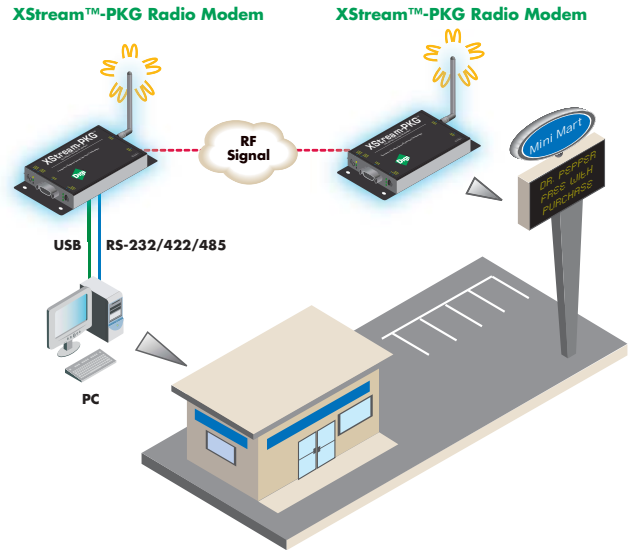


XStream™-PKG RF Modems

100 mW/900 MHz or 50 mW/2.4 GHz Stand-Alone Radio Modems

900 MHz and 2.4 GHz stand-alone RF modems provide outstanding range (up to 20 miles) in a low-cost wireless solution.



Features/Benefits

- > Indoor/urban range up to 1500 feet
- > Outdoor line-of-sight range up to 20 miles (with high gain antenna)
- > 7 frequency hopping channels, each with 65K available addresses
- > Outstanding receiver sensitivity (-110 dB @9600 bps)
- > Low power consumption for power-sensitive applications
 - Pin, serial port and cyclic sleep modes available
- > Performs retries and acknowledgments for reliable packet delivery
- > Easy out-of-the-box operation — no configuration necessary
- > Durable industrial grade enclosure

Overview

Digi's XStream-PKG RF modems can be configured in minutes to provide low-cost serial cable replacement between all types of electronic devices. Available in 900 MHz and 2.4 GHz models, XStream-PKG modems provide transmission ranges of up to 20 miles in a low-cost wireless solution. The modems are coupled with a DIP-switchable RS-232/422/485 interface board and regularly outperform more expensive RF modems.

Innovations stamped in their design enable XStream-PKG modems to yield two- to eight-times the range of competing modems. This allows OEMs and integrators to cover more ground with fewer devices. Additionally, XStream-PKG modems are easy to use, thereby reducing the complexity of data system development.

Available in a variety of data interface options, including RS-232/422/485 serial, USB and telephone, XStream-PKG 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.

Features/Specifications

PERFORMANCE

- Indoor/Urban range (w/ 2.1 dB dipole antenna):
 - Up to 1500 feet (450 m) @ 900 MHz
 - Up to 600 feet (180 m) @ 2.4 GHz
- Outdoor RF line-of-sight range (w/ 2.1 dB dipole antenna):
 - Up to 7 mi (11 km) @ 900 MHz
 - Up to 3 mi (5 km) @ 2.4 GHz
- Outdoor RF line-of-sight range (w/ high gain antenna):
 - Up to 20 mi (32 km) @ 900 MHz
 - Up to 10 mi (16 km) @ 2.4 GHz
- Transmit power output:
 - 100 mW (20 dBm) @ 900 MHz
 - 50 mW (17 dBm) @ 2.4 GHz
- Receiver sensitivity:
 - 900MHz: -110 dBm (@9,600 bps throughput data rate), -107 dBm (@19,200 bps)
 - 2.4 GHz: -105 dBm (@9,600 bps throughput data rate), -102 dBm (@19,200 bps)
- Interface data rate (software selectable): 10 - 57600 bps (including non-standard baud rates)
- Throughput data rate: 9,600 or 19,200 bps
- RF data rate: 10,000 bps (@9,600 bps throughput data rate) or 20,000 bps (@19,200 bps)

