

## Bandwidth licensed to support 25 and 50 Mbps throughput options.



Proxim Wireless is a leader and an early innovator in wireless technology providing high-speed, long-range broadband wireless solutions. Tsunami Quickbridge® 835 series is a Point-to-Point (PtP) wireless backhaul solution, designed to address cost sensitive customers who need a lower throughput offering in a carrier class product.

With this complete “Hop-in-a-Box” solution delivering up to 50 Mbps throughput, deployments of all sizes will enjoy a quick return on investment.

The QB 835 supports excellent spectrum efficiency thanks to Proxim ClearConnect™ suite of different techniques all working together to ensure robust and reliable radio communications in noisy deployments. In addition with Proxim’s WORP®, a highly evolved prioritization platform tailored to deliver voice, video and data applications, Tsunami Quickbridge® 830 series satisfies carriers, wireless service providers and Government organizations which require reliable, cost optimized high performance wireless backhaul.

## World Class Performance

- Features a very small form factor and an outdoor rated IP67 Metal enclosure
- Comes with 15 dBi integrated antenna
- 25 Mbps (license upgradable to 50 Mbps) or 50 Mbps of throughput
- Provides flexible channel planning with support for 4.900 to 5.000 GHz (L mask) and 5.150 - 5.925 GHz
- Comes with a 2x2 MIMO high power radio capable of 26 dBm combined transmit power
- Allows flexible bandwidth allocation for service tiers
- Spectrum analysis feature displays interferers allowing users to select a cleaner channel with less interference.

## All-in-One Link with Security Features

- Built-in feature rich network protocols for Bridging and Routing
- Advanced encryption protects over-the-air transmission via AES-128
- Radio mutual authentication eliminates unauthorized use of the system by rogue End Point and man-in-the middle attacks
- MAC, Ether type, IP address packet filtering provides granular network security
- Uses Proxim’s Wireless Outdoor Routing Protocol (WORP®) to prevent snooping
- Features highly-secure remote management via SSL, SSH and SNMPv3

## 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.

## Cost Effective and Ease of Installation for Quick Return on Investment

- Low-cost bundle including both radio and mounting kit provides the industry’s most aggressive price point, enabling any deployment to enjoy a quick return on investment
- License-free frequency bands worldwide provide reliable wireless broadband without the high cost of licensed frequencies
- Comes as a complete “Hop-In-A-Box” compact outdoor form factor offering unprecedented ease of installation
- Simplified web interface to optimized link deployment. Advanced detailed interface is still accessible if needed.
- Non Line-of-Sight capability provided by Advanced Orthogonal Frequency Division Multiplexing (OFDM) along with 2x2 MIMO eases deployment in challenging areas

## Specifications

PRODUCT MODELS		PART NUMBERS			
QB-835-LNK-25	Tsunami® QB 835 Link, 25 Mbps (upgradable to 50 Mbps), MIMO 2x2, 15dBi antenna (Two QB-835-EPR-25)	902-00815	QB-835-LNK-25-US		
QB-835-LNK-50	Tsunami® QB 835 Link, 50 Mbps, MIMO 2x2, 15dBi antenna (Two QB-835-EPR-50)	902-00817	QB-835-LNK-25-WD		
		902-00819	QB-835-LNK-50-US		
		902-00821	QB-835-LNK-50-WD		
INTERFACES					
WIRED ETHERNET	One auto MDI-X RJ45 10/100Mbps Ethernet with PoE in				
WIRELESS PROTOCOL	WORP® (Wireless Outdoor Router Protocol)				
RADIO & TX SPECS					
MIMO	2x2 MIMO				
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 dependant, check the User Guide				
DATA RATE	MCS 0 to 15 for High Throughput mode (6.5 – 300 Mbps) with Dynamic Data Rate Selection				
	BPSK, QPSK, 16-QAM and 64-QAM for legacy mode (6Mbps - 54Mbps)				
TX POWER	Up to 26 dBm (dual chain)				
TX POWER CONTROL	0 – 15 dB, in 0.5 dB steps. Automatic TPC with configurable EIRP limit				
	<b>Channel Size</b>	<b>40 MHz</b>	<b>20 MHz</b>	<b>10 MHz</b>	<b>5 MHz</b>
RX SENSITIVITY (PER=10 <sup>-6</sup> )	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					
	Integrated 15 dBi dual Polarized (H+V) panel antenna (12 dBi before 5.000 GHz and 14 dBi beyond 5.850 GHz)				
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					
	Synchronize internal clock to Pulse Per Second signal recieved 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 source/destination address, source/destination port, Ethernet source/destination address, IP protocol, and Ethertype				
Scheduling	Best Effort, Real Time Polling Services				
NETWORK					
MODES	Bridging, Routing (RIP v2 and IP tunneling)				
THROUGHPUT	QB-835-LNK-25: Up to 25 Mbps (license upgradable to 50 Mbps), QB-835-LNK-50: Up to 50 Mbps				
GATEWAY FEATURES	DHCP Server & relay, NAT with Std ALGs				
VLAN	802.1Q: Management VLAN. Transparent, Access, Trunk and Mixed mode. QinQ double tagging				
POWER SUPPLY					
	Via provided PoE Injector				
POWER CONSUMPTION					
	6 Watt typical (15 Watt max)				

ENVIRONMENTAL SPECS	OPERATING TEMPERATURE	STORAGE TEMPERATURE	HUMIDITY - Water & Dust Proof	WIND LOADING
	-30° to 50°C (-22° to 122° Fahrenheit), Cold start at -20°C (-4° 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)
	13.97 x 8.86 x 3.46 in (355 x 225 x 88 mm)	4.96 x 8.62 x 2.58 in (126 x 219 x 65.5 mm)	4.9 lbs (2.225 Kg)	2.1 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® QB-835-LNK-25/50 with integrated antenna (Two Tsunami® QB-835-EPR-25/50)</li> <li>• Two 20 W power injector and country specific power cord</li> <li>• Two Connector weatherproofing kit (Includes all recommended weatherproofing material)</li> <li>• Two Grounding kit</li> <li>• Two basic Pole mounting kit</li> <li>• Two Quick Installation Guide</li> </ul>			
MTBF & WARRANTY				
	MTBF over 350,000 hours & 2-year warranty with ServPak Extended Support available			