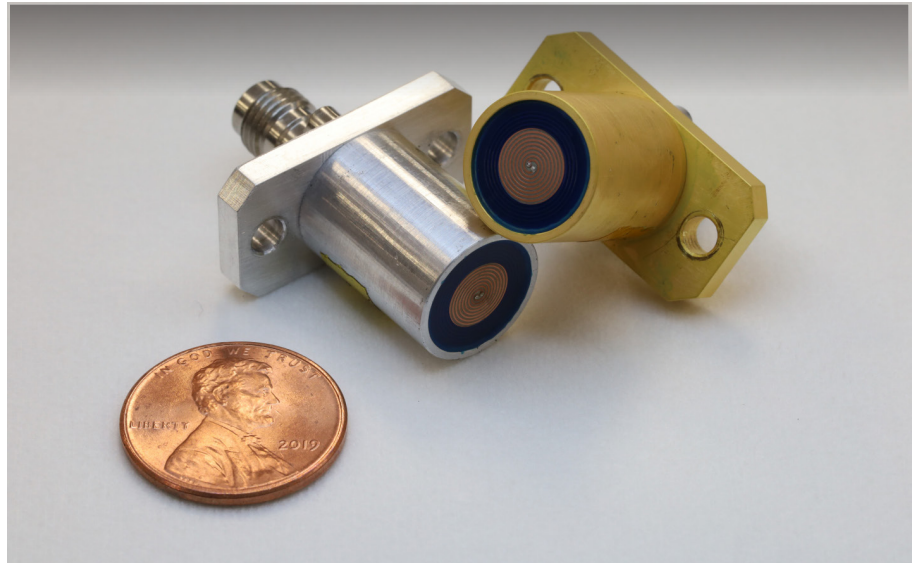


Features and Benefits

- Right or left polarization
- Available with 2.40/2.92/1.85 mm connector options
- 18 - 60 GHz coverage
- 0.5" diameter package, excluding mounting flange
- 3 - 7 dBi realized gain
- Boresight axial ratio better than 2 dB
- Weighs 10.1 grams (Typ.)



Applications

- Wideband Direction Finding
- Radar Warning Receivers
- SIGINT/ELINT
- Interferometry

18-60 GHz Spiral Antenna

Description

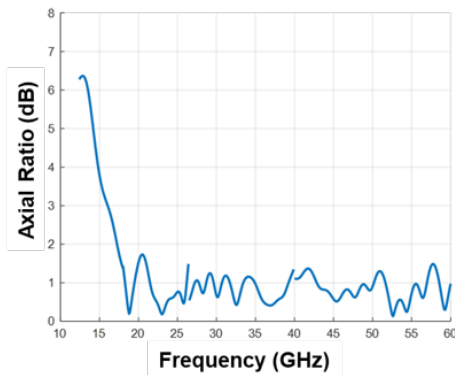
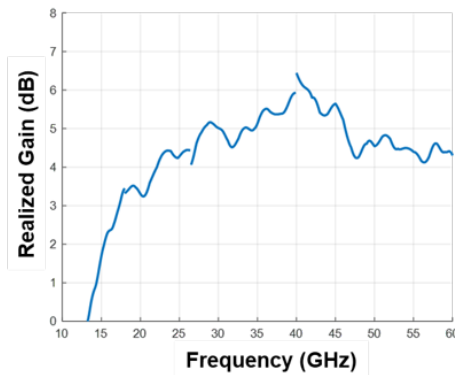
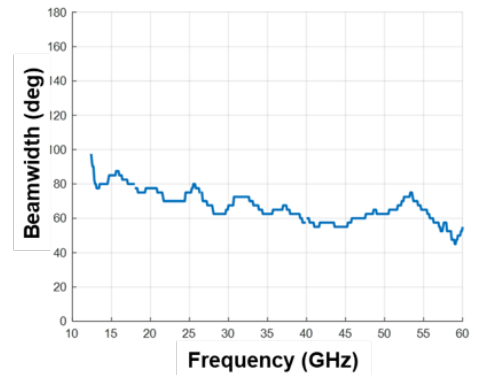
Nuvotronics offers a market leading cavity backed spiral antenna in a 1/2 inch diameter package. The 2-arm antenna includes an integrated wideband balun and can be configured as right or left with either a 2.92 mm, 2.40 mm, or 1.85 mm connector.

