

Flexible Printed Circuit Antenna AC102

Datasheet

V 1.0.0



Version Note

Version	Details	Contributor(s)	Date	Notes
1.0.0	First edit	Michelle	2026.06.10	

Part Number

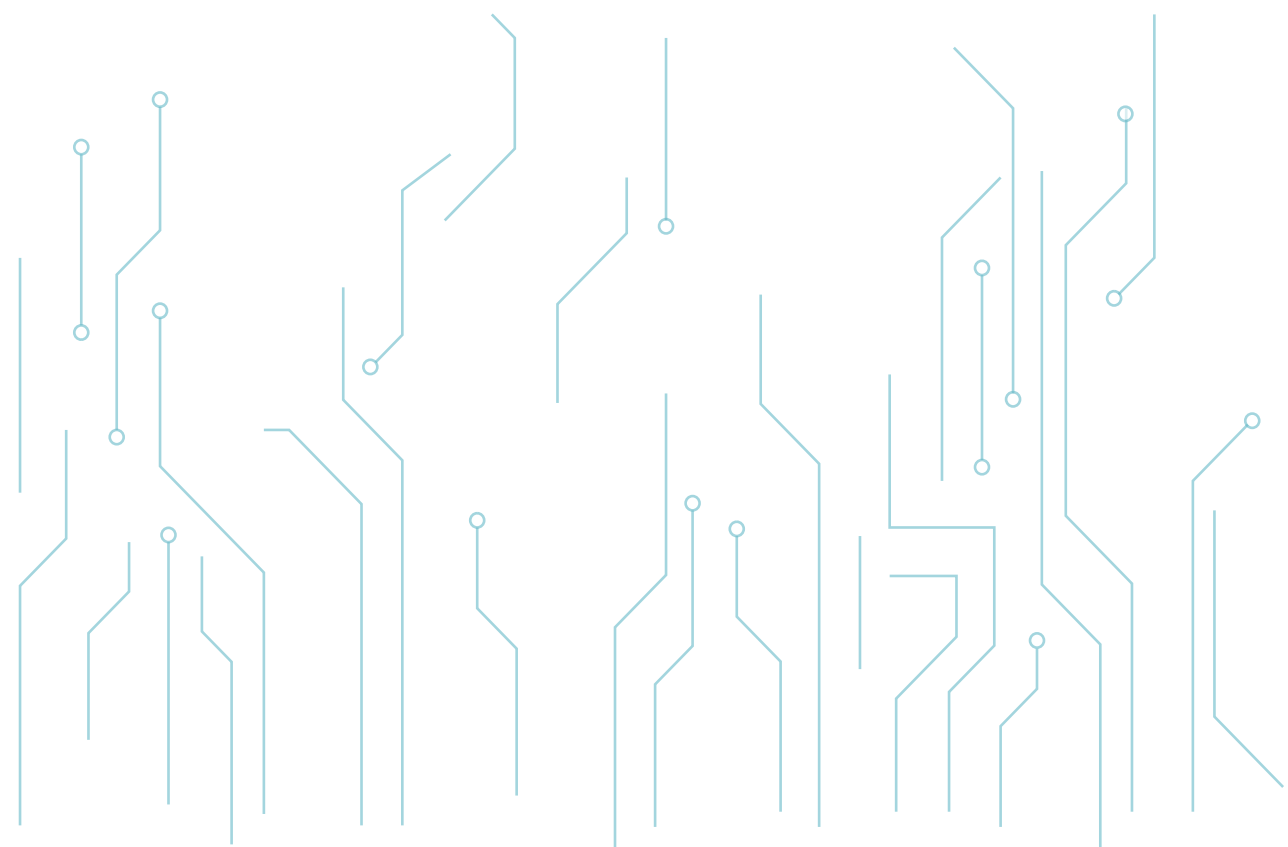
Model	Hardware Code
AC102	-

Click the icon to view and download the latest product documents electronically.
https://en.minewsemi.com/file/AC102_Datasheet_EN.pdf



