


Tsunami® QB-8150-LNK-12

End-to-End Broadband Wireless Product Portfolio

Proxim Wireless offers the industry's most complete suite of outdoor broadband wireless access products.

This portfolio includes:

- **Tsunami® QB-8100** – Proxim's Point-to-Point Product line delivering wireless performance in excess of 4G products on the market today
- **Tsunami® QuickBridge.11** – Easiest-to-install "Hop-in-a-box" complete kit Ethernet Bridge for campus and small business networks
- **Tsunami® MP-8100** – Proxim's Point-to-Multipoint Product line delivering wireless performance in excess of 4G products on the market today.
- **Tsunami® MP.11** – Proxim's best selling Point-to-Multipoint product line for global markets
- **Lynx.GX®** – Cellular voice and data backhaul, up to DS3 interface
- **Tsunami®.GX** - Carrier-class IP Ethernet Bridge for voice and data backhaul for service providers and enterprise applications
- **ORINOCO® Access Point** - World-class performance enterprise 11n Access Points

Proxim Wireless is a global pioneer of end-to-end broadband wireless systems that deliver the quadruple play. From Wi-Fi to wireless Gigabit Ethernet – our WLAN, mesh, WiMAX and point-to-point products are available through our extensive global channel networks.

Presenting Proxim's newest entry-level Point-to-Point wireless backhaul solution which can deliver up to 12Mbps at an unbeatable price to performance ratio!

Proxim Wireless is a leader and an early innovator in wireless technology providing high-speed, long-range broadband wireless solutions. Proxim introduces the Tsunami® QB-8150-LNK-12, an incredibly cost-effective, non Line-of-Sight Point-to-Point (PtP) wireless backhaul solution. With 12 Mbps performance in a complete "Hop-in-a-Box", deployments of all sizes will enjoy a quick return on investment.

With excellent spectrum efficiency and a highly evolved prioritization platform tailored to deliver voice, video and data applications, the Tsunami® QB-8150-LNK-12 satisfies carriers, wireless service providers and Government organizations with requirements for reliable cost optimized high performance wireless backhaul.

Leveraging the advantages of OFDM and the latest MIMO radio innovations, the Tsunami® QB-8100-LNK-12 draws on Proxim's proprietary Wireless Outdoor Router Protocol (WORP) to deliver an unmatched outdoor wireless performance when compared to other products in the market today.

Performance and Features

- Available with an integrated 16dBi dual polarized antenna
- Comes with a 2x2 MIMO high power radio capable of 24dBm transmit power
- Entry-level 12Mbps version for applications like T1/E1 line backhaul
- Carrier grade advanced security with AES-256¹ bit encryption and built-in feature-rich network protocols for bridging, routing and gateway functionality
- Supports Large ethernet frame up to 2048 bytes for backhauling MPLS traffic in carrier class deployments
- Provides flexible channel planning with support from 5.3 to 6.1 GHz
- Allows flexible bandwidth allocation for optimization of service tiers

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
- Non Line-of-Sight capability provided by Advanced Orthogonal Frequency Division Multiplexing (OFDM) along with 2x2 MIMO eases deployment in challenging areas

All-in-One CPE with Security & Gateway Features

- Built-in feature rich network protocols for Bridging, Routing and Gateway functionality
- Advanced encryption protects over-the-air transmission via AES-256¹
- Radio mutual authentication eliminates unauthorized use of the system by rogue subscriber units 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

PRODUCT MODELS					
QB-8150-LNK-12	Tsunami QB 8150 Link, 12 Mbps, MIMO 2x2, 16 dBi integrated antenna				
INTERFACES					
WIRED ETHERNET	One auto MDI-X RJ45 10/100Mbps Ethernet				
WIRELESS PROTOCOL	WORP (Wireless Outdoor Router Protocol)				
RADIO & TX SPECS					
MIMO	2x2MIMO				
MODULATION	OFDM				
FREQUENCY	5.3 – 6.0 GHz (Subject to Country Regulations)				
CHANNEL SIZE	40 MHz, 20 MHz, 10 MHz, 5 MHz channel bandwidths with support for 1MHz channel spacing				
DATA RATE	MCS 0 to 15 for High Throughput mode (6.5 – 300 Mbps) with Dynamic Data Rate Selection				
TX POWER	Up to 24dBm (two Tx chain)				
TX POWER CONTROL	0 – 25 dB, in 0.5 dB steps. Automatic TPC with configurable EIRP limit				
RX SENSITIVITY (BER=10 ⁻⁵)	Channel Size	40 MHz	20 MHz	10 MHz	5 MHz
	MCS 0	-89dBm	-93 dBm	-95 dBm	-96 dBm
	MCS 7	-73 dBm	-76 dBm	-76 dBm	-78 dBm
	MCS 8	-89 dBm	-93 dBm	-93 dBm	-94 dBm
	MCS 15	-73 dBm	-76 dBm	-73 dBm	-75 dBm
LATENCY	5 msec (typical)				
ANTENNA	Integrated 16dBi dual Polarized (H+V) panel antenna				
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				
SECURITY					
ENCRYPTION	AES-CCM 128 bits				
AUTHENTICATION	Internal MAC Address Control List, Radius based Authentication				
NETWORK					
MODES	Bridging, Routing (RIP v2 and IP tunneling)				
THROUGHPUT	Model QB 8150-LNK-12: Up to 12Mbps (TCP)				
GATEWAY FEATURES	DHCP Server & relay, NAT with Std ALGs				
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			
VLAN	802.1Q: Management VLAN. Transparent, Access, Trunk and Mixed mode. QinQ double tagging				
ENVIRONMENTAL SPECS					
TEMPERATURE					
OPERATING	-35° to 55°C (-31° to 131° Fahrenheit)				
STORAGE	-40° to 70°C (-40° to 158° Fahrenheit)				
HUMIDITY	Max 95% relative humidity (non-condensing)				
IP RATING	IP65				
WIND LOADING	125 mph				
PHYSICAL SPECS					
DIMENSIONS					
PACKAGED	15.15 x 12.40 x 4.33 in. (385 x 315 x 110 mm)				
UNPACKAGED	7.77 x 7.55 x 3.93 in (197.5 x 192 x 100 mm)				
WEIGHT					
PACKAGED	5.18 lbs (2.35 kg)				
UNPACKAGED	1.6 lbs (0.73 kg)				
SAFETY STANDARDS	UL 60950, CAN/CSA-C22.2 No. 60950, IEC 60950, EN 60950				
PACKAGE CONTENTS	<ul style="list-style-type: none"> ■ One Tsunami® MP 8150-LNK-12 with 16dBi integrated antenna (two units) ■ Two power injector and country specific power cord ■ Two Pole mounting kit ■ Two Connector weatherproofing kit (Includes all recommended weatherproofing material) ■ Two Grounding kit ■ One Quick Installation Guide 				
WARRANTY	1-year on parts and labor; ServPak Extended Support available.				

APPLICATIONS

- **Backhaul to a Central POP** – Avoid expensive installation and recurring charge of a second wireline backhaul to a remote virtual POP
- **Leased Line Redundancy** – Eliminate recurring leased line charges with one time installation charge of a Tsunami® QuickBridge link
- **Repeater** – Extend distance or overcome path blockage by adding point-to-point hops
- **High-bandwidth Last Mile Access** – Use Tsunami™ QuickBridge to deliver TLS (Transparent LAN Services) to corporate parks
- **Inter-POP Redundancy** – Avoid downtimes caused by a wireline backhaul failure by adding a Tsunami™ QuickBridge link as an inter-POP redundancy

¹ Available via Software upgrade