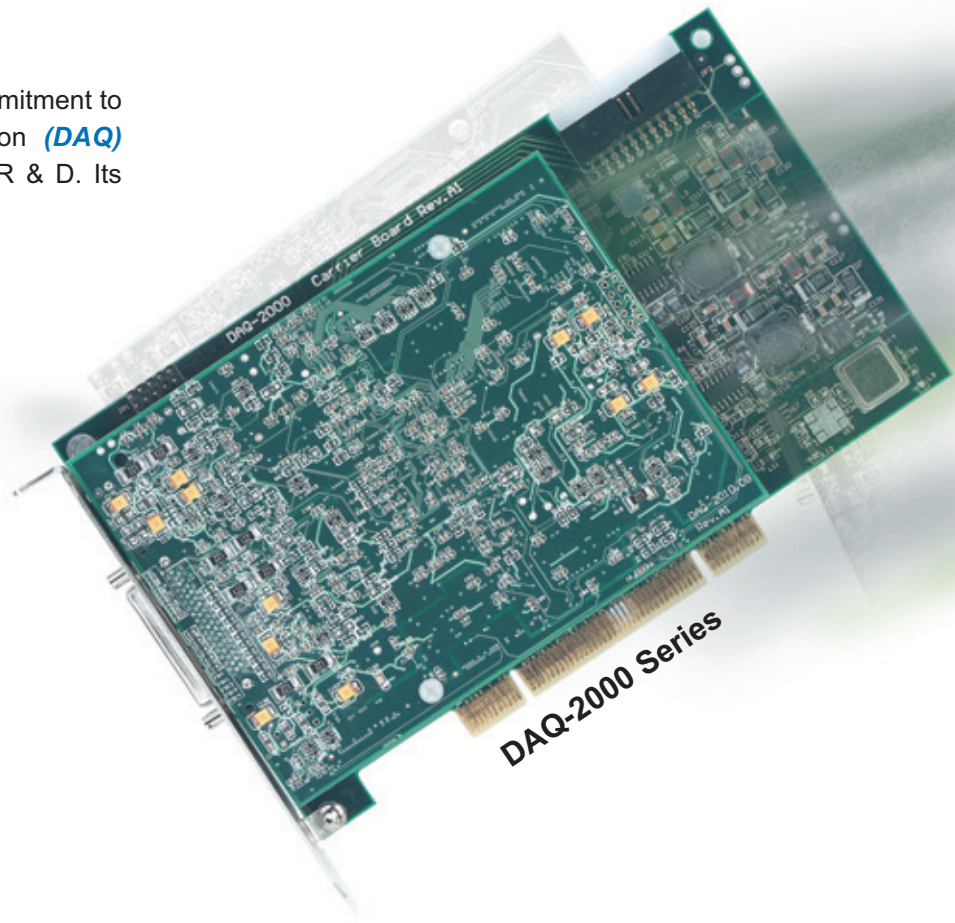


PXI-2000 Series-*The Smart DAQ Solutions*

The **PXI-2000** series is the result of the commitment to provide high performance Data Acquisition (**DAQ**) solutions by the continuous investment in R & D. Its benefits include:



Simultaneous operation

The PXI-2000 series are able to perform analog input and output functions at full speed simultaneously. The special intelligent timing control logic and data buffer management allows high-speed data I/O throughput at the same time.

Superior immunity to noise

The modular design of the PXI-2000 separates the digital circuitry and analog device into two-board piggy-back configurations. The isolation of digital and analog circuitry provides optimal digital noise immunity. Additionally, a special custom power regulation unit is implemented to provide stable and clean power for the system. This DC/DC circuitry greatly reduces the noise induced by the power supply.

Custom design instrumentation amplifier

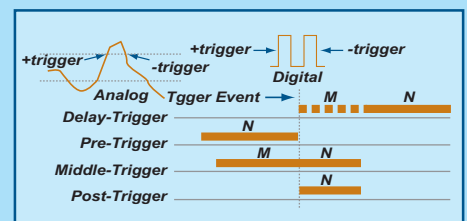
Most commercial amplifiers offer limited frequency response under 1MHz. This makes scanning multiple channels at fast rates and high gain with accurate data impossible. Our custom-designed instrumentation amplifier provides faster settling times to ensure signals are clean before A/D conversion.

Versatile random channel sampling and gain settings

The PXI-2200 series can scan up to 64 channels of data and sample each channel in any order at maximum conversion rates. Each channel can be individually configured with varying gain, as unipolar or bipolar, as single-ended or differential. This makes it possible to measure fast, slow, large, and small signals in one system.

Analog and digital triggering

Data acquisition can be started before or after the trigger event. Trigger signals can be analog threshold or digital. There are four trigger modes available:



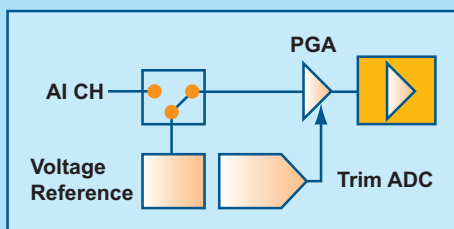
Pre-trigger, Post-trigger, Middle trigger, and Delay trigger. Post-trigger and Delay trigger modes allow successive triggers in order to capture repeated bursts of data.



PXI-2000 Series

Automatic calibration

The auto-calibration function of the PXI-2000 is performed with trim DACs to calibrate the offset and gain errors of analog input and output channels. Once the calibration process completes, the calibration constant will be stored in an EEPROM to allow these values to be loaded and used as needed by the board. Because all the calibration is conducted automatically by software, users do not have to hassle with adjusting trimpots to calibrate the board.

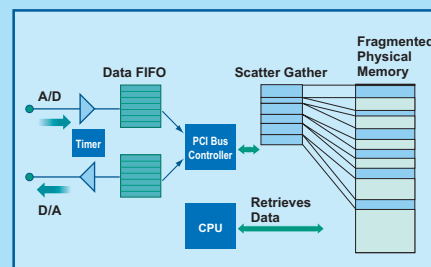


Multiple card synchronization

The PXI-2000 series uses PXI trigger bus to synchronize the operation of multiple PXI-2000 cards. This allows users to integrate multiple cards into a system with card-to-card synchronization.

Bus-mastering DMA with scatter-gather

The scatter/gather bus-mastering DMA can transfer data to and from fragmented physical memory intelligently without CPU intervention. The DMA controller has a built-in linking table that tells the DMA controller the memory address and amount of data to transfer. It can also automatically load the next linking address to transfer data to or from the next memory segment. With this mechanism, scatter/gather bus-mastering allows the DMA controller to transfer data to and from memory up to the size limited by the system. Therefore, it allows user to efficiently acquire huge amount of data into cost effective system memory.



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