



## DESCRIPTION

PT2254A is an electronic volume controller IC utilizing CMOS Technology specially designed for use on audio equipment. It has two built-in channels making it highly suitable for mono and stereo sound applications. Through the specially designated signals that are applied externally to the data, clock and strobe input pins, PT2254A can control attenuation and channel balance.

## FEATURES

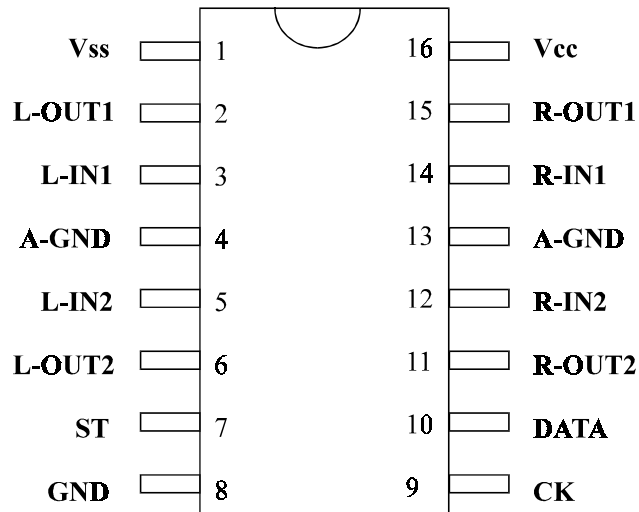
- CMOS Technology
- Low Power Consumption
- High Operating Voltage Range :  $V_{cc} = 4 \sim 12 \text{ V}$
- 0dB to -68dB attenuation controlled by 2dB/step
- 2 Channels in each chip
- Single Power Supply or Dual Power Supplies of (+) and (-) can be used
- Attenuation can be controlled by signals attached to the Strobe, Data and Clock Pins.
- Available in 16 Pins, DIP & SO Package

