

L-1RB6

4G LTE/3G/2G High Performance Customizable Antenna

CELLULAR

Magnetic

The L-1RB6 is a versatile antenna, designed for 4G LTE, 3G, and 2G cellular networks. It features a magnetic mount, allowing for easy and flexible installation on metallic surfaces. The antenna offers customization options for cable length and connector type, ensuring compatibility with various devices and systems.

With its wide frequency range, the L-1RB6 antenna supports reliable wireless connectivity across different cellular networks. It facilitates seamless data transfer, voice communication, and IoT applications. Whether for industrial IoT deployments, wireless routers, or other applications requiring cellular connectivity, the L-1RB6 antenna provides a high-performance solution.



318 x 30 mm

Document Information

Product	L-1RB6
Part Number	L-1RB6
Description	4G LTE/3G/2G High Performance Customizable Antenna
Version	2.0 (current)
Date	30-Mar-2023
Status	Released

Revision History

Version	Date	Author	Changes
1.0	16-Dec-2020	Amy Li	Initial Release
2.0	30-Mar-2023	Amy Li	New layout and design
3.0	15-Aug-2025	Leo Lee	Information Update

Product Overview

Product Description

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Key Features

- Supports LTE / WCDMA & WIFI
- Wide Application
- High Reliability/Sensitivity
- Compact Size, Easy to install.
- RoHS Compliant

Applications

- LTE/Wi-Fi Radios
- Gateways
- Set-top Boxes.
- Security
- Transportation
- Smart Agriculture

Electrical Specifications

Frequency Range	700 – 2690 MHz
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Impedance	50 Ω
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Polarization	Linear
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Radiation	Omnidirectional
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Electrical Type	Monopole
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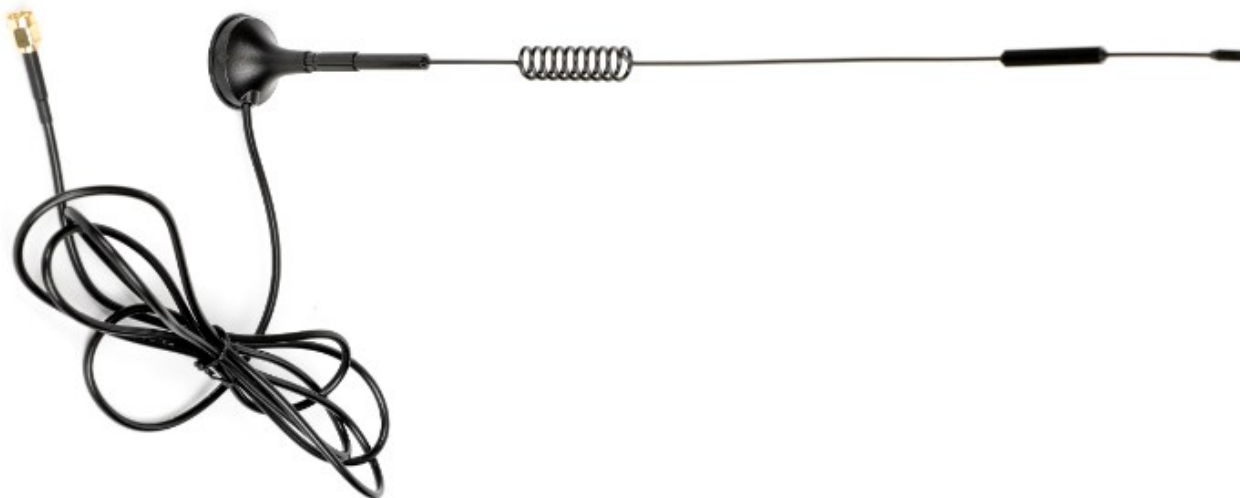
Mechanical Specifications

