

UHF MEANDER COLLINEAR

COL41 Series

380-520 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.

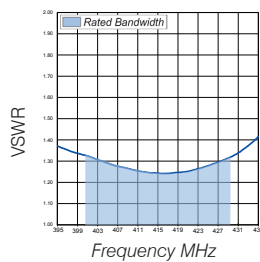
Placing the elements on a board not only controls PIM but also removes manufacturing variations so that each and every antenna will provide the same pattern, tilt and VSWR characteristics over its operating bandwidth.

Features:

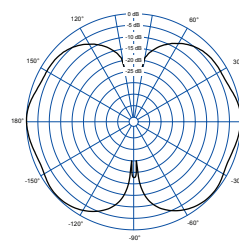
- Excellent bandwidth providing full band coverage
- Internally DC grounded for lightning protection and the reduction of precipitation noise
- Tightly controlled radiation patterns for optimum coverage
- Patented Meander™ PCB design for optimum RF pattern stability
- Industry leading PIM ratings (-150dBc)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



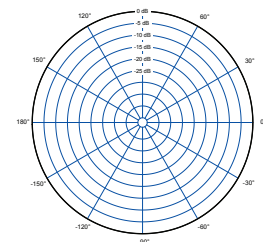
Typical VSWR Response



Typical E Plane



Typical H Plane



USA Patent: 6,909,403

European Patent: 1411588

Australian Patent: 2003255049

China Patent: ZL200310100548.5

India Patent: 254674

Electrical

Model Number	COL41-58	COL41-65	COL41-70	COL41-71	COL41-72
Nominal Gain dBi (dBd)	2.1 (0)				
Frequency MHz	380-400	400-420	450-470	470-490	490-520
Tuned Bandwidth MHz	Full band				
VSWR (Return Loss)	< 1.5:1 (14dB)				
Nominal Impedance Ω	50				
Vertical Beamwidth °	109	96	71	69	57
Horizontal Beamwidth	OMNI +/- 0.5 dB				
Input Power W	250				
Passive IM 3rd order (2x20W) dBc	-150				
Peak Instantaneous Power kW	<25				

Mechanical

Model Number	COL41-58	COL41-65	COL41-70	COL41-71	COL41-72
Construction	Sky Blue fibreglass radome				
Length mm	1100				
Radome Diameter mm	39				
Weight kg	2.2		2.1	2	
Termination	Integrated 7/16" DIN				
Mounting Area mm	500mm x 48.5mm diameter Ecofilm plated aluminium				
Projected area cm²	no ice				
	with ice				
Lateral (Thrust) @ 100km/h N	80				
Wind Gust Rating km/h	240				
Torque @ 100km/h Nm	26				