



Shenzhen Shuodian Electronic Technology Co.,Ltd
Page number 1-10

SPECIFICATION

for

2.4G copper tube antenna (D809-2001)

Customer No.

Product No.

XFX-2.4G copper tube antenna (D809-2001) -138MM

Author: XiaofengZeng Review: Liming

Release Date: 2025. 10. 11

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Contents

SPECIFICATION	1
SHENZHEN SHUODIAN ELECTRONIC TECHNOLOGY CO., LTD	1
CONTENTS	2
1. BILATERAL CONFIRMATION PAGE	3
2. GENERAL	4
3. GENERAL PRODUCT SPECIFICATIONS	4
4. SPECIFICATION DETIALS	5
4.1 MECHANICAL PROPERTIES	5
4.2 ELECTRIC PERFORMANCE	7
5. PRODUCT PACKAGING	9
6. DOCUMENT RESUME	10



1. Bilateral Confirmation page

1.1 Customer signature

Customer:

Seapartment/post	Sign	Date
Hardware Engineer/RD		
Mechanical/MD		
Project Manager/PM		
Commercial/Puchasing		
Checker		

1.2 Signature of ShuoDian Technology company

Seapartment/post	Sign	Date
Antenna Engineer/RD		
Mechanical/MD		
Project Manager/PM		
QA		
Checker		



2. General

2.1 Scope of application

This specification is only applicable to 2.4G antenna

2.2 Operating temperature range

Temperature range of this product: -20 ~ +65 °C

2.3 Storage temperature range:

This product is stored at - 30 ~ + 75 °C

3. General product specifications

NO.	ITEMS	DETAILS
1	Type	2.4G copper tube antenna (D809-2001)
2	Operating Frequency Band	2400-2500MHz
3	VSWR	≤ 3.0
4	Impedance	50Ω
5	Antenna Type	Monopole
6	Antenna composition	Coaxial cable + copper tube
7	Entity Picture	



4. Specification Detials

4.1 Mechanical Properties

4.11 Product Composition:

No.	Material	Size (MM)
1	copper tube	Φ5.2*25 true color
2	CABLE	Φ1.13 L=138 White