## APPLICATIONS

- Audio Equipment Volume Control
- Multi-Media PC Audio Control



### PIN CONFIGURATION

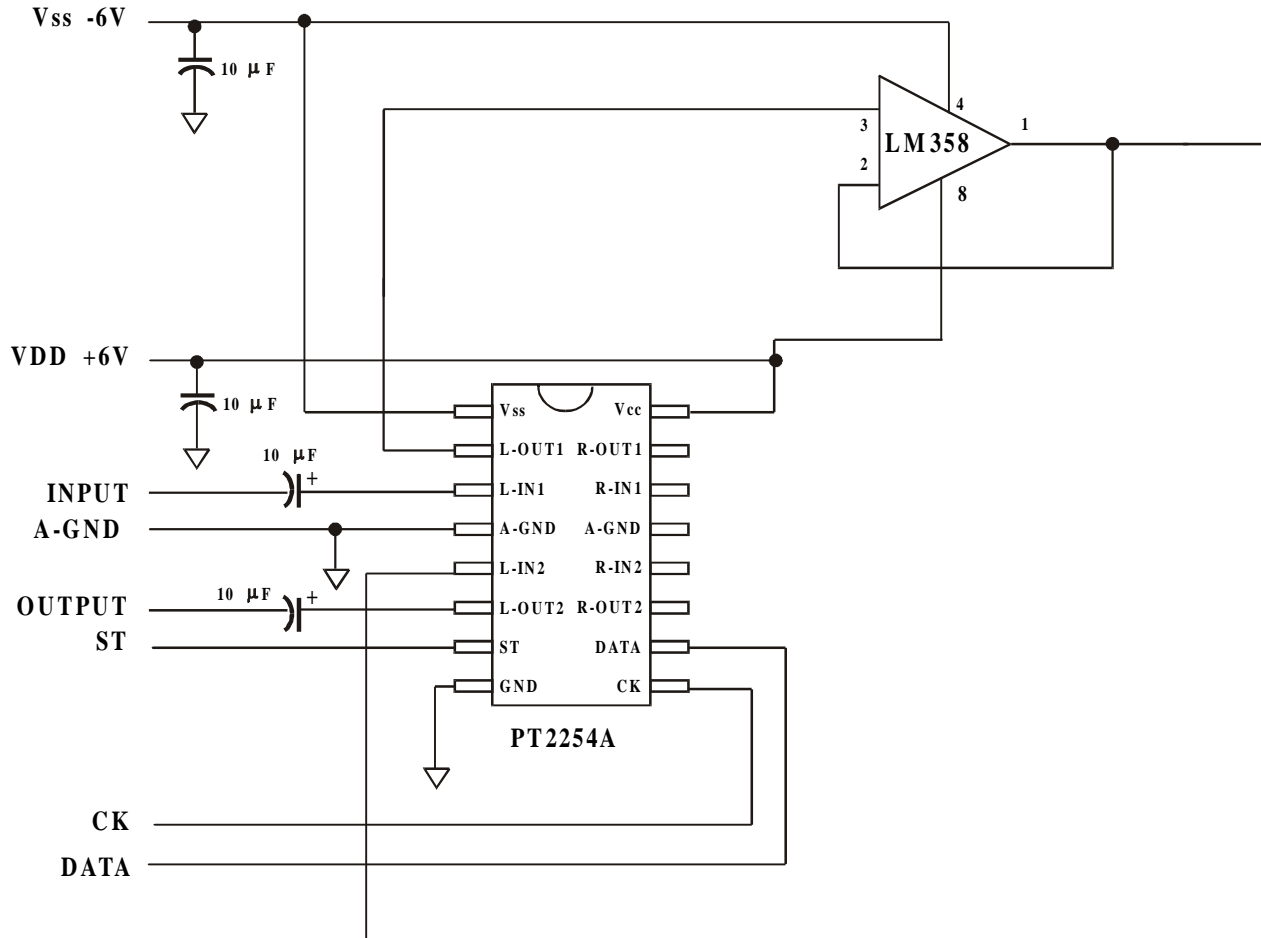


**PT 2254A**



### APPLICATION CIRCUIT 1

#### Dual Power Supply (Only One Channel for Reference)

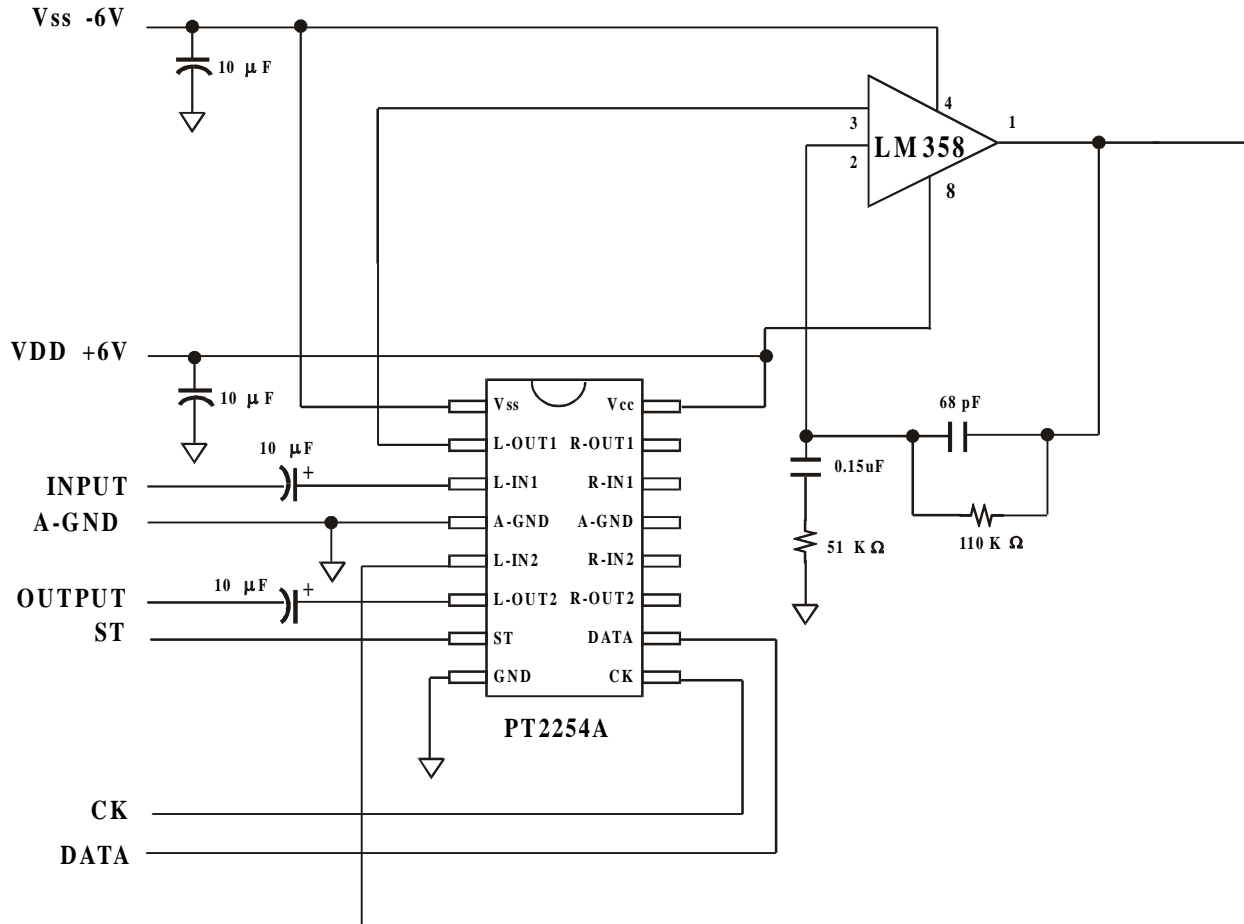




## APPLICATION CIRCUIT 2

### Dual Power Supply

(Only One Channel for Reference)

