

SPD2-5.2

0.6 m | 2 ft Standard Performance Parabolic Reflector Antenna, Dual-polarized, 5.25-5.85GHz



General Specifications

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|------------------------------|--|
| Antenna Type | Standard Performance Parabolic Reflector Antenna |
| Size, nominal | 2 ft 0.6 m |
| Polarization | Dual |
| Standard RF Connector Type | N-Female |
| Standard RF Connector Suffix | NS (append suffix to model number) |

Electrical Specifications

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|-----------------------------------|-----------------|
| Operating Frequency Band | 5.25 - 5.85 GHz |
| Half Power Beamwidth, Horizontal | 6.2 degrees |
| Half Power Beamwidth, Vertical | 6.2 degrees |
| Cross-Polarization Discrimination | 30 dB |
| Front to Back Ratio (F/B) | 38 dB |
| Gain, Low Frequency | 28.5 dBi |
| Gain, Mid Frequency | 29 dBi |
| Gain, High Frequency | 29.5 dBi |
| VSWR | 1.5:1 |
| Return Loss | -14 dB |

Mechanical Specifications

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|--|---------------------|---------------------------------|
| Fine Azimuth Adjustment | +/- 10 degrees | |
| Fine Elevation Adjustment | +/- 30 degrees | |
| Mounting Pipe Diameter, Min | 2 inch 5.08 cm | |
| Mounting Pipe Diameter, Max | 4.5 inch 11.4 cm | |
| Net Weight | 22 lbs 9.9 kg | 26 lbs 11.7 Kg with RD radome |
| Wind Velocity Operational | 90 mph 145 km/h | |
| Wind Velocity Survival Rating | 125 mph 201 km/h | |
| Mechanical Configuration | SP2 | |
| Axial Force (FA) | 222 lbs 988 N | 122 lbs 543 Nm with RD radome |
| Side Force (FS) | 14 lbs 62 N | 24 lbs 107 Nm with RD radome |
| Twisting Moment (MT) | 225 ft-lbs 305 Nm | 194 lbs 263 Nm with RD radome |
| Operating temperature range | -40 to +60 C | |
| Max pressure, psig, (if waveguide interface) | 5 | |

Regulatory Compliance

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

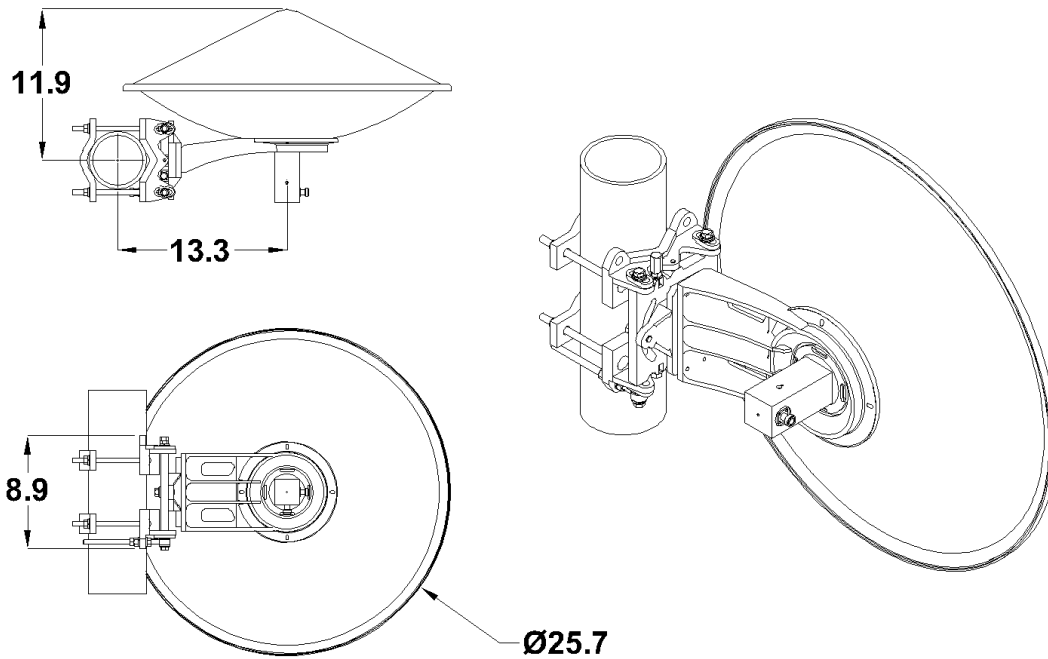
Shipping Information

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|-----------------------|----------------------------------|
| Package Type | Cardboard |
| Gross Weight | 25 lbs 11.3 kg |
| Dimensions, L x W x H | 28 x 8 x 28 in 71 x 20 x 71 cm |
| Shipping Volume | 3.63 cu ft 0.1 cu m |

Additional Comments

Note that all 5.2 models will operate 4.9-6.0 GHz with slightly degraded specifications
 Contact Radiowaves Sales for alternate rf interface options

Technical Drawings



SP2

Radiowaves Glossary

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|---|--|
| 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 |

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| 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. |