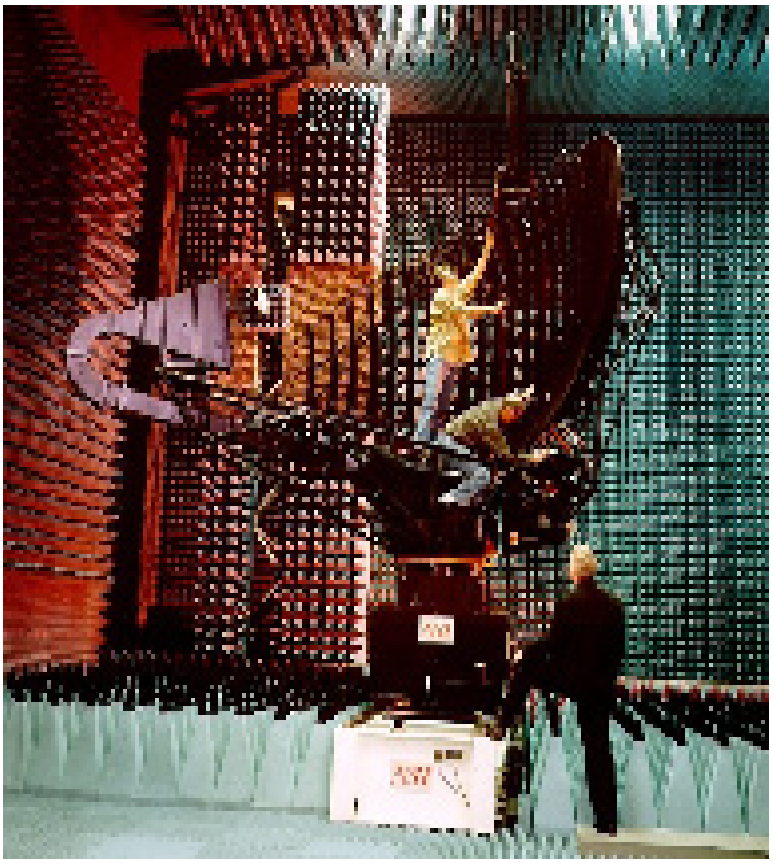
VERTICAL PLANAR

NSI

NSI-400V-30x22

30’ x 22’ (9.1m x 6.7m) Vertical Planar Near-field System



DESCRIPTION

The 400V-30x22 is an ideal system for measuring medium and high gain antennas (>15 dBi) with large apertures making it suitable for testing large arrays or reflector antennas. The 400V-30x22 is based on a inverted “T” design and is constructed of a steel tower and granite base. The granite X-axis base provides excellent mechanical and thermal stability. This robust design is easy to maintain and align, and is highly accurate. The high capacity probe carriage accommodates probes as low as WR1500 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.

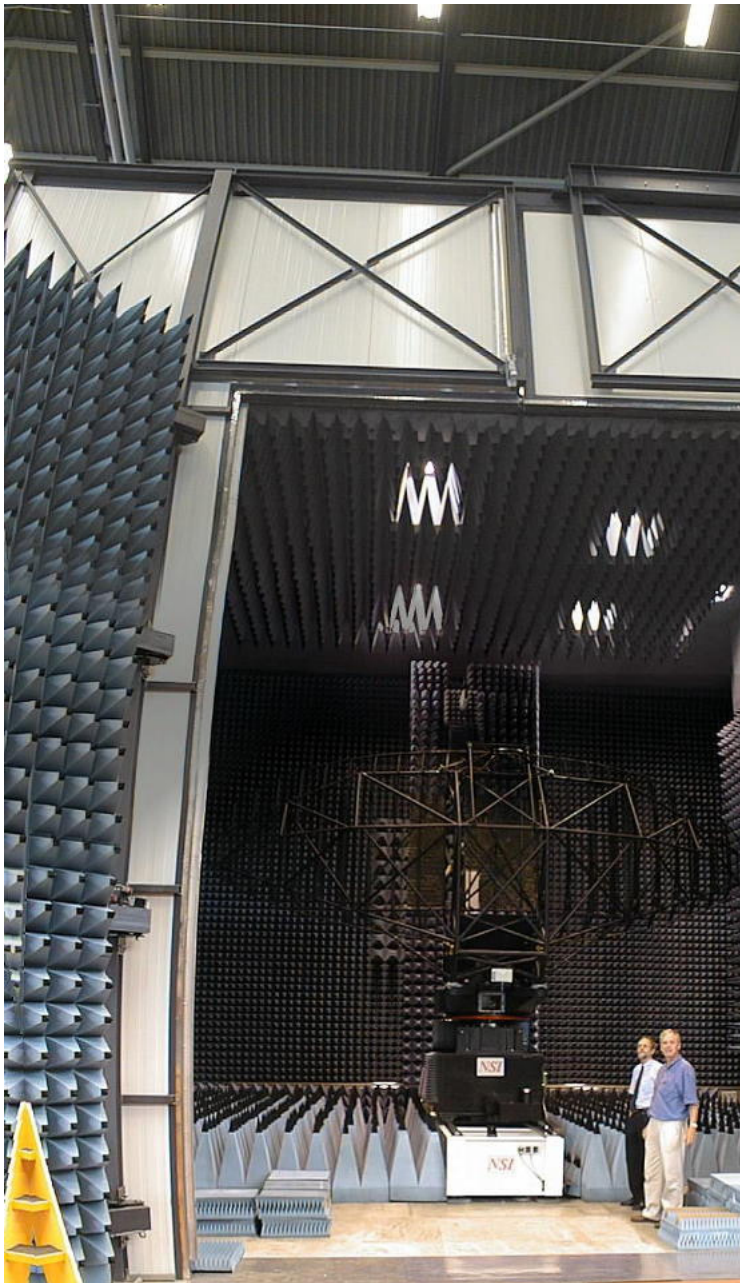
The system software runs on a Pentium based measurement workstation and provides automatic setup of scans based on measurement parameters and desired output. Measured data can be processed for far-field or holographic patterns yielding complete characterization of the antenna’s performance. A single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

The 400V-30x22 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” (0.10 mm) RMS
- 30’ x 22’ (9.1 m x 6.7 m) scan area
- Precision rack and pinion drive
- L-band to sub-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 truss tower; dual rail granite base
Drive system	Precision Stepper Motor with Rack and Pinion Drive
Scan Area	30’ x 22’ (9.1 m x 6.7 m)
Planarity	<0.004” (0.10 mm) RMS
Corrected Planarity (Requires optional Structure Correction Software and Probe Translation Stage)	<0.002” (0.05 mm) RMS
Resolution (x,y)	x: 0.001” (0.025 mm) y: 0.0015” (0.0375 mm)
Position Repeatability	0.002” (0.05 mm) RMS
Scan Speed	x: 8 in/s (0.2 m/s) y: 10 in/s (0.25 m/s)
Probe Carriage Capacity	175 lb (79.5 kg) maximum recommended; WR1500
System Controller	NSI controller with serial and parallel I/O interfaces
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); connectors on tower base
Scanner Absorber	Tower Absorber Kit (24” 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	20 GHz RF Cables
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, 800 watts



DIMENSIONS

- Width - 462” (11.7 m)
- Depth - 95” (2.4m)
- Height - 343” (8.7 m)
- System Weight - 40,300 lb (18,275 kg)

ORDERING INFORMATION

Please contact the NSI Sales department to order this product.

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