

# ConnectPort® X4 Family

Customizable Commercial-Grade 3G/4G Routing Gateways

Remote M2M device networking gateways designed for commercial grade and rugged outdoor applications.



## Overview

ConnectPort X4 customizable 2G/3G/4G Gobi cellular/WiMAX M2M routing gateways offer a variety of LAN/WAN interface options for end-to-end networking of remote devices. The gateways include comprehensive IP protocols and IPSec VPN support for high-end routing and security. The easy iDigi® Dia/Python development environment enables custom applications to run locally while interfacing across cellular/WiMAX networks for WAN connectivity to a centralized server.

ConnectPort X4 gateways feature a compact commercial grade enclosure or an optional outdoors IP66/NEMA 4X enclosure with Class 1, Division 2 rating for more rugged applications. Interface options include Ethernet, serial and ZigBee/Rf for flexible connectivity to virtually any remote device.

All ConnectPort X gateways feature an end-to-end development environment using comprehensive Digi ESP™ IDE and iDigi Dia/Python programming languages. iDigi hosted services add secure, scalable cloud based management and web services integration for a complete remote asset platform.

### Related Products and Services



iDigi Solutions



Dev Kits



Adapters



Network Extenders

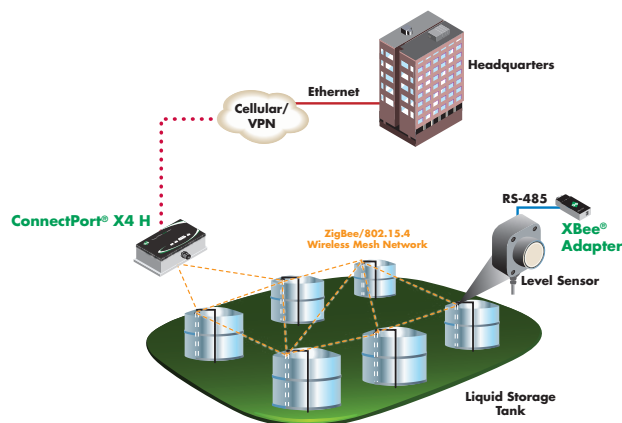


Sensors



Digi ESP

### Application Highlight



### Features/Benefits

- WAN connectivity via 2G/3G/4G Gobi GSM/CDMA/WiMAX networks
- Flexible interfaces: ZigBee/802.15.4, software selectable RS-232/422/485 serial and USB with optional Wi-Fi and 2 AIO/2 DIO
- Small commercial grade enclosure or NEMA 4X/IP66 case with Class 1, Division 2 certifications
- Full routing/IP filtering plus IPSec/SSL VPNs with DES, 3DES or AES encryption
- Easy development environment via iDigi Dia and Python scripting as part of Digi ESP IDE
- Support for Modbus/Modbus TCP
- iDigi® Device Cloud™ support for secure, scalable access to an unlimited number of remote assets



[www.digi.com](http://www.digi.com)

| Specifications                    | ConnectPort® X4   | ConnectPort® X4 IA   | ConnectPort® X4 H   |
|-----------------------------------|---|--|---|
| Features                          |   |  |   |
| Enclosure                         | Commercial grade metal enclosure  | Commercial grade metal enclosure;<br>DIN rail bracket included   | NEMA 4X/IP66 rated enclosure  |
| Network Protocols                 | UDP/TCP, DHCP, SNMPv1, SNMPv1/v2  |  |   |
| LEDs                              | Ethernet status, Power, Cellular link/activity, Signal strength (4 bars), ZigBee link/activity, Wi-Fi link/activity   |  | Ethernet status, Power, Cellular link/activity, Signal strength (5 bars), ZigBee link/activity  |
| Security                          | SSL tunnels, SSHv2, FIPS 197 (IPsec, HTTPS)   |  |   |
| Real-Time Clock                   | Yes   |  |   |
| Routing Features                  | NAT, Port forwarding, Access control lists (IP filtering)   |  |   |
| VPN                               | IPsec with IKE/ISAKMP; Multiple tunnel support; DES, 3DES and up to 256-bit AES encryption; VPN pass-through, GRE forwarding  |  |   |
| Management                        | HTTP/HTTPS web interface, Password access control, IP service port control, Optional secure enterprise management via iDigi®  |  |   |
| Memory                            | 16 MB Flash, 32 MB RAM  |  |   |
| Industrial Protocol Support       | Modbus bridge enables Modbus serial to Modbus/TCP conversion; Integrated Python code allows gateway to act as Modbus client/master or Modbus server/slave; Functions like an Ethernet to serial bridge, but uses ZigBee to transport serial data; Handles unique timing issues per Modbus protocol rules<br>Uses Modbus Unit ID to look up IP or mesh MAC address |  |   |
| Antenna Types                     | XBee®: 4” dipole (Ethernet models), 4” dipole with 2’ cable, tabletop mountable (Edge models);<br>Wi-Fi (optional): 4” dipole with 2’ cable SMA female, tabletop mountable; Cellular (optional):<br>7” dipole SMA male  |  | ZigBee/802.15.4 SMA female antenna, magnetic mount; Cellular: 2” dual band dipole SMA male  |
| Antenna Connector Type            | Wi-Fi: 1 x SMA male; XBee 1 x SMA male; Cellular: 1 or 2 x SMA, female  |  | XBee: 1 x SMA, male; Cellular: 1 x SMA, female  |
| Dimensions (L x W x H) and Weight | 5.25 in x 3.35 in x 1.00 in (13.33 cm x 8.50 cm x 2.54 cm) 0.44 lb (0.20 kg)  |  | 7.60 in x 5.63 in x 2.72 in<br>(193 mm x 143 mm x 69 mm) 3.10 lb (1.41 kg)  |
| Power Requirements                |   |  |   |
| Power Input Rating                | 6-30 VDC  |  | 100-240 VAC   |
| Power Consumption                 | Idle: 1.5 W, Max: 10.4 W  |  | Approx. 15 W  |
| Surge Protection                  | 4 kV burst (EFT) per-4-4, 2 kV surge per EN61000-4  |  | 2 kV burst (EFT) (with included power supply)   |
| External Power Supply             | 12 VDC power supply for 0° C to 60° C (32° F to 140° F) with locking barrel connector included; Extended temperature power supply available separately  | Compression Terminal; No external AC power supply included   | Internal AC power supply  |
| Interfaces                        |   |  |   |
| Serial                            | 1 RS-232 DB-9M serial port; Throughput up to 230 Kbps; Full signal support for TXD, RXD, RTS, CTS, DTR, DSR and DCD;<br>Hardware and software flow control  | 1 DB-9M serial port, software selectable RS-232/485; Throughput up to 230 Kbps; Full signal support for TXD, RXD, RTS, CTS, DTR, DSR and DCD; Hardware and software flow control | Software-selectable RS-232/485, screw terminal block connection; Throughput up to 230 Kbps; Full signal support for TXD, RXD, RTS, CTS, DTR, DSR and DCD;<br>Hardware and software flow control |
| USB                               | 1 powered USB Type A connector (Host)   |  |   |
| I/O                               | N/A   |  | 2 analog and 2 digital ports to connect sensors or other devices  |
| Ethernet                          | 1 RJ-45 port; Standard: IEEE 802.3; Physical Layer: 10/100Base-T; Data rate: 10/100 Mbps (auto-sensing); Mode: full or half duplex (auto-sensing)   |  |   |
| RF                                | Available in ZigBee (2.4 GHz), DigiMesh® (2.4 GHz or 900 MHz), 802.15.4, 900, 868   |  |   |
| Cellular                          | GSM: Edge 850/900/1800/1900 MHz<br>CDMA: 1XRTT 800/1900 MHz<br>3G/4G GSM: HSPA+ 850/900/1900/2100 MHz with Rx Diversity<br>3G/4G GSM/3G CDMA: HSPA+/EV-DO 800/850/900/1700 (AWS)/1900/2100 MHz Gobi with Rx Diversity   |  |   |

| Specifications                     | ConnectPort® X4  | ConnectPort® X4 IA | ConnectPort® X4 H              |
|------------------------------------|--|--------------------|--------------------------------|
| Interfaces (Continued)             |  |                    |                                |
| WiMAX                              | WiMAX (802.16e-2005); 2.3-2.7 GHz (WF3A Profile); Wave2; S-OFDMA; MIMO; QPSK, 16 QAM, 64 QAM; 5/10 MHz bandwidth UL/DL |                    | N/A                            |
| Wi-Fi                              | Modes: Ad-hoc & AP Client Modes; Access Point Mode not supported   |                    | N/A                            |
| Environmental                      |  |                    |                                |
| Operating Temperature              | -30° C to +75° C (-13° F to 167° F)<br>Reduced cellular performance may occur above 65° C (depending on module)        |                    |                                |
| Relative Humidity                  | 5% to 95% (non-condensing)   |                    | N/A (enclosure is water-tight) |
| Ethernet Isolation                 | 1500VAC min per IEEE 802.3/ANSI X3.263   |                    |                                |
| Serial Port Protection (ESD)       | +15 kV Air Gap and +8 kV contact discharge per IEC 1000-4-2  |                    |                                |
| Regulatory Approvals               |  |                    |                                |
| Safety                             | UL 60950, CSA 22.2 No. 60950, EN60950; Class 1 Div 2 (IA model only)   |                    |                                |
| Emissions/Immunity                 | CE, FCC Part 15 (Class A), AS/NZS CISPR 22, EN55024, EN55022, Class A  |                    |                                |
| Mobile Certifications (GSM/UMTS)   | PTCRB, NAPRD.03, GCF-CC, R&TTE, EN 301 511   |                    |                                |
| Mobile Certifications (CDMA/EV-DO) | CDG, TIA/EIA-690, TIA/EIA-98-E   |                    |                                |

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