



Antenna Datasheet

2.4G Rubber Antenna

Type:

BW2.4GJWX50-10WJ

Description:

2.4G Rubber Antenna

SMA-J

Feature:

2400-2500MHz

SMA-J

Structure: Angled

360° Omnidirectional Radiation

Size: 50mm x \varnothing 10mm

RoHS & REACH Compliant

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In line with the principle of providing users with better services, Shenzhen Bat Wireless Technology Co., Ltd. (hereinafter referred to as "Bat Wireless") will present detailed and accurate product information to users as much as possible in this manual. However, since the content of this manual has a certain timeliness, Bat Wireless cannot fully guarantee the timeliness and applicability of this document in any period of time. Bat Wireless reserves the right to update the contents of this manual without notice. In order to get the latest version of the information, please visit the official website of Bat Wireless regularly or contact the staff of Bat Wireless. Thank you for your tolerance and support!

BW2.4GJWX50-10WJ

Description

BW	Company	Bat Wireless
2.4G	Frequency	2400-2500MHz
J	Name	Rubber Antenna
W	Type	External
X	Constant	X
50-10	Dimensions	50x10mm
W	Feature	Angled
J	Connector	SMA-J

1. Description

Bat Wireless BW2.4GJWX50-10WJ is a high-performance omnidirectional antenna, is an industrial-grade application optimized L-shaped antenna, in the compact size to break through the traditional short antenna performance bottleneck, small size and light weight, using high-quality plastic shell, elbow non-foldable, with excellent signal reception and transmission capabilities, providing stable and reliable support for device connection. Its compact and lightweight glue stick shape design is easy to install and transport.

Classic Application Scenarios:

Industry 4.0: Real-time monitoring of CNC machine tools

Smart Healthcare: Surgical robot control

Intelligent transportation: rail catenary monitoring

Energy Internet of Things: Substation Inspection Robot

Bat Wireless offers customized services to optimize your equipment, and we have an established R&D team that can respond quickly to meet your needs. If you have any requirements, please contact our sales and FAE.

2. 产品规格 / Specification

Parameters	Typ.	Unites	Notes
Electrical Characteristics			
Antenna Type	Rubber Antenna		
Frequency Range	2400-2500	MHz	
Input Impedence	50	Ω	
V.S.W.R	<1.5		
Gain	2	dBi	
Polarization Type	Vertical		
Power Capacity	50	W	
Lightning Protection	-		
DC Voltage	-	V	
Radiator	-		
Mechanical Characteristics			
Dimensions	50 x \varnothing 10	mm	
Connector Type	SMA-J Male		
Cable Type	-		
Cable Length	-	mm	
Mount way	-		
Color	Black		
Meterial	ABS		
Weight	6.34	g	
Environmental Characteristics			
Waterproof Rating	-		
ROHS Complaint	Compliant		
Operating Temperature	-45~ +85	$^{\circ}\text{C}$	
Storage Temperature	-45~ +85	$^{\circ}\text{C}$	

3. Dimensions



4. Mechanical Drawing

PARTS DRAWING 零件图		ROHS Compliant		REV	PRODUCT NO.	DATE	NAME	DESCRIPTION
				A0				

扭盖

①公针 (江苏金黄色)

④套管

②黑色

③打胶固定

要求

1. 线材外皮无破皮、损伤。
2. 成品须100%测试导通 OK。
3. 成品须100%全检OK。
4. 采用环保制程, 成品符合ROHS要求。
5. 未注公差皆以一般公差为准。

NO	Code	Name	Description	QTY
3	1.010.0106	热缩管	3.0黑色热缩套管 L=18MM	1
3	1.009.02201	黄铜片	33*4.6*1=0.3MM 黄铜	1
2	1.006.0107	塑胶杆	43*10.3MM 黑色小辣椒杆套	1
1	1.004.8037	SMA	6.0弯公头公针 镀金 扭盖 江苏金黄色	1

