



SWS002

PN:SW21020IA67

Features:

- Antenna for 2400~25000MHz.
- Maintains high performance on device.
- High gain.
- Impedance 50 Ohm.

Applications:

- Remote monitoring.
- Network Devices.
- Gateway.
- Router.
- Others.

1. Electrical Specifications

Standards	WiFi 2.4G/BT	
Frequency range(MHz)	2400~2500	2450
Peak Gain (dBi)	4.0~4.6	4.3
Average Gain (dB)	-2.4~-1.9	-2.1
VSWR	< 2.0	1.2
Return Loss	< -15.0	-17.7
Efficiency (%)	57~65%	61.8%
Polarization mode	Linear	
Radiation pattern	Omni-Directional	
Output impedance (Ω)	50	
Max. Input Power(W)	25	

Note:

Parameters are measured with Sunnyway's EVK which size is 40*50mm

2. Mechanical and Environmental Specification

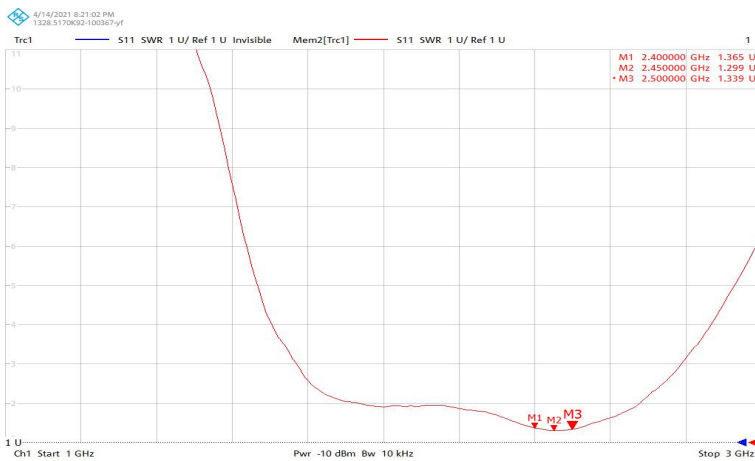
Mounting Type	Welding
Antenna size(mm)	18.21* ϕ 5
Material	Nickel plating on stainless steel
Operating Temperature ($^{\circ}$ C)	-40 $^{\circ}$ C ~ + 85 $^{\circ}$ C
Storage Temperature($^{\circ}$ C)	-40 $^{\circ}$ C ~ + 85 $^{\circ}$ C

3. Antenna parameters

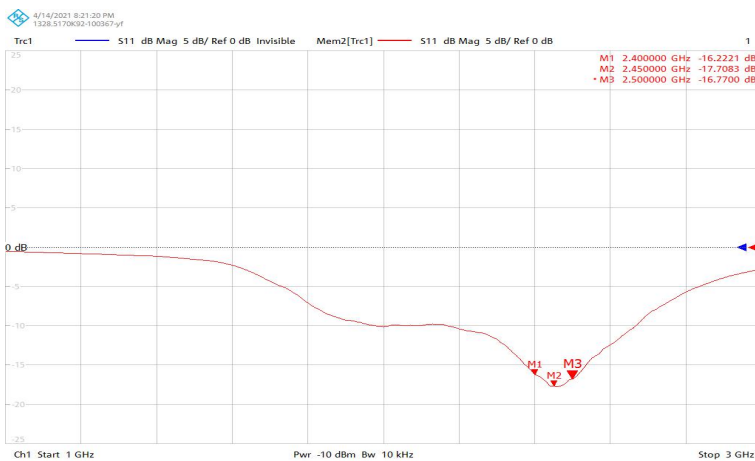
3.1 General Data

FRE (MHz)	2400	2450	2500
VSWR	1.3	1.2	1.3
Return Loss	-16.2	-17.7	-16.7
Eff (%)	65.1	61.8	57.5
Average Gain(dB)	-1.9	-2.1	-2.4

