

MIDS-LVT

Multifunctional Information Distribution System Low Volume Terminal



The Multifunctional Information Distribution System Low Volume Terminal (MIDS-LVT) is the result of a successful international development program between the United States, France, Italy, Spain and Germany. These nations have come together to design, develop, produce and deliver Link 16 terminals that are smaller, lighter, more reliable, less expensive than their predecessors, while retaining full compatibility with Joint Tactical Information Distribution System (JTIDS) Class 2 terminals.

The MIDS-LVT is produced according to the IPO specification. It provides a Link-16 capability for space and weight constrained platforms such as Tornado IDS/ ECR, USN F/A-18, USAF F-16, C-27J, ATR-72, G550 CAEW, Eurofighter Typhoon, ACCS and numerous other air, land and sea platforms. The MIDS-LVT configuration consists of two Line Replaceable Units (LRUs), the Receiver/ Transmitter (R/T) and the Remote Power Supply (RPS).

Additional Power Supply Adapters can be provided to fit the terminal into army and navy platforms specific prime power requirements.

The R/T contains all digital and Radio Frequency (RF) functions and the post-regulator and control section of the power supply. The RPS contains the power line filters and the pre-regulator section of the power supply that can be located up to 4.5 meters away from the R/T.

The capacity of physically separating these LRUs provides flexibility in fitting the integration of MIDS-LVT on an array of platforms with varying installation and power source requirements. The main terminal can be delivered in different configurations: with or without TACAN SRU; with or without VOICE SRU; or without TACAN and VOICE SRUs.

The company is under contract for the MIDS-LVT program upgrade named "Block Upgrade 2" (BU2).

MIDS-LVT major improvements consist of:

- Crypto Modernisation
- Frequency re-mapping
- Enhanced throughput.

The European Nations operational requirements are fully satisfied with the BU2 implementation.

The MIDS-LVT is available to any Nation, subject to MIDS participating Government's approval. The company has gained valuable experience from performing the host platform integration. This activity is addressed to Link 16 interoperability analysis and assessment, Link 16 concept of operations definition, NATO standard simulation (SIMPLE), Link 16 network design, training, configuration management, logistics, repairs, etc, for navy, army and air force platforms.

We can provide a wide spectrum of test equipment, ranging from terminal testers to host platform integration tools.

MAIN FEATURES

FULL LINK 16 INTEROPERABILITY

The MIDS-LVT guarantees full interoperability between joint and allied forces in accordance with MIDS STANAG 4175 and Link 16.

STANAG 5516

- Secure communications
 - MIDS-LVT provides encrypted communications (T-SEC and M-SEC protection). The data exchange is highly protected with spread spectrum, very fast frequency hopping and Reed-Solomon correction code techniques
- Real-time situational awareness
 - MIDS-LVT contributes to the creation of the tactical picture through Link 16 Precise Position Location and Identification (PPLI) messages and air/surface/ground tracks reporting.
- Cooperative engagement
 - MIDS-LVT offers cooperative engagement of the joint forces through Surveillance, EW, Command and Control Link 16 message exchanges
- Navigation
 - MIDS-LVT offers an accurate relative positioning of the host platforms. It performs as well as the TACAN function according to MIL-STD-291 and STANAG 5034
- TEMPEST
- Airworthiness and TEMPEST tested in environmental conditions in accordance with MIL-STD-810, MILSTD-461 and AMSG 720B.

ADAPTORS

ACA 220VAC AND 115V

• Size	120 x 200 x 178mm (W x H x L)
• Weight	15kg

DCA FOR 28VDC

• Size	193 x 57.2 x 343mm (W x H x L)
• Weight	6.5kg
• Frequency band	960 - 1215MHz

GENERAL CHARACTERISTICS

FUNCTIONS

• Data link Link	16, IJMS
• Secure voice capability	2.4kbps LPC -10 16 kbps CVSD
• Navigation	TACAN
• Identification	Direct and indirect

DATA THROUGHPUT

• Free Text Uncoded (FTUC)	238kb/sec MAX (P4 packing) also used for voice coding
• Free Text Coded (FTC)	115kb/sec MAX (P4 packing) also used for voice coding
• Fixed Format (FF)	107kb/sec MAX (P4 packing)

ENHANCED DATA THROUGHPUT

• Free Text Coded (FTC)	1.1Mb/sec (LET4 packing) also used for voice coding
• Fixed Format (FF)	1.1Mb/sec (LET4 packing)
• Output power	200W, 25W, 1W HPA interface for 1Kw output power Dual antenna, transmit and receiver
• Range Over	300NM

POWER SOURCE

• Basic	115VAC (400 Hz), 3 phase 280VDC
• ACA	220V, 1 Phase 50Hz 115V, 3 Phases, 50Hz
• DCA	28VDC
• Power consumption	< 800W
• Main terminal size	190.5 x 193.5 x 343mm (W x H x L)
• Rem. power supply size	57.2 x 193.5 x 343mm (W x H x L)
• Main terminal weight	19.65Kg
• Rem. power supply weight	6Kg
• Avionics interface	MIL - STD 1553B STANAG 3910 high speed electrical version
• Ground/naval interface	IEEE 802.3 Ethernet CCIT X 25

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