

Portable consumer electronics spindle and VCM motor controller

Data Brief

General features

- Register Based Architecture
- 3 wire serial port up to 50MHz
- Ultra-thin package

Spindle driver

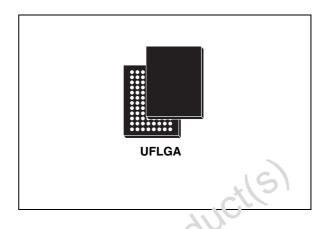
- 0.5A peak current drive capability
- Integrated power driver devices
- ST Smooth Drive® architecture
- Current sense with zero external components
- Inductive sense start-up support

VCM driver

- 0.5A peak current drive capability
- Integrated power driver devices
- 14 Bit linear DAC for current command
- Ramp load/unload and emergency retract support

Other functions

- Integrated positive and negative switching regulators
- Shock detect circuitry
- 10-bit ADC
- POR or reset with integrated delay
- Free fall interface



Description

L7208 is available in an ultra-thin package and is optimized for 1.3 inch and sub-1.8 inch consumer equipment drives.

The spindle motor driver subsystem integrates all power FETs driven by ST's Smooth Drive® commutation technology.

The voice coil driver block includes the power FETs, emergency retract function as well as ramp load and unload capability.

Positive and negative regulators are integrated together with provision for shock sensing and free-fall detection.

Extremely low power consumption, in all modes of operation, is achieved by an optimized chip partitioning enabling extended battery life in consumer applications.

L7208 embeds a serial interface with a maximum speed of 50 MHz.

Order code

Part number	Package	Packing
L7208	UFLGA	Tray

Revision history L7208

1 Revision history

Table 1. Document revision history

Date	Revision	Changes
21-Sep-2006	1	Initial release.

Obsolete Product(s). Obsolete Product(s)

2/3

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.

© 2006 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

