About Proxim Wireless

Proxim Wireless is a pioneer and global leader in advanced Wi-Fi, point to point, and point to multipoint outdoor wireless systems that deliver high performance and high availability communications.

With over 30 years of wireless experience, Proxim is recognized for its unparalleled reliability, superior performance and drive for innovation.

Enhance Wireless Security with Tsunami® MP-10100S Series
Built in AES 256 Capability

The Tsunami® MP-10100S is an extremely secure version of the Tsunami® MP-10100, a very high throughput, high power, especially reliable and cost-effective, near-line-of-sight point-to-multipoint wireless solution.

World Class Performance

- Point-to-Multipoint system that delivers up to 866 Mbps data rate and covers distances up to 10 miles (16 km).
- Dual IPv4 and IPv6 stacks for transparent evolution to tomorrow’s networks.
- Triple level login with monitoring, simplified or advanced web interfaces.
- Built-in feature rich network protocols for bridging, routing and gateway functionality.
- High Speed Mobility up to 185 mph (295 km/h).

Frequency Agnostic

- Operates in unlicensed bands from 4.900 to 5.925 GHz.
- Flexible RF planning with 20, 40 and 80 MHz channel sizes.

Near-Line-of-Sight and Advanced Features

- Features dual Gigabit Ethernet ports with PoE out to power other devices such as surveillance cameras or additional radios.
- Performs deep packet inspection (DPI) to create unique and sophisticated service rules and tiered service classes with ease.
- BSU redundancy (500 milliseconds switch over time) and Dynamic Channel Selection to ensure continuity of services whatever the conditions.
- Spectrum analyzer to analyze frequency bands for interference, and select the best available channel.

Carrier-Grade Solution

- Implements AES 256 encryption and Radius authentication for the most secure outdoor wireless communications in the unlicensed frequency spectrum.
- Utilizes Proxim’s Wireless Outdoor Routing Protocol (WORP®), which prevents snooping, and features highly-secure remote management via SSL/TLS1.2, SSH and SNMPv3.
- Features Ethernet ports with pass-through IEEE 1588v2 synchronization and support for 9k Jumbo frames.

Key Technologies

The Tsunami® MP-10100S supports the following features that make it ideal for video surveillance, Government or mobility applications that need ultra-secure very high-speed broadband wireless access:

Proxim WORP®
Combines network access control, data scheduling, advanced QoS and encryption to ensure highly efficient and secure data transmission.

Proxim ClearConnect™
A suite of interference mitigation technologies ensuring robust and reliable communications in high-density wireless deployments.

Proxim FastConnect™
Mobility technology that delivers rapid hand-off between fixed base stations and moving vehicles to ensure uninterrupted broadband at speeds up to 295 km/h (185 mph).
Product Line Compatibility

- Connects to all existing Tsunami® MP-10200, MP10100, MP-10100L, MP-8200, MP-820 and MP-830 products.
- Fully integrates within ProximVision® Advanced Cloud Based Carrier Management System and Controller.

Specifications

<table>
<thead>
<tr>
<th>PRODUCT MODELS</th>
<th>PART NUMBERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MP-10100S-BSU-US</td>
<td>901-00294 MP-10100S-BSU-US</td>
</tr>
<tr>
<td>MP-10150S-BS9-US</td>
<td>901-00296 MP-10150S-BS9-US</td>
</tr>
<tr>
<td>MP-10100S-SUA-US</td>
<td>901-00295 MP-10100S-SUA-US</td>
</tr>
<tr>
<td>MP-10150S-SUR-US</td>
<td>901-00297 MP-10150S-SUR-US</td>
</tr>
</tbody>
</table>

**INTERFACES**

- WIRED ETHERNET: Two auto MDI-X RJ45 10/100/1000Mbps Ethernet (Port #1 with PoE in & Data, Port #2 with PoE out & Data)
- WIRELESS PROTOCOL: WORP® (Wireless Outdoor Router Protocol)

**RADIO & TX SPECS**

<table>
<thead>
<tr>
<th>MIMO</th>
<th>MODULATION</th>
<th>FREQUENCY</th>
<th>CHANNEL SIZE</th>
<th>DATA RATE</th>
<th>TX POWER</th>
<th>TX POWER CONTROL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2x2:2</td>
<td>OFDM with BPSK, QPSK, QAM16, QAM64, QAM256</td>
<td>4.900 – 5.925 GHz (Subject to Country Regulations)</td>
<td>80 MHz, 40 MHz and 20 MHz</td>
<td>MCS 0 to 9 with Dynamic Data Rate Selection</td>
<td>Up to 28 dBm (dual chain)</td>
<td>0 - 27 dB, in 1 dB steps. Automatic TPC with configurable EIRP limit</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>80 MHz</th>
<th>40 MHz</th>
<th>20 MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>TX POWER</td>
<td>MCS0: 28</td>
<td>MCS0: 28</td>
</tr>
<tr>
<td></td>
<td>MCS9: 21</td>
<td>MCS9: 22</td>
</tr>
<tr>
<td>RX SENSITIVITY (Per=10%)</td>
<td>MCS0: -89</td>
<td>MCS0: -93</td>
</tr>
<tr>
<td></td>
<td>MCS9: -68</td>
<td>MCS9: -71</td>
</tr>
<tr>
<td>THROUGHPUT</td>
<td>Up to 672 Mbps</td>
<td>Up to 324 Mbps</td>
</tr>
</tbody>
</table>

