

# MF EASY

## MAGNETIC FIELD EXPOSURE ASSESSMENT SYSTEM

NEW!

### MEASURING MAGNETIC FIELDS MADE EASY

The MF EASY is a scalable and flexible multichannel measurement and assessment system for magnetic fields in the frequency range DC – 400 kHz. It is available with 5 or 10 (on request up to 15) fully isotropic measurement channels enabling simultaneous magnetic field measurements on 5 or 10 (15) measurement positions.

Different standard probe types (sizes and shapes) are available for the MF EASY, customized probes are available on request. Iso-centrally arranged coil and Hall sensor enable a measurement frequency range from DC to 400 kHz and a measurement sensitivity suitable for assessing human exposure.

Special probes (e.g., miniature Hall probes) enable to use MF EASY also for on-site detection and analysis of EMC problems and other applications.

The MF EASY can be powered from 12 V battery and is therefore perfectly usable for on-vehicle measurements.

### PRODUCT HIGHLIGHTS

- Scalable number of measurement channels
- Time Domain measurements
- Frequency Range DC – 400 kHz
- Iso-centric arrangement of Coil and Hall sensors
- Different probe sizes and shapes available
- Up to 5 m probe cable length
- Clear and flexible user interface for measurement control
- On-the-fly exposure assessment according to many relevant human safety standards (including weighted peak method)
- 12 V power supply enables on-vehicle measurements

### CUSTOMIZATION

The flexible architecture of the MF EASY enables efficient modification to special need of customers. For example, a CAN bus interface can easily be integrated in the system enabling synchronization of measurement with control signals in automotive applications.

Moreover, almost any customer specific probe design can be realized to operate with the MF EASY.



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### TECHNICAL DATA

	Hall sensor channels	Coil sensor channels
Measurement Frequency ranges	0 Hz – 10 kHz, 0 Hz – 3 kHz, 0 Hz – 500 Hz	1 Hz – 400 kHz, 1 Hz – 100 kHz, 1 Hz – 10 kHz 12 Hz – 400 kHz, 12 Hz – 100 kHz, 12 Hz – 10 kHz 300 Hz – 400 kHz, 300 Hz – 100 kHz, 300 Hz – 10 kHz
Intrinsic noise (broadband)		Coil sensor channels (100 cm <sup>2</sup> ): < 60 nT (12 Hz – 400 kHz) < 150 nT (1 Hz – 400 kHz)
Intrinsic noise (spectrum after FFT) @ 400 kHz measurement bandwidth	< 1 µT @ > 100 Hz, < 2 µT @ 50 Hz	Coil sensor channels (100 cm <sup>2</sup> ): < 1 nT @ > 100 Hz, < 2 nT @ 50 Hz
Frequency resolution (FFT) @ 400 kHz measurement bandwidth	0.5 Hz	
Upper limit of most sensitive measurement range	50 mT	Coil sensor channels (3 cm <sup>2</sup> ): (1 Hz – 400 kHz): 5 mT Coil sensor channels (100 cm <sup>2</sup> ): (1 Hz – 400 kHz): 0.5 mT
Upper limit of least sensitive measurement range	3 T	Coil sensor channels (3 cm <sup>2</sup> ): (1 Hz – 400 kHz): 150 mT Coil sensor channels (100 cm <sup>2</sup> ): (1 Hz – 400 kHz): 15 mT
AD sampling rate	selectable, up to 30 kS/s	selectable, up to 2 MS/s
Measurement intervals	Freely selectable, max. 2 s @ 2 MS/s sampling rate, proportionally longer at lower sampling rates	
Data storage	4 TB (internal SSD)	
Reading of measurement data	RMS, PEAK, WPM (ICNIRP 1998, ICNIRP 2010), extension / customization possible on request	
Exposure assessment	ICNIRP 1998, ICNIRP 2010 (WPM), extension / customization possible on request	
Number of isotropic measurement channels	5 / 10 / 15 (scalable)	
Available probes	isotropic: 100 cm <sup>2</sup> Coil + Hall isotropic: 3 cm <sup>2</sup> Coil + Hall isotropic: 12 mm Diameter Hall probe others on request	

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