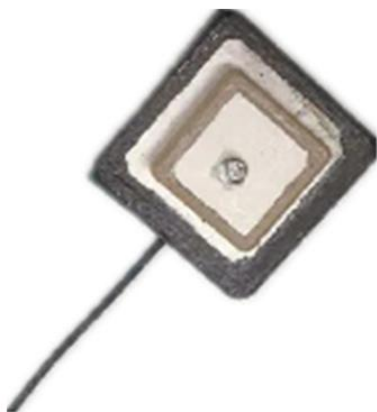




SWG023

PN: SW21019IB93

Features:

- Antenna for 1227.6MHz, 1246MHz, 1575.42MHz, 1602MHz
- High gain
- Impedance 50 Ohm

Applications:

- Solution for global public constellations:

GPSL1+L2/GLONASS/GALILEO/BEIDOU

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1. Electrical Specification

Standards	GPSL1+L2/GLONASS/GALILEO/BEIDOU			
Frequency range (MHz)	1227	1246	1575	1602
Peak Gain (dBi)	-1.79	-0.93	-0.31	-1.65
Average Gain (dB)	-6.4	-4.9	-4.0	-6.5
VSWR	1.3	1.3	1.4	1.4
Return Loss	-17.9	-17.1	-15.2	-15.3
Efficiency (%)	22.7%	32.4%	40.1%	22.2%
Polarization mode	RHCP			
Radiation pattern	Hemispherical			
Voltage Range (V)	1.8~3.6			
Active Gain (dB)	28±1			
Noise Figure (dB)	1.5			

Note: Test based on 41 mm wire length

2. Mechanical and Environmental Specifications

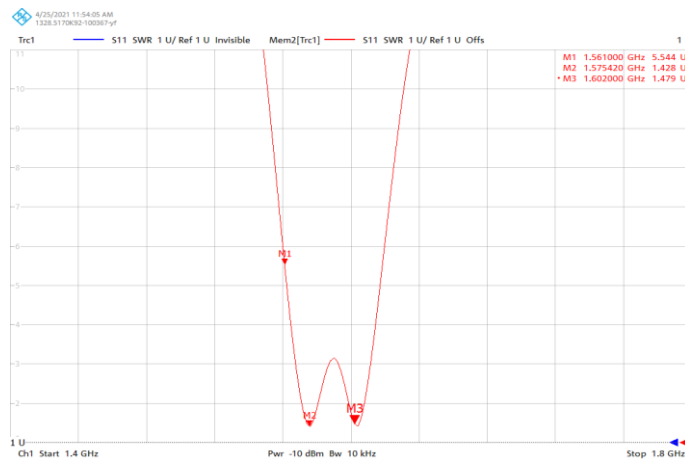
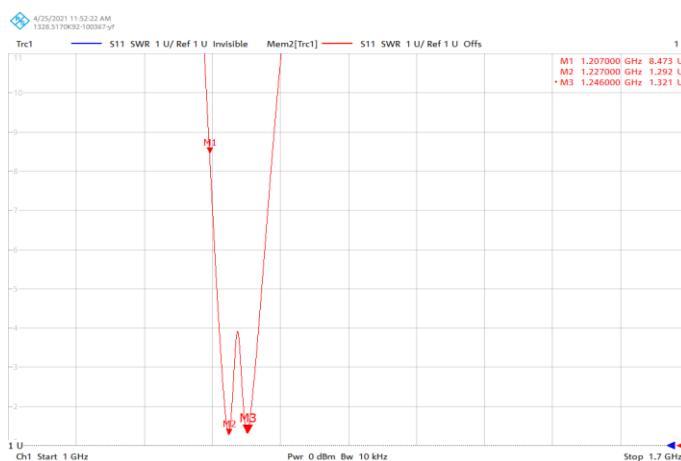
Mounting Type	Adhesive
Adhesive Type	3M9448A
Connector Type	IPEX MHF1
Antenna size(mm)	25.0(L) x 25.0(W) x 11.15(H)
Material	Ceramic
Cable length(mm)	41.00
Operating Temperature (°C)	-40 °C ~ +85 °C
Storage Temperature(°C)	-40 °C ~ +85 °C

