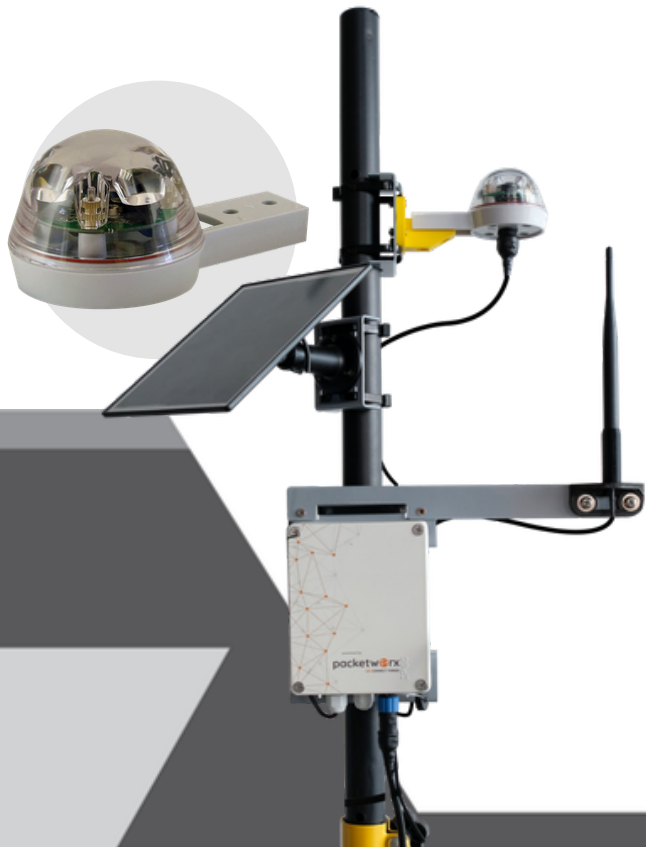




packetSENSE Rainfall

The **packetSENSE Rainfall** is a compact, low-power device designed for precise and reliable rainfall measurement. Powered by an integrated solar panel, it enables wireless operation for easy field deployment.

Featuring an open collector output that emulates a standard tipping bucket, the sensor delivers accurate data via serial communication and supports effortless configuration.

Using advanced infrared technology, the sensor detects rainfall by measuring variations in light beam intensity as raindrops pass through. Its intelligent signal processing circuitry ensures high sensitivity to even the smallest droplets while minimizing interference from ambient light.

Features

- **ITU-T Y.4480 Compliant:** Meets International Telecommunication Union standards for low-power, wide-area wireless networks.
- **Configurable Uplink Interval:** Downlink commands allow flexible adjustment of data transmission intervals.
- **Ultra Low-Power Design:** Optimized for extended battery life and energy efficiency.
- **Rugged and Reliable:** Built for harsh environments, offering maintenance-free operation and long-term durability.

Applications

- **Weather Monitoring and Forecasting**
- **Disaster and Risk Management Systems**

Technical Specification

Data Communication Supported

Technology	LoRaWAN®
Frequency	AS923-3 (915 MHz to 918 MHz)
Transmit Power	+22 dBm
Class	Class A

Power Configuration

Power Source	Solar Panel w/ Backup Battery
Battery Type	LiFePO ₄
Battery Voltage	3.2 V
Battery Capacity	5,760 mAh

Sensor Performance

Operating Principle	Infrared Optical
Sensor Parameter 1	Accumulation
Range	0 mm to 99 mm
Accuracy	± 10% of reading
Sensor Parameter 2	Total Accumulation
Range	0 mm to 655 mm
Accuracy	±10% of reading
Resolution	0.02 mm

General Specifications

Operating Temperature	0 °C to +50 °C
Relative Humidity	15% RH to 80% RH
Ingress Protection	IP65
Enclosure Material	Metal
Dimension	Enclosure w/ Bracket: 38 cm x 30 cm x 8 cm Sensor w/ Bracket: 25 cm x 60 cm x 6.3 cm Solar w/ Bracket: 13.5 cm x 16 cm x 20 cm
Weight	Enclosure w/ Bracket: 2.6 kg Sensor w/ Bracket: 10 kg Solar w/ Bracket: 1 kg
Mounting/Installation	Pole Installation

LoRa Alliance Member

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