

# VHF Offset Dipole Arrays

136-174 MHz

OFFSET ARRAY SERIES



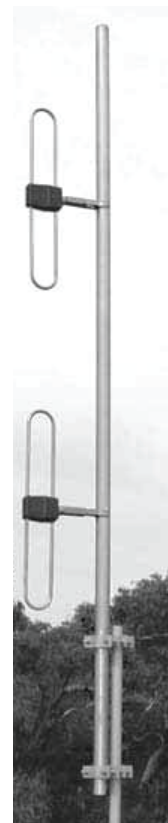
These high performance VHF dipole offset arrays are ideal for use when a cardioid pattern is required. The arrays feature high gain, low noise performance and enhanced null fill coverage with typical cardioid coverage characteristics.

OA series arrays have an almost full 180° horizontal beamwidth. This eliminates the possibility of fading at the extremities of the target coverage area. Antenna gain is approximately unity at the rear of the antenna.

OA series arrays feature the same solid construction as the BA and EA Series. The folded dipoles utilise an internal phasing harness in stable, PTFE based double-screened coaxial cable with PE jacket for optimum weatherproofing. The offset arrays incorporate extensive side lobe suppression, null fill, and power input level of 750 watts continuous.

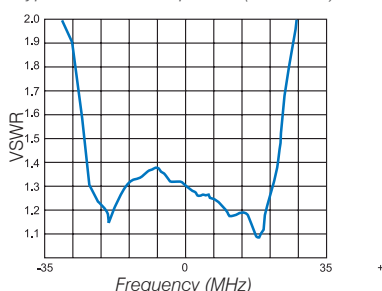
## Features:

- High gain offset (cardioid) pattern
- Operate over entire 136-174 MHz VHF band without tuning or adjustment
- Hermetically sealed internal phasing harness
- Inverted mounting version available
- Industry leading PIM ratings (-150dBc) providing low IM and low noise characteristics for optimum performance
- OA40-41 may be operated as 2 x 5dBd arrays by removing external cable harness

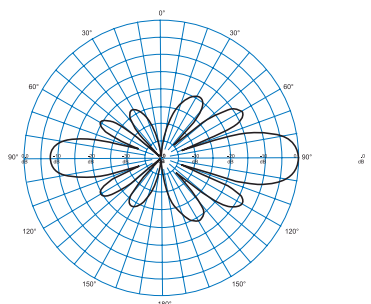


## Electrical

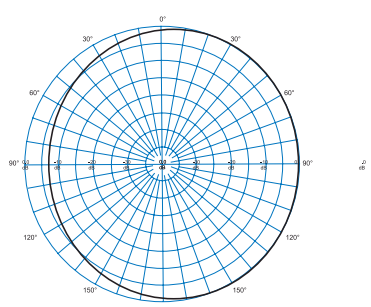
Typical VSWR Response (OA40-41)



OA40-41 - E Plane



OA40-41 - H Plane



Model Number	OA20-41-P	OA40-41-P
Nominal Gain dBi (dBd)	7 (5)	11 (9)
Frequency MHz	136 - 174	
Tuned Bandwidth MHz	Entire band	
VSWR (Return Loss)	<1.5 :1 (14dB)	
Nominal Impedance Ω	50	
Downtilt	0 Std, 3. See note (1) covers both models	
Vertical Beamwidth°	35	17
Horizontal Beamwidth°	178	176
Input Power W	750	
Passive IM 3rd order dBc	-150	

## Mechanical

Model Number	OA20-41-P	OA40-41-P
Construction	All welded aluminium with alodined finish. See note (2)	
Length m	3.5	6.3
Weight kg	12.5	29.0
Termination	4.3-10 female with 0.5m RG142 cable tail. See note (3).	
Mounting Area	750mm x 63mm diam.	750mm x 76mm diam.
Suggested Clamps	2 x UC114	
Projected Area cm <sup>2</sup>	No ice	3710
	With ice	6188
Wind Load (Thrust) @ 160km/h N	440	877
Wind Gust Rating km/h	240	191
Torque @160 km/h Nm	550	2323

(1) Factory pre-set downtilt of 3° may be specified on OA40 series antennas using model no. trailer - T3  
 (2) OA20 series can be optionally supplied in all welded 316 grade stainless steel. Dimensions vary slightly