

# UHF Meander Collinear Antenna

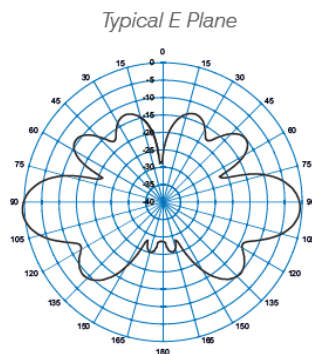
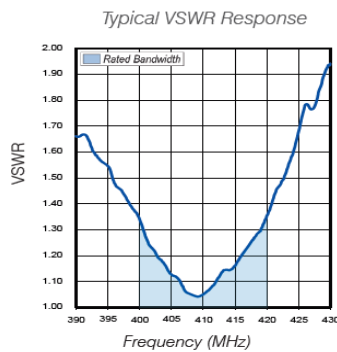
380-520MHz  
COL43 Series



Meander™ collinear antennas has been specifically designed for wireless applications requiring high performance, broad bandwidth and exceptional PIM and PIP specifications. The patented Meander™ collinear element design allows multiple half wave elements to be stacked without the variations in cable lengths and mechanical joints which have typified the construction techniques in high gain collinear antennas. With the dipole elements being printed on a single sided PCB the susceptibility to passive intermodulation is practically eliminated. Placing the elements on a board not only controls PIM but also removes manufacturing variations so that each and every antenna will provide the same pattern, tilt and VSWR characteristics over its operating bandwidth.

## Features:

- Excellent bandwidth providing full band coverage
- Internally DC grounded for lightning protection and reduction of precipitation noise
- Low -150dBc PIM performance and excellent 25kW PIP rating
- Patented Meander PCB design for optimum RF stability and repeatability



## Electrical Specifications

Model Number	COL43-400-P	COL43-420-P	COL43-430-P	COL43-470-P	COL43-490-P	COL43-520-P
Nominal Gain dBd (dBi)	5 (7.1)					
Frequency MHz	380-400	400-420	410-430	450-470	470-490	490-520
Tuned Bandwidth	Full band					
VSWR	<1.5:1 (14dB)					
Nominal Impedance Ω	50					
E Plane Beamwidth °	21					
H Plane Beamwidth °	Omni ± 0.5dB					
Input Power W	250					
Peak Instantaneous Power kW	25					
Passive IM (2 x 43dBm) dBc	-150					

## Mechanical Specifications

Model Number	COL43-400-P	COL43-420-P	COL43-430-P	COL43-470-P	COL43-490-P	COL43-520-P	
Construction	Ecofilm Aluminium mount tube with sky blue fibreglass radome						
Length mm (in)	2170 (85.4)	2035 (80.1)	1970 (77.6)	1880 (74.0)	1794 (70.60)	1735 (68.3)	
Weight kg (lb)	2.9 (6.4)		2.7 (5.9)		2.6 (5.7)		
Termination	4.3-10 type Female						
Mount Area mm (in)	500 x 48.5Ø (19.7 x 1.9Ø)						
Suggested Clamps	2 x UC1						
Projected Area	No Ice	980 (1.05)	916 (0.99)	871 (0.94)	810 (0.87)	770 (0.83)	736 (0.79)
cm <sup>2</sup> (ft <sup>2</sup> )	Ice	1460 (1.57)	1353 (1.46)	1295 ( )	1219 (1.39)	1170 (1.26)	1127 (1.21)
Lateral Thrust @160km/h N (100mph lb)	116 (26)	109 (25)	103 (23)	96 (22)	91 (21)	87 (20)	
Torque @160km/h Nm (100mph ft-lb)	100 (74)	86 (63)	78 (58)	68(50)	61 (45)	56 (41)	
Wind Gust Rating km/h (mph)	240 (150)						
Shipping Weight kg (lb)	4 (8.8)			3.5 (7.7)		3.2 (7.1)	
Shipping dimensions L x dia mm (in)	2300 x 70Ø (90.6 X 2.8Ø)			2200 x 70Ø (86.6 X 2.8Ø)		2000 x 70Ø (78.7 X 2.8Ø)	