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.

TSunami® XP-10100 Series

Point-to-Multipoint Wireless Subscriber Unit with integrated Access Point

Simplifying Distributed Outdoor WiFi Hotspots

Proxim’s Tsunami® XP-10100, is designed as a single endpoint solution to delivering high performance outdoor WiFi. By Integrating a near-line-of-sight Point-to-Multipoint SU with an ORiNOCO® Access Point into a single unit, outdoor hotspots can be rapidly and reliably deployed. The Tsunami® XP-10100 is specifically designed for the Wireless Internet Service Provider, but is equally suited delivering campus wide connectivity.

World Class Performance

- Point-to-Multipoint system that delivers up to 866 Mbps data rate and covers distances up to 10 miles (16 km)
- 802.11b/g/n Access Point that delivers 300 Mbps data rate
- Dual IPv4 and IPv6 stack for evolution to tomorrow’s networks
- Triple level login with monitoring, simplified or advanced web interface
- Built-in feature rich network protocols for bridging, routing and gateway functionality
- Railway certified High Speed Mobility up to 185 mph (295 km/h)

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 condition
- Spectrum analyzer to analyze frequency bands for interference, and select the best available channel
- Multi-SSID with VLAN allocation, plus Ethernet port access and trunkmode

Carrier-Grade Solution

- Implements AES 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 frame
- Public HotSpot integration with Home Page redirect and Walled Garden
- HotSpot 2.0 to automatically discover and seamlessly authenticate to public Wi-Fi networks

Key Technologies

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™

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-8200, MP-820 and MP-830 products
- Fully integrates within ProximVision® Advanced Cloud Based Carrier Management System and Controller

### Specifications

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### Interfaces

- **Wired Ethernet**: Two auto MDI-X RJ45 10/100/1000Mbps Ethernet (Port #1 with PoE in & Data, Port #2 with PoE out & Data)
- **Radio #1**: WORP® (Wireless Outdoor Router Protocol), - **Radio #2**: Wi-Fi (802.11b/g/n)

### Radio & TX Specs

#### Radio #1
- **Frequency**: 4.900 – 5.925 GHz (Subject to Country Regulations)
- **Modulation**: OFDM, BPSK - QAM256
- **Data Rate**: Up to 866 Mbps
- **TX Power**: MCS0: 28, MCS0: 28, MCS0: 29, MCS0: 29, MCS0: 29, MCS0/8: 26, MCS0/8: 26, 6 Mbps: 26, 1 Mbps: 26
- **RX Sensitivity (Per=10%)**: MCS0: -89, MCS0: -93, MCS0: -94, MCS0/8: -88/90, MCS0/8: -82/91, 6 Mbps: -93, 1 Mbps: -93
- **Other**: Dynamic Channel Selection (DCS) based on interference detection, Dynamic Frequency Selection (DFS) based on radar signature

#### Radio #2
- **Frequency**: 2.400 – 2.484 GHz (Subject to Country Regulations)
- **Modulation**: OFDM, BPSK - QAM64
- **Data Rate**: Up to 300 Mbps
- **TX Power**: MCS0: 22, MCS0: 22, MCS0: 25, MCS0: 25, MCS0: 25, MCS7/15: 20, MCS7/15: 20, 6 Mbps: 22, 1 Mbps: 22
- **RX Sensitivity (Per=10%)**: MCS0: -77, MCS0: -72/72, MCS0: -74/74, MCS0: -74/74, 6 Mbps: -93, 1 Mbps: -93
- **Other**: Dynamic Channel Selection (DCS) based on interference detection, Dynamic Frequency Selection (DFS) based on radar signature

#### Antenna
- **Radio #1**: Two N-type Connectors with built-in Surge Protection
- **Radio #2**: Two N-type Connectors with built-in Surge Protection

### Security

#### Encryption
- **Radio #1**: AES 128
- **Radio #2**: 802.11i/WPA2 and WPA Wireless Security with AES-128, TKIP or WEP

#### Authentication
- **Radio #1**: Internal MAC Address Control List, Radius based Authentication
- **Radio #2**: Enterprise/802.1x, Personal/PSK (Pre Shared Key) or Open

#### 802.1X Support
- **Radio #1**: PEAP, LEAP, EAP-FAST, EAP-SIM, EAP-TTLS, EAP-AKA
- **Radio #2**: PEAP, LEAP, EAP-FAST, EAP-SIM, EAP-TTLS, EAP-AKA

#### QoS
- **Radio #1**: Asymmetric UL/DL committed and maximum information rate per service flow with Best Effort and Real Time Polling Services
- **Radio #2**: 802.11e/WMM Enhanced Distributed Channel Access, 4 priority queues

#### Packet Classification Capabilities
- **Radio #1**: 802.1p priority, IPTOS, VLAN ID, IP addresses, ports, Ethernet addresses, IP protocol, and EtherType
- **Radio #2**: 802.1p priority, IPTOS

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**DS_1811_XP-10100 Series_A4**

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### Tsunami® XP-10100 Series

**Network Modes**

<table>
<thead>
<tr>
<th>Radio #1</th>
<th>Radio #2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bridging, Routing (RIP v2 and IP tunneling)</td>
<td>Access Point</td>
</tr>
</tbody>
</table>

**IP Stack Gateway Features**

- IPv4 and IPv6 simultaneously
- DHCP Server & relay, NAT with Std ALGs
- 802.1Q: Management VLAN, Transparent, Access, Trunk and Mixed mode, QnQ double tagging

**Power Input/Output**

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

**Power Consumption**

- 16.5 Watt typical, 22.5 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 140ºFahrenheit)</td>
<td>-50º to 70ºC (-58º to 158ºFahrenheit)</td>
<td>100% relative humidity - IP67</td>
<td>200 km/h (125 mph)</td>
</tr>
</tbody>
</table>

**Physical Specs**

<table>
<thead>
<tr>
<th>MODE</th>
<th>DIMENSIONS PACKAGED</th>
<th>DIMENSIONS UNPACKAGED</th>
<th>WEIGHT (PACKAGED)</th>
<th>WEIGHT (UNPACKAGED)</th>
</tr>
</thead>
<tbody>
<tr>
<td>XP-10100-SUA</td>
<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>10.91 lbs (4.95 kg)</td>
<td>5.07 lbs (2.3 kg)</td>
</tr>
<tr>
<td>XP-10150-BS1/SUR</td>
<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>11.90 lbs (5.4 kg)</td>
<td>6.17 lbs (2.8 kg)</td>
</tr>
</tbody>
</table>

**Safety Standards**

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

**Certifications**

- USA: FCC 90Y + 15C + 15E (UNII 15 247)
- Canada: IC RSS 102 + RSS 111 + RSS 247
- Europe: RED EN 301 489-1 + EN 301-489-17 + EN 300 328 + EN 301 893 + EN 302 502
- Railway: EN 50155 + EN 50121 + EN 61373

**Package Contents**

- One Tsunami® XP-10100-SUA unit with four N-type surge protected connectors
- Or One Tsunami® XP-10150-BS1/SUR unit with integrated 22 dBi panel antenna plus two N-type surge protected connectors
- One power injector and country specific power cord
- One Connector weatherproofing kit (includes all recommended weatherproofing material)
- One Wall / Pole mounting kit
- One Grounding kit
- Two 2.4 GHz, 5 dBi omni antennas
- One Antenna alignment (RJ11) dongle
- One Quick Installation Guide

**MTBF & Warranty**

- >250,000 hours, 2-year warranty; ServPak Extended Support available.

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