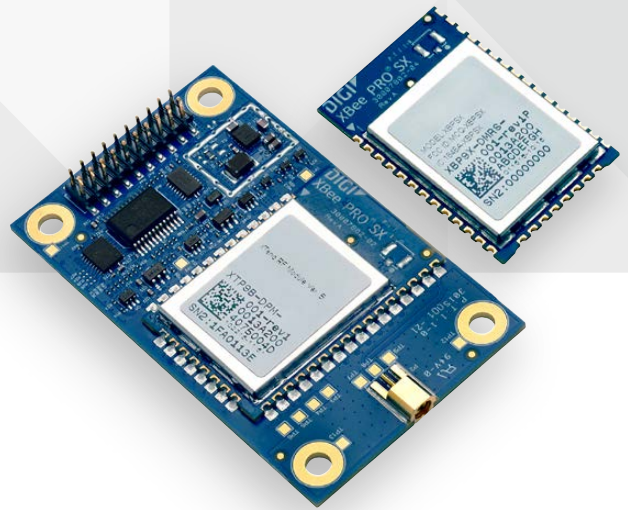




1 WATT/900 MHZ
OEM RF MODULES



XTEND[®] OEM RF MODULES

Long-range wireless modules enable communication from UART serial data with peer-to-peer, point-to-multipoint, repeater and DigiMesh[®] networking topologies

The XTend OEM RF module provides unprecedented range in a low-cost wireless data solution. The module is easy to use, requires minimal power, provides reliable delivery of critical data between devices and is now available in the even smaller XBee Surface Mount form factor to save valuable PCB space.

The XTend module utilizes FHSS (Frequency Hopping Spread Spectrum) agility to avoid interference by hopping to a new frequency on every packet transmission or re-transmission. Its transmit power is software adjustable from 100 mW to 1 W—the maximum output power allowable by governments that use 900 MHz as a license-free band. The XTend module is

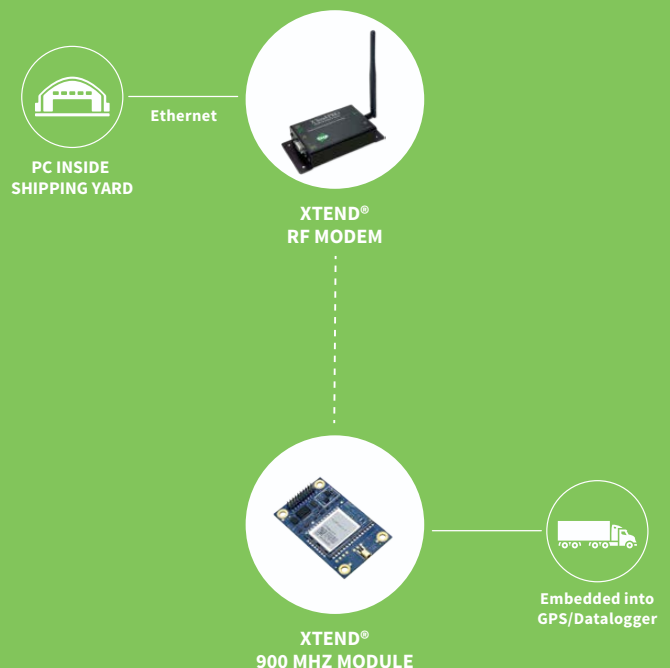
approved for use in the United States, Canada, Australia and other countries (contact Digi for a complete listing).

Innovations stamped in its design enable the XTend module to supply two- to eight-times the range of other modules operating within the unlicensed 900 MHz frequency band. The range gained by OEMs and integrators is due to proprietary technologies embedded into each module, including superior RX (receiver) sensitivity, interference immunity, modulation/demodulation techniques and others.

BENEFITS

- Indoor/urban range up to 1000 feet
- Outdoor line-of-sight range up to 40 miles (with high gain antenna)
- Outstanding receiver sensitivity (-110 dBm @ 9600 bps)
- Peer-to-peer, point-to-multipoint, repeater and DigiMesh networking topologies
- Adjustable power output from 100 mW to 1 W; up to 4 W EIRP (with 6 dBi antenna)
- Available in the XTend and XBee SMT form factors