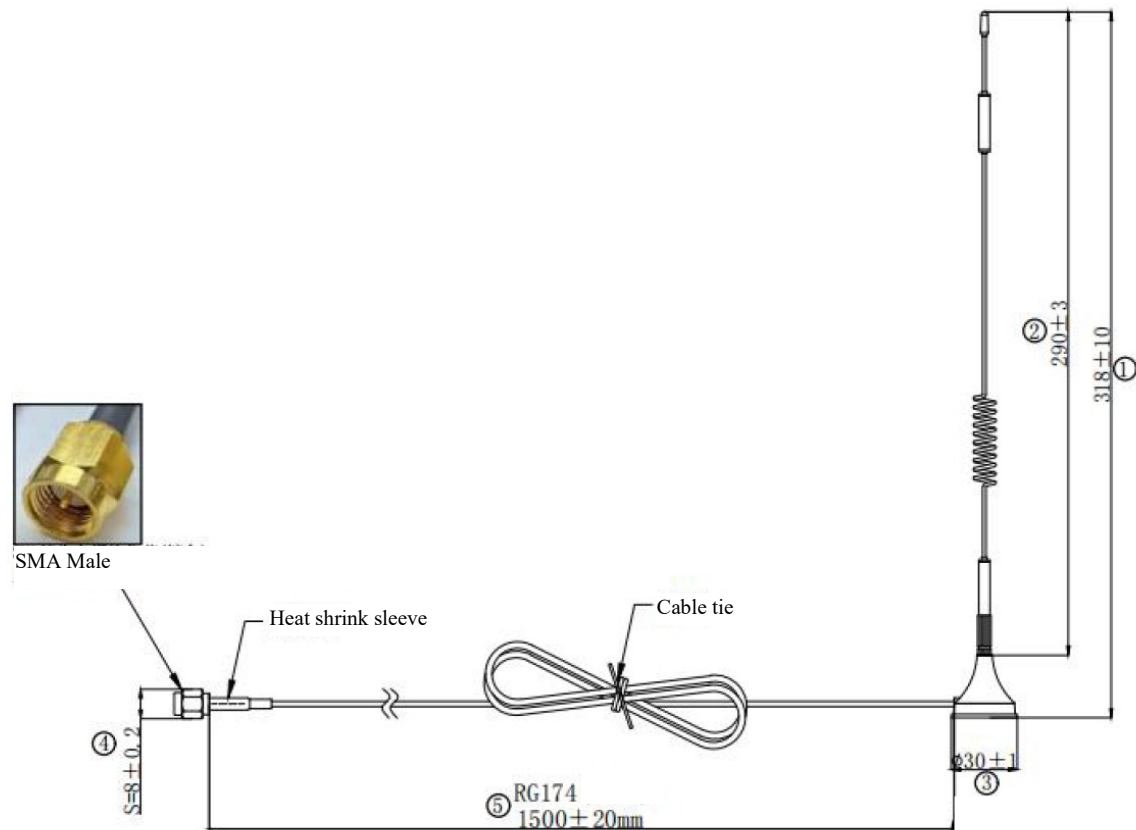
Type	External	Casing	Yes
Dimensions	318 x 30 mm	Color	Black
Connector (Termination)	SMA Plug (male pin)	Material	PC + ABS
Mounting Type	Magnetic Mount	Weight	TBC (to be confirmed)

