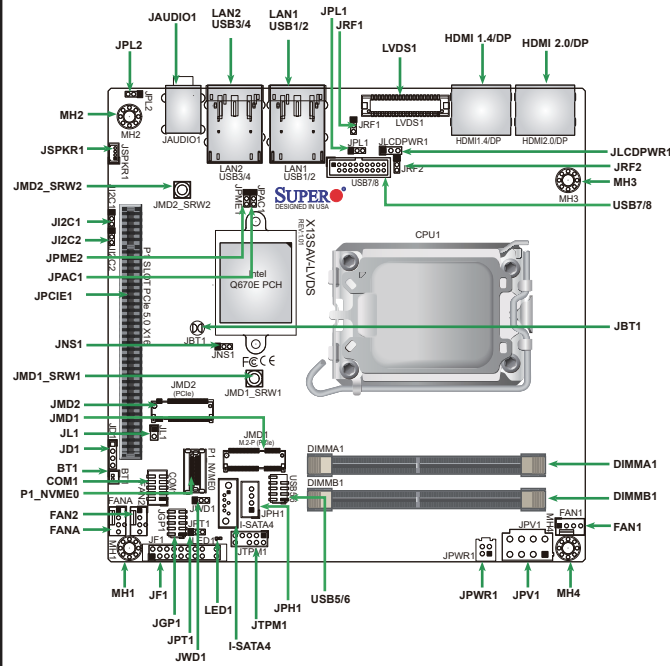


# SUPERMICR® SuperServer E300-13AD Series Quick Reference Guide

## Board Layout



### Quick Reference Table

Item	Description	Status
JBT1	CMOS Clear	Open (Normal)
J*PC1, J*PC	SMB to PCIe Slots Enable/Disable	Pins 2-3 (Disabled)
JLCDPWR1	LVDS Panel VCC Power 3.3V/5V	Pins 1-2 (3.3V)
JPAC1	Audio Enable	Pins 1-2 (Enabled)
JPL1, JPL2	LAN1/LAN2 Enable/Disable	Pins 1-2 (Enabled)
JPME2	ME Manufacturing Mode	Pins 1-2 (Normal)
JPT1	Onboard TPM Module Enable/Disable	Pins 2-3 (Disabled)
JRF1, JRF2	Slot7 PCIe Bifurcation	JRF1: Pins 1-2, Pins 2-3 JRF2: Pins 1-2, Pins 1-2 PEG (default): x16, x8x8
JWD1	Watch Dog Timer	Pins 1-2 (Reset)

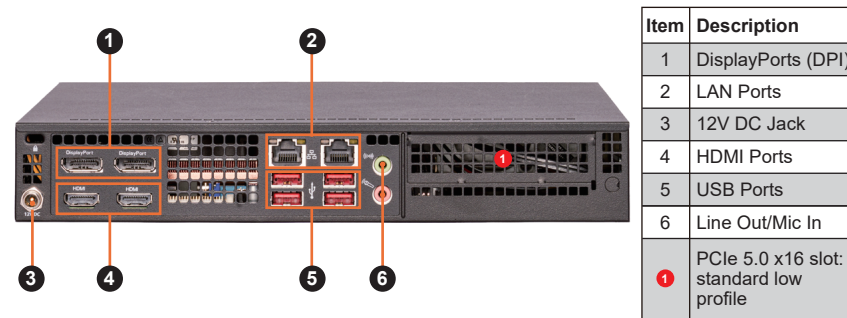
LED	Description	Status
LED1	Power LED	Solid Green: Power On Blinking Green: S3 Status

