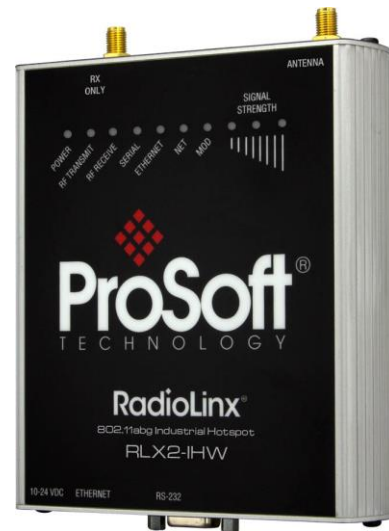# DATASHEET

802.11abg Industrial Hotspot™
RLX2-IHW

The ProSoft Technology 802.11abg Industrial Hotspot (RLX2-IHW) is a cost-effective industrial-grade wireless Ethernet solution for applications up to 5 mi. / 8km. The RLX2-IHW has an RF data rate up to 54 Mbps, using the IEEE 802.11b/g (2.4 GHz band) and 802.11a (5 GHz band) standards.

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 software 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 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 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, DNP 3, etc.) over 802.11 wireless networks
- SNMP support
- Simple local and remote configuration, monitoring, and wireless network diagnostics

Specifications

Radio

Frequency Band (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) 5.725 GHz to 5.850 GHz (FCC)
Wireless Standards	802.11a, 802.11b, 802.11g, 802.11i
Transmit Power (Programmable) (varies by country)	2.4 GHz: Up to 100 mW (20 dBm) 5 GHz: Up to 64 mW (18 dBm)
Channel Data Rates (Modulation)	802.11b:11, 5.5, 2,1 Mbps (DSSS,BPSK,QPSK,CCK) 802.11g: 54, 48, 36, 24, 18, 12, 9, 6 Mbps (OFDM) 802.11a: 54, 48, 36, 24, 18, 12, 9, 6 Mbps (OFDM)
Receiver Sensitivity (Typical)	-90 dBm @ 1 Mbps -85 dBm @ 11 Mbps -82 dBm @ 24 Mbps -75 dBm @ 54 Mbps
Channels Selection (Varies by country)	1 to 13 (802.11b/g) 36, 40, 44, 48, 149, 153, 157, 161, 165 (802.11a)
Security	WPA2 - 802.11i with 128 bit AES-CCM Legacy WPA TKIP, WEP support MAC ID filter, Admin password

Physical

Enclosure	Extruded aluminum with DIN and panel mount
Size	14.8 x 11.8 x 3.8 cm (H x W x D) 5.82 x 4.64 x 1.48 in (H x W x D)
Shock	IEC 60068 2-27 (20g, 3-Axis)
Vibration	IEC 60068 2-6 (5g, 10Hz to 150Hz)
Ethernet Ports	(1) 10/100/1000 Base-T, RJ45 connector
Serial Port	(1) DB9 female (serial tunneling & encapsulation)
Antenna Ports	(2) RP-SMA connectors (1 trans/rec, 1 rec only)
Weight	1.06 lbs (479 g)
Environmental	
Operating Temperature	-40°C to +75°C (-40°F to +167°F)
Humidity	Up to 100% RH, with no condensation
External Power PoE (Power over Ethernet)	10 to 24 VDC 802.3af Compliant
Peak Power Consumption	< 6W

Agency Approvals & Certifications

Please visit our website: www.prosoft-technology.com

What's Included in the Box:

(1) RLX2-IHW (802.11abg Industrial Hotspot Radio)
(1) A2502S-OA (2 dBi omni-directional stub antenna)
(1) Industrial-class microSD card with default configuration loaded
(1) Power Connector Plug (for connection to customer's DC power source wiring)
(1) Power connector wire insertion tool