

L-2FB4

4G/LTE Flexible Printed Antenna

CELLULAR

FPC

The L-2FB4 is a 4G/LTE Flexible Printed Antenna designed to operate at frequencies ranging from 824 MHz to 960 MHz and 1710 MHz to 2170 MHz. With its compact dimensions of 70 x 20 x 0.2 mm, it offers a space-efficient solution for wireless communication applications.

One of the key advantages of the L-2FB4 is its customizable connector and cable length options, allowing for seamless integration into various devices and configurations. This flexibility enables easy installation and optimal positioning for improved signal reception. Whether you require a specific connector type or a custom cable length, the L-2FB4 FPC antenna can be tailored to meet your unique requirements.



70 x 20 x 0.2 mm

Document Information

Product	L-2FB4
Part Number	L-2FB4
Description	4G/LTE Flexible Printed Antenna
Version	2.0 (current)
Date	25-Jul-2023
Status	Released

Revision History

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

Product Overview

Product Description

The L-2FB4 is a flexible printed antenna designed to operate at frequencies ranging from 824 MHz to 960 MHz and 1710 MHz to 2170 MHz. With its compact dimensions of 40 x 15 x 0.3 mm, it offers a space-efficient solution for wireless communication applications.

One of the key advantages of the L-2FB4 is its customizable connector and cable length options, allowing for seamless integration into various devices and configurations. This flexibility enables easy installation and optimal positioning for improved signal reception. Whether you require a specific connector type or a custom cable length, the L-2FB4 FPC antenna can be tailored to meet your unique requirements.

Key Features

- Operates in 824-2170 MHz
- Linear polarization
- Low VSWR
- FPC flexible or PCB material (Optional)
- Omni-directional pattern
- IPEX connector with cable, or Solder direct

Applications

- Cellular
- Transportation
- Industrial wearable
- Smart city
- Smart agriculture
- Home automation

Electrical Specifications

Frequency			VSWR	Peak Gain	Efficiency
LTE	824 - 960	MHz	1.7	0.5 d Bi	44%
LTE	1710 - 2170	MHz	1.4	1.7 d Bi	55%

