

Tsunami QuickBridge® 8200 series

High Power Point-to-Point Wireless Bridge Bundle



Next generation of field-proven Tsunami QuickBridge® 8200 wireless backhaul solution that exceeds 4G speed requirements with 300 Mbps data rate!

Tsunami® QB-8200, is a high power, extremely reliable and a cost-effective, non-line-of-sight 4G point-to-point (PtP) wireless backhaul solution. It delivers data rates of 300 Mbps, along with excellent spectrum and 25.8 dBm high power radios for extend coverage.

With its incredible channel capacity & flexibility, excellent spectrum efficiency and a highly evolved prioritization platform tailored to deliver voice, video and data applications, Tsunami® QB-8200 satisfies carriers, wireless service providers and Government organizations with requirements for fast and reliable wireless backhaul.

Tsunami® QB-8200 leverages the advantages of OFDM, MIMO radio innovations and Proxim's proprietary Wireless Outdoor Routing Protocol (WORP®) to provide wireless performance in excess of 4G products on the markets today.

World Class Performance

- Point-to-Point system that delivers 300 Mbps data rate at distances of over 5 miles (8 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

Non-Line-of-Sight and Advanced Features

- Non-line-of-sight capable, utilizing OFDM and enhanced 3x3 MIMO techniques to better penetrate through obstructions
- Features dual Gigabit Ethernet ports with PoE out to power other devices like 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
- Spectrum analyzer to help study frequency bands for interference, and select a relatively low interference channel

Frequency Agnostic

- Operates in licensed and unlicensed frequency bands
- Flexible channel planning with 5, 10, 20 and 40MHz size
- Provides support for extended frequency bands from 4.900 to 5.925 GHz

Carrier-Grade Security

- Implements tiered security layers 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, SSH and SNMPv3
- Provides military-grade security with AES encryption technology, prevents unsecure client-to-client communications and leverages MAC, Ether type and IP address packet filtering for granular network security

Cost Effective and Ease of Use for Quick Return on Investment

- Suitable for the carriers, WISP and Government markets
- Certified for deployments in the Americas, Europe and Asia
- The most cost-effective, high performance point-to-point solution from Proxim, enabling any deployment to enjoy a quick return on investment

Product Line Compatibility

- Connects to existing Tsunami® QB-8100

PRODUCT MODELS

| | |
|-------------|--|
| QB-8200-LNK | Tsunami® QB 8200 Link, 300 Mbps, MIMO 3x3, Type-N Connectors (Two QB-8200-EPA) |
| QB-8250-LNK | Tsunami® QB 8250 Link, 300 Mbps, MIMO 2x2, 23 dBi Integrated Antenna (Two QB-8250-EPR) |

INTERFACES

| | |
|-------------------|--|
| WIRED ETHERNET | Two auto MDI-X RJ45 10/100/1000Mbps Ethernet (Port #1 with PoE in & Data, Port #2 with PoE out (802.3af pin out) & Data) |
| WIRELESS PROTOCOL | WORP® (Wireless Outdoor Router Protocol) |

RADIO & TX SPECS

| | |
|------------------|--|
| MIMO | 3x3 MIMO with 2 data streams |
| MODULATION | OFDM |
| FREQUENCY | 4.900 – 5.925 GHz (Subject to Country Regulations) |
| CHANNEL SIZE | 40 MHz, 20 MHz, 10 MHz*, 5 MHz* channel bandwidths * Not applicable for DFS Band |
| DATA RATE | MCS 0 to 15 for High Throughput mode (6.5 – 300 Mbps) with Dynamic Data Rate Selection |
| TX POWER | Up to 25.8 dBm (Triple chain) |
| TX POWER CONTROL | 0 – 25 dB, in 0.5 dB steps. Automatic TPC with configurable EIRP limit |
| 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 |

RX SENSITIVITY (Per=10%)

| Channel Size | 40 MHz | 20 MHz | 10 MHz | 5 MHz |
|--------------|---------|---------|---------|---------|
| MCS 0 | -87 dBm | -93 dBm | -95 dBm | -98 dBm |
| MCS 7 | -71 dBm | -74 dBm | -76 dBm | -79 dBm |
| MCS 8 | -87 dBm | -91 dBm | -93 dBm | -96 dBm |
| MCS 15 | -68 dBm | -72 dBm | -74 dBm | -77 dBm |

