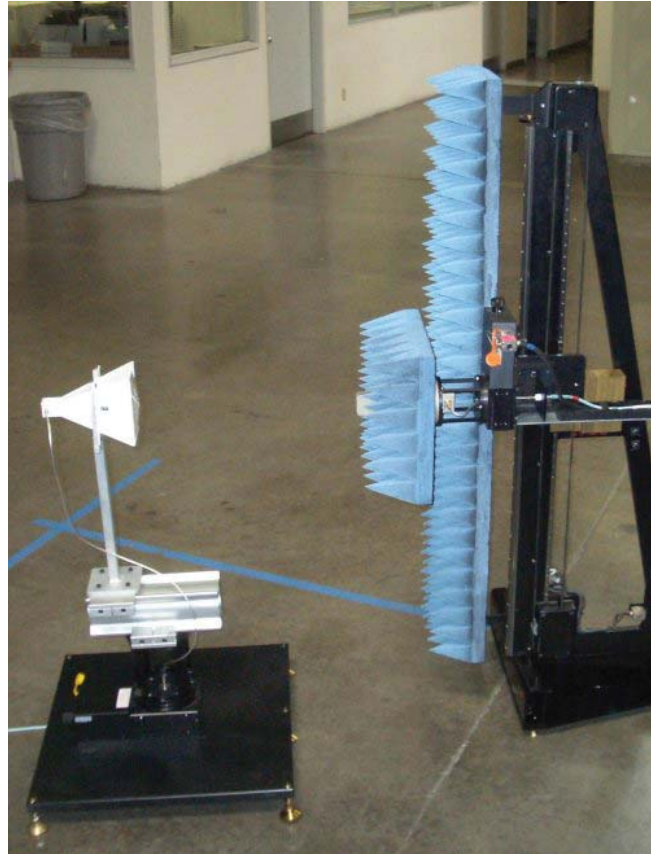


## NSI-600C-3

### 3' (0.9 m) Cylindrical Near-field Measurement System



#### DESCRIPTION

Model 600C-3 is a complete cylindrical near-field system ideal for measuring broad beam (azimuth) antennas with apertures less than three feet making it ideal for testing stacked linear arrays. The 600C-3 consists of a vertical probe tower with an 3' (0.9 m) travel, high capacity stepper motor based azimuth positioner, control computer, software and cabling. The probe stage carriage can accommodate probes large as a WR284 including optional roll and translation stages. This simple design is easy to assemble and align, accurate, and can be dismantled for transport or storage within one day.

#### 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 lobe structure, beam pointing and cross polarization.

The Model 600C-3 can be supplied with a variety of options to enhance system performance.

#### FEATURES

- Low Cost
- High Accuracy Y Linearity  $<0.003''$  (0.076 mm) RMS
- 360° x 3' (0.9 m) Cylindrical Scan Area
- Precision Rack and Pinion Drive
- S to mmWave Measurements
- 1,595 lb. (725 kg) load capacity Az positioner
- Far-field, Near-field and Holographic Patterns

SPECIFICATIONS	
Construction	Aluminum Tower and base; separate azimuth stage.
Drive system	Precision Stepper Motor
Scan Area	360° in azimuth; 3" (0.9 m) in Y
Y-axis Linearity Uncorrected:	<0.003" (0.076 mm) RMS
Resolution :	0.0125° in azimuth; 0.002" (0.05 mm) Y
Position Repeatability	0.03° azimuth; 0.002" (0.05 mm) Y RMS
Scan Speed:	20°/sec. (azimuth); 15 in/s (0.38 m/s) Y
Azimuth Stage Axial Load:	1595 lbs (725 kg) max.
Probe Carriage Capacity:	10 lbs. (4.5 kg) maximum recommended WR284
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)
Scanner Absorber	Absorber Kit (5" pyramidal cone)
Probe:	WR90 Open-ended Waveguide Probe SMA (f) transition & Pyramidal absorber (3")
Probe Absorber:	Absorber Kit (5" Pyramidal Cone)
Probe Mount:	Angle Bracket - allows mounting probe in "V" or "H" orientation
RF Cables:	Qty. 2 - Flexible 15' (4.5m) with SMA (m-m) coaxial terminations; DC-18 GHz
Rotary Joint:	Qty 1 DC-18 GHz on Az stage
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 - 39" (1.0 m)
- ◆ Depth - 39" (1.0 m)
- ◆ Height - 59" (1.5 m)
- ◆ System Weight - 350 lbs (159 kg) approx.

## ORDERING INFORMATION

Please contact the NSI Sales department to order this product.

### Nearfield Systems, Incorporated

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