

L-1RC6

Multiband GSM/WCDMA/LTE/2.4G WIFI Antenna

CELLULAR

IP67

The L-1RC6 is a type of Multiband GSM/WCDMA/LTE/2.4G WIFI Antenna . It supports GSM/LTE/2.4G WiFi cellular networks and operates within a frequency range of 824 to 2700MHz.

With its wide frequency range, the L-1RC6 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.



190x 16 mm

Document Information

Product	L-1RC6
Part Number	L-1RC6
Description	Multiband GSM/WCDMA/LTE/2.4G WIFI 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-1RC6 is a type of Multiband GSM/WCDMA/LTE/2.4G WIFI Antenna. It supports GSM/LTE/2.4G WIFI cellular networks and operates within a frequency range of 824 to 2700MHz.

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Key Features

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

Applications

- Lot Devices
- Gateways
- Set-Top Boxes
- Security
- Transportation
- Smart agriculture

Electrical Specifications

Frequency			VSWR	Peak Gain	Efficiency
LTE	824 - 960	MHz	4.0	1.44 d Bi	51%
LTE	1710 - 2700	MHz	2.5	2.42 d Bi	53%

Frequency Range	824 – 2700 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

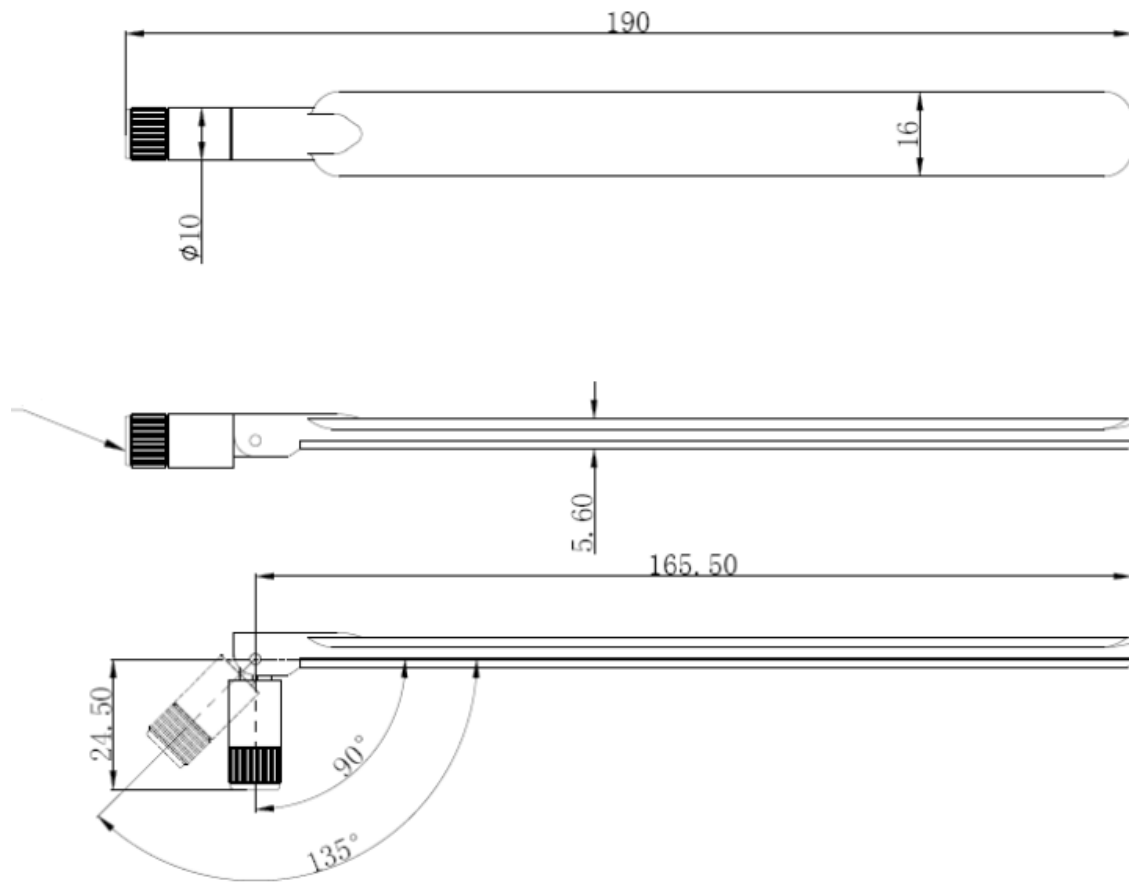
Type	Hinge	Casing	Yes
Dimensions	190 x 16 mm	Color	Black
Connector (Termination)	SMA Plug (male pin)	Material	PC + ABS
Mounting Type	Connector Mount	Weight	TBC (to be confirmed)
Cable	RG178		