APPLICATION EXAMPLE



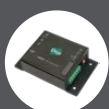
RELATED PRODUCTS



XTend[®]
RF Modem



ConnectPort[®]
X2



XBee[®] 900HP
RF Modem



XBee-PRO[®]
900HP Module

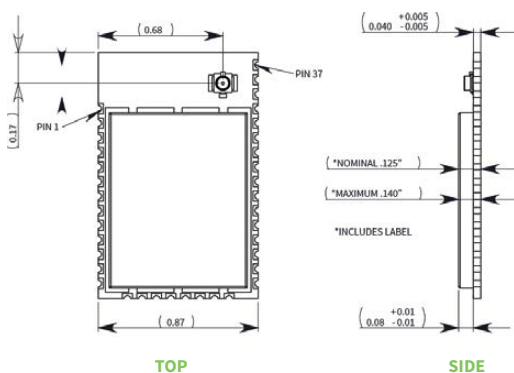


XCTU

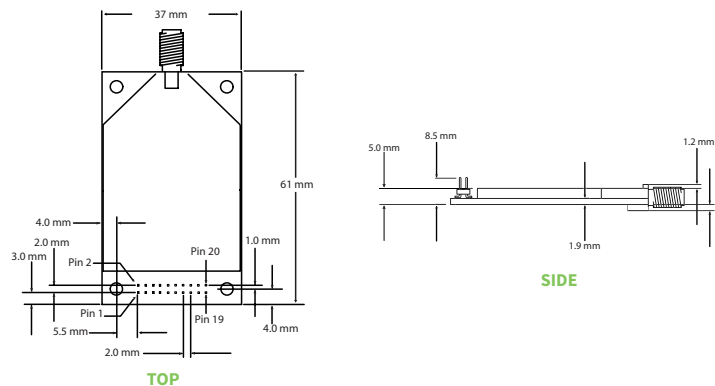
SPECIFICATIONS		XTend® vB Module		XBee®-PRO XTC Module		XBee® XTC Module	
PERFORMANCE							
FREQUENCY RANGE		ISM 902 – 928 MHz					
INDOOR/URBAN RANGE		Up to 1000 feet (305 m) with 2.1 dB dipole antenna				Up to 360 ft (110 m)	
OUTDOOR RF LINE-OF-SIGHT RANGE		Up to 40 miles (64 km) with high gain antenna; Up to 14 miles (22 km) with 2.1 dB dipole antenna				Up to 5 miles with high gain antenna	
TRANSMIT POWER (SOFTWARE SELECTABLE)		100 mW - 1 W (20 - 30 dBm)				Up to 13 dBm	
INTERFACE DATA RATE		1,200 - 230,400 bps (including non-standard baud rates)					
RECEIVER SENSITIVITY (1% PER)		-110 dBm (@9,600 bps throughput data rate), -100 dBm (@115,200 bps)					
RF DATA RATE		10 kbps to 125 kbps					
HARDWARE INTERFACE		20 pin 2 mm pitch header		37 castellated SMT pads			
SIZE		3.7 cm x 6.1 cm x 4.8 cm		3.38 cm x 2.21 cm x 1.29 cm			
ANTENNA OPTIONS		MMCX, RPSMA		RF Pad, U.FL			
NETWORKING AND SECURITY							
SPREAD SPECTRUM		FHSS (Frequency Hopping Spread Spectrum)					
MODULATION		FSK (Frequency Shift Keying)					
SUPPORTED NETWORK TOPOLOGIES		Point-to-Point, Point-to-Multipoint, Repeater, Mesh					
CHANNEL CAPACITY		10 hop sequences share 50 frequencies					
ENCRYPTION		256-bit / 128-bit AES					
POWER REQUIREMENTS							
SUPPLY VOLTAGE		2.8 – 5.5 VDC					
RX CURRENT		35 mA @ 5V		40 mA @ 3.3V			
TRANSMIT CURRENT		Up to 710 mA @ 30 dBm		Up to 900 mA @ 30 dBm		Up to 55 mA @ 13 dBm	
SHUTDOWN MODE POWER DOWN		1 µA typical					
PIN SLEEP POWER DOWN		< 147 µA		2.5 uA			
CYCLIC SLEEP (IDLE CURRENT)		0.3 – 0.8 mA (16 sec cyclic sleep)					
ENVIRONMENTAL							
OPERATING TEMPERATURE		-40° C to 85° C (Industrial)					
CERTIFICATIONS							
FCC ID (U.S. CERTIFICATION PART 15.247)		MCQ-XBPSX		MCQ-XBPSX		MCQ-XBSX	
IC ID (CANADA)		1846A-XBPSX		1846A-XBPSX		1846A-XBSX	
C-TICK (AUSTRALIA)		RCM (Pending)					

LINE ART

XBEE/XBEE-PRO XTC MODULE



XTEND VB MODULE



PART NUMBERS	DESCRIPTION
XTEND VB MODULES	
XTP9B-DMS-001	9XTend Replacement, DigiMesh, RPSMA, North America
XTP9B-DMM-001	9XTend Replacement, DigiMesh, MMCX, North America
XTP9B-DPS-001	9XTend Replacement, P2MP, RPSMA, North America
XTP9B-DPM-001	9XTend Replacement, P2MP, MMCX, North America
XTP9B-DPS-721	9XTend Replacement, P2MP, RPSMA, 128 AES Australia
XBEE/XBEE-PRO XTC (XTEND COMPATIBLE) MODULES	
XTP9B-DPM-721	9XTend Replacement, P2MP, MMCX, 128 AES Australia
XBP9XT-DMRS-001	XBee-PRO XTC, 1W, DigiMesh, SMT, RF Pad, North America
XBP9XT-DMUS-001	XBee-PRO XTC, 1W, DigiMesh, SMT, U.FL, North America
XBP9XT-DPRS-001	XBee-PRO XTC, 1W, P2MP, SMT, RF Pad, North America
XBP9XT-DPUS-001	XBee-PRO XTC, 1W, P2MP, SMT, U.FL, North America
XB9XT-DMRS-001	XBee XTC, 20 mW, DigiMesh, SMT, RF Pad, North America
XB9XT-DMUS-001	XBee XTC, 20 mW, DigiMesh, SMT, U.FL, North America
XB9XT-DPRS-001	XBee XTC, 20 mW, P2MP, SMT, RF Pad, North America
XB9XT-DPUS-001	XBee XTC, 20 mW, P2MP, SMT, U.FL, North America

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