

L-1RW5

FRB 2G 3G 4G LTE /2.4G WIFI Antenna

CELLULAR

IP67

The L-1RW5 is a type of FRB 2G 3G 4G LTE /2.4G WIFI Antenna with an IP67 rating. It supports 4G, 3G, and 2G cellular networks and operates within a frequency range of 824 to 2690MHz.

With its wide frequency range, the L-1RW5 antenna is compatible with various cellular networks used for voice and data communication. It can be used in applications such as wireless communication systems, IoT devices, mobile routers, and other wireless devices that require reliable cellular connectivity.



320 x 23 mm

Document Information

Product	L-1RW5
Part Number	L-1RW5
Description	FRB 2G 3G 4G LTE /2.4G WIFI Antenna
Version	2.0 (current)
Date	21-Jul-2023
Status	Released

Revision History

Version	Date	Author	Changes
1.0	16-Dec-2020	Amy Li	Initial Release
2.0	21-Jul-2023	Ivy Liao	New layout and design

Product Overview

Product Description

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Key Features

- Support GSM / LTE / 2.4G WIFI
- Small and exquisite
- High Reliability/Sensitivity
- Compact Size, Easy to install
- IP Rating 67
- RoHS Compliant

Applications

- LTE / WIFI radios
- Gateways
- Set-Top Boxes
- Security
- Transportation
- Smart agriculture

Electrical Specifications

Frequency			VSWR	Peak Gain	Efficiency
LTE	824 - 960	MHz	2.9	0.6 d Bi	61%
LTE	1710 - 2170	MHz	1.7	5.9 d Bi	73%
2.4G WiFi	2400 - 2700	MHz	2.6	3.7 d Bi	61%

Frequency Range 824 – 2690 MHz

Impedance 50 Ω

Polarization Vertical

Radiation Omnidirectional

Electrical Type Monopole

Mechanical Specifications

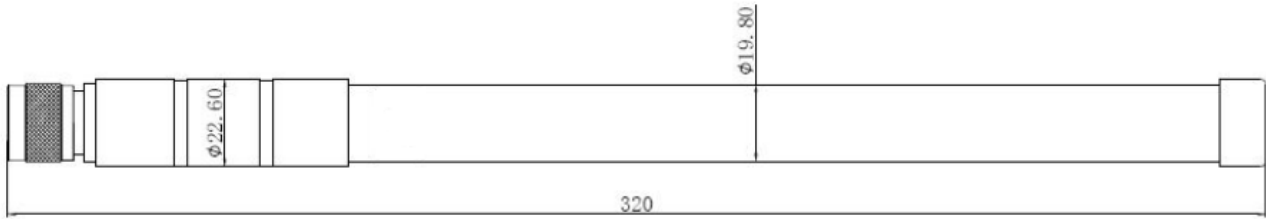
Type	Hinge	Casing	Yes
Dimensions	320 x 23 mm	Color	Gray
Connector (Termination)	N male	Material	Fiberglass
Mounting Type	Connector Mount	Weight	TBC (to be confirmed)

Caution:

1. Do not apply excess mechanical stress to the component body or terminations. Do not attempt to re-form or bend the components, as this will cause damage to the component.
2. Do not expose the component to an open flame.
3. This specification applies to the functionality of the component as a single unit. Please ensure the component is thoroughly evaluated in the application circuit.

Product Image and Dimensions





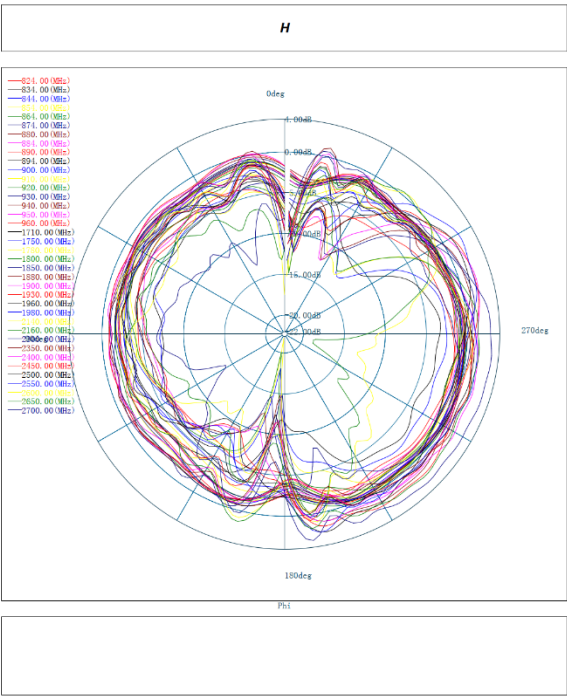
Radiation Pattern

A radiation pattern is a graphical representation of the directional properties of an antenna. It shows how electromagnetic waves are distributed in space in relation to the direction of propagation.

