

APPROVAL SHEET

Manufacturer: Shenzhen Showtop Technology Co., Ltd

Address: 320, Xinghai Mingcheng phase VII., Qianhai Road, Nanshan District, Shenzhen, China 518000

DESCRIPTION: 5DB Glue Stick Antenna-2.4G-L195MM-SMA-Male Male Pin

CUS PART NO.:

2025-2-11

D A T E:

Signature

ENGINEERING DEPARTMENT	Q C DEPARTMENT	SALES DEPARTMENT

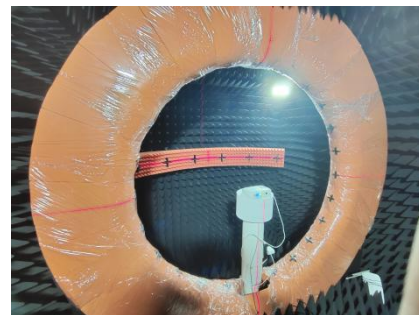
Customer signature

ENGINEERING DEPARTMENT	Q C DEPARTMENT	PURCHASING DEPARTMENT

✂ Approval in duplicate, please signed by your company.

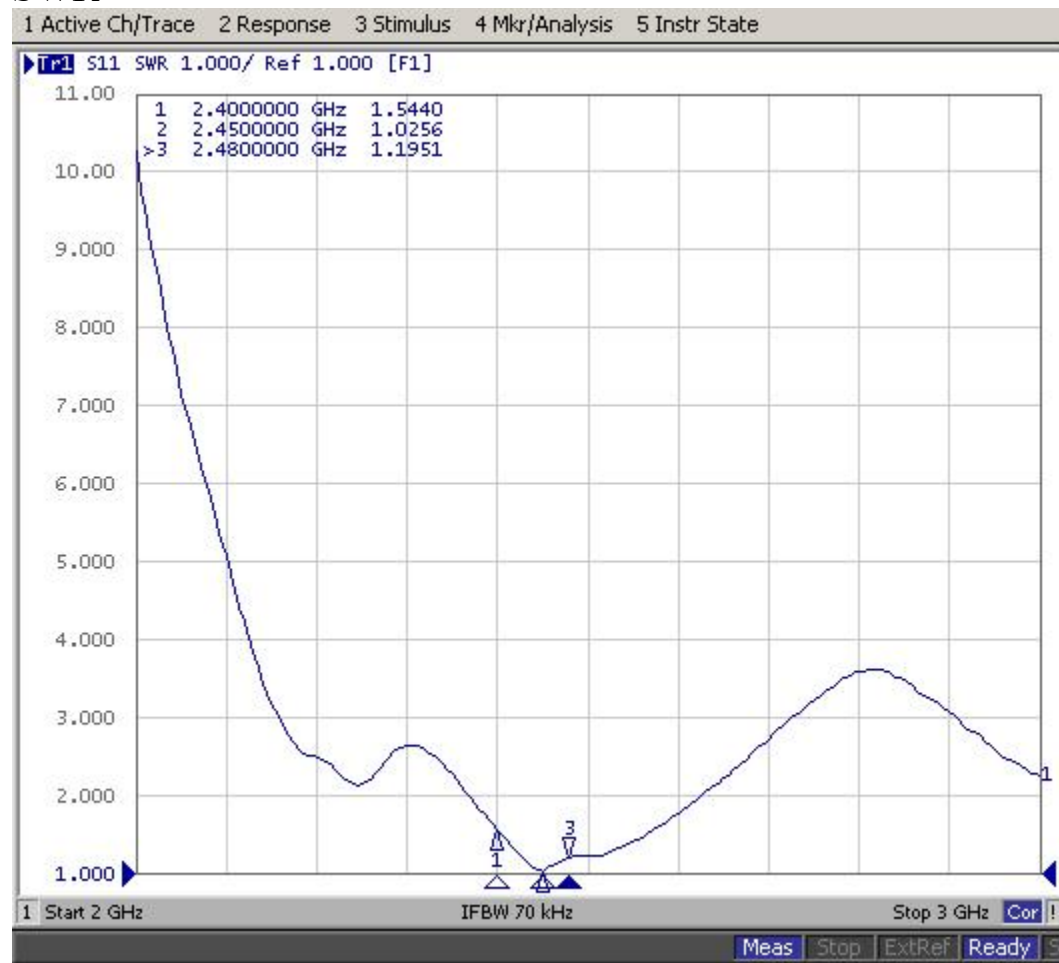
1. Test items and equipment

	Test items	Equipment
1. S11-parameter	1. Return Loss 2. VSWR	network analyzer: Agilent E5071B HP 8753D
2.Active test	1. Transmitting power 2. Receiving sensitivity	1. Darkroom: ETS 7x4x3 m (3D) Chamber ETS 5x3x3 m (3D) Chamber 2.general-purpose tester : Agilent 8960 E5515B ×2 StarPoint SP6011 Cmw500
3.Passive test	1.Gain 2.Efficiency	1. Darkroom: ETS 7x4x3 m (3D) Chamber ETS 5x3x3 m (3D) Chamber 2. network analyzer: Agilent E5071B HP 8753D



