

Section 1

BASE STATION ANTENNAS

Updated 14 February 2011

Yagi Y300 Series

Frequency
100 – 250 MHz

Bandwidth
Specify 4%



The Y300 Series of Yagi antennas can be manufactured to cover any 4% bandwidth you require within the frequency range 100 to 250 MHz at better than -15 dB return loss, less than 1.5:1 VSWR. Specify transmit and receive frequencies when ordering and your Yagi will be tuned accordingly.

Available in either aluminium or stainless steel.

Y305BB is a double-dipole broadband model covering the entire frequency range 148 to 174 MHz. Construction is from aluminium with stainless steel driven elements.

Due to their large size, a strut kit is highly recommended to properly support the long boom of all Yagi's in this series. A strut kit, mounting clamp, feeder cable, connectors and accessories are available to order separately.

For higher gain and power, mount Yagi's in stack array formations.



SPECIFICATIONS	Y302	Y303	Y304	Y306	Y309	Y305BB
Construction	Aluminium, or add letters 'SS' to code for fully Stainless Steel models					<i>Alum and SS</i>
Frequency Range and Bandwidth	Specify any 4% bandwidth within the frequency range 100 to 250 MHz and advise your transmit and receive frequencies when ordering					148 to 174 MHz FULL BAND
Tuning	All models are tuned in the factory					<i>Factory</i>
Return Loss, VSWR	Better than -15 dB, less than 1.5:1 across the 4% bandwidth specified					<i>-15 dB, <1.5:1</i>
Number of Elements	2	3	4	6	9	<i>5 (double-dipole)</i>
Nominal Gain	3 dBd	6 dBd	7.5 dBd	9 dBd	11.5 dBd	6 dBd
Polarisation	All models can be mount either Horizontal or Vertical as required					<i>Horiz or Vertical</i>
Maximum Power	250 Watts	250 Watts	250 Watts	250 Watts	250 Watts	<i>250 Watts</i>
Impedance	50 Ohms	50 Ohms	50 Ohms	50 Ohms	50 Ohms	<i>50 Ohms</i>
E-Plane at 3 dB	70°	57°	54°	46°	36°	<i>65°</i>
H-Plane at 3 dB	135°	76°	62°	50°	43°	<i>70°</i>
Front-to-Back Ratio	15 dB	14 dB	14 dB	16 dB	17 dB	<i>16 dB</i>
Cable Tail	All models have a 1.4 metre RG213 cable tail					<i>1.4 metre RG213</i>
Connector	All models have an N-Female connector fitted to the cable tail					<i>N-Female fitted</i>
Max Boom Length at low 100 MHz	1.4 metres	1.8 metres	2.2 metres	3.0 metres	4.0 metres	<i>Boom Y305BB is 1.6 metres</i>
Longest Element	1.3 metres	1.3 metres	1.3 metres	1.3 metres	1.3 metres	<i>1.2 metres</i>
Weight in Aluminium	2.0 kg	2.4 kg	2.6 kg	3.0 kg	5.5 kg	<i>3.0 kg</i>
Weight in S/Steel	3.0 kg	3.6 kg	3.9 kg	4.5 kg	8.3 kg	–
Projected Area	0.160 m ²	0.170 m ²	0.195 m ²	0.230 m ²	0.265 m ²	<i>0.150 m²</i>
Wind Load 160 kph	19 kg	21 kg	23.9 kg	28 kg	32 kg	<i>18 kg</i>
Strut Kit (Not supplied)	Due size and weight, a Strut Kit is recommended to support the boom of all Y300 Series Yagi's. Either the YS1-23 single strut kit or YS2-23 2-way strut kit are available to order separately.					
Mounting Clamp (Not supplied)	Y2300 heavy duty galvanised steel right angle clamp is recommended for Aluminium models. Y2300SS heavy duty stainless steel right angle clamp is recommended for SS models.					