



**Tsunami® MP 8150 CPE Series**

## End-to-End Broadband Wireless Product Portfolio

Proxim Wireless offers the industry's most complete suite of outdoor broadband wireless access products.

This portfolio includes:

- **Tsunami® MP-8100** – Proxim's Point-to-Multipoint Product line delivering wireless performance in excess of 4G products on the market today.
- **Tsunami® MP.11** – Proxim's best selling Point-to-Multipoint product line for global markets
- **Tsunami® QB-8100** – Proxim's Point-to-Point Product line delivering wireless performance in excess of 4G products on the market today
- **ORiNOCO® Access Point** - World-class performance enterprise 11n Access Points

**Proxim Wireless** is a global pioneer of end-to-end broadband wireless systems that deliver quadruple play services. From Wi-Fi to wireless Gigabit Ethernet – our WLAN, mesh, WiMAX and point-to-point products are available through our extensive global channel networks.

## Presenting Proxim's next generation Point-to-Multipoint subscriber unit

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), the Tsunami® 8150 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 the Tsunami® 8150 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.

## Performance and Features

- Available with integrated antenna
- 100Mbps of throughput performance with maximum data rates up to 300Mbps
- Carrier grade advanced security with AES-128 bit encryption and built-in feature-rich network protocols for bridging, routing and gateway functionality
- Provides flexible channel planning with support for 5.3 to 6.1 GHz
- Comes with a 2x2 MIMO high power radio capable of 24dBm transmit power
- Allows flexible bandwidth allocation for service tiers

## Reducing Costs for Wireless ISPs

- License-free frequency bands worldwide provide reliable wireless broadband without the high cost of licensed frequencies
- 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 and compatible with Tsunami® MP-8100 products
- Deployment tools include 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

## 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

<b>PRODUCT MODELS</b>					
MP-8150-CPE-100a	Tsunami® MP 8150 Customer Premises Equipment, 100 Mbps, MIMO 2x2, 16dBi integrated antenna				
<b>INTERFACES</b>					
WIRED ETHERNET	One auto MDI-X RJ45 10/100Ethernet				
WIRELESS PROTOCOL	WORP (Wireless Outdoor Router Protocol)				
<b>RADIO &amp; TX SPECS</b>					
MIMO	2x2 MIMO				
MODULATION	OFDM				
FREQUENCY	5.3 – 6.0 GHz (Subject to Country Regulations)				
CHANNEL SIZE	40 MHz, 20 MHz, 10 MHz, 5MHz channel bandwidths with support for 1MHz channel spacing				
DATA RATE	MCS 0 to 15 for High Throughput mode (6.5 – 300 Mbps) with Dynamic Data Rate Selection				
TX POWER	Up to 24 dBm (two Tx chain)				
TX POWER CONTROL	0 – 25 dB, in 0.5 dB steps. Automatic TPC with configurable EIRP limit				
RX SENSITIVITY (BER=10 <sup>-5</sup> )	Channel Size	40 MHz	20 MHz	10 MHz	5 MHz
	MCS 0	-89dBm	-93 dBm	- 95 dBm	- 96 dBm
	MCS 7	-73 dBm	-76 dBm	- 76 dBm	-78 dBm
	MCS 8	-89 dBm	-93 dBm	- 93 dBm	- 94 dBm
	MCS 15	-73 dBm	-76 dBm	- 73 dBm	- 75 dBm
<b>ANTENNA</b>					
Integrated 16dBi dual Polarized (H+V) panel antenna					
<b>MANAGEMENT</b>					
REMOTE	Telnet and SSH, WebGUI 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				
<b>SECURITY</b>					
ENCRYPTION	AES-CCM 128 bits				
AUTHENTICATION	Internal MAC Address Control List, Radius based Authentication (with VLAN and QoS provisioning)				
<b>NETWORK</b>					
MODES	Bridging, Routing (RIP v2 and IP tunneling)				
THROUGHPUT	Up to 100 Mbps (TCP)				
<b>GATEWAY FEATURES</b>					
QoS	Asymmetric Bandwidth Control	Uplink and Downlink CIR Control "committed information rate" per service flow Uplink and Downlink MIR Control "maximum information rate" per service flow			
	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				
<b>ENVIRONMENTAL SPECS</b>					
<b>TEMPERATURE</b>					
OPERATING	-35° to 55°C (-31° to 131° Fahrenheit)				
STORAGE	-40° to 70°C (-40° to 158° Fahrenheit)				
HUMIDITY	Max 95% relative humidity (non-condensing)				
IP RATING	IP65				
<b>POWER CONSUMPTION</b>					
7 Watt typical (13.8 Watt max)					
<b>PHYSICAL SPECS</b>					
<b>DIMENSIONS</b>					
PACKAGED	15.15 x 12.40 x 4.33 in. (385 x 315 x 110 mm)				
UNPACKAGED	7.77 x 7.55 x 3.93 in (197.5 x 192 x 100 mm)				
<b>WEIGHT</b>					
PACKAGED	5.18 lbs (2.35 kg)				
UNPACKAGED	1.6 lbs (0.73 kg)				
<b>PACKAGE CONTENTS</b>					
<ul style="list-style-type: none"> <li>■ One Tsunami® MP 8150-CPE with 16dBi integrated antenna</li> <li>■ One power injector and country specific power cord</li> <li>■ One Pole mounting kit</li> <li>■ One Connector weatherproofing kit (Includes all recommended weatherproofing material)</li> <li>■ One Grounding kit</li> <li>■ One Quick Installation Guide</li> </ul>					
<b>WARRANTY</b>					
1-year on parts and labor; ServPak Extended Support available					

## APPLICATIONS

• **Wireless Internet Service Providers**  
Excellent choice for large-scale wireless deployments for high performance and quick Rol

• **Business and Residential Last-Mile Access**  
Competitive broadband service alternative to DSL or cable modems for residences and T1 or Ethernet for businesses