

UHF Offset Dipole Arrays

330-520 MHz

Offset Dipole Arrays



Offset arrays are directional antennas for use when a base station is at one end of the coverage area. These new arrays feature improved gains, low noise performance and enhanced null fill coverage in an array with typical cardioid coverage characteristics.

The OA Series have slightly more than 170° horizontal beamwidth, thus everything in front of the antenna is given coverage. This eliminates the possibility of fading at the extremities of the target coverage area. The level of radiation at the rear of the antenna is approximately unity gain.

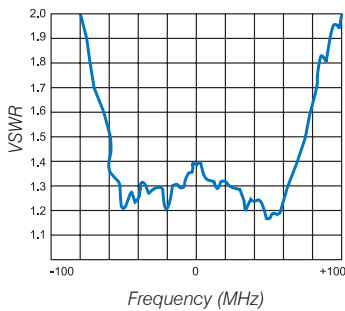
These antennas are also offered with -3°, -5° or -8° of beamtilt, and all include extensive side lobe suppression, null fill and a power input level of 500 Watts continuous.

Features:

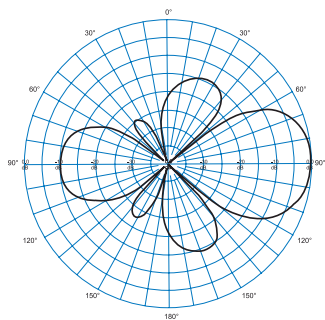
- Operate over entire 330-420MHz or 400-520 MHz bands
- Inverted mounting version available
- Hermetically sealed internal phasing harness
- Industry leading PIM ratings (-150dBc) providing low IM and low noise characteristics for optimum performance
- DC grounding on all elements for the ultimate in lightning protection and dissipation of static noise



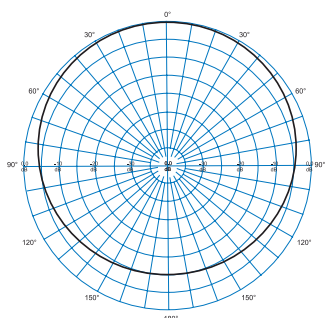
Typical VSWR Response (OA20-67)



OA20-67 - E Plane



OA20-67 - H Plane



Electrical Specifications

Model Number	OA20-57-P	OA20-67-P	OA40-57-P	OA40-67-P
Nominal Gain dBi (dBd)	7 (5)		11 (9)	
Frequency MHz	330 - 420	400 - 520	330 - 420	400 - 520
Tuned Bandwidth	Entire band			
VSWR (Return Loss)	< 1.5 :1 (14dB)			
Nominal Impedance Ω	50			
Downtilt	Not offered		0° Std, -3°, -5°, -8°. See Note (1)	
Vertical Beamwidth°	35		17	
Horizontal Beamwidth°	175	180	173	178
Input Power (Watts)	500			
Passive IM 3rd order dBc	-150			

Mechanical Specifications

Model Number	OA20-57-P	OA20-67-P	OA40-57-P	OA40-67-P
Construction	All welded aluminium with alodined finish. See notes (2) and (3)			
Length m	2.1		3.0	
Weight kg	4.0		6.5	
Termination	4.3-10 female with 0.5m RG142 cable tail.			
Mounting Area	500mm x 48mm diam.			
Suggested Clamps	2 x UC1			
Projected Area cm ²	No Ice	1694	1646	2785
	With Ice	2697	2565	4865
Wind Load (Thrust) @160km/h N	201	195	330	319
Wind Gust Rating km/h	>240			
Torque @ 160km/h Nm	102	99	330	319

- (1) Factory pre-set downtilt may be specified on OA40 series antennas using model no. trailer - T3, -T5 or -T8
- (2) Ruggedised black powder coated finish (aids in ice shedding for extreme conditions) is available on all aluminium arrays
- (3) OA20 and OA40 series may be optionally supplied in all welded 316 Marine Grade Stainless steel. Dimensions vary slightly