

	Document number:
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Antenna data sheet

Manufacturer	Shenzhen Bochuang Xinda Communication Technology Co., LTD		
Address	304, Building 3, No. 175, Huasheng Road, Shuiwei Community, Dalang Street, Longhua District, Shenzhen		
Customer Part Number:		Supplier Part Number:	
Product description:	5DB-Dual-band black round rod antenna, female pin	Peak Gain	4.89 dBi (2.4G band)
Supplier approval (stamp):		Customer approval (stamp):	
Production: Zhang Denggang	Structure: Zhang Denggang		
Review :	Date : 2024. 12. 9		

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一、 Product image



二、 Product Parameters

Product test parameters			
Product Name	External antenna	Model Type	5DB-dual-band black round rod antenna rubber head female pin
Electrical Specifications			
Frenquency Range	2400-5800MHZ	Polarization	Vertical
Impedance	50 Ω	Radiation direction	Omnidirectional
VSWR	≤2	Power	50W
Gain	--	Bandwidth	100MHz

Mechanical Specifications

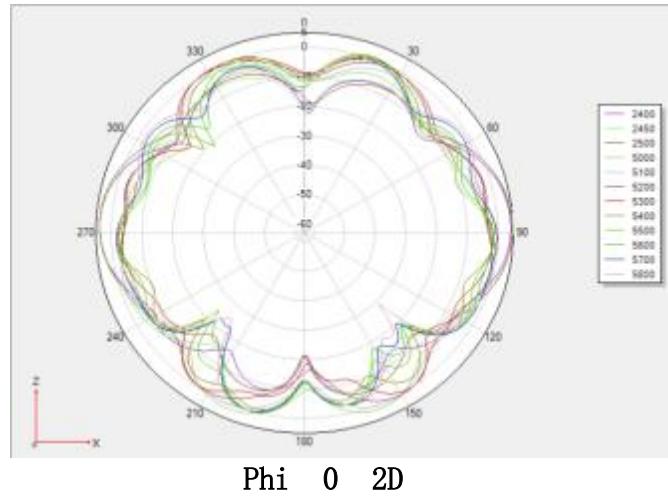
Dimensions	195MM±2MM	Chassis Color	Black
Connector model	RT-SMA	Cable Length	
Chassis Material	PC		
Working Temperature	-40°C±85°C	Limit Temperature	-40°C±85°C

