

Evaluates: MAX25616A/MAX25616B/MAX25616C/MAX25616D

## General Description

The MAX25616 evaluation kit (EV kit) demonstrates the performance and features of the MAX25616 automotive VCSEL/IR driver targeting driver monitoring and cabin monitoring systems. The EV kit comes fully assembled and includes the MAX32625PICO for communicating between a PC and the I<sup>2</sup>C interface of the MAX25616.

Windows®-based graphical-user interface (GUI) software is available for use with the EV kit.

## Features and Benefits

- Proprietary Power Architecture Achieves up to 10A IR/VCSEL Drive with <500mA Input Current
  - High-Efficiency 4-Switch Buck-Boost with Integrated MOSFETs
  - Buck Voltage Regulator Capable of Sourcing up to 1.5A
- Included MAX32625PICO Board and GUI
- On-Board IR VCSEL Load with Resistive Interlock and Photodiode Functional Safety Features

## MAX25616 EV Kit Files

FILE	DESCRIPTION
MAX25616SetupV0_1_0000.exe	Installs EV kit files onto computer
MAX25616_setup_script.scr	Example script to speed up the initial configuration of the device
MAX32625PICO_USB_Serial_Bridge.MAX32625PICO.bin	PICO board firmware

[Ordering Information](#) appears at end of data sheet.

## Quick Start

### Required Equipment

- MAX25616 EV kit (comes with MAX25616AAFI/VY+ installed)
- 12V, 1A DC power supply
- MAX32625PICO board (included)
- PC with MAX25616 GUI installed

### Optional Equipment

- Function generator
- IR emitter board
- Oscilloscope
- Current probe

**Note:** In the following sections, software-related items are identified by bolding. 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. The EV kit software can be run without hardware attached. Note that after communication is established, the IC must still be configured correctly for desired operation mode. Make sure the PC is connected to the internet throughout the process so that the USB driver can be automatically installed.

1. Install the EV kit software on the computer by running the **MAX25616SetupV0\_1\_0000.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.

## Notes

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