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





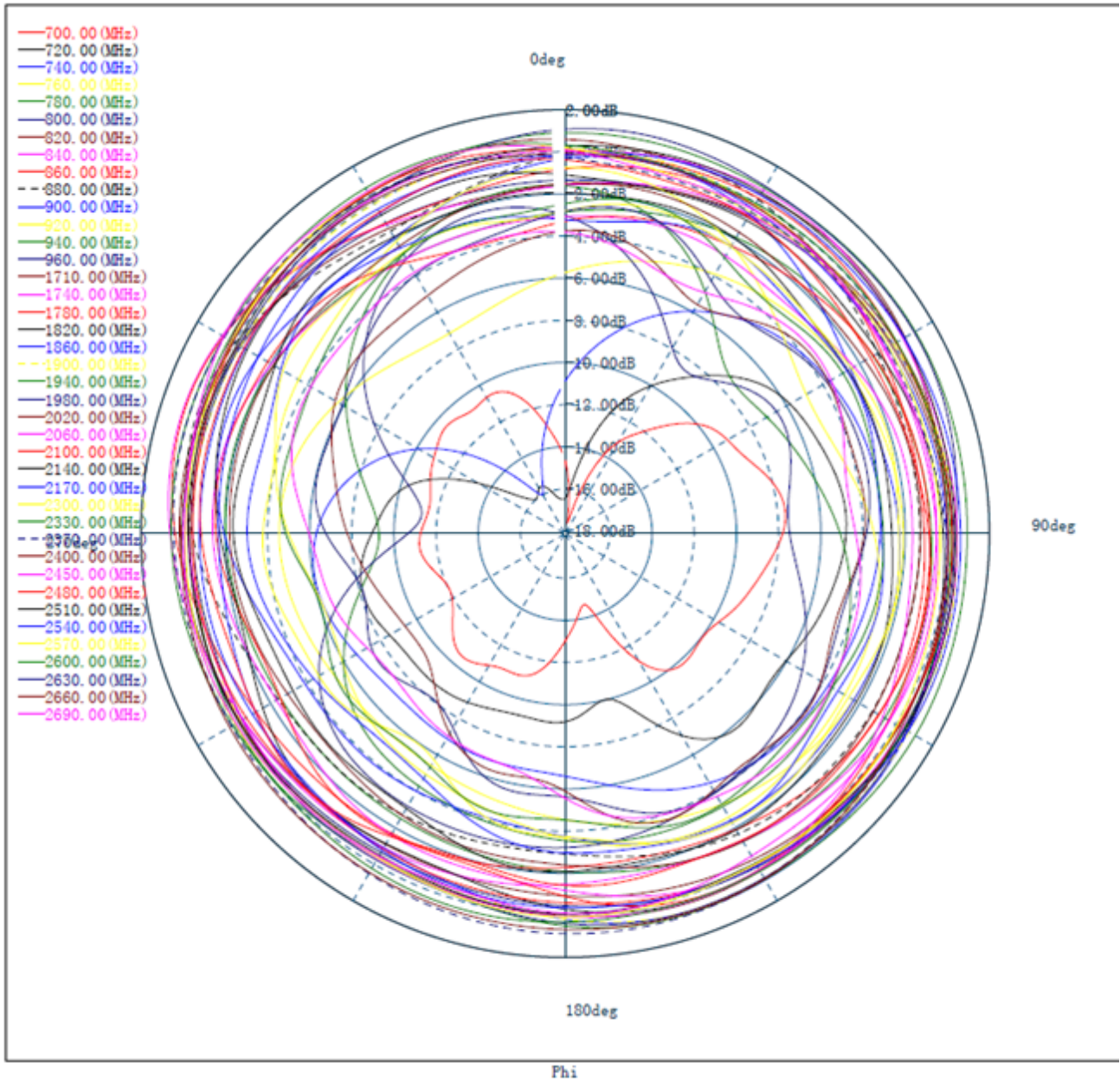
Radiation Pattern

