Zmod DAC 1411: SYZYGY-compatible Dual-channel 14-bit Digital-to-Analog Converter Module

SKU: 410-397

The Zmod DAC 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 DAC can simultaneously generate two ±5V signals with 14 bits of resolution at a sample rate up to 100MS/s. The analog outputs can be connected to a circuit using SMA cables.

When coupled to a base board using SYZYGY expansion, like the Eclypse 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
- Absolute Resolution (amplitude ≤1.25V): 167µV
- Absolute Resolution (amplitude >1.25V): 665µV
- Output impedance: 50Ω
- Sample rate (real time): 100MS/s.
- AC amplitude (max): ±5 V.
- Analog bandwidth: 40 MHz @ 3dB, 20 MHz @ 0.5dB, 14 MHz @ 0.1dB
- Slew rate (2V step): 180V/µs