

EMF6E / EMF18G / EMF40G

Electric Field Sensor for EMC applications

Key Features:

- Triaxial isotropic sensor based on diode dipoles
- Frequency range:
 - 100 kHz ÷ 6.5 GHz for EMF6E
 - 1 MHz ÷ 18 GHz for EMF18G
 - 3 MHz ÷ 40 GHz for EMF40G
- 20 ms sampling rate
- Extremely small size
- Operation time > 50 hours with recharging time of 2.5 hours
- “EMC Viewer” software for system management
- Up to 8 sensors can be connected simultaneously



Typical Application:

- Characterization of the electric field in TEM-GTEM cells and anechoic chambers
- Electromagnetic safety control and monitoring in laboratories and critical areas

Description:

EMF6E, EMF18G and EMF40G are new generation isotropic electric field sensors based on diode dipoles. The characteristics of bandwidth, sensitivity and speed make these sensors unique in their kind. The three sensors differ in the measurement band.

EMF sensor has been designed to be used in the characterization of the electric field in TEM, GTEM cells, in anechoic chamber and for monitoring applications of areas and critical points for electromagnetic safety.

The measurements are displayed in real time on a PC/Tablet thanks to the EMCViewer software.

The software shows the isotropic value, the single axes components and the amplitude/time response of the electric field. The user can also export the resulting graphics and data for further processing. The EMCViewer software can manage and display up to 8 sensors simultaneously.

The exceptional autonomy of the device together with the fast charging time allow the user to operate for more than 50 hours, and for 4 hours after having recharged the battery for only 20 minutes.

Information subject to change without prior notice

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Technical specifications:

	<i>EMF6E</i>	<i>EMF18G</i>	<i>EMF40G</i>
<i>Sensor type</i>	Triaxial isotropic	Triaxial isotropic	Triaxial isotropic
<i>Data read</i>	X, Y, Z and ISO	X, Y, Z and ISO	X, Y, Z and ISO
<i>Bandwidth</i>	100 kHz – 6.5 GHz	1 MHz – 18 GHz	3 MHz – 40 GHz
<i>Amplitude frequency response</i>	+/- 1.5 dB (1 MHz – 3 GHz) +/- 2.5 dB (3 MHz – 6 GHz)	+/- 1.5 dB (10 MHz – 1 GHz) +/- 3 dB (1 GHz – 18 GHz)	+/- 2.0 dB (10 MHz – 7 GHz) +/- 6 dB (7 GHz – 40 GHz)
<i>Sensitivity</i>	0.3 V/m	0.8 V/m	0.8 V/m
<i>Dynamic Range</i>	0.3 - 300 V/m (60 dB)	0.8 - 340 V/m (52 dB)	0.8 - 340 V/m (52 dB)
<i>Linearity @ 100 MHz</i>	2 - 300 V/m 0.5 dB	2 - 300 V/m 0.5 dB	2 - 300 V/m 0.5 dB
<i>Isotropy @ 100 MHz</i>	0.5 dB	0.5 dB	0.5 dB
<i>Temperature stability</i>	0.5 dB in operating temp. range	0.5 dB in operating temp. range	0.5 dB in operating temp. range
<i>Max sampling rate</i>	50 sps	50 sps	50 sps
<i>Operating temperature</i>	5 °C - 45 °C with humidity 5% - 90% without condensation	5 °C - 45 °C with humidity 5% - 90% without condensation	5 °C - 45 °C with humidity 5% - 90% without condensation
<i>Weight</i>	100 g	100 g	100g
<i>Maximum size</i>	Length 145 mm Ø max 60 mm, min 32 mm	Length 145 mm Ø max 60 mm, min 32 mm	Length 145 mm Ø max 60 mm, min 32 mm
<i>Recommended calibration interval</i>	24 months	24 months	24 months
<i>Country of origin</i>	Italy	Italy	Italy



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