

# GNSS Chock Ring Antenna

EV106



## Description

EV106 is a multi-system full-frequency reference station antenna covering BDS, GPS, GLONASS, and GALILEO, it adopts a compact 3D choke structure design, which has the features of stable phase center, high positioning accuracy, and good low elevation angle reception.

## Technical Features

1. Phase center accuracy reaches sub-millimeter level, high stability, and good repeatability;
2. Using miniaturized 3D choke design, light weight structure;
3. Unique choke and choke plate design, with excellent multi-path suppression effect;
4. High gain at low elevation and strong satellite tracking capability;
5. Low noise amplifier and high gain, with long cabling (100 meters) between your antenna and receiver;
6. IP67 level waterproof and dust proof, can work normally in outdoor for years.

## Application

- Survey and mapping
- Bridge deformation monitoring
- Global navigation satellite system reference
- Earthquake monitoring
- Automatic operation of docks

## Technical parameters

### Passive antenna characteristics

Frequency Range	BDS:B1/B2/B3 GPS:L1/L2/L5 GLONASS:L1/L2/L3 GALILEO:E1/E5a/E5b/E6 L-Band	Polarization	RHCP
		Antenna axis ratio	$\leq 2$ dB
		Azimuth coverage	$0^{\circ} \sim 360^{\circ}$
		VSWR	$\leq 1.5$
		Maximum gain	6dBi
Antenna Impedance	50 $\Omega$	Phase center error	$\pm 1$ mm

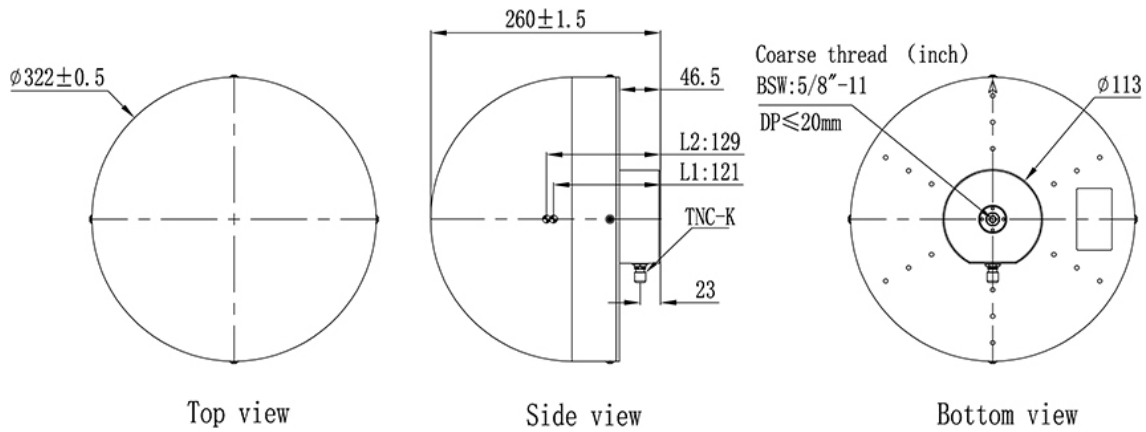
### Low Noise Amplifier Characteristics

LNA Gain	L1: 50 $\pm 2$ dB ;L2: 50 $\pm 2$ dB	Passband ripple	$\pm 1$ dB
Noise figure	$\leq 1.5$ dB	Operating voltage	DC3.3~12V
VSWR	$\leq 2.0$	Operating current	$\leq 60$ mA

### Structural and environmental adaptability

Antenna size	$\Phi 322 \times 260$ mm	Operating TEMP	$-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
Weight	$\leq 5.5$ kg	Storage TEMP	$-55^{\circ}\text{C} \sim +85^{\circ}\text{C}$
Connector	TNC-K	Storage humidity	95% non-condensing
Installation	5/8" $\times$ 11 (imperial)		

## Structural drawing (dimensional tolerances $\pm 0.3$ mm not noted)



## Documentation

Serial No.	Contents	Version	Date
1	All chapters	V1.0	2023-2-26
2			
3			
4			

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