

Section 1

BASE STATION ANTENNAS

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Omnidirectional Broadband UHF Binary Dipole Array

Frequency
400 – 520 MHz

Bandwidth
FULL BAND



This binary dipole array offers both an omnidirectional radiation pattern and genuine broadband coverage across the entire UHF frequency range 400 to 520 MHz at better than -15 dB return loss, < 1.5:1 VSWR.

The array is therefore ideally suited for multiple frequency transmissions at highly populated radio sites where an omnidirectional collinear antenna would not achieve anywhere near the necessary bandwidth.

Available in either aluminium or stainless steel, the design consists of 2 sets of dipoles facing in opposite directions arranged at 90 degrees. A phasing harness is neatly concealed inside the mount tube which is fully sealed and waterproof.

The 1 metre double shielded RG223 cable tail is fitted with an N-Female connector suited for up to 500 watts input power. Two parallel mast clamps are available separately.

The aluminium model **DUA4052AL** and stainless steel version **DUA4052SS** deliver 3 dBd gain.

Alternatively, other models are available capable of higher 6 dBd and 9 dBd gain.



SPECIFICATIONS	DUA4052AL	DUA4052SS
Construction	Aluminium	Stainless Steel
	2 sets of dipoles at 90 degrees, concealed phasing harness	
Frequency Range	400 – 520 MHz	
Bandwidth	Full Band	
Return Loss, VSWR	Better than -15 dB, <1.5:1 across full band	
Tuning	Factory	
Gain	3 dBd	
Maximum Input Power	500 Watts	
Polarisation	Vertical	
E-Plane	32 degrees	
H-Plane	360 degrees omnidirectional	
Impedance	50 Ohms	
DC Grounding	Yes	
Cable Tail	1 metre double shielded RG223	
Connector	N-Female fitted	
Projected Area	0.093 m ²	
Wind Load at 160 kph	11.267 kg, 0.110 kN	
Height	2.5 metres	
Dipole Width	41.5 cm	
Mount Tube Diameter	48.4 mm	
Weight	5.1 kg	10 kg
Mast Mounting Clamps (Not supplied)	2 x UAM180L galvanised steel parallel clamps are recommended	

High Gain Models Available...

DUA4052AL-6	6 dBd gain , 4 sets of dipoles, 3.2 metres tall
DUA4052SS-6	
DUA4052AL-9	9 dBd gain , 8 sets of dipoles, 5.5 metres tall
DUA4052SS-9	



UAM180L clamps will be suitable for mounting the antenna to a round mast between 40 mm and 75 mm in diameter. For a larger diameter mast up to 90 mm, **UAM180UNI** clamps are available.