



**Signal Plus Technology Co., Ltd.**

**SPECIFICATION FOR APPROVAL**

DATE: 2024.11.04

REV.: A

CUSTOMER: Shenzhen Fugao Technology Co., Ltd

CUSTOMER P/N:

External black WiFi 2.4GHz antenna with 1.37mm black cable, L=190mm, with RF connector

PART NAME:

6346F00001

SUPPLIER P/N:

Date:	CUSTOMER APPROVED BY	
Approved by	Checked by	Confirmed by

**SUPPLIER SIGNATURE**

Approved by	Checked by	Prepared by
Andy		Cindy

ZX-QT-RD-0011-A1

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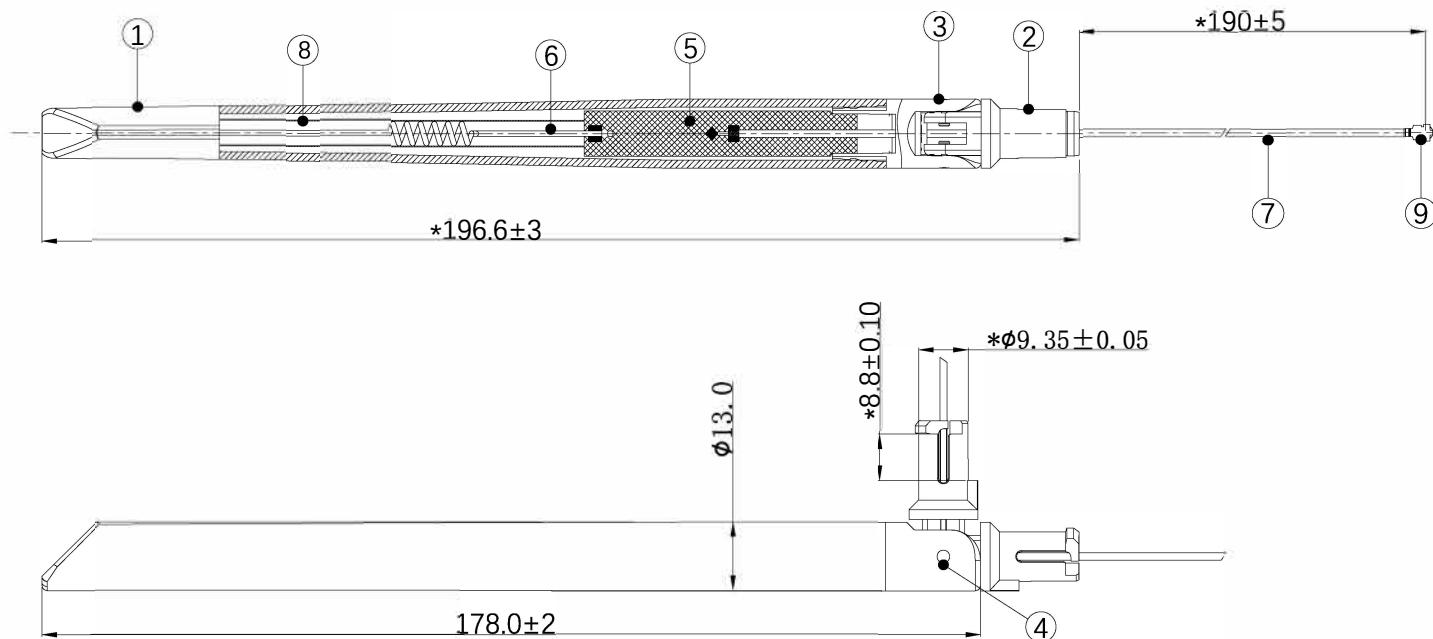
REV

DATE

DESCRIPTION

X1 05/06-2023

New Issue



1.ELECTRICAL PROPERTIES:

1.1 Frequency Range.....2.4-2.5GHz  
 1.2 Impedance.....50 Ohm Nominal  
 1.3 VSWR.....2.0(Max)  
 1.4 Gain.....5.0 dBi

2.These Products are in conformity with ROHS 2.0;  
 3.With "\*"Is Important Dimension.

