

Product Name : Active Filters	Product Code : NLAB-ELECTRONICSAB420029
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Description :	
Active Filters	
Technical Specification :	
<p>Experimental Training Board has been designed specifically to study characteristics of various types of Active Filters. This Training Board</p> <p>includes low pass, high pass, band pass and notch filters. The filter circuits are designed using second order Butter worth polynomials and provide unity gain in the pass band.</p> <p>Practical experience on this board carries great educative value for Science and Engineering Students.</p> <p>Object:</p> <p>To study characteristics of various Active Filters.</p> <p>Specifications:</p> <p>1. LOW PASS FILTER</p> <p>(a) Upper Cut-off frequency : 1 KHz</p> <p>(B) Cut-off slope : 29.5 dB/decade</p> <p>(c) Input impedance : 3.5 K at 1KHz</p> <p>(d) Output impedance : 18 Ohms at 1KHz</p> <p>2. HIGH PASS FILTER</p> <p>(a) Lower cut-off frequency : 100 Hz</p> <p>(b) Cut-off slope : 26 dB/decade</p>	

(c) Input impedance : 12 K at 100 Hz

(d) Output impedance : 30 Ohms at 100 Hz

3. BAND PASS FILTER

(a) Upper cut-off frequency : 1 KHz

(B) Lower cut-off frequency : 100 Hz

(c) Upper cut-off slope : 29.5 dB/decade

(d) Lower cut-off frequency : 26 dB/decade

(e) Input impedances : 24 K at 100 Hz , 3.5 K at 1 KHz

(F) Output impedances : 30 Ohms at 100 Hz, 27 Ohms at 1 KHz

4. NOTCH FILTER

(A) Notch frequency : 1 KHz

(B) Input impedance : 15 K at 1 KHz

(c) Output impedance : 25 ohms at 1 KHz

(d) Notch width : 100 Hz

Features

The board consists of the following built-in parts :

01. $\pm 12V$ DC at 50mA, IC regulated Power Supply internally connected.

02. Four Operational Amplifier ICs.

03. Adequate no. of other electronic components.

04. Mains ON/OFF switch and Jewel light.

The unit is operative on 230V $\pm 10\%$ at 50Hz A.C.

Adequate no. of patch cords stackable from rear both ends 4mm spring loaded plug length $\frac{1}{2}$ metre.

Other Apparatus Required:

Decade Audio Frequency Generator

A.C. Millivoltmeter

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