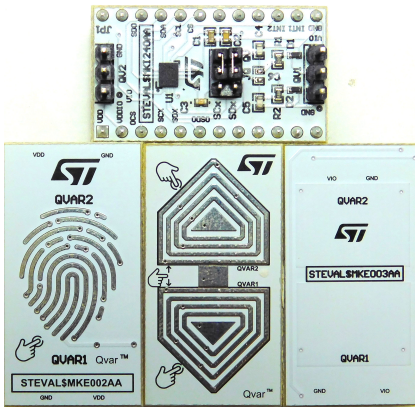


LSM6DSV32X adapter kit for standard DIL24 socket with Qvar functionalities



Features

- User friendly LSM6DSV32X board
- Complete LSM6DSV32X pinout for a standard DIL24 socket
- Fully compatible with the STEVAL-MKI109V3 motherboard
- Qvar electrodes
- RoHS compliant

Description

The STEVAL-MKI240KA evaluation kit is based on the LSM6DSV32X inertial module 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 LSM6DSV32X pinout and comes ready-to-use with the required decoupling capacitors on the VDD power supply line.

The STEVAL-MKE00xA can be plugged into the STEVAL-MKI240KA board.

This adapter is supported by the STEVAL-MKI109V3 mother board, 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 graphical user interfaces (like Unico-GUI or MEMS Studio), or dedicated software routines for customized applications.

It is also possible to plug the board into X-NUCLEO expansion boards like X-NUCLEO-IKS4A1.

Product summary	
6-axis inertial measurement unit for UI kit with QVAR functionality based on LSM6DSV32X	STEVAL-MKI240KA
6-axis inertial measurement unit (IMU) and AI sensor with 32 g accelerometer and embedded sensor fusion, QVAR for high-end applications	LSM6DSV32X
ST MEMS adapters motherboard based on the STM32F401VE	STEVAL-MKI109V3
Motion MEMS and environmental sensor expansion board for STM32 Nucleo	X-NUCLEO-IKS4A1
Qvar sensing	Qvar
Applications	Augmented reality (AR)

