



## DIO2114

### 2-Vrms Audio Driver with Adjustable Gain

#### Features

- Voltage Output at 10k $\Omega$  Load  
2 Vrms With 3.3V Supply Voltage
- Ultra Low Distortion:  
SNR>100dB  
Typical  $V_n < 10\mu\text{Vrms}$   
THD+N<0.001% at 2 Vrms
- No Pop/Clicks Noise when Power ON/OFF
- No Need for Output DC-Blocking Capacitors
- Optimized Frequency Response between  
20Hz–20kHz
- Accepting Differential Input
- Featuring external under voltage mute
- All Pins HBM ESD protection 5kV
- Available in MSOP-10 package

#### Applications

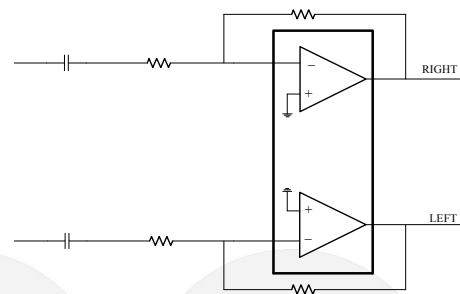
- Set-Top Boxes
- High Definition DVD Players
- Car Entertainment System
- Medical

#### Descriptions

The DIO2114 is an integrated solution for Set-top box and high definition player, and designed to optimize the audio driver circuit performance while reducing the BOM cost by eliminating the peripheral discrete components for noise reduction. DIO2114 features a 2Vrms stereo audio driver that designed to allow for the removal of output AC- coupling capacitors.

Featuring differential input mode, gain range of  $\pm 1 \text{ V/V}$  to  $\pm 10 \text{ V/V}$  can be achieved via external gain resistor setting. The DIO2114 is able to offer 2Vrms output with 10k ohm load and 3.3V supply. Meanwhile, the DIO2114 offers built-in shut-down control circuitry for optimal pop-free performance. Under under-voltage condition, DIO2114 is able to detect it and mutes the output.

#### Block Diagram



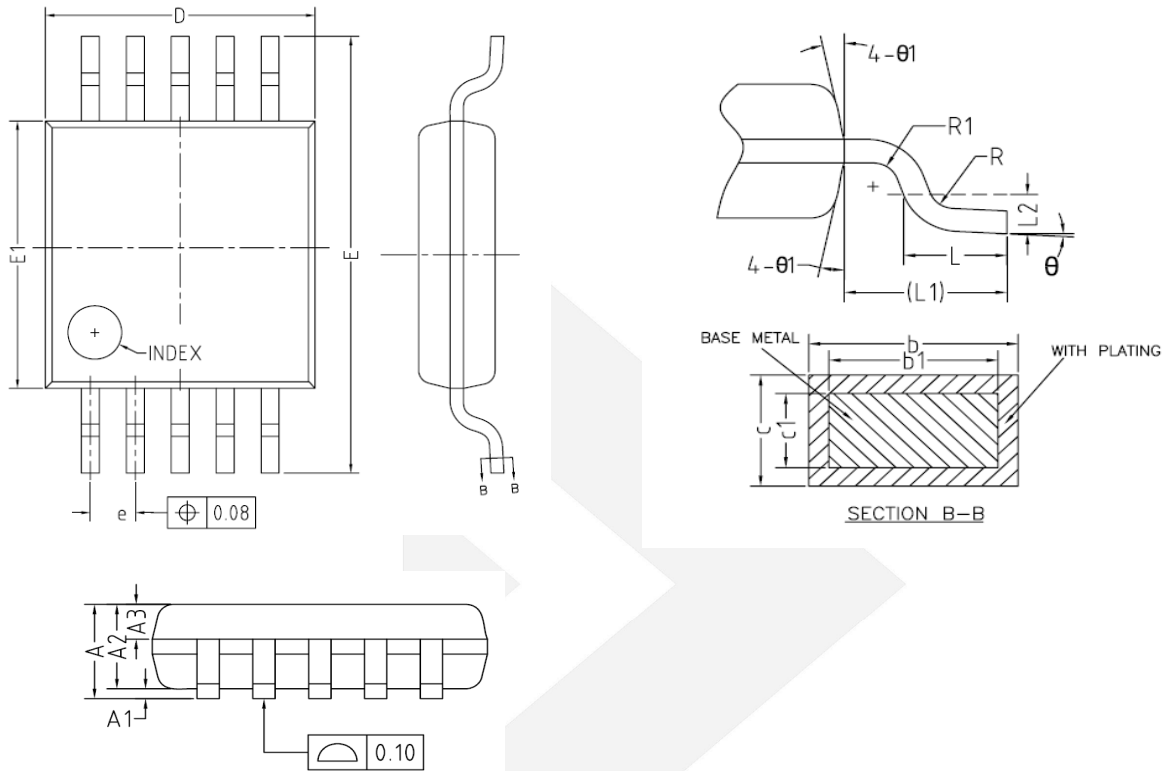
#### Ordering Information

Order Part Number	Top Marking		T <sub>A</sub>		Package
DIO2114BMP10	DIO2114B	Green/RoHS	-40 to +85°C	MSOP-10	Tape & Reel, 3000

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## 2-Vrms Audio Driver with Adjustable Gain

### Physical Dimensions: MSOP-10



Symbol	Min	Typ	Max
A	-	-	1.10
A1	0	-	0.15
A2	0.75	0.85	0.95
A3	0.25	0.35	0.39
b	0.18	-	0.27
b1	0.17	0.20	0.23
c	0.15	-	0.20
c1	0.14	0.15	0.16
D	2.90	3.00	3.10
E	4.70	4.90	5.10
E1	2.90	3.00	3.10
e	0.40	0.50	0.60
L	0.40	0.60	0.80
L1	0.95REF		
L2	0.25BSC		
R	0.07	-	-
R1	0.07	-	-
$\theta$	0°	-	8°
$\theta_1$	9°	12°	15°

## CONTACT US

**D**ioo 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.

