

GA-M68SM-S2L

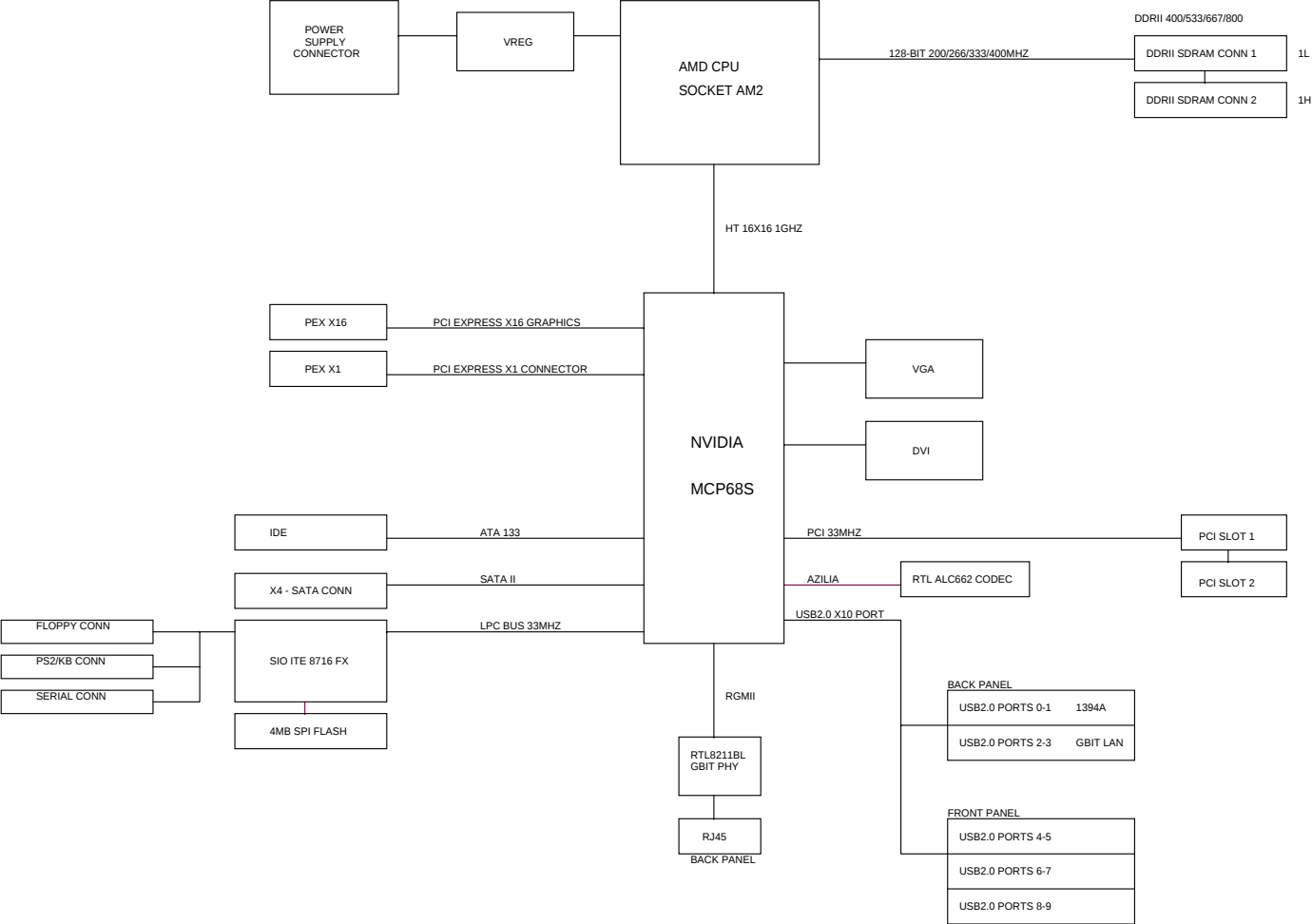
SHEET	TITLE
01	COVER SHEET
02	BOM & PCB MODIFY HISTORY
03	BLOCK DIAGRAM
04	PROCESSOR HT INTERFACE
05	PROCESSOR DDR2 INTERFACE
06	PROCESSOR CONTROL & DEBUG
07	PROCESSOR Power & Gnd
08	DIMM 1,2
09	DIMM TERMINATION
10	MCP68-CPU
11	MCP68-PCIE
12	MCP68-DAC, RGMII
13	MCP68-PCI
14	MCP68-SATA, IDE
15	MCP68-USB, HD-Audio, GPIO
16	MCP68-Power, Gnd
17	PCI EXPRESS x16, x1 SLOT
18	PCI 1,2,SLOT
19	ITE 8716GB/FX, SPI BIOS.
20	Realtek 8211BL GIGA LAN
21	H/W MONITOR & FAN CONTROL
22	IDE/FDD/COM/LPT
23	F_USB/ R_USB
24	ALC662 HD-AUDIO
25	AUDIO JACK, L OUT, F AUDIO

[illegible]

Circuit or PCB layout change for next version

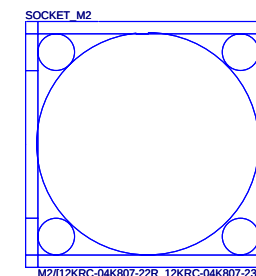
GIGABYTE			
Title BOM & PCB MODIFY HISTORY			
Size Custom	Document Number GA-M68SM-S2L	Rev 1.0	
Date:	Monday, September 17, 2007	Sheet	2 of 29

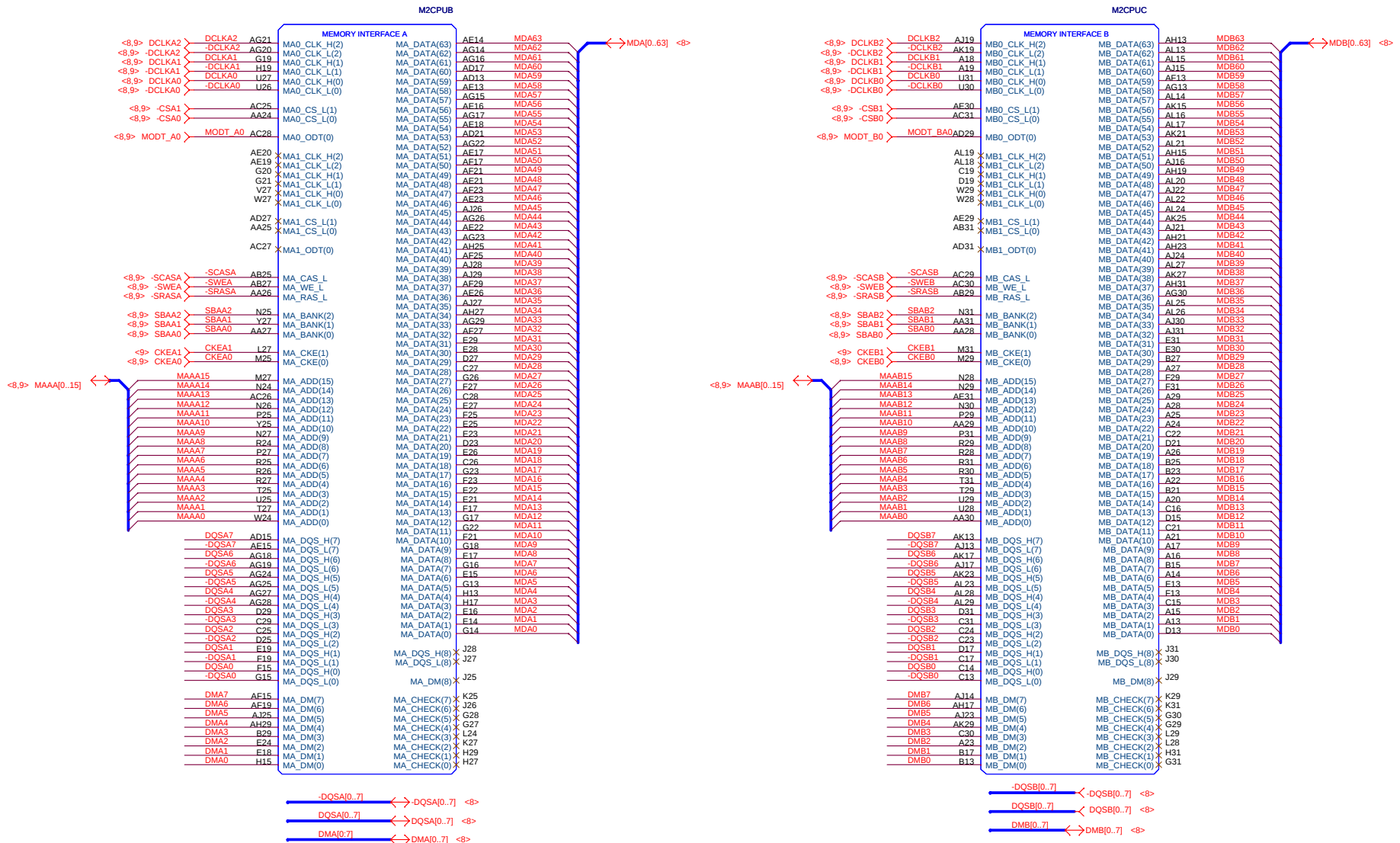
BLOCK DIAGRAM

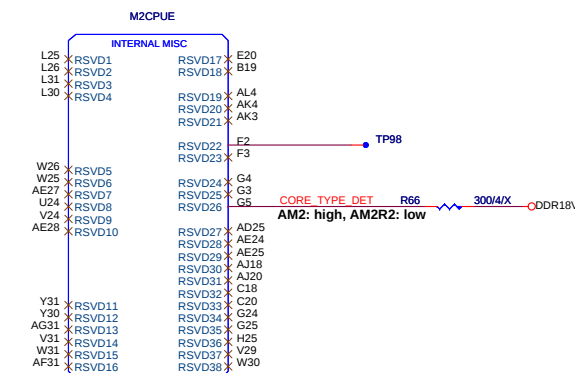
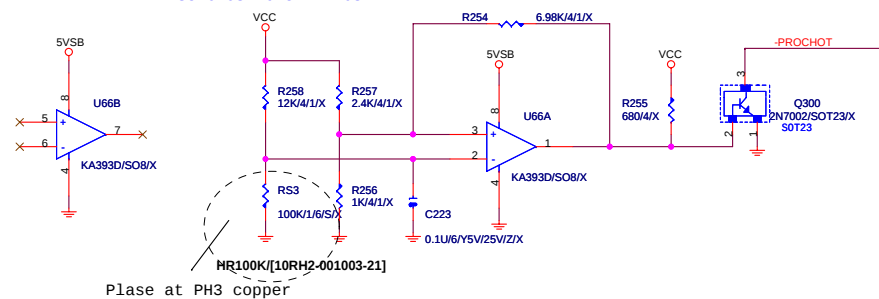
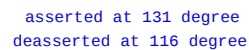
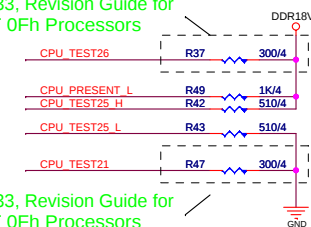
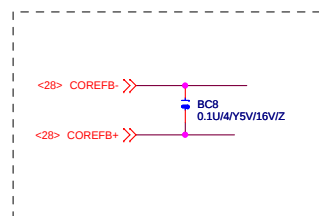


```
CPU_VDD_RUN = VCORE
CPU_VDDA_RUN = VDDA25
VLDT_RUN = VCC12_HT
CPU_VDDIO_SUS = DDR18V
CPU_VTT_SUS = DDRVTT
```

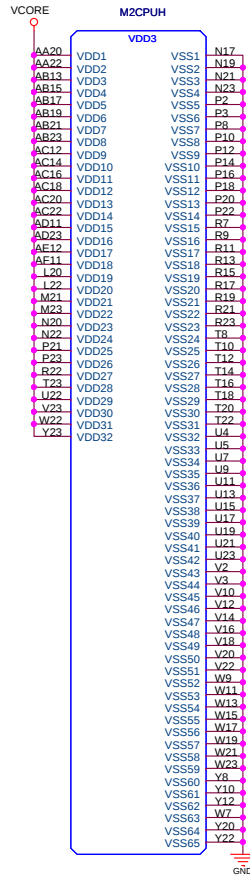
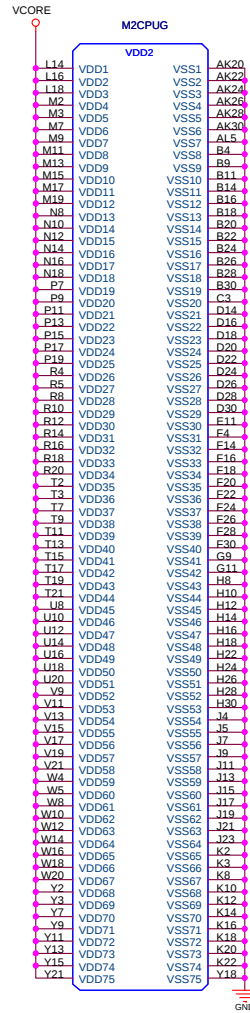
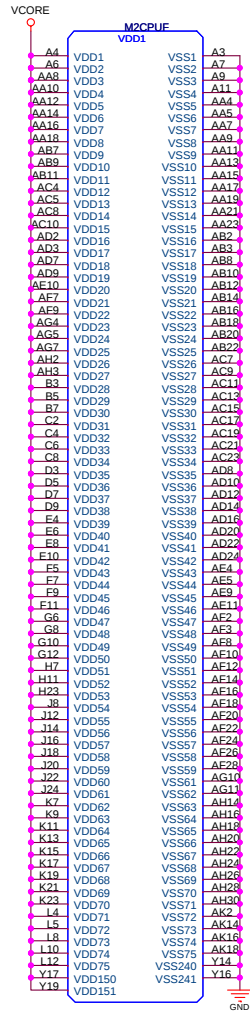
```
VLDT_A = VCC12_HT
VLDT_B = HT12B
```



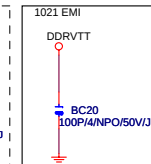
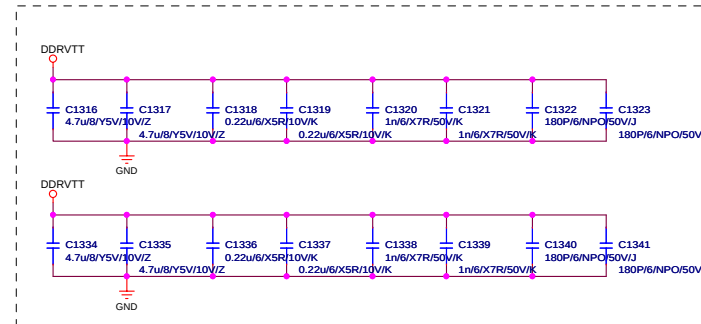
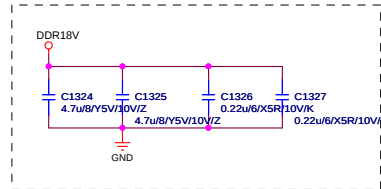
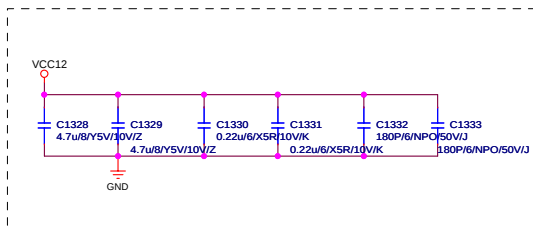
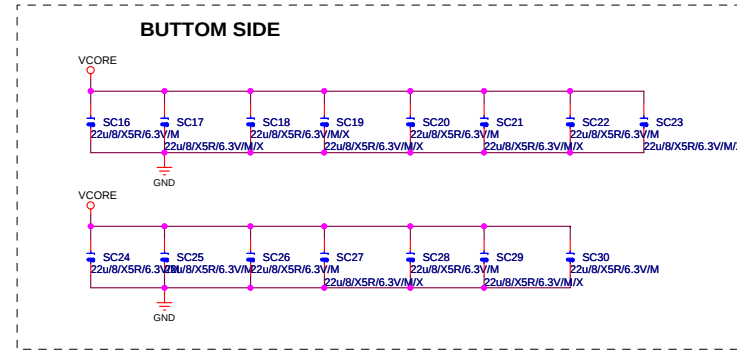
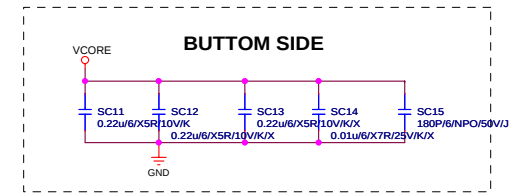
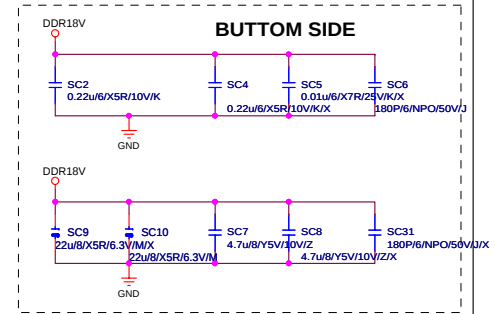
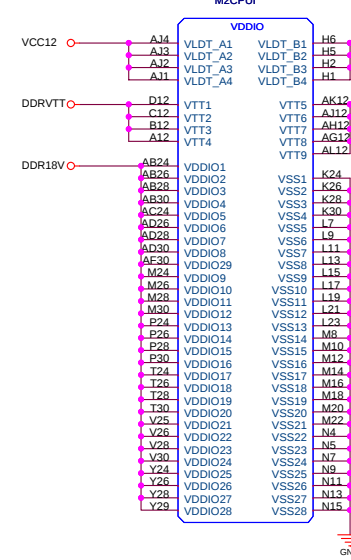




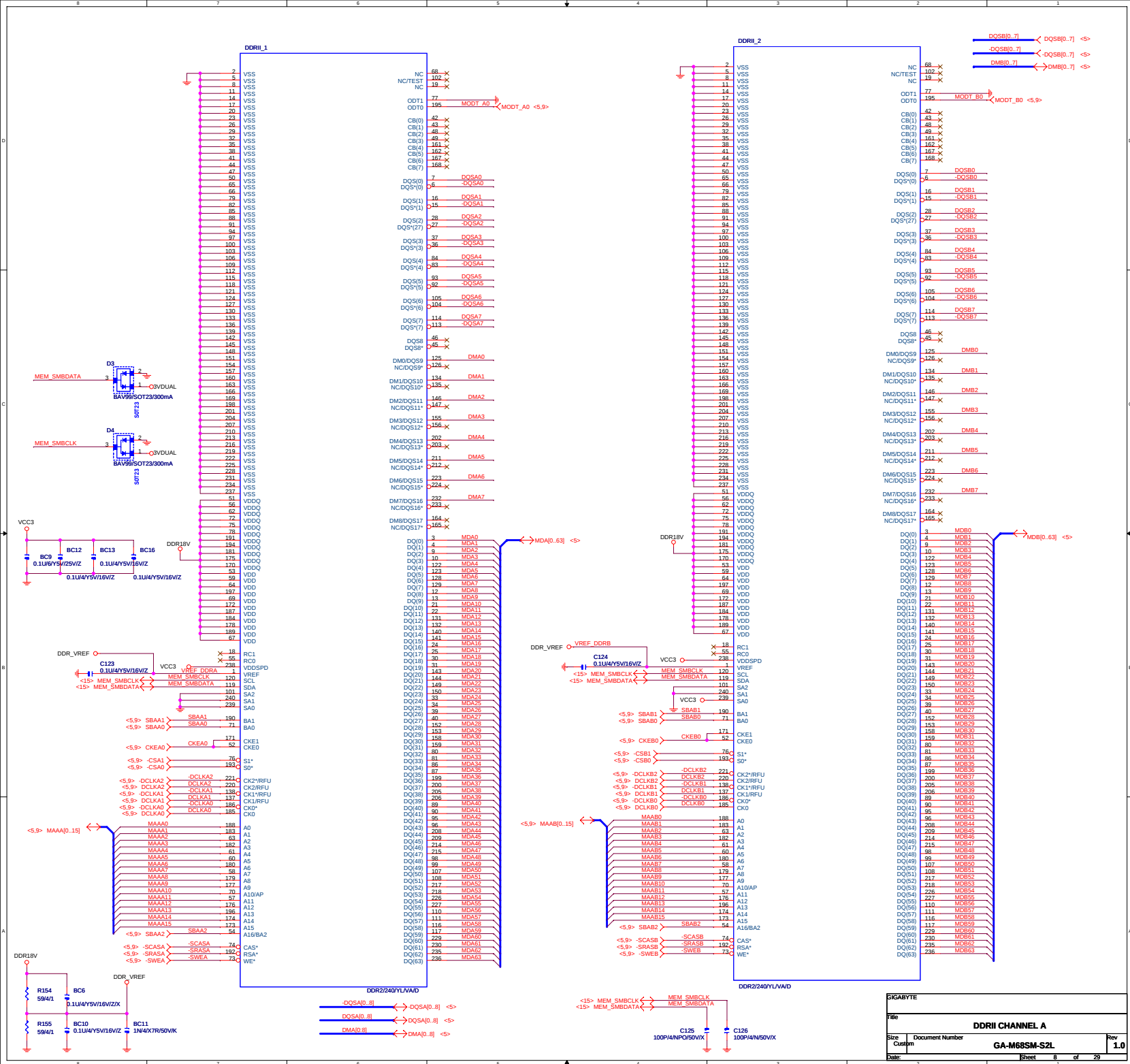
GIGABYTE				
Title				
CPU CONTROL				
Size	Document Number			Rev
Custom	GA-M68SM-S2L			1.
Date:	Monday, September 17, 2007	Sheet	6	of 29

