

# DIO2162

## 2-Vrms Audio Driver with Programmable-Fixed Gain

### Features

- 3V-3.6V Input Supply Voltage
- No Pop/Clicks Noise when Power ON/OFF
- No Need for Output DC-Blocking Capacitors
- 2 Vrms Output Voltage at 600Ω Load
- Low Noise and THD  
SNR>105dB at 1×Gain  
Typical  $V_n < 12\mu\text{Vrms}$  20Hz-20kHz at 1×Gain  
THD+N<0.003% at 10kΩ Load and 1×Gain
- Optimized Frequency Response between 20Hz–20kHz
- Single Terminal Input and Output
- Active Mute with more than 80dB Attenuation
- Short Circuit and Thermal Protection
- Available in TSSOP-14 Package

### Descriptions

The DIO2162 is a single-ended, 2Vrms stereo audio driver, reducing component count, board space and cost. It is ideal for single-supply electronics where size and cost are critical design parameters.

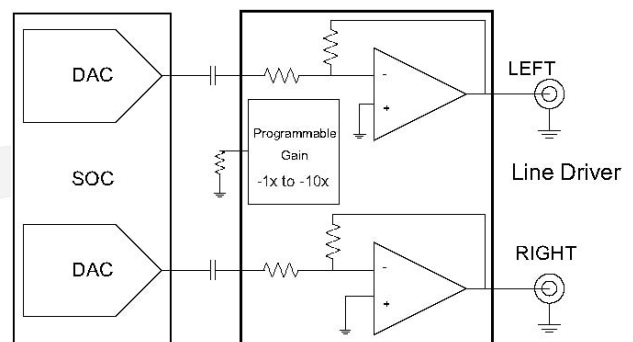
The DIO2162 can generate 5.6Vpp output voltage within 3.3V supply, and driving 2Vrms into a 600Ω Load. The device has fixed-gain single-ended inputs with a gain-select pin. Using a single resistor on this pin, the designer can choose from 13 internal programmable gain settings to match the audio driver with the codec output level. It also reduces the component count and board space.

Audio outputs have 5kV HBM ESD protection, enabling a simple ESD protection circuit. The DIO2162 has built-in active mute control with more than 80dB attenuation for pop-free mute on/off control.

### Applications

- PDP/LCD TV
- Soundcards
- DVD Players
- Mini/Micro Combo Systems

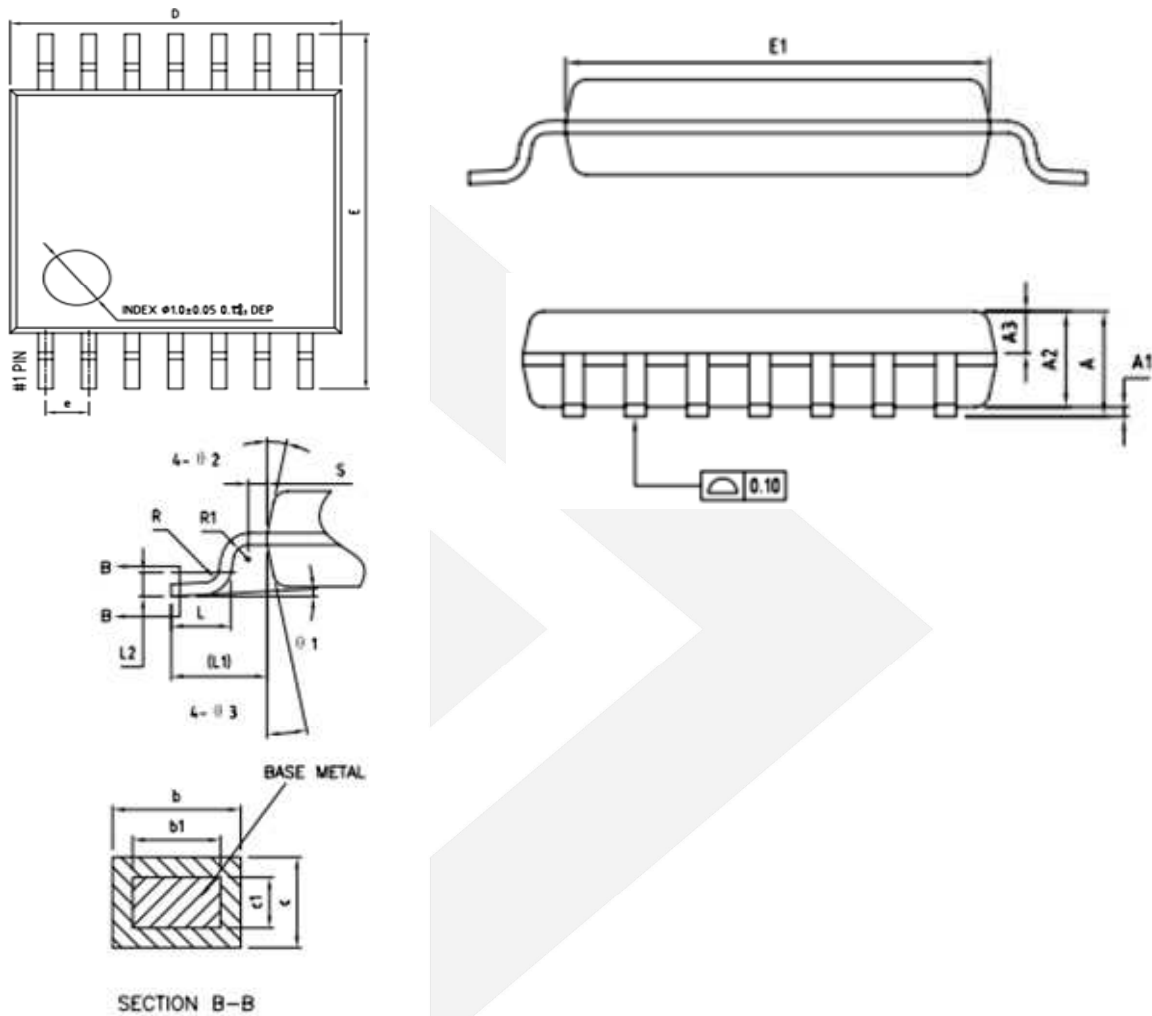
### Block Diagram



### Ordering Information

Order Part Number	Top Marking		T <sub>A</sub>	Package	
DIO2162TP14	DIO2162	Green	-40 to +85°C	TSSOP-14	Tape & Reel, 2500

## Physical Dimensions: TSSOP-14



Symbol	Dimensions In Millimeters		
	Min	Nom	Max
A	-	-	1.20
A1	0.05	-	0.15
A2	0.90	1.00	1.05
A3	0.34	0.44	0.54
b	0.20	-	0.28
b1	0.20	0.22	0.24
c	0.10	-	0.19
c1	0.10	0.13	0.15
D	4.86	4.96	5.06
E	6.20	6.40	6.60
E1	4.30	4.40	4.50
e	0.65BSC		
L	0.45	0.60	0.75
L1	1.00REF		
L2	0.25BSC		
R	0.09	-	-
R1	0.09	-	-
S	0.20	-	-
$\theta 1$	0°	-	8°
$\theta 2$	10°	12°	14°
$\theta 3$	10°	12°	14°

## CONTACT US

Dioo is a professional design and sales corporation for high-quality and performance analog semiconductors. The company focuses on industry markets, such as, cell phone, handheld products, laptop, and medical equipments and so on. Dioo's product families include analog signal processing and amplifying, LED drivers and charger IC. Go to <http://www.dioo.com> for a complete list of Dioo product families.

For additional product information, or full datasheet, please contact with our Sales Department or Representatives.

