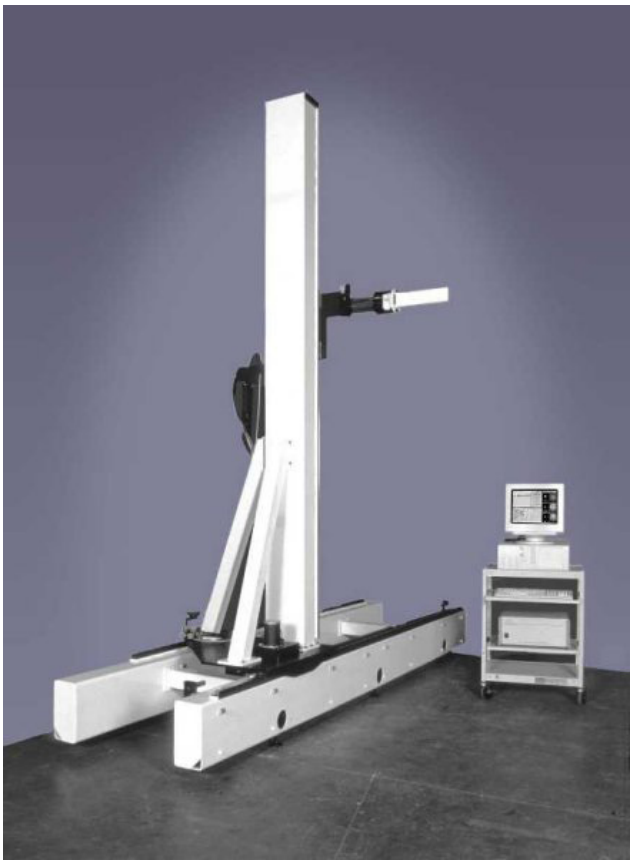
VERTICAL PLANAR

NSI

NSI-300V-8x8

8’ x 8’ (2.4 m x 2.4 m) Vertical Planar Near-field Measurement System



DESCRIPTION

The 300V-8x8 is an ideal system for measuring medium and high gain antennas (>15 dBi) with medium sized apertures making it suitable for testing medium arrays or refl ector antennas.
The 300V-8x8 is based on an inverted “T” design and is constructed of steel. For high stability a welded dual-pontoon base is used. This robust design is easy to assemble and align, highly accurate, and can be dismantled for transport or storage in one day. The high capacity probe carriage can accommodate probes as large as a WR-650.

CAPABILITIES

The system interfaces with a wide variety of RF equipment and is capable of measuring amplitude and phase patterns from mid-range L-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-fi eld 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.

The Model 300V-8x8 can be supplied with a variety of options to enhance system performance, such as cylindrical or spherical options to accommodate lower gain antennas.

FEATURES

- High Accuracy Planarity <0.003”(0.076 mm) RMS
- 8’ x 8’ (2.4 m x 2.4 m) Scan Area
- Precision Rack and Pinion Drive
- Mid-range L-band to mmWave Measurements
- Inverted “T” Frame Design for High Accuracy
- Far-field, Near-field and Holographic Patterns
- Cylindrical and Spherical Options Available

SPECIFICATIONS	
Construction	Inverted “T” Frame (steel)
Drive system	Precision Stepper Motor; Rack and Pinion
Scan Area	8’x 8’ (2.4 m x 2.4 m)
Planarity	<0.003” (0.076 mm) RMS
Corrected Planarity (Requires optional Structure Correction Software and Probe Translation Stage)	<0.001” (0.025 mm) RMS
Resolution (x,y)	0.001” (0.025 mm)
Position Repeatability	0.002” (0.05 mm) RMS
Scan Speed (X,Y)	X - 10 in/s (0.25 m/s) Y - 15 in/s (0.38m/s)
Probe Carriage Capacity	50 lb. (22.7 kg) maximum recommended, WR650
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 (8” pyramidal cone)
Probe	Optional - See our list of standard Open Ended Waveguide (OEWG) probes
Probe Mount	Angle Bracket - allows mounting probe in “V” or “H” orientation
RF Cables	Qty 5 - Flexible 15’ (4.6 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 - 147” (3.7 m)
- Depth - 70” (1.8 m)
- Height - 158” (4.0 m)
- System Weight - 2400 lb (1089 kg) approx.

ORDERING INFORMATION

Please contact the NSI Sales department to order this product.

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