Datasheet

L-1RC5

4G Magnetic Suction Antenna

CELLULAR | WIFI

L-1RC5 is a high-performance 4G magnetic suction antenna produced by MIOT Company, supporting frequencies of 700-2700MHz. This antenna is designed with advanced technology, delivering outstanding signal reception and transmission capabilities suitable for applications in IoT, mobile communications, and other related fields. Its magnetic suction design allows for easy and quick installation on metal surfaces, ensuring a stable and reliable connection experience for users.

162 × 62 mm

With its wide frequency range and high-performance capabilities, the L-1RC5 antenna supports reliable wireless connectivity across multiple cellular networks. It enables efficient data transfer, voice communication, and IoT applications.

www.miotsolutions.com
info@miotsolutions.com

Document Information

Product	L-1RC5
Part Number	L-1RC5
Description	4G Magnetic Suction Antenna
Version	1.0 (current)
Date	3-Jan-2024
Status	Released

Revision History

Version	Date	Author	Changes
1.0	3-Jan-2024	Ivy liao	Initial Release

Product Overview

Product Description

L-1RC5 is a high-performance 4G magnetic suction antenna produced by MIOT Company, supporting frequencies of 700-2700MHz. This antenna is designed with advanced technology, delivering outstanding signal reception and transmission capabilities suitable for applications in IoT, mobile communications, and other related fields. Its magnetic suction design allows for easy and quick installation on metal surfaces, ensuring a stable and reliable connection experience for users. With its wide frequency range and high-performance capabilities, the L-1RC5 antenna supports reliable wireless connectivity across multiple cellular networks. It enables efficient data transfer, voice communication, and IoT applications.

Key Features

- Operates in 700-2700 MHz
- Multiband band antenna
- Vertical polarization
- High gain of 2.5 dBi
- VSWR 2.0
- Omni-directional pattern

Applications

- 4G/LTE radios
- Gateways
- Set-Top Boxes
- Security
- Transportation
- Smart agriculture

Electrical Specifications

Frequency			VSWR	Peak Gain	Efficiency
LTE	690 - 960	MHz	2.0	2.5 d Bi	53%
LTE/WiFi	1710 - 2700	MHz	2.0	2.5 d Bi	60%

Frequency Range	700-2700 MHz	Radiation	Omnidirectional
Impedance	50 Ω	Polarization	Linear

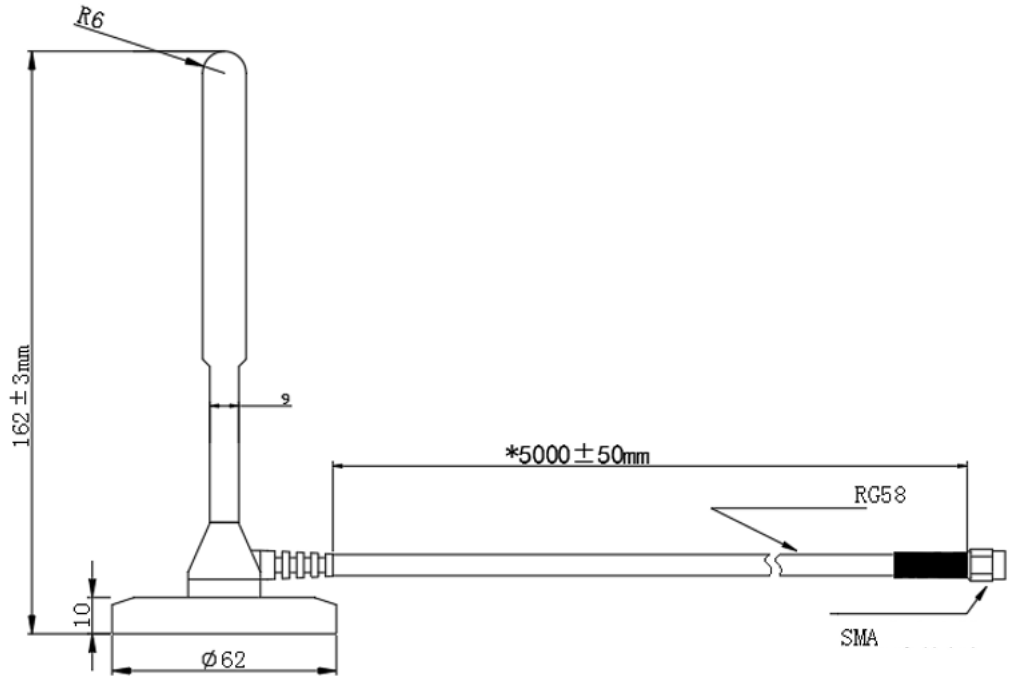
Mechanical Specifications

Type	Magnetic	Mounting Type	Magnetic
Dimensions	162 × 62 mm	Casing	YES
Connector	SMA Male	Color	Black
Enclosure	TPE	Material	ABS
Cable Length	5000mm		

