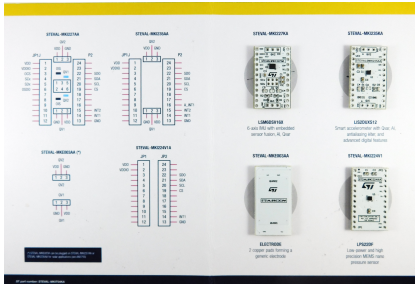


MEMS Sensors “generation 3” sample kit based on LIS2DUXS12, LPS22DF, LSM6DSV16X



Features

- User friendly LSM6DSV16X, LIS2DUXS12, LPS22DF board
- Complete LSM6DSV16X, LIS2DUXS12, LPS22DF pinout for a standard DIL 24 sockets
- Fully compatible with the STEVAL-MKI109V3 motherboard
- RoHS compliant

Description

The STEVAL-MKIT04KA is composed by four different adapters DIL24: the [STEVAL-MKI224V1](#), the STEVAL-MKI227A contained in the [STEVAL-MKI227KA](#) adapter kit, the STEVAL-MKI235A contained in the [STEVAL-MKI235KA](#) adapter kit, the STEVAL-MKE003A contained in the [STEVAL-MKI227KA](#) and [STEVAL-MKI235KA](#) adapter kit.

All SMD devices are soldered on the boards. Male and female connectors must be manually soldered.

The STEVAL-MKE003A can be plugged over the STEVAL-MKI227A or the STEVAL-MKI235A board.

In case the application using [LSM6DSV16X](#) is fixed it is possible to solder a 0 ohm resistor instead of shunt in the JQ connector.

These adapters are singularly supported by the [STEVAL-MKI109V3](#) motherboards, which includes a high performance 32-bit microcontroller functioning as a bridge between the sensor and a PC.

On the [STEVAL-MKI109V3](#) it is possible to use the downloadable graphical user interface (Unico-GUI or MEMS-Studio), or dedicated software routines for customized applications.

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

Product summary

MEMS Sensors “generation 3” sample kit based on LIS2DUXS12, LPS22DF, LSM6DSV16X	STEVAL-MKIT04KA
LPS22DF adapter board for a standard DIL24 socket	STEVAL-MKI224V1
3-axis accelerometer and 3-axis gyroscope kit with QVAR functionality based on LSM6DSV16X	STEVAL-MKI227KA
LIS2DUXS12 adapter kit for standard DIL24 socket with QVAR functionalities	STEVAL-MKI235KA
MEMS adapter motherboard based on the STM32F401VE	STEVAL-MKI109V3
Motion MEMS and microphone MEMS expansion board for STM32 Nucleo	X-NUCLEO-IKS01A3
Software solution for MEMS sensors	MEMS-Studio
Applications	Smart Glasses (AR)

1 Schematic diagrams

Figure 1. STEVAL-MKE003A circuit schematic

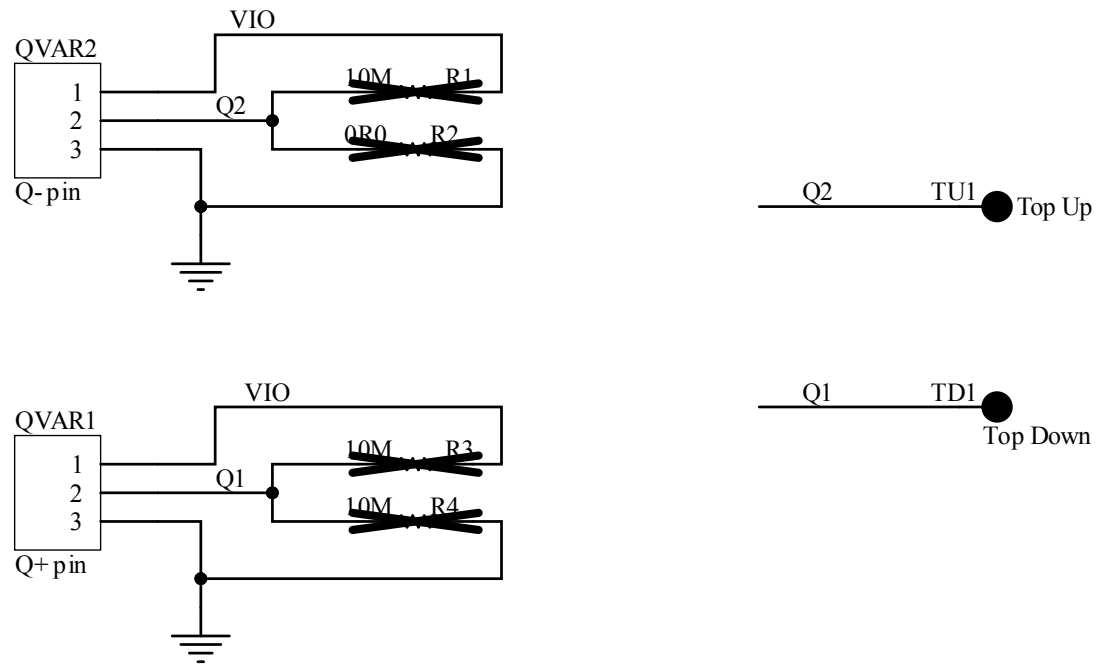


Figure 2. STEVAL-MKI227A circuit schematic

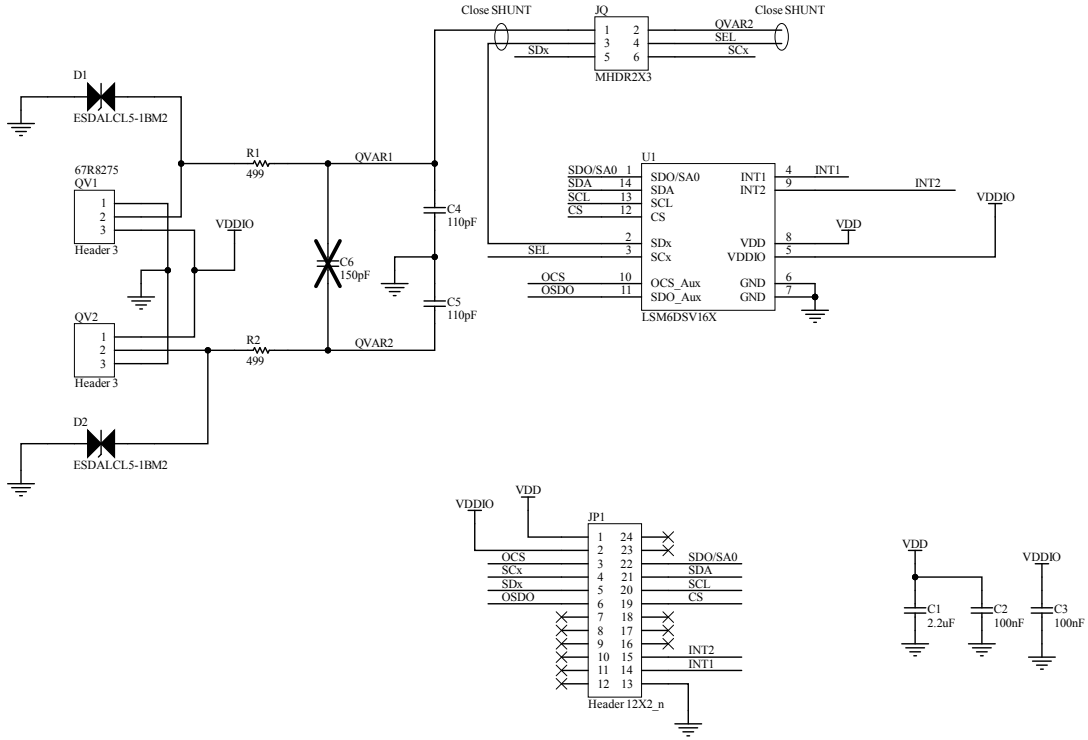


Figure 3. STEVAL-MKI235A circuit schematic

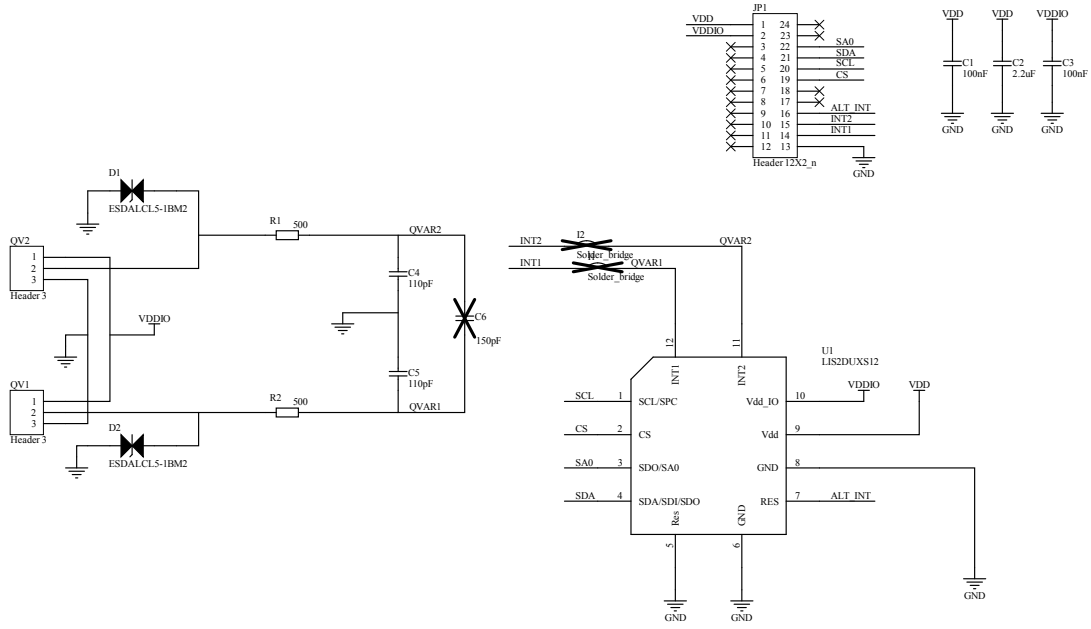
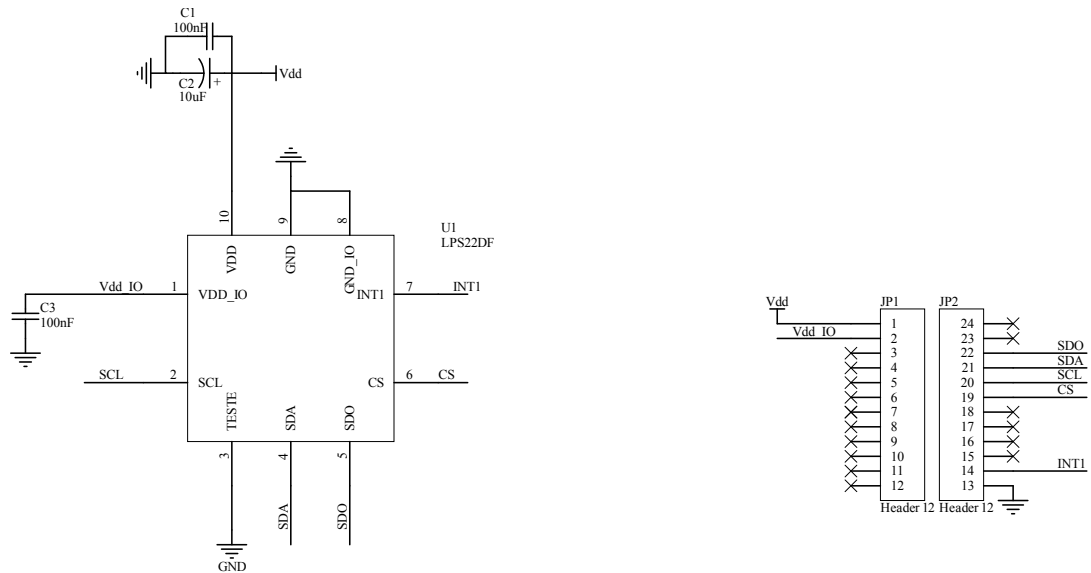


Figure 4. STEVAL-MKI224V1 circuit schematic



2 Kit versions

Table 1. STEVAL-MKIT04KA versions

PCB version	Schematic diagrams	Bill of materials
STEVAL\$MKIT04KAA ⁽¹⁾	STEVAL\$MKIT04KAA schematic diagrams	STEVAL\$MKIT04KAA bill of materials

- This code identifies the STEVAL-MKIT04KA evaluation kit first version. The kit consists of a STEVAL-MKI224V1 whose version is identified by the code STEVAL\$MKI224V1A, a STEVAL-MKI227A whose version is identified by the code STEVAL\$MKI227AA, a STEVAL-MKI235A whose version is identified by the code STEVAL\$MKI235AA and a STEVAL-MKE003A whose version is identified by the code STEVAL\$MKE003AA.*

Revision history

Table 2. Document revision history

Date	Revision	Changes
08-Mar-2024	1	Initial release.

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