

**SMALLER, LIGHTER,
AFFORDABLE LINK 16
TACTICAL NETWORKING**

ViaSat, Inc., together with Harris and European Aeronautic Defence and Space Company (EADS), are currently producing and delivering a family of combat-proven, fully-qualified, and EMC-Certified Link 16 Multifunctional Information Distribution System (MIDS) terminals to U.S. Forces and Coalition partners under contracts with the Navy MIDS International Program Office (IPO) and with other commercial customers. The MIDS-LVT(2) variant is self-contained and designed for use in ground installations with minimal integration effort and cost.

ViaSat's team led the transformation in Link 16 technology by being the first to upgrade the design of many components of the terminal to provide greater flexibility, enhanced technological capabilities, decreased cost and improved reliability. Through extensive use of reprogrammable components, embedded modules (including the COMSEC function), and a modular VME architecture, we have provided a lower cost design while also allowing for future requirements.

The ViaSat LVT(2) terminal provides all operational modes of the Link 16 waveform, and implements all required MIDS host interfaces including the Platform J and JREAP-C Ethernet Interfaces.

ViaSat hardware implements Enhanced Throughput, a new capability that can increase coded data throughput from its current maximum of 115.2 kbps to over 800 kbps. Host interfaces and operational employment of this capability will vastly improve the use of today's Link 16 applications.

SUPPORTED PLATFORMS

ViaSat's Multifunctional Information Distribution System (MIDS) Low Volume Terminal (LVT) was developed to meet the Link 16 requirements of all U.S. Forces and Coalition partners. We are under contract with the MIDS IPO to produce a substantial number of LVT(1) terminals. In addition, we are the major provider of the MIDS-LVT(2) and MIDS-LVT(11) terminals. MIDS-LVT(2) is designed to simplify installation in ground stations, including the Army's PATRIOT ICCs and Battery Command Posts, Forward Area Air Defense Command and Control Units (FAADC2), and Surface Launched AMRAAM (SLAMRAAM) as well as the USAF U2s and Air Operations Centers (AOCs) and the Joint Interface Control Officer (JICO) Support Systems. The MIDS-LVT(2) with voice has been designated the MIDS-LVT(11).

GROUND TERMINAL

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- » High Capacity
- » Anti-jam
- » Highly Secure
- » Situational Awareness
- » Voice at 2.4 and/or 16 kbps is available in the LVT(11) Variant
- » Self-contained Cooling and Power

NEW APPLICATIONS OF LINK 16

ViaSat is a leader in the transformation of MIDS to Joint Tactical Radio System (JTRS) compliance. Through this and other key efforts such as Weapon Data Link (WDL) initiatives, IP over Link 16 demonstrations, and other Bandwidth on Demand developments we are contributing to the successful implementation of Network Centric Communications throughout the world.

SPECIFICATIONS

PERFORMANCE CHARACTERISTICS

- » **Link 16 Messaging** TADIL J and IJMS
- » **Receive Sensitivity** Classified
(meets spec with 2 – 3 dB margin)
- » **Transmit Spectral Performance** Greater than -60 dBc in 1030/1090 MHz Bands
- » **Output Transmit Power** 1, 25 or 200 Watts
- » **Host Interfaces** Dual ADDSI (Increased speed X.25) and Multiple Ethernets
- » **Keyfill** DS-101
- » **Voice Capability (Optional)** 2.4 kbps LPC-10 and 16 kbps CVSD

