DIGI

DIGI XBEE-PRO 900HP RF MODEMS

900 MHz stand-alone RF modems provide outstanding range (up to 28 miles)* in a reliable wireless solution

Digi XBee-PRO® 900HP RF modems can be configured in minutes to provide reliable serial cable replacement between many different types of electronic devices. These modems utilize the Digi XBee-PRO 900HP 900 MHz RF module in an enclosure with interface options that include RS-232, RS-485, USB and Ethernet with transmission ranges of up to 28 miles*.
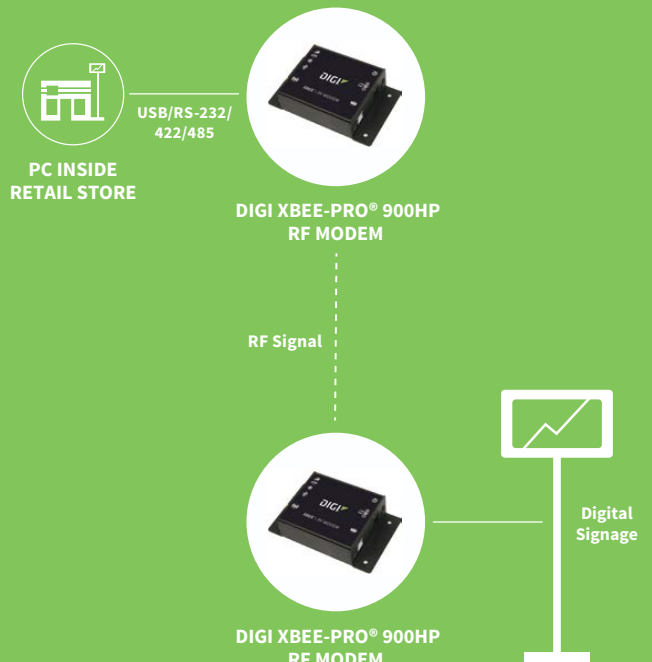
Digi XBee-PRO 900HP RF modems allow the user to easily make their existing wired systems wireless simply by connecting to this product. They take advantage of the DigiMesh® networking protocol, featuring dense network operation using mesh technology.

Digi XBee-PRO 900HP RF modems can wirelessly connect a variety of devices across many applications including remote monitoring, building automation/security, industrial automation/SCADA, fleet management/asset tracking and sensor data capture in embedded systems.

BENEFITS

– Industrial design with -40° C to 85° C operating temperature

– Superior outdoor LOS range of up to 28 miles*

– RF data throughput up to 200 Kbps

– 900 MHz license-free ISM band operation

– Interface options include RS-232, RS-485, USB and Ethernet

– DigiMesh® peer-to-peer mesh networking protocol

  - Self-healing and discovery for network stability

– Includes mini-USB port for simple device configuration

APPLICATION EXAMPLE

PC INSIDE
RETAIL STORE

USB/RS-232/
422/485

DIGI XBEE-PRO® 900HP
RF MODEM

RF Signal

DIGI XBEE-PRO® 900HP
RF MODEM

Digital
Signage

RELATED PRODUCTS

Digi XBee-PRO®
900HP Modules

XTend® PKG

Digi XBee®
Gateways

ConnectPort®
X2

Digi XLR PRO®

SPECIFICATIONS	Digi XBee-PRO® 900HP RF Modems
PERFORMANCE	
INDOOR/URBAN RANGE*	200 Kbps: up to 305 m (1000 ft)
OUTDOOR/RF LINE-OF-SIGHT RANGE*	200 Kbps: up to 6.5 km (4 miles); w/ 2.1 dbi dipole antenna
TRANSMIT POWER OUTPUT	Up to 24 dBm (250 mW) software selectable
THROUGHPUT DATA RATE	200 Kbps: up to 105.5 Kbps; (when configured as point-to-multipoint)
RF DATA RATE	200 Kbps
INTERFACE DATA RATE	125-65,0000 bps (software selectable, includes non-standard baud rates)
RECEIVER SENSITIVITY	200 Kbps: -101 dBm
NETWORK AND SECURITY	
FREQUENCY	902-928 MHz (located in the 900 MHz ISM band)
SPREAD SPECTRUM	Frequency hopping
SUPPORTED NETWORK TOPOLOGIES	Mesh, point-to-point, point-to-multipoint, peer-to-peer
CHANNEL CAPACITY	8 hop sequences share 25 channels, 64 channels available (there are 64 channels available, of which the user can select 25 that are hopped through in 8 different patterns)
ANTENNA	
CONNECTOR	RPSMA (Reverse polarity SMA)
POWER REQUIREMENTS	
POWER SUPPLY	7-30 VDC
RECEIVE CURRENT	60 mA (@ 9 V)
TRANSMIT CURRENT	140 mA (@ 9 V)
PHYSICAL PROPERTIES	
SIZE	11.4 cm x 7 cm x 2.9 cm (4.5 in x 2.75 in x 1.125 in)
WEIGHT	150 g (5.25 oz)
DATA CONNECTION	RS-232 female DB-9, RS-485/422 screw terminal, USB Type B, config USB mini-B, 10/100 Ethernet
OPERATING TEMPERATURE	Industrial: -40° C to 85° C (-40° to 185° F)
REGULATORY APPROVALS	
FCC PART 15.247 (U.S.A)	Yes
IC (CANADA)	Yes
C-TICK (AUSTRALIA)	Yes
ROHS	Compliant

*Range figure estimates are based on free-air terrain with limited sources of interference. Actual range will vary based on transmitting power, orientation of transmitter and receiver, height of transmitting antenna, height of receiving antenna, weather conditions, interference sources in the area, and terrain between receiver and transmitter, including indoor and outdoor structures such as walls, trees, buildings, hills, and mountains.

DIGI®

PART NUMBERS	DESCRIPTION
XM-M92-2P-UA	Digi XBee modem, RS-232 to Digi XBee-PRO 900HP, 200 Kbps with accessories
XM-M92-4P-UA	Digi XBee modem, RS-485 to Digi XBee-PRO 900HP, 200 Kbps with accessories
XM-M92-UP-UA	Digi XBee modem, USB to Digi XBee-PRO 900HP, 200 Kbps with accessories
XM-M92-2P-AA	Digi XBee modem, RS-232 to Digi XBee-PRO 900HP, 200 Kbps with accessories for Australia
XM-M92-4P-AA	Digi XBee modem, RS-485 to Digi XBee-PRO 900HP, 200 Kbps with accessories for Australia

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