

AR-300-3

Antenna Test Turntable for Anechoic Chambers

This turntable comprises a precision mechanical platform with three axes—azimuth, elevation and polarisation—and a servo control system. By precisely controlling the antenna's attitude and polarisation direction, it enables the automated testing of electrical performance parameters such as the antenna's radiation pattern, gain and side lobes within the quiet zone of an anechoic chamber.



Product Features

- Three-axis precision positioning
- Suitable for use in the quiet zone of a darkroom
- Low scattering cross-section design
- High angular repeatability
- Remote automatic control
- Compatible with mainstream instruments

Suitable scenarios

Suitable for the defence and telecommunications sectors, specifically for anechoic chamber testing of antennas for radar, satellite communications, base stations and military electronic equipment.

Technical Specifications

Parameter categories	Parameter items	Parameter values
Accuracy Performance	Angular position accuracy	1. $\leq \pm 0.05^\circ$
	Angular position repeatability	2. $\leq \pm 0.03^\circ$
	Tracking/pointing accuracy	3. $\leq \pm 0.05^\circ$
	Rate stability	$\leq 1\%$ within the range of $0.01^\circ/\text{s}$ to $10^\circ/\text{s}$
Dynamic Performance	Maximum angular velocity	Azimuth/Polarisation: $\geq 30^\circ/\text{s}$ Elevation: $\geq 10^\circ/\text{s}$
	Maximum angular acceleration	Azimuth: $\geq 200^\circ/\text{s}^2$ Pitch: $\geq 100^\circ/\text{s}^2$
Range of Motion	Range of azimuth/elevation movement	Azimuth: $\pm 180^\circ$ continuous Elevation: -10° to $+90^\circ$
Mechanical Specifications	Load capacity	≥ 15 kg (up to 30 kg)
	Work surface diameter/dimensions	300 mm
Environmental Protection	Protection rating	Ip20
	Operating temperature	10°C to 40°C
Power and Communications	Power supply requirements	AC 220 V $\pm 10\%$, 50 Hz ± 1 Hz, ≤ 2 kW
	Control interface	Ethernet/RS232/RS422, supports DLL secondary development