Rugged outdoor Point-to-Multipoint CPE for High Performance Multi-Point Networks and Mobility Applications

The Tsunami® Multipoint 10100 CPE is an ideal solution for large-scale wireless deployments and provides excellent price/performance for any organization in need of medium to high density point-to-multipoint networks.

The MP-10100-CPE enables seamless roaming up to 295 km/h (185 mph) for use in mobility applications such as provision of Internet access or video surveillance on trains, trams and busses.

This CPE also features a carrier-grade prioritization platform supporting multiple service classes and able to prioritize voice, video and data applications to enable granular management of customer service features.

High Value, Long Service Life

The combination of high reliability, license-free frequency bands, and guaranteed compatibility with past, current and future Proxim base station models, ensures a long service life, and an excellent return on investment.

• Designed for harsh environments, the Tsunami® MP-10100-CPE/CPA is fully IP67 rated, and will deliver years of reliable service in conditions that include, high winds, high salt, and high temperature range

Flexible, Fast and Secure

• Allows flexible bandwidth allocation for service tiers
• Field upgradable 50, 100, 150 or 200 Mbps of throughput (license upgradeable)
• Provides flexible channel planning with support for 4.900 to 5.925 GHz
• Advanced encryption protects over-the-air transmission via AES-128
• Uses Proxim’s Wireless Outdoor Routing Protocol (WORP®) to prevent snooping
• Radio mutual authentication eliminates unauthorized use of the system by rogue subscriber units and man-in-the-middle attacks

All-in-One CPE and Gateway

• Built-in network protocols for Bridging, Routing and Gateway functionality
• MAC, Ether type, IP address packet filtering provides granular network security
• Features highly-secure remote management via SSL/TLS1.2, SSH and SNMPv3

Easy to Install

• Comes ready to install with a complete “bring-your-own-pole” installation kit that includes basic pole mount and grounding kits, connector weather proofing kit and a power injector
• Non Line-of-Sight capability provided by Advanced Orthogonal Frequency Division Multiplexing (OFDM) along with 2x2 MIMO eases deployment in challenging areas
• Deployment tools include spectrum analyzer, antenna alignment and remote management configuration
• Connects to all existing Tsunami® MP-10200, MP10100, MP-8200, MP-820 and MP-830 product families
• Fully integrates within ProximVision® Advanced, Proxim’s 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.
### Key Technologies

**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).

### Specifications

<table>
<thead>
<tr>
<th>PRODUCT MODELS</th>
<th>Tsunami® MP 10150 Customer Premise Equipment, 50 Mbps, MIMO 2x2, 15 dBi panel</th>
<th>PART NUMBERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MP-10150-CPE-50</td>
<td>901-00251 MP-10150-CPE-50-US</td>
<td>901-00256 MP-10150-CPE-50-WD</td>
</tr>
<tr>
<td>MP-10150-CPE-100</td>
<td>901-00252 MP-10150-CPE-100-US</td>
<td>901-00257 MP-10150-CPE-100-WD</td>
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<tr>
<td>MP-10150-CPE-150</td>
<td>901-00253 MP-10150-CPE-150-US</td>
<td>901-00258 MP-10150-CPE-150-WD</td>
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<tr>
<td>MP-10150-CPE-200</td>
<td>901-00254 MP-10150-CPE-200-US</td>
<td>901-00259 MP-10150-CPE-200-WD</td>
</tr>
<tr>
<td>MP-10100-CPA-100</td>
<td>901-00265 MP-10100-CPA-100-US</td>
<td>901-00266 MP-10100-CPA-100-WD</td>
</tr>
<tr>
<td>MP-10100-CPA-200</td>
<td>901-00270 MP-10100-CPA-200-US</td>
<td>901-00271 MP-10100-CPA-200-WD</td>
</tr>
</tbody>
</table>

#### Interfaces

- **Wired Ethernet**: One auto MDI-X RJ45 10/100/1000Mbps Ethernet with PoE in & Data
- **Wireless Protocol**: WORP® (Wireless Outdoor Router Protocol)

