ConnectPort® X4 Family

Customizable Commercial-Grade 3G/4G Routing Gateways

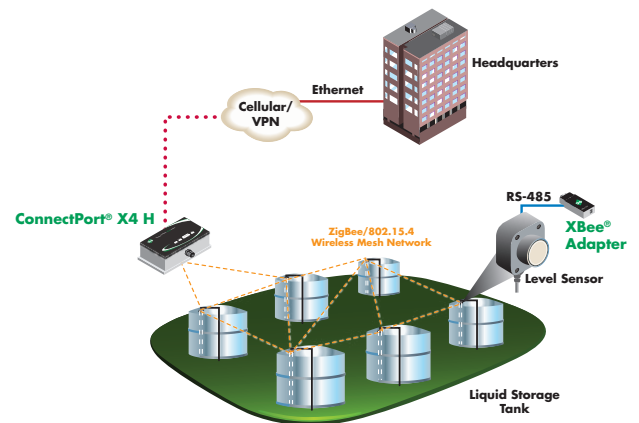**Remote M2M device networking gateways designed for commercial grade and rugged outdoor applications.**

Overview

ConnectPort X4 customizable 2G/3G/4G Gobi cellular 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. Device Cloud by Etherios™ add secure, scalable cloud based management and web services integration for a complete remote asset platform.

Related Products and Services

Device Cloud Solutions

Dev Kits

Adapters

Network Extenders

Sensors

Digi ESP

Application Highlight

Headquarters

Ethernet

Cellular/ VPN

ConnectPort® X4 H

ZigBee/802.15.4 Wireless Mesh Network

RS-485

XBee® Adapter

Level Sensor

Liquid Storage Tank

Features/Benefits

- **WAN connectivity via 2G/3G/4G Gobi 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 DIA and Python scripting as part of Digi ESP IDE**
- **Support for Modbus/Modbus TCP**
- **Device Cloud support for secure, scalable access to an unlimited number of remote assets**

Left Table

Specifications	ConnectPort® X4	ConnectPort® X4 IA	ConnectPort® X4 H
Wireless Interfaces			
WWAN**			
GSM/CDMA Gobi HSPA+ (U8)	GSM and CDMA supported on the same module via Gobi diversity; UMTS/HSPA/HSPA+ (850/900/1700 AWS/1800/1900/2100 MHz with Rx diversity); EV-DO Rev A (800/1900 MHz with Rx diversity); Transfer rate (max): 5.76 Mbps up, 14.4 Mbps down		
HSPA+ (U9)	850/900/1700 (AWS)/1900/2100 MHz; Transfer Rate (max): 5.76 Mbps up, 21 Mbps down		
Edge (E1)	GPRS/EDGE Class 10; 850/900/1800/1900 MHz; Transfer rate (max): 236 Kbps up/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 varients)		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)		
Wi-Fi			
Standard	802.11b/g		N/A
Modes	Ad-hoc & AP Client Modes; Access Point Mode not supported		N/A
Connector	1 x RP-SMA (Center pin - on device: male; on antenna: female)		N/A
Other			
Satellite	N/A		
GPS	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	DB9 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		

Right Table

Specifications	ConnectPort® X4	ConnectPort® X4 IA	ConnectPort® X4 H
Wired Interfaces (Continued)			
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
Software/Management			
Management (Cloud-based)	Device Cloud by Etherios		
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)		
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	Pigtail AC power cord
DC Power Cord*	Available upon request	N/A	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	N/A	Internal
Battery Backup	N/A		

Specifications	ConnectPort® X4	ConnectPort® X4 IA	ConnectPort® X4 H
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, Wi-Fi 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 ***	-30º C to +75º 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	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		
Hazardous (Class 1 Div 2)	No	Yes	No
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		

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

Visit www.digi.com for part numbers.