

Rubber Duck Antenna

AL201



Datasheet

V 1.0.0



Version Note

Version	Details	Contributor(s)	Date	Notes
1.0.0	First edit	Michelle	2026.03.06	

Part Number

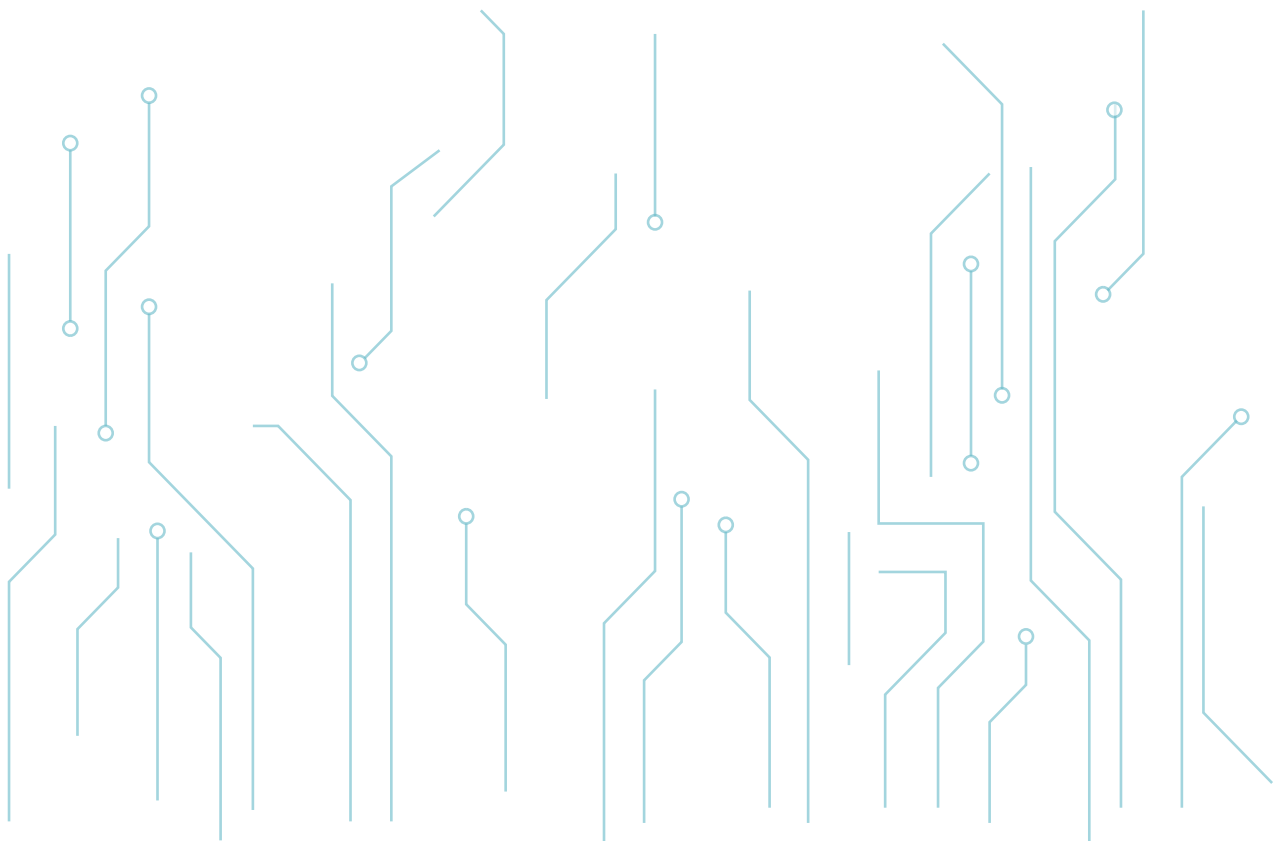
Model	Hardware Code
AL201	-

Click the icon to view and download the latest product documents electronically.
https://en.minewsemi.com/file/AL201_Datasheet_EN.pdf



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1 PRODUCT OVERVIEW

1.1 Overview

AL201 is a high-performance folding rubber rod antenna specifically designed for the 470MHz band. Constructed from ABS + copper composite material, its foldable structure balances portability with installation flexibility. It has passed comprehensive reliability testing and obtained RoHS environmental certification. Leveraging its core strengths of high gain and stable transmission, it is widely compatible with IoT terminals, industrial wireless control systems, smart utility metering (water/electricity/gas), and security surveillance equipment. It efficiently meets the demands for low-power, long-range, and stable wireless communication.



1.2 Product Features

- High-Gain Strong Transmission: Gain up to 3.94 dBi, VSWR \leq 2.0, omnidirectional radiation with vertical polarization design, delivering uniform signal coverage and low signal loss.
- Compliance is guaranteed: Strictly conforms to the ROHS 2015/863/EU environmental standards.

