SkyControl RF Master - Stationary Passive Detector

Stationary · Passive Detection

SkyControl RF Master, is a stationary, passive radio-frequency detection system designed for smart and autonomous counter-drone operations, capable of detecting and identifying UAVs and remote controllers up to 10 km away with full 360° airspace coverage and near-zero false alarms.

It employs electronic fingerprints to precisely recognise over 495 models from an extensive library, including non-DJI variants, and supports friend-or-foe identification through whitelist/blacklist features. Technically, SkyControl RF Master operates across a 70 MHz to 6 GHz radio range with a 70 dB dynamic range, scanning resolution of ≤100 Hz, and minimum detectable bandwidth of 100 Hz, supporting various protocols like LightBridge, Ocusync, WiFi, LTE, and DIY telemetry, as well as modulations including OFDM, DSSS, and QAM.

With a rugged design weighing 13.5 kg, measuring 470 mm in diameter by 420 mm in height, IP66 shell protection, vehicle mounting options, and operation in temperatures from -25°C to +55°C, powered by 100-240V AC or optional 24V DC, holding MIL-810-H and CE REACH/ROHS certifications.

Detection Frequency Bands

- 433 Mhz ISM band (Optional, no DF)
- 868 MHz ISM band (Optional, no DF)
- 915 MHz ISM band (Optional, no DF)
- 2.4 GHz ISM band
- 5.2 GHz/5.8 GHz ISM band
- 1.4 GHz band
- 400MHz to 6GHz FPV detection

The SkyControl RF Master

At a Glance

Its long-range precision protection SkyControl RF Master delivers up to 10km passive detection with near-zero false alarms, precise friend-or-foe identification, accurate direction finding, and effortless installation and operation for reliable, autonomous counter-drone security.

Its simple plug-and-play setup offers seamless deployment and operation.

- ✓ **Up to 10km Detection**
- ✓ **Near Zero False Alarms**
- ✓ **Identification Friend or Foe**
- ✓ **Easy Installation and Operation**
- ✓ **Direction Finding**

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SkyControl Master Data

Detection Methodology	Passive detection of radio-frequency (RF) signals; zero emission
Detection Range	Up to 10km
Detection Angle Range	Full 360° (all-airspace)
Detection Finding (DF)	90°RMS when frequency <2GHz 45°RMS when frequency >2Ghz
List Of UAVs And Remote Controllers	Extensive library coverage, which includes more than 495+ different drones/UAVs, remote controllers, drone-telemetry and FPV models
Electronic Fingerprints	UAVs and remote controllers are detected precisely and identified 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)
Whitelist/Blacklist	Supports whitelist/blacklist feature for brands/models, distinguishing friend from foe
System Configuration	Can be done easily through graphical user interface (GUI)
Software Upgrade	Can be upgraded online or offline
Dynamic Deployment	Supports cloud as well as local deployment. Flexible multi-site, multi-device deployment is possible using the cloud server
Remote And Mobile Access	Easy access to management systems. The product can be operated from smartphones, tablet, and computer
Multi User Access	Central control GUI can be accessed via web browsers (e.g. Google Chrome) and mobile applications (e.g. Android mobile app) by multiple users at the same time.
Centralised And Distributed Monitoring	All devices can be monitored and maintained centrally, as well as individually
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 Authorisations	Different user roles have access to different features

Key Options

SkyControl RF Master - Stationary Passive Detector

Radio Frequency Range	70MHz - 6GHz
Dynamic Range	70dB
Scanning Frequency Resolution	≤100Hz
Minimum Frequency Bandwidth Detectable	100Hz
Sensor (Including Antenna) Weight	13.5KG
Sensor (Including Antenna) Size	470mm (diameter) * 420mm (height)
Power Supply Mode	100V ~ 240V (DC 24V option avalable)
Vehicle Mounting Option	Yes
Shell Protection Level	≥IP66
Working Temperature	(-25±2)°C~ (+55±2)°C
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

Detection Frequency Bands

433 Mhz ISM band (Optional, no DF)

868 MHz ISM band (Optional, no DF)

915 MHz ISM band (Optional, no DF)

2.4 GHz ISM band

5.2 GHz/5.8 GHz ISM band

1.4 GHz band

400MHz to 6GHz FPV detection

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Key Options