

## Section 2

### BROADCAST ANTENNAS

Updated 22 March 2011

#### FMCPY2 FM Radio Cross Polarised Yagi

Frequency  
**88 – 108 MHz**

Bandwidth  
**Full FM Band**



**FMCPY2 is a cross polarised FM broadcast Yagi covering the entire band 87.5 to 108 MHz at better than -20 dB return loss.**

Key benefits of this FM radio broadcast yagi are :

- Cross polarisation for true circular field.
- High power and gain achievable.
- Full FM band coverage permits multiple broadcast frequencies and antenna sharing.
- Long service life.

Constructed from aluminium, the antenna consists of 2 cross beams delivering a circular elliptical pattern.

A power divider and branch feeder cables connect to the two inputs. These are available separately.

This Yagi can be ordered with N-Type Female connectors for 1,000 watts power per bay or 7/16" Female DIN connectors for 4 kilowatts per bay.

For higher gain and power, mount the antennas in stack array formations.

U-Bolts are supplied for mounting to a mast between 50 mm and 90 mm in diameter.



SPECIFICATIONS	FMCPY2	FMCPY2-716
<b>Construction</b>	Aluminium	Aluminium
<b>Frequency Range</b>	<b>87.5 to 108 MHz</b>	<b>87.5 to 108 MHz</b>
<b>Bandwidth</b>	<b>Full FM Band</b>	<b>Full FM Band</b>
<b>Return Loss, VSWR</b>	<b>Better than -20 dB, less than 1.2:1 full band</b>	
<b>Tuning</b>	Factory	Factory
<b>Polarisation</b>	Circular Elliptical	Circular Elliptical
<b>Gain per plane of polarisation</b>	Single Bay = 1.0 dBd 2 Bay Array = 4.0 dBd 3 Bay Array = 5.8 dBd 4 Bay Array = 7.8 dBd	
<b>Impedance</b>	50 Ohms	50 Ohms
<b>DC Grounding</b>	Yes	Yes
<b>E-Plane, each plane</b>	85°	85°
<b>H-Plane, each plane</b>	130°	130°
<b>Front-to-Back Ratio</b>	10 dB	10 dB
<b>Maximum Input Power</b>	<b>1,000 Watts per Bay</b>	<b>4 Kilowatt per Bay</b>
<b>Connectors x 2</b>	<b>N-Female</b>	<b>7/16" Female DIN</b>
<b>Weight</b>	19 kg per Bay	19 kg per Bay
<b>Projected Area</b>	Front : 0.33 m <sup>2</sup> . Side : 0.28 m <sup>2</sup>	
<b>Wind Loading</b>	Front : 0.49 kN at 50 metres per second	
<b>Mounting Clamps Supplied</b>	U-Bolts suitable for a round mast between 50 mm and 90 mm in diameter	
<b>Also required</b>	Order a power divider and branch feeder cables separately according to your requirements	
<b>Warranty</b>	<b>2 Years</b>	<b>2 Years</b>

