

D-Helix™ Antenna HX-CHX600A

Harxon Patented D-QHA¹ Technology Inside

Harxon
a *BDStar* company

INNOVATIVE PATENTED D-QHA TECHNOLOGY WITH SUPERIOR TRACKING PERFORMANCE



MULTI-CONSTELLATION WITH L-BAND SIGNALS RECEPTION

The Harxon D-Helix™ Antenna is a patented D-QHA multi-constellation antenna, it ensures excellent reception of GPS, Galileo, Beidou, GLONASS as well as L-Band signals in one antenna.

ADVANCED D-QHA TECHNOLOGY

Harxon's D-QHA technology ensures more stable performance of wide-angle circular polarization (WACP), and smaller antenna phase center deviation (PCV), which ensures a more precise positioning accuracy. The innovative technology significantly enhances the low-elevation angle tracking capabilities, extending operation to the entire GNSS constellation.

TRACKING IN CHALLENGING ENVIRONMENTS

The 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 high gain makes D-Helix™ Antenna an excellent choice for any applications where the sky is partially visible, such as plant protection, tree lines, or for UAV power patrol, GIS surveying where high precision is needed.

STRONG ANTI-INTERFERENCE PERFORMANCE

The antenna LNA features an excellent out-of-band rejection performance, which can suppress the electro magnetic interference, providing the stability and reliability of GNSS signals. Also it effectively avoids disconnection dangerous when UAVs are operated under tower and electric power lines.

HARXON'S TOUGHEST PRECISION ANTENNA

The D-Helix™ Antenna is the toughest precision antenna Harxon has designed to date, which features the latest low-wind resistance design. Moreover, the D-Helix™ Antenna features an ultra-durable watertight enclosure, its IP67 ruggedized design can protect it from dust and water.

KEY FEATURES

- Support GPS, GLONASS, Beidou, Galileo and L-band signal reception
- D-QHA technology ensures 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
- 45g light weight

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PERFORMANCE

Signal Received

GPS	L1, L2, L5, L-Band
GLONASS	L1, L2
GALILEO	E1, E5A, E5B
BDS	B1, B2, B3

Nominal Impedance 50Ω

Polarization RHCP

Axial Ratio ≤3dB

Gain RHCP (maximum)

1166-1278MHz	4.2dBi (@ Zenith)
	2.0dBi (@45° elevation)
	0.2dBi (@30° elevation)
1520-1610MHz	3.8dBi (@ Zenith)
	1.8dBi (@60° elevation)
	0.7dBi (@45° elevation)
L-Band	2.5dBi (@ Zenith)
	0.4dBi (@60° elevation)
	-0.5dBi (@45° elevation)

LNA Gain 33dB(typical)

Noise Figure ≤1.5dB

Output/Input VSWR ≤2.0

Out of band rejection (±100MHz) ≥30dB

Operation Voltage +3.3 to +12VDC

Operation Current 55mA(maximum)

Group Delay Ripple <15ns

MECHANICAL

Dimensions φ40*82.6mm

Connector SMA male

Weight ≤45g

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

Regulatory Compliance FCC CE RoHS REACH

For the most recent details of this product:

<http://en.harxon.com/products-detail.php?Proid=160>

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Version 2 Specifications subject to change without notice.

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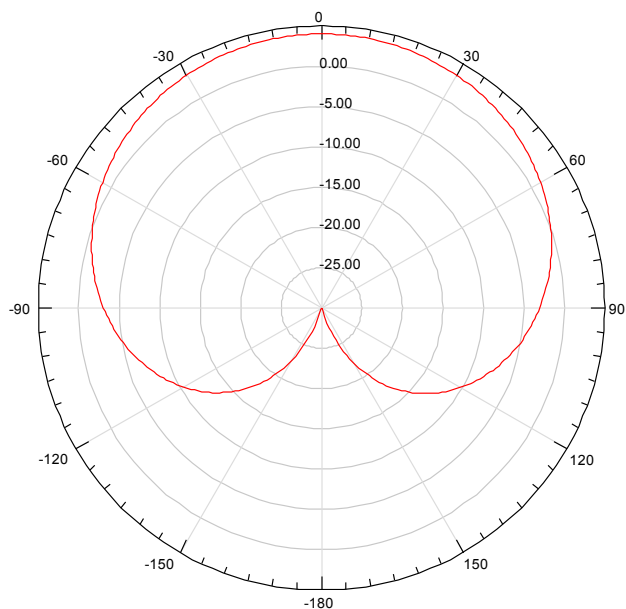
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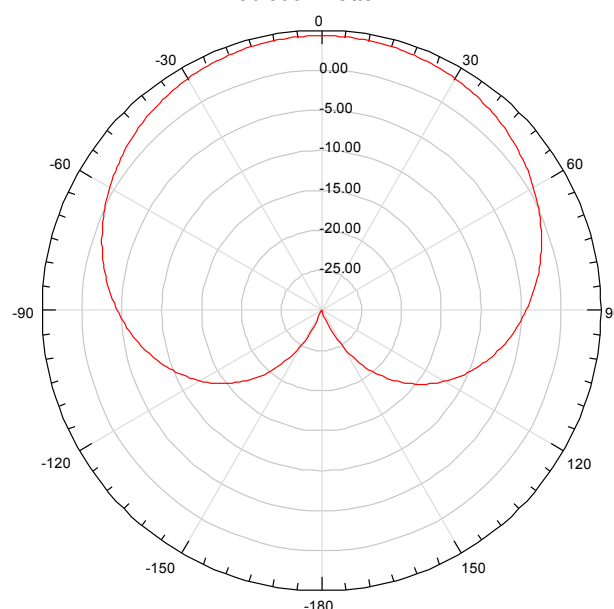
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1.D-QHA: Dual Quadrifilar Helix Antenna

NORMALIZED RADIATION PATTERN



1520MHz~1610MHz



1166MHz~1278MHz