

## Section 1

### BASE STATION ANTENNAS

Updated 14 February 2011

### Yagi UHF Double-Dipole Broadband

**Frequency**  
350 – 520 MHz

**Bandwidth**  
See Table



These 9 element UHF Yagi antennas feature a double-dipole design which produces a genuine broadband coverage at less than 1.5:1 VSWR with 11.5 dBd gain.

- ⇒ **Y409-3545** will cover the full frequency range 350 to 450 MHz.
- ⇒ **Y409-4052** covers the full band 400 to 520 MHz.
- ⇒ **Y409-4052PC** is another 400 to 520 MHz model available which is powder coated black. When mounted in locations such as a motorway tunnel, the black colour blends nicely into the background.

The Yagi boom and elements are constructed from aluminium while the double-dipole driven elements are stainless steel. Fully stainless steel models are also available.



An N-Female connector rated for up to 250 watts input power is fitted the the RG58 low loss cable tail.

Mount these double-dipole Yagi's either Horizontal or Vertical as the application requires.

SPECIFICATIONS	Y409-3545	Y409-4052	Y409-4052PC
<b>Construction</b>	Aluminium boom and elements with stainless steel double-dipole driven elements, or add the letters 'SS' for the fully stainless steel model		Powder coated black
<b>Frequency Range</b>	350 to 450 MHz	400 to 520 MHz	400 to 520 MHz
<b>Bandwidth</b>	Full Band	Full Band	Full Band
<b>Tuning</b>	Factory	Factory	Factory
<b>Return Loss, VSWR</b>	Better than -15 dB, less than 1.5:1 across the full band indicated		
<b>Number of Elements</b>	9	9	9
<b>Nominal Gain</b>	11.5 dBd	11.5 dBd	11.5 dBd
<b>Polarisation</b>	Mount the Yagi either Horizontal or Vertical as required		
<b>Maximum Power</b>	250 Watts	250 Watts	250 Watts
<b>Impedance</b>	50 Ohms	50 Ohms	50 Ohms
<b>E-Plane</b>	55°	55°	55°
<b>H-Plane</b>	82°	82°	82°
<b>Front-to-Back Ratio</b>	20 dB	20 dB	20 dB
<b>Cable Tail</b>	All models have a 250 mm RG58 low loss cable tail		
<b>Connector</b>	An N-Female connector is fitted to the cable tail		
<b>Boom Length</b>	1.711 metres	1.475 metres	1.475 metres
<b>Longest Element</b>	0.440 metres	0.370 metres	0.370 metres
<b>Weight in Aluminium</b>	1.5 kg	1.2 kg	1.2 kg
<b>Weight in S/Steel</b>	3.5 kg	2.8 kg	2.8 kg
<b>Projected Area</b>	0.80 m <sup>2</sup>	0.70 m <sup>2</sup>	0.70 m <sup>2</sup>
<b>Wind Load 160 kph</b>	9.65 kg, 0.095 kN	7.00 kg, 0.074 kN	7.00 kg, 0.074 kN
<b>Mounting Clamp (Not supplied)</b>	1 x A48 right-angle clamp recommended for aluminium models 1 x S48 right-angle clamp recommended for stainless steel models		