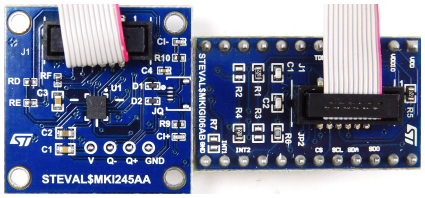
STEVAL-MKI245KA

Data brief

ISM330BX evaluation kit based on 6-axis IMU with wide bandwidth, low-noise accelerometer, embedded sensor fusion, and AI for industrial applications



Product summary	
ISM330BX evaluation kit based on 6-axis IMU with wide bandwidth, low-noise accelerometer, embedded sensor fusion, and AI for industrial applications	STEVAL-MKI245KA
6-axis IMU with wide bandwidth, low-noise accelerometer, embedded sensor fusion, and AI for industrial applications	ISM330BX
Professional MEMS tool: evaluation board for all ST MEMS sensors	STEVAL-MKI109D
Motion MEMS and microphone MEMS expansion board for STM32 Nucleo	X-NUCLEO-IKS02A1
Applications	Condition monitoring

Features

- User-friendly ISM330BX board
- Complete ISM330BX pinout for a standard DIL24 socket
- Fully compatible with the STEVAL-MKI109D evaluation platform
- RoHS compliant

Description

The STEVAL-MKI245KA demonstration board is a kit consisting of a specific PCB, mounting the ISM330BX 6-axis IMU, which is connected through a flat cable to a generic adapter board (STEVAL-MKIGI06A) to make it compatible with the STEVAL-MKI109D. The sensor is soldered precisely in the center of the square PCB to conveniently mount the board, using double-sided adhesives, on the equipment that is used for measurement and analysis. Alternatively, you can mount the board using the holes located in each corner of the PCB.

The STEVAL-MKIGI06A can be plugged into a standard DIL24 socket. The kit provides the complete ISM330BX pinout and comes ready to use with the required decoupling capacitors on the VDD and VDDIO power supply lines.

This adapter is supported by the STEVAL-MKI109D evaluation platform, which includes a high-performance 32-bit microcontroller functioning as a bridge between the sensor and a PC, on which it is possible to use the downloadable MEMS Studio graphical user interface or dedicated software routines for customized applications.

It is also possible to plug the kit into the X-NUCLEO-IKS02A1 and STEVAL-STWINBX1 (STWIN.box).

1 Schematic diagrams

Figure 1. STEVAL-MKIGI06A circuit schematic

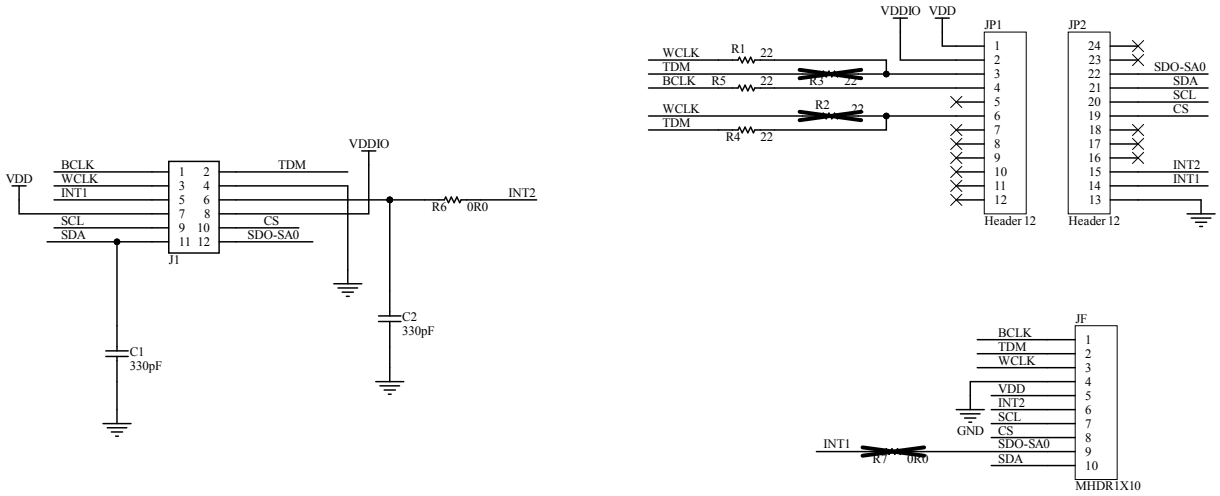
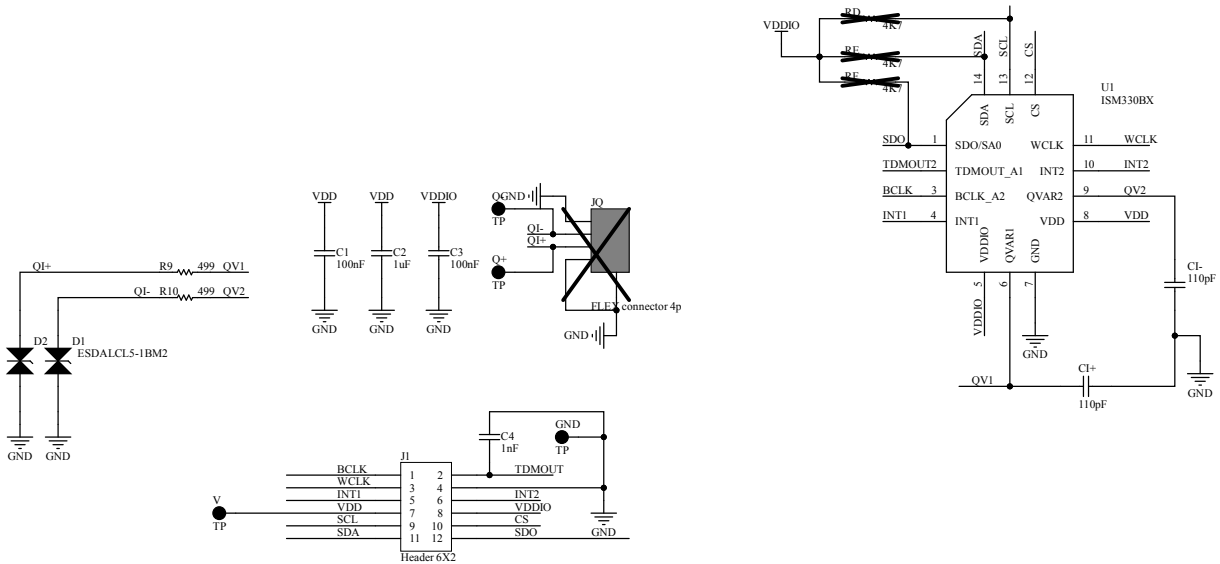


Figure 2. STEVAL-MKI245A circuit schematic



2 Kit versions

Table 1. STEVAL-MKI245KA versions

PCB version	Schematic diagrams	Bill of materials
STEVAL$MKI245KAA(1)	STEVAL$MKI245KAA schematic diagrams	STEVAL$MKI245KAA bill of materials

1. *This code identifies the first version of the STEVAL-MKI245KA evaluation kit. The kit consists of STEVAL-MKI245A whose version is identified by the code STEVAL$MKI245AA and STEVAL-MKIGI06A whose version is identified by the code STEVAL$MKIGI06AB.*

Revision history

Table 2. **Document revision history**

Date	Revision	Changes
03-Apr-2024	1	Initial release
12-Jul-2024	2	Updated title, product summary and description
25-Aug-2025	3	Added STEVAL-MKI109D evaluation platform and STEVAL-STWINBX1 (STWIN.box)

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