

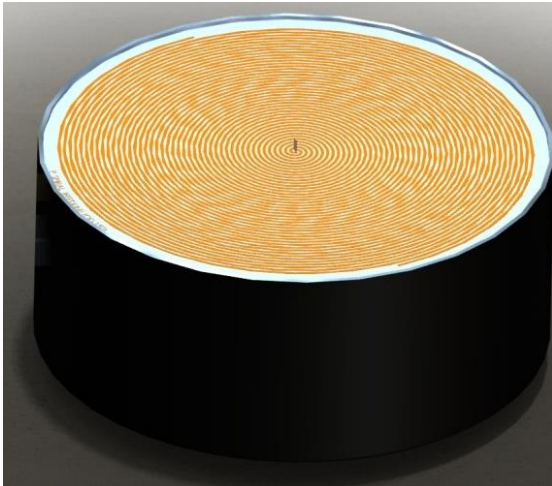
Cavity Backed Spiral Antenna

1000 – 6000 MHz

Product Code: SPRL-A0027

VERSION: 1.0

SPECIFICATIONS:



Product codes:	
SPRL-A0027	Standard LHCP version
SPRL-A0027-01	Standard RHCP version
SPRL-A0027-02	LHCP version, with radome
SPRL-A0027-03	RHCP version, with radome
Electrical	
Frequency range	1000 – 6000 MHz
Gain	3 – 5 dBi typical (in band) (see graph)
Beamwidth	70° (typical)
Polarisation	
SPRL-A0027/-02	LHCP
SPRL-A0027-01/-03	RHCP
Axial ratio	< 3 dB
Nominal impedance	50 Ω
VSWR	< 2.5:1
Power handling	10 W CW
Connector	SMA(f)
Mechanical:	
Dimensions (l x d)	Ø 163 mm x 72 mm
Total mass	0.5 kg
Mounting	PCD ø140 mm (6 x M4) on back plane of antenna
Colour	Chromated aluminium. Painted on request
Environmental: designed to meet the following specifications	
Temperature range	Storage: -41 °C to +71 °C. Operation -31 °C to +55 °C
Weatherproofing	IP 66 water resistant (SPRL-A0027-02/-03)
Exposed materials	Chromated aluminium Conformally coated PCB (on SPRL-A0027/-01) Epoxy glass (on SPRL-A0027-02/-03)

PRODUCT FEATURES:

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

PRODUCT OVERVIEW:

SPRL-A0027 is a wideband left-hand/right-hand circularly polarised cavity backed antenna. It is designed for ECM, surveillance and telemetry applications, and, exhibiting low pattern re-entrance and good phase stability for the entire range of its operating band, is extremely suitable for direction finding applications of various types.

SPRL-A0027 features a low VSWR and high gain over the operating band and has compact and lightweight package. Operation from as low as 500 MHz is possible with reduced performance.

SPRL-A0027-02/-03 provides a weatherproof radome to cover the otherwise exposed PCB radiator and is for use when the antenna is to be mounted outdoors and not in a protected system enclosure.

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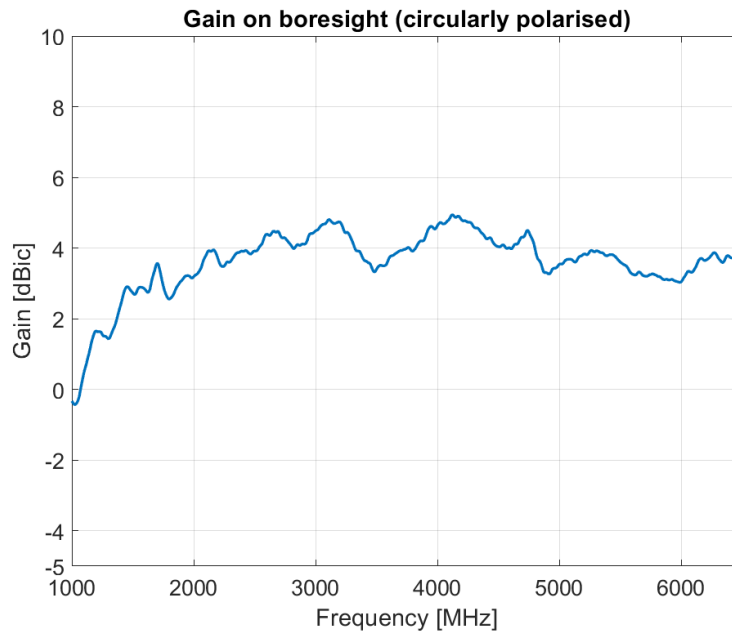
1000 – 6000 MHz

