

## Evaluates: MAX86174A

## MAX86174 Evaluation System

### General Description

The MAX86174 evaluation system (EV Sys) provides a platform to evaluate the functionality and features of the MAX86174A with photoplethysmogram (PPG) measurement capabilities. The EV Sys allows for flexible hardware and software configurations to help the user quickly learn how to configure and optimize the MAX86174A for their own applications.

The MAX86174A is an ultra-low power PPG analog front-end solution that has dual optical-readout channels and supports up to 4 LEDs and 2 photodiode inputs. For more information, refer to the MAX86174A data sheet.

The MAX86174 EV Sys consists of two boards. MAXSENSORBLE\_EVKIT\_B is the microcontroller (MCU) board while MAX86174A\_OSB\_EVKIT\_B is the sensor board containing the MAX86174A. To enable PPG measurement capabilities, the sensor board contains 3 LEDs (red, green, and IR in a single package: OSRAM SFH7016), three discrete photodiodes (Vishay VEMD8080), and an accelerometer. The EV Sys is powered through the included LiPo Battery. The EV Sys communicates with MAX86174GUI (should be installed in user's system) using Bluetooth built into Windows (Win BLE). The EV Sys contains the latest firmware but comes with the programming circuit board MAXDAP-TYPE-C in case a firmware change is needed.

### Features

- Convenient Platform to Evaluate the MAX86174A
- Many Easy-to-Reach Test Points
- Real-Time Monitoring and Plotting
- Data Logging Capabilities
- Bluetooth LE
- Windows®-10-Compatible GUI software

### EV Sys Contents

- MAXSENSORBLE\_EVKIT\_B microcontroller board
- MAX86174A\_OSB\_EVKIT\_B sensor board
- 105 mAh Li-Po battery LP-401230
- USB-C to USB-A cable
- MAXDAP-TYPE-C programmer board
- Micro USB-B to USB-A cable

### MAX86174 EV Sys Files

FILE	DESCRIPTION
MAX86174GUISetupV1.0.0_Web.zip	Setup file to install the PC GUI program
MAXSENSORBLE_EVKIT_B.zip	Schematic, BOM, layout
MAX86174A_OSB_EVKIT_B.zip	Schematic, BOM, layout

#### Note:

1. The GUI setup files can be obtained by the procedure described in the [Quick Start](#) section
2. MAXSENSORBLE\_EVKIT and EVKIT design files are attached at the end of this document.

[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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Notes