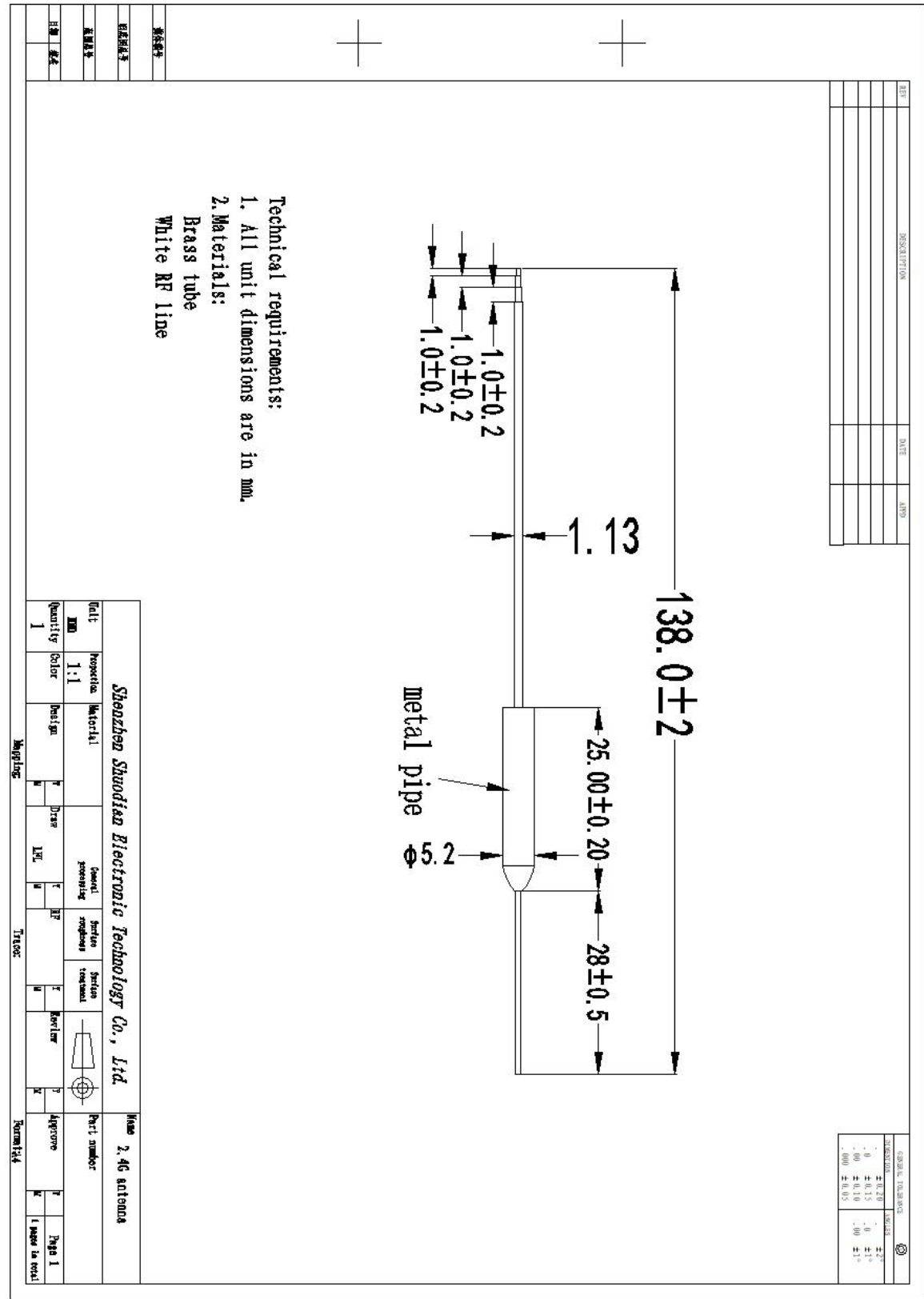
4.12 Apperance

Good appearance without scars 、 dirts、 protuberances, etc.

4.13 Antenna Picture and Structure Dimension

Productdrawings:

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4.2 Electric Performance

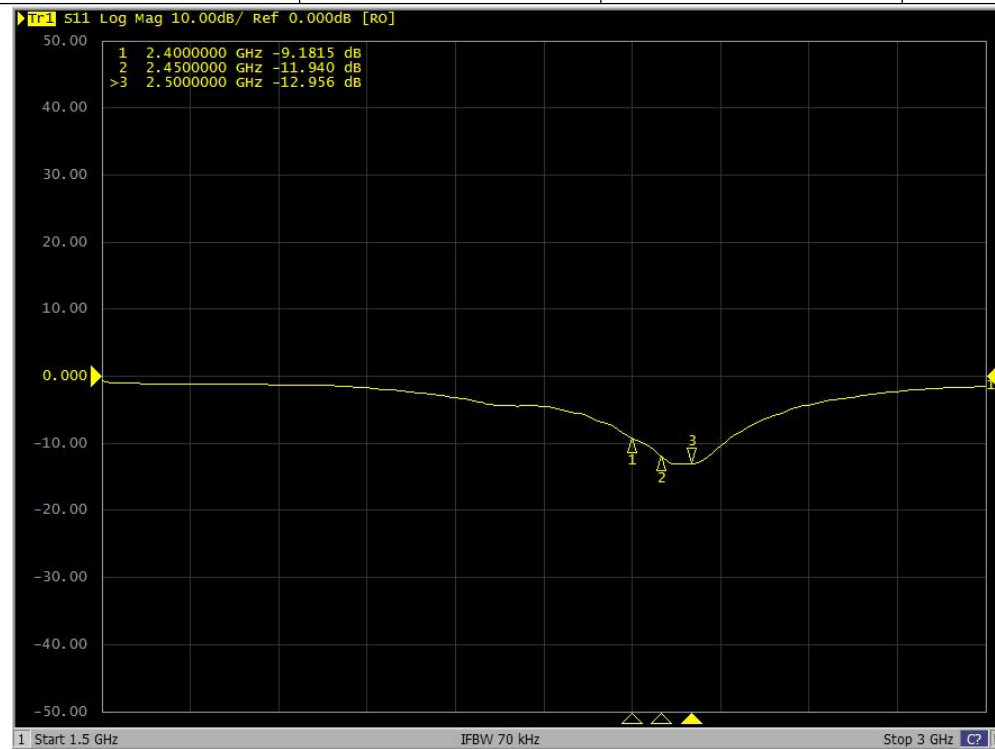
4.21 Test condition

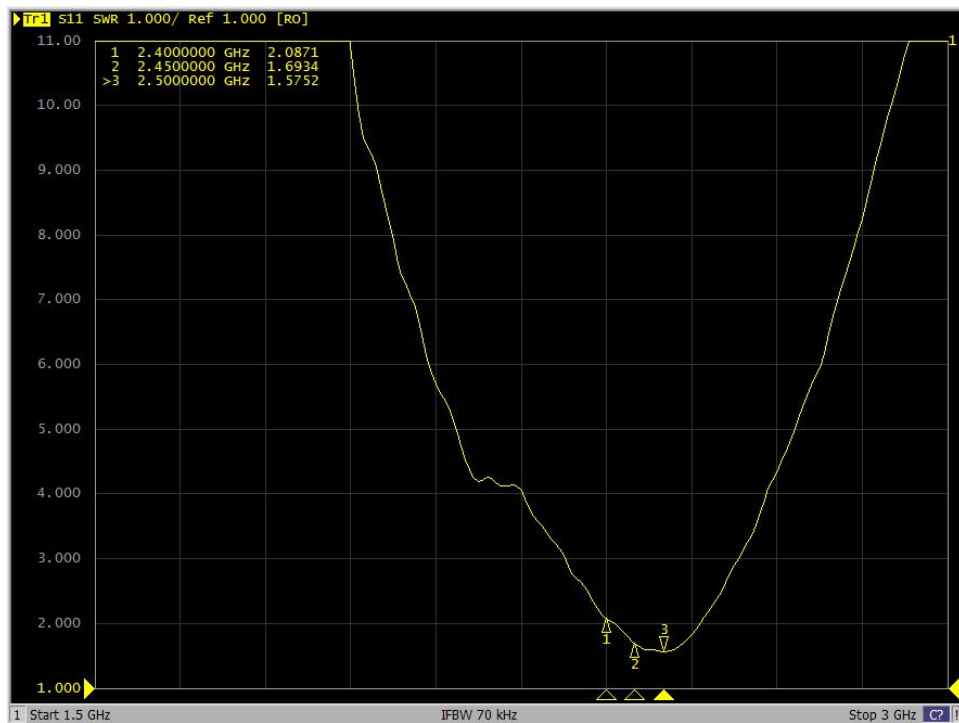
Environment:	Equipment:
Temperature: 10℃——+30℃	Network Analyzer: KEYSIGHT E5071C
Humidity: ≤80% (+40℃)	Multi-probe microwave anechoic chamber
Atmospher: 750mmkg±30mmkg	

