

TACLANE Encryptor (KG-175)

Deployed and Supported Worldwide

Overview

TACLANE is the leading Type 1 IP encryptor, certified by the National Security Agency (NSA) to protect information classified up to and including TS/SCI. TACLANE is **NATO/Coalition-ready**, fighting the war on terrorism with more than 20,000 units deployed throughout the U.S. and internationally. Available today, TACLANE is a single platform offered with multiple interfaces such as: Classic (Ethernet/ATM) and E100 (Fast Ethernet). Best of all, you can become part of the TACLANE family for less than \$10K.

Interchangeable Interfaces:

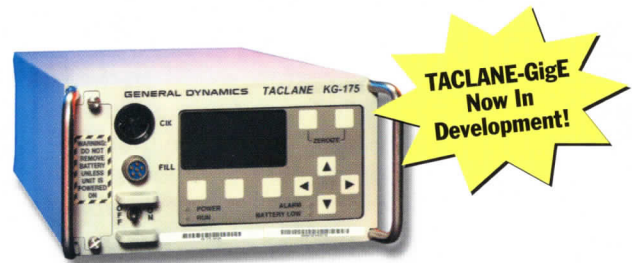
TACLANE Classic (Ethernet/ATM) comes complete with IP and ATM interfaces. TACLANE encrypts at 7+ Mb/s when in IP mode and 45 Mb/s (DS-3) in ATM mode. The Classic interface is ideal for users who need a low-cost security solution for Ethernet or ATM networks.

TACLANE-E100 (160+ Mb/s IP Throughput)

includes the same security features as the Classic, and also dramatically increases IP throughput to over 160 Mb/s. This interface is ideal for users who need to protect information at high speed without bottlenecks. The TACLANE-E100 is available as a new unit or as an upgrade from a TACLANE Classic. The factory upgrade consists of replacing network interface cards and the back panel. The E100 works on 10/100 Mb/s networks. Current throughput is 160+ Mb/s with 200 Mb/s and 1 Gb/s in development.

Security Advantages

Feature:	Benefit:
Field Reprogrammable	Longer product life – no need to replace hardware. User upgradeable via serial port.
Field Tamper Recovery	Restore network in the field.
Protection of Red IP Network/IP Routing	Origination/destination address is encrypted, eliminating the need for a router while increasing security.
Interchangeable Interfaces	TACLANE is upgradeable and flexible. (Ethernet/ATM, Fast Ethernet, GBSI)
NATO/Coalition Ready	Opens lines of secure communications worldwide, fighting war on terrorism.
Full Configuration via GEM or Front Panel	No additional equipment required. Configure TACLANE remotely or via front panel.
Multi Level Security via Nesting	Many users on one backbone. Eliminate network costs and switching equipment.
Proven and Certified	TACLANE is an experienced security product you can trust with 20,000+ units deployed.
Optical Interfaces as well as RJ-45s	Flexible, less interface equipment necessary, no adapters.



TACLANE is small in size, easy to transport, and ruggedly built. It is designed for tactical networks, yet fits equally well in fixed strategic networks or office environments.

Join the TACLANE Family for Less Than \$10K and Receive:

- Reprogrammable/upgradeable TACLANE Classic at \$9,950
- **Free** HAIPIS software upgrade
- **Free** Help Desk support 24 hours/day, 7 days/week
- **Free** GEM Lite encryptor management software
- **Free** annual "User Conference and Training"
- **Free** three year hardware/software warranty
- **Free** Enhanced FIREFLY upgrade

Worldwide Support Centers



DoD Centers

- Kelly AFB, TX; SPAWAR, CA; Tobyhanna, PA

GD Regional Centers

- Taunton, MA; Linthicum, MD; Bensheim, Germany (Middle East, Europe); Ft. Bragg, NC; Ft. Hood, TX; Ft. Lewis, WA (Pacific Rim)

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User-Friendly

The Human-Machine Interface (HMI) on the front panel makes configuration and operation simple. The TACLANE plug-and-play feature makes an ideal solution in changing environments. For example, TACLANE automatically re-establishes prior network configurations and settings at power-on.

