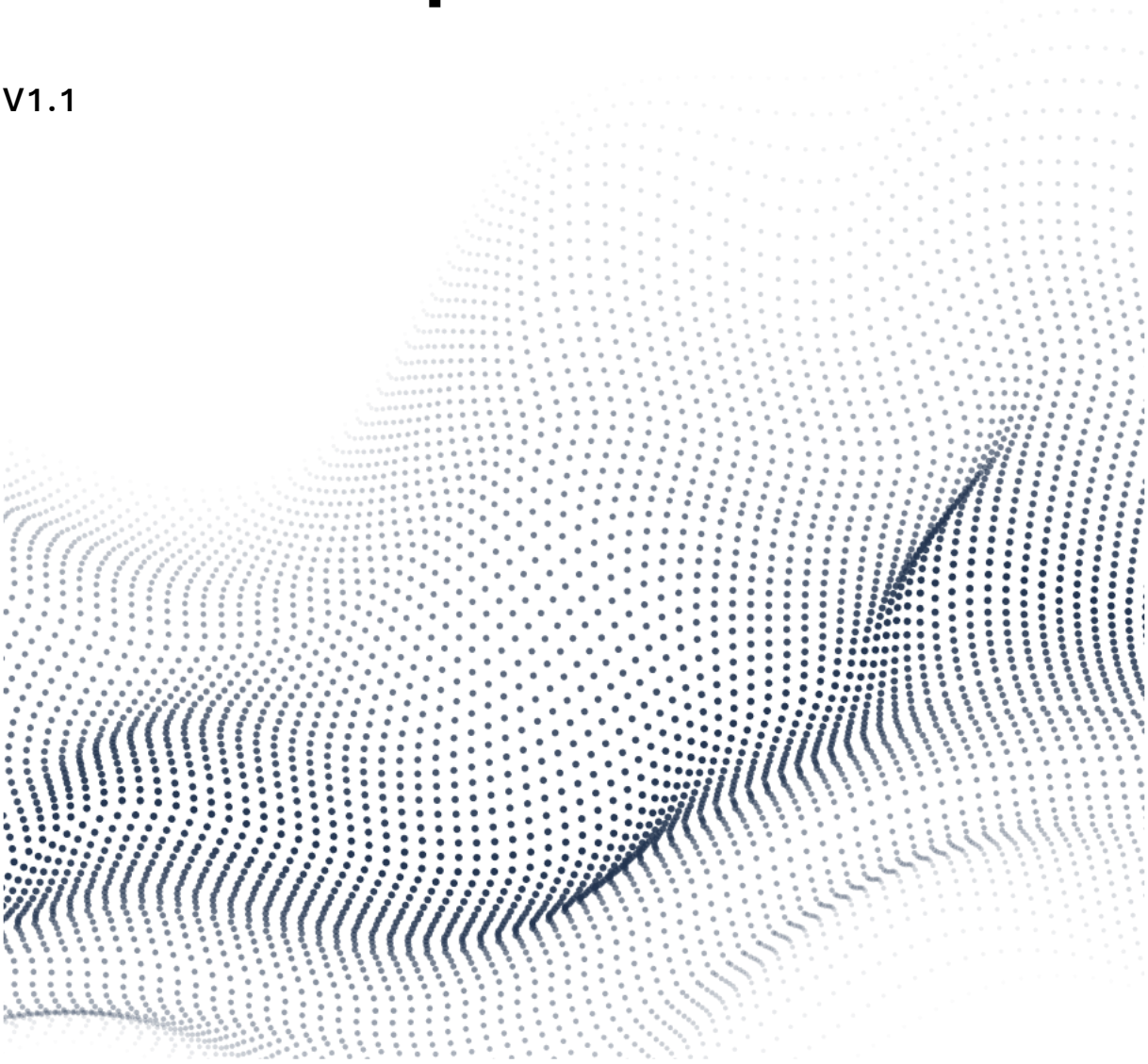
SCOUTDI

Scout 137 Gen3 Drone System

Technical Specifications

V1.1



The Scout 137 Gen3 Drone System

The Scout 137 Gen3 Drone System is an advanced solution designed for efficient and safe remote inspections, particularly in confined spaces. Featuring cutting-edge 3D LiDAR technology, it supports BVLOS operations and includes automatic anti-collision features to ensure both safety and precision. A built-in gas sensor enhances situational awareness by detecting the most common flammable gases, contributing to safer inspection conditions. Tethered to a Ground Station, the Scout 137 operates without batteries, offering unlimited flight time and a fully wired control system for uninterrupted, high-performance inspections.

Key Features

- **Unlimited Flight Time:** The tethered design and innovative power management system, with a 60-meter power and data cable, allows the Scout 137 to operate continuously. This eliminates the need for battery swaps during long-duration inspections.
- **Safe BVLOS Flight:** A fully wired control system ensures stable, real-time communication and control. This enables safe Beyond Visual Line of Sight (BVLOS) operations even in GPS-denied environments.
- **Survey-Grade LiDAR with SLAM and Location-Tagged Data:** The system includes a 128-beam LiDAR that generates dense 3D point clouds in real time. SLAM-based navigation and precise tagging of flight paths and points of interest allow for accurate mapping and efficient post-inspection analysis.
- **4K Camera with 3.5× Optical Zoom:** The integrated camera delivers high-resolution 4K video and supports 3.5× optical zoom, enabling close-up inspection of critical areas without repositioning the drone.
- **UTM Payload Compatibility with Surface Preparation Tool:** Fully compatible with the optional UTM Payload for ultrasonic thickness measurements. A built-in mechanical cleaning system ensures reliable contact on coated or corroded surfaces.

