Tsunami™ MP-8160-BSU

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-WD	Tsunami MP-8160 Base Station Unit, 300Mbps, 5.900 – 6.425 GHz, Type-N Connectors - WD PoE
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
WIRELSS 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, 5MHz
DATA RATE	MCS 0 to 15 for High Throughput mode (6.5 – 300 Mbps)
TX POWER	Up to 26dBm
TX POWER CONTROL	In 0.5dB steps
RF-PORT PROTECTION	Built-in ESD & Lightning/Surge protection in the radio
ANTENNA	Model MP-8160-BSU includes two N-type Antennas Connectors
MANAGEMENT	
LOCAL	RS-232 serial (RJ11 to DB-9 dongle provided)
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
NETWORK	
GATEWAY FEATURES	DHCP Server & relay, NAT with Std ALGs, Bridging, Routing, Syslog, SNTP

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	Uplink and Downlink CIR Control "committed information rate" per service flow Uplink and Downlink MIR Control "maximum information rate" per service flow
	Scheduling	Best Effort, Real Time Polling Services

VLAN	802.1Q: Management VLAN. Transparent, Access and Trunk mode
ENVIRONMENTAL SPECS	
TEMPERATURE	
OPERATING	-40^0 to 60^{0}C (-40^0 to 140^0 F)
STORAGE	-55^0 to 80^{0}C (-67^0 to 176^0 F)
HUMIDITY	Max 100% relative humidity (non-condensing)
PHYSICAL SPECS	
DIMENSIONS	
PACKAGED	15.94 x 15.94 x 8.46 in (405 x 405 x 215 mm)
UNPACKAGED	10.51 x 10.51 x 3.27 in (267 x 267 x 83 mm)
WEIGHT	
PACKAGED	14.77 lbs (6.7 kg)
UNPACKAGED	7.27 lbs (3.3 kg)
IP RATING	IP67
PACKAGE CONTENTS	■ One Tsunami™ MP 8160-BSU 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) ■ Two N-connector weather proofing caps installed at factory ■ One Serial (RJ-11 to DB9) dongle ■ One Grounding kit ■ One Gigabit PoE Surge Arrestor ■ One Printed QIG
WARRANTY	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