



Analog Discovery Pro ADP5250: All-In-One 1GS/s 100MHz Mixed Signal Oscilloscope, Function Generator, Power Supply, and DMM

Part: ADP5250

What is the ADP5250?

Bolster your benchtop with the biggest, baddest, and boldest Analog Discovery yet.

The ADP5250 brings higher sample rate and bandwidth and a more rugged design to the Analog Discovery Pro family, keeping our free highly rated WaveForms application software at the controls.

Higher Sample Rate and Bandwidth

Designed to combine a complete set of instruments into a flexible and programmable device, the ADP5250 features a mixed-signal oscilloscope with two 100 MHz bandwidth, 1 GS/s analog channels, 34 digital channels, a tri-output power supply capable of up to 25 V, an external trigger, Waveform Generator, and a built-in programmable DMM. This is our first instrument with full DMM capabilities including true current and resistance measurement and a 300 V input range.

The Ultimate All-In-One Test System

Analog Discovery Pro devices feature a variety of advanced triggering options. Instruments within WaveForms can be cross-triggered, for example, by activating an oscilloscope capture based on a received and decoded digital protocol. In addition, external signals can trigger events using the dedicated external trigger input/output. Our free WaveForms software provides these features configurable in the instruments themselves, or for more control or automation in one of the available scripting interfaces.

Note: The ADP5250 is Windows® only.

Analog Inputs:

- Used in the Oscilloscope, Data Logger, Network Analyzer, Spectrum Analyzer, and Impedance Analyzer
- Two analog input channels accessible via front panel BNC connectors
- Channel type: single ended
- Analog bandwidth: 100 MHz @ -3 dB
- 8-bit resolution
- Max sampling rate: 1 GS/s single channel
- Maximum input range: 40 V peak to peak
- AC or DC coupling
- Maximum record length: 1 MS per channel
- Front panel connector generating a 5 V, 1 kHz, square wave for convenient compensation of BNC oscilloscope probes

Analog Outputs:

- Used in the Waveform Generator, Impedance Analyzer, and Network Analyzer
- One channel accessible via a front panel BNC connector
- 14-bit resolution
- AC amplitude (max): ± 12 V
- Maximum analog bandwidth: 5 MHz @ -3 dB
- Maximum sampling rate: 125 MS/s
- Software-switchable filter: 36 MHz lowpass, 7-pole, elliptical

Power Supplies:

- Digital supply: 3.3 V, 20 mA
- DC power supplies:
 - 0 to 6 V variable, 1 A max current
 - 0 to 25 V variable, 500 mA max current (isolated)
 - 0 to -25 V variable, 500 mA max current (isolated)

Digital Multimeter:

- Used in the DMM instrument
- Functions: DC voltage, AC voltage, DC current, AC current, resistance, diode, continuity
- Resolution: 5 1/2 digits
- Sample rate 5 S/s
- Input protection:
 - Resistance, diode: up to 300 V DC
 - DC and AC voltage: up to 300 V DC or 265 VAC (rms) 400 V AC (peak)
 - DMM A current connector fuse: internal ceramic fuse, 10 A 250 V, time-delay, 5 x 20 mm, T 10 A H 250 V
 - DMM mA current connector fuse: internal ceramic fuse, 1.25 A 250 V, time-delay, 5 x 20 mm, T 1.25 A H 250 V
 - Maximum common-mode voltage: 300 V DC or AC (rms)

Digital Inputs:

- Used in the Logic Analyzer
- Channels: 32
- Input voltage: 0 V to 5 V
- Input threshold: 0 V to 2 V
- Max sampling rate: 1 GS/s
- Typical record length: 1 MS

Digital Inputs and Outputs:

- Used in the Static I/O instrument
- Channels: 8
- Input logic standard: 5 V compatible TTL
- Output logic standard: 3.3 V LVTTTL

Advanced Triggering:

- Trigger sources: oscilloscope analog channels, function generator start, digital inputs, digital I/O, power line frequency, external trigger
- Trigger modes
 - Normal, auto, force, single
- Analog trigger
 - Edge with hysteresis
- Digital trigger
 - Edge, level, pattern, glitch
- External trigger:
 - 5 V compatible TTL input or 3.3V LVTTTL output
 - 4 mA drive strength

Connectivity:

- Device to computer: USB 2.0 Hi-Speed

Other:

- Auxiliary powered
- Dimensions: 25.40 cm x 19.05 cm x 7.77 cm (10.00 in x 7.50 in x 3.06 in)
- Weight: 2.05 kg (4 lb 8.3 oz)
- Shock and vibration tested (details in the specification sheet)

Product Compliance:

- HTC: 8471809000
- ECCN: 3A992.a

ADP5250 Included:

- 1 ADP5250
- 1 USB A to B cable
- 1 1x14 Digital I/O Screw Terminal Adapter
- 1 1x6 Power Supply Screw Terminal Adapter
- 1 2x18 Logic Analyzer MTE Cable
- 1 US IEC Cable
- 1 EU Adapter
- 1 UK Adapter