

# Wideband Marine DF Antenna

1 – 3600 MHz

Product Code: DF-A0123

VERSION: 1.2



## PRODUCT DESCRIPTION:

The DF-A0123 is a wideband DF antenna suitable for fixed mast-mounted and marine applications.

A hybrid between the compact DF-A0037 and the full-size DF-A0001, the antenna has a full-size low-band array for best DF performance at low frequencies where the compact array is small. Inside the radome are two pentagonal arrays for the middle and high frequency ranges. Secondary arrays of dipoles and monopoles are combined, to provide omni outputs up to 3.6 GHz.

A cavity inside the antenna, approximately 350 mm wide by 370 mm high, allows an RF switch to be integrated into the antenna, reducing cable loss and weight. The cavity slides open, the switch can be installed by one person, on a mast, without a crane.

## PRODUCT FEATURES:

- Full-band correlative interferometer
- Wideband dedicated omni capability
- Hardened for marine applications

## APPLICATIONS:

- Marine DF applications
- Wideband monitoring

## SPECIFICATIONS:

<b>Product codes:</b>	
DF-A0123	1 – 3600 MHz, 4 DF bands
DF-A0123-01	20 – 3600 MHz, 3 DF bands
<b>Electrical:</b>	
Frequency range	20 – 3600 MHz
Feed power handling	0.5 W (receive only)
Polarisation	Vertical
Internal connectors	SMA male SS
<b>DF:</b>	
DF type	Correlative interferometer
Frequency bands	DF-A0123      DF-A0123-01
	A: 1 – 90 MHz <sup>*1</sup> B: 20 – 300 MHz
	B: 20 – 300 MHz      C: 100 – 800 MHz
	C: 100 – 800 MHz      D: 750 – 3600 MHz
	D: 750 – 3600 MHz
DF accuracy in azimuth	A: 3° RMS <sup>*2</sup> B: 2° RMS <sup>*2</sup>
	B: 2° RMS <sup>*2</sup> C: 2° RMS <sup>*2</sup>
	C: 2° RMS <sup>*2</sup> D: 2° RMS <sup>*2</sup>
	D: 2° RMS <sup>*2</sup>
<b>Monitoring:</b>	
Frequency bands	AB: 1 – 700 MHz
	C: 700 – 3600 MHz
Monitoring antennas	AB: combined 5 dipoles
	C: combined 5 monopoles
<b>Internal features:</b>	
GPS antenna	Active patch antenna
Compass	Bracket for KVH C100 compass
<b>Mechanical:</b>	
Dimensions (h x d)	2.4 m high x 2.6 m diameter (excluding detachable 1.2 m whip)
Mass	< 95 kg
Colour	White, or painted to user colour
<b>Environmental: designed to meet the following specifications</b>	
Temperature range	-30 °C to +70 °C
Humidity	5% - 95%
Maximum wind speed	160 km/h
Vibration and shock	MIL-STD-810-F
Salt spray	MIL-STD-810-F salt fog

### Notes:

- 1) Optimum A-B change-over is above 100 MHz, actual optimum to be determined by measurements with user's receiver.
- 2) DF accuracy when calibrated, on a test range. Operational accuracy will be lower, depending on platform and range effects.

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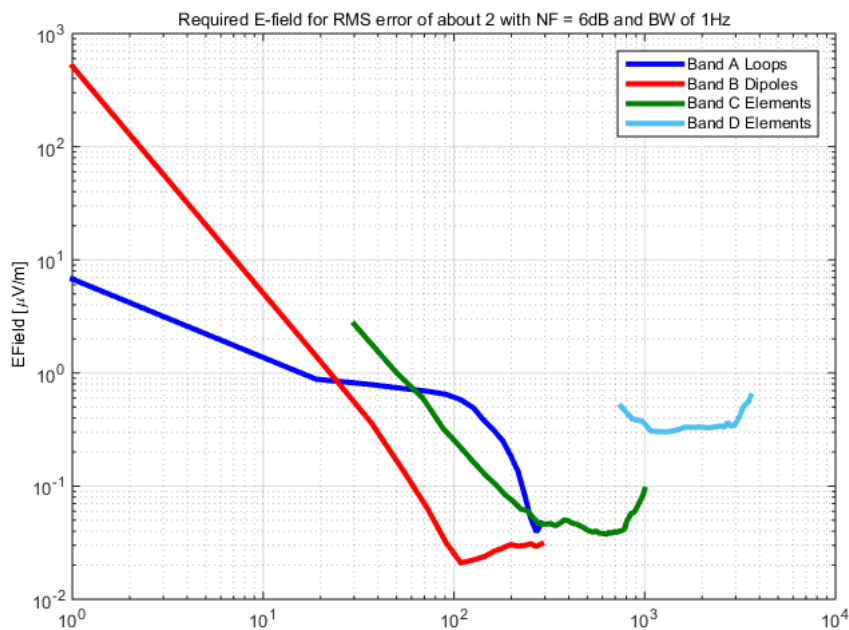
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## DF SENSITIVITY:

The following graph shows the predicted DF sensitivity of the antenna over frequency.



## OUTER DIMENSIONS:

The outer dimensions of the antenna are as shown below (excluding whip).

