



# SPD6-3.5

1.8 m | 6 ft Standard Performance Parabolic Reflector Antenna, Dual-polarized, 3.3-3.8 GHz



## General Specifications

|               |  |
|---------------|--|
| Antenna Type  | Standard Performance Parabolic Reflector Antenna |
| Size, nominal | 6 ft   1.8 m                                     |
| Polarization  | Dual   |

## Electrical Specifications

|                                   |               |
|-----------------------------------|---------------|
| Operating Frequency Band          | 3.3 - 3.8 GHz |
| Half Power Beamwidth, Horizontal  | 3.3 degrees   |
| Half Power Beamwidth, Vertical    | 3.3 degrees   |
| Cross-Polarization Discrimination | 30 dB         |
| Front to Back Ratio (F/B)         | 40 dB         |
| Gain, Low Frequency               | 33.4 dBi      |
| Gain, Mid Frequency               | 33.8 dBi      |
| Gain, High Frequency              | 34.2 dBi      |
| VSWR                              | 1.5:1         |
| Return Loss                       | -14 dB        |

## Mechanical Specifications

|                         |                |
|-------------------------|----------------|
| Fine Azimuth Adjustment | +/- 10 degrees |
|-------------------------|----------------|

|  |                       |
|--|-----------------------|
| Fine Elevation Adjustment                    | +/- 25 degrees        |
| Mounting Pipe Diameter, Min                  | 4.5 inch   11.4 cm    |
| Mounting Pipe Diameter, Max                  | 4.5 inch   11.4 cm    |
| Net Weight                                   | 95 lbs   42.8 kg      |
| Wind Velocity Operational                    | 90 mph   145 km/h     |
| Wind Velocity Survival Rating                | 125 mph   201 km/h    |
| Mechanical Configuration                     | SP6                   |
| Axial Force (FA)                             | 1768 lbs   7865 N     |
| Side Force (FS)                              | 98 lbs   436 N        |
| Twisting Moment (MT)                         | 2270 ft-lbs   3077 Nm |
| Operating temperature range                  | -40 to +60 C          |
| Max pressure, psig, (if waveguide interface) | na                    |

## Regulatory Compliance

|                |            |
|----------------|------------|
| FCC            | undeclared |
| ETSI           | undeclared |
| RoHS-complaint | Yes        |

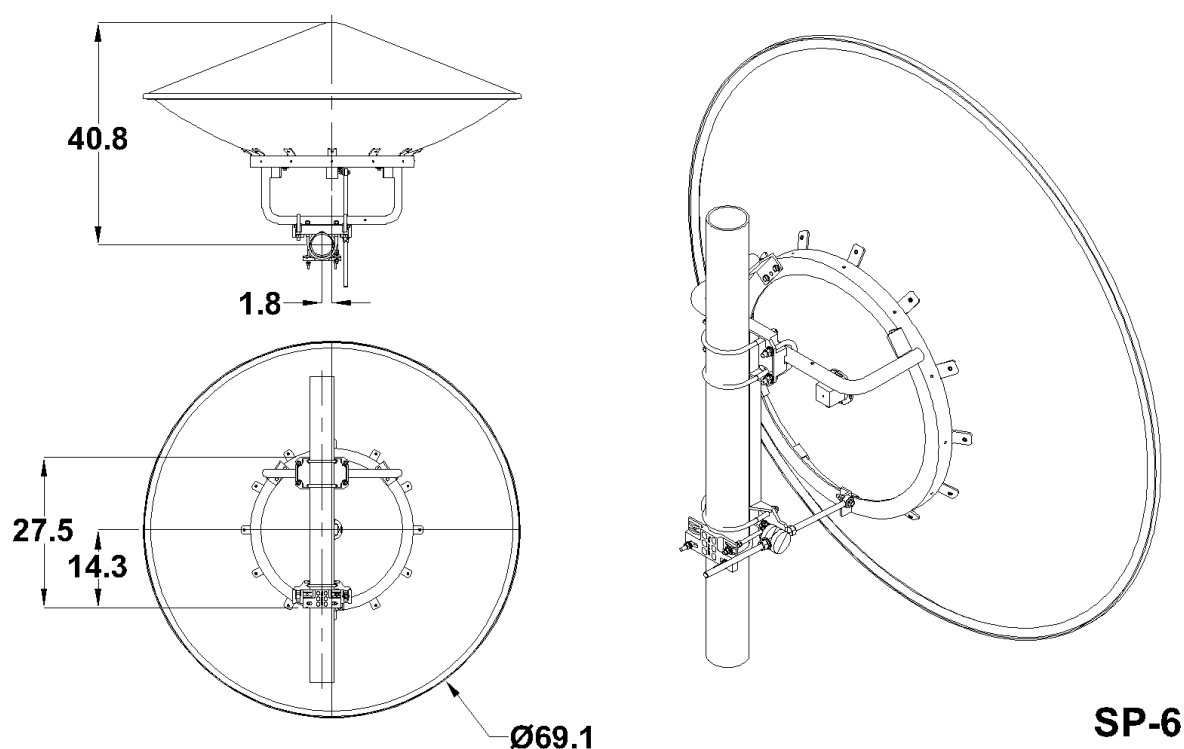
## Shipping Information

|                       |                                     |
|-----------------------|-------------------------------------|
| Package Type          | Wood Crate                          |
| Gross Weight          | 222 lbs   100.7 kg                  |
| Dimensions, L x W x H | 77 x 20 x 80in   195 x 501 x 203 cm |
| Shipping Volume       | 71.3 cu ft   2.02 cu m              |

## Additional Comments

Choose Radiowaves products for best performance and reliability

## Technical Drawings



## Radiowaves Glossary

|   |  |
|---|--|
| Axial Force:                            | Force applied to the face of the antenna due to wind at specified wind speed   |
| Beamwidth                               | The total width of the main beam measured in degrees between the 3-dB (half-power) points on either side of the peak of the main beam                            |
| Cross Polarization Discrimination (XPD) | The dB difference between maximum received co-polarized signal at electrical boresight and maximum received cross-polarized signal                               |
| Front to Back Ratio (F/B)               | The dB difference between maximum received signal at electrical boresight to maximum received signal behind the antenna (180 +/- 40 degrees)                     |
| Gain                                    | A measure of how well the antenna focuses available energy into a single beam. Larger antennas typically have higher gains and smaller beamwidths.               |
| Gross Weight                            | Shipping weight, includes weight of antenna plus packaging materials   |
| Net Weight                              | Weight of antenna only as mounted on tower.  |
| Operating Frequency Band                | The frequency limits between which the antenna meets declared specifications. Antennas may operate outside the frequency band with mild performance degradation. |
| Return Loss                             | A measure of how much rf energy incident upon the antenna is reflected back from whence it came, expressed as a negative dB value.                               |
| Side Force (FS)                         | Force applied to the side of the antenna due to wind at specified wind speed   |
| Twisting Moment (MT)                    | The torsional (twisting) moment (force x distance) applied to the mounting pipe due to wind at the specified wind speed.   |

|                               |   |
|-------------------------------|---|
| VSWR                          | A measure of how much rf energy incident upon the antenna is reflected back from whence it came, expressed as a ratio |
| Wind Velocity Operational     | Wind speed where the antenna deflection is less than or equal to 0.1 degrees  |
| Wind Velocity Survival Rating | Wind speed where the antenna will not suffer permanent damage, but may require re-pointing.                           |