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

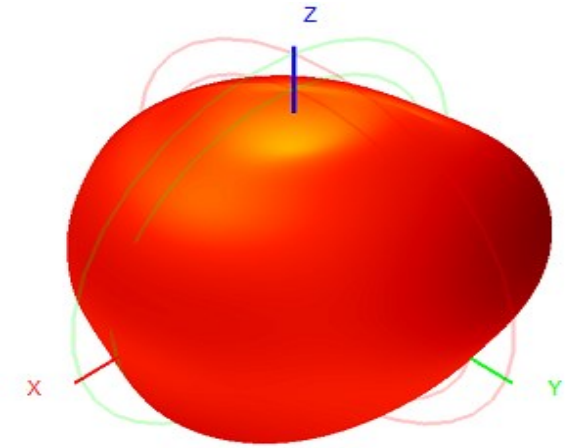


Radiation Pattern

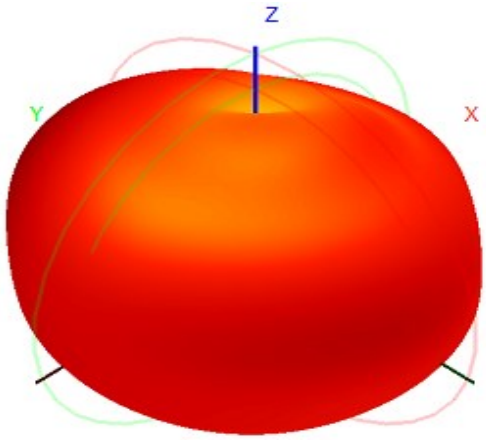
A radiation pattern is a graphical representation of the directional properties of an antenna. It shows how electromagnetic waves are distributed in space in relation to the direction of propagation.

