

CONEXANT AD1882 Audio Codec Manual

<http://www.manuallib.com/conexant/ad1882-audio-codec-manual.html>

The AD1882 audio codec and software provide superior HD audio quality and performance. The AD1882 has six DACs and four ADCs, two stereo headphone ports, C/LFE swapping, digital and analog PCBeep, and S/PDIF output, making the AD1882 the right choice for desktop PCs where performance is the primary consideration.

The jack re-tasking feature on this product supports various configurations, including platforms for 5.1 on five or three jacks, and front panel jack re-tasking.

The AD1882 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)		-85		dB
Dynamic Range (-60 dB in Ref to f_S A-Weighted)		95		dB
Signal-to-Noise Ratio		95		dB
Headphone Drive (32 Ω Loads—DAC to Pin)				
Total Harmonic Distortion (THD + N)		-83		dB
Dynamic Range (-60 dB in Ref to f_S A-Weighted)		95		dB
Signal-to-Noise Ratio		95		dB
Input Ports (Pin to ADC, Mic Boost = 0 dB)				
Total Harmonic Distortion (THD + N)		-81		dB
Dynamic Range (-60 dB in Ref to f_S A-Weighted)		90		dB
Signal-to-Noise Ratio		90		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)			± 0.5	dB
ADC Offset Error			± 5	mV
ADC Crosstalk		-85		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
Total Audible Out-of-Band Energy (Measured from $0.6 \times f_S$ to 100 kHz)		-85		dB
DAC Crosstalk (Input L, Zero R, Read R_OUT; Input R, Zero L, Read L_OUT)		-95		dB
Analog Mixer				
Signal-to-Noise Ratio (SNR) Input to Output		95		dB
CD to Port D Output		95		dB
Port B, C, or E to Port D Output		95		dB
Port A to Port D Output		95		dB
Port D to Port A Output		95		dB

Ordering Information

Device Set Order ID	Package Type	Package	Operating Temperature
AD1882JCPZ*	QFN	48-Lead QFN, 7x7 mm	0°C to 70°C
*Lead-free (Pb Free) and RoHS compliant			

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