Frequency Range	824 – 2170 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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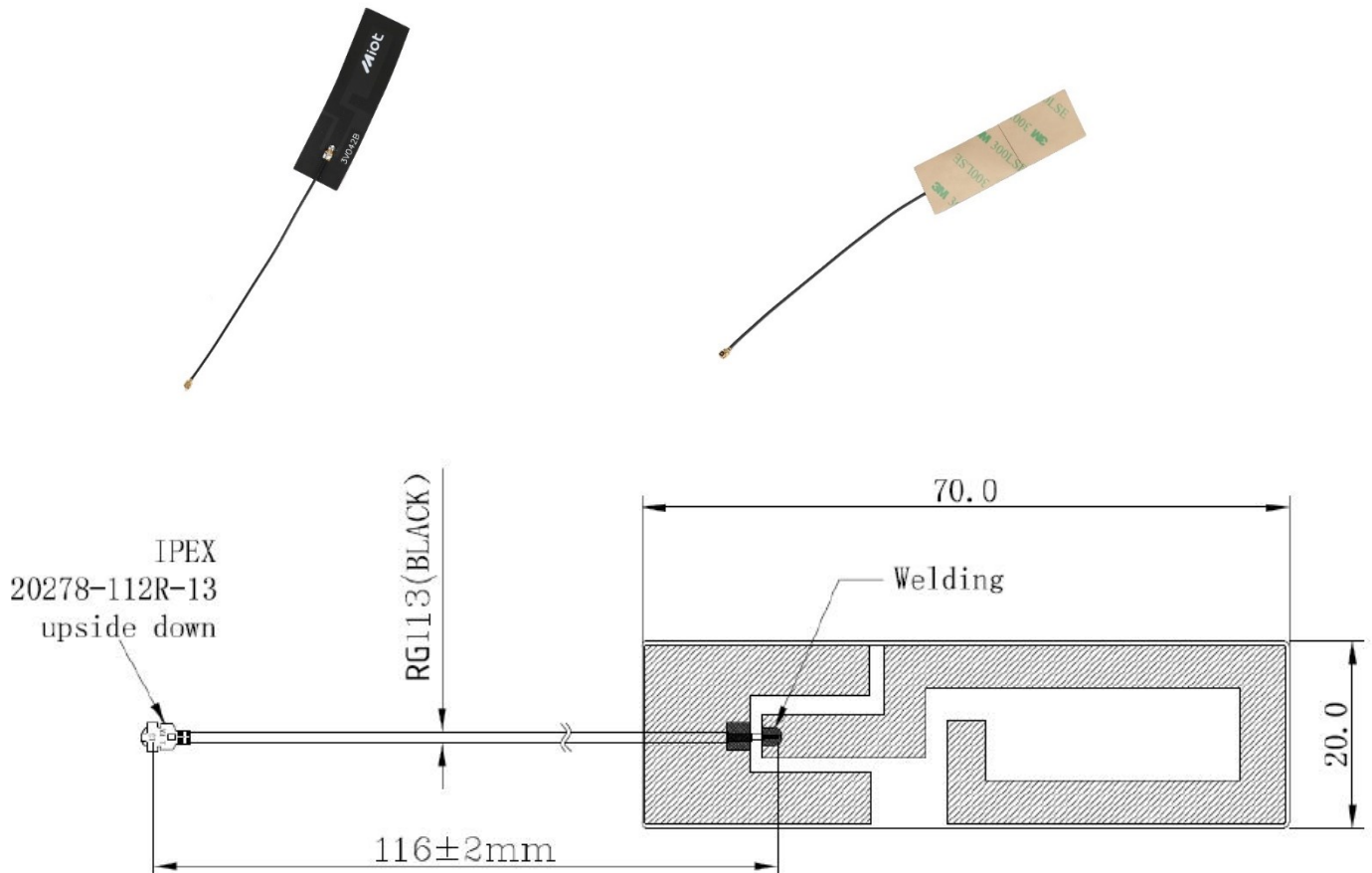
Mechanical Specifications

Type	FPC	Casing	NA
Dimensions	70 x 20 x 0.2 mm	Color	Black
Connector (Termination)	U.FL (standard)	Material	Flexible Polymer
Cable Type	1.13 mm (standard)	Cable Length	120mm (standard)
Mounting Type	Adhesive	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



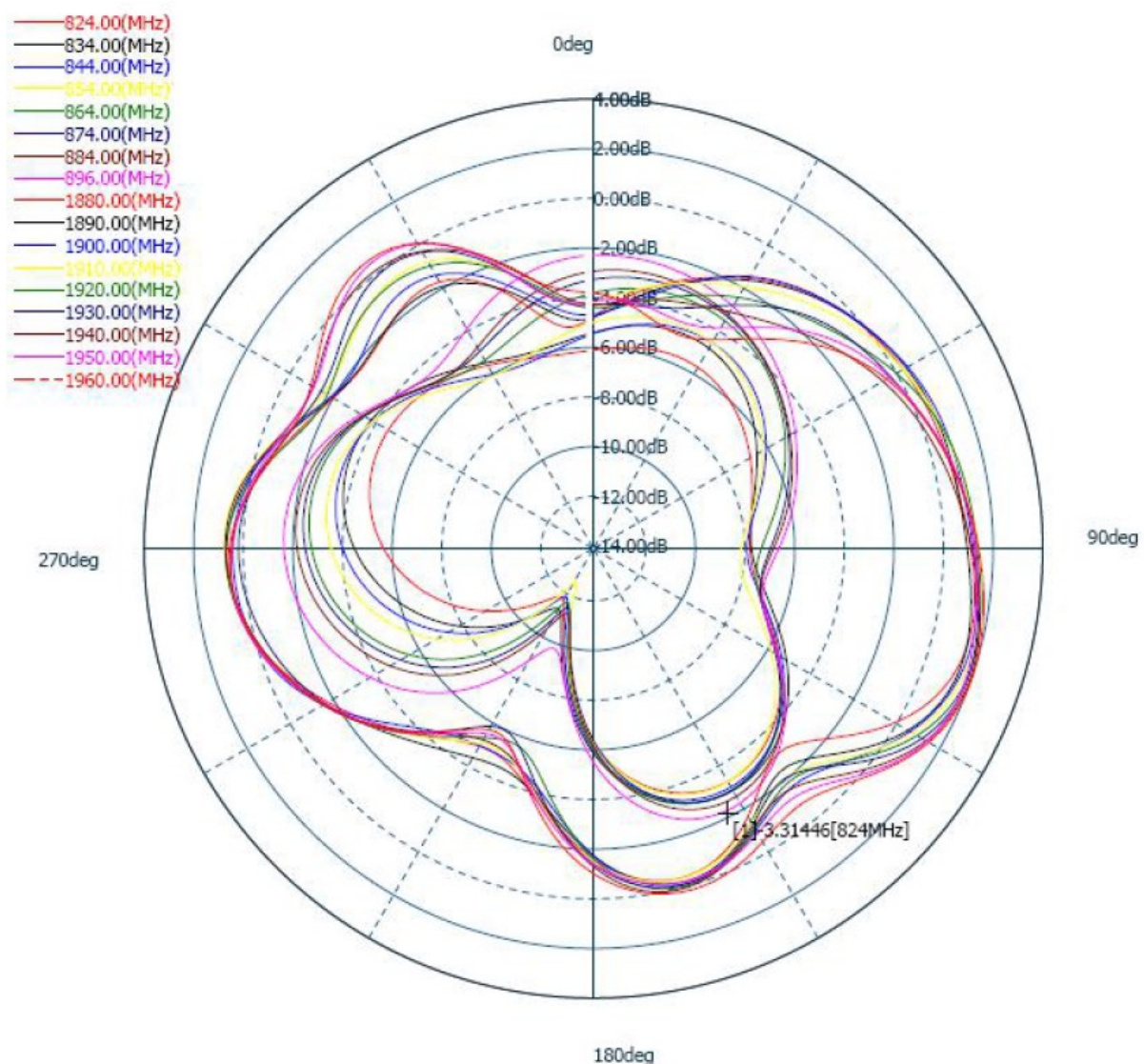
Radiation Pattern

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.

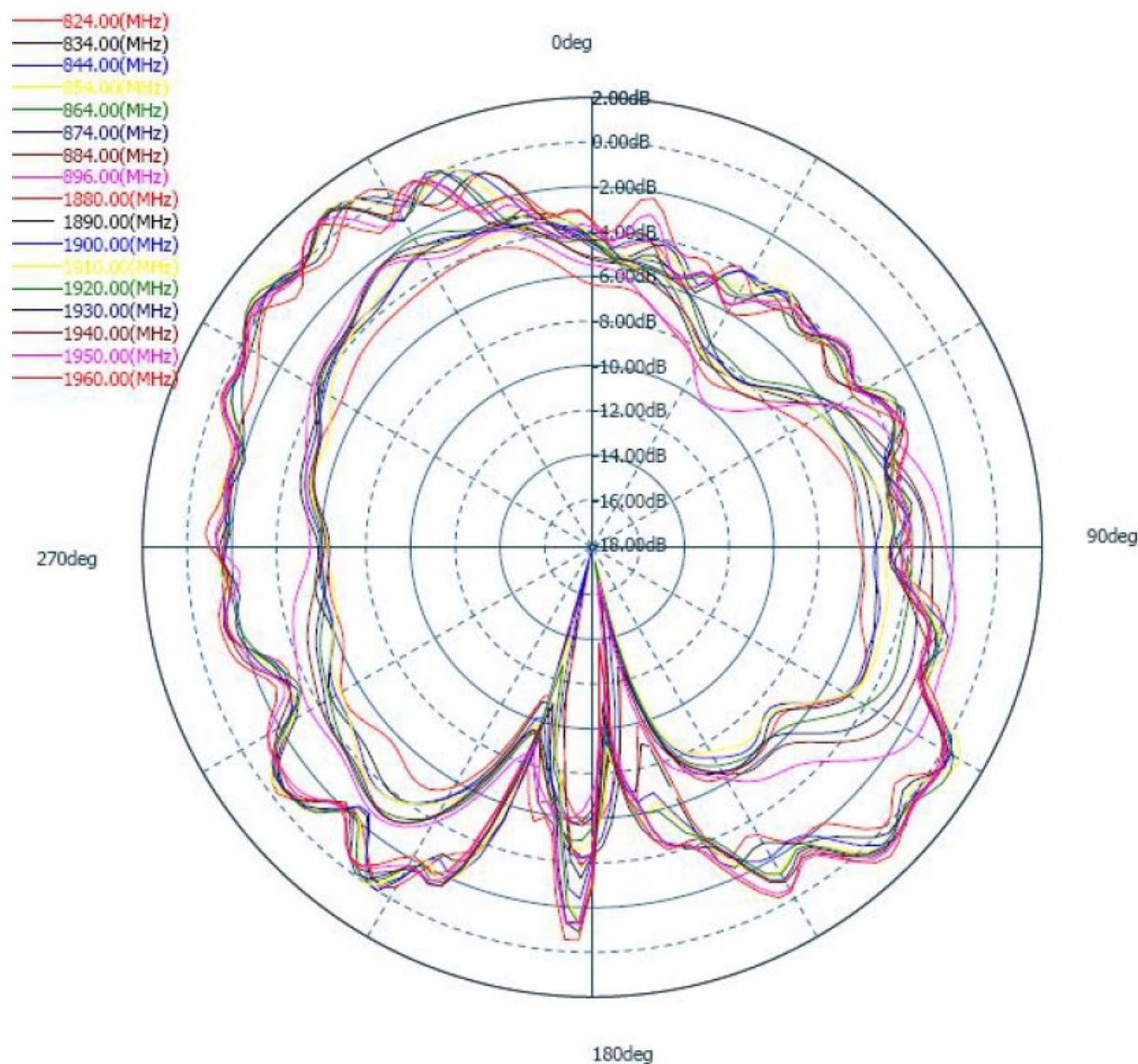
XY Plane (H)

