Datasheet

D-1RC4

External GPS/GLONASS/LTE Combo Antenna

GNSS | CELLULAR | LTE

The D-1RC4 is a high-performance combo antenna that supports GPS, GLONASS and LTE frequencies. With its IP66 rating and black enclosure, it is designed to withstand harsh environmental conditions, making it ideal for outdoor use. The SMA-RP connector ensures easy connectivity to various devices.

The D-1RC4 is compact and easy to install. It is a reliable and versatile option for IoT applications that require high-performance wireless connectivity, such as smart agriculture, smart cities, and fleet management.

Ø84 x 16 mm

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Document Information

Product	D-1RC4
Part Number	D-1RC4
Description	External GPS/GLONASS/LTE Combo Antenna
Version	2.0 (current)
Date	26-Sep-2023
Status	Released

Revision History

Version	Date	Author	Changes
1.0	26-Sep-2023	Ivy Liao	Initial Release

Product Overview

Product Description

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Key Features

- Support the LTE / GNSS / Wi-Fi
- Wide Application
- High Reliability/Sensitivity
- IP66 waterproof
- RoHS Compliant

Applications

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

GPS Antenna Specifications

Dielectric Antenna

Frequency Range	1592±3MHz	Band Width	CF±5MHz
Impedance	50 Ω	Gain	2dBic（Zenith）
Polarization	RHCP	V.S.W.R	＜1.5
Axial Ratio	3dB（max）		

LNA

Noise Figure	＜1.5dB	Supply Voltage	2.2~5V DC
Impedance	50 Ω	Gain	28±2dB
Current Consumption	5~15mA	V.S.W.R	＜2.0

LTE Antenna Specifications

Dielectric Antenna

Frequency Range	698~960MHz/1710~2690MHz	Gain	2.0dBi
Impedance	50 Ω	V.S.W.R	＜3.0
Polarization	Linear		

LNA

Noise Figure	＜1.5dB	Supply Voltage	2.2~5V DC
Impedance	50 Ω	Gain	28±2dB
Current Consumption	5~15mA	V.S.W.R	＜2.0

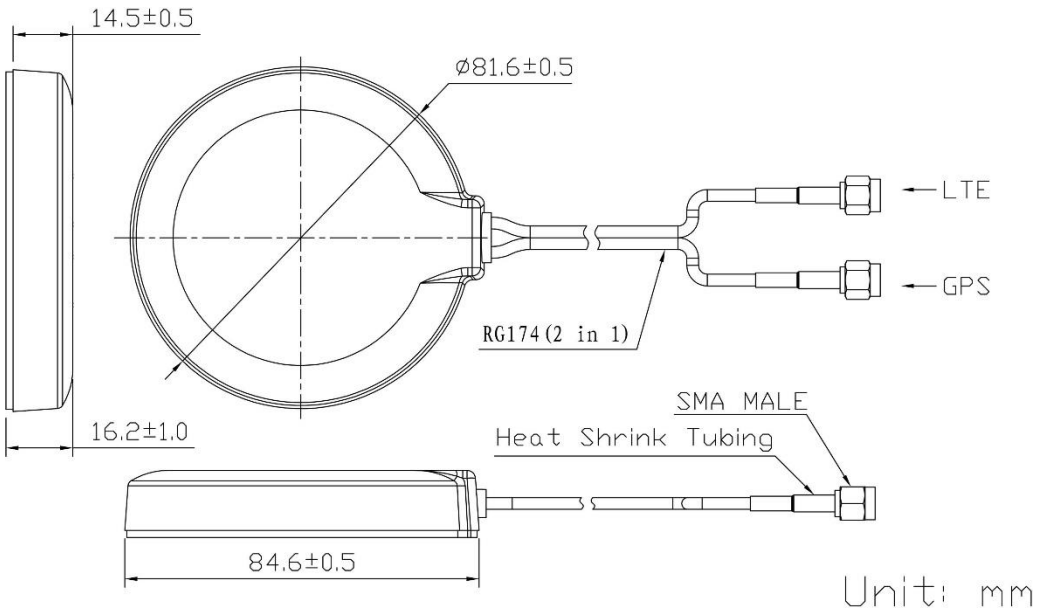
Mechanical Specifications

Dimensions	Ø84 x 16 mm	Casing	YES
Connector (Termination)	SMA/FAKRA or others	Color	Black
Cable type	RG174	Material	ABS
Mounting Method	Adhesive/Magnet		