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

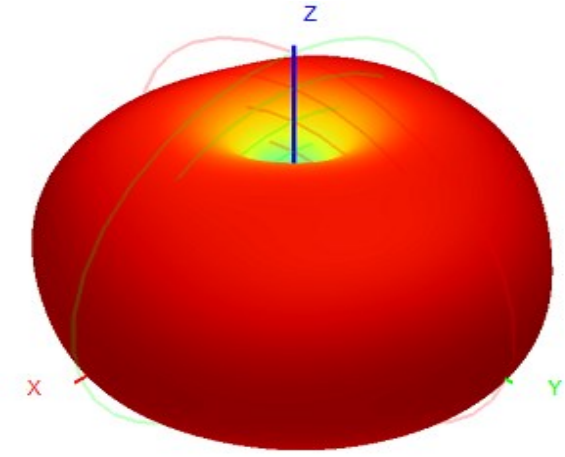
700 MHz



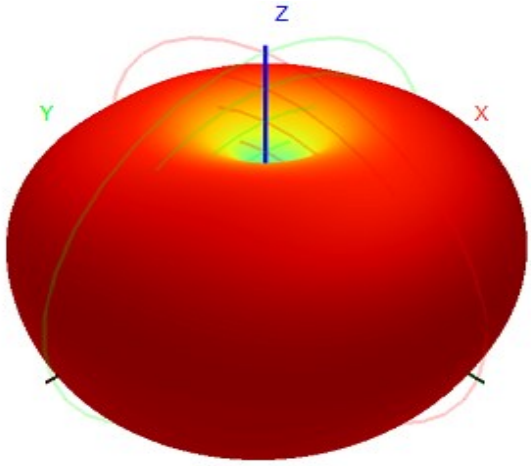
Back View



960 MHz

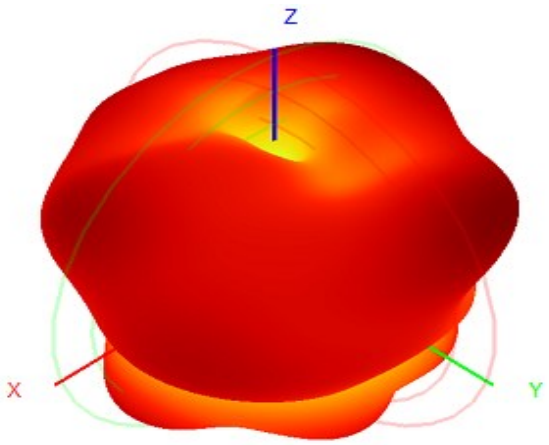


Back View

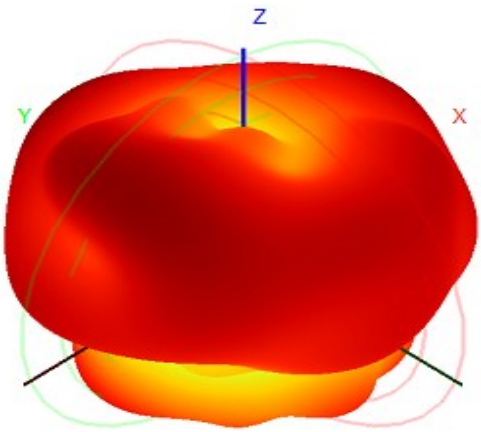


1700 MHz

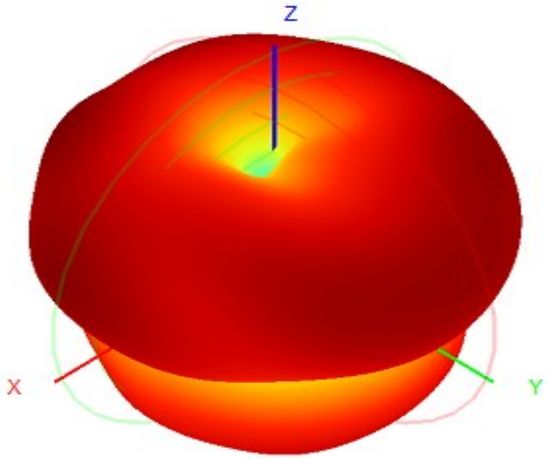
Back View



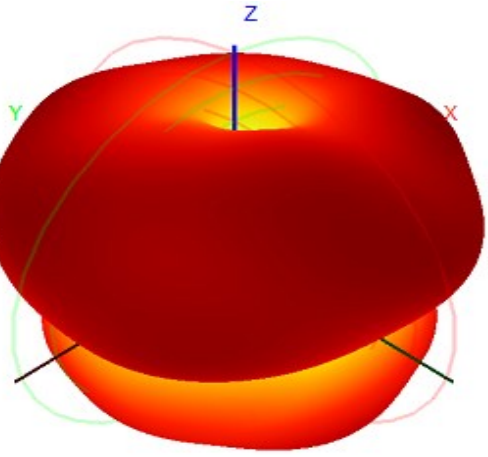
2000 MHz



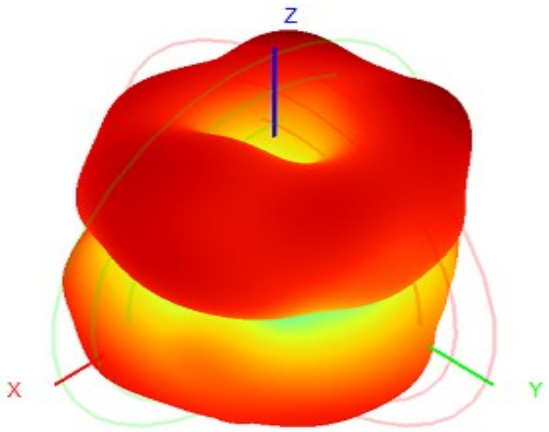
Back View

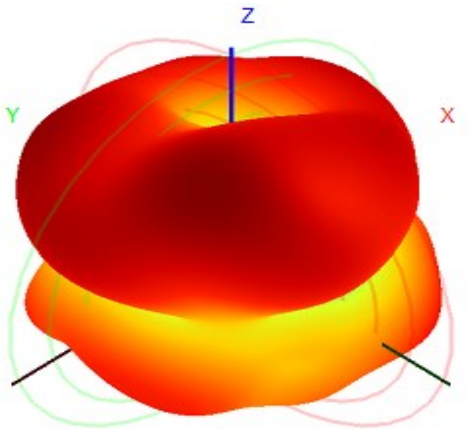


2700 MHz



Back View



