



## Designed to deliver over 630 Mbps of data throughput

The Tsunami® MP-10100 product family, is a series of very high throughput, reliable and cost-effective, near-line-of-sight point-to-multipoint wireless products. The Tsunami® MP-10100 series supports the following features and is ideal for last mile access, video surveillance or mobility applications that need rugged and reliable high-speed network 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)
- Dual IPv4 and IPv6 stack for transparent 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)

## Frequency Agnostic

- Operates in unlicensed bands from 4.900 to 5.925 GHz
- Flexible RF planning with 20, 40 and 80 MHz channel size

## 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
- Built in spectrum analyzer to analyze frequency bands for interference, and select the best available channel

## Key Technologies

### Proxim WORM®

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 FastConnect™

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)

## Carrier-Grade Backhaul

- 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 (WORM®), 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

## 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

## 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.

## Specifications

PRODUCT MODELS		PART NUMBERS	
MP-10100-BSU	Tsunami® MP 10100 Base Station, 866 Mbps, MIMO 2x2, Type-N Connectors	901-00226	MP-10100-BSU-US
MP-10150-BS9	Tsunami® MP 10150 Base Station, 866 Mbps, MIMO 2x2, 90° sector antenna	901-00227	MP-10100-BSU-WD
MP-10150-BS1	Tsunami® MP 10150 Base Station, 866 Mbps, MIMO 2x2, 22 dBi panel antenna	901-00230	MP-10150-BS9-US
MP-10100-SUA	Tsunami® MP 10100 Subscriber Unit, 866 Mbps, MIMO 2x2, Type-N Connectors	901-00231	MP-10150-BS9-WD
MP-10150-SUR	Tsunami® MP 10150 Subscriber Unit, 866 Mbps, MIMO 2x2, 22 dBi panel antenna	901-00260	MP-10150-BS1-US
MP-10150-SUL	Tsunami® MP 10150 Subscriber Unit Long-range, 866 Mbps, MIMO 2x2, 28 dBi panel antenna	901-00261	MP-10150-BS1-WD
		901-00228	MP-10100-SUA-US
		901-00229	MP-10100-SUA-WD
		901-00232	MP-10150-SUR-US
		901-00233	MP-10150-SUR-WD
		901-00234	MP-10150-SUL-US
		901-00235	MP-10150-SUL-WD
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	2x2:2		
MODULATION	OFDM with BPSK, QPSK, QAM16, QAM64, QAM256		
FREQUENCY	4.900 – 5.925 GHz (Subject to Country Regulations)		
CHANNEL SIZE	80 MHz, 40 MHz and 20 MHz (±5ppm channel accuracy)		
DATA RATE	MCS 0 to 9 with Dynamic Data Rate Selection		
TX POWER	Up to 28 dBm (dual chain)		
TX POWER CONTROL	0 - 27 dB, in 1 dB steps. Automatic TPC with configurable EIRP limit		
	80 MHz	40 MHz	20 MHz
TX POWER	MCS0: 28 dBm	MCS0: 28 dBm	MCS0: 29 dBm
	MCS9: 21 dBm	MCS9: 22 dBm	MCS8: 25 dBm
RX SENSITIVITY (Per=10%)	MCS0: -89 dBm	MCS0: -93 dBm	MCS0: -94 dBm
	MCS9: -68 dBm	MCS9: -71 dBm	MCS8: -74 dBm
THROUGHPUT	Up to 672 Mbps	Up to 324 Mbps	Up to 137 Mbps
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		
ANTENNA			
MP-10100-BSU/SUA	Two N-type Connectors with built-in Surge Protection		
MP-10150-BS9	Integrated 2x2 MIMO 16dBi Dual Polarized 90 degree Sector Antenna		
MP-10150-BS1/SUR	Integrated 2x2 MIMO 22dBi Dual Polarized 1 foot Panel Antenna		
MP-10150-SUL	Integrated 2x2 MIMO 28dBi Dual Polarized 2 feet Panel Antenna		
MANAGEMENT			
REMOTE	Telnet and SSH, Web GUI and SSL/TLS, 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	AES 128		
AUTHENTICATION	Internal MAC Address Control List, Radius based Authentication (with VLAN and QoS provisioning)		
QoS			
Asymmetric Bandwidth Control	Asymmetric UL/DL committed and maximum information rate per service flow		
Packet Classification	802.1p priority, IPTOS, VLAN ID, IP addresses, ports, Ethernet addresses, IP protocol, and EtherType		
Capabilities			
Scheduling	Best Effort, Real Time Polling Services		
NETWORK			
MODES	Bridging, Routing (RIP v2 and IP tunneling)		
IP STACK	IPv4 and IPv6 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		OUTPUT	
	36 to 57 VDC via Ethernet port1 (Power over Ethernet) 12 VDC via Access port Power should not be provided simultaneously on both ports		48 to 57 VDC – 25 Watt on Ethernet port2 (PoE – software controlled) 12 VDC on Access port	
POWER CONSUMPTION				
	14 Watt typical, 17.5 Watt maximum			
ENVIRONMENTAL SPECS	OPERATING TEMPERATURE	STORAGE TEMPERATURE	HUMIDITY - IP RATING	WIND LOADING
	-40° to 60°C (-40° to 140° Fahrenheit)	-50° to 70°C (-58° to 158° Fahrenheit)	100% relative humidity - IP67	200 km/h (125 mph) except MP-10150-SUL:180 km/h(112.5 mph)
PHYSICAL SPECS	DIMENSIONS PACKAGED	DIMENSIONS UNPACKAGED	WEIGHT (PACKAGED)	WEIGHT (UNPACKAGED)
MP-10100-BSU/SUA	14.56 x 13.0 x 7.87 in (370 x 331 x 200 mm)	9.84 x 8.66 x 2.83 in (250 x 220 x 72 mm)	9.92 lbs (4.5 kg)	4.20 lbs (1.9 kg)
MP-10150-BS9	18.46 x 7.05 x 21.57 in (469 x 179 x 548 mm)	14.57 x 14.57 x 4.21 in (370 x 370 x107 mm)	13.67 lbs (6.2 kg)	7.27 lbs (3.3 kg)
MP-10150-BS1/SUR	14.56 x 13.0 x 7.87 in (370 x 331 x 200 mm)	12 x 12 x 3.40 in (305 x 305 x 85 mm)	10.91 lbs (4.95 kg)	5.30 lbs (2.4 kg)
MP-10150-SUL	27.55 x 6.85 x 27.55 in (700 x 174 x 700 mm)	23.62 x 23.62 x 3.85 in (600 x 600 x 92 mm)	23.15 lbs (10.5 kg)	14.33 lbs (6.5 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, Railway: EN 50155 + EN 50121 + EN 61373			
PACKAGE CONTENTS				
	<ul style="list-style-type: none"> <li>One Tsunami® MP-10100-BSU/SUA with two N-type surge protected connectors Or One Tsunami® MP-10150-BS9/BS1/SUR/SUL with integrated dual polarized antenna</li> <li>One power injector and country specific power cord</li> <li>One Connector weatherproofing kit (Includes all recommended weatherproofing material)</li> <li>One Wall / Pole mounting kit</li> <li>One Antenna alignment (RJ11) dongle</li> <li>One Grounding kit</li> <li>One Quick Installation Guide</li> </ul>			
MTBF & WARRANTY				
	MTBF over 250 000 hours & 2-year warranty with ServPak Extended Support available.			