

# FastLinc™ 810E

## INDUSTRIAL WIRELESS ETHERNET MODEM FOR 2.4 GHz BAND



*FastLinc™* Industrial Ethernet Wireless Modems are a high-speed, secure wireless solution using 2.4 GHz direct sequence technology. They are available in stand-alone Ethernet (FLC810E) and PCMCIA card (FLC800C) models.

*FastLinc* modems have a rated range of 5 miles with unobstructed line-of-sight, farther using repeaters. With an output power much higher than commercial IEEE 802.11b products, they provide longer outdoor range and broader indoor coverage.

The FLC810E includes wireless bridge mode for linking remote plant networks, access point mode for creating wireless hotspots within industrial plants and wireless connections between PLCs, HMIs, and Ethernet I/O systems. It can be configured as a wireless bridge repeater to extend range and overcome line-of-sight (LOS) obstructions. The high power FLC800C (PCMCIA card) allows for network communications of portable computers with a robust wireless connection.

*FastLinc* modems can coexist with Data-Linc's popular Smart Spectrum™ frequency hopping technology, permitting both high-speed and long range wireless networks ideally suited for utility SCADA systems.

The modems are easy to configure and trouble shoot with built-in diagnostics using a web-based interface. As with all Data-Linc products, support services such as pre-sale project consultation, post-sale tech support with PLC expertise and site survey planning assistance are part of the Data-Linc Group commitment.

### FLC810E FEATURES

- Provides high-speed wireless Ethernet connectivity using the 2.412-2.462 license-free spread spectrum band
- High output power and excellent receiver sensitivity for outstanding in-plant RF coverage and outdoor range
- Rated range of 5 miles with unobstructed line-of-sight (farther using repeaters)
- Coexists with Data-Linc's Smart Spectrum™ SRM6210E frequency hopping technology for hybrid 900 MHz and 2.4 GHz RF SCADA systems
- Wireless connections to PLCs, HMIs, Ethernet I/O systems and portable computers
- Compatible with Wi-Fi and IEEE 802.11b compliant devices
- Functions as a wireless access point, a station adaptor and a bridge with repeating function
- Supports point-to-point, point-to-multipoint and peer-to-peer topologies
- Compact, flexible design with universal mounting including an optional DIN rail clip
- Web page (HTML) configuration and diagnostics
- Built-in data encryption and authentication for added security
- Factory or field configured for your application for trouble-free installation\*
- AC or DC powered

\* Some field configuration may be required

## FLC810E SPECIFICATIONS

### Operating Frequency

License-free, 2.412-2.462 GHz

#### Transmitter

**Range.** Up to 5 miles, line-of-sight using 14 dBi\* antennas

**Output Power.** 200 mW (+23 dB)

**Modulation.** CCK, DQPSK or DBPSK

**Spreading Code.** Direct sequence

**Channels.** 11 (3 non-overlapping)

**Occupied bandwidth.** 22 MHz

#### Receiver

**Sensitivity.** 11 Mbps -89 dBm; 5.5 Mbps -91 dBm; 2 Mbps -93 dBm; 1 Mbps -94 dBm

#### RF Data Transmission

**Data Encryption.** WEP+ (64 or 128 bit)

**RF Data Rate.** 1, 2, 5.5 or 11 Mbps

#### Operating Modes

Wireless Bridge, Wireless Bridge Repeater, Access Point, Station Adapter

#### Data Interface

**Interface.** 10BaseT or 100BaseT (auto select)

**Data Throughput.** 800 Kbps to 6 Mbps (dependent upon RF link quality)

#### Diagnostics

Web (HTML) RF statistics; SNMP MIB support; (6) indicators (Power, Access Point mode, RF Receive, RF Transmit, LAN Link, 100/10BaseT)

#### Antenna

**Types.** 2 dBi omni, 5 dBi omni, 6 dBi omni, 8 dBi omni\*, 14 dBi yagi\*

**Connectors.** (2) reverse-polarity SMA (antenna diversity)

#### Power

**Power requirements.** 12 VDC (115 VAC to 12 VDC wall mounted transformer included)

#### Operating Environment

**Standard Temperature.** -40° to 150° F (-40° to 65° C)

**Humidity.** 0 to 95% non-condensing humidity

#### Enclosure

**Standard.** NEMA 1; 18-gauge steel; 4.25" x 1.7 inch x 7.2 inch - this includes the mounting feet (10.8 x 4.3 x 18.3 cm)

**Mounting.** Mounting feet for horizontal or vertical mounting; Optional DIN rail clip

#### Weight

2.0 lb (.91 kg)

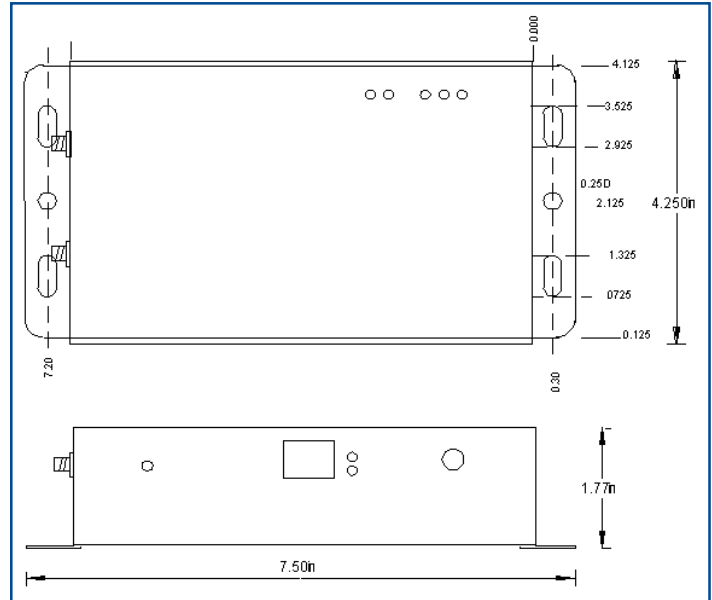
\*Some dB restrictions apply

## FLC810E APPLICATIONS

- Connect remote plant networks without monthly phone line charges
- Wireless SCADA communications for pump stations, well heads, pipelines, storage tanks, etc.
- Wireless Ethernet I/O to moving equipment (over head cranes, transfer cars, turntables, etc.)
- Portable computer communications for mobile HMIs and maintenance stations
- Wireless hotspots in industrial plants

Specifications subject to change without notice.  
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## FLC810E DIMENSIONS



## ABOUT DATA-LINC GROUP

For over fifteen years, Data-Linc Group has provided reliable communication solutions for industrial automation systems. Data-Linc Group, an alliance partner with most major PLC manufacturers including Rockwell Automation, Siemens, Schneider Electric, GE Fanuc, and Omron, as well as others, provides expert technical support and communications consultation. Data-Linc's industry proven RF technology has been successfully implemented in all major industries including automotive plants, consumer goods manufacturing/packaging, steel mills, mines, oil/gas refineries, paper mills, utilities and transportation systems. Its products are available worldwide. Data-Linc recently expanded its market with a line of wireless modems for the European Union.

## ALLIANCE PARTNERS



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