



# Tengxiang Technology.Inc

Product Number: AN0827-45F3000SM-B

Product Name: Antenna


## Specification For Approval

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

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

Tengxiang P/N: AN0827-45F3000SM-B  
\_\_\_\_\_

Description : 4G ANTENNA BLACK RG174 L=3M  
SMA公头公针  
\_\_\_\_\_

Tengxiang Checked By:	Customer Approved By:
<p>工程: HC 射频: 韦佳</p> 	



# Tengxiang Technology.Inc

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<http://www.tenxiang.cn>



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Product Name: 4G Antenna

## 1. Specification

Sample Photo	
	
A. Electrical Characteristics	
Frequency	824-960 / 1710-2700 MHz
V.S.W.R.	$\leq 2.5$
Antenna Gain	2dBi@824-960MHz / 3.0dBi@1710-2700MHz
Polarization	Linear
Impedance	50 Ohm
B. Material & Mechanical Characteristics	
Material of Radiator	PCB
Connector Type	SMA Plug
Connector Pull Test	/
Material of Plastic	ABS
Cable Type	RG174
C. Environmental	
Operation Temperature	- 40 °C ~ + 80 °C
Storage Temperature	- 40 °C ~ + 80 °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	Set DUT on Antenna Chamber; make individual	Directive DUT specification



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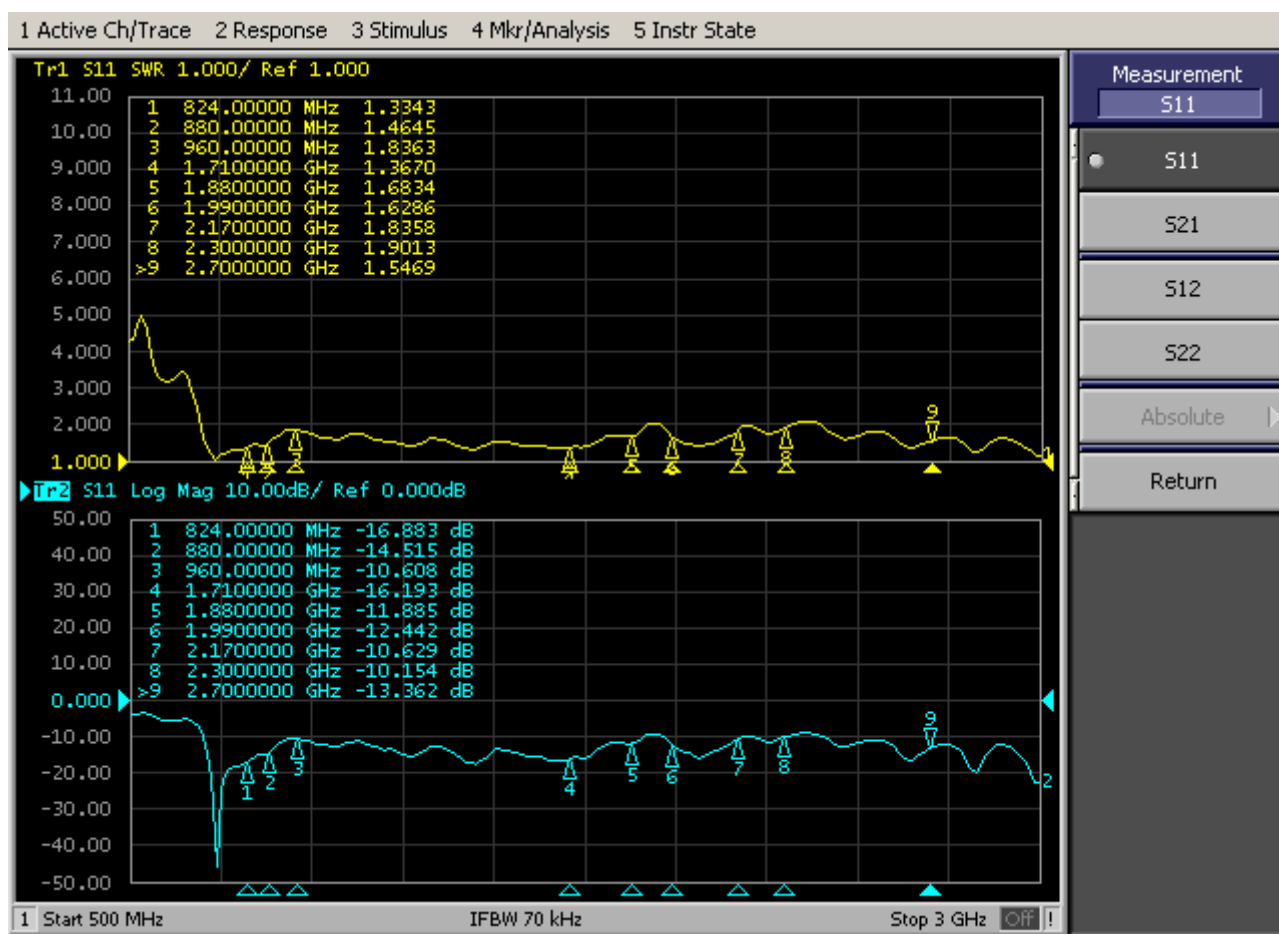
Product Name: 4G Antenna

	Gain	calibration to test	
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: 48 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: 48 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E3	Thermal Shock	1 Cycle: - 40°C (30 minutes) to + 80°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: 85°C; Time: 96 hours	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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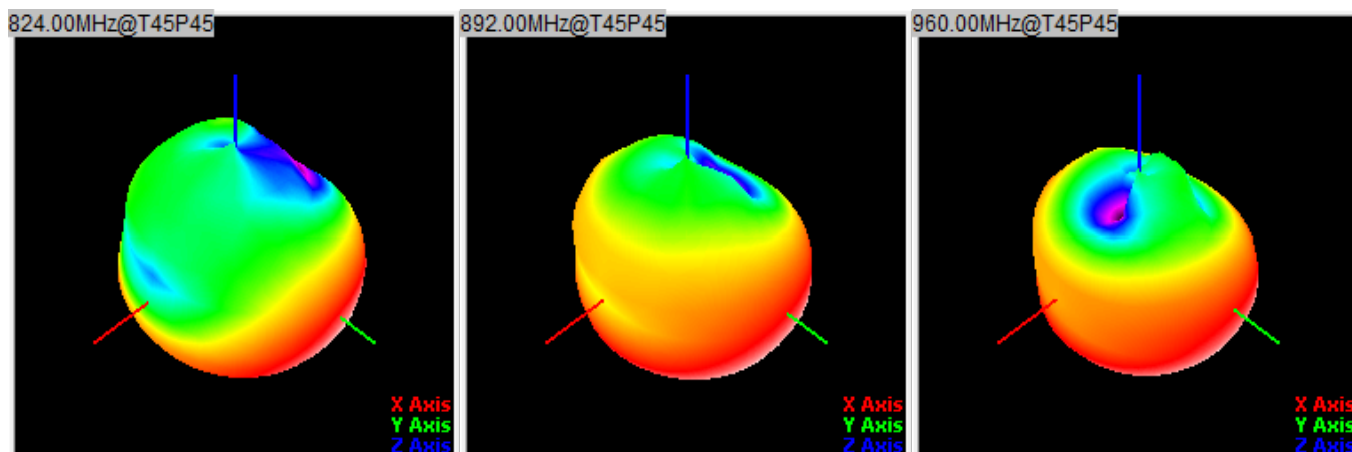
Product Name: 4G Antenna

### 3. Antenna - S Parameter Test Data



### 4. Antenna - Radiation Pattern Test Data

Frequency (MHz)	824.0	892.0	960.0	1710.0	1890.0	2070.0	2250.0	2520.0	2700.0
Efficiency (%)	71.30	64.70	52.20	69.10	64.00	55.30	58.60	69.30	74.60
Gain (dBi)	2.02	2.11	1.68	3.01	3.04	2.68	3.10	2.85	2.67

