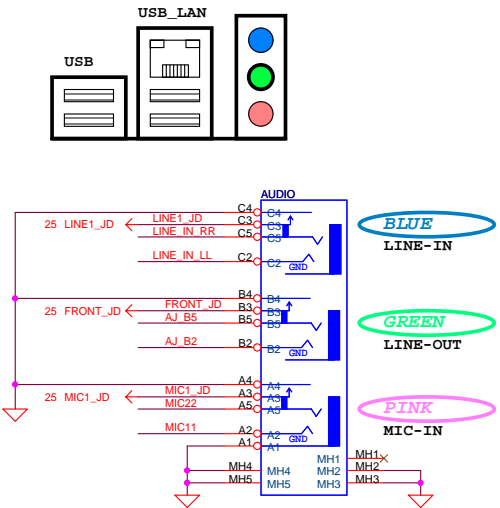
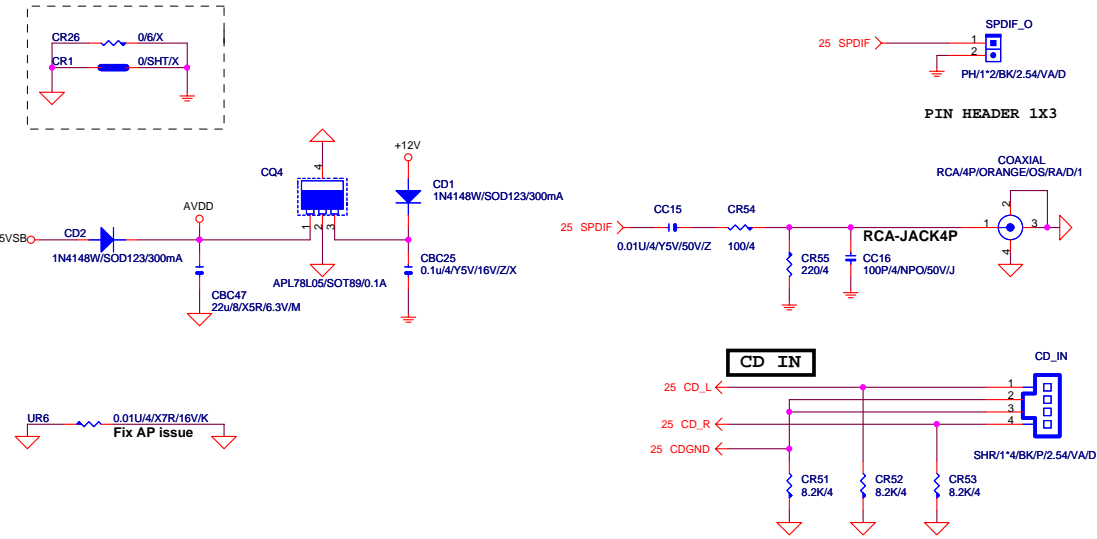
COM/LPT/F\_USB/TPM

GA-MAT4GM-S2H

1.0

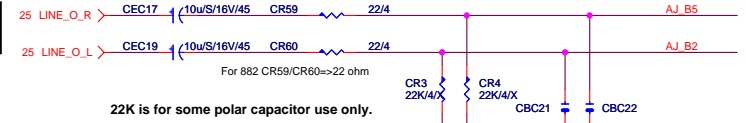




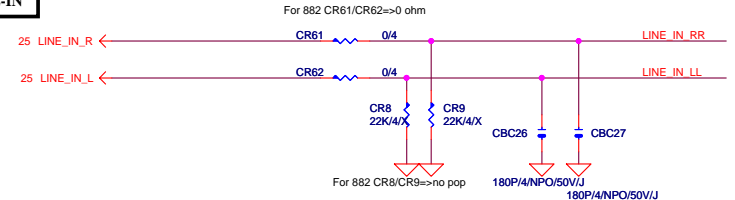


A3RP13P/BU,GE,PK/RA/D/1/A[11NR6-403007-71R\_11NR6-403007-72R\_11NR6-403007-73R\_11NR6-403007-74R]

