1 Features

- Pulse current sensor
- Built-in Tektronix CT-2
- 1 V/A sensitivity
- <0.5 ns rise time
- >200 MHz bandwidth
- 50 Ω SMA ports
- High mechanical robustness

2 Description

The CS-CT2-3003A current sensor module is used to measure the pulse current in a 50 Ω transmission line. It can be used also as general purpose pulse current sensor. The device has three 50 Ω SMA ports. The Amp x Second rating is 50 A µs which results in maximum 100 A at 500 ns pulse width or 50 A at 1 µs pulse width. The sensitivity of the sensor is 1 V/A. The bandwidth is >200 MHz.

3 Electrical Characteristics

Figure 1: Typical frequency response (port 1 to port 2)

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 $10^{(S31/20)} \cdot 50 = 10^{(-34/20)} \cdot 50 = 1$ V/A into 50 Ω. Therefore it is a must to attenuate the current sensor output signal using an attenuator.

Figure 2: Typical output sensitivity port 3 (S31)

CAUTION: IF THE ATTENUATOR IS NOT USED THE OSCILLOSCOPE INPUT MAY BE DAMAGED AT TLP CURRENTS BEYOND 5 A.

Tektronix® CT-2© Current Sensor: Please download the datasheet of the CT-2 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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<tr>
<td>01</td>
<td>Current Sensor</td>
<td>CS-CT2-3003A</td>
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General

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High Power Pulse Instruments GmbH
Stadlerstrasse 6A
D-85540 Haar, Germany
Phone: +49 (0) 89 870 053 - 440
Fax: +49 (0) 89 870 053 - 444
E-Mail: info@hppi.de

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Internet: www.hppi.de
E-mail: info@hppi.de