The RadioLinx 802.11n Industrial Hotspot series provides wireless solutions for plant-floor and field automation applications. The Industrial Hotspot family provides the rugged performance and ease of deployment required for industrial applications. These 802.11n Hotspots use multiple-input/multiple-output (MIMO) technology supporting up to three antennas for each of its two radios. This allows fast data rates up to 300Mbps, providing advanced performance in industrial environments. The Dual Weatherproof RLXIB-IH2N-W is a great selection for use as a repeater, maintaining full bandwidth from each radio, repeating traffic without sacrificing speed. It also has an IP67 rating, making it water and dust-tight for use in all weather and mining applications.

More than just a new 802.11 technology, the RLXIB-IHN family adds RADIUS security for centralized management of security policies, VLANs for network traffic segmentation, and data prioritization while continuing to include the industrial wireless features that have made previous Industrial Hotspots successful.

### Features

<table>
<thead>
<tr>
<th>Plant-wide Network Integration</th>
<th>Benefits</th>
</tr>
</thead>
</table>
| 300 Mbps RF Rates (MIMO)      | ♦ Multicast, I/O & Produce/Consume messaging at packet rates <1ms  
♦ Video Monitoring & Automation Control Simultaneously |
| Dual Radio                    | ♦ Extend range without sacrificing speed  
♦ Segment Control Data on 5 GHz, mobile worker access on 2.4 GHz |
| VLAN                          | ♦ Separate Automation Networks & LAN Access  
♦ Allow Mobile Workers access to Network Resources |
| Quality of Service            | ♦ Prioritize Control Data, Video & Voice  
♦ Support for Voice over IP (VoIP) phones |

### Rugged Industrial Performance

| Ease of Deployment            | ♦ Single webpage setup by field personnel  
♦ Simple system design with ProSoft Wireless Designer |
| Reliable I/O Message Delivery | ♦ Multicast I/O messages between PLCs transferred using wireless acknowledgements  
♦ IGMP Snooping & Multicast Filtering enhance reliability |
| Industrial Grade              | ♦ Usable in Class I, Division 2 hazardous locations  
♦ Designed for high vibration environments |
| -40°C to +75°C Operation      | ♦ Operation in all outdoor conditions  
♦ Rugged construction withstands all operating environments |
| IP67 Rating                   | ♦ Watertight for use in all weather conditions  
♦ Dust-tight for use in mining applications |

### Configuration

RadioLinx WirelessN Discovery Tool is a configuration and monitoring tool for the RadioLinx 802.11n Weatherproof Dual Industrial Hotspot radios. Use RadioLinx WirelessN Discovery Tool to view your network topology, assign IP addresses to radios for configuration, monitor network diagnostics, update radio firmware and detect the presence of other vendors’ 802.11 radios on the network.
Radio Specifications

<table>
<thead>
<tr>
<th>Frequency Band</th>
<th>Frequency</th>
<th>Channel</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Varies by country)</td>
<td>2.412 to 2.462 GHz (FCC)</td>
<td>1-11</td>
</tr>
<tr>
<td></td>
<td>2.412 to 2.472 GHz (ETSI)</td>
<td>1-13</td>
</tr>
<tr>
<td></td>
<td>5.150 to 5.250 GHz (FCC/ETSI)</td>
<td>36 – 48</td>
</tr>
<tr>
<td></td>
<td>5.250 to 5.350 GHz (FCC/ETSI)</td>
<td>52 – 64</td>
</tr>
<tr>
<td></td>
<td>5.470 to 5.725 GHz (FCC/ETSI)</td>
<td>100 – 140</td>
</tr>
<tr>
<td></td>
<td>5.725 to 5.850 GHz (FCC)</td>
<td>149 - 165</td>
</tr>
</tbody>
</table>

Standards 802.1

- 802.11n, 802.11a & 802.11g (Legacy)
- 802.11h (DFS), 802.11i (RADIUS), 802.11e (QoS)
- 802.1Q (VLAN), 802.3af (PoE), IGMPv2

