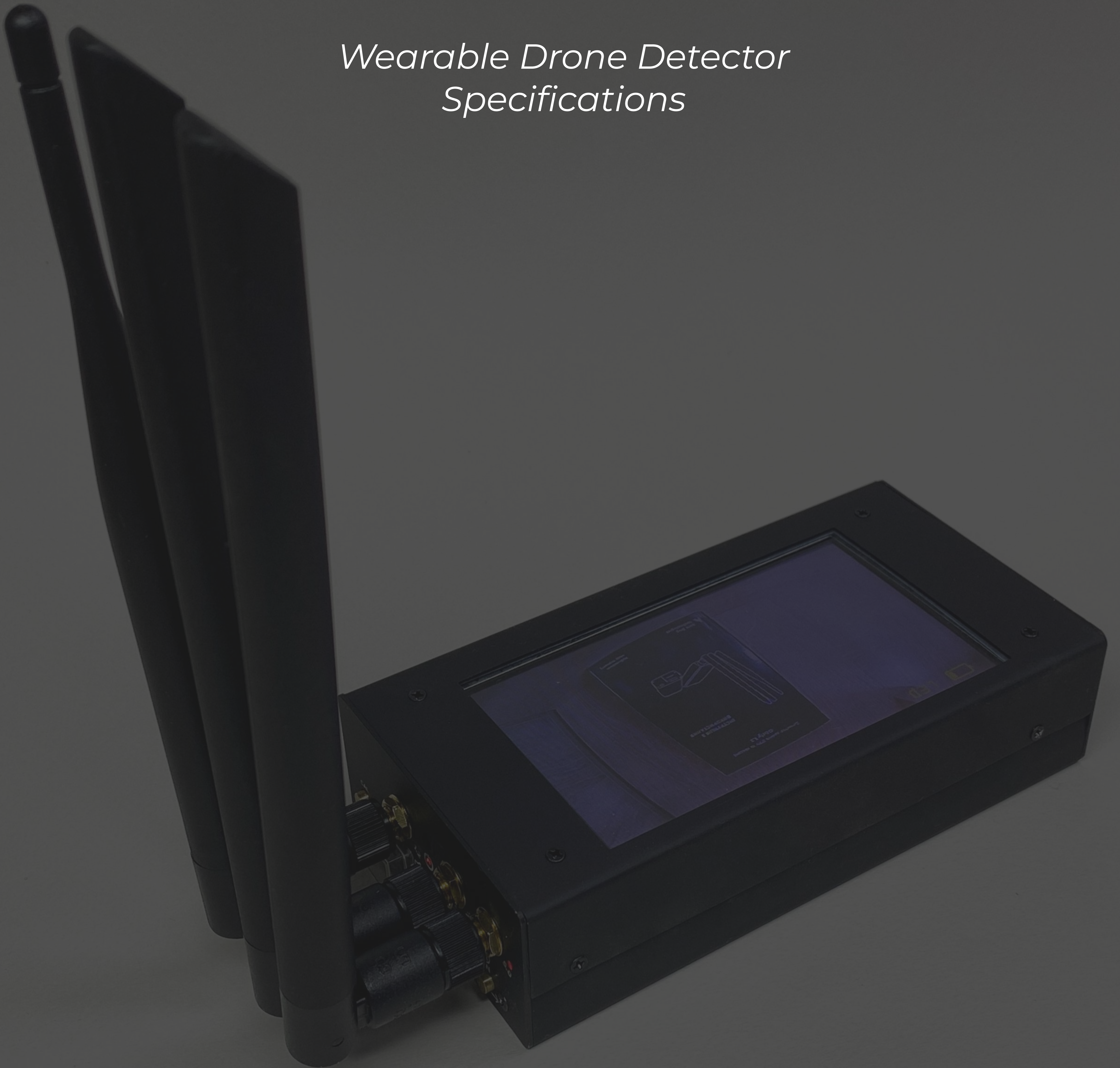


DESIGNED IN UKRAINE

# ***Kara Dag Obriy 1.4C***

*Wearable Drone Detector  
Specifications*



# Kara Dag Obriy 1.4C

## Wearable Drone Detector. Specifications



**Kara Dag Obriy 1.4: Drone Detection**  
Scan the QR code to watch



**Download the application**  
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Kara Dag Obriy 1.4C is a battlefield-tested personal drone detector. It decreases casualties by informing users about approaching drones, thus, helping them to hide. Additionally, through integration with electronic warfare systems, it can automatically activate jamming to disrupt the drones. These detectors are widely used in the Russo-Ukrainian war

- Intercepts video from FPV drones
- Detects FPV, DJI and other drones at a distance of 2-5 km away
- Fully autonomous operation; little to no training required
- Battlefield-tested, military grade (435g, up to 6h operation, IP65)
- Mobile app – spectrum analyzer; jammer integration

### Purpose Detection

Detection frequencies	1050 – 2600 MHz, 2720 – 4000 MHz, 4000 – 6040 MHz
Operating principle	The device detects drones by their video signals. An alarm is triggered when the signal level (RSSI) exceeds a certain threshold, or when a specific signal fingerprint is detected. Noise filtering is implemented through RF signal fingerprint checks, adjustable sensitivity thresholds, short signals filtering. This ensures smooth operation with minimum false alerts

