

Antenna Data Sheet

RDMCTMZT-RF01

Part No: RDMCTMZT-RF01

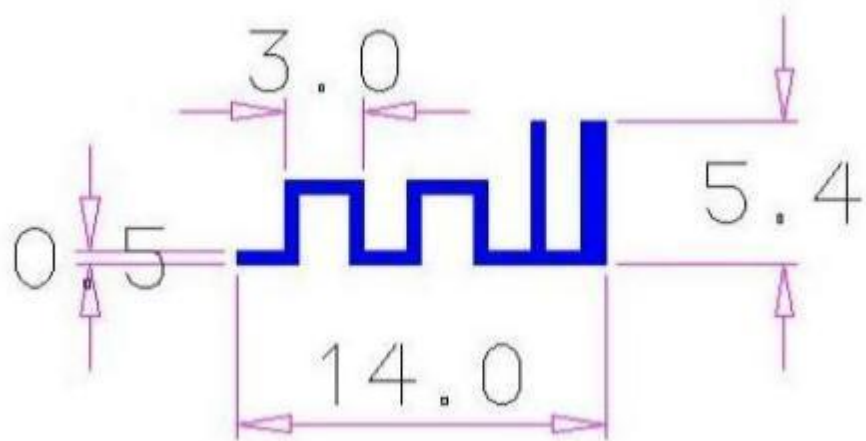
Project type: PCB antenna

Date: 2024-05-24

Manufacturer : Shenzhen Ruidingrong Technology Co., LTD

Address : Room 202, Building 5, Yilisheng Industrial Park,
No. 602, Fengtang Avenue, Tangwei Community, Fuhai
Sub-district, Bao 'an District, Shenzhen City, China

Antenna Layout Diagram (Unit: mm)



Antenna Technical Specifications and Environmental Testing

Electrical Technical Specifications			
电 性 能 指 标		Electrical Specifications	
频率范围	2400-2500MHz	Frequency Range	2400-2500MHz
电压驻波比	<1.92	VSWR	<1.92
输入阻抗	50 Ω	Input Impedance	50 Ω
方向	全向	Direction	All
增益	2.59dBi	Gain	2.59dBi
机 械 指 标		Mechanical Specifications	
接口形式	OPEN	Input connector	OPEN
工作温度	-20℃~+70℃	Working Temperature	-20℃~+70℃
工作湿度	20%~80%	Working Humidity	20%~80%

