Direction Finding Antenna

20 – 300 MHz

VERSION: 1.4

Product Code: DF-A0094

SPECIFICATIONS:

Electrical:	
Frequency range	20 – 300 MHz
Nominal input impedance	50 Ω
Antenna type	5-element interferometer
Polarisation	Vertical
Output cables	RG 400 cables (qty 5)
Connectors	TNC male
Mechanical:	
Antenna weight	< 35 kg
Assembled height	< 1.6 m
Assembled diameter	< 2.67 m
Packaging length	1.6 m
Environmental: designed to meet the following specifications	
Cross-sectional wind load area	0.75 m²
Maximum wind speed	150 km/h (without ice)

ELECTRICAL FEATURES:

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

MECHANICAL FEATURES:

- Robust construction
- Waterproof
- Quick assembly

RELATED PRODUCTS:

- **DF-A0038** (direction finding antenna with integrated monitoring system)
- **OMNI-A0112** (active monitoring antenna)

PRODUCT DESCRIPTION:

This direction finding antenna covers a frequency range of 20 MHz to 300 MHz. Shipped in a compact storage and transport box, the antenna can be assembled by one person in 20 minutes, without special tools.

The full-size elements 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.

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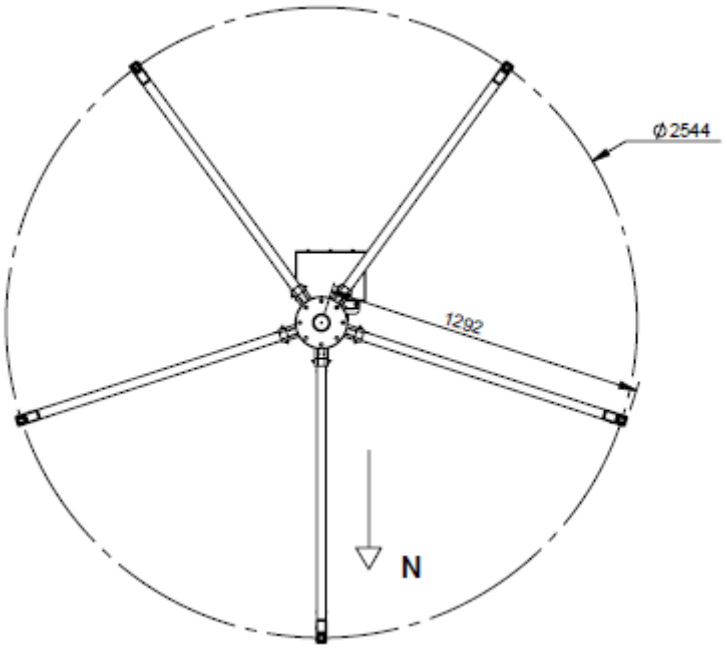
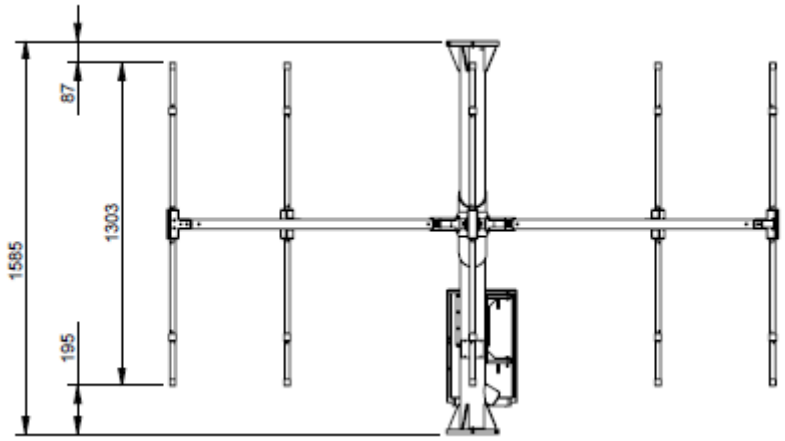
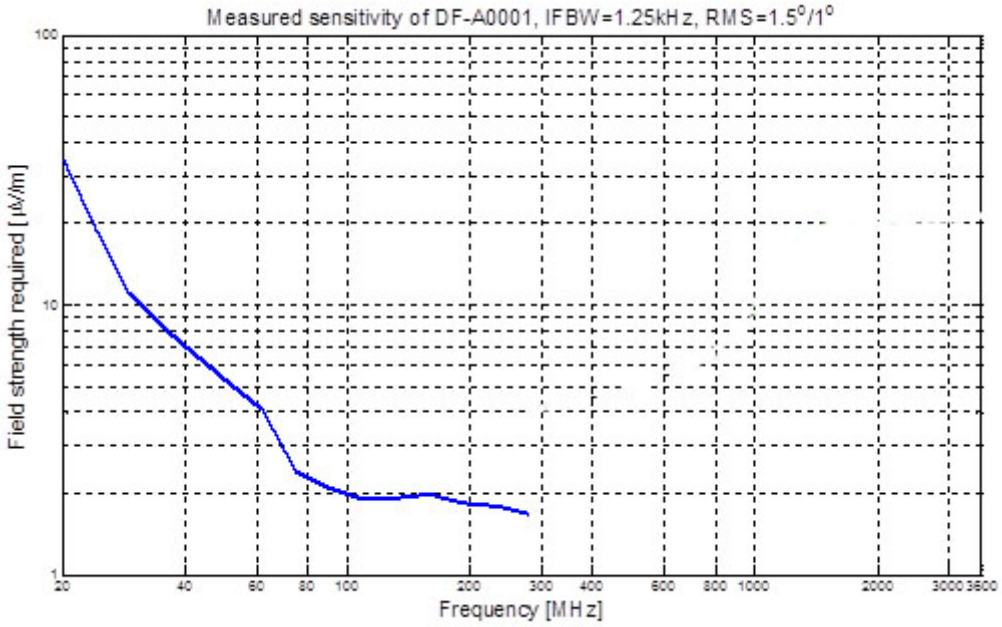
DF antenna dimensions:





DF sensitivity graph:

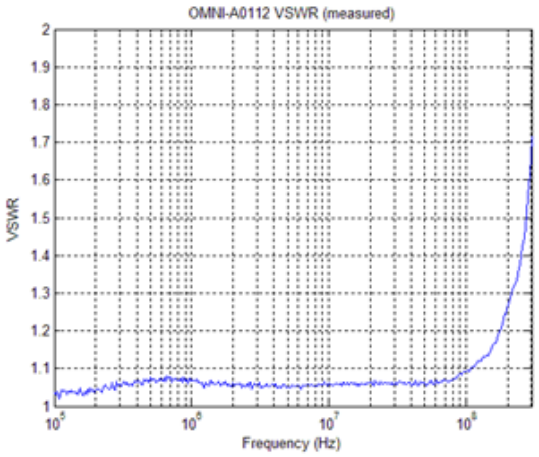


The graph illustrates the direction finding sensitivity of a typical system measured under specific electrical conditions. *Note this is extracted from the DF-A0001 specification and only the performance of 20 to 300 MHz is applicable.

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 3600 MHz.

Typical VSWR GRAPH:



Field strength sensitivity: