



## Echo Processor IC

**PT2399**

## DESCRIPTION

PT2399 is an echo audio processor IC utilizing CMOS Technology which is equipped with ADC and DAC, high sampling frequency and an internal memory of 44K. Digital processing is used to generate the delay time, it also features an internal VCO circuit in the system clock, thereby, making the frequency easily adjustable. PT2399 boasts of very low distortion ( $THD < 0.5\%$ ) and very low noise ( $No < -90dBV$ ), thus producing high quality audio output. The pin assignments and application circuit are optimized for easy PCB layout and cost saving advantage.

## FEATURES

- CMOS Technology
- Least External Components
- Auto Reset Function
- Low Noise,  $No < -90dBV$  Typical
- Low Distortion,  $THD < 0.5\%$  Typical
- External Adjustable VCO
- Available in 16 pins, DIP or SOP

## APPLICATIONS

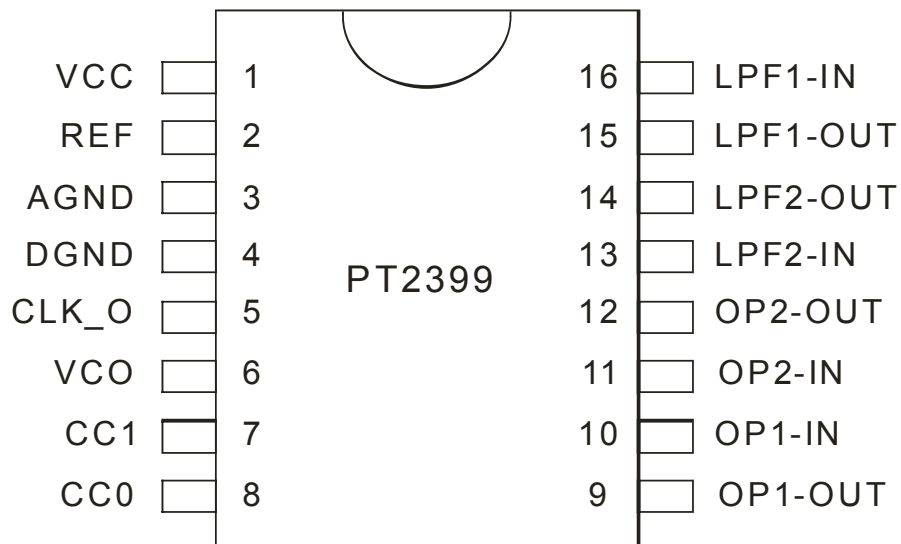
- Video Tape Recorder
- Video Compact Disk
- Television
- CD Player
- Car Stereo
- KARAOKE Mixer
- Electronic Musical Instrument
- Audio Equipment with Echo Processor



Echo Processor IC

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## PIN CONFIGURATION



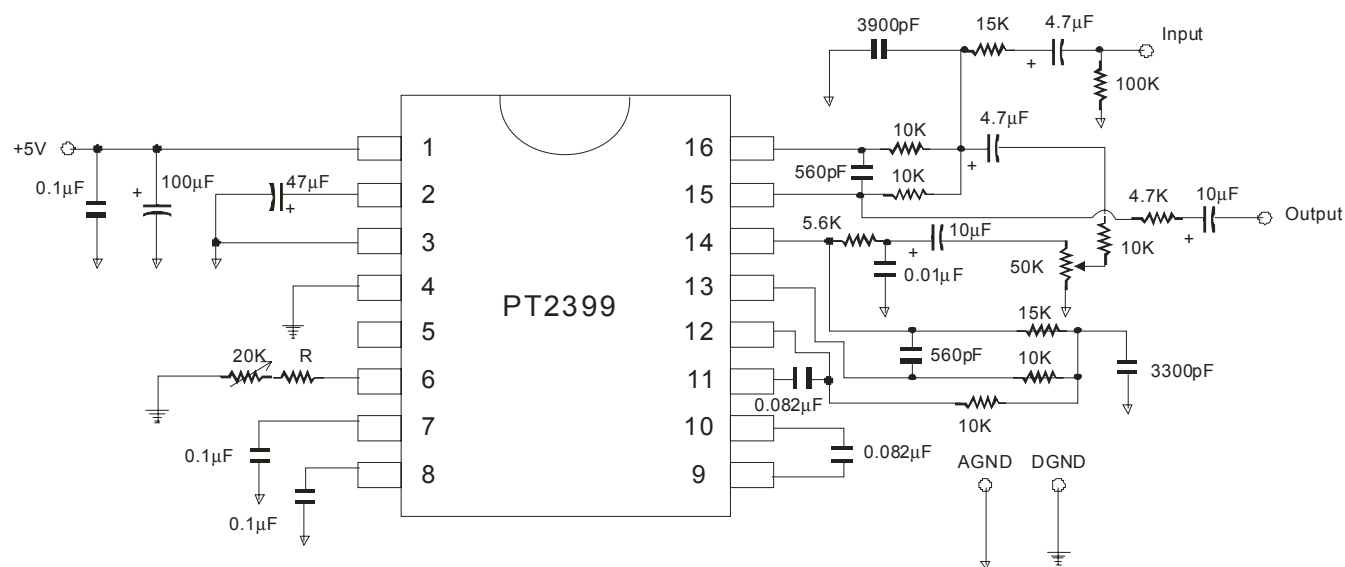


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# APPLICATION CIRCUIT

## ECHO



### Note:

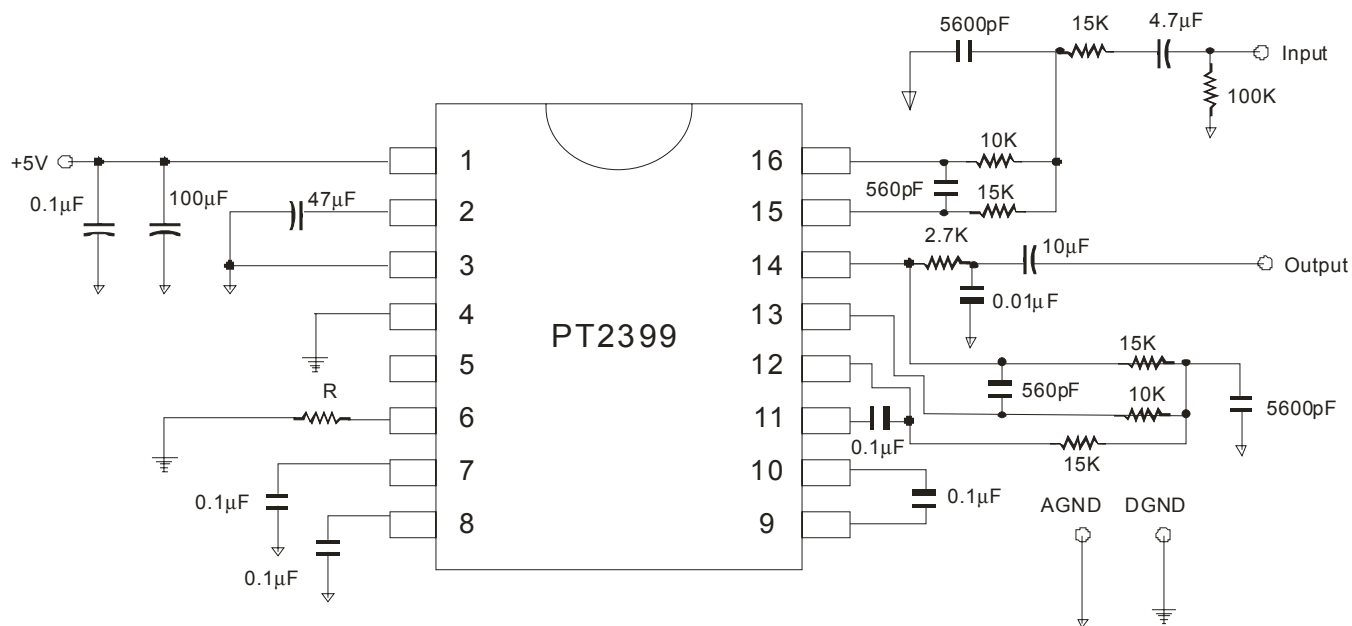
External Resistor having a value of 10 K $\Omega$  to 50 K $\Omega$  may be used. The recommended Resistor Value(R) is 10 K $\Omega$ . When the value of the Resistor (R) increases, the range of the Delay Time also increases.



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### ***SURROUND/DELAY***



Note: Please refer to Table 1 for the Resistor/Delay Time values.



## ORDER INFORMATION

Part Number	Package Type	Top Code
PT2399	16 Pins, DIP, 300mil	PT2399
PT2399S	16 Pins, SOP, 300mil	PT2399S
PT2399-SN	16 Pins, SOP, 150mil	PT2399-SN
PT2399 (L)	16 Pins, DIP, 300mil	PT2399
PT2399S (L)	16 Pins, SOP, 300mil	PT2399S
PT2399-SN (L)	16 Pins, SOP, 150mil	PT2399-SN

Notes:

1. (L), (C) or (S) = Lead Free.
2. The Lead Free mark is put in front of the date code.