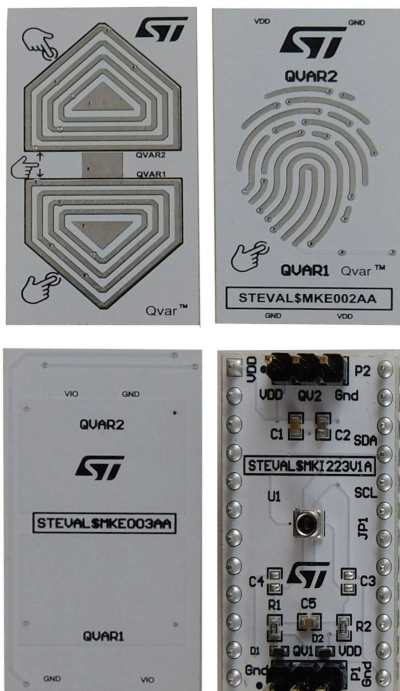


Pressure sensor evaluation kit with Qvar functionality based on the ILPS28QSW



Features

- User-friendly ILPS28QSW board
- Complete ILPS28QSW pinout for a standard DIL24 socket
- Fully compatible with the STEVAL-MKI109V3 motherboard
- RoHS compliant

Description

The **STEVAL-MKI223V1K** demonstration board is a kit composed of a PCB mounting the ILPS28QSW pressure sensor with a Qvar electrostatic sensor and a swipe electrode.

The electrode boards (STEVAL-MKE001A, STEVAL-MKE002A, or STEVAL-MKE003A) can be stacked on the STEVAL-MKI223V1 board. The kit provides the complete **ILPS28QSW** pinout and comes ready-to-use with the required decoupling capacitors on the V_{DD} power supply line.

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, on which it is possible to use the **MEMS Studio** downloadable graphical user interface or dedicated software routines for customized applications.

Product summary

Pressure sensor evaluation kit with Qvar functionality based on the ILPS28QSW	STEVAL-MKI223V1K
Dual full-scale, 1260 hPa and 4060 hPa, absolute digital output barometer with Qvar detection in a water-resistant package	ILPS28QSW
MEMS adapter motherboard based on the STM32F401VE	STEVAL-MKI109V3
Applications	Gas metering

