

CONEXANT AD1984A Audio Codec Manual

<http://www.manuallib.com/conexant/ad1984a-audio-codec-manual.html>

The AD1984A audio codec and software provide superior high definition audio quality and performance. The AD1984A has two 192 kHz DAC pairs, two 192 kHz ADC pairs, an S/PDIF output, and digital and analog PCBeep. These features make the AD1984A the right choice for embedded systems where performance is key. The AD1884A is available in a 48-lead, RoHS compliant lead frame chip scale package in both reels and trays.

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Table 1. Performance Characteristics

Parameter	Min	Typ	Max	Unit
Line-Out Drive (10 k Ω loads—DAC to Pin)				
Total Harmonic Distortion (THD + N)		-86		dB
Dynamic Range (-60 dB in ref to f _S A-Weighted)		101		dB
Signal-to-Noise Ratio		101		dB
Headphone Drive (32 Ω loads—DAC to Pin)				
Total Harmonic Distortion (THD + N)		-84		dB
Dynamic Range (-60 dB in ref to f _S A-Weighted)		101		dB
Signal-to-Noise Ratio		101		dB
Input Ports (Mic Boost = 0 dB)				
Total Harmonic Distortion (THD + N)		-80		dB
Dynamic Range (-60 dB in ref to f _S A-Weighted)		92		dB
Signal-to-Noise Ratio		92		dB

Table 2. Specifications

Parameter	Min	Typ	Max	Unit
Analog-to-Digital Converters				
Resolution		24		Bits
Gain Error (Full-Scale Span Relative to Nominal Input Voltage)			±10	%
Interchannel Gain Mismatch (Difference of Gain Errors)		±0.2	±0.5	dB
ADC Offset Error			±5	mV
ADC Crosstalk				
Line Inputs (Input L, Ground R, Read R; Input R, Ground L, Read L)		-94		dB
Line Inputs to Other		-100	-80	dB
Digital-to-Analog Converters				
Resolution		24		Bits
Gain Error (Full-Scale Span Relative to Nominal Input Voltage)			±10	%
Interchannel Gain Mismatch (Difference of Gain Errors)			±0.5	dB
DAC Crosstalk (Input L, Zero R, Measure R_OUT; Input R, Zero L, Measure L_OUT)		-104		dB
Analog Mixer				
Signal-to-Noise Reduction (SNR) Input to Output		95		dB
Step Size: All Mixer Inputs		1.5		dB
Input Gain/Attenuation Range: All Mixer Inputs	-34.5		+12.0	dB

Ordering Information

Device Set Order ID	Package Type	Package	Operating Temperature
AD1984AJCPZ*	QFN	48-Lead QFN, 7x7 mm	0°C to 70°C
*Lead-free (Pb Free) and RoHS compliant			

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