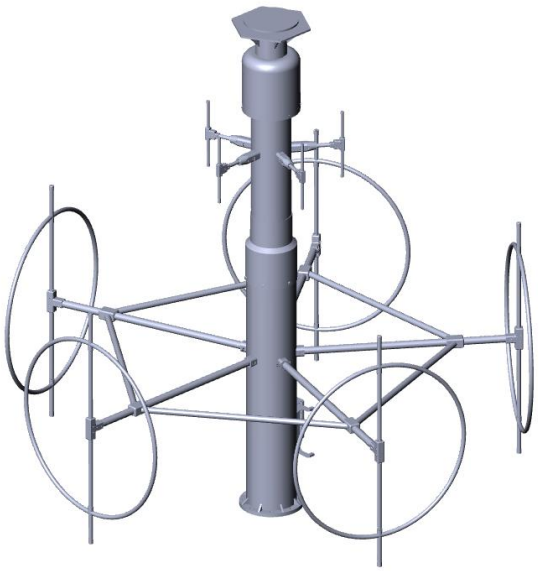
Maritime Direction Finding Antenna

1 – 3000 MHz

Product Code: DF-A0098

VERSION: 1.5



SPECIFICATIONS:

Product codes and related products:	
DF-A0098	1 – 3000 MHz, 5-element, 3-band DF antenna, strengthened for maritime applications
Electrical:	
Frequency range	Band A1: 1 – 30 MHz; Band A2: 20 – 300 MHz; Band B: 300 – 1000 MHz; Band C: 1000 – 3000 MHz
Nominal input impedance	50 Ω
Antenna type	5-element DF interferometer
Polarisation	Vertical
Output cables	RG 400 cables (qty 15)
Connectors	TNC male
Mechanical:	
Maximum wind speed	160 km/h (without ice)
Assembled height (excluding client sensor)	2.71 m
Assembled diameter (max)	2.6 m
Weight of DF (excluding client sensor)	80 kg

PRODUCT DESCRIPTION:

The DF-A0098 maritime direction finding antenna covers a frequency range of 1 MHz to 3 GHz. The antenna is shipped in a compact storage and transport box.

The full-size elements on all bands give excellent DF sensitivity. Ultimate angular resolution for strong signals is well under 1º for most of the frequency range. Dipole elements provide good cross-polarisation rejection, and fair performance for signals arriving from up to 15º above or below the horizon.

This DF antenna is designed to be used with a 5-channel phase-sensitive receiver, and correlative algorithm. Calibration of the antenna can be performed on request.

The upper face of the radome has been designed to accommodate for the implementation of additional system functionality on top of the antenna.

ELECTRICAL FEATURES:

- Full-size DF
- Wideband DF
- 5-element interferometer

MECHANICAL FEATURES:

- Robust construction
- Waterproof
- Quick assembly

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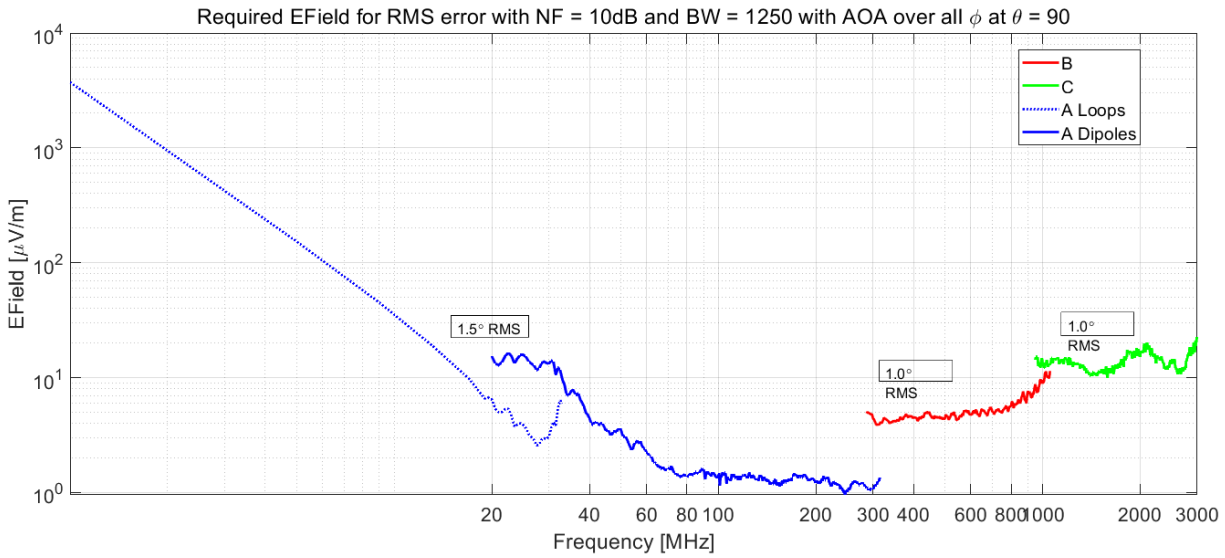
DF sensitivity graph:



The graph illustrates the direction finding sensitivity of a typical system measured under specific electrical conditions.

The sensitivity is measured using an IF bandwidth of 1.25 kHz and without averaging.

The graph shows the minimum signal required to obtain a bearing fluctuation of less than 1º for the frequency range 20 to 280 MHz and less than 1º for the frequency range 280 to 3000 MHz.

ENVIRONMENTAL SPECIFICATIONS AND TESTS (designed to meet the following):

Vibration	Designed for MIL-STD-810G CN1 method 514.7, category 4, procedure I b 2
Shock	Designed for MIL-STD-810G CN1 method 516.7
Temperature high and low storage and operating	Designed for MIL-STD-810G CN1 method 501.6 & 502.6, procedure I & II
Humidity	Designed for MIL-STD-810G CN1 method 507.6, procedure II
Rain	Designed for MIL-STD-810G CN1 506.6, procedure II
Solar radiation	Designed for MIL-STD-810G CN1 505.6, procedure I
Salt fog	Designed for MIL-STD-810G CN1 509.6
Dust	Designed for MIL-STD-810G CN1 510.6, procedure II

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