1 Schematic diagrams

Figure 1. STEVAL-MKE001A circuit schematic

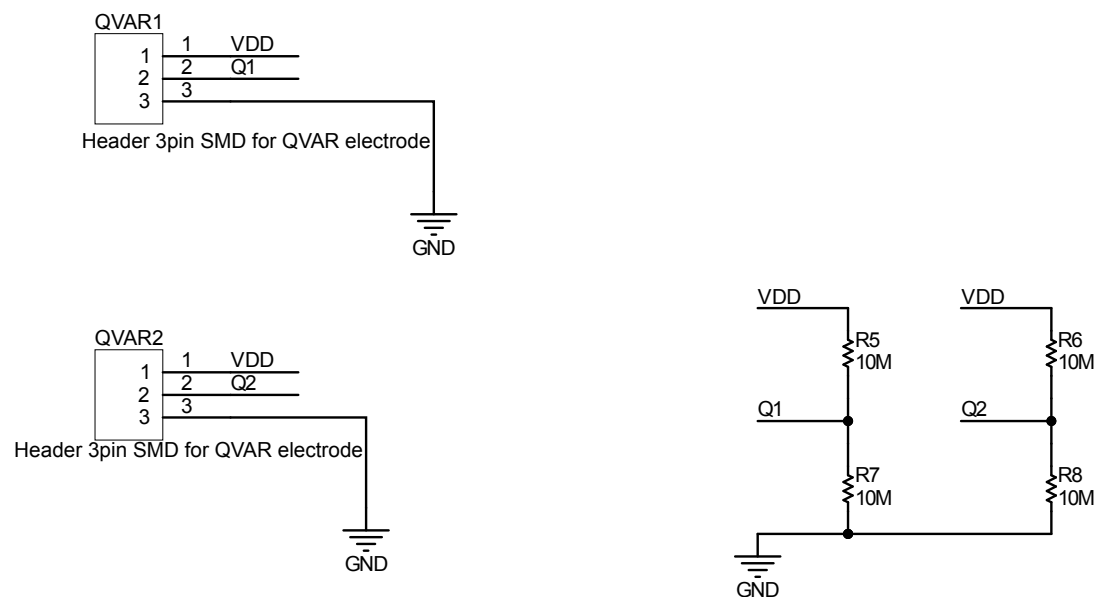


Figure 2. STEVAL-MKE002A circuit schematic

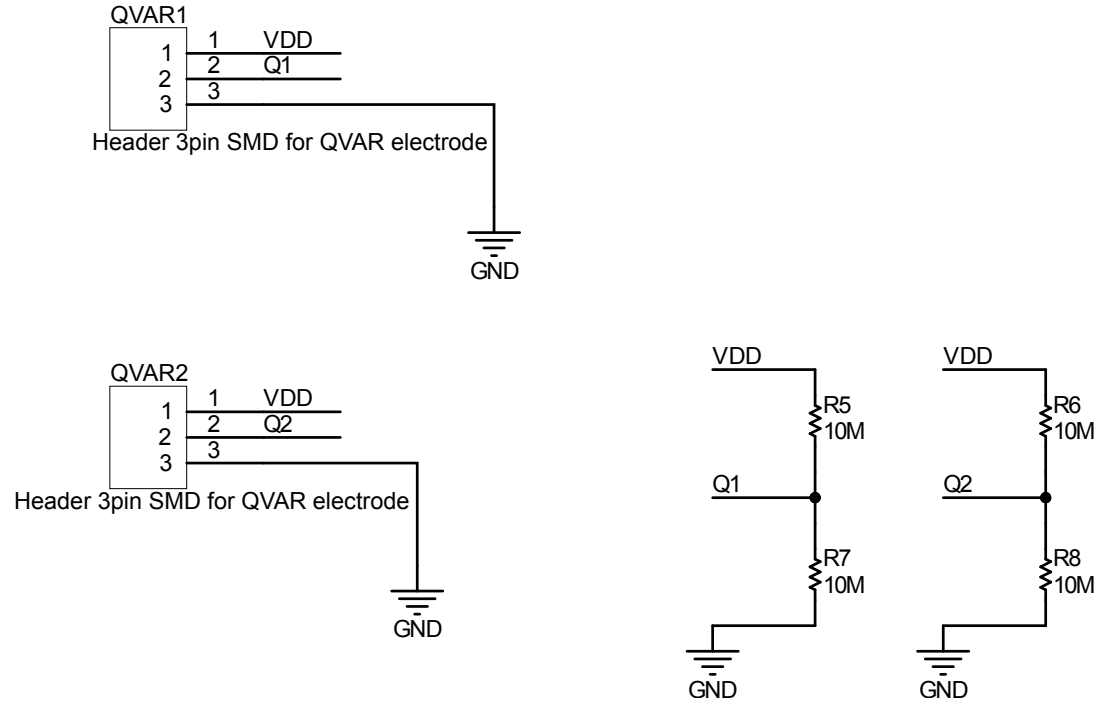


Figure 3. STEVAL-MKE003A circuit schematic

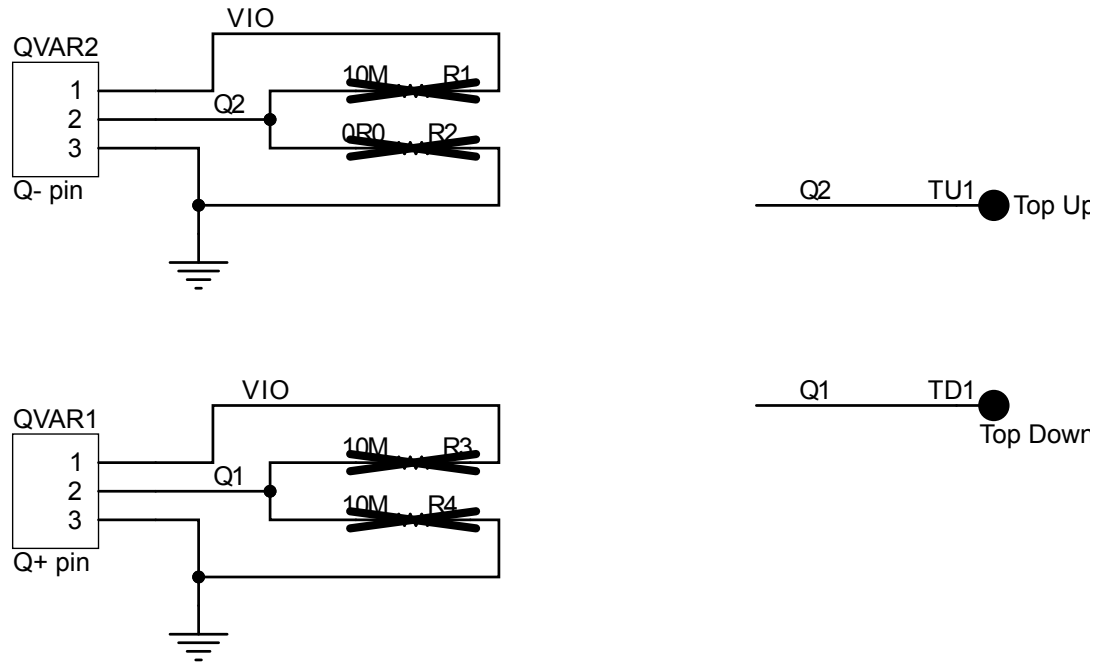
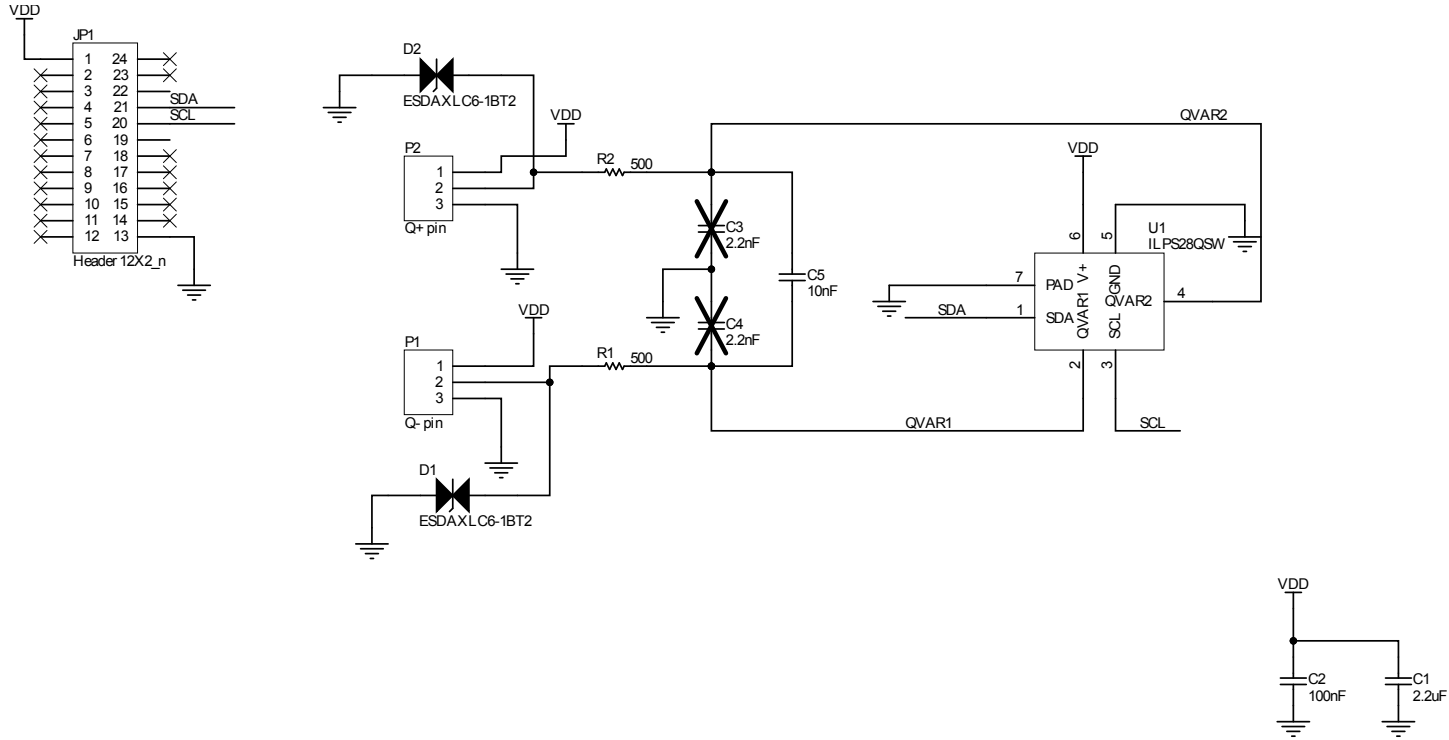


Figure 4. STEVAL-MKI223V1 circuit schematic



2 Kit versions

Table 1. STEVAL-MKI223V1K versions

PCB version	Schematic diagrams	Bill of materials
STEVAL\$MKI223V1KA ⁽¹⁾	STEVAL\$MKI223V1KA schematic diagrams	STEVAL\$MKI223V1KA bill of materials

1. This code identifies the first version of the STEVAL-MKI223V1K evaluation kit. The kit consists of STEVAL-MKI223V1 whose version is identified by the code STEVAL\$MKI223V1A, STEVAL-MKE001A whose version is identified by the code STEVAL\$MKE001AA, STEVAL-MKE002A whose version is identified by the code STEVAL\$MKE002AA, and STEVAL-MKE003A whose version is identified by the code STEVAL\$MKE003AA.

Revision history

Table 2. Document revision history

Date	Revision	Changes
18-May-2023	1	Initial release
27-Aug-2024	2	Updated Description to include MEMS Studio software solution Minor textual updates

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