INDEX

1 Product Overview 5	04
2 Electrical Properties and Mechanical Properties	04
3 Physical Picture	04
4 Mechanical Drawing	05
5 Performance Data	05
5.1 VSWR	05
5.2 Efficiency	06
6 Antenna Pattern	07
7 Quality	08
8 Copyright Statement	08



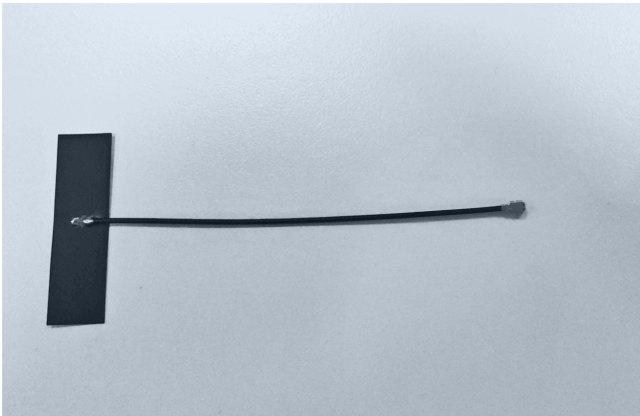
1 PRODUCT OVERVIEW

The AC102 is a 2.4+5.8 GHz FPC antenna designed specifically for wireless communication. Constructed from a flexible substrate, it can be bent and folded, making it lightweight and highly portable, and enabling it to be used effectively in conjunction with modules for testing.

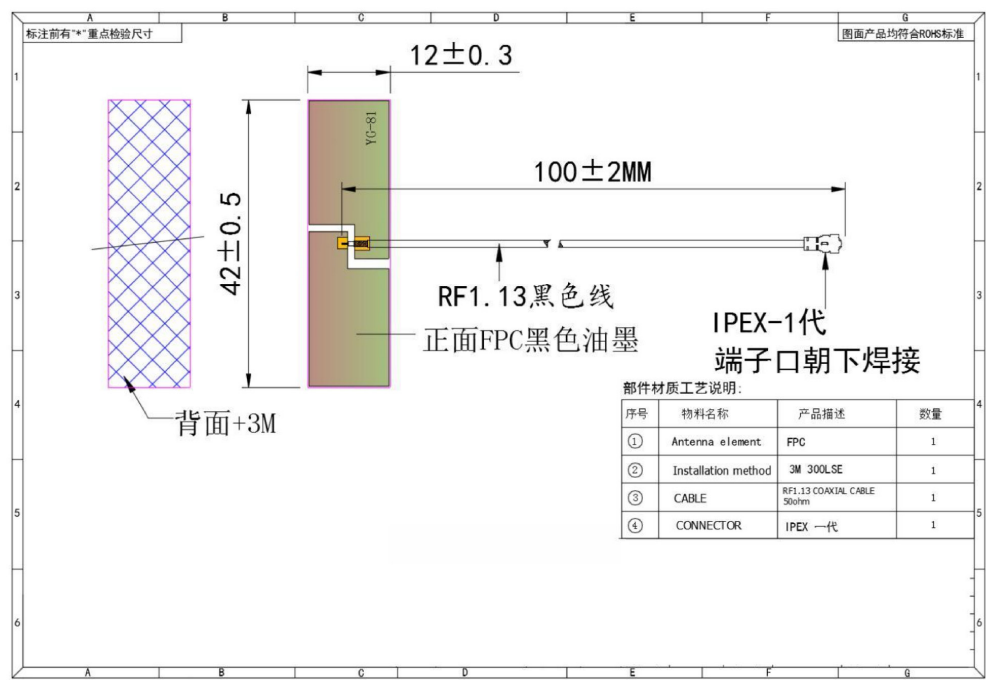
2 ELECTRICAL PROPERTIES AND MECHANICAL PROPERTIES

Electrical Specifications	
Frequency Range	2400~2500MHz/5750~5950MHz
VSWR	≤2.0
Gain	2.4G:5.9dBi ; 5.8G:8.73dBi
Polarization	Linear
Input Impedance	50 Ω
Power Capacity	10W
Mechanical Specifications	
Dimensions	42*12mm
Connector Type	I-PEX-1
Cable Type	RF1.13
Cable Length	100mm
Mounting Method	Snap-on
Color	Black
Material	FPC
Working Temperature	-35℃~+85℃
ROHS Complaint	Complies with RoHS standards

3 PHYSICAL PICTURE



4 MECHANICAL DRAWING



5 PERFORMANCE DATA

5.1 VSWR

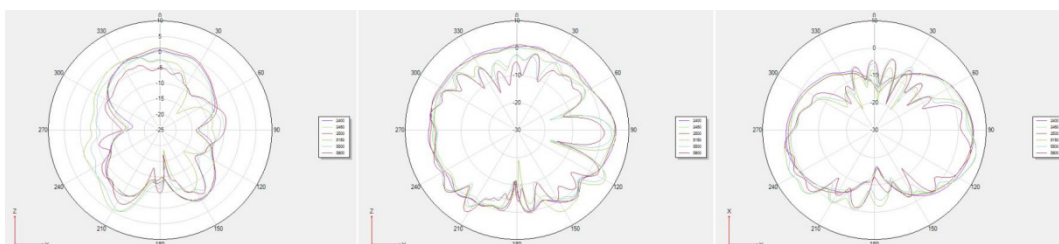
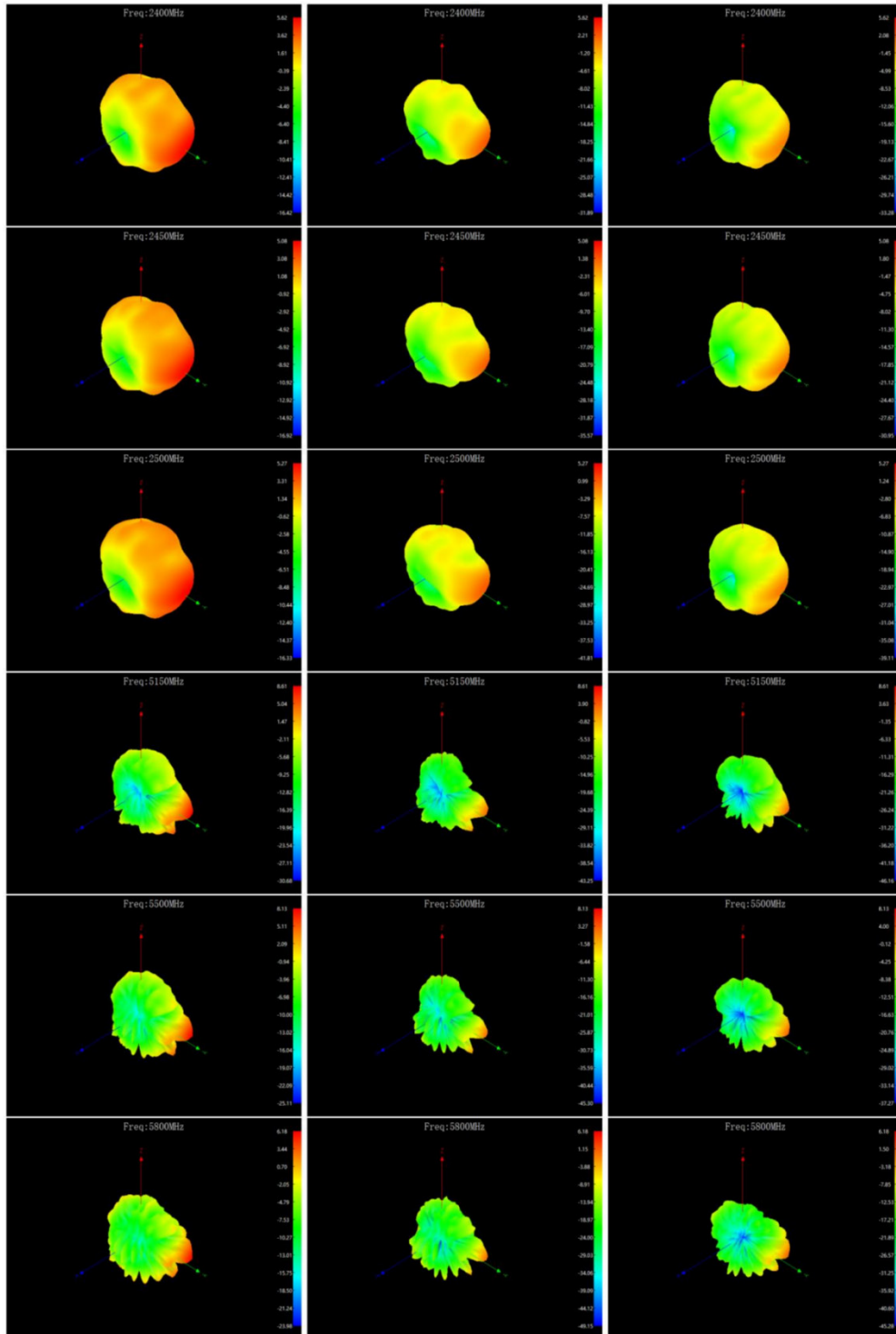




