

L-1RB7

2.4G WIFI /4G LTE Antenna

CELLULAR

LTE

The L-1RB7 is a type of 2.4G WIFI /4G LTE Antenna. It supports 2.4G WIFI, 4G, 3G, and 2G cellular networks and operates within a frequency range of 824 to 2700MHz.

With its wide frequency range, the L-1RB7 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.



175x 20 mm

Document Information

Product	L-1RB7
Part Number	L-1RB7
Description	2.4G WIFI /4G LTE Antenna
Version	2.0 (current)
Date	11-Sep-2023
Status	Released

Revision History

Version	Date	Author	Changes
1.0	16-Dec-2020	Amy Li	Initial Release
1.1	25-Jul-2023	Ivy Liao	New layout and design
2.0	11-Sep-2023	Ivy Liao	New layout and design

Product Overview

Product Description

The L-1RB7 is a type of 2.4G WIFI /4G LTE Antenna. It supports 2.4G WIFI, 4G, 3G, and 2G cellular networks and operates within a frequency range of 824 to 2700MHz.

With its wide frequency range, the L-1RB7 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.

Key Features

- Operates in 824-960/1710-2700 MHz
- VSWR 1.7
- Vertical polarization
- High gain of 8 dBi

Applications

- 2.4G/LTE radios
- Gateways
- Set-Top Boxes
- Security
- Transportation
- Smart agriculture

Electrical Specifications

Frequency			VSWR	Peak Gain	Efficiency
LTE	824 - 960	MHz	1.7	8.0 d Bi	37%
LTE	1710 - 2700	MHz	2.9	8.0 d Bi	59%

Frequency Range 824 – 2700 MHz

Impedance 50 Ω

Polarization Vertical

Radiation Omnidirectional

Electrical Type Monopole

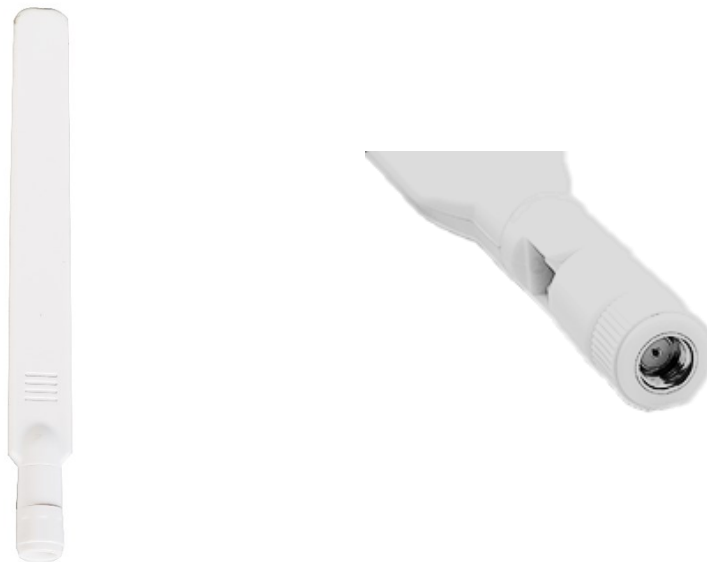
Mechanical Specifications

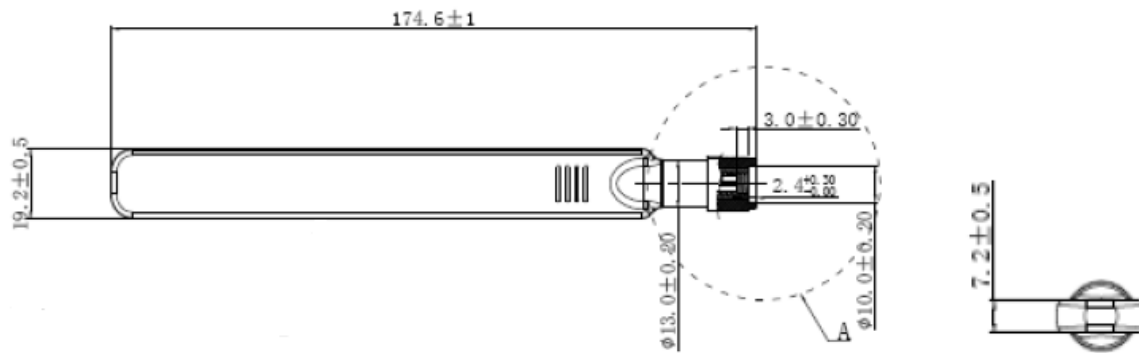
Type	Hinge	Casing	Yes
Dimensions	175x 20 mm	Color	White
Connector (Termination)	SMA Plug (male pin)	Material	PBT + PC
Mounting Type	Connector Mount	Weight	TBC (to be confirmed)

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





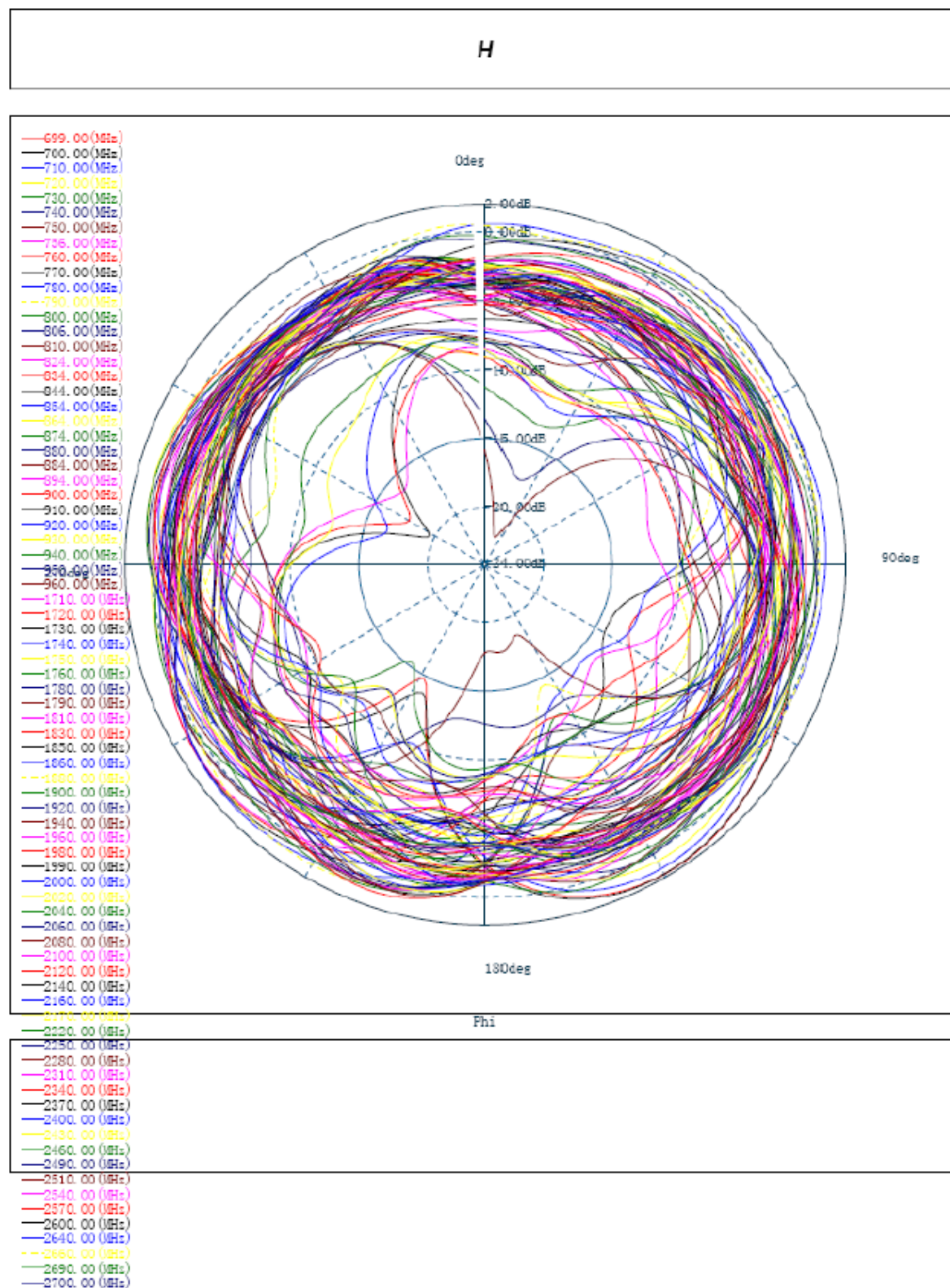
Radiation Pattern

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.

