

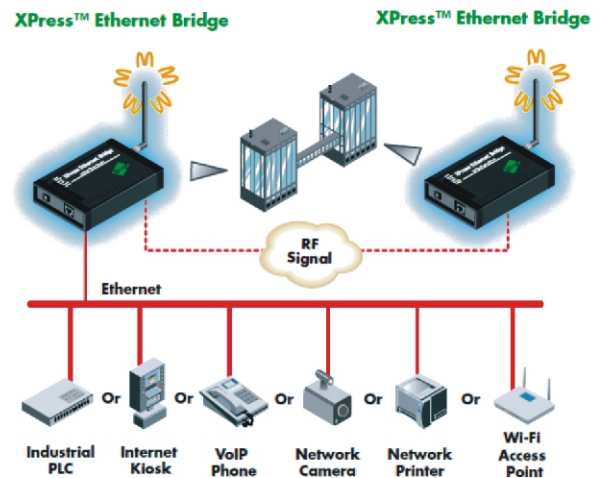
## Product Datasheet

# XPress™ Ethernet Bridge

900 MHz Wireless Ethernet Bridge



Connect any Ethernet device to the XPress Ethernet Bridge and the modems will function in place of an Ethernet cable. The bridge immediately provides a transparent, wireless, point-to-point or point-to-multipoint cable replacement.



## Features/Benefits

- Indoor/urban range up to 2,000 feet (with high gain antenna)
- Outdoor line-of-sight range up to 15 miles (with high gain antenna)
- Does not interfere with Wi-Fi networks
- Highest Quality of Service (QoS) available
  - Synchronous protocol enables extremely low data latency and jitter
- 128-bit encryption payload protection provides secure data delivery
- Simple plug-and-play
  - Pre-configured with no user programming required
- VLAN extensions supported

## Overview

The XPress Ethernet Bridge (XEB) replaces costly wiring with a solution that can wirelessly connect industrial PLCs, electronic (LED) signs, Wi-Fi APs, Pan/Tilt/Zoom security cameras, VoIP phones, Internet kiosks and more. With a range of up to 15 miles (line-of-sight with a high gain antenna) and the ability to transmit through as many as 10 standard walls, the XEB uses the added range and capabilities of the 900 MHz band to communicate where Wi-Fi and other wireless data products fall short. The easy-to-use, long-range XEB features a 1.5 Mbps RF data rate.

The XPress Ethernet Bridge is the best solution when:

- Wi-Fi range is insufficient
- An Ethernet cable drop will cost too much or is impractical to install
- Broadband speed is required (Kiosks/Wi-Fi APs/PTZ cameras)
- Low latency for voice or video is required (VoIP/PTZ cameras)
- 900 MHz license-free ISM band is needed for use in the U.S. and Canada
- An industrial, long-range Ethernet bridge is required

The XPress Ethernet Bridge is available either as a point-to-point matched pair (two modems) or a multipoint transceiver. The Point-to-Point XEB is ideal for applications needing to wirelessly connect only two Ethernet devices. If the application requires (or in the future might require) connecting more than two Ethernet devices, the Multipoint XEB is an excellent option. Each Multipoint XEB has a DIP switch that allows the user to easily configure it as an access point (base radio) or a subscriber unit (remote radio).

## Features/Specifications

### PERFORMANCE

- Indoor/Urban range:
  - Up to 1000 ft (300 m) w/ 2.5 dB dipole antenna
  - Up to 2000 ft (600 m) w/ high gain antenna
- Outdoor line-of-sight range:
  - Up to 2 mi (3.2 km) w/ 2.5 dB dipole antenna
  - Up to 15 mi (24 km) w/ high gain antenna
- Transmit power output: 125 mW (21 dBm), 4 Watts EIRP (w/ 15 dB antenna)
- Throughput data rate: 935 Kbps
- RF data rate: 1.5Mbps
- Receiver sensitivity: -97 dBm (@10e<sup>-4</sup> BER)

### FEATURES

- 10BaseT RJ-45 data connection
- Frequency: ISM 902-928 MHz
- Spread spectrum: Direct Sequence Spread Spectrum (DSSS)
- Auto MDI/MDIX (connects to crossover or straight through cable)
- Encryption: 128-bit
- Channels: 12 non-overlapping
- Automatic frequency select — Radio channel automatically selected and adaptively optimized
- Manual frequency mode
- Status LEDs: Power, RF TX/RX, Ethernet link, Frequency 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
- Antenna connector: RPTNC female
- PoE (Power over Ethernet): Proprietary system — includes injectors and power supplies

### MODEL.....PART NUMBERS

#### Model

Point-to-Point XEB with Accessories - Commercial (Indoor)  
 Point-to-Point XEB with Accessories - Industrial (Outdoor)  
 Multipoint XEB with Accessories - Commercial (Indoor)  
 Multipoint XEB with Accessories - Industrial (Outdoor)

#### Worldwide

XEB09-C  
 XEB09-I  
 XEB09-BCSA w/o Accessories XEB09-BCS  
 XEB09-BISA w/o Accessories XEB09-BIS

- Point-to-Point XEBs do not communicate with Multipoint XEBs.
- Point-to-Point XEBs ship from the factory as a matched pair. If one unit fails, both must be replaced with a new pair.

### FEATURES (CONTINUED)

- Up to 16 active (63 total) subscriber units per access point
- Serial number-based mating protocol allows every network to be unique
- Point-to-point bridge acts as a wireless IP tunnel
- Multipoint bridge acts as a wireless network switch

### REGULATORY APPROVALS

- FCC ID (U.S. Certification Part 15.247) R4N-AW900M
- IC ID (Canada) 5303A-AW900M

### POWER REQUIREMENTS

- Commercial (Indoor) Ethernet Bridge
- 5 - 7VDC
  - 350 mA
- Industrial (Outdoor) Ethernet Bridge
- 9 - 48VDC Power over Ethernet
  - 150 mA @ 9VDC
  - 110 mA @ 12VDC
  - 32 mA @ 48VDC

### DIMENSIONS

- Commercial (Indoor) Ethernet Bridge
- Length: 5.5 in (14.0 cm)
  - Width: 3.4 in (8.5 cm)
  - Depth: 1.2 in (3.0 cm)
  - Weight: 5.64 oz (160 g)
- Industrial (Outdoor) Ethernet Bridge
- Length: 7.9 in (20.0 cm)
  - Width: 3.2 in (8.0 cm)
  - Depth: 2.1 in (5.5 cm)
  - Weight: 10.34 oz (293 g)

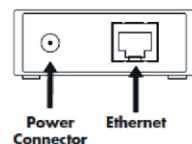
### PACKAGE CONTENTS

- Point-to-Point XEB**
- 2 XEB RF modems (matched pair)
  - 2 half-wave, 2.5 dBi dipole antennas
  - 2 6VDC/110VAC power adapters (Commercial only)
  - 2 12VDC/110VAC power adapters (Industrial only)
  - 2 Power over Ethernet injectors (Industrial only)
- Multipoint XEB**
- 1 XEB RF modem
  - Accessories Kit also includes:
    - 1 half-wave, 2.5 dBi dipole antenna
    - 1 6VDC/110VAC power adapter (Commercial only)
    - 1 12VDC/110VAC power adapter (Industrial only)
    - 1 Power over Ethernet injector (Industrial only)

### ENVIRONMENTAL

- Operating temperature: -40° C to 70° C

XPress Ethernet Bridge Indoor - Front



XPress Ethernet Bridge Indoor - Back

