Remote Access to Your Eddy Covariance System

With cellular or satellite communication, you can keep track of your Eddy Covariance System no matter where it is deployed.  

- Check the status of flux stations from your office, home, or when you are on the go
- With SMARTFlux™, view fully processed flux results in real time
- Respond quickly to any issues that arise and avoid unnecessary site visits

Cellular Communication

Cellular communication provides lower-cost data plans and larger data transfer volumes than satellite communication. Cellular is recommended if coverage is available at your site.

- Transfer raw data from your site automatically or whenever desired
- Configure instruments and sensors from your office or home computer

The cellular communication modules use a rugged Sierra Wireless™ AirLink® LS300 or Hongdian H7921 wireless gateway. Cellular radios are available for both GSM and CDMA standards used by most major cellular carriers around the world.

Cellular radios use a machine-to-machine data plan provided by the cellular carrier of your choice. Simply arrange a service agreement with your cellular provider, configure the system, and connect with your flux station from your computer.

Basic Eddy Covariance System

Select this option if you do not have a LI-COR Biomet System with your Eddy Covariance station. Includes an enclosure, cellular modem, high-gain antenna, power cables, data cables, and hardware to support a GHG Eddy Covariance System (LI-7500A or LI-7200) and an optional LI-7700 Open Path CH₄ analyzer.

Eddy Covariance System with Biomet

Select this option if you have a LI-COR Biomet System with your Eddy Covariance station. Includes a cellular modem, high-gain antenna, Ethernet switch, power cables, data cables, and hardware to mount the module inside a LI-COR 7900 Biomet System enclosure. Supports a GHG Eddy Covariance system (LI-7500A or LI-7200), 7900 Biomet System, and an optional LI-7700 Open Path CH₄ Analyzer.

Satellite Communication

If your site is not in range of a cellular network, LI-COR offers a Satellite Communication System for communicating with your LI-7500A or LI-7200.

The Satellite System includes a Hughes 9502 Fixed Satellite Terminal, antenna, antenna cable, antenna mounting post, power and data cables, enclosure, mounting hardware, and instructions to configure your gas analyzer and communication system.

Ordering information and specifications
### Ordering Information

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1. Some exceptions may apply, depending on location and local regulations.
2. If your region is not listed, contact LI-COR for more information.
3. Data plans must be arranged by end user. Before purchasing a cellular modem, make sure that compatible cellular service is available at your site, and that the carrier supports Machine-to-Machine (M2M) communication.
4. The GHG with Biomet System modem and Ethernet switch are installed in the LI-COR 7900 Biomet System enclosure.

### Specifications

#### Cellular Communications for Basic Eddy Covariance Systems

- **Dimensions:** 25.5 cm x 18.5 cm x 12.5 cm (10 x 7.5 x 5 in.)
- **Weight (enclosure and modem):** 2.25 kg (4.96 lb.) with AirLink LS300 modem, 2.36 kg (5.2 lb.) with Hongdian H7921 modem

#### Cellular Communications for Eddy Covariance System with Biomet

- **Weight (modem/switch only):** 0.55 kg (1.22 lb.) with AirLink LS300 modem/Stride switch

#### Satellite Communications System (p/n 7900-720)

- **Enclosure Dimensions:** 34.3 cm x 31.1 cm x 14.6 cm (13.5 x 12.25 x 5.75 in.)
- **Total Weight:** 5.2 kg (11.5 lbs.)
- **Gateway:** Hughes 9502
- **Input Voltage:** +12 VDC/+24 VDC
- **Power Requirements:**
  - Transmit: < 20 W
  - Narrow Beam w/o transmits: 3 W
  - Idle (regional beam): < 1 W
  - Off (wake on packet): < 10 mW (@12 VDC)
  - Off (wake on packet): < 30 mW (@24 VDC)
- **Operating Temperature Range:** -20 °C to 75 °C
- **Storage Temperature Range:** -55 °C to 75 °C
- **Humidity Range:** Up to 95% RH at 40 °C
- **Antenna:**
  - **Cable Length:** 10 m
  - **Dimensions:** 385 mm x 385 mm x 33 mm (15.2 x 15.2 x 1.3 in.)
  - **Weight:** 1.85 kg (4.1 lbs.) excluding mount and cable
- **Antenna Mounting Post:** 1.5 m (4.9 ft.)

#### Sierra Wireless™ AirLink® LS300 Modem

- **Communication Protocols:**
  - GSM Cellular Networks (LI-COR p/n 7900-700, 7900-701)
  - CDMA Cellular Networks (LI-COR p/n 7900-702, 7900-703, 7900-704, 7900-705), Ethernet
- **Regional Availability:** U.S., Canada, Europe, India
- **Power Requirements:**
  - Input Voltage: 7-28 VDC (12 VDC nominal)
  - Low Power Standby Mode: <35 mA@12VDC
- **Operating Temperature Range:** 30 to 70 °C (-22 to 158 °F)
- **Humidity Range:** <95% (non-condensing)

#### Hongdian H7921 Modem

- **Communication Protocols:**
  - CDMA Cellular Networks (LI-COR p/n 7900-710, 7900-711), Ethernet
- **Regional Availability:** China
- **Power Requirements:**
  - Input Voltage: 5-36 VDC
  - Power Consumption: Idle: 80mA@+12 VDC
- **Operating Temperature Range:** -20 to 60 °C (-4 to 140 °F)
- **Humidity Range:** <95% (non-condensing)

#### Stride™ 5-Port Industrial Ethernet Switch

- **Communication Standard:** Ethernet
- **Power Requirements:**
  - Input Voltage: 10-30 VDC
  - Power Consumption: 3W maximum
- **Operating Temperature Range:** -40 to 85 °C (-40 to 185 °F)
- **Humidity Range:** 5 to 95% (non-condensing)

#### Laird Technologies® Direct Omni-directional Antenna

- **Dimensions:** 24.8 cm x 2.45 cm (9.8 x 1 in.)
- **Cable Length:** 5m (16.4 ft.)
- **Antenna Mounting Post:** 1.5m (4.9 ft.)
- **Weight:** 156g (5.5 oz.)
- **Power Requirement:** 10W maximum
- **Operating Temperature Range:** -30 to 70 °C (-22 to 158 °F)

* Specifications subject to change without notice

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**LI-COR Biosciences - Global Headquarters**

4647 Superior Street • Lincoln, Nebraska 68504
Phone: +1-402-467-3576 • Toll free: 800-447-3576 • Fax: +1-402-467-2819
envsales@licor.com • envsupport@licor.com • www.licor.com/env

**Regional Offices**

LI-COR GmbH, Germany
Serving Andorra, Albania, Cyprus, Estonia, Germany, Iceland, Latvia, Lithuania, Liechtenstein, Malta, Moldova, Monaco, San Marino, Ukraine, and Vatican City.
LI-COR Biosciences GmbH
Siemensstraße 25A
61352 Bad Homburg, Germany
Phone: +49 (0) 6172 17 17 771 • Fax: +49 (0) 6172 17 17 799
evensales-gmbh@licor.com • envsupport-gmbh@licor.com

LI-COR Ltd., United Kingdom
Serving Denmark, Finland, Ireland, Norway, Sweden, and UK.
LI-COR Biosciences UK Ltd.
St. John's Innovation Centre
Cowley Road
Cambridge
CB4 0WS
United Kingdom
Phone: +44 (0) 1223 422102 • Fax: +44 (0) 1223 422105
evensales-UK@licor.com • envsupport-UK@licor.com

LI-COR Distributor Network: www.licor.com/env/distributors

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