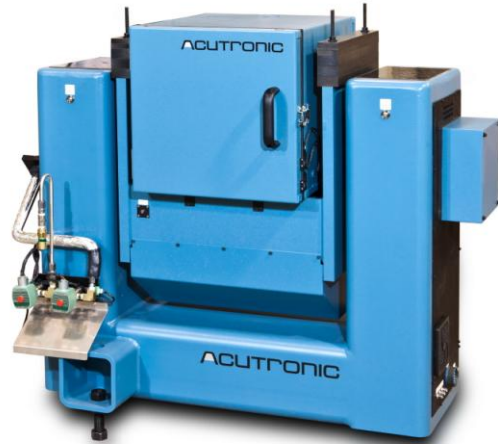




## Inertial Guidance Test and Calibration System Standard Two-Axis 21-Series

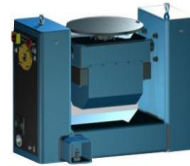


Series AC216



Series AC217-TC

- Compact cost-effective 2-axis table series
- Short lead-times
- Suitable for inertial sensor characterization and calibration
- Designed for R&D and automated production testing
- Integrated electronics to provide position, rate and acceleration control
- Electrical lines to UUT via slipping capsules or twist-cables
- Commercial off-the-shelf controllers, drive systems and absolute sine encoders
- Fail-safe dynamic brakes on both axes
- Control and configuration communication via Ethernet port interface
- Configurable Analog In and Outputs (16 Bit, 10V) and event pulse output on BNC
- 4 Programmable digital inputs



### AC216-LR / AC216-CR

### AC217-LR / AC217-CR

Unit Under Test			
Mass	lbs (kg)	up to 40 (18)	up to 40 (18)
Maximum envelope	in (mm)	18 dia. x 12 (457 dia. x 305)	18 dia. x 12 (457 dia. x 305)
Table top diameter	in (mm)	18 (457)	18 (457)
Table top hole pattern		standard ¼-20 mounting holes on 2 in grid	standard ¼-20 mounting holes on 2 in grid
Slipping to UUT		AC216-LR: Twist cables according to customer needs (limited to 1" in bundle diameter) AC216-CR: 25 lines @ 2A, 150 VDC	AC217-LR: Twist cables according to customer needs (limited to 1" in bundle diameter) AC217-CR: 25 lines @ 2A, 150 VDC

Position		Inner Axis	Outer Axis	Inner Axis	Outer Axis
Accuracy	arc sec	± 30		± 30	
Command Resolution	deg	0.001		0.001	
Repeatability	arc sec	20		20	

Rate		Inner Axis	Outer Axis	Inner Axis	Outer Axis
Range	deg/sec	1,000	200	1,000	200
Stability (over 360 deg)	%	0.001		0.001	
Stability (over 10 deg)	%	0.01		0.01	
Stability (over 1 deg)	%	0.1		0.1	
Command Resolution	deg/sec	± 0.001		± 0.001	

Dynamic		Inner Axis	Outer Axis	Inner Axis	Outer Axis
Acceleration (no load)	deg/sec <sup>2</sup>	3,000	1,000	3,000	50
Acceleration (with load)	deg/sec <sup>2</sup>	TBD – depends on UUT		TBD – depends on UUT	

Mechanical		Inner Axis	Outer Axis	Inner Axis	Outer Axis
Angular freedom	deg	AC216-CR: unlimited AC216-LR: limited ± 180		AC217-CR: unlimited AC217-LR: limited ± 180	

Dimensions			
Simulator (L x W x H)	in (mm)	26.5 x 39.75 x 35 (673 x 1'010 x 889)	27 x 48 x 43 (686 x 1'219 x 1'092)
Payload/Table top height from floor	in (mm)	35 (889)	27.64 (703)
Intersection of axes	in (mm)	N/A	28.06 (713)

Temperature Chamber (TC)			
Working volume	in (mm)	N/A	N/A
Temperature range	°C	N/A	N/A
Temperature stability	°C	N/A	N/A
Thermal gradients	°C /min	N/A	N/A

Power Requirements			
Table		single phase, 115/240 VAC, ± 10%, 50-60 Hz, 15A or 3 phases, 208VAC, 30A	single phase, 115/240 VAC, ± 10%, 50-60 Hz, 15A or 3 phases, 208VAC, 30A
Temperature chamber		N/A	N/A

Options			
Custom table tops / mounting surfaces		✓	✓
Installation support, training, and calibration		✓	✓



## AC217-TC

Unit Under Test		
Mass	lbs (kg)	40 (18)
Maximum envelope	in (mm)	12 dia. x 9 (305 dia. x 229)
Table top diameter	in (mm)	13 (330)
Table top hole pattern		standard ¼-20 mounting holes on 2 in grid
Slipping to UUT		25 lines @ 2A, 150 VDC

Position		Inner Axis	Outer Axis
Accuracy	arc sec		± 30
Command Resolution	deg		0.001
Repeatability	arc sec		20

Rate		Inner Axis	Outer Axis
Range	deg/sec	1,000	200
Stability (over 360 deg)	%		0.001
Stability (over 10 deg)	%		0.01
Stability (over 1 deg)	%		0.1
Command Resolution	deg/sec		± 0.001

Dynamic		Inner Axis	Outer Axis
Acceleration (no load)	deg/sec <sup>2</sup>	3,000	50
Acceleration (with nominal load)	deg/sec <sup>2</sup>	TBD – depends on UUT	TBD – depends on UUT

Mechanical		Inner Axis	Outer Axis
Angular freedom	deg		unlimited

Dimensions		
Simulator (L x W x H)	in (mm)	27 x 48 x 43 (686 x 1'219 x 1'092)
Payload/Table top height from floor	in (mm)	27.64 (703)
Intersection of axes	in (mm)	28.06 (713)

Temperature Chamber (TC)		LN <sub>2</sub> (AC217-TCN)
Working volume	in (mm)	13 dia. x 9 in height
Temperature range	°C	-55 to +85
Temperature stability	°C	± 1.0
Thermal gradients	°C /min	5 (heating and cooling)

Power Requirements	
Table	single phase, 115/240 VAC, ± 10%, 50-60 Hz, 15A or 3 phases, 208VAC, 30A
Temperature chamber	3 phases, 208VAC, ± 10%, 50-60 Hz, 30A

Options	
Custom table tops / mounting surfaces	✓
Installation support, training, and calibration	✓