

## SWD016

PN: SW20278IA93

### Features:

- Frequency bands: 1575.42/1602MHz.
- Ceramic patch antenna.
- 2.5dBi+ GPS/GLONASS/GALILEO.
- Impedance 50 ohm.
- Size: 18.0 x 18.0 x 4.0mm.

### Applications:

- Solution for all global public constellations:  
GPS/GLONASS/GALILEO.



## 1. Electrical Specifications

Standards	GPS/GLONASS/GALILEO	
Frequency range(MHz )	1575.42	1602
Peak Gain (dBi )	2.7	2.5
Average Gain (dB )	-1.8	-2.0
VSWR	1.09	1.46
Return Loss (dB )	-26.95	-14.50
Efficiency (%)	66.5%	63.5%
Polarization mode	RHCP	
Output impedance ( $\Omega$ )	50	
Ground plane (mm)	50x50	

### Note:

All parameters are measured with Sunnyway's EVK which size is 50\*50mm

## 2. Mechanical and Environmental Specification

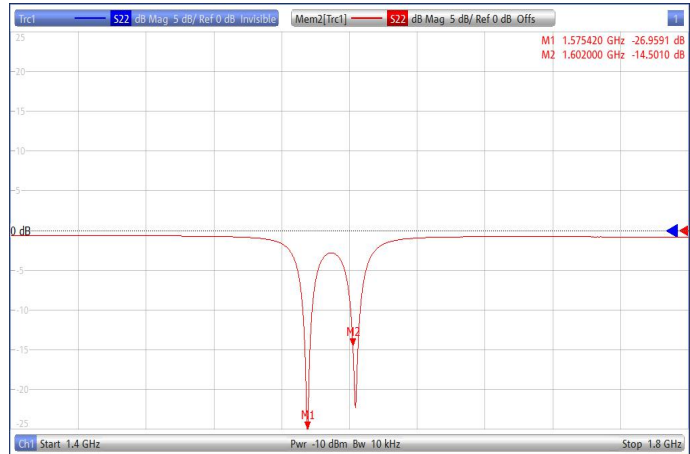
Mounting Type	SMD
Adhesive Type	/
Connector Type	/
Antenna size(mm)	18mm (L) x18mm (W) x 4mm (H)
Material	Ceramic
Operating Temperature (°C)	-40 °C ~ +85 °C
Storage Temperature(°C)	-40 °C ~ +85 °C

### 3. Antenna parameters

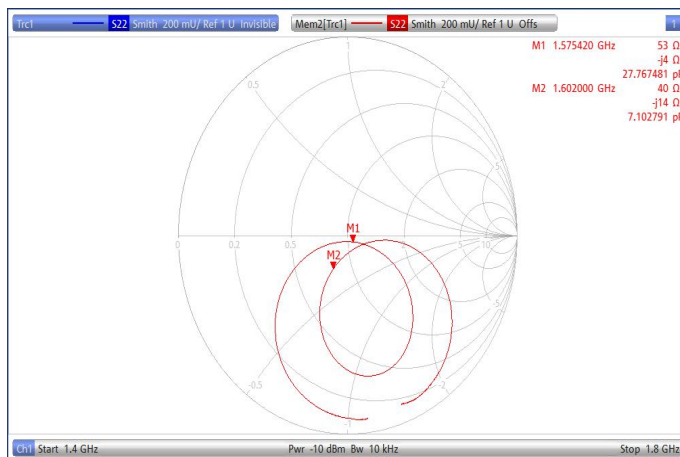
#### 3.1 General Specification

FRE ( MHz )	1575.42	1602
VSWR	1.09	1.46
Return Loss ( dB )	-26.95	-14.50
Eff (%)	66.5	63.5
Average Gain(dB)	-1.8	-2.0