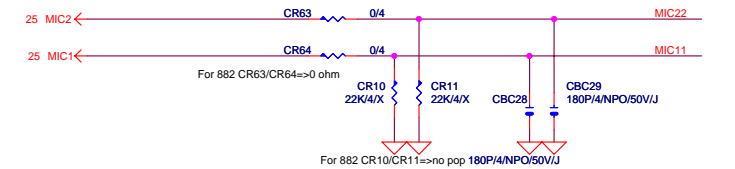
LINE OUT  
FRONT OUT

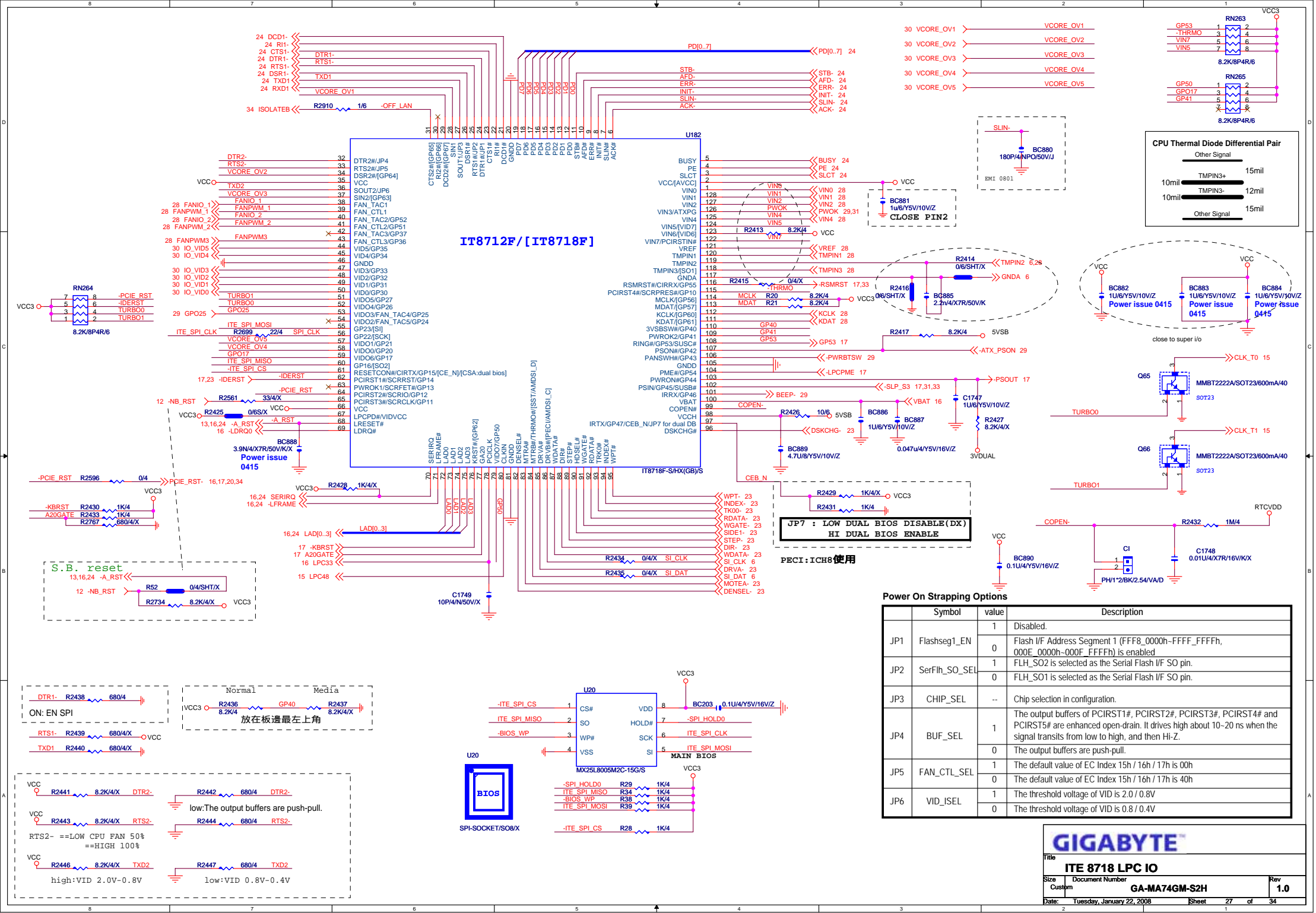


LINE-IN

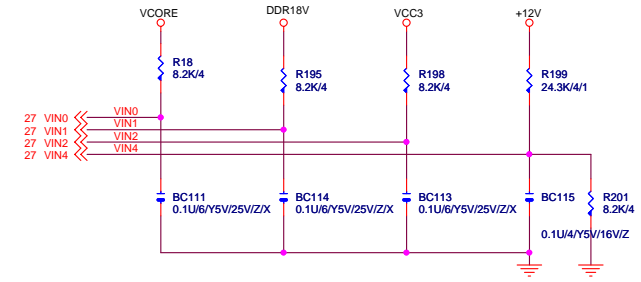
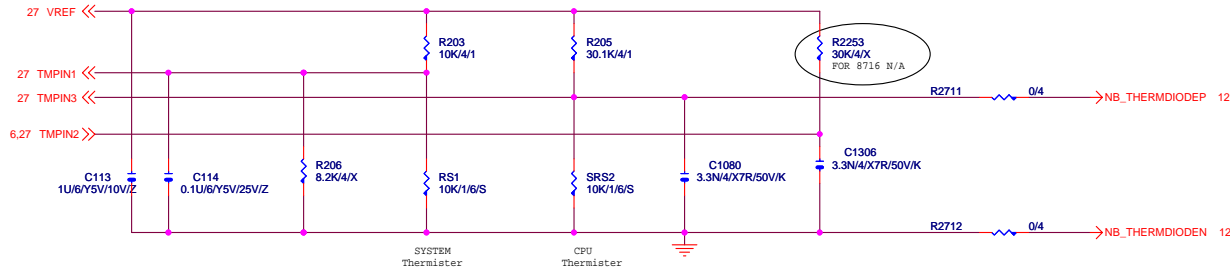


