

### 5' x 5' (1.5 m x 1.5 m) Vertical Planar Near-field Measurement System



#### DESCRIPTION

The 200V-5x5 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. The 200V-5x5 is based on an inverted "T" design and is constructed of modular high-strength aluminum. This simple design is easy to assemble and align, accurate, and can be quickly dismantled for relocation or storage.

#### 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.

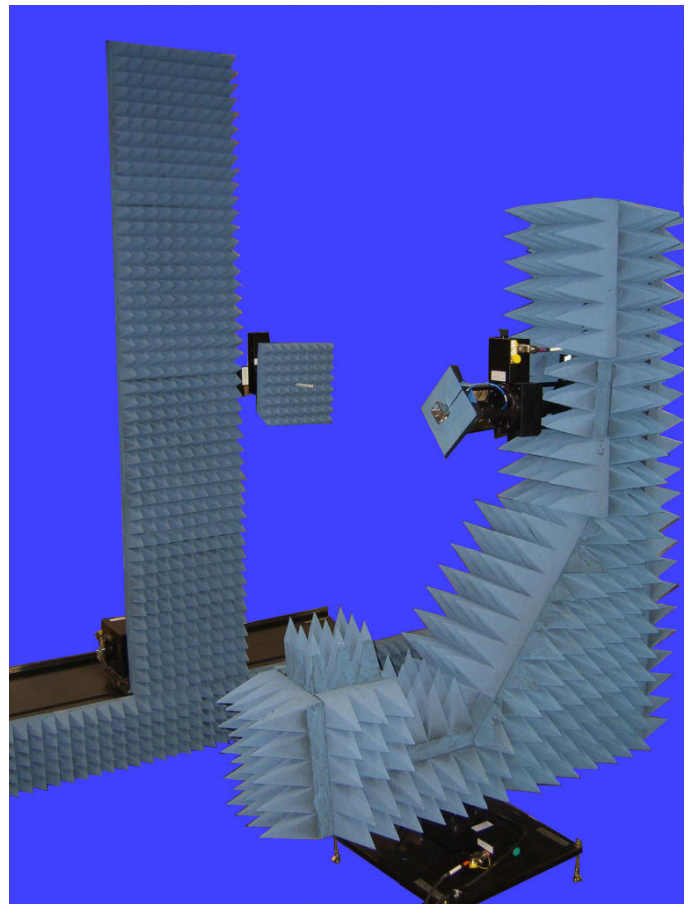
The system software runs on a Pentium based measurement workstation and provides automatic setup of scans based on measurement parameters and desired output. Measured data can be processed for far-field or holographic patterns yielding complete characterization of the antenna's performance. A single data set provides information on antenna gain, side lobes structure, beam pointing and cross polarization.

The Model 200V-5x5 can be supplied with a variety of options, including cylindrical or spherical options to accommodate lower gain antennas.

#### FEATURES

- Low Cost & Portable
- 5' x 5' (1.5 m x 1.5 m) Scan Area
- S-band to mmWave Measurements
- Inverted "T" Frame Design for High Accuracy
- Far-field, Holographic and Near-field Patterns
- Cylindrical and Spherical Options Available

SPECIFICATIONS	
Construction	Inverted 'T' Frame (aluminum)
Drive System	Precision Stepper Motor
Scan Area	5' x 5' (1.5 m x 1.5 m)
Planarity	<0.003" (0.076 mm) RMS
Corrected Planarity (Requires optional Structure Correction Software and Probe Translation Stage)	<0.002" (0.05 mm) RMS
Resolution (x,y)	0.0025" (0.06 mm)
Position Repeatability	0.002" (0.05 mm) RMS
Scan Speed (X,Y)	X - 15 inches/sec. (0.38 m/s) Y - 30 inches/sec. (0.76 m/s)
Probe Carriage Capacity	20 lb (9 kg) maximum recommended, WR430
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 20' (6.1 m) with SMA (m-m) coaxial connector; 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 - 96" (2.4m)**
- ◆ **Depth - 32" (0.8m) (Excluding probe)**
- ◆ **Height - 105" (2.7m)**
- ◆ **System Weight - 487 lbs. (221 kg) approx.**

## ORDERING INFORMATION

Please contact the NSI Sales department to order this product.

### Nearfield Systems, Incorporated

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