

## 5 band graphic equalizer using a single IC/chip

This circuit uses a single chip, IC BA3812L for realizing a 5 band graphic equalizer for use in hi-fi audio systems. The BA3812L is a five-point graphic equalizer that has all the required functions integrated onto one IC. The IC is comprised of the five tone control circuits and input and output buffer amplifiers. The BA3812L features low distortion, low noise, and wide dynamic range, and is an ideal choice for Hi-Fi stereo applications. It also has a wide operating voltage range (3.5V to 16V), which means that it can be adapted for use with most types of stereo equipment.

The five center frequencies are independently set using external capacitors, and as the output stage buffer amplifier and tone control section are independent circuits, fine control over a part of the frequency bandwidth is possible. By using two BA3812Ls, it is possible to construct a 10-point graphic equalizer. The amount of boost and cut can be set by external components.

The recommended power supply is 8V, but the circuit should work for a supply of 9V also. The maximum voltage limit is 16V.

The circuit given in the diagram operates around the five frequency bands:

100Hz / 300Hz / 1kHz / 3kHz / 10kHz