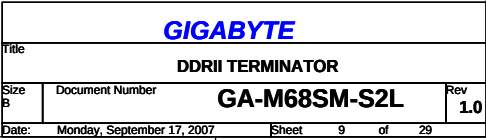


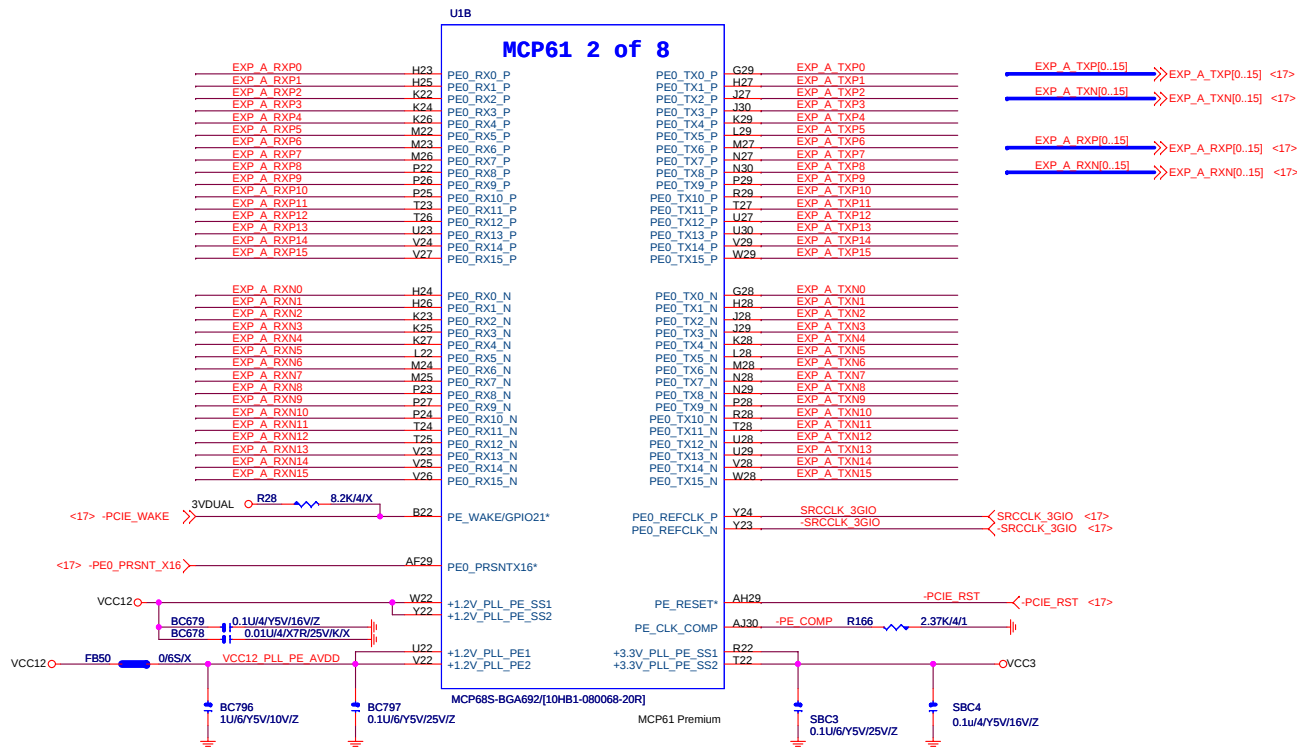
VLDT_RUN_B is connected to the VLDT_RUN power supply through the package or on the die. It is only connected on the board to decoupling near the CPU package.

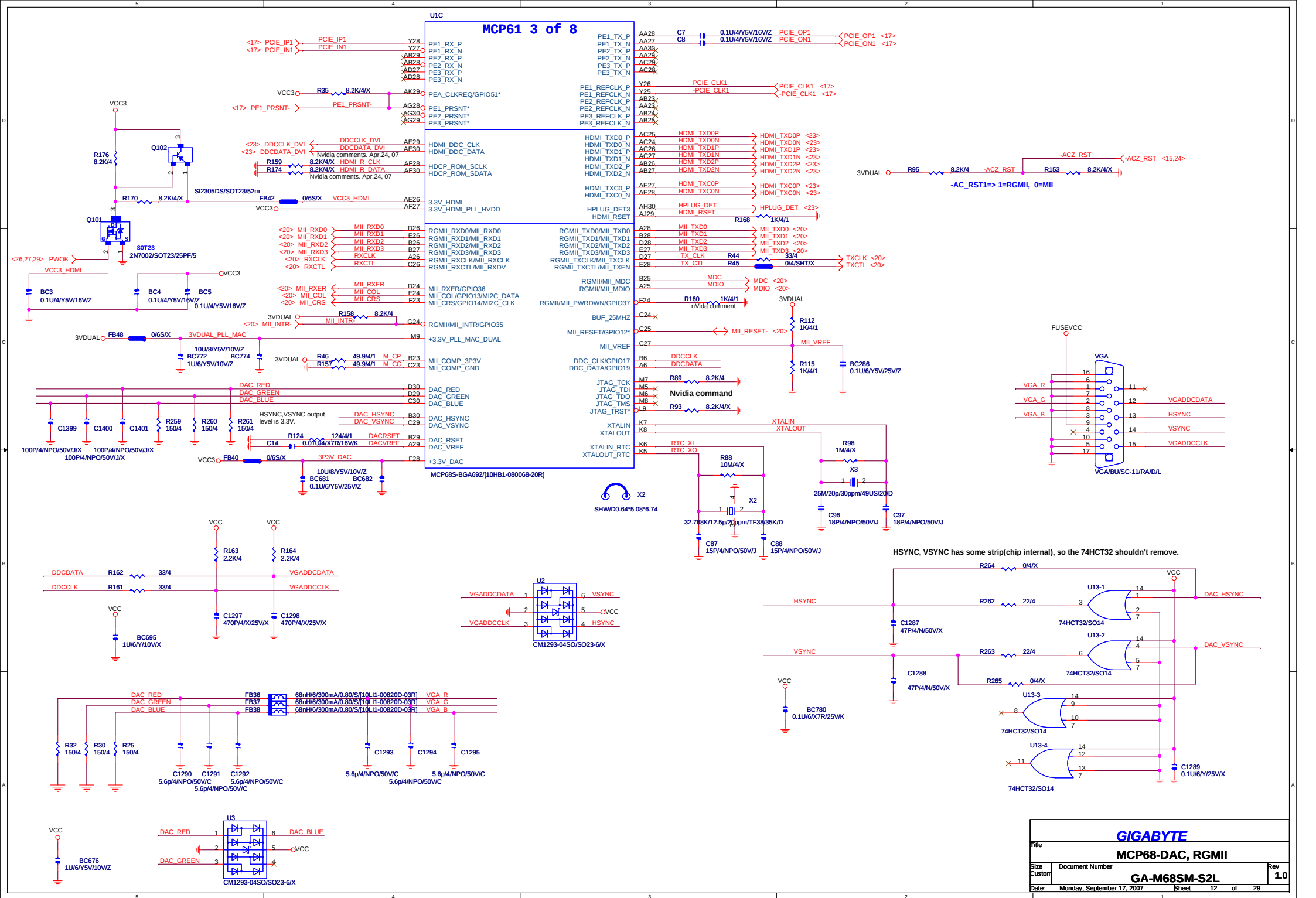


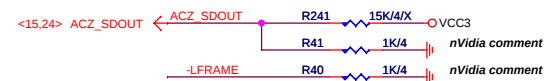
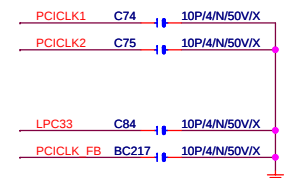
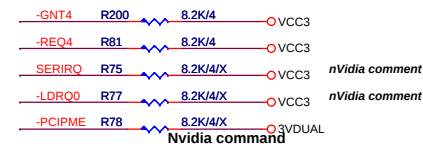
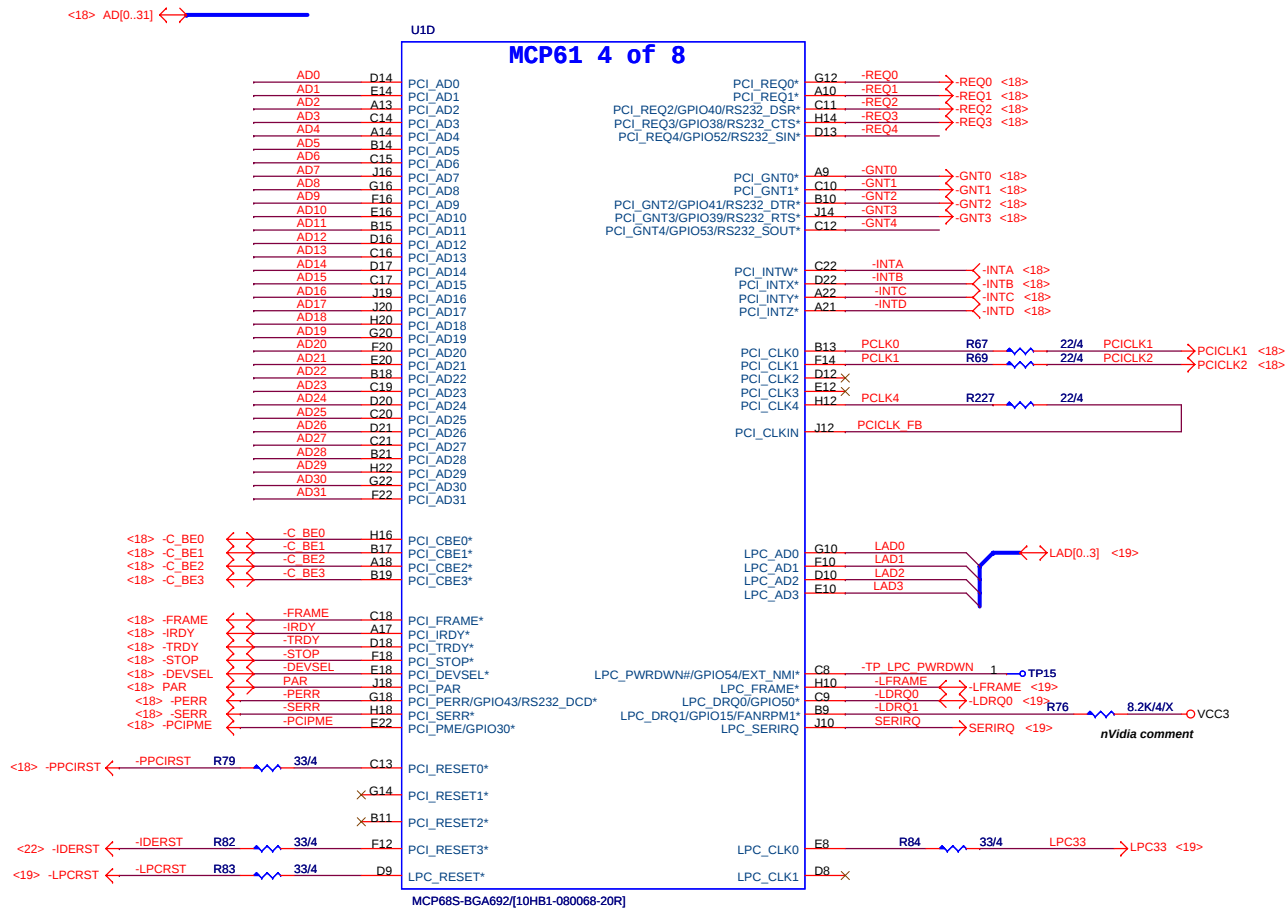
GIGABYTE			
CPU POWER & GND			
File	Document Number	Rev	
Size	Custom	GA-M68SM-S2L	
Date:	Monday, September 17, 2007	Sheet	7 of 29











