PROXIM ®
wireless
Performance Matters. Proxim Delivers. ®

Tsunami® MP-10100S series

Extremely Secure Point-to-Multipoint Wireless Solution (Available in the USA only)

Enhance wireless security with Tsunami® MP-10100S series built in AES 256 capability

Proxim Wireless is a leader and an early innovator in wireless technology providing high-speed, long-range and mobile broadband wireless solutions.

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 (PMP) wireless solution.

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

Proxim WORP®, a highly evolved QoS platform tailored to deliver voice, video and data applications on a single network
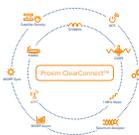
Proxim ClearConnect™, a suite of different techniques all working together to ensure robust and reliable radio communications in noisy deployments

Proxim FastConnect™, a High Speed Mobility solution for Buses, Trains, Metros and Ferries

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 net works
- 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 Solutions

- 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

Product Line Compatibility

- Connects to all existing Tsunami® MP10100, MP-10100L, MP-8200, MP-820 and MP-830 products
- Fully integrates within ProximVision® Advanced Cloud Based Carrier Management System and Controller

Specifications: Tsunami® MP-10100S Series

PRODUCT MODELS

MP-10100S-BSU	Tsunami® MP 10100 Base Station, AES 256, 867 Mbps, MIMO 2x2, Type-N Connectors	
MP-10150S-BS9	Tsunami® MP 10150 Base Station, AES 256, 867 Mbps, MIMO 2x2, 90° sector antenna	
MP-10100S-SUA	Tsunami® MP 10100 Subscriber Unit, AES 256, 867 Mbps, MIMO 2x2, Type-N Connectors	
MP-10150S-SUR	Tsunami® MP 10150 Subscriber Unit, AES 256, 867 Mbps, MIMO 2x2, 22 dBi panel antenna	

PART NUMBERS

901-00294 MP-10100S-BSU-US
901-00296 MP-10150S-BS9-US
901-00295 MP-10100S-SUA-US
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	MCS0: 28	MCS0: 29
	MCS9: 21	MCS9: 22	MCS8: 25
RX SENSITIVITY (Per=10%)	MCS0: -89	MCS0: -93	MCS0: -94
	MCS9: -68	MCS9: -71	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 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)	48 to 57 VDC – 25 Watt on Ethernet port2 (PoE – software controlled)
12 VDC via Access port	12 VDC on Access port
Power should not be provided simultaneously on both ports	

POWER CONSUMPTION

17 Watt typical

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-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

- 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
- One power injector and country specific power cord
- One Connector weatherproofing kit (Includes all recommended weatherproofing material)

- 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