

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: 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.
- 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 enclosed.



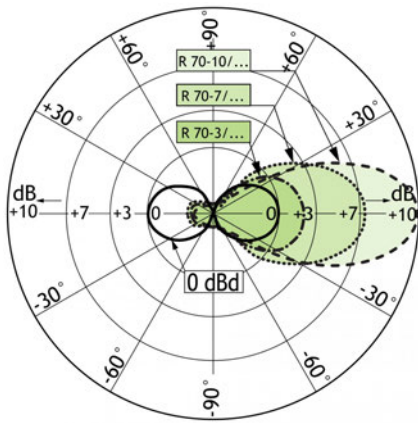
ORDERING DESIGNATIONS

| FREQUENCY | | 380 – 430 MHZ |
|-----------|-------------|-----------------------|
| TYPE | PRODUCT NO. | ANTENNA TYPE |
| R 70-3/s | 120000171 | 2-element Yagi 3 dBd |
| R 70-7/s | 120000164 | 4-element Yagi 7 dBd |
| R 70-10/s | 120000042 | 8-element Yagi 10 dBd |
| FREQUENCY | | 420 – 470 MHZ |
| TYPE | PRODUCT NO. | ANTENNA TYPE |
| R 70-3/h | 120000047 | 2-element Yagi 3 dBd |
| R 70-7/h | 120000049 | 4-element Yagi 7 dBd |
| R 70-10/h | 120000053 | 8-element Yagi 10 dBd |

SPECIFICATIONS

| ELECTRICAL | | | |
|-----------------------|--|------------------------------|------------------------------|
| MODEL | R 70-3/... | R 70-7/... | R 70-10/... |
| ANTENNA TYPE | 2-element Yagi | 4-element Yagi | 8-element Yagi |
| FREQUENCY | s: 380 - 430 MHz h: 420 - 470 MHz | | |
| IMPEDANCE | 50 Ω | | |
| POLARIZATION | 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° |
| BANDWIDTH | 36 - 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 type "N" female connector | | |
| WIND SURFACE | 0.046 m ² | 0.061 m ² | 0.080 m ² |
| 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 | | |

TYPICAL RADIATION PATTERN (E-PLANE)



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

TYPICAL RADIATION PATTERN (H-PLANE)



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



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

02/01/12