BIOS STRAP:

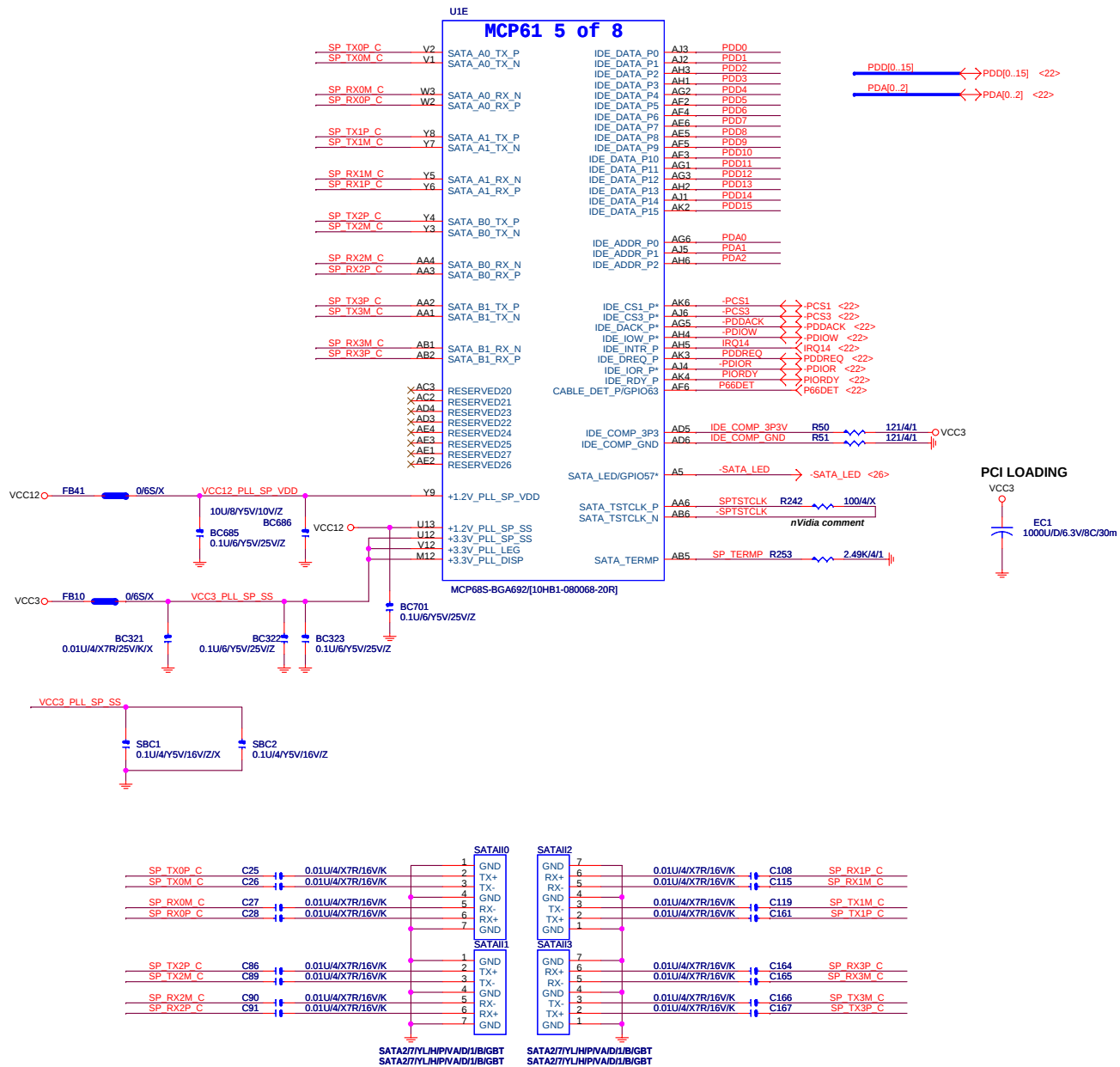
ACZ_SDOUT
-LFRAME

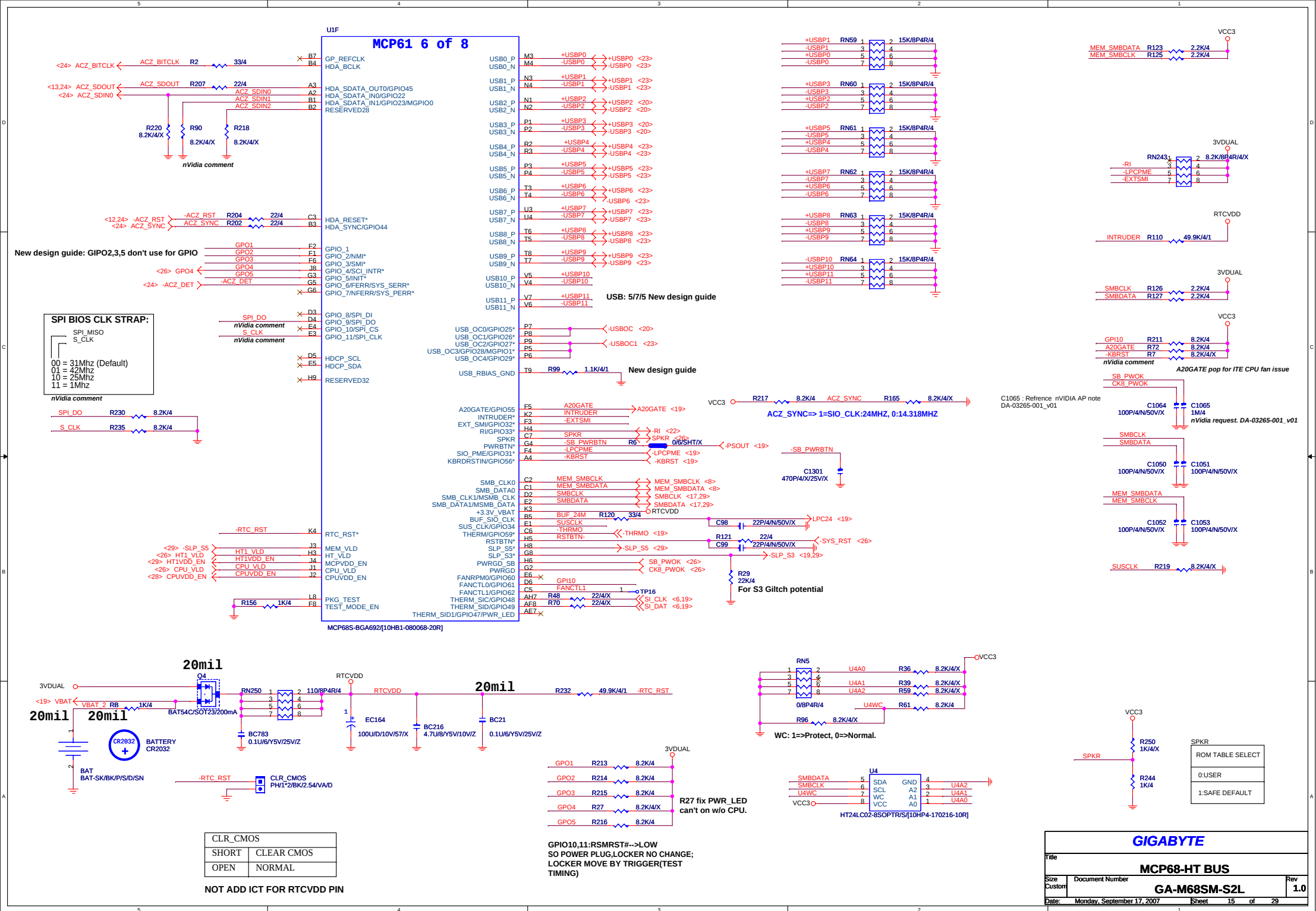
0 0 = LPC BIOS
01 = PCI BIOS
10 = SPI BIOS(Default)
11 = RESERVED

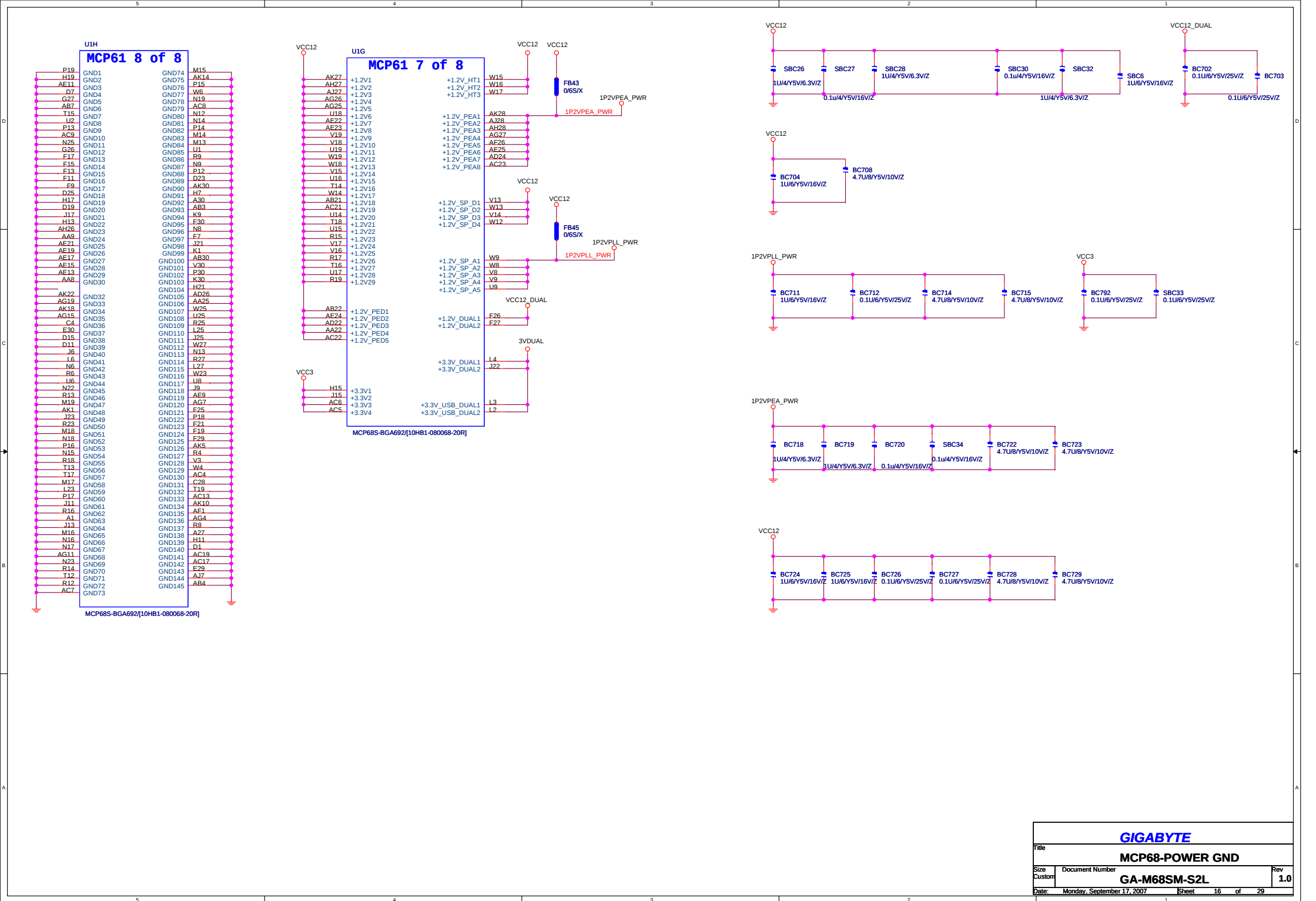
0.1 use LPC BIOS, 0.2
change to SPI BIOS

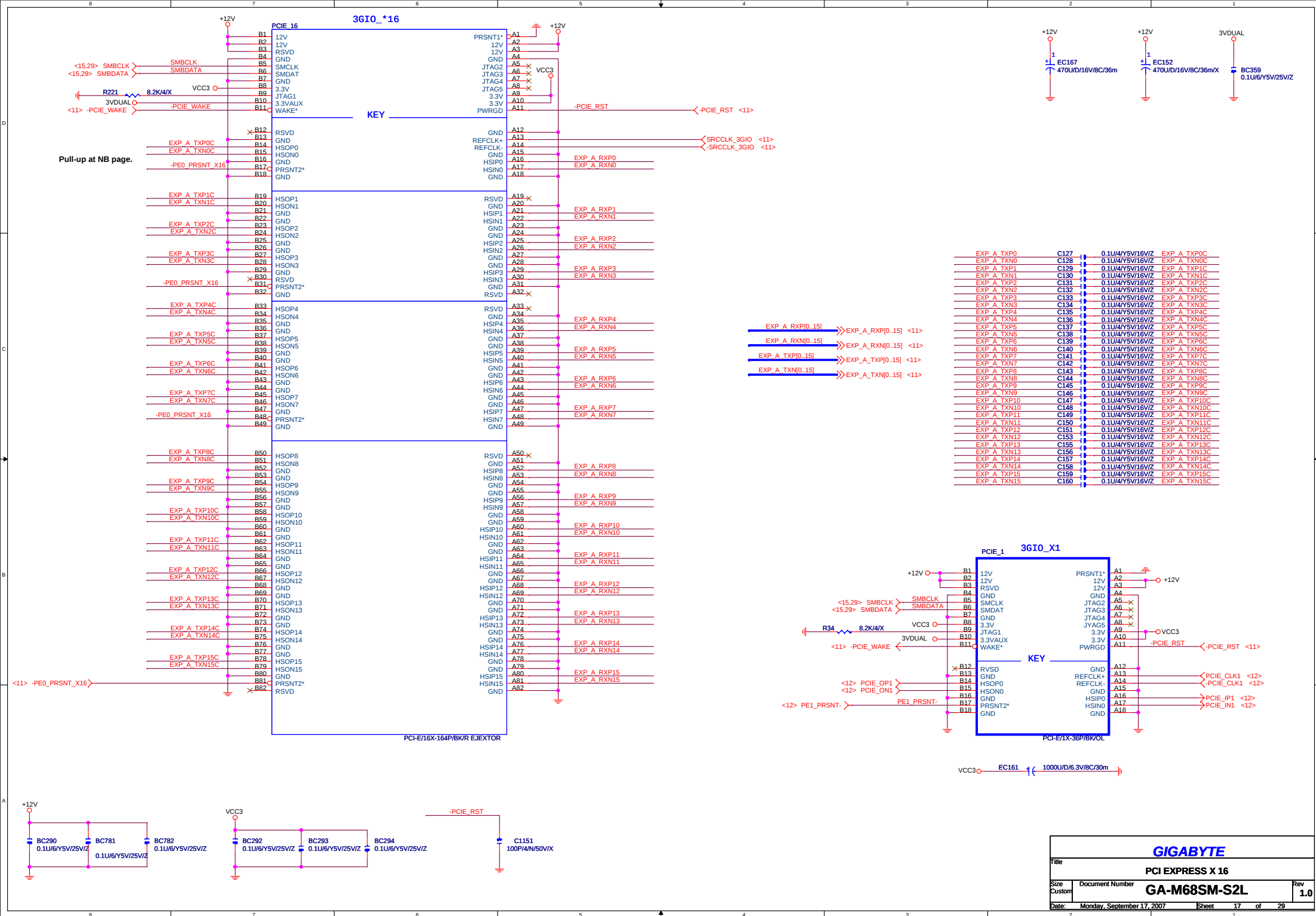
GIGABYTE

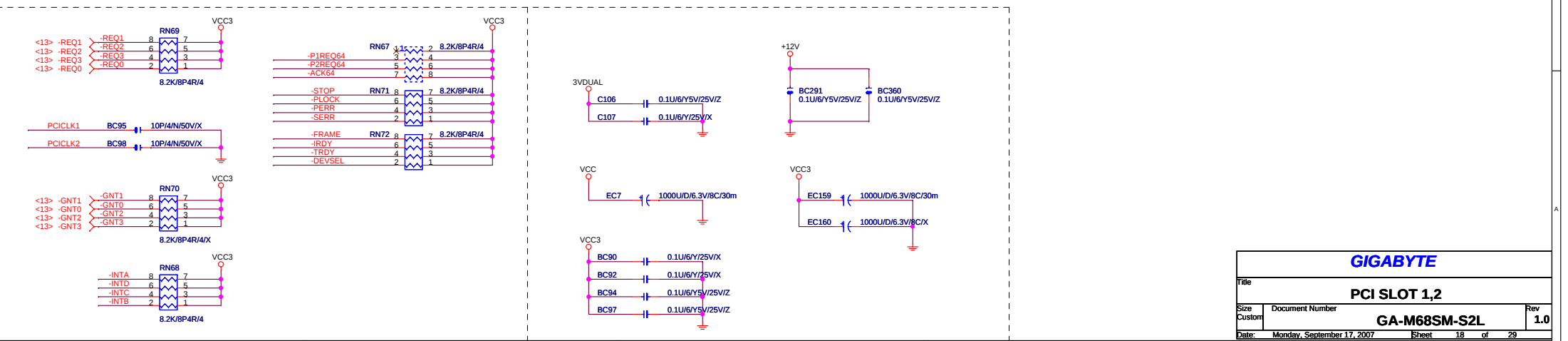
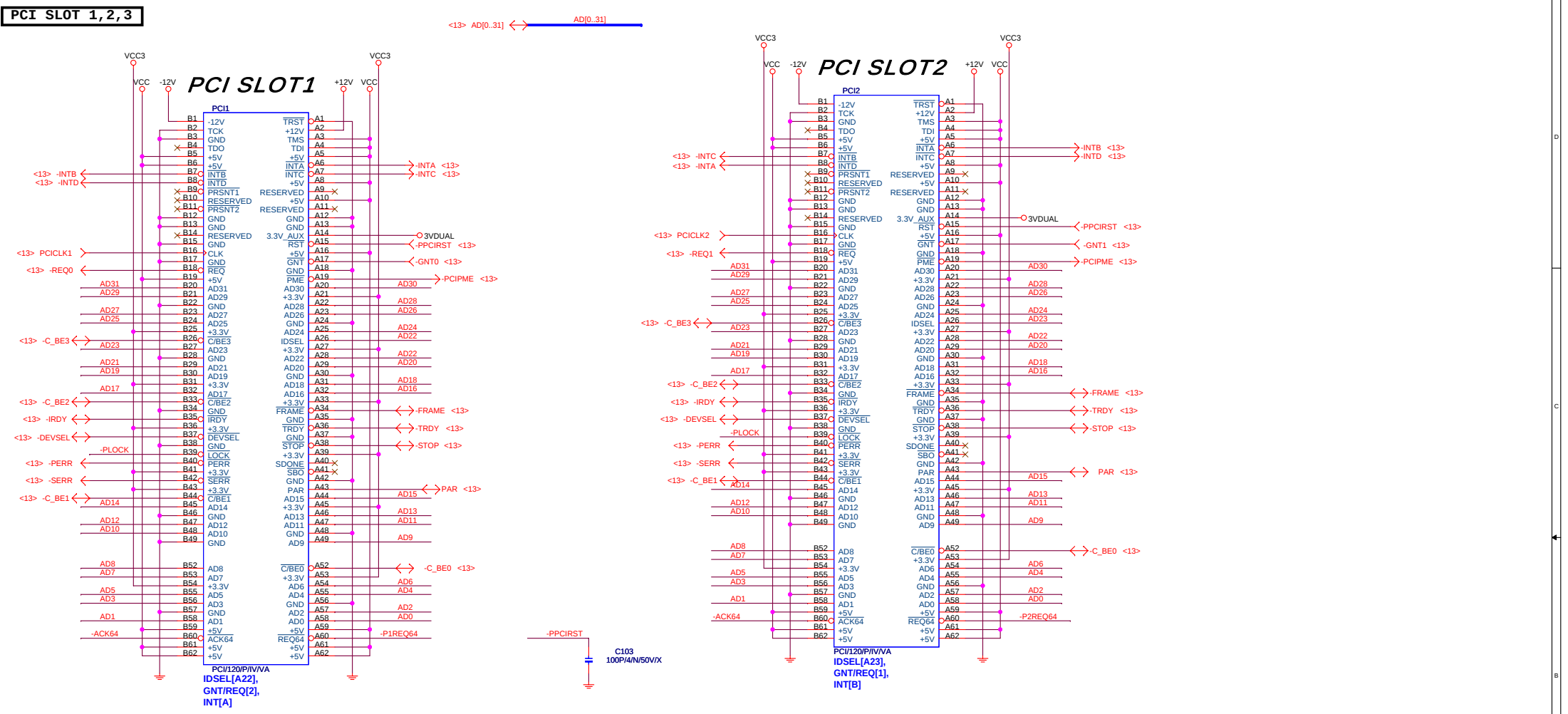
Title			
MCP68-PCI BUS			
Size	Document Number	Rev	1.0
Custom	GA-M68SM-S2L		
Date:	Monday, September 17, 2007	Sheet	13 of 29

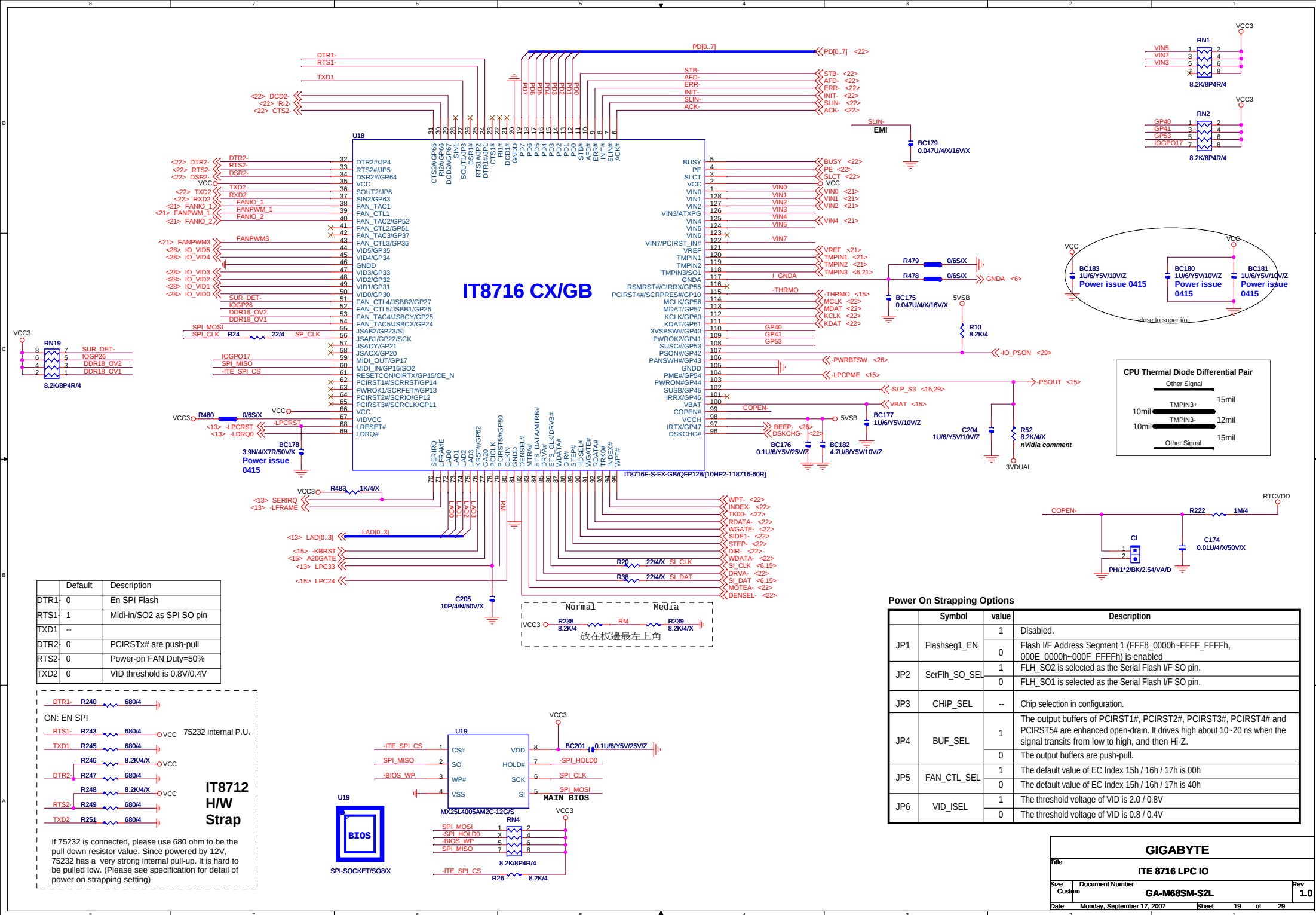


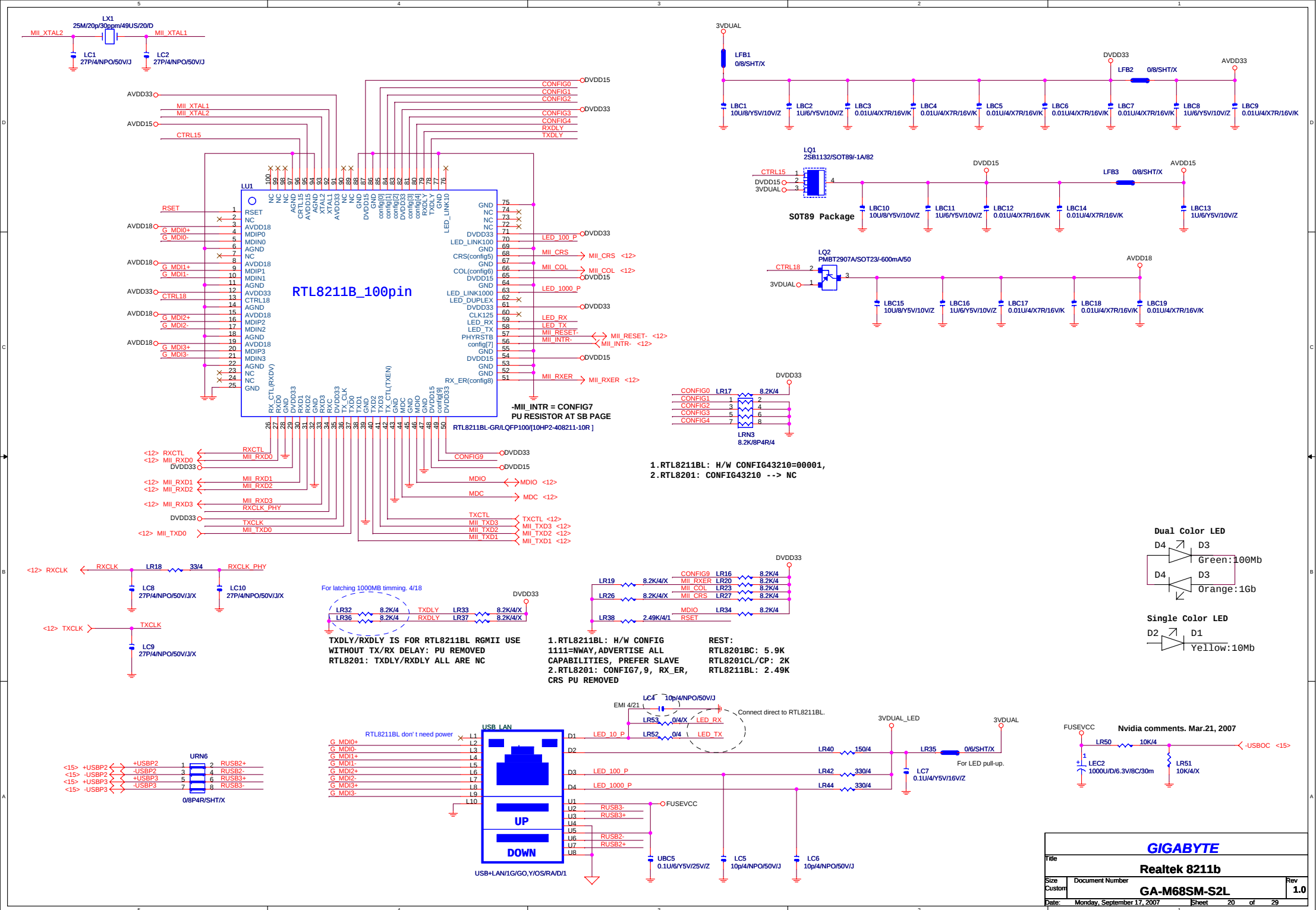






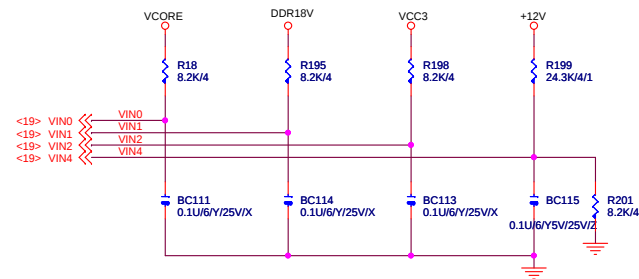
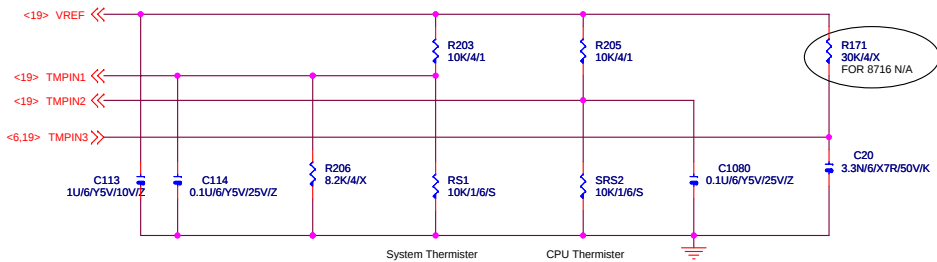




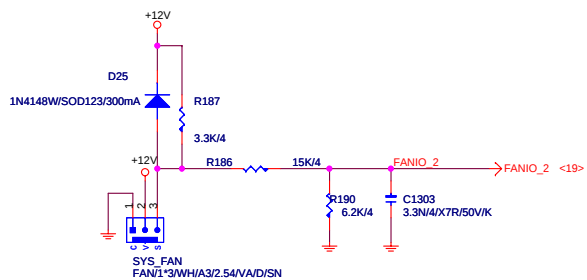


			
Title			
Realtek 8211b			
Size Custom	Document Number		Rev
	GA-M68SM-S2L		1.0
Date:	Monday, September 17, 2007	Sheet 20 of 29	

