

TB272 (Rev1) – Black M400 Console or M39 PC Not Booting Up

Purpose:

To provide troubleshooting tips when an M400 console or M39 PC, which both use a standard PC motherboard, isn't booting up.

Requirements:

Technical Bulletin 114

Technical Bulletin 274 if your motherboard is a Gigabyte GAM61SMES-S2 motherboard

Technical Bulletin 275 if your motherboard is a Gigabyte GAM61PME-S2P motherboard

CR2032 battery that can be purchased at any store that sells batteries

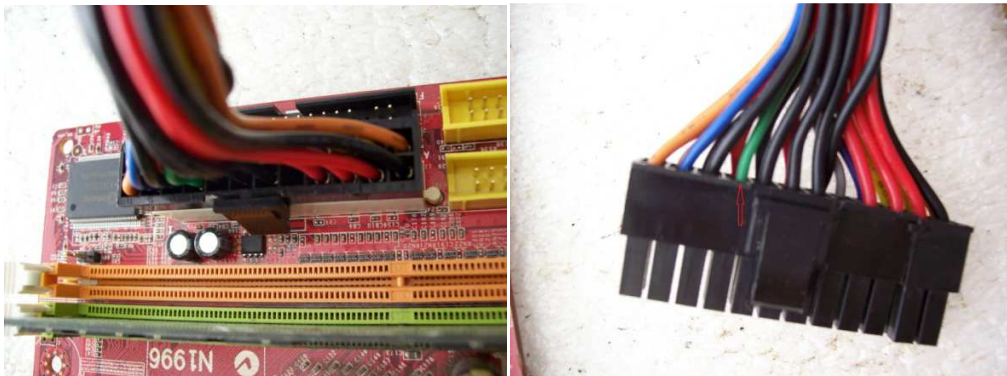
Meter that can measure AC voltage

System schematic

Note: This technical bulletin describes the various motherboards that have been tested and used by Centroid. If your system does not have one of the motherboards outlined in this technical bulletin, you may need to download the motherboard manual to determine where the POWER pins are located and use technical bulletin 114 as a guideline for setting the BIOS for your motherboard.

Procedure:

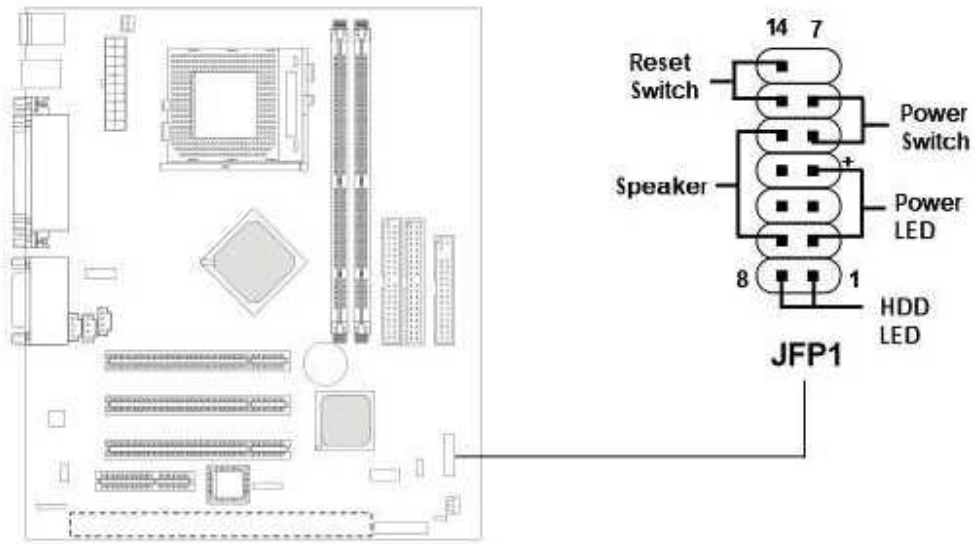
- 1- Since these are standard PC motherboards, they will use either a microATX or an ATX power supply. Verify that approximately 110VAC is at the power supply. If it is, move onto the next step. If it isn't, use the schematic for that system to determine why there isn't 110VAC going to the power supply. Some issues could include a bad crimp, broken wire, bad connection, etc.
- 2- Remove the 20/24-pin power connector from the power supply that connects to the motherboard. Power the system. Take a paper clip or a pair of needle-nose pliers and short the green wire on the power connector to any of the surrounding black wires. If the fan on the power supply starts spinning, let it run for approximately 10-15 minutes. If the fan on the power supply stops spinning or never spins, the power supply is bad and will need to be replaced. If it continues to spin, move onto the next step.



