



DT-820

OPERATIONAL MANUAL OF NONLINEAR JUNCTION DETECTOR

- 1 Nonlinear Junction Detector Host
- 2 AC-DC adapter
- 3 Type-C connection line
- 4 Headphone
- 5 2nd harmonic sample

Schematic Diagram of Product Structure

- 01 **Antenna:** Transmitting and receiving test signals.
- 02 **Head-end:** Displaying device status, such as battery level, transmitting power value, second harmonic and third harmonic signal strength;
- 03 **Central control keys:** Including power button, transmitting power adjustment button, receiving sensitivity adjustment button, sound adjustment and vibration adjustment button
- 04 **Headphone jack:** Supporting 3.5mm headphone.
- 05 **Speaker:** Supporting sound warning..
- 06 **Type-c interface:** Charging by AC-DC adapter;
- 07 **Lanyard:** Hanging and preventing slipping during use;



Use Scene of Nonlinear Junction Detector

1. Government Secrecy Department

State government organs such as public security, justice, prisons, education, troops, large-scale central enterprises and secret-keeping units have very strict requirements on information security and leak prevention. Prior to the major meetings, the secret-keeping departments must conduct security tests on high-level conference rooms, head leader's meeting offices, foreign guests; reception rooms and secret-keeping places, so as to prevent the hiding of illegal equipment such as eavesdropping and secret shooting from being inappropriate places. Findings eventually lead to the leakage of conference information, major confidential information and technology, and irreparable economic losses to the state and units.

2. Security Inspection of Large-scale Activities

In order to ensure the personal safety and information security of politicians, business leaders and participants, the organizing committee needs to appoint a professional security inspection team to conduct security inspection in all places ahead of time and strictly block them. Nonlinear Junction Detectors are used to detect eavesdroppers and secret photographs equipments, recording equipments, remote control explosive devices and other illegal equipments to ensure the safety of the activity site.

3. Confidentiality Inspection of Commercial Organizations

Large commercial organizations such as listed companies, multinational corporations, trade associations and so on, in order to ensure that business secrets are not leaked, need to carry out strict information security checks on internal high-level conference rooms, chairman's offices and business negotiation venues, to prevent mobile phones, eavesdroppers and other SIM card

devices from hiding in the wall or hard-to-find corners, and to ensure that important meetings and meetings are being held. Big business decision-making, business negotiation and other activities are not eavesdropped, not recorded, not monitored, to ensure the safety of business secrets information.

4. Cheating Prevention in Education Industry Examination

In places such as college entrance examination, high school entrance examination, civil servant examination and college marking, non-linear junction detectors can be used at the entrance of the examination room to prevent cheating devices from being brought into the examination room by hiding in the examinee's ears, glasses or other parts of the body, so as to ensure the fairness and fairness of the open selection.

5. Privacy Protection Inspection of Personal Residence or Hotel Room

In order to ensure the safety of personal privacy, non-linear junction detectors can be used to detect the security of the surrounding environment in private space such as personal residence, Hotel room, shopping mall changing room, toilet, entertainment places, to ensure that there are no hidden pinhole cameras, eavesdroppers, recording pens and other electronic devices to ensure the safety of personal privacy.



Product Characteristics

- ▶ **Domestic substitution:**
Completely independent of intellectual property rights, not limited by foreign technology import, can quickly customize features and optimize algorithms, with great security guarantee
- ▶ **Smart shutdown:**
The device will automatically shut down after 5 minutes of no movement or 5 seconds after the front end is folded, for saving power.
- ▶ **Stronger Semiconductor recognition ability:**
Built-in spectrum analyzer supporting second and third harmonic detection can quickly and effectively identify devices and devices containing semiconductors.
- ▶ **High sensitivity:**
Built-in high-gain antenna, large detection distance, especially for SIM card devices with high sensitivity, to ensure that secrets, mobile communications equipment can be quickly detected.
- ▶ **lower false alarm rate:**
The built-in nondestructive detection algorithm greatly improves the detection ability, and the false alarm rate is very low.
- ▶ **High safety and reliability:**
The characteristics of the equipment meet the requirements of electromagnetic radiation and are absolutely safe for human body.
- ▶ **Flexible and simple operation:**
The interface is simple and intuitive, the keys are few and concise, and it is easy to operate manually.
- ▶ **High cost performance:**
The world most cost-effective, cost-saving and excellent performance products.

