



# UA91

## Choke Ring Antenna

- Multi-constellation and Multi-frequency
- Superior Antenna Phase Center
- Excellent Polar Axis Ratio Performance
- Multipath Suppression

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

# Product Specification

Antenna Performance		In-band Flatness	$\pm 1.5\text{dB}$
Frequency	GPS: L1/L2/L5	Out-of-band	L1 $\pm 200\text{ MHz}$ >40dBc
	BDS: B1/B2/B3	Suppression	L2 $\pm 200\text{ MHz}$ >50dBc
Polarization	GLONASS: G1/G2/G3	Differential Transmission	$\leq 5\text{ns}$ (L1-L2)
	GALILEO: E1/E2/E5/E6C	Delay	
Axis ratio	QZSS: L1/L2/L5	Antenna Transmission	15ns typically
	SBAS	Delay	
Antenna Gain	L-Band	Voltage	3.3 - 12 VDC
		Current	35mA typical
Out-of-roundness	Right-handed circular	<b>Environmental performance</b>	
Front-to-back Ratio	$\leq 2\text{dB}$ @Axial	Operating Temperature	-55°C ~ +85°C
Rolloff-factor	$\geq 5\text{dBi}$ @Axial	Storage Temperature	-55°C ~ +100°C
Phase Center Offset	$\geq -3\text{dBi}$ @Elevation angle 20°	Humidity	Up to 100%
	$\geq 30\text{dB}$	Water/Dust Proof	IP67
	$\geq 13\text{dB}$	<b>Physical</b>	
	$\pm 1.5\text{mm}$	Dimension	$\Phi 370\text{ mm} \times \text{H}263\text{ mm}$
<b>Low Noise Amplifier Performance</b>		Weight	7.7 Kg
Frequency Range	1525 ~ 1615 MHz	Antenna Interface	TNC-F
	1182 ~ 1278 MHz	Radome Material	FRP
Characteristic Impedance	50 $\Omega$	Base Material	Aluminum-magnesium alloy
VSWR	$\leq 1.3:1$	Mount	5/8-11UNC-2B
Noise Figure	1.6dB Typically @25°		
LNA Gain	40 $\pm$ 2dB		

