

GNSS Antenna GPS500

DUAL-BAND, HIGH PERFORMANCE MINI-SURVEY ANTENNA

KEY FEATURES

- Supports 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
- Low noise, 40 dB pre-amplifier
- 3.3 to 12 V supply voltage
- IP67 ruggedized protection

HIGH PHASE CENTER STABILITY

GPS500 features a multi-point feeding design to achieve greater phase center stability. It effectively improves measurement accuracy and provides a better RTK solution. 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 autonomous vehicles, construction, agricultural equipment, field base stations and 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, to provide stability and reliability of GNSS signals. It also effectively avoids the dangers of disconnection when receivers are operated under complex electromagnetic environments such as a communication tower and in busy urban areas.

SMALL FORM FACTOR

This lightweight and small sized antenna can lighten the loads of small unmanned vehicles. A standard TNC female connector provides reliable and easy integration. Its IP67 ruggedized design protects it from dust and water.



TECHNICAL SPECIFICATIONS

Performance

Signals Received

GPS	L1/L2
GLONASS	L1/L2
Galileo	E1/E5b(1192-1229.64 MHz)
BeiDou	B1/B2/ B3
QZSS	L1/L2
SBAS	L1

Nominal Impedance 50 ohm

Polarization RHCP

Axial Ratio ≤ 3 dB

Gain at Zenith

1205-1278 MHz 5.5 dBi (maximum)

1559-1615 MHz 5.5 dBi (maximum)

LNA Gain 40 dB (typical)

Noise Figure ≤ 2.0 dB

Output/Input VSWR ≤ 2.0

Operation Voltage +3.3 to +12V DC

Operation Current 45 mA (maximum)

Group Delay Ripple ≤ 5 ns

Mechanical

Dimension $\varnothing 152 \times 62.2$ mm

Connector TNC Female

Weight 440 g

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

Environmental

Temperature

Storage -55 °C to +85 °C

Operating -40 °C to +85 °C

Humidity 95% non-condensing

Water/Dust Resistance IP67

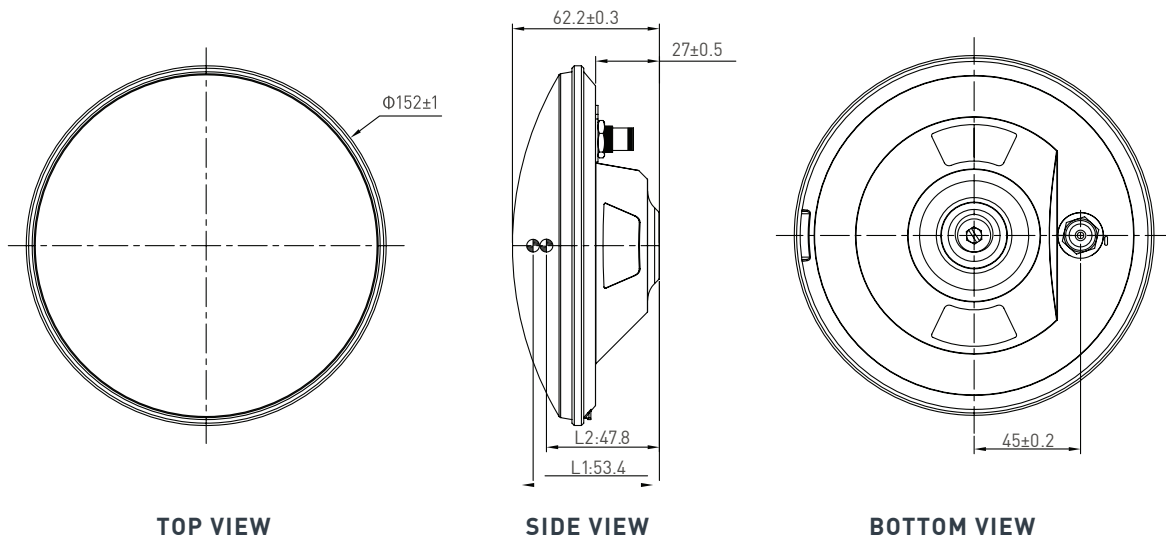
Compliance FCC CE RoHS REACH

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ANTENNA STRUCTURE AND PHASE CENTERS DRAWING (DIMENSIONS IN MM)



Undeclared tolerance: ± 0.2 mm

Specifications subject to change without notice.