

WIDEBAND PROGRAMMABLE MODEM (WPM-1000)

Airborne Qualified Modem Capable of High-Rate Data Transfers Including Voice, HD Video, and File Transfer

The WPM-1000 provides high-rate data transfers and AES encryption,* and is software upgradable to host advanced communications waveforms enabling operations across a wide range of scenarios.

PRODUCT DESCRIPTION

WPM-1000 delivers multiple capabilities to existing SATCOM terminals by supporting high bandwidth and processing applications. WPM-1000 can be software configured to provide high-rate data transfers or bandwidth for protected communications. The modem is ARSTRAT certified (OM-89) and adheres to stringent airborne operating environmental standards. Standard L-Band and Ethernet interfaces enable deployment of the WPM-1000 in most SATCOM terminal architectures.



*AES may be export controlled



High Bandwidth SATCOM Communications

KEY FEATURES

- > MIL-STD-188-165B Communications
 - 64 kbps to 100 Mbps
 - BPSK, QPSK, 8PSK, OQPSK modulations
 - 1/2, 2/3, 3/4, 7/8, 19/20 rate turbo coding
- > L-Band interface
 - 950 MHz to 2120 MHz
 - Over 500 MHz instantaneous bandwidth
- > Dynamic Range of Modem Output Power Level
 - Tx -25dBm to 0dBm
 - Rx -55dBm to +10dBm
- > Information Throughput Adaptation (ITA)
- > Web-Based Graphic User Interface (GUI)
- > 60 Hz / 115 VAC Power Input
- > Gigabit Ethernet user port
- > AES 256 bit encryption with key negotiation in accordance with STANAG 4486 Edition 3
- > Software upgradable
 - GATEKEEPER™ Interference Excision System
- > OM-89 Variant ARSTRAT Certified

SPECIFICATIONS

Interfaces

- > Power: IEC60320 connector
- > IF Interface:
 - Tx output power: -25 dBm to 0 dBm (TNC-F)
 - Rx receive: < -55 dBm to +10 dBm (TNC-F)
- > Management Interface:
 - Gigabit Ethernet
 - SNMPv3
 - DHCP enabled
 - RJ-45 connector
- > User Interface:
 - RJ-45 user data gigabit Ethernet
 - EIA-530A user data serial interface*
 - EIA-422 overhead channel*
 - DB-9 GPIO – 1 RS-22 function*
 - 3 LVDS lines*
 - 10 MHz reference: input/output
 - Front panel maintenance port (J18)

*Available in future software release

SWaP

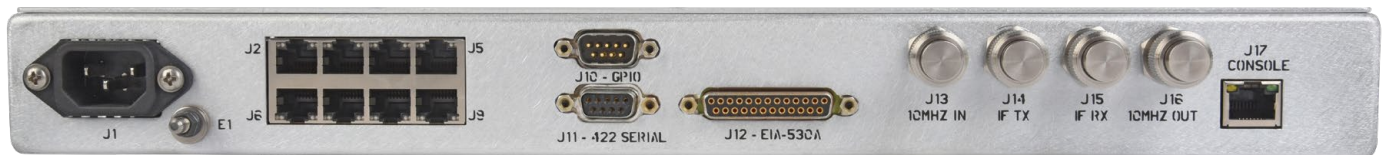
- > Size: 19" x 1.75" x 20" (1U rack mount)
- > Weight: <13 lb.
- > Power: 110–120 VAC 60 Hz, 100 W typical
- > Mounting: 1U-high 19" rack

Environmental

- > Operating temperature: -15 °C to 55 °C
- > Non-operating temperature: -55 °C to 85 °C
- > Vibration: RTCA/DO-160G, Section 8, Table 8-1, Aircraft Zone 2, Curve B3, 3 axes
- > Operational shock: RTCA/DO-160G, Section 7: Category A, 3 axes
- > EMI/EMC: MIL-STD-461F, CS101, CS114, CS115, RE102, RS103
- > Electrostatic Discharge (ESD): RTCA/DO-160G, Section 25: Category A
- > EMI/EMC: MIL-STD-461F, CE102, CE116, CS101, CS114, CS115, RE102, RS103



Front Panel



Back Panel

Wideband Programmable Modem (WPM-1000)

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