



► Introduction

EA500 is powered by the NVIDIA Jetson Orin NX with an 8-core ARM CPU and Ampere GPU (1024 CUDA cores, 2 DLA), delivering up to 100 TOPS of AI performance. It integrates dual-antenna GNSS, IMU sensors, and UWB ranging, with synchronized sampling and ROS data output. Built-in 4G/5G communication and rich interfaces enable flexible connectivity and real-time RTK positioning.

- ★ NVIDIA Jetson Orin NX
- ★ Board-to-board Design for Stable Performance

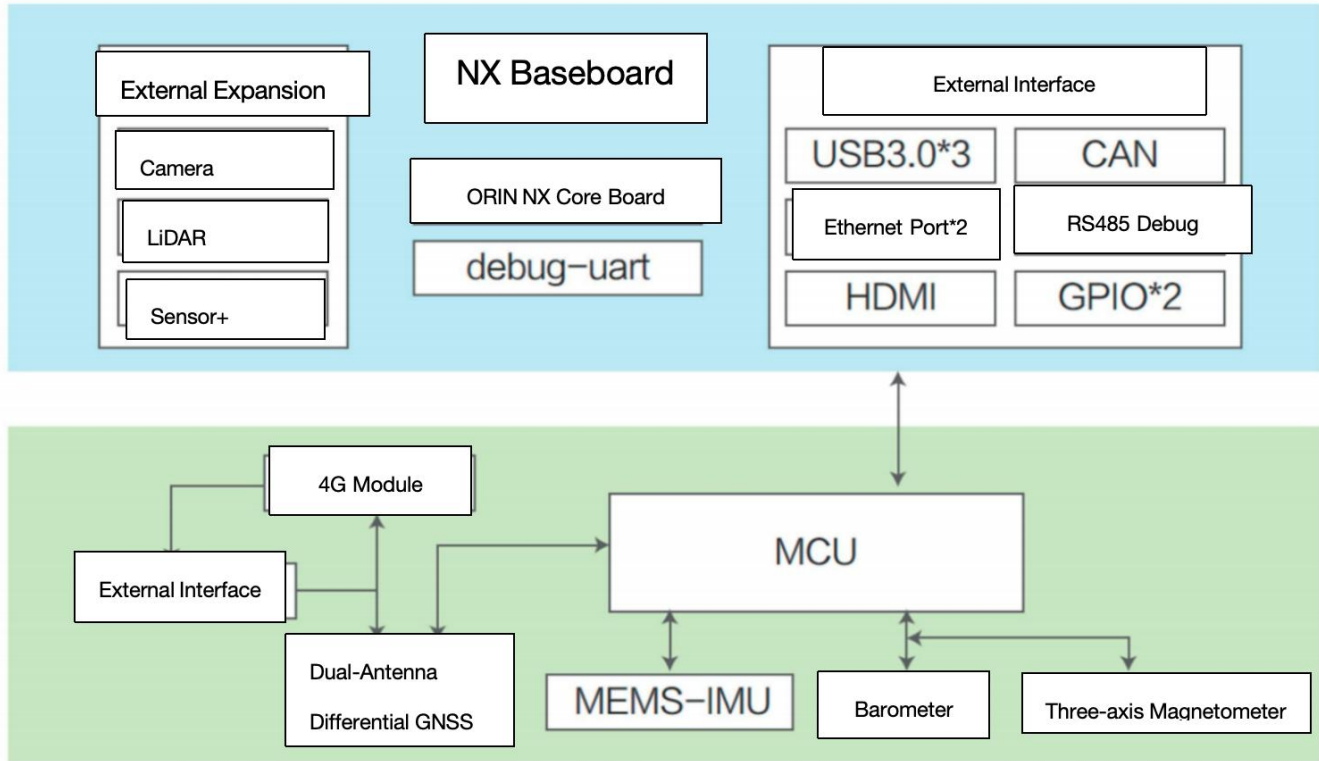
- ★ LEGO MODE with Customizable Function Cards
- ★ i-Door Technology for Efficient, Tailored Solutions

► Specifications

ITEM	Specifications
Processor	NVIDIA Jetson Orin NX 16GB
CPU	8-core Arm® Cortex®-A78AE v8.2 64-bit CPU 2MB L2+4MB L3
GPU	1024 NVIDIA® CUDA® cores and 32 Tensor Cores
AI accelerator	2XNV DLA (Maxoperafreq: 614 MHz, 20Tops each (sparse INT8))
AI computing power	100TOPS
Memory	16GB 128-bit LPDDR5
Storage	M.2 NVME SSD (256G)
HDMI	HDMI
Network port	Gigable Ethernet*2
USB	USB3.0 Type-A*1, USB2.0 Type-C*1
GMSL	NA
COM(NX)	CAN*1 RS232/422/485*2
COM-Extend Port	Sync.Pulse*4 RS232/TTL-GPRMC

GPS	support
4G	4G CAT1 Module
Function keys	Button Recovery Button*1
	Switch Power Button*1
System	ROS compatibility Ubuntu 20.04/Support
Global navigation satellite system	Signal support: BD/GPS/GLONASS/GALILEO/QZSS
	Single point positioning: Horizontal: 1.5m / Vertical: 2.5m
	DGPS(RMS): Horizontal: 0.4m / Vertical: 0.8m
	RTK(RMS): Horizontal: 0.8cm+1ppm / Vertical: 1.5cm+1ppm
	Orientation accuracy: 0.1°/1m Baseline
	Time accuracy: 20ns
	Speed accuracy: 0.03m/s
Inertial measurement unit	Gyro range: ±300°/s
	Gyro resolution: 80 LSB°/s
	Gyro bias stability 3°/h
	Accelerometer range ±6g
	Accelerometer range 4905 LSB/g
	Accelerometer bias stability 0.1 mg
	Output data frequency (IMU)200hz
Barometer	Measuring range: 10~1200mbar
	Resolution: 0.012mbar(LBS)
	Output frequency: 50hz
Magnetometer	Measuring range: ±8 Gauss
	Resolution: 0.0625 mGauss/LSB
	Output frequency: 50hz
Ultra wideband	Measuring range: N/A
	Measurement accuracy: N/A
Certification	Vibration3G(rms), 5~500Hz
Working environment	Working temperature: -20℃~60℃
	Storage temperature-40℃~70℃
	Ambient humidity5~95%@40℃, w. non-condensing
	Protection Level IP50
Power supply	12~36V DC
Structured data	Size 260*170*100mm
	Weight 3060 g

► Product architecture



► Product size

