AltaSec® KG-250

Foreign Interoperable (FI) HAIPE® High Speed IP Network Encryptor

Secure IP-based networking communications, anywhere, anytime.

The first secure IP network encryptor to give you foreign interoperable capabilities is now enabling you to remotely rekey any HAIPE® device. The AltaSec KG-250 encryptor from ViaSat offers Type 1 high-speed IP network encryption with seamless foreign interoperability and centralized operation and management. This Inline Network Encryptor (INE) is certified by the National Security Agency/Central Security Services for use on classified U.S. Government communications networks, and is available to U.S. Department of Defense customers, and authorized international and Homeland Security organizations.

With HAIPE to HAIPE Keying (H2HK) warfighters no longer need to travel forward and physically deliver keys to each network node. A single KG-250 can remotely rekey a subnetwork of HAIPE devices and can function behind commercial firewalls, enabling centralized management from a physically secure location. Combined with airborne enhancements such as remote heartbeat and remote zeroize, the KG-250 can be deployed effectively in UAVs and other remote locations.

The KG-250 is not only foreign interoperable, but also coalition releasable. Featuring Suite A and/or Suite B (AES-EFF) cryptographic algorithms and both software source and key material source authentication, the KG-250 ensures that communications are controlled and restricted to members of selected Communities of Interest (COI) via Exclusion Keys. Featuring field tamper recovery and advanced technology to handle complex missions, this AltaSec device can be deployed to support the end-to-end security requirements of the Global Information Grid (GIG), providing the warfighter with secure information when and where it is needed.

Ensuring you're always connected and your network is up-to-date, the KG-250 includes embedded Open Shortest Path First (OSPF) routing and is based on ViaSat's PSIAM™ cryptosystem. With OSPF routing the INE is able to continuously adapt to rapidly changing networks, and the PSIAM cryptosystem's programmable and scalable information assurance capabilities enable the KG-250 to evolve over time.

The KG-250 is designed for low cost of ownership and ease of portability. While a centralized manager isn't required, the VINE™ Manager software application is provided at no extra cost. Web browser based with both administrator and monitor access levels, VINE Manager software allows users to remotely manage any AltaSec parameter from the Plain Text (PT) or the Cipher Text (CI) interface.

By incorporating the latest networking features, this equipment brings full-mesh network operation to the classified user in an intuitively managed, cost-effective package.

ALTASEC KG-250 AT-A-GLANCE

THE FI LEADER – SELECTABLE SUITE A OR SUITE B (AES-EFF) SUPPORT

- U.S., CCEB, NATO, NATO Nations (Suite A/B Mode)
- Coalition and Partnership for Peace (Suite B Mode)
- Supports multiple Communities of Interest (COIs)
- Supports Exclusion Key for fine-grained control of COIs
- Software source authentication and programmability
- Key material source authentication

HAIPE® IS COMPLIANT

- HAIPE IS v3.1.2 compliant
- HAIPE to HAIPE over the air/net keying
- Upgradeable to future versions via software download (e.g. v4)

CRYPTO-MODERNIZATION CENTRIC

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

ROBUST NETWORKING FEATURES

- Full-Duplex 100 Mbps Ethernet (200 Mbps aggregate)
- Multicast video on demand
- Embedded OSPF Routing
- Embedded TCP Acceleration (xPeP)
- Control of QoS bits
- Auto Reconnect

LIGHT WEIGHT, COMPACT SIZE

- Multiple units in a 19 inch rack, 1 or 2 per shelf
- Less than 6.5 lbs.

EASY TO USE

- Field Tamper Recoverable
- Full-featured VINE network manager has an intuitive interface to manage multiple AltaSec INEs and is provided at no extra cost
- Dynamic Discovery
- DC power

PREMIUM SECURE NETWORKING SOLUTION

- Full-Mesh Network capability in a portable package
- Low cost of ownership, INE trade-ins accepted
- 3-Year HW & SW warranty
- Free training and tech support

AltaSec® KG-250: Type 1 High Speed IP Network Encryptor

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 dynamic discovery, virtual local area networks, embedded OSPF routing

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

RED DATA INTERFACE – ETHERNET

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

BLACK DATA INTERFACE – ETHERNET

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

COMSEC CHARACTERISTICS

Algorithms Type 1 Suite A and Type 1 Suite B cryptography

Key Fill Interface DS-101

Dynamic Key Generation FIREFLY (9,17, Enhanced)

Flexibility Modular, reprogrammable architecture, remote HAIPE to HAIPE keying

Crypto Ignition Key CIK Removal to UNCLASSIFIED CCI

PHYSICAL

Dimensions (WHD) 7.5 x 1.68 x 11.9 in; 190.5 x 42.7 x 302.2 mm

Weight 6.5 lbs; 2.9kg

Power +5 VDC and +3.3 VDC; 13.7W typical

RELIABILITY AND MAINTENANCE

Predicted MTBF 312,000 hours

Predicted MTTR 15 mins

Other Extensive power up and online BIT

ENVIRONMENT

Operating Temperature 0°C to +50°C cold starting; tested to -23°C ambient

Non-Operating Temperature -20°C to +70°C

Operating Altitude Up to 50,000 ft

Non-Operating Altitude Up to 69,000 ft

Non-Operating Rapid 27,000 ft to 69,000 ft in 15 seconds

DECOMPRESSION

Shock MIL-STD-810F 516.5 Procedure I SRS curve: 9 to 45 g from 10 Hz to 45 Hz w 6dB slope, 45 g from 45 Hz to 2000 Hz

Vibration

- MIL-STD-810F 514.5 Procedure I Cat 24: 0.04g^2/Hz from 20 Hz to 2000 Hz for 15 minutes each on 3 main orthogonal axes;
- MIL-STD-810F, 516.5, Procedure I, ground equipment with a peak acceleration of 40g
- RTCA-DO-160E, Section 8, Category S, Curve B: 0.012g^2/Hz for 10 to 40 Hz, 0.012g^2/Hz to 0.002g^2/Hz for 40 to 100 Hz, 0.002g^2/Hz for 100 to 500 Hz, and 0.002g^2/Hz to 0.00013g^2Hz for 500 to 2000 Hz for 1 hr. each on 3 main orthogonal axes

EMI/EMC FCC Class B and EN 55022 Class B

Humidity (Non-Condensing) 95% @+60°C for 96 hours per MIL-STD-810F, Method 507.4

CERTIFICATION

NSA Certified for TS/SCI and below

JITC Certified

TEMPEST Compliant NSTISSAM 1/92

ORDERING INFORMATION

PART NUMBERS

NSN 5810-01-524-6615CA

Part Number SI-017750-0000

Available for Order Through ISSP, IDIQ, and ViaSat

CONTACT

6155 EL CAMINO REAL, CARLSBAD, CA 92009

SALES
TEL 760.476.4755 OR 888.VIASAT.1 (888.842.7281) **FAX** 760.683.6815 **EMAIL** INFOSEC@VIASAT.COM

TECHNICAL SUPPORT
TEL 760.476.4754 OR 888.VIASAT.4 **FAX** 760.929.3938 **EMAIL** ALTASEC@VIASAT.COM **WEB** WWW.VIASAT.COM/SECURE