

TACLANE®-10G Encryptor (KG-175X)

High-Speed Enterprise Security Solution for High-Bandwidth Applications



Optional Agile VLAN & TACLANE Trusted Sensor Capabilities

HAIPE® v4.1 & IPMEIR 1.0 Compliant

NSA Certified for Top Secret/SCI and Below

Familiar TACLANE Ease-of-use

GEM™ One and GEM X Remote Management Capability

Overview

Utilizing the proven, reliable TACLANE cryptographic core technology, the new TACLANE-10G Encryptor is the only high speed HAIPE encryptor to offer simultaneous IP and Ethernet capabilities. Providing end-to-end 10 Gb/s throughput speed, the TACLANE-10G secures information classified Top Secret SCI and below over government and commercial networks. The TACLANE-10G is capable of accepting additional software to improve network efficiency and sensing capabilities.

Applications

Ideal for high-bandwidth applications, the TACLANE-10G can be used to protect cloud infrastructures and secure large image, data and video files, such as:

- Streaming high-definition video
- High-end enterprise database distribution
- Intelligence, Surveillance and Reconnaissance (ISR) data sharing

Features at a Glance

- HAIPE v4.1 / IPMEIR 1.0 compliant
- 20 Gb/s aggregate throughput
- Designed to secure information classified Top Secret/SCI and below
- Low latency
- Scalable IP security for cloud computing
- Optional Agile VLAN/Layer 2 Passthrough feature provides network flexibility, bandwidth efficiency and redundancy
- Optional Trusted Sensor software will provide packet inspection and monitoring
- Simultaneous Suite A/B, HAIPE/IPMEIR, & HAIPE/Layer 2 Ethernet non-IP traffic
- GEM X and GEM One Remote Management
- Rack mountable
- Field tamper recoverable
- Crypto Mod compliant
- Dual/redundant power supplies
- Supports Exclusion Keys
- Safe Keying Features (CDGSK and KMI OTNK*)
- ACC Upgradeable*



**General Dynamics is developing the KMI OTNK capability and ACC compliance to be available via software upgrade.*

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Network Encryption — Core to Edge

From 10 Mb/s to 10 Gb/s, the TACLANE family of network encryptors continues to grow with your expanding network needs. TACLANE-10G is the next-generation high-speed security solution expanding throughput performance to 10 Gb/s while maintaining the proven TACLANE security, reliability and ease of use.

Optional Feature Enhancement:

Agile Virtual Local Area Network (VLAN): Enables use of HAIPE security features on Layer 2 VLAN tagged / Non-IP Ethernet traffic while simultaneously supporting standard HAIPE encryption of IP traffic. Benefits include:

- Elimination of GRE tunnels
- Bandwidth efficiency
- Redundancy
- Load balancing

Optional Future Enhancement

TACLANE Trusted Sensor Software:

The new Deep Packet Inspection (DPI) in-line sensing capability enables networks to filter for malicious data within the traffic. This in-depth inspection will aid network administrators in understanding the overall health of the system.

Trusted cyber sensing will provide greater Defense-in-Depth and will give administrators the ability to fine tune their network filtering based on either open standard or Government classified rule sets and to issue Type 1 encrypted alerts to monitor any network point.

Technical Specifications

- **Dimensions**
 - 3.5" H x 19" W x 23" D
 - 2U (EIA Standard)
- **Weight**
 - <32 lbs
- **Power**
 - Redundant Internal Power Supplies
 - 210 Watts (Typical)
 - Lithium 3.6V for Configuration Retention
- **Performance**
 - 20 Gb/s Throughput (Aggregate)
 - Support for Jumbo Frames
 - 4096 Duplex Security Associations (SA)
 - 16,000 Simultaneous Destination Hosts
- **Environmental**
 - Operating Temp: 0°C to 50°C (32°F to 122°F)
 - Storage Temp: -41°C to 71°C (41°F to 160°F)
 - Humidity: 90% RH, Convection Cooled: 10-90% (non-condensing over operating temperature range)
- **EMI/TEMPEST**
 - NSTISAM TEMPEST/1-92 Level 1
 - Electromagnetic Interference (EMI) MIL-STD 461F
- **Interfaces**
 - TACLANE HMI via 10/100 RJ45 Ethernet
 - SNMPv3 via GEM X™ Encryptor Manager
- **Ethernet**
 - Primary PT and CT interfaces via operator replaceable Industry Standard SFP+ Modules
 - 2 SR transceivers and 2 fiber optic cables included
 - SFP+ LR provides up to 10km with single mode fiber
- **Standards Compliance**
 - HAIPE v4.1
 - IPMEIR v1.1
 - Crypto Modernization Compliant
- **Management**
 - Perform locally via connected front console, or remote via CT or PT interface
- **Local Management**
 - Web-based using standard browser
 - Retains TACLANE menu structure and commands
- **Keying**
 - Supports Exclusion Key, HAIPE to HAIPE Keying, APPK/PPK, FIREFLY, Enhanced FIREFLY, Internet Key Exchange (IKE) v1/v2, Unclassified Device Generated Shared Key (DGSK)
 - Software upgradeable to support KMI OTNK, Classified DGSK, ACC

- **Network Protocols**
 - Ethernet
 - IPv4/IPv6 Dual Stack
 - Layer 2 Frame Encapsulation (VLAN Mode)
 - IPv6 neighbor discovery and address resolution
 - Address Resolution Protocol (ARP)
 - Internet Group Management Protocol (IGMP) (v1/v2/v3) Queries/Reports
 - Multicast Listener Discovery (v1/v2)
 - Internet Control Message Protocol (ICMP)
 - Path Maximum Transmission Unit (PMTU)
 - RIP Listener/Speaker
- **NAT Support**
 - NAT-T Automated Security Association Extension
- **Reachability**
 - Peer HAIPE Reachability Detection (PHRD)
 - Peer Destination Unreachability Notification (PDUN)
- **Discovery**
 - Generic Discovery Client
 - Static Routing
 - IM PEP
 - HAIPE IS v1.3.5 Secure Dynamic Discovery
- **Interoperability**
 - Interoperable with all HAIPE compliant encryptors
- **Foreign Interoperability**
 - Algorithm Agile – Simultaneous Suite A/B/AES EFF/IPMEIR without manual intervention P³, S², Q²

Ease of Use and Management Tools

- **GEM X and GEM One Encryptor Management**
 - Manage a network of TACLANE encryptors remotely from a central location
- **Generic Discovery Server (GDS)**
 - Automatically discovers HAIPE devices
- **Quick Start Wizard**
 - Assists users with the initial configuration of the TACLANE device
- **TACLANE Configuration Tool**
 - Assists users with the software upgrade and configuration process

Ordering

- Available to order through IDIQ & General Dynamics
- NSN # 5810-01-645-5553

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