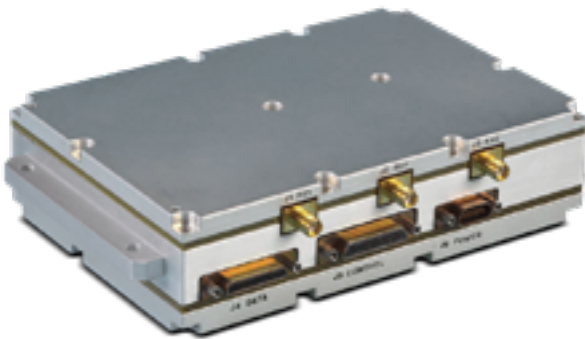


Common Data Link (iCDL)



The iCDL's reduced size and weight minimizes its power footprint and eases installation. It is suited for ground and airborne platforms, as well as manned and unmanned vehicles.

The iCDL radio provides the warfighter with a complete yet affordable solution to bring wideband wireless data link capability to airborne, surface, and maritime platforms. Our iCDL implements a full suite of waveform modes that ensures interoperability with fielded CDL systems at a significantly lower size and cost.

Designed to grow to meet future standards, this next generation common data link radio leverages programmable hardware and advanced software radio design architectures to provide a comprehensive solution. Its simple IP interface to the platform and full duplex Ku-band outputs are packaged in a single, ruggedized module for greatly simplified platform integration.

BAE Systems is a pioneer and leader in narrowband and broadband communications technologies, with more than two decades of core expertise in software-defined radios. Our iCDL radio has merged the latest generation wideband, high speed hardware, and software technologies to provide the warfighter with the interoperable broadband data link communications solution needed today — and ready tomorrow.

Features and benefits

- Supports interoperability with legacy CDL modes
- Advanced programmable design allows for additional waveforms including BE-CDL and next generation networking waveforms
- User friendly graphical interface simplifies iCDL control and management for operator
- Advanced signal processing allows embedded multipath mitigation algorithms in dual-receive configuration and advanced beamforming in dual-transmit configuration
- Antenna agnostic tracking and scanning algorithms allows for interfacing to phased array antennas as well as conventional, mechanically steered antennas

Specifications

Performance characteristics

Size: 4 in. x 6 in. x 1.5 in. (LxW x H)

Weight: 1.5 lbs (0.68 kgs)

Operating input voltage range: 9 – 36 VDC

Supports 28 VDC IAW MIL-STD-704/1275

Output power

+10 dBm (35 dBm version available)

Supports 30 dB of transmit power control

Power consumption: 30W

Frequencies (Ku-Band):

14.4 – 15.35 GHz with 5 MHz spacing

Data rates

Full-duplex data rates from 200 Kbps to 274 Mbps

Supports both standard CDL (STD-CDL) and bandwidth efficient CDL (BE-CDL) WFs (software upgradeable)

Encryption: supports Type 1 or AES-256

Data interfaces

Two 1000 base-T Ethernet (data)

Two 100 base-T Ethernet (control)

IPv4/IPV6 capable

Vibration and shock: MIL-STD-810G

EMI/EMC: MIL-STD-461F

Operating temperature: -40°C to +55°C

Operating altitude: up to 50,000 ft

iCDL configurations

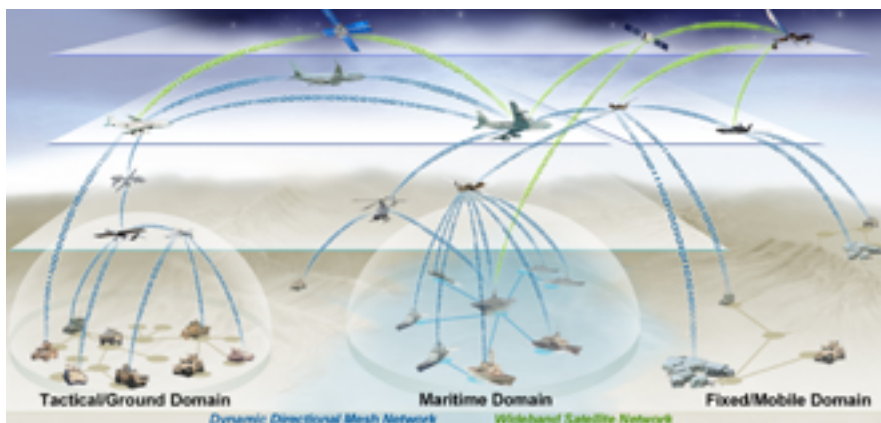
iCDL Radio without encryption:

WBX-2010: iCDL RT – Single Tx/Rx, Ku-Band

iCDL Radio with Type 1 encryption:

WBX-2011: iCDL RT – Single Tx/Rx, Ku-Band

Multi-RF/alternate RF configurations available (L-Band, S-Band, C-Band, X-Band, Ku-Band)



For more information:

BAE Systems

150 Parish Drive

Wayne, New Jersey 07470-0932

T: 973 636 7590

M: 973 800 5737

Cleared for open publication on 04/14

Export approval no. ES-CCS-040814-0153

Disclaimer and copyright

This document gives only a general description of the product(s) and service(s) and, except where expressly provided otherwise, shall not form any part of any contract. From time to time, changes may be made in the products or the conditions of supply.

BAE SYSTEMS is a registered trademark of BAE Systems plc.

© 2025 BAE Systems. All rights reserved.

CS-16-C63-iCDL