

PRODUCT SPECIFICATION

产品规范

适用于

For

AH323 GNSS+LoRa 二合一天线
AH323 GNSS+LoRa Antenna



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REVISION HISTORY / 修订历史

Revision/版本	Modification/更改	Date/日期
1.0	New Release / 新发	2022/12/1

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1. INTRODUCTION / 简介

AH323 is a two-in-one antenna with built-in full system full frequency GNSS+LoRa. The antenna has the characteristics of high gain, miniaturization, high sensitivity, multi system compatibility and high reliability, which can effectively meet the user's needs.

AH323 是一款内置全系统全频 GNSS+LoRa 的二合一天线，该天线具有高增益、小型化、高灵敏度、多系统兼容及高可靠性等特点，可有效满足用户的使用需求。配合 GNSS 高精度模块+LoRa 模块使用，可广泛应用于割草机、测量测绘及精准农业等领域。

1.1. Product Characteristics / 产品特性

Table 1 Product Characteristics / 产品特性

Characteristics特性			AH323
GNSS Signals GNSS信号	BDS	B1	◆
		B2	◆
		B3	◆
	GPS	L1	◆
		L2	◆
		L5	◆
	Galileo	E1	◆
		E5a	◆
		E5b	◆
		E6	◆
	GLONASS	G1	◆
		G2	◆
		G3	◆
	QZSS	L1C/A	◆
		L5	◆
	IRNSS	L5	◆
	SBAS	L1C/A	◆
		L5	◆

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LoRa Frequency Band LoRa频段	European Union 欧盟: 863-870MHz	◆
	North America 北美: 902-928MHz	◆
Polarization Mode 极化方式	Right-Handed Circular Polarization 右旋圆极化	
Horizontal coverage 水平面覆盖范围	0° ~ 360°	
Port Impedance 端口阻抗	50Ω	
Maximum Gain 最大增益	GNSS: 5.5 dB LoRa: 1 dB	
Antenna Axis Ratio 天线轴比	≤3.0 dB	
voltage standing wave ratios 电压驻波比	GNSS: ≤2.0 LoRa: ≤2.5	
Phase Center Error 相位中心误差	±2 mm	
LNA Gain LNA增益	L2: 35±2 dB L1: 33±2 dB	
In-band Flatness 带内平坦度	±2 dB	
Noise Figure 噪声系数	≤2.0 dB	
Output VSWR 输出驻波	≤2.0	
Working Voltage 工作电压	3.3 ~ 12 VDC	

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Working Current 工作电流	≤50 mA
Differential Transmission Delay 差分传输延迟	≤5 ns
Connector Model 接头型号	GNSS: MMCX-JW LoRa: IPEX
Antenna Size 天线尺寸	Φ124mm*27mm
Working Temperature 工作温度	-40 ~ +80 °C
Storage Temperature 存储温度	-55 ~ +80 °C
Humidity 湿度	95% Non-Condensing 95%不冷凝

2. AH323 Product Size / AH323天线尺寸

In this section, product photo, three-side views and the dimension of AH323 is provided for customers' further hardware design and installation.

本节提供了 AH323 的实物图，便于用户进一步的系统硬件设计和安装。

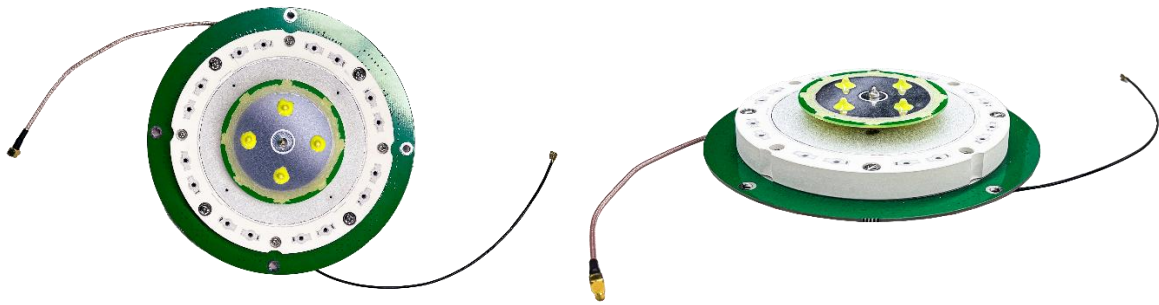


Figure 1.Product Photo / AH323实物图

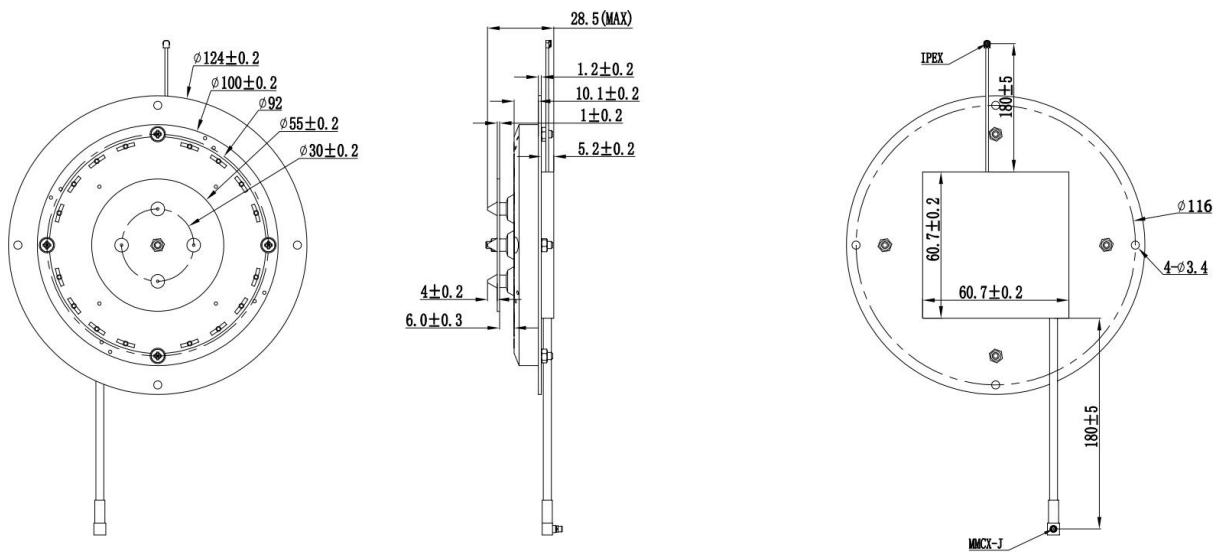


Figure 2.Dimension View / AH323 三视图

3. Product Label / 产品标签

Label size: 22*15mm

标签尺寸: 22*15mm



Figure 3. Label / 标签