

- » 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 HAIPE IS V4.2.5 Compliant including VLAN/Ethernet Tunneling
- » ACC, OTNK KMI Aware, PDE enabled



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)
- » 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 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 FI 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

<b>Protocols Supported</b>	TCP, UDP, IPv4/v6 Dual Stack, ICMP, IGMP, ARP, DHCP
<b>Networking Features</b>	Dynamic IP addressing, dynamic key management, embedded OSPF routing, plaintext address confidentiality with dynamic peer discovery
<b>Management</b>	SNMP and HTTPS browser-based management, VINE Manager software
<b>Multicast</b>	IGMP on plaintext and ciphertext subnet
<b>Quality of Service (QoS)</b>	Type of service octet bypass
<b>Fragmentation</b>	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

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

### PHYSICAL CHARACTERISTICS

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

### RELIABILITY AND MAINTENANCE

<b>Predicted MTBF</b>	350,000 hr
<b>Predicted MTTR</b>	15 min
<b>Other</b>	Extensive power up and online BIT

### ENVIRONMENT

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

### CERTIFICATION

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

### ORDERING INFORMATION

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



COPPER



FIBER/COPPER

## CONTACT

### SALES

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