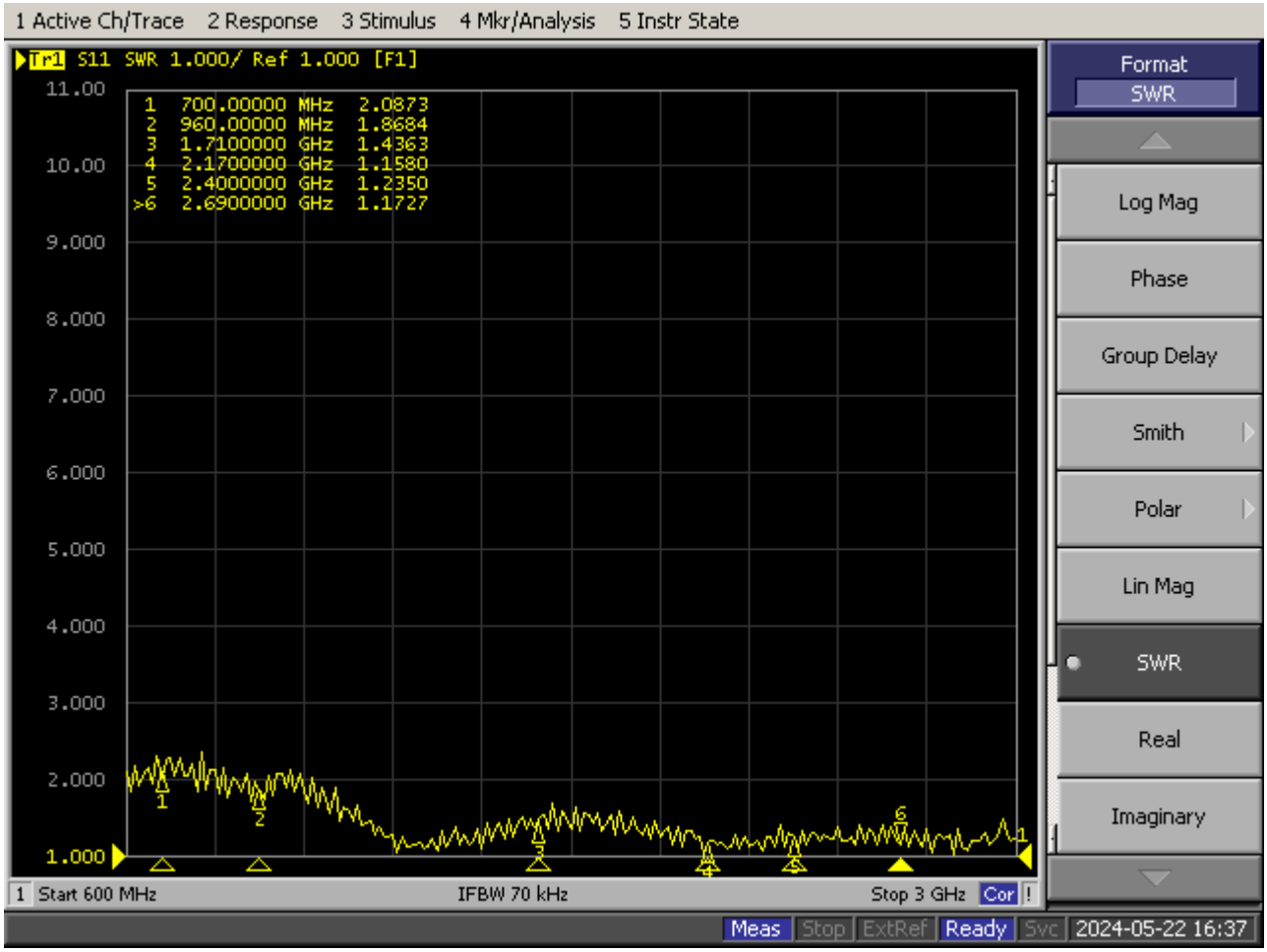


Antenna Smith and VSWR

Frequency	VSWR

Frequency	VSWR

700	MHz	2.0	2170	MHz	1.1
960	MHz	1.9	2400	MHz	1.2
1710	MHz	1.4	2690	MHz	1.2



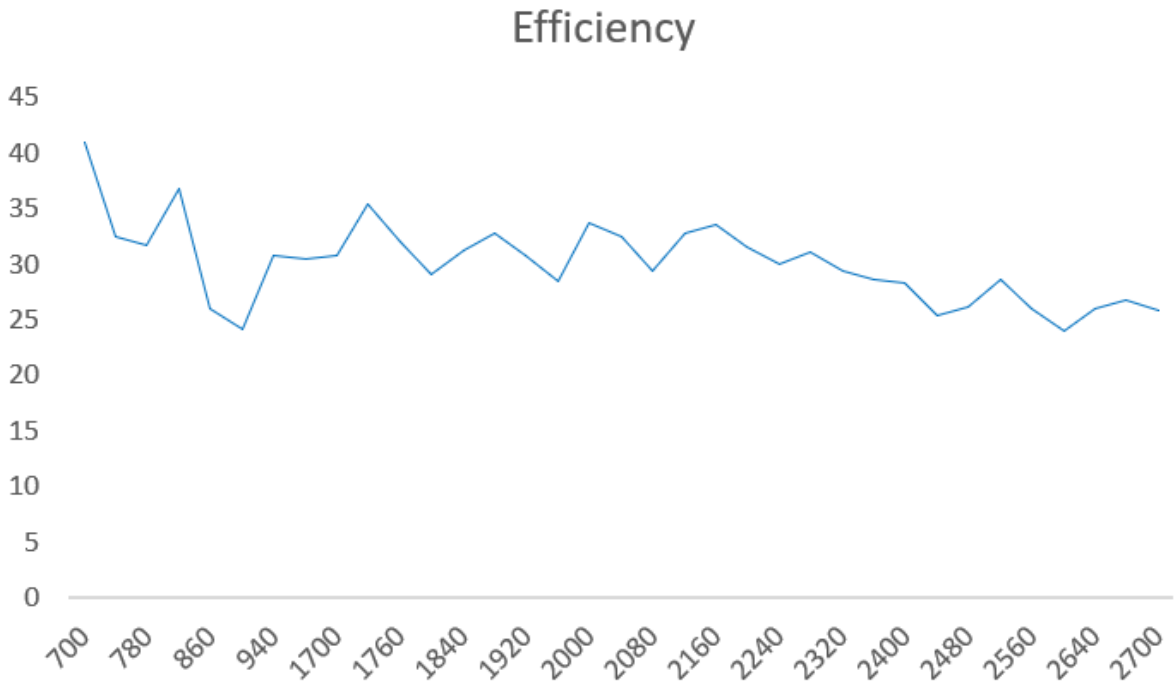
Antenna Efficiency and Gain

Frequency		Efficiency	Gain
700	MHz	41.02	1.51

Frequency		Efficiency	Gain
2080	MHz	29.46	0.18

740	MHz	32.49	-0.57
780	MHz	31.64	-0.49
820	MHz	36.85	-0.37
860	MHz	26.03	-2.85
900	MHz	24.13	-2.58
940	MHz	30.74	-1.95
960	MHz	30.47	-2.11
1700	MHz	30.70	0.40
1740	MHz	35.37	0.97
1760	MHz	32.06	1.15
1800	MHz	29.14	0.90
1840	MHz	31.26	0.48
1880	MHz	32.78	0.31
1920	MHz	30.75	0.49
1960	MHz	28.51	-0.61
2000	MHz	33.72	-0.62
2040	MHz	32.51	0.55

2120	MHz	32.79	0.72
2160	MHz	33.59	1.18
2200	MHz	31.51	1.63
2240	MHz	29.97	2.22
2280	MHz	31.08	1.98
2320	MHz	29.39	1.92
2360	MHz	28.67	2.17
2400	MHz	28.28	1.95
2440	MHz	25.33	1.14
2480	MHz	26.18	1.52
2520	MHz	28.61	1.61
2560	MHz	25.96	0.93
2600	MHz	24.00	0.96
2640	MHz	25.95	1.19
2680	MHz	26.76	1.51
2700	MHz	25.77	1.49



