

# KIV-7M

*Leading the Way in Cryptographic Modernization*



## Key Benefits

### Interoperability

KG-84  
KG-84A  
KG-84C  
KIV-7  
KIV-7HS  
KIV-7HSA  
KIV-7HSB  
KG-194  
LEF  
KIV-19  
KIV-19A

### Versatile Installation

Desktop  
Embeddable  
Rack Mount

### Low Cost

### High Reliability

### Reprogrammable

### Tested to MIL-STD Environment

### Cryptographic Algorithm Compliance

Suite A  
Suite B

### Web Browser for Remote Control and Configuration

### Multi-Channel

Independently Configurable  
Full Duplex  
Up to 50 Mbps each direction

## Today's Most Flexible Encryption Solution

With the KIV-7M, SafeNet again sets new standards of excellence for Information Security. The next generation of the venerable KIV-7 family provides both programmable link and network encryption and leads the way in implementing the U.S. Government's Cryptographic Modernization (CM) Initiative, and is among the first products designed to fully meet the five CM cornerstones:

- Assured Security Robustness
- Cryptographic Algorithm Compliance
- Interoperability
- Releasability
- Programmability

The KIV-7M fully implements all U.S. National Security Agency requirements for Type I certification, and is approved for use at the highest level of assurance. This assured security robustness reflects the integrity of the KIV-7M's overall design.

The KIV-7M incorporates the latest security algorithms as determined by the Cryptographic Algorithm Configuration Management Board (CACMB). These algorithms provide interoperability in coalition environments, and algorithm agility and reprogrammability for future security enhancements.

KIV-7M is fully compliant with the NSA's Link Encryptor Family Interoperability Specification, and is interoperable with previous versions of the KIV-7 family and the KG-194/A series of encryptors.

Its innovative multi-channel design allows KIV-7M users to replace two key legacy devices with one KIV-7M, thus recovering valuable space in fixed shelter environments and reducing weight for mobile applications. Each channel is independently configurable and able to operate in full duplex mode at 50Mbps in each direction. In addition, each channel may be configured to independent security classification levels.

The KIV-7M is upgradeable to provide network interoperability in accordance with the NSA High Assurance Internet Protocol Interoperability Specification (HAIPIS) by the addition of a SafeNet network adapter. This upgradeability and backward compatibility allows the community of users to conduct a phased migration to the Global Information Grid without losing connectivity to legacy architectures.

The KIV-7MiP is the next generation in a tradition of excellence from SafeNet, the foundation of information security.

Rev. 2.2 — June 2009



PRODUCT BRIEF

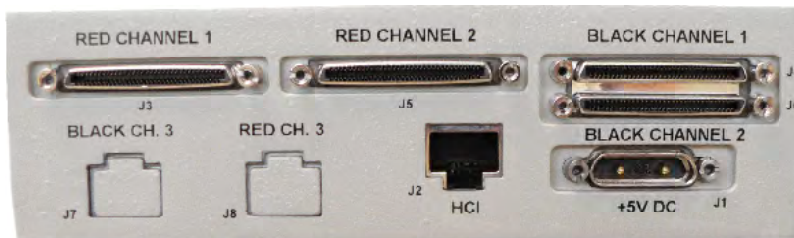
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## Features and Benefits

### General

- Independent security classification levels per channel
- Handshaking and synchronization functionality for Time Division Multiple Access (TDMA) architectures
- Type I data encryption
- KIV-7, KIV-7HS, KIV-7HSA, and KIV-7HSB interoperability
- KG-84/84A/84C interoperability
- KG-194/A interoperability
- KIV-19 and KIV-19A interoperability
- Universal half-height computer peripheral configuration
- User-friendly menu-based operator interface
- Non-volatile storage of multiple user-defined configurations
- Synchronous data rates to 50 Mbps
- Flexible key management interface, including DS-101/102
- Crypto-Ignition-Key (CIK) protection of internally stored keys
- Low-power 5 V DC operation
- Compliant with NSA INFOSEC and TEMPEST requirements
- MILSTAR compatible



*KIV-7M Rear Panel*

## Specifications

### Link Key Management

- Enhanced Firefly
- Load
- Transfer V-to-X
- Variable Update
- Display Variable
- Update Count
- Zeroize
- Transmit/Receive Rekey

### Link Key Storage

- 10 Operational TEKs (X01-X10)

### Link Communication Modes

- Dual Channel
- Independent Security Classification Levels/Channel
- Full Duplex
- Full Duplex Independent
- Transmit Only
- Receive Only
- 2-wire Simplex
- 4-wire Simplex

### Synchronization Modes

- Redundant
- Non-Redundant
- ACT
- HF

### Data Rate

- Internal: Up to 288K bps, synchronous or asynchronous
- Up to 50 Mbps bi-directional

### Electrical Interfaces (Selectable)

- EIA-530 (RS-499)
- RS-232
- EIA-644 (LVDS)

### Power

- 5 V DC  $\pm 5\%$
- Consumption: 5W typical; 11W max.

### Temperatures

- Operating:  $-40^{\circ}\text{C}$  to  $55^{\circ}\text{C}$
- Storage:  $-55^{\circ}\text{C}$  to  $85^{\circ}\text{C}$
- Tested to MIL-STD-810F

### Size and Weight

- Height: 1.71 in.
- Depth: 11.02 in.
- Width: 5.88 in.
- Approx. 5 lbs.

### Predicted MTBF (at $25^{\circ}\text{C}$ )

- Greater than 77,000 hours (ground benign environment)
- Greater than 17,000 hours (naval sheltered environment)

### MTTR

- Replacement Time: 15 minutes



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