

DATASHEET

RadioLinx[®] Industrial Frequency Hopping 900 MHz Serial RLX-IFH9S



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RLX-IFH9S

The RLX-IFH9S provides powerful and secure wireless serial communications and is well suited for demanding, long-range (up to 30+ miles) SCADA and other serial applications in tough environments. Operating in the license-free 900 MHz band, the RLX-IFH9S penetrates foliage and walls / ceilings better than higher frequency radios. With both RS-232 and RS-485 serial ports, serial protocols such as Modbus RTU, DF1, ASCII and DNP3 are supported. The RLX-IFH9S is user configurable as a master, repeater and remote radio and employs the 128 bit AES encryption algorithm approved by the United States government for top secret information.

RLX-IFH9S radios are quickly and easily configured using the included, graphical ControlScape software. An OPC server software is also included and allows users to monitor radio network health with any OPC client based HMI software.

Features and Benefits

Feature	Benefit
Powerful 900 MHz Serial	230 kbps RF data rate at up to 30+ miles Longer wavelength of the unlicensed 900 MHz band for superior wireless signal propagation vs. higher frequency unlicensed wireless bands
Rugged and Powerful	Up to one watt transmit power for long distance Programmable frequencies to co-exist with other wireless networks or avoid interference Metal enclosure, industrial operating temperatures, vibration and shock resistant Certification Pending for use in hazardous locations (UL1604 / ISA 12.12.01 Class 1 Div 2)
Strong Data and Network Security	128 bit AES Encryption Proprietary FHSS not detected by 802.11 wireless
Easy to Configure and Monitor	Graphical representation of network for configuration and diagnostics Advanced diagnostics including VSWR, temperature, and signal quality Included OPC Server for HMI-based RF network diagnostics
Backed by ProSoft Technology [®]	Industrial data communications experts who understand your protocols, devices, and applications Indoor/outdoor radio network design assistance – accessory selection, path studies, and site survey Three year standard warranty

Configuration

The RadioLinX[®] ControlScope FH application provides a graphical representation of your RLX-FH radio network, allowing you to easily configure the radios and monitor their performance. ControlScope can be used to support configuration and installation as well as provide long-term monitoring of system performance.

General Specifications

Radio

Frequency	902-928 MHz
Security	128 bit AES encryption
Network Topology	Point-to-point, point-to-multipoint, store and forward repeater
Error Detection	32 bit CRC, ARQ (Automatic Resend Query)
Radio Type	Frequency Hopping Spread Spectrum
Transmit Power (Programmable)	100 mW to 1 W 20 dBm to 30 dBm
Channel data rates (Programmable)	230, 172, 115 or 19.2 kbps
Receiver Sensitivity (Typical)	230 kbps: -106 dBm @ 10-6 BER 172 kbps: -108 dBm @ 10-6 BER 19.2 kbps: -116 dBm @ 10-6 BER
Outdoor Range	30+ miles pt-pt with high gain directional antennas and RF line-of-sight

Hardware Specifications

Enclosure	Extruded aluminum with DIN and panel mount
Size	104 × 94 × 53 mm (W × H × D) 4.1 × 3.7 × 2.1 inches
Serial Data Ports (2)	DB9, RS-232 RS-422 and RS-485 300 bps to 230 kbps
Configuration Port	DB9, RS-232
Antenna Ports	(1) RP-SMA connector
Weight	1.0 lbs (454 g)

Environmental

Operating Temperature	-40° C to +75° C
Humidity	5 To 95% RH, non-condensing
Vibration	IEC 60068-2-6 - 20g, 3-axis
Shock	IEC 60068-2-27 - 5g, 10 to 150 Hz
External Power	9 to 30 VDC
Power Consumption	12 W peak

Agency Approvals & Certifications

ISA	UL 1604 / ISA 12.12.01 Class 1 Div 2 pending
CSA/cUL	C22.2 No. 213-1987 pending

Additional Products

ProSoft Technology[®] offers a full complement of hardware and software solutions for a wide variety of industrial communication platforms.

802.11abg Industrial Hotspot (RLX-IHW)

A full range of radio accessories, including antennas, cables, mounting adapters and lightning protection is available for this product. Refer to the RadioLinX section of the ProSoft Technology web site at <http://www.prosoft-technology.com>.

Visit our web site at <http://www.prosoft-technology.com> for a complete list of products.

Ordering Information

Use the following Ordering Information to identify the radio product needed for your region. If you are unsure which radio to select, please contact your local distributor.

RadioLinX[®] Industrial Frequency Hopping 900 MHz Serial

RLX-IFH9S-A Americas - FCC

To place an order, please contact your local ProSoft Technology distributor. For a list of ProSoft Technology distributors near you, go to <http://www.prosoft-technology.com>

Distributors:

Place your order by email or fax to:

North American / Latin American / Asia Pacific
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