Designed to Maximize Bandwidth and Link Reliability in Noisy Environments
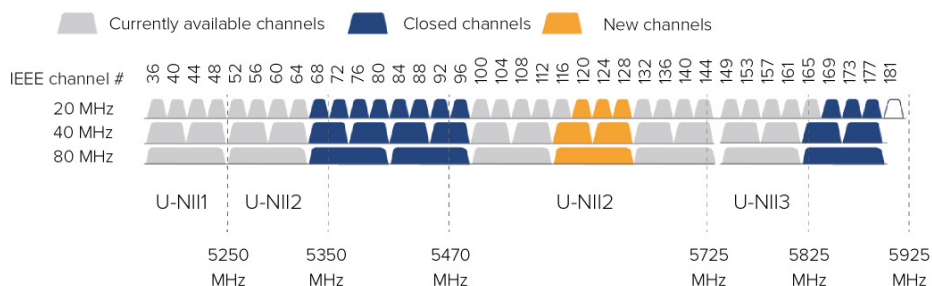
The Tsunami®MP-10250 BeamX product family uses a beam steering antenna and a secondary, look-ahead scan radio to avoid interference and maximize the use of available radio spectrum. The Tsunami® 10250, builds on the successful 10000 product line, and is extremely robust in the face of high ambient RF interference, delivers more Mbps and opens up additional 5GHz spectrum.

Fast, Secure and Flexible

- Point-to-Multipoint base station and subscriber unit that delivers up to 866 Mbps data rate and covers distances up to 10 miles (16 km)
- AES 128 encryption, Radius authentication, and highly-secure remote management via SSL/TLS1.2, SSH, and SNMPv3
- Service flow based QoS with deep packet inspection (DPI) to ensure critical data arrives with priority
- Built-in feature-rich network protocols for IPv4 and IPv6 bridging, routing and gateway functionality
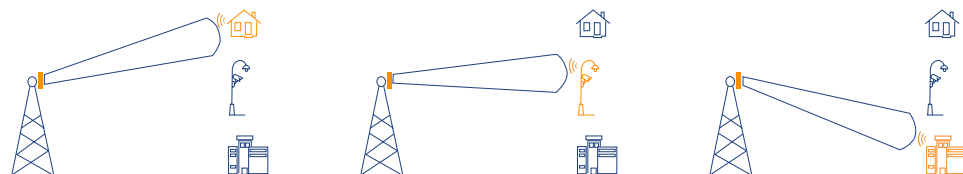
Proxim SmartScan™

- Performs background analysis of the full RF spectrum and creates channel availability tables to allow an immediate switch to a free channel in case of weather radar detection or interference
- By removing the initial transmission delay, SmartScan makes DFS channel more efficient
- It also opens access to the 5.600–5.650 GHz sub-band and enables effective use of up to 355 MHz of DFS spectrum

BeamX™ Antenna

- Smart antenna delivering a 17° beam that electronically steers itself to the remote subscriber unit over a 60° sector, to limit interference from nearby RF sources
- By improving the radio Signal to Noise Ratio (SNR), BeamX enables higher modulations and thus improves throughput
- BeamX speeds up deployment by removing the antenna alignment phase. Roughly aim at the remote end, and the BeamX technology does the fine-tuning, optimizing SNR

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.

Rugged and Reliable

The Tsunami® MP-10250 BeamX product is designed for harsh environments, and is fully IP67 rated, and will deliver years of reliable service in conditions that include, high winds, high salt, and high-temperature extremes.

Key Technologies

The Tsunami® MP-10250-BeamX device supports the following features for applications that include last mile access or video surveillance, both of which need prioritized and continuous high-speed broadband wireless access:

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 SmartConnect™

Delivering exceptional performance in noisy RF locations by combining a beam steering antenna with a secondary look ahead scan radio to seek, manage, and select the best channel.

