L3HARRIS®
FAST. FORWARD.

CMDL™ 2x

Next Generation Military and Commercial Data Link

L3Harris CMDL 2x (Compact Multi-band Data Link) is the next generation miniaturized, high-performance, wide-band data link which replaces the widely deployed L3Harris CMDL. Optimized for use in size-constrained military platform or commercial applications, the CMDL 2x provides users with maximum flexibility and performance.

PRODUCT DESCRIPTION

The L3Harris CMDL 2x is a secure, rugged, low-cost, low-SWaP, software-programmable modem product for use in size constrained military or commercial platforms as a video encoder/decoder, networked payload controller, or vehicle command and control data link. The CMDL 2x includes all modem functions and connects to external amplifiers, RFEs and antenna, including the popular L3Harris Multi-Band GaN SSPA. CMDL 2x is intended for use on group 3 UAVs, targeting pods and smaller manned aircraft while also offering AES[1] encryption support.

The CMDL 2x is a member of the L3Harris small form-factor product family, which is based on a common product architecture. This architecture commonality assures interoperability between CMDL/CMDL 2 users and users of other L3Harris radio variants. Physical changes relative to the original CMDL include: all SSPA I/O moved to the front panel 15-pin Micro-D connector, video ports changed to more robust HD-BNC connectors and a smaller mounting footprint.

1 AES may be export controlled


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Over 1,000 transceivers from the CMDL family have been deployed on airborne UAV platforms, tactical manned aircraft and targeting pods.

KEY FEATURES

- **Full-duplex UHF-, L-, S-, C- and Ku-Band capable modem**
- **Compact with low SWaP, perfect for UAVs, targeting pods and smaller aircraft**
- **AES encryption**
- **CMDL 2x offers an expanding list of waveforms and data rates, allowing the user to maximize throughput while maintaining interoperability with legacy systems**
- **Increased frequency band coverage, lower power, advanced video processing, user interface compatibility and even smaller form factor than original CMDL**

SPECIFICATIONS

PHYSICAL CHARACTERISTICS

Waveforms

- Analog FM (transmit only)
- IW (0.75, 1.5, 3.0, 6.0, 12.0, 24.0, and 42.0 Mbps)

External Interfaces

- Two Ethernet ports
- Discrete and RS-422 RFE control
- RS-422 directional antenna control
- RS-170A (SD) video input/output
- Serial RS-232 & RS-422 for sensor input/output

Modem SWaP

- Size: 4.0" (l) x 4.0" (w) x 1.46" (h) max (connectors add 0.53” to length)
- Weight: 1.7 lb. max
- Power: 30 watts max, 10 to 32 VDC

Environmental

- Operational altitude: 50,000 ft
- Shock/Vibration: per MIL-STD-810
- Temperature: -40 °C to 71 °C, operating
- EMI: MIL-STD-461

Encryption

- AES encryption[1]

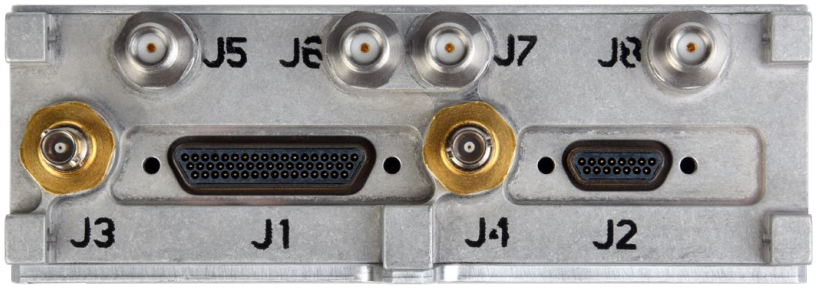
Control Interfaces

- KLV
- Web-based GUI

Video Encode/Decode

- H.264 SD
- MPEG-2
- MPEG-4
- Future enhancement options:
  - H.264 HD
  - H.265 SD and HD
  - MJPEG

FREQUENCY BAND DESCRIPTION	FREQUENCY RANGE	TUNING STEPS
UHF	225 MHz to 512 MHz	1 kHz
L- and S-Band	950 MHz to 2,500 MHz	1 kHz
C-Band Low	4,400 MHz to 4,990 MHz	1 kHz
C-Band High	5,250 MHz to 5,850 MHz	1 kHz
Ku-Band Low	14.40 GHz to 14.83 GHz	1 kHz
Ku-Band High	15.15 GHz to 15.35 GHz	1 kHz



1. AES may be export controlled

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