HOBO® RX2100 Data Logger

MicroRX Station

The compact and rugged HOBO MicroRX Station is an easy-to-deploy, low-cost cellular solution for long-term, reliable field monitoring. Two power source options are available: a solar panel for extended deployments, and user-replaceable batteries for flexible mounting in covered or protected locations. The station includes inputs for up to five of Onset's research-grade plug-and-play sensors, and can be ordered with an additional water level sensor input with integrated flow conversion. Configurable station-side alarms trigger immediate notifications of critical conditions, and Onset's cloud-based HOBOlink platform makes it easy to view, access, and share data.

Key Advantages:

- Compact size for easy deployment
- Robust, weatherproof IP66/NEMA 4X enclosure
- Two power options:
  - Integrated 1.7W solar panel with rechargeable battery pack
    - 5W and 15W external solar panels can be added to MicroRX Station (RX2102), MicroRX Water Level Station (RX2104) or MicroRX Station for HOBOnet (RX2106)
  - User-replaceable AA lithium batteries
- Inputs for five plug-and-play sensors
- Option for wireless sensors using HOBOnet (RX2106 only)
- Optional water level sensor input included in MicroRX Water Level Station, battery-powered (RX2103) and MicroRX Water Level Station, solar-powered (RX2104)
- Built-in LCD confirms proper setup and operation
- Integrated mounting tabs for use with screws, zip ties, or U-bolts
- Station-side alarms, including water flow and accumulated rainfall
- Up to 10-minute connection rates via 4G cellular data plans
- Cloud-based monitoring and data access through HOBOlink

HOBO RX2100 Data Logger Specifications

Operating Range	MicroRX Station, battery-powered (RX2101 and RX2105) and Micro RX Water Level Station, battery-powered (RX2103): -40° to 60°C (-40° to 140°F) MicroRX Station, solar-powered (RX2102), MicroRX Water Level Station, solar-powered (RX2104) and MicroRX Station for HOBOnet, solar-powered (RX2106): -20° to 60°C (-4° to 140°F)
Smart Sensor Connectors	5
Smart Sensor Network Cable Length	100 m (328 ft) maximum
Smart Sensor Data Channels	Maximum of 15 (some smart sensors use more than one data channel; see sensor manual for details)
Logging Rate	1 minute to 18 hours
Time Accuracy	±8 seconds per month in 0° to 40°C (32°F to 104°F) range; ±30 seconds per month in -40° to 60°C (-40° to 140°F) range
Battery Type/Power Source	RX2102, RX2104 and RX2106: Integrated 1.7 watt solar panel and NiMH rechargeable battery pack; optional AC power adapter (P-AC-1) or external solar panel (SOLAR-xW) can be used in place of integrated solar panel RX2101, RX2103 and RX2105: 6 AA 1.5 V lithium batteries or AC power adapter (P-AC-1)
Battery Life	**RX2102, RX2104 and RX2106 Battery Life:** Typical 3–5 years when operated in the temperature range -20° to 40°C (-4° to 104°F); operation outside this range will reduce the battery service life. Maximum connection rates with built-in solar panel, in full sun: • 10 minute connections year round for latitudes less than ±40° • 10 minute connections through three seasons in other regions, reduced to 30 minute connections in winter Maximum connection rates with external 5W or 15W solar panels: • 10 minute connections year round, in full sun • Connection rate with external solar panels may be less if deployed in partial sun Battery life without solar recharging, with hourly connections and 1 minute logging: • RX2102: 3 months • RX2104: 2 months • RX2106: 3 months **RX2101 and RX2103 Battery Life:** Battery life with daily connections: • RX2101: 1 year with 1 minute logging • RX2103: 1 year with 2 minute logging Battery life with hourly connections and 1 minute logging: • RX2101: 3 months • RX2103: 2 months Note: Deployments in areas with weak cellular strength could reduce battery life. **RX2105 Battery Life:** Runs continuously with the included AC adapter. Batteries can be used as a backup to AC power; battery life of 3 months with 1 minute logging and daily connections or 2 months with 1 minute logging and hourly connections, and with approximately 10 motes. Note: Deployments in areas with weak cellular strength could reduce battery life.
Memory	16 MB, 1 million measurements, continuous logging
Alarm Notification Latency	Logging interval plus 2–4 minutes, typical
Enclosure Access	Hinged door secured by two latches with eyelets for use with user-supplied padlocks
LCD	LCD is visible from 0° to 50°C (32° to 122°F); the LCD may react slowly or go blank in temperatures outside this range
Materials	Outer enclosure: Polycarbonate/PBT blend with brass inserts; Interior: Polycarbonate/PBT; Gasket: Silicone foam; Cable channel: Santoprene™ TPE; U-Bolts (not included): Steel with zinc dichromate finish

Weight	678 g (23.9 oz)
Mounting	Optional U-bolts are compatible with masts up to 4.14 cm (1.63 in.) mast diameter; can also be mounted with zip ties or mounted to a flat surface with screws
Environmental Rating	Weatherproof enclosure, NEMA 4X and IP66 (requires proper installation of cable channel system)
Wireless Radio	GSM/GPRS/EDGE: Quad band 850/900/1800/1900 MHz UMTS/HSPA+: Seven band 800/850/900/1800/1900/2100 MHz LTE: Twelve Band 700/800/850/900/1800/1900/2100/2600 MHz
Antenna	4G LTE
CE	The CE Marking identifies this product as complying with all relevant directives in the European Union (EU)
	Taiwan Compliance - RX2105 and RX2106 Micro RX versions only
FC	FCC ID QIPPLS62-W, IC ID:7830A-PLS62W