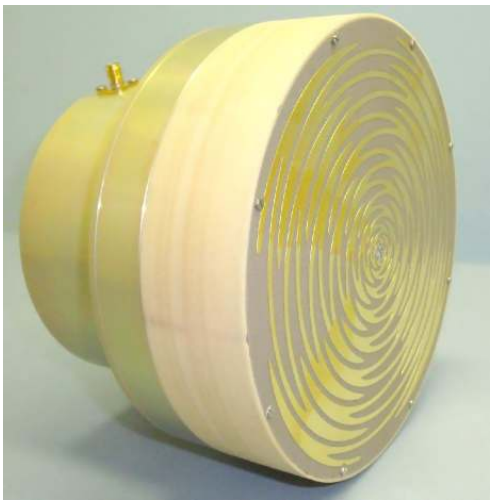
Q-par Angus Ltd

IDEAS ENGINEERED

Data Sheet

0.7 - 4 GHz Dual Circularly Polarised Sinuous Antenna



Model Number QSPDCP0.7-4S

- Suitable for use in electronic surveillance, direction finding and reflector feeds requiring little phase centre variation with frequency
- Gain -1 to +2 dBiC across the band
- Low weight and small size enhance usability

The QSPDCP0.7-4S ultra wide band circularly dual polarised sinuous antenna is manufactured from aluminium and engineering composites. Its compact size, minimal beam squint and circular dual polar capability make it an attractive candidate for many air-borne and precision ground-based applications.

Radiation pattern beamwidths are closely matched between E & H planes and have remarkable stability versus frequency. This, and the small variation of phase centre, also make it an attractive candidate for feeds in reflector dishes.

This design employs dielectric top cavity walls for improved low frequency performance. An all-metal variant is also available.

Other models available

QSPDP0.7-4S	0.7 - 4 GHz Dual Linearly Polarised Sinuous Antenna
QSPDCP2-18SRA	2 - 18 GHz Dual Circularly Polarised Sinuous Antenna

Barons Cross Laboratories, Leominster, Herefordshire, HR6 8RS, UK
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E-mail sales@q-par.com Web www.q-par.com

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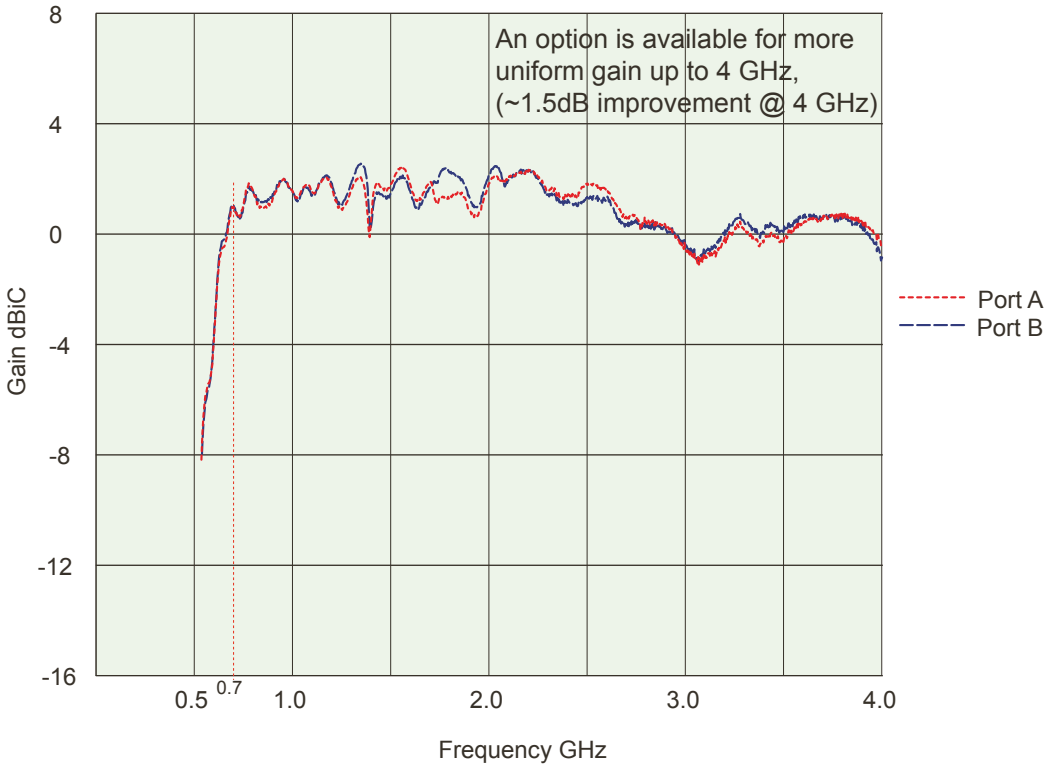
Typical Specification

