



# Energy Harvester Development Kit



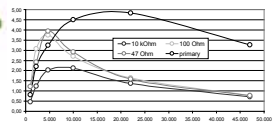
Generating energy from environmental vibrations is one of the current challenges for engineers.

The energy harvester development kit consists of a simple desktop shaker with a suitable power amplifier unit, several MFC generator structures and three electronic modules for different energy measurement setups and for testing conditioning units. It enables mechanical and electrical engineers to study relationships between mechanical input parameters and electrical outputs. The excitation for the harvester can be applied by either using the internal sine wave generator or any other sampled signal from a real environment utilizing the 0dB external source input.

## Measurement Modules included in the kit

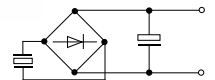
### Variable impedance module

Module to learn more about the basic rules for designing energy harvesters to test frequency response and electrical impedance matching



### Energy measurement module

Module comprised of a bridge rectifier and various capacitors to measure charge generation as voltage across known capacitances. Dip switch allows to select different capacitances.



### Smart conditioner module EH-CL50

The CL50 is a energy harvester conditioner specifically designed for the MFC P2 type products. The CL-50 is the first of a line of Conditioner products designed to match the impedance, output voltage range and harvested energy (electric charge) of the MFC, featuring a 3.3V stabilized DC output.



### MFCs and cantilevers

The kit includes two glass fiber composite cantilevers with a attached M8528P2 and M2814P2 each and one M2814P2 as a component.

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