

# 800 MHz Meander™ Collinear Antennas

## COL85 Series, COL811 Series

746-960 MHz



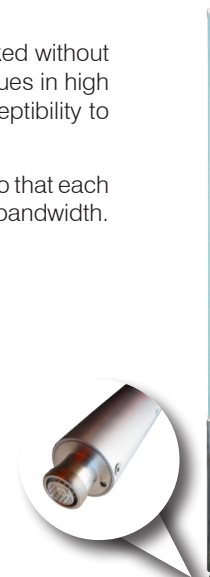
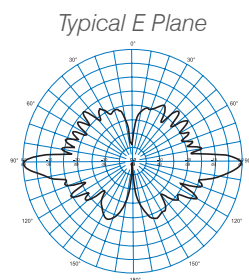
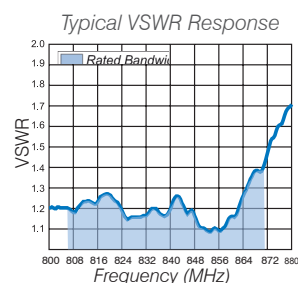
This range of Meander™ collinear antennas has been specifically designed for wireless applications requiring high performance, broad bandwidth and exceptional PIM and PIP specifications.

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)



### Electrical

Model Number	COL85-806	COL85-870	COL85-930	COL811-806	COL811-824	COL811-870	COL811-930
Nominal Gain <i>dBi</i> (dBi)	7 (9.1)			9 (11.1)			
Frequency <i>MHz</i>	746-806	806-870	850-930	746-806	796-824	806-870	850-930
Tuned Bandwidth <i>MHz</i>	Full band						
VSWR (Return Loss)	<1.5:1 (14dB)						
Nominal Impedance $\Omega$	50						
Vertical Beamwidth $^{\circ}$	13			6.5			
Horizontal Beamwidth	Omni +/- 0.5dB						
Input Power <i>W</i>	250						
Peak Instantaneous Power <i>kW</i>	25						
Passive IM 3rd order (2x20W) <i>dBc</i>	-150						

### Mechanical

Model Number		COL85-806	COL85-870	COL85-930	COL811-806	COL811-824	COL811-870	COL811-930
Construction		Composite fibreglass sky blue radome, aluminium mounting tube						
Length <i>m</i>		1.96	1.86	1.78	3.61	3.52	3.39	3.20
Radome Diameter <i>mm</i>		38						
Weight <i>kg</i>		2.2	2.1	2.0	3.3	3.2	3.13	3.01
Shipping Weight <i>Kg</i>		4.2	4.1	4.0	5.3	5.2	5.13	5.01
Shipping Dimensions <i>mm</i>	H	65						
	W	65						
	L	2100	2000	2000	3780	3700	3500	3354
Termination		7/16" DIN Female						
Mounting Area <i>mm</i>		500mm x 48.5mm diameter Ecofilm™ plated aluminium						
Suggested Clamps (not included)		2 x UC1						
Projected area <i>cm</i> <sup>2</sup>	no ice	844	785	736	1629	1599	1512	1428
	with ice	1281	1207	1144	2715	2666	2526	2385
Lateral (Thrust) @ 160km/h <i>N</i>		100	93	87	193	190	179	169
Wind Gust Rating <i>km/h</i>		240						
Torque @ 160km/h <i>Nm</i>		52	43	36	262	248	223	195

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

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