

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.

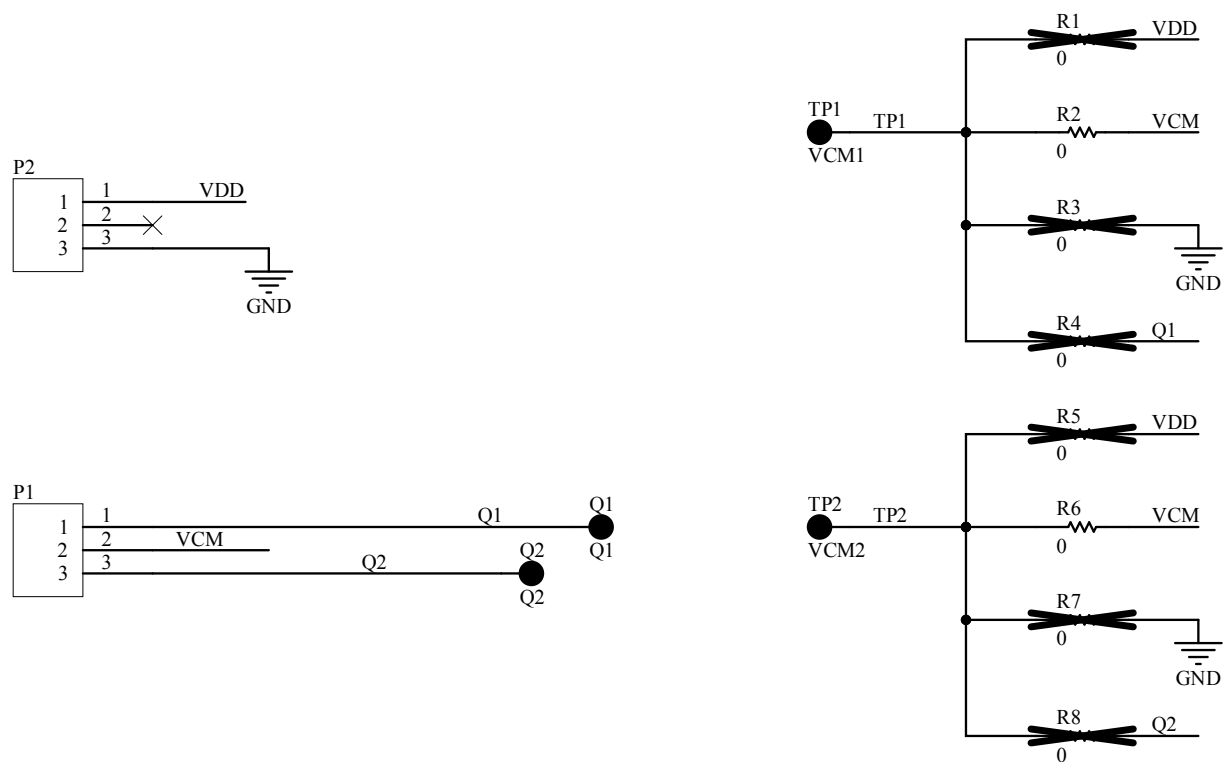
It allows to show the functionalities of the biopotential device as for example the ECG signal.

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.

