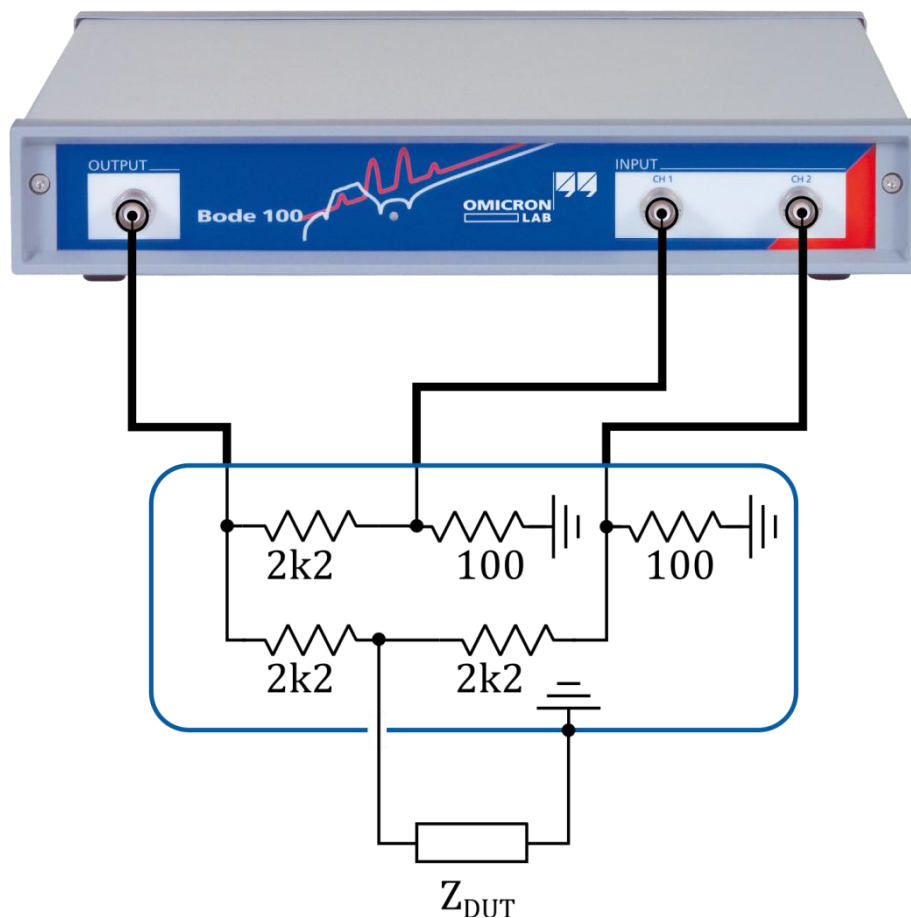


High Impedance Measurements

Extending the Impedance Measurement Range of the Bode 100



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Contact support@omicron-lab.com for technical support.

1 Measurement Bridge

Due to the internal $50\ \Omega$ source resistor the Bode 100 is suitable to measure impedance values very accurate close to $50\ \Omega$. Using a simple external bridge the Bode 100 can also be used to measure impedance values up to several Mega Ohms. The following figure shows the resistive bridge used for this purpose:

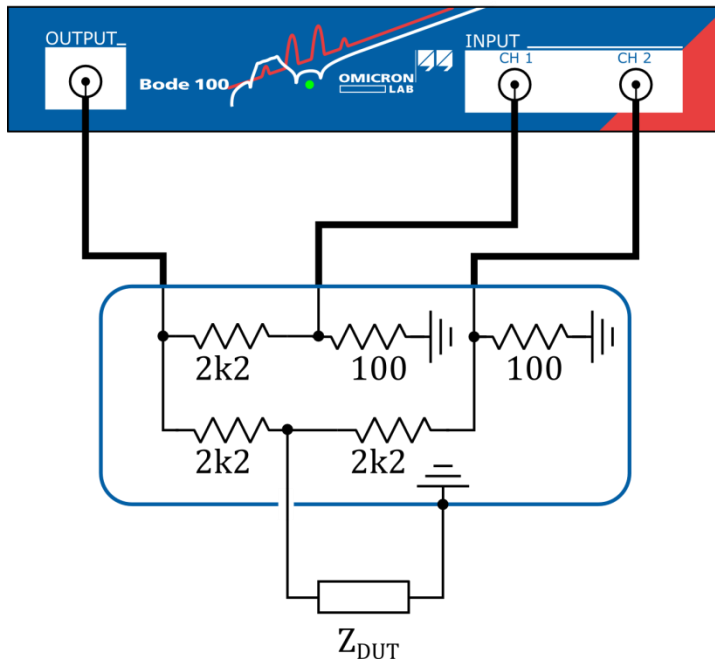


Figure 1: high impedance Measurement Bridge

The bridge can be built up with standard resistors as shown in the following picture. The impedance calibration of the Bode 100 compensates parasitics of the bridge.

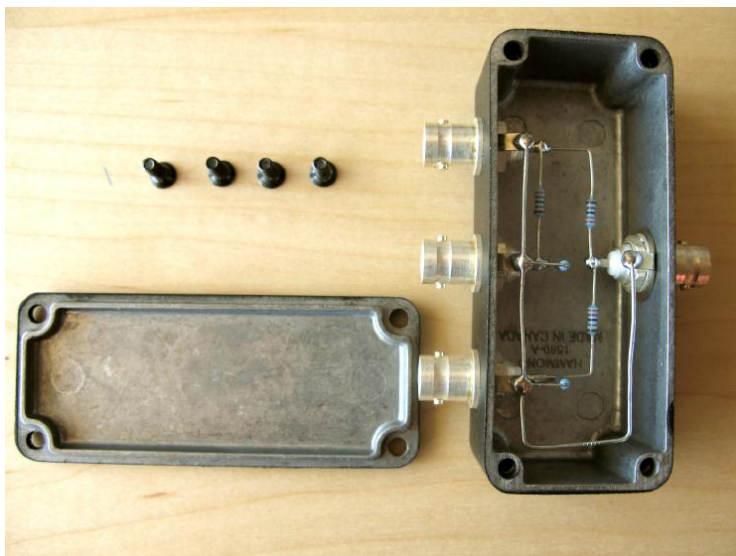


Figure 2: built up Measurement Bridge

2 Device Settings

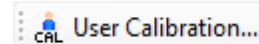
Measurements using this bridge should be performed in the Frequency Sweep (Impedance Adapter) mode.

This mode is activated by clicking on the Impedance Adapter icon in the Bode Analyzer Suite:



Before a measurement can be performed, the measurement setup needs to be calibrated.

We recommend performing a User Calibration for accurate results. The calibration window is opened by clicking on the User Calibration Icon:



OPEN, SHORT and LOAD need to be calibrated:

Gain/Phase
Replace DUT by thru cable. Afterwards press Start to perform Calibration.
Thru Start Not Performed

Impedance
Connect the corresponding part and perform the calibration by pressing the start button.

Open	Start	Performed
Short	Start	Performed
Load	Start	Performed

☐ **Advanced**
Load Resistor: 1.00 kΩ
Short Delay Time: 0.00 s

OK Cancel Help

OPEN:
Nothing is connected to the impedance measurement bridge (infinite impedance)

SHORT:
A short circuit is connected to the measurement bridge (zero impedance)

LOAD:
A known resistor is connected. We recommend using a **1kΩ** SMD resistor for the load calibration. Before clicking Start, set the Load resistor value according to your used resistor!

After performing the calibration the measurement can get started.