



Reference / Premier Series

Highest Performance Audio DAC

Product Brief

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.

Part Number	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 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 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.

FEATURE

Patented HyperStream™ Architecture

	Reference	Premier
DNR (dB)	Up to 134	120
THD+N (dB)	-118	-102

Patented Time Domain Jitter Reduction

48-bit accumulator / 28-bit processing (Reference)
48-bit accumulator / 25-bit processing (Ultra)

Auto-detect PCM/ DSD converter

8-channel DAC in 64-LQFP or 48LQFP

Low power (100mW for 8 channels)

Customizable output configuration

Universal digital input

Integrated DSP functions

BENEFIT

Unprecedented dynamic range and low distortion allowing true reproduction of audio as it is mastered at recording studio

Unmatched audio clarity free from input clock jitter allowing simple system design and layout

Distortion free signal processing

Universal (e.g. DVD/SACD) audio playback

Reduces PCB footprint and simplifies board layout

Simplifies power supply design

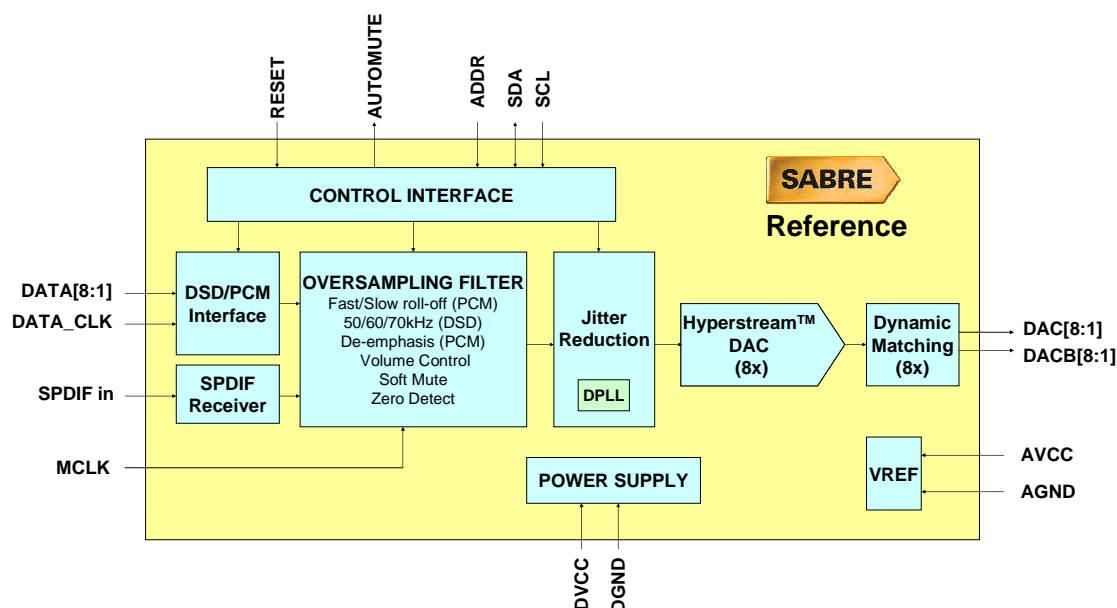
Mono, stereo, 4 or 8-channel output in current or voltage mode based on performance criterion

All-digital SPDIF (*Reference* only), PCM (I2S, MSB/LSB justified 16, 20 or 24-bit) or DSD input

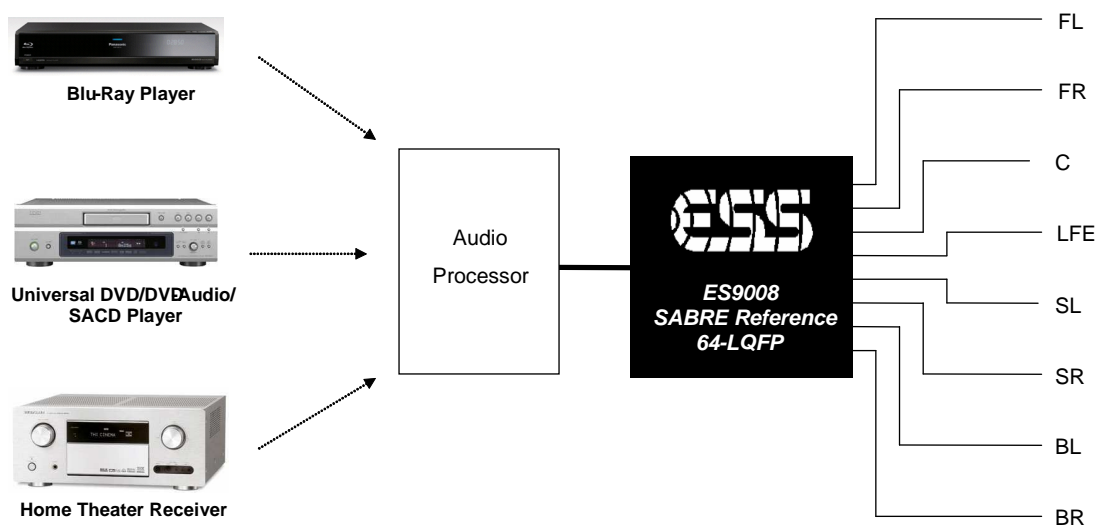
Click-free soft mute and volume control
Programmable filter characteristics for PCM/DSD
Programmable Zero detect
De-emphasis for 32, 44.1 and 48kHz sampling



FUNCTIONAL BLOCK DIAGRAM



APPLICATION DIAGRAM



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