

Section 2

BROADCAST ANTENNAS

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FM Radio Cross Polarised Yagi Y200CP Series

Frequency
88 – 108 MHz

Bandwidth
Any 4%



These cross polarised Yagi Y200CP Series antennas for FM radio transmit and receive will cover any 4% bandwidth you specify within the FM frequency range 88 to 108 MHz at better than -20 dB return loss.

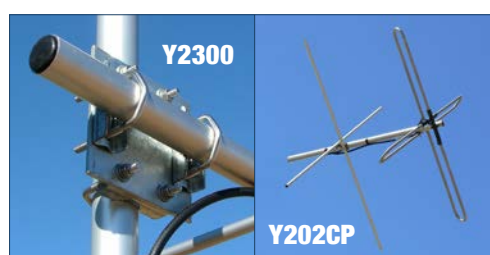
Major benefits of this cross polarised design include :

- Eliminate multipathing due to unwanted reflections and refractions.
- The circular elliptical radiation pattern operates in both horizontal and vertical planes.
- Signals will penetrate the more obscure areas that a single plane antenna simply cannot, particularly in hilly terrain or where there are trees, wire fencing and steel structures in the signal path.

Constructed from either aluminium or stainless steel, 2 sets of elements are arranged in a diagonal cross pattern and the 2 driven elements are at 90° phase shift. These Yagi's are supplied with a 2-Way Phasing Harness terminated with an N-Type Female connector rated for 250 watts power.

2, 4 and 6 element models are available with gain varying accordingly from 3 dBd up to 9 dBd per plane.

The **Y2300** or **Y2300SS** heavy duty right-angle clamp is recommended for mounting these Yagi's to a mast up to 50 mm in diameter. For the 6 element model **Y206CP**, the **YS1** single 2.5 metre strut kit is highly recommended to support the long 5 metre boom. Both the mounting clamp and strut kit is available to order separately.



SPECIFICATIONS	Y202CP	Y204CP	Y206CP
Construction	Aluminium, or add letters SS for the fully Stainless Steel model		
Frequency Range and Bandwidth	Specify any 4% bandwidth within the range 88 to 108 MHz and advise transmit and receive frequencies in writing when ordering		
Tuning	All models are tuned in the factory to the frequency range specified		
Return Loss, VSWR	Better than -20 dB, < 1.2:1 across the frequency range specified		
Cross Elements	2	4	6
Nominal Gain	3 dBd per plane	6 dBd per plane	9 dBd per plane
Polarisation	Circular Elliptical	Circular Elliptical	Circular Elliptical
Maximum Power	250 Watts	250 Watts	250 Watts
Impedance	50 Ohms	50 Ohms	50 Ohms
DC Grounding	Yes	Yes	Yes
E-Plane, each plane	70°	54°	46°
H-Plane, each plane	135°	62°	50°
Connector	An N-Female connector is fitted to the 2-Way Phasing Harness supplied		
Boom Length	1.9 metres	3.7 metres	5.0 metres
Boom Diameter	50 mm	50 mm	50 mm
Max Element Length	2.2 metres	2.2 metres	2.2 metres
Weight in Aluminium	5.5 kg	8.2 kg	10.0 kg
Weight in S/Steel	7.2 kg	10.8 kg	13.2 kg
Projected Area	0.30 m ²	0.36 m ²	0.42 m ²
Wind Load 160 kph	36 kg	42 kg	52 kg
Strut Kit (Not supplied)	Not required	Not required	YS1 is recommended and available separately
Mounting Clamp (Not supplied)	Y2300 heavy duty galvanised steel right angle clamp recommended for Aluminium models. Y2300SS heavy duty stainless steel right angle clamp recommended for Stainless Steel models. Suit masts 30 to 50 mm diam.		