MISSION-CRITICAL SECURE DATA PLATFORMS

Includes 2 Ciphertex-Protect® Encryption Keys

Information in this data sheet applies to model: SNCX40KSSD

SecureNAS® Enterprise CX-40KSSD Encrypted Server

AI-Ready Secure Data Platform in a Compact, Rugged Form Factor

A portable, encryption-first secure data platform combining high-performance SSD or HDD storage and containerized application support for mission-critical deployments.

The SecureNAS® CX-40KSSD advances the SecureNAS® platform by integrating SSD or HDD performance, modern compute, and application execution into a compact, rugged system. Designed for defense, healthcare, law enforcement, and other highly regulated environments, the SecureNAS® CX-40KSSD enables organizations to securely store, process, and analyze sensitive data directly at the data layer—at the edge or on-premises.

Powered by an Intel® Core™ Ultra 9-285 processor, the platform supports hybrid storage configurations and containerized workloads while maintaining encryption-first security and operational resilience.

Key Platform Capabilities

Hybrid NVMe Storage Architecture

- Four hot-swappable drive bays
- Supports SSD or HDD configurations
- Designed for performance-critical and cost-balanced deployments

Secure Data Platform

- Encryption-first architecture
- Data protection embedded at the platform level
- Designed to reduce data movement and attack surface
- Operates at the data layer for maximum security and performance
- Built on Intel® Core™ Ultra Series 2 architecture for long-term deployment and support (5-7 yrs.)

End-to-End Data Security

Security is embedded directly into the SecureNAS® CX-40KSSD to protect sensitive data throughout its lifecycle.

- AES-256 encryption for data at rest and in transit
- Hardware-based key management
- Multi-factor authentication
- TLS 1.3-secured management and data services
- IP Whitelisting and Blacklisting
- Role-Based Access Control (RBAC)
- Secure boot and firmware integrity validation
- Instant secure erase and USB device control

These controls support Zero Trust architectures while maintaining operational availability.

Application & Orchestration Platform

The SecureNAS® CX-40KSSD includes an integrated application execution layer, enabling organizations to run workloads directly where sensitive data resides.

- Native Docker container support
- Integrated container management via Portainer
- Built-in Kubernetes support (SecureNAS® operates as a Kubernetes worker node)
- Supports AI pipelines, AI-enabled applications, analytics services, cyber defense tools, and mission or clinical applications.

Applications run at the data layer—reducing latency, bandwidth usage, and security risk.

ORGANIZATIONS WORLDWIDE TRUST THEIR DATA TO CIPHERTEX®

SPECIFICATIONS

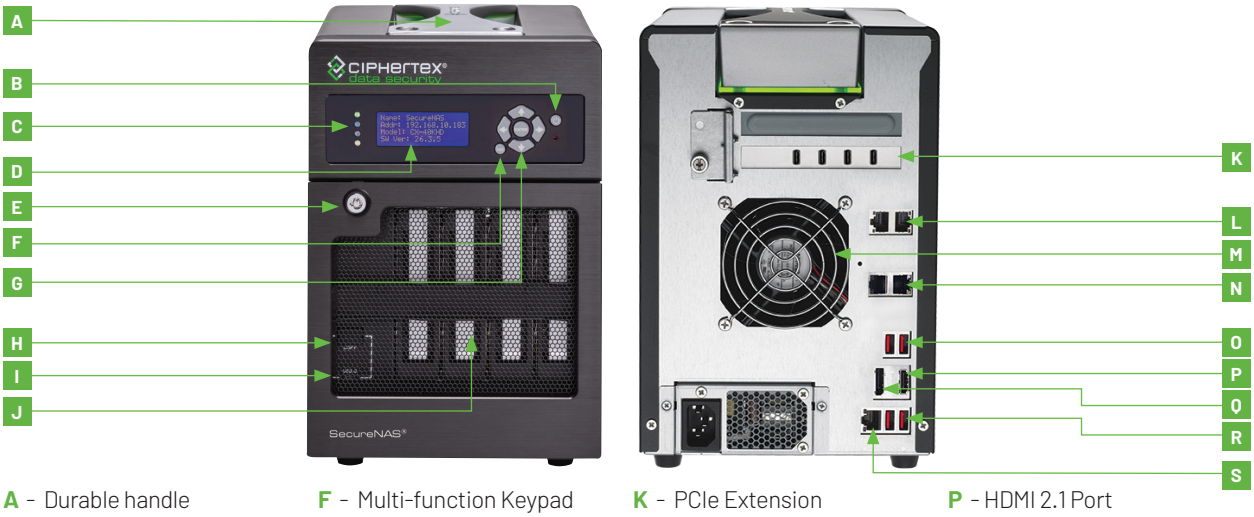
PERFORMANCE CPU	Intel® Core™ Ultra 9-285 Processor
CORES/CACHE	24 Cores - (8 P / 16 E) 36MB L3 Cache / 40MB L2 Cache
MEMORY CAPACITY	Up to 96GB; Unbuffered ECC/ non-ECC SO-DIMM, DDR5, in 2 SO-DIMM slots
MEMORY TYPE	DDR5 6400MT/s
DIMM SIZES	8GB, 16GB, 24GB, 32GB, 48GB
MEMORY VOLTAGE	1.1V
ERROR DETECTION	In-band ECC (with ECC SO-DIMMs)
M.2 EXPANSION	1x M.2 PCIe 5.0 x4 (M-Key 2280)
STORAGE INTERFACE	SATA SSD or HDD 4 x hot-swap bays
IPMI	ASPEED AST2600 BMC; IPMI 2.0 with KVM-over-LAN and Virtual Media

