Advanced Vibration Isolation

Semiconductors
Application Note





Our Main Capabilities

Vibration isolation

IoT





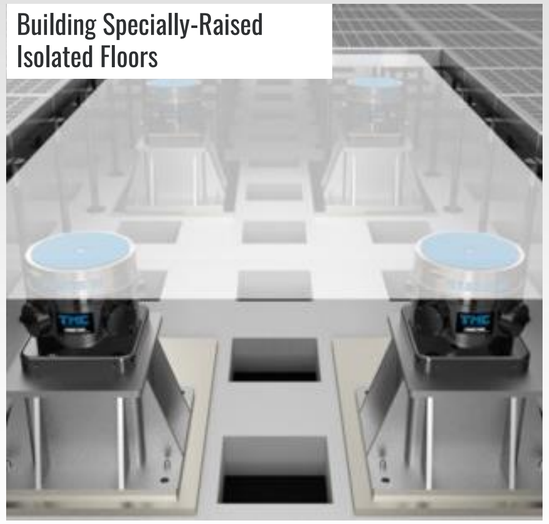
Artificial intelligence

Sensing vibrations sources

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Existing Methods of installation

Building Specially-Raised
Isolated Floors





Changing Ground Foundation
With Special Concrete Blocks

Passive Damping
With Concrete Blocks



Fundamental
No possibility to change tool location

Machine long down time

No flexibility no configurability

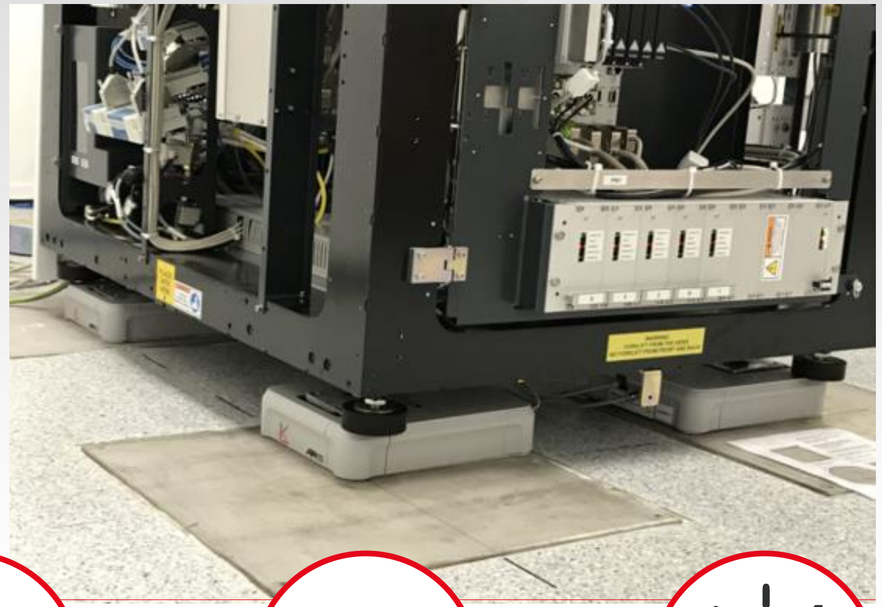
Expensive

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Our Solution







Elegant Design

Lower Installation Cost

Straightforward Installation

Flexible location

High performance

Adjustment to environment conditions

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Installation Examples – No need to lift the tool





