

# Dalang

## AK626





**Dalang Communication  
Technology Co., Ltd  
Product Specification**

Product Name:	<u>GNSS ANTENNA</u>
Product Model:	<u>AK626</u>
Version Number:	<u>V 1.0</u>
Revision Date:	<u>2024.07.05</u>

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Shenzhen Dalang Communication Technology Co., Ltd

# 1 Product Application Scenarios

The AK626 is a high-performance GNSS surveying antenna that receives signals from Bei Dou, GPS, GLONASS, and GALILEO systems. Designed for multi-system compatibility and high-precision measurements, it is ideal for geodetic surveying, marine surveying, precision agriculture, and deformation monitoring. The antenna's multi-feed point design enhances signal stability and reduces measurement errors, providing accurate positioning data even in challenging environments. See Figure 1 for details.



Figure 1 Product Application Scenarios

## 2 Features

In this chapter, we will delve into and comprehensively elaborate on the functionalities and operating principles of the AK626, detailing how it plays a pivotal role in various applications as follows:

1. **Multi-System Compatibility:** Supports Bei Dou, GPS, GLONASS, and GALILEO systems, meeting diverse navigation needs.
2. **High-Precision Design:** Multi-feed point design optimizes RHCP and phase center performance, significantly reducing measurement errors.
3. **Enhanced Reception Performance:** Antenna unit features high gain and low gain roll-off, ideal for receiving low-elevation satellite signals.
4. **Good Blocking Match:** Reactance network suppression technology effectively reduces multipath signal interference, improving measurement accuracy.
5. **Suitable for Complex Environments:** Superior design ensures reliable signal reception even in heavily obstructed environments.

### 3 Structural Characteristic

In this section, we will conduct an in-depth analysis of the product's design details, presenting its aesthetic features and precise interface specifications through detailed structural diagrams. This perspective aims to provide a comprehensive framework, thereby enhancing the understanding and perception of the product's architecture. Refer to Figure 2, Figure 3, Figure 4.

