

30 kHz – 6 GHz, 10 A, 100 V High Current Bias Tee BT-10100A

Advanced TLP/HMM/HBM Solutions



1 Features

- High current 30 kHz – 6 GHz (–1 dB) bias tee
- Suitable for 80 A TLP, VF-TLP and HMM
- DC input bias current: max. 2 A DC and max. 10 A DC pulsed at 100 ms pulse width and 1 % duty cycle
- Up to 100 V bias voltage at DC input
- Typ. 0.4 Ω DC resistance (port 3 to port 2)
- 50 Ω pulse input and 50 Ω DC/pulse output
- BNC DC input
- Size: 112 mm x 60.5 mm x 31 mm
- Lab safety requirement: interlock operation above an operation voltage of 40V needed to avoid life-endangerment risks.

2 Description

The BT-10100A is used for DC biased TLP or VF-TLP measurements. The DC voltage or current is applied to the DC input (port 3). The TLP output (pulse force) is connected to the pulse input (port 1). The DUT or DUT pulse force line is connected to the DC/pulse output (port 2). The BT-10100A features a very low cut-off frequency of 30 kHz and high bandwidth of 6 GHz. Fig. 1 shows the schematic diagram.

2.1 Electrical Characteristics

Fig. 2 shows the typical impulse response from port 1 to port 2. The time delay of the output signal is about 0.37 ns which is deembedded in the output plot of Fig. 2.

Fig. 3 shows the typical insertion loss from port 1 to port 2.

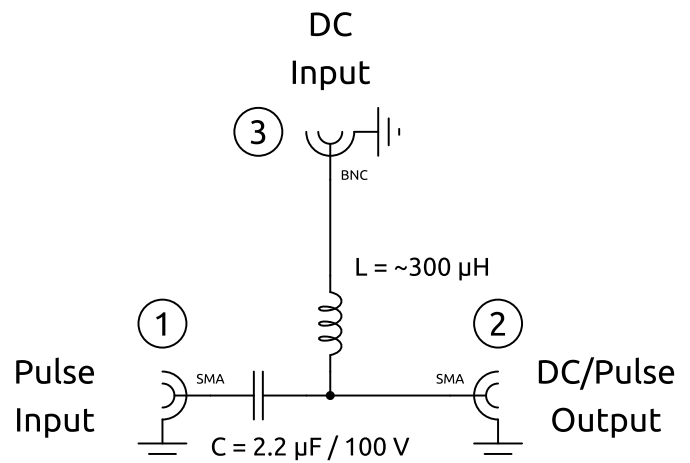


Figure 1: Schematic diagram

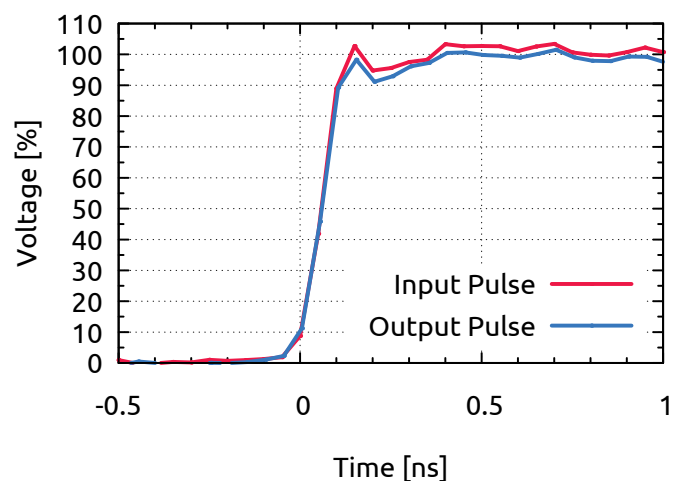


Figure 2: Typical measured impulse response of the bias tee from pulse input (port 1) to pulse output (port 2).

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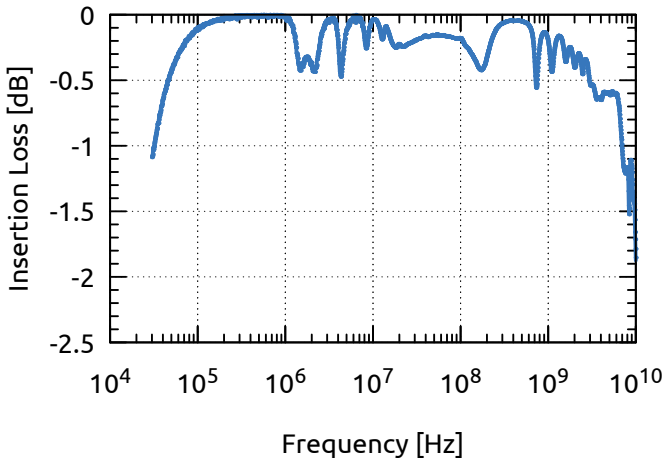


Figure 3: Typical insertion loss: pulse input to DC/pulse output in [dB]. Measurement condition: DC input port 3 short circuit to GND.

