NEXCOM DNA 140 ‘AI-in-a-Box’ Shows Exception Performance for Cybersecurity Applications in YOLO Testing

Desktop Optimized for Edge Computing, Powers Object Detection, Access Control, IoT Applications, and More

FREMONT, CA, UNITED STATES, October 15, 2024 /EINPresswire.com/ -- NEXCOM, a leading global supplier of network appliances, announced today the company’s DNA 140, an artificial intelligence (AI)-in-a-box desktop appliance built for cyber security and edge applications, shows exceptional performance across diverse cybersecurity tasks in You Only Look Once (YOLO) computer vision testing. When deployed in private networks, the DNA 140 helps keep digital domains secure and resilient using advanced AI extension capabilities to deliver smart threat detection in cybersecurity applications.

NEXCOM’s DNA 140 is a compact AI-in-a-Box network appliance, built on the newest Intel Atom® x7433RE processor (Codenamed Amston Lake) optimized for Edge computing and software-defined networks. It helps users unlock smarter cloud-based security services while ensuring consistent policy enforcement and access control across users, devices, applications, and IoT. According to industry testing, the DNA 140 shows a particular aptitude for powering cyber security defense involving visual data processing and analysis, real-time monitoring, and object detection.

“The development and integration of AI and software-driven technologies is pivotal to maintaining robust defenses and supporting the secure growth of smart environments,” said Peter Yang, President of NEXCOM. “Implementing and managing these complex systems requires a strategic approach that balances performance with security and ensures comprehensive real-time coverage. The NEXCOM DNA 140 offers sufficient AI capabilities to enhance overall security and resilience of private networks within diverse and dynamic

environments.”

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>
> *Peter Yang, President*

The DNA 140 adopts a power-efficient Hailo-8 edge AI processor through a mini-PCIe slot to enable real-time, low latency, and high-efficiency AI inferencing at the Edge. To measure AI performance, four YOLO computer vision models showed their ability to seamlessly integrate into various cybersecurity applications as a universal Edge device for addressing specific cybersecurity needs based on the factory's requirements. As an entry-level desktop, it works best for low-resource cybersecurity tasks, such as object detection, access control, and IoT-related applications.

In response to the changing cybersecurity landscape, IT teams are leveraging the power of AI to construct robust digital security walls. AI systems are adept at identifying and classifying sensitive information, inspecting packets and patterns, monitoring data flows across the network, detecting anomalies, and responding to potential threats. By implementing AI in cybersecurity, critical information can be safeguarded with less IT/OT staff intervention. However, this requires integrating sophisticated technologies and policies across different protocols and resources.

The DNA 140 features four 2.5GbE LAN ports to fulfill the demand for multi-media or small-to-mid business data transmission. Two ports feature PoE+ capability with up to 30W (802.3at) per port, significantly simplifying the installation and management of connected devices. By delivering both power and data over a single Ethernet cable, the DNA 140 enhances flexibility, allowing devices like sensors, cameras, and access points to be easily relocated without requiring additional power sources.

The DNA 140 is driven by Intel® technologies, including Intel® AES New Instructions, Intel® OS Guard, Intel® Boot Guard, Intel® Virtualization Technology (VT-x), and Intel® Virtualization Technology for Directed I/O (VT-d), offering advanced technology and processing capabilities for outstanding connectivity, performance, and high availability. Its Intel Atom® x7433RE features software-driven Intel® QuickAssist Technology (Intel® QAT) that offers greater flexibility compared to hardware-based Intel® QAT in legacy processors.

Please click White Paper for details.
To learn more, please visit the NEXCOM website.

DNA 140 Features:
- Intel Atom® x7000RE/E/C processor
- 1 x SO-DIMM slot for DDR5, 4800 MT/s , ECC/non-ECC, up to 16 GB

- eMMC 32GB onboard
- 4 x 2.5GbE RJ45 ports
- 2 x PoE+ ports, supports up to 30W (802.3at) (optional)
- 1 x 1GbE management port
- 2 x M.2 3042/3052 for LTE/5G FR1 modules
- 1 x mini-PCIe for AI card or Wi-Fi module
- 1 x M.2 2242 SATA SSD
- TPM 2.0 onboard

About NEXCOM
Founded in 1992, NEXCOM integrates its capabilities and operates eight global businesses, which are Industrial Mesh, Intelligent Platform @ Smart City, Intelligent Video Security, Mobile Computing Solutions, Medical and Healthcare Informatics, Network and Communication Solutions, Smart Manufacturing, and Open Robotics and Machinery. This strategic deployment enables NEXCOM to offer time-to-market, time-to-solution products and services without compromising cost.

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