

# Tsunami® QB-10100-LNK Series

## Compact Point-to-Point Wireless Bridge Bundle



### Proxim introduces the all new Tsunami Quickbridge® 10100 wireless backhaul solution that delivers 50, 100 or 200 Mbps throughput

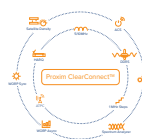
Proxim Wireless is a leader and an early innovator in wireless technology providing high-speed, long-range broadband wireless solutions.

Proxim introduces the Tsunami® QB-10100-LNK Series, a compact, license controlled throughput, high power, extremely reliable and cost-effective, near-line-of-sight point-to-point (PtP) wireless backhaul solution.

Tsunami® QB-10100-LNK Series can rely on the following features to satisfy carriers, wireless service providers and Government organizations that need high-speed carrier class wireless backhaul:



Proxim WORP®, a highly evolved QoS platform tailored to deliver voice, video and data applications



Proxim ClearConnect™, a suite of different techniques all working together to ensure robust and reliable radio communications in noisy deployments

### World Class Performance

- Point-to-Point system that delivers 50, 100 or 200 Mbps (license upgradable) throughput, with maximum data rates of 866 Mbps
- Compact form factor and outdoor rated IP67 Metal enclosure and N-Type connectors
- Very low latency of 2 to 3 ms to support voice and video applications over long distances
- Dual IPv4 and IPv6 stack for transparent evolution to tomorrow networks
- Built-in feature rich network protocols for bridging, routing and gateway functionality

### Frequency Agnostic

- Operates in unlicensed bands from 4.900 to 5.925 GHz
- Flexible RF planning with 20, 40 and 80 MHz channel size

### Near-Line-of-Sight and Advanced Features

- Near-line-of-sight capable, utilizing OFDM and enhanced 2x2 MIMO techniques for better RF propagation
- Performs deep packet inspection (DPI) to create unique and sophisticated service rules and tiered service classes with ease
- Spectrum analyzer to help study frequency bands for interference, and select a relatively low interference channel

### Carrier-Grade Backhaul

- 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
- Gigabit Ethernet port with pass-through IEEE 1588v2 synchronization and support for 9k Jumbo frame.

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

- Suitable for Service Providers, Enterprises and Governments
- Fully integrates within ProximVision® Advanced Cloud Based Carrier Management System and Controller
- The most cost-effective, high performance point-to-point solution from Proxim, enabling any deployment to enjoy a quick return on investment

PRODUCT MODELS		PART NUMBERS												
QB-10100-LNK-50 QB-10100-LNK-100	Tsunami® QB 10100 Link, 50 Mbps, MIMO 2x2, Type-N Connectors (two QB-10100-EPA-50) Tsunami® QB 10100 Link, 100 Mbps, MIMO 2x2, Type-N Connectors (two QB-10100-EPA-100)	902-00847 902-00851	QB-10100-LNK-50-US QB-10100-LNK-100-US	902-00849 902-00853	QB-10100-LNK-50-WD QB-10100-LNK-100-WD									
LICENSE UPGRADE														
QB-10100-LNK-100-UPG QB-10100-LNK-200-UPG	Tsunami® QB 10100 Link, 50 Mbps to 100 Mbps license upgrade Tsunami® QB 10100 Link, 100 Mbps to 200 Mbps license upgrade	997-00038 997-00039												
INTERFACES														
WIRED ETHERNET WIRELESS PROTOCOL	One auto MDI-X RJ45 10/100/1000Mbps Ethernet with PoE in WORP® (Wireless Outdoor Router Protocol)													
RADIO & TX SPECS														
MIMO MODULATION FREQUENCY CHANNEL SIZE DATA RATE TX POWER TX POWER CONTROL	2x2:2 OFDM with BPSK, QPSK, QAM16, QAM64, QAM256 4.900 – 5.925 GHz (Subject to Country Regulations) 80 MHz, 40 MHz and 20 MHz (±5ppm channel accuracy) MCS 0 to 9 with Dynamic Data Rate Selection Up to 28 dBm (dual chain) 0 - 27 dB, in 1 dB steps. Automatic TPC with configurable EIRP limit													
TX POWER	<table border="1"> <tr> <td>80 MHz</td> <td>40 MHz</td> <td>20 MHz</td> </tr> <tr> <td>MCS0: 28</td> <td>MCS0: 28</td> <td>MCS0: 29</td> </tr> <tr> <td>MCS9: 21</td> <td>MCS9: 22</td> <td>MCS8: 25</td> </tr> </table>					80 MHz	40 MHz	20 MHz	MCS0: 28	MCS0: 28	MCS0: 29	MCS9: 21	MCS9: 22	MCS8: 25
80 MHz	40 MHz	20 MHz												
MCS0: 28	MCS0: 28	MCS0: 29												
MCS9: 21	MCS9: 22	MCS8: 25												
RX SENSITIVITY (Per=10%)	<table border="1"> <tr> <td>MCS0: -89</td> <td>MCS0: -93</td> <td>MCS0: -94</td> </tr> <tr> <td>MCS9: -68</td> <td>MCS9: -71</td> <td>MCS8: -74</td> </tr> </table>					MCS0: -89	MCS0: -93	MCS0: -94	MCS9: -68	MCS9: -71	MCS8: -74			
MCS0: -89	MCS0: -93	MCS0: -94												
MCS9: -68	MCS9: -71	MCS8: -74												
THROUGHPUT	License controlled to 50, 100 or 200 Mbps													
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														
	QB-10100-EPA	Two N-type Connectors with built-in Surge Protection												
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, SNMP 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	Asymmetric UL/DL committed and maximum information rate per service flow												
	Packet Classification Capabilities	802.1p priority, IPTOS, VLAN ID, IP addresses, ports, Ethernet addresses, IP protocol, and EtherType												
	Scheduling	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														
	36 to 57 VDC via Ethernet port (Power over Ethernet) 12 VDC via Access port Power should not be provided simultaneously on both ports													
POWER CONSUMPTION														
	11.5 Watt typical, 15.5 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,	180 km/h (112.5 mph)										
PHYSICAL SPECS														
	PRODUCT MODELS	DIMENSIONS PACKAGED (per unit)	DIMENSIONS UNPACKAGED (per unit)	WEIGHT (PACKAGED)	WEIGHT (UNPACKAGED)									
	QB-10100-EPA	11.81x10.83x5.31 in (300x275x135 mm)	5.02x8.68x2.85 in (127.5x220.5x72.5 mm)	6.39 lbs (2.9 kg)	2.75 lbs (1.250 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														
	<ul style="list-style-type: none"> <li>One Tsunami® QB-10100-LNK with two N-type surge protected connectors (Two QB-10100-EPA)</li> <li>Two power injector and country specific power cord</li> <li>Two Connector weatherproofing kit (Includes all recommended weatherproofing material)</li> </ul>		<ul style="list-style-type: none"> <li>Two Pole mounting kit</li> <li>Two Grounding kit</li> <li>Two Quick Installation Guide</li> </ul>											
MTBF & WARRANTY														
	MTBF over 250 000 hours & 2-year warranty with ServPak Extended Support available.													