Connector	Description
BT1	CMOS Battery Header
COM1	COM Header (supports RS-232)
FAN1 - FAN2, FANA	Fan Headers
HDMI1.4/DP	High Definition Multimedia Interface 1.4 and DisplayPort
HDMI2.0/DP	High Definition Multimedia Interface 2.0 and DisplayPort
I-SATA4	SATA 3.0 Port
JAUDIO1	Back panel Audio Ports (Line Out/Mic In)
JD1	Speaker Header (Pins 1-4: Buzzer)
JF1	Front Control Panel Header
JGP1	General Purpose I/O Header
JL1	Chassis Intrusion Header
JMD1	M.2 E-Key PCIe 3.0 x1/USB2.0 (2230 form factor)
JMD2	M.2 M-Key PCIe 4.0 x4 (2280 form factor)
JMD1_SRW1	M.2 Holding Screws
JPCIE1	PCIe 5.0 x16 Expansion Slot
JPH1	4-pin HDD Power Connector
JPV1	8-pin 12V DC Power Connector for CPU (Required) or alternative single power input for when the 24-pin ATX power is not in use
JPWR1	Header for ATX Power Signal 5VSTBY/Power ON/Power GOOD/Ground
JSPKR1	Speaker Header (supporting up to 2W)
Connector	Description
JTPM1	Trusted Platform Module/Port 80 Connector
LAN1, LAN2	LAN Ports
LVDS1	Low Voltage Differential Signaling (LVDS) Connector
MH1 - MH4	Mounting Holes
P1_NVME0	I-SATA0/1/2/3 Ports (via OCuLink Connector)
USB1/2, 3/4	Back Panel USB 3.2 Gen2 x1 Ports
USB5/6	Front Accessible USB 2.0 Ports
USB7/8	Front Accessible USB3.2 Gen1 x1 Header

## System Features

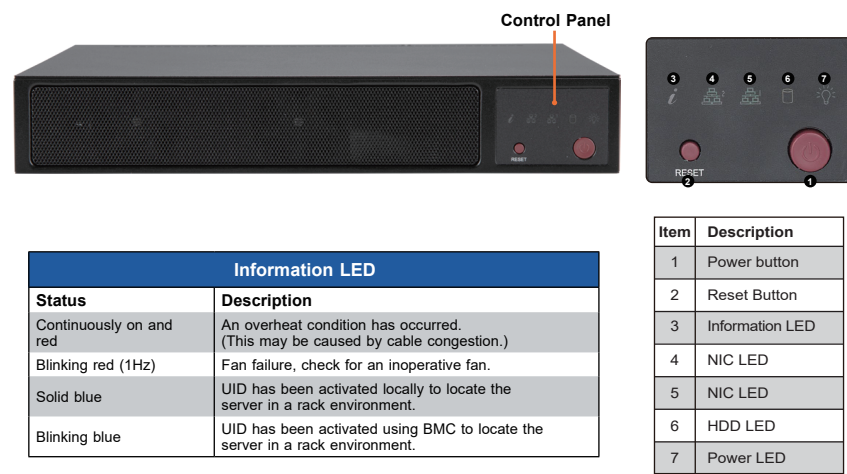
<b>Processors</b>	Intel® 12th Generation Core i9/i7/i5/i3 series, Pentium® and Celeron® processors an LGA1700 socket Note: Refer to the motherboard specifications pages on our website for updates to supported processors.
<b>Chipset</b>	Intel PCH Q670E
<b>BIOS</b>	256Mb AMI® SPI Flash BIOS
<b>Memory</b>	Two slots to support up to 64GB of DDR4 Non-ECC SODIMM with speeds up to 3200MT/s
<b>Storage Drives</b>	One 2.5" SATA 3.0 drive bay
<b>Expansion Slots</b>	One PCIe 5.0 x16 (low-profile) One M.2 M-key 2280 slot (PCIe 4.0 x4) One M.2 E-key 2230 slot (PCIe 3.0 x1/USB 2.0)
<b>Input/Output</b>	Two HDMI + two DPI 1.4 ports Intel 2.5Gbe Ethernet Controller I225-LM (LAN1) Intel 1Gbe Ethernet Controller I210-AT (LAN2) Four USB 3.2 ports
<b>Motherboard</b>	X13SAV-LVDS; 6.7" (W) x 6.7" (L) (170.18mm x 170.18mm)
<b>Chassis</b>	CSE-E300; 1U Mini-ITX, 10 x 1.7 x 8.9" / 254 x 43 x 226mm (W x H x D)
<b>System Cooling</b>	Two 4-cm cooling fans
<b>Power Supply</b>	Model: MCP-250-10133-0N AC Input Voltages: 110-240V Rated Input Frequency: 50-60Hz Rated Output Power: 180W Single Rated Output Voltages: +12V (15A)
<b>Operating Environment</b>	Operating Temperature: 0°C to 40°C (32°F to 140°F)    Operating Relative Humidity: 8% to 90% (non-condensing) Non-operating Temperature: -40°C to 70°C (-40°F to 158°F)    Non-operating Relative Humidity: 5% to 95% (non-condensing)

