



SUNNYWAY

SWG017

PN: SW20264IB93

Features:

- Frequency bands: 1575.42/1602/1608MHz.
- Ceramic patch antenna.
- 4dBi+ GPS/GLONASS/GALILEO/BEIDOU.
- Impedance 50 ohm.
- Size 25.0 x 25.0 x 4.0mm.

Applications:

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



Sunnyway Technology

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1. Electrical Specifications

Standards	GPS/GLONASS/GALILEO/BEIDOU		
Frequency range(MHz)	1575.42MHz	1602MHz	1608MHz
Peak Gain (dBi)	5.2	4.3	4.0
Average Gain (dB)	-1.0	-1.0	-1.4
VSWR	1.3	1.3	1.3
Return Loss	-17.4	-16.4	-15.9
Efficiency (%)	79.1	79.6	73.1
Polarization mode	RHCP		
Radiation pattern	Hemispherical		
Output impedance (Ω)	50		
Ground plane (mm)	70x70		

Note: All parameters are measured with Sunnyway's EVK which size is 70*70mm

2. Mechanical and Environmental Specification

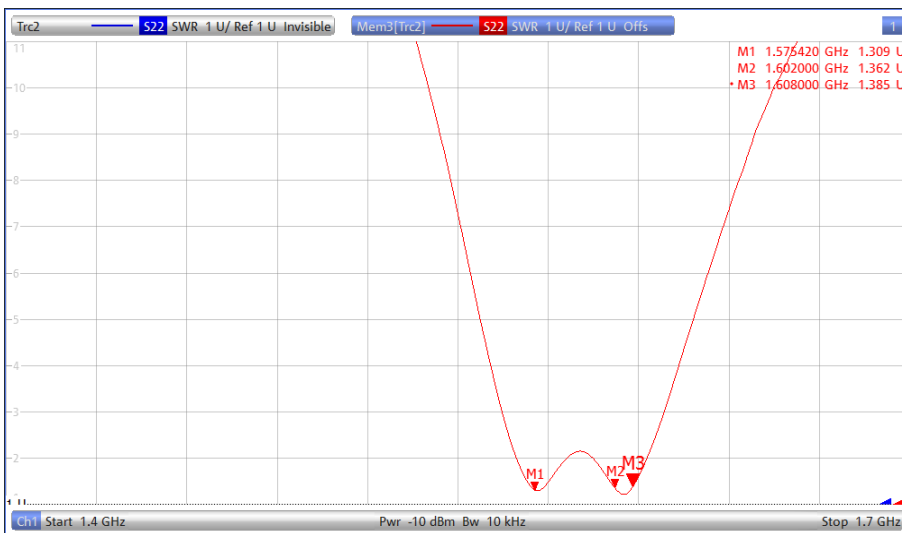
Mounting Type	Adhesive
Adhesive Type	3M9448A
Connector Type	Welding
Antenna size(mm)	25mm (L) x25 mm (W) x 4mm (H)
Material	Ceramic
Operating Temperature (°C)	-40 °C ~ +85 °C
Storage Temperature(°C)	-40 °C ~ +85 °C

3. Antenna parameters

3.1 General Data

FRE (MHz)	1575.42	1602	1608
VSWR	1.3	1.3	1.3
Return Loss	-17.4	-16.4	-15.9
Eff (%)	79.1	79.6	73.1
Average Gain(dB)	-1.0	-1.0	-1.4

