

Data brief

IMU (inertial measurement unit) kit for industrial applications based on ISM330DHCX



Product summary	
IMU (inertial measurement unit) kit for industrial applications based on ISM330DHCX	STEVAL- MKI210V2K
IMU (inertial measurement unit) with machine learning core and finite state machine with digital output for industrial applications	ISM330DHCX
Professional MEMS tool: evaluation board for all ST MEMS sensors	STEVAL- MKI109D
Applications	Industrial sensors

Features

- User-friendly ISM330DHCX board
- Complete ISM330DHCX pinout for a standard DIL24 socket
- Double-sided adhesives included for easy mounting on equipment to be measured
- Fully compatible with the STEVAL-MKI109D evaluation platform
- RoHS compliant

Description

The STEVAL-MKI210V2K evaluation kit includes the STEVAL-MKI210V2 main board and the STEVAL-MKIGIBV5 adapter board. The main board embeds the ISM330DHCX 3-axis accelerometer and 3-axis gyroscope sensor and is connected to the adapter board through a flat cable to render it compatible with the STEVAL-MKI109D evaluation platform.

The kit provides the complete ISM330DHCX pinout and comes ready to use with the required decoupling capacitors on the V_{DD} power supply line.

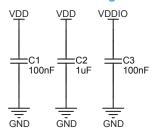
The ISM330DHCX sensor is soldered precisely in the center of the board and double-sided adhesives are provided to allow users to conveniently mount the board on their equipment.

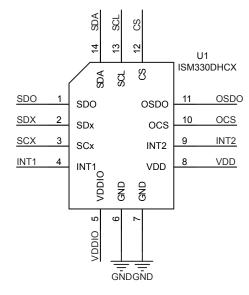
The STEVAL-MKIGIBV5 can be plugged into a standard DIL24 socket. This adapter is supported by the STEVAL-MKI109D evaluation platform with a high-performance 32-bit microcontroller functioning as a bridge between the sensor and a PC, on which it is possible to use the downloadable MEMS Studio graphical user interface or dedicated software routines for customized applications.



Schematic diagrams

Figure 1. STEVAL-MKI210V2 circuit schematic





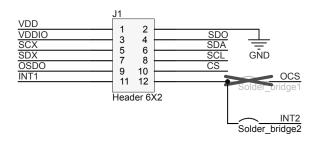
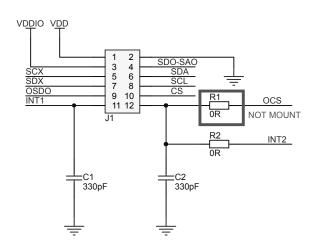
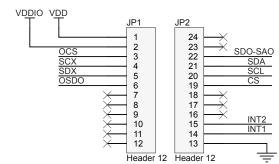


Figure 2. STEVAL-MKIGIBV5 circuit schematic





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Revision history

Table 1. Document revision history

Date	Revision	Changes
27-Jul-2021	1	Initial release
05-Sep-2025	2	Added the STEVAL-MKI109D evaluation platform and MEMS Studio software solution

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