

N100 Specifications

The preferred 100 TOPS-class brain for 1.2m humanoid robots

Designed for embodied AI, compact in size yet powerful in capability

- **Bus Synchronization:** Integrated commercial-grade EtherCAT with bus cycle jitter <50 μs
- **Real-Time Control:** Xenomai hard real-time core with microsecond-level task response
- **Vision Expansion:** Supports up to 10 cameras with flexible cabling design for maximum space efficiency

MS-N100 (Brain)

Item Category	Parameter Details
Core Module	NVIDIA-NX ORIN 8G | 16GB
Computing Power	117 TOPS | 157 TOPS
VRAM	8GB | 16GB 128-bit LPDDR5 102.4GB/s
Expandable Storage	M.2 2280 NVME SSD Industrial-grade power-loss protection SSD
Output	1 × HDMI OUT(max resolution support: 4096×3024, @30Hz)
Ethernet	3 × Gigabit Ethernet(supports EtherCAT open source / commercial master) | 1 × GE(pin header)
USB Interfaces	6 × Type-A USB 3.0 @5Gbps (2A current capacity) | 2 × USB 2.0 pin header
WIFI	M.2 E-Key 2230 Wi-Fi module (PCIE protocol), supports 500Mbps Station+AP
5G	M.2 B-Key 3052 5G module (USB protocol)
IO	16 × GPIO | 4 × 232/485 | I2C | SPI
CAN FD	2 × CAN FD
GMSL	4 × GMSL2
Audio	2 × SPK, 1 × MIC IN
Power Supply	1 × LCB30PW connector DC 9V-60V
Power-on Behavior	Auto power-on
Operating Temperature	-20~60°C (industrial grade) relative humidity 95% @40°C (non-condensing)
Storage Temperature	-40~85°C (industrial grade)
Vibration	2 Grms@5~500 Hz, random, 1 hr/ axis.
Shock	15G, 11ms (operation) 30G, 11ms(non-operation)
Package Drop	80cm, 3 faces(With Packaging)
OS	Jetpack6.2/ ROS2 DDS/ LinuxRT/ Xenomai
Weight	0.48kg
Dimensions	118mm × 126mm(L×W)