

**Multi-modal Vibration Control of Flexural Vibrations in Railway Vehicle Carbodies
using Compact Active Mass Dampers**

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Complicated three dimensional vertical flexural vibrations tend to have influence on riding comfort in recent railway vehicle carbodies. A vibration control method using active mass dampers (AMDs) of reducing such vibrations was proposed by the authors and its feasibility has been verified using a commuter type test vehicle in their former studies. In this paper, three different tests using newly developed compact actuators as AMDs are described, i.e., an excitation test using a Shinkansen-type test vehicle in the rolling stock testing plant at RTRI, and running tests on a commercial line for a Shinkansen-train and a limited express train. As a result of those tests, vibration reduction effect on multi-modal flexural vibrations in the real running state is clearly shown.