



The L-3 Communications' Mini UAV Data Link is a small, lightweight, affordable, modular and scalable data link that enhances a mini UAV's security and range. L-3's Mini UAV Data Link provides guaranteed UAV control, high quality MPEG-4/MPEG-2 or other format video transmission, data security, flexible data types and adaptive data rates with flexible bandwidths for extended range. The low size, weight and power is a perfect fit for UAVs with wing spans as small as 24 to 36 inches.

Key Features

- Mini digital data link for mini UAV applications
- Secure data transfer
- MPEG video compression
- Line of Sight (LOS) or Beyond Line of Sight (BLOS) operations



Product Description

At slightly over 10 cubic inches and less than half a pound (with future size and weight reduction possible), L-3's Mini UAV Data Link currently provides the capability of in-flight communications to and from a UAV. These include receiving in-flight way-point updates and UAV collaborative messages, and transmitting sensor imagery, UAV position, status and other custom data as required. The Mini UAV Data Link has the capability of communicating via direct line-of-sight (LOS) or beyond-line-of-sight (BLOS). Data rates are adaptable and expandable, ranging from 1 kbps to 10.71 Mbps (Common Data Link [CDL]

compatibility), covering the bandwidth requirements for forward Command and Control (C2) and sensor data along a secure transmission link. The Mini UAV Data Link's software programmable architecture gives users more flexibility in waveform choice. It also allows users to easily upgrade to future waveforms without changing hardware. L-3 can tailor this mechanical packaging and data link functionality to meet Mini UAV program objectives as needed.



Specifications

Performance Characteristics

RF

- L-band: 1.755–1.850 GHz
- Optional design for VHF/UHF and Ku-Band

Data Rates

- Full-duplex 30 kbps, expandable to higher rates

Waveforms

- Software programmable
- Capable of hosting multiple waveforms
- SCA capable

Encryption

- Supports transmission of encrypted data

External Interfaces

- RS-422 (2)
- RS-232
- Ethernet
- USB
- GPS 1 pps
- PMC connector
- Video (future)

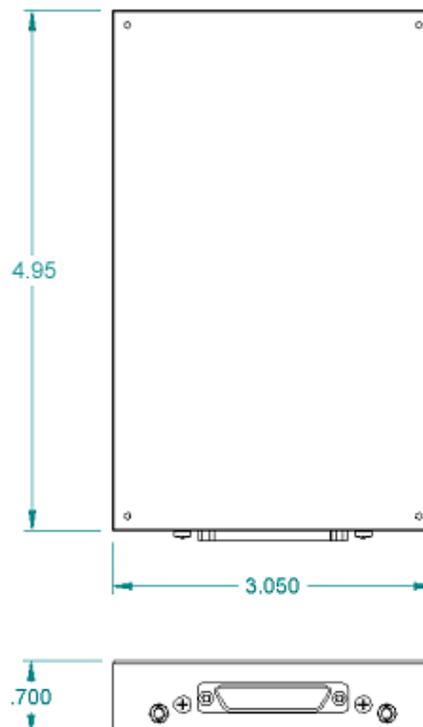
Options/Growth Path

- May host PMC daughter card for video/sensor imagery compression
- Custom form-factor
- May host JTRS waveforms
- Beyond-line-of-sight (BLOS) SATCOM capability
- Compatibility with TCDL
- Compatibility with ROVER III remote video terminals

Physical Characteristics

SWaP:

- Size: 3.05" x 4.95" x 0.70" (10.6 cu. in.)
- Weight: < 0.5 lbs
- Power: < 10 watts



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