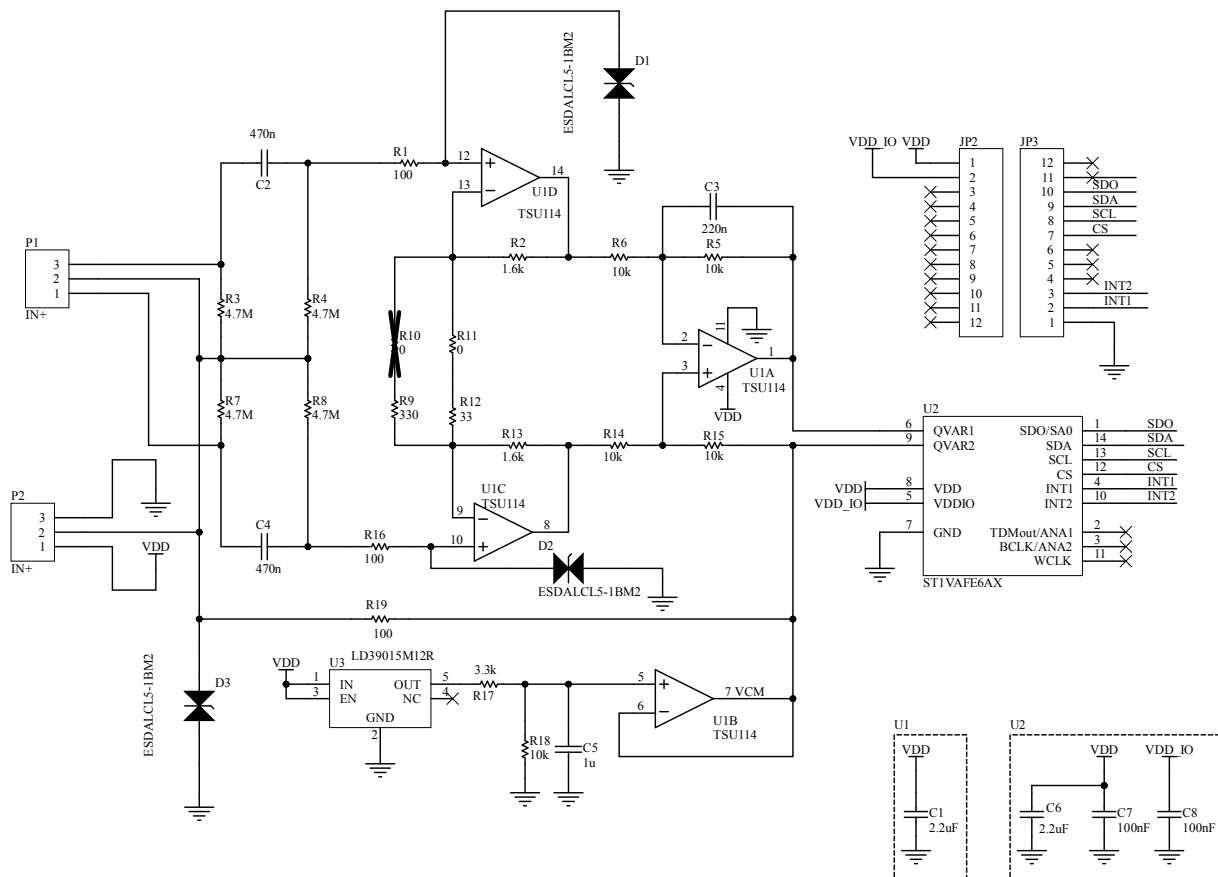
Product summary	
ST1VAFE6AX biosensor evaluation kit	STEVAL-MKI249KA
Biosensor with vAFE (vertical analog front-end) for biopotential signals and 6-axis IMU (inertial measurement unit) with AI and sensor fusion	ST1VAFE6AXTR
ST MEMS adapters motherboard based on the STM32H563ZI	STEVAL-MKI109D
SensorTile.box PRO with multi-sensors and wireless connectivity for any intelligent IoT node	STEVAL-MKBOXPRO
Applications	Remote patient monitoring

Figure 1. STEVAL-MKE005A circuit schematic



STEVAl-MK1249KA

Schematic diagrams



2 Kit versions

Table 1. STEVAL-MKI249KA versions

PCB version	Schematic diagrams	Bill of materials
STV\$MKI249KAA ⁽¹⁾	STV\$MKI249KAA schematic diagrams	STV\$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 STV\$MKI249AA and a STEVAL-MKE005A whose version is identified by the code STV\$MKE005AA.

Revision history

Table 2. Document revision history

Date	Revision	Changes
01-Oct-2024	1	Initial release.
04-Feb-2025	2	Updated cover image.

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