Tsunami® QB-10100L Series

High Throughput Point-to-Point Wireless Bridge Bundle

Proxim introduces the all new Tsunami Quickbridge® 10100L wireless backhaul solution that delivers over 300 Mbps of 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-10100L, a software License controlled version of Tsunami® QB-10100 that delivers up to 400 Mbps data rate in a 40 MHz channel. The Tsunami® QB-10100L benefits from all advantages and features of Tsunami® QB-10100 and it can be field license upgraded to very high throughput mode of over 600Mbps of useable capacity.

Tsunami® QB-10100 can rely on the following features to satisfy carriers, wireless service providers and Government organizations that need very 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 over 13 different techniques all working together to ensure robust and reliable radio communications in noisy deployments

World Class Performance

- Point-to-Point system that delivers up to 400 Mbps data rate and covers distances up to 18.5 miles (30 km)
- 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

Near-Line-of-Sight and Advanced Features

- Near-line-of-sight capable, utilizing OFDM and enhanced 2x2 MIMO techniques for better RF propagation
- Features dual Gigabit Ethernet ports with PoE out to power other devices such as surveillance cameras or additional radios
- Enables packet identification to create unique and sophisticated service rules and tiered service classes with ease
- Compatibility with LACP switches for link aggregation
- Built in 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
- Features Ethernet ports 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
- Certified for deployments in the Americas, Europe and Asia
- The most cost-effective, very high performance point-to-point solution from Proxim, enabling any deployment to enjoy a quick return on investment

Specifications: Tsunami® QB-10100L Series

PRODUCT MODELS

QB-10100L-LNK	Tsunami® QB 10100 Link Lite, single radio, 400 Mbps, MIMO 2x2, Type-N Connectors
QB-10150L-LNK	Tsunami® QB 10150 Link Lite, single radio, 400 Mbps, MIMO 2x2, 22 dBi antenna
QB-10100L-LNK-866-UPG	Tsunami® QB 10100 Link Lite , 400 Mbps to 866 Mbps license upgrade

PART NUMBERS

902-00827 QB-10100L-LNK-US	902-00831 QB-10100L-LNK-WD
902-00829 QB-10150L-LNK-US	902-00833 QB-10150L-LNK-WD
997-00034 QB-10100L-LNK-866-UPG	

INTERFACES

WIRED ETHERNET	Two auto MDI-X RJ45 10/100/1000Mbps Ethernet (Port #1 with PoE in & Data, Port #2 with PoE out & Data)
WIRELESS PROTOCOL	WORP® (Wireless Outdoor Router Protocol)

RADIO & TX SPECS

MIMO	2x2:2
MODULATION	OFDM with BPSK, QPSK, QAM16, QAM64, QAM256
FREQUENCY	5.150 – 5.925 GHz (Subject to Country Regulations)
CHANNEL SIZE	40 MHz and 20 MHz
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

	40 MHz	20 MHz
TX POWER	MCS0: 28	MCS0: 29
	MCS9: 22	MCS8: 25
RX SENSITIVITY (Per=10%)	MCS0: -93	MCS0: -94
	MCS9: -71	MCS8: -74
THROUGHPUT	Up to 324 Mbps	Up to 137 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-10100L-EPA	Two N-type Connectors with built-in Surge Protection
QB-10150L-EPR	Integrated 2x2 MIMO 22dBi Dual Polarized 1 foot Panel Antenna

MANAGEMENT

REMOTE	Telnet and SSH, Web GUI and SSL/TLS, 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

Pass-through IEEE 1588v2 Ethernet Synchronization

SECURITY

ENCRYPTION	AES 128
AUTHENTICATION	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	Bridging (support LACP through external switches), 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

INPUT	OUTPUT
36 to 57 VDC via Ethernet port1 (Power over Ethernet)	48 to 57 VDC – 25 Watt on Ethernet port2 (PoE – software controlled)
12 VDC via Access port	12 VDC on Access port
Power should not be provided simultaneously on both ports.	

POWER CONSUMPTION

17 Watt typical

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-10100L-EPA	14.56 x 13.0 x 7.87 in (370 x 331 x 200 mm)	9.84 x 8.66 x 2.83 in (250 x 220 x 72 mm)	9.92 lbs (4.5 kg)	4.20 lbs (1.9 kg)
QB-10150L-EPR	14.56 x 13.0 x 7.87 in (370 x 331 x 200 mm)	12 x 12 x 3.40 in (305 x 305 x 85 mm)	10.91 lbs (4.95 kg)	5.30 lbs (2.4 kg)

SAFETY STANDARDS

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

PACKAGE CONTENTS

- One Tsunami® QB-10100L-LNK with two N-type surge protected connectors (Two QB-10100L-EPA)
  Or One Tsunami® QB-10150L-LNK with integrated 22 dBi dual polarized antenna (Two QB-10150L-EPR)
- Two power injector and country specific power cord
- Two Connector weatherproofing kit (Includes all recommended weatherproofing material)
- Two Wall / Pole mounting kit
- Two Antenna alignment (RJ11) dongle
- Two Grounding kit
- Two Quick Installation Guide

MTBF & WARRANTY

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

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