



# Aviation Antenna HX-CA3603A

**Harxon**  
a *BDStar* company

## HIGH PRECISION COMPACT GNSS ANTENNA FOR AVIATION



### HIGH PHASE CENTER STABILITY

HX-CA3603A features a multi-point feeding design to achieve greater phase center stability. It effectively improves measurement accuracy and provides better positioning solution.

### TRACKING IN CHALLENGING ENVIRONMENTS

The ability to receive low elevation signals with high gain and wide beam width makes HX-CA3603A a suitable choice for tracking visible satellites and provide stable and precision GNSS data under different flight attitudes.

### STRONG ANTI-INTERFERENCE PERFORMANCE

The antenna LNA features an 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 receivers are being interfered by wireless communication systems, for example power grid, communication base station or radio modem applications.

### SMALL SIZE WITH RUGGEDIZED STRUCTURE

The dimension of HX-CA3603A is only 90\*36.3mm (without connector) with a light weight of 130 gram, which makes it ideal to be placed over the professional drones, unmanned vessels or where high precision operations are needed. The IP67 ruggedized cover can protect the antenna from dust and water, furthermore ensure long-time outdoor operation due to its patented waterproof and breathable design.

### KEY FEATURES

- Support GPS, Galileo, Glonass, Beidou signal reception
- Stable phase center guarantees the accuracy of positioning within millimeter-level
- Strong anti-interference ability to endure the challenging operating environments
- Small form factor with IP67 ruggedized structure



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## PERFORMANCE

<b>Signal Received</b>	
GPS	L1
Galileo	E1
GLONASS	L1
BDS	B1
<b>Nominal Impedance</b>	50Ω
<b>Polarization</b>	RHCP
<b>Axial Ratio</b>	≤3dB
<b>Gain at Zenith (90°)</b>	
1164-1300MHz	3dBi(maximum)
1525-1615MHz	4dBi(maximum)
<b>LNA Gain</b>	36±2dB(typical)
<b>Noise Figure</b>	≤2dB
<b>Output/Input VSWR</b>	≤2.0
<b>Operation Voltage</b>	+3.3VDC to +12VDC

<b>Operation Current</b>	35mA(maximum)
<b>Group Delay Ripple</b>	≤5ns

## MECHANICAL

<b>Dimensions</b>	φ90*36.3mm
<b>Connector</b>	SMA female
<b>Weight</b>	≤130g
<b>Mounting</b>	4 M4 screws installation

## ENVIRONMENTAL

<b>Temperature</b>	
Operating	-40°C to +85°C
Storage	-55°C to +85°C
<b>Humidity</b>	95% non-condensing
<b>Water/Dust Resistance</b>	IP67
<b>Regulatory Compliance</b>	CE, FCC, RoHS, REACH

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sales@harxon.com

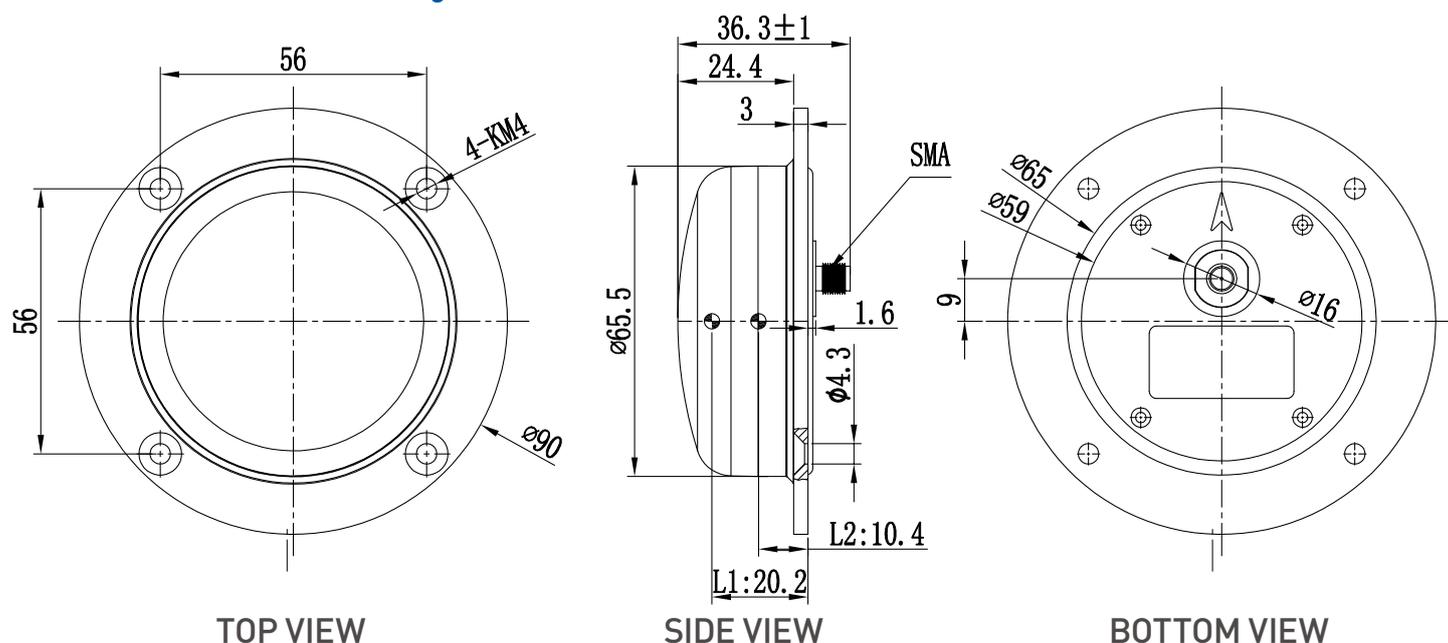
9/F, Block B, Building D3, TCL International  
E City, NO.1001 Zhongshanyuan Road,  
Nanshan District, Shenzhen, China

Tel: +86-755-26989948

Fax: +86-755-26989994

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## Structure& Phase Center Drawing (mm)



Undeclared tolerance:±0.3mm

