

_active vibration isolation desktop unit halcyonics_micro series



Active Vibration Isolation Desktop Unit

halcyonics_micro series

ABSTRACT

The Micro Series, introduced in 2005, is based on the successful Halcyonics VarioControl technology and features automatic load adjustment. This allows use of the Micro active vibration isolation system with even the most lightweight applications or up to the load limit of 100 kg | 220 lbs. of the unit, which is available in three different sizes. The powerful new designed actuators with its Neodymium magnets and rugged electronics make the halcyonics_micro one of the most reliable active vibration isolation systems on the market – worldwide.



FEATURES

- Three sizes available – matching your instrument setup
- User Menu – set your system to your individual needs
- Isolation starts at 0.6 Hz – effectively isolating disturbing vibrations
- Separate controller optional – no heat dissipation interferes with the experiment
- Active Control eliminates resonant amplifications
- settling time only 0.3 s
- USB Port for remote control available

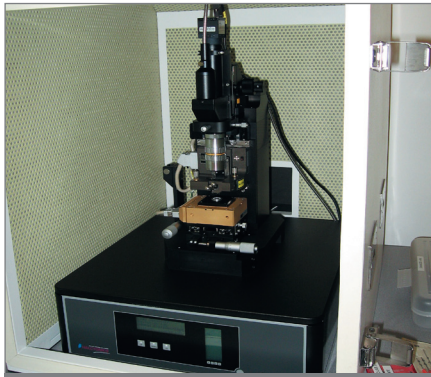
BENEFITS

- Supreme performance even under severe environmental conditions
- Active isolation starts from 0.6 Hz and is active until 200 Hz (and passive above 200 Hz)
- Ideal to dampen building vibrations
- Setup the system within minutes and operate it by pushing just one button
- Qualified service: for standard and customized solutions factory trained personnel will support you in finding the optimal solution for your specific measurement task
- Reliable systems: after passing a specific quality control procedure
- Two year guarantee
- Low voltage electromagnetic actuators avoid high voltage used for many Piezo systems = no interference with your delicate instrumentation
- Rapid delivery allow you to start your work right away and shorten the time to publish your results
- Service hubs in Europe, US and Asia for fast support

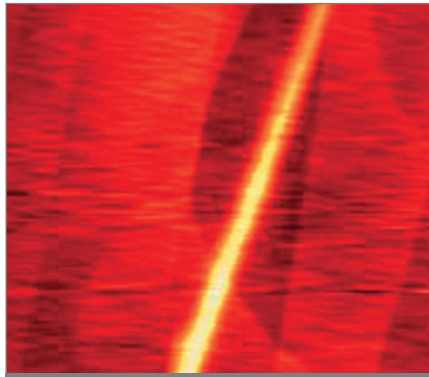
APPLICATIONS

Applications for the Micro Active Vibration Isolation desktop units include:

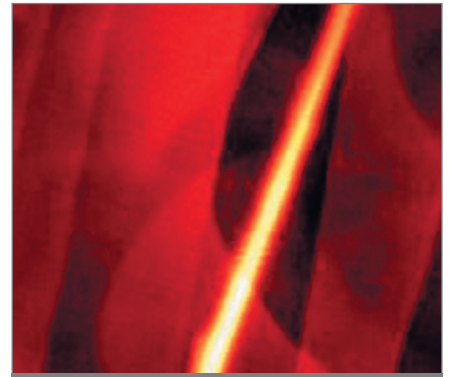
- Atomic Force Microscopy (AFM, SPM)
- Inverse Microscopy with or without AFM Head
- Profilometer
- Nanointender
- Nano Hardness Tester
- Ultra-precise Scales
- Reference Laser Cavities
- ... and many more



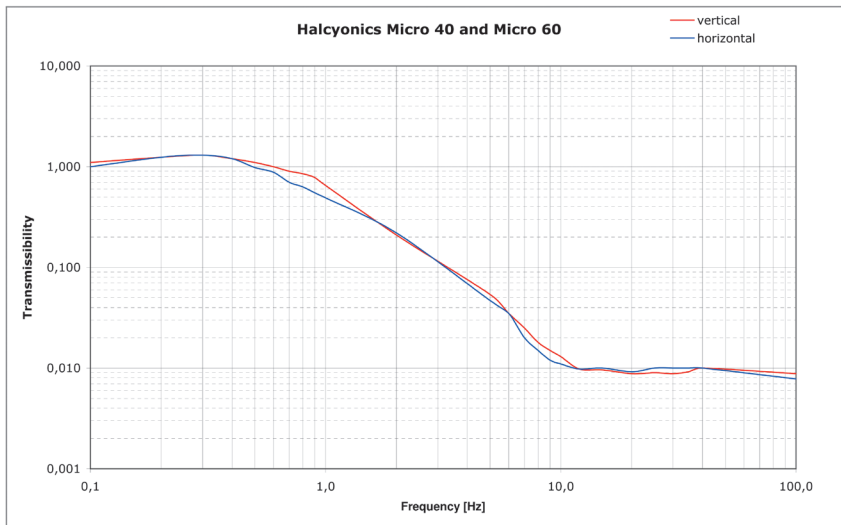
Park AFM perfectly isolated on Micro_40



AFM Image of HOPG without ...



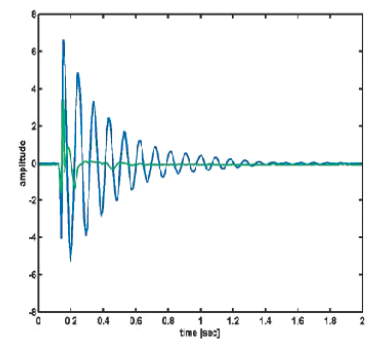
... and with active isolation



No resonant Eigenfrequencies between 1 and 5 Hz. Isolation better than 25 dB (94.4 %) above 5 Hz., better than 40 dB (99 %) above 10 Hz. (measured at a velocity of 100 $\mu\text{m/s}$ with a payload of 20 kg | 44 lbs)



Manufacturing the Micro_40



Typical settling time below 0.3 s

ACCESSORIES AND OPTIONS

- Steel Support Frame, powder coated
- Acoustic Enclosure
- External controller for reduced thermal emission
- M6 tapped top plate, on 25 mm or 50 mm centers
- $\frac{1}{4}$ "-20 tapped top plate, on 1" centers

