

## Exceptional Noise Performance Without Sacrificing Load Capacity

### Enidine Panel Isolation Application

By: William Wilk

#### Product Overview

The desire to control aircraft interior noise for enhanced passenger and crew comfort has presented significant challenges for aircraft designers. Industry standard mounts often fail to take advantage of improved features and materials to optimize noise attenuation. Noise testing based on the 4-Pole test method demonstrates that significant gains in noise isolation are available without sacrificing size, weight or load capacity.



#### Application Opportunity

An interiors supplier recently won a bid from a major airframe manufacturer. The airframe manufacturer is interested in housing the aircraft with side panels that are aesthetically pleasing and would like to offer its passengers as quiet a flight as possible. The interiors supplier now has the responsibility of isolating the noise between the airframe and the side panels on the aircraft according to the specification.



#### Product Solution

In conjunction with the airframe manufacturer, the interiors supplier contacted ITT Enidine Inc. to supply vibration isolators. ITT Enidine Inc. now offers a line of isolators to provide optimized noise/vibration attenuation for a variety of aircraft interior applications. These isolators provide significantly better noise attenuation compared to industry "standard" mounts. Designed to accommodate a range of mounting configurations and load conditions, ITT Enidine Inc. Panel Isolators can be used for sidewall and ceiling panels, as well as for mounting IFE and other equipment.

#### Product Results

Analysis, design, material development and testing done by ITT Enidine Inc. proved that the panel isolator was a success. ITT Enidine Inc. panel isolators performed exceptionally for optimum noise reduction under wide temperature ranges. ITT Enidine Inc. panel isolators also performed against fatigue critical applications.

#### Features & Benefits of Panel Isolators:

- Exceptional noise performance
- Fail safe low-profile design
- Improved composite frame noise attenuation applications
- Interchangeable with existing isolator sizes
- Multiple elastomer stiffness available in the same envelope size