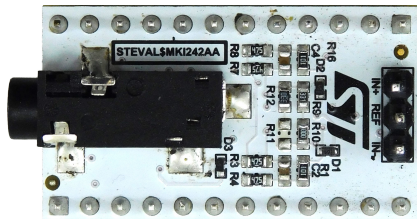


ST1VAFE6AX adapter kit for a standard DIL24 socket with VAFE to measure biopotential signals



Features

- Complete ST1VAFE6AX pinout for a standard DIL24 socket
- Fully compatible with the STEVAL-MKI109V3 and STEVAL-MKI109D evaluation platforms
- RoHS compliant

Description

The **STEVAL-MKI242A** is an adapter board designed to facilitate the evaluation of the **ST1VAFE6AX** biosensor. The board offers an effective solution for fast system prototyping and device evaluation directly within the user's own application.

The **STEVAL-MKI242A** can be plugged into a standard DIL24 socket. The adapter provides the complete **ST1VAFE6AX** pinout and comes ready to use with the required decoupling capacitors on the VDD and VDDIO power supply lines. The **STEVAL-MKI242A** requires using an ECG cable with a 3.5 mm phone jack.

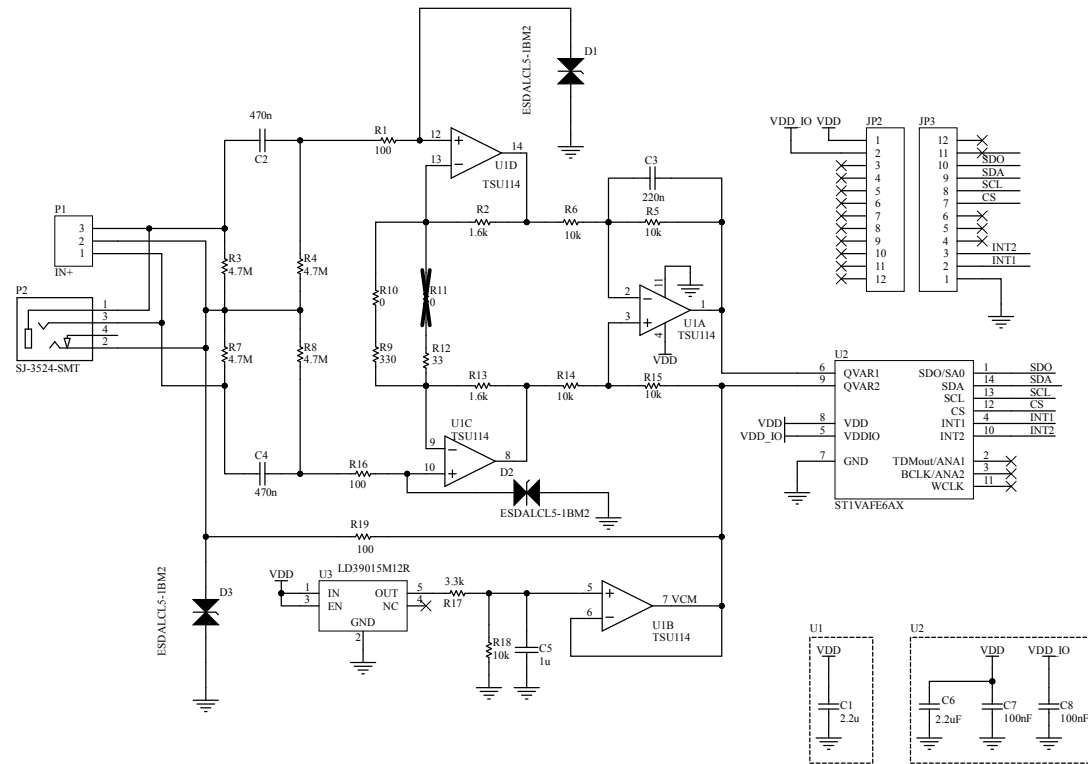
This adapter is supported and tested by the **STEVAL-MKI109V3** and **STEVAL-MKI109D** evaluation platforms that include a high-performance 32-bit microcontroller functioning as a bridge between the sensor and a PC, on which it is possible to use the downloadable **MEMS Studio** graphical user interface or dedicated software routines for customized applications.

It is possible to use **STEVAL-MKBOXPRO** or **X-NUCLEO-IKS4A1** instead of **STEVAL-MKI109V3** or **STEVAL-MKI109D**.

Product summary	
ST1VAFE6AX adapter kit for standard DIL24 socket with vAFE to measure biopotential signals	STEVAL-MKI242A
Biosensor with vAFE (vertical analog front-end) for biopotential signals and 6-axis IMU (inertial measurement unit) with AI and sensor fusion	ST1VAFE6AX
Professional MEMS tool: ST MEMS adapters motherboard based on the STM32F401VE and compatible with all ST MEMS adapters	STEVAL-MKI109V3
Professional MEMS tool: evaluation board for all ST MEMS sensors	STEVAL-MKI109D
SensorTile.box PRO with multi-sensors and wireless connectivity for any intelligent IoT node	STEVAL-MKBOXPRO
Applications	Remote patient monitoring

Schematic diagrams

Figure 1. STEVAL-MKI242A circuit schematic



2 Board versions

Table 1. STEVAL-MKI242A versions

Finished good	Schematic diagrams	Bill of materials
STEVAL\$MKI242AA ⁽¹⁾	STEVAL\$MKI242AA schematic diagrams	STEVAL\$MKI242AA bill of materials

1. This code identifies the first version of the STEVAL-MKI242A evaluation board.

Revision history

Table 2. Document revision history

Date	Revision	Changes
17-Apr-2024	1	Initial release
16-Jan-2025	2	Added STEVAL-MKI109D evaluation platform and MEMS Studio software solution Updated Product summary Minor textual updates

IMPORTANT NOTICE – READ CAREFULLY

STMicroelectronics NV and its subsidiaries ("ST") reserve the right to make changes, corrections, enhancements, modifications, and improvements to ST products and/or to this document at any time without notice. Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST's terms and conditions of sale in place at the time of order acknowledgment.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of purchasers' products.

No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and the ST logo are trademarks of ST. For additional information about ST trademarks, refer to www.st.com/trademarks. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.

© 2025 STMicroelectronics – All rights reserved