



3D digital accelerometer sensor kit based on LIS25BA





Product summary 3D digital accelerometer STEVALsensor kit based on MKI211V1K LIS25BA LIS25BA - MEMS digital output motion sensor: low noise, high bandwith, 3-LIS25BA axis accelerometer with TDM interface ST MEMS adapter motherboard based on STEVAL-STM32F401VE MKI109V3 compatible ST MEMS adapters Internet of Application **Things**

Features

- · User friendly LIS25BA board
- Complete LIS25BA pinout for a standard DIL 24 socket
- Fully compatible with STEVAL-MKI109V3 motherboard
- Double-sided adhesives included for easy mounting on equipment to be measured
- RoHS compliant

Description

The STEVAL-MKI211V1K evaluation board has an embedded LIS25BA 3D accelerometer which is connected through flat cable to a simple adapter board (STEVAL-MKIGIBV3) to render it compatible with STEVAL-MKI109V3.

The sensor is soldered precisely in the center of the board and double-sided adhesives are provided to allow users to conveniently mount the board on equipment destined for vibration analysis. Alternatively, you can mount the board using the holes located in each corner of the PCB.

The STEVAL-MKIGIBV3 can be plugged into a standard DIL 24 socket. The kit provides the complete LIS25BA pin-out and comes ready-to-use with the required decoupling capacitors on the VDD power supply line.

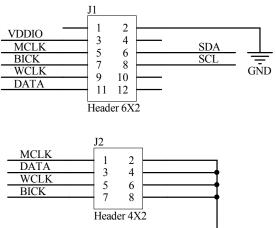
This adapter is supported by STEVAL-MKI109V3 motherboards with high performance 32-bit microcontroller functioning as a bridge between the sensor and a PC, on which it is possible to use the downloadable graphical user interface (Unico GUI), or dedicated software routines for customized applications.



1 Schematic diagrams

U1 13 LIS25BA E I2C_A0 GND GND SCL 11 SCL 2 SDA 10 <u>V</u>DDIO VDD SDA BICK TDM_BICK GND WCLK 8 TDM_WCLK VDD 100nF 1uF MCLK DATA $TDM_SDOUT_{\bigcirc}TDM_MCLK$ GNI 9

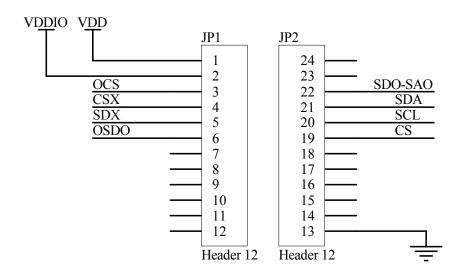
Figure 1. STEVAL-MKI211V1 circuit schematic

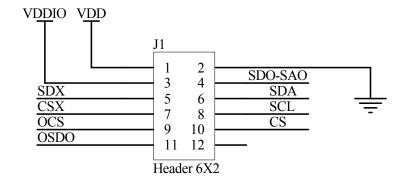


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Figure 2. STEVAL-MKIGIBV3 circuit schematic





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Revision history

Table 1. Document revision history

Date	Version	Changes
10-Dec-2019	1	Initial release.

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