

Product Specification

Mobile Terminal Antenna

Product Design and Manufacturing

Product Name: TR6

Customer Name: Technosource

Customer Part Number: /

Customer	Custome		Shenzhen AiHui Technology Co., Ltd.	
Customer Confirmation	QUALITY	RD	MD	APPROVAL
DATE: YYMMDD	DATE: 20230530			

深圳市艾汇科技有限公司

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Author	Cao Yang	Product Specification	Version	A
Issuing Dept.	RD Dept.		Issue Date	18.05.04

1. Objective

The purpose is to standardize the specifications and testing methods for the mobile communication terminal antenna products produced by Shenzhen AiHui Technology Co., Ltd., in order to avoid errors caused by different testing conditions and methods.

2. Product Category and Product Model Overview

2.1 Product Model Overview

This report primarily provides an overview of the electrical performance of the antenna designed for the TR6 project. The designed frequency range for this antenna is 2.4GHz/WIFI band.

3. Basic Parameters and Experimental Equipment Description

3.1 Basic Parameters

Product Electrical Performance Specifications	
Operating Frequency Range	2400-2480MHz
VSWR	2400-2480 MHz: < 1.5
Antenna Gain	2400-2480 MHz: 1.5dBi ±0.5dBi
Radiation Efficiency	2400-2480 MHz: > 50%
Impedance	50 ohm
Product Material Description	
FPC	Electrolytic Copper + PI
Coaxial Cable	Braided Wire
Product Environmental Specifications	
Operating Temperature	- 30°C ~ + 85 °C
Storage Temperature	- 30°C ~ + 85 °C

3.2 Experimental Equipment Description

List	Testing project	Equipment
1. S Parameters	1.Return loss 2. VSWR at	Network analyzer: Agilent 8753ES
2. Coupling power test	1. Transmission power 2. Receiving sensitivity	Comprehensive tester: Agilent 8960 E5515C
3. Radiation pattern and gain	1. Radiation pattern 2. Antenna gain	1. Darkroom: 7x4x3 m (3D) 2. Network analyzer :

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		Agilent 8753ES
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4. Antenna Test Data

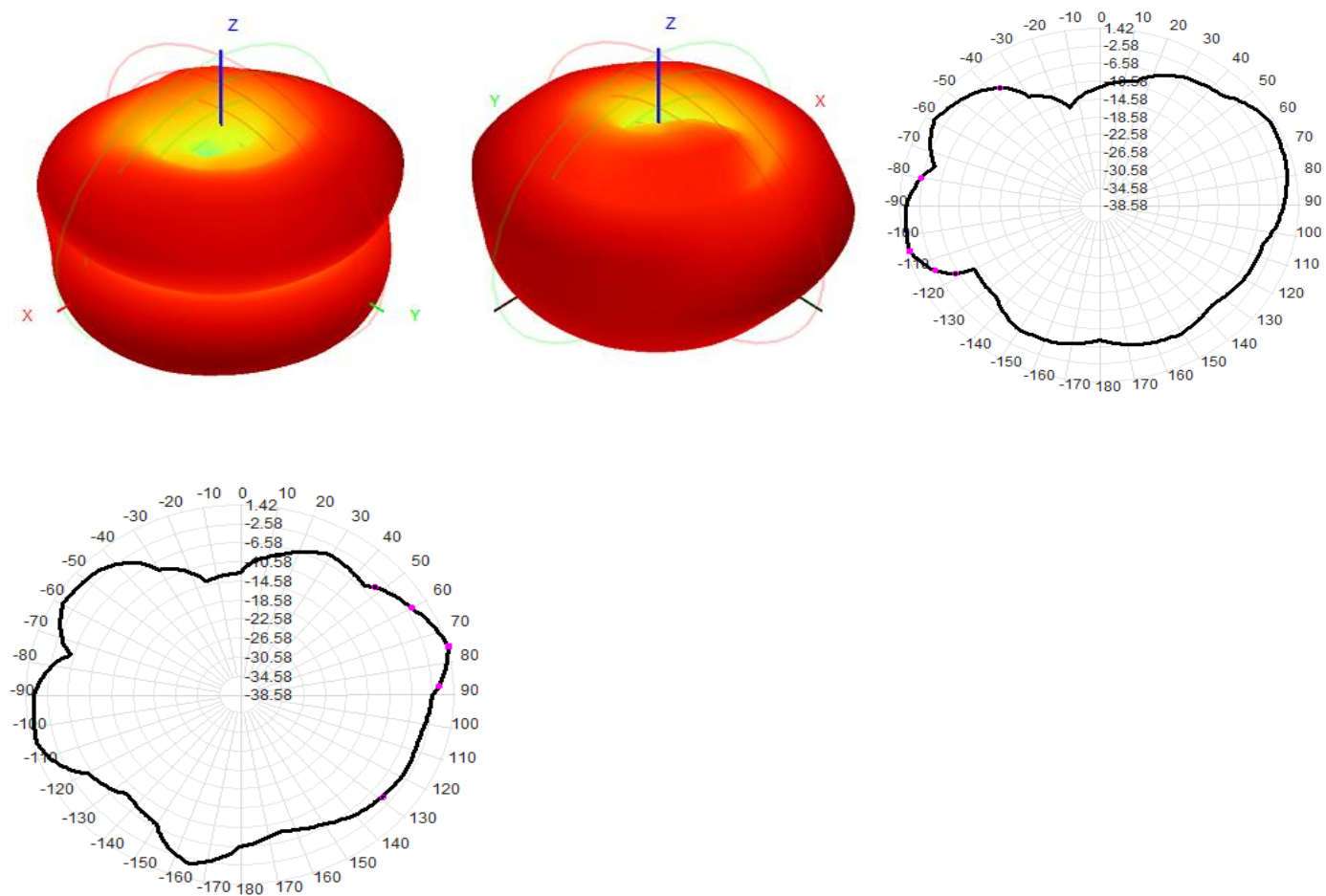
Frequency Band	2. 4G/B			2. 4G/G		
channel	1	6	11	1	6	11
TRP	15.41	14.55	16.31	13.33	12.54	13.14
TIS			-81.2			-69.54
Frequency Band	2. 4G/N					
channel	1	6	11			
TRP	12.44	12.35	12.54			
TIS			-67.31			

