



#### DESCRIPTION

The 400V-60x40G 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-60x40G is based on an inverted "T" design and is constructed of a thermally stable granite base and a steel tower. This robust design is easy to maintain and align, and 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 system 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 <0.008" (0.20 mm) RMS
- 60' x 40' (18 m x 12 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; Rack and Pinion Drive
Scan Area	60' x 40' (18 m x 12 m)
Planarity	<0.008" (0.20 mm) RMS
Corrected Planarity (Requires optional Structure Correction Software and Probe Translation Stage)	<0.004" (0.1 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 - 890" (22.61 m)
- ◆ Depth - 168" (4.27 m)
- ◆ Height - 592" (15.04 m)
- ◆ System Weight - 132,500 lb (60,200 kg) approx

## ORDERING INFORMATION

Please contact the NSI Sales department to order this product.

### Nearfield Systems, Incorporated

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