



# ANTENNA EXPERTS

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Model # AS-300-3000                      300 – 3000 MHz.                      3-6 dBi. Gain

## CIRCULAR POLARIZED SPIRAL ANTENNA

**DESIGN FEATURES:** The cavity backed dual arm archimedean spiral antenna use 6063T6 ultra corrosion resistant architectural anodized aluminum alloy and designed to provide wideband directional transmission/reception of radio signals from 300-3000 MHz bands. The antenna is supplied with powder coating finish to protect the antenna further from severe environmental conditions. Both left hand circular polarization (LHCP) and right hand circular polarization (RHCP) are available. The cavity backed dual arm archimedean spiral antenna is a frequency independent antenna and this spiral antenna is weather protected suitable for outdoors use in applications requiring circularly polarized RF radiations. The AS-300-3000 uses extended coaxial stubs technique to provide constant 3+ dBi gain over entire 300-3000 MHz frequency band while maintaining the wider beam-width. This cavity backed spiral antenna is highly suitable for transmission, reception, monitoring, scanning, ECM, surveillance, signal intelligence (SIGINT), direction finding (DF), telemetry and airborne applications due to its ultra broad band design feature.



**CONSTRUCTIONS:** The spiral antenna is sealed in an aluminum cavity and is highly immune to noise. Matching circuit of spiral antenna is housed inside the main body of the antenna. A special mounting hardware to mount the spiral antenna on vertical pole having outer diameter of 38-52mm (1.5"-2"). Higher diameter mounting including any customized mounting can be supplied on request. Spiral antenna N-Female termination is fixed on top of the antenna body for easy connectivity. Other termination can be supplied on request. The AS-300-3000 spiral antenna is light weight, broadband and rugged spiral antennas, supplied with Nylon plastic cover to protect the antenna from environment. The spiral antenna is designed to perform with much higher efficiency than conventional rubber duck antenna.

### ELECTRICAL SPECIFICATIONS:

Frequency Range	300 -3000 MHz.
Gain	3-6 dBi.
Bandwidth	Entire Band
Polarization	Circular – LHCP or RHCP
Input Impedance	50 Ohms
Radiation Pattern	Directional
Horizontal Beam-width –Half Power Points	60-80 Degrees
Vertical Beam-width –Half Power Points	60-70 Degrees
VSWR	2.5 : 1
RF Power Handling Capacity	150 Watts
Input Termination	N-Female or SMA-Female

### MECHANICAL SPECIFICATIONS:

Cavity Materials	6063T6 Aluminum Alloy
Gross Weight	5 Kgs.
Wind Rating	170 Km/Hr.
Approx Diameter	550mm (21.5 Inches)
Approx Height	150mm (6 Inches)
Radiating Elements Materials	Copper Strips
Maximum mount pipe diameter	38-52mm (1.5-2 Inches)
Front Enclosure Materials	Nylon Plastic
Approx Shipping Size	600 x 180mm (23.5 x 7 Inches)

### ENVIRONMENTAL SPECIFICATIONS:

Operating Temperature	(-) 30 to +60 Degrees Celsius
Storage Temperature	(-) 40 to +70 Degrees Celsius
Humidity	0 to 95% RH

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