

# JEA-E618

## NVIDIA Jetson Orin NX Arm-based Edge AI BOX

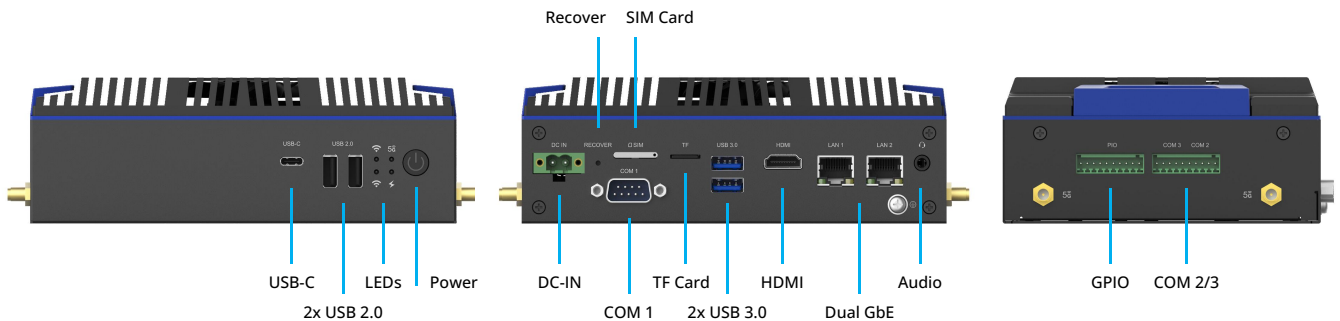


### Features

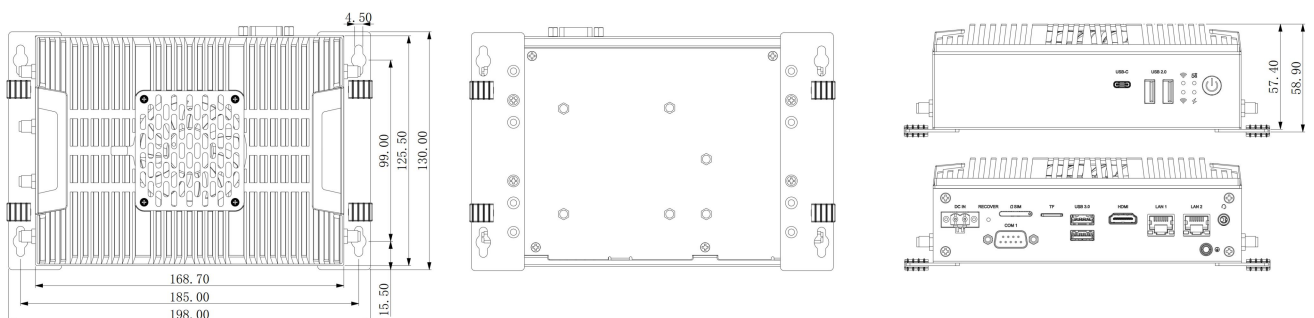
- NVIDIA Jetson Orin NX 8GB/16GB module
- Ampere architecture GPU + Cortex-A78AE CPU
- Delivers up to 100 TOPS of AI performance
- Ideal for Deep Learning acceleration at the Edge
- Dual GbE LAN for camera connectivity
- WiFi, BT, 5G/4G & LoRa for remote access
- M.2 NVMe SSD & SD card for storage
- On-board TPM 2.0 module for security
- Linux Ubuntu OS + NVIDIA JetPack SDK support



