

Compact Antenna Test Range (CATR) Solutions

Advanced Testing for High-Precision Antenna Measurements

At **JV Micronics**, we offer **state-of-the-art Compact Antenna Test Range (CATR) solutions**, designed for precise and efficient antenna testing across various industries, including **aerospace, defense, telecommunications, automotive, and research institutions**. Our **CATR systems** enable far-field antenna measurements in a **compact, controlled environment**, ensuring **high accuracy, repeatability, and reliability**.

Why Choose CATR?

Traditional far-field antenna measurements require large test ranges, which can be impractical for high-frequency applications. **CATR technology** overcomes this limitation by using a **precision-engineered reflector** to create a **plane wave condition** within a compact space, making it ideal for:

- **5G, 6G, and IoT device testing.**
- **Radar, satellite communication systems & Telecom.**
- **Automotive, Space and aerospace antenna validation and many more.**
- **High-frequency microwave and millimeter-wave testing upto sub terahertz frequency.**

Key Features & Benefits:

- **Compact & Efficient Design** – Enables far-field testing within a reduced footprint.
- **High Accuracy & Repeatability** – Ensures precise amplitude and phase performance.
- **Broad Frequency Coverage** – Supports RF, microwave, and millimeter-wave bands.
- **Customizable Configurations** – Designed to meet specific testing requirements.

Applications of CATR :

- **Aerospace & Defense:** Testing radar, satellite, and military communication antennas.
- **Telecommunications:** Validating 5G/6G antennas, IoT devices, and base stations Antennas.
- **Automotive:** Evaluating vehicle-to-vehicle (V2V) and vehicle-to-everything (V2X) communication systems etc.
- **Academic & Research:** Supporting advanced antenna development and electromagnetic research.
- **Many More Customised.**

Turnkey Solutions & Expertise:

JV Micronics, provides **complete end-to-end solutions**, including:

Design, Installation, and Commissioning

Calibration & Performance Validation

Maintenance & Upgrades

Training & Technical Support

Operation & Maintenance

Our **CATR systems** are engineered with **precision engineering super finished reflectors, and low-scattering enclosures**, delivering the most accurate results for your antenna testing needs. Whether you require a **standardized solution** or a **customized test range**, JV Micronics ensures **high-performance, cost-effective, and reliable** antenna measurement environments.

