



ZIGBEE ADAPTERS FOR
SERIAL AND USB DEVICES



XBEE-PRO[®] ZIGBEE ADAPTERS

Easy-to-use adapters bring wireless connectivity to electronic devices in legacy wired applications

XBee-PRO ZigBee adapters deliver wireless connectivity to electronic devices through advanced mesh networks. These adapters utilize the ZigBee PRO Feature Set, for robust self-healing, self-configuring networks. They are ideal for wirelessly enabling sensors, controllers and other devices in legacy wired applications, or where a common hardware interface is preferable.

XBee-PRO ZigBee adapters can be battery or mains powered. They are available in a wide range of physical interfaces, including RS-232, RS-485, USB (power harvesting), digital I/O and analog I/O. Built upon XBee-PRO modules,

these adapters can be purchased in a broad range of configurations and customized to meet your application needs.

XBee adapters are compatible with ConnectPort[®] X gateways, XBee[®] modules and XBee accessories. This family of hardware, software and management tools provides users with unparalleled flexibility and end-to-end communication between devices.

BENEFITS

- Hardened design with extended operating temperature (-35° C to +74° C) for hazardous locations
- Class 1, Division 2 certified
- Multi-master/Multi-protocol concurrent support for Allen-Bradley and Modbus protocols
- Serial and Ethernet protocol bridging support for Allen-Bradley and Modbus protocols promotes interoperability
- ASCII to protocol translation for Allen-Bradley and Modbus
- Switch selectable RS-232/422/485 serial port

RELATED PRODUCTS



Gateways



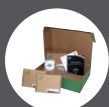
Modules



Network
Extenders

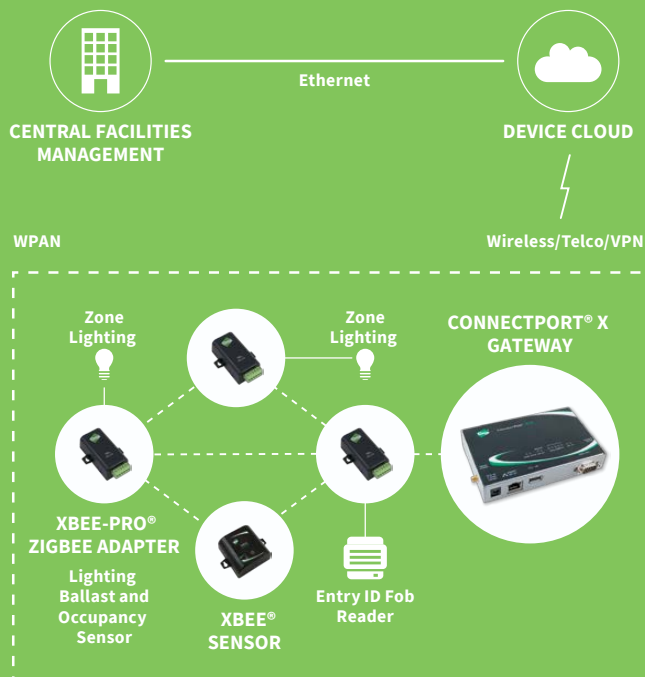


Sensors



Development
Kits

APPLICATION EXAMPLE



SPECIFICATIONS

XBee-PRO® ZigBee Adapter

PERFORMANCE

RF DATA RATE	250 kbps
INDOOR/URBAN RANGE	Up to 300 ft (90 m) / 200 ft (60 m) Int'l variant
OUTDOOR/RF LINE-OF-SIGHT RANGE	Up to 2 miles (3200m) / 5000 ft (1500 m) Int'l variant
TRANSMIT POWER	63 mW (+18 dBm) / Int'l version
RECEIVER SENSITIVITY (1% PER)	-102 dBm

FEATURES

ANTENNA TYPE	XBee ZB Adapters: Internal Antenna; XBee-PRO ZB Adapters: External RPSMA Antenna
FREQUENCY BAND	2.4 GHz
SERIAL DATA INTERFACE	RS-232 DB9M/DTE or RS-485 (6-position wire terminal block) switch selectable between RS-422 half-duplex, RS-422 full duplex and RS-485
USB DATA INTERFACE	USB 2.0 Full Speed (with ESD protection); connects to host via captive 1-meter cable
ANALOG IO (AIO) & DIGITAL IO (DIO)	6-position wire terminal block; Analog IO: 0 - 10V, 4 - 20 mA, or +/- 2VDC Differential; Digital IO: Digital Input or sinking driver output

NETWORKING & SECURITY

NETWORK TOPOLOGIES	Point-to-point, Point-to-multipoint, Mesh
NUMBER OF CHANNELS	14
SPREAD SPECTRUM TYPE	Direct Sequence Spread Spectrum
FILTRATION OPTIONS	PAN ID, 64-bit MAC, channel
ADDRESSING	65,000 available addresses for each channel

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: 3.60 in x 1.90 in x 1.20 in (9.14 cm x 4.82 cm x 3.04 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

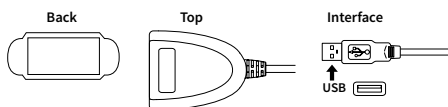
POWER REQUIREMENTS

INPUT VOLTAGE	RS-232, RS-485, AIO, DIO models: 3.7-6VDC and 9-30 VDC USB models: Bus powered (+5V) USB Models: Bus Powered (+5V)
POWER CONSUMPTION	USB: 70 mA Rx and 250 mA Tx (normal operation) / 200 uA (suspend mode)

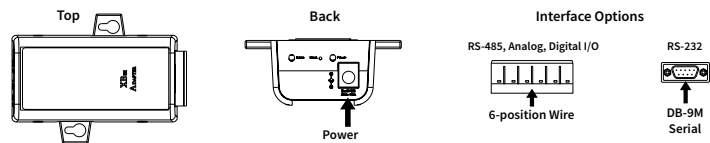
REGULATORY APPROVALS

EMISSIONS	FCC Part 15.247, IC, ETSI/CE, Telec, EN55022 (Class B)
SAFETY	UL60950, CAN/CSA C22.2 No.60950
ROHS	Yes

USB MODEL



RS-232, RS-485, ANALOG, DIGITAL I/O MODELS



PART NUMBERS	DESCRIPTION
XA-Z14-CE1P-A	XBee-PRO ZB USB adapter, internal wire antenna
XA-Z14-CE1P-W	XBee-PRO ZB USB adapter, internal wire antenna (International)
XA-Z14-CS2PH-A	XBee-PRO RS-232 adapter, external RPSMA antenna included (9 - 30V)
XA-Z14-CS2PH-W	XBee-PRO RS-232 adapter, external RPSMA antenna included (9 - 30V) (International)
XA-Z14-CS3PH-A	XBee-PRO RS-485 adapter, external RPSMA antenna included (9 - 30V)
XA-Z14-CS3PH-W	XBee-PRO RS-485 adapter, external RPSMA antenna included (9 - 30V) (International)
XA-Z14-CS4PH-A	XBee-PRO DIO adapter, external RPSMA antenna included (9 - 30V)
XA-Z14-CS4PH-W	XBee-PRO DIO adapter, external RPSMA antenna included (9 - 30V) (International)
XA-Z14-CS5PH-A	XBee-PRO AIO adapter, external RPSMA antenna included (9 - 30V)
XA-Z14-CS5PH-W	XBee-PRO AIO adapter, external RPSMA antenna included (9 - 30V) (International)

FOR MORE INFORMATION
PLEASE VISIT 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.

© 1996-2015 Digi International Inc. All rights reserved.
All trademarks are the property of their respective owners.

91001420
E1/915

DIGI INTERNATIONAL WORLDWIDE HQ
877-912-3444 / 952-912-3444 / www.digi.com

DIGI INTERNATIONAL FRANCE
+33-1-55-61-98-98 / www.digi.fr

DIGI INTERNATIONAL JAPAN
+81-3-5428-0261 / www.digi-intl.co.jp

DIGI INTERNATIONAL SINGAPORE
+65-6213-5380

DIGI INTERNATIONAL CHINA
+86-21-50492199 / www.digi.com.cn



Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Digi International:

[XA-B14-CE2R](#) [XA-B14-CS2R](#) [XA-B14-CE1R](#) [XA-B14-CS5R](#) [XA-B14-CS3R](#) [XA-B14-CS4R](#) [XA-Z14-CE1P-A](#) [XA-Z14-CS2P-A](#) [XA-Z14-CS3P-A](#) [XA-Z14-CS4P-W](#) [XA-Z14-CS5P-A](#) [XA-Z14-CS4P-A](#) [XA-Z14-CS2PH-A](#) [XA-Z14-CS3PH-A](#) [XA-Z14-CS4PH-A](#) [XA-Z14-CS5PH-A](#) [XA-Z14-CE1P-W](#) [XA-Z14-CS2PH-W](#) [XA-Z14-CS2P-W](#) [XA-Z14-CS3PH-W](#) [XA-Z14-CS3P-W](#) [XA-Z14-CS4PH-W](#) [XA-Z14-CS5P-W](#) [XBP24-Z7UIT-001](#) [XBP24-Z7WIT-003](#) [XA-Z14-CS5PH-W](#)