# DIGI CONNECTPORT X4 FAMILY

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

Digi ConnectPort® X4 customizable cellular M2M 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 DIA/Python development environment enables custom applications to run locally while interfacing across cellular 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. Interface options include Ethernet, serial and

Zigbee/RF for flexible connectivity to virtually any remote device.

All Digi ConnectPort X4 gateways feature an end-to-end development environment using comprehensive Digi ESP™ IDE and DIA/Python programming languages. Gain critical insights into your deployed devices and manage your network with **Digi Remote Manager®**. Digi Remote Manager (Digi RM) is a cloud-based solution that facilitates easy setup, mass configuration, maintenance and support for hundreds or even thousands of remote Digi devices.
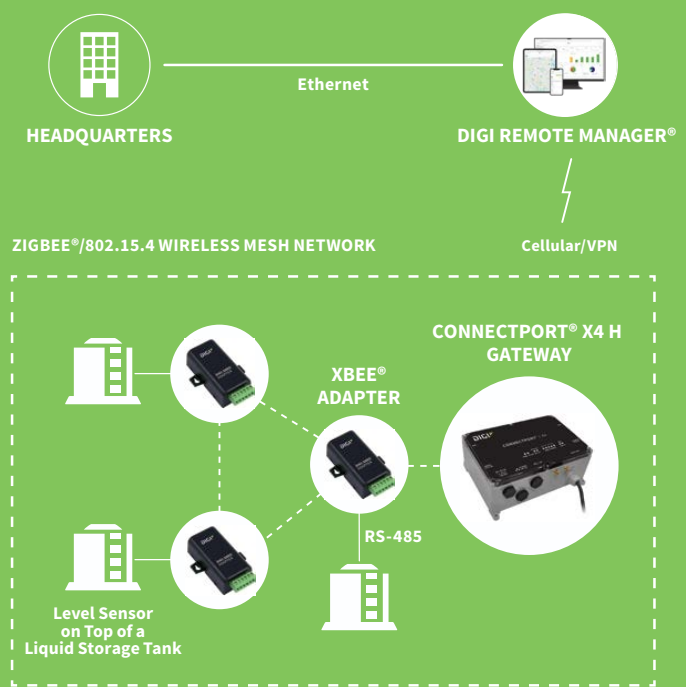
### FEATURES AND BENEFITS

– WAN connectivity via LTE or 3G HSPA+ networks
– Local wireless connectivity through Zigbee
– Local wired connectivity through RS-232/422/485, 2 analog inputs and 2 digital inputs
– Small commercial-grade enclosure or NEMA 4X/IP66 case
– Full routing/IP filtering plus IPsec/SSL VPNs with DES, 3DES or AES encryption
– Easy development environment via DIA and Python scripting as part of Digi ESP IDE
– Support for Modbus/Modbus TCP
– **Digi Remote Manager®** platform for easy setup, mass configuration and management

