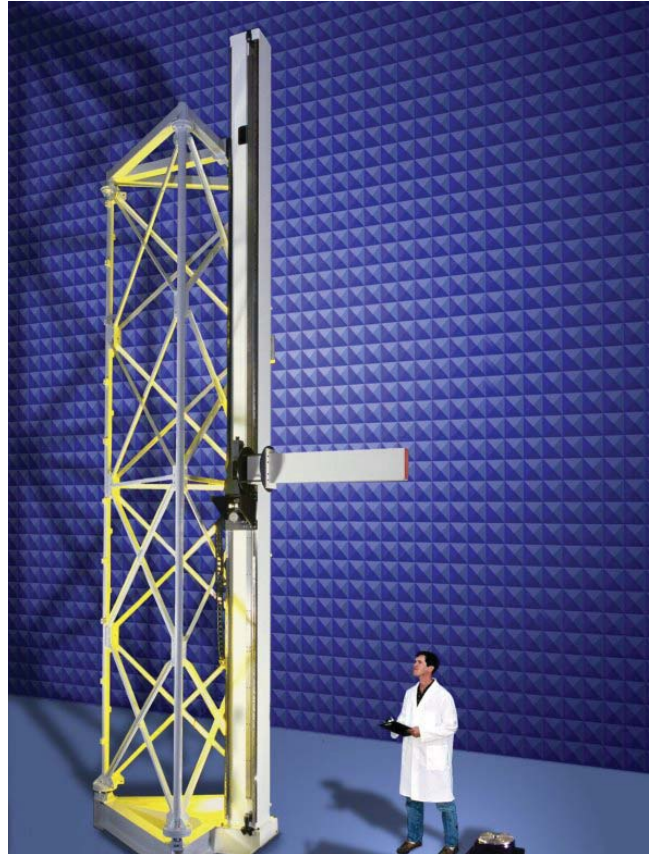


22' (6.7 m) Cylindrical Near-field Measurement System



DESCRIPTION

Model 600C-22 is a complete cylindrical near-field system ideal for measuring broad-beam (azimuth) antennas with apertures less than twenty-two feet making it ideal for testing stacked linear arrays, cellular and PCS antennas as well as higher frequency antennas with larger apertures. The 600C-22 consists of a vertical probe tower with an 22' (6.7 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 a WR1500 including optional roll and translation 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.

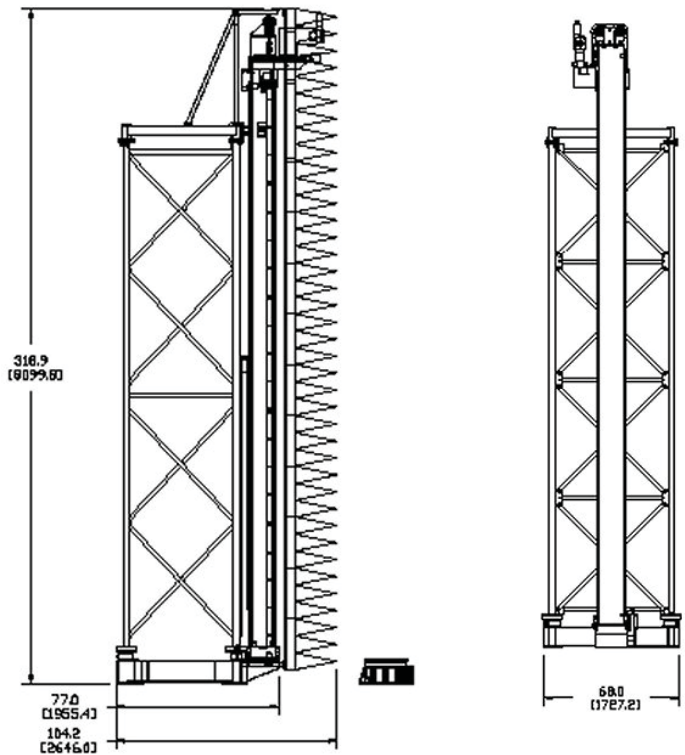
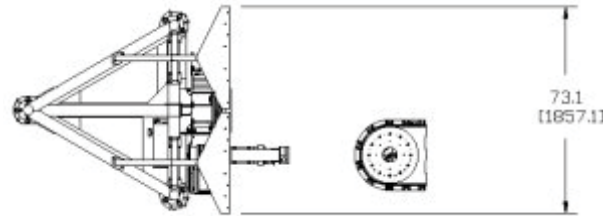
The system software runs on a Pentium based measurement workstation and provides automatic setup of scans based on measurement parameters and desired output. Measured data can be processed for far-field or holographic patterns yielding complete characterization of the antenna's performance. A single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

The Model 600C-22 can be supplied with a variety of options to enhance system performance.

FEATURES

- High Accuracy Y Linearity <math><0.004''</math> (0.10 mm) RMS
- 360° x 22' (6.7 m) Cylindrical Scan Area
- Precision Rack and Pinion Drive
- L-band to mmWave Measurements
- 10,000 lbs. (4,535 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; 22' (6.7 m) Y |
| Y-axis Linearity Uncorrected: | <0.004" (0.10 mm) RMS |
| Resolution | 0.0015 azimuth; 0.002" (0.05 mm) (Y) |
| Position Repeatability | <0.015 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 | 175 lbs (80 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) |
| 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. 4- Flexible 15' (4.5 m) with SMA (mm), Coaxial Termination; 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 - 68.0" (1727.2 m)
- ◆ Depth - 104.2" (2646.01 m)
- ◆ Height - 318.9" (8099.8 m)
- ◆ System Weight - 4,200 lbs (1,905 kg) approx.

ORDERING INFORMATION

Please contact the NSI Sales department to order this product.

Nearfield Systems, Incorporated

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