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# HOBO RX2105 MicroRX Cellular Web-enabled Indoor Monitoring Station (Wireless Sensors)

## **Product Images**











### **Short Description**

The HOBO RX2105 MicroRX Station is an easy-to-deploy, low-cost cellular solution for long-term, reliable monitoring of indoor conditions in warehouses, cold storage facilities, data centres, museums, commercial and residential buildings, and more.

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The integrated HOBOnet Manager (UK & Europe model) receives data from wireless HOBOnet sensors. The station also features inputs for up to five of Onset's research-grade plug-and-play sensors. 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 Features**

- Scalable to monitor multiple parameters: connect up to 50 wireless sensors (600 m line-of-sight range) and up to five plug-and-play smart sensors (see Measurements below)
- Powerful web-based access to your data with HOBOlink cloud-based software: configure alarms, create custom dashboards, and view your data on any device with an internet connection.
- Station-side alarms triggered at time of measurement
- Real-time monitoring with up to 10-minute connection rates via 4G cellular data plans.
- Includes AC power adapter and user-replaceable AA lithium batteries for battery back-up
- Built-in LCD confirms proper setup and operation
- Integrated mounting tabs for use with screws, zip ties, or U-bolts.

## **Additional Information**

Country of Manufacture	United States	
	To see the full specifications for this product, please see the User Manual under the Resources tab. HOBO RX2105 Station	
	Operating Range	-40° to 60°C (-40° 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	$\pm 8$ seconds per month in 0° to 40°C (32°F to 104°F) range; $\pm 30$ seconds per month in -40° to 60°C (-40° to 140°F) range
	Battery Type/Power Source	AC power adapter (P-AC-1) and 6 AA 1.5 V lithium batteries
	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 $50^{\circ}$ C ( $32^{\circ}$ to $122^{\circ}$ 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 <sup>ew</sup> TPE; U-Bolts (not included); Steel with zinc dichromate finish
	Dimensions	19.95 x 13.68 x 7.49 cm (7.85 x 5.39 x 2.95 in.)
	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
Explanation	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/H59A-Seven band 800/850/90/1800/1900/2100 MHz LTE: Twelve Band 700/800/850/900/1800/1900/2100/2600 MHz
	Antenna	4G LTE
	×	The CE Marking identifies this product as complying with all relevant directives in the European Union (EU)
	××	
	Integrated HOBOnet Manager	
	Operating Range	-25° to 60°C (-13° to 140°F)
	Radio Power	12.6 mW (+11 dBm) non-adjustable
	Transmission Range	Reliable connection to 457.2 m (1,500 ft) line of sight at 1.8 m (6 ft) high Reliable connection to 609.6 m (2,000 ft) line of sight at 3 m (10 ft) high
	Wireless Data Standard	IEEE 802.15.4
	Radio Operating Frequencies	RX210x-900: 904-924 MHz RX210x-865 SMHz RX210x-865 se6.5 MHz RX210x-922: 916-924 MHz
	Modulation Employed	OQPSK (Offset Quadrature Phase Shift Keying)
	Data Rate	Up to 250 kbps, non-adjustable
	Duty Cycle	<1%
	Maximum Number of Motes	50 motes per one HOBOnet wireless sensor network
	Power Source	Powered by the station
	Dimensions	Mote: 16.2 x 8.59 x 4.14 cm (6.38 x 3.38 x 1.63 inches) Cable length: 2 m (6.56 ft)
	Weight	159 g (5.62 oz)
	Materials	PCPBT, silicone rubber seal
	Environmental Rating	IP67, NEMA 6
Contents	HOBO RX2105 MicroRX Station HOBOnet Manager Cable Grease packet Cable ties Screws and washers Six AA lithium batteries	
Brand	Onset HOBO	
Typical applications		mance, Environmental (Indoor), Food Safety, HVAC, Thermal Comfort
	suilaing wonitoring, suilaing verformance, Environmental (Indoor), Food Safety, HVAL, Inermal Comfort 4-20mA, Amp Hour (Ah), Barometric Pressure, Current AC, Event, Flow, Humidity, Kilowatts (kW), kWh, Light Intensity, Light On/Off, Motor On/Off,	
Measurements	4-20mA, Amp Hour (An), Barometric Pressure, Current AC, Event, How, Humiaity, Kilowatts (KW), KWh, Light Intensity, Light Un/Uff, Motor Un/Uff, Power Factor (PF), Pulse, Temperature, Volt-Amp Reactive hour, Volt-Amps (VA), Voltage AC, Voltage DC, Watt Hours (Wh), Watts (W)	

Select Sensors (if the sensor you require isn't listed; please contact us, as there are many more options available).	Temperature Wireless Sensor with 6ft probe cable (RXW-THB-6-868)
	Temperature & Relative Humidity Wireless Sensor (RXW-THC-B-868)
	Wireless Repeater (for when there is an obstruction between sensors and the station, or for extending the range of sensors) (RXW-RPTR-B-868)
Data Plan	Basic 4G Plan - 60 minutes interval - up to 22 sensors (SP-811)
	Standard 4G Plan - 10 minutes interval - up to 25 sensors (SP-813)
	Premium 4G Plan - 10 minutes interval - up to 65 sensors (SP-815)