

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

PRODUCT MODELS PART NUMBERS

| | | | |
|---------------|--|-----------|------------------|
| MP-10100S-BSU | Tsunami® MP 10100 Base Station, AES 256, 867 Mbps, MIMO 2x2, Type-N Connectors | 901-00294 | MP-10100S-BSU-US |
| MP-10150S-BS9 | Tsunami® MP 10150 Base Station, AES 256, 867 Mbps, MIMO 2x2, 90° sector antenna | 901-00296 | MP-10150S-BS9-US |
| MP-10100S-SUA | Tsunami® MP 10100 Subscriber Unit, AES 256, 867 Mbps, MIMO 2x2, Type-N Connectors | 901-00295 | MP-10100S-SUA-US |
| MP-10150S-SUR | 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 |

| TX POWER | 80 MHz | 40 MHz | 20 MHz |
|--------------------------|----------------|----------------|----------------|
| 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-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) 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-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