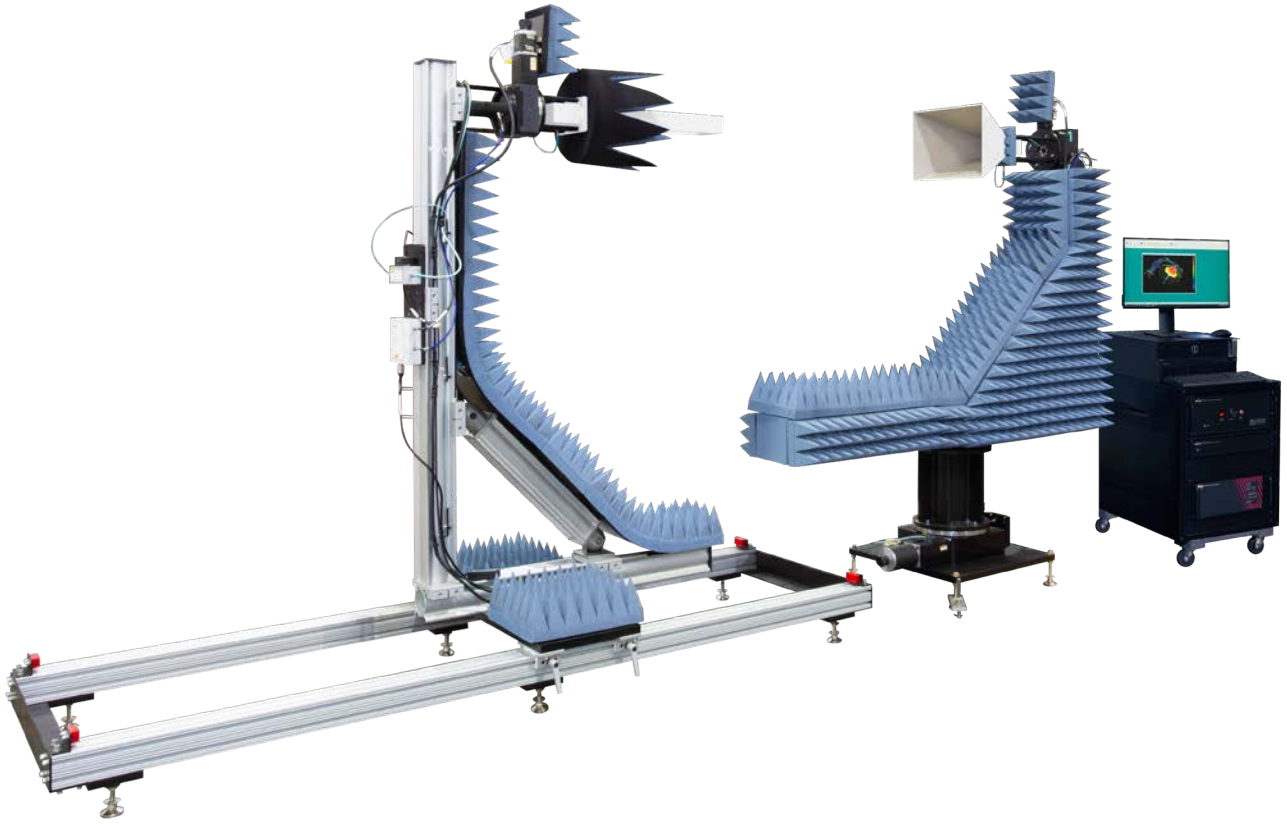
Pre-Configured Spherical Near-Field Measurement System

SNF-RAZ-0.7



DESCRIPTION

The SNF-RAZ-0.7 is a pre-configured three axes spherical near-field measurement system ideal for measuring low to medium gain antennas from 0.37 to 110 GHz. The system is constructed of high strength aluminum and can support AUT payloads of up to 18 kg (40 lb). The independent probe stand and AUT positioner are easy to assemble, align and can be quickly dismantled for transport or storage.

