

# BUG DETECTOR

PCE-FRQ 500



- » **detection of analogue and digital signals 50 MHz ... 8 GHz**
- » **hidden WiFi cameras, GPS tracking devices**
- » **radio bugs, transmitters, wireless cameras**
- » **16-stage signal strength display**
- » **range: 10 m**
- » **app for signal output**
- » **charging indicator light**

This high-quality bug finder / bug detector offers maximum security against surveillance devices and effectively protects your privacy. With a wide frequency range from 50 MHz to 8 GHz, it reliably detects analogue and digital signals as well as hidden WiFi cameras, GPS tracking devices, radio bugs, transmitters and wireless cameras.

The bug finder / bug detector is extremely easy to use - simply switch it on and watch the display. With its 4 working modes and two antennas (a microwave directional antenna and omnidirectional antenna), it effortlessly detects most wireless eavesdropping devices and cameras. The detection of signals is indicated by a flashing LED diode and a beep. The volume gradually increases the closer you are to the signal source.

The 16-stage signal strength display facilitates the precise localisation of monitoring devices within a range of up to 10 metres. Thanks to the integrated app support, signal outputs can be conveniently monitored and the charging indicator light ensures that the bug finder / bug detector is always ready for use.

This versatile bug finder / bug detector is the ideal tool to ensure your privacy in any environment and reliably detect covert surveillance technology. The bug detector combines state-of-the-art technology with simple operation - perfect for anyone who values security.

## Specification

General technical data	
Frequency	50 ... 8000 MHz
Frequency additional information	GSM: 885 ... 915 MHz GSM: 1710 ... 1755 MHz Wifi: 2401 ... 2484 MHz
Display type	LCD
Display size	2,6 Inch
Interface	USB-C, AUX
Operating time	8 h
Working distance	10 cm ... 10 m
Sensitivity	Adjustable: high or low
Menu language	English, English (GB)
Protection class (device)	IP20
Power supply	5V DC, 500mA
Capacity	1100 mAh
Operating conditions	0 ... 40 °C , 10 ... 90 % RH
Storage conditions	-20 ... 60 °C , 5 ... 95 % RH
Dimensions ( L x W x H )	135 x 75 x 17 mm
Weight	238 g


# DECLARATION OF CONFORMITY

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EC- Konformitätserklärung	EC- Declaración de conformidad
EC- Dichiarazione di conformità	EC- Declaration of conformity
EC- Déclaration de conformité	EC- Uygunluk Beyanı
EC- Conformiteit-verklaring	EC- Заявление о соответствии
EC- Declaração de conformidade	EC- Deklaracja zgodności
EC- Prohlášení o shode	

<b>D</b>	Konformitätserklärung	Wir erklären hiermit, dass das Produkt, auf das sich diese Erklärung bezieht, mit den nachstehenden Normen übereinstimmt.
<b>E</b>	Declaración de conformidad	Manifestamos en la presente que el producto al que se refiere esta declaración está de acuerdo con las normas siguientes.
<b>I</b>	Dichiarazione di conformità	Dichiariamo con ciò che il prodotto al quale la presente dichiarazione si riferisce è conforme alle norme di seguito citate.
<b>GB</b>	Declaration of conformity	We hereby declare that the product to which this declaration refers conforms with the following standards.
<b>F</b>	Déclaration de conformité	Nous déclarons avec cela responsabilité que le produit, auquel se rapporte la présente déclaration, est conforme aux normes citées ci-après.
<b>TR</b>	Uygunluk Beyanı	Bu bildirimle bağlı ürünün aşağıdaki standartlara uygun olduğunu beyan ederiz.
<b>NL</b>	Conformiteit-verklaring	Wij verklaren hiermede dat het product, waarop deze verklaring betrekking heeft, met de hierna vermelde normen overeenstemt.
<b>RUS</b>	Заявление о соответствии	Мы заявляем, что продукт, к которому относится данная декларация, соответствует перечисленным ниже нормам.
<b>P</b>	Declaração de conformidade	Declaramos por meio da presente que o produto no qual se refere esta declaração, corresponde às normas seguintes.
<b>PL</b>	Deklaracja zgodności	Niniejszym oświadczamy, że produkt, którego niniejsze oświadczenie dotyczy, jest zgodny z poniższymi normami.
<b>CZ</b>	Prohlášení o shode	Tímto prohlašujeme, že výrobek, kterého se toto prohlášení týká, je v souladu s níže uvedenými normami.

