ConnectPort® X Gateways

XBee® to IP Gateway Family

Gateways manage XBee WPANs and provide IP-to-application connectivity with secure cellular, Wi-Fi, WiMAX and Ethernet options.

Overview

ConnectPort X gateways provide IP network connectivity for end point devices in wireless XBee networks. Gateways collect end node data, process it, and send it to a parent application using cellular, WiMAX, Wi-Fi or Ethernet connections. Available in multiple configurations and supporting a wide range of applications, ConnectPort X gateways are ideal for centralized data collection and communication in geographically diverse applications.

The Python® development environment, built into all ConnectPort X gateways, enables users to customize their application locally within the gateway. This easy-to-use universal programming language allows complete control of device connections, data manipulation and event based actions.

ConnectPort X gateways are compatible with XBee adapters, XBee modules and XBee accessories, providing users with unparalleled flexibility and end-to-end communication between devices.

Related Products

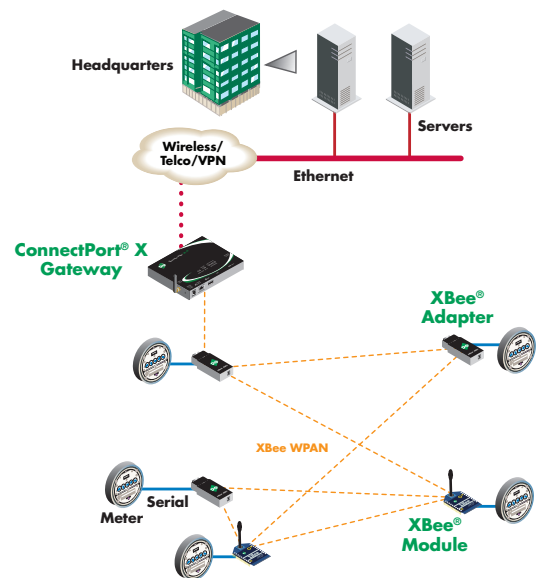
Device Cloud

Modules

Adapters

Dev Kits

Range Extenders

Sensors

Application Highlight

Features/Benefits

- Cellular, WiMAX, Wi-Fi and Ethernet IP options
- Wireless XBee to IP gateway supports numerous XBee protocols
- Multiple form factors and configuration options for a wide range of applications
- Easy-to-use Python development environment for custom applications
- IPsec and SSL VPNs on WAN connections with DES, 3DES or AES encryption
- 128-bit AES encryption on mesh network
- Enclosed PCIe module to reduce breakage/theft

Specifications	ConnectPort® X4	ConnectPort® X2
General		
Management	HTTP/HTTPS web interface, Password access control, IP service port control, Optional secure enterprise management via Device Cloud by Etherios™	
Protocols	UDP/TCP, DHCP, SNMPv1	
LEDs	Ethernet status, power, cellular link/activity, signal strength (4 bars), ZigBee link/activity, Wi-Fi link/activity	Ethernet status, power, ZigBee link/activity
Security	SSL tunnels, SSHv2, FIPS 197 (serial port)	SSL tunnels
VPN	IPsec with IKE/ISAKMP, multiple tunnel support, DES, 3DES and up to 256-bit AES encryption, VPN pass-through, GRE forwarding	N/A
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)	5.50 in x 2.75 in x 1.13 in (13.9 cm x 7.0 cm x 2.9 cm)
Weight	0.75 lb (0.34 g)	0.44 lb (0.20 kg)
Antenna		
XBee Antenna	4" dipole (Ethernet models), 4" dipole with 2' cable, tabletop mountable (GPRS models); RP-SMA (Center pin - on device: male; on antenna: female)	4" dipole; RP-SMA (Center pin - on device: male; on antenna: female)
Wi-Fi (optional)	4" dipole with 2' cable, tabletop mountable; RP-SMA (Center pin - on device: male; on antenna: female)	
Cellular (optional)	7" dipole; SMA (Center pin - on device: female; on antenna: male)	N/A
Interfaces		
USB	1 powered USB Type A connector (Host)	N/A
Cellular	EV-DO/1xRTT or HSDPA/EDGE/GPRS PCI Express modules (1)	N/A
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
Serial		
Ports	1 RS-232 DB-9M serial port	N/A
Throughput	Up to 230 Kbps	N/A
Signal Support	TXD, RXD, RTS, CTS, DTR, DSR and DCD	N/A
Ethernet		
Ports	1 RJ-45 port	
Physical Layer	10/100Base-T	
Data Rate	10/100 Mbps (auto-sensing)	
Mode	Full or half duplex (auto-sensing)	