MIC

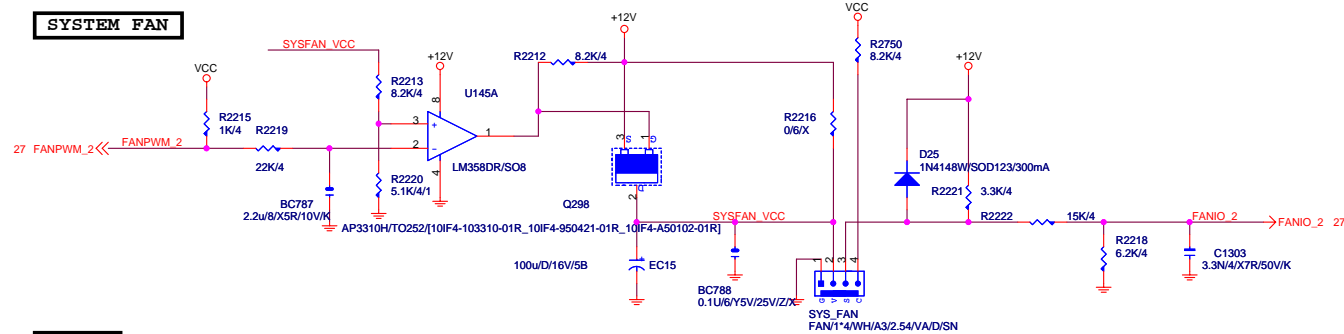




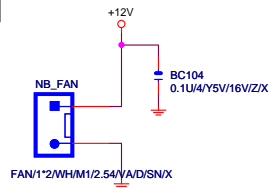
# Hardware Monitor circuits



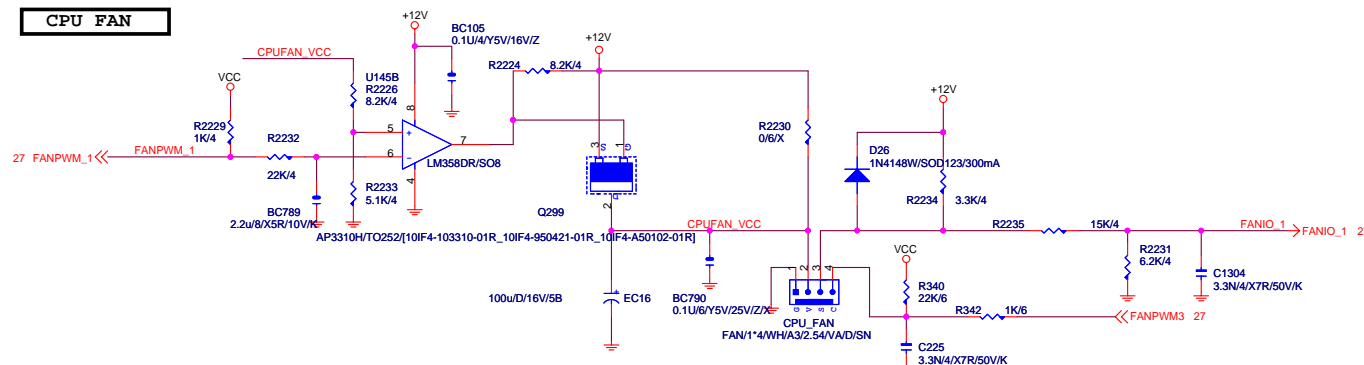
