



STEVAL-MKI035V1

MEMS analog output demonstration board for the LPR530AL, $\pm 300^\circ/\text{s}$ and $\pm 1200^\circ/\text{s}$, dual-axis pitch and roll gyroscope

Data brief

Features

- Two working modes:
 - analog working mode (AWM)
 - digital working mode (DWM)
- RoHS compliant

Description

The STEVAL-MKI035V1 is a demonstration kit designed to provide the user with a complete, ready-to-use platform for demonstration of the LPR530AL dual-axis pitch and roll $\pm 300^\circ/\text{s}$ analog gyroscope.

The device includes a sensing element and an IC interface capable of translating information from the sensing element into a measured signal that can be used for external applications.

In addition to the MEMS sensor, the demonstration board utilizes an ST72651AR6 USB microcontroller which functions as a bridge between the sensor and the PC, on which it is possible to use the graphical user interface (GUI) available for download from the STMicroelectronics web site, or dedicated software routines for customized applications.

The STEVAL-MKI035V1 demonstration board is designed to function in two different working modes: analog working mode and digital working mode.

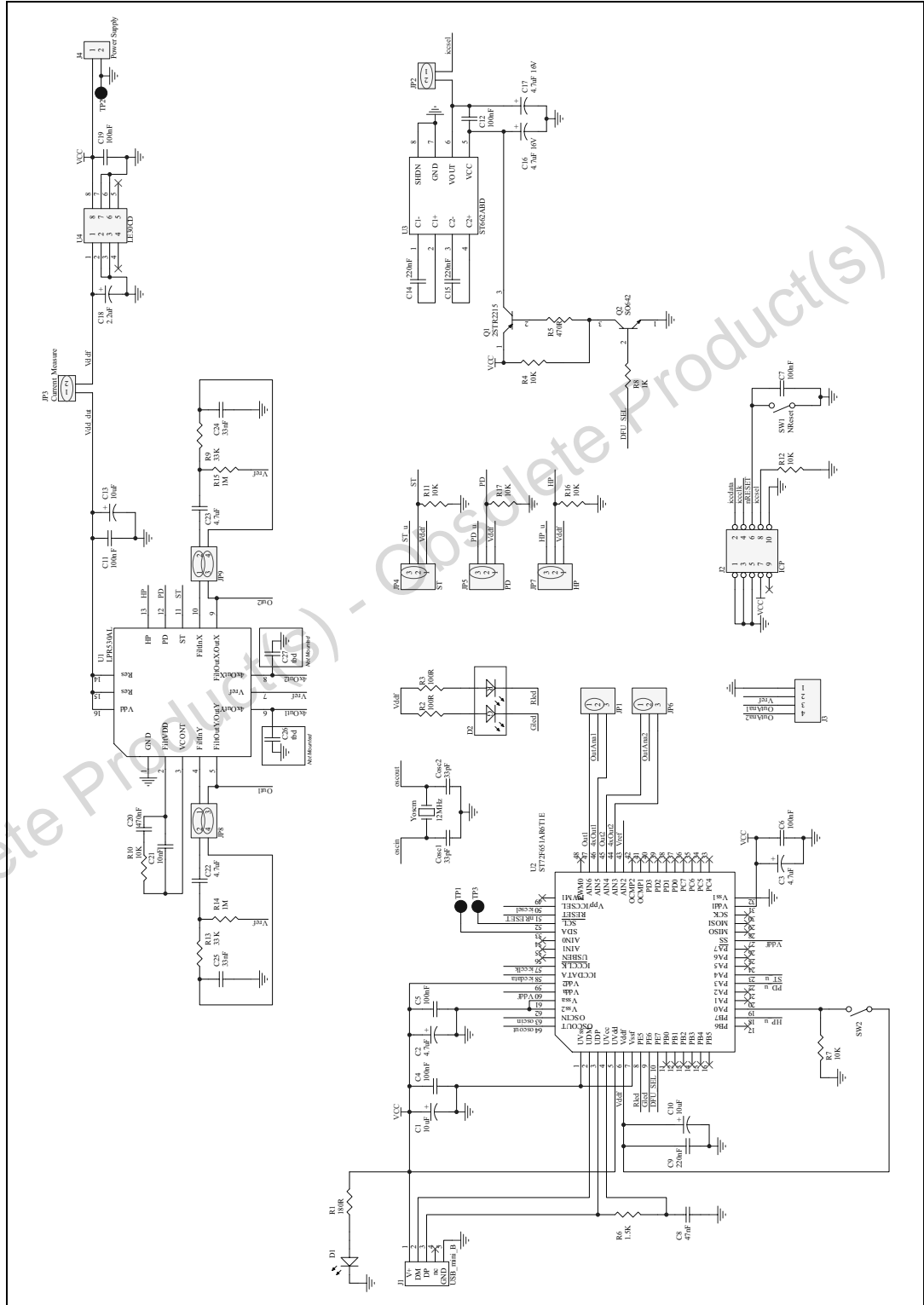
In the analog working mode (AWM), the microcontroller is disabled and the analog outputs of the device are available to the user on a dedicated connector. This is the default working mode when power supply is applied either through the USB connector or through the supply connector.

In digital working mode (DWM): the microcontroller is enabled and allows the user to digitally acquire the output signals of the device, to view them on the PC through the dedicated GUI and to manage the control pins of the device.



1 Schematic diagram

Figure 1. STEVAL-MKI035V1 schematic diagram



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
11-Nov-2009	1	Initial release.

Obsolete Product(s) - Obsolete Product(s)

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.

© 2009 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 - Philippines - Singapore - Spain - Sweden - Switzerland - United Kingdom - United States of America

www.st.com