

产品规格承认书

Product specifications
acknowledgment

承认厂商: _____

(Recognized manufacturers)

制造厂商: _____ 深圳市蝙蝠无线技术有限公司

(Manufacturer)

产品名称: _____ GNSS 测量型天线

(Description)

产品选型表:

(Product Type)

型号	说明	备注
BWGNSSGNX152-68T	TNC (Female)	可选配

供应商承认签栏

制表者	审核者	核准者

客户承认栏

审核者	核准者

产品描述

BWGNSSGNX152-68T 是一款支持多星多频 GNSS 测量型天线，支持北斗二代、GPS 和 GLONASS 的 L1/L2 频段卫星导航信号接收。可广泛应用于大地测量测绘、海洋测量、精密农业、变形监测等高精度导航定位场合。

技术特点

- 采用多馈点设计，保证了右旋圆极化和相位中心性能，降低测量误差的影响；
- 天线单元增益高，对低仰角卫星信号接收效果好，保证系统可用卫星数目足够多；
- 低噪声放大器采用前置滤波技术，有效抑制带外干扰信号，提高系统的可靠性；
- 外壳 IP67 防护，为天线长期在野外工作提供了保障。

主要技术指标（典型）

天线特性 ANTENNA	
天线结构 Patch Architecture	四馈点，双层叠加结构 Dual Four-point-feed, Dual Stacked Patch
支持卫星信号 Supported positioning signal bands	GPS: L1/L2/L5; BDS: B1/B2/B3; GLONASS: G1/G2/G3; Galileo: E1/E5a/E5b/E6
最大增益 Peak Gain*	≥5.0dBi@Fc
极化方式 Polarization	右旋圆极化（RHCP）
天线轴比@天顶 Axial Ratio@zenith	≤1.5dB
水平面覆盖角度 Azimuth Coverage	360°
特性阻抗 Impedance	50 ohm
相位中心误差 Phase-center accuracy	≤2.0mm
相位中心重复性 Phase-center repeatability	≤1.0mm
低噪声放大器特性 LNA	
工作频段 Frequency Range	1170MHz~1290MHz 1559MHz~1605MHz
低噪放增益 LNA Gain*	40±2.0dB （Typ. @25°C）
群时延差 Group Delay variation	≤15ns
噪声系数 Noise Figure*	≤2.0 dB@25°C , Typ. （Pre-filtered）
输出驻波比 Output VSWR	≤1.8:1 typ. 2.0:1max
工作电压 Operation Voltage	3.0~16V DC
工作电流 Operation Current	≈45mA
机械结构与环境特性 MECHANICALS & ENVIRONMENTAL	
天线尺寸 Dimension	Φ152mm*67.9mm
射频输出接口 Connector	TNC (Female)
天线外壳 Radome	PC+PBT
产品重量 Weight	≈350g
安装方式 Attachment Method	5/8-11
工作温度 Operating Temp	−40℃~+85℃
储存温度 Storage Temp	−45℃~+85℃

湿度 Humidity	95% No-condensing
防水性能 Waterproof	IP67

1.1 Antenna Picture



上图型号：BWGNSSGNX152-68T

（可定制）

*注： 因天线功能较为敏感，主体周边机构有变更请通知我们评估。

2. Electrical Specification

2.1 Test Equipment

- A. VSWR and input impedance: Agilent 8753/E5071 Network Analyzer
- B. Antenna gain and efficiency: ETS three-dimensional anechoic chamber

2.2 Test Setup

2.2.1 Frequency Range

2.2.2 VSWR

Step 1: The antenna is arranged on the customer provided test fixture.

Step 2: The VSWR of the antenna is measured via Agilent 8720/8753 Network Analyzer (see figure. 1).



Figure.1

2.2.3 Radiation pattern and Gain

- A. The 3D chamber provides less than -40dB reflectivity from 800MHz to 6GHz and a 40cm diameter spherical quiet zone. The measurement results are calibrated using both dipoles and standard gain horns (see figure. 2).
- B. The antenna under tested is arranged in the turned table and a decoupling sleeve is used to reduce feed line radiation (see figure. 3).
- C. The measured results of the radiation patterns and antenna gain are obtained from the control system and showed on the monitor (see figure. 4 and 5).