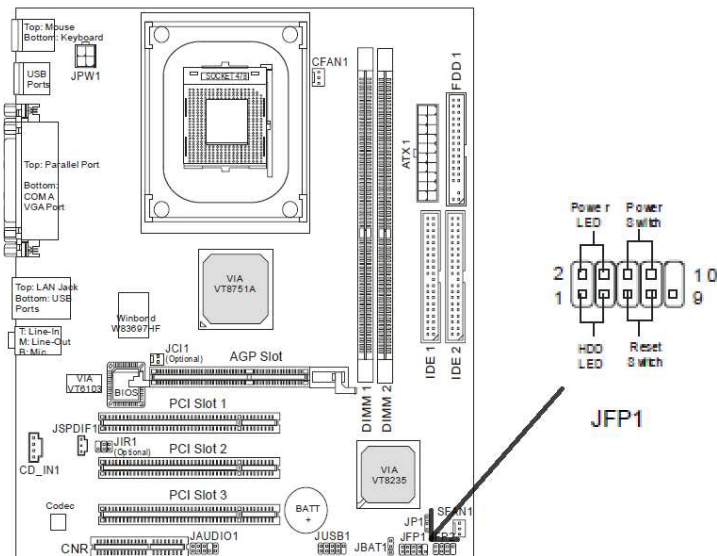
- 3- Since these are standard PC motherboards that are installed in your desktop PCs, the default operation is for the operator to push a button to turn the PC on. The Centroid controls are not designed with that push button and the BIOS settings are set in such a way that it will not look for

that push button. If the CMOS battery dies, the BIOS settings go back to factory default, which would tell the motherboard to turn on as soon as that push button was pressed. There are a group of pins on the motherboard that are used to connect the items that are located on the front of a desktop PC. The POWER pins are part of that grouping. Below are pictures from various motherboards that Centroid has used that illustrate the location of that group of pins. Once you have found the POWER pins, power the system and short those two pins for a split second. If your system starts booting, the CMOS battery will need to be replaced. It is typically a CR2032 battery that can be found in any store that sells batteries. After the CMOS battery has been replaced, the POWER pins will need to be shorted again. Once the system starts to boot press the DEL button to get into the BIOS menu and reset the BIOS settings according to technical bulletin 114. If the system does not start to boot after shorting the power pins on the motherboard, the motherboard is bad and will need to be replaced.

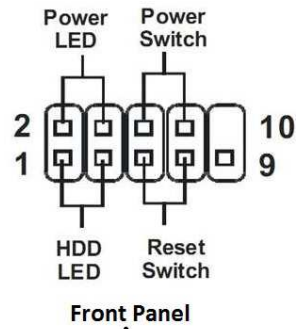
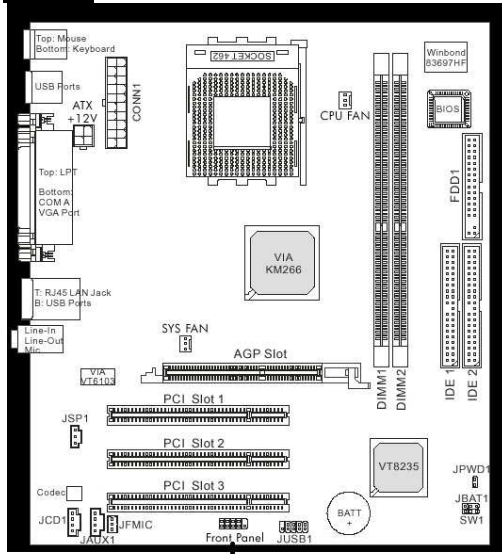
MSI M6368



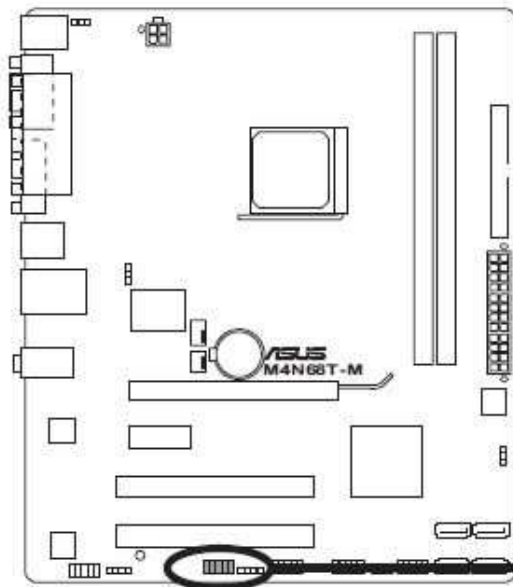
MSI P4MAM(MS-6787)



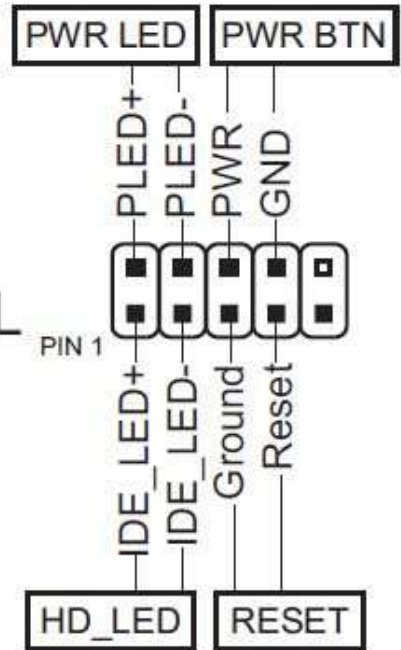
PM8M-V



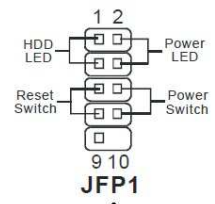
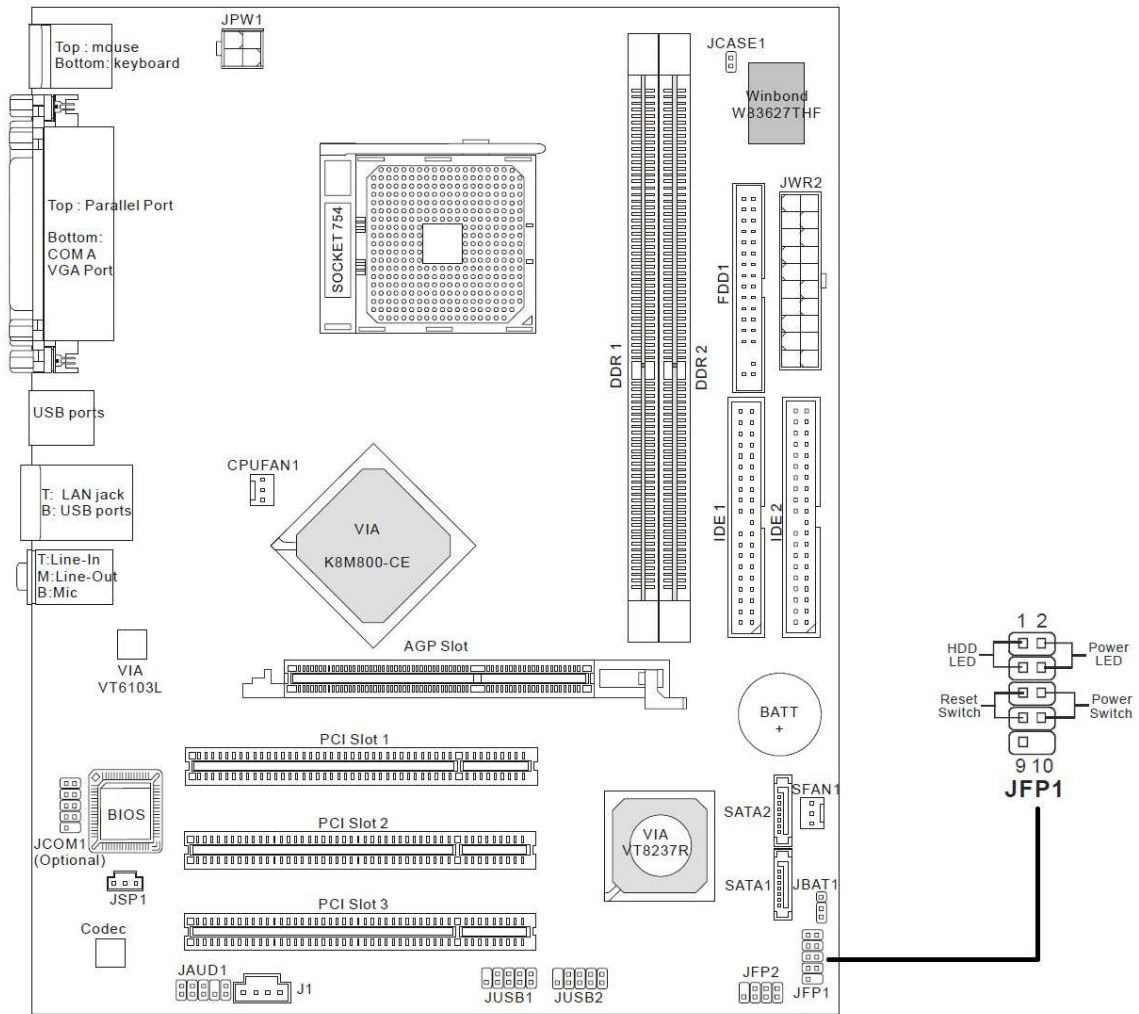
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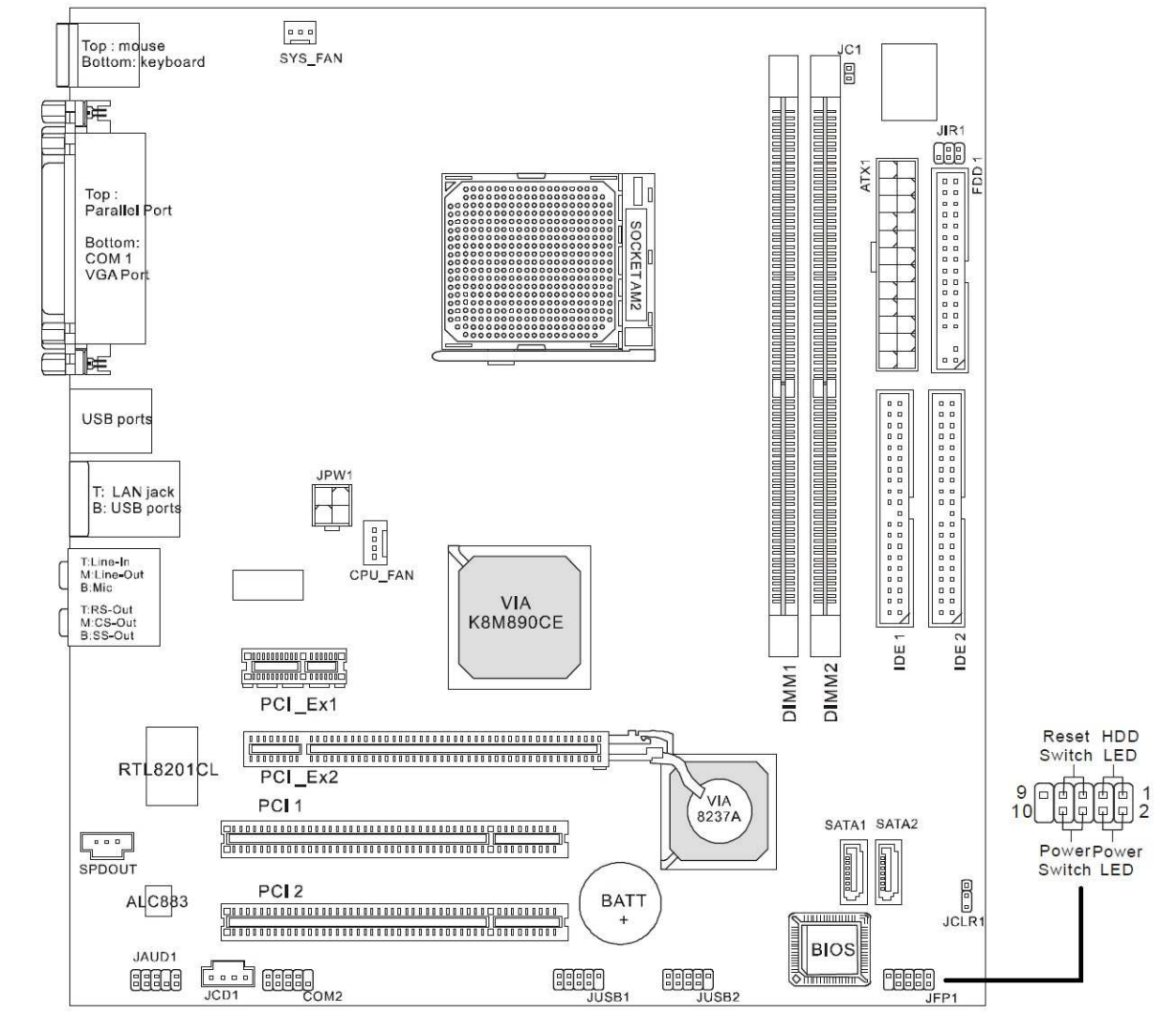
F_PANEL



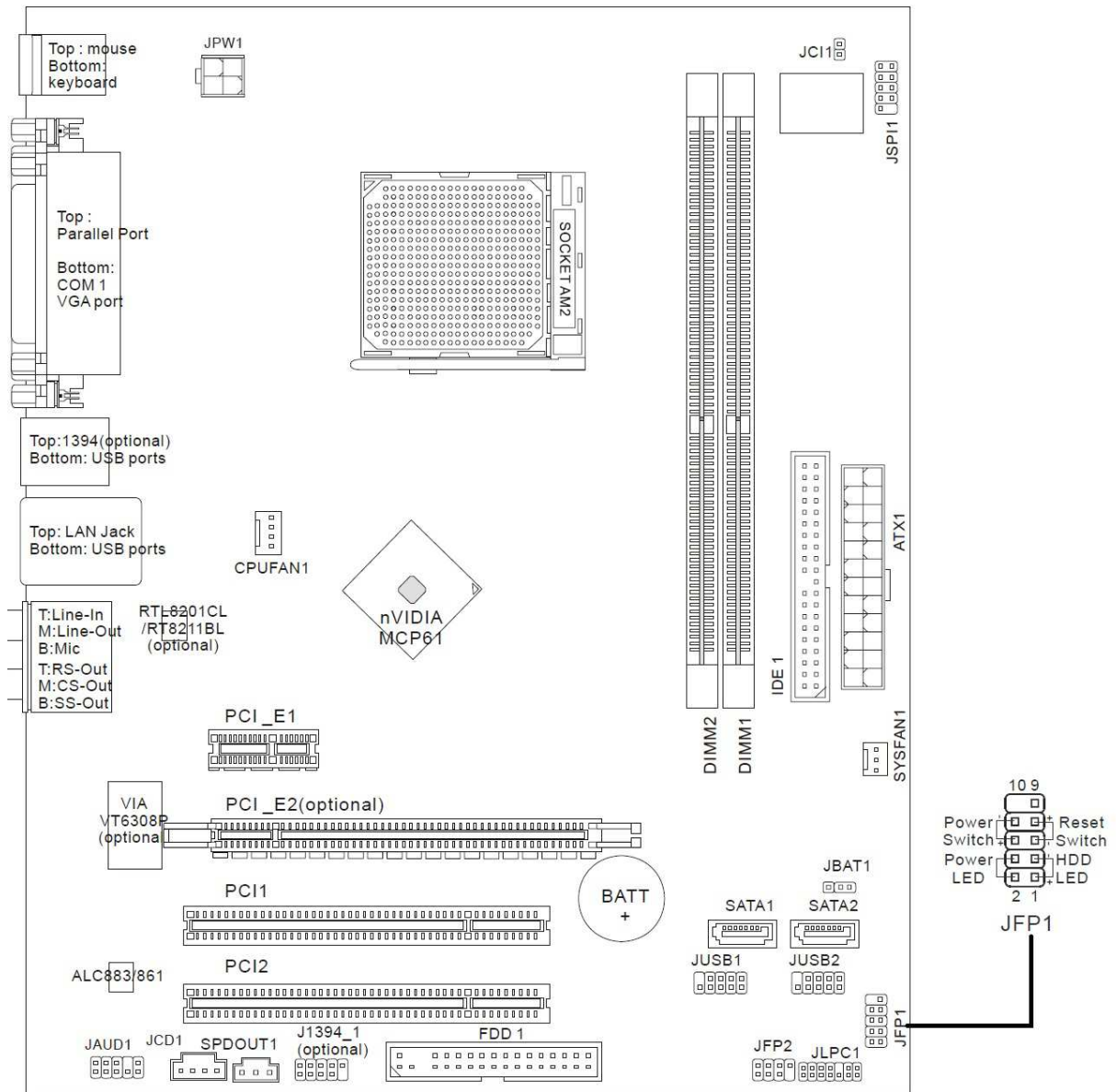
K8MM3-V



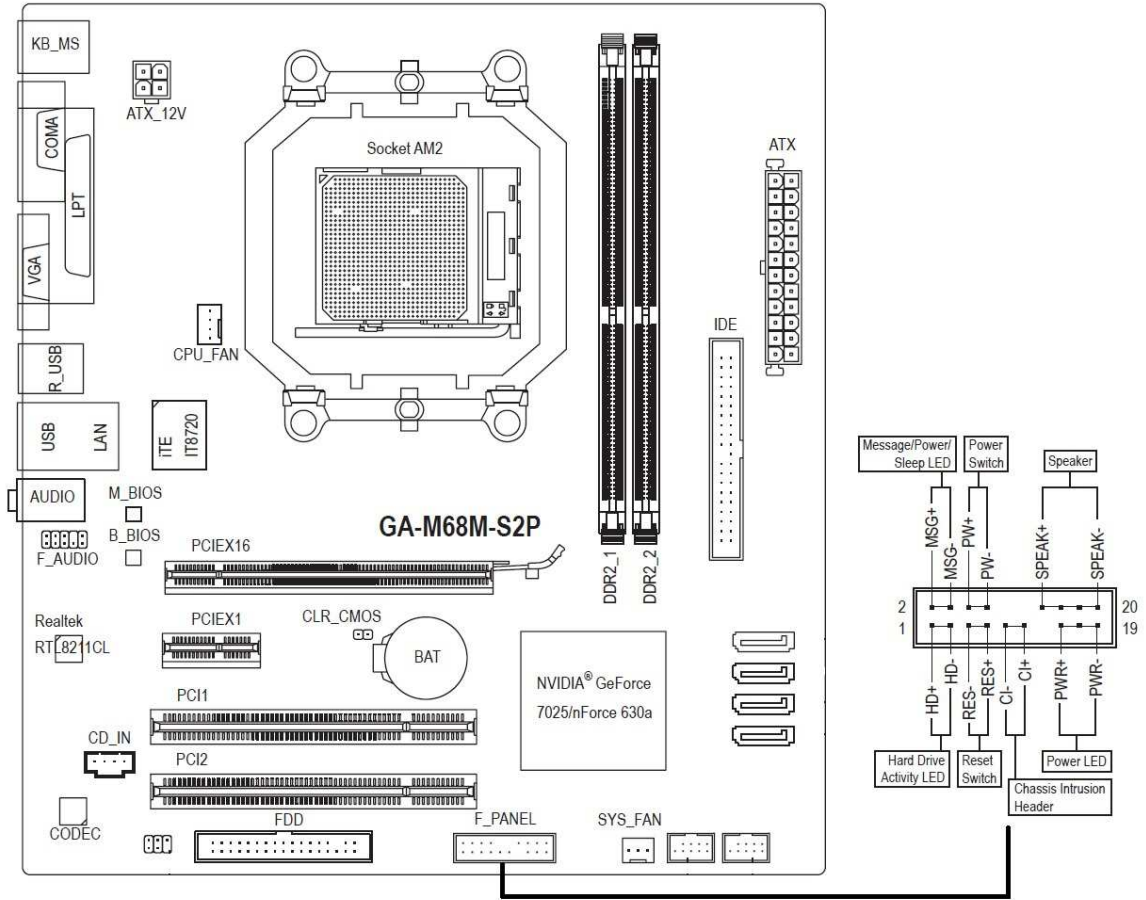