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.

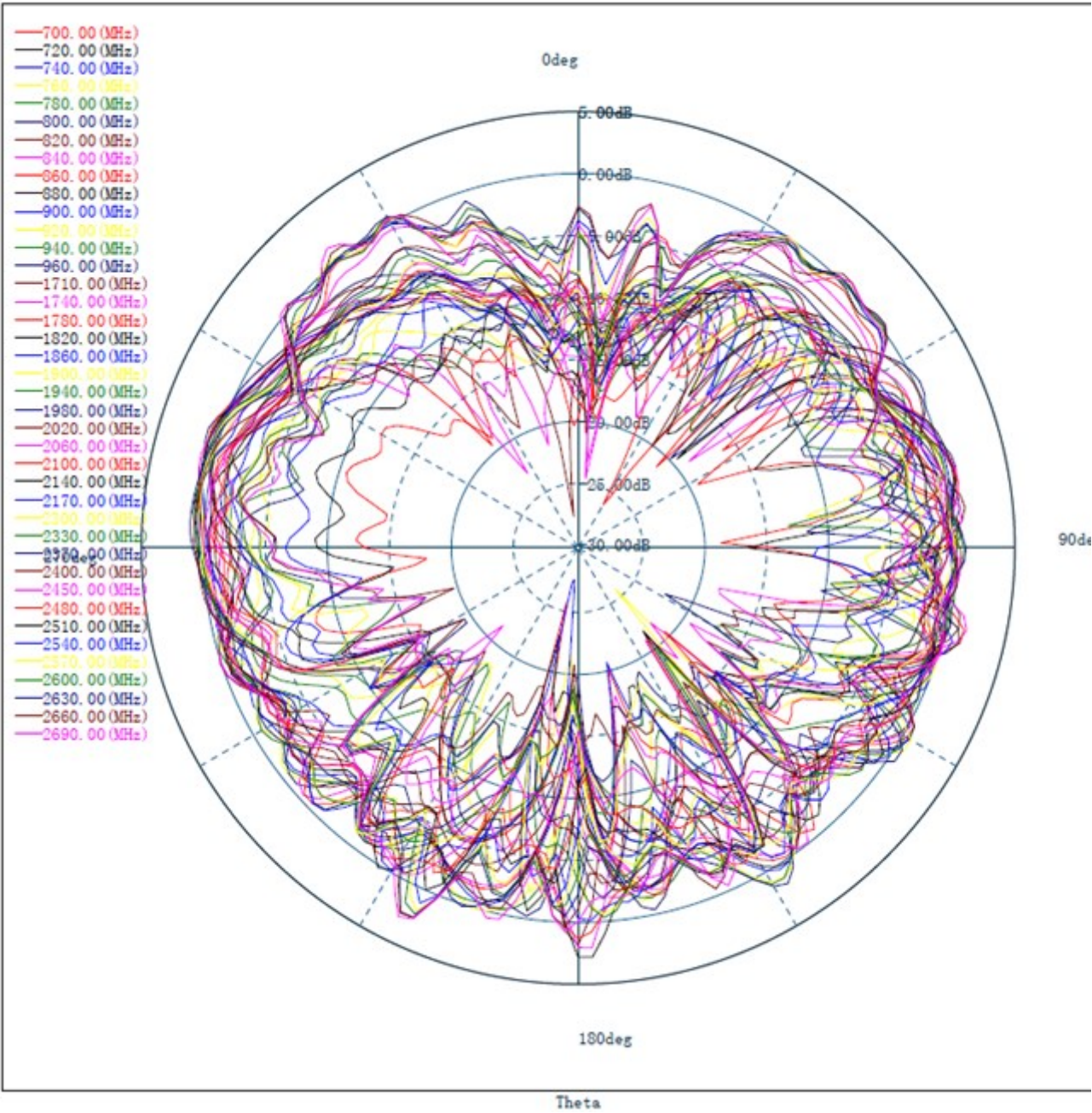
XY Plane (H)