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





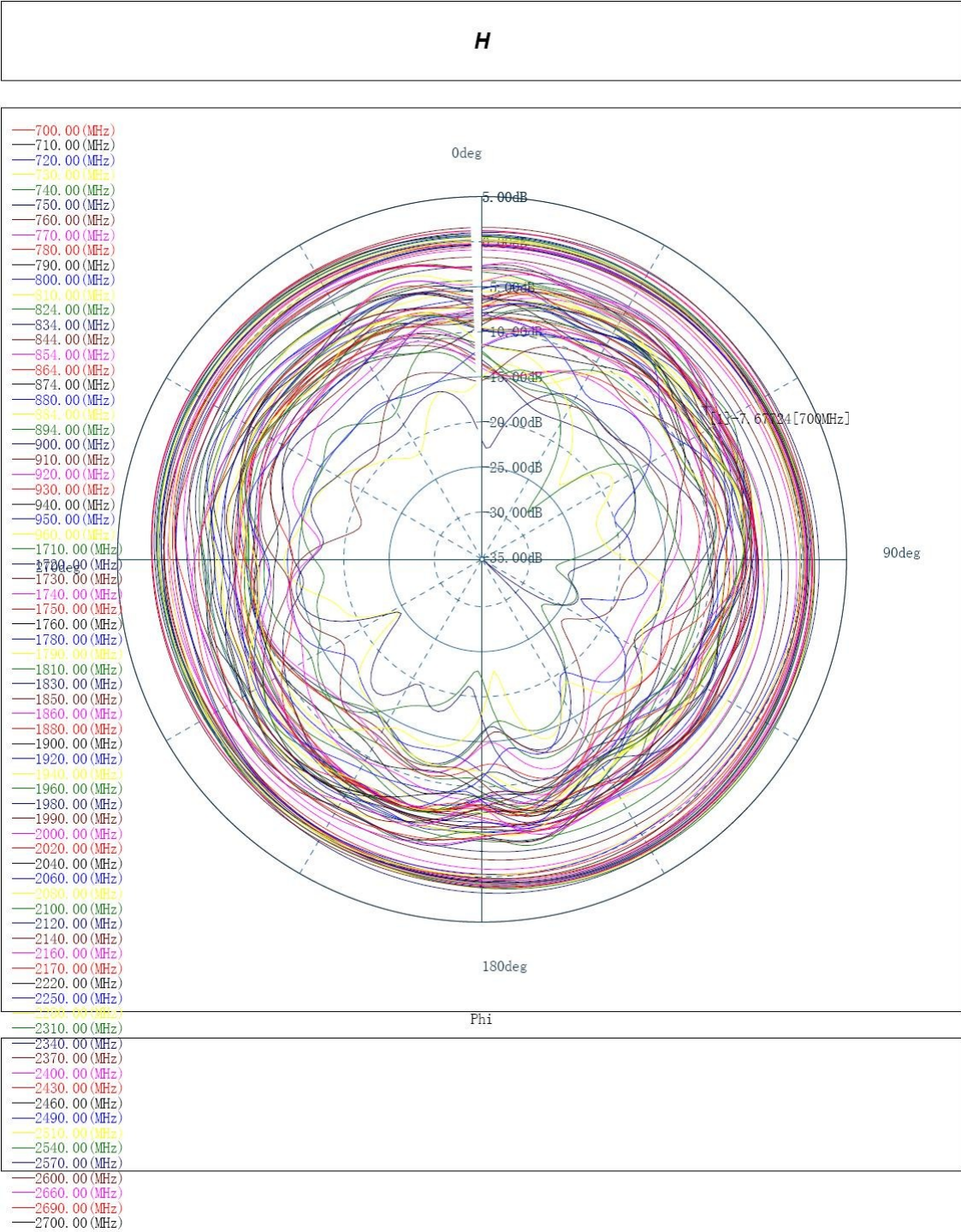
Radiation Pattern