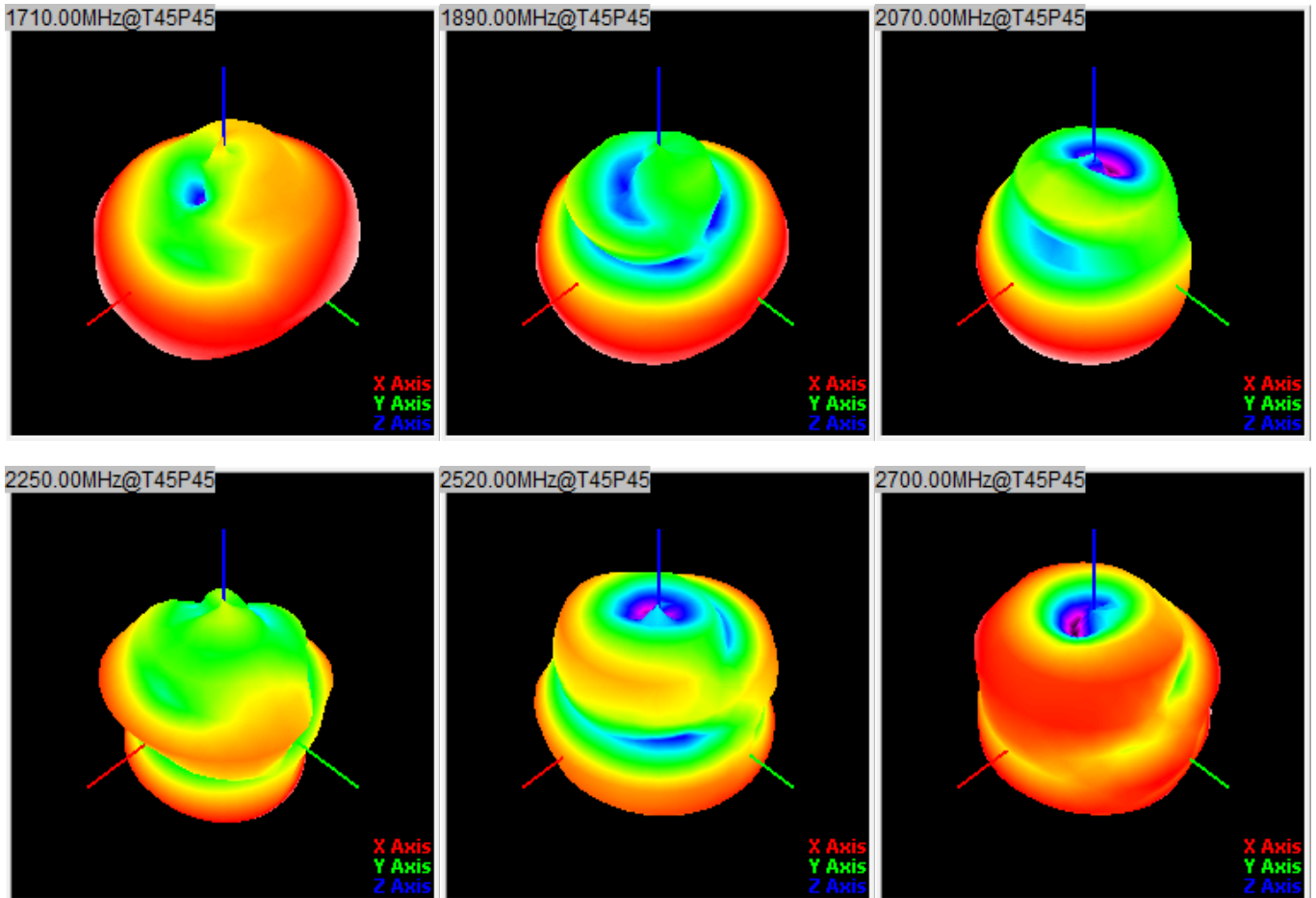




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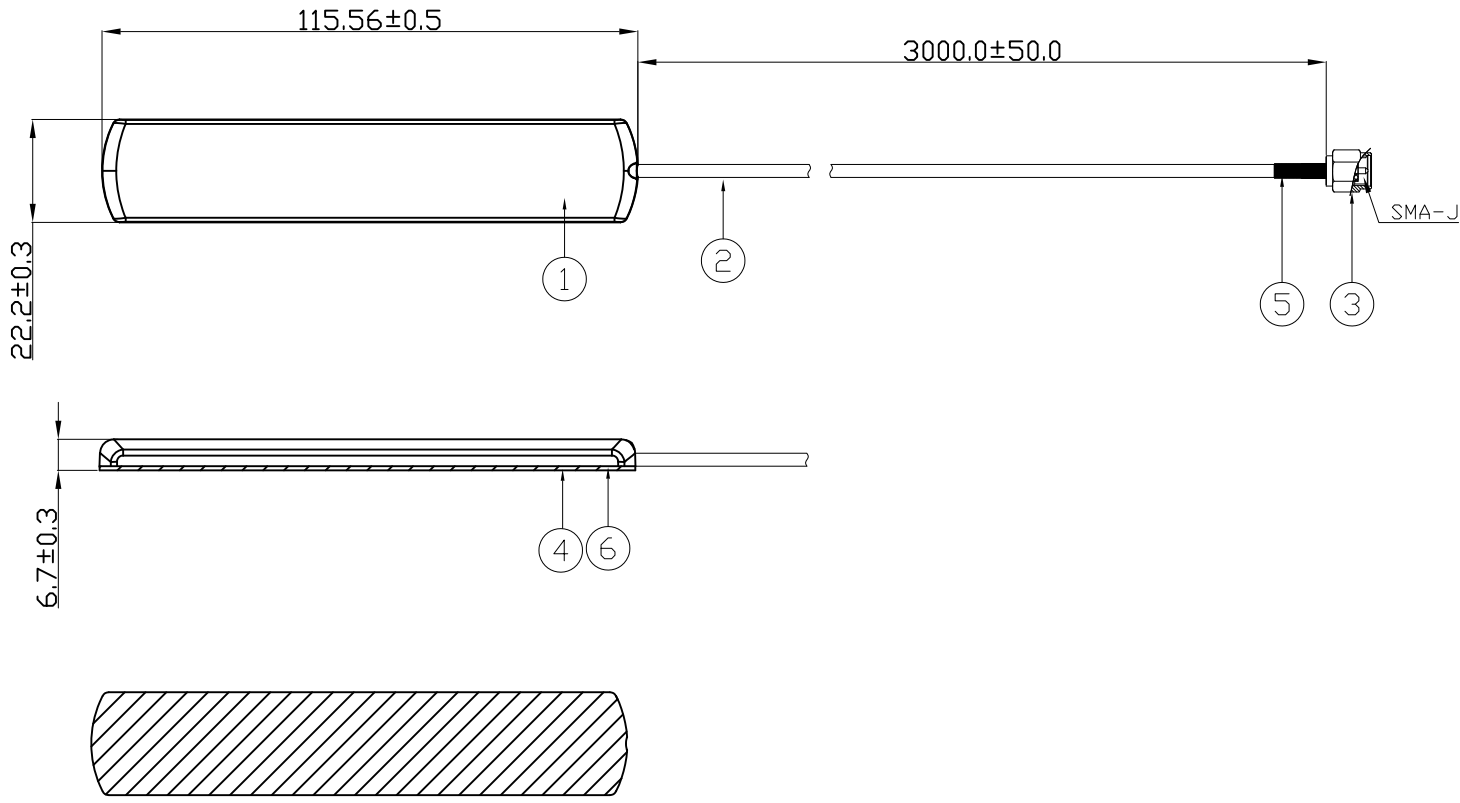
Product Name: 4G Antenna



