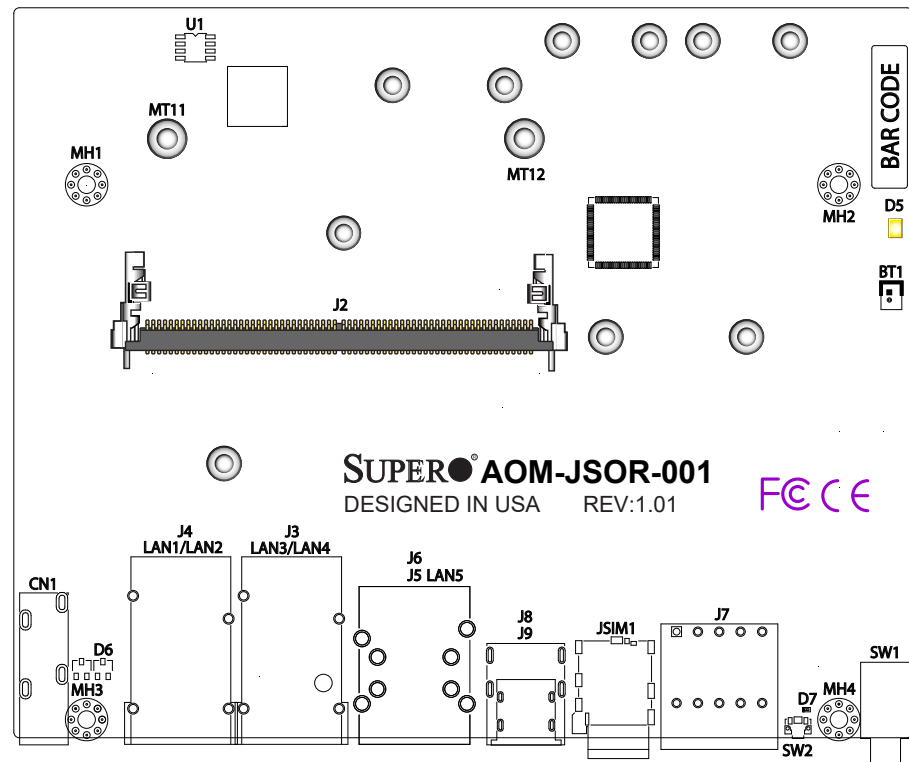
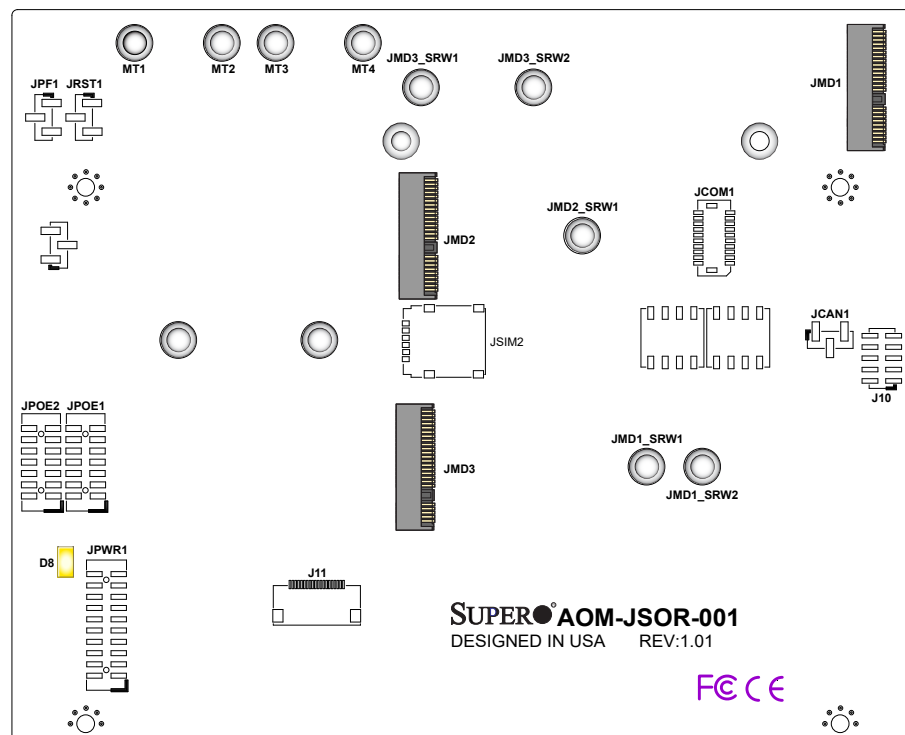


Add-On Module Layout and Features

Top Layout



Bottom Layout



About This Add-On Module

The AOM-JSOR-001/AOM-JSOR-002 is an advanced, market-leading carrier board for Arm[®] NVIDIA[®] Jetson Orin NX. As part of the System SKU ARS-E103-JONX series, this card features the NVIDIA Jetson Orin NX module new platform for embedded IoT fanless systems for Edge-AI computing. It has up to eight core Arm Cortex[®]-A78AE, a 1024-core NVIDIA Ampere GPU with 32 tensor cores GPU, as well as up to 8 GB/16 GB LPDDR5 RAM to provide unmatched features for quality assurance, security, and reliable performance. This is the best choice for computer vision, healthcare-patient monitoring, and surgery assistance.