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.

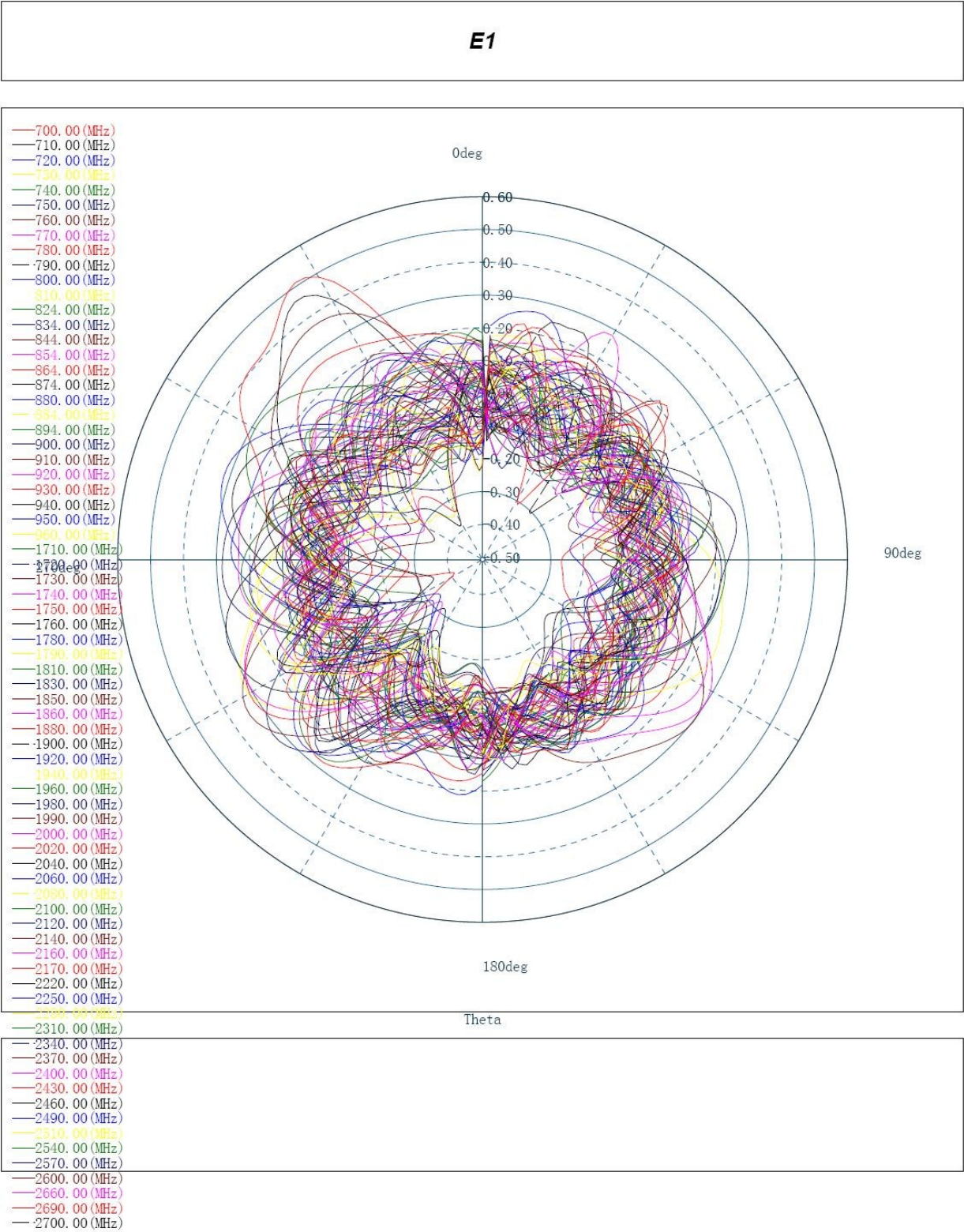
XY Plane (H)

700 – 2690 MHz



YZ Plane (E1)

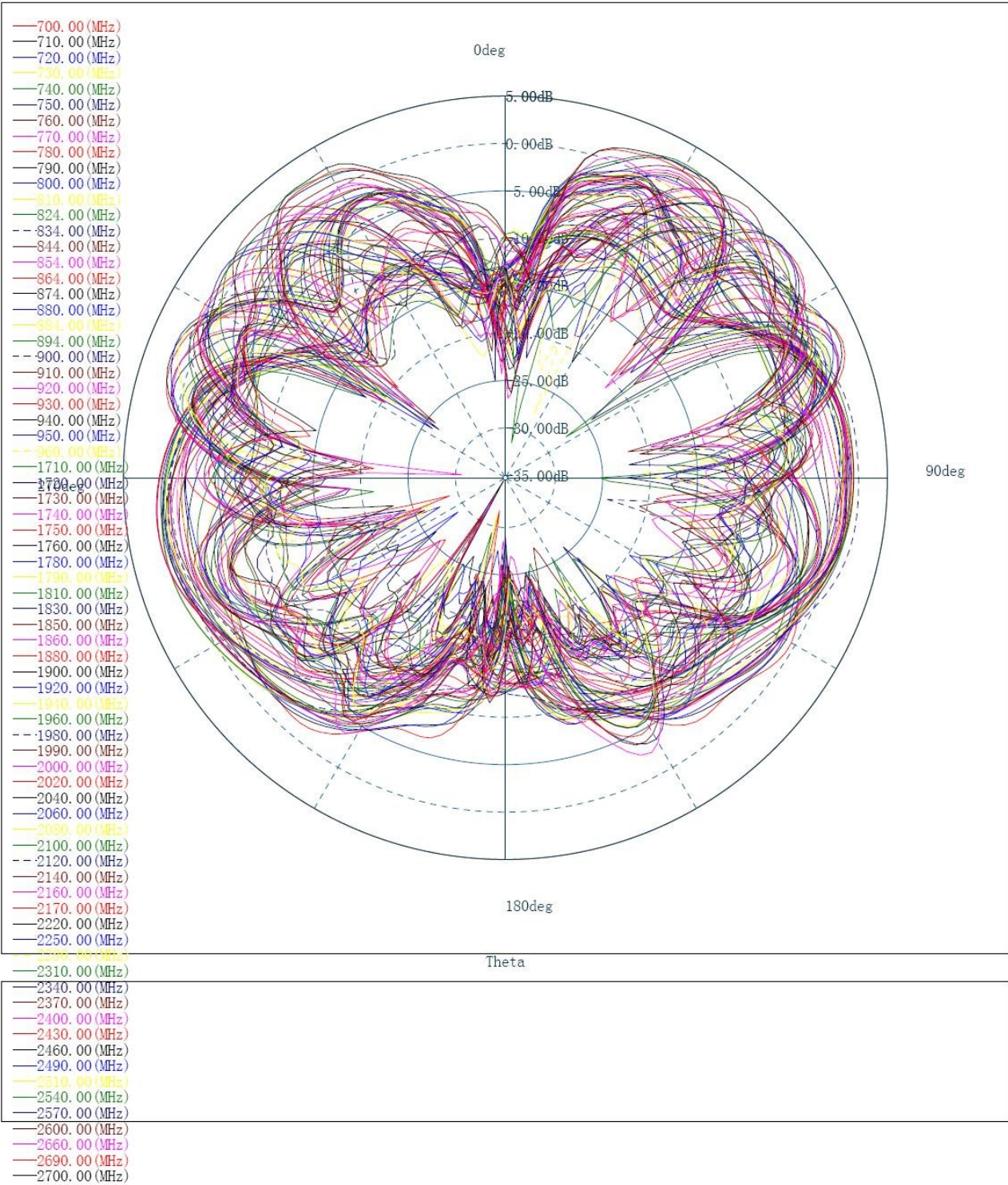
700 – 2700 MHz



YZ Plane (E2)

