

MEITRACK WiFi antenna Specification




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Document Revision History

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1 Product Overview

The MEITRACK WIFI Antenna is a high-performance wireless communication peripheral designed for WIFI signal transmission and reception. It supports dual-band operation (2.4G/5.8G) to adapt to different wireless communication scenarios, with flexible installation methods and reliable structural design.

2 Product Specifications

Item		Parameter Description
General	Antenna size	116.0 mm × 21.60 mm × 6.1 mm
	Material & color	PC & ABS & Black
	Cable & color & length	RG174 & Black & 3000 mm
	Connector type	RP-SMA-Male
	Adhesive backing	3M4229P
	weight	Approximately 41.05 g
	Installation type	adhesive
	neutral salt spray duration	48H
Electrical Specifications	Frequency range	2400~2500 MHz , 5150~5850 MHz
	impedance	50 Ω
	polarization mode	linear polarization
	Radiation field type	Omnidirectional
	Voltage Standing Wave Ratio	≤ 2.0
	Peak gain	-0.7 dBi
Operation Temperature	Operating temperature	-40 °C ~ +85 °C
	Storage temperature	-40 °C ~ +85 °C
	Meets environmental standards	RoHS

3 Function of the WiFi antenna

WiFi antennas are key wireless supporting components for MDVR (Mobile Digital Video Recorders) and Trackers (vehicle positioning terminals). Their core function is to ensure stable wireless communication in the WiFi frequency band, meet distance requirements, and have strong anti-interference capabilities, with the following key features:

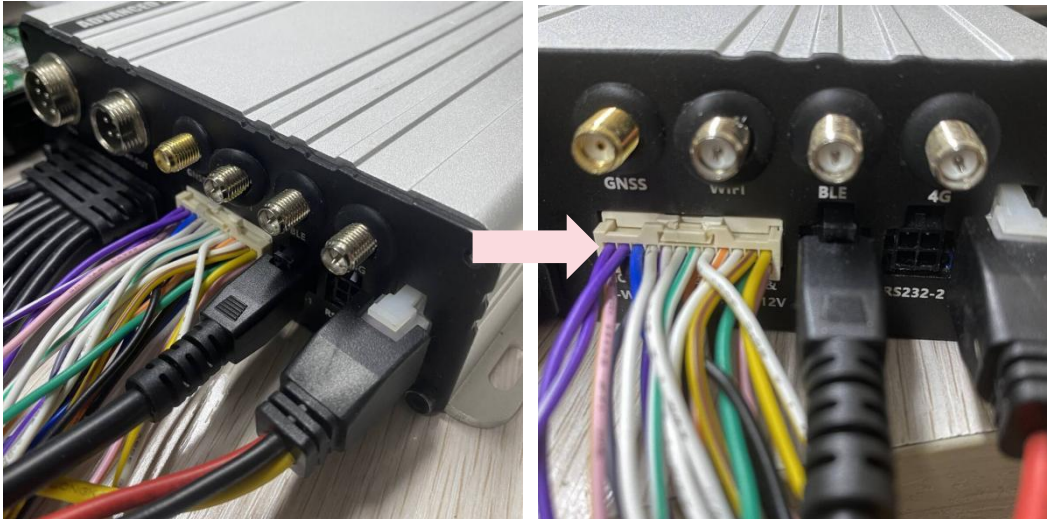
1. Local Video Interaction:After the vehicle is parked, maintenance personnel can connect to the device's WiFi hotspot to quickly view real-time images and download accident recordings without disassembling the device to remove the hard drive, significantly improving maintenance efficiency.
2. Backup Transmission Link:It can serve as a backup transmission link, accessing the WiFi network in parks and stations to transmit video back, replacing part of the cellular network transmission, thus effectively reducing traffic costs.
3. Simplified Device Maintenance:Parameters of the recordings can be modified remotely and the firmware can be upgraded via WiFi, eliminating the hassle of on-site wired debugging.Meanwhile, it can help the MDVR form a network with peripheral devices such as on-board cameras and sensors to achieve local data synchronization.
4. Enhanced Anti-Interference Performance:It can enhance the anti-interference capability of the device, avoid disconnection and lag in WiFi connections,and ensure the stable implementation of various functions.



