



## UM2752

Preliminary

LINEAR INTEGRATED CIRCUIT

### 2 INPUT/1 OUTPUT STEREO AUDIO SELECTOR

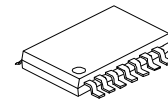
#### DESCRIPTION

The UTC **UM2752** is a Stereo Audio Selector with 2 Inputs and 1 Output. Based upon the inner OP-AMP Switch technology, the UTC **UM2752** features higher Channel Separation, lower Output Noise and lower Distortion than the common Multiplexers or Analogue Switches.

The UTC **UM2752** can be applied to many kinds of audio devices, such as Car Stereo, TV, Mini music center and so on.

#### FEATURES

- \* Dual Channel for Stereo Use
- \* 4.7~10V Operating Voltage
- \* 2 Input /1 Output Audio Selectors
- \* Bipolar Technology
- \* Low Output Noise: -114dBV typ.
- \* Low Distortion: 0.0009% typ.



TSSOP-14

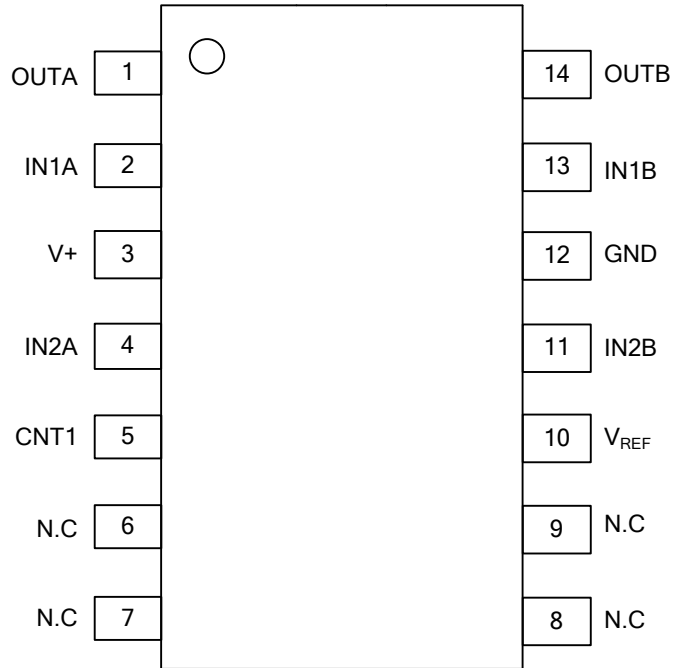
#### ORDERING INFORMATION

Ordering Number		Package	Packing
Lead Free	Halogen Free		
UM2752L-P14-R	UM2752G- P14-R	TSSOP-14	Tape Reel
UM2752L-P14-T	UM2752G- P14-T	TSSOP-14	Tube

Note: xx: Output Voltage, refer to Marking Information.

<p>UM2752L-P14-R</p> <p>(1) Packing Type (2) Package Type (3) Lead Free</p>	<p>(1) R: Tape Reel, T: Tube (2) P14: TSSOP-14 (3) G: Halogen Free, L: Lead Free</p>
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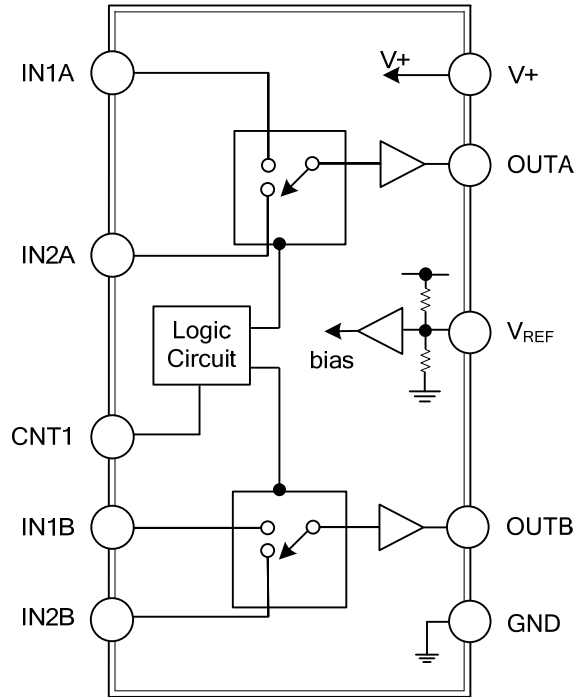
■ PIN CONFIGURATION



■ PIN DESCRIPTION

PIN NO.	PIN NAME	DESCRIPTION
1	OUTA	Ach Output
2	IN1A	Ach Input 1
3	V+	Supply Voltage
4	IN2A	Ach Input 2
5	CNT1	Select Control 1
6~9	N.C	No Connection
10	V <sub>REF</sub>	Reference Voltage
11	IN2B	Bch Input 2
12	GND	Ground
13	IN1B	Bch Input 1
14	OUTB	Bch Output

■ BLOCK DIAGRAM



■ ABSOLUTE MAXIMUM RATING (T<sub>A</sub>=25°C, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V+	12	V
Power Dissipation	P <sub>D</sub>	450 (Note 2)	mW
		570 (Note 3)	
Operating Temperature	T <sub>OPR</sub>	-40~+85	°C
Storage Temperature	T <sub>STR</sub>	-40~+150	°C

Notes: 1. Absolute maximum ratings are those values beyond which the device could be permanently damaged.

Absolute maximum ratings are stress ratings only and functional device operation is not implied.

2. EIA/JEDEC STANDARD Test board (76.2x114.3x1.6mm, 2layer, FR-4) mounting

3. EIA/JEDEC STANDARD Test board (76.2x114.3x1.6mm, 4layer, FR-4) mounting

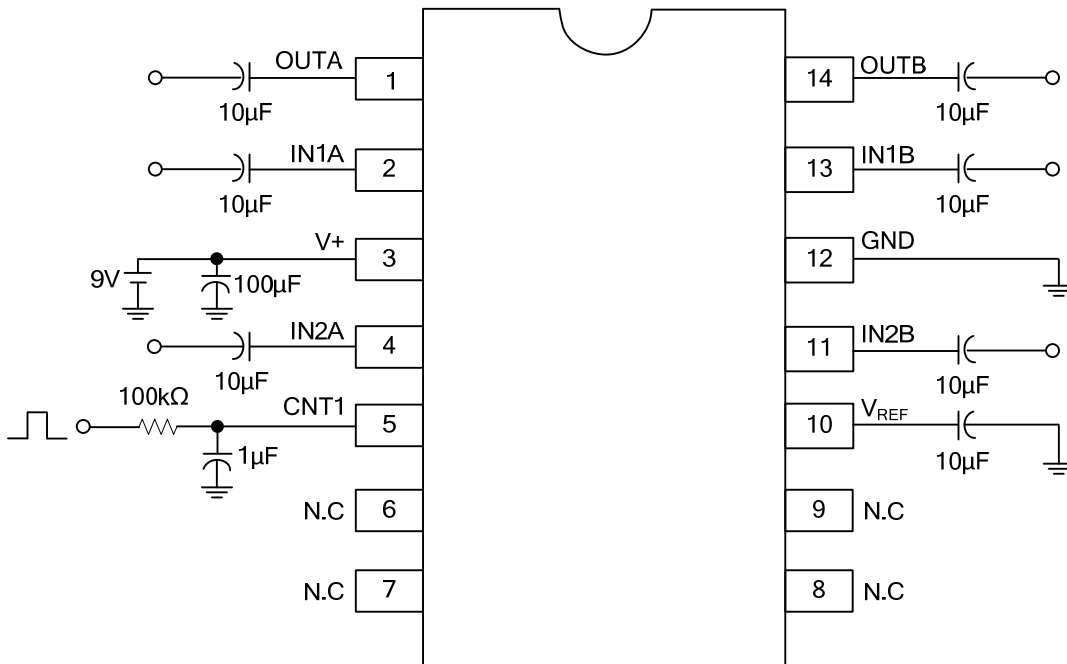
■ ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C, V<sup>+</sup>=9V, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Operating Voltage	V <sup>+</sup>		4.7	9.0	10.0	V
Supply Current	I <sub>CC</sub>	No Signal		10	15	mA
Reference Voltage	V <sub>REF</sub>			4.5		V
Voltage Gain	G <sub>V</sub>	V <sub>IN</sub> =1Vrms, f=1kHz	-1	0	1	dB
Total Harmonic Distortion	THD+N	V <sub>IN</sub> =1Vrms, f=1kHz		0.0009	0.03	%
Output Noise Voltage	V <sub>NO</sub>	A-Weighted		-114	-100	dBV
				2	10	V <sub>RMS</sub>
Maximum Output Voltage	V <sub>OM</sub>	f=1KHz, THD=1%	6	8		dBV
			2.0	2.5		V <sub>RMS</sub>
Cross Talk	CT	V <sub>IN</sub> =1Vrms, f=1kHz, A-Weighted	70	100		dB
Channel Separation	CS	V <sub>IN</sub> =1Vrms, f=1kHz, A-Weighted	80	110		dB
Switch-ON Voltage Level	V <sub>CH</sub>		2.4			V
Switch-OFF Voltage Level	V <sub>CL</sub>				0.5	V
Input Impedance	R <sub>IN</sub>			100		kΩ
Output Impedance	R <sub>OUT</sub>			45		Ω

■ SWITCH CONTROL LOGIC

CNT1	INPUT SELECTOR Ach/Bch
L	IN1
H	IN2

■ TYPICAL APPLICATION CIRCUIT



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