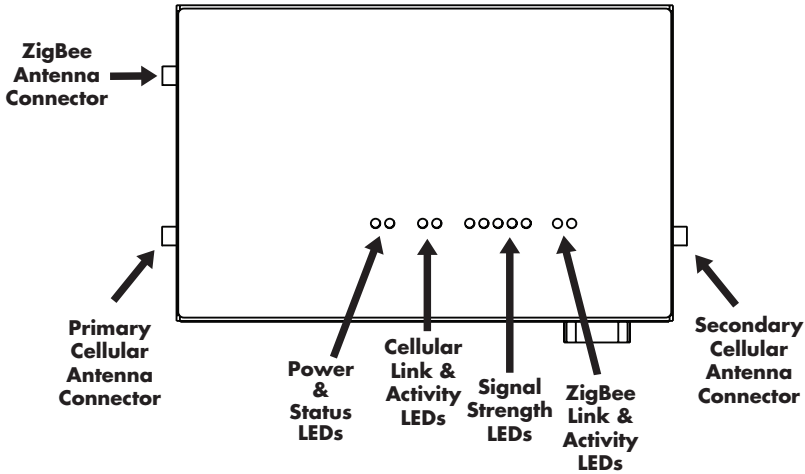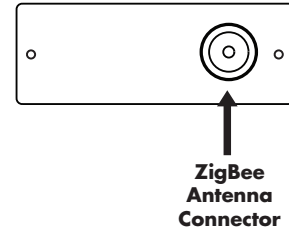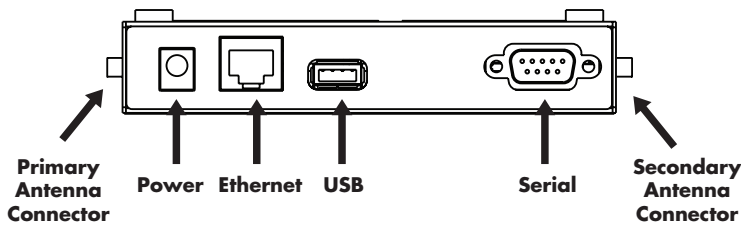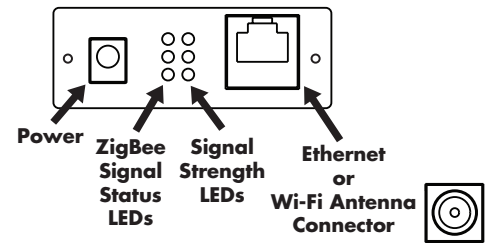| Specifications	ConnectPort® X4	ConnectPort® X2
Wi-Fi (802.11b/g)		
Frequency	2.4 GHz	
Data Rate	Up to 54 Mbps with automatic rate fallback	Up to 11 Mbps w/fallback
Modulation	DBPSK (1 Mbps), DQPSK (2 Mbps), CCK (11,5.5 Mbps), BPSK (6,9 Mbps), QPSK (12,18 Mbps), 16-QAM (24,36 Mbps), 64-QAM (48, 54 Mbps)	DBPSK (1 Mbps), DQPSK (2 Mbps), CCK (11,5.5 Mbps)
Transmit Power	15 dBm ± 2 dBm	16 dBm typical
Receiver Sensitivity	-71 dBm @ 54 Mbps; -81 dBm @ 11 Mbps; -88 dBm @ 6 Mbps; -93 dBm @ 1 Mbps	-82 dBm @ 11 Mbps
Connector	1 x RP-SMA (Center pin - on device: male; on antenna: female)	
Modes	Ad-hoc & AP Client Modes only; Access Point Mode not supported	
Power Requirements		
Power Input	6-30 VDC	9-30 VDC
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	
Power Consumption	Idle: 1.5 W, Max: 10.4 W	Idle: 1.2 W, Max: 3.4 W
Surge Protection (with included power supply)	4 kV burst (EFT) per-4-4, 2 kV surge per EN61000-4	
Environmental		
Operating Temperature	-30° C to +70° C (-22° F to +158° F)	
Relative Humidity	5% to 95% (non-condensing)	
Ethernet Isolation	1500 VAC min per IEEE802.3/ANSI X3.263	
Serial Port Protection (ESD)	+15 kV Air Gap and +8 kV contact discharge per IEC 1000-4-2	N/A
Regulatory Approvals		
Safety	UL 60950, CSA 22.2 No. 60950, EN60950	EN60950
Emissions/Immunity	CE, FCC Part 15 (Class A), AS/NZS CISPR 22, EN55024, EN55022, Class A	CE, FCC Part 15 (Class A)
Mobile Certifications - CDMA/EV-DO	CDG, TIA/EIA-690, TIA/EIA-98-E	N/A
Mobile Certifications - GSM/UMTS	PTCRB, NAPRD.03, GCF-CC, R&TTE, EN 301 511	N/A

ConnectPort X4 - Top

ZigBee
Antenna
Connector

Primary
Cellular
Antenna
Connector

Power
&
Status
LEDs

Cellular
Link &
Activity
LEDs

Signal
Strength
LEDs

ZigBee
Link &
Activity
LEDs

Secondary
Cellular
Antenna
Connector

ConnectPort X2 - Side

ZigBee
Antenna
Connector

ConnectPort X4 - Front

Primary
Antenna
Connector

Power   Ethernet   USB   Serial

Secondary
Antenna
Connector

ConnectPort X2 - Side

Power   ZigBee   Signal   Ethernet
        Signal   Strength   or
        Status   LEDs   Wi-Fi Antenna
        LEDs   Connector

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