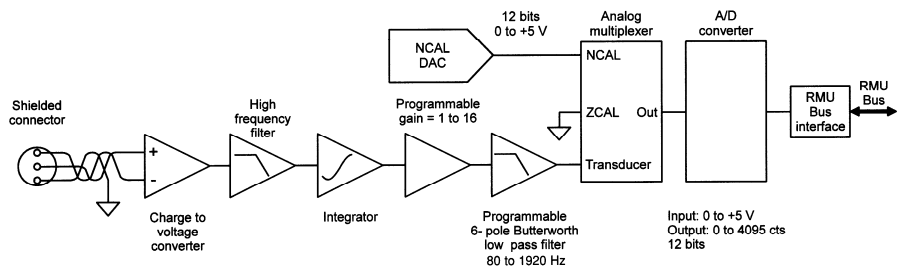


Airborne Telemetry

MSC1000-010 Charge Amplifier Conditioning Module (4 Channel)

Airborne Data Acquisition Products



FEATURES

- Each channel is independently programmable via DASM software
- Accepts inputs from four (4) piezo electric or charge output accelerometers
- 5 programmable gains (1 to 16)
- 8 programmable cutoff frequencies (80 Hz to 1920 Hz)
- ZCAL and NCAL
- Sensitivity range of 50 or 100 picocoulombs per G.
- Overvoltage protected to ± 32 VDC.

DESCRIPTION

The MSC1000-010 is a four channel fully programmable module designed to interface to piezo electric or charge output accelerometers.



communications
Telemetry & RF Products

Excellence You Can Measure

ELECTRICAL SPECIFICATIONS

Differential Input Characteristics (Per Channel)

- Input impedance: 10 Megohm minimum
- Sensitivity ranges of 50 or 100 picocoulombs per G.

Gains (Per Channel)

- Program selectable gains of 1, 2, 4, 8, and 16.
- Gain accuracy: $\pm 1\%$ of selected value
- Gain temperature stability: $\pm 1\%$ of selected value, including effects of excitation drift
- Linearity: $\pm 1\%$ BSL

Pre-Sample Filter (Per Channel)

- Program selectable pass band frequencies of 80, 120, 160, 240, 320, 480, 640, 960 and 1920 Hz.
- Within the passband, the amplitude response is flat to within $\pm 0.5\%$
- Attenuation at four times the passband frequency is 40 db minimum
- 6 pole Butterworth response

Cal Types

- NCAL: Inserts a DC signal into the A/D converter. NCAL value is from 0 V to +5 V.
- ZCAL: Channel inputs are connected to signal ground.

Sample and Hold (Per Channel)

- Program selectable on minor frame, on major frame.

Output (Per Channel)

- A 5 volt full scale analog at a gain of one (1), converted to a 12-bit digital word (1.22 mV/bit)

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