

## Section 1

### BASE STATION ANTENNAS

Updated 14 February 2011

## Yagi Y2009

**Frequency**  
1900 – 2170 MHz

**Bandwidth**  
FULL BAND



The Yagi Y2009 mast mount base station antenna can be used for directional transmit and receive applications across the full frequency range 1,900 to 2,170 MHz. This Yagi is particularly useful for improving reception of the 3G cellular mobile phone network.

Constructed from brass and aluminium, the 9 element Yagi delivers 11.3 dBi forward gain. The ultra violet resistant PVC radome protects the internals.

The short RG58 low loss cable tail is terminated with an N-Female connector rated for up to 25 watts input power.

The Yagi can be mounted either horizontal or vertical as the application requires. When used for 3G network reception, mount the Yagi vertical.

U-bolts are supplied for mounting to a mast up to 50 mm in diameter.

Feeder cable, connectors and fittings are all available separately to complete the installation.



SPECIFICATIONS	Y2009
<b>Construction</b>	Brass and aluminium internals enclosed inside an ultra violet resistant white PVC radome. (A <b>black radome is available.</b> )
<b>Frequency Range</b>	1900 to 2170 MHz
<b>Bandwidth</b>	Full Band
<b>Return Loss, VSWR</b>	Better than -15 dB, less than 1.5:1
<b>Tuning</b>	Factory
<b>Number of Elements</b>	9
<b>Gain</b>	11.3 dBi
<b>Maximum Input Power</b>	25 Watts
<b>Impedance</b>	50 Ohms
<b>Polarisation</b>	Mount Horizontal or Vertical as required
<b>E-Plane</b>	43°
<b>H-Plane</b>	36°
<b>Front-to-Back Ratio</b>	-20 dB
<b>DC Grounding</b>	Yes
<b>Cable Tail</b>	200 mm RG58 low loss
<b>Connector</b>	N-Female fitted
<b>Length</b>	300 mm
<b>Width</b>	80 mm
<b>Weight</b>	1.5 kg
<b>Projected Area</b>	0.015 m <sup>2</sup>
<b>Wind Load at 160 kph</b>	1.82 kg
<b>Mounting</b>	U-Bolts are supplied for mounting to a round mast up to 50 mm in diameter



For higher gain and power, this Y2009 Yagi may be mounted in a stack array formation.

Correct stacking distances are :

- Horizontal polarisation 180 mm apart.
- When mounted vertical for the 3G network, space the Yagi's 150 mm apart.