



腾祥电子  
TENGXIANG ELECTRONIC

# Tengxiang Technology.Inc

Product Number: AN2400-0906RS-B

Product Name: Antenna


## Specification For Approval

Customer: \_\_\_\_\_

Customer P/N: \_\_\_\_\_

Tengxiang P/N: AN2400-0906RS-B  
\_\_\_\_\_

Description : 2.4G 3.5dBi ANTENNA SMA公头母针镀镍

Tengxiang Checked By:	Customer Approved By:
工程: dwf 射频: 韦佳 	



腾祥电子  
TENGXIANG ELECTRONIC

# Tengxiang Technology.Inc

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<http://www.tenxiang.cn>

Product Number: AN2400-0906RS-B

Product Name: 2.4GHz Antenna

## 1. Specification

Sample Photo	
	
A. Electrical Characteristics	
Frequency	2400 ~ 2500 MHz
V.S.W.R.	<= 2.0
Antenna Gain	3.5dBi
Polarization	Linear
Impedance	50 Ohm
B. Material & Mechanical Characteristics	
Material of Radiator	Cu
Material of Plastic	TPEE / ABS / POM
Connector Type	公头母针
C. Environmental	
Operation Temperature	- 30 °C ~ + 65°C
Storage Temperature	- 30 °C ~ + 65°C

## 2. Characteristics and Reliability Test

Test Items		Test Condition and Procedure	Requirements
C1	V.S.W.R.	Set DUT on Network Analyzer; make individual calibration to test	Directive DUT specification
C2	Antenna Gain	Set DUT on Antenna Chamber; make individual calibration to test	Directive DUT specification



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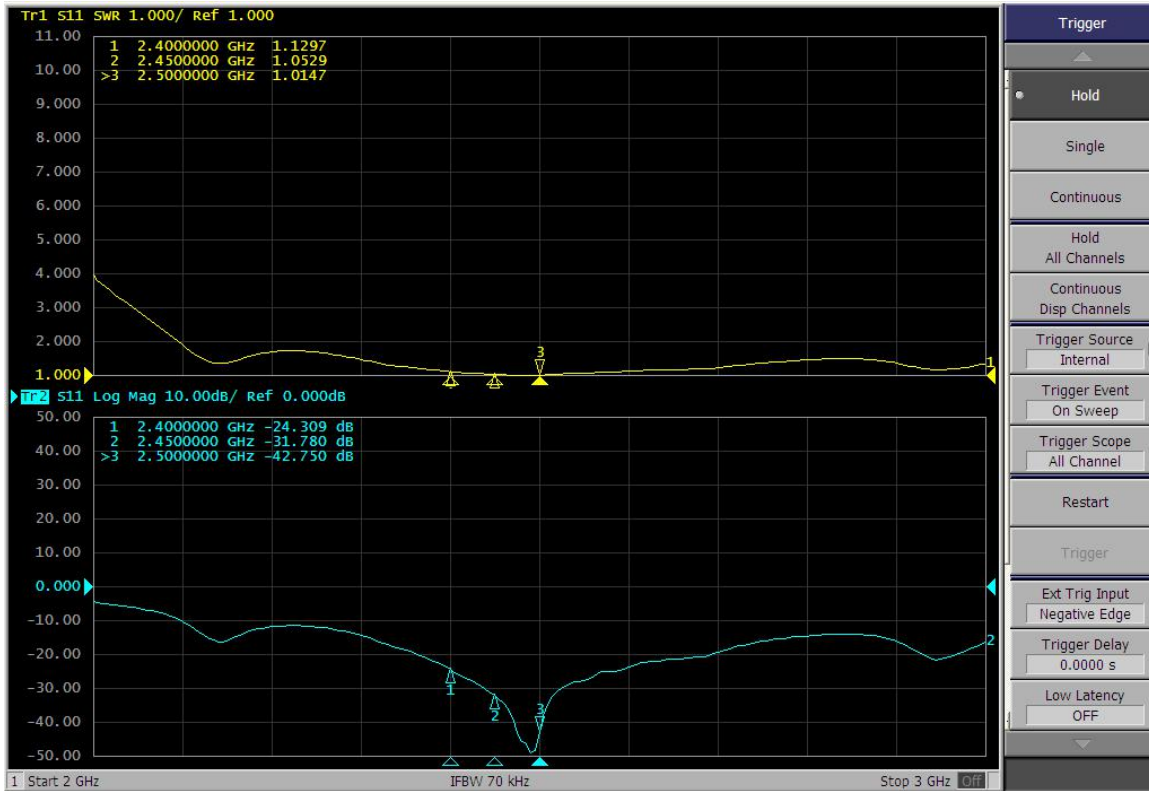
Product Name: 2.4GHz Antenna

