TB272 (Rev2) – 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:

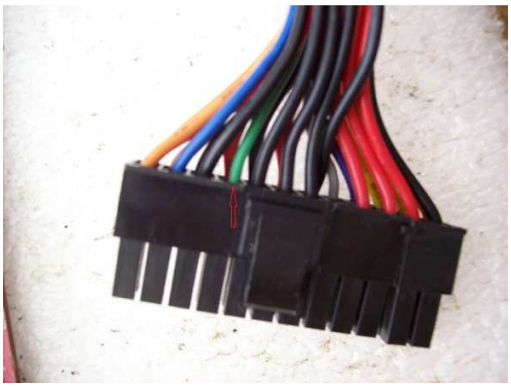
Technical Bulletin 114
Technical Bulletin 274 if your motherboard is a Gigabyte GAM61SMES-S2 motherboard
Technical Bulletin 275 if your motherboard is a Gigabyte GAM61PME-S2P motherboard
CR2032 battery that can be purchased at any store that sells batteries
Meter that can measure AC voltage
System schematic

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.

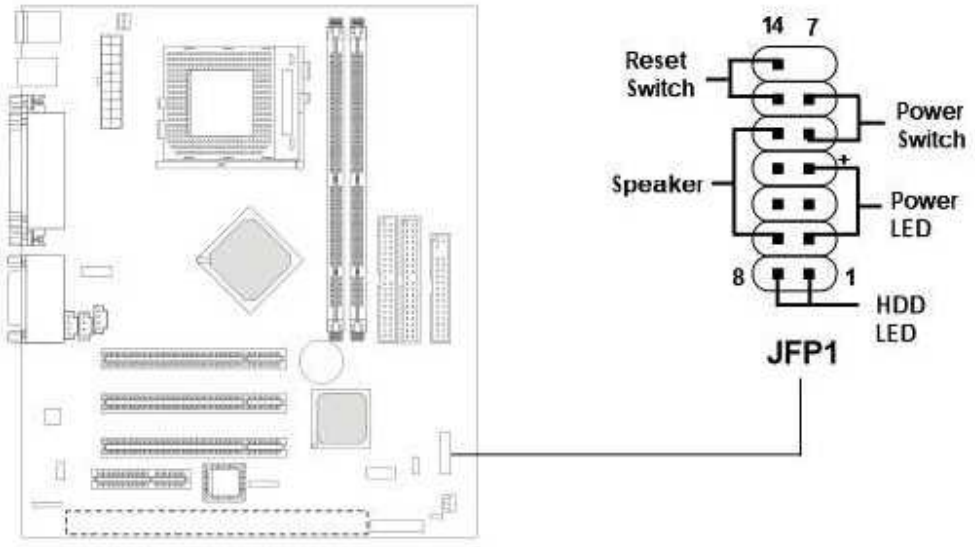
2- Remove the 20/24-pin power connector from the power supply that connects to the motherboard. Power the system. Take a paper clip or a pair of needle-nose pliers and short the green wire on the power connector to any of the surrounding black wires. If the fan on the power supply starts spinning, let 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.



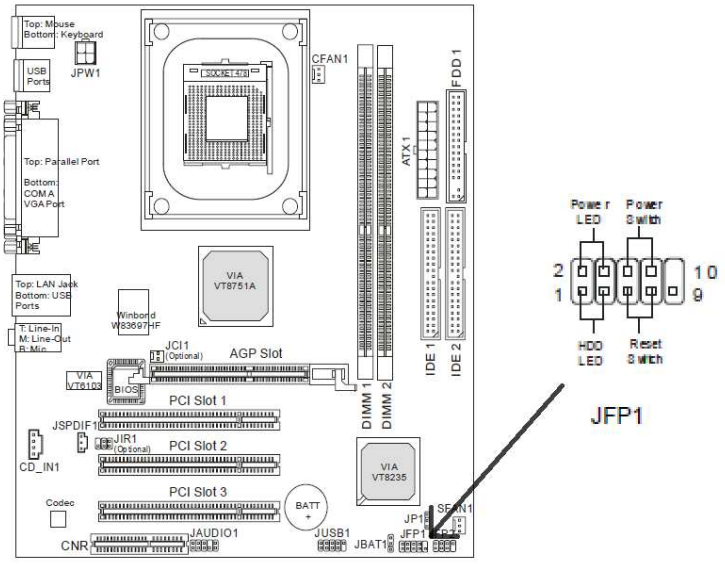
3- Since these are standard PC motherboards that are installed in your desktop PCs, the default operation is for the operator to push a button to turn the PC on. The Centroid controls are not designed with that push button and the BIOS settings are set in such a way that it will not look for

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.

