

Section 1

BASE STATION ANTENNAS

Updated 14 February 2011

VHF and UHF Corner Reflectors

Frequency
148 – 520 MHz

Bandwidth
See Table



When you require good gain together with a high front-to-back ratio, a Corner Reflector will provide the ideal base station antenna solution.

A corner reflector can be mounted either horizontal or vertical as required. An open grid construction is used for low wind loading.

- **RA3** is for use in the VHF frequency range 148 to 174 MHz and delivers 7.5 dBd gain. Specify any 7.5 MHz bandwidth and your corner reflector will be manufactured and tuned accordingly at better than 1.5:1 VSWR.
- **RA4** delivers 10 dBd gain and can cover any 20 MHz bandwidth you nominate within the UHF frequency range 400 to 520 MHz.

Both **RA3** and **RA4** models are simple to assemble with the dipole mounting position clearly indicated with a red adhesive band. An N-Female connector rated for up to 500 watts input power is located at the base of the dipole.

Two U-Bolts are supplied for mounting to a mast between 20 mm and 50 mm in diameter.



RA4



SPECIFICATIONS	RA3	RA4
Construction	Aluminium and Galv Steel Open Grid	Aluminium Open Grid
Frequency Range	VHF 148 to 174 MHz	UHF 400 to 520 MHz
Bandwidth (specify)	Any 7.5 MHz	Any 20 MHz
Return Loss, VSWR	Better than -15 dB, less than 1.5:1	
Tuning	Factory	Factory
Gain	7.5 dBd	10 dBd
Maximum Power	500 Watts	500 Watts
Impedance (Nom.)	50 Ohms	50 Ohms
DC Grounding	Yes	Yes
Polarisation	Mount either Horizontal or Vertical as required	
E-Plane	56°	53°
H-Plane	51°	47°
Front-to-Back Ratio	30 dB	30 dB
Cable Tail	None	None
Connector	N-Female located at the base of the dipole	
Reflector Grid Dimensions	Each Grid 1250 mm x 1250 mm	Each Grid 650 mm x 550 mm
Weight	12 kg	5 kg
Projected Area	0.811 m ² @ 152 MHz	0.261 m ² @ 410 MHz
Wind Load at 160 kph	0.963kN	0.309kN
Mounting	2 U-Bolts are supplied to suit a round mast between 20 mm and 50 mm in diameter	

RA4 sample patterns at 463 MHz

