

# Tsunami® XP-10100 Series

## Point-to-Multipoint Wireless Subscriber Unit with integrated Access Point



### 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.



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)



IEEE 802.11b/g/n standard, Wi-Fi Alliance certified

### 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 Wi-Fi certified 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 trunk mode

### 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

### 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

### 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.

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	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®		- Radio #2: Wi-Fi (802.11b/g/n)							
RADIO		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 MODULATION	2x2:2 OFDM		2x2:2 OFDM	N/A OFDM	N/A DSSS					
DATA RATE	BPSK - QAM256 Up to 866 Mbps		BPSK - QAM64 Up to 300Mbps	BPSK-QAM64 Up to 54Mbps	DBPSK-CCK Up to 11Mbps					
	80 MHz	40 MHz	20 MHz	40 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	MCS8: 25	MCS7/15: 20	MCS7/15: 21	54 Mbps: 22	11 Mbps: 26			
RX SENSITIVITY (BER=10 <sup>-6</sup> )	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		Radio #1		Radio #2						
	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		Radio #1		Radio #2						
	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									
SYNCHRONIZATION										
	Pass-through IEEE 1588v2 Ethernet Synchronization									
NETWORK		Radio #1		Radio #2						
MODES	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 (PoE) 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 TEMP		STORAGE TEMP		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		PACKAGED DIMENSIONS		UNPACKAGED DIMENSIONS		PACKAGED WEIGHT		UNPACKAGED WEIGHT		
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)									
CERTIFICATION										
	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</li> <li>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> </ul>				<ul style="list-style-type: none"> <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> <li>One Wall / Pole mounting kit</li> </ul>					
MTBF and WARRANTY										
	>250 000 hours, 2-year warranty; ServPak Extended Support available.									