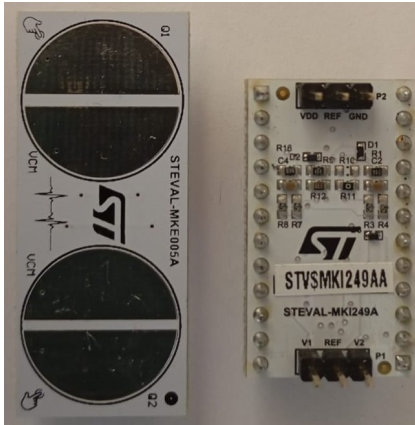


## ST1VAFE6AX biosensor evaluation kit



### Features

- Complete ST1VAFE6AX pinout for a standard DIL 24 socket
- Fully compatible with and STEVAL-MKI109V3 and STEVAL-MKI109D motherboards
- ECG monitoring
- RoHS compliant

### Description

The [STEVAL-MKI249KA](#) demonstration board is a kit made up of an ad hoc PCB, mounting the [ST1VAFE6AX](#), a biosensor with vertical analog front-end (vAFE) for biopotential signals and 6-axis inertial measurement unit (IMU) with AI and sensor fusion.

The kit is composed by the [STEVAL-MKI249A](#) board containing the complete [ST1VAFE6AX](#) pin-out and the required decoupling capacitors on the VDD and VDDIO power supply lines and the [STEVAL-MKE005A](#) electrode board.

It allows to show the functionalities of the biopotential device as for example the ECG signal.

The [STEVAL-MKI249KA](#) kit is compatible with the [STEVAL-MKI109V3](#) and [STEVAL-MKI109D](#) mother boards, which include 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 ([MEMS-Studio](#)), or dedicated software routines for customized applications.

The kit can also be plugged in other boards like [STEVAL-MKBOXPRO](#) and [X-NUCLEO-IKS4A1](#) boards.

Product summary	
ST1VAFE6AX biosensor evaluation kit	<a href="#">STEVAL-MKI249KA</a>
Biosensor with vAFE (vertical analog front-end) for biopotential signals and 6-axis IMU (inertial measurement unit) with AI and sensor fusion	<a href="#">ST1VAFE6AX</a>
ST MEMS adapters motherboard based on the STM32H563ZI	<a href="#">STEVAL-MKI109D</a>
SensorTile.box PRO with multi-sensors and wireless connectivity for any intelligent IoT node	<a href="#">STEVAL-MKBOXPRO</a>
Applications	<a href="#">Remote patient monitoring</a>

