Audio Codecs and Amplifiers

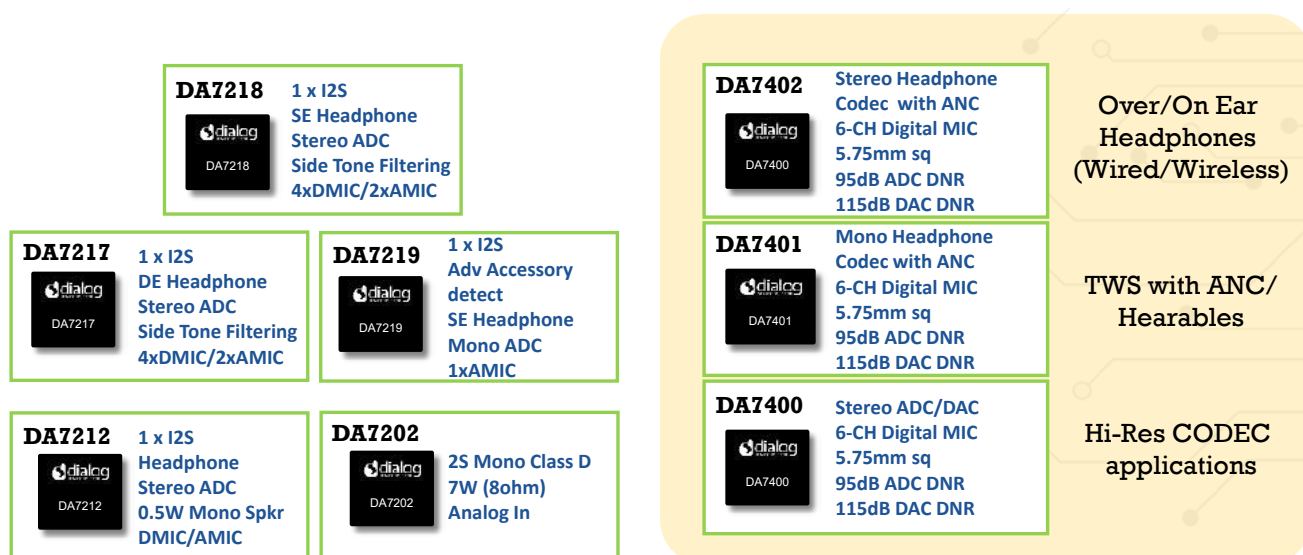**Improving customer access to voice recognition functionality**

We offer a range of low power, Hi-Fi audio CODECs and Class Ds with different features and in different packages suitable for a variety of low power, digital portable audio products. CODECs are designed to offer different levels of dynamic range and improve the power consumption for the record and playback paths by optimizing the always ON mode and utilizing efficient charge pump technologies.

Range of High performance & low power Audio codecs in ultra small packaging

◆ Small packaging and ultra low power

◆ Range of features including accessory detect

◆ Flexible clocking, headphone outputs, range of stereo / mono devices

◆ Including new DA740xx Breakthrough Digital ANC Codecs!

    o ANC with up to 35 dB suppression

    o Low latency hybrid ANC architecture

    o **Sample rates up to 384KHz (DA740x)**

Highly integrated and flexible audio SoC's & Modules for consumer & Enterprise applications

◆ Powerful Multi-core SoC's for enterprise headset/ consumer hearable and headset applications

◆ Open audio platform targeting high-end active headphones, consumer headsets and wireless earbuds

◆ Best in class 3rd party advanced software eco-system

◆ Integrated ARM® and Tensilica® DSP processors

◆ Dialog's latest SmartBeat™ developed for the 1.9GHz QAM based DECT standard

◆ Top-end features including ANC, virtual surround soud and voice control

DA7218	1 x I2S SE Headphone Stereo ADC Side Tone Filtering 4xDMIC/2xAMIC

DA7217	1 x I2S DE Headphone Stereo ADC Side Tone Filtering 4xDMIC/2xAMIC	**DA7219**	1 x I2S Adv Accessory detect SE Headphone Mono ADC 1xAMIC

