

ENGINEERING SPECIFICATIONS

FastLinc FLC810E

802.11b Industrial Wireless Ethernet Modem

Contact Data-Linc Group for the latest updates to Specifications

Scope

The work under this section includes the furnishing of all labor, materials, equipment and supervision for furnishing spread spectrum wireless modems as indicated on the drawings and specifications.

Submittals

Submit shop drawings and product data for equipment furnished under this Section in accordance with the GENERAL CONDITIONS.

Furnish Operation and Maintenance Manuals in accordance with Section, OPERATION AND MAINTENANCE MANUALS.

Manufacturer

The wireless modems shall be 802.11b WiFi compatible modems as supplied by the Data-Linc Group or pre-approved equal.

Unitary Responsibility

In order to unify responsibility for proper operation of the 80.211b wireless modems, it is the intent of these Specifications that all components shall be furnished by a single supplier (unitary source).

General

All wireless modems, supplied under this contract must be FCC approved under article 15. Each wireless modem shall be capable of store and forward data routing and support the application protocol communication.

All wireless modems shall be license-free direct sequence spread spectrum wireless modems.

All wireless modems shall operate in the 2.4 – 2.4835 Ghz Spread Spectrum ISM band.

All wireless modems shall not require FCC site license. All wireless modems shall have FCC equipment authorization as a FCC Part 15-Subclass C.

All wireless modems shall have a maximum power output (at antenna connector) of 200 mW (23 dBm).

All wireless modems shall have the capability to transmit 5 miles (8 km) rated range, with line of site or further with the use of Repeaters.

All wireless modems shall be factory configured or end user configured via personal computer using a web browser software, supplied utility program or Telnet without changing internal components. Opening the modem to change parameters is unacceptable.

All wireless modems shall be configurable to operate as a Access Point, Station Adaptor, Inter-building with repeating, Adhoc and when configured in Inter-building with repeating mode, shall be capable of forwarding data packets to an end destination.

All wireless modems shall be of rugged construction using steel enclosures. Wireless modem housing shall be panel, or DIN Rail mountable.

All wireless modems shall be designed for installation in extreme environments and be extended temperature rated for operation from – 40° to + 65° Celsius.

Communications

All wireless modems shall have a 10/100BaseT interface connection for data transmission.

All wireless modems shall transmit using Direct Sequence Spread Spectrum (CCK, DQPSK, DBPSK) at a 1, 2, 5.5 or 11 Mbps over the air data rate.

All wireless modems shall have an effective data throughput of up to 6 Mbps.

All wireless modems shall use 11 distinct channels with three channels being non-overlapping.

All wireless modems shall be capable of providing point-to-point, multi-point and peer-to-peer operation.

All wireless modems shall be able to be configured so that they operate outside of the 802.11b specification allowing them to be undetectable by typical 802.11b or "WiFi" detection and/or hacking methods.

All wireless modems shall be capable of being configured to operate with 802.11 networks as a Station Adaptor or in Adhoc mode.

All wireless modems shall be able to employ 64 or 128 WEP encryption (user selectable).

All wireless modems shall be able to employ MAC Access control.

All wireless modems shall be 802.1x compatible.

External antennas shall be capable of being mounted up to one hundred (100') feet (30.5 meters) from the wireless modem.

Electrical

10 to 14 VDC; 12 VDC wall mounted transformer.

Power connection shall be via a barrel jack connector.

Power consumption shall be: TX power < 470 mA, @ 12V DC and RX power < 360 mA, @ 12V DC

Wireless modems shall have the following indicators visible on the Outside surface: Power, AP Active, W-LAN, Data, LINK, ELINK and 10/100.

Transmitter

Wireless modem shall have output power of 200 mW (+/- 2dB)

Receiver

Sensitivity shall be:

- -89 dBm @ 11 Mbps
- -91 dBm @ 5.5 Mbps
- -93 dBm @ 2 Mbps
- -94 dBm @ 1 Mbps

All wireless modems shall support external antennas by way of a reverse polarity SMA connector

Operating Environment

All wireless modems shall be rated for NEMA 1 environments.

All wireless modems shall have mounting flanges as well as an optional DIN rail mounting clip.

All wireless modems shall operate over a range of -40° to +150° F (-40° to +65°C).

Manufacturer

The 802.11b Spread Spectrum Ethernet Wireless modem shall be FLC810E as supplied by Data-Linc Group.

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Specifications subject to change without notice

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