



Accurate
positioning

22°39'48.37"N 114°02'10.91"E



JS-HAC100B

PRODUCT SPECIFICATION

Data Sheet



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Change History of Revision

[illegible]

1 Functional description

1.1 Overview

"JS-HAC100B" is a three-star seven-frequency point high-precision measurement antenna, which can meet the requirements of beidou third-generation measurement equipment and multi-system compatibility. It has the characteristics of high gain, miniaturization, high sensitivity, multi-system compatibility and high reliability, which can effectively meet the requirements of users. The antenna can be used with a variety of satellite navigation receivers, widely used in land survey, hydrographic survey, precision agriculture and Marine survey and other fields. It can also be selected for military applications according to the measurement of application conditions.

1.2 Product Features

- Strong anti-interference capability
- Low reflection loss, small shaft ratio, High gain and beam-width
- Good directional characteristics
- Dextrorotatory circular polarization design is adopted
- High gain out-of-band suppression
- Compact size ($\Phi 100 \times 36.5 \text{mm} \pm 0.5 \text{mm}$), IP67 waterproof, dustproof proof housing
- Suitable for use as receiving antenna of satellite positioning system.

1.3 Product Application

- Automotive application
- Car navigation and tracking
- AVL and Location-Based Services
- Marine Navigation, Fleet Management
- Geological monitoring
- Measurement of surveying and mapping
- Geographic Surveying
- Sports and Recreation
- Ocean survey
- Unmanned vehicle

