Global Communications
Stay Connected
Any Time, Anywhere

With cellular or satellite communication, you can monitor your eddy covariance system no matter where it is deployed. LI-COR communication systems put your eddy covariance site online for the wireless transmission of eddy covariance, soil gas flux, and other data. When your system is online, you can check the status of instruments, transfer raw data from your site, and configure instruments, all from your office or home. Receive instant alerts about any system or power issues at your site and maximize system uptime.

The Cellular Communication System gateway is compatible with most major carriers and the Satellite Communications System is available for remote research sites where no cellular signal is in range of your eddy covariance system.

To learn more about global communication options for your eddy covariance system visit licor.com/comms_power.

Key Features

- Cellular communication gateways are compatible with most major carriers
- Satellite communication available for extremely remote sites
- Receive data from your site to assess how the site is performing from anywhere
- All cable and antenna components, such as mounts, are included
- 8-port network switch to connect an array of instruments and components into your eddy covariance system
Global Communication Specifications

**Cellular Communication System**

**Gateway:** Sierra Wireless™ Airlink® RV50

**Cellular Protocols:** 4G with fallback to 3G and 2G

**North America Model:**
- Approved Carriers: Verizon®, AT&T®, Sprint®, T-Mobile® USA, Rogers™, Bell®, Telus®
- LTE: 1900(B2), AWS(B4), 850(B5), 700(B13), 700(B17), 1900(B25)
- WCDMA: 2100(B1), 1900(B2), AWS(B4), 850(B5), 900(B8)
- EV-DO/CDMA: 800(BC0), 1900(BC1), 1700(BC10)
- GSM/GPRS/EDGE: Quad-band
- Industry Approvals: FCC, IC, PTCRB

**International Model:**
- LTE: 2100(B1), 1800(B3), 2600(B7), 900(B8), 800(B20)
- WCDMA: 2100(B1), 1900(B2), 850(B5), 900(B8)
- GSM/GPRS/EDGE: Quad-band
- Industry Approvals: CE, RCM, GCF, R&TTE

**Digital Communication Protocol:** Ethernet TCP/IP, RS-232 Serial, USB v2.0

**Dimensions:** 96 mm x 133 mm x 40 mm

**Weight:** 526 grams

**Power Consumption:**
- Input Voltage: 7 to 36 VDC (12 VDC nominal)
- Low Power Standby: <65 to 95 mA @ 12 VDC
- Normal Operation: 250 to 300 mA @ 12 VDC

**Operating Temperature Range:** -30 °C to +70 °C

**Storage Temperature Range:** -40 °C to +85 °C

**Humidity Range:** 90% RH @ 60 °C (non-condensing)

**Brainboxes SW-508 Ethernet Switch**

**Dimensions:** 11.5 cm x 10.0 cm x 4.5 cm (D x H x W)

**Weight:** 159 grams

**Power Consumption:** 1.5 watts at +5 to +30 VDC

**Input Voltage:** 5 to 30 VDC

**Operating Temperature Range:** -40 °C to +80 °C

**Specifications subject to change without notice.**

**Satellite Communication System**

**Modem:** Hughes 9502

**Satellite TX Frequency:** @1626.5 – 1675 MHz

**Satellite RX Frequency:** @1518 – 1559 MHz

**GPS Frequency:** @1574.42 – 1576.42 MHz

**9502 Module**

- **Weight:** 1.12 kg
- **Dimensions:** 150 mm x 200 mm x 45 mm
- **Water and Dust Resistance:** IP-40 compliant
- **Nominal Input Voltage:** 12 VDC/24 VDC
- **Power Consumption:**
  - Transmit: <20W
  - Narrow Beam w/o Transmit: 3W
  - Idle: <1W
  - Off (wake on packet): <10mW (@12 VDC)
  - Off (wake on packet): <30mW (@24 VDC)
  - Off (GPIO control): 0W
  - Data Connectivity: RJ45 (Ethernet); USB

**Antenna**

- **Weight:** 1.85 Kg (excluding mount and cable)
- **Dimensions:** 385 mm x 385 mm 33 mm
- **Wind Loading:** Survival wind loading (with mount) up to 100 mph
- **Water and Dust Resistance:** IP-65 compliant
- **Antenna Cable Length:** 10 m

**Operating Temperature Range:** -40° C to 75° C

**Storage Temperature Range:** -55 °C to 75 °C

**Humidity Range:** 95% RH at 40 °C

**Other Features:**
- Single external BGAN Satellite and GPS antenna connection
- GPS module inside 9502 module
- 3 status LEDs
- Antenna point audio tone and voltage level indicator through audio jack.
- SIM/USIM Slot (behind SIM door)

**Specifications subject to change without notice.**