

Indian Institute of Technology, Delhi
Department of Mechanical Engineering

Notice inviting quotations (NIQ)

An analog filter is required with the following specification:

No. of channels: 4

Input voltage: +/- 10 V

Output: Maximum Voltage (open circuit): $\pm 10V$ peak.

Should allow choosing a desired cut-off frequency suitable for active vibration and noise control applications

DC/AC coupling

Floating or ground

Each channel should have selectable low-pass or high-pass filter

Connection of channels in series to achieve band-pass operation or two channels summed in parallel for band-reject operation

Tunable Frequency Range each channel: 0.1Hz to 200kHz

Frequency Resolution: 0.001Hz, 0.1Hz to 0.999Hz; 3 Digits, 1Hz to 200kHz

Cutoff Frequency Accuracy: $\pm 3\%$.

Attenuation slope: 48dB/octave.

Stopband Attenuation: >80dB.

Harmonic Distortion (1V input, 0dB gain): -60dB (0.1%) to 10kHz; -50dB (0.3%) to 100kHz.

Input: Differential or single-ended.

DC Offset: Adjustable to zero volts.

Crosstalk Between Channels (input source resistance less than 50 ohms): -80dB or less for frequencies less than 200kHz.

Memory: At least 9 or more stored set-ups.

Suitable Displays

Operating Temperature: 0°C to 50°C.

Input/Output Connectors: BNC.

The frequency response characteristic should be selectable to either maximally flat (Butterworth) in the frequency domain, or linear phase (Bessel).

Necessary accessories and operating manual.

Terms & Conditions:

- a) Quote on FOB basis
- b) Provide technical and commercial bids in separate sealed envelopes and each envelope should be clearly marked with words "Technical Bid" and "Commercial Bid". Both these envelopes should be packed inside another sealed envelope.
- c) Maximum onsite warranty period and after sales service to be specified by the vendor.
- d) All terms and conditions including delivery period be clearly specified.
- e) IIT Delhi reserves the right to reject any or all quotations without assigning any reason.
- f) Send your techno-commercial offer to the following address.

Dr. Subodh V. Modak

Associate Professor

Department of Mechanical Engineering

Indian Institute of Technology Delhi, Hauz Khas, New Delhi-110 016