

DATASHEET

RadioLinx[®] Industrial Frequency Hopping 900 MHz Serial 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 ControlScope software. An OPC server software is also included and allows users to monitor radio network health with any OPC client based HMI software.



Features	Benefits
Powerful 900 MHz Serial	<ul style="list-style-type: none"> ◆ 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	<ul style="list-style-type: none"> ◆ 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 for use in hazardous locations (ISA 12.12.01 Class I Div 2)
Strong Data and Network Security	<ul style="list-style-type: none"> ◆ 128 bit AES Encryption ◆ Proprietary FHSS not detected by 802.11 wireless
Easy to Configure and Monitor	<ul style="list-style-type: none"> ◆ 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 [®]	<ul style="list-style-type: none"> ◆ 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 MHz to 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
Shock	IEC 60068-2-6 (20g, 3-Axis)
Vibration	IEC 60068-2-27 (5g, 10 Hz to 150 Hz)
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	Up to 100% RH, with no condensation
External Power	10 Vdc to 24 Vdc
Power Consumption	12 W peak

Agency Approvals & Certifications

UL	ISA 12.12.01 Class I Div 2 Groups A, B, C & D, T5. Must be installed inside an IP54 enclosure that requires tool access.
CSA/cUL	C22.2 No. 213-M1987
	ATEX Category 3, Zone 2 II 3 G Ex nA IIC T5 X -30 C <= Ta <= +60 C

WARNING – EXPLOSION HAZARD – DO NOT DISCONNECT EQUIPMENT UNLESS POWER HAS BEEN SWITCHED OFF OR THE AREA IS KNOWN TO BE NON-HAZARDOUS.

AVERTISSEMENT – RISQUE D'EXPLOSION – AVANT DE DÉCONNECTER L'EQUIPMENT, COUPER LE COURANT OU S'ASSURER QUE L'EMPLACEMENT EST DÉSIGNÉ NON DANGEREUX.

Order Info - IFH9S

RLX-IFH9S-A Americas - FCC



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® Industrial Frequency Hopping 900 MHz Serial

RLX-IFH9S

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:

North American / Latin American / Asia Pacific
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