



The compact and robust form factor of Tsunami<sup>®</sup> Multipoint 820 series is an ideal solution for urban wireless deployments. It is eminently suitable for discrete mounting in city streets and offers high reliability for the connection of Video Surveillance, traffic monitoring and traffic light management systems.

The Tsunami<sup>®</sup> Multipoint 820 series is also adapted for in vehicle mounting and supports transparent roaming for data on the move.

## High Performance

- Designed with a high 26 dBm power transmitter, and 2x2 MIMO technology, the 820 delivers excellent connectivity even in difficult conditions.
- The Non Line of Sight (NLOS) performance of the 820 series enables installation in challenging environments.

## Compact, Quick and Easy to Install

Though designed in a small form factor, the 820 packs quite a punch and Comes ready to install with a complete “bring-your-own-pole” installation kit that includes basic pole mount and grounding kits, connector weather proofing kit and a power injector, The on board signal strength indicator that makes installations really easy and hassle free.

## Mobility

The Multipoint 820 Series, with the help of Proxim’s roaming technology - FastConnect, is able to establish unparalleled handoff times and support delay-sensitive multimedia applications even when mobile at speeds of up to 285 km/h (196 mph).

## Built for Extremes

The 820 aluminum enclosure is approved after stringent screening involving Drop, Shock, Salt Spray, Thermal, and Reliability tests. In addition, the enclosure is IP 67 rated that ensures the 820 delivers high performance even in hostile weather conditions with minimal downtime.

## Powered by WОРP<sup>®</sup>

At the core of every Tsunami<sup>®</sup> 820 lies Proxim’s proprietary Wireless Outdoor Routing Protocol - WОРP<sup>®</sup>, which is a reliable, secure and efficient protocol that optimizes the performance of multi-play outdoor wireless Point-to-Point and Point-to-Multipoint links.

## Compatibility

Connects to all Tsunami<sup>®</sup> MP-10200, MP-10100, MP-8200, MP-820 and MP-830 product families.

### About Proxim Wireless

Proxim Wireless is a global leader in advanced wireless broadband and WiFi solutions that deliver high performance and high availability communications.

Celebrating 40 years of pioneering wireless solutions, Proxim is recognized for unparalleled reliability, superior performance, and drive for innovation.

## Specifications

PRODUCT MODELS		PART NUMBERS				
MP-820-BSU-100	Tsunami® MP 820 Base Station Unit, 100 Mbps, MIMO 2x2, N-Type Connectors	901-00135	MP-820-BSU-100-US			
MP-825-BS3-100	Tsunami® MP 825 Base Station Unit, 100 Mbps, MIMO 2x2, 15 dBi Antenna	901-00133	MP-820-BSU-100-WD			
MP-820-SUA-50*	Tsunami® MP 820 Subscriber Unit, 50 Mbps (upgradable to 100 Mbps), MIMO 2x2, N-Type Connectors	901-00185	MP-825-BS3-100-US			
MP-820-SUA-100	Tsunami® MP 820 Subscriber Unit, 100 Mbps, MIMO 2x2, N-Type Connectors	901-00184	MP-825-BS3-100-WD			
MP-825-SUR-50*	Tsunami® MP 825 Subscriber Unit, 50 Mbps (upgradable to 100 Mbps), MIMO 2x2, 15 dBi Antenna	901-00136	MP-820-SUA-50*-US			
MP-825-SUR-100	Tsunami® MP 825 Subscriber Unit, 100 Mbps, MIMO 2x2, 15 dBi Antenna	901-00134	MP-820-SUA-50*-WD			
		901-00174	MP-820-SUA-100-US			
		901-00173	MP-820-SUA-100-WD			
		901-00176	MP-825-SUR-50*-US			
		901-00175	MP-825-SUR-50*-WD			
		901-00195	MP-825-SUR-100-US			
		901-00212	MP-825-SUR-100-WD			
INTERFACES						
WIRED ETHERNET	One auto MDI-X RJ45 10/100/1000Mbps Ethernet with PoE in					
WIRELESS PROTOCOL	WORP® (Wireless Outdoor Router Protocol) or WORP sync					
RADIO & TX SPECS						
MIMO	2x2:2					
MODULATION	OFDM with BPSK, QPSK, QAM16, QAM64					
FREQUENCY	4.900 - 5.925 GHz (Subject to Country Regulations)					
CHANNEL SIZE	40 MHz, 20 MHz, 10 MHz*, 5 MHz* channel bandwidths * DFS availability is country dependent, check the User Guide					
DATA RATE	MCS 0 to 15 for High Throughput mode (6.5 – 300 Mbps) with Dynamic Data Rate Selection					
TX POWER	BPSK, QPSK, 16-QAM and 64-QAM for legacy mode (6Mbps - 54Mbps)					
TX POWER CONTROL	Up to 26 dBm (dual chain)					
	0 – 15 dB, in 0.5 dB steps. Automatic TPC with configurable EIRP limit					
	Channel Size	40 MHz	20 MHz	10 MHz	5 MHz	
RX SENSITIVITY (PER=10%)	MCS 0	-88 dBm	-92 dBm	-93 dBm	-94 dBm	
	MCS 7	-72 dBm	-74 dBm	-75 dBm	-77 dBm	
	MCS 8	-88 dBm	-91 dBm	-93 dBm	-94 dBm	
	MCS 15	-69 dBm	-71 dBm	-72 dBm	-75 dBm	
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						
MP-820-BSU-100/SUA-50*/SUA-100	Two N-type connectors					
MP-825-BS3-100/SUR-50*/SUR-100	Integrated 15 dBi dual Polarized (H+V) panel antenna (12 dBi before 5.000 GHz and 14 dBi beyond 5.850 GHz)					
MANAGEMENT						
LOCAL	RS-232 serial (RJ11 to DB-9 dongle provided)					
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						
	Synchronize internal clock to Pulse Per Second signal received from either GPS module connected to RJ11 serial port or Ethernet Synchronization module connected to RJ45 ethernet port					
SECURITY						
ENCRYPTION	AES-CCM 128 bits					
AUTHENTICATION	Internal MAC Address Control List, Radius based Authentication (with VLAN and QoS provisioning)					
QoS						
Asymmetric Bandwidth Control	Uplink and Downlink CIR Control "committed information rate" per service flow					
	Uplink and Downlink MIR Control "maximum information rate" per service flow					
Packet Classification Capabilities	802.1D/802.1Q/802.1p priority, IPTOS, VLAN ID, IP protocol, IP source/destination address, Ethernet source/destination address, source/destination port, and Ethertype					
Scheduling	Best Effort, Real Time Polling Services					

