EMSense™ 10

ETS-Lindgren's EMSense™ 10 Electric Field Probe measures field strength from 10 kHz to 10 GHz with a dynamic range of 1 to 750 V/m.

Key Features

Laser powered for extended testing

Frequency corrected field values direct from probe

- **No need to apply correction factors**

Single probe frequency range - 10 kHz to 10 GHz

Broad dynamic range - 1 to 750 V/m

Small physical size

Six axis spherical design

A2LA Accredited Calibration

Suitable for MIL Standard Specs:

- **MIL-STD 461F Radiated Susceptibility (RS)**

Suitable for Automotive Specs:

- **SAE J1113/27GMW 3091/3097/3103**
- **GMW 3091/3097/3103**
- **FORD FMC 1278**

Suitable for Commercial Specs: EN/IEC 61000-4-3 Radiated Immunity

To be used in place of the HI-6105 and HI-6122.

ETS-Lindgren's laser-powered EMSense 10 Electric Field Probe embodies the latest innovations in isotropic sensor design, low noise and miniaturized electronics. Designed to be single range reading, the EMSense 10 can read data continuously over the entire dynamic range. Data values for each axis (X, Y, and Z) can be read individually or summed. Fiber optic signal and power lines link the RF field probe to either the EMCenter 2/7 Slot, or as a direct connect to a PC USB port with the EMCenter 1-Slot.

The EMCenter 2 and 7 Slot Modular RF Platform along with the EMSense 10 interface card can be used as a Field Monitor in addition to its capability as a system level platform.

The EMCenter 1-Slot with the EMSense 10 interface card provide laser power and communications for the EMSense 10 Field Probe. A USB connection to the PC allows for quick and easy data collection, using Laser Probes software.

To be used in place of the HI-6105 and HI-6122.

Product Features

View the EMSense™ 10product features below

The EMSense 10 probe utilizes an updated CPU in the EMCenter to support its improved communication speed. Some EMCenter units carry an older CPU that must be upgraded to support the EMSense 10 probe and plug-in card. To check compatibility, access the " **Info**" menu on the EMCenter main screen and check slot 8. The compatible processor is 7000-008. If the EMCenter shows processor 7000-007, a processor upgrade is available through the ETS-Lindgren service center.

Alternatively, a stand-alone EMCenter is available for EMSense 10 that appears as an additional EMCenter slot to EMC control software.

Specifications

View the EMSense™ 10 technical specifications below

Physical Specifications

Shape of housing	Spherical
Weight	1.77 oz (65 g)
Total electrical dimensions	1.9*1.9*1.9 in (6.9 in^3) (4.9*4.9*4.9 cm (117 $cm^{3)}$
Diameter of Spherical housing	0.98 in (2.5 cm)
Temperature range (operating)	32 F to 104 F (0C to 40 C)

Relative humidity (operating)	10 % to 90 % RH (non-condensing)

Factory calibration	Internally stored, ISO17025 calibration
Optical LASER power	Max. 0.5 Watt at aperture @808 nm
F.O. connector LASER	FC 200/230 m fiber
F.O. connector DATA	ST 200/230 m fiber
Fiber Extension length *	100 m maximum
* Sold separately. Standard lengths are 10, 20 and 30 meters.	

Electrical Specifications

Dynamic Range	1 to 750 Vim
Damage Level	1,000 V/m
Frequency Range	10 kHz to 10 GHz
Frequency Response (with internal correction)	1 dB (10 kHz - 10 GHz)
Resolution	0.01Vim
Linearity	0.5 dB 0.5 Vm, 1-500 V/m
Isotropic Deviation	± 0.3 dB up to1 GHz ± 0.5 dB up to 3 GHz ± 1.0 dB up to 6 GHz ± 2.0 dB up to 10 GHz

Measurement speed (Sensor)	100 Measurements/s

Product Configuration