

UM0531 User manual

STEVAL-MKI015V1 adapter board for the LIS344ALH

Introduction

The STEVAL-MKI015V1is an adapter board designed to facilitate the evaluation of the LIS344ALH 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-MKI015V1 can be plugged into a standard DIL 24 socket. The adapter provides the complete LIS344ALH 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.

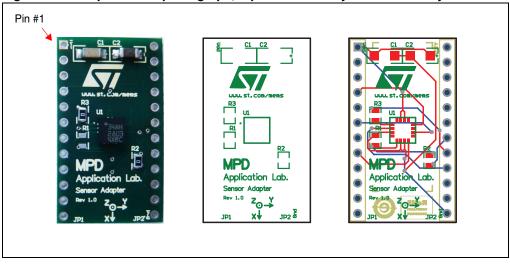
This user manual provides information on the STEVAL-MKI015V1 only. For details regarding the LIS344ALH specifications, please refer to the datasheet for the device.

October 2008 Rev 2 1/5

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 μ F and 100 nF, respectively) on the analog Vdd power supply line.

The pin description of the STEVAL-MKI015V1 is provided in *Table 1*.

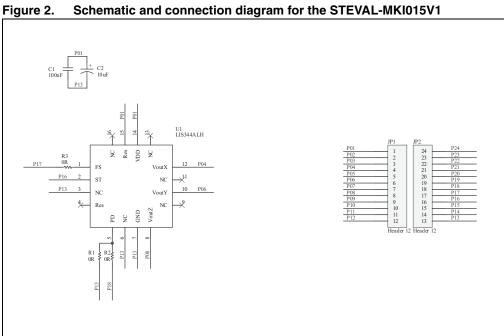
Table 1. STEVAL-MKI015V1 pin description

| 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) |
| 17 | FS | Full scale (logic 0: normal mode; logic 1: self-test) |
| 18 | PD | Power down (logic 0: normal mode; logic 1: self-test) |

For further details about the usage of the LIS344ALH 3-axis accelerometer, please refer to the device datasheet.

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2 Schematic and connection diagram



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Revision history UM0531

3 Revision history

Table 2. Document revision history

| Date | Revision | Changes | |
|-------------|----------|--------------------|--|
| 24-Jun-2008 | 1 | Initial release. | |
| 14-Oct-2008 | 2 | Changed: Figure 2. | |

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