824 – 2700 MHz



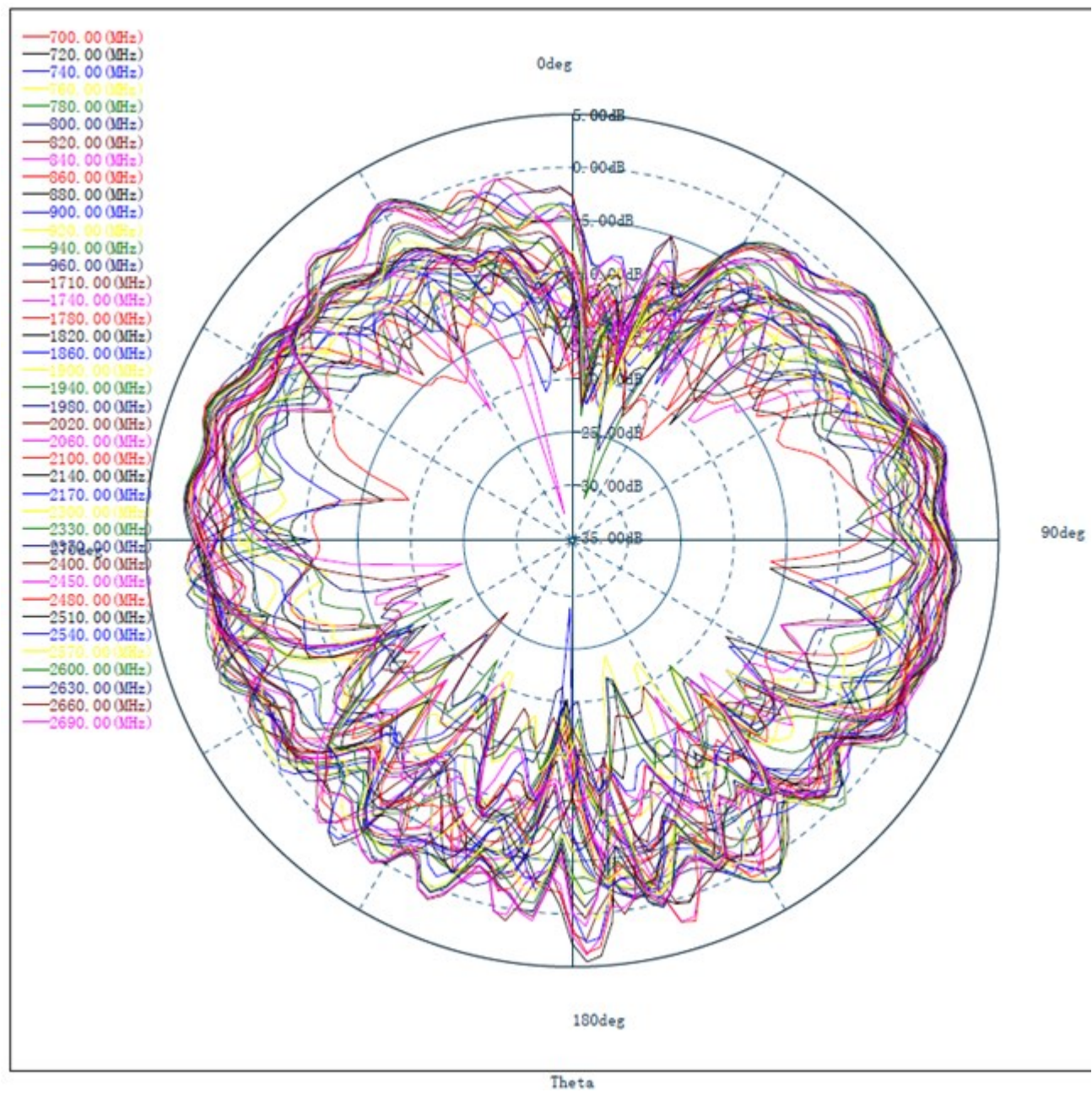
YZ Plane (E1)

