NB-IoT Impact Rain Sensor WSNB-IRS

SKU: WSNB-IRS

Doc No: WSNB-IRS-DS-EN-10

Introduction

NB-IoT impact rain sensor WSNB-IRS is a new rain sensor technology. Unlike the traditional methods such as weighing or tipping bucket range gauge, this impact rain sensor has many unique advantages as no maintenance is required, providing real-time information on rain intensity, duration, and accumulated rainfall. It also can distinguish between rain and hail and provide data for both types of precipitation. The measurement principle is using an impact sensor located beneath the stainless steel cover to count every drop of rain. Raindrops hit the surface at their terminal velocity, which is a function of the raindrop diameter. Measurement is based on the acoustic detection of each raindrop as it impacts the sensor cover. Heavier drops create a more significant acoustic signal than smaller drops. Ultra-low-power design and smart firmware allow the complete Wireless and Sensor package to run on AA batteries for up to 10 years. It supports LTE Cat NB1 connectivity for global bands. This NB-IoT Impact Rain Sensor WSNB-IRS is very suitable for remote area locations with a maintenance-free design and long battery life.

- Rain measurement for stationary or mobile in city, rural areas...

Highlighted Features

- Compact & Light weight;
- Maintenance-free;
- Not affected by falling leaves, bird dropping;
- 5-10 years battery life;
- Distinguish between rain and hail;
- Report Rain intensity, precipitation and duration;
- IP67 Robust design for outdoor application;
- LTE Cat NB1 connectivity for Global bands.

WSSFC-IRS.png

Specification

SENSOR SPECIFICATION	
Rain measurement	Intensity, Precipitation and Duration
Measuring range	0..200 mm/h
Resolution	0.1 mm/h, 0.1mm
Accuracy	within +/- 10% of measurement
Working atmospheric pressure	101.3 Kpa +/- 20%
Working temperature	-40 .. + 85 oC
Working humidity	up to 100% RH
COMMUNICATION SPECIFICATION	

Cellular	LTE Cat NB1 Global bands: B1, B2, B3, B4, B5, B8, B9, B10, B12, B13, B17, B18, B19, B20, B25, B26, B27, B28, B66
Data rate	Max download rate 27Kbps Max upload rate 65Kbps
Host communication supports	TCP/IP, UDP/IP, FTP, HTTPS, SNMP...
Antenna	Internal antenna
Battery	04 AA batteries, Type 1.5V or 3.6V
Configuration	via offline cable with free software and via online Globiots system
SIM slot	01 x micro-SIM
Accessories	Standard mounting bracket
Dimensions	D140xH45 without bracket
Total net weight	< 1kg, with bracket and batteries

Ordering Code

Item code	**Descriptions**
WSNB-IRS-01	NB-IOT IMPACT RAIN SENSOR, 0-200MM/H, IP67, AA BATTERIES OPERATED, GLOBAL BANDS

⚠ Link for full datasheet:

⚠ Link for manual:

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