



UM2750

Preliminary

LINEAR INTEGRATED CIRCUIT

4 INPUT/1 OUTPUT STEREO AUDIO SELECTOR

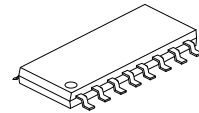
DESCRIPTION

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.

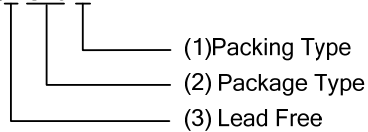


SOP-16

ORDERING INFORMATION

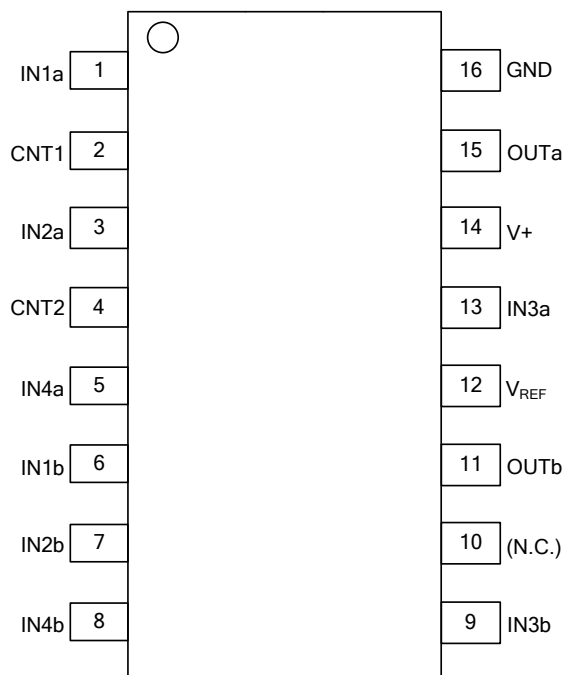
Ordering Number		Package	Packing
Lead Free	Halogen Free		
UM2750L-S16-R	UM2750G-S16-R	SOP-16	Tape Reel
UM2750L-S16-T	UM2750G-S16-T	SOP-16	Tube

UM2750L-S16-R



- (1) R: Tape Reel, T: Tube
(2) S16: SOP-16
(3) G: Halogen Free, L: Lead Free

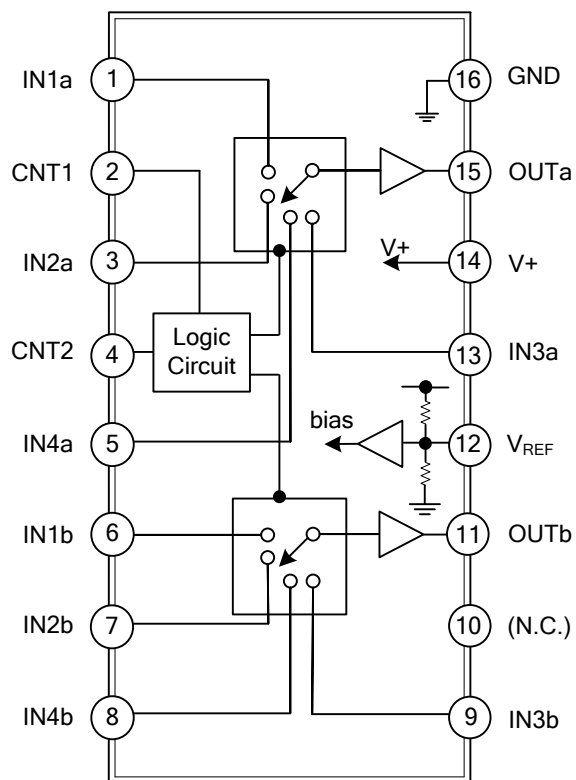
■ PIN CONFIGURATION



■ 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 _{REF}	Reference Voltage
13	IN3a	Ach Input 3
14	V+	Supply Voltage
15	OUTa	Ach Output
16	GND	Ground

■ BLOCK DIAGRAM



■ ABSOLUTE MAXIMUM RATING ($T_A=25^{\circ}\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V^+	15	V
Power Dissipation	P_D	300	mW
Operating Temperature	T_{OPR}	-40 ~ +85	$^{\circ}\text{C}$
Storage Temperature	T_{STR}	-40 ~ +150	$^{\circ}\text{C}$

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.

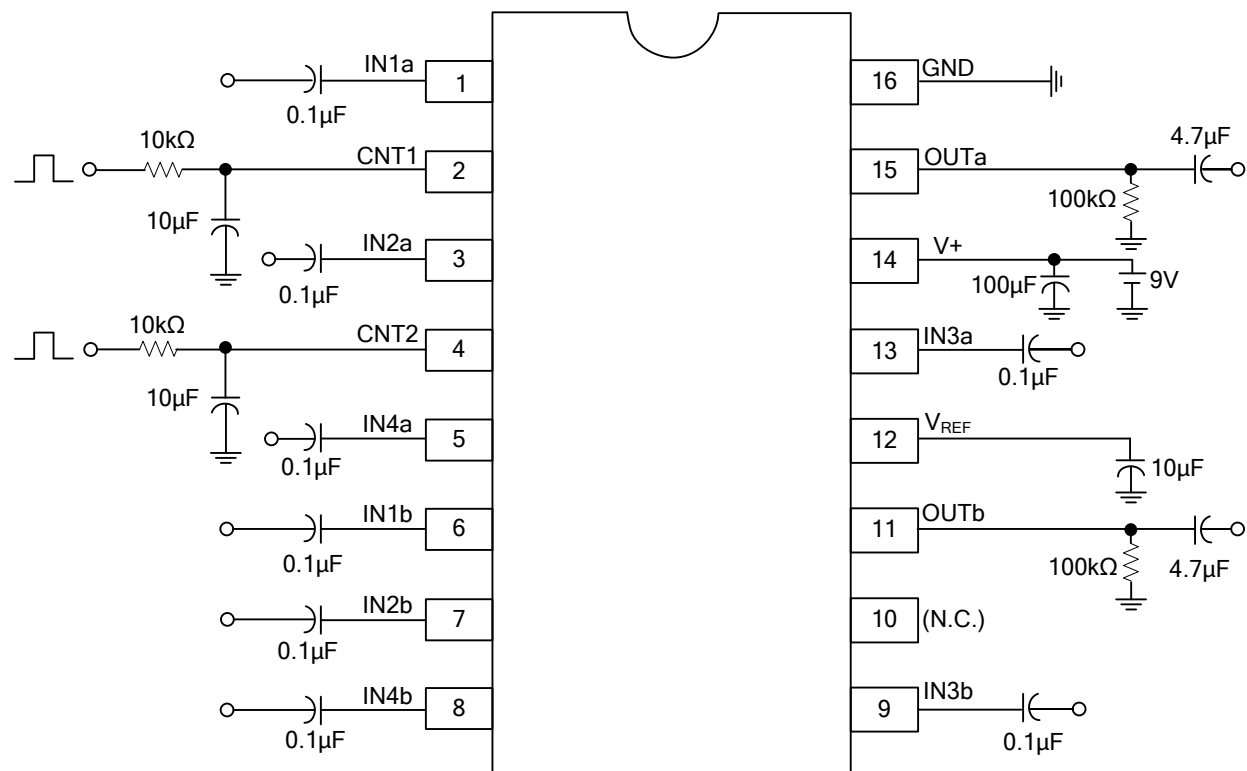
■ ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$, $V^+=9\text{V}$, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Operating Voltage	V^+		4.7	9.0	13.0	V
Supply Current	I_{CC}	No Signal		10	20	mA
Reference Voltage	V_{REF}			4.5		V
Voltage Gain	G_V	$V_{IN}=1V_{RMS}$, $f=1\text{kHz}$	-1	0	1	dB
Total Harmonic Distortion	THD+N	$V_{IN}=1V_{RMS}$, $f=1\text{kHz}$		0.005	0.05	%
Output Noise Voltage	V_{NO}	A-Weighted		-110	-100	dBV
				3	10	V_{RMS}
Maximum Output Voltage	V_{OM}	$f=1\text{kHz}$, THD=1%	6	8		dBV
			2.0	2.5		V_{RMS}
Cross Talk	CT	$V_{IN}=1V_{RMS}$, $f=1\text{kHz}$, A-Weighted	70	90		dB
Channel Separation	CS	$V_{IN}=1V_{RMS}$, $f=1\text{kHz}$, A-Weighted	70	90		dB
Switch-ON Voltage Level	V_{CH}		2.4			V
Switch-OFF Voltage Level	V_{CL}				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



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