

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

| | | | |
|------------------|--|-------------------------------|-------------------------------|
| QB-10100-LNK-50 | Tsunami® QB 10100 Link, 50 Mbps, MIMO 2x2, Type-N Connectors (two QB-10100-EPA-50) | 902-00847 QB-10100-LNK-50-US | 902-00849 QB-10100-LNK-50-WD |
| QB-10100-LNK-100 | Tsunami® QB 10100 Link, 100 Mbps, MIMO 2x2, Type-N Connectors (two QB-10100-EPA-100) | 902-00851 QB-10100-LNK-100-US | 902-00853 QB-10100-LNK-100-WD |

LICENSE UPGRADE

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|----------------------|--|-----------|
| QB-10100-LNK-100-UPG | Tsunami® QB 10100 Link, 50 Mbps to 100 Mbps license upgrade | 997-00038 |
| QB-10100-LNK-200-UPG | Tsunami® QB 10100 Link, 100 Mbps to 200 Mbps license upgrade | 997-00039 |

INTERFACES

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|-------------------|--|
| WIRED ETHERNET | One auto MDI-X RJ45 10/100/1000Mbps Ethernet with PoE in |
| WIRELESS PROTOCOL | WORP® (Wireless Outdoor Router Protocol) |

RADIO & TX SPECS

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|--------------------------|--|-----------|-----------|
| MIMO | 2x2:2 | | |
| MODULATION | OFDM with BPSK, QPSK, QAM16, QAM64, QAM256 | | |
| FREQUENCY | 4.900 – 5.925 GHz (Subject to Country Regulations) | | |
| CHANNEL SIZE | 80 MHz, 40 MHz and 20 MHz (±5ppm channel accuracy) | | |
| 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 |
| TX POWER | MCS0: 28 | MCS0: 28 | MCS0: 29 |
| | MCS9: 21 | MCS9: 22 | MCS8: 25 |
| RX SENSITIVITY (Per=10%) | 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

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| QB-10100-EPA | Two N-type Connectors with built-in Surge Protection |
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MANAGEMENT

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| 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, SNMP and local time, Spectrum analyzer |

SYNCHRONIZATION

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| Pass-through IEEE 1588v2 Ethernet Synchronization |
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SECURITY

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

QoS

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| 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

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| MODES | Bridging, Routing (RIP v2 and IP tunneling) |
| IP STACK | IPv4 and IPv6 simultaneously |
| GATEWAY FEATURES | DHCP Server & relay, NAT with Std ALGs, PPPoE end point with Proxy DNS |
| VLAN | 802.1Q: Management VLAN. Transparent, Access, Trunk and Mixed mode. QinQ double tagging |

POWER

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| 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

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| 17 Watt typical |
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ENVIRONMENTAL SPECS

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| 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

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|----------------|--------------------------------------|---|-------------------|---------------------|
| 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

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

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| 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® QB-10100-LNK with two N-type surge protected connectors (Two QB-10100-EPA)
- Two power injector and country specific power cord
- Two Connector weatherproofing kit (Includes all recommended weatherproofing material)
- Two Pole mounting kit
- Two Grounding kit
- Two Quick Installation Guide

MTBF & WARRANTY

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