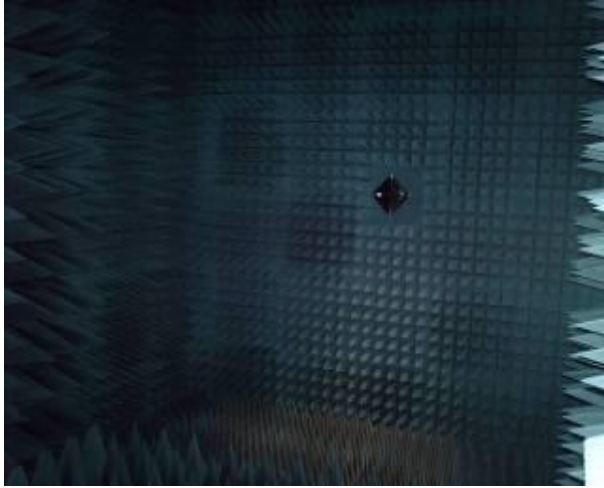


Figure.2



Figure.3

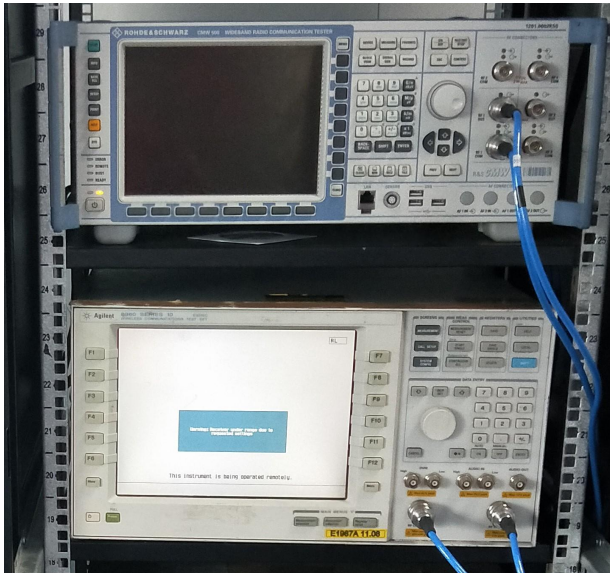


Figure.4

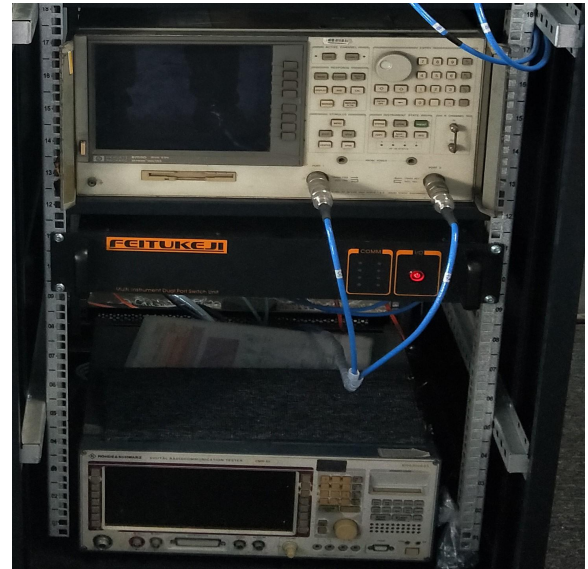
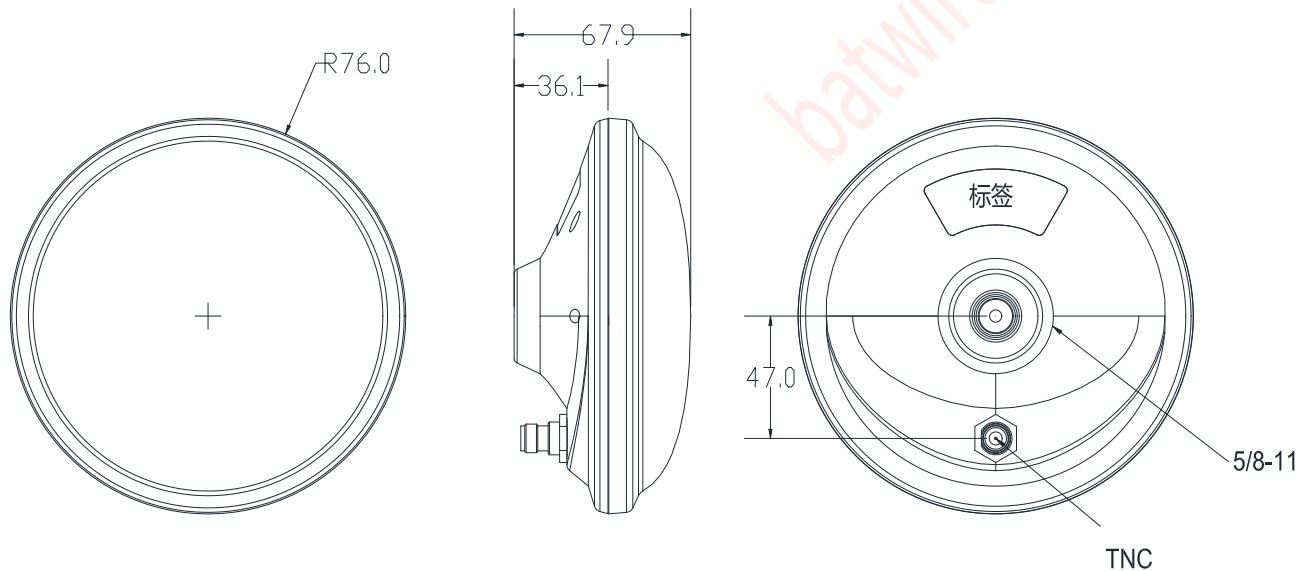


Figure.5

3. Mechanical Specification

3.1 Assembly Drawing



4. 免责声明 (Disclaimer) :

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