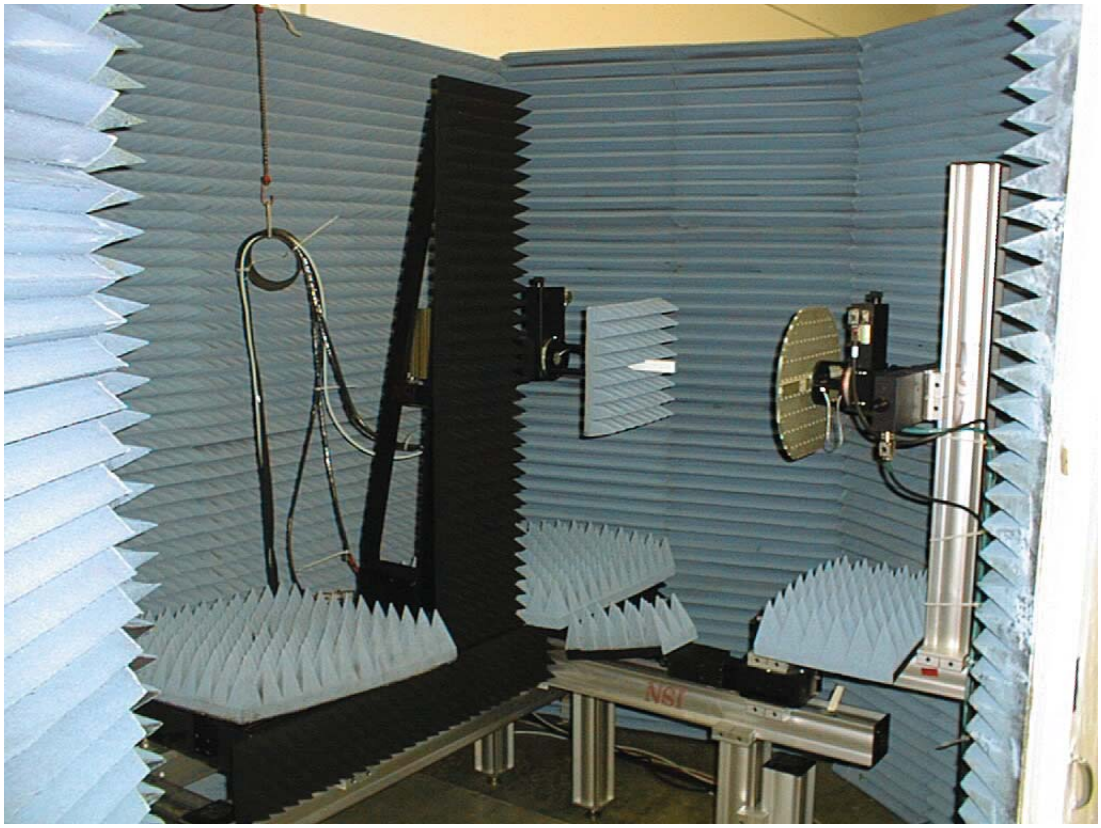
VERTICAL PLANAR

NSI

NSI-200V-3x3G

3’ x 3’ (0.9 m x 0.9 m) Vertical Planar Near-field Measurement System



DESCRIPTION

The 200V-3x3 is an ideal system for measuring medium and high gain antennas (>15 dBi) with small apertures making it suitable for testing feeds and small arrays or reflector antennas on frequencies that may exceed 50 GHz. The 200V-3x3G is based on an inverted “T” “design and is constructed of modular high strength aluminum vertical beam riding on steel rails mounted on a granite slab. This design allows enhanced accuracy and

