

Tsunami® MP-10100L Series

High Speed Point-to-Multipoint Wireless Product Family



Starts at 320Mbps throughput, field upgradable to 630Mbps

The Tsunami® MP-10100L 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-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.



Proxim WORP® - 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).

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®), 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-10100, 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.

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-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-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-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	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	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				
	<table border="1"> <tr> <td>40 MHz</td> <td>20 MHz</td> </tr> </table>	40 MHz	20 MHz		
40 MHz	20 MHz				
TX POWER	<table border="1"> <tr> <td>MCS0: 28</td> <td>MCS0: 29</td> </tr> <tr> <td>MCS9: 22</td> <td>MCS8: 25</td> </tr> </table>	MCS0: 28	MCS0: 29	MCS9: 22	MCS8: 25
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MCS9: 22	MCS8: 25				
RX SENSITIVITY (Per=10%)	<table border="1"> <tr> <td>MCS0: -93</td> <td>MCS0: -94</td> </tr> <tr> <td>MCS9: -71</td> <td>MCS8: -74</td> </tr> </table>	MCS0: -93	MCS0: -94	MCS9: -71	MCS8: -74
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MCS9: -71	MCS8: -74				
THROUGHPUT	<table border="1"> <tr> <td>Up to 324 Mbps</td> <td>Up to 137 Mbps</td> </tr> </table>	Up to 324 Mbps	Up to 137 Mbps		
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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	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, SNMP 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 Capabilities	802.1p priority, IPTOS, VLAN ID, IP addresses, ports, Ethernet addresses, IP protocol, and EtherType
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)

PHYSICAL SPECS						
PRODUCT MODELS	DIMENSIONS PACKAGED (per unit)		DIMENSIONS UNPACKAGED (per unit)		WEIGHT (PACKAGED)	WEIGHT (UNPACKAGED)
MP-10100L-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-10150L-BS9	18.46 x 7.05 x 21.57 in (469 x 179 x 548 mm)		14.57 x 14.57 x 4.21 inches (370 x 370 x107 mm)		13.67 lbs (6.2 kg)	7.27 lbs (3.3 kg)
MP-10150L-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)

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

PACKAGE CONTENTS	
<ul style="list-style-type: none"> 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 One power injector and country specific power cord One Connector weatherproofing kit (Includes all recommended weatherproofing material) 	<ul style="list-style-type: none"> One Wall / Pole mounting kit One Antenna alignment (RJ11) dongle One Grounding kit One Quick Installation Guide

MTBF & WARRANTY	
	MTBF over 250 000 hours & 2-year warranty with ServPak Extended Support available.