



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

**SPECIFICATION FOR APPROVAL**

DATE: 2024.11.04

REV.: A

CUSTOMER: \_\_\_\_\_

CUSTOMER P/N: \_\_\_\_\_

PART NAME: External black WiFi 2.4GHz antenna with 1.37mm black cable, L=90mm,  
with RF connector

SUPPLIER P/N: 6346F00002

Date:

Q'TY:

Pcs

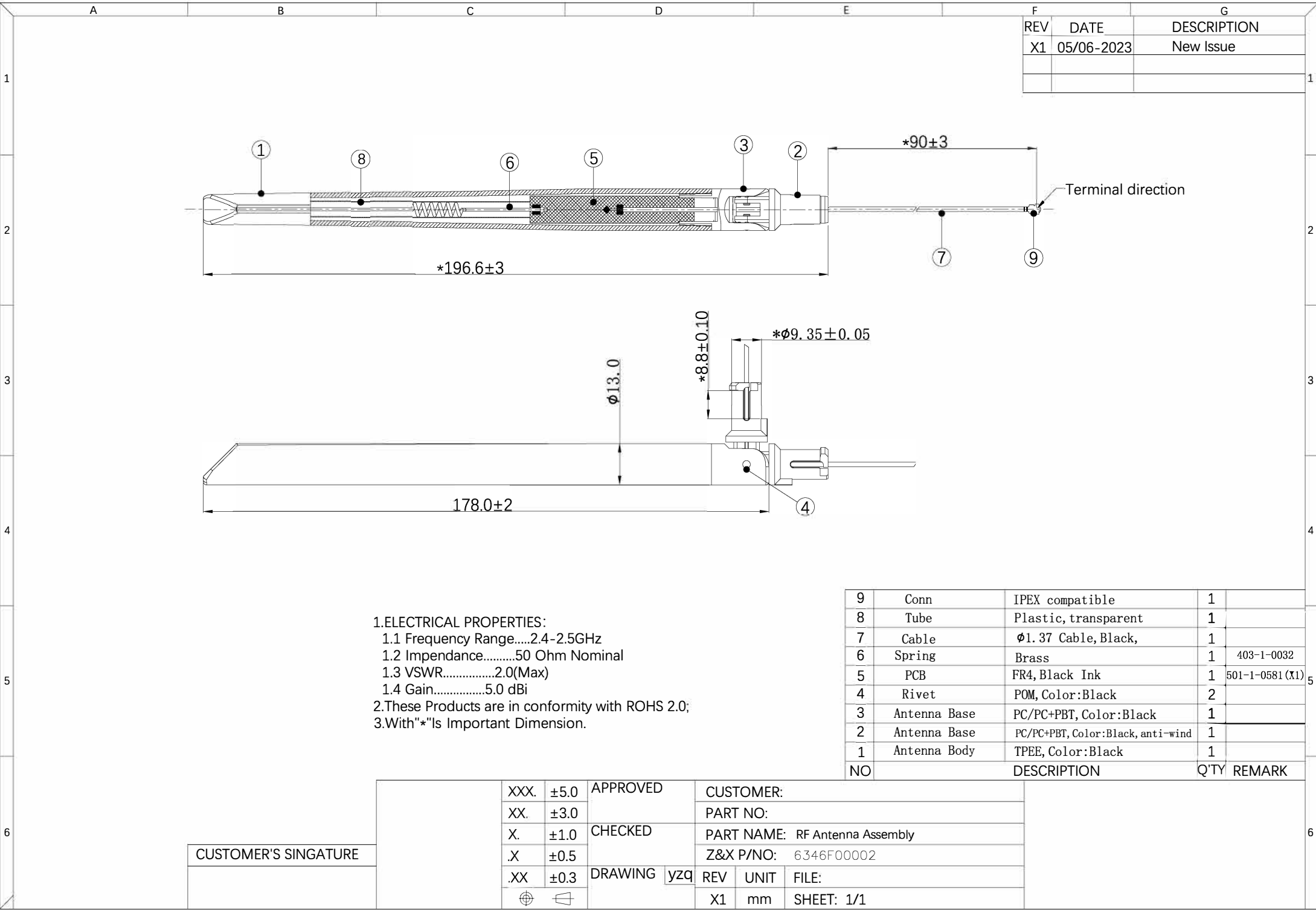
CUSTOMER APPROVED BY		
Approved by	Checked by	Confirmed by

