



# 深圳自由行通信技术有限公司

Shenzhen Free Walk Communication Technology Co. LTD

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客户 (Customer) : **Micronet Union Technology**

产品 (Product) : **2.4G-exposed antenna(L=100mm)**

型号 (Model) : **51010052**

料号 (Part Number) : **Z01-20209-R01**

工程部 ENGINEER R&D DEPT	品质部 QUALITY DEPT	批准 APPROVED

## Free Walk

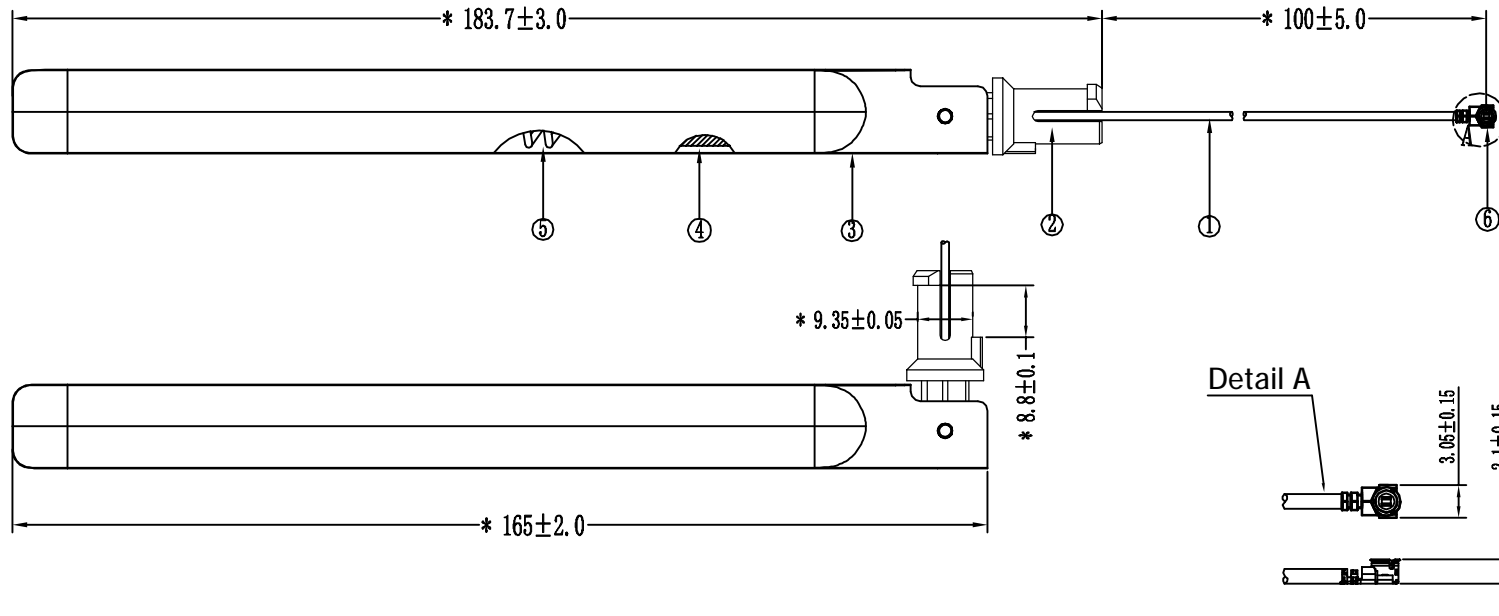
射频 R&D DEPT	工程部 ENGINEER R&D DEPT	批准 APPROVED
李文科	古政华	

## The basic parameters

A. Electrical Characteristics	
<b>Frequency</b>	<b>2400 MHz ~2500MHz</b>
<b>VSWR</b>	<b>≤2</b>
<b>Efficiency</b>	<b>&gt;60%</b>
<b>Impedance</b>	<b>50 Ohm</b>
<b>Polarization</b>	<b>Linear</b>
<b>Gain</b>	<b>5dBi±1</b>
B. Material & Mechanical Characteristics	
<b>Material of Radiator</b>	
<b>Cable Type</b>	<b>Φ1.37mm Gray</b>
<b>Connector Type</b>	<b>一代 IPEX</b>
<b>Dimension</b>	
C. Environmental	
<b>Operation Temperature</b>	<b>- 20 °C ~ + 60 °C</b>
<b>Storage Temperature</b>	<b>- 40 °C ~ + 80 °C</b>