2 Performance parameter

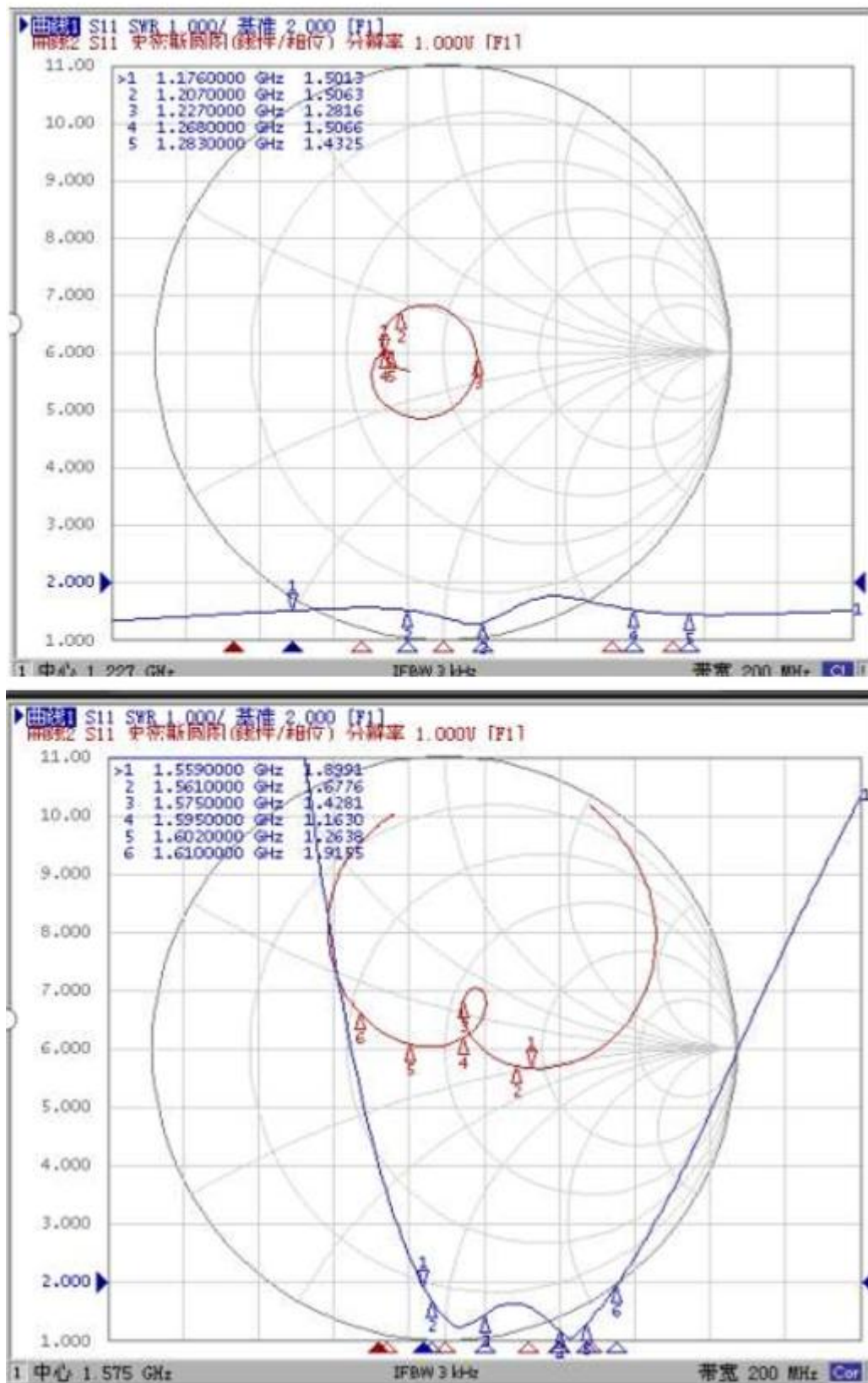
2.1 Performance

Electrical Specifications

Frequency point and range	L1 (1559 ~ 1615MHz) L2(1200 ~ 1250MHz) B3(1258 ~ 1278MHz) ■BDS B1I B1C/B2I B2A/B3I ■GPS L1/L2 ■GLONASS L1/L2
Port Impedance	50Ω
