» **Lowest Size, Weight, and Power 100 Mbps Crypto**

» **Ruggedized to MIL-STD-810 for Mobile, Airborne, and Tactical Dismounted Networking**

» **Type 1 HAIPE® IS V4.1 Compliant**

» **NSA-Certified for TS/SCI and Below**

Ruggedized for extreme mobile mission requirements and small enough to stow in your cargo pocket, the KG-250X delivers high-speed HAIPE® IP network encryption to mobile, dismounted and tactical users with speeds fast enough for enterprise applications. The AltaSec KG-250X is a Type 1 Inline Network Encryptor (INE) certified by the National Security Agency.

Ruggedized to MIL-STD-810 and field tamper recoverable, the KG-250X is the only fully HAIPE®-compliant low SWaP 100 Mbps IP crypto built for mounted and dismounted tactical use. This device is compact enough to fit in the warfighter's pocket and weighs only 2.8 pounds.

Now warfighters can avoid traveling forward and physically delivering keys to network nodes in high risk and remote locations with HAIPE® to HAIPE® keying. A single KG-250X can remotely rekey a network of HAIPE® devices, enabling centralized management from a physically secure location.

When using the KG-250X on mobile platforms or UAVs, you have the option of controlling the encryptor using a remote interface panel connected via cable — even if the stowed crypto is not physically accessible.

With exclusive capabilities such as embedded network acceleration and an intuitive interface, the KG-250X delivers easy-to-use, faster, more efficient network security above and beyond standard HAIPE® requirements.

The KG-250X packs big cryptographic power in a small form factor that goes where you go and provides secure connectivity where and when you need it.

ALTASEC KG-250X AT-A-GLANCE
Compact, Rugged, and Flexible for Tactical Military Use

» Dimensions 4.45 W x 1.52 H x 7.96 D in
» Weight 2.8 lb
» MIL-STD-810 ruggedized
» Remote front panel interface to support stowed devices or UAV applications (optional)
» Fits three across in a 1U rack

Exclusive Networking Capabilities

» Software upgradable to meet evolving cybersecurity requirements
» Faster performance over high-latency links with optional embedded TCP/IP accelerator (xPeP)
» Multicast video on demand
» Browser-based HMI configurations
» Centralized VINE Manager™ software provided at no extra cost, seamlessly manage multiple INEs

Suite A and/or Suite B

» Usable by coalition allies and Department of Homeland Security
» Supports multiple Communities of Interest (COIs) and segregation via Exclusion Keys
» Fully FI compliant with software and key material source authentication and programmability

HAIPE® IS Compliant

» HAIPE® IS v4.1.0 and v3.1.2 compliant
» HAIPE® to HAIPE® over the air/net keying

Crypto-Modernization Centric

» Programmable Encryption
» Key Management and Encryption Agile
» Enhanced FIREFLY, Pre-Placed Key, Crypto Ignition Key

High-Speed IP Network Encryption

» Full-duplex 100 Mbps Ethernet (200 Mbps aggregate)
» Full-mesh network capability

Premium Support

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

* Suite A/Suite B operation supported in all AltaSec INEs except for the IPS-250, which supports Suite B only.

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, red address confidentiality with dynamic peer discovery
Management	SNMP & HTTPS browser-based management, VINE Manager
Multicast	IGMP on red and black subnet
Quality of Service (QoS)	Type of service octet bypass
Fragmentation	Supports fragmentation and header options for red IP packets
Flexible Interfaces	Ethernet interface, adapter provides for RJ-45 copper;
Future Interface Adapters	Fiber optic; wireless 802.11; fully rugged mil connector and other interfaces supported

NETWORK INTERFACES

Plaintext Data Interface – Ethernet Interface Adapter

» Electrical/Mechanical: IEEE 802.3; 10/100 Mbps copper, RJ-45

Ciphertext Data Interface – Ethernet Interface Adapter

» Electrical/Mechanical: IEEE 802.3; 10/100 Mbps copper, RJ-45

COMSEC CHARACTERISTICS

Algorithms	Type 1 Suite A and Type 1 Suite B w(AES-EFF) cryptography
Key Fill Interface	DS-101
Dynamic Key Generation	FIREFLY (9,17, Enhanced)
Flexibility	Modular, reprogrammable architecture
Crypto Ignition Key CIK	Removal to UNCLASSIFIED CCI

PHYSICAL

Dimensions (WxHxD)	4.45 x 1.52 x 7.96 in
Weight	2.8 lb
Power	14 Watts typical; 12 to 28 volts DC; MIL-STD-1275D; MIL-STD-704F
Battery	External user replaceable battery, one "1/2AA" 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° C to +60° C
Non-operating Temperature	-40° C to +71° C
Humidity	To 95% MIL-STD-810F, Method 507.4
Altitude	50,000 ft operational; 70,000 ft storage; MIL-STD-810F, Method 500.4
Vibration	MIL-STD-810F, Method 514.5, Category 20 and 24 MIL-STD-167 Type 1
Shock	MIL-STD-810F, Method 516.5; MIL-STD-901D Grade A Class II, Type C
EMI/EMC	MIL-STD-461E
Rain	Blowing rain MIL-STD-810F, Method 506.4
Sand/Dust	MIL-STD-810F, Method 510.4
Fungus	MIL-STD-810F, Method 508.5
Salt Fog	MIL-STD-810F, Method 509.4

CERTIFICATION

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

ORDERING INFORMATION

PART NUMBERS

NSN	5810-01-593-8026
Part Number	110100
Rack Mount P/N	1103865 (holds three KG-250Xs)
Available for Order	Through IDIQ and ViaSat

CONTACT

ViaSat