

Spatializer IC AN7399/S



Overview

A proprietary signal processing technology developed for the consumer electronics and multi-media markets, the 3D Stereo integrated circuit is based on technology derived from Desper Products multi-channel PRO 3D Audio Production System.

The AN7399 makes use of this innovative technology to enhance and expand existing stereo program material delivered by conventional 2 speaker stereo system.

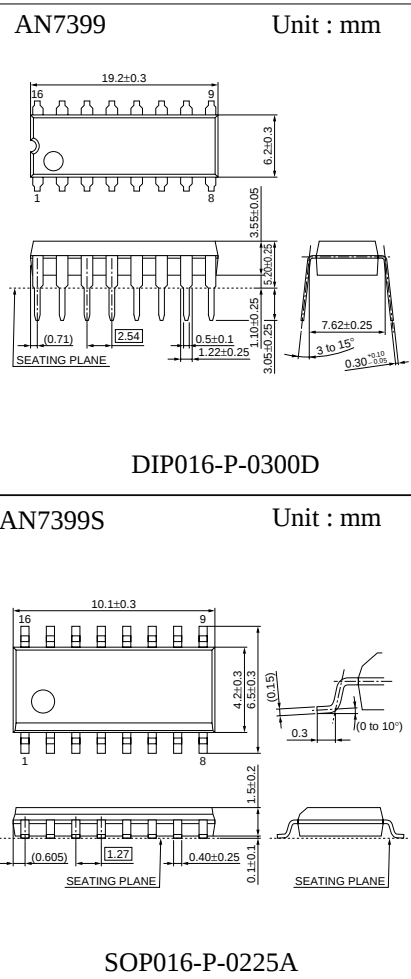
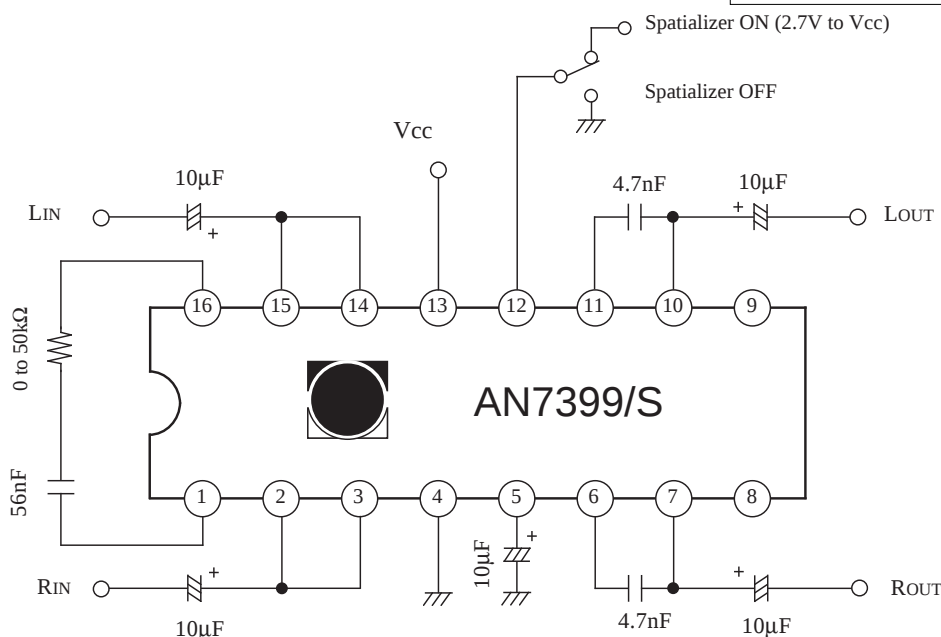
Features

- Fewer external components.
(The minimum external components are 4 capacitors.)
- Supply voltage ; 4.5 to 10V

Applications

- CD, radio cassette recorders
- Stereo-televisions, VCRs
- Computer sound boards

Application Circuit



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† The products and specifications are subject to change without any notice. Please ask for the latest product standards to guarantee the satisfaction of your product requirements.

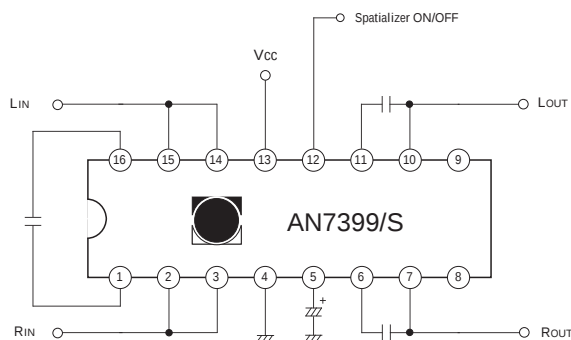
Semiconductor Company, Matsushita Electronics Corporation

■ Electrical Characteristics(Ta=25°C±2°C,Vcc=9V,unless otherwise specified.)

Parameter	Symbol	Condition	min	typ	max	Unit	Note
Total Gain (OFF mode)	VFFG	V _{in} =1V _{rms} ,f=1kHz	-1	0	1	dB	1
Total Harmonic Distortion (OFF mode)	THDFF	V _{in} =1V _{rms} ,f=1kHz	—	0.01	0.05	%	1
Total Harmonic Distortion (ON mode)	THDON	V _{in} =0.4V _{rms} ,f=1kHz	—	0.02	0.1	%	1
Output Noise Level (OFF Mode)	NFF	V _{in} =0mV _{rms} ,R _g =4.7kΩ	—	5	15	μV _{rms}	2
Output Noise Level (ON Mode)	NON	V _{in} =0mV _{rms} ,R _g =4.7kΩ	—	7	20	μV _{rms}	2
Cross-Talk (OFF Mode)	CT	V _{in} =1V _{rms} ,f=1kHz	—	-95	-75	dB	1
Input Level (OFF Mode)	VMAX	THD=1%,f=1kHz	2.0	2.4	—	V _{rms}	1
Total Circuit Current	ITOTAL	V _{in} =0mV _{rms}	0.8	1.4	2.0	mA	
OFF Mode Threshold Voltage	VOFF		0	—	0.5	V	
ON Mode Threshold Voltage	VON		2.7	—	V _{cc}	V	

Note1) Use DIN AUDIO Filter. Note2) Use "A" Curve Filter.

■ Circuit with minimum external parts



It is not necessary input capacitors and output capacitors.
Condition

- 1) V_{cc} of AN7399 are same as Pre.-Amp. and Power-Amp.
- 2) V_{ref}.of Pre.-Amp. and V_{ref}.of Power-Amp. are 1/2V_{cc}.
- 3) Input impedance of Power-Amp. is higher than 20kΩ.

■ Licensing agreement : Signature between customer and Desper Products, Inc.

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