

7/8/900 MHz Meander™ Collinear Antennas

COL81 Series, COL84 Series

746-930 MHz



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.

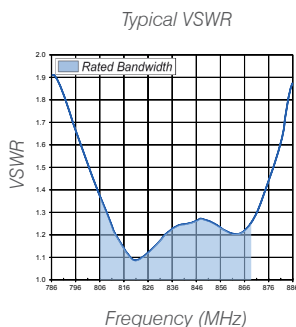
Placing the elements on a board not only controls PIM but also removes manufacturing variations so that each and every antenna will provide the same pattern, tilt and VSWR characteristics over its operating bandwidth.

Features:

- Excellent bandwidth providing full band coverage
- Internally DC grounded for lightning protection and the reduction of precipitation noise
- 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)
- Also available with N connector(see note)

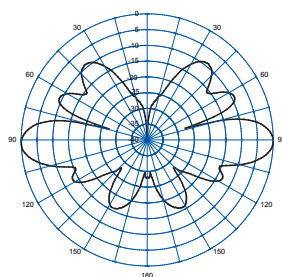


Electrical



Model Number	COL81-806	COL81-870	COL81 - 930	COL84 - 806	COL84 - 870	COL84 - 930
Nominal Gain <i>dBi</i> (dBi)	0 (2.1)			5 (7.1)		
Frequency <i>MHz</i>	746 - 806	806 - 870	850 - 930	746-806	806-870	850-930
Tuned Bandwidth <i>MHz</i>	Full band					
VSWR (Return Loss)	<1.5 :1 (14dB)					
Nominal Impedance Ω	50					
Vertical Beamwidth°	67			16		
Horizontal Beamwidth°	Omni +/- 0.5dB					
Input Power (Watts)	250					
Peak Instantaneous Power <i>kW</i>	25					
Passive IM 3rd order (2x20W) <i>dBc</i>	-150					

Typical E Plane



Mechanical

Model Number		COL81-806	COL81-870	COL81 - 930	COL84 - 806	COL84 - 870	COL84 - 930
Construction		Composite fibreglass sky blue radome, aluminium mounting tube					
Length <i>mm</i>		1100			1716	1633	1567
Radome Diameter <i>mm</i>		38					
Weight <i>kg</i>		2.2	2.2	2.2	3		
Shipping Weight <i>kg</i>		5					
Shipping Dimen- sions <i>mm</i>	H	65					
	W	65					
	L	1300			1900	1801	1750
Termination		Integrated 7/16" DIN					
Mounting Area		500mm x 48.5mm diam. Ecofilm™ plated aluminium					
Suggested Clamps		2 x UC1					
Projected Area <i>cm²</i>	No ice	437			726	680	647
	With ice	672			1113	1053	1005
Lateral Thrust @ 160km/h <i>N</i>		52			86	81	77
Wind Gust Rating km/h		240					
Torque @ 100km/h <i>Nm</i>		17			54	48	43

Note: Specify N as a suffix for N type connectors eg. COL84-806N, antenna is supplied with 1m N- terminated lead.

USA Patent No. 6,909,403, European Patent No. 1411588, Aust Patent No. 2003255049, Chinese Patent No. ZL200310100548.5 and Indian Patent No. 254674.