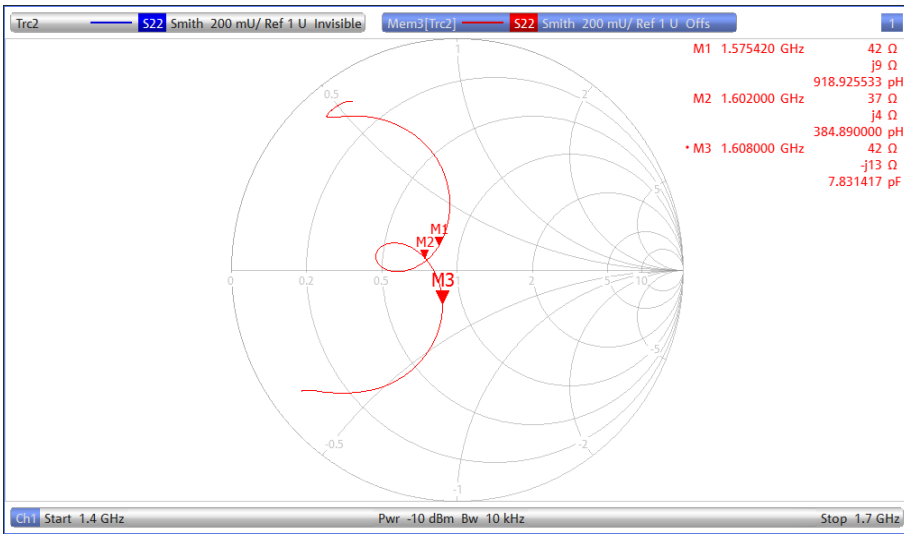
3.2 VSWR



3.3 Return Loss

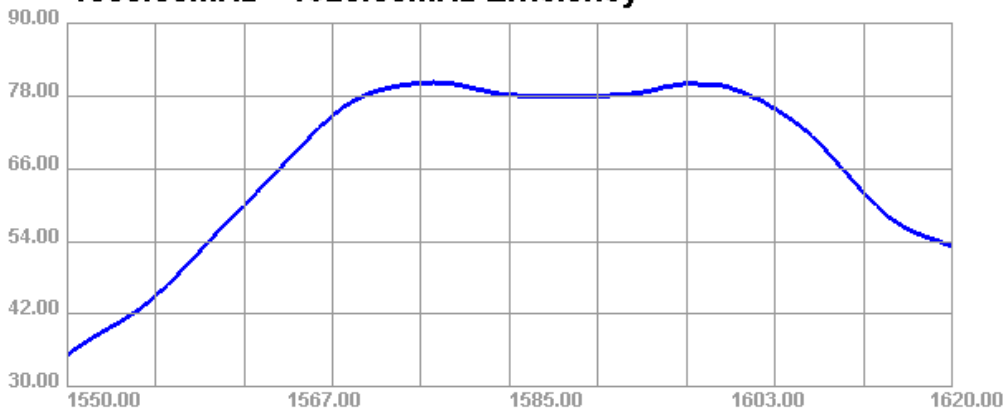


3.4 Smith

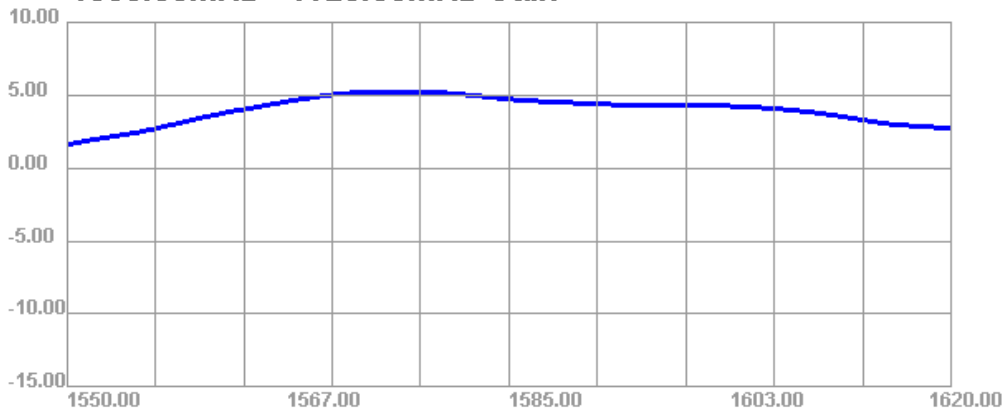


3.5 Efficiency and Gain

1550.00MHz - 1620.00MHz Efficiency


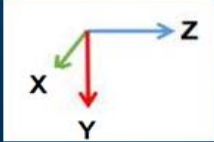
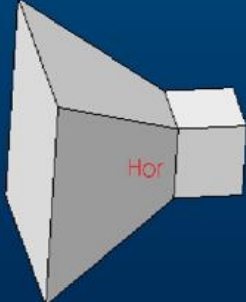


