LOCH TECHNOLOGIES

DETECT

INDENTFY

TRACK

MITIGATE

SkyShield Mobile Datasheet

Smart & Autonomous RF Drone Detection System

The Next-Generation Counter-Drone Technology

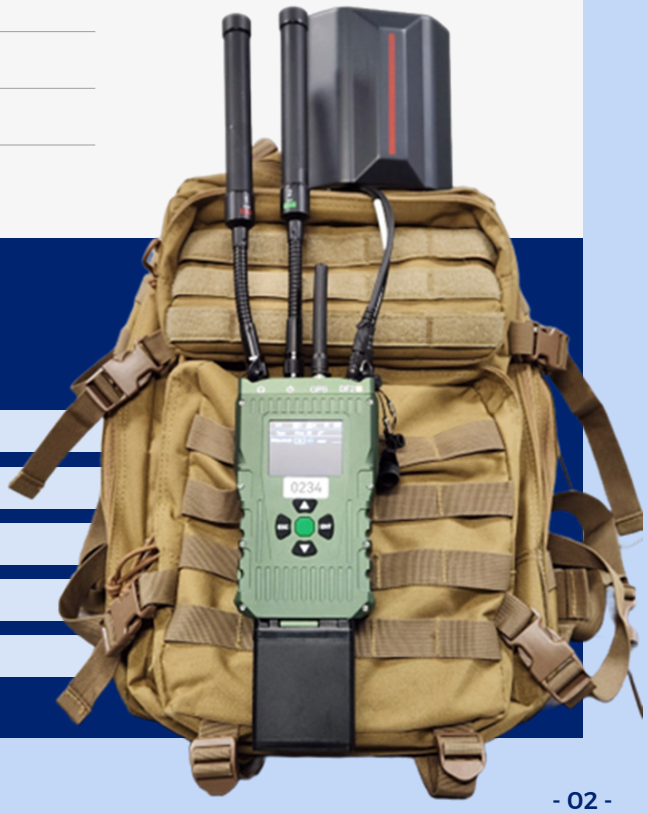
www.loch.io

SkyShield Mobile

A wearable drone detection and tracking system Entirely passive with zero emissions

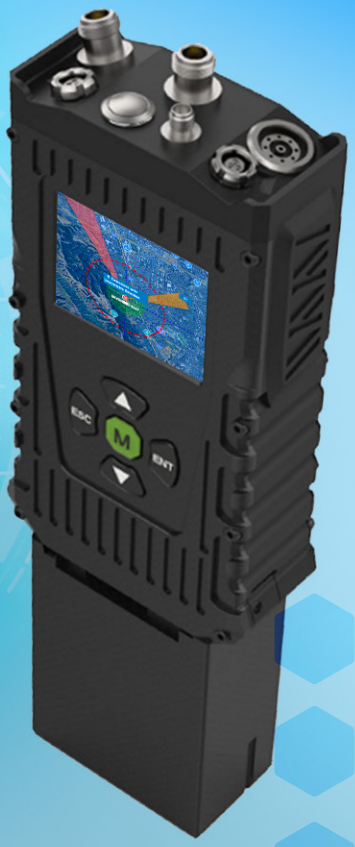
The package includes:

- SkyShield Mobile Unit
- Antenna(s): 2.4G/5.2G/5.8GHz, 900Mhz, 868Mhz, Wi-Fi, GPS
- Directional Finding (DF) Antenna
- Headphones
- MOLLE attachment system'
- Rechargeable batteries
- Battery Charger



Antenna Kit Availability

868 Mhz: 863 Mhz - 870 Mhz
915 MHz : 902 MHz - 928 MHz
2.4 GHz: 2400 MHz - 2500 MHz
5.2 GHz: 5150 MHz - 5250 MHz
5.8 GHz: 5725 MHz - 5850 MHz



Key Features

SkyShield Mobile

Detection methodology

Passive detectoin of radio-frequency (RF) singals; zero emission

Detection range

Up to 3KM

Detection angle range

Full 3600 (all-airspace)

