

INTEGRATED SOLUTIONS FOR TESTING, TROUBLESHOOTING, AND TRAINING

ViaSat offers a variety of MIDS Support Stations to support testing, troubleshooting, and training with MIDS-LVT(1) and LVT(2) terminals. Because a Support Station integrates a complete suite of Link 16 support equipment and test tools into one portable rack, the system can help you save time and reduce costs. You can operate your LVT terminal the day it arrives!

The all-in-one design of the MIDS Support Station alleviates all of the challenges normally associated with verifying the terminal installation and can be used to support integration testing with aircraft, vehicles, and ships. With this portable rack system, there is no cooling to design, no power units to

purchase, no cables to fabricate, no integration issues to overcome, no test init loads to build, no RF terminators or attenuators to obtain. The ViaSat MIDS Support Station comes fully loaded with the equipment and easy-to-use interfaces needed to initialize, control, test, evaluate, and troubleshoot your terminal — all in a portable system that can go anywhere in the world.

The system is available in configurations for the lab, the flight line, and ground operations. All configurations provide power, cooling, control, and interconnect cables. An integrated PC and LCD display provide the user interface for all operations.

MIDS-LVT(1) LAB CONFIGURATION

PN 1058524

The Lab Configuration of the MIDS Support Station for the LVT(1) terminal is a fully integrated mobile rack suitable for use with the MIDS-LVT(1) or one of its variants. It includes a large LCD display, an integrated PC with a pull-out keyboard, and trackball. ViaSat's LEGS software is pre-installed and can act as the terminal's host, as a 1553 bus monitor, as a Support Port recorder, or as the terminal controller.

The unit includes the power, cooling, control, and all cabling needed to operate the terminal. Power for the Remote Power Supply (RPS) is provided by a DC power supply that is switched through the Integrated Control Unit's RPS On/Off switch. The Integrated Control Unit brings out the discrettes required to control the terminal and the interfaces required to connect to the terminal over 1553, Ethernet, and Support Port. Embedded within the ICU are two 1553 bus couplers and two AUI transceivers. Switches on the front panel permit user selection of Platform Type; RT Address is hardwired to 1. Cooling is provided by the ViaSat Cooling Tray to both the Main Terminal and the RPS. When the terminal is inserted, an interlock switch activates the blower to provide 45 cfm of air. A Voice Control Unit with headset or microphone is optionally available to provide support for MIDS Voice Channels A and B.

The Lab Configuration also includes an RF Network and a single 50 Ohm/ 30 dB/ 150 watt attenuators for creating a low-level cabled RF network in a lab setting. A terminator for the unused antenna is also included.

The unit is available for either 115 VAC, 60 Hz or 230 VAC, 50 Hz power. A power distribution system routes power to all components and is controlled by a master on/off switch. All interconnect cables are included.

MIDS-LVT(1) GROUND CONFIGURATION

PN 1058525

The Ground Configuration of the MIDS Support Station for the LVT(1) terminal contains the same basic features as the Lab Configuration with the exception of the RF Network. The RF Network is replaced by an omni-directional, L-band ground antenna made by EuroAntennas. This antenna is mast-mountable and provides 7 dBi of gain. In addition, the Ground Configuration contains an integrated GPS Receiver/ Network Time Server to provide an External Time Reference to the terminal. The GPS antenna and 100 feet of coax cable are included.



The L-band antenna cable is site-specific and is not included. The MIDS-LVT main terminal and RPS are available separately.

GPS Receiver



- » MIDS Training
- » Host Development
- » Terminal Troubleshooting

BASIC FEATURES

- » Rackmount PC with LCD Display, pullout Keyboard and Trackball
- » LEGS software pre-installed
- » LVT(1) Integrated Control Unit provides Terminal Control, LTTI, Key Loading and Zeroize
- » Access to all terminal interfaces: 1553, Ethernet and Support Port
- » LVT(1) Power Unit provides ± 140 V DC power to RPS
- » LVT(1) Cooling Tray provides 45 cfm of air to MT and RPS
- » Includes the Terminator and one Attenuator
- » Storage drawer for manuals and cables
- » LVT(1) Voice Control Unit is available as an option

LAB CONFIGURATION (Additions to Basic Features)

- » Network permits interconnection of 5 terminals in low-level cabled network

GROUND CONFIGURATION (Additions to Basic Features)

- » Omni-directional L-band Gound Antenna
- » GPS Receiver/Network Time Server

SPECIFICATIONS

Overall Rack (Hardware)	54 x 22 x 32 in (137.16 x 55.88 x 81.28 cm)
Estimated Weight	335 lb (152 Kg)
Power	115 VAC, 60 Hz or 230 VAC, 50 Hz



MIDS Terminals sold separately

MIDS-LVT(1) Terminal

Integrated Solutions for MIDS JTRS are also available to U.S. Customers.

