



POEM AND SMiLE EXPERIENCE CENTER

An undertaking of Azista BST Aerospace
and Take Me 2 Space



AZISTA BST AEROSPACE PRIVATE LIMITED

Plot No. 16, Sanand Land Industrial Estate Corporation, Sarkhej-Sanand Road,
Ularia, Sanand, Ahmedabad, Gujarat, India - 382 210

Contact: +91 83330 13034 | contactus@azistaindustries.com

The PSLV Orbital Experimental Module (POEM) and SSLV Module in LEO Experiment (SMiLE) developed by ISRO, is a revolutionary and cost-effective initiative that transforms the last stages of PSLV and SSLV into a functional orbital platform. It offers Indian academia, research institutions, and startups a unique low-cost opportunity to conduct experiments in microgravity and the space environment.

Azista BST Aerospace and Take Me 2 Space have established POEM and SMiLE Experience center that provides access to the state-of-the-art facilities for payload development and testing in the POEM and SMiLE missions. As a qualified NABL facility for ISRO, the center offers the necessary expertise and resources for efficient payload integration and launch readiness.

Services offered are

- ▶ EMI/EMC Testing
- ▶ Thermo-Vacuum Testing
- ▶ Vibration Testing
- ▶ Climatic Chamber for Humidity and Dew evaluation
- ▶ Helmholtz Cage

Products offered are

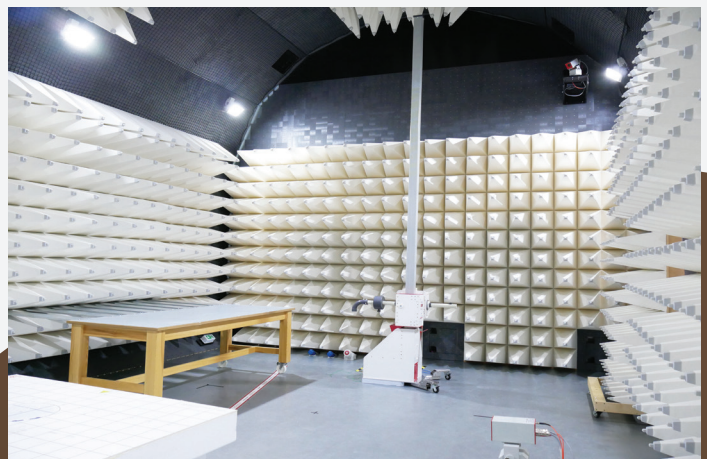
- ▶ Emulator
- ▶ EPS
- ▶ Adapter Board

EMI/EMC Testing

This specialized lab designed to test onboard electronics for electromagnetic interference and compatibility, ensuring they operate reliably in their intended environments.

Facility: Semi Anechoic Chamber

- Chamber Shielding Effectiveness: Better than 100 dB
- Frequency Range: 10 KHz – 40 GHz
- Antenna Radiation Pattern Measurement: 1 GHz to 18 Ghz
- Standard: MIL-STD-461G

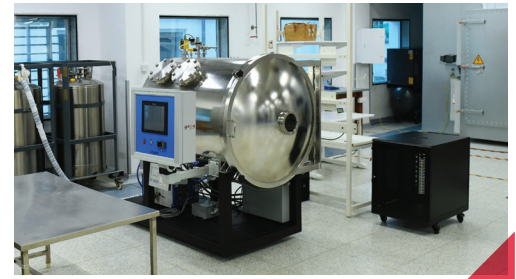


EMI - EMC Facility

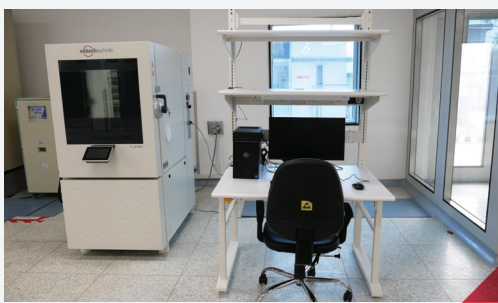
Thermal Vacuum Testing

Thermovac testing simulates the harsh temperature and vacuum conditions of space to ensure spacecraft, and their components can function reliably in orbit.

