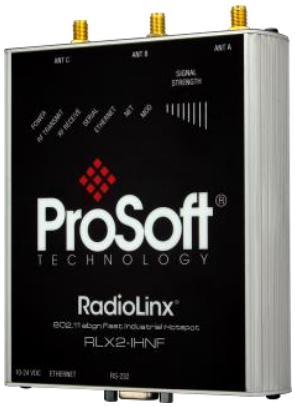
DATASHEET

RLX2-IHNF
802.11abgn
Fast Industrial Hotspot™

The ProSoft Technology Fast Industrial Hotspot (RLX2-IHNF) provides secure wireless solutions for plant-floor, SCADA automation, process control systems and mobile worker Wi-Fi infrastructure. It operates in the 2.4 or 5 GHz bands, including DFS channels, and is good for indoor or outdoor applications.

The Hotspot supports Access Point, Repeater, and Client modes. 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

- EtherNet/IP™- or Modbus®-based PLCs/PACs can use message instructions to read diagnostic information from the radios, helping to reduce downtime 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.
- HTTPS support for Web Access and Firmware updates.
- RLX2-IHNF-E model RED 3.3 compliant.
- Virtual Local Area Networks (VLAN) allow for secure network segmentation.
- Network Address Translation (NAT) lets machine builders deploy machines without needing to change IP addresses every time.
- Quality of Service (QoS) provides data prioritization for I/O control devices, video data, etc.
- Ultra-Fast Roaming (under 10ms) 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 & 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 Power over Ethernet (PoE) to reduce cabling costs.
- Disaster recovery feature allows the radio configuration to be stored on a microSD card for quick field replacement.
- Connect serial networks (Modbus, DNP3, etc.) over 802.11 wireless networks.
- Simple local and remote configuration, monitoring, and wireless network diagnostics via IH Browser utility or SNMP.

Radio Specifications

Specification	Frequency	Channel
Frequency band (Varies by country)	2.401 GHz to 2.473 GHz (FCC) 2.401 GHz to 2.483 GHz (ETSI/NTRA)	1 to 11 1 to 13
	5.170 GHz to 5.250 GHz (FCC/ETSI/NTRA) 5.250 GHz to 5.330 GHz (FCC/ETSI/NTRA) * 5.490 GHz to 5.590 GHz (FCC/ETSI) * 5.650 GHz to 5.710 GHz (FCC/ETSI) * 5.735 GHz to 5.835 GHz (FCC) * DFS channels with RADAR detection	36 to 48 52 to 64 * 100 to 116 * 132 to 140 * 149 to 165
Wireless standards	802.11n, 802.11a, 802.11g, 802.11h (DFS), 802.11i (Security), 802.11e (QoS) 802.112Q (VLAN), 802.113af (PoE), IGMPv2	
Transmit power (Programmable) *Subject to regional regulatory limits	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) * Max power in NTRA model is 20 dBm in both 2.4 GHz and 5 GHz	
	Antenna Impact: 3 Antennas/MIMO: Use values above 2 Antennas: Subtract 2 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
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 802.11a/g	11, 5.5, 2, 1 Mbps 54, 48, 36, 24, 18, 12, 11, 9, 6, 5.5, 2, 1 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 Personal/Enterprise – 802.11i AES WPA2 Personal – 802.11i AES w/ Passphrase Legacy WPA TKIP, WEP support MAC ID filter, RADIUS, HTTPS
Network Features	NAT, VLAN, QoS, IGMP Snooping
Physical	
Enclosure	Extruded aluminum with DIN rail mount
Dimensions (H x W x D)	5.82 x 4.64 x 1.48 in, 14.8 x 11.8 x 3.8 cm
Shock	IEC 60068 2-27 (20g, 3-Axis)
Vibration	IEC 60068 2-6 (5g, 10Hz to 150Hz)
Ethernet Port	(1) 10/100/1000 Base-T connector, shielded RJ45 IEEE 802.3, 802.3u, 802.3x
Serial Port	(1) RS232 DB9 female (supports serial tunneling and Modbus TCP/IP to Modbus RTU connectivity)
Antenna Port	(3) RP-SMA connectors
Weight	1.1 lbs (499 g)
Environmental	
Operating Temperature	-40° to 167°F (-40° to 75°C) -40° to 158°F (-40° to 70°C), RLX2-IHNF Series B, C, and D only
Humidity	Up to 100% RH, with no condensation
External Power PoE Injector	10 to 24 VDC 802.3af PoE Powered Device
Peak Power Consumption	< 9W (Series B), < 10W (Series C), < 6W (Series D)

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Included In the Box

(1) RLX2-IHNF 802.11abgn Fast Industrial Hotspot Radio
(1) Power connector plug (for connection to user's DC power source wiring)
(1) Power connector wire insertion tool

Not Included

- A2502S-OA: 2 dBi omni-directional stub antenna
- SD-8G: Industrial-class microSD card with 8GB capacity

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:

RLX2-IHNF

802.11abgn Fast Industrial Hotspot

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

To place an order, please contact a local ProSoft distributor.

A list of ProSoft-authorized distributors is available on our website at:

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