Tsunami® MP-826-CPE
A High Performance Customer Premises Equipment for WISPs

Proxim Wireless is a leader and an early innovator in wireless technology providing high-speed, long-range broadband wireless solutions. Leveraging the advantages of OFDM, MIMO radio innovations along with Proxim’s proprietary Wireless Outdoor Routing Protocol (WORP®), Tsunami® Multipoint 826 CPE is a feature rich customer premises equipment specifically designed for the carrier, service provider and WISP market.

The low cost outdoor form factor of Tsunami® Multipoint 826 CPE is an ideal solution for large-scale wireless deployments suitable for all last-mile broadband wireless access deployments.

This CPE is also feature rich with a carrier-grade prioritization platform supporting multiple service classes that can prioritize voice, video and data applications over the widest range of operating frequencies.

**World Class Performance**
- Features a very small form factor and an outdoor rated IP67 Metal enclosure
- Available with 15 dbi integrated antenna
- 50Mbps of throughput with maximum data rates of 300Mbps
- Provides flexible channel planning with support for 5.900 to 6.425 GHz
- Comes with a 2x2 MIMO high power radio capable of 25 dBm transmit power
- Allows flexible bandwidth allocation for service tiers
- Seamless roaming up to 295 km/h (185 mph)

**All-in-One CPE with Security & Gateway Features**
- Built-in feature rich network protocols for Bridging, Routing and Gateway functionality
- Advanced encryption protects over-the-air transmission via AES-128
- Radio mutual authentication eliminates unauthorized use of the system by rogue subscriber units and man-in-the middle attacks
- MAC, Ether type, IP address packet filtering provides granular network security
- Uses Proxim’s Wireless Outdoor Routing Protocol (WORP®) to prevent snooping
- Features highly-secure remote management via SSL, SSH and SNMPv3

**Reducing Costs for Wireless ISPs**
- Flexible frequency bands (both licensed and unlicensed) worldwide provide reliable wireless broadband
- Dual IPv4 and IPv6 stack for transparent evolution to tomorrow networks
- Low-cost bundle including both radio and mounting kit provides the industry’s most aggressive price point, enabling any deployment to enjoy a quick return on investment

**Easy to Install**
- Comes as a complete compact outdoor form factor offering unprecedented ease of installation
- Deployment tools include spectrum analyzer, antenna alignment and remote management configuration
- Non Line-of-Sight capability provided by Advanced Orthogonal Frequency Division Multiplexing (OFDM) along with 2x2 MIMO eases deployment in challenging areas
- Connects to all existing Tsunami® Multipoint 8160

**PRODUCT MODELS**

**MP-826-CPE-50**

Tsunami® MP 826 Customer Premise Equipment, 50 Mbps, MIMO 2x2, 15 dBi integrated antenna

**INTERFACES**

**WIRED ETHERNET**

One auto MDI-X RJ45 10/100 Mbps Ethernet with PoE in

**WIRELESS PROTOCOL**

WORP® (Wireless Outdoor Router Protocol)

**RADIO & TX SPECS**

**MIMO** 2x2 MIMO

**MODULATION** OFDM with BPSK, QPSK, QAM16, QAM64

**FREQUENCY** 5.900 – 6.425 GHz (Subject to Country Regulations)

**CHANNEL SIZE** 40 MHz, 20 MHz, 10 MHz, 5 MHz channel bandwidths

**DATA RATE** MCS 0 to 15 for High Throughput mode (6.5 – 300 Mbps) with Dynamic Data Rate Selection. BPSK, QPSK, 16-QAM and 64-QAM for legacy mode (6Mbps - 54Mbps)

**TX POWER**

Up to 25 dBm (dual chain)

**TX POWER CONTROL**

0 – 20 dB, in 0.5 dB steps. Automatic TPC with configurable EIRP limit

**OTHER**

Dynamic Channel Selection (DCS) based on interference detection, Automatic Transmit Power Control (ATPC) with EIRP limit support

**RX SENSITIVITY** (Per=10%)

<table>
<thead>
<tr>
<th>Channel Size</th>
<th>40 MHz</th>
<th>20 MHz</th>
<th>10 MHz</th>
<th>5 MHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCS 0</td>
<td>-90 dBm</td>
<td>-93 dBm</td>
<td>-97 dBm</td>
<td>-100 dBm</td>
</tr>
<tr>
<td>MCS 7</td>
<td>-70 dBm</td>
<td>-73 dBm</td>
<td>-75 dBm</td>
<td>-78 dBm</td>
</tr>
<tr>
<td>MCS 8</td>
<td>-88 dBm</td>
<td>-91 dBm</td>
<td>-94 dBm</td>
<td>-96 dBm</td>
</tr>
<tr>
<td>MCS 15</td>
<td>-66 dBm</td>
<td>-69 dBm</td>
<td>-71 dBm</td>
<td>-74 dBm</td>
</tr>
</tbody>
</table>

**ANTENNA**

Integrated 15 dBi dual Polarized (H+V) panel antenna

**MANAGEMENT**

**REMOTE**

Telnet and SSH, Web GUI and SSL, TFTP, SNMP-v3

**SNMP**

SNMP v1-v2c-v3, RFC-1213, RFC-1215, RFC-2780, RFC-2577, RFC-3412, RFC-3414, Private MIB

**SECURITY**

**ENCRYPTION**

AES-CCM 128 bits

**AUTHENTICATION**

Internal MAC Address Control List, Radius based Authentication (with VLAN and QoS provisioning)

**NETWORK**

**MODES**

Bridging, Routing (RIP v2 and IP tunneling)

**GATEWAY FEATURES**

DHCP Server & relay, NAT with Std ALGs, PPPoE end point with Proxy DNS

**IP STACK**

IPv4 and IPv6 simultaneously

**THROUGHPUT**

Up to 50 Mbps

**QoS**

Asymmetric Bandwidth Control

Packet Classification Capabilities

802.1Q/802.1p priority, IPTOS, VLAN ID, IP source/destination address, source/destination port,

Scheduling

Best Effort, Real Time Polling Services

**VLAN**

802.1Q: Management VLAN. Transparent, Access, Trunk and Mixed mode. QinQ double tagging

**POWER CONSUMPTION**

6 Watt typical (15 Watt max)

**ENVIRONMENTAL SPECS**

**OPERATING TEMPERATURE**

-40º to 55ºC (-40º to 131º Fahrenheit)

**STORAGE TEMPERATURE**

-55º to 70ºC (-67º to 158º Fahrenheit)

**HUMIDITY, WATER & DUST PROOF, WIND LOADING**

Max 100% relative humidity (non-condensing), IP67, 180 km/h (112 mph)

**PHYSICAL SPECS**

**DIMENSIONS (PACKAGED)**

13.97 x 8.86 x 3.46 in (355 x 225 x 88 mm)

**DIMENSIONS (UNPACKAGED)**

4.96 x 8.62 x 2.58 in (126 x 219 x 65.5 mm)

**WEIGHT (PACKAGED)**

4.9 lbs (2.225 Kg)

**WEIGHT (UNPACKAGED)**

2.1 lbs (0.950 kg)

**SAFETY STANDARDS**

UL 60950-1/22

**PACKAGE CONTENTS**

+ One Tsunami® MP-826-CPE with integrated antenna
+ One 20 W power injector and country specific power cord
+ One Connector weatherproofing kit (includes all recommended weatherproofing material)
+ One basic Pole mounting kit
+ One Grounding kit
+ One Quick Installation Guide

**MTBF & WARRANTY**

>200,000 hours & 1-year on parts and labor; ServPak Extended Support available.