

Compact 4-Channel DF Antenna

20 – 500 MHz

Product Code: DF-A0273

VERSION: 1.2



PRODUCT DESCRIPTION:

The DF-A0273 is a single band, compact 4-Channel DF antenna intended for direction-finding from 20 to 500 MHz.

The antenna uses crossed-loop array principles that provides maximum possible sensitivity for its compact form factor. The loop designs incorporate patent pending technology to mitigate cross-pol disturbance.

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

The DF-A0273 has low noise amplification on each channel with passive bypass capability, an integrated noise source for calibration and an electronic compass.

*CA Application 2,853,219;
 *EP Patent 2771943;
 *U.S. Patent No. 14/353,382;
 *ZA Patent No. 2014/02806

SPECIFICATIONS:

Electrical: DF	
Frequency range	20 – 500 MHz
Number of channels	4
DF method	4-channel CDF
RMS accuracy	< 2°
Polarisation	Vertical
Nominal input impedance	50 Ω
Electrical:	
Frequency range	20 – 500 MHz
RF Amplification Gain	20 ± 2 dB
Control	RS 485 serial at 115 kbaud
Switching time	< 100 µs using serial commands < 4 µs when using dedicated lines
Integrated compass	Available on RS485 serial. Accuracy 3° RMS
Stored information	Model no., serial no., user data fields
RF calibration	RF chain calibration using Integrated noise source or external applied signal
Power supply	6.5-18 VDC
Power consumption	< 1 W (noise source and compass off)
Interfaces:	
Electrical	Connectors recessed into base of antenna
Antenna outputs	4 x N-type female
Antenna inputs (RF Cal)	1 x N-type female
Control and power	MIL-DTL-38999 multi-pin connector
Mechanical	Flange for vehicle or mast-mounting
Mechanical:	
Dimensions (ø x h)	350 mm x 466 mm
Total mass	8 kg
Environmental: designed to meet the following specifications	
Temperature (operation)	-30 °C to +70 °C
Vibration and shock	MIL-STD-810H 514.8, Category 20, Procedure I MIL-STD-810H 516.8, Procedure I, 40 G @ 11 ms
Water proofing	IP65 rain proof
Wind rating	160 km/h (no icing)

* Improved accuracy is possible using correlative methods

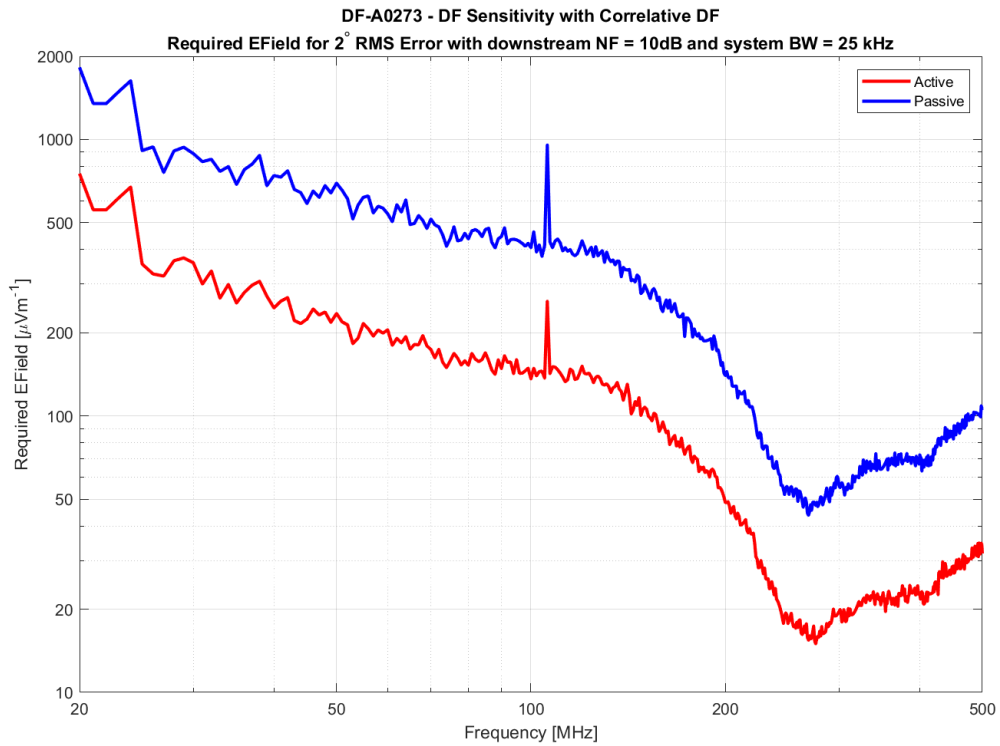
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DF Sensitivity:



MECHANICAL OUTLINE DRAWING:

