Impedance measurement setup using PicoScope

# Driver installing

Requires Instrument Control Toolbox.

Add to Matlab path:

GIT\Ultrasound\MATLAB\Library\Pico\code\

GIT\Ultrasound\MATLAB\Library\Pico\picotech-picosdk-ps5000a-matlab-instrument-driver-7bd78ac

GIT\Ultrasound\MATLAB\Library\Pico\picotech-picosdk-matlab-picoscope-support-toolbox-cebd652

Install Pico SDK for both 32bits and 64bits for Matlab 32-bit and Matlab 64-bit, regardless of the OS version

(Tested on PicoSDK\_32\_10.6.13.97 ans PicoSDK\_64\_10.6.13.97), newer version may not work

Base on the lowest frequency sweep (longest pulse length), adjust the sampling frequency (reduce for low freq) and buffer length (increase for low freq)

Change the generator buffer base on different Pico model GIT\Ultrasound\MATLAB\Library\Pico\code\m\_ps5000a\_arb.m

Text

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# Setup requirement

1. Device under test (DUT)
2. Precision resistor of value much smaller than the DUT impedance
3. Pulser for triggering the Picoscope

# Connection

Diagram

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