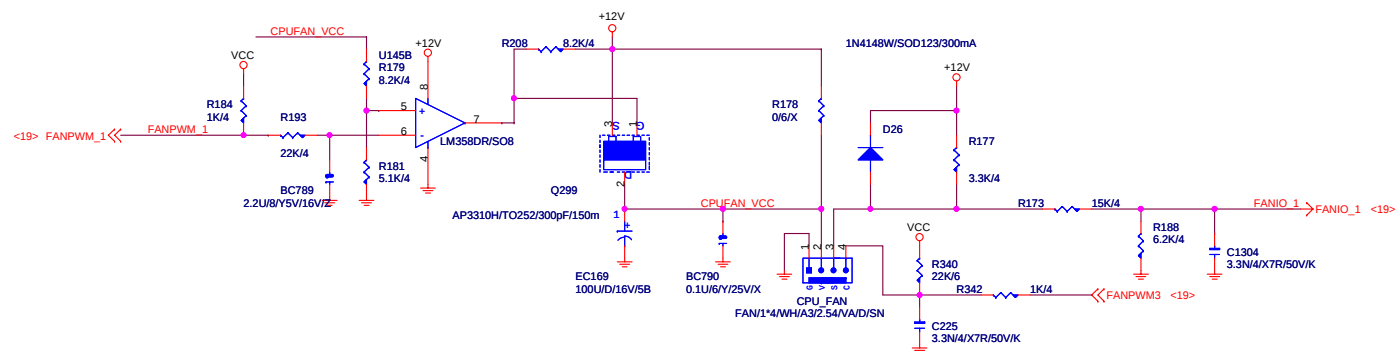
Hardware Monitor circuits



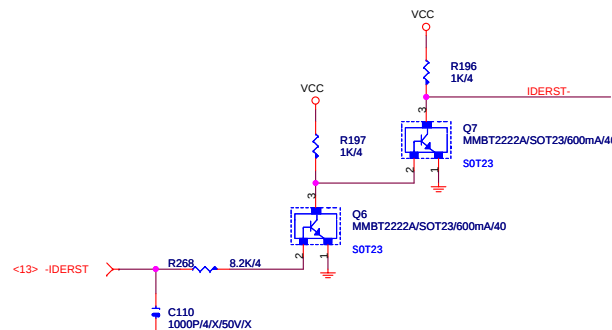
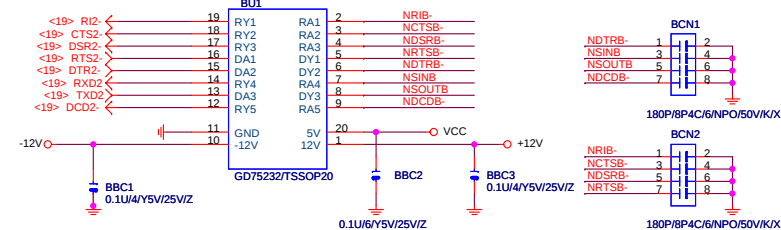
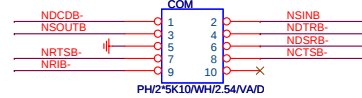
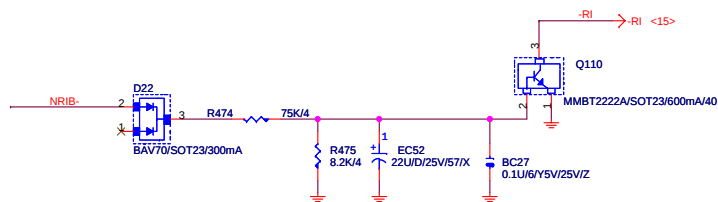
SYSTEM FAN



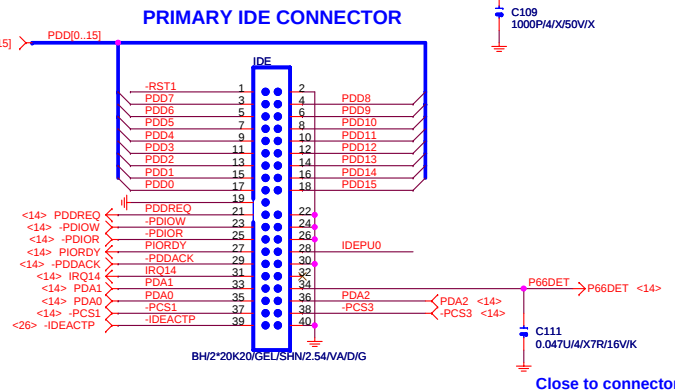
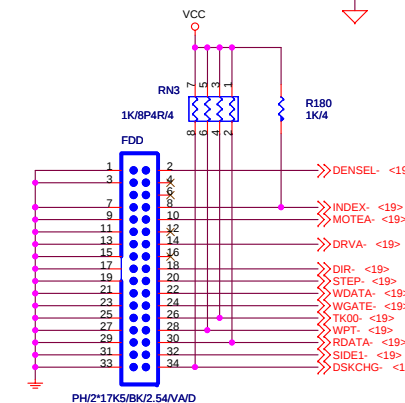
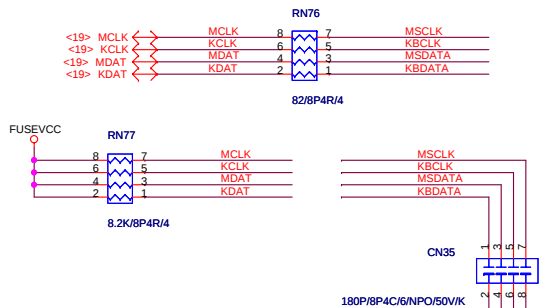
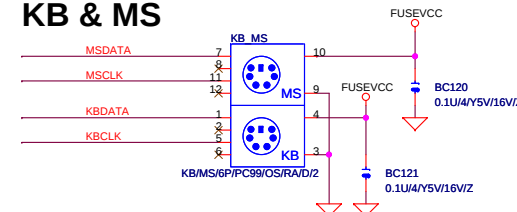
CPU FAN



GIGABYTE			
FAN/HWMO			
Size	Document Number		Rev
Custom	GA-M68SM-S2L		1.0
Date:	Monday, September 17, 2007	Sheet	21 of 29

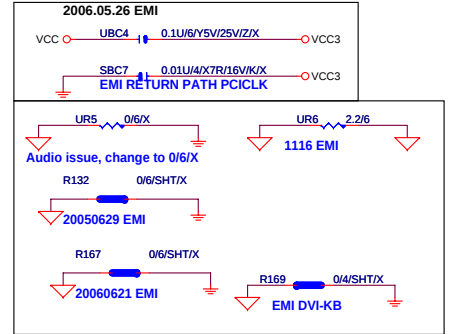
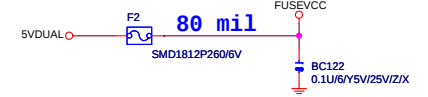
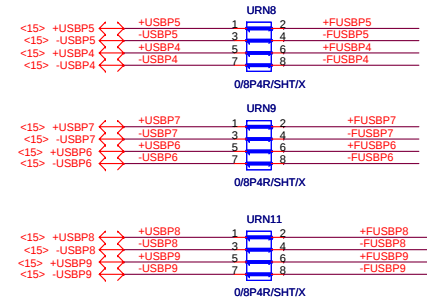
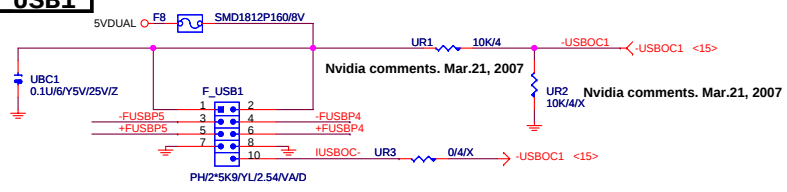


KB & MS

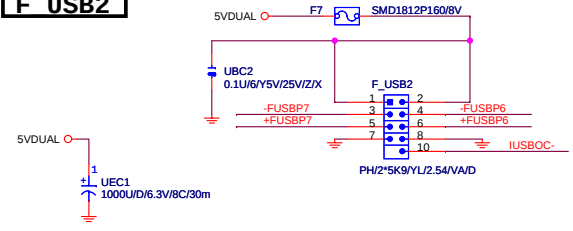


GIGABYTE			
HW MONITOR,COM/LPT			
Size	Document Number	Rev	
Custom	GA-M68SM-S2L	1.0	
Date:	Monday, September 17, 2007	Sheet	22 of 29

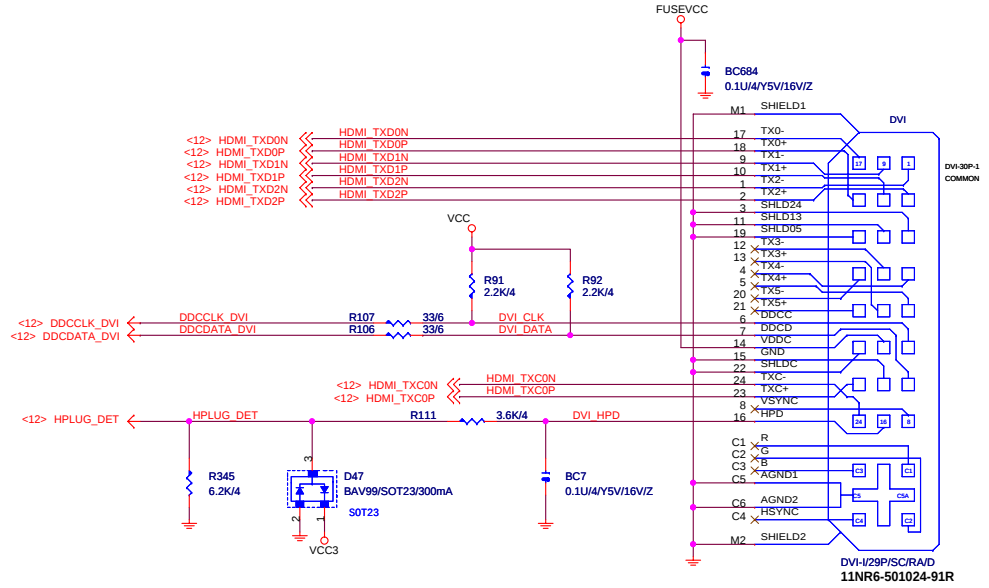
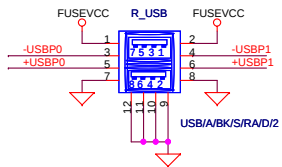
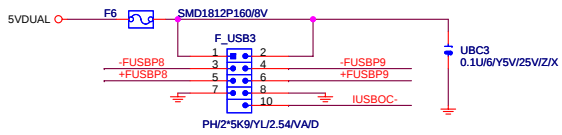
F USB1

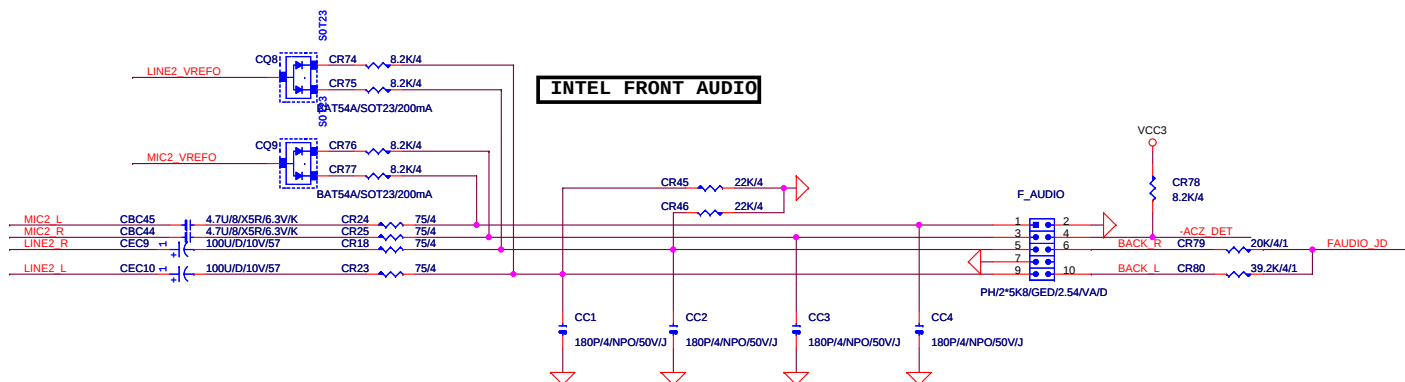


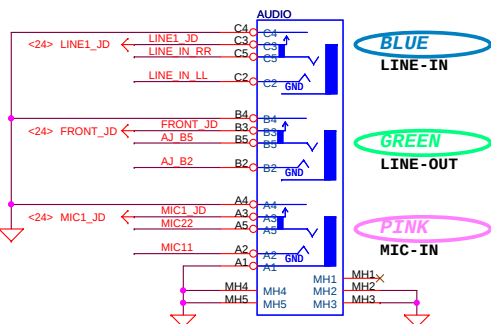
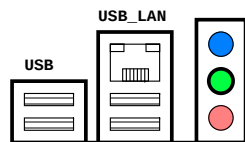
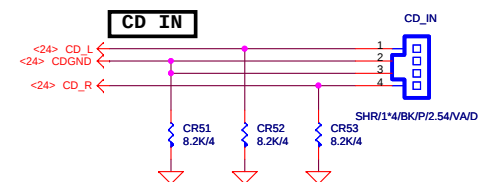
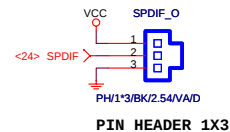
F USB2



F USB3



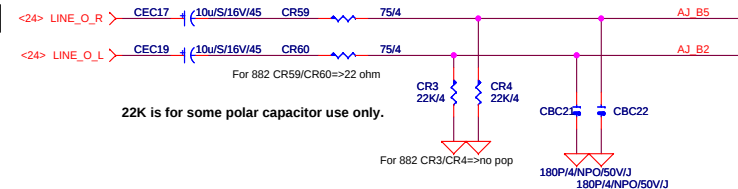




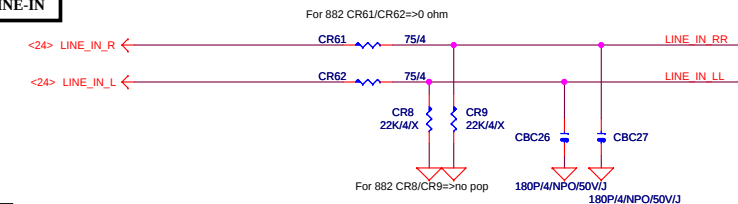
[A3RP/13P/BU,GE,PK/RA/D/1/A/\[11NR6-403007-71R_11NR6-403007-72R_11NR6-403007-73R_11NR6-403007-74R\]](#)

A3RJ/13P/B/[11NR6-403006-01_11NR6-403006-02]
3RJ+15F/[11NR6-403004-11]

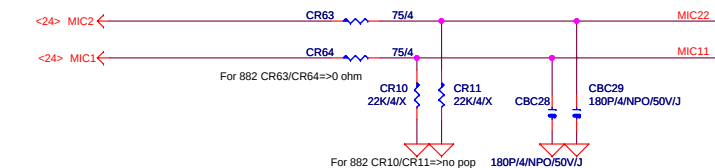
LINE OUT



LINE-IN

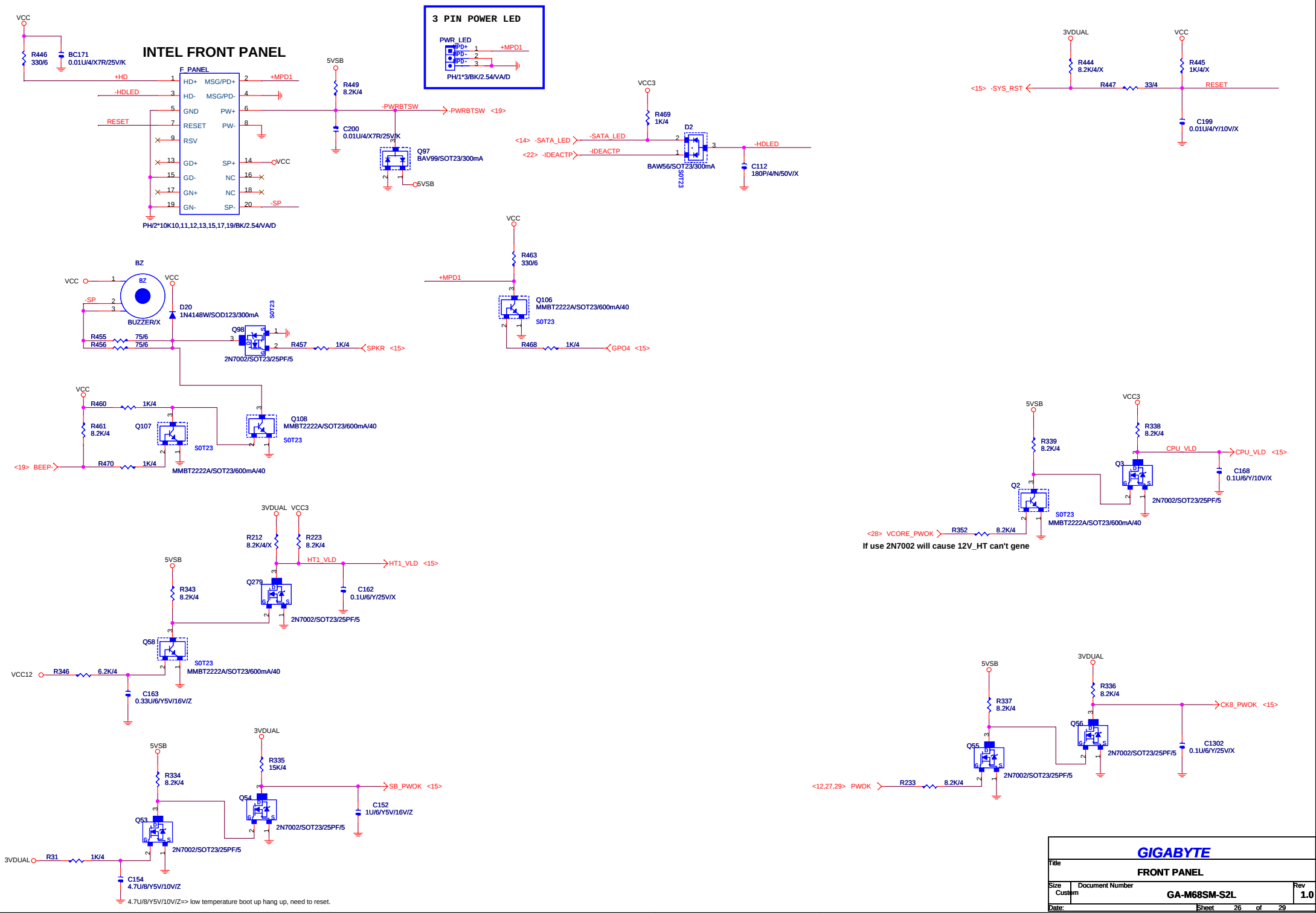


MIC



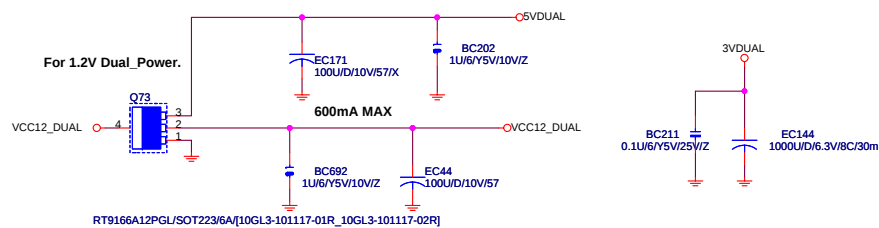
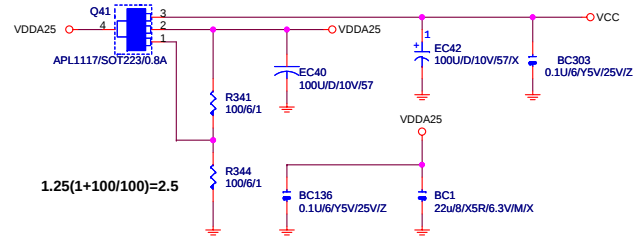
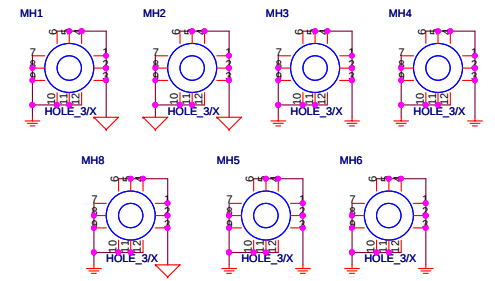
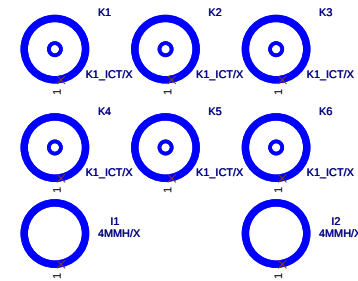
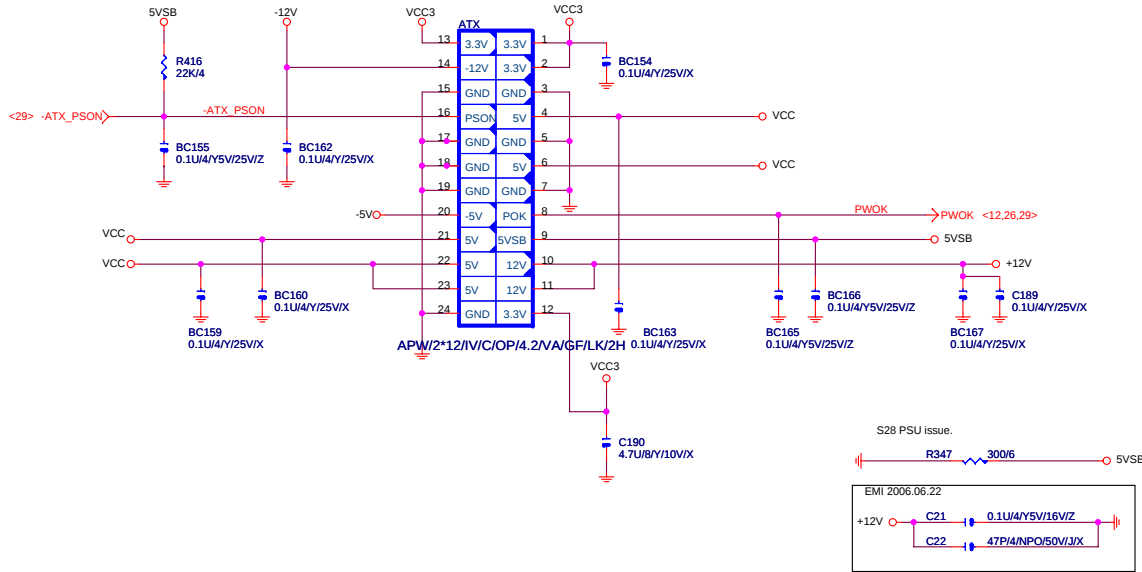
GIGABYTE

Title			
AUDIO JACK			
Size Custom	Document Number	GA-M68SM-S2L	Rev 1.0
Date:	Monday, September 17, 2007	Sheet	25 of 29



GIGABYTE				
FRONT PANEL				
Size	Document Number	GA-M68SM-S2L		Rev
Custom				1.0
Date:		Sheet	26	of 29

ATX POWER CONNECTOR



GIGABYTE			
Title			
Misc. PWR & ATX CONN			
Size	Document Number	Rev	
Custom	GA-M68SM-S2L	1.0	
Date:	Sheet	27	of 29

