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.

Quickbridge® 10250 BeamX Series
Simplifying Deployment of High Bandwidth Services

Designed for Easy and Cost Effective Installation

The Quickbridge® 10250 BeamX radios speed deployment of point to point networks by eliminating the complicated and time-consuming antenna alignment process. The intelligent beam steering technology first used in our Multi-point Base station, the Multipoint 10250 BSX has been adapted to enable easy and cost-effective installation. Now a rough alignment between endpoints is enough for the unit to take control of the setup, as the Quickbridge® 10250 manages, and maintains the fine tuning for optimum Signal to Noise Ratio.

In urban nLOS conditions, BeamX QB can help find the right reflection angle from a nearby wall or building to facilitate connectivity.

The always-on BeamX intelligence ensures the link remains optimized to take full advantage of the systems high throughput capability.

The BeamX solution combined with the secondary look-ahead scan radio improves performance even in high RF interference environments.

Fast, Secure and Flexible

- Point to Point link that delivers up to 866 Mbps data rate and covers distances up to 10 miles (16 km)
- AES 128 encryption (Upgradeable to AES 256), Radius authentication, and highly-secure remote management via SSL/TLS1.2, SSH, and SNMPv3
- Service flow based QoS with deep packet inspection (DPI) to ensure critical data arrives with priority
- Built-in feature-rich network protocols for IPv4 and IPv6 bridging, routing and gateway functionality

Proxim SmartScan™

- Performing a continuous background analysis of the full RF spectrum and creating channel availability tables to allow an immediate switch to an optimal channel in case of weather radar detection or interference
- By removing the initial transmission delay, SmartScan makes DFS channel use more efficient
- It also opens access to the 5.600–5.650 GHz sub-band and enables effective use of up to 355 MHz of DFS spectrum
BeamX™ Antenna

- Smart antenna delivering a 17° beam that electronically steers itself to the remote end point over a 60° sector, to limit interference from nearby RF sources.
- BeamX QB speeds up deployment by removing the antenna alignment phase. Roughly aim at the remote end, and the BeamX technology does the fine-tuning, optimizing SNR.
- In urban nLOS conditions, BeamX QB finds the right reflection on a nearby wall or building to facilitate connectivity.

Rugged and Reliable

The Quickbridge® 10250 BeamX is designed for harsh environments, and is fully IP67 rated, and will deliver years of reliable service in conditions that include, high winds, high salt, and high-temperature extremes.

Key Technologies

The Quickbridge® 10250 BeamX device supports the following features for applications that include last mile access or video surveillance, both of which need prioritized and continuous high-speed broadband wireless access:

- **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.

- **Proxim SmartConnect™**
  Delivering exceptional performance in noisy RF locations by combining a beam steering antenna with a secondary look ahead scan radio to seek, manage, and select the best channel.

Multi-Language Support

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

## PRODUCT MODELS

<table>
<thead>
<tr>
<th>PRODUCT MODELS</th>
<th>PART NUMBERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>QB-10250-LKX</td>
<td>902-00903</td>
</tr>
<tr>
<td>QB-10250-LKX-US</td>
<td>902-00905</td>
</tr>
<tr>
<td>QB-10250-LKX-WD</td>
<td>902-00906</td>
</tr>
</tbody>
</table>

## LICENSE UPGRADES

<table>
<thead>
<tr>
<th>LICENSE UPGRADES</th>
<th>PART NUMBERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>QB-102x0-LKx-AES255-UPG</td>
<td>997-00051</td>
</tr>
</tbody>
</table>

## INTERFACES

### WIRED ETHERNET

- **2x2.2 and 0x2.2 (scan radio)**
- **OFDM with BPSK, GPSK, QAM16, QAM64, QAM256**
- **4.900 – 5.850 GHz (Subject to Country Regulations)**
- **80 MHz, 40 MHz and 20 MHz**
- **MCS 0 to 9 with Dynamic Data Rate Selection**
- **Up to 28 dBm (dual chain)**
- **0 - 27 dB, in 1 dB steps. Automatic TPC with configurable EIRP limit**

### LICENSE UPGRADES

<table>
<thead>
<tr>
<th>LICENSE UPGRADES</th>
<th>PART NUMBERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>QB-102x0-LKx-AES255-UPG</td>
<td>997-00051</td>
</tr>
</tbody>
</table>