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

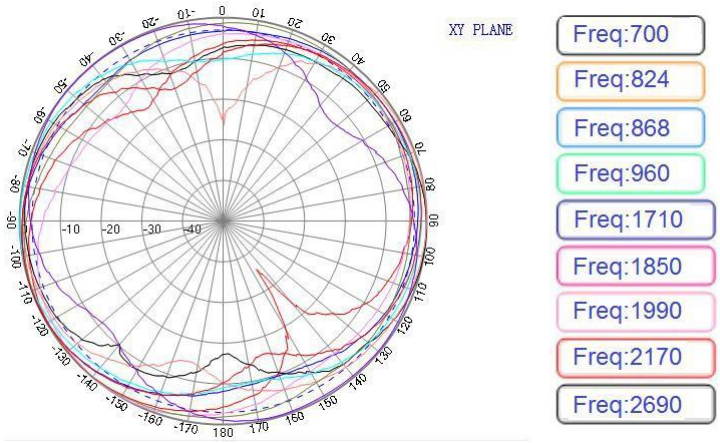


LTE Radiation Pattern

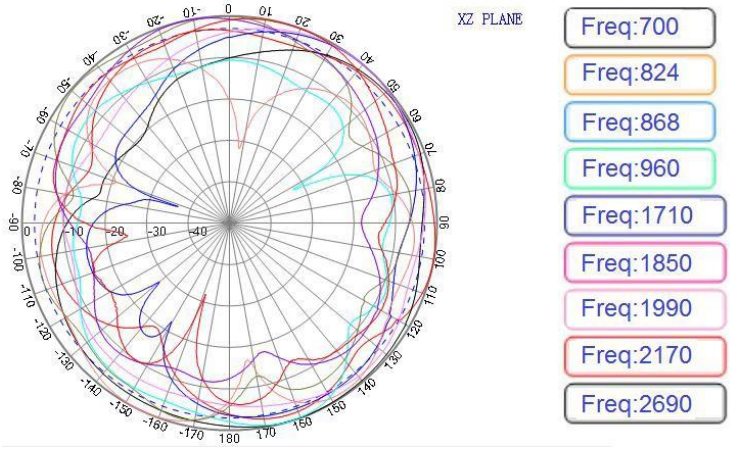
A radiation pattern is a graphical representation of the directional properties of an antenna. It shows how electromagnetic waves are distributed in space in relation to the direction of propagation.

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

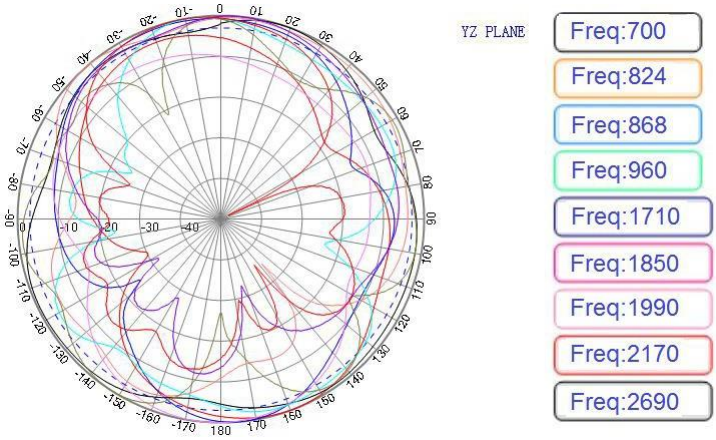
XY Plane(H)