Encryptor Management

The GEM Encryptor Management software allows you to:

- Centrally manage network-based TACLANE encryptors
- Remotely configure, control and monitor TACLANE units

Availability:

- For PC or UNIX workstations
- **Free** GEM Lite for managing up to 25 units

High Assurance IP Interoperability Specification (HAIPIS) Compliance

TACLANE is ready to accept a software upgrade to provide HAIPIS compliance. The software upgrade is **Free** and can be performed in the field by users or at the Depot.

Tactical Environments

Designed to accommodate both tactical and strategic environments, TACLANE withstands shock, vibration, humidity, and precipitation. TACLANE passed MIL SPEC 901D, which was nine blows with a 400-pound hammer, equaling 91 G's of force on the unit. The box remained intact and fully operational. TACLANE also passed the Environmental Conditions and Test Procedures for Airborne Equipment.

Training and Help Desk Support

General Dynamics provides a **Free** 'User Conference and Training' event annually for TACLANE users. Classroom training is available in our Maryland facility as well as on customer sites. **Free** Help Desk Support is provided 24 hours a day, seven days a week.

Warranty

The TACLANE comes with three years of hardware and software warranty coverage.

Accessories

Rack Mount Kit - The kit is designed to accommodate one centrally located, or two TACLANE units side-by-side in a 19" rack. The kit includes all necessary installation hardware.



Rack Mount Kit

Transit Case - The TACLANE, cables, CIKs, power cords, and line cards all fit into this foam protected case.



