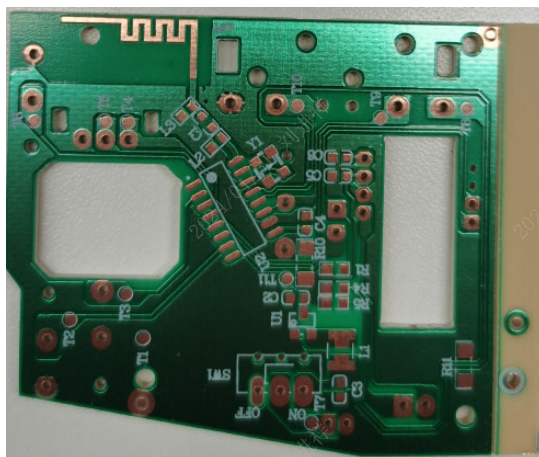


# Antenna Specification

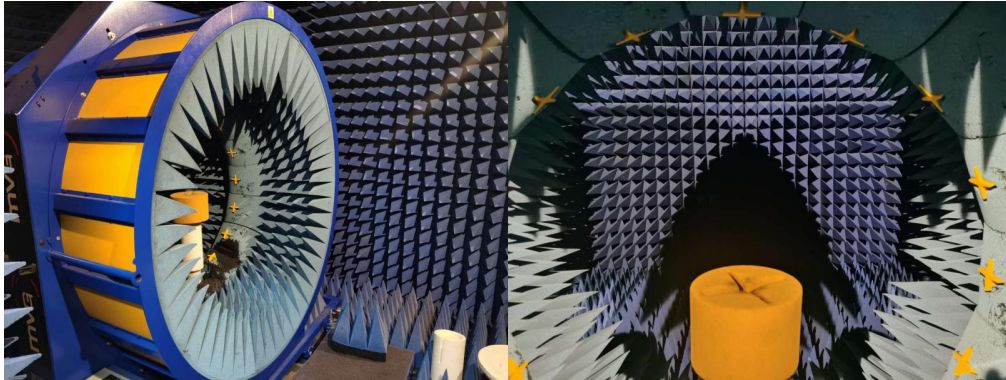
<b>Project name</b>	<b>M511</b>
<b>ITEM</b>	<b>SPEC.</b>
<b>Model Name</b>	BT2.4G
<b>Polarization</b>	Vertical
<b>Gain</b>	2.4G<1.86
<b>Impedance</b>	50 Ω
<b>Weight</b>	/
<b>Product description</b>	PCB onboard antenna
<b>Antenna Length</b>	22.5*8.7mm
<b>Manufacturer</b>	Lisinson electronics
<b>Address</b>	No. 9, No. 2 Longshan Road, Low Mountain Village, Longgang District new life community, Shenzhen City

## Product picture



## Testing environment

Satimo



## CMW-500 Integrated measuring instrument



## Agilent network analyzer



## Electrical performance test results

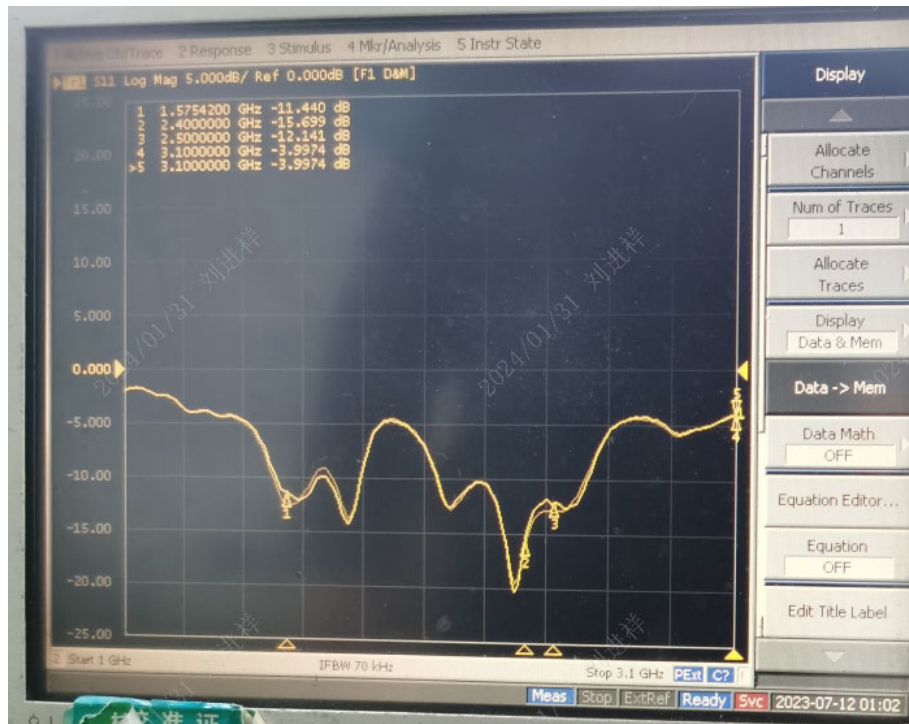
Antenna					
Number	Inspection items	unit	Performance indicator requirements	Inspection results	
1	frequency range	MHz	2412-2483.5	2400-2483.5	
2	Gain	dBi	/	2400	1.79
				2440	1.71
				2480	1.15
4	Return loss	dB	$\leq -10$	2400	-15.6
				2440	/
				2500	-12.1
4	Standing wave ratio	dB	/	2400	1.39
				2440	/
				2500	1.64

