EMSENSE EMSENSE 40

EMSENSE 40

- **Laser powered for extended testing**
- **Frequency corrected field values direct from probe**
- **No need to apply correction factor**
- **Single probe frrequency range – 10 MHz to 40 GHz**
- **Broad dynamic range – 2 to 1000 V/m**
- **Sleek stalk design**
- **Three axis dipole design**
- **A2LA Accredited Calibration**
- **Suitable for MIL Standard Specs: MIL-STD 461F Radiated Susceptibility (RS)**
- **Suitable for Automotive Specs:**
- **SAE J1113/27**
- **GMW 3091/3097/3103**
- **FORD FMC 1278**
- **Suitable for Commercial Specs: EN/IEC 61000-4-3 Radiated Immunity**

ETS-Lindgren's laser-powered EMSense™ 40 Electric Field Probe embodies the latest innovations in isotropic sensor design, low noise and miniaturized electronics. Designed to be single range reading, the EMSense 40 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 40 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 40 interface card provide laser power and communications for the EMSense 40 Field Probe. A USB connection to the PC allows for quick and easy data collection, using ProbeView V software.

The EMSense 40 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 40 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 40 that appears as an additional EMCenter slot to EMC control software.

Technical Specifications

Electrical	
Dynamic Range	2 to 1,000 V/m
Damage Levels	2,000 V/m
Frequency Range	10 MHz to 40 GHz
Frequency Response (with Internal Correction)	± 1.2 dB (10 MHz - 40 GHz)
Resolution	0.001 V/m 2 – 10 V/m 0.01 V/m 10 – 100 V/m 0.1 V/m 100 – 1000 V/m
Linearity	± 0.5 dB ± 0.5 V/m
Isotropic Deviation	± 0.5 dB @ 1 GHz
Number of Antennas	3 dipoles
Measurement Speed (X, Y, Z & ETot)	100 Measurements/s Maximum

Technical Specifications

Physical	
Shape of Housing	Stalk Probe
Weight	3.2 oz (91 g)
Total Electric Measuring Volume	0.4 in (1 cm)
Electronics Housing	1.18 in (3 cm)
Tube Diameter	0.57 in (1.5 cm)
Sensor Cover	0.97 in (2.5 cm)
Overall Length	11.8 in (30 cm)
Environmental Specifications	
Temperature Range (Operating)	0°C to +40°C (32°F to +104°F)
Relative Humidity (Operating)	Relative Humidity (Operating)
Optical Specifications	
EMSense 10/40 Power & Communication Interface Card	Max. 0.5 Watt Output at Aperture @ 808 nm
LASER Connector	FC/FC
Data Connector	ST/ST
Fibers	200/230 µm HCS, duplex
Standard Fiber Length	10 m Optional 20 & 30 m Maximum 100 m
Safety Specifications	
LASER Product Classification (Power/Communication Card)	Class 1M According to EN 60825-1 and EN 60825-2
Safety Measures	Code (EMCenter) Remote Interlock System (EMCenter) LED Indications for Laser On Audible Warning Signals Redundant Closed Loop Safety System
Calibration	
Factory Calibration	Internally Stored, ISO17025 Calibration
Accredited Calibration	Traceable, Accredited Calibration

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