



CUSTOMIZABLE  
COMMERCIAL-GRADE  
2G/3G ROUTING  
GATEWAYS



# CONNECTPORT® X4 FAMILY

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

ConnectPort X4 customizable 2G/3G cellular 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 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 with Class 1, Division 2 rating for more rugged applications.

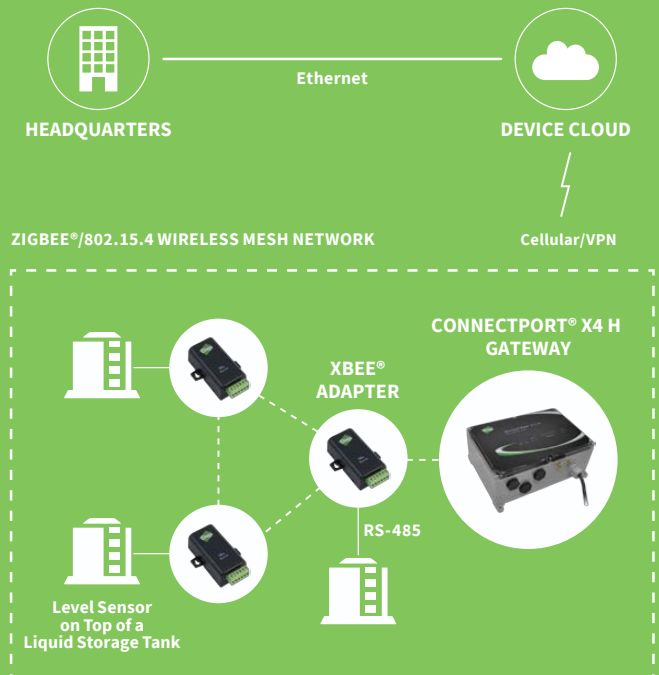
Interface options include Ethernet, serial and ZigBee/RF for flexible connectivity to virtually any remote device.

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

## BENEFITS

- WAN connectivity via 2G/3G GSM/CDMA networks
- Flexible interfaces: ZigBee/802.15.4, software selectable RS-232/422/485 serial and USB 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 DIA and Python scripting as part of Digi ESP IDE
- Support for Modbus/Modbus TCP
- Digi Device Cloud support for secure, scalable access to an unlimited number of remote assets

## APPLICATION EXAMPLE



## RELATED PRODUCTS



ConnectPort® X2



XBee® ZigBee Gateway



Digi Connect® WAN



Digi TransPort® WR11



Digi TransPort® WR21

## SPECIFICATIONS

ConnectPort® X4

| ConnectPort® X4 IA

| ConnectPort® X4 H

## WIRELESS INTERFACES

## WWAN\*\*

<b>HSPA+ (U9)</b>	850/900/1700 (AWS)/1900/2100 MHz; Transfer rate (max): 5.76 Mbps up, 21 Mbps down	
<b>EDGE (E1)</b>	GPRS/EDGE Class 10; 850/900/1800/1900 MHz; Transfer rate (max): 236 Kbps up/down	
<b>CDMA 1XRTT (BX)</b>	800/1900 MHz; Transfer rate (max): 153 Kbps up/down	
<b>CONNECTOR</b>	1 or 2 x SMA (Center pin - on device: female; on antenna: male)	1 x SMA (Center pin - on device: female; on antenna: male)
<b>SIM SLOTS</b>	2 or 0 (CDMA variants)	1
<b>SIM SECURITY</b>	SIM slot cover plate	Internal SIM slot

## RF

<b>STANDARD</b>	ZigBee (2.4 GHz), DigiMesh® (2.4 GHz or 900 MHz), XBee-PRO® 900HP, 802.15.4 or 868
<b>CONNECTOR</b>	1 x RP-SMA (Center pin - on device: male; on antenna: female)