## Rear View and Features



Item	Description
1	DisplayPorts (DPI)
2	LAN Ports
3	12V DC Jack
4	HDMI Ports
5	USB Ports
6	Line Out/Mic In
1	PCIe 5.0 x16 slot: standard low profile

## Front View and Control Panel



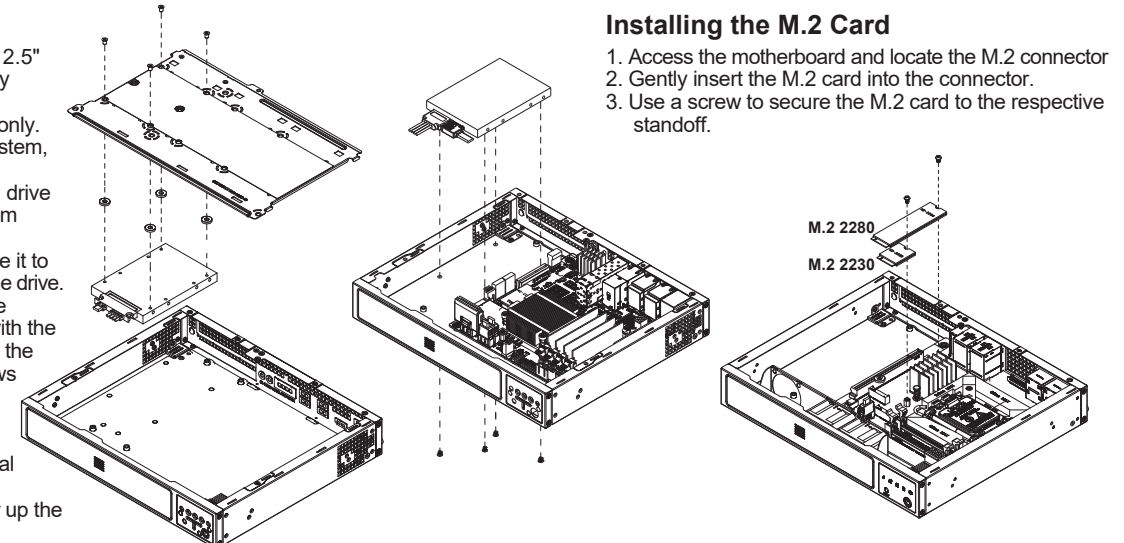
Item	Description
1	Power button
2	Reset Button
3	Information LED
4	NIC LED
5	NIC LED
6	HDD LED
7	Power LED

Status	Description
Continuously on and red	An overheat condition has occurred. (This may be caused by cable congestion.)
Blinking red (1Hz)	Fan failure, check for an inoperative fan.
Solid blue	UID has been activated locally to locate the server in a rack environment.
Blinking blue	UID has been activated using BMC to locate the server in a rack environment.

## Installing or Replacing the storage drive and M.2 cards

### Installing the Storage Drive

- The drive can accommodate one fixed 2.5" drive secured to a support bracket (only supported when the AOC area is not occupied). Use enterprise quality drives only.
1. Make sure there is no power to the system, remove the chassis cover.
  2. Remove the screws securing the hard drive tray to the support bracket and set them aside for later use. Lift the tray out.
  3. Place the drive into the tray and secure it to the tray with the screws provided with the drive.
  4. Return the drive tray assembly into the chassis, aligning the tabs of the tray with the slots in the chassis. Secure the tray to the chassis support bracket with the screws previously set aside.
  5. Attach the SATA cable from the drive to the SATA port on the motherboard. This cable carries both the SATA signal and the SATA power.
  6. Reinstall the chassis cover and power up the system.



### Installing the M.2 Card

1. Access the motherboard and locate the M.2 connector.
2. Gently insert the M.2 card into the connector.
3. Use a screw to secure the M.2 card to the respective standoff.