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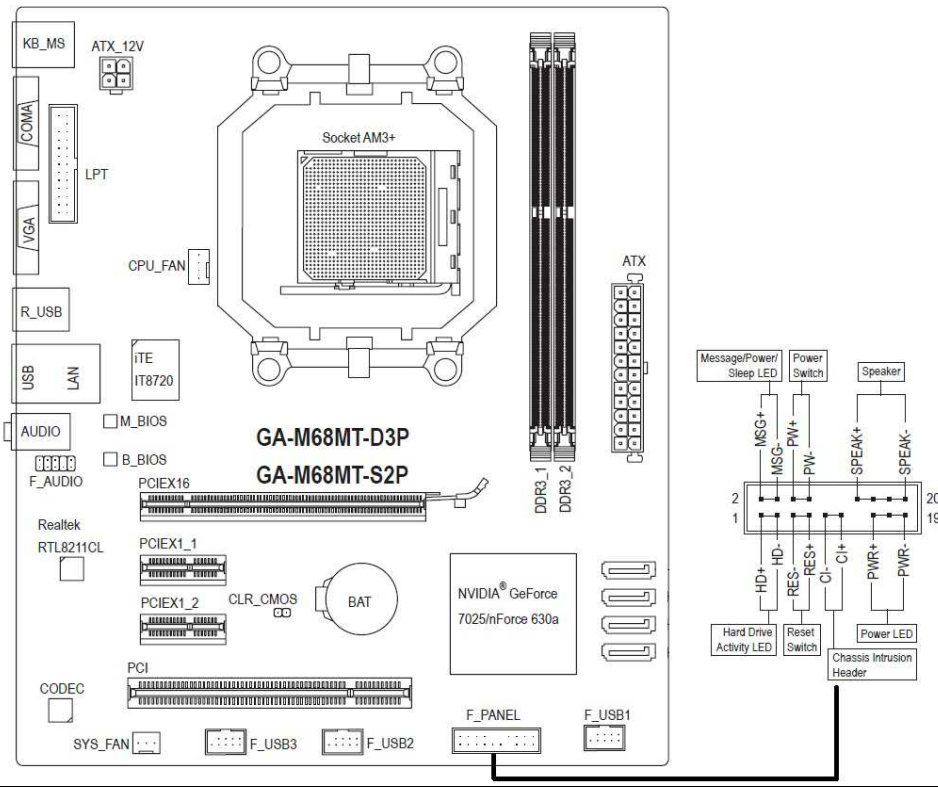