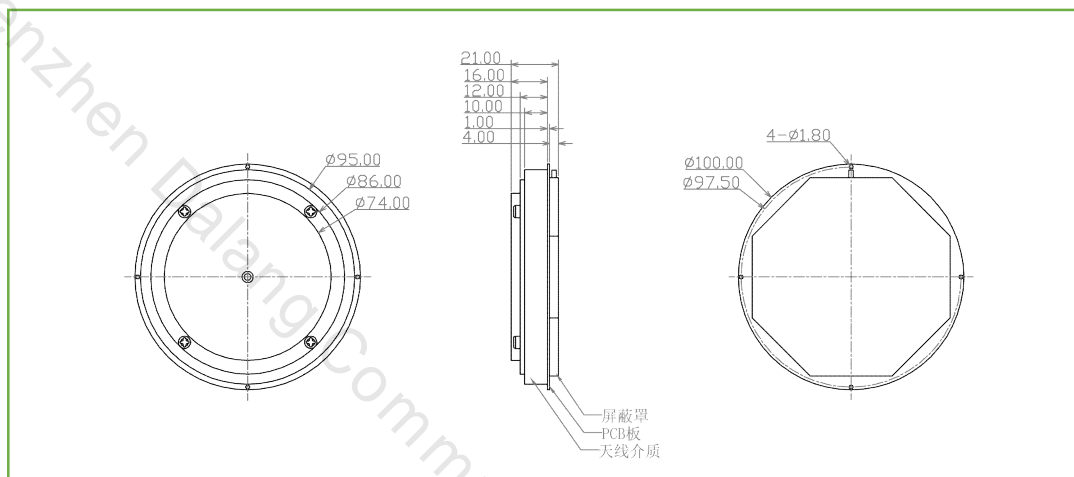


Figure 2 Product structure diagram

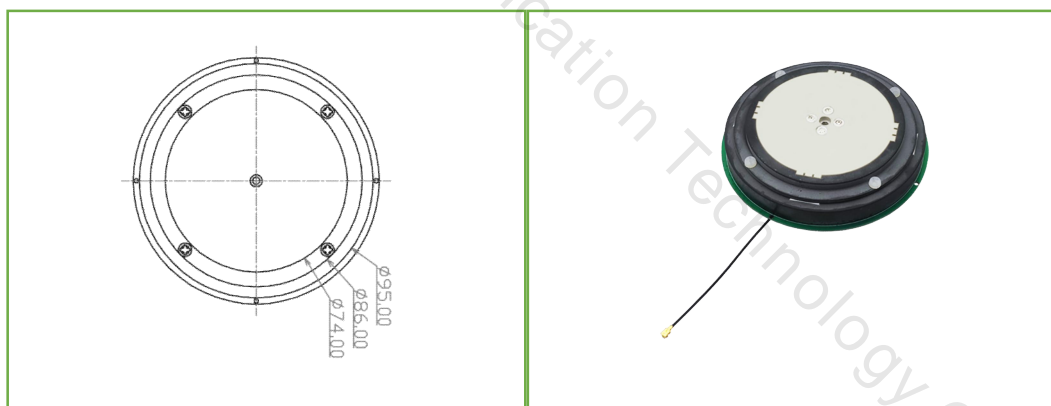


Figure 3 Product correlation chart

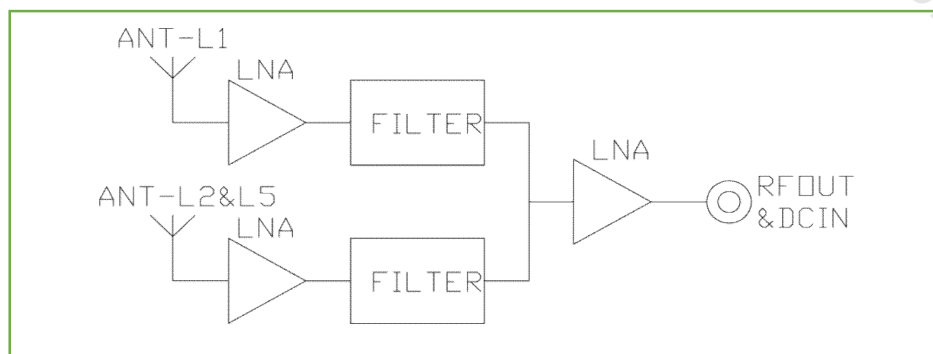


Figure 4 Process flow diagram

## 4 Specifications

In this section, we will provide a detailed list and explanation of the product's chip features, sensitivity, accuracy, operating principles, and other technical details, as detailed in Table 1.

Table 1 Product Specifications

II. Specification			
Antenna Characteristics	1	Operating Frequency	GPS: L1:1575.42±1.023MHz L2:1227±1.023MHz L5:1176.45±1.023MHz Bei Dou: B1:1561±2.046MHz B2:1207±2.046MHz B3:1268±1.023MHz GLONASS: L1:1602±0.5625*k MHz L2:1246±0.4375*k MHz GALILEO: E1:1575
	2	Antenna Specifications	GPS, Bei Dou, GLONASS,GALILEO
	3	Frequency Range	1197-1278/1559-1612MHz
	4	V.S.W. R	≤2.0
	5	Axial Ratio	Elevation angle 90 degrees: ≤3 Elevation angle 15 degrees: ≤5
	6	Gain	Elevation angle 90 degrees: ≥6 Elevation angle 20 degrees: ≥0 (plane)
	7	Front to back power	±60 degrees: ≥15dB
	8	Phase Center (mm)	<2
	9	Impedence	50Ω
	10	Polarization	RHCP
LNA	1	LNA GAIN	38±2dB

	2	V.S.W. R	<2
	3	Noise Figure	<1.5
	4	DC Voltage	3.3~18V
	5	Current	25~40mA
<b>Mechanical Structure</b>	1	Antenna size	100*100*22mm
	2	Product weight	140.6g
	3	interface	IPEX (customizable)
	4	Line type	RG1.13 (customizable)
	5	Line length	65mm (customizable)
<b>Environmental Characteristics</b>	1	Operating Temperature	-40°C~+85°C, 10%~95% RH
	2	Storage Temperature	-55°C~+100°C, 10%~95% RH
	3	Vibration	Sine sweep @1.5mmAM 10~55Hz each Axis

## 5 Product Photos

In this chapter, we will showcase real-life images of the product, as shown in Figure 5. These images provide a detailed view of our product from various angles and perspectives. We believe that through authentic representation, we can better convey the value and concept of the product, thereby enhancing your trust and satisfaction.



Figure 5 Product Images