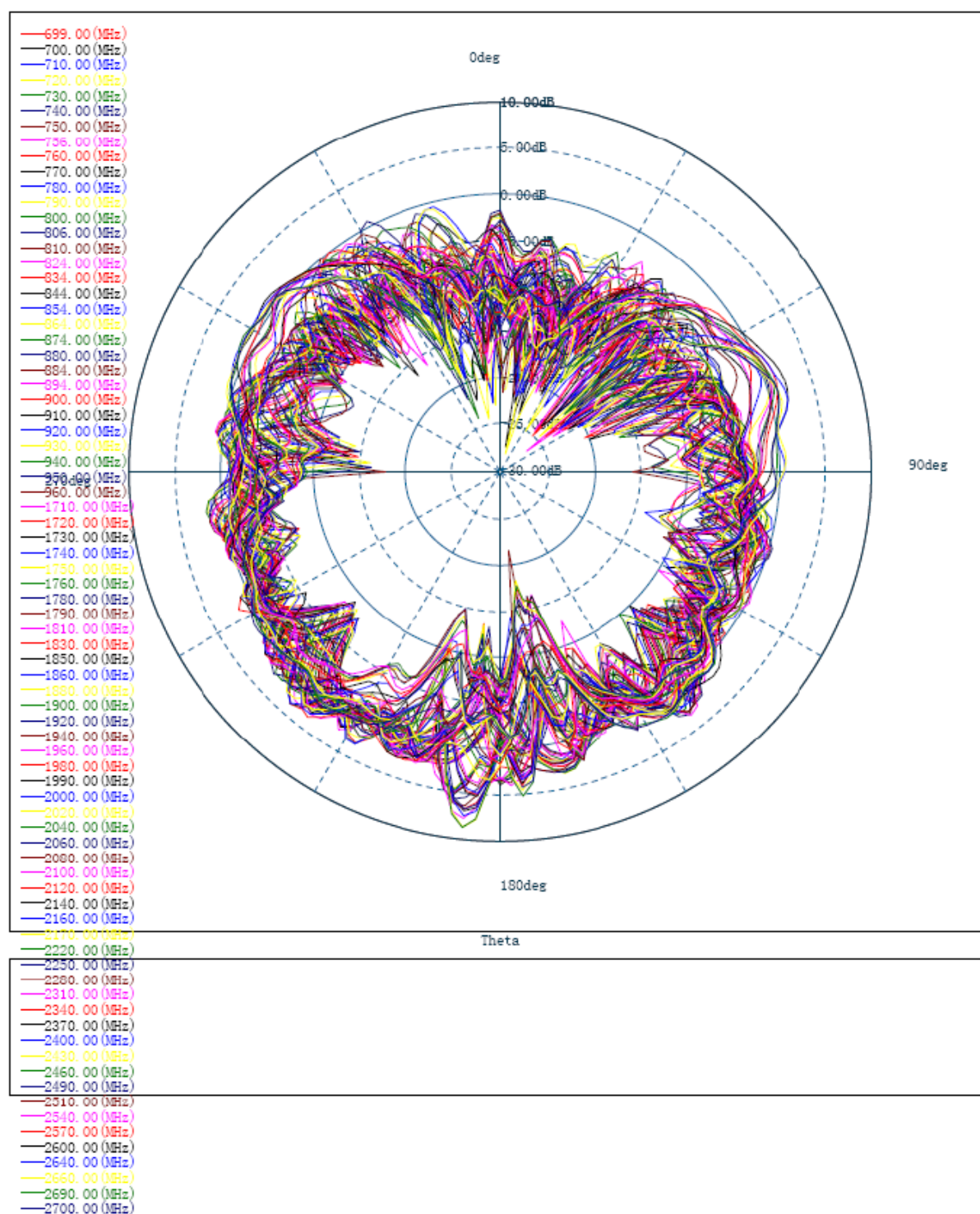
XY Plane (H)

