

MCU-110B

MINIATURE COMSEC UNIT



L-3 is proud of its extensive heritage providing cryptographic communication devices for the U.S. Department of Defense (U.S. DoD) and commercial applications.



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L-3 Telemetry & RF Products (L-3 T&RF) has a rich heritage of flight-proven satellite products. With over 25 years experience, we have embedded a variety of National Security Agency (NSA) devices, such as the KGV-68, MYK-1, Sierra II and CDH, along with implementing Caribou, Cardholder and Pegasus devices into high-reliability airborne and space applications.

L-3 T&RF is a demonstrated low-risk solution for all your secure communications requirements.

The miniature COMSEC unit (MCU-110B) is an integrated encryptor/decryptor unit providing secure uplink and downlink protection for satellite communications links. The MCU-110B is a Technology Readiness Level 9 (TRL-9) design, with over 130 units delivered and 100% on-orbit success. The hardware utilizes the cardholder device for uplink decryption to 5 Mbps, with 16-selectable keys, and the Pegasus device for downlink encryption to 10 Mbps with up to 64-selectable keys.

The MCU-110B includes downlink error-correction (convolutional encoder) that is enabled by the user, if required. The MCU-110B design is radiation-hardened for missions up to 15 years. This product is currently part of a Government Furnished Equipment (GFE) stocking program, for information please contact the Cryptologic & Cyber Systems Division (CCSD), San Antonio, TX.

FEATURES

- Standalone integrated encryptor/decryptor
- Compact, lightweight
- NSA certified Type 1 design
- Decrypt data rate 5 Mbps
- Encrypt data rate 10 Mbps
- Flight-proven
- High-reliability, radiation-hardened

NSA CERTIFIED



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SPECIFICATIONS

INTEGRATED ENCRYPTOR/DECRYPTOR

Encrypt	Pegasus device selectable up to 64-keys
Decrypt	Cardholder device selectable up to 16-keys
Data rate	Encrypt 500 bps to 10 Mbps Decrypt 125 bps to 5 Mbps
Encoding	Selectable convolutional R=7, Rate ½

INTERFACE

RS-422 I/O

POWER REQUIREMENTS

Input voltage	22 V to 36 V
Power consumption	7.0 W maximum
Inrush current	< 2 A for < 300 m/s

GENERAL

Dimensions	5.7 in. L x 5.7 in. W x 1.04 in. H
Weight	1.5 lb.

ENVIRONMENTAL

Temperature	-24 °C to +61 °C
Vibration	19 Grms
EMI	MIL-STD-461C/D (tailored)
Radiation	100 krad (si) (chassis)
TEMPEST	NACSIM 5100A-compliant

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