ACCES I/O

New Products

ACCES I/O Announces Embedded USB Eight-Channel Analog Output Module with Arbitrary Waveform Generator

SAN DIEGO, Calif.—October 2, 2007—ACCES I/O Products, Inc. announces the latest addition to its extensive line of USB-based data acquisition and I/O modules—Model USB-DA12-8A. Introduced at the Embedded Systems Conference Boston, the board features eight independent 12-bit digital-to-analog converters (DACs) and broadly configurable arbitrary waveform generation (ARB) capabilities. This module can be used in any PC or embedded system with a USB port and is an ideal choice for test and embedded system designers. Other convenient features include both single-ended and differential outputs for increased noise immunity, ARB status and control signals via external connections, and two DB25 industry-standard connectors. The unit is fully compatible with USB 2.0 ports and hot-plug functionality allows for quick connect/disconnect. The USB-DA12-8A can be used in an assortment of USB-based embedded applications including stimulus-response, test, simulation, industrial equipment control and waveform/audio synthesis. For the Laser Entertainment Industry, the differential output connector conforms to the ILDA (International Laser Display Association) Standard as a Laser Graphics Signal Source.

Arbitrary waveform generation capability becomes increasingly necessary as CPUs are burdened with a greater abundance of complex tasks. An arbitrary waveform is a user-defined set of digital values specified point by point over time. These values are then clocked through a DAC to provide the analog output signal. Virtually any waveform can be created using the software tools provided by ACCES and also by third-party software packages. The ARB relieves some of the load placed on the CPU by handling the waveform generation at the hardware level using on-board memory and control logic. This is especially useful in time-critical applications as outputs remain unaffected by latencies inherent in popular operating systems. ACCES I/O's ARB architecture allows for flexibility in allocating the onboard RAM across the channels depending on the complexity of the desired waveform.

Key features of the USB-DA12-8A include:

- Independent 12-bit D/A converter per channel
- 32-bit counter for precisely timed outputs
- DACs independently or simultaneously updated at up to 125K conversions per second
- Output ranges of 0-2.5V, 0-5V, 0-10V, ±2.5V, ±5V, ±10V
- 128K sample buffer on-board
- OEM (board only) option features PC/104 module size and mounting compatibility
- DIN rail mounting provision
- Available without ARB as model USB-DA12-8E

The USB-DA12-8A is designed to be used in rugged industrial environments but is small enough to fit nicely onto any desk or testing station. The board measures just 3.550 by 3.775 inches and ships inside a steel powder-coated enclosure with an anti-skid bottom. A DIN rail mounting provision is available for installation in industrial environments. What makes the OEM option unique is that its PCB size and pre-drilled mounting holes match the PC/104 form factor (without the bus connections). This ensures easy installation using standard standoffs inside most enclosures or systems. The USB-DA12-8A can be integrated into any PCI-104 or PC/104 stack by connecting it to a simple USB port usually included on-board with embedded CPU form factors such as EBX, EPIC, and PC/104 — especially important since many newer CPU chipsets do not support ISA and have plenty of USB ports.

The USB-DA12-8A is supported for use in most operating systems and includes a free Linux (including Mac OS X) and Windows 95/98/Me/NT/2000/XP/2003-compatible software package. This package contains sample programs and source code in Visual Basic, Delphi, C++ Builder and Visual C++ for Windows. Also incorporated is a graphical setup program and utilities to generate waveforms in Windows. Third-party support includes a Windows standard DLL interface usable from most popular application programs, and includes example LabVIEW VIs. Embedded OS support includes Windows XPe.

ACCES I/O Products, Inc. supplies an extensive range of analog, digital, serial communication, and isolated I/O boards and solutions. ACCES also offers complete systems, integration services and enclosures with a quick turn-around on custom projects including software. ACCES products are designed for use with PC/104, PCI, PCI-X, Low Profile PCI, EBX, ETX, EPIC, USB, Ethernet and ISA, as well as distributed and wireless I/O. All hardware comes with a 30-day, no-risk return policy and a three-year warranty. For further information, visit the company's web site at www.accesio.com.

Price:	$525.00—USB-DA12-8A (with ARB function, enclosure, screw terminal adapter, external power adapter); $349.00—USB-DA12-8E (as above except without ARB function)
Availability:	Now
Delivery:	Stock to two weeks ARO

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