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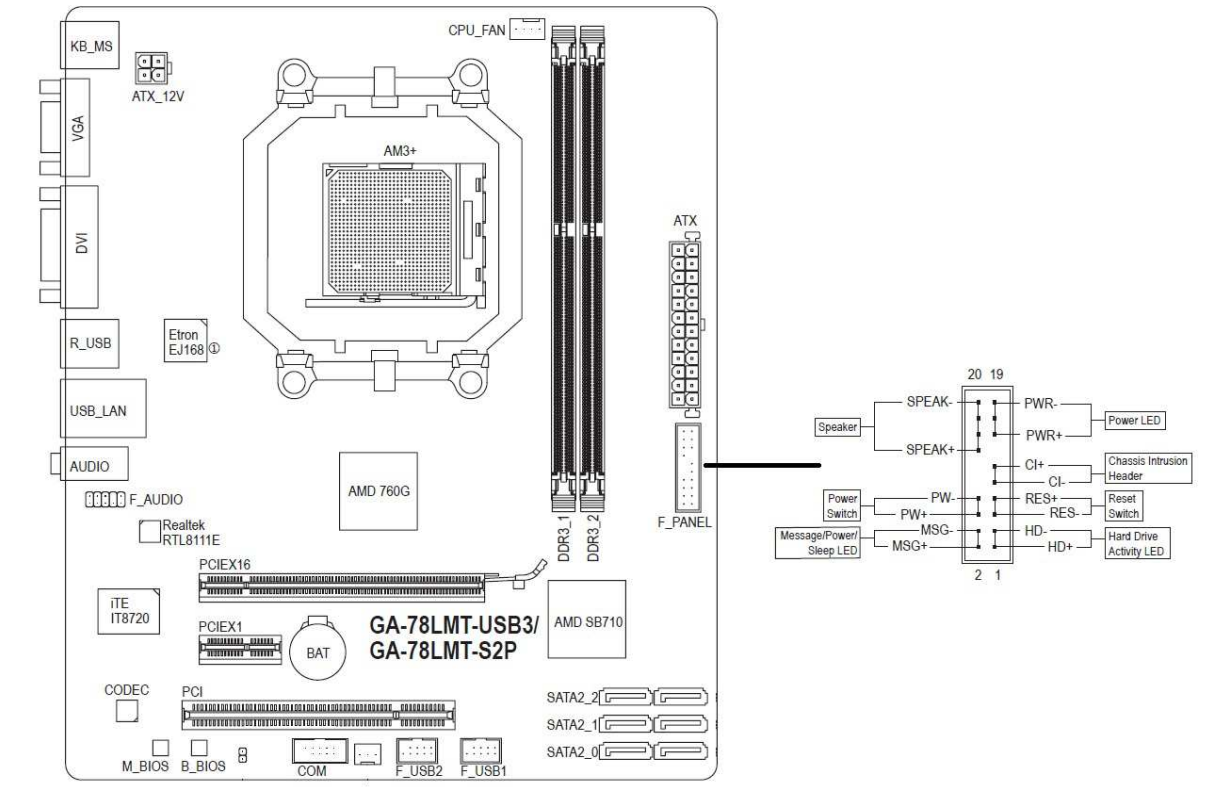
GA-M68M-S2P



