

- » Lowest Size, Weight, and Power
200 Mbps (Aggregate) Crypto
- » Embedded Secure Routing and Advanced Networking Capabilities
- » MIL-STD-810G Rugged for Tactical and Mobile Applications
- » NSA-Certified Type 1 HAIGE IS V4.2.5 Compliant including VLAN/Ethernet Tunneling
- » ACC, OTNK KMI Aware, PDE enabled



Delivering high-speed HAIGE IP network encryption to tactical and mobile users with speeds fast enough for enterprise applications, the Viasat KG-250X/KG-250X-FC is a rugged, Type 1 Inline Network Encryptor (INE) certified by the National Security Agency.

The Viasat KG-250X/KG-250X-FC provides advanced network security above and beyond standard HAIGE requirements. Route your IP traffic more efficiently and decrease network overhead with embedded Open Shortest Path First (OSPF) and Protocol Independent Multicast (PIM). Remotely rekey a network of HAIGE devices from a physically secure location with HAIGE-to-HAIGE over-the-air/net keying. Improve performance over high-latency links with embedded TCP/IP acceleration.

Cyber adversaries are getting smarter, finding new ways around traditional perimeter protection and exploiting vulnerabilities in siloed network security. The NSA-certified Viasat KG-250X/KG-250X-FC combines Type 1 HAIGE network encryption with the latest cyber defense technologies and visualization software, including Trusted Cyber Sensor (TCS) so you can securely communicate over IP and gain actionable intelligence on your network security posture.

This device is field-proven at high altitudes to deliver reliable network encryption for airborne missions. Additionally, users can attach a remote front panel to interface to the Viasat KG-250X/KG-250X-FC, via cable, providing control access even if the stowed crypto is not physically within reach.

The KG-250X/KG-250X-FC thermal design and packaging provides effective power management, high reliability, lower touch temperatures, and can accommodate high density 1U stacking of encryptors.



VIASAT KG-250X AND KG-250X-FC AT-A-GLANCE

Compact, Rugged, and Flexible

- » Weight 2.9 lbs; 4.46 x 1.54 x 8.49 in (W x H x D)
- » MIL-STD-810G rugged, MIL-STD-461 EMC compliant, MIL-STD-1275, MIL-STD-704F 12-28VDC compliant power
- » KG-250X Interfaces: Copper; KG-250X-FC: Fiber/Copper
- » KG-250X-FC supports any combination of Fiber/Copper connections

Enhanced Networking Capabilities

- » VLAN/Ethernet tunneling for Layer 2 data over Layer 3 networks
- » Software upgradable 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
- » High performance in VoIP applications

Suite Agile and HAIGE IS Compliant

- » Packet-by-packet suite agility
- » Suite A and/or Suite B or IPMEIR
- » HAIGE IS v4.2.5 compliant VLAN
- » HAIGE-to-HAIGE over the air/net keying
- » Fully F1 compliant with software and key material source authentication and programmability
- » Usable by coalition allies and Department of Homeland Security

Crypto-Modernization Centric

- » Programmable encryption
- » Key and algorithm agile per packet
- » Classified and Unclassified Device Generated Shared Key (CDGSK/DGSK); as well as centralized key distribution sources (for example KMI)

Support

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

SPECIFICATIONS

NETWORKING FEATURES AND PROTOCOLS

Protocols Supported	TCP, UDP, IPv4/v6 Dual Stack, ICMP, IGMP, ARP, DHCP
Networking Features	Dynamic IP addressing, dynamic key management, embedded OSPF routing, plaintext address confidentiality with dynamic peer discovery
Management	SNMP 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

KG-250X

» Plaintext Data Interfaces

- › IEEE 802.3; 10/100 Mbps copper, RJ-45

» Ciphertext Data Interfaces

- › IEEE 802.3; 10/100 Mbps copper, RJ-45

KG-250X-FC

» Plaintext Data Interfaces

- › IEEE 802.3; 10/100 Mbps copper, RJ-45
- › IEEE 802.3; 100 Base-FX, 1310nm optical, LC connector

» Ciphertext Data Interfaces

- › IEEE 802.3; 10/100 Mbps copper, RJ-45
- › IEEE 802.3; 100 Base-FX, 1310nm optical, LC connector

COMSEC CHARACTERISTICS

Algorithm Agile	ACC Compliant Type 1 Suite A and/or Suite B (AES-EFF) cryptography or IPMEIR
Flexible Keying	Crypto Ignition Key (removal to unclassified CCI), EKMS, unclassified/classified DGSK, IKEv2/ECDH

PHYSICAL CHARACTERISTICS

Dimensions (W x H x D)	4.46 x 1.54 x 8.49 in
Weight	2.9 lbs
Power	14 W typical; 12 to 28 VDC; MIL-STD-1275D; MIL-STD-704F
Battery	External user replaceable battery, one "1/2 AA" lithium cell, 3.5 year operating life typical

RELIABILITY AND MAINTENANCE

Predicted MTBF	350,000 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 for TS/SCI and below
TEMPEST Compliant NSTISSAM 1/92 Level 1

ORDERING INFORMATION

KG-250X (Copper)	P/N 1101000
KG-250X-FC (Fiber/Copper)	P/N 1161607
Rack Mount	P/N 1276459 (holds three KG-250X INE units) P/N 1283625 (Viasat Universal INE Rack: holds three KG-250X/KG-250X-FC)
KG-250X (NSN number)	5810-01-593-8026
KG-250X-FC (NSN number)	5810-01-647-0219
Available for Order	Through IDIQ and Viasat



COPPER



FIBER/COPPER

CONTACT

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