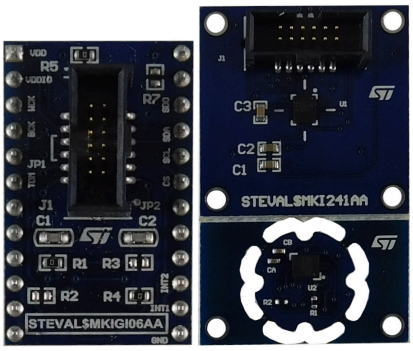
STEVAL-MKI241KA

Data brief

LSM6DSV16BX adapter kit for standard DIL24 socket with bone conduction functionality



Product summary	
LSM6DSV16BX adapter kit for standard DIL24 socket with bone conduction functionality	STEVAL-MKI241KA
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)

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-MKI241KA evaluation kit is based on an ad hoc PCB, mounting the LSM6DSV16BX inertial module.

There are two different boards inside STEVAL-MKI241KA. One can be used as a standard application board and a small adapter can be put inside the earphone to verify the bone conduction feature.

Both boards can be connected with the STEVAL-MKI109V3 via STEVAL-MKIGI06A interface board.

The kit provides the complete LSM6DSV16BX pinout and comes ready-to-use with the required decoupling capacitors on the V_{DD} and V_{DDIO} power supply line.

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.

1 Schematic diagrams

Figure 1. **STEVAL-MKIGI06A circuit schematic**

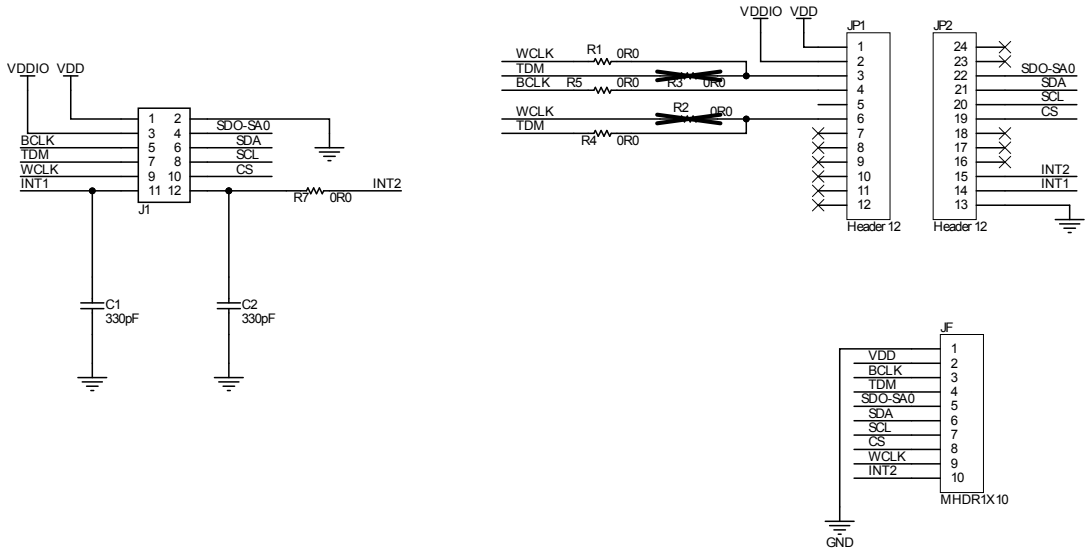
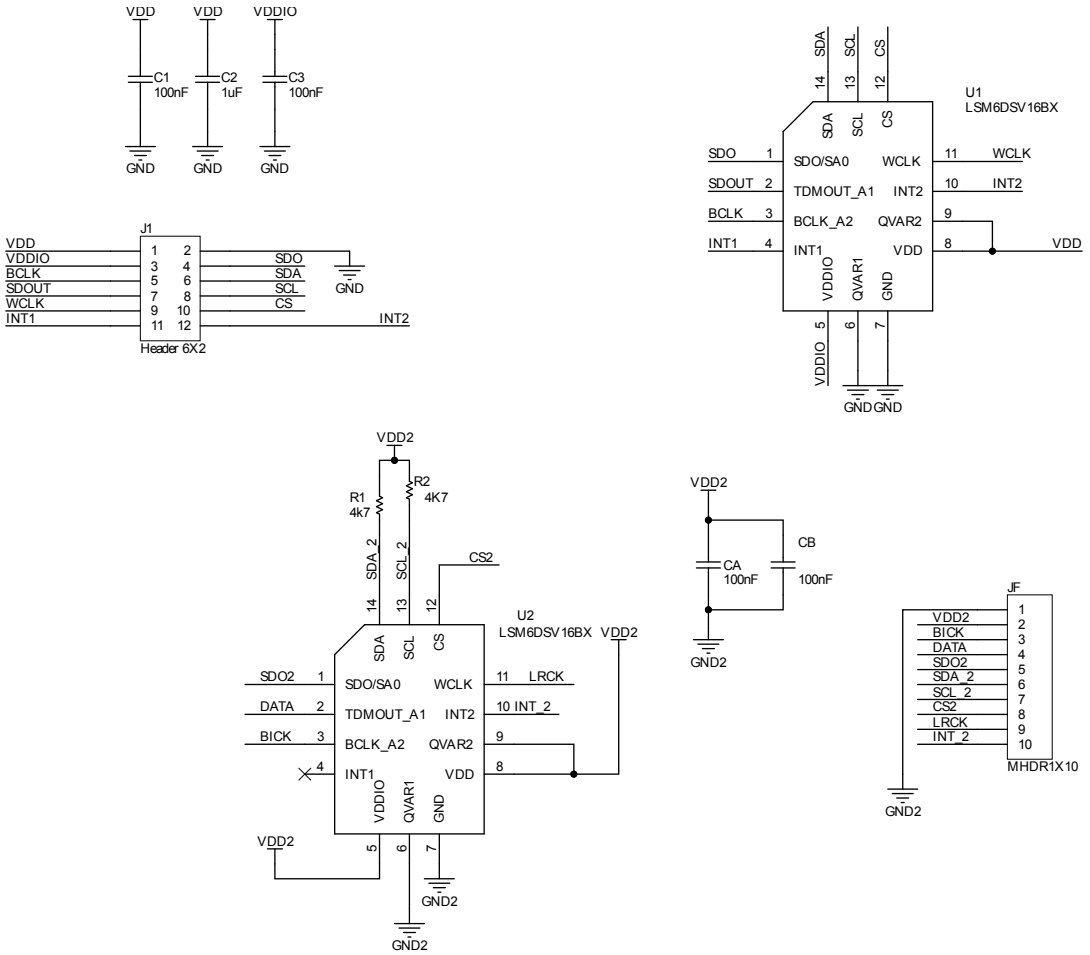


Figure 2. STEVAL-MKI241A circuit schematic



2 Kit versions

Table 1. STEVAL-MKI241KA versions

PCB version	Schematic diagrams	Bill of materials
STEVAL$MKI241KAA (1)	STEVAL$MKI241KAA schematic diagrams	STEVAL$MKI241KAA bill of materials

1. *This code identifies the STEVAL-MKI241KA evaluation kit first version. The kit consists of a STEVAL-MKI241A whose version is identified by the code STEVAL$MKI241AA and a STEVAL-MKIGI06A whose version is identified by the code STEVAL$MKIGI06AA.*

Revision history

Table 2. **Document revision history**

Date	Revision	Changes
13-Mar-2023	1	Initial release.