Test Data:		
WIFI 2. 4G		
Freq(MHz)	Efficiency (%)	Gain (dBi)
2400	58.4	1.12
2410	59.5	1.05
2420	50.2	1.42
2430	51.5	0.98
2440	53.5	0.88
2450	51.5	0.74

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2460	59.6	0.95
2470	58.7	1.04
2480	59.3	1.21



5.1 Antenna Assembly Diagram

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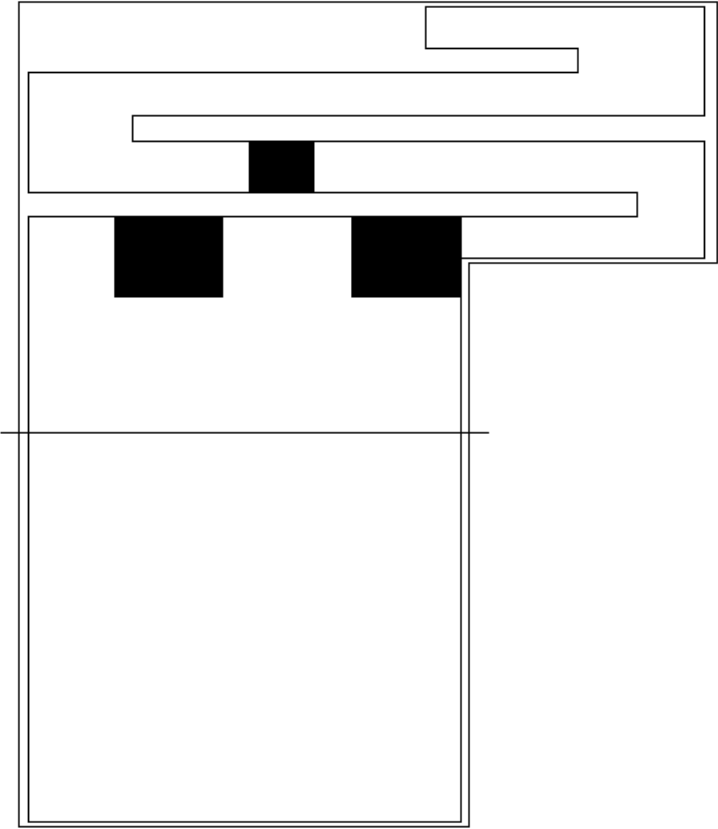
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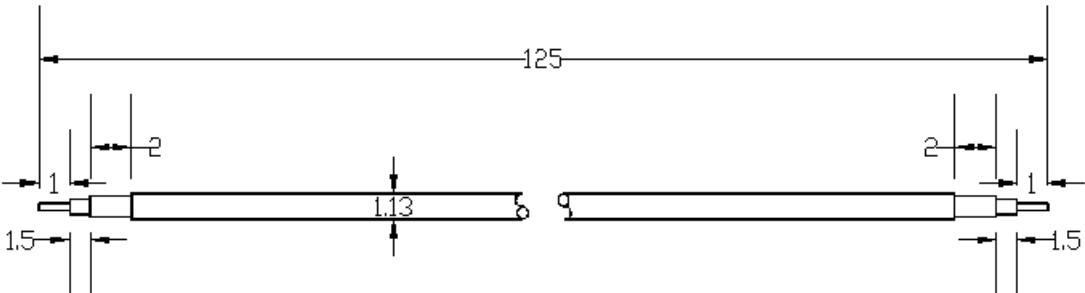
6.1 Antenna Structural Diagram

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6.2: Coaxial Cable Structure Diagram



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