



Ideal for remote sites

Low power use,
excellent global coverage

Overview

The COM9522B interface enables communications between a computer or Campbell Scientific datalogger and the 9522B satellite modem. The COM9522B has an RS232 port, power and control terminals, and a 26-pin connector. The COM9522B connects to either the datalogger's RS232, CS I/O or COM ports. Communications occur over the Iridium satellite network.

The COM9522B connects to the 9522B transceiver via a ribbon cable.

The COM9522B also incorporates a power switch allowing a datalogger to completely turn off the transceiver using a signal from a datalogger control port.

The Iridium satellite network consists of a constellation of 66 satellites situated in six planes in low-earth orbit. Each plane is populated by 11 satellites in polar orbits, giving the Iridium network excellent coverage in high latitudes that equatorial satellites often cannot reach.

The system can be used for bi-directional communications and/or to send short burst data (SBD) messages (similar to SMS texts) virtually anywhere in the world.

Benefits and Features

- › Allows full communication with a datalogger in any location*
- › One RS-232 DB-9 female port for connection to computer or datalogger (using one of the connection accessories listed)
- › LEDs:
 - » Power switched to Iridium Modem
 - » TX and RX
 - » Network Service
- › One Detachable 3 pin terminal block:
 - » +12 Volts, Ground, Power Control

*The system antenna must have a clear view of the whole sky.

Specifications

9522B Transceiver

- › Power Supply:
 - › Operating Voltage : 4 - 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: ~420g (15 oz)
- › Environmental:
 - › Operating temperature: -30°C to +70°C
 - › Operating humidity: 25% to 75%
 - › Storage temperature: -40°C to +85°C
 - › Storage humidity: 93% (max)

› 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 ohms
- › Multiplexing method: TDMA/FDMA

COM9522B Interface

- › Operating Temperature Range: -40°C 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 - 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 volts
 - › Guaranteed On: > 3.24 volts
 - › Maximum Voltage: 18 Vdc
- › CE compliant

Ordering Information

The 9522B is supplied with a pole mount antenna and 3 m of cable.

- › 009201 - COM9522B Iridium Modem Interface Kit
- › 009202 - 9522B Iridium Modem, Antenna and 3 metre cable
- › Accessories:
 - › 9876-001 null modem cable - for logger serial port connection
 - › SC932A CS I/O to 9 Pin RS-232 DCE Interface (requires an extra SC12 Cable) - for CS I/O port connection
 - › SC110 RS232 to Datalogger Control Port cable - for control port connections
 - › 008158 Nu-Rail crossarm mount for fitting the antenna to a CM200 series crossarm.
 - › MB3 Mounting bracket to allow the 9522B to be fixed to an enclosure chassis plate.



The 9522B Iridium Antenna mounted on a crossarm with an optional Nu-Rail bracket.

Note: The 9522B requires an airtime contract to be taken out with an Iridium airtime reseller. Units sold by Campbell Scientific are normally provided with a SIM card which can be activated (on agreement of the contract) with a UK airtime provider. Users can source and use their own Iridium SIM cards.