# SWE031

## PN: SW20028EB56



## Features:

- Frequency bands from 890 – 980 MHz 1710 – 1900 MHz .
- short antenna with SMA connector.
- Connector: SMA-Male.
- Impedance 50 ohm.

**Sunnyway Technology**
Add: Building 65-302, No.421 Hongcao Road, Xuhui District, Shanghai
Tel: +86-021-6484 2326 Fax: +86-021-6484 2328
Email: sales@sunny-way.com Web: www.sunny-way.com

## 1. Electrical Specifications

| | | |
|---|---|---|
| Frequency range (MHz) | 890~980MHz | 1710~1900MHz |
| Peak Gain (dBi) | 0.2~3.2dBi | -2.2~2.8dBi |
| Average Gain (dB) | -5.9~-1.5dB | -7.6~-3.3dB |
| VSWR | < 4.0 | < 7.0 |
| Return Loss | < -5.0 | < -2.8 |
| Efficiency (%) | 25~70% | 17~46% |
| Polarization mode | Linear | Linear |
| Radiation pattern | Omni-Directional | Omni-Directional |
| Output impedance (Ω) | 50 | 50 |
| Max. Input Power(W) | 25 | 25 |

## 2. Mechanical and Environmental Specification

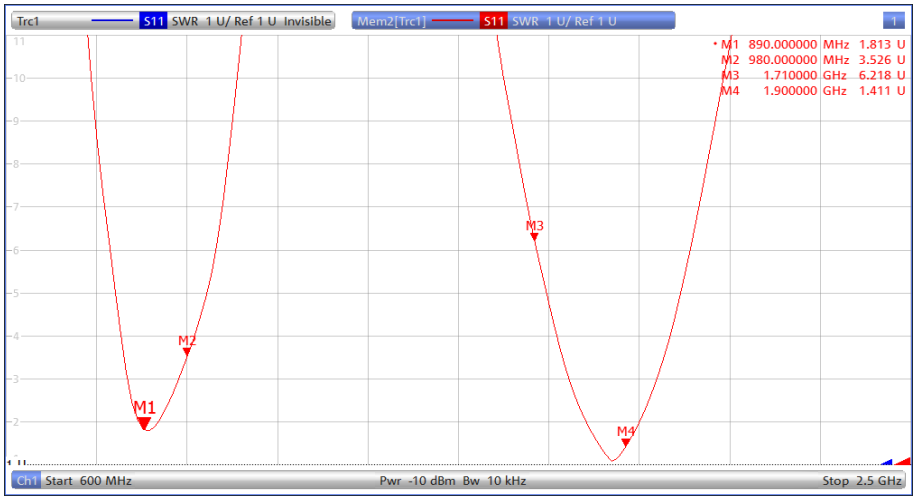
| | |
|---|---|
| Mounting Type | Connector Mount |
| Antenna size(mm) | 29 x φ7.8mm |
| Material | ABS |
| Operating Temperature (˚C) | - 40 ˚C ~ + 85 ˚C |
| Storage Temperature(˚C) | - 40 ˚C ~ + 85 ˚C |

