

3-axis accelerometer and 3-axis gyroscope kit with QVAR functionality based on LSM6DSV16X



Features

- User friendly LSM6DSV16X board
- Complete LSM6DSV16X pinout for a standard DIL 24 socket
- Fully compatible with the STEVAL-MKI109V3 motherboard
- RoHS compliant

Description

The STEVAL-MKI227KA evaluation kit is based on the LSM6DSV16X inertial module with a Qvar electrostatic sensor and three different electrodes (swipe finger and generic) to make it compatible with the STEVAL-MKI109V3.

It is possible to configure the LSM6DSV16X by changing the position of the jumper.

The kit provides the complete LSM6DSV16X pinout and comes ready-to-use with the required decoupling capacitors on the VDD power supply line.

The STEVAL-MKE00xAA can be plugged onto the STEVAL-MKI227A board.

This adapter is supported by the STEVAL-MKI109V3 motherboard that 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 graphical user interface (Unico-GUI), or dedicated software routines for customized applications.

It is also possible to plug the board onto the X-NUCLEO-IKS01A3 expansion board.

Product summary	
3-axis accelerometer and 3-axis gyroscope kit with QVAR functionality based on LSM6DSV16X	STEVAL-MKI227KA
iNEMO 3D accelerometer and 3D gyroscope: always-on inertial module	LSM6DSV16XTR
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)