3. Antenna Parameters

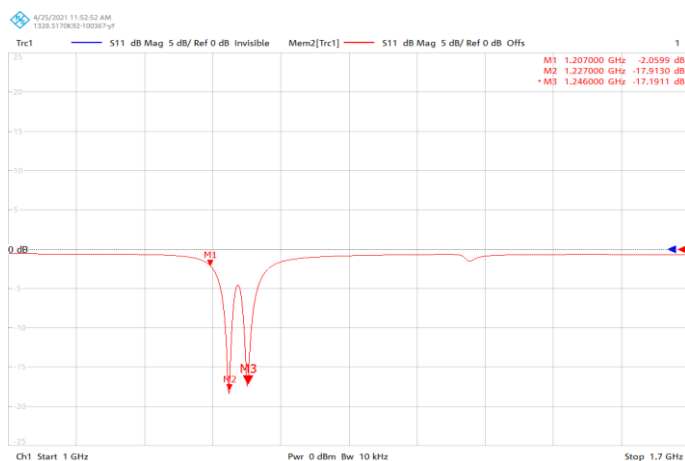
3.1 General Data

FRE (MHz)	1227	1246	1575	1602
VSWR	1.3	1.3	1.4	1.4
Return Loss	-17.9	-17.1	-15.2	-15.3
Eff (%)	22.7	32.4	40.1	22.2
Average Gain(dB)	-6.4	-4.9	-4.0	-6.5

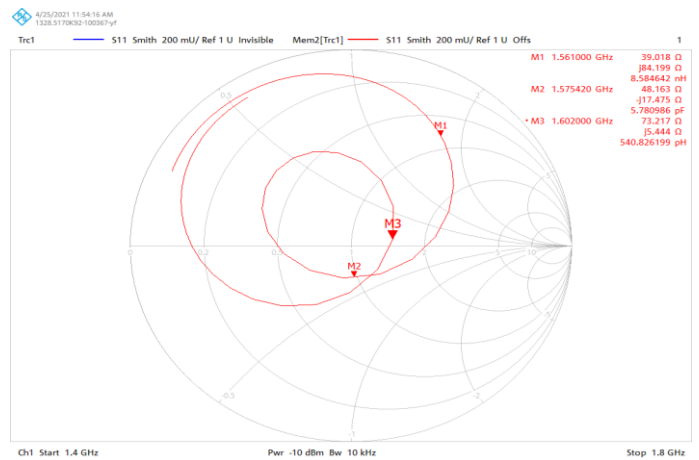
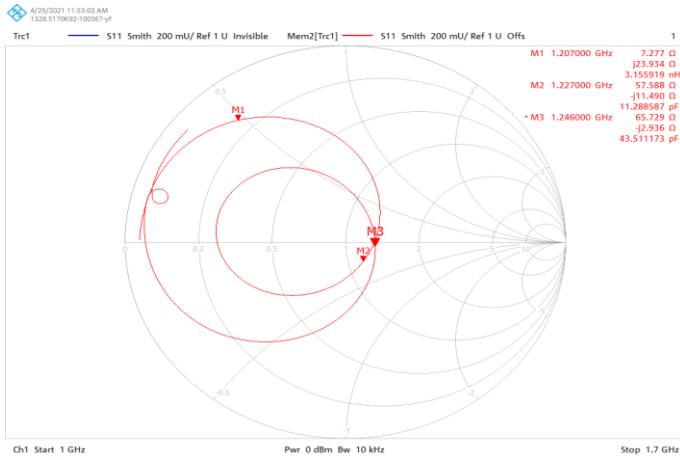
3.2 VSWR



