

ACCES I/O Products Introduces New Powerful High-Speed Multifunction Analog I/O Line with 4-20mA current outputs/inputs for Embedded Systems in PCI Express Mini Card (mPCIe) Form Factor

New mPCIe-DAAI16-8F offers 16-bit precision, simultaneous analog output and input, and flexible digital I/O

SAN DIEGO, CA — November 5, 2025 — ACCES I/O Products, Inc. proudly announces the release of the mPCIe-DAAI16-8F, a high-performance PCI Express Mini Card (mPCIe) multifunction analog output/input module that delivers 16-bit precision, simultaneous analog output and input, and flexible digital I/O — all in a small, rugged design ideal for embedded and OEM applications.

The mPCle-DAAl16-8F integrates eight 16-bit analog outputs supporting both voltage and current outputs, ideal for applications that need 4-20mA control. In addition to the flexible DAC outputs, eight 16-bit analog input channels software-selectable as 8 single-ended or 4 differential inputs are included. An aggregate analog-input sampling rate up to 1 MSPS supports dynamic measurements, while each DAC channel can perform hardware-paced waveform playback up to 125 kSPS per channel simultaneously. A compact, double-stack mPCle Type F1 form factor with latching I/O connectors enables reliable operation in shock and vibration prone environments.

Factory options include extended temperature of -40°C to +85°C, current inputs (4-20mA, 10-50mA), voltage dividers for higher voltage inputs, and HART modem capability. Additional customization options include conformal coating, custom software / product-labeling, and more — even entirely new features customized to your specific needs, enabled by our advanced FPGA-based design.

Key features of the mPCle-DAAI16-8F Family include:

- PCI Express Mini Card (mPCle) Type F1 (full length) with high-retention latching connectors vs shock/vibration
- Eight 16-bit analog outputs with software selectable current (4–20 mA, 0–20 mA, 0–24 mA) and voltage ranges
- Hardware-paced DAC waveform streaming up to 125 kSPS per channel using onboard FIFO + DMA architecture
- Eight 16-bit analog inputs software-selectable as 8 single ended or 4 differential; up to 1 MSPS aggregate ADC
- Seven per-channel programmable differential, bipolar input ranges
- Eight digital I/O pins (4 inputs, 4 outputs) can be used for triggering, status, or control and optional digital integration features (pulse/PWM generation and measurement, edge-specific IRQs and counting)
- Flexible A/D triggering start sources include software, internal timer, external start, and externally triggered timer start for precise synchronization.
- Onboard watchdog with status output
- Factory options: HART modem (on DAC #0), 4–20 mA / 10–50 mA ADC inputs, per-channel input voltage dividers, conformal coating, and more.
- Made in the USA; RoHS compliant

All ACCES mPCIe (and M.2) cards offer high retention latching connectors for shock and vibration mitigation as well as an optional extended operating temperature of -40°C to +85°C. The small size (mPCIe Type F1: 30mm x 50.95mm) allows for maximum performance in embedded applications where space is a valuable resource.

These cards are supported for use in most operating systems and include a free Linux and Windows compatible software package. This package contains sample programs and source code in C# and Delphi for Windows. Linux support includes installation files and samples for programming level via our open-source kernel driver. Third party support includes a Windows standard DLL API library usable from most popular application programs. Embedded OS support includes the family of Windows Operating Systems including IoT. ACCES also now offers a VxWorks driver/library for the ultimate real-time process monitoring and control solution.

For detailed technical specifications, a datasheet, and user manual, please visit the product webpage at: https://accesio.com/product/mpcie-daai16-8f/

About ACCES I/O Products, Inc.

For over 35 years, ACCES I/O Products, Inc. has supplied an extensive range of analog, digital, serial communication, and isolated I/O boards and solutions, including a line of popular rugged USB hubs. 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 mPCIe (PCI Express Mini Card), M.2, PCI Express, PCIe/104, Ethernet, USB, PCI, PC/104, and ISA, as well as distributed, wireless I/O, and computer-on-module (COM) form factors. 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: Prices start at \$559, Please inquire for OEM and volume pricing

Availability: Now

Delivery: Stock to two weeks ARO
Card Images: 300 dpi JPG | 300 dpi PNG

For Further Information, Contact:

Chris Persidok

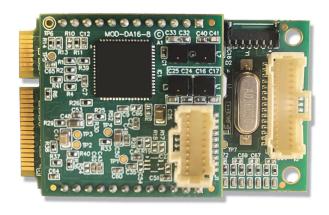
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High-Speed mPCle Multifunction Analog Output and Input Module with Advanced Features