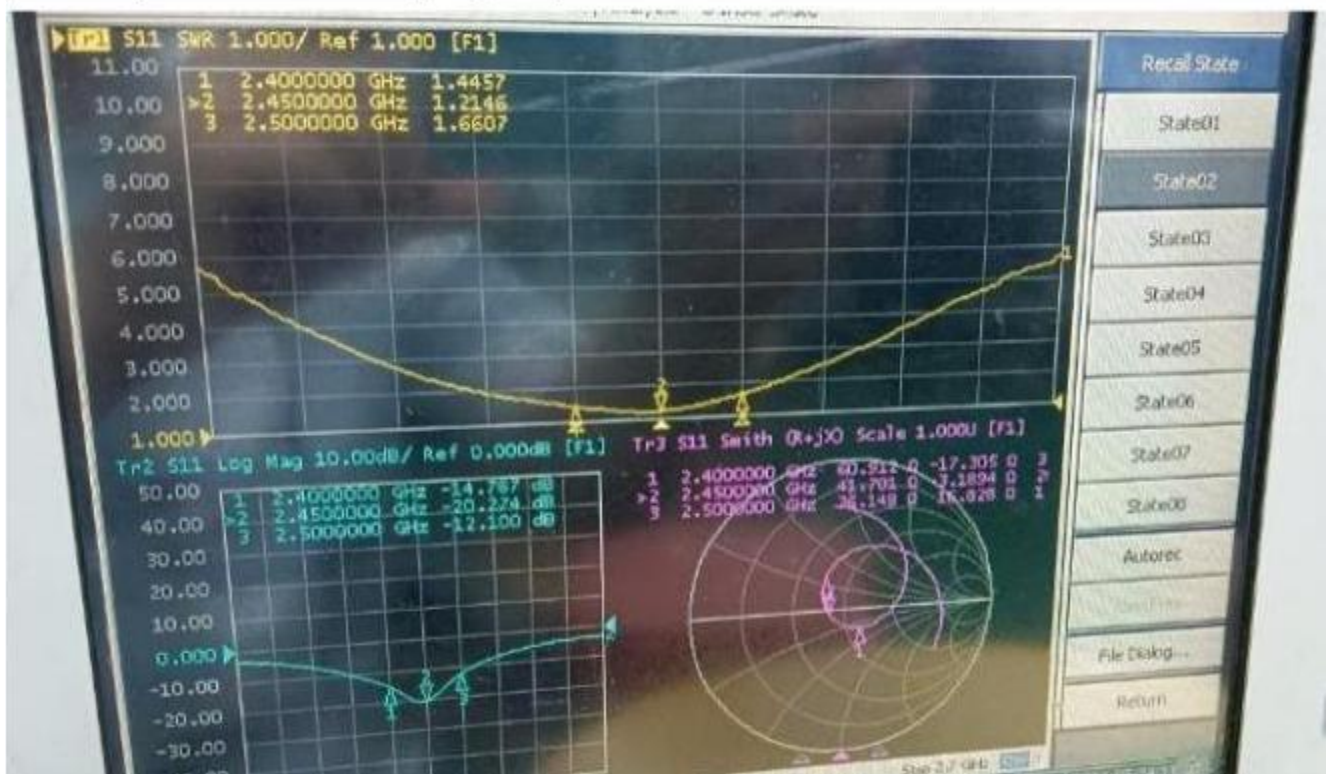
Environmental Performance Testing:

Item	Testing conditions	Specification
Storage Environment	In the absence of specific requirements, the test conditions are as follows: 1:Temperature: -20℃ to +70℃ 2:45%-85%Relative Humidity: 45% to 85% 3: Atmospheric Pressure: 86 kPa to 106 kPa	Electrical and Mechanical Performance is Normal
High and Low Temperature Test	Perform 5 cycles between 70℃ and -20℃, then check the appearance quality under normal conditions for 1-2 hours .	The dimensions should meet the specifications and satisfy both mechanical and electrical performance .
Constant Humidity and Heat Resistance Test	Relative Humidity: 95±3%, Test Temperature: 40℃ . After a duration of 2 hours, the sample shall be removed and the electrical performance tested within 5 minutes. The sample should be kept under normal conditions for 1-2 hours to check the appearance quality.	The dimensions should meet the specifications and satisfy both mechanical and electrical performance.
Vibration Test	Frequency Range: 10-55 Hz, Displacement Amplitude: 0.35 mm, Acceleration Amplitude: 50.0 m/s ² , Sweep Cycle Count: 30 times.	Electrical and mechanical performance is normal.
Drop Test	Free fall from a height of 1 meter in mutually perpendicular axes for 3 times.	Electrical and mechanical performance is normal

Antenna photo



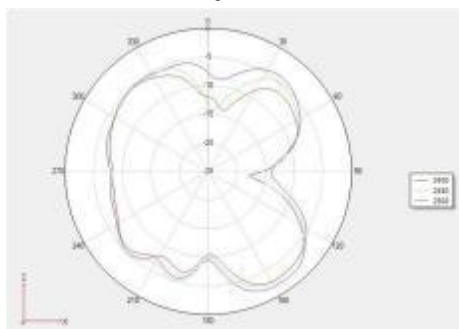
Antenna Performance Test Diagram



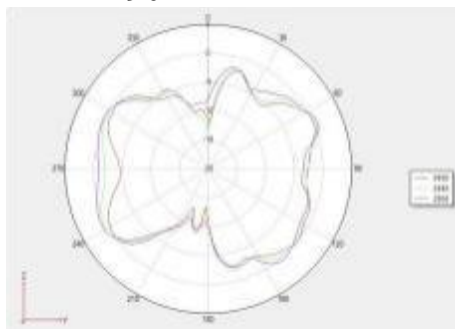
2D, 3DTest Date(2.4G):

