

# UHF Omnidirectional Dipole Arrays

400-520 MHz  
Binary Array Series



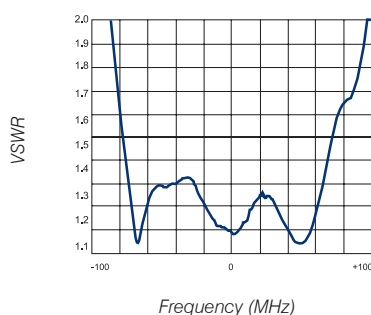
These high performance UHF dipole arrays are ideal for highly populated radio sites requiring long haul omnidirectional coverage. They operate over entire bands and offer gains of 3, 6 or 9dBd (depending on model) exhibiting a VSWR of < 1.5:1 across the band.

The arrays utilise an internal phasing harness including low PIM with purpose designed dipole moulding to aid waterproofing and resist bird attack. The use of a unique phasing arrangement provides extensive side lobe suppression and null fill characteristics. The arrays will accept an input power level of 500 watts continuous, making them ideal for high power multiple transmitter applications. The BA80 series are offered with 3° or 5° of downtilt, to further enhance close-in coverage characteristics.

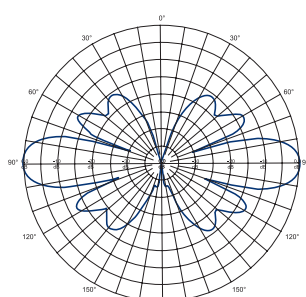
## Key Features:

- Ideal for highly populated sites requiring long haul omnidirectional coverage
- Operate over entire 400-520 MHz bands
- Industry leading PIM ratings (-150dBc) providing low IM and low noise characteristics for optimum performance
- DC grounding on all elements for the ultimate in lightning protection and dissipation of static noise

Typical VSWR Response (BA80-67)



BA80-67- E Plane



## Electrical Specifications

Model Number	BA40-57-P	BA41-67-P	BA40-67-P	BA4040-67-P	BA4141-67-P
Nominal Gain dBi (dBd)	5(3)		2 x 5(3)		
Frequency MHz	400 - 520				
Tuned Bandwidth MHz	Entire band				
VSWR (Return Loss)	< 1.5:1 (14dB)				
Nominal Impedance Ω	50				
Downtilt	Not offered				
Vertical Beamwidth°	30				
Horizontal Beamwidth°	Omni +/- 0.5dB				
Input Power W	500				
Passive IM 3rd order dBc	-150	-140	-150	-150	-140

## Mechanical Specifications

Model Number	BA40-57-P	BA41-67-P	BA40-67-P	BA4040-67-P	BA4141-67-P	
Construction	All welded aluminium	All welded Stainless Steel	All welded aluminium with alodined finish		All welded Stainless Steel	
Length mm (in)	2020 (79.5)			3000 (118.1)		
Weight kg (lb)	5 (11)	8 (18)	5 (11)	8 (18)	13 (29)	
Termination	4.3-10 female with 0.5m RG142 cable tail					
Mounting Area mm (in)	500 x Ø48 (20 x Ø1.9)	500 x Ø42 (20 x Ø1.7)	500 x Ø48 (20 x Ø1.9)		500 x Ø42 (20 x Ø1.7)	
Suggested Clamps	2 x UC1					
Projected Area cm <sup>2</sup> (ft <sup>2</sup> )	No ice	1913 (2.1)	1691 (1.8)	1833 (2.0)	3063 (3.3)	2857 (3.1)
	With ice	3182 (3.4)	2892 (3.1)	2990 (3.2)	5451 (5.9)	5244 (5.6)
Wind Load (Thrust) @ 160km/h N (100mph lbs)	227 (51)	200 (45)	217 (49)	363 (82)	339 (76)	
Wind Gust Rating km/h (mph)	240 (150)		240 (150)			
Torque @160 km/h Nm (100mph ft-lb)	116 (85)	102 (75)	111(82)	363 (268)	339 (250)	