

ULTRA-SLIM TURNTABLE FOR EMC TESTING

The VTIU TAB05.SLIM turntable is a high-precision, ultra-slim, cost-effective solution for device positioning during EMC and antenna measurements. Developed by specialists at the Scientific and Technical Center (STC) "PRIBOR", it combines an ultra-low profile height of just 80 mm with a modular architecture and galvanic decoupling between the internal electronics and the rotating worktable disk, making it the ideal choice for anechoic, semi-anechoic chambers, and GTEM cells.

80 mm

PROFILE HEIGHT

50 kg

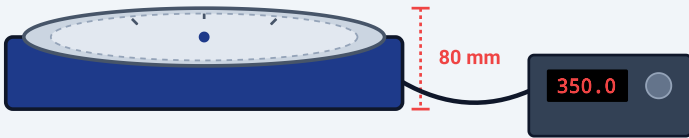
MAX LOAD

±0.5°

ACCURACY

Wi-Fi / RS232

CONTROL



VTIU TAB05.SLIM System Configuration & Control Unit with Angle Display

KEY ADVANTAGES

Ultra-Low Profile (80 mm)

Slim profile easily installs in shielded enclosure floors (600×600 mm space). With a 50 mm panel thickness, it protrudes only 2 cm above floor level.

Compact & High Capacity

Dimensions of 600×600 mm supporting loads up to 50 kg. Optimized form-factor for standard test volumes and lightweight EUTs.

Dielectric Decoupling

Shielding is established at disk level; external drive electronics have no galvanic connection to the work surface. Ideal for GTEM cells without expensive optical filters.

Direct Wi-Fi Control

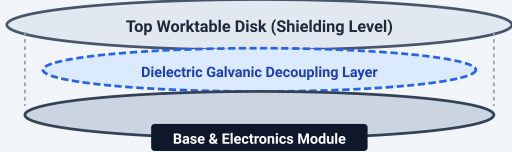
Direct wireless control eliminates external fiber-optic cables, reducing setup costs and minimizing feedthrough penetration requirements.

Flexible Power Options

Versatile power architecture allowing operation from standard 24V DC battery supply up to 220V AC mains line supply.

Rich Control Interfaces

Supports TTL, RS232, USB, and Wi-Fi protocols for seamless integration into automated test environments and software suites.



MECHANICAL STRUCTURE & INTERNAL GALVANIC DECOUPLING

ADDITIONAL FEATURES

- **Adjustable Motion Profile:** Programmable smooth start, cruising speed, and deceleration settings. Minimum step size of 1°; supports custom motion sequences via standard move <angle> commands.
- **0 to 360° Continuous Positioning:** Software-limited rotation range protects mechanical components and prevents interconnecting cable twisting. Features absolute angle tracking.
- **Chamber-Matched Surface Finish:** Disk surface material matches standard anechoic chamber shielding for homogeneous electromagnetic reflection behavior.
- **High Positioning Accuracy (±0.5°):** Integrated 1:10 precision gear reducer and proven mechanics ensure high measurement repeatability.
- **Minimal Electromagnetic Interference:** Fully shielded enclosure and decoupled internal layout prevent spurious emissions and measurement distortion.

APPLICATION FIELDS

- EMC compliance testing according to CISPR, IEC, and MIL standards

- GTEM cell measurements as a floor extension module

- Antenna radiation pattern measurements in anechoic chambers

- Integration into standard 600×600 mm shielded enclosures

- Automated production testing of radio-electronic equipment

- R&D laboratory positioning requiring high angular repeatability

TECHNICAL SPECIFICATIONS

Parameter / Characteristic	Specification Value
Turntable Height	80 mm
Base Block Dimensions	600 × 600 mm
Maximum Permissible Load	Up to 50 kg
Installation Type	Recessed into chamber floor / Stand-alone device
Rotation Angle Range	0° to 360° (software limited)
Positioning Accuracy	±0.5°
Minimum Step Angle	1°
Rotation Speed	5 seconds to 1 minute per full rotation (adjustable)
Motion Profile	Programmable acceleration, cruise speed, and deceleration
Command Sequences	Supports custom execution scripts via move <angle> commands
Work Surface Material	Electromagnetically matched to anechoic chamber shielding
Galvanic Decoupling	Integrated (dielectric isolation between drive unit and top disk)