M1	Vibration	MIL-STD-202G, 201A Amplitude: 0.03 inch (0.76mm); Freq: 10 to 55 Hz 3 directions; 2 hours for each direction	1. No Visual Damage 2. Frequency Tol.<= 5%
M2	Random Drop	Height: 1.5 Meter; 3 directions; 1 time for each direction	1. No parts separated 2. Frequency Tol.<= 5%
M3	Solderability	MIL-STD-202G, 210F, cond. A Solder iron: 350±10°C; Duration: 5 seconds	1. Mounted on PCB 2. No Visual Damage
M4	Terminal-Pull Test	MIL-STD-202G, 211A, cond. A Holding with individual specification; force applied to axis of terminal	1. Directive DUT specification 2. Frequency Tol.<= 5%
M5	Terminal-Torque Test	MIL-STD-202G, 211A, cond. E Holding with individual specification; applied clockwise and counterclockwise to the axis of terminal	1. Directive DUT specification 2. Frequency Tol.<= 5%
M6	Dimension	Inspection of dimension, color, material, package, surface process	Directive DUT specification
E1	Salt Spray	MIL-STD-202G, 101E, cond. B Temp: 35°C; RH: >= 95%; NaCl solution: >= 5%; Time: 24 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E2	Humidity	MIL-STD-202G, 103B, cond. B Temp: 40°C; RH: >= 95%; Time: 24 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E3	Thermal Shock	1 Cycle: - 30°C (30 minutes) to + 65°C (30 minutes) Cycles: 24	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E4	Life (High Temp.)	MIL-STD-202G, 108A, cond. A Temp: 65°C; Time: 24hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
R1	RoHS	With Reference to IEC 62321:2008 with flow chart	Directive RoHS 2015/863/EU

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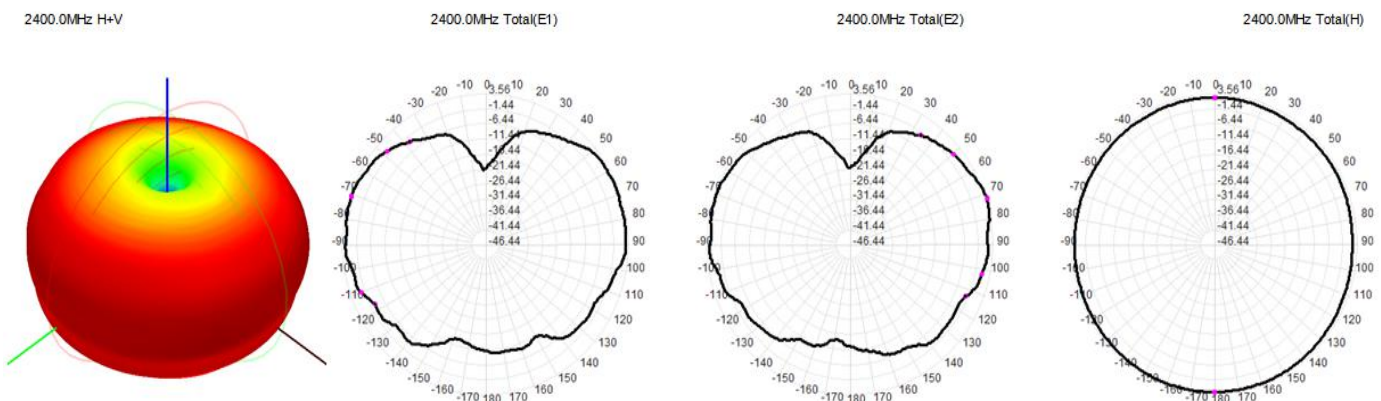
Product Name: 2.4GHz Antenna

