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/ 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.





Features/Benefits

- WAN connectivity via 2G/3G/4G Gobi GSM/CDMA/ WiMAX 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



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 (Edge 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, magnetic mount; Cellular: 2″ dual band dipole SMA male		
Antenna Connector Type	Wi-Fi: 1 x SMA male; XBee 1 x SMA male; Cellular: 1 or 2 x SMA, female		XBee: 1 × SMA, male; Cellular: 1 × 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. 15 W		
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/0	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	Available in ZigBee (2.4 GHz), DigiMesh® (2.4 GHz or 900 MHz), 802.15.4, 900, 868				
Cellular	GSM: Edge 850/900/1800/1900 MHz CDMA: 1XRTT 800/1900 MHz 3G/4G GSM: HSPA+ 850/900/1900/2100 MHz with Rx Diversity 3G/4G GSM/3G CDMA: HSPA+/EV-D0 800/850/900/1700 (AWS)/1900/2100 MHz Gobi with Rx Diversity				

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 +75° C (-13° F to 167° F) Reduced cellular performance may occur above 65° C (depending on 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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