This product is sold only as part of an integrated solution with Supermicro[®] server systems.

All graphic images and layout drawings shown in are based upon the latest PCB revision available at the time of publishing this quick reference guide. The add-on module you have received may or may not look exactly the same as the graphics shown.

About This Add-On Module

Component	Description
CN1	HDMI 2.0
J2	Jetson Orin Module Connector
J3	Two 1 GbE Connectors
J4	Two 1 GbE Connectors
J5	1 GbE+ USB 3.2 Type-A Port x2 (AOM-JSOR-002)
J6	10 GbE+ USB 3.2 Type-A Port x2 (AOM-JSOR-001)
J7	DI/DO Connector
J8	USB 3.2 Type-A Port
J9	USB 3.2 Type-C Port
J10	CAN BUS
J11	LED Board Connector
JCAN1	CAN BUS Termination Resistor Switch (Default: Off)
JCOM1	COM Port Header (COM0/COM1)
JMD1	M.2 M-Key (NVMe)
JMD2	M.2 E-Key (WiFi+BT)
JMD3	M.2 B-Key (4G/5G Modem Module)
JPF1	AT/ATX Select Jumper
JPOE1	PoE Module Connector for J4
JPOE2	PoE Module Connector for J3
JPWR1	9–36 V DC Input Connector
JRST1	RESET Jumper
JSIM1	NANO SIM Slot 1
JSIM2	NANO SIM Slot 2
S1	COM PORT0 Switch (RS232, RS422, RS485)
S2	COM PORT1 Switch (RS232, RS422, RS485)
SW1	POWER Button
SW2	RECOVER Button

LED Definitions

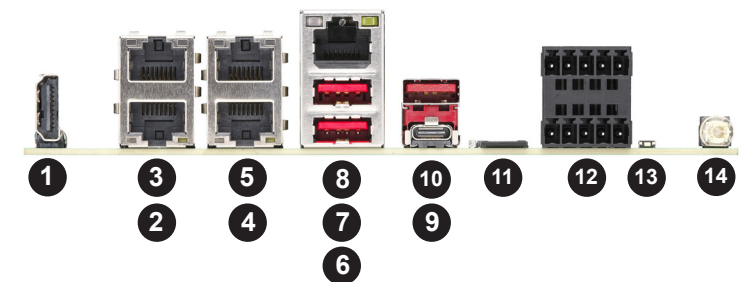
LAN Ports 1 to 3 (1 GbE) LED Definitions		
	Left LED (Speed)	Right LED (Active)
100 M	Green	Yellow (Flash)
1000 M	Amber	Yellow (Flash)

LAN Port 4 LED (1 GbE) Definitions		
	Left LED (Speed)	Right LED (Active)
1000 M	Amber	Yellow (Flash)

AOM-JSOR-001 LAN Port 5 (10 GbE) LED Definitions		
	Left LED (Speed)	Right LED (Active)
100 M	Amber	Yellow (Flash)
10 G	Green	Yellow (Flash)

AOM-JSOR-002 LAN Port 5 (1 GbE) LED Definitions		
	Left LED (Speed)	Right LED (Active)
100 M	Green	Yellow (Flash)
1000 M	Amber	Yellow (Flash)

I/O Ports



#	Description	#	Description
1.	HDMI 2.0	8.	10 GbE RJ45 LAN (AOM-JSOR-001) 1 GbE RJ45 LAN (AOM-JSOR-002)
2.	1 GbE RJ45 LAN1	9.	USB 3.2 Type-C Port
3.	1 GbE RJ45 LAN2	10.	USB 3.2 Type-A Port
4.	1 GbE RJ45 LAN3	11.	Nano SIM Slot 1
5.	1 GbE RJ45 LAN4	12.	DI/DO Connector
6.	USB 3.2 Type-A Port	13.	RECOVERY Button
7.	USB 3.2 Type-A Port	14.	POWER Button

Refer to the Component Installation section of the user manual for information on jumpers, connectors, LED Indicators, memory support, and processor installation instructions.