

## 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 a broad line of external amplifiers, RFEs, and antenna, including the popular L3Harris Multi-Band GaN SSPA. CMDL 2x offers optional AES<sup>1</sup> encryption support and high-definition video encoding capability. It is intended for use on group 3 UAVs, targeting pods, and smaller manned aircraft.

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 the maximum level of interoperability between CMDL/CMDL 2 users and users of other L3Harris radio variants. Additional CMDL 2x enhancements 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 hole footprint.



<sup>1</sup> AES may be export controlled



The CMDL family has been deployed on over 1000 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
- > FIPS 197 AES encryption (available option)
- > CMDL 2x offers an expanding list of waveforms and data rates, allowing the user to maximize throughput while maintaining interoperability with legacy waveforms
- > Increased frequency band coverage, lower power, advanced video processing, user interface compatibility, and even smaller form factor than original CMDL

## SPECIFICATIONS

### PHYSICAL CHARACTERISTICS

#### Waveforms

- > 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

#### Modem SWaP

- > Size: 4.01" (l) x 4.0" (w) x 1.46" (h) max (connectors add 0.54" to length)
- > Weight: 1.7 lb. max
- > Power: 30 watts max MIL-STD-704, 10-32 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

- > FIPS 197 AES<sup>1</sup> encryption (available option)

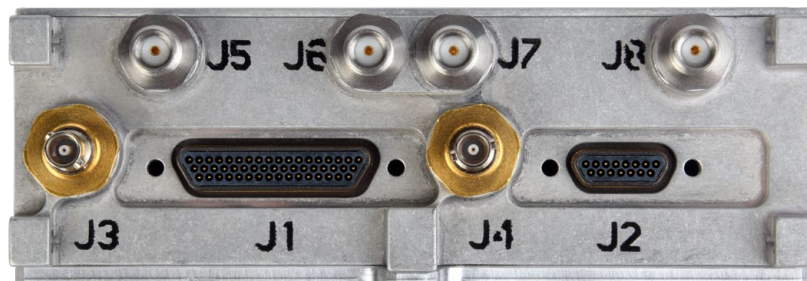
### Control Interfaces

- > SNMPv3
- > KLV (legacy)
- > USER-web GUI

### Video Encode/Decode

- > H.264 SD
- > MPEG-2 (decode only)
- > MPEG-4
- > Future enhancement options:
  - H.264 HD
  - H.265 SD and HD
  - MPEG-2 (encode) and MJPEG

FREQUENCY BAND DESCRIPTION	FREQUENCY RANGE	TUNING STEPS
UHF	225 MHz to 515 MHz	1 kHz
L- and S-Band	950 MHz to 2,500 MHz	250 kHz
C-Band Low	4,400 MHz to 4,990 MHz	1.0 MHz
C-Band High	5,250 MHz to 5,850 MHz	1.0 MHz
Ku-Band Low	14.40 GHz to 14.83 GHz	1.0 MHz
Ku-Band High	15.15 GHz to 15.35 GHz	1.0 MHz



<sup>1</sup> AES may be export controlled

### CMDL 2x

© 2021 L3Harris Technologies, Inc. | 12/2021 | BCS | 18-DSD-208 | Rev-201

These item(s)/data have been reviewed in accordance with the International Traffic in Arms Regulations (ITAR), 22 CFR part 120.11, and the Export Administration Regulations (EAR), 15 CFR 734(3)(b)(3), and may be released without export restrictions.

L3Harris Technologies is an agile global aerospace and defense technology innovator, delivering end-to-end solutions that meet customers' mission-critical needs. The company provides advanced defense and commercial technologies across air, land, sea, space and cyber domains.

Use of U.S. DoD visual information does not imply or constitute DoD endorsement.



1025 W. NASA Boulevard  
Melbourne, FL 32919  
t 833 537 6837  
CSW.Products@L3Harris.com