



# Spectrum® Technologies, Inc.

"To Measure Is To Know"



## Rain Station - Model 3220

(Temperature, Relative Humidity, Rainfall)

### MONITOR RAINFALL

Use real-time data to adjust your field activities to make the best irrigation decisions to avoid soil compaction

### INCLUDED MEASUREMENTS

- Temperature
- Relative Humidity
- Rainfall
- **TWO Available Sensor Ports**

### FEATURES & BENEFITS

- Built in communication, choose the option that fits your needs
- View Data 24/7 on the WatchDog mobile app
- Integrated solar power system
- Internal data logger that holds 10 months of data at a 15-minute recording interval
- Two available ports for additional sensors of your choice
- Quick Start installation to get your station up and running
- **Send data to the SpecConnect Cloud**
  - View current conditions or historical data reports from any location
  - Receive alerts via automated call, text or email within two minutes of the temperature reading crossing your selected threshold

### PRODUCT SPECIFICATIONS

| VALUE                  | RANGE  | ACCURACY   |
|------------------------|--|--|
| Air Temperature        | -40°F to 257°F<br>(-40°C to 125°C)   | ± 0.54°F (-40°F to 194°F)<br>± 0.3°C (-40°C to 95°C) |
| Relative Humidity      | 0 to 100%  | ± 2% @ 77°F (25°C)                                   |
| Rainfall               | 0.01" (0.254mm) resolution   | ± 2% at <2" (5cm)/hour                               |
| External Sensor Ports  | 2 x 2.5mm Stereo Jack (0 to 3.0 VDC Analog Input)  |  |
| Operating Temperature  | -22°F to 130°F (-30°C to 55°C)   |  |
| External Communication | Cellular, WiFi, Radio, Data Logger   |  |
| Power Source           | 3.5W Solar Panel, Rechargeable 6V/4.5AH SLA Battery  |  |
| Battery Life           | 14 Days Minimum Without Solar Power  |  |
| Data Capacity          | 312 Days at 15 Minute Intervals (30,000 Records)   |  |
| Dimensions             | 12"H x 19.5"L x 11.25"W (30.5cm x 49.5cm x 28.6cm)<br>Add up to 7.25" (18.4cm) Depending on Antenna Used |  |



### COMMUNICATION OPTIONS

Once you know the model you require to gather the data you need, choose the communication method you want to send the data from the weather station to SpecConnect or SpecWare 10 Software.

#### 3220C4 Cellular (LTE-CAT4 Modem)

Strongest cellular connection, best for less populated areas where an LTE-M connection can be a concern.  
*Requires SpecConnect Cloud Service Subscription*

#### 3220MU Cellular (LTE-M Modem)

Best for well populated areas where there is a strong, consistent LTE-M connection.  
*Requires SpecConnect Cloud Service Subscription*

#### 3220WF WiFi Modem

Wireless connection where connectivity is strong and consistent, best when weather station will be installed within service range of the WiFi network.  
*Requires SpecConnect Cloud Service Subscription*

#### 3220DU 900Mhz Radio Communication

Radio communication using a combination of Pup Stations, Retrievers, Sensor Pups and a DataScout modem to create a network when data needs to be collected from microclimates within a larger field. Must have 1/2 mile line of sight view between devices.  
*Requires SpecConnect Cloud Service Subscription OR SpecWare 10 Software Purchase*

#### 3220DR Data Recorder (No Modem)

Ideal when real time data and constant monitoring is not required. Gather data in increments specified and then transfer data via USB flash drive or direct connect from the station to your PC.  
*Requires SpecWare 10 Software Purchase*



# SpecConnect

MANAGE YOUR SITE DATA WHEREVER, WHENEVER

SpecConnect is a Cloud Based service that allows you to access the data from your compatible WatchDog Weather Station on demand from your phone, PC or tablet.

Use this powerful tool as a central point for viewing and evaluating real-time data instantaneously for more informed decision making. SpecConnect can help improve yield and quality, conserve resources, increase profits and decrease risk by viewing current weather conditions and factors.

- Configure your network from your computer, smartphone, or tablet
- Easy and simple to navigate
- 100% customizable dashboard

## INFORMATION AT YOUR FINGERTIPS

- Map view allows you to see all station locations and **Current Conditions**
- Run **Standard Reports** to provide you with the data you need to make informed decisions
- Choose from a variety of **Custom Report Templates**
- Create your own **Custom Template** for full data analysis that can be downloaded
- Choose optional plant disease and insect models
- Receive customized alerts via text or email with the purchase of the **Alerts Function**
- Integrate with your current system by purchasing our **API Service**



# SpecWare Software

Download directly from Spectrum's website to view and report on the data that is most important to you.

## SPECWARE 10 PRO

- Easily download, analyze and produce basic reports
- Gain back valuable time previously used to export data and perform calculations in spreadsheets
- Powerful, easy to use analysis tools
- Graph on-the-fly with an interactive graphing window
- Choose from 16 standard reports, including EFSA and NOAA
- SpecWare automatically assigns each WatchDog Station to its own "location" directory, which is appended every time new data is downloaded
- Find and use data easily with an open file management system - all data is stored in a monthly file, simplifying data sharing and exporting
- Import data files from other applications
- Export data in tab-separated text files to import into other applications, such as Excel
- International features include handling date, time, and numbers with regional formats and choice of Metric or US
- One purchase = one activation for one installation
- Support for the WatchDog 3000 Series Stations, including the NEW 3500 Models and those that are part of a Retriever and Pups network. Download data via USB thumb drive or a direct connection
- Build, customize and save your most important reports
- Run evapotranspiration (ET) reports to effectively manage water use
- Add optional insect and disease models to forecast pest pressures and reduce pesticide costs and produce reports with graphs for each pest - **FREE FOR 30 DAYS WHEN YOU UPGRADE TO SPECWARE PRO!**