A Partnership of Four Leading European Defense Industries

The Unique Production Line in Europe for the MIDS-LVT
MULTIFUNCTIONAL INFORMATION DISTRIBUTION SYSTEM—LOW VOLUME TERMINAL

Interoperable with existing LINK-16 Terminals and Networks
THE MULTINATIONAL PROGRAM

The MIDS LVT is the achievement of a successful international cooperative development program between the United States, France, Italy, Spain and Germany, to design, develop, produce and deliver Link 16 terminals that are smaller, lighter, more reliable, less expensive and fully compatible with Joint Tactical Information Distribution System (JTIDS) Class 2 terminals.

The MIDS Production Phase has been directed and administrated on behalf of the Participant Nations by an International Program Office (IPO), located in San Diego (CA). IPO is responsible for configuration management, ensuring interchangeability and interoperability of MIDS LVT equipment. Moreover it qualifies manufacturers and defines and manages the software maintenance approach to support production contracts.

THE EUROPEAN COMPANY

EuroMIDS is formed by four leading European Defense Industries: THALES Communications (France), SELEX Communications (Italy), EADS (Germany) and INDRA (Spain). Each partner company participates to the development and to the production of the Terminal.

The EuroMIDS Terminal has been qualified and certified by IPO. Several hundreds of EuroMIDS Terminals have been produced and delivered to the four European MIDS Participants and many Third Party nations.

THE PRODUCT

The EuroMIDS terminal is the LVT(1) which is produced according to the IPO specifications and under the control of IPO. The MIDS LVT(1) was developed during the Engineering, Manufacturing and Development (EMD) phase of the MIDS program, to provide a Link-16 capability for space and weight constrained platforms: for example USN F/A-18, USAF F-16, Rafale, Eurofighter and numerous other air, navy and army platforms. The MIDS LVT(1) 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 (1) on an array of platforms with various 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 EuroMIDS terminal is available to any nation, subject to MIDS participating Government’s approval.

THE SUPPORT

EuroMIDS has set up a very efficient support organization to assist host platform integrators and users to install, use and maintain the MIDS terminal. This support is addressed to system engineering assistance, training, configuration management, logistics, repairs, etc., for navy, army and air force platforms.

EuroMIDS can provide a wide spectrum of test equipment, ranging from terminal testers to host platform integration tools. The existing support organization can be tailored to match the specific customer needs.
FULL LINK 16 INTEROPERABILITY

The Multifunctional Information Distribution System Low Volume Terminal (MIDS-LVT) guarantees full interoperability between Joint and Allied Forces in accordance with MIDS STANAG 4175 and Link 16 STANAG 5516 and ADSIA D/4 (IJMS).

SECURE COMMUNICATIONS

MIDS LVT provides encrypted communications (T-SEC and M-SEC protection).

ANTI-JAMMING

The data exchange is highly protected with spread spectrum, very fast frequency hopping and Reed-Solomon correction code techniques.

REAL-TIME SITUATION 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.

AIRWORTHINESS AND TEMPEST

The EuroMIDS terminal has been tested in environmental conditions in accordance with MIL-STD-810, MIL-STD-461 and AMSG 720B.

EXTERNAL ADAPTER

EuroMIDS also produces the following external adapters:

<table>
<thead>
<tr>
<th></th>
<th>Size (W x H x L)</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACA for 220 VAC and 115 V</td>
<td>120 x 200 x 178 mm</td>
<td>15 kg</td>
</tr>
<tr>
<td>DCA for 28 VDC</td>
<td>193 x 57.2 x 343 mm</td>
<td>6.5 kg</td>
</tr>
</tbody>
</table>

GENERAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Frequency band</th>
<th>960 – 1215 MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functions</td>
<td>TADIL-J, IJMS</td>
</tr>
<tr>
<td>Secure voice capability</td>
<td>2.4 kbps LPC-10</td>
</tr>
<tr>
<td>Navigation</td>
<td>TACAN</td>
</tr>
<tr>
<td>Identification</td>
<td>Direct and indirect</td>
</tr>
<tr>
<td>Data throughput</td>
<td>238 kbps (107 kbps for L 16)</td>
</tr>
<tr>
<td>Output Power</td>
<td>Expandable to 1.1 Mbps for L16</td>
</tr>
<tr>
<td></td>
<td>200 W, 25 W, 1 W</td>
</tr>
<tr>
<td></td>
<td>HPA interface</td>
</tr>
<tr>
<td></td>
<td>Dual antenna, transmit and receiver</td>
</tr>
<tr>
<td>Range</td>
<td>Over 300 NM</td>
</tr>
<tr>
<td>Power source</td>
<td>Basic</td>
</tr>
<tr>
<td></td>
<td>115 VAC (400 Hz), 3 phase</td>
</tr>
<tr>
<td></td>
<td>280 VDC</td>
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<tr>
<td>Power consumption</td>
<td>&lt; 800 W</td>
</tr>
</tbody>
</table>

PHYSICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Size (W x H x L)</th>
<th>Main Terminal</th>
<th>Remote Power Supply</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>190.5 x 183.5 x 343 mm</td>
<td>57.2 x 193.5 x 343 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>Main Terminal</td>
<td>Remote Power Supply</td>
</tr>
<tr>
<td></td>
<td>19.65 Kg</td>
<td>6 Kg</td>
</tr>
</tbody>
</table>

DATA BUS INTERFACES

<table>
<thead>
<tr>
<th>Avionics</th>
<th>MIL-STD- 1553B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>STANAG 3910 high speed electrical version</td>
</tr>
<tr>
<td>Ground/Naval</td>
<td>IEEE 802.3 Ethernet</td>
</tr>
<tr>
<td></td>
<td>CCIT X 25</td>
</tr>
</tbody>
</table>
The EuroMIDS Terminal has been selected for:
- EUROFIGHTER 2000 TYPHOON
- RAFALE, MIRAGE 2000
- FSTA Air Tanker
- TORNADO
- NH 90
- A400M
- Hellenic AEW & C
- SADA

- ADS MARTHA
- ADS SAMP/T
- ACCS LOC1
- HORIZON FRIGATE
- F-100
- Other systems and platforms of the Spanish, French, Italian, German and Norwegian Armed Forces

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