

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 polarization, the horizontal coverage is R 70-3: 150°, R 70-7: 90° and R 70-10: 58°.
- 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 3 m "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.
- The antennas are designed for back mounting and are provided with rear extended booms.
- 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 supplied.



ORDERING DESIGNATIONS

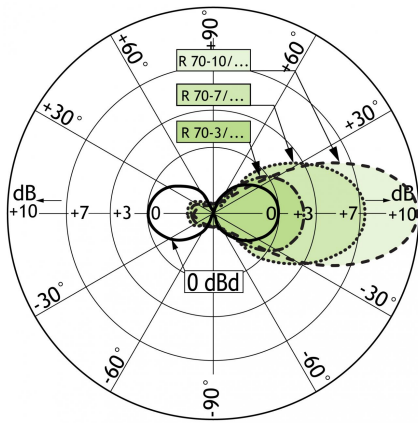
TYPE	PRODUCT NO.	ANTENNA TYPE	FREQUENCY
R 70-3/s	120000171	2-element Yagi 3 dBd	380 – 420 MHz
R 70-3/l	120000043	2-element Yagi 3 dBd	390 – 430 MHz
R 70-3/h	120000047	2-element Yagi 3 dBd	420 – 470 MHz
R 70-7/l	120000050	4-element Yagi 7 dBd	380 – 430 MHz
R 70-7/h	120000049	4-element Yagi 7 dBd	420 – 470 MHz
R 70-10/l	120000052	8-element Yagi 10 dBd	380 – 430 MHz
R 70-10/l BA *	120000211	8-element Yagi 10 dBd	380 – 430 MHz
R 70-10/h	120000053	8-element Yagi 10 dBd	420 – 470 MHz

* "BA"-model is delivered in an extra weather resistant black anodized version.

SPECIFICATIONS

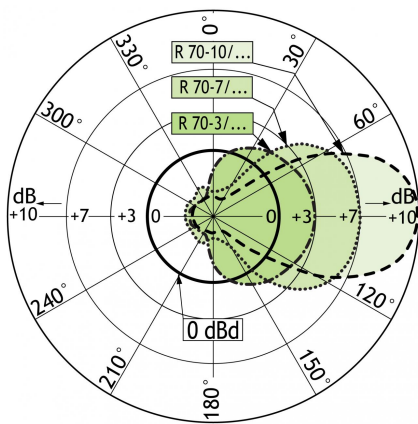
ELECTRICAL				
MODEL	R 70-3/...	R 70-7/...	R 70-10/...	R 70-10/... BA
ANTENNA TYPE	2-element Yagi	4-element Yagi	8-element Yagi	8-element Yagi
FREQUENCY	s: 380-420MHz l: 390-430MHz h: 420-470MHz	l: 380-430MHz h: 420-470MHz	l: 380-430MHz h: 420-470MHz	l: 380-430MHz
IMPEDANCE	50 Ω			
POLARIZATION	Vertical or horizontal			
GAIN	5 dBi 3 dBd	9 dBi 7 dBd	12 dBi 10 dBd	12 dBi 10 dBd
FRONT TO BACK RATIO	12 dB	15 dB	15.1 dB Typ. better than 19 dB	15.1 dB Typ. better than 19 dB
HALF POWER BEAMWIDTH	E-plane: 75° H-plane: 150°	E-plane: 60° H-plane: 90°	E-plane: 51° H-plane: 58°	E-plane: 51° H-plane: 58°
BANDWIDTH	40 - 50 MHz			
SWR	≤ 1.5			
MAX. POWER	150 W			
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)			
MECHANICAL				
TEMP. RANGE	-25° C → +60° C			
CONNECTION	3 m tail of RG 213 terminated with N-female connector			
WIND SURFACE	0.046 m ²	0.061 m ²	0.080 m ²	0.080 m ²
WIND LOAD	50 N @ 160 km/h	80 N @ 160 km/h	102 N @ 160 km/h	102 N @ 160 km/h
COLOUR	"Aluminium"			Black anodized
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	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	Approx. 3.7 kg
MOUNTING	Supplied with mast bracket suiting 30 - 58 mm dia. mast tube			

TYPICAL RADIATION PATTERN (E-PLANE)



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

TYPICAL RADIATION PATTERN (H-PLANE)



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



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

25/09/13