

## Four System Full Frequency Antenna Specification

### General information:

**Product name:** Four System Full Frequency Antenna

**Model:** SHM-GNSS-R44Q6

**Frequency:** GPS L1/L2/L5、BDS B1/ B2/ B3、GLONASS L1/L2、  
Galileo E1/E2/E5a/E5b

### Application:

This antenna covered GPS L1/L2/L5, Beidou 2<sup>nd</sup> generation B1/ B2/ B3、GLONASS L1/L2 & Galileo E1/E2/E5a/E5b full frequency range external antenna, it can meet the request of multi-system compatibility and high precision measurement. It is widely used for Geodetic surveying and mapping, ocean surveying, geological deformation monitoring, small displacement, precision positioning, mobile mapping, larger engineering machinery control and precision agriculture and other fields.

### Introduction :

Antenna part used multi-feed point design and perfectly symmetrical antenna structure, realize the coincidence of phase center and geometric center, to lower the influence to measurement error.

1. High gain, wide beam patten, has good receiving performance at low elevation, to ensure the normal operation of satellite signal receiving in the place with serious shelter
2. Low noise amplifier section used front filtering solution, effectively suppress out-of-band interference and improve the reliability of the system.
3. Power supply circuit adopted with thunder protection design, which can effectively protect the low noise amplifier, to insure the normal operation of antenna at terrible outdoor environment.
4. Inbuilt voltage stabilizer circuit, allow antenna to work normal at wide input voltage range.
5. IP68 waterproof design.

### Electrical performance:

Frequency Range(MHz)	1559MHz~1605MHz 1166MHz~1278MHz
Polarization	Right-hand circular polarization
Azimuth Coverage(°)	360
Gain(dBi)	Elevation90° ≥5.5
Axial Ratio(dB)	Elevation90° ≤3
Front to Back Power (dB)	±60° ≥15
Phase Center Error (mm)	<2
LNA Gain(dB)	40±2
Flatness in Band (dB)	±2
V.S.W.R	<2.0 : 1
Noise Figure (dB)	<2.0
DC Voltage (V)	3.3~18
Current (mA)	<45
Group Delay (ns)	≤5
Impedance(Ω)	50

### Mechanical Specifications

Connector Type	TNC-K
Dimensions(mm)	Φ165×68
Relative Humidity	0.95
Operating Temperature (°C)	-45~+85
Storage Temperature(°C)	-55~+85
Operation Environment	Outdoor

### Structure & Dimension:

