



## UM2750

Preliminary

LINEAR INTEGRATED CIRCUIT

### 4 INPUT/1 OUTPUT STEREO AUDIO SELECTOR

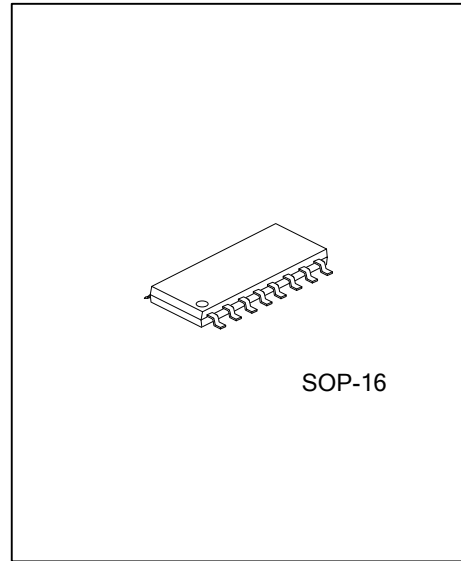
#### DESCRIPTION

The UTC **UM2750** is a Stereo Audio Selector with 4 Inputs and 1 Output. Based upon the inner OP-AMP Switch technology, the UTC **UM2750** features higher Channel Separation, lower Output Noise and lower Distortion than the common Multiplexers or Analogue Switches.

The UTC **UM2750** 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
- \* 4.7~13V Operating Voltage
- \* 4 Input /1 Output Audio Selectors
- \* Bipolar Technology
- \* Low Output Noise: -110dBV typ.
- \* Low Distortion: 0.005% typ.

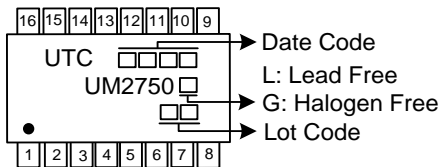


#### ORDERING INFORMATION

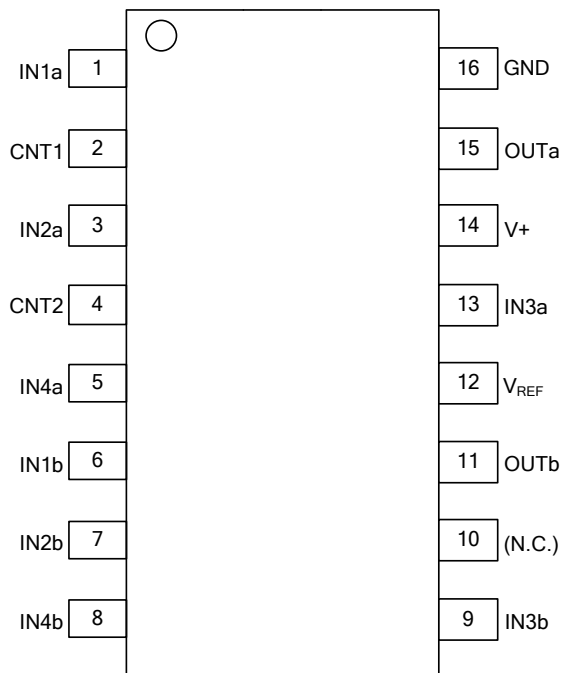
Ordering Number		Package	Packing
Lead Free	Halogen Free		
UM2750L-S16-R	UM2750G-S16-R	SOP-16	Tape Reel
UM2750L-S16-T	UM2750G-S16-T	SOP-16	Tube

<p>UM2750G-S16-R</p> <p>(1) Packing Type (2) Package Type (3) Green Package</p>	<p>(1) R: Tape Reel, T: Tube (2) S16: SOP-16 (3) G: Halogen Free and Lead Free, L: Lead Free</p>
---	--

#### MARKING



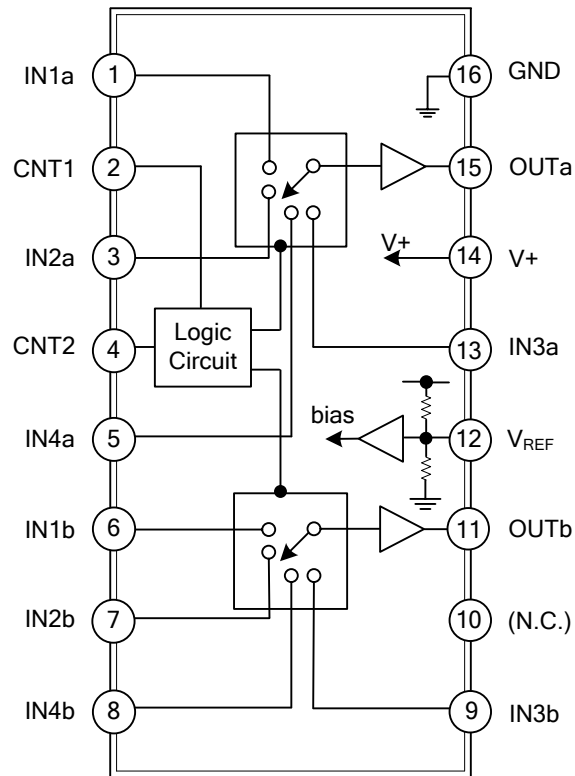
■ PIN CONFIGURATION



■ PIN DESCRIPTION

PIN NO.	PIN NAME	DESCRIPTION
1	IN1a	Ach Input 1
2	CNT1	Select Control 1
3	IN2a	Ach Input 2
4	CNT2	Select Control 2
5	IN4a	Ach Input 4
6	IN1b	Bch Input 1
7	IN2b	Bch Input 2
8	IN4b	Bch Input 4
9	IN3b	Bch Input 3
10	(N.C.)	No Connect
11	OUTb	Bch Output
12	V <sub>REF</sub>	Reference Voltage
13	IN3a	Ach Input 3
14	V+	Supply Voltage
15	OUTa	Ach Output
16	GND	Ground

