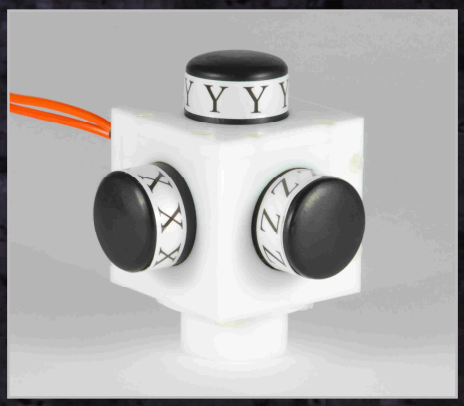
RadiSense®4



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 18 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.

Small and accurate
Due to its small size the RadiSense® 4 GHz field strength probe puts an end to all size-related field strength measurement problems. With a probe size of only 5.3 x 5.3 x 5.3 cm, resulting in a measurement volume of 74 cm^3 (smallest competitive probe is 185 cm^3) it ensures accurate measurements especially in small (G)TEM cells. RadiSense® probes are the smallest probes in the world!

High speed and wide band
With a measurement speed of 60 samples per second (high speed option installed) for all separate axis and isotropic value, the RadiSense® ensures fast measurements. Due to the wide frequency range starting at 9 kHz up to 4 GHz it is ideally suited for EMC Automotive, Military and CE marking applications.

Robust
The RadiSense® probe comes in a strong rigid housing; hence it is very robust compared to other probes.

Battery-free
DARE!! invented the first battery free probe in 1999. Although several companies have tried to copy this technology, the long experience of DARE!! with LASER power technology has resulted in the world's most reliable LASER powered field probe. Using LASER light as a power source, battery related problems like large probe dimension and quickly drained batteries are avoided. Furthermore a LASER powered probe is particularly useful for continuous measurements (e.g. overnight testing). The probe measures all three E-field axes using low noise amplifiers and a single chip microprocessor. The measured E-field strength data is communicated to the read-out unit through a second fibre optic cable.

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.

Versions
The RadiSense® is standard supplied with a plug-in card for the series of RadiCentre® EMC test systems. The RadiCentre® allows the RadiSense® probes to communicate by RS232, USB, LAN or GPIB (IEEE 488) interfaces. The RadiCentre®-1 (CTR1001S) single slot mainframe can control one field probe. The RadiCentre®-4 (CTR1004B) has 2 available slots and the RadiCentre®-9 (CTR1009B) has 7 available slots. Both the 2-slot and 7-slot RadiCentre® units have a 7 inch color TFT touchscreen display, which can be used for monitoring applications with multiple E-field probes.

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The Standard in EMC Instruments & Software, Consultancy and Training.

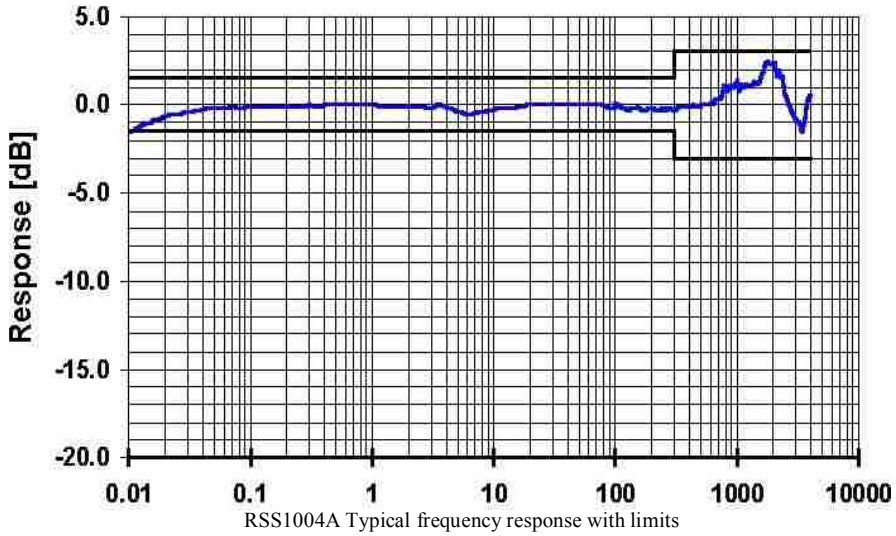
DARE!! Instruments

Technical Specifications

RadiSense® 4 GHz E-field Probe

Product code		**RSS1004A**
Measuring range		1 (0.25)[1] to 1000 V/m
Overload indicator on		> 1000 V/m
Maximum input level		1500 V/m
Frequency range (-6dB point)		9 kHz (4 MHz)[1] to 4 GHz
Frequency response (with correction factors applied) [2]		± 0.6 dB @ 10 MHz
Frequency response (uncorrected)	20 kHz to 300 MHz	± 1.5 dB
	300 MHz to 4 GHz	± 3.0 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 & E_{Tot})		5 samples/s (optional 60 samples/s) [1]
Shape		Cubic
Weight		100 g (3.53 oz)
Antenna elements		12 mm monopole – 20 mm disc
Cubical housing		4.0 x 4.0 x 4.0 cm (1.57 x 1.57 x 1.57 in)
Sensor protection caps		1.3 cm (height), 2.3 cm (diameter)
Outer dimensions		5.3 x 5.3 x 5.3 cm (2.09 x 2.09 x 2.09 in)
Operating temperature range		5˚C to 40˚C (41˚F to 104˚F) @ 5% to 95% 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[3]
F.O. connector data		FSMA 200/230µm fibre, 1.5m fixed and 10 m extension[3]

[1] High band / High speed option only (#040)
[2] Accuracy depending on external calibration laboratory
[3] Probe is delivered with 1.5 m fixed + 10 m extension fibre and FC/FSMA in-line coupling set. Fibre length up to a maximum of 500 m is available on request.



RSS1004A Typical frequency response with limits

More information
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DARE!! Instruments

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