

# UTCM2110 LINEAR INTEGRATED CIRCUIT

## MONAURAL MIC AMP. FOR VIDEO CAMERA

### DESCRIPTION

The UTC M2110 is a monaural microphone amplifier for video camera. It can operate from 2.7V.

The performance is low operating current and small package. Therefore it is easy to design the downsizing and low consumption.

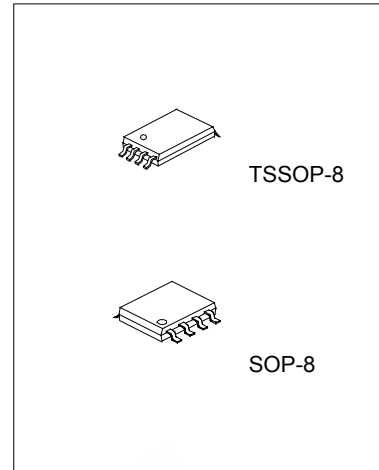
### FEATURES

\*Operating Voltage: 2.7V~5.3V

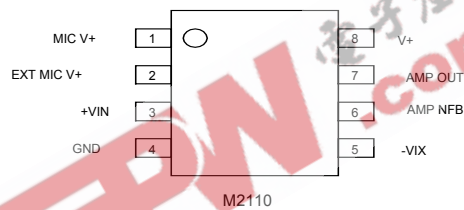
\*Low Operating Current:  $V^+=5V$ , 3.5mA (Typ.)

$V^+=3.3V$ , 1.1mA (Typ.)

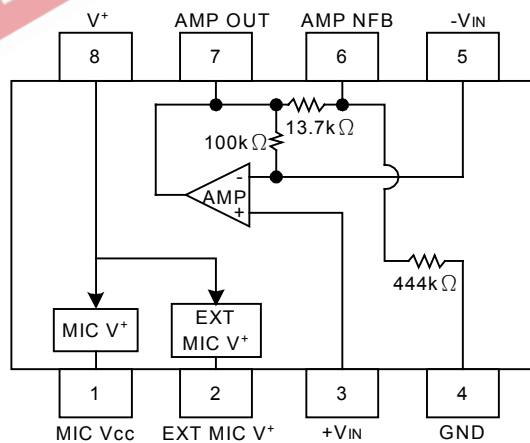
\*Short Circuit Protection for External MIC.



### PIN CONFIGURATION



### BLOCK DIAGRAM



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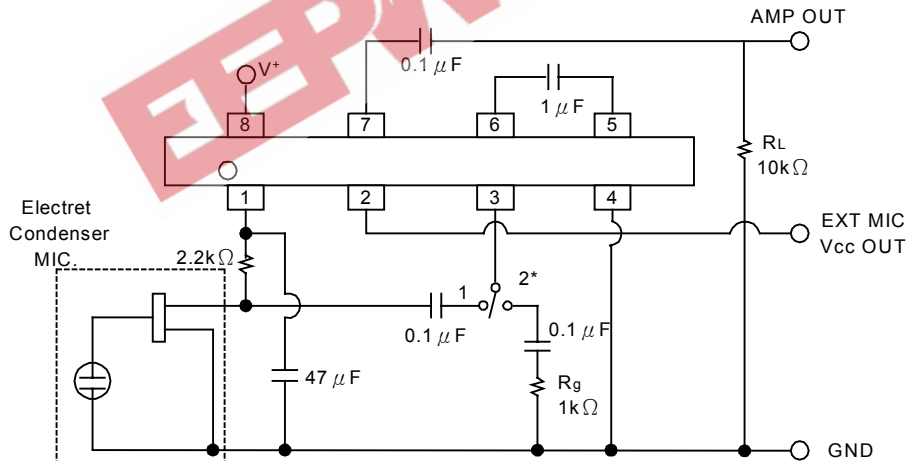
## ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V <sup>+</sup>	7.0	V
Power Dissipation	Pd	250 300	mW
	TSSOP-8 SOP-8		
Operating Temperature Range	Toper	-20 ~+75	°C
Storage Temperature Range	Tstg	-40 ~+125	°C

## ELECTRICAL CHARACTERISTICS (V<sup>+</sup>= 5V, Ta=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Operating Current 1	Icc 1			3.5	4.5	mA
Operating Current 2	Icc 2	V <sup>+</sup> = 3.3V		1.1	2.0	mA
Transfer Gain	Gv	f=1KHz	27	28	29	dB
Total Harmonic Distortion	THD	Vo=300mVrms, RL=10kΩ, f=1KHz		0.05	0.2	%
Maximum Output Voltage	Vom	V <sup>+</sup> = 2.7V, RL=10kΩ, f=1kHz, THD=1%	2.0	2.5		Vp-p
Output Noise Voltage	Vno	Rg=1kΩ, C=0.1μF, A-Weight		30	42	μVrms
Input Resistance Gain	Zin	f=1kHz		110		kΩ
Output Resistance	Zo	f=1kHz		10		Ω
MIC Output Supply Voltage 1	MICo 1		2.0	2.35	2.7	V
MIC Output Supply Voltage 2	MICo 2	V <sup>+</sup> = 2.7V	2.0	2.25	2.5	V
External Output Supply Voltage	EXTout	Io=25mA	4.0			V
Output Short Circuit Current	Ios	EXTo=0V		30		mA

## TEST CIRCUIT



\*SW 2 :Output Noise Voltage Test

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