

KG-250XS

Ultra-Compact 100 Mbps IP Network Encryptor for TS/SCI

Viasat's smallest NSA-Certified Type 1 Rugged HAIPE®

100 Mbps (Aggregate) asymmetric throughput for Dismounted and Field Applications

ACC, OTNK KMI Aware, PDE enabled

Pass through Layer 2 traffic using VLAN/Ethernet Tunneling over Layer 3 networks

Introducing Viasat KG-250XS, a low size, weight, and power, rugged HAIPE® IP network encryptor. Weighing a little over half a pound and delivering over 100 Mbps (aggregate) asymmetric throughput, the Viasat KG-250XS is a Type 1 Inline Network Encryptor (INE) ideal for telecommuting, flyaway kits, small UAVs, and other dismounted or field applications.

Packing big networking power in a small form factor, the Viasat KG-250XS delivers features above and beyond standard HAIPE® requirements. Improve performance over high-latency links with embedded multicast video on demand and TCP/IP acceleration. Remotely re-key a network of HAIPE® devices from a physically secure location with HAIPE®-to-HAIPE® over-the-air/net keying.

This device leverages a field-proven software-upgradeable design, so it evolves over time to meet new requirements without hardware changes. It also comes equipped with browser-based HMI for easy configurations and centralized INE management, provided at no extra cost.

The Viasat KG-250XS provides trusted IP encryption on-the-go up to TS/SCI communications with a ruggedized form factor that won't weigh you down.

Tactical Application Example



VIASAT KG-250XS AT-A-GLANCE

Viasat's lowest SWaP HAIPE®

- › Weight 0.78 lb; 3.73 x 1.05 x 3.81 in. (W x H x D)
- › 5 W typical power consumption
- › MIL-STD-810 rugged
- › MIL-STD-461 EMI compliant
- › MIL-STD-1275 compliant 12-28VDC power

Enhanced Networking Capabilities

- › VLAN/Ethernet tunneling for Layer 2 data over Layer 3 networks
- › Software upgradeable to meet evolving cybersecurity requirements
- › Embedded OSPF and PIM routing*
- › Multicast video on demand
- › Embedded TCP/IP accelerator (xPeP)
- › Browser-based HMI configurations
- › Centralized INE management; VINE Manager™ software provided at no extra cost

Crypto-Modernization Centric

- › Programmable encryption
- › Classified and Unclassified Device Generated Shared Key (CDGSK/UDGSK); as well as centralized key distribution sources (for example KMI)
- › Usable by coalition allies and Department of Homeland Security

Support

- › 3-year warranty (extended options available)
- › Free training and 24/7 technical support
- › INE trade-in program available

**Future capability available via software upgrade.*

Viasat KG-250XS

SPECIFICATIONS

NETWORKING FEATURES AND PROTOCOLS

Protocols Supported	TCP, UDP, IPv4/IPv6 Dual Stack, ICMP, IGMP, ARP, DHCP
Networking Features	Dynamic IP addressing, dynamic key management, plaintext address confidentiality with dynamic peer discovery
Management	SNMPv3 and HTTPS browser-based management, VINE Manager software
Multicast	IGMP on plaintext and ciphertext subnet
Quality of Service (QoS)	Type of service octet bypass
Fragmentation	Supports fragmentation and header options for plaintext IP packets

NETWORK INTERFACES (ELECTRICAL/MECHANICAL)

Plaintext Data Interfaces–Ethernet Interface Adapter	
Electrical/Mechanical	IEEE 802.3; 10/100 Mbps copper, RJ-45
Ciphertext Data Interfaces–Ethernet Interface Adapter	
Electrical/Mechanical	IEEE 802.3; 10/100 Mbps copper, RJ-45

COMSEC CHARACTERISTICS

Algorithms	ACC Compliant Type 1 Suite A or Suite B (AES-EFF) cryptography or IPMEIR
Key Fill Interface	DS-101 over USB
Flexible Keying	Crypto Ignition Key removal to unclassified CCI, OTNK (KMI Aware, PDE enabled), Unclassified/ Classified Device Generated Shared Key (DGSK)

PHYSICAL CHARACTERISTICS

Dimensions (W x H x D)	3.73 x 1.05 x 3.81 in.
Weight	0.78 lb.
Power	5 W typical; 12 to 28 VDC; MIL-STD-1275D Optional PoE breakout cable
Battery	External user replaceable battery, one “1/2 AAA” lithium cell, 1.5 year operating life typical

RELIABILITY AND MAINTENANCE

Predicted MTBF	1,400,000 hr
Predicted MTTR	15 min
Other	Extensive power up and online BIT



ENVIRONMENT

Operating Temperature	-40° to +60° C
Non-operating Temperature	-40° to +71° C
Solar Radiation	MIL-STD-810G, Method 505.5
Humidity	To 95% MIL-STD-810G, Method 507.5
Altitude	50,000 ft operational; 70,000 ft storage; MIL-STD-810G, Method 500.5
Explosive Atmosphere	MIL-STD-810G, Method 511.5
Rapid Decompression	MIL-STD-810G, Method 500.5
Vibration	MIL-STD-810G, Method 514.6, Category 20 and 24 MIL-STD-167 Type 1
Shock	MIL-STD-810G, Method 516.6; MIL-STD-901D Grade A Class II, Type C
EMI/EMC	MIL-STD-461E
Rain	Blowing rain MIL-STD-810G, Method 506.5
Sand/Dust	MIL-STD-810G, Method 510.5
Fungus	MIL-STD-810G, Method 508.5
Salt Fog	MIL-STD-810G, Method 509.5

CERTIFICATION

NSA Certified up to TS/SCI and below
TEMPEST Compliant NSTISSAM 1/92 Level 1

ORDERING INFORMATION

PART NUMBERS

KG-250XS	1204585
NSN number	5810-01-652-7760
Rack Mount	P/N 1283625 (Viasat Universal INE Rack: holds four KG-250XS INEs)
Available for Order	Through IDIQ and Viasat



KG-250XS shown with optional PoE Breakout Adapter

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