Delivering high-speed HAIPE 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 HAIPE 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 HAIPE devices from a physically secure location with HAIPE-to-HAIPE 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 HAIPE 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)
- 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 HAIPE IS Compliant**
- Packet-by-packet suite agility
- Suite A and/or Suite B or IPMEIR
- HAIPE IS v4.2.5 compliant VLAN
- HAIPE-to-HAIPE 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
Viasat KG-250X/KG-250X-FC

SPECIFICATIONS

NETWORKING FEATURES AND PROTOCOLS

Protocols Supported
TCP, UDP, IPv4v6 Dual Stack, ICMP, IGMP, ARP, DHCP

Networking Features
Dynamic IP addressing, dynamic key management, embedded OSPF routing, plaintext address confidentiality with dynamic peer recovery

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 (MM), LC connector

> Ciphertext Data Interfaces
  - IEEE 802.3; 10/100 Mbps copper, RJ-45
  - IEEE 802.3; 100 Base-FX, 1310nm optical (MM), 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/EDDH

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

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