

XBee® & XBee-PRO® DigiMesh® 2.4

Mesh Networking Embedded RF Modules for OEMs

Embedded RF modules deliver wireless connectivity using the innovative and easy-to-deploy DigiMesh protocol.



Overview

XBee and XBee-PRO DigiMesh 2.4 embedded RF modules provide wireless connectivity to electronic devices using a globally deployable 2.4 GHz transceiver. These modules use the DigiMesh networking protocol. This innovative, peer-to-peer network offers users added network stability through self-healing, dense network operation and support for sleeping routers, extending the operational life of battery dependent networks.

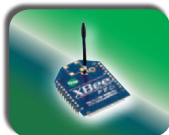
XBee modules are ideal for low-power, low-cost applications. XBee-PRO modules are power-amplified versions of XBee modules for extended-range applications. Products in the XBee family are easy to use, share a common hardware footprint, and are fully interoperable with other XBee products utilizing the same technology. They are available in a variety of different protocols to suit different applications, enabling users to substitute one XBee module for another with minimal development time and risk.

Digi's unsurpassed offering of Drop-in Networking products provide users with seamless communication between devices. XBee adapters deliver wireless connectivity to electronic devices in wired networks. ConnectPort® X gateways enable users to access and configure remote devices in a network.

Related Products



Gateways



Modules



Adapters



Dev Kits

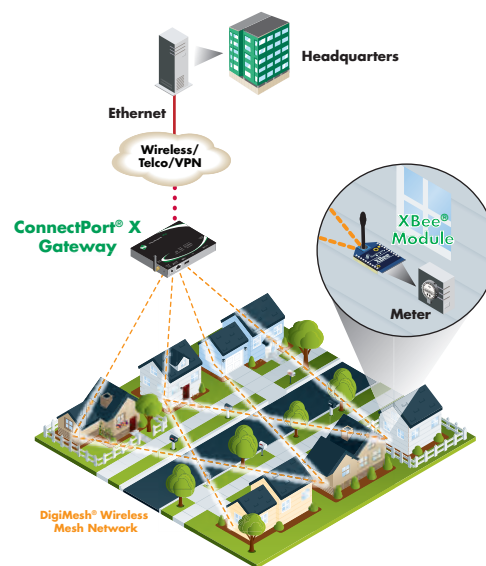


Range Extenders



Sensors

Application Highlight

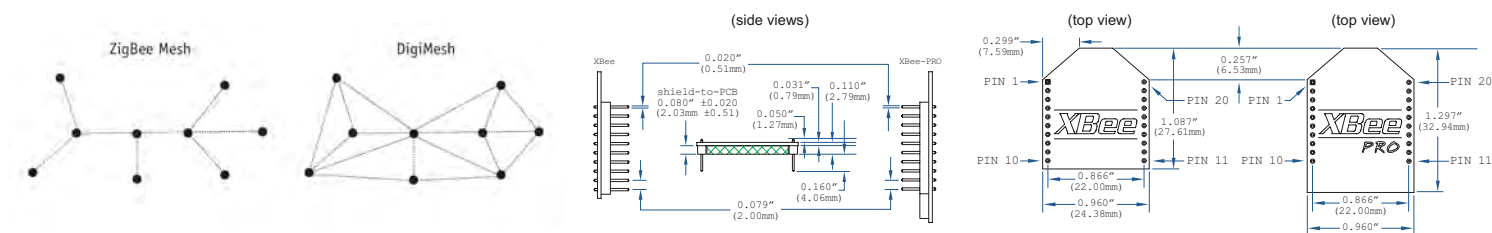


Features/Benefits

- No configuration needed for out-of-the-box RF communications
- Common XBee footprint for a variety of RF modules
- Simple topology to deploy and grow
- 2.4 GHz for worldwide deployment
- Low-power XBee or extended-range XBee-PRO (pin/over-the-air compatible)
- Multiple antenna options
- Outdoor RF line-of-sight range up to 1 mile (1.6 km) with high-gain antennas
- DigiMesh peer-to-peer mesh networking protocol
 - Self-healing and discovery for network stability
 - Sleeping routers supported for long battery life



Platform	XBee® DigiMesh® 2.4		XBee-PRO® DigiMesh® 2.4	XBee-PRO® DigiMesh® 2.4 (Int'l)
Performance				
RF Data Rate	250 Kbps			
Indor/Urban Range	100 ft (30 m)	300 ft (90 m)	200 ft (60 m)	
Outdoor/RF Line-of-Sight Range	300 ft (90 m)	1 mile (1.6 km)	2500 ft (750 m)	
Transmit Power	1 mW (+0 dBm)	63 mW (+18 dBm)	10 mW (+10 dBm)	
Receiver Sensitivity (1% PER)	-92 dBm	-100 dBm		
Features				
Serial Data Interface	3.3V CMOS serial UART			
Configuration Method	AT & API			
Frequency Band	2.4 GHz ISM			
Interference Immunity	DSSS (Direct Sequence Spread Spectrum)			
Serial Data Rate	Up to 115.2 Kbps			
ADC Inputs	(6) 10-bit ADC inputs			
Digital I/O	13			
Antenna Options	Chip, Wire Whip, U.FL, RPSMA			
Networking & Security				
Encryption	128-bit AES			
Reliable Packet Delivery	Retries/Acknowledgments			
Addressing Options	PAN ID, channel, 64-bit address			
Channels	16	12		
Power Requirements				
Supply Voltage	2.8 – 3.4VDC			
Transmit Current	45 mA	250 mA (Wire, Chip, U.FL), 340 mA (RPSMA)	150 mA (Wire, Chip, U.FL), 180 mA (RPSMA)	
Receive Current	50 mA	55 mA		
Power-Down Current	<50 uA			
Regulatory Approvals				
FCC (USA)	Yes			
IC (Canada)	Yes			
ETSI (Europe)	Yes	Yes (Max Tx 10 mW)	Yes	
C-TICK Australia	Yes			
Telec (Japan)	Yes	No	Yes	



Visit www.digi.com for part numbers.

DIGI SERVICE AND SUPPORT - You can purchase with confidence knowing that Digi is here to support you with expert technical support and a strong one-year warranty. www.digi.com/support

Digi International
877-912-3444
952-912-3444
email: info@digi.com

Digi International France
+33-1-55-61-98-98
www.digi.fr

Digi International KK
+81-3-5428-0261
www.digi-intl.co.jp

Digi International (HK) Limited
+852-2833-1008
www.digi.cn



91001486
B3/511

BUY ONLINE • www.digi.com

© 2008-2011 Digi International Inc.
All rights reserved. Digi, Digi International, the Digi logo, the Making Wireless M2M Easy logo, ConnectPort, DigiMesh, XBee and XBee-PRO are trademarks or registered trademarks of Digi International Inc. in the United States and other countries worldwide. All other trademarks are the property of their respective owners. All information provided is subject to change without notice.





Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)

Факс: 8 (812) 320-02-42

Электронная почта: org@eplast1.ru

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.