

## PROBES & MONITORS HI-6053 ELECTRIC FIELD PROBE



### HI-6053 ELECTRIC FIELD PROBE

- Frequency Response: 10 MHz to 40 GHz
- Dynamic Range: 2.0 to 800 V/m
- Provides Individual and Summed Axis Values
- User Replaceable/Rechargeable Batteries
- A2LA Accredited Calibration Report
- Suitable for MIL Standard Specs
  - MIL-STD 461F Radiated Susceptibility (RS)
- Suitable for Automotive Specs<sup>1</sup>
  - SAE J1113/27
  - GMW 3091/3097/3103
  - FORD FMC 1278
- Suitable for Commercial Specs
  - EN/IEC61000-4-3 Radiated Immunity
- HI-4413P Fiber to Serial Converter (Option)
- HI-4413USB Fiber to USB Converter (Option)
- H-491269 Probe Stand Assembly (Option)

### ETS-Lindgren's HI-6053 Electric Field Probe with Field Replaceable Battery

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 RF field probe 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 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.

#### Standard Configuration

- A2LA Traceable Calibration Report
- Carrying Case
- Bulkhead Connector (2)
- Fast Battery Charger/Battery Synchronizer
- 10 m Optical Cable

#### Options

- Optical Modem for Connection to PC Serial Port (HI-4413P)
- Optical Modem for Connection to PC USB Port (HI-4413USB)
- EMCenter Interface Card (125446)
- Optical Cable Extensions to 50 m (H-491106-xx)
- Probe Stand Assembly (H-491269)
- Extra Probe Carriers for Above Probe Stand (H-491276)

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## Technical Specifications

Electrical	
Detection	Isotropic (X, Y and Z Axis Readings)
Frequency Range	10 MHz to 40 GHz
Frequency Response (Typical)	10 MHz to 100 MHz +3.0, -4.0 dB 100 MHz to 1 GHz +3.0, -0.5 dB 1 GHz to 18 GHz +4.0, -2.0 dB 18 GHz to 40 GHz +3.5, -4.5 dB
Frequency Response with Correction	10 MHz to 18 GHz +/-0.9 dB 18 GHz to 40 GHz +/-1.1 dB
Dynamic Range	2.0 to 800 V/m (Single Range)
Resolution	0.01 V/m
Isotropic Deviation	1.0 dB < 18 GHz
Linearity	0.5 dB (2 to 800 V/m)
Sample Rate (Typical)	70 Samples/Second Maximum
Overload Withstand	>1500 V/m CW
Operating Temperature Range	10 to 40 C (50 to 104 F); 5 to 95% Relative Humidity Non-condensing
Battery	NiMH AAA, > 30 Hours of continuous operation
Battery Charger	100-240 VAC Universal Input; 3-Hour Charge from Full Depletion
Physical	
Physical Interface	Duplex Optical Fiber (200 Micron Multimode); FSMA Connectors. Integral 1m Optical Cable
Dimensions (L x W)	43.8 cm x 5.7 cm (17.24 in x 2.24 in)
Weight	0.36 kg (12.64 oz)
Mounting	1/4" - 20 UNC Internal Thread