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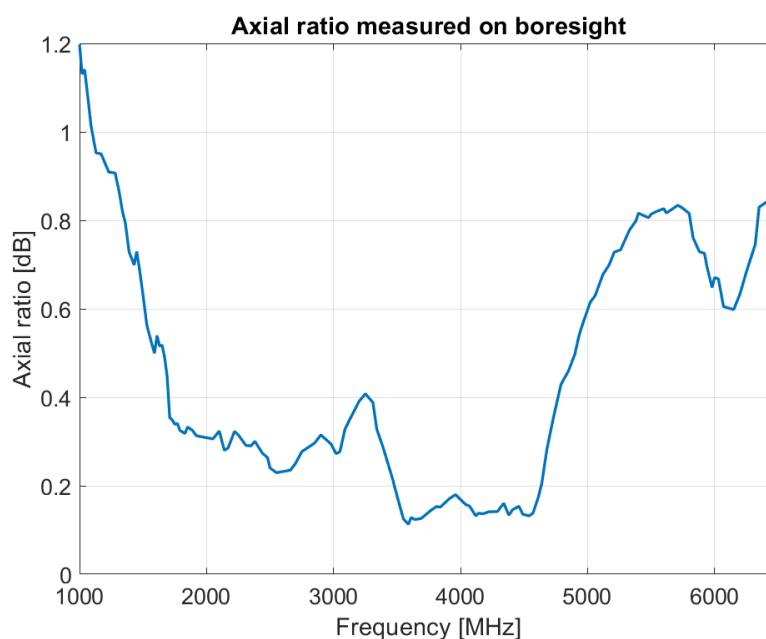
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ELECTRICAL PERFORMANCE PLOTS:

GAIN ON BORESIGHT:



AXIAL RATIO:



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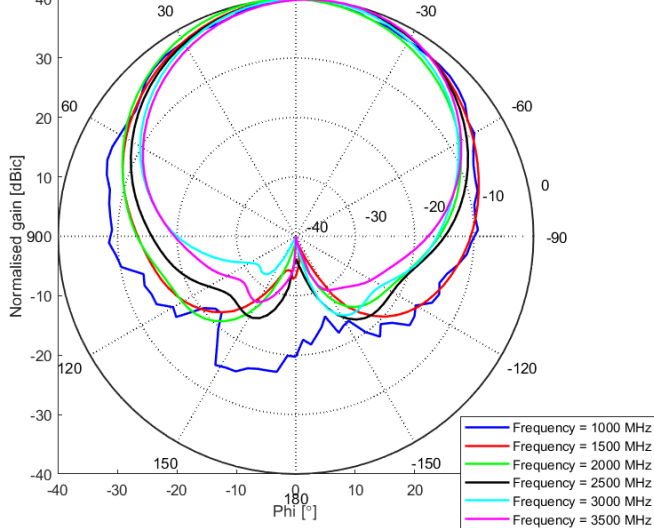
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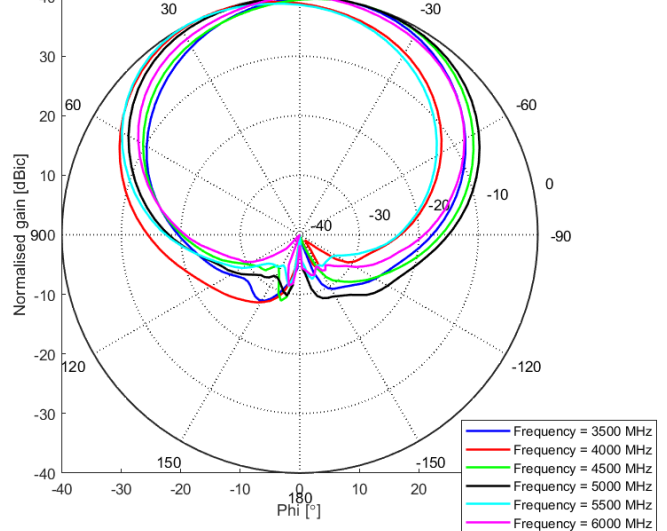
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NORMALISED ANTENNA PATTERNS:

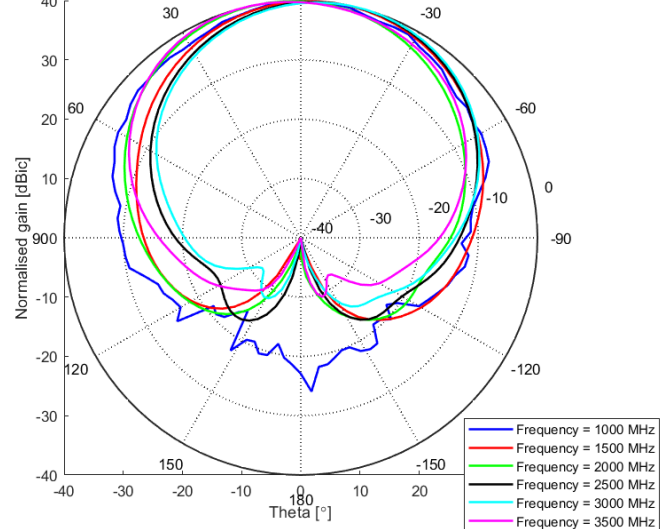
Normalised azimuth patterns (circularly polarised) (1000 MHz to 3500 MHz)



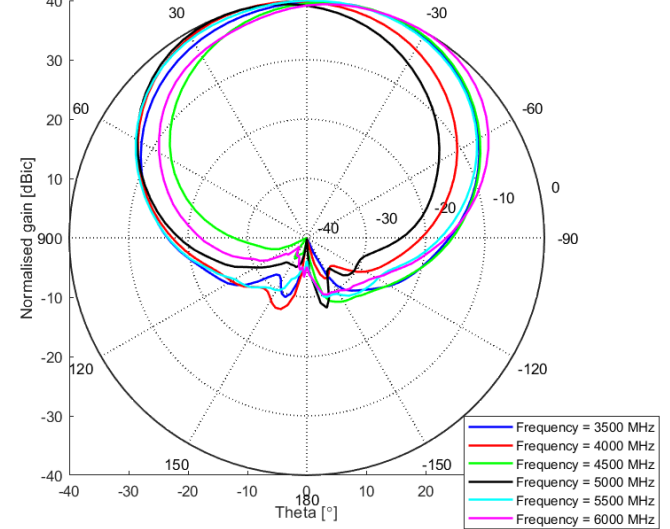
Normalised azimuth patterns (circularly polarised) (3500 MHz to 6000 MHz)



Normalised elevation patterns (circularly polarised) (1000 MHz to 3500 MHz)



Normalised elevation patterns (circularly polarised) (3500 MHz to 6000 MHz)



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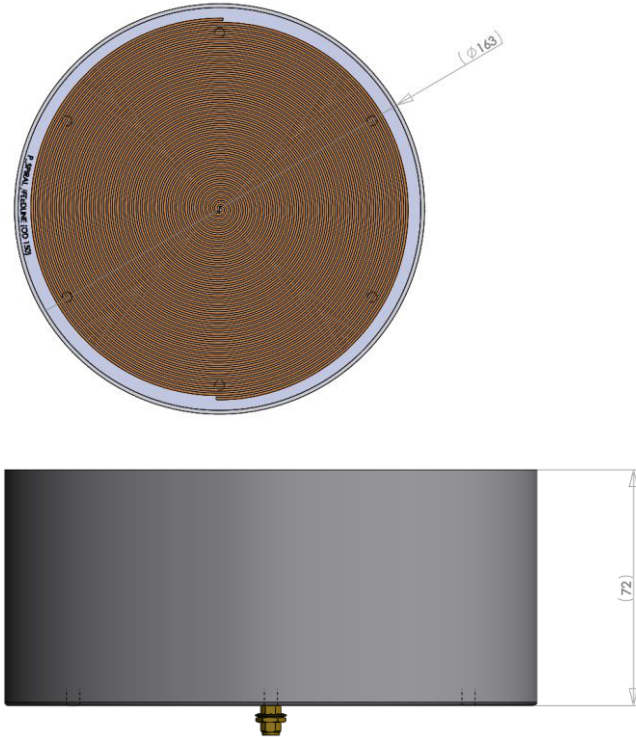
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MECHANICAL INTERFACE DRAWINGS:

OUTLINE DIMENSIONS:



MOUNTING DIMENSIONS:

