## R 70-3/..., R 70-7/..., R 70-10/... Directional Antennas with 3, 7 and 10 dBd Gain for the 450 MHz Band

## **DESCRIPTION:**

- ★ These antennas are 2-, 4- and 8-element Yagi antennas with 3, 7, and 10 dBd gain, respectively.
- ★ When mounted for vertical polarisation the horizontal coverage is R 70-3: 100°, R 70-7: 74° and R 70-10: 52°.
- ★ These Yagis incorporate baluns optimized for wide bandwidth and accurate matching.
- ★ The entire balun unit and feeder cable inlet are completely sealed in a polythene moulding ensuring permanent waterproof connections. The antennas are supplied with a 3m "tail" of RG 213 terminated with an N-female connector.
- ★ Radiating elements, supporting booms and adjoining metal castings have been constructed in high quality aluminium alloys to prevent corrosion. All metal parts are DC-grounded.
- $\star$  The antennas are designed for back mounting and are provided with rear extended booms.
- $\star$  These antennas can be stacked and fed in phase with a matching harness for increased gain.
- ★ A mast clamp for fixation on 30-58 mm diameter mast tube is enclosed.

## SPECIFICATIONS:

MODEL	R 70-3/	R 70-7/	R 70-10/		
ELECTRICAL					
ANTENNA TYPE	2-element Yagi	4-element Yagi	8-element Yagi		
FREQUENCY	s: 380-416 MHz				
	h: 420-470 MHz				
IMPEDANCE	50 Ω				
POLARISATION	Vertical or horizontal				
GAIN	5 dBi 3 dBd	9 dBi 7 dBd	12 dBi 10 dBd		
FRONT TO BACK RATIO	12 dB	16 dB	20 dB		
HALF-POWER BEAMWIDTH	E-plane: 72° H-plane: 100°	E-plane: 56° H-plane: 74°	E-plane: 42° H-plane: 52°		
BAND WIDTH	36-50 MHz				
SWR	<u>≤</u> 1.5				
MAX. POWER	150 watts				
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)				
MECHANICAL					
CONNECTION	3m tail of RG 213 terminated with type "N" female connector				
WIND SURFACE	0.046 m <sup>2</sup>	0.061 m <sup>2</sup>	0.080 m <sup>2</sup>		
WIND LOAD	58 N @ 160 km/h	77 N @ 160 km/h	101 N @ 160 km/h		
COLOUR	"Aluminium"				
MATERIALS	Elements/Boom/Saddle clamps: Aluminium alloys. Fittings: Stainless steel. Bracket: Hot-dipped galvanized steel				
BOOM LENGTH	Approx. 0.65 m	Approx. 0.9 m	Approx. 1.4 m		
BOOM DIA.	31.8 mm				
MAX. ELEMENT LENGTH	0.43 m				
DIA. OF ELEMENTS	13 mm				
WEIGHT	Approx. 3.1 kg	Approx. 3.4 kg	Approx. 3.7 kg		
MOUNTING	Supplied with mast bracket suiting 30-58 mm dia. mast tube				

				_	
ORDERING DESIGNATIONS					
FREQ.	380–416 MHz	390–430 MHz	420–470 MHz		
2-element Yagi 3 dBd	R 70-3/s	R 70-3/I	R 70-3/h		
4-element Yagi 7 dBd	R 70-7/s	R 70-7/I	R 70-7/h		
8-element Yagi 10 dBd	R 70-10/s	R 70-10/l	R 70-10/h		



PROCOM A/S reserve the right to amend specifications without prior notice.

R 70-3/..., R 70-7/..., R 70-10/... Directional Antennas with 3, 7 and 10 dBd Gain for the 450 MHz Band





If the antennas are mounted for vertical polarisation these curves show the radiation patterns in the vertical plane.



If the antennas are mounted for vertical polarisation these curves show the radiation patterns in the horizontal plane (horizontal coverage).