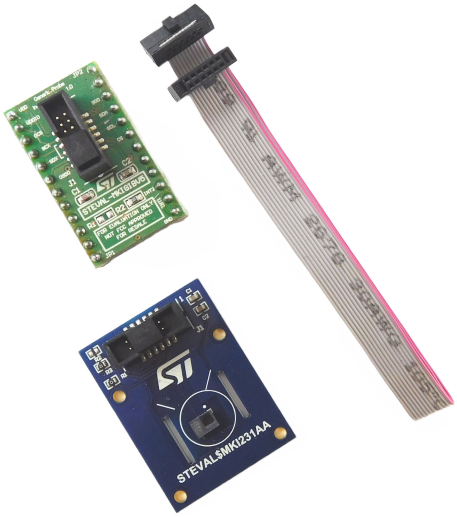
STEVAL-MKI231KA

Data brief

Evaluation kit composed of the STHS34PF80 industrial board and a standard DIL24 adapter



Features

- User-friendly STHS34PF80 board
- Complete STHS34PF80 pinout for a standard DIL24 socket
- Fully compatible with the STEVAL-MKI109D evaluation platform
- RoHS compliant

Description

The STEVAL-MKI231KA demonstration board is a kit consisting of a specific PCB, mounting the STHS34PF80 low-power, high-sensitivity infrared sensor for presence and motion detection, which is connected through a flat cable to a generic adapter board (STEVAL-MKIGIBV5) to make it compatible with the STEVAL-MKI109D. A plastic holder with a Fresnel lens (TMOS63-10) has been provided in the kit for better performance of the device in terms of data acquisition for some applications.

The STEVAL-MKIGIBV5 can be plugged into a standard DIL24 socket. The kit provides the complete STHS34PF80 pinout and comes ready to use with the required decoupling capacitors on the VDD power supply line.

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 board into X-NUCLEO-IKS02A1 or X-NUCLEO-IKS4A1. The kit is included in an X-CUBE-MEMS1 expansion software package for STM32.

Product summary	
Evaluation kit composed of STHS34PF80 industrial board and standard DIL24 adapter	STEVAL-MKI231KA
Low-power, high-sensitivity infrared (IR) sensor for presence and motion detection	STHS34PF80
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/X-NUCLEO-IKS4A1
Sensor and motion algorithm software expansion for STM32Cube	X-CUBE-MEMS1
Applications	Presence sensing

1 Schematic diagrams

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

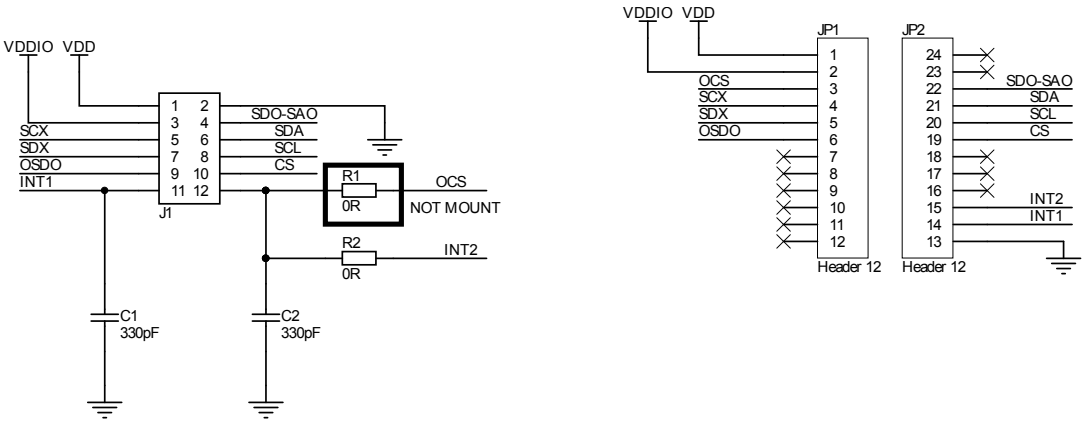
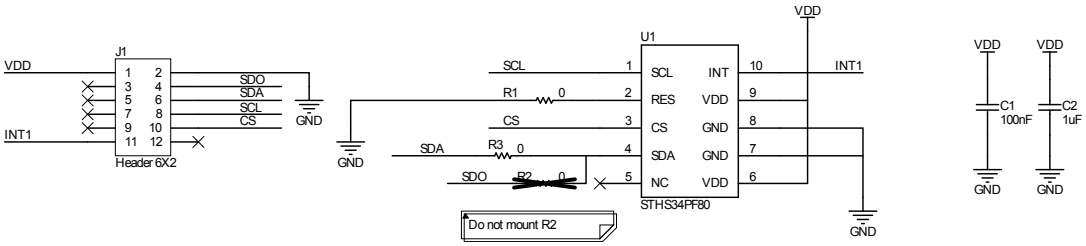


Figure 2. **STEVAL-MKI231A circuit schematic**



2 Kit versions

Table 1. STEVAL-MKI231KA kit versions

Finished good	Schematic diagrams	Bill of materials
STEVAL$MKI231KAA(1)	STEVAL$MKI231KAA schematic diagrams	STEVAL$MKI231KAA bill of materials

1. *This code identifies the first version of the STEVAL-MKI231KA evaluation kit. The kit consists of the STEVAL-MKI231A whose version is identified by the code STEVAL$MKI231AA and the STEVAL-MKIGIBV5 whose version is identified by the code STEVAL$MKIGIBV5A*

Revision history

Table 2. **Document revision history**

Date	Revision	Changes
15-Jun-2023	1	Initial release
06-Oct-2023	2	Updated Description and Product summary
07-Dec-2023	3	Added references to X-NUCLEO-IKS4A1. Updated Description and Product summary.
13-Jun-2024	4	Updated Description to include MEMS Studio software solution Minor textual updates
05-Jun-2025	5	Added STEVAL-MKI109D evaluation platform