

3DM-02 3-Dimensional Manipulator

Product Overview

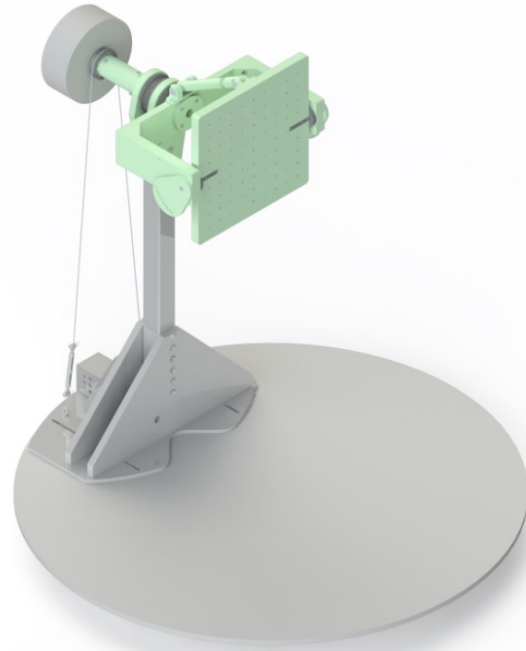
The TDK 3DM-02 is a three-dimensional manipulator used for remote positioning of antennas or equipment under test (EUT) in EMC test environments. The 3DM-02 rotates on two axis to allow a complete three-dimensional pattern to be constructed. The turntable provides information for one axis and the roll 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 θ and ϕ 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 θ and ϕ positioning control
- Mounting plate tilts in 5° increments up to 90°
- 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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