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

PN 1132821

The Lab Configuration of the MIDS Support Station for the LVT(2)/(11) is a fully integrated mobile rack suitable for use with the MIDS-LVT(2) or LVT(11) terminal. It includes a large LCD display, an integrated PC with a pull-out keyboard, and trackball. ViaSat's LEGS software is pre-installed and can act as the terminal's Ethernet host, as a Support Port recorder, or as the terminal controller.

A fixed shelf with ARINC fasteners is provided for securing the Main Terminal (MT) Power Supply Assembly (PSA) and Cooling Unit (CU) in its mounting base. Power for the PSA is provided by a 28 VDC power supply. A panel provides access to the Ethernet Platform J and Support Port interfaces. A Voice Control Unit with headset or microphone is included with the LVT(11) model to provide support for MIDS Voice Channels A and B. The unit accepts Universal Input Power 100-264 VAC, 47-63 Hz, Single Phase. A power distribution system routes power to all components and is controlled by a master on/off switch. All interconnect cables are included.

The Lab Configuration also includes an RF Network, a 50 Ohm/ 30 dB/ 150 watt attenuator, and a terminator. The RF Network is a low-level device suitable for creating a cabled RF network in a lab setting.

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

PN 1058526

The Ground Configuration of the MIDS Support Station for the LVT(2)/(11) terminal contains the same basic features as the Lab Configuration with the exception of the RF Network. The RF Network is replaced by an omni-directional, L-band ground antenna made by EuroAntennas. This antenna is mast-mountable and provides 7 dBi of gain. In addition, the Ground Configuration contains an integrated GPS Receiver/Network Time Server to provide an External Time Reference to the terminal. The GPS antenna and 100 feet of coax cable are included.



The L-band antenna cable is site-specific and is not included. The MIDS-LVT main terminal and RPS are available separately.

GPS Receiver



BASIC FEATURES

- » Rackmount PC with LCD Display, pullout Keyboard and Trackball
- » LEGS software pre-installed
- » Control panel provides Key Loading, Zeroize, and access to Ethernet and Support Port interfaces
- » DC Power Unit provides 28 V DC power to the PSA
- » Includes one Attenuator and one Terminator
- » Storage drawer for manuals and cables
- » LVT(11) Voice Control Unit is included with the LVT(11) configuration

LAB CONFIGURATION (Additions to Basic Features)

- » RF Network permits interconnection of 5 terminals in low-level cabled network

GROUND CONFIGURATION (Additions to Basic Features)

- » Omni-directional L-band Gound Antenna
- » GPS Receiver/Network Time Server

SPECIFICATIONS

Overall Rack (Hardware)	54 x 22 x 32 in (137.16 x 55.88 x 81.28 cm)
Estimated Weight	335 lb (152 Kg)
Power	100-264 VAC, 47-64 Hz, (10 amps) autosensing



MIDS Terminals sold separately

MIDS-LVT(2)/11 Terminal

VIASAT OFFERS A FULL RANGE OF LINK 16 SUPPORT TOOLS TO HELP YOU GET MORE VALUE OUT OF YOUR TACTICAL DATA LINKS:

LINK 16 ENVIRONMENT GATEWAY STIMULATOR (LEGS™)

An essential tool used by prime developers and logistic centers for the integration of MIDS terminals. The LEGS software assists in terminal troubleshooting and maintenance, and also provides Link 16 system performance measurement and evaluation.

AMALGAMATED REMOTE MANAGEMENT SYSTEM (ARMS)

ARMS provides the Link 16 Network Manager with a distributed tool to plan, manage, modify, and troubleshoot the tactical data link network implemented by JTIDS, MIDS, and MIDS JTRS terminals.

TERMINAL OPERATIONAL ENVIRONMENT SIMULATOR (TOES)

TOES is a multi-terminal network simulator providing a scalable software emulation of multiple Link 16 terminals in a network.

LINK 16 FLIGHT-LINE TOOL (LIFT™)

The LiFT software application is designed to support “go/no-go” testing and troubleshooting of MIDS terminals in a field environment.

LINK 16 NAVIGATION TEST SET

Provides a high-fidelity “rest of the world” environment for stimulating MIDS RELNAV function and validating Host navigation aiding implementations.

MIDS FLIGHT RECORDER

The MIDS Flight Recorder connects to the MIDS terminal support port to automatically record data, including terminal performance data not available on the normal host interface. It obtains a complete record of all transmissions and receptions, including terminal generated messages, navigation performance, signal quality measures and digitized voice.

MIDS-LVT(1) POWER UNIT

The MIDS Power Unit (MPU) is a totally self-contained DC prime power source and will power 2 ViaSat LVT(1) terminals.

MIDS-LVT(1) COOLING TRAY

A totally self-contained cooling and mounting device for one MIDS-LVT(1) and its corresponding Remote Power Supply (RPS).

MIDS-LVT(1) CONTROL PANEL

Intended for lab or ground station installations, this control panel provides access to various discrete signals, control lines, and Host interfaces for the MIDS-LVT(1) series of equipment.

LVT(1) INTEGRATED CONTROL UNIT

Connected to J7 and J3, this unit controls the basic power on/off and standby functions of a terminal. It provides access to the 1553, Ethernet, and Support Port interfaces as well as a connection to the LVT(1) Voice Control Unit.

MIDS-LVT(1) MOBILE SYSTEM

Is a transportable, ruggedized case unit for the MIDS-LVT(1) terminal and its variants. It includes all of the support equipment required to fully operate a MIDS-LVT(1) terminal. The support functions that are included are differential DC power that is switched through the Integrated Control Unit (ICU), 45 CFM forced air cooling, terminal control, associated system cabling, RF attenuator and terminator.

LVT(1) CONTROL PLUG, J7

The LVT(1) Control Plug connects directly to the MIDS-LVT(1) J7 connector, providing switches for Power on/off and Standby on/off. Small enough to fit in a Field Service Engineer’s pocket.

RF NETWORK

Intended for lab use, this unit permits the RF from multiple RF devices to be hubbed together in a network.

LVT(1) VOICE CONTROL UNIT

Controls MIDS Voice channels 1 and 2. Includes push-to-talk Shure microphone or David Clark H10 headset.

SUPPORT PORT INTERCEPTOR KIT

Inserts between an operational host and its MIDS terminal to provide access to the terminal’s Support Port. Connects to PC or MIDS Flight Recorder. Battery operated to permit flight-line use. All cables included.

PORTABLE ANTENNA

Comes with everything you need to perform ground-to-air testing on the fly. Operates at 960-1220 MHz.

OTHER MIDS ACCESSORIES

ViaSat offers customized MIDS cables, transport cases, and other specialty items for the MIDS integrator and field service engineer.

LINK 16, MIDS, AND LEGS TRAINING COURSES

ViaSat offers a comprehensive set of training courses:

» VSAT 101	MIDS Familiarization (Short Course)	(1 day)
» VSAT 102	LEGS Familiarization (Short Course)	(1 day)
» VSAT 103	Link 16 Familiarization (Short Course)	(2 days)
» VSAT 104	MIDS and LEGS Familiarization	(3 days)
» VSAT 105	MIDS Specifications and Documentation (Short Course)	(2 days)
» VSAT 106	Link 16 Flight-line Tool (LiFT)	(2 days)
» VSAT 201	Introduction to MIDS/Link 16 for Beginners	(5 days)
» VSAT 202	MIDS/LEGS: Introduction to Operations and Maintenance	(5 days)
» VSAT 203	MIDS/LEGS: Operations and Maintenance for the Advanced User	(7 days)
» VSAT 204	MIDS/LEGS: Operations and Maintenance for the Field Service Engineer	(7 days)
» VSAT 205	MIDS JTRS: Operations and Maintenance	(5 days)
» VSAT 206	ARMS: Link 16 Network Management	(3 days)
» VSAT 208	MIDS Navigation Training	(3 days)

These courses are conducted at ViaSat and may be customized to meet your specific requirements. Contact us for individual pricing information.

TECHNICAL SUPPORT

Technical support is available by telephone in 10-hour blocks of time.

ORDERING INFORMATION MIDS SUPPORT STATIONS

TYPE	VIASAT PN
MIDS-LVT(1) LAB CONFIGURATION	1058524
MIDS-LVT(1) GROUND CONFIGURATION	1058525
MIDS-LVT(2)/(11) LAB CONFIGURATION	1132921
MIDS-LVT(2)/(11) GROUND CONFIGURATION	1058526



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