## SYSTEM FAN



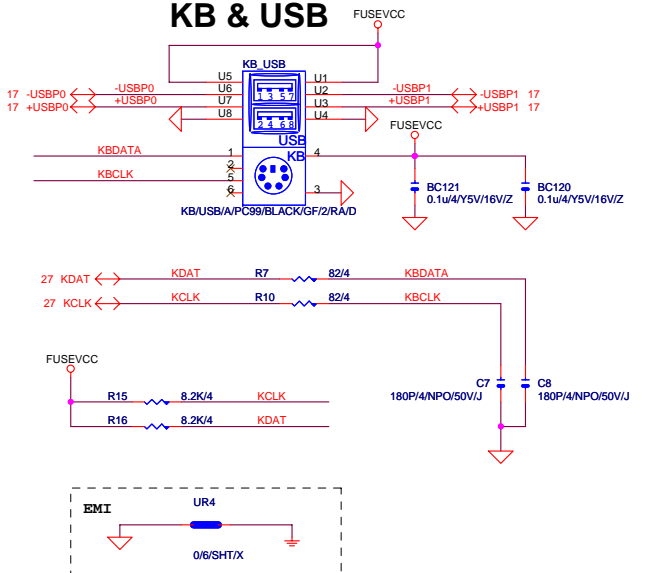
## NB FAN



## CPU FAN



## KB & USB



**GIGABYTE**

FAN/HWMO ,KB/USB

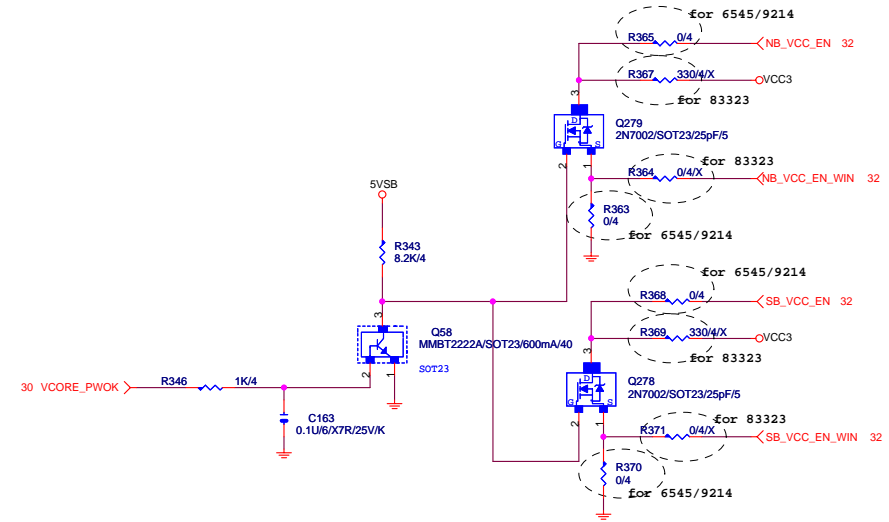
Size Custom Document Number GA-MA74GM-S2H

