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Data Sheet

Pro Series

RadiSense® 26

Electric Field Probe

Models - RSS2026S | RSS2026H

Accurate | High Speed | Robust

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RadiSense® 26

Models - RSS2026S - RSS2026H

The high frequency E-field probe

Accurate **High Speed** **Robust**

Raditeq, the inventor of the first laser powered E-field probe in the world provides a full range of accurate and fast laser powered probes from 9 kHz to 26 GHz. With their long experience and extensive knowledge on laser power technology and field probe measurement technology, the RadiSense® probes provide the most reliable, high quality range of laser powered E-field probes in the market, with unprecedented measurement uncertainty.

Wide range - The RadiSense® 26 has a wide frequency range from 10 MHz to 26 GHz allowing accurate isotropic E field strength measurements within a range from 1 V/m to 1000 V/m. This wide range makes the RadiSense® 26 ideal for EMC Automotive, Military/Aerospace and CE marking applications.

Two versions - The RadiSense® 26 is available in two versions: The RSS2026S version provides the most accurate frequency response and isotropy, with a maximum measurement speed of 100 measurements/second (individual X-Y-Z axis + isotropic value). The model RSS2026H has an increased measurement speed of 1000 measurements/second at the cost of a slightly higher uncertainty, intended for applications where speed is more important, like mode stir / reverberation chambers.

Modular - The RadiSense® 26 is intended to be used in combination with the RadiCentre modular test system, which is available as a 1-slot (RadiCentre Slim), 2-slot (RadiCentre) or 7-slot (RadiCentre Pro). The probe is connected to the laser power plug-in card (model LPS2001B) with FC/ST dual fiber links. The plug-in card provides the laser power source and bi-directional communication to the probe. The fiber optic extension cable between the RadiSense® 26 probe and the LPS2001B plug-in card is standard available at three different lengths (10, 20 or 30 m). Other lengths to a maximum of 100 m are available on request.

Internal calibration data - The linearity adjustment data, by default is stored inside the probe. In addition, the frequency response calibration data of the X-Y-Z axis can be stored as user correction data inside the probe. As a result, there is no need to apply frequency dependent corrections for individual axis' in software anymore. This feature results in a high accuracy and ease-of-use.

Software support -The RadiSense® probes are supported by RadiMation and RadiMation Pro, automated EMC test and measurement software packages. The RadiSense® probes can also be controlled with most other brands of commercial EMC test software packages, like ETS Lindgren TILE and R&S EMC32/Elektra.

RadiSense® 26 Specifications

Model	RSS2026S	RSS2026H
Field measurement range	1 to 1000 V/m	
Max input level before damage	2000 V/m	
Frequency range	10 MHz to 26 GHz	
Resolution	0.001 V/m < 0 - 10 V/m 0.01 V/m < 10 - 100 V/m 0.1 V/m > 100 - 1000 V/m	
Measurement speed (x, y, z and E_{tot})	100 measurements/s	1000 measurements/s
Accuracy		
Frequency response	-4.0 dB + 2 dB (10 MHz - 20 MHz) ± 1 dB (20 MHz - 26 GHz)	-7.5 dB + 2 dB (10 MHz – 20 MHz) -3.5 dB + 2 dB (20 MHz - 7 GHz) -3.5 dB + 5 dB (7 GHz – 26 GHz)
Anisotropy [1]	± 0.5 dB (10 MHz - 1 GHz) ± 1 dB (1 GHz - 10 GHz) ± 2.0 dB (10 GHz - 26 GHz)	
Linearity	± 0.5 dB ± 0.5 V/m	
Dimensions		
Shape of housing	stalk probe	
Electrical measuring volume	1 cm^3	
Total lenght including body	30 cm (11.81 in)	
Number of antennas	3 dipoles	
Environmental conditions		
Temperature range (operating)	0 ˚C to 40 ˚C (32 ˚F to 104 ˚F)	
Relative humidity (operating)	10 % to 90 % RH (non-condensing)	
Calibration & Power consumption		
Factory adjustment data	Internally stored, ISO/IEC 17025 calibration (RSS2026S only)	
Accredited calibration [2]	Traceable, accredited calibration with certificate (optional)	
Optical LASER power	Max. 0.5 Watt at aperture @ 808 nm	
Laser safety class	Class 1M	
Fibre connection		
Laser fibre optic connector	FC/PC fibre	
Data fibre optic connector	ST/PC fibre	
Extension fibre length [3]	Standard lengths 10m, 20m or 30m. Maximum 100m	
Safety		
Interlock	External interlock & closed loop safety system	
Warranty [4]	Three years	

1) Anisotropy is the maximum deviation from the geometric mean as defined by IEEE 1309-2013
2) This calibration can be stored inside the probe as user correction data
3) The probe set is delivered with a 10 m extension fibre. Other fibre length to maximum 100 m available on request
4) Standard warranty is 1 year. After you register your new Raditeq product two (2) years of warranty will be added for free. Registration can be done at: www.raditeq.com

Specifications are subject to change without notice

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