

Tsunami® Multipoint 8200 Series

Wireless Point-to-Multipoint Systems Delivering 300Mbps Data Rate



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 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.

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 un-secure 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® MP.11

PRODUCT MODELS

MP-8200-BSU	Tsunami® MP 8200 Base Station Unit, 300 Mbps, MIMO 3x3, Type-N Connectors
MP-8250-BS1	Tsunami® MP 8250 Base Station Unit, 300 Mbps, MIMO 2x2, 23 dBi, 10° panel antenna
MP-8250-BS9	Tsunami® MP 8250 Base Station Unit, 300 Mbps, MIMO 2x2, 16 dBi, 90° sector antenna
MP-8200-SUA	Tsunami® MP 8200 Subscriber Unit, 300 Mbps, MIMO 3x3, Type-N Connectors
MP-8250-SUR	Tsunami® MP 8250 Subscriber Unit, 300 Mbps, MIMO 2x2, 23 dBi Integrated Antenna

INTERFACES

WIRED ETHERNET	Two auto MDI-X 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 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
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

RX SENSITIVITY (Per=10%)

Channel Size	40 MHZ	20 MHZ	10 MHZ	5 MHZ
MCS 0	-87 dBm	-93 dBm	-95 dBm	-98 dBm
MCS 7	-71 dBm	-74 dBm	-76 dBm	-79 dBm
MCS 8	-87 dBm	-91 dBm	-93 dBm	-96 dBm
MCS 15	-68 dBm	-72 dBm	-74 dBm	-77 dBm

ANTENNA

MP-8200-BSU or SUA	Three N-type Connectors with built-in Surge Protection
MP-8250-BS1 or SUR	Integrated 2x2 MIMO 23dBi Dual Polarized Panel Antenna
MP-8250-BS9	Integrated 2x2 MIMO 16dBi 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, 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

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	<table border="1"> <tr> <td>Asymmetric Bandwidth Control</td> <td>UL and DL CIR Control "committed information rate" per service flow UL and DL MIR Control "maximum information rate" per service flow</td> </tr> <tr> <td>Packet Classification Capabilities</td> <td>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</td> </tr> <tr> <td>Scheduling</td> <td>Best Effort, Real Time Polling Services</td> </tr> </table>	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
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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	STORAGE TEMPERATURE	HUMIDITY, IP RATING, WIND LOADING
-40° to 60°C (-40° to 140° Fahrenheit) Will continue operating if temperature temporarily varies between -50° and 70°C (-58° and 158° Fahrenheit)	-55° to 80°C (-67° to 176° Fahrenheit)	100% relative humidity, IP67, 200 km/h (125 mph)

PHYSICAL SPECS

DIMENSIONS (PACKAGED)	DIMENSIONS (UNPACKAGED)	WEIGHT (PACKAGED)	WEIGHT (UNPACKAGED)
<ul style="list-style-type: none"> 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: 15.94 x 15.94 x 9.21 in. (405 x 405 x 234 mm) 	<ul style="list-style-type: none"> 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: 14.17 x 14.17 x 3.70 in. (370 x 370 x 94 mm) 	<ul style="list-style-type: none"> MP-8200-BSU or MP-8200-SUA: 15 lbs (6.8 kg) MP-8250-SUR: 16.31 lbs (7.4 kg) 	<ul style="list-style-type: none"> MP-8200-BSU or MP-8200-SUA: 7.7 lbs (3.5 kg) MP-8250-SUR: 9.0 lbs (4.1 kg)

SAFETY STANDARDS

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

PACKAGE CONTENTS

<ul style="list-style-type: none"> One Tsunami® MP-8200-BSU with three N-type surge protected connectors Or One Tsunami® MP-8200-SUA with three N-type surge protected connectors Or One Tsunami® MP-8250-SUR with integrated 23 dBi dual polarized antenna 	<ul style="list-style-type: none"> 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) 	<ul style="list-style-type: none"> One Grounding kit One Gigabit PoE Surge Arrestor One Quick Installation Guide
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MTBF & WARRANTY

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