



Tsunami® MP-8160-BSU
Tsunami® MP-8160-SUA

End-to-End Broadband Wireless Product Portfolio

- **Tsunami® MP-8100** – *Wireless Point-to-Multipoint System Delivering 300Mbps Bandwidth*
- **Tsunami® MP.11** – *Our best selling Point-to-Multipoint product line*
- **ORINOCO® AP** - *The industry's Highest performance 802.11a/b/g/n access points*

Proxim Wireless is a global pioneer of end-to-end broadband wireless systems that deliver the quadruple play of video, voice, data and mobility. From Wi-Fi to wireless Gigabit Ethernet – our WLAN, Wi-Fi Mesh, WiMAX and point-to-point wireless backhaul products are available through our extensive global channel networks.

Presenting a Wireless Solution that exceeds 4G Speed Requirements with 300Mbps Bandwidth in 5.900 – 6.425 GHz Frequency Range!

With over 20 years of wireless innovation, Proxim has been providing Point-to-Multipoint (PtMP) solutions to carriers of all sizes for many years. Leveraging the advantages of OFDM, MIMO radio innovations and Proxim's proprietary Wireless Outdoor Routing Protocol (WORP), the Tsunami®MP-8160 exceeds the ITU requirements for 4G throughput speeds while providing Non-Line-Of-Sight functionality with the widest range of frequencies available. With incredible channel capacity, excellent spectrum flexibility and a prioritization platform for delivering voice, video and data applications, the MP-8160 satisfies service providers and government organizations with requirements for fast and worry-free wireless connectivity.

With data rates of 300Mbps, the Tsunami® MP-8160 is an ideal solution for everything from last mile broadband wireless access (BWA) to wireless video surveillance. As the industry's first PtMP product to provide dual Gigabit Ethernet ports with PoE out, the Tsunami® MP-8160 becomes the first solution capable of powering IP video cameras or additional radios for even greater ease of deployment operating in extended frequencies from 5.900 – 6.425 GHz.

World-class Performance

- A fixed PtMP solution that can deliver 300Mbps data rates
- The only PtMP product in the market to include dual Gigabit Ethernet ports, enabling higher throughput which would otherwise be limited by the 10/100 Ethernet ports seen in other devices
- Provides reliable high performance under all traffic loads using Proxim's Wireless Outdoor Routing Protocol (WORP)

Non-Line-of-Sight and Advanced Features

- Non-line-of-sight capable, utilizing OFDM and enhanced 2x2 MIMO techniques to improve link performance and penetrate through or around obstructions better
- Comes packaged in a compact form factor with a set of accessories for even greater ease of Installation
- Features dual Gigabit Ethernet ports with PoE in/out to power other devices like surveillance cameras and wireless access points
- Create tiered QoS service classes with ease

Widest Range of Frequencies

- Provides flexible channel planning with planned support for 5.900 – 6.425 GHz frequencies

Carrier-Grade Security

- Implements tiered security layers for the most secure outdoor wireless communications in the unlicensed frequency spectrum
- Utilizes Proxim's Wireless Outdoor Routing Protocol (WORP), which prevents snooping, and features highly-secure remote management via SSL, SSH and SNMPv3
- Provides military-grade security with AES encryption technology, prevents unsecure client-to-client communications and leverages MAC, Ether type and IP address packet filtering for granular network security

PRODUCT MODELS					
MP-8160-BSU	Tsunami® MP 8160 Base Station Unit, 300 Mbps, 5.900 – 6.425 GHz, Type-N Connectors				
MP-8160-SUA	Tsunami® MP 8160 Subscriber Unit, 300 Mbps, 5.900 – 6.425 GHz, Type-N Connectors				
INTERFACES					
WIRED ETHERNET	Two auto MDI-X RJ45 10/100/1000Mbps Ethernet - Port #1 with PoE in & Data - Port #2 with PoE out (802.3af pin out) & Data				
WIRELESS PROTOCOL	WORP (Wireless Outdoor Router Protocol)				
RADIO & TX SPECS					
MIMO	2x2 MIMO				
MODULATION	OFDM				
FREQUENCY	5.900 – 6.425 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 25 dBm (two Tx chain)				
TX POWER CONTROL	0 – 25 dB, in 0.5 dB steps. Automatic TPC with configurable EIRP limit				
RF-PORT PROTECTION	Built-in ESD & Lightning/Surge protection in the radio				
RX SENSITIVITY (BER=10 ⁻⁵)	Channel Size	40 MHz	20 MHz	10 MHz	5 MHz
	MCS 0	-90 dBm	-92 dBm	-95 dBm	-98 dBm
	MCS 7	-72 dBm	-73 dBm	-76 dBm	-80 dBm
	MCS 8	-88 dBm	-90 dBm	-92 dBm	-96 dBm
	MCS 15	-69 dBm	-70 dBm	-73 dBm	-76 dBm
ANTENNA MANAGEMENT					
LOCAL	RS-232 serial (RJ11 to DB-9 dongle provided)				
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				
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				
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				
ENVIRONMENTAL SPECS					
TEMPERATURE					
OPERATING	-40° to 60°C (-40° to 140° Fahrenheit)				
STORAGE	-55° to 80°C (-67° to 176° Fahrenheit)				
HUMIDITY	Max 100% relative humidity (non-condensing)				
POWER CONSUMPTION	10 Watt typical (17 Watt max)				
PHYSICAL SPECS					
DIMENSIONS					
PACKAGED	Model MP-8160-BSU or MP-8160-SUA: 14.56 x 13.69 x 8.18 in. (370 x 348 x 208 mm)				
UNPACKAGED	Model MP-8160-BSU or MP-8160-SUA: 10.5 x 10.5 x 3.38 in (267 x 267 x 86 mm)				
WEIGHT					
PACKAGED	Model MP-8160-BSU or MP-8160-SUA: 14.66 lbs (6.65 kg)				
UNPACKAGED	Model MP-8160-BSU or MP-8160-SUA: 7.38 lbs (3.35 kg)				
IP RATING	IP67				
PACKAGE CONTENTS					
<ul style="list-style-type: none"> ■ One Tsunami® MP 8160-BSU with two N-type connectors, or One Tsunami® MP 8160-SUA with two N-type connectors, ■ One power injector and country specific power cord ■ One Wall/Pole mounting kit ■ One Connector weatherproofing kit (Includes all recommended weatherproofing material) ■ One Serial (RJ-11 to DB9) dongle ■ One Grounding kit ■ One Gigabit PoE Surge Arrester ■ One Quick Installation Guide 					
MTBF & WARRANTY					
80,000 hours & 1-year on parts and labor; ServPak Extended Support available					

APPLICATIONS

- Last Mile Access**
 Competitive broadband service access alternative to DSL or cable for residences and T1 or Ethernet for businesses
- Security and Surveillance**
 High definition IP-surveillance cameras for monitoring city streets, airports, bridges, seaports, transportation, hubs, offices and warehouses
- Metropolitan Area Networks**
 Secure and reliable connectivity between city buildings
- Emergency First Responders**
 Critical information delivery such as medical data and video feeds during in-progress events
- Enterprise Campus Connectivity**
 Extend the main network to remote offices, warehouses or other buildings without leased lines

For detailed technical specifications, please go to <http://www.proxim.com>

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