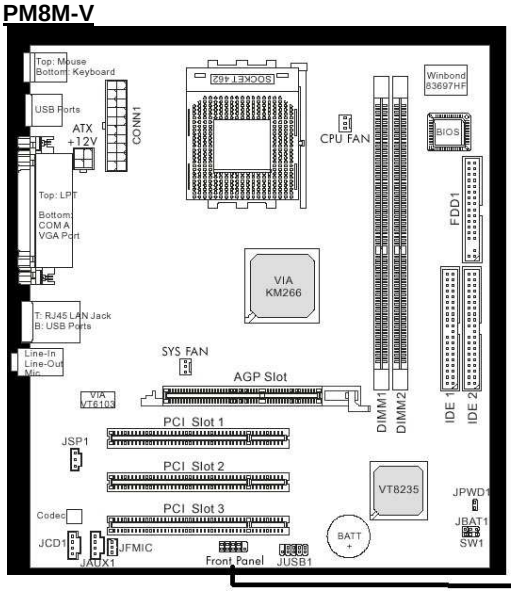
MSI M6368

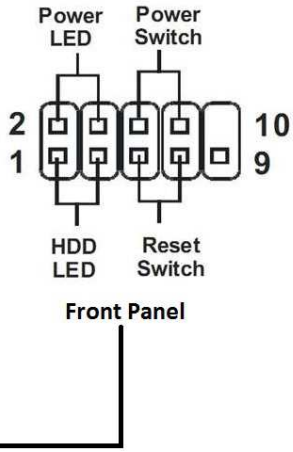


MSI P4MAM(MS-6787)