### 3. Antenna - S Parameter Test Data



### 4. Antenna - Radiation Pattern Test Data

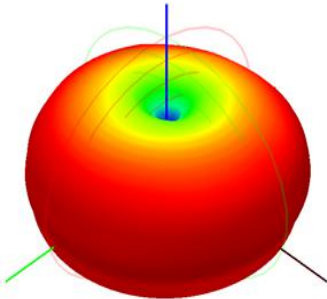
Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Gain (dBi)	3.47	3.41	3.46	3.49	3.48	3.50	3.56	3.43	3.51	3.43	3.50
Efficiency (%)	84.72	84.47	86.32	86.91	85.97	86.44	86.84	86.55	86.28	86.33	85.02



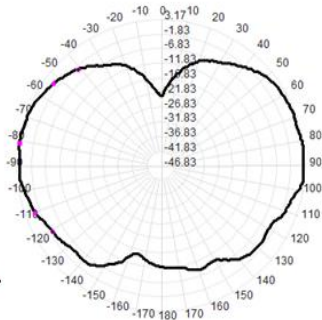
Product Number: AN2400-0906RS-B

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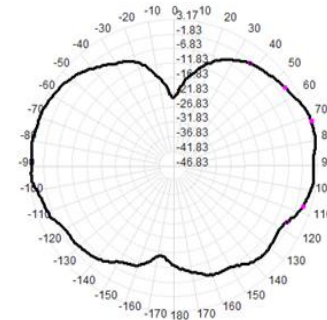
2450.0MHz H+V



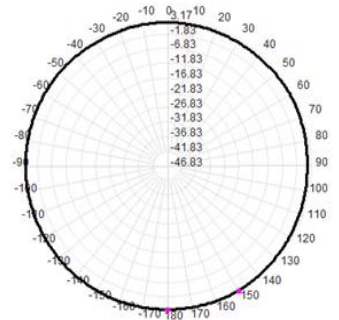
2450.0MHz Total(E1)



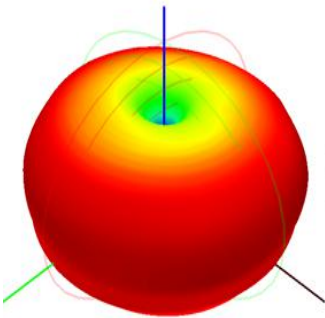
2450.0MHz Total(E2)



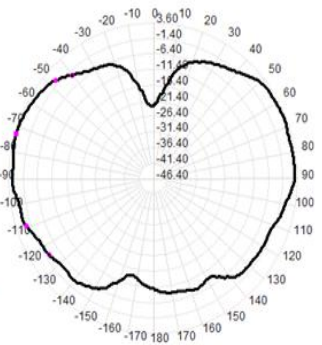
2450.0MHz Total(H)



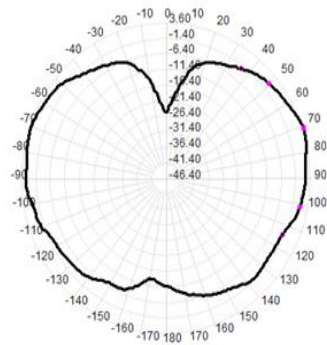
2500.0MHz H+V



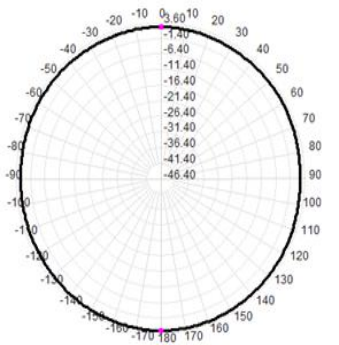
2500.0MHz Total(E1)



2500.0MHz Total(E2)



