



1 WATT/900 MHZ  
STAND-ALONE  
RADIO MODEMS

# XTEND<sup>®</sup>-PKG RF MODEMS



900 MHz radio modems offer long-range performance, advanced networking and simple out-of-the-box operation with multiple data interface options

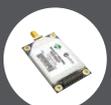
Digi's XTend-PKG RF modems provide everything you need for out-of-the-box serial cable replacement, enabling quick wireless connectivity of electronic devices across a broad range of applications. Simply feed data into one modem and the data is transported to the other end of a long range wireless link. Data security is provided by 256-bit AES encryption (128-bit AES is available outside of North America). If more advanced functionality is needed, the modems support an extensive set of AT and binary commands.

Available in multiple interface options, including RS-232/422/485 and USB, XTend modems are ideally suited for remote monitoring, building automation/security, industrial automation/SCADA, fleet management/asset tracking and sensor data capture in embedded systems.

## BENEFITS

- Outdoor line-of-sight range up to 40 miles (with high gain antenna)
- Outstanding receiver sensitivity (-110 dBm @ 9600 bps)
- Adjustable power output from 100 mW to 1 W; up to 4 W EIRP (with 6 dB antenna)
- Low power consumption for power-sensitive applications
  - Pin, serial port and cyclic sleep modes available
- Streaming, acknowledged and multi-transmit modes supported
- Easy out-of-the box operation — no configuration necessary
- Durable industrial grade enclosure

## RELATED PRODUCTS



XTend<sup>®</sup> OEM  
RF Module



Digi XLR PRO™



ConnectPort<sup>®</sup>  
X2

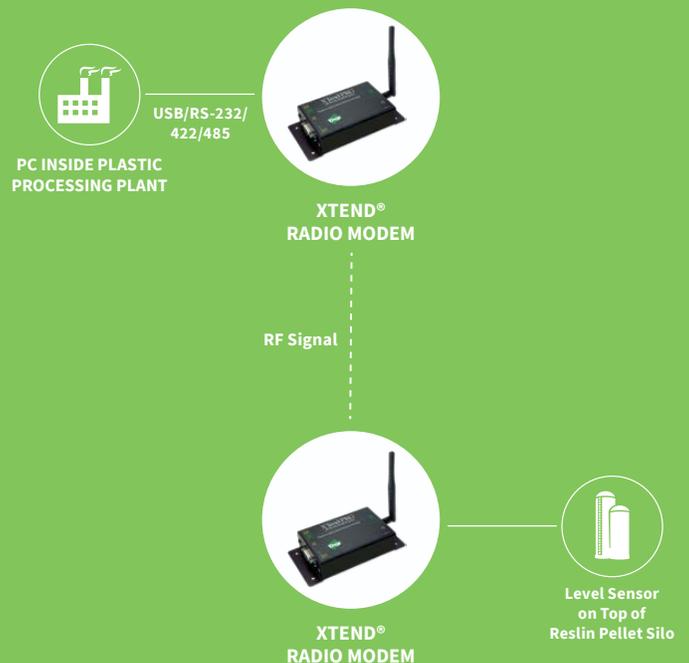


XCTU



Accessories

## APPLICATION EXAMPLE



# SPECIFICATIONS

## XTend®-PKG-R

## XTend®-PKG-U

### PERFORMANCE

|  |   |
|--|---|
| <b>INDOOR/URBAN RANGE (W/ 2.1 DB DIPOLE ANTENNA)</b>             | Up to 1000 feet (305 m)   |
| <b>OUTDOOR RF LINE-OF-SIGHT RANGE (W/ 2.1 DB DIPOLE ANTENNA)</b> | Up to 9 miles (14 km)   |
| <b>OUTDOOR RF LINE-OF-SIGHT RANGE (W/ HIGH-GAIN ANTENNA)</b>     | Up to 40 miles (64 km)  |
| <b>TRANSMIT POWER OUTPUT (SOFTWARE SELECTABLE)</b>               | 100 mW - 1 W (20 - 30 dBm)  |
| <b>INTERFACE DATA RATE</b>                                       | 10 - 230,400 bps (including non-standard baud rates)                |
| <b>RF DATA RATE</b>  | 10 Kbps to 125 Kbps   |
| <b>RECEIVER SENSITIVITY</b>                                      | -110 dBm (@9,600 bps throughput data rate), -100 dBm (@115,200 bps) |

