

μSharp Patch Collision Avoidance Radar

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Product Overview



The μSharp Patch Collision Avoidance Radar offers the best flexibility for customers looking for the optimal collision avoidance solution. You may decide on a single patch and rely on the all weather proof high performance sensing from Aerotenna for your UAVs' safe flight. Or you may choose to arrange multiple patches on your UAVs to cover the various directions that are critical for your applications, knowing the same high level of sensing and collision avoidance in all covered directions.

Compact The μSharp Patch is designed with Aerotenna patent pending miniature antenna and circuits. The size of a credit card, it is compact enough to be mounted onto even small UAVs. Its lightweight and ultra low power consumption enables your UAVs to carry more payload and fly longer without recharge.

High performance The μSharp Patch provides high resolution sensing in the range of 0.5m to 120m distance. It's able to detect both moving and stationary objects. It delivers superior performance in all weather and all light conditions, including dusty, heavy rain and fog, and night.

Plug and Play The μSharp Patch supports standard I/O interfaces UART and CAN. It supports multiple open source flight controllers and Aerotenna OcPoC flight controller products.

Specifications

Sensor Performance	
Radio frequency	24 GHz
Maximum Range	120m
Minimum Range	0.5m
Accuracy	22cm
Transmission output power	~17 dBm (transmitter power + antenna gain)
Update rate	90 Hz
Horizontal & Vertical Field of View (-3 dB Tx Power)	50 degree * 30 degree
Mechanical	
Dimensions	76mm * 54mm * 13mm
Weight	22g without housing, 43g with housing
Interfaces	
Supported Interface	UART, CAN(per customer request)
Supported Connector	4 Pin GPIO/JST
General	
Power Consumption	1.25 W
Power Input	5V DC, 250mA
Operational Temperature Range	5°F to +122°F (-15°C to +50°C)