5.2EFFICIENCY

Frequency/MHz	Efficiency / %	MaxGain/dBi
2400	79.62	5.62
2410	76.21	5.49
2420	79.62	5.7
2430	77.8	5.1
2440	81.1	5.9
2450	70.47	5.08
2460	71.61	5.2
2470	67.45	5.44
2480	71.45	5.3
2490	69.02	5.44
2500	66.37	5.27
5150	59.29	8.61
5200	58.61	8.73
5250	57.02	8.24
5300	56.62	8.07
5350	58.08	8.45
5400	54.95	8.24
5450	52.72	8.06
5500	54.33	8.13
5550	55.46	8.31
5600	46.67	7.22
5650	53.09	7.52
5700	47.21	6.87
5750	50.7	7.31
5800	45.81	6.18

6 ANTENNA PATTERN



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, 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.

8 COPYRIGHT STATEMENT

This manual and all the contents contained in it are owned by Shenzhen Minewsemi Co., Ltd. and are protected by Chinese laws and applicable international conventions related to copyright laws.

The certified trademarks included in this product and related documents have been licensed for use by MinewSemi. This includes but is not limited to certifications such as BQB, RoHS, REACH, CE, FCC, BQB, IC, SRRC, TELEC, WPC, RCM, WEEE, etc. The respective textual trademarks and logos belong to their respective owners. For example, the Bluetooth® textual trademark and logo are owned by Bluetooth SIG, Inc. Other trademarks and trade names are those of their respective owners. Due to the small size of the module product, the "®" symbol is omitted from the Bluetooth Primary Trademarks information in compliance with regulations.

The company has the right to change the content of this manual according to the technological development, and the revised version will not be notified otherwise. Without the written permission and authorization of the company, any individual, company, or organization shall not modify the contents of this manual or use part or all of the contents of this manual in other ways. Violators will be held accountable in accordance with the law.



For product change notifications and regular updates of Minewsemi documentation, please register on our website: www.minewsemi.com

MINESEMI
Innovative IoT Module Expert



SHENZHEN MINEWSEMI CO., LTD.



0086-755-2801 0353



<https://minewsemi.com>



minewsemi@minew.com



<https://store.minewsemi.com>



Gangzhilong Technology Park, Qinglong Road, Longhua District, Shenzhen