

## High-Accuracy GNSS Active Antenna

# AR170

Survey grade waterproof antenna resists unwanted signal interference, designed to support ultra-high accuracy for land and marine applications.



Model : AR170  
V1.0 2017-04-07

### Features

- Substantial and environmental-resistance structure
- Proprietary antenna design provides the flexibility to reach a range of operational goals
- IP67 grade waterproof
- Supports GPS, GLONASS, Galileo, and BeiDou systems
- Multi-Constellation and Single-Frequency for faster initialization

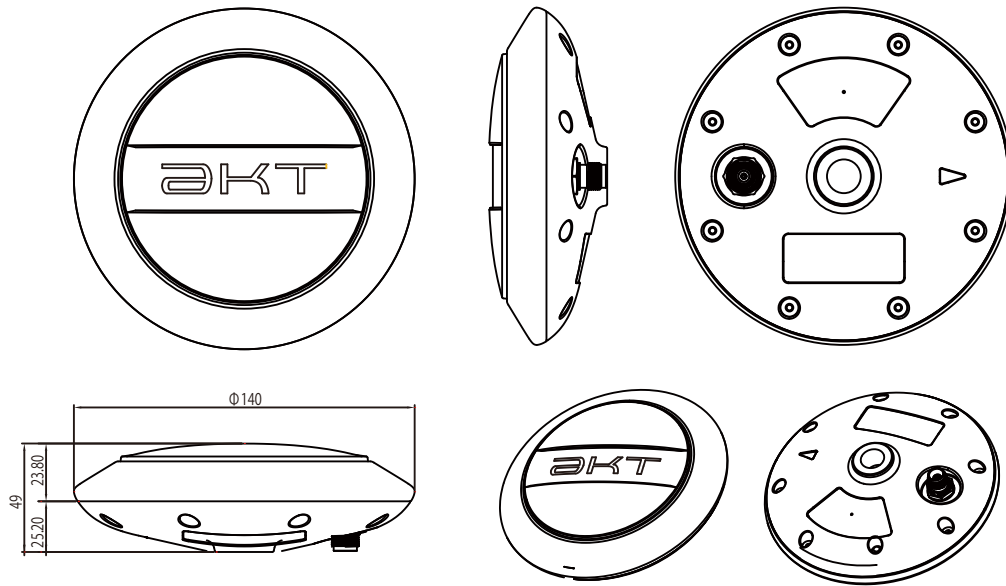
### Overview

AR170 integrates high performance GPS ceramic patch antenna and unique filtering features with innovative proprietary circuit design and advanced double filters, which reduce interference from out-of-band signals. The design of the ceramic antenna element also helps to reduce the multipath effect. With especially-designed rugged/IP67 water ingress enclosure, the GNSS antenna is suitable for installing in harsh environment. The high-performance active antenna is compatible with most GPS/GNSS receivers with 3~5V DC input power. AR-170 receives all existing public GNSS signals, including GPS, GLONASS, Galileo and BeiDou, which provides better positioning accuracy for a variety of GNSS applications such as AVL, vehicle navigation, aviation, and military.

### Applications

Geospatial Surveys/ AVL/ Single frequencies RTK positioning/ Vehicle Tracking/ Security Surveillance/ Precise Guidance/ Machine Control

## Mechanical Diagram



## Specification

### Electrical Specifications

Satellite Frequency	1559-1610 MHz
GNSS Reception	GPS L1、GLONASS G1、BeiDou B1、Galileo E1、SBAS、L-band、QZSS
Polarization	R.H.C.P.(Right Hand Circular Polarization)
Absolute Gain @ Zenith	+4 dBic Typ.
Axial Ratio	3.0 dB typical
Output VSWR	1.5 dB typical
Bandwidth@ Return Loss	$\leq -10\text{dB} \geq 51 \text{ MHz}$
LNA Gain	31 dB Typ
Noise Figure	2.4 dB Max.
Supply Voltages	3~5V DC
Current Consumption	6.9 mA Typ.
Output VSWR	2.0 Max.
Output Impedance	50 ohm

### Environmental Conditions

Operation temperature	-40°C~+ 80°C
Storage temperature	-40°C~+ 85°C
Relative Humidity	+40±2°C、90~95%R.H
Enclosure Rating	IP67

### Physical Condition

Dimension	Diameter : 140mm High : 49mm
Weight	345.4g
Connector	TNC (Straight Female)
Mount	5/8 inch female thread

\*Specifications and appearance are subject to change without notice.