



AAF-3

Programmable, 2- to 8-Channel Low-Pass Filter and Differential Amplifier Board for the PC/AT

- Compatible with popular A/D converter boards
- 2, 4, 6, or 8 low-pass or high-pass filter channels
- Software-programmable gains of 0.5 to 1000 per channel
- 8-pole elliptic, linear phase filters, optional Bessel, Butterworth, Cauer, or high-speed linear phase filters
- Software-selectable cutoff frequencies from 1 Hz to 200 kHz
- Up to 4 different cutoff frequencies on each board
- Optional high-pass and band-pass filters with maximum bandwidth of 200:1
- Graphical application software and driver libraries for Windows 98/95/NT/3.1, LabVIEW, HP VEE, and DasyLab

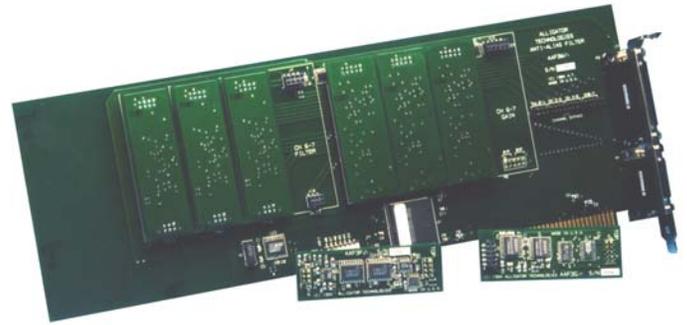
The AAF-3 series of PC plug-in boards provides 2 to 8 programmable channels of low-pass filtering and/or high-quality instrumentation amplifiers (with optional band-pass and high-pass filters) for front-end signal conditioning with all popular A/D converter boards.

Each channel is available with a wide choice of filter characteristics using the AAF-3F software selectable 8-pole elliptic and linear phase filters or the AAF-2F which is available as a Bessel, Butterworth, Cauer, high speed Cauer, linear phase, or high-speed linear phase filters. With a variety of filter types a high stop-band attenuation of 85 dB typical to as high as 90dB is available. When using the AAF-3G gain, a high common-mode rejection of 90 to 100 dB typical at high gains can be attained.

Using an AAF-2F filter without the AAF-3G amplifier increases the common-mode protection of the AAF-3 to $\pm 40V$.

High-quality instrumentation amplifiers on each channel provide software-selectable gain as well as differential inputs with high-common mode rejection. Channels are independently programmable for gain settings of 0.5, 1, 2, 5, 10, 20, 50, 100, 200, 500 or 1000.

The cutoff frequency of each 2-channel pair of filters can be set with an external clock or programmed for a range of frequencies from below 1Hz to 50kHz for the AAF-3F linear phase filter or from below 1Hz to 100kHz for the AAF-3F elliptic filter. The AAF-2F filter types provide cutoff frequencies between 0.1Hz and 200kHz. Please refer to the AAF-2F data sheet for more information. Four different control sources are available allowing for up to four separate cutoff frequencies on each AAF-3.



AAF-3 Filter/Amplifier Board

Support Software

The AAF-3 comes with the most complete collection of menu-driven programs and drivers available with any filter/amplifier card.

- **DLL drivers for Windows 95/98/NT, Windows 3.1 and DOS** with example application programs for popular compilers, including Visual Basic, Visual C++, and Borland C++.
- **SETAFF3 for DOS and SystemViewAAF for Windows 95/98/NT** is a graphical application that uses a few simple mouse clicks to program the board's filter type, cutoff frequency, and gain setting. Once selected, the desired parameters can be saved as an AAF-3 setup file that can be easily recalled and reapplied.
- **Support for LabVIEW, HP VEE, and DasyLab (16- and 32-bit)** is also supplied.

DC Offset. All filter modules for the AAF-3 feature automatic DC offset compensation and are highly suited in applications requiring minimal offset. The DC offset compensation may be optionally disabled and may exhibit higher values than specified.

Input Connection. The AAF-3G gain daughter board or the AAF-2F filter board provides differential input. If only an AAF-3F filter daughter board is used then the input is single ended.

Alligator Technologies

