Tsunami™ MP-8100 Series

End-to-End Broadband Wireless Product Portfolio

- **Tsunami™MP.11 –** Our best selling Point-to- Multipoint product line

- **MeshMAX –** An all-in-one solution containing Point-to-Multipoint, Wi-Fi mesh, and Wi-Fi access point radios

- **ORiNOCO®AP –** The industry's highest-performance 802.11a/b/g/n access points

- **Tsunami™MP.16 –** WiMAX for the 3.3 – 3.65 GHz frequency bands

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 300 Mbps Bandwidth !

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-8100 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-8100 satisfies service providers and government organizations with requirements for fast and worry-free wireless connectivity.

With data rates of 300 Mbps, the Tsunami™ MP-8100 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-8100 becomes the first solution capable of powering IP video cameras or additional radios for even greater ease of deployment.

World-class Performance

- A fixed PtMP solution that can deliver 300 Mbps 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 3x3 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

- Operates in licensed and unlicensed frequency bands
- Provides flexible channel planning with planned support for 2.3 - 2.5 GHz and 4.9 - 6.0 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, Ethertype and IP address packet filtering for granular network security

Part of a Product Family

- Connects to all existing Tsunami MP.11 and MeshMAX products
- Can utilize existing mounting kits of the Tsunami product line

PRODUCT MODELS	
MP-8100-BSU-US	Tsunami™ MP 8100 Base Station Unit, 300 Mbps, 5.8 GHz, Type-N Connectors - US PoE
MP-8100-SUA-US	Tsunami™ MP 8100 Subscriber Unit, 5.8 GHz, Type-N Connectors - US PoE
MP-8150-SUR-US	Tsunami™ MP 8150 Subscriber Unit, 5.8 GHz, MIMO 2x2, 21 dBi Integrated antenna - US PoE
MP-8100-BSU-WD	Tsunami™ MP 8100 Base Station Unit, 300 Mbps, 2.4 and 5 GHz, Type-N Connectors - WD PoE
MP-8100-SUA-WD	Tsunami™ MP 8100 Subscriber Unit, 2.4 and 5 GHz, Type-N Connectors - WD PoE
MP-8150-SUR-WD	Tsunami™ MP 8150 Subscriber Unit, 5 GHz, MIMO 2x2, 21 dBi Integrated antenna - 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
WIRELESS PROTOCOL	WORP (Wireless Outdoor Router Protocol)
RADIO & TX SPECS	
MIMO	3x3 MIMO
MODULATION	OFDM with BPSK, QPSK, QAM16, QAM64
FREQUENCY	2.3 – 2.5 GHz
	4.9 – 6.0 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)
	BPSK, QPSK, 16-QAM and 64-QAM for legacy mode (6Mbps - 54Mbps)
TX POWER	Up to 21dBm (two Tx chain)
TX POWER CONTROL	0 – 21dB, in 1dB steps

RX SENSITIVITY (BER=10^{-6})	Channel Size	40 MHz	20 MHz
	MCS 0 / MCS 8	-87dBm	-93dBm
	MCS 7	-71dBm	-75dBm
	MCS 15	-69dBm	-71dBm

ANTENNA	Model MP-8150-SUR includes an Integrated 2x2 MIMO 21dBi Dual Polarized Antenna
	Model MP-8100-BSU and MP-8100-SUA includes three N-type Antennas Connectors with bulit-in Surge Protection
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
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	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 and Trunk mode

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

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)
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
SAFETY STANDARDS	UL 60950, CAN/CSA-C22.2 No. 60950, IEC 60950, EN 60950

PACKAGE CONTENTS

- One Tsunami™ MP 8100-BSU with three N-type surge protected connectors, One Tsunami™ MP 8150-SUR with 5 GHz dual polarity 21 dBi Integrated antenna, or One Tsunami™ MP 8100-SUA with three N-type surge protected connectors
- One power injector and country specific power cord
- One Wall/Pole mounting kit
- One Connector weatherproofing kit (Includes all recommended weatherproofing material)
- Three N-connector weather proofing caps installed at factory (for Connectorized Version Only)
- One Serial (RJ-11 to DB9) dongle
- One Grounding kit
- One Gigabit PoE Surge Arrestor
- One Documentation
- Software CD-ROM

WARRANTY	1-year on parts and labor; ServPak Extended Support available

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