

Ruggedized GNSS Antenna HX-CVX600A

Harxon
a *BDStar* company

RELIABLE AND RUGGEDIZED WITH MILLIMETER ACCURACY

The Harxon HX-CVX600A GNSS antenna is designed with ruggedized enclosure that allows the antenna to be used in high shock and vibration environments. HX-CVX600A could provide the millimeter level accuracy with the advanced filtering capabilities and robust signal tracking. It is ideal for all surveying and I-construction machining applications.



CONSISTENT PERFORMANCE ACROSS FULL FREQUENCY BANDS

The Harxon HX-CVX600A offers full support for reliable and consistent satellite signals tracking, including GPS, GLONASS, Galileo and BeiDou, QZSS, IRNSS, SBAS as well as L-Band correction services. Additionally, it exhibits 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.

RUGGEDIZED ENCLOSURE FOR TOUGH ENVIRONMENTS

The HX-CVX600A antenna, with its compact design, is built into a ruggedized IP69K rating housing with independent aerodynamic enclosure to withstand exposure against dust, rain, splash or sunlight. Standard TNC female connector with anti-collision cap design ensures optimal reliability in challenging environment.

STRONG ANTI-INTERFERENCE PERFORMANCE

The HX-CVX600A antenna equips a robust pre-filtered LNA to minimize de-sensing from high level out-of-band signals, and restrains possible electromagnetic interferences, offering strong anti-interference performance for consistent and reliable GNSS signals.

KEY FEATURES

- Comprehensive GNSS support: GPS, GLONASS, Galileo, BeiDou and QZSS, IRNSS, SBAS as well as L-Band correction services
- Millimeter PCV repeatability($\leq 2\text{mm}$)
- Improved signal filtering and excellent multipath rejection
- Ruggedized enclosure for tough environments

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PERFORMANCE

Signal Received

Upper Band	1.525 to 1.615 GHz
Lower Band	1.164 to 1.3GHz GHz
GPS	L1/L2/L5
GLONASS	L1/L2/L3
GALILEO	E1/E5a/E5b/E6
BDS	B1/B2/B3
QZSS	L1/L2/L5/L6
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

5.5dBi

LOW NOISE AMPLIFIER

LNA Gain	40±2dB
Noise Figure	≤2dB
Output VSWR	≤2.0
Passband Ripple	±2dB
Operation Voltage	+3.3 to +18VDC
Operation Current	≤45mA
Differential Propagation Delay	≤5ns

MECHANICAL

Dimensions	Φ150×53mm
Connector	TNC Female
Weight	≤600g
Mounting	
Pole Mount	Coarse threaded 5/8"-11, thread hole depth 10-11mm
Screws Mount	4x M8 screws depth

ENVIRONMENTAL

Temperature

Operating	-45°C to +85°C
Storage	-55°C to +85°C

Humidity

95% no-condensing

Ingress Protection Rating

IP67, IP69K

Vibration

9.8gRMS, 24-2000Hz

Shock

75Gs, 6ms duration, 3 shocks in mutually perpendicular axes

Salt Fog

96h (continuous spray, 5% concentration, 35°C)

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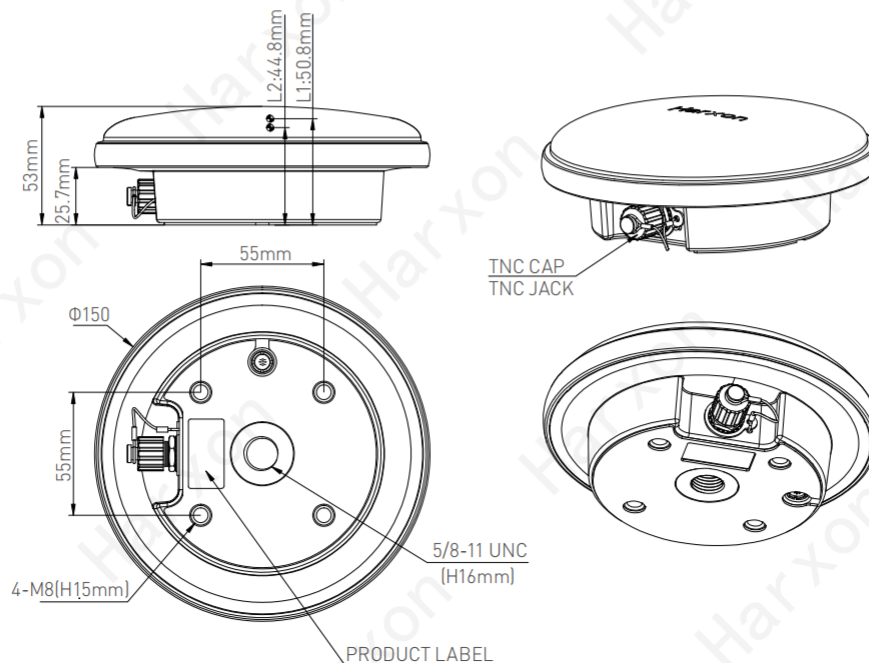
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Structure & Phase Center Drawing (mm)



Undeclared Tolerance: ±0.3mm