# 3. Antenna parameters

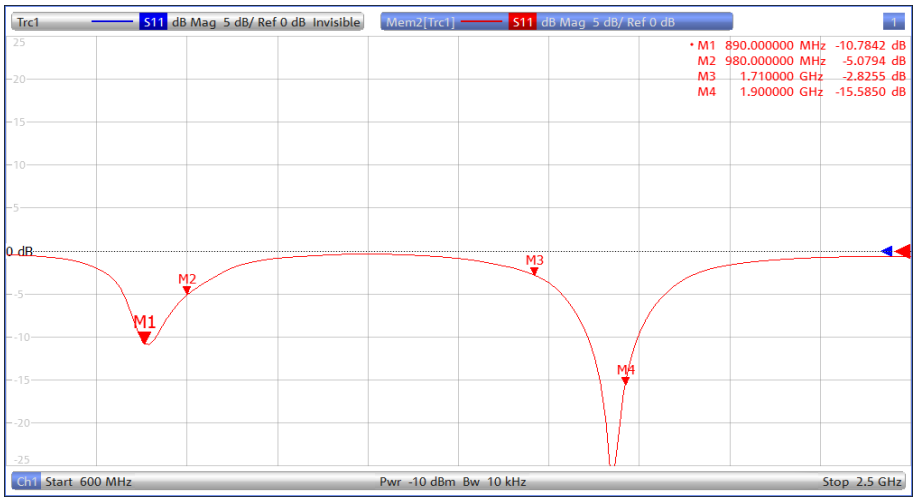
## 3.1 General Data

| FRE (MHz) | 890 | 980 | 1710 | 1900 |
|---|---|---|---|---|
| VSWR | 1.81 | 3.52 | 6.21 | 1.41 |
| Return Loss | -10.78 | -5.07 | -2.82 | -15.58 |
| Eff (%) | 25.5 | 69.9 | 17.3 | 45.1 |
| Average Gain(dB) | -5.9 | -1.5 | -7.6 | -3.4 |

