

# Target Motion Simulator

Model No: JC-SC-TS12



Land



Air



Marine

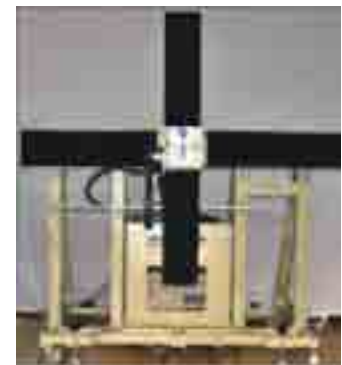
Jisnu's Model No: JC-SC-TS12, is an advanced Target Motion Simulator is a processor based fully digital control system with signal conditioning module, power electronics sub-systems, high precision dual axes linear motion platform for simulation of various Real Time and Built-in patterns. This high precision Dual Axis Target Motion Simulator system is built on a rigid platform with level adjustable Vibro-Mount mechanism and high-speed servo motors. The control system is built around a high-end motion controller equipped with Jisnu's Customized software compiled with essential viz. namely time stamping, time synchronization and data logging.

## Applications

- Analysis of Highly Accurate RF simulator for a different distance

## Features

- Based on linear servo motion in X-Y direction
- Built-in patterns like circle, triangle, dumb-bell, spiral etc
- Two axes simultaneous motions
- Jisnu's Customized Motion Controller and Target Simulation Software
- Three safety end-limits: Software Limits, Electrical limits and Mechanical limits
- Center Alignment with the Seeker via Laser Source
- Trolley-based structure for easy transportation
- Data Logging, Time Stamping, Time Synchronization



## Technical Specifications

Dual Axes System	
No. of Axes	Two (x and y)
Axes Dimensions	1m/1m clear object movable
Type of Movement	Linear two Axes
Motion Speed	2 m/s (Simultaneous) for full stroke
Accuracy	1 mm
Type of Motors	AC Servo Motors
Mounting Stand	Trolley based mounting stand with level & break screws
Motion Controller System	
Motion Control	Dual Axes Motion Controlled
Feedback	Encoder Driven
Operation Mode	Local/Remote
Control Type	DSP Based
Control Modes	1. File track: Triangle, Circle, Pattern 8, Dumbbell, Zigzag, spiral 2. Manual track: x-y, r-theta, theta-phi and on screen (user Defined)
Data Logging	X & Y co-ordinates with time stamping with 10/15 samples Per Second
Position Update Rate	< 20 msec
Time Sync	System Time synchronized with External GPS time
Remote Interface	Ethernet, MIL 1553
Protection	Input/output protection interface
Drive Electronics	Compatible to match motion specs
Working Loops in Real Time	Rate Loop and Position Loop
I/O Interface	2 USB, 1 RS232, 1 Gigabit Ethernet Port, MIL 1553 Optional

### Motion Controller - TMS

The control system is built with all associated motion control features in both axes with a user-friendly GUI. Necessary signal conditioning and protection features are incorporated in the system.

Functional	
Motion Control	Dual Axes
Operation Modes	Local/Remote
Control Modes	1. File Track - Triangle, Circle, Pattern8, Dumbbell, Zigzag, spiral 2. Manual Track - X-Y, r-theta, Theta-Phi, On Screen (User defined)
Drive Electronics	Compatible to match motion specs
Interface	RS 422 & Ethernet
Software	user-friendly GUI
Protection	Input/Output protection interface
Electrical	
Power	230V $\pm$ 15V AC, 50 Hz
Mechanical	
Mounting	19-inch Rack mountable
Dimensions	485mm L X 600mm D X 264mm H
Weight	< 25 Kg's
Environmental	
Temperature - Operating	0° C to +50° C
Temperature - Storage	-10° C to +55° C