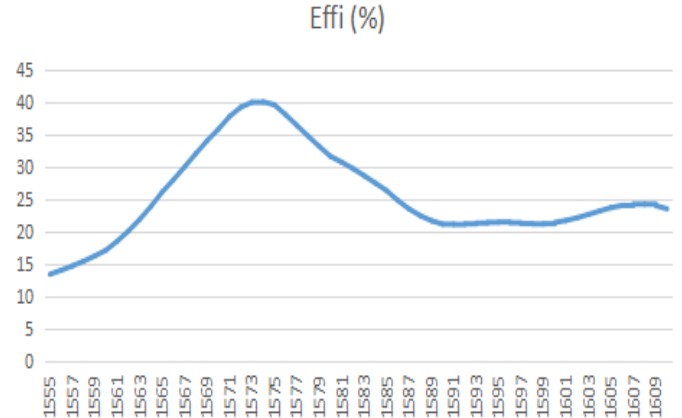
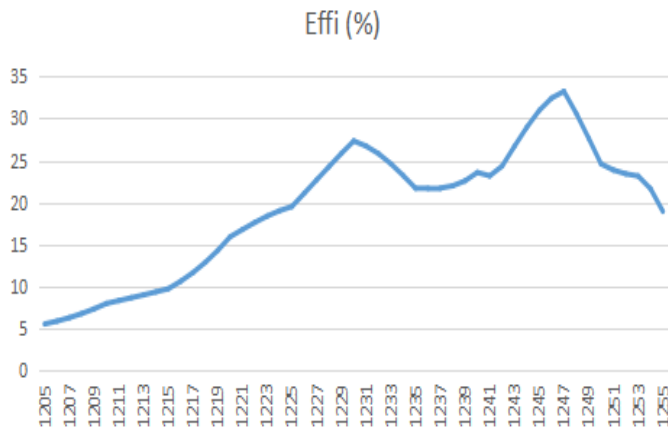
3.3 Return Loss



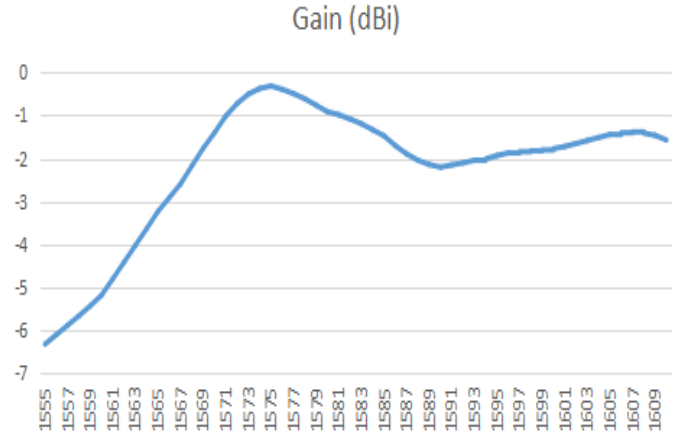
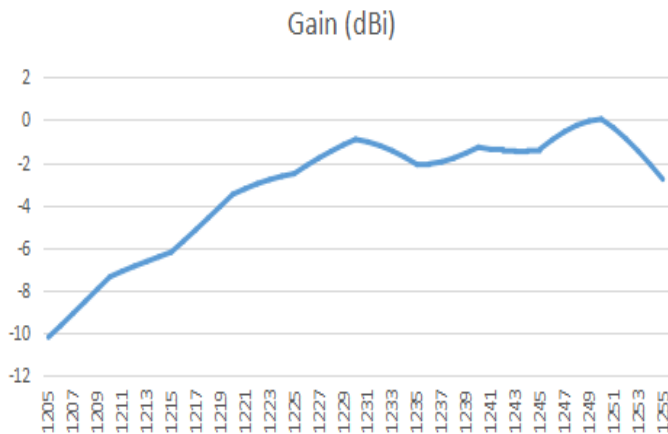
3.4 Smith



