Weather Reach™ Water Management System

WR-1 OEM™ Receiver Card

Weather-Based Irrigation Control

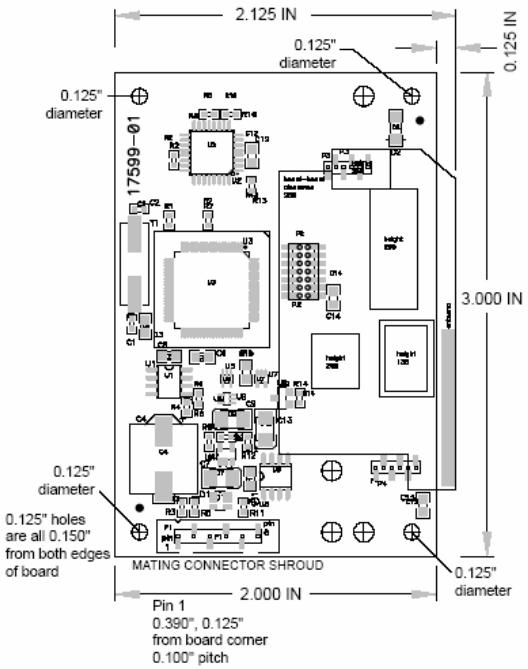
A Weather Reach Receiver™ uses data from highly accurate, local weather stations to calculate Evapotranspiration (ET). Weather Reach Service Providers manage a network of weather stations and broadcast a signal containing weather data via existing wireless paging systems.

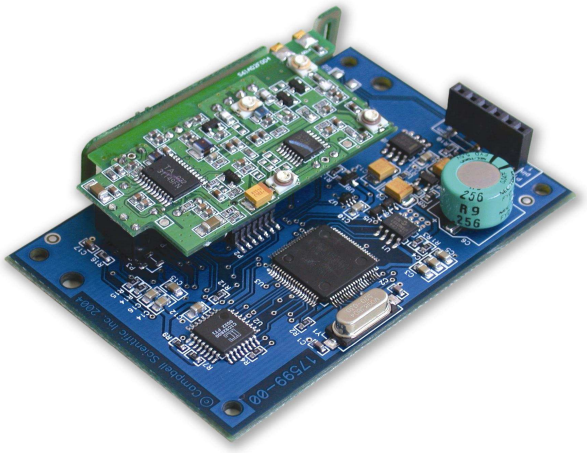
The WR-1 OEM Receiver™ card is a source for ET and weather data, which is accessed via serial interface. It can also provide a simple logic level ET pulse, each pulse equals .01” of ET.

Available data

- ETo – Using the ASCE Standardized Equation.
- ETc – Based on local or broadcast Kc value.
- Hourly weather data – Rainfall, Temperature, Humidity and Wind.

The WR-1 Developer Kit includes tools needed by engineers to program the host device and test the interface.





Integrate Weather Reach technology into sprinkler controllers.

Specifications

Communication: Logic level serial interface using the MODBus protocol. The connected device is the host sending commands to the WR-1, which operates as a slave. (RTU mode, 9600 Baud, 8 data, no parity, 1 stop). Or use a TTL level ET pulse output.

Board connector: Samtec SSW-106-22-G-S-VS-K (Use .100" spaced .025" square male header to mate with this.)

Pin-out:

PIN #1 - GND
PIN #2 - TX-Data (WR-1 drives to PWR pin level)
PIN #3 - RX-Data (WR-1 receives on this pin)
PIN #4 - PWR (3.3v to 5v, regulated. 17mA current load)
PIN #5 - Signal* (WR-1 drives to PWR pin level)
PIN #6 - GND

* Pin 5 Signal line is a programmable output line. Line asserts low when a new message is received. Or line asserts low for each .01” of ET. (Frequency and duration is programmable)

Diagnostic status light: Flashing patterns indicate operating condition.

Irrisoft™
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