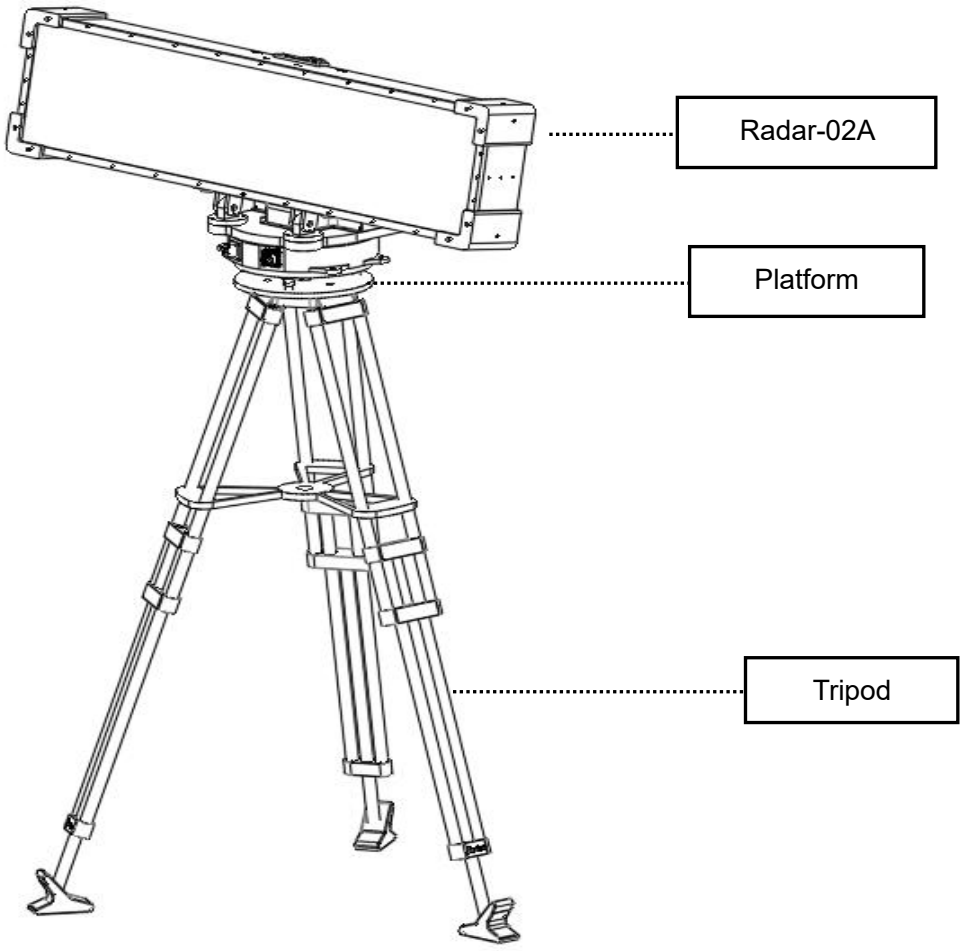
1.1 Overview

The Radar-02A radar is a pulse Doppler system three-coordinate radar featuring azimuth mechanical scanning and elevation phased scanning. It is primarily used for detecting and tracking low-altitude aircraft, ground personnel, and vehicles. The radar can accurately determine the spatial position of targets and can be cascaded with countermeasures such as jamming, laser weapons, and navigation spoofing systems.

1.2 Product Appearance Diagram



1.3 Technical indicators

1) Radar band: X band(9GHz~10.2GHz)

2) Detection range (False alarm rate: 10^{-6}, Detection Probability: 90%)

Drone	RCS=0.01m^2(DJI Phantom 4)
Power coverage	≥5km/ data rate 6s ≥3km/ data rate 3s

3) Detectable target speed: 1~100m/s;

4) Close range blind spot: ≤180m;

5) Detection range

Direction:0~360°,

Pitch:≥40°(scan),Max 60°(track);

6) Multi objective capability

Number of targets: ≥200;

7) Accuracy

Direction:≤0.6°;

Pitch: ≤0.6°;

Distance: ≤10m;

8) Self checking ability

Real time monitoring of the working status of subsystems;

9) Communication protocol: UDP

10) Total power consumption: ≤220W

11) Power supply: AC220V/50Hz

12) Data interface: Gigabit Ethernet port

13) Overall Dimension: ≤850mm×290mm×410mm(L×W×H)

14) Weight of the whole machine

(excluding triangular bracket and rain cover):≤35kg.

1.3.2 Environmental adaptability

1) Operating Temperature:−40℃ ~ +70℃;

2) Storage temperature: −45℃ ~ +75℃;

3) Protection level: IP65.