

**CHCN**AV

# AT311T

**RUGGED GNSS  
ANTENNA**



**SURVEYING  
& ENGINEERING**

# RUGGED GNSS ANTENNA ENHANCED ACCURACY

The AT311T rugged GNSS antenna is designed for demanding environments subject to shocks and vibrations. With advanced filtering and robust signal tracking capabilities, the AT311T provides survey-grade GNSS signal to enhance your position solution in marine, machine control, precision agriculture and industrial automation applications.

## MULTI-CONSTELLATION TRACKING

The AT311T supports all current and upcoming GNSS signals including GPS, GLONASS, BeiDou, Galileo, QZSS, IRNSS, SBAS and L-Band.

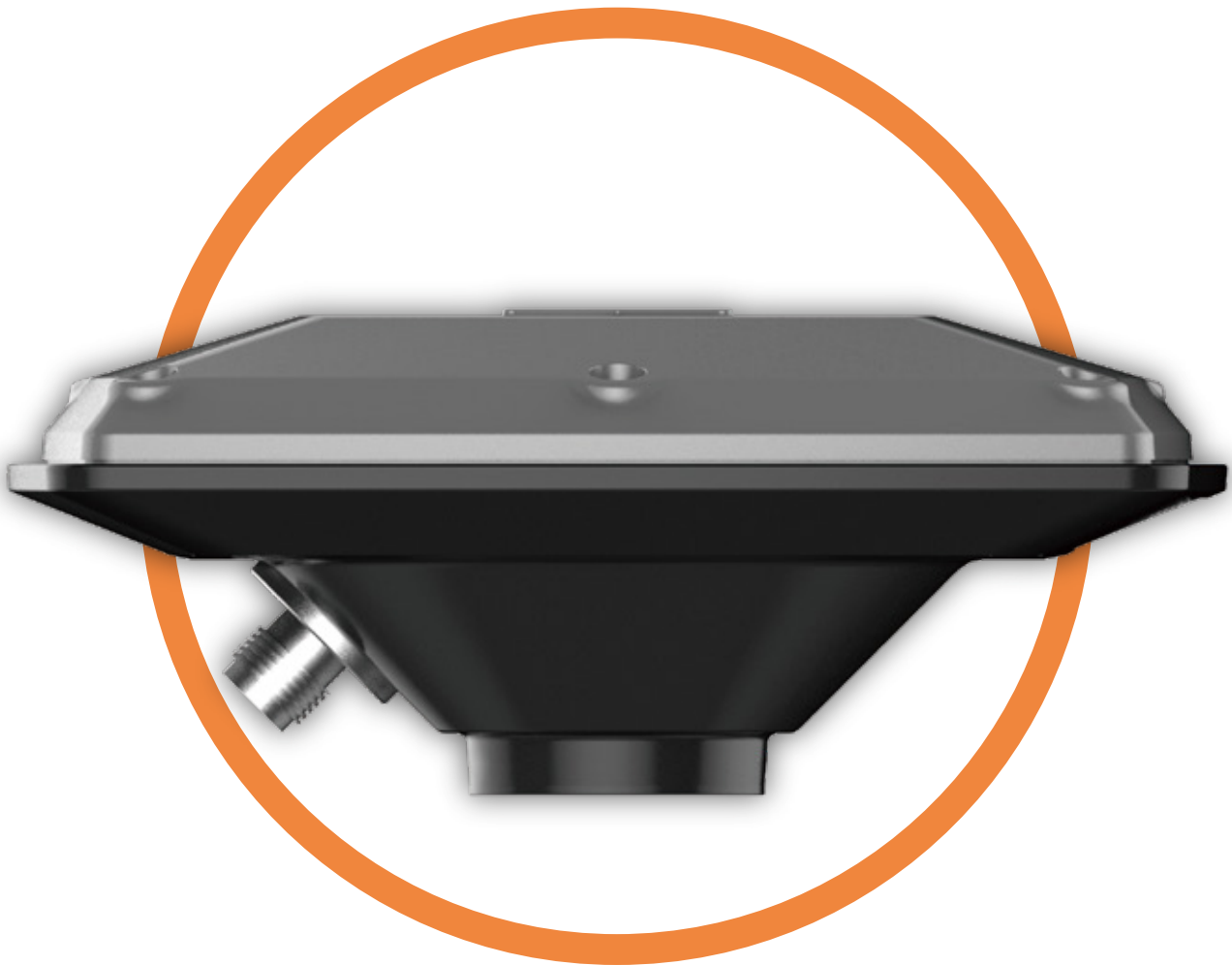
## RUGGEDIZED DESIGN

The IP68 water-resistant design of the AT311T makes it safe to use in extreme conditions within wide operating temperature range. Its internal stacked structure enhances performances in high-interference environments.

