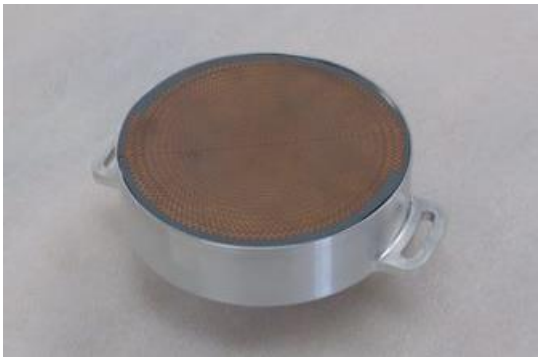
Cavity Backed Spiral Antenna

2000 – 6000 MHz
Product Code: SPRL-A0029

VERSION: 1.1



**Photos are representative only*

SPECIFICATIONS:

Product codes:	
SPRL-A0029	Standard LHCP version
SPRL-A0029-01	Standard RHCP version
Electrical	
Frequency range	2000 – 6000 MHz
Gain	-6 to 0 dBli (2 to 3.5 GHz) 0 dBli (3.5 to 6 GHz)
Beamwidth 3 dB BW 10 dB BW	 85º ± 15º (nominal) 155º ± 25º (nominal)
Polarisation SPRL-A0029 SPRL-A0029-01	 LHCP RHCP
Axial ratio	2 dB at boresight 3.5 dB at ± 45º 5 dB at ± 60º
Maximum backlobe	− 12 dB at 2 GHz − 20 dB at 6 GHz
Nominal impedance	50 Ω
VSWR	< 2.5:1
Power handling	2 W CW
Connector	SMA(f)
Mechanical:	
Dimensions (d x h)	Ø 76.2 mm x 33 mm
Total mass	0.2 kg
Mounting	2x M4 mounting holes
Colour	Conversion coated aluminium. Painted on request
Environmental: designed to meet the following specifications	
Temperature range	Storage: -41 °C to +85 °C. Operation -31 °C to +71 °C
Exposed materials	Conversion coated aluminium Conformally coated PCB

PRODUCT FEATURES:

- LHCP or RHCP antenna
- Compact
- Low axial ratio
- Low VSWR
- Wideband
- Low pattern re-entrance

PRODUCT OVERVIEW:

The SPRL-A0029 planar Archimedes spiral antenna is a rugged unit designed for airborne applications. The design uses a planar Archimedes spiral etched on a low-loss PTFE/fibreglass substrate which is mechanically supported on the backing cavity using high-performance absorber. The two arms of the Archimedes spiral are fed by a balanced transmission line which incorporates an impedance transformer to match the spiral impedance to the 50 Ω input impedance of a Marchand balun. Spiral antennas are circularly polarized and are ideal for receiving linearly polarized waves with arbitrary plane of polarization.

NOTE: These antennas can be supplied singly, in pairs and in amplitude/phase tracking sets of up to five antennas. Custom mounting flanges can be provided so that the user can rotate the antennas about their axes to make rotational phase adjustments of the relative phases between the spiral antennas in interferometer applications.

sales@alaris.co.za
www.alarisantennas.com