NETWORK CONTROLLERS	Dual 10GbE (Intel X550-AT2) + Dual 2.5GbE (Intel i226-LM)
GRAPHICS	Aspeed AST2600 BMC (for management); Intel Arc integrated graphics in CPU
LED INDICATORS	Status/Power, USB, LAN
PUSH BUTTONS	Power, Reset, Copy
TEMPERATURE	0 - 60°C (32°F ~ 140°F)
SMART FAN	1 x 12cm (12V DC)
WEIGHT	12.8 lbs (w/o drives)
SIZE	Height: 9.8" (243 mm) Width: 7.0" (178 mm) Depth: 9.5" (241 mm)

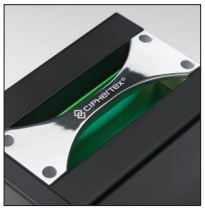
PERFORMANCE, NETWORKING & PLATFORM ENHANCEMENTS

- Sequential read/write performance up to 4,000 MB/s
- Latest Intel® Core™ Ultra 9/7/5 Series 2 processor platform with embedded roadmap support for extended lifecycle availability
- DDR5 6400MT/s memory architecture providing significantly higher memory bandwidth for improved data movement between storage, networking, and application workloads
- PCIe Gen5 expansion slot supports optional high-speed networking, hardware encryption accelerators, or GPU-based AI acceleration
- Dedicated M.2 OS drive for improved system reliability and separation from data storage
- New HDMI 2.1 and DisplayPort connectivity
- Optional 12VDC power input support for specialized mobile & field deployments

All product specifications and data are subject to change without notice to improve security, reliability, function, design or otherwise.



A - Durable handle
B - Power Button
C - LED Indicators
D - LCD Display
E - Drive Cage Key Lock
F - Multi-function Keypad
G - Enter/Arrow Buttons
H - One-Touch Copy
I - USB-C
J - NVMe/SSD/HD Drives
K - PCIe Extension
L - (2) LAN 10G Copper
M - Cooling Fan
N - (2) LAN 2.5G Copper
O - (2) USB-A 3.2G, 10G
P - HDMI 2.1 Port
Q - Display Port
R - (2) USB-A 3.2G, 10G
S - BMC LAN Port



All SecureNAS® systems feature a durable, reliable, recessed handle for ease of transport without taking up valuable real estate.

Custom Transport Cases are the optimal solution for migrating or transporting large amounts of data safely and efficiently. Military Environmental test lab certified.

All SecureNAS® systems include a protective lockable door and a FIPS 140-2 certified encryption key to further protect both your physical NAS and data.

(2) Ciphertex-Protect® Encryption Keys are seemlessly integrated with RhinOS 26 and offer superior authentication for your SecureNAS® supporting FIPS 140-2 level 3 security standard.

FCC CE COMPLIANCE - Designed/Assembled/Integrated/ Tested in the USA using domestic and/or foreign components. Made in the U.S.A.