COUNTER-DRONE & ROBOTICS · COUNTER-UAS · PASSIVE ACOUSTIC SENSING

D-EARS DROPPING

A receive-only acoustic sensor that detects and localises drone activity without transmitting, adding a passive layer to the counter-UAS stack.



KEY BENEFITS

01 **No emissions**
Detects drones without transmitting, so it adds no exposed emission source.

02 **Layers with your stack**
Complements radar, RF, optics and command-and-control systems.

03 **Easy to integrate**
Standard interfaces and OEM integration into existing systems.

HOW IT WORKS

01 **Mount**
On a tripod, or on a bracket with a 1/4-inch standard mount interface.

02 **Power and connect**
Power over Ethernet and RJ45, with LED indicators for power and health.

03 **Listen**
The microphone array picks up drone activity acoustically, without transmitting.

04 **Classify and locate**
AI processing on the edge classifies the acoustic signature and localises it.

SPECIFICATIONS

Sensing configuration	Ring or linear microphone array
Processing unit	1
Mount (optional)	Tripod; 1/4-inch standard mount interface
Mechanical mounting	Bracket (custom solutions available)
Electrical interface	PoE (Power over Ethernet)
Communication interface	RJ45
Status indicators	LED indicators for power and health
Power consumption (nominal)	< 15 W
Microphone unit	32.0 × 23.9 × 16.3 mm with wind filter, 28 g; board 20.9 × 16.2 × 6.0 mm, under 5 g
Sampler	Housing 97 × 65 × 36 mm, 138 g; board 65 × 37 × 10 mm with 44-pin connector, 32 g; 1 m harness 210 g
Sampling frequency	4, 8, 16, 32, 64 kHz
Frequency response	100 Hz to 21,000 Hz
Dynamic range	Up to 134 dB SPL
Gain	1, 2, 4, 8, 12
Wind shield	Density 60 ppi, 24 mm hemisphere, detachable

05 **Alert**

Real-time alerts help cue the right response in the C-UAS system.

TENDER SPECIFICATION TEXT

1. GENERAL

The system shall be D-EARS DROPPING by D-FENCE Electronic Fencing and Security Systems Ltd. (ISO 9001:2015 certified quality management), or an approved equivalent that meets every requirement in this section.

2. FUNCTION

A receive-only acoustic sensor that detects and localises drone activity without transmitting, adding a passive layer to the counter-UAS stack.

3. THE SYSTEM SHALL PROVIDE

- **Passive detection:** Detects and localises drone activity from its acoustic signature, without transmitting.
- **Acoustic classification:** Classifies acoustic signatures, built for multi-rotor threats.
- **Real-time alerts:** Alerts as activity is detected, for faster awareness and a better response.
- **AI on the edge:** AI processing at the edge, close to the sensors.
- **Receive-only:** A receive-only sensing layer that adds no exposed emission source.
- **Standard interfaces:** PoE and RJ45 connection, with OEM integration into existing systems.

4. TECHNICAL REQUIREMENTS

- **Sensing configuration:** Ring or linear microphone array
- **Processing unit:** 1
- **Mount (optional):** Tripod; 1/4-inch standard mount interface
- **Mechanical mounting:** Bracket (custom solutions available)
- **Electrical interface:** PoE (Power over Ethernet)
- **Communication interface:** RJ45
- **Status indicators:** LED indicators for power and health
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- **Wind shield:** Density 60 ppi, 24 mm hemisphere, detachable

5. DETECTION SEQUENCE

1. **Mount:** On a tripod, or on a bracket with a 1/4-inch standard mount interface.
2. **Power and connect:** Power over Ethernet and RJ45, with LED indicators for power and health.
3. **Listen:** The microphone array picks up drone activity acoustically, without transmitting.
4. **Classify and locate:** AI processing on the edge classifies the acoustic signature and localises it.
5. **Alert:** Real-time alerts help cue the right response in the C-UAS system.

6. SUBMITTALS

Before installation, the contractor shall submit the manufacturer's datasheet, the installation instructions and the zone layout for approval.