

Product specification acknowledgement

Design and manufacture of mobile communication
terminal antenna products

Product name: PT42T-AD-D01-TX-ANT

Customer name: Happy

Customer data: /

Customers	Customers		Shenzhen Aihui Technology Co. , Ltd.	
Customer confirmation	Quality	R & D Department	Structure	Approved
Date: Year Month Day	Date: August 29,2023			

Shenzhen Aihui Technology Co. , Ltd.

Be drawn up	Cao Yang	Product specification	Version	A
Distribution department	R & D Department		Release date	18.05.04

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1.Purpose

The specification and test method of mobile communication terminal antenna made by Shenzhen Aihui Technology Co., Ltd. are standardized 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 summarizes the electrical results of the antenna designed by the PT42TX project. The antenna is designed in 433Mhz band.

3. Description of basic parameters and experimental equipment

3.1 basic parameters

Product Electrical Performance Index	
Operating frequency range	433MHz
Standing Bobby	433 MHz: < 2.0
Antenna gain	433MHz:- 1dBi ± 0.5dBi
Radiation efficiency	433MHz: > 25%
Impedance	50 ohm
Product material description	
433 springs	Nickel wire
Product environment description	
Operating temperature	- 30°C ~ + 85 °C
Storage temperature	- 30°C ~ + 85 °C

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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

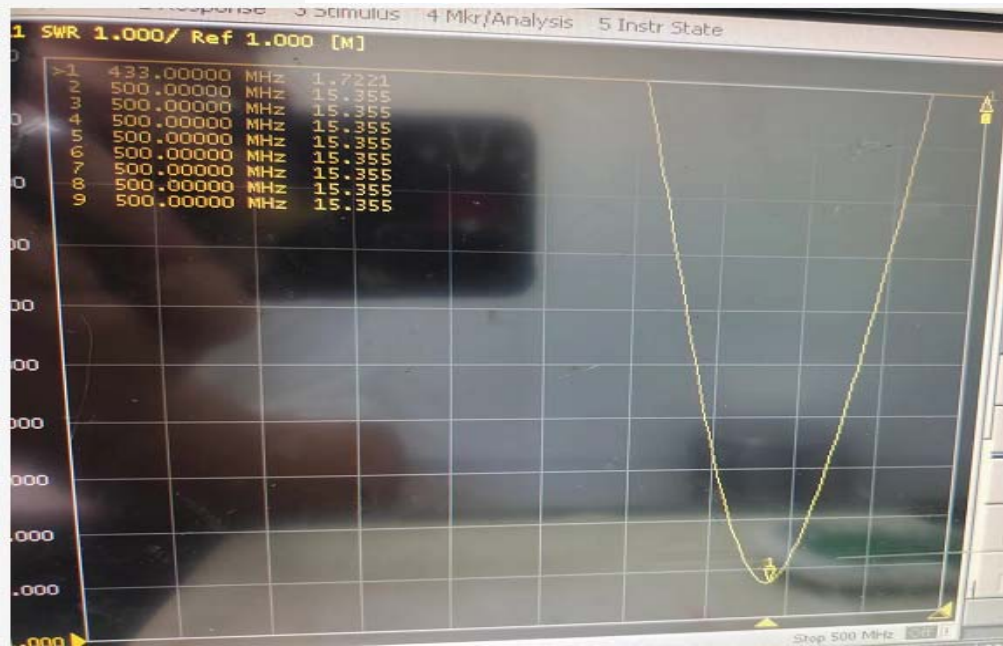
4.Antenna test data

Test data:		
433Mhz		
Freq(MHz)	Efficiency (%)	Gain (dBi)
430	33.25	-1.44
431	32.14	-1.60
432	33.25	-1.58
433	34.10	-1.69
434	31.65	-1.71
435	29.65	-1.58
436	30.14	-1.47
437	28.47	-1.66
438	29.31	-1.56

