

## MRA TYPE 2

The world's smallest and lightest radar altimeter in its class.

- Miniature Radar Altimeter for operations up to 100m
- Ideal for rotary and fixed-wing UAVs



The MRA Type 2 is a compact and lightweight radar altimeter designed for small aerial platforms. It comprises a single transceiver with an integrated antenna to reduce the space required and therefore maximise payload space within the platform. Designed for plug-and-play installation, the MRA Type 2, is environmentally robust, will operate in dusty or misty conditions and operates over water. With a range down to just 20cm the MRA Type 2 provides the measurements necessary to facilitate safe and controlled landings.

### BENEFITS & FEATURES

- **HIGH ACCURACY**  
Operational range is up to 100m and down to just 0.2m making the MRA Type 2 ideal for providing height measurements for landing, vertical take-off and low altitude flights
- **INTEGRAL ANTENNA**  
A compact design and integrated antenna mean the MRA Type 2 is significantly smaller than traditional radar altimeters
- **LIGHTWEIGHT**  
Using an MRA Type 2 can offer a substantial weight reduction which allows greater payloads to be carried
- **LOW POWER**  
Consumes less than 3W (on average)



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## TECHNICAL DATA\*

Performance	
Altitude Range	20cm – 100m
Precision	2cm

Physical	
Dimensions	140mm x 75mm x 46mm
Weight	375g

Environmental	
Operational Temperature	-40°C to 55°C
Storage Temperature	-40°C to 85°C
MIL-STD-810F	Vibration (operational) - 514.5 Proc 1 Cat 14 (helicopter) Shock (functional) – 516.5 Proc 1, 20g Shock (crash safety) – 516.5 Proc 1, 40g Low pressure (altitude) – 500.4 Proc II, 15,000ft
IP67	Dust: No ingress Water: 30 mins immersion at 1m depth

Interfaces	
Data / Control	RS232. Contact us for alternative

Technical	
Supply Voltage	9V – 32V DC
Frequency	76 – 77 GHz
Beamwidth	20° x 40°
Power Consumption	3W mean**
RF Output Power	+11 dBm nominal
Antenna Gain	10 dBi
Update Rate	10Hz

Warranty and Safety	
Warranty	12 Months
Materials	RoHS complaint
Export	ITAR free UK export licence not required

Ordering Information	
NSN	5841-99-836-8525
Part No	X72/1/2434/002

Advanced Capability	
Prototype builds are available offering up to 300 m/s horizontal velocity and 40 Hz update rate.	

\* The data provided above is for reference purposes only and has been presented in order to show typical operating parameters and characteristics that may be achieved with the Roke MRA. The actual performance of this type of device may vary depending on external aspects such as ground terrain features and the physical characteristics and orientation of the platform that the equipment is deployed on. Please consult with Roke regarding your specific requirement.

\*\* 29W peak and 7W during measurements.

It is the responsibility of the purchaser/end user to ensure that they comply with any licencing requirements, including but not limited to Radio Frequency spectrum usage, for their end use in the countries/locations in which the unit will be operated. Roke Manor Research Ltd does not accept any liability for any such infringements when the unit is in operation.

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