XPress™ Ethernet Bridge

900 MHz Wireless Ethernet Bridge



The XPress Ethernet Bridge provides a secure point-to-point or point-to-multipoint IP connection without the expense and limitations of physical cabling.

Overview

The XPress Ethernet Bridge replaces costly wiring with a solution that can wirelessly connect industrial PLCs, digital signs, security cameras, access controllers and more. With a range of up to 15 miles, the ability to transmit through as many as 10 standard walls, a 1.5 Mbps data rate, and the added range and capabilities of the 900 MHz band, the easy-to-use, long-range XPress Ethernet Bridge communicates where Wi-Fi and other wireless data products fall short.

The XPress Ethernet Bridge features a built-in spectrum analyzer, allowing users to monitor RF interference. Frequency agility enables the product to automatically select the best available radio channel at start-up, monitor the signal-to-noise ratio and move the network to a new channel if necessary. A web interface simplifies installation, allows users to monitor packet success and signal strength and facilitates remote troubleshooting.

The XPress Ethernet Bridge is housed in a weatherproof enclosure. It is available in pre-paired units or single units for point-to-multipoint applications.

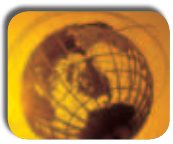
Target Applications



Industrial Automation



Building Automation

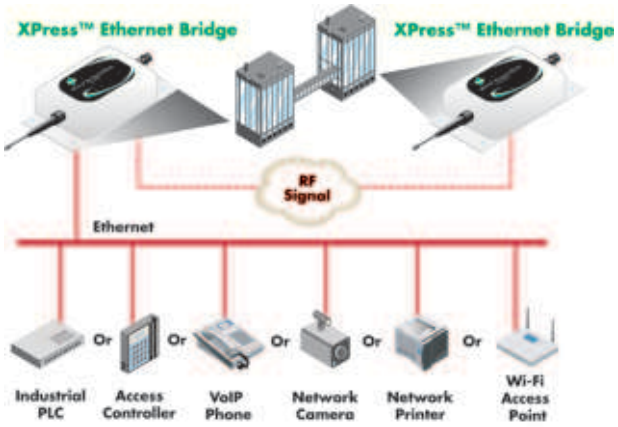


Remote Devices



Smart Energy

Application Highlight



Features/Benefits

- Easy-to-use web interface simplifies configuration and remote troubleshooting
- Check packet success and signal strength with the web interface
- Outdoor line-of-sight range of up to 15 miles (with high gain antenna)
- AES encryption, FIPS 197 and optional FIPS 140-2 provide secure communication
- Built-in NAT supports multiple IP client devices
- Frequency agility ensures reliable connection between radios
- Monitor RF interference with built-in spectrum analyzer

Specifications | XPress™ Ethernet Bridge

Performance	
Indoor/Urban Range	Up to 1000 ft (300 m) w/ 2.1 dB dipole antenna
Outdoor/RF Line-of-Sight Range	Up to 2 miles (3.2 km) w/ 2.5 dB dipole antenna, Up to 15 miles (24 km) w/ high-gain antenna
Transmit Power Output	125 mW (+21 dBm), 4W EIRP w/ 15 dBi antenna
Throughput Data Rate	935 Kbps
RF Data Rate	1.536 Mbps
Receiver Sensitivity	-97 dBm (@10e-4 BER)
Features	
Suppported Protocols	TCP/IP, Rockwell (RSLinx EtherNet/IP, CSP), Modbus/TCP
Browser Management Tools	QoS statistics, Network settings, Spectrum analyzer, Firmware upgrading
Data Connection	10/100Base-T RJ-45, Auto MDI/MDIX
Interference Immunity	DSSS (Direct Sequence Spread Spectrum)
Encryption	128-bit AES, FIPS 197/NIST certified (optional FIPS 140-2)
Radio Channels/Bandwidth	12 channels (6 in international version) with 2.0833 MHz spacing and 1.75 MHz occupied bandwidth
Frequency Band	ISM 902-928 MHz (915-928 MHz international version)
Frequency Agility	Radio channel automatically selected and adaptively optimized
Manual Frequency Mode	Channel selected with DIP switch or web browser interface
Status LEDs	Power, RF TX/RX, Ethernet link, channel, link quality
Error-Correction Technique	Sub-block error detection and retransmission
Adjacent-Band Rejection	>60 dB - SAW receiver filter attenuates cellular and pager interference
Regulator Type	Switching regulator
Antenna Connector	RF RPTNC female
PoE (Power over Ethernet)	Proprietary system included
Subscriber Units	Up to 16 active (63 total) per access point
Serial Number Based Mating Protocol	Yes
Dimensions (L x W x H)	7.9 in x 3.6 in x 2.4 in (20.0 cm x 9.1 cm x 6.1 cm)
Weight	415 grams
Power Requirements	
Power Consumption	Transmit: 1.7W, Receive: 0.8W
Transmit Current Draw	9 - 48VDC Power over Ethernet, 175 mA at 9VDC, 140 mA at 12VDC, 35 mA at 48VDC
Power Connector	Use PoE injector, power jack P5-2.1 mm center positive
Environmental	
Operating Temperature	Radio/Enclosure: -40° C to +70° C; POE injector: -40° C to +85° C; Power supply: 0° C to +40° C
Weatherproofing	The XPress Ethernet Bridge is IP65 rated. The PoE injector and power supply are not weatherproof, and should be installed indoors.
Regulatory Approvals	
FCC (U.S.A)	Yes
IC (Canada)	Yes
ETSI (Europe)	N/A
C-TICK (Australia)	Yes
TELEC (Japan)	N/A

Visit www.digi.com for part numbers.

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