

Product Specification Acceptance Certificate

Mobile communication terminal antenna

Product Design and Manufacturing

Product Name: PT26S-DT68S-TX

Customer Name: LECHANG

Customer Part Number: /

|                            |                                |                |                                                 |          |
|----------------------------|--------------------------------|----------------|-------------------------------------------------|----------|
| customer                   | customer                       |                | Shenzhen Shunyou Electronic Technology Co., Ltd |          |
| Customer confirmation      | Quality                        | R&D Department | Structure                                       | approval |
|                            |                                |                |                                                 |          |
| Date: Year    Month    Day | Date:    2024Year 11Month 5Day |                |                                                 |          |

No. 414, 606E6, Gongbaoling Industrial Zone, Gongbaoling Road, Hualin Community, Yuanguan Subdistrict, Futian District, Shenzhen City

1、Purpose

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

2. Overview of product categories and models

2.1 Overview of Product Models

This report mainly outlines the electrical results of the antenna designed for the PT26S-TX project. This antenna is designed for a frequency band of 433MHz.

3. Basic parameters and experimental equipment description

3.1 Basic Parameters

| Product electrical performance indicators |                  |
|-------------------------------------------|------------------|
| Working frequency range                   | 433MHz           |
| VSWR                                      | 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           |                  |
| Operating temperature                     | - 30℃ ~ + 85 ℃   |
| Storage temperature                       | - 30℃ ~ + 85 ℃   |

3.2 Experimental Equipment Description

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

4. Antenna test data

Test data:

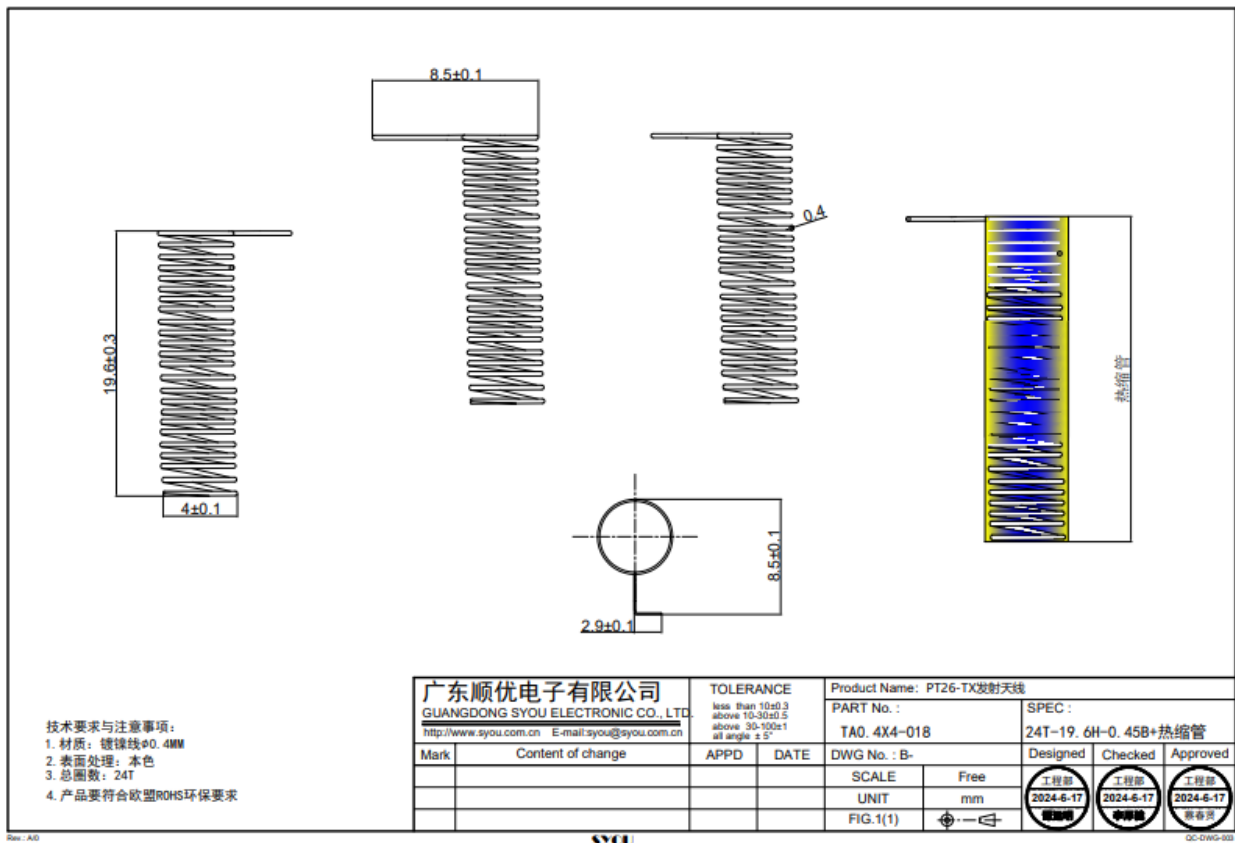
433Mhz

| 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      |

5.1Antenna standing wave ratio



6.1Antenna structure drawing



6.2Antenna installation diagram:

