

# IP921



## 900 MHz Wireless Ethernet Bridge / Serial Gateway

*The IP921 Wireless Ethernet Bridge / Serial Gateway is powered by a reliable high-speed 900 MHz FHSS radio. It provides robust wireless communication of simultaneous serial data and IP/ Ethernet packets to extend serial data and IP networks.*

### Applications

- IP/Ethernet Wireless Extension
- Legacy Networks/Devices Migration
- Video/Voice over IP
- SCADA (PLCs, Modbus, HART)
- GPS Vehicle Data/Tracking, DGPS
- Electric, Oil & Gas Utilities/Metering
- Display Signs



**Microhard Systems Inc.'s proprietary radio technology excels in the most demanding RF and physical environments.**

A complete wireless solution for integrating industrial Ethernet and serial devices into IP/Ethernet networks. The IP921 allows Ethernet devices to share high speed wireless media and provides a wireless gateway for network applications to access serial devices. The IP921 also features flexible maintenance utilities and network management facilities.

### Features of the IP921

- Standard 1.1 Mbps wireless link rate
- Long range, high speed communications with excellent receiver sensitivity and robust frequency hopping
- Two serial ports: RS232 and RS232/485/422
- Supports Point-to-Point, Point-to-Multipoint, Repeater, Peer-to-Peer
- Adjustable transmit power (100mW - 1W)
- Bringing industrial data into IP/Ethernet networks
- Radius Server Authentication
- Full VLAN Support
- User interface through local console, telnet, and web browser
- Network management capability with SNMP V1, V2, V3
- Local and remote firmware upgrading through FTP



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# Specifications



Frequency	902 - 928 MHz	Input Voltage	9-30VDC
Spread Method	Frequency Hopping / DTS	Connectors	Antenna Data Ethernet RP-TNC Female Bulkhead RS232 DB-9F, RJ45 Locking screw connector RJ-45
Link Rate	345kbps or 1.1Mbps (User-Select)		
Error Detection	32 bits of CRC, ARQ		
Encryption	128-bit WEP/WPA (Canada & USA only. NOT AVAILABLE for export, see – AES option)	Environmental	-40°F to 170°F (-40°C to +75°C) 5-95% humidity, noncondensing
Range	60+ miles (100+ km) @ 345kbps link rate, line of sight)	Weight	Approx. 0.92lbs (420g)
		Dimensions	Approx. 4.755" x 3.75" x 1.75" (121mm x 95.3mm x 44.5mm)
Sensitivity	-106dBm @ 345kbps link rate -98dBm @ 1.1Mbps link rate	Enclosure	Extruded Aluminum
Output Power	100mW - 1W (20-30dBm)	Mount	Panel Mount
		Approvals	FCC Part 15.247 IC RSS210
System Gain	140dB w/Rubber Ducky antennas @ 345kbps link rate	<b>Order Options</b>	
Serial Interface	RS232: RxD, TxD, RTS, CTS, DCD, DSR, DTR	-DIN	DIN rail mount kit
	RS422: Tx+, Tx-, Rx+, Rx-	-C1D2	Class 1 Div 2 (for use in hazardous environments)
	RS485: 4-wire/2-wire	-AES	128/256-bit AES Encryption, Secure Shell, HTTPS (Canada & USA only. NOT AVAILABLE for export)
Serial Baud Rate	300bps to 921kbps	-AU	Australian Hop Tables (915 to 928 MHz)
Ethernet	10/100 BaseT IEEE 802.3	-NZ	New Zealand Hop Tables (921 to 929 MHz)
Network Protocols	TCP, UDP, TCP/IP, ARP, ICMP, DHCP, HTTP, SNMP, FTP, Serial over IP, QoS		
Management	Local Serial Port Console, Telnet, WebUI, SNMP, FTP Upgrade, RADIUS authentication, VLAN		
Operating Modes	Point-to-Point, Point-to-Multipoint, Store & Forward Repeater, Peer-to-Peer		
Diagnostics	VSWR, Battery Voltage, Temperature, RSSI, and remote diagnostics		
Rejection	Excellent strong signal interference & rejection characteristics		

## Contact Information

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