1 Schematic diagrams

Figure 1. STEVAL-MKE001A circuit schematic

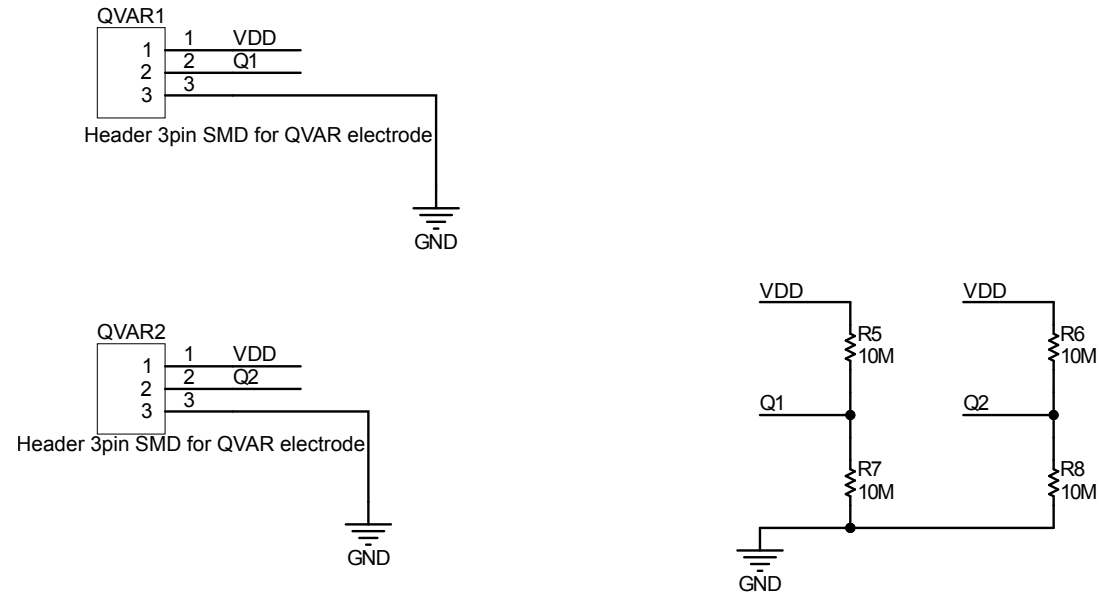


Figure 2. STEVAL-MKE002A circuit schematic

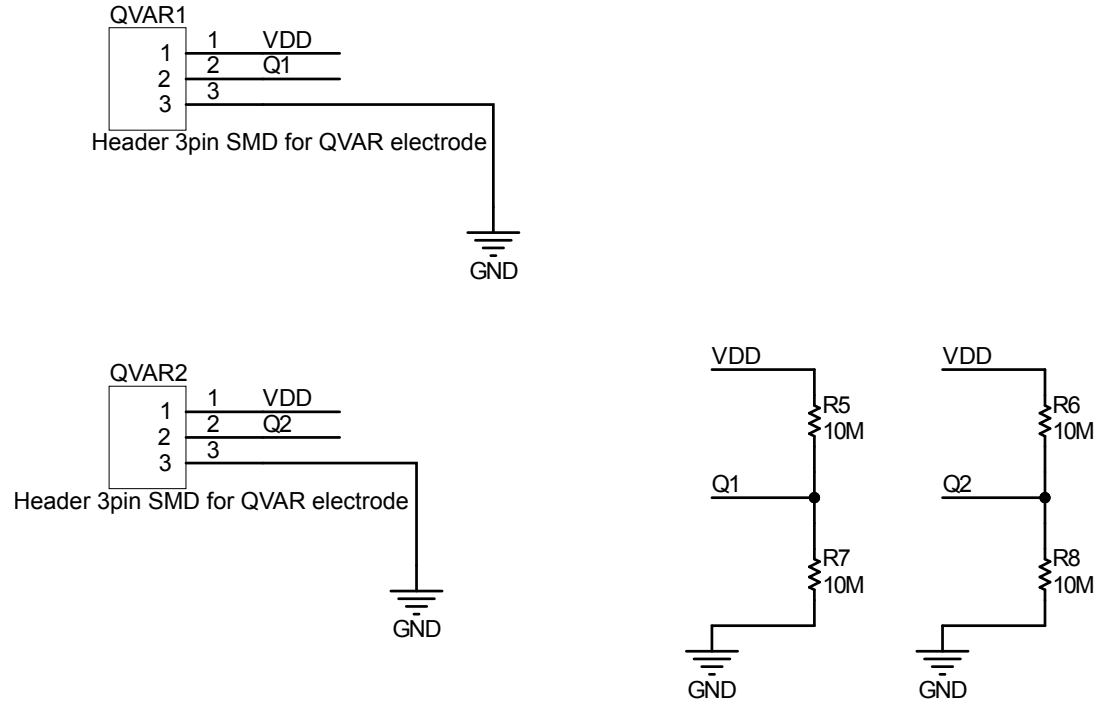


Figure 3. STEVAL-MKE003A circuit schematic

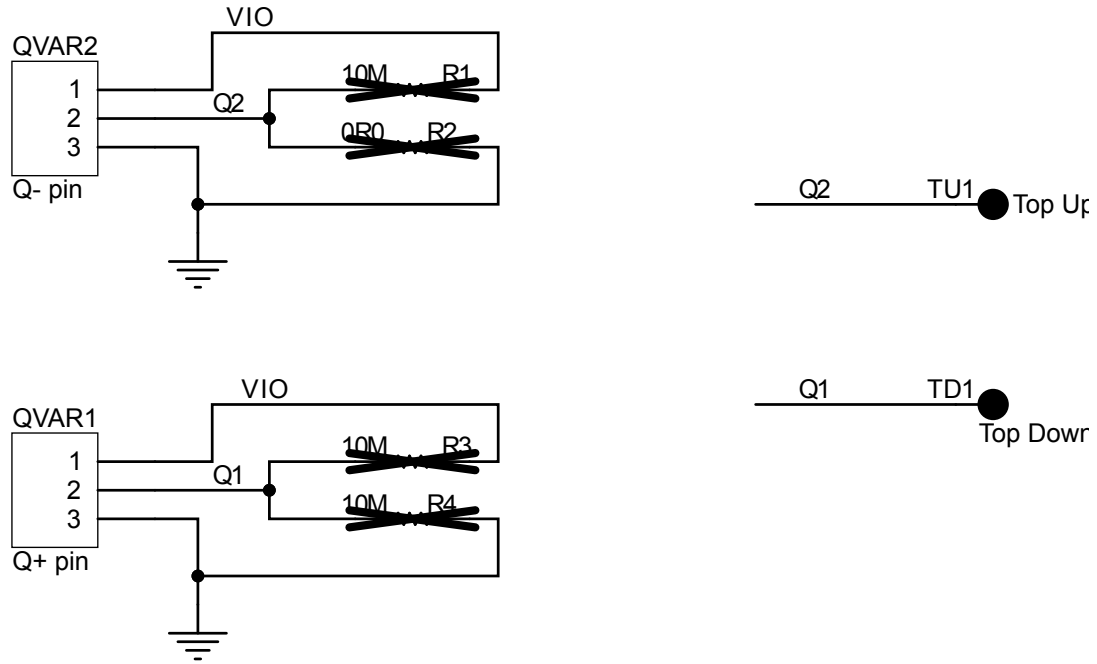
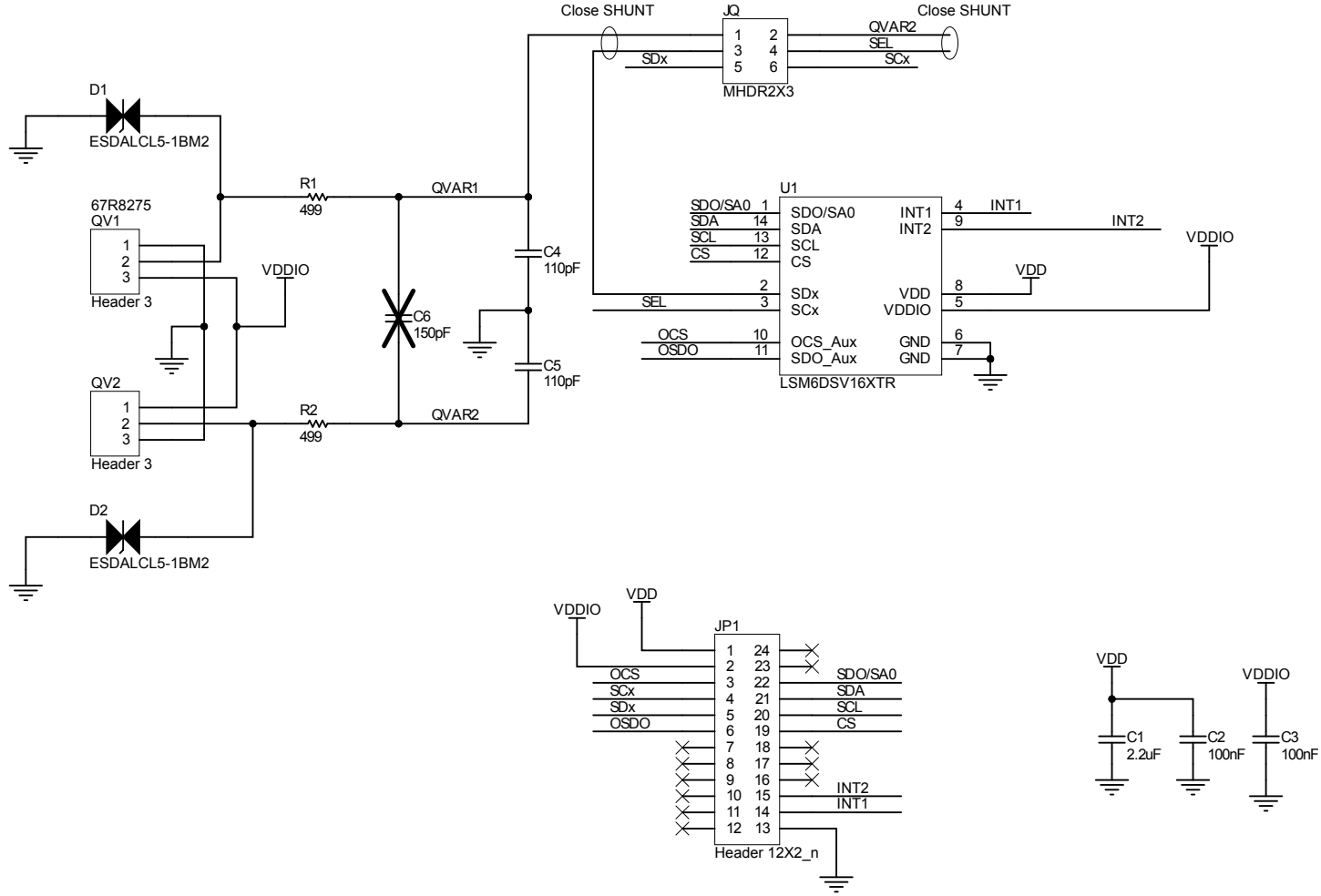


Figure 4. STEVAL-MKI227A circuit schematic



2 Kit versions

Table 1. STEVAL-MKI234KA versions

PCB version	Schematic diagrams	Bill of materials
STEVAL\$MKI227KAA ⁽¹⁾	STEVAL\$MKI227KAA schematic diagrams	STEVAL\$MKI227KAA bill of materials

1. This code identifies the STEVAL-MKI227KA evaluation kit first version. The kit consists of a STEVAL-MKI227AA whose version is identified by the code STEVAL\$MKI227AAA, 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
07-Nov-2022	1	Initial release.

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