

In-Vehicle Fanless Embedded System for Intelligent Surveillance and Video Analytics



Axiomtek UST520



Smart In-Vehicle AI Platform for Surveillance and Real-Time Analytics

UST520 is a rugged, purpose-built in-vehicle system designed for smart surveillance and real-time video analytics in mass public transportation. Powered by a high-performance Intel® platform, it delivers the computing power needed for AI-driven applications. With 16 PoE ports, it supports extensive IP camera deployment, while four front-accessible 2.5" SSD bays offer scalable, high-capacity storage for video data.

Designed for mobile environments, UST520 features smart ignition control for safe power management and rich I/O interfaces to integrate seamlessly with vehicle networks and control systems. Its compact, fanless and durable design ensures reliable operation in harsh conditions, making it an ideal solution for enhancing safety, situational awareness, and operational efficiency in buses, trains, and other public transport vehicles.

Purpose Built for In-Vehicle Smart Surveillance and Video Analytics with 16 PoE Ethernet Ports and 4 Swappable 2.5" SSD Bays

Intel Products and Technologies

Accelerating AI and Analytics at the Edge



**Intel® Core™
Processors**



**OpenVINO™
Toolkit**



**Intel® oneAPI
Toolkit**

Key Features

Empowered by Intel.



Up to 16 PoE Ethernet Ports



Certified for In-Vehicle



Up to 4 Front Accessible 2.5" SSD Bays



Industrial Temperature & Wide Power Input Range

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Product Specifications

CPU	LGA1700 14th/13th/12th Gen Intel® Core™ i9/i7/i5/i3 processors or Celeron® processor (CPU TDP max. up to 65W)
Graphics	Embedded Intel® UHD Graphics
Memory	2x DDR5-4800 SO-DIMM, up to 64GB
Storage	1 x M.2 2280/2242 Key M (PCIe x4/SATA) for NVMe And up to 4x 2.5" Swappable SATA drive bays supporting Intel® RAID 0/1/5/10
Wireless Network	Expandable with LTE/GNSS full-size PCI Express Mini Card and WiFi/Bluetooth M.2 Key E 2230 card
LAN	Built-in PoE, up to 16x RJ45 or 8x M12 Ethernet Ports
Operating Temp.	-40°C to +70°C
Dimension (W x D x H)	280mm x 210.5mm x 89mm (2x 2.5" SATA Drives) / 280mm x 210.5mm x 117mm (4x 2.5" SATA Drives)
Weight	5.8 kg (2x 2.5" SATA Drives) / 7.3 kg (4x 2.5" SATA Drives)
OS	Windows 11 / Linux

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