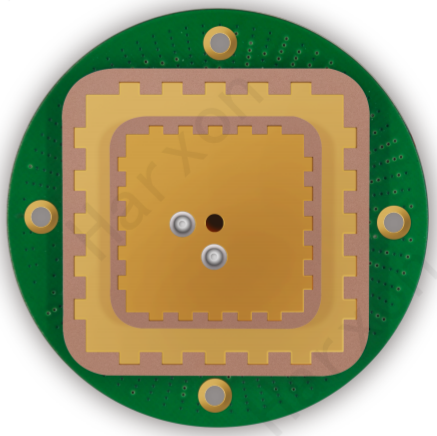
OEM GNSS Antenna HX-CUX003A

Harxon
a BDStar company

HX-CUX003A Embedded Full Frequency GNSS Antenna with L-Band

The embedded full frequency GNSS antenna HX-CUX003A is a high gain, low profile and compact active UAV antenna that provides reliable and consistent positioning services for high dynamic applications such as UAVs and precision agriculture. Its small form factor, delicate design, high sensitivity and low power consumption makes it ideal to be integrated into UAVs that are applied to surveillance, infrastructure inspection, public security, and remote sensing and precision agriculture.



CONSISTENT PERFORMANCE ACROSS FULL FREQUENCY BANDS

The Harxon HX-CUX003A offers full support for superior satellite signals tracking, including GPS, GLONASS, Galileo and BeiDou, QZSS, IRNSS, SBAS as well as L-Band correction services. It offers a very stable phase center variation with advanced multipoint feeding technology, exceptional low elevation satellite tracking with symmetric radiation patterns, high gain with ultralow signal loss, as well as outstanding wide-angle circular polarization (WACP) ensures excellent positioning accuracy.

SMALL SIZE, LIGHT WEIGHT, AND LOW POWER CONSUMPTION

The HX-CUX003A antenna is ideal for UAV applications due to its compact and light weight design, with dimensions ¢60x16.7mm and weight 60g. The embedded design of the antenna decreases the whole weight of the UAV for an overall reliability against shock and assembly. Customization of cables and connectors of HX-CUX003A is available.

STRONG ANTI-INTERFERENCE PERFORMANCE

The HX-CUX003A antenna equips a robust pre-filtered LNA to minimize de-sensing from high level out-of-band signals, and restraints possible electromagnetic interferences for consistent and reliable GNSS signals. It excels in applications in congested environments such as agriculture, forest, UAV patrolling and GIS that face unwanted signal interference and blockage.

KEY FEATURES

- Comprehensive GNSS support: GPS, GLONASS, Galileo, BeiDou and QZSS, IRNSS, SBAS as well as L-Band correction services
- Centimeter phase center repeatability
- Improved signal filtering and excellent multipath rejection
- Low profile design, light weight

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PERFORMANCE

Signal Received

GPS	L1/L2/L5
GLONASS	L1/L2/L3
GALILEO	E1/E5a/E5b/E6
BDS	B1/B2/B3
QZSS	L1/L2/L5
IRNSS	L5
SBAS	L1/L5
L-Band	

Nominal Impedance	50Ω
Polarization	RHCP
Axial Ratio	⩽3dB
Azimuth Coverage	360°(omni-directional)
Output VSWR	⩽2.0
Peak Gain	2.5dBi

LOW NOISE AMPLIFIER

LNA Gain	36±2dB
Noise Figure	⩽2dB
Output VSWR	⩽2.0
Passband Ripple	±2dB
Operation Voltage	+3.3 to +12VDC
Operation Current	⩽55mA
Differential Propagation Delay	⩽5ns

MECHANICAL

Dimensions	¢60×16.7mm
Connector	MCX-C-JW1.5
Weight	⩽60g
Mounting	4x M2.5 Screws

ENVIRONMENTAL

Temperature

Operating	-40℃ to +85℃
Storage	-55℃ to +85℃
Humidity	95% No-condensing

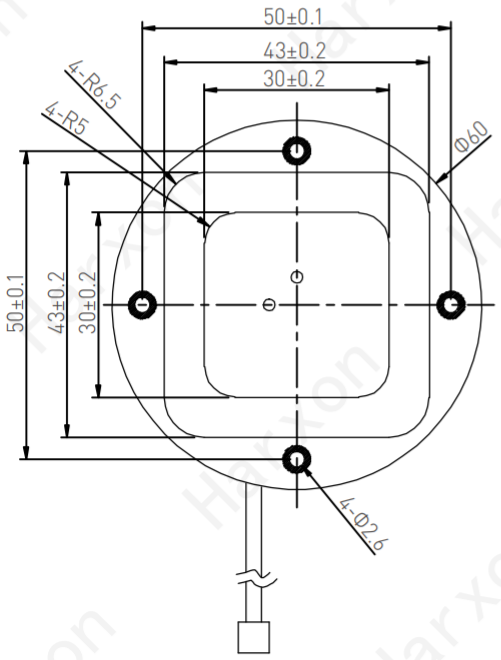
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Version 2 Specifications subject to change without notice.

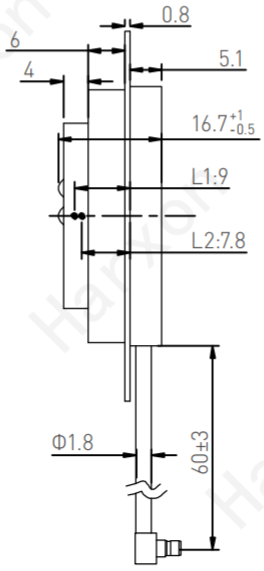
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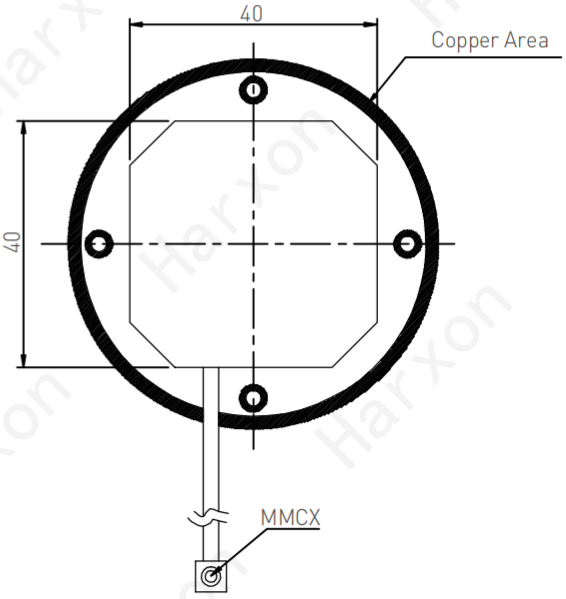
Structure & Phase Center Drawing (mm)



TOP VIEW



SIDE VIEW



BOTTOM VIEW

Undeclared Tolerance:±0.3mm

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