



## Simplifying Distributed Outdoor WiFi Hotspots

Proxim's Tsunami® XP-10100 is a single endpoint solution delivering high-performance outdoor WiFi. By combining a near-line-of-sight Point-to-Multipoint Subscriber Unit (SU) with an ORINOCO® Access Point into a single unit, outdoor hotspots can enable rapid and reliable deployment. The Tsunami® XP-10100 is designed explicitly for the Wireless Internet Service Provider but is equally suited to delivering campus-wide connectivity.

## World Class Performance

- Point-to-Multipoint system that delivers up to 866 Mbps data rate and covers distances up to 10 miles (16 km)
- 802.11b/g/n Access Point that delivers 300 Mbps data rate
- Dual IPv4 and IPv6 stack for evolution to tomorrow's networks
- Triple level login with monitoring, simplified or advanced web interface
- Built-in feature rich network protocols for bridging, routing and gateway functionality

## Near-Line-of-Sight and Advanced Features

- Features dual Gigabit Ethernet ports with PoE out to power other devices such as surveillance cameras or additional radios
- Performs Deep Packet Inspection (DPI) to create unique and sophisticated service rules and tiered service classes with ease
- BSU redundancy (500 milliseconds switch over time) and Dynamic Channel Selection to ensure continuity of services whatever the condition
- Spectrum analyzer to analyze frequency bands for interference, and select the best available channel
- Multi-SSID with VLAN allocation, plus Ethernet port access and trunkmode

## Carrier-Grade Solution

- Implements AES encryption and Radius authentication 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/TLS1.2, SSH and SNMPv3
- Features Ethernet ports with pass-through IEEE 1588v2 synchronization and support for 9k Jumbo frame
- Public HotSpot integration with Home Page redirect and Walled Garden
- HotSpot 2.0 to automatically discover and seamlessly authenticate to public Wi-Fi networks

## Key Technologies

### Proxim WORP®

Combines network access control, data scheduling, advanced QoS and encryption to ensure highly efficient and secure data transmission.

### Proxim ClearConnect™

A suite of interference mitigation technologies ensuring robust and reliable communications in high-density wireless deployments.

### Proxim FastConnect™

Mobility technology that delivers rapid hand-off between fixed base stations and moving vehicles to ensure uninterrupted broadband at speeds up to 295 km/h (185 mph)

## About Proxim Wireless

Proxim Wireless is a pioneer and global leader in advanced Wi-Fi, point to point, and point to multipoint outdoor wireless systems that deliver high performance and high availability communications.

With over 30 years of wireless experience, Proxim is recognized for its unparalleled reliability, superior performance and drive for innovation.

## Rugged and Reliable

Designed for harsh environments, the Tsunami® XP-10100 is fully IP67 rated, and will deliver years of reliable service in conditions that include, high winds, high salt, and high temperature extremes.

## Product Line Compatibility

- Connects to all existing Tsunami® MP-8200, MP-820 and MP-830 products
- Fully integrates within ProximVision® Advanced Cloud Based Carrier Management System and Controller

## Multi-Language Support

Web Interface available in English, French, Spanish and Chinese

## Specifications

PRODUCT MODELS				PART NUMBERS			
XP-10150-BS1	Tsunami® XP 10150 Base Station, 866 Mbps, MIMO 2x2, 22 dBi panel antenna with 11n AP			901-00282 XP-10150-BS1-US 901-00284 XP-10150-BS1-WD			
XP-10100-SUA	Tsunami® XP 10100 Subscriber Unit, 866 Mbps, MIMO 2x2, Type-N Connectors with 11n AP			901-00236 XP-10100-SUA-US 901-00237 XP-10100-SUA-WD			
XP-10150-SUR	Tsunami® XP 10150 Subscriber Unit, 866 Mbps, MIMO 2x2, 22 dBi panel antenna with 11n AP			901-00283 XP-10150-SUR-US 901-00285 XP-10150-SUR-WD			
INTERFACES							
WIRED ETHERNET WIRELESS PROTOCOL	Two auto MDI-X RJ45 10/100/1000Mbps Ethernet (Port #1 with PoE in & Data, Port #2 with PoE out & Data) - Radio #1: WORP® (Wireless Outdoor Router Protocol), - Radio #2: Wi-Fi (802.11b/g/n)						
RADIO & TX SPECS							
	Radio #1			Radio #2			
FREQUENCY	4.900 – 5.925 GHz (Subject to Country Regulations)			2.400 – 2.484 (Subject to Country Regulations)			
				802.11n	802.11g	802.11b	
MIMO	2x2:2			2x2:2	N/A		N/A
MODULATION	OFDM BPSK - QAM256			OFDM BPSK - QAM64	OFDM BPSK-QAM64	DSSS DBPSK-CCK	
DATA RATE	Up to 866 Mbps			Up to 300 Mbps		Up to 54 Mbps	Up to 11 Mbps
	80 MHz	40 MHz	20 MHz	40 MHz	20 MHz	20 MHz	20 MHz
TX POWER (dual RF)	MCS0: 28	MCS0: 28	MCS0: 29	MCS0/8: 26	MCS0/8: 26	6 Mbps: 26	1 Mbps: 26
	MCS9: 21	MCS9: 22	MCS9: 25	MCS7/15: 20	MCS7/15: 21	54 Mbps: 22	11 Mbps: 26
RX SENSITIVITY (Per=10%)	MCS0: -89	MCS0: -93	MCS0: -94	MCS0/8: -88/90	MCS0/8: -92/91	6 Mbps: -93	1 Mbps: -93
	MCS9: -68	MCS9: -71	MCS8: -74	MCS7/15: -72/69	MCS7/15: -74/72	54 Mbps: -77	11 Mbps: -89
OTHER	Dynamic Channel Selection (DCS) based on interference detection Dynamic Frequency Selection (DFS) based on radar signature Automatic Transmit Power Control (ATPC) with EIRP limit support			Automatic Channel Selection (ACS)			
ANTENNA							
	Radio #1			Radio #2			
XP-10100-SUA	Two N-type Connectors with built-in Surge Protection			Two N-type Connectors with built-in Surge Protection			
XP-10150-BS1/SUR	Integrated 2x2 MIMO 22 dBi Dual Polarized 1 foot Antenna			Two N-type Connectors with built-in Surge Protection			

