

VHF Elliptical Dipole Arrays

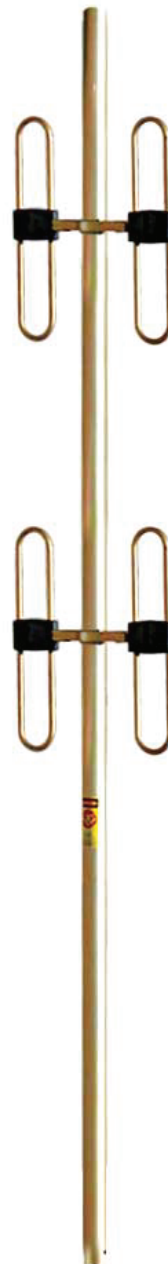
136 - 174 MHz

These high performance VHF phased elliptical arrays are ideal for the bidirectional coverage requirement of paging and VHF high band mobile "corridor" applications. The main lobe of these arrays is strong and highly controlled with extensive side lobe suppression ensuring the integrity of the pattern.

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.

The folded dipoles utilize an internal phasing harness in stable, PTFE based double-shielded coaxial cable with PE Jacket for optimal weatherproofing. These elliptical arrays incorporate extensive side lobe suppression, null fill, and accommodate power input levels of 750 watts continuous.

- High gain elliptical pattern with 5dBd or 8dBd versions available
- Operate over entire 136-174 MHz band without tuning or adjustment
- EA80-41-DIN can be ordered as 2 x 5dBd arrays on one boom assembly. Specify model EA4040-41-DIN. Typical space isolation between the two arrays is 25dB.
- **Industry leading PIM ratings (-150dBc) providing low IM and low noise characteristics for optimum performance**



EA40-41-DIN

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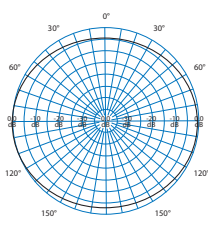
Electrical Specifications

Model Number	EA40-41-DIN	EA80-41-DIN
Nominal Gain <i>dBd</i>	5	8
Frequency <i>MHz</i>	136 - 174	
Tuned Bandwidth	Entire band	
VSWR (Return Loss)	<1.5 :1 (14dB)	
Nominal Impedance Ω	50	
Downtilt	Not offered	0° Std, -3°. See note (2)
Vertical Beamwidth	35°	17°
Horizontal Beamwidth	104°	128°
Input Power (<i>Watts</i>)	750	
Passive IM 3rd order (<i>2x20W</i>) <i>dBc</i>	-150	-140

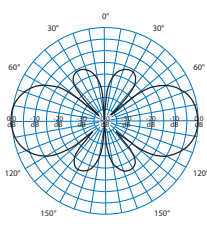
Mechanical Specifications

Model Number	EA40-41-DIN	EA80-41-DIN
Construction & Configuration	4 dipoles (2 bays) In-line stacked Single section support	8 dipoles (4 bays) In-line stacked Dual section support
Length <i>inches</i>	138	248
Weight <i>lbs</i>	32	68
Shipping Weight <i>lbs</i>	192	288
Shipping Dimensions <i>inches</i>	H	26
	W	32
	L	146
Termination	7/16" DIN female with 20" 9142 cable tail	
Mounting Area		
Suggested Clamps (not included)	UC12	UC13
Projected Area <i>ft²</i>	No ice	5.2
	With ice	9.4
Lateral Thrust @ 100mph <i>lbs</i>	128	253
Wind Gust Rating <i>mph</i>	No ice	149
	With ice	109
Torque @100mph <i>ft-lbs</i>	111	82
	522	2204

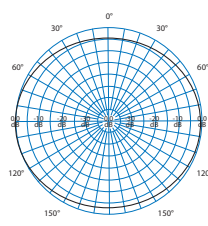
EA40-41-DIN - H Plane



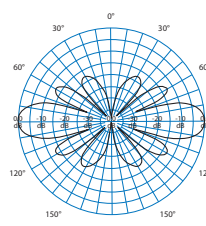
EA40-41-DIN - E Plane



EA80-41-DIN - H Plane



EA80-41-DIN - E Plane



(1) Single section arrays are rated to -150dBc PIM rating. Dual section (EA80-41-DIN) arrays are rated at -140dBc.

(2) Factory pre-set downtilt of 3° may be specified on EA80-41-DIN antennas by adding -T3 to the part number ordered e.g. EA80-41-DIN-T3

