Quickbridge® 10100L Series
Over 320 Mbps of High Availability Backhaul up to 40 Kilometers (25 Miles)

**Bandwidth Upgradable Backhaul Solutions**

Quickbridge® 10100L, is a license controlled version of Quickbridge® 10100 family and is capable of delivering over 320 Mbps of useable data. The Quickbridge® 10100L can be field upgraded to support over 670 Mbps.

The Quickbridge® 10100L series delivers high bandwidth backhaul with carrier class reliability in even the toughest of conditions.

Perfectly suited for the service provider or enterprise that needs to connect critical applications and services to the data center or the world.

The range of high-power, integrated and external antenna models provide the flexibility to design a backhaul link that will meet the most stringent criteria.

The Quickbridge® 10100L supports the following key features that are critical for carriers, wireless service providers and Government organizations that need to know they can rely on the network.

**Rugged and Reliable**

Designed for harsh environments, the QuickBridge® 10100L is fully IP67 rated, and will deliver years of reliable service in conditions that include, high winds, high salt, and high temperature extremes.

**Highlights**

- Service flow based QoS with deep packet inspection (DPI) to ensure that the most important data arrives with priority
- Very low latency enables support for time critical applications
- Operates in unlicensed bands from 4.900 to 5.925 GHz
- Flexible RF planning with 20 and 40 MHz channel size (80 MHz option via license upgrade)
- Non Line-of-Sight capability provided by Advanced Orthogonal Frequency Division Multiplexing (OFDM) along with 2x2 MIMO eases deployment in challenging areas
- Deployment tools include spectrum analyzer, antenna alignment and remote management configuration
- Fully integrates within ProximVision® Advanced Carrier Management System.

**Enabling Technologies**

**Proxim WORP®**

Combines network access control, data scheduling, advanced QoS and encryption to ensure highly efficient and secure data transmission.

**Proxim ClearConnect™**

A suite of interference mitigation technologies ensuring robust and reliable communications in high-density wireless deployments.

**Multi-Language Support**

Web Interface available in English, French, Spanish and Chinese
## Specifications

### 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
- 902-00825 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)
- **WRRP® (Wireless Outdoor Router Protocol)**

### RADIO & TX SPECS
- **MIMO**: 2x2:2
- **Modulation**: OFDM with BPSK, QPSK, QAM16, QAM64, QAM256
- **Frequency**: 4.900 – 5.925 GHz (Subject to Country Regulations)
- **Channel Size**: 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) 0 - 27 dB, in 1 dB steps. Automatic TPC with configurable EIRP limit
- **TX Power (dual RF)**:
  - MCS0: 28
  - MCS9: 22
  - MCS0: 29
  - MCS9: 25
- **RX Sensitivity (Per=10%)**:
  - MCS0: -93
  - MCS9: -71
  - MCS0: -94
  - MCS9: -74
- **Throughput (RFC 2544)**:
  - Up to 324 Mbps
  - Up to 137 Mbps

### 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-trough SyncE and Precision Time Protocol (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**: 36 to 57 VDC via Ethernet port1 (Power over Ethernet)
- **Output**: 48 to 57 VDC – 25 Watt on Ethernet port2 (PoE – software controlled)
- **12 VDC via Access port** Power should not be provided simultaneously on both ports.
<table>
<thead>
<tr>
<th><strong>POWER CONSUMPTION</strong></th>
<th>14 Watt typical, 17.5 Watt maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ENVIRONMENTAL Specs</strong></td>
<td><strong>Operating Temperature</strong></td>
</tr>
<tr>
<td>QB-10100L-EPA</td>
<td>-40º to 60ºC (-40º to 140º Fahrenheit)</td>
</tr>
<tr>
<td>QB-10150L-EPR</td>
<td>-40º to 60ºC (-40º to 140º Fahrenheit)</td>
</tr>
<tr>
<td><strong>PHYSICAL Specs</strong></td>
<td><strong>Dimensions Packaged</strong></td>
</tr>
<tr>
<td>QB-10100L-EPA</td>
<td>14.56 x 13.0 x 7.87 in (370 x 331 x 200 mm)</td>
</tr>
<tr>
<td>QB-10150L-EPR</td>
<td>14.56 x 13.0 x 7.87 in (370 x 331 x 200 mm)</td>
</tr>
<tr>
<td><strong>SAFETY Standards</strong></td>
<td>UL 60950, CAN/CSA-C22.2 No. 60950, IEC 60950, EN 60950 (part -1 and -22)</td>
</tr>
<tr>
<td><strong>CERTIFICATIONS</strong></td>
<td>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</td>
</tr>
</tbody>
</table>
| **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. |