

ELECTRIC FIELD PROBES HI-6053 Electric Field Probe

ETS-Lindgren's Model HI-6053 is a battery-operated electric field probe that provides broadband frequency coverage and wide dynamic range that satisfies the demands of most test requirements. Designed to be single range reading so data can be read continuously over the entire dynamic range. Data values for each axis (X, Y, and Z) can be read individually or summed.



Key Features

- **Frequency Range: 10 MHz to 40 GHz**
- **Individual and Summed Axis Values**
- **Dynamic Range: 2.0 to 800 V/m (Single Range)**
- **User Replaceable/Rechargeable Batteries**
- **A2LA Accredited Calibration Report**
- **Suitable for MIL Standard Specs:**
 - MIL-STD 461F Radiated Susceptibility (RS)
- **Suitable for Automotive Specs:**
 - SAE J1113/27
 - GM W 3091/3097/3101
 - FORD FMC1278

ETS-Lindgren's Model HI-6053 is a battery-operated electric field probe that provides broadband frequency coverage and wide dynamic range that satisfies the demands of most test requirements. To take advantage of this capability, the HI-6053 was designed to be single range reading so data can be read continuously over the entire dynamic range. Data values for each axis (X, Y, and Z) can be read individually or summed. ETS-Lindgren's HI-6053 Electric Field Probe is a fully intelligent sensor enabling fast and accurate electric field 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.

This field probe incorporates user replaceable/rechargeable batteries.

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 field probes can be displayed simultaneously.

The EMCenter™ Modular RF Platform along with the EMSense™ interface card can be used with the HI-6000 series field probes as a Field Monitor in addition to its capability as a system level platform.

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

Specifications

Electrical Specifications

Detection: Isotropic (X, Y, and Z Axis Readings)

Frequency Response with Correction:

- 10 MHz to 18 GHz \pm 0.9 dB
- 18 to 40 GHz \pm 1.1 dB

- Operates with Most 3rd Party Immunity Software

Frequency Range: 10 MHz to 40 GHz

Frequency Response:

- 10 to 100 MHz + 3.0, -4.0 dB
- 100 MHz to 1 GHz +3.0, -0.50 dB
- 1 to 18 GHz +4.0, -2.0 dB
- 18 to 40 GHz +3.5, -4.5 dB

Dynamic Range: 2 to 800 V/m (Single Range)

Resolution: 0.01 V/m

Isotropic Deviation: ± 1.0 dB < 18 GHz

Linearity: ± 0.5 dB

Sample Rate (Typical): 70 Samples per Second Maximum

Overload Withstand: >1500 V/m CW

Physical Specifications

Physical Interface: FSMA Connectors; Duplex Optical Fiber (200 Micron Multimode)

Battery: (4) Rechargeable NiMH AAA

Operating Temperature Range: 10° to 40° C (50° to 104° F); 5 to 95% Relative Humidity Non-condensing

Battery Life: >30 Hours Continuous

Battery Charger: 100-240 VAC Universal Input; 3-Hour Charge from Full Depletion

Weight: 0.36 kg (12.64 oz)

Dimensions (L x W): 43.8 cm x 5.7 cm (17.24 in x 2.24 in)