Basic Performance Parameters

parameter	Technical index
Product working frequency band	2.4GHz
frequency range	2.404GHz - 2.472GHz
Receiving 2nd~3rd Harmonic Range	4.808GHz-4.944GHz, 7.212GHz-7.416GHz
Pulse mode transmit power (maximum)	2W (EIRP)
Receiving sensitivity	≤-125dBm
Receiving dynamic adjustable range	30dB
Standby time	5H
Battery type	lithium battery
Charging time	2.5H
Interactive interface	The screen displays the intensity of the received harmonic signal
	Audio prompts are supported and headphones can be connected.
	Supporting Vibration Tips
Detection distance	WIFI camera: 400-500mm
	detectaphone: 550-600mm
Product size	370 (L) *96(W)*38.5mm(H)
Outer box size	355 (L) *295(W)*165mm(H)
Product weight	0.5kg
working temperature	-20 ℃~55℃
Working humidity	No more than 95%, no condensate

Operation guide

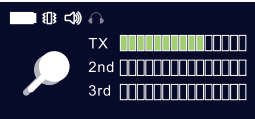
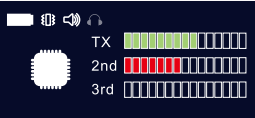
1. Central Control Key Operating Area



- Powerbutton:** switch on by long press 3 seconds, switch off by long press 3 seconds, there is indicator light built-in button;
- Txbutton:** transmitting power adjustment button, including high, medium and low three levels, built-in indicator lights;
- Rxbbutton:** receiving sensitivity adjustment keys, including high, medium and low three levels, built-in indicator lights;
- Soundbutton:** alarm sound size adjustment keys, including high, medium and low three levels, built-in indicator lights;
- Vibrationbutton:** switch on or off vibrational alarm mode.

2. Screen

The screen interface mainly displays the battery power, alarm mode, transmitting power level and received second and third harmonic signal strength.
The detecting process and result are as below:



Battery status display



Vibration alarm mode



Audible alarm mode indicator



Headphone mode indicator



Indicates that an electronic product has been detected



Indicates that the device is in the process of detection



Transmitting power intensity indicator



Indicates the received second harmonic signal strength



Indicates the received third-order harmonic signal strength

When a suspicious electronic device is detected in the target area, the second harmonic signal strength is significantly stronger than the third harmonic signal strength, and the electronic product icon is displayed on the screen.

3. Charging instructions:

The device supports charging using the Type C interface. The indicator light of power button will always be orange when charging, and battery icon will be shown as charging status on screen if device is on.

FAQ

Q: Can't boot when I press the power key, how to deal with it?

A: Normal booting requires long press of the power key for more than 3s; if you press and hold the power key for 3s, it still cannot be turned on. It may be caused by the battery being exhausted. You need to connect the power adapter to charge.

Q: How to detect target electronic products that are far away?

A: Increase the TX Power; or increase the RX Gain

Q: Electronic products have been detected but there is no sound alarm, how to deal with?

A: 1. It is possible to set the machine to silent mode, and you need to exit the silent mode to generate an audible alarm;
2. Turn up the sound;
3. Check the horn for blockage.

Q: When the machine will auto shutdown?

A: 1. After the machine head is folded, it will auto shutdown after 5 seconds;
2. If the machine detects that it has not moved for 5 minutes, it will auto shutdown;
3. When the battery power is lower than 10%, the machine will auto shutdown.

Q: After the box is transported or stored for a long time, there may be a phenomenon that it cannot be opened or deformed. How to deal with it?

A: This situation is caused by the change of the air pressure difference inside and outside the box. The pressure reducing valve can be rotated to make the internal and external air pressures uniform, then the box can be opened, and then the pressure reducing valve can be tightened to avoid water leakage.

