Current Sensor CS-CT1-3003A

Advanced TLP/HMM/HBM Solutions

1 Features

- Pulse current sensor
- Built-in Tektronix CT-1
- Three 50 Ω SMA ports
- 5 V/A sensitivity
- >1 GHz bandwidth
- <0.35 ns rise time
- High mechanical robustness

2 Description

The CS-CT1-3003A current sensor module is used to measure the pulse current in a 50 Ω transmission line. It can be used also as a general purpose pulse current sensor. The device has three 50 Ω SMA ports. The Amp x Second rating is 1 A μs which results in maximum 10 A at 100 ns pulse width or 1 A at 1 μs pulse width. The sensitivity of the sensor is 5 V/A. The bandwidth is >1 GHz.

3 Electrical Characteristics

50 Ω SMA Pulse Force Input (Port 1): TLP pulse input. To be connected to DUT pulse force output of S-3000C DUT switch.

50 Ω SMA Pulse Force Output (Port 2): To be connected to the DUT.

50 Ω SMA Current Sensor Output (Port 3): To be connected to the oscilloscope input. The output signal of the sensor (Fig. 2) is $10^{(S31/20)} \cdot 50 = 10^{-20/20} \cdot 50 = 5$ V/A into 50 Ω. Therefore it is a must to attenuate the current sensor output signal using an attenuator.

CAUTION: IF THE ATTENUATOR IS NOT USED THE OSCILLOSCOPE INPUT MAY BE DAMAGED AT TLP CURRENTS BEYOND 1 A.

Tektronix® CT-1 Current Sensor: Please download the latest datasheet of the CT-1 current sensor from the Tektronix homepage.

4 Ordering Information

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<th>Pos.</th>
<th>Description</th>
<th>Part No.</th>
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<td>01</td>
<td>Current Sensor</td>
<td>CS-CT1-3003A</td>
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General

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