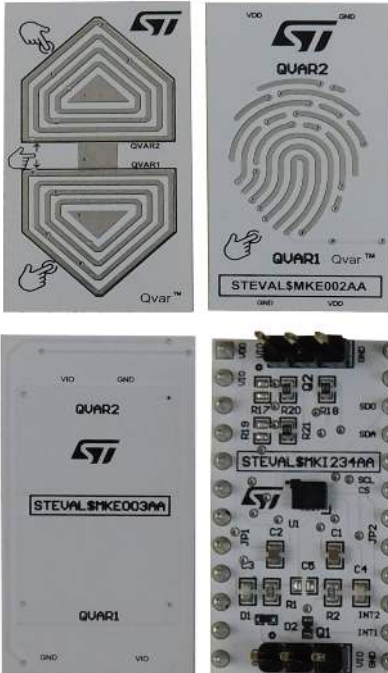


Accelerometer and gyroscope module for UI and bone conduction kit with QVAR functionality based on LSM6DSV16BX



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

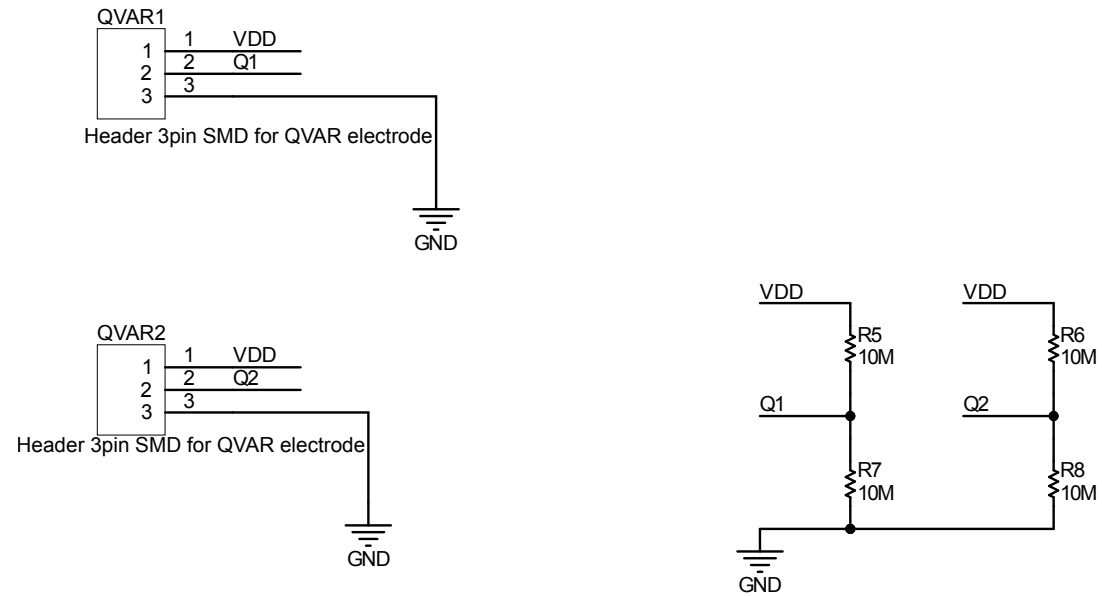


Figure 2. STEVAL-MKE002A circuit schematic

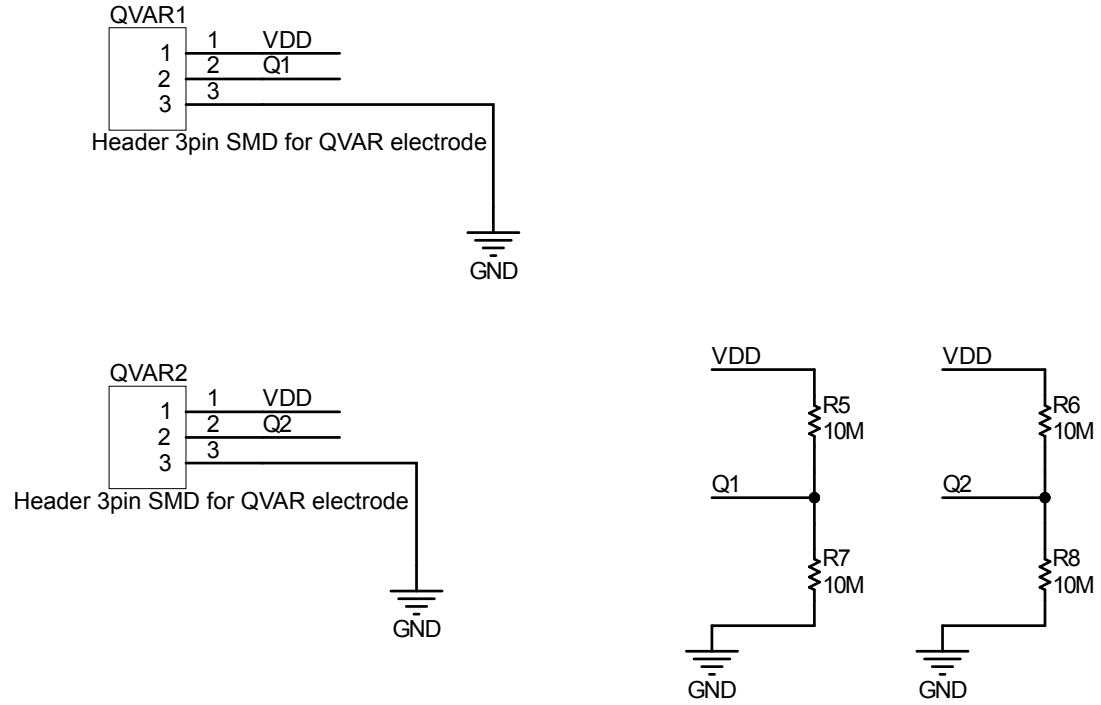


Figure 3. STEVAL-MKE003A circuit schematic

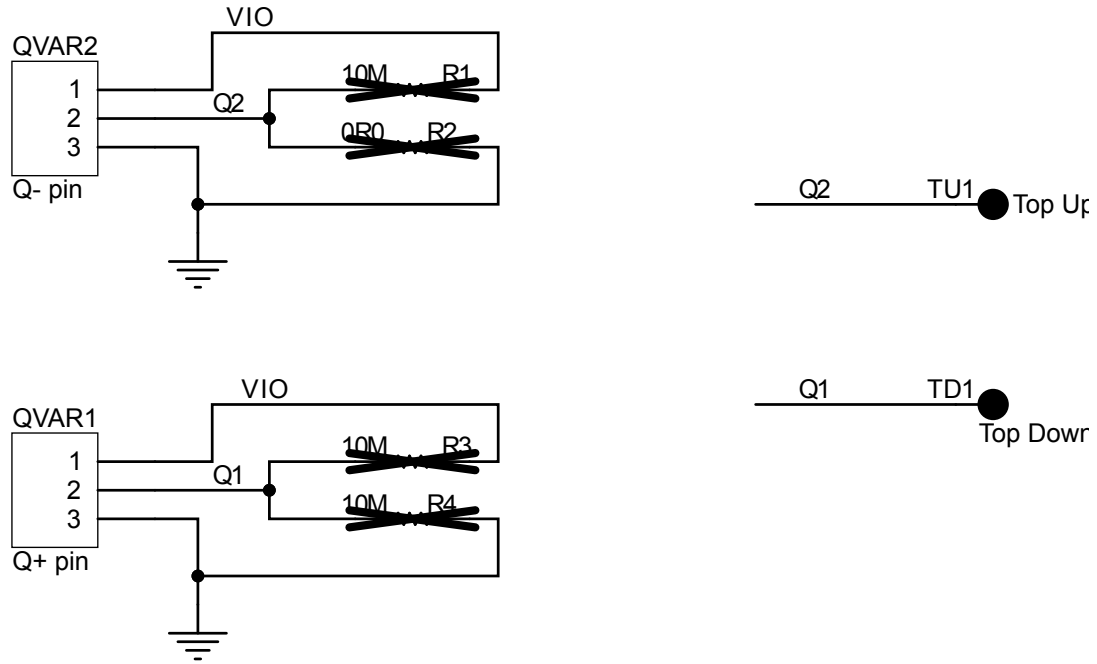
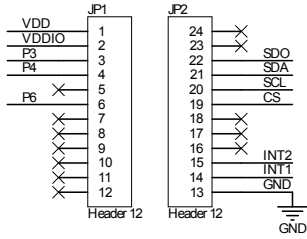
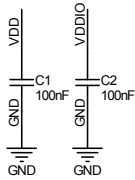
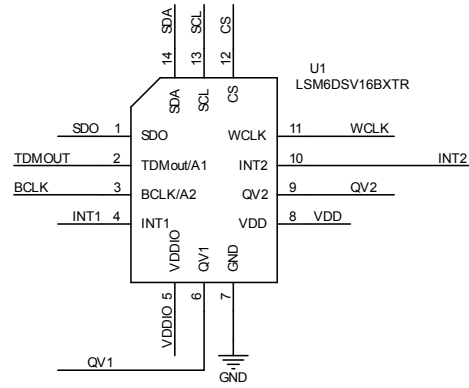
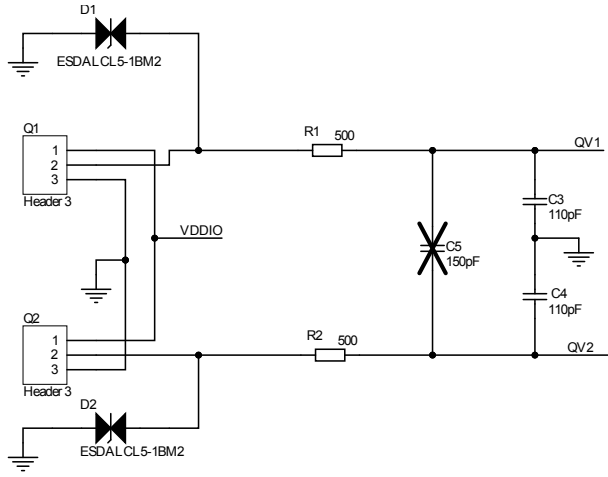
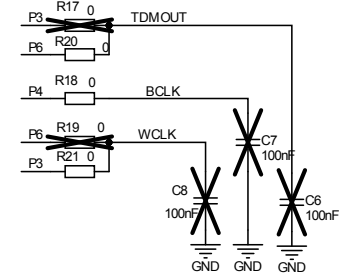


Figure 4. STEVAL-MKI234A circuit schematic



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

- 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.

IMPORTANT NOTICE – READ CAREFULLY

STMicroelectronics NV and its subsidiaries (“ST”) reserve the right to make changes, corrections, enhancements, modifications, and improvements to ST products and/or to this document at any time without notice. Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST’s terms and conditions of sale in place at the time of order acknowledgment.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of purchasers’ products.

No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and the ST logo are trademarks of ST. For additional information about ST trademarks, refer to www.st.com/trademarks. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.

© 2022 STMicroelectronics – All rights reserved