

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.

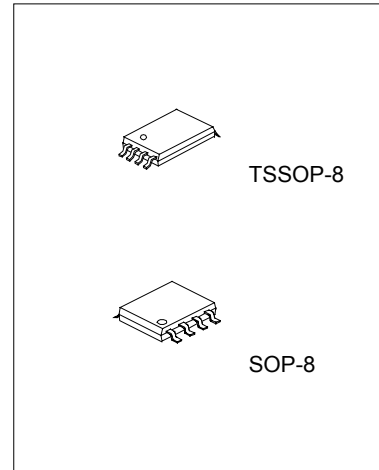
FEATURES

*Operating Voltage: 2.7V~5.3V

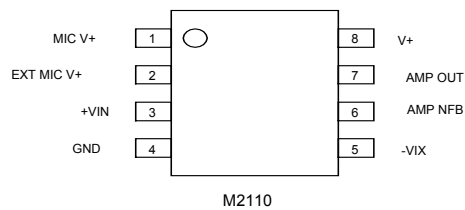
*Low Operating Current: $V^+=5V$, 3.5mA (Typ.)

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

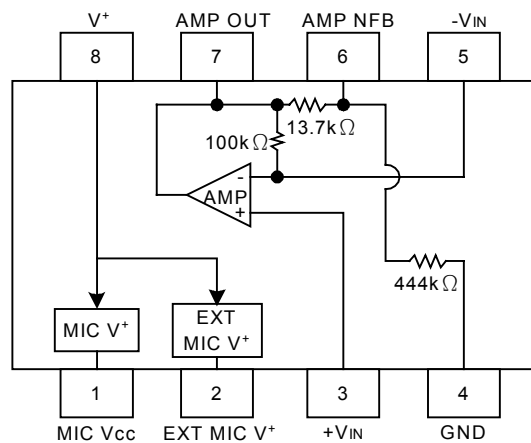
*Short Circuit Protection for External MIC.



PIN CONFIGURATION



BLOCK DIAGRAM



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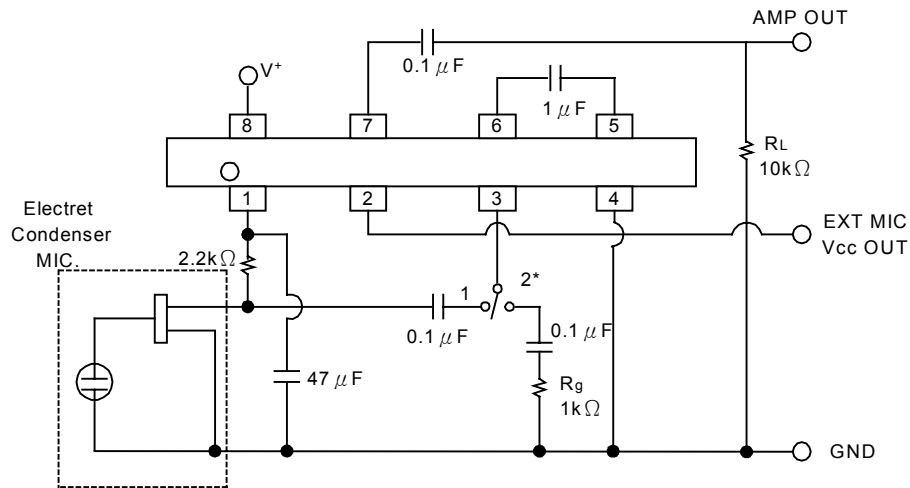
ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V ⁺	7.0	V
Power Dissipation	P _D	250 300	mW
	TSSOP-8 SOP-8		
Operating Temperature Range	T _{oper}	-20 ~+75	°C
Storage Temperature Range	T _{stg}	-40 ~+125	°C

ELECTRICAL CHARACTERISTICS (V⁺ = 5V, Ta=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Operating Current 1	I _{cc 1}			3.5	4.5	mA
Operating Current 2	I _{cc 2}	V ⁺ = 3.3V		1.1	2.0	mA
Transfer Gain	G _v	f=1KHz	27	28	29	dB
Total Harmonic Distortion	THD	V _o =300mVrms, R _L =10kΩ, f=1KHz		0.05	0.2	%
Maximum Output Voltage	V _{om}	V ⁺ = 2.7V, R _L =10kΩ, f=1kHz, THD=1%	2.0	2.5		V _{p-p}
Output Noise Voltage	V _{no}	R _g =1kΩ, C = 0.1μF, A-Weight		30	42	μVrms
Input Resistance Gain	Z _{in}	f=1kHz		110		kΩ
Output Resistance	Z _o	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 ⁺ = 2.7V	2.0	2.25	2.5	V
External Output Supply Voltage	EXTout	I _o =25mA	4.0			V
Output Short Circuit Current	I _{os}	EXTo=0V			30	mA

TEST CIRCUIT



*SW 2 :Output Noise Voltage Test