Environmental Data

Operating Temperature	-25°C to +75°C
Vibration	N/A

Ordering Information

Product Variants

Part Number	Description
L-1RC5	4G Magnetic Suction Antenna

About MIOT

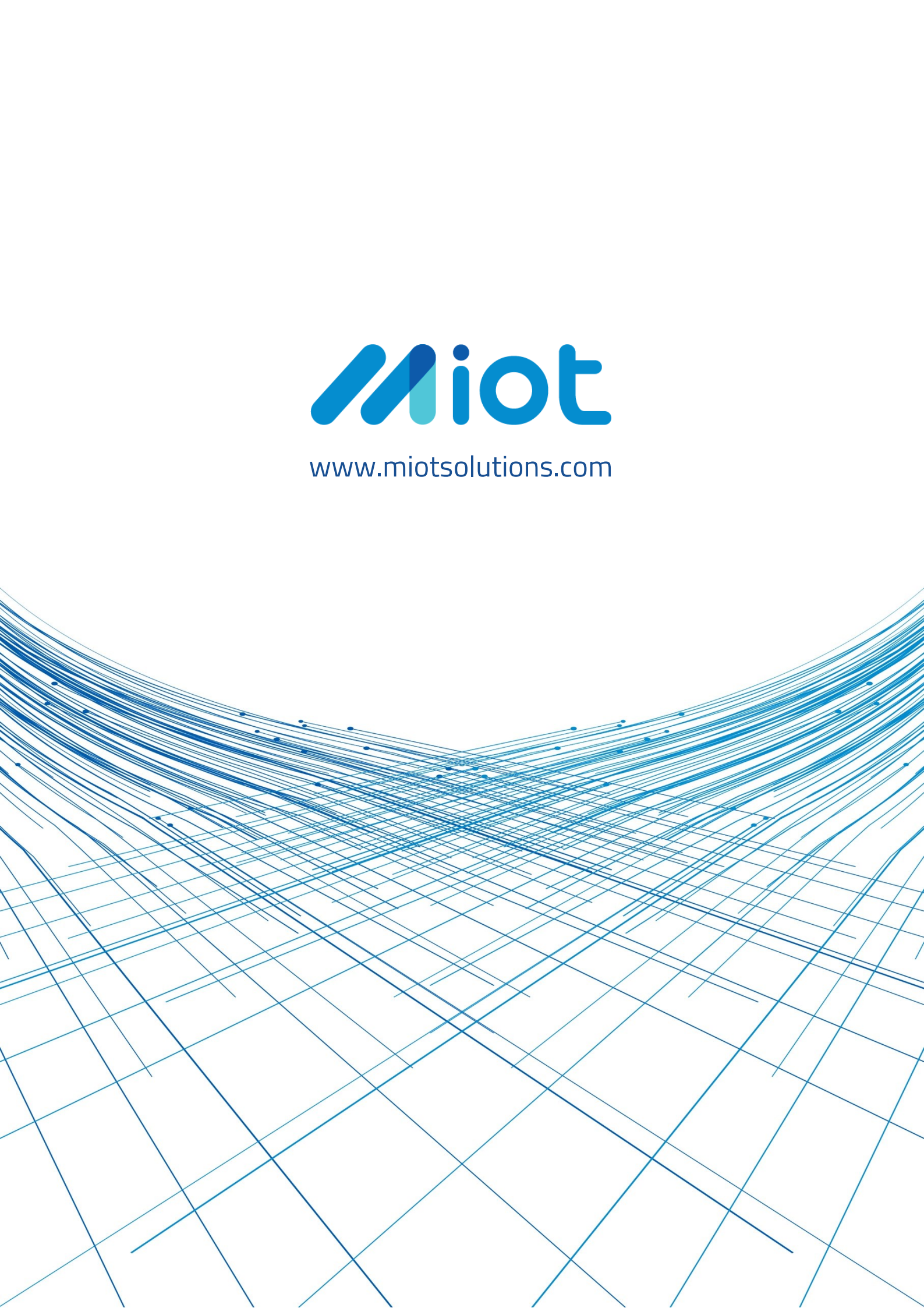
Miot Wireless Solutions, headquartered in Suzhou, China, was established in 2017. It has subsidiaries in Canada, the United States, Brazil, and EMEA. MIOT is a professional designer and manufacturer of Antennas and IoT PCBA products, providing turn-key service to customers worldwide.

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.

Contact

MIOT Wireless Solutions Co. Ltd.
120-5800 Ambler Dr, MISSISSAUGA
ONTARIO L4W 4J4
Canada

Website: www.miotsolutions.com
Email: info@miotsolutions.com


www.miotsolutions.com