



**DATA-LINC GROUP™**  
 Field-proven performance – Industrial grade support  
 The Industrial Data Communication Experts

HIGH-SPEED HSM800E ETHERNET 2X2 MIMO 802.11B/G/N

**New**  
**Available Jan. 2017**

# High-Speed Modem HSM800E

DESIGNED FOR THE CONNECTED ENTERPRISE  
 802.11B/G/N 2X2 MIMO



Data-Linc Group's HSM800E\* high-speed, license-free wireless, industrial Ethernet modem, blends OFDM—Orthogonal Frequency Division Multiplexing—and 2X2 MIMO to produce an 802.11b/g/n modem that is the "next step" in RF technology, offering greater range and higher speeds when compared to other 2.4 GHz products.

The HSM800E replaces and compatible with the FLC830E, FLC820G, FLC810E+ and the FLC810E and is superior in robustness and speed compared to other 2.4 GHz products. It combines the 802.11 speeds and the robust OFDM technology for performance capability beyond either of the two technologies alone.

It provides long-range capability—up to 6.4 km (4 miles) line-of-sight (LOS), farther with repeaters—and exceptional RF speed (up to 300 Mbps) making it ideal for bandwidth intensive installations, like video surveillance, IIoT and Connected Enterprise.

The combination of these outstanding features has produced a data communication product with exceptional performance. Using 2X2 MIMO and OFDM greatly enhance plant floor performance by reducing LOS issues and multi-path fading caused by RF reflection that can be particularly troublesome for plant-floor data transfer—conditions that constrain data rates and reliability in typical high-speed data systems. The HSM800E also supports modern encryption standards (AES, WPA, etc.) for enhanced security.

## FEATURES

- High throughput 802.11bgn, 2X2 MIMO radio for Connected Enterprise & bandwidth intensive applications
- High power (500mW) offers exceptionally long-range solutions
- Passive PoE for mounting near or away from power source
- IP55 weather proof enclosure
- Withstands temperatures -20° to + 70° C
- Offers two external SMA connectors for optional external and remote antenna locations
- Configurable AP, SA, WDS Bridge, or AP Repeater for as cost-sensitive, flexible network options
- 802.11bgn backward compatibility with legacy 2.4GHz *FastLinc* Family

The OFDM technology permits data transfer that supports complex modulation and with 2X2 MIMO, high data rates with low latency. The advantages of the 802.11b/g/n speeds, 2.4 GHz band and immunity to multi-path fading permits the HSM800E to provide high data transfer rates while maintaining excellent noise resistance and improved LOS issues.

For high-data rate demands for outdoor long distances and bandwidth challenging indoor applications, the HSM800E's features and flexible topology, along with Data-Linc's 20+ years of wireless expertise, make the HSM800E the ultimate wireless solution for data intensive applications.

\* Call for availability. Due to ship January 2017

# HSM800E PRELIMINARY SPECIFICATIONS

## Operating Frequency

License-free, 2.4 GHz ISM band

FCC 2.412-2.462 GHz (CH 1 - CH 11)

## Included

CD User Manual

Antenna 2 for 2x2 MIMO

Other Ethernet Cable, Power Supply, Quick Start Guide

## Transmitter

Maximum range standard LOS

1000 ft / 0.3 Km to 4 miles/6.4 km

RF Output Power

Up to 27dB per transmitter for a 30dB combined transmitted power (500mW)

## Modulation

CCK / DSSS / BPSK / QPSK / DQPSK / DBPSK / 16-QAM / 64-QAM

## Channels

11 USA, 13 other countries

## Channel Bandwidth

20 MHz, 40 MHz

## Receiver Sensitivity

90 dBm to -96 dBm (802.11b)

-75 dBm to -94 dBm (802.11g)

-71 dBm to -94 dBm (802.11n)

## Operating Modes

Access Point (AP), Station Adaptor (SA), Repeater and WDS Bridge

## RF Data Transmission

### RF Encryption

Shared key 64/128/152-bits WEP

WPA, WPA2, WPA-PSK (TKIP), WPA2-PSK (AES)

RF Data Rate Up to 300 Mbps

### Data Throughput

Up to 300 Mbps

(Depending upon range and link quality)

### Interface

Antenna Reverse polarity

SMA connector, female, 50Ω

Data RJ45, 10/100 Auto-MDIX

### Indicators— Status LED's including

Status LEDs: Power, WAN,

LAN, (RSSI indicators)\* Low, Medium, High

### Power

Input Voltage 15-28VDC

### Operating Environment

Humidity 0-90% non-condensing humidity

Temp -20 to +70° C (-4 to +158° F)

### Enclosure

Standard TBD

Dimensions TBD

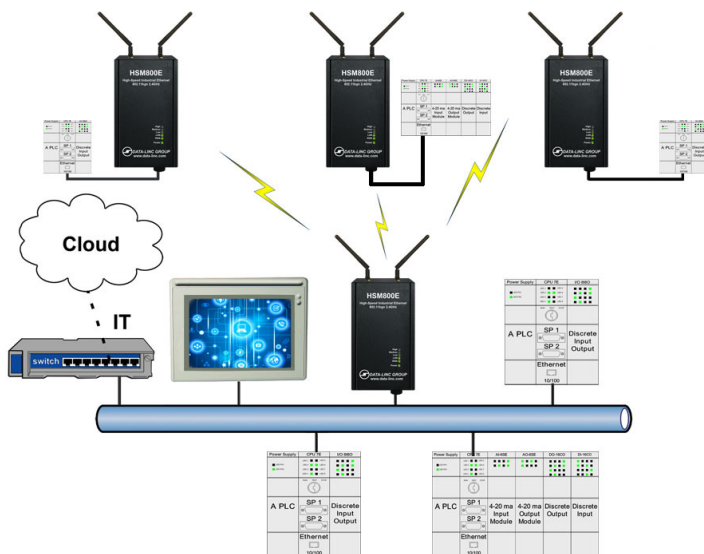
Included Optional DIN rail mounting

### Shipping Weight TBD

\*Receiver Signal Strength Indicators

## HSM800E Network Diagram

# THINK DATA-LINC FOR YOUR INDUSTRIAL INTERNET OF THINGS NETWORK



## ABOUT DATA-LINC GROUP

Since 1988, Data-Linc Group has provided reliable communication solutions for industrial automation systems. Data-Linc has strong alliances and provides a solution based approach. Thanks to its industry proven RF technologies successfully installed worldwide and the long-time experience with the major manufacturers' PLCs/PACs, Data-Linc meets your industrial data communication challenges.

## PARTNERSHIPS



GE Fanuc



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