



FEATURES

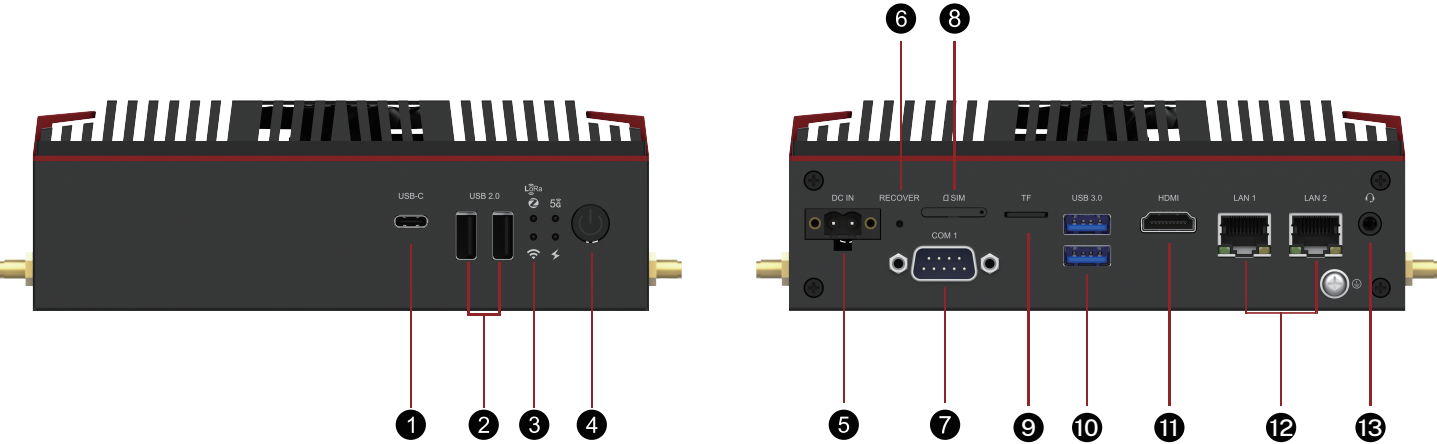
- NVIDIA Jetson Orin NX 8GB/16GB module
- Ampere architecture GPU + Cortex-A78 CPU
- Delivers up to 100 TOPS of AI performance
- Ideal for Deep Learning acceleration at the Edge
- Dual GbE LAN for camera connectivity
- WiFi, BT, 5G/4G & LoRa for remote access
- M.2 NVMe SSD & SD card for storage
- On-board TPM 2.0 module for security
- Linux Ubuntu OS + NVIDIA JetPack SDK support

SPECIFICATIONS

System	
AI Platform	NVIDIA Jetson Orin NX 8GB/16GB
AI Performance	70 TOPS (INT8) / 100 TOPS (INT8)
GPU	Ampere, 1024 CUDA Cores, 32 Tensor Cores, 765MHz Ampere, 1024 CUDA Cores, 32 Tensor Cores, 918MHz
CPU	6-core Arm® Cortex®-A78, 2.0GHz (8GB version) 8-core Arm® Cortex®-A78, 2.0GHz (16GB version)
Neural Network Acceleration	1 x NVDLA v2 for accelerating deep learning workloads 2 x NVDLA v2 for accelerating deep learning workloads
HW Video Codec	1 x 8K30 / 2 x 4K60 / 4 x 4K30 / 9 x 1080p60 / 18 x 1080p30 H.265 video decode streams 1 x 4K60 / 3 x 4K30 / 6 x 1080p60 / 12 x 1080p30 H.265 video encode streams
Memory	On-board 8GB 128-bit LPDDR5 On-board 16GB 128-bit LPDDR5
Storage & Expansion	1 x M.2 2280 (PCIe x 4) for NVMe SSD 1 x Micro SD (TF) card slot 1 x Micro SIM card slot
Ethernet	
Chipset	NVIDIA Jetson integrated GbE and RTL8119I
Interface	2 x RJ45, 10/100/1000 Mbps
Wireless Connectivity	
WiFi	1 x M.2 Key E for WiFi 5/WiFi 6
4G/5G	1 x M.2 Key B for 4G/5G; 1 x Micro SIM slot
LoRa	1 x Mini PCIe for LoRa
Others	On-board LC670Z GNSS module
Multimedia	
Display	1 x HDMI 2.1 up to 4K 60Hz
Audio	1 x 3.5mm Combo Jack
Power	
Power Input	12V DC-IN
Interface	2-pole lockable terminal block
System Ctrl & Monitoring	1 x Power button, 1 x Recovery button 1 x Buzzer for alarm & diagnostics, 4 x LEDs for power & wireless

I/O	
USB	1 x USB 3.0 Type-C 2 x USB 3.0 Type-A 2 x USB 2.0 Type-A
Serial Port	1 x 10-pin Phoenix connector (1 x RS-232+1 x RS-485) 1 x RS-232/485 with CTS/RTS by DB9 1 x RS-232/TTL internal header
CAN	1 x CAN internal header (optional connect to DB9)
GPIO	1 x 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
Mechanical	
Dimensions	187x131x54mm(7.4x 5.2x 2.1in)
Software	
OS Support	Ubuntu 20.04 + JetPack 5.1.2
Environment	
Operating Temperature	0~60°C (32~140°F) / -20~70°C (-4~158°F) optional
Storage Temperature	-20~75°C (-4~176°F)
Relative Humidity	10%~95% RH (non-condensing)
EMC	FCC, CE
OPTIONS	
System	
Memory	LPDDR5 memory, support 8GB, 16GB
Storage	M.2 NVME SSD, support 128GB, 256GB, 512GB, 1TB, 2TB
Communications	
4G/5G	4G/5G module with antenna
WiFi & Bluetooth	WiFi 5/WiFi 6 module with antenna

Product View



- 1

USB-C
- 2

2 x USB 2.0
- 3

LEDs
- 4

Power
- 5

DC-IN
- 6

Recover
- 7

COM 1
- 8

SIM Card
- 9

TF Card
- 10

2 x USB 3.0
- 11

HDMI
- 12

Dual GbE
- 13

Audio

PRODUCT DIMENSIONS

Dimensions

unit: mm