3.2 VSWR



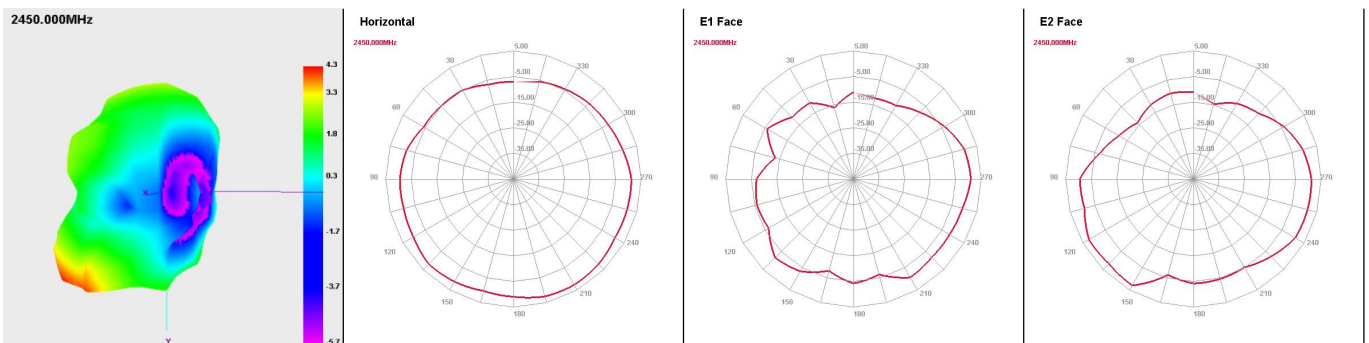
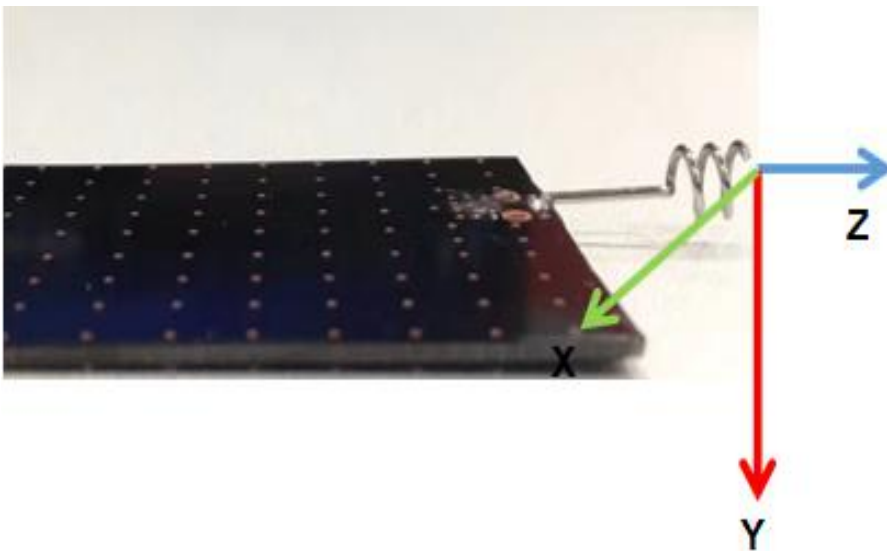
3.3 Return Loss



3.4 Efficiency and Gain

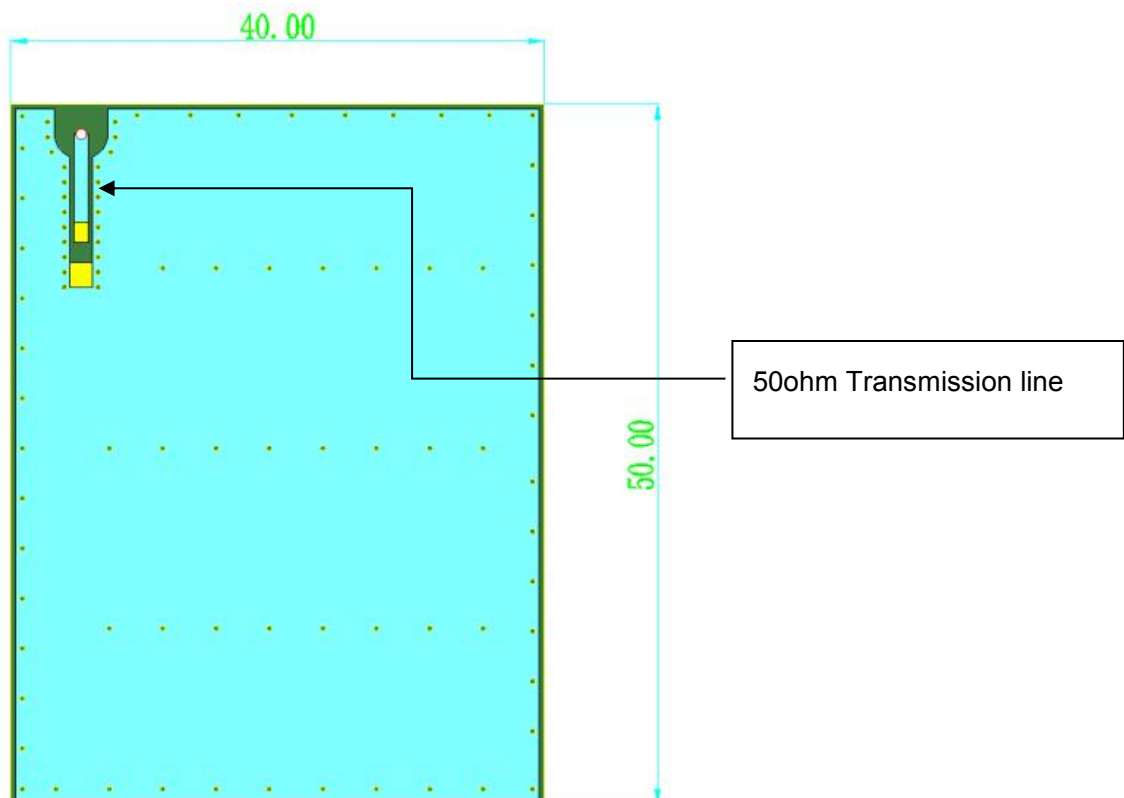


3.5 Directional pattern



4. Design board and Transmission Line

- Development and design based on 40 * 50mm PCB board
- The characteristic impedance of all transmission lines shall be designed as 50 Ω .
- The length of the transmission lines should be kept to as short as possible
- Any other part of the RF system, such as transceiver, power amplifiers, etc., shall also be designed with an impedance of 50 Ω



5. Antenna Drawings (unit:mm)

