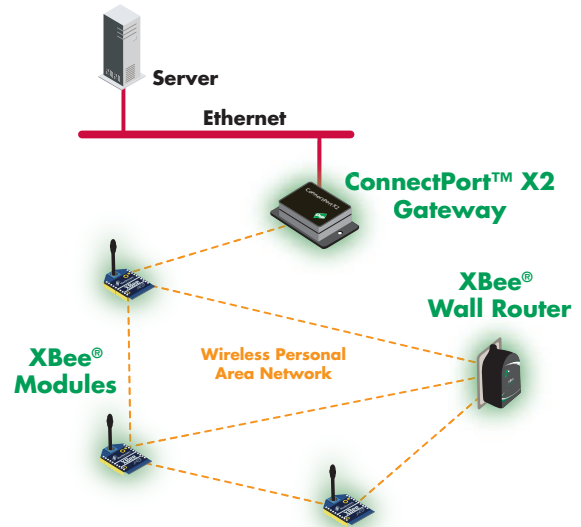


Drop-in Networking Professional Development Kit

Proof-of-Concept Low-Power Wireless Connectivity Kit

Cost-effective, out-of-the-box kit for the evaluation and development of wireless sensor/device networks. Can be used as a mobile measurement tool to monitor equipment health, sense environmental conditions or take temporary measurements where short-term data is needed to validate a process or conditions.



Features/Benefits

- Easily configure a low-power mesh or multipoint sensor/device network
- Conduct a basic wireless range test
- Provide IP connectivity to the network using the ConnectPort X2 gateway
- Monitor light and temperature readings from the XBee wall router (mesh kit version)
- Laptop or PC access to the WPAN via the XBee USB adapter (multipoint kit version)

Overview

The Drop-in Networking Professional Development Kit provides the hardware and software tools to rapidly deploy a real-world wireless sensor/device network and proof-of-concept system. All hardware components are pre-configured to run either mesh or multipoint networking software, which is optimized for low-power, battery-fueled operation.

The kit includes:

- 3 XBee modules (1 XBee and 2 XBee-PRO[®]) and 3 interface boards (1 USB and 2 RS-232) to simulate endpoints in the Wireless Personal Area Network (WPAN).
- 1 ConnectPort[™] X2 gateway which concentrates data from the XBee modules for connectivity to a PC or the IP network. The gateway provides a Python-based programming engine for custom application development.
- 1 XBee wall router (mesh kit versions) OR 1 XBee USB adapter (multipoint kit versions)
 - The wall router provides network extension and plugs into a standard power outlet. It also includes integrated light and temperature sensors that can be monitored via the gateway.
 - The XBee USB adapter provides easy local connectivity to the WPAN via a laptop or PC.
- Power supplies, user documentation and configuration CD. The CD also provides a set of Python[®] programming tools to assist with custom application development.

To see the full range of Digi's Drop-in Networking solutions, including off-the-shelf XBee adapters for connecting legacy devices to mesh and multipoint networks, as well as cellular and Wi-Fi gateway models, visit <http://www.digi.com/products/wirelessdropinnetworking/>.



Product Type	XBee® & XBee-PRO® ZNet 2.5 Modules		XBee® & XBee-PRO® 802.15.4 Modules	
Model	Regular	PRO	Regular	PRO
Performance				
RF Data Rate	250 Kbps	250 Kbps	250 Kbps	250 Kbps
Indoor/Urban Range	Up to 133 ft (40 m)	Up to 300 ft (90 m)	Up to 100 ft (30 m)	Up to 300 ft (90 m)
Outdoor/Line-of-Sight Range	Up to 400 ft (20 m)	Up to 1 mile (1.6 km)	Up to 300 ft (90 m)	Up to 1 mile (1.6 km)
Transmit Power	1.25 mW (+1 dBm) / 2 mW (+3 dBm) boost mode	50 mW (+17 dBm) / Int'l 10 mW (+10 dBm)	1 mW (0 dBm)	60 mW (+18 dBm)* / Int'l 10 mW (+10 dBm)
Receiver Sensitivity (1% PER)	-96 dBm in boost mode	-102 dBm	-92 dBm	-100 dBm
General				
Frequency Band	2.4 GHz			
Sleep Modes	Low-power sleep modes enable power-down currents less than 10 uA			
Operating Temperature	-40° C to +85° C (Industrial)			
Product Type				
ConnectPort™ X2 Gateway				
General				
Network Protocols	UDP/TCP, DHCP			
Interfaces	Physical: 1 RJ-45 Ethernet port; RF: 1 XBee-PRO module, 2.4 GHz			
LEDs	Ethernet status, power, XBee link/activity			
Router/Security Features	NAT, port forwarding, access control lists (IP filtering)			
Management	HTTP web interface, password access control, IP service port control, optional secure enterprise management via Digi Connectware® Manager, Python application customization tool for programmability			
Power Requirements				
Power Input	9-30VDC			
Power Supply	12VDC power supply included			
Power Consumption	1.2 W (idle) / 3.4 W (max)			
Product Type				
XBee® Wall Router		XBee® USB Adapter		
General				
Antenna	Internal		Integrated whip antenna	
Locking Mechanism	Unit secures to power outlet using center outlet screw (U.S. only)		N/A	
LEDs	Power: Solid when external power is supplied Associate: Blinks when unit is associated to an RF network		N/A	
Push Button	Device reset, configuration reset to factory defaults, identification/commissioning mode		N/A	
Integrated Temperature & Light Sensor				
Temperature Sensor	Range: -20° C to +70° C (-4° F to +158° F) Accuracy: +/- 2° C		N/A	
Ambient Light Sensor	Range of spectral bandwidth: 360 to 970 nm (similar to human eye) Wavelength of peak sensitivity: 570 nm		N/A	
Power Requirements				
Power Input	Universal AC input (85VAC to 265VAC)		Bus-powered (+5V)	
Power Consumption	N/A		70 mA (normal operation) / 200 uA (suspend mode)	70 mA Rx and 250 mA Tx (normal operation) / 200 uA (suspend mode)



Please 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 five-year warranty. www.digi.com/support



Digi International

11001 Bren Road E.
Minnetonka, MN 55343
U.S.A.
PH: 877-912-3444
952-912-3444
FX: 952-912-4952
email: info@digi.com

Digi International

France
31 rue des Poissonniers
92200 Neuilly sur Seine
PH: +33-1-55-61-98-98
FX: +33-1-55-61-98-99
www.digi.fr

Digi International

KK
NES Building South 8F
22-14 Sakuragaoka-cho,
Shibuya-ku
Tokyo 150-0031, Japan
PH: +81-3-5428-0261
FX: +81-3-5428-0262
www.digi-intl.co.jp

Digi International

(HK) Limited
Suite 1703-05, 17/F.,
K Wah Centre
191 Java Road
North Point, Hong Kong
PH: +852-2833-1008
FX: +852-2572-9989
www.digi.cn

Digi International, the leader in device networking for business, develops reliable products and technologies to connect and securely manage local or remote electronic devices over the network or via the web. With over 20 million ports shipped worldwide since 1985, Digi offers the highest levels of performance, flexibility and quality.

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