2. Antenna performance

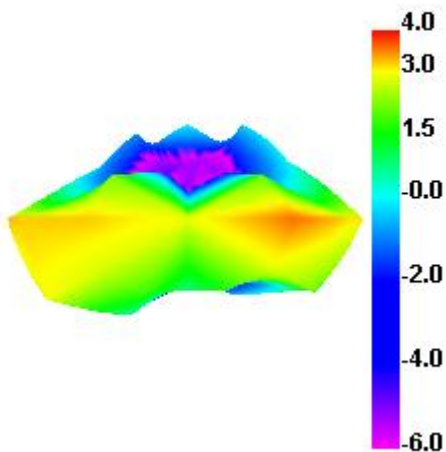
SWR



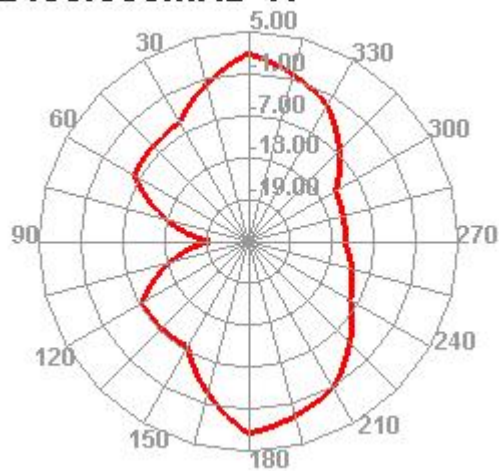
3. Antenna efficiency and gain

Passive Test For WIFI2.4		
Freq (MHz)	Effi (%)	Gain (dBi)
2400	65.17	3.98
2410	63.73	3.83
2420	58.37	3.4
2430	59.17	3.42
2440	62.21	3.64
2450	66.16	3.94
2460	66.3	4.03
2470	69.27	4.36
2480	69.65	4.43
2490	72.19	4.56
2500	71.63	4.38

