



SWE012N

PN: SW25125EB78

Key features:

- Antenna for 2400~2500MHz
- High gain
- Impedance 50 Ohm
- Customizable Cable and Connector

Typical applications:

- Gateways
- Routers
- Smart Home
- Others

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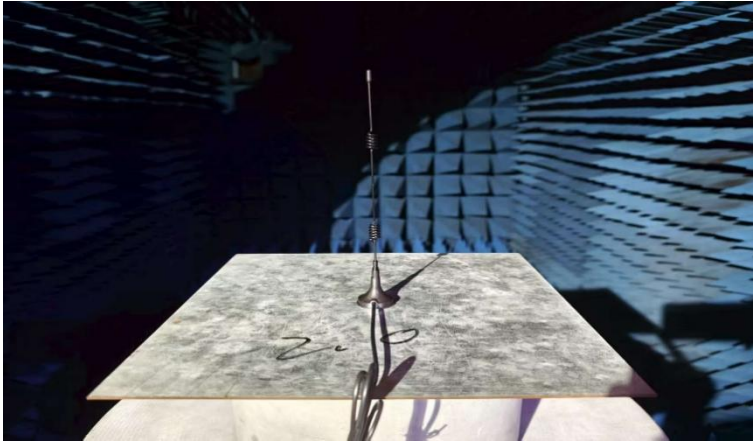
1. Specification

Electrical: Test on a 30 * 30cm metal plate	
Standards	WiFi & BT
Frequency range (MHz)	2400 ~ 2500
Peak Gain (dBi)	2.0 ~ 3.2
Average Gain (dB)	-4.3 ~ -3.8
VSWR	< 2.5
Return Loss	< -5.0
Efficiency (%)	37.0 ~ 42.0
Polarization mode	Linear
Radiation pattern	Omni-Directional
Output impedance (Ω)	50
Max. Input Power(W)	25

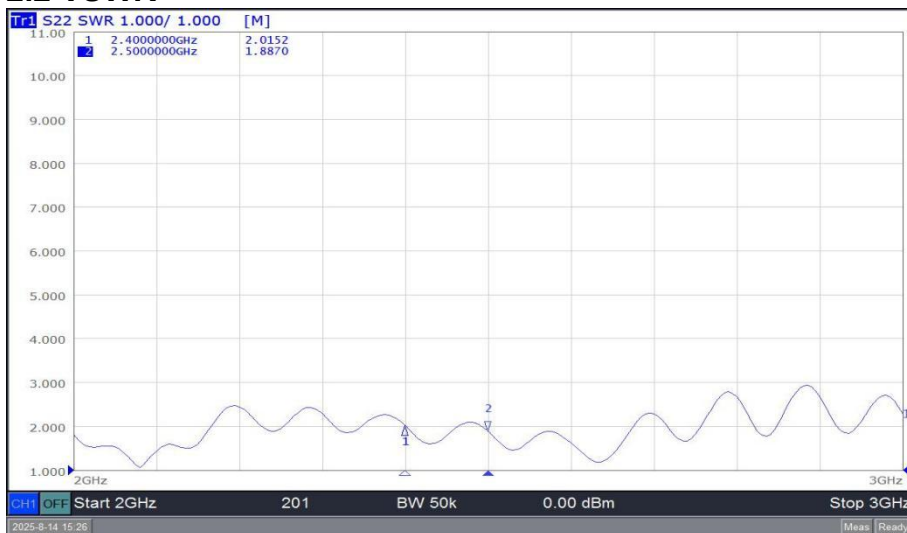
Mechanical	
Mounting Type	Magnetic
Connector Type	SMA-M
Antenna size(mm)	$\Phi 30 \times 223(H)$
Cable length(mm)	1000mm
Material	ABS+PC
Weight	28g
Environmental	
Operating Temperature ($^{\circ}C$)	- 40 $^{\circ}C$ ~ + 85 $^{\circ}C$
Storage Temperature($^{\circ}C$)	- 40 $^{\circ}C$ ~ + 85 $^{\circ}C$

