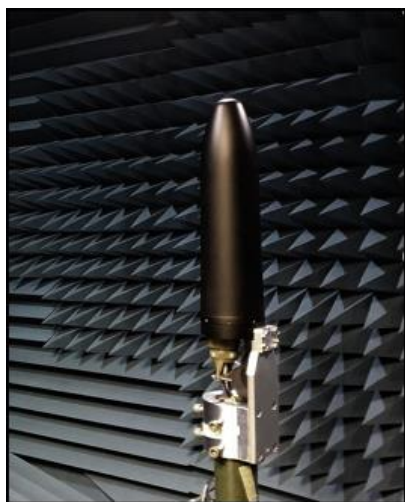


Compact Adcock DF Antenna

20 – 6000 MHz

Product Code: DF-A0257

VERSION: 1.4



PRODUCT DESCRIPTION:

The DF-A0257 is a tri band, compact Adcock DF antenna intended for manpack direction-finding on the move from 20 MHz to 6000 MHz. The DF-A0257 can also be used with the DF-A0245 quad pod antenna for better low-end performance.

The antenna presents patterns suitable for the Watson-Watt estimation method, as well as 3-channel correlative DF (CDF). The antenna offers an omni-channel output that can also be used for monitoring.

The DF-A0257 has a low noise amplifier on each channel with passive bypass capability, an integrated noise source or optional external signal can be used for downstream RF chain calibration and also includes a navigation and GPS.

*CA Application 2,853,219;

*EP Patent 2771943;

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

*ZA Patent No. 2014/02806

Mechanical:	
Dimensions (ø x h)	See outline below
Total mass	< 1.2 kg incl bracket
Environmental: designed to meet the following specifications	
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:

Product Code:		
DF-A0257	RS485 communication interface	
DF-A0257-02	USB V2.0 communication interface, 64 MB onboard memory	
DF-A0257-05	USB V2.0 communication interface, integrated inertial navigation system and 64 MB onboard memory	
Electrical: DF		
Frequency range	20 – 6000 MHz	
Frequency bands	Band B: 20 - 500 MHz	
	Band C: 400 - 2000 MHz	
	Band D: 2000 - 6000 MHz	
Number of channels	3	
DF method	Watson-Watt or 3-channel CDF	
RMS accuracy	See graph below	
Polarisation	Vertical	
Omni-output	Yes	
Nominal input impedance	50 Ω	
Electrical:		
Frequency range	DF-A0257	DF-A0257-02 / -05
RF Amplification Gain	20 ± 2 dB	
Control	RS 485 serial at 115 kbaud	USB V2.0
Switching time	< 100 µs using serial commands < 5 µs when using dedicated lines	< 25 µs
Integrated features:		
Navigation	DF-A0257 / -02	DF-A0257-05
GPS Antenna	Active (L1)	
Onboard Storage	DF-A0257	DF-A0257-02 / -05
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	< 3W	
Interfaces:		
Connector	MIL-DTL-38999 multi-pin connector	
Antenna outputs	3 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-A0257-02 / -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

Related products: DF-A0245, DFS-A0245-02

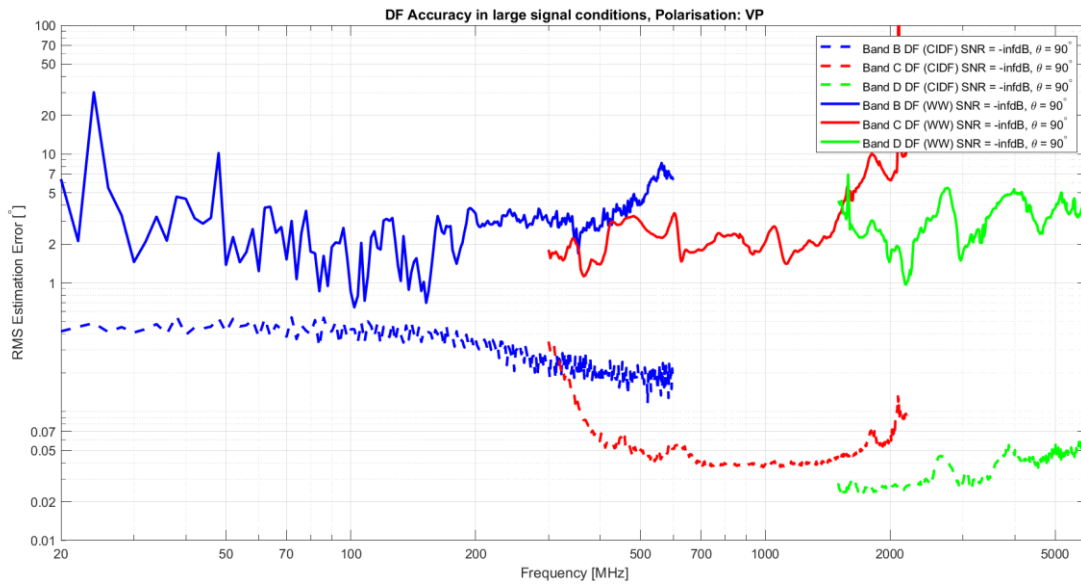
Compact Adcock DF Antenna

20 – 6000 MHz

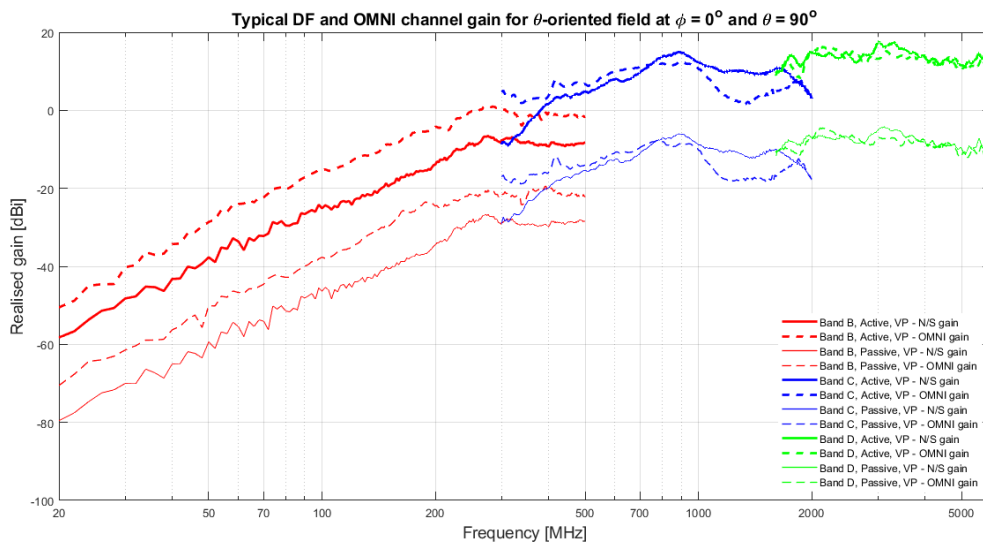
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Accuracy:



Typical Gain Levels:



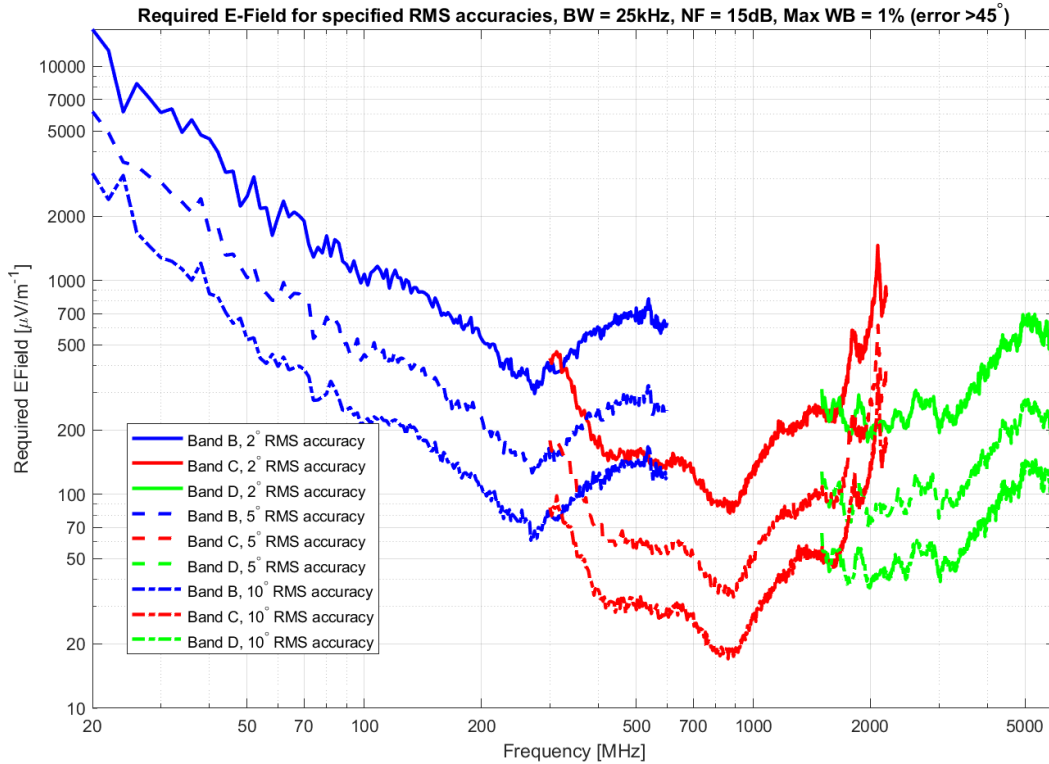
Compact Adcock DF Antenna

20 – 6000 MHz

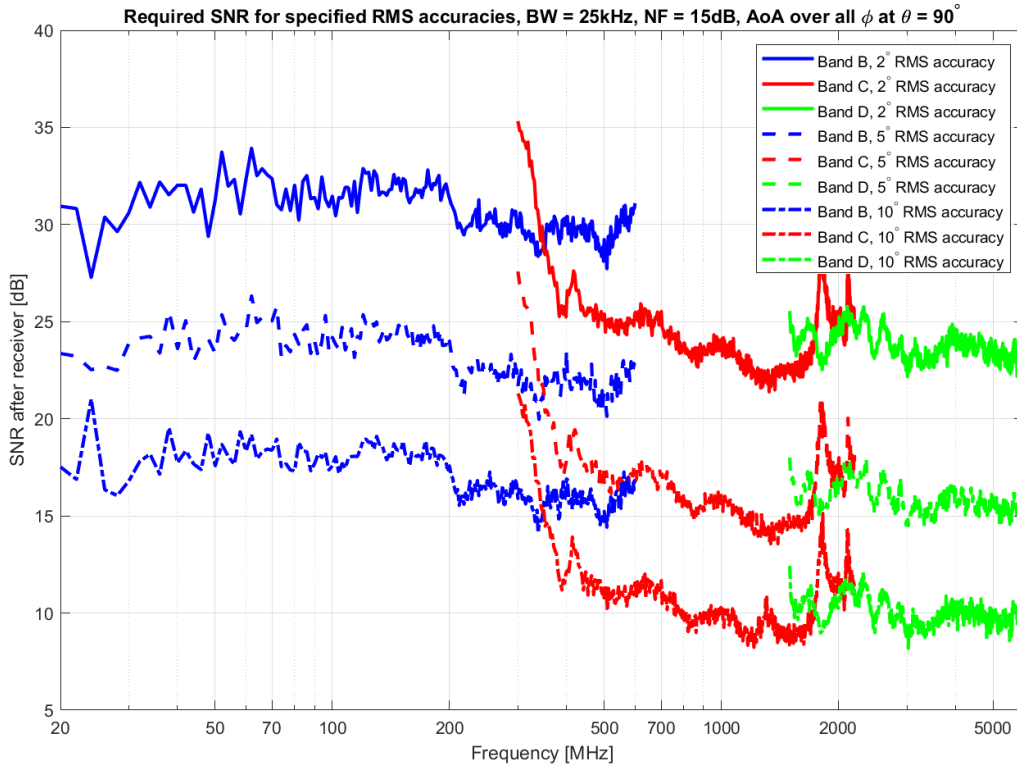
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Sensitivity:



SNR:



Compact Adcock DF Antenna

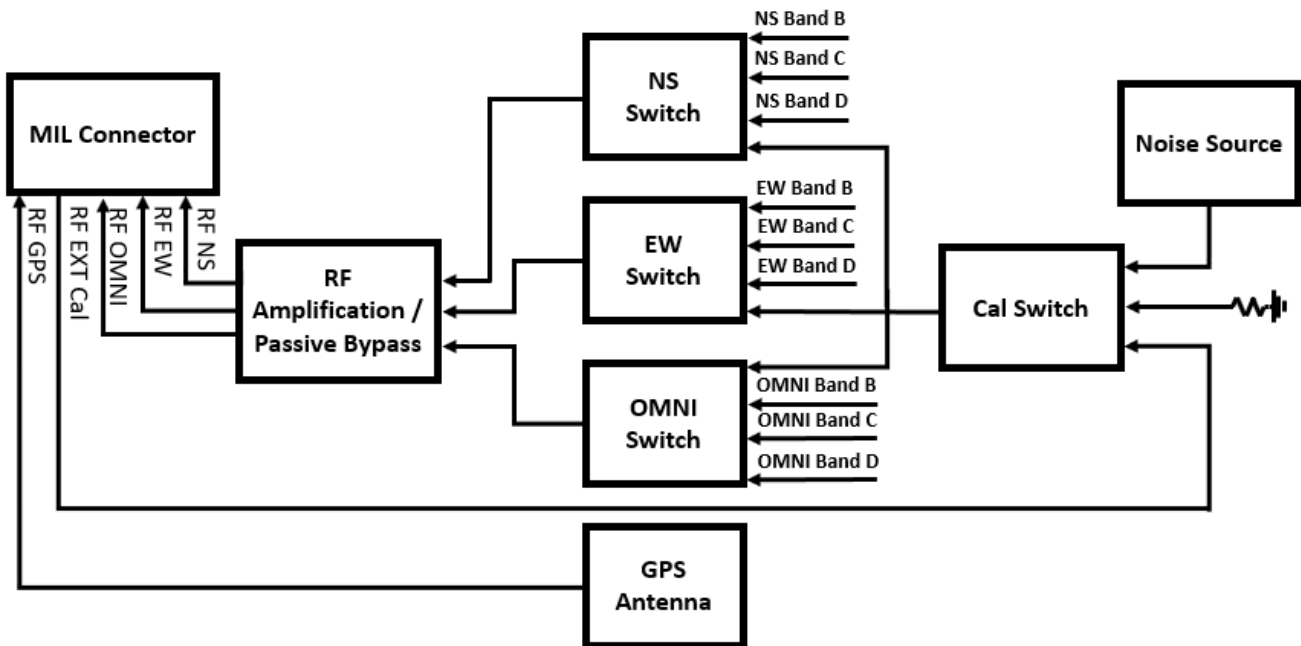
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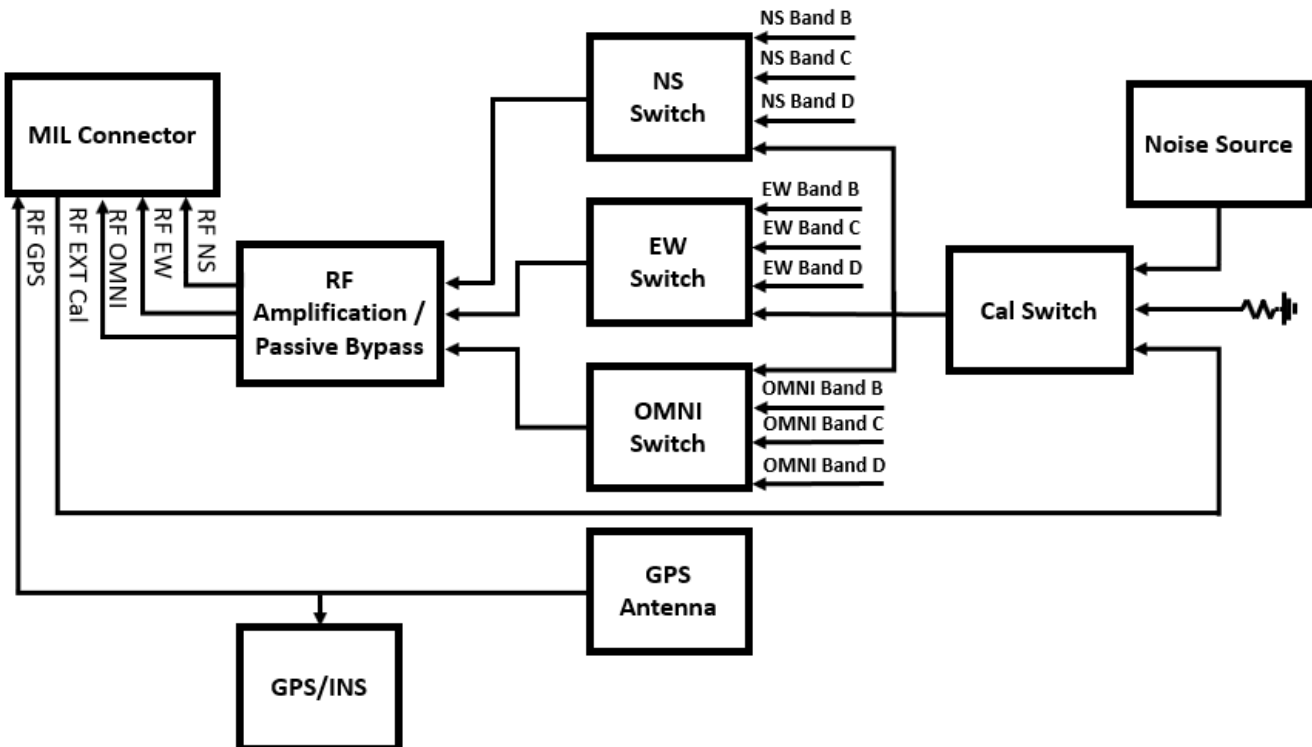
VERSION: 1.4

RF Block Diagram:

DF-A0257 / -02:



DF-A0257-05:



Compact Adcock DF Antenna

20 – 6000 MHz

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Mechanical Outline:

