



L3HARRIS™
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Q180 SERIES SPIRAL ANTENNA

L3Harris' Q180 Series Antennas are planar, cavity-backed spirals operating from 1-18 gigahertz. Left-hand circular polarization (LHCP) is standard, but right-hand circular polarization (RHCP) is available as well. This antenna is ideally suited to electronic support measure applications due to its unit-to-unit uniformity and broadband frequency characteristics. A broadband feed, consisting of a tapered transmission line balun with a current suppressing shroud, allows the Q180 Series to provide 18:1 bandwidth. It operates effectively as low as 1 gigahertz despite an outside diameter of only 2.7 inches.

The Q180-Series Antennas can be amplitude tracked on a 100% basis versus factory standards, ensuring interchangeability at the system level. This characteristic makes the Q180-Series Antenna an ideal element for array and direction-finding (DF) applications.

ELECTRICAL	
Frequency range	1.0 - 18.0 GHz
VSWR	1 GHz 3.5:12-18 GHz 2.5:1
Gain	-16 dBiC @ 1 GHz -6 dBiC @ 2 GHz 0 dBiC @ 4-18 GHz
Gain tracking	
-3, -4 (only)	±1 dB at bore sight ±1.5 dB at 45°
Polarization	
-1, -3	LHCP
-2, -4	RHCP
Beamwidth (nominal)	-3 dB: 110° at low frequency to 60° at high frequency -10 dB: 170° at low frequency to 85° at high frequency
Axial ratio (nominal)	4 dB at 1 GHz (on axis) 5 dB at ±45° off axis 2 dB at 2-18 GHz (on axis) 4 dB at ±45° off axis
Beam squint	6° (max) across 1-18 GHz
Power handling	1 watt
MECHANICAL	
Connector	SMA jack, straight
Weight	1.0 lbs max
Finish	Chemical film per MIL-C-5541



KEY FEATURES

- > Broadband frequency coverage
- > LHCP and RHCP options available
- > Phase matching and amplitude tracking available
- > Suited for interferometer array and DF type applications

For further details and specifications, contact the factory at antenna.info@L3Harris.com

Q180 Series Spiral Antenna

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Nonexport-controlled Information

L3Harris Technologies is an agile global aerospace and defense technology innovator, delivering end-to-end solutions that meet customers' mission-critical needs. The company provides advanced defense and commercial technologies across air, land, sea, space and cyber domains.



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