### Bands and sensitivity

1050 – 2600 MHz	-95 dBm *
2720 – 4000 MHz	-85 dBm *
4000 – 6040 MHz	-85 dBm *

### Distance

DJI Mavic 2 (2.4 GHz)	Minimum – <b>2 km</b> , Maximum – <b>4 km</b> . **
DJI Mavic 3 (5.8 GHz)	Minimum – <b>2 km</b> , Maximum – <b>4 km</b> . **
FPV (1.2 GHz video), 2500 mW, OSD, telemetry disabled	Minimum – <b>2 km</b> , Maximum – <b>25 km</b> . **
FPV (3.3 GHz video), 2500 mW, OSD, telemetry disabled	Minimum – <b>2 km</b> , Maximum – <b>7 km</b> . **
FPV (5.8 GHz video), 2500 mW, OSD, telemetry disabled	Minimum – <b>2 km</b> , Maximum – <b>7 km</b> . **
Theoretical limit	Within the radio horizon (up to 40 km), depending on line of sight, transmitter power, frequency, weather, and antenna characteristics

\* according to the component manufacturer specifications

\*\* on open terrain with a set of longer antennas from the kit

## Speed of response \*\*\*

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1050 – 2600 MHz, FPV	<b>2-4 s</b>
1050 – 2600 MHz, DJI Mavic	<b>3-4 s</b>
2720 – 4000 MHz, FPV	<b>2-5 s</b>
2720 – 4000 MHz, DJI Mavic	<b>3-5 s</b>
4000 – 6040 MHz, FPV	<b>3-5 s</b>
4000 – 6040 MHz, DJI Mavic	<b>3-6 s</b>

## Prevention of false alarms

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Can Wi-Fi signals cause false alarms?	With "FPV only" mode <b>turned ON</b> , no Wi-Fi false alarms With "FPV only" mode <b>turned OFF</b> , false alarms may occur in dense urban environments with heavy Wi-Fi activity, especially in the 1-3 GHz band
Do short pulses (interference) cause false alarms?	No

## Dimensions and weight (of the portable device)

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Without antennas	435 ±10 g
With antennas	485 ±10 g

## Functionality

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Direction finding	Ability to determine the direction of threat using a directional antenna
Analog video interception	Automatic channel scanning across all frequency ranges and output of video to a built-in display
Integration with electronic warfare (EW)	Available output for jammer relay activation, allowing the device to integrate with virtually any jamming system with minimal modifications. The electronic warfare system will then automatically activate in the presence of drones
Integration with other devices	The device outputs spectrum analyzer data, as well as the information about detected threats via Type-C using Serial over USB protocol. The data format can be obtained from the developer. This data can be integrated into a smart Electronic Warfare (EW) system (which, for example, will jam drones based on their video frequency) or into a centralized drone detection system
Mobile app for spectrum viewing	Allows for a better understanding of signals and better situational awareness
FPV detection only mode	In this mode, the device ignores all signals except for those of FPV and minimizes false alerts; this mode is intended to be used in areas crowded with jammers or WiFi
Powering the antenna via Bias-T	Ability to connect external antennas via cable (up to 10m) with an amplifier powered by the device itself via Bias-T
Calibration of the frequency response for a specific antenna and situation	Ensures accurate detection of weak signals, regardless of the characteristics of specific antennas and changes caused by the external environment
Spectrum output to PC via Type-C	Ability to monitor the radio spectrum on a PC screen, extend the display to a command post, or integrate with operational information collection systems
"Blackout" mode	Disables all LED indicators for discreet operation
Self-diagnostics (error indication)	The device continuously monitors its own status and indicates what needs attention — for example, lowering thresholds or recharging the battery. This reduces the need for training and allows operators to quickly restore correct operation directly on site.
Type-C data / API integration	Easy integration & better situational awareness: stream detection events and spectrum data to a PC or external systems over USB-C for logging, remote monitoring, and integration.

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\*\*\* The test was conducted with up to 5 signals exceeding the activation threshold  
With a greater number of signals above the threshold, the device will check each of them for the presence of video  
Each such check will slow down detection by 200 ms

## Case

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Material	Anodized aluminum (100%), thickness 1 - 2 mm
Protection	Armored polycarbonate screen, protective film
Waterproofing	The device is protected against water splashes and dust. Submersion in liquids is not recommended. SMA and Jack connectors are waterproof. The case and buttons fit tightly and/or have silicone seals for insulation. The Type-C connector is standard and has standard protection

## Charging and operating duration

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Battery runtime	up to 6 hours
Charging time	6-8 hours

## Temperature range

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Device temperature	-20°C to +60°C
Air temperature	-20°C to +45°C
Air temperature during charging	0°C to +45°C

## Secondary radioelectronic radiation

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Shielding	Fully metal enclosure. Receiving modules are additionally shielded
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## Connectors

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USB Type-C	For charging, mobile app and PC connection, and EW control
Jack 3.5mm	Video signal
SMA	Antenna, Bias-T power source

## Firmware

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Firmware updates	Performed via the mobile application. New firmware versions include improved drone detection algorithms and additional features
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Our website



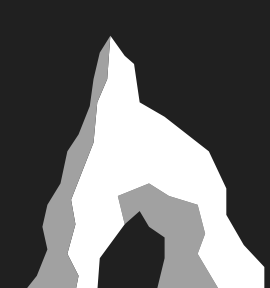
LinkedIn

### Customer service

[support@karadagtech.com](mailto:support@karadagtech.com)

General, individual purchases

[hello@karadagtech.com](mailto:hello@karadagtech.com)



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