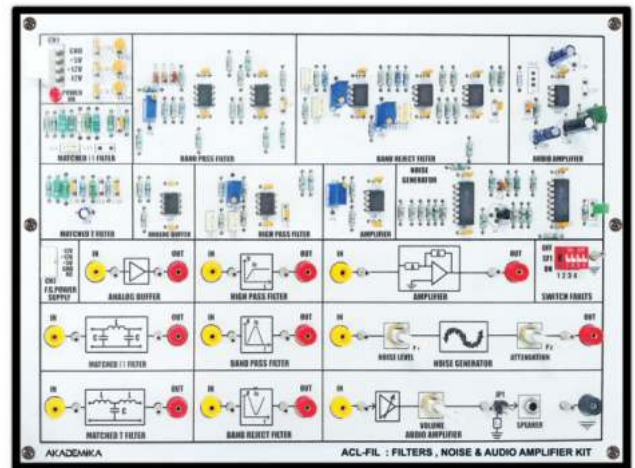


ACL-FIL

Filter /Noise and Audio Amplifier Kit



FEATURES

- Noise Generator
- Matched T and π , High Pass, Band Pass and Band Reject Filters
- Audio Amplifier

SPECIFICATIONS

Output amplitude

- White noise source
- Output amplitude : Adjustable from 0 ~ 3Vpp

Signal Attenuation Network

- Adjustable from 0 to the maximum of input value signal + Noise Adder stage

Audio Amplifier with Loud Speaker

- Output power : 0.5W
- Speaker : 8 Ω , 0.3W

Filters

High Pass Filter

- 3.4 KHz cutoff

Band Pass Filter

- Frequency Range 7 ~ 13 KHz

Band Reject Filter

- Frequency Range 7 ~ 13 KHz

Matched Filter

- π section : 20 KHz cutoff
- T section : 20 KHz cutoff

Input voltage

- 0 ~ 2 Vpp

Output voltage

- 0 ~ 2 Vpp

Switch faults

- 4 switch faults are provided on board to study different effects on circuit

Interconnection

- 2mm banana socket

Test points

- 24 test points are provided on board to observe various intermediate signals

Power supply

- GND, +5V, +12V, -12V

EXPERIMENTS

- Examine the operation of a noise generator
- Examine the operation of a signal attenuation network
- Measurement of S/N ratio
- Measurement of noise figure
- Measurement of the frequency response and power output of an audio amplifier
- To calculate frequency response of high pass, band pass band reject and matched (T and π section) filters

