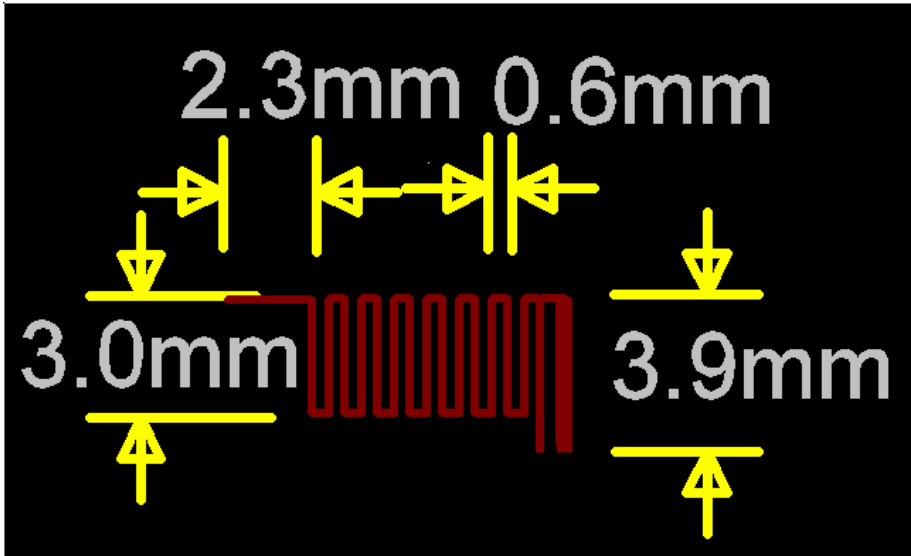


Antenna Specification

Specifications Summary

ITEM	SPEC.	
Model Name	IBM 2.4 GHz	
Center Frequency	2403 MHz	2.24 dBi
	2441 MHz	2.20 dBi
	2479 MHz	1.81 dBi
MAX. GAIN	2.24 dBi	
Polarization	Horizontal	
Azimuth Beam Pattern	Omni-directional	
Impedance	50 Ω	
Antenna Length	3.2cm	

Antenna Photo & Length (mm)



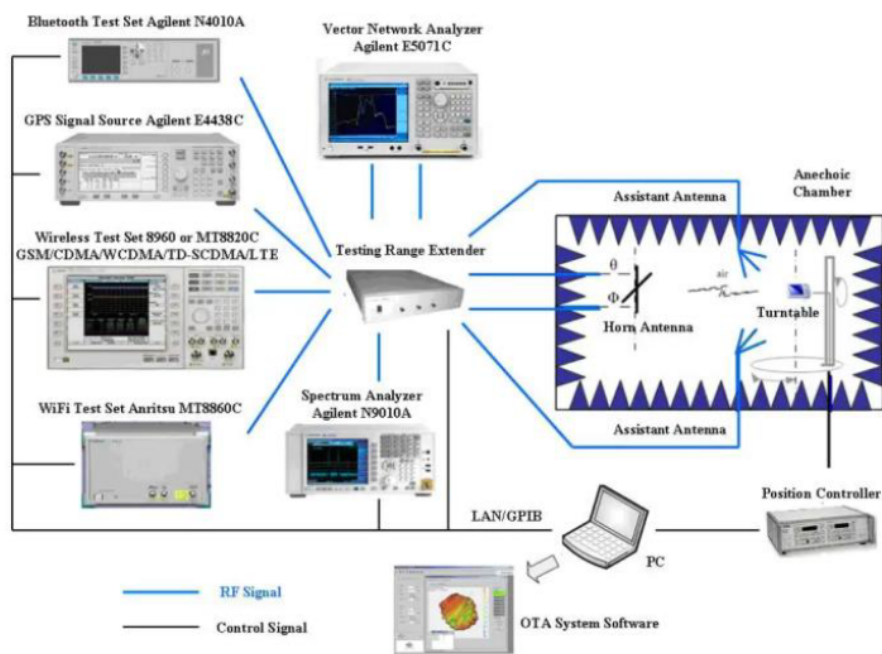
Test Address	C408, Lan Guang Technology Park, Xin Xi Road, North District, Nanshan District, Shenzhen, China
Test Date	2025-01-08
Test Instrument	vector network analyzer

Project Engineer: Andy

Test procedure

Name	Parameter	Method	Standard no.
Mobile communication antenna	VSWR	Generic specification for antennas used in the mobile communications	GB/T 9410-2008
	Antenna gain		
	Radiation pattern		
Antenna performance	Radiation efficiency	IEEE Standard Test Procedures for Antennas	ANSI/IEEE Std 149-1979

