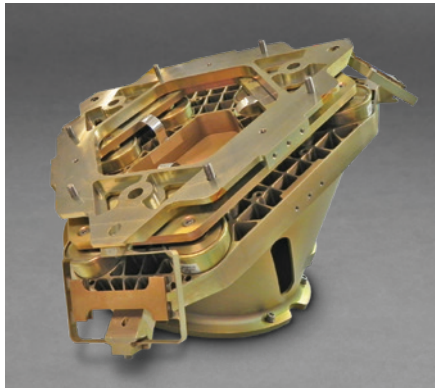


TWO-STAGE ISOLATION



Moog's two-stage isolation systems are based upon the flight proven technologies of SoftRide OmniFlex and ShockWave isolators. The softer first stage is for small on-orbit displacements and low frequency isolation. The second stage is stiff and highly damped to protect the more delicate first stage isolators during launch. Both stages are packaged together into a single isolation module.

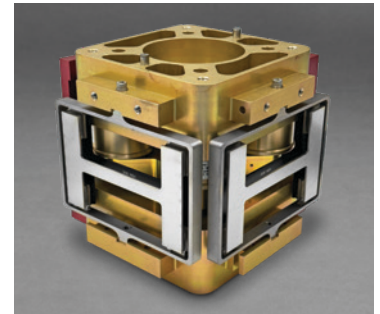
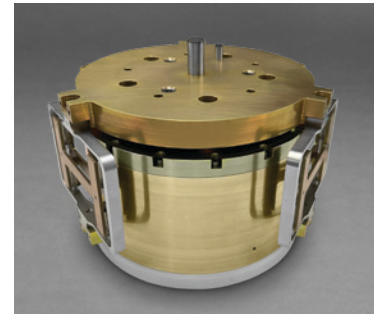
The first stage is equipped with OmniFlex isolators which utilize a metallic load path flexure in parallel with viscoelastic damping. In a zero-G field the payload rides on the systems first stage. The second stage is made up of ShockWave isolators which provides highly damped launch isolation by limiting deflection of the module during launch. The second stage performs very much like a linear isolation system and does not produce high-frequency responses. Second stage has the added benefit of providing attenuation for launch vibration and shock events compared to a hard-mounted or launch locked configuration.

APPLICATIONS

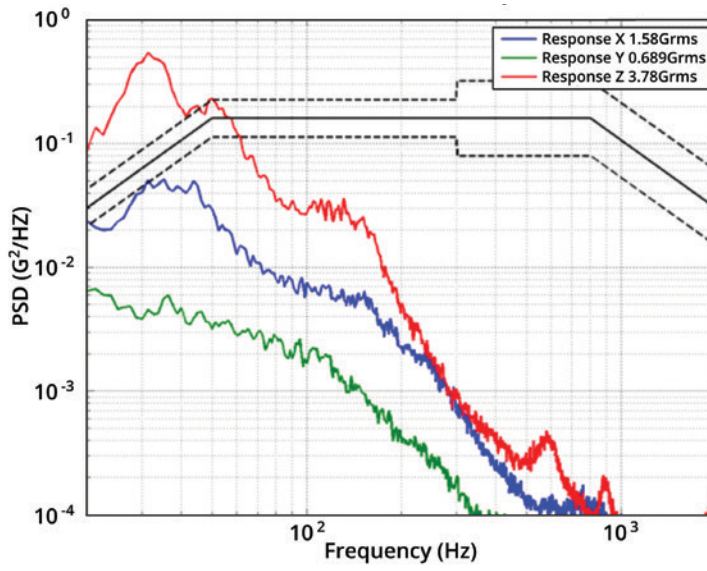
- Optical Payloads
- Component Isolation
 - Sensitive Electronics
 - Cryocoolers
 - Reaction Wheels
 - Control Moment Gyroscope

ATTRIBUTES

- Inherently simple
- Very low part count
- Low weight solution
- Passive Isolation (Launch & On-Orbit)
- No fluids / No leaks / No power needed / No launch locks
- Made with Low Outgassing materials ASTM E-595
- Mission Life > 12 years
- Technology Readiness Level 9 – Flight Proven



TWO-STAGE ISOLATION



Random Response of a Tested Two-Stage Isolation System

MOOG

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