Contents [hide]

ANALOG DEVICES MAX25616A Evaluation Board

USER GUIDE

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 I2C 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 conf iguration of the device
MAX32625PICO_USB_ Serial_Bridge.MAX32625PICO.bin	PICO board firmware

Ordering Information appears at end of data sheet.

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 runningthe MAX25616SetupV0_1_0000.exe program insidethe temporary folder. This copies the program files andcreates an icon in the Windows Start menu. Thesoftware requires the .NET Framework 4.5 or later. Ifconnected to the internet, Windows automaticallyupdates the .NET Framework as needed.

Product Usage Instructions

Setup

1. Connect the MAX25616 evaluation kit to a PC using the provided MAX32625PICO.
2. Ensure proper power supply connections are made as per the user manual.

3. Install any required drivers or software on the PC for communication.

Operation

1. Launch the software interface on the PC to communicate with the MAX25616.
2. Follow the instructions in the user manual to configure and control the MAX25616 according to your application needs.
3. Monitor the performance and features of the MAX25616 as needed.

Maintenance

Regularly inspect the connections and components of the evaluation kit for any signs of damage or wear. Clean the kit as recommended in the user manual to ensure proper functioning.

FAQs

Q: Can I use the MAX25616 evaluation kit with devices other than MAX25616A/B/C/D?

A: The kit is specifically designed for these target devices and may not be compatible with others. Using it with non-supported devices can lead to improper functionality.

Q: How do I update the firmware of the MAX25616 using this kit?

A: Refer to the user manual for detailed instructions on updating firmware. Typically, it involves connecting the kit to a PC and using specific software tools provided by the manufacturer.

Q: What are some common troubleshooting steps if the kit does not communicate with the PC?

A: Check the connections, ensure proper drivers are installed, and verify power supply. If issues persist, contact customer support for further assistance.

Documents / Resources

	ANALOG DEVICES MAX25616A Evaluation Board [pdf] User Guide MAX25616A, MAX25616B, MAX25616C, MAX25616D, MAX25616A Evaluation Board, MAX25616A, Evaluation Board, Board

References

- User Manual

Related Posts

ANALOG DEVICES LT8350S Evaluation Board User Guide

ANALOG DEVICES LT8350S Evaluation Board Product Information Specifications Product Name: EVAL-LT8350S-AZ Model: LT8350S Input Voltage Range: 3V to…

ANALOG DEVICES TMC2210 Evaluation Board Devices User Guide

IC BREAKOUT BOARDS TMC2210STEPSTICK User Guide Hardware Version V1.00 | 19-101828, Rev 0, 12/23 Module Top/Bottom View Features…

Analog Devices Inc ADSP21835W-EV-SOM Module Evaluation Board User Manual

ADSP21835W-EV-SOM Module Evaluation Board

ANALOG DEVICES ADA4620-1 Evaluation Board User Guide

Evaluation Board User Guide ADA4620-1 Evaluating the ADA4620-1 36 V, Precision, Low Noise, 16.5 MHz JFET

Op Amp…

Analog Devices

Analog Devices, Board, Evaluation Board, MAX25616A, MAX25616A Evaluation Board, MAX25616B, MAX25616C, MAX25616D

Leave a comment

Your email address will not be published. Required fields are marked *

Comment *

Name

Email

Website

Save my name, email, and website in this browser for the next time I comment.

Post Comment

Search:

e.g. whirlpool wrf535swhz

Search

This website is an independent publication and is neither affiliated with nor endorsed by any of the trademark owners. The "Bluetooth®" word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. The "Wi-Fi®" word mark and logos are registered trademarks owned by the Wi-Fi Alliance. Any use of

these marks on this website does not imply any affiliation with or endorsement.