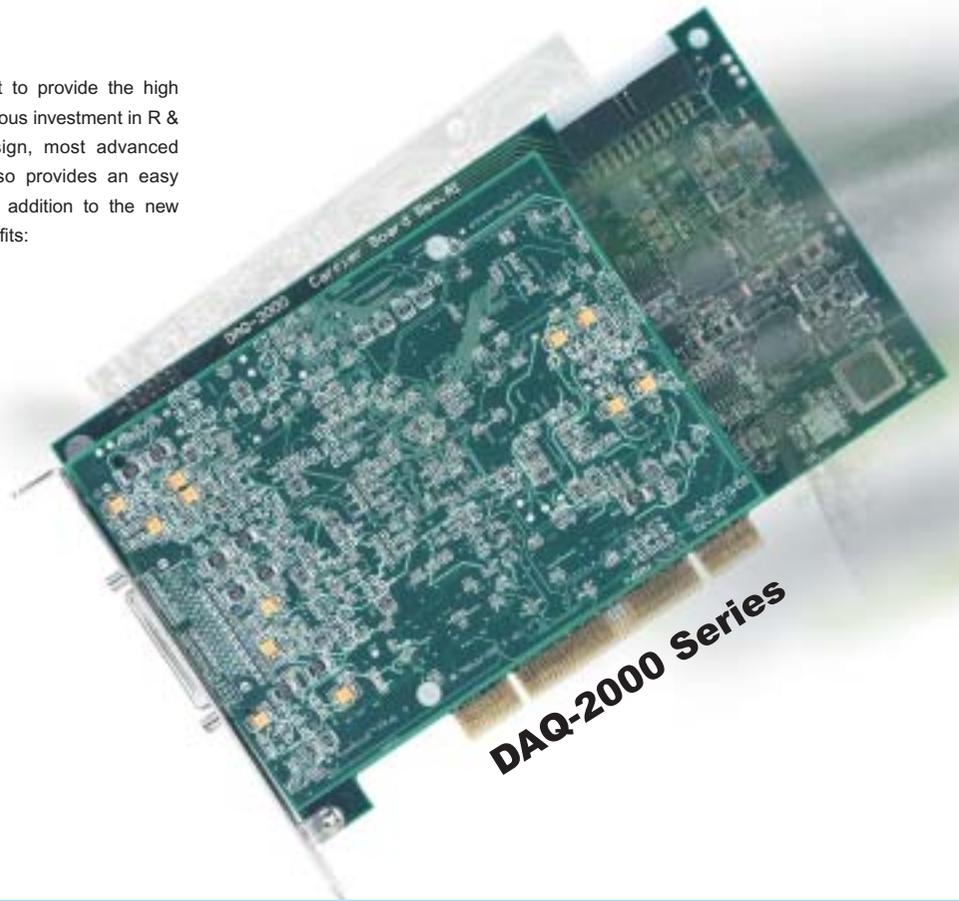


DAQ-2000 Series-The Smart DAQ Solutions

The **DAQ-2000** series are the results of the commitment to provide the high performance Data Acquisition (**DAQ**) solution by the continuous investment in R & D. With the innovative Carrier and Daughter Card design, most advanced functions are integrated into a half-size PCI card. It also provides an easy migration path from PCI bus architecture to PXI bus. In addition to the new innovations, the **DAQ-2000** series feature these added benefits:



Full speed simultaneous operation

The DAQ-2000 series are able to perform the analog input function and analog 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. Unlike counterparts from other vendors, the specifications are not sacrificed, which come from limited design.

High Immunity to noise

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

Custom design instrumentation amplifier

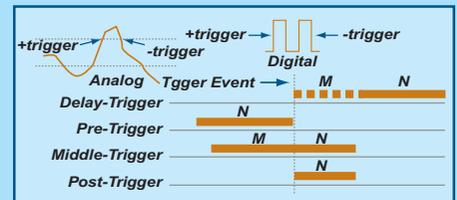
Most commercial amplifiers are limited to frequency response lower than 1MHz. This makes scanning multiple channels at fast rates and high gain with accurate data impossible. The custom design instrumentation amplifier provides settling time faster than that of commercial amplifiers such that the signal can settle before going into the A/D converters.

Versatile random channel sampling and gain settings

The DAQ-2200 series can scan up to 64 channels of data and sample the channels in any order at the maximum conversion rate. Each channel can be configured with different gain, unipolar or bipolar, single-ended or differential and the information is stored in the channel gain queue. This makes it possible to measure fast and slow, large and small signals in one system.

Analog and digital triggering

The data acquisition can be started before or after the trigger event and the trigger signal can be analog threshold or digital signal. There are four trigger modes available: Pre-Trigger, Post-Trigger,



Middle-Trigger, and Delay-Trigger. In addition, Post-trigger and Delay trigger modes allow successive triggers in order to capture repeated burst of data.

Automatic calibration

The auto-calibration function of the DAQ-2000 is performed with trim DACs to calibrate the offset and gain errors of the analog input and analog output channels. Once the calibration process is done, the calibration constant will be stored in EEPROM such that these values can be loaded and used as needed by the board. Because all the calibration is conducted automatically by software command, you don't have to adjust trim pots to calibrate the boards.