Test configuration diagram



Software version: Emquest

Equipment list

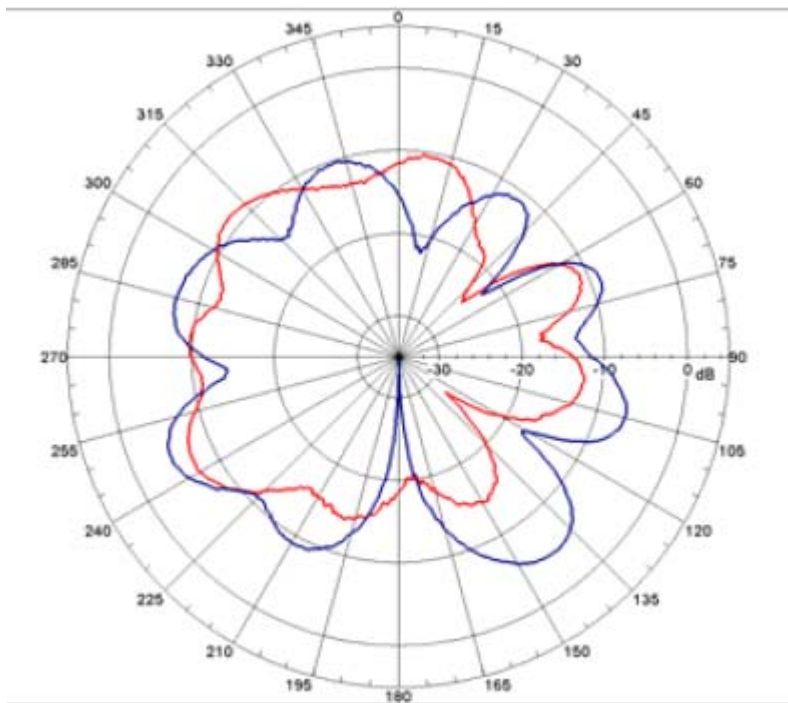
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
Network Analyzer	R&S	ZVB20	XXXXXX	2024.08.01	2025.07.31

1. Main antenna : 2403 MHz

(green line: horizontal power)

(red line: vertical power)

