TSCM NEAR-FIELD DETECTOR

K9-NFD-100

Finds powered electronics that are not transmitting

Voice recorders · covert cameras · GPS trackers · GSM bugs · concealed electronics

4
simultaneous detection bands

1.5–48
MHz near-field coverage

1525–1610
MHz GNSS leakage band

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Why it is different

Every detector in this price class looks for a transmitter

A voice recorder writing to an SD card is not transmitting.

Neither is a camera recording locally, a tracker between reports, or a GSM bug in standby. Detectors that hunt for a radio signal find none of them.

The K9-NFD-100 looks for something else entirely: the switching power supply, the clock oscillator, and the satellite receiver local oscillator that every powered device produces whether or not it ever transmits.

It will find a switched-off recorder with a live battery.

That is a demonstrable claim. Ask any competitor at this price to reproduce it.

What it finds

Four independent receivers, all live at once — the display tells you where to look, the audio tells you what it is

GNSS

1525–1610 MHz

GPS trackers, and any device containing a satellite receiver. Detects local oscillator leakage from the receiver itself, so a parked tracker is found even when its modem is silent.

POWER

1.5–3 MHz

Switching power supplies. Almost every powered device has one, which makes this the broadest of the four bands and usually the first to respond.

CLOCK

8–30 MHz swept

Crystal oscillators and microcontroller clocks. Voice recorders, covert cameras, and concealed electronics of every kind.

FAST CLOCK

30–48 MHz swept

Higher-frequency clocks found in modern camera modules, SD card controllers and faster microcontrollers.

How it is used

Zero, sweep, listen — no training course and no interpretation of numbers

1

Press ZERO

One button captures a reference level on all four bands simultaneously. The instrument now shows change, not absolute level — which is what matters when every environment has a different background.

2

Sweep the surface

Run the probe head slowly over seats, trim, wheel arches, headliners, desks and fittings. All four columns respond live. Detection is at contact range, so you sweep surfaces rather than scan rooms.

3

Read which column climbs

The column that rises tells you what class of device is present. POWER alone suggests a switching supply. CLOCK and FAST CLOCK together suggest a recorder or camera. GNSS suggests a tracker.

4

Switch the audio to that band

The envelope is fed to headphones. A switching supply whines and shifts with load; a crystal is a steady tone; an SD card write is a burst. Experienced operators identify device types by ear within a week.

Specification

Preliminary — subject to change during production qualification

GNSS band	1525–1610 MHz, dual SAW preselection
Near-field bands	1.5–3 MHz · 8–30 MHz · 30–48 MHz
Bands 2 and 3	Continuously tunable by front-panel control
Sensors	Counterwound ferrite gradiometer pair, two PCB spiral loops, GNSS patch
Detection	Logarithmic, approx. 60 dB range per band
Display	Four independent 10-segment columns
Reference	Single ZERO control, all bands

Audio monitor	5-position selector: off plus any one band, 3.5 mm output
Alarm	Adjustable threshold, audible on selected band
Detection range	Contact to a few centimetres (near-field by design)
Power	Internal Li-ion cell, USB-C charging
Run time	Approx. 8 hours continuous, all bands active
Construction	Separate probe head on short cable, amplification at the head
Compliance	Receive-only. RoHS. No transmit licence required

What it will not do

Stated plainly, because a detector that oversells itself costs you a client

Unpowered devices

Pair with the K9 NLJD

A device with no power source produces no emissions. A flat-battery recorder, a spare SIM, a passive listening device — none of these can be found by any emission detector. A non-linear junction detector is the correct tool.

Long-range room scanning

By design

This is a near-field instrument. It is swept over surfaces at contact range, not pointed across a room. That is a design decision, not a limitation of build quality — near-field is what allows non-transmitting devices to be found at all.

Distinguishing legitimate electronics

Operator judgement

Factory navigation units, telematics, dashcams and phones all emit identically to concealed devices. The instrument reports that powered electronics are present at a given spot; the operator decides whether they should be.

Ordering

K9-NFD-100

Near-field detector, four bands, complete with probe head

- Instrument, probe head and interconnecting cable
- Stereo headphones
- USB-C charging lead
- Operating manual with device signature reference
- Protective carry case

Designed and built in the UK

K9 Electronics designs and manufactures RF electronic warfare and counter-surveillance equipment from Northampton Science Park.

Roughly ninety per cent of our work is bespoke design for specific end users, including UK primes.

Trade and distributor enquiries welcome.

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