DIMENSIONS

- XStream-PKG-R, XStream-PKG-U,**
- Length: 2.75 in (6.99 cm)
 - Width: 5.50 in (13.97 cm)
 - Depth: 1.12 in (2.86 cm)
 - Weight: 7.10 oz (200.00 g)
- XStream-PKG-T**
- Length: 2.75 in (6.99 cm)
 - Width: 6.50 in (16.51 cm)
 - Depth: 1.50 in (3.80 cm)
 - Weight: 8.10 oz (228.00 g)

CONNECTION OPTIONS

- RS-232/485 DB-9 (XStream-PKG-R)
- USB (XStream-PKG-U)
- Telephone RJ-11 (XStream-PKG-T)

POWER REQUIREMENTS

- XStream-PKG-R**
- Power supply voltage: 7 - 18V
 - Receive current:
 - 70 mA @ 900 MHz
 - 90 mA @ 2.4 GHz
 - Transmit current:
 - 170 mA @ 900 MHz
 - 180 mA @ 2.4 GHz
 - Power Down Current: < 1 mA
- XStream-PKG-U**
- Power supply voltage: 5 - 12V
 - Receive current:
 - 90 mA @ 900 MHz
 - 115 mA @ 2.4 GHz
 - Transmit current:
 - 185 mA @ 900 MHz
 - 200 mA @ 2.4 GHz
 - Power Down Current: 50 mA
- XStream-PKG-T**
- Power supply voltage: 7 - 28V
 - Receive current:
 - 140 mA @ 900 MHz
 - 160 mA @ 2.4 GHz
 - Transmit current:
 - 220 mA @ 900 MHz
 - 230 mA @ 2.4 GHz
 - Power down current: n/a

ENVIRONMENTAL

- All models**
- Operating temperature: 0° C to 70° C (commercial)
 - Operating temperature: -40° C to 85° C (industrial)

CERTIFICATIONS

- FCC ID (U.S. Certification Part 15.247)
 - OUR9XSTREAM (900 MHz),
 - OUR-24XSTREAM (2.4 GHz)
- IC ID (Canada)
 - 4214A-9XSTREAM (900 MHz),
 - 4214A 12008 (2.4 GHz)
- Europe
 - ETSI, CE (2.4 GHz only)

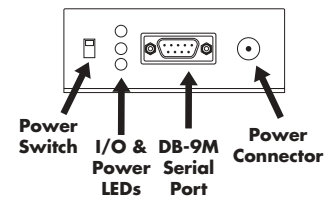
NETWORKING AND SECURITY

- Frequency: ISM 902 - 928 MHz or 2.4000 - 2.4835 GHz
- Spread Spectrum: FHSS (Frequency Hopping Spread Spectrum)
- Modulation: FSK (Frequency Shift Keying)
- Supported network topologies: Peer-to-peer (no master/slave dependencies), point-to-point, point-to-multipoint and multidrop
- Channel capacity (software selectable): 7 hopping sequences
- Network filtration layers: VID, Hopping Channel & Destination Address

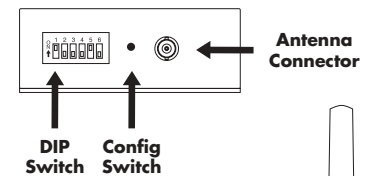
ANTENNA

- Connector options: RPSMA (Reverse Polarity SMA)
- Impedance: 50 ohms unbalanced

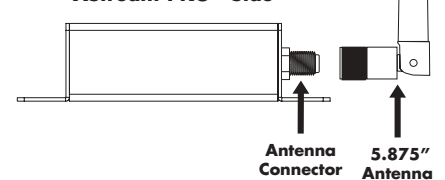
XStream-PKG-R - Front



XStream-PKG-R - Back



XStream-PKG - Side



WHEN
RELIABILITY
MATTERS™

Digi International, the leader in device networking for business, develops reliable products and technologies to connect and securely manage local or remote electronic devices over the network or via the web. With over 20 million ports shipped worldwide since 1985, Digi offers the highest levels of performance, flexibility and quality.

Pulse
www.pulsewan.com