Frequency	0.7 - 4 GHz
Gain	-1 - +2 dBiC
3dB Beamwidth	100° - 60°
6dB Beamwidth	140° - 90°
6dB Squint	Nominally ± 5°
VSWR	< 1.4:1 across the band
Axial Ratio on boresite	< 3 dB across the band
	(See enclosed graph for typical performance)
Construction	Aluminium / Engineering Composites
Power Handling	nom. 10 W, c.w.
Dimensions	152 mm diameter x 111 mm height
Connector Type	SMA
Mounting	Lower rim. M5 Helical Inserts 6 X on a 137.16 mm PCD. M4 Dowels 6 X on a 137.16mm PCD
Weight	Approx. 4kg
Environmental Protection	Customer Specified

Typical Gain



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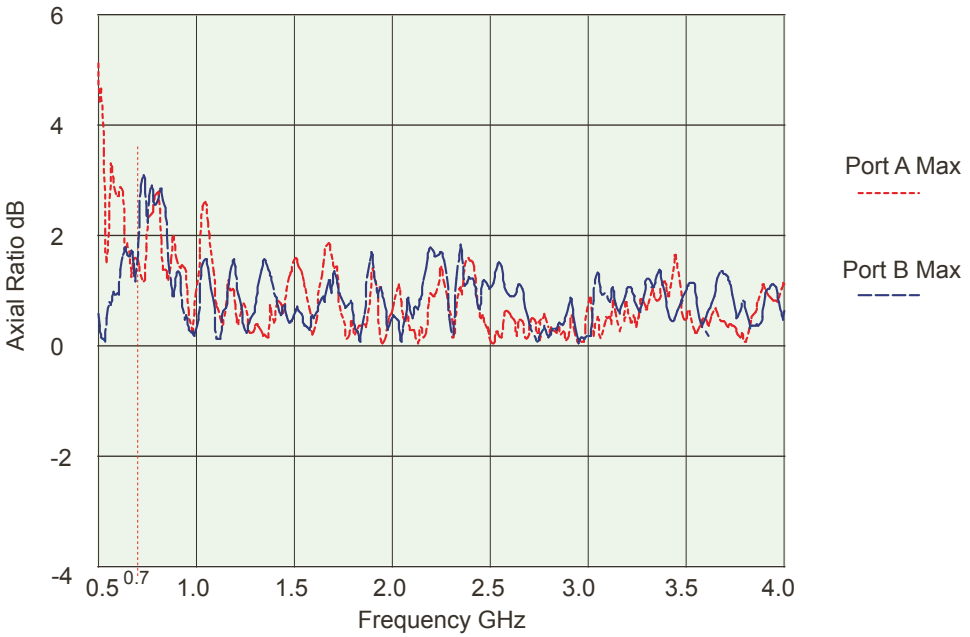
Typical Axial Ratio



Typical Antenna Patterns

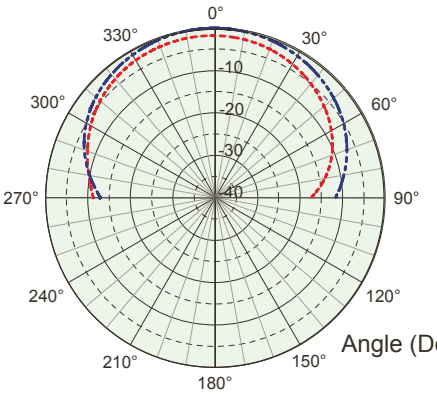
Key

Horizontal

Vertical

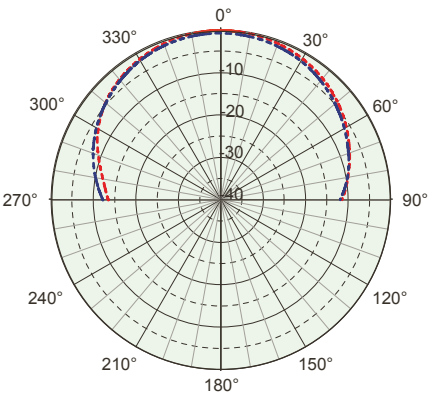
Notes: Horizontal & Vertical refers to polarisation of source antenna.

