

Two-Axis Motion Simulator Model AC2267



The Model AC2267 is a two axis, high precision test stand. The large table top configuration permits the testing of several UUT's simultaneously. Testing multiple units reduces the test and calibration cost considerably.

The table offers excellent instantaneous rate stability and precise and stable positioning. High precision encoding is achieved by industry standard position transducers. The systems are fitted with direct drive brushless motors offering high torque and therefore high accelerations. A wide variety of motors allows adjusting the torque capability according to customer requirements.

While the standard 70 line slipring capsule offered can meet most customer's needs, testing multiple UUT demands large slipring capsules with special connections which the customer must define. Standard to ACUTRONIC slipring designs is the use of four-brush contacts per ring for signal lines to avoid micro interruptions, which could corrupt digital signals at high rotational speeds.

The table is controlled by the ACUTROL®3000 digital controller. The controller has a touch sensitive display and a scalable analog input/output interface. Optionally, the standard digital interfaces of IEEE-488 and Ethernet (TCP/IP) can be supplemented with either VMIC or SCRAMNet reflective memory interfaces. For more details, please refer to the ACUTROL®3000 datasheet.

Dimensions	Height, max	mm	1930 (rotational clearance)
	Height of outer axis	mm	1130
	Width across outer axis	mm	2485
	Base dimension	mm	950 x 1835 (LxW)
	Table top diameter	mm	660 (standard)
	Table top offset	mm	100
	Table top flatness	mm	0.05
Unit Under Test (UUT)	Payload weight	kg	40 (120) (nominal)
	Clearance envelope	mm	Up to 600 dia x 500 high

Mech. specifications	Inner Axis	Outer Axis
Orthogonality	< 5 arcsec	
Wobble	<2 arcsec	<5 arcsec
Static and dynamic performances		
Angular freedom	Continuous	Continuous
Positioning accuracy	1 arcsec RSS	1.5 arcsec RSS
Rate range	+/-1'200°/s	+/-400°/s
Acceleration, no load with load	3'000°/s ² Inertia load dependent	400°/s ² Inertia load dependent

Slipring Configuration according to standard wiring schematics		
	Ways	Connectors
Wiring Typ 1A	70 lines rated 2A, 150VDC	1x KPSE 22-55
Wiring Typ 2A	45 lines rated 2A, 150VDC +10 lines rated 5A, 150VAC	1x KPSE 22-55 1x KPSE 22-21
Wiring Typ 3A	45 lines rated 2A, 150VDC +4 lines rated 20A, 400VDC	1x KPSE 22-55 1x KPSE 22-21

Options

- Customized table top (dynamic specification subject to change)
- Customized slipring and connector configurations
- RF (up to 18GHz) rotary joints for GPS signals
- Fiber optic rotary joints for highest data rate transfer

Installation requirements

- 3 x400VAC +/-8% with ground (PE; no neutral required), 50/60Hz, 16Amps fused.

Packing details (approximate)

- Box 1 (simulator): 280x120x190cm (WxDxH), Grossweight: 1700kg, Netweight: 1300kg
- Box 2 (console): 85x100x235cm (WxDxH), Grossweight: 470kg, Netweight: 310kg
- Box 3 (base template): 196x104x28cm (WxDxH), Grossweight: 145kg, Netweight: 105kg

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