



ES9018

Reference 32-bit Audio DAC

Product Brief

OVERVIEW

The **SABRE³² Reference** audio DAC series is the world's highest performance 32-bit audio DAC solution targeted for consumer applications such as Blu-ray players, audio pre-amplifiers, A/V receivers and professional applications such as recording systems, mixer consoles and digital audio workstations.

Part Number	Description	Package	DNR (dB)	THD (dB)	32-bit DAC	I ² S / DSD Input	SPDIF Input	Jitter Reduction
ES9018	SABRE³² Reference 8-Channel Audio DAC	64-LQFP	135 (mono) 129 (8-Ch)	-120	Yes	Yes	Yes	Yes

With ESS patented 32-bit Hyperstream™ DAC architecture and Time Domain Jitter Eliminator, the **SABRE³² Reference Stereo DAC** delivers an unprecedented DNR of up to 135dB and THD+N of -120dB, the industry's highest performance level that will satisfy the most demanding audio enthusiasts.

The **SABRE³² Reference** audio DAC's 32-bit Hyperstream™ architecture can handle full 32-bit PCM data via I²S input, as well as DSD or SPDIF data. The **SABRE³² Reference** supports up to 1.536MHz¹ input sampling rates and consumes less than 100mW.

The **SABRE³² Reference DACs** set the standard for HD audio performance, **SABRE SOUND™**, in a cost-effective, easy-to-use form factor for today's most demanding digital-audio applications.

FEATURE	BENEFIT
Patented 32-bit Hyperstream™ DAC <ul style="list-style-type: none"> Up to 135dB DNR -120dB THD+N 	Industry's highest performance 32-bit audio DAC with unprecedented dynamic range and ultra-low distortion
Patented Time Domain Jitter Eliminator	Unmatched audio clarity free from input clock jitter
64-bit accumulator and 32-bit processing	Distortion free signal processing
Universal digital input for up to 1.536MHz ¹ sampling rate	Supports SPDIF, PCM (I ² S, MSB/LSB justified 16-32-bit) or DSD input with DVD Audio and SACD compatibility.
Integrated DSP functions	Click-free soft mute and volume control Programmable filter characteristics for PCM / DSD Programmable Zero detect De-emphasis for 32kHz, 44.1kHz, and 48kHz sampling
Customizable output configuration	Mono, stereo, 8-channel output in current- or voltage-mode based on performance criterion
Customizable filter characteristics	User-programmable filter allowing custom roll-off response
100mW power consumption	Simplifies power supply design

APPLICATIONS

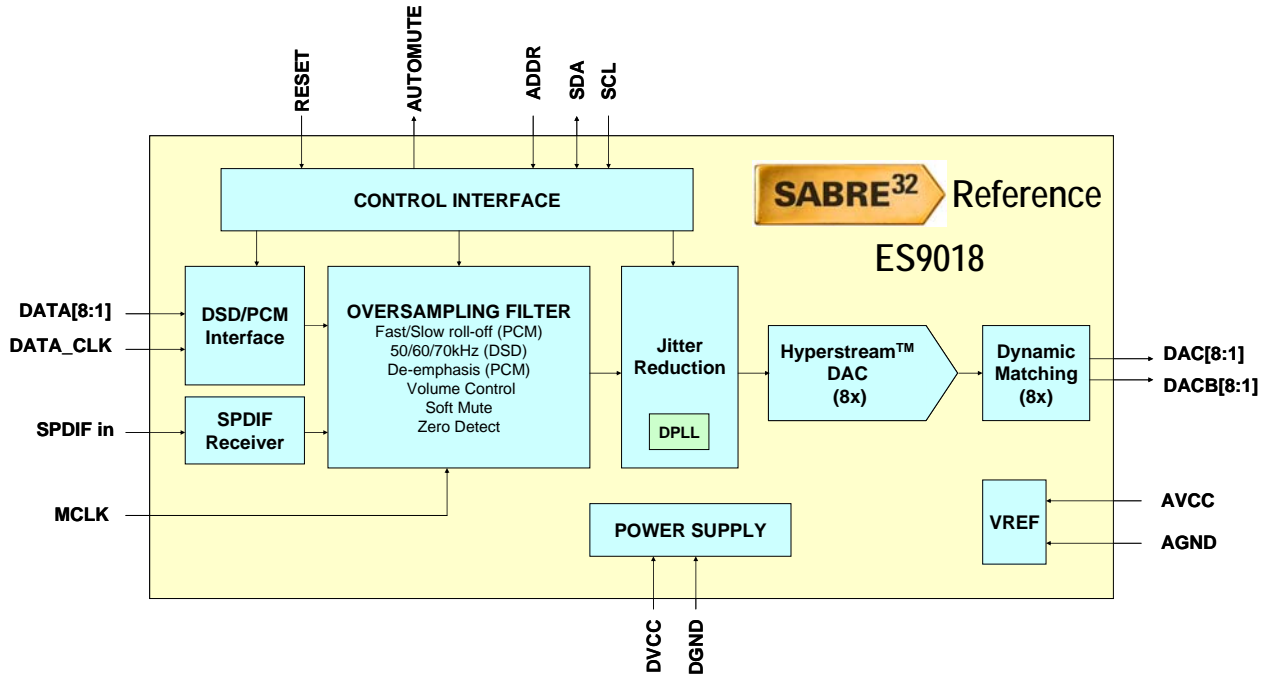
- Blu-ray / SACD / DVD-Audio player
- Audio preamplifier and receiver
- A/V processor
- Professional audio recording systems and mixing consoles
- Digital audio workstation

