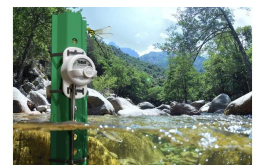# HOBO TidbiT MX2205 Bluetooth-enabled Waterproof Temperature Logger with External Sensor

Product Images

Short Description

The HOBO MX2205 is a waterproof data logger with both an internal sensor and an external sensor that's designed for monitoring fast-changing temperatures.

Leverages the power of Bluetooth Low Energy (BLE) to deliver high-accuracy temperature measurements straight to your iOS/Android mobile device, or laptop.

Description

The HOBO TidbiT MX2205 logger monitors temperature in streams, lakes, coastal habitats, and soil in fields that are prone to flooding.

Equipped with both an internal sensor to monitor ambient temperature and an external sensor on a 2m cable to accurately monitor fast-changing temperatures.

Housed in a protective boot, this rugged logger is designed for extended deployments in fresh water at depths up to 30.5m (100 ft). The logger uses Bluetooth Low Energy (BLE) for wireless communication with a phone, tablet, or computer. Using the free HOBOconnect app, you can easily configure the logger, download logged data to your mobile device or computer.

You can also configure the logger to calculate statistics, set up alarms to trip at specific thresholds, or enable burst logging in which data is logged at a faster interval when sensor readings are above or below certain limits.

This rugged logger withstands harsh environments, and can be deployed just above water or soil for quicker, more convenient data downloads that don't require pulling up the logger.

Data collection in the field has never been easier!

Key Features

- Convenient wireless setup and download via Bluetooth
- ±0.2°C (±0.36°F) accuracy
- Large memory stores 96,000 measurements
- Fast temperature-response time (20 seconds)
- External temperature sensor, plus internal sensor for ambient temp monitoring
- Notifies you when temperature exceeds set thresholds (the logger alarm LED blinks and an alarm icon appears in the app)
- 3-year battery life (Bluetooth on); 5-year battery life (Bluetooth off)
- Two mounting tabs for use with screws or zip ties ensure secure deployment
- Works with Onset's free HOBOconnect app.

Additional Information

Country of Manufacture	United States
Explanation	**Specifications** **Temperature Sensors** **Range** Probe | -40 to 100°C), with tip and cable immersion in fresh water up to 50°C for one year Logger | -20° to 70°C in air; -20° to 50°C in water, maximum sustained temperature in water 30°C. **Accuracy** Probe ±0.25°C from -40 to 0°C ±0.2°C from 0 to 70°C ±0.25°C from 70 to 100°C Logger ±0.25°C from -20° to 0°C ±0.2°C from 0° to 70°C **Resolution** 0.01°C **Drift** <0.1°C per year **Response Time** Probe | 3 minutes in air moving 1 m/sec; 20 seconds in stirred water Logger | 15 minutes typical to 90% in air moving 1 m/s, unmounted; 4 minutes typical to 90% in stirred water, unmounted **Logger** **Logger Operating Range** -20° to 70°C **Buoyancy (Fresh Water)** 14.26 g negative **Waterproof Rating** To 30.5m (100ft) **Radio Power** 1 mW (0 dBm) **Transmission Range** Approximately 30.5m (100ft) line-of-sight **Wireless Data Standard** Bluetooth Low Energy (Bluetooth Smart) **Logging Rate** 1 second to 18 hours **Time Accuracy** ±1 minute per month at 25°C **Battery** CR2477 3V lithium, non-replaceable **Battery Life** 3 years, typical at 25°C with logging interval of 1 minute and Bluetooth Always Off disabled in software. 5 years, typical at 25°C with logging interval of 1 minute and Bluetooth Always Off enabled in the app. Faster logging intervals and statistics sampling intervals, burst logging, remaining connected with the app, excessive downloads, and paging may affect battery life. **Memory** 96,000 measurements **Full Memory Download Time** Approximately 45 seconds; may take longer the farther the device is from the logger. **Wetted Materials** Epoxy case, Santoprene (TPE) boot **Dimensions** 4.06 x 6.99 x 3.51cm External temperature sensor diameter: 0.53cm External sensor cable length: 2m **Weight** 70.0 g **Environmental Rating** IP68
Contents	Data Logger, Protective Boot
Ideal For	Professional, Education
Brand	Onset HOBO
Onset Product Series	TidbiT
Typical applications	Environmental (Outdoor), Field Research
Measurements	Soil Temperature, Temperature, Water Temperature

Additional Options

Temperature Calibration Certificate	2 Point Temperature Calibration (0°C / 60°C)
	2 Point Temperature Calibration (please specify temperature points)
	1 Point Temperature Calibration (0°C)