

# 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 over 13 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
- 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	5.150 – 5.925 GHz (Subject to Country Regulations)		2.400 – 2.484 (Subject to Country Regulations)			
MIMO MODULATION	2x2:2 OFDM		802.11n	802.11g	802.11b	
DATA RATE	BPSK - QAM256 Up to 866 Mbps		2x2:2 OFDM BPSK - QAM64 Up to 300Mbps	N/A OFDM BPSK-QAM64 Up to 54Mbps	N/A DSSS DBPSK-CCK Up to 11Mbps	
TX POWER	80 MHz	40 MHz	20 MHz	40 MHz	20 MHz	
	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 11 Mbps: 26
RX SENSITIVITY (BER=10 <sup>-6</sup> )	80 MHz	40 MHz	20 MHz	40 MHz	20 MHz	
	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 11 Mbps: -93
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 AUTHENTICATION 802.1X SUPPORT	AES 128 Internal MAC Address Control List, Radius based Authentication		802.11i/WPA2 and WPA Wireless Security with AES-128, TKIP or WEP Enterprise/802.1x, Personal/ PSK (Pre Shared Key) or Open PEAP, LEAP, EAP-FAST, EAP-SIM, EAP-TTLS, EAP-AKA			
QoS	Radio #1	Radio #2				
Packet Classification Capabilities	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			
	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 633 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, SNMP and local time, Spectrum analyzer					
SYNCHRONIZATION						
	Pass-through IEEE 1588v2 Ethernet Synchronization					
NETWORK	Radio #1	Radio #2				
MODES IP STACK GATEWAY FEATURES VLAN	Bridging, Routing (RIP v2 and IP tunneling) IPv4 and IPv6 simultaneously DHCP Server & relay, NAT with Std ALGs		Access Point			
	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	WIND LOADING		
	-40° to 60°C (-40° to 140° Fahrenheit)	-50° to 70°C (-58° to 158° Fahrenheit)	100% relative humidity - IP67	180 km/h (112.5 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)					
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.					