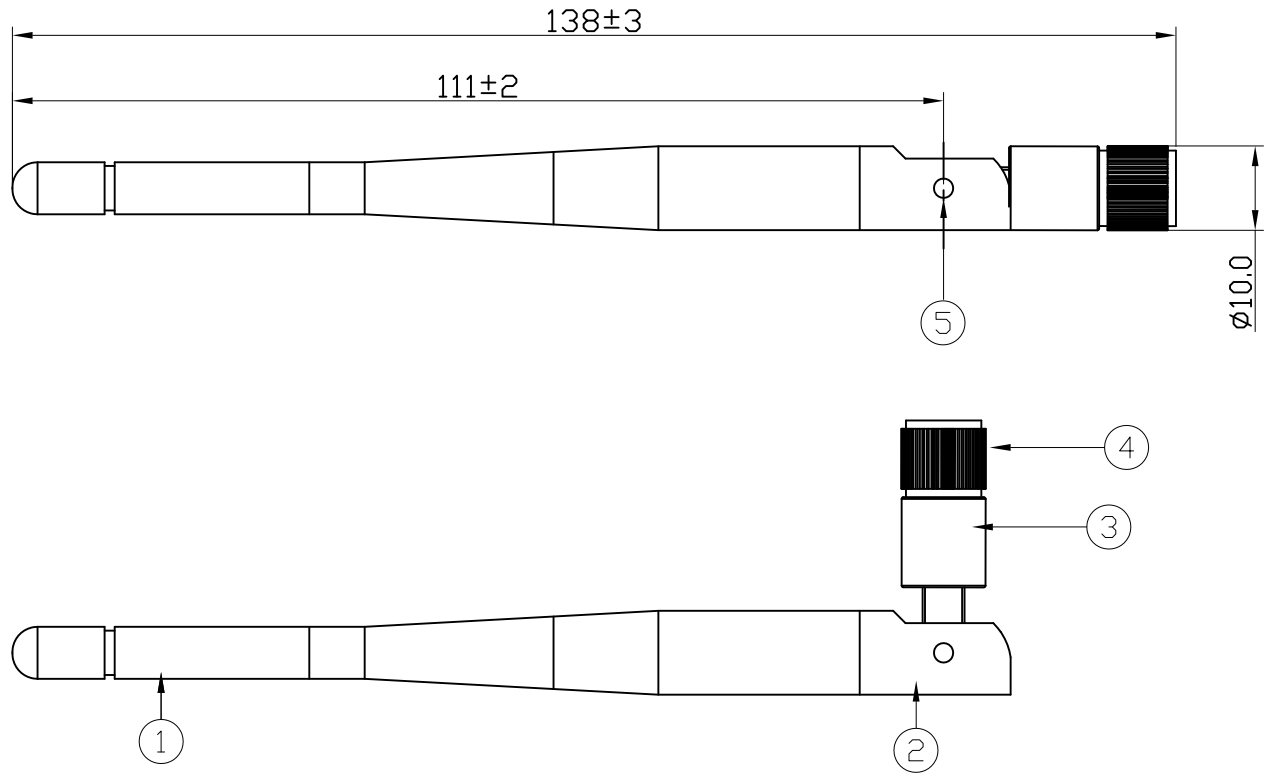
2500.0MHz Total(H)



## 5. Mechanical Drawing (See attached files)

HF   
 RoHS2.0   
 REACH   
**CONFIDENTIAL**

SIGN	DATE	DESCRIPTION	APPROVER
△			
△			
△			



Note:  
 1. Dimension: Take \* is the important dimension  
 2. Tolerance: Unmarked tolerance refer to the standard tolerance please

5	AN01-1215-P-1	PIN	POM	BLACK	2
4	SMA-MC-870BN	RP SMA PLUG		Ni Plated	1
3	AN57-01B	Body3	ABS	BLACK	1
2	AN48-02B-C	Body2	ABS	BLACK	1
1	AN48-01B	Body1	TPEE	BLACK	1
No.	Part Number	Name	Material	Finish	Q'ty