4 WiFi antenna usage

4.1 Connection Steps

1. Identify the Interface: Locate the WiFi antenna interface on the host device (take MD600 as an example; the interface is usually marked with "WiFi" or corresponding logos).



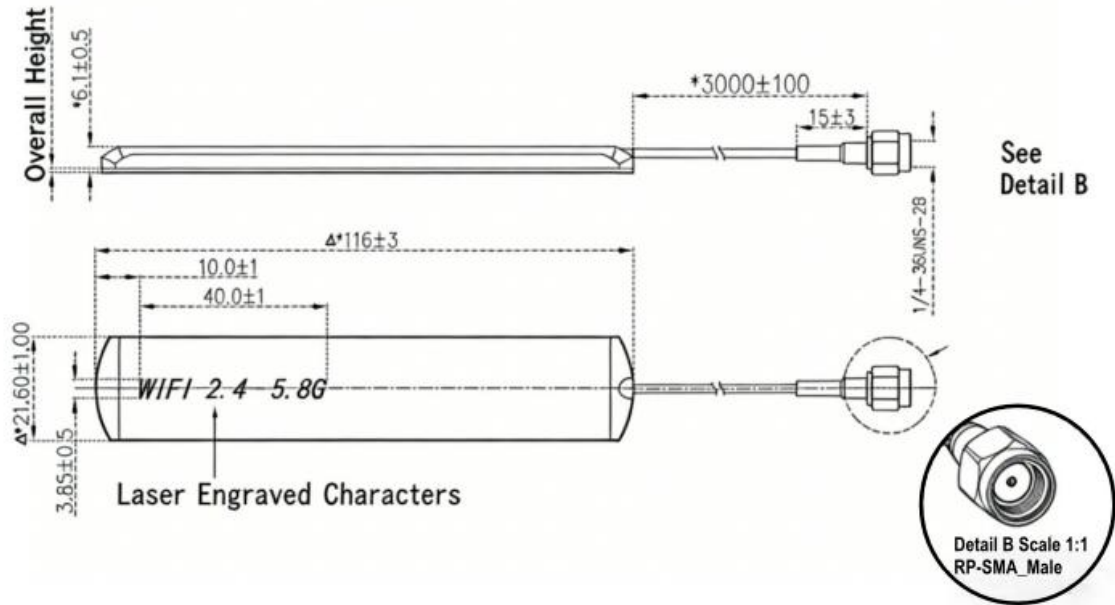
2. **Secure Connection:** Insert the SMA Male connector of the WiFi antenna into the host interface and fasten it tightly to ensure a stable connection (avoid loose contact).
3. After connecting the antenna, it can be observed that the WiFi signal is good.

WIFI				
Status: Normal	Work mode: Station	RSSI: 42	SSID: [Signal Strength]	IP: 192.168.3.160

4.2 Usage Notes

1. Mount the antenna in an open area (e.g., the top of the vehicle dashboard, roof) free from obstructions (e.g., metal shields, dense plastic components). Maintain a distance of ≥ 20 mm from metal parts (e.g., USB ports, batteries) to avoid signal shielding.
2. Ensure the mounting surface is clean, dry, and flat. Press the antenna firmly for 30 seconds after mounting to activate the adhesive; avoid repositioning within 24 hours.
3. Do not bend the cable at angles $< 90^\circ$ or pull it with force (tensile force ≤ 5 N). Route the cable away from high-voltage wires (e.g., vehicle power cables) to reduce interference.
4. Operate the antenna within the specified temperature range ($-40^\circ\text{C} \sim +85^\circ\text{C}$). Avoid exposure to direct sunlight for extended periods or immersion in water (IP rating: IP54, splash-resistant only).
5. Check the connector tightness and cable integrity monthly. Replace the antenna if the cable is cracked, the connector is rusted, or the adhesive loses its stickiness.

5 Product size



If you have any further inquiries, please send an email to our mailbox info@meitrack.com. We are dedicated to providing you with assistance.