

Product specification acknowledgement

Mobile communication terminal antenna Product design and manufacturing

Product Name: PT35TX

Customer Name: Le Chang

Customer Part Number: /

client	client		Shenzhen Aihui Technology Co., LTD	
Customer confirmation	Quality	R&D Department	structure	approval
date: years month day	Date: July 31, 2023			

深圳市艾汇科技有限公司

Shenzhen AIHUI Technology Co., LTD

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Shenzhen AIHUI Technology Co., LTD

Proposed	Cao Yang	SPECIFICATION	version	A
Issuing department	R&D Department		issuing date	18.05.04

1.objective

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

2.Overview of product categories and models

2.1 Product Model Overview

The main overview of this report is PT35TX The electrical results of the antenna designed for the project. The design frequency band of this antenna is: 433Mhz

3.Basic parameters and experimental equipment description

3.1 Basic parameters

Product electrical performance indicators	
Operating frequency range	433MHz
standing-wave ratio	433 MHz: < 2.0
Antenna gain	433MHz:- 1.33 dbi
Radiation efficiency	433MHz: > 25%
impedance	50 ohm
Product Material Description	
433 Spring	Nickel Wire
Product Environment Description	
operation temperature	- 30℃ ~ + 85 ℃
Storage temperature	- 30℃ ~ + 85 ℃

3.2 Experimental equipment illustrate

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

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4.Antenna test data

test data:		
433Mhz		
Freq(MHz)	Efficiency (%)	Gain (dBi)
430	29.65	-1.51
431	30.24	-1.60
432	31.44	-1.54
433	32.41	-1.67
434	33.36	-1.57
435	30.45	-1.33
436	29.06	-1.60
437	28.74	-1.41
438	28.41	-1.55

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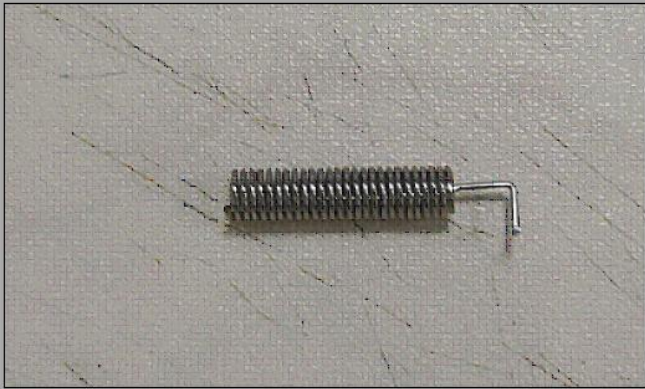
5.1 Antenna standing wave ratio



6.1 Antenna structure drawing

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圈数：26圈 线径：0.4mm

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①	弹簧天线		机 种	PT35	日期	2023.07.25				
②	发射	 0.02	品 名		设计	SEANZHANG				
③		 $\varnothing$ 0.03	料 号		审核	结构				
④		 0.02	材 质	弹簧		射频				
		 0.04			确认					
		 0.02	模面处理		单位	mm	比例	FIT	版本 R: A	
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