

DATA LINK MODEM (DLM)



THE LINK 22 / LINK 11 DATA LINK MODEM (DLM) IMPROVES ALLIED INTEROPERABILITY.

The Leonardo DRS Data Link Modem (DLM) product line, previously known as the AN/USQ-125V and MX-512PV-C, is based on more than three decades of continuous design, development, production, and sustainment of data link systems worldwide. Leonardo DRS is the world leader in data link modem technology and has delivered upwards of 2,000 systems to more than 20 countries. The data link systems are currently employed in shore support facilities and on destroyers, frigates, submarines, and fixed and rotary-wing aircraft.

The DLM is available in either a 3U or 5U configuration. Each configuration offers flexible, multi-channel Link 22 Signal Processing Controller (SPC) and Link 11/TADIL-A Data Terminal Set (DTS) functionality. The DLM can be configured to provide up to eight Link 22 SPCs for use in Link 22 tactical data communication on HF fixed-frequency, UHF fixed-frequency, and UHF Electronic Protection Measures (EPM) media. In addition, the DLM provides all required modem and network control functions for a Link 11/TADIL-A system using either HF, UHF, or Satellite radio communications on up to three channels. The system can also be configured as a multi-link terminal providing a mix Link 22 and Link 11 networks.

The Leonardo DRS DLM meets the requirements of the NATO Improvement Link 11 (NILE) SPC system segment specifications for HF and UHF fixed-frequency SPC operation and is fully compliant with STANAG 4539 Annexes E, F, and G new waveforms. The system is also fully compliant with STANAG 4372 for UHF EPM operation, as well as provides significant capabilities to support future developments in UHF and HF fixed-frequency and EPM waveforms. The DLM contains the latest state-of-the-art signal processing technology that provides:

- Next-generation Software-Defined Modem (SDM) architecture.
- Increased reserve processing power for future Link 22 advancements.
- Integrated multi-use reconfigurable channel processor cards.
- Reduced size, weight, power, and logistics.
- Front maintenance access for better maintainability.

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SPECIFICATIONS

FEATURE	DLM 3U	DLM 5U
Operation	Software configurable simultaneous Link 11 and Link 22	
Link 11 Available Channels	0 to 2	0 to 4 (one channel of Link 11 available per channel processor card)
Link 22 Available Channels	0 to 4	0 to 8 (two channels of Link 22 SPC available per channel processor card)
Link 22 SPC	HF/UHF/UHF-EPM	
Serial Interface for Wireline and SATCOM	RS-423/232 Gateway (single-channel) HF/UHF to SATCOM/Wireline	
Standard Control Interface	Ethernet 10/100BaseT	
Optional control Interface for Single-Channel	RS-423/232: 9.6 kbps	
Control Software	Hosted on Windows® XP/7/10 and Linux	
Multi Media	Link 11 DTS Multi-media over HF/UHF radio and SATCOM/Wireline channels to support CLEW/SLEW/SATCOM	
Dimensions (HxWxD)	5.25 x 19 x 16 inches (13.3 x 48 x 40.6 cm)	8.7 x 19 x 11.7 inches (22 x 48 x 30 cm)
Weight	21 lbs.	30 lbs.
Power	90-240 VAC 47 to 66 Hz 25 Watts (single channel) 33 Watts (multi-channel)	90-240 VAC 47 to 66 Hz 25 Watts (single-channel) 50 Watts (multi-channel)
Mean Time Between Failure (MTBF)	Over 11,600 hours per MIL-HDBK-217 F at +77°F (+25°C) Naval sheltered (single-channel)	
Mean Time to Repair (MTTR) (ORG level)	5 minutes	10 minutes
Mean Time to Repair (MTTR) (Depot level)	40 minutes	
Temperature, Operating	+32°F to +122°F (0°C to +50°C)	
Temperature, Non-operating	-58°F to +185°F (-50°C to +85°C)	
Shock	MIL-S-901, Grade A, Class 1, Type A	
Vibration	MIL-STD-167-1 Type 1	
Humidity	MIL-STD-810F Method 507.4	

DLM 3U OPTIONAL FEATURES

- Link 11 Split Site
- Link 22 Split Site
- Link 11 Integrated Link Monitoring System (ILMS)
- Link 22 Ethernet Media Translator
- MX-512S Tactical Data Simulation System (TDSS) to simulate tactical data computer messages and to provide single/multi-station POFA



DLM 5U OPTIONAL FEATURES

- Link 11 Split Site
- Link 22 Split Site
- Link 11 Integrated Link Monitoring System (ILMS)
- Integrated Link 22 GPS Displaced time-of-date source
- Link 22 Ethernet Media Translator
- MX-512S Tactical Data Simulation System (TDSS) to simulate tactical data computer messages and to provide single/multi-station POFA



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