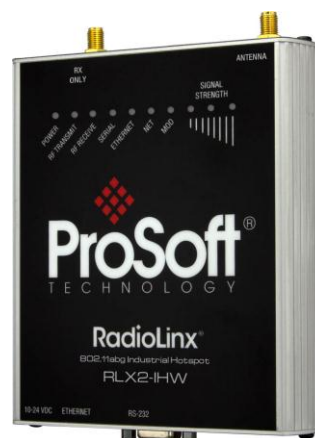# 802.11abg Industrial Hotspot™
RLX2-IHW

The ProSoft Technology 802.11abg Industrial Hotspot (RLX2-IHW) is a cost-effective industrial-grade wireless Ethernet solution with Power over Ethernet (PoE) and Serial Encapsulation. 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.

Designed for global installations, the RLX2-IHW offers robust Industrial features including Fast Roaming, hazardous location certifications, Personality Module (microSD card included) for quick field replacement, IGMP Snooping, repeater mode for extending distance, remote management software, OPC server diagnostics, extended temperature range, high vibration/shock resistance, and din-rail mounting.

Features		Benefits
802.11a, b, and g Access Point, Bridge, Repeater, and Client modes in one radio	♦	All-in-one radio supports global installations in the 2.4 GHz and 5 GHz spread spectrum bands (fully compatible with RLXIB-IHA, IHG, and IHW networks)
Hazardous zone ratings; industrial operating temperatures; vibration and shock resistant	♦	Dependable operation in critical control systems and extreme environments
Fast Roaming (less than 50 ms) with Full Bridging	♦	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
802.11i, WPA2, and 128-bit AES encryption	♦	Ensures secure networking with advanced authentication and encryption
12/24 VDC and PoE power options	♦	Support for common industrial power sources or use PoE to reduce cabling costs
Built-in Serial Device Server	♦	Wirelessly connect serial (Modbus, DNP 3, etc.) devices over 802.11 wireless networks
Built-in Web Server	♦	Simple local and remote configuration, monitoring, and wireless network diagnostics
IH Browser Software Utility	♦	Centralized configuration and remote management of Industrial Hotspot networks
Disaster recovery feature (microSD)	♦	Quick field replacement without need of programming software or operator training

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 2-6 (20g, 3-Axis)
Vibration	IEC 60068 2-27 (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 (479g)
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

Regulatory Approvals

Wireless Approvals

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

Hazardous Locations

UL/cUL; Class 1, Div 2
Ex Certificate (ATEX Directive, Zone 2)

Regulatory

CSA/CB Safety
CE Mark
FCC/IC
ETSI

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
(1) Product Support DVD