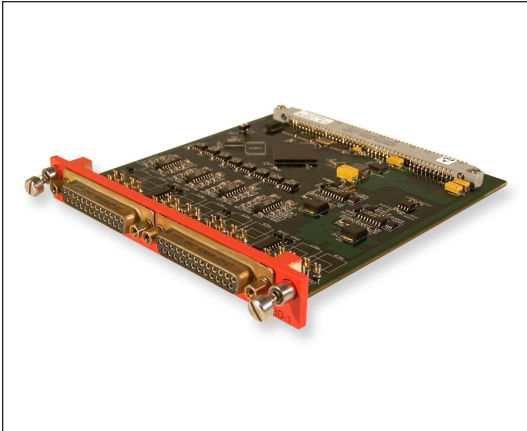


8-Channel Signal Conditioning Card - Voltage Excitation, Bridge Completion, Programmable Digital Filtering & Simultaneous Sampling



Applications

- Flight Test Instrumentation
- Factory Automation & Process Control
- Strain Gages, Load Cells, Pressure Transducers, ...
- Research Measurements and Experiments

Features

- 8-Channels per card
- Simultaneous Sampling Capability
- Programmable Digital FIR or IIR Presample Filtering
 - Software selected FIR filters: 120, 90, 60 and 40 Taps
 - 120 Tap FIR filter provides comparable response to 12- pole Butterworth Filter
 - Software selected IIR filters: 6-pole and 8-pole Butterworth, 6-pole Bessel and 6-pole Chebyshev
 - Automatic adaptive filter based on format sample rate
 - Analog anti-aliasing filter
- Bridge or Potentiometer Inputs
 - 1/4, 1/2, 3/4 and Full Configurations
 - On card Completion of up to 3 Arms
- Programmable Voltage Excitation
- Programmable Gain and Offset
 - >10,000 settings from 1 to 1,000
- Zero and Voltage Substitution Calibration
- >1,000 Megohms Input Impedance (Power On)
- $\pm 0.25\%$ System Accuracy (Auto Cal Enabled)
- $\pm 0.5\%$ System Accuracy (Auto Cal Disabled)
- > 1 Megohm Input Impedance (Power Off)
- Automatic parasitic offset correction on power-up and ZCAL. This feature can be disabled.
- $\pm 35\text{VDC}$ Overvoltage Protection
- Compatible with WDAU-20XX operating to 20Mbps
- Windows 95/98/NT/2000 Software Included

Description

The SCD-108D-2 is an 8-channel plug-in signal conditioning card for use in TTC's EDAU-20XX, CDAU-20XX and WDAU-20XX products. It is intended for applications requiring significant signal conditioning flexibility and simultaneous sampling capability. The card provides constant voltage excitation on a four channel basis, programmable presample filtering, calibration and user-programmable gain. The user may select between digitally implemented FIR and IIR filters. All filters are phase-locked to the channel format sample rate to maintain time correlation between the input signal and the PCM output. The filter can be set for 3, 4, 5, 6, 8 or 10 times oversampling (the filter -3dB point will be automatically set to the format sampling rate divided by the oversampling value). The conditioned analog signal is digitized at up to 16-bit resolution for transmission in the system PCM output format.

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SCD-108D-2 Datasheet

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