4.22 Test Data for Electrical Performance:

4.22.1 S11 of the Antenna:

Marker (MHz)	2400	2450	2500
Return Loss	-9.18	-11.94	-12.95
VSWR	2.08	1.69	1.57



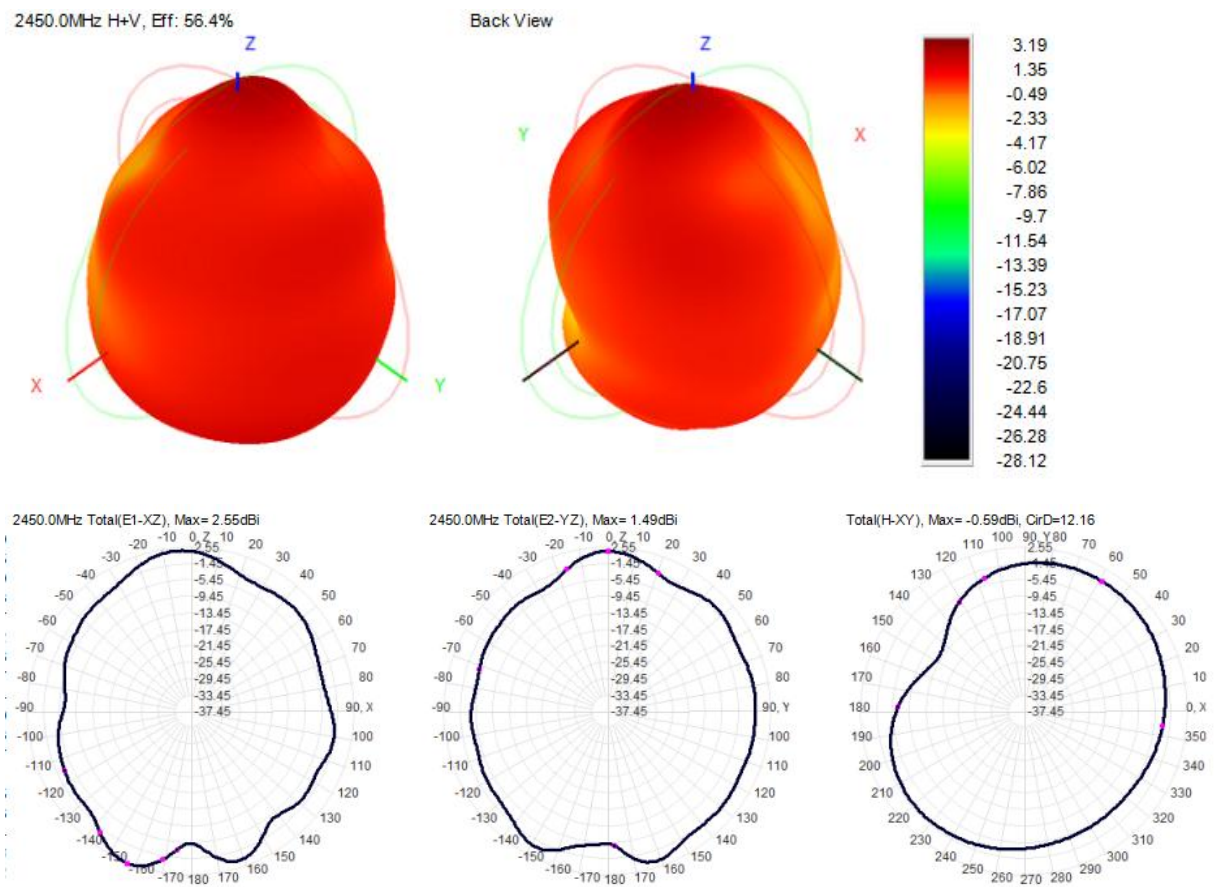


4. 22. 2 Passive gain、 efficiency and Radiation Pattern:

Frequency (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Gain (dBi)	1.64	1.53	1.49	1.67	1.98	2.19	2.39	2.63	2.60	2.80	2.82
Efficiency (%)	48.43	49.28	49.69	51.54	54.41	56.42	58.49	61.48	60.88	62.13	60.06

Radiation Pattern 2450MHz

@2450MHz



5. Product Packaging

Manner of packing:

Packed in self sealed bags, 200 pcs each.



6. Document Resume

Document No.	
Release Date	2025/10/11
Author	XiofengZeng
Review	LiMing

Revised History

Date	Version	Revised Record
2025/10/11	1.00	New Project