



Standard UAV Detecting and Jamming System

ND-BU001

The **ND-BU001** is designed against consumer-grade small rotor UAVs, combining long-range detecting function, jamming function and track-record function into one, for protecting related key area and responding to the threats (i.e. illegal aerial photography, terrorist attack, drug trafficking) of more and more small rotor UAVs.

The system mainly consists of Detecting System, Jamming System and Camera System. The Detecting System is for detecting and tracking long-distance UAVs and leads the Jamming System to interfere with the remote control circuits and navigation signals of the UAVs and force the UAVs landing or returning. The Camera System can efficiently record the tracks of the detected UAV for further close inspection, and also assist the Detecting System for more accurate monitoring.

Main Features of Detecting System:

- 3D active phased-array radar
- Low false alarm rate and excellent ability in clutter suppression
- Multiple target capability: able to search at most 128 targets simultaneously
- Full-automatic searching and tracking, and supporting all day (24h) working
- Detection range $\geq 2.5\text{km}$ (depending on circumstances and UAV type)
- Friendly man-machine interface

Main Features of Jamming System:

- Directed jamming without violence
- 4 frequency bands of jamming signals (frequency bands and output power can be customized)
- Supporting automatic/manual models switching
- Remote control frequency jamming: coverage of all available civil drones
- Directional high-gain antennas mounted on Pan-Tilt platform to follow the drone (track) and to transmit the jamming signal in the direction of the UAV (drone)
- Frequency jamming can be done automatically upon UAV detection or upon supervisor assistance

Detecting System

Detection range	Max range (RCS=1m ²)	5.5km
	Max range (RCS=0.1m ²)	4.5km
	Max range (RCS=0.01m ²)	2.0km
	Minimum range	0.1km
	Target speed	0.5-120m/S
	Target altitude	30-1000m
	Elevation angle	≥45°
	Azimuth angle	360°

Jamming System

Output band	Frequency band	Channel output power	Total output power
4 Bands	840-930MHz	10W	40W
	GPS L1	10W	
	2.40-2.50GHz	10W	
	5.70-5.90GHz	10W	
Power supply	220V, AC power		
Power consumption	150W		
Physical	Weight	12Kg	
Environment	Protection	IP66	

Camera System

Thermal camera System

Detector type	Uncoiled micro bolometer
Max. resolution	640 × 512
Lens (focal length)	100mm
Field of view	6.23° × 4.98°
NETD	50mk(@25°C, F#=1.0)

Color camera System

Image sensor	1/2.8" Progressive Scan CMOS
Max. resolution	1920 × 1080
Min. illumination	Color: 0.05Lux @ (F1.8, AGC ON) B/W: 0.01Lux @ (F1.8, AGC ON)
Focal length	6.7-330mm, 49x

Pan and tilt System

Movement range	Pan: 360° continuous rotate; Tilt: from +40° to -90°
Pan speed	Configurable, from 0.1°/S to 110°/S
Tilt speed	Configurable, from 0.1°/S to 50°/S



Deliverables

Radar Module	x 1
Jammer Module	x 1
Thermal Camera	x 1
Colour Camera	x 1
User Manual	x 1

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