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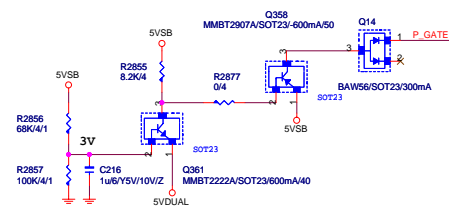
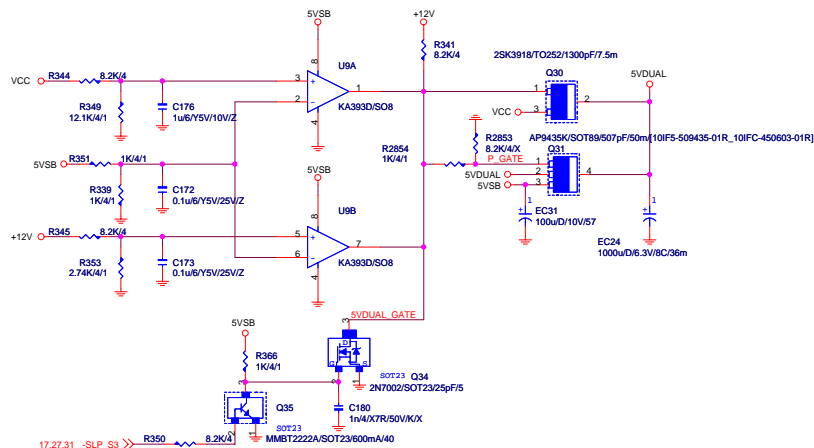




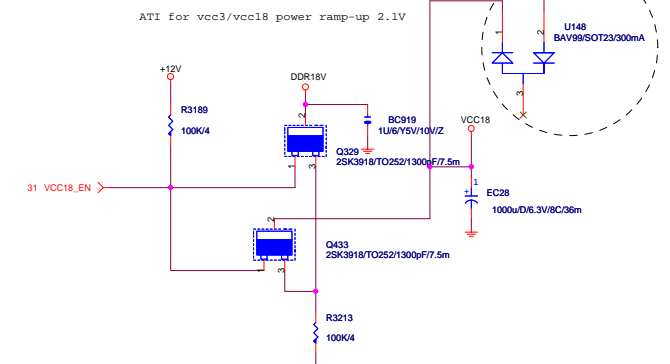
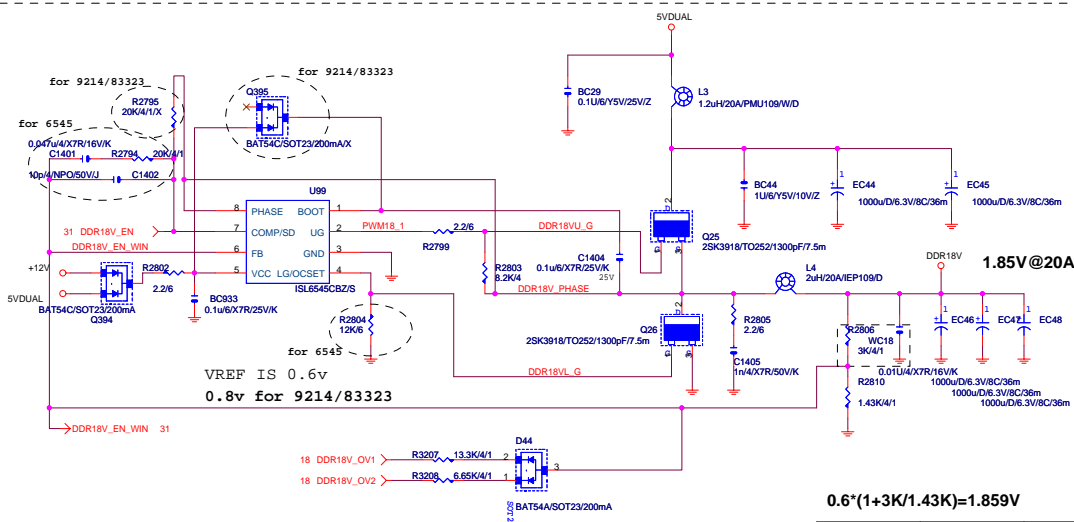
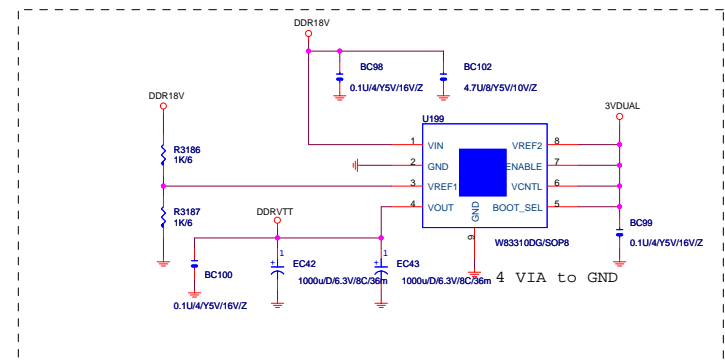
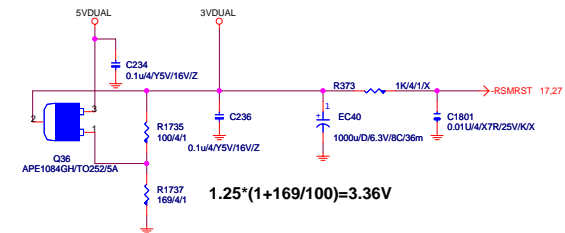




