

## Excellent Integrated System Limited

Stocking Distributor

Click to view price, real time Inventory, Delivery & Lifecycle Information:

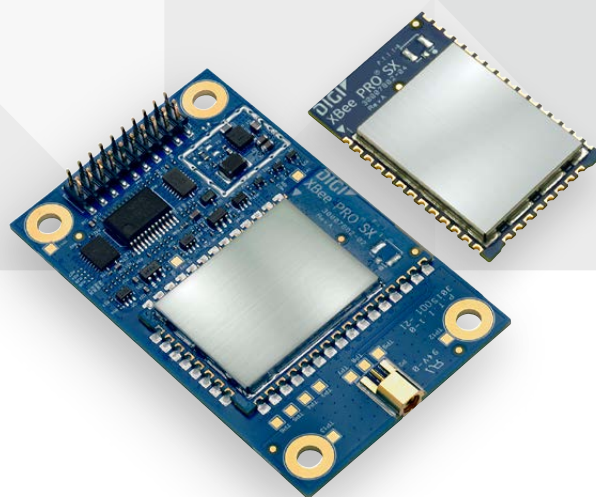
[Digi International](#)  
[XT09-SI](#)

For any questions, you can email us directly:

[sales@integrated-circuit.com](mailto:sales@integrated-circuit.com)

**DIGI**

1 WATT/900 MHZ  
OEM RF MODULES



# XTEND<sup>®</sup> OEM RF MODULES

Long-range wireless modules enable communication from UART serial data with peer-to-peer, point-to-multipoint, repeater and DigiMesh<sup>®</sup> 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

## RELATED PRODUCTS



XTend<sup>®</sup>  
RF Modem



ConnectPort<sup>®</sup>  
X2



XBee<sup>®</sup> 900HP  
RF Modem



XBee-PRO<sup>®</sup>  
900HP Module



XCTU

## APPLICATION EXAMPLE



PC INSIDE  
SHIPPING YARD

Ethernet



XTEND<sup>®</sup>  
RF MODEM



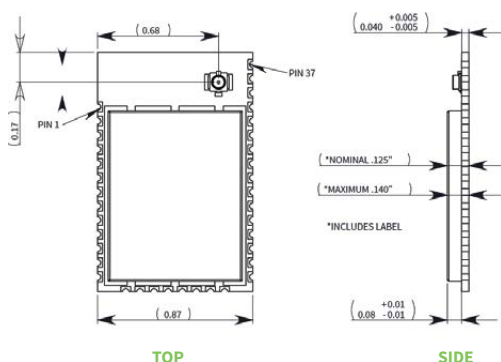
XTEND<sup>®</sup>  
900 MHZ MODULE



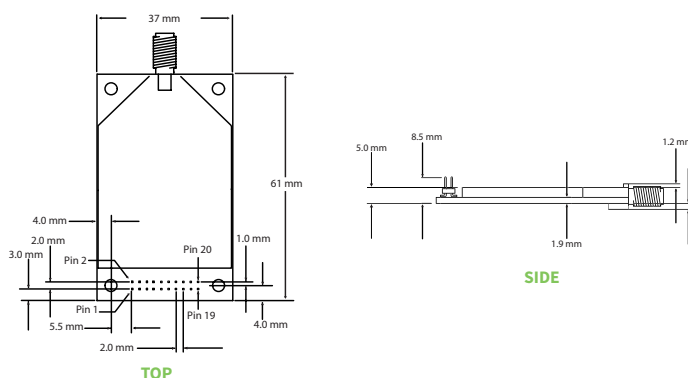
Embedded into  
GPS/Datalogger

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
<b>XTEND VB MODULES</b>	
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
<b>XBEE/XBEE-PRO XTC (XTEND COMPATIBLE) MODULES</b>	
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

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

**DIGI SERVICE AND SUPPORT** / You can purchase with confidence knowing that Digi is always available to serve you with expert technical support and our industry leading warranty. For detailed information visit [www.digi.com/support](http://www.digi.com/support).

© 1996-2016 Digi International Inc. All rights reserved.  
All trademarks are the property of their respective owners.

91001416  
E2/216

**DIGI INTERNATIONAL WORLDWIDE HQ**  
877-912-3444 / 952-912-3444 / [www.digi.com](http://www.digi.com)

**DIGI INTERNATIONAL FRANCE**  
+33-1-55-61-98-98 / [www.digi.fr](http://www.digi.fr)

**DIGI INTERNATIONAL JAPAN**  
+81-3-5428-0261 / [www.digi-intl.co.jp](http://www.digi-intl.co.jp)

**DIGI INTERNATIONAL SINGAPORE**  
+65-6213-5380

**DIGI INTERNATIONAL CHINA**  
+86-21-50492199 / [www.digi.com.cn](http://www.digi.com.cn)

