

GNSS Antenna AG301



Datasheet
V 1.0.0



Version Note

Version	Details	Contributor(s)	Date	Notes
1.0.0	First edit	Michelle	2026.03.05	

Part Number

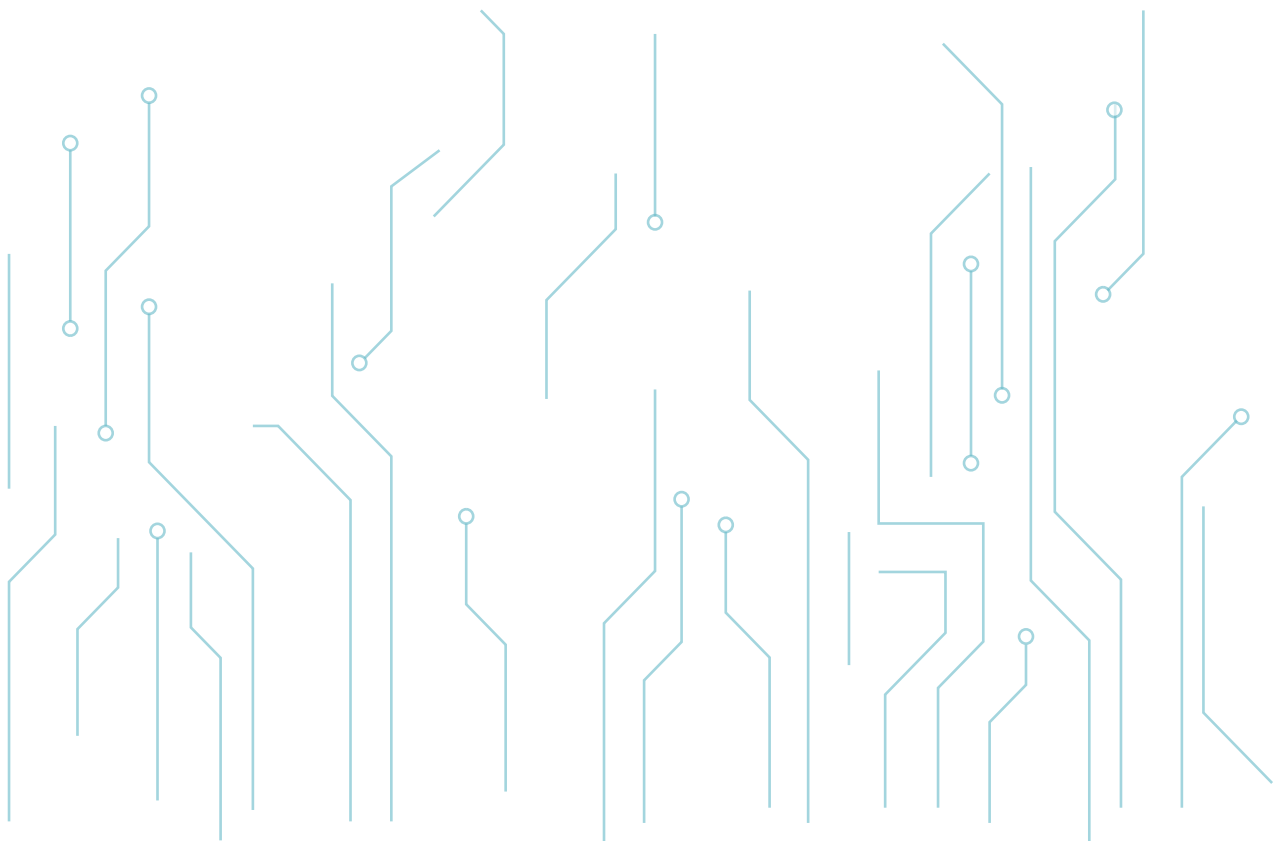
Model	Hardware Code
AG301	-

Click the icon to view and download the latest product documents electronically.
https://en.minewsemi.com/file/AG301_Datasheet_EN.pdf



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1 PRODUCT OVERVIEW

1.1 Overview

AG301 is an external ceramic GNSS antenna compatible with multiple satellite systems including GPS, BeiDou, and GLONASS. Featuring ceramic construction and right-hand circular polarization, it provides omnidirectional radiation capability to meet signal reception requirements across various positioning and navigation scenarios. This high-performance antenna serves as a core component for positioning terminals.



