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ADC2000-PCI+ for PCI-bus A/D Converter

Our fastest A/D converter! The ADC2000-PCI+ has a 2 MHz sampling frequency for data acquisition within 2 milliseconds.

- Captures 2048 data points in 2 ms
- Acquires data from up to 8 channels at once
- External event triggering
- Pixel rotation with no loss of resolution



The Ocean Optics high-speed ADC2000-PCI+ presents another plug-and-play, analog to digital desktop PC interface option to users of the popular Ocean Optics S2000 miniature fiber optic spectrometer. The ADC2000-PCI+ fits into a desktop PC's PCI-bus slot and couples to any S2000 Spectrometer via a D37-pin to D25-pin interface cable that is provided with each ADC2000-PCI+ unit.

The ADC2000-PCI+ features a channel rotator function that permits simultaneous acquisition of pixels from up to 8 spectrometer channels. For example, the S2000 spectrometers can be configured with a master and slaves for a total of n spectrometer channels. Pixel #0 is acquired from the master channel while pixels #1 through # ($n-1$) are acquired in sequence from the remaining channels. The acquisition sequence would repeat with pixel n from the master channel. The benefit of the channel rotator is that spectra from all channels can be gathered at precisely the same time, making the ADC2000-PCI+ ideal for applications involving pulsed light sources and transient spectral events. The data collected when using the multi-channel scanning capability of the ADC2000-PCI+ can be separated into individual spectra by a variety of Ocean Optics software products.

ADC2000-PCI+ Technical Note

The ADC2000-PCI+ provides 8 General Purpose Input/Output (GPIO) ports that can be controlled individually at TTL levels through our OOIWinIP driver development package. A custom cable with a DB-25 (male) connector allows access to the GPIO. The ADC2000-PCI+ is the only Ocean Optics A/D converter that supports GPIO functionality.

ADC2000-PCI+ -- Specifications

Board architecture:	Half-length PCI-bus card for single slot in desktop PC
Resolution:	12-bit
Sampling frequency:	2 MHz (maximum)
Data transfer rate:	Full scans (2048 wavelengths) into memory every 5 milliseconds.
Interface cable:	-- 37-pin connector to A/D converter -- 25-pin connector to spectrometer -- length is ~3.5' (slightly >1 meter)
Channels:	8
Multiple-channel capability:	Up to 8 spectrometer channels for S2000 series spectrometers
Spectrometer compatibility:	Supports all S2000 spectrometers
Software compatibility:	Supports all Ocean Optics software packages
Integration time:	2 milliseconds to 60 seconds when used with S2000 series spectrometers

