Highland Technology, Inc.
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V490 Multi-Range Digitizer

The V490 includes 16 independent acquisition channels, each with a programmable-gain differential amplifier, analog anti-alias filter, 16-bit analog-to-digital converter, and digital postprocessing. Both real-time and FIFO-buffered data are simultaneously available, with each path having its own programmable digital filtering. FIFO load rates are internally programmable or may be externally triggered. Digital processing allows emulation/replacement of a classic Neff type architecture, namely a preamp and analog lowpass filter feeding a low-aperture-jitter triggerable ADC per channel.

Multiple V490s can provide an unlimited number of filtered, simultaneously triggered, FIFO-buffered ADC channels.

FEATURES

- 16 channels of independently programmable differential analog input acquisition.
- Input ranges from ±10.24 mV to ±40.96 V with 16-bit resolution.
- Common-mode rejection 120dB typ, ±10 V common-mode range.
- Overload protected to ± 250 volts on all ranges.
- Sample rate up to 500 Ks/s per channel.
- DSP filter modes from 1 Hz to 200 KHz.
- Real-time and FIFO-buffered data.
- Handshake-free dual-port memory.
- In-crate calibration check via dedicated test connector.
- DIPswitch-set VME address; no jumpers, headers, or trimpots.
- Optional BIST.