

# Surveying Antenna GPS500

**Harxon**  
a *BDStar* company

## HIGH PERFORMANCE ANTENNA FOR GIS SURVEYING



### HIGH PHASE CENTER STABILITY

The GPS500 features a multi-point feeding design to achieve greater phase center stability. It effectively improves measurement accuracy and provides better RTK solution. And GPS500 has passed the international NGS certificate test.

### TRACKING IN CHALLENGING ENVIRONMENTS

The ability to receive low elevation signals with high gain and wide beam width makes GPS500 an excellent choice for tracking visible satellites under challenging conditions, providing the positioning solutions with precision and reliable data. It can be widely used in agriculture tractors, unmanned vessels, also for autonomy vehicles, GIS surveying where high precision operations are needed.

### STRONG ANTI-INTERFERENCE PERFORMANCE

The antenna LNA features an excellent out-of-band rejection performance, which can suppress the electromagnetic interference, providing the stability and reliability of GNSS signals. Also it effectively avoids disconnection dangerous when receivers are operated under complex electromagnetic environments such as communication base station and busy urban area.

### SMALL SIZE AND LIGHT WEIGHT

The light weight and small size GPS500 antenna can lighten the loads of small unmanned vehicles, as well as a standard TNC female connector for easy integration. Its IP67 ruggedized design can protect it from dust and water.

### KEY FEATURES

- Support GPS, Glonass, Galileo, Beidou, QZSS and SBAS signal reception
- Stable phase center guarantees the accuracy of positioning within millimeter-level
- Strong anti-interference ability to endure the harshest operating environments
- IP67 ruggedized protection

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## PERFORMANCE

### Signal Received

GPS	L1,L2
GLONASS	L1,L2
GALILEO	E1
BDS	B1,B2,B3
QZSS	L1,L2
SBAS	L1

**Nominal Impedance** 50Ω

**Polarization** RHCP

**Axial Ratio** ≤3dB

### Gain at Zenith (90°)

1205-1278MHz	5.5dBi(maximum)
1559-1615MHz	5.5dBi(maximum)

**LNA Gain** 40dB(typical)

**Noise Figure** ≤2dB

**Output/Input VSWR** ≤2.0

**Operation Voltage** +3.3 to + 12VDC

**Operation Current** 45mA(maximum)

**Group Delay Ripple** <5ns

## MECHANICAL

**Dimensions**  $\phi 152 \times 62.2$ mm

**Connector** TNC female

**Weight** ≤500g

**Mounting** BSW5/8"-11 screw, 12-14mm

## ENVIRONMENTAL

### Temperature

Operating -40°C to +85°C

Storage -55°C to +85°C

**Humidity** 95% non-condensing

**Water/Dust Resistance** IP67

**Regulatory Compliance** FCC CE RoHS

For the most recent details of this product:

<http://en.harxon.com/products-detail.php?Prolid=90>

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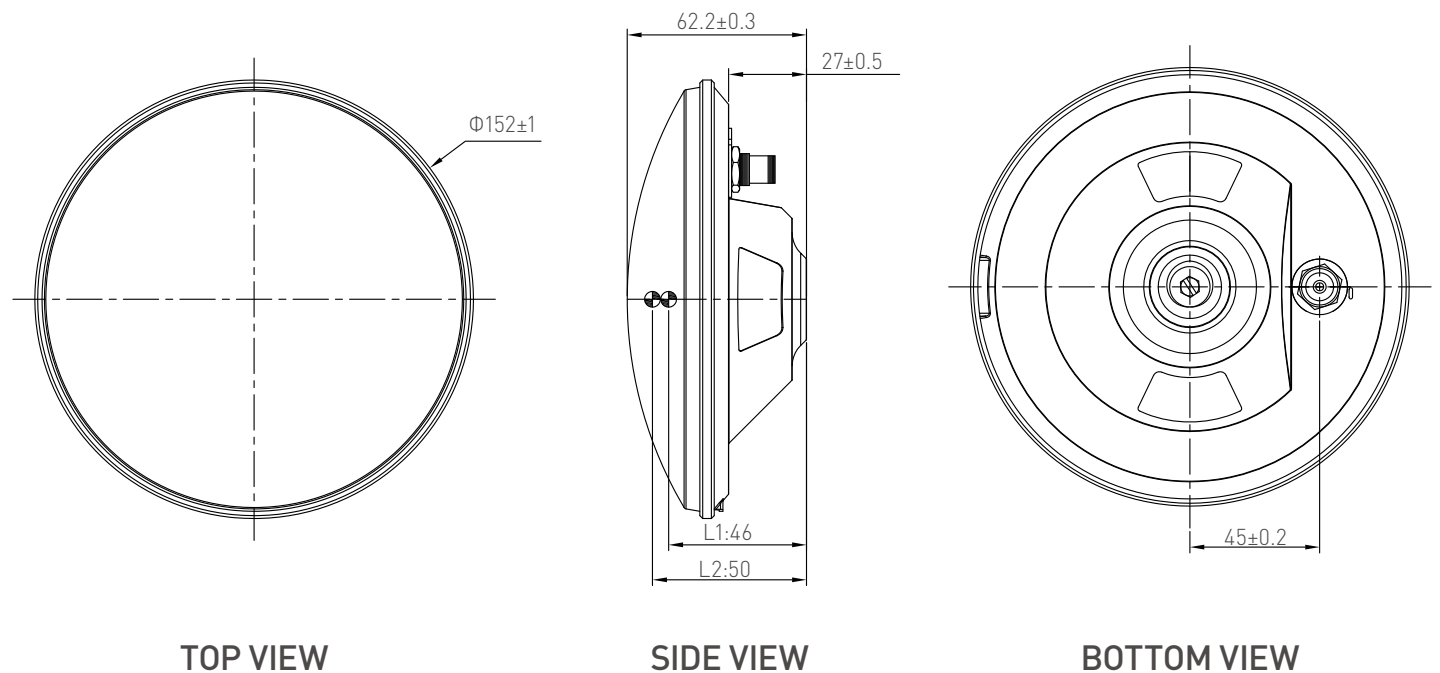
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## Structure& Phase Center Drawing (mm)



Undeclared tolerance:  $\pm 0.3$ mm