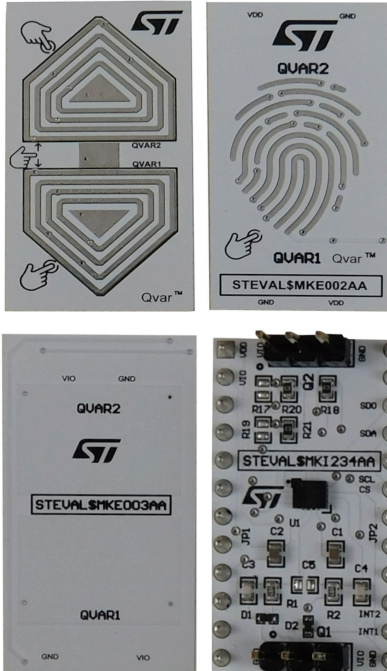


Accelerometer and gyroscope module for UI and bone conduction kit with QVAR functionality based on LSM6DSV16BX



Features

- User friendly [LSM6DSV16BX](#) board
- Complete [LSM6DSV16BX](#) pinout for a standard DIL 24 socket
- Fully compatible with the [STEVAL-MKI109V3](#) motherboard
- RoHS compliant

Description

The [STEVAL-MKI234KA](#) evaluation kit is based on the [LSM6DSV16BX](#) 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 [LSM6DSV16BX](#) 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-MKI234A](#) 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 downloadable graphical user interface ([Unico-GUI](#)), or dedicated software routines for customized applications.

It is also possible to plug the board into an [X-NUCLEO-IKS01A3](#) expansion board.

Product summary	
Accelerometer and gyroscope module for UI and bone conduction kit with QVAR functionality based on LSM6DSV16BX	STEVAL-MKI234KA
iNEMO inertial module: 3D accelerometer and 3D gyroscope	LSM6DSV16BXTR
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

