


<b>NEW PRODUCT</b>	 <b>DIGILENT</b> A National Instruments Company	<b>Release Year</b> 2019	<b>Released Quarter</b> Q4
<b>Digilent Part Number</b> 410-396		<b>Category</b> Add On Board	

## OVERVIEW

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

**Product Subtitle:** TBA

**Product Description:** The Zmod ADC is one of Diligent'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 acquire two simultaneous signals (1M $\Omega$ ,  $\pm$ 25V, single-ended, 14-bit, 100MS/s, 70MHz+ bandwidth). 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.

**Key Search Terms:** Syzygy, high speed, Analog, Digital, Analog Devices, ADC, Zmods, Zynq, Ultrascale+, MPSoC, SDR Software-Defined Radio, Instrumentation, Radio Frequency, RF

**Video Link:** TBA

**Datasheet:** <https://reference.digilentinc.com/reference/pmod/pmodpir/reference-manual>

**Demo / Project Links:** TBA

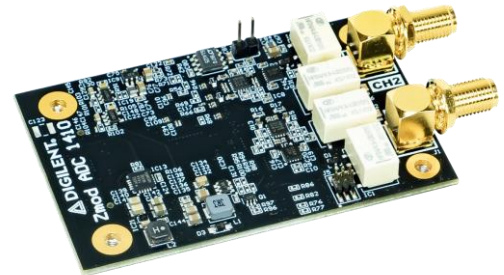
### Features

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

### Target Applications

- TBA

### Product Image



### Image Links:

- <https://flic.kr/p/2hwU9oR> (Oblique)
- <https://flic.kr/p/2hwWTEK> (Top)

### Related Products

- Eclipse Z7 (410-393)
- Genesys ZU