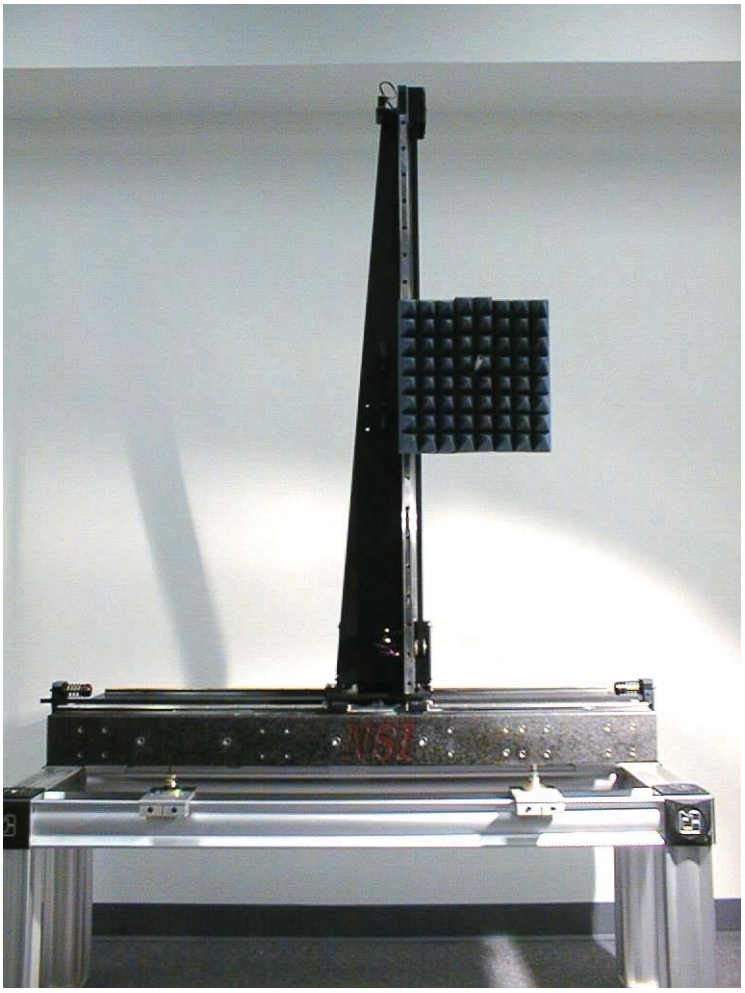
CAPABILITIES

The system interfaces with a wide variety of RF equipment and is capable of measuring amplitude and phase patterns from S-band to mmWave bands. The system includes NSI Antenna Measurement Software. The system software runs on a Pentium based measurement workstation 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 complete characterization of the antenna’s gain, side lobes structure, beam pointing and cross polarization. The Model 200V-3x3 can be supplied with a variety of options and can be upgraded to allow for cylindrical or spherical measurements to expand system performance.

FEATURES

- 3’ x 3’ (0.9 m x 0.9 m) Scan Area
- S-band to mmWave Measurements
- Inverted “T” Frame Design and Granite Base for Enhanced Accuracy
- Far-field, Holographic and Near-field Patterns
- Cylindrical and Spherical Options Available

SPECIFICATIONS	
Construction	Inverted “T” Frame (aluminum) on Granite base
Drive system	Precision Stepper Motor
Scan Area	3’ x 3’ (0.9 m x 0.9 m)
Planarity	<0.001” (0.025 mm) RMS
Corrected Planarity (Requires optional Structure Correction Software and Probe Translation Stage)	N/A
Resolution (x,y)	0.002” (0.05 mm)
Position Repeatability	0.002” (0.05 mm) RMS
Scan Speed (X,Y)	15 in/s (0.38 m/s)
Probe Carriage Capacity	10 lb (4.5 kg) maximum recommended, WR284
System Controller	NSI controller with parallel I/O, and serial interface.
Measurement Workstation	Measurement workstation computer with large LCD monitor.
Stepper Motor Power Amplifier	EIA 19” rack mount. (7” high x 14” deep)
Motor Cables	Quick-connect; 40’ (12 m)
Scanner Absorber	X-Y absorber kit (5” pyramidal cone)
Probe	WR90 Open-ended Waveguide Probe SMA (f) transition & Pyramidal absorber (3”)
Probe Mount	Angle Bracket - allows mounting probe in “V” or “H” orientation
RF Cables	Qty. 2 - Flexible 15’ (4.5 m) with SMA (m-m) coaxial connectors; DC-20 GHz
Supported RF Devices	NSI Panther Receiver Subsystem or selection of Agilent, Rohde & Schwarz and Anritsu VNA’s (contact NSI for a complete list)
Power	100-240 VAC switchable; 47-63 Hz, 500 watts



DIMENSIONS

- Width - 52" (1.3 m)
- Depth - 19" (0.5 m) (excluding probe)
- Height - 62” (1.6 m)
- System Weight - 650 lbs (295 kg) approx.

ORDERING INFORMATION

Please contact the NSI Sales department to order this product.

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