#### Radio & TX Specs

<table>
<thead>
<tr>
<th>MIMO</th>
<th>2x2</th>
</tr>
</thead>
<tbody>
<tr>
<td>MODULATION</td>
<td>OFDM with BPSK, QPSK, QAM16, QAM64, QAM256</td>
</tr>
<tr>
<td>FREQUENCY</td>
<td>4.900 – 5.925 GHz (Subject to Country Regulations)</td>
</tr>
<tr>
<td>CHANNEL SIZE</td>
<td>80 MHz, 40 MHz and 20 MHz (±5ppm channel accuracy)</td>
</tr>
<tr>
<td>DATA RATE</td>
<td>MCS 0 to 9 with Dynamic Data Rate Selection</td>
</tr>
<tr>
<td>TX POWER</td>
<td>Up to 28 dBi (dual chain)</td>
</tr>
<tr>
<td>TX POWER CONTROL</td>
<td>0 - 27 dB, in 1 dB steps. Automatic TPC with configurable EIRP limit</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MHz</th>
<th>80 MHz</th>
<th>40 MHz</th>
<th>20 MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>TX POWER</td>
<td>MCS0: 28</td>
<td>MCS0: 28</td>
<td>MCS0: 29</td>
</tr>
<tr>
<td></td>
<td>MCS9: 21</td>
<td>MCS9: 22</td>
<td>MCS8: 25</td>
</tr>
<tr>
<td>RX SENSITIVITY (Per=10%)</td>
<td>MCS0: -89</td>
<td>MCS0: -93</td>
<td>MCS0: -94</td>
</tr>
<tr>
<td></td>
<td>MCS9: -68</td>
<td>MCS9: -71</td>
<td>MCS8: -74</td>
</tr>
</tbody>
</table>

#### 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 15 dBi dual Polarized (H+V) panel antenna (12 dBi before 5.000 GHz and 14 dBi beyond 5.850 GHz)
- **MP-10100-CPA-xxx**: Two N-type Connectors with built-in Surge Protection

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www.proxim.com  |  USA Toll Free: +1 800-229-1630
### 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
- Packet Classification
  - 802.1p priority, IPTOS, VLAN ID, IP addresses, ports, Ethernet addresses, IP protocol, and EtherType
- Capabilities
  - Bridging, Routing (RIP v2 and IP tunneling)
  - IPv4 and IPv6 simultaneously
- Scheduling
  - DHCP Server & relay, NAT with Std ALGs, PPPoE end point with Proxy DNS
  - 802.1Q: Management VLAN. Transparent, Access, Trunk and Mixed mode. QinQ double tagging

### NETWORK

**MODES**

- IP STACK

**GATEWAY FEATURES**

- VLAN

### POWER INPUT OUTPUT

<table>
<thead>
<tr>
<th>INPUT</th>
<th>OUTPUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>36 to 57 VDC via Ethernet port (Power over Ethernet)</td>
<td>12 VDC on Access port</td>
</tr>
<tr>
<td>12 VDC via Access port</td>
<td>Power should not be provided simultaneously on both ports</td>
</tr>
</tbody>
</table>

### POWER CONSUMPTION

- 11.5 Watt typical, 15.5 Watt maximum

### ENVIRONMENTAL SPECS

<table>
<thead>
<tr>
<th>OPERATING TEMPERATURE</th>
<th>STORAGE TEMPERATURE</th>
<th>HUMIDITY - IP RATING</th>
<th>WIND LOADING</th>
</tr>
</thead>
<tbody>
<tr>
<td>-40º to 60ºC (-40º to 140º Fahrenheit)</td>
<td>-50º to 70ºC (-58º to 158º Fahrenheit)</td>
<td>100% relative humidity - IP67</td>
<td>180 km/h (112.5 mph)</td>
</tr>
</tbody>
</table>

### PHYSICAL SPECS

<table>
<thead>
<tr>
<th>MP-10150-CPE-xxx</th>
<th>MP-10100-CPA-xxx</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.81x10.83x5.31 in (300x275x135 mm)</td>
<td>11.81x10.83x5.31 in (300x275x135 mm)</td>
</tr>
<tr>
<td>4.96x8.62x2.58 in (126x219x65.5 mm)</td>
<td>5.02x8.68x2.85 in (127.5x220.5x72.5 mm)</td>
</tr>
<tr>
<td>7.27 lbs (3.3 Kg)</td>
<td>6.39 lbs (2.9 Kg)</td>
</tr>
<tr>
<td>2.10 lbs (0.950 kg)</td>
<td>2.75 lbs (1.250 kg)</td>
</tr>
</tbody>
</table>

### 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 61373

### 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

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