



ZIGBEE SMART  
ENERGY CERTIFIED  
IP GATEWAY



# CONNECTPORT X2E<sup>®</sup> FOR SMART ENERGY

Gateway with the ZigBee Smart Energy Public Application Profile 1.1 provides low-cost, interoperable IP-to-application connectivity for customer engagement

ConnectPort X2e is an enhanced Smart Energy gateway optimized for large deployments of Smart Energy devices in a Home Area Network (HAN) including utility meters, thermostats and in-home displays.

The wireless gateway provides a low-cost connection between Smart Energy devices and remote web applications or utility-hosted websites designed for consumer engagement and demand response. By sharing the homeowner's broadband internet connection, the wireless gateway provides near real-time energy data access and control capabilities based on the Smart Energy devices enabled in the customer's home.

The ConnectPort X2e for Smart Energy is available in two configuration options. The Coordinator version is intended for stand-alone Smart Energy networks that do not have smart meters present. The Router version is configured to connect and read the smart metering system which has been installed at the site.

## BENEFITS

- Full certification to ZigBee Alliance Smart Energy Public Application Profile 1.1 and backwards compatible to 1.0
- Ethernet, Wi-Fi and cellular options for flexible broadband connectivity
- Uses Digi Device Cloud<sup>SM</sup> to manage connectivity, configuration and software upgrades as well as application integration via published APIs
- Supports both stand-alone Smart Energy networks and Smart Energy metering systems
- Enables the Home Area Network (HAN) and Smart Energy devices, such as Programmable Communicating Thermostat (PCT) and In-Home Display products from other manufacturers

## RELATED PRODUCTS



Modules



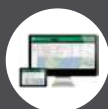
SE Range  
Extenders



Smart Plug

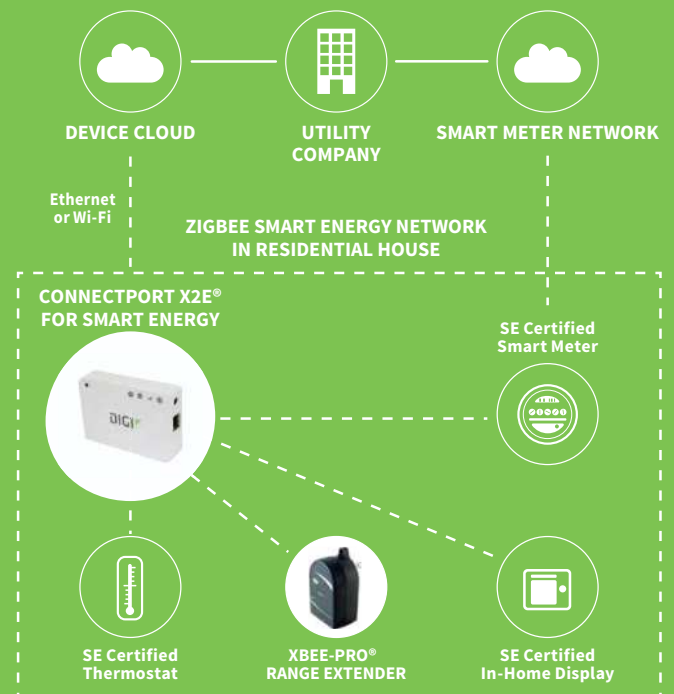


Cellular Gateways



Digi Device  
Cloud<sup>SM</sup>

## APPLICATION EXAMPLE



| SPECIFICATIONS                                           | ConnectPort X2e® for Smart Energy                                                   | ConnectPort X2e® Cellular for Smart Energy                           |
|----------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| GENERAL                                                  |                                                                                     |                                                                      |
| MANAGEMENT                                               | Secure enterprise management via Device Cloud                                       |                                                                      |
| PROTOCOLS                                                | UDP/TCP, DHCP                                                                       |                                                                      |
| LEDS                                                     | Power, Network (LAN/WAN), ZigBee (HAN/PAN)                                          | Power, Network (LAN/WAN), ZigBee (HAN/PAN), Cellular signal strength |
| SECURITY                                                 | SSL tunnels                                                                         | SSL tunnels, Cellular network security                               |
| ZIGBEE                                                   | XBee® ZB SMT transmit power 6.3 mW (+8 dBm); Receiver sensitivity (1% PER) -102 dBm |                                                                      |
| DIMENSIONS (L X W X H)                                   | 3 in x 3 in x 1 in (7.62 cm x 7.62 cm x 2.54 cm)                                    | 3 in x 4 in x 1 in (7.62 cm x 10.16 cm x 2.54 cm)                    |
| WEIGHT                                                   | 0.15 lb (0.07 kg)                                                                   | 0.37 lb (0.082 kg)                                                   |
| DEVELOPMENT                                              |                                                                                     |                                                                      |
| ZIGBEE PUBLIC APPLICATION PROFILE                        | Smart Energy 1.1 (Backwards compatible to 1.0)                                      |                                                                      |
| PYTHON VERSION                                           | 2.7.1                                                                               |                                                                      |
| PROCESSOR AND MEMORY (VARIES BY FIRMWARE AND OS VERSION) | Freescale i.MX28, 20 MB RAM, 10 MB file space                                       |                                                                      |
| ETHERNET                                                 |                                                                                     |                                                                      |
| PORTS                                                    | 1 RJ-45 port                                                                        |                                                                      |
| PHYSICAL LAYER                                           | 10/100Base-T                                                                        |                                                                      |
| DATA RATE                                                | 10/100 Mbps (auto-sensing)                                                          | N/A                                                                  |
| MODE                                                     | Full or half duplex (auto-sensing)                                                  | N/A                                                                  |
| ROUTING                                                  | Ethernet port designed for WAN backhaul only                                        | Ethernet port designed for configuration only                        |
| WI-FI                                                    |                                                                                     |                                                                      |
| 802.11                                                   | b/g/n                                                                               | N/A                                                                  |
| DATA RATE                                                | Up to 72.2 Mbps                                                                     | N/A                                                                  |
| TRANSMIT POWER                                           | 18 dBm typical (varies by mode and channel)                                         | N/A                                                                  |
| RECEIVER SENSITIVITY                                     | Up to -87 dBm @ 11 Mbps                                                             | N/A                                                                  |
| MODES                                                    | AP Client Modes only; Access Point Mode not supported                               | N/A                                                                  |
| POWER REQUIREMENTS                                       |                                                                                     |                                                                      |
| POWER SUPPLY                                             | 5 VDC power supply with barrel connector included                                   |                                                                      |
| POWER CONSUMPTION                                        | Typical: 1.2 W, Max: 2.5 W                                                          | Typical: 3.5 W, Max: 15 W                                            |
| ENVIRONMENTAL                                            |                                                                                     |                                                                      |
| OPERATING TEMPERATURE                                    | 0° C to 40° C (32° F to 104° F)                                                     |                                                                      |
| RELATIVE HUMIDITY                                        | 5% to 95% (non-condensing)                                                          |                                                                      |
| ETHERNET ISOLATION                                       | 500 VAC min per IEEE802.3/ANSI X3.263                                               |                                                                      |
| REGULATORY APPROVALS                                     |                                                                                     |                                                                      |
| MOBILE CERTIFICATIONS (GSM)                              | N/A                                                                                 | AT&T                                                                 |
| MOBILE CERTIFICATIONS (CDMA)                             | N/A                                                                                 | Verizon / Sprint                                                     |
| SAFETY                                                   | EN60950                                                                             |                                                                      |
| EMISSIONS/IMMUNITY                                       | CE, FCC Part 15 (Class B), IC, ETSI                                                 |                                                                      |

| PART NUMBERS | DESCRIPTION                                                               |
|--------------|---------------------------------------------------------------------------|
| X2K-Z1C-W1-A | Digi Smart Energy Developer Kit                                           |
| X2E-Z1C-E1-A | ConnectPort X2e, ZigBee SE Coordinator, Ethernet                          |
| X2E-Z1C-E1-W | ConnectPort X2e, ZigBee SE Coordinator, Ethernet (International)          |
| X2E-Z1R-E1-A | ConnectPort X2e, ZigBee SE Router, Ethernet                               |
| X2E-Z1R-E1-W | ConnectPort X2e, ZigBee SE Router, Ethernet (International)               |
| X2E-Z1C-W1-A | ConnectPort X2e ZigBee SE Coordinator, Ethernet and Wi-Fi                 |
| X2E-Z1C-W1-W | ConnectPort X2e ZigBee SE Coordinator, Ethernet and Wi-Fi (International) |
| X2E-Z1R-W1-A | ConnectPort X2e ZigBee SE Router, Ethernet and Wi-Fi                      |
| X2E-Z1R-W1-W | ConnectPort X2e ZigBee SE Router, Ethernet and Wi-Fi (International)      |
| X2E-Z1C-H1-A | ConnectPort X2e ZigBee SE Coordinator 3G GSM                              |
| X2E-Z1R-H1-A | ConnectPort X2e ZigBee SE Router 3G GSM                                   |
| X2E-Z1R-D2-A | ConnectPort X2e ZigBee SE Router CDMA EVDO (Verizon)                      |
| X2E-Z1C-D1-A | ConnectPort X2e SE Coordinator EVDO (Sprint)                              |
| X2E-Z1R-D1-A | ConnectPort X2e SE Router EVDO (Sprint)                                   |
| X2E-Z1C-D2-A | ConnectPort X2e ZigBee SE Coordinator CDMA EVDO (Verizon)                 |

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

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