Product Line Compatibility

- Tsunami® MP-10250-BSX Connects to all existing Tsunami® MP/XP 10100, MP-10100L, MP-8200, MP-820 and MP-830 products
- Tsunami® MP-10250-SRX only connects to Tsunami® MP-10250-BSX
- Fully integrates within ProximVision® Advanced Cloud Based Carrier Management System and Controller

Specifications

PRODUCT MODELS		PART NUMBERS	
MP-10250-BSX	Tsunami® MP 10250 Base Station Unit, 867 Mbps, MIMO 2x2, 16 dBi BeamX antenna, Scan radio	901-00291	MP-10250-BSX-US
		901-00292	MP-10250-BSX-WD
MP-10250-SRX	Tsunami MP 10250 Subscriber Unit, 867 Mbps, MIMO 2x2, BeamX antenna, SmartScan radio	901-00340	MP-10250-SRX-US
		901-00341	MP-10250-SRX-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	WORP® (Wireless Outdoor Router Protocol)

RADIO & TX SPECS	
MIMO	2x2:2 and 0x2:2 (scan radio)
MODULATION	OFDM with BPSK, QPSK, QAM16, QAM64, QAM256
FREQUENCY	4.900 – 5.850 GHz (Subject to Country Regulations)
CHANNEL SIZE	80 MHz, 40 MHz and 20 MHz
DATA RATE	MCS 0 to 9 with Dynamic Data Rate Selection
TX POWER	Up to 28 dBm (dual chain)
TX POWER CONTROL	0 - 27 dB, in 1 dB steps. Automatic TPC with configurable EIRP limit

	80 MHz	40 MHz	20 MHz	SCAN RADIO
TX POWER	MCS0: 28 dBm	MCS0: 28 dBm	MCS0: 29 dBm	N/A
	MCS9: 21 dBm	MCS9: 22 dBm	MCS8: 25 dBm	
RX SENSITIVITY (Per=10%)	MCS0: -89 dBm	MCS0: -93 dBm	MCS0: -94 dBm	N/A
	MCS9: -68 dBm	MCS9: -71 dBm	MCS8: -74 dBm	
THROUGHPUT	Up to 672 Mbps	Up to 324 Mbps	Up to 137 Mbps	N/A

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.

ANTENNA - Integrated 2x2 MIMO Beam Steering Antenna:

Beam Width Receive Gain Transmit Gain	17° spanning over ± 30° sector 16 dBi (11 dBi before 5.150 GHz) 20 dBi (11 dBi before 5.150 GHz)

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

SECURITY

ENCRYPTION AUTHENTICATION	AES 128 Internal MAC Address Control List, Radius based Authentication (with VLAN and QoS provisioning)

QoS

Asymmetric Bandwidth Control Packet Classification Capabilities Scheduling	Asymmetric UL/DL committed and maximum information rate per service flow 802.1p priority, IPTOS, VLAN ID, IP addresses, ports, Ethernet addresses, IP protocol, and EtherType Best Effort, Real Time Polling Services

NETWORK

MODES IP STACK GATEWAY FEATURES VLAN	Bridging, Routing (RIP v2 and IP tunneling) IPv4 and IPv6 simultaneously DHCP Server & relay, NAT with Std ALGs, PPPoE end point with Proxy DNS 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 on Ethernet port2 (PoE – software controlled) 12 VDC on Access port

POWER CONSUMPTION

	30 Watt typical, 40 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)
MP-10250-BSX/SRX	18.46 x 7.05 x 21.57 in (469 x 179 x 548 mm)	14 x 14 x 3.40 in (371 x 371 x 85 mm)	13.67 lbs (6.2 kg)	7.27 lbs (3.3 kg)

SAFETY STANDARDS

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

CERTIFICATIONS

	USA: FCC 90Y + 15E (UNII 15.247), Canada: IC RSS 102 + RSS 111 + RSS 247, Europe: RED EN 301 489-1 + EN 301-489-17 + EN 301 893 + EN 302 502

PACKAGE CONTENTS

	• One Tsunami® MP-10250-BSX/SRX with integrated BeamX antenna and scan radio • One power injector and country specific power cord • One Connector weatherproofing kit (Includes all recommended weatherproofing material) • One Wall / Pole mounting kit • One Antenna alignment (RJ11) dongle • One Grounding kit • One Quick Installation Guide

MTBF & WARRANTY

	MTBF over 250 000 hours & 2-year warranty with ServPak Extended Support available