

Analog Discovery Pro 2440 / 2450

Smart. Capable. Balanced.



Analog Inputs:

Analog Discovery Pro 2440:

- Four BNC input channels with 12-bit resolution with up to ± 25 V input range
- 100+ MHz bandwidth, 600 MS/s interleaved

Analog Discovery Pro 2450:

- Four BNC input channels with 8-bit resolution with up to ± 25 V input range
- 200+ MHz bandwidth, 1 GS/s interleaved

Analog Output:

- One BNC output channel with 14-bit resolution, ± 5 V output range
- 15+ MHz bandwidth, up to 125 MS/s

Digital I/O:

- 16 digital I/O with a configurable pull resistor
- Up to 1.2 GS/s sampling rate
- Many protocol interpreters including SPI, I2C, UART, 1-Wire, CAN, GPIB, I2S, LIN, JTAG, Manchester, SAE JA1850, and Quadrature Decoders
- Two bi-directional BNC triggers

Popular Features:

- Dual Mode - Operate two devices simultaneously for 8 analog inputs, 32 digital I/O, and 2 AWGs.
- Automatic device phase adjustment between devices in Dual Mode.
- USB 3.1 (5 Gbps) transfer speeds.
- Triggering and cross triggering between instruments working simultaneously and independently.
- Deep Buffer Memory - 355 million samples (up to 535 million in the ADP2450) can be freely allocated between Analog and Digital systems.
- Memory Segmentation with only 1 μ s latency between high-speed repeated captures.
- Metal enclosure with DIN rail support for easy mounting.



What are the Analog Discovery Pro 2440 & 2450?

Smart: The Analog Discovery Pro 2440 and 2450 deliver professional-grade performance in a compact, cost-effective form factor. Designed for test engineers who need flexibility without sacrificing precision, these USB multi-instruments combine advanced mixed-signal capabilities with intuitive software integration. Whether you're debugging embedded systems, validating circuit designs, or building custom automated workflows, the Analog Discovery Pro series ensures you have the right tools for the job.



Capable: Choose the model that fits your requirements: the ADP2440 offers four analog input channels with 12-bit resolution, 100+ MHz bandwidth, and up to 600 MS/s interleaved sampling, while the ADP2450 provides 8-bit resolution, 200+ MHz bandwidth, and 1 GS/s interleaved sampling. Both models feature ± 25 V input range, 10 selectable hardware ranges, and advanced visualization options including FFT, Histogram, Persistence, Eye Diagram, and Analog-to-Digital plots. Complex triggering conditions—such as Edge, Pulse, Timeout, Glitch, Transition, and Window—give full analog control over signal capture.

What do you need?		ADP2440	ADP2450
High Sample Rate and Bandwidth?	12-bit, 100 MHz, 600 MS/s across 4 channels?	●	
	8-bit, 200 MHz, 1 GS/s across 4 channels?		●
16 freely configurable Digital I/O generating and interpreting data?		●	●
Bode plots, FFTs, Eye Diagrams, Impedance Analyzer, custom math?		●	●
Arbitrary Waveform Generator supporting everything from sine and square waves to phase and amplitude modulation in burst pulses?		●	●
To have everything from Scope Probes and functionality to software and product support included in a single one-time price?		●	●

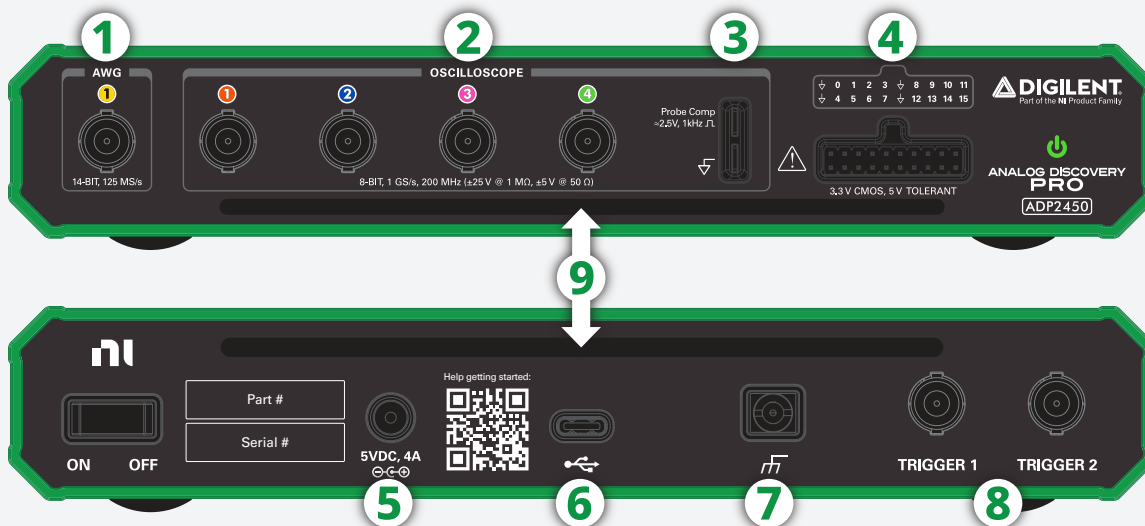
Balanced: The Analog Discovery Pro series integrates a 14-bit arbitrary waveform generator with 15+ MHz bandwidth, supporting standard and custom waveforms, frequency sweeps, and modulation techniques like AM, FM, and PM. Additionally equipped with 16 digital I/O channels capable of 1.2 GS/s sampling, plus protocol decoding and generation for SPI, I²C, UART, CAN, and more, these devices deliver true mixed-signal analysis in one platform. Dual Mode operation even allows two units to work together for 8 analog inputs, 32 digital I/O, and synchronized AWGs.





Engineered for modern workflows, the Analog Discovery Pro 2440 and 2450 series offers USB 3.1 connectivity, deep buffer memory with segmentation, and cross-triggering between instruments. Housed in a durable metal enclosure with DIN rail support, these devices are built for both benchtop and professional environments. Paired with Digilent's WaveForms software and SDK for custom scripting, you'll have the flexibility to automate, analyze, and innovate without limits.

When you need a real tool to solve real problems, trust the Analog Discovery Pro. Everything you need—without the distractions you don't.



1. Arbitrary Waveform Generator

- 1 channel on a BNC connector
- 14 bits, ± 5 V output range
- 125 MS/s, 15+ MHz bandwidth

2. Oscilloscope (2440 / 2450)

- 4 inputs on BNC connectors
- **12 / 8** bits, 10 hardware input ranges
- **100+ / 200+** MHz bandwidth for all ranges
- **600 MS/s / 1 GS/s** aggregate sample rate
- 1 M Ω / 50 Ω selectable input impedance

3. Probe Compensation Tabs

- Easy BNC probe calibration

4. Digital I/O

- 16 configurable inputs/outputs
- Pattern Generator and Logic Analyzer
- Protocol Analysis and Generation

5. Power Supply Input

- External 5 V, 4 Amp supply included

6. USB Connector

- USB 3.1, Type C cable included

7. Earth Ground Screw

- To facilitate earth ground connections

8. BNC Triggers

- Input or output
- Used to facilitate Dual Mode

9. Ventilation Holes

- To enable airflow for the on-board fan

Additional Features

- Spectrum Analyzer
- Network Analyzer
- Impedance Analyzer
- Data Logger
- Deep Buffer memory
- USB 3.1 speeds (5Gbps)
- Rapid Triggering