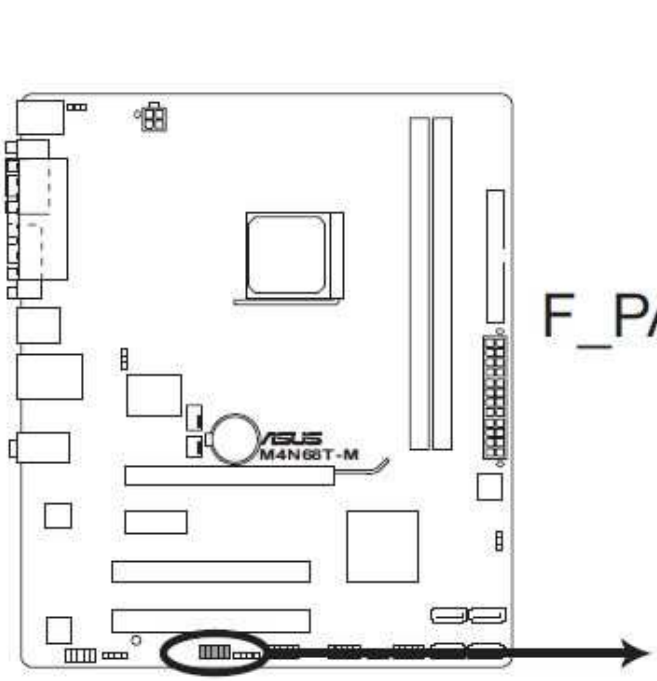


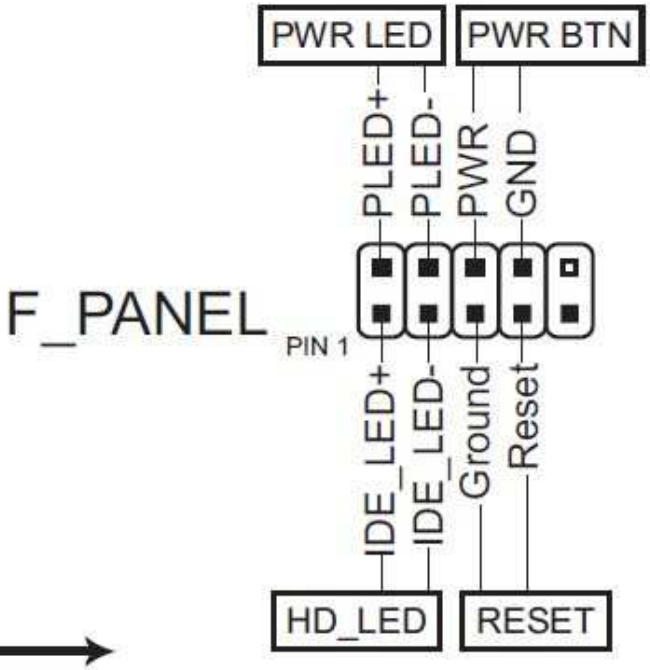
PM8M-V



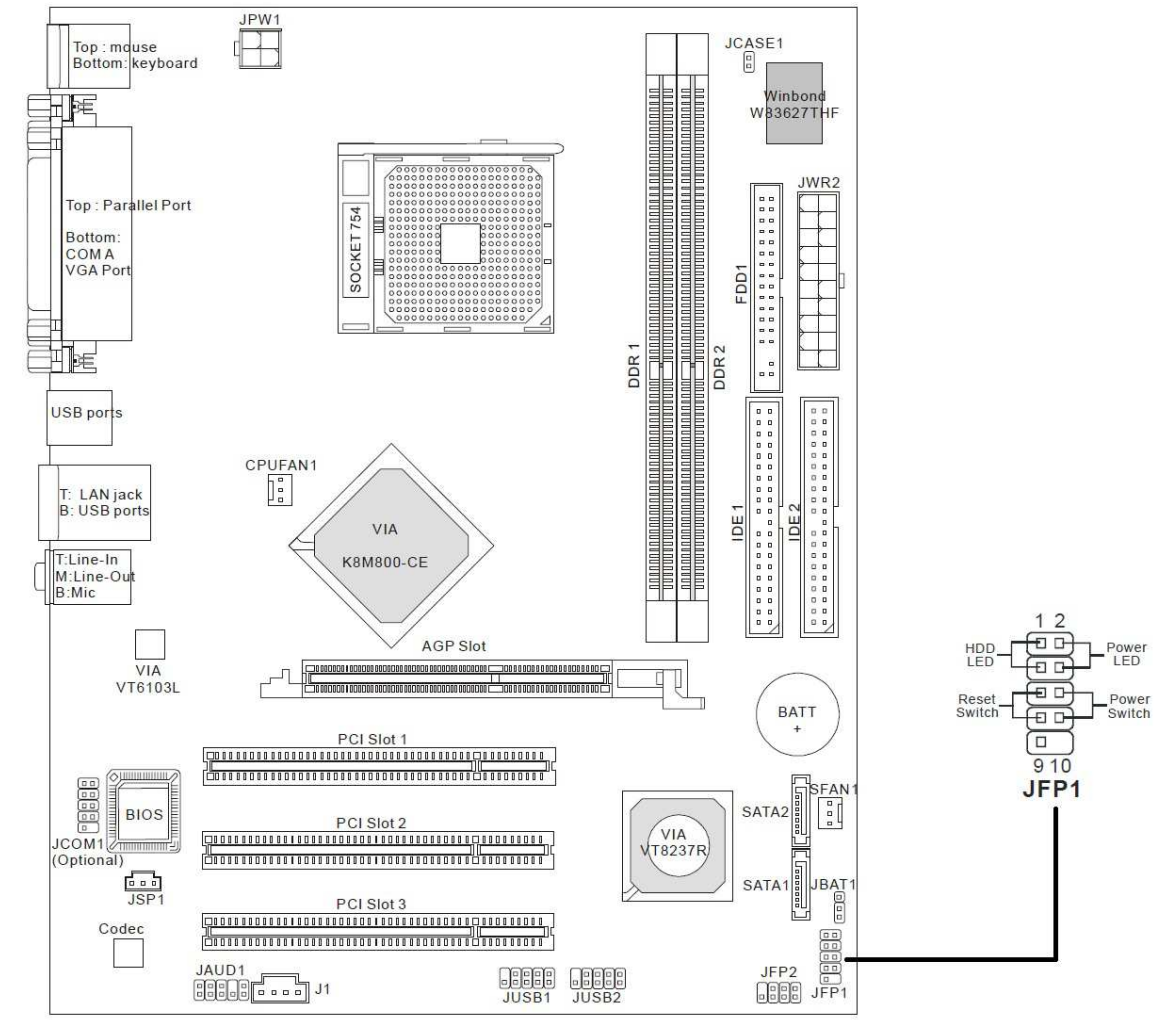


M4N68T-M

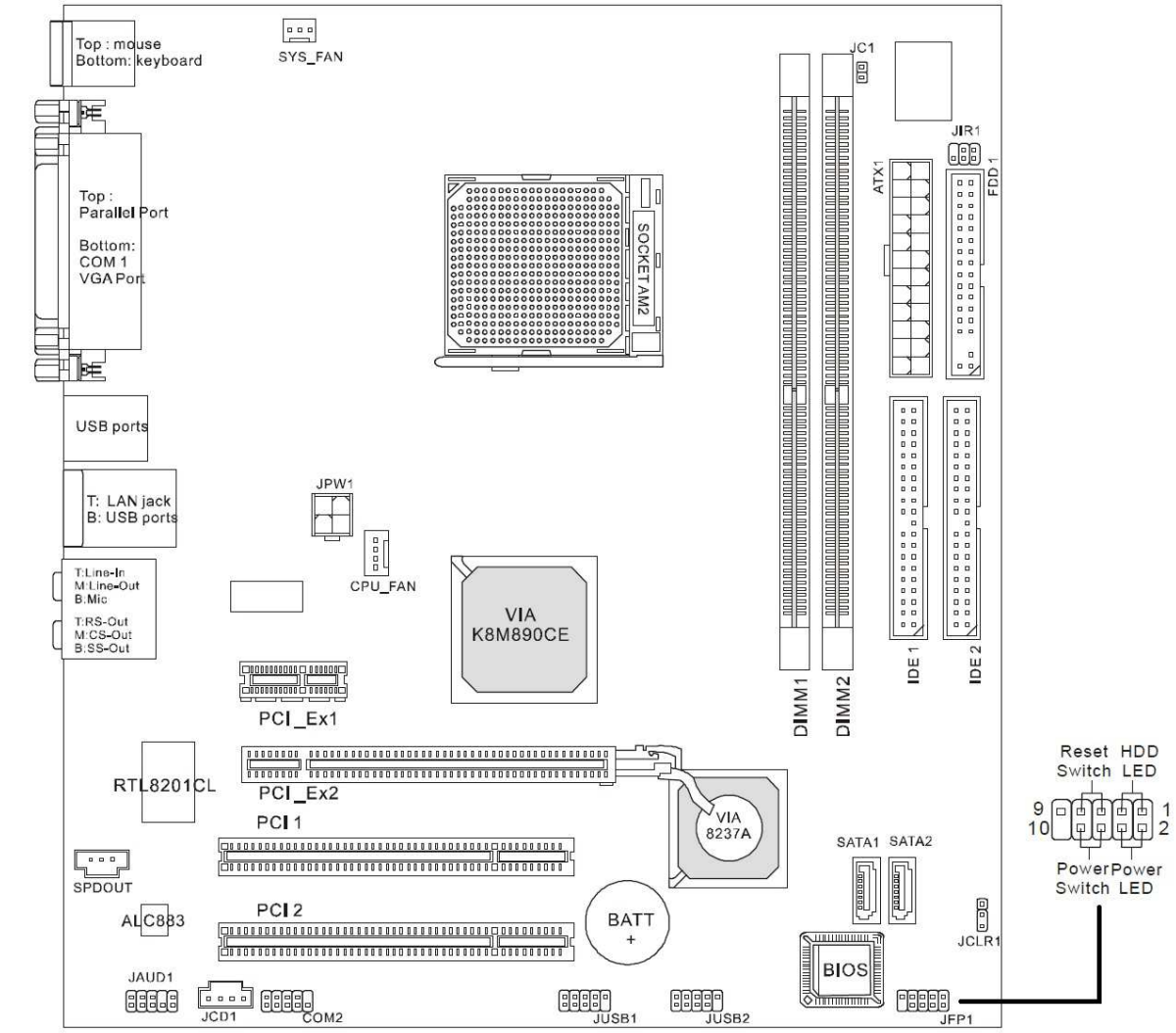




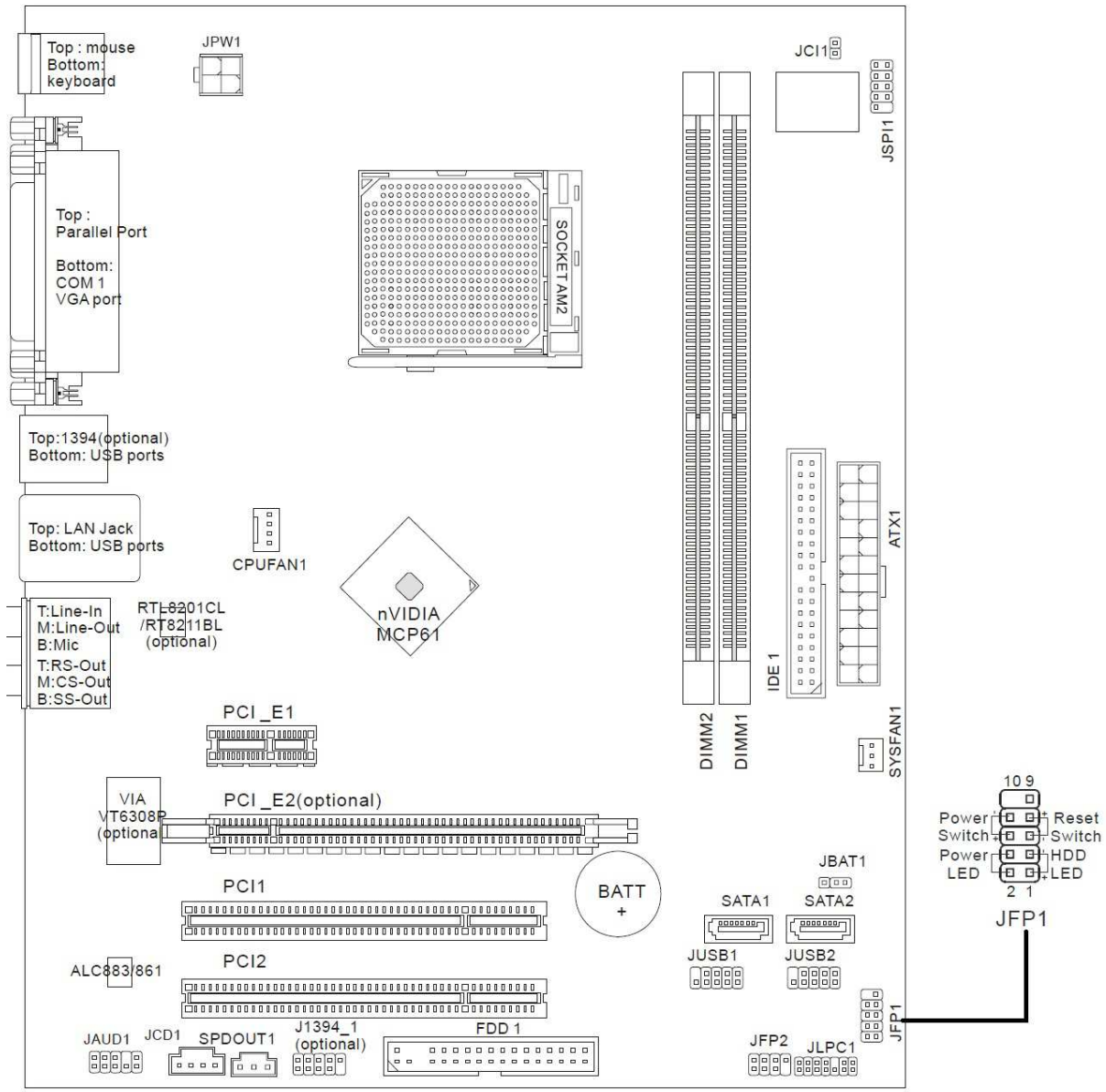
K8MM3-V


JPW1
Top : mouse
Bottom: keyboard
Top : Parallel Port
Bottom:
COM A
VGA Port
USB ports
T: LAN jack
B: USB ports
T:Line-In
M:Line-Out
B:Mic
SOCKET 754
JCASE1
Winbond
W83627THF
JWR2
FDD1
DDR 1
DDR 2
IDE 1
IDE 2
CPUFAN1
VIA
K8M800-CE
AGP Slot
VIA
VT6103L
BATT
+
PCI Slot 1
PCI Slot 2
PCI Slot 3
BIOS
JCOM1
(Optional)
JSP1
Codec
VIA
VT8237R
SFAN1
SATA2
SATA1
JBAT1
JAUD1
J1
JUSB1
JUSB2
JFP2
JFP1
1 2
HDD
LED
Power
LED
Reset
Switch
Power
Switch
9 10
JFP1

