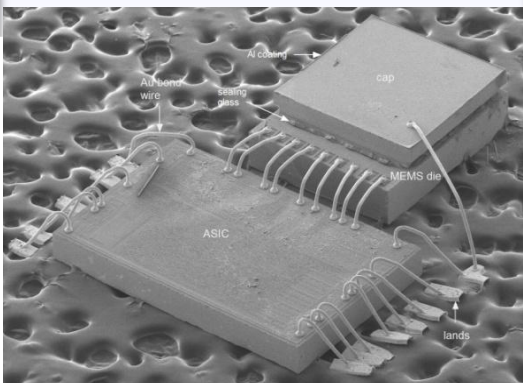


ULTRA L MEMS TEST MODULE

ULTRA L



For Laboratory / Engineering Stimulus and Test of Inertial MEMS Devices

The ULTRA L is a high performance “Lab” system that provides thermal conditioning, mechanical stimulus and an electrical ATE signal path for testing Micro-Electro-Mechanical Systems (MEMS) Accelerometers and Gyroscopes.

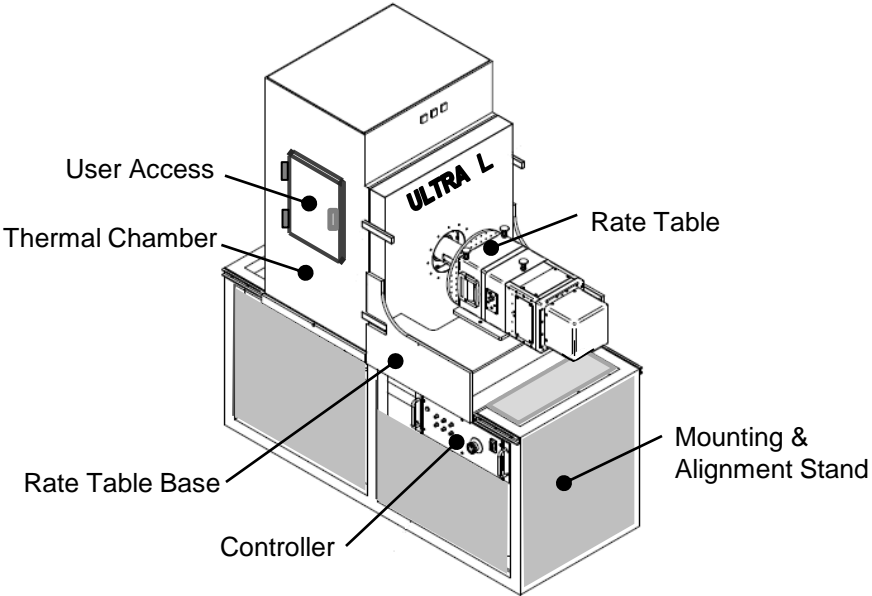
The system is intended for device verification, validation, and device engineering tasks, eliminating the need to use expensive, high volume manufacturing equipment to perform these tasks.

The system allows up to 96 devices to be tested in parallel.

The ULTRA L provides 100% fixture, stimulus and electrical interface compatibility with the ULTRA P high volume manufacturing system.



Key Features	Details
Parallel Test	2 to 96 devices
Thermal Capability	-40°C to +125°C (Standard) -55°C to +130°C (Option)
Positional Stimulus	Primary Axis: -360° to +360° Second and Third Axis: 0° and 90°
ATE Interface	400 IO Signal Lines (Standard) 800 IO Signal Lines (Option)



ULTRA L

Performance Specifications

Setting MEMS Test Standards in:

- Parallel Test Count
- Thermal Accuracy
- Thermal Stability
- Aerospace Grade Rate
- Aerospace Grade Position
- Signal Path Fidelity
- Signal Path Bandwidth
- Quick & Easy Change Kits

ULTRA L	Feature	Details
Carrier	Size	136mm x 136mm x 5mm 5.35" x 5.35" x 0.20"
	Device Pockets	2 to 96
Thermal Chamber	Temp Range	-40°C to +125°C, standard -55°C to +130°C, option
	Resolution	0.1°C
	Accuracy	±1°C
	Stability	±0.1°C
	Heat Source	Electric Coil, 5200 watts
	Cold Source	LN2, 20-40 PSI
	Temp Control	PID Controller
Temp Measure	User and Chamber Sensors	
Rate Stimulus	Primary Axis	-360° to +360°
	Secondary Axis	0° and +90°
	Third Axis	0° and +90°
	Constant Mode: Acceleration	4,000°/Sec ²
	Rate Range	.0005°/Sec ² to 2000°/Sec ²
	Rate Accuracy	±0.01% of programmed value
	Repeatability	±5 Arc Seconds (.001°)
	Position Accuracy	±15 Arc Seconds (.005°)
	Sinusoidal: Speed Range	10 to 500° / second
	Freq Range	1 to 20Hz
DUT IO	Number of Lines	400 standard, 50Ω 800 optional, 50Ω
IO Signals:	Bandwidth	1.5GHz

Test Features

- Full 6 DOF Test Capability
- Accelerometer, 3 Axis
- Gyroscope, 3 Axis
- Magnetic Test Option
- Packages: LGA, BGA, CSP
- Sizes: 2x2mm or larger