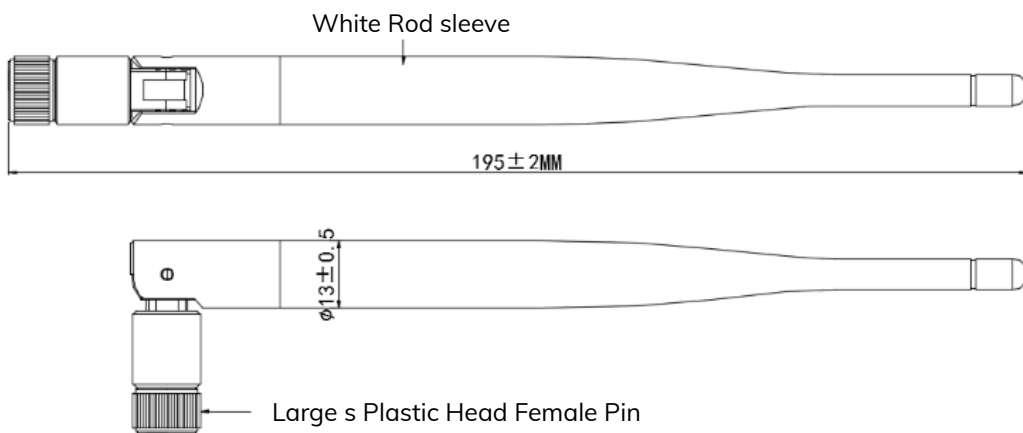
1.3 Electrical Properties and Mechanical Properties

Electrical Specifications	
Frequency Range	470MHZ
VSWR	\leq 2.0
GAIN	3.94dBi
Radiation	OMNI
Polarization	LINEAR
Input Impedance	50 Ω

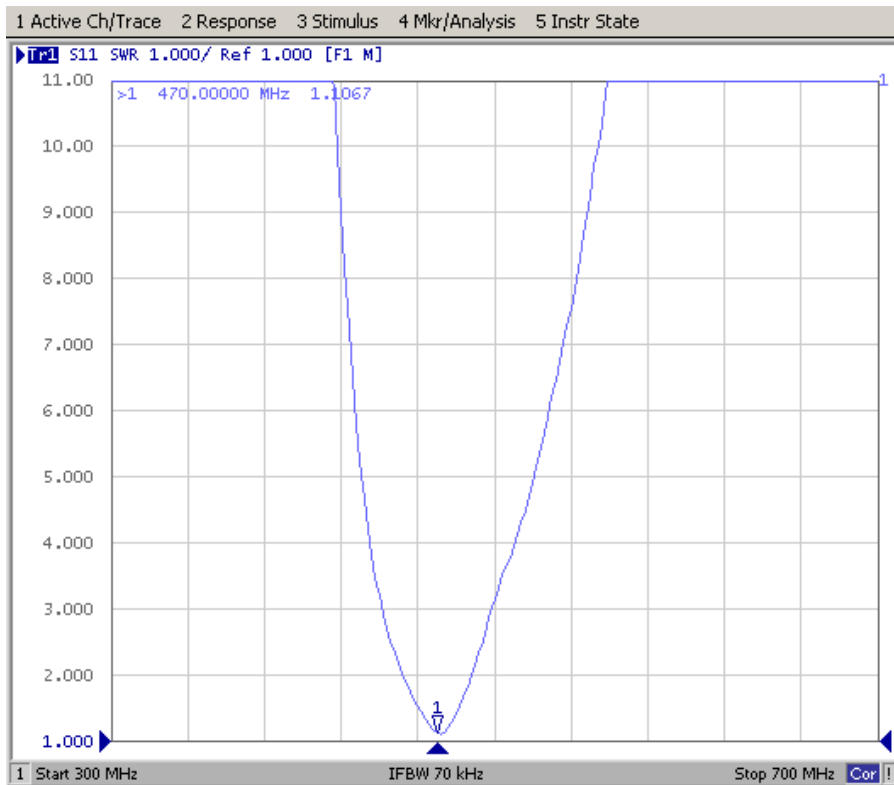
Mechanical Specifications

Input connector	SMA-J
Antenna material	ABS + COPPER
Working Temperature	-30°C ~ +80°C
Working Humidity	40~85%
Weight	17g±1g