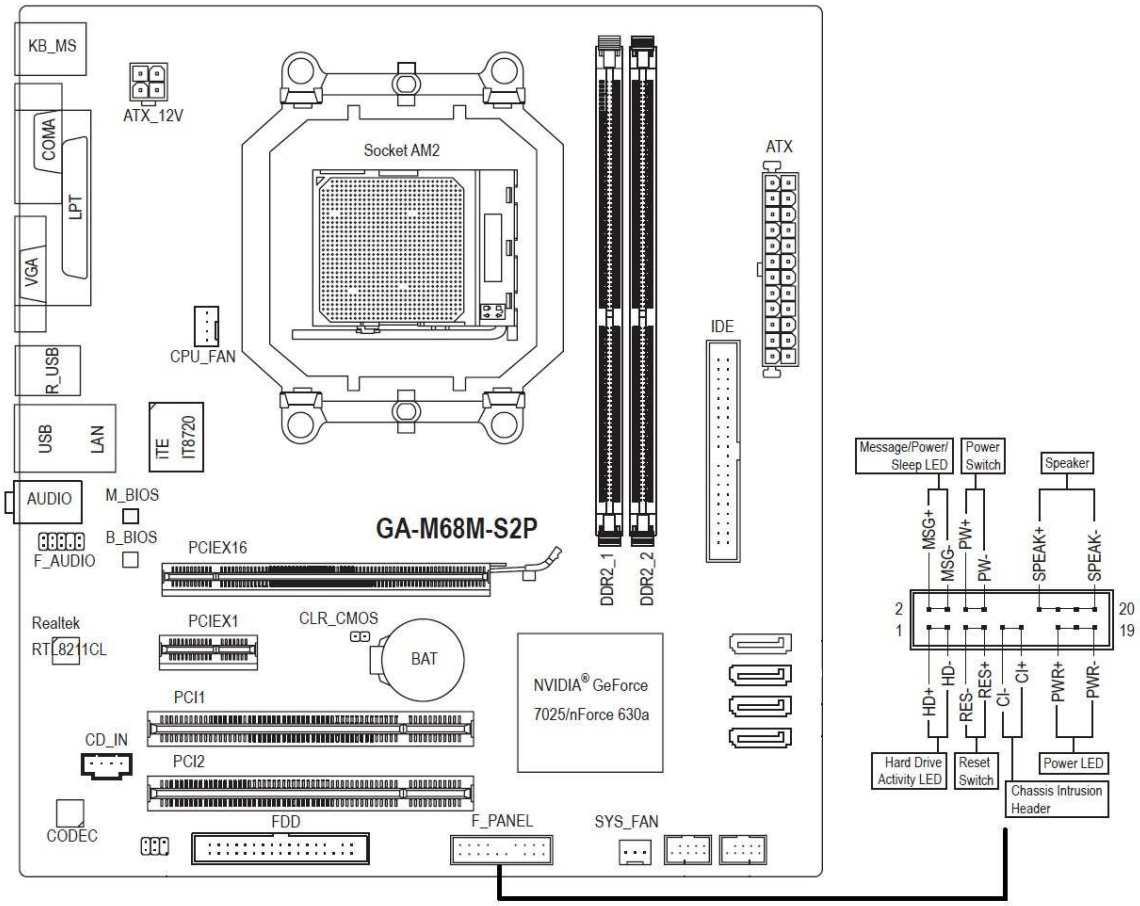
K9VGM-V(MS-7253)



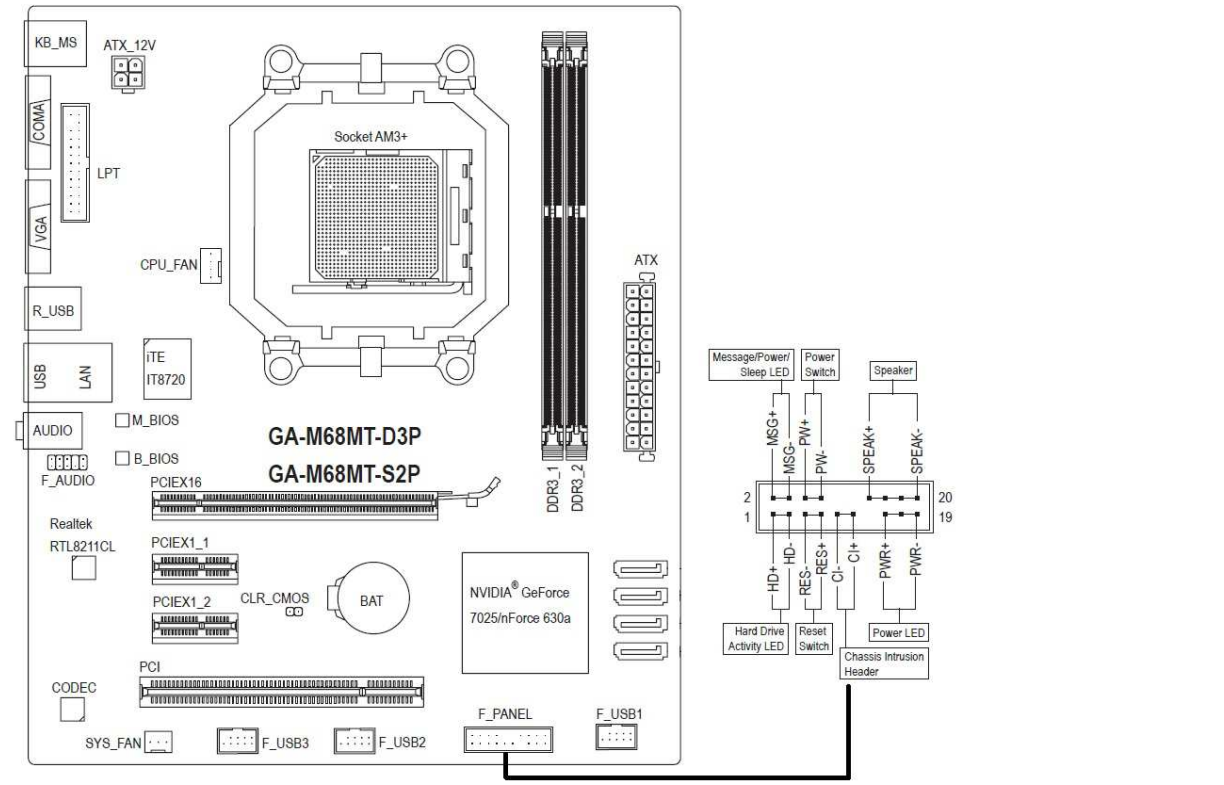
K9N6GM-V(MS-7309)