OTHER

- Dynamic Channel Selection (DCS) based on interference detection, Dynamic Frequency Selection (DFS) based on radar signature
- Automatic Transmit Power Control (ATPC) with EIRP limit support

**ANTENNA**

- MP-10100S-BSU/SUA: Two N-type Connectors with built-in Surge Protection
- MP-10150S-BS9: Integrated 2x2 MIMO 16dBi Dual Polarized 90 degree Sector Antenna
- MP-10150S-SUR: Integrated 2x2 MIMO 22dBi Dual Polarized 1 foot Panel Antenna

**MANAGEMENT**

- REMOTE: Telnet and SSH, Web GUI and SSL, TFTP, SNMPv3
- OTHER: Syslog, sFlow™ agent, SNTP and local time, Spectrum analyzer

**SYNCHRONIZATION**

- Pass-through IEEE 1588v2 Ethernet Synchronization

**SECURITY**

- ENCRYPTION: AES 128 and AES 256
- AUTHENTICATION: Internal MAC Address Control List, Radius based Authentication (with VLAN and QoS provisioning)

**QoS**

- Asymmetric Bandwidth Control Packet Classification Capabilities
- Scheduling: Asymmetric UL/DL committed and maximum information rate per service flow
- 802.1p priority, IPTOS, VLAN ID, IP addresses, ports, Ethernet addresses, IP protocol, and EtherType
- Best Effort, Real Time Polling Services
**NETWORK**

**MODES**
- Bridging, Routing (RIP v2 and IP tunneling)
- IPv4 and IPv6 simultaneously

**IP STACK**
- DHCP Server & relay, NAT with Std ALGs, PPPoE end point with Proxy DNS
- 802.1Q: Management VLAN. Transparent, Access, Trunk and Mixed mode. QinQ double tagging

**POWER**

<table>
<thead>
<tr>
<th>INPUT</th>
<th>OUTPUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>36 to 57 VDC via Ethernet port1 (Power over Ethernet)</td>
<td>48 to 57 VDC – 25 Watt on Ethernet port2 (PoE – software controlled)</td>
</tr>
<tr>
<td>12 VDC via Access port</td>
<td>12 VDC on Access port</td>
</tr>
<tr>
<td>Power should not be provided simultaneously on both ports</td>
<td></td>
</tr>
</tbody>
</table>

**POWER CONSUMPTION**
- 14 Watt typical, 17.5 Watt maximum

**ENVIRONMENTAL SPECS**

<table>
<thead>
<tr>
<th>OPERATING TEMPERATURE</th>
<th>STORAGE TEMPERATURE</th>
<th>HUMIDITY - IP RATING</th>
<th>WIND LOADING</th>
</tr>
</thead>
<tbody>
<tr>
<td>-40º to 60ºC (-40º to 140º Fahrenheit)</td>
<td>-50º to 70ºC (-58º to 158º Fahrenheit)</td>
<td>100% relative humidity - IP67</td>
<td>200 km/h (125 mph)</td>
</tr>
</tbody>
</table>

**PHYSICAL SPECS**

<table>
<thead>
<tr>
<th>MP-10100S-BSU/SUA</th>
<th>MP-10150S-BS9</th>
<th>MP-10150S-SUR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions.Package</td>
<td>Dimensions.Unpackaged</td>
<td>Weight (Packaged)</td>
</tr>
<tr>
<td>14.56 x 13.0 x 7.87 in (370 x 331 x 200 mm)</td>
<td>9.84 x 8.66 x 2.83 in (250 x 220 x 72 mm)</td>
<td>9.92 lbs (4.5 kg)</td>
</tr>
<tr>
<td>18.46 x 7.05 x 21.57 in (469 x 179 x 548 mm)</td>
<td>14 x 14 x 3.40 in (370 x 370 x 85 mm)</td>
<td>13.67 lbs (6.2 kg)</td>
</tr>
<tr>
<td>14.56 x 13.0 x 7.87 in (370 x 331 x 200 mm)</td>
<td>12 x 12 x 3.40 in (305 x 305 x 85 mm)</td>
<td>10.91 lbs (4.95 kg)</td>
</tr>
</tbody>
</table>

**SAFETY STANDARDS**
- UL 60950, IEC 60950 (part -1 and -22)

**CERTIFICATIONS**
- USA: FCC 90Y + 15E (UNII 15.247)
- Railway: EN 50155 + EN 50121 + EN 61000-6-4 + EN 61373 + EN 45545-2

**PACKAGE CONTENTS**
- One Tsunami® MP-10100S-BSU/SUA with two N-type surge protected connectors
- Or One Tsunami® MP-10150S-BS9/SUR with integrated dual polarized antenna
- One power injector and country specific power cord
- One Connector weatherproofing kit (Includes all recommended weatherproofing material)
- One Wall / Pole mounting kit
- One Antenna alignment (RJ11) dongle
- One Grounding kit
- One Quick Installation Guide

**MTBF & WARRANTY**
- MTBF over 250,000 hours & 2-year warranty with ServPak Extended Support available.