## 5. Mechanical Drawing (See attached files)

HF   
 RoHS2.0   
 REACH   
 CONFIDENTIAL

SIGN	DATE	DESCRIPTION	APPROVER



6	AN0827-PCB105019	PCB	FR4	Black	1
5	HSTUBE-004N	HST	EVA	L=20mm	1
4	BJ-114021	Paster	EVA	Red	1
3	SMA085-G8MN74	SMA PLUG	Cu	Au plated	1
2	RG-174U	Cable		RG174U,Black	1
1	ANT45-01B	Body	ABS	Black	1
No.	Part Number	Description	Material	Finished	Q'ty

**Tengxiang Technology Inc.**

TITLE: 4G Antenna

PART NO.: AN0827-45F3000SM-B DWG NAME:

APP BY	CHK BY	RF BY	DES BY	 UNITS: mm SCALE: / REVISION:A	Tolerance
			HC		X.X ±0.5
			2021.08.13		X.XX ±0.2
					X° ±1°

# 產品包裝規範

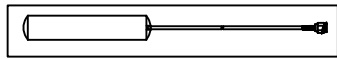
## PACKING CRITERION

Date: 2021.08.13

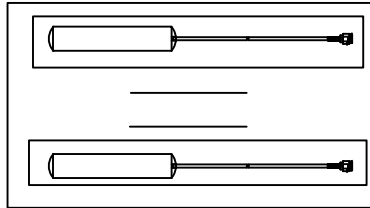
Page: 1 of 1

Part Number : AN0827-45F3000SM-B	Revision : A
Name: Antenna	Customer : ALL

1. Enter PE bag.

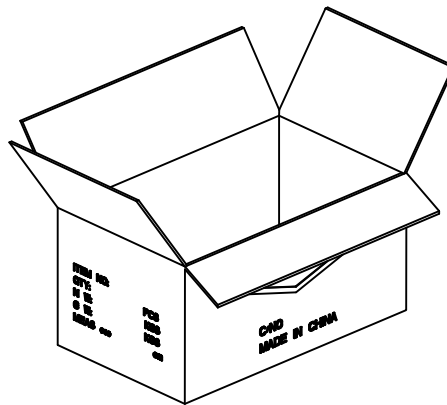


1PCS/PE 袋



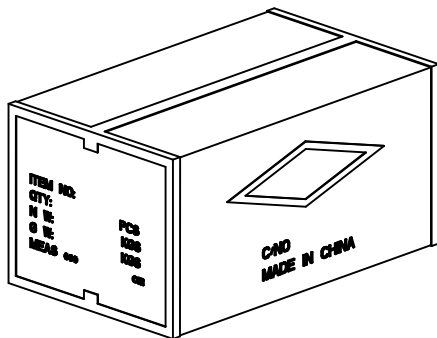
50PCS/PE 中袋

2.PACKING.

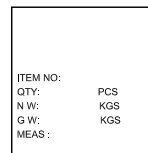


2000pcs/Carton

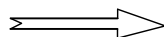
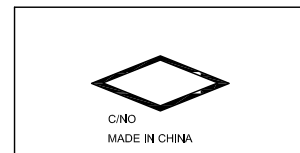
3. SEALING.



SIDE



FRONT



APPROVED BY: YCX

CHECKED BY: TOM

DESIGNED BY: CJ