



Indian Institute of Technology, Kanpur

Department of Biological Sciences & Bioengineering

Tender Documents

Sub: ENQUIRY LETTER FOR FOUR CHANNEL HIGH PASS LOW PASS FILTER

Tender Enquiry Number: IITK/BSBE/DKD/2021-22/LTAS-09

Enquiry Date: 04.08.2021

Closing Date: 13.08.2021

Opening Date: 16.08.2021

Quotations are invited for the above mentioned Subject as per the technical specifications given below:

Specifications

FUNCTIONS	Low-pass filter, high-pass filter. Provides two channel of band-pass or band-reject via external connections.
FILTER CHARACTERISTICS	
Type:	8-pole, selectable Butterworth and Bessel.
Attenuation Slope:	48dB/octave
Tunable Frequency Range f_c :	0.1Hz to 200kHz; (option 002, 0.005Hz)
Frequency Resolution:	0.001Hz, 0.1Hz to 0.999Hz; 3 Digits, 1Hz to 200kHz, (option 002, 0.001Hz from 0.005Hz to 0.1Hz).
Cutoff Frequency Accuracy:	$\pm 3\%$
Relative Gain at f_c :	-3dB, Butterworth; -12.6dB, Bessel.
High-Pass Bandwidth (0dB Gain):	>2MHz
Stopband Attenuation:	>80dB
Wideband Noise (2MHz bandwidth detector):	0dB gain, <400 μ Vrms. Max. gain, <25 μ Vrms RTI.
Harmonic Distortion (1V input, 0dB gain):	-60dB (0.1%) to 10kHz; -50dB (0.3%) to 100kHz
DC Stability:	Typically $\pm 1\text{mV}/^\circ\text{C}$
Input:	Differential or single-ended
Pre-Filter Gain:	0dB, 10dB, 20dB, 30dB, 40dB, 50dB, $\pm 0.2\text{dB}$.
Impedance:	1 megohm in parallel with 25pf.
Maximum Input:	$\pm 10\text{V}$ peak at 0dB gain, reduced in proportion to gain setting.
CMRR:	>60dB to 10kHz; >50dB to 100kHz
Coupling:	ac (0.16Hz) or dc.
Sensitivity:	3mV peak with 70dB total gain for 10V peak output.
Maximum DC Component:	$\pm 100\text{V}$ in ac coupled mode.
Output:	
Post-Filter Gain:	0dB to 20dB in 0.1dB steps, $\pm 0.2\text{dB}$
Maximum Voltage (open circuit):	$\pm 10\text{V}$ peak.
Maximum Current:	$\pm 80\text{mA}$ peak
Impedance:	50 ohms
DC Offset:	Adjustable to zero volts
GENERAL	
Crosstalk Between Channels (input source ≥ 50 ohms):	-80dB for $f_{sig} \leq 200\text{kHz}$, -70dB for $f_{sig} > 200\text{kHz}$.
Memory:	9 stored set-ups

Self-Test Diagnostics:	MPU checks unit upon power-up. Display indicates failure mode
Displays:	7 segment, green, LED; 0.3" high
Operating Temperature:	0°C to 50°C.
Isolation to Chassis:	±200Vdc
Input/Output Connectors:	BNC
Power Requirements:	90-132/180-264 volts ac, 50Hz-400Hz, 10 watts (3361), 15 watts (3362), 30 watts (3364).
Dimensions and Weights:	3.5" (9cm) high, 14" (36cm) wide, 12.5" (32.13cm) deep; 12 lbs (5.4kg) net, 14 lbs (6.3kg) shipping.
Accessories:	3-terminal line cord; operating manual
CAB-025:	Cable, BNC, 3ft, Low Noise
OPTIONS	
002	extends low end cutoff to 0.005Hz
BK-330:	Line/battery operation
Rack Mount Kit:	Part No. RK-314, permits installation of the Model 3384 into a standard 19" rack spacing.
Warranty:	1 Year

Note: The Quotation should reach the undersigned on Or Before 5 Pm on a 13TH August 2021.

Indentor Details:

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Terms and Conditions:

1. Quotation Should Be offered through email (dkdas@iitk.ac.in)
2. Maximum discount should be offered.
3. Quotations should be valid for minimum 90 days
4. Delivery period will be 4-6 weeks after receipt of purchase order.
5. IIT Kanpur is fully exempted from payment of GST on Imported Goods against our DSIR certificate.
6. IIT Kanpur is partially exempted from payment of Customs Duty (We will provide Custom Duty Exemption Certificate, CD applicable is 5.5%).
7. Manufacturer authorization certificate from principal company is required if you are a local supplier
8. Include Preparatory item certificate if applicable.
9. The Institute reserves the right of accepting or rejecting any quotation without assigning any reason thereof.
10. All prices should be mentioned F.O.B/CIP/CIF New Delhi or Destination at IIT Kanpur.
11. Payment Terms: 100% after supply the Materials.
12. Bidder Clearly Mention Contact details with address and email ID.

Signature

(Dr. Dibyendu Kumar Das)