

## Excellent Integrated System Limited

Stocking Distributor

Click to view price, real time Inventory, Delivery & Lifecycle Information:

[STMicroelectronics](#)  
[STEVAL-MKI020V1](#)

For any questions, you can email us directly:

[sales@integrated-circuit.com](mailto:sales@integrated-circuit.com)



## **UM0532** **User manual**

---

### **STEVAL-MKI020V1** **adapter board for the LIS302SG**

---

#### **Introduction**

The STEVAL-MKI020V1 is an adapter board designed to facilitate the evaluation of the LIS302SG three-axis analog output linear accelerometer. The board offers an effective solution for fast system prototyping and device evaluation directly within the user's own application.

The STEVAL-MKI020V1 can be plugged into a standard DIL 24 socket. The adapter provides the complete LIS302SG pinout and comes ready-to-use with the required decoupling capacitors on the Vdd power supply line.

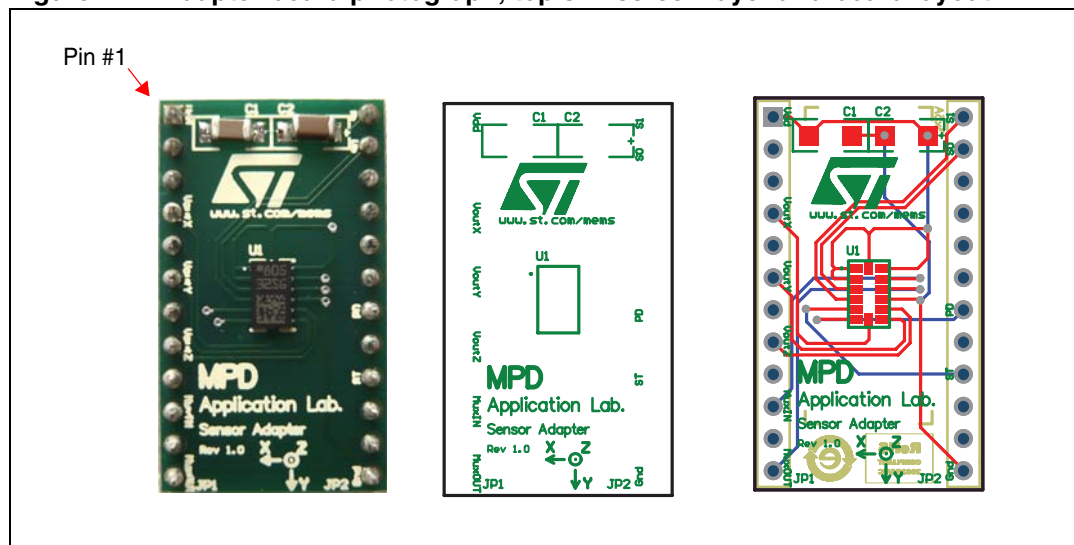
The pinout of the adapter is fully compatible with all other available adapter boards, making it possible to switch from one sensor to another easily during device evaluation without the need for board redesign.

This user manual provides information on the STEVAL-MKI020V1 only. For details regarding the LIS302SG specifications, please refer to the datasheet for the device.

## 1 Adapter board layout and pin description

A photograph of the adapter board is shown in [Figure 1](#), together with an illustration of the top silk-screen layer and the board layout.

**Figure 1. Adapter board photograph, top silk-screen layer and board layout**



In addition to the MEMS sensor, the adapter board includes two filtering capacitors (10  $\mu$ F and 100 nF, respectively) on the analog Vdd power supply line.

The pin description of the STEVAL-MKI020V1 is provided in [Table 1](#).

**Table 1. STEVAL-MKI020V1 pin description**

Adapter board pin #	Pin name	Function
1	Vdd	Power supply
2-3, 5, 7, 9-12, 14-15, 17-24	NC	Not connected
4	Voutx	Output voltage X channel
6	Vouty	Output voltage Y channel
8	Voutz	Output voltage Z channel
13	GND	0V supply
16	ST	Self-test (logic 0: normal mode; logic 1: self-test)
18	PD	Power-down (logic 0: normal mode; logic 1: self-test)

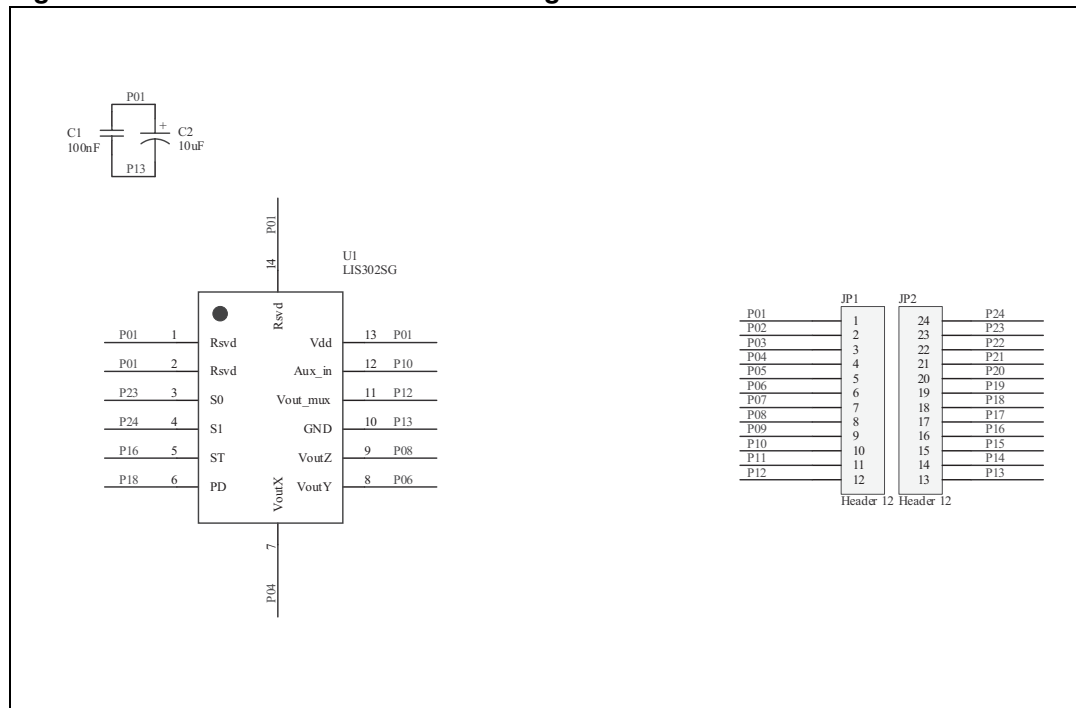
For additional information regarding the use of the STEVAL-MKI020V1 3-axis accelerometer, please refer to the device datasheet.

UM0532

Schematic and connection diagram

## 2 Schematic and connection diagram

**Figure 2. Schematic and connection diagram for the STEVAL-MKI020V1**



### 3 Revision history

**Table 2. Document revision history**

Date	Revision	Changes
24-June-2008	1	Initial release.

**UM0532**

---

**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](http://www.st.com)