

EMC PROBES ELECTRIC FIELD PROBE WITH FIELD-REPLACEABLE BATTERY



MODEL HI-6006

- 100 kHz to 6 GHz Frequency Response
- 0.5 to 800 V/m Dynamic Range
- Provides Individual and Summed Axis Values
- Field-replaceable Battery
- A2LA Accredited Calibration Report
- Suitable for MIL Standard Spec:
 - MIL-STD-461F Radiated Susceptibility (RS)
- Suitable for Automotive Specs¹:
 - SAE J1113/27
 - GMW 3091/3097/3103
 - FORD FMC 1278
- Suitable for Commercial Spec:
 - EN/IEC 61000-4-3 Radiated Immunity
- Operates with Most 3rd-party Immunity Software

ETS-Lindgren's Model HI-6006 Electric Field Probe is a fully intelligent sensor enabling fast and accurate EMF measurements with industry-leading performance specifications. Optical coupling to a variety of readout options makes this probe ideally suited for a wide range of field monitoring applications.

Designed to be single range reading, the HI-6006 can read data continuously over the entire dynamic range. Data values for each axis (X, Y, and Z) can be read individually or summed.

A unique feature of the HI-6006 is the field-replaceable battery. This battery

allows the user to replace the battery when necessary, without requiring additional calibration. Simple in-field synchronization of the HI-6006 is all that is required for proper battery level monitoring.

The HI-6100 Field Monitor provides manual functions and programmed control via IEEE-488 and RS-232 Serial Data Interfaces. Readings from up to four probes can be displayed simultaneously.

For direct connection to a PC either the HI-4413P Serial or the HI-4413USB interfaces are available.

Applications

- MIL-STD-461F (RS)
- SAE J1113/27
- GMW3091/3097/3103
- FORD FMC 1278
- EN/IEC 61000-4-3

Standard Configuration

- HI-6006 Probe
- A2LA Traceable Calibration Report
- Carrying Case
- Bulkhead Connector (2)
- Fast Battery Charger/Battery Synchronizer
- 10 m Optical Cable
- Spare Screws for Battery Hatch
- Manual

Options

- Optical Modem for Connection to PC Serial Port (HI-4413P)
- Optical Modem for Connection to PC USB Port (HI-4413USB)
- HI-6100 Field Monitor Interface Card (H-491277)
- Optical Cable Extensions to 50 m (H-491106-xx)
- Probe Stand Assembly (H-491269)
- Extra Probe Carriers for Above Probe Stand (H-491276)

Technical Specifications

Electrical

Detection	Isotropic (X, Y, and Z Axis Readings)
Frequency Range	100 kHz to 6 GHz
Frequency Response	100 kHz to 2 GHz +1.0, -3.5 dB
	2 GHz to 5.5 GHz +3.5, -4.0 dB
	5.5 GHz to 6 GHz +2.0, -6.5 dB
Frequency Response with Correction	100 kHz to 6 GHz ±0.9 dB
Dynamic Range	0.5 to 800 V/m (Single Range)
Resolution	0.01 V/m
Isotropic Deviation	±0.5 dB @ 400 MHz
Linearity	±0.5 dB (1 to 800 V/m)
Sample Rate (Typical)	70 Samples/Second Maximum
Overload Withstand	>1500 V/m CW

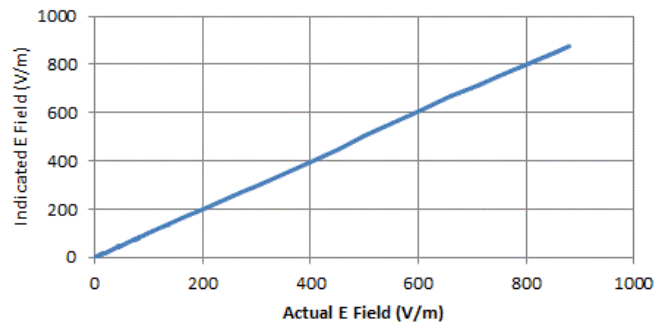
¹ For High Field Requirements, the HI-6053 is Recommended

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Technical Specifications

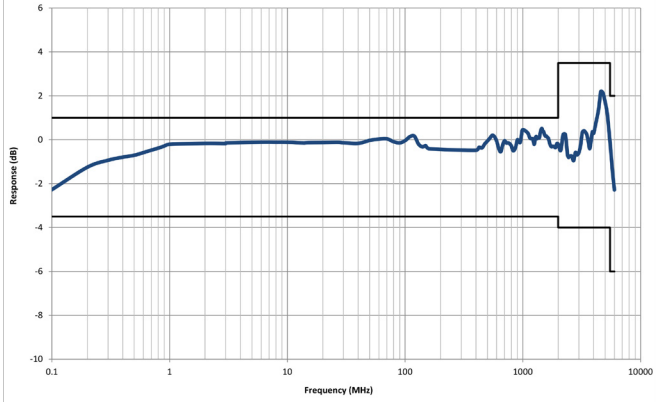
Physical	
Physical Interface	Duplex Optical Fiber (200 Micron Multi-mode) FSMA Connectors. Integral 1 m Optical Cable
Operating Temperature Range	10° to 40° C, 5 to 95% Relative Humidity Non-condensing 50° to 104° F, 5 to 95% Relative Humidity Non-condensing
Battery	Rechargeable NiMH
Battery Life	Up to 8 Hours
Battery Charger	100 to 240 AC Universal Input 3-hour Charge from Full Depletion
Sensor Protection Caps Height	40 mm 1.6 in
Height	32 mm 1.25 in
Width	32 mm 1.25 in
Depth	32 mm 1.25 in
Weight	80 g 2.82 oz
Mount	1/4" 20 UNC Internal Thread

Typical Linear Response



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Frequency Response
(Anechoic Room and TEM Cell Setups;
Field Level 20 V/m)



Isotropic Deviation
(Actual Data
Recorded at 400 and
1,000 MHz; Field Level
20 V/m)

