

## OMND-4.5-9

9 dBi Omnidirectional Antenna, Dual H & V-polarized, 4.4-4.6GHz



### General Specifications

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Antenna Type	Omnidirectional Antenna
Size, nominal	2 ft   0.6 m
Polarization	Dual H & V

## Electrical Specifications

Operating Frequency Band	4.4 - 4.6 GHz
Half Power Beamwidth, Horizontal	360 degrees
Half Power Beamwidth, Vertical	9 degrees
Cross-Polarization Discrimination	20 dB
Front to Back Ratio (F/B)	na
Gain, Low Frequency	8.5 dBi
Gain, Mid Frequency	9 dBi
Gain, High Frequency	8.5 dBi
VSWR	1.7:1
Return Loss	-12 dB

## Mechanical Specifications

Fine Azimuth Adjustment	Supplied with coarse az adjust only
Fine Elevation Adjustment	No elevation adjustment
Mounting Pipe Diameter, Min	1 inch   2.5 cm
Mounting Pipe Diameter, Max	2 inch   5.1 cm
Net Weight	consult factory
Wind Velocity Operational	90 mph   145 km/h
Wind Velocity Survival Rating	125 mph   201 km/h
Mechanical Configuration	OMND
Axial Force (FA)	23 lbs   102 N
Side Force (FS)	23 lbs   102 N
Twisting Moment (MT)	0 ft-lbs   0 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	consult factory
Dimensions, L xW xH	consult factory
Shipping Volume	consult factory

## Additional Comments

Two N connectors: One for H pol and one for V pol

## 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.