LATENCY

< 3 msec

ANTENNA

| | |
|-------------|--|
| QB-8200-EPA | Three N-type Connectors with built-in Surge Protection |
| QB-8250-EPR | Integrated 2x2 MIMO 23dBi Dual Polarized Antenna |

MANAGEMENT

| | |
|--------|---|
| LOCAL | RS-232 serial (RJ11 to DB-9 dongle provided) |
| 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 |

SECURITY

| | |
|----------------|--|
| ENCRYPTION | AES-CCM 128 bits |
| AUTHENTICATION | Internal MAC Address Control List, Radius based Authentication |

NETWORK

| | | | | | | | |
|------------------------------------|--|------------------------------|--|------------------------------------|--|------------|---|
| MODES | Bridging (support LACP through external switches), Routing (RIP v2 and IP tunneling) | | | | | | |
| GATEWAY FEATURES | DHCP Server & relay, NAT with Std ALGs | | | | | | |
| IP STACK | IPv4 and IPv6 simultaneously | | | | | | |
| THROUGHPUT | Up to 246 Mbps | | | | | | |
| QoS | <table border="1"> <tr> <td>Asymmetric Bandwidth Control</td> <td>UL and DL CIR Control "committed information rate" per service flow UL and DL MIR Control "maximum information rate" per service flow</td> </tr> <tr> <td>Packet Classification Capabilities</td> <td>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</td> </tr> <tr> <td>Scheduling</td> <td>Best Effort, Real Time Polling Services</td> </tr> </table> | Asymmetric Bandwidth Control | UL and DL CIR Control "committed information rate" per service flow UL and DL 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 |
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| VLAN | 802.1Q: Management VLAN. Transparent, Access, Trunk and Mixed mode. QinQ double tagging | | | | | | |

POWER CONSUMPTION

12 Watt typical (22 Watt max)

ENVIRONMENTAL SPECS

| OPERATING TEMPERATURE | STORAGE TEMPERATURE | HUMIDITY, IP RATING, WIND LOADING |
|---|--|---|
| -40° to 60°C (-40° to 140° Fahrenheit) Will continue operating if temperature temporarily varies between -50° and 70°C (-58° and 158° Fahrenheit) | -55° to 80°C (-67° to 176° Fahrenheit) | 100% relative humidity - IP67, 200 km/h (125 mph) |

PHYSICAL SPECS

| DIMENSIONS (PACKAGED) | DIMENSIONS (UNPACKAGED) | WEIGHT (PACKAGED) | WEIGHT (UNPACKAGED) |
|--|--|---|--|
| <ul style="list-style-type: none"> QB-8200-EPA: 14.56 x 13.69 x 8.18 in. (370 x 348 x 208 mm) QB-8250-EPR: 15.94 x 15.94 x 9.21 in. (405 x 405 x 234 mm) | <ul style="list-style-type: none"> QB-8200-EPA: 10.79 x 11.14 x 3.38 in. (274 x 283 x 86 mm) QB-8250-EPR: 14.17 x 14.17 x 3.70 in. (370 x 370 x 94 mm) | <ul style="list-style-type: none"> QB-8200-EPA: 15 lbs (6.8 kg) QB-8250-EPR: 16.31 lbs (7.4 kg) | <ul style="list-style-type: none"> QB-8200-EPA: 7.7 lbs (3.5 kg) QB-8250-EPR: 9.0 lbs (4.1 kg) |

SAFETY STANDARDS

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

PACKAGE CONTENTS

- One Tsunami® QB-8200-LNK based on two QB-8200-EPA with three N-type surge protected connectors or One Tsunami® QB-8250-LNK based on two QB-8250-EPR with an integrated 23dBi dual polarized panel antenna
- Two power injector and country specific power cord
- Two Wall / Pole mounting kit
- Two Connector weatherproofing kit (Includes all recommended weatherproofing material)
- Two Serial (RJ-11 to DB9) dongle
- Two Grounding kit
- Two Gigabit PoE Surge Arrestor
- One Quick Installation Guide

MTBF & WARRANTY

>250,000 hours & 1-year on parts and labor; ServPak Extended Support available