1550.00MHz - 1620.00MHz Gain



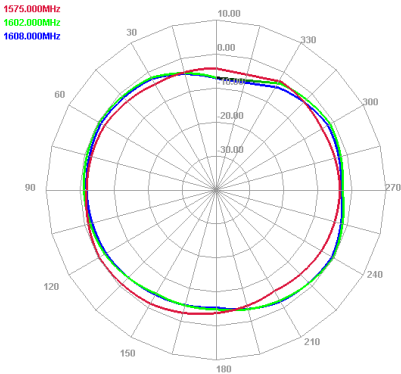
3.6 Directional pattern

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

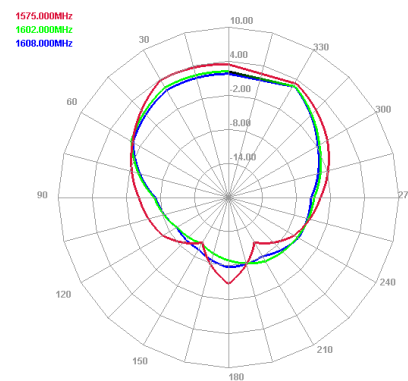




Theta = 0
Phi = 0

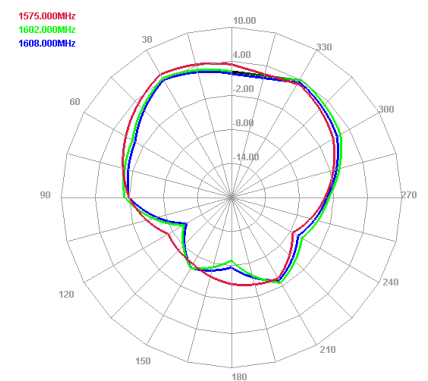
Horizontal



