



**Tsunami MP-8200 Series**

## Wireless Product Portfolio

- **Tsunami® 8000 Series** – PtP & PtMP product line delivering 300 Mbps plus data rate
- **Tsunami® .11 Series** – Our best selling Point-to-point and multipoint product line
- **Tsunami® GX800**– Carrier-class IP Ethernet bridge for voice and data backhaul for service providers and enterprise applications
- **Tsunami® QB 62000**– High capacity, small footprint PtP backhaul solution with 1Gbps throughput
- **ORINOCO® AP** - The industry's highest performance 802.11a/b/g/n access points

**Proxim Wireless** is a global pioneer of broadband wireless systems that deliver the quadruple play of video, voice, data and mobility. From Wi-Fi to wireless Gigabit Ethernet – our WLAN, Wi-Fi Mesh, WiMAX and point-to-point wireless backhaul products are available through our extensive global channel networks.

## Experience superior performance and unparalleled flexibility with our Tsunami MP-8200 wireless series

Paving a new path in the wireless industry, Proxim addresses the requirement for a versatile and a high performance wireless solution, with the 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.

The 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, the 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®)
- Seamless roaming up to 112 km/h (70 mph)

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### 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
- Spectrum analysis feature helps to study frequency bands for interference, and select a relatively low interference channel.

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### 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

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### 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

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### Product Line Compatibility

- Connects to all existing Tsunami® MP.11 and Tsunami® 8100

<b>PRODUCT MODELS</b>					
MP-8200-BSU	Tsunami MP 8200 Base Station Unit, 300 Mbps, MIMO 3x3, Type-N Connectors				
MP-8200-SUA	Tsunami MP 8200 Subscriber Unit, 300 Mbps, MIMO 3x3, Type-N Connectors				
<b>INTERFACES</b>					
WIRED ETHERNET	Two auto MDI-X RJ45 10/100/1000Mbps Ethernet - Port #1 with PoE in & Data - Port #2 with PoE out (802.3af pin out) & Data				
WIRELESS PROTOCOL	WORP® (Wireless Outdoor Router Protocol)				
<b>RADIO &amp; TX SPECS</b>					
MIMO	3x3MIMO				
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 15 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 25.8dBm (Triple chain)				
TX POWER CONTROL	0 – 25 dB, in 0.5 dB steps. Automatic TPC with configurable EIRP limit				
RX SENSITIVITY (BER=10 <sup>-6</sup> )	<i>Channel Size</i>	<i>40 MHz</i>	<i>20 MHz</i>	<i>10 MHz</i>	<i>5 MHz</i>
	MCS 0	-85 dBm	-90 dBm	-92 dBm	-95 dBm
	MCS 7	-68 dBm	-71 dBm	-73 dBm	-76 dBm
	MCS 8	-85 dBm	-88 dBm	-90 dBm	-93 dBm
	MCS 15	-66 dBm	-69 dBm	-71 dBm	-74 dBm
<b>ANTENNA</b>	Model MP-8200-BSU or MP-8200-SUA include three N-type Connectors with built-in Surge Protection				
<b>MANAGEMENT</b>					
LOCAL	RS-232 serial (RJ11 to DB-9 dongle provided)				
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				
<b>SECURITY</b>					
ENCRYPTION	AES-CCM 128 bits				
AUTHENTICATION	Internal MAC Address Control List, Radius based Authentication (with VLAN and QoS provisioning)				
<b>NETWORK</b>					
MODES	Bridging, Routing (RIP v2 and IP tunneling)				
THROUGHPUT	Model MP-8200-BSU or MP-8200-SUA: up to 200 Mbps				
GATEWAY FEATURES	DHCP Server & relay, NAT with Std ALGs, PPPoE end point with Proxy DNS				
QoS	Asymmetric Bandwidth Control	Uplink and Downlink CIR Control "committed information rate" per service flow Uplink and Downlink 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				
<b>POWER CONSUMPTION</b>	12 Watt typical (22 Watt max)				
<b>ENVIRONMENTAL SPECS</b>					
<b>TEMPERATURE</b>					
OPERATING	-40° to 60°C (-40° to 140° Fahrenheit)				
STORAGE	-55° to 80°C (-67° to 176° Fahrenheit)				
HUMIDITY	Max 100% relative humidity (non-condensing)				
WIND LOADING	125 mph				
WATER & DUST PROOF	IP67				
<b>PHYSICAL SPECS</b>					
<b>DIMENSIONS</b>					
PACKAGED	Model MP-8200-BSU or MP-8200-SUA: 14.56 x 13.69 x 8.18 in. (370 x 348 x 208 mm)				
UNPACKAGED	Model MP-8200-BSU or MP-8200-SUA: 10.79 x 11.14 x 3.38 in (274 x 283 x 86 mm)				
<b>WEIGHT</b>					
PACKAGED	Model MP-8200-BSU or MP-8200-SUA: 15 lbs (6.8 kg)				
UNPACKAGED	Model MP-8200-BSU or MP-8200-SUA: 7.7 lbs (3.5 kg)				
<b>SAFETY STANDARDS</b>	UL 60950, CAN/CSA-C22.2 No. 60950, IEC 60950, EN 60950				
<b>PACKAGE CONTENTS</b>	<ul style="list-style-type: none"> <li>■ One Tsunami MP-8200-BSU with three N-type surge protected connectors</li> <li>Or One Tsunami MP-8200-SUA with three N-type surge protected connectors</li> <li>■ One power injector and country specific power cord</li> <li>■ One Wall / Pole mounting kit</li> <li>■ One Connector weatherproofing kit (Includes all recommended weatherproofing material)</li> <li>■ One Serial (RJ-11 to DB9) dongle</li> <li>■ One Grounding kit</li> <li>■ One Gigabit PoE Surge Arrestor</li> <li>■ One Quick Installation Guide</li> </ul>				
<b>MTBF &amp; WARRANTY</b>	>100,000 hours & 1-year on parts and labor; ServPak Extended Support available.				

## APPLICATIONS

- Last Mile Access**  
 Competitive broadband service access alternative to DSL or cable for residences and T1 or Ethernet for businesses
  
- Security and Surveillance**  
 High definition IP-surveillance cameras for monitoring city streets, airports, bridges, seaports, transportation hubs, offices and warehouses
  
- Metropolitan Area Networks**  
 Secure and reliable connectivity between city buildings
  
- Emergency First Responders**  
 Critical information delivery such as medical data and video feeds during in-progress events
  
- Enterprise Campus Connectivity**  
 Extend the main network to remote offices, warehouses or other buildings without leased lines

For detailed technical specifications, please go to <http://proxim.com/products/point-to-multipoint/tsunamir-mp-8200-series>

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