

TACLANE®-10G Encryptor (KG-175X)

Advanced Cryptographic Solution for High-Speed Enterprise Security



NSA Certified and ACC Compliant for Top Secret/SCI and Below

The Fastest HAIPE® Encryptor for Enterprise Applications

The Only ACC Compliant 10Gb HAIPE Encryptor

Optional Features for Advanced Security and Networking

GEM® One 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 full-duplex throughput, 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

- 10 Gb/s full-duplex throughput
- NSA certified and ACC compliant to protect against modern, advanced cyber threats
- High performance, 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 v4.2.5/IPMEIR, & HAIPE/Layer 2 Ethernet non-IP traffic
- Safe keying features including Classified/Unclassified Device Generated Shared Key (DGSK) and Exclusion Keys (EKs)
- ACC and KMI OTNK compliant
- IPv4/6 Dual Stack
- Dual/redundant power supplies
- Supported by GEM® One Remote Encryptor Manager

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TACLANE® End-To-End Solutions

The TACLANE family of network encryptors is the most widely deployed base of high assurance encryptors in the world. Field proven and reliable, TACLANE has been securing mission critical and national security systems for over 20 years. There are several advantages of a TACLANE end-to-end solution including:

- Common, remote enterprise level encryptor management with GEM® One
- Common user HMI to reduce training and deployment time
- Access to one, world-class customer support ecosystem including 24/7 technical help desk

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

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 High Assurance 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**
 - 10 Gb/s Full-Duplex Throughput
 - 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 One™ 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 v4.2.5
 - IPMEIR v1.0
 - HAIPE VLAN
 - ACC and KMI OTNK
- **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 HAIPE to HAIPE Keying, APPK/ PPK, FIREFLY, Enhanced FIREFLY, Internet Key Exchange (IKE) v1/v2, Unclassified/Classified Device Generated Shared Key (DGSK), ACC, OTNK (KMI enabled)

- **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 PEPD
 - HAIPE IS v1.3.5 Secure Dynamic Discovery
- **Foreign Interoperability**
 - Algorithm Agile – Simultaneous Suite A/B/AES EFF/IPMEIR without manual intervention P³, S², Q²

Ease of Use and Management Tools

- **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

GENERAL DYNAMICS

Mission Systems

gdmissionsystems.com/TACLANE • infosec@gd-ms.com

Phone: 781-410-9400 • Toll-free: 888-Type1-4-U (888-897-3148)

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