工作频率 (Frequency Range) 频段 (Band) 电压驻波比 (VSWR) 阻抗方式 (Impedance)	2400-2500MHz 2DBI 对比波形 垂直 50 Ω	公差 ANGLE INDICATION 公差 GENERAL TOLERANCES 50-100: ± 2.00 100-200: ± 3.00 250-500: ± 0.20 500-1000: ± 0.15 1000-2000: ± 0.1	产品名称 (PRODUCT NAME) 胶棒天线-WIFI-1小辣椒黑色-6.0弯公头公针-L=50MM <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>产品料号</th> <th>单位 (UNIT)</th> <th>数量</th> <th>比例 (SIZE)</th> </tr> <tr> <td></td> <td></td> <td>1 OF 1</td> <td>幅面 (FORMAT)</td> </tr> <tr> <td></td> <td></td> <td></td> <td>A4</td> </tr> </table>	产品料号	单位 (UNIT)	数量	比例 (SIZE)			1 OF 1	幅面 (FORMAT)				A4
产品料号	单位 (UNIT)	数量	比例 (SIZE)												
		1 OF 1	幅面 (FORMAT)												
			A4												
工作温度: -45℃~85℃ 储存温度: -45℃~85℃			深圳市蝙蝠无线技术有限公司												

5. Test Equipment



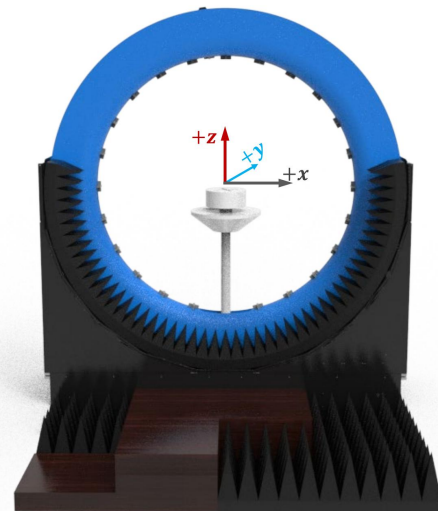
Keysight/E5071C Series Network Analyzer



R&S/CMW500 Communication Tester



R&S/SMBV100B Vector Signal Generator



DT-3500 Datasheet

Specification:

Specification:	Description
Test Frequency	400MHz-8.5GMHz
System Size	L*W*H=4*3.5*3.5m
Number of Probes	23 (Probe) + 1 (link)
Interval Angle	15°
Sampling Diameter	2200mm
Carring Capacity	≤40kg

Testing Capability

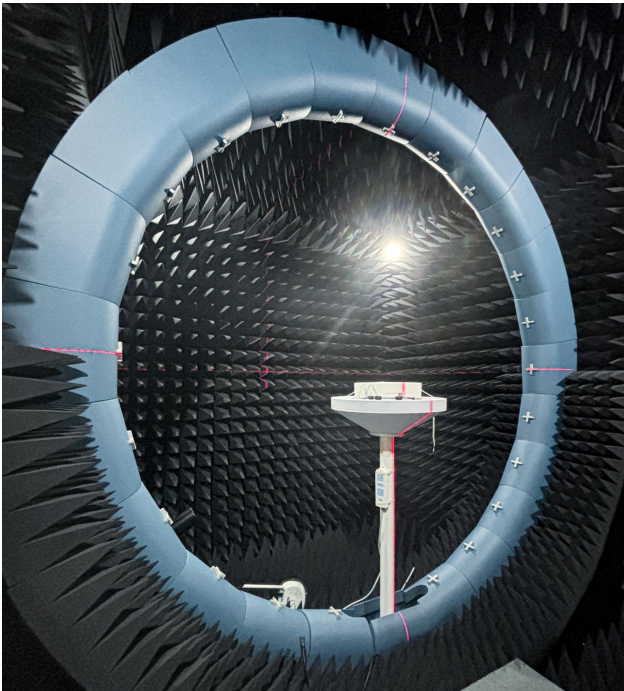
Description

Active measurement

Capability: TRP、TIS、EIRP、EIS,. etc
Mode : 2G/3G/4G/5G、Wi-Fi b/g/n/a/ac/ax、BT、NB-IOT、Cat-M(eMTC)、GPS/BEIDOU/GLONASS、ZigBee、LoRa(Non-Signaling),.etc

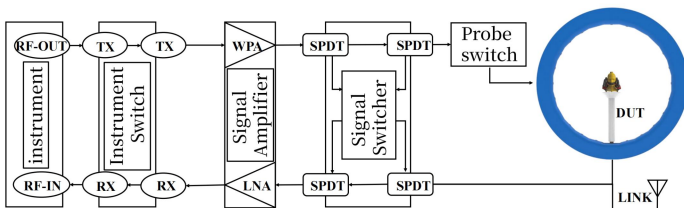
Passive measurement

Test category : Gain、Efficiency、2D pattern、3D pattern、Pattern roundness、Axial Ratio、ECC、Phase center,. etc
Polarization : Circular polarization, linear polarization, elliptical polarization