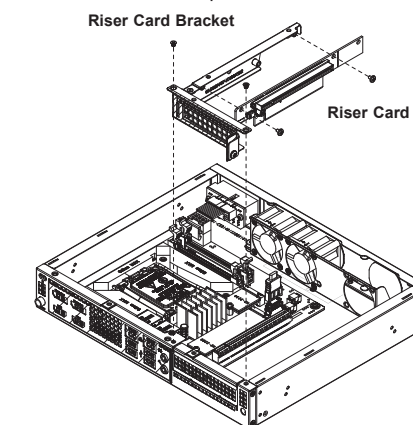
## Installing or Replacing the Riser Cards and Fans

### Components of the Expansion Card Module

- The drive features a removable top cover to access to the inside of the chassis.
1. Power down the system.
  2. Remove the two screws that hold the cover in place.
  3. Slide the cover sideways as illustrated above to release the front and rear cover hooks from the chassis.
  4. Lift the cover up and off the chassis.

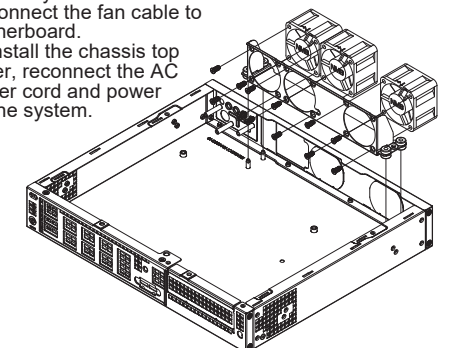
### Installing the Riser Card

- The system can support one PCIe x16 expansion card by means of an optional riser card. The riser card is inserted in the expansion slot on the motherboard. Installation of the riser card and riser card bracket is pictured below.



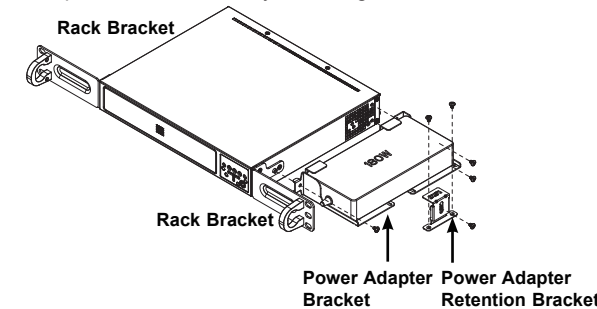
### System Cooling

1. Remove power from the system.
2. Remove the failed fan power cable from motherboard.
3. Remove the screws securing the fan to the chassis wall and save them.
4. Lift the fan out of the chassis.
5. Align the replacement fan with the holes in the wall of the chassis.
6. Secure the fan to the chassis wall using the screws previously set aside.
7. Reconnect the fan cable to motherboard.
8. Reinstall the chassis top cover, reconnect the AC power cord and power up the system.



## Installing Rack Mounting Brackets

- The chassis can be mounted in a rack using two rack brackets and a two-part power adapter shelf bracket (optional).
1. Attach the rack brackets using three screws through the holes in each bracket to secure the bracket to the chassis.
  2. Install the handles, using two screws through the bracket and into each handle.
  3. If you are using the optional power adapter bracket, install the power adapter on its bracket. Place it as shown, then add the retention bracket using two screws.
  4. Mount the power adapter bracket assembly on the right side of the chassis using three screws.



## Caution

- SAFETY INFORMATION**  
IMPORTANT: See installation instructions and safety warning before connecting system to power supply.  
[http://www.supermicro.com/about/policies/safety\\_information.cfm](http://www.supermicro.com/about/policies/safety_information.cfm)
- WARNING:**  
To reduce risk of electric shock/damage to equipment, disconnect power from server by disconnecting all power cords from electrical outlets.  
If any CPU socket empty, install protective plastic CPU cap.
- WARNING:**  
Always be sure all power supplies for this system have the same power output. If mixed power supplies are installed, the system will not operate.

**Please clean the dust filters regularly**

For more information go to: <http://www.supermicro.com/support>

