



## Description

PT2396 is a digital echo/surround processor IC utilizing CMOS Technology. Analog Signal inputted to PT2396 is converted to digital signal by A-D converter and then stored into the internal memory. After a certain delay time, this memory-stored digital signal is converted back into analog signal via the D-A converter.

A low cost echo system may be achieved with the PT2396's A-D converter, D-A converter, incorporating ADM (Adaptive Delta Modulation) Algorithm while maintaining lower noise, lower distortion, and higher S/N ratio.

PT2396 is functionally compatible with M65831P. If you are replacing M65831P with our PT2396, you must take note that PT2396 does not need to connect an external resistor (30 Ohms) to Pin 15 and Pin 21.

## Features

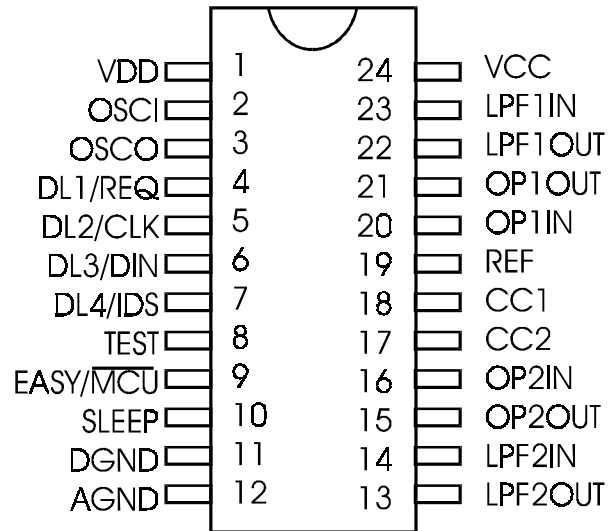
- ◆ CMOS Technology
- ◆ Low Power Consumption
- ◆ Low Noise (-92 dBV typical)
- ◆ Low Distortion (0.5% typical)
- ◆ Built-in 48 K Memory
- ◆ Automatic Reset Circuit Included
- ◆ A-D, D-A Converters (Adaptive Delta Modulation), 2 LPFs and 48 K-bit Memory
- ◆ Sleep Mode Function
- ◆ Parallel or Serial Data controlled from Micro Controller