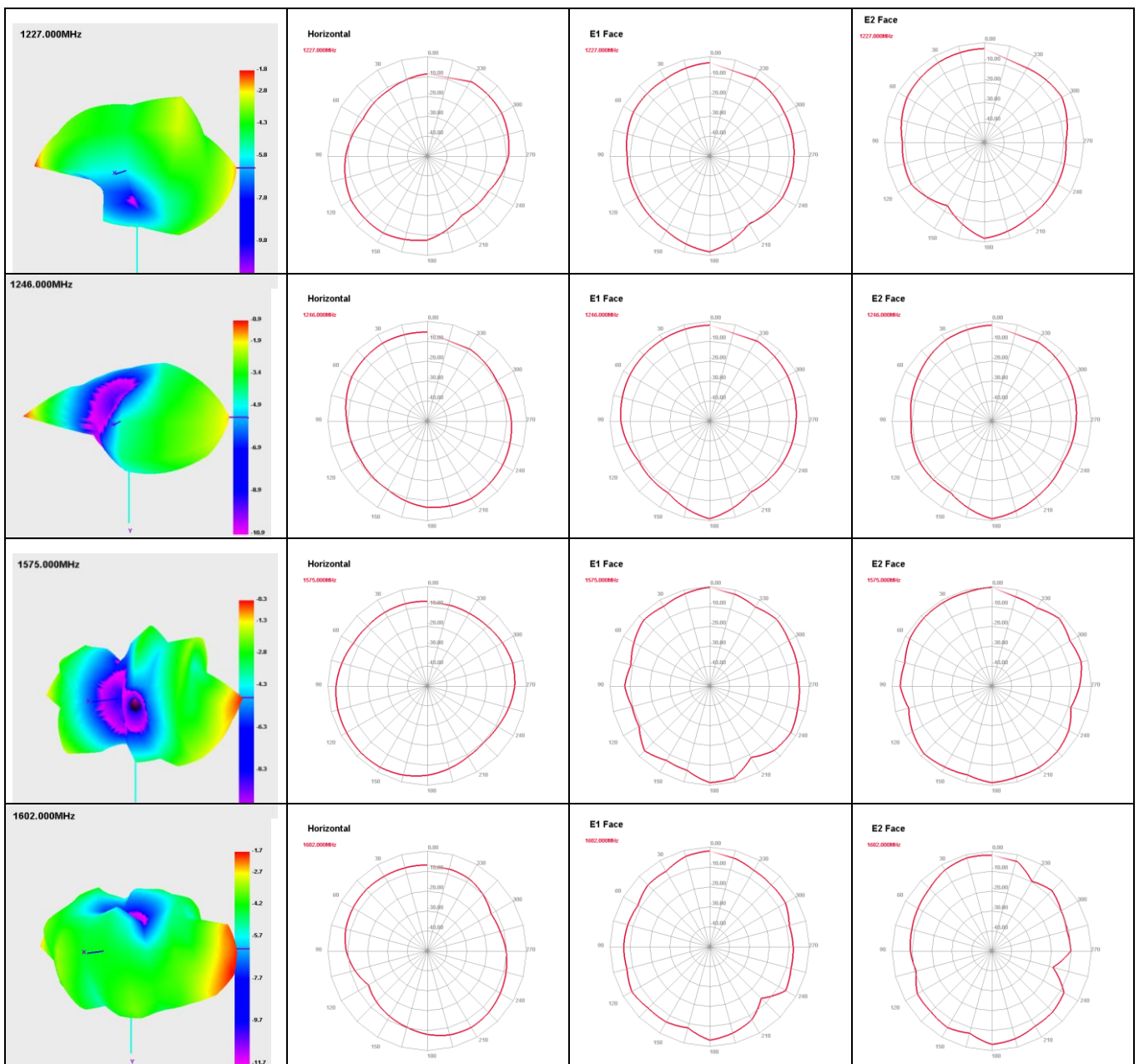
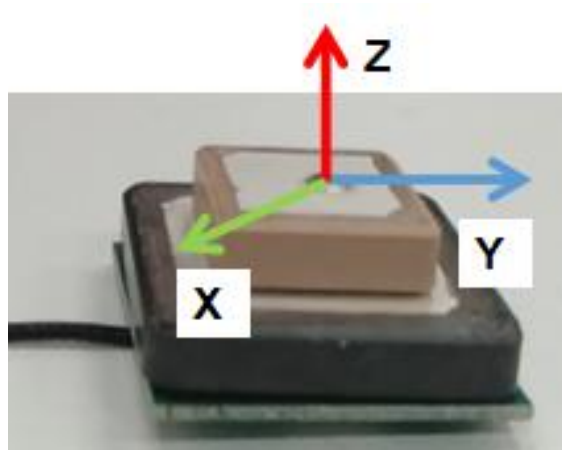
3.5 Efficiency