## 5VDUAL



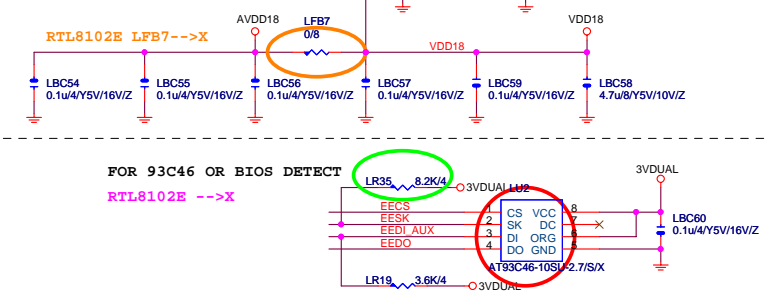
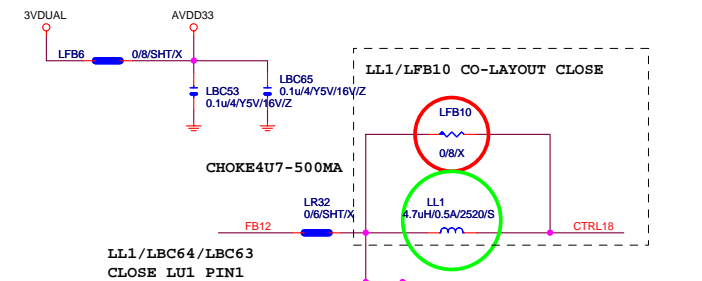
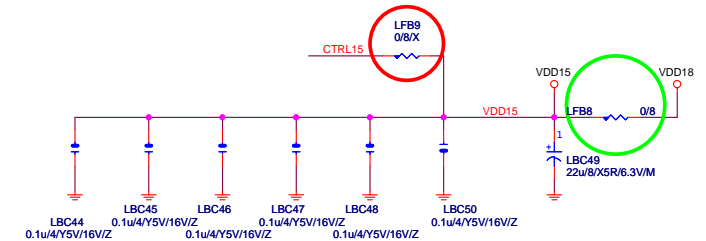
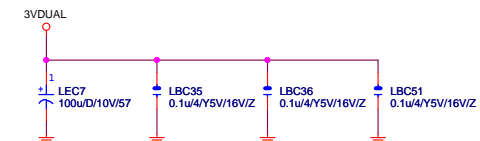
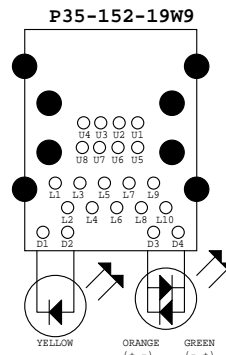
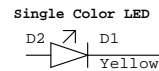
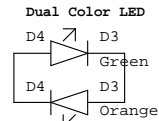
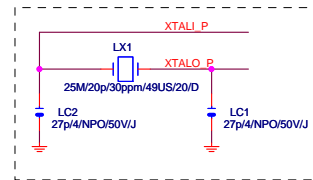
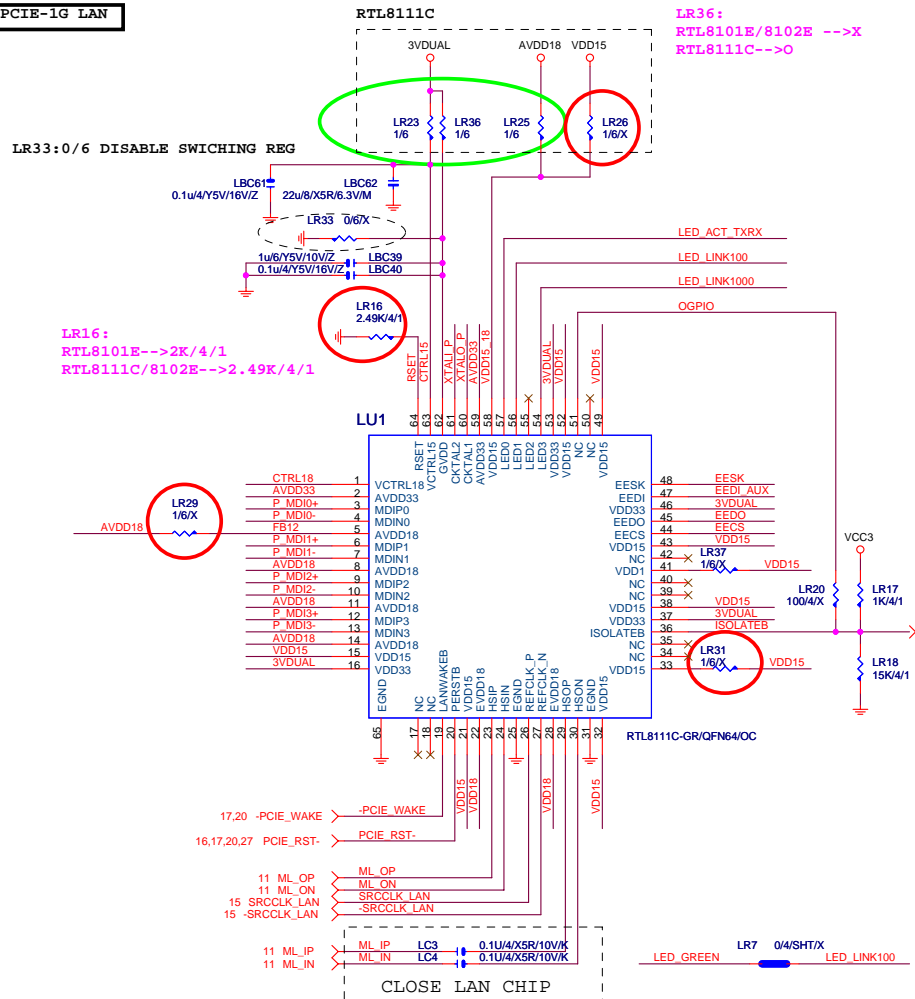
## 3VDUAL