NAME	NAME	MATEL/Spec	COLOR	QTY	note
①	RF cable	1.37 Coaxial line	BLACK	1	
②	Lower mount	ABS+PC	WHITE	1	
③	Sleeve	ABS	WHITE	1	
④	PCB	FR-4	BLACK	1	
⑤	spring	carbon steel	SILVER	1	
⑥	Terminal	first gen	GOLDEN	1	
⑦					



## Test Equipment & Conditions

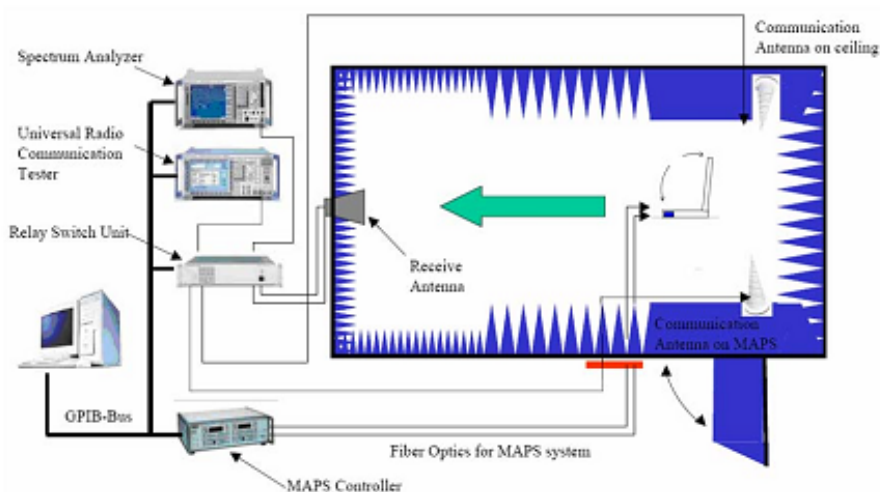
### 1. Network Analyzers :

Agilent 8753D 5071C

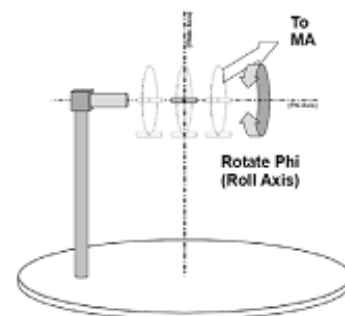
### 2. Communications Test Set:

Agilent 8960 CMW500

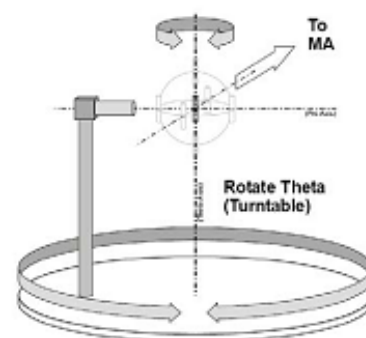
### 3. 3D Chamber Test System



(Testing by 3D anechoic chamber)



