

SHOCK TESTING



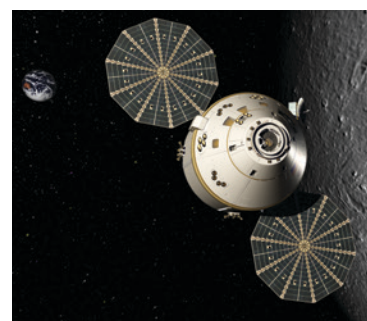
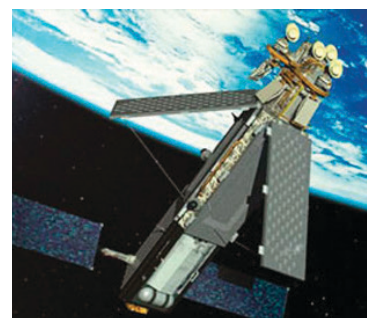
Moog Engineering provides shock testing services with a test system that is ideally suited for quick turnaround while minimizing over-testing. The system uses high energy mechanical impacts to replicate pyrotechnic events. Typical test articles are flight hardware and avionics. SRS levels can usually be replicated within a short lead time, and levels in excess of 40,000 Gs are generally easy to obtain on test articles weighing less than

20 lbm. The system's repeatability and tuning ability for Shock Response Spectrum (SRS) levels minimize excess loads to the unit, even when multiple shocks are required. The system provides a shaped shock level that is a cost effective alternative to pyrotechnic and other methods.

We provide end-to-end shock testing services complete with NIST traceable calibrated instrumentation and data reporting. Methods are consistent with MIL specification 810G. Preparations for the test day require only a contract, advance schedule planning, and the following technical information:

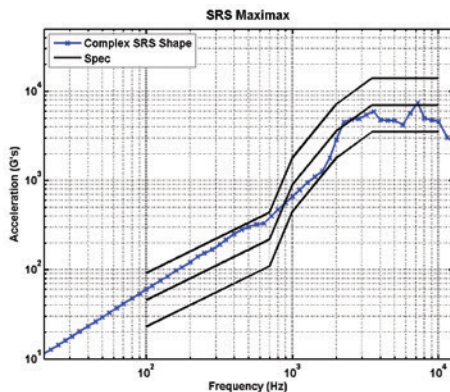
- Mounting pattern for test article
- Dimensions and approximate weight of test article
- Shock levels needed in each direction to test

The shock test system is also used for a variety of other tasks including shock transmission testing on isolators and damping material research. Moog regularly tests shock isolators to both prove their durability and demonstrate isolation performance at high levels.

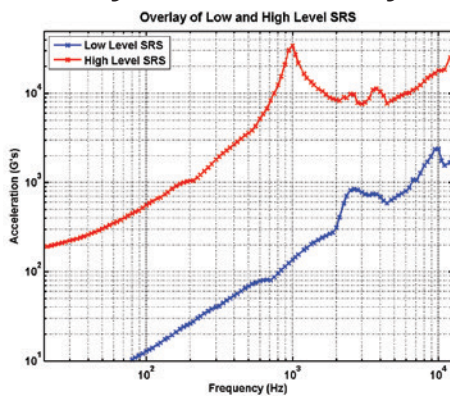


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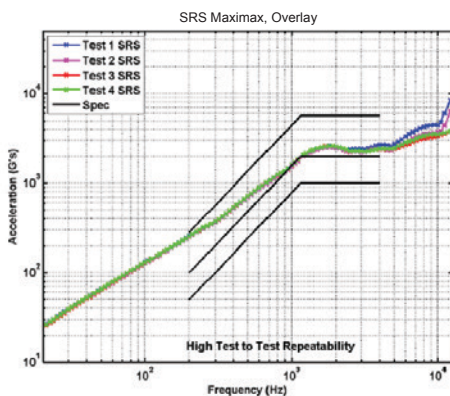
Capable of SRS Shaping



High and Low Levels Already Demonstrated by Test



Repeatability of Sequential Shocks



SHOCK TESTING CAPABILITIES

- Pneumatic cannons that can provide shock levels in excess of 100 kGs
- Gantry with 1 Ton lifting capabilities
- Spectral Dynamics High-Speed Acquisition System, 5.0 MHz sampling rate on each channel
- Alias rejection > 95 dB below 1.25 MHz (analog filter included)
- Matlab based processing using ISO standard SRS code
- Acceleration levels up to 200 kGs

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