1.2 Product Features

- Multi-system compatibility: Supports mainstream satellite navigation systems with extensive signal coverage.
- Stable Performance: VSWR ≤ 1.5 , Gain ≤ 3.5 dBi, 50 Ω standard input impedance, efficient signal transmission.
- Compliance and Environmental Protection: Complies with RoHS Directive 2015/863/EU, safe and free from hazardous substances.

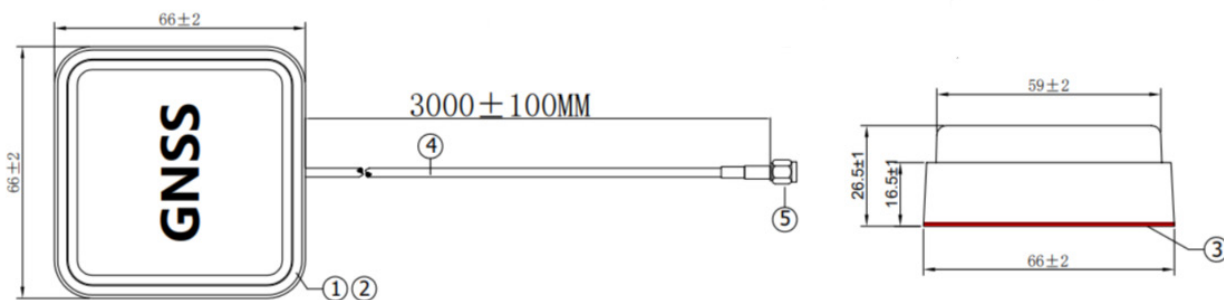
1.3 Electrical Properties and Mechanical Properties

Electrical Specifications	
Frequency Range	GPS/Beidou/glonass/galileo/qzss L1/L5: 1176.45~1576.45MHz
VSWR	≤ 1.5
GAIN	≤ 3.5 dBi
LNA GAIN	28 \pm 3dBi
Axial Ratio @ Zenith	≤ 5
Output VSWR	≤ 2.0
Noise figure	≤ 1.8 dB
Polarizatin	RHCP
nput Impedance	50 Ω
Supply Voltage	3-5V
Operating current	≤ 35 mA

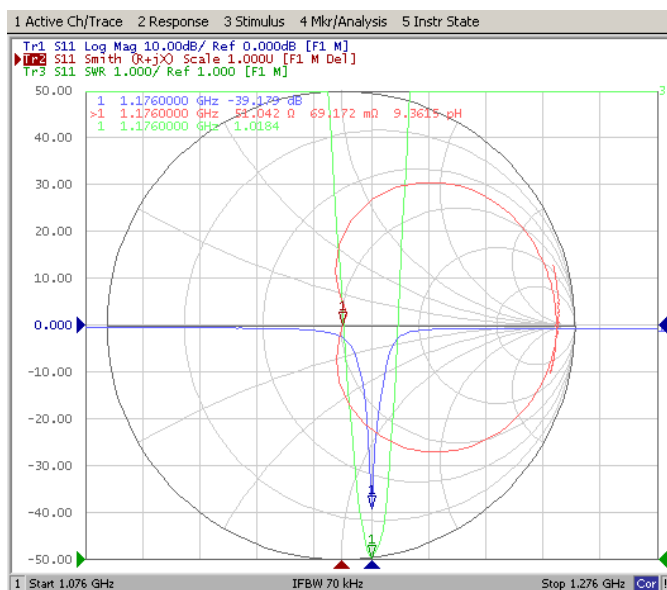
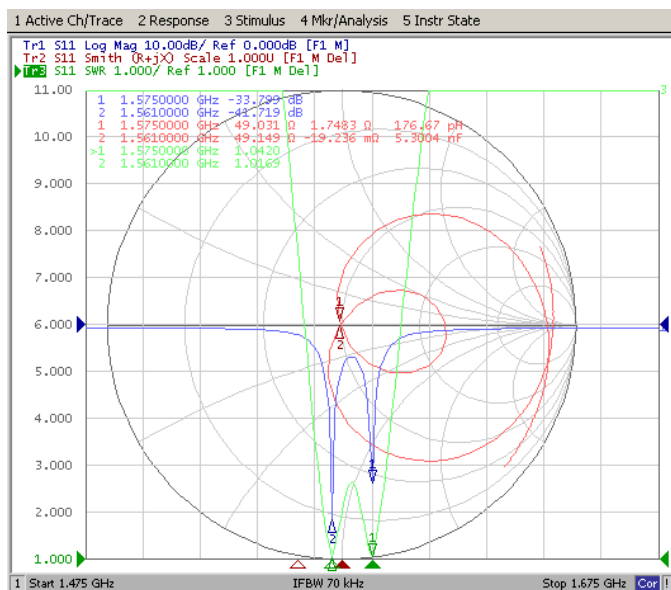
Mechanical Specifications

