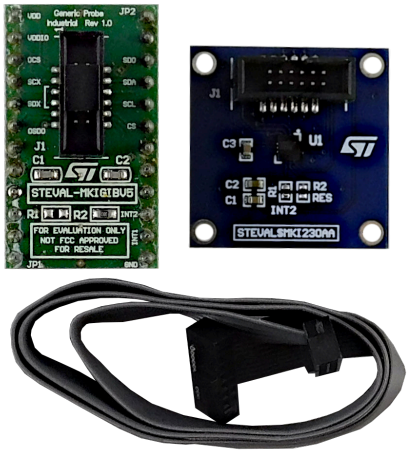
STEVAL-MKI230KA

Data brief

Evaluation kit for 6-axis ISM330IS IMU (inertial measurement unit) with ISPU (intelligent sensor processing unit)



Features

- User-friendly ISM330IS board
- Complete ISM330IS pinout for standard DIL24 sockets
- Fully compatible with the STEVAL-MKI109V3 motherboard
- RoHS compliant

Description

The STEVAL-MKI230KA evaluation kit consists of the STEVAL-MKI230A main sensing board, with a square PCB, which mounts the ISM330IS 3-axis accelerometer and 3-axis gyroscope with embedded ISPU, the STEVAL-MKIGIBV5 adapter board, and a flat cable. The main board is connected to the adapter board through the flat cable.

The presence of the square PCB allows placing the sensor directly in the system where the measurement should be performed, which could be in a different position from the main board. The ISM330IS is soldered exactly in the center of the board and can be plugged into standard DIL24 sockets through the STEVAL-MKIGIBV5 adapter board.

The kit provides the complete ISM330IS pinout and comes ready-to-use with the required decoupling capacitors on the VDD power supply line.

This adapter is also supported by the STEVAL-MKI109V3 motherboard, 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.

Product summary	
Evaluation kit for 6-axis ISM330IS IMU (inertial measurement unit) with ISPU (intelligent sensor processing unit)	STEVAL-MKI230KA
6-axis IMU (inertial measurement unit): always-on 3-axis accelerometer and 3-axis gyroscope with ISPU - intelligent sensor processing unit	ISM330IS
Software solution for MEMS sensors with graphical no-code design of algorithms and development of embedded AI features	MEMS Studio
MEMS adapter motherboard based on the STM32F401VE	STEVAL-MKI109V3
Motion MEMS and microphone MEMS expansion board for STM32 Nucleo	X-NUCLEO-IKS02A1
Applications	Asset tracking

1 Schematic diagrams

Figure 1. STEVAL-MKIGIBV5 circuit schematic

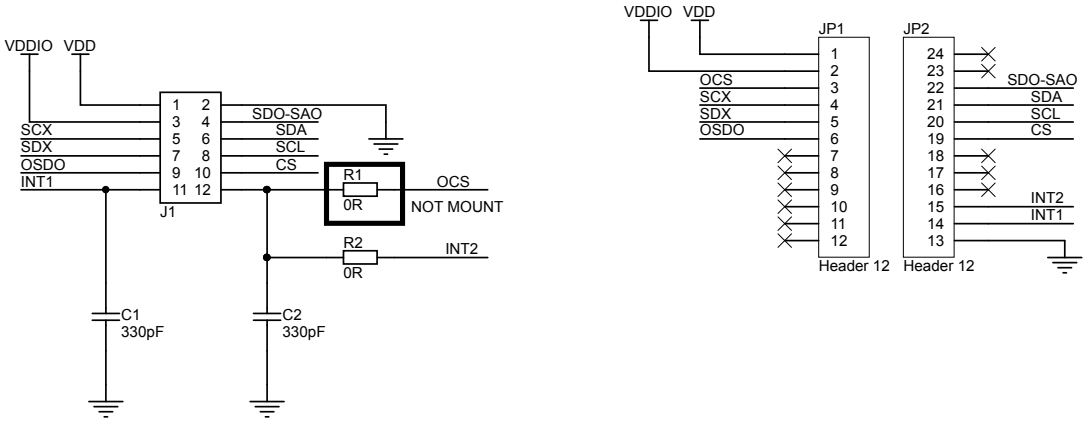
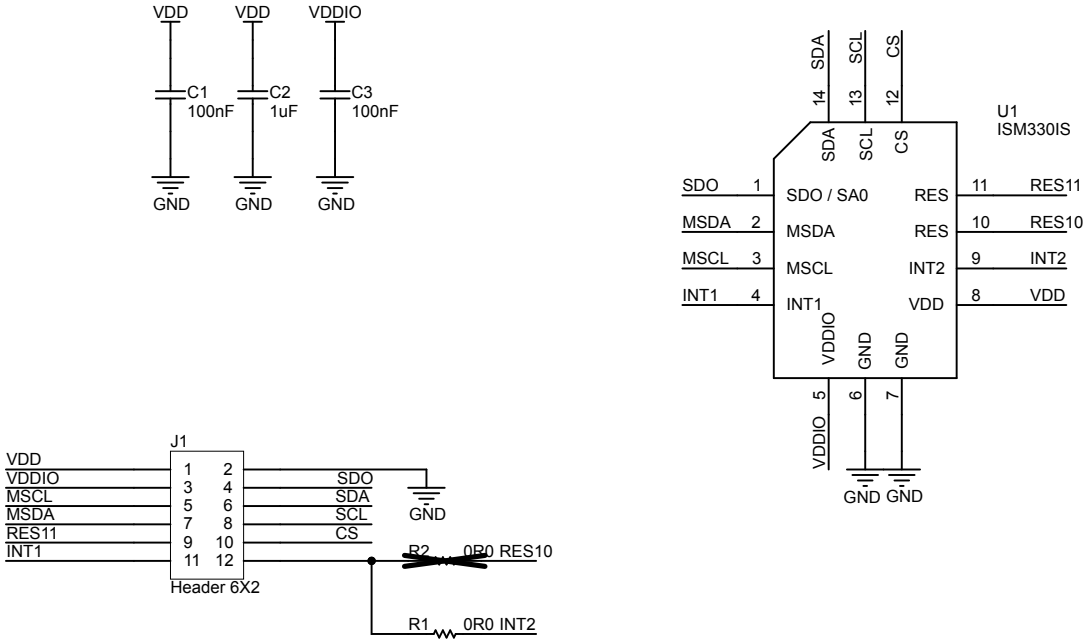


Figure 2. STEVAL-MKI230A circuit schematic



2 Kit versions

Table 1. STEVAL-MKI230KA kit versions

Finished good	Schematic diagrams	Bill of materials
STEVAL$MKI230KAA(1)	STEVAL$MKI230KAA schematic diagrams	STEVAL$MKI230KAA bill of materials

1. *This code identifies the first version of the STEVAL-MKI230KA evaluation kit. The kit consists of STEVAL-MKI230AA whose version is identified by the code STEVAL$MKI230AAA and STEVAL-MKIGIBV5 whose version is identified by the code STEVAL$MKIGIBV5A.*

Revision history

Table 2. **Document revision history**

Date	Revision	Changes
30-Mar-2022	1	Initial release
26-Aug-2024	2	Updated Description to include MEMS Studio software solution Updated product summary Updated title, minor textual updates

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