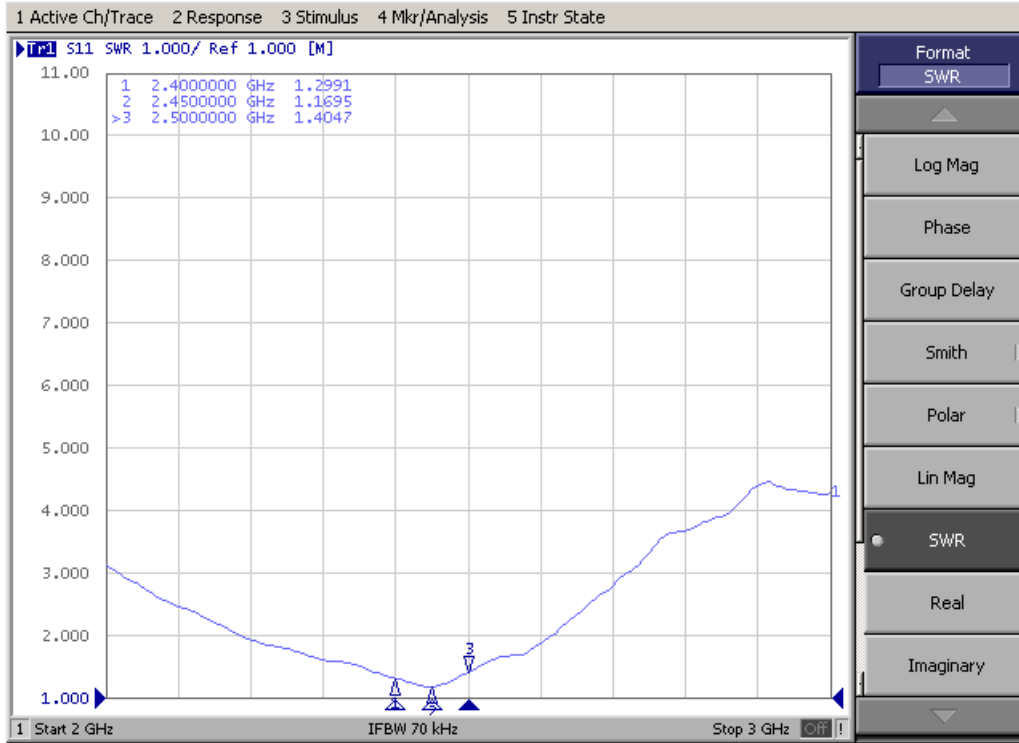
Phi axis test



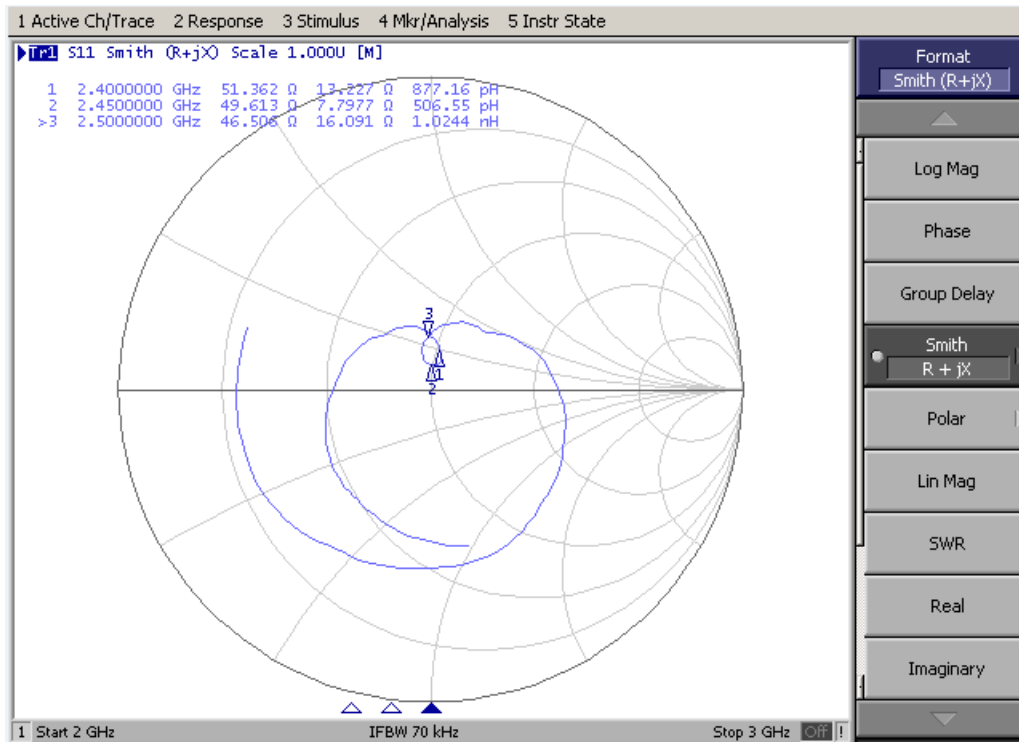
Theta axis test

## Test Data

### SWR



### Smith



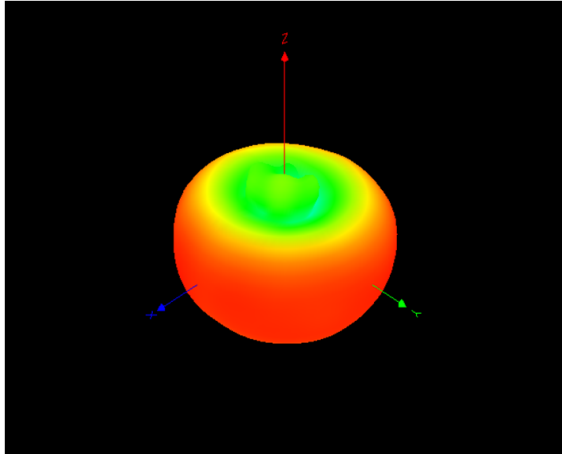
## 效率&增益:

### Efficiency&Gain

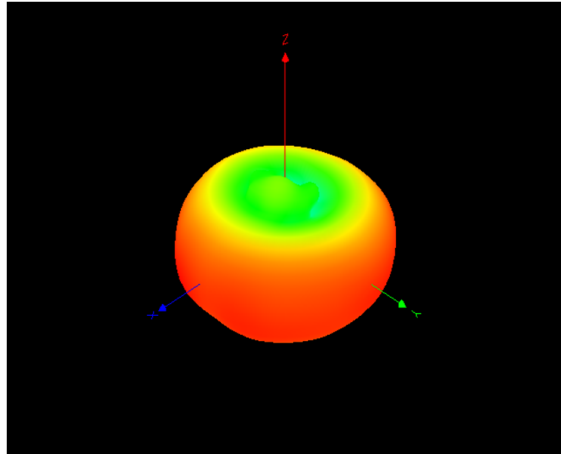
Frequency / MHz	Efficiency / %	Gain/ dBi
2400	70.15	4.89
2410	68.86	4.84
2420	74.13	5.04
2430	68.99	4.70
2440	70.34	4.76
2450	68.83	4.72
2460	76.21	5.25
2470	70.15	5.02
2480	69.30	4.79
2490	72.11	5.09
2500	71.94	5.29

### 3DPatten

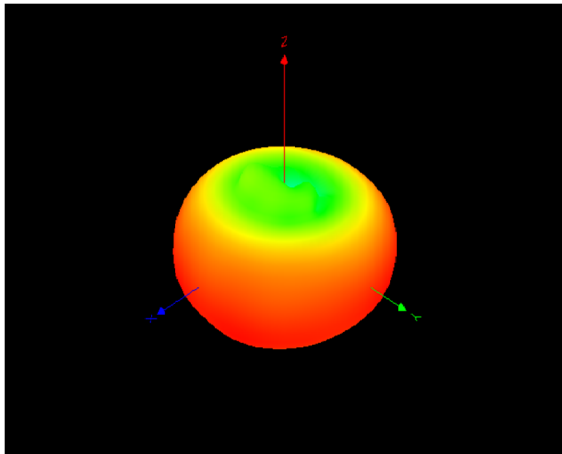
2400MHz



2450MHz

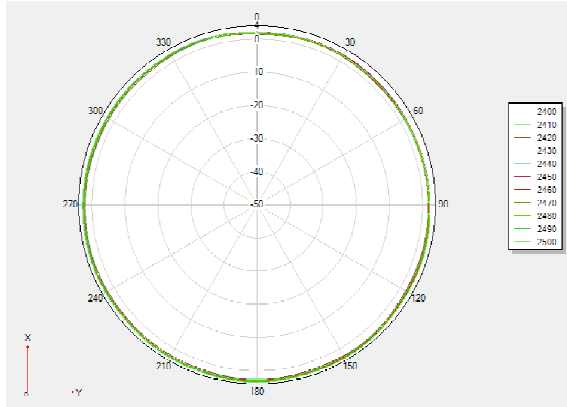


2500MHz

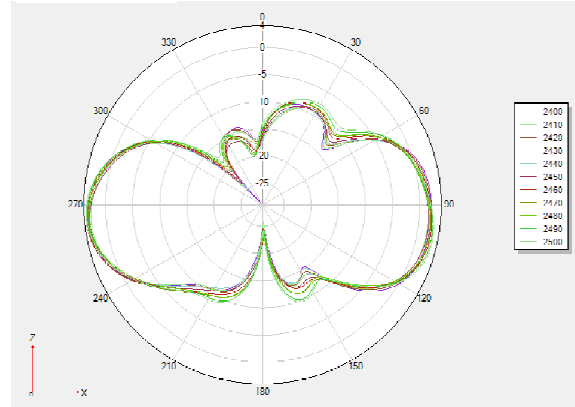


## 2D Patten

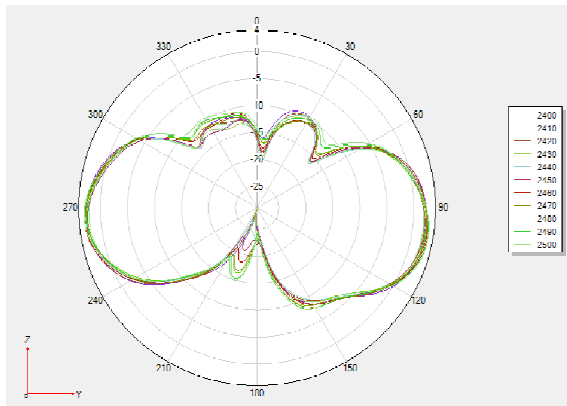
XOY- p l a n e



ZOX - p l a n e



ZOY - p l a n e





## Antenna picture

