

# EMC PROBES ELECTRIC FIELD PROBE WITH FIELD-REPLACEABLE BATTERY



## MODEL HI-6023

- 10 kHz to 1 GHz Frequency Response
- 2.0 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 Specs:
  - SAE J1113/27
  - GMW 3091/3097/3103
- Suitable for Commercial Spec:
  - EN/IEC 61000-4-3 Radiated Immunity
- Operates with Most 3rd-party Immunity Software

**ETS-Lindgren's Model HI-6023 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-6023 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-6023 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-6023 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
- EN/IEC 61000-4-3

## Standard Configuration

- HI-6023 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 (H491106-xx)
- Probe Stand Assembly (H-491269)
- Extra Probe Carriers for Above Probe Stand (H-491276)

## Technical Specifications

### Electrical

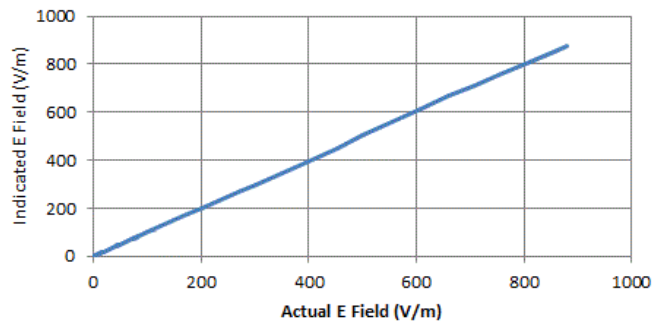
Detection	Isotropic (X, Y, and Z Axis Readings)
Frequency Range	10 kHz to 1 GHz
Frequency Response	10 kHz to 30 kHz +0.5, -2.5 dB
	30 kHz to 1 GHz $\pm 1.0$ dB
Frequency Response with Correction	10 kHz to 1 GHz $\pm 0.9$ dB
Dynamic Range	2.0 to 800 V/m (Single Range)
Resolution	0.01 V/m
Isotropic Deviation	+0.5 dB @ 400 MHz
Linearity	+0.5 dB (2 to 800 V/m)
Sample Rate (Typical)	70 Samples/Second Maximum
Overload Withstand	>1500 V/m CW

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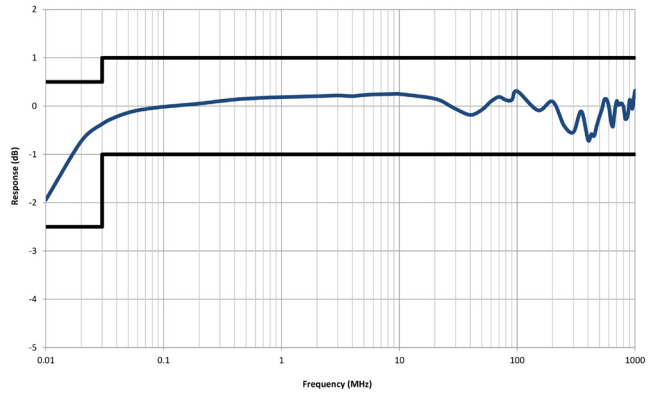
Physical	
Physical Interface	Duplex Optical Fiber (200 Micron Multi-mode) FSMA Connectors. Integral 1 m Optical Cable
Operating Temperature Range	10° to 40° C, 5 to 95% Relative Humidity Non-condensing 50° to 104° F, 5 to 95% Relative Humidity Non-condensing
Battery	Rechargeable NiMH
Battery Life	Up to 8 Hours
Battery Charger	100 to 240 AC Universal Input 3-hour Charge from Full Depletion
Sensor Protection Caps Height	36 mm 1.42 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

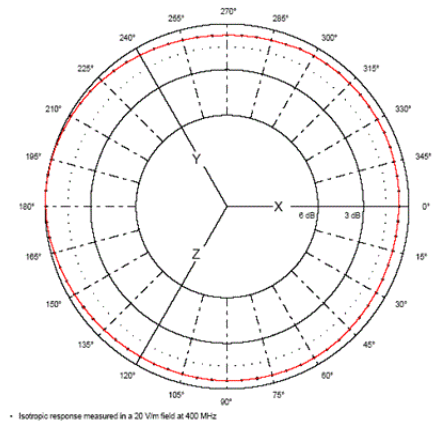


# EMC PROBES ELECTRIC FIELD PROBE WITH FIELD-REPLACEABLE BATTERY

**Typical Frequency Response with Limits**



**Isotropic Deviation  
(Data Recorded at  
400 MHz; Field Level  
20 V/m)**



• Isotropic response measured in a 20 V/m field at 400 MHz