824 – 2700 MHz



YZ Plane (E2)

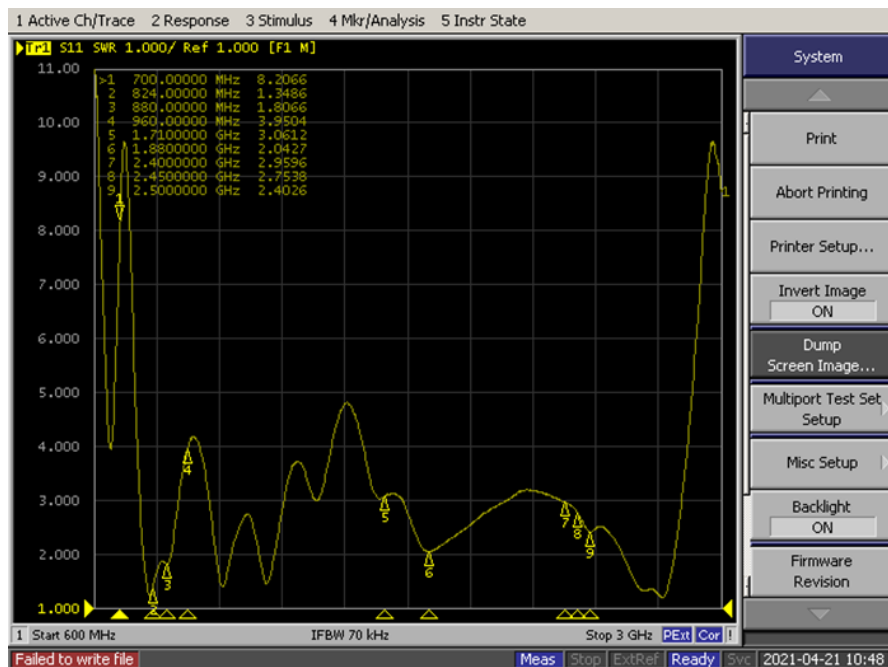
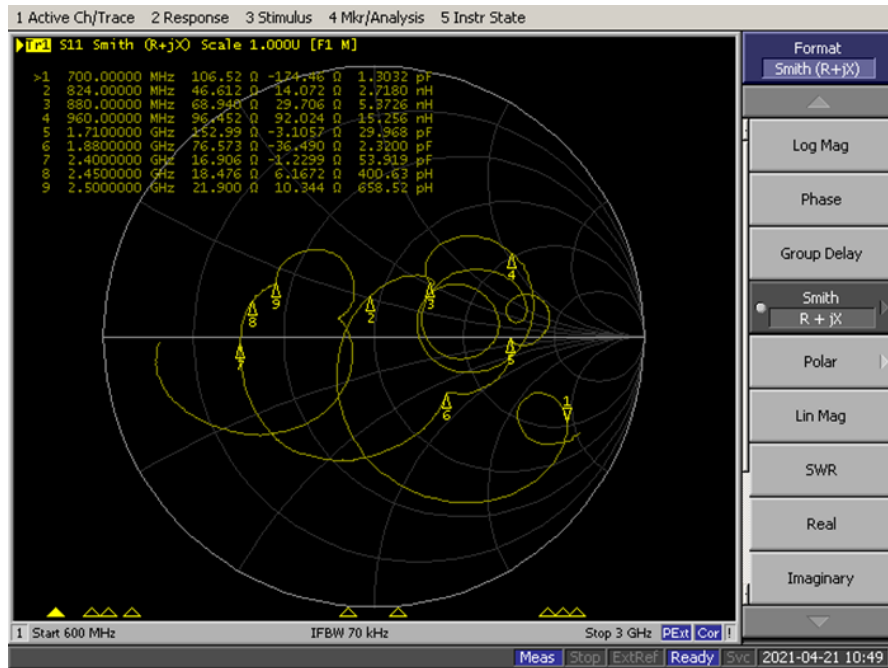
824 – 2700 MHz



