Inventec 5G

Inventec NX-H3003

Open, Smart, Agile

Highlights

- Outstanding Computing Capability for AI and Edge Applications.

- Great Flexibility with Multiple Wireless / AI Modules Industrial-Level Rugged.

- Embedded System with Wide Operating Temperature Range.

Edge AIoT	5G/WiFi6/ LoRa wireless connections	Media & AI Integration	Modulation Design to support different IoT scenario

Enhanced Performance and High Efficiency

NX-H3003, a high efficiency AIoT Box system based on 10nm 11th Gen Intel® Core ™ Processor, delivers balanced performance (up to 23% gain in single -thread performance and up to 19% gain in multi-thread performance).

NX-H3003 not only incorporates Intel® Iris® Xe graphics that achieves up to 2.95x graphic capability, but also offers 1x PCIe Gen4 x4 slot and 2x DDR4 SODIMM slots with In-Band ECC. NX-H3003 is an ideal uCPE or edge platform for integrated AI acceleration, plus capabilities for applications that demand high-speed processing, computer vision, and low-latency deterministic computing.

Flexible Network Configuration

NX-H3003 provides multiple internal M.2 expansion slots and wireless modules, supporting 4G-LTE or 5G-NR (Sub 6G) and Wi-Fi modules for IoT applications or SSD NVMe module for general storage. Moreover, NX-H3003 features high bandwidth network communication capabilities which can carter to suitable demands of different application procedures.

Model Name	RAM	Drive	AI	LTE/5G	WiFi
NX-H3003	16G	1TB		✓	✓
NX-H3003A	32G	2TB	✓	✓	✓

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Satisfactory Stability and Easy Serviceability

Designed with a highly modular architecture in ultrathin form factor, it is easy to service and maintain. Meanwhile, features like wide operating temperature range and strong environmental adaptability make NX-H3003 perfect for various applications including intelligent video surveillance, big data analysis, industry 4.0, intelligent healthcare industry and more.

High-Performance 5G Fixed Wireless Access

NX-H3003 supports Fixed Wireless Access (FWA) technology that delivers 5G/LTE broadband services to residential subscribers and enterprise customers. NX-H3003 is Microsoft Azure certified device, which allows for quick and efficient deployment as an edge device for Microsoft cloud services.

Intelligent Generative Wireless System,iGWS

iGWS is an all-in-one Network Operating System (NOS) designed for configuring forwarding services as 5G FWA. It also leverages the computing power of NX-H3003 and combines the scalability of Far Edge Computing as uCPE. Additionally, iGWS provides over 150 APIs for central management and control.

High-performance AI Inference for NX-H3003

NX-H3003 integrates 5G and Wi-Fi connection and provide failover and failback function to ensure stably connection quality. To be an Edge Box, NX-H3003 acts as an edge device support IoT and AI system deployment for immediately data analysis and AI Vision Recognition. With HDMI and COM port design for vision display and serial I/O control requirement to cooperate with any smart application.

NX-H3003 | Product Specifications

Item	Description
Form Factor	(W) 220mm x (D) 42.1mm x (H) 172mm
Processor	11th Gen Intel® Core ™ Processor Up to 4 Processor Cores, 2-4MB Cache TDP up to 15W
Memory Slot	2 DDR4 channels, 2666/3200 MT/s, Max. 64GB In-Band ECC
Expansion Slot	2x M.2 slots support AI & NVMe module (AI module supports dual or single M.2 accelerator module) 1x M.2 slot supports NVMe & LoRa module 1x M.2 slot supports WiFi/BT module 1x M.2 slot supports 4G LTE/5G NR module
I/O Interface	2x RJ45 2.5G with TSN 1 x COM port supoort RS485 2x USB 3.2 port & 2x USB2.0 port 1x HDMI 2.0 port
Networking	Dual-WAN (Ethernet) with Load Balancing and Failover Multiple WAN settings (Ethernet, 5G, WiFi) NAT/NAPT IPv4 & VLAN DHCP Server & Client WiFi AP & Client Mode Port Forwarding
System	Log & Tracing Remote Help Containers Zero Touch Provisioning (NMS) OTA (FW upgrade)
Security	Firewall SIM Card Binding & SIM PIN
Diagnose	Speedtest (Download/ Upload / Ping/ Jitter/ Drops) iPerf Server & Client Cell Scanner Traceroute Scheduler
Antenna	6x external antennas
Fan	Fanless
Power Supply	Power adapter 12V/8A, 96W
Mounting	Standard/Wall Mount
Environmental	Operating Temperature： -20° C~60° C (0.7m/s air ßow) IP Ratings (Ingress Protection)：IP51 Vibration During Operation: IEC 60068-2-64 Shock During Operation: IEC 60068-2-27