- 0.5m Chamber: - 10°C to + 150°C
- 1m Chamber: - 100°C to + 150°C



Climatic Chamber



Climatic chamber test facility simulates environmental conditions to evaluate the performance and reliability of biological samples, industrial materials and electronic components.

- Dimensions: 580 x 450 x 750 mm³
- Humidity Range: 15% to 95%
- Dew Point Range: - 3°C to + 94 °C
- Climatic Mode: - 40°C to + 150°C

Vibration Testing

It replicates the intense vibrations experienced during rocket launch, a critical phase for any space mission.

- Vibration Shakers: 1 Ton, 2.5 Ton and 6 Ton
- Sinusoidal, Random, Shock, Notching and Limiting, Sine Dwell, Throughput.
- Accelerometers of all types like tear drop type, uniaxial, Triaxial type accelerometers, button type accelerometers are available.



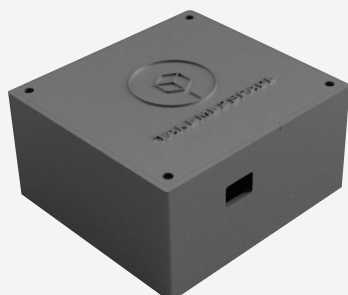
ADCS Test Setup (Helmholtz Cage with Air Bearing Test)



This test uses a Helmholtz Cage to simulate Earth's magnetic field and an Air Bearing for a near-frictionless setup, enabling rigorous testing and calibration of satellite ADCS components.

- 2.5m Coil System (Rectangular)
- Field uniformity in 1m x 1m x 1m volume
- +200 μ T magnetic field and resolution of +40nT
- +200 μ T magnetic field and resolution of +7nT

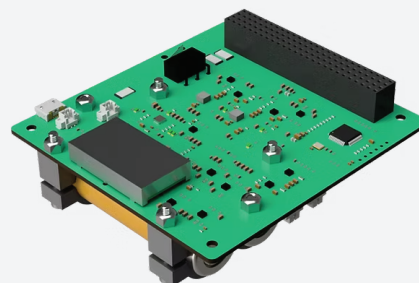
POEM/SMiLE Emulator



Allows users to simulate POEM/SMiLE RS485 protocol and dry contact telecommands. Ensuring thorough testing and validation of the payload before launch.

- Supports data logging via UART
- Trigger telecommands (100-2000 ms)

POEM/SMiLE EPS (Electrical Power System)



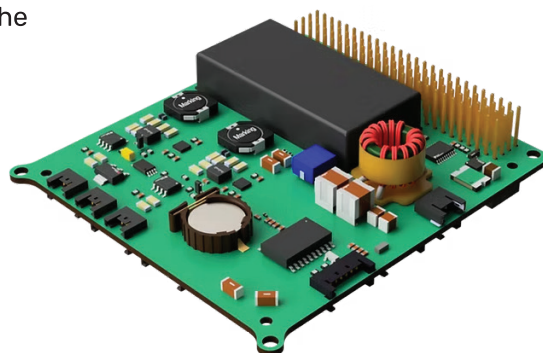
This acts as a secondary power system for your payload. If you have some temperature critical module or need smooth shutdown protocol, this board is a must.

- Charging Rate: 1.5A (2.5 hrs for 10% to 90%)
- Default Configuration: 6600mAh

POEM/SMiLE Adapter Board (Compatible with ISRO PSLV Heritage)

A compliant interface for power and communication systems of the POEM and SMiLE platform.

- Max Output Voltage Levels: 3.3V, 5V, 12V (Isolated)
- Max Current Draw: 3A
- Supported Protocols: CAN-FD, USART, 2x RS485, SPI, I2C
- Analog & Digital I/O: 14-bit ADC, 12-bit ADC, PWM, GPIO
- Persistent Storage: 10MB



© Azista Industries Private Limited, Hyderabad, 2025. Azista provides information on its products, including the subject of this document, in good faith and does not accept responsibility for the consequences arising out of the use of, or of the inability to use, these products. Azista also reserves the right to change the product specifications without notice and to supply a version of the product that performs better than the specified levels. In case of any discrepancy, a contract document in vogue, or a particular commercial quotation carrying specifications always takes precedence over standard (or generic) published literature (or documents). Although every effort is made to make sure that the information provided in this document is correct, Azista is not legally bound to these facts unless separately executed as a contract.