CAPACITIVE COUPLING CLAMP FOR AUTOMOTIVE TESTING

COUPLING OF FAST TRANSIENT PULSES TO I/O LINES

The capacitive coupling clamp ACC is used to couple fast transient pulses to I/O lines as required in different national and international standards and car manufacturer specifications for automotive testing. The effective coupling capacitance depends on the diameter and the material of the used cables. A typical value will be around 100 pF.

HIGHLIGHTS

› Strictly acc. to ISO 7637 and many car manufacturer specifications
› Precise construction with highest quality surfaces
› Accept cables up to 40 mm diameter
› Characteristic impedance 50 Ohm

APPLICATION AREAS

AUTOMOTIVE
BENEFITS

The coupling on signal lines can usually not be effected capacitively without interfering with the signal flow. It is often impossible to contact the required circuit (direct), e.g. coaxial or shielded cables. In this case the coupling is realized with the capacitive coupling clamp. The interference simulator can be connected via a coaxial cable on both sides of the ACC coupling clamp.

TEST SETUP

TESTS WITH THE CAPACITIVE COUPLING CLAMP:

The coupling clamp has to be terminated with a 50 ohm attenuator at one end. If the EUT is built up by two different equipment, the test should be conducted on each single equipment with the required distance.

ACC CAPACITIVE COUPLING CLAMP

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Voltage</td>
<td>1.00 kV</td>
</tr>
<tr>
<td>Dimension</td>
<td>1000 mm x 140 mm, (total 1200 mm)</td>
</tr>
<tr>
<td>Height</td>
<td>27 mm between Reference GND - Coupling plate,</td>
</tr>
<tr>
<td>Connector</td>
<td>High voltage connector, coaxial</td>
</tr>
<tr>
<td>GND connection</td>
<td>screw slots</td>
</tr>
<tr>
<td>DUT cable</td>
<td>up to 40 mm diameter</td>
</tr>
</tbody>
</table>

INCLUDED ACCESSORIES

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>KW 50</td>
<td>Coaxial 50 ohm attenuator for EFT/Burst transient calibration</td>
</tr>
<tr>
<td>HVE 1 m</td>
<td>Cable for connecting a UCS 200N to the ACC</td>
</tr>
</tbody>
</table>

GENERAL DATA

ENVIRONMENT

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature</td>
<td>10° C to 40° C</td>
</tr>
<tr>
<td>Rel. humidity</td>
<td>Max. 85 %, non condensing</td>
</tr>
<tr>
<td>Atmospheric</td>
<td>86 kPa (860 mbar) to 106 kPa (1,060 mbar)</td>
</tr>
</tbody>
</table>

DIMENSION AND WEIGHT

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension</td>
<td>1250 mm x 300 mm x 93 mm, L x W x H</td>
</tr>
<tr>
<td>Weight</td>
<td>11.5 kg</td>
</tr>
</tbody>
</table>
COMPETENCE WHEREVER YOU ARE

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Information about scope of delivery, visual design and technical data correspond with the state of development at time of release. Subject to change without further notice.

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