

VHF Elliptical Dipole Arrays

136-174 MHz
Elliptical Array Series



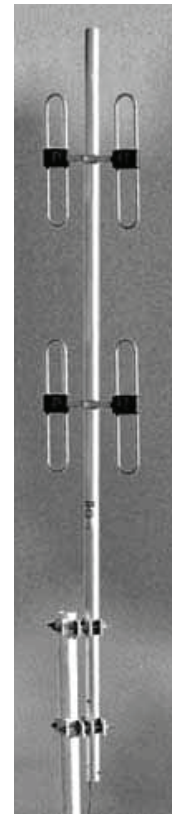
These high performance VHF binary phased elliptical arrays are ideal for the bi-directional coverage requirement of paging and VHF high band mobile “corridor” applications. The main lobe of these arrays is strong and highly controlled with extensive side lobe suppression ensuring the integrity of the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

The folded dipoles utilise an internal phasing harness in stable, PTFE based double-screened 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.

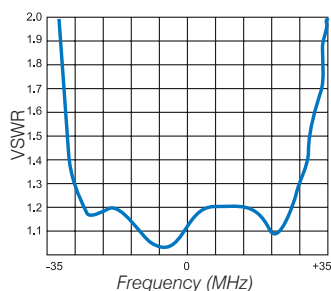
With all welded construction and superior internal harness construction these antennas provide not only excellent radiation characteristics but also high levels of intermodulation and noise suppression. The entire array rests at ground potential and offers the ultimate in lightning resistant antennas.

Features:

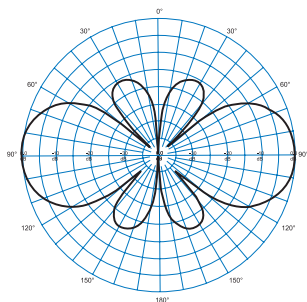
- High gain elliptical pattern
- Operate over entire 136-174 MHz band without tuning or adjustment
- Inverted mounting version available
- Industry leading PIM ratings (-150dBc) providing low IM and low noise characteristics for optimum performance
- Hermetically sealed internal phasing harness



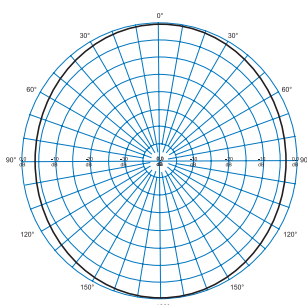
Typical VSWR Response (EA40-41)



EA40-41 - E Plane



EA40-41 - H Plane



Electrical

Model Number	EA40-41-P	EA80-41-P
Nominal Gain <i>dBi</i> (<i>dBd</i>)	7 (5)	10 (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 (1)
Vertical Beamwidth°	35	17
Horizontal Beamwidth°	104	128
Input Power <i>W</i>	750	
Passive IM 3rd order <i>dBc</i>	-150	

Mechanical

Model Number	EA40-41-P	EA80-41-P
Construction	All welded aluminium with alodined finish. See note (2)	
Length <i>m</i>	3.5	6.3
Weight <i>kg</i>	14.5	31.0
Termination	4.3-10 female with 0.5m RG142 cable tail.	
Mounting Area	750mm x 63mm diam.	750mm x 76mm diam.
Suggested Clamps	2 x UC114	
Projected Area <i>cm</i> ²	No ice	4781
	With ice	8701
Wind Load (Thrust) @ 160km/h <i>N</i>	567	1127
Wind Gust Rating <i>km/h</i>	240	175
Torque @160 km/h <i>Nm</i>	708	2988

(1) Factory pre-set downtilt of 3° may be specified on EA80 series antennas using model no. trailer -T3

(2) EA40 series can be optionally supplied in all welded 316 grade stainless steel. Dimensions vary slightly