XZ Plane(E1)

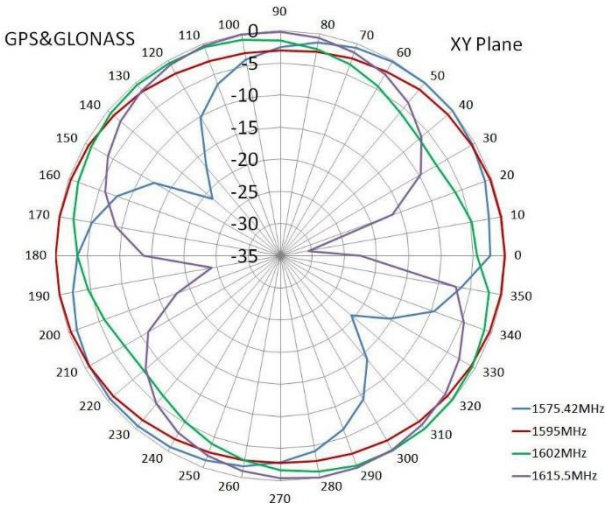


YZ Plane(E2)

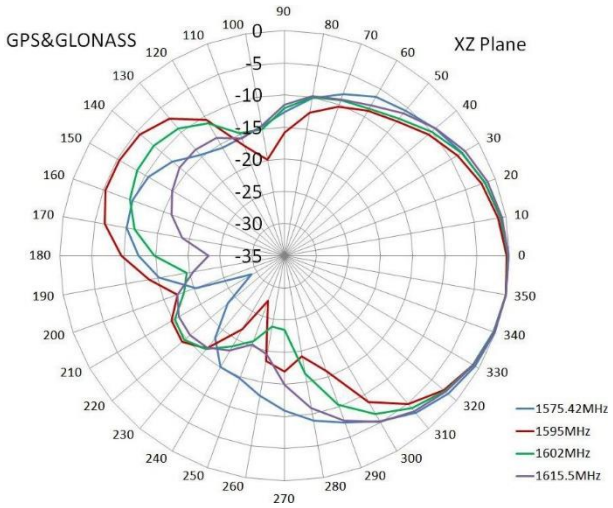


GPS/GLONASS Radiation Pattern

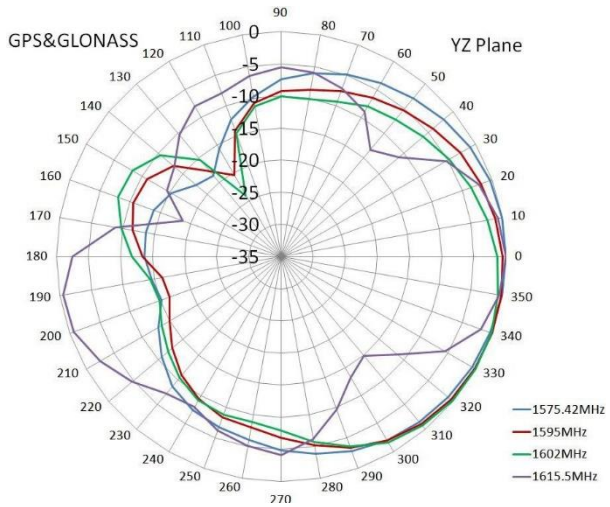
XY Plane(H)



XZ Plane(E1)



YZ Plane(E2)



Environmental Data

Operating Temperature	-40 °C to +85 °C
IP Rating	IP66
Relative Humidity	Up to 95%
Ingress Protection	IP65~IP67
Vibration	10 to 55Hz with 1.5mm amplitude 2hours

Certifications and Approvals

Type Approvals	N/A	Standards	N/A
Health & Safety	N/A	Compliance	RoHS

Ordering Information

Product Variants

Part Number	Description
D-1RC4	External GPS/GLONASS/LTE Combo 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