By understanding the information provided by a radiation pattern, it is possible to optimize the design and performance of an antenna for specific applications.

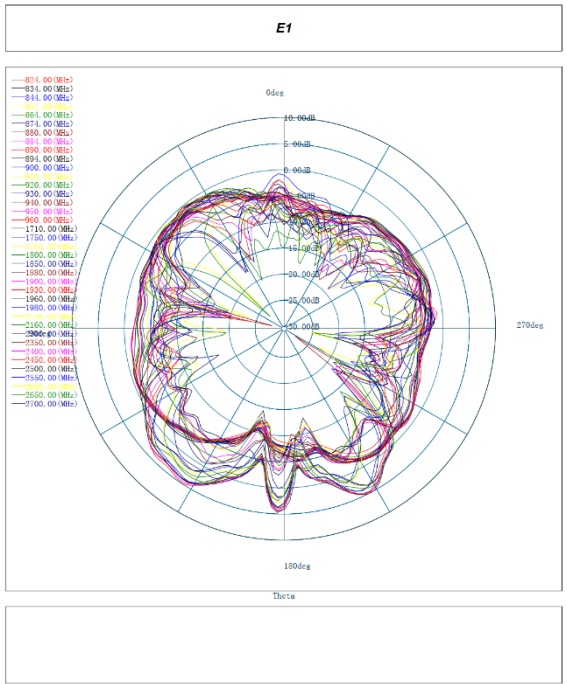
XY Plane (H)

824– 2690 MHz



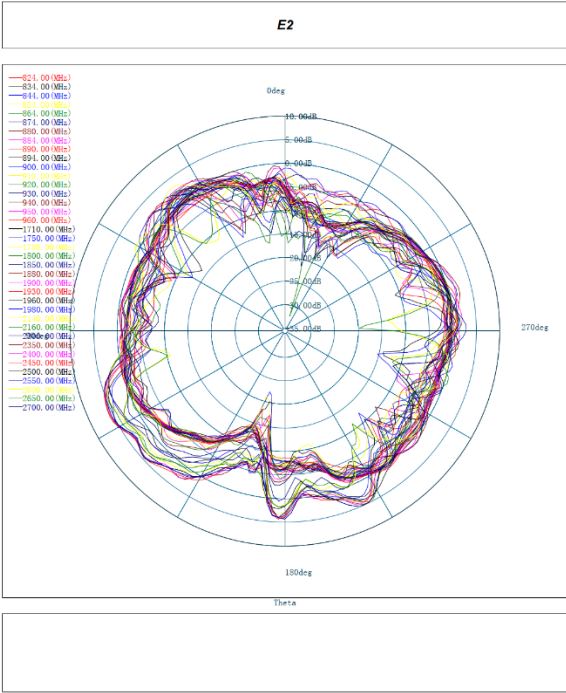
YZ Plane (E1)

824 – 2690 MHz



YZ Plane (E2)