1.1 Horizontal



Frequency(MHZ): **2403**

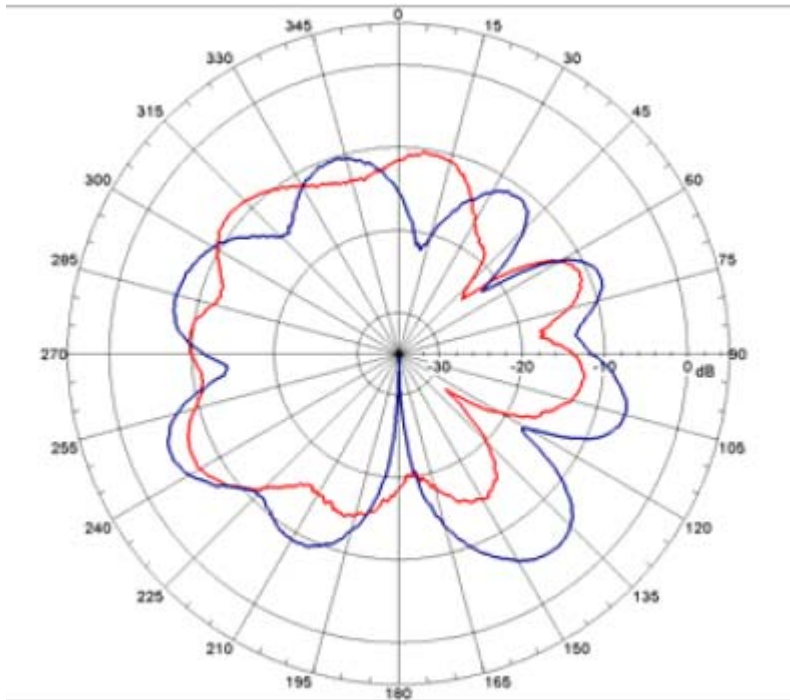
Antenna Polarity: **Horizontal**

Maximum Value(dBi): **2.24**

Average Gain(dBi) : **-2.48**

Minimum Gain(dBi): **-55.18**

1.2 Vertical



Frequency(MHZ): **2403**

Antenna Polarity: **Vertical**

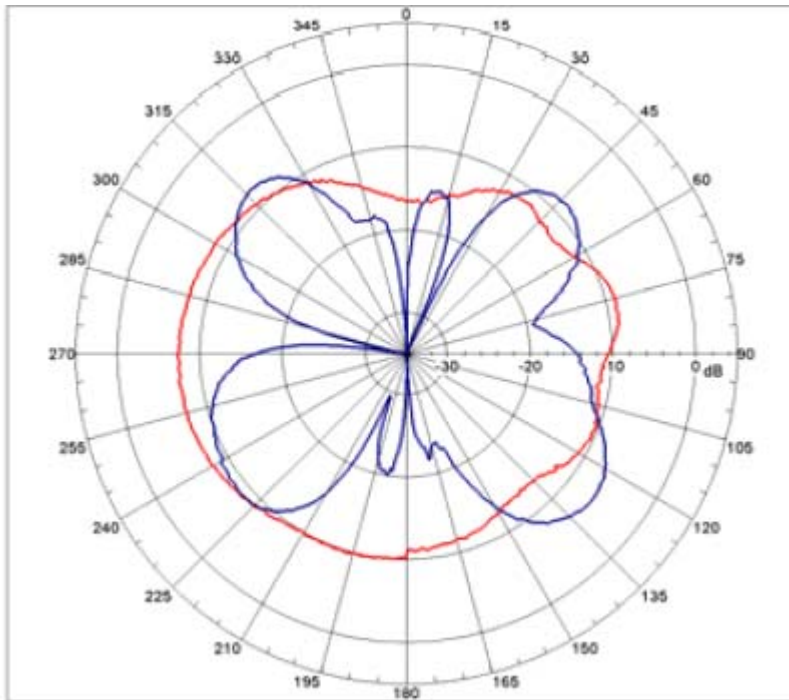
Maximum Value(dBi): **-4.51**

Average Gain(dBi) : **-8.98**

Minimum Gain(dBi): **-62.3**

2. Main antenna : 2441 MHz

2.1 Horizontal



Frequency(MHZ): **2441**

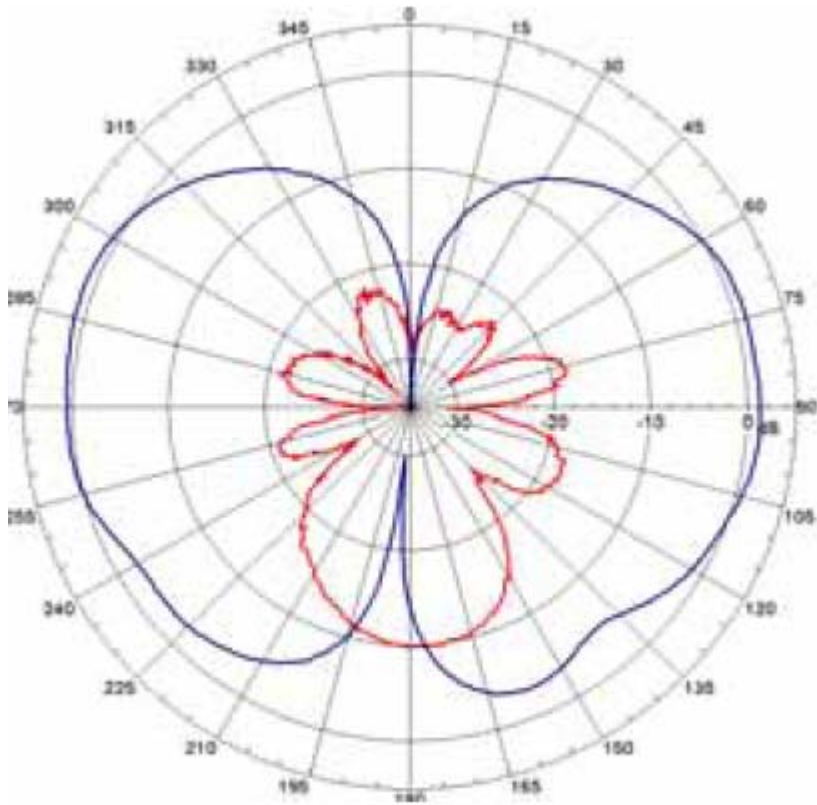
Antenna Polarity: **Horizontal**

Maximum Value(dBi): **2.20**

Average Gain(dBi) : **-2.44**

