EMSENSE 10 (MODEL 7007-201)

- **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**
- **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**
- **A2LA Accredited Calibration**
- **EMSense 10 EMF Probe Plug-in Card (option)**

ETS-Lindgren's laser-powered EMSense™ 10 Electric Field Probe (Model 7007-201) 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.

Product Features

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.

Note: The EMSense 10 replaces the HI-6105 and HI-6122.

Technical Specifications

Electrical	
Field measurement range	1 to 750 V/m
Max input level before damage	1000 V/m
Frequency range	10 kHz to 10 GHz (usable to 12 GHz)
Frequency response 10 kHz to 10 GHz (with internal correction)	± 1 dB
Resolution	0.01 V/m
Linearity	± 0.5 dB ± 0.5 V/m, 1-500 V/m
Isotropy	< ± 0.3 dB up to 1 GHz < ± 0.5 dB up to 3 GHz < ± 1 dB up to 6 GHz < ± 2 dB up to 10 GHz
Number of antennas	6 (2 per axis)
Measuring speed	Max 100 measurements/sec
Temperature error (23˚C ± 5˚C)	0.1 dB/˚C (after zeroing)
Physical	
Shape of housing	Spherical
Diameter of housing	0.98 in (2.5 cm)
Weight	1.77 oz (65 g)
Electrical dimensions	6.9 in^3 (117 cm^3)
Temperature range (operating)	32° F to 104° F (0° C to 40° C)
Relative humidity (operating)	10% – 90% (non-condensing)
Optical	
LASER power	Max. 0.5 Watt output at aperture
Wavelength	808 nm
LASER connector	FC/FC
Data connector	ST/ST
Fibers	200/230 µm HCS, duplex
Standard fiber length	1.5 m fixed to sensor 10 m or 20 m extension with couplings (Other lengths available on request)

Information presented is subject to change as product enhancements are made.
Contact ETS-Lindgren Sales Department for current specifications.

2/25 PDF/JK © 2025 ETS-Lindgren v1.0

EMSense™ 10 EMF Probe Plug-in Card (Option) provides an interface for ETS-Lindgrens laser-powered electric field probes to the EMCenter Modular RF Platform.

Each EMSense Modular Plug-in Card supports one ETS-Lindgren EMSense 10 electric field probe. EMSense and ETS-Lindgren EMC field probes are fully supported by TILE! and other test automation software packages. Please contact ETS-Lindgren for additional information.

Key Features:

- **Provides Power & Communication to EMSense 10 Field Probe**
- **Plug and Play Connectivity to EMCenter**

Technical Specifications - EMSense 10 EMF Plug-in Card

Electrical	
Plug-in Interface to EMCenter:	
F.O. connector LASER	FC 200/230 m fiber
F.O. connector DATA	ST 200/230 m fiber
Other Connections	USB and Serial Ports

Information presented is subject to change as product enhancements are made.
Contact ETS-Lindgren Sales Department for current specifications.

2/25 PDF/JK © 2025 ETS-Lindgren v1.0