

LIS2DUXS12 adapter kit for a standard DIL24 socket with Qvar functionality



Features

- User-friendly LIS2DUXS12 board
- Complete LIS2DUXS12 pinout for a standard DIL24 socket
- Fully compatible with the STEVAL-MKI109V3 motherboard
- RoHS compliant

Description

The STEVAL-MKI235KA evaluation kit is based on the LIS2DUXS12 smart accelerometer with a Qvar electrostatic sensor and three different electrodes (swipe, finger, and generic) to make it compatible with the STEVAL-MKI109V3. The kit provides the complete LIS2DUXS12 pinout and comes ready-to-use with the required decoupling capacitors on the VDD power supply line. The STEVAL-MKE00xAA can be plugged into the STEVAL-MKI235A board.

This adapter is supported by the STEVAL-MKI109V3 motherboard, which includes a high-performance 32-bit microcontroller functioning as a bridge between the sensor and a PC.

It is also possible to plug the STEVAL-MKI235A board into an X-NUCLEO-IKS01A3 expansion board.

MEMS-Studio is a complete software solution for the evaluation and programming of all MEMS sensors and it is available for [Linux](#), [macOS](#), and [Windows](#) operating systems.

You can also use the downloadable graphical user interface (**Unico-GUI**) or dedicated software routines for customized applications.

Product summary	
LIS2DUXS12 adapter kit for standard DIL24 socket with Qvar functionalities	STEVAL-MKI235KA
Ultralow-power 3-axis smart accelerometer with Qvar, AI, antialiasing filter, and advanced digital features	LIS2DUXS12
MEMS adapter motherboard based on the STM32F401VE	STEVAL-MKI109V3
Motion MEMS and microphone MEMS expansion board for STM32 Nucleo	X-NUCLEO-IKS01A3
Applications	Smart glasses (AR)

Figure 1. STEVAL-MKE001A circuit schematic

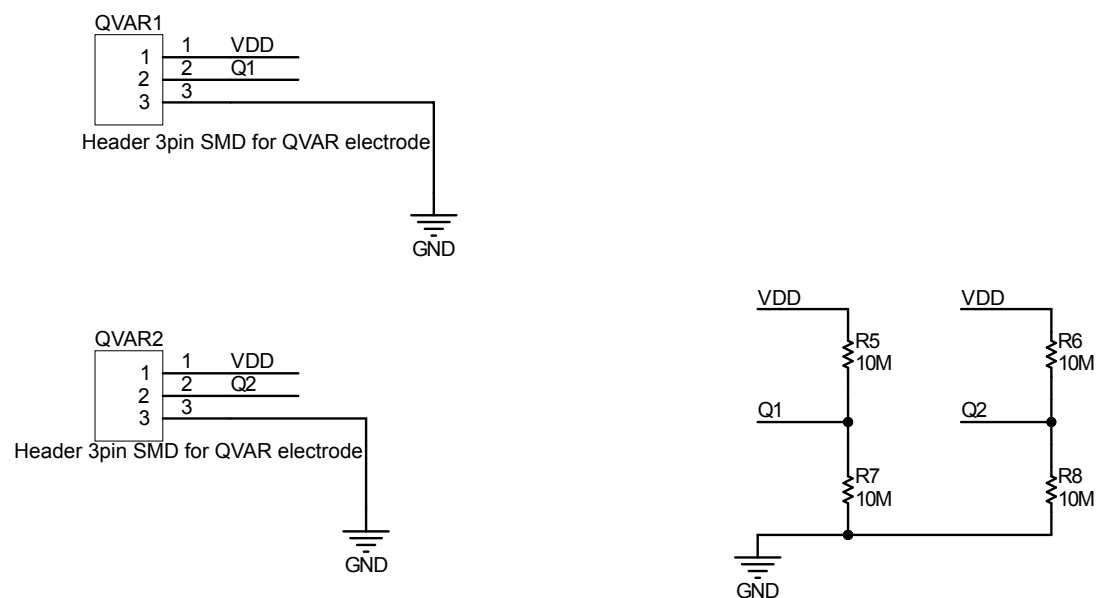


Figure 2. STEVAL-MKE002A circuit schematic

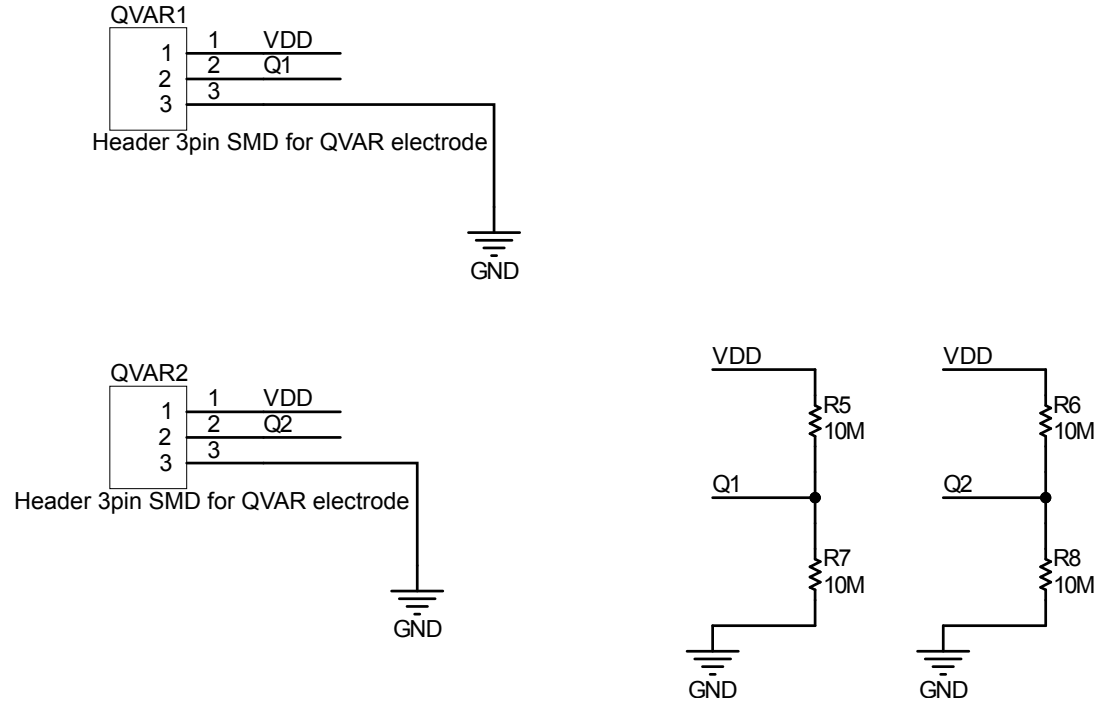


Figure 3. STEVAL-MKE003A circuit schematic

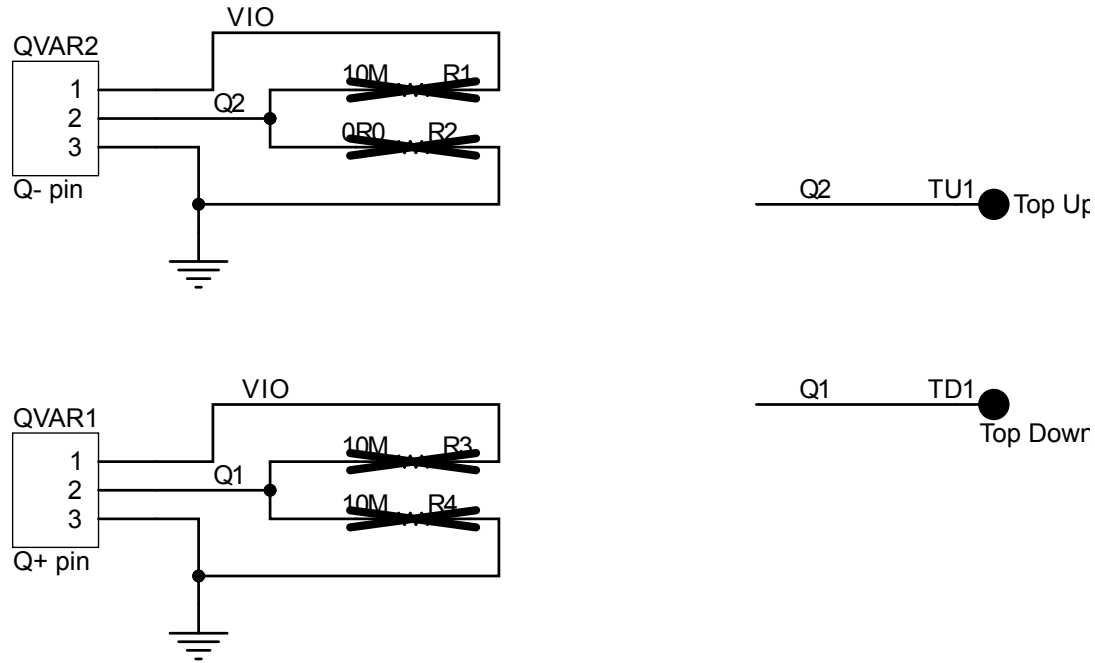
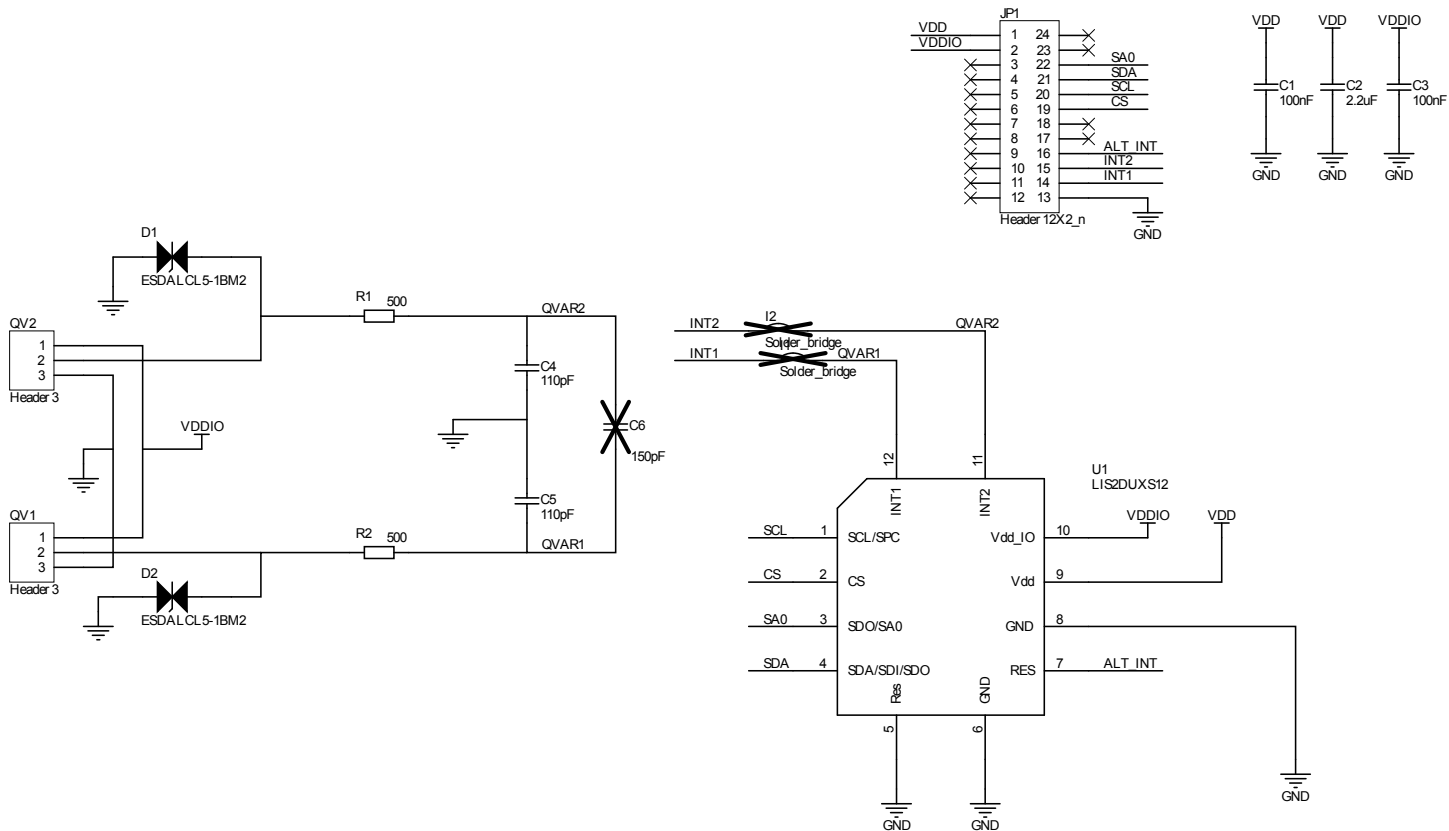


Figure 4. STEVAL-MKI235A circuit schematic



2 Kit versions

Table 1. STEVAL-MKI235KA versions

PCB version	Schematic diagrams	Bill of materials
STEVAL\$MKI235KAA ⁽¹⁾	STEVAL\$MKI235KAA schematic diagrams	STEVAL\$MKI235KAA bill of materials

1. This code identifies the STEVAL-MKI235KA evaluation kit first version. The kit consists of a STEVAL-MKI235A whose version is identified by the code STEVAL\$MKI235AA, a STEVAL-MKE001A whose version is identified by the code STEVAL\$MKE001AA, a STEVAL-MKE002A whose version is identified by the code STEVAL\$MKE002AA and a STEVAL-MKE003A whose version is identified by the code STEVAL\$MKE003AA.

Revision history

Table 2. Document revision history

Date	Revision	Changes
17-Jan-2023	1	Initial release
13-Jun-2024	2	Updated Description to include MEMS-Studio software solution Minor textual updates

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