## OTHER

<b>SATELLITE</b>	N/A
<b>GPS</b>	N/A
<b>WI-FI</b>	N/A

## WIRED INTERFACES

## SERIAL

<b>PORTS</b>	1	
<b>STANDARD</b>	RS-232	RS-232/422/485 (Software selectable)
<b>DTE/DCE</b>	DTE	
<b>SIGNAL SUPPORT</b>	TXD, RXD, RTS, CTS, DTR, DSR and DCD	
<b>FLOW CONTROL</b>	Hardware and software flow control	
<b>COM PORT REDIRECTOR</b>	RealPort®	
<b>THROUGHPUT</b>	Up to 230 Kbps	
<b>CONNECTOR</b>	DB-9 Male	Screw-down terminal block

## ETHERNET

<b>PORTS</b>	1	
<b>STANDARD</b>	IEEE 802.3	
<b>PHYSICAL LAYER</b>	10/100Base-T	
<b>DATA RATE</b>	10/100 Mbps (auto-sensing)	
<b>MODE</b>	Full or Half duplex (auto-sensing)	
<b>INTERFACE</b>	Auto MDI/MDIX	
<b>CONNECTOR</b>	RJ-45	

## I/O

<b>PORTS</b>	N/A	2 analog and 2 digital
<b>CONNECTOR</b>	N/A	Screw-down terminal block

## USB

<b>PORTS</b>	1	
<b>STANDARD</b>	USB 1.1	
<b>SIGNALING</b>	Full-speed	
<b>CONNECTOR</b>	Type A	

## OTHER

<b>SENSOR</b>	N/A	1 sensor port for use with Watchport® sensors	N/A
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## SOFTWARE/MANAGEMENT

<b>MANAGEMENT (CLOUD-BASED)</b>	Digi Device Cloud <sup>SM</sup>		
<b>MANAGEMENT (LOCAL)</b>	Web Interface via HTTP/HTTPS, Password access control, IP service port control; CLI via serial port, Telnet, Python scripting; Digi SureLink™ "always-on" connection		
<b>SECURITY</b>	SSL tunnels, SSHv2, FIPS 197 (IPsec, HTTPS)		

