

# MYKOTRONX KIV-7HSB TDMA/TIP-COMPATIBLE ENCRYPTION MODULE



## Specifications:

**Key Management:** Load, Transfer V-to-X, Variable Update; display Variable; Update Count; Zeroize; Change Z-Key; Transmit/Receive Rekey

**Key Storage:** 10 Operational TEKs (X01-X10)

**Communication Modes:** Full duplex; Full Duplex Independent; Transmit Only; Receive Only; 2-Wire Simplex; 4-Wire Simplex

**Synchronization Modes:** Redundant; Non-Redundant; External; OP2; ACT1; ACT2; HF

**Data Rate:** Internal: Up to 288 Kbps, synchronous or asynchronous. External: Up to 2.048 Mbps (E1)

**Electrical Interfaces:** Selectable: EIA-530 (RS-499); RS-232; RS-422/423

**Power:** 5 V DC  $\pm$  5%

**Power Consumption:** 5W typical; 8W maximum

### Temperatures:

Operating: 0°C to 55°C  
Storage: -40°C to 85°C

**Dimensions:** 8" D x 5.88" W x 1.68" H

**Weight:** 3 pounds

**MTBF (at 25°C):** > 77,000 hrs (ground benign environment). > 17,000 hrs (naval sheltered environment)

**MTTR:** Replacement Time: 15 minutes

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With the KIV-7HSB, Mykotronx introduces the next generation of compact, economical, high-performance, user friendly COMSEC devices specifically designed for secure data communications. KIV-7 modules, which can be used with Globalstar satellite telephone handsets, protect classified and sensitive digital Type 1 data transmissions at data rates up to 2.048 Mbps, and are compliant with Government directive NACSI 6002 and DoD Instruction 5210.74.

The new KIV-7HSB is specifically designed to operate in Time Division Multiple Access (TDMA) architectures to provide secure high bandwidth, wide area, networked data exchange via MILSTAR satellites over a broad range of data rates. It fully accommodates all complex handshaking and resynchronization durations encountered during normal TDMA system operations. A direct replacement for the KIV-7, KIV-7HS and KIV-7HSA modules, the KIV-7HSB maintains full interoperability with KG-84, KG-84A and KG-84C, KIV-7, KIV-7HS and KIV-7HSA units currently installed in traditional, non-TDMA, applications.

Tested in a real-world TDMA architecture, KIV-7HSB offers robust operation when the red side Request to Send (RTS) pulse is toggled at 20ms intervals in the full duplex independent mode of operation.

KIV-7HSB protects a broad spectrum of point-to-point, netted, and broadcast data links. Plain text header bypass allows initial modem setup, without reconfiguration, prior to secure traffic operation. An integrated remote control interface enables management of up to 30 remote units through a single KIV-7HSB via an independent secure link. A user-friendly menu interface simplifies access to all operational features.

The fill interface is compatible with both DS-101 (AN/CYZ-10 DTD) and DS-102 (KYK-13, KYX-15, KOI-18) electronic keying devices. Storage for up to ten traffic encryption keys simplifies multi-net communication. A removable Crypto-Ignition Key (CIK) prevent unauthorized access and protects all internally stored keys. Advanced Key Management System (EKMS), support the current key distribution system while providing the added flexibility necessary for managing operational keys.

The unit provides the level of COMSEC equipment integration and miniaturization necessary for today's fixed, semi-fixed, and mobile environments. Its standard half-height disk drive configuration is ideal for desktop, embedded, or rack installations, and its EIA-530 and RS-232 data interfaces and standard D-type connectors simplify system integration.

## Features and Benefits:

- New handshaking and synchronization functionality for Time Division Multiple Access (TDMA) architectures
- Commercial, "off-the-shelf" Type 1 data encryption
- KIV-7, KIV-7HS and KIV-7HSA interoperability
- KG-84/84A interoperability
- Universal half-height computer peripheral configuration
- User-friendly menu-based operator interface
- Non-volatile storage of multiple user-defined configurations
- Standard D-type rear panel interface connectors
- Synchronous data rates to 2.048 Mbps
- Flexible key management interface, including DS-101/102
- Crypto-Ignition-Key (CIK) protection of internally stored keys
- Cryptographic remote command and status interface
- Plain text header bypass mode for initial modem setup/dialing
- Low-power 5 V DC operation
- Compliant with NSA COMSEC and TEMPEST requirements
- MILSTAR compatible

