

TLE4964-3M Hall Switch Shield2Go

Quick Start
V1.0.0



Introduction

The TLE4964-3M is an integrated Hall effect switch designed specifically for highly accurate applications with superior supply voltage capability, operating temperature range and temperature stability of the magnetic thresholds.

Key features are a operating supply voltage from 3.0V to 32V, reverse polarity protection until -18V, overvoltage capability up to 42V without external resistor, output overcurrent and overtemperature protection and active error compensation. In addition the sensor has a high stability of magnetic thresholds, and high ESD performance in a small SMD package PG-SOT23-3-15.



Link to [Datasheet](#) and [Product Page](#)

Evaluation Board Notes

Information

- Supply voltage is typ. 3.3 V, please refer to [TLE4964-3M datasheet](#) for more details about operating ratings
- Pin out on top (head) is directly connected to the pins of the TLE4964-3M sensor
- If head is broken off, only two capacitors are connected to the TLE4964-3M sensor
- Software compatible with Arduino and library fully integrated into the Arduino IDE
- Sales Name S2GO_HALL_TLE4964-3M

Breakable



Head



Ensure that no voltage applied to any of the pins exceeds the absolute maximum rating of 32 V

Link to [Board Page](#)

Evaluation Board PCB Details

The

TLE4964-3M Hall Shield2Go



i Ground pins on board connected with each other.

Legend

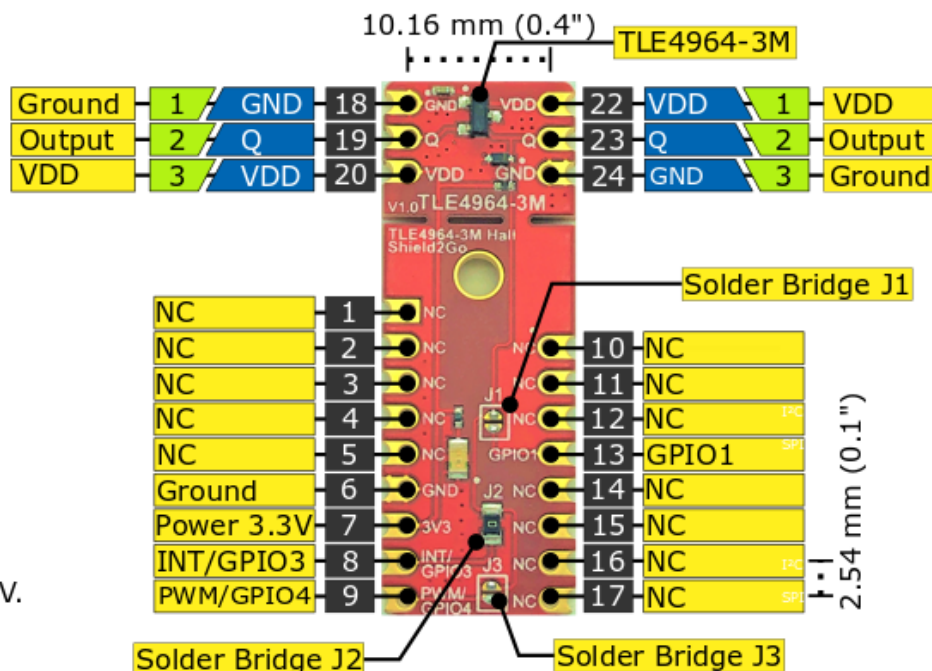
	Information
	Labelling of Pins in Datasheet
	Pin Number in Datasheet
	Physical Pin Number
	Warning
	Additional Information
	Not Connected

! The maximum voltage on any pin is 4 V.

i Solder Bridge J1 connects Q to GPIO1.

i Solder Bridge J2 connects Q to GPIO3.

i Solder Bridge J3 connects Q to GPIO4.



