EMF Measurement

Electric Field Probe
Model HI-6053xx

Features

- Frequency Range: 10 MHz - 40 GHz
- Dynamic Range: 2.0 - 800 V/m (single range)
- Reads/Displays Individual Axis and Summed Axis Values
- Fully Compatible With HI-6005/FP6001 Command Set
- Suitable for Commercial Specs:
  -- EN/IEC 61000-4-3 Radiated Immunities
- Suitable for Mil Standards Specs:
  -- MIL-STD 461E Radiated Susceptibility (RS)
  -- DO-160
- Suitable for Automotive for:
  -- SAE J1113/27
  -- GM9120P
  -- GM3100GS
  -- GM9114P

ETS-Lindgren’s HI-6053 EMF Field Probe provides broadband EMF 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 or each axis (X, Y, Z) can be read individually, or summed.

The isotropic deviation (isotropy) of the HI-6053 is near ideal -- 0.5 dB. This means the HI-6053 makes accurate field intensity measurements regardless of its orientation to the field of interest.

Fiber optic signal and control lines link from the Model HI-6053 probe to either the optional Model HI-6100 or FM5004 Field Monitors, or the optional HI-4413P Interface Module and ProbeView™ II software.

Both the HI-6100 and the FM5004 monitors provide manual functions and programmed control via IEEE-488 and RS-232 Serial Data Interfaces. Readings from up to four probes can be displayed simultaneously, and can be any combination of E-field or H-field probes currently available.

The HI-4413P with ProbeView II software allows for easy connection of an RS-232 PC Serial port to the fiber optic cables of most Holaday EMF probes. This allows quick and easy data gathering from the field sensors on a continual basis.

For extended field use, the HI-6053 runs up to 30 hours on field replaceable AAA batteries.

Standard Configurations

HI-6053
- Probe Assembly
- 10 m Fiber Optic Cable
- Carrying Case
- Battery Charger
- Manual
- Standard Calibration
HI-6053FM (used with HI-6100)
- Probe Assembly
- 10 m Fiber Optic Cable
- H-491277 Fiber Optic Port
- Carrying Case
- Battery Charger
- Manual
- Standard Calibration

Physical Specifications

<table>
<thead>
<tr>
<th>OVERALL DIMENSIONS</th>
<th>WEIGHT</th>
<th>BATTERY</th>
<th>BATTERY CHARGER</th>
<th>BATTERY LIFE</th>
</tr>
</thead>
<tbody>
<tr>
<td>43.2 cm x 10.2 cm</td>
<td>.54 kg</td>
<td>Four rechargeable AAA batteries</td>
<td>115/230 VAC</td>
<td>30 hours continuous</td>
</tr>
<tr>
<td>17.6 in x 4.0 in</td>
<td>1.25 lbs</td>
<td>Nickel-Metal Hydride (NiMH)</td>
<td>Approx. 3 hours</td>
<td>at full charge</td>
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Electrical Specifications

<table>
<thead>
<tr>
<th>FREQUENCY</th>
<th>TYPICAL FREQ.</th>
<th>DYNAMIC RANGE</th>
<th>LINEARITY</th>
<th>ISOTROPICITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 MHz - 40 GHz</td>
<td>10 MHz - 18 GHz +/- 2.5 dB</td>
<td>2 to 800 (V/m)</td>
<td>+/- 0.5 dB</td>
<td>+/- 1.0 dB</td>
</tr>
<tr>
<td>18 GHz - 40 GHz</td>
<td>18 GHz - 40 GHz +/- 2.0 dB</td>
<td>-4 dB</td>
<td></td>
<td></td>
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