3 Ordering Information

Pos.	Description	Part No.
01	30 kHz – 6 GHz, 10 A, 100 V High Current Bias Tee	BT-10100A

General

The product data contained in this data-sheet is exclusively intended for technically trained staff. You and your technical departments will have to evaluate the suitability of the product for the intended application and the completeness of the product data with respect to such application. Our products are solely intended to be commercially used internally and should not be sold to consumers. This data-sheet is describing the specifications of our products for which a warranty is being granted by HPPI GmbH. Any such warranty is granted exclusively pursuant the terms and conditions of the respective supply agreement. There will be no guarantee of any kind for the product and its specifications. For further information on technology, specific applications of our product, delivery terms, conditions and prices please contact HPPI:

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Due to technical requirements our products and/or their application may be harmful. For information please read carefully the manual or contact HPPI. Safety notes in the manual will inform you about possible risks that result from any foreseeable application of our products. Changes of this data-sheet are reserved.

2.2 Laboratory Safety Requirement

Interlock operation above an operation voltage of 40V needed to avoid life-endangerment risks.

Physical Dimensions

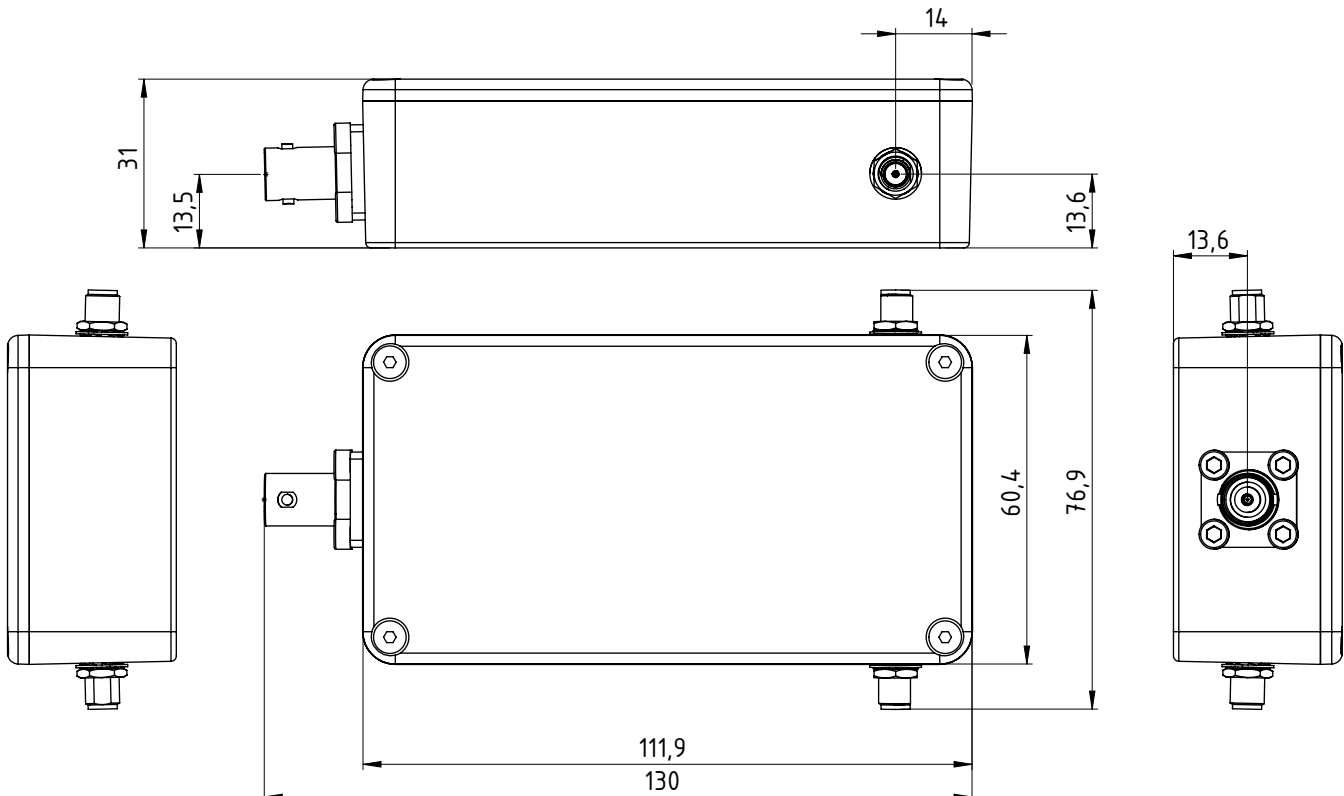


Figure 4: Physical dimensions of the BT-10100A in [mm]