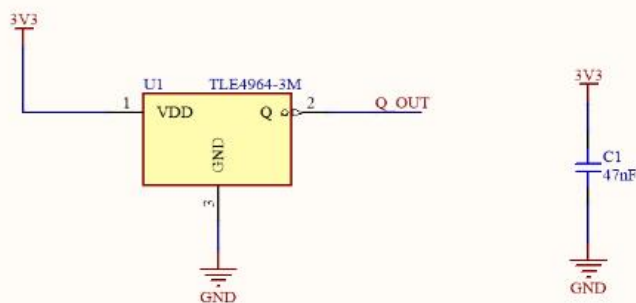
V1.0.0

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Evaluation Board Schematic

TLE4964-3M

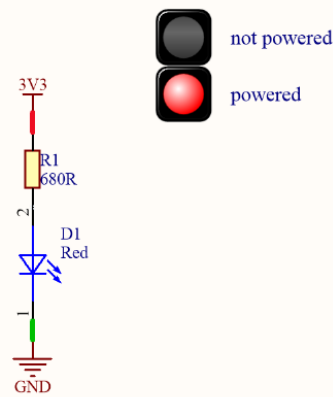
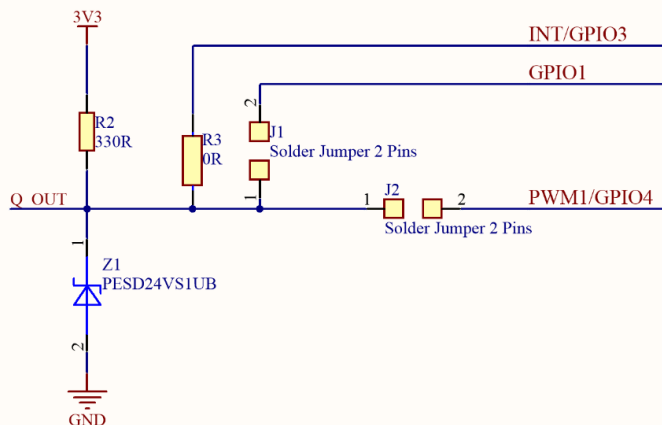
Power Decoupling



- **J1 Jumper** - If soldered, connects Q1 signal to GPIO1 pin.
- **J2 Jumper** - If soldered, connects Q1 signal to PWM1/GPIO4 pin

Output TLE4964-3M

Power Status Indication



Arduino: The Arduino IDE

Arduino IDE



Arduino is a hardware-software prototyping environment IDE developed by arduino.cc:

- Installation Details for Windows:
Click [here](#)
- Installation Details for Linux:
Click [here](#)
- Installation Details for Mac OS:
Click [here](#)
- Installation Details for Portable IDE:
Click [here](#)

