

		document number :	
Specification For Approval			
customer name : Customer:			
Supplier Name: Customer:	Dongguan Zhongyida Electronic Technology Co., LTD		
Customer part number:		Supplier part number:	
product description :	5DB-2.4G White rubber rod antenna glue head female needle	Supported models:	
Supplier acknowledges (seal):		Client Acknowledges (seal):	
Production: Zhou Jingfeng	Structure: Zhou Jingfeng		
examine and verify:	Date: 2025.07.29		

catalogue

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I. Product pictures



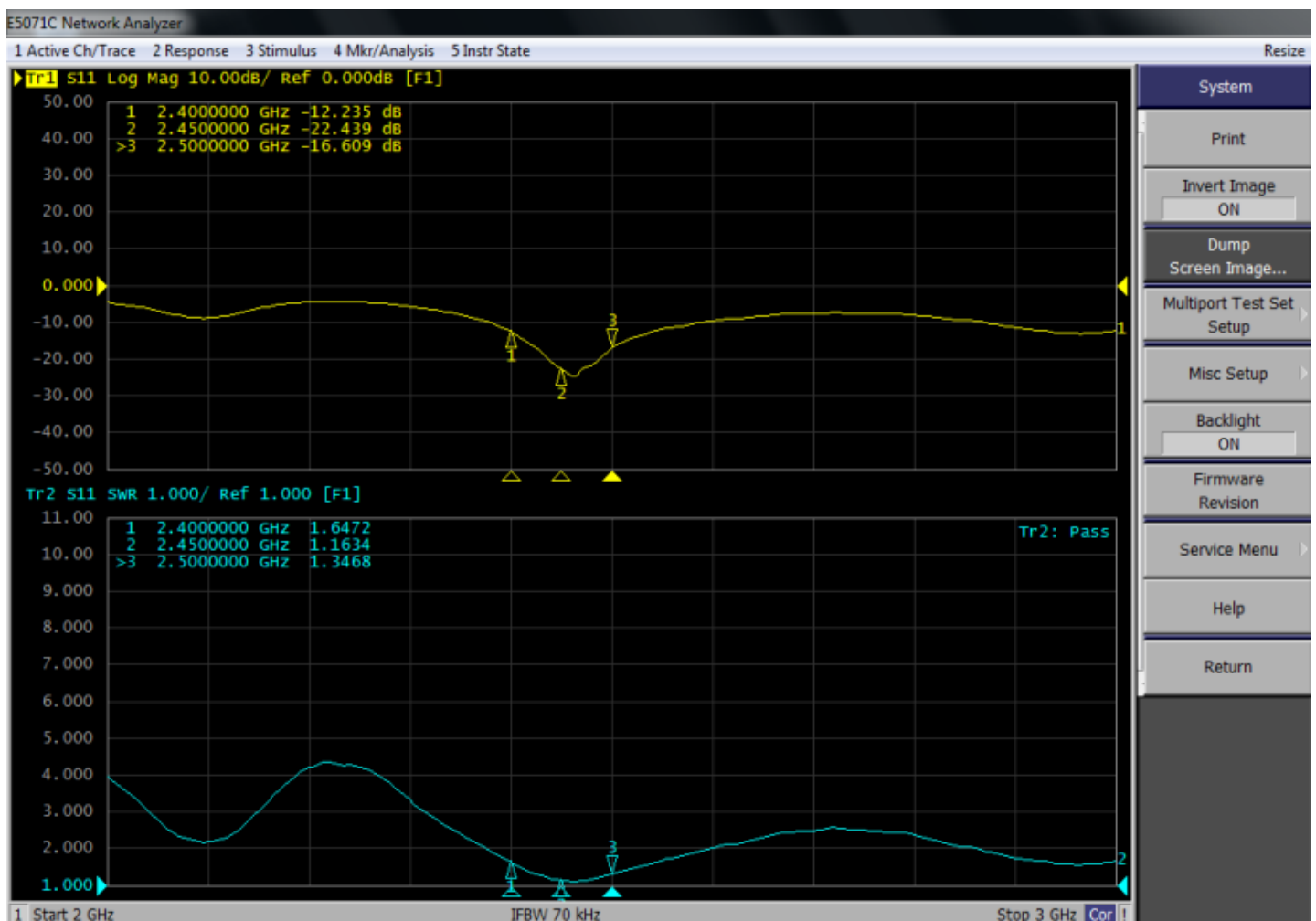
II. Product parameters

Product test parameters			
Product Name (Name)	External 2.4G antenna	Product model (Model Type)	5DB-2.4G White rubber rod antenna glue head female needle
Electrical specifications (ES)			
Frequency range (Frenquency Range)	2400-2500MHZ	Polarization mode	perpendicular
Input impedance (Impedance)	50 Ω	radiation direction	omnidirectional
VSWR (Standing Wave Ratio)	≤2	Power capacity (power)	50W
Gain	5.17dBi	Bandwidth (Bandwidth	100MHz

