Overview and Safety Precautions

The HTP5M010 passive probe and accessories provide accurate and safe attachment to AC and DC test circuits for measurement of signals on analog and digital oscilloscopes in Category III and IV circuits. This probe and accessories adhere to UL61010-1 and IEC 61010-031 edition 1.1 2008-06.

WARNING

Failure to follow all instructions in this manual may defeat the safety features and result in injury or death.

Before using the HTP5M010 read and understand the safety warnings, ratings and instructions contained in this manual.

The HTP5M010 family of probes and accessories are not intended for use in wet or damp locations. Electric shock may result.

Inspect HTP5M010 prior to each use for any cracks, damage or dislocated parts. If any of these conditions are found, discontinue use and contact CIT for further instructions.

There are no user serviceable parts in the HTP5M010 probe or accessories. Do not attempt to open or disassemble.

Probe must be fully connected to the measurement instrument prior to connection to the device under test.

Probe must be disconnected from the device under test prior to disconnecting from the measurement instrument.

Specifications and Performance

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<th>Typical Specifications</th>
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<td>Bandwidth</td>
<td>DC to 500 MHz</td>
</tr>
<tr>
<td>Attenuation Ratio</td>
<td>10.1</td>
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<tr>
<td>Max Input Voltage (V)</td>
<td>*1000 V Cat IV</td>
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<tr>
<td>Input Resistance</td>
<td>10 mohm</td>
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<tr>
<td>Input Capacitance (pF)</td>
<td>12 pF</td>
</tr>
<tr>
<td>Compensation Range</td>
<td>10 - 25 pF, center @ 15 pF</td>
</tr>
<tr>
<td>Rise Time</td>
<td>&lt;1 ns</td>
</tr>
<tr>
<td>Safety</td>
<td>UL61010-1, IEC-61010-031:2008</td>
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<tr>
<td>Operating Temperature</td>
<td>0 to 60°C, 80% RH</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-40 to 71°C</td>
</tr>
<tr>
<td>Operating Altitude</td>
<td>up to 3,000 m</td>
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<tr>
<td>Storage Altitude</td>
<td>up to 15,000 m</td>
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<tr>
<td>Compliance</td>
<td>UL61010-1, Pb-Free Processing, EU REACH, EU RoHS, China RoHS, WEEE, EUV</td>
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![Max Input Voltage Derating Curve](image)

![Frequency Response](image)

Markings

- Failure to follow all instructions in this manual may defeat the safety features and result in injury or death.

- Double insulated.

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Passive Probe User Guide

Voltage Ratings
1000 V  Maximum input voltage of 1000 V AC + DC
600 V  Maximum input voltage of 600 V AC + DC

Category Ratings
CAT III  Suitable for connection to category three circuits.
CAT IV  Suitable for connection to category four circuits.

Safety Handling and Operation
Probe must be fully connected to the measurement instrument prior to connection to the device under test. Probe must be disconnected from the device under test prior to disconnecting from the measurement instrument. Barriers are provided to indicate hazardous areas that cannot be touched during operation.

When using the Hook Tip it is safe to use the rib provided for actuation of the hook tip.

Accessories

Accessories Voltage Ratings
Alligator Ground Lead  1000 V CAT III, 600 V CAT IV
Hook Tip  1000 V CAT III, 600 V CAT IV
BNC Adapter  Not Applicable
RF Ground  Not Applicable

Compensation Procedure and Cleaning
When necessary, the probe and accessories can be cleaned with a damp cloth using water and a mild detergent. Adequate drying time should be allowed before use.

WARNING
Dry the probe completely before attempting to make voltage measurements.

For an accurate indication of the measuring signal, it is necessary to adjust the capacity of the probe to the input capacity of the oscilloscope. For this purpose the probe has an adjustment screw in the handling section. Connect the probe to the oscilloscope and the tip to the reference calibration signal of the oscilloscope. Turn the adjustment screw until the oscilloscope shows an exact square wave.