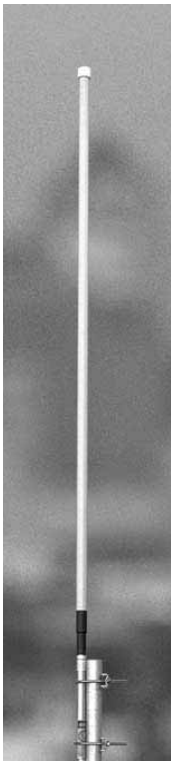
UHF Vertical Collinear Antennas

380-530 MHz

COL7 and COL11

3dBd gain omnidirectional collinear antennas characterised by broad operating bandwidths making them suitable for single frequency or duplex applications. The COL7 is a lightweight collinear design with minimal wind loading, making it ideal for mounting on moderate support structures.

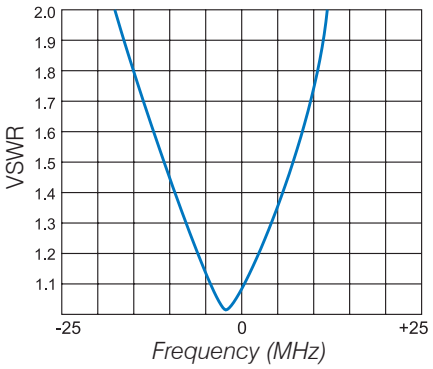
The COL11 is electrically identical to the COL7 antenna (although it does feature an up-rated stub design for additional power handling capabilities). The radome is coloured black to maximise solar heat retention and this has been shown to aid significantly in ice shedding. A large, 60mm diameter alodined aluminium mounting tube supports the radome.



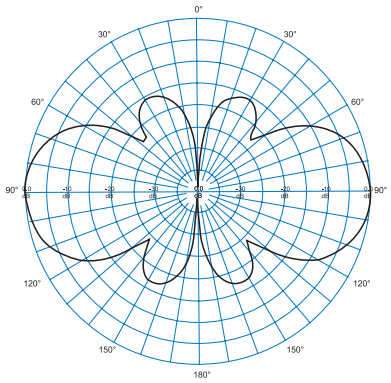
Features:

- Integrated DC grounding for lightning protection and dissipation of providing static noise
- Broadband width providing excellent null fill
- COL11 supplied with heavy duty black fiberglass radome to aid in ice shedding
- Minimal tower loading
- High power capability

Typical VSWR Response (COL7)



COL7 - E Plane



Electrical Specifications

Model Number	COL7	COL11
Nominal Gain *dBi (dBd)*	5 (3)	
Frequency *MHz*	380 - 530	
Tuned Bandwidth	3.0%	
VSWR (Return Loss)	<1.5 :1 (14dB)	
Nominal Impedance Ω	50	
Vertical Beamwidth°	30	
Horizontal Beamwidth°	Omni +/- 0.5dB	
Input Power *W*	150	200

Mechanical Specifications

Model Number		COL7	COL11
Construction		Alodined aluminium elements with white fibreglass radome	Alodined aluminium elements with black heavy duty fibreglass radome
Length *m*		2.2	
Weight *kg*		0.5	1.2
Termination		N female bulkhead	
Mounting Area *mm*		200mm x 25mm diam. Anodised aluminium	500mm x 60mm diam. Anodised aluminium
Suggested Clamps		2 x UB1	2 x UC1
Projected Area *cm²*	No Ice	666	1134
	With Ice	1138	1615
Wind Load (Thrust) @ 160km/h *N*		79	134
Wind Gust Rating *km/h*		>240	
Torque @ 160km/h *Nm*		62	85