

# MAGNETIC FIELD TRACKING

# MDF ANTENNA

## SERIES

Perfect as signal tracker and power meter, frequency range 9 kHz – 400 MHz



- ✓ High conversion accuracy allows
- ✓ precise field strength measurements

- ✓ 2 passive & 3 active versions with up to 40 dB Preamplifier
- ✓ Compact Design and low weight

**AARONIA AG**

MADE IN GERMANY



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# Specifications

## MDF® 930X (active)

Dimensions [L x W x D]	180 x 180 x 85 mm
Weight	360 g
RF Connection	SMA (female)
Frequency Range	9 kHz – 30 MHz <small>(1 MHz - 25 MHz with max. +/- 0,5 dB deviation)</small>
Impedance	50 Ohm
Temperature Range	- 40° C – + 60° C
Warranty	2 years

Incl. 35 dB Preamp with Battery & USB Charger  
Incl. Pistol grip and waterproof carrying case

## MDF® 960X (active)

Dimensions [L x W x D]	180 x 180 x 85 mm
Weight	360 g
RF Connection	SMA (female)
Frequency Range	9 kHz – 60 MHz <small>(1 MHz - 40 MHz with max. +/- 1,0 dB deviation)</small>
Impedance	50 Ohm
Temperature Range	- 40° C – + 60° C
Warranty	2 years

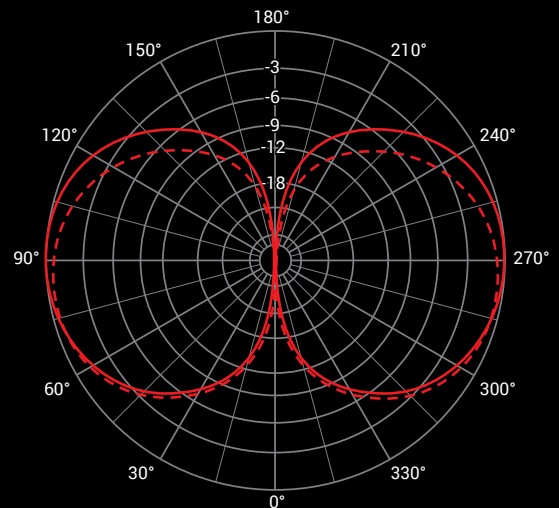
Incl. 25 dB Preamp with Battery & USB Charger  
Incl. Pistol grip and waterproof carrying case

## MDF® 50400X (active)

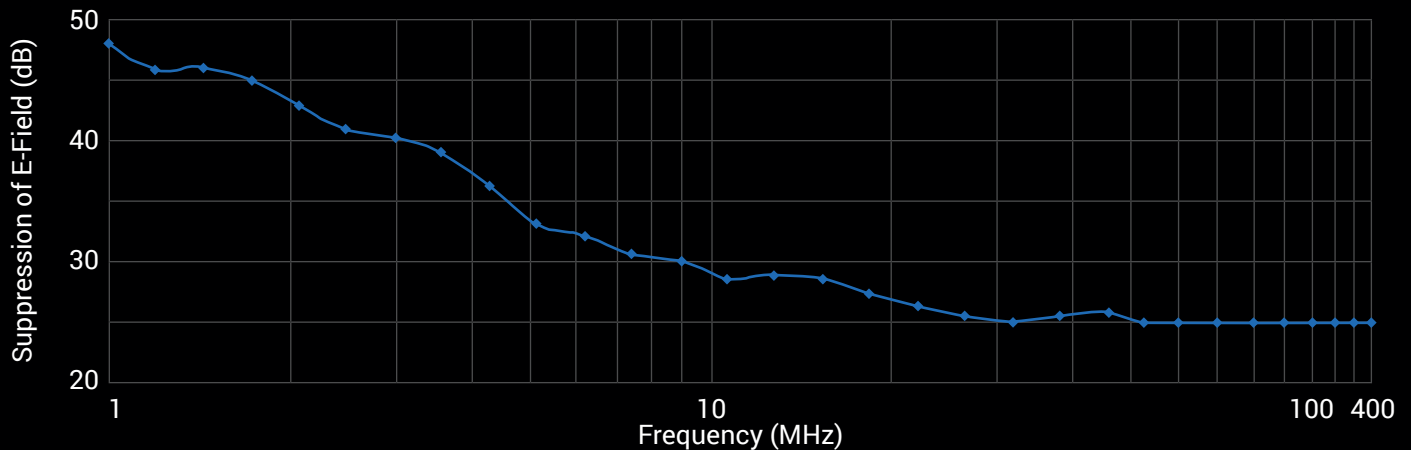
Dimensions [L x W x D]	180 x 180 x 85 mm
Weight	360 g
RF Connection	SMA (female)
Frequency Range	500 kHz – 400 MHz <small>(1 MHz - 40 MHz with max. +/- 1,0 dB deviation)</small>
Impedance	50 Ohm
Temperature Range	- 40° C – + 60° C
Warranty	2 years

Incl. 40 dB Preamp with Battery & USB Charger  
Incl. Pistol grip and waterproof carrying case

Typ. MDF® Antenna Pattern



E-Field Suppression Diagram



# Specifications

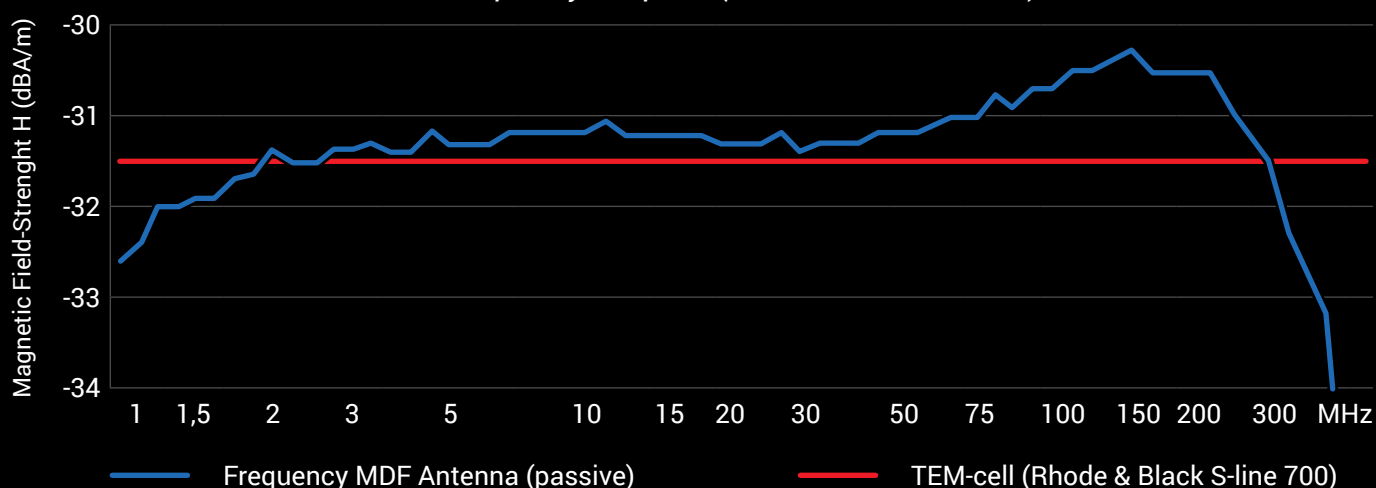
## MDF® 560 (passive)

Dimensions [L x W x D]	180 x 180 x 50 mm
Weight	180 g
RF Connection	SMA (female)
Frequency Range	500 kHz – 60 MHz <small>(1 MHz - 40MHz with max. +/- 0,3 dB deviation)</small>
Max. Input Level	5 W <small>(usable as transmitting antenna)</small>
Conversion Factor	1 (0 dB A/m is 0 dBm)
Impedance	50 Ohm
Temperature Range	- 40° C – +60° C
Warranty	2 years
Incl. Pistol grip with mini tripod function	

