

# Software cellular jammer detectors and ST171 jammer detection comparison

## Software cellular jammer detectors

Software cellular jammer detectors are based on hardware capabilities of Android or Apple device itself – smartphone or tablet (hereinafter smartphone). For using of these it is enough just to download special application (like «Jammer detector»).

**Working principle of these detectors** is based on smartphone connection with a base station. Actually, it corresponds with base station signal level indication condition on smartphone display. Bigger the indication scale – stronger the signal. When indicator is empty – no connection. **This software can show only fact of lost connection with a base station by vibration or indication on display.**

Based on working principle some limitations of effective using of such kind of detectors exist:

- **Cant detect all types of jammers**  
Modern smartphone uses 3 main frequency ranges: 2G, 3G and 4G. In each of them additional ranges exist. In frequency resources distribution some differences exist depending on region, country. Cellular jammer detector can't cover all ranges. In this case smartphone with working jammer nearby will not have connection with a base station and jammer will not be detected.
- **Long detection time**  
Time between jammer turn-on (entering working zone) and loss of connection with a base station is sufficiently large (from 1 to few minutes). In this way there is no possibility for jammer detection in moving cars and search of jammer by smartphone movement is extremely difficult.
- **Short detection range**  
Detection range is equal to jammer suppression zone. For portable models this zone can be about 1 meter.

## ST171 jammer detector

- **Working in all frequency ranges.**
- **Detection range is from 0.1 sec.,** what provides an opportunity of jammer detection in moving cars and search by smartphone movement. *Additionally, it makes expedient to use such built-in functions as photo when alarm and location fixation.*
- **Long detection distance.** Original algorithm provides jammer detection on distance which is few times bigger than its suppression zone.
- **Alarm conditions combination ability** by using of suppression channels analysis of GPS receivers and frequencies, which are nearby from base stations frequency range.
- **2 working modes presence: «Office» and «Car»** with own presets.
- **Ability for «fine» tuning**
- **Detection of sonic, ultrasonic and radio emitting Dictaphone jammers.**