DARE!!

*For a safe and interference-free world*

RadiSense® 10

# Laser powered field strength probe

*Accurate · High Speed · Robust · Small*

**World leader in Innovation!**

DARE!! Instruments, the inventor of the first laser powered E-field probe in de world provides a full range of small and fast laser powered probes from 9 kHz to 40 GHz. The first RadiSense probe was developed and produced in the previous century. Delivered to companies all around the world, this probe has become the industry standard. The RadiSense has proven to deliver the best quality in the market, with unprecedented measurement uncertainty.

## Best-in-class accuracy

With the development of the RadiSense 10 E-field probe DARE!! Instruments has achieved another breakthrough in the overall measurement accuracy of electrical field strength probes. With the introduction of the RadiSense 10 electric field probe nearly every aspect of the product has been improved. All these improvements now result in the most accurate laser powered E-field probe in the world!

## Superb isotropy

The RadiSense 10 uses six measurement antenna elements which provides superior isotropic performance compared to traditional three axis probes. The superb isotropic response is a result of the combination of: the 6 antennae, extreme small size, the patented design of the housing and a unique antenna element design.

## Size does matter

One of the main contributions in overall measurement accuracy is the overall measurement volume of the new probe. With the dimension of 49 mm in any direction the RadiSense 10 E-field probe provides the smallest measurement volume available in the market! Due to its small size, extremely accurate measurements can be performed, even in small environments like TEM- and GTEM cells.

## High Speed

The RadiSense 10 E-field probe also offers a maximum speed of 1,000 isotropic measurements per second and over 48,000 samples per second. This enables fast EMC immunity testing under all circumstances, including reverberation chamber applications.

## Wide band

Due to its unique antenna design, an extremely wide frequency range from 9 kHz to 12 GHz is covered with a single E-field probe. This makes the RadiSense 10 E-field probe ideal for nearly any EMC test application.

## Robust

The RadiSense 10 E-field probe comes in a ruggedized housing; hence it is very robust compared to other probes currently on the market.

## Software support

The RadiSense field strength probes are supported by the RadiMation automated EMC measurement software. The probe can also be controlled with most available commercial EMC test software packages.

## Laser technology

DARE!! Instruments invented the first laser powered E-field probe already in 1999. The RadiSense 10 field probe uses the latest laser technology, fibers and power converters to guarantee flawless and safe operation. The laser supply allows for 24/7 operation at the highest speed and unprecedented accuracy.

## Internal calibration data

All frequency and linearity calibration data is stored inside the probe. In addition, the frequency dependent calibration data (obtained from any accredited calibration laboratory) can also be stored inside the probe. Due to the internal calibration data, there is no need to apply frequency dependent corrections for individual axis. This results in a high accuracy and ease-of-use. An easy to use software tool can be used to upload the calibration data, over a single high-speed bi directional fiber, to the probe.

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*Der Standard für EMV-Instrumente & Software, Beratung und Schulung.*

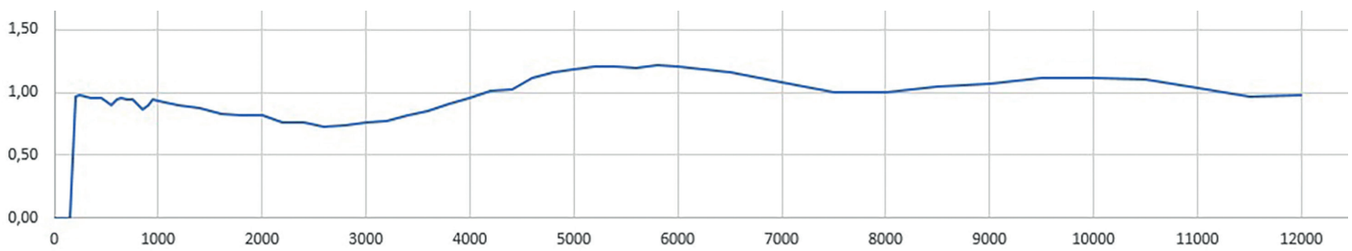
# RadiSense® 10 GHz E-field Probe

*Technical Specifications*

| Product code | | RSS2010A |
|---|---|---|
| Measuring range | | 1 to 600 V/m |
| Overload indicator on | | > 600 V/m |
| Maximum field level | | 1000 V/m |
| Frequency range (6.0 dB) | | 9 kHz to 12 GHz |
| Frequency response (with correction factors applied) | | ± 0.3 dB (1) |
| Frequency response (uncorrected) | 9 kHz to 11 GHz | ± 1.5 dB |
| Resolution | | 0.01 V/m |
| Linearity | | ± 0.5 dB ± 0.5 V/m |
| Isotropic deviation | | < ± 0.25 dB @ 1 GHz |
| Measurement speed (X,Y, Z & ETot) | | 1000 samples/s (internal 48000 samples/s) |
| Shape | | Spherical |
| Weight | | 65 g (1.77oz) |
| Electrical measuring volume | | 117 cm3 |
| Antenna elements | | 1.2 cm monopole |
| Spherical housing diameter | | 2.5 cm (0.98 in) |
| Sensor protection caps | | 1.4 cm (height), 1.1 cm (diameter) |
| Operating temperature range | | 15 °C to 35 °C (59 °F to 95 °F) @ 10 % to 90 % RH (non-condensing) |
| Calibration data | | ISO17025 accredited calibration (optional) |
| Optical LASER power | | 0.5 Watt at aperture at 808 nm |
| F.O. connector LASER | | FC 200/230 µm fibre, 1.5 m fixed and 10 m extension [2)] |
| F.O. connector data | | ST 200/230 µm fibre, 1.5m fixed and 10 m extension [2)] |

[1)] Accuracy depending on external calibration laboratory

[2)] Probe is delivered with 1.5 m fixed + 10 m extension fibre and FC/ST in-line coupling set. Fibre length up to a maximum of 500 m is available on request.




RSS2010A Typical frequency response



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