KG-250XS

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Ruggedized encryption for tactical, mobile and airborne missions

- NSA-Certified for U.S. TS/SCI and below
- NATO approved (NATO NINE Interoperability)
- 130 Mbps asymmetric throughput
- HAIPE IS V4.2.5 and ACC Compliant
- Heartbeat zeroize, remote zeroize, remote management

Ideal for UAV, Fly-away Kits, Tactical Soldier, and Remote Workforce applications

The Viasat KG-250XS is a small, lightweight, low-power, rugged HAIPE® IP network encryptor designed for a wide range of use cases. The KG-250XS supports power inputs ranging from 12 to 28VDC, making it ideal for both standard AC operations as well as diverse DC environments found in vehicle, UAV, and Aircraft operations.

The advanced networking functions of the KG-250XS make it ideal for the unique requirements of tactical networks with wired or wireless backhauls. The embedded xPEP capability provides TCP/IP acceleration to maintain connectivity and performance over satellite and other long-range network connections. The ability to bridge layer 2 Ethernet networks over layer 3 TCP/IP networks as well as specialized OSPF functions make the KG-250XS the ideal solution for diverse and ever-changing requirements that warfighters are faced with.

The KG-250XS asymmetric performance enhancement is ideally suited for today's diverse network environments. Today, data requests use minimal amounts of bandwidth while delivery of data (downloads) consume the bulk of the transmission. The unique characteristics of the KG-250XS asymmetric performance provides automatic tuning of the traffic flow based on activity. For example, a continuous flow of UAV data can automatically consume 90% to 99% of the bandwidth while equal amounts of bi-directional traffic would automatically adjust to 50% in each direction. The asymmetric capability ensures KG-250XS users have the best use of the available bandwidth.

The KG-250XS is the low-SWaP, low-heat, portable Inline Network Encryptor of choice for NSA-certified and NATO approved encrypted traffic.

KEY HIGHLIGHTS

Viasat's smallest, low SWaP 100 Mbps aggregate edge encryptor

- Size: 3.73" W x 1.05" H x 3.81" D
- Weight: less than 1 lb.
- 12-28V power input range for both tactical and aerial applications
- Browser-based internal HMI configuration and management
- Interoperable with U.S. Army approved CHIMERA management software
- XPEP TCP/IP Acceleration for use on high latency, tactical networks
- VINE Manager software for advanced management and automated deployment
- 3-Year Warranty
- Training and 24/7 technical support

ACCESSORIES

The Universal Rack Mount can be used to secure up to four KG-250XS devices into a 19" 1U Rack Mount enclosure.

Power Over Ethernet (POE) breakout adapter offers even greater flexibility for optional power sources.

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, HTTPS browser-based management, Viasat VINE Manager, and U.S. Army CHIMERA 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 High Assurance 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	3.73” W x 1.05” H x 3.81” D
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 High Assurance
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

KG-250XS	1204585
NSN number	5810-01-652-7760
1U, 19” Universal Rack Mount	P/N 1283625
PoE Breakout Adapter	See IDIQ for pricing
Available for Order	Through IDIQ and Viasat

KG-250XS shown with optional PoE Breakout Adapter

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