三、S11 (VSWR 、 Return loss 、 Smith) data

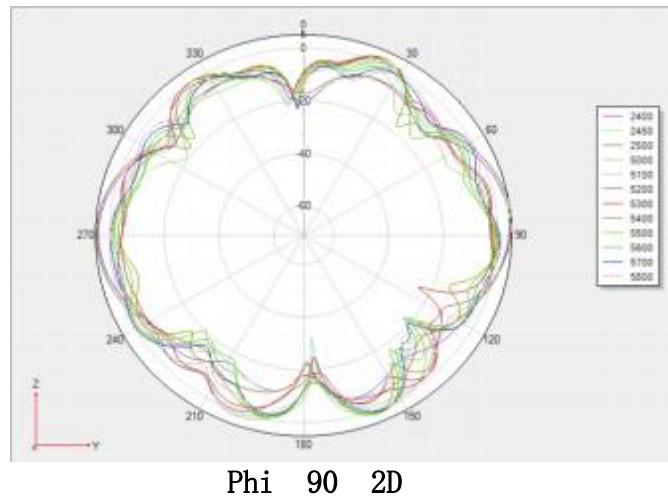
3.1 Network Analyzer Report



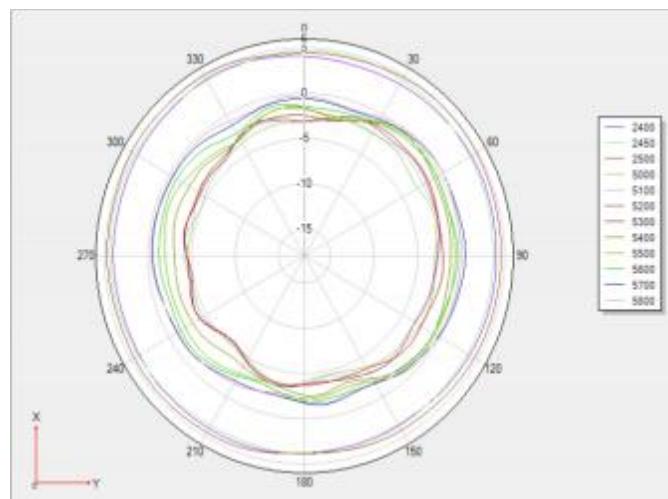
3.2 2D Directional Pattern



Phi 0 2D

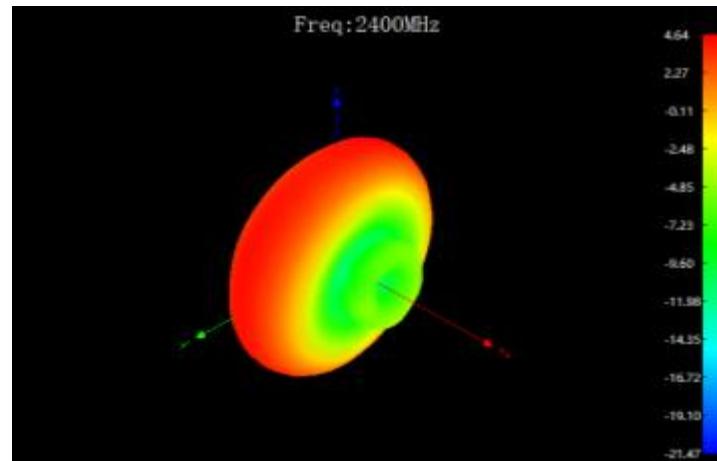


Phi 90 2D

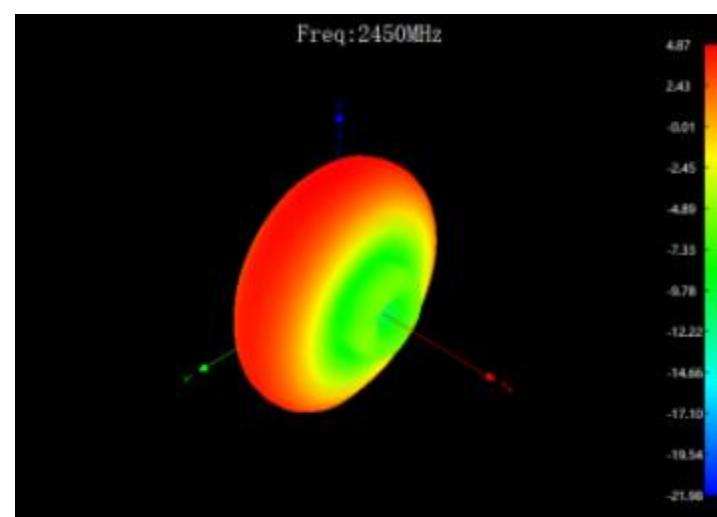


Theta 90 2D

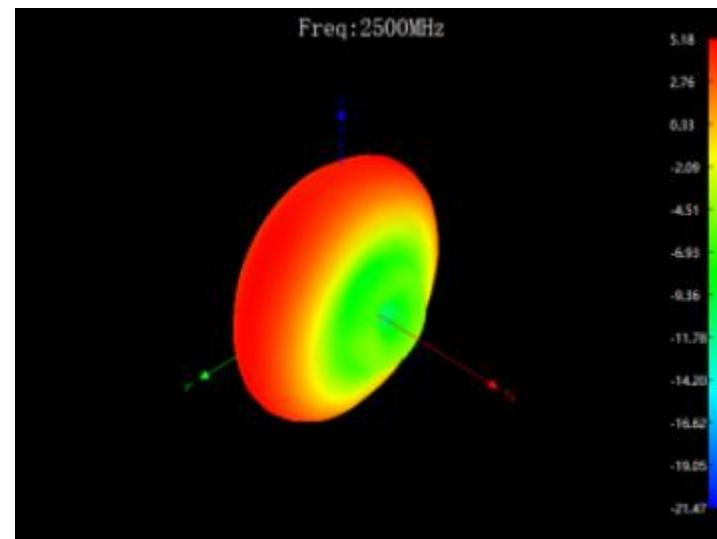
3.3 3D Directional Pattern



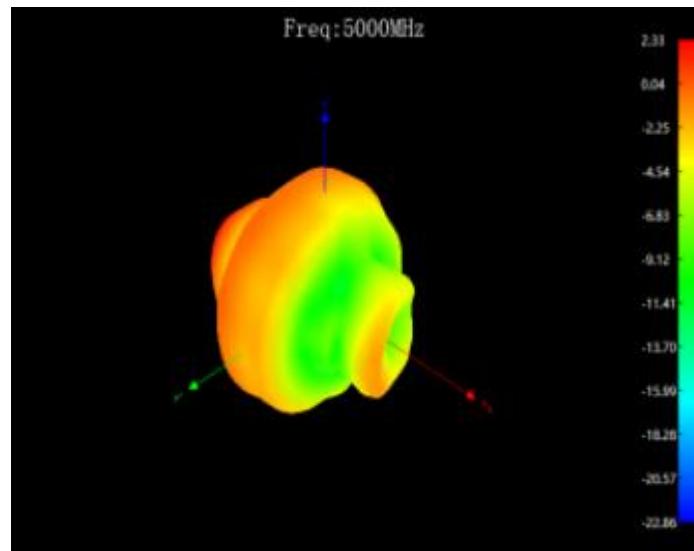
2400MHz



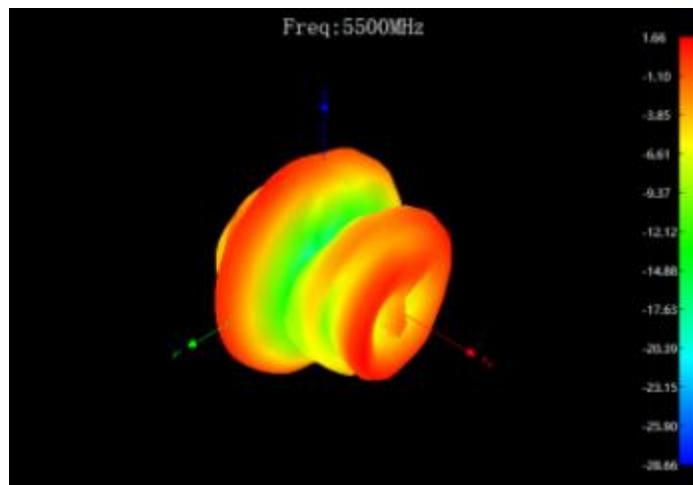
2450MHz



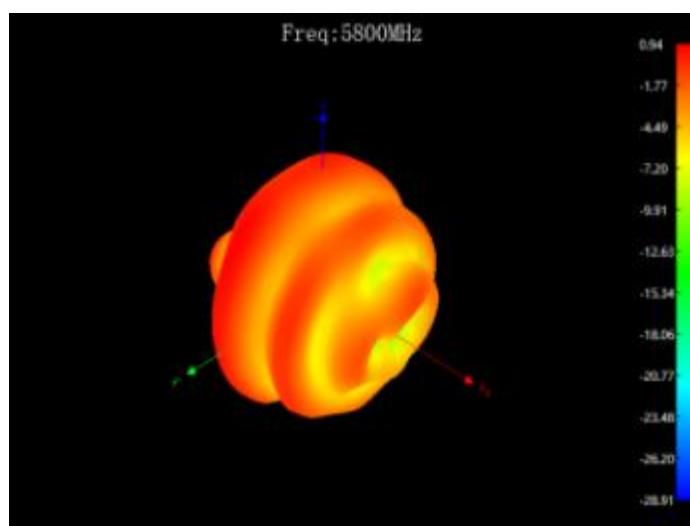
2500MHz



5000MHz



5400MHz

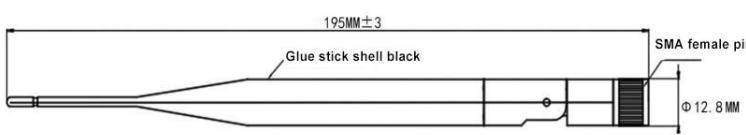
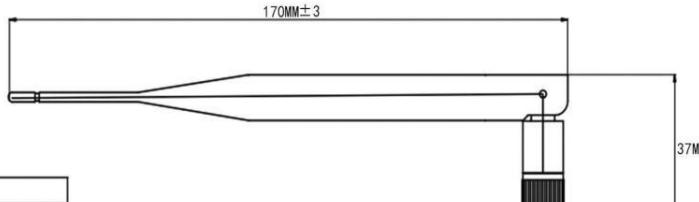
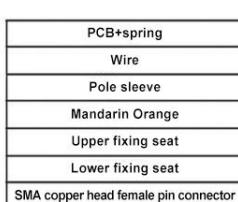


5800MHz

四、Antenna efficiency, gain value

<i>Wifi antenna efficiency&gain</i>		
Frequency	Efficiency	Peak_Gain
2400	64.62%	4.38
2420	65.65%	4.46
2440	69.88%	4.86
2460	69.85%	4.89
2480	69.89%	4.88
2500	68.58%	4.58
5150	68.28%	4.96
5250	68.58%	4.86
5350	69.29%	4.99
5450	70.68%	5.06
5550	70.26%	5.12
5650	70.28%	5.13
5750	69.26%	4.99
5850	69.28%	4.98

五、Product size drawing

			A	B	C	D		
