Evaluates: MAX20363

MAX20363 Evaluation Kit

General Description

The MAX20363 evaluation kit (EV kit) is a fully assembled and tested circuit for evaluating MAX20363, non-inverting buck-boost converter for powering optical photoplethysmogram (PPG) systems.

The device is configurable through an I^2C interface that allows for programming various functions and reading device status. The EV kit GUI application sends commands to the MAXPICO2PMB# adapter board to configure the device.

The EV kit comes standard with the MAX20363 EV kit version IC installed.

Features and Benefits

- Ultra-Fast Dynamic Voltage Scaling (DVS) with Direct AFE Control
- USB-Power Option
- Flexible Configuration
- On-Board Battery Simulation
- Sense Test Point for Output-Voltage Measurement
- Windows® 8/Windows 10-Compatible Graphical User Interface (GUI) Software
- Fully Assembled and Tested

EV KIT Contents

- MAX20363_EVKIT_A System
- MAXPICO2PMB# Board
- Two USB A to USB Micro-B Cables

MAX20363 EV Kit Files

FILE	DESCRIPTION
MAX20363GUI_SetupX.X.X.exe	PC GUI Program

Ordering Information appears at end of data sheet.

Quick Start

Required Equipment

- MAX20363 EV kit
- Windows PC with USB ports
- One USB A-to-USB Micro-B cable and PICO2PMB adapter board with the latest firmware
- One USB A-to-USB Micro-B cable or power supply (for battery voltage)
- One voltmeter

Note: In the following sections, software-related items are identified in bold. Text in bold refers to items directly from the EV kit software. Text in **bold and underlined** refers to items from the Windows operating system.

Procedure

The EV kit is fully assembled and tested. Follow the steps to install the EV kit software, make required hardware connections, and start operation of the kit.

1. Visit *www.analog.com/en/design-center/evaluation-hardware-and-software/evaluation-boards-kits* under the "*Design & Development*" tab to download the latest version of the MAX20363 EV kit software. Save the software to a temporary folder and unpack the zip file.
2. Install the EV kit software on the computer by running the **MAX20363GUI_SetupX.X.X.exe** program inside the temporary folder. This copies the program files and creates an icon in the Windows **Start** menu. The software requires the .NET Framework 4.5 or later. If connected to the internet, Windows automatically updates the .NET Framework as needed.
3. The EV kit software launches automatically after installation, and it can be launched by clicking its icon in the Windows **Start** menu.
4. Verify that all jumpers are in their default positions, as shown in *Table 1*.
5. Connect the type-A end of a cable to the PC and the micro-USB end of a cable to the MAXPICO2PMB# board, and connect the MAXPICO2PMB# to J4 located on the top left of the EV kit board. Verify that LED DS10 is illuminated.
6. Connect a USB to the micro-B cable from the computer to J1 on the lower left corner of the EV kit board to use VBUS to power MAX20363. Verify that LED DS1 is illuminated. Use a voltmeter to check TP15 BAT voltage and it should be about 5V.

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MAX20363EVKIT#