



D03042

PN: SH23157WB52

Key features:

- Frequency band 433MHZ
- Small size
- Impedance 50 Ohm

Typical applications:

- Smart Metering
- Remote Pipeline Monitoring
- Transportation
- Others

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1. Introduction



- The Sunnyway D03130 915MHZ terminal mount antenna, at just 108.3mm in height and 10mm in diameter. The antenna designed for superior performance and reliability, has an omnidirectional radiation pattern and extremely high efficiency and gain on both the 915MHZ bands, the antenna has a wide-band high efficiency response on nearly all 915MHZ frequency bands worldwide, and can also be used for other cellular and wireless applications.
- Smart Metering
- Remote Pipeline Monitoring
- Transportation
- Others

2. Electrical Specification

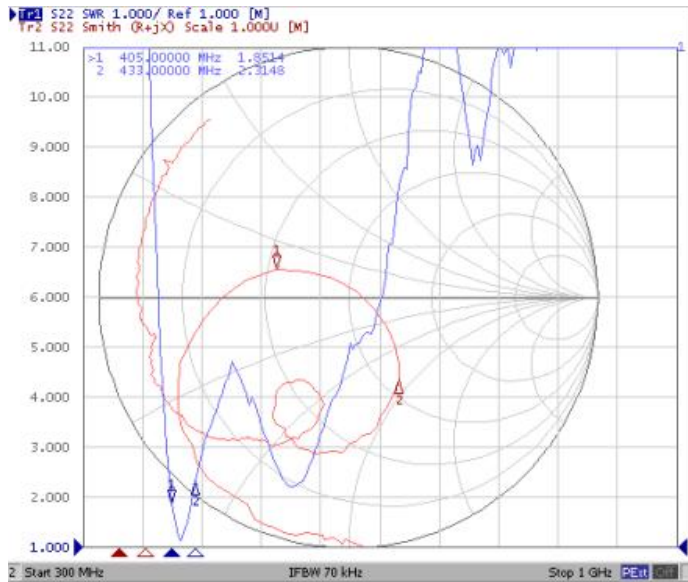
Standards	433MHZ
Frequency range (MHz)	433MHZ
Peak Gain (dBi)	-1.25
Average Gain (dB)	-6.9
VSWR	< 3
Return Loss (dB)	< -5.0
Efficiency (%)	20%
Polarization mode	Linear
Radiation pattern	Omni-Directional
Output impedance (Ω)	50
Max. Input Power(W)	5

3. Mechanical and Environmental Specification

Mounting Type	Connector Mount
Connector Type	SMA-Male Standard (Right-Angle)
Antenna size(mm)	108X ϕ 9.3mm
Material	ABS
Operating Temperature (°C)	- 40 °C ~ + 85 °C
Storage Temperature(°C)	- 40 °C ~ + 85 °C

