PT-010-2PW

2D Tracking Turntable

This two-dimensional tracking turntable is a UT-type tracking turntable comprising two axes—azimuth and elevation—and is equipped with a high-precision encoder. It is used for ground-based simulation of satellite pointing and tracking to facilitate satellite-to-ground quantum communication.

Product Features

- Dual-axis interlocking for azimuth and elevation
- Positioning accuracy to the arcsecond
- Encoder resolution up to 1″
- Encoder zero-point function
- Wide range of tracking speeds whilst maintaining accuracy
- Open-loop tracking error <5″

Suitable scenarios

Intended for use in the field of quantum communication, as a satellite tracking and pointing device for quantum communication ground receiving stations.

Technical Specifications

Parameter categories	Parameter items	Parameter values
Accuracy Performance	Angular Positioning Accuracy	±3″
	Angular Positioning Repeatability	±2″
	Tracking/Pointing Accuracy	For spatial targets: single-axis <5″ (open-loop)
Dynamic Performance	Maximum Angular Velocity	Azimuth: ≥10°/s Elevation: ≥5°/s
	Maximum Angular Acceleration	Azimuth: ≥6°/s² Elevation: ≥2°/s²
Range of Motion	Azimuth/Elevation Range	Azimuth: ≥-170° to +170° (electrical limit)
Mechanical Specifications	Load Capacity	10 kg
	Table Diameter/Dimensions	400 mm
Environmental Protection	Protection Rating	Ip66
	Operating Temperature	−25℃ to +55℃
Power and Communications	Power Supply Requirements	AC 220 V ±20%, 50/60 Hz
	Control Interface	RS422/RS485