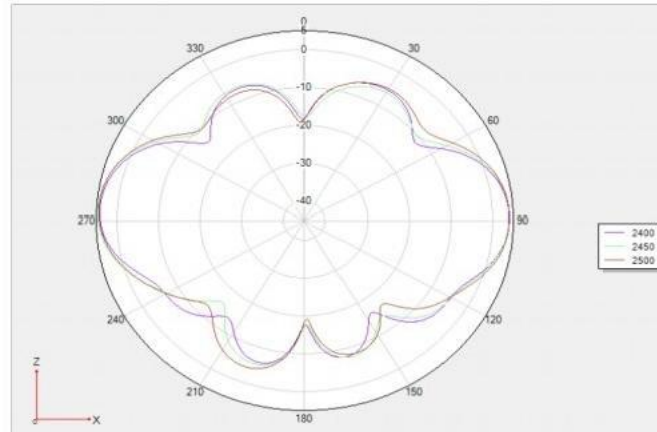
Mechanical specifications			
Dimensions	195MM \pm 2MM	Antenna color (Chassis Color)	white
Type of Antenna	Integral Antennae	Cable Length	
Antenna material (Chassis Material)	PC		
working temperature (Working Temperature)	-40°C \pm 85°C	Storage temperature (Limit Temperature)	-40°C \pm 85°C

