

Confirmation of product specifications

Design and manufacture of mobile
communication terminal antenna products

Product name: 0067-TX

Customer name:

Customer Item: /

Customer	Customer		Shenzhen AIHUI Technology Co., LTD	
Customer confirmation	quality	research and development department	structure	check and ratify
Date	Date 2023 , 07 , 04			



Shenzhen AIHUI Technology Co., LTD

1.Purpose

Standardize the product specifications and test methods of mobile communication terminal antenna produced by Shenzhen Aihui Technology Co., Ltd. to avoid errors caused by different test conditions and methods.

2.Overview of product categories and product models

2.1 Product model overview

This report mainly summarizes the electrical results of the antenna designed by the 0067- launch project. The design frequency band of this antenna is 433Mhz.

3.Description of basic parameters and experimental equipment

3.1 Basic parameter

Electrical performance index of products	
Operating frequency range	433MHz
standing-wave ratio	433 MHz: < 2.0
antenna gain	433MHz:- 1dBi ± 0.5dBi
radiation efficiency	433MHz: > 25%
impedance	50 ohm
Product material description	
433 spring	nickel wire
Heat shrinkable tube	Pvc
Product environment description	
Working temperature	- 30℃ ~ + 85 ℃
Storage temperature	- 30℃ ~ + 85 ℃

3.2 Description of experimental equipment

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 : Agilent 8753ES

4.Antenna test data

Test data:		
433Mhz		
Freq(MHz)	Efficiency (%)	Gain (dBi)
430	33.25	-1.77
431	34.45	-1.87
432	33.65	-1.98
433	31.25	-2.05
434	30.25	-2.54
435	29.58	-2.36
436	34.25	-1.98
437	31.52	-2.03
438	31.30	-2.25

5.1 antenna standing wave ratio



6.1 Antenna structure drawing