Minimum Gain(dBi): **-64.78**

2.2 Vertical



Frequency(MHZ): **2441**

Antenna Polarity: **Vertical**

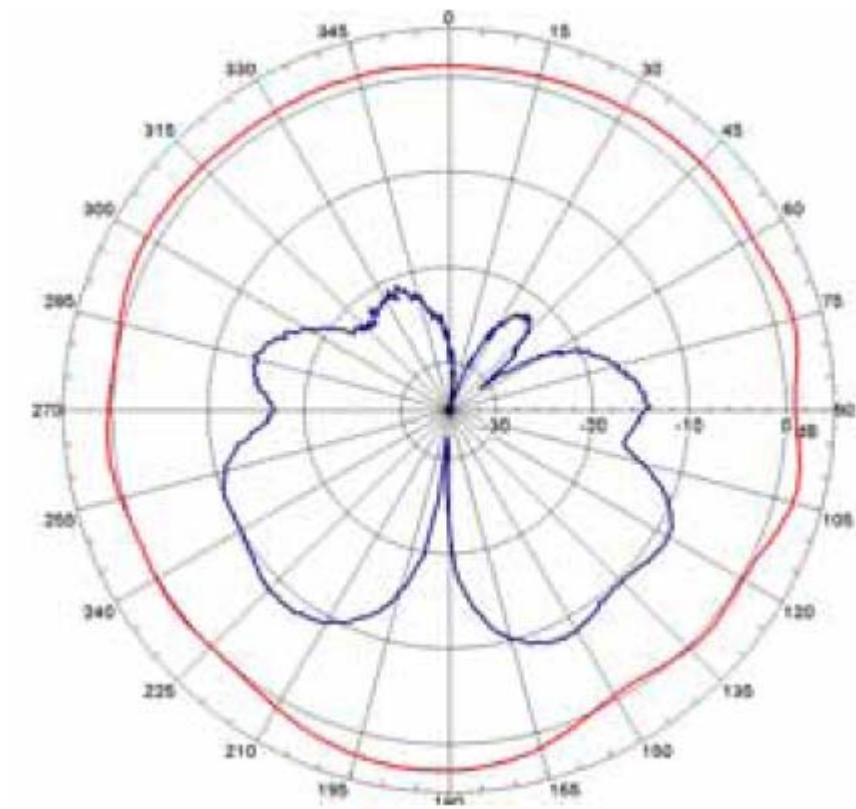
Maximum Value(dBi): **-4.29**

Average Gain(dBi) : **-8.41**

Minimum Gain(dBi): **-47.4**

2. Main antenna : 2479 MHz

2.1 Horizontal



Frequency(MHZ): **2479**

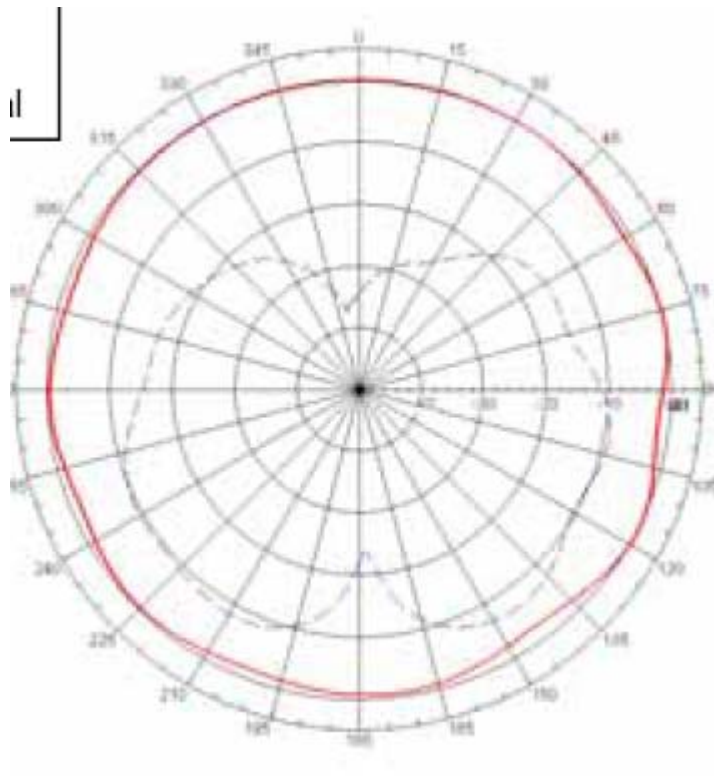
Antenna Polarity: **Horizontal**

Maximum Value(dBi): **1.81**

Average Gain(dBi) : **-4.34**

Minimum Gain(dBi): **-55.4**

2.2 Vertical



Frequency(MHZ): **2479**

Antenna Polarity: **Vertical**

Maximum Value(dBi): **-4.95**

Average Gain(dBi) : **-14.06**

Minimum Gain(dBi): **-64.00**