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 802.11n 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 with Wi-Fi Alliance improvement

World Class Performance

- Point-to-Point system that delivers 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
- 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

Product Line Compatibility

- Connects to all existing Tsunami® MP-10100, MP-8200 and MP-820 base stations
- Fully integrates within ProximVision® Advanced Cloud Based Carrier Management System and Controller

PRODUCT MODELS		PART NUMBERS	
XP-10100-SUA	Tsunami® XP 10100 Subscriber Unit, 867 Mbps, MIMO 2x2, Type-N Connectors with 11n AP	901-00236 XP-10100-SUA-US	901-00237 XP-10100-SUA-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)			
				802.11n		802.11g	802.11b
MIMO	2x2:2			2x2:2		N/A	N/A
MODULATION	OFDM			OFDM		OFDM	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	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^{-6})	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

SECURITY

	Radio #1	Radio #2
ENCRYPTION AUTHENTICATION 802.1X SUPPORT	AES 128 Internal MAC Address Control List, Radius based Authentication	802.11i/WPA2 Wireless Security with AES-128, TKIP or WEP Enterprise (Radius based) or Pre-Shared Key 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 802.1p priority, IPTOS, VLAN ID, IP addresses, ports, Ethernet addresses, IP protocol, and EtherType	802.11e/WMM Enhanced Distributed Channel Access 802.1p priority, IPTOS

THROUGHPUT

	Radio #1	Radio #2
	Up to 633 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	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)

SAFETY STANDARDS

UL 60950, CAN/CSA-C22.2 No. 60950, IEC 60950, EN 60950 (part -1 and -22)

PACKAGE CONTENTS

- One Tsunami® XP-10100-SUA unit with four 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 and WARRANTY

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