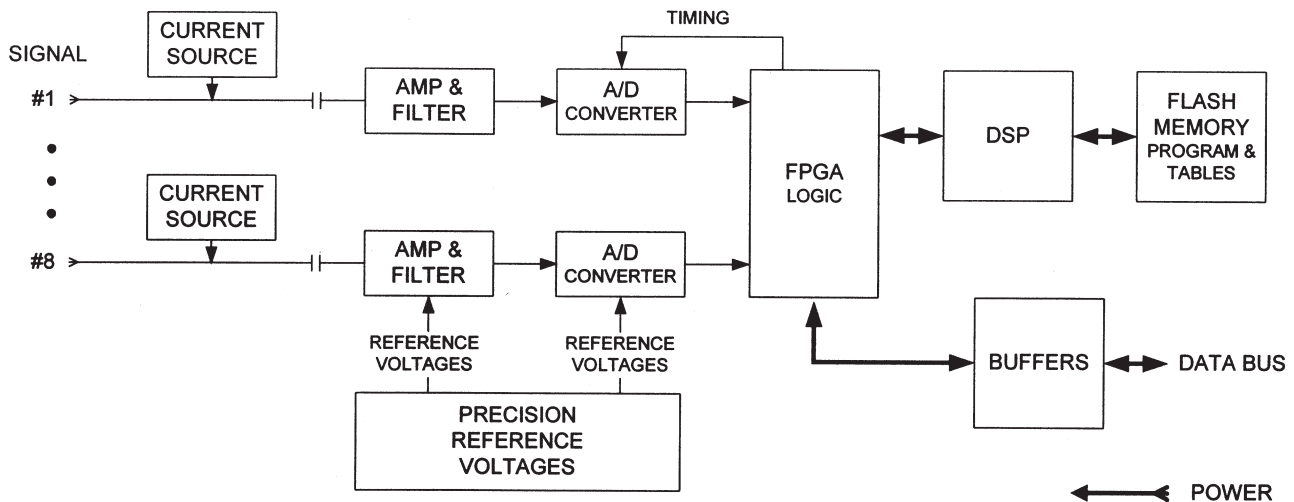


Product Bulletin

NSC-2908I-1 NetDAS – Analog Conditioning Modules Airborne Data Acquisition Products

- Eight independent channels.
- Each channel's input voltage level is programmable from 20 mVpp to 20 Vpp in 4000 steps per octave. Higher sensitivities are available at reduced accuracy and reduced bandwidth.
- Each channel's offset is programmable from -50% to +50% of full scale in 4000 discrete steps.
- Each channel's pre-sample filter is programmable from 2 Hz to 2 KHz. Filter is flat until cutoff (1/4 sample rate), then attenuates to 1 LSB in one octave (1/2 sample rate). Allows sampling at four times cut-off. Sample frequency selectable in fine resolution steps. Bypass mode available that has 10 KHz, 5 pole analog filter.
- A/D per channel operating synchronously at 100 KSPS, from system 100 MHz clock.
- Excitation is a constant current of 3 mA from +15 volts with return to ground or -15 volts (through 1 Kohm). Maximum capacitive load is TBD.
- Programmable simultaneous sampling for each channel.
- Signal inversion on per channel basis (in software).
- Status word. Temperature and gain change flag(s).
- No cross talk (less than 1 lsb).
- $\pm 0.5\%$ accuracy over full temperature range.
- 12 bit words. 16 bit for internal test.
- System sample rates to 10 MSPS.
- Over voltage protection to $\pm 35V$.
- Input impedance ~ 1 Mohm for power on/off.
- AC input is 0.1 μF with 1 Mohm to ground for a 1.6 Hz pole, single ended.
- DC input is 1 Mohm to ground, differential (but matched only to 1%).

NSC-2908I-1 Block Diagram



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