

# Active Learning Enabled by the ADALM2000 ACTIVE LEARNING MODULE



## ADI's Hands-On Learning Labs Improve Education

The **ADALM2000** (M2K) active learning module is an affordable, USB-powered, software-defined instrument that takes the capabilities of the **ADALM1000** (M1K) active learning module to the next level. With 12-bit ADCs and DACs running at 100 MSPS, the M2K brings the power of high performance lab equipment to the palm of your hand, enabling electrical engineering students and hobbyists to explore signals and systems up to tens of MHz without the cost and bulk associated with traditional lab gear. The M2K, working with open-source Scopy graphical application software, provides the user with many high performance instrumentation options.

### Program Benefits

- ▶ Provides access to real circuits and concepts used in an actual real-time engineering environment
- ▶ Available online resources support educators and guide students to master difficult engineering concepts
- ▶ Hands-on activities stimulate interest and accelerate learning in fundamental engineering concepts
- ▶ Helps to develop critical thinking skills needed for career development
- ▶ Free downloadable lectures, labs, and course materials make curriculum deployments a breeze



ADALM2000 module.

### Kit Includes

- ▶ Analog Devices ADALM2000 active learning module
- ▶ Cables
- ▶ One USB cable

To purchase this active learning module, visit [analog.com/adalm2000](http://analog.com/adalm2000)



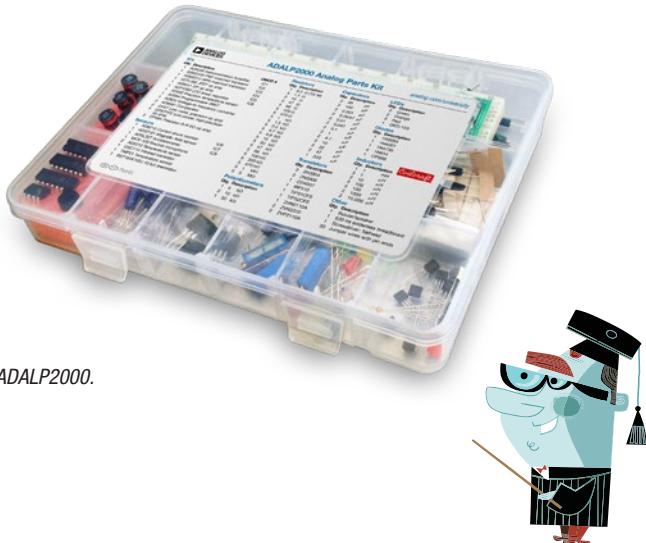
Scopy GUI.

## Connecting Theory with Practice

The ADALM2000 works as a portable lab that, when used with a host PC, can augment classroom learning. Analog Devices' Scopy software package supports the ADALM2000 and provides an intuitive graphical user interface (GUI) so students can learn faster, work smarter, and explore more. Built on open-source technology, Scopy can be examined and extended by anyone.

## Made for Teachers, Students, and Self-Learners

The ADALM2000 was designed for university students and self-learners interested in more advanced circuit and electronics classes. Teachers can leverage a catalog of lessons and labs for the ADALM2000 to create and support their own coursework.

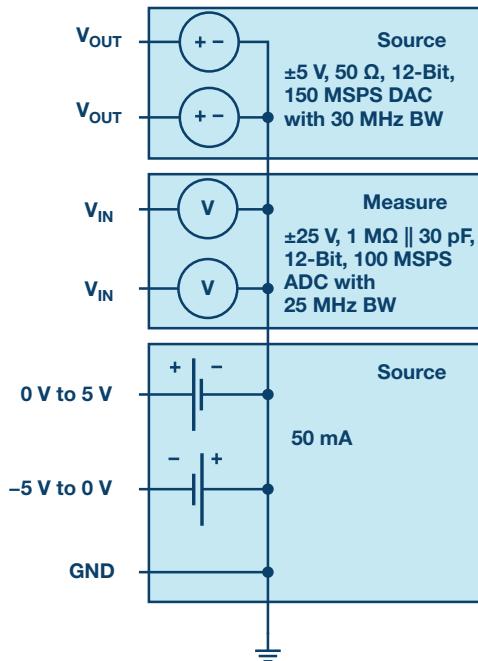


ADALP2000.

## EngineerZone® Online Support Community

Engage with the Scopy and ADALM2000 developers in the virtual classroom, as well as ADI's technology experts in our online support community.

Visit [ez.analog.com/community/university-program](http://ez.analog.com/community/university-program)



ADALM2000 module.

### Features

- ▶ USB 2.0 device and OTG (LAN and Wi-Fi supported)
- ▶ Two general-purpose analog inputs:
  - Differential,  $\pm 25$  V,  $1 \text{ M}\Omega \parallel 30 \text{ pF}$ , 12-bit, 100 MSPS ADC with 25 MHz bandwidth
- ▶ Two general-purpose analog outputs:
  - Single-ended,  $\pm 5$  V,  $50 \text{ }\Omega$ , 12-bit, 150 MSPS DAC with 30 MHz bandwidth
- ▶ Two variable power supplies
  - $0 \text{ V to } 5 \text{ V}$ ,  $-5 \text{ V to } 0 \text{ V}$ , 50 mA
- ▶ 16 digital input or output pins
  - 3.3 V, 1.8 V, 100 MSPS, 5 V tolerant
- ▶ Two digital triggers
  - 3.3 V or 1.8 V, 100 MSPS, 5 V tolerant
- ▶ Scopy uses the above features to create:
  - Voltmeters
  - Digital oscilloscopes
  - Spectrum analyzers
  - Power supplies
  - Function generators
  - Arbitrary waveform generators
  - 2-port network analyzers
  - Digital logic analyzers with bus analyzers
  - Digital pattern generators
  - Digital static inputs/outputs

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