SWFG005

PN: SW20049IA63

Features

- Frequency bands from 860~870MHz,900~930MHz
- Maintains high performance on device
- Impedance 50 ohm
- High gain

Applications:

- IoT
- Metering
- Industrial
- Environmental monitoring
- Remote asset monitoring
- Others

Sunnyway RF Technology（China）Co., LTD.

Add: 1F, Building 4, No.215-99, GaoGuang Road, QingPu District, Shanghai, China

Tel: +86-021-6083 5368 Fax: +86-021-6484 2328

Email: sales@sunnyway-iot.com Web: www.sunnyway-iot.com

1. Introduction

The Sunnyway RF SWFG005 is a fiberglass omni-directional outdoor antenna is designed to cover all operating frequencies in the 860~870MHz/900~930MHz spectrum. The antenna has high peak gain, providing the largest coverage area for Low Power Radio (UNB Sigfox, LPRN, LoRA) and mesh networks.

The fiberglass housing enables antenna to be used in harsh environments, making it more robust, vandal resistant and safer than traditional whip antennas. with a compact overall dimension of 240mm in height and 16mm wide. connectivity is made via the rugged, industry standard, N-Type connector.

Typical applications:

- IoT
- Metering
- Industrial
- Environmental monitoring
- Remote asset monitoring
- Others

2. Electrical Specification

Frequency range (MHz)	860~870	868	900~930	915
Peak Gain (dBi)	2.4~2.7	2.4	2.2~3.0	3.1
Average Gain (dB)	-0.6~-0.3	-0.6	-1.0~-0.6	-0.9
VSWR	< 1.7	1.56	< 1.5	1.14
Return Loss	< -12.0	-13.19	< -15.0	-23.64
Efficiency (%)	87~94%	87.3%	80~87%	80.8%
Horizontal Beamwidth	360º			
Vertical Beamwidth	80º			
Impedance(Ω)	50			
Polarization	Vertical polarization			
Max. Power(W)	50			
Connector	N-K			
Lightning Protection	DC grounding			

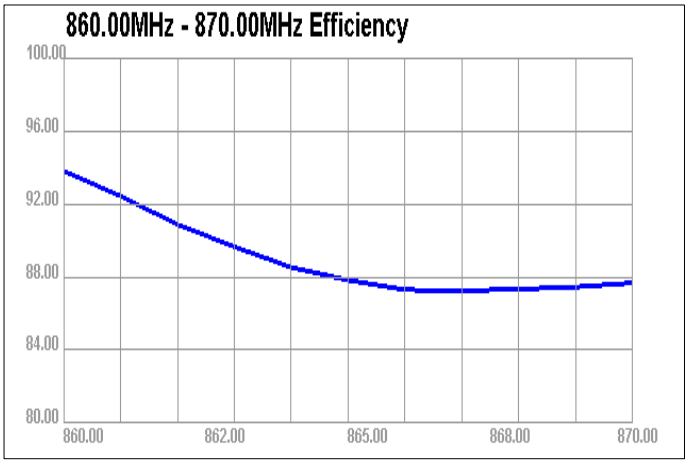
3. Mechanical and Environmental Specification

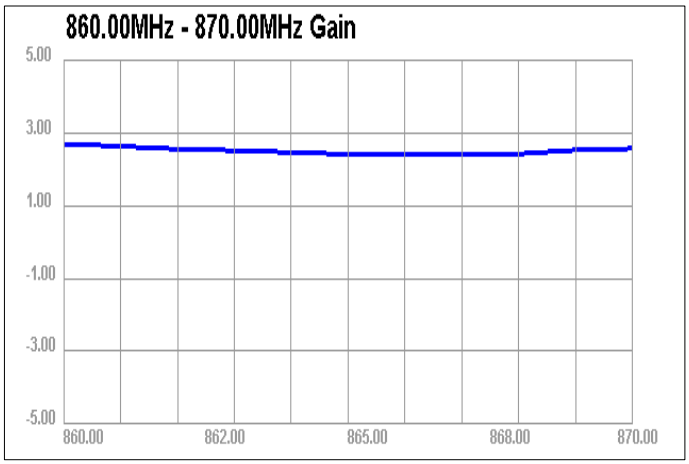
Dimension(mm)	Ø16*240mm
Weight（g）	113g
Operational Humidity	<95%
Operating temperature	-40 ~ +60 ℃
Radome material	FRP

