RadiSense®

RadiSense® 4 GHz

RadiSense® 6 GHz

RadiSense® 18 GHz

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The Standard for Consultancy, (Re)design and Training in RF EMC and Product Safety

DARE!! Instruments

LASER powered field strength probes

High Speed • Robust • Small

RadiSense® E-field probes for EM fields from 10 kHz to 18 GHz

The inventor of the first LASER powered E-field probe in the world provides a full range of small and fast LASER powered probes from 10 kHz to 18 GHz. The first RadiSense® probe saw the light in the previous century. Delivered to numerous companies around the world, this probe has become the industry standard and has proven to be a high quality product that delivers accurate measurements.

High Speed

With an unprecedented measurement speed of 60 samples per second for all separate axis and the isotropic value, the RadiSense® is the fastest commercially available LASER powered probe.

Robust

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

Small

The introduction of the RadiSense® field strength probe puts an end to all size-related measurement problems. With a measurement volumes ranging from 74 cm^3 to as small as 1 cm^3 this range of probes ensures accurate measurements, especially in small (G)TEM cells. RadiSense® field strength probes are the smallest probes in the world.

Battery-free

D.A.R.E!! Development invented the first battery free probe in 1999. Since then several companies copied this technology. Using LASER light as power source overcomes not only size related measurement problems, but also solves the problem of quickly drained batteries. A battery free probe, for example, is particularly useful for continuous measurements as during overnight testing. The probe measures all three E-field axes, which are amplified by low noise amplifiers and processed by a single chip microprocessor, which communicates the measured values 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. For stand-alone use, the RadiMon® monitoring software is shipped along with the system. The probe can be controlled throughout most commercial available EMC software packages.

Versions

The RadiSense® is standard supplied with a plug-in card for the series of RadiCentre® 19” EMC test systems; Through the RadiCentre® the RadiSense® probes can communicate by means of a RS232, LAN or GB-IB (IEEE 488) interfaces. The RadiCentre®-2 has a 4.3” widescreen color TFT touchscreen display and two free slots while the RadiCentre®-8 has a 8.4” color SVGA TFT touchscreen display with eight free slots.

Technical Specifications

RadiSense® E-field Probes

Performance		RSS1004A	RSS1006A	RSS1018A
Measuring range		1 (0,25)* to 1.000V/m	0,5 to 1.000V/m	1 to 1.000V/m
Overload indicator on		> 1.000V/m		
Maximum input level		1.500V/m		
Calibrated frequency range		10kHz (4MHz)* to 4GHz	10MHz to 6GHz	30MHz to 18GHz
Calibrated frequency:	10kHz to 10MHz	+/- 1,5dB		
	10MHz to 30MHz	+/- 3,0dB	+/- 1,5dB	
	30MHz to 1GHz			+/- 1,5dB
	1GHz to 4GHz		+/- 3,0dB	
	4GHz to 6GHz			
	6GHz to 18GHz			+1,5dB / -4dB
Linearity (Better than)		0,5dB +/- 0,5V/m		
Rotational symmetry @ 1GHz		< +/- 0,25dB	< +/- 0,5dB	+/- 0,5dB
Measurement speed (X,Y, Z & E_{Tot})		5 samples/s (optional 60 samples/s)*	60 samples/s	
Shape		Cubic	Spherical	Stalk
Outer dimensions (mm)		53 x 53 x 53	50 x 50 x 50	Length: 280
Measuring volume probe (cm^3)		Approx. 74	Approx. 50	Approx. 1

Environmental Conditions	
Temperature range	15^0C - 35^0C
Relative humidity	10% – 90% (non-condensing)

Models & Dimensions	
Models	Plug-in card for RadiCentre®
Dimensions in mm	1 slot

Power Consumption	
Optical LASER power	0.5 Watt at aperture at 808nm

Connectors & Cables	
F.O. connector LASER	FC 200/230µm fibre, 1,5 m fixed and 10m extension**
Fibre optic connector data	FSMA 200/230µm fibre, 1,5m fixed and 10m extension**

* High band only (#040)
** The probe is delivered with 1,5m fibres permanently attached to the probe and 10m extension fibres for both FC/FSMA including inline couplings. Other lengths are available on request.

Safety	
Safety system	Redundant closed loop
LASER switch-on / switch off time	< 100ms / < 50ms

More information
For more information contact:
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Distributed by:

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