

RF500M and RF500B

RF Modem and Base Station for PakBus Networks



The RF500M and RF500B are for PakBus® networks with UHF/VHF radios. They work with our RF310-series radios, our RF300-series radios, the DataRadio DL-3400 radio, or any radio and modem combination that outputs a demodulated byte stream via RS-232.

Features/Benefits

- Supports multiple radio configurations
- Compatible with PakBus dataloggers (e.g., CR800, CR850, CR1000, CR3000, CR10X-PB, CR510-PB, CR23X-PB)
- Uses software (i.e., DevConfig) instead of hardware modifications to upgrade the operating system (OS) and change RF ID or other settings
- Provides an RS-232 port (DTE) for modem configuration or attachment of an RS-232 radio
- Avoids all collisions within a network, thus increasing polling speeds and reducing overall current drain

Field Station/Repeater Station

The RF500M can serve as a field modem connected to a PakBus datalogger or as a standalone repeater not connected to a datalogger. At the field station, the RF500M functions as the communication interface between the datalogger and radio. It's often powered with 5 Vdc provided by the datalogger's CS I/O port. When the modem is at a non-datalogger repeater station, a PS100 Power Supply fitted with an A100 adapter can power the RF500M.

Connects with a PC via a null modem cable or RS-232 digital radio via a serial cable

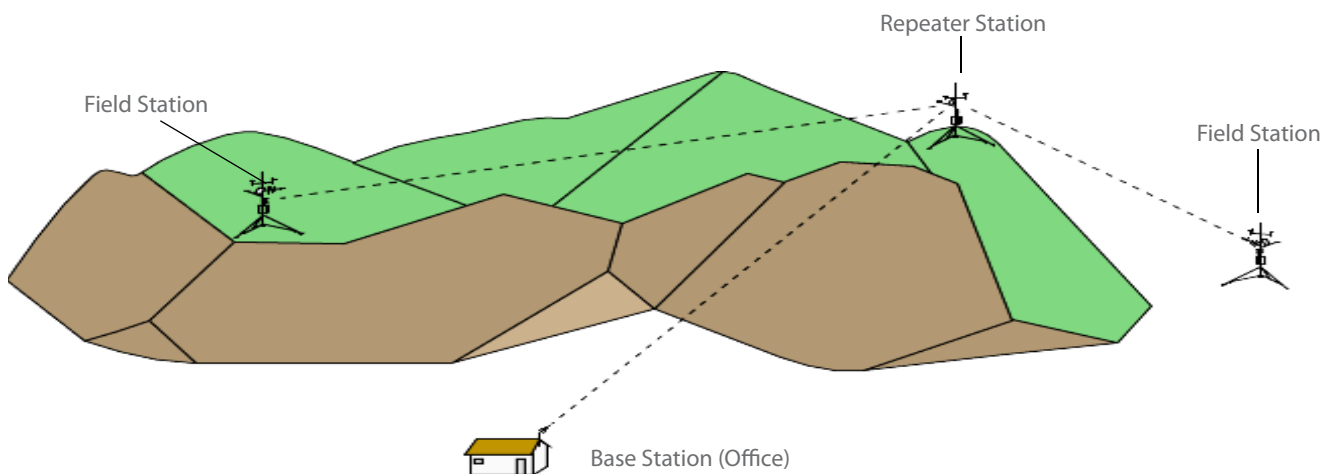
Connects with an RF310-series or RF300-series radio

Connects with the datalogger CS I/O port via an SC12 cable



RF Base Station

The RF500B resides at the computer site and serves as a link between field stations and repeater stations. It includes an RF500M Radio Modem connected to a PS100 Power Supply. The modem and power supply are shipped mounted to a 10" x 12" metal plate. A radio, antenna, antenna cable, and wall charger need to be ordered separately. Software support is provided by LoggerNet.



Our RF networks require line-of-sight transmission. The mountain in this drawing obstructs line-of-sight with the base station. Use of the repeater station allows the base station to receive data from the field stations.

Ordering Information

RF Modem and Its Options and Accessories

Model	Description
RF500M	Radio Modem
Temperature Range Options	
-ST	Standard -25° to +50°C (default)
-XT	Extended -55° to +85°C
Warranty Length Options	
-SW	Standard 1 year Warranty (default)
-XW	4 year Warranty Extension
Radio Jumper Setting Options (one required)	
-MJ	Jumper for RF310-series radios
-RJ	Jumper for RF300-series radios
-UJ	Jumper for radios purchased directly from DRL
Accessories	
10873	9-pin female to 9-pin male serial data cable (6 ft); cable is required to connect RS-232 digital radios.
SC532A	CS I/O Peripheral to RS-232 Interface; this interface is required to connect a PC to the modem's CS I/O port. Typically the PC connects to the modem's RS-232 port, but the modem's CS I/O port can be used if a digital radio is already connected to the modem's RS-232 port.
15966	Wall Charger 12 Vdc, 800 mA Output, 100 to 240 Vac, 50 to 60 Hz with Barrel Plug, 6 ft Cable
14291	Field Power Cable 12 Vdc Plug to Pigtail (2 ft) connects with a 12 Vdc power supply.
14020	Field Power Cable CS I/O to 12 Vdc Barrel Plug (2 ft) connects with datalogger.

RF Base Station and Its Options and Accessories

Model	Description
RF500B	RF Base Station
Radio Jumper Setting Options (one required)	
-MJ	Jumper for RF310-series radios
-RJ	Jumper for RF300-series radios
-UJ	Jumper for radios purchased directly from DRL
Accessories	
14291	Wall Charger 18 Vac 1.2A Output, 110 Vac Input, 6 ft Cable
14014	Wall Charger 18 Vdc Output 90-264 Vac 47-63 Hz Input
-USC	Cable for connecting the 14014 Wall Charger to a standard 110Vac outlet.
-EUC	Cable for 14014 Wall Charger to power outlets that are prevalent in continental Europe.
-UKC	Cable for 14014 Wall Charger to power outlets that are prevalent in the United Kingdom and Ireland.
-AUC	Cable for 14014 Wall Charger to power outlets that are prevalent in Australia.
-CHC	Cable for 14014 Wall Charger to power outlets that are prevalent in China

RF500M Specifications

Temperature range:

- 25° to +50°C (standard),
- 55° to +85°C (extended)

Power:

- <350 μ A quiescent,
- <15 mA active

Dimensions:

- 6.31" x 3.69" x 0.88",
- 16.0 x 9.5 x 2.2 cm

Weight: 0.4 lbs (0.18 kg)

More Information

A radio, LoggerNet Support Software, frequency-matched antenna, and antenna cable are purchased separately. More information is provided in the Narrow-band RF Networks brochure and RF310-series Radios brochure.