3. S11 (VSWR, Returnloss, Smith) data direction diagram

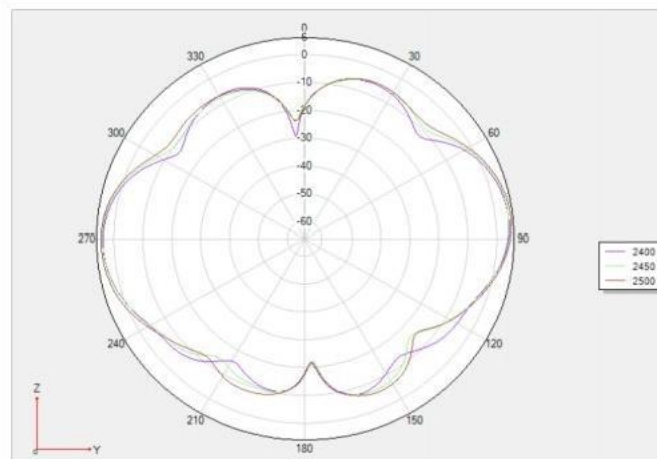
3.1 Network analyzer report



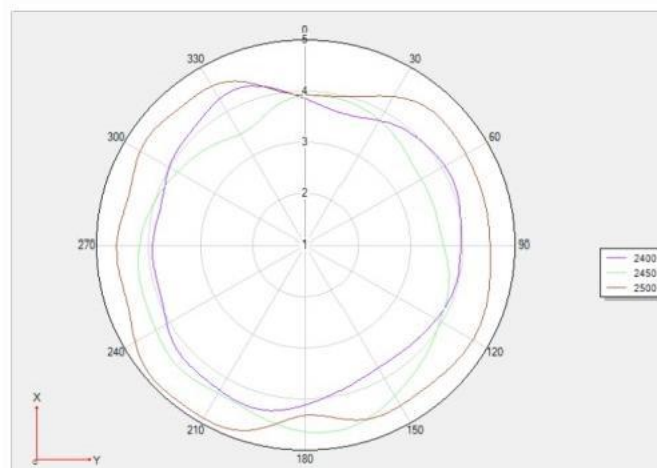
3. 2D direction diagram



Phi 0 2D

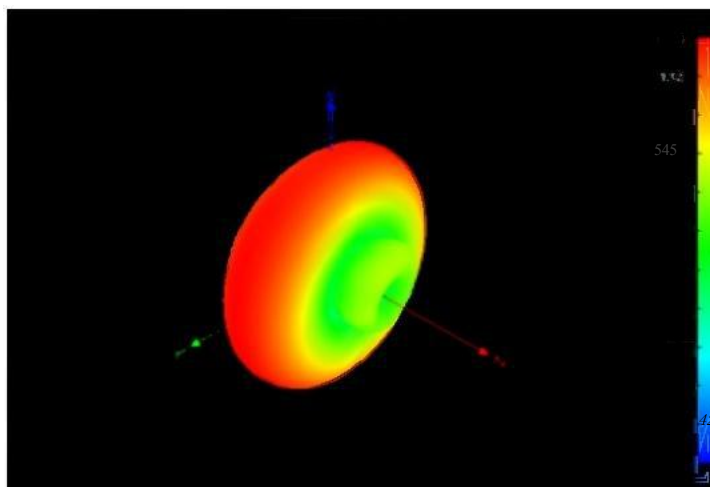


Phi 90 2D

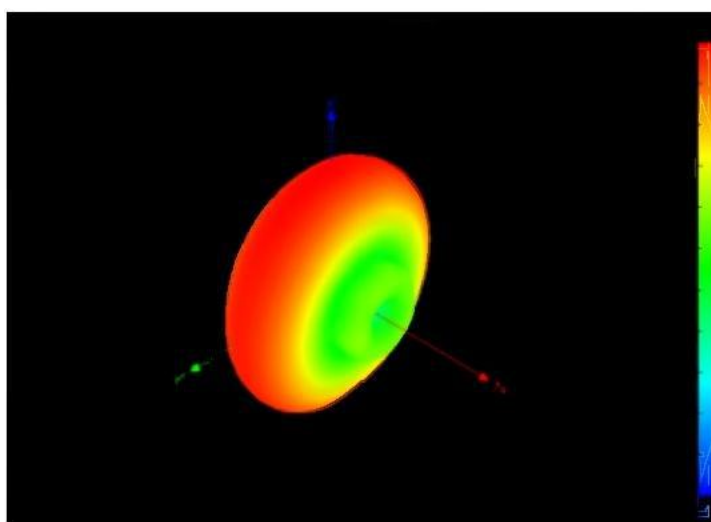


Theta 90 2D

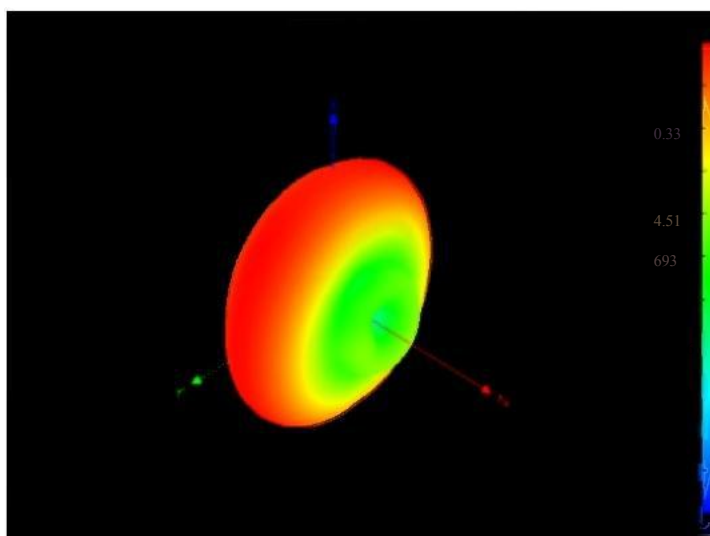
3. 3D diagram



2400MHZ



2450MHZ

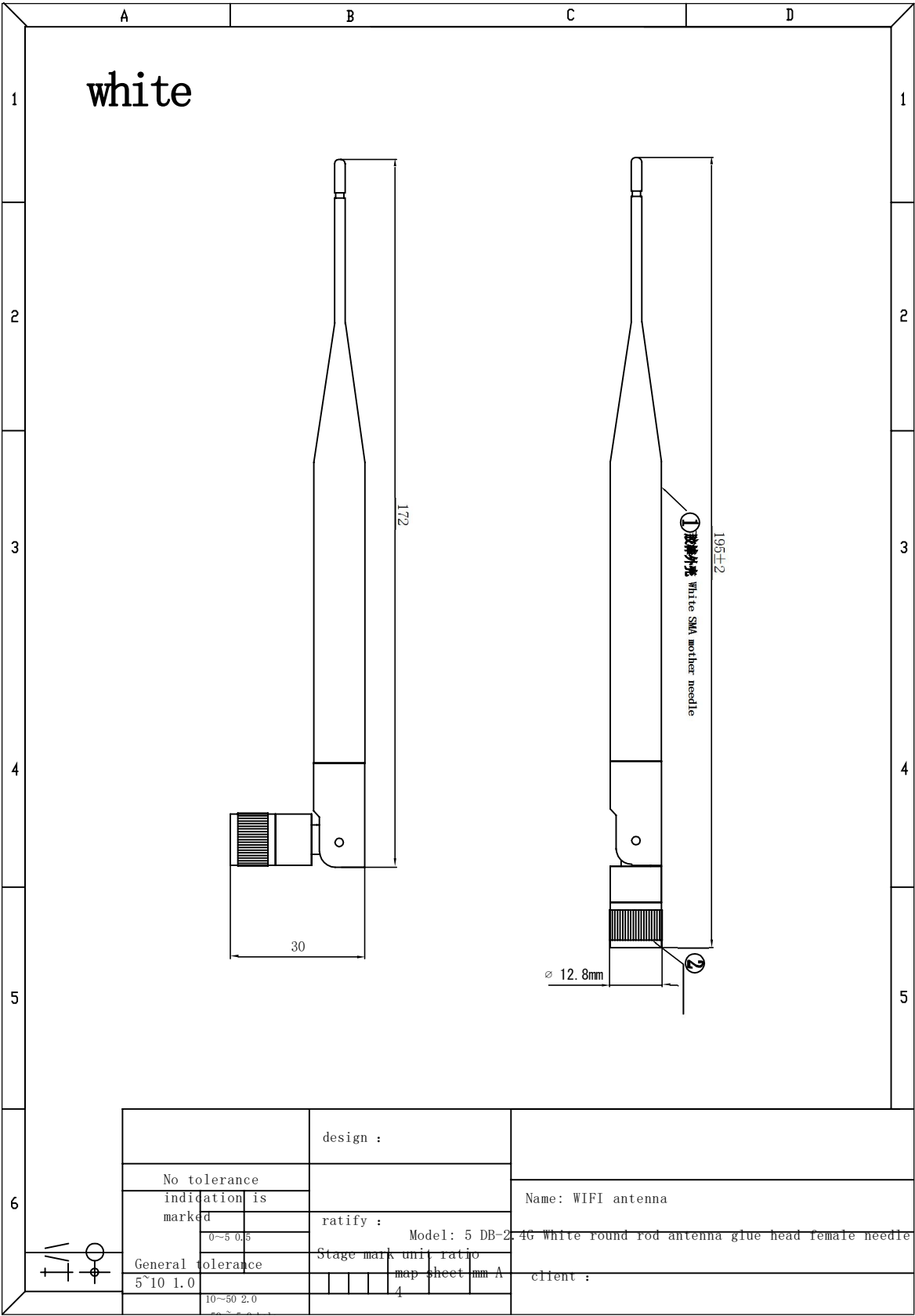


2500MHZ

4. Antenna efficiency and gain value

Frequency	Efficiency	Efficiency / %	Frequency	MaxGain/dBi	AvgGain/dBi
2400	-1.83	65.61	2400	4.4	-1.83
2450	-1.63	68.71	2450	4.96	-1.63
2500	-1.3	74.13	2500	5.17	-1.3

V. Product size drawing



VI. Environmental performance test

Storage environment	Test temperature, humidity and air pressure as follows in the absence of specification: 1. The temperature is $-30^{\circ}\text{C} \sim +80^{\circ}\text{C}$ 2. The relative humidity is 45%-85% 3. The air pressure is 86 kpa-106 kpa	Electrical and mechanical properties are normal
thermocycling	Five cycles are performed between 70°C and 40°C , then under normal conditions 1-2H, check the appearance quality.	The dimensions shall meet the requirements and shall be Its satisfying Mechanical and electrical properties
Resistant to constant damp heat trial	Relative humidity $95\pm 3\%$, test temperature: 40°C . After continuous action for 2H, Electrical properties shall be measured within 5 minutes after the sample is taken out, and the sample shall be in normal condition Check the appearance quality of item 1-2H	The dimensions shall meet the requirements and shall be Its satisfying Mechanical and electrical properties
vibration test	Vibration frequency range 10-55 HZ, displacement amplitude: 0.35 MM, acceleration amplitude: 50.0M/S, Frequency sweep cycle: 30 times	Electrical and mechanical properties are normal
fall-down test	Fall 1M high along the mutually perpendicular axis direction three times	Electrical and mechanical properties are normal