■ BLOCK DIAGRAM



FLYING 汎翔國際有限公司  
[www.flying1688.com](http://www.flying1688.com)

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

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V+	15	V
Power Dissipation	P <sub>D</sub>	300	mW
Operating Temperature	T <sub>OPR</sub>	-40 ~ +85	°C
Storage Temperature	T <sub>STR</sub>	-40 ~ +150	°C

Note: 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.

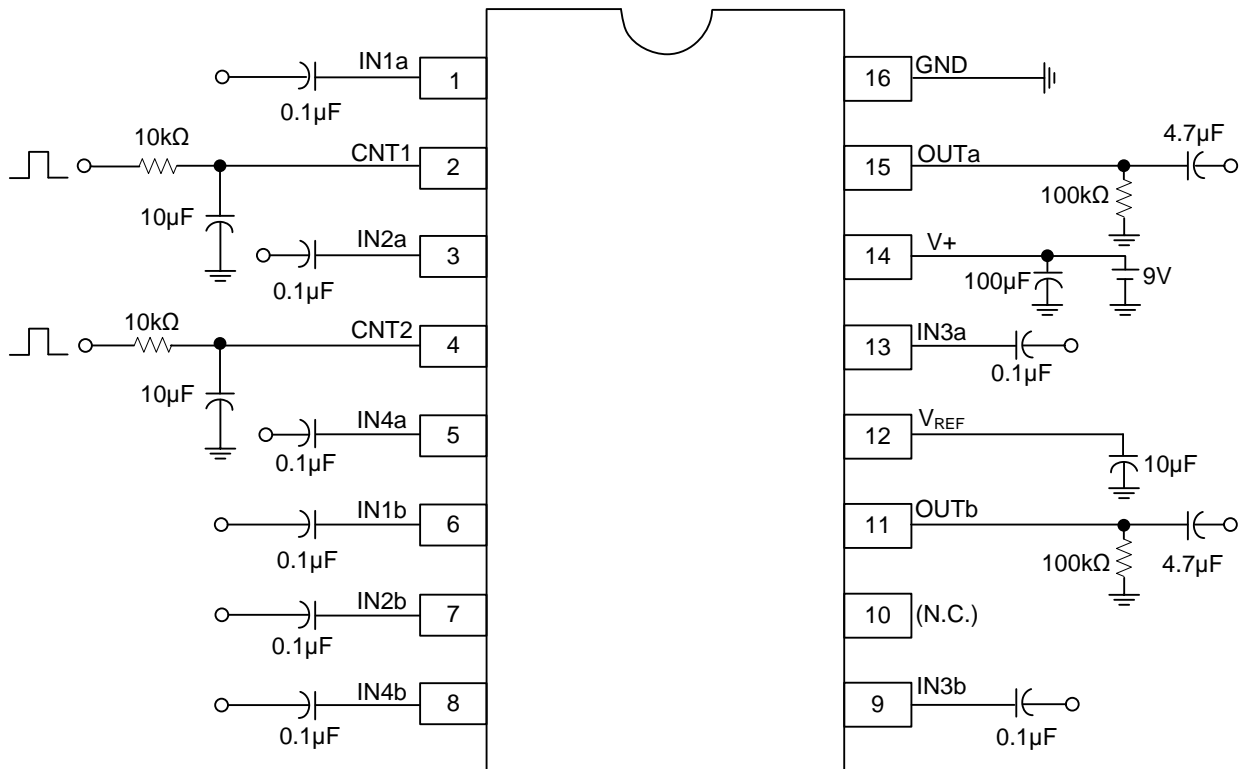
### ■ ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C, V<sup>+</sup>=9V, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Operating Voltage	V <sup>+</sup>		4.7	9.0	13.0	V
Supply Current	I <sub>CC</sub>	No Signal		10	20	mA
Reference Voltage	V <sub>REF</sub>			4.5		V
Voltage Gain	G <sub>V</sub>	V <sub>IN</sub> =1V <sub>RMS</sub> , f=1kHz	-1	0	1	dB
Total Harmonic Distortion	THD+N	V <sub>IN</sub> =1V <sub>RMS</sub> , f=1kHz		0.005	0.05	%
Output Noise Voltage	V <sub>NO</sub>	A-Weighted		-110	-100	dBV
				3	10	μV <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> =1V <sub>RMS</sub> , f=1kHz, A-Weighted	70	90		dB
Channel Separation	CS	V <sub>IN</sub> =1V <sub>RMS</sub> , f=1kHz, A-Weighted	70	90		dB
Switch-ON Voltage Level	V <sub>CH</sub>		2.4			V
Switch-OFF Voltage Level	V <sub>CL</sub>				0.8	V

### ■ SWITCH CONTROL LOGIC

CNT1	CNT2	INPUT SELECTOR Ach/Bch
L	L	IN1
L	H	IN2
H	L	IN3
H	H	IN4

■ TYPICAL APPLICATION CIRCUIT



UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. UTC reserves the right to make changes to information published in this document, including without limitation specifications and product descriptions, at any time and without notice. This document supersedes and replaces all information supplied prior to the publication hereof.