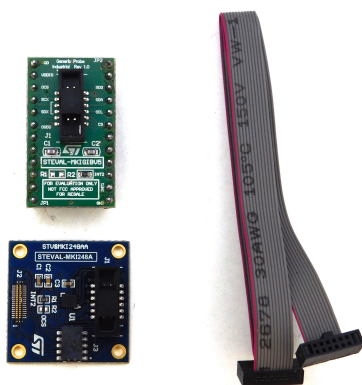


## ISM6HG256X evaluation kit, based on an intelligent IMU with simultaneous low-g and high-g acceleration detection



### Features

- User-friendly ISM6HG256X board
- Complete ISM6HG256X pinout for a standard DIL 24 socket
- Fully compatible with the STEVAL-MKI109D evaluation platform
- RoHS compliant

### Description

STEVAL-MKI248KA is an adapter kit designed to facilitate the evaluation of the ISM6HG256X 6-axis inertial measurement unit (IMU).

The kit is composed by a generic DIL24 adapter board (STEVAL-MKIGIBV5), a flat cable, and a square PCB mounting the ISM6HG256X 6-axis IMU. This square PCB ensures that the sensor board put on the system is measured.

The sensor is soldered precisely in the center of the square PCB to conveniently mount the board on the equipment, which is used for the analysis through double-sided adhesives. Alternatively, you can mount the board using the holes located in each corner of the PCB.

STEVAL-MKIGIBV5 can be plugged into a standard DIL-24 socket. The kit provides the complete ISM6HG256X pinout, and it comes ready-to-use with the required decoupling capacitors on the VDD power supply line.

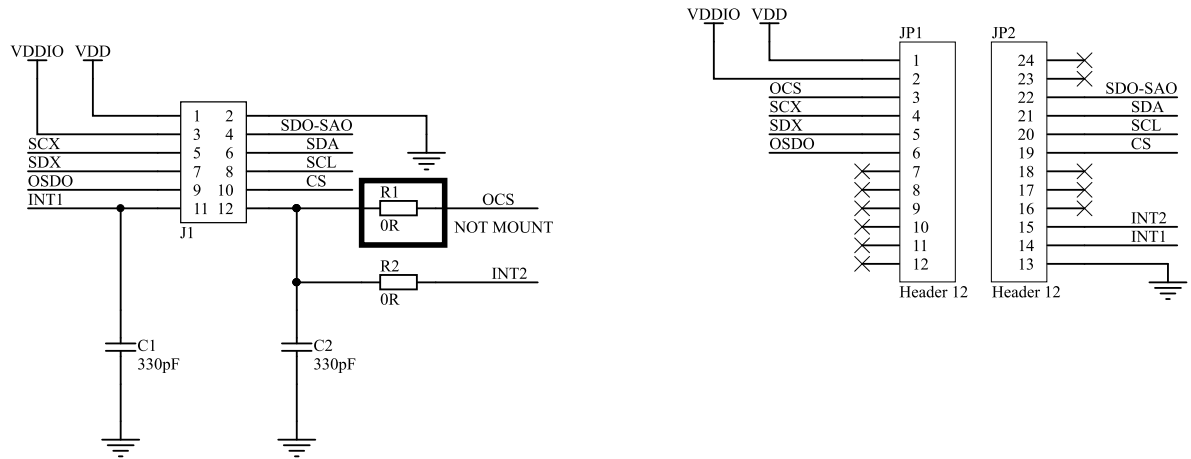
The kit is supported by the STEVAL-MKI109D evaluation platform, which includes a high-performance 32-bit microcontroller. It functions as a bridge between the sensor and a PC, on which it is possible to use the downloadable MEMS Studio graphical user interface, or dedicated software routines for customized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

It is also possible to plug the kit on X-NUCLEO-IKS02A1 or STEVAL-STWINBX1 using an ad hoc connector mounted on the STEVAL-MKI248KA board.

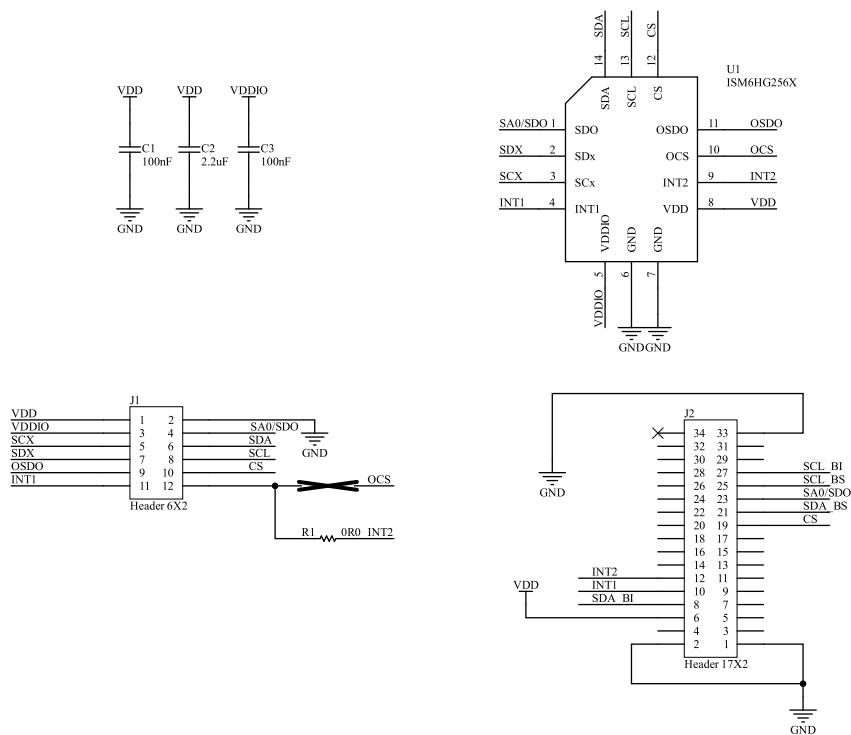
| Product summary                                                                                                  |                  |
|------------------------------------------------------------------------------------------------------------------|------------------|
| ISM6HG256X evaluation kit, based on an intelligent IMU with simultaneous low-g and high-g acceleration detection | STEVAL-MKI248KA  |
| Generic DIL24 adapter board                                                                                      | STEVAL-MKIGIBV5  |
| Intelligent IMU (inertial measurement unit) with simultaneous low-g and high-g acceleration detection            | ISM6HG256XTR     |
| Professional MEMS tool: evaluation board for all ST MEMS sensors                                                 | STEVAL-MKI109D   |
| Motion MEMS and environmental sensor expansion board for STM32 Nucleo                                            | X-NUCLEO-IKS02A1 |
| SensorTile Wireless Industrial Node Development Kit                                                              | STEVAL-STWINBX1  |
| Application                                                                                                      | Asset tracking   |

# 1 Schematic diagrams

**Figure 1. STEVAL-MKIGIBV5 circuit schematic**



**Figure 2. STEVAL-MKI248AA circuit schematic**



## Revision history

**Table 1. Document revision history**

| Date        | Revision | Changes          |
|-------------|----------|------------------|
| 04-Sep-2025 | 1        | Initial release. |

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