Paving a new path in the wireless industry, Proxim addresses the requirement for a versatile and high performance wireless solution, with Tsunami® 8200 series. The Tsunami® MP-8200 delivers data rates of 300 Mbps along with excellent spectrum flexibility and high power radios capable of 25.8 dBm Tx power for extended coverage.

Tsunami® MP-8200 features nLoS functionality and leverages the advantages of OFDM, MIMO radio innovations and Proxim’s proprietary Wireless Outdoor Routing Protocol (WORP®) to provide in excess of 4G speeds with QoS class of service for delivering voice, video and data applications.

With supreme throughput, high power radio, flexible channel features and dual Gigabit Ethernet ports with PoE out, for powering additional devices, Tsunami® MP-8200 series is an ideal solution for service providers and government organizations with requirements of all kinds, from last mile broadband wireless access (BWA) to wireless video surveillance and more.

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World Class Performance

- Point to Multipoint solution that can deliver 300 Mbps data rates
- High power radio capable of up to 25.8 dBm Tx power to extend the range and coverage
- Provides reliable high performance under all traffic loads using Proxim’s Wireless Outdoor Routing Protocol (WORP®)
- Dual IPv4 and IPv6 stack for transparent evolution to tomorrow networks
- Seamless roaming up to 295 km/h (185 mph)

Non-Line-of-Sight and Advanced Features

- Non-line-of-sight capable, utilizing OFDM and 3x3 MIMO techniques to improve link performance and penetrate through or around obstructions better
- Features dual Gigabit Ethernet ports with PoE in/out to power other devices like surveillance cameras and wireless access points
- Enables packet identification 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 analysis feature helps to study frequency bands for interference, and select a relatively low interference channel.

Frequency Agnostic

- Operates in licensed and unlicensed frequency bands
- Flexible channel planning with 5, 10, 20 and 40MHz size
- Provides support for extended frequency bands from 4.900 to 5.925 GHz

Carrier-Grade Security

- Implements tiered security layers 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, SSH and SNMPv3
- Provides military-grade security with AES encryption technology, prevents unsecure client-to-client communications and leverages MAC, Ethertype and IP address packet filtering for granular network security

Product Line Compatibility

- Connects to all existing Tsunami® MP-8100 and Tsunami® MP11
Specifications: Tsunami® Multipoint 8200 Series

PRODUCT MODELS
- MP-8200-BSU: Tsunami® MP 8200 Base Station Unit, 300 Mbps, MIMO 3x3, Type-N Connectors
- MP-8250-BSI: Tsunami® MP 8250 Base Station Unit, 300 Mbps, MIMO 2x2, 23 dB, 10° panel antenna
- MP-8250-BSS: Tsunami® MP 8250 Base Station Unit, 300 Mbps, MIMO 2x2, 16 dB, 90° sector antenna
- MP-8250-SU: Tsunami® MP 8250 Subscriber Unit, 300 Mbps, MIMO 3x3, Type-N Connectors
- MP-8250-SUR: Tsunami® MP 8250 Subscriber Unit, 300 Mbps, MIMO 2x2, 23 dB Integrated Antenna

INTERFACES
- Wired Ethernet: Two auto MDIX RJ45 10/100/1000 Mbps Ethernet (Port #1 with PoE in & Data, Port #2 with PoE out (802.3af pin out) & Data
- Wireless Protocol: WORP® (Wireless Outdoor Router Protocol)

RADIO & TX SPECS
- MIMO: 3x3 MIMO with 2 data streams
- Modulation: OFDM with BPSK, QPSK, QAM16, QAM64
- Frequency: 4.900 – 5.925 GHz (Subject to Country Regulations)
- Channel Size: 40 MHz, 20 MHz, 10 MHz*, 5 MHz* channel bandwidths * Not applicable for DFS Band
- Data Rate: MCS 0 to 55 for High Throughput mode (6.5 – 300 Mbps) with Dynamic Data Rate Selection. BPSK, QPSK, 16-QAM and 64-QAM for legacy mode (6Mbps – 54Mbps)
- TX Power: Up to 25 dBm (Triple chain)
- TX Power Control: 0 – 25 dB, in 0.5 dB steps. Automatic TPC with configurable EIRP limit

RX SENSITIVITY (Per=10%)