FEATURES

- **370 MHz to mmWave Measurements**
- **Full Spherical Characterization**
- **Automatic Scan Setup**
- **Powerful Plotting and Antenna Analysis Software**
- **Far-field, Holographic and Near-field Patterns**

TYPICAL APPLICATIONS

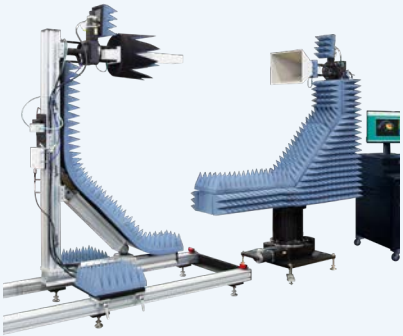
- **Cellular Base Stations**
- **Dipole Arrays**
- **General Broad Pattern Antennas**

CAPABILITIES

The SNF-RAZ-0.7 supports NSI-MI, Keysight, and Rohde & Schwarz RF receivers and is capable of measuring amplitude and phase patterns from UHF band to mmWave. The system includes a software workstation pre-loaded with NSI2000 Antenna Measurement Software and Windows® and provides automatic setup of scans based on measurement parameters and desired output. Measured data can be processed for far-field or holographic patterns yielding complete characterization of the antenna's performance. A single data set provides information on antenna gain, side lobe structure, beam pointing and cross polarization.

SPECIFICATIONS

Positioning System		Model
Positioner	Spherical - Phi over Theta (Roll over Az) AUT Positioner with Probe Stand Pol Positioner	SNF-RAZ-0.7
Max AUT Diameter	0.7 m (30 in.)	
Max Torque Load	31 Nm (23 ft-lb)	
Max AUT Weight	18 kg (40 lb), Bending Moment: 41 N-m (30 ft-lb)	
Max Probe Weight	19 kg (42 lb) (WR975)	
Repeatability	0.03° RMS Phi/Theta/Pol	
Resolution	0.0125° Phi/Theta/Pol	
Scan Speed	20/10/40°/s Phi/Theta/Pol	
Position Controller	ELE-IMC (Intelligent Measurement Controller)	
Motor Cables	Quick-connect 12.2 m (40 ft)	
Slip Ring	24 Contact, 220V-10A each (Theta)	
PC Workstation	Computer with LCD Monitor	
Power	800W, 100-240 VAC switchable, 50/60 Hz	
Software	NSI2000	
Absorber	12.7 cm (5 in.) pyramidal	
Frequency Range	0.37–110 GHz	
RF System		
Scanner RF Cables	20, 40, or 50 GHz, 3 m (10 ft) L-Bracket & Probe Stand	
Rotary Joint	26.5, 40, or 50 GHz (Phi, Theta, Pol)	
Range RF Cables	20, 40, or 50 GHz 7.6 m (25 ft) to Theta Stand, 3 m (10 ft) to Probe Stand	
RF Receiver	NSI-MI VFA, Keysight PNA, Rohde & Schwarz ZVA	
Weights and Dimensions		
Installed Envelope W x L x H	1.7 x Variable Depth x 2.0 m (68 x VariableDepth x 79 in.)	
Installed Weight (scanner only)	187 kg (412 lb)	
Crated Dimensions W x L x H	2 crates up to 2.1 x 1.2 x 1.7 m (84 x 48 x 66 in.) 1 D container 1.5 x 1.1 x 1.0 m (58 x 42 x 38 in.)	



BASELINE SYSTEM

Each NSI-MI Pre-Configured System includes the following:

- Positioning Subsystem including Mechanical Scanner with Absorber Kit and Motion Control System
- State-of-the-art RF Subsystem
- Mounting Hardware Installation Kit
- Full Standard System Interface and Operations Documentation
- Interface Kits to easily integrate a wide variety of common RF equipment, antennas and test devices
- NSI-MI or customer supplied RF receiver connection

Positioning Subsystem

» Multi-axis Mechanical Positioner
» Absorber Kit
» Motion Controller
» Control and Motor Cabling
» Cable Management
» NSI2000 Software
» PC

