KG-255X

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Ruggedized encryption for tactical, mobile, and enterprise networks.

- NSA-Certified for TS-SCI and below
- NATO approved and NATO NINE Interoperable
- 2Gbps aggregate throughput
- Pluggable SFPs for Copper, Single-Mode and Multi-Mode Fiber use cases
- HAIPE IS V4.2.5, EDE-CIS, and ACC compliant

Viasat premium High Assurance HAIPE and EDE-CIS encryptor

Supporting the secure exchange of classified information up to TS/SCI, the KG-255X goes BEYOND Encryption by providing extreme versatility through simple configurations. The ability to support either HAIPE® (Layer 3) or EDE-CIS (Layer 2) encryption standards in a single box, the KG-255X can be configured to meet the diverse requirements of tactical warfighters and enterprise environments alike. The thermal characteristics of the KG-255X operates at low-touch temperatures which enables side-by-side and stacked 1U rack mounting options without the need for extra cooling space between devices. Combined with Viasat's high availability rack, the KG-255X accommodates the highest density 1U stacking of 2-Gbps encryptors available today. This flexible security appliance delivers trusted protection for your enterprise or tactical network by leveraging 2-Gbps aggregate processing power and Viasat's software re-programmable PSIAM® architecture to meet evolving cybersecurity requirements. The KG-255X supports standard off-the-shelf copper, fiber single-mode/multi-mode SFPs in both HAIPE and EDE modes of operation.

Interoperates with existing HAIPE and EDE-CIS devices

The KG-255X is the only encryptor that can be used either as a Layer 3 HAIPE or Layer 2 EDE, depending on the mode of operation that is activated via user selection. In HAIPE mode, it can interoperate with KG-250X/KG-250XS/IPS-250X or any other HAIPE-compliant device. The VLAN/Ethernet tunneling feature bridges Ethernet (Layer 2) networks through an IP (Layer 3) infrastructure while preserving MPLS priority tags and eliminating the need for GRE tunneling. In the EDE-CIS mode, it can interoperate directly with Viasat's High Assurance, high-speed Ethernet encryptors, for example the KG-142, using MACsec for aggregation of data center interconnects. This versatility makes the KG-255X ideal for both tactical Layer 3 networks as well as remote office direct-connect-to cloud over Layer 2 and Metro Carrier Ethernet infrastructures. The KG-255X can be managed through its internal HMI, RESTful API in EDE-CIS mode, SNMP v3 in HAIPE Mode, or by Viasat's centralized VINE Enterprise management software, offered at no additional cost.

KEY HIGHLIGHTS

- Ruggedized for the Tactical Edge, Fast Enough for the Enterprise
- Standard 120V DC for enterprise; 12 to 28VDC for tactical vehicle, airborne, and UXV applications.
- Browser-based internal HMI configuration and management
- Dual Mode operation: Delivered with both HAIPE (Layer 3) and EDE-CIS (Layer 2) software for changing operational environments
- XPEP TCP/IP acceleration for high latency, tactical networks
- VINE Manager software for advanced management and automated deployment
- 5-Year Warranty
- Training and 24/7 technical support

ACCESSORIES

Two Rack Mount Kits are available to secure up to two KG-255X devices in a 1U, 19" rack.

Universal Rack Mount: Secure two devices.

High Availability Rack Mount: Secures two devices and includes dual redundant power supplies.

Viasat KG-255X

SPECIFICATIONS

NETWORKING FEATURES AND PROTOCOLS

Protocols Supported	TCP, UDP, IPv4/IPv6 Dual Stack, ICMP, IGMP, ARP, DHCP, PIM, MKA, MACSEC, EAP-TLS 1.2
Networking Features	Dynamic IP addressing, dynamic key management, plain-text address confidentiality with dynamic peer discovery, embedded OSPF routing, support for “JUMBO” Ethernet frames
Management	EDE RESTful API, SNMPv3 & HTTPS browser-based management, VINE™ Manager software
Quality of Service (QoS)	Type of service octet bypass
Fragmentation	Supports fragmentation and header options for plain-text IP packets

NETWORK INTERFACES (ELECTRICAL/MECHANICAL)

