

THA1L Series Active Vibration Isolation System



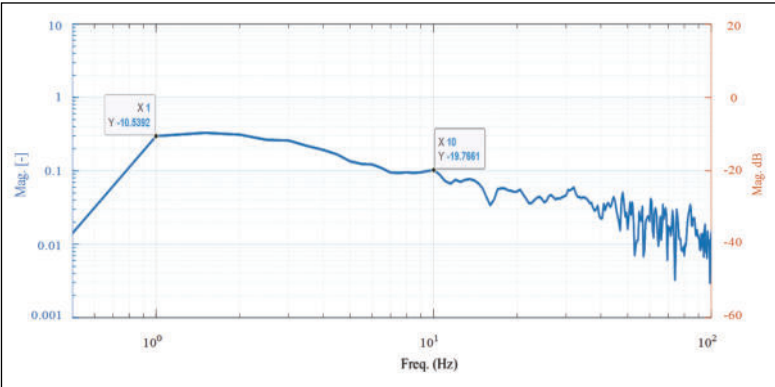
Product characteristics

- Lightweight and convenient, easy to install, no need for air source, can be used by connecting to the power supply;
- Manual level adjustment, easy to operate;
- Modular active vibration isolator can be made into various platforms according to the weight and size of the equipment;
- 6 degrees of freedom vibration signal real-time detection, actuator provides thrust, active attenuation amplitude;
- Monitor table vibration in real time.

Product application

Atomic Force Microscope (AFM)/Scanning Probe Microscope (SPM)、3D Surface Measurement System、Tabletop SEM (Mini-SEM)、High-precision Optical Microscope、Nano Indentation System、Nano Measurement / Analysis Instruments.

Transmissibility

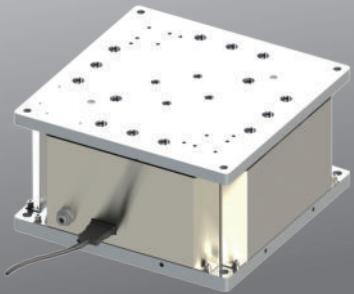


Specification parameters

Model	THA1L-82-600	THA1L-82-2000
Module size(mm)	800×200×117	800×230×117
Single maximum load(kg)	400	1000
Leveling mode	Manual leveling	
Range of vibration isolation	1-1000Hz	
Degree of control freedom	3-axis 6 degrees of freedom	
Actuator	Voice Coil Motor	
Maximum thrust	Vertical: 6N, horizontal: 3N	Vertical: 12N, horizontal: 6N
Vibration isolation performance	60%@2Hz, 99%@10Hz	
Settling time	0.3s	
Power supply	AC220V/50Hz	

Note: Other sizes can also be customized on demand

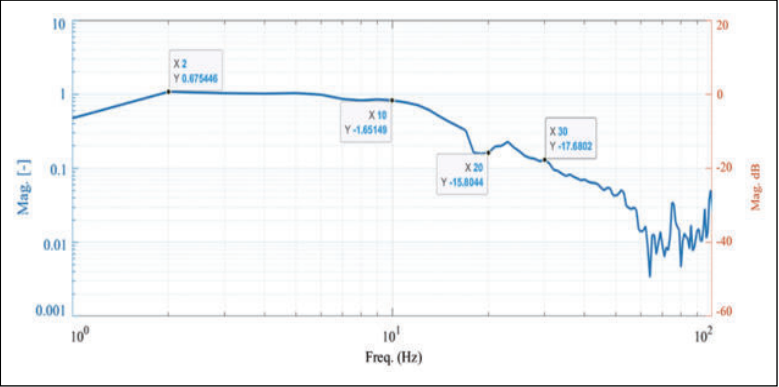
THA3 Series Active Vibration Isolation System



Product characteristics

- Developed for lithography machine and other moving platform equipment to reduce the vibration caused by the movement of mass slider;
- Using high-end air suspension dampers for foundation isolation ensures continuous vibration stability even in the presence of irregular impact vibrations in the installation site environment.
- The self-developed THA active vibration isolation system realizes 6 degrees of freedom active vibration reduction. The ground vibration feedforward and feedback control are combined to provide excellent vibration isolation effect. The motion feedforward and velocity feedback control were combined to effectively reduce the platform motion acceleration and quickly stabilize the platform vibration.
- Valve-controlled pneumatic leveling system can adjust the height of each vibration isolator freely, and start vibration reduction with one key.

Transmissibility



Product application

Semiconductor equipment, and precision motion platform with high precision and high speed acceleration.

Specification parameters

Model	THA3-1000
Single vibration isolator load (kg)	700-1200
Triangle layout total load (kg)	2100-3600
Working pressure of vibration isolator	0.15-0.5MPa
Single isolator size (mm)	369×388×188
Resonance frequency of vibration isolator	vertical: 10-14Hz, horizontal: 4-6Hz
Degrees of freedom of system damping	six degrees of freedom
Transmissibility	≤0db@2Hz, ≤-0db@10Hz, ≤-10db@20Hz
Mechanical hard limit	horizontal mobility ± 1.5mm, vertical mobility ± 0.6mm
Leveling system	Pressure servo valve + displacement sensor
Single isolator mass (kg)	75
Installation	Equilateral triangle, rectangular layout is recommended