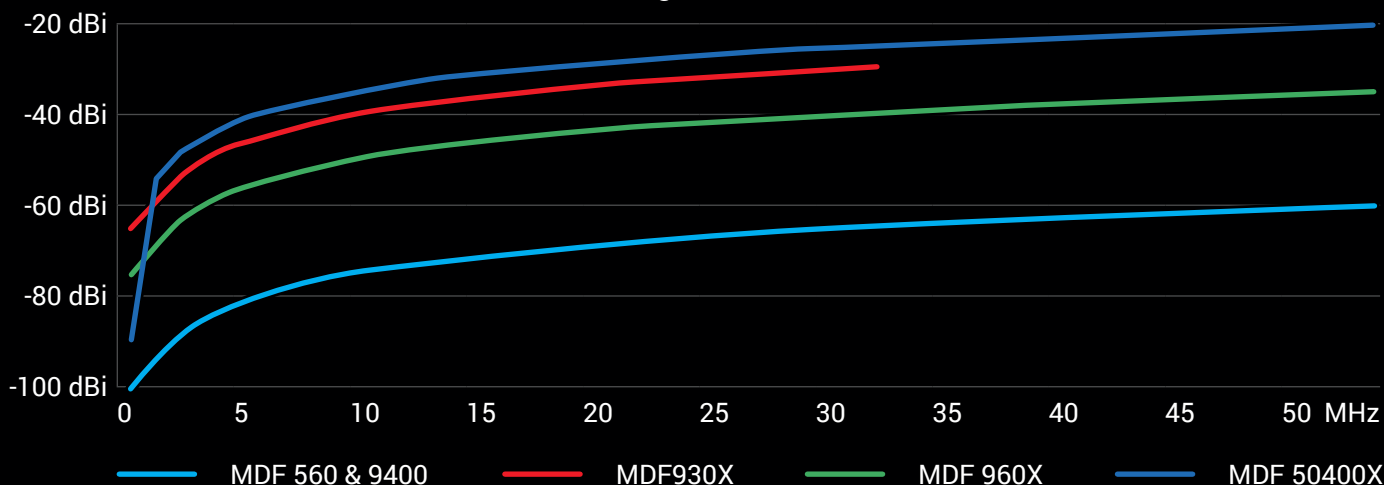
## MDF® 9400 (passive)

Dimensions [L x W x D]	180 x 180 x 50 mm
Weight	180 g
RF Connection	SMA (female)
Frequency Range	9 kHz – 400 MHz <small>(1 MHz - 40MHz with max. +/- 0,3 dB deviation)</small>
Max. Input Level	5 W <small>(usable as transmitting antenna)</small>
Conversion Factor	1 (0 dB A/m is 0 dBm)
Impedance	50 Ohm
Temperature Range	- 40° C – +60° C
Warranty	2 years
Incl. Pistol grip with mini tripod function	

Frequency Response (Power Meter Function)



Gain Diagram MDF® Antennas



# Recommended Accessories

## Multifunctional Pistol Grip

(strongly recommended)

Highly recommended for our MDF® antennas. Quick and easy antenna polarization change, guarantees perfectly stable antenna handling.

Order/Art.-No.: 503/012



## 2 m / 5 m / 10 m SMA Cable with Locking Nut

Same as above, but with an extremely practical locking nut for easy installation with no additional tools. All versions available as: SMA plug (male) / SMA plug (male) (requires SMA to N Adapter for connection to MDF antennas).

Order/Art.-No.: 501/053 (2 m), 501/054 (5 m), 501/055(10 m)

## 1 m / 5 m / 10 m SMA Cable

High-quality special SMA cable, connecting test equipment to any MDF® antenna. Customers can choose between three different cables:

- 1 m standard SMA cable (RG316U)
  - 5 m low-loss SMA cable (especially low damping)
  - 10 m low-loss SMA cable (especially low damping)
- All versions: SMA plug (male) / SMA plug (male)

Order/Art.-No.: 501/006 (1 m), 501/008 (5 m), 501/0010 (10 m)