824 – 2700 MHz



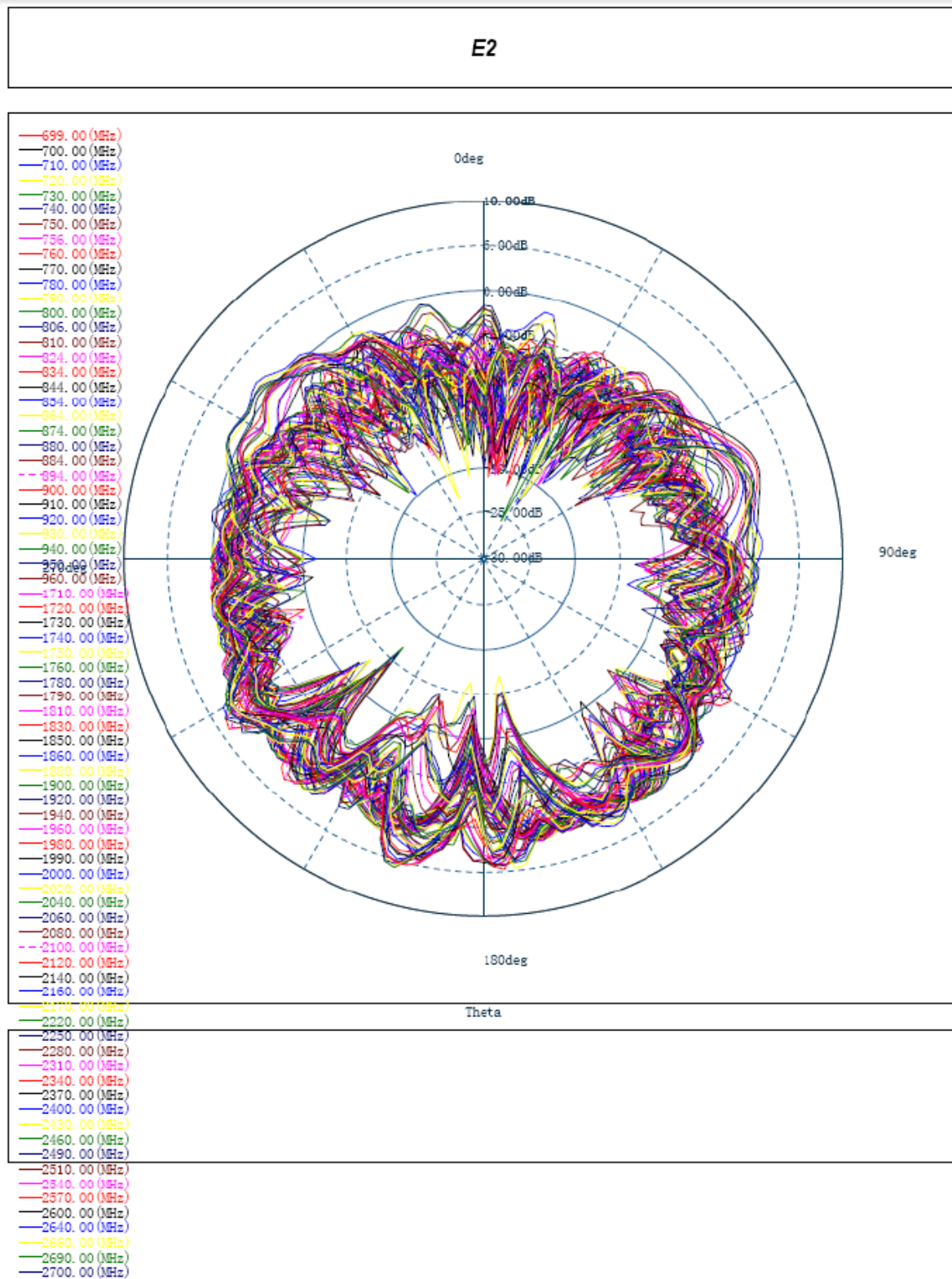
YZ Plane (E1)

824 – 2700 MHz

E1

YZ Plane (E2)

