



FEATURES

- Probing of quiet zone area for amplitude and phase ripple
- 2-D CW SAR imaging of reflections in chamber
- Report on range performance and recommendations for improvements
- Isolation of leakage and reflections in chamber
- Determination of faulty RF equipment
- Summary report of data and recommendations for improvement
- Facility reconfigured often
- Adding new test equipment
- Before beginning a new testing program
- Performing system level tests and suspect leakages
- Outside interference is suspected
- Have not evaluated range performance in some time
- Planning to relocate the test facility
- Complying with government range performance specifications
- Undergoing full commissioning of a new installation
- Re-establishing or confirming performance specifications
- Detecting anomalies in measured antenna, radome, or RCS patterns and suspect range

CHAMBER IMAGING AND RANGE PROBING SERVICES

NSI-MI's Chamber Imaging and Range Probing Service will help you insure your test range provides you with the optimum and documented performance for your antenna and RCS measurement facility. NSI-MI's engineers have characterized quiet zone performance and performed diagnostic tests on numerous far-field and CATR ranges. See our published technical papers on the subject on our website. NSI-MI's engineers will bring a quiet zone field probe on-site to your facility and characterize the amplitude and phase flatness of the quiet zone in your indoor or outdoor far-field range or your Compact Antenna Test Range (CATR). Our analysis capability with the 2D scanned data will also allow the identification of scattering sources and RF leakages.

FIELD PROBE MEASUREMENT & DATA ANALYSIS

NSI-MI Technologies offers precision field probe measurements, probe data analysis and longitudinal pattern comparison testing designed for any type of range. This service uncovers and identifies the “unknowns” in the collimated electromagnetic field developed by a compact range reflector. A range probe is also effective in the analysis of both indoor and outdoor free space ranges and outdoor ground reflection ranges. Range probe analysis identifies anomalies that can cause asymmetry in measured patterns that can lead to loss of measurement accuracy or repeatability.

LONGITUDINAL PATTERN TEST & ANALYSIS

Longitudinal pattern test and analysis provides testing methods to verify the wide-angle stray signal performance of an antenna range. Typically, azimuth patterns at multiple longitudinal positions along the range axis are performed and these partial wavelength pattern tests are used to couple and decouple the extraneous signals. The plot variation data is then used to determine overall stray signal levels present in the range. Additional data analysis can also be performed to assist in identifying and correcting electromagnetic interference sources.