$$0.6 \cdot (1 + 3K/1.43K) = 1.859V$$

DDR18V_OV1	DDR18V_OV2	DDR18V
L	X	1.90V
X	L	2.00V
L	L	2.10V

## PCIE-1G LAN



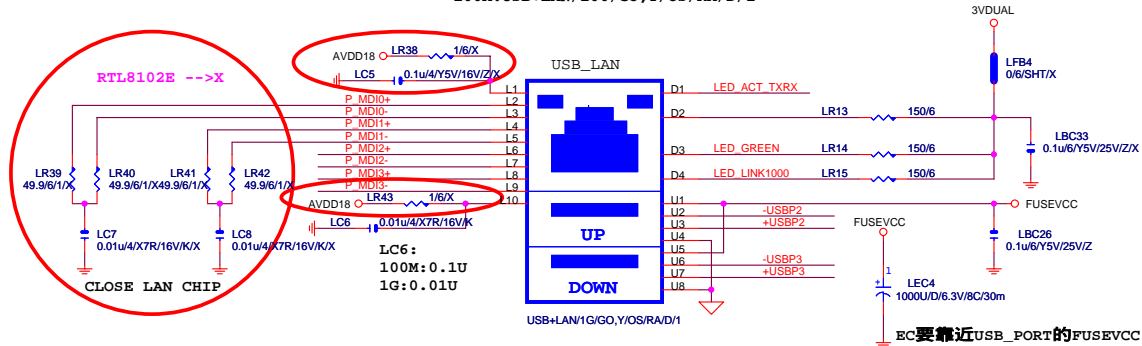
## USB\_LAN CONNECTOR

```
RTL8101E:LR38/LC5/LR43/LC6-->O
RTL8102E:LC5/LC6-->O
RTL8111C:LC6-->O
```

```

RTL8101E :L1+L10-->AVDD18+0.1U(BIOS_DISABLE MDI-X FUNCTION)
1G :USB+LAN/1G/GO,Y/OS/RA/D/1
100M:USB+LAN/100/GO,Y/OS/RA/D/1

```



USB\_LAN