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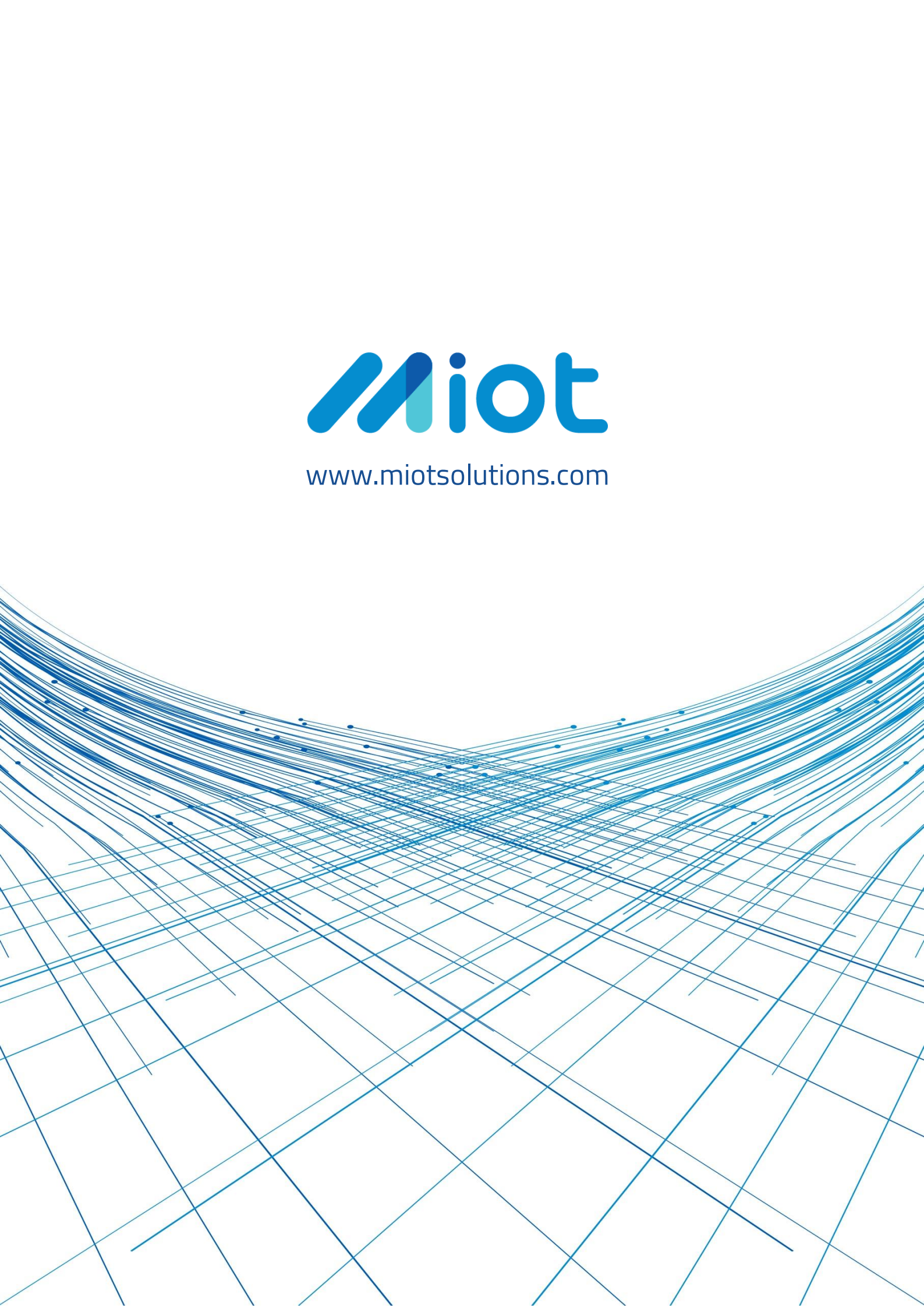
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