

# packetPULSE

**PacketPULSE** is a LoRaWAN®-enabled device that counts LED or IR pulse from any device that has pulse output. Each pulse corresponds to a certain volume or amount of energy passing through the device. By counting the pulse and measuring the time between each pulse, users can calculate the volume of water for water flow monitoring or the energy consumption for power monitoring.

Sensor data is sent to the cloud/platform using LoRaWAN® at configurable intervals via either CLI or downlink commands, enabling remote reconfiguration if needed.

Depending on the application, enterprises can choose among the following packetPULSE types:

- packetPULSE Optical<sup>1</sup>
- packetPULSE Optical Compact<sup>2</sup>
- packetPULSE Dry Contact<sup>3</sup>



## Features

- Battery life span up to 176 months depending on operating procedures and the type of packetPULSE
- Wireless, battery operated device using Lithium Thionyl 18505

## Applications

- Smart Utility
- Smart Building
- Smart Facility
- Smart Factor

**Battery Life (in months)**

Data Transmission Frequency	packetPULSE Type	30 min	1 hour	3 hours	8 hours
SF7	Optical	19	22	66	176
	Optical Compact	4	5	16	44
	Dry Contact	19	22	66	176

## Technical Specification

### LoRaWAN

Device	S76S
Integrated MCU	STM32L073xZ
Integrated RF IC	SX1276
Frequency	868Mhz
Antenna	Internal
Range	Up to 15k
RSSI	38dBm to 45dBm

### Electricals

	Optical	Optical Compact	Dry Contact
Power Source	Battery-powered		
Battery Type	Lithium Thionyl	Coin Cell CR 2477	Lithium Thionyl
Battery Capacity	4000mAh	1,000mAH	4000mAh

### General Device Specifications

Operating Temperature Range	-40°C~85°C
Operating Voltage	2.5V to 5.5V

### Optical and Optical Compact

Peak Sensitivity	940nm
Spectral Bandwidth	700-1000nm
Protection Grade	IP65

### Dry Contact

Dry Contact Response Time	Minimum of 25 milliseconds response time per pulse
Protection Grade	IP66

### Mechanical for packetPULSE

#### Optical

Dimension	62.08mm x 111.00mm-(4m/10m product) and mounting bracket for 20m product
Mounting	Two mounting holes/ mounting bracket for 20m product
Outdoor Installation	Aluminum shroud attachment

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