



# SABRE9018C2M

## 32-bit Stereo Mobile Audio DAC

### Product Brief

The **SABRE9018C2M SABRE<sup>32</sup> Reference DAC** is a high-performance 32-bit, 2-channel audio D/A converter targeted for audiophile-grade portable applications such as mobile phones and digital music players, consumer applications such as Blu-ray players, audio pre-amplifiers and A/V receivers, as well as professional applications such as recording systems, mixer consoles and digital audio workstations.

Using the critically acclaimed ESS patented 32-bit HyperStream® DAC architecture and Time Domain Jitter Eliminator, the **SABRE9018C2M SABRE<sup>32</sup> Reference DAC** delivers a DNR of up to 127dB and THD+N of -120dB, a performance level that will satisfy the most demanding audio enthusiasts.

The **SABRE9018C2M SABRE<sup>32</sup> Reference DAC's** 32-bit HyperStream® architecture can handle up to 32-bit 384kHz PCM data via I<sup>2</sup>S, DSD-11.2MHz data as well as mono mode for highest performance applications. Both synchronous and ASRC (asynchronous sample rate conversion) modes are supported.

The **SABRE9018C2M SABRE<sup>32</sup> Reference DAC** comes in 25-Ball WLCSP package and consumes less than 40mW in normal operation mode (< 1mW in standby mode).

The **SABRE9018C2M SABRE<sup>32</sup> Reference DAC** sets the standard for HD audio performance, **SABRE SOUND™**, in an easy-to-use form factor for today's most demanding digital-audio applications.

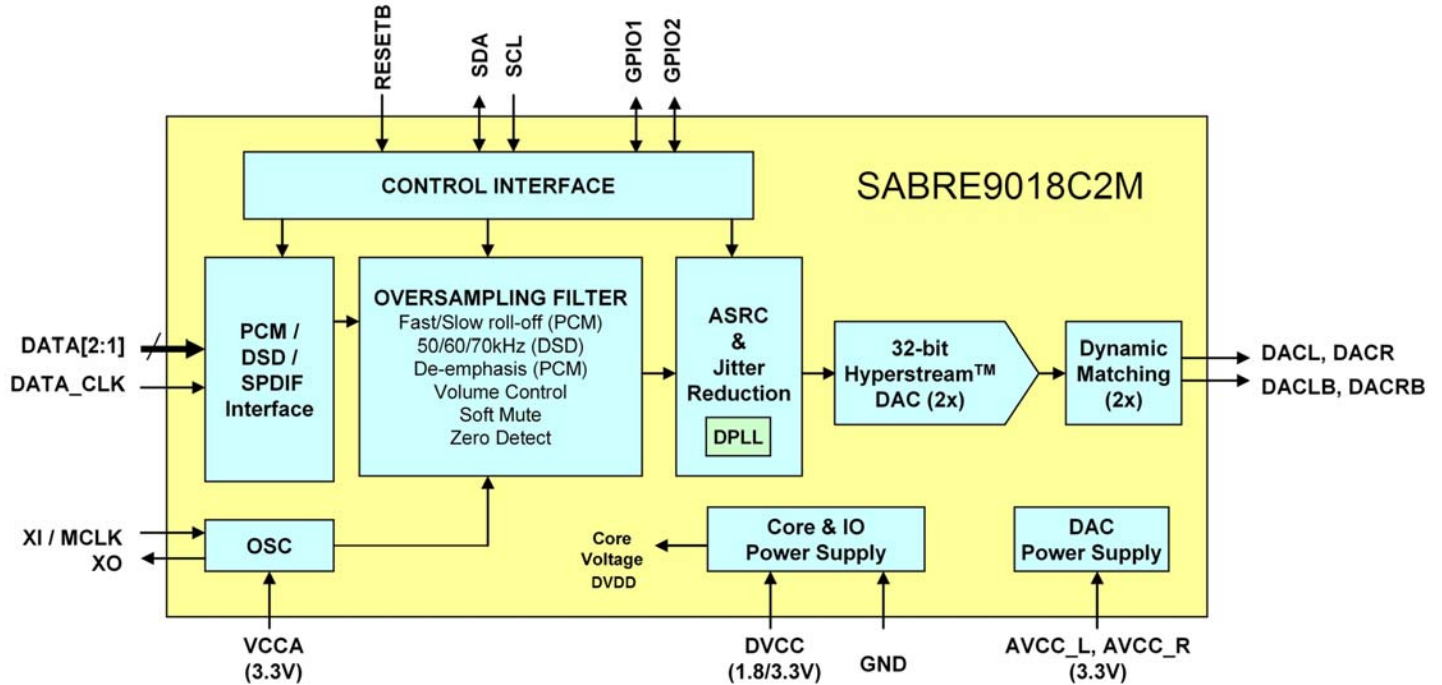
FEATURE	DESCRIPTION
Patented 32-bit HyperStream® DAC ○ +127dB DNR ○ -120dB THD+N	○ Industry's highest performance 32-bit mobile audio DAC with unprecedented dynamic range and ultra-low distortion ○ Supports both synchronous and ASRC (asynchronous sample rate converter) modes
Patented Time Domain Jitter Eliminator	○ Unmatched audio clarity free from input clock jitter
64-bit accumulator and 32-bit processing	○ Distortion free signal processing
Integrated DSP Functions	○ Click-free soft mute and volume control ○ Programmable Zero detect ○ De-emphasis for 32kHz, 44.1kHz, and 48kHz sampling
Customizable output configuration	○ Mono or stereo output in current or voltage mode based on performance criterion
I <sup>2</sup> C control	○ Allows software control of DAC features
25-Ball (2.00mm x 2.15mm) WLCSP	○ Minimizes PCB footprint
< 40mW operational power < 1mW standby power	○ Maximizes battery life
Versatile digital input	○ Supports SPDIF, PCM (I <sup>2</sup> S, LJ 16-32-bit) or DSD input
Customizable filter characteristics	○ User-programmable filter allowing custom roll-off response ○ Bypassable oversampling filter

## APPLICATIONS

- Mobile phones / Tablets / Digital music players / Portable multimedia players
- Blu-ray / SACD / DVD-Audio player
- Audio preamplifier and A/V receiver
- Professional audio recording systems / Mixing consoles / Digital audio workstation



## FUNCTIONAL BLOCK DIAGRAM



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