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μSharp – 360° Sense-and-Avoid Radar

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Product Overview



The μ Sharp 360° is the first radar sensor in the market that provides 360° sense and collision protection for UAVs. It scans 360 degrees without blind spots, locating targets on the horizon for reliable and quick reactions to change flight course. It's ideal for applications that require high resolution in-flight sensing and collision avoidance for walls, buildings, tree branches and others in outdoor environment.

Compact The µSharp 360° is designed with Aerotenna

patent pending miniature antenna and circuits. Smaller than a baseball, it is compact enough to be integrated into even small UAVs. Its lightweight and ultra low power consumption enables your UAVs to carry more payload and fly longer without being recharged.

High performance The μSharp 360° provides high accuracy sensing in the range of 0.5m to 120m distance. It's able to detect moving and stationary object in all weather and visibility condition.

Plug and Play The µSharp 360° supports multiple I/O interfaces including UART and CAN. It supports multiple open source flight controllers and Aerotenna OcPoC flight controller products.

Specifications

Sensor Performance	
Radio frequency	24.00 - 24.25 GHz
Maximum Range	40m
Minimum Range	0.5m
Resolution	22cm
Radio output power	17 dBm
Update Rate	80 Hz
Mechanical	
Dimensions	115mm * 115mm * 67mm
Weight	243g
Interfaces	
Supported Interface	UART
Supported Connector	4 Pin GPIO/JST
General	
Power Consumption	2.5w
Power Input	5V DC, 500 mA
Operational Temperature Range	67°F to +185°F (-55°C to +85°C)