Direction finding (DF)

Directional Finding (DF) 15°RMS. Supported without any manual movement of the DF antenna

List of UAVs

Extensive library coverage, which includes 450+different drones/UAVs, remote controllers, drone-telemetry and FPV models

Whitelist/blacklist

Supports whitelist/blacklist for certain brands/models which helps distinguish friend from foe

Key Features

Drone swarm detection with electronic fingerprints

UAVs and remote controllers are detected precisely and identified with electronic fingerprints with electronic fingerprints. Simultaneously tested and verified identification of 30+ different UAVs (15+ non-DJI models) and 30+ different remote controllers (15+ non-DJI models)

User interfaces

On-device graphical user interface. Comprehensive browser-based GUI upon connecting to a smartphone, tablet, laptop, or a PC over TCP-IP

Dynamic deployment

Supports network as well as local deployment Units can be networked over TCP-IP Private or public LAN Compatible with other Skycope detection units such as SkyEye Compatible with Mesh Tactical Radios for networking

Software upgrade

Can be upgraded online or offline

Versatility

Wear on a vest, attach to a backpack, place in a pouch, hold in hand, use on a vehicle or simply place on the ground

User feedback options

Visual, Haptic/Vibration, Audible

Integration

ATAK
Compatible with Tactical MANET radios Simple APIs for integration with any Digital Battle Management System

Control functions

Control functions include but are not limited to viewing the system operation status, receiving drone activity alerts, viewing black and white lists, etc.

User authorization

Different user roles have access to different features

Key Features

Unique Advantages

Unmatched Drone Model Coverage in a wearable form factor: 400+ drone models, from commercial DJI and Autel, to modified and Do-it-Yourself (DIY) drones, to all sorts of FPV drones.

Unrivaled Drone Swarm Detection

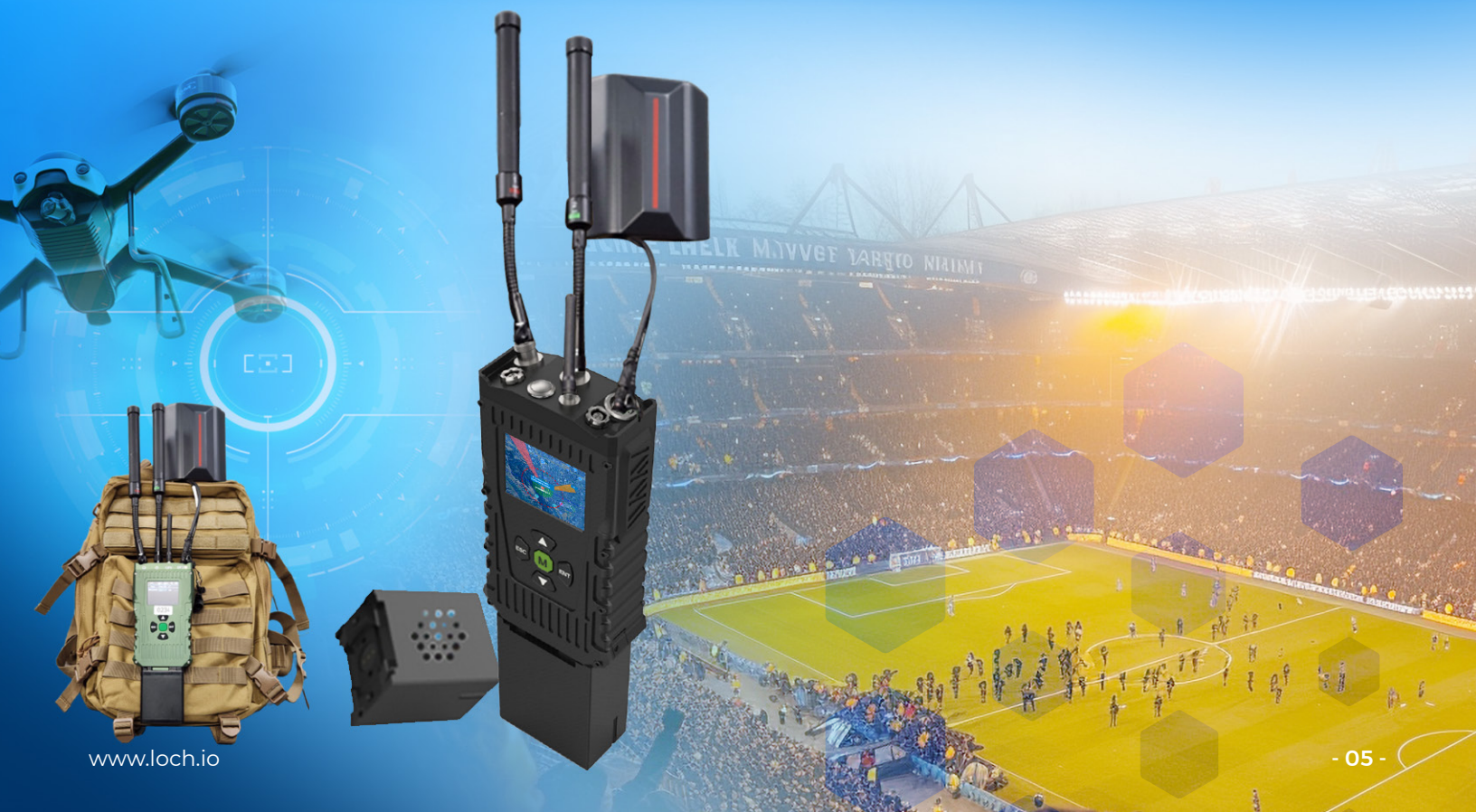
Handles Swarms: Detects up to 30 drones simultaneously.
Precision Identification: Differentiate between drones and controllers of the same make and model.
Unique ID Capability: Identify individual drones for enhanced friend or foe recognition.

Enhanced Interface Options

Onboard screen: for quick and summarized data access
Modern GUI: Connect a smartphone or tablet to enjoy the advanced features
ATAK integration
Audible and haptic interfaces

Transforming Direction Finding (DF) in the wearable C-UAS segment

Automatic DF: Our innovative technology provides accurate direction finding automatically. No more manual movement of antennas, reading signal levels and guesswork.
Multi-Target Tracking: Simultaneously track multiple targets with unprecedented efficiency. No more focusing on just one target at a time.
On-the-Move Capability: Reliable direction finding even when mounted on a moving vehicle. Perfect for dynamic environments.



Specifications

Radio operating frequency range	70MHz - 6GHzGHz
Scanning frequency resolution	≤100Hz
Minimum frequency bandwidth detectable	100Hz
Sensor Weight (without battery)	800g
Sensor Size (without battery and antenna)	16cm x 9cm x 4.5cm
Shell protection level	≥IP65
Working temperature	-22°C to +55°C (-7.6°F to +131°F)
Battery	Rechargeable lithium-ion battery (10.8 Volt DC) Commonly used NATO military grade battery Compatible with the standard PRC-152/PRC-163 radios
Battery duration	up to 6 hours
Supported wireless protocols	LightBridge, LightBridge 2, Ocusync, Ocusync 2.0, Ocusync 3.0, Ocusync 4.0, Autel Skylink, WIFI and WIFI variant protocols, LTE and LTE variant protocols, Zigbee, Bluetooth, BLE, NTSC, PAL, Majority of DIY remote controller and drone-telemetry protocols and FPVs, etc.
Supported wireless modulations	OFDM, DSSS, FHSS, GFSK, OQPSK, Analog FM, 2FSK, BPSK, QPSK, 16QAM, 64QAM, etc.

About **LOCH**

LOCH's SkyShield Drone Detection Solution delivers a powerful defense system to detect, analyze, and neutralize risks posed by RF-enabled drones, ensuring comprehensive protection for critical operations.