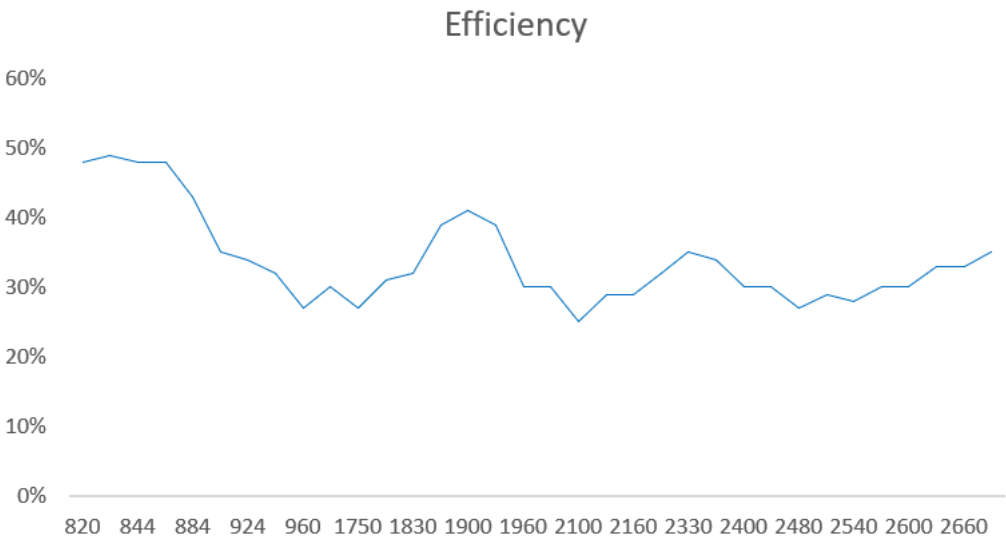
824 – 2700 MHz

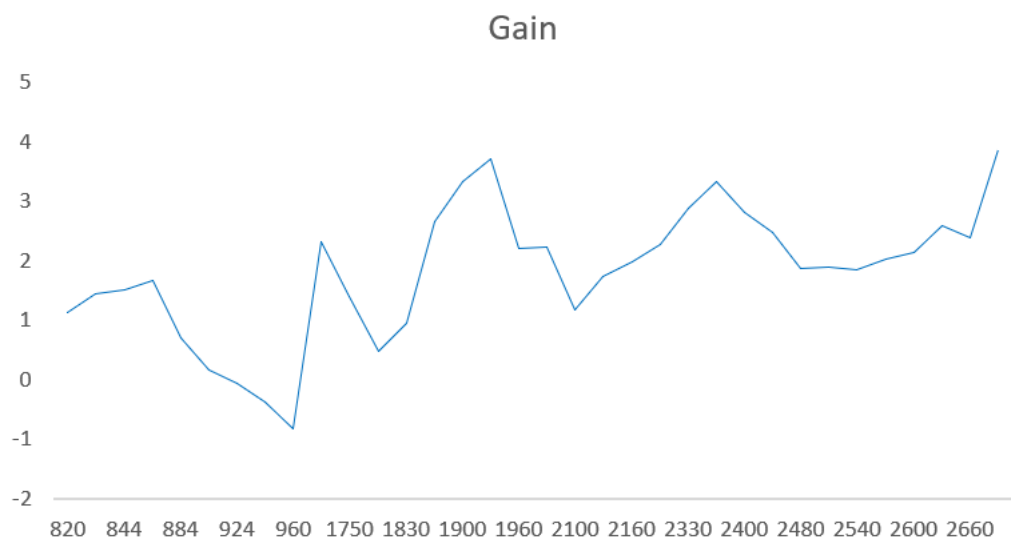


Antenna Efficiency and Gain

Frequency		Efficiency	Gain
820	MHz	48%	1.13
830	MHz	49%	1.45
844	MHz	48%	1.52
864	MHz	48%	1.66
884	MHz	43%	0.70
904	MHz	35%	0.16
924	MHz	34%	-0.07
940	MHz	32%	-0.39
960	MHz	27%	-0.83
1710	MHz	30%	2.32
1750	MHz	27%	1.39
1790	MHz	31%	0.47
1830	MHz	32%	0.94
1870	MHz	39%	2.66
1900	MHz	41%	3.34
1930	MHz	39%	3.71
1960	MHz	30%	2.21

Frequency		Efficiency	Gain
1990	MHz	30%	2.22
2100	MHz	25%	1.17
2130	MHz	29%	1.73
2160	MHz	29%	1.98
2300	MHz	32%	2.27
2330	MHz	35%	2.88
2370	MHz	34%	3.34
2400	MHz	30%	2.82
2450	MHz	30%	2.48
2480	MHz	27%	1.87
2510	MHz	29%	1.89
2540	MHz	28%	1.84
2570	MHz	30%	2.02
2600	MHz	30%	2.14
2630	MHz	33%	2.59
2660	MHz	33%	2.38
2690	MHz	35%	3.88





Environmental Data

Operating Temperature	-25 °C to +80 °C
Compliance	RoHS

Ordering Information

Product Variants

Part Number	Description
L-1RB7	2.4G WIFI /4G LTE 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.mioticsolutions.com
Email: info@miotsolutions.com

The information contained herein is provided "as is" and MOIT assumes no liability for using the information. No warranty, either express or implied, is given, including but not limited to the accuracy, correctness, reliability, and fitness for a particular purpose of the information. This document may be revised by MOIT at any time.

MIOT reserves all rights to this document and the information contained herein. Reproduction, use, modification, or disclosure to third parties of this document without express permission is strictly prohibited.

Copyright © 2023, MIOT Wireless Solutions Ltd. All Rights Reserved



www.mioticsolutions.com