Return loss -Log Mag S11

antenna

frequency-MHz

2400-2500

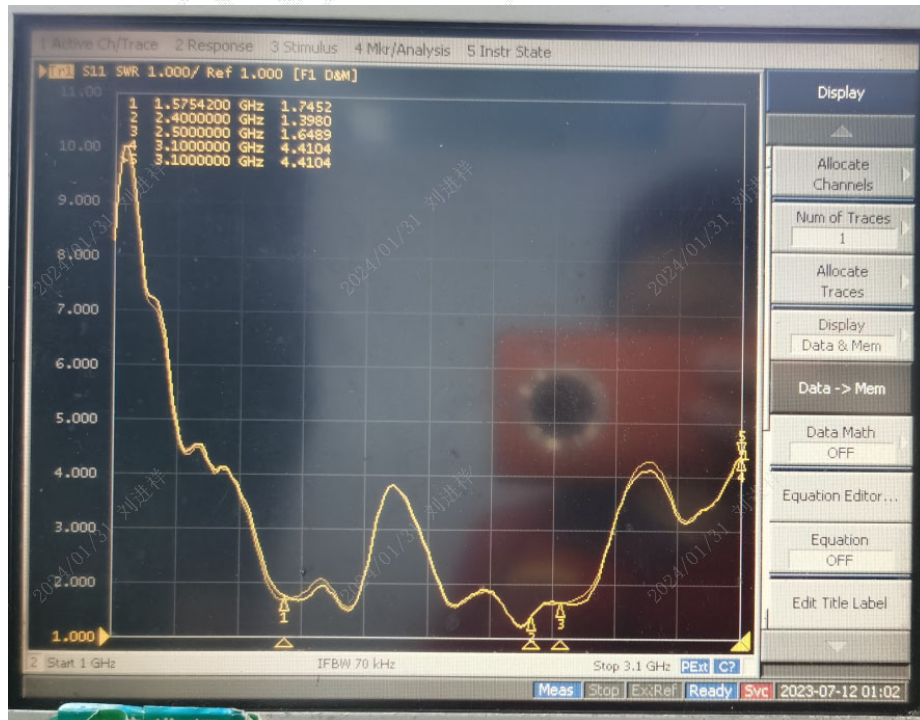


SWR

antenna

frequency-MHz

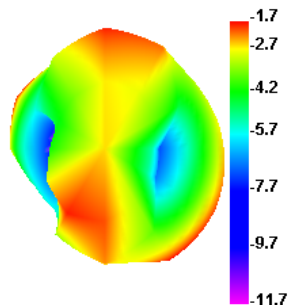
2400-2500



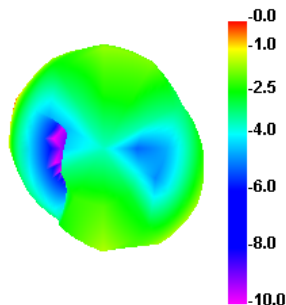
### Radiation parameter testing

#### Radiation pattern 2.4G)

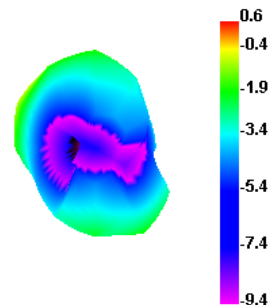
2400.000MHz



2440.000MHz

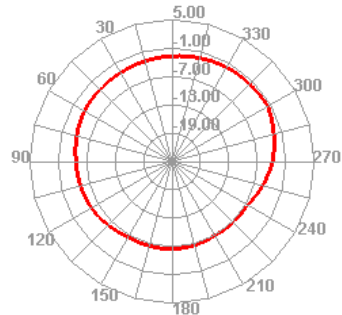


2480.000MHz

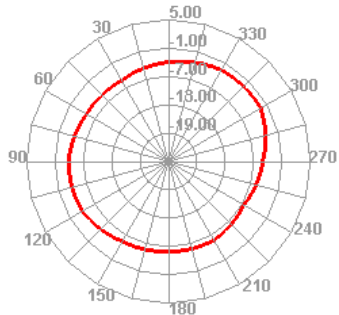


#### horizontal plane

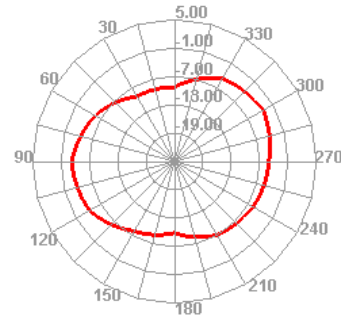
