ANALOG DEVICES MAX86178 Evaluation Kit Instructions

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Contents

Evaluates: MAX86178

MAX86178 Evaluation Kit

General Description

The MAX86178 evaluation kit (EV kit) provides a platform to evaluate the functionality and features of the MAX86178 with photoplethysmogram (PPG), electrocardiogram (ECG), and bioimpedance (BioZ) measurement capabilities. The EV kit allows for flexible hardware and software configurations to help the user quickly learn how to configure and optimize the MAX86178 for their own applications.

The MAX86178 is a complete PPG, ECG, and BioZ analog front-end solution that consists of two optical readout channels, one single-lead ECG channel, and a BioZ channel that supports both tetrapolar and bipolar electrode configurations, all of which can operate simultaneously. The optical readout channels support up to 6 LEDs and 4 photodiode inputs. The BioZ channel supports several modes of stimulation: square-wave sink/ source currents, sine-wave currents, sine-wave voltages, and square-wave voltages with a range of frequencies to support multiple BioZ applications.

The MAX86178 EV kit consists of two boards. MAXSENSORBLE_EVKIT_B is the microcontroller (MCU) board while MAX86178_EVKIT_C is the sensor board containing the MAX86178. To enable PPG and ECG measurement capabilities, the sensor board also contains 3 LEDs (red, green, and IR), 3 discrete photodi-odes (Vishay VEMD8080), and component configurations on the ECG and BioZ channels. The EV kit can be pow-ered through a USB connection to a PC using a USB-C to USB-A cable or a LiPo Battery. The EV kit communicates with the MAX86178GUI (should be installed in user's sys-tem) through Bluetooth (WIN BLE). The EV kit contains the latest

firmware and comes with the MAXDAP-TYPE-C programming circuit board in case a firmware change is needed.

Features

- Convenient Platform to Evaluate the MAX86178
- Many Easy-to-Reach Test Points
- Real-Time Monitoring and Plotting
- Data Logging Capabilities
- Bluetooth® LE
- Windows®-10-Compatible GUI Software
- Facilitates IEC 60601-2-47 Compliance Testing

EV Kit Contents

- MAXSENSORBLE_EVKIT_B microcontroller board
- MAX86178_EVKIT_C sensor board
- 105mAh Li-Po battery LP-401230
- USB-C to USB-A cable
- MAXDAP-TYPE-C programmer board
- Micro-USB B to USB-A cable
- Six electrode cables

Ordering Information appears at end of data sheet.

Visit **Web Support** to complete the nondisclosure agreement (NDA) required to receive additional product information.

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Windows is a registered trademark of Microsoft Corporation.

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Notes

www.analog.com

Documents / Resources

	ANALOG DEVICES MAX86178 Evaluation Kit [pdf] Instructions MAX86178 Evaluation Kit, MAX86178, Evaluation Kit, Kit

References

- Create NDA Case · Support Portal
- User Manual