

UAMS-R01 低空雷达技术规格书

**UAMS-R01 Low-altitude radar
technical specification**

1.1 概述

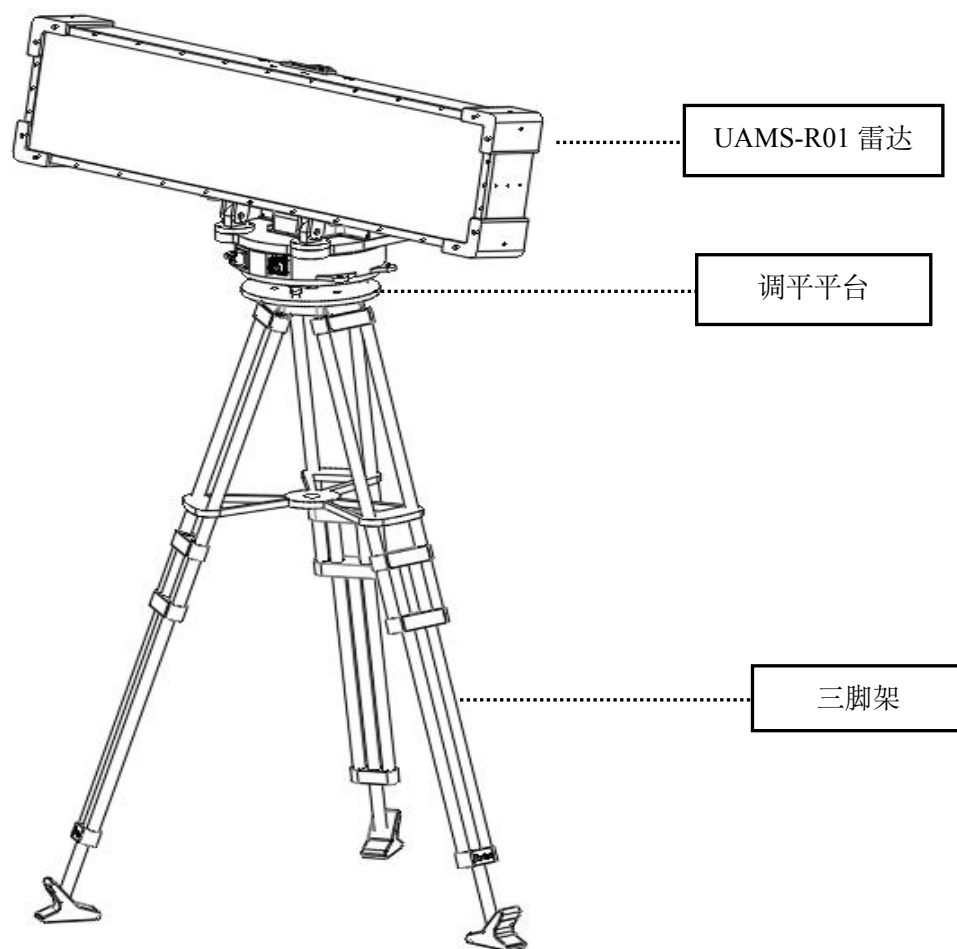
1.1 Overview

UAMS-R01 雷达是一款方位机扫、俯仰维相扫的脉冲多普勒体制三坐标雷达,主要用于对低空飞行器进行探测定位。该雷达可以精确探测目标的空间位置,配接光电系统,可与干扰、激光武器、导航诱骗等反制设备级联。

UAMS-R01 radar is a three-coordinate radar with azimuth mechanical scanning and elevation phase scanning, based on the pulse Doppler system, primarily used for detecting and locating low-altitude aircraft. This radar can accurately detect the spatial position of targets and, when integrated with electro-optical systems, can be cascaded with countermeasures such as jamming, laser weapons, and navigation deception systems.

1.2 产品外形图

1.2 Product shape diagram



1.3 技术指标

1.3 Technical indicators

1.3.1 主要技术指标

1.3.1 Main technical indicators

1) 雷达波段: X 波段;

1) Radar band: X-band;

- 2) 探测距离: $\geq 5\text{Km}$ (典型目标: 大疆精灵 4) ;
- 2) Detection range: $\geq 5\text{Km}$ (Typical target: DJI Phantom 4);
- 3) 可探测目标最低速度: 1m/s ;
- 3) Detectable target minimum speed: 1m/s ;
- 4) 近距离盲区: $\leq 200\text{m}$;
- 4) Close-range blind spot: $\leq 200\text{m}$;
- 5) 目标容量: ≥ 500 个;
- 5) Target capacity: ≥ 500 units;
- 6) 覆盖范围:
- 6) Coverage:
- 方位: $0^\circ \sim 360^\circ$; 俯仰: $0^\circ \sim 30^\circ$;
- Orientation: 0 to 360 degrees; Pitch: 0 to 30 degrees;
- 7) 精度 (RMS) :
- 7) Precision (RMS):
- 方位: $\leq 0.6^\circ$; 俯仰: $\leq 0.6^\circ$; 距离: $\leq 10\text{m}$;
- Orientation: ≤ 0.6 ; Pitch: ≤ 0.6 ; Distance: $\leq 10\text{m}$;
- 8) 通讯协议: UDP;
- 8) Communication protocol: UDP;
- 9) 整机平均功耗: $\leq 220\text{W}$;
- 9) Average power consumption of the entire machine: $\leq 220\text{W}$;
- 10) 电源: AC220V/50Hz;

- 10) Power supply: AC220V/50Hz;
- 11) 数据接口：千兆网口；
- 11) Data interface: Gigabit Ethernet port;
- 12) 外形尺寸：≤850mm×330mm×440mm（长×宽×高）；
- 12) Dimensions: ≤850mm×330mm×440mm (Length×Width×Height);
- 13) 整机重量（不含三角支架，不含防雨罩）：≤30kg；
- 13) The total weight (excluding the tripod, excluding the rain cover): ≤30kg;

1.3.2 环境适应性

1.3.2 Environmental adaptability

- 1) 工作温度：-40℃ ~ +60℃；
- 1) Operating temperature: -40℃ ~ +60℃;
- 2) 储存温度：-50℃ ~ +65℃；
- 2) Storage temperature: -50℃ ~ +65℃;
- 3) 防护等级：IP65；
- 3) Protection Level: IP65;