



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

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 growth requirements.

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

With Block Upgrade 2 (BU2), Viasat hardware implements the advanced Link 16 functions of Enhanced Throughput (ET), Cryptographic Modernization Initiative (CMI), and Frequency Remapping (FR). ET is a new capability that can increase the network coded data throughput for MIDS-LVT terminals from its current maximum of 115.2 kbps to over 1,100 kbps. Host interfaces and operational employment of this capability are still emerging (such as imagery or Situational Awareness file transfer). CMI provides improved cryptographic security, growth, and flexibility. FR allows for much easier US training and testing without the need for the extensive frequency authorization activity. These improvements come with better External Time Reference stability and modernized Ethernet interfaces.

SUPPORTED PLATFORMS

Viasat’s Multifunctional Information Distribution System (MIDS) Low Volume Terminal (LVT) was developed to meet the Link 16 requirements of all US forces and coalition partners. MIDS-LVT(2) is designed to simplify installation in US and international ground stations, including the US Army’s PATRIOT ICCs and Battery Command Posts, Forward Area Air Defense Command and Control Units (FAADC2), Air Defense Air Management (ADAM) Cells, Surface Launched AMRAAM (SLAMRAAM), US Air Force and US Marines Air Operations Centers (AOCs), and the Joint Interface Control Officer (JICO) Support Systems. Viasat MIDS-LVT(2) Systems are also present in many other coalition land-based and shipboard operations.

GROUND TERMINAL AT-A-GLANCE

- » High capacity
- » Anti-jam
- » Highly secure
- » Situational Awareness
- » Voice at 2.4 and/or 16 kbps is available in the LVT(11) variant
- » Data reception from two antennas is available in the MIDS-LVT(12) variant
- » Self-contained cooling and power
- » Crypto modernization
- » Frequency Remapping
- » Enhanced Throughput
- » External Time Reference improved in BU2

Ordering Information

- PN: VA-219000-0050* LVT(2) AN/USQ-140A(V)2(C)
R/T: RT-1785A
- PN: VA-219100-0050* LVT(11) AN/USQ-140A(V)11(C)
R/T: RT-1868A
- PN: VA-219200-0050* LVT(12) AN/USQ-140A(V)12(C)
R/T: RT-2015A

**includes all internal cabling*



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** Meets spec with 2 to 3 dB margin
- » **Transmit Spectral Performance** > -60 dBc in. 1030/1090 MHz Bands
- » **Output Transmit Power** 1, 25, or 200 W
- » **Host Interfaces** Platforms J, S and JREAP-C Ethernet; Dual ADDSI X.25
- » **Keyfill** DS 101 SKL modern crypto
- » **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 (W x H x D)** 8.44 x 13 x 24.75 in.; 21.44 x 33.02 x 62.87 cm
- » **Volume** 2300 in.³; 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

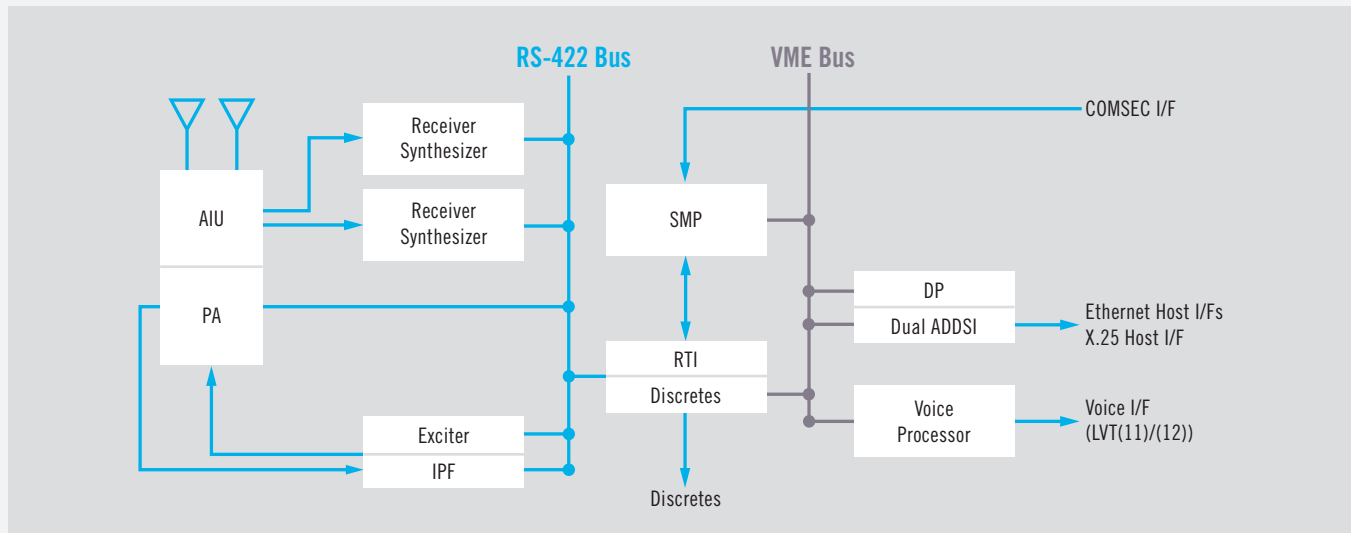
POWER AND COOLING

- » **Power Source Alternatives** 1 +28 VDC, 115 VAC (50/60/400 Hz) or 220 VAC (50/60 Hz) Single Phase
- » **Power Consumption** 0% TSDF 295 W
70% TSDF 575 W
- » **Cooling** Self-contained forced air

OTHER CONFIGURATIONS

- » **MIDS-LVT(11)** Link-16 Data and Voice Capable
- » **MIDS-LVT(12)** Link-16 Data and Voice Capable, Dual Antenna Receive

MIDS-LVT(2)/(11)/(12) CONFIGURATION



AIU Antenna Interface Unit
PA Power Amplifier
IPF Interface Protection Feature

RTI Receiver Transmitter Interface
SMP Signal Message Processor
DP Data Processor

ADDSI Army Data Distribution System Interface

CONTACT

6155 El Camino Real, Carlsbad, CA 92009-1699, USA

U.S. SALES
TEL 760 795 6334
EMAIL mids.us@viasat.com

INTERNATIONAL SALES
TEL +1 760 476 2675
EMAIL mids.international@viasat.com

TECHNICAL SUPPORT
TEL 866 496 1584
EMAIL tdl-techsupport@viasat.com

