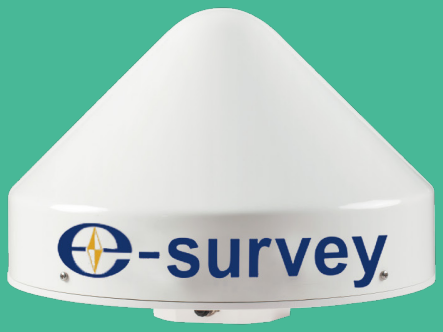
e-survey

UA91

CHOKE RING ANTENNA



The eSurvey UA91 adopts a high-gain broadband antenna to receive GNSS signals such as GPS, BDS, GLONASS, Galileo, IRNSS, QZSS, and L-Band. The scheme of multi-stage 3D choke coils with a symmetrical distribution is adopted to achieve higher phase center stability and excellent anti-multipath interference performance. It has excellent performance and the phase center coincides with the mechanical center.

Antenna

Powerful Satellite Tracking Capacity

Obtain all available and reliable data sources, with total channels and all signals (GPS, BDS, GLONASS, GALILEO, IRNSS, QZSS, and SBAS) of GNSS tracking.

Temperature Performance

The UA91 works in the range of temperatures from -55℃ - to +85℃, and stores in -55℃ - +90℃.

High Phase Center Accuracy

Experience millimeter phase center accuracy with higher stability.

Rugged Design for Harsh Environments

Use it for many years with IP67 design, which is 95% protected against solid objects like dust and sand, and it has been tested to work for at least 30 minutes under 15 cm to 1 m of water.

Excellent Multipath Suppression Effect

Due to the unique 3D choke coil design and electrostatic protection against eight kv of air and four kv of static electricity, no longer need to worry about interference by multipath.

High Gain

The UA91 uses a high-gain wide-band dual-band multimode GNSS measuring antenna to achieve coverage of the GNSS signal reception.

Website

Social media

Product Specification

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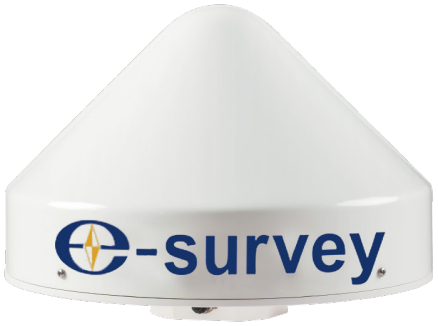

Antenna Performance		
Satellites tracking	GPS	L1, L2, L5
	BDS	B1, B2, B3
	GLONASS	G1, G2, G3
	GALILEO	E1, E2, E5, E6C
	QZSS	L1, L2, L5
	IRNSS	L5
	SBAS	SBAS:L1
	L-Band	L-Band
Polarization		Right-handed circular
Axis ratio		■ ≤2 dB @Axial ■ ≤4 dB @Elevation angle 20°
Antenna gain		■ ≥ 5 dBi @Axial ■ ≤ -3 dBi @Elevation angle 20°
Out-of-roundness		≤ 1 dBi @Elevation angle 20°
Phase center offset		± 1.5 mm

Low Noise Amplifier Performance	
Frequency range	1525 - 1615 MHz, 1165 - 1278 MHz
Characteristic impedance	50 Ω
VSWR	≤ 1.3:1
Noise figure	1.6 dB typically @ 25°
LNA gain	52 ± 2 dB @ 25℃
In-band flatness	± 1.5 dB
Out-of-band suppression	■ L1 ± 200 MHz >40 dBc ■ L2 ± 200 MHz >50 dBc
Differential transmission delay	≤ 5 ns (L1-L2)
Antenna transmission delay	15 ns (Typically)
Voltage	3.3 - 12 V dc
Current	≤ 45 mA

Environmental Performance	
Operating temperature	-55°C - +85°C
Storage temperature	-55°C - +90°C
Humidity	Up to 95%
Water/dust proof	IP67

Physical	
Dimension	D370 mm x H263 mm
Weight	7700 g
Antenna interface	TNC-F
Radome material	FRP
Base material	Aluminium magnesium alloy
Mount	5/8-11 UNC-2B

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