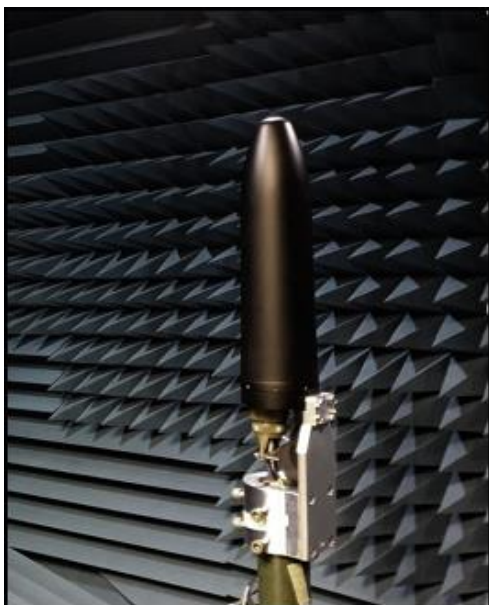


# Compact 4-Channel DF Antenna

400 – 8000 MHz

Product Code: DF-A0269

VERSION: 1.2



## PRODUCT DESCRIPTION:

The DF-A0269 is a dual band, compact DF antenna intended for direction-finding from 400 MHz to 8000 MHz.

The antenna presents patterns suitable for 4-channel correlative DF (CDF).

The DF-A0269 options include low noise amplifiers on each channel with passive bypass capability, an integrated noise source or optional external signal can be used for downstream RF chain calibration as well as various navigation options.

\*CA Application 2,853,219;

\*EP Patent 2771943;

\*U.S. Patent No. 14/353,382;

\*ZA Patent No. 2014/02806

<b>Mechanical:</b>	
Dimensions	See outline below
Total mass	1.1 kg incl bracket
<b>Environmental: designed to meet the following specifications</b>	
Wind survival	160 km/h (without ice)
Temperature (operation)	-30 °C to +70 °C
Vibration and shock	Designed to MIL-STD-810F for ground vehicles
IP Rating	IP66

## SPECIFICATIONS:

<b>Product Code:</b>		
DF-A0269	RS485 communication interface and electronic compass	
DF-A0269-02	USB V2.0 communication interface, 64 MB onboard memory and electronic compass	
DF-A0269-05	USB V2.0 communication interface, integrated inertial navigation system and 64 MB onboard memory	
DF-A0269-07	USB V2.0 communication interface, 64 MB onboard memory	
<b>Electrical: DF</b>		
Frequency range	400 – 8000 MHz	
Frequency bands	Band C: 400 - 2000 MHz	
	Band D: 2000 - 8000 MHz	
Number of channels	4	
DF method	4-channel Correlative Interferometer (CIDF)	
RMS accuracy	2° RMS	
Polarisation	Vertical	
Omni-output	None	
Nominal input impedance	50 Ω	
<b>Electrical:</b>		
	<b>DF-A0269</b>	<b>DF-A0269-02 / -05 / -07</b>
Frequency range	400 – 8000 MHz	
RF Amplification Gain	20 ± 2 dB	20 ± 2 dB
Control	RS 485 serial at 115 kbaud	USB V2.0
Switching time	< 100 µs using serial commands	< 25 µs
	< 5 µs when using dedicated lines	
<b>Integrated features:</b>		
	<b>DF-A0269 / -02</b>	<b>DF-A0269-05</b>
Navigation	Integrated compass Heading accuracy 2° RMS	Integrated GPS/INS <sup>1</sup> unit. Heading accuracy 0.3° RMS
GPS Antenna	Active (L1)	Active (L1)
	<b>DF-A0269</b>	<b>DF-A0269-02 / -05 / -07</b>
Onboard Storage	Model no., serial no., user data fields	64MB flash in addition to Model no., serial no., user data fields
Programming interface	None	to integrated micro controller
RF calibration	RF chain calibration using Integrated noise source or external applied signal	
Power supply	6 - 18 V DC	
Power consumption	< 3 W	
<b>Interfaces:</b>		
Connector	MIL-DTL-38999 multi-pin connector	
Antenna outputs	4 x co-axial	
Integrated GPS	1 x co-axial	
Ext cal input	1 x co-axial	
Control and power	4 x digital	
Programming	4 x digital (DF-A0269-02 / -05 only)	
Mechanical	Removable flange for vehicle or mast- mounting Various sockets for tripod / gooseneck (1/4-20 UNC, 3/8-16 UNC, M10-6H, 3x M5-6H)	