## SUPERIOR PERFORMANCE

The 40-dB signal gain, advanced signal filtering and multipath rejection design provide superior and robust GNSS signal tracking ability in challenging surroundings.

 **RUGGED  
GEODETTIC  
GNSS ANTENNA**



**SURVEY GRADE FOR  
HARSH APPLICATION.**

---

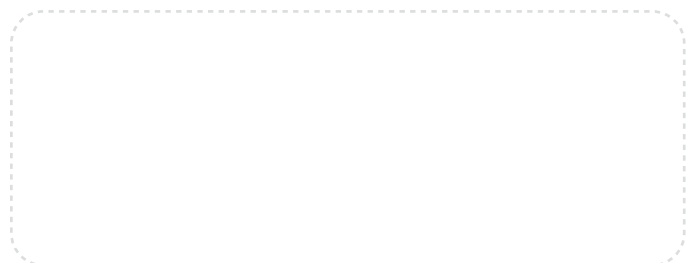
# SPECIFICATIONS

Signal Tracking	
GPS	L1, L2, L5
GLONASS	L1, L2, L3
BeiDou	B1, B2, B3
Galileo	E1, E5A, E5B, E6
QZSS	L1, L2, L5
IRNSS	L5
SBAS	L1, L5
L-Band	L-Band
Performance	
Polarization	RHCP
Axial Ratio	≤ 2 dB
Nominal Impedance	50 Ohm
VSWR	≤ 1.5
Gain at Zenith (90°)	1164-1300 MHz: 5.5 dBi (minimum) 1520-1615 MHz: 5 dBi (minimum)
Phase Center Accuracy	± 2 mm
LNA Gain	40 ± 2 dB
Noise Figure	≤ 2.0 dB
Passband Ripple	± 1 dB
Input Voltage	3.3~12V DC
Input Current	≤ 55 mA
Differential Propagation Delay	≤ 5 ns

Mechanical	
Dimensions	140 mm x 140 mm x 55 mm (5.5 in x 5.5 in x 2.2 in)
Weight	≤ 700 g (24.7 oz)
Connector	TNC Female
Mounting	5/8" - 11 Female Thread

Environmental	
Operating Temperature	-40 °C to +85 °C (-40 °F to +185 °F)
Storage Temperature	-55 °C to +85 °C (-67 °F to +185 °F)
Humidity	95% non-condensing
Calibration	NGS
Water/Dust Rating	IP68 waterproof and dustproof
Drop Test	Survive a 2m(6.56ft) drop onto concrete

\*All specifications are subject to change without notice.  
 (1) Subject to availability of BDS ICD and Galileo commercial service definition. GLONASS L3, BeiDou B3 and Galileo E6 will be provided through future firmware upgrade.



© 2020 Shanghai Huace Navigation Technology Ltd. All rights reserved. The CHC and CHC logo are trademarks of Shanghai Huace Navigation Technology Limited. All other trademarks are the property of their respective owners. Revision November 2020.

CHC Navigation Headquarter  
 Shanghai Huace Navigation Technology Ltd.  
 599 Gaojing Road, Building D,  
 Shanghai, 201702, China ,  
 +86 21 54260273

CHC Navigation Europe  
 Infopark Building , Sétány 1, 1117  
 Budapest, Hungary  
 +36 20 235 8248 +36 20 5999 369  
 info@chcnv.eu

CHC Navigation USA LLC  
 16412 N 92nd Street, Suite 115,  
 85 260 Scottsdale, Arizona, USA ,  
 +1 480 676 4306

CHC Navigation India  
 409 Trade Center, Khokhra Circle,  
 Maninagar East, Ahmedabad,  
 Gujarat, India  
 +91 90 99 98 08 02