2 ANTENNA STRUCTURE DIMENSIONS



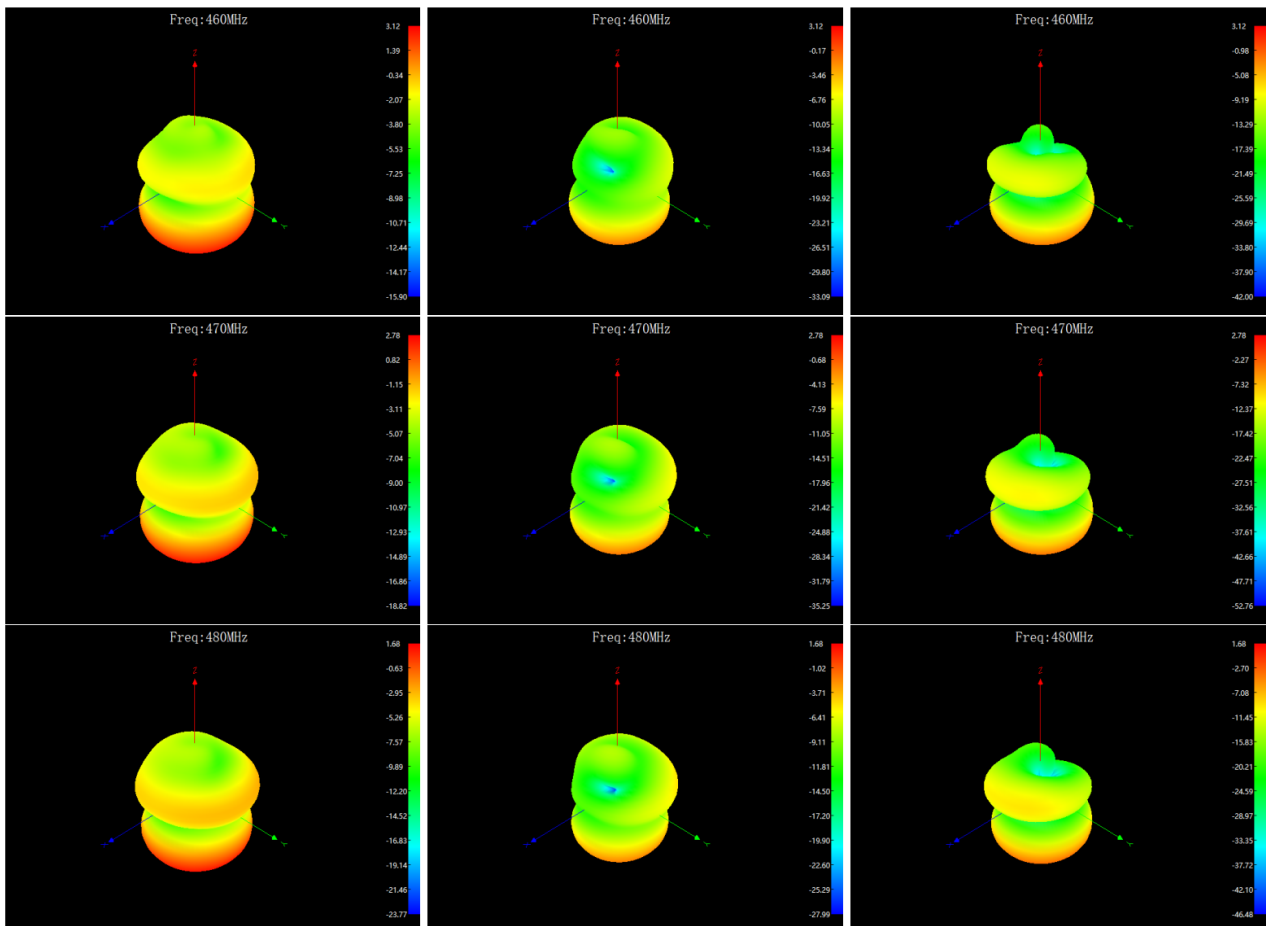
3 PASSIVE TEST DATA

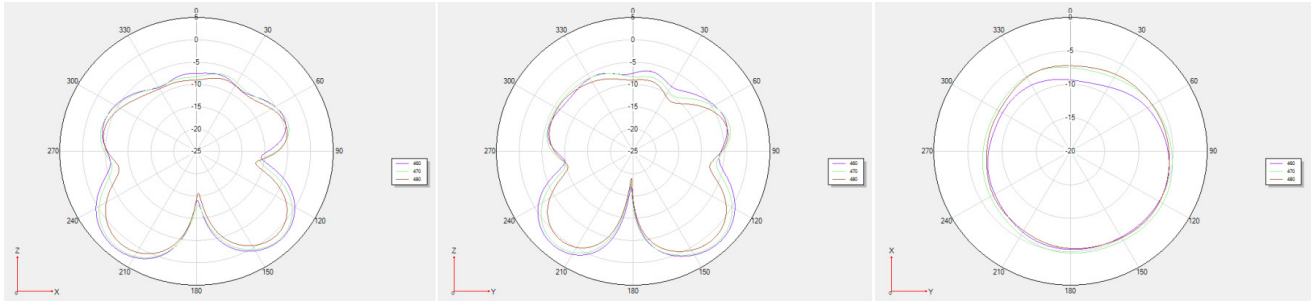


4 GAIN EFFICIENCY TEST DATA



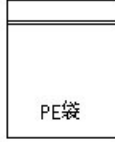
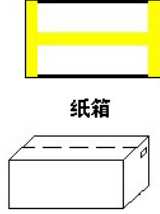
Frequency/MHz	Efficiency / %	MaxGain/dBi
460	42.36	3.12
462	45.6	3.51
464	46.13	3.92
466	46.56	3.94
468	44.46	3.42
470	34.59	2.78
472	34.75	2.69
474	33.57	2.96
476	38.37	2.85
478	37.41	2.14
480	36.64	1.68

5 DIRECTION DIAGRAM





6 PACKAGING INFORMATION

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

7 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, OHSAS18001, 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.

8 COPYRIGHT STATEMENT

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