3.6 Gain

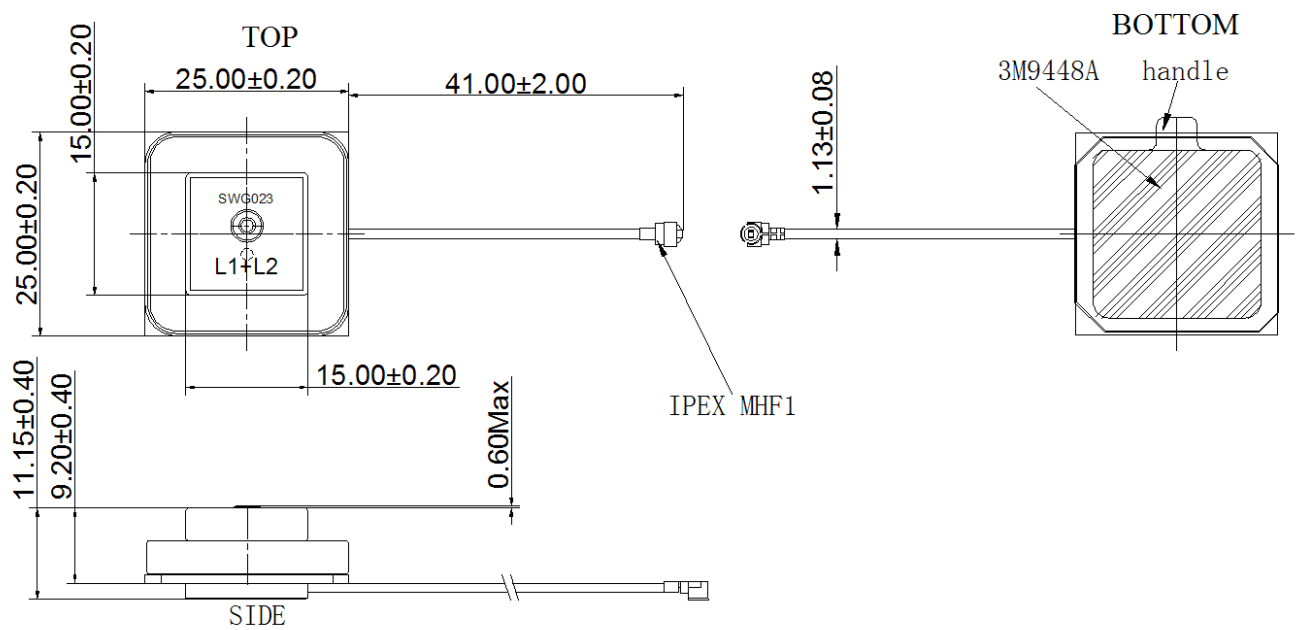


3.7 Directional Pattern



4. Antenna Drawing

Unit: mm



Changelog for the datasheet			
Revision	Date	Author:	Notes:
-	2019-05-13	Kevin LV	Initial Datasheet Release
V0	2025-06-11	Kevin LV	Update text formatting, titles, fonts, etc