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WG POC Mobile Phone Detector



The WG POC Mobile Phone Detector will start to detect RF activity as soon as it is turned on, depending on the threshold setting that the unit is set at, it may start vibrating and displaying activity with the LED's.

There are two modes that the unit can operate in Auto Threshold Mode and the Manual Threshold Mode; different use cases, environments and personal preference will determine the best mode for you to choose.

The Detector will vibrate and display up to 4 blue LED's when it detects a cell phone. The number of blue LED's will correspond to the signal strength detected, the more LED's that are lit, the stronger the signal.

The Detector is shipped to the customer's country as the default mobile phone band, but this can be adjusted by the user using the utility software.

The unit includes software, drivers, cable, charger and this user guide on an SD card and reader.

The PC drivers are 32 bit so you will need to load the software on a Windows 7, 32 bit PC.

Specifications

- Radius of Coverage area: ~25 metres under typical conditions, indoor line-of-sight
- Dynamic range: 60 dB
- Sensitivity: -80 dBm (user selectable)
- Detector resolution: 2dB
- Bandwidth resolution: 4 MHz
- Selectivity rejection: >50 dB @ 1 MHz from uplink band edges
- Receiving modes: High-speed scanning, uplink cellphone bands
- Antennas supported: Internal directional flat panel antenna
- Includes: USB cable, mini USB 5VDC charger, PC configuration software

Making Measurements

- The unit will vibrate and display blue LED's when it detects a cell phone, the number of blue LED's correspond to the signal strength detected i.e. 3 blue LED's indicate a stronger and possibly closer mobile phone activity than 1 blue LED.
- The Detector has a semi-directional antenna under the front label so keep the front (glossy, domed label) facing towards the area of interest while scanning.

Selecting Manual Threshold

- In the Manual Mode the unit can be adjusted on the fly as you are patrolling the areas of concern; if the unit starts detecting constantly, the threshold setting can be adjusted higher than the received signal strength to desensitize the unit.
- Enter Manual Threshold mode anytime by first pushing in the toggle button to enter SELECT mode.
- If the 2nd from the left LED isn't lit, toggle DOWN once to enter MANUAL Threshold mode.
- In this mode, you can raise focus on strongest signals and lower focus on weakest signals the threshold sensitivity by toggling UP or DOWN respectively.
- There are 10 Manual threshold settings, to set the Manual Threshold setting, press the toggle wheel one time and you should see only one LED lit.
- First, you will need to zero the unit by toggling the wheel down 10 times, you can then proceed to set the level from 1-10 by toggling the wheel up 1 increment at a time.
- The unit is detecting RF as you are setting the threshold, the ideal setting will be slightly higher than the background RF level.
- Manual Threshold mode allows users to discriminate against certain signals.

Power and Charging

- The unit contains a Lithium Polymer battery system with smart charging circuitry, 5VDC 1000mA USB charger and USB cable. It should only be charged using this supplied charger or from a standard USB PC port.
- Operation Press button to power ON unit, Press & hold button for 3 seconds to power unit OFF.
- Typical unit runtime is approximately 2 hours from a full charge; when applying external power to a fully charged unit, there will be a brief flash of the red LED.
- Power is ON and / or unit is fully charged, charging cable attached
- Power is ON while being charged, allow up to 2 hours for full charge
Power is OFF while being charged, allow up to 9 hours for full charge

Selecting Auto Threshold

- In the Auto Mode the unit starts up with threshold automatically set to above background noise and will detect anything above the threshold setting.
- When the unit is in the Auto mode the threshold setting will automatically be adjusted to compensate for the background RF level.
- So if you are near a strong signal, the unit will sense the signal strength and adjust the threshold setting slightly above the signal strength.
- Example: If an active cell phone call is close in proximity to the unit, the background RF level could be very high and so the threshold setting will be set above that cell phone call.
- This threshold setting will be reset every 20 seconds, just keep this in mind and remember to go back and sweep the same area again.
- The unit ships with Auto Threshold engaged, to return to Auto or verify you are currently in Auto Threshold mode, simply push in the toggle button to enter SELECT mode.
- If the LED to the far left is not lit, toggle UP on the button to enter that mode, with the far left LED lit, push in the button again to exit SELECT mode.
- Auto Threshold (default) level only changes after 20 seconds of sustained new level.

Frequently Asked Questions

Does the unit identify callers or their phone numbers?

No. The Cell Detector is a precision RF cellular scanning device that identifies cellphone activity, both standby mode and active modes and assists in locating them.

How far away can I detect cell phones?

Typical range is about 25 metres, but this varies depending upon the environment.

Can I detect phones in standby mode?

It can detect phones in the standby mode but when a phone is ON in standby it is not constantly transmitting.

Phones register to the local cell tower/base station at different intervals that the /carrier determines, this could be every so many seconds, minutes, 5 minutes, or we have seen 20 minutes.

When a phone registers it is a short pulse less than 1 second so the BLUE LED will light up quickly and vibrator will not vibrate because the pulse is so short.

An easy test is if you take your phone and put it next to the unit and shut off your phone completely wait a few minutes then turn the phone on your phone should try to register to the base station and you should see a short flash on the unit.

Will the Detector work in a noisy RF environment?

It has auto threshold that scans the local RF noise floor in order to identify cell phone energy just above that level, the Auto threshold may also be manually adjusted by the user.

Does the Phone Detector detect phones that are powered off?

No a phone that is turned off cannot be detected.

Can the unit detect text messaging as well as voice calls?

Yes; as long as the RF transmissions are made over the prescribed frequency band(s) the unit receiver will detect them.

However, since text transmissions tend to be short and intermittent as opposed to voice or data downloads web pages, email attachments, large pictures etc. which are more continuous, the user would have to pay undivided attention to the Detector alerts to catch text messaging activity.

Can the Detector only detect cell phones or can it locate them as well ? If so, how?

The Detector can both detect and help locate cell phones; the internal antenna has some directionality built-in along with a series of visible LED signal strength indicators on top of the unit. This gives the user the ability to home in on the nearest cell phone activity without having to move closer to that cell phone.

Can the unit stimulate a cell phone to transmit RF signals?

No, it only detects RF signals; to stimulate a cell phone it would have to transmit RF signals, which would violate FCC regulations and guidelines.