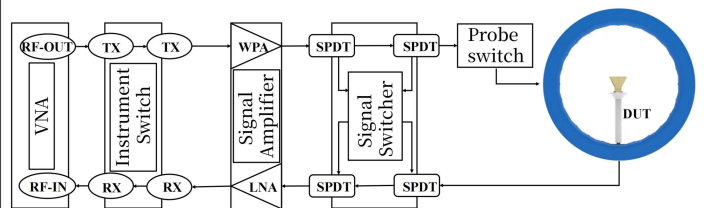


RF Link diagram of multi probe spherical near-field testing system

RF Link Overview



RF Link of Passive measurement



RF Link Overview



RF Link of Passive measurement

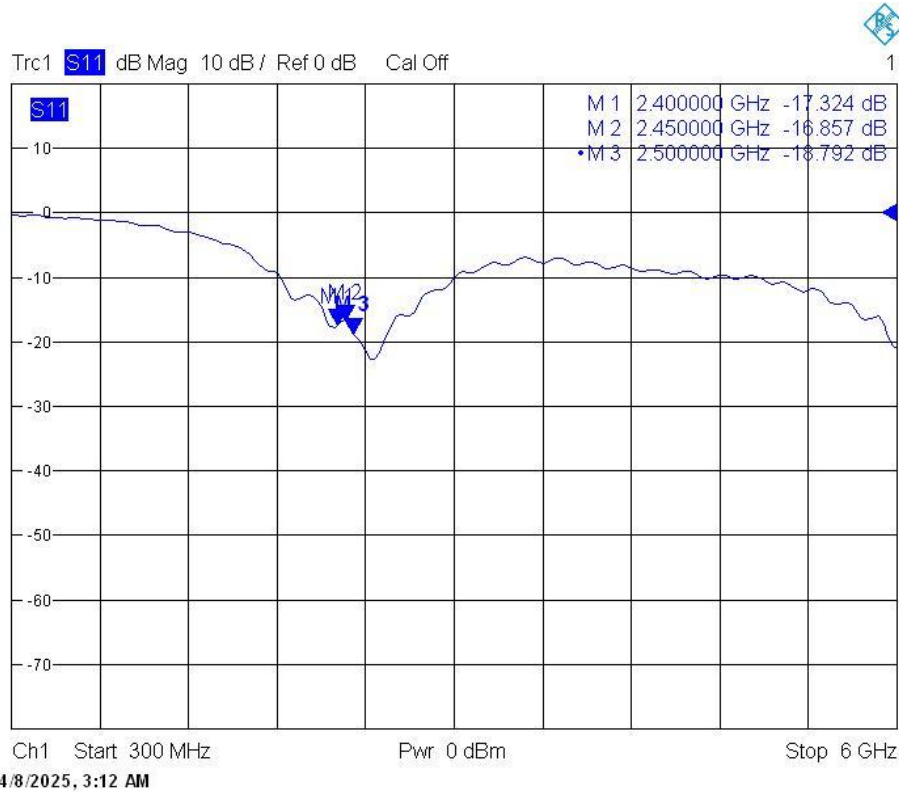


6. Performance Data