Frequency Scanner: PCE-FRQ 500

Mark applied	EU Directive	Standards
	2014/30/EU	EN 55032:2015+A11:2020 EN 55035:2017+A1:2020 EN IEC 61000-3-2:2019 EN 61000-3-3:2013+A1:2019

Meschede, 09.09.2024

Place and Date

  
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Patrick Philipp (Manager)

# USER MANUAL

## FREQUENCY SCANNER

PCE-FRQ 500

ENGLISH



User manuals in various languages (français, italiano, español, português, nederlands, türk, polski) can be found via our product search on:  
[www.pce-instruments.com](http://www.pce-instruments.com)

# WIRELESS SIGNAL DETECTOR

This product is the world's first real-time digital wireless signal detection and analysis equipment aiming at Tracker (GSM signal) and wireless signal eavesdropping eavesdropping camera (WiFi signal). Independently developed, comprehensively optimized the wireless communication system, communication protocol and WiFi communication data packets of locators at home and abroad to realize the positioning of wireless signal equipment with high precision and accuracy.

## PRODUCT INTRODUCE

### Product Function:

- » The location of the 50MHz ... 8GHz wireless device can be detected.
- » Mobile phone positioning in the cal.
- » Mobile phone positioning in traffic consumption.
- » You can find GSM plug-in bugs, snaps, and trackers.
- » You can find the WiFi camera.
- » Can detect sleep tracker.

### Product Features:

- » Simple operation, small and portable, flexible use occasions .
- » 50 mHz ... 8 GHz wireless spectrum detection, covering all currently used wireless communication frequency bands.
- » Can work continuously and continuously, connect with mobile phone software through data cable, and can record the signal and signal strength at all time points within 24 hours.
- » Double horn work, different signal sources can be judged by different sounds.
- » Scan speed 60us (microseconds) to ensure that all wireless signals are captured in real time.
- » Signal strength distinguish 16 segments to effectively confirm the signal strength and distance of the transmitting signal source.
- » The detection sensitivity is divided into two sections, ranging from 10cm ... 10 m.
- » Wide-Area detection and precise positioning.
- » Mobile APP display detection.
- » Can detect shutdown with strong magnetic tracker.
- » 50MHz ... 8GHz adopts continuous compression technology, which can provide high measurement accuracy in a wide input frequency range, reaching a dynamic range of -68 dBm. Alarm mode: mute and beep.
- » Based on the user's usage scenario, multiple work scenario modes are innovatively developed to facilitate user use according to specific circumstances.

**Product Standards:**

Frequency range	50MHz ... 8GHz
Antenna	3dBi omnidirectional antenna + directional antenna
Sensitivity	Adjustable sensitivity
The detection range	10cm ... 10m
Working hours	8 hours
Power	1200MW (Max) 400MW (average)
Input current voltage	500mA 5V
Battery capacity	high density lithium battery 1100mAh
Size	131*75*17mm (excluding antenna)
Weight	250g
Charging Interface	TYPE-C
Charging Duration	2 hours
Display mode	2.6-inch LCD screen
Shell material	aluminum alloy, glass, carbon fiber

**Detection frequency range and corresponding protocol:**

GSM	885M ... 909M; 1710M ... 1735M
GSM	909M ... 915M; 1740M ... 1755M
WiFi	2401M ... 2484m 14 channels

