
ST-NXP Wireless

IMPORTANT NOTICE

Dear customer,

As from August 2nd 2008, the wireless operations of STMicroelectronics have moved to a new company, ST-NXP Wireless.

As a result, the following changes are applicable to the attached document.

- **Company name - STMicroelectronics NV** is replaced with **ST-NXP Wireless**.
- **Copyright** - the copyright notice at the bottom of the last page “© STMicroelectronics 200x - All rights reserved”, shall now read: “© ST-NXP Wireless 200x - All rights reserved”.
- **Web site** - <http://www.st.com> is replaced with <http://www.stnwireless.com>
- **Contact information** - the list of sales offices is found at <http://www.stnwireless.com> under Contacts.

If you have any questions related to the document, please contact our nearest sales office. Thank you for your cooperation and understanding.

ST-NXP Wireless

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



Description

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

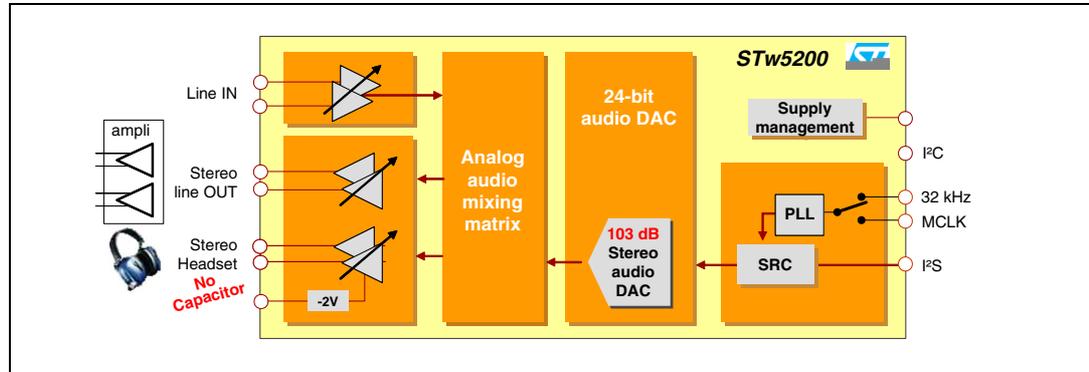
The device can be driven either by the system clock or by the 32 kHz RTC clock.

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.

Please Read Carefully:

Information in this document is provided solely in connection with ST products. STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, modifications or improvements, to this document, and the products and services described herein at any time, without notice.

All ST products are sold pursuant to ST's terms and conditions of sale.

Purchasers are solely responsible for the choice, selection and use of the ST products and services described herein, and ST assumes no liability whatsoever relating to the choice, selection or use of the ST products and services described herein.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted under this document. If any part of this document refers to any third party products or services it shall not be deemed a license grant by ST for the use of such third party products or services, or any intellectual property contained therein or considered as a warranty covering the use in any manner whatsoever of such third party products or services or any intellectual property contained therein.

UNLESS OTHERWISE SET FORTH IN ST'S TERMS AND CONDITIONS OF SALE ST DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY WITH RESPECT TO THE USE AND/OR SALE OF ST PRODUCTS INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE (AND THEIR EQUIVALENTS UNDER THE LAWS OF ANY JURISDICTION), OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT.

UNLESS EXPRESSLY APPROVED IN WRITING BY AN AUTHORIZED ST REPRESENTATIVE, ST PRODUCTS ARE NOT RECOMMENDED, AUTHORIZED OR WARRANTED FOR USE IN MILITARY, AIR CRAFT, SPACE, LIFE SAVING, OR LIFE SUSTAINING APPLICATIONS, NOR IN PRODUCTS OR SYSTEMS WHERE FAILURE OR MALFUNCTION MAY RESULT IN PERSONAL INJURY, DEATH, OR SEVERE PROPERTY OR ENVIRONMENTAL DAMAGE. ST PRODUCTS WHICH ARE NOT SPECIFIED AS "AUTOMOTIVE GRADE" MAY ONLY BE USED IN AUTOMOTIVE APPLICATIONS AT USER'S OWN RISK.

Resale of ST products with provisions different from the statements and/or technical features set forth in this document shall immediately void any warranty granted by ST for the ST product or service described herein and shall not create or extend in any manner whatsoever, any liability of ST.

ST and the ST logo are trademarks or registered trademarks of ST in various countries.

Information in this document supersedes and replaces all information previously supplied.

The ST logo is a registered trademark of STMicroelectronics. All other names are the property of their respective owners.

© 2008 STMicroelectronics - All rights reserved

STMicroelectronics group of companies

Australia - Belgium - Brazil - Canada - China - Czech Republic - Finland - France - Germany - Hong Kong - India - Israel - Italy - Japan - Malaysia - Malta - Morocco - Singapore - Spain - Sweden - Switzerland - United Kingdom - United States of America

www.st.com