6.1 VSWR

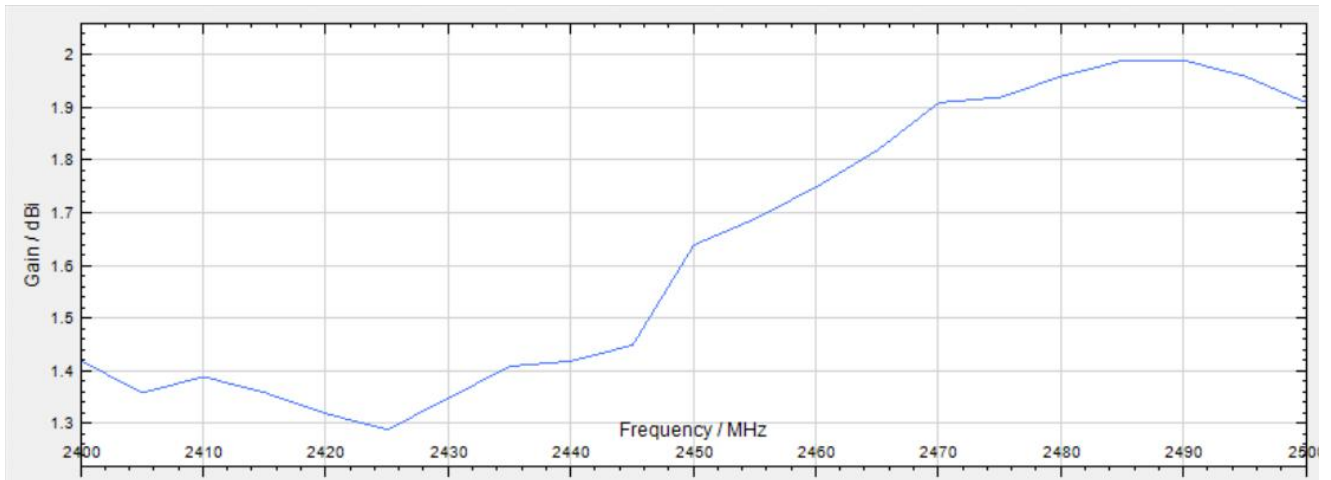


6.2 Return Loss

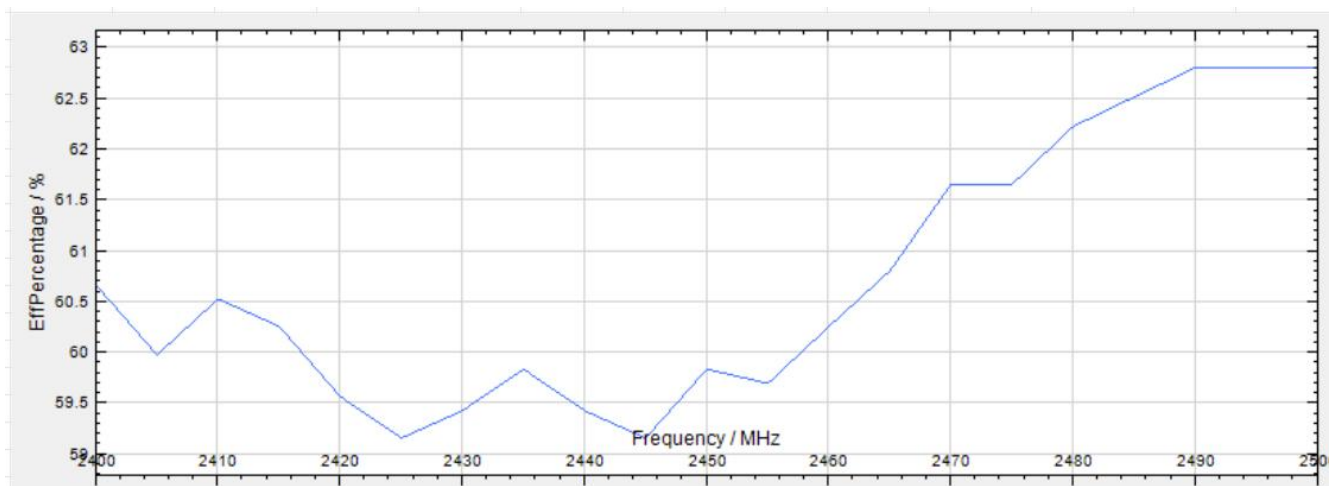


6. Performance Data

6.3 Gain



6.4 Efficiency

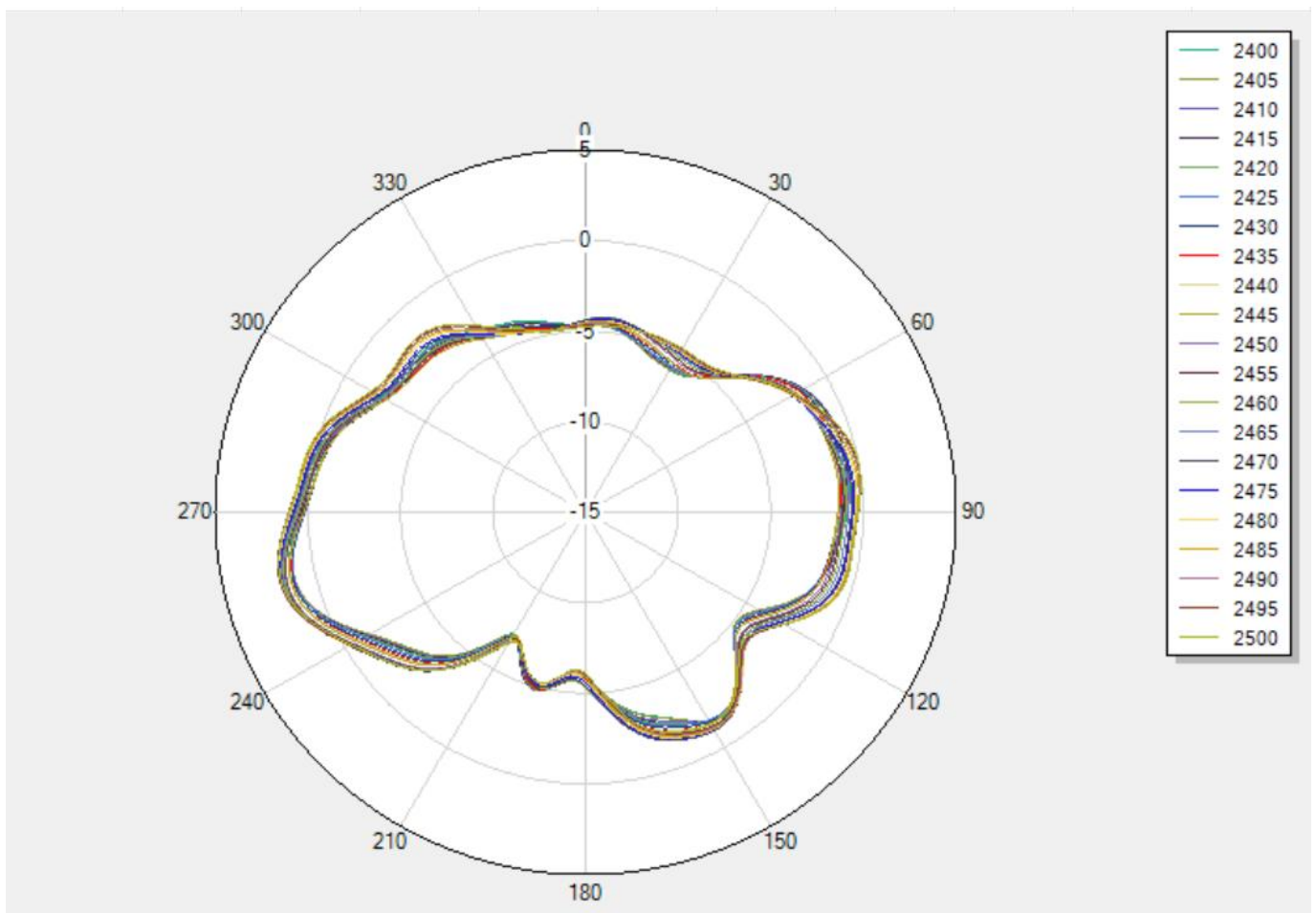


6.4 Gain & Efficiency

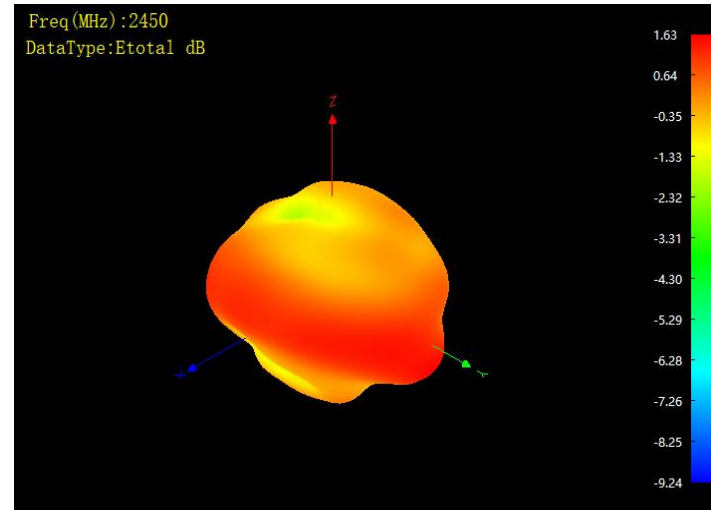