4. Antenna parameters

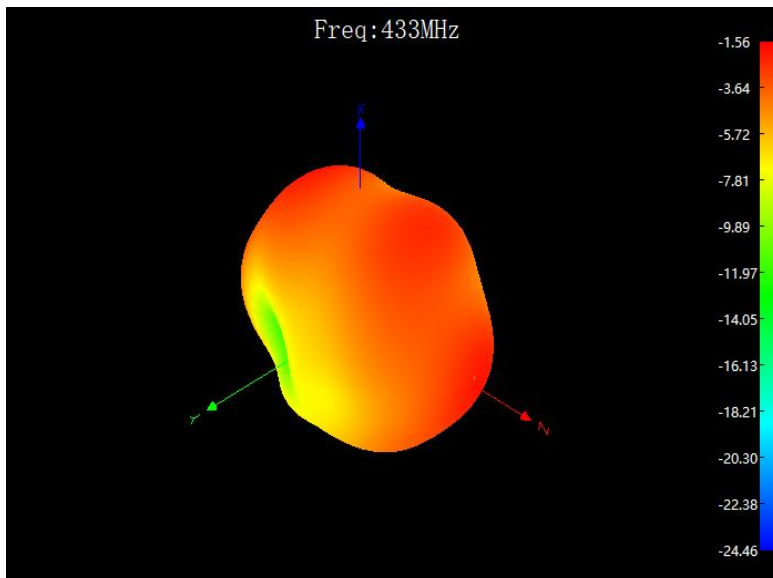
4.1 VSWR and Return Loss



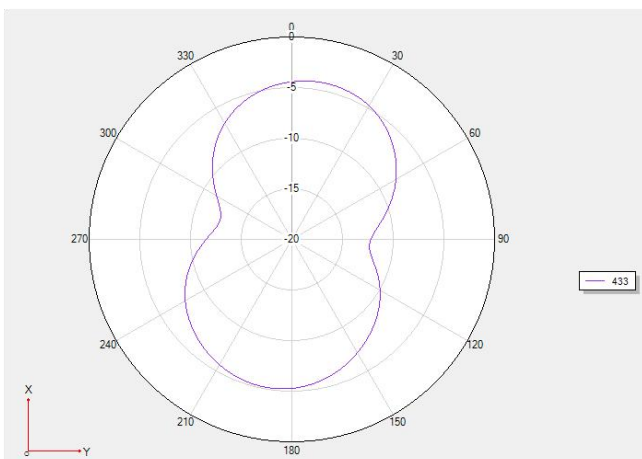
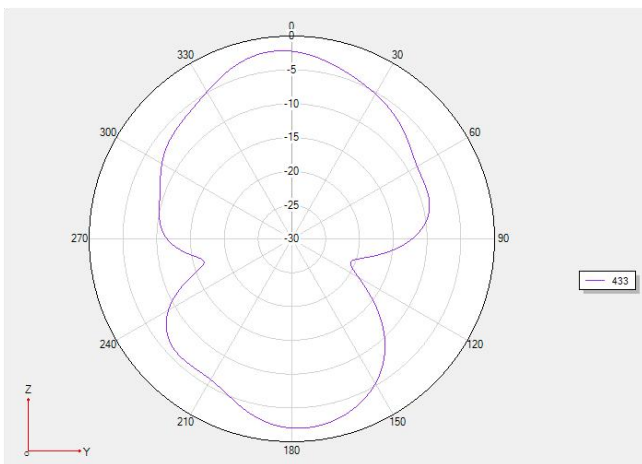
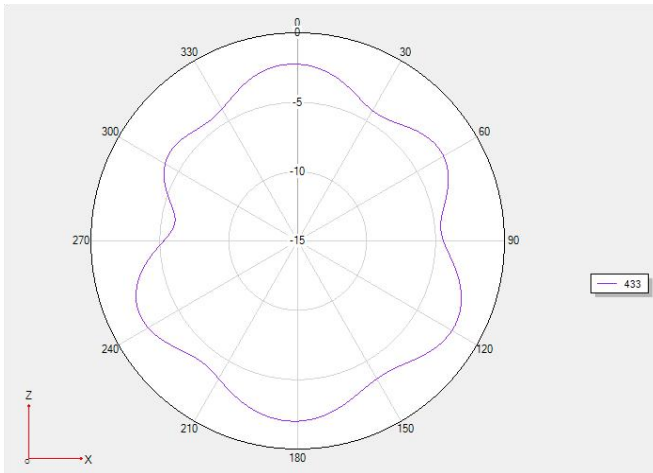
4.2 Efficiency and Gain

frequency (MHz)	gain(dBi)	efficiency(dBi)	efficiency (%)
430	-2.32	-7.46	17.95
431	-1.52	-6.78	20.99
432	-1.25	-6.6	21.88
433	-1.56	-6.9	20.42
434	-2.01	-7.26	18.79

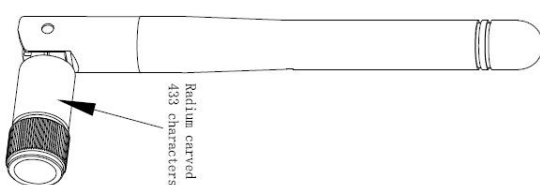
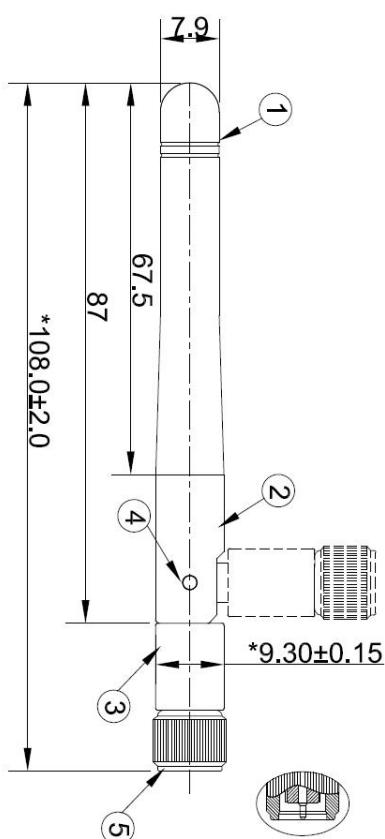
4.3 3D Directional pattern



4.4 2D Directional pattern



1. Packaging requirements for shipment: Bagged shipment
2. Tick '*' to strictly control dimensions (QC mandatory level A), Undeclared angle tolerance $\pm 1^\circ$, with () dimensions as reference dimensions.
3. The appearance is clean, without scratches, shrinkage, or missing glue.
4. The product cannot be mixed with recycled materials.
5. Frequency band: 433MHz
6. The product meets RoHS requirements.



Sunnyway Technology (China) Co., Ltd.			
	PART NAME:	D03042	
TOLERANCE X.X ±0.20 .XX ±0.10 .XXX ±0.05 ANGULAR <±0.5°	PART NO.: SMZ3157MB52	DATE:	2023.5.30
	MATERIAL: PC	DRAWN:	zhangyuanfan
	FINISHING:	CHECKED:	yujiang
UNIT: mm	COLOR: black	APPROVED:	
	SCALE: 1:1	REV:	RA