

**Features**

- CMOS technology
- Low power consumption
- Two voltage output channel in the same chip
- 16-bit dynamic range
- Low total harmonic distortion
- 5 voltage single power supply
- 8-pin SOP package

**Applications**

- Digital audio equipment
- CD ROM/VCD
- MPEG card

**General Description**

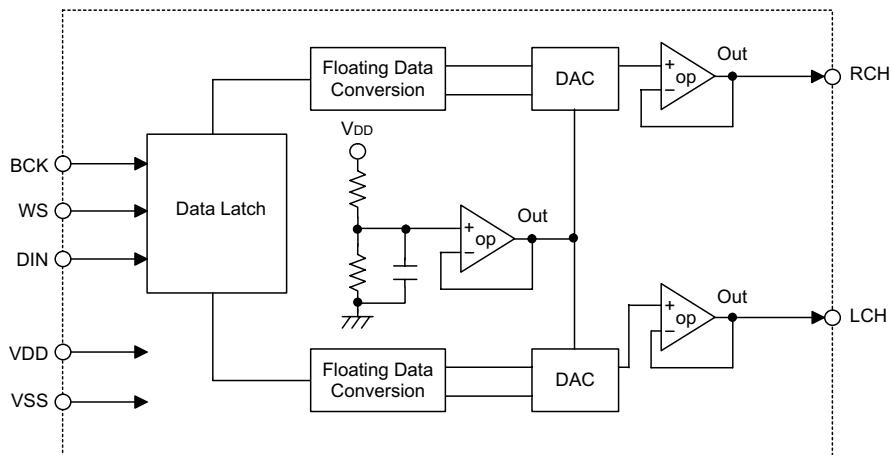
HT82V731 is a 16-bit digital-to-analog converter IC utilizing CMOS technology specially designed for stereo audio application.

HT82V731 converts the 16 bits serial data into an analog output voltage. The digital data is internally converted to floating point expression whose format consists of 10 bits mantissa and 7step exponent.

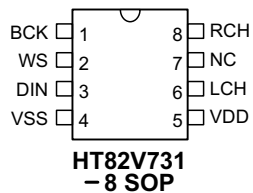
Using an R-string voltage divider, this floating point expression data is then converted to analog voltage.

It is compatible with TDA1311. It is available in 8-pin SOP package.

**Block Diagram**



Pin Assignment



Pin Description

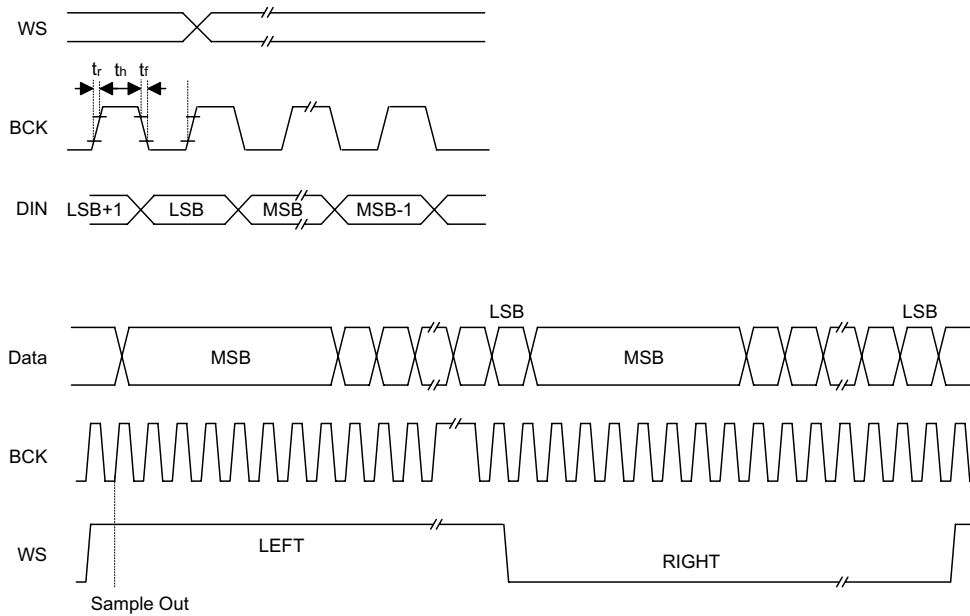
Pin No.	Pin Name	I/O	Description
1	BCK	I	Bit serial clock input
2	WS	I	Word select input
3	DIN	I	Data input
4	VSS	—	Negative power supply
5	VDD	—	Positive power supply
6	LCH	O	Left channel output
7	NC	—	No connection
8	RCH	O	Right channel output

Electrical Characteristics

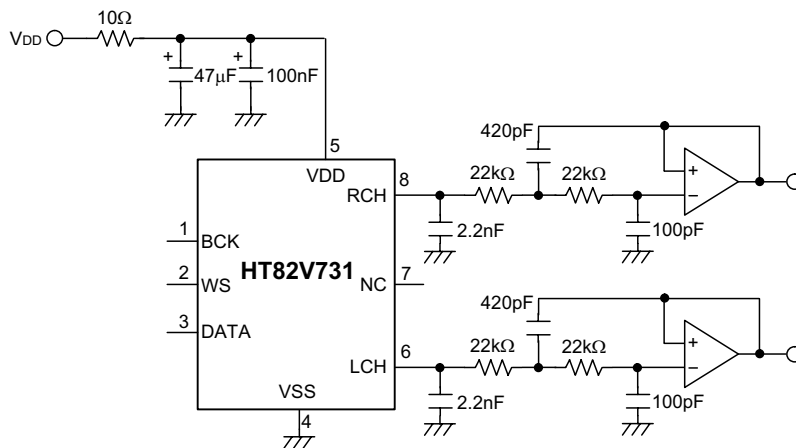
Ta=25°C

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
		V <sub>DD</sub>	Conditions				
V <sub>O</sub>	Maximum Output Amplitude	5V	—	—	2.5	—	V <sub>pp</sub>
THD	Total Harmonic Distortion	5V	1kHz, 0dB	—	0.12	—	%
DR	Dynamic Range	5V	—	—	16	—	Bit
S/N	Signal to Noise Ratio	5V	1kHz, 0dB	—	82	—	dB
CT	Cross Talk	5V	1kHz, 0dB	—	—	—	dB

Timing Diagrams



Application Circuits



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