Transmit Power (Programmable)

- 22 dBm @ MCS0, MCS8 (802.11an/gn)
- 17 dBm @ MCS7, MCS15 (802.11an/gn)
- 22 dBm @ 6 Mbps (802.11a/g)
- 17 dBm @ 54 Mbps (802.11a/g)

Antenna Impact:

- 3 Antennas/ MIMO: Use values above
- 2 Antennas: Subtract 3 dB from values above
- 1 Antenna: Subtract 5 dB from values above

Channel data rates (802.11n)

<table>
<thead>
<tr>
<th>Channel</th>
<th>Rate</th>
<th>Streams</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Channel</td>
<td>7 Mbps</td>
<td>MCS0</td>
</tr>
<tr>
<td>2 Channels</td>
<td>15 Mbps</td>
<td>MCS0, 1 Stream</td>
</tr>
<tr>
<td>72 Mbps</td>
<td>150 Mbps</td>
<td>MCS7</td>
</tr>
<tr>
<td>14 Mbps</td>
<td>30 Mbps</td>
<td>MCS8, 2 Streams</td>
</tr>
<tr>
<td>144 Mbps</td>
<td>300 Mbps</td>
<td>MCS15</td>
</tr>
</tbody>
</table>

Channel data rates (802.11a/g)

<table>
<thead>
<tr>
<th>Channel</th>
<th>Rate</th>
<th>Streams</th>
</tr>
</thead>
<tbody>
<tr>
<td>802.11a/g</td>
<td>54, 48, 36, 24, 18, 12, 9, 6 Mbps</td>
<td></td>
</tr>
</tbody>
</table>

Receiver Sensitivity (Typical)

-92 dBm @ MCS0, MCS8 (802.11an/gn)
-70 dBm @ MCS7, MCS15 (802.11an)
-74 dBm @ MCS7, MCS15 (802.11gn)
-92 dBm @ 6 Mbps (802.11an/gn)
-74 dBm @ 54 Mbps (802.11a)
-78 dBm @ 54 Mbps (802.11g)

Security

- WPA2 Enterprise – 802.11i AES w/ RADIUS
- WPA2 Personal – 802.11i AES w/ Passphrase
- Legacy WPA TKIP, WEP support & MAC ID filter

Physical

- Enclosure: Die-cast aluminum with pole mount
- Size: 180 x 295 x 70 mm (W x H x D), 7 x 11.5 x 2.75 inches
- Ethernet Ports: Two 10/100 Base-T connector, shielded M12, IEEE 802.3, 802.3u, 802.3x
- Antenna Port: (6) N connectors
- Weight: 4.5 lbs (2 kg)

Environmental

- Operating Temperature: -40° C to +75° C
- Humidity: To 100% RH, non-condensing
- External Power: 10 to 24 VDC
- PoE injector: PoE Powered Device (non-standard)
- Average Power: <13W

Agency Approvals & Certifications

Wireless Approvals

Visit our website at www.prosoft-technology.com for current wireless approval information.

Hazardous Locations

- ANSI/ISA: 12.12.01 Groups A, B, C, and D
- CSA: C22.2 No. 213-M1987
- ATEX: EN60079-0 and EN60079-15

Ordinary Locations

- CSA/CB: EN60950 N. America and W. Europe
- FCC/IC: Part 15, Class A; ICES-03
- ETSI: ETSI EN300 328, ETSI EN301 893

Additional Products

ProSoft Technology® offers a full complement of hardware and software solutions for a wide variety of industrial communication platforms.

For a complete list of products, visit our website at:

www.prosoft-technology.com

Ordering Information

To order this product, please use the following:

**RadioLinx** 802.11n Weatherproof Dual Industrial Hotspot

RLXIB-IH2N-W

To place an order, please contact your local ProSoft Technology Distributor. For a list of ProSoft Technology distributors near you, go to:

www.prosoft-technology.com and select Distributors from the menu.

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