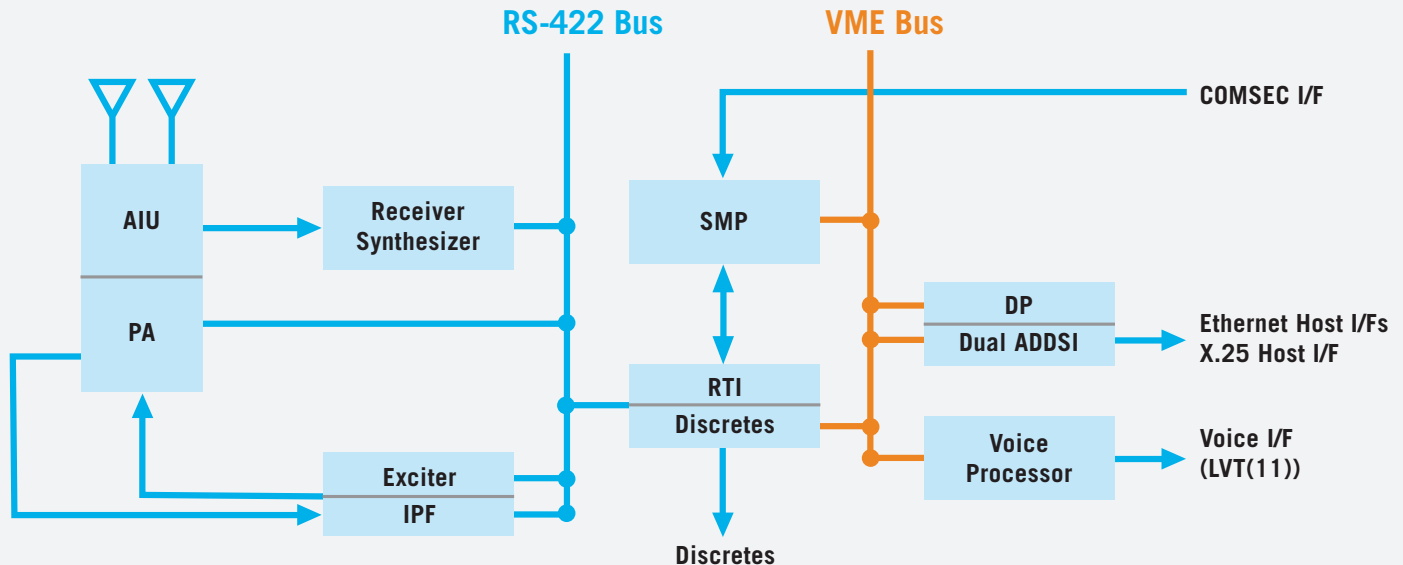
PHYSICAL CHARACTERISTICS

- » **Main Terminal (Hardware)** 7.6 x 7.5 x 13.5 in (19.3 x 18.9 x 34.3 cm)
- » **Overall Dimensions (WHD)** 8.44 x 13 x 24.75 in (21.44 x 33.02 x 62.87 cm)
- » **Volume** 2300 in³ (27,800 cc)
- » **Weight**
 - Main Terminal** 38.32 lb (17.4 Kg)
 - Power Supply Assembly** 25.57 lb (11.6 Kg)
 - Cooling Unit** 10.14 lb (4.6 Kg)
 - Mounting Base** 6.8 lb (3.1 Kg)
 - Total** 80.83 lb (36.7 Kg)

POWER AND COOLING

- » **Power Source Alternatives** 115 VAC (50/60/400 Hz) or 220 VAC (50/60 Hz) Single Phase or +28 VDC
- » **Power Consumption** 0% TSDF 295 Watts, 70% TSDF 575 Watts
- » **Cooling** Self-contained Conductive Air

MIDS-LVT(2)/(11) CONFIGURATION



AIU = Antenna Interface Unit
 PA = Power Amplifier
 IPF = Interface Protection Feature

RTI = Receiver Transmitter Interface
 SMP = Signal Message Processor
 DP = Data Processor

ADDISI = Army Data Distribution System Interface

ORDERING INFORMATION MIDS-LVT(2)/(11)

TYPE	NOMENCLATURE	VIASAT PN
LVT(2)	AN/USQ-140(V)2(C) R/T: RT-1785	VA-019000-0031
LVT(11)	AN/USQ-140(V)11(C) R/T: RT-1868	VA-019100-0031

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