Designed to Maximize Bandwidth and Link Reliability in Noisy Environments

The Tsunami® MP-10250-BSX is an intelligent base station that implements a beam steering (BeamX™) antenna and a secondary, look-ahead scan radio (SmartScan™) to mitigate interference and take full advantage of the high throughput capability of the Tsunami® 10000 product line. This product is extremely robust in the face of high ambient RF interference, delivers more Mbps at a given point in the network and opens up additional 5GHz spectrum.

Fast, Secure and Flexible

- Point-to-Multipoint base station that delivers up to 866 Mbps data rate and covers distances up to 10 miles (16 km)
- AES 128 encryption, Radius authentication and highly-secure remote management via SSL/TLS1.2, SSH and SNMPv3
- Service flow based QoS with deep packet inspection (DPI) to ensure that the most important data arrives with priority
- Built-in feature rich network protocols for IPv4 and IPv6 bridging, routing and gateway functionality

Proxim SmartScan™

- Performs background analysis of the full RF spectrum and creates channel availability tables to allow an immediate switch to a free channel in case of weather radar detection or heavy interference
- By removing the initial transmission delay, SmartScan makes the DFS channel more efficient
- It also opens access to the 5.600–5.650 GHz sub-band, and enables effective use of up to 355 MHz of DFS spectrum

BeamX™ Antenna

- Smart antenna delivering a 17° beam that electronically steers itself to the remote subscriber unit over a 60° sector, to limit interference from nearby RF sources
- By improving the radio Signal to Noise Ratio (SNR), BeamX enables higher modulations and thus improves throughput

Rugged and Reliable

Designed for harsh environments, the Tsunami® MP-10250-BSX is fully IP67 rated, and will deliver years of reliable service in conditions that include, high winds, high salt, and high temperature extremes.

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.
Key Technologies

The Tsunami® MP-10250-BSX supports the following features for applications that include last mile access or video surveillance, both of which need uninterrupted high speed, and prioritized 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 SmartConnect™**
Delivering exceptional performance in noisy RF locations by combining a beam steering antenna with a secondary look ahead scan radio to seek, manage and select the best channel.

Product Line Compatibility

- Connects to all existing Tsunami® MP/XP 10100, 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-10250-BSX</td>
<td>Tsunami® MP 10250 Base Station Unit, 867 Mbps, MIMO 2x2, 16 dBi BeamX antenna, scan radio</td>
</tr>
<tr>
<td></td>
<td>901-00291 MP-10250-BSX-US</td>
</tr>
<tr>
<td></td>
<td>901-00292 MP-10250-BSX-WD</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**

**MIMO**
2x2 and 0x2 2 (scan radio)

**MODULATION**
OFDM with BPSK, QPSK, QAM16, QAM64, QAM256

**FREQUENCY**
4.900 – 5.850 GHz (Subject to Country Regulations)

**CHANNEL SIZE**
80 MHz, 40 MHz and 20 MHz

**DATA RATE**
MCS 0 to 9 with Dynamic Data Rate Selection

**TX POWER**
Up to 28 dBm (dual chain)

**TX POWER CONTROL**

<table>
<thead>
<tr>
<th>80 MHz</th>
<th>40 MHz</th>
<th>20 MHz</th>
<th>SCAN RADIO</th>
</tr>
</thead>
<tbody>
<tr>
<td>TX POWER</td>
<td>MCS0: 28 dBm</td>
<td>MCS0: 28 dBm</td>
<td>MCS0: 29 dBm</td>
</tr>
<tr>
<td></td>
<td>MCS5: 21 dBm</td>
<td>MCS5: 22 dBm</td>
<td>MCS5: 25 dBm</td>
</tr>
<tr>
<td>RX SENSITIVITY (Per=10%)</td>
<td>MCS5: -89 dBm</td>
<td>MCS5: -93 dBm</td>
<td>MCS5: -94 dBm</td>
</tr>
<tr>
<td></td>
<td>MCS9: -68 dBm</td>
<td>MCS9: -71 dBm</td>
<td>MCS9: -74 dBm</td>
</tr>
<tr>
<td>THROUGHPUT</td>
<td>Up to 672 Mbps</td>
<td>Up to 324 Mbps</td>
<td>Up to 137 Mbps</td>
</tr>
<tr>
<td>OTHER</td>
<td>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.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ANTENNA - Integrated 2x2 MIMO Beam Steering Antenna:**

**Beam Width**
17° spanning over ± 30° sector

**Receive Gain**
16 dBi (11 dB before 5.150 GHz)

**Transmit Gain**
20 dBi (11 dB before 5.150 GHz)

**MANAGEMENT**

**REMOTE**
Telnet and SSH, Web GUI and SSL, TFTP, SNMPv3

**SNMP**
SNMP v1-v2c-v3, RFC-1213, RFC-1215, RFC-2790, RFC-2571, RFC-3412, RFC-3414, Private MIB

**OTHER**
Syslog, sFlow™ agent, SNTP and local time, Spectrum analyzer
### SYNCHRONIZATION
- Pass-through IEEE 1588v2 Ethernet Synchronization

### SECURITY
- **ENCRYPTION AUTHENTICATION**: AES 128
- **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 (IPv6 and IPv4 simultaneously)
- **GATEWAY FEATURES**: DHCP Server & relay, NAT with Std ALGs, PPPoE end point with Proxy DNS
- **VLAN**: 802.1Q: Management VLAN. Transparent, Access, Trunk and Mixed mode. QinQ double tagging

### POWER
- **INPUT**: 36 to 57 VDC via Ethernet port (Power over Ethernet)
  - 12 VDC via Access port
  - Power should not be provided simultaneously on both ports
- **OUTPUT**: 48 to 57 VDC – 25 Watt on Ethernet port (PoE – software controlled)
  - 12 VDC on Access port

### POWER CONSUMPTION
- 30 Watt typical, 40 Watt maximum

### ENVIRONMENTAL SPECS
- **OPERATING TEMPERATURE**: -40º to 60ºC (-40º to 140º Fahrenheit)
- **STORAGE TEMPERATURE**: -50º to 70ºC (-58º to 158º Fahrenheit)
- **HUMIDITY - IP RATING**: 100% relative humidity - IP67
- **WIND LOADING**: 200 km/h (125 mph)

### PHYSICAL SPECS
- **DIMENSIONS PACKAGED**: 18.46 x 7.05 x 21.57 in (469 x 179 x 548 mm)
- **DIMENSIONS UNPACKAGED**: 14 x 14 x 3.40 in (371 x 371 x 85 mm)
- **WEIGHT (PACKAGED)**: 13.67 lbs (6.2 kg)
- **WEIGHT (UNPACKAGED)**: 7.27 lbs (3.3 kg)

### SAFETY STANDARDS
- **UL 60950, CAN/CSA-C22.2 No. 60950, IEC 60950, EN 60950 (part -1 and -22)

### CERTIFICATIONS
- **USA**: FCC 90Y + 15E (UNII 15.247), Canada: IC RSS 102 + RSS 111 + RSS 247, Europe: RED EN 301 489-1 + EN 301-489-17 + EN 301 893 + EN 302 502

### PACKAGE CONTENTS
- One Tsunami® MP-10250-BSX with integrated BeamX antenna and scan radio
- 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

© 2018 Proxim Wireless Corporation. All rights reserved. Proxim is a registered trademark and the Proxim logo and Tsunami® are trademarks of Proxim Wireless Corporation. All other trademarks mentioned herein are property of their respective owners. Specifications are subject to change without notice.