



Arkonia Systems Limited

ARK7591 SERIES OMNI-DIRECTIONAL 'DISCONE' ANTENNAS

The ARK7591 series are omni-directional antennas covering the range 27-1000 MHz in four convenient bands. The principles of Discone antenna design are used to achieve a good R.F. match into a 50Ω feeder cable over wide frequency bands.

The cone and disc are each simulated electrically by means of eight rods, spaced to the appropriate geometrical shape, thus reducing wind-area. The rods are detachable from the central support for ease of transportation and storage.

The antenna is constructed from stainless steel and fibreglass for strength, and maximum resistance to corrosion and vibration. The antenna is centre supported on a steel tube. This construction method does *not* compromise the design gain, which is uniform over the operating bandwidth.

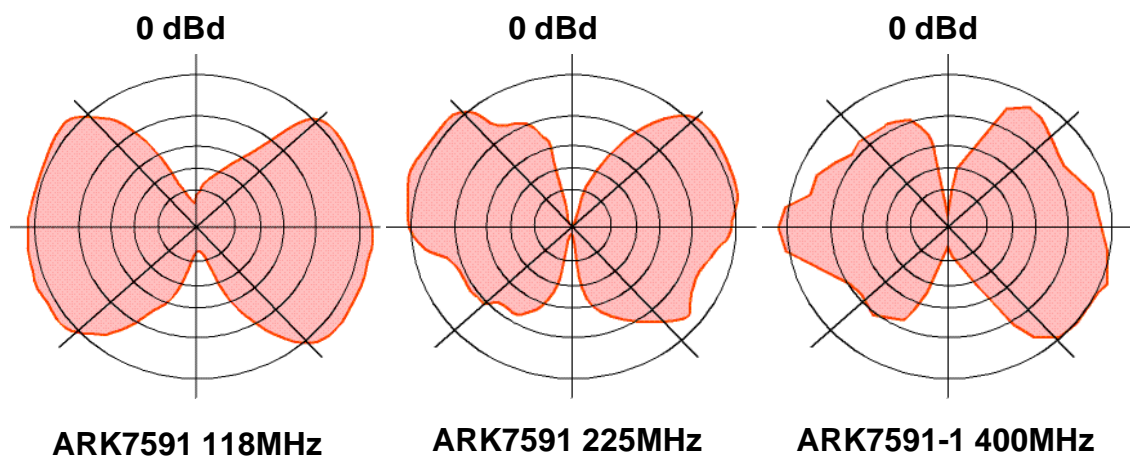


Specification

Electrical

Frequency Range	27 – 100 MHz (ARK7591-3) 100 – 300 MHz (ARK7591) 200 – 500 MHz (ARK7591-1) 400 – 1000 MHz (ARK7591-2)
Polarisation	Vertical
V.S.W.R.	2.5:1 Max (typically 2:1)
Gain (relative to dipole)	0dB
Max input power	250 watts C.W.
Input Impedance	50Ω
R.F. Connector	N-type female
Beam Pattern	As for Dipole

Vertical Polar Diagrams



Mechanical

Type No.	Frequency	Weight	Height	Diameter
ARK7591-3	27 – 100 MHz	100 kg (220 lbs)	3400mm (136 in)	2600mm (104 in)
ARK7591	100 – 300 MHz	4.0 kg (8.8 lbs)	900mm (36 in)	1000mm (40 in)
ARK7591-1	200 – 500 MHz	3.0 kg (6.6 lbs)	450mm (18 in)	500mm (20 in)
ARK7591-2	450 – 1000 MHz	2.0 kg (4.4 lbs)	200mm (8 in)	230mm (9 in)

Construction Material:	Stainless Steel, Aluminium and Glass Fibre
Standard Finish:	Epoxy Paint – Dawn Grey



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