Wave Relay® MAN PORTABLE UNIT (MPU-4)

Mobile Ad Hoc Networking Systems (MANET)

The MPU4 is the smallest, lightest and most portable wireless MANET solution from the Wave Relay® product family…

Key Features

- Peer-to-Peer Mobile Ad Hoc Network (MANET)
- Low Latency Command & Control
- Secure High Bandwidth Data
- Transfers Data, Video, & Voice
- Multiple Video Streams
- Real-time Position Location
Wave Relay® is a Mobile Ad Hoc Networking System (MANET) designed to maintain connectivity on the move. It is a scalable, peer-to-peer network which provides data, video, and voice even in the most challenging applications. With user throughput of 37Mbps UDP and 27 Mbps TCP, Wave Relay™ provides a dynamic, reliable, and secure wireless networking solution beyond mesh.

The MPU4 brings the Wave Relay® Mobile Ad Hoc Network (MANET) capability directly to the dismounted user. Seamless Layer-2 Ethernet connectivity facilitates plug-and-play operation of cameras, video encoders, IP sensors, and other devices. In addition, the MPU4 is the smallest, lightest and most portable wireless MANET solution from the Wave Relay® product family. The MPU4 is compatible with PC-148/152 batteries, providing up to 14 hours of run-time. The MPU4 connects to Android™ phones and tablets through a high speed secure cable which also powers the device from the PC-148/152 battery.

### SPECIFICATION

**General**
- Modulations: OFDM, DSSS, CCX
- Channel Width: 5, 10, 20 or 40 MHz
- Throughput: 37 Mbps UDP (20 MHz channel), 27 Mbps TCP (20 MHz channel)
- Radio: (1) RP-TNC Antenna Connector
- GPS: (1) SMA Connection (3.3V Active Antenna)
- Size: Without Battery - 4.6 x 3.0 x 1.5 in, 11.7 x 7.6 x 3.2 cm, With Battery - 7.8 x 3.0 x 1.5 in, 19.8 x 7.6 x 3.2 cm
- Weight: 1.1 lb / 499 g without battery, 1.9 lb / 844 g with battery
- Security: FIPS 140-2 Level 2

**Data Connection**
- 19-Pin Connector: 10/100 Ethernet (2), RS-232 Serial, PTT Audio, 8-48 VDC Input Power, 3.3 VDC Accessory Power

**Power & Environmental**
- Power Consumption: Average - 4.2 W, Peak - 16.5 W
- Operating Temperature: -40º to 85ºC, -40º to 185ºF
- Battery Connector: PRC 148 / 152 Compatible
- Enclosure: IP67 Rated

**FREQUENCY**

<table>
<thead>
<tr>
<th>WR Frequency Range</th>
<th>WR Output Power</th>
</tr>
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<tbody>
<tr>
<td>763-778 MHz</td>
<td>26dBm/600mW</td>
</tr>
<tr>
<td>907-922 MHz</td>
<td>28dBm/600mW</td>
</tr>
<tr>
<td>2312-2507 MHz</td>
<td>26dBm/600mW</td>
</tr>
<tr>
<td>2412-2462 MHz</td>
<td>26dBm/600mW</td>
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<tr>
<td>5180-5320, 5500-5700, 5745-5825 MHz</td>
<td>28dBm/600mW</td>
</tr>
<tr>
<td>4945-4985 MHz</td>
<td>24dBm/250mW</td>
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<tr>
<td>4945-4985 MHz</td>
<td>26dBm/400mW</td>
</tr>
<tr>
<td>2312-2507 MHz</td>
<td>33dBm/2W *</td>
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<tr>
<td>4800-4985 MHz</td>
<td>30dBm/1W</td>
</tr>
</tbody>
</table>

**ALL WAVE RELAY® PRODUCTS INCLUDE:**

- Networking
  - Seamless layer 2 network connectivity
  - Industry leading Wave Relay MANET routing
  - 802.11a/b/g AP compatible with MANET
  - Integrated serial-to-Ethernet capability
  - Cursor-on-Target
  - Wave Relay® over IP (WRoIP)
  - Dynamic Link Exchange Protocol (DLEP) Certified
- IPv4 and IPv6 compatible
- Integrated DHCP server
- Advanced multicast algorithm
- Security
  - Integrated hardware cryptographic accelerator
  - FIPS 140-2 (Up to level 2)
  - Utilizes all Suite B algorithms
  - Active response to tamper
  - AES-CTR-256 with SHA-512 HMAC
  - Over the air re-keying
- Android™
  - Multicast Video, position locator and chat in an Android application
  - Supports commercial and custom phones and tablets
  - Provides power through USB tether
- Native Voice Capability
  - Supports up to 16 channels of Push-to-talk (PTT) Voice
  - G.711 Codec for Radio-over-IP (RoIP) interoperability
- Management
  - Secure web management interface
  - Network wide management and configuration functionality
  - Google Earth based network monitoring
- Manufacturing & Warranty
  - Designed and manufactured in USA
  - Limited one year warranty
  - Monthly training classes available
  - Courses led by industry experts
  - ISO 9001:2008 certified