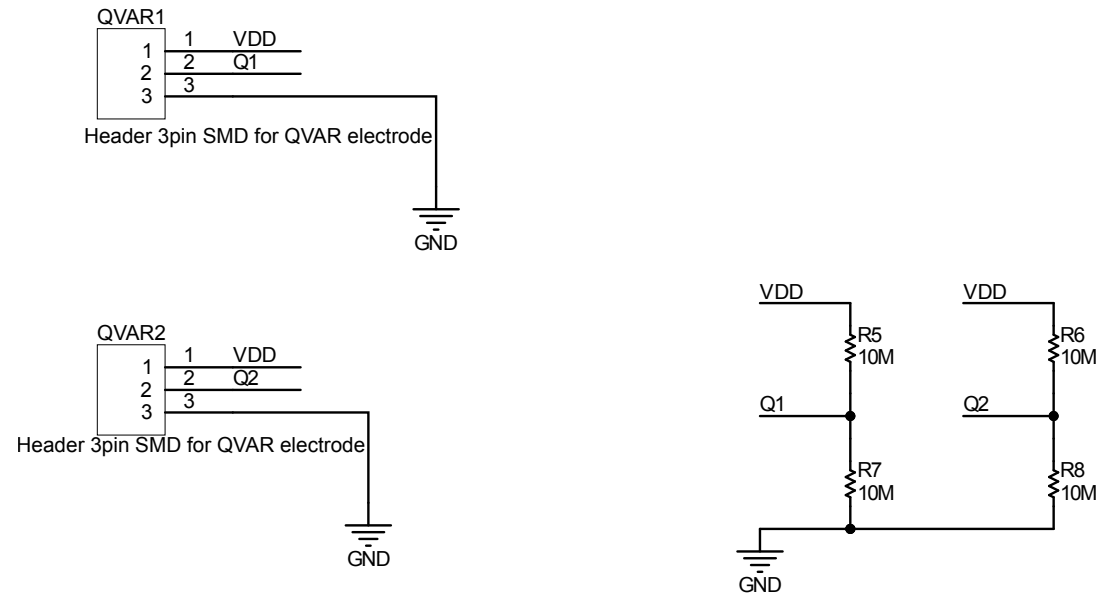


Figure 2. STEVAL-MKE002A circuit schematic

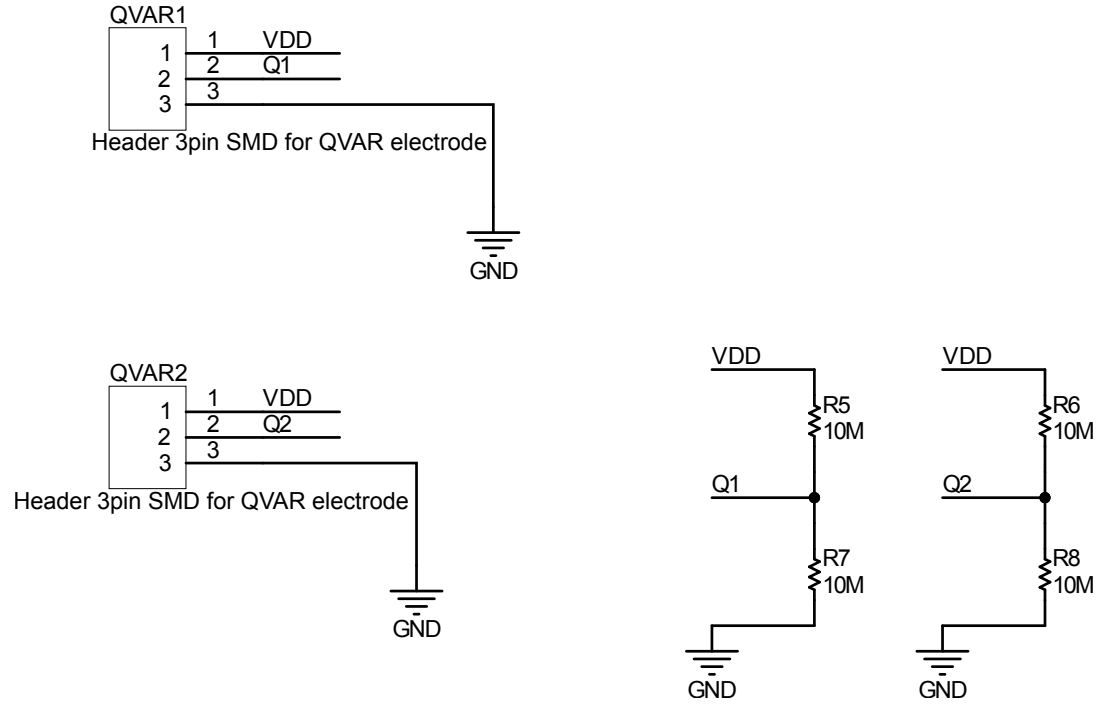


Figure 3. STEVAL-MKE003A circuit schematic

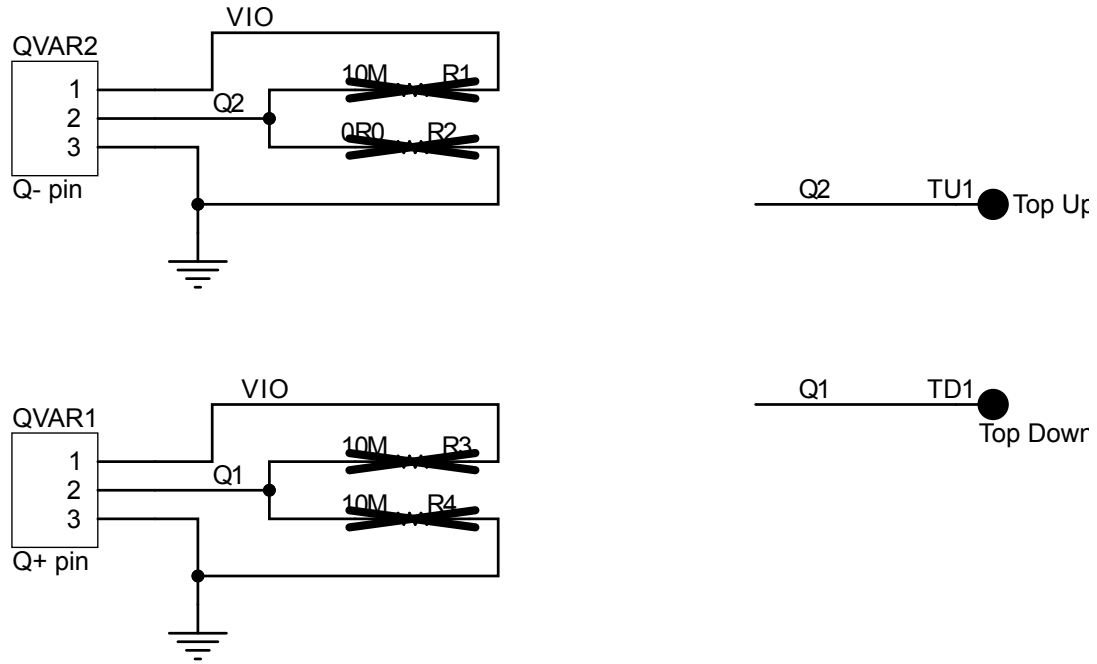
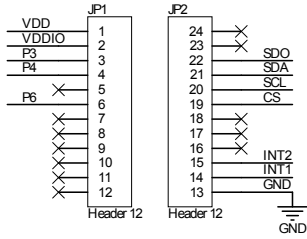
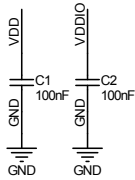
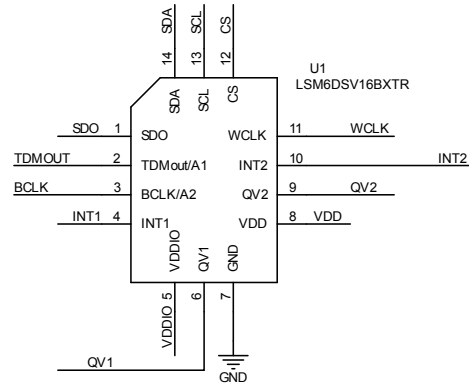
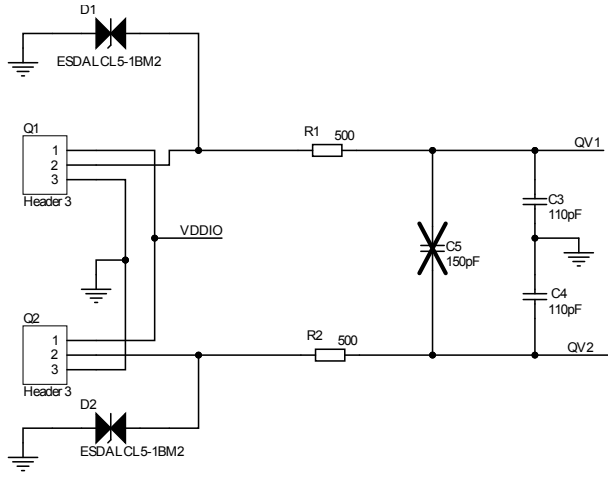
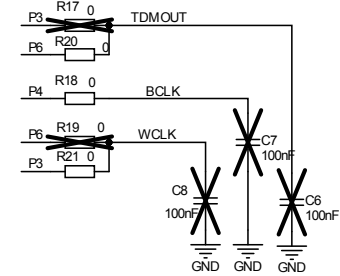


Figure 4. STEVAL-MKI234A circuit schematic



uMoBo: solder R17, R19; not solder R20, R21
 Profi: solder R20, R21; not solder R17, R19



2 Kit versions

Table 1. STEVAL-MKI234KA versions

PCB version	Schematic diagrams	Bill of materials
STEVAL\$MKI234KAA ⁽¹⁾	STEVAL\$MKI234KAA schematic diagrams	STEVAL\$MKI234KAA bill of materials

1. This code identifies the STEVAL-MKI234KA evaluation kit first version. The kit consists of a STEVAL-MKI234AA whose version is identified by the code STEVAL\$MKI234AAA, 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.