Input connector	SMAJ
Antenna Structure	Ceramic Overlapping Structure
Antenna Element	25*25*4 + 35*35*4
Cable Length	3m
Working Temperature	-30°C~+80°C
Working Humidity	40~85%
Weight	113.3g±1g

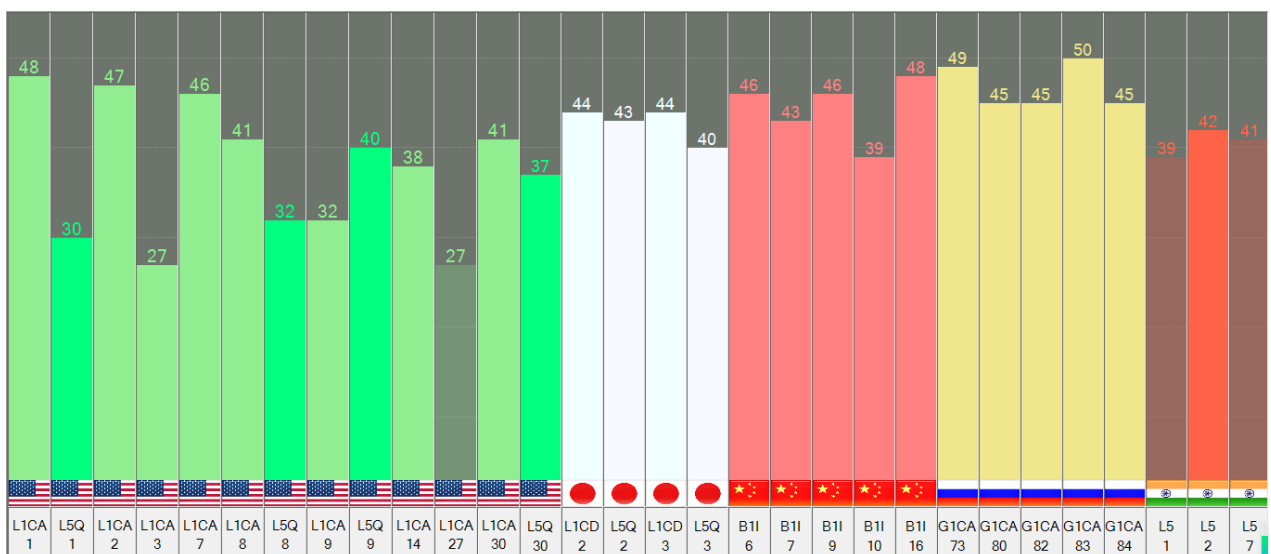
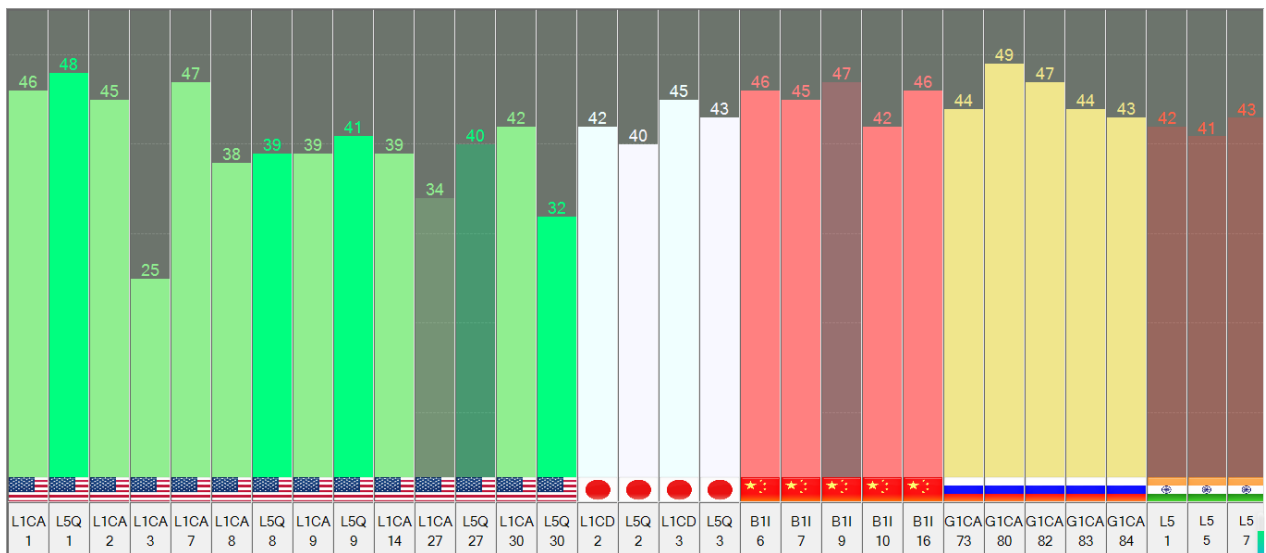
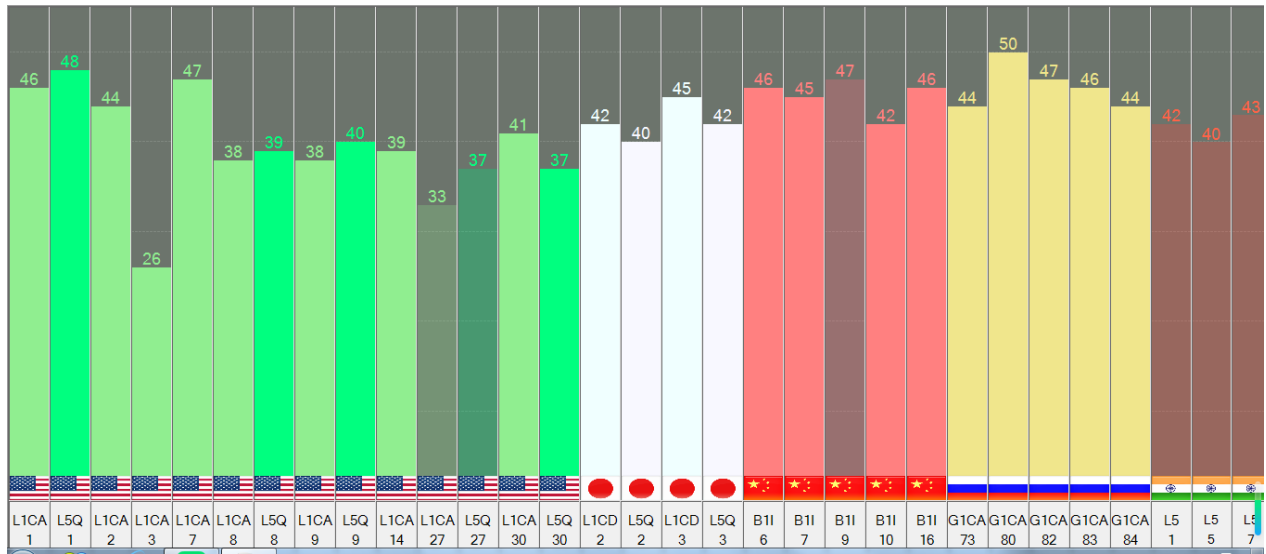
2 ANTENNA STRUCTURE DIMENSIONS






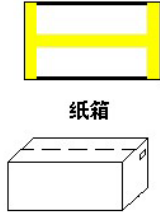
3 PASSIVE TEST DATA



4 ELECTRICAL PERFORMANCE INDEX



5 PACKAGING INFORMATION

Products	Packaging 1	Packaging 2	Shipping cartons
			
GNSS Antenna	1PCS/bag	50PCS/bag	20 bags / carton

6 QUALITY

Cognizant of our commitment to quality, we operate our own factory equipped with state-of-the-art production facilities and a meticulous quality management system. We hold certifications for ISO9001, ISO14001, ISO27001, OHSA18001, BSCI.

Every product undergoes stringent testing, including transmit power, sensitivity, power consumption, stability, and aging tests. Our fully automated module production line is now in full operation, boasting a production capacity in the millions, capable of meeting high-volume production demands.

7 COPYRIGHT STATEMENT

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