

Mid-range active phased array radar

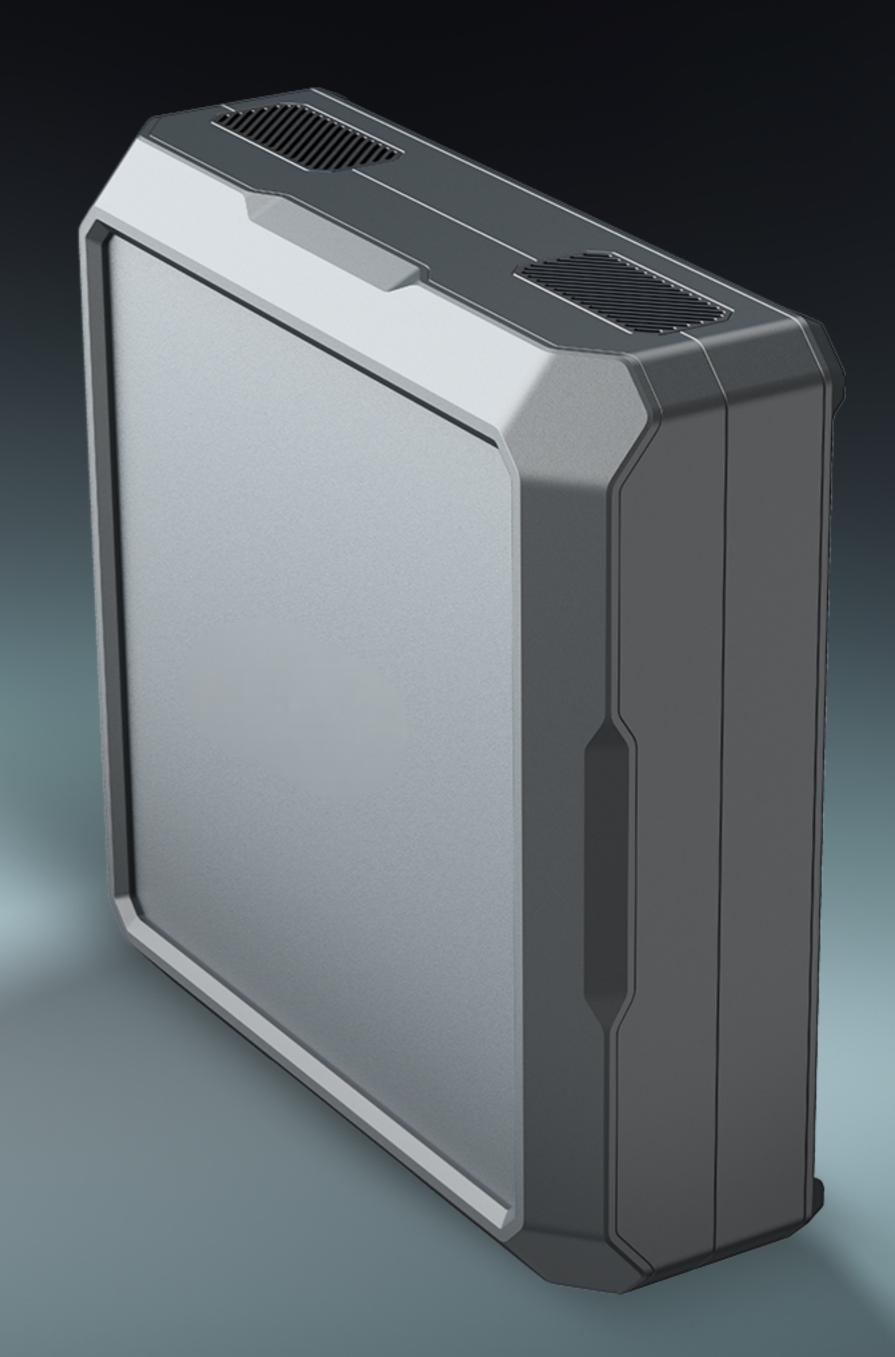
DPH100 is an X-band pulse doppler active electronically scanned array (AESA) radar, providing all-weather high-precision detection and positioning capability for low-altitude flying objects.

It meets hemispherical detection requirements in defense systems through different installation methods (quad-panel radar, single radar with pan positioner), ensuring radar coverage without blind spots. DPH100, with its multi-mode configuration, is suitable for various operational scenarios and can be easily integrated into fixed platforms as per operational needs.



ADVANTAGES OF THE PRODUCT

- 2D phased array radar design provides high-precision drone detection data in complex
- environments. In C-UAV (Counter Unmanned Aerial Vehicle) mode, it achieves detection distances of over 5 km for drones with RCS of 0.01 m².
- Capable of tracking hundreds of targets simultaneously.
- The radar system supports two methods for achieving 360° protection in the horizontal airspace: one through horizontal mechanical scanning and the other using a quad-panel configuration.



DISTINCTIVE FEATURES



Strong Environmental Adaptability

Equipped with all-weather detection capability, it can track and identify drones even in adverse conditions such as rain, snow, strong winds, and dust.



Software Customization

Radar beams can be defined via software, making it suitable for various mission scenarios. It can detect drones, humans, vehicles and other targets in different modes.



Hemispherical Monitoring

The radar provides comprehensive monitoring and detection capabilities, effectively covering the airspace with a panoramic view. It detects without blind spots, enhancing the overall reliability and comprehensiveness of the defense system.



Guidance Capability

It offers high-precision target positioning and can guide electro-optical or other countermeasure devices to effectively interfere with flying objects.

SPECIFICATIONS



| Parameters | Indicators | |
|--------------------------------|---|--|
| Operating status | Two-dimensional phased array scanning mode | Horizontal mechanical scanning, two-dimensional phased-array scanning |
| Frequency band | X-band | |
| Operating frequency band | 9.2GHz~9.5GHz | |
| Maximum signal bandwidth | 15MHz | |
| Maximum antenna power | 128W | |
| Detection range | ≥5Km(Drone,RCS:0.01m2) | |
| Radar range | 13km | |
| Blind zone | ≤200m | |
| Field of View (FOV) | Azimuth:0°~90°, Elevation:0~75° | Azimuth:0°~360°, Elevation:0~75° |
| Target capacity | ≥200 | |
| Speed range | 1~100m/s (Software-adjustable) | |
| Accuracy | Distance accuracy: <10m, Range resolution: 15m, Azimuth angle accuracy:<0.5°, Pitch angle accuracy: <0.5°, Velocity accuracy: ≤0.6m/s | |
| Target update rate (Data rate) | ≤6s(Configurable) , In azimuth mechanical scanning method $<$ 3s TAS Mode ($<$ 0.5s) , TWS Mode ($<$ 6s) | |
| Size | <357*345*145mm | |
| Weight | <15Kg | <20Kg |
| Power supply | AC220V | |
| Interface | Ethernet Port | |
| Power consumption | <400W | <500W |
| Operating temperature range | -40°C~+55°C | |
| Storage temperature range | -45°C~+60°C | |
| Cooling method | Active cooling | |
| Protection rating | IP66 | |
| MTBF | ≥200 hours | ≥200 hours |
| Mounting method | Portable Fixed • | Vehicle-mounted |