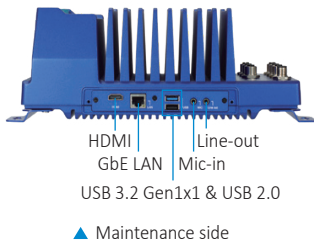
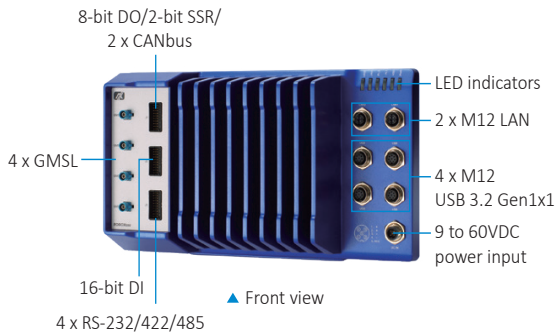


# ROBOX500

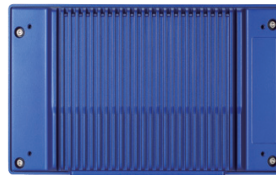
ROS 2 AMR Controller for Navigation and Control Solutions

**GMSL** ::::2



## Features

- Certified for IEC 60721-3-5 5M3
- 13th/12th Gen Intel® Core™ i7 processor (Alder Lake-P), 28W/15W TDP
- 4-channel GMSL camera
- 4 RS-232/422/485 and 2 CAN 2.0A/B
- Supports Wi-Fi/Bluetooth/5G/LTE
- Wide operating temperature from -20°C to +70°C
- Wide voltage input from 9 to 60 VDC
- Supports Linux Ubuntu 22.04 LTS
- Supports Axiomtek AMR Builder Package



## Specifications

Standard Color	Blue	
Construction	Aluminum extrusion and heavy-duty steel, IP40	
CPU	13th/12th gen Intel® Core™ i7 processor, 28W/15W TDP	
System Memory	2 x DDR4 SO-DIMM slot, up to 64GB	
System I/O Outlet	<b>Front Side</b> 2 x M12 X-code GbE Ethernet 4 x M12 A-code USB 3.2 Gen1x1 & USB 2.0 1 x DIO with isolation, 16-CH DI, 8-CH DO, 2-CH SSR 4 x 4-wire RS-232/422/485 2 x CAN 2.0 A/B with isolation 4 x GMSL camera interface (FAKRA universal type) 4 x Antenna opening	<b>Maintenance Side</b> 1 x HDMI (4K x 2K @30Hz) 1 x Mic-in 1 x Line-out 1 x RJ-45 GbE Ethernet 1 x USB 2.0 (Type A) 1 x USB 3.2 Gen1x1 (Type A)
Storage	1 x M.2 Key M 2280 for NVMe	
Expansion Interface	1 x M.2 Key E 2230 for Wi-Fi/Bluetooth module 1 x M.2 Key B 3052 for 5G module 1 x M.2 Key M 2242 slot for AI module 1 x SIM slot	
System Indicator	1 x Green LED for system power-on 1 x Orange LED for M.2 storage 2 x Green/orange LED for GbE Ethernet 2 x Green LED for user define	
Power Supply	9 to 60VDC, typically 24V or 48V battery	
Operating Temperature	-20°C to +70°C (-4°F to +158°F) *For 15W SKU: With 0.5 air flow, the CPU frequency is 400MHz at 70°C (158°F)	

## Specifications

Humidity	10% to 95%, non-condensing
Vibration Endurance	IEC 60721-3-5 5M3 vibration operating; 5 Grms (5 to 500Hz, X/Y/Z direction; random, operating)
Shock	IEC 60721-3-5 5M3 shock operating
Dimensions	289 mm (11.38") (W) x 106.5 mm (4.19") (D) x 161.7 mm (6.37") (H)
Weight (net/gross)	3.87 kg (8.53lb)
Certifications	CE, FCC Class A, UKCA
OS Support	Linux Ubuntu 22.04 LTS

