



# ANTENNA EXPERTS

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Model # AH-6090-12                      6000 – 9000 MHz.                      12 dBic. Gain

## RHCP or LHCP HIGH GAIN CIRCULAR POLARIZED HELICAL ANTENNA

**DESIGN FEATURES:** The AH-6090-12 uses extended stubs to provide the greater gain while maintaining the wider beam-width. This high-gain low-profile antennas use Circular Polarization Antenna Technology - which delivers better penetration through obstruction and interference. The AH-6090-12 helical antenna is highly suitable to provide the uninterrupted communications in the tunnels. This commercial grade antenna provides superior performance as compare to significantly larger and more expensive products. Our AH series helical antennas are smaller than conventional yagi antenna. The AH-6090-12 Helical Antenna is supplied with a specially designed mounting arrangement to hold the antenna at back end by using stainless steel mounting brackets to withstand the higher wind rating. The AH-6090-12 helical antenna is supplied with a specially designed mounting arrangement for steering the antenna in both planes, 360 degrees in Azimuth and 90 degrees in Elevation for terrestrial and satellite link. Both LHCP and RHCP models are available. The part number for LHCP version is AH-6090-12-LHCP and AH-6090-12-RHCP is for RHCP version.



**CONSTRUCTIONS:** The AH-6090-12, like all our AH series helical antennas, utilizes right hand circular polarization to minimize the effects of multipath interference. The AH-6090-12 Helical Antenna is heavy duty, broadband and rugged helical antennas, supplied with fiberglass radome to protect the antenna from environment. The radiating element of high power helical antenna is made of high quality high strength enameled coated copper wire and winding is secure alongside wall of fiber glass enclosure/hosing/radome to keep the helical winding/radiating element to its appropriate location to prevent RF inter-modulation.

### ELECTRICAL SPECIFICATIONS:

Frequency Range	6000 -9000 MHz.
Gain - Typical	12 dBic.
Bandwidth	6 – 9 GHz.
Polarization	Circular RHCP or LHCP
Input Impedance	50 Ohms.
Radiation Pattern	Directional
Horizontal Beam-width –Half Power Points	45 Degrees. Typical
Vertical Beam-width –Half Power Points	45 Degrees. Typical
Front to Back Ratio	20 dB. Typical
VSWR – Better than	2.0:1
RF Power Handling Capacity	50 Watts.
Input Termination	N-Female

### MECHANICAL SPECIFICATIONS:

Mounting Hardware	Marine Grade Stainless Steel
Gross Weight	500 Grams for flange mount
Wind Rating	200 Km/Hr.
Radome Overall Length	150 mm
Shipping Length	220 mm with mast mount
Radiating Materials	High Quality Copper Wire
Enclosure Materials	High Strength Fiber Glass
Enclosure diameter	45 mm
Mast Diameter	25 - 52 mm or Flange Mount
Reflector Materials	6061T6 Aluminum Alloy
Final Color / Finish	Olive Green

### ENVIRONMENTAL SPECIFICATIONS:

Operating Temperature	(-) 30 to +70 Degrees Celsius
Storage Temperature	(-) 40 to +80 Degrees Celsius
Humidity	0 to 95% RH

Note: All information contained in the datasheet is subject to change without any prior notice. Customized mounting & color can also be supplied on request. **Please contact us for Radiation Patterns and Frequency Vs VSWR Graph**