

# D-Helix™ Antenna HX-CH7603A

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

**Harxon**  
a *BDStar* company

## INNOVATIVE PATENTED D-QHA TECHNOLOGY WITH SUPERIOR TRACKING PERFORMANCE



### ADVANCED D-QHA TECHNOLOGY

Harxon's D-QHA technology significantly enhances the low-elevation angle tracking capabilities, it ensures D-Helix™ Antenna 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

D-Helix™ Antenna is able to track any visible satellites under challenging conditions, providing the positioning solutions with higher precision and reliable data.

The ability to track low elevation satellites while maintaining a high gain makes D-Helix™ Antenna an excellent choice for any applications where the sky is partially visible, such as 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 an excellent out-of-band rejection performance, which can suppress the interference of magnetic disturbance, providing the stability and reliability of GNSS signals. Also it effectively avoids disconnection dangerous when UAVs are operated under tower and electric power patrol.

### HARXON'S TOUGHEST PRECISION ANTENNA

D-Helix™ Antenna is the toughest precision antenna Harxon has designed to date, which features the latest low-wind resistance design. Moreover, D-Helix™ Antenna features ultra-durable watertight enclosures, Its IP67 ruggedized design can protect it from dust and water, as well as a standard SMA male connector for easy integration.

### KEY FEATURES

- Support GPS, GLONASS, Beidou signal reception
- D-QHA technology ensures an exceptional low elevation satellite tracking
- Stable phase center guarantees the accuracy of positioning within millimeter-level
- Strong anti-interference ability to endure the harshest operating environments
- 38g light weight for lower power consumption

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## PERFORMANCE

### Signal Received

GPS	L1, L2
GLONASS	L1, L2
BDS	B1, B2, B3

**Nominal Impedance** 50Ω

**Polarization** RHCP

**Axial Ratio** ≤3dB

### Gain at Zenith (90°)

1205-1278MHz	4.2dBi(maximum)
1559-1610MHz	3.8dBi(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** φ40\*75.2mm

**Connector** SMA male

**Weight** ≤38g

**Mounting** 3\*3/32" -48\*DP6mm (UNC)

## ENVIRONMENTAL

### Temperature

Operating -40C to +70C

Storage -40C to +70C

**Humidity** 95% non-condensing

**Water/Dust Resistance** IP67<sup>2</sup>

For the most recent details of this product:

<http://en.harxon.com/products-detail.php?Prolid=104>

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**Version 1** Specifications subject to change without notice.

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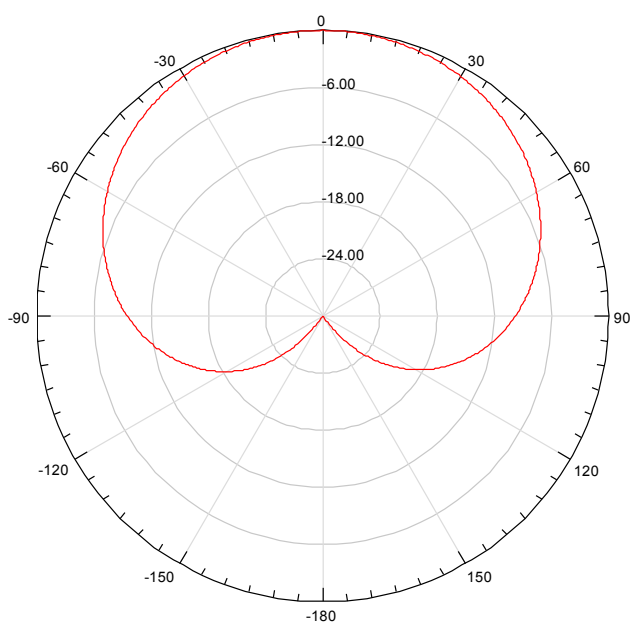
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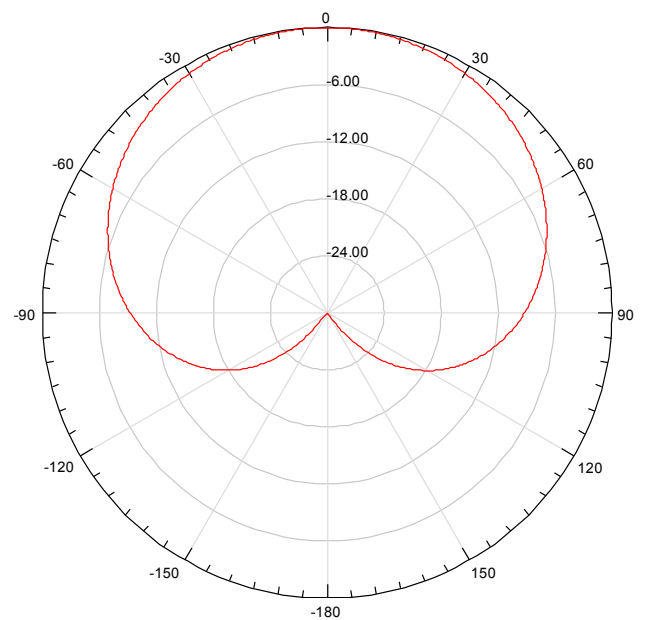
March 2018

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

## NORMALIZED RADIATION PATTERN



1559MHz~1610MHz



1205MHz~1278MHz