

Survey GNSS Antenna HX-CSX633A

Harxon
a *BDStar* company

HIGH PRECISION GNSS ANTENNA FOR
AGRICULTURAL VEHICLES, SMALL
ROBOTS AND SURVEYING APPLICATIONS



RUGGEDIZED HOUSING, EASY TO INSTALL

HX-CSX633A is designed with brand new structure, enabling easy and flexible installations (magnetic mount, screws mount and pole mount) for many high-precision applications, including agricultural vehicles, small robots and surveying applications. It is built into a compact and ruggedized housing with IP67 rating to protect from dust, rain and sunlight, it can withstand a certain amount of shock and vibration, providing reliable performance even in harsh environments.

HIGH PHASE CENTER STABILITY

HX-CSX633A features a multi-point feeding design to achieve greater phase center stability. It effectively improves measurement accuracy and provides better positioning solutions.

TRACKING IN CHALLENGING ENVIRONMENTS

The ability to receive low elevation signals with high gain and wide beam width makes HX-CSX633A an excellent choice for tracking visible satellites in tough environments, providing the positioning solutions with precision and reliable data. It can be widely used in challenging conditions where high precision is needed, such as obstructed environments of forest or construction.

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 danger when receivers are operated under complex electro magnetic environments such as communication base station applications or urban area.

KEY FEATURES

- Support GPS, GLONASS, GALILEO, BDS, QZSS, IRNSS and SBAS signal reception
- Stable phase center guarantees the accuracy of positioning within millimeter-level
- Strong anti-interference ability to endure the challenging operating environments
- Ruggedized housing, flexible installation options, IP67 Rating waterproof



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PERFORMANCE

Signal Received

| | |
|---------|-------------------------|
| GPS | L1/L2/L5 |
| BDS | B1I/B2I/B3I/B1C/B2a/B2b |
| GLONASS | L1/L2/L3 |
| GALILEO | E1/E5a/E5b/E6 |
| QZSS | L1/L2/L5/L6 |
| IRNSS | L5 |
| SBAS | L1/L5 |
| L-Band | |

Nominal Impedance 50Ω

Polarization RHCP

Axial Ratio ≤3dB

Azimuth Coverage 360°

Output VSWR ≤2.0

Gain at Zenith 5.5dBi

Phase Center Error ±2mm

LNA

LNA Gain L2: 40±2dB

L1: 38±2dB

Noise Figure ≤2dB

Output VSWR ≤2.0

Passband Ripple ±2dB

Operation Voltage +3.3~+12VDC

Operation Current ≤45mA

Group Delay Ripple ≤5ns

MECHANICAL

Dimensions Φ152*57.7mm

Connector TNC-K

Weight ≤500g

Mounting

Magnetic mount

3 x M5 screws mount

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

ENVIRONMENTAL

Operating Temperature -40°C to +85°C

Storage Temperature -55°C to +85°C

Humidity 95% non-condensing

Shock

MIL-STD-810-H <516.8 4.6.4> Fragility Unpack-aged Handling 1.5m (5 ft) concrete

Vibration

MIL-STD-810-H <514.8 2.2.5> Truck/trailer

General Exposure

Water/Dust Resistance IP67

EMC (RF Input Static)

Connected: 8KV, Air: 15KV, 10 times

Regulatory Compliance CE FCC ROHS

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Version 1 Specifications subject to change without notice.

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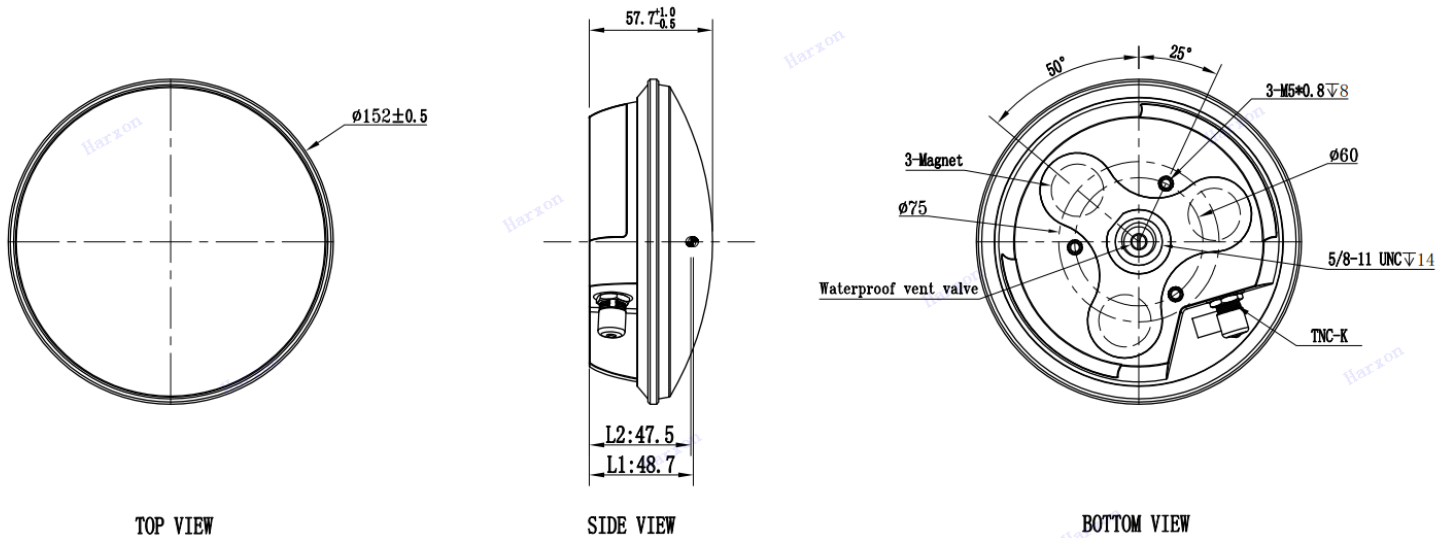
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Structure & Phase Center Drawing (mm)



Undeclared tolerance: ± 0.3 mm

Product Label

The content of the label is shown as below. The S/N code needs to be written according to the program file and the actual situation. The following figures are only for illustration.

Label 1: Special-shaped label, size $\phi 109.8 \times T 0.4$ mm

Label 2: size 23×9 mm

