Tersus GNSS

AX3706 3D Choke Ring Antenna

Overview

The AX3706 is a 3D choke ring antenna. It can receive GPS, GLONASS, Galileo, BeiDou, as well as L-Band correction service, which can be used in CORS, seismic monitoring, geodetic base station, agriculture applications and atmospheric studies, etc. The AX3706 was calibrated in NGS. Customers can use the antenna for GPS-only or four-constellation navigation applications.

The AX3706 has high gain and wide beam width to ensure that connected GNSS receivers perform well at low elevation angle signals. The phase center of this antenna remains constant as the azimuth and the elevation angles of the satellites change. Signal reception is unaffected by the rotation of the antenna or satellite elevation, so placement and installation of the antenna can be completed with ease.

Key Features

- ✓ Supports multiple constellations and frequencies
  - GPS L1, L2, L5
  - GLONASS L1, L2
  - BeiDou B1, B2, B3
  - Galileo E1, E2, E5ab, E6
  - L-Band
- ✓ 3D structure design realizes excellent multipath rejection and low elevation tracking performance
- ✓ Sub-millimeter phase center repeatability
- ✓ Water and dust-proof design ensures absolute seal of kernel part, capable for long time outdoor operation
- ✓ LNA has high gain which ensures the operation with long cable(100 meter+)

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Technical Specifications

Performance

Signal Tracking:	
GPS GLONASS BeiDou Galileo L-Band	L1, L2, L5 L1, L2 B1, B2, B3 E1, E2, E5ab, E6
Impedance:	50Ω
Polarization:	RHCP
Axial Ratio:	≤3dB
Azimuth Coverage:	360° (Omni-directional)
Peak Gain:	7.0dBi
Phase Center Repeatability:	±1mm

Mechanical

Size:	φ 379x312mm
Connector:	TNC Female
Weight:	9.5kg

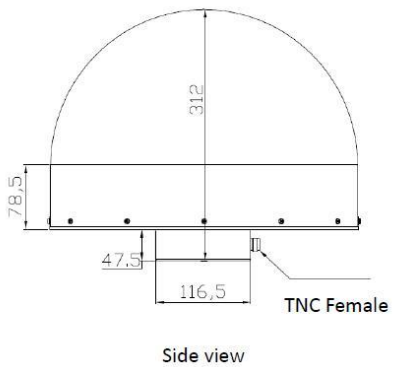
LNA

LNA Gain:	50±2dB (Typical)
Noise Figure:	≤2dB
Output VSWR:	≤2.0
Operation Voltage:	+3V~+18V DC
Operation Current:	≤ 60mA
Group Delay Ripple:	≤ 5ns

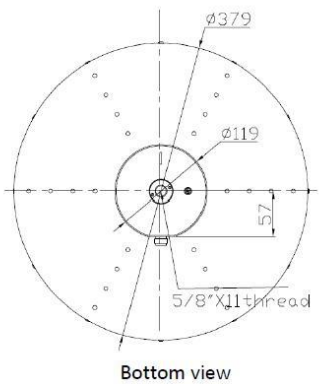
Environmental

Operating Temperature:	-45℃ ~ +85℃
Storage Temperature:	-55℃ ~ +85℃
Humidity:	95% not condensing

Structure Overview/mm



Side view



Bottom view

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