

VHF Meander Collinear Antenna

145-174MHz
COL54 Series

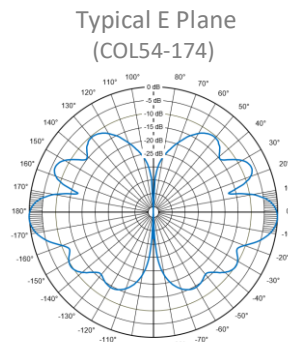
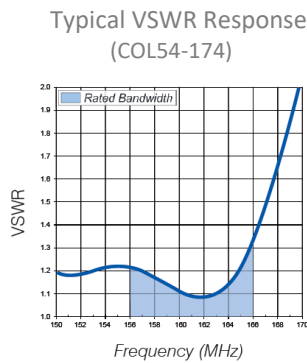


Meander™ collinear antennas has been specifically designed for wireless applications requiring high performance, broad bandwidth and exceptional PIM and PIP specifications.

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	COL54-155-P	COL54-160-P	COL54-166-P	COL54-174-P
Nominal Gain <i>dBd</i> (dBi)	6 (8.1)			
Frequency <i>MHz</i>	145 – 155	150 – 160	156 – 166	162 – 174
Tuned Bandwidth	Full band			
VSWR	<1.5:1 (14dB)			
Nominal Impedance Ω	50			
E Plane Beamwidth $^\circ$	17			
H Plane Beamwidth $^\circ$	Omni \pm 0.5dB			
Input Power <i>W</i>	400			
Peak Instantaneous Power <i>kW</i>	25			
Passive IM (2 x 43dBm) <i>dBc</i>	-150			

Mechanical Specifications

Model Number	COL54-155-P	COL54-160-P	COL54-166-P	COL54-174-P
Construction	Ecofilm Aluminium mount tube with sky blue fibreglass radome			
Length <i>mm</i> (in)	6500 (256)			6000 (236)
Weight <i>kg</i> (lb)	23 (51)	21 (46)	20 (44)	19 (42)
Termination	4.3-10 type Female			
Mount Area <i>mm</i> (in)	750 x 90 \emptyset (29.5 x 3.5 \emptyset)			
Suggested Clamps	3 x UC114			
Projected Area <i>cm²</i> (<i>ft²</i>)	No Ice	5906 (6.4)	5812 (6.3)	5640 (6.1)
	Ice	7468 (8.0)	7349 (7.9)	7130 (7.7)
Lateral Thrust @ 160km/h <i>N</i> (100mph <i>lb</i>)	700 (157)	689 (155)	669 (150)	642 (144)
Torque @ 160km/h <i>Nm</i> (100mph <i>ft-lb</i>)	2067 (1525)	1757 (1296)	1643 (1212)	1498 (1105)
Wind Gust Rating <i>km/h</i> (mph)	217 (135)	240 (150)		
Shipping Weight <i>kg</i> (lb)	26 (57)	24 (53)	23 (51)	22 (49)
Shipping dimensions L x dia <i>mm</i> (in)	6700 x \emptyset 100 (264 X \emptyset 4)			6200 x \emptyset 100 (244 X \emptyset 4)