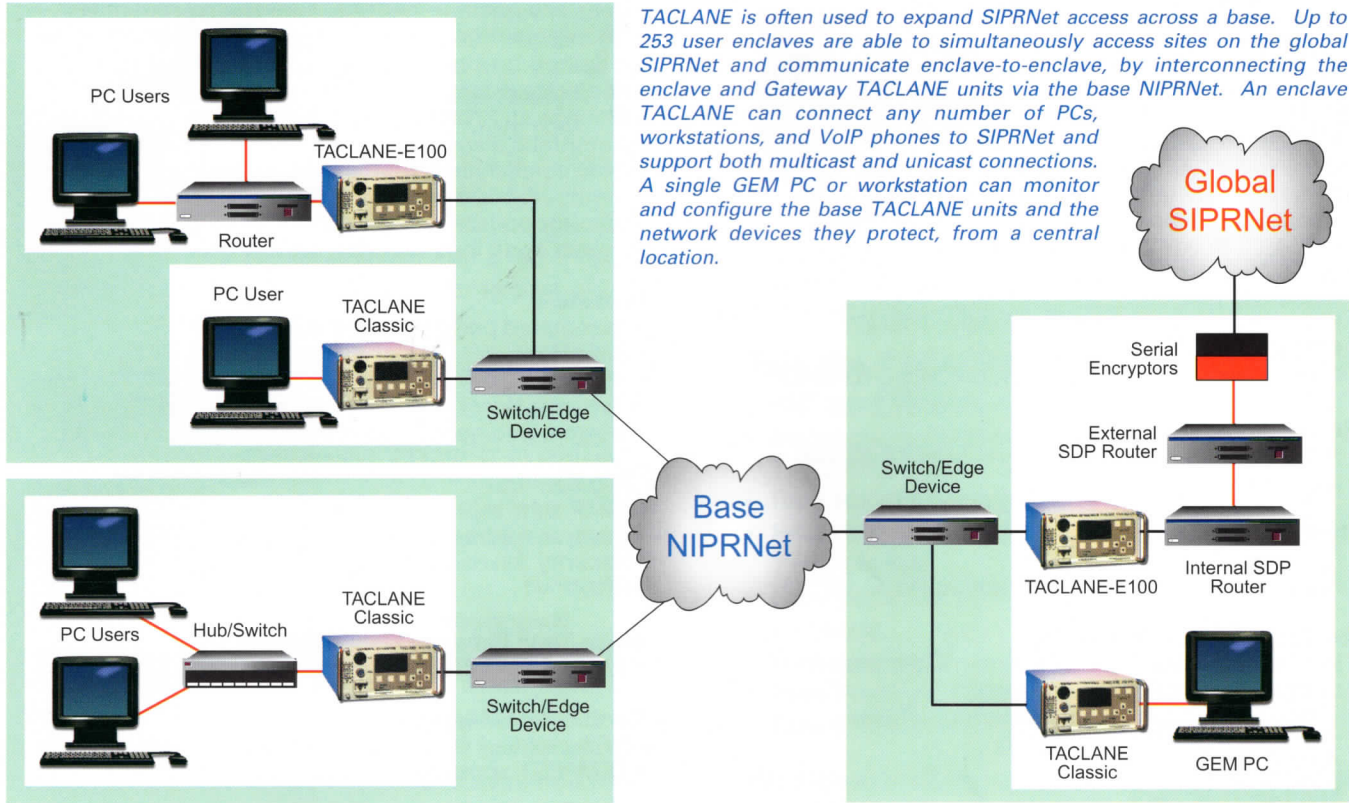
Transit Case

Standards Compliance

General Dynamics C4 Systems (GDC4S) is a working member of multiple standards committees. Conformance to widely accepted standards provides TACLANE with transparent scalability, flexibility, interoperability, and forward compatibility.

Export of TACLANE (KG-175) requires a U.S. Government Export License and is limited to specific end users.

Typical Ethernet/IP Application of TACLANE to SIPRNet



Unique Features:

TACLANE Classic



Rear View

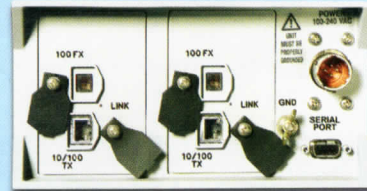
IP

- 7+ Mb/s Throughput half duplex
- Interface: Ethernet (RJ-45 or AU1)

ATM

- 45 Mb/s Throughput full duplex
- Permanent and switched virtual circuits and paths
- Interface: DS-3 (BNC Connector)
- ATM (AAL1,3/4,5)
- ATM Forum UNI 4.0, ILMI

TACLANE-E100



Rear View

- 160+ Mb/s Throughput
- Interfaces:
 - 10/100, full/half duplex auto sensing
 - RJ-45 connectors, CAT 5 wiring or fiber, 100 FX, 10/100 TX (62.5/125u, 1300nm, multimode fiber) MT-RJ connectors (intermediate reach ≈ 2 kilometers)

TACLANE Encryptor (KG-175)

TACLANE Specifications (Common to all TACLANE interfaces)

Physical Characteristics

- Dimensions: 4.25"H x 8.25"W x 16.5"D
- Weight: approximately 14 lbs
- Desktop or rack mountable

Environment

- -31°C to 65°C/-25°F to +150°F (storage)
- -20°C to 50°C/0°F to 120°F (operating)
- 95% Humidity (non-condensing)
- Operable in sand, dust and precipitation (MIL-STD 810E)
- MIL-STD 901D (Hammer Test 400 lbs/91 G's)
- RTCA/DO-160D
- High Altitude Electromagnetic Pulse (HEMP) MIL-STD 2169B
- Electromagnetic Interference (EMI) MIL-STD 461D

Power

- 100-240+ VAC, 50/60 Hz, auto-ranging/18-36 VDC
- 40 Watts

Operator Interface

- Front Panel
- Remote Management/Configuration via SNMP V1

Addressing/Networking

- Destinations unlimited using automated peer discovery or static routing
- 1000 route entries using static routing table
- "Default route" TACLANE entry
- Multicast
- Point to multipoint
- Autorecovery and discovery

