

MIDS LVT

Multifunction

Information

Distribution System

Low Volume Terminal



New MIDS Design Meets Interoperability Requirements

Harris with its team leader ViaSat is responding to the U.S. Navy's need for MIDS production competition. Our team is under contract to the U.S. Navy to qualify and initiate low-rate initial production of the LVT-1 Terminal and was selected by the U.S. Army to produce all of the initial LVT-2 Terminals. Our design upgrades many terminal components to provide greater flexibility, decrease cost, and improve reliability.

Using ViaSat's Link-16 Enhanced Throughput concept, the new terminal delivers up to 1.2 Mb/s data rates (beyond current JTIDS limits). Embedded modules provide COMSEC and TACAN waveform communications with no added hardware.

Technology Insertion for Innovation Flexibility Through Reprogramming

Through extensive use of reprogrammable components, and a modular VME architecture, we've provided a lower-cost design and allowed for easy insertion of future capabilities. The design ensures that all terminal modules are interoperable and interchangeable with all other MIDS terminals. The terminal is fully interoperable with JTIDS/MIDS/Link-16 waveform and operational modes, and supports all required MIDS host platforms.

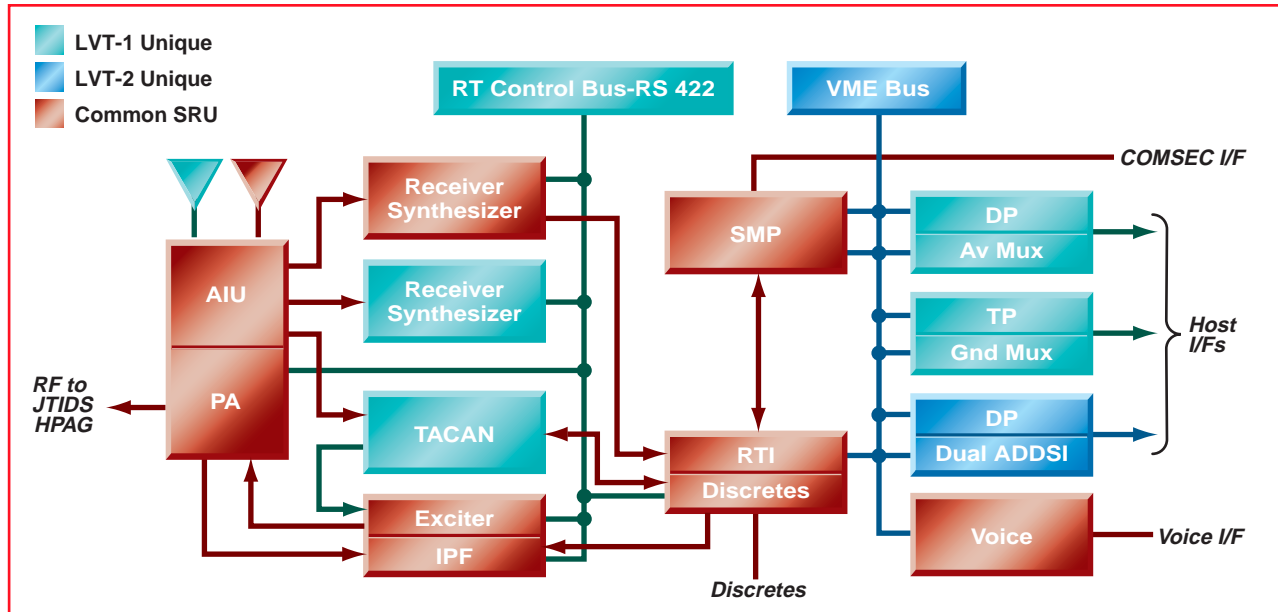
Advanced Link-16 Technology Up to 10 Times Higher Data Rates

Harris and ViaSat have been developing other significant Link-16 technologies and capabilities. These include:

- Enhanced Throughput which produces 10 times higher Link-16 data rates
- Use of Link-16 to perform digital air traffic control flight data transmission and reception
- High-quality, low data rate voice
- Integration of Link-16 relative navigation data with INS/GPS navigation data
- Tailoring Link-16 to tactical missile applications



MIDS Architecture



Specifications

	LVT-1	LVT-2
Size	Main Terminal	13.5"x7.5"x7.62"
	Power Supply Assembly	26.47"x7.5"x7.62"
	Remote Power Supply	13.5"x2.25"x7.62"
Weight	Main Terminal	50.6 lbs
	Power Supply Assembly	28 lbs
	Remote Power Supply	14.3 lbs
	Cooling Unit	11 lbs
LVT-2 (Including Mounting Tray)		85 lbs
MTBF	1822 hrs (Shipboard Aircraft Fighter Environment)	4537 hrs (Ground Mobile Environment)
Link-16 Message	TADIL-J IJMS	TADIL-J IJMS
Cooling	External conductive air	Self-contained conductive air
Receive Sensitivity in Jamming Environment	Classified (meet spec with 2-3 dB margin)	Classified (meet spec with 2-3 dB margin)
Transmit Spectral Performance	Greater than -60 dBc in 1030/1090 MHz IFF Bands	Greater than -60 dBc in 1030/1090 MHz IFF Bands
Output Power	1, 25 or 200 Watts + HPA Interface (Option)	1, 25 or 200 Watts
Control/Data	MIL-STD-1553, X.25, Ethernet, STANAG 3910	Dual ADDSI (Increased speed X.25 and Ethernet)
Data Throughput	115 kb/s (coded), 1.2 Mb/s (growth)	1.2 Mb/s
Keyfill	DS-101	DS-101
Power Source	115 Vac, 400 Hz 3 phase or +140 dc	115 Vac (50/60/400 Hz) or 220 Vac (50/60 Hz) Single Phase or +28 Vdc
Voice Capability	2.4 kb/s LPC-10 16 kb/s CVSD	2.4 kb/s LPC-10 16 kb/s CVSD