Drone

Specifications	Details
Dimensions – Drone	448 × 479 × 262 mm (L × W × H)
Dimensions – Transport Case	632 × 602 × 333 mm (L × W × H)
Weight – Drone / Transport Case	3 kg / 16 kg (incl. content)
Maximum Lifting Distance with UTM Payload	35 meters
Operational Temperature Range	From -20°C to +50°C
Ingress Protection	Designed to meet IP54

Navigation System

Specifications	Details
Sensor	128-Beam Survey Grade Ouster OS0 3D Lidar
Sensing Range & FOV	0.5 – 100 m & 360°

LED Lights

Specifications	Details
Lighting Intensity	Up to 12 000 Lumen
Structured Lighting	Pre-set lighting schemes, or individual control

Camera System

Specifications	Details
Resolution (Recorded/Live Streamed)	3840 × 2160 (4K) / 1280 × 720 (HD)
Lens Features	3.5x Optical Zoom with Auto-Focus
Frame Rate & FOV	30 fps, FOV 82°–25° (Zoom dependent)
Gimbal	2-axis stabilization with ± 90° pitch range
Recorded Data Rate / Micro SD Card Storage	Approx. 25 GB per hour / 1 TB

Ground Station

Specifications	Details
Dimensions – Ground Station	385 × 440 × 245 mm (L × W × H)
Dimensions – Transport Case	676 × 525 × 378 mm (L × W × H)
Weight – Ground Station / Transport Case	8.75 kg / 21.3 kg (incl content)
Input Power*	200–240 V AC, 50/60 Hz, min. 13 A 3000VA, 2700W
Ingress Protection Rating	Designed to meet IP54
Operational Temperature Range	From -20°C to +50°C
Max Power Cable Length	50 meters (using 1.5mm^2 cable and 16A circuit)

*Input power takes into account the potential burst load of the system. Typical operating power of the drone system is 1000-1500W.

Tether

Specifications	Details
Length / Weight	40 m [12.8 g/m], optional 60 m [18.5 g/m]
Voltage	400 V DC
Data Link Bandwidth	80 Mbit/s
Breaking Strength / Composition	80 kg / Kevlar, PVC, FRPP & Copper

*Preliminary specifications subject to change