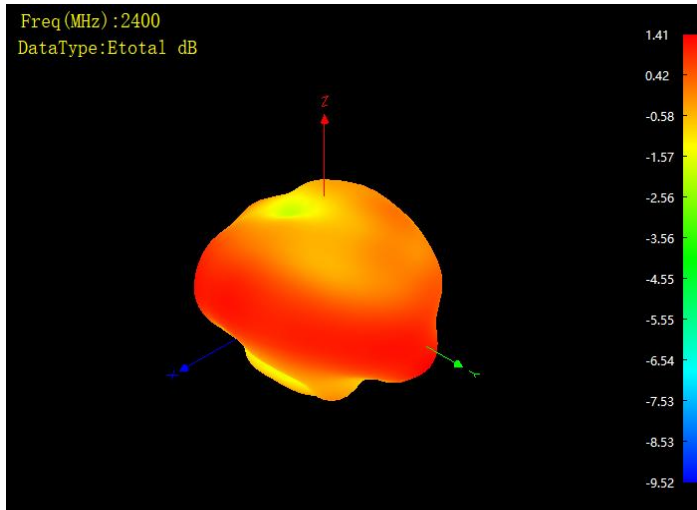
Frequency (MHz)	2400	2425	2450	2475	2500
Gain (dBi)	1.42	1.29	1.64	1.92	1.91
Efficiency (%)	60.67	59.16	59.84	61.66	62.81

7. Radiation Patterns

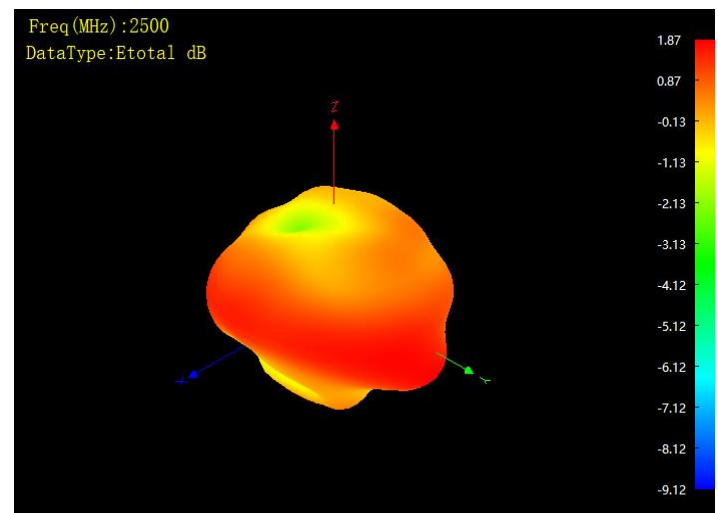
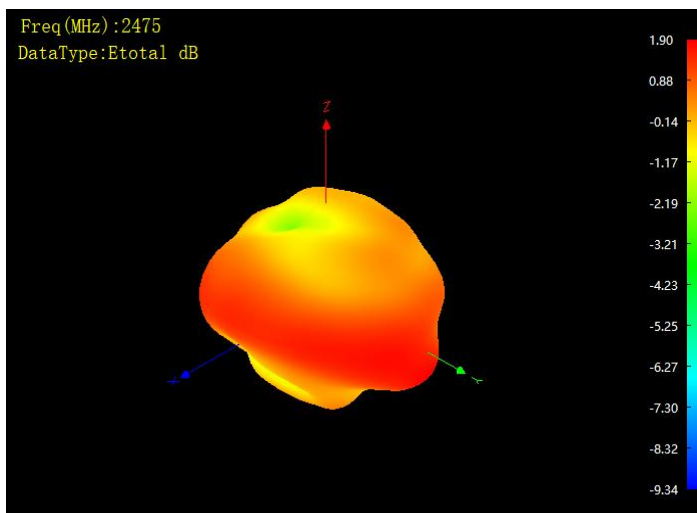
7.1 2D Radiation Patterns



7.2 3D Radiation Patterns—2400MHz、2450MHz



7.3 3D Radiation Patterns—2475MHz、2500MHz



Documentation

Version:	June-11-2025-A01
Date:	2025-6-11
Note:	First update
Editor:	Carly

Change Log



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