

18" (5.5 m) Cylindrical Near-field Measurement System



DESCRIPTION

Model 600C-18 is a complete cylindrical near-field system ideal for measuring broad beam (azimuth) antennas with apertures less than eighteen feet making it ideal for testing stacked linear arrays. The 600C-18 consists of a vertical probe tower with an 18' (5.5 m) travel, high capacity stepper motor-based azimuth positioner, control computer, software and cabling. The high capacity probe stage can accommodate probes as large 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.

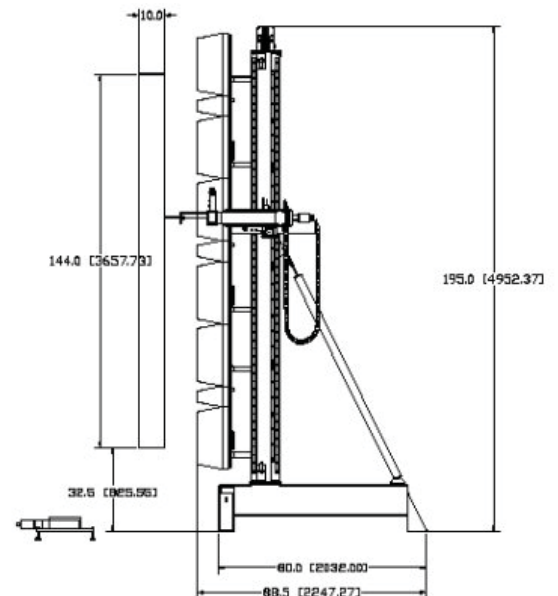
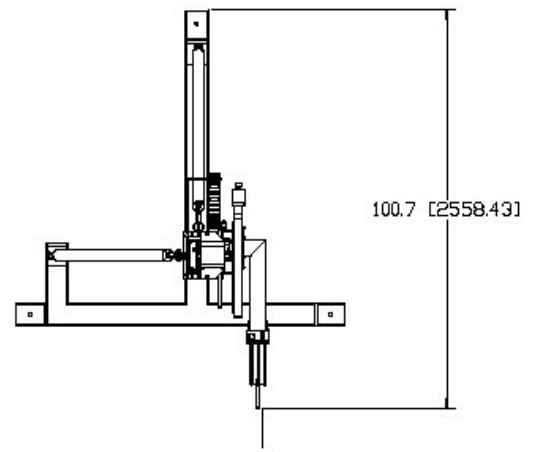
The system software runs on a Pentium based measurement workstation and provides automatic setup of scans based on measurement parameters and desired output. Measured data can be processed for far-field or holographic patterns yielding complete characterization of the antenna's performance. A single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

The Model 600C-18 can be supplied with a variety of options to enhance system performance.

FEATURES

- High Accuracy Y Linearity <0.004" (0.10 mm) RMS
- 360° x 18' (5.5 m) Cylindrical Scan Area
- Precision Rack and Pinion Drive
- L-band to mmWave Measurements
- 5,800 lb. (2,636 kg) load capacity Az positioner
- Far-field, Near-field and Holographic Patterns

SPECIFICATIONS	
Construction	Steel tower and base; separate azimuth stage
Drive system	Precision Stepper Motor; Rack and pinion
Scan Area	360° in azimuth; 18' (5.5 m) Y
Y-axis Linearity Uncorrected	<0.004" (0.10 mm) RMS
Resolution	0.0015 azimuth; 0.002" (0.05 mm) (Y) RMS
Position Repeatability	0.03° azimuth; 0.002" (0.05 mm) Y RMS
Scan Speed	30°/sec azimuth; 10in/s (.025 m/s) Y
Azimuth Stage Axial Load:	10,000 lbs (4,535 kg) max
Probe Carriage Capacity	125 lbs (56.8 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)
Scanner Absorber	Absorber Kit (12" pyramidal cone)
Probe	WR90 Open-ended Waveguide Probe SMA (f) transition & Pyramidal absorber (3")
Probe Absorber	Pyramidal Cone Absorber (8")
Probe Mount	Angle Bracket - allows mounting probe in "V" or "H" orientation
RF Cables	Qty. 2 - Flexible 30' (9.1 m) 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 - 63" (1600.2 m)
- ◆ Depth - 73" (1844.0 m)
- ◆ Height - 120" (3053.1 m)
- ◆ System Weight - 1,500 lbs. (680 kg) approx

ORDERING INFORMATION

Please contact the NSI Sales department to order this product.

Nearfield Systems, Incorporated

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