## SPECIFICATIONS

ConnectPort® X4

| ConnectPort® X4 IA

| ConnectPort® X4 H

## SOFTWARE/MANAGEMENT (CONTINUED)

<b>NETWORK PROTOCOLS</b>	UDP/TCP, DHCP, SNMPv1/v2		
<b>VPN</b>	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		
<b>ROUTING</b>	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		
<b>INDUSTRIAL PROTOCOL SUPPORT</b>	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 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.		
<b>REAL-TIME CLOCK</b>	Yes		
<b>MEMORY</b>	16 MB Flash, 32 MB RAM		
<b>POWER</b>			
<b>INPUT</b>	6-30 VDC		100-240 VAC
<b>CONSUMPTION</b>	Idle: 1.5 W, Max: 10.4 W		Approx. 15 W
<b>PROTECTION</b>	4 kV burst (EFT) per-4-4, 2 kV surge per EN61000-4		2 kV burst (EFT) (with included power supply)
<b>CONNECTOR</b>	Locking barrel	Compression terminal block	Pigtail AC power cord
<b>DC POWER CORD*</b>	Available upon request	N/A	N/A
<b>AC POWER SUPPLY*</b>	12 VDC power supply for 0° C to 40° C (32° F to 104° F) included; Extended temperature power supply available separately	N/A	Internal
<b>BATTERY BACKUP</b>	N/A		
<b>PHYSICAL</b>			
<b>DIMENSIONS (L X W X H)</b>	5.25 in x 3.35 in x 1.00 in (13.33 cm x 8.50 cm x 2.54 cm)		9.50 in x 6.25 in x 3.75 in (240 mm x 160 mm x 95 mm)
<b>WEIGHT</b>	0.44 lb (0.20 kg)		3.10 lb (1.41 kg)
<b>STATUS LEDS</b>	Ethernet status, Power, Cellular link/activity, Signal strength (4 bars), XBee link/activity		Ethernet status, Power, Cellular link/activity, Signal strength (5 bars), XBee® link/activity
<b>ENCLOSURE MATERIAL</b>	Industrial (metal)		NEMA 4X
<b>ENCLOSURE RATING</b>	N/A		IP66
<b>MOUNTING</b>	Wall-mount bracket sold separately	DIN rail bracket included	4x mounting feet on the unit's flange
<b>ENVIRONMENTAL</b>			
<b>OPERATING TEMPERATURE ***</b>	-30° C to +75° C (-22 F to +167 F)		
<b>STORAGE TEMPERATURE</b>	-40 to +85C		
<b>RELATIVE HUMIDITY</b>	5% to 95% (non-condensing)		N/A (enclosure is water-tight)
<b>ETHERNET ISOLATION</b>	1500 VAC min per IEEE 802.3/ANSI X3.263		
<b>SERIAL PORT PROTECTION (ESD)</b>	+15 kV Air Gap and +8 kV contact discharge per IEC 1000-4-2		
<b>HAZARDOUS (CLASS 1 DIV 2)</b>	No	Yes	No
<b>CONFORMAL COATING</b>	N/A		
<b>APPROVALS</b>			
<b>GSM/UMTS</b>	PTCRB, NAPRD.03, GCF-CC, R&TTE, EN 301 511		
<b>CDMA/EV-DO</b>	CDG, TIA/EIA-690, TIA/EIA-98-E		
<b>CELLULAR CARRIERS</b>	Certified by most major carriers. See <a href="http://www.digi.com">www.digi.com</a> for current listing.		
<b>SAFETY</b>	UL 60950, CSA 22.2 No. 60950, EN60950; Class 1 Div 2 (IA model only)		
<b>EMISSIONS/IMMUNITY</b>	CE, FCC Part 15 (Class A), AS/NZS CISPR 22, EN55024, EN55022, Class A		
<b>WARRANTY</b>			
<b>PRODUCT WARRANTY</b>	5 years		

\* Optional hardware

\*\* Transfer rates are network operator dependent

\*\*\* Reduced cellular performance may occur above +60° C. Standard Temperature power supplies may reduce temperature range.

