

# SO100

## GNSS ORIENTATION SENSOR

Design For Better 5G Deployment



### HIGH PRECISION HEADING

The SO100 GNSS orientation sensor has combined both GNSS receiver and inclination sensor together. The GNSS sensor that tracks GPS and Beidou delivers absolute azimuth data, while the inclination module delivers relative heading data, achieving high precision orientation of  $\pm 1^\circ$ .

### DESIGNED FOR 5G

The SO100 is designed with the rapid development and global deployment of 5G. Installed on the top of the 5G antenna, SO100 measures accurate azimuth to maintain or adjust the coverage of 5G signal, which can guarantee and optimize the quality of telecommunication network.

### STABLE & RUGGED

As a long-term operation device for orientation monitoring, SO100 shows high stability, the MTBF (Mean time between failures) of which is more than 5000 hours. Additionally, with the IP67 proof level and superior lightning surge capability, SO100 displays stable and automatic performance in the field.

## PERFORMANCE

GNSS Positioning	±5m horizontally
Accuracy	±10m vertically, ±5m after 12hrs' convergence
Azimuth Accuracy	±5°, after 180s convergence
Inclination accuracy	±1°, range -90°~90°
Positioning initialization time	90s
Heading initialization time	180s
MTBF	≥5000 h

## COMMUNICATION

Protocols	3GPP B/AISG2.0/AISG ES-RAE V2.2.0 compliant
AISG Input Connector	1 8-pin DIN Male, IEC6013-9 compliant
AISG Output Connector	1 8-pin DIN Female, IEC6013-9 compliant
Interface Protocol Signal	RS-485
Commands	Hexadecimal commands based on HDLC subset, in line with AISG standard
Interoperability Test	Support multiple telecom devices, like Ericsson, Nokia, Huawei and etc.

## PHYSICAL

Size	320 mm×100 mm×33mm
Weight	< 600g
Material Type	Acrylonitrile Butadiene Styrene

## ELECTRICAL

Supply voltage	10V – 30V DC
Power Consumption	≤ 2 W
Lightning Surge Capability	IEC 61000-4-5:2005 IEC 8/20uS 3KA ±5 times

## ENVIRONMENTAL

Operating Temperature	-40 °C ~ +70 °C
Waterproof & Dustproof	IP67

All specifications are subject to change without notice.

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