**Applicable groups:**

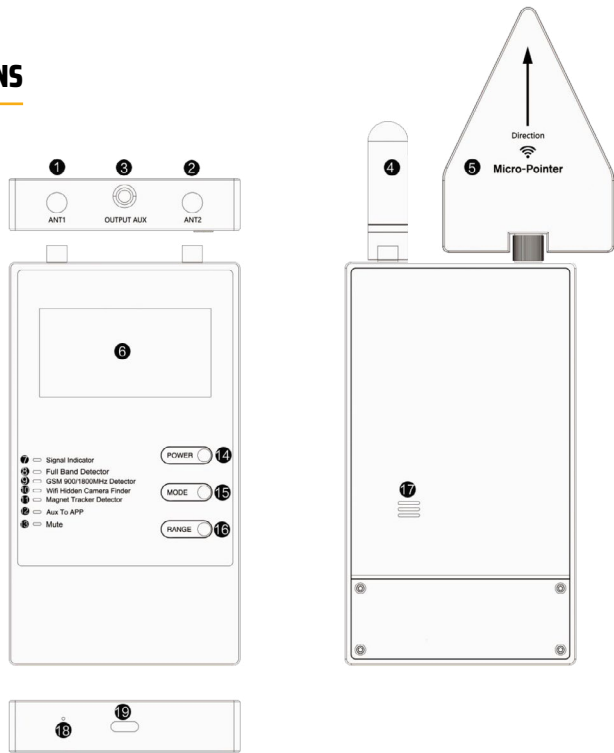
- » Can detect shutdown with strong magnetic tracker.
- » People who often use bank cards.
- » People on business trip who take the hotels as home.
- » Beautiful ladies who get easily photographed secretly.
- » People who often go to public entertainment places .
- » People who often go to various shopping malls to try on.
- » People who respect personal privacy and others.
- » People who contact and keep trade secrets.
- » Security personnel in trade secrets and technical secrets sites.
- » Anti-eavesdropping professionals.

### **Scope of application:**

- » To detect whether your car or office is installed with wireless eavesdroppers or wireless eavesdroppers.
- » To detect whether the mobile phone is eavesdropped or abnormal (sending out signals for no reason during standby).
- » To detect whether your car is installed with a GPS tracking listener and a GPS positioning tracker.
- » To test whether your working environment and residential buildings have radiation from the base station on the roof.
- » To detect SMS sending and receiving signals, mobile Internet signals, mobile phone switches and call signals.
- » To detect the strong field of wireless network signal, mobile phone base station signal and wireless monitoring system.
- » To detect whether house hold electric appliances such as microwave ovens leak electromagnetic radiation that is harmful to human body.
- » To detect whether there is strong radiation called „mobile phone killer“ in the environment.
- » To detect whether there are suspicious radio signals in the environment.
- » To detect more hidden 5.8GHz wireless camera sneak shooting, wireless eavesdropping, wireless monitor signal.
- » Check the hotel, restroom, hotel, Entertainment Place, locker room wireless pinhole camera.
- » Business negotiation, school invigilation sites, factories, military facilities or government agencies anti-theft photography eavesdropping.
- » With draw money from AM Machine, cinema, concert, art gallery or museum, etc.
- » To detect whether there is electromagnetic radiation that is harmful to human health while buying a house.
- » To detect wireless signal jammers nearby.

# OPERATION INSTRUCTIONS

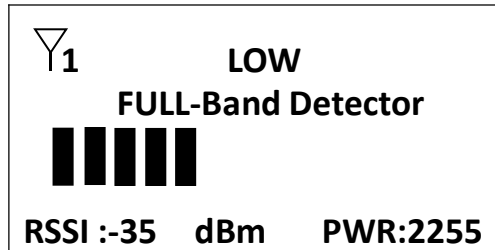
## Product appearance:



1	Antenna 1 receiver 50MHz ... 8GHz	10	WiFi signal detection, SM seat(ANT2) equipped with antenna
2	Antenna 2 receiver 2400MHz ... 2500MHz	11	Strong magnetic detection, no need to install antenna
3	Signal output port (use APP time-connected signal line)	12	Signal output data line connected to mobile APP
4	3.0dBi 50MHz ... 12GHz directional triangular antenna	13	Mute mode
5	3.0dBi GSM omnidirectional antenna	14	Switch button
6	Display screen	15	Mode switching Button (Long press to enter mute mode)
7	Alarm indicator light	16	Sensitivity adjustment button
8	Full-band detection, SM seat (ANT1) equipped with antenna	17	Horn
9	GSM signal detection SM seat (ANT1) equipped with antenna	18	Charging indicator light
		19	TPYE-C charging port

**Device Interface:**


Mode 1 (full-band detection):



1	Current scenario mode	full-band detection
2	Detection RANGE	divided into two levels, the detection RANGE is 10cm ... 10m. Set by pressing „RANGE“
3	Detection of virtual progress bar	It indicates signal strength
4	Alarm notification	when there is alarm information, „Signal Indicator“ yellow light warning sign
5	Antenna usage	SM seat (ANT1) equipped with antenna, optional antenna
6	Types of detection terminal equipment	all signal generation sources
7	Precautions	Clean up the surrounding environment and close unnecessary signal interference sources

