## UHF Meander™ Collinear Antennas

380-520 MHz

COL43 Series



This range of 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 the reduction of precipitation noise
- Tightly controlled radiation patterns for optimum coverage
- Patented Meander™ PCB design for optimum RF pattern stability
- Industry leading PIM ratings (-150dBc) providing low IM and low noise characteristics for optimum network performance
- Excellent Peak Instantaneous Power(PIP) rating (25kW)

USA Patent: 6,909,403

European Patent: 1411588

Australian Patent: 2003255049

China Patent: ZL200310100548.5

India Patent: 254674





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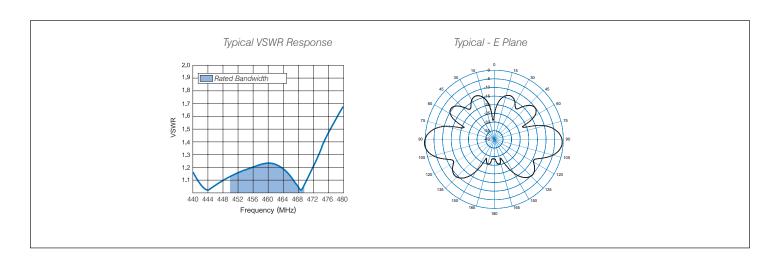
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Electrical Specifications										
Model Number	COL43-400	COL43-420	COL43-430	COL43-470	COL43-490	COL43-520				
Nominal Gain dBd (dBi)	5 (7.1)									
Frequency MHz	380-400	400-420	410-430	450-470	470-490	490-520				
Tuned Bandwidth MHz	Full Band									
VSWR	<1.5 :1 (14dB)									
Nominal Impedance Ω	50									
Vertical Beamwidth	21									
Horizontal Beamwidth°	Omni +/- 0.5dB									
Input Power Watts	250									
Passive IM 3rd order (2x20W) dBc	-150									

Mechanical Spec	ifications								
Model Number		COL43-400	COL43-420	COL43-430	COL43-470	COL43-490	COL43-520		
Construction & Configuration		Sky blue fibreglass radome							
Length inches		85.4	80.1	77.6	73.2	70.6	68.3		
Radome Diameter inches		1.5							
Weight lbs		6.4	6.4	5.9	6.0	6.0	5.7		
Shipping Weight Ibs		11							
Shipping Dimensions inches	Н	2.6	2.6	2.8	2.6	2.6	2.6		
	W	2.6	2.6	2.8	2.6	2.6	2.6		
	L	94.5	86.6	86.6	78.7	78.7	74.8		
Termination		Integrated 7/16" DIN							
Mounting Area inches		20"x2" diameter Ecofilm™ plated aluminium							
Suggested Clamps (not included)		UC12							
Projected area ft <sup>2</sup>	No ice	1.05	0.98	0.9	0.87	0.83	0.79		
	with ice	1.57	1.45	1.3	1.31	1.26	1.21		
Lateral (Thrust) @ 100mph lbs		26.1	24.5	22	21.6	20.5	19.6		
Wind Gust Rating mph		149							
Torque @ 100mph ft-lbs		74	46	54	50	45	41		



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