

## D6050-XX Series Multi Axis Positioner

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**Features and Specifications**

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# Introduction and Features

## Introduction

The D6050 series positioners is a precision multi-axis positioner configurable up to 50 GHz and 5 Axis of movement.

## Features

**Complete System** Includes Positioner, Software, 2x 10" Precision RF Cables, tools, documentation, AUT mounting hardware and 3 year warranty. Optional accessories such as pre-configured PC and Calibrated reference antenna available

### 3D Measurements

2 Axis positioning enables spherical 3D, Efficiency, and TRP/TIS Measurements. in addition to full principal cuts

**High Resolution** Standard full step resolutions of  $.02^\circ$  - Theta and  $.025^\circ$  - Phi

### Precision RF Components

Positioner features high quality RF components and precision rotary joint for low-noise rotation of reference antenna.



## Configurable Models and Options

- D6050-00 No RF Components
- D6050-6 6 GHz SMA RF Components
- D6050-18 18 GHz SMA RF Components
- D6050-40 40 GHz 2.92mm RF Components
- D6050-50 50 GHz 2.4mm RF Components
- D6050-MMW-CFX no RF components , configured with mounts for Copper Mountain FX series mmW adapters - up to 110 GHz
  
- OPT 3A Automated Z axis -
- OPT 4A Automated Z and X axis with pseudo Y axis
- OPT CS Convertible caster feet for portability

## Included Items

- D6050 Base Positioner
- Roll axis with G10 Mast and control cable
- 2 x 10' RF Cables
- Power supply
- USB/Serial communications cable
- AUT Mounting hardware
- Digital and Laser level for alignment
- Tools
- Users manual
- Antenna Measurement Studio w/Pro License
- Programming manual

# Specifications

## Positioner

### Turntable

Frequency Ranges:	DC to 6, 18, 40, 50 GHz
Resolution:	0.02° - Full Step Mode
Drivetrain:	Precision worm gear table with 1.8 deg. stepper motor
Gear Ratio:	90:1
Movement Range:	0-360° or +/- 180 , re-indexable hardware limits
Position Feedback:	None- Open loop, position maintained by software
Weight (positioner only):	72 Lbs. with slide rails
AUT Mounting Options:	Positioner Max Speed: 4 R.P.M. / 24°/Sec. (light load) 24" Diameter x .75" Acrylic plate 1/4-20 Hole Array (M6 Holes Available upon request)
Weight Capacity:	100 Lbs. (45.5 kg)
Rotary Joint:	Precision, low noise rotary joint. (SMA, 2.92mm, or 2.4mm)

### Roll / Phi Axis

Frequency Ranges:	DC to 6, 18, 40, 50 GHz
Resolution:	0.025° - Full Step Mode
Drivetrain:	Precision worm gear drive with 1.8 deg. stepper motor
Gear Ratio:	72:1
Movement Range:	360° Continuous or +/- 180°
Positioner Max Speed:	4 R.P.M. / 24°/Sec. (light load)
Position Feedback:	None- Open loop, position maintained by software
Weight (positioner only):	Lbs.
AUT Mounting Options:	10" Diameter x .5" Acrylic plate 10-32 Hole Array (M5 Holes Available upon request)
Weight Capacity:	25 Lbs. (11.4 kg)
Rotary Joint:	Precision, low noise rotary joint. (SMA, 2.92mm, or 2.4mm)

## Electrical and Communications (2 Axis Systems)

Controller type:	Internal 2 axis microprocessor based controller
Resolution:	Full step / half step
Motor Current:	2.0A per motor phase
Cooling:	24v Fan
Communication Interface:	9 Pin D-sub RS-232 (includes USB-RS232 Adapter) Communication cable length: 3 Meters (Included)
Input Voltage:	24VDC 5A - 2.5mm DC Barrel connector
Power Supply (included):	24VDC 5A - 110/220v input





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