

## Overview

The Trackdeep Observer is a high-performance Remote ID and Drone ID receiver designed for real-time detection, tracking, and identification of drones broadcasting Remote ID signals and DJI's proprietary unencrypted DronelD.

Engineered to comply with global regulatory standards (FAA, EASA, MLIT, etc.), it provides accurate situational awareness by capturing drone and remote controller telemetry data.

## Key Features

### Real-Time Drone & Pilot Detection

Continuously scans for Remote ID signals from drones and remote controllers.

Provides instant alerts upon detecting an active signal.

### Long-Range & High-Precision Tracking

Directional antennas enable detection up to 30 km (LOS).

Omni antennas provide coverage up to 15 km.

### Broad Frequency Compatibility

Supports 2.4 GHz and optionally 5.8 GHz frequencies.

### Seamless Integration & Deployment

MQTT API support ensures easy integration with third-party systems. Web-based Trackdeep interface for real-time visualization and analysis. Cloud & on-premises options available for flexible data management.

### Robust & Reliable Performance

IP67-rated enclosure for harsh environments.

Operating temperature: -20°C to 40°C.

PoE (48-56V, 802.3af/at) or built-in power supply options available.

## Deployment Options

### Standalone Hardware

Includes the receiver unit only, ideal for customers with existing data processing and integration solutions.

### Cloud-Enabled Package

Receiver unit plus a one-year cloud analytics license for real-time monitoring and historical data analysis.

### LTE-Connected Solution

Bundled with a 4G modem, LTE antenna, and SIM card, enabling direct cellular connectivity without wired internet.

## Technical Specifications

Feature	Specification
Detection Range (low RF noise, rural)	Omni: 15 km Directional: 30 km
Frequency Bands	2.4 GHz & optional 5.8 GHz
Operating Temperature	-20°C to 40°C
Power Supply	Built-in or PoE 48-56V (802.3af/at)
Power Consumption	Typical: 10W, Max: 16W
Enclosure Rating	IP67 (dust & water protection)

## Optional Upgrades & Accessories

Surge Protection & Cable Kits – Enhanced protection in high-electromagnetic or extreme weather conditions.

ADS-B/UAT Receiver Module – Allows simultaneous tracking of manned aircraft.

Customized Mounting Kits – Pole and wall mounting options for various installation environments.

LTE Modem Upgrade – Improves connectivity in remote or interference-prone areas.

## What's in the Box? (Varies by package)

1× Trackdeep Observer Remote ID & Drone ID Receiver

1× Mounting Bracket (Pole/Wall Mount)

1× Set of Antennas (Omni and/or Directional as per configuration)

User Manual & Quick Start Guide