Polarization	RHCP
Gain (dBi)	4.5
Azimuth Coverage (°)	360
Phase center error (mm)	±2
LNA Gain (dB)	40±2
Noise figure (dB)	≤2.0
VSWR	≤2.0
Antenna Axial Ratio (dB)	≤3.0

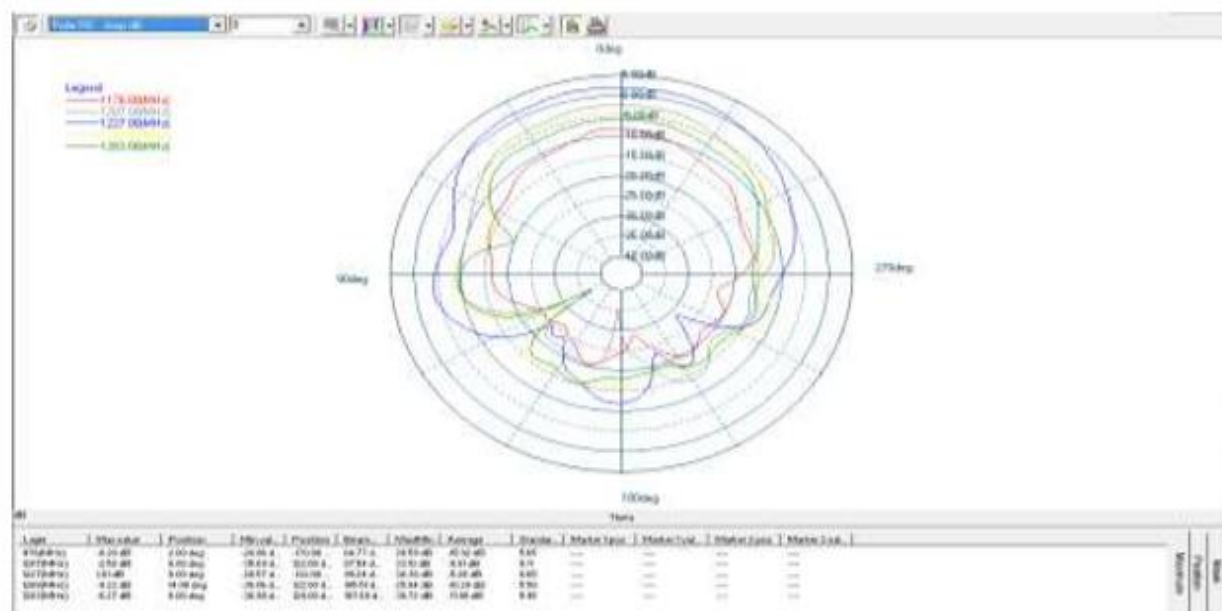
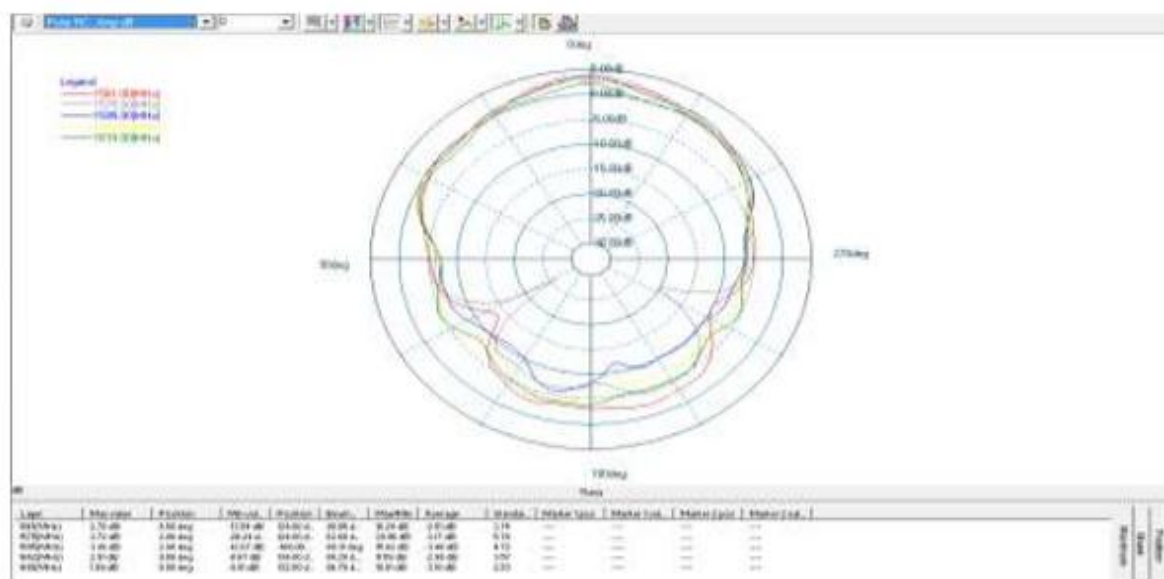
2.2 Test data

1、Patch Test curve

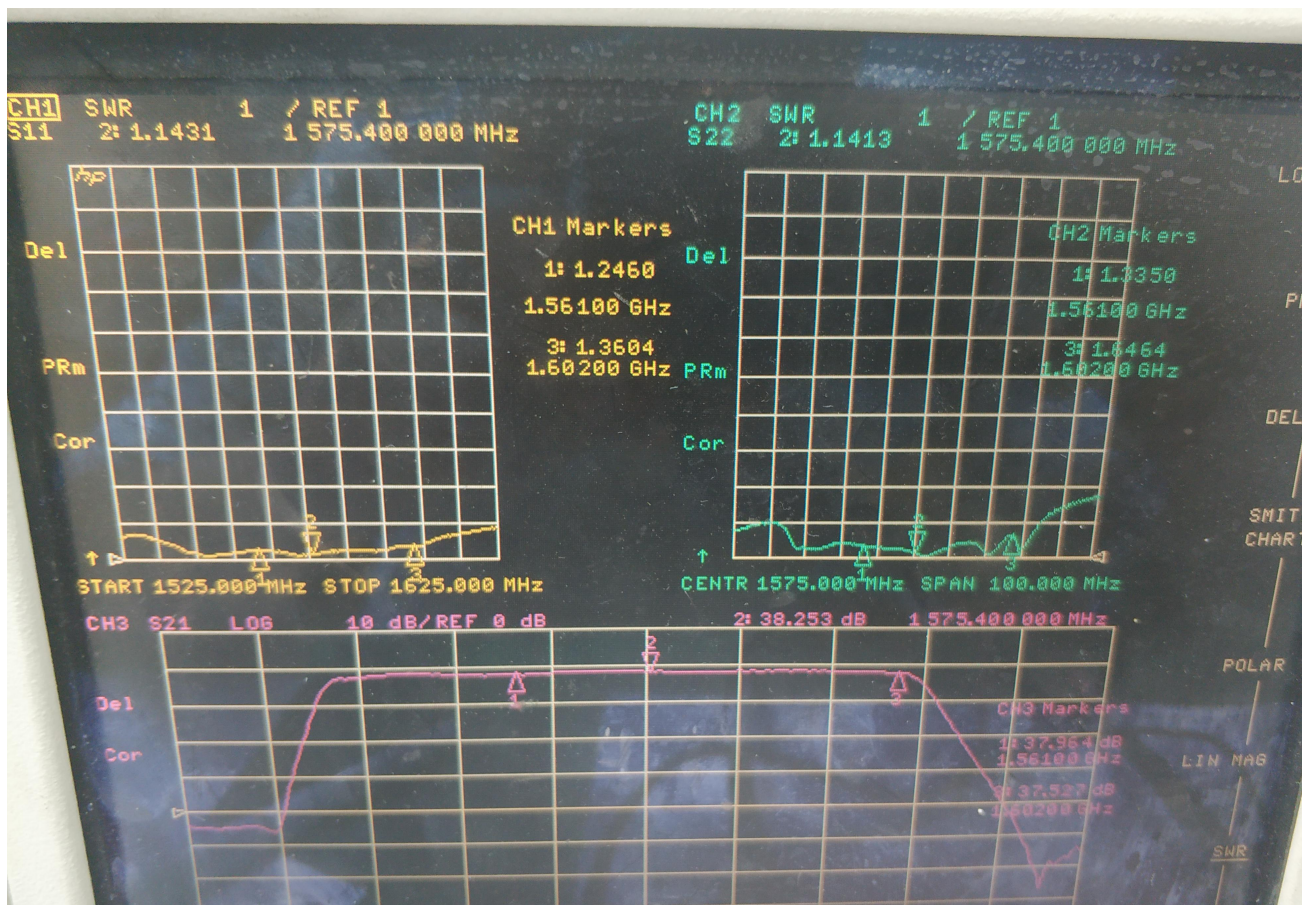


2、Patch Test curve

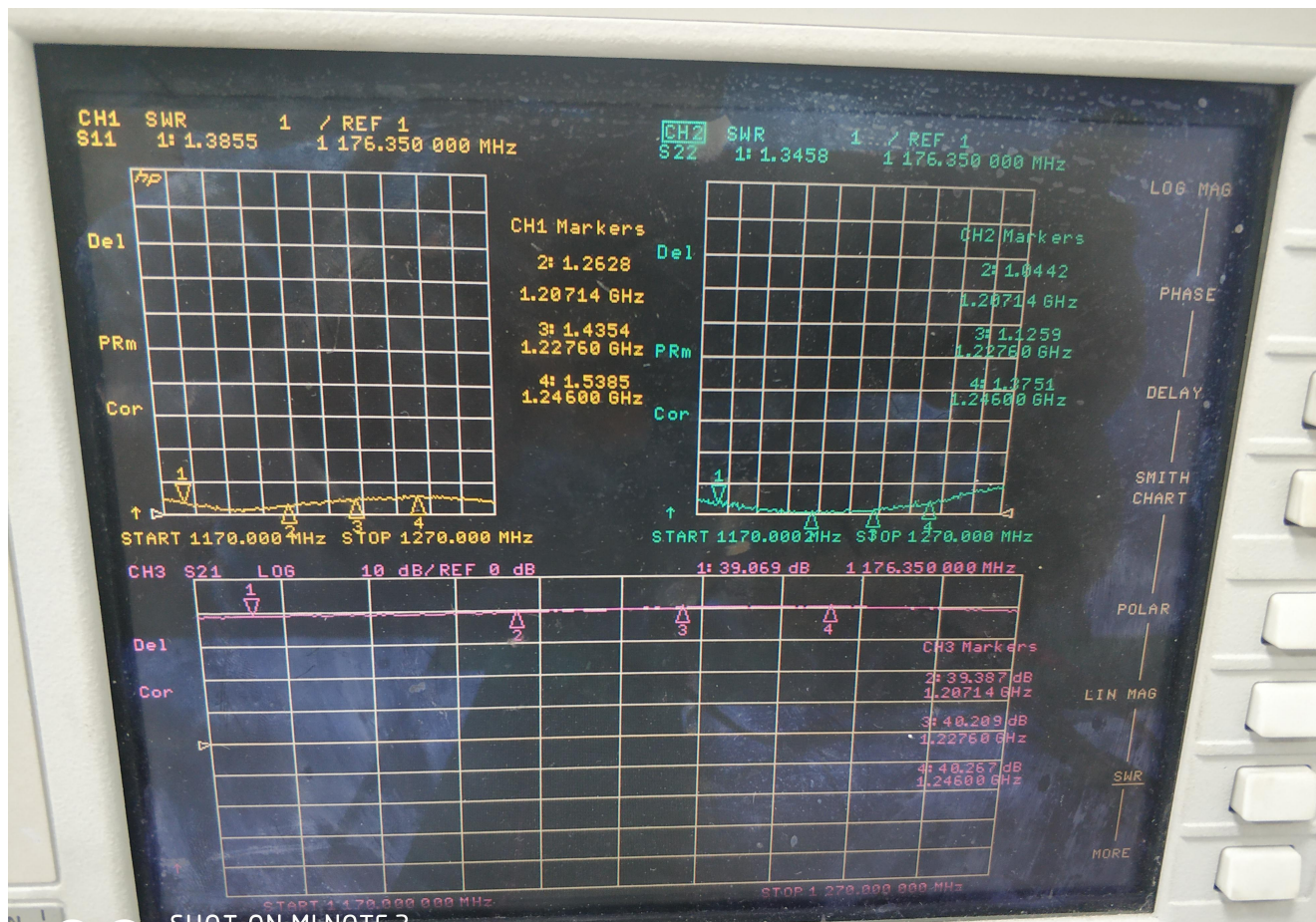
Gain



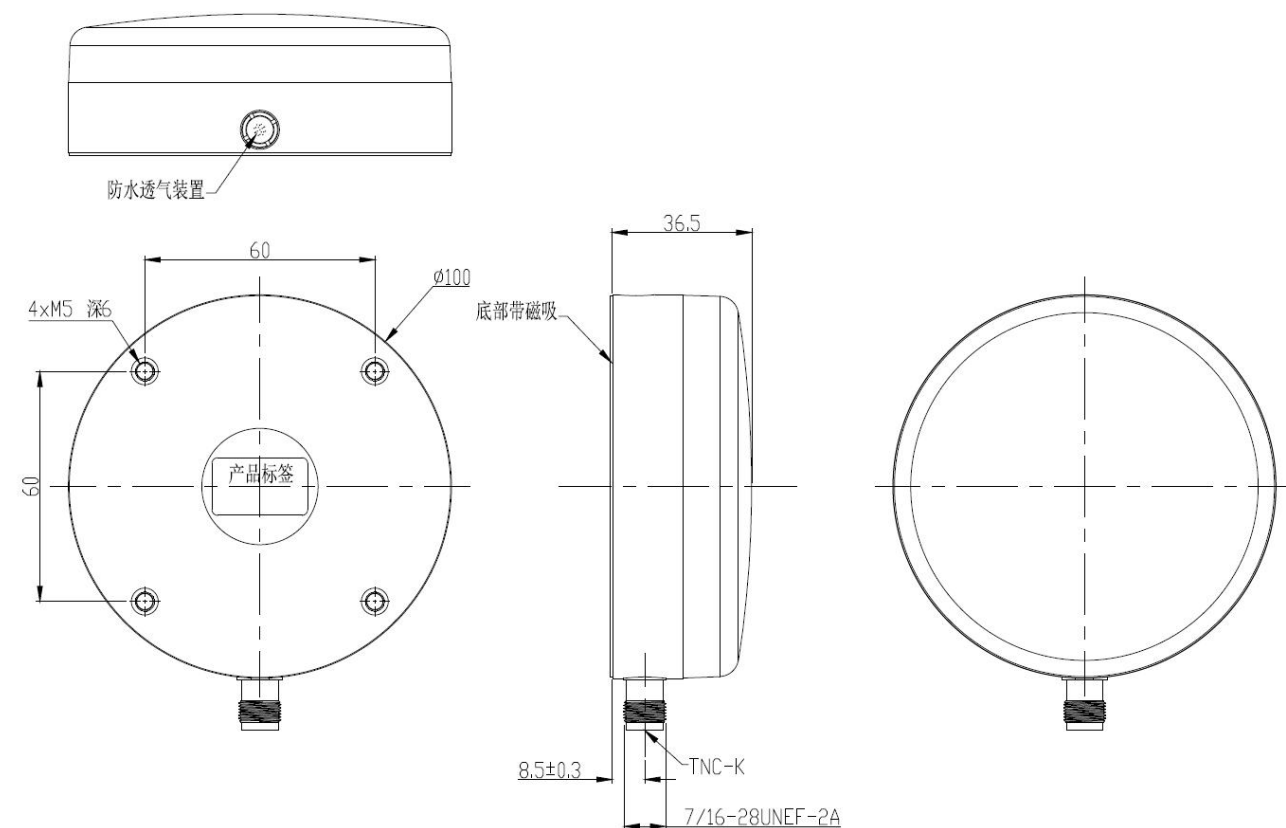
3、L1 band test curve(Gain)



4、L2 band test curve(Gain)



2.3 Structure



Error: ± 0.5

Unit: mm

2.4 Material

Part Name	SPEC
Antenna	PTFE F4B-1/2
Plastic shell	ABS
Connector Type	TNC-K
Waterproof grade	IP67

2.5 Environment Condition

Operating temperature	-40°C~+70°C
Storage temperature	-55°C~+85°C
Humidity	95% non-condensing
Operating voltage	3.0-15.0V (DC)
Operating current	≤45mA
Antenna size	Φ100×36.5mm
Installation method	Magnetic sucker

3 Note

- 6.1 This product specification guarantees the quality of our product as a single unit. Please make sure that your product is evaluated and confirmed against your specifications when our product is mounted to your product.
- 6.2 We cannot warrant against failure caused by any use of our product that deviates from the intended use as described in this product specification.
- 6.3 The product will get free warranty for three months since the date of purchase users operate in the correct way, users will have to pay cost of the materials and maintaining fee out of the condition.