



CUSTOMIZABLE
COMMERCIAL-GRADE
3G ROUTING GATEWAYS



CONNECTPORT® X4 FAMILY

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

ConnectPort X4 customizable 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.

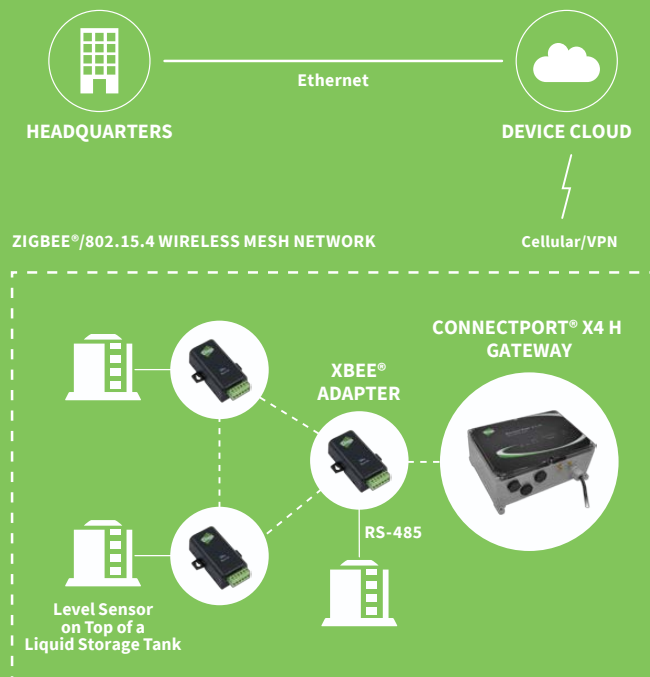
Interface options include Ethernet, serial and ZigBee/Rf for flexible connectivity to virtually any remote device.

All ConnectPort X4 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 3G HSPA+/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**

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

RF

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

OTHER

SATELLITE	N/A	
GPS	N/A	
WI-FI	N/A	

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	10/100Base-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	

OTHER

SENSOR	N/A	1 sensor port for use with Watchport® sensors	N/A
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SOFTWARE/MANAGEMENT

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

SPECIFICATIONS

ConnectPort® X4

| ConnectPort® X4 IA

| 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 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	Compression terminal block
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)	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)
WEIGHT	0.44 lb (0.20 kg)	3.10 lb (1.41 kg)
STATUS LEDS	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
ENCLOSURE MATERIAL	Industrial (metal)	NEMA 4X
ENCLOSURE RATING	N/A	IP66
MOUNTING	Wall-mount bracket sold separately	DIN rail bracket included
		4x mounting feet on the unit's flange

ENVIRONMENTAL

OPERATING TEMPERATURE ***	-30° C to +75° C (-22 F to +167 F)	
STORAGE TEMPERATURE	-40 to +85C	
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	Yes
CONFORMAL COATING	N/A	

APPROVALS

GSM/UMTS	PTCRB, NAPRD.03, GCF-CC, R&TTE, EN 301 511
CDMA/EV-DO	CDG, TIA/EIA-690, TIA/EIA-98-E
CELLULAR CARRIERS	Certified by most major carriers. See www.digi.com for current listing.
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

WARRANTY

PRODUCT WARRANTY	5 years
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* 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
ConnectPort X4 - ZigBee	
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+)
ConnectPort X4 - DIGIMESH 2.4 GHZ	
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)
ConnectPort X4 - 802.15.4	
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+)
ConnectPort X4 - 868 MHZ	
X4-P8J-U901-W	ConnectPort X4 - XBee (XBee 868LP) to Ethernet & Cellular (HSPA+) (International)
ConnectPort X4 - 900 MHZ	
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-HMA-U901-AU	ConnectPort X4 - XBee (XBee-PRO 900HP) to Ethernet & Cellular (HSPA+) (Australia)
ConnectPort X4 H - ZigBee	
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+)
ConnectPort X4 H - 900 MHZ	
X4H-HMU-U901-US	ConnectPort X4 H - XBee (XBee-PRO 900HP) to Ethernet & Cellular (HSPA+)
ConnectPort X4 IA - ZigBee	
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+)
ConnectPort X4 IA - 802.15.4	
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+)
ConnectPort X4 IA - 868 MHZ	
X4-P8J-U905	ConnectPort X4 IA - XBee (XBee 868LP) to Ethernet & Cellular (HSPA+) (International)

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