DA7212	1 x I2S Headphone Stereo ADC 0.5W Mono Spkr DMIC/AMIC	**DA7202**	2S Mono Class D 7W (8ohm) Analog In

DA7402	Stereo Headphone Codec with ANC 6-CH Digital MIC 5.75mm sq 95dB ADC DNR 115dB DAC DNR	Over/On Ear Headphones (Wired/Wireless)
DA7401	Mono Headphone Codec with ANC 6-CH Digital MIC 5.75mm sq 95dB ADC DNR 115dB DAC DNR	TWS with ANC/ Hearables
DA7400	Stereo ADC/DAC 6-CH Digital MIC 5.75mm sq 95dB ADC DNR 115dB DAC DNR	Hi-Res CODEC applications

Design-in Expertise and Service

140560B

Audio Codecs

Product	Description	Resolution/ Sample rates	ADC SNR A-weighted support(dB) @ 48kHz	DAC SNR A-weighted support(dB) @ 48kHz	Power consumption Record	Power consumption Playback	Headphone Pout	Features
DA7210	Ultra Low Power Stereo CODEC	24bit/ up to 96kHz	96 @ 2.5V	102 @ 2.5V	3.5mW @ 1.8V	2.5mW @1.8V		General purpose filter engine
DA7211	Ultra Low Power Stereo CODEC	24bit/ up to 96kHz	96 @ 2.5V	102 @ 2.5V	3.5mW @ 1.8V	2.5mW @1.8V	2x58mW @ 2.5V into 16Ω	General purpose filter engine
DA7212	Ultra low power Stereo CODEC with 650μW always On mode	24bit/ up to 96kHz	90 @ 1.8V	100 @ 1.8V	2.0mW @ 1.8	3.1mW @ 1.8	2 x 67mW @ 2.5V	5bd EQ, ALC, Noise gate, Beep generator
DA7217	Ultra low power Stereo CODEC with differential outputs	24bit/ up to 96kHz	105 @ 1.8V	110 @ 1.8V	2.5mW @ 1.8V	4mW @ 1.8	2 x 57mW @ 2.5V	5bd EQ, 3bd Sidetone, ALC, Noise gate, Beep generator
DA7218	Ultra low power Stereo CODEC with single-en-ded outputs	24bit/ up to 96kHz	105 @ 1.8V	110 @ 1.8V	2.5mW @ 1.8V	4mW @ 1.8	2 x 58mW @ 1.8V	5bd EQ, 3bd Sidetone, ALC, Noise gate, Beep generator
DA7219	Ultra low-power audio codec with Advanced Accessory Detection (AAD)	24bit/ up to 96kHz	90 @ 1.8V	100 @ 1.8V	2.75mW @ 1.8V	3.4mW @ 1.8	2 x 70mW @ 2.5V	Advanced Accessory detection, polarity switching
DA7400	High Performance Stereo Codec	32-bit/ Up to 384 kHz	105 @ 1.8V	115 @ 1.8V	3mW @ 1.8V	8.5mW @ 1.8	2 x 67mW @ 1.8V	Genral purpose filter engine
DA7401	Mono Active Noise Cancellation Codec	32-bit/ Up to 384 kHz	105 @ 1.8V	115 @ 1.8V	3mW @ 1.8V	5.8mW @ 1.8	1 x 100mW @ 1.8V	Hybrid Active Noise Cancellation, Audio Processing Unit
DA7402	Stereo Active Noise Cancellation Codec	32-bit/ Up to 384 kHz	105 @ 1.8V	115 @ 1.8V	3mW @ 1.8V	8.5mW @ 1.8	2 x 67mW @ 1.8V	Hybrid Active Noise Cancellation, Audio Processing Unit

Class D Amplifier

Product	Description	Prms	Supply (V)	Efficiency	SNR A-weighted(dB)	THD_N (dB)	PSRR @ 217Khz (dB)
DA7202	10W Mono Class D for Dual Cell	10.2W @ 8.2V	4.5 - 9.0	90% @ 8.2V, Pout = 3.5W	104dB @ 8.2W	90dB @ 3.0W	78

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