			ISSUE	DESCRIPTION	DATE			
1	1	1						
2	2	2						
2	2	2			<p>1. The finished product must pass 100% electrical test, and there must be no short circuit, open circuit, instantaneous access and other undesirable phenomena.</p> <p>2. The terminal must not have oxidation, scratches, crushing and other undesirable phenomena.</p>			
3	3	3	<p>2.4GHz~2.5GHz+5.15GHz~5.85GHz -10dB or less 1.92 Max 5.0 dBi</p>		<p style="text-align: center;">Shenzhen Bochuang Xinda communication technology Co., LTD</p>			
			<p>TITLE: External antenna rubber stick: 5DB, 2.4G 5.8G dual-band, female pin, black colloid</p>		<p>DWG NO:</p>			
			<p>P/N:</p>				<p>CUSTOMER:</p>	
			<p>Drawing Zeng Tao</p>		<p>TOLERANCE: WHOLE NO ANGLE</p>		<p>EDITION: 1 CUSTOMER</p>	
			<p>UNIT: MM</p>		<p>SCAL: NONE</p>			
ITEM	DESCRIPTION		Q'TY	UNIT			SH 1	OF 1
								A4
	A	B			C			D

六、Environmental reliability test report

Storage environment	<p>Under the unspecified conditions, the test temperature, humidity and air pressure are as follows:</p> <ol style="list-style-type: none">1. Temperature is $-30^{\circ}\text{C} \sim +80^{\circ}\text{C}$2. Relative humidity is 45%-85%3. Air pressure is 86kpa-106kpa	Electrical and mechanical performance is normal
High and low temperature test	Perform 5 cycles between 70°C and 40°C , and then check the appearance quality under normal conditions for 1-2H.	Dimensions should meet the requirements and should meet mechanical and electrical performance
Stationary humidity and heat resistance test	Relative humidity $95 \pm 3\%$, test temperature: 40°C . After 2H of action, Measure the electrical performance within 5min after the sample is taken out, and check the appearance quality of the sample under normal conditions for 1-2H.	Dimensions should meet the requirements and should meet mechanical and electrical performance
Vibration test	Frequency range is 10-55HZ displacement amplitude: 0.35MM acceleration amplitude: 50.0M/S sweep frequency cycle number: 30 times	Electrical and mechanical performance is normal
Drop test	Freely fall 3 times at 1M altitude in mutually perpendicular axial directions	Electrical and mechanical performance is normal