

Indian Mini Satellite-1 (IMS-1) Bus

UR Rao Satellite Centre (URSC) of Indian Space Research Organisation (ISRO) has developed small satellite platform which would enable low cost access to space by providing dedicated platform for payloads for earth imaging, ocean and atmospheric studies, microwave remote sensing and space science missions with a quick turnaround time.



Bus Specifications

Stability	3-axes stabilised small satellite (Bus + P/L) of 100 kg Class
Structure	Size 600 (Y) x 552 (R) x 600 (P) mm ³
Pointing Accuracy	±0.1° (3σ) about all axes
Drift Rate	±7.5 x 10 ⁻⁰⁴ °/s (3σ) about all axes
Nominal Mission Life	2 years
Payload Mass	30 Kg
BDH	32 Mbps
Interfaces	LVDS, 1553, Standard TM/TC Interface
Solar Panel	Solar Array consists of two wings, each having one panel of size 0.915 x 0.83 m ²
Power	330 W (EOL with one string failure)
Battery	Lithium ion battery of 27.2 Ah capacity
Attitude Sensors	Magnetometer -1 No., 4 PI Sensors, micro Star Sensors, micro-IRU
Reaction Control System	Magnetic Torquers (2nos. of 20 A-m ²) Reaction Wheels (4 Nos. of 1 Nm-s @ 8000 RPM & 0.02 Nm) Thruster of 1N-1No. Tank- 7.5 litre Volume
SSR	32 Gb
Thermal	Thermistors - 48, FTS- 16, PRTs - 10, Thermocouples - 2, On-board heaters-28

Department of Space has authorised NSIL for Technology Transfer of IMS-1 Satellite Platform to suitable entrepreneurs/ Industry in India. Interested Parties may please fill the enclosed form and send by email to contact-nsil@isro.gov.in on or before 25 March, 2022