824 – 2170 MHz



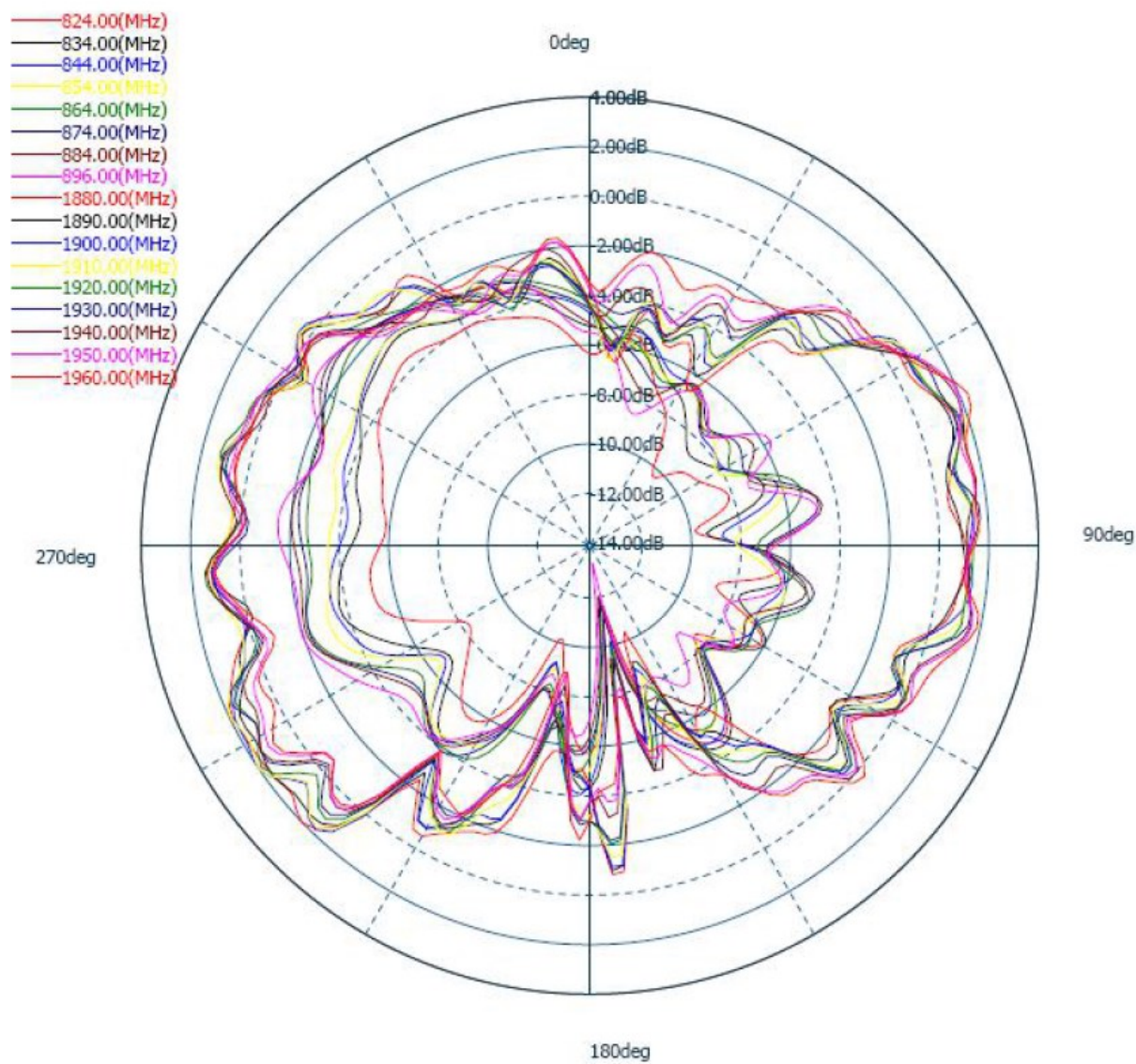
YZ Plane (E1)

824 – 2170 MHz



XZ Plane (E2)