NETWORK				
MODES IP STACK THROUGHPUT	Bridging, Routing (RIP v2 and IP tunneling) IPv4 and IPv6 simultaneously			
	MP-820-BSU-100/SUA-100 MP-825-BS3-100/SUR-100	Up to 100 Mbps, 32 subscriber max		
	MP-820-SUA-50+ or MP-825-SUR-50+	Up to 50 Mbps (license upgradable to 100 Mbps)		
GATEWAY FEATURES VLAN	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 SUPPLY				
	Via provided PoE injector or directly from 12 VDC source through serial port			
POWER CONSUMPTION				
	6 Watt typical (15 Watt max)			
ENVIRONMENTAL SPECS	OPERATING TEMPERATURE	STORAGE TEMPERATURE	HUMIDITY - IP RATING	WIND LOADING
	-40° to 55°C (-40° to 131° Fahrenheit)	-55° to 70°C (-67° to 158° Fahrenheit)	Max 100% relative humidity (non-condensing) - IP67	180 km/h (112 mph)
PHYSICAL SPECS	DIMENSIONS PACKAGED	DIMENSIONS UNPACKAGED	WEIGHT (PACKAGED)	WEIGHT (UNPACKAGED)
MP-820-BSU-100/SUA-50+/ SUA-100	11.81x10.83x5.31 in (300x275x135 mm)	5.02x8.68x2.85 in (127.5x220.5x72.5 mm)	7.93 lbs (2.7 kg)	2.75 lbs (1.250 kg)
MP-825-BS3-100/SUR-50+/ SUR-100	11.81x10.83x5.31 in (300x275x135 mm)	4.96x8.62x2.58 in (126x219x65.5 mm)	7.27 lbs (3.3 Kg)	2.10 lbs (0.950 kg)
SAFETY STANDARDS				
	UL 60950-1/22, CAN/CSA-C22.2 No. 60950-1/22, IEC 60950-1/22, EN 60950-1/22			
PACKAGE CONTENTS				
	<ul style="list-style-type: none"> <li>One Tsunami® MP-820-BSU-100 with two N-type surge protected connectors Or One Tsunami® MP-825-BS3-100 with 15 dBi integrated antenna Or One Tsunami® MP-820-SUA-50+/SUA-100 with two N-type surge protected connectors Or One Tsunami® MP-825-SUR-50+/SUR-100 with 15 dBi integrated antenna</li> <li>One 32 W power injector with country specific power cord</li> <li>One Wall / Pole mounting kit (Tsunami MP-825-BS3/SUR) Or One Pole mounting Kit (Tsunami MP-820-BSU/SUA)</li> <li>One Connector weatherproofing kit (Includes all recommended weatherproofing material)</li> <li>One Serial (RJ-11 to DB9) dongle</li> <li>One Grounding kit</li> <li>One Quick Installation Guide</li> </ul>			
MTBF & WARRANTY				
	MTBF over 350,000 hours & 2-year warranty with ServPak Extended Support available			