

## Short Information

### DAC 3550A

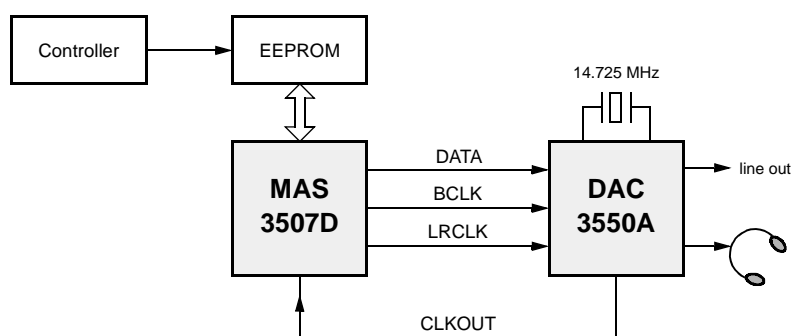
#### Stereo Audio DAC

The DAC 3550A is a complete high-quality stereo digital audio back-end system. It comprises an efficient digital interpolation filter and a multibit matching element DAC with 3rd-order noiseshaping. Digital audio input data are passed in a 16/32-bit I<sup>2</sup>S format. The analog back-end consists of internal postfiltering, opamps for additional external filtering, line-out, headphone amplifiers, and analog volume setting. AUX inputs allow the switching of an additional analog audio source to the analog back-end. Volume control and mode selection is handled by I<sup>2</sup>C bus. The DAC 3550A can be used together with any digital audio source such as CD, MD, or MPEG audio players.

#### Features:

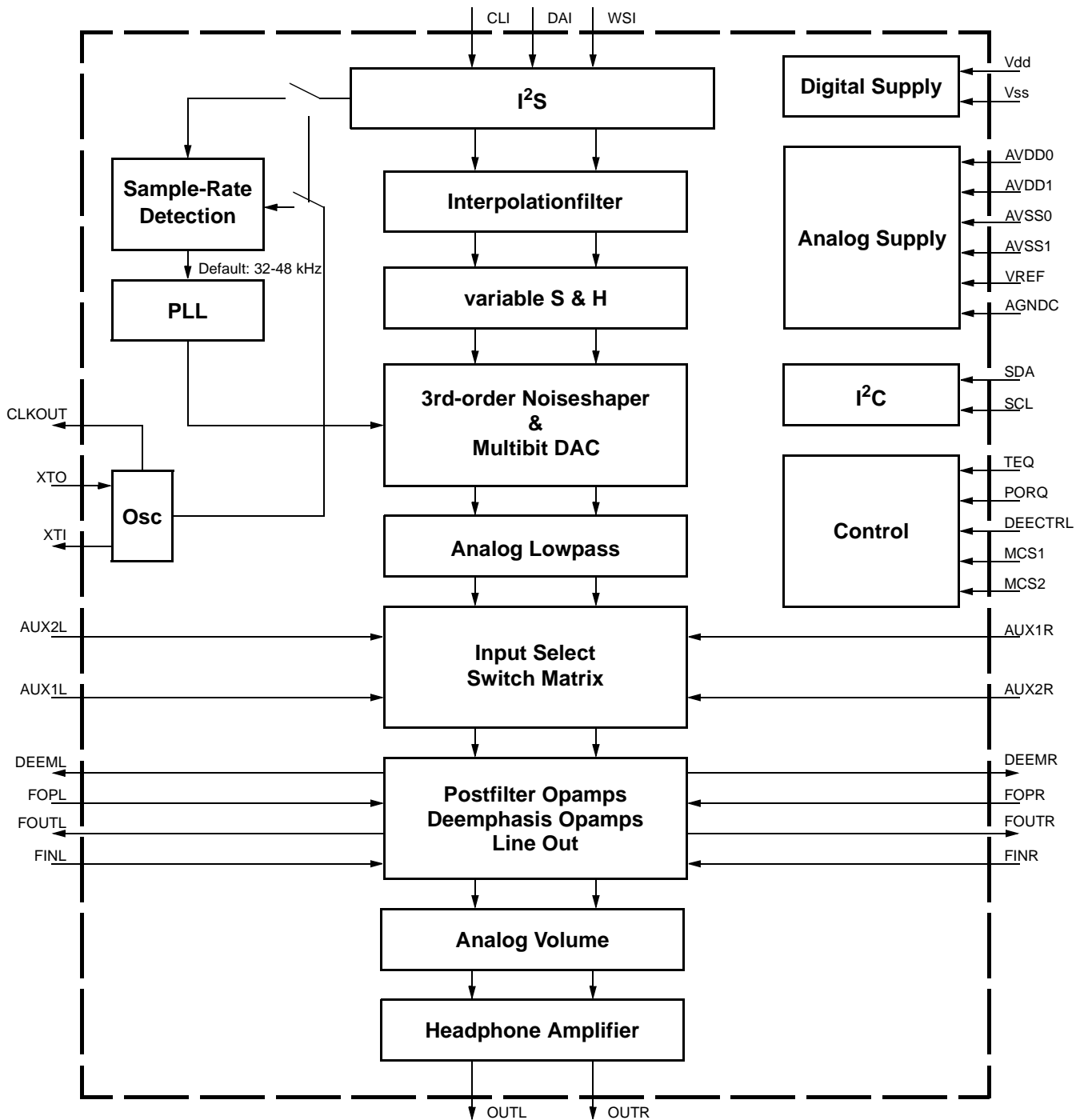
- 18-bit stereo D/A converter
- 16/32-bit I<sup>2</sup>S Philips/Sony format
- 3rd-order noiseshaping and multibit matching element technique
- THD better than 0.01%
- SNR of 100 dB (32-bit I<sup>2</sup>S mode)
- continuous sample rates from 8 kHz to 50 kHz
- analog deemphasis for 44.1 kHz
- analog volume and balance: +6...–54 dB with 2-dB steps and mute
- integrated stereo headphone amplifier and mono speaker amplifier
- two additional analog stereo inputs (aux) with source selection
- additional line-out
- internal 1st-order postfilter
- on-chip opamps for external analog postfilter
- internal clock oscillator
- no external main clock required
- full feature mode by I<sup>2</sup>C control (3 selectable subaddresses)
- reduced feature mode for non-I<sup>2</sup>C applications
- optional external analog volume control for non-I<sup>2</sup>C applications
- 44-pin MQFP package
- supply range: 2.7...5.5 V
- low-power mode
- click-free power-down mode

#### Typical Application



**Fig. 1:** Application diagram of a complete audio player based on flash EPROMs and the MPEG Layer 3 audio decoder MAS 3507D

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**Fig. 2:** Block diagram of the DAC 3550A

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