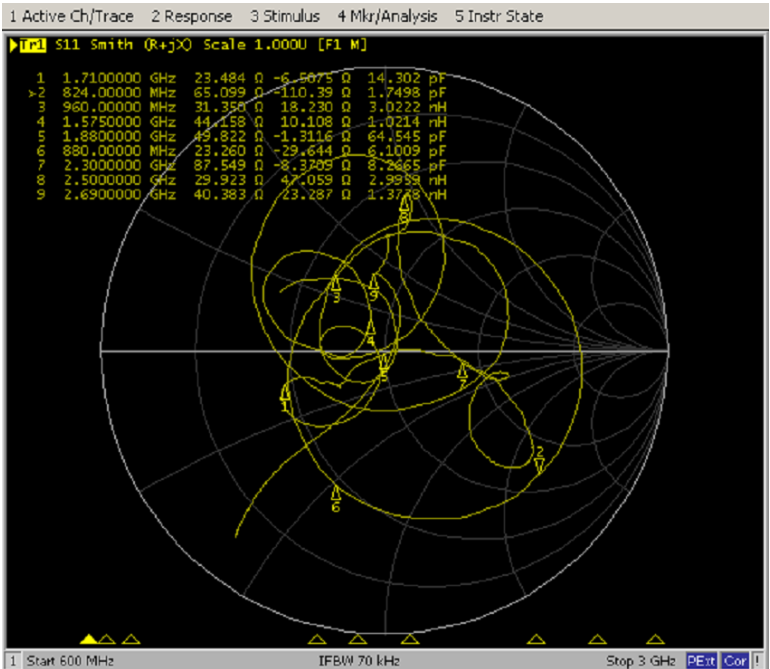
824 – 2690 MHz

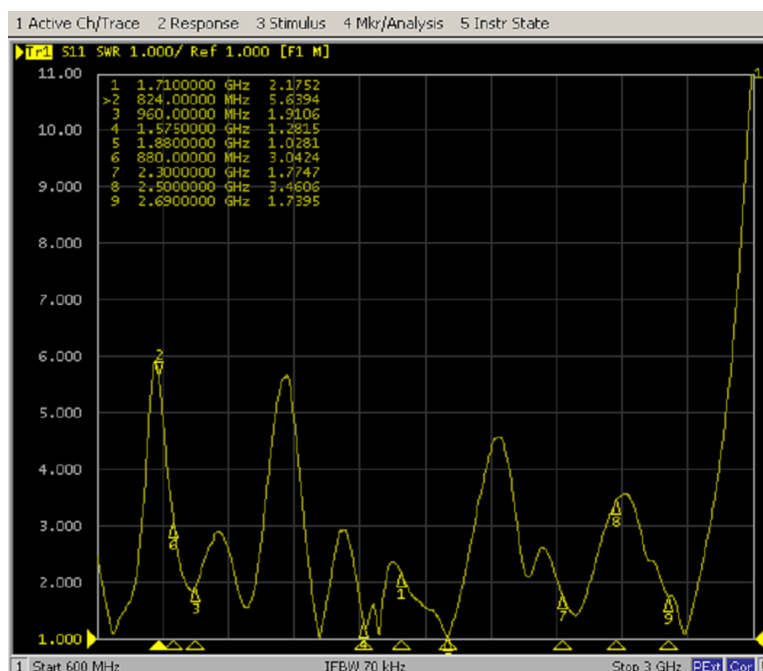


Antenna Smith and VSWR

Frequency		VSWR
824	MHz	5.6
880	MHz	3.0
960	MHz	1.9
1710	MHz	2.2

Frequency		VSWR
1880	MHz	1.0
2170	MHz	1.8
2400	MHz	3.5
2690	MHz	1.7





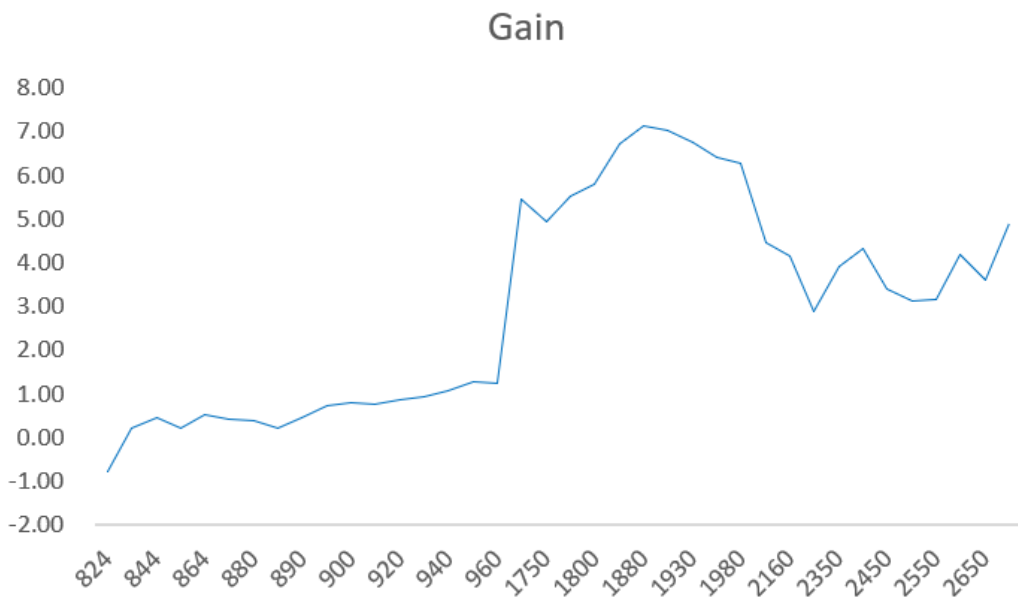
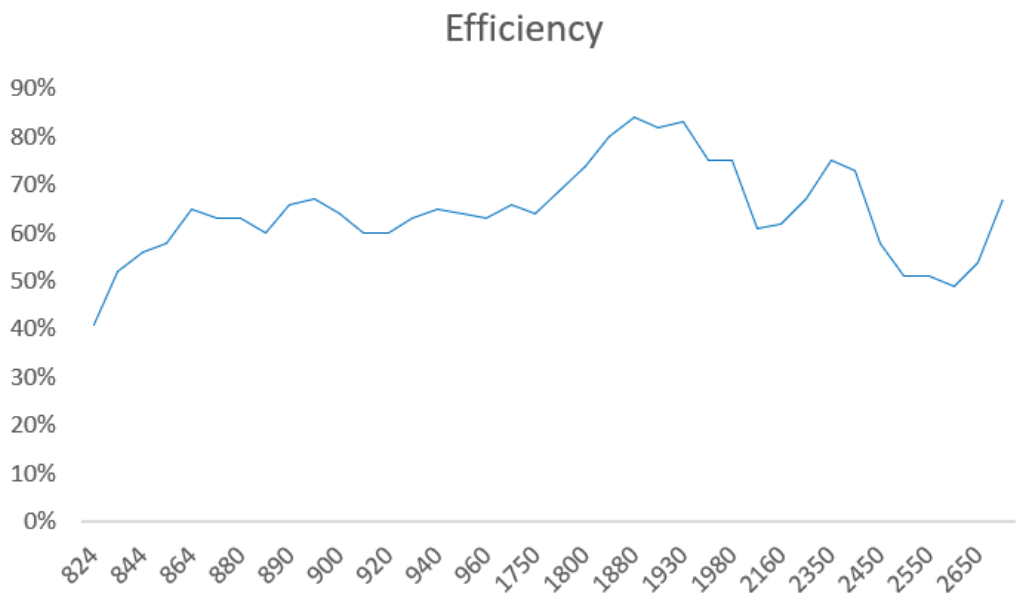
Antenna Efficiency and Gain

Frequency		Efficiency	Gain
824	MHz	41%	-0.76967
834	MHz	52%	0.208055
844	MHz	56%	0.459034
854	MHz	58%	0.218837
864	MHz	65%	0.51326
874	MHz	63%	0.433286
880	MHz	63%	0.40394
884	MHz	60%	0.215971
890	MHz	66%	0.470765
894	MHz	67%	0.730773
900	MHz	64%	0.805375
910	MHz	60%	0.752152
920	MHz	60%	0.860907
930	MHz	63%	0.920217
940	MHz	65%	1.075284

Frequency		Efficiency	Gain
1780	MHz	69%	5.524669
1800	MHz	74%	5.784449
1850	MHz	80%	6.707947
1880	MHz	84%	7.144941
1900	MHz	82%	7.040818
1930	MHz	83%	6.764318
1960	MHz	75%	6.42183
1980	MHz	75%	6.285493
2140	MHz	61%	4.466136
2160	MHz	62%	4.156648
2300	MHz	67%	2.900521
2350	MHz	75%	3.914286
2400	MHz	73%	4.310278
2450	MHz	58%	3.398074
2500	MHz	51%	3.143617

950	MHz	64%	1.268384
960	MHz	63%	1.241441
1710	MHz	66%	5.448184
1750	MHz	64%	4.955168

2550	MHz	51%	3.164979
2600	MHz	49%	4.187
2650	MHz	54%	3.602229
2700	MHz	67%	4.912668



Environmental Data

Operating Temperature	-20 °C to +80 °C
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IP Rating	IP66
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Compliance	RoHS
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Ordering Information

Product Variants

Part Number	Description
L-1RW5	FRB 2G 3G 4G LTE /2.4G WIFI Antenna

About MIOT

Miot Wireless Solutions, headquartered in Suzhou, China, was established in 2017. It has subsidiaries in Canada, the United States, Brazil, and EMEA. MIOT is a professional designer and manufacturer of Antennas and IoT PCBA products, providing turn-key service to customers worldwide.

Our talented R&D team has experienced antenna, hardware, and software engineers who can participate in your new project, from something simple like antenna/selection and design, to complete turn-key services, which entails taking your concept and ideas through design, prototyping, debugging, certification, and manufacturing. Miot offers reliable products at reasonable prices with fast delivery times to help you get ahead in the market.

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