

Active Learning Enabled by the ADALM1000 Active Learning Module



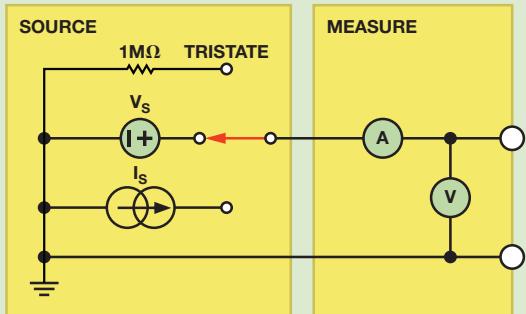
Optional parts kit.

ADI Is Making It Possible to Engage with Aspiring Engineering Students Earlier in the Education Cycle

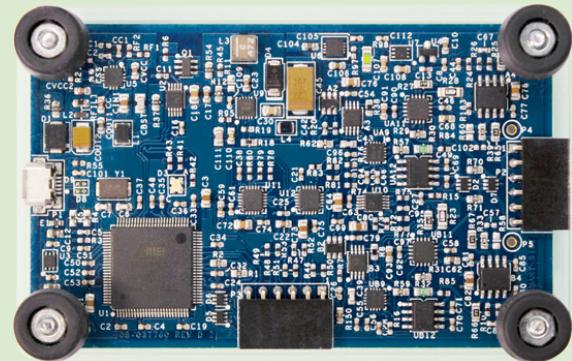
The ADALM1000 Active Learning Module provides an inexpensive and easy to use evaluation platform that helps introduce the fundamentals of electrical engineering concepts in a hands-on environment. The ADALM1000 allows students to experience real-time engineering design scenarios earlier in the education process by starting in high school and continuing all the way through college. This valuable hands-on experience will help form the solid foundation for students to build from as they pursue advanced engineering and science degrees and ultimately careers.

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 and accelerate learning and build interest 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



ADALM1000 block diagram per channel.



Bottom view of the ADALM1000 board.

ADALM1000 Functionality:

- Two channels signal generation—voltage or current output
- Two channels signal measurement
- Two fixed power supplies
- Four digital signals
- USB power/communications

Two Analog Inputs/Two Analog Outputs

Sample rate/bits	100 kSPS/16-bit
Voltage range	0 V to 5 V
Current range	-200 mA to +200 mA
Sampling style	Continuous streaming: 100%
Supplies	5 V (200 mA) 2.5 V (200 mA)

Features

Current control and measurement	Yes
Open-source hardware	Yes
Open-source software	GUI, drivers, firmware
Compatibility	Windows, Linux, OS-X
LRC meter capable	Yes

To order your ADALM1000 kit and optional parts kit, go to
www.analog.com/ADALM1000

How the ADALM1000 Can Be Used

This versatile platform can be used to explore electronics, physics, chemistry, and much more.

- Measure ac and dc characteristics of attached parts/systems
- Measure mechanical efficiency and motor constants
- Analyze physical constants such as gravity, Planck's constant, and Boltzmann's constant
- Measure pH over time with off the shelf probes
- Control electrolytic cell potential and reaction rate
- Explore battery charge and discharge profiles
- Examine photovoltaic (solar) cell parameters and performance



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