

## 802.11abgn Weatherproof IP67 Fast Industrial Hotspot RLX2-IHNF-W

The ProSoft Technology Weatherproof IP67 Fast Industrial Hotspot (RLX2-IHNF-W) is designed for harsh environments and features an IP66/67 rating. It is water-tight for use in extreme weather applications such as offshore oil rigs, and dust-tight for use in mining applications. It operates in the 2.4 or 5 GHz bands, including DFS channels, and is good for applications up to 2 mi. / 3.2 km.

The Hotspot supports Access Point, Repeater, and Client modes. The 802.11n technology delivers fast data rates up to 300 Mbps. This provides excellent packet-per-second performance and robust communications in rugged industrial environments. The 802.11n MIMO & Channel bonding supports demanding wireless applications such as Ethernet I/O and high-resolution video.

The included IH Browser configuration and monitoring software allows the user to view network topology, assign IP addresses, monitor network diagnostics, and update radio firmware. The optional OPC Diagnostic Server is ideal for managing long-range wireless SCADA networks.



### Features

- ◆ 802.11n MIMO & Channel bonding supports demanding wireless applications such as Ethernet I/O and high-resolution video
- ◆ EtherNet/IP™-or Modbus®-based PLCs/PACs can use message instructions to read diagnostic information from the radios, helping to reduce down time when troubleshooting wireless network problems
- ◆ 802.11i, WPA-2 Personal/Enterprise using 128-bit AES encryption ensures secure networking
- ◆ RADIUS security ensures secure networking with advanced authentication and encryption
- ◆ Virtual Local Area Networks (VLAN) allow for secure network segmentation
- ◆ Quality of Service (QoS) provides data prioritization for I/O control devices, video, data, etc.
- ◆ Ultra-Fast Roaming (under 10 ms) maintains seamless, high-speed connections to one or more devices on moving equipment and machines (such as cranes, AGVs, and carriers) as they travel between access points
- ◆ IGMP Snooping and Packet Filtering optimizes UDP multicast traffic for superior EtherNet/IP I/O communications
- ◆ Supports the ability to communicate with multiple Ethernet devices when used with existing third-party wireless infrastructures
- ◆ Supports AeroScout RTLS (real-time location services) tagging by passing signals from tags to the network
- ◆ Supports Power over Ethernet (PoE) to reduce cabling costs
- ◆ Connect serial networks (Modbus, DNP 3, etc.) over 802.11 wireless networks
- ◆ Supports SNMP
- ◆ Simple local and remote configuration, monitoring, and wireless network diagnostics

## Radio Specifications

| Specification   | Description   |
|---|---|
| Frequency band<br>(Varies by country)   | 2.412 GHz to 2.462 GHz (FCC)  |
|   | 2.412 GHz to 2.472 GHz (ETSI)   |
|   | 5.150 GHz to 5.250 GHz (FCC/ETSI)   |
|   | 5.260 GHz to 5.580 GHz (FCC/ETSI)*  |
|   | 5.660 GHz to 5.700 GHz (FCC/ETSI)*  |
|   | 5.725 GHz to 5.850 GHz (FCC)  |
|   | *DFS channels with RADAR detection  |
| Wireless standards  | 802.11n, 802.11a, 802.11g<br>802.11h (DFS), 802.11i (Security), 802.11e (QoS)<br>802.1Q (VLAN), 802.3af (PoE), IGMPv2   |
| Transmit power<br>(Programmable)<br>*Subject to regional<br>regulatory limits | 22 dBm @ MCS0, MCS8 (802.11an/gn)<br>17 dBm @ MCS7, MCS15 (802.11an/gn)<br>22 dBm @ 6 Mbps (802.11a/g)<br>17 dBm @ 54 Mbps (802.11a/g)<br><br>Antenna Impact:<br>3 Antennas/MIMO: Use values above<br>2 Antennas: Subtract 3 dB from values above<br>1 Antenna: Subtract 5 dB from values above |
| Channel data rates<br>802.11n   | MCS0 through MCS15,<br>1 Channel or 2 Channels with 1 Stream or 2 Streams   |
|   | <b>1 Channel</b> <b>2 Channels</b> <b>Rate</b> <b>Streams</b>   |
|   | 6.5 Mbps   13.5 Mbps   MCS0   1 Stream  |
|   | 65 Mbps   150 Mbps   MCS7   |
|   | 13 Mbps   27 Mbps   MCS8   2 Streams  |
|   | 130 Mbps   300 Mbps   MCS15   |
| 802.11b   | 11, 5.5, 2, 1 Mbps  |
| 802.11a/g   | 54, 48, 36, 24, 18, 12, 11, 9, 6, 5.5, 2, 1 Mbps  |
| Receiver sensitivity<br>(Typical)   | -92 dBm @ MCS0, MCS8 (802.11an/gn)<br>-70 dBm @ MCS7, MCS15 (802.11an)<br>-74 dBm @ MCS7, MCS15 (802.11gn)<br>-92 dBm @ 6 Mbps (802.11an/gn)<br>-74 dBm @ 54 Mbps (802.11a)<br>-78 dBm @ 54 Mbps (802.11g)  |
| Security  | WPA2 Enterprise – 802.11i AES w/RADIUS [PEAP, TTLS, TLS, EAP]<br><br>WPA2 Personal – 802.11i AES w/ Passphrase<br>Legacy WPA TKIP, WEP support<br>MAC ID filter   |

## Hardware Specifications

### Physical

| Specification             | Description  |
|---------------------------|--|
| Enclosure                 | Die-cast aluminum with pole mount  |
| Dimensions<br>(H x W x D) | 11.5 x 7.0 x 2.75 in<br>29.2 x 17.8 x 7.0 cm   |
| Shock                     | IEC 60068 2-27 (20g, 3-Axis)   |
| Vibration                 | IEC 60068 2-6 (5g, 10Hz to 150Hz)  |
| Ethernet Port             | (1) water/dust tight<br>10/100/1000 Base-T connector, shielded RJ45<br>IEEE 802.3, 802.3u, 802.3x, 802.3af, Passive PoE<br>Not 802.3at/PoE+ compatible |
| Antenna Port              | (3) N connectors   |
| Weight                    | 3.9 lbs (1.6 kg) less cables and pole mounting bracket   |



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## Environmental

|                        |   |
|------------------------|---|
| Operating Temperature  | -40°F to 167°F (-40°C to 75°C)<br>-40°F to +158°F (-40°C to +70°C), RLX2-IHNF-W Series B only |
| Humidity               | Up to 100% RH   |
| External Power         | 10 to 24 VDC  |
| Power over Ethernet    | 802.3af compliant   |
| Peak Power Consumption | < 8W  |

## Agency Approvals & Certifications

Please visit our website: [www.prosoft-technology.com](http://www.prosoft-technology.com)

### What's included in the box:

- (1) RLX2-IHNF-W (802.11abgn Weatherproof IP67 Fast Industrial Hotspot Radio)
- (2) U bolts for mounting
- (1) IP67 M12 cap

### Water-tight cables (sold separately):

- Part # CULRJ45-M12-007, 7 foot (2 m), M12 to RJ45, Network Cable/ PoE
- Part # CULRJ45-M12-033, 33 foot (10 m), M12 to RJ45, Network Cable/PoE



## 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 web site at: [www.prosoft-technology.com](http://www.prosoft-technology.com)

## Ordering Information

To order this product, please use the following:

## 802.11abgn Weatherproof IP67 Fast Industrial Hotspot

RLX2-IHNF-W-A (FCC model)  
RLX2-IHNF-W-E (ETSI model)

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

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