DIGI XBEE-PRO® 802.15.4 ADAPTERS

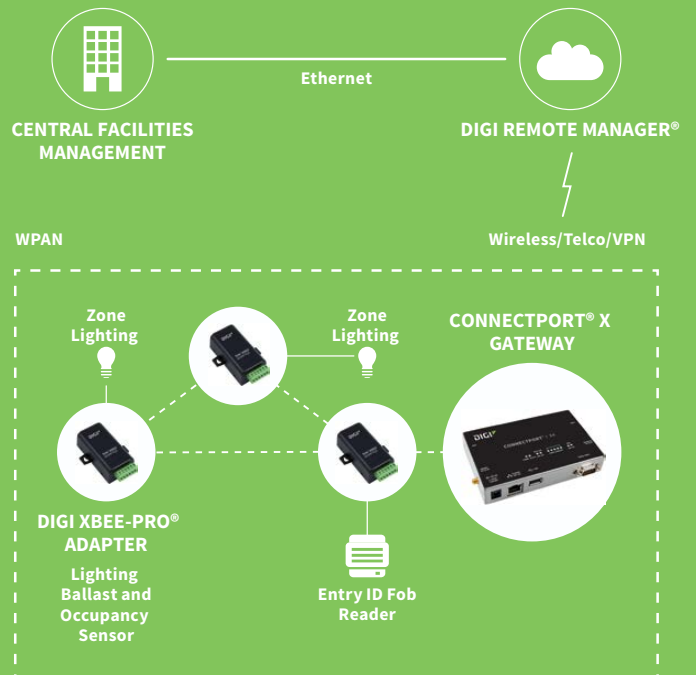Remote monitoring and control for multipoint networks.

Digi XBee-PRO 802.15.4 adapters provide low-cost, low-power wireless point-to-multipoint networking of electronic devices. They are ideal for enabling wireless connectivity to sensors, controllers and other devices in legacy wired applications, without the development time required for embedded solutions.

These small adapters are available in externally powered, battery powered and power harvesting options. Adapters are offered in a wide range of physical interfaces, including RS-232, RS-485, USB, Digital I/O and Analog I/O interface options.
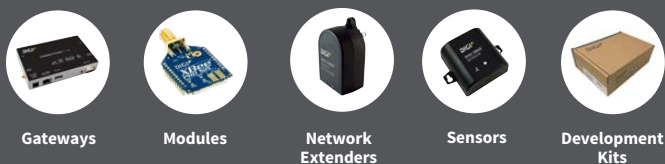
BENEFITS

– 802.15.4 wireless connectivity for RS232, 485 and USB devices

– Compatible with Digi XBee gateways and modules

– Small form factor for easy handling and installation

– Hardened design with extended operating temperature (-40° C to +70° C) for hazardous locations

APPLICATION EXAMPLE

CENTRAL FACILITIES MANAGEMENT

Ethernet

DIGI REMOTE MANAGER®

WPAN

Wireless/Telco/VPN

Zone Lighting

Zone Lighting

CONNECTPORT® X GATEWAY

DIGI XBEE-PRO® ADAPTER

Lighting Ballast and Occupancy Sensor

Entry ID Fob Reader

RELATED PRODUCTS

Gateways

Modules

Network Extenders

Sensors

Development Kits

PERFORMANCE

RF DATA RATE	250,000 bps
INDOOR/URBAN RANGE*	Up to 300 ft
OUTDOOR/RF LINE-OF-SIGHT RANGE*	Up to 1 mile
TRANSMIT POWER	60 mW (+18 dBm)
RECEIVER SENSITIVITY (1% PER)	-100 dBm

FEATURES

ANTENNA TYPE	Integrated whip antenna
FREQUENCY BAND	2.4 GHz
SERIAL DATA INTERFACE	RS-232 (DB-9M) RS-485 (6-position wire terminal block) - Switch selectable between RS-422 half duplex, RS-422 full duplex and RS-485 Sensor (RJ-45)
USB DATA INTERFACE	USB 2.0 Full Speed (with ESD protection); connects to host via captive 2-meter cable

NETWORKING & SECURITY

NETWORK TOPOLOGIES	Point-to-Point, Point-to-Multipoint, Peer-to-Peer
NUMBER OF CHANNELS	12 channels
SPREAD SPECTRUM TYPE	Direct Sequence Spread Spectrum
FILTRATION OPTIONS	PAN ID, Channel, 264 (64-bit) addresses

OTHER

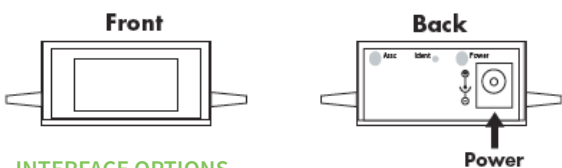|	
LEDS	Power: Glows green when external power is supplied (not active when battery powered to limit power drain) Associate: Blinks when unit is connected and associated on an RF network
CONTROLS	Device reset (internal push button); Identification (internal push button) – relays ID to gateway
DIMENSIONS (L X W X H) & WEIGHT	RS-232, RS-485, AIO, DIO models: 3.87 in x 1.68 in x 0.99 (9.84 cm cm x 4.26 cm x 2.53 cm) 2.29 oz (64.92 g) USB models: 2.87 in x 1.80 in x 0.83 in (7.29 cm x 4.57 cm x 2.10 cm) 1.60 oz (45.36 g)
OPERATING TEMPERATURE	-40° C to +70° C

POWER REQUIREMENTS

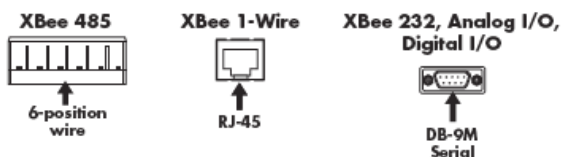|	
INPUT VOLTAGE	RS-232, RS-485, AIO, DIO models: 9-30 VDC USB models: Bus powered (+5V)
POWER CONSUMPTION	USB: 70 mA Rx and 250 mA Tx (normal operation) / 200 uA (suspend mode)

REGULATORY APPROVALS

EMISSIONS	FCC Part 15.247, IC, CE, Telec, EN55022 (Class A)
SAFETY	UL60950
ROHS	Yes

DIGI XBEE 232, 485, SENSOR, ANALOG I/O, DIGITAL I/O

Front

Back

Power

DIGI XBEE USB - BACK

INTERFACE OPTIONS

XBee 485 — 6-position wire
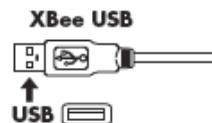
XBee 1-Wire — RJ-45

XBee 232, Analog I/O, Digital I/O — DB-9M Serial

INTERFACE OPTIONS

XBee USB — USB

*Range figure estimates are based on free-air terrain with limited sources of interference. Actual range will vary based on transmitting power, orientation of transmitter and receiver, height of transmitting antenna, height of receiving antenna, weather conditions, interference sources in the area, and terrain between receiver and transmitter, including indoor and outdoor structures such as walls, trees, buildings, hills, and mountains.

DIGI

PART NUMBERS	DESCRIPTION
XA-A14-CE1P	Digi XBee-PRO 802.15.4 USB Adapter
XA-A14-CE1P-J	Digi XBee-PRO 802.15.4 USB Adapter (International)
XA-A14-CS2P	Digi XBee-PRO 802.15.4 RS-232 Adapter

FOR MORE INFORMATION
PLEASE VISIT WWW.DIGI.COM

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