Analog I/O Modules

Two new modules have just been added to Tidal Engineering's ADAIO family of precision analog I/O expansion solutions for embedded applications. These compact and versatile microcontroller-based devices provide both analog input and output, and employ the I^2C Bus (Inter-Integrated Circuit). The TE1313 and TE1243 modules provide one digital-to-analog output channel with resolutions of 16 bits and 12 bits respectively, and one 16-bit bipolar/unipolar analog-to-digital input channel with an input range from 0.1 to &#177 10 VDC. Providing industrial I/O with modular flexibility, devices boast a 2.87 inches (L) &#215 0.75 inches W0.7 inches (H) space-saving design. The units are specifically engineered to mount directly to Tidal's full line of embedded IEEE 488 single board computers, enhancing their I/O capability. Most commonly used with Tidal's SBC448A to provide a flexible instrument development platform, modules are equally suitable as standalone devices in a wide range of data acquisition and measurement applications including signal measurement and process control. The TE1313 and TE1243 provide optically isolated data, with up 1000 V of optical isolation, and an onboard DC/DC converter to eliminate the need for a second isolated power. Their DAC Full Scale (FS) output range is selectable for 1.0 V FS, 5.0 V FS and 10.0 VDC, while the units' microcontrollers provide median filtering for ADC. Conversion time is a fast 4 milliseconds. Modules' operating temperature range is 0&#176 to 50&#176C, and power requirement is 5 VDC @ 50 mA. Tidal further ADAIO modules with 12-bit DACs and a wide range of analog-to-digital.

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