Antenna Smith and VSWR

Frequency		VSWR	Frequency		VSWR
824	MHz	1.35	1880	MHz	2.04

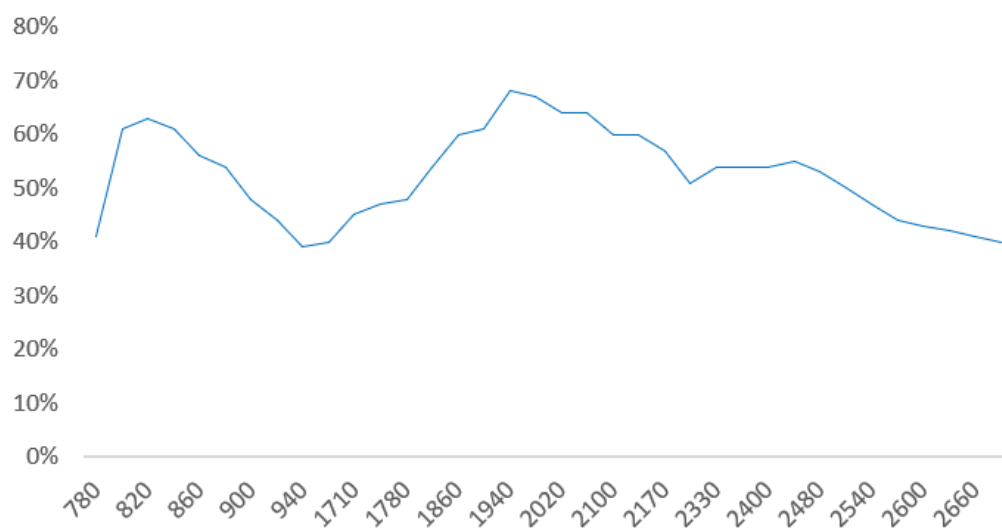
880	MHz	1.80	2400	MHz	2.96
960	MHz	3.95	2450	MHz	2.75
1710	MHz	3.06			
2500	MHz	2.40			