### Product View



### Dimensions



System	AI Platform	NVIDIA Jetson Orin NX 8GB	NVIDIA Jetson Orin NX 16GB
	AI Performance	70 TOPS (INT8)	100 TOPS (INT8)
	GPU	1024-core NVIDIA Ampere architecture GPU with 32 Tensor Cores	
	CPU	6-core Arm Cortex-A78AE v8.2 64-bit CPU	8-core Arm Cortex-A78AE v8.2 64-bit CPU
	Neural Network Acceleration	1x NVDLA v2 for accelerating deep learning workloads	2x NVDLA v2 for accelerating deep learning workloads
	HW Video Codec	1x 8K30 / 2x 4K60 / 4x 4K30 / 9x 1080p60 / 18x 1080p30 H.265 video decode streams 1x 4K60 / 3x 4K30 / 6x 1080p60 / 12x 1080p30 H.265 video encode streams	
	Memory	On-board 8GB 128-bit LPDDR5	On-board 16GB 128-bit LPDDR5
	Storage & Expansion	1x M.2 2280 (PCIe x4) for NVMe SSD 1x Micro SD slot	
Ethernet	Chipset	NVIDIA Jetson integrated GbE and RTL8119I	
	Interface	2x RJ45, 10/100/1000 Mbps	
Wireless Connectivity	WiFi	1x M.2 Key E for WiFi 5/WiFi 6	
	5G/4G	1x M.2 Key B for 4G/5G 1x Micro SIM slot	
	LoRa	1x Mini PCIe for LoRa	
	Others	On-board LC670Z GNSS module	
Multimedia	Display	1x HDMI 2.1 up to 4K60	
	Audio	1x 3.5mm Combo Jack	
I/O	USB	1x USB 3.0 Type-C, 2x USB 3.0 Type-A, 2x USB 2.0 Type-A	
	Serial Port	1x 10-pin Phoenix connector (1x RS-232+1x RS-485) 1x RS-232/485 with CTS/RTS by DB9 1x RS-232/TTL internal header	
	CAN	1x CAN internal header (optional connect to DB9)	
	GPIO	1x 10-pin Phoenix connector (4-in/4-out)	
Other Features	Watchdog	Watchdog Timer & power on/off management	
	Real Time Clock	On-board RTC chip, battery-backed	
	Security	On-board Z32H330TC TPM 2.0 module	
Power	Power Input	12V DC-IN	
	Interface	2-pole lockable terminal block	
	System Ctrl & Monitoring	1x Power button, 1x Recovery button 1x Buzzer for alarm & diagnostics, 4x LEDs for power & wireless	
Mechanical	Dimensions	187mm x 131mm x 54mm	
Software	OS Support	Ubuntu 20.04 + JetPack 5.1.2	
Environment	Operating Temp.	0~60°C / -20~70°C optional	
	Storage Temp.	-20~75°C	
	Humidity	10%~90% RH, non-condensing	
	Certifications	CCC, CE Class B	

Part Number	AI Accelerator	SSD	Wireless	LAN	USB	COM	GPIO	Operating Temp.
JEA-E618-AXM02	Jetson Orin NX 8GB (70 TOPS)	256GB	5G included	2	5	3	8	-20~70°C
JEA-E618-AXH02	Jetson Orin NX 16GB (100 TOPS)	256GB	-	2	5	3	8	-20~70°C
JEA-E618-BXM02	Jetson Orin NX 8GB (70 TOPS)	256GB	WiFi 5 included	2	5	3	8	0~60°C
JEA-E618-BXH02	Jetson Orin NX 16GB (100 TOPS)	512GB	WiFi 5 included	2	5	3	8	0~60°C

## ■ Packing List

Article	Description
Jetson Orin module	Pre-integrated as specified
NVMe SSD	Pre-integrated as specified
Wireless module	Pre-integrated as specified
60W Power Adaptor	AC 100~240V to DC 12V/5.0A
Power Cord	CCC 10A 250 V

## ■ Optional Accessories

Article	Description
128GB NVMe SSD	FSB0C128G-C4H1400, M.2 2280 PCIe Gen3 x4 NVMe (0~70°C)
256GB NVMe SSD	FSB0C256G-C4H1400, M.2 2280 PCIe Gen3 x4 NVMe (0~70°C)
512GB NVMe SSD	FSB0C512G-C4H1400, M.2 2280 PCIe Gen3 x4 NVMe (0~70°C)
1TB NVMe SSD	FSB0C001T-C4H1400, M.2 2280 PCIe Gen3 x4 NVMe (0~70°C)
256GB NVMe SSD (wide temp.)	TS256GMTE712A-I, M.2 2280 PCIe Gen4 x4 NVMe (-40~85°C)
1TB NVMe SSD (wide temp.)	TS1TMTE712A-I, M.2 2280 PCIe Gen4 x4 NVMe (-40~85°C)
WiFi 5 Expansion kit	AW-CB515NF 802.11ac WiFi 1T1R and BT 5.0 combo module with antenna
WiFi 6 Expansion kit	AW-XB547NF 802.11ax WiFi 2T2R and BT 5.2 combo module with antenna
4G Expansion kit	Quectel EM05-CN LTE Cat 4 module with antenna (optional GNSS)
5G Expansion kit	Quectel RM500U-CN 5G Sub-6 GHz module with antenna
LoRa Expansion kit	E106-470G27P2 LoRaWAN gateway module with antenna
Thermal kit for 5G module	Al. heatsink with thermal pad & screws
Wall mount kit	Wall mount brackets with screws