

Product Specification Acknowledgement

Mobile communication terminal antenna
Product design and manufacturing

product name: PT85-DT54-TX-ANT

Customer Name: Lechang

Customer part number: /

customer	customer		Shenzhen Shunyou Electronic Technology Co., Ltd	
customer confirmation	Quality	R&D Department	Structure	Approved
Date:	Date: June 26, 2025			

1.Purpose

Standardize the specifications and testing methods for mobile communication terminal antenna products produced by Shenzhen Shunyou Electronic Technology Co., Ltd., to avoid errors caused by differences in testing conditions and methods.

2.Overview of product categories and models

2.1 Overview of product models

This report primarily outlines the electrical results of the antenna designed for the PT85 TX project. The design frequency band of this antenna is the 433Mhz band.

3.Description of basic parameters and experimental equipment

3.1 Basic parameters

Electrical performance indicators of the product	
Operating frequency range	433MHz
standing-wave ratio	433 MHz: < 2.0
Antenna gain	433MHz:-1.28dBi
Radiation efficiency	433MHz: > 25%
impedance	50 ohm
Product material description	
433 Spring	Nickel Wire
Product environment description	
operation temperature	- 30°C ~ + 85 °C
Storage temperature	- 30°C ~ + 85 °C

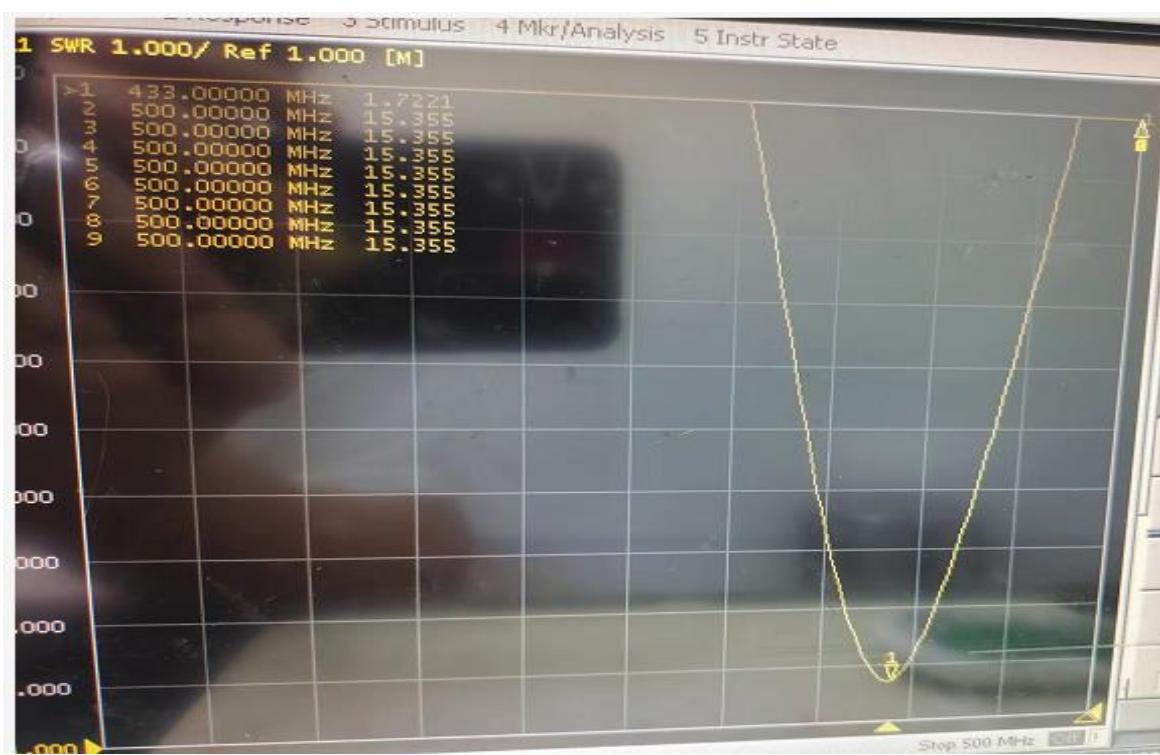
3.2 Experimental equipment description

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 : Agilent 8753ES

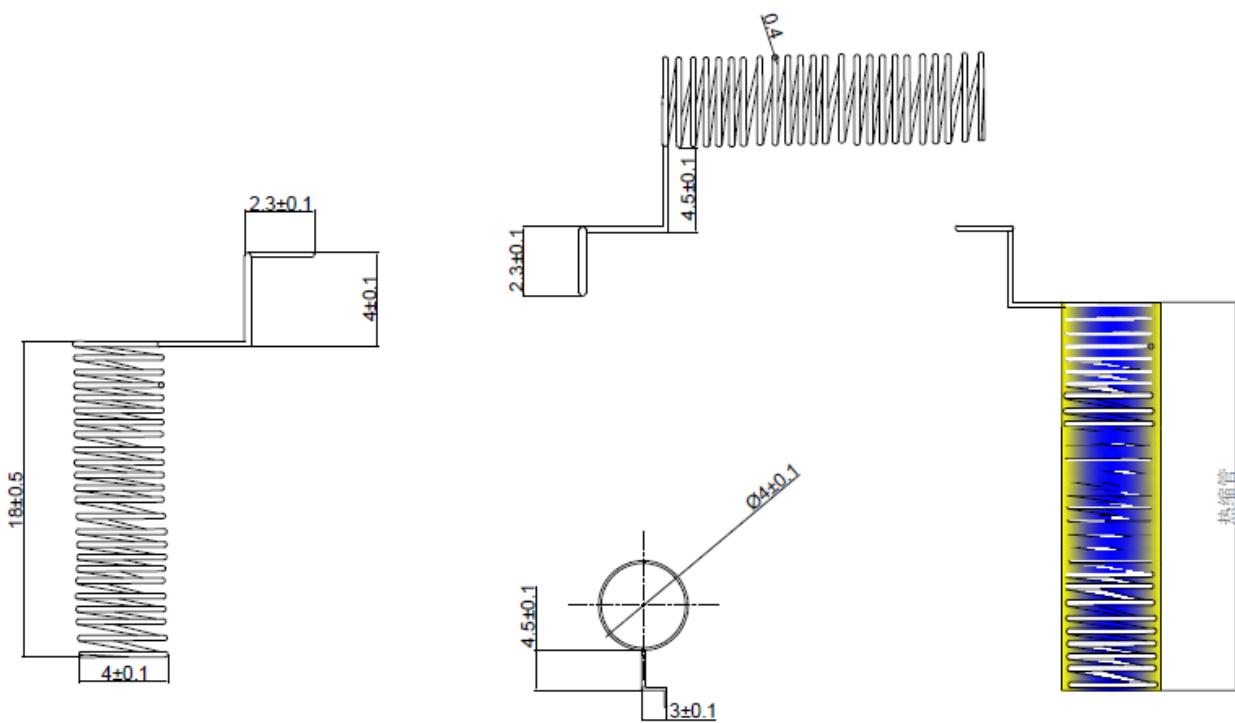
4.Antenna test data

测试数据：		
433Mhz		
Freq(MHz)	Efficiency (%)	Gain (dBi)
430	30.25	-1.30
431	33.52	-1.85
432	31.51	-1.74
433	32.60	-1.36
434	34.14	-1.28
435	29.65	-1.60
436	28.44	-1.44
437	27.58	-1.60
438	26.31	-1.56

5.1 Antenna standing wave ratio



6.1 Antenna structure drawing



技术要求与注意事项：
1. 材质：镀镍线 Ø0.4MM
2. 表面处理：本色
3. 总圈数：25T
4. 产品要符合欧盟ROHS环保要求
5. 两头收尾不能贴一起

广东顺优电子有限公司 GUANGDONG SYOU ELECTRONIC CO., LTD. http://www.syou.com.cn E-mail:syou@syou.com.cn		TOLERANCE less than 10±0.3 above 10-30±0.5 above 30-100±1 all angle ± 5°		Product Name: PT85-TX-ANT-2 PART No.: TA0.4X4-XXX SPEC.: 25T-18H-0.35B+热缩管			
Mark	Content of change	APPD	DATE	SCALE	Free	Designed	Checked
				UNIT	mm	2025-5-17 谭远明	2025-5-17 李厚健
				FIG.1(1)			

6.2 Antenna installation diagram