<table>
<thead>
<tr>
<th>Channel Size</th>
<th>-40 MHZ</th>
<th>-20 MHZ</th>
<th>-10 MHZ</th>
<th>-5 MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCS 0</td>
<td>-87 dBm</td>
<td>-93 dBm</td>
<td>-95 dBm</td>
<td>-98 dBm</td>
</tr>
<tr>
<td>MCS 7</td>
<td>-71 dBm</td>
<td>-74 dBm</td>
<td>-76 dBm</td>
<td>-79 dBm</td>
</tr>
<tr>
<td>MCS 8</td>
<td>-87 dBm</td>
<td>-91 dBm</td>
<td>-93 dBm</td>
<td>-96 dBm</td>
</tr>
<tr>
<td>MCS 15</td>
<td>-68 dBm</td>
<td>-72 dBm</td>
<td>-74 dBm</td>
<td>-77 dBm</td>
</tr>
</tbody>
</table>

ANTENNA
- MP-8200-BSU or SUA: Three N-type Connectors with built-in Surge Protection
- MP-8250-BSI or SU: Integrated 2x2 MIMO 23 dBi Dual Polarized Panel Antenna
- MP-8250-BS9 or 2x MIMO 16 dBi Dual Polarized 90 degree Sector Antenna

MANAGEMENT
- Local: RS-232 serial (RJ11 to DB-9 dongle provided)
- Remote: Telnet and SSH, Web GUI and SSL, TFTP, SNIPv3
- Other: Syslog, sFlow™ agent, SNTP and local time, Spectrum analyzer

SECURITY
- Encryption: AES-CCM 128 bits
- Authentication: Internal MAC Address Control List, Radius based Authentication (with VLAN and QoS provisioning)

NETWORK
- Modes: Bridging, Routing (RIP v2 and IP tunneling)
- Gateway Features: DHCP Server & relay, NAT with Std ALGs, PPPoE end point with Proxy DNS
- IP Stack: IPv4 and IPv6 simultaneously
- Throughput: Up to 240 Mbps

QoS
- Asymmetric Bandwidth Control
- UL and DL CIR Control "committed information rate" per service flow
- UL and DL MIR Control "maximum information rate" per service flow
- Packet Classification Capabilities
- 802.1D/802.1Q/802.1P priority, IPTOS, VLAN ID, IP source/destination address, source/destination port, Ethernet source/destination address, IP protocol, and Ethertype
- Scheduling: Best Effort, Real-Time Polling Services

VLAN
- 802.1Q Management VLAN, Transparent, Access, Trunk and Mixed mode. QinQ double tagging

POWER CONSUMPTION
- 12 Watt typical (22 Watt max)

ENVIRONMENTAL SPECS
- Operating Temperature: -40º to 60ºC (-40º to 140º Fahrenheit) Will continue operating if temperature temporarily varies between -50º and 70ºC (-58º to 158º Fahrenheit)
- Storage Temperature: -55º to 80ºC (-67º to 176º Fahrenheit)
- Humidity, IP Rating, Wind Loading: 100% relative humidity, IP67, 200 km/h (125 mph)

PHYSICAL SPECS
- Dimensions (Packaged):
  - MP-8200-BSU or MP-8200-SUA: 14.56 x 13.69 x 8.18 in. (370 x 348 x 208 mm)
  - MP-8250-SUR: 16.31 lbs (7.4 kg)
- Weight (Packaged):
  - MP-8200-BSU or MP-8200-SUA: 15 lbs (6.8 kg)
- Dimensions (Unpackaged):
  - MP-8200-BSU or MP-8200-SUA: 10.79 x 11.14 x 3.38 in. (274 x 283 x 86 mm)
  - MP-8250-SUR: 14.56 x 13.69 x 8.18 in. (370 x 348 x 208 mm)
- Weight (Unpackaged):
  - MP-8200-BSU or MP-8200-SUA: 7.7 lbs (3.5 kg)

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

PACKAGE CONTENTS
- One Tsunami® MP-8200-BSU with three N-type surge protected connectors Or One Tsunami® MP-8250-SUA with an integrated 23 dB dual polarized antenna
- One Serial (RJ-11 to DB9) dongle
- One power injector and country specific power cord
- One Wall / Pole mounting kit
- One Connector weatherproofing kit (includes all recommended weatherproofing material)
- One Grounding kit
- One Gigabit PoE Surge Arrestor
- One Quick Installation Guide

MTBF & WARRANTY
- >250,000 hours & 1-year on parts and labor; ServPak Extended Support available.