E1 Face

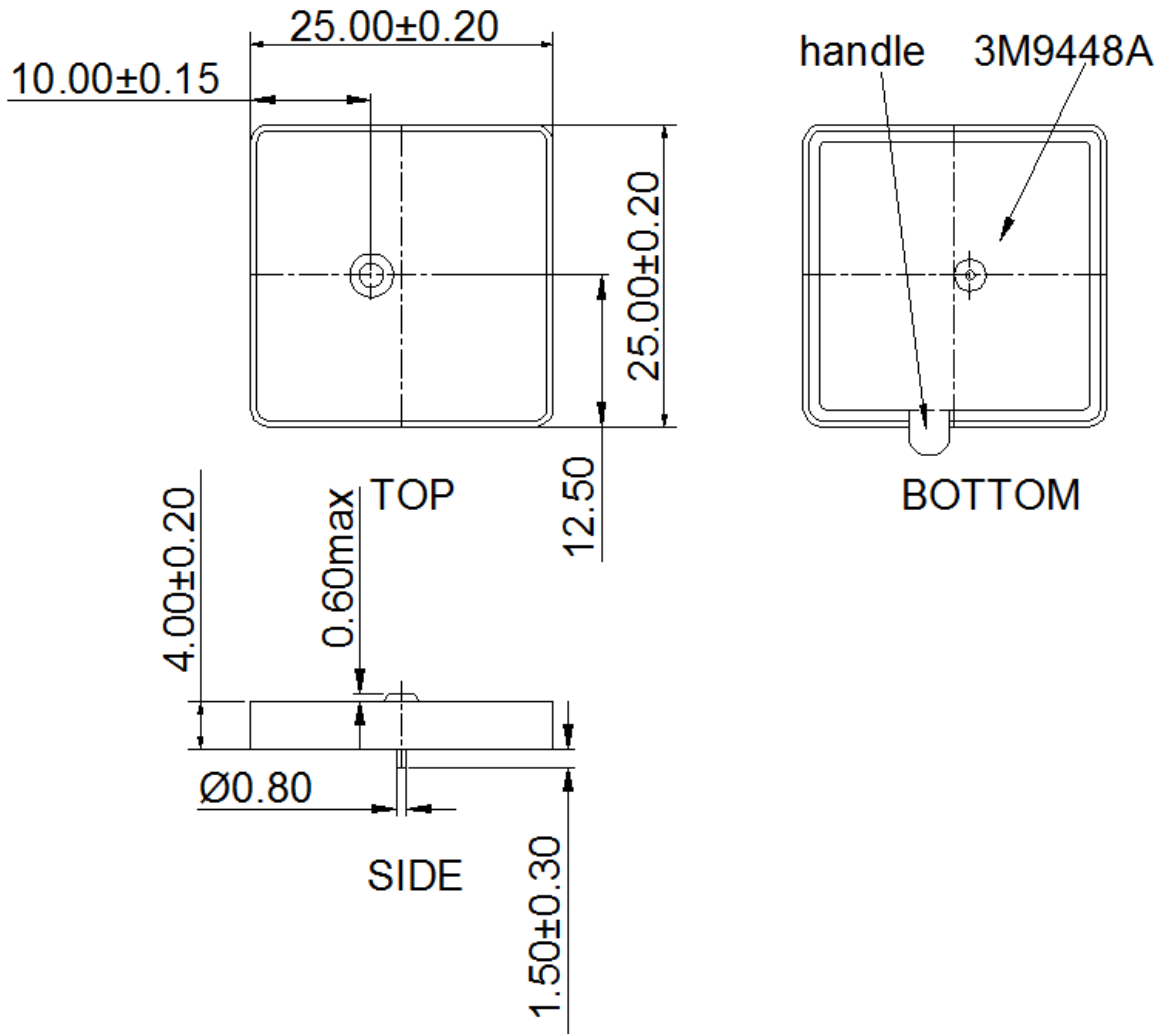


E2 Face

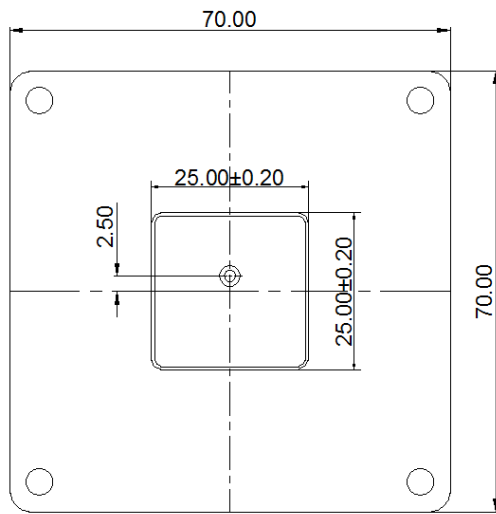




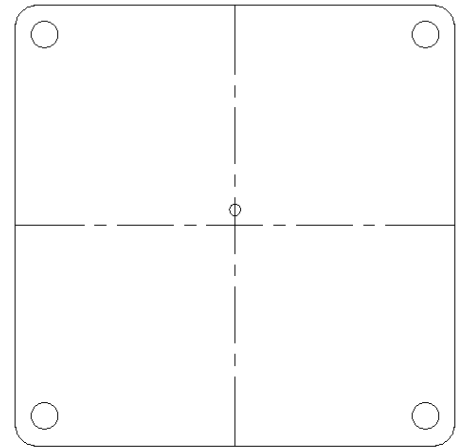
4. Antenna Drawings



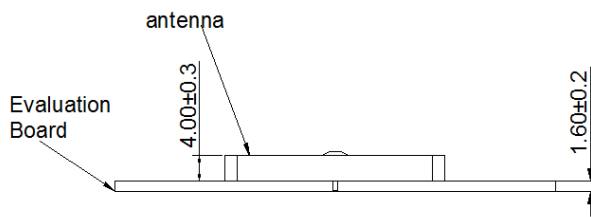
Evaluation Board (unit: mm)



TOP



BOTTOM



SIDE