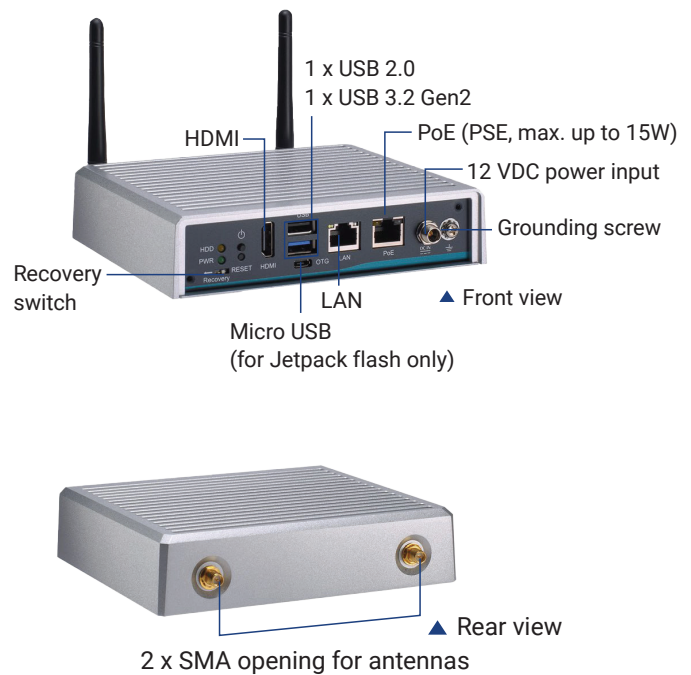The Krupp AI Vehicle Tracking System, powered by the advanced NVIDIA® Jetson Orin™ NX 16GB, delivers exceptional AI-driven traffic monitoring and analytics directly at the edge. Designed specifically for real-time applications, this compact, fanless solution accurately detects and analyzes critical road incidents, including traffic congestion, collisions, vehicles traveling against traffic flow, road obstacles, and smoke detection.

▲ Front view

Labels: 1 x USB 2.0, 1 x USB 3.2 Gen2, HDMI, PoE (PSE, max. up to 15W), 12 VDC power input, Grounding screw, Recovery switch, LAN, Micro USB (for Jetpack flash only)

▲ Rear view

2 x SMA opening for antennas

Features

- **Superior AI Performance:** Featuring NVIDIA® Jetson Orin™ NX with up to 100 TOPS, enabling powerful GPU-accelerated AI processing.

- **Robust Connectivity:** Equipped with 1 HDMI, 1 GbE LAN, 1 GbE PoE (15W) ideal for connecting AI cameras, and 2 USB ports for versatile peripheral integration.

- **Built for Smart Cities:** Tailored specifically for edge AI applications in smart city environments, offering real-time insights for effective urban traffic management.

- **Reliable and Durable:** Operates effectively across a broad temperature range from -25°C to +50°C, suitable for diverse environmental conditions.

- **Semi-Outdoor Ready:** IP42-rated protection ensures stable performance in semi-outdoor installations.

- **Long-term Availability:** NVIDIA® Jetson Orin™ NX supported and available through to 2030, providing a stable, future-proof investment.

The Krupp AI Vehicle Tracking System is the ultimate choice for municipalities, urban planners, and integrators seeking a dependable, AI-powered solution to enhance traffic safety and efficiency.

Model Number	Krupp AI VTS
Standard Color	Silver
Construction	Aluminum extrusion and heavy-duty steel, IP40 (IP42 by optional cover kit)
AI Accelerator	NVIDIA® Jetson Orin™ NX (up to 100 TOPS)
CPU	16GB: 8-core NVIDIA Arm® Cortex A78AE v8.2 64-bit CPU 2MB L2 + 4MB L3 8GB: 6-core NVIDIA Arm® Cortex A78AE v8.2 64-bit CPU 1.5MB L2 + 4MB L3
GPU	1024-core NVIDIA Ampere GPU with 32 Tensor Cores
System Memory	16GB: 16GB 128-bit LPDDR5 onboard 8GB: 8GB 128-bit LPDDR5 onboard
Carrier Board	SBC87903
System I/O Outlet	1 x HDMI 2.1 with 4K2K supported 1 x 10/100/1000 Mbps Ethernet (via Jetson Orin™ NX) 1 x 10/100/1000 Mbps PoE (Intel® I210-IT; max. up to 15W) 1 x USB 3.2 Gen2, 1 x USB 2.0 1 x Micro USB for image flash 1 x Recovery switch 1 x Reset button 1 x Power button 1 x 12 VDC power input connector 2 x SMA-type antenna connector
Watchdog Timer	Built-in Orin NX
Storage	1 x M.2 Key M 2280 with PCIe x4 NVMe SSD slot
Expansion Interface	1 x Full-size PCI Express Mini Card slot (USB + PCI Express signal) 1 x SIM slot
System Indicator	1 x Green LED for system power-on 1 x Yellow LED for M.2 storage
Power Supply	12 VDC screw type
Operating Temperature	-25°C to +50°C (-13°F to +122°F) (power mode: 25W)
Humidity	0% - 95%, non-condensing
Vibration Endurance	3 Grms with M.2 (5 to 500Hz, X, Y, Z directions)
Dimensions	148.6 mm (5.85") (W) x 129.8 mm (5.11") (D) x 34.6 mm (1.36") (H)
Weight (net/gross)	1 kg (2.20 lb)/1.6 kg (3.52 lb)
Certifications	CE, FCC Class A
OS Support	A Linux Ubuntu 20.04 or later

(*) Design and specifications are subject to change for product improvements without prior notice

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