



The MIDS JTRS terminal from ViaSat combines the network-centric communications capability of tomorrow with the real-time operating picture of today—all in one unit. This 4-channel software-programmable radio delivers existing Link 16 and TACAN functionality, as well as three channels for future growth, including JTRS advanced networking waveforms such as those meeting Joint Airborne Network—Tactical Edge (JAN-TE) requirements.

This is the first JTRS radio with four Concurrent Multi-Netting (CMN-4) with Concurrent Contention Receive (CCR-4) capability.

PLUG-AND-PLAY INSTALLATION AND INTEROPERABILITY

The terminal's dedicated Link 16 channel ensures full interoperability with fielded MIDS-LVT terminals and backward-compatibility with legacy communications systems to exchange tactical picture information in real time.

By retaining the existing MIDS-LVT form factor and interfaces, the MIDS JTRS terminal facilitates integration into platforms that already host MIDS-LVT. This approach minimizes life-cycle costs by leveraging past expenditures for platform integration of Link 16 and TACAN, while providing a gateway for new JTRS and other enhanced capabilities.

MIDS JTRS AT-A-GLANCE

- » Form-factor identical to MIDS-LVT for reduced integration costs
- » Simultaneous SCA 4-channel operation
- » 4 channels with isolated security
- » Software programmable for future network-centric requirements
- » Full access to Link 16 real-time situational awareness and Command & Control (C2)
- » Interoperable with all legacy Link 16 terminals
- » Crypto modernization reprogrammable security
- » Full frequency remap permits banded operation
- » Enhanced throughput boosts Link 16 data rate
- » 4x receive capacity over MIDS-LVT while maintaining interoperability
- » CMN-4 and CCR-4 capabilities
- » Tactical Targeting Network Technology (TTNT)
- » NSA certified equipment

Ordering Information

PN: 1086139-0002	MIDS JTRS Terminal Set
PN: 1177599-0001	CMN MIDS JTRS Terminal Set
PN: 1086139-0100	Crypto Mod MIDS JTRS Terminal Set

MORE CAPABILITIES FOR THE WARFIGHTER TODAY

MIDS JTRS introduces technology enhancements to supercharge the warfighter's situational awareness and command/control capabilities in the field. The system's Enhanced Throughput mode boosts Link 16's protected data rate of 115 kbps to over 1 Mbps with MIDS JTRS. Frequency Remapping (freeing users from frequency clearance requirements) is also supported, enabling the warfighter to use banded Link 16 to avoid interference with other systems. With Crypto Modernization, this terminal implements new encryption algorithms through a programmable crypto to securely serve joint and coalition mission requirements.

CMN-4 AND CCR-4 CAPABILITIES FOR THE WARFIGHTER

Terminal capable of receiving multiple messages in the same timeslot, increasing the receive capacity of the terminal by four times that of a legacy Link 16 terminal. Messages using four different net numbers in Concurrent Multi-Net (CMN-4) can be received from different Network Participation Groups so the warfighter can view four zones of surveillance, for example. The operator also gets much faster updates when multiple messages are received in Concurrent Contention Receive (CCR) from users at different ranges, allowing for faster fighter-to-fighter update rates or PPLIs without impact to the overall network capacity.

IP NETWORKING OVER ADVANCED WAVEFORMS TO THE COCKPIT

With three universal channels available, ViaSat's MIDS JTRS terminal is ready for legacy as well as the next generation of IP-based tactical networking. The terminal's reprogrammable transceivers can support current legacy waveforms, such as SINCGARS and HAVE QUICK to provide greater interoperability between forces. MIDS JTRS architecture provides a logical upgrade path capable of future waveforms, TTNT, IFDL, CDL, MDL, etc.

SPECIFICATIONS & TECHNICAL FEATURES

PERFORMANCE CHARACTERISTICS

- » **Link 16 Messaging** TADIL J and IJMS per MIL-STD-6016D
- » **Transmit Spectral Performance** Greater than -60 dBc in 1030/1090 MHz Bands
- » **Output Transmit Power** 1, 25, or 200 W + HPA Interface
- » **Host Interfaces** MIL-STD-1553, Ethernet, and Voice
- » **L-16 Data Throughput** 26.8 through 1102 kbps TADIL J Coded, Free Text Variable Format or Enhanced Throughput
- » **Keyfill** DS-101
- » **Voice Capability** L-16: 2.4 kbps LPC-10 and 16 kbps CVSD additional channels: LPC-10, PCM, CVSD, MELPe
- » **TACAN Capability** Air-to-ground, air-to-air
- » **Programmable Channel** 2-2000 MHz (3 channels)

PHYSICAL CHARACTERISTICS

- » **Main Terminal and RFA** 7.62 x 7.5 x 13.5 in.; 19.35 x 19.05 x 34.29 cm
- » **Power Supply (PS)** 7.62 x 2.252 x 13.46 in.; 19.35 x 5.72 x 34.19 cm
- » **Volume** 1002.5 in.³; 16,428.03 cc
- » **Weight**
 - MIDS JTRS RT LRU 50.6 lb; 22.95 kg
 - MIDS JTRS PS LRU 14 lb; 6.49 kg

POWER AND COOLING

- » **Power Source Alternatives** 115 VAC; 400 Hz 3 Phase or ± 140 VDC
- » **Power Consumption** 0% TSDF 150 W, 70% TSDF 350 W
- » **Cooling** External conductive air



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