



ESS Technology, Inc.

CONFIDENTIAL ADVANCE INFORMATION

Sabre Reference / Premier Series Highest Performance Audio DAC Product Brief

OVERVIEW

The Sabre Highest Performance Audio DAC Series is the world's first 8-channel audio DAC solution to bring true professional digital audio to the mass consumer home entertainment market.

P/N	Description	Package	DNR (dB)	THD (dB)	I2S or SPDIF Input	DSD Input	Jitter Reduction	Power (mW)
ES9008S	Sabre Reference Audio DAC	64LQFP	134 (Mono) 128 (8ch)	-118	√	√	√	100 @ 8ch
ES9006S	Sabre Premier Audio DAC	48LQFP	120	-102	√	√	√	100 @ 8ch

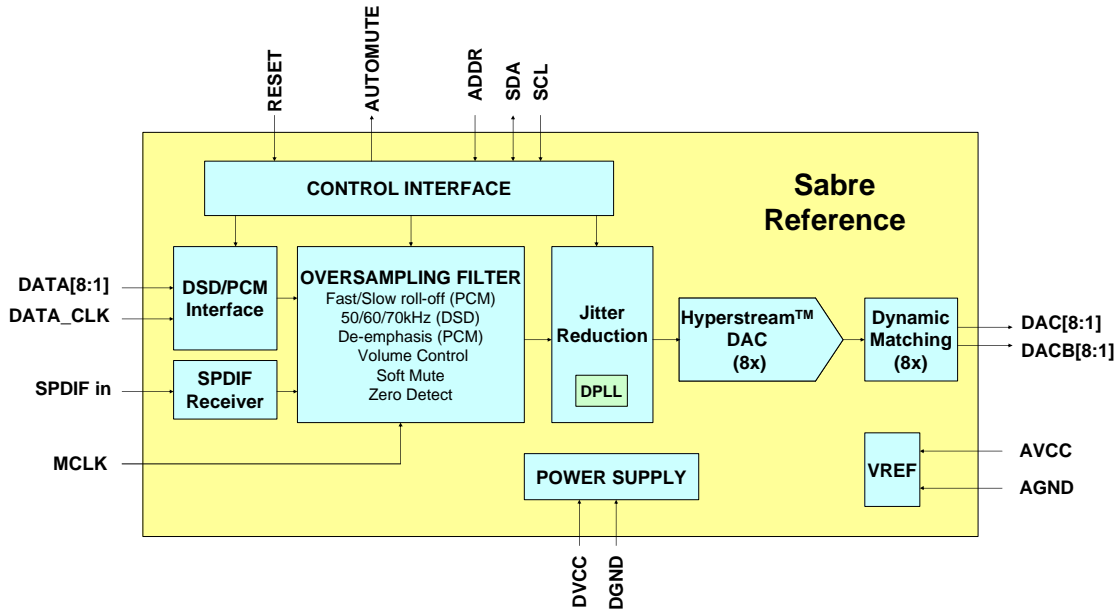
With patented Hyperstream™ architecture and patent-pending Time Domain Jitter Eliminator, the Sabre Reference Audio DAC outperforms the best audiophile equipment with unprecedented 134dB DNR and -118dB THD+N, delivering true studio quality audio to digital audio applications such as HD-DVD, Blu-ray, SACD, DVD-Audio, DVD, CD, home theatre, set top boxes and digital TV.

The Sabre Audio DAC sets a new standard for high quality audio performance in a cost effective, compact, easy to use form factor for today's most demanding digital audio applications.

KEY FEATURES

Innovation	Benefit												
<table border="1"> <tr> <td colspan="3"><i>Patented HyperStream™ Architecture</i></td> </tr> <tr> <td></td> <td><i>Reference</i></td> <td><i>Premier</i></td> </tr> <tr> <td>DNR (dB)</td> <td>Up to 134</td> <td>120</td> </tr> <tr> <td>THD+N (dB)</td> <td>-118</td> <td>-102</td> </tr> </table>	<i>Patented HyperStream™ Architecture</i>				<i>Reference</i>	<i>Premier</i>	DNR (dB)	Up to 134	120	THD+N (dB)	-118	-102	Unprecedented dynamic range and low distortion allowing true reproduction of audio as it is mastered at recording studio
<i>Patented HyperStream™ Architecture</i>													
	<i>Reference</i>	<i>Premier</i>											
DNR (dB)	Up to 134	120											
THD+N (dB)	-118	-102											
<i>Patent-pending</i> Time Domain Jitter Reduction	Unmatched audio clarity free from input clock jitter allowing simple system design and layout												
48-bit accumulator / 28-bit processing	Distortion free signal processing												
Auto-detect PCM/ DSD converter	Universal (e.g. DVD/SACD) audio playback												
8-channel DAC in 64-LQFP or 48QFN	Reduces PCB footprint and simplifies board layout												
Low power (100mW for 8 channels)	Simplifies power supply design												
Customizable output configuration	Mono, stereo, 4 or 8-channel output in current or voltage mode based on performance criterion												
Universal digital input	All-digital SPDIF (<i>Reference</i> only), PCM (I2S, MSB/LSB justified 16, 20 or 24-bit) or DSD input												
Integrated DSP functions	Click-free soft mute and volume control Programmable filter characteristics for PCM/DSD Programmable Zero detect De-emphasis for 32, 44.1 and 48kHz sampling												

FUNCTIONAL BLOCK DIAGRAM



APPLICATION DIAGRAM

