

ConnectPort® X4 Family

Customizable Commercial-Grade 3G/4G Routing Gateways

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



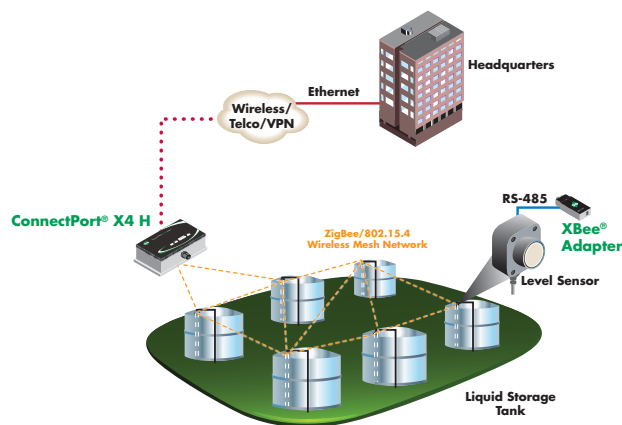
Overview

ConnectPort X4 customizable 2G/3G/4G 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.

Application Highlight



Features/Benefits

- WAN connectivity via 2G/GOBI 3G/4G GSM/CDMA 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

Related Products and Services



iDigi Solutions



Dev Kits



Adapters



Network Extenders



Sensors



Digi ESP



Specifications

ConnectPort® X4

ConnectPort® X4 IA

ConnectPort® X4 H

| Features | | | |
|-----------------------------------|---|--|--|
| Enclosure | Commercial grade metal enclosure | Commercial grade metal enclosure; 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 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 (GPRS models); Wi-Fi (optional): 4" dipole with 2' cable SMA female, tabletop mountable; Cellular (optional): 7" dipole SMA male | | ZigBee/802.15.4 SMA female antenna, Cellular: 2" dual band dipole SMA male, magnetic mount |
| Antenna Connector Type | Wi-Fi: 1 x SMA; XBee 1 x SMA; 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 (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. 15W |
| 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; 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; 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 | XBee-PRO® module, 2.4 GHz, (ZigBee; 802.15.4) | | |
| Cellular | EV-DO/1xRTT or HSPA/EDGE/GPRS PCI Express modules (1) | | |

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 +70° C (-22° F to +158° F) | -30° C to +70° C (-22° F to +158° F) with selected PCIe 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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