



## Starts at 320Mbps Throughput, Field Upgradable to 630Mbps

The Multipoint 10100L product family, is a series of very high throughput, reliable and cost-effective, near-line-of-sight point-to-multipoint wireless products. The Multipoint 10100L series enables a lower cost of entry into a high bandwidth Point to Multipoint network. The ability to upgrade the products to support 80 Mhz channel and deliver 630Mbps.

## World Class Performance

- Point-to-Multipoint system that delivers up to 400 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)

## 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

## 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 (WORP<sup>®</sup>), 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

## Key Technologies

### Proxim WORP<sup>®</sup>

Combines network access control, data scheduling, advanced QoS and encryption to ensure highly efficient and secure data transmission.

### Proxim ClearConnect<sup>™</sup>

A suite of interference mitigation technologies ensuring robust and reliable communications in high-density wireless deployments.

### Proxim FastConnect<sup>™</sup>

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).

## Rugged and Reliable

Designed for harsh environments, the Multipoint 10100L is fully IP67 rated, and will deliver years of reliable service in conditions that include, high winds, high salt, and high temperature extremes.

## 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.

### Product Line Compatibility

- Connects to all existing MP-10200, MP-10100, MP-8200, MP-820 and MP-830 products
- Fully integrates within ProximVision® Advanced Cloud Based Carrier Management System and Controller

### Multi-Language Support

Web Interface available in English, French, Spanish and Chinese

## Specifications

PRODUCT MODELS		PART NUMBERS
MP-10100L-BSU	Tsunami® MP 10100 Base Station Lite, 400 Mbps, MIMO 2x2, Type-N Connectors	901-00272 MP-10100L-BSU-US 901-00277 MP-10100L-BSU-WD
MP-10150L-BS9	Tsunami® MP 10150 Base Station Lite, 400 Mbps, MIMO 2x2, 90° sector antenna	901-00274 MP-10150L-BS9-US 901-00279 MP-10150L-BS9-WD
MP-10150L-BS1	Tsunami® MP 10150 Base Station Lite, 400 Mbps, MIMO 2x2, 22 dBi panel antenna	901-00275 MP-10150L-BS1-US 901-00280 MP-10150L-BS1-WD
MP-10100L-SUA	Tsunami® MP 10100 Subscriber Unit Lite, 400 Mbps, MIMO 2x2, Type-N Connectors	901-00273 MP-10100L-SUA-US 901-00278 MP-10100L-SUA-WD
MP-10150L-SUR	Tsunami® MP 10150 Subscriber Unit Lite, 400 Mbps, MIMO 2x2, 22 dBi panel antenna	901-00276 MP-10150L-SUR-US 901-00281 MP-10150L-SUR-WD
MP-10100L-BSx-866-UPG	Tsunami® MP 10100 Base Station Lite, 400 Mbps to 866 Mbps license upgrade	997-00032 MP-10100L-BSx-866-UPG
MP-10100L-SUx-866-UPG	Tsunami® MP 10100 Subscriber Unit Lite, 400 Mbps to 866 Mbps license upgrade	997-00033 MP-10100L-SUx-866-UPG
INTERFACES		
WIRED ETHERNET WIRELESS PROTOCOL	Two auto MDI-X RJ45 10/100/1000Mbps Ethernet (Port #1 with PoE in & Data, Port #2 with PoE out & Data) WORP® (Wireless Outdoor Router Protocol)	
RADIO & TX SPECS		
MIMO MODULATION FREQUENCY CHANNEL SIZE DATA RATE TX POWER TX POWER CONTROL	2x2:2 OFDM with BPSK, QPSK, QAM16, QAM64, QAM256 4.900 – 5.925 GHz (Subject to Country Regulations) 40 MHz and 20 MHz (±5ppm channel accuracy) MCS 0 to 9 with Dynamic Data Rate Selection Up to 28 dBm (dual chain) 0 - 27 dB, in 1 dB steps. Automatic TPC with configurable EIRP limit	
	40 MHz	20 MHz
TX POWER (dual RF)	MCS0: 28 MCS9: 22	MCS0: 29 MCS8: 25
RX SENSITIVITY (Per=10%)	MCS0: -93 MCS9: -71	MCS0: -94 MCS8: -74
THROUGHPUT (RFC 2544)	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-10100L-BSU/SUA	Two N-type Connectors with built-in Surge Protection	
MP-10150L-BS9	Integrated 2x2 MIMO 16dBi Dual Polarized 90 degree Sector Antenna	
MP-10150L-BS1/SUR	Integrated 2x2 MIMO 22dBi Dual Polarized 1 foot Panel Antenna	
MANAGEMENT		
REMOTE SNMP OTHER Multi-Language Support	Telnet and SSH, Web GUI and SSL/TLS, TFTP, SNMPv3 SNMP v1-v2c-v3, RFC-1213, RFC-1215, RFC-2790, RFC-2571, RFC-3412, RFC-3414, Private MIB Syslog, sFlow™ agent, SNTP and local time, Spectrum analyzer Web Interface available in English, French, Spanish and Chinese	
SYNCHRONIZATION		
	Pass-through SyncE and Precision Time Protocol (IEEE 1588v2) Ethernet Synchronization	
SECURITY		
ENCRYPTION AUTHENTICATION	AES 128 Internal MAC Address Control List, Radius based Authentication (with VLAN and QoS provisioning)	

<b>QoS</b>				
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			
<b>NETWORK</b>				
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			
<b>POWER</b>	<b>INPUT</b>		<b>OUTPUT</b>	
	36 to 57 VDC via Ethernet port1 (Power over Ethernet)		48 to 57 VDC – 25 Watt on Ethernet port2	
	12 VDC via Access port		(PoE – software controlled)	
	Power should not be provided simultaneously on both ports		12 VDC on Access port	
<b>POWER CONSUMPTION</b>				
	14 Watt typical, 17.5 Watt maximum			
<b>ENVIRONMENTAL SPECS</b>	<b>OPERATING TEMPERATURE</b>	<b>STORAGE TEMPERATURE</b>	<b>HUMIDITY - IP RATING</b>	<b>WIND LOADING</b>
	-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)
<b>PHYSICAL SPECS</b>	<b>DIMENSIONS PACKAGED</b>	<b>DIMENSIONS UNPACKAGED</b>	<b>WEIGHT (PACKAGED)</b>	<b>WEIGHT (UNPACKAGED)</b>
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 x 107 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)
<b>SAFETY STANDARDS</b>				
	UL 60950, CAN/CSA-C22.2 No. 60950, IEC 60950, EN 60950 (part -1 and -22)			
<b>CERTIFICATIONS</b>				
	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			
<b>PACKAGE CONTENTS</b>				
	<ul style="list-style-type: none"> <li>One Tsunami® MP-10100L-BSU/SUA with two N-type surge protected connectors Or One Tsunami® MP-10150L-BS9/BS1/SUR 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>			
<b>MTBF &amp; WARRANTY</b>				
	MTBF over 250 000 hours & 2-year warranty with ServPak Extended Support available.			