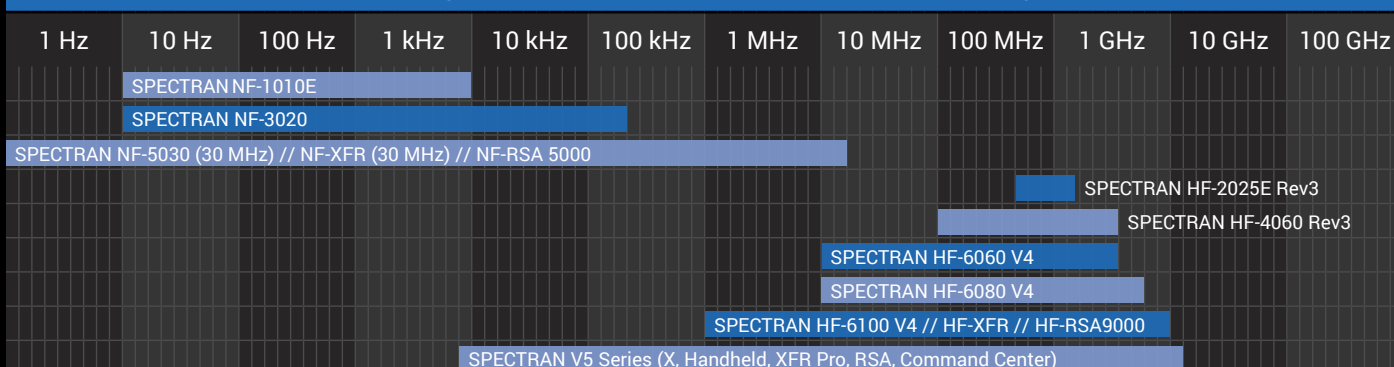
## SMA to N Adapter

This special high-quality adapter allows for operating all MDF® antennas with any standard spectrum analyzer equipped with an N connector. This adapter can be used with very high frequencies. Measuring just 30 x 20 mm in size, its nominal impedance is 50 Ohm. Layout: SMA socket (female) / N plug (male).

