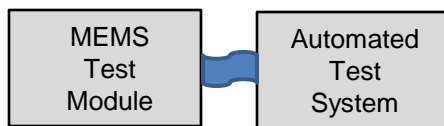


ULTRA Series

MEMS TEST CELLS

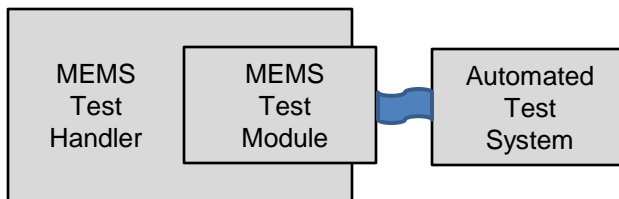
World Class Solutions for Inertial MEMS Handling, Stimulus and Test

ULTRA L “Lab” Test Cell



The ULTRA Series of high performance MEMS handling, stimulus and test cells provides unparalleled flexibility and capability for engineering development, characterization or high volume production test of inertial MEMS (accelerometer, gyroscope) semiconductor devices.

ULTRA P “Production” Test Cell



As MEMS device complexity and manufacturing volumes increase, so do the pressures to reduce production costs and unit sales price. ULTRA series test cells provide maximum flexibility, and performance along with a significant reduction in *Cost of Ownership: COO* and *Cost of Test : COT*.

All test hardware and software developed on an ULTRA L system is directly transferrable to the ULTRA P. Any production issues on an ULTRA P system may be resolved using a low cost, economical ULTRA L.

The ULTRA L is a “Lab” or engineering unit that allows test development, device characterization, or failure analysis in an economical configuration and footprint.

The ULTRA P “Production” unit provides a fully automated MEMS handler for high volume mass production.

ULTRA Test Cell Features

- 16 to 96 Device Parallel Test Capability
- 6 DOF, $\pm 360^\circ$ MEMS Stimulus
- $\pm 1^\circ$ C Thermal Accuracy
- High Fidelity & Bandwidth ATE Signal Path
- Supports LGA, BGA, CSP, SOIC Packages
- Supports 2mm x 2mm and larger Packages
- Low Cost Package Change Kits
- High Performance, Parallel Test Optimized ATE

All ULTRA systems provide high performance thermal conditioning, 6 DOF mechanical stimulus and a 1GHz bandwidth electrical ATE signal path. Systems can be configured for 16 to 96 device parallel stimulus and test.

For more information, or to schedule an ULTRA system demonstration, contact FocusTest today!

ULTRA: Accelerating MEMS Test Standards

ULTRA L, P Performance Specifications

MTM Unit, ULTRA L	Feature	Details
Device 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 Range	0.256 ⁰ /Sec ² to 3,000 ⁰ /Sec ²
	Rate/Velocity Range	.0005 ⁰ /Sec ² to 1000 ⁰ /Sec ²
	Rate Accuracy	±0.01% of programmed value
	Repeatability	±5 Arc Seconds (.001°)
	Accuracy	±15 Arc Seconds (.005°)
Sinusoidal :	Rate/Velocity Range	10 to 500 ⁰ / Second
	Freq Range	1 to 20Hz
DUT IO IO Signals:	Number of Lines	400 standard, 50Ω 800 optional, 50Ω
	Bandwidth	>1.0GHz
ULTRA P Handler	Feature	Details
Input / Output	JEDEC Tray	16X Pick & Place Input / Output
Package Types	LGA, BGA CSP, SOIC	Carriers may be designed to support unique types of packages
UPH	19,200	10 Second Index + Test Time UPH is temperature independent

Notice: All performance specifications are subject to change. For the latest, up to date information, contact FocusTest Product Engineering.