Plain-text Data	IEEE 802.3; copper RJ-45 SFP 100/1000 Base-T, IEEE 802.3; optical SFP 1000 base-SX, LX, ZX, various connector styles (LC, MT-RJ)
Cipher-text Data	IEEE 802.3; copper RJ-45 SFP 100/1000 Base-T, IEEE 802.3; optical SFP 1000 base-SX, LX, ZX, various connector styles (LC, MT-RJ)
Management Interface	IEEE 802.3; 100/1000 Base-T; copper RJ-45
Future Interface	Supports up to three plain-text and three cipher-text ports

COMSEC CHARACTERISTICS

Algorithm Agile	ACC compliant, Suite A and/or Suite B (AES-GCM) or IPMEIR
Key Fill Interface	DS-101
Flexible Keying	Crypto Ignition Key removal to unclassified CCI, OTNK (KMI Aware, PDE enabled), unclassified/classified Device Generated Shared Key (DGSK)

CERTIFICATION

NSA Certified for TS/SCI and below

TEMPEST Compliant NSTISSAM 1/92 Level 1

PHYSICAL CHARACTERISTICS

Dimensions	7.9” W x 1.51” H x 13.61” D (20.1 x 3.8 x 34.6 cm)
Weight	7.8 lb. (3.54 kg)
Power	39 W typical, 56 W max; 12 to 28 VDC; MIL-STD-1275E; MIL-STD-704F
Battery	1/2AA 3.6V (Li-SOCl2)

RELIABILITY AND MAINTENANCE

Predicted MTBF	250,000 hrs.
Predicted MTTR	15 min
Other	Extensive power up and online BIT

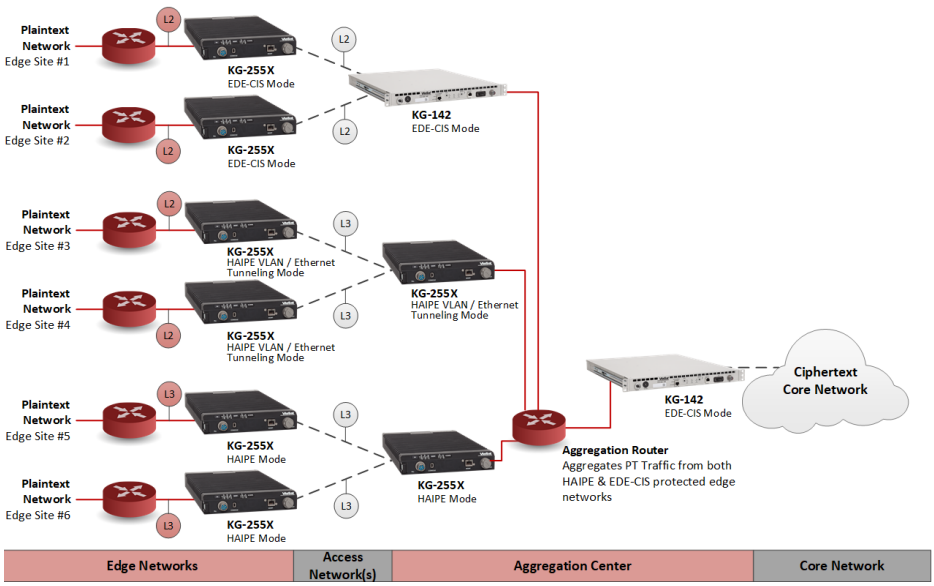
ENVIRONMENT

Temperature	Operating: -40° to 60°C; Storage: -40° to 71°C
Humidity	To 95%; MIL-STD-810G, Method 507.5
Altitude	50,000 ft. (15240 m) operational; 69,000 ft. (21336 m) storage; MIL-STD-810G, Method 500.5
Vibration	MIL-STD-810G, Method 514.6, Category 4
Shock	MIL-STD-810G, Method 516.5
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 508.6
Salt Fog	MIL-STD-810G, Method 509.5

ORDERING INFORMATION

Part Number	1195064
NSN Number	5810-01-663-5347
1U, 19” Universal Rack Mount	P/N 1283625
High Availability Rack Mount	P/N 1276429
Available for Order	Through IDIQ and Viasat

Example architecture connecting a mixed HAIPE (Layer 3) and EDE-CIS (Layer 2) network to a high capacity, high speed enterprise and cloud infrastructure.



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