



1 WATT/900 MHZ  
STAND-ALONE  
RADIO MODEMS

# XTEND®-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.

With superior receiver sensitivity, XTend modems hear what others can't, yielding two- to eight- times the range of

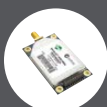
competing RF modems. This allows OEMs and integrators to cover more ground with fewer transceivers, reducing the cost of deployment. And with no configuration required, complexity is minimized.

Available in multiple interface options, including RS-232/422/485 and USB, and with an optional NEMA 4-rated enclosure, 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. For hazardous locations, a Class 1, Division 2 rated model is also available.

## BENEFITS

- Indoor/urban range up to 3000 feet
- Outdoor line-of-sight range up to 40 miles (with high gain antenna)
- Outstanding receiver sensitivity (-110 dBm @ 9600 bps)
- Adjustable power output from 1 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® OEM  
RF Module



Digi XLR PRO™



ConnectPort®  
X2

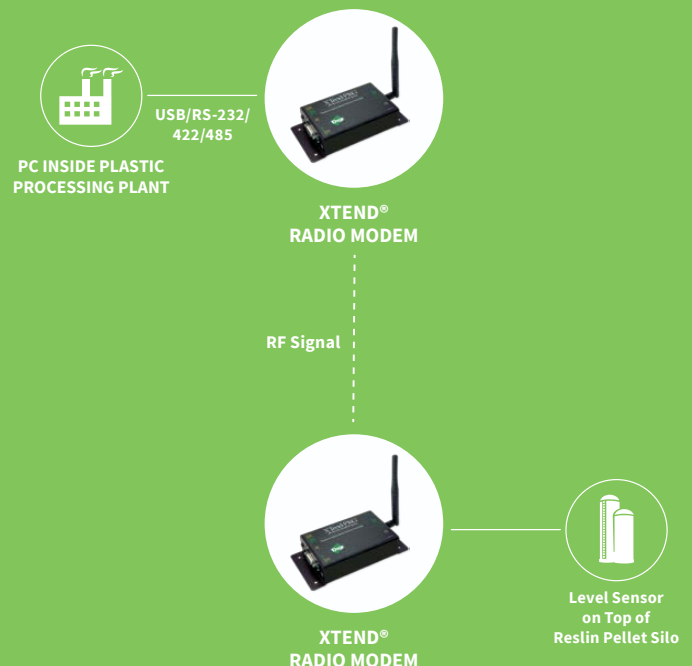


XTU



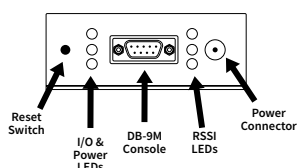
Accessories

## APPLICATION EXAMPLE

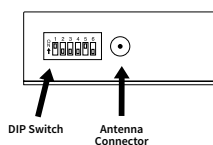


SPECIFICATIONS	XTend®-PKG-R		XTend®-PKG-U	XTend®-NEMA
PERFORMANCE				
INDOOR/URBAN RANGE (W/ 2.1 DB DIPOLE ANTENNA)	Up to 3000 feet (900 m)			
OUTDOOR RF LINE-OF-SIGHT RANGE (W/ 2.1 DB DIPOLE ANTENNA)	Up to 14 miles (22 km)			
OUTDOOR RF LINE-OF-SIGHT RANGE (W/ HIGH-GAIN ANTENNA)	Up to 40 miles (64 km)			
TRANSMIT POWER OUTPUT (SOFTWARE SELECTABLE)	1 mW - 1 W (0 - 30 dBm)			
INTERFACE DATA RATE	10 - 230,400 bps (including non-standard baud rates)			
THROUGHPUT DATA RATE (SOFTWARE SELECTABLE)	9,600 or 115,200 bps			
RF DATA RATE	10,000 bps (@9,600 bps throughput data rate) or 125,000 bps (@115,200 bps)			
RECEIVER SENSITIVITY	-110 dBm (@9,600 bps throughput data rate), -100 dBm (@115,200 bps)			
POWER REQUIREMENTS				
SUPPLY VOLTAGE	7 - 28V	7 - 28V	7 - 28V	
RECEIVE CURRENT	110 mA	100 mA (Self Power)	100 mA	
TRANSMIT CURRENT	110 - 900 mA	88 - 480 mA	110 - 900 mA	
PIN SLEEP POWER-DOWN	17 mA	17 mA	17 mA	
IDLE CURRENT (VARIOUS CYCLIC SLEEP INTERVALS)	19 - 39 mA	21 - 35 mA (Self Power)	19 - 39 mA	
SERIAL PORT SLEEP POWER-DOWN	45mA	45mA	45mA	
GENERAL				
CONNECTION OPTIONS	RS-232/422/485, DB-9	USB	RS-232/422/482, DB-9/screw terminal	
DIMENSIONS (L X W X H)	2.75 in x 5.50 in x 1.13 in (6.99 cm x 13.97 cm x 2.86 cm)	2.75 in x 5.50 in x 1.13 in (6.99 cm x 13.97 cm x 2.86 cm)	5.13 in x7.13 in x 1.50 in (13.02 cm x 18.10 cm x 3.81 cm)	