### POWER REQUIREMENTS

|  |              |                         |
|--|--------------|-------------------------|
| <b>SUPPLY VOLTAGE</b>                                | 7 - 28V      | 7 - 28V                 |
| <b>RECEIVE CURRENT</b>                               | 110 mA       | 100 mA (Self Power)     |
| <b>TRANSMIT CURRENT</b>                              | Up to 580 mA | 88 - 480 mA             |
| <b>PIN SLEEP POWER-DOWN</b>                          | 18 mA        | 17 mA                   |
| <b>IDLE CURRENT (VARIOUS CYCLIC SLEEP INTERVALS)</b> | 19 - 39 mA   | 21 - 35 mA (Self Power) |
| <b>SERIAL PORT SLEEP POWER-DOWN</b>                  | 45mA         | 45mA                    |

### GENERAL

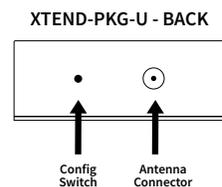
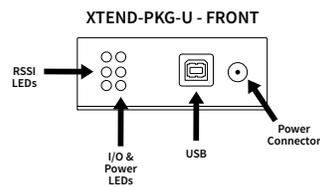
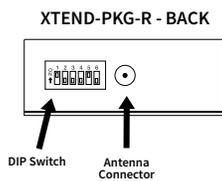
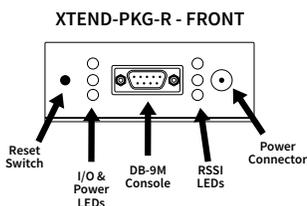
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|-------------------------------|---|---|
| <b>CONNECTION OPTIONS</b>     | RS-232/422/485, DB-9  | USB   |
| <b>DIMENSIONS (L X W X H)</b> | 2.75 in x 5.50 in x 1.13 in<br>(6.99 cm x 13.97 cm x 2.86 cm) | 2.75 in x 5.50 in x 1.13 in<br>(6.99 cm x 13.97 cm x 2.86 cm) |
| <b>WEIGHT</b>                 | 7.10 oz (200 g)   | 7.10 oz (200 g)   |
| <b>OPERATING TEMPERATURE</b>  | -40° C to 85° C (industrial)                                  | 0° C to 70° C (commercial)                                    |
| <b>ANTENNA OPTIONS</b>        | RPSMA (Reverse Polarity SMA)                                  | RPSMA (Reverse Polarity SMA)                                  |
| <b>IMPEDANCE</b>              | 50 ohms unbalanced  | 50 ohms unbalanced  |

### NETWORKING & SECURITY

|                                     |   |
|-------------------------------------|---|
| <b>OPERATING FREQUENCY</b>          | ISM 902 - 928 MHz   |
| <b>SPREAD SPECTRUM</b>              | FHSS (Frequency Hopping Spread Spectrum)  |
| <b>MODULATION</b>                   | FSK (Frequency Shift Keying)  |
| <b>SUPPORTED NETWORK TOPOLOGIES</b> | Peer-to-Peer (no master/slave dependencies), Point-to-Point, Point-to-Multipoint                    |
| <b>CHANNEL CAPACITY</b>             | 10 hop sequences share 50 frequencies   |
| <b>ENCRYPTION</b>                   | 256-bit AES Encryption (AES algorithm meets Federal Information Processing Standard-197 (FIPS-197)) |

### AGENCY APPROVALS

|                             |             |
|-----------------------------|-------------|
| <b>FCC PART 15.247</b>      | MCQ-XBPSX   |
| <b>INDUSTRY CANADA (IC)</b> | 1846A-XBPSX |
| <b>AUSTRALIA</b>            | RCM         |



| PART NUMBERS     | DESCRIPTION   |
|------------------|---|
| XTP9B-PKI-R      | XTend Replacement, PKG, Serial, North America                                   |
| XTP9B-PKI-RA     | XTend Replacement, PKG, Serial, w/ Accessories, North America                   |
| XTP9B-PKI-RA-NL  | XTend Replacement, PKG, Serial, w/ Accessories, No label, North America         |
| XTP9B-PKI-RA-NA  | XTend Replacement, PKG, Serial, w/ Accessories, 128-bit AES, North America      |
| XTP9B-PKC-UA     | XTend Replacement, PKG, USB, w/ Accessories, North America                      |
| XTPH9B-PKI-RA-NA | XTend Replacement, PKG, RS232/485, Includes Accessories, 128-bit AES, Australia |

FOR MORE INFORMATION  
PLEASE VISIT [WWW.DIGI.COM](http://WWW.DIGI.COM)

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