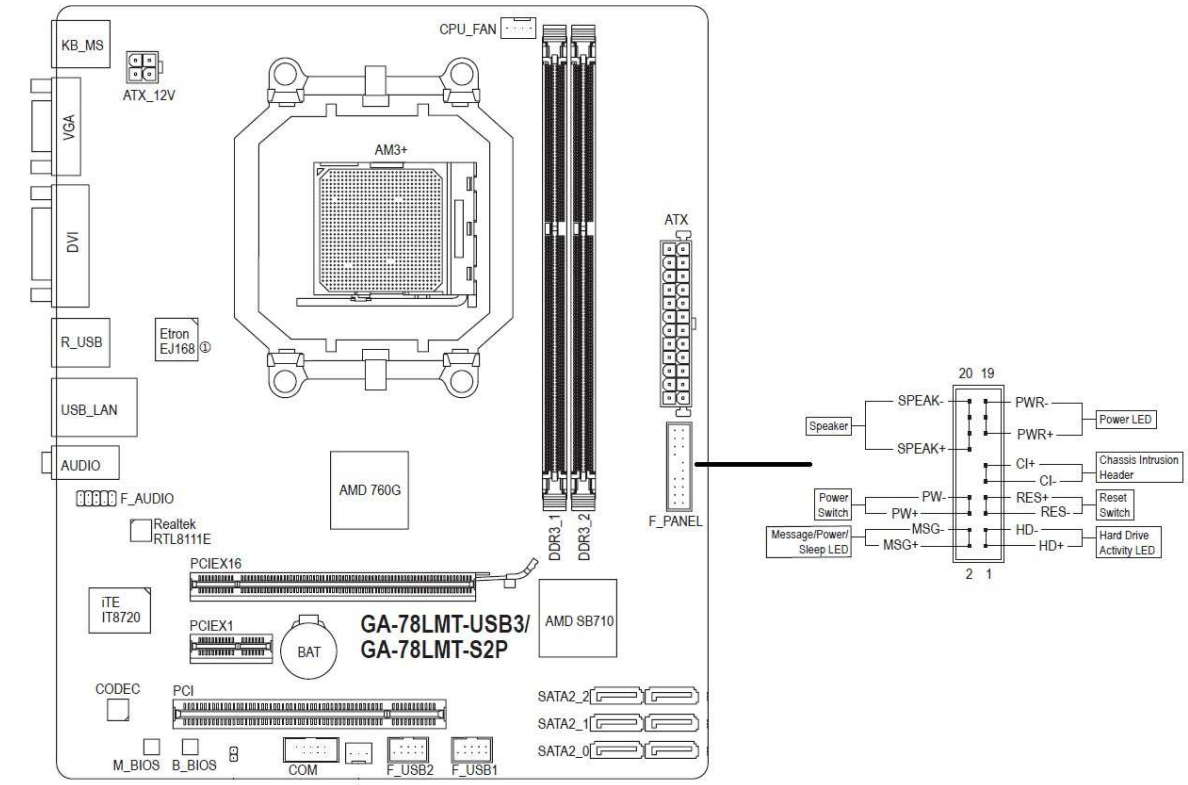
GA-M68M-S2P


KB_MS
ATX_12V
COMA
LPT
VGA
R_USB
USB
LAN
iTE
IT8720
AUDIO
M_BIOS
B_BIOS
F_AUDIO
Realtek
RT8211CL
CPU_FAN
Socket AM2
PCIEX16
PCIEX1
CLR_CMOS
BAT
PCI1
PCI2
CD_IN
CODEC
FDD
F_PANEL
SYS_FAN
GA-M68M-S2P
NVIDIA® GeForce
7025/nForce 630a
DDR2_1
DDR2_2
ATX
IDE
Message/Power/
Sleep LED
Power
Switch
Speaker
MSG+
MSG-
PW+
PW-
SPEAK+
SPEAK-
2
1
20
19
HD+
HD-
RES-
RES+
CI-
CI+
PWR+
PWR-
Hard Drive
Activity LED
Reset
Switch
Power LED
Chassis Intrusion
Header

