

## SPD3-5.2

0.9 m | 3 ft Standard Performance Parabolic Reflector Antenna, Dual-polarized, 5.25-5.85GHz



### General Specifications

|               |                                                  |
|---------------|--------------------------------------------------|
| Antenna Type  | Standard Performance Parabolic Reflector Antenna |
| Size, nominal | 3 ft   0.9 m                                     |
| Polarization  | Dual                                             |

### Electrical Specifications

|                                   |                 |
|-----------------------------------|-----------------|
| Operating Frequency Band          | 5.25 - 5.85 GHz |
| Half Power Beamwidth, Horizontal  | 4.2 degrees     |
| Half Power Beamwidth, Vertical    | 4.2 degrees     |
| Cross-Polarization Discrimination | 30 dB           |
| Front to Back Ratio (F/B)         | 40 dB           |
| Gain, Low Frequency               | 32 dBi          |
| Gain, Mid Frequency               | 32.5 dBi        |
| Gain, High Frequency              | 33 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                                   | 35 lbs   15.8 kg    |
| Wind Velocity Operational                    | 90 mph   145 km/h   |
| Wind Velocity Survival Rating                | 125 mph   201 km/h  |
| Mechanical Configuration                     | SP3                 |
| Axial Force (FA)                             | 492 lbs   2189 N    |
| Side Force (FS)                              | 40 lbs   178 N      |
| Twisting Moment (MT)                         | 545 ft-lbs   739 Nm |
| Operating temperature range                  | -40 to +60 C        |
| Max pressure, psig, (if waveguide interface) | 5                   |

## Regulatory Compliance

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

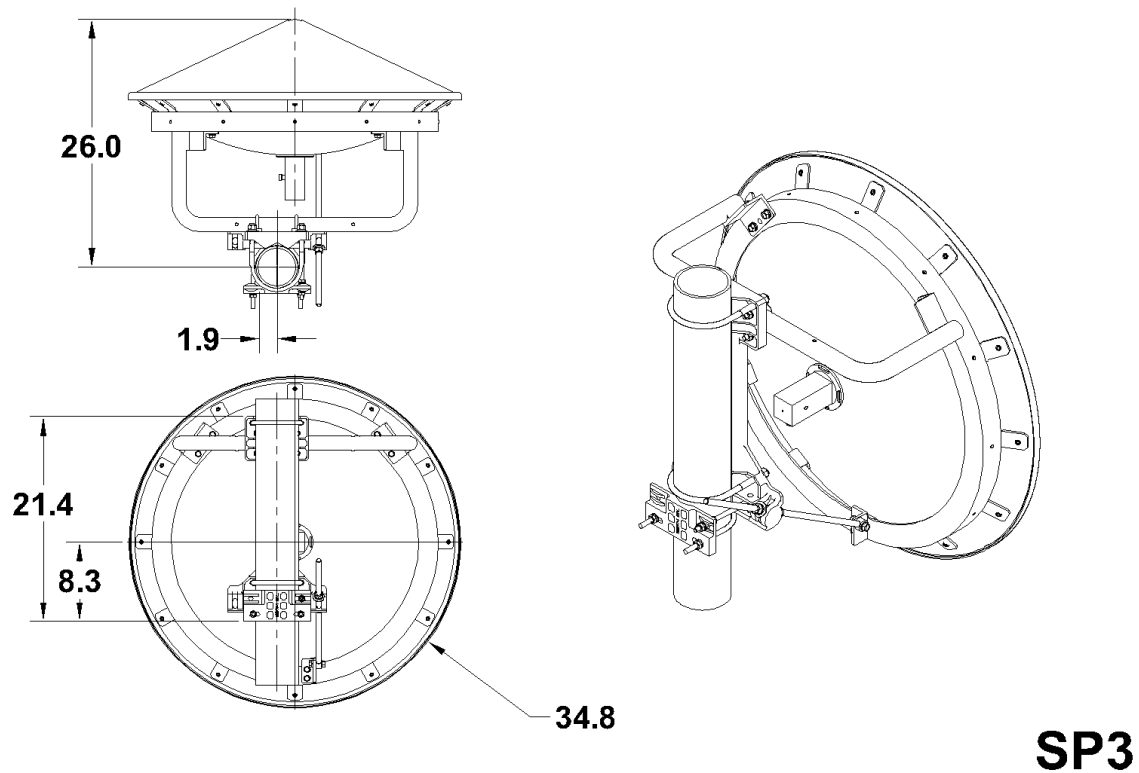
## Shipping Information

|                       |                                     |
|-----------------------|-------------------------------------|
| Package Type          | Wood Crate                          |
| Gross Weight          | 78 lbs   35.29999999999997 kg       |
| Dimensions, L x W x H | 40 x 17 x 44 in   101 x 43 x 140 cm |
| Shipping Volume       | 17.31 cu ft   0.49 cu m             |

## Additional Comments

Note that all 5.2 models will operate 4.9-6.0 GHz with slightly degraded specifications

## 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.                           |