# HPD2-2.4

0.6 m | 2 ft High Performance Parabolic Reflector Antenna, Dual-polarized, 2.4-2.7GHz




## General Specifications

| | |
|---|---|
| Antenna Type | High Performance Parabolic Reflector Antenna |
| Size, nominal | 2 ft \| 0.6 m |
| Polarization | Dual |

## Electrical Specifications

| | |
|---|---|
| Operating Frequency Band | 2.4 - 2.7 GHz |
| Half Power Beamwidth, Horizontal | 14 degrees |
| Half Power Beamwidth, Vertical | 14 degrees |
| Cross-Polarization Discrimination | 28 dB |
| Front to Back Ratio (F/B) | 34 dB |
| Gain, Low Frequency | 20.4 dBi |
| Gain, Mid Frequency | 20.9 dBi |
| Gain, High Frequency | 21.4 dBi |
| VSWR | 1.5:1 |
| Return Loss | -14 dB |

## Mechanical Specifications

| | |
|---|---|
| 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 | 27 lbs \| 12.3 kg |
| Wind Velocity Operational | 90 mph \| 145 km/h |
| Wind Velocity Survival Rating | 125 mph \| 201 km/h |
| Mechanical Configuration | HP2 |
| Axial Force (FA) | 202 lbs \| 899 N |
| Side Force (FS) | 100 lbs \| 445 N |
| Twisting Moment (MT) | 194 ft-lbs \| 263 Nm |
| Operating temperature range | -40 to +60 C |
| Max pressure, psig, (if waveguide interface) | na |

## Regulatory Compliance

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

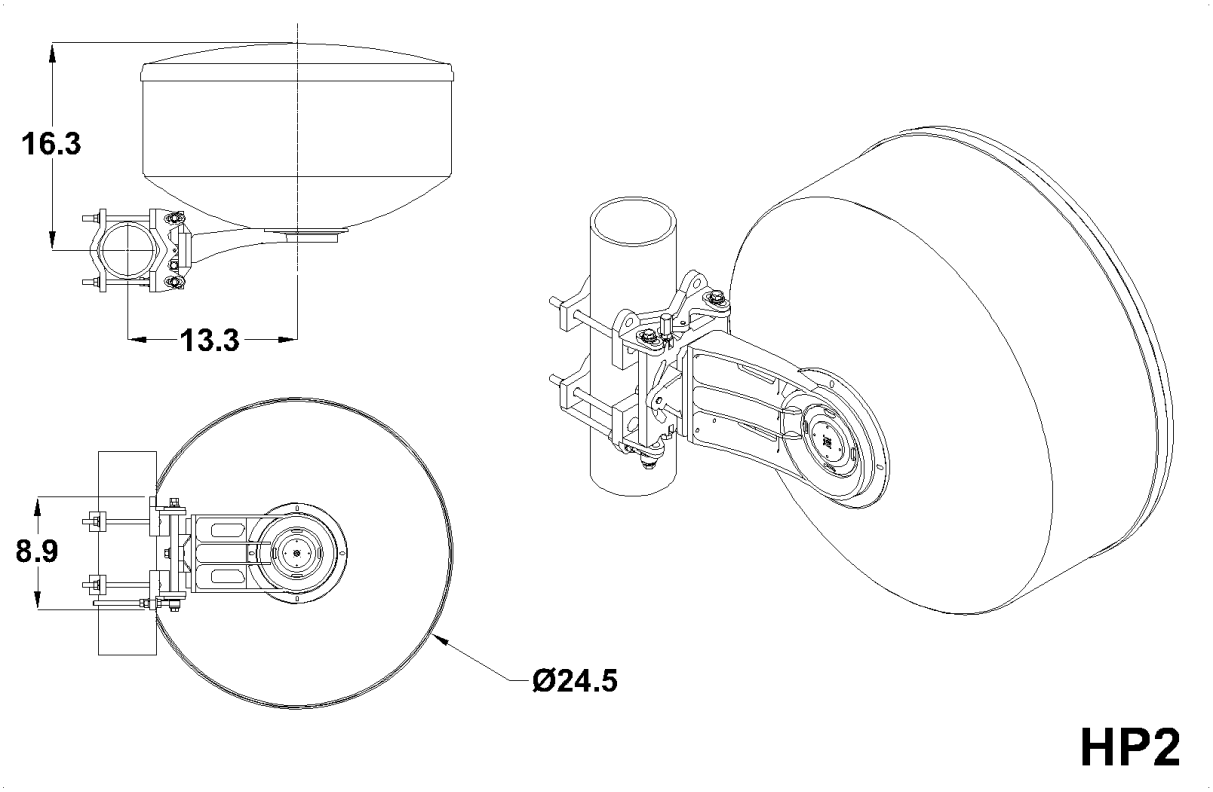
## Shipping Information

| | |
|---|---|
| Package Type | Cardboard |
| Gross Weight | 48 lbs \| 28.7 kg |
| Dimensions, L x W x H | 31 x 31 x 25in \| 79 x 79 x 64 cm |
| Shipping Volume | 13.9 cu ft \| 0.39 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. |