

AS3703-Mini GNSS Antenna

AS3703 is a miniature, light-weight, multi-frequency GNSS antenna, which receives GPS L1/L2, GLONASS G1/G2 and BDS B1/B2/B3 frequencies. Its outstanding performance in dynamic scenario and its light-weight are particularly suitable for drone and other moving platforms. Its rugged design makes it work well even in the most rugged of environments.



Key Features

- Multi-constellation, multi- frequency (GPS L1/L2, GLONASS L1/L2 and BDS B1/B2/B3) support
- Super compact design with 87mm diameter (including ground plane)
- High gain, good low elevation roundness and wide-angle roundness polarization
- Multiple feed design stabilizes carrier phase center and minimizes influence to measurement error
- Multipath suppression technique improves performance in challenging environment
- Lightning proof design protects antenna in harsh weather condition
- Radom reduces the impact of temperature variation
- Rugged design supports complex working environment



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Antenna Specification

- Frequency.....GPS L1L2/ GLONASS G1G2/BDS B1B2B3
- Gain
 - GPS L1 ≥ 3.5 dB_i , L2 ≥ 3 dB_i
 - GLONASS G1 ≥ 3 dB_i , G2 ≥ 3 dB_i
 - BDS B1 ≥ 3.5 dB_i, B2 ≥ 3 dB_i, B3 ≥ 2 dB_i
- Polarization..... RHCP
- Azimuth Coverage..... 360°
- Impedance..... 50Ω
- Output VSWR..... ≤ 1.5
- Low elevation roundness..... ± 2 dB (elevation $\geq 20^\circ$)
- Axial Ratio..... ≤ 3 dB
- Phase Center Error < 2 mm

LNA Specification

- LNA Gain..... 38 ± 2 dB
- Noise Figure..... ≤ 2.0 dB
- Input VSWR..... ≤ 2.0
- Output VSWR..... ≤ 2.0
- Operation Voltage..... $3 \sim 5.5$ V
- Operation Current..... ≤ 50 mA

Mechanical Specification

- Dimension..... 90×21.8 mm
- Connector..... SMA-K
- Weight..... 98 g

Environment Specification

- Temperature
 - Operation..... $-45^\circ\text{C} \sim +70^\circ\text{C}$
 - Storage..... $-55^\circ\text{C} \sim +85^\circ\text{C}$
- Humidity..... 95% No-condensing

Structure