9	Conn	IPEX compatible	1	
8	Tube	Plastic, transparent	1	
7	Cable	φ1.37 Cable, Black,	1	
6	Spring	Brass	1	403-1-0032
5	PCB	FR4, Black Ink	1	501-1-0581(X1)
4	Rivet	POM, Color:Black	2	
3	Antenna Base	PC/PC+PBT, Color:Black	1	
2	Antenna Base	PC/PC+PBT, Color:Black, anti-wind	1	
1	Antenna Body	TPEE, Color:Black	1	
NO	DESCRIPTION	Q'TY	REMARK	

CUSTOMER'S SINGATURE

XXX	±5.0	APPROVED	CUSTOMER:		
XX.	±3.0		PART NO:		
X.	±1.0	CHECKED	PART NAME: RF Antenna Assembly		
.X	±0.5		Z&X P/NO: 6346F00001		
.XX	±0.3	DRAWING	yzq	REV	UNIT
				X1	mm
				FILE: X1	
				SHEET: 1/1	



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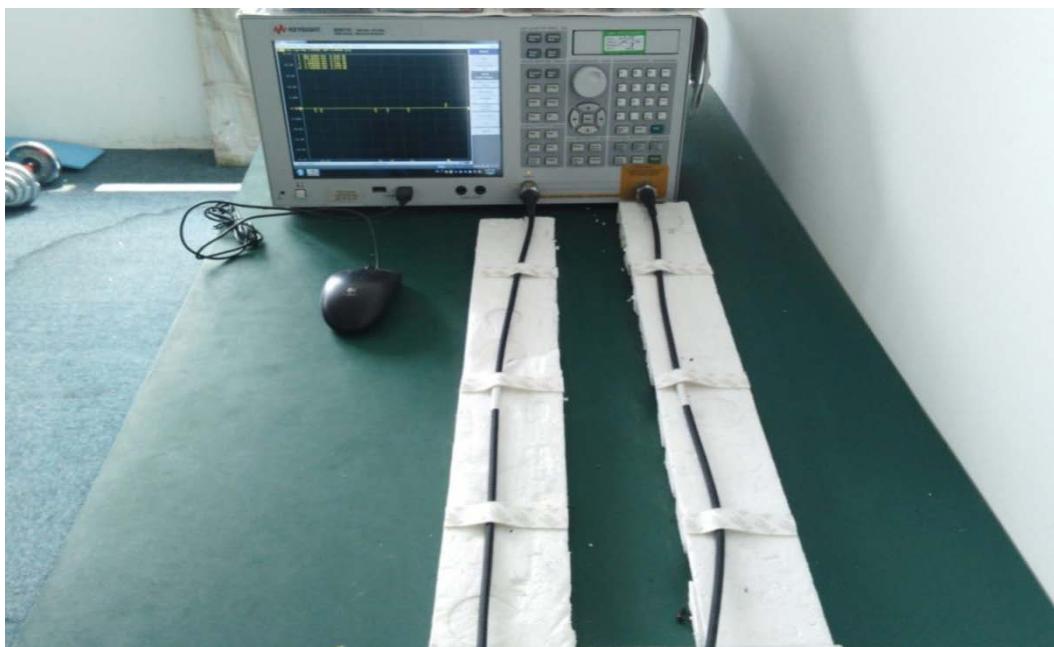
## Antenna Test Report

## 1. RF Fixture Experiment

### 1.1 Test Setup

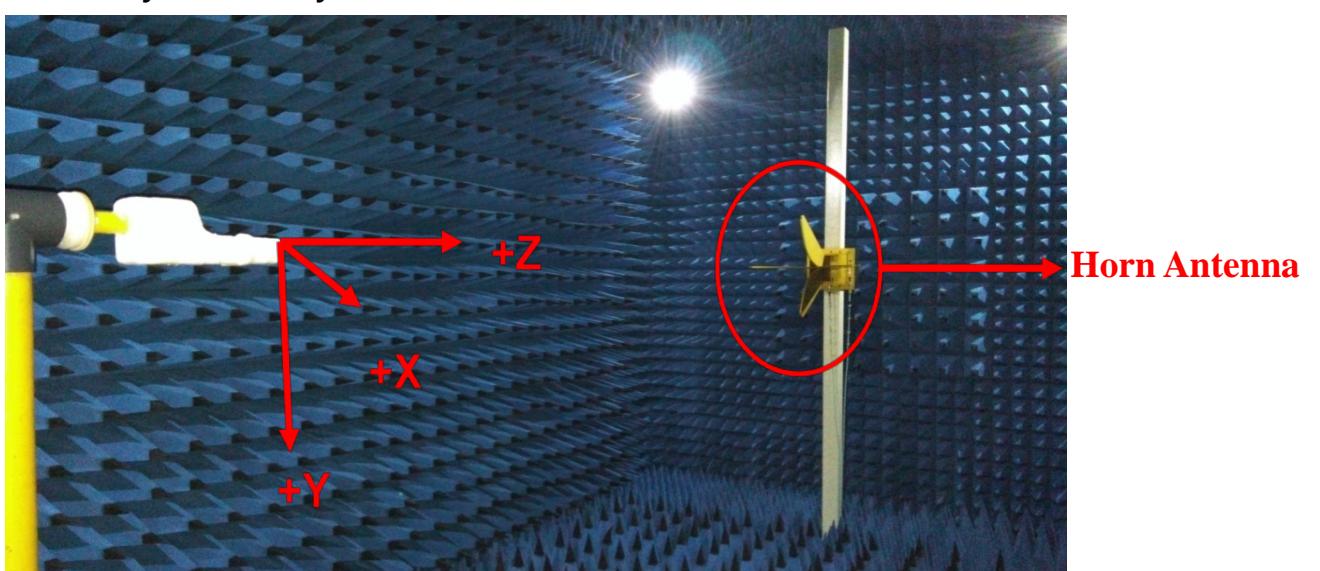
#### 1.1.1 VNA Test Setup

VSWR and Return Loss measurements (S11) were performed using an KeySight E5071C Network Analyzer. The isolation between antennas is also tested. The testing was performed with apparatus in free space.