WEIGHT	7.10 oz (200 g)	7.10 oz (200 g)	12.30 oz (348.70 g)	
OPERATING TEMPERATURE	-40° C to 85° C (industrial)	0° C to 70° C (commercial)	-40° C to 85° C (industrial)	
ANTENNA OPTIONS	RPSMA (Reverse Polarity SMA)	RPSMA (Reverse Polarity SMA)	External antenna connector: RPTNC Internal antenna connector: MMCX	
IMPEDANCE	50 ohms unbalanced	50 ohms unbalanced	50 ohms unbalanced	
NETWORKING & SECURITY				
OPERATING FREQUENCY	ISM 902 - 928 MHz			
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, Multidrop			
CHANNEL CAPACITY	10 hop sequences share 50 frequencies			
ENCRYPTION	256-bit AES Encryption (AES algorithm meets Federal Information Processing Standard-197 (FIPS-197))			
AGENCY APPROVALS				
FCC PART 15.247	OUR-9XTEND			
INDUSTRY CANADA (IC)	4214A-9XTEND			
OTHER	N/A	N/A	IP 66/67, IP 66; IK 08; NEMA 1, 4, 4X, 6 (12 and 13); UL 94-5V, UL 508	

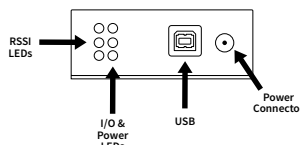
XTEND-PKG-R - FRONT



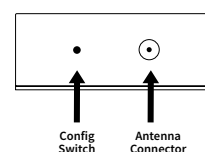
XTEND-PKG-R - BACK



XTEND-PKG-U - FRONT



XTEND-PKG-U - BACK



PART NUMBERS	DESCRIPTION
XT09-PKC-U	XTend-PKG 900 MHz, commercial, USB, no accessories
XT09-PKC-UA	XTend-PKG 900 MHz, commercial, USB
XT09-PKC-UA-NA	XTend-PKG 900 MHz, commercial, USB
XT09-PKC-U-NA	XTend-PKG 900 MHz, commercial, USB, no accessories
XT09-PKD-RD	XTend-PKG 900 MHz, industrial, RS-232/422/485, Class 1/Division 2
XT09-PKI-R	XTend-PKG 900 MHz, industrial, RS-232/422/485, no accessories
XT09-PKI-RA	XTend-PKG 900 MHz, industrial, RS-232/485/422
XT09-PKI-RA-NA	XTend-PKG 900 MHz, industrial, RS-232/485/422
XT09-PKI-RDA	XTend-PKG 900 MHz, industrial, RS-232/422/485, with locking clip
XT09-PKI-R-NA	XTend-PKG 900 MHz, industrial, RS-232/422/485, no accessories
XTH9-PKC-U-128	XTend-PKG 900 MHz, commercial, USB, no accessories, 128-bit AES (International)
XTH9-PKC-UA-128	XTend-PKG 900 MHz, commercial, USB, w/ accessories, 128-bit AES (International)
XTH9-PKI-R-128	XTend-PKG 900 MHz, industrial, RS-232/422/485, 128-bit AES, no accessories (International)
XTH9-PKI-RA-128	XTend-PKG 900 MHz, industrial, RS-232/422/485, 128-bit AES (International)
XT09-4EI-RA	XTend-PKG 900 MHz, NEMA 4, RS-232/422/485, external antenna connector
XT09-4II-RA	XTend-PKG 900 MHz, NEMA 4, RS-232/422/485, internal antenna connector

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

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