# 1 Schematic diagrams

Figure 1. STEVAL-MKE005A circuit schematic

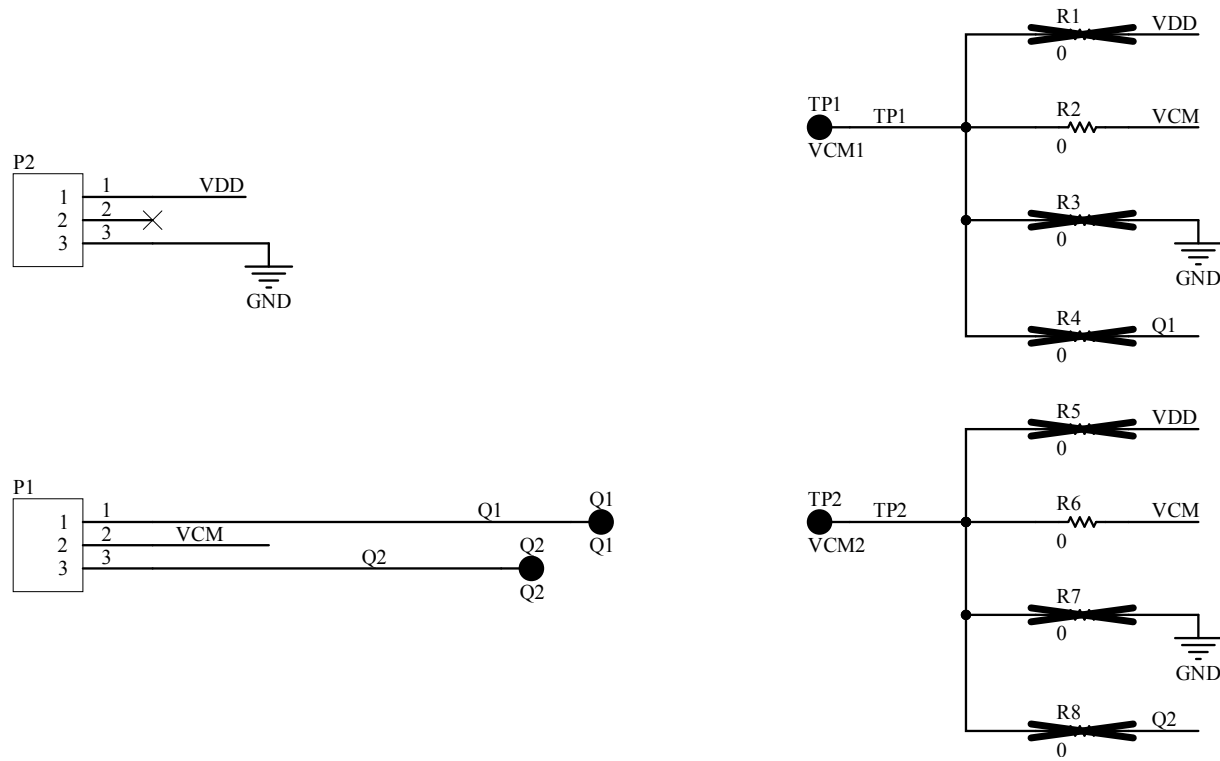
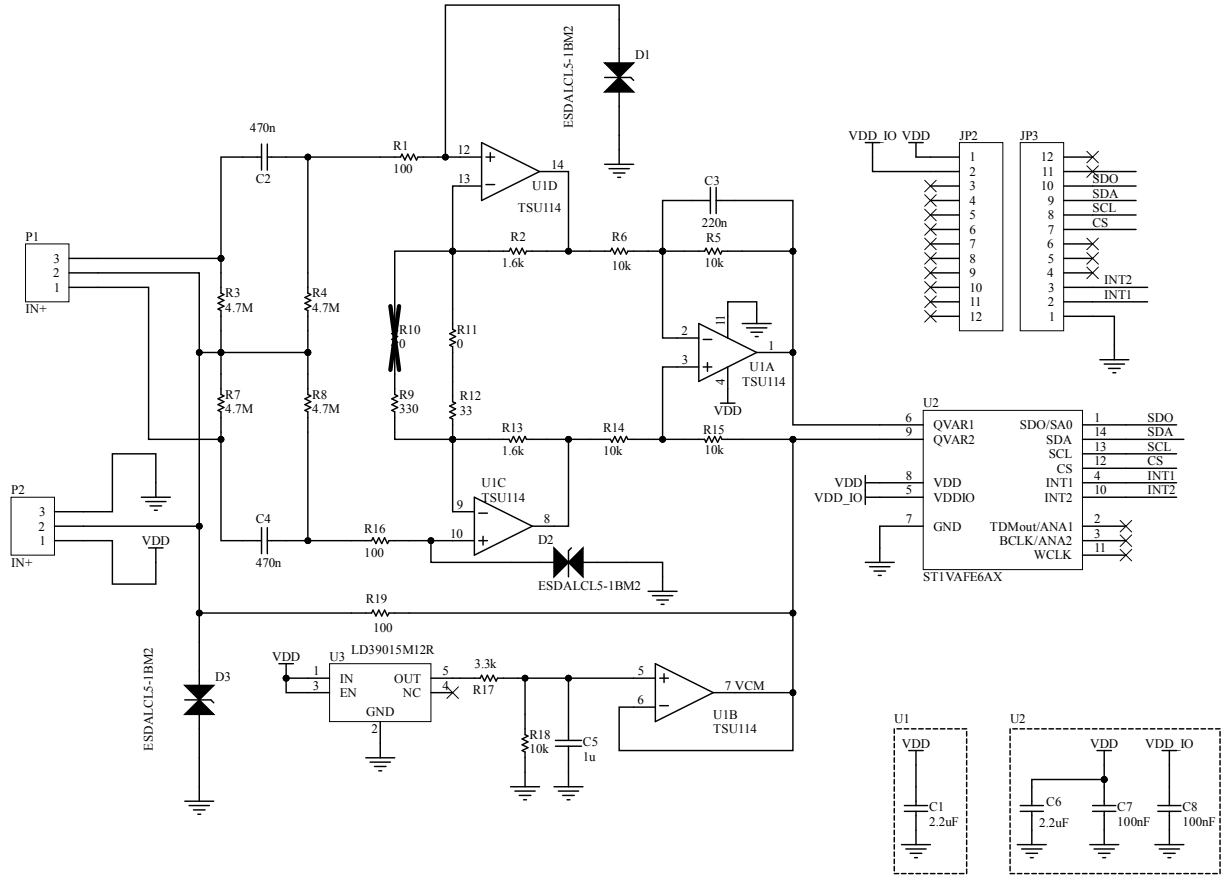


Figure 2. STEVAL-MKI249A circuit schematic



## 2 Kit versions

Table 1. STEVAL-MKI249KA versions

PCB version	Schematic diagrams	Bill of materials
STEVAL\$MKI249KAA <sup>(1)</sup>	STEVAL\$MKI249KAA schematic diagrams	STEVAL\$MKI249KAA bill of materials

1. This code identifies the STEVAL-MKI249KA evaluation kit first version. The kit consists of a STEVAL-MKI249A whose version is identified by the code STEVAL\$MKI249AA and a STEVAL-MKE005A whose version is identified by the code STEVAL\$MKE005AA.

## Revision history

Table 2. Document revision history

Date	Revision	Changes
01-Oct-2024	1	Initial release.

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