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WHEN MEASUREMENTS MATTER

IRIDIUM9522B

Satellite Modem and Interface Kit

Excellent global coverage

Ideal for remote sites

Overview

The Iridium 9522B Satellite Modem and Interface Kit allows a Campbell Scientific datalogger to communicate over the Iridium satellite network. The kit includes an Iridium 9522B modem with mounting hardware, a COM9522B modem interface, the cabling needed for configuration and connection to a datalogger, and an antenna with a mount. The 18017-L antenna cable is purchased separately.

Benefits and Features

- Global coverage for data communication with any station that has a view of the sky
- On demand, two-way communication with your station
- No antenna pointing required—omnidirectional antenna
- Supports dial-up, RUDICS, and SBD communications
- COM9522B makes it easy to interface the Iridium transceiver to a datalogger serial port and to control the transceiver's power.

Iridium Satellite Network

The Iridium satellite network consists of 66 satellites sitting in six planes. The planes are evenly spaced flying in polar orbits at low altitudes. This configuration provides global data coverage, that supports communication with a station located anywhere on earth, as long as it has a clear view of the sky. The Iridium satellite system is ideal for stations at very high-angle latitudes (greater than 70° North or South), high-altitude applications, and mobile applications, such as buoys or ships.

Iridium Service Requirements

To use the Iridium satellite system, customers must select a service provider. When choosing a provider, evaluate their service while comparing costs. Most plans have a monthly base service fee for each Iridium subscriber unit (ISU), as well as charges for the amount of airtime or data used. Contact Campbell Scientific for more information about Iridium communications or assistance in locating a provider.

Ordering Information

Iridium Satellite Modem and Interface Kit	
IRIDIUM9522B	Iridium 9522B Satellite Modem and Interface Kit. One 18017-L antenna cable is required for each kit (see below).

Common Accessory	
18017-L	Antenna Cable with user-specified length. Enter cable length, in feet, after the -L. One 18017 GPS cable is required for each IRIDIUM9522B kit.

Specifications

System (Iridium 9522B and COM9522B)

Power Supply

- Operating Voltage: 4 to 32 Vdc
- Current Drain @ 12 Vdc
  Off State: 20 µA
  Transmission: 500 mA
  Operating: 333 mA
  Standby: 125 mA

9522B Modem

- Length: 16.2 cm (6.4 in)
- Width: 8.1 cm (3.2 in)
- Depth: 2.8 cm (1.1 in)
- Weight: ~420 g (15 oz)

Environmental

- Operating Temperature Range: -30° to +70°C
- Operating Humidity Range: 25% to 75%
- Storage Temperature Range: -40° to +85°C
- Storage Humidity: 93% maximum

RF Interface

- Frequency Range: 1616 MHz to 1626.5 MHz
- Duplexing Method: TDD (Time Domain Duplex)
- Oscillator Stability: ±1.5 ppm
- Input/output Impedance: 50 Ω
- Multiplexing Method: TDMA/FDMA

COM9522B Interface

- Operating Temperature Range: -40° to +70°C
- LEDs: Power switched to Iridium Modem, TX and RX, Network Service
- Length with mounting bracket: 20.1 cm (7.9 in)
- Length without mounting bracket: 17.0 cm (6.7 in)
- Width: 3.8 cm (1.5 in)
- Weight: ~476 g (17 oz)

Power Supply

- Operating Voltage: 9 to 18 Vdc, 12 Vdc nominal
- Current Drain @ 12 Vdc
  On State: 32 mA maximum
  Off State: 20 µA
- Maximum Supply Current: 2500 mA

Control Input Voltage

- Guaranteed Off: < 1.25 Vdc
- Guaranteed On: > 3.24 Vdc
- Maximum Voltage: 18 Vdc