2. Antenna Characteristics

2.1 Test Setup



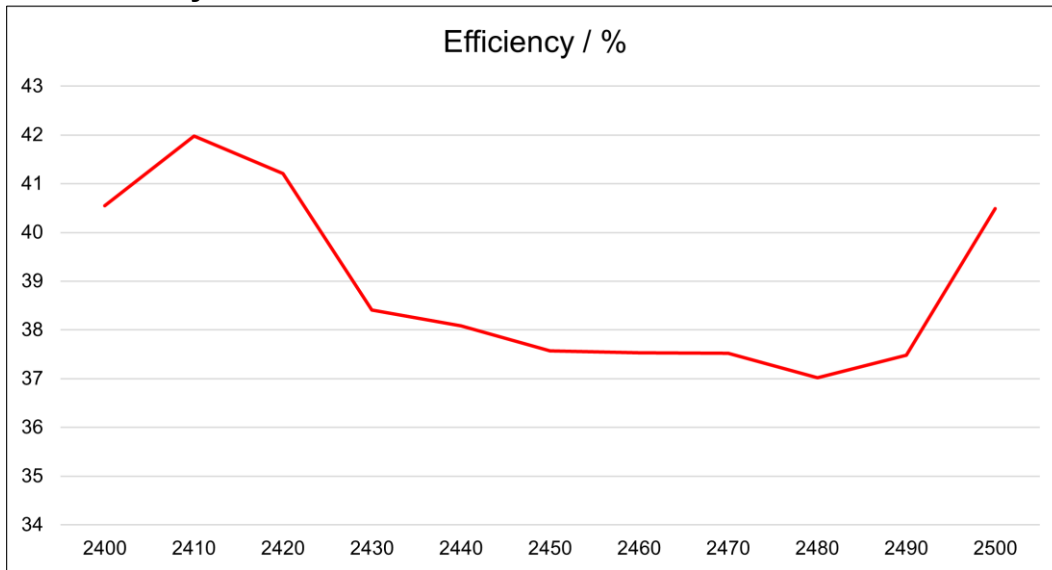
2.2 VSWR



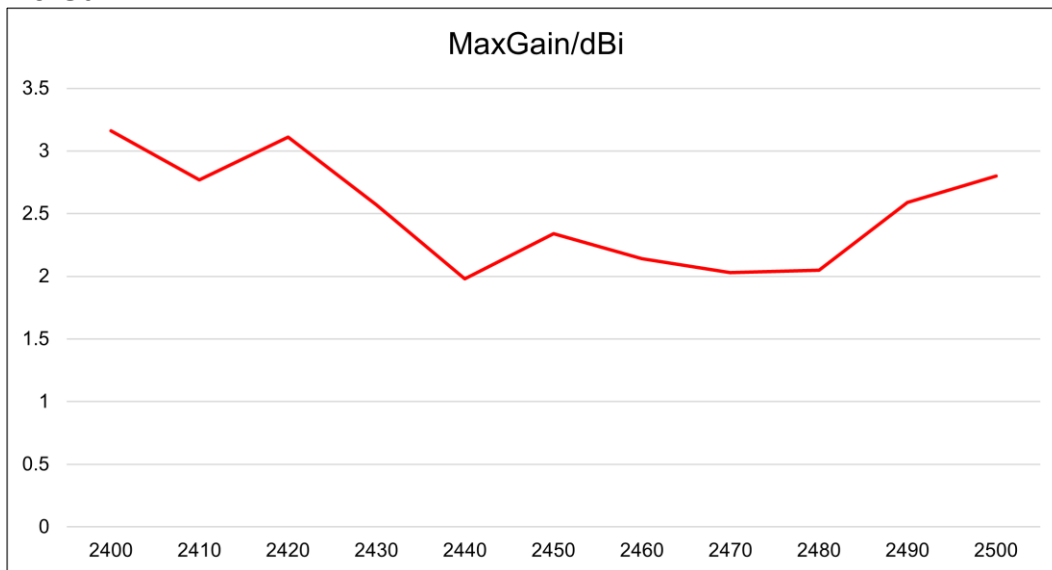
2.3 Return Loss



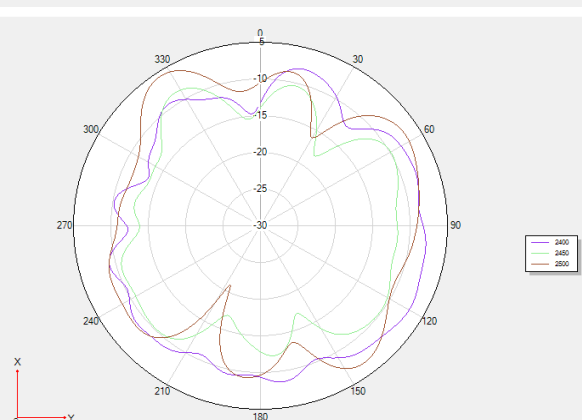
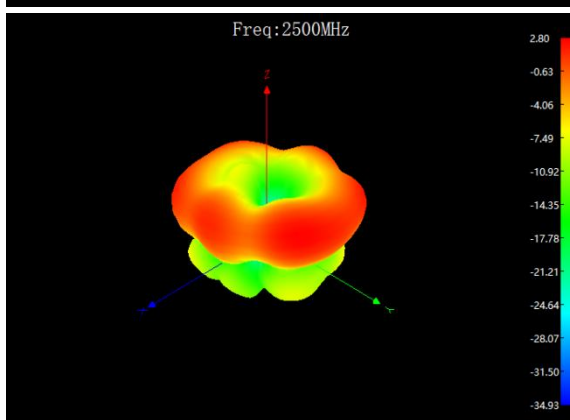
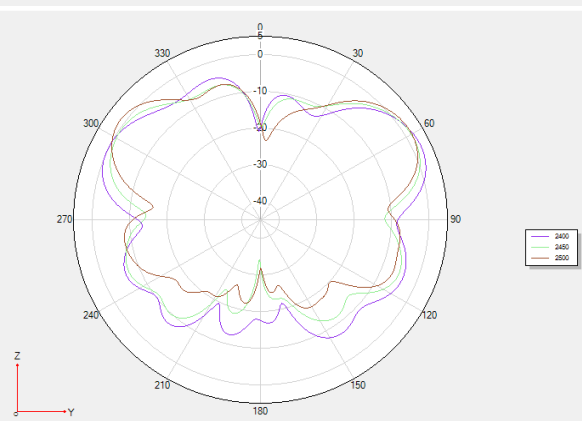
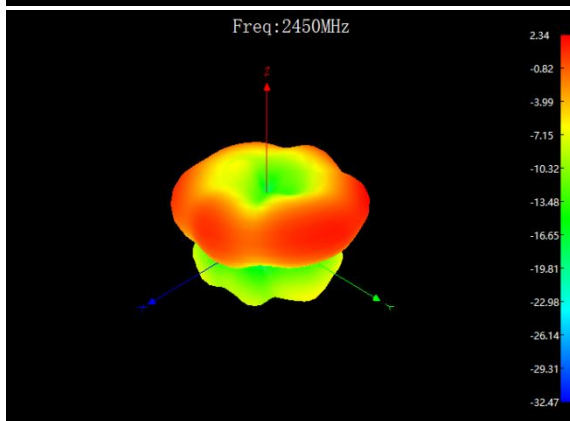
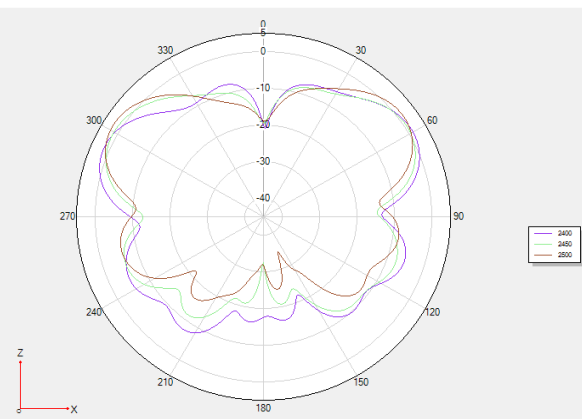
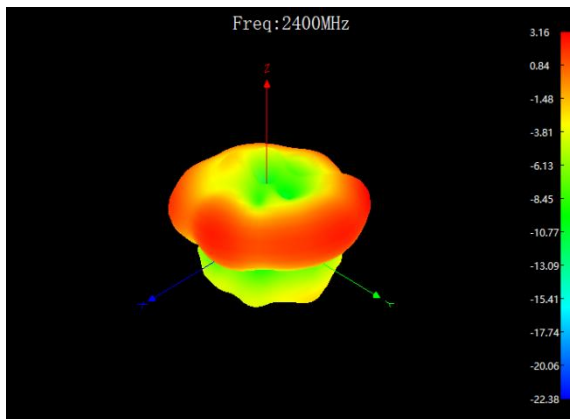
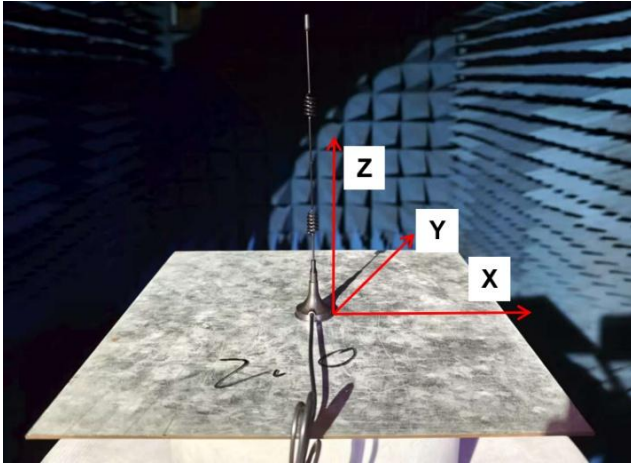
2.4 Efficiency



2.5 Gain

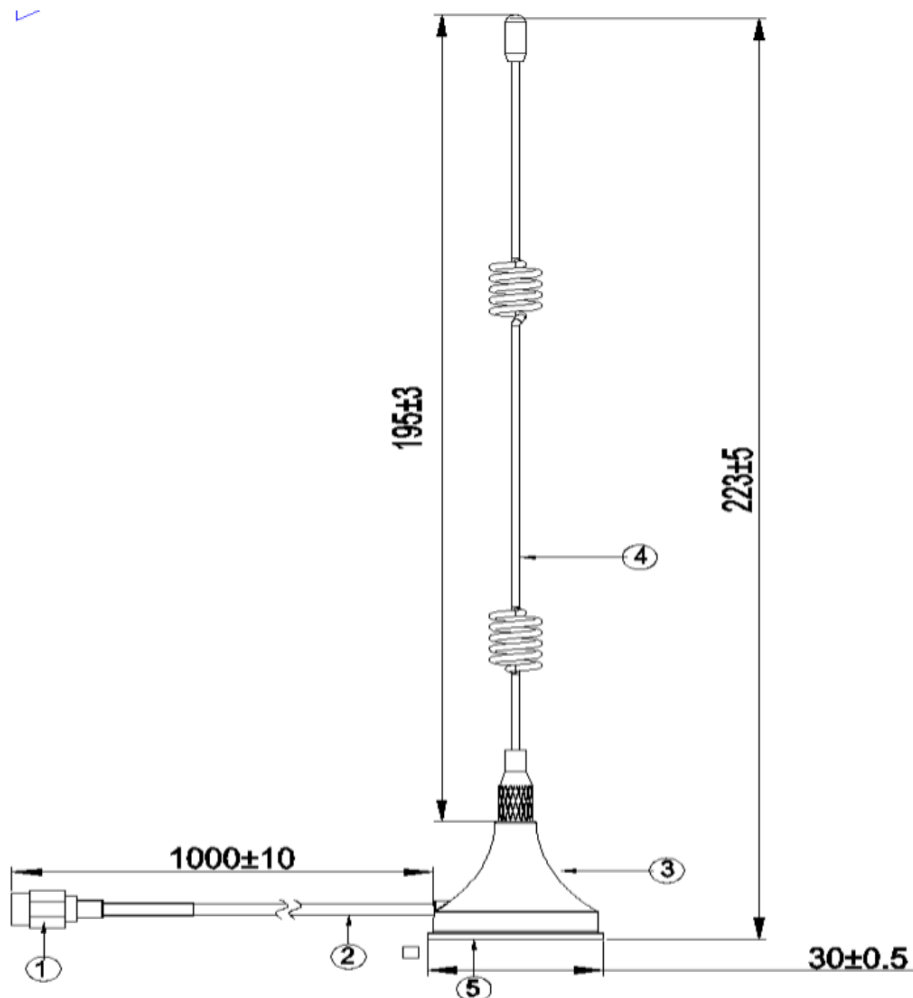


3. Radiation Patterns



4. Antenna Drawing

Unit: mm



5	Stickers	PC	black	1
4	A spring bar	Steel wire electrophoresis	black	1
3	base	$\phi 30.0\text{mm}$	black	1
2	RG174 cable	RG 174 cable, 1000mm	black	1
1	SMA	SMA-M	gold	1
Series	Component name	Specification	Color	Quantity

Changelog for the datasheet			
Revision	Date	Author:	Notes:
V0	2025-08-15	Kevin LV	Initial Datasheet Release