

TACLANE® - FLEX (KG-175F) Encryptor

Multi-Speed Customizable Encryption Platform



Protect Your Investment with Hardware Scalable
for Future Needs - 100 Mb/s to 1Gb/s Throughput

Smallest, Full Featured HAIPE® Encryptor

Optional TACLANE Trusted Sensor Software and Agile VLAN

GEM™ One Remote Management Capability

NSA Certified for Top Secret/SCI and below

Overview

The TACLANE-FLEX is the next generation encryptor designed to address today's increased level of threat - both insider focused and external cyber attacks - as well as user demands for higher bandwidth applications and low SWaP equipment. TACLANE-FLEX is the first user customizable encryption platform to support multiple speeds, environments and feature requirements.

Flexibility

Customer configuration puts the user in control of their encryptor based on needs and budget. The TACLANE-FLEX is a single encryption platform, scalable from 100 Mb/s to 1 Gb/s throughput by simply changing the pluggable interface and a field software upgrade. This provides a cost effective security solution for today and eases migration as bandwidth needs grow in the future.

SWaP Optimized

Designed to provide a robust feature set in the smallest form factor possible, the TACLANE-FLEX extends to a wide variety of applications including those heavily restricted by size, weight and power consumption. MIL-STD tested, the TACLANE-FLEX is ruggedized to withstand the harshest tactical deployments and scalable to support strategic environments.

Features at a Glance

- User pluggable interfaces to support 100 Mb/s and 1 Gb/s throughput requirements
- Smallest, full featured HAIPE Encryptor
- MIL-STD ruggedized for the harshest tactical environments, and scalable to support strategic environments
- Simultaneous HAIPE v4.1 and IPMEIR 1.0 compliant
- Simultaneous Suite A/B without user intervention
- Safe Keying Features (CDGSK and KMI OTNK* software upgradeable)
- ACC Upgradeable*
- Supported by GEM X Remote Encryptor Manager
- Supports Exclusion Keys

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



Back Panel

TACLANE-FLEX (KG-175F) Encryptor

Optional Features

Agile Virtual Local Area Network (VLAN):

Adds Layer 2 VLAN tagged/ Non-IP Ethernet capability to the TACLANE encryptor enabling simultaneous HAIPE and Layer 2 traffic on a per packet basis without any infrastructure changes. TACLANE encryptors enabled with VLAN still interoperate with standard HAIPE encryptors. Other benefits include: equipment and cost savings, increased bandwidth efficiency, failover and redundancy.

TACLANE Trusted Sensor Software:

Adds cyber sensing capability to the in-line network encryptor via Deep Packet Inspection (DPI). This capability enables packet header and content filtering for malicious data and issues high assurance encrypted alerts to further protect from attacks. Unlike any other IDS/IPS system, the TACLANE Trusted Sensor software is able to support both open source, user unique or government classified rule sets. This in-depth inspection aids network administrators in understanding the overall health of the system and provides the ability to fine tune network filtering to reduce response time and increase defense in depth.

Ease of Use and Management Tools

- GEM One Encryptor Manager – 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

Certifications

- TACLANE-FLEX is NSA Certified to protect information classified Top Secret/SCI and below.

GENERAL DYNAMICS Mission Systems

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Technical Specifications

- **Size**
 - 1.7" H x 5.5" W x 10.85" D
 - 19" Rack mountable, 3 Across, 1U
 - Weight: <5 lbs based upon configuration
- **Power**
 - 32 Watts (Typical)
 - Battery: External user replaceable battery, one "1/2 AA" lithium cell
 - A full size lithium or alkaline "AA" battery is supported with a battery cap extender
 - Standard and MIL-STD 461F compliant power supply
- **Performance**
 - Supports both 100 Mb/s and 1 Gb/s via user-pluggable interfaces
- **Reliability**
 - 314,000 Hrs Mean Time Between Failure (MTBF)
- **Environment**
 - MIL-STD-810G
 - Operating Temp: -40° to +60°C (without POE); -40°C to +52°C (with POE)
 - Storage Temp: - 40°C to +85°C
 - Humidity: 95% RH, Non-condensing
 - Altitude:
 - Operational: 1,500 ft below sea level to 50,000 ft above sea level
 - Storage/transit: 1,500 ft below sea level to 70,000 ft above sea level
 - Shock/Vibration: 20g shock, 11ms Transportation Vibration, General Vibration, Category 4
 - Sand: 40 mph winds
 - Dust: 20 mph winds
 - Rain: Drip, Flow Rate 280 liters/meter²/hour
 - EMI / TEMPEST: In accordance with NSTISSAM TEMPEST/1-92 Level 1
- **Standards Compliance**
 - HAIPE v4.1
 - Crypto Modernization compliant
 - IPMEIR v1.0
- **Foreign Interoperability**
 - Algorithm Agile – Simultaneous Suite A/B/AES EFF/IPMEIR without manual intervention P³, S², Q²
- **Warranty**
 - 5 year hardware and software warranty
- **Keying:**
 - Supports Exclusion Key, HAIPE to HAIPE Keying, APPK/PPK, FIREFLY, Enhanced FIREFLY, Internet Key Exchange (IKE) v1/v2, Classified/Unclassified Device Generated Shared Key (DGSK)
 - Software upgradeable to support KMI OTNK, ACC

Networking Features & Protocols

- Protocols Supported: TCP, UDP, IPv4/IPv6 Dual Stack, ICMP, IGMP, ARP, DHCP, MLD, TFTP, HTTPS, HTTP, Netflow, NTP, RIP, RIPv2, RIPvng, NDP, Syslog, IKE, IKEv2, HAIPE, IPMEIR, OTNK, CMS, XML, non IP with VLAN
- Networking Features: Dynamic IP addressing, dynamic key management (key distribution through H-to-H key transfer and KMI in the future), Red address confidentiality and selectable dynamic discovery via Generic Discovery/Secure Dynamic Discovery or IMPEPD, dynamic routing updates through RIP and discovery protocols, support for route of last resort, support for Jumbo Ethernet Frames, support for VLAN and layer 2 traffic
- Management: Full SNMPv3 management and HTTP browser based management, GEM X Manager
- Multicast: IGMP and MLD on Red and Black networks
- Quality of Service: Type of Service Octet bypass, PCP to TOS mapping for VLAN traffic, ECN congestion control bypass
- Fragmentation: Support for fragmentation and reassembly on Black network traffic and fragmentation of Red IP traffic

Network Interfaces

- Plaintext Data Interface
 - Electrical / Mechanical: IEEE 802.3/Ethernet2; copper RJ-45 10/100/1000 Base-T, IEEE 802.3 optical rugged pluggable modules 100 Base-FX, 1000 Base-SX and 1000 Base-LX10, LC connectors, supports three PT ports (two pluggable optical connectors, one electrical Ethernet)
- Ciphertext Data Interface
 - Electrical/Mechanical: IEEE 802.3/Ethernet2; copper RJ-45 10/100/1000 Base-T, IEEE 802.3 optical rugged pluggable modules 100 Base-FX, 1000 Base-SX and 1000 Base-LX10, LC connectors, supports two CT ports (one pluggable optical connectors, one electrical Ethernet)
- Console Management Interface
 - Electrical/Mechanical: IEEE 802.3/Ethernet2; copper RJ-45 10/100 Base-T
- Standard DS-101 key fill port
- Remote zeroize input
- Primary power 5VDC

Ordering

- Available to order through General Dynamics
- NSN#
 - 100 Mb FLEX: 5810-01-655-9229
 - 1 Gb FLEX: 5810-01-659-9037



19" Rack mountable, 3 across