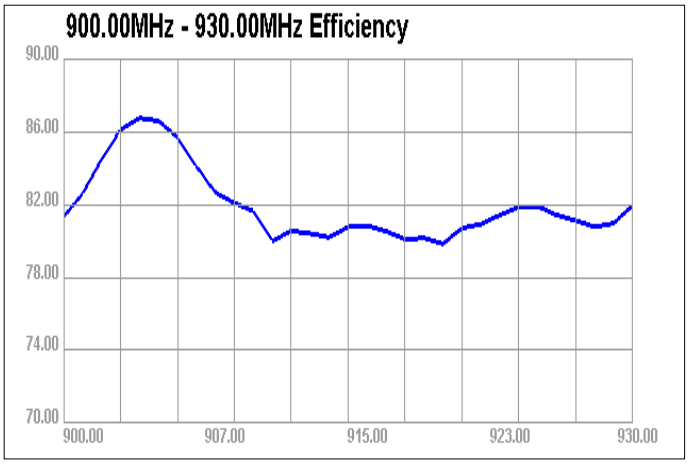
4. Antenna parameters

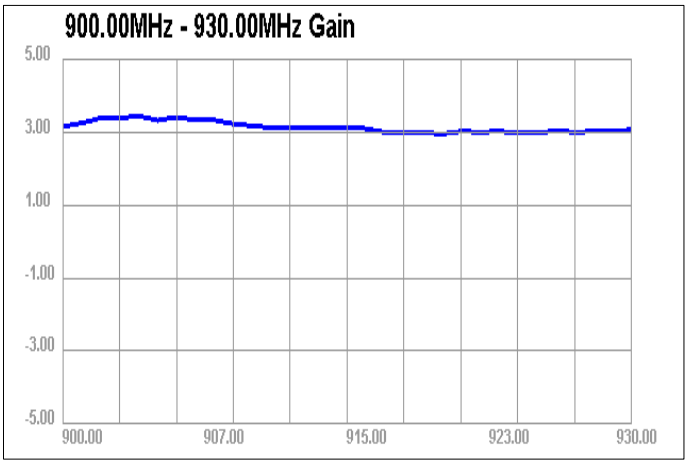
4.1 VSWR and Return Loss

4.2 Efficiency and Gain

