



TFN TM9265 Handheld Ultra-Wideband Directional Antenna Kit

(9KHz-26.5GHz)



Product Overview

The TFN TM9265 handheld ultra-wideband directional antenna set is a revolutionary product for radio monitoring and signal location . A single device covers an extremely wide frequency band, from 9 kHz to 26.5 GHz . This solution perfectly solves the industry's pain point of carrying multiple devices due to frequency band limitations during field operations, emergency response, and routine inspections. This set integrates high-precision 3D electronic compass, providing precise signal direction and geolocation. Its lightweight, modular design makes it an ideal choice for professionals in spectrum management, security detection, and scientific research and testing.

Core Features

- Ultra-wideband seamless coverage : One set of equipment covers five key frequency bands (9KHz-30MHz, 20MHz-200MHz, 200MHz-500MHz, 500MHz-8GHz, 6GHz-26.5GHz), enabling full monitoring from longwave to millimeter wave.
- Precise Orientation and Positioning : Combining a cardioid linear pattern (front-to-back ratio >10dB) with a 3D electronic compass, it accurately indicates the direction of incoming signals in real time.
- Extremely portable and lightweight : The single antenna module weighs only 1kg, and most weigh less than 0.55kg. It is designed for long-term handheld operation and rapid mobile deployment.
- Intelligent integrated handle : The universal intelligent handle integrates a "start measurement" button, supports USB or aviation plug power supply and data output, and is easy to operate and ready to use.
- Modular and flexible configuration : Users can quickly replace antenna modules of different frequency bands according to mission requirements, flexibly responding to various complex electromagnetic environments.

Customer pain points & Product selling points



Customer pain points

TFN TM9265 Series Solutions

Incomplete frequency band coverage, requiring multiple sets of equipment

One set covers all frequency bands : from 9KHz to 26.5GHz, eliminating the need for frequent equipment replacement, improving work efficiency and reducing procurement costs.

High-frequency band (especially millimeter wave) equipment is scarce and expensive

Covering the 6GHz-26.5GHz millimeter wave frequency band : opening the door to high-frequency applications for you, with extremely high cost-effectiveness.

Traditional positioning antennas are bulky and not portable

True "handheld" design : Lightweight modules (the lightest is only 0.25kg), with a total weight far lower than similar products, reducing the workload.

Signal direction judgment relies on experience and is not accurate

Visual orientation positioning : The electronic compass and GPS provide objective and accurate direction angles and geographic information, reducing human errors.

Difficulty in power supply in the wild

Low-voltage and wide-voltage power supply : Supports USB 5V or aviation plug 5V power supply, and can be used with power banks, car power supplies, etc., to adapt to various field scenarios.

Detailed technical parameters

Universal smart handle--TN315F

- Start measurement button : one-click triggering of data acquisition
- Data interface : USB2.0 / 9-pin aviation plug
- RF output interface : SMA (male)
- Power supply : USB (5V) / 9-pin aviation plug (5V)
- Built-in sensors : high-precision GPS, three-dimensional electronic compass

List of antenna module parameters for each frequency band

Antenna model/frequency band	Frequency range	Standing Wave Ratio	Front-to-back ratio	Antenna gain	Size (approx.)	Weight (approx.)
------------------------------	-----------------	---------------------	---------------------	--------------	----------------	------------------



Antenna model/frequency band	Frequency range	Standing Wave Ratio	Front-to-back ratio	Antenna gain	Size (approx.)	Weight (approx.)
Ultra-low frequency antenna TN315A	9KHz ~ 30MHz	< 2.5	> 10dB	-170dBi ~ -25dBi	530mm * 300mm * 40mm	0.5 kg
Low-frequency antenna TN315B	20MHz ~ 200MHz	< 2.5	> 10dB	-28dBi ~ +7dBi	530mm * 300mm * 90mm	0.45 kg
IF antenna TN315C	200MHz ~ 500MHz	< 2.5	> 10dB	-5dBi ~ +7dBi	380mm * 260mm * 40mm	0.25 kg
High-frequency antenna TN315D	500MHz ~ 8GHz	< 2.5	> 10dB	-5dBi ~ +18dBi	540mm * 260mm * 40mm	0.55 kg
Millimeter wave antenna (RAS Bee) TN315E	6GHz ~ 26.5GHz	< 2.5	> 10dB	+10dBi ~ +20dBi	-	1.0 kg

Note: The above parameters are typical values.

Typical application scenarios



1. Radio spectrum management and monitoring
2. Find and locate illegal signal sources (such as black broadcasts, fake base stations, and drone image transmission interference)
3. Signal detection and countermeasures in military and security fields
4. EMC/EMI electromagnetic compatibility testing and pre-compliance inspection
5. Communication base station signal coverage assessment and interference troubleshooting
6. Scientific research, education and laboratory signal analysis

Why choose TFN TM9265 ultra-wideband directional antenna kit?

1. Ultimate frequency band coverage : 9 kHz-26.5 GHz , an industry-leading broadband solution to meet current and future challenges.
2. Millimeter wave capability : With a built-in 6 GHz-26.5 GHz antenna module, it is a powerful tool for satellite communications and 5G millimeter wave research.
3. Truly handheld and portable : An innovative lightweight design condenses broadband performance into the palm of your hand, redefining the standard for field operations.
4. Accurate and reliable positioning : 3D electronic compass provides objective directional data that is independent of operator experience.
5. High cost-effectiveness : One device replaces multiple traditional solutions, significantly saving equipment acquisition and maintenance costs.

