



# EASY6

## Portable Measurements



### What is EASY6?

EASY6 is a complete redesign of our widely used Electromagnetic (EM) Exposure Acquisition System EASY4/MRI. It is smaller, more cost-efficient, and directly connects our classic specific absorption rate (SAR), temperature and field probes via an optical link (EASY6-DAE + EASY6-RU) to the computer. The user-friendly EASY6 software allows the acquisition of data from 1 – 10 probes while

each measurement channel is individually characterized and processed. It further enables high precision measurements of the EM near and far field to be collected and stored from low MHz to 10 GHz with high spatial resolution. Like its predecessor, EASY6 is designed to work within hostile EM environments, including Magnetic Resonance Imaging (MRI) scanners up to 7 Tesla.

# EASY6 Portable EM, SAR & Temperature Measurements

## Applications

- use in hostile EMF environments
- incident fields, dosimetry and temperature evaluation
- short and long-time high precision field monitoring
- any high precision EMF measurements in reverberation chambers, anechoic chambers, open test sites, clinical environments or EMC laboratories
- free space E & H - field measurements
- validation of simulation results (e.g. Sim4Life)
- MRI compliance testing; Assessment of occupational exposure to EMF around MRI equipment; SAR and temperature evaluations of implantable medical devices

## EASY6-DAE Specification

### Data Acquisition Electronics for EASY6/MRI System

MRI Compatibility	Non-magnetic and shielded structure for use in MRI environments Optical communication link System fully remote controlled
Measurement Capability	50 Hz/60 Hz digital suppressing (20 ms/16 ms averaging) Tunable averaging with enhancement of SNR
Sampling Rate	16 samples/second (62.5 ms)
Measurement Range	24-bit resolution +/- 0.6V
Input Offset Voltage	<1 $\mu$ V (with auto zero)
Input Resistance	200 MOhm
Input Bias Current	<50 fA
Integrated Battery	Charging via USB-C Led display > 10 hours of operation
Connectors	Input: SPEAG probe connector Output (bidirectional): EASY6-EoF connector
Calibration	ISO/IEC 17025 calibration service available
Dimensions (LxWxH)	38 x 38 x 72 mm

## EASY6-RU Specification

### Remote Unit for Interfacing EASY6-DAE with Laptop

Connectors	Input (bidirectional): 2 x EASY6-EoF connector Output: USB to computer Led display
Cable from EASY6-DAE to EASY6-RU	EASY6-EoF, up to 10 m



## EASY6MRI Software

- field strength meter (display of values, min, max and statistics)
- scope meter (field components or total values vs. time)
- separate processes with individual parameters for each channel
- support of up to 10 channels
- optimized for Tablet / Touch interfaces
- API for integration in test automation applications
- export functionality to xls, matlab etc.

## EASY6-EoF Specification

Description	Duplex optical cable with integrated electro-optical converters at connectors Bidirectional communication between EASY6-DAE and EASY6-RU
Dimensions	2 x 1000 $\mu$ m 0.17 dBm-1 @ 650 mm industrial fiber optics Length: up to 10 m

## Measurement Capability

Compatible with the SPEAG probes listed below. Also refer to SPEAG Probes flyer or SPEAG website ([www.speag.swiss](http://www.speag.swiss)).

E-field	Frequency range: 20 – 6000 MHz Dynamic range: 2 – 1000 V/m Directivity: < $\pm$ 0.3 dB
H-field	Frequency range: 20 – 3000 MHz Dynamic range: 0.01 – 5 A/m at 128 MHz Directivity: < $\pm$ 0.2 dB
SAR	Frequency range: 10 – 6000 MHz Dynamic range: 10 $\mu$ W/g – 100 W/kg Directivity: < $\pm$ 0.3 dB
Temp	Dynamic range: 0°C – 60°C Noise: < 2 mK (sampling time: 0.1s) Spatial resolution: 1 mm

Custom-made probes or interface to 3rd-party probes on request

For further information and technical specifications, visit [www.speag.swiss](http://www.speag.swiss)

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Schmid & Partner Engineering AG  
Zeughausstrasse 43, CH-8004 Zurich, Switzerland  
Phone: +41-44-245-9700  
info@speag.swiss

WWW.SPEAG.SWISS

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