

24-bit, 103 dB SNR audio DAC

Data Brief

Features

■ DAC

- 24-bit audio DAC
- 103 dB dynamic range
- Asynchronous DAC path with 8 to 48kHz sampling rate

■ Supply

- Direct connection to the battery thanks to integrated power management

■ Inputs

- I²S digital input

■ Analog output drivers

- Stereo headset amplifier:
 - ‘True ground’ output amplifier (no coupling capacitor)
 - Driving capacity: 2 x 50 mW over 32 Ω up to 2 x 80 mW over 32 Ω
 - Plug detection
 - Click/pop suppression



VFQFPN-44 7x7x1.0 mm, 0.5 mm pitch

TFBGA-40 4x4x1.2 mm, 0.5 mm pitch

WLCSP-36 2.55x2.55x0.65 mm, 0.4 mm pitch

Description

The STw5200 is a 24-bit high performance DAC for mobile handset application with 103 dB dynamic range for the whole audio path.

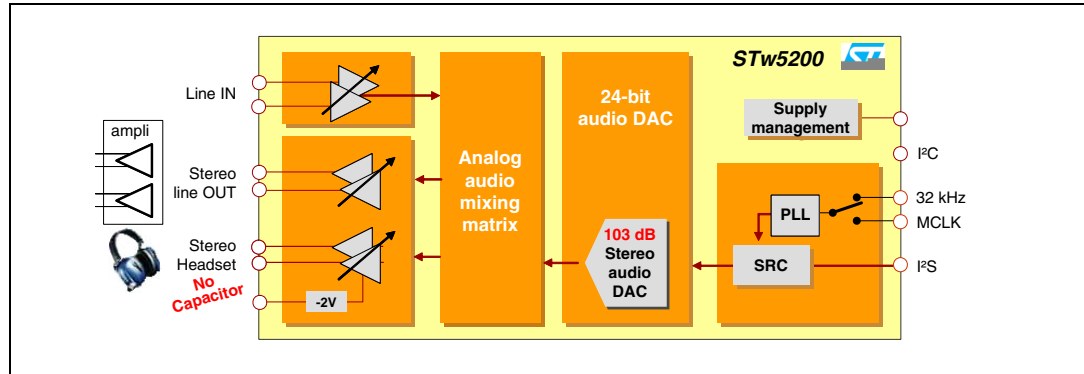
The device can be driven either by the system clock or by the 32 kHz RTC clock.

STw5200 is very easy to integrate and thanks to its embedded power management, it can be directly connected to the battery.

The device foot print is very small as the EBOM is reduced to a few components. The 50 mW headset amplifier is of “True-ground” type (no coupling capacitor).

1 Block diagram

Figure 1. Functional block diagram of the STw5200



2 Ordering information

Table 1. Order codes

Order codes	Package	Packing
STW52000K/HF	TFBGA-40 4 mm x 4 mm x 1.2mm, pitch 0.5 mm	Tray
STW52000KT/HF	TFBGA-40 4 mm x 4 mm x 1.2mm, pitch 0.5 mm	Tape and reel
STW520025T/LF	WLCSP-36 2.6 mm x 2.6 mm x 0.65 mm, pitch 0.4 mm	Tape and reel
STW520062/HF	VQFPN-44 7 mm x 7 mm x 1 mm, pitch 0.5 mm	Tray
STW520062T/HF	VQFPN-44 7 mm x 7 mm x 1 mm, pitch 0.5 mm	Tape and reel

3 Revision history

Table 2. Document revision history

Date	Revision	Changes
14-Jan-2008	1	Initial release.

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