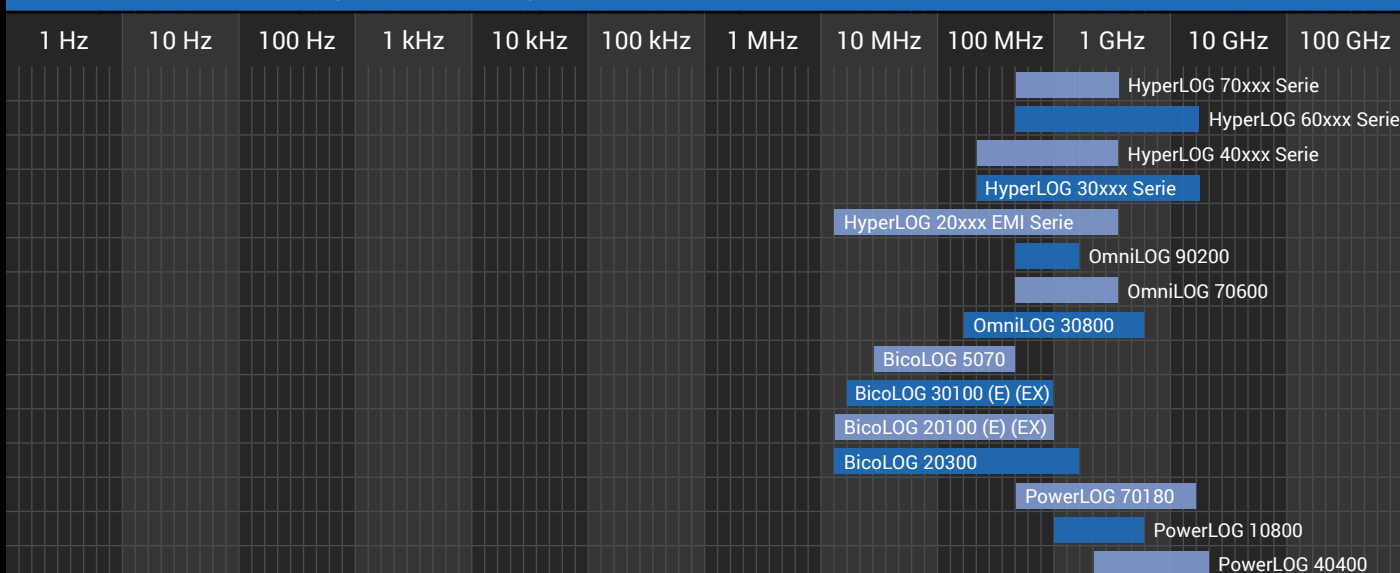
Order/Art.-No.: 502/009

# Frequency Overviews

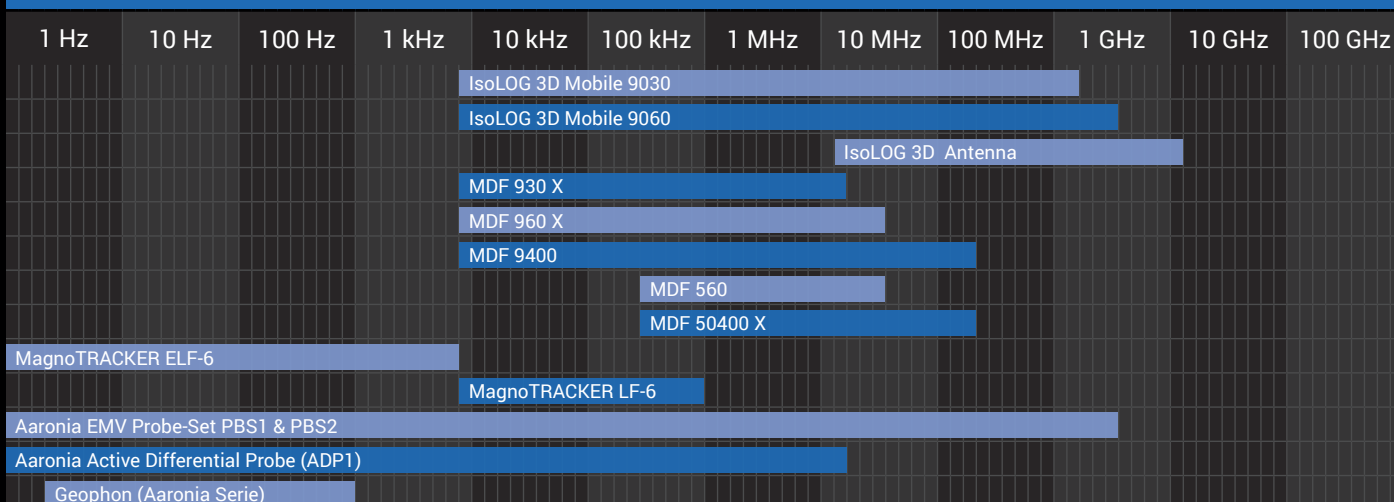
## Frequency Overview SPECTRAN® Spectrum Analyzers



## Frequency Overview HyperLOG®, BicoLOG® and PowerLOG® Antennas



## Frequency Overview IsoLOG® 3D, MDF, MagnoTRACKER® and Probes



# References



## Selected Aaronia Clients

### Government, Military, Aeronautic, Astronautic

- NATO, Belgium
- Department of Defense, USA
- Department of Defense, Australia
- Airbus, Germany
- Boeing, USA
- Bundeswehr, Germany
- NASA, USA
- Lockheed Martin, USA
- Lufthansa, Germany
- DLR, Germany
- Eurocontrol, Belgium
- EADS, Germany
- DEA, USA
- FBI, USA
- BKA, Germany
- Federal Police, Germany
- Ministry of Defense, Netherlands

### Research/Development, Science and Universities

- MIT – Physics Department, USA
- California State University, USA
- Indonesian Institute of Sciences, Indonesia
- Los Alamos National Laboratory, USA
- University of Bahrain, Bahrain
- University of Florida, USA
- University of Victoria, Canada
- University of Newcastle, United Kingdom
- University of Durham, United Kingdom
- University Strasbourg, France
- University of Sydney, Australia
- University of Athens, Greece
- University of Munich, Germany
- Technical University of Hamburg, Germany
- Max Planck Inst. for Radio Astronomy, Germany
- Max Planck Inst. for Nuclear Physics, Germany
- Research Centre Karlsruhe, Germany

### Industry

- IBM, Switzerland
- Intel, Germany
- Shell Oil Company, USA
- ATI, USA
- Microsoft, USA
- Motorola, Brazil
- Audi, Germany
- BMW, Germany
- Daimler, Germany
- Volkswagen, Germany
- BASF, Germany
- Siemens AG, Germany
- Rohde & Schwarz, Germany
- Infineon, Austria
- Philips, Germany
- Thyssenkrupp, Germany
- EnBW, Germany
- CNN, USA
- Duracell, USA
- German Telekom, Germany
- Bank of Canada, Canada
- NBC News, USA
- Sony, Germany
- Anritsu, Germany
- Hewlett Packard, Germany
- Robert Bosch, Germany
- Mercedes Benz, Austria
- Osram, Germany
- DEKRA, Germany
- AMD, Germany
- Keysight, China
- Infineon Technologies, Germany
- Philips Semiconductors, Germany
- Hyundai Europe, Germany
- VIAVI, Korea
- Wilkinson Sword, Germany
- IBM Deutschland, Germany
- Nokia Siemens Networks, Germany

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