## RADIO & TX SPECS

### MIMO

### MODULATION

### FREQUENCY

### CHANNEL SIZE

### DATA RATE

### TX POWER

### TX POWER CONTROL

### 80 MHz | 40 MHz | 20 MHz | SCAN RADIO
---|---|---|---
TX POWER (dual RF) | MCS0: 28 dBm | MCS0: 28 dBm | MCS0: 29 dBm | N/A |
| MCS59: 21 dBm | MCS59: 22 dBm | MCS58: 25 dBm | |
RX SENSITIVITY (Per+10%) | MCS50: -89 dBm | MCS50: -93 dBm | MCS50: -94 dBm | N/A |
| MCS59: -66 dBm | MCS59: -71 dBm | MCS59: -74 dBm | |
THROUGHPUT (RFC 2544) | Up to 672 Mbps | Up to 324 Mbps | Up to 137 Mbps | N/A |

## 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 - Integrated 2x2 MIMO Beam Steering Antenna:

- **Beam Width**: 17° spanning over ± 30° sector
- **Receive Gain**: 16 dB (11 dB before 5.150 GHz)
- **Transmit Gain**: 20 dB (11 dB before 5.150 GHz)

### MANAGEMENT

- **REMOTE**
- **SNMP**
- **OTHER**
- **Multi-Language Support**
  - Telnet and SSH, Web GUI and SSL, TFTP, SNMPv3
  - Syslog, sFlow® agent, SNTP and local time, Spectrum analyzer
  - Web Interface available in English, French, Spanish and Chinese

### SYNCHRONIZATION

- **Pass-trough SyncE and Precision Time Protocol (IEEE 1588v2) Ethernet Synchronization**

### SECURITY

- **ENCRYPTION**
- **AUTHENTICATION**
  - AES 128, upgradeable to AES 256
  - Internal MAC Address Control List, Radius based Authentication (with VLAN and QoS provisioning)

### QoS

- **Asymmetric Bandwidth Control**
- **Packet Classification Capabilities**
  - 802.1q priority, IPTOS, VLAN ID, IP addresses, ports, Ethernet addresses, IP protocol, and EtherType
  - Best Effort, Real Time Polling Services

### NETWORK

- **MODES**
- **IP STACK**
- **GATEWAY FEATURES**
- **VLAN**
  - Bridging (support LACP through external switches), Routing (RIP v2 and IP tunneling)
  - IPv4 and IPv6 simultaneously
  - DHCP Server & relay, NAT with Std ALGs, PPPoE end point with Proxy DNS
  - 802.1q: Management VLAN. Transparent, Access, Trunk and Mixed mode. QinQ double tagging

### POWER

<table>
<thead>
<tr>
<th>POWER</th>
<th>INPUT</th>
<th>OUTPUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>36 to 57 VDC via Ethernet port1 (Power over Ethernet)</td>
<td>48 to 57 VDC – 25 Watt on Ethernet port2 (PoE – software controlled)</td>
<td></td>
</tr>
<tr>
<td>12 VDC via Access port</td>
<td>12 VDC on Access port</td>
<td></td>
</tr>
<tr>
<td>Power should not be provided simultaneously on both ports</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### POWER CONSUMPTION

- **30 Watt typical, 40 Watt maximum**
### ENVIRONMENTAL SPECS

<table>
<thead>
<tr>
<th>OPERATING TEMPERATURE</th>
<th>STORAGE TEMPERATURE</th>
<th>HUMIDITY - IP RATING</th>
<th>WIND LOADING</th>
</tr>
</thead>
<tbody>
<tr>
<td>-40º to 60ºC (-40º to 140º Fahrenheit)</td>
<td>-50º to 70ºC (-58º to 158º Fahrenheit)</td>
<td>100% relative humidity - IP67</td>
<td>200 km/h (125 mph)</td>
</tr>
</tbody>
</table>

### PHYSICAL SPECS

<table>
<thead>
<tr>
<th>QB-10250-LKK</th>
<th>DIMENSIONS PACKAGED (IN)</th>
<th>DIMENSIONS UNPACKAGED (IN)</th>
<th>WEIGHT (PACKAGED)</th>
<th>WEIGHT (UNPACKAGED)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>18.46 x 7.05 x 21.57</td>
<td>14 x 14 x 3.40</td>
<td>13.67 lbs (6.2 kg)</td>
<td>7.27 lbs (3.3 kg)</td>
</tr>
</tbody>
</table>

### SAFETY STANDARDS

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

### CERTIFICATIONS

- 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

### PACKAGE CONTENTS

- One Tsunami® QB-10250-LKK with integrated BeamX antenna and scan radio
- 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