

Technical Specifications for Rubidium based Atomic Magnetometer

S. No	Description	Specification
1.	Item	Compact total-field magnetometer based on optically pumped atomic sensor for accurate magnetic field measurement
2.	Type	Rubidium based Optically pumped atomic magnetometer
3.	Dynamic Range	1000 nT to 150,000 nT
4.	Sensitivity	20 pT/VHz in 0-500 Hz band
5.	Dead Zone	Axial only, < +/- 7° cone about earth's field (typical < 5°)
6.	Heading error (uncompensated)	< 3 nT
7.	Operating temperature	-15 °C to +55 °C
8.	Slew rate limit	None
9.	Max. gradient	300 nT/cm
10.	Max. data rate	1000 samples/s
11.	Calibration	Self
12.	Power of the magnetometer	< 3W
13.	Weight	Sensor head & electronics control unit (without housing) <20g Sensor head & electronics control unit (with housing) < 45g
14.	Power Supply	<ul style="list-style-type: none"> • 5V or 10V from external supply • USB power from PC or laptop
15.	Outputs	UART, USB
16.	Items to be supplied (Mandatory)	<ul style="list-style-type: none"> • Sensor head • Standard communication board and Electronic Control Unit • One sensor with Advanced Communications Board for enabling measurements from UAVs, GPS measurements and log the data • 2ft flex, 6inch flex, USB for each sensor • Waterproof carrying case for each sensor
17.	Software	<ul style="list-style-type: none"> • User interface software to control, operate, analyze and log the data from the atomic magnetometer • Data export in form of ASCII, .CSV, images
18.	Items to be quoted separately (optional)	Add on for vector mode and required accessories
19.	Software backup, drawings and manuals	To be supplied
20.	Warranty	1 year minimum
21.	Terms & Conditions	<p>(a) Point by point compliance shall be provided in the offer for each of the specifications.</p> <p>(b) Offer shall accompany the model number with the detailed catalogue/ technical literature.</p> <p>(c) The vendor should quote each item individually, wherever applicable.</p> <p>(d) All required accessories & documents shall be provided compulsory along with the supplied item.</p> <p>(e) Payment will be cleared after satisfying the Supply and installation conditions mentioned as per the ISRO purchase procedures</p> <p>(f) User list shall be provided</p>