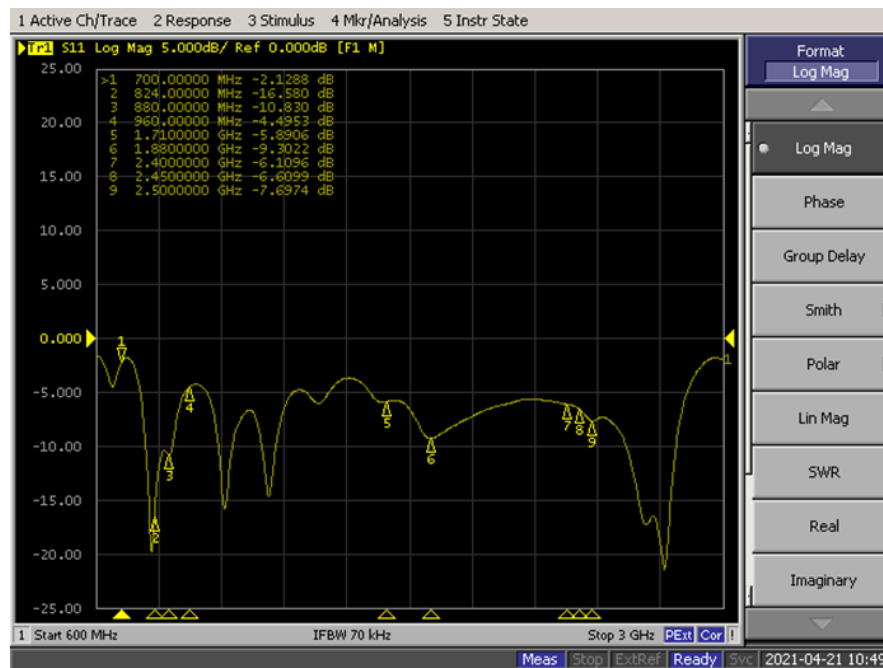
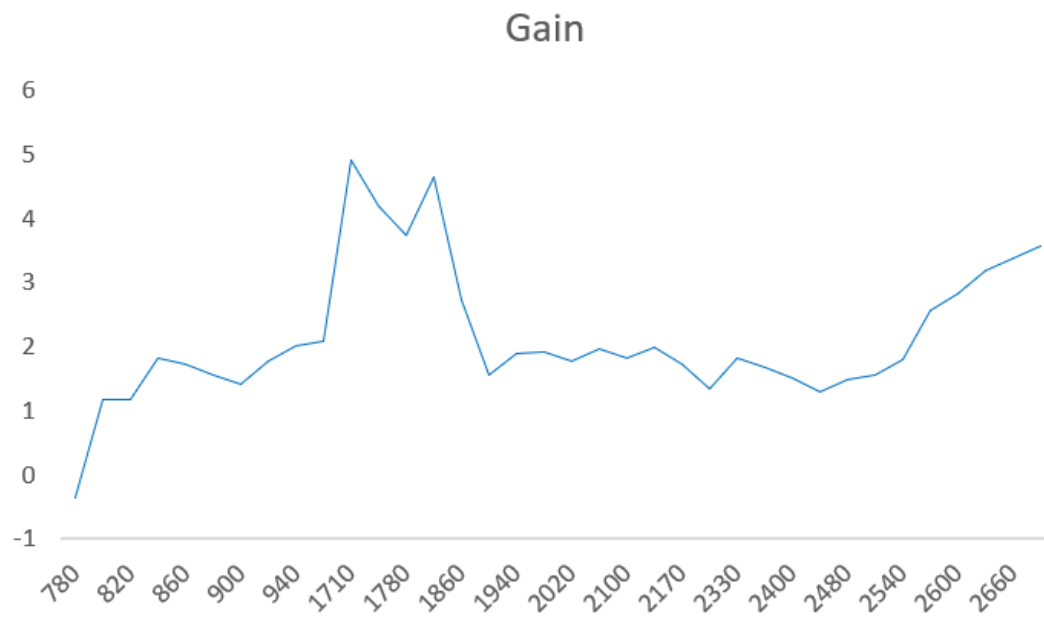


Antenna Efficiency and Gain

Frequency		Efficiency Gain		Frequency		Efficiency Gain	
780	MHz	41%	-0.37	2020	MHz	64%	1.77
800	MHz	61%	1.18	2060	MHz	64%	1.96
820	MHz	63%	1.17	2100	MHz	60%	1.82
840	MHz	61%	1.82	2140	MHz	60%	1.98
860	MHz	56%	1.73	2170	MHz	57%	1.73
880	MHz	54%	1.55	2300	MHz	51%	1.35
900	MHz	48%	1.41	2330	MHz	54%	1.83
920	MHz	44%	1.78	2370	MHz	54%	1.67
940	MHz	39%	2.02	2400	MHz	54%	1.52
960	MHz	40%	2.08	2450	MHz	55%	1.3
1710	MHz	45%	4.92	2480	MHz	53%	1.49
1740	MHz	47%	4.2	2510	MHz	50%	1.57
1780	MHz	48%	3.73	2540	MHz	47%	1.79
1820	MHz	54%	4.65	2570	MHz	44%	2.57
1860	MHz	60%	2.73	2600	MHz	43%	2.82
1900	MHz	61%	1.57	2630	MHz	42%	3.2
1940	MHz	68%	1.89	2660	MHz	41%	3.37
1980	MHz	67%	1.91	2690	MHz	40%	3.58

Efficiency





Environmental Data

Operating Temperature -20 °C to +80 °C

IP Rating IP55

Compliance RoHS

Ordering Information

Product Variants

Part Number	Description
L-1RC6	Multiband GSM/WCDMA/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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