700 – 2700 MHz

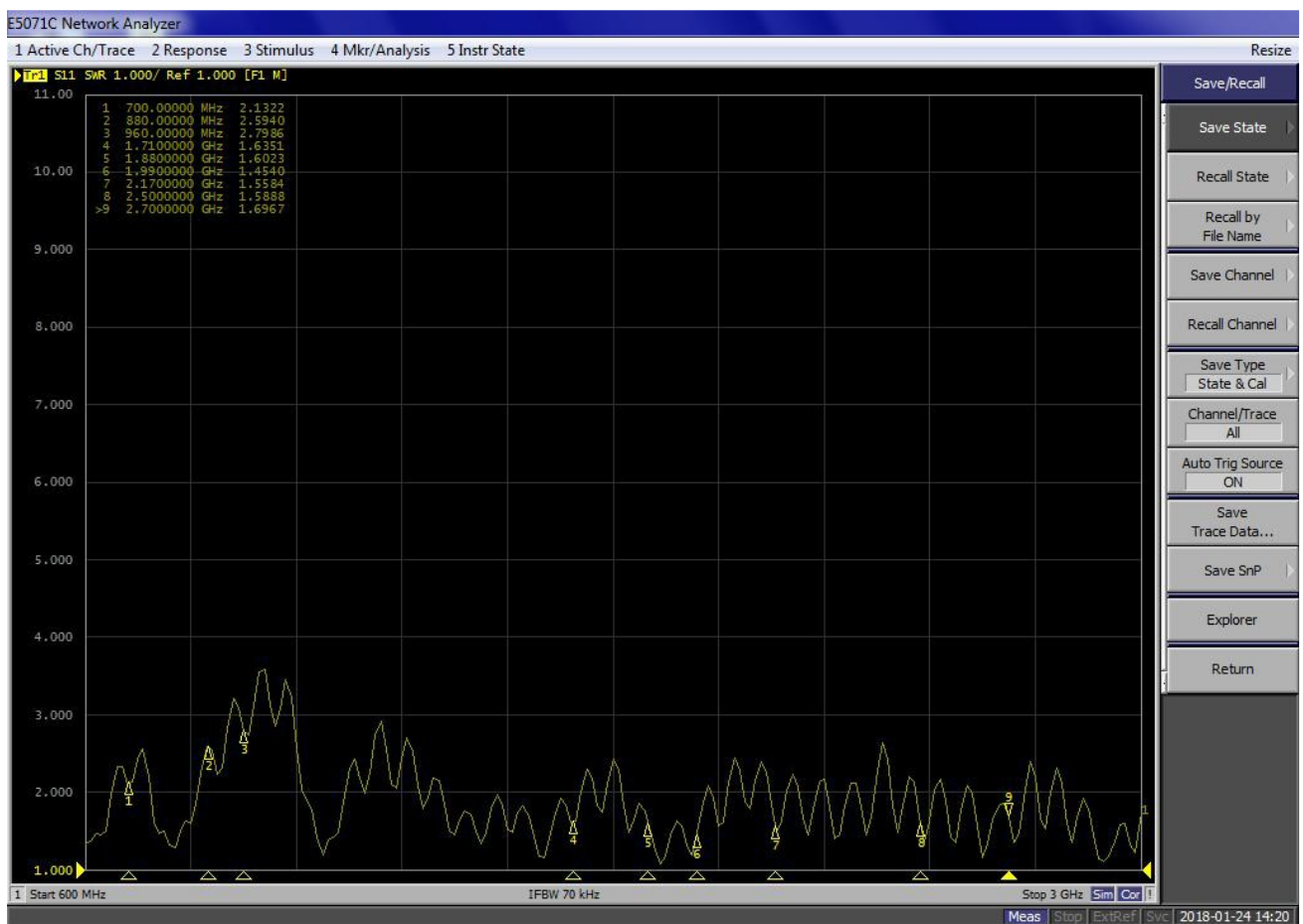
E2

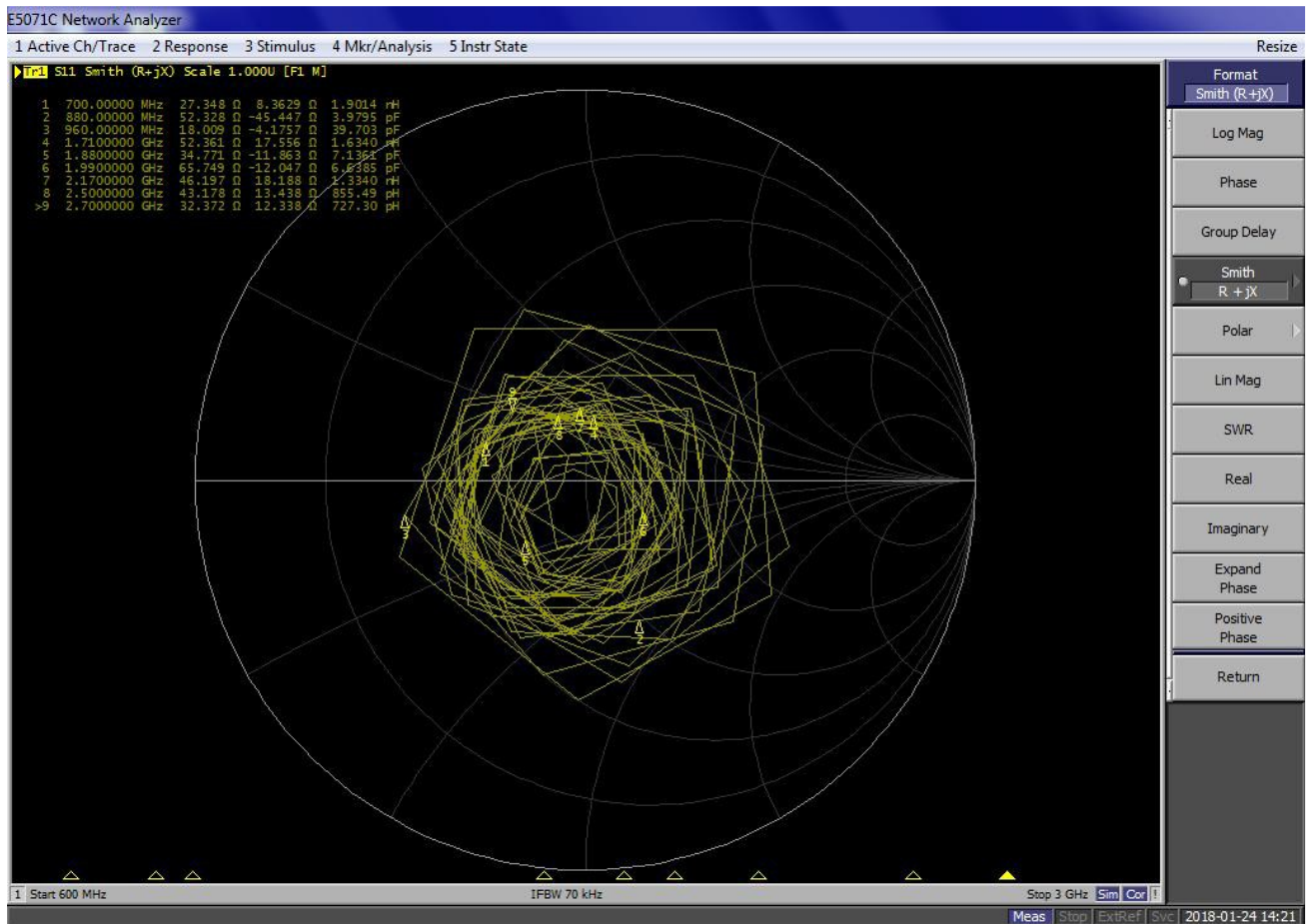


Antenna Smith and VSWR

Frequency		VSWR
700	MHz	2.1
880	MHz	2.5
960	MHz	2.7
1710	MHz	1.6

Frequency		VSWR
1880	MHz	1.6
2400	MHz	1.4
2500	MHz	1.5
2690	MHz	1.6





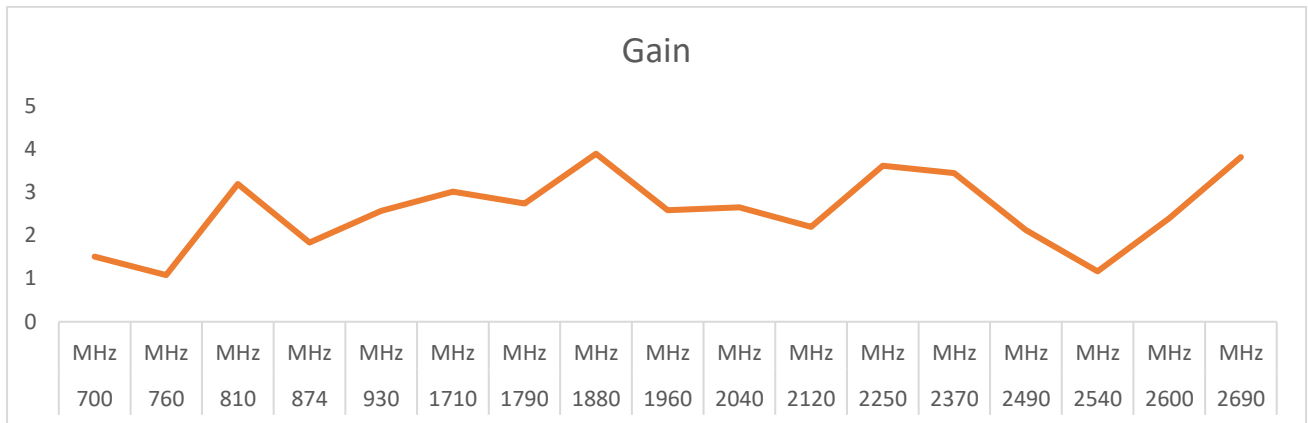
Antenna Efficiency and Gain

Frequency	Efficiency	Gain
700 MHz	46%	1.51
730 MHz	40%	1.88
760 MHz	25%	1.08
790 MHz	48%	2.24
810 MHz	43%	3.19
844 MHz	35%	3.30
874 MHz	34%	1.83
900 MHz	32%	2.98
930 MHz	27%	2.57
960 MHz	30%	1.47
1710 MHz	27%	3.01
1750 MHz	31%	2.55
1790 MHz	32%	2.74

Frequency	Efficiency	Gain
1990 MHz	30%	2.84
2040 MHz	25%	2.65
2080 MHz	29%	2.58
2120 MHz	29%	2.20
2170 MHz	32%	3.65
2250 MHz	35%	3.61
2310 MHz	34%	3.20
2370 MHz	30%	3.44
2430 MHz	30%	2.14
2490 MHz	27%	2.12
2510 MHz	29%	2.20
2540 MHz	28%	1.17
2570 MHz	30%	2.79

1830	MHz	39%	2.77
1880	MHz	41%	3.89
1920	MHz	39%	3.09
1960	MHz	30%	2.58

2600	MHz	30%	2.40
2660	MHz	33%	3.30
2690	MHz	33%	3.81
2700	MHz	35%	4.33



Environmental Data

Operating Temperature -20 °C to +80 °C

IP Rating IP67

Compliance RoHS

Ordering Information

Product Variants

Part Number	Description
L-1RB6	4G LTE/3G/2G High Performance Customizable 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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