### APPLICATION EXAMPLE



HEADQUARTERS

Ethernet

DIGI REMOTE MANAGER®

ZIGBEE®/802.15.4 WIRELESS MESH NETWORK

Cellular/VPN

CONNECTPORT® X4 H GATEWAY

XBEE® ADAPTER

RS-485

Level Sensor on Top of a Liquid Storage Tank

### RELATED PRODUCTS



Digi WR21

Digi WR31

Digi Connect® Sensor

Digi Connect® Tank

Digi Remote Manager®

| SPECIFICATIONS | DIGI CONNECTPORT® X4 | DIGI CONNECTPORT® X4 H |
|---|---|---|
| **WIRELESS INTERFACES** | | |
| **WWAN**** | | |
| LTE CAT 1 | N/A | Verizon: bands 2,4,14<br>AT&T & T-Mobile: bands 2,4,5 with 3G/2G fallback |
| HSPA+ (U9) | 850/900/1700 (AWS)/1900/2100 MHz; Transfer rate (max): 5.76 Mbps up, 21 Mbps down | |
| CONNECTOR | 1 or 2 x SMA (center pin - on device: female; on antenna: male) | 1 or 2 x SMA (center pin - on device: female; on antenna: male) |
| SIM SLOTS | 2 | 1 |
| SIM SECURITY | SIM slot cover plate | Internal SIM slot |
| **RF** | | |
| STANDARD | Zigbee® (2.4 GHz) | |
| CONNECTOR | 1 x RP-SMA (center pin - on device: male; on antenna: female) | |
| **WIRED INTERFACES** | | |
| **SERIAL** | | |
| PORTS | 1 | |
| STANDARD | RS-232 | RS-232/422/485 (software selectable) |
| DTE/DCE | DTE | |
| SIGNAL SUPPORT | TXD, RXD, RTS, CTS, DTR, DSR and DCD | |
| FLOW CONTROL | Hardware and software flow control | |
| COM PORT REDIRECTOR | RealPort® | |
| THROUGHPUT | Up to 230 Kbps | |
| CONNECTOR | DB-9 Male | Screw-down terminal block |
| **ETHERNET** | | |
| PORTS | 1 | |
| STANDARD | IEEE 802.3 | |
| PHYSICAL LAYER | 10/100 Base-T | |
| DATA RATE | 10/100 Mbps (auto-sensing) | |
| MODE | Full or half duplex (auto-sensing) | |
| INTERFACE | Auto MDI/MDIX | |
| CONNECTOR | RJ-45 | |
| **I/O** | | |
| PORTS | N/A | 2 analog and 2 digital |
| CONNECTOR | N/A | Screw-down terminal block |
| **USB** | | |
| PORTS | 1 | |
| STANDARD | USB 1.1 | |
| SIGNALING | Full-speed | |
| CONNECTOR | Type A | |
| **SOFTWARE/MANAGEMENT** | | |
| REMOTE MANAGEMENT | Digi Remote Manager® | |
| LOCAL MANAGEMENT | Web Interface via HTTP/HTTPS, password access control, IP service port control; CLI via serial port, Telnet, Python scripting (2.4.3); Digi SureLink® "always-on" connection | |
| SECURITY | SSL tunnels, SSHv2, FIPS 197 (IPsec, HTTPS) | |

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| SPECIFICATIONS | DIGI CONNECTPORT® X4 | | DIGI CONNECTPORT® X4 H |
|---|---|---|---|
| **SOFTWARE/MANAGEMENT (CONTINUED)** | | | |
| NETWORK PROTOCOLS | UDP/TCP, DHCP, SNMPv1/v2 | | |
| VPN | IPsec with IKE/ISAKMP; multiple tunnel support; DES, 3DES and up to 256-bit AES encryption; VPN pass-through, GRE forwarding; Simple Certificate Enrollment Protocol (SCEP) for X.509 certificate | | |
| ROUTING | NAT, NAT-T (NAT traversal) VPN tunneling, port forwarding, VPN/GRE pass-through; access control lists (IP filtering), IP pass-through, Virtual Router Redundancy Protocol (VRRP) per RFC 3768 | | |
| 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 Digi XBee® to transport serial data; handles unique timing issues per Modbus protocol rules; uses Modbus Unit ID to look up IP or mesh MAC address | | |
| REAL-TIME CLOCK | Yes | | |
| MEMORY | 16 MB Flash, 32 MB RAM | | |
| **POWER** | | | |
| INPUT | 6-30 VDC | | 100-240 VAC |
| CONSUMPTION | Idle: 1.5 W, Max: 10.4 W | | Approx. 15 W |
| PROTECTION | 4 kV burst (EFT) per-4-4, 2 kV surge per EN61000-4 | | 2 kV burst (EFT) (with included power supply) |
| CONNECTOR | Locking barrel | | Pigtail AC power cord |
| DC POWER CORD* | Available upon request | | N/A |
| AC POWER SUPPLY* | 12 VDC power supply for 0° C to 40° C (32° F to 104° F) included; extended temperature power supply available separately | | Internal |
| BATTERY BACKUP | N/A | | |
| **PHYSICAL** | | | |
| DIMENSIONS (L X W X H) | 13.33 cm x 8.50 cm x 2.54 cm (5.25 in x 3.35 in x 1.00 in) | | 240 mm x 160 mm x 95 mm (9.50 in x 6.25 in x 3.75 in) |
| WEIGHT | 0.20 kg (0.44 lb) | | 1.41 kg (3.10 lb) |
| STATUS LEDS | Ethernet status, power, cellular link/activity, signal strength (4 bars), Digi XBee link/activity | | Ethernet status, power, cellular link/activity, signal strength (5 bars), Digi XBee link/activity |
| ENCLOSURE MATERIAL | Industrial (metal) | | NEMA 4X |
| ENCLOSURE RATING | N/A | | IP66 |
| MOUNTING | Wall-mount bracket sold separately | | 4x mounting feet on the unit's flange |
| **ENVIRONMENTAL** | | | |
| OPERATING TEMPERATURE *** | -30° C to 75° C (-22° F to 167° F) | | |
| STORAGE TEMPERATURE | -40° C to 85° C (-40° F to 185° F) | | |
| RELATIVE HUMIDITY | 5% to 95% (non-condensing) | | N/A (enclosure is water-tight) |
| ETHERNET ISOLATION | 1500 VAC 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 | | |
| HAZARDOUS (CLASS 1 DIV 2) | No | | No |
| **APPROVALS** | | | |
| GSM/UMTS | PTCRB, NAPRD.03, GCF-CC, R&TTE, EN 301 511 | | |
| CELLULAR CARRIERS | Certified by most major carriers; visit www.digi.com/resources/certifications for latest cellular certifications | | |
| SAFETY | UL 60950, CSA 22.2 No. 60950, EN62368; Class 1 Div 2 (IA model only) | | |
| EMISSIONS/IMMUNITY | CE, FCC Part 15 (Class A), AS/NZS CISPR 22, EN55024, EN55032, Class A | | |
| **WARRANTY** | | | |
| PRODUCT WARRANTY | 3-year | | |