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	$\phi 1.37$ 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.	$\pm 5.0$	APPROVED	CUSTOMER:		
	XX.	$\pm 3.0$		PART NO:		
	X.	$\pm 1.0$	CHECKED	PART NAME: RF Antenna Assembly		
	.X	$\pm 0.5$		Z&X P/NO: 6346F00002		
	.XX	$\pm 0.3$	DRAWING	yzq	REV	UNIT
					FILE:	
					X1	mm
					SHEET: 1/1	



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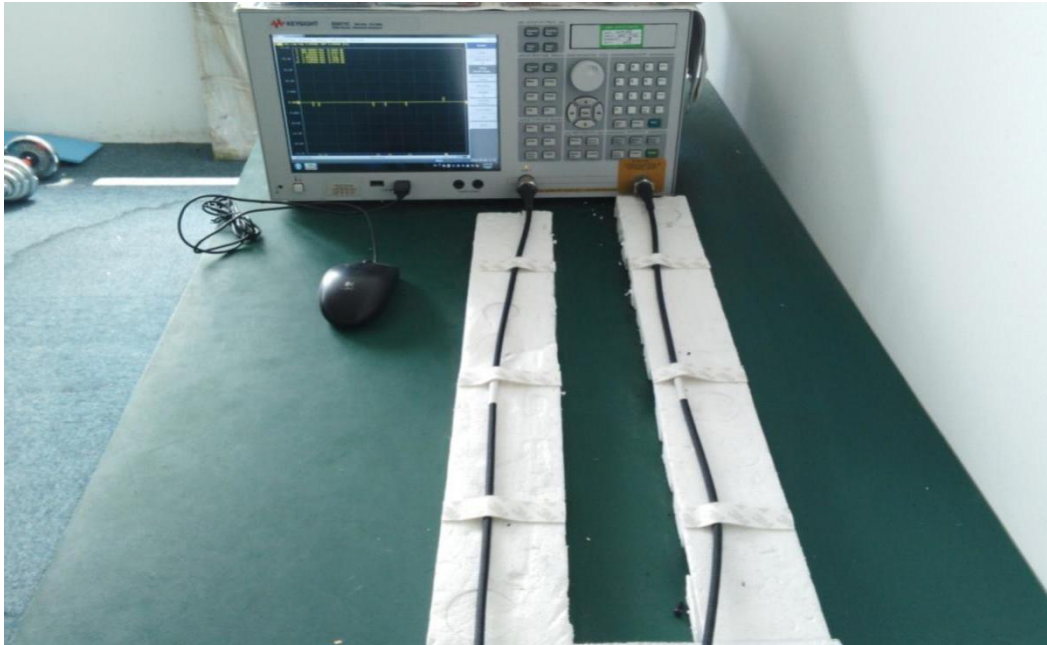
## Antenna Test Report

