ANALOG DEVICES MAX86177 Evaluation System Instructions

Contents

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General Description

The MAX86177 evaluation system (EV system) allows for the quick evaluation of the MAX86177 optical AFE for applications at various sites on the body, particularly the wrist. The EV sys supports both I2C and SPI com-patible interfaces. The EV sys has four optical readout channels that operate simultaneously. The EV sys allows flexible configurations to optimize measurement signal quality at minimal power consumption. The EV sys sup-ports file logging and flash logging, allowing the user to disconnect from the computer for more convenient data capturing sessions, such as overnight or outdoor running.

The EV sys consists of two boards. MAXSENSORBLE_ EVKIT_B is the main data acquisition board while MAX86177_OSB_EVKIT_A is the sensor daughter board for the MAX86177. To enable PPG measurement capabilities, the sensor board contains six LEDs (two OSRAM SFH7016, red, green, and IR 3-in-1 LED package) and eight discrete photodiodes (OSRAM SFH2704), and an accelerometer. The EV sys is powered through a LiPo battery attached inside it and can be charged using a Type-C port. The EV Sys communicates with MAX86177GUI (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 upgrade is needed.

Ordering Information appears at end of data sheet.
Visit Web Support to complete the nondisclosure agreement (NDA) required to receive additional product information.

Features

- Quick Evaluation of the MAX86177
- Supports Optimization of Configurations
- Facilitates Understanding MAX86177 Architecture and Solution Strategy
- Real-Time Monitoring
- Data Logging Capabilities
- On-Board Accelerometer
- Bluetooth® LE

- Windows® 10-Compatible GUI Software

EV System Contents

- MAX86177 EV system wrist band, including
  - MAXSENSORBLE_EVKIT_B board
  - MAX86177_OSB_EVKIT_A board
  - Flex cable
  - 105mAh Li-Po battery LP-401230
- USB-C to USB-A cable
- MAXDAP-TYPE-C programmer board
- Micro USB-B to USB-A cable

MAX86177 EV System Files

FILE	DESCRIPTION
MAX86177GUISetupV1.0.0_Web.zip	Setup file to install the PC GUI program
MAXSENSORBLE_EVKIT_B.zip	Schematic, BOM, layout
MAX86177_OSB_EVKIT_A.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.

www.analog.com

Documents / Resources

	**ANALOG DEVICES MAX86177 Evaluation System** [pdf] Instructions MAX86177 Evaluation System, MAX86177, Evaluation System

References

- **Shopping Cart | Analog Devices**
- **User Manual**