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.

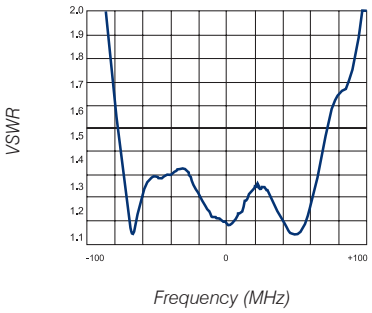
The arrays utilise an internal phasing harness including low PIM with purpose designed dipole moulding to aid waterproofing and resist bird attack. The use of a unique phasing arrangement provides extensive side lobe suppression and null fill characteristics. The arrays will accept an input power level 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.



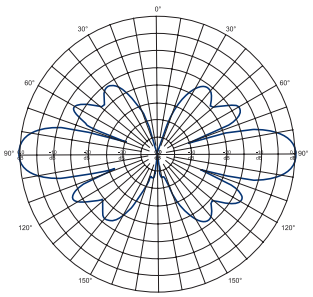
Key Features:

- 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	BA80-57-P	BA80-67-P	BA81-67-P	BA8080-67-P	BA160-67-P
Nominal Gain dBi (dBd)	8 (6)			2 x 8(6)	11 (9)
Frequency MHz	300 - 420	400 - 520			
Tuned Bandwidth MHz	Entire band				
VSWR (Return Loss)	<1.5:1 (14dB)				
Nominal Impedance Ω	50				
Downtilt	0° Std 3°, 5°, 8° See note (1)				
Vertical Beamwidth°	30			16	9
Horizontal Beamwidth°	Omni +/- 0.5dB				
Input Power W	500				
Passive IM 3rd order dBc	-150		-140		

Mechanical Specifications

Model Number		BA80-57-P	BA80-67-P	BA81-67-P	BA8080-67-P	BA160-67-P
Construction		All welded aluminium with alodined finish		Stainless Steel	All welded aluminium with alodined finish.	
Length mm (in)		3000 (118.1)			5700 (224.4)	
Weight kg (lb)		8 (17.6)		13 (28.7)	21 (45)	
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 Ø63 (20 x Ø2.5)	
Suggested Clamps		2 x UC1			2 x UC - 114	
Projected Area cm² (ft²)	No ice	3222 (3.5)	3063 (3.3)	2857 (3.1)	6470 (7.0)	
	With ice	5835 (6.3)	5451 (5.6)	5244 (5.6)	10876 (11.7)	
Wind Load (Thrust) @ 160km/h N (100mph lbs)		382(86)	363 (82)	339 (76)	767 (172)	
Wind Gust Rating km/h (mph)		235 (146)	240 (150)		200 (124)	
Torque @160 km/h Nm (100mph ft-lb)		382 (282)	363 (268)	339 (250)	1802 (1329)	

(1) Factory pre-set downtilt of 3°, 5° or 8° may be specified on BA80 series antennas using model no. trailer - T3, -T5 or -T8. Please note that some models are made to order so the lead time can be significant and the order cannot be cancelled. Contact RFI Americas with questions regarding these models.

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