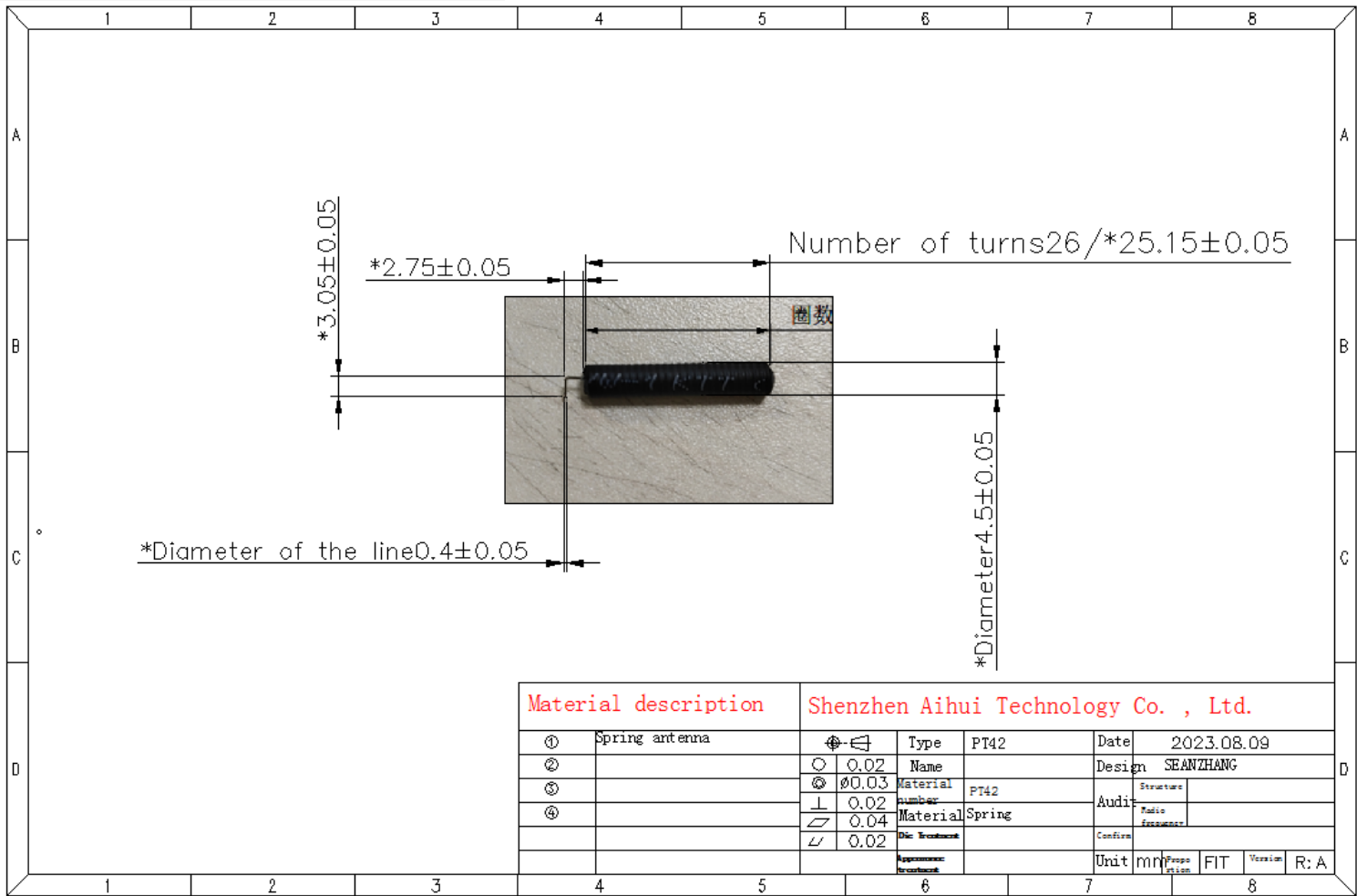
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5.1 antenna SWR



6.1 antenna structure drawings



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