

## Bandwidth licensed to support 50 and 100 Mbps throughput options.

The compact and robust form factor of Tsunami Quickbridge<sup>®</sup> 825 is an ideal solution for urban wireless backhaul. It is eminently suitable discrete mounting in city streets and offers high reliability for the connection of Video Surveillance, traffic monitoring and traffic light management systems.

With excellent spectrum efficiency and a highly evolved prioritization platform tailored to deliver voice, video and data applications, Tsunami Quickbridge<sup>®</sup> 825 satisfies carriers, wireless service providers and Government organizations with requirements for reliable cost optimized high performance wireless backhaul.

## World-class Performance

- Features a very small form factor and an outdoor rated IP67 Metal enclosure Available with 15 dBi integrated antenna
- 50 Mbps (license upgradable to 100 Mbps) or directly 100 Mbps of throughput with maximum data rates of 300Mbps
- Provides flexible channel planning with support for Thailand frequency band: 5.470 - 5.600 GHz, 5.650 - 5.725 GHz and 5.725 - 5.850 GHz with DFS algorithm
- Comes with a 2x2 MIMO high power radio capable of 26 dBm transmit power
- Allows flexible bandwidth allocation for service tiers
- Spectrum analysis feature helps to study frequency bands for interference, and select a relatively low interference channel

## All-in-One Link with Security Features

- Built-in feature rich network protocols for Bridging and Routing
- Advanced encryption protects over-the-air transmission via AES-128
- Radio mutual authentication eliminates unauthorized use of the system by rogue End Point and man-in-the middle attacks
- MAC, Ether type, IP address packet filtering provides granular network security
- Uses Proxim's Wireless Outdoor Routing Protocol (WORP<sup>®</sup>) to prevent snooping
- Features highly-secure remote management via SSL, SSH and SNMPv3

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

- Low-cost bundle including both radio and mounting kit provides the industry's most aggressive price point, enabling any deployment to enjoy a quick return on investment
- License-free frequency bands worldwide provide reliable wireless broadband without the high cost of licensed frequencies
- Comes as a complete "Hop-In-A-Box" compact outdoor form factor offering unprecedented ease of installation
- Simplified web interface to optimized link deployment. Advanced detailed interface is still accessible if needed.
- Non Line-of-Sight capability provided by Advanced Orthogonal Frequency Division Multiplexing (OFDM) along with 2x2 MIMO eases deployment in challenging areas
- Synchronization ready to optimize channel usage of collocated link

### About Proxim Wireless

Proxim Wireless is a pioneer and global leader in advanced Wi-Fi, point to point, and point to multipoint outdoor wireless systems that deliver high performance and high availability communications.

With over 30 years of wireless experience, Proxim is recognized for its unparalleled reliability, superior performance and drive for innovation.