**Device Interface:**

Mode 2 (Locator detection):

 <b>1</b>	<b>LOW</b>	
<b>CHANNEL</b>	<b>SIGNAL</b>	<b>RSSI</b>
<b>GSM900</b>	>>>>>>>	<b>dBm</b>
<b>GSM1800</b>	>>>>	<b>dBm</b>

1	Current scenario mode	GSM signal segment detection
2	Detection RANGE	divided into two levels, the detection RANGE is 10cm ... 2m. Set by pressing „RANGE“
3	Detection of virtual progress bar	It indicates signal strength
4	Alarm notification	when there is alarm information, „Signal Indicator“ yellow light warning sign
5	Antenna usage	SM seat (ANT1) equipped with antenna, equipped with GSM omnidirectional antenna
6	Types of detection terminal equipment	tracker, eavesdropper
7	Precautions	clean up the surrounding environment and close unnecessary signal interference sources

**Device Interface:**

Mode 3 (wireless camera detection):



1	Current scenario mode	WIFI band detection
2	Detection RANGE	divided into two levels, the detection RANGE is 10cm ... 5m. Set by pressing „RANGE
3	Detection of virtual progress bar	It indicates signal strength, with WIFI 14 Channel display
4	Alarm notification	When there is alarm information, „Signal Indicator“ yellow light warning sign
5	Antenna usage	SM seat (ANT2) equipped with antenna, equipped with directional sky triangle antenna
6	Types of detection terminal equipment	tracker, eavesdropper

**Device Interface:**

Mode 4 (detection with strong magnetic locator):

**Magnet Tracker Detector**  
**Searching...**  
**MOTICE:move the device**  
**To look for !**

1	Current scenario mode	Strong magnetic mode
2	Detection RANGE	Detection range detection range 0 ... 10m, Set by pressing „RANGE
3	Strong magnetic sensitivity value	07 ... 10AT
4	Alarm notification	When there is an alarm message, a WARNING is displayed on the screen (WARNING!!!)
5	Antenna usage	Without antenna
6	Types of detection terminal equipment	Tracker with strong magnetism

**Device Interface:**

Mode 5 (mobile APP) connect mobile phone via data cable:

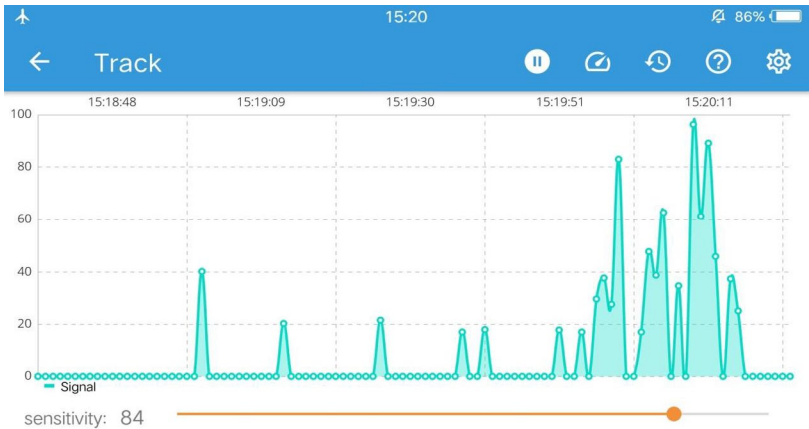
**AUX INSERT**  
**Please open the APP for**  
**detection, and the lcd**  
**display will be closed**  
**after 10 seconds**

Detector Status: **Connected**

Detector Mode 1: **SIGNAL**

Detector Mode 2: **DISTANCE**

v1.0.3



History

0.8K/s 13:44 30%

start time - end time	Detection distance (cm)
13:44:22 - 13:44:23	60<S≤80
13:44:23 - 13:44:24	40<S≤60
13:44:24 - 13:44:25	60<S≤80
13:44:25 - 13:44:26	80<S≤100
13:44:26 - 13:44:27	60<S≤80

