Wireless Product Portfolio

- **Tsunami® 8200 Series**
  Ptp & PtMP product line delivering 300 Mbps plus data rate
- **Tsunami® 800 Series**
  Compact and robust, high performance, Ptp & PtMP product line
- **Tsunami® .11 Series**
  Our best selling Point-to-point and multipoint product line
- **Tsunami® GX-810 Series**
  Carrier-class IP Ethernet bridge for voice and data backhaul for service providers and enterprise applications
- **ORINOCO® AP 8000 Series**
  The industry’s highest performance 802.11a/b/g/n access points

**Next generation of field-proven Tsunami QuickBridge® 8200 Wireless Backhaul Solution that Exceeds 4G Speed Requirements with 300 Mbps data rate!**

The Tsunami® QB-8200, is a high power, extremely reliable and 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, the Tsunami® QB-8200 satisfies carriers, wireless service providers and Government organizations with requirements for fast and reliable wireless backhaul.

The 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, Ethertype 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 dB integrated Antenna (Two QB-8250-EPR)

**INTERFACES**
- **WIRELESS**
  - Two auto MDI-X RJ45 10/100/1000Mbps Ethernet
  - Port #1 with Pol. in & Data
  - Port #2 with Pol. out (802.3af pin out) & Data
- **WIRELESS PROTOCOL**
  - WORP® (Wireless Outdoor Router Protocol)

**POWER & TX SPECS**
- **TAG**
  - 8xMIMO
- **MODULATION**
  - OFDM
- **CHANNEL SIZE**
  - 40 MHz, 20 MHz, 10 MHz, 5 MHz
- **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
- **RX SENSITIVITY (PER-10%)**
  - Channel Size
    - 40 MHz: 
      - MCS 0: -87 dBm
      - MCS 7: -71 dBm
      - MCS 8: -87 dBm
      - MCS 15: -68 dBm
  - 20 MHz: 
    - MCS 0: -93 dBm
    - MCS 7: -74 dBm
    - MCS 8: -91 dBm
    - MCS 15: -72 dBm
- **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

**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**
  - SNMF 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

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

**NETWORK**
- **DATA**
  - Bridging (support LACP through external switches), Routing (RIP v2 and IP tunneling)
- **IP STACK**
  - IPv4 and IPv6 simultaneously
- **THROUGHPUT**
  - Up to 246 Mbps

**GATEWAY FEATURES**
- **DHCP Server & relay, NAT with Std ALGs**

**QoS**
- Asymmetric Bandwidth Control
- Packet Classification Capabilities
- 802.11/802.1Q/802.1p priority, IPTOS, VLAN ID, IP source/destination address, source/destination port, Ethernet source/destination address, IP protocol, and Ethertype

**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**
  - -40º to 60ºC (-40º to 140ºFahrenheit)
  - Will continue operating if temperature temporarily varies between -50º and 70ºC (-58º and 158º Fahrenheit).
- **STORAGE TEMPERATURE**
  - -55º to 80ºC (-67ª to 176ºFahrenheit)
- **HUMIDITY - IP RATING**
  - 100% relative humidity - IP67
- **WIND LOADING**
  - 200 km/h (125 mph)

**PHYSICAL SPECS**
- **PACKAGED**
  - 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)
- **UNPACKAGED**
  - 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)

**WEIGHT**
- QB-8200-EPA: 15 lbs (6.8 kg)
- QB-8250-EPR: 16.31 lbs (7.4 kg)
- QB-8250-EPR: 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 -22)

**PACKAGE CONTENTS**
- One Tsunami® QB-8200-LNK
- One Tsunami® QB-8250-LNK
- One Tsunami® QB-8250-EPR

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

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