Maximum Number of Associations

- Unlimited

Network Applications

- IP Wireless Connections
- Satellite Connections
- VoIP

Keys

- One master and one spare CIK with tags
- One tamper recovery CIK
- Key management
 - Key fill via Data Transfer Device (DTD)
 - FIREFLY key (dynamically generated TEKs)
- 48 PPKs (Traditional TEKs)
- Automated TEK update and changeover

Security Management Using GEM

- Centrally manage TACLANE units/protected hosts
- Manage on Plain Text (Red) or Cipher Text (Black) sides
- FIREFLY protection of management traffic
- Manage all SNMPv1 protected hosts
- Automatic discovery of device; reconfiguration
- Download/change routing tables remotely
- Configure/monitor TACLANE secure calls
- Monitor/update device network settings
- Collect audit logs for querying and archiving

Protocols

- Automated peer discovery
- Broadcast
- Multicast
- Dynamic Host Configuration Protocol (DHCP)
- Internet Engineering Task Force, Internet Protocol Security (IETF IPSEC), Encapsulating Security Payload (ESP)
- ICMP echo reply
- Reverse Address Resolution Protocol (RARP)
- Security Association Management Protocol (SAMP)
- SNMP V1

Mean Time Between Failure (MTBF)

- 37,000 hours (Bellcore/Telcordia)

Certifications/Approvals

- NSA certified for TS/SCI and below
- TEMPEST approved

Warranty

- 3 Year Hardware/Software coverage including GDC4S Help Desk

HAIPIS

- TACLANE will be HAIPIS Compliant
- Free software upgrade includes:
 - Traffic Flow Security (TFS)
 - Internet Key Exchange (IKE)

GENERAL DYNAMICS

C4 Systems

INFOSEC

77 A Street, Needham, MA 02494-2806 USA

Phone: 781.455.2800 • FAX: 781.455.4777

E-mail: infosec@gdc4s.com • www.gdc4s.com

9001 Registered

FASTLANE is a registered trademark of the National Security Agency.

The Type 1 encryption provided by the TACLANE is part of the Department of Defense *Defense in Depth* strategy. Type 1 encryption is only one portion of the overall defense in depth. A comprehensive network Information Assurance strategy involving *Defense in Depth* is required to ensure secure and reliable protection for sensitive and classified information.

GENERAL DYNAMICS
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For more information please contact:
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**TACLANE Classic (IP/ATM)
Encryptor (KG-175) Price List**



TACLANE KG-175



TACLANE Rack Mount

TACLANE Classic (IP/ATM) Encryptor KG-175 / Release 2.0

Part Number	Description	Unit Price (in U.S. dollars)
TL-49470-1	TACLANE Classic unit with AC Power ¹	\$9,950 ea.
TL-49470-2	TACLANE Classic unit with DC Power ¹	\$9,950 ea.
TL-49471-1	TACLANE Classic Ancillary Kits ² Includes: (1) transit case, (2) CIKs, (2) AUI cables, (4) DS-3 cables, (2) 10BaseT	\$895 ea.
Ancillary Kit Components ² :		
TL-101A	Transit Case	\$375 ea.
TL-102A	CIK	\$25 ea.
TL-103A	AUI Cable	\$15 ea.
TL-104A	DS-3 Cable	\$25 ea.
TL-105A	10BaseT Cable	\$30 ea.
TL-107A	Power Cable	\$95 ea.
WS-6900-1	TACLANE KG-175 Rack Mount Shelf Kit ² 19" Rack mount shelf that will securely rack mount 2 TACLANE KG-175 units.	\$365 ea.
TL/TAM-1	TACLANE Classic unit Annual Hardware/Software Maintenance & Help Desk ^{3,6}	\$1,500 ea.
TL/TAR-1	TACLANE Classic unit One-Time Fixed Price Repair ^{5,6}	\$1,500 ea.
TL/TRN-1	TACLANE KG-175 Operator Training ⁴	\$1,995/student