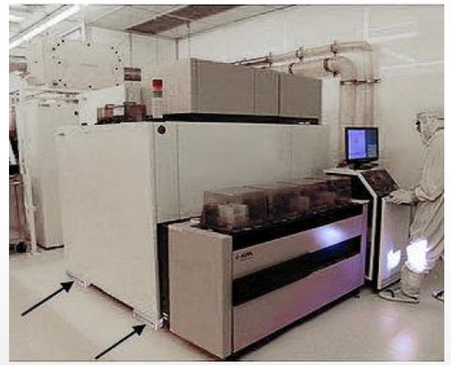








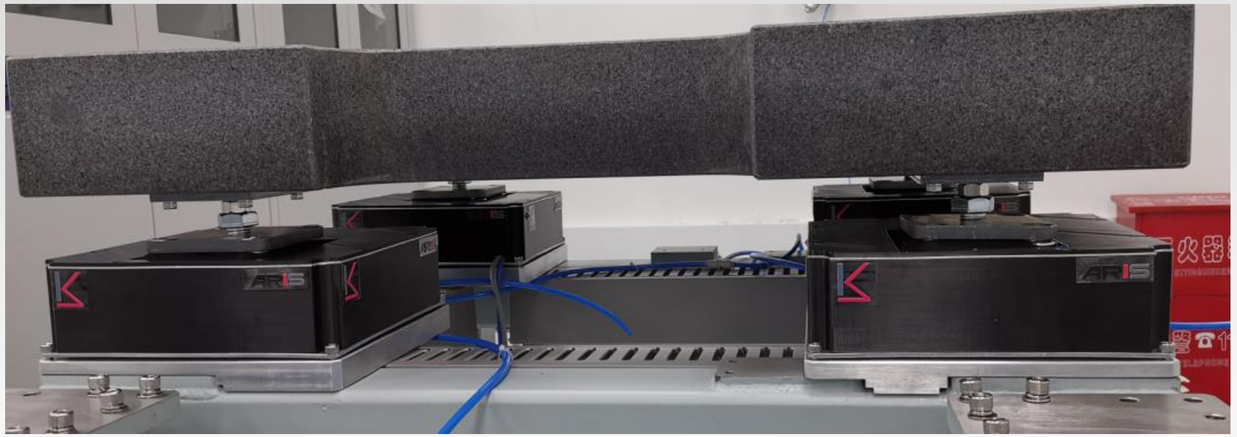


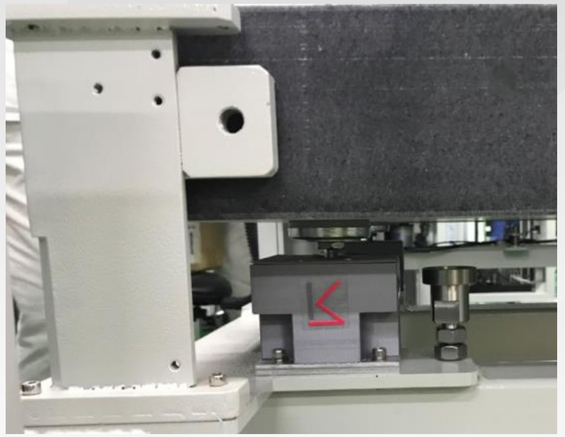




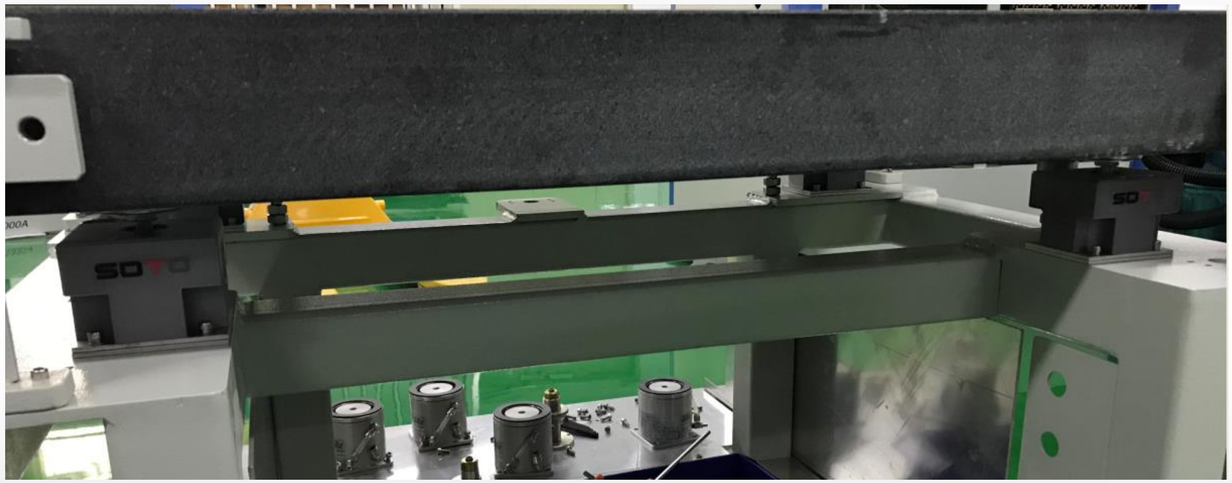
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Installation Examples – Integrated Solutions







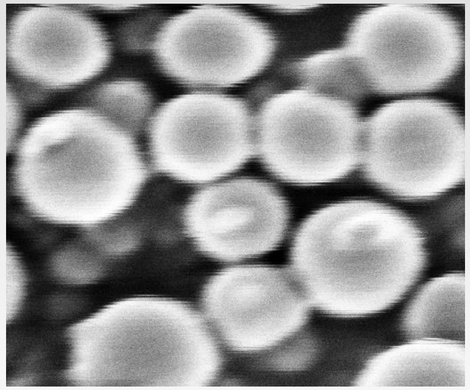




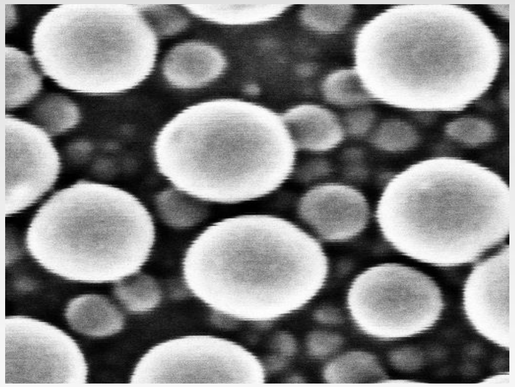
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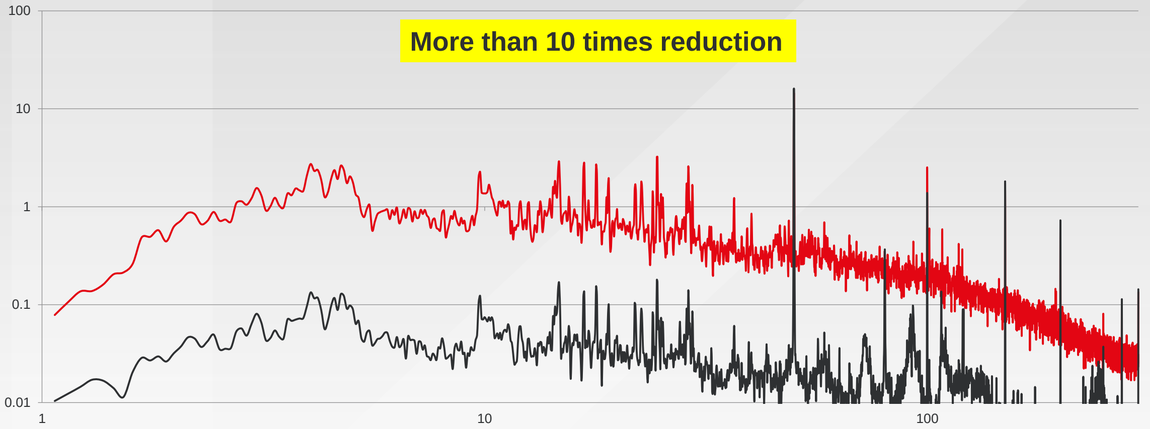
Performance Examples

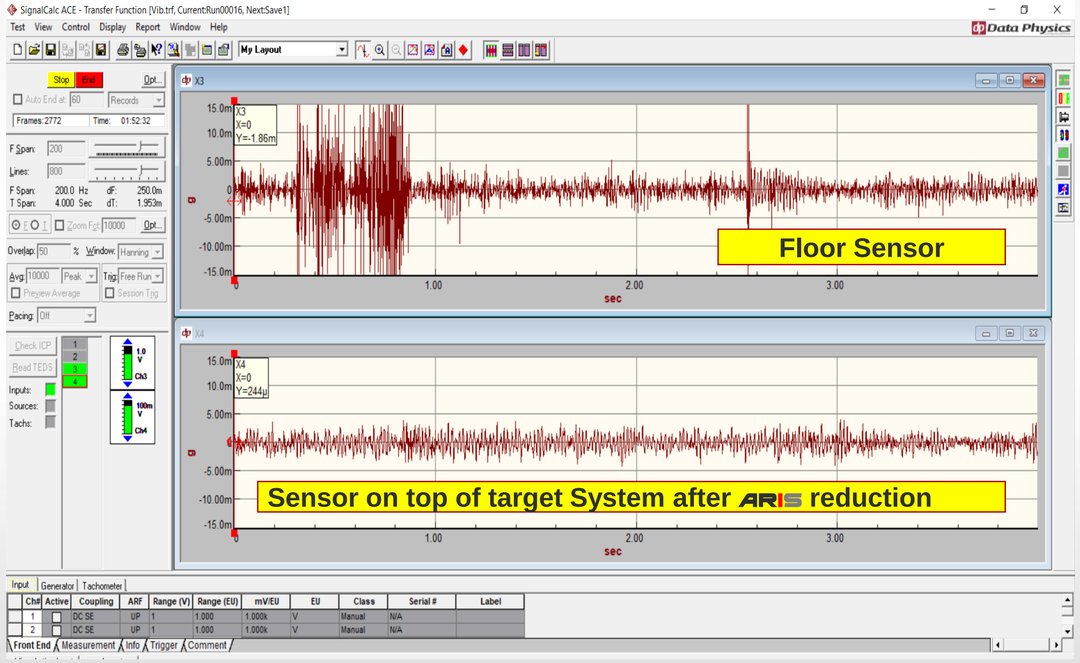
Without Active Vibration Isolation

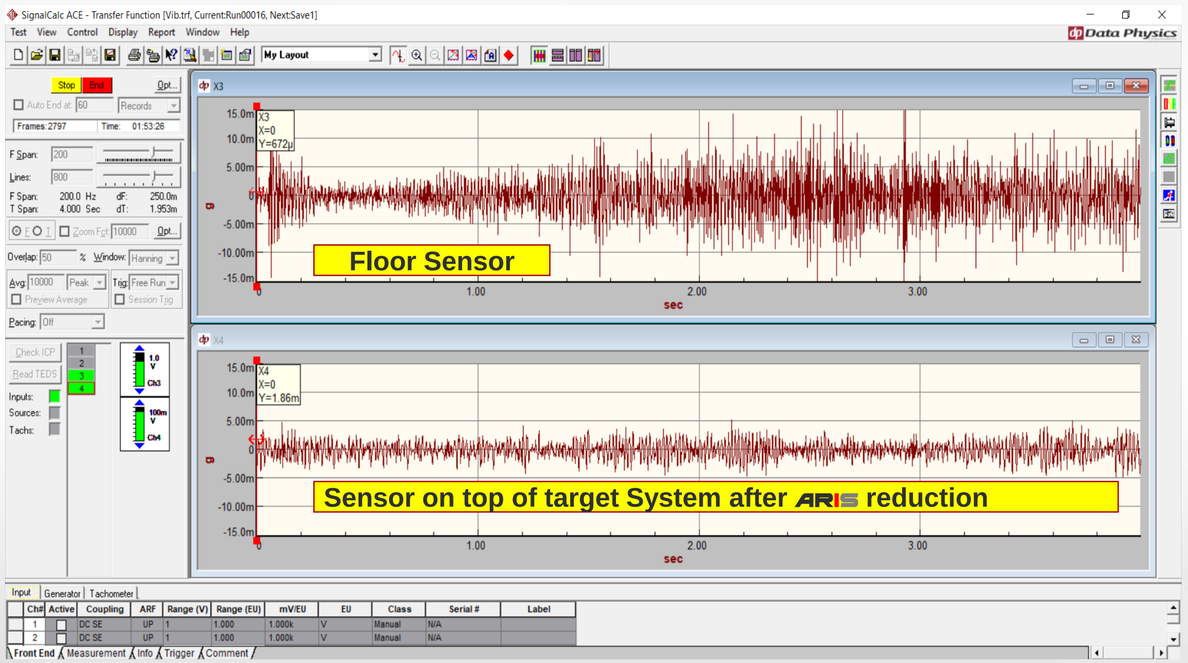


With Active Vibration Isolation





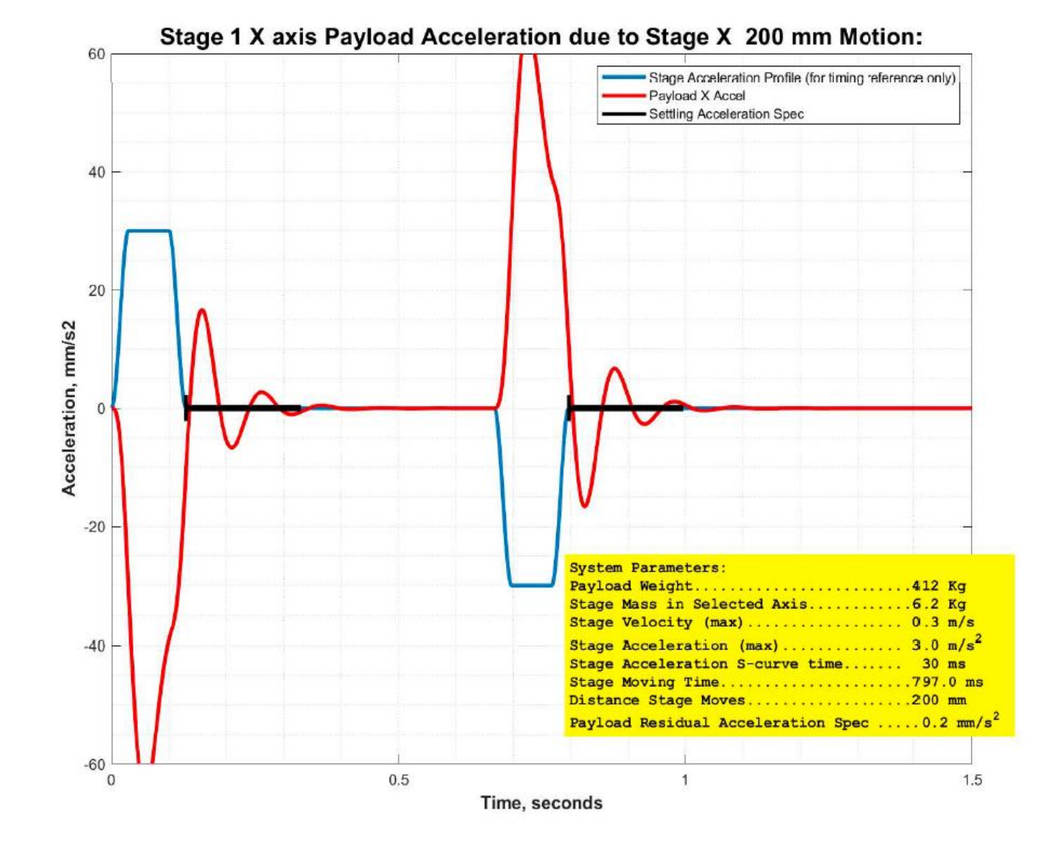




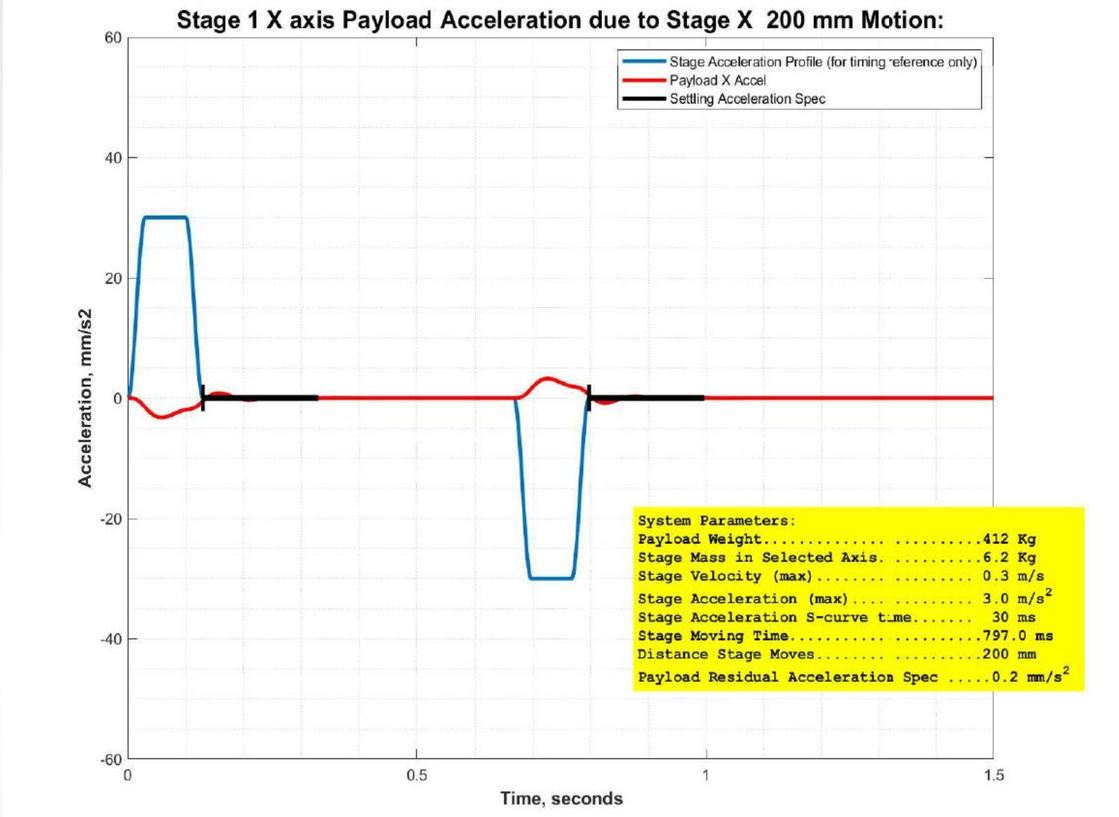
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Stage Motion Compensation

Machine Active Vibration Isolation



Active Vibration Isolation with Feed Forward Control



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Key Features

- **Performance**
  - 6 degrees of freedom
  - Active gain starting from 0.5Hz
  - Decoupled architecture (patent pending)
  - Variable Damping (patent pending)
  - Build In Artificial Intelligence Feature
- **Small Size, elegant design, low weight**.
- **No piezo electric elements in use**
  - Practically unlimited life time for sensors and motors, using by K&S systems
  - Significantly lower life time cost
- **Easy installation for heavy tools – no need for lifting tools and heavy construction**.
- **Capabilities**
  - Higher Actuators stroke
  - Adjustable by software active bandwidth
  - Remote control
- **Built in real time diagnostic tools**
  - Spectrum analyzer
  - Oscilloscope
- **Highly Tunable Vibration Isolation Control – the systems can be configured to challengeable environmental conditions**
- **Customizable due to flexible internal architecture**

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Advanced Vibration Isolation

Thank you

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