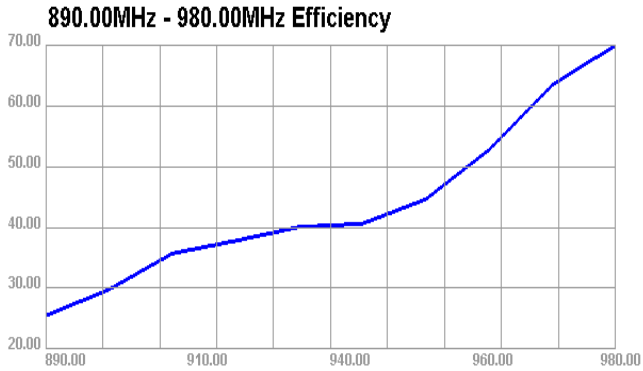
## 3.2 VSWR

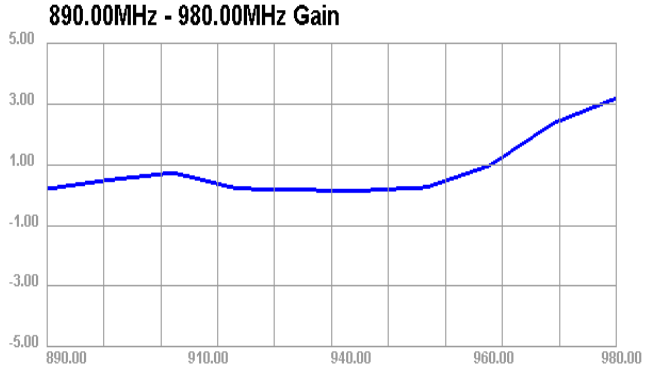


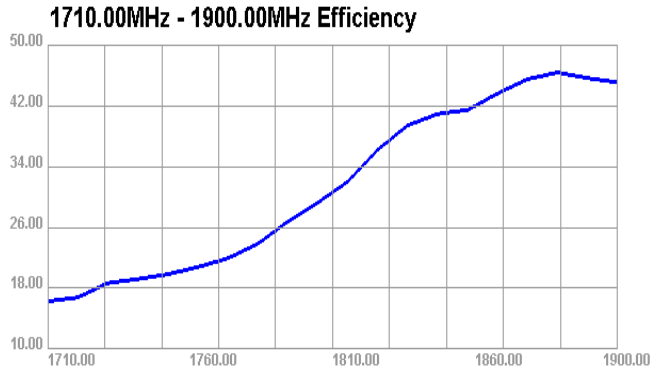

## 3.3 Return Loss

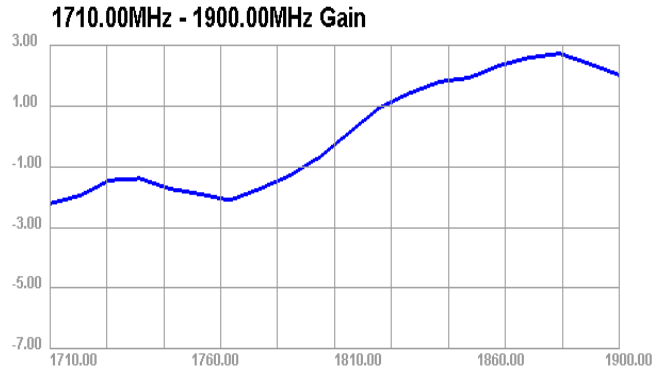


## 3.4 Efficiency and Gain

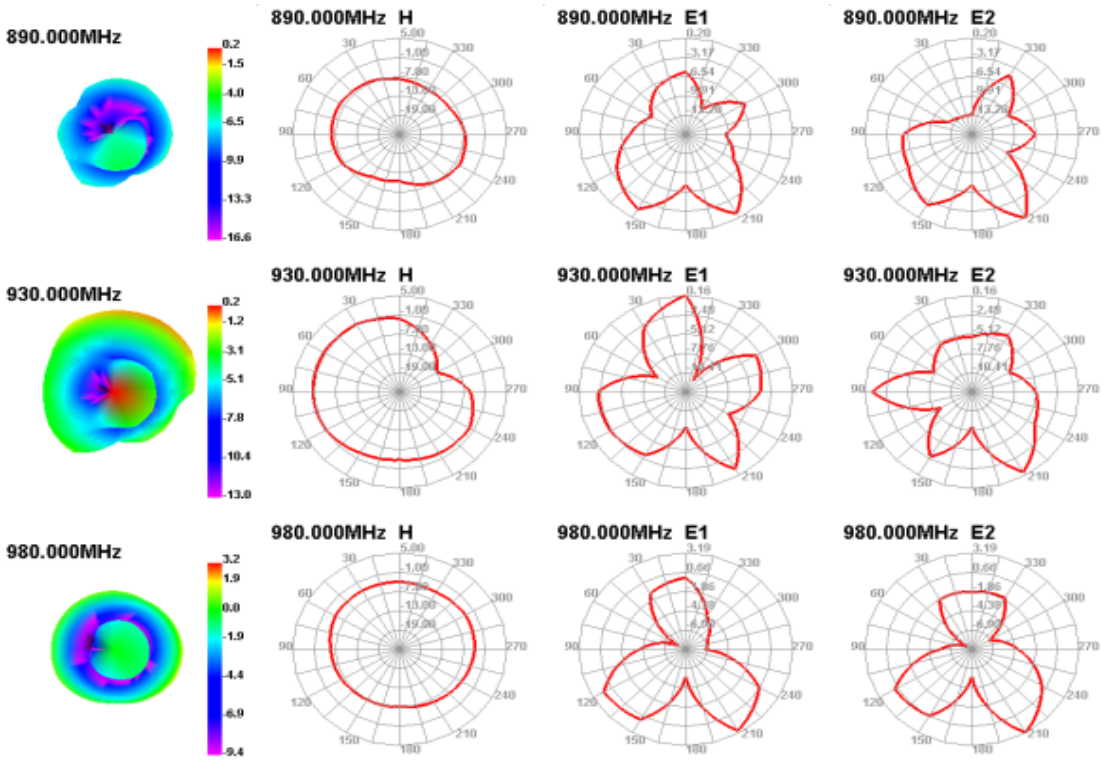


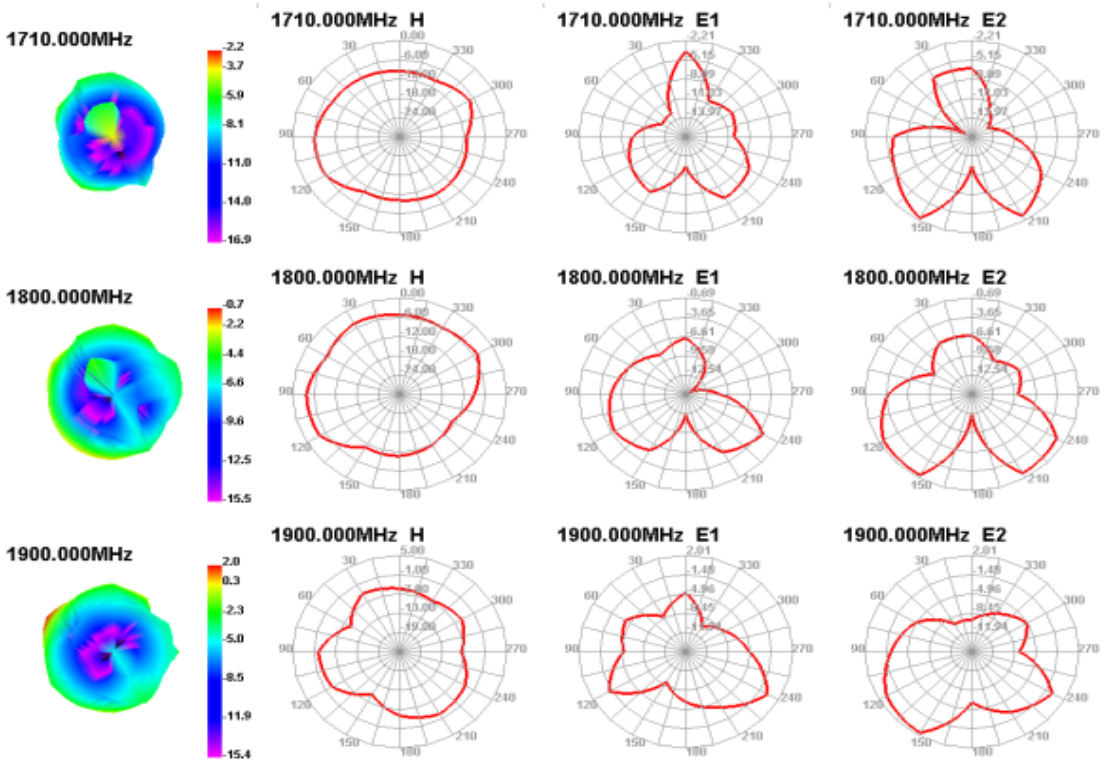



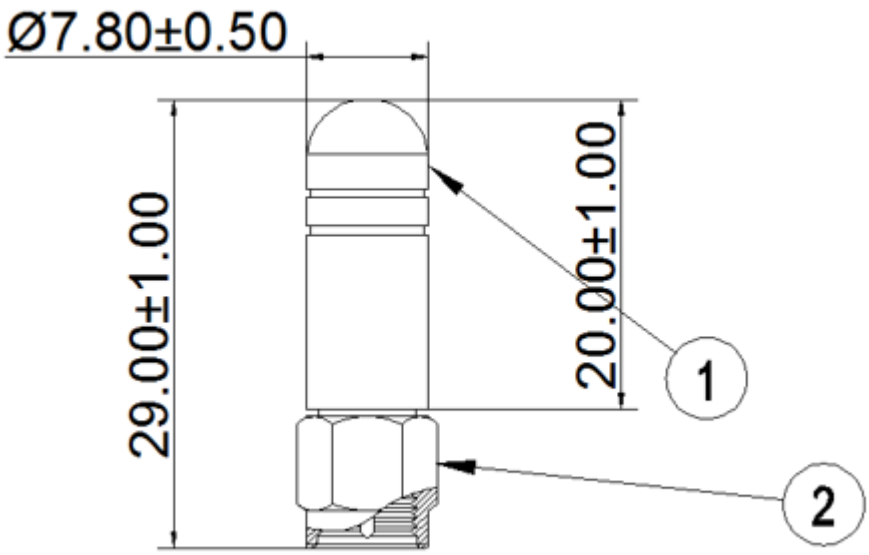




## 3.5 Directional pattern




1710.000MHz
1710.000MHz H
1710.000MHz E1
1710.000MHz E2
1800.000MHz
1800.000MHz H
1800.000MHz E1
1800.000MHz E2
1900.000MHz
1900.000MHz H
1900.000MHz E1
1900.000MHz E2

## 4. Antenna Drawing




| Series | Component Name | Specification | Color | Quantity |
|---|---|---|---|---|
| 1 | Noumenon | ABS | Black | 1 |
| 2 | SMA | SMA-J | Gold | 1 |