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

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

The Multipoint 10100 CPE/CPA 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 Multipoint 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, MP-10100, MP-8200, MP-820 and MP-830 product families
- Fully integrates within ProximVision® Advanced, Proxim’s Cloud Based Carrier Management System and Controller
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).

Multi-Language Support
Web Interface available in English, French, Spanish and Chinese

### Specifications

<table>
<thead>
<tr>
<th>PRODUCT MODELS</th>
<th>PART NUMBERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MP-10150-CPE-50</td>
<td>901-00251 MP-10150-CPE-50-US</td>
</tr>
<tr>
<td>MP-10150-CPE-100</td>
<td>901-00256 MP-10150-CPE-100-US</td>
</tr>
<tr>
<td>MP-10100-CPA-50</td>
<td>901-00264 MP-10100-CPA-50-US</td>
</tr>
<tr>
<td>MP-10100-CPA-100</td>
<td>901-00268 MP-10100-CPA-100-US</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**

- **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 (±5ppm channel accuracy)
- **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

<table>
<thead>
<tr>
<th>Transmission</th>
<th>80 MHz</th>
<th>40 MHz</th>
<th>20 MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>TX Power (dual RF)</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>MCS9: 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>MCS9: -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 dB) before 5.000 GHz and 14 dB beyond 5.850 GHz

**MP-10100-CPA-xxx**
Two N-type Connectors with built-in Surge Protection

**Management**
Telnet and SSH, Web GUI and SSL/TLSi 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

**Multi-Language Support**
Web Interface available in English, French, Spanish and Chinese

**Synchronization**
Pass-tough SyncE and Precision Time Protocol (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 Capabilities
Scheduling
Asymmetric UL/DL committed and maximum information rate per service flow
802.1p priority, IPTOS, VLAN ID, IP addresses, ports, Ethernet addresses, IP protocol, and EtherType
Best Effort, Real Time Polling Services

NETWORK
**MODES**
IP STACK
GATEWAY FEATURES
VLAN
Bridging, Routing (RIP v2 and IP tunneling)
IPv4 and IPv6 simultaneously
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

POWER

<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></td>
</tr>
<tr>
<td>12 VDC via Access port</td>
<td></td>
</tr>
<tr>
<td>Power should not be provided simultaneously on both ports</td>
<td></td>
</tr>
<tr>
<td>12 VDC on Access port</td>
<td></td>
</tr>
</tbody>
</table>

POWER CONSUMPTION
11.5 Watt typical, 15.5 Watt maximum

ENVIRONMENTAL SPECS
**OPERATING TEMPERATURE**
-40º to 60ºC (-40º to 140º Fahrenheit)
**STORAGE TEMPERATURE**
-50º to 70ºC (-58º to 158º Fahrenheit)
**HUMIDITY - IP RATING**
100% relative humidity - IP67
**WIND LOADING**
180 km/h (112.5 mph)

PHYSICAL SPECS
**DIMENSIONS PACKAGED**
MP-10150-CPE-xxx
11.81 x 10.83 x 5.31 in (300 x 275 x 135 mm)
MP-10100-CPA-xxx
11.81 x 10.83 x 5.31 in (300 x 275 x 135 mm)

**DIMENSIONS UNPACKAGED**
MP-10150-CPE-xxx
4.96 x 8.62 x 2.58 in (126 x 219 x 65.5 mm)
MP-10100-CPA-xxx
5.02 x 8.68 x 2.85 in (127.5 x 220.5 x 72.5 mm)

**WEIGHT (PACKAGED)**
MP-10150-CPE-xxx
7.27 lbs (3.3 Kg)
MP-10100-CPA-xxx
6.39 lbs (2.9 kg)

**WEIGHT (UNPACKAGED)**
MP-10150-CPE-xxx
2.10 lbs (0.950 kg)
MP-10100-CPA-xxx
2.75 lbs (1.250 kg)

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 R51 102 + R55 111 + R55 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
• 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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