







N210 Specifications

- 3rd-gen humanoid robot brain, fully upgraded
- 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-N210 (Brain)

Item Category	Parameter Details
Core Module	NVIDIA-AGX ORIN 32G | 64GB
Computing Power	200 TOPS | 275 TOPS
VRAM	32GB | 64GB 256-bit LPDDR5, 204.8GB/s
Expandable Storage	M.2 2280 NVME SSD Industrial-grade power-loss protection SSD
Output	1 × HDMI OUT(Max Supported 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)
Ethernet	1 × Gigabit Ethernet (Pin Header)
USB Interfaces	2 × USB2.0 (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
IO	16 × GPIO | 4 × 232/ 485 | I2C | SPI
CAN FD	2 × CAN FD
GMSL	8 × GMSL2
Audio	2 × SPK, 2 × AEC reference, 1 × MIC IN, Integrated with iFlytek Voice Interaction Software (optional)
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 Temperaturea	-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 6.2.1/ ROS2 DDS/ Linux RT/ Xenomai
Weight	0.75 kg
Dimensions	118mm × 126mm × 46mm(L×W×H)