

## Enhance Wireless Security with Tsunami® MP-10100S Series Built in AES 256 Capability



The Tsunami® MP-10100S is an extremely secure version of the Tsunami® MP-10100, a very high throughput, high power, especially reliable and cost-effective, near-line-of-sight point-to-multipoint wireless solution.

### 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 stacks for transparent evolution to tomorrow's networks.
- Triple level login with monitoring, simplified or advanced web interfaces.
- Built-in feature rich network protocols for bridging, routing and gateway functionality.
- 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 sizes.

### 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 conditions.
- Spectrum analyzer to analyze frequency bands for interference, and select the best available channel.

### Carrier-Grade Solution

- Implements AES 256 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 frames.

### Key Technologies

The Tsunami® MP-10100S supports the following features that make it ideal for video surveillance, Government or mobility applications that need ultra-secure very high-speed broadband wireless access:

#### 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).

### 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 Tsunami® MP-10200, MP10100, MP-10100L, MP-8200, MP-820 and MP-830 products.
- Fully integrates within ProximVision® Advanced Cloud Based Carrier Management System and Controller.

## Specifications

PRODUCT MODELS		PART NUMBERS	
MP-10100S-BSU-US	Tsunami® MP 10100 Base Station, AES 256, 867 Mbps, MIMO 2x2, Type-N Connectors	901-00294	MP-10100S-BSU-US
MP-10150S-BS9-US	Tsunami® MP 10150 Base Station, AES 256, 867 Mbps, MIMO 2x2, 90° sector antenna	901-00296	MP-10150S-BS9-US
MP-10100S-SUA-US	Tsunami® MP 10100 Subscriber Unit, AES 256, 867 Mbps, MIMO 2x2, Type-N Connectors	901-00295	MP-10100S-SUA-US
MP-10150S-SUR-US	Tsunami® MP 10150 Subscriber Unit, AES 256, 867 Mbps, MIMO 2x2, 22 dBi panel antenna	901-00297	MP-10150S-SUR-US
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		
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 MCS9: 21	MCS0: 28 MCS9: 22	MCS0: 29 MCS8: 25
RX SENSITIVITY (Per=10%)	MCS0: -89 MCS9: -68	MCS0: -93 MCS9: -71	MCS0: -94 MCS8: -74
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-10100S-BSU/SUA	Two N-type Connectors with built-in Surge Protection		
MP-10150S-BS9	Integrated 2x2 MIMO 16dBi Dual Polarized 90 degree Sector Antenna		
MP-10150S-SUR	Integrated 2x2 MIMO 22dBi Dual Polarized 1 foot Panel Antenna		
MANAGEMENT			
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		
SYNCHRONIZATION			
	Pass-through IEEE 1588v2 Ethernet Synchronization		
SECURITY			
ENCRYPTION	AES 128 and AES 256		
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)
PHYSICAL SPECS	DIMENSIONS PACKAGED	DIMENSIONS UNPACKAGED	WEIGHT (PACKAGED)	WEIGHT (UNPACKAGED)
MP-10100S-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-10150S-BS9	18.46 x 7.05 x 21.57 in (469 x 179 x 548 mm)	14 x 14 x 3.40 in (370 x 370 x 85 mm)	13.67 lbs (6.2 kg)	7.27 lbs (3.3 kg)
MP-10150S-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, IEC 60950 (part -1 and -22)			
CERTIFICATIONS				
	USA: FCC 90Y + 15E (UNII 15.247) Railway: EN 50155 + EN 50121 + EN 61000-6-4 + EN 61373 + EN 45545-2			
PACKAGE CONTENTS				
	<ul style="list-style-type: none"> <li>One Tsunami® MP-10100S-BSU/SUA with two N-type surge protected connectors Or One Tsunami® MP-10150S-BS9/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>			
MTBF & WARRANTY				
	MTBF over 250 000 hours & 2-year warranty with ServPak Extended Support available.			