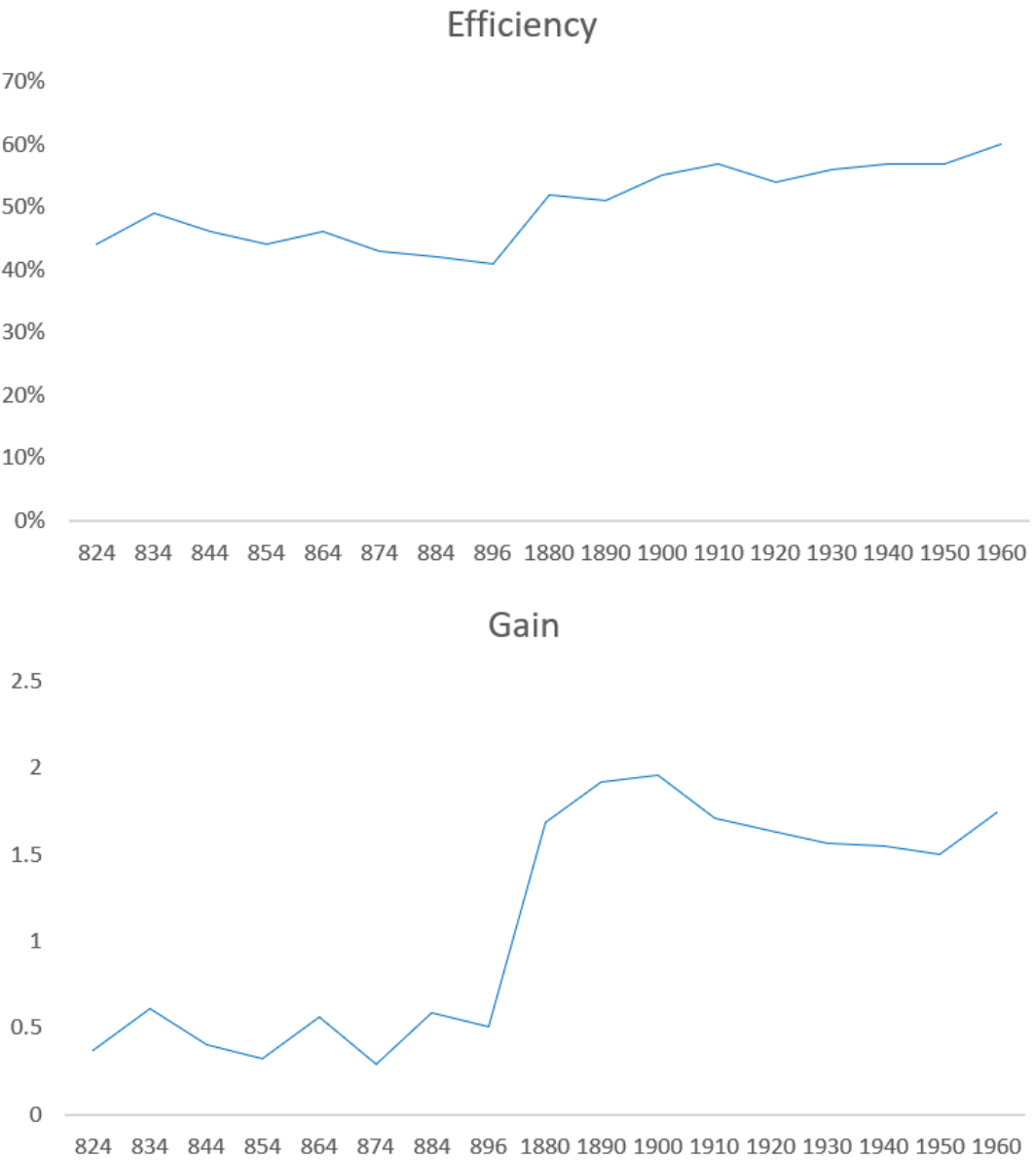
824 – 2170 MHz



Antenna Efficiency and Gain

Frequency		Efficiency	Gain
824	MHz	44%	0.37
834	MHz	49%	0.61
844	MHz	46%	0.4
854	MHz	44%	0.32
864	MHz	46%	0.56
874	MHz	43%	0.29
884	MHz	42%	0.59
896	MHz	41%	0.51
1880	MHz	52%	1.69

Frequency		Efficiency	Gain
1890	MHz	51%	1.92
1900	MHz	55%	1.96
1910	MHz	57%	1.71
1920	MHz	54%	1.64
1930	MHz	56%	1.57
1940	MHz	57%	1.55
1950	MHz	57%	1.5
1960	MHz	60%	1.74



Environmental Data

Operating Temperature	-40 °C to +85 °C
IP Rating	NA
Compliance	RoHS

Ordering Information

Product Variants

Part Number	Description
L-2FB4	4G/LTE Flexible Printed 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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