Frequency	Efficiency (%)	Gain. (dBi)
2400MHz	43.85	2.46
2410MHz	45.92	2.36
2420MHz	46.13	2.10
2430MHz	46.88	2.13
2440MHz	47.10	2.27
2450MHz	48.19	2.49
2460MHz	47.53	2.44
2470MHz	48.75	2.59
2480MHz	46.77	2.39
2490MHz	47.42	2.36
2500MHz	45.60	2.21

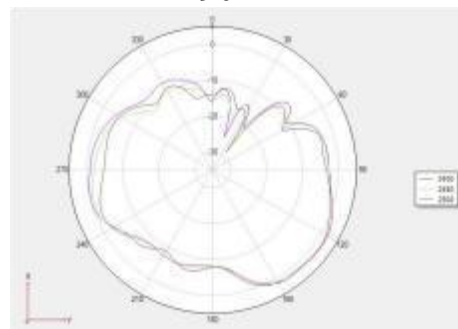
Phi 0 2D :



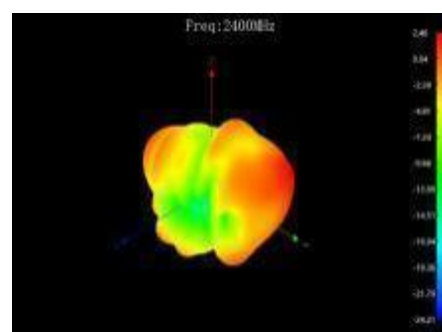
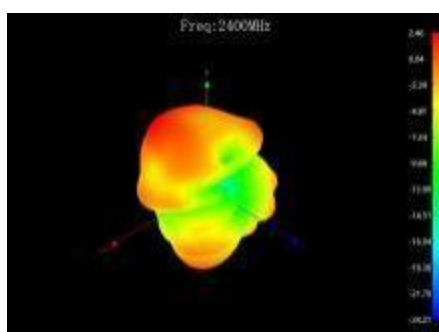
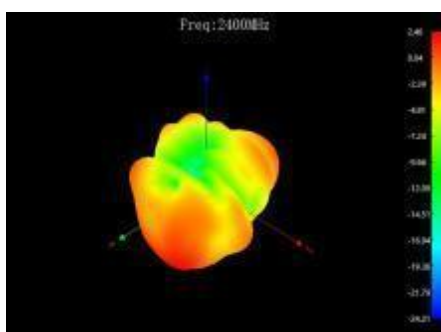
Phi 90 2D



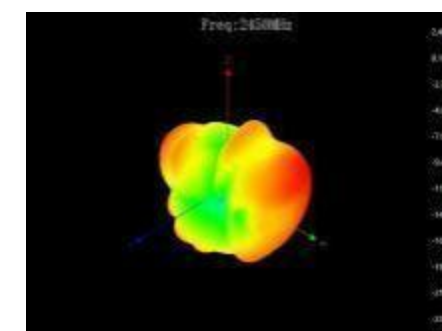
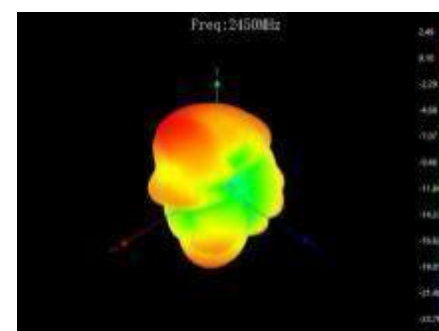
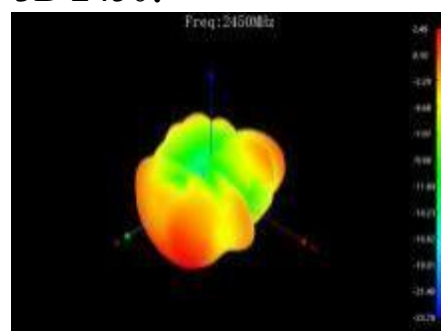
Theta 90 2D



3D 2400:



3D 2450:



3D 2500