## Ordering Information

### Standard

ROBOX500-AD-174 (P/N: E27V500100)	Fanless AMR controller Intel® Core™ i7-1265UE 15W TDP, 3 LAN, 6 USB, four 4-wire RS-232/422/485, 2 CAN, 16 DI, 8 DO, 4 GMSL, HDMI, Mic-in/Line-out, and 9 to 60 VDC
ROBOX500-AD-274 (P/N: E27V500101)	Fanless AMR controller Intel® Core™ i7-1270PE 28W TDP, 3 LAN, 6 USB, four 4-wire RS-232/422/485, 2 CAN, 16 DI, 8 DO, 4 GMSL, HDMI, Mic-in/Line-out, and 9 to 60 VDC
ROBOX500-RP-274 (P/N: E27V500102)	Fanless AMR controller Intel® Core™ i7-1370PE 28W TDP, 3 LAN, 6 USB, four 4-wire RS-232/422/485, 2 CAN, 16 DI, 8 DO, 4 GMSL, HDMI, Mic-in/Line-out, and 9 to 60 VDC

## Software Support

Linux Ubuntu 22.04 LTS  
 Axiomtek AMR Builder Package  
 Intel® OpenVINO™  
 ROS/ROS 2

## Packing List

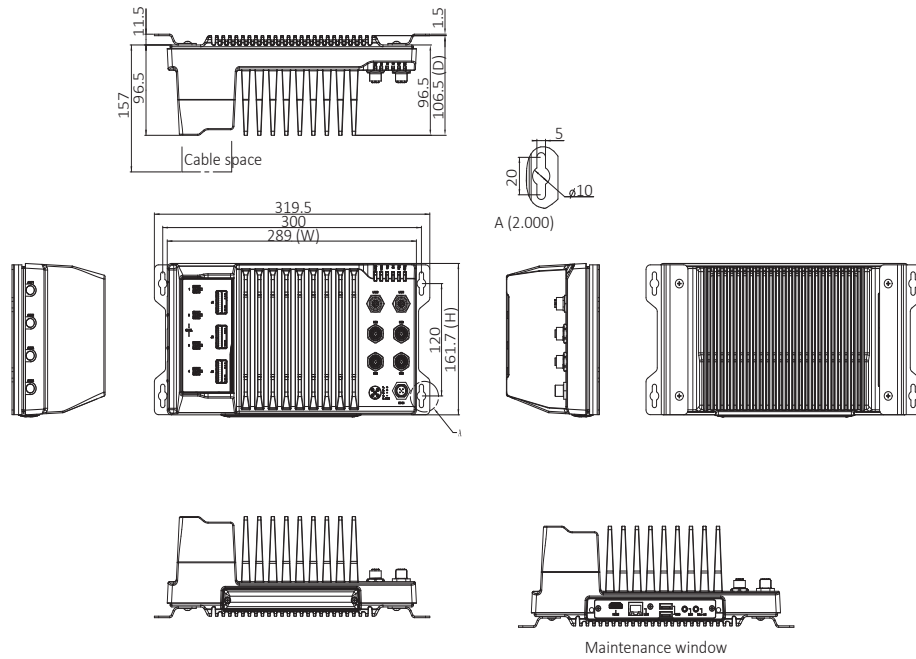
Wall mount kit  
 M12 power cable  
 Thermal pads  
 Screws  
 Wire fixer

## Optional Accessories

590000030900	CAN and DO L=3M
590000031100	RS-232 L=3M
590000031000	RS-422/485 L=3M
590000030800	DI L=3M
590000031300	FAKRA for GMSL camera
590000031200	M12 USB cable L=1.5M
594B8152710E	M12 LAN cable L=1.8M
E9C1914J05	DDR4-2666 SO-DIMM module 8GB (system operation temp.-20°C to +70°C)
E9C1915J07	DDR4-2666 SO-DIMM module 16G (system operation temp.-20°C to +70°C)
E9C1000016	DDR4-3200 SO-DIMM module 32G (system operation temp.-20°C to +70°C)
E9C2000076	M.2 NVMe SSD module 256GB (system operation temp.-20°C to +70°C)
E9C2000074	M.2 NVMe SSD module 512GB (system operation temp.-20°C to +70°C)
E9C2000274	M.2 NVMe SSD module 1024GB (system operation temp.-20°C to +70°C)
5G module	
LTE module	

\* Specifications and certifications may vary based on different requirements.

## Dimensions



## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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