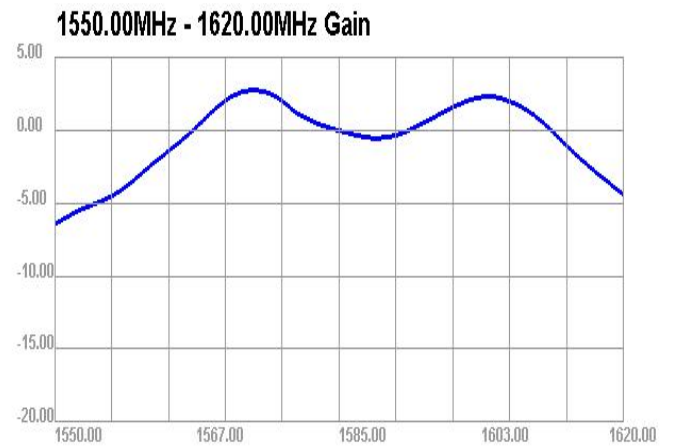
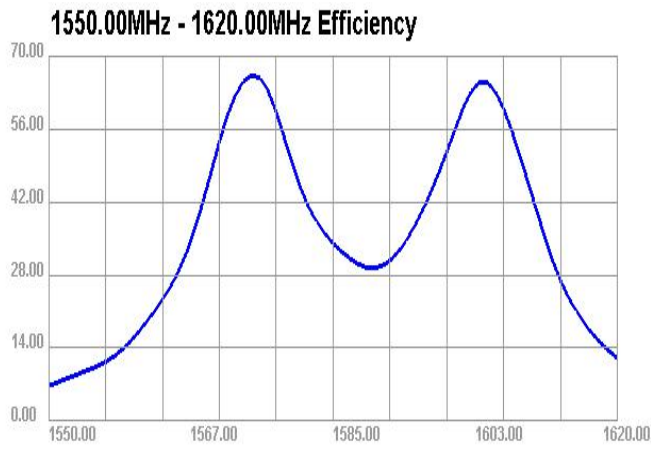
#### 3.2 VSWR and Return Loss



#### 3.3 Smith



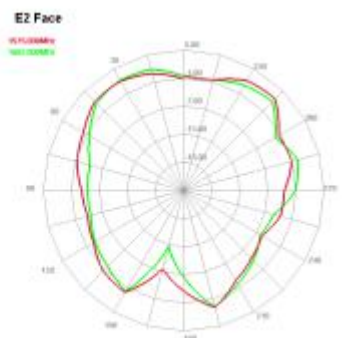
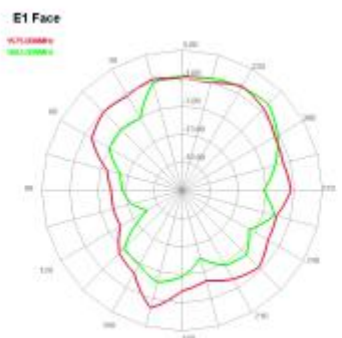
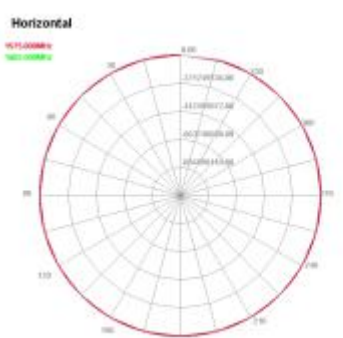
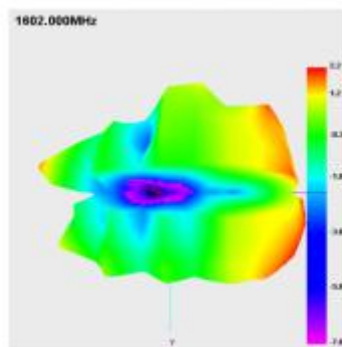
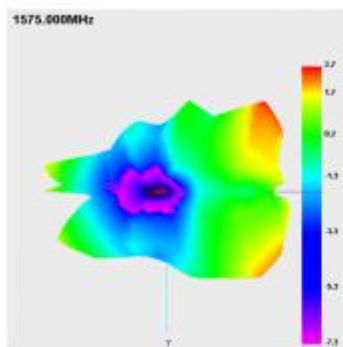
### 3.4 Efficiency and Gain



### 3.5 Directional pattern

H plane: the tangent of XY  
 E1 plane: the tangent of XZ  
 E2 plane: the tangent of YZ

Theta = 0  
 Phi = 0



## 4. Antenna Drawing

Evaluation Board (unit: mm)

