



## Simplifying Distributed Outdoor WiFi Hotspots

Proxim's Tsunami® XP-10100, is designed as a single endpoint solution to delivering high performance outdoor WiFi. By Integrating a near-line-of-sight Point-to-Multipoint SU with an ORINOCO® Access Point into a single unit, outdoor hotspots can be rapidly and reliably deployed. The Tsunami® XP-10100 is specifically designed for the Wireless Internet Service Provider, but is equally suited 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
- Railway certified High Speed Mobility up to 185 mph (295 km/h)

## 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

## 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.

## 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)

## 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

## 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			
XP-10100-SUA	Tsunami® XP 10100 Subscriber Unit, 866 Mbps, MIMO 2x2, Type-N Connectors with 11n AP			901-00284 XP-10150-BS1-WD			
XP-10150-SUR	Tsunami® XP 10150 Subscriber Unit, 866 Mbps, MIMO 2x2, 22 dBi panel antenna with 11n AP			901-00236 XP-10100-SUA-US			
				901-00237 XP-10100-SUA-WD			
				901-00283 XP-10150-SUR-US			
				901-00285 XP-10150-SUR-WD			
INTERFACES							
WIRED ETHERNET	Two auto MDI-X RJ45 10/100/1000Mbps Ethernet (Port #1 with PoE in & Data, Port #2 with PoE out & Data)						
WIRELESS PROTOCOL	- 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	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							
	Radio #1			Radio #2			
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</b>	<b>Radio #2</b>		
	Up to 672 Mbps @ 80 MHz	Up to 150 Mbps		
MANAGEMENT				
REMOTE SNMP OTHER	Telnet and SSH, Web GUI and SSL, TFTP, SNMPv3 SNMP v1-v2c-v3, RFC-1213, RFC-1215, RFC-2790, RFC-2571, RFC-3412, RFC-3414, Private MIB Syslog, sFlow™ agent, SNTP and local time, Spectrum analyzer			
SYNCHRONIZATION				
	Pass-through 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 GATEWAY FEATURES VLAN	IPv4 and IPv6 simultaneously DHCP Server & relay, NAT with Std ALGs 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) 12 VDC via Access port Power should not be provided simultaneously on both ports		48 to 57 VDC – 25 Watt max on Ethernet port2 (PoE – software controlled) 12 VDC on Access port	
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				
	<ul style="list-style-type: none"> <li>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</li> <li>One power injector and country specific power cord</li> <li>One Connector weatherproofing kit (Includes all recommended weatherproofing material)</li> <li>One Wall / Pole mounting kit</li> <li>One Grounding kit</li> <li>Two 2.4 GHz, 5 dBi omni antennas</li> <li>One Antenna alignment (RJ11) dongle</li> <li>One Quick Installation Guide</li> </ul>			
MTBF & WARRANTY				
	>250 000 hours, 2-year warranty; ServPak Extended Support available.			