## Specifications

| PRODUCT MODELS                            |                                                                                                                                                                                                | PART NUMBERS                                   |                   |
|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-------------------|
| QB-825-LNK-50*                            | Tsunami® QB 825 Link , 50 Mbps (upgradable to 100 Mbps), MIMO 2x2, 15 dBi antenna (Two QB-825-EPR-50*)                                                                                         | 902-00608                                      | QB-825-LNK-50*-TH |
| QB-825-LNK-100                            | Tsunami® QB 825 Link , 100 Mbps, MIMO 2x2, 15 dBi antenna (Two QB-825-EPR-100)                                                                                                                 | 902-00899                                      | QB-825-LNK-100-TH |
| INTERFACES                                |                                                                                                                                                                                                |                                                |                   |
| WIRED ETHERNET<br>WIRELESS PROTOCOL       | One auto MDI-X RJ45 10/100/1000Mbps Ethernet with PoE in<br>WORP® (Wireless Outdoor Router Protocol) or WORP sync                                                                              |                                                |                   |
| RADIO & TX SPECS                          |                                                                                                                                                                                                |                                                |                   |
| MIMO                                      | 2x2 MIMO                                                                                                                                                                                       |                                                |                   |
| MODULATION                                | OFDM with BPSK, QPSK, QAM16, QAM64                                                                                                                                                             |                                                |                   |
| FREQUENCY                                 | 5.470 - 5.850 GHz (Subject to Country Regulations)                                                                                                                                             |                                                |                   |
| CHANNEL SIZE                              | 40 MHz, 20 MHz channel bandwidths                                                                                                                                                              |                                                |                   |
| DATA RATE                                 | MCS 0 to 15 for High Throughput mode (6.5 – 300 Mbps) with Dynamic Data Rate Selection<br>BPSK, QPSK, 16-QAM and 64-QAM for legacy mode (6Mbps - 54Mbps)                                       |                                                |                   |
| TX POWER                                  | Up to 30 dBm EIRP (5.470 - 5.725 GHz), up to 36 dBm EIRP (5.725 - 5.850 GHz)                                                                                                                   |                                                |                   |
| TX POWER CONTROL                          | 0 – 15 dB, in 0.5 dB steps. Automatic TPC with configurable EIRP limit                                                                                                                         |                                                |                   |
|                                           | <b>Channel Size</b>                                                                                                                                                                            | <b>40 MHz</b>                                  | <b>20 MHz</b>     |
| RX SENSITIVITY<br>(PER=10 <sup>-6</sup> ) | MCS 0                                                                                                                                                                                          | -88 dBm                                        | -92 dBm           |
|                                           | MCS 7                                                                                                                                                                                          | -72 dBm                                        | -74 dBm           |
|                                           | MCS 8                                                                                                                                                                                          | -88 dBm                                        | -91 dBm           |
|                                           | MCS 15                                                                                                                                                                                         | -69 dBm                                        | -71 dBm           |
| OTHER                                     | Dynamic Channel Selection (DCS) based on interference detection, Dynamic Frequency Selection (DFS) based on radar signature<br>Automatic Transmit Power Control (ATPC) with EIRP limit support |                                                |                   |
| ANTENNA                                   |                                                                                                                                                                                                |                                                |                   |
| QB-825-EPR-50* and<br>QB-825-EPR-100      | Integrated 15 dBi dual Polarized (H+V) panel 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, SNTP and local time, Spectrum analyzer                                                                                                                                   |                                                |                   |
| SYNCHRONIZATION                           |                                                                                                                                                                                                |                                                |                   |
|                                           | Synchronize internal clock to Pulse Per Second signal received from either GPS module connected to RJ11 serial port or Ethernet<br>Synchronization module connected to RJ45 ethernet port      |                                                |                   |
| SECURITY                                  |                                                                                                                                                                                                |                                                |                   |
| ENCRYPTION                                | AES-CCM 128 bits                                                                                                                                                                               |                                                |                   |
| AUTHENTICATION                            | Internal MAC Address Control List, Radius based Authentication                                                                                                                                 |                                                |                   |
| QoS                                       |                                                                                                                                                                                                |                                                |                   |
| Asymmetric Bandwidth Control              | Uplink and Downlink CIR Control "committed information rate" per service flow<br>Uplink and Downlink MIR Control "maximum information rate" per service flow                                   |                                                |                   |
| Packet Classification                     | 802.1D/802.1Q/802.1p priority, IPTOS, VLAN ID, IP source/destination address, source/destination port, Ethernet source/destination<br>address, IP protocol, and Ethertype                      |                                                |                   |
| Capabilities                              | Best Effort, Real Time Polling Services                                                                                                                                                        |                                                |                   |
| Scheduling                                |                                                                                                                                                                                                |                                                |                   |
| NETWORK                                   |                                                                                                                                                                                                |                                                |                   |
| MODES                                     | Bridging (support LACP through external switches), Routing (RIP v2 and IP tunneling)                                                                                                           |                                                |                   |
| IP STACK                                  | IPv4 and IPv6 simultaneously                                                                                                                                                                   |                                                |                   |
| THROUGHPUT                                | QB-825-EPR-50*                                                                                                                                                                                 | Up to 50 Mbps (license upgradable to 100 Mbps) |                   |
| GATEWAY FEATURES                          | DHCP Server & relay, NAT with Std ALGs                                                                                                                                                         |                                                |                   |
| VLAN                                      | 802.1Q: Management VLAN. Transparent, Access, Trunk and Mixed mode. QinQ double tagging                                                                                                        |                                                |                   |
| POWER SUPPLY                              |                                                                                                                                                                                                |                                                |                   |
|                                           | Via provided PoE injector or directly from 12 VDC source through serial port                                                                                                                   |                                                |                   |
| POWER CONSUMPTION                         |                                                                                                                                                                                                |                                                |                   |
|                                           | 6 Watt typical (15 Watt max)                                                                                                                                                                   |                                                |                   |

| ENVIRONMENTAL SPECS | OPERATING TEMPERATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                            | STORAGE TEMPERATURE                            | HUMIDITY - Water & Dust Proof                         | WIND LOADING        |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-------------------------------------------------------|---------------------|
|                     | -40° to 55°C<br>(-40° to 131° Fahrenheit)                                                                                                                                                                                                                                                                                                                                                                                                                                        | -55° to 70°C<br>(-67° to 158° Fahrenheit)      | Max 100% relative humidity<br>(non-condensing) - IP67 | 180 km/h (112 mph)  |
| PHYSICAL SPECS      | DIMENSIONS PACKAGED                                                                                                                                                                                                                                                                                                                                                                                                                                                              | DIMENSIONS UNPACKAGED                          | WEIGHT (PACKAGED)                                     | WEIGHT (UNPACKAGED) |
|                     | 11.81 x 10.83 x 5.31 in<br>(300 x 275 x 135 mm)                                                                                                                                                                                                                                                                                                                                                                                                                                  | 4.96 x 8.62 x 2.58 in<br>(126 x 219 x 65.5 mm) | 7.27 lbs (3.3 Kg)                                     | 2.1 lbs (0.950 kg)  |
| SAFETY STANDARDS    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                |                                                       |                     |
|                     | UL 60950-1/22, CAN/CSA-C22.2 No. 60950-1/22, IEC 60950-1/22, EN 60950-1/22                                                                                                                                                                                                                                                                                                                                                                                                       |                                                |                                                       |                     |
| PACKAGE CONTENTS    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                |                                                       |                     |
|                     | <ul style="list-style-type: none"> <li>• One Tsunami® QB-825-LNK-50+ / 100 with integrated antennas (Two Tsunami® QB-825-EPR-50+ / 100)</li> <li>• Two 32 W power injector with country specific power cord</li> <li>• Two Wall / Pole mounting kit</li> <li>• Two Connector weatherproofing kit (Includes all recommended weatherproofing material)</li> <li>• Two Serial (RJ-11 to DB9) dongle</li> <li>• Two Grounding kit</li> <li>• Two Quick Installation Guide</li> </ul> |                                                |                                                       |                     |
| MTBF & WARRANTY     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                |                                                       |                     |
|                     | MTBF over 350,000 hours & 2-year warranty with ServPak Extended Support available                                                                                                                                                                                                                                                                                                                                                                                                |                                                |                                                       |                     |