



Aviation Antenna HX-CAX601A

Harxon
a *BDStar* company

HIGH PRECISION COMPACT GNSS ANTENNA FOR AVIATION



HIGH PHASE CENTER STABILITY

HX-CAX601A features a multi-point feeding design to achieve greater phase center stability. It effectively improves measurement accuracy and provides better positioning solution.

TRACKING IN CHALLENGING ENVIRONMENTS

The ability to receive low elevation signals with high gain and wide beam width makes HX-CAX601A a suitable choice for tracking visible satellites and provide stable and precision GNSS data under different flight attitudes.

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 being interfered by wireless communication systems, for example power grid, communication base station or radio modem applications.

SMALL SIZE WITH RUGGEDIZED STRUCTURE

The dimension of HX-CAX601A is only 90*27.5mm (without connector) with a light weight of 150 gram, which makes it ideal to be placed over the professional drones, unmanned vessels or where high precision operations are needed. The IP67 ruggedized cover can protect the antenna from dust and water, furthermore ensure long-time outdoor operation due to its patented waterproof and breathable design.

KEY FEATURES

- Support GPS, Glonass, Galileo, Beidou, 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
- Small form factor with IP67 ruggedized structure



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PERFORMANCE

Signal Received

| | |
|---------|-----------------|
| GPS | L1/L2/L5/L-Band |
| GLONASS | L1/L2/L3 |
| GALILEO | E1/E5a/E5b/E6 |
| BDS | B1/B2/B3 |
| QZSS | L1/L2/L5/L6 |
| IRNSS | L5 |
| SBAS | L1/L5 |

Nominal Impedance 50Ω

Polarization RHCP

Axial Ratio <3dB

Gain at Zenith (90°)

| | |
|--------------|---------------|
| 1164-1300MHz | 3dBi(maximum) |
| 1525-1615MHz | 4dBi(maximum) |

LNA Gain 36dB(typical)

Noise Figure <2dB

Output/Input VSWR <2.0

Operation Voltage +3.3VDC to +12VDC

Operation Current 45mA(maximum)

Group Delay Ripple <5ns

MECHANICAL

Dimensions φ90*27.5mm

Connector TNC female

Weight ≤150g

Mounting 4 M4 screws installation

ENVIRONMENTAL

Temperature

| | |
|-----------|----------------|
| Operating | -40°C to +85°C |
| Storage | -55°C to +85°C |

Humidity 95% non-condensing

Water/Dust Resistance IP67

Regulatory Compliance CE, FCC, RoHS, REACH

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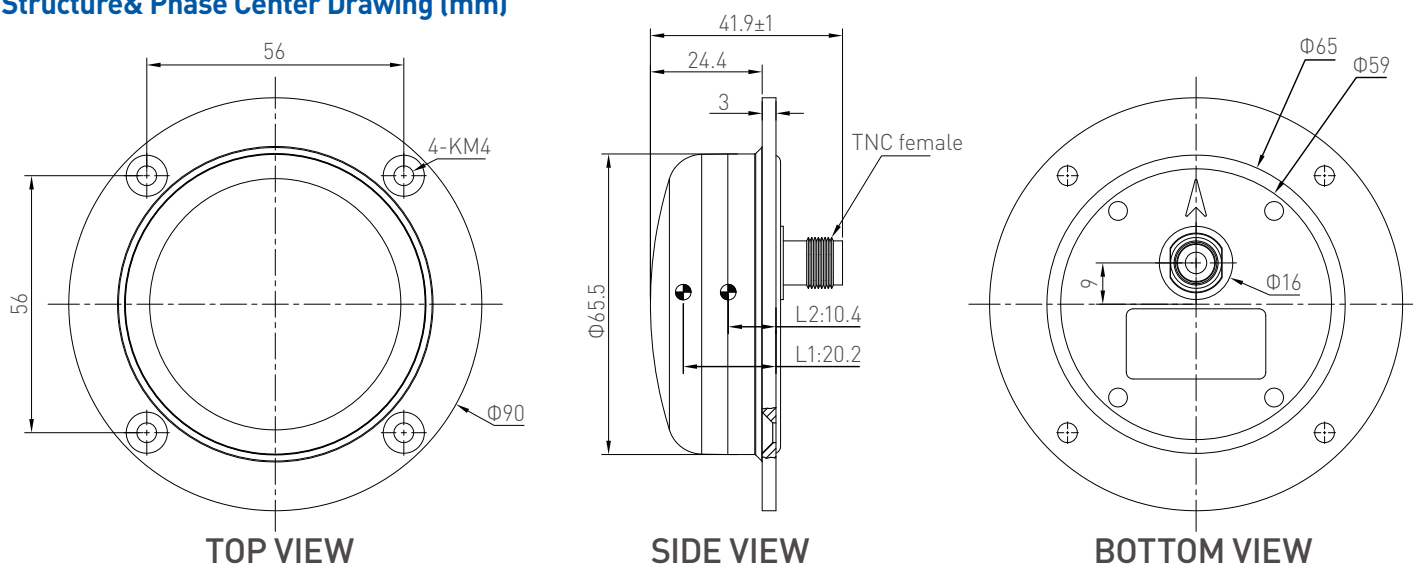
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Structure & Phase Center Drawing (mm)



Undeclared tolerance: ±0.3mm