**Tengxiang Electronics Co., Ltd.**

TITLE: 2.4GHz 3.5dBi Antenna

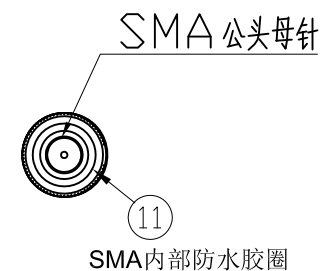
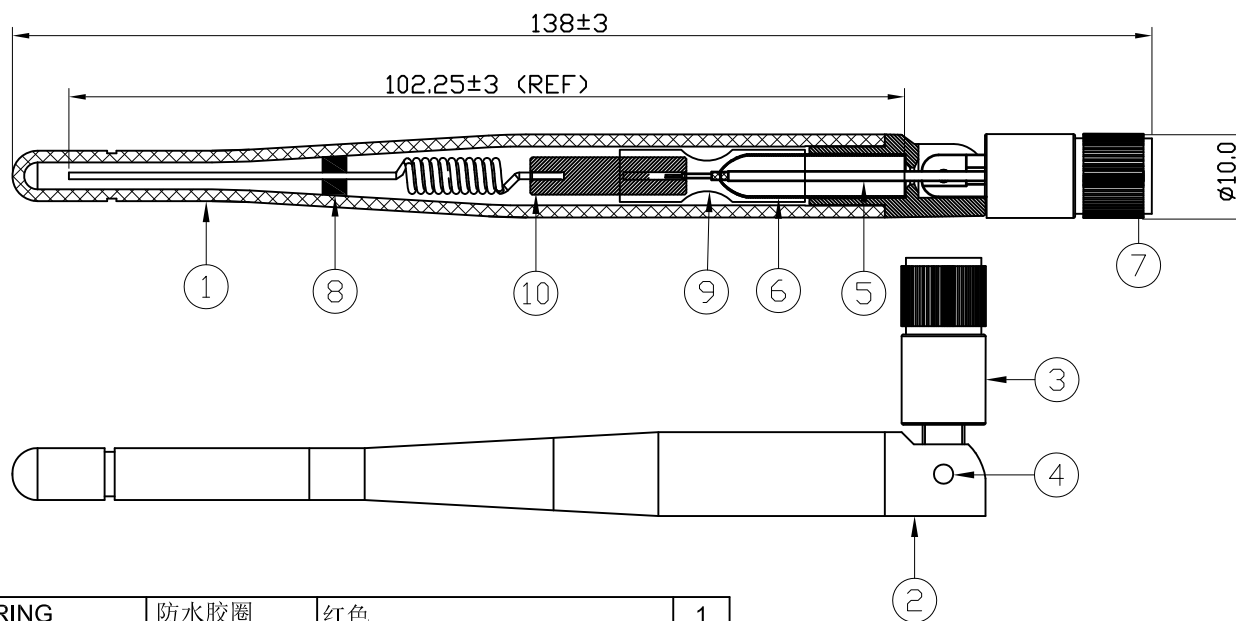
PART NO.: AN2400-0906RS-B      DWG NAME:

APP BY	CHK BY	RF BY	DES BY		Tolerance	
			DWF		UNITS: mm	X.X ±0.5
			2022.03.30		SCALE: 1/1	X.XX ±0.2
					REVISION: A	X° ±1

# RoHS

## Compatible

SIGN	DATE	DESCRIPTION	APPROVER
△			
△			
△			



11	SMA-RU-640	ORING	防水胶圈	红色	1
10	ASM-AN4820-AN45-03	Tube+Spring	铜棒+铜弹簧	Ø4.5*Ø0.8*73.25mm	1
9	HSTUBE-006N	HST	UL/CSA	Φ6.0*20.0mm,Black	1
8	AN2301-01	EVA	EVA	6.0*6.0mm	1
7	SMA-MC-870N	SMA PLUG		Ni Plated	1
6	AN4424517S	Tube	Cu	Φ4.4mm*24.5mm	1
5	RG-178U-04	Cable		Red	1
4	AN01-1215-P-1	Hinge Pin	POM	Black	2
3	AN57-01B	Body3	ABS	Black	1
2	AN48-02B-C	Body2	ABS	Black	1
1	AN48-01B	Body1	TPEE	Black	1
No.	Part Number	Name	Material	Finish	Q'ty

Note:

1. Dimension: Take \* is the important dimension
2. Tolerance: Unmarked tolerance refer to the standard tolerance please



**Tengxiang Technology Inc.**

TITLE: 2.4GHz 3.5dBi Antenna					
PART NO.:AN2400-0906RS-B			DWG NAME:		
APP BY	CHK BY	RF BY	DES BY		Tolerance
			DWF 2023.02.24		UNITS: mm SCALE: 1/1 REVISION: A