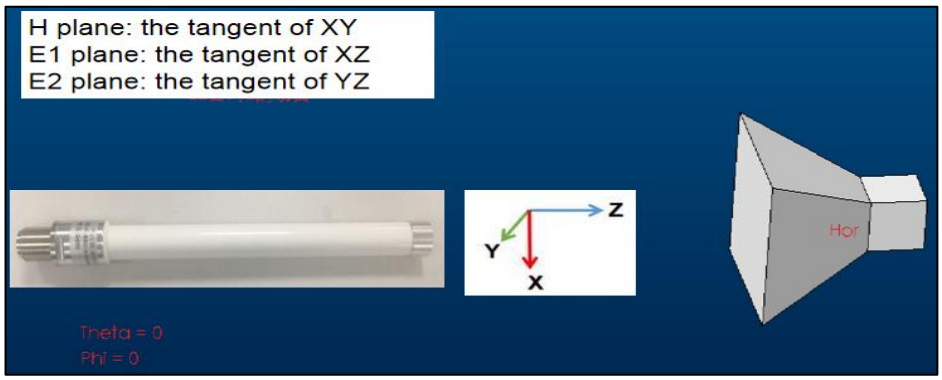


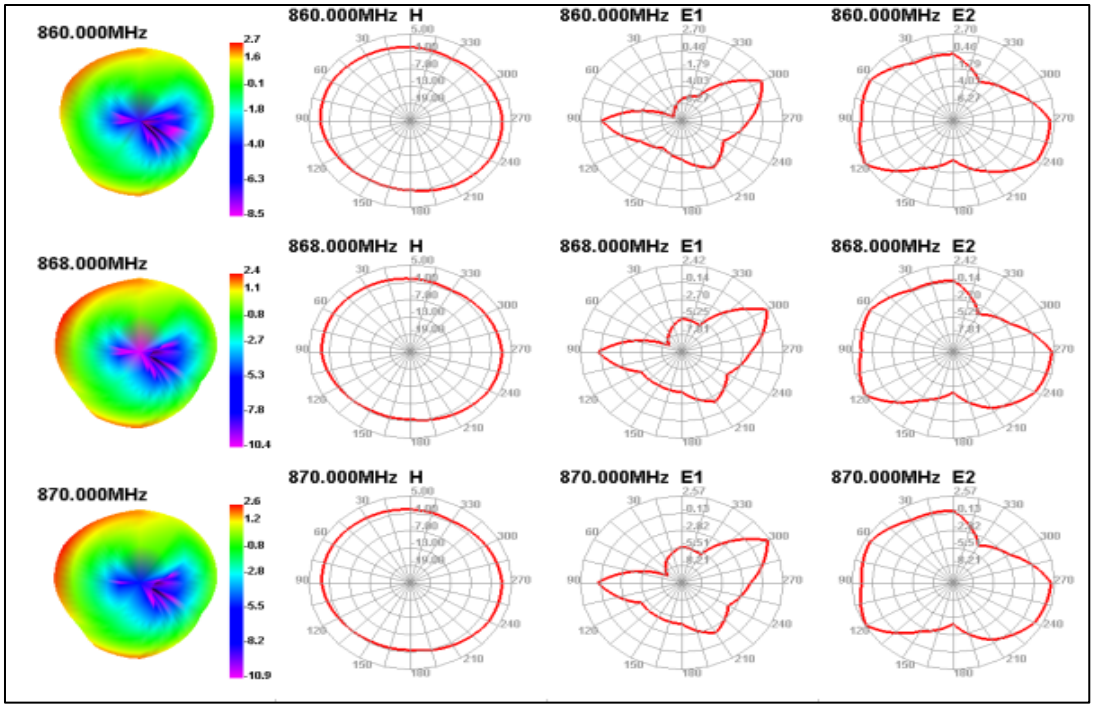


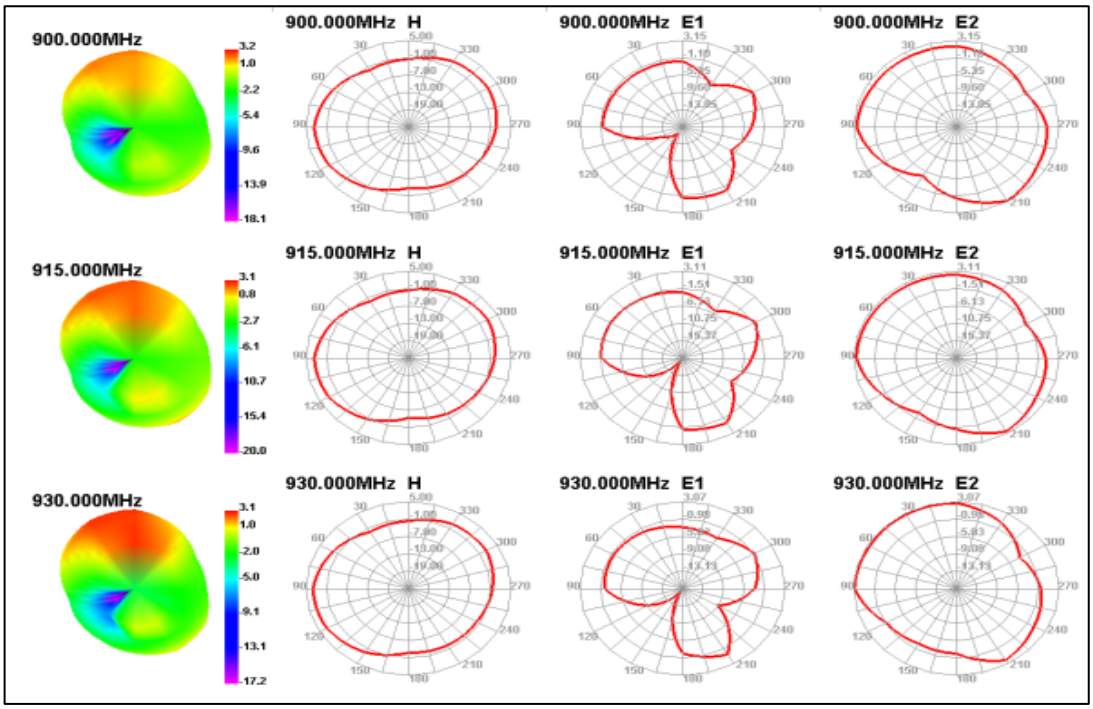




4.3 Directional pattern







5. Antenna Drawing(Unit:mm)