How to Place an Order:

- Call (781-455-2800), email (infosec@gdc4s.com) or fax (781-455-4777) the following information:
 - COMSEC Custodian name, address, phone and account number
 - Technical point of contact name and phone number
- GDC4S accepts payment via DD1155, purchase orders or impact/credit cards

General Terms & Conditions

- Delivery dates for all products will be established by GDC4S at the time of order acceptance.
- All specifications, products and pricing are subject to change or discontinuance at anytime without notice.
- Prior written approval from the National Security Agency (GDC4S will submit request) and a current COMSEC account is required for all purchases.
- All purchases are subject to the then current GDC4S applicable standard terms and conditions.

NOTE: Products on this price list are nondevelopmental items per FAR Part 2 and should not be construed as commercial items.

1. Price includes three years of hardware/software warranty coverage and GDC4S Help Desk support. Price does not include installation or other support services.
2. Kit and/or component prices include 90-day hardware warranty coverage but does not include installation or support services.
3. Unit maintenance is for one year and includes new feature Releases 1.25 and 2.0 for TACLANE Classic when available, and GDC4S Help Desk support. All maintenance is performed at GDC4S depot. When purchased, annual maintenance will cover a unit once any prior warranty or annual maintenance has expired. Unit must be in good working condition at the time of maintenance purchase.
4. Please refer to current Training brochure or visit the products and services section of our website, www.gdc4s.com.
5. One-time fixed price repair includes a 90-day workmanship/material warranty for the repair service performed.
6. Shipment charges to GDC4S Depot are customer's responsibility. Shipment charges from GDC4S Depot to customer (CONUS only) are GDC4S responsibility.

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**TACLANE-E100 Encryptor
(KG-175) Price List**



TACLANE KG-175



TACLANE Rack Mount

TACLANE-E100 Encryptor KG-175 / Release 2.0E

Part Number	Description	Unit Price (in U.S. dollars)
ET-59000-1	TACLANE-E100 unit with AC Power ¹	\$15,950 ea.
ET-59000-2	TACLANE-E100 unit with DC Power ¹	\$15,950 ea.
ET-59101-1	TACLANE-E100 Upgrade Kit ^{1,5,7} Upgrades a TACLANE Classic Release 1.0 to a TACLANE-E100 Release 2.0E. Includes installation. (The E100 Upgrade Kit is not required to communicate with a TACLANE Classic.)	\$9,950 ea.
TL-106A	Fiber Optic Cables ²	\$35 ea.
WS-6900-1	TACLANE KG-175 Rack Mount Shelf Kit ² 19" Rack mount shelf that will securely rack mount 2 TACLANE KG-175 units.	\$365 ea.
ET/TAM-1	TACLANE-E100 unit Annual Hardware/Software Maintenance & Help Desk ^{3,7}	\$1,500 ea.
ET/EAR-1	TACLANE-E100 unit One-Time Fixed Price Repair ^{6,7}	\$1500 ea.
TL/TRN-1	TACLANE KG-175 Operator Training ⁴	\$1,995/student

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2. Kit and/or component price includes 90-day hardware warranty coverage but does not include installation or support services.
3. Unit maintenance is for one year and includes new feature Release 2.0E for TACLANE-E100 when available, and GDC4S Help Desk support. All maintenance is performed at GDC4S depot. When purchased, annual maintenance will cover a unit once any prior warranty or annual maintenance has expired. Unit must be in good working condition at the time of maintenance purchase.
4. Please refer to current Training brochure or visit the products and services section of our website, www.gdc4s.com.
5. All upgrades are performed at GDC4S depot.
6. One-time fixed price repair includes a 90-day workmanship/material warranty for the repair service performed.
7. Shipment charges to GDC4S Depot are customer's responsibility. Shipment charges from GDC4S Depot to customer (CONUS only) are GDC4S responsibility.