Frequency	Polarity	Connector	Part Number
18 - 40 GHz	Left	2.92 mm	PSA1840L
18 - 40 GHz	Right	2.92 mm	PSA1840R
18 - 50 GHz	Left	2.4 mm	PSA1850L
18 - 50 GHz	Right	2.4 mm	PSA1850R
18 - 60 GHz	Left	1.85 mm	PSA1860L
18 - 60 GHz	Right	1.85 mm	PSA1860R

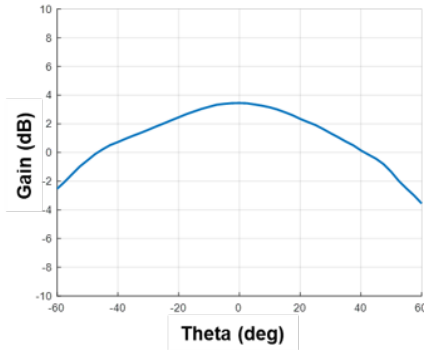
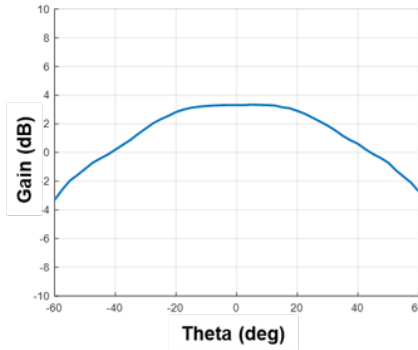
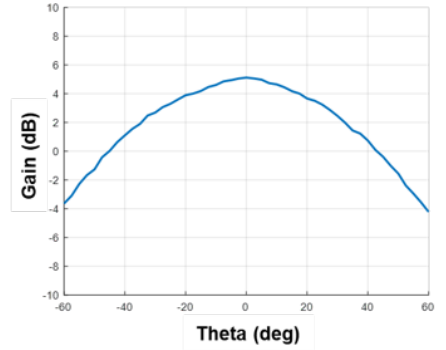
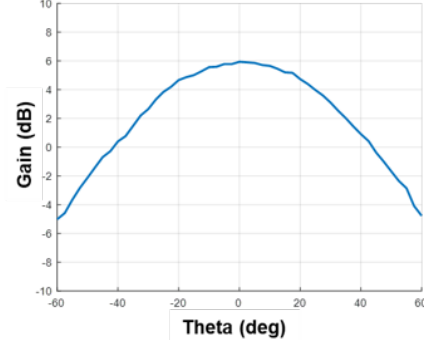
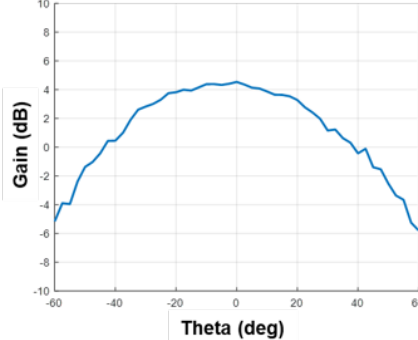
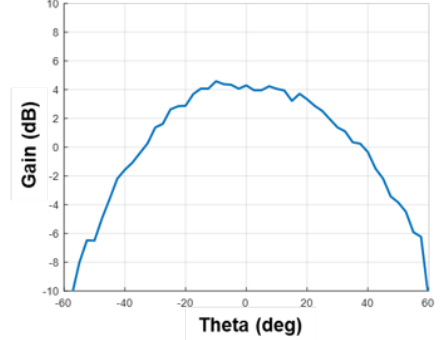
Performance Summary

Parameter	Units	Min	Typ	Max	Min	Typ	Max	Min	Typ	Max
Connector (Frequency)	-	2.92mm (18-40 GHz)			2.4mm (18-50 GHz)			1.85mm (18-60 GHz)		
Return Loss	dB	10	16	-	10	16	-	10	16	-
Peak Gain	dBi	2.5	4.5	7	2.5	4.5	7	2.5	4.5	7
Boresight A.R.	dB	-	0.5	2	-	1	2	-	1	2
A.R. over 90 deg B.W.	dB	-	1	4	-	1	4	-	1	5
Gain over 90 deg B.W.	dBi	-1	-	-	-2	-	-	-3	-	-
Half-power Beamwidth	deg	50	65	85	40	65	85	40	65	85

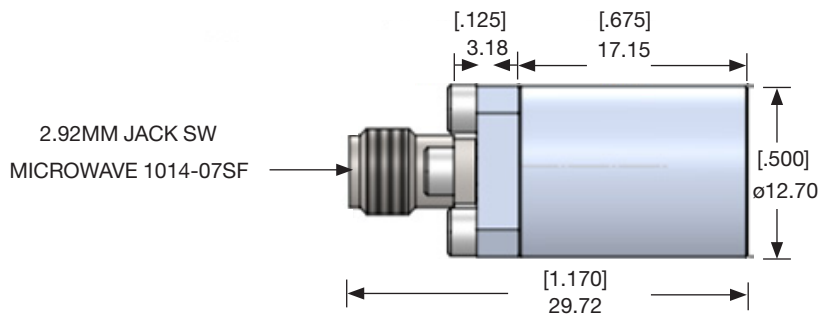
Performance Data

Boresight Axial Ratio

Co-pol Realized Gain

3 dB Beamwidth


Antenna Patterns, Azimuth Cut and Co-Pol Gain Plots

18 GHz

20 GHz

35 GHz

40 GHz

50 GHz

60 GHz


Antenna View



Mechanical Drawing

