

# Tsunami® XP-10100 Series

## Point-to-Multipoint Wireless Solution with built in Access Point



## Proxim introduces the Tsunami® Cross Point XP-10100, the first wireless solution that combines 5 GHz Point to Multipoint last mile access with 2.4 GHz Wi-Fi Access Point

Proxim Wireless is a leader and an early innovator in wireless technology providing high-speed, long-range and mobile broadband wireless solutions. Proxim's Tsunami® XP-10100, is a very high throughput, high power, extremely reliable and cost-effective, near-line-of-sight point-to-multipoint (PMP) wireless solution with a built in WiFi access point.

The Tsunami® XP-10100 supports the following features specifically for last miles access, video surveillance or mobility applications that need very high-speed broadband wireless access



Proxim WORP®, a highly evolved QoS platform tailored to deliver voice, video and data applications



Proxim ClearConnect™, a suite of different techniques all working together to ensure robust and reliable radio communications in noisy deployments



Proxim FastConnect™, a High Speed Mobility solution for Buses, Trains, Metros and Ferries



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

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	
	BPSK - QAM256				BPSK - QAM64	BPSK-QAM64	
DATA RATE	Up to 866 Mbps				Up to 300Mbps		
					Up to 54Mbps	Up to 11Mbps	
	80 MHz	40 MHz	20 MHz	40 MHz	20 MHz	20 MHz	
TX POWER	MCS0: 28 MCS9: 21	MCS0: 28 MCS9: 22	MCS0: 29 MCS8: 25	MCS0/8: 26 MCS7/15: 20	MCS0/8: 26 MCS7/15: 21	6 Mbps: 26 54 Mbps: 22	
						1 Mbps: 26 11 Mbps: 26	
RX SENSITIVITY (BER=10 <sup>-5</sup> )	MCS0: -89 MCS9: -68	MCS0: -93 MCS9: -71	MCS0: -94 MCS8: -74	MCS0/8: -88/90 MCS7/15: -72/69	MCS0/8: -92/91 MCS7/15: -74/72	6 Mbps: -93 54 Mbps: -77	
						1 Mbps: -93 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							
	23 Watt typical						
ENVIRONMENTAL SPECS		OPERATING TEMP		STORAGE TEMP		HUMIDITY - IP RATING	
	-40° to 60°C (-40° to 140° Fahrenheit)		-50° to 70°C (-58° to 158° Fahrenheit)		100% relative humidity - IP67		WIND LOADING
							200 km/h (125 mph)
PHYSICAL SPECS		PACKAGED DIMENSIONS		UNPACKAGED DIMENSIONS		PACKAGED WEIGHT	
	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)		UNPACKAGED WEIGHT
	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</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.						