

# Em50G Specifications

## REMOTE DATA LOGGER

### Key Features

- Em50G can be used in more than 120 countries using data plans that are price-optimized for each country (included)
- Em50G powers the sensors and the cellular modem on 5 AA batteries; no external power source needed
- Decagon Data Service (included with every Em50G) provides access to remote Em50G sites up to six times a day

### Key Benefits

- The Em50G provides the peace of mind knowing what's going on at your research sites when you're not there
- Make event-based decisions without visiting your research sites
- Download data from different sites all over the world

### The Em50G package includes:

- Em50G data logger, which includes
  - On-board SIM card and GSM module
  - Weatherproof Enclosure
- 5 AA batteries
- UV-resistant "Zip" ties
- Decagon USB cable for local connection
- ECHO Utility Software
- DataTrac Software Demo
- Decagon Data Service, which includes:
  - One year GSM service plan
  - "User" and "Share User" user ID and passwords
  - Unlimited Decagon server space and data security
  - Em50G downloader software

### What's going on at your remote site right now?

How often have you wondered what was going on at your research site when you weren't there? There are a variety of options for finding out. But figuring out how to communicate with your data logger has typically been complicated and expensive.

Now you can get a data logger that comes communications-ready. Setup is fast—about 20 minutes after cutting open the box, you'll be ready to download your data.



### WHAT IS THE EM50G?

The Em50G Remote Data Logger is self-contained and built to measure, log, and remotely transmit data from five Decagon sensors. No programming is necessary. Data from the Em50G data logger is sent to Decagon's in-house server for you to access at any time and anywhere via the internet.

### WHAT'S INCLUDED?

The Em50G includes a data logger, 5 AA industrial-grade batteries, and all the mobile technology necessary to get your data from the logger to Decagon's server. Once you install your sensors and set your measurement interval on the Em50G, your data are sent using an internal GSM module and SIM card (subscriber identity module.) You don't need a mobile phone, a solar panel, nor even a conversation with your local cell service provider to make this work.

### HOW DO I GET MY DATA?

The Em50G takes measurements of the 5 connected sensors as frequently as 5 minute intervals and delivers the data to Decagon's server four times per day. When you want to download your data to your own computer, simply use any standard internet connection and the included software to access Decagon's server. The software will then download your data from the server to your computer. The formats are the same you're use to seeing from Decagon's software (DataTrac graphed data or Excel files).

### DECAGON'S PROMISE ABOUT DATA SECURITY

Your data belong to you. We treat your data like the confidential information that it is. It has the same secure password protection as an online bank account. Your data are also routinely backed up on Decagon's server, and barring Decagon's headquarters burning down, your data will always remain on the server. (If Decagon DOES burn down, there's a back-up copy of your data stored on your data logger.)

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## EM50G SPECIFICATIONS

**Input ports:** 5, 12-bit analog or 32-bit digital, compatible with any Decagon Devices sensor

**Port type:** 3.5mm “stereo jack” connector

**Data Storage:** 1MB (36,800 scans on all 5 ports)

**Memory type:** Non-Volatile Flash

**Logging interval:** 5 minutes to 24 hours, logged data is 1-minute average of user-specified interval

**Operating environment:** -30°C to 60° C, up to 100% RH

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**Battery capacity:** 5 AA Alkaline or Lithium batteries

**Battery service life:** 6 + months

**External power needs:** None needed

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**Enclosure:** Weatherproof, impact and UV-resistant polymer

**Enclosure Dimensions:** 12.7 x 20.3 x 5.1 cm (5 x 8 x 2 in)

**Enclosure rating:** IP55, NEMA3R

**Enclosure access:** Hinged door with eyelet for securing with user-supplied padlock

**Mounting:** 3.8 cm (1.5 inch) mast or wall mount

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**Local Communication:** Dedicated serial port 3.5mm stereo jack for use with the Decagon Serial Cable Adapter (SCA) or Decagon USB Cable Adaptor (UCA)

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### **Decagon Data Service (included with every Em50G)**

**Data Plan:** Annual, provided by Decagon Devices with 120 global partners, GSM service

**Server Location:** Decagon Devices, Pullman, Washington

**Data Security:** web standard encrypted; a unique user id and password (provided with each logger) are necessary for accessing data from the server.

**Transmit Frequency:** 850/1900 MHz: 824-849 MHz, 1850-1910 MHz,  
900/1800 MHz: 890-915 MHz, 1710-1785 MHz

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