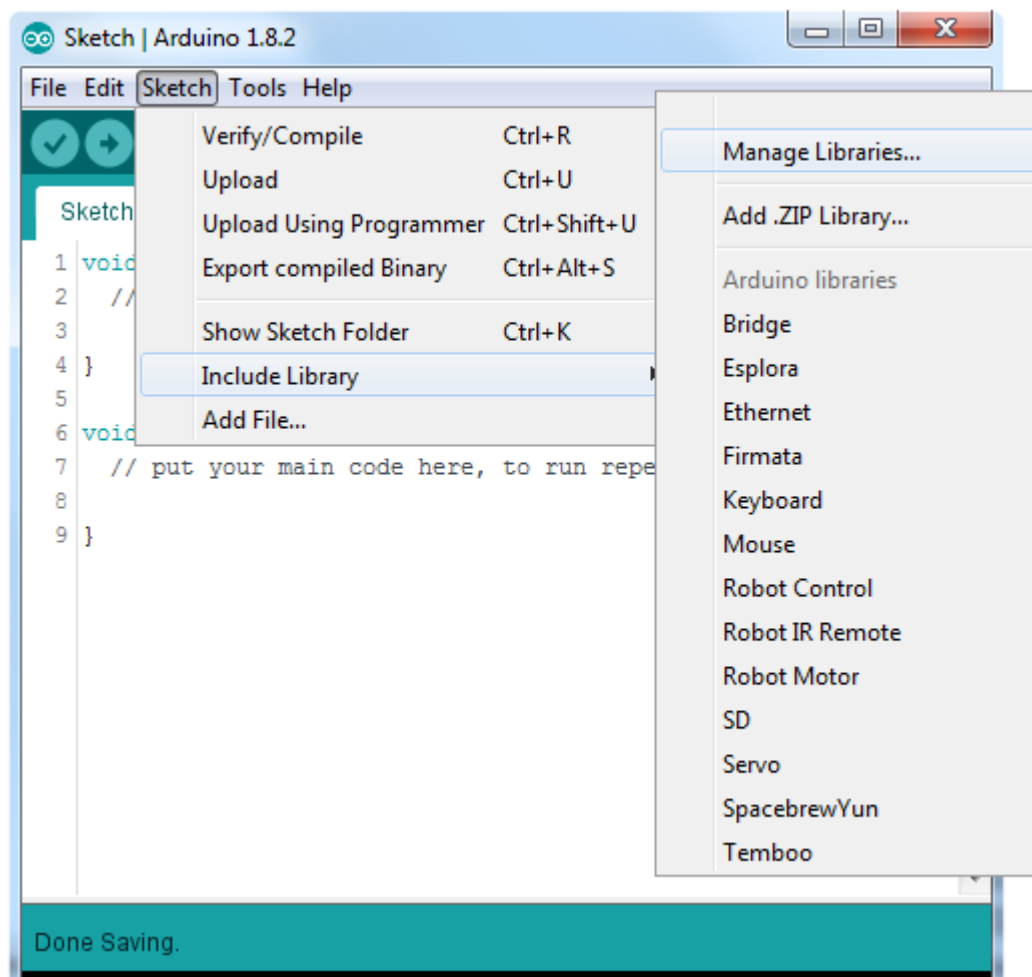
Arduino Quick Start

- What is Arduino? Click [here](#)
- Extended information about the Arduino environment. Click [here](#)
- How to import libraries? Click [here](#)
- How to install additional boards? Click [here](#)
- Problems related to Arduino? Click [here](#) for troubleshooting

How to download the library for Arduino - 1

Notes

- Open the Arduino IDE
- Navigate to *Sketch – Include Library – Manage Libraries*
- The Arduino library manager will be opened (see next slide for further instructions)
- Additional notes for installation can be found in the GitHub repository, e.g. if the library manager is not used



<https://github.com/Infineon/hall-switch>

How to download the library for Arduino - 2



Notes

- The Arduino library manager is a comprehensive tool to install external libraries for Arduino
- Search for *Hall-Switch* in the *Filter your search...* field
- Select as *Type: All* and *Topic: All* when searching for *Hall-Switch*
- As shown in the picture, please choose the respective library and install it
- Regularly check your installed libraries for updates
- In case of problems, please visit also our [GitHub repository](https://github.com/Infineon/hall-switch) and open an issue to get further help



<https://github.com/Infineon/hall-switch>

Example with XMC™ 2Go

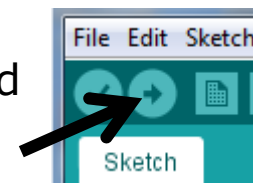
Notes

- The Shield2Go form factor of the Shield2Go evaluation board is directly compatible with the [XMC™ 2Go](#) board
- Stack the TLE4964-3M Hall Shield2Go board on top of the XMC™ 2Go as shown in the picture
- The additional pin on the left-top side (designated with NC) is left floating
- Using the [XMC-for-Arduino](#) Arduino integration, the [Arduino library](#) for the TLE4964-3M can be directly used



Steps

- Open one of the examples for the Hall-Switch from *File – Examples* and select as board *XMC1100 XMC2Go*
- Connect the stacked boards to the PC and press the *Upload* button
- Select the related COM port from *Tools – Port* and open the serial monitor with the set baud rate (see sketch/code with `Serial.begin(<BAUDRATE>);`);



<https://github.com/Infineon/XMC-for-Arduino>
<https://github.com/Infineon/hall-switch>