SECURITY				
	<b>Radio #1</b>	<b>Radio #2</b>		
ENCRYPTION	AES 128	802.11i/WPA2 and WPA Wireless Security with AES-128, TKIP or WEP		
AUTHENTICATION	Internal MAC Address Control List, Radius based Authentication	Enterprise/802.1x, Personal/ PSK (Pre Shared Key) or Open		
802.1X SUPPORT		PEAP, LEAP, EAP-FAST, EAP-SIM, EAP-TTLS, EAP-AKA		
QoS				
	<b>Radio #1</b>	<b>Radio #2</b>		
	Asymmetric UL/DL committed and maximum information rate per service flow with Best Effort and Real Time Polling Services	802.11e/WMM Enhanced Distributed Channel Access, 4 priority queues		
Packet Classification Capabilities	802.1p priority, IPTOS, VLAN ID, IP addresses, ports, Ethernet addresses, IP protocol, and EtherType	802.1p priority, IPTOS		
THROUGHPUT				
	<b>Radio #1 (RFC 2544)</b>	<b>Radio #2</b>		
	Up to 672 Mbps @ 80 MHz	Up to 150 Mbps		
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			
Multi-Language Support	Web Interface available in English, French, Spanish and Chinese			
SYNCHRONIZATION				
	Pass-through SyncE and Precision Time Protocol (IEEE 1588v2) Ethernet Synchronization			
NETWORK				
MODES	<b>Radio #1</b>	<b>Radio #2</b>		
	Bridging, Routing (RIP v2 and IP tunneling)	Access Point		
IP STACK	IPv4 and IPv6 simultaneously			
GATEWAY FEATURES	DHCP Server & relay, NAT with Std ALGs			
VLAN	802.1Q: Management VLAN. Transparent, Access, Trunk and Mixed mode. QinQ double tagging			
POWER		INPUT	OUTPUT	
	36 to 57 VDC via Ethernet port1 (Power over Ethernet)		48 to 57 VDC – 25 Watt max on Ethernet port2 (PoE – software controlled)	
	12 VDC via Access port		12 VDC on Access port	
	Power should not be provided simultaneously on both ports			
POWER CONSUMPTION				
	16.5 Watt typical, 22.5 Watt maximum			
ENVIRONMENTAL SPECS	OPERATING TEMPERATURE	STORAGE TEMPERATURE	HUMIDITY - IP RATING	WIND LOADING
	-40° to 60°C (-40° to 140° Fahrenheit)	-50° to 70°C (-58° to 158° Fahrenheit)	100% relative humidity - IP67	200 km/h (125 mph)
PHYSICAL SPECS	DIMENSIONS PACKAGED	DIMENSIONS UNPACKAGED	WEIGHT (PACKAGED)	WEIGHT (UNPACKAGED)
XP-10100-SUA	14.56 x 13.0 x 7.87 in (370 x 331 x 200 mm)	9.84 x 8.66 x 2.83 in (250 x 220 x 72 mm)	10.91 lbs (4.95 kg)	5.07 lbs (2.3 kg)
XP-10150-BS1/SUR	14.56 x 13.0 x 7.87 in (370 x 331 x 200 mm)	12 x 12 x 3.40 in (305 x 305 x 85 mm)	11.90 lbs (5.4 kg)	6.17 lbs (2.8 kg)
SAFETY STANDARDS				
	UL 60950, CAN/CSA-C22.2 No. 60950, IEC 60950, EN 60950 (part -1 and -22)			
CERTIFICATIONS				
	USA: FCC 90Y + 15C + 15E (UNII 15.247) Canada: IC RSS 102 + RSS 111 + RSS 247 Europe: RED EN 301 489-1 + EN 301-489-17 + EN 300 328 + EN 301 893 + EN 302 502 Railway: EN 50155 + EN 50121 + EN 61373			

## PACKAGE CONTENTS

- One Tsunami® XP-10100-SUA unit with four N-type surge protected connectors  
Or One Tsunami® XP-10150-BS1/SUR unit with integrated 22 dBi panel antenna plus two N-type surge protected connectors
- One power injector and country specific power cord
- One Connector weatherproofing kit (Includes all recommended weatherproofing material)
- One Wall / Pole mounting kit
- One Grounding kit
- Two 2.4 GHz, 5 dBi omni antennas
- One Antenna alignment (RJ11) dongle
- One Quick Installation Guide

## MTBF &amp; WARRANTY

>250 000 hours, 2-year warranty; ServPak Extended Support available.