## 1. RF Fixture Experiment

### 1.1 Test Setup

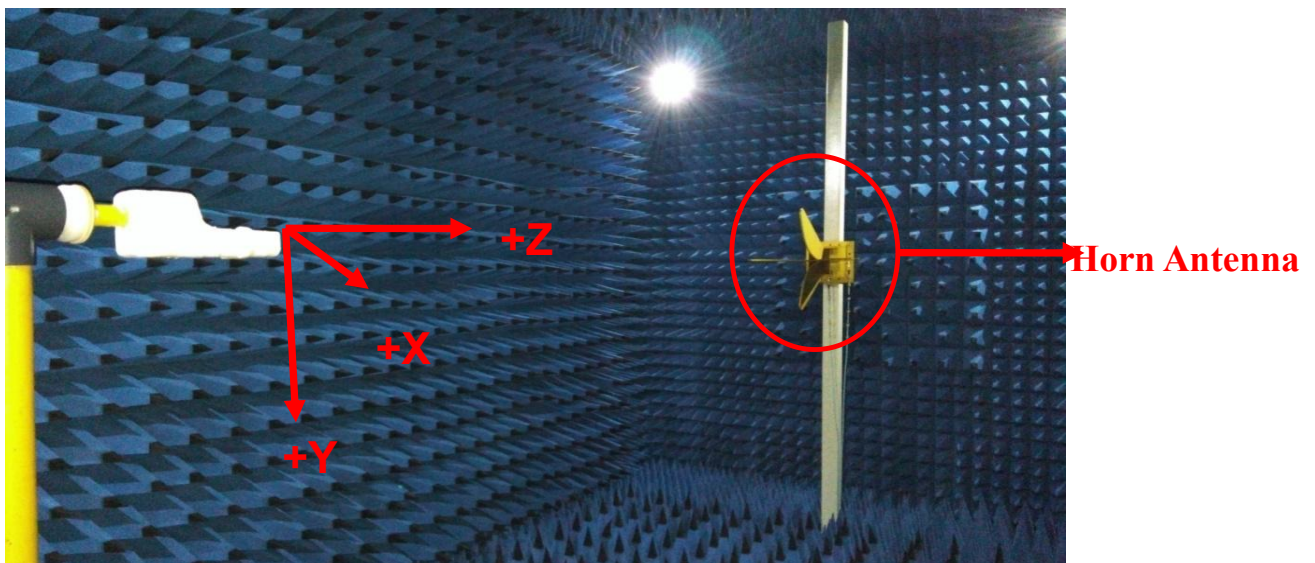
#### 1.1.1 VNA Test Setup

VSWR and Return Loss measurements ( $S_{11}$ ) were performed using an Keysight E5071C Network Analyzer. The isolation between antennas is also tested. The testing was performed with apparatus in free space.

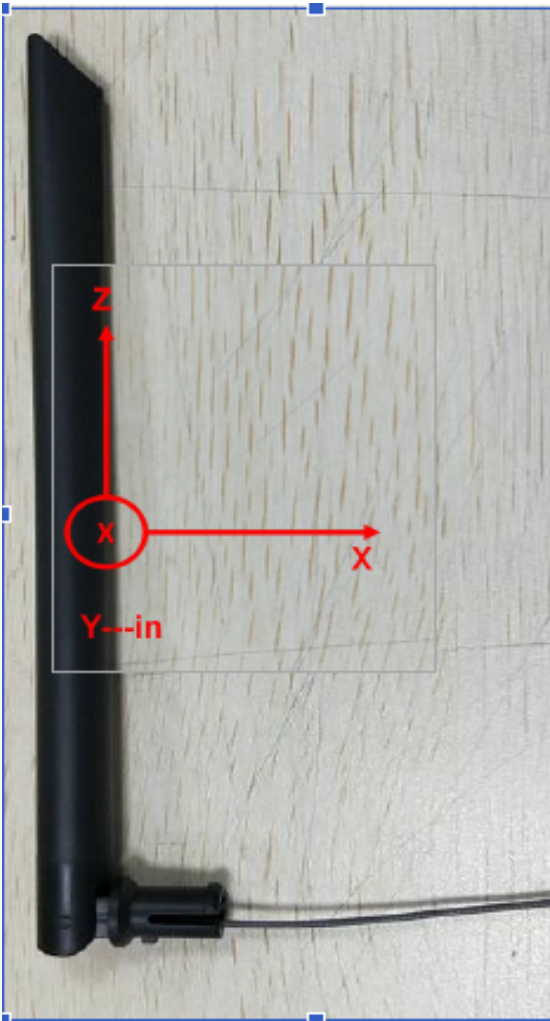


#### 1.1.2 Anechoic Chamber Test Setup

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: 7m\*4m\*3m. 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

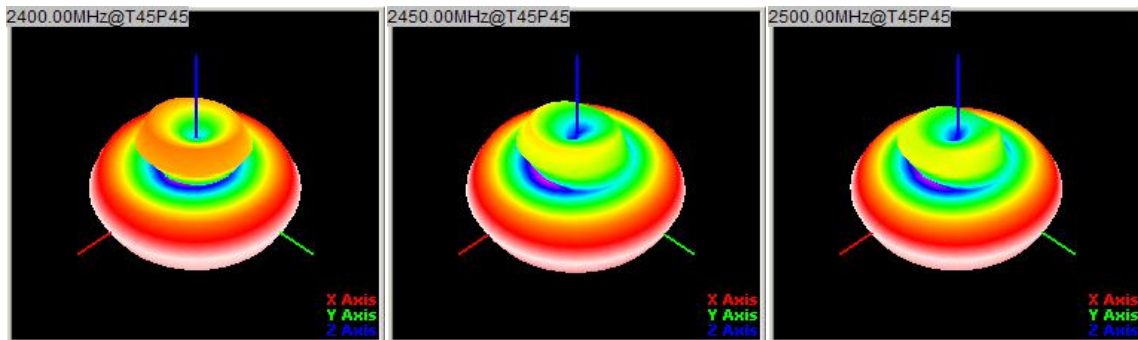
2.4G:

Freq.(MHz)	2400	2450	2500
VSWR	1.62	1.35	1.54
Gain(dBi)	5.07	5.45	5.21
Eff.	78.2%	79.3%	78.5%

S11



## Radiation patterns:3D



## Radiation patterns:2D

2450MHz