## Applications

- ◆ KARAOKE
- ◆ Electronic Musical Instruments
- ◆ VCD, DVD
- ◆ Radio Set



## Pin Configuration



**PT2396**

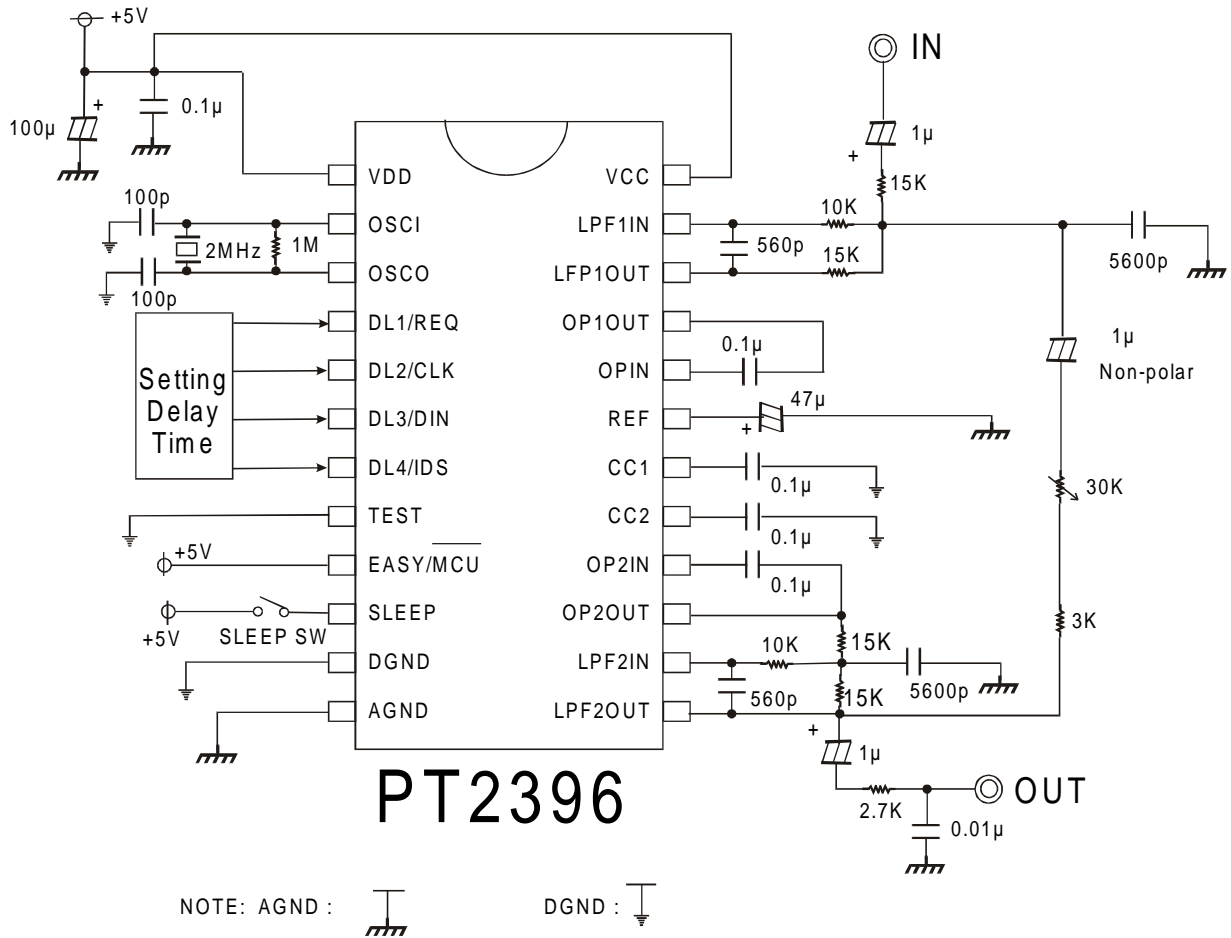
## Order Information

Valid Part Number	Package Type
PT2396	24 Pins, DIP (600 mil)
PT2396-S	24 Pins, SO (300 mil)



# Application Circuits

## PT2396 Easy Mode Application Circuit

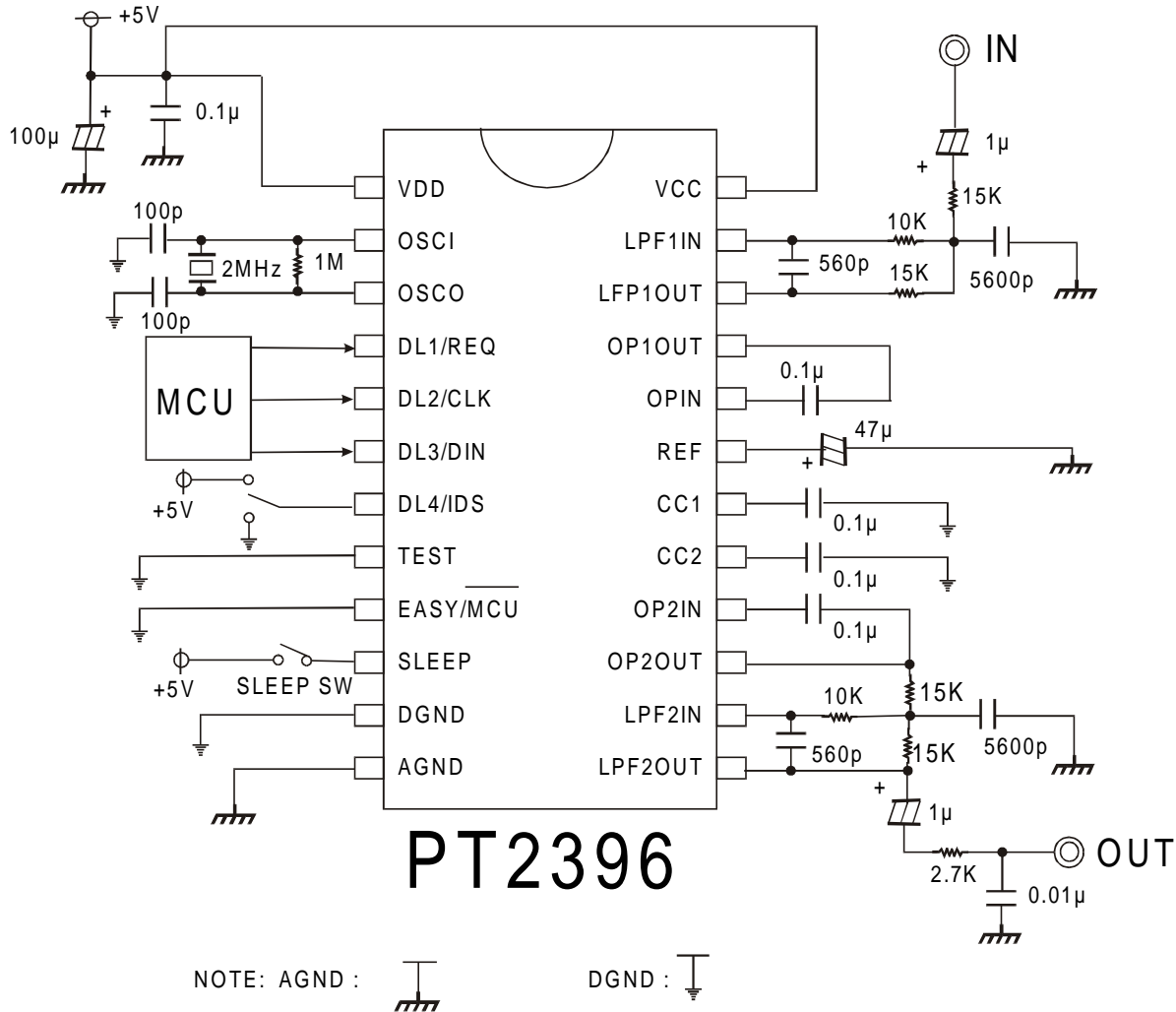


- Note: 1. Every Digital GND must be connected to the Analog GND at one Point  
 2. When replacing M65831 with PT2396, please take note that PT2396 does not need to connect an external resistor (30 Ohms) to Pin 15 and Pin 21.





***PT2396 Surround Application Circuit***



Note: 1. Every Digital GND must be connected to the Analog GND at one Point  
 2. For the DL4/IDs Pin (Pin No. 7), please refer below:

IDS Pin	ID1	ID2	ID3	ID4
0	0	1	0	0
1	0	1	0	1