

# 800 MHz Meander™ Collinear

## COL81 Series, COL84 Series

746-930 MHz



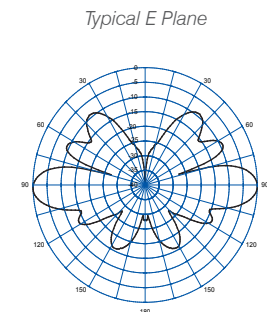
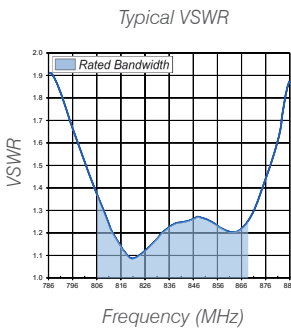
This range of Meander™ collinear antennas has been specifically designed for wireless applications requiring high performance, broad bandwidth and exceptional PIM and PIP specifications.

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)



### Electrical

Model Number	COL81-806-P	COL81-870-P	COL81-930-P	COL84-806-P	COL84-870-P	COL84-930-P
Nominal Gain dBd (dBi)	0 (2.1)			5 (7.1)		
Frequency MHz	746 - 806	806 - 870	850 - 930	746-806	806-870	850-930
Tuned Bandwidth MHz	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 kW	25					
Passive IM 3rd order (2x20W) dBc	-150					

### Mechanical

Model Number	COL81-806-P	COL81-870-P	COL81-930-P	COL84-806-P	COL84-870-P	COL84-930-P
Construction	Ecofilm aluminium mount tube with fibreglass sky blue radome					
Length mm (in)	1100 (43.3)		1716 (67.6)		1633 (64.3)	1567 (61.7)
Radome Diameter mm (in)	38 (1.5)					
Weight kg (lb)	2.2 (4.9)			3 (6.6)		
Shipping Weight kg	5 (11)					
Shipping Dimensions mm (in)	H	65 (2.6)				
	W	65 (2.6)				
	L	1300 (51)		1900 (75)	1801 (71)	1750 (69)
Termination	4.3-10 Female					
Mounting Area mm (in)	500 x 48.5Ø (19.7 x 1.9Ø)					
Suggested Clamps	2 x UC1					
Projected Area cm² (ft²)	No ice	437 (0.5)		726 (0.8)	680 (0.7)	647 (0.7)
	With ice	672 (0.7)		1113 (1.2)	1053 (1.1)	1005 (1.1)
Lateral Thrust @ 160km/h N (100mph lb)	52 (12)		86 (19)	81 (18)	77 (17)	
Wind Gust Rating km/h (mph)	240 (150)					
Torque @ 160km/h Nm (100mph ft-lb)	17 (13)		54 (40)	48 (35)	43 (32)	

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