2400.000MHz H



2440.000MHz H

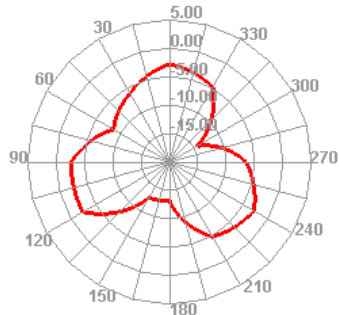


2480.000MHz H

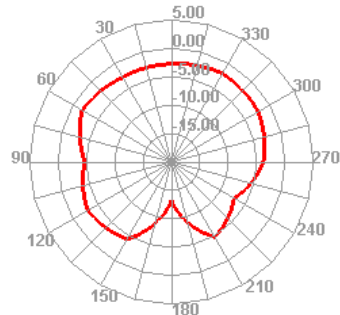


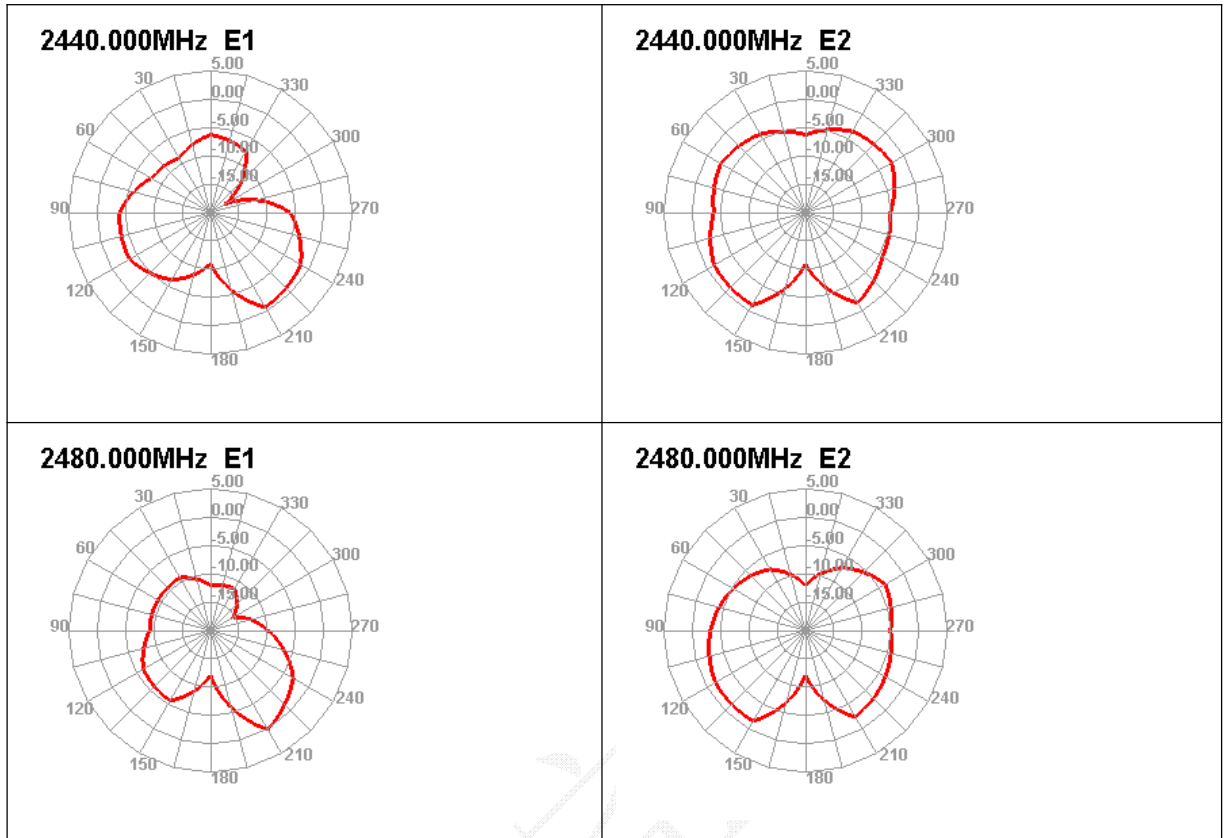
#### Vertical plane

2400.000MHz E1



2400.000MHz E2





Passive efficiency of antenna

Frequency	E Total. dB(dBi)	Efficiency(%)
2400MHz	1.79	48.46
2410MHz	1.67	45.68
2420MHz	1.86	47.78
2430MHz	1.58	45.43
2440MHz	1.71	48.44
2450MHz	1.59	48.69
2460MHz	1.34	48.19
2470MHz	0.87	43.15
2480MHz	1.15	48.44
2490MHz	1.49	55.29
2500MHz	1.22	55.04