

# Wideband Portable Direction Finding Antenna Array

20 – 3600 MHz

VERSION: 4.3

Product Code: DF-A0031



**SPECIFICATIONS:**

<b>Electrical: DF</b>	
Frequency range	20 – 3600 MHz
Suggested antenna bands	A: 20 – 300 MHz B: 300 – 1000 MHz C: 1000 – 3600 MHz
DF method	2 – 5 channel correlative DF (with band switch*, and commutation switch* if nreceivers < 5)
Strong signal DF accuracy	2.5° RMS
DF sensitivity	See graph
Polarisation	Vertical
Nominal input impedance	50 Ω
RF interface description	15 x SMA(m) connectors on pigtailed in electronics enclosure from antenna array  6 x RF relay cables from electronics enclosure (SMA(m)) to cable exit spout at base (TNC(m))
Cable exit	Via spout at base, allows for additional PWR/CTRL cables as needed
<b>Mechanical:</b>	
Dimensions deployed	Ø2.53 x 3.82 m (including mast)
Dimensions stowed	1670 x 430 x 231 mm
Dimensions packaging crate	1774 x 474 x 413 mm
Total mass	20 kg (antenna) 2 kg (accessories)
Mounting method	Guy ropes with mast foot piece
<b>Environmental: designed to meet the following specifications</b>	
Max wind speed	80 km/h (without ice)
Effective sunlit area	0.6 m <sup>2</sup>
Temperature	-30 °C to +70 °C

\* Not included

Notes:

1. RMS accuracy is measured over all azimuth, over each full band. Individual frequencies may exceed this figure.

**PRODUCT FEATURES:**

- Wideband
- Good sensitivity
- Quickly deployable
- Lightweight and portable
- Integrated enclosure for electronics

**RELATED PRODUCTS:**

- DF-A0056 band switch
- DF-A0052 commutating band switch
- MISC-A0082 HF whip accessory

**APPLICATION AREAS:**

- Wideband direction finding
- Mobile deployment
- Deploy from vehicle applications

**PRODUCT DESCRIPTION:**

The DF-A0031 is a radio direction finding array that operates in the 20 to 3600 MHz frequency band in three distinct bands and is designed for use with correlative DF systems comprising between 2 and 5 receivers.

The product features an electronics enclosure that allows the integration of a band and commutation switch, amongst other options (refer to 'related products').

The special feature of this antenna is its extreme portability. It stows to a very compact form factor, and weighs only 20 kg, yet provides sensitivity approaching that of full sized static DF systems, such as the DF-A0007.

The antenna ships ready for mobile deployment with a set of guy ropes and foot piece. Other mounting plans can be catered for on request. An optional whip antenna can be mounted on top of the DF for HF monitoring purposes.

Updated 2016-09-22



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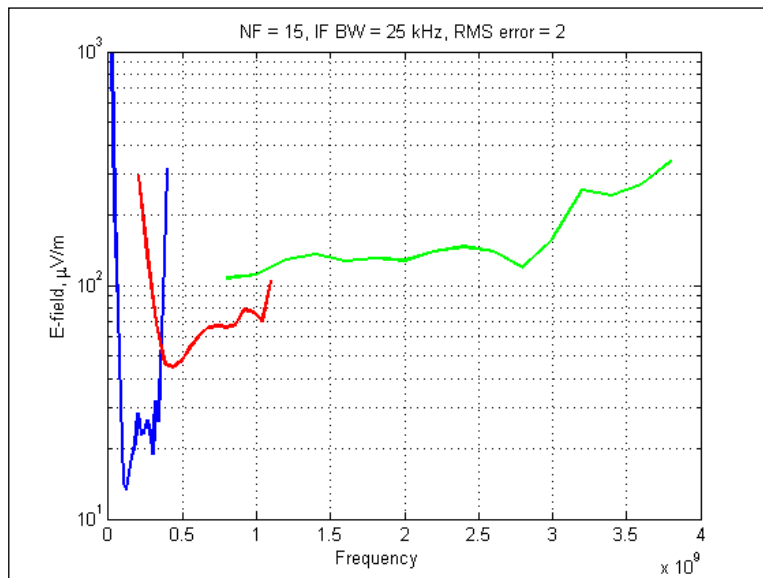
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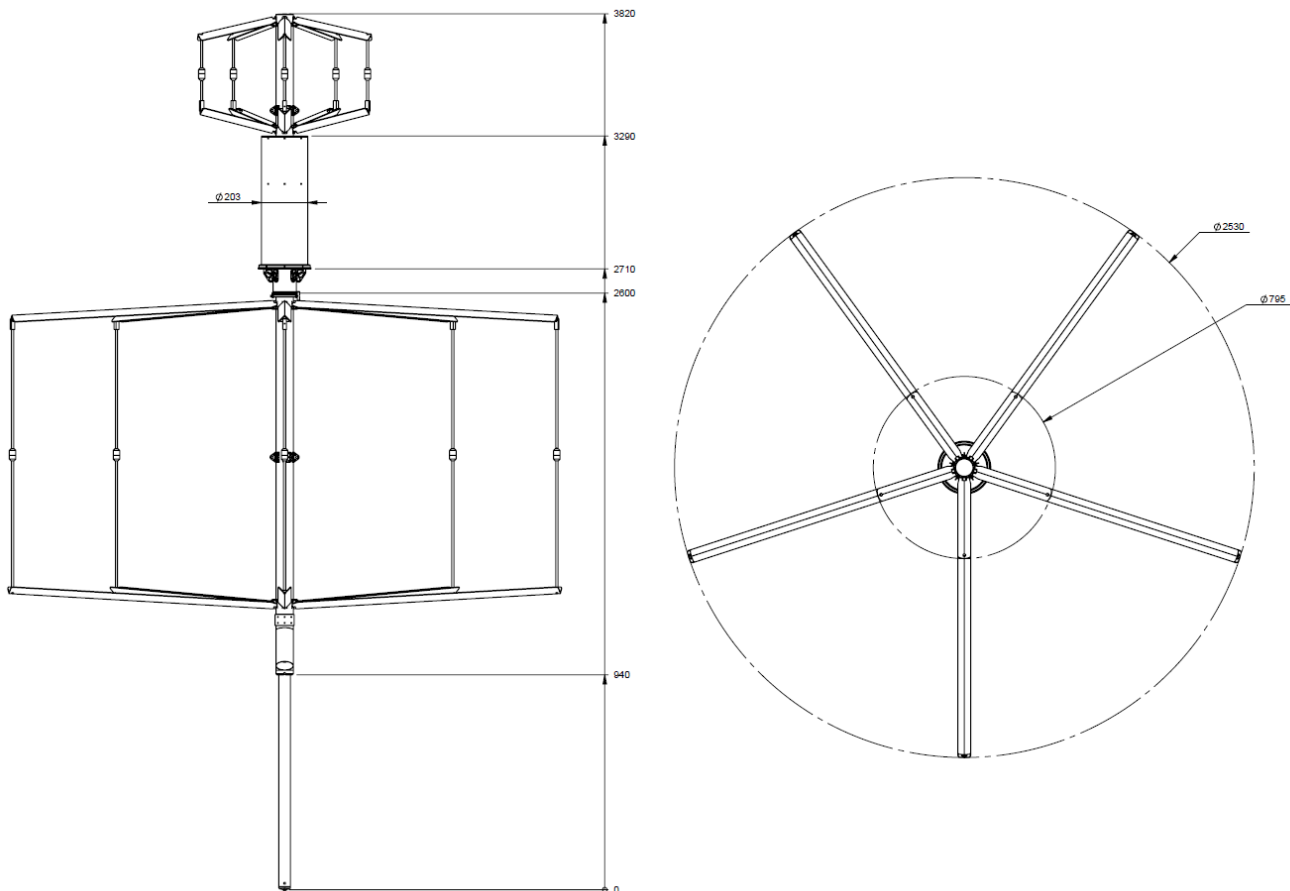
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## DF SENSITIVITY:



The graph illustrates the direction finding sensitivity of a typical system. The sensitivity is for an IF bandwidth of 25 kHz and without averaging. The graph depicts the minimum signal required to obtain a bearing fluctuation of less than  $2^\circ$  and a probability of wild bearing less than 0.1%.

## DEPLOYED DIMENSIONS:



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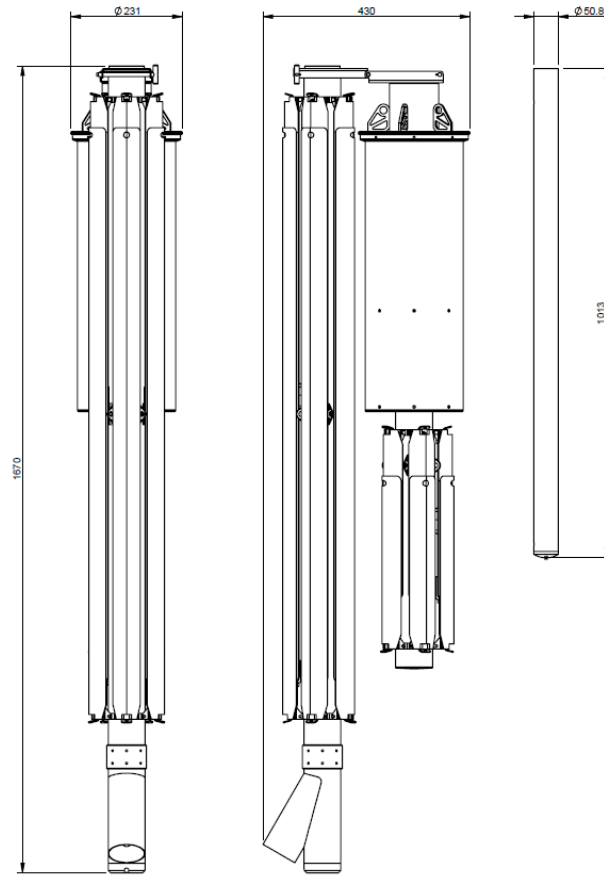
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## STOWED DIMENSIONS:



## PRODUCT PHOTOS:



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