

# 3DM-02 3-Dimensional Manipulator

## Product Overview

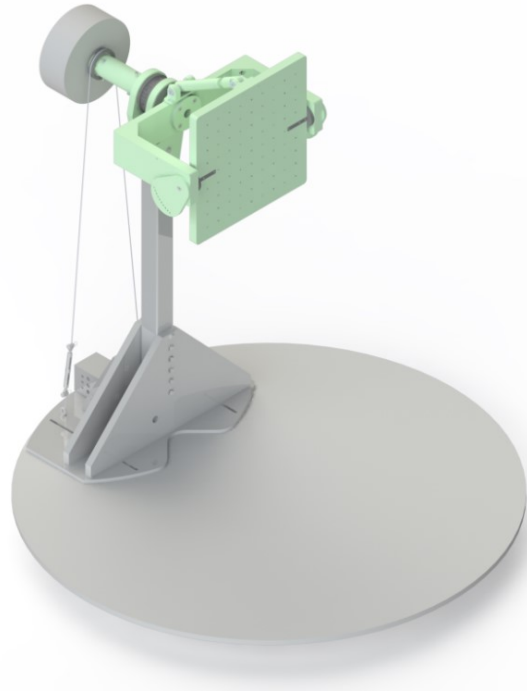
The TDK 3DM-02 is a three-dimensional manipulator used for remote positioning of antennas or equipment under test (EUT) in EMC test environments. The 3DM-02 rotates on two axis to allow a complete three-dimensional pattern to be constructed. The turntable provides information for one axis and the roll axis provides accurate elevation rotation. This combination permits rotation of a test object in polar coordinates for three-dimension characterization of the test object. The test object can be rotated in  $\theta$  and  $\phi$  independently, allowing positioning of the object in any particular plane about its axis.

**Remote Control** The 3DM-02 can be remotely controlled by TDK's SI-300 system interface unit. Remote control of the 3DM-02 is achieved by use of fiber optic links, eliminating a potential interference source and distance limitations.

**Custom Dimensions** The dimensions of the manipulator are designed to your specifications. Dimensions are limited only by the maximum length of cable that is used. The 3DM-02 supports up to 40 kg.

## Applications

- Remote positioning of test objects
- Antenna pattern measurements, antenna characterization



**The TDK 3DM-02 3-Dimensional Manipulator is designed for remote three-dimensional positioning of test objects in EMC test environments.**

## Features

- Independent  $\theta$  and  $\phi$  positioning control
- Mounting plate tilts in  $5^\circ$  increments up to  $90^\circ$
- Compatible with the TDK SI-300 system interface
- Fiber optic interface.
- Shielded remote modules for use in high field environments
- Custom dimensions to meet your requirements

# 3DM-02 3-Dimensional Manipulator

## Physical Specifications

Dimensions:	1.67m (66") Diameter 1.72 m (68") Height; custom heights available
3DM Weight:	68 kg (150 lbs.)
Maximum Load:	40 kg
Construction:	Non-conductive commercial grade fiberglass and plastic

## Mechanical Specifications

Positioning Accuracy:	.5° +/- .5°
Rotation Angle:	360° continuous
Rotating Speed:	Up to 2 RPM
Drive:	12 V/AC motor
Drive Controller:	Shielded controller unit
Interface:	Fiber optic serial communication
Remote Control Unit:	TDK SI-300

## Motor Box Specifications

Houses the motor to drive the belt and the circuitry to convert optical signals to analog signals.

Power:	48 VDC
Control Cables:	Fiber optic control
Connectors:	Filter connectors
Dimensions:	11.25" x 3" x 4" (28.5 cm W x 7.6 cm D x 10 cm H)
Construction:	Painted steel

## Ordering Information

Product:	3-Dimensional Manipulator
Model Number:	3DM-02
Warranty:	1 year limited

**To place an order or to learn more about the TDK products that best meet your needs, contact your TDK sales representative:**

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