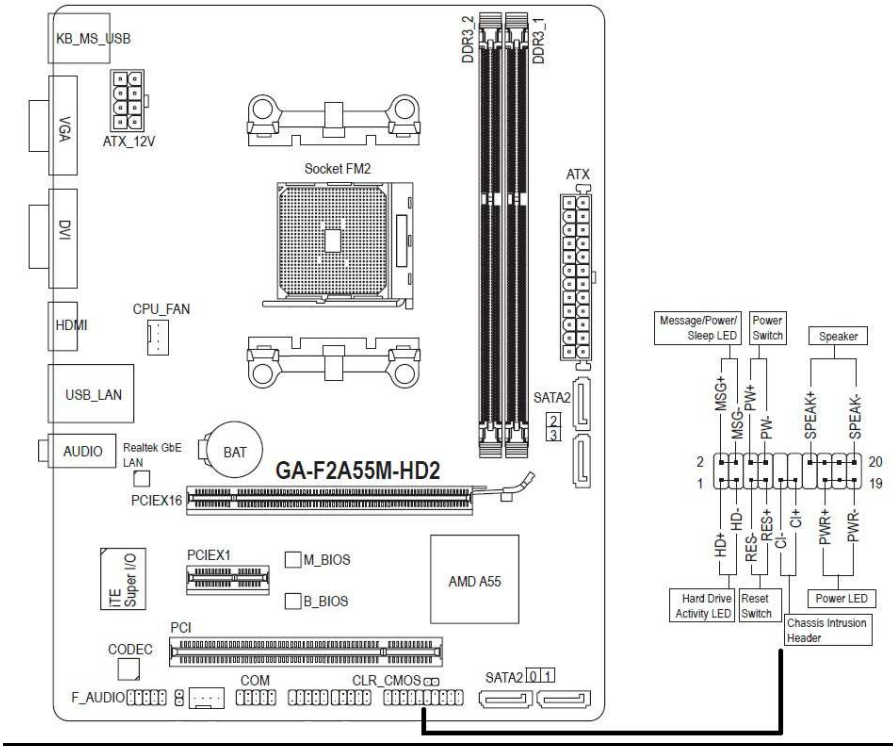
GA-M68MT-S2P


KB_MS
ATX_12V
COMA
LPT
VGA
CPU_FAN
Socket AM3+
ATX
R_USB
USB
LAN
iTE
IT8720
AUDIO
M_BIOS
B_BIOS
F_AUDIO
GA-M68MT-D3P
GA-M68MT-S2P
PCIEX16
DDR3_1
DDR3_2
Realtek
RTL8211CL
PCIEX1_1
PCIEX1_2
CLR_CMOS
BAT
NVIDIA® GeForce
7025/nForce 630a
PCI
CODEC
SYS_FAN
F_USB3
F_USB2
F_PANEL
F_USB1
Message/Power/
Sleep LED
Power
Switch
Speaker
MSG+
MSG-
PW+
PW-
SPEAK+
SPEAK-
2
1
20
19
HD+
HD-
RES-
RES+
CI-
CI+
PWR+
PWR-
Hard Drive
Activity LED
Reset
Switch
Power LED
Chassis Intrusion
Header

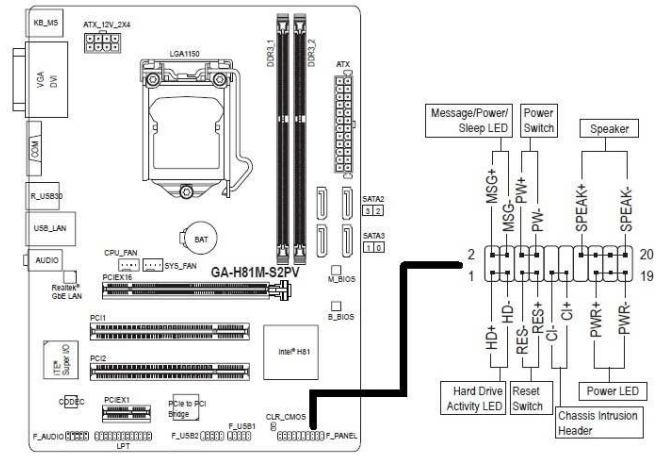
GA-78LMT-S2P



GA-F2A55M-HD2



GA-H81M-S2PV



Document History

Rev2 Created on *2015-04-24* by *#270*
Rev1 Created on *2013-02-21* by *#270*