

DATASHEET

RadioLinx® 802.11n Weatherproof Industrial Hotspot RLXIB-IHN-W: M12 Ethernet RLXIB-IHN-WC: Conduit RJ-45 Ethernet for UL C1D2

The RadioLinx 802.11n Industrial Hotspot series provides wireless solutions for plant-floor and field automation applications. The Industrial Hotspot family offers rugged performance and ease of deployment for industrial applications. These 802.11n Hotspots use multiple-input/multiple-output (MIMO) technology, supporting up to three antennas. This allows fast data rates up to 300 Mbps, providing advanced performance in industrial environments. The Weatherproof RLXIB-IHN-W has an IP67 rating, making it water-tight 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 | Benefits |
|-------------------------------|--|
| 300 Mbps RF Rates (MIMO) | <ul style="list-style-type: none"> ◆ Multicast, I/O & Produce/Consume messaging at packet rates < 1 ms ◆ Video Monitoring and Automation Control Simultaneously |
| VLAN | <ul style="list-style-type: none"> ◆ Separate Automation Networks & LAN Access ◆ Allow Mobile Workers access to Network Resources |
| Quality of Service | <ul style="list-style-type: none"> ◆ Prioritize Control Data, Video & Voice ◆ Support for Voice over IP (VoIP) phones |
| RADIUS Security | <ul style="list-style-type: none"> ◆ Centralized Management of Wireless Security Policies |
| Ease of Deployment | <ul style="list-style-type: none"> ◆ Single webpage setup by field personnel ◆ Simple system design with ProSoft Wireless Designer |
| Personality Module | <ul style="list-style-type: none"> ◆ Easy field replacement without use of programming software ◆ Stores configuration settings on industrial memory module |
| Reliable I/O Message Delivery | <ul style="list-style-type: none"> ◆ Multicast I/O messages between PLCs transferred using wireless acknowledgements ◆ IGMP Snooping & Multicast Filtering enhance reliability |
| Industrial Grade | <ul style="list-style-type: none"> ◆ Usable in Class I, Division 2 hazardous locations ◆ Designed for high vibration environments |
| -40°C to +75°C Operation | <ul style="list-style-type: none"> ◆ Operation in all outdoor conditions ◆ Rugged construction withstands all operating environments |
| IP67 Rating | <ul style="list-style-type: none"> ◆ 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 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

| Frequency Band | Frequency | Channel |
|---|--|------------|
| (Varies by country) | 2.412 GHz to 2.462 GHz (FCC) | 1 to 11 |
| | 2.412 GHz to 2.472 GHz (ETSI) | 1 to 13 |
| | 5.150 GHz to 5.250 GHz (FCC/ETSI) | 36 to 48 |
| | 5.250 GHz to 5.350 GHz (ETSI) | 52 to 64 |
| | 5.470 GHz to 5.580 GHz (ETSI) | 100 to 116 |
| | 5.680 GHz to 5.700 GHz (ETSI) | 136 to 140 |
| | 5.725 GHz to 5.850 GHz (FCC) | 149 to 165 |
| Standards | 802.11n, 802.11a and 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) | |
| *Subject to Regional Regulatory Limits | 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) | MCS0 through MCS15, 1 Channel or 2 Channels with 1 Stream or 2 Streams | |
| | 1 Channel 2 Channels Rate Streams | |
| | 7 Mbps 15 Mbps MCS0 1 Stream | |
| | 72 Mbps 150 Mbps MCS7 1 Stream | |
| | 14 Mbps 30 Mbps MCS8 2 Streams | |
| | 144 Mbps 300 Mbps MCS15 2 Streams | |
| Channel data rates (802.11a/g) | 54, 48, 36, 24, 18, 12, 9, 6 Mbps | |
| 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 | Width 7 inches x Height 11.5 inches x Depth 2.75 inches 180 mm x 295 mm x 70 mm | |
| Vibration | IEC 60068 2-6 (20g, 3-Axis) | |
| Shock | IEC 60068 2-27 (5g, 10Hz to 150Hz) | |
| Ethernet Ports | Water/Dust Tight M12 connector 10/100Mbps IEEE 802.3, 802.3u, 802.3x, 802.3af (RLXIB-IHN-W-A, RLXIB-IHN-W-E) RJ45 via 1/2 Inch NPT, and 1/2 Inch NP3 hole 10/100Mbps IEEE 802.3, 802.3u, 802.3x, 802.3af (RLXIB-IHN-WC-A) | |
| Antenna Port | (3) N connectors | |
| Personality Module | Industrial SD Memory Module | |
| Weight | 4.5 lbs (2 kg) | |
| Operating Temperature | -40°F to +167°F (-40°C to +75°C) | |
| Humidity | Up to 100% RH, with no condensation | |
| External Power | 10Vdc to 24Vdc | |
| PoE Injector | PoE Powered Device (non-standard) | |
| Average Power Consumption | less than 9 Watts | |



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

Ordering Information

To order this product, please use the following:

RadioLinx® 802.11n Weatherproof Industrial Hotspot

RLXIB-IHN-W-A Americas FCC

RLXIB-IHN-W-E EMEA ETSI

RLXIB-IHN-WC-A North America
Hazardous Locations

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.

Place your order by email or fax to:

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Specifications subject to change without notice.

Agency Approvals & Certifications

Wireless Approvals

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

Hazardous Locations

| | |
|----------|--|
| ANSI/ISA | 12.12.01 groups A, B, C, D |
| CSA | C22.2 No. 213-M1987 |
| ATEX | EN60079-0 and EN60079-15 |
| cULus | ISA 12.12.01 Class I Division 2, Groups A, B, C, D T-6 (RLXIB-IHN-WC-A Only) |

Ordinary Locations

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



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