# Helix Antenna HX-CH3602A

Harxon Patented QHA① Technology Inside

Harxon
a BDStar company

## SMALL AND LIGHT ANTENNA WITH QHA TECHNOLOGY FOR UAV



### HARXON QHA TECHNOLOGY

Harxon's QHA technology ensures HX-CH3602A stable performance of wide-angle circular polarization (WACP), and small antenna phase center deviation (PCV), which ensures a precise positioning accuracy.

### TRACKING IN CHALLENGING ENVIRONMENTS

HX-CH3602A is able to track visible satellites under challenging conditions, providing the positioning solutions with precision and reliable data. It can be widely used in plant protection, tree lines, also for UAV power patrol, GIS surveying where high precision operations are needed.

### STRONG ANTI-INTERFERENCE PERFORMANCE

The antenna LNA features 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 UAVs are operated under tower and electric power patrol.

### SMALL SIZE AND LIGHT WEIGHT

The light weight and small size HX-CH3602A antenna can lighten the loads of UAVs, as well as a standard SMA male 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 harsh operating environments
- 25g light weight for lower power consumption
- IP67 ruggedized protection

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## PERFORMANCE

| | |
|---|---|
| **Signal Received** | |
| GPS | L1 |
| GLONASS | L1 |
| GALILEO | E1 |
| BDS | B1 |
| QZSS | L1 |
| SBAS | L1 |
| **Nominal Impedance** | 50Ω |
| **Polarization** | RHCP |
| **Axial Ratio** | ≤3dB |
| **Gain at Zenith (90°)** | |
| 1559-1610MHz | 2.5dBi(maximum) |
| **LNA Gain** | 33dB(typical) |
| **Noise Figure** | ≤1.5dB |
| **Output/Input VSWR** | ≤2.0 |
| **Operation Voltage** | +3.3 to + 12VDC |
| **Operation Current** | 35mA(maximum) |
| **Phase Center Deviation(PCV)** | ±3mm |
| **Group Delay Ripple** | <15ns |

## MECHANICAL

| | |
|---|---|
| **Dimensions** | ¢27.5*59mm |
| **Connector** | SMA male |
| **Weight** | ≤25g |
| **Mounting** | customers design own installation |

## ENVIRONMENTAL

| | |
|---|---|
| **Temperature** | |
| Operating | -40℃ to +70℃ |
| Storage | -40℃ to +70℃ |
| **Humidity** | 95% non-condensing |
| **Water/Dust Resistance** | IP67② |
| **Regulatory Compliance** | CE, RoHS |

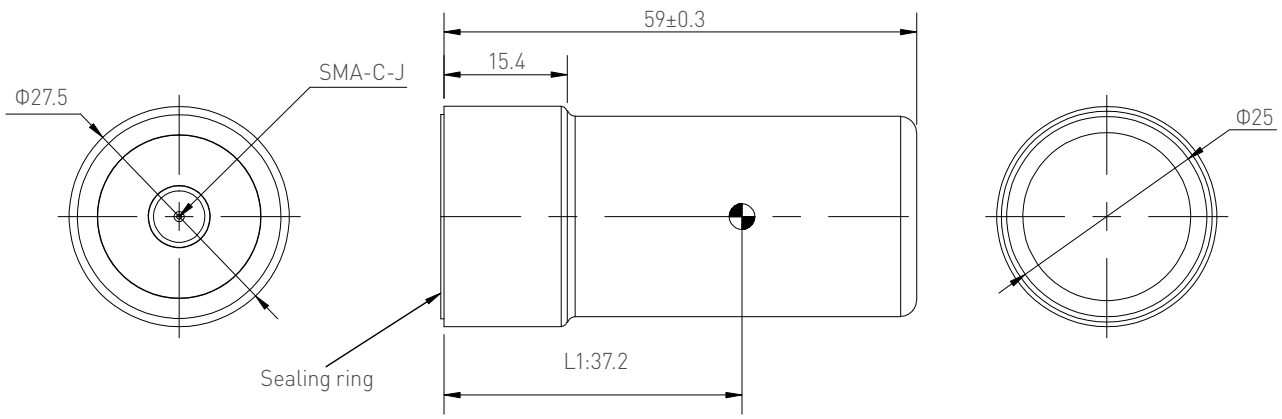
1.QHA：quadrifilar helix antenna
2. Outside the bottom seal ring

For the most recent details of this product:
http://en.harxon.com/products-detail.php?ProId=116

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## Structure& Phase Center Drawing (mm)




TOP VIEW SIDE VIEW BOTTOM VIEW

Undeclared tolerance:±0.3mm

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