0.7 GHz



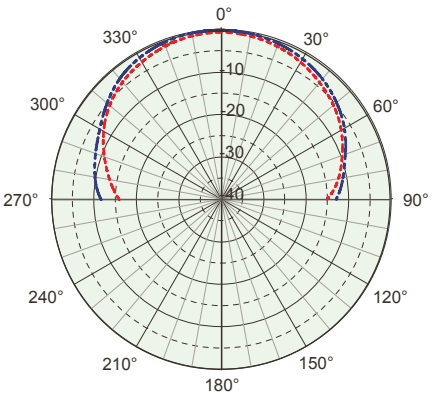
Angle (Degrees)

1.0 GHz



Angle (Degrees)

1.5 GHz



Angle (Degrees)

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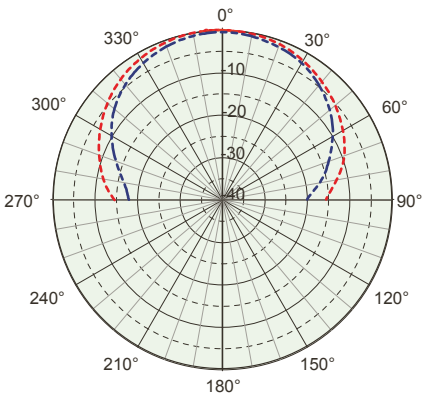
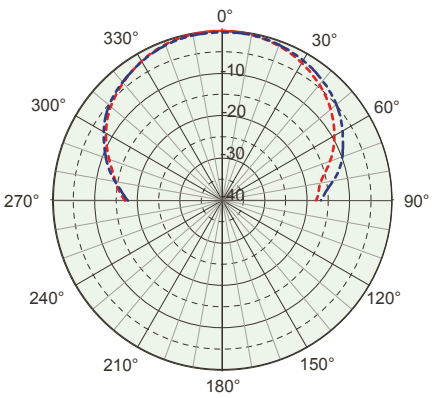
Typical Antenna Patterns

2.0 GHz



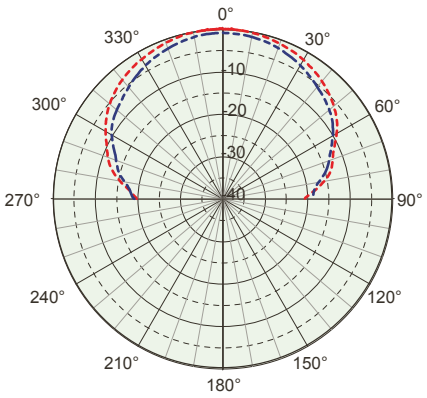
Angle (Degrees)

2.5 GHz



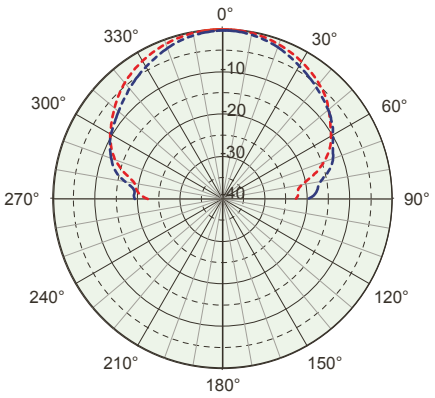
Angle (Degrees)

3.0 GHz



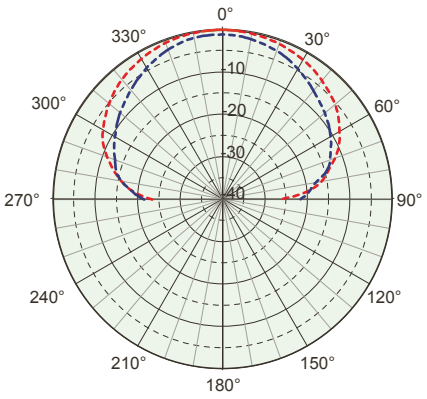
Angle (Degrees)

3.5 GHz



Angle (Degrees)

4.0 GHz



Angle (Degrees)

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Designed and Manufactured in England to the Highest Standards

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