

# Helix Antenna HX-CH6601A

Harxon Patented D-QHA<sup>①</sup> Technology Inside

**Harxon**  
a *BDStar* company

SMALL AND LIGHT ANTENNA WITH  
INNOVATIVE D-QHA TECHNOLOGY  
FOR UAV



## ADVANCED D-QHA TECHNOLOGY

Harxon's D-QHA technology ensures HX-CH6601A more stable performance of wide-angle circular polarization (WACP), and smaller antenna phase center deviation (PCV), which ensures a more precise positioning accuracy.

## TRACKING IN CHALLENGING ENVIRONMENTS

HX-CH6601A is able to track visible satellites under challenging conditions, providing the positioning solutions with high precision and reliable data. Its stable phase center guarantees the accuracy of positioning within millimeter level, that 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 dangerous when UAVs are operated under tower and electric power patrol.

## SMALL SIZE AND LIGHT WEIGHT

The light weight and small size HX-CH6601A 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

<b>Signal Received</b>	
GPS	L1/L2
GLONASS	L1/L2
GALILEO	E1
BDS	B1/B2
QZSS	L1/L2
SBAS	L1
<b>Nominal Impedance</b>	50Ω
<b>Polarization</b>	RHCP
<b>Axial Ratio</b>	≤3dB
<b>Gain at Zenith (90°)</b>	
1217-1257MHz	2dBi(maximum)
1559-1610MHz	2.5dBi(maximum)
<b>LNA Gain</b>	33dB(typical)
<b>Noise Figure</b>	≤1.5dB
<b>Output/Input VSWR</b>	≤2.0
<b>Operation Voltage</b>	+3.3 to +12VDC

<b>Operation Current</b>	55mA(maximum)
<b>Group Delay Ripple</b>	<15ns

## MECHANICAL

<b>Dimensions</b>	φ27.5*59mm
<b>Connector</b>	SMA male
<b>Weight</b>	≤25g
<b>Mounting</b>	customers design own installation

## ENVIRONMENTAL

<b>Temperature</b>	
Operating	-40°C to +70°C
Storage	-40°C to +70°C
<b>Humidity</b>	95% non-condensing
<b>Water/Dust Resistance</b>	IP67 <sup>②</sup>
<b>Regulatory Compliance</b>	CE, RoHS, REACH

1.D-QHA: Dual Quadrifilar Helix Antenna  
2.Outside the bottom seal ring

For the most recent details of this product:  
<http://en.harxon.com/products-detail.php?Prolid=103>

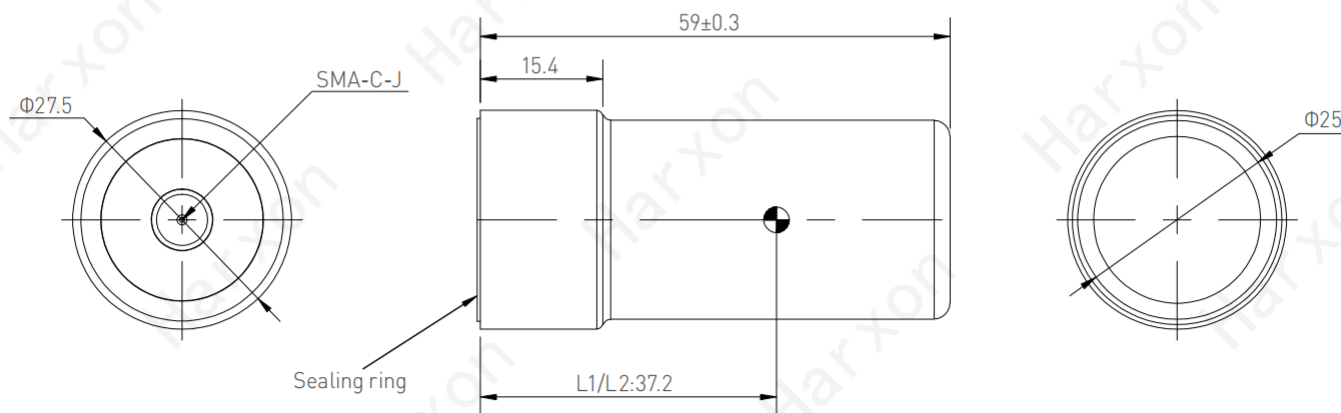
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## Structure& Phase Center Drawing (mm)



TOP VIEW

SIDE VIEW

BOTTOM VIEW

Undeclared tolerance:±0.3mm