1 Schematic diagrams

Figure 1. STEVAL-MKE001A circuit schematic

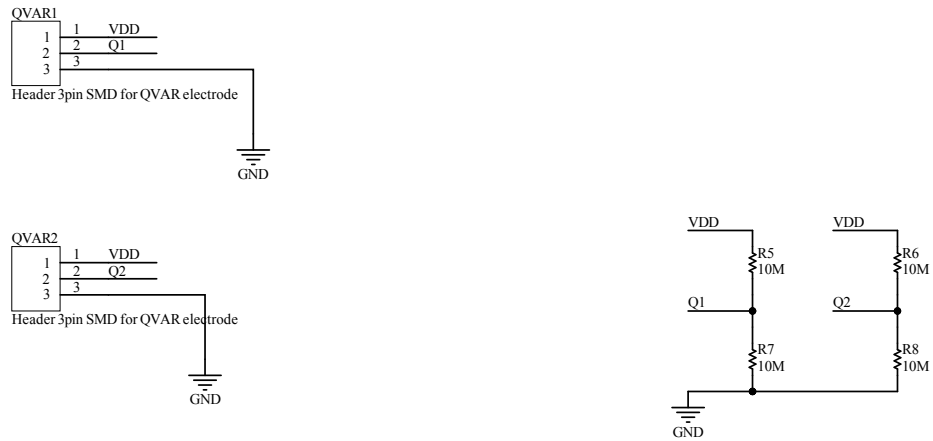


Figure 2. STEVAL-MKE002A circuit schematic

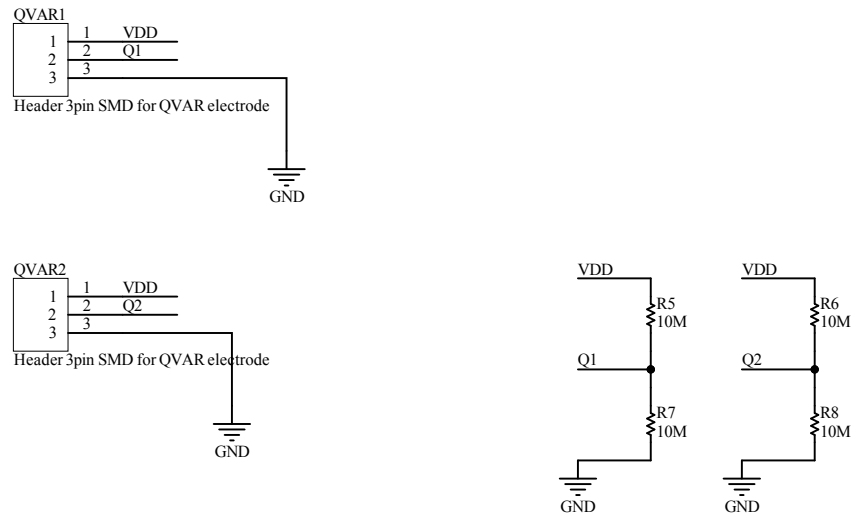


Figure 3. STEVAL-MKE003A circuit schematic

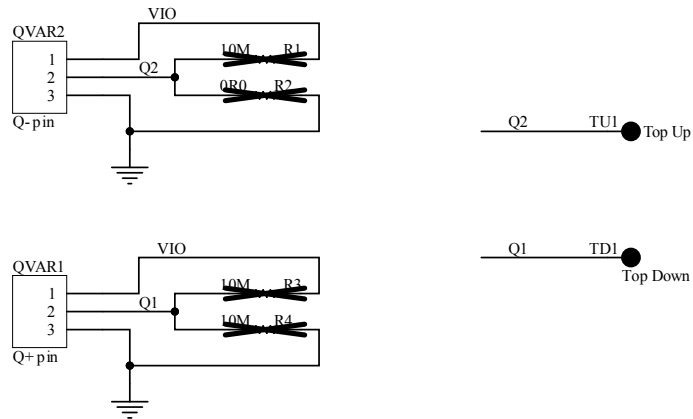
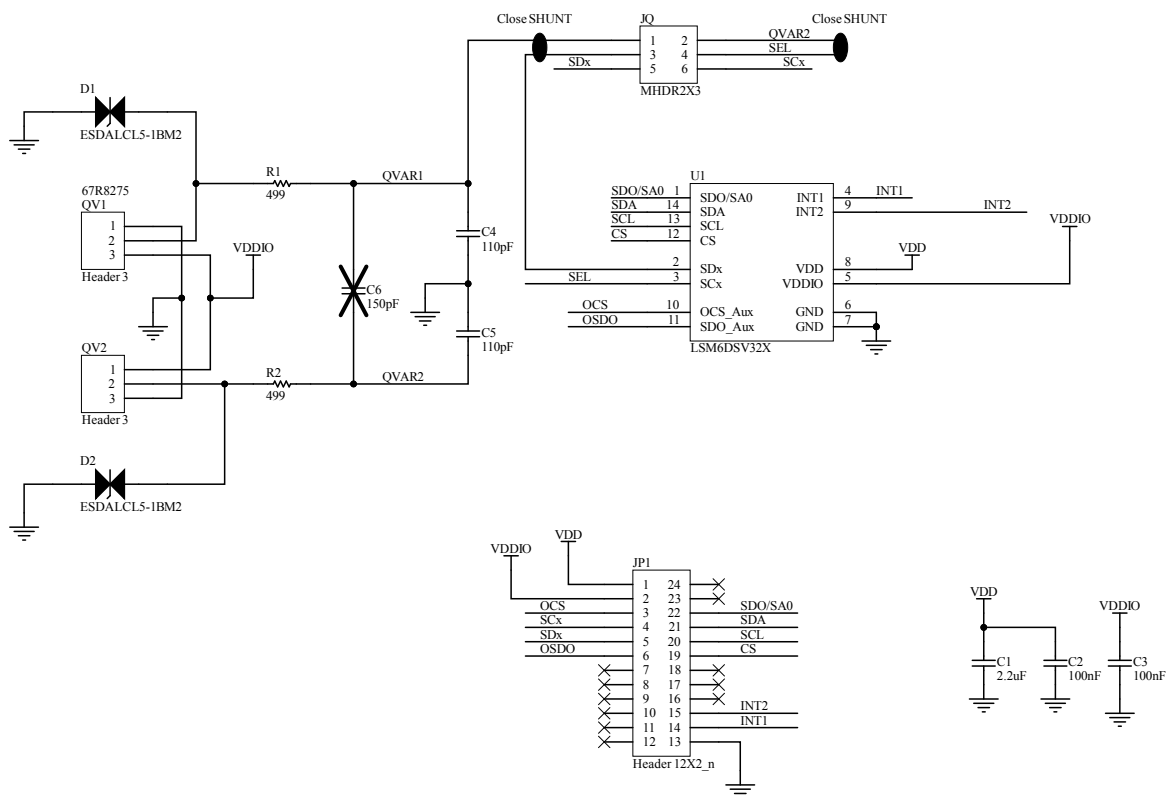


Figure 4. STEVAL-MKI240A circuit schematic



2 Kit versions

Table 1. STEVAL-MKI240KA versions

PCB version	Schematic diagrams	Bill of materials
STEVAL\$MKI240KAA ⁽¹⁾	STEVAL\$MKI240KAA schematic diagrams	STEVAL\$MKI240KAA bill of materials

- This code identifies the STEVAL-MKI240KA evaluation kit first version. The kit consists of a STEVAL-MKI240A whose version is identified by the code STEVAL\$MKI240AA, 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
05-Mar-2024	1	Initial release.

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