

Unparalleled Performance in an Efficient Edge-AI Server

The VAISENSE Phoenix redefines NVR systems with powerful AI processing, supporting 20+ cameras in a compact design. Equipped with an Intel N-series processor and advanced AI accelerators from DeGirum, Hailo, MemryX, and others, it outperforms most GPU-based solutions while using under 20 watts of power. With up to 4TB of storage, it securely handles 4K video for investigations. Optional WiFi/5G, Zigbee, and GPIO connectivity enhance its versatility. Custom hardware is available for higher channel needs.

Edge AI-Powered Analytics

Choose from a range of AI tools that integrate with existing cameras. Enable features like person tracking, occupancy monitoring, PPE compliance, smoke detection, and more, improving situational awareness, safety and efficiency.

High-Definition Surveillance

Experience clear imaging up to 4K resolution with local storage options. Ensure precise monitoring and enhanced visibility without constant cloud connectivity.

Private and Secure Edge Processing

Utilize on-device computation for faster response and autonomous operation. Maintain data security and privacy compliance by avoiding the need to send sensitive information to the cloud.

Flexible and Future-Proof Integration

Integrate seamlessly with existing IP security cameras and IoT devices. Adapt and scale with evolving security needs and AI advancements.

Durable, Low-Maintenance Design

Benefit from a fanless and rugged design for indoor and outdoor use. Minimizes maintenance and eliminates routine clean-outs.

Secure Remote Access

Use optional VAISENSE cloud portal integration or direct access URL for secure remote access to the device from any location. Enjoy instant alert management and system oversight.

Reduced Operational Costs

Reduce cloud storage, bandwidth, and processing costs by leveraging edge computing, optimizing operational expenses while maintaining high performance.

Available AI Applications



VAISENSE Security



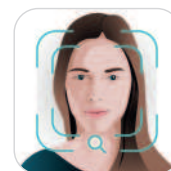
VAISENSE Construction



VAISENSE LPR



VAISENSE OptiView



VAISENSE Track



VAISENSE Health



LatticeWork

3211 Scott Blvd, #100, Santa Clara, CA 95054 | +1 (408) 475-1471 | contact@vaisense.com | vaisense.com

Key Components & Features

Main Processor	Intel Alder Lake-N N97/i3-N305
System Memory	16GB LPDDR5@6400MHz
Onboard Storage	64GB eMMC
On board AI chip	DeGirum ORCA
M.2 2280 M key slot	2280 for SATA/NVMe gen3×1 2280 for NVMe Gen3×2
M.2 3042/3052 B key slot (reserved)	M.2 B key 3042/3052 for 4G/5G module
M.2 2230 E key slot (reserved)	2230 CNVi Wi-Fi/BT Module
Front I/O connector	1x Com Port for RS232/482/485(DB9) 1x 40pin GPIO connectors (SPI/PWM/UART/I2C/GPIO)
Rear I/O Connector	1x1G, 1x2.5Gb RJ45 HDMI 2.0b Tx up to 4K@60Hz 1x DP, 1x DP 1.4 via USB type C 1x DC Jack 1x USB 3.1 Gen1 Type-A 1x USB 3.1 Gen2 Type-C 2x USB 2.0 Type A
Side I/O connector	Antenna SMA connector x6 including 4×5G/GPS 2x Wi-Fi/BT or 1 for Zigbee/BLE Micro SD card slot
Button	Power button with LED, Reset button
System Power	12v/19v 60/90W DC with External Power Adapter
Enclosure Dimension	165 × 115 × 55 mm 6.45 × 4.53 × 2.17 in
Buzzer	Buzzer
Audio	Dual MEMS Mic Embedded, audio jack (in/out)
TPM	TPM 2.0
Zigbee module	Reserved
Ethernet	1× 2.5 Gigabit + 1x Gigabit
Certification	CE/FCC/UKCA/BSMI/VCCI/ICES/UL/CB/ERP/WEEE/REACH/ROHS
Operating Environment	-20°C~55°C with air flow 0.5m/s
Battery	RTC
Optional connectors (PCBA only)	1x EDP, 2x MIPI Camera, 1x fan
Optional Accessories	VESA mount and L bracket Thermal protection cover

Models

Phoenix N97

- N97 CPU
- 16GB Memory
- 2TB SSD Storage
- 1 ORCA AI Acccelerator
- 16 VAISense Security Channels

Phoenix N305

- N305 CPU
- 16GB Memory
- 4TB SSD Storage
- 1 ORCA AI Acccelerator
- 32 VAISense Security Channels