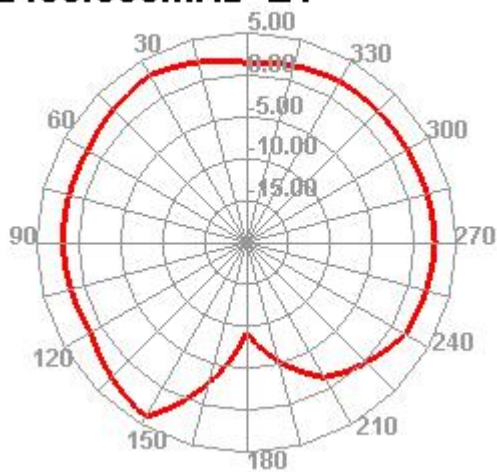
2400.000MHz



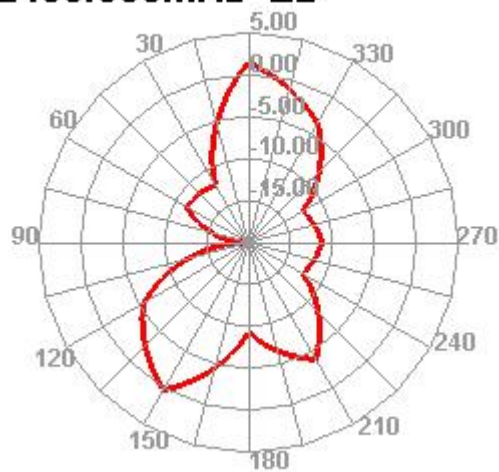
2400.000MHz H



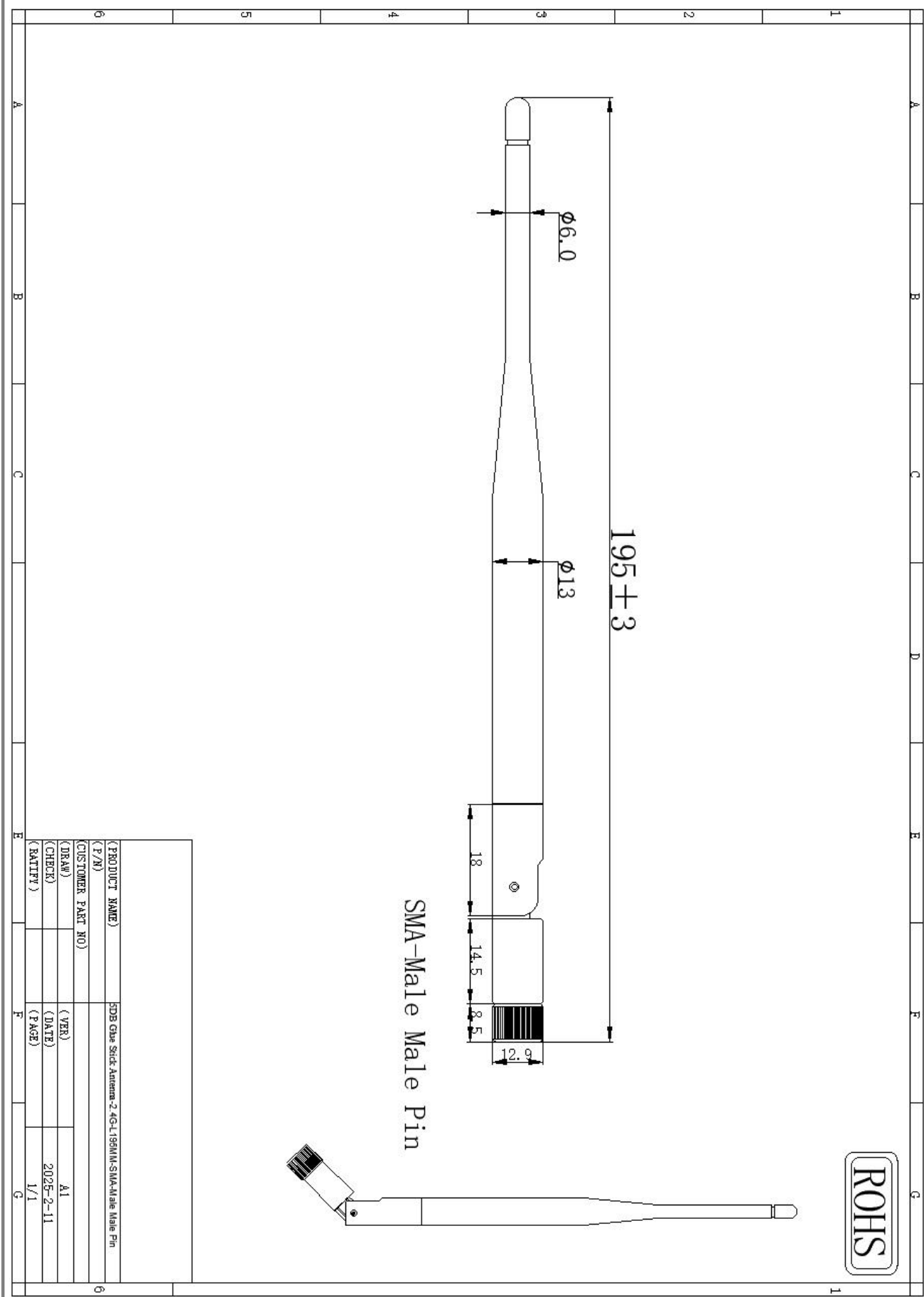
2400.000MHz E1



2400.000MHz E2



4.Antenna structure diagram:



Technical parameters of electrical appliances

Electrical Specifications

Frequency Range	2400~2500MHz
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VSWR	≤ 2.0
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Input Impedance	50 Ω
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Gain	4.65 DBI
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Mechanical Specifications

Antenna color	Black
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Input connector	SMA
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Antenna length	195mm
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Working Temperature	-40℃~+85℃
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Working Humidity	20~80%
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Environment performance test:

Project	Test condition	Test results
Storage environment	Test temperature, humidity, pressure without stated condition as follwings :1.Temperature: -30 °C ~ +80 °C ;2.Relative humidity: 45%-85%;3,Pressure: 86kpa-106kpa	Electrical and mechanical performance normal
High and low temperature test	Having 5 times cycle between -40°C to 70°C,Then in common condition 1-2 hours test exterior quality.	Measurement satisfied with electrical and mechanical performance normal.
Resistance constant hot and humid test	Relative humidity:95±3%,Test temperature: 40°C,last 2 hours ,put it after 5 min test the electrical function . Test products during common condition 1-2 hours ,Then test exterior quality.	Measurement satisfied with electrical and mechanical performance normal.
Vibration test	Vibrate Frequency:10-55HZ; Distance :0.35mm;Acceleration :50.0m/s;Sweep frequency cycle:30 times	Electrical and mechanical performance normal
Fall test	From 1 mheight fall down 3 times freely (vertical direction)	Electrical and mechanical performance normal