XPress™ 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.

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.

**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
- **SUPPORTED 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
- **DIMENSIONS (L X W X H) AND WEIGHT**: 7.9 in x 3.6 in x 2.4 in (20.0 cm x 9.1 cm x 6.1 cm); 415 grams

#### POWER REQUIREMENTS
- **POWER CONSUMPTION**: Transmit: 1.7W, Receive: 0.8W
- **TRANSMIT CURRENT DRAW**: 9 - 48 VDC Power over Ethernet, 175 mA at 9 VDC, 140 mA at 12 VDC, 35 mA at 48 VDC
- **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

### PART NUMBERS

<table>
<thead>
<tr>
<th>PART NUMBERS</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>XEB09-CIPA</td>
<td>XPress Ethernet Bridge, Pair</td>
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<tr>
<td>XEB09-CIPAF</td>
<td>XPress Ethernet Bridge, Pair - with FIPS 140-2</td>
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<tr>
<td>XEB09-CIPA-W</td>
<td>XPress Ethernet Bridge, Pair (International)</td>
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<tr>
<td>XEB09-CISA</td>
<td>XPress Ethernet Bridge, Single</td>
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<td>XPress Ethernet Bridge, Single - with FIPS 140-2</td>
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<tr>
<td>XEB09-CISAFB</td>
<td>XPress Ethernet Bridge, Radio Board - with FIPS 140-2</td>
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<tr>
<td>XEB09-CISA-W</td>
<td>XPress Ethernet Bridge, Single (International)</td>
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