

Planar Cavity-Backed Spiral Antenna



Standard Features

- **Broadband**
- **Repeatable**
- **Compact, light weight, and rugged**

The Planar Cavity-Backed Spirals are circularly polarized either RHCP or LHCP antennas. Their compact size, light weight, and rugged construction make them ideally suited for flush-mount airborne applications. These broadband antennas offer excellent repeatability and are frequently used for amplitude matched elements for radar warning receiver systems, phased matched elements for warning receiver systems, or phased matched elements for interferometer direction finding systems.

These are medium gain antennas up to +4dBi, and are available with SMA connectors and optional hemispherical radomes. They can be used individually as a feed for reflector type antennas or as elements in an array. These antennas meet the requirements of MIL-E-5400 and MIL-E-16400 for either airborne or ground-based applications.

TRAK TECOM type 201350 and 201354 Planar Cavity-Backed Spiral antennas cover the 2.0 - 18.0 GHz and the 5.0 - 11.0 GHz frequency ranges respectively. Other frequency ranges are available such as the type 201534 that covers 1.0 - 18.0 GHz and the type 201524 that covers 8.0 - 18.0 GHz.

Electrical Performance Specifications

Type Number	201350	201354	201478
Frequency:	2.0 - 18.0 GHz	5.0 - 11.0 GHz	2.5 - 4.0 GHz
VSWR:	2.5:1, Max (2 - 12 GHz) 3.0:1, Max (12 - 18 GHz)	1.5:1, typical 2.0:1, Max	1.5:1, Max (2.9 - 3.6 GHz) 1.6:1, Max (2.5 - 4.0 GHz)
Beamwidth, 3 dB:	110° to 60°	90° to 60°	110° to 85°
Gain:	+2.0 dBi, nominal	+4.0 dBi, nominal	+1.0 dBi, nominal
Gain Tracking:	± 1.0 dB on axis	≤± 1.0 dB on axis	≤± 1.0 dB on axis
Polarization:	LHCP or RHCP*	LHCP or RHCP*	LHCP or RHCP*
Axial Ratio:	1.5 dB on axis < 4.0 dB @ 60°	1.0 dB on axis 4.0 dB @ 60°	1.0 dB on axis < 3.0 dB @ 60°
Squint:	± 4.0°	4.0°	5.0°
Power:	1.0 W CW	1.0 W CW	2.0 W CW
Connector:	SMA Jack	SMA Jack	SMA Jack

*Add dash number to specify polarization

RHCP 201350-3
201354-1
201478-3

LHCP 201350-4
201354-2
201478-4



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