







N1000 Specifications

- 3rd-gen Humanoid Robot Brain, 1000 TOPS Powerful Computing
- Ideal for running large models on various humanoid robots
- Automotive-grade connectors with independent USB power management
- 14-channel sensor fusion + 4-channel high-speed EtherCAT connectivity
- High-speed Wi-Fi, wide voltage support, enhanced with intelligent self-healing system
- Commercial-grade EtherCAT bus + Xenomai hard real-time core

MS-N1000 (Brain)

Item Category	Parameter Details
Core Module	Jetson T5000 (T4000 optional)
Computing Power	2070TFLOPS(FP4—Sparse)
VRAM	128GB 256-bit LPDDR5X, 273 GB/s
Expandable Storage	M.2 2280 NVME SSD Industrial-grade power-loss protection SSD
Output	1 × HDMI OUT + 1 × Mini DP OUT (Max resolution: 4096×3024 @30Hz)
Automotive-Grade Expansion Harness	4 × Gigabit Ethernet (supports EtherCAT open/commercial master) | 6 × Type-C (USB 3.0@5Gbps, 2A current capacity)
Onboard Ethernet	1 × Gigabit Ethernet(Pin Header)
USB Interfaces	2 × USB2.0 (Pin Header)
WIFI	M.2 E-Key 2230 Wi-Fi module , supports 500Mbps Station+AP
5G	M.2 B-Key 3052 5G module
IO	16 × GPIO | 3 × 232/ 485 | I2C | SPI
CAN FD	4 × CAN FD (T5000)
GMSL	8 × GMSL2
Audio	2 × SPK, 2 × AEC reference, 1 × MIC IN, Integrated with iFlytek Voice Interaction Software (optional)
Power Supply	1 × LCB30PW connector, operating voltage: DC 24V - 48V; max. withstand: 9 - 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	Jetpack 7.0 or Later/ ROS2 DDS/ Linux RT/ Xenomai
Weight	0.97 kg
Dimensions	118mm × 126mm × 61mm(L×W×H)