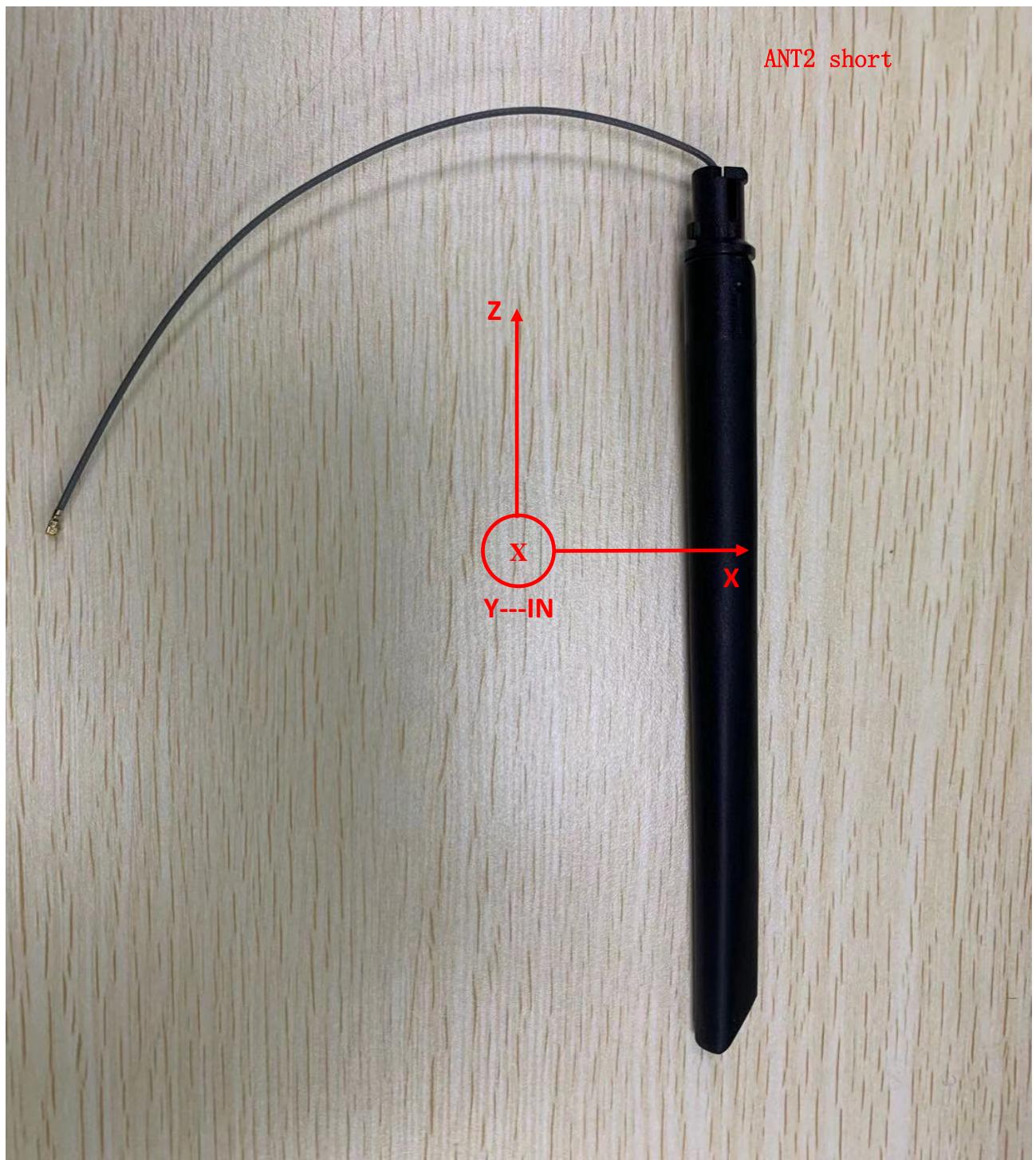


#### 1.1.2 Anechoic Chamber Test Setup

The gain of the antenna was measured in the anechoic chamber. The chamber provides less than  $-30$  dB reflectivity from  $400$  MHz through  $6$  GHz. The chamber size is:  $7\text{m} \times 4\text{m} \times 3\text{m}$ . The measurement results are calibrated using a leaky wave horn standard. We can measure the antenna gain and efficiency accurately.



## 2.Antenna Solution



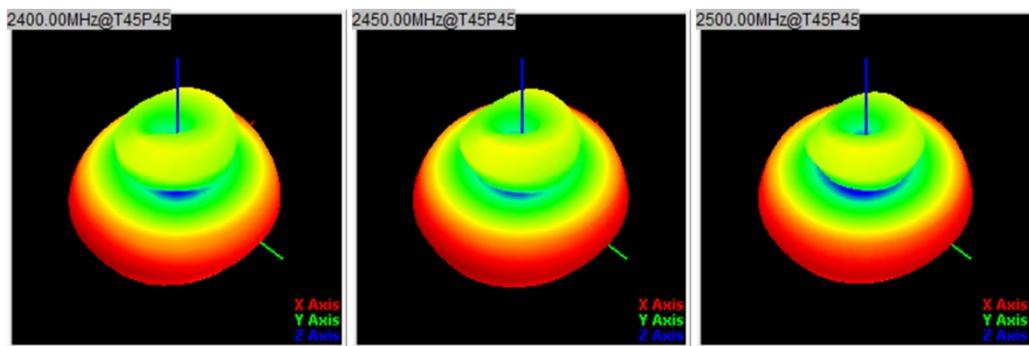
## Data Preview

Freq.(MHz)	2400	2450	2500
VSWR	1.89	1.52	1.57
Gain(dBi)	5.12	4.83	4.65
Eff.	71.2%	73.0%	69.9%

## S11



## Radiation patterns:3D



## Radiation patterns:2D

