

# UHF Elliptical Dipole Arrays

400-520 MHz

Elliptical Array Series



The EA series arrays provide exceptionally high gain with an elliptical shaped radiation pattern, ideal for the bi-directional coverage requirements of some “corridor” applications.

The array utilises an internal phasing harness in PTFE based double screened coaxial cable with polyethylene jacket to aid waterproofing and resist bird attack.

The main lobe of these antennas is strong and highly controlled with extensive side lobe suppression ensuring the integrity of the pattern. To further boost performance, users of the EA80 array may specify beamtilt of 0, -3 or -5 degrees.

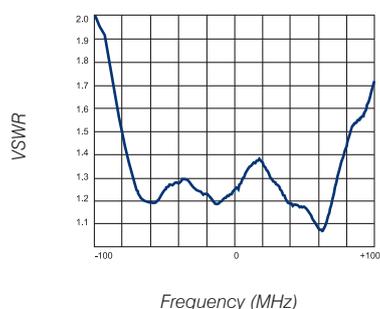
With all welded construction and superior internal harness construction (using highly stable PTFE based cables) the antennas provide not only excellent radiation characteristics but also high levels of intermodulation and noise suppression. IM performance is a world leading -150dBc based on a two carrier test. The entire array rests at ground potential and offers the ultimate in lightning resistant antennas.

## Key Features:

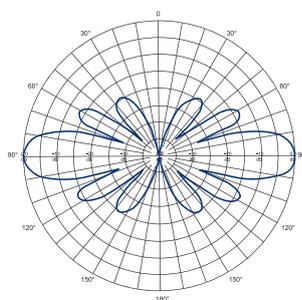
- Ideal for highly populated sites requiring “corridor” style largely bidirectional coverage
- Industry leading PIM ratings (-150dBc) providing low IM and low noise characteristics for optimum performance
- DC grounded for superior lightning protection and reduction of precipitation static noise



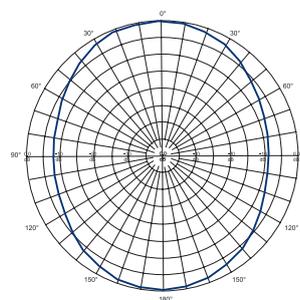
Typical VSWR Response (EA80-67)



EA80-67-E Plane



EA80-67-H Plane



## Electrical Specifications

Model Number	EA41-67-P	EA81-67-P	EA40-67-P	EA80-67-P
Nominal Gain dBi (dBd)	7 (5)	10(8)	7 (5)	10(8)
Frequency MHz	400 - 520			
Tuned Bandwidth MHz	Entire band			
VSWR (Return Loss)	<1.5:1 (14dB)			
Nominal Impedance Ω	50			
Downtilt	Not offered			0° Std, -3°, -5°
Vertical Beamwidth°	34			
Horizontal Beamwidth°	70			
Input Power W	500			
Passive IM 3rd order dBc	-140		-150	

## Mechanical Specifications

Model Number	EA41-67-P	EA81-67-P	EA40-67-P	EA80-67-P	
Construction	All welded Stainless Steel		All welded aluminium with alodined finish.		
Length mm (in)	2020 (79.5)	3000 (118.1)	2020 (79.5)	3000 (118.1)	
Weight kg (lb)	8 (17.6)	13 (28.7)	5 (11.0)	8 (17.6)	
Termination	4.3-10 female with 0.5m RG142 cable tail.				
Mounting Area mm (in)	500 x Ø42 (20 x Ø1.7)		500 x Ø48 (20 x Ø1.9)		
Suggested Clamps	2 x UC1				
Projected Area cm <sup>2</sup> (ft <sup>2</sup> )	No ice	1989 (2.1)	3451 (3.7)	2118 (2.2)	3633 (3.9)
	With ice	3437 (3.7)	6333 (6.8)	3527 (3.8)	6527 (7.0)
Wind Load (Thrust) @ 160km/h N (100mph lbs)	236 (53)	409 (92)	251 (56)	431 (97)	
Wind Gust Rating km/h (mph)	240 (150)	221 (137)	240 (150)	219 (136)	
Torque @160 km/h Nm (100mph ft-lb)	120 (89)	409 (302)	128 (94)	431 (318)	