

# Tsunami® MP-10100-CPE

## Compact Point-to-Multipoint Wireless Solution



### Enhanced your very high capacity network with the all new Tsunami® MP-10100-CPE

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

Proxim introduces the Tsunami® MP-10100-CPE, a compact client device with license controlled throughput based on the very high capacity, high power, extremely reliable and cost-effective, Tsunami 10100 series.

The Tsunami® MP-10100-CPE supports the following features specifically for last miles access, video surveillance or mobility applications requiring high-speed broadband wireless access



Proxim WORP®, a highly evolved QoS platform tailored to deliver voice, video and data applications



Proxim ClearConnect™, a suite of over 13 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

- Very small form factor and outdoor rated IP67 Metal enclosure
- Available with 15 dBi integrated antenna or N-Type connectors
- 50, 100, 150 or 200 Mbps (license upgradable) throughput, with maximum data rates of 866 Mbps
- Triple level login with monitoring, simplified or advanced web interface
- 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

- 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 scan frequency bands for interference and ensure operation on the best available channel

### Carrier-Grade Solution

- 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
- Gigabit Ethernet port with pass-through IEEE 1588v2 synchronization and support for 9k Jumbo frame sizes

### Product Line Compatibility

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

**PRODUCT MODELS**

|                  |   |
|------------------|---|
| MP-10150-CPE-50  | Tsunami® MP 10150 Customer Premise Equipment, 50 Mbps, MIMO 2x2, 16 dBi panel       |
| MP-10150-CPE-100 | Tsunami® MP 10150 Customer Premise Equipment, 100 Mbps, MIMO 2x2, 16 dBi panel      |
| MP-10150-CPE-150 | Tsunami® MP 10150 Customer Premise Equipment, 150 Mbps, MIMO 2x2, 16 dBi panel      |
| MP-10150-CPE-200 | Tsunami® MP 10150 Customer Premise Equipment, 200 Mbps, MIMO 2x2, 16 dBi panel      |
| MP-10100-CPA-50  | Tsunami® MP 10100 Customer Premise Equipment, 50 Mbps, MIMO 2x2, N-Type Connectors  |
| MP-10100-CPA-100 | Tsunami® MP 10100 Customer Premise Equipment, 100 Mbps, MIMO 2x2, N-Type Connectors |
| MP-10100-CPA-150 | Tsunami® MP 10100 Customer Premise Equipment, 150 Mbps, MIMO 2x2, N-Type Connectors |
| MP-10100-CPA-200 | Tsunami® MP 10100 Customer Premise Equipment, 200 Mbps, MIMO 2x2, N-Type Connectors |

**PART NUMBERS**

|                               |                               |
|-------------------------------|-------------------------------|
| 901-00251 MP-10150-CPE-50-US  | 901-00256 MP-10150-CPE-50-WD  |
| 901-00252 MP-10150-CPE-100-US | 901-00257 MP-10150-CPE-100-WD |
| 901-00253 MP-10150-CPE-100-US | 901-00258 MP-10150-CPE-100-WD |
| 901-00254 MP-10150-CPE-100-US | 901-00259 MP-10150-CPE-100-WD |
| 901-00264 MP-10100-CPA-50-US  | 901-00268 MP-10100-CPA-50-WD  |
| 901-00265 MP-10100-CPA-100-US | 901-00269 MP-10100-CPA-100-WD |
| 901-00266 MP-10100-CPA-100-US | 901-00270 MP-10100-CPA-100-WD |
| 901-00267 MP-10100-CPA-100-US | 901-00271 MP-10100-CPA-100-WD |

**INTERFACES**

|                   |   |
|-------------------|---|
| WIRED ETHERNET    | One auto MDI-X RJ45 10/100/1000Mbps Ethernet with PoE in & Data |
| WIRELESS PROTOCOL | WORP®   |

**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 | MCS0: -89 | MCS0: -93 | MCS0: -94 |
| (PER=10%)      | MCS9: -68 | MCS9: -71 | MCS8: -74 |

|            |  |
|------------|--|
| THROUGHPUT | License controlled to 50, 100, 150 or 200 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-10150-CPE-xxx | Integrated 2x2 MIMO 16dBi Dual Polarized Panel Sector Antenna |
| MP-10100-CPA-xxx | Two N-type Connectors with built-in Surge Protection          |

**MANAGEMENT**

|        |   |
|--------|---|
| REMOTE | Telnet and SSH, Web GUI and SSL/TLS1.2, 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   |
| 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 port (Power over Ethernet)<br>12 VDC via Access port<br>Power should not be provided simultaneously on both ports. | 12 VDC on Access port |

**POWER CONSUMPTION**

17 Watt typical, 22 Watt max

**ENVIRONMENTAL SPECS**

|  |  |   |
|--|--|---|
| <b>OPERATING TEMPERATURE</b>           | <b>STORAGE TEMPERATURE</b>             | <b>HUMIDITY, WATER &amp; DUST PROOF, WIND LOADING</b> |
| -40° to 60°C (-40° to 140° Fahrenheit) | -50° to 70°C (-58° to 158° Fahrenheit) | 100% relative humidity - IP67, 180 km/h (112.5 mph)   |

**PHYSICAL SPECS**

|                  | DIMENSIONS (PACKAGED)                | DIMENSIONS (UNPACKAGED)                 | WEIGHT (PACKAGED) | WEIGHT (UNPACKAGED) |
|------------------|--------------------------------------|---|-------------------|---------------------|
| MP-10150-CPE-xxx | 11.81x10.83x5.31 in (300x275x135 mm) | 4.96x8.62x2.58 in (126x219x65.5 mm)     | 7.27 lbs (3.3 Kg) | 2.10 lbs (0.950 kg) |
| MP-10100-CPA-xxx | 11.81x10.83x5.31 in (300x275x135 mm) | 5.02x8.68x2.85 in (127.5x220.5x72.5 mm) | 6.39 lbs (2.9 kg) | 2.75 lbs (1.250 kg) |

**SAFETY STANDARDS**

UL 60950, CAN/CSA-C22.2 No. 60950, IEC 60950, EN 60950 (part -1 and -22)

**PACKAGE CONTENTS**

- One Tsunami® MP-10150-CPE-xxx with integrated dual polarized antenna
- Or One Tsunami® MP-10100-CPA-xxx with two N-type surge protected connectors
- One power injector and country specific power cord
- One Connector weatherproofing kit (Includes all recommended weatherproofing material)
- One Wall / Pole mounting kit (MP-10150-CPE-xxx) Or One Pole mounting kit (MP-10100-CPA-xxx)
- One Grounding kit
- One Quick Installation Guide

**MTBF & WARRANTY**

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