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)

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

All-in-One CPE with Security & Gateway Features
- Built-in feature rich network protocols for Bridging, Routing and Gateway functionality


Performance Matters. Proxim Delivers.™

Data sheet: Tsunami® MP-826-CPE
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)

RADAR & 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 (5Mbps - 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>
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<tr>
<td>MCS 7</td>
<td>-70 dBm</td>
<td>-73 dBm</td>
<td>-75 dBm</td>
<td>-78 dBm</td>
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<tr>
<td>MCS 8</td>
<td>-68 dBm</td>
<td>-71 dBm</td>
<td>-74 dBm</td>
<td>-76 dBm</td>
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<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, 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

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  802.1D/802.1Q/802.1p priority, IPTOS, VLAN ID, IP source/destination address, source/destination port, Ethernet source/ destination address, IP protocol, and Ethertype
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)  21 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.

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