



Zmod ADC 1410: SYZYGY-compatible Dual-channel 14-bit Analog-to-Digital Converter Module

SKU: 410-396

The Zmod ADC is one of Digilent's first [SYZYGY-compliant expansion modules](#). The SYZYGY standard offers a much higher speed/bandwidth digital interface than Pmods, but at a much smaller and lower-cost form-factor than FMC, enabling the user to configure an FPGA development board with the right I/O for their application. Driven by the SYZYGY carrier, the Zmod ADC can simultaneously acquire two $\pm 25V$ signals with 14 bits of resolution at a sample rate up to 100MS/s. Analog inputs can be connected to a circuit using SMA cables.

When coupled to a base board using SYZYGY expansion, like the [Eclipse Z7](#) or [Genesys ZU](#), the combination will serve as a powerful prototyping platform for instrumentation, high-speed control, and SDR products. By utilizing these expansion capabilities, users can spend more time on the analytical and system-level aspects of the solution rather than having to focus on the component-level interactions of the devices.

Features:

- Channels: 2
- Channel type: single-ended
- Resolution: 14-bit
- Input range: $\pm 1\text{V}$ (High Gain) or $\pm 25\text{V}$ (Low Gain)
- Absolute Resolution 0.13mV (High Gain) or 3.21mV (Low Gain)
- Sample rate (real time): 100MS/s
- Input impedance: $1\text{M}\Omega \parallel 18\text{pF}$
- Analog bandwidth: 70 MHz+ @ 3dB, 30 MHz @ 0.5dB, 20 MHz @ 0.1dB
- Input protected to: $\pm 50\text{V}$