

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
AD1989BJCPZ*	QFN	48-Lead QFN, 7x7 mm	0°C to 70°C
*Lead-free (Pb Free) and RoHS compliant			

© 2012 Conexant Systems, Inc. All Rights Reserved. Conexant and the Conexant logo are registered trademarks of Conexant Systems, Inc. All other trademarks are owned by their respective owners. Although Conexant strives for accuracy in all its publications, this material may contain errors or omissions and is subject to change without notice. **THIS MATERIAL IS PROVIDED AS IS AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT.** Conexant shall not be liable for any special, indirect, incidental or consequential damages as a result of its use.

www.conexant.com
 General Information:
 U.S. and Canada: (888) 855-4562
 International: 1+ (949) 483-3000
 Headquarters
 4000 MacArthur Blvd.
 Newport Beach, CA 92660
 Doc# PBR-203108

