

NSI-300V-20x8

20' x 8' (6.1 m x 2.4 m) Vertical Planar Near-field Measurement System



DESCRIPTION

The 300V-20x8 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 reflector antennas. The 300V-20x8 is based on an inverted "T" design and is constructed of steel. For high stability a welded cross-braced dual-rail base is used. This robust design is easy to maintain and align, and highly accurate. Disassembly can be completed in one day. The high capacity probe carriage accommodates probes as low as L-band including optional roll and Z stages.

CAPABILITIES

The system interfaces with a wide variety of RF equipment and is capable of measuring amplitude and phase patterns from 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-field or holographic patterns yielding complete characterization of the antenna's performance. A single data set provides information on antenna gain, side lobes structure, beam pointing and cross polarization.

The 300V-20x8 can be supplied with a variety of options and can be upgraded to allow for cylindrical or spherical measurements to expand system utility.

FEATURES

- High Accuracy Planarity <0.004"(0.010mm) RMS
- 20' x 8' (6.1 m x 2.4 m) Scan Area
- Precision Rack and Pinion Drive
- L-Band to mmWave Band 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	20' x 8' (6.1 m x 2.4 m)
Planarity	<0.004" (0.010 mm) RMS
Corrected Planarity (Requires optional Structure Correction Software and Probe Translation Stage)	<0.002" (0.05 mm) RMS
Resolution (x,y)	0.002" (0.05 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	125 lbs. (57 kg) maximum recommended, WR1500
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 (12" 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 4 - Flexible 25' (7.6 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 - 318" (8.1 m)
- ◆ Depth - 98" (2.5 m)
- ◆ Height - 151" (3.8 m)
- ◆ System Weight - 4 000 lbs (1 814 kg) approx.

ORDERING INFORMATION

Please contact the NSI Sales department to order this product.

Nearfield Systems, Incorporated

19730 Magellan Drive, Torrance, CA 90502, USA, Tel: 310.525.7000, Fax: 310.525.7100
Email: sales@nearfield.com. Visit our website: www.nearfield.com