RM100 Wireless Communication System

Wireless Point-to-Multipoint Radio Transceiver System

(Solar panels sold separately.)

Description

Global Water's RM100 Wireless Point-to-Multipoint Communication System uses powerful radio transceivers to seamlessly connect you with your remote monitoring sites from the comfort of your office or vehicle.

Powerful Radio Modem

The RM100 uses a rugged, industrial 2-way radio modem that is designed for seamless communications with Global Water's serial dataloggers (including the WL16S, the GL500-7-2, and the GL500S-2-1). The powerful 1-watt, 900mHz radio requires no license and is capable of line-of-site communications of up to 15 miles with the proper antenna. Built-in error correction assures accurate data transfer. Each radio unit has a unique address so you never have to worry about cross-talk or interference between one unit and another.

Capable Software

The RM100 includes the Global Access communications software which has a built-in address book that allows you to quickly set up your monitoring sites with unique identifiers and names, and you can add new sites at any time. Used with our Global Logger datalogging software, you can get a current reading from any of your sensors, download the logged data, autopoll data, sample continuously, and even reprogram your logger just as though you were right on the site.

Packaged Systems

The RM100 series units are offered in four pre-configured, ready to deploy packages, as well as one convenient starter kit. Everything you need is in-cluded to get your system up and running quickly. One server (base) unit and one client (remote) unit are required to make a complete system. Many remote units can report back to a single base.

• **RM100-SFL Server, Fixed Location**: This package is the best choice when using an existing enclosure or for an interior installation where AC power is available. The package includes a server modem, RS-232 serial cable, AC adaptor, 25' antenna cable, permanent mount 6dBi omni-directional antenna with 2" pole mount hardware, 3dBi stubby antenna for testing and setup, manual, and software.

• **RM100-SMP Server, Mobile Platform**: This package is ideal for short-term monitoring projects where AC power is not available or for doing drive-by data collection. The package includes the server modem mounted inside a weatherproof case, AC charger, RS-232 serial cable, magnetic base 5dBi mobile omni-directional antenna with 4' cable, manual, and software. (For AC powering, we recommend the optional BC100 Smart Charger.)

• **RM100-CSR Client, Short Range**: This package is the perfect choice for applications where your remote monitoring stations are under 10 miles line-of-sight. This package includes a weatherproof case with mounting hardware for 2" diameter pole, client radio with 5Ahr battery, radio to logger serial cable, smart charger, 15' antenna cable, 9dBi Yagi antenna with 2" hardware, manual, and software. For long term monitoring we also offer optional solar panels and mounting kits (see Ordering & Options).

• **RM100-CLR Client, Long Range**: For monitoring sites that are up to 15 miles line-of-sight or shorter range sites where you may have a few obstructions, this package features a higher gain antenna. The package includes a weatherproof case with mounting hardware for 2" diameter pole, client radio with 5Ahr battery, radio to logger serial cable, smart charger, 15' antenna cable, 13dBi Yagi antenna with 2" hardware, manual, and software. For long term monitoring we also offer optional solar panels and mounting kits (see Ordering & Options).

Features

- Retrieve data from remote sites
- Works with most Global Water serial loggers
- Easy to use Global Access software included

• **RM100-CSK Client/Server Starter Kit**: This kit is ideal for those who have experience in electronic instrumentation. We make it easy for you to install and configure a system to interface with one of our Global Water serial dataloggers (see pages 140 and 141). The RM100-CSK includes one server, one client, two 6" rubber coated stubby antennas, RS-232 serial cable, radio to logger serial cable, 2 AC adaptors, manual, and software.

Specifications

Output Power	1000mW
Transmission Range	Up to 15 miles (32 km) line-of-sight
Receiver Sensitivity	-100dBm typical @ 76.8kbps RF data rate
Frequency	902 to 928, FHSS (USA)*
Network Topologies	Point-to-Point, Point-to-Multipoint
Channels	32
Antenna Connector	RPSMA Jack
Power Consumption	40mA receive, 400mA transmit (@ 12 VDC)
Power Requirement	7 to 18 VDC
Operating Conditions	Temp -40° to +80°C; 10% to 90% humidity (non-condensing)
Serial Connector	DB9
Serial Cord Length	6 feet (183 cm)
Dimensions	4-3/4 x 2-3/4 x 1-1/8" (12 x 7 x 2.9 cm)
Weight	7 oz (170 g)

* Transceivers are USA FCC compliant and do not necessarily comply with regulations in other countries.

Ordering & Options

Remote Wireless Packages

Order No.	Description
RM100-SFL	Server Package, Fixed Location
RM100-SMP	Server Package, Mobile
RM100-CSR	Client Package, Short Range
RM100-CLR	Client Package, Long Range
RM100-CSK	Client/Server Kit

Accessories

Order No.	Description
AN100-OD6	Omni-directional 6dBi Antenna
AN100-OM5	Omni-directional 5dBi Mobile Antenna w/Magnetic Base
AN100-YA9	Yagi Directional 9dBi Antenna
AN100-YA13	Yagi Directional 13dBi Antenna
RM100-SPMB	Solar Panel Mounting Kit
SP101-SP102	Solar Panels
BC100	Smart Charger
00-009	12V, 2.2 Ahr Battery for Datalogger

Global Water

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