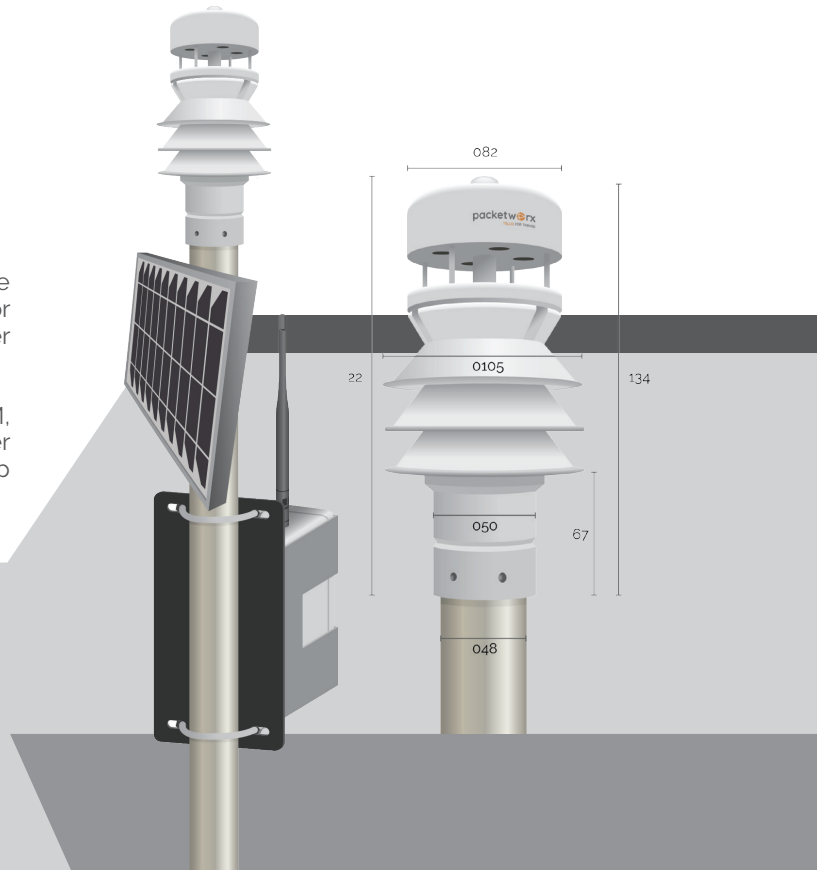


# packetWEATHER

**PacketWEATHER** is a high quality LoRaWAN® device integrated with nine (9) sensors. It is a compact solution for weather sensing. It measures, records and transmit weather data.

The weather data can be transmitted via LoRaWAN®, GSM, WiFi or Satellite. It is designed to stand extreme weather conditions and continuously operate as it has 96wh back up battery and solar power.



## Features

- LoRaWAN® compatible
- Multiple Weather Parameters Integrated: temperature and humidity, rainfall, wind speed, wind direction, air pressure, altitude, particulate matter and radiation.
- Battery backup – LiFePO<sub>4</sub>
- Fit for outdoor installation

## Applications

- Smart City
- Weather and Environment Monitoring
- Air Quality Monitoring

## Technical Specification

### LoRa

Device	S76S
Integrated MCU	STM32L073xZ
Integrated RF IC	SX1276

### RF

Frequency	868Mhz
Antenna	Internal
Modulation	LoRa
Range	Up to 15km
RF Power	+25dBm

### Basic Weather Parameters

Measuring Range	Fine Degree	Resolution
Wind Speed	0 - 40m/s	± 5 % 0.1m/s
Wind Direction	0 - 359 °	± 3 ° 1 °
Temperature	-40 °C - +80 °C	± 0.5 °C 0.1 °C
Humidity	0-100%	± 5 % 1
Rainfall	0-100mm/hr	± 5 % 0.01mm 0.01mm (@windspeed ≤ 5m/s)

### Optional Weather Parameters

Air Pressure	300 - 1100hPa	± 1	0.1hPa
Altitude	-500m to 9000m	± 5 %	1m
Radiation	0-1750W/m <sup>2</sup>	± . 5 %	0.1 W/m <sup>2</sup> (@ perpendicular irradiation)
Illuminance	0-200000lux	± . 4 %	0.1 lux (@ perpendicular irradiation)
UV Radiation	(100-200K) μ W/cm <sup>2</sup>	± 10%	1 μ W/cm <sup>2</sup>
PM2.5 , PM10	0-1000 μ g/m <sup>3</sup>	± 10 %	.1 Imul / G/m. <sup>3</sup>

### Electricals, Dimensions and Weight

Digital Output	RS232 , RS485 , SDI-12, LoRaWAN, GSM (SMS, GPRS, 4G, LTE), WiFi, Optional: Satellite Connectivity
Communication Baud Rate	4800 - 19200
Protocol	ModBus , NMEA-0183 , ASCII
Protection Level	IP65
Operating Temperature	-40 °C - +60 °C
Working Humidity	0 - 100%
Power Demand	VDC: 7-24V
Power Consumption	1.7W
Battery & Back Up Power	96wh battery back-up using high temp/long life LiFePO <sub>4</sub> batteries
Dimensions/Weight	Redundant main and solar panel supply 84mm x (120-298) mm ; ABS: 0.38kg (product height varies depending on parameters and modules)
Shell Color	Black/White
Material	ABS Engineering Plastics

**packetworx**  
TELCO FOR THINGS

Packetworx IoT Technology Hub  
G/F ISquare Building, 15 Meralco Avenue,  
Ortigas, Pasig City, 1605, Philippines

(+632) 7971-9211 | (+63) 917-189-7613