High-Performance SmartNIC for Secure and Efficient Network Acceleration

SX904

The SX904 combines Intel® Xeon® D processing and Intel® Ethernet Controller E810 on a single PCIe card, enabling virtualized and containerized network functions to run directly on the SmartNIC. With up to 2 x 25GbE, PCIe Gen4 x 8, onboard ECC memory and storage, it provides a compact platform for network security, cloud and edge workloads.

Smart Network Acceleration
Offloads networking and infrastructure workloads from the host CPU to improve overall system efficiency and free valuable compute resources for applications

Intel® Xeon® D Processor
Delivers onboard x86 compute capability for network, security and infrastructure services directly at the network interface

Intel® Ethernet Controller E810
Provides high-performance Ethernet connectivity and advanced networking acceleration for demanding data center and edge environments

Up to 25GbE Connectivity
Dual SFP28/ SFP+ interfaces deliver high-speed network connectivity for modern server, cloud and edge architectures

PCIe Gen4 x 8 Host Interface
Provides a high-bandwidth connection between the SmartNIC and host server for efficient data movement and workload acceleration

High-Speed ECC Memory
Up to 32 GB dual-channel DDR4-2933 ECC memory supports onboard applications, packet processing and infrastructure services

Integrated Local Storage
Up to 128 GB eMMC provides local capacity for operating systems, applications, configuration data and system services

Intelligent Remote Management
AST2600-based OpenBMC and management interfaces enable remote monitoring, administration and platform lifecycle management

Hardware-Rooted Security
TPM 2.0, AST1060 and Intel® Platform Firmware Resilience provide a strong foundation for trusted operation and firmware protection

Flexible Expansion
Dual MCIO interfaces provide additional PCIe connectivity for function-specific expansion and system integration

Compact Server-Friendly Design
Single-slot passive cooling and FH3/4L+ form factor simplify deployment in space-constrained server platforms

Built for Modern Infrastructure
Well suited for cloud service providers, private and hybrid clouds, data centers, network appliances and edge computing applications

Technical Specifications

SmartNIC	
Model Name	25G SmartNIC
Model Number	SX904
Processor	Intel® Xeon® D-1713NT Intel® Xeon® D-1733NT Intel® Xeon® D-1747NTE
Memory	Up to 32 GB dual-channel DDR4-2933 ECC
Storage	Up to 128 GB eMMC
Network Interfaces	2 x 25GbE (For D-1747NTE) 2 x 10G SFP+ (For D-1713NT, D-1733NT)
I/O / Management	1 x UART (mini-USB), 1 x USB 3.0 Type-C, 1 x 1GbE RJ45 management
Expansion / Architecture	2 x MCIO Gen4 x 8 PCIe add-in SmartNIC architecture
Management / Software	AST2600 OpenBMC/BIOS; IPMI 2.0; Redfish
Security	TPM 2.0 Secure Boot support; AST1060; Intel® PFR
Power	PCIe edge finger + PCIe AUX Power
Cooling	Single-slot passive cooling
Environmental	Operating 0–40°C; storage -40–70°C; humidity up to 85% non-condensing
Mechanical (W x D x H)	Single Slot, FH3/4L+ 266 x 21.59 x 98.4 mm Weight: 0.8 kg
Compliance	FCC/ CE
Primary Applications	Data center, cloud, network appliance, edge computing, SD-WAN/security acceleration
Host Interface	PCIe Gen4 x 8

Hardware Overview

SX904 (25G SmartNIC)

Senao Networks

Product specifications, configurations, certifications, and availability are subject to change without notice and may vary by region and customer program. Final commitments are governed by the applicable quotation, statement of work, or executed agreement.