SNF-RAZ-0.7

RF Subsystem

» Scanner and Range RF Cables
» Rotary Joints
» RF Components and Devices (as needed)
» Software Device Drivers
» Data Acquisition, Processing and Plotting Software

RF Components and Devices

Site Deliverables

» Product Guide and Interface Control Documents
» Hardware, System and Software Manuals
» Anchoring Kit
» Shipping Crates

Shipping Crates and Anchoring Kits

OPTIONS AND ACCESSORIES

Our Pre-Configured Systems are designed to operate with a wide range of popular accessories and support services to meet budget and test needs. These include:

- Full range of Probes and Standard Gain Horns
- Additional software to enhance productivity
- AUT supports, stands and other accessories
- On-site installation, training and verification by NSI-MI experts
- Interface Kits to easily integrate a wide variety of common RF equipment, antennas and test devices

RF Options

» RF Frequency Options: 20, 40, 50 GHz
» RF Receiver Options: NSI-MI or Customer Supplied

Antenna Accessories

» Waveguide Probe Assemblies
» Standard Gain Horn Assemblies
» Broadband Probes Assemblies

Vector Field Analyzer™

Waveguide Probes

mmWave RF Upgrade Options

» mmWave Band: 50–75 GHz module and Probe-SGH set
» mmWave Band: 60–90 GHz module and Probe-SGH set
» mmWave Band: 75–110 GHz module and Probe-SGH set

Software Add-ons

» Additional NSI2000 License
» Professional Upgrade
» Far-Field
» MARS

mmWave RF Upgrade

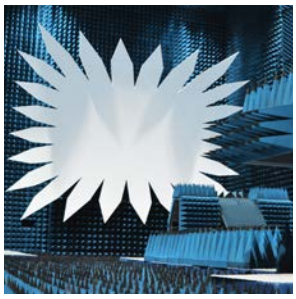
System Accessories

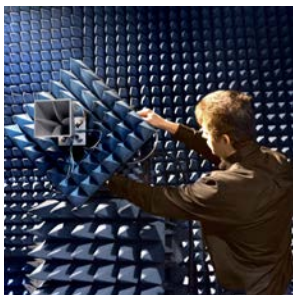
» Floor Slides

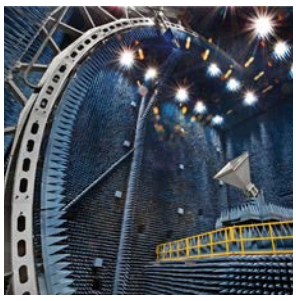
Site Services

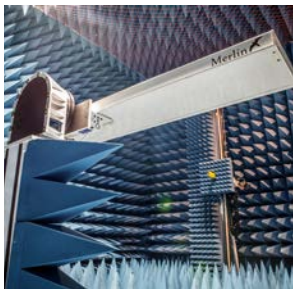
» Installation
» Training

Floor Slides









Test
With
Confidence

NSI-MI Technologies is the preferred global supplier of antenna, RF and microwave testing equipment. From world class in-house testing facilities to delivering industry leading turnkey systems, we have the right solution for you.

Our commitment is to providing the best solution for making fast, accurate and reliable measurements. We provide a solid investment, designed for lasting performance and low maintenance. We offer test systems that enhance productivity through ease of use, minimizing test time and optimizing data display, as well as, provide a long-term solution to furnish expert guidance and best-in-class tools. A worldwide network of service and support staff that can respond to any problem within hours, keeping range downtime to a minimum.

For more information on ordering NSI-MI Technologies' products, applications or services please contact your nearest NSI-MI office. Our complete sales team information is available at: www.nsi-mi.com/contact-us

ISO 9001:2015 Accreditation

The International Organization for Standardization (ISO) has verified that NSI-MI Technologies meets the requirements of the ISO 9001:2015 standard.

PRG Preferred Registrar Group Inc.

ANAB ACCREDITED ISO/IEC 17021 MANAGEMENT SYSTEMS CERTIFICATION BODY

MEMBER OF MULTILATERAL RECOGNITION ARRANGEMENT IAF

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