



ANTENNA EXPERTS

E-mail: info@antennaexperts.in Website: www.antennaexperts.in

Model # QHA-4050 4000 – 5000 MHz. 2 dBi Gain

Quadrifilar Helix RHCP Omni or LHCP Omni High Power Antenna

DESIGN FEATURES: QHA-4050 broadband omni-directional LHCP omni quadrifilar helix or RHCP omni quadrifilar helix antenna is rugged all weather model, enclosed in a ABS radome, uses high class copper alloy and does not require any field tuning or adjustments. The compact size of LHCP or RHCP omni-directional quadrifilar helix antenna allows easy handling, shipping and highly suitable for receiving, transmitting, scanning, monitoring, surveillance and jamming applications without having the requirement of multiple antennas. The antenna is also highly suitable for Ground to Air communication/jamming application due to its wide elevation beamwidth with omni-directional properties. The antenna is supplied with N-male termination to mount it directly on equipment/modem. It can also be mounted on chassis/thru hole vehicle/UAV/Drone using N-Female to N-Female convertor supplied with antenna. Other type of mounting configuration can be supplied on request.

CONSTRUCTIONS: The QHA-4050 LHCP omni or RHCP quadrifilar helix omni antenna is consisting of two (pair) vertical loop radiating elements at right angles to each other, twisted into a helix turns vertically and enclosed in ABS radome. The special “Teflon Dielectric Transmission Line” technique is used to handle high power handling capacity allowing smooth VSWR and typical 2dBi. gain over the entire 4000-5000 MHz. frequency band. The UV resistant ABS enclosure has excellent transparency for RF signals and enough strength to withstand specified wind loads. The QHA antenna operates at D.C. ground with low resistance discharge path for protection against lightning and immunity to noise. Cylindrical shell/enclosure is used for low wind loading and for minimal effect of ice formation on the antenna operation as well as providing an aesthetically pleasing appearance.



ELECTRICAL SPECIFICATIONS:

Frequency Range	4000 -5000 MHz.
Gain	2 dBi. Typical
Bandwidth	4.0-5.0 GHz
Polarization	Circular – RHCP or LHCP
Input Impedance	50 Ohms
Azimuth Radiation Pattern - Typical	Omni-directional
Elevation Radiation Pattern - Typical	Equivalent to Half wave Dipole
Vertical Beam-width –Half Power Points.	120 Degrees
VSWR – Better Than	2:1
RF Power Handling Capacity	25 Watts
Input Termination	N-Male or N-Female
Lightening Protection	Direct Ground

MECHANICAL SPECIFICATIONS:

Materials	6063T6 Aluminum, Copper & ABS
Mounting Hardware -Materials	Marine Grade Stainless Steel
Wind Rating	160 Km/Hr.
Overall Length	150 mm
Shipping Length	175 mm
Mounting Type	Man-pack or Thru Hole/Chassis
Enclosure Material	UV Resistant ABS
Enclosure Outer Diameter	45 mm
Gross Weight	150 Grams

ENVIRONMENTAL SPECIFICATIONS:

Operating Temperature	(-) 35 to +70 Degrees Celsius
Storage Temperature	(-) 40 to +80 Degrees Celsius
Humidity	0 to 95% RH

Please contact us for further information like radiation patterns & VSWR graph etc.

Note: All information contained in the datasheet is subject to change without any prior notice.