

Module Description

The WER-1 module is a component of a data acquisition system. The same module can serve as both hub and client. There are three elements to the module; RF transceiver, microcontroller, and data acquisition. When configured as a hub, only the RF transceiver is used. In the hub mode, the module acts as a serial repeater. Messages from the host PC application program are transmitted. Received replies are passed back to the host PC.

In the client mode, the device is idle and waits for communication from a hub module. The hub broadcasts periodic messages to detect the presence of client modules. The RF transceiver passes received messages to the micro-controller for processing. If the message was recognized, an appropriate reply will be returned to the RF transceiver for transmission back to the hub module.

Most communication to the client modules are requests for data. These messages are again passed to the micro-controller for processing. The micro-controller further executes a data acquisition procedure. Gathered data is returned to the hub via the RF transceivers.