1553P THREE AXIS MOTION TABLE

STANDARD FEATURES

- **Position Accuracy**: ±36 arc sec
- Direct-drive, DC brushless servo system
- Fail-safe brakes
- Large, unobstructed field of view perfect for antenna testing
- Multiple mounting surfaces for auxiliary electronic

DESCRIPTION

The 1553P Motion Table is designed to provide precise position, rate and acceleration motion for the development and/or production testing of inertial packages and their components requiring a large and unobstructed field of view. Its payload mounting surface is above the rest of the structure allowing a clear view upwards and outwards for antenna testing.

The 1553P Motion Table is a servo-controlled system that features direct-drive DC brushless motors, precision optical encoders and a microprocessor that provides accurate and reliable motion control. The table can be operated from the AERO 4000 Controller front panel for local control through a computer interface for remote control.

AERO 4000 CONTROLLER

- .NET interface over Ethernet
- Front panel display of status and data
- Local and remote operation
- Trapezoidal velocity profiles with programmable velocity and acceleration
- Sinusoidal motion profiles with variable amplitude and frequency
- Profile Modes for simulating complex motion

OPTIONS

- Various slip ring packages or wire wrap configurations
- Horizontal configuration on pitch axis

This test table system is designed for ease of operation and is programmed with the Ideal Aerosmith Table Language (ATL) for remote operation.

For special requirements, please contact Ideal Aerosmith regarding system customization

For much more detailed information, contact Ideal to request a *Specification Document.*

Rev B

1553P Performance Specifications			
	Roll Axis	**Pitch Axis**	**Yaw Axis**
Range of Motion, deg	Option 1: ± 35 (wire wrap) Option 2: Unlimited (slip ring)	± 55	Option 1: ± 60 (wire wrap) Option 2: Unlimited (slip ring)
Position			
• Accuracy, arc sec (deg)	± 36 (0.01)	± 36 (0.01)	± 36 (0.01)
• Repeatability, arc sec (deg)	± 36 (0.01)	± 36 (0.01)	± 36 (0.01)
• Display Resolution, deg (approx)	0.001	0.001	0.001
Rate			
• Maximum, deg/sec	± 40	± 40	± 40
• Display Resolution, deg/sec (approx)	0.001	0.001	0.001
• Accuracy	± 1%	± 1%	± 1%
Acceleration (no load)			
• Peak (2 second), deg/sec^2	40	40	40
• Max Continuous, deg/sec^2	20	20	20

System Physical Configuration	
Overall Table Dimensions, inches (mm)	76.0 (1930) W x 43.6 (1107) D x 87.4 (2220) H
Table Interface Characteristics	
• Size, inches (mm)	28.0 (711) x 24.75 (629)
• Material	Aluminum
Test Load Envelope, inches (mm)	28.0 (711) x 24.75 (629) x 10.0 (254) H
Test Load Capacity	100 lbs (45.4 kg) balanced CG 5 inches (127 mm) maximum above tabletop
User Harness/Slip Ring	10 lines at 2 amps each + 1 GBit Ethernet Connection
Controller	Consult AERO 4000 specification document SP4499 for more detailed information
• Size, inches (mm)	23.3 (592) W x 30.0 (762) D x 73.6 (1869) H
• Weight, lbs. (Kg)	500 (227)

LIST OF DELIVERABLES

Documentation

Digital media files including pdf versions of the following;

1. Operation Manual describing the proper operation, service, maintenance, software, schematics and calibration of the system.
2. Acceptance Test Procedures including In-process and Factory Acceptance Test results
3. Component manufacturer's documentation.

Standard Hardware

1. 3-Axis Motion Table
2. AERO 4000 Test Table Controller- Three Axis Configuration
3. Interconnecting Cables (between table and console)
4. Accessory Kit (includes 1 set of mating connectors and fuses)

An expedited lead-time may be available on any of the tables and options. Please contact Ideal. Rev B
Specifications, options and pricing are subject to change without notice.