

D-Helix™ Antenna HX-CH4601A

Harxon Patented D-QHA^① 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-CH4601A 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-CH4601A 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 danger when UAVs are operated under tower and electric power patrol.

SMALL SIZE AND LIGHT WEIGHT

The light weight and small size HX-CH4601A 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, 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/L2
GLONASS	L1/L2
GALILEO	E1
QZSS	L1/L2
SBAS	L1

Nominal Impedance 50Ω

Polarization RHCP

Axial Ratio <3dB

Gain at Zenith (90°)

1217-1257MHz	2dBi(maximum)
1565-1610MHz	2.5dBi(maximum)

LNA Gain 33dB(typical)

Noise Figure <1.5dB

Output/Input VSWR <2.0

Operation Voltage +3.3 to +12VDC

Operation Current 55mA(maximum)

Group Delay Ripple <15ns

MECHANICAL

Dimensions $\Phi 27.5 \times 59$ mm

Connector SMA male

Weight <25g

Mounting customers design own installation

ENVIRONMENTAL

Temperature

Operating -40°C to +70°C

Storage -40°C to +70°C

Humidity 95% non-condensing

Water/Dust Resistance IP67²⁾

Regulatory Compliance CE, RoHS

For the most recent details of this product:

<http://en.harxon.com/products-detail.php?Prolid=36>

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Version 2 Specifications subject to change without notice.

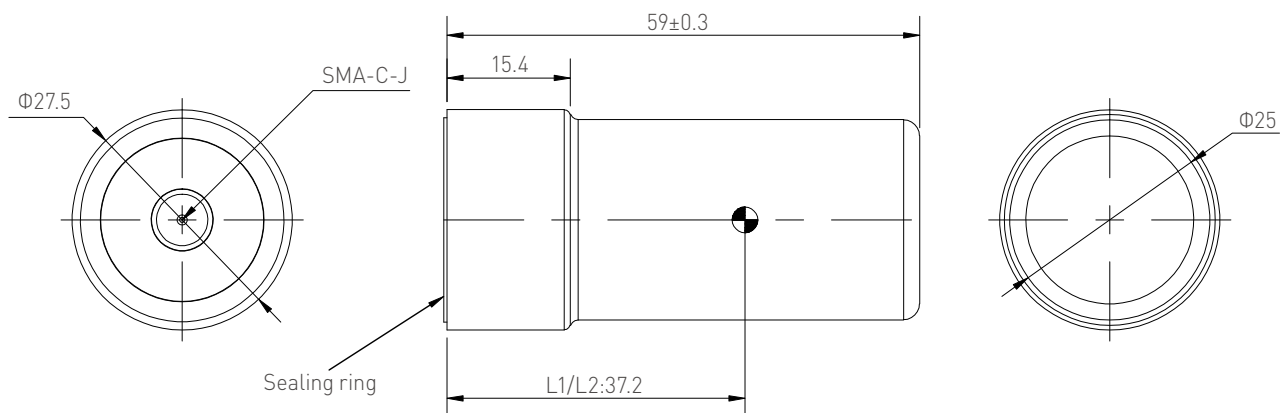
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1.D-QHA: Dual Quadrifilar Helix Antenna
2.Outside the bottom seal ring

Structure & Phase Center Drawing (mm)



TOP VIEW

SIDE VIEW

BOTTOM VIEW

Undeclared tolerance: ± 0.3 mm