

Airborne Anti- Collision Radar Product

Functional Characteristics:

The airborne anti- collision radar is applied to airborne platforms to realize obstacle- avoidance function for airborne platforms. Operating at 24 GHz, it transmits Frequency Modulated Continuous Wave (FMCW) signals and receives echo signals reflected by obstacles ahead, so as to measure the real- time distance of forward obstacles.

Main Application: Obstacle Avoidance for Airborne Motion Platforms.

一. Main Features

- Long Detection Range;
- Compact Size, Light Weight, Low Power Consumption.

二. Structural Parameters

Operating Parameters	Min	Typical	Ma	Unit	Remarks
Operating Frequency		24.10		GHz	
Output Power		9		dBm	
Operating Range		1000		m	RCS=10m2
Ranging Accuracy		± 1.5		m	
Data Frame Rate		12		Hz	
Beam Width		6		°	Horizontal Direction
		8		°	Vertical Direction
Sidelobe Suppression		26		dB	Vertical Direction
		28		dB	Horizontal Dire
Power Supply Voltage	12	28	36	V	
Power Supply Current		60		mA	

Operating Temperature	-40		+6 0	°C	
Product Dimensions	210×118×30			mm	
Product Weight	390			g	

Product Outline and Installation Dimensions

Product outline and installation dimensions are shown in the figure below:



The airborne anti- collision radar features a rectangular housing structure with dimensions of 210 mm × 1118 mm × 30 mm. Its front side serves as the radar radiation surface, while the rear metal surface is the mounting surface. Waterproof aviation socket connectors on the side are used for external connection to realize radar power supply and

data communication.

The airborne anti- collision radar adopts a sealed design and features IP67 waterproof performance.

The airborne anti- collision radar is fixed externally by four M5 screws, with a screw- hole spacing of 100 mm × 50 mm.