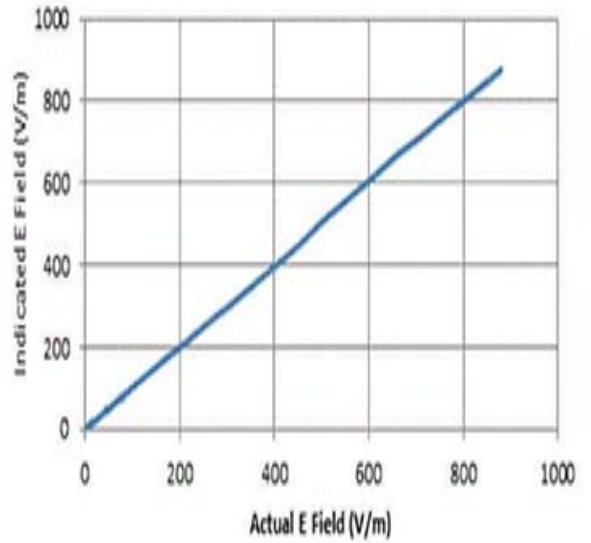
Mounting: 1/4" - 20 UNC Internal Thread

Other Specifications

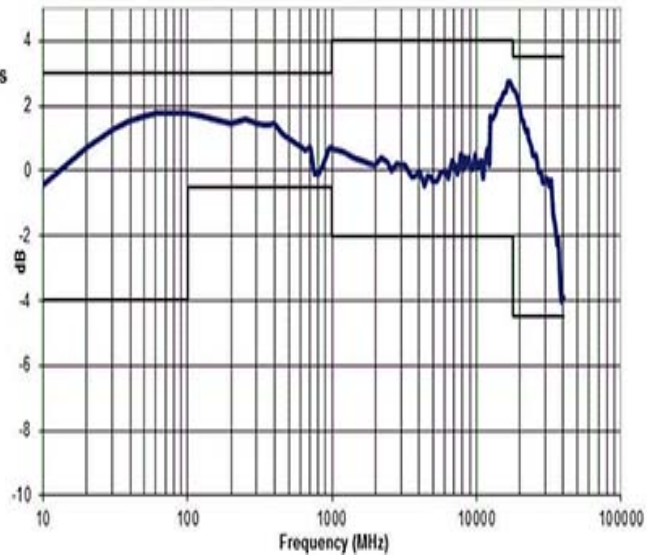
- A2LA Traceable Calibration Report
- Carrying Case
- Owners Manual
- Bulkhead Connector (2)
- Fast Battery Charger
- Probe Assembly
- 10m Fiber Optic Cable

Product Charts

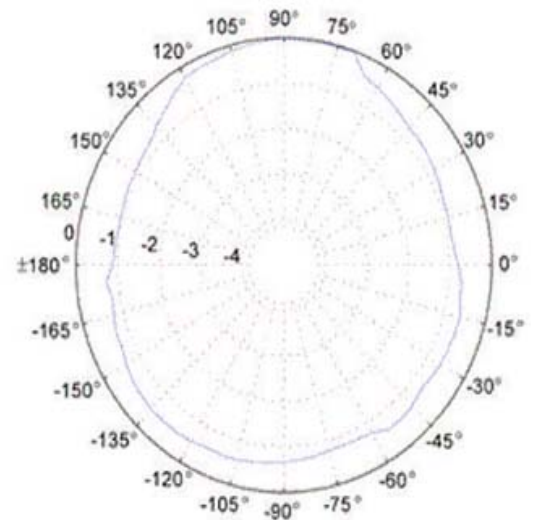
Linearity Response at 1 GHz



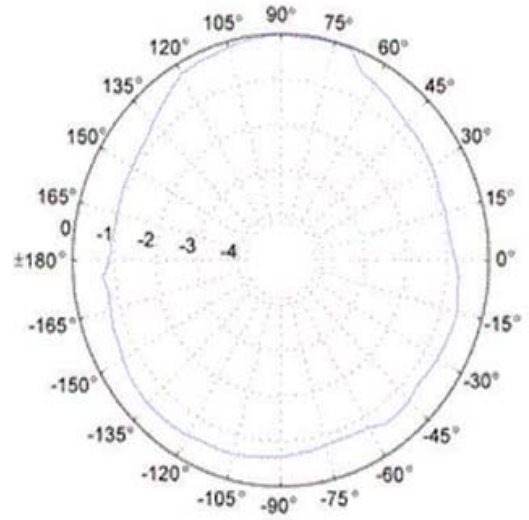
Typical Frequency Response with Limits



Typical Isotropic Response in dB at 1 GHz



Typical Isotropic Response in dB at 10 GHz



Typical Isotropic Response in dB at 18 GHz

