

VERSION: 1.5

Compact DF Antenna

1 – 3000 MHz

Product Code: DF-A0143

SPECIFICATIONS:

| Electrical: DF antenna | |
|------------------------------------|------------------------------------|
| Frequency Range | 1 – 3000 MHz |
| Band A | 1 – 250 MHz, Loops |
| Band B | 250 – 1500 MHz, Monopoles |
| Band C | 1500 – 3000 MHz, Dipoles |
| DF method | Wattson-Watt or CIDF |
| Number of bands | 3 |
| Number of channels | 3 |
| RMS accuracy | < 5° (using only pure WW)* |
| Omni output | Channel 1 on all bands |
| Electrical: Band switch | |
| Frequency Range | 1 - 3000 MHz |
| Control | - RS 485 serial at 115 kbaud |
| | - Dedicated switching lines. |
| Switching time | < 100 µs using serial commands |
| | < 5 µs when using dedicated lines |
| Stored information | Serial number |
| Power supply | 12 V DC |
| Power consumption | < 1 W |
| Internal noise source power output | 40 ± 5 dB ENR |
| Interface: | |
| Electrical | MIL-DTL-38999 connector |
| | 3 x RF (DF) |
| | 1 x RF (CAL) |
| | 1 x RF (GPS) |
| | 2 x Power |
| | 2 x Switch control |
| | 4 x RS485 |
| Mechanical | Flange for vehicle mounting |
| Mechanical: | |
| Total Mass | 4.2 kg |
| Dimensions (h x d) | 490 x 450 mm |
| Environmental: | |
| | |
| Temperature Range | -30° C to +70° C |
| | -30° C to +70° C 40 G for 10 ms |

* Improved accuracy is possible using correlative methods

PRODUCT FEATURES:

- Super compact
- Low profile
- Light weight, < 4.2 kg
- Wideband coverage
- Internal solid-state band and noise switch

APPLICATIONS:

- Mobile direction finding
- Wideband monitoring





We reserve the right to change the product specification without notice. Values may vary due to tolerances.

www.antennas.alaris.tech

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290 450

PRODUCT DESCRIPTION:

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The DF-A0143 is a wide band (1 - 3000 MHz), ruggedized mobile DF antenna. It is intended for variety vehicular platforms, for example, small tactical vehicles (dune buggies, two or three wheeled vehicles), vans, Humvees and could be used on airborne structures.

The antenna uses a combination of crossed-loop and Adcock array principle for the various bands providing maximum possible sensitivity for its compact form factor. Please note that corrected WW and correlative interferometric DF could be used for enhanced performance.

A dedicated Omni output provides a monitoring capability for signal interception and demodulation.

A cavity inside the antenna houses an integrated band switch that allows control and calibration circuitry to be integrated into the antenna. *CA Application 2,853,219; *EP Patent 2771943;

*U.S. Patent No. 14/353,382; *ZA Patent No. 2014/02806

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