UST600-ONX

Preliminary

Edge AI System with NVIDIA® Jetson Orin™ NX 16GB, CAN bus, COM, DIO (6-in/2-out), HDMI, 2 USB and 9 to 60 VDC for Heavy-duty and Utility Vehicles

NVIDIA Preferred Partner

PoE version

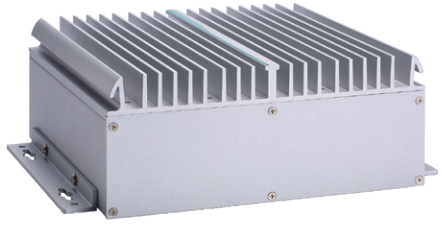


GMSL version



▲ Front view





▲ Rear view



IP54 | GMSL2 | PoE | E-Mark | Smart Ignition | LPDDR5 | 9 to 60 VDC

Features

- NVIDIA® Jetson Orin™ NX (100 TOPS)
- IP54 dust and water resistance
- High speed and rugged 4 M12 2.5GbE PoE/4 GMSL for camera connectivity
- Accelerometer inbuilt
- SocketCAN supported

NVIDIA® Jetson Orin™ NX available through to 2032*
The official end of life notice will be sent for at least 8 months before the last shipment.

Specifications

Standard Color	Silver
AI Accelerator	NVIDIA® Jetson Orin™ NX 16GB (100 TOPS) *By project: NVIDIA® Jetson Orin™ NX 8GB (70 TOPS), Orin™ Nano 8GB (40 TOPS) or Orin™ Nano 4GB (20 TOPS)
CPU	8-core NVIDIA Arm® Cortex A78AE v8.2 64-bit CPU 2MB L2 + 4MB L3
GPU	1024-core NVIDIA Ampere GPU with 32 Tensor Cores
System Memory	16GB 128-bit LPDDR5 onboard

Specifications

System I/O Outlet	1 x HDMI 2.1 with 4K2K supported 1 x RJ-45 GbE (via Orin™ NX) 4 x M12 X-coded 2.5GbE PoE or 4 x FAKRA-Z GMSL2 and 2 x M12 X-coded 2.5GbE *IEEE 802.3at, up to 30 watts of power 2 x USB 3.2 Type A 1 x M12 A-coded DIO (6-in/2-out) 1 x M12 A-coded RS-232 1 x M12 A-coded CAN bus (SocketCAN support, J1939 optional) 1 x recovery switch (for image update) 1 x reset button 1 x power button 1 x M12 A-coded 9 to 60 VDC power input, smart ignition 1 x grounding screw 6 x SMA type antenna hole
Storage	1 x M.2 Key M 2280 with PCIe x4 NVMe SSD slot *UST600 requests a SSD for image installation. Please order a SSD if image pre-installed service is required.
Expansion Interface	1 x full-size PCI Express mini card or M.2 Key E 2230 for WIFI 6E (PCIe/USB 2.0) *Please avoid using the PCI Express Mini Card slot and the M.2 E-Key slot simultaneously. 1 x half-size PCI Express mini card for GPS (USB 2.0) 1 x M.2 Key B 3042/3052 slot for 5G/LTE (USB 3.0 / USB 2.0)
Watchdog Timer	Built-in Orin NX
System Indicator	1 x green LED for system power-on 1 x yellow LED for M.2 SSD storage 3 x green LED for WLAN/Cellular/GPS operation
Power Supply	Input: 9 to 60 VDC, with smart ignition
Power Consumption (max.)	90W
Operating Temperature	25W power mode:-25°C to +60°C (-13°F to +140°F)
Storage Temperature	-40°C to +85°C (-40°F to +158°F)
Relative Humidity	10% to 95% relative humidity, non-condensing
Shock (operation)	IEC 60068-2-27 (with SSD: 50G, half-sine, 11 ms duration)
Vibration (operation)	IEC 60068-2-64 (with SSD: 3Grms STD, random, 5 to 500 Hz, 1 hr/axis)
IP Rating	IP54 (IP65 optional)
Construction	Aluminum extrusion and heavy-duty steel, IP54 (IP65 optional)
Dimensions (W x D x H)	251 x 186 x 87 mm (9.88" × 7.32" × 3.43") (with wall mounting kit)
Packing Dimensions (W x D x H)	407 x 307 x 205 mm (16.02" × 12.09" × 8.07")
Weight (net/gross)	3.6 kg (7.96 lbs)/5.3 kg (11.53 lbs)
Mounting	Wall mount, anti-vibration kit
Certifications	CE, FCC Class A, UKCA, and E-Mark
OS Support	Linux Ubuntu 22.04 or later

Ordering Information

UST600-ONX-MVPA (P/N: E274600100)	Edge AI system with NVIDIA® Jetson Orin™ NX 16GB, 4 2.5GbE PoE, CAN bus, COM, DIO (6-in/2-out), HDMI, 2 USB, and 9 to 60 VDC
UST600-ONX-MVGA (PN: TBC)	Edge AI system with NVIDIA® Jetson Orin™ NX 16GB, 4 GMSL2, M12 2.5GbE, CAN bus, COM, DIO (6-in/2-out), HDMI, 2 USB, and 9 to 60 VDC

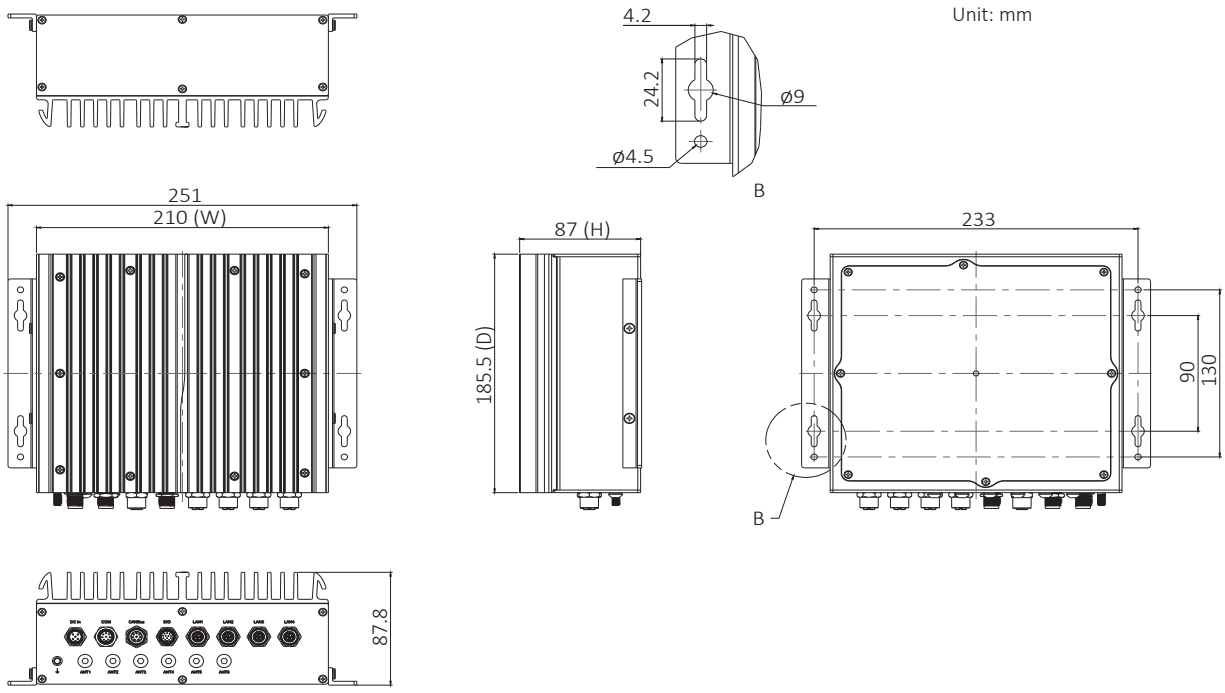
Power Protection

OVP (over voltage protection)
OCP (over current protection)
SCP (short circuit protection)

Dimensions

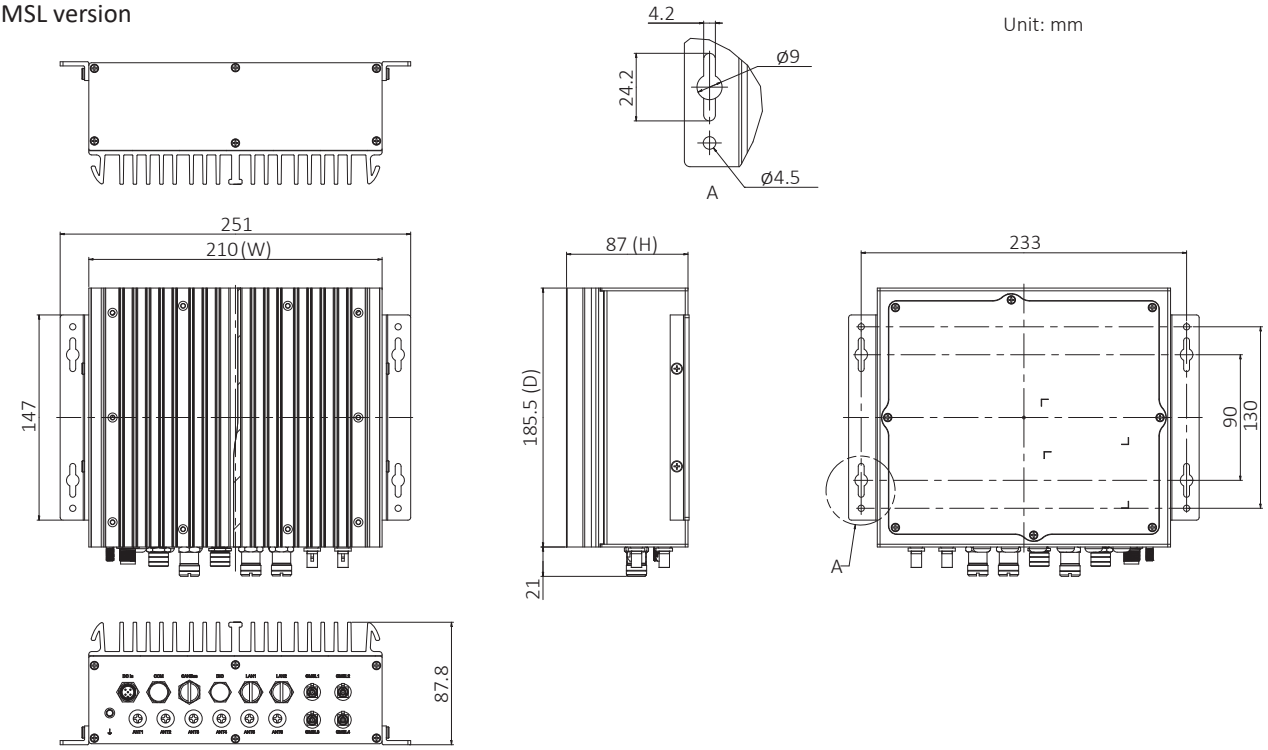
PoE version

Unit: mm



GMSL version

Unit: mm



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