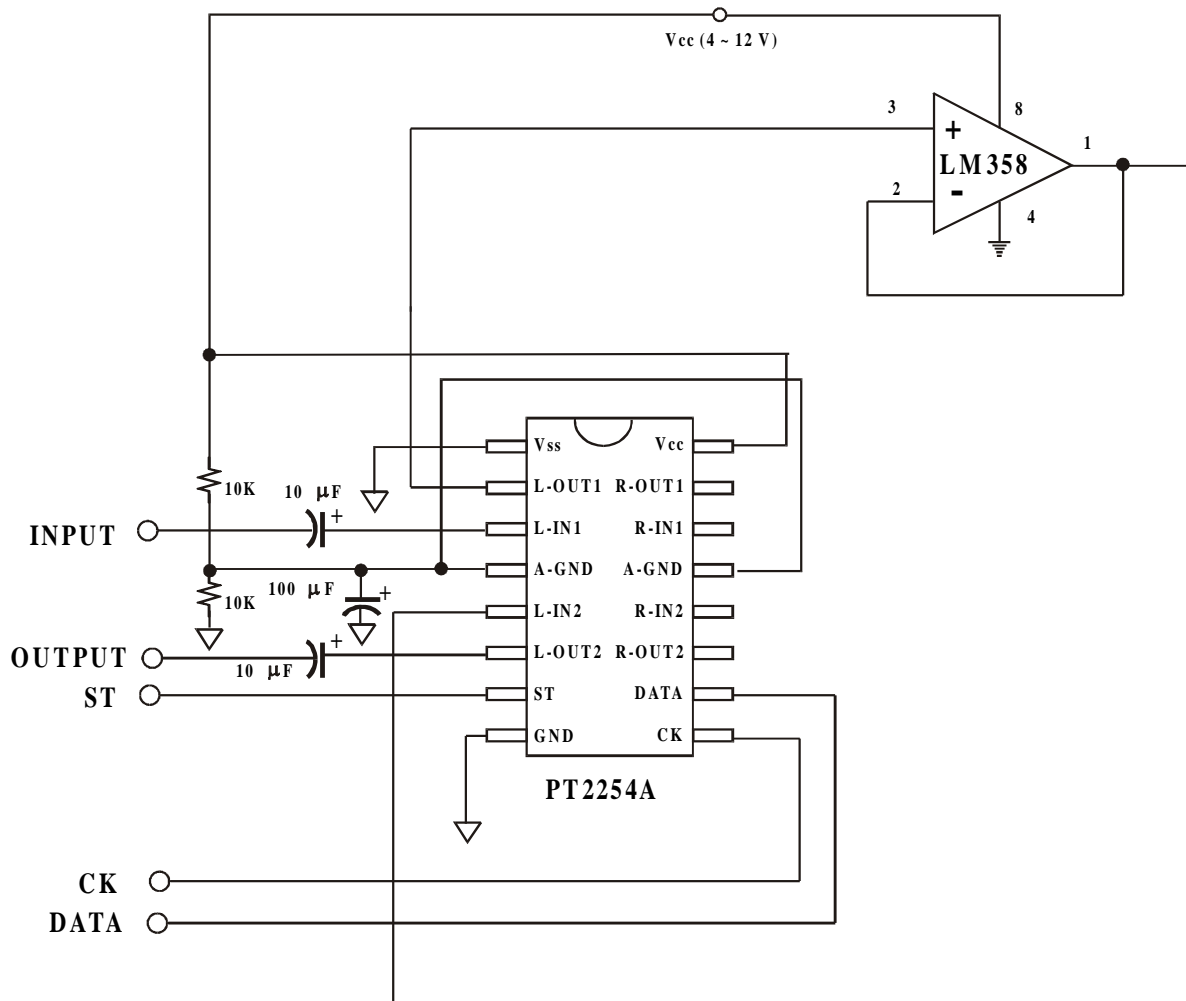


Note: The OP and R,C components form a bandpass filter. Its  $f_L$  (Low Frequency at  $-3\text{dB}$  point) is about 20 Hz,  $f_H$  (High Frequency at  $-3\text{dB}$  point) is about 22 KHz and the flat gain ( $A_0$ ) is 3.15. Therefore, there is a limitation on the input voltage source: (i) The amplitude should not be more than 1 Vrms, (ii) The bandwidth of input should be within the range of 20 to 22 K; otherwise too much distortion will be generated.



### APPLICATION CIRCUIT 3

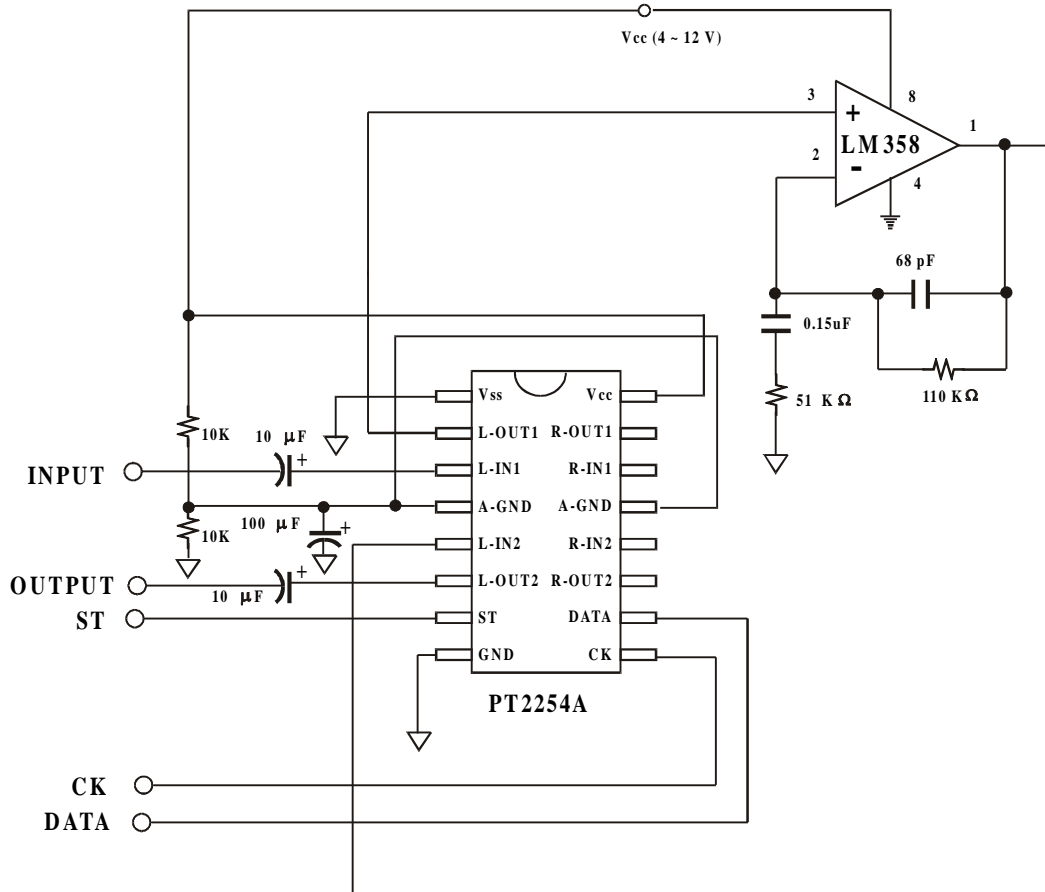
#### Single Power Supply





### APPLICATION CIRCUIT 4

#### Single Power Supply



Note: The OP and R,C components form a bandpass filter. Its  $f_L$  (Low Frequency at  $-3\text{dB}$  point) is about 20 Hz,  $f_H$  (High Frequency at  $-3\text{dB}$  point) is about 22 KHz and the flat gain ( $A_0$ ) is 3.15. Therefore, there is a limitation on the input voltage source: (i) The amplitude should not be more than 1 Vrms, (ii) The bandwidth of input should be within the range of 20 to 22 K; otherwise too much distortion will be generated.



## ORDER INFORMATION

Valid Part Number	Package Type
PT2254A	16 Pins, DIP
PT2254AS	16 Pins, SOP

