

UHF Omnidirectional Dipole Arrays

400 - 520 MHz

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 in PTFE based double screened coaxial cable with polyethylene jacket 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 application. The BA80 series are also offered with 3° downtilt, to further enhance close-in coverage characteristics.

These antennas offer industry leading PIM ratings, essential for the latest digital radio systems. All welded alodined aluminum construction and new fabrication techniques in both the harness and dipole sections have proven to minimize intermodulation and noise generated within the antennas. The entire array rests at ground potential and offers the ultimate in lightning resistant antennas.

- Ideal for highly populated sites requiring long haul omnidirectional coverage
- Operate over entire 400-520 MHz band
- 3 dBd, 6 dBd or 9 dBd gain versions available
- Extensive side lobe suppression and null fill
- BA160-67-DIN may be ordered as 2 x 6dBd arrays on one boom assembly. Specify model BA8080-67-DIN. Typical space isolation between arrays is 35dB.
- BA80-67-DIN may be ordered as 2 x 3dBd arrays on one boom assembly. Specify model BA4040-67-DIN. Typical space isolation between arrays is 35dB.
- **Industry leading PIM ratings providing low IM and low noise characteristics for optimum performance**



BA80-67-DIN

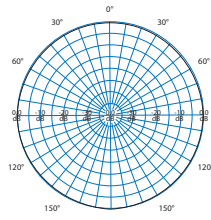
Electrical Specifications

Model Number	BA40-67-DIN	BA80-67-DIN	BA160-67-DIN
Nominal Gain <i>dBd</i>	3	6	9
Frequency <i>MHz</i>	400-520		
Tuned Bandwidth	Entire band		
VSWR (Return Loss)	<1.5 :1 (14dB)		
Nominal Impedance Ω	50		
Downtilt	Not offered		0° Std or -3° See note (2)
Vertical Beamwidth	30°	16°	9°
Horizontal Beamwidth	Omni +/-0.5dB		
Input Power (Watts)	500		
Passive IM 3rd order (2x20W) <i>dBc</i>	-150		-140

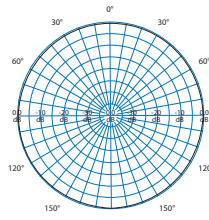
Mechanical Specifications

Model Number	BA40-67-DIN	BA80-67-DIN	BA160-67-DIN
Construction & Configuration	4 dipoles (2 bays) Turnstile stacked Single section support	8 dipoles (4 bays) Turnstile stacked Single section support	16 dipoles (8 bays) Turnstile stacked Dual section support External final harness
Length <i>inches</i>	83	118	197
Weight <i>lbs</i>	11	18	44
Shipping Weight <i>lbs</i>	76	84	124
Shipping Dimensions <i>inches</i>	H	17	17
	W	17	22
	L	87	126
Termination	7/16 DIN female with 20" 9142 cable tail		
Mounting Area	20" x 1.9" diam. aluminum		20" x 2.5" diam. aluminum
Suggested Clamps (not included)	UC12	UC12	UC13
Projected Area <i>ft²</i>	No ice	2.0	6.5
	With ice	3.2	10.9
Lateral Thrust @ 100mph <i>lbs</i>	49	82	161
Wind Gust Rating <i>mph</i>	No ice	149	134
	With ice	117	104
Torque @100mph <i>ft-lbs</i>	82	268	1045

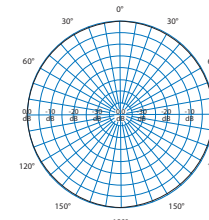
BA40-67-DIN - H Plane



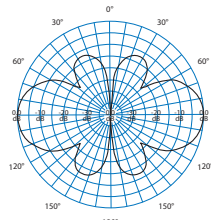
BA80-67-DIN - H Plane



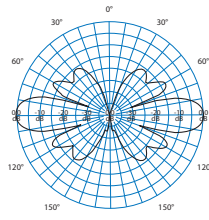
BA160-67-DIN - H Plane



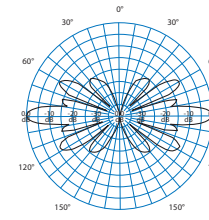
BA40-67-DIN - E Plane



BA80-67-DIN - E Plane



BA160-67-DIN - E Plane



(1) Single section arrays are rated to -150dBc PIM rating. Dual section (BA160) arrays are rated at -140dBc.

(2) Factory pre-set downtilt of 3° may be specified on BA160-67-DIN antennas by adding -T3 to the part number ordered e.g. BA160-67-DIN-T3

BA160-67-DIN will be shipped in the configuration of 2 arrays (BA8080-67-DIN) along with an external harness PA82-67-DIN. Detailed instruction is provided for field assembly.

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