Notes:

1. VN-200 GPS/INS

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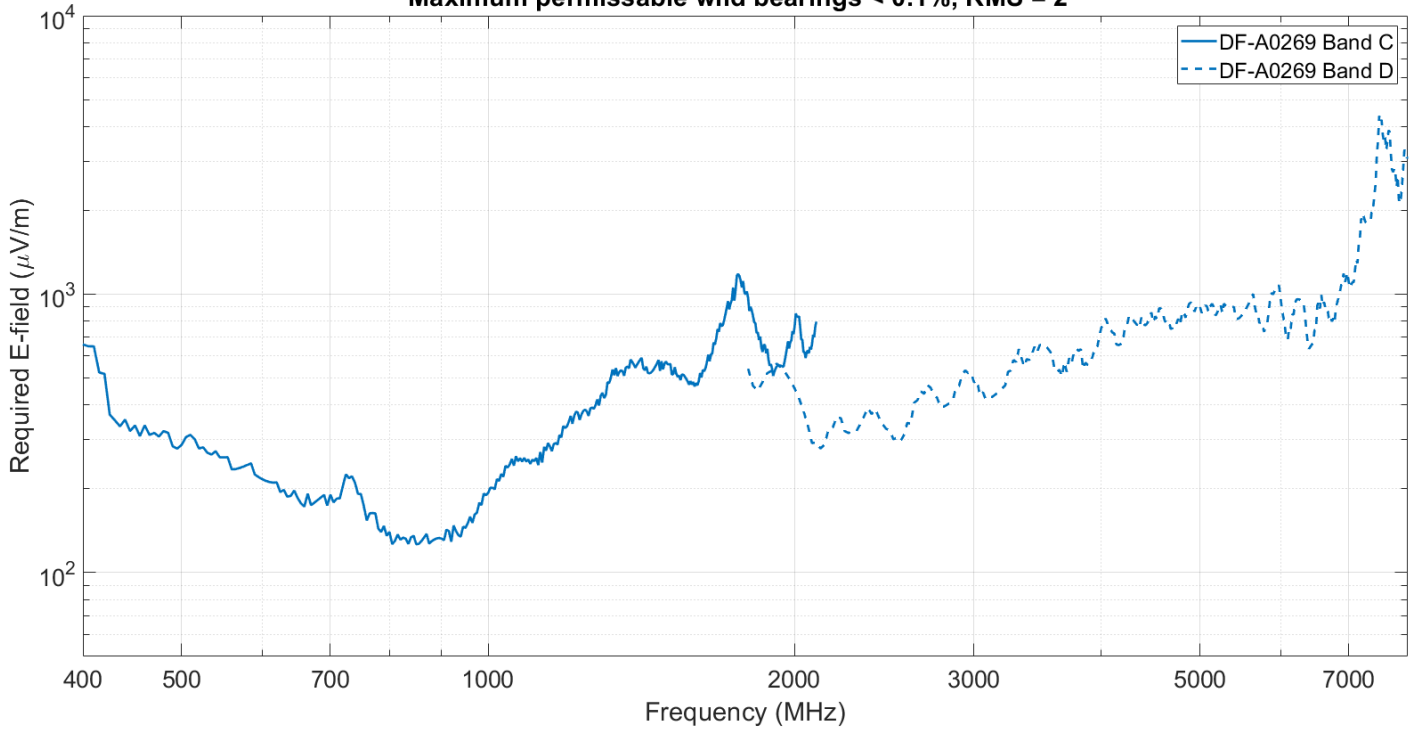
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Antenna Sensitivity:

## DF-A0269 DF Sensitivity

Vertical polarisation, System NF = 10 dB, BW = 25 kHz

Maximum permissible wild bearings < 0.1%, RMS = 2°



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## Mechanical Outline:

