

14 Bit 4-Kanal Arbitrary Waveform Generator mit 4 x 600MS/s od. 2 x 1,2GS/s

Order-No.: PXDAC4800X Series/Model: PXDAC4800



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1,2 GSPS, 14-bit or 8-bit, 4-Channel, Arbitrary Waveform Generator PCIe x8 DAC Board with Analog Devices AD9736 DAC

Hauptproduktmerkmale

- **4 AC-Coupled or DC-Coupled DAC Channel Outputs**
- **14-bit Resolution @ 1.2 GSPS for 2 Channels or 600 MSPS for 4 Channels**
- **8-bit Resolution @ 1.2 GSPS for 4 Channels**
- **1 Gigabyte DDR2 RAM**
- **Up to 900 MB/s (sustained) via 8-lane PCI Express Bus**
- **Based on Analog Devices AD9736 DAC**
- **Output Ranges from 400mV to 1470mV**
- **Bandwidth up to 400 MHz (AC-Coupled) or 590 MHz (DC-Coupled)**

The PXDAC4800 is an exceptionally high-speed four channel Digital to Analog Conversion (DAC) board which may be used as an Arbitrary Waveform Generator, a waveform playback device, or for generating multiple communication frequency bands. Each DAC can output data at a maximum real rate of 1.2 GSPS at 14-bit for two channels or at 8-bit for four channels, or 600 MSPS at 14-bit for four channels. Each output signal has a bandwidth of up to 400 MHz for AC-Coupled configuration or up to 590 MHz for DC-Coupled configuration. Output waveforms may be “per-trigger” or “continuously looped” from the on-board 1 Gigabyte memory.

The DACs can also be provided with a continuous data stream via the PCI Express (PCIe) bus up to 900 Megabytes per second (MB/s). This PCIe bus rate allows for providing up to 112.5 MSPS addressable bandwidth at full 14-bit resolution for each of the four analog outputs.

The DAC clock source may be selected as either the 1200 MHz or 900 MHz VCO oscillator or from the external clock input. The PXDAC4800 has two clock dividers. Clock divider #1 must be an integer between 1 and 32. Clock divider #2 must be an integer between 1 and 6. The clock dividers operate in

series so that there are 98 unique division combinations for a maximum division of 192. These dividers are also available with an external clock.

The VCO oscillators have extremely low jitter and can be synchronized to an external reference input or to the internal TCXO reference. The internal reference is accurate to better than 3ppm.

Fixed frequency oscillators have been chosen instead of a wide-band frequency synthesizer based on providing an SNR benefit of approximately 10 dB when producing very high frequency output signals.

The PXDAC4800 is a nice complement to Signatec's PX14400 and PX1500 waveform acquisition boards and is ideal for playing back extremely long waveforms, such as those previously captured with a Signatec Waveform Recording system. This is particularly useful in testing a system's response to previously recorded real world signals. In such an operation the data is supplied from the high-speed data storage system via the PCI Express bus and the PXDAC4800's on-board RAM is utilized as a very large FIFO data buffer.

Applications

- Radar design and testing
- Optical and Magnetic Storage Testing
- Advanced Ultrasound Design
- Video design, test, and production
- Network analysis
- Communications
- RF signal generation

Herstellerseite

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[14 Bit Arbitrary Waveform Generator 4x600MS/s od. 2x1,2GS/s \(806.1 KiB\)](#)



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If you have questions please don't hesitate to contact us any time.

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