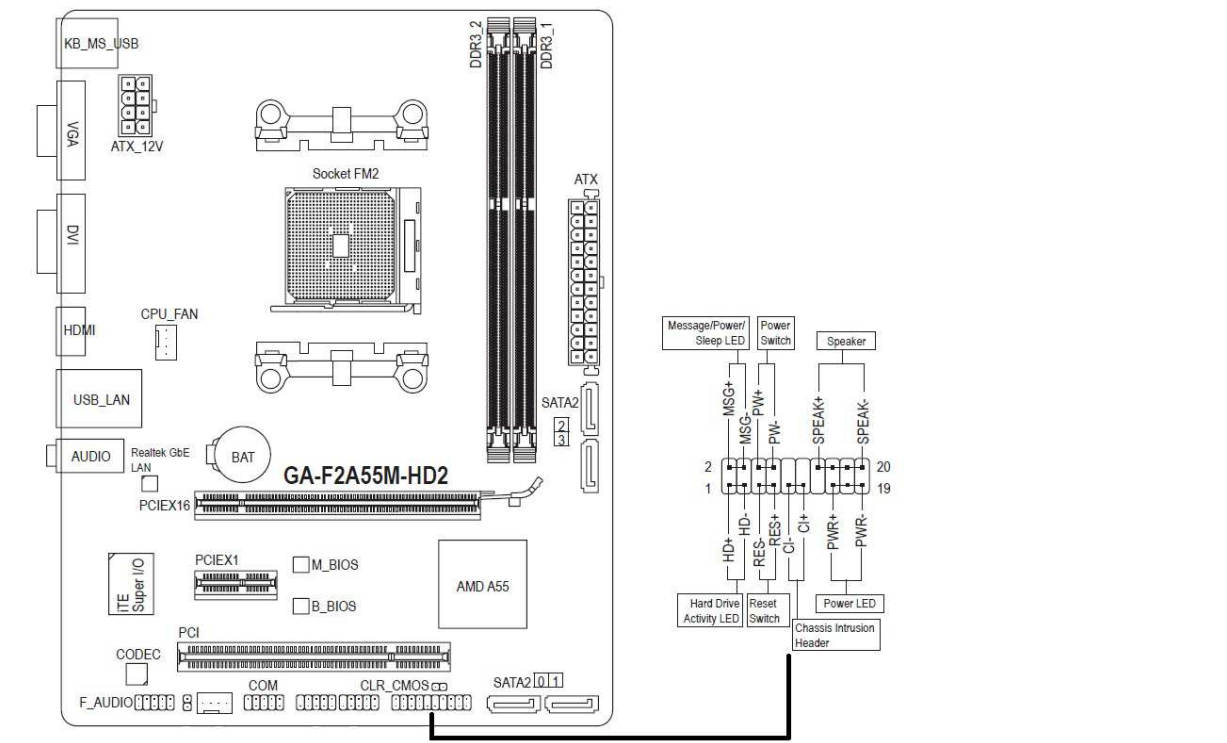
GA-M68MT-S2P



GA-78LMT-S2P



GA-F2A55M-HD2



Document History

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