1	Current scenario mode	Full-band detection
2	Detection RANGE	Detection range 10cm ... 10m. Through the signal cable connection mobile APP
3	Signal distance	Shows by the height of the curve and calculate the distance of the signal source
4	Alarm notification	APP shows a green progress line or a red schedule
5	Antenna usage	SM seat (ANT1) install antenna, install different antennas according to needing
6	Types of detection terminal equipment	all signal generation sources

## USAGE

### The current usage of this equipment is as follows:

- » Long press the PSU switch (POWER) for 3 seconds. After hearing the sound of „Bi“, loosen your finger. The „Full Band Detector“ indicator light is on. The default Full-Band 50MHz ... 8GHz detection mode is enabled when starting up. The left SM seat (ANT1) receiving terminal is enabled by default. The two antennas can be installed at will according to your own needs.
- » Short Press (MODE) to switch the working MODE. There are four modes to switch.
- » Long Press (MODE) to switch to Mute MODE. Mute MODE the Mute light is always on (remove Mute MODE and long press again).
- » Short Press (RANGE) can adjust the sensitive HIGH and LOW. There are two gears: HIGH and LOW.
- » Plug in the signal data cable and connect To the mobile APP. The display screen will turn off automatically after 10 seconds. At the same time, the Aux To APP light is always on.

### According to data transmission mode to distinguish pinhole cameras:

According to the data transmission mode, it is divided into wireless and wired. The so-called wireless „pinhole“ is composed of the principle of a camera and a receiver. The Two send and receive video signals wirelessly. Even if the camera is found, there is no one to steal the camera, so it is used most. Due to many occasions, the Canary photographers are unwilling to risk returning the downloaded data, so in the hotel, bathroom and other environments, wireless pinhole cameras are the main ones.

### **Common Position of pinhole cam**

In the environment of the hotel and bedroom, the purpose of illegal people's purpose is often the personal privacy that people care most about, mainly aiming at the bed of the hotel or bedroom. In the environment of the hotel, the shooting is carried out for a long time, and the target of the candid shooting is not fixed. In order to get the electricity conveniently, all kinds of pinhole cameras are often hidden in all kinds of hidden positions which are convenient to get the electricity, such as socket holes, screws, televisions and TV boxes, routers, smoke probes, etc. on the wall, aiming at the bed for shooting. In the bedroom environment, due to the strong timeliness and purpose of shooting, the target of stealing shooting is accurate, and there is no need to take electricity for a long time. Therefore, various cameras are often hidden in various simulated objects that are convenient to move, such as charger, hygrometer, doll's eyes, clock, can, pen, watch and other items.

### **Classification of locators:**

Wiring locator and wiring-free locator; It can also be divided into real-time locator and dormant locator and standby locator; Dormant locator can also be divided into motion work and dormant locator; Locator can also be divided into dual-mode (base station) locator and single-mode (base station) locator; Locator can also be divided into satellite locator and mobile phone base station locator; Satellite locator can also be divided.

### **FAQ**

1. Why is silent sleep tracker not detected?

A: the commonly used sleep locator works once a day and only works for 5 ... 7 minutes at a time, so the detector. When the wireless signal is being detected, the locator may not send a signal.

2. Why is the location of the real-time locator not accurately detected?

A: The real-time locator usually sends a signal every 10 seconds. Please do not move back and forth during Detection. It is best. Fixed at one position for more than 5 minutes, and then changed to another position to continue the detection.

3. Why is the detector terminal „Didi“ screaming?

A: First, please clean up the surrounding environment, because there are too many interference signals around and too strong. Second, lower the sensitivity.

4. Why the detector beside the window of the House is particularly loud?

A: The window is made of aluminum alloy, which forms a loop antenna and receives signals very well.

5. Why is the camera not detected?

A: Maybe the camera is not working, or the camera is wired.

## DISPOSAL

For the disposal of batteries in the EU, the 2006/66/EC directive of the European Parliament applies. Due to the contained pollutants, batteries must not be disposed of as household waste. They must be given to collection points designed for that purpose. In order to comply with the EU directive 2012/19/EU we take our devices back. We either re-use them or give them to a recycling company which disposes of the devices in line with law. For countries outside the EU, batteries and devices should be disposed of in accordance with your local waste regulations. If you have any questions, please contact PCE Instruments.

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