



- **Ultrathin 5G AI Edge Inference System**
- **Intel® 11th Gen Core® CPU**
- **Qualcomm AI 100 module**
- **5G/WiFi6/LoRa wireless options**
- **Linux Ubuntu 22.04**
- **70 TOPS AI Performance**
- **Supports Deep Learning (DL) trained models**
- **Fanless with wide operating temperature**

Introduction

Enhanced Performance & High Efficiency

TI-H3003A, powered by 11th Gen Intel® Core™ Processor, boosts performance with up to 23% gain in single-thread and 19% in multi-thread tasks. Featuring Intel® Iris® Xe graphics, it offers 2.95x graphic capability and 1x PCIe Gen4 x4 slot. With 2x DDR4 SODIMM slots and In-Band ECC, it's an ideal μ CPE or edge platform for integrated AI acceleration, high-speed processing, computer vision, and low-latency deterministic computing.

It is also powered by the Qualcomm AI 100 AI inference card, designed for Generative AI and large language models (LLMs) with 70 TOPS AI performance at 15 W TDP.

Flexible Network Configuration,

The TI-H3003A supports various network configurations with M.2 slots for 4G-LTE/5G-NR, Wi-Fi, LoRa or SSD NVMe modules. It offers high bandwidth network communications, catering to diverse application needs. With failover and failback functions, it ensures stable connectivity.

Stability & Serviceability

Its modular design ensures easy maintenance, while wide operating temperature range suits various environments like intelligent video surveillance, big data analysis, industry 4.0, and intelligent healthcare.

Network Management

As a Microsoft Azure certified device, it facilitates quick deployment for edge computing. Optional OOS Network Operating System (NOS) combines 5G Fixed Wireless Access (FWA) with Far Edge Computing, offering over 150 APIs for management and control.

High-performance AI Inference

NX-H3003A enables high-performance AI inference, supporting IoT and AI deployment for instant data analysis and AI vision recognition. Equipped with HDMI and COM ports for vision display and serial I/O control, it seamlessly integrates with smart applications.

Specifications

CPU	Intel 11 th Gen Core, 4 cores, 8 threads, up to 4.4 GHz @ TDP 15W
AI Module	Qualcomm AI 100
Memory	32GB 2 x LPDDR4x with In-Band ECC
Storage	2 TB NVMe SSD
Expansion Slots	2x M.2 slots support AI & NVMe modules (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
AI Performance	70 TOPS
Ethernet	2 x 2.5 GbE with TSN and Load Balancing & Failover (RJ45)
I/O	2 x USB 2.0 2 x USB 3.2 Gen 2 1 x HDMI 1 x RS485 COM (DB9)
Buttons	Power Reset
OS	Linux Ubuntu 22.04
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 Control	Log & Tracing Remote Help Containers Zero Touch Provisioning (NMS) OTA (FW upgrade)
Security	TPM 2.0 Firewall SIM Card Binding & SIM PIN
Diagnosis (Wireless)	Speedtest (Download/ Upload / Ping/ Jitter/ Drops) iPerf Server & Client Cell Scanner Traceroute Scheduler
Antennas (External)	2 x WiFi 6 4 x 5G/LTE
Mounting	Standard wall mount
Power	DC 12V, 8A
Op Temp	-20° C to 60°C
IP Rating	IP51
Op Vibration	IEC 60068-2-64
Op Shock	IEC 60068-2-27
Dimensions	220 x 172 x 42.1 mm
Weight	1.95 kg