PART NUMBERS	DESCRIPTION
X4H-Z1U-B101-US	ConnectPort X4 H - XBee ZigBee S2B to Ethernet & Cellular (1xRTT Sprint)
X4H-Z1U-B201-US	ConnectPort X4 H - XBee ZigBee S2B to Ethernet & Cellular (1xRTT Verizon)
X4H-Z1U-U901-US	ConnectPort X4 H - XBee ZigBee S2B to Ethernet & Cellular (HSPA+)
X4-Z11-A01H-EU	ConnectPort X4 H - XBee ZigBee to Ethernet & Cellular (Edge), EU power cord (International)
X4-Z11-A01H-UK	ConnectPort X4 H - XBee ZigBee to Ethernet & Cellular (Edge), UK power cord (International)
X4-Z11-A01H-US	ConnectPort X4 H - XBee ZigBee to Ethernet & Cellular (Edge), US power cord
X4H-HMU-U901-US	ConnectPort X4 H - XBee (XBee-PRO 900HP) to Ethernet & Cellular (HSPA+)
X4-Z11-A01-A	ConnectPort X4 - XBee ZigBee to Ethernet & Cellular (Edge)
X4-Z11-A01-W	ConnectPort X4 - XBee ZigBee to Ethernet & Cellular (Edge) (International)
X4-Z11-E-A	ConnectPort X4 - XBee ZigBee to Ethernet
X4-Z11-E-W	ConnectPort X4 - XBee ZigBee to Ethernet (International)
X4-Z1J-U901-W	ConnectPort X4 - XBee ZigBee to Ethernet & Cellular (HSPA+) (International)
X4-Z1U-B101-A	ConnectPort X4 - XBee ZigBee to Ethernet & Cellular (1xRTT Sprint)
X4-Z1U-B201-A	ConnectPort X4 - XBee ZigBee to Ethernet & Cellular (1xRTT Verizon)
X4-Z1U-U901-A	ConnectPort X4 - XBee ZigBee to Ethernet & Cellular (HSPA+)
X4-M11-A01-A	ConnectPort X4 - XBee (DigiMesh 2.4 GHz) to Ethernet & Cellular (Edge)
X4-M11-A01-W	ConnectPort X4 - XBee (DigiMesh 2.4 GHz) to Ethernet & Cellular (Edge) (International)
X4-M11-B201-A	ConnectPort X4 - XBee (DigiMesh 2.4 GHz) to Ethernet & Cellular (1xRTT Verizon)
X4-M11-E-A	ConnectPort X4 - XBee (DigiMesh 2.4 GHz) to Ethernet
X4-M11-E-W	ConnectPort X4 - XBee (DigiMesh 2.4 GHz) to Ethernet (International)
X4-M11-U901-W	ConnectPort X4 - XBee (DigiMesh 2.4 GHz) to Ethernet & Cellular (HSPA+) (International)
X4-A11-A01-A	ConnectPort X4 - XBee (802.15.4) to Ethernet & Cellular (Edge)
X4-A11-A01-W	ConnectPort X4 - XBee (802.15.4) to Ethernet & Cellular (Edge) (International)
X4-A11-E-A	ConnectPort X4 - XBee (802.15.4) to Ethernet
X4-A11-E-W	ConnectPort X4 - XBee (802.15.4) to Ethernet (International)
X4-A1J-U901-W	ConnectPort X4 - XBee (802.15.4) to Ethernet & Cellular (HSPA+) (International)
X4-A1U-U901-A	ConnectPort X4 - XBee (802.15.4) to Ethernet & Cellular (HSPA+)
X4-P8J-U901-W	ConnectPort X4 - XBee (XBee 868LP) to Ethernet & Cellular (HSPA+) (International)
X4-HMU-B201-A	ConnectPort X4 - XBee (XBee-PRO 900HP) to Ethernet & Cellular (1xRTT Verizon)
X4-HMU-E-A	ConnectPort X4 - XBee (XBee-PRO 900HP) to Ethernet
X4-HMU-U901-A	ConnectPort X4 - XBee (XBee-PRO 900HP) to Ethernet & Cellular (HSPA+)
X4-Z11-P01-A	ConnectPort X4 IA - XBee ZigBee to Ethernet & Cellular (Edge)
X4-Z11-P01-W	ConnectPort X4 IA - XBee ZigBee to Ethernet & Cellular (Edge) (International)
X4-Z11-PE-A	ConnectPort X4 IA - XBee ZigBee to Ethernet
X4-Z11-PE-W	ConnectPort X4 IA - XBee ZigBee to Ethernet (International)
X4-Z1J-U905	ConnectPort X4 IA - XBee ZigBee to Ethernet & Cellular (HSPA+) (International)
X4-Z1U-B105	ConnectPort X4 IA - XBee ZigBee to Ethernet & Cellular (1xRTT Sprint)
X4-Z1U-B205	ConnectPort X4 IA - XBee ZigBee to Ethernet & Cellular (1xRTT Verizon)
X4-Z1U-U905	ConnectPort X4 IA - XBee ZigBee to Ethernet & Cellular (HSPA+)
X4-A11-P01-A	ConnectPort X4 IA - XBee (802.15.4) to Ethernet & Cellular (Edge)
X4-A11-P01-W	ConnectPort X4 IA - XBee (802.15.4) to Ethernet & Cellular (Edge) (International)
X4-A1J-U905	ConnectPort X4 IA - XBee (802.15.4) to Ethernet & Cellular (HSPA+) (International)
X4-A1U-U905	ConnectPort X4 IA - XBee (802.15.4) to Ethernet & Cellular (HSPA+)
X4-P8J-U905	ConnectPort X4 IA - XBee (XBee 868LP) to Ethernet & Cellular (HSPA+) (International)

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