*Optional hardware
**Transfer rates are network operator dependent
***Reduced cellular performance may occur above 60° C (140° F). Standard temperature power supplies may reduce temperature range.

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# DIGI REMOTE MANAGER®



Digi Remote Manager is the technology platform that brings networks to the next level, allowing networks — and the people who manage them — to work smarter. With Digi Remote Manager you can transform a multitude of dispersed IoT devices into a dynamic, intelligent network. Now you can easily deploy, monitor and diagnose thousands of mission-critical devices from a single point of command — on your desktop, tablet or phone. All the while, its software-defined security diligently safeguards your entire Digi ecosystem.

Learn more at www.digi.com/digi-remote-manager

## CAPABILITIES

– Activate, monitor and diagnose your mission-critical devices from a single point of command and control — on your desktop or mobile app

– Schedule key operations — including firmware updates and file management — on a single device or on a group of devices, keeping your network functionality up-to-date and maintaining compliance standards

– Manage edge devices out-of-band via console terminal access

– Keep tabs on device health and connectvity across device deployments of any size

– Create detailed reports and enable real-time alerts for specified conditions

– Integrate device data through open APIs to gain deeper insights and control with third-party applications

– Report and alert on performance statistics, including connection history, signal quality, latency, data usage and packet loss

## INFRASTRUCTURE

– Hosted in a commercial-grade cloud server environment that meets SOC 1®, SOC 2® and SOC 3® standards

– Superior availability, operating to 99.9% or greater

– Open APIs available to support application development

## SECURITY

– More than 175 security controls in place to protect your data

– Member of the Center for Internet Security® (CIS®)

– Enables compliance with security frameworks like ISO27002, HIPAA, NIST and more

– Earned Skyhigh's CloudTrust™ Program highest rating of Enterprise-Ready

| PART NUMBERS | DESCRIPTION |
|---|---|
| **ConnectPort X4 H - Zigbee** | |
| **X4H-Z1U-L301-US** | ConnectPort X4 H -Digi XBee Zigbee to Ethernet & cellular (LTE) |
| **ConnectPort X4 - Zigbee** | |
| **X4-Z11-E-A** | ConnectPort X4 - Digi XBee Zigbee to Ethernet |
| **X4-Z11-E-W** | ConnectPort X4 - Digi XBee Zigbee to Ethernet (International) |
| **X4-Z1J-U901-W** | ConnectPort X4 - Digi XBee Zigbee to Ethernet & cellular (HSPA+) (International) |
| **X4-Z1U-U901-A** | ConnectPort X4 - Digi XBee Zigbee to Ethernet & cellular (HSPA+) |

| PART NUMBERS | DIGI REMOTE MANAGER® |
|---|---|
| **DIGI-RM-STD-1YR** | Digi Remote Manager Standard - 1-year subscription |
| **DIGI-RM-PRM-1YR** | Digi Remote Manager Premier - 1-year subscription |
| **DIGI-RM-PRM-3YR** | Digi Remote Manager Premier - 3-year subscription |
| **DIGI-RM-PRM-5YR** | Digi Remote Manager Premier - 5-year subscription |

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