Note 1. This is for oversample bypass mode only. The maximum sample rate using the internal oversampling filters is 200kHz.

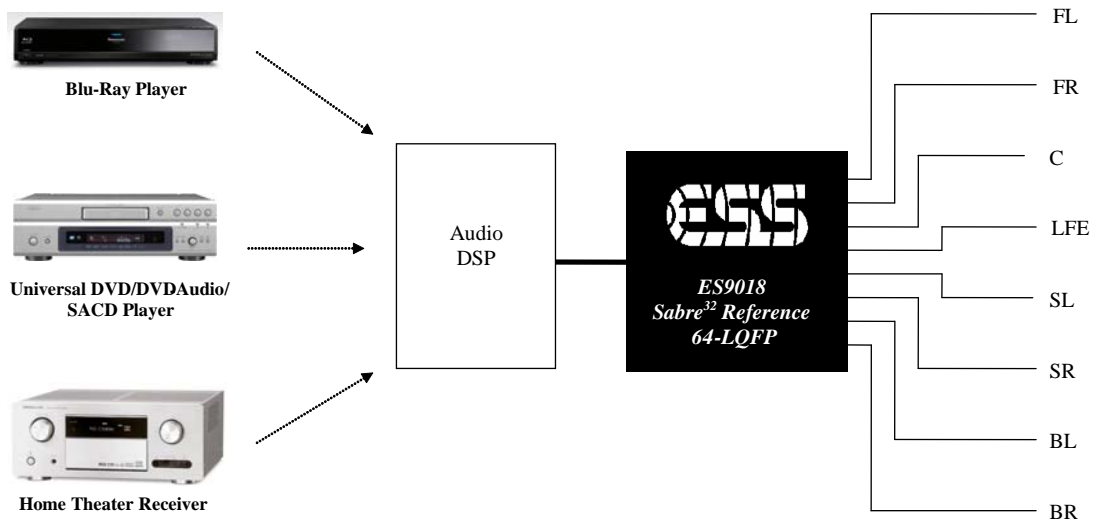


Sabre³² Reference DAC Product Brief

FUNCTIONAL BLOCK DIAGRAM



APPLICATION DIAGRAM



No part of this publication may be reproduced, stored in a retrieval system, transmitted, or translated in any form or by any means, electronic, mechanical, manual, optical, or otherwise, without the prior written permission of ESS Technology, Inc. ESS Technology, Inc. makes no representations or warranties regarding the content of this document. All specifications are subject to change without prior notice. ESS Technology, Inc. assumes no responsibility for any errors contained herein. U.S. patents pending.