Airborne Multilink-Data Link Processing System from IBM

Help improve tactical communications with a portable, flexible data link system for aircraft

Highlights

- Supports Link 11, Link 16, Link 22 and Joint Range Extension Application Protocol (JREAP) C
- Integrates into ¾ Air Transport Rack (ATR) enclosure
- Helps manage compliance with the military standards

In aircraft operations, rapid exchange of accurate tactical information can be critical to the outcome. Tactical data link (TDL) communication systems enable allied forces to interoperate across situational areas.

The IBM® Airborne Multilink-Data Link Processing System (ML-DLPS) was developed based on IBM's long history of successful TDL delivery to military organizations. Built on the IBM® Data Link Processing System (DLPS) software, the Airborne ML-DLPS offers portability and flexibility to facilitate more secure data exchanges between aircraft and friendly units.

Delivering flexible software for aircraft communications

The Airborne ML-DLPS provides configurability and supports extensive data link capabilities of IBM DLPS, such as interoperability among Link-11, Link-16, Link-22 and JREAP-C, data forwarding among virtually all links, and data recording for off-board analysis.

The command system interface isolates the host system from the different data formats, translations and protocols of the TDL to enable interoperability among various data link standards. For example, the host system receives transmitted data in a format that is the most appropriate to the host; the data format is not driven by the data links. Changes to the TDL standards can be implemented within the DLPS with minimal impact on the host Command Management System (CMS), which can help reduce the lifecycle management cost.

The system software runs on modern commercial off-the-shelf (COTS) hardware and can be configured to meet specific requirements, such as serving as a stand-alone system or integrating with the command system.

The Airborne ML-DLPS includes an Integrated Network Management Tool (INMT) to help remotely control and manage configuration. The INMT also provides operators with a graphical user interface to help monitor and control the system status.

Integrating standards-based rugged avionics

In partnership with an experienced avionics supplier, IBM selected a standard ¾ ATR enclosure qualified for military use by the allied forces.

The Airborne ML-DLPS can provide a comprehensive TDL capability to aircraft mission systems, such as data exchange for surveillance, electronic warfare, aircraft control, command and control, mission management and track management.

Serving military organizations worldwide

For more than 30 years, IBM has provided TDL solutions and services to multiple military organizations, including the Royal Navy, the German Navy, the Royal Canadian Navy, and recently to the Royal New Zealand Navy. In addition to the operational systems and software, IBM can provide training systems, test rigs, operator and maintainer training, and technical support.

Technical specifications and standards

Enclosure format	¾ ATR – tall – long
Dimensions	Height 10.63 in./269.88 mm Width 7.5 in./190.5 mm Depth 19.62 in./498.3 mm
Power supply	115V AC 400Hz
Military standards	MIL-STD-810F MIL-STD-704F MIL-STD-464C MIL-STD-461E

To learn how the IBM Airborne Multilink Data Link Processing System can help you, please contact your IBM representative or visit the following website:
ibm.com/industries/government/defense.html

For more information

Dan Lefebvre
Project